LAX

PROJECT ID: 6160-00-70

WITH: N/A

COUNTY: JUNEAU

December 2024

ORDER OF SHEETS

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

TOTAL SHEETS = 552

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NECEDAH - COLOMA

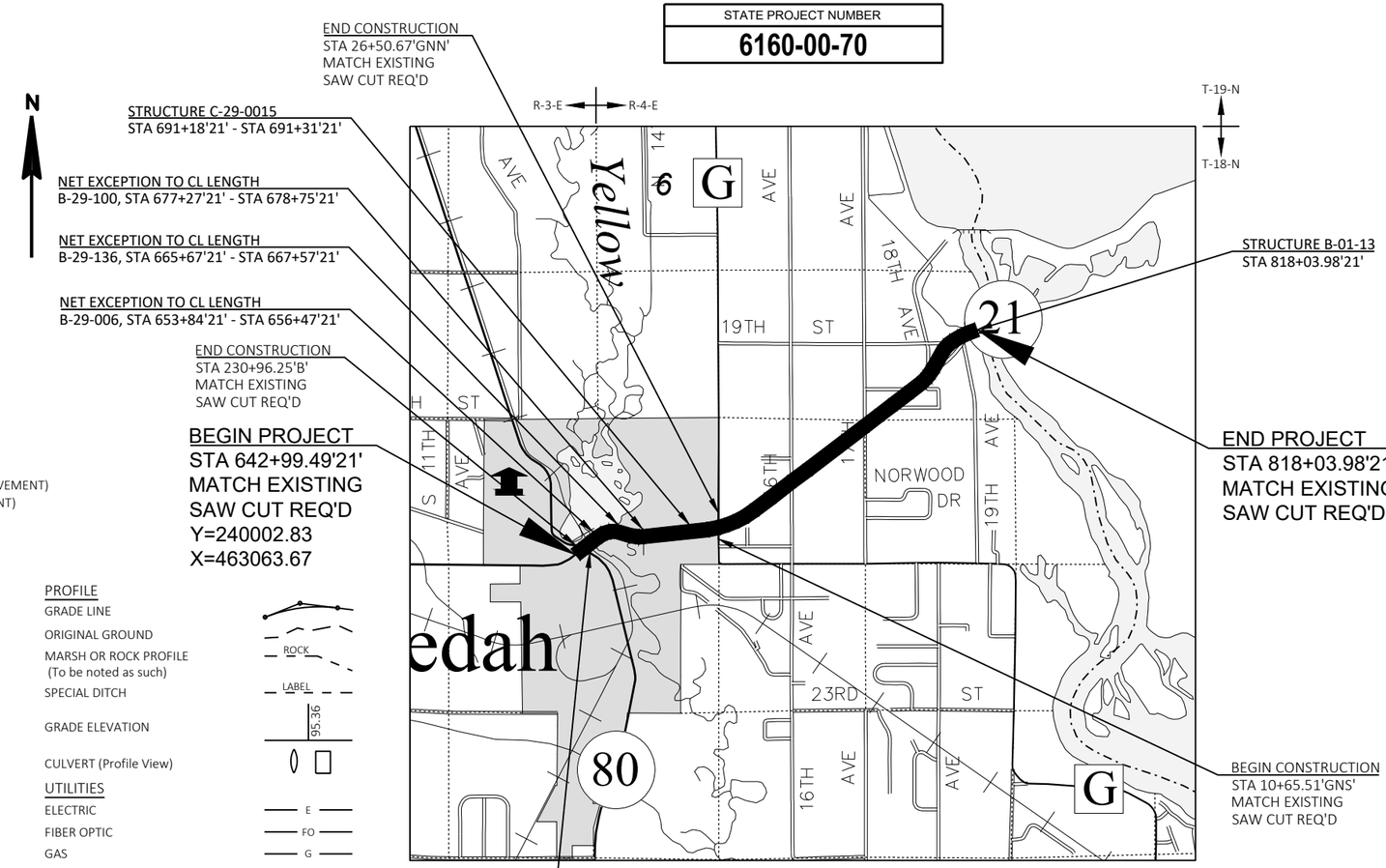
SHERIDAN STREET TO EAST COUNTY LINE

STH 21

JUNEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6160-00-70	WISC 2025098	1

STATE PROJECT NUMBER
6160-00-70



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 3.202 MILES

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

DESIGN DESIGNATION

A.A.D.T.	2025	=	7900
A.A.D.T.	2045	=	8800
D.H.V.		=	
D.D.		=	60/40
T.		=	23.3%
DESIGN SPEED		=	VARIES 25MPH - 55MPH
ESALS		=	3,600,000 (CONCRETE PAVEMENT)
			3,200,000 (HMA PAVEMENT)

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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY

KL Engineering [A] Better Experience

WISCONSIN PROFESSIONAL ENGINEER
BRAD R. HALVENSLEBEN
34638-006
BELLEVILLE, WI

DATE: 07/01/2024 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SW REGION/KL ENGINEERING
Designer	KL ENGINEERING
Project Manager	NATHANIEL SCHUMAKER
Regional Examiner	SW REGION
Regional Supervisor	DAN KLEINERTZ

APPROVED FOR THE DEPARTMENT

DATE: 7/8/2024 Nathaniel Schumaker (Signature)

E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 6/25/2024 1:12 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
A.E.W.	APRON ENDWALL
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
C.P.	CULVERT PIPE
C.S.C.P.	CORRUGATED STEEL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EX RW	EXISTING RIGHT OF WAY
FE	FIELD ENTRANCE
FO	FIBER OPTIC
INV.	INVERT
LB	POUND
LF	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
MIN.	MINIMUM
NOR.	NORMAL
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
P.L.	PROPERTY LINE
PRW	PROPOSED RIGHT OF WAY
R	RADIUS
REQ'D	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
RW	RIGHT OF WAY
S.D.D.	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
T.L.E.	TEMPORARY LIMITED EASEMENT
TYP.	TYPICAL
VAR.	VARIES

UTILITIES

ELECTRICITY

ALLIANT ENERGY
TYLER DONOVAN
338 E. STATE STREET
MAUSTON, WI 53948
(608) 847-1302
Tylerdonovan@alliantenergy.com

GAS/PETROLEUM

ALLIANT ENERGY
TYLER DONOVAN
338 E. STATE STREET
MAUSTON, WI 53948
(608) 847-1302
Tylerdonovan@alliantenergy.com

ELECTRICITY

ATC MANAGEMENT, INC
DOUG VOSBERG
2489 RINDEN ROAD
COTTAGE GROVE, WI 53527
(608) 877-7650
dvosbereg@atcllc.com

COMMUNICATIONS

MEDIACOM WISCONSIN, LLC
CRAIG EGGERT
1240 HIGHWAY 52 SOUTH
CHATFIELD, MN 55923
(563) 419-5160
ceggert@mediacomcc.com

WATER AND SEWER

NECEDAH VIL OF MUN WATER UTILITY
ROGER HERRIED
101 CENTER STREET
P.O. BOX 371
NECEDAH, WI 54646-0371
(608) 565-2261
necedahadmin@necedah.us

COMMUNICATIONS

TDS TELECOM
JEFF OLSON
171 PAOLI ST.
VERONA, WI 53594
(608) 845-2219
jeffrey.olson@tdstelecom.com

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

GENERAL NOTES

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

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN IN THE PLAN, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

UTILITY LOCATION MARKERS ON THE CROSS SECTIONS ARE FOR APPROXIMATE HORIZONTAL REFERENCE ONLY.

RAILROAD UTILITIES ARE NOT PUBLICLY OWNED. RAILROAD COMPANY SHALL BE CONTACTED SEPARATELY.

REMOVAL ITEMS REQUIRING RESTORATION OF CONCRETE OR ASPHALT SHALL BE REMOVED TO AN EXISTING JOINT OR SAWED AS DETERMINED BY THE ENGINEER.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ALSO INCLUDES VERIFICATION OF INVERT ELEVATIONS AT ALL PROPOSED STORM SEWER CONNECTION POINT TO EXISTING SYSTEMS.

PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

RADIUS DIMENSIONS FOR CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE REINFORCED CONCRETE PIPE.

STATIONING AND OFFSETS TO APRON ENDWALLS FOR CULVERT PIPES ARE SHOWN TO THE END OF THE PIPE.

CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY THEIR OPERATION OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

THE EXACT LOCATION OF DRIVEWAYS IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER. All DRIVEWAYS ARE TO BE REPLACED IN KIND.

NUMBER, LOCATION, AND SPACING OF TRAFFIC CONTROL SIGNS AND DEVICES, AS SHOWN IN THE PLANS, SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

NO PASSING ZONES SHOWN ON THE PAVEMENT MARKING PLANS ARE APPROXIMATE. ACTUAL NO PASSING ZONES SHALL BE ESTABLISHED BASED ON FIELD CONDITIONS.

ALL GRADES PROVIDED ALONG RADII ARE ALONG THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER.

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

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

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSES AS FOLLOWS:

LOCATION	TOTAL DEPTH	LAYERS	GRADATION	TRAFFIC	BINDER	DESIGNATION
STH 21, B-29-006 TO B-29-136	4 IN	1.75" UPPER	4	MT	58-28	H
(STA 653+84 - 665+67'21')		2.25" LOWER	3	MT	58-28	S
STH 21, B-29-136 TO EOP	4 IN	1.75" UPPER	4	MT	58-28	H
(STA 667+57 - 818+04'21')		2.25" LOWER	3	MT	58-28	S
STH 21/CTH G ROUNDABOUT, STH 21 LEGS	7 IN	1.75" UPPER	4	MT	58-28	H
(STA 694+18 - 708+95'21)		2.25" MIDDLE	3	MT	58-28	S
		3.00" LOWER	3	MT	58-28	S
STH 21/CTH G ROUNDABOUT, CTH G LEGS	4 IN	1.75" UPPER	4	MT	58-28	H
(STA 10+66'GNS' - STA 26+51'GNN')		2.25" LOWER	3	MT	58-28	S

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER	0 - 2	2 - 6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	0.70 - 0.95											
CONCRETE	0.80 - 0.95											
BRICK	0.70 - 0.80											
DRIVES, WALKS	0.75 - 0.85											
ROOFS	0.75 - 0.95											
GRAVEL ROADS, SHOULDERS	0.40 - 0.60											

TOTAL PROJECT AREA = 57.99 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 22.44 ACRES

ORDER OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
PAVING GRADES
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER PLAN
SIGNING AND MARKING PLAN
LIGHTING
TRAFFIC SIGNAL PLAN
TRAFFIC CONTROL
ALIGNMENT DIAGRAM
BENCH MARKS / CONTROL POINTS

DESIGN CONTACT

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KL ENGINEERING
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53719
(608)663-1218
brad.halvensleben@klengineering.com

DNR LIASON

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3550 MORMON COULEE RD
LA CROSSE, WI 54601
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(608)406-7880
karen.kalvelage@wisconsin.gov

RAILROAD

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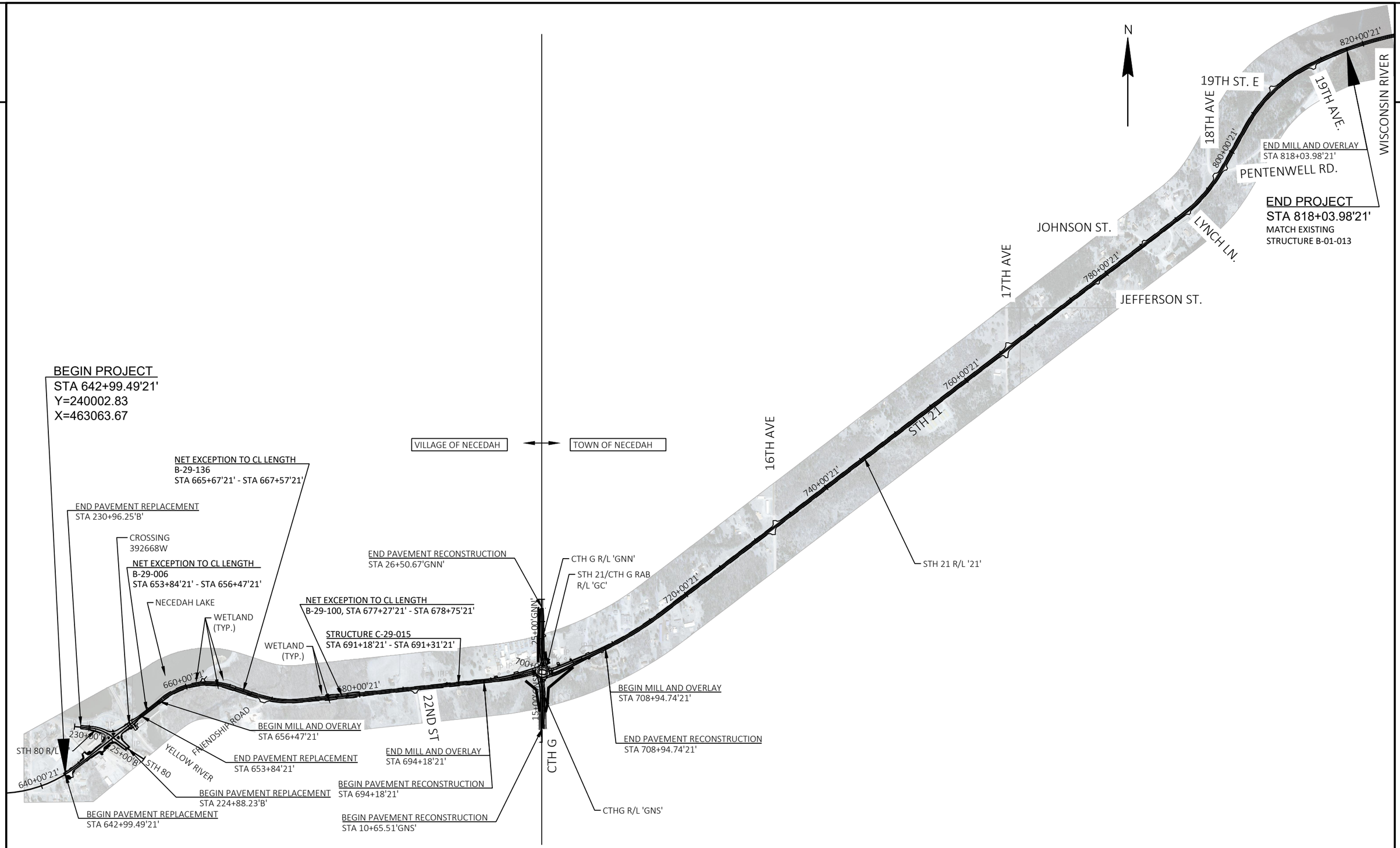
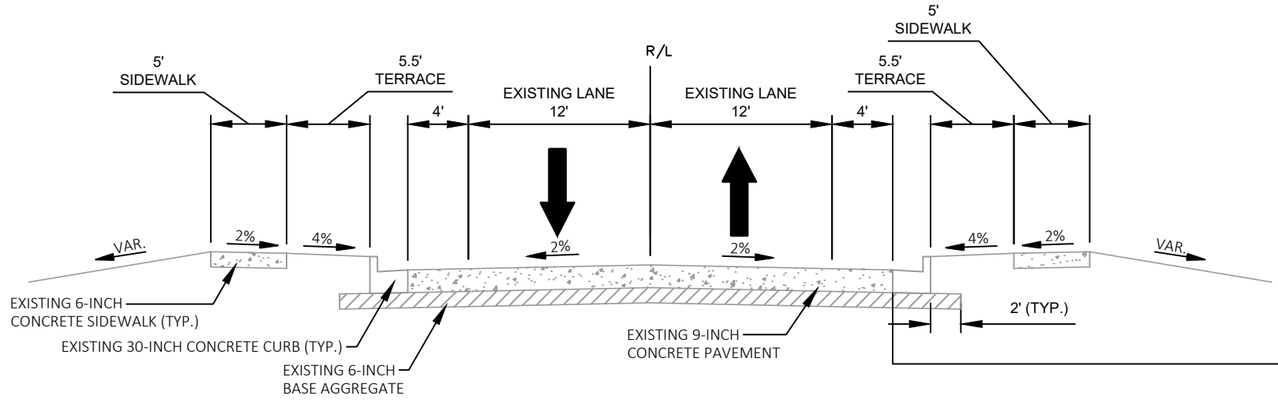
PUBLIC WORKS OFFICER
CANADIAN NATIONAL RAILWAY
1625 DEPORT STREET
STEVENS POINT, WI 54481
(715) 345-2503
matthew.turner@cn.ca

WISDOT

NATHANIEL SCHUMAKER
WISDOT PROJECT MANAGER
WISDOT SOUTHWEST REGION (LA CROSSE)
3550 MORMON COULEE RD
LA CROSSE, WI 54601
(608)789-5538
nathaniel.schumaker@dot.wi.gov

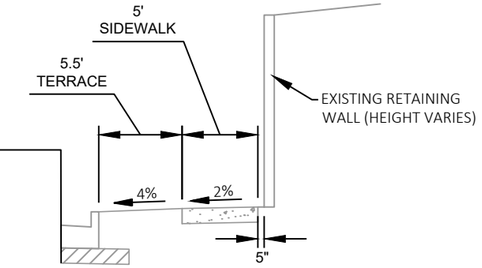


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PROJECT OVERVIEW	SHEET 3	E



EXISTING TYPICAL SECTION - STH 21

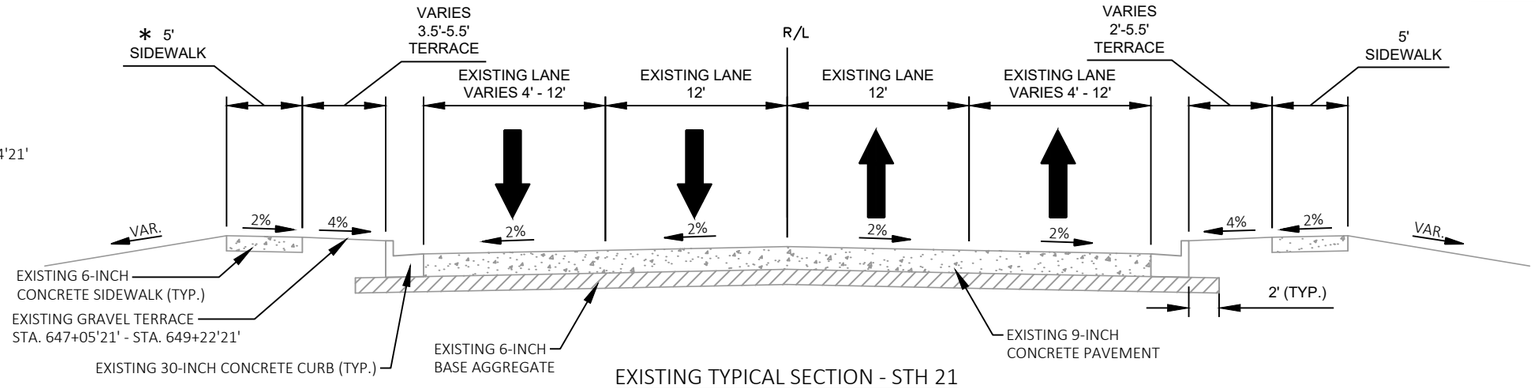
STA. 642+99.49'21' - 646+50'21'



EXISTING TYPICAL SECTION - STH 21

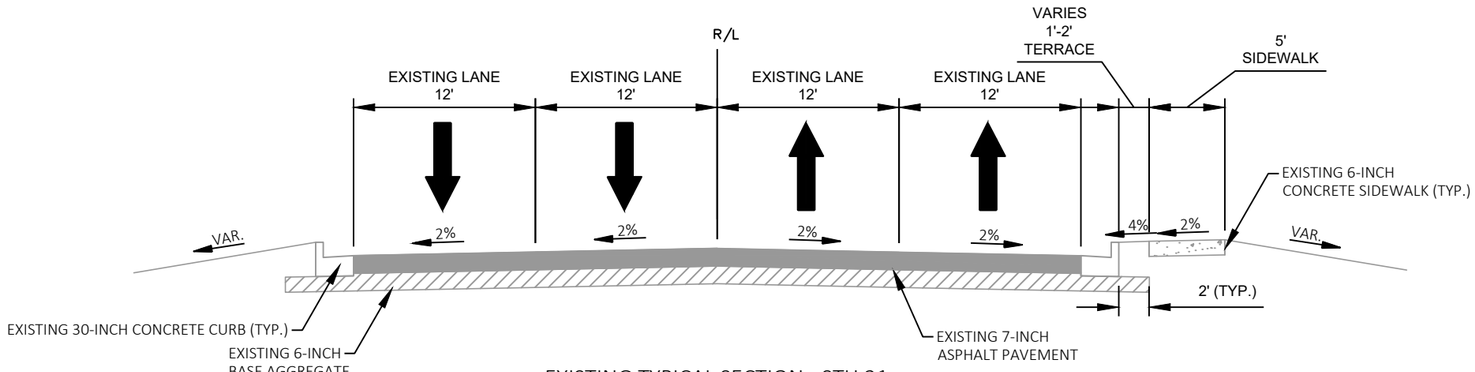
STA. 644+11'21' - 645+80'21'

✱ STA. 646+50'21' - STA. 648+74'21'



EXISTING TYPICAL SECTION - STH 21

STA. 646+50'21' - 652+02'21'

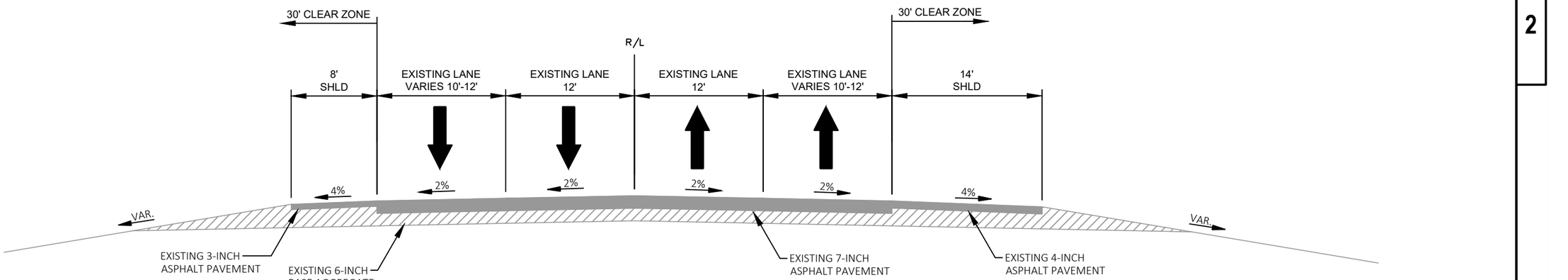


EXISTING TYPICAL SECTION - STH 21

STA. 652+02'21' - 652+32'21'

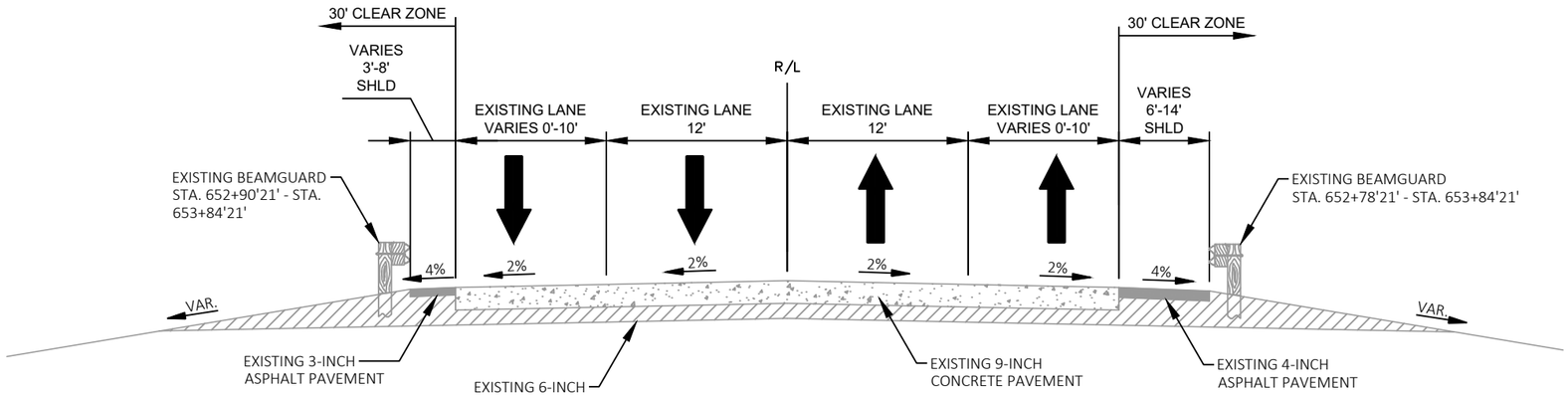
(EXISTING RAILROAD CROSSING)

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - EXISTING	SHEET 4	E



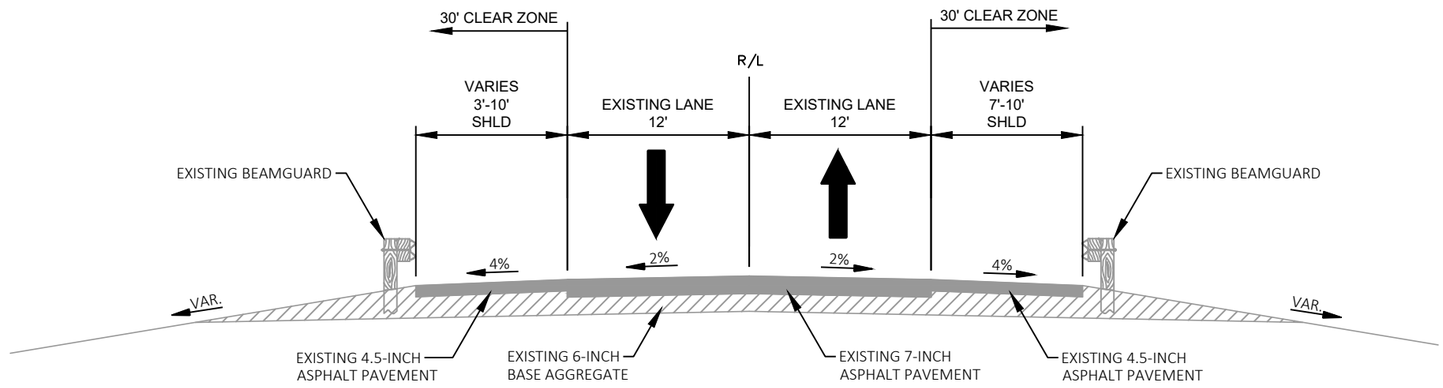
EXISTING TYPICAL SECTION - STH 21

STA. 652+32'21' - 652+61'21'



EXISTING TYPICAL SECTION - STH 21

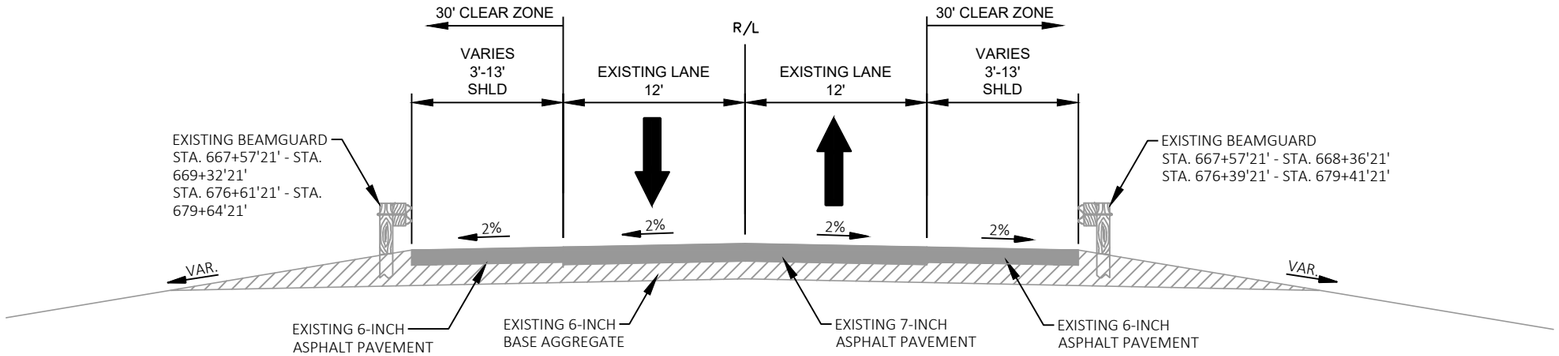
STA. 652+61'21' - 653+84'21'



EXISTING TYPICAL SECTION - STH 21

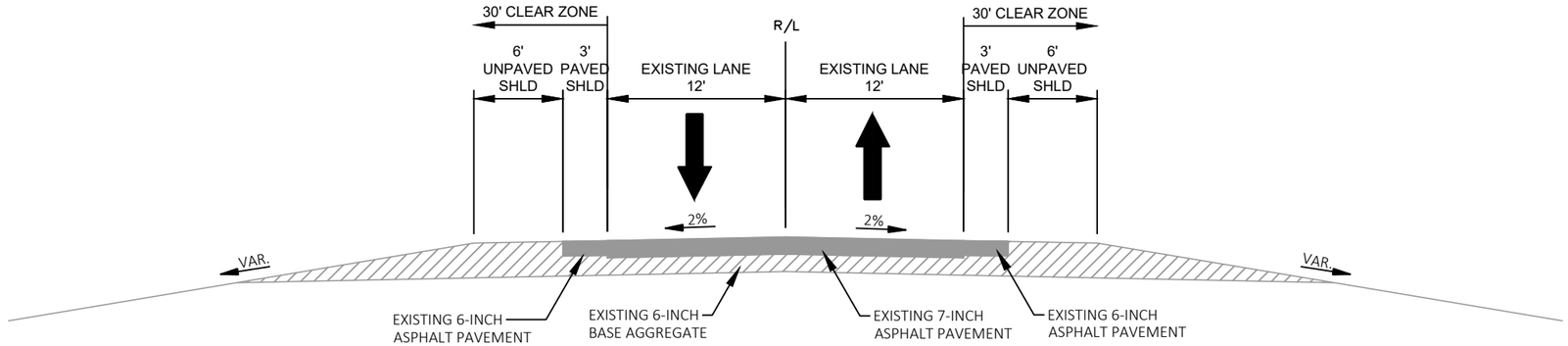
STA. 656+47'21' - 665+67'21'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - EXISTING	SHEET 5	E



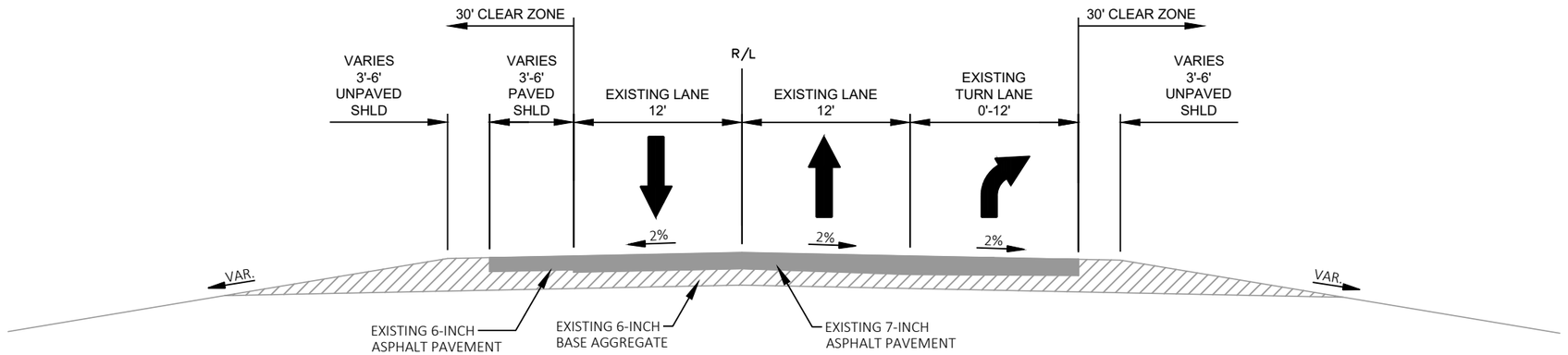
EXISTING TYPICAL SECTION - STH 21

STA. 667+57'21' - 680+46'21'



EXISTING TYPICAL SECTION - STH 21

STA. 680+46'21' - 693+87'21'



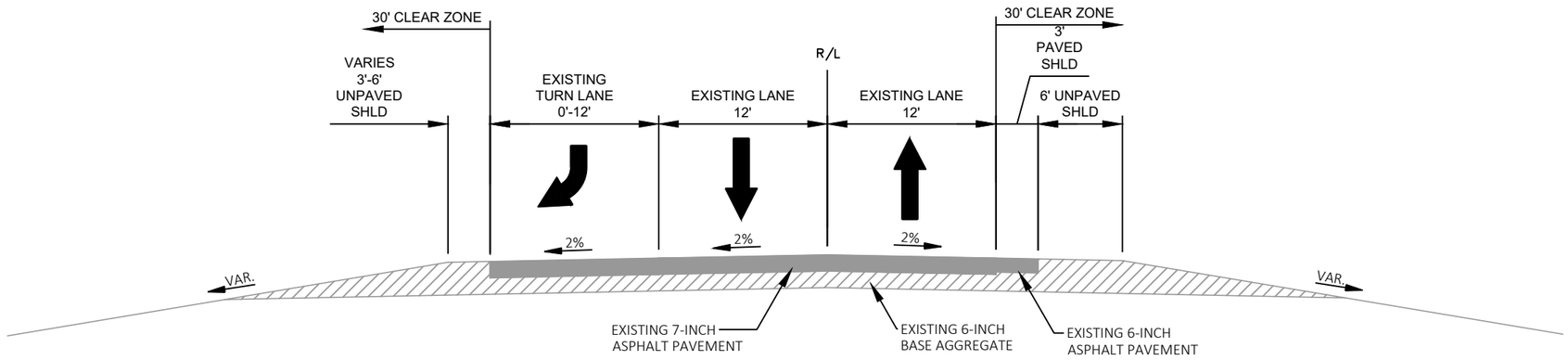
EXISTING TYPICAL SECTION - STH 21

STA. 693+87'21' - 701+06'21'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - EXISTING	SHEET 6	E

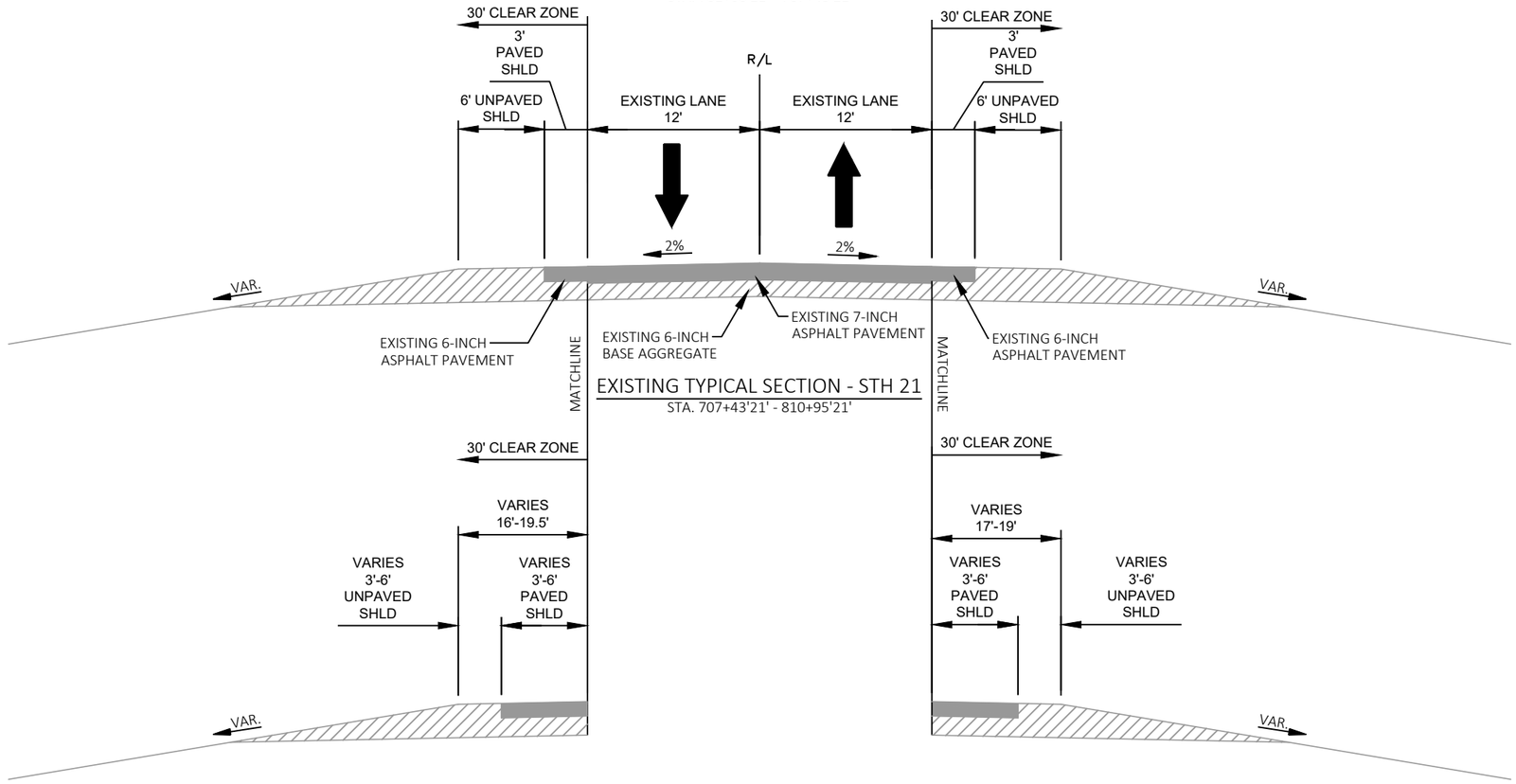
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\020301-TS_EXISTING.DWG
LAYOUT NAME - Sheet 3

PLOT DATE : 6/25/2024 1:17 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT



EXISTING TYPICAL SECTION - STH 21

STA. 701+06'21' - 707+43'21'



EXISTING TYPICAL SECTION - STH 21

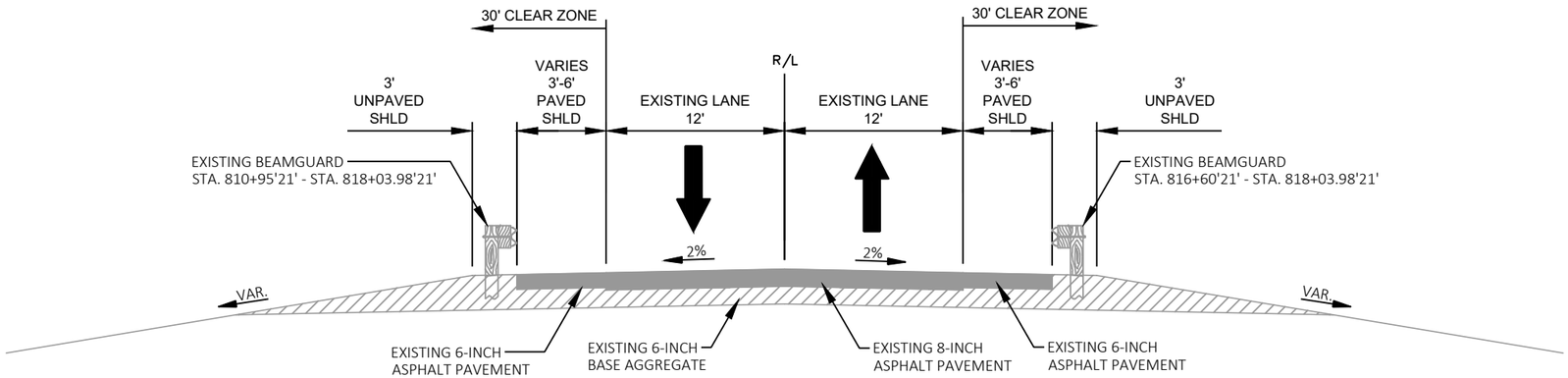
STA. 707+43'21' - 810+95'21'

PARTIAL EXISTING TYPICAL SECTION - STH 21

STA. 789+39'21' - 797+83'21'

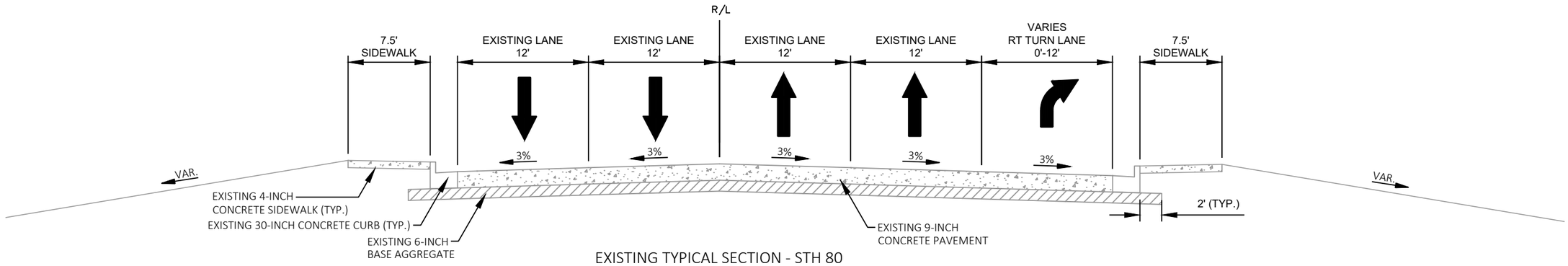
PARTIAL EXISTING TYPICAL SECTION - STH 21

STA. 798+74'21' - 810+95'21'



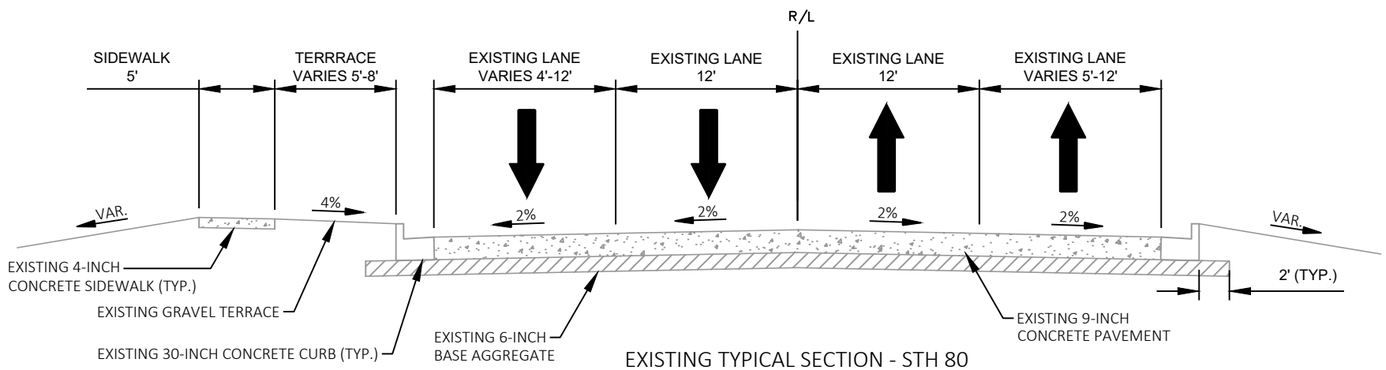
EXISTING TYPICAL SECTION - STH 21

STA. 810+95'21' - 818+03.98'21'



EXISTING TYPICAL SECTION - STH 80

STA. 224+88.23'B' - 227+00'B'

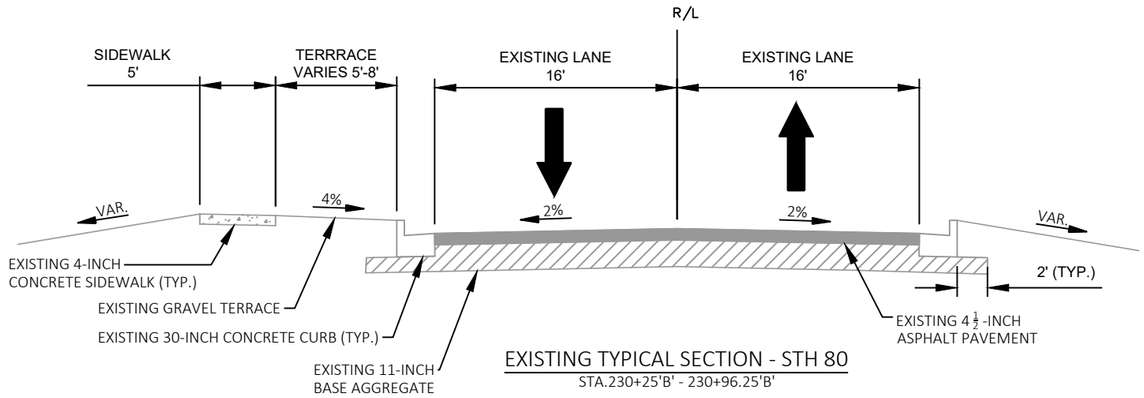


EXISTING TYPICAL SECTION - STH 80

STA.227+00'B' - 230+25'B'

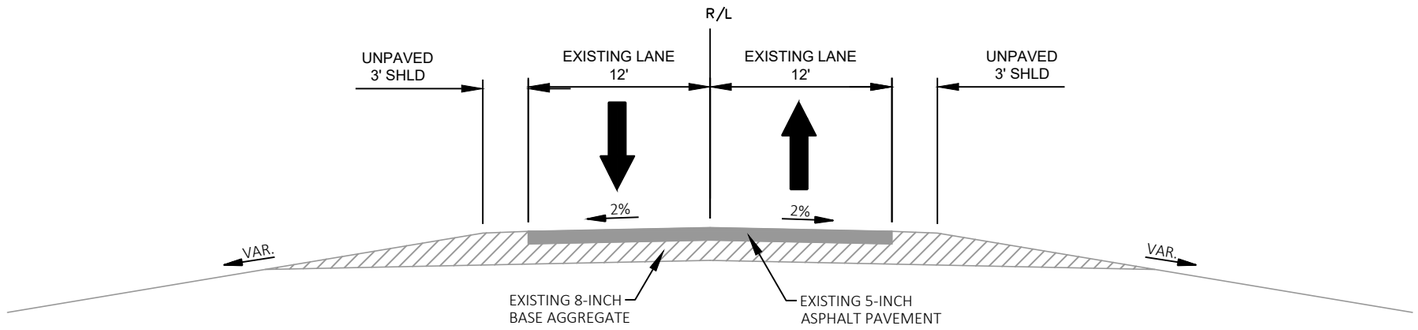
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - EXISTING	SHEET 8	E

2



EXISTING TYPICAL SECTION - STH 80

STA.230+25'B' - 230+96.25'B'



EXISTING TYPICAL SECTION - CTH G

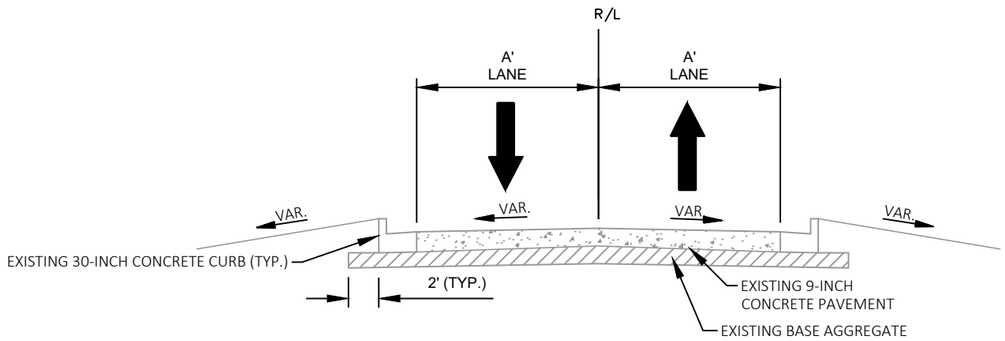
STA. 10+65.51'GNS' - 17+15.23'GNS'

STA. 20+00.00'GNN' - STA. 26+50.67'GNN'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - EXISTING	SHEET 9	E

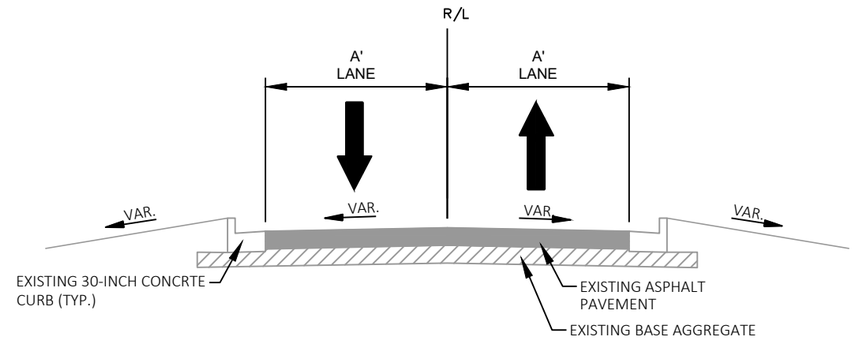
2

SIDE STREET	A'	NOTES
SHERIDAN STREET	16'	-
HIGH STREET	16'	-
CENTER STREET	16'	-



EXISTING TYPICAL SECTION
SIDE ROADS

SIDE STREET	A'	NOTES
FRIENDSHIP ROAD	25'	-
22ND STREET	15'	-
N 16TH AVENUE	16'	NO CURB RT & LT
S 16TH AVENUE	19.5'	-
N 17TH AVENUE	16.5'	NO CURB RT & LT
S 17TH AVENUE	15'	-
JEFFERSON STREET	11'	NO CURB RT & LT
JOHNSON STREET	12'	NO CURB RT & LT
LYNCH LANE	12'	NO CURB RT & LT
18TH AVENUE	18'	-
PETENWELL ROAD	13'	NO CURB RT & LT
19TH STREET E	16.5'	-
19TH AVENUE	15'	-



EXISTING TYPICAL SECTION
SIDE ROADS

2

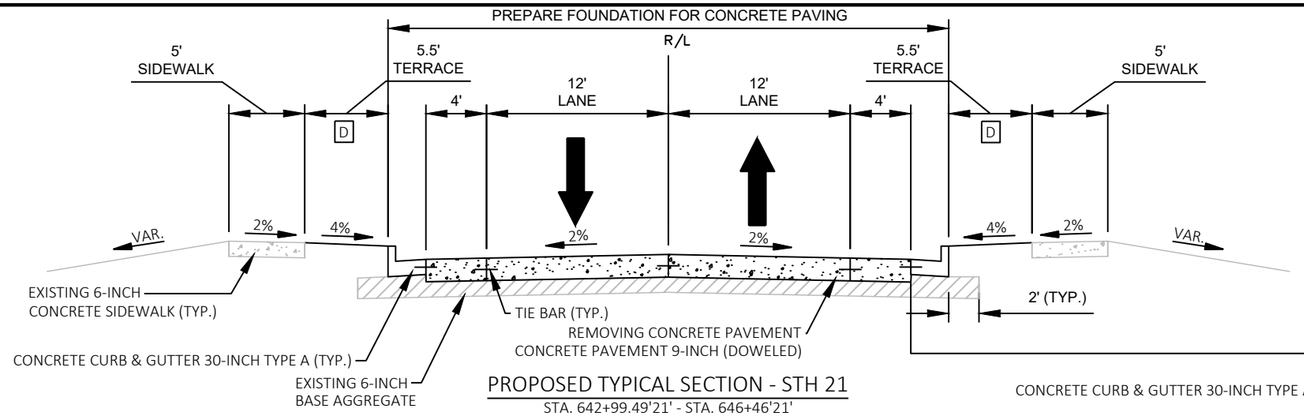
[A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

[B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

[C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

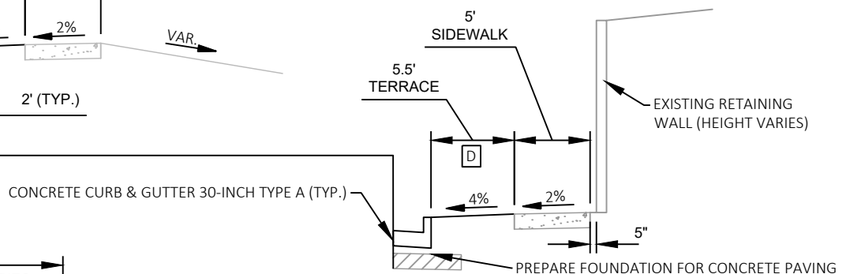
[D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

[E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



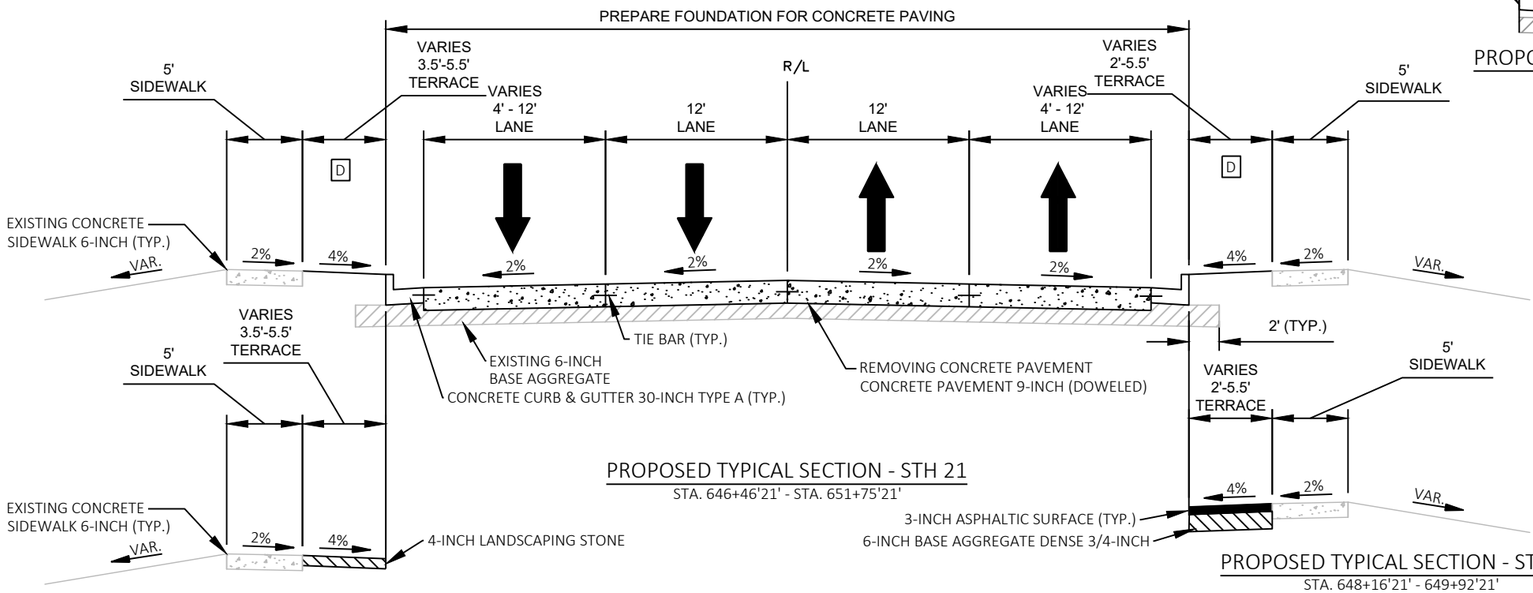
PROPOSED TYPICAL SECTION - STH 21

STA. 642+99.49'21' - STA. 646+46'21'



PROPOSED TYPICAL SECTION - STH 21

STA. 644+11'21' - 645+80'21'



PROPOSED TYPICAL SECTION - STH 21

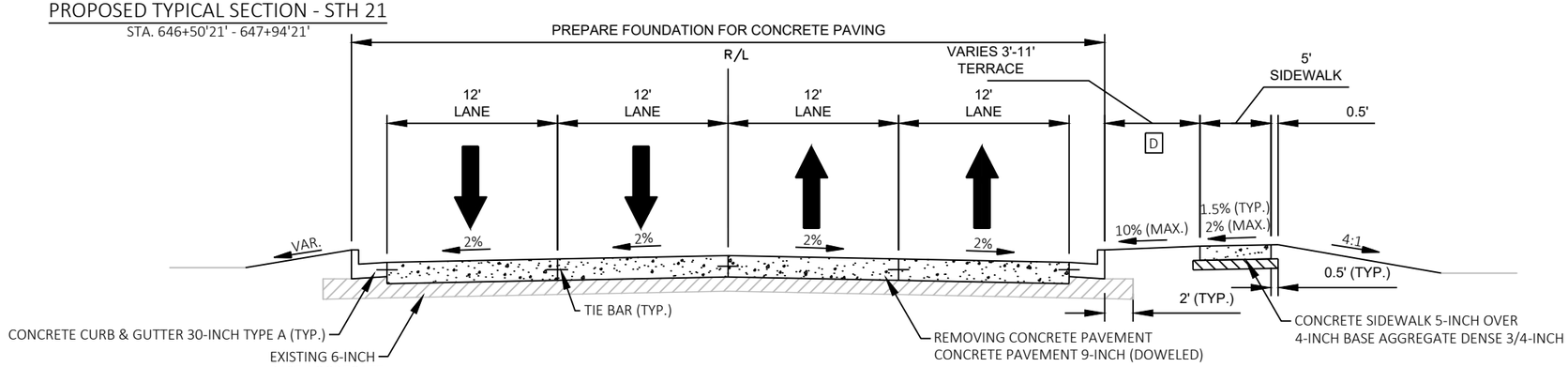
STA. 646+46'21' - STA. 651+75'21'

PROPOSED TYPICAL SECTION - STH 21

STA. 646+50'21' - 647+94'21'

PROPOSED TYPICAL SECTION - STH 21

STA. 648+16'21' - 649+92'21'



PROPOSED TYPICAL SECTION - STH 21

STA. 651+75'21' - STA. 652+02'21'

2

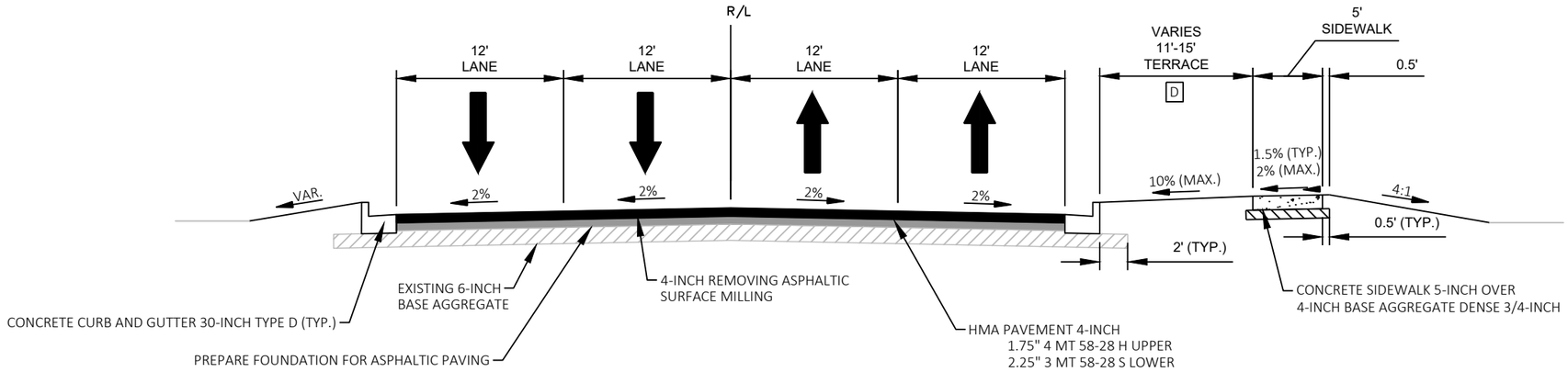
[A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

[B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

[C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

[D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

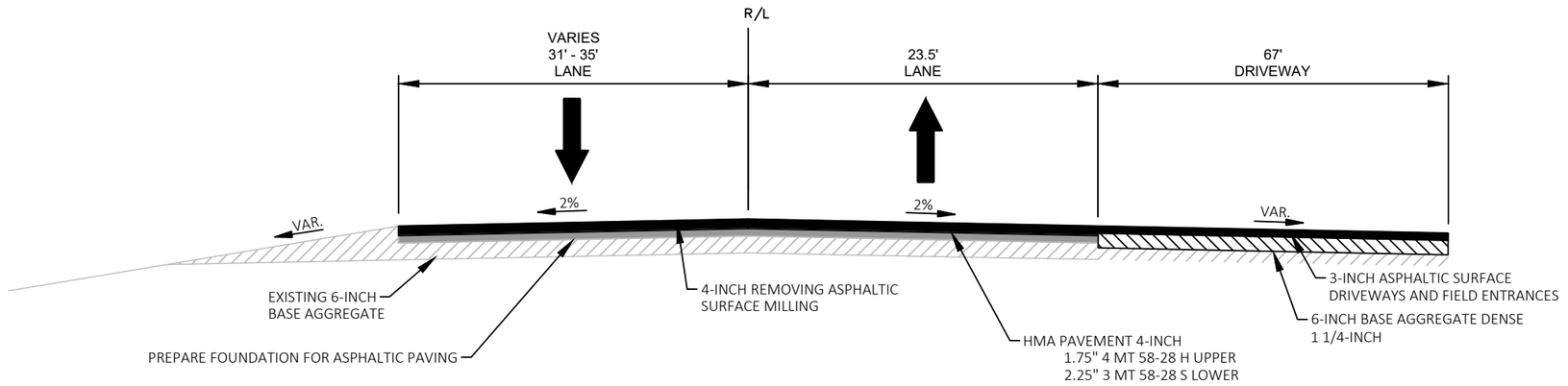
[E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



PROPOSED TYPICAL SECTION - STH 21

STA. 652+02'21' - STA. 652+27'21'

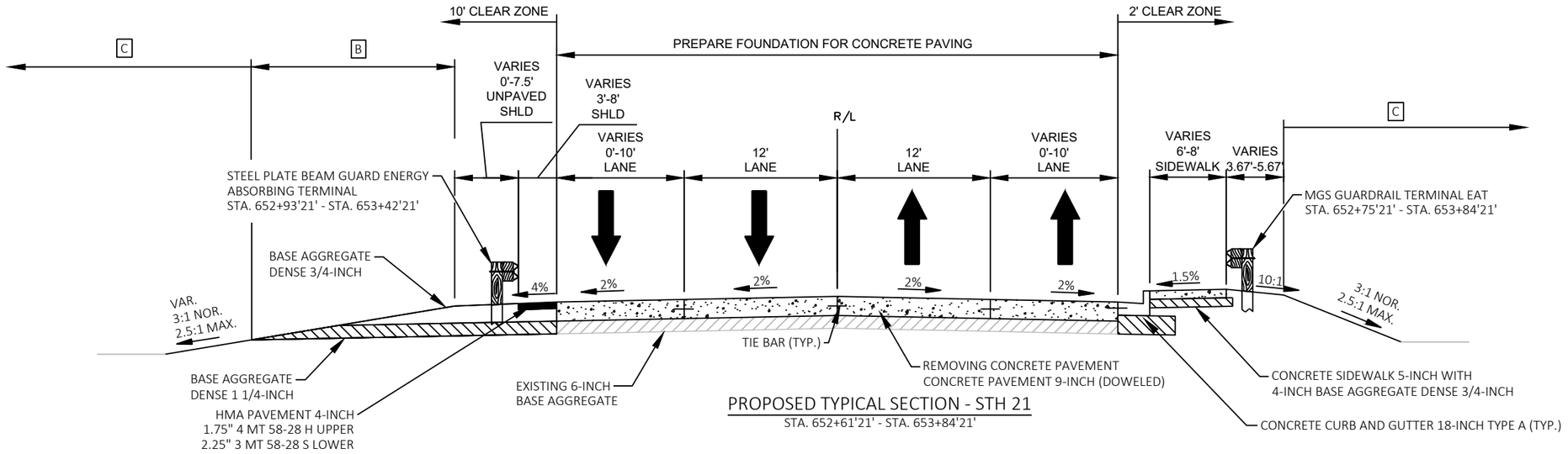
(ADJACENT TO RAILROAD CROSSING - WEST)



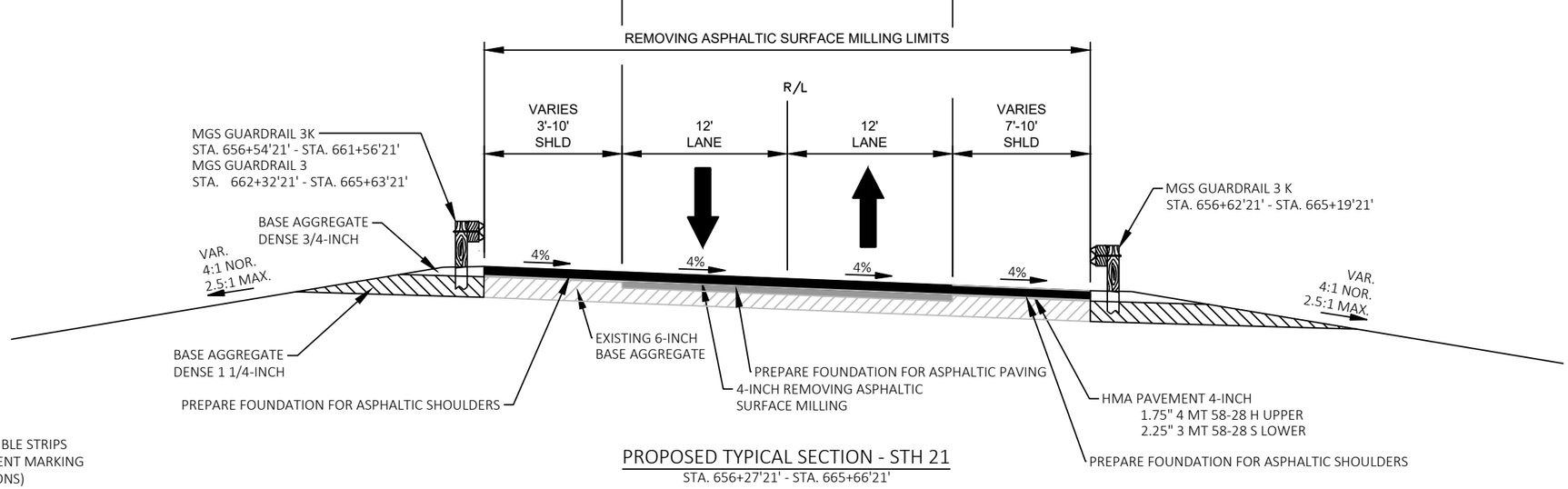
PROPOSED TYPICAL SECTION - STH 21

STA. 652+36'21' - STA. 652+61'21'

(ADJACENT TO RAILROAD CROSSING - EAST)



PROPOSED TYPICAL SECTION - STH 21
STA. 652+61'21' - STA. 653+84'21'



PROPOSED TYPICAL SECTION - STH 21
STA. 656+27'21' - STA. 665+66'21'

- [A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)
- [B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B
- [C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING
- [D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING
- [E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - PROPOSED	SHEET 13	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\020301-TS_PROPOSED.DWG
LAYOUT NAME - Sheet 2
PLOT DATE : 10/27/2024 5:32 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

30' CLEAR ZONE
30' CLEAR ZONE
REMOVING ASPHALTIC SURFACE MILLING LIMITS
R/L
3' UNPAVED SHLD
VARIES 3'-13' SHLD
12' LANE
12' LANE
VARIES 3'-13' SHLD
3' UNPAVED SHLD
EXISTING BEAMGUARD STA. 667+57'21' - STA. 669+32'21'
ADJUSTING STEEL PLATE BEAM GUARD
SHAPING SHOULDERS
EXISTING BEAMGUARD STA. 667+57'21' - STA. 668+36'21'
STA. 677+08'21' - STA. 677+27'21'
ADJUSTING STEEL PLATE BEAM GUARD
SHAPING SHOULDERS
2%
2%
2%
2%
VAR.
VAR.
EXISTING 6-INCH BASE AGGREGATE
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
3-INCH REMOVING ASPHALTIC SURFACE MILLING
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
HMA PAVEMENT 4-INCH
1.75" 4 MT 58-28 H UPPER
2.25" 3 MT 58-28 S LOWER
PREPARE FOUNDATION FOR ASPHALTIC PAVING

PROPOSED TYPICAL SECTION - STH 21
STA. 667+57'21' - STA. 681+34'21'

A ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

B SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

C SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

D SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

E SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING

C
B
VARIES 3'-7.5' UNPAVED SHLD
8'
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
STA. 676+78'21' - STA. 677+28'21'
STA. 678+97'21' - STA. 679+47'21'
MATCH EXISTING BEAM GUARD
STA. 677+28'S1' - STA. 678+97'21'
BASE AGGREGATE DENSE 3/4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH
4:1
3:1 (NOR.)
2.5:1 (MAX.)

PROPOSED PARTIAL TYPICAL SECTION - STH 21
STA. 674+90'21' - STA. 681+34'21'

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
STA. 676+58'21' - STA. 677+08'21'
STA. 678+71'21' - STA. 679+21'21'
MATCH EXISTING BEAM GUARD
STA. 677+08'S1' - STA. 678+71'21'

B
C
VARIES 3'-7.5' UNPAVED SHLD
8'
BASE AGGREGATE DENSE 3/4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH
4:1
3:1 (NOR.)
2.5:1 (MAX.)

PROPOSED PARTIAL TYPICAL SECTION - STH 21
STA. 674+85'21' - STA. 680+94'21'

30' CLEAR ZONE
30' CLEAR ZONE
REMOVING ASPHALTIC SURFACE MILLING LIMITS
R/L
3' UNPAVED SHLD
SALVAGED TOPSOIL, SEED, FERTILIZER, AND MULCH
5' PAVED SHLD
12' LANE
12' LANE
5' PAVED SHLD
3' UNPAVED SHLD
SHAPING SHOULDERS
SHAPING SHOULDERS
2%
2%
VAR.
VAR.
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
PREPARE FOUNDATION FOR ASPHALTIC PAVING
EXISTING 6-INCH BASE AGGREGATE
HMA PAVEMENT 4-INCH
1.75" 4 MT 58-28 H UPPER
2.25" 3 MT 58-28 S LOWER
3-INCH REMOVING ASPHALTIC SURFACE MILLING
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

PROPOSED TYPICAL SECTION - STH 21
STA. 681+34'21' - STA. 694+18.00'21'

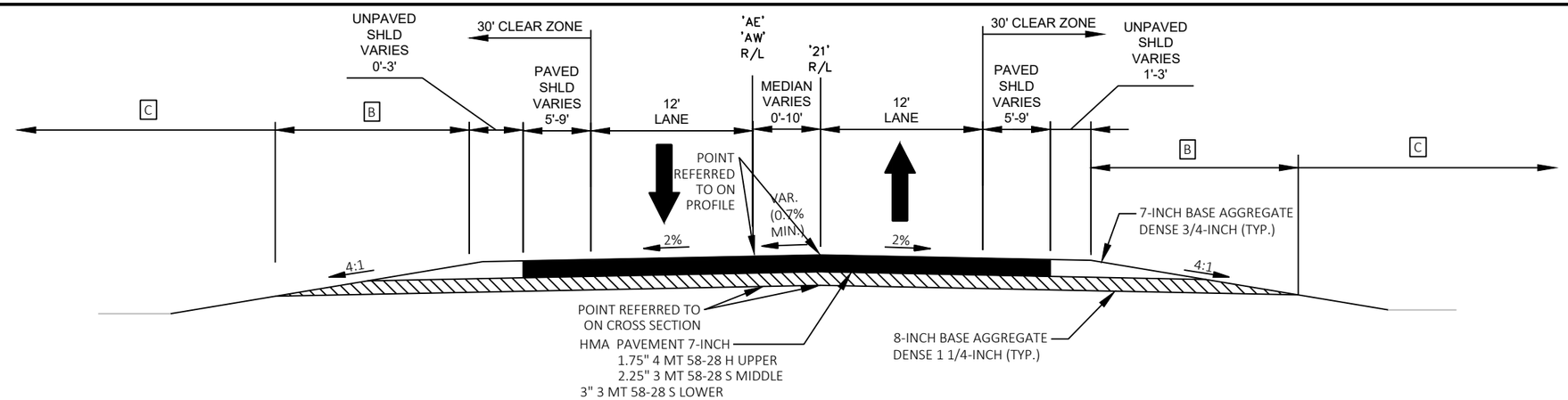
C
B
VARIES 3'-7.5' UNPAVED SHLD
8'
MGS GUARDRAIL 3
BASE AGGREGATE DENSE 3/4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH
4:1
3:1 (NOR.)
2.5:1 (MAX.)

PROPOSED PARTIAL TYPICAL SECTION - STH 21
STA. 689+96'21' - STA. 692+90'21'

B
C
VARIES 3'-7.5' UNPAVED SHLD
8'
MGS GUARDRAIL 3
BASE AGGREGATE DENSE 3/4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH
4:1
3:1 (NOR.)
2.5:1 (MAX.)

PROPOSED PARTIAL TYPICAL SECTION - STH 21
STA.689+60'21' - STA. 692+53'21'

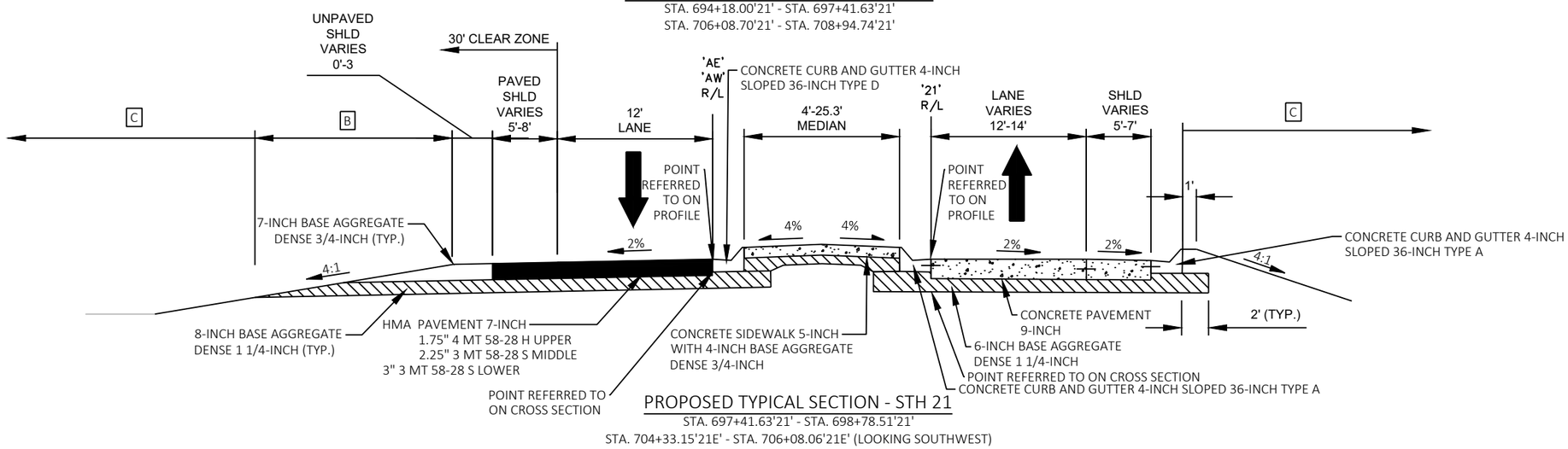
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - PROPOSED	SHEET 14	E



PROPOSED TYPICAL SECTION - STH 21

STA. 694+18.00'21' - STA. 697+41.63'21'

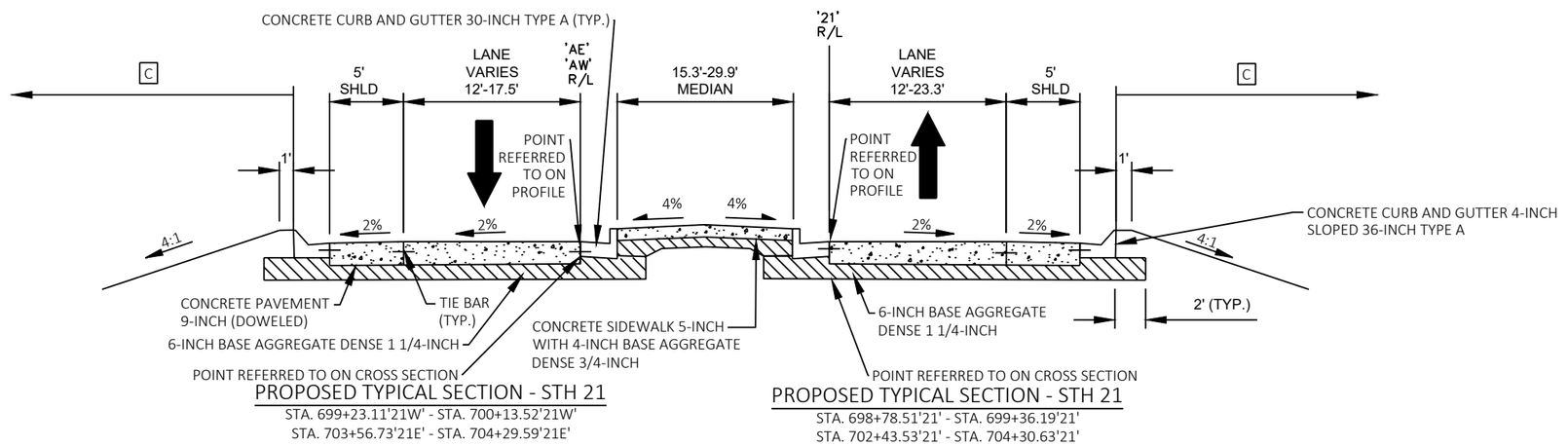
STA. 706+08.70'21' - STA. 708+94.74'21'



PROPOSED TYPICAL SECTION - STH 21

STA. 697+41.63'21' - STA. 698+78.51'21'

STA. 704+33.15'21E' - STA. 706+08.06'21E' (LOOKING SOUTHWEST)



PROPOSED TYPICAL SECTION - STH 21

STA. 699+23.11'21W' - STA. 700+13.52'21W'

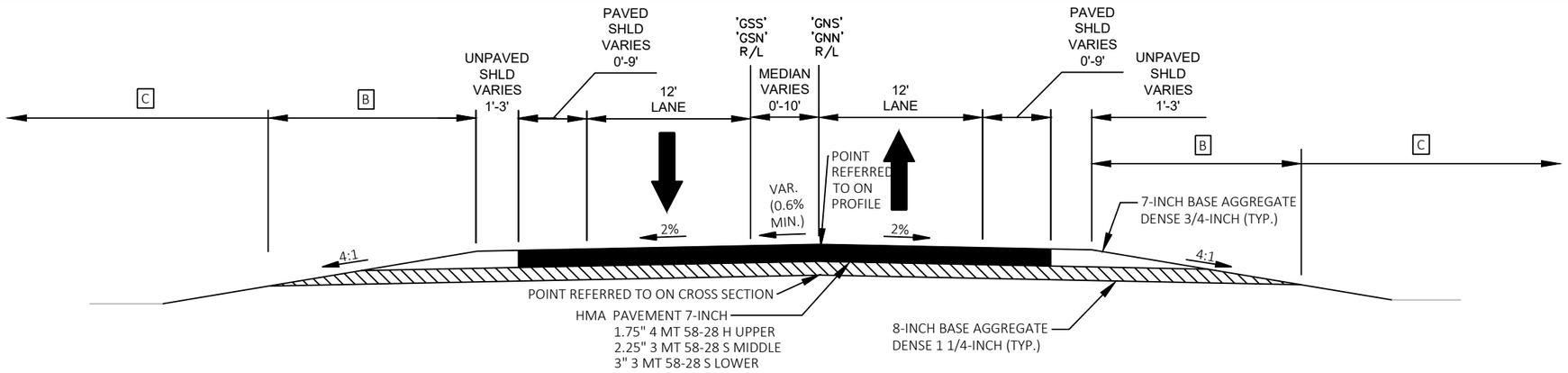
STA. 703+56.73'21E' - STA. 704+29.59'21E'

PROPOSED TYPICAL SECTION - STH 21

STA. 698+78.51'21' - STA. 699+36.19'21'

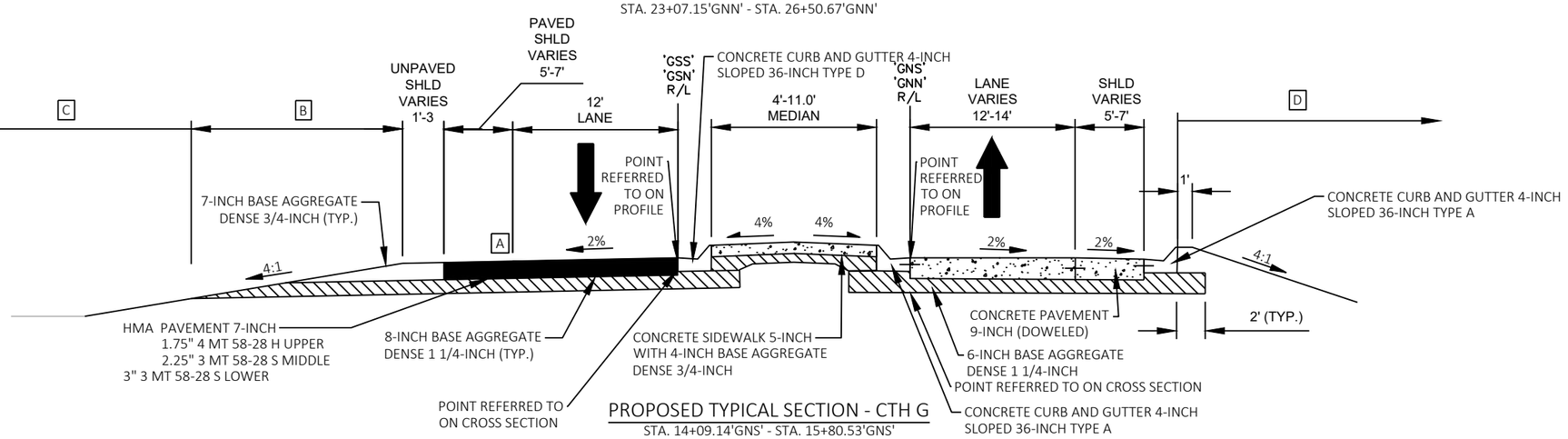
STA. 702+43.53'21' - STA. 704+30.63'21'

- A — ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)
- B — SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B
- C — SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING
- D — SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING
- E — SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



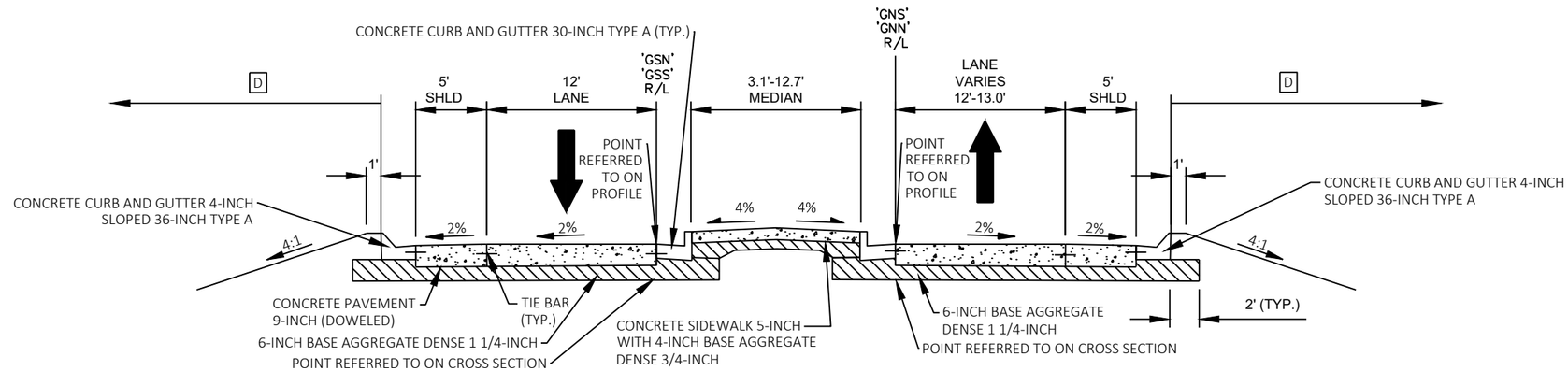
PROPOSED TYPICAL SECTION - CTH G

STA. 10+65.51'GNS' - STA. 14+09.14'GNS'
STA. 23+07.15'GNN' - STA. 26+50.67'GNN'



PROPOSED TYPICAL SECTION - CTH G

STA. 14+09.14'GNS' - STA. 15+80.53'GNS'
STA. 23+07.03'GSN' - STA. 21+37.70'GSN' (LOOKING SOUTH)



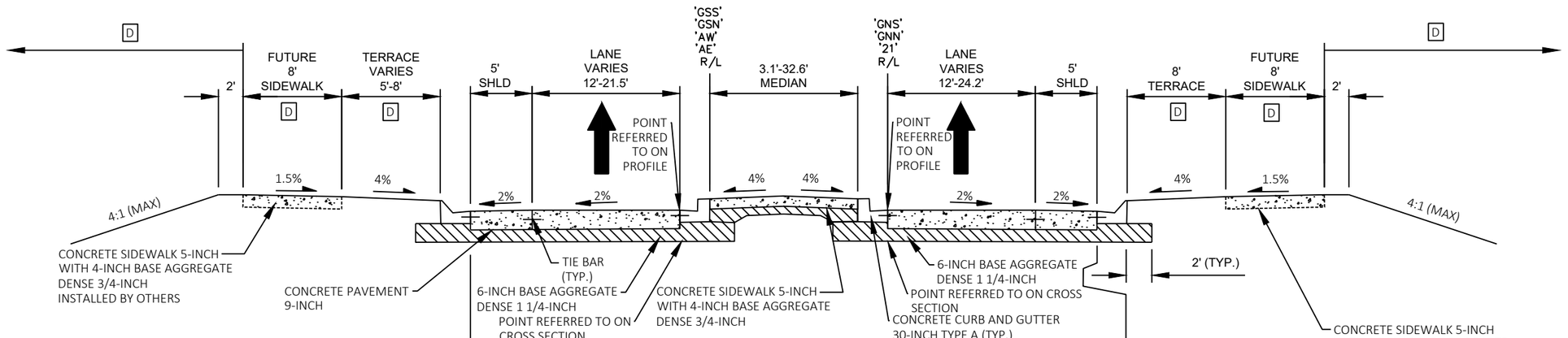
PROPOSED TYPICAL SECTION - CTH G

STA. 15+79.46'GSS' - STA. 16+74.56'GSS'
STA. 20+64.05'GSN' - STA. 21+37.70'GSN'

PROPOSED TYPICAL SECTION - CTH G

STA. 15+80.53'GNS' - STA. 16+62.64'GNS'
STA. 20+47.79'GNN' - STA. 21+39.27'GNN'

- A — ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)
- B — SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B
- C — SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING
- D — SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING
- E — SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING

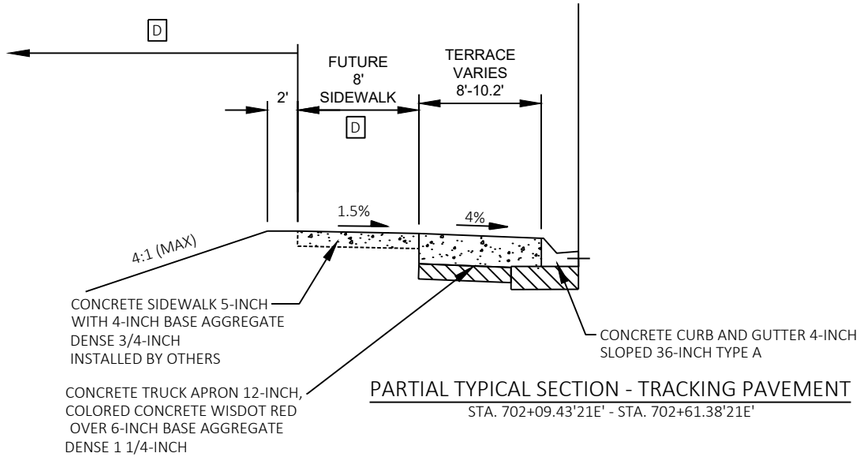


PROPOSED TYPICAL SECTION - ROUNDABOUT APPROACH

STA. 16+74.56'GSS' - STA. 17+20.80'GSS'
STA. 20+00.42'GSN' - STA. 20+64.05'GSN'
STA. 700+13.52'21W' - STA. 700+74.37'21W'
STA. 702+09.43'21E' - STA. 703+56.73'21E'

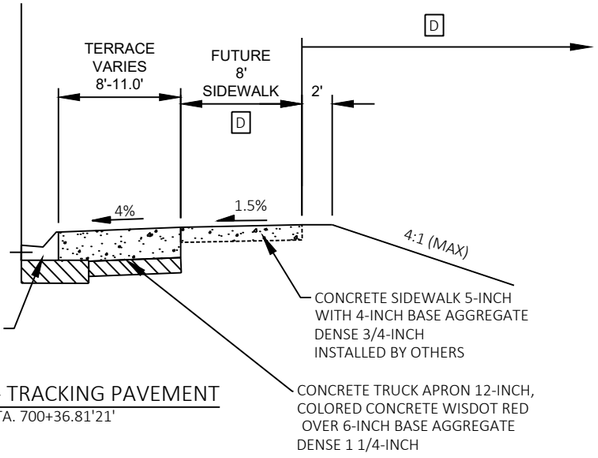
PROPOSED TYPICAL SECTION - ROUNDABOUT APPROACH

STA. 16+62.64'GNS' - STA. 17+15.23'GNS'
STA. 20+00.00'GNN' - STA. 20+47.79'GNN'
STA. 699+36.19'21' - STA. 700+14.20'21'
STA. 701+85.74'21' - STA. 702+43.53'21'



PARTIAL TYPICAL SECTION - TRACKING PAVEMENT

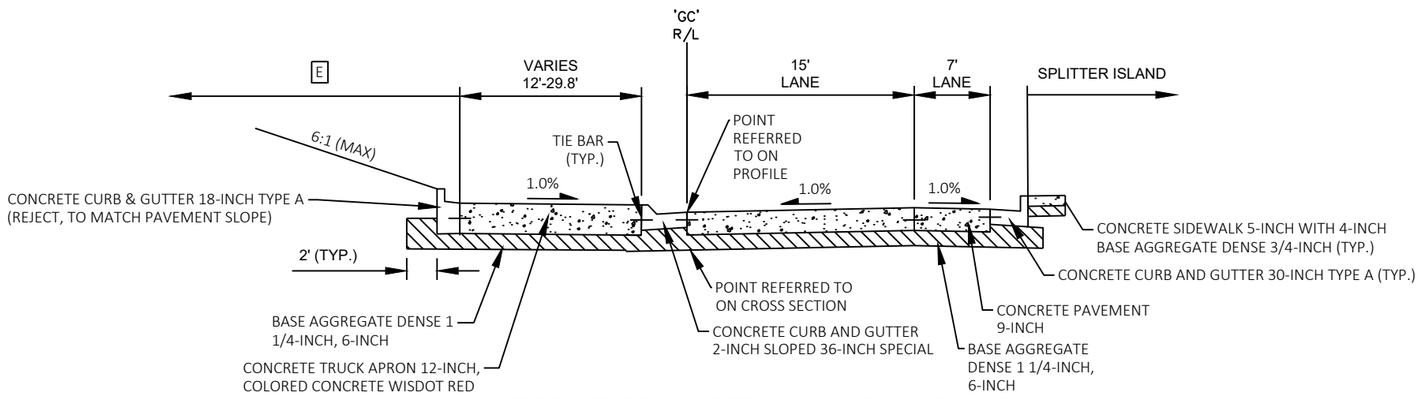
STA. 702+09.43'21E' - STA. 702+61.38'21E'



PARTIAL TYPICAL SECTION - TRACKING PAVEMENT

STA. 699+36.19'21' - STA. 700+36.81'21'

- [A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)
- [B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B
- [C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING
- [D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING
- [E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



PROPOSED TYPICAL SECTION - ROUNDABOUT

STA. 10+00'GC' - STA. 13+61.29'GC'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - PROPOSED	SHEET 17	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\020301-TS_PROPOSED.DWG
LAYOUT NAME - Sheet 4
PLOT DATE : 10/27/2024 5:32 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

2

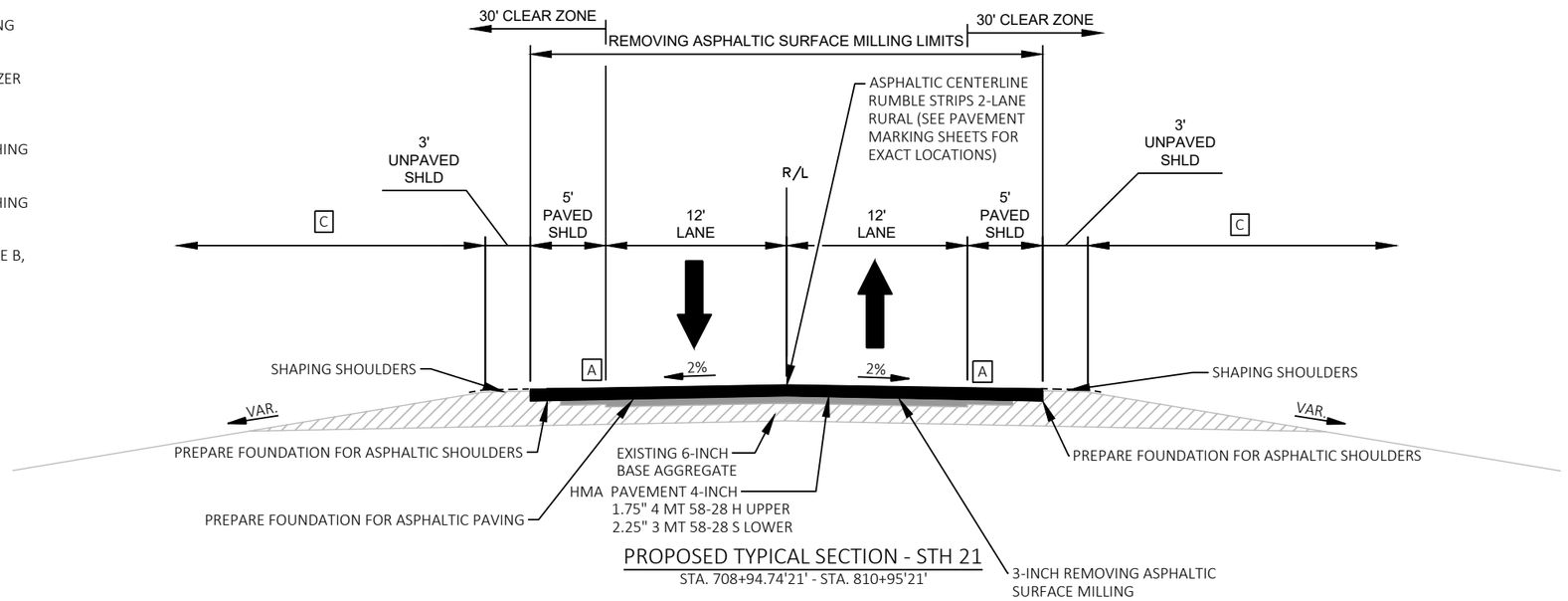
A ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

B SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

C SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

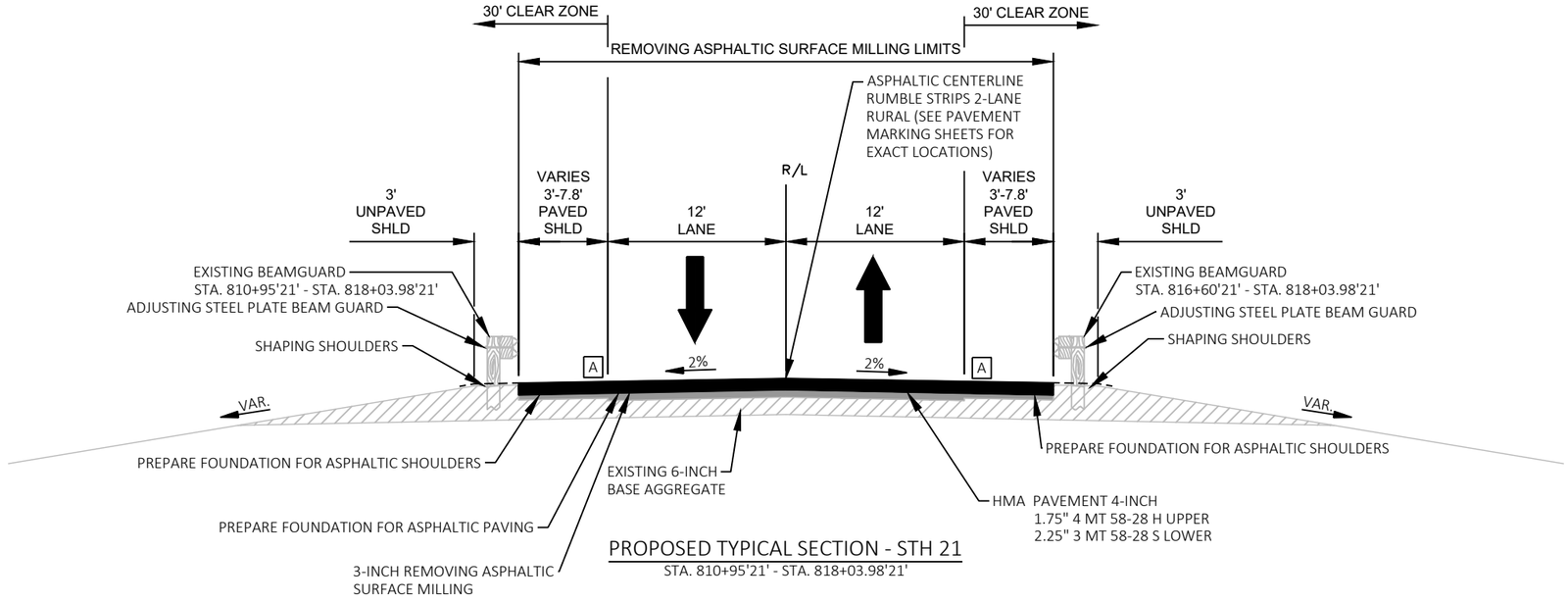
D SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

E SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



PROPOSED TYPICAL SECTION - STH 21

STA. 708+94.74'21' - STA. 810+95'21'



PROPOSED TYPICAL SECTION - STH 21

STA. 810+95'21' - STA. 818+03.98'21'

2

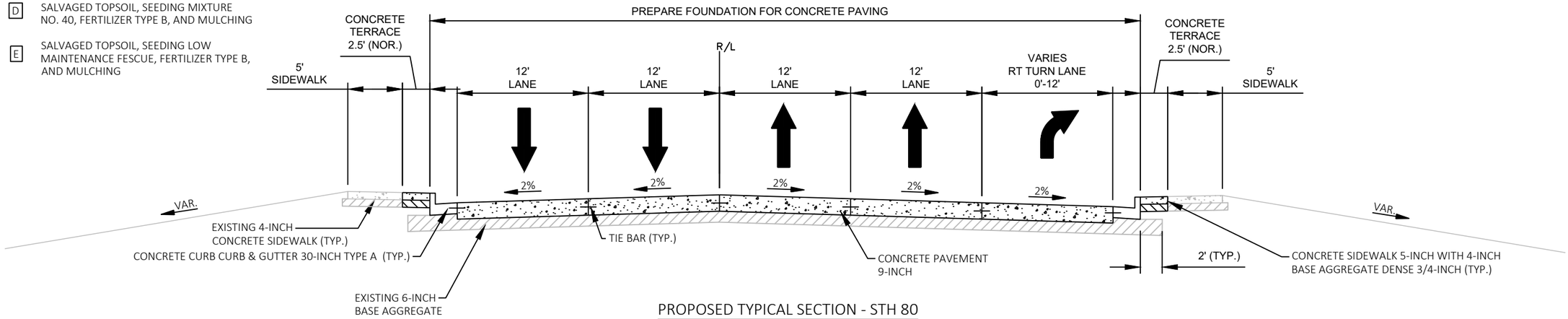
[A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

[B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

[C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

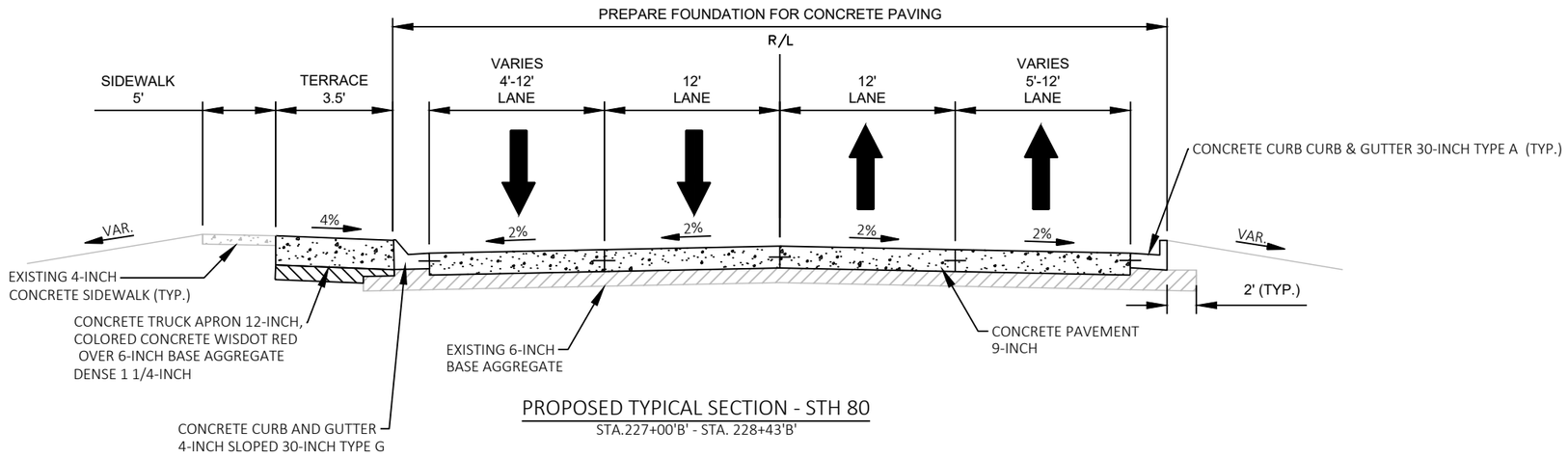
[D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

[E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



PROPOSED TYPICAL SECTION - STH 80

STA. 224+88'B' - STA. 227+00'B'



PROPOSED TYPICAL SECTION - STH 80

STA.227+00'B' - STA. 228+43'B'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TYPICAL SECTIONS - PROPOSED	SHEET 19	E

2

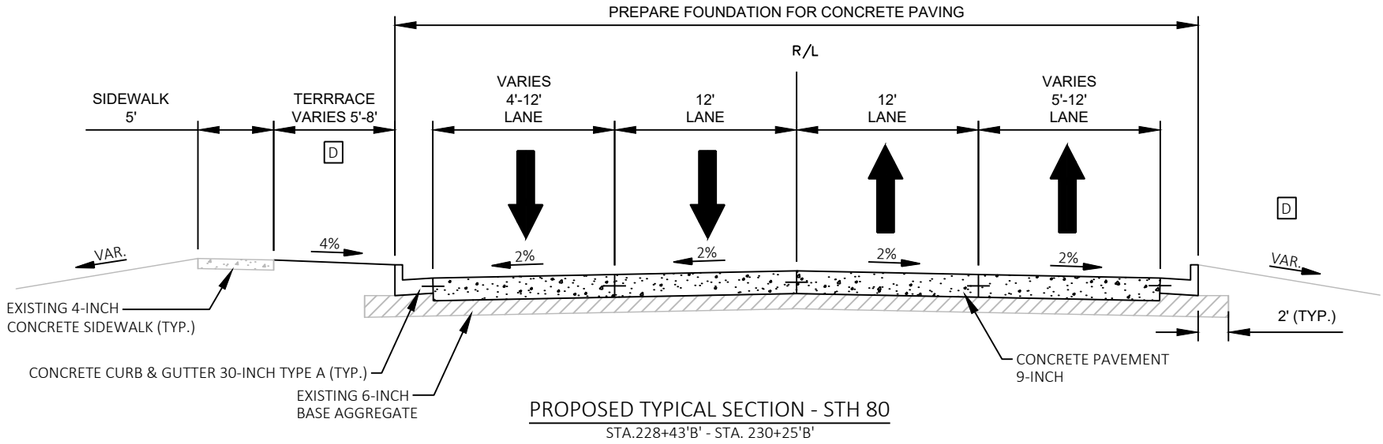
[A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

[B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

[C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

[D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

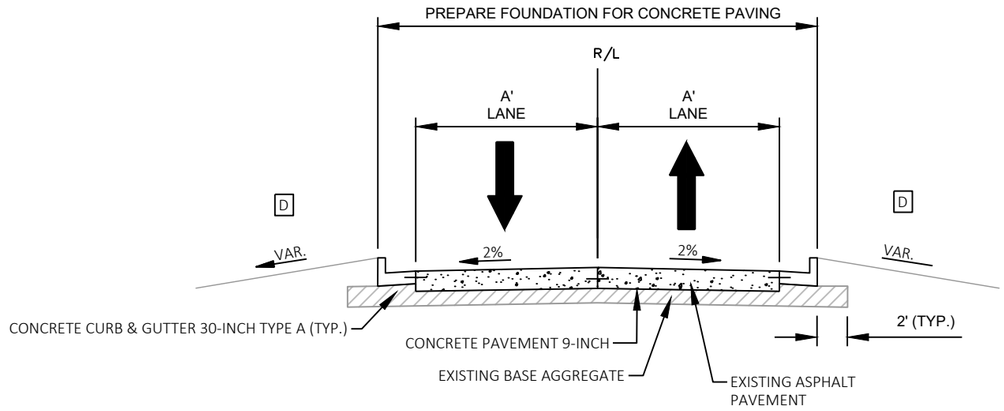
[E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING



PROPOSED TYPICAL SECTION - STH 80

STA.228+43'B' - STA. 230+25'B'

SIDE STREET	A'	NOTES
SHERIDAN STREET	16'	-
HIGH STREET	16'	-
CENTER STREET	16'	-



PROPOSED TYPICAL SECTION

SIDE ROADS

2

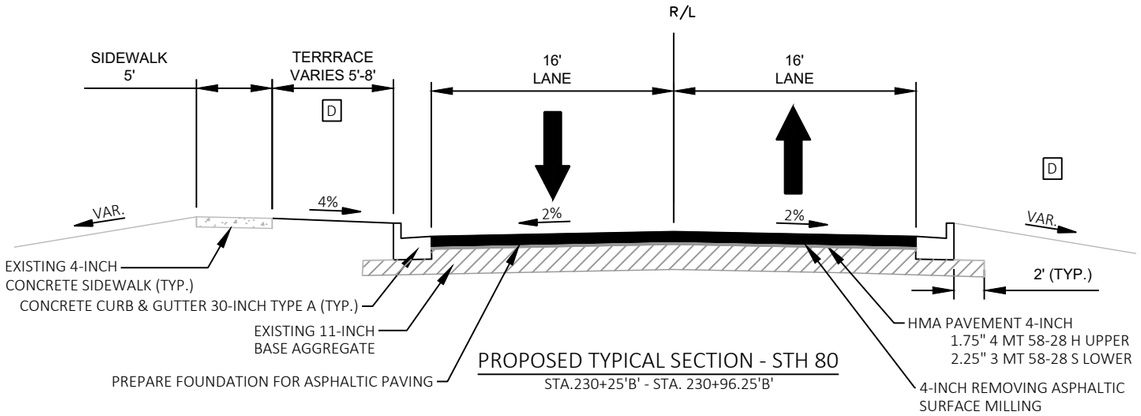
[A] ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (SEE PAVEMENT MARKING SHEETS FOR EXACT LOCATIONS)

[B] SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

[C] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, AND MULCHING

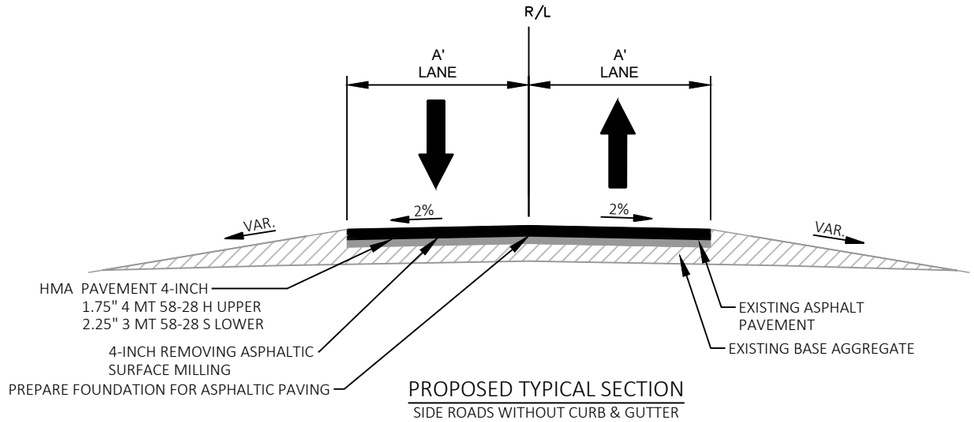
[D] SALVAGED TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND MULCHING

[E] SALVAGED TOPSOIL, SEEDING LOW MAINTENANCE FESCUE, FERTILIZER TYPE B, AND MULCHING

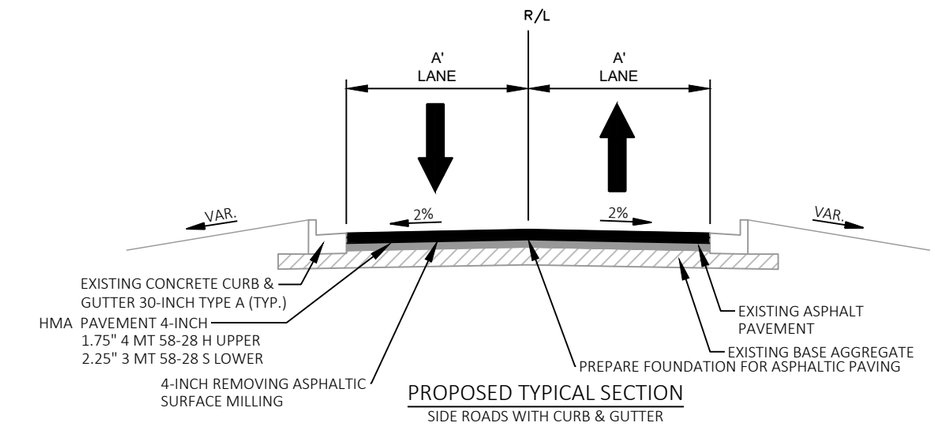


PROPOSED TYPICAL SECTION - STH 80
STA.230+25'B' - STA. 230+96.25'B'

SIDE STREET	A'	NOTES
FRIENDSHIP ROAD	25'	-
22ND STREET	15'	-
N 16TH AVENUE	16'	NO CURB RT & LT
S 16TH AVENUE	19.5'	-
N 17TH AVENUE	16.5'	NO CURB RT & LT
S 17TH AVENUE	15'	-
JEFFERSON STREET	11'	NO CURB RT & LT
JOHNSON STREET	12'	NO CURB RT & LT
LYNCH LANE	12'	NO CURB RT & LT
18TH AVENUE	18'	-
PETENWELL ROAD	13'	NO CURB RT & LT
19TH STREET E	16.5'	-
19TH AVENUE	15'	-



PROPOSED TYPICAL SECTION
SIDE ROADS WITHOUT CURB & GUTTER

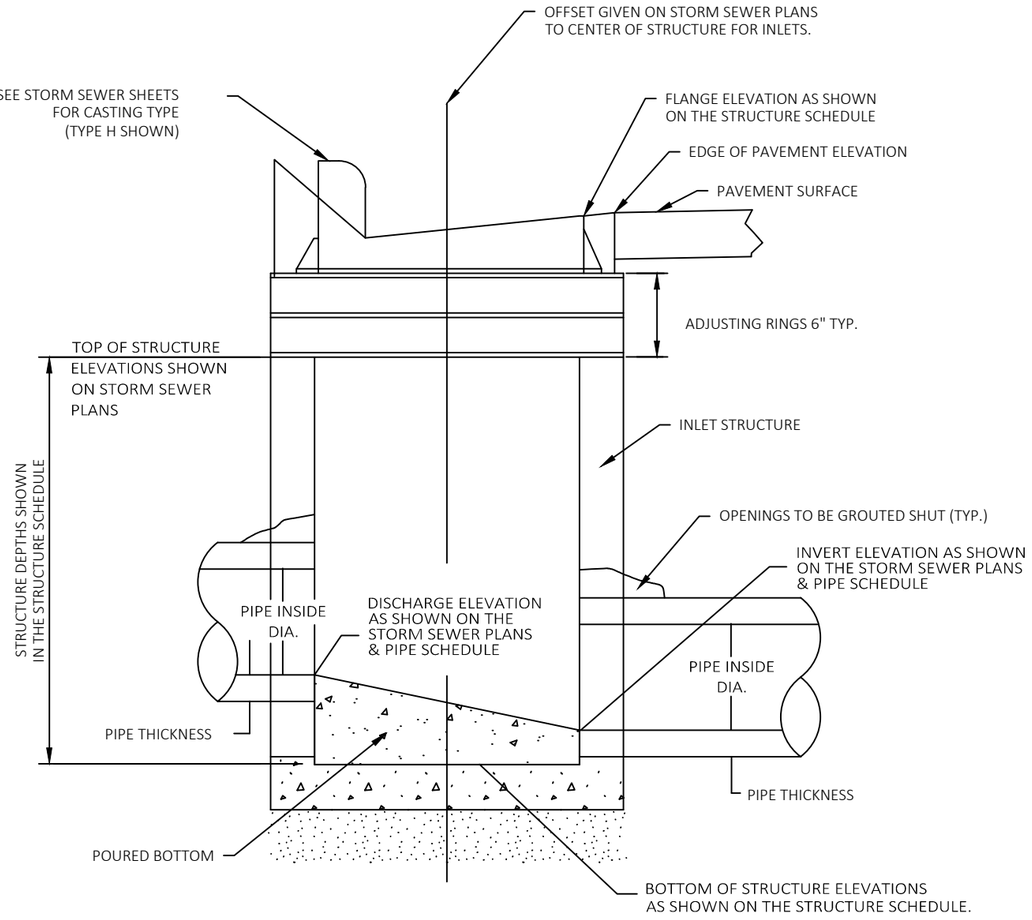


PROPOSED TYPICAL SECTION
SIDE ROADS WITH CURB & GUTTER

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND INLET
(INCIDENTAL TO CONSTRUCTION OF INLET)

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



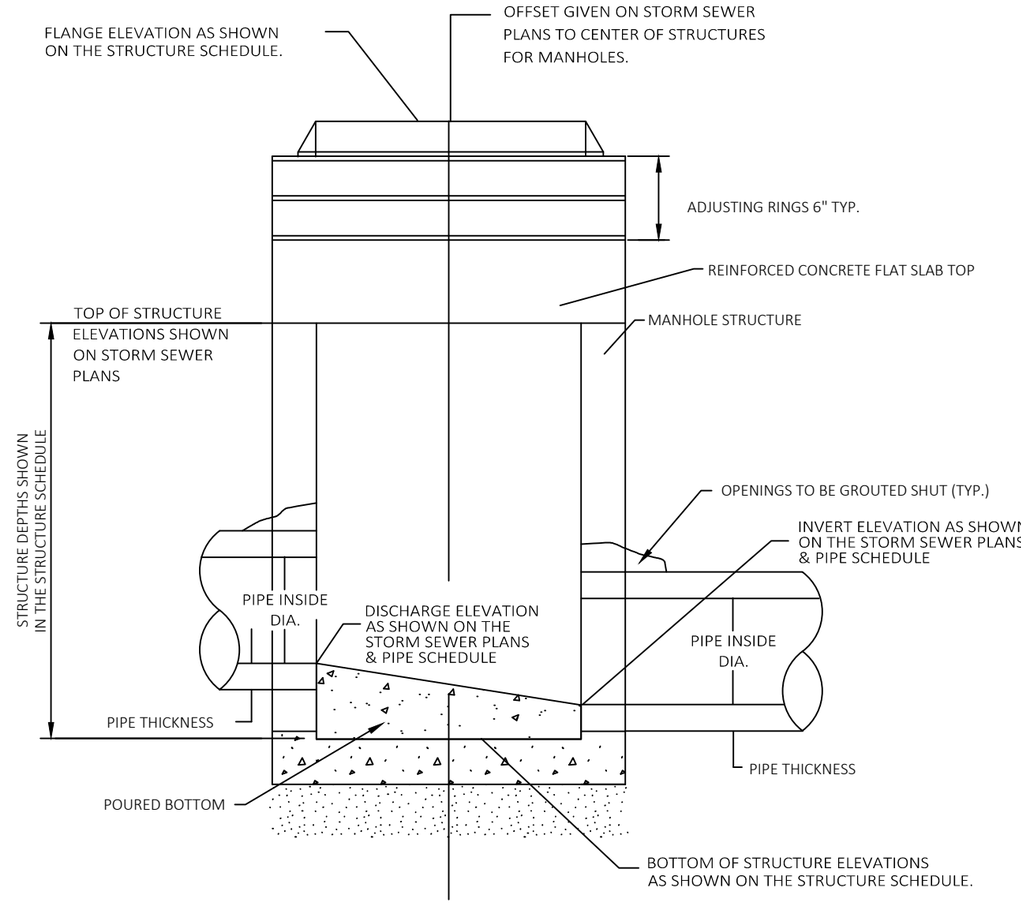
DETAIL OF INLET W/CASTING

(SEE STORM SEWER PLANS FOR LOCATIONS)

GENERAL NOTES:

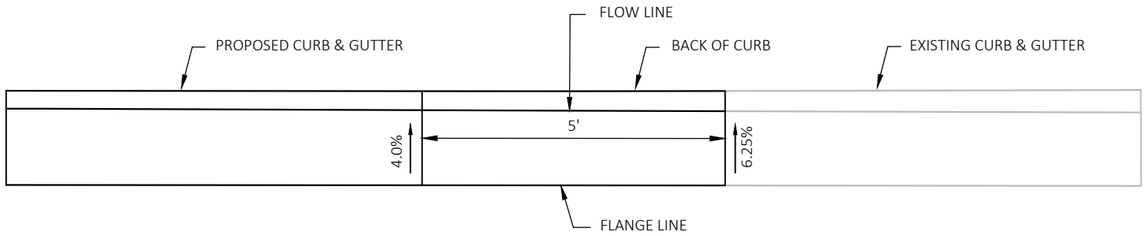
GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

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



DETAIL OF MANHOLE W/CASTING

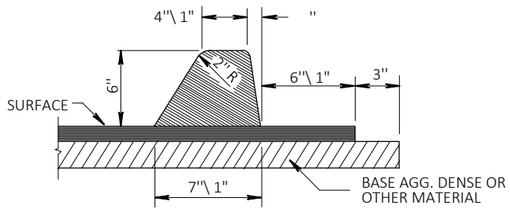
(SEE STORM SEWER PLANS FOR LOCATIONS)



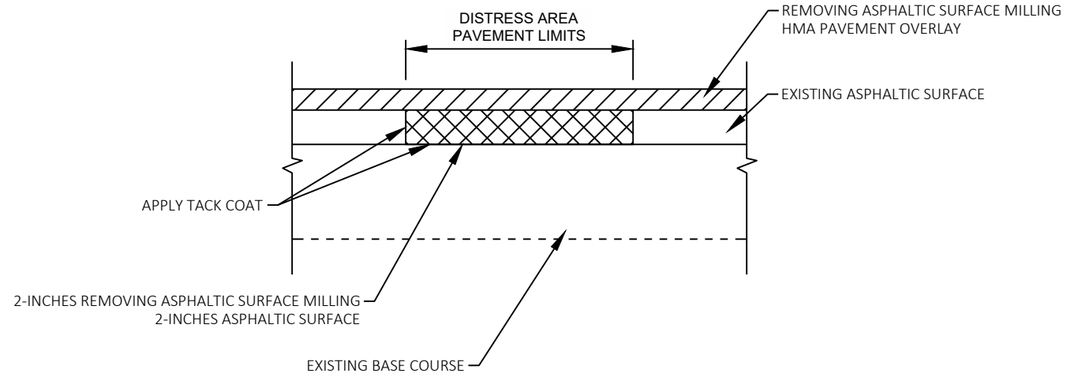
GUTTER PAN TRANSITION

(6.25% TO 4.00%)

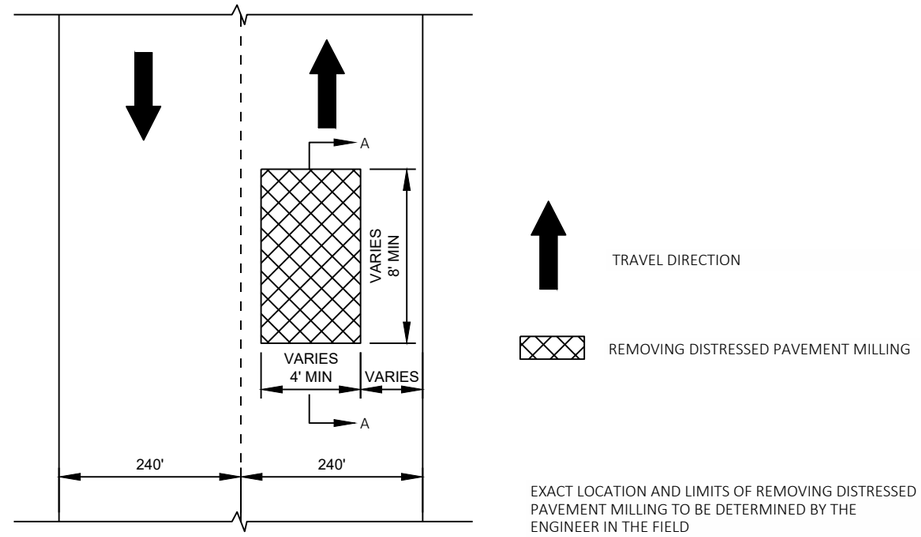
(SEE PLAN DETAILS FOR LOCATIONS - MATCHING INTO EXISTING CURB & GUTTER)



ASPHALTIC CURB DETAIL



SECTION A-A

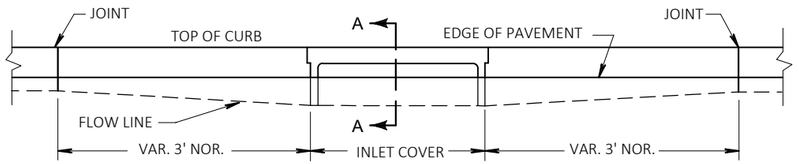


PLAN VIEW

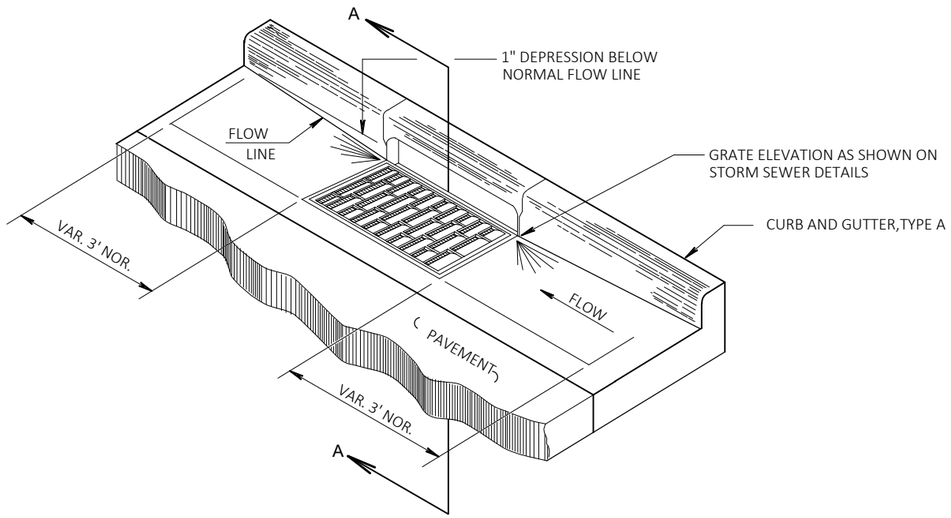
EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD

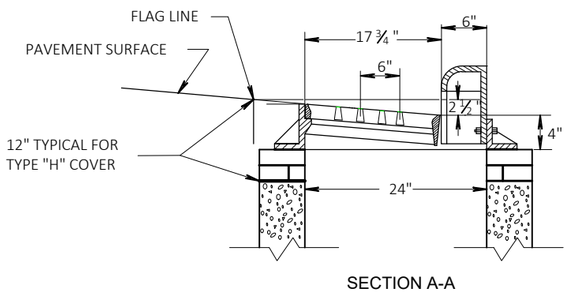
PAID FOR UNDER BID ITEM "REMOVING DISTRESS PAVEMENT MILLING". TACK COAT AND ASPHALTIC SURFACE TO BE PAID FOR SEPARATELY.

REMOVING DISTRESS PAVEMENT MILLING DETAIL



ELEVATION

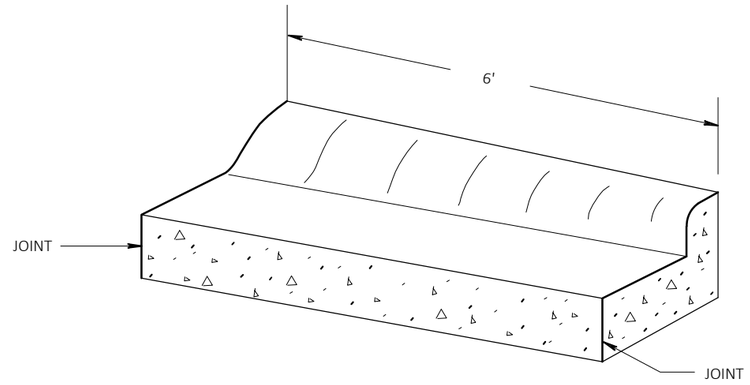




SECTION A-A

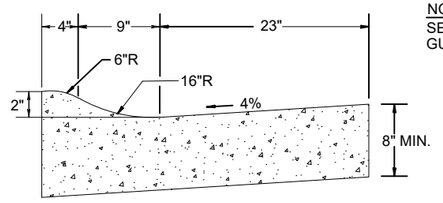
DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3-H INLET SHOWN)



TRANSITION DETAIL

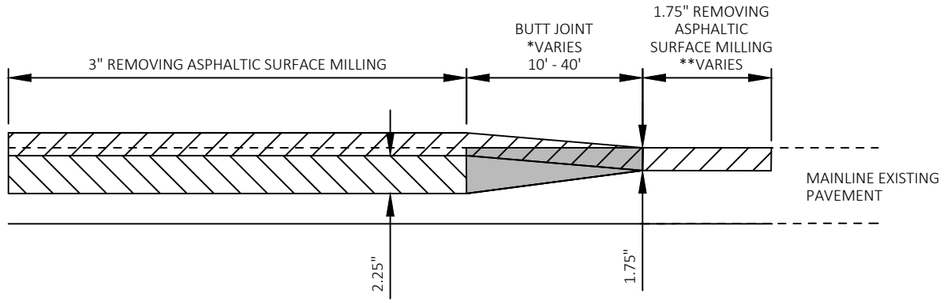
36" TYPE "A" CURB & GUTTER TO 30" TYPE "A" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



NOTE:
SEE S.D.D. "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES" FOR DETAILS NOT SHOWN.

CONCRETE CURB & GUTTER
2-INCH SLOPED 36-INCH SPECIAL
(SEE PLAN DETAILS FOR LOCATIONS)

2

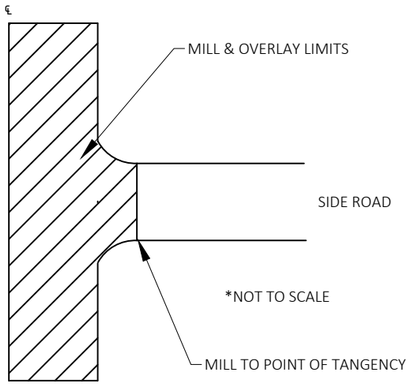


NOTE: NOT TO SCALE

* LOCATIONS:
B-29-006 EAST APPROACH -- 10'
B-29-136 WEST APPROACH -- 20'
B-29-136 EAST APPROACH -- 20'
B-29-100 WEST APPROACH -- 20'
B-29-100 EAST APPROACH -- 20'
END OF PROJECT -- 40'

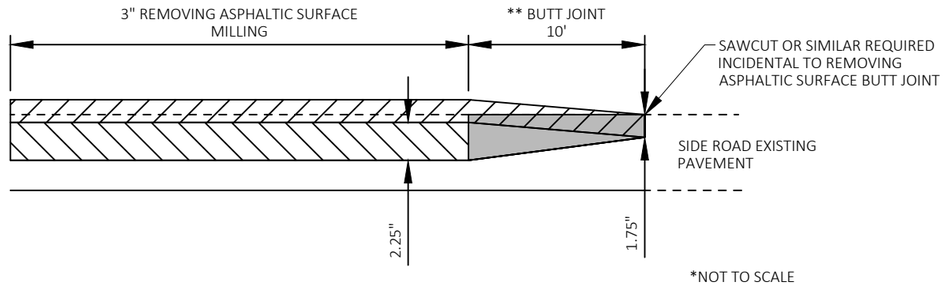
** LOCATIONS:
STA. 656+47 - 656+62 -- B-29-006 EAST APPROACH -- 15'
STA. 665+19 - 665+67 -- B-29-136 WEST APPROACH -- 48'
STA. 667+57 - 667+94 -- B-29-136 EAST APPROACH -- 38'
STA. 677+08 - 677+27 -- B-29-100 WEST APPROACH -- 19'
STA. 678+75 - 679+96 -- B-29-100 EAST APPROACH -- 21'
STA. 817+75 - 818+04 -- END OF PROJECT -- 29'

DETAIL OF MAINLINE BUTT JOINT - RURAL



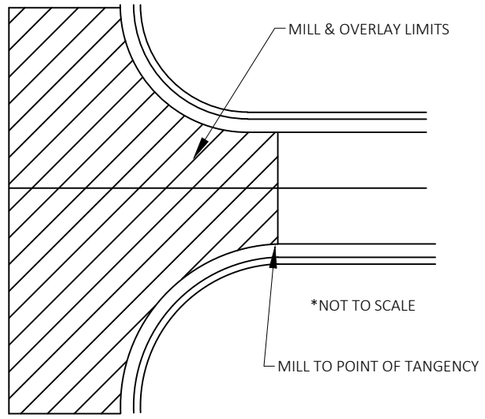
** LOCATIONS:
16TH AVENUE (1 of 2)
17TH AVENUE (1 of 2)
JEFFERSON STREET
JOHNSON STREET
LYNCH LANE
PETENWELL ROAD

SIDE ROAD DETAIL - NO CURB & GUTTER



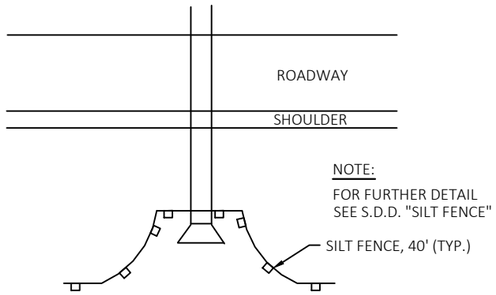
*NOT TO SCALE

DETAIL OF SIDE ROAD BUTT JOINT - RURAL



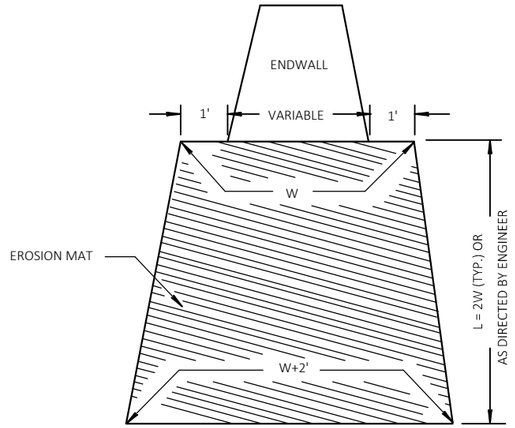
** LOCATIONS:
FRIENDSHIP ROAD
22ND STREET
16TH AVENUE (1 of 2)
17TH AVENUE (1 of 2)
18TH AVENUE
19TH STREET
19TH AVENUE

SIDEROAD DETAIL - CURB & GUTTER TO REMAIN

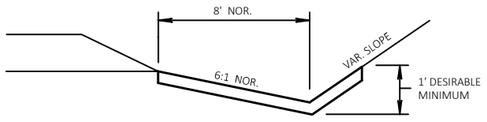


SILT FENCE AT PIPE INLET

SEE EROSION CONTROL PLAN FOR LOCATIONS



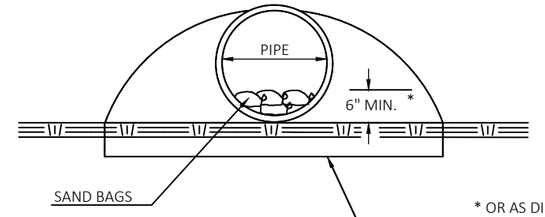
EROSION MAT TREATMENT AT CULVERTS



EROSION MAT DETAIL FOR DITCHES

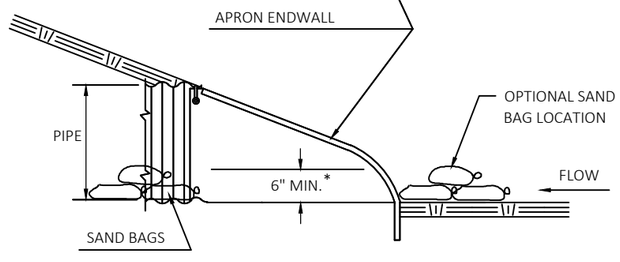
ESTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	7
48"	10
54"	10
60"	13
72"	16
30"X19"	5
38"X24"	7
53"X34"	10
60"X38"	13
76"X48"	18

NOTE: TO BE PLACED AT INLET
END OF CULVERT PIPE.



END VIEW

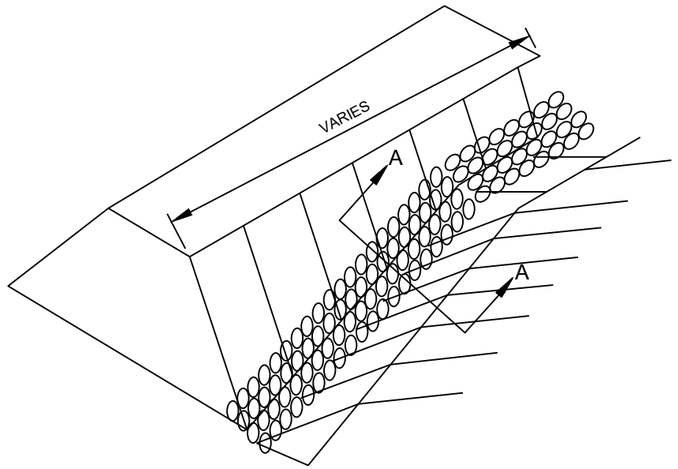
* OR AS DIRECTED BY THE ENGINEER

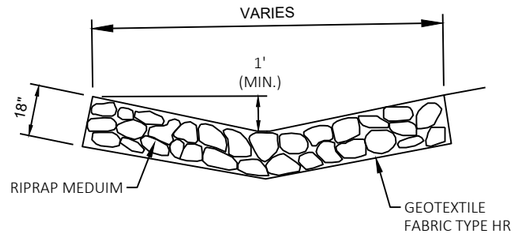


SIDE VIEW

CULVERT PIPE DITCH CHECK TEMPORARY

SEE EROSION CONTROL PLANS FOR LOCATIONS

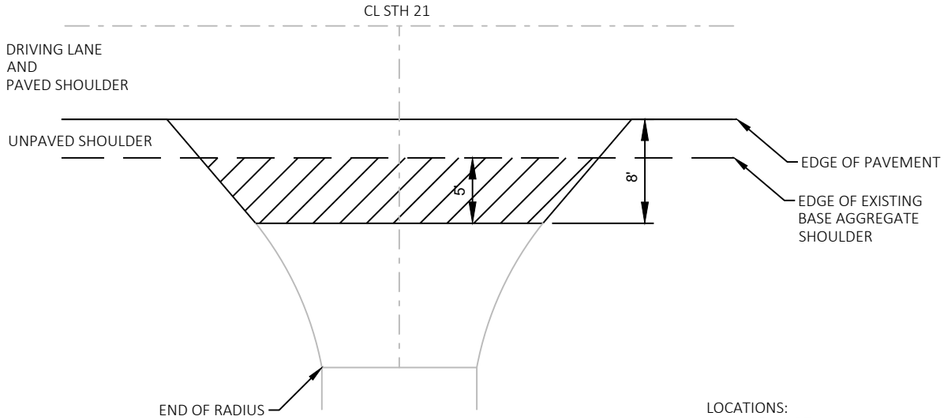




SECTION A-A

RIPRAP MEDIUM AND GEOTEXTILE FABRIC TYPE HR AT CUT TO FILL TRANSITION

SEE PLAN SHEETS FOR LOCATIONS

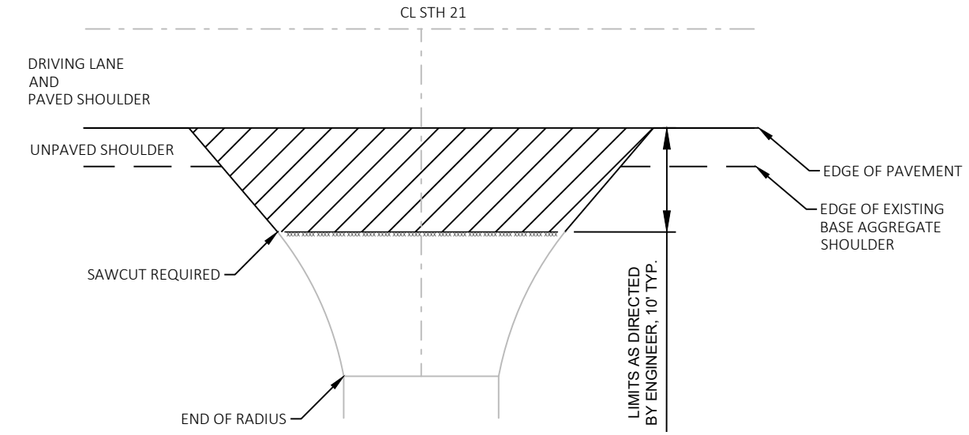


EACH ENTRANCE SHALL RECEIVE ADEQUATE $\frac{3}{4}$ - INCH BASE AGGREGATE DENSE AFTER MAINLINE PAVING AND SHAPING SHOULDERS TO BRING ENTRANCE UP TO SHOULDER PAVEMENT GRADE.

MATCH EXISTING DRIVEWAY WIDTH AND RADII.

LOCATIONS:
STA. 107+31 RT
STA. 111+01 RT
STA. 114+02 RT
STA. 114+50 RT
STA. 122+55 RT
STA. 131+92 RT
STA. 132+61 LT
STA. 136+44 RT

AGGREGATE DRIVEWAY DETAIL



REMOVING ASPHALTIC SURFACE (FULL DEPTH), REPLACE WITH 2" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES.

MATCH EXISTING PAVED SURFACE WIDTH, RADII, AND TAPERS

MATCH EXISTING DRIVEWAY WIDTH AND RADII.

PAID FOR UNDER ITEM "REMOVING ASPHALTIC SURFACE MILLING"

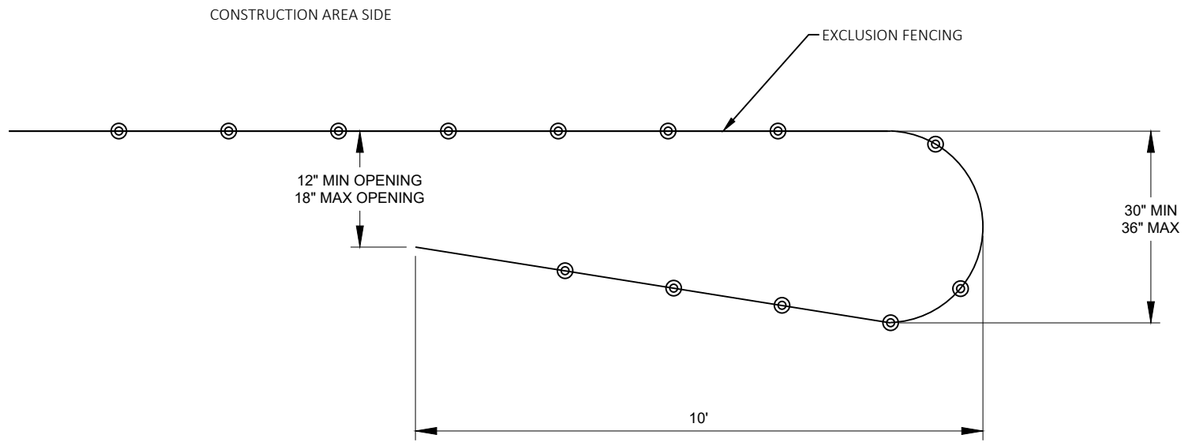
ANY ADDITIONAL BASE AGG. DENSE REQUIRED SHALL BE PAID UNDER ITEM. "BASE AGGREGATE DENSE $\frac{3}{4}$ -INCH"

SAWCUT PAID FOR UNDER ITEM "SAWING ASPHALT"

LOCATIONS:
STA. 695+62 LT
STA. 698+00 LT
STA. 703+42 LT
STA. 704+90 LT

PAVED DRIVEWAY DETAIL

2



EXCLUSION FENCING TURN-AROUND DETAIL

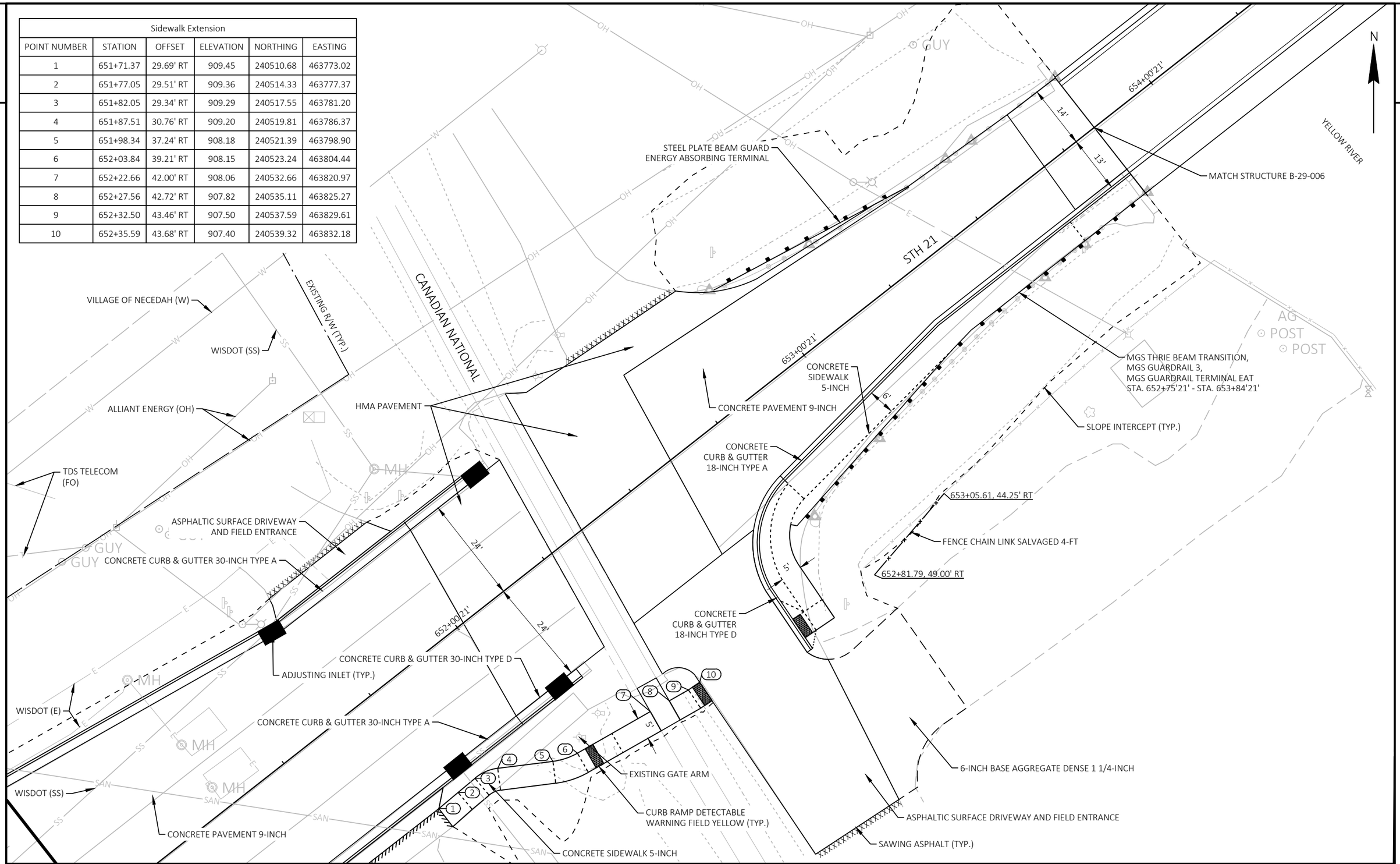
TO BE INSTALLED AT EACH END OF EXCLUSION FENCING
(INCIDENTAL TO EXCLUSION FENCING)

NOTES:

THE NON-CONSTRUCTION SIDE OF THE FENCE SHOULD BE KEPT CLEAR OF TALL VEGETATION THAT COULD ALLOW ANIMALS TO MANEUVER OVER THE FENCING.

FENCING SHOULD BE INSTALLED WITH TURN-AROUNDS AT THE ENDS AND AT ANY ACCESS OPENINGS NEEDED IN THE FENCING, IN ORDER TO REDIRECT ANIMALS AWAY FROM OPENINGS.

Sidewalk Extension					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	651+71.37	29.69' RT	909.45	240510.68	463773.02
2	651+77.05	29.51' RT	909.36	240514.33	463777.37
3	651+82.05	29.34' RT	909.29	240517.55	463781.20
4	651+87.51	30.76' RT	909.20	240519.81	463786.37
5	651+98.34	37.24' RT	908.18	240521.39	463798.90
6	652+03.84	39.21' RT	908.15	240523.24	463804.44
7	652+22.66	42.00' RT	908.06	240532.66	463820.97
8	652+27.56	42.72' RT	907.82	240535.11	463825.27
9	652+32.50	43.46' RT	907.50	240537.59	463829.61
10	652+35.59	43.68' RT	907.40	240539.32	463832.18



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CONSTRUCTOIN DETAILS - SIDEWALK EXTENSION	SHEET 30	E

2

2

N

CAUTION

BEGIN PAVEMENT RECONSTRUCTION
STA 694+18'21"

END MILL AND OVERLAY
STA 694+18'21"

EX RW

P.L.

SLOPE INTERCEPT (TYP.)

XXXXXXXXXXXXX

XXXXXXXXXXXXX

700+00'21"

695+00'21"

STH 21

STH 21

CTH G

PRW

EX RW

SLOPE INTERCEPT (TYP.)

PRW

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- XXXXXX SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR X GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - PRE STAGE	SHEET 31	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM PRESTAGE.DWG
LAYOUT NAME - 05

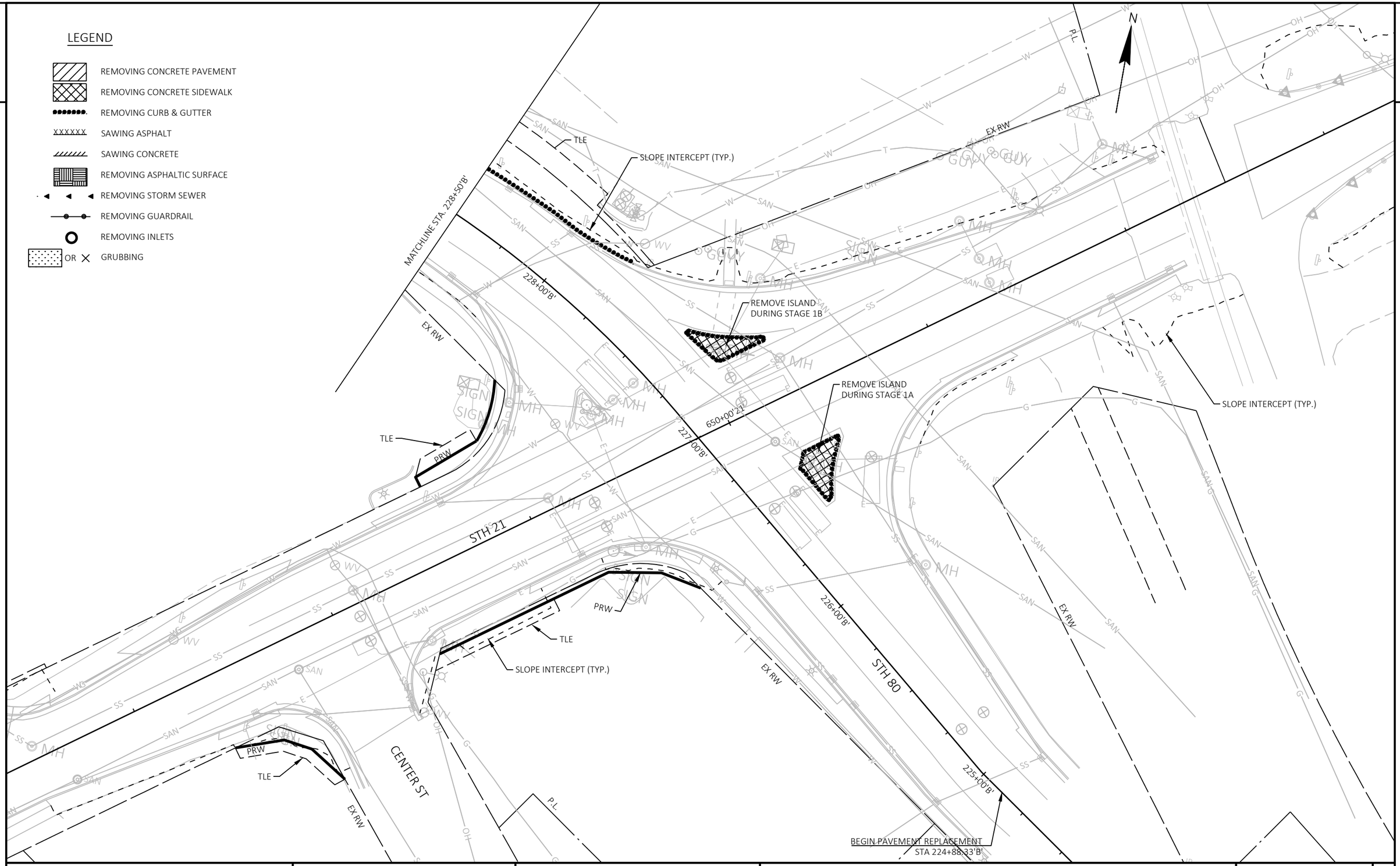
PLOT DATE : 6/25/2024 1:38 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 1	SHEET 32	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 1.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 1:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

BEGIN PAVEMENT REPLACEMENT
STA 230+96'B'

SLOPE INTERCEPT (TYP.)

TLE

EX RW

231+00'B'

230+00'B'

229+00'B'

STH 80

MATCHLINE STA. 228+50'B'

SLOPE INTERCEPT (TYP.)

EX RW

TLE

SAN
W
OH
IP
GUY
MH

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- GRUBBING OR

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 1	SHEET 33	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 1.DWG
LAYOUT NAME - 03

PLOT DATE : 6/25/2024 1:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

P.L.

BEGIN PAVEMENT RECONSTRUCTION
STA 694+18'21"

END MILL AND OVERLAY
STA 694+18'21"

EX RW

TEMPORARY
ASPHALT
WIDENING

SLOPE INTERCEPT (TYP.)

STH 21 WB

STH 21 EB

STH 21

695+00'21"

700+00'21"

MATCHLINE STA. 694+00 '21"

MATCHLINE STA. 701+75 '21"

MATCHLINE STA. 16+00 'GNS'

PRW

CTH G

EX RW

SLOPE INTERCEPT (TYP.)

GRUBBING (6 IN.)

GRUBBING (4 IN.)

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 1	SHEET 34	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 1.DWG
LAYOUT NAME - 05

PLOT DATE : 6/25/2024 1:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

TEMPORARY ASPHALT WIDENING

SLOPE INTERCEPT (TYP.)

BEGIN MILL AND OVERLAY
STA 708+94.74'21'

END PAVEMENT RECONSTRUCTION
STA 708+94.74'21'

EX RW

P.L.

PRW

TIE

STH 21 WB

STH 21 EB

705+00'21'

MATCHLINE STA 701+75.21

SLOPE INTERCEPT (TYP.)

GUY

SIGN

SEPC

SEPV

OH

G

T

FO

IP

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 1	SHEET 35	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 1.DWG
LAYOUT NAME - 06

PLOT DATE : 6/25/2024 1:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

N

SLOPE INTERCEPT (TYP.)

PRW

TLE

EX R.W.

CTH G SB

MATCHLINE STA. 16+00 'GNS'

CTH G NB

BEGIN PAVEMENT RECONSTRUCTION
STA 10+65.51'GNS'

EX RW

TLE

SLOPE INTERCEPT (TYP.)

PRW

P.I.

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 1	SHEET 36	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 1.DWG
LAYOUT NAME - 07

PLOT DATE : 6/25/2024 1:40 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

LEGEND

REMOVING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

SAWING ASPHALT

SAWING CONCRETE

REMOVING ASPHALTIC SURFACE

REMOVING STORM SEWER

REMOVING GUARDRAIL

REMOVING INLETS

OR GRUBBING

N

P.L.

EX RW

BEGIN PROJECT 6160-00-70
STA 642+99.49'21'

HIGH ST

TLE

SLOPE INTERCEPT (TYP.)

TLE

PRW

STH 21

645+00'21'

MATCHLINE STA. 647+00'21'

EX RW

SLOPE INTERCEPT (TYP.)

TLE

TLE

EX RW

SHERIDAN ST

EX RW

P.L.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 37	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 01

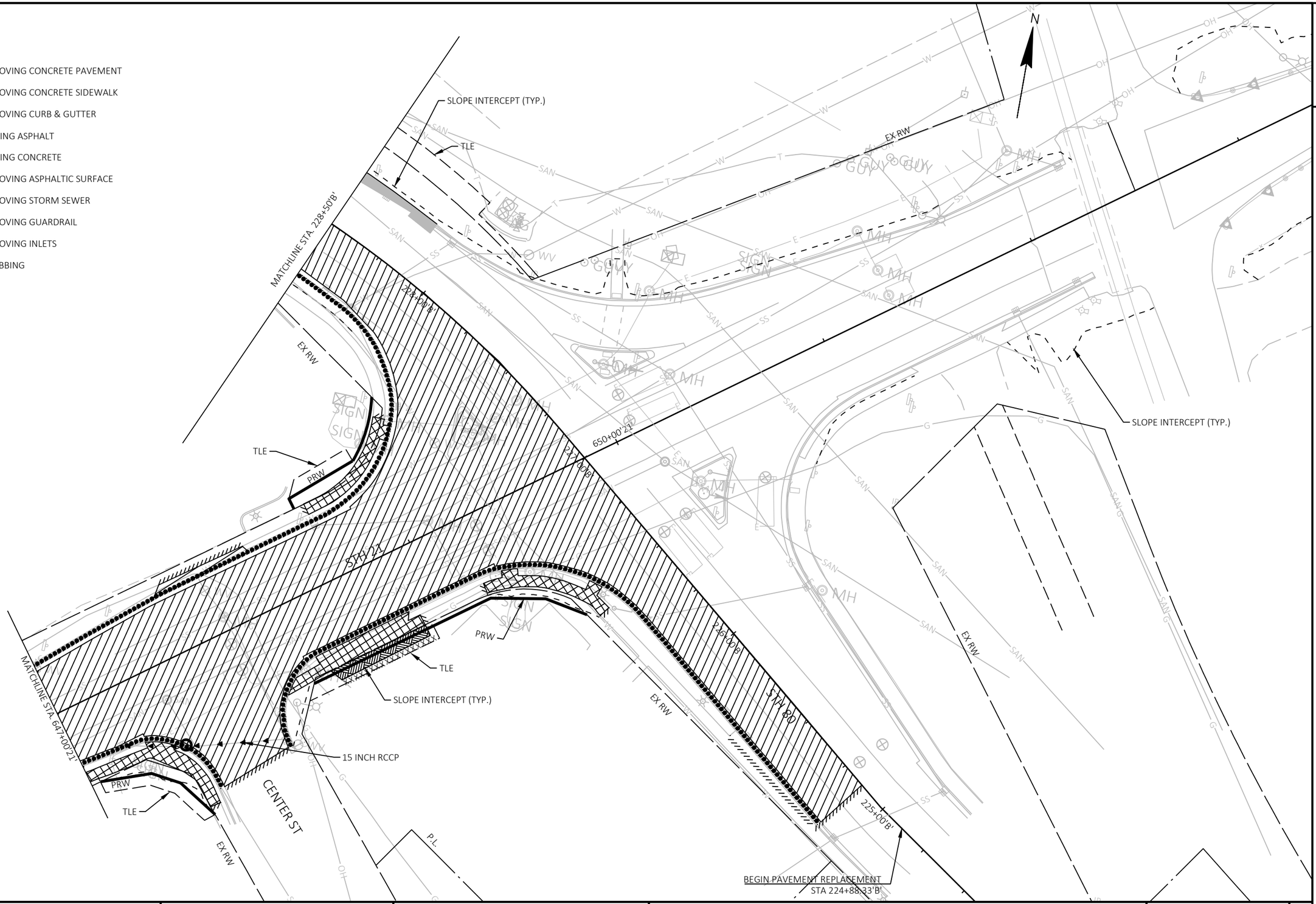
PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING



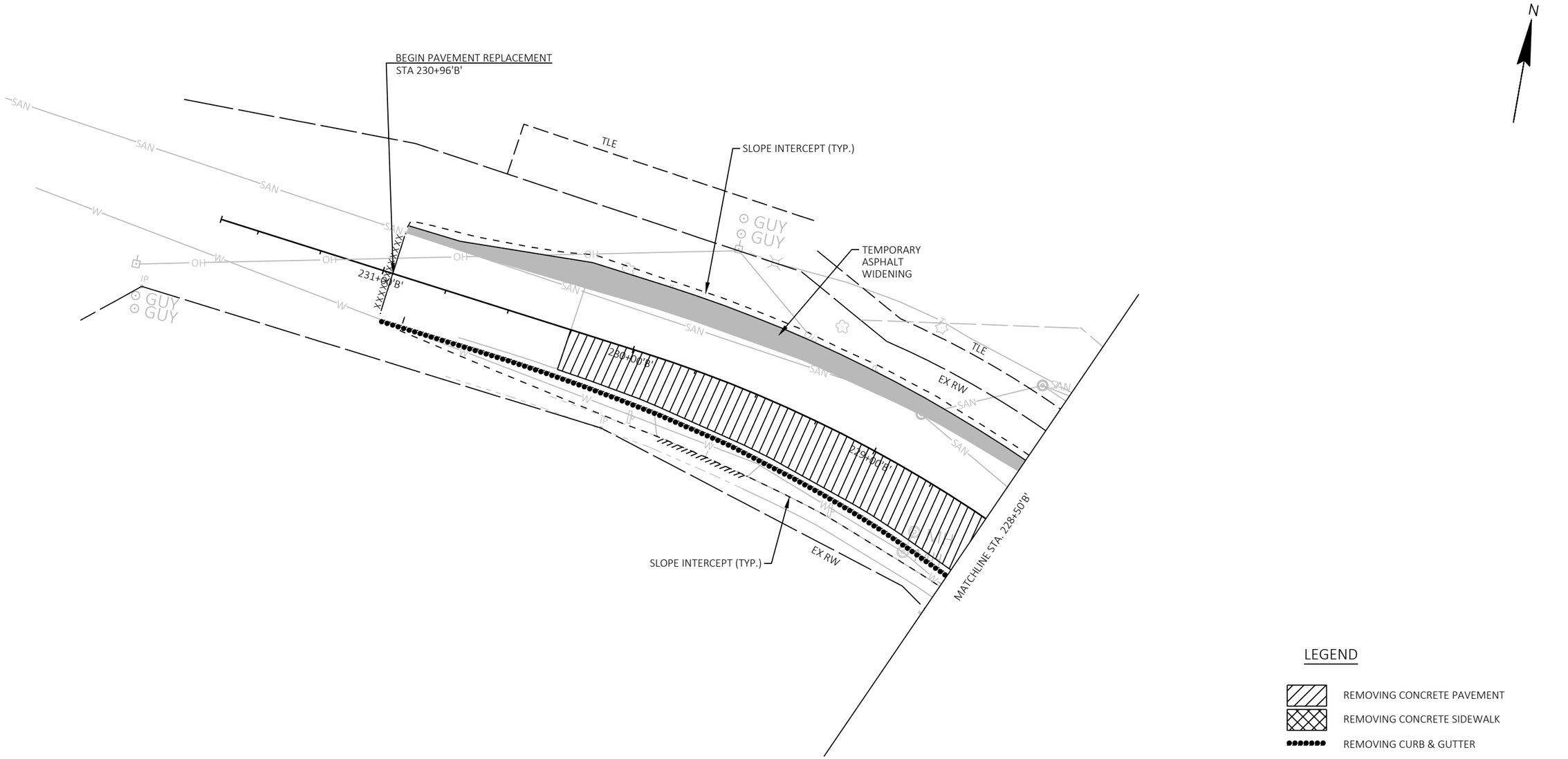
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 38	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 39	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 03

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

P.I.

SLOPE INTERCEPT (TYP.)

EX RW

685+00'21"

690+00'21"

STH 21

SLOPE INTERCEPT (TYP.)

EX RW

PRW

MATCHLINE STA. 694+00'21"

22ND STREET

OH

G

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 40	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 04

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

P.L.

BEGIN PAVEMENT RECONSTRUCTION
STA 694+18'21'

END MILL AND OVERLAY
STA 694+18'21'

EX RW

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 694+00'21'

STH 21

695+00'21'

STH 21 WB

STH 21 EB

700+00'21'

MATCHLINE STA. 701+75'21'

PRW

CTH G

CTH G SB

CTH G NB

SIGN

POST

GUY

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 41	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 05

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

P.L.

EX RW

SLOPE INTERCEPT (TYP.)

BEGIN MILL AND OVERLAY
STA 708+94.74'21'

END PAVEMENT RECONSTRUCTION
STA 708+94.74'21'

710+

STH 21 WB

STH 21 EB

705+00'21'

PRW

TILE

SEPC

SEPV

GUY

SIGN

OH

MATCHLINE STA 701+75.73'

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

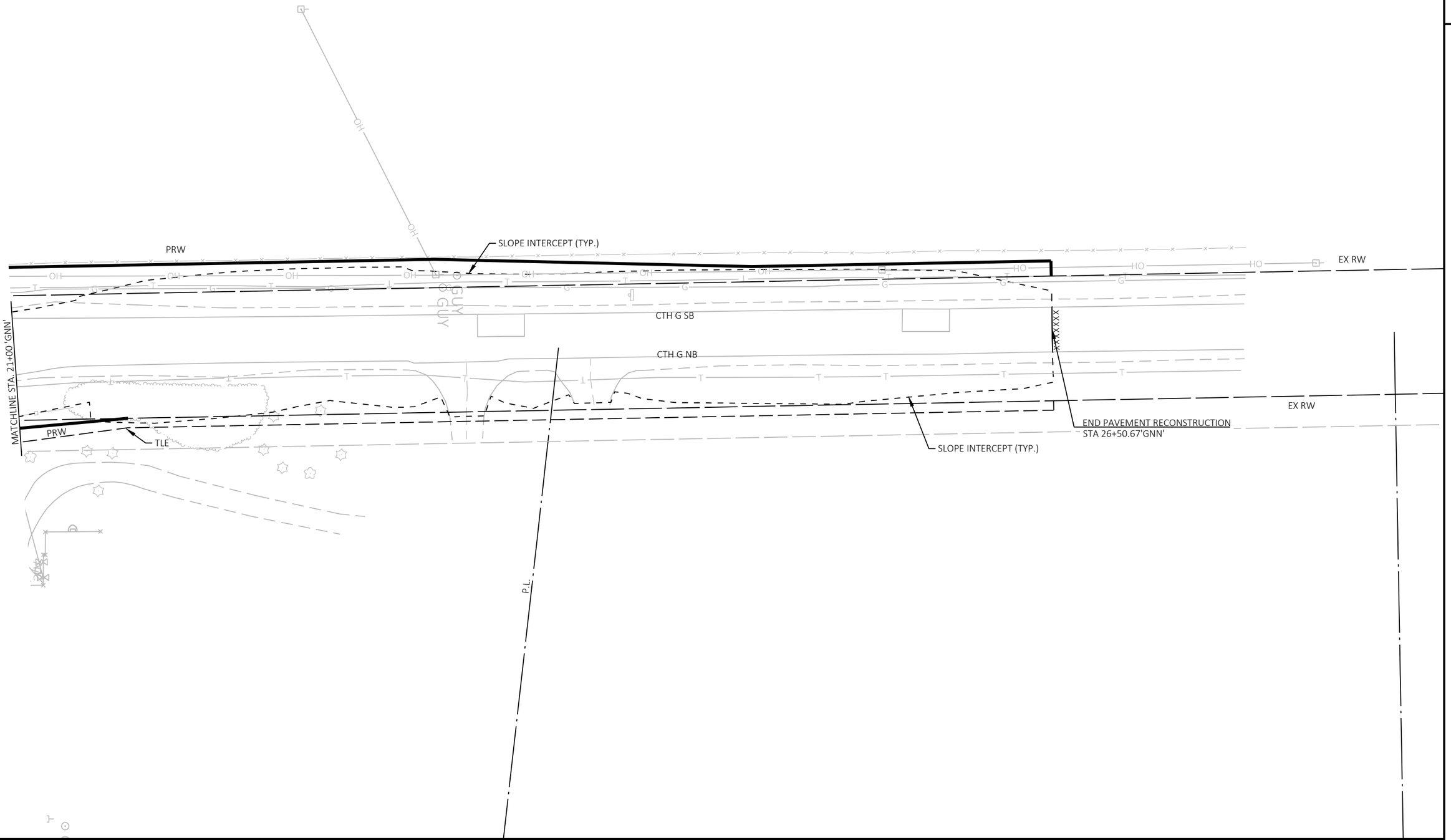
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 42	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 06

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 2	SHEET 43	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 2.DWG
LAYOUT NAME - 08

PLOT DATE : 6/25/2024 1:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 44	E

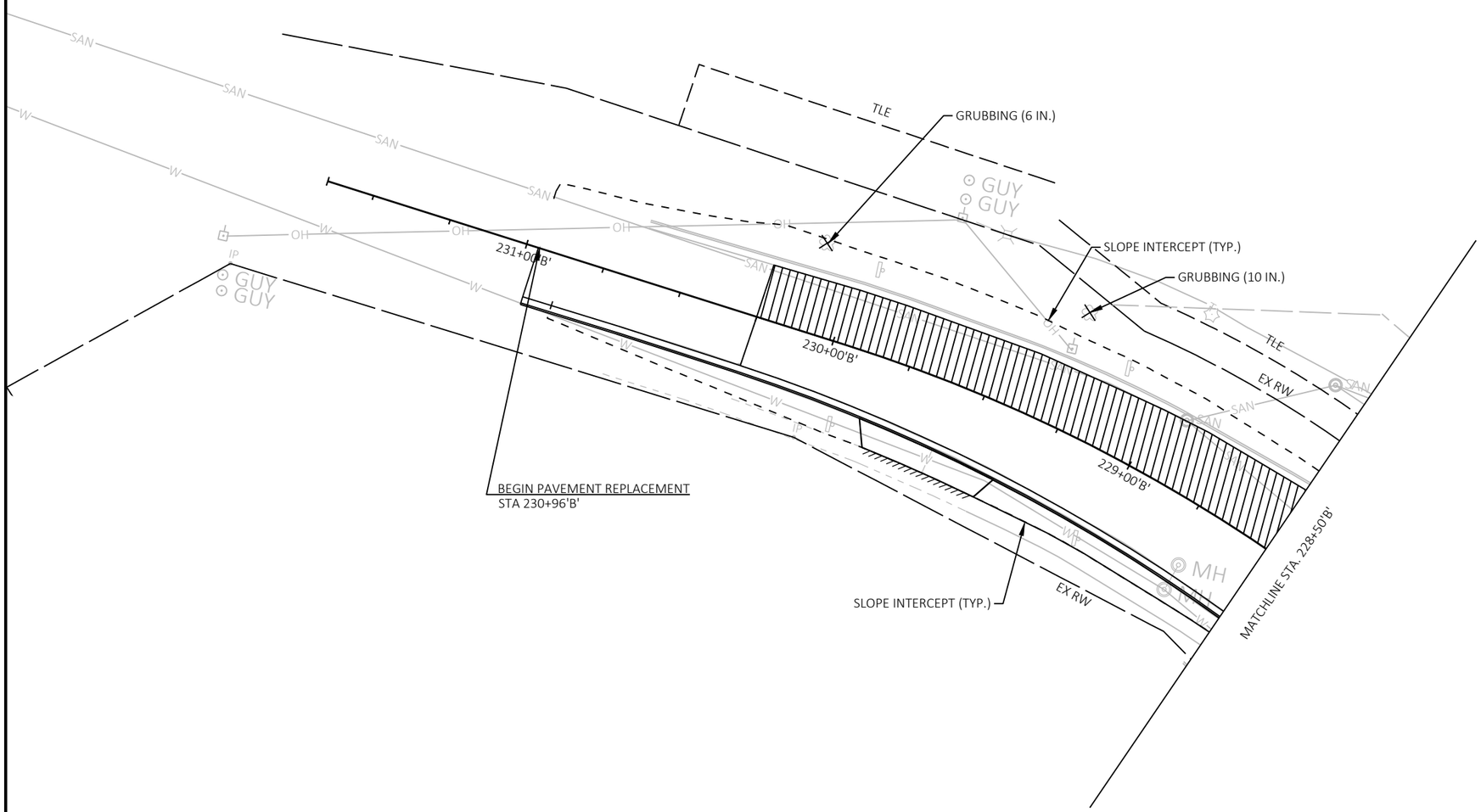
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N



LEGEND

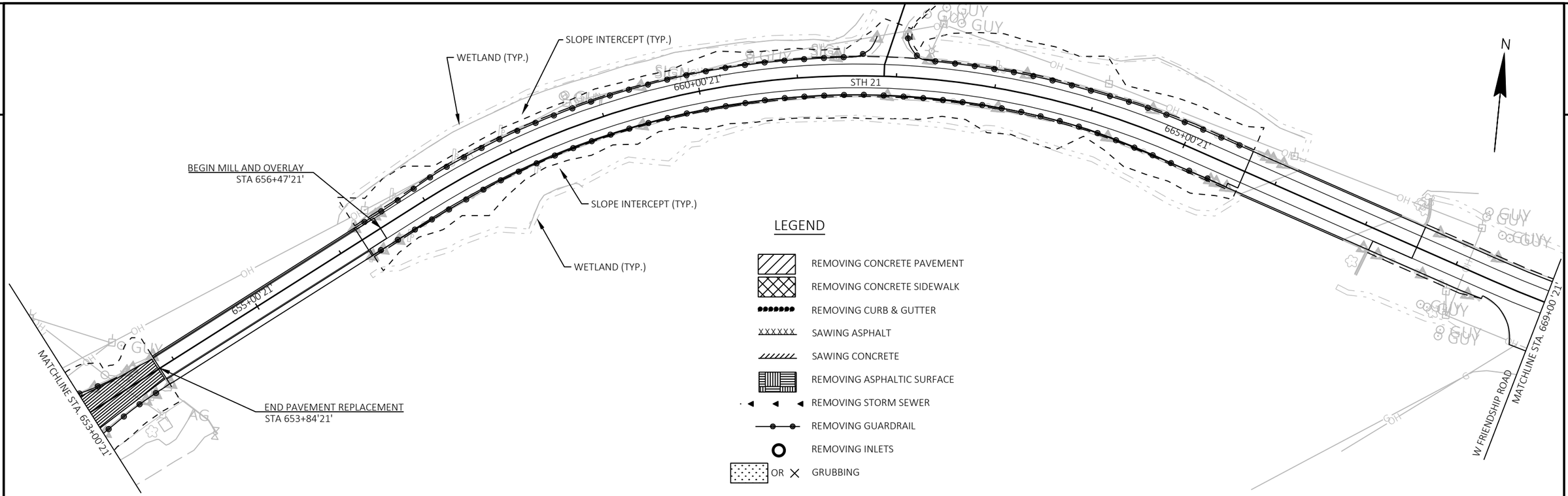
- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 45	E

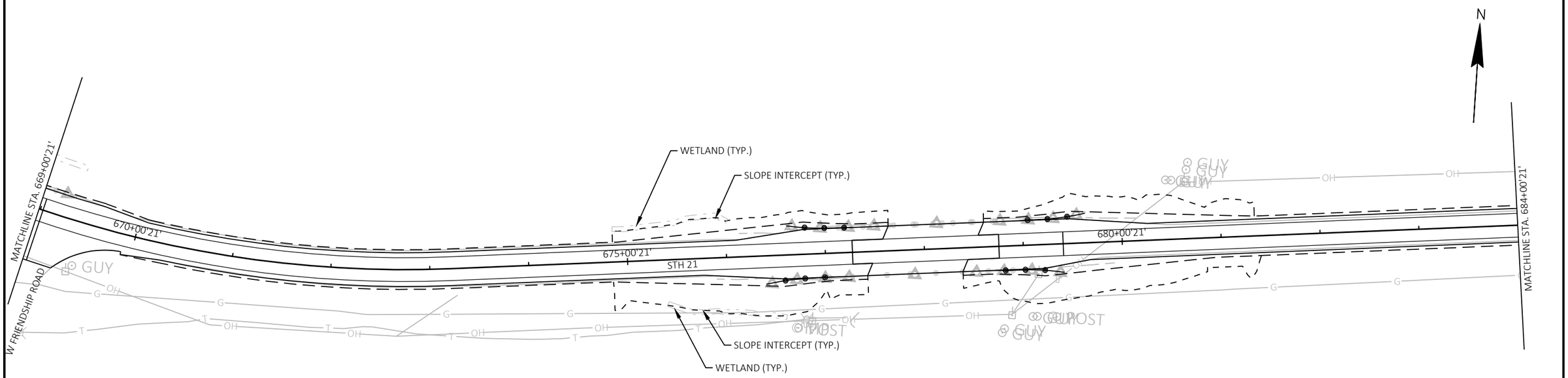
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 02 (2)

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



2



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 46	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 03

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

N

MATCHLINE STA. 21+00 'GNN'

BEGIN PAVEMENT RECONSTRUCTION
STA 694+18'21'

END MILL AND OVERLAY
STA 694+18'21'

STH 21

695+00'21'

EX RW

P.L.

SLOPE INTERCEPT (TYP.)

STH 21 WB

STH 21 EB

PRW

CTH G SB

CTH G NB

MATCHLINE STA. 701+75'21'

MATCHLINE STA. 16+00 'GNS'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 47	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 05

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

P.L.

EX RW

SLOPE INTERCEPT (TYP.)

BEGIN MILL AND OVERLAY
STA 708+94.74'21'

END PAVEMENT RECONSTRUCTION
STA 708+94.74'21'

710+

SIGN

SIGN

SIGN

SIGN

GUY

GUY

SEPC

SEPV

OH

T

EX RW

PRW

TLE

STH 21 WB

STH 21 EB

EX RW

P.L.

PRW

SLOPE INTERCEPT (TYP.)

MATCHLINE STA 710+75.21

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 48	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 06

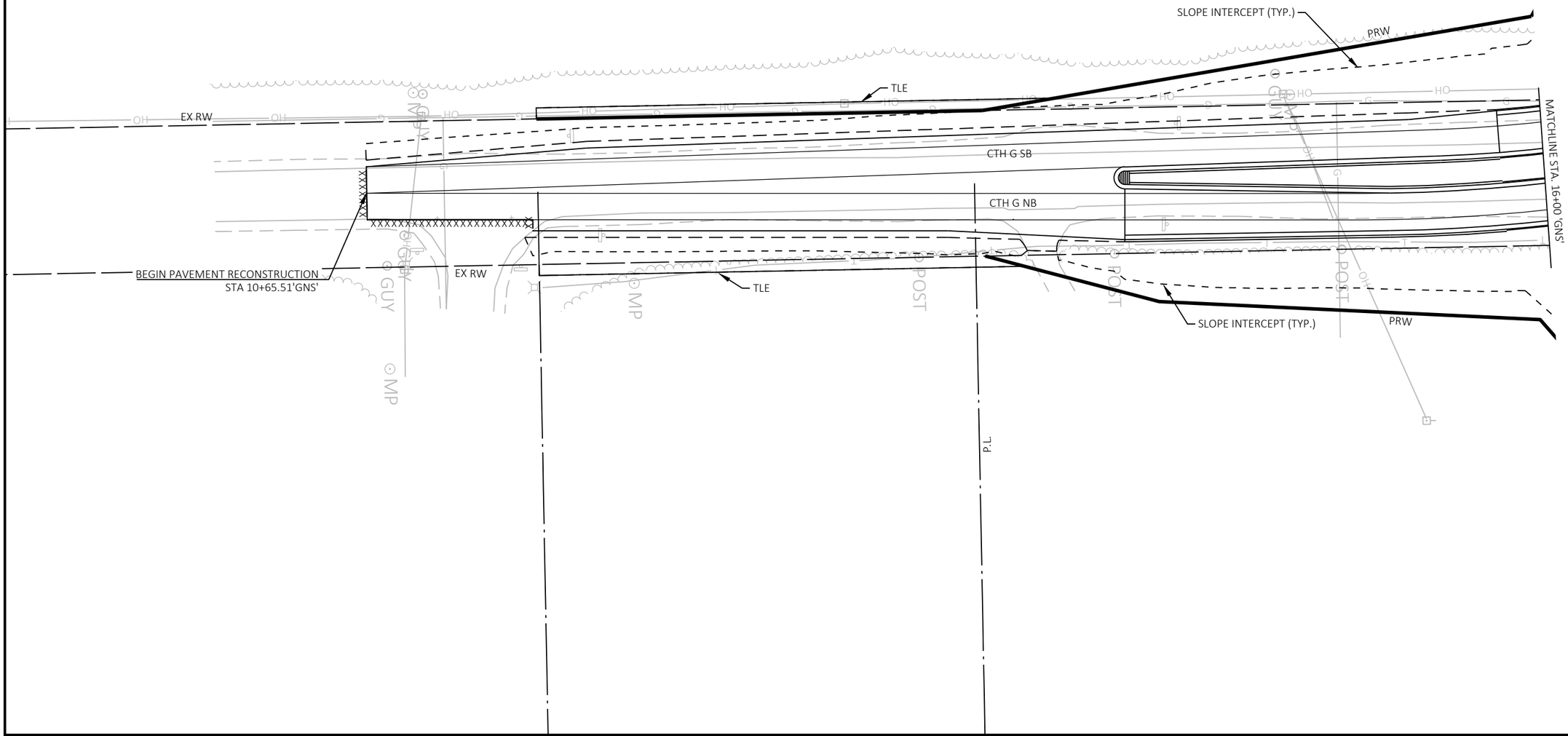
PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

N



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 49	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 07

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

N

PRW

SLOPE INTERCEPT (TYP.)

EX RW

CTH G SB

CTH G NB

MATCHLINE STA. 21+00 'GNN'

PRW

TLE

EX RW

END PAVEMENT RECONSTRUCTION
STA 26+50.67'GNN'

SLOPE INTERCEPT (TYP.)

P.L.

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 3	SHEET 50	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 3.DWG
LAYOUT NAME - 08

PLOT DATE : 6/25/2024 1:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

BEGIN PAVEMENT REPLACEMENT
STA 230+96'B'

231+00'B'

230+00'B'

229+00'B'

228+00'B'

227+00'B'

650+00'21'

226+00'B'

225+00'B'

TEMPORARY ASPHALT WIDENING

SLOPE INTERCEPT (TYP.)

TLE

EX RW

PRW

CENTER ST

STH 21

STH 80

P.L.

N

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- XXXXXX SAWING ASPHALT
- SAWING CONCRETE
- REMOVING ASPHALTIC SURFACE
- REMOVING STORM SEWER
- REMOVING GUARDRAIL
- REMOVING INLETS
- OR GRUBBING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	REMOVAL PLAN - STAGE 4	SHEET 51	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021101-RM STAGE 4.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 1:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

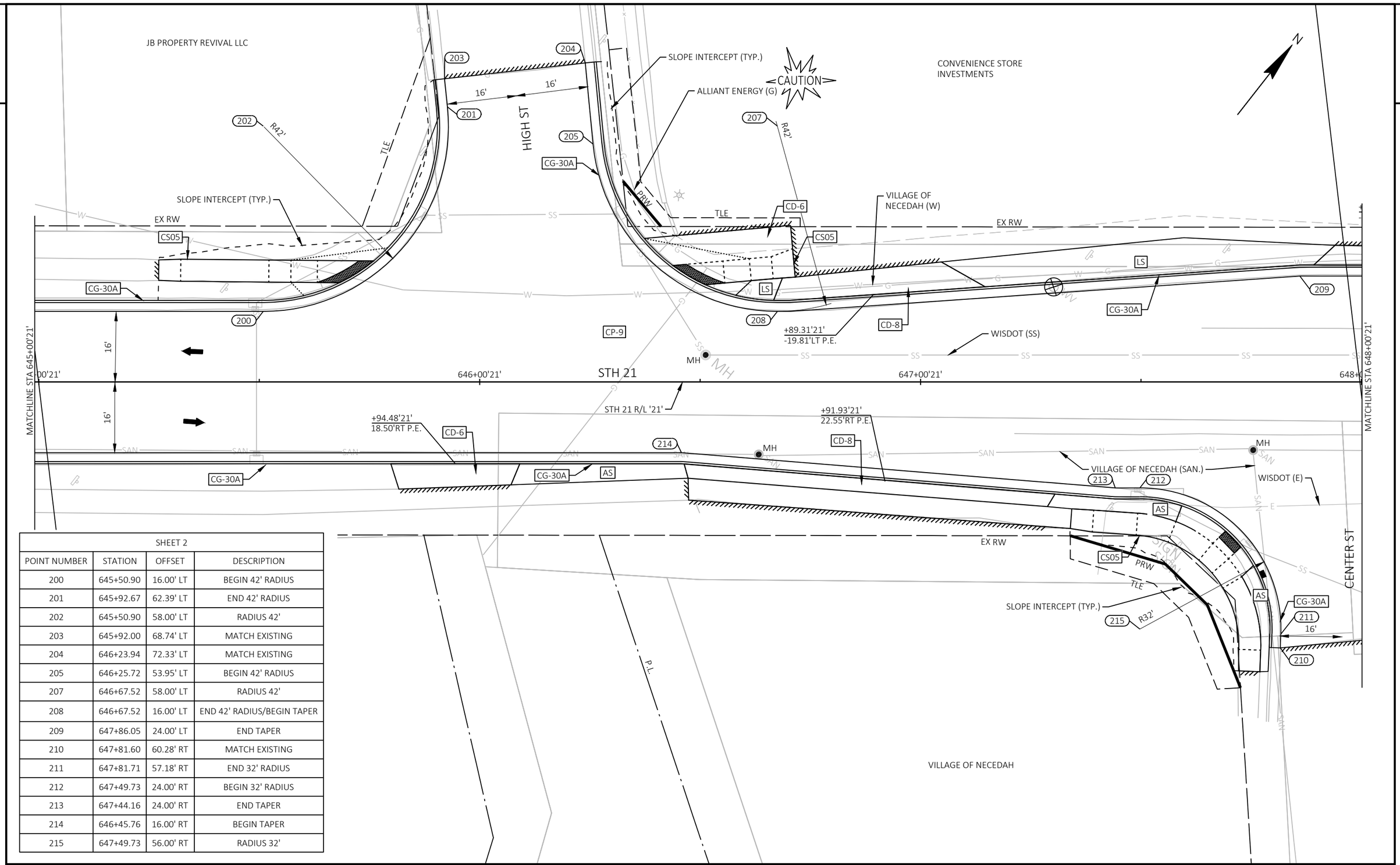
.XXXXXX.	SAWING ASPHALT
./////////.	SAWING CONCRETE
AS	ASPHALTIC SURFACE
ASPH	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
BA	BASE AGGREGATE DENSE 3/4-INCH
CS05	CONCRETE SIDEWALK 5-INCH
CD-6	CONCRETE DRIVEWAY 6-INCH
CD-8	CONCRETE DRIVEWAY 8-INCH
CP-9	CONCRETE PAVEMENT 9-INCH
CG-30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
CG-30A-R	CONCRETE CURB & GUTTER 30-INCH TYPE A (REJECT)
CG-30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG-30G	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE G
CG-36S	CONCRETE CURB & GUTTER 2-INCH SLOPED 36-INCH SPECIAL
CG-36A-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG-36D-4	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CG-18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
CG-18D	CONCRETE CURB & GUTTER 18-INCH TYPE D
CG-36R	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
C-PED	CONCRETE CURB PEDESTRIAN
CT	CONCRETE TRUCK APRON 12-INCH, COLORED CONCRETE WISDOT RED
HMA-A	1.75" UPPER HMA PAVEMENT 4 MT 58-28 H 2.25" LOWER HMA PAVEMENT 3 MT 58-28 S
HMA-B	1.75" UPPER HMA PAVEMENT 4 MT 58-28 H 2.25" MIDDLE HMA PAVEMENT 3 MT 58-28 S 3" LOWER HMA PAVEMENT 3 MT 58-28 S
LS	4" LANDSCAPING STONE
MH	ADJUSTING MANHOLE COVERS
	ADJUSTING WATER VALVE BOXES
BN	CONCRETE MEDIAN BLUNT NOSE
SN	CONCRETE MEDIAN SLOPED NOSE
	PROPOSED INLET
	PROPOSED MANHOLE
	PROPOSED ENDWALL

SHEET 1			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
100	642+99.41	16.00' LT	MATCH EXISTING/ BEGIN 1417' RADIUS
101	644+56.59	16.00' LT	END 1417' RADIUS
102	644+56.59	16.00' RT	END 1448' RADIUS
103	644+12.56	16.00' RT	BEGIN 1448' RADIUS/ END 52' RADIUS
104	643+65.79	49.74' RT	BEGIN 52' RADIUS
105	643+62.20	60.41' RT	BEGIN TAPER
106	643+57.25	75.42' RT	MATCH EXISTING
107	643+28.20	65.28' RT	MATCH EXISTING
108	643+29.13	61.31' RT	END 32' RADIUS
109	642+99.60	22.00' RT	BEGIN 32' RADIUS
110	642+99.18	54.00' RT	RADIUS 32'
111	644+12.48	67.86' RT	RADIUS 52'
112	643+78.00	16.00' LT	CENTER OF CURVE (1417' RADIUS)

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 53	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - SOP - Sta. 645+00'21'
PLOT DATE : 6/25/2024 1:49 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2



SHEET 2			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
200	645+50.90	16.00' LT	BEGIN 42' RADIUS
201	645+92.67	62.39' LT	END 42' RADIUS
202	645+50.90	58.00' LT	RADIUS 42'
203	645+92.00	68.74' LT	MATCH EXISTING
204	646+23.94	72.33' LT	MATCH EXISTING
205	646+25.72	53.95' LT	BEGIN 42' RADIUS
207	646+67.52	58.00' LT	RADIUS 42'
208	646+67.52	16.00' LT	END 42' RADIUS/BEGIN TAPER
209	647+86.05	24.00' LT	END TAPER
210	647+81.60	60.28' RT	MATCH EXISTING
211	647+81.71	57.18' RT	END 32' RADIUS
212	647+49.73	24.00' RT	BEGIN 32' RADIUS
213	647+44.16	24.00' RT	END TAPER
214	646+45.76	16.00' RT	BEGIN TAPER
215	647+49.73	56.00' RT	RADIUS 32'

2

MATCHLINE STA 228+00'B'

SALVAGE AND REINSTALL LANDSCAPE STONE

303

R56'

CONVENIENCE STORE INVESTMENTS

CG-30G

CT

SIGN

TLE

PRW

+13.31'21'
-26.29'LT P.E.

EX RW

CD-6

CG-30A

300

301

CS05

WISDOT(SS)

VILLAGE OF NECEDAH (W)

MH

12'

12'

12'

STH 21

STH 21 R/L '21'

MATCHLINE STA 648+00'21'

648+00'21'

649+00'21'

650+00'21'

MATCHLINE STA 651+00'21'

STH 80

STH 80 R/L 'B'

227+00'B'

VILLAGE OF NECEDAH (SAN.)

CG-30A

SN

322

323

CG-30A-R

C-PED

342

327

324

BN

326

325

R77'

CP-9

VILLAGE OF NECEDAH

TDS TELECOM (FO)

CS05

EX RW

R125'

310

VILLAGE OF NECEDAH (SAN.)

SLOPE INTERCEPT (TYP.)

BN

329

328

R143'

CG-30A-R

341

C-PED

330

333

SN

332

331

CG-30A

309

VILLAGE OF NECEDAH (SANITARY SEWER FORCE MAIN)

MH

320

CD-6

AS

319

CG-30A

CD-6

AS

EX RW

PRW

CS05

CG-30A

AS

R32'

+63.62'21'
26.50'RT P.E.

ASPH

TLE

EXISTING CONCRETE SLAB ANTICIPATED TO REMAIN

SLOPE INTERCEPT (TYP.)

WISDOT (E)

16'

347

321

ALLIANT ENERGY (G)

CAUTION

ALLIANT ENERGY (OH)

EX RW

BANK OF MAUSTON (NECEDAH BRANCH)

346

R65'

CS05

AS

318

12'

12'

MATCHLINE STA 226+25'B'

MH

CG-30A

338

SN

335

BN

334

339

C-PED

CG-30A-R

23'

345

R83'

340

337

336

SN

CG-30A

R60'

CS05

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 55	E

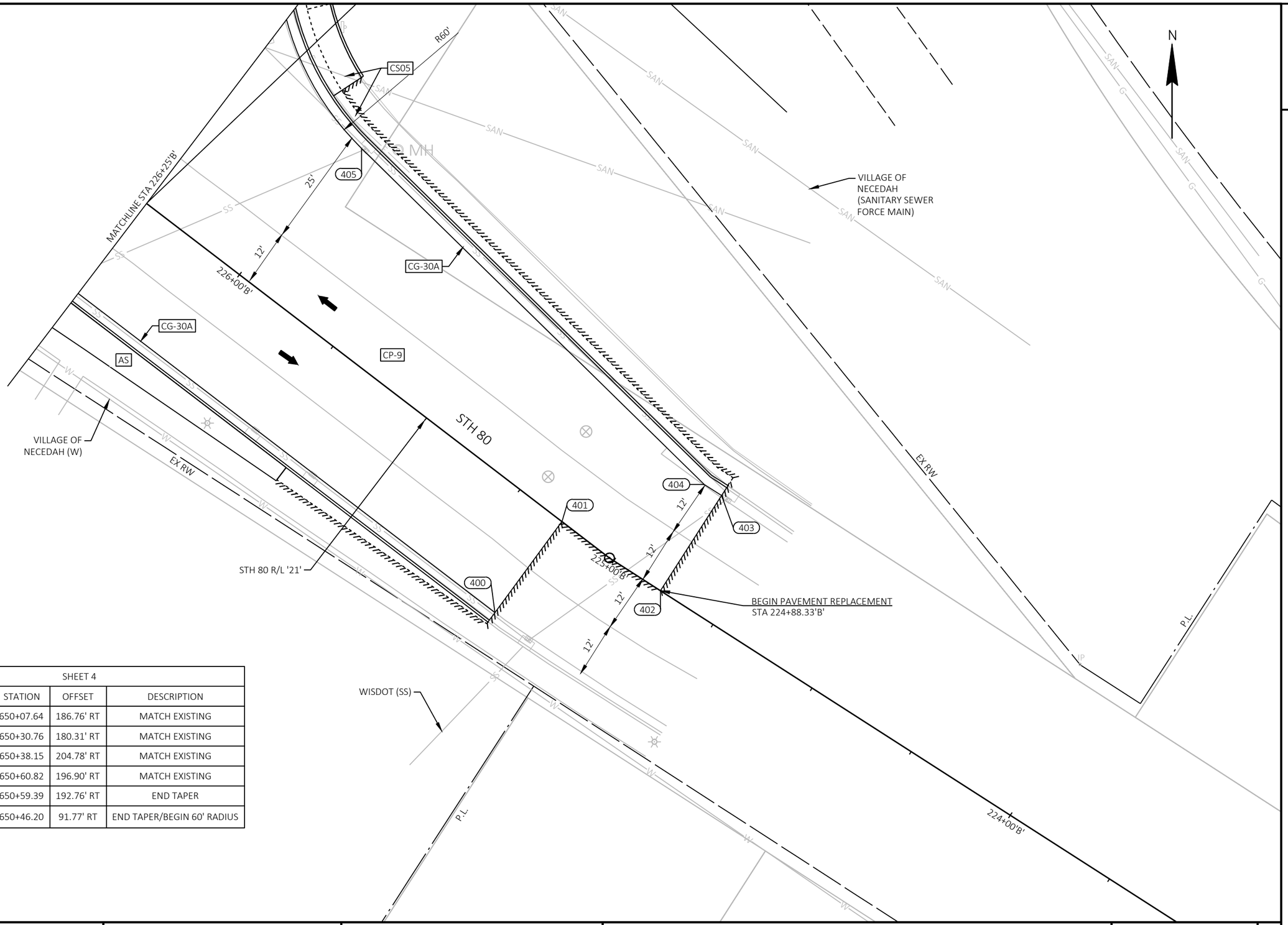
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Sta 648+00'21' - Sta. 651+00'21'

PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

SHEET 3			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
300	648+59.64	24.00' LT	--
301	648+70.92	24.00' LT	BEGIN 56' RADIUS
303	648+70.92	80.00' LT	RADIUS 56'
309	650+66.49	39.33' LT	END 125' RADIUS
310	650+11.87	61.66' LT	CENTER OF CURVE (125' RADIUS)
318	649+78.31	72.80' RT	END 65' RADIUS
319	649+15.36	24.00' RT	BEGIN 65' RADIUS
320	648+45.82	24.00' RT	END 32' RADIUS
321	648+13.84	57.24' RT	BEGIN 32' RADIUS/MATCH EXISTING
322	649+39.29	44.58' LT	BEGIN 3' RADIUS/BEGIN REJECT CURB
323	649+44.70	44.42' LT	END 3' RADIUS
324	649+51.10	30.09' LT	BEGIN 3' RADIUS
325	649+48.64	25.88' LT	END 3' RADIUS
326	649+31.34	24.25' LT	BEGIN 3' RADIUS
327	649+28.80	29.22' LT	END 3' RADIUS/END REJECT CURB
328	649+98.16	42.59' LT	BEGIN 3' RADIUS
329	650+02.70	46.09' LT	END 3' RADIUS/END REJECT CURB
330	650+28.45	31.65' LT	BEGIN 3' RADIUS/BEGIN REJECT CURB
331	650+27.53	25.91' LT	END 3' RADIUS
332	650+07.48	24.08' LT	BEGIN 3' RADIUS
333	650+04.40	26.01' LT	END 3' RADIUS
334	650+17.02	30.07' RT	BEGIN 3' RADIUS
335	650+19.55	26.08' RT	END 3' RADIUS
336	650+29.76	50.50' RT	BEGIN 3' RADIUS/BEGIN REJECT CURB
337	650+24.19	50.29' RT	END 3' RADIUS
338	650+41.08	23.92' RT	BEGIN 3' RADIUS
339	650+43.63	28.90' RT	END 3' RADIUS/END REJECT CURB
340	650+35.85	39.16' RT	CENTER OF CURVE (3' RADIUS)
341	650+15.20	38.21' LT	CENTER OF CURVE (3' RADIUS)
342	649+34.51	36.58' LT	CENTER OF CURVE (3' RADIUS)
345	650+60.61	44.41' RT	CENTER OF CURVE (60' RADIUS)
346	649+15.36	89.00' RT	RADIUS 65'
347	648+45.82	56.00' RT	RADIUS 32'

2



SHEET 4			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
400	650+07.64	186.76' RT	MATCH EXISTING
401	650+30.76	180.31' RT	MATCH EXISTING
402	650+38.15	204.78' RT	MATCH EXISTING
403	650+60.82	196.90' RT	MATCH EXISTING
404	650+59.39	192.76' RT	END TAPER
405	650+46.20	91.77' RT	END TAPER/BEGIN 60' RADIUS

VILLAGE OF NECEDAH

2

N

TLE

EX RW

GUY

GUY

HMA PAVEMENT LIMITS
STA 230+25'21' - STA 229+87'21'

ALLIANT ENERGY
(OH)

SLOPE INTERCEPT (TYP.)

TDS TELECOM
(FO)

500

BEGIN PAVEMENT REPLACEMENT
STA 230+96'B'

16'

HMA-A

501

CG-30A

503

MH

VILLAGE OF
NECEDAH (SAN.)

EX RW

508

16'

230+00'B'

STH 80

R550'

+58.85'B'
-21.76'LT P.E.

CD-6

CP-9

229+00'B'

STH 80 R/L 'B'

502

504

507

SLOPE INTERCEPT (TYP.)

CG-30A

WISDOT (SS)

EX RW

LS

MH

MH

R555'

VILLAGE OF
NECEDAH (W)

505

228+

MATCHLINE STA 228+00'B'

506

CG-30G

CT

R56'

SHEET 5			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
500	647+77.94	333.93' LT	MATCH EXISTING
501	648+52.24	265.90' LT	BEGIN 550' RADIUS
502	648+26.90	242.20' LT	END 555' RADIUS
503	649+20.22	191.80' LT	CENTER OF CURVE (550' RADIUS)
504	648+71.39	188.16' LT	CENTER OF CURVE (555' RADIUS)
505	649+12.81	121.32' LT	CURB AND GUTTER TRANSITION
506	649+21.36	104.33' LT	BEGIN 555' RADIUS/END 56' RADIUS
507	649+73.58	106.57' LT	END 550' RADIUS
508	647+55.95	310.69' LT	MATCH EXISTING

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 80	SHEET 58	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Sta. 228+00'B' - Sta. 230+65'B'
PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

TDS TELECOM (FO)

ALLIANT ENERGY (OH)

EX RW

P.L.

NECEDAH LAKE

ALLIANT ENERGY (OH)

WISDOT (E)

WISDOT (SS)

+85.20'21"
-26.29'LT P.E.

+71.15'21"
-30.25'LT P.E.

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL
STA 652+92'21" - STA 653+42'21"

END PAVEMENT REPLACEMENT
STA 653+84'21"

SLOPE INTERCEPT (TYP.)

CG-30A

ASPH

600 601 602 603 610 611 612 624 613 625 623 622 631

CG-30D

HMA-A HMA-A

12'

MATCHLINE STA 651+00'21"

STH 21

652+00'21"

653+00'21"

MATCHLINE STA 654+00'21"

STH 21 R/L '21"

CP-9

HMA PAVEMENT LIMITS
STA 652+02'21" - STA 652+61'21"

CP-9

607 CG-30A +51.98'21" 26.71'RT P.E. CD-6 CG-30A 606 CG-30D 605 604 608 609 CG-18D 619 CG-18A 620 621 632

15'

R60'

626 R5' 628 629 630 627 CS05 ASPH 618 617 616 R8' R20' 633

MGS THRIE BEAM TRANSITION,
MGS GUARDRAIL 3,
MGS GUARDRAIL TERMINAL EAT
STA. 652+75'21" - STA. 653+84'21"

CONCRETE PAVEMENT
APPROACH SLAB

STRUCTURE B-29-006
STA 653+84'21" - STA 656+47'21"
NET EXCEPTION TO CL LENGTH

SLOPE INTERCEPT (TYP.)

YELLOW RIVER

SLOPE INTERCEPT (TYP.)

WISDOT (SS)

EX RW

ALLIANT ENERGY (G)

CAUTION

VILLAGE OF
NECEDAH (SAN.)

CANADIAN NATIONAL

+59.23'21"
70.88'RT P.E.

FENCE CHAIN LINK SALVAGED 4-FT
STA. 652+82'21" - STA. 653+06'21"

6-INCH BASE AGGREGATE
DENSE 1 1/4-INCH

614 615

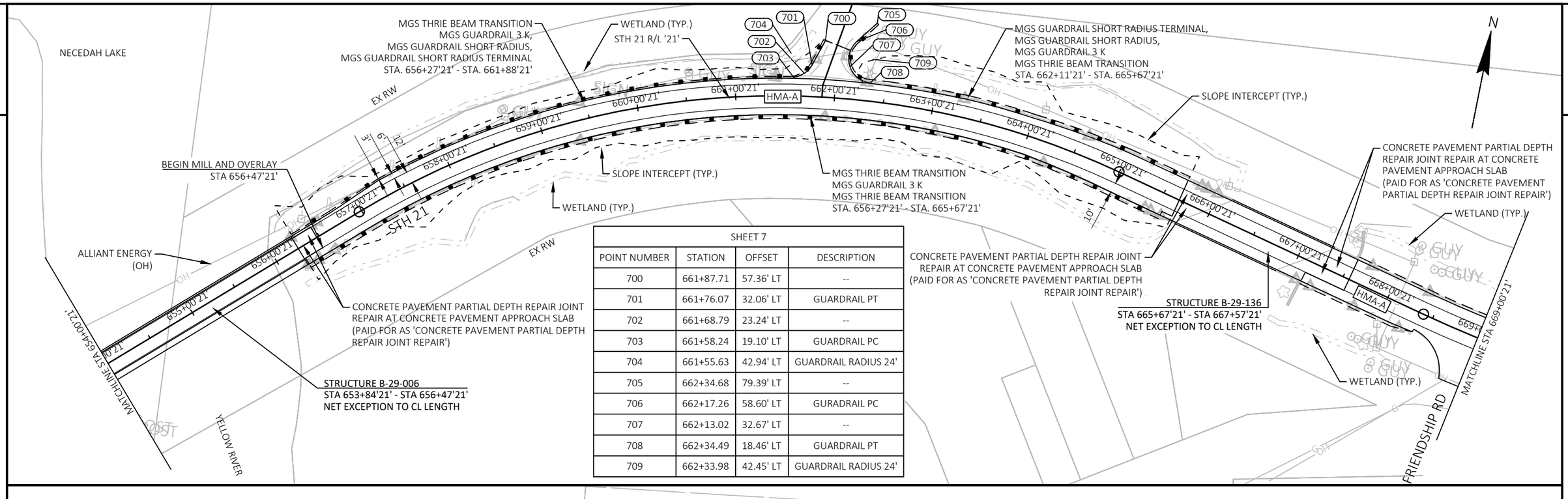
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 59	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Sta. 651+00'21" - Sta. 654+00'21"

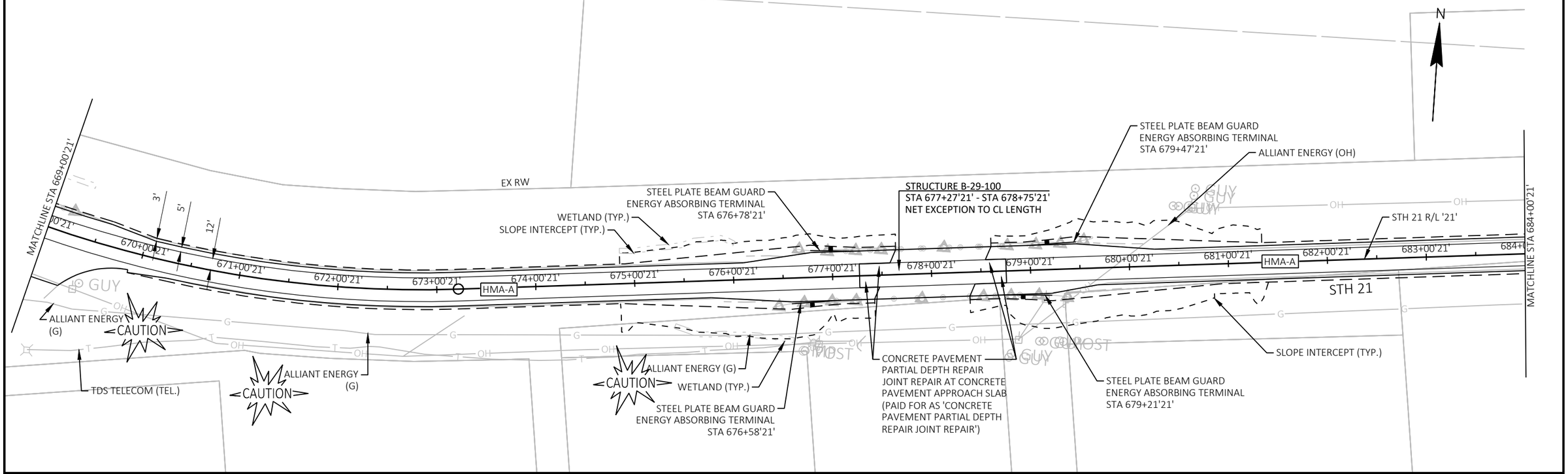
PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

SHEET 6			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
600	651+68.05	24.00' LT	END TAPER
601	652+05.27	24.00' LT	END CONCRETE PAVT/BEGIN HMA
602	652+25.95	24.00' LT	END CURB
603	652+30.97	24.09' LT	END HMA
604	652+23.52	24.00' RT	END HMA
605	652+15.41	24.00' RT	END CURB
606	651+98.13	24.00' RT	END CONCRETE PAVT/BEGIN HMA
607	651+05.70	24.00' RT	END 60' RADIUS
608	652+32.09	24.00' RT	BEGIN HMA
609	652+57.53	24.00' RT	END HMA/BEGIN CONCRETE PAVT
610	652+41.26	34.98' LT	BEGIN HMA/BEGIN TAPER
611	652+45.17	32.26' LT	END TAPER
612	652+66.49	30.79' LT	Null Structure
613	652+65.01	21.73' LT	END HMA/BEGIN CONCRETE PAVT
614	652+32.24	90.58' RT	MATCH EXISTING
615	652+54.76	92.48' RT	MATCH EXISTING
616	652+61.71	57.59' RT	BEGIN 8' RADIUS
617	652+59.03	53.61' RT	END 8' RADIUS
618	652+59.84	41.08' RT	BEGIN 20' RADIUS
619	652+78.84	18.16' RT	END 20' RADIUS
620	653+28.08	12.00' RT	END TAPER
621	653+68.75	12.00' RT	--
622	653+69.84	14.46' LT	--
623	653+56.68	14.98' LT	--
624	652+86.01	29.42' LT	MATCH EXISTING
625	653+42.16	15.55' LT	--
626	652+30.08	37.05' RT	BEGIN 5' RADIUS
627	652+30.69	42.07' RT	RADIUS 5'
628	652+35.73	41.75' RT	END 5' RADIUS
629	652+35.59	43.68' RT	--
630	652+35.23	48.67' RT	--
631	653+83.59	14.28' LT	--
632	653+83.60	13.00' RT	--
633	652+82.18	40.08' RT	RADIUS 20'

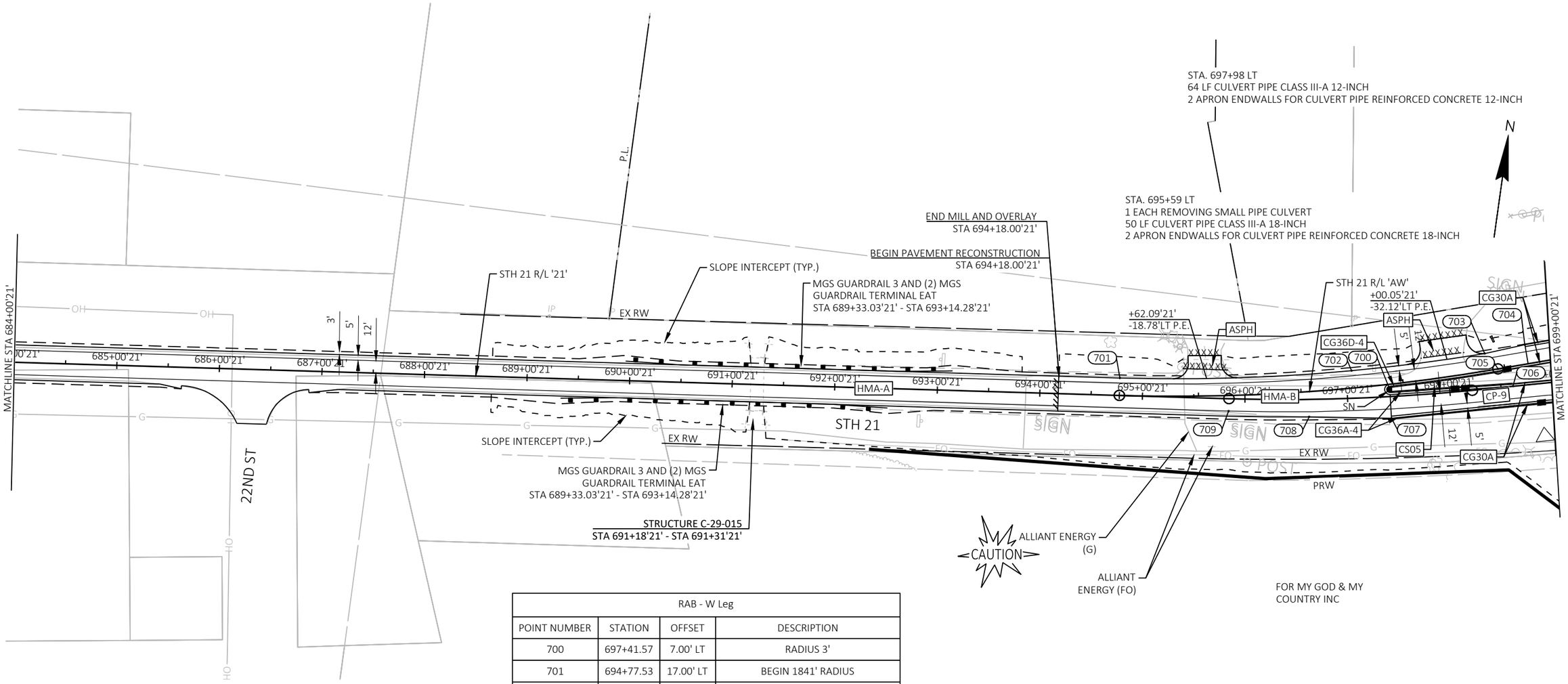


SHEET 7			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
700	661+87.71	57.36' LT	--
701	661+76.07	32.06' LT	GUARDRAIL PT
702	661+68.79	23.24' LT	--
703	661+58.24	19.10' LT	GUARDRAIL PC
704	661+55.63	42.94' LT	GUARDRAIL RADIUS 24'
705	662+34.68	79.39' LT	--
706	662+17.26	58.60' LT	GURADRAIL PC
707	662+13.02	32.67' LT	--
708	662+34.49	18.46' LT	GUARDRAIL PT
709	662+33.98	42.45' LT	GUARDRAIL RADIUS 24'



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 61	E

2



RAB - W Leg			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
700	697+41.57	7.00' LT	RADIUS 3'
701	694+77.53	17.00' LT	BEGIN 1841' RADIUS
702	697+04.79	26.96' LT	--
703	698+37.40	34.45' LT	END 1841' RADIUS/BEGIN 16:1 TAPER
704	698+77.18	39.23' LT	END TAPER 16:1
705	698+48.85	18.19' LT	CG36D-4 VS CG30A
706	698+61.63	0.00'	CG36D-4 VS CG30A
707	697+41.66	21.00' RT	END 16:1 TAPER/START C&G
708	696+62.27	17.00' RT	START 16:1 TAPER
709	695+84.27	12.00' RT	BEGIN 1842' RADIUS

2

2

NELSON AUTO OF NECEDAH LLC

ALLIANT ENERGY (OH)

CTH G R/L 'GNS'

MATCHLINE STA 21+65'GNN'

BENJAMIN T YERKE

N

PRW

CG-30A

GRADE FOR FUTURE PATH

EX RW

SLOPE INTERCEPT (TYP.)

MATCHLINE STA 699+00'21'

CTH G

CTH G R/L 'GNN'

21+00'GSN'

CS05

CP-9

700+00'AW'

17'

12'

5'

7'

15'

BN

SN

TLE

TDS TELECOM (TEL)

ALLIANT ENERGY (G)

CAUTION

ALLIANT ENERGY (OH)

STH 21/CTH G RAB R/L 'GC'

CG-36S

CG-36R

CG-18A

CG-36A-4

CT

BA

ASPH

SLOPE INTERCEPT (TYP.)

+89.91'21'
-43.71'LT P.E.

STH 21 R/L 'AE'

+89.23'21'
-22.52'LT P.E.

STH 21

+42.47'21'
-60.14'LT P.E.

CG-36D-4

HMA-B

705+00'AE'

706+00'

707+00'21'

MATCHLINE STA 707+00'21'

+83.08'21'
17.20'RT P.E.

+46.94'21'
18.40'RT P.E.

703+00'21'

704+00'21'

TDS TELECOM (FO)

CTH G R/L 'GNS'

TDS TELECOM (TEL)

ALLIANT ENERGY (G)

GRADE FOR FUTURE PATH

SLOPE INTERCEPT (TYP.)

STH 21 R/L '21'

EX RW

PRW

P.L.

MATCHLINE STA 15+75'GNS'

46+00'GSS'

6+00'GNS'

GLENN W POVKOVICH REVOCABLE FAMILY TRUST

THOMAS M DEACY REVOCABLE TRUST

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21 / CTH G	SHEET 63	E

RAB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
800	699+84.85	52.29' LT	--
801	700+04.73	72.77' LT	BEGIN 74' RADIUS
802	699+01.79	21.91' LT	--
803	700+00.98	29.51' LT	RADIUS 3'
804	700+04.75	10.84' LT	RADIUS 2'
805	699+59.22	0.00'	BEGIN 150' RADIUS
806	700+91.21	77.14' RT	END 590' RADIUS
807	700+99.57	154.02' RT	END 16:1 TAPER/BEGIN C&G/BEGIN 590' RADIUS
808	700+98.31	70.40' RT	END 607' RADIUS
809	700+95.76	57.05' RT	--
810	700+95.44	24.00' RT	RADIUS 4'
811	701+08.72	22.00' RT	RADIUS 2'
812	701+06.68	68.28' RT	BEGIN 83' RADIUS
813	701+08.73	111.52' RT	END 760' RADIUS
814	701+08.83	149.96' RT	CG30A VS CG36A-4/BEGIN 760' RADIUS
815	701+15.23	150.07' RT	CG30A VS CG36A-4/BEGIN 777' RADIUS
816	701+05.68	150.92' RT	CG30A VS CG36D-4/BEGIN 607' RADIUS
817	701+14.78	110.67' RT	END 760' RADIUS
818	701+14.76	73.99' RT	BEGIN 77' RADIUS
819	700+71.82	28.97' RT	END 68' RADIUS
820	701+75.69	16.48' RT	END 77' RADIUS
821	702+13.65	17.00' RT	--
822	702+36.79	17.00' RT	BEGIN 367' RADIUS
823	703+16.42	17.00' RT	END 367' RADIUS
824	703+62.76	17.00' RT	--
825	704+30.64	19.00' RT	BEGIN 16:1 TAPER/END C&G
826	704+70.67	17.00' RT	END 16:1 TAPER
827	705+93.21	16.96' RT	--
828	706+89.14	22.72' LT	END 16:1 TAPER
829	706+10.04	32.89' LT	START 16:1 TAPER/END C&G
830	705+21.44	37.99' LT	CG30A VS CG36A-4
831	704+91.09	40.75' LT	--

RAB			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
832	702+65.39	62.58' LT	START 66' RADIUS
833	702+02.26	16.86' LT	RADIUS 3'
834	702+08.46	45.20' LT	RADIUS 2'
835	703+06.72	9.88' LT	END 513' RADIUS
836	704+30.64	0.00'	--
837	706+07.54	5.00' LT	RADIUS 3'
838	704+89.24	23.85' LT	--
839	702+65.05	45.56' LT	START 150' RADIUS
840	701+86.91	125.71' LT	END 66' RADIUS/START 300' RADIUS
841	700+29.53	131.53' LT	RADIUS 4'
842	700+25.94	123.84' LT	RADIUS 2'
843	701+90.31	188.80' LT	END 300' RADIUS
844	700+12.84	251.65' LT	BEGIN C&G/END 16:1 TAPER
845	700+08.51	243.55' LT	CG30A VS CG36D-4
846	700+13.58	207.04' LT	BEGIN 777' RADIUS
847	701+85.74	143.14' LT	START 83' RADIUS
848	700+18.21	167.80' LT	START 83' RADIUS
849	700+07.80	224.40' LT	START 760' RADIUS
850	700+05.91	238.54' LT	CG30A VS CG36A-4/END 760' RADIUS
851	700+01.86	231.55' LT	CG30A VS CG36A-4/END 777' RADIUS
852	700+03.65	216.75' LT	--
853	700+12.02	165.17' LT	END 74' RADIUS
854	701+35.36	61.50' LT	RADIUS 74'
855	700+33.92	59.32' LT	RADIUS 9'
856	700+44.27	31.76' LT	RADIUS 9'
857	701+67.85	62.34' LT	RADIUS 9'
858	701+53.37	34.45' LT	RADIUS 9'
859	699+55.82	17.00' RT	BEGIN 68' RADIUS
860	700+27.31	17.24' LT	END 2-INCH SLOPED C&G/BEGIN TYPE R C&G
861	700+18.77	50.91' LT	END TYPE R C&G/BEGIN 2-INCH SLOPED C&G
862	701+74.64	19.51' LT	END 2-INCH SLOPED C&G/BEGIN TYPE R C&G
863	701+85.74	55.25' LT	END TYPE R C&G/BEGIN 2-INCH SLOPED C&G

2

FOR MY GOD & MY COUNTRY INC

CAUTION

N

ALLIANT ENERGY (G)

ALLIANT ENERGY (OH)

PRW

BEGIN PAVEMENT RECONSTRUCTION
STA 10+50.00'GNS'

EX RW

TLE

900

11+00'GSS'

11+00'GNS'

CTH G

12+00'GSS'

12+00'GNS'

13+00'GSS'

13+00'GNS'

14+00'GSS'

14+00'GNS'

SN

906

HMA-A

15+00'GSS'

15+00'GNS'

CG-36D-4

907

908

CP-9

CG-36A-4

905

CS05

904

MATCHLINE STA 15+75'GNS'

901

902

903

+71.49'GNS'
19.12'RT P.E.

BA

TDS TELECOM
(TEL)

CTH G R/L 'GNS'

ST MARYS WAY

PRW

SLOPE INTERCEPT (TYP.)

GLENN W POVKOVICH
REVOCABLE FAMILY TRUST

NELSON AUTO
OF NECEDAH LLC

CAUTION

ALLIANT ENERGY (OH)

ALLIANT ENERGY (G)

ALLIANT ENERGY (OH)

TDS TELECOM
(TEL)

MATCHLINE STA 21+65'GNN'

PRW

EX RW

1004

1003

CG-36A-4

1002

1001

1000

1005

22+00'GSN'

CP-9

1008

23+00'GSN'

1009

24+00'GSN'

25+00'GSN'

26+00'GSN'

CTH G

SN

1006

CS05

HMA-A

CG-36D-4

1007

1010

1011

BA

+40.26'GNN'
17.00'RT P.E.

+05.70'GNN'
17.00'RT P.E.

BA

CTH G R/L 'GNN'

TLE

EX RW

SLOPE INTERCEPT (TYP.)

END PAVEMENT RECONSTRUCTION
STA 26+50.67'GNN'

BENJAMIN T YERKE

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 65	E

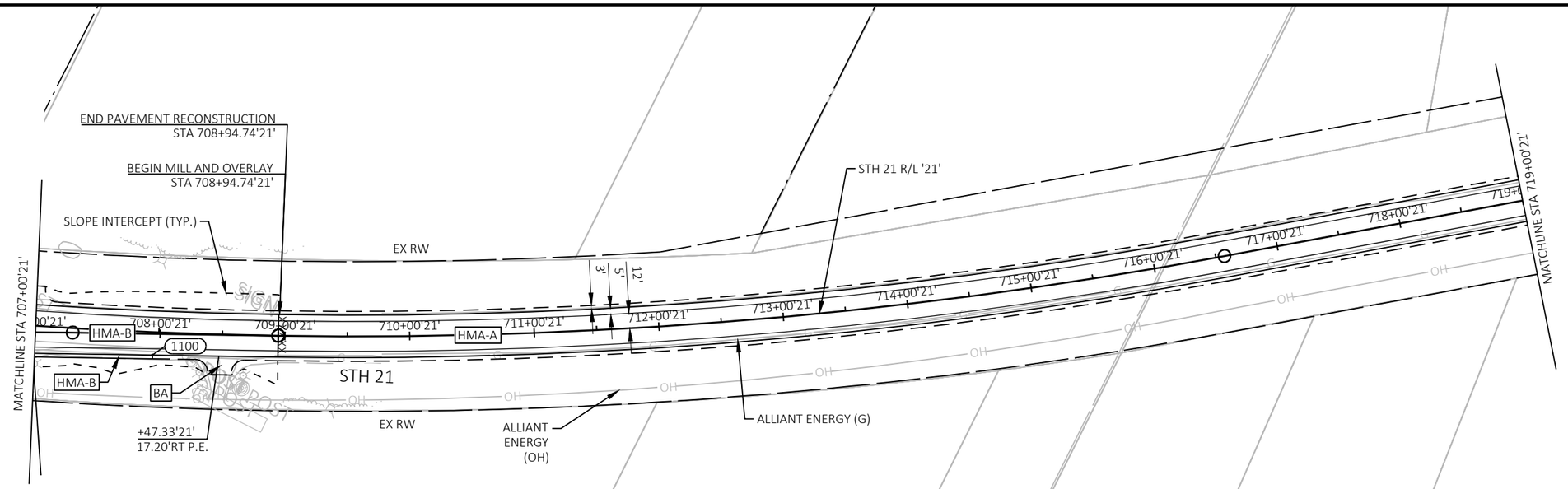
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - CTH G

PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

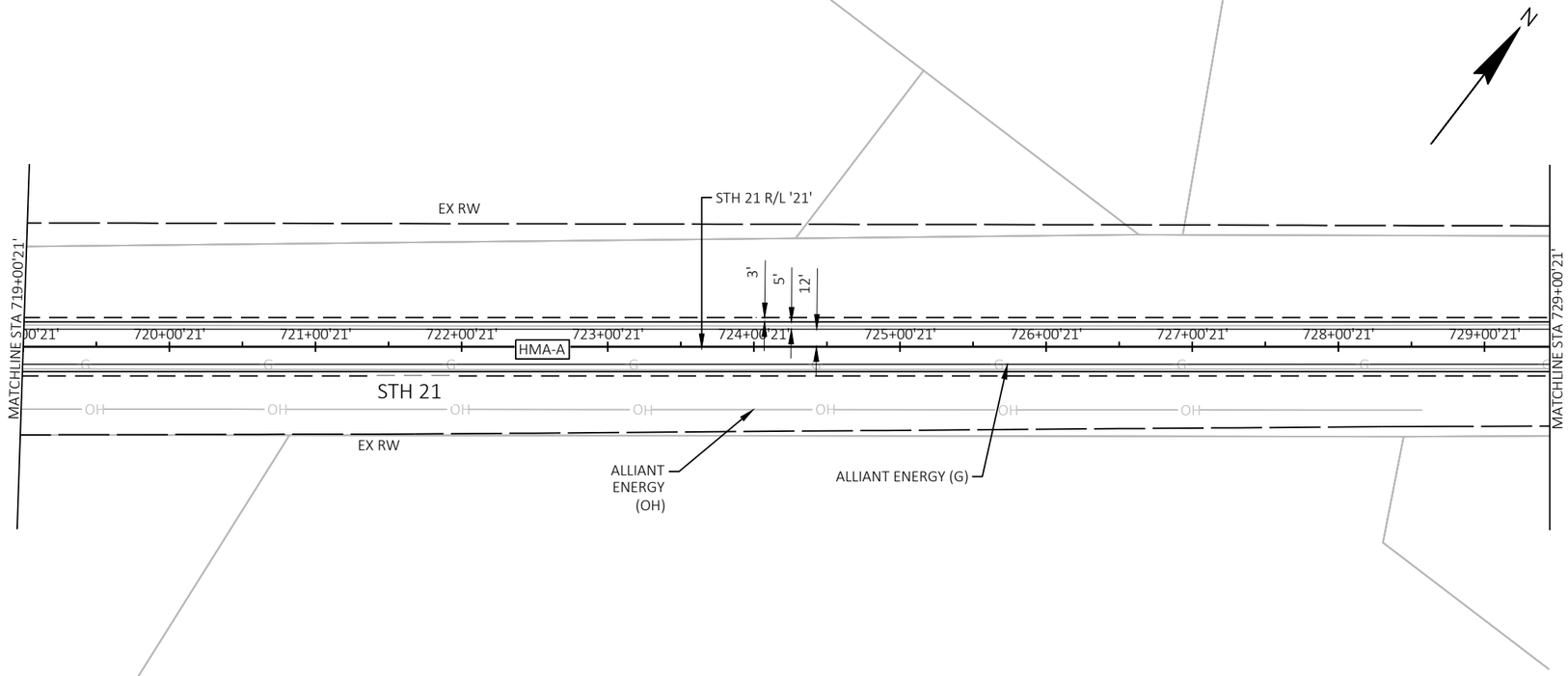
WISDOT/CADDS SHEET 42

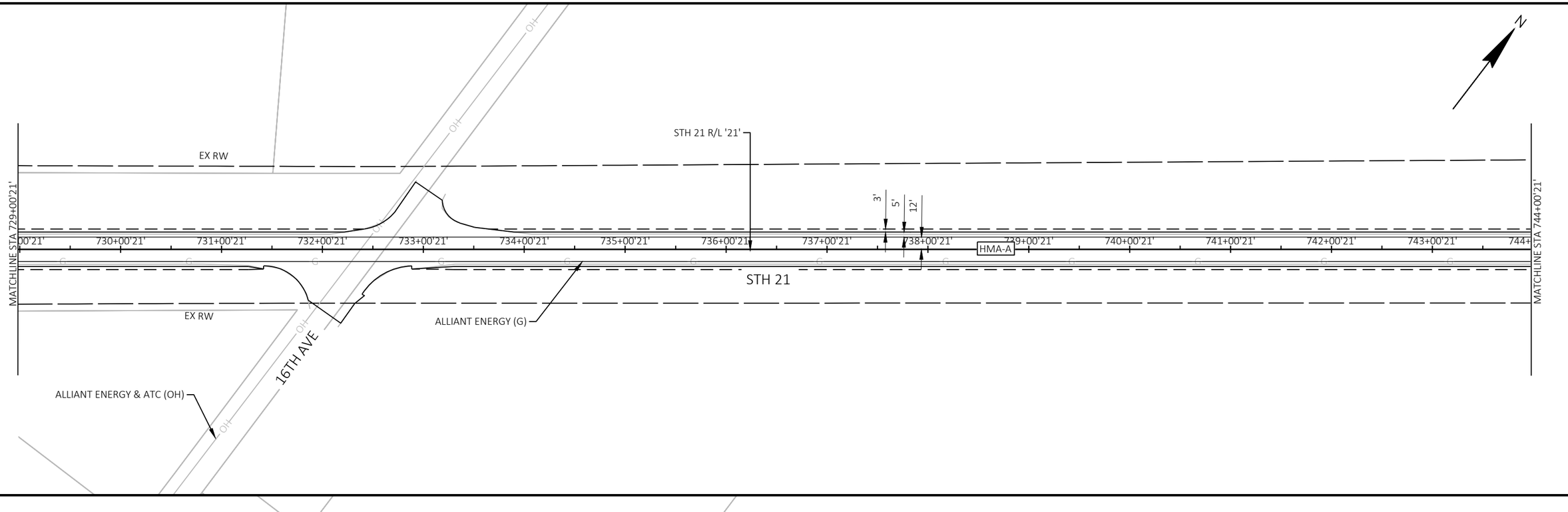
RAB - S Leg			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
900	11+65.17	20.49' LT	END 20:1 TAPER
901	11+40.82	17.00' RT	BEGIN 54:1 TAPER
902	13+29.15	17.00' RT	END 54:1 TAPER/BEGIN 16:1 TAPER
903	14+09.19	21.00' RT	END 16:1 TAPER/BEGIN C&G
904	15+29.11	17.00' RT	BEGIN 777' RADIUS
905	15+29.11	0.00'	BEGIN 760' RADIUS
906	14+09.23	7.00' LT	RADIUS 3'
907	15+53.04	16.13' LT	BEGIN 607' RADIUS
908	15+39.00	33.19' LT	BEGIN 16:1 TAPER

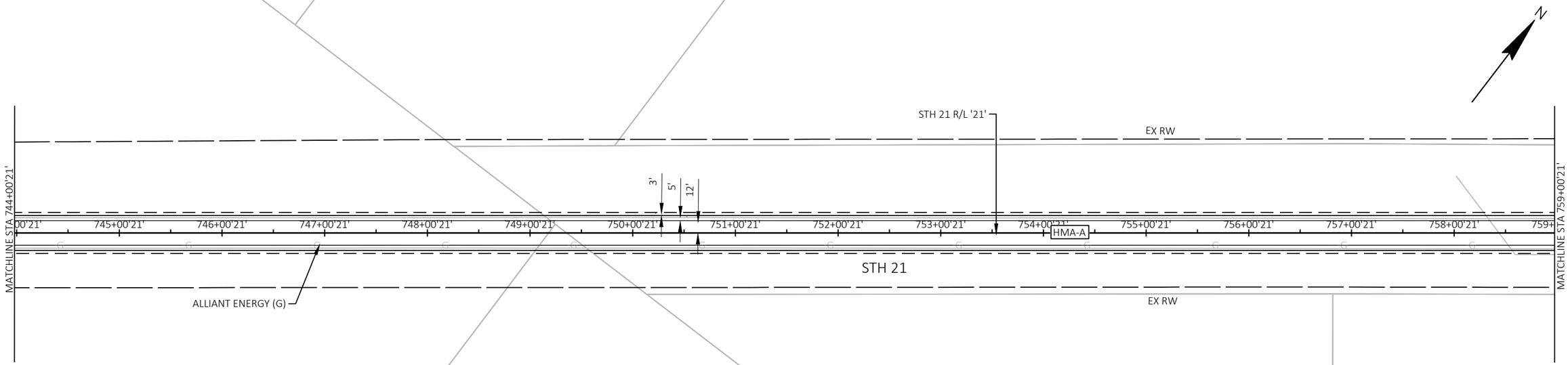
RAB - N Leg			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1000	25+51.01	20.49' LT	END 15:1 TAPER
1001	23+87.70	26.19' LT	START 16:1 TAPER
1002	23+07.84	32.98' LT	END 16:1 TAPER/BEGIN C&G
1003	22+44.78	32.16' LT	BEGIN 854' RADIUS
1004	21+87.76	31.08' LT	END 854' RADIUS/BEGIN 777' RADIUS
1005	21+88.42	14.10' LT	BEGIN 760' RADIUS/END 723' RADIUS
1006	21+74.28	0.00'	BEGIN 777' RADIUS
1007	21+80.06	17.00' RT	BEGIN 16:1 TAPER
1008	22+44.14	13.20' LT	BEGIN 723' RADIUS
1009	23+06.91	5.00' LT	RADIUS 3'
1010	23+06.93	17.00' RT	--
1011	25+50.36	17.00' RT	END 14:1 TAPER



RAB - E Leg			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1100	707+94.02	17.00' RT	--





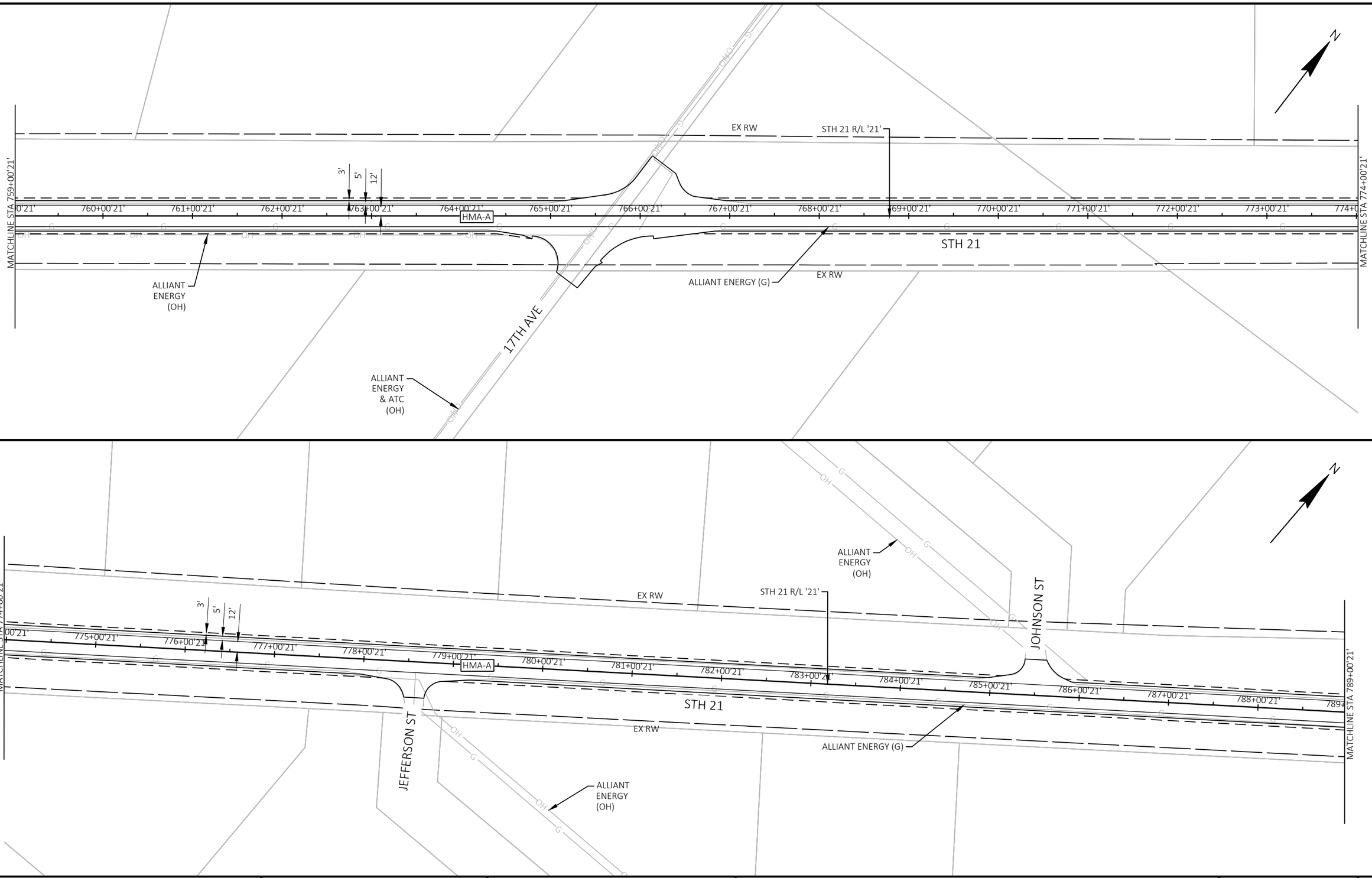


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 68	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Sta. 729+00'21' - Sta. 759+00'21'

PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

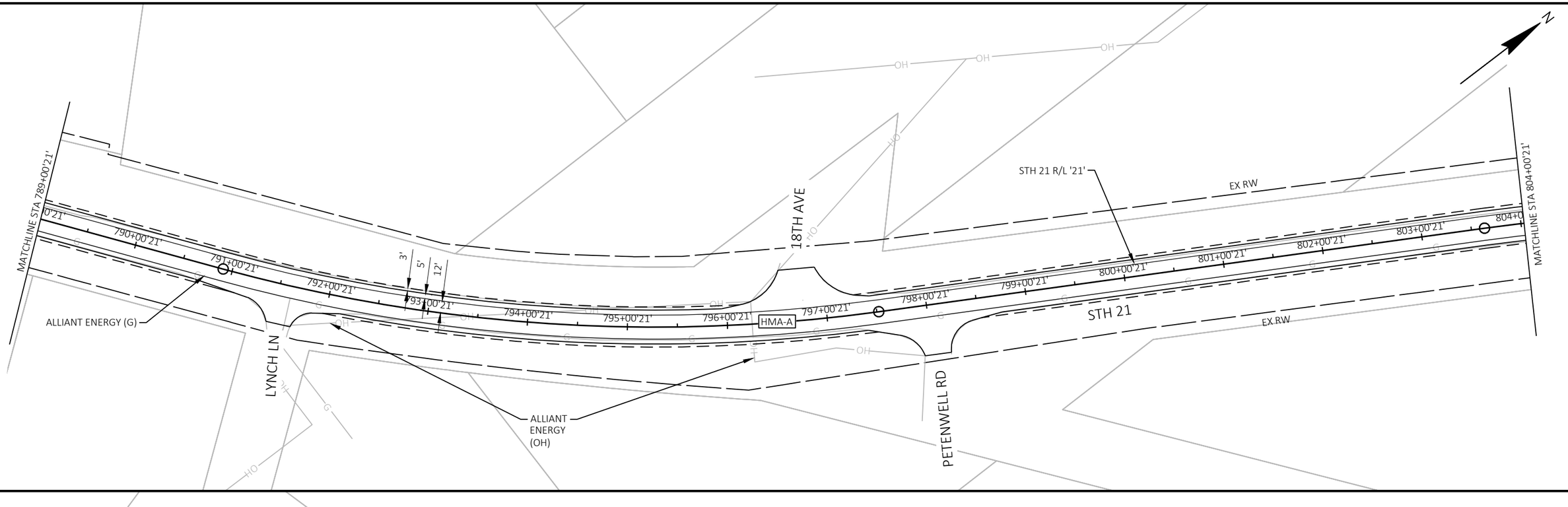
2

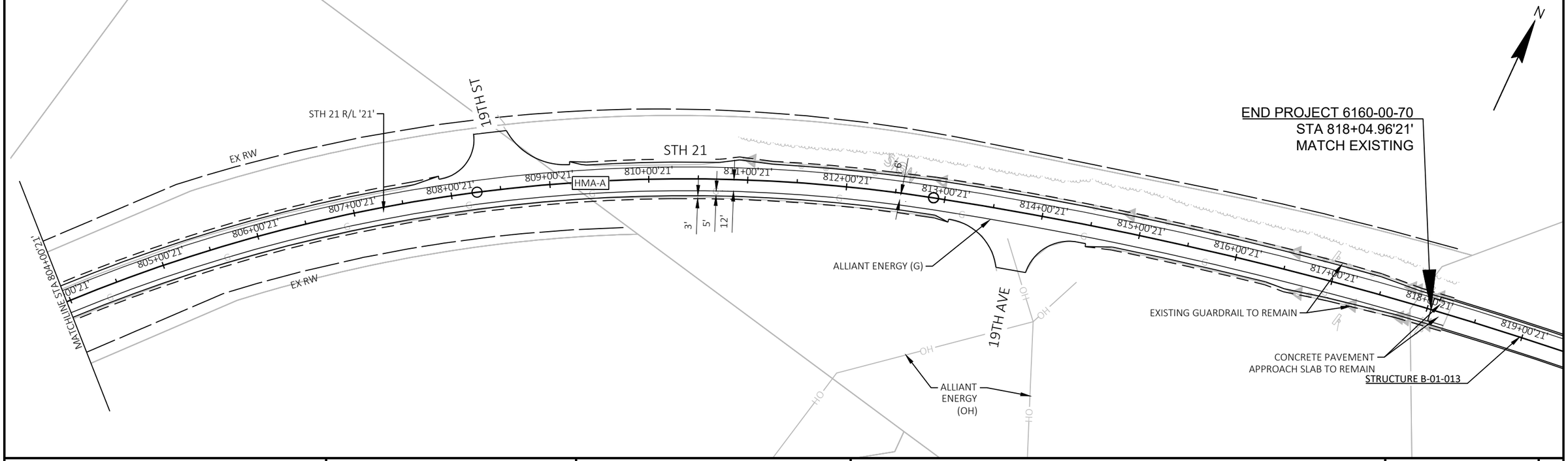


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 69	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - Sta. 759+00'21' - Sta. 789+00'21'

PLOT DATE : 6/25/2024 1:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

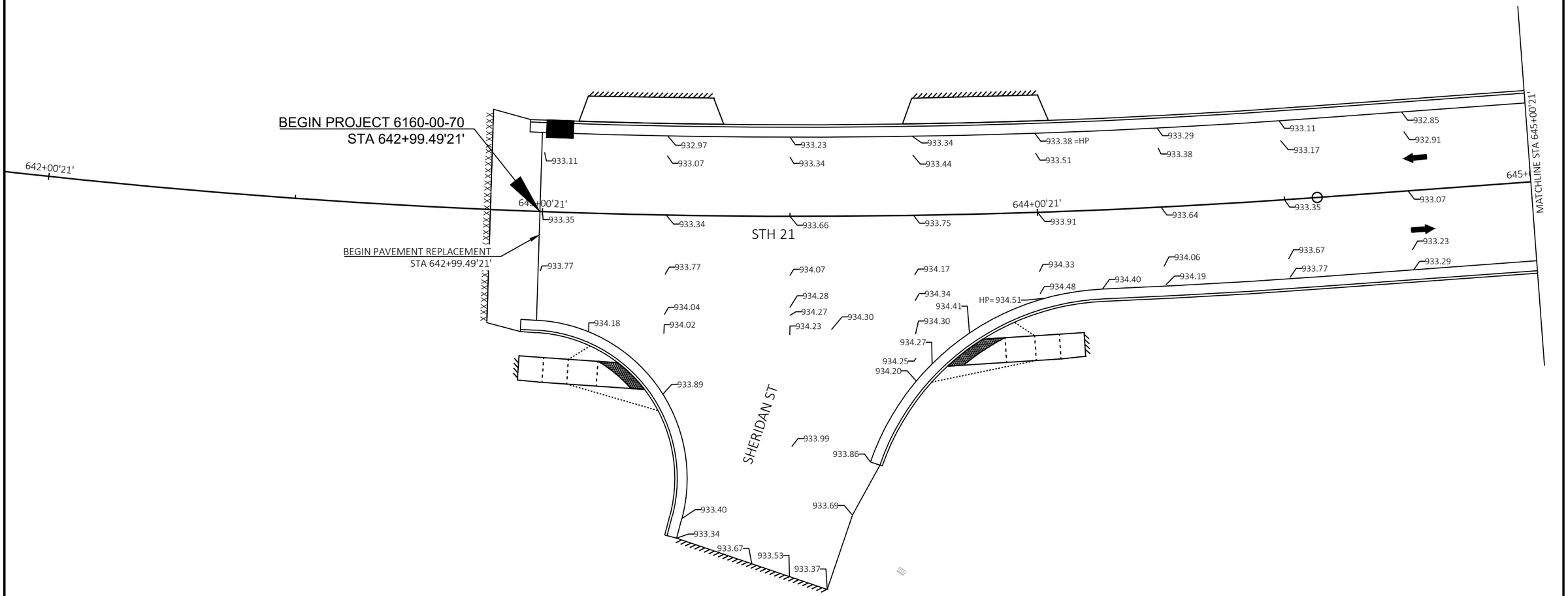




PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN DETAILS - STH 21	SHEET 70	E

2

2



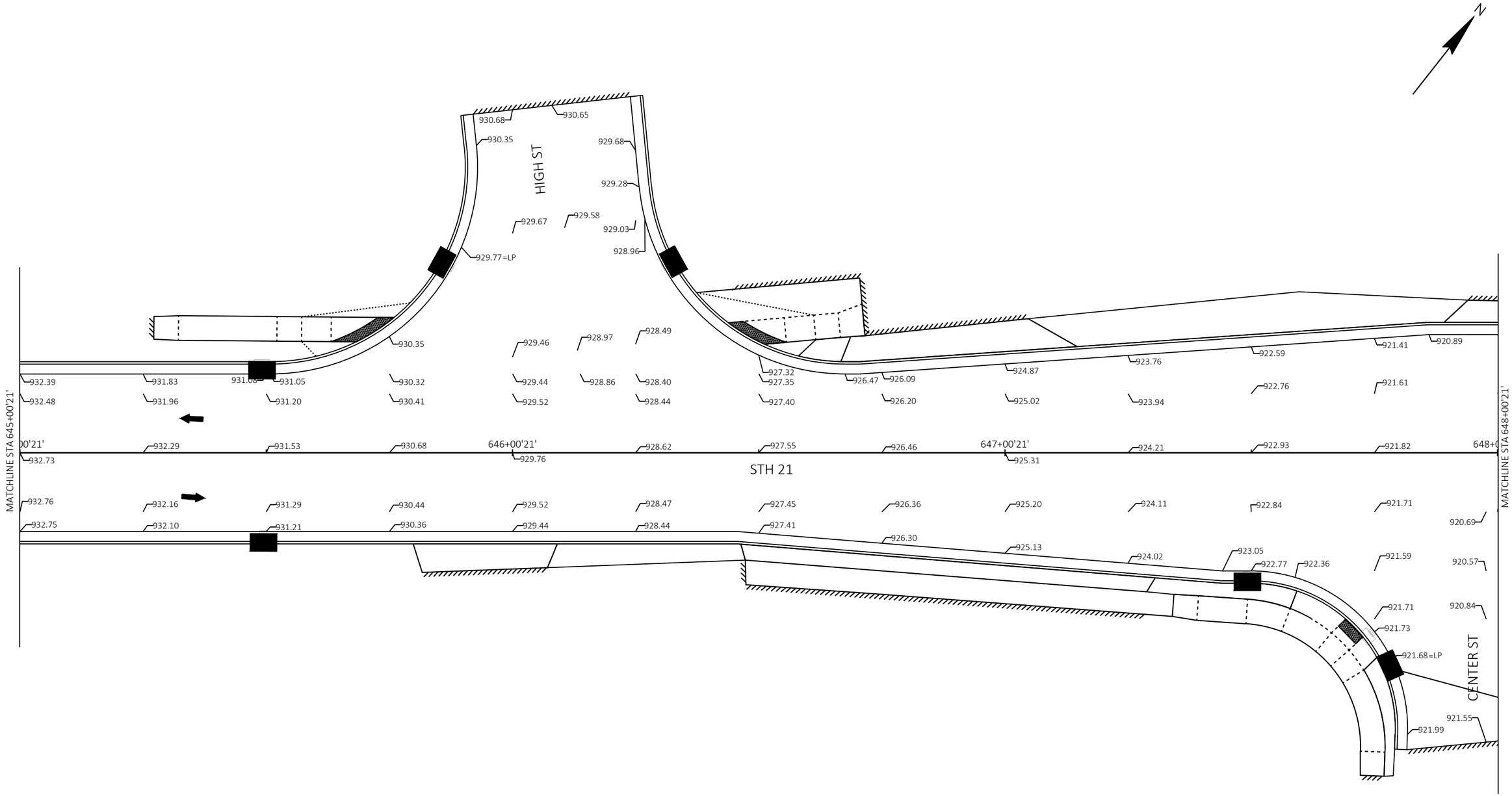
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 71	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - SOP - Sta. 645+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 72	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 645+00'21' - Sta. 648+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

MATCHLINE STA 228+00'B'

STH 80

STH 21

MATCHLINE STA 648+00'21'

MATCHLINE STA 651+00'21'

MATCHLINE STA 226+25'B'

227+00'B'

648+00'21' 649+00'21' 650+00'21' 651+00'21'

914.98 914.94=LP 916.30 917.24 917.39 918.13 919.12 920.25

915.11 915.13 915.17 915.38 915.39 915.45 915.66 915.56 915.81 915.57

915.13 915.29 915.37 915.25 915.05 914.68 914.21 915.21 915.36 915.23 913.23 912.65 912.60

914.88 914.89 914.96 915.13 914.64 914.45 914.34 915.16 915.32 915.16 914.48 915.24 914.57

915.36 915.60 915.80 915.80 915.57 915.41 914.83 914.03 913.10

915.84 915.71

920.47 919.40 918.37 917.43 916.76 916.24 915.99

920.71 919.67 918.62 917.73 917.09 916.63 916.39 916.16 916.12 916.00 915.67 915.07 914.27 913.36

920.59 919.55 918.50 917.61 916.97 916.39 916.15 915.88 915.70 915.43 914.83 914.03 913.12

920.47 919.42 919.74 919.89 918.56 918.38 917.49 916.85 916.54 916.38 916.09 916.05 915.84 915.68 915.76 915.37 915.42 915.37

914.98 914.98 914.44 914.05 912.96 915.09 915.17 914.40 914.18 914.81 915.02 915.46 912.87

915.94 915.99 915.96 916.10 916.19 916.37 915.90 915.85 915.17 915.18 915.02 914.86 916.09

920.93

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 73	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta 648+00'21' - Sta. 651+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

914.94
915.93
916.06
916.45
916.71
916.79
917.08
916.29
916.94
917.44
917.67
917.78
916.82
918.18
917.57
918.50
918.49
917.35
918.93
918.25
919.23
919.24
919.46
918.01
919.59
918.99
918.77

MATCHLINE STA 226+25'B'

226+00'B'

STH 80

225+00'B'

BEGIN PAVEMENT REPLACEMENT
STA 224+88.33'B'

224+00'B'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 74	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 224+00'B' - Sta. 226+25'B'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

N

BEGIN PAVEMENT REPLACEMENT
STA 230+96'B'

231+00'B'

230+00'B'

229+00'B'

228+00'B'

MATCHLINE STA 228+00'B'

STH 80

917.80
917.94
917.53
917.70
917.05
917.23
916.63
916.82
916.24
916.44
915.92
916.12
915.68
915.85
915.68=LP
915.72
915.76
915.40
915.38
915.47
915.81
915.84
915.61
915.56
915.41
915.41=LP
915.42
915.21
916.72
916.38
916.49
916.05
916.16
916.29
915.97
915.64
915.56
917.13
916.87
917.08
916.67
917.54
917.26
917.58
917.82
917.73
917.98
918.03
918.26

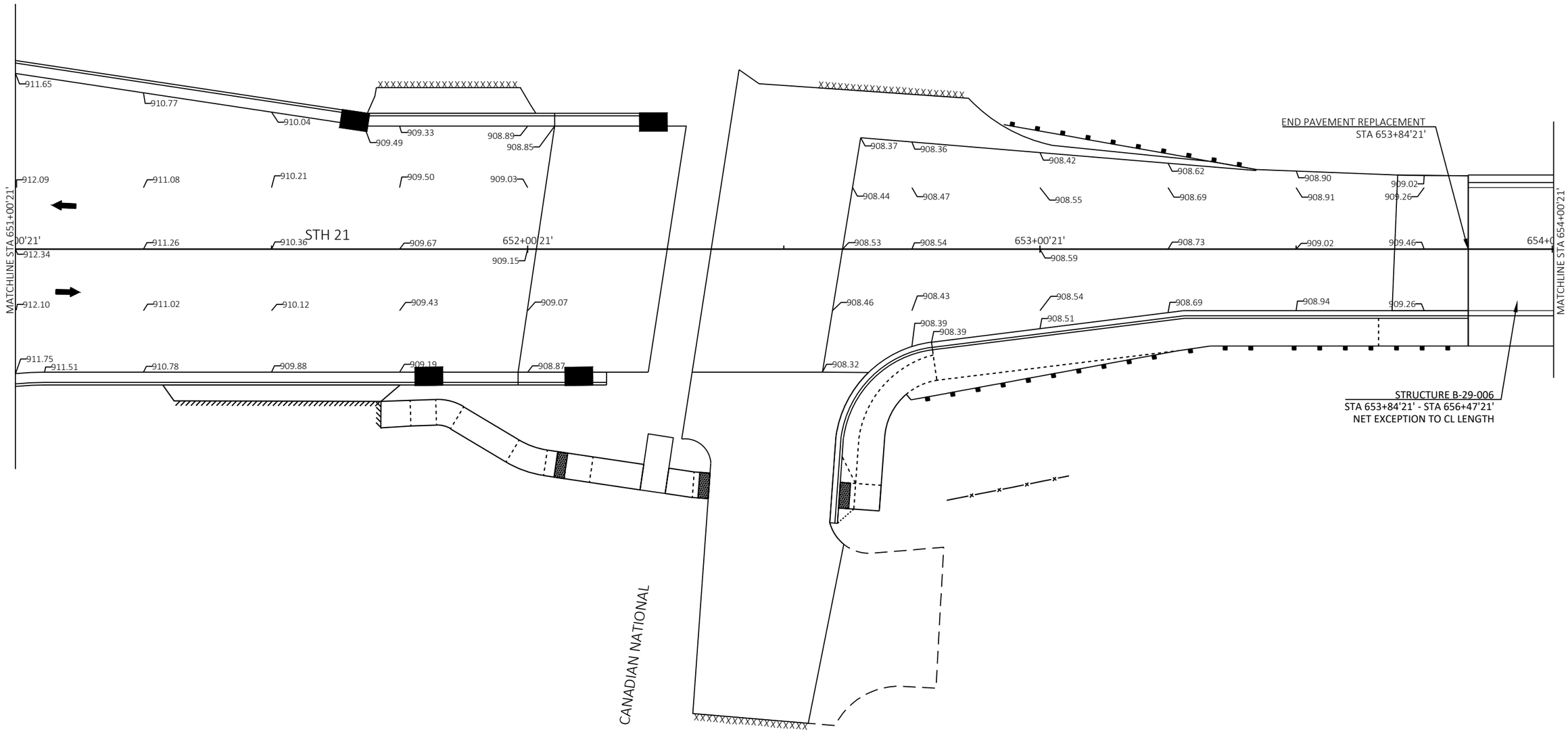
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 75	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 228+00'B' - Sta. 230+65'B'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

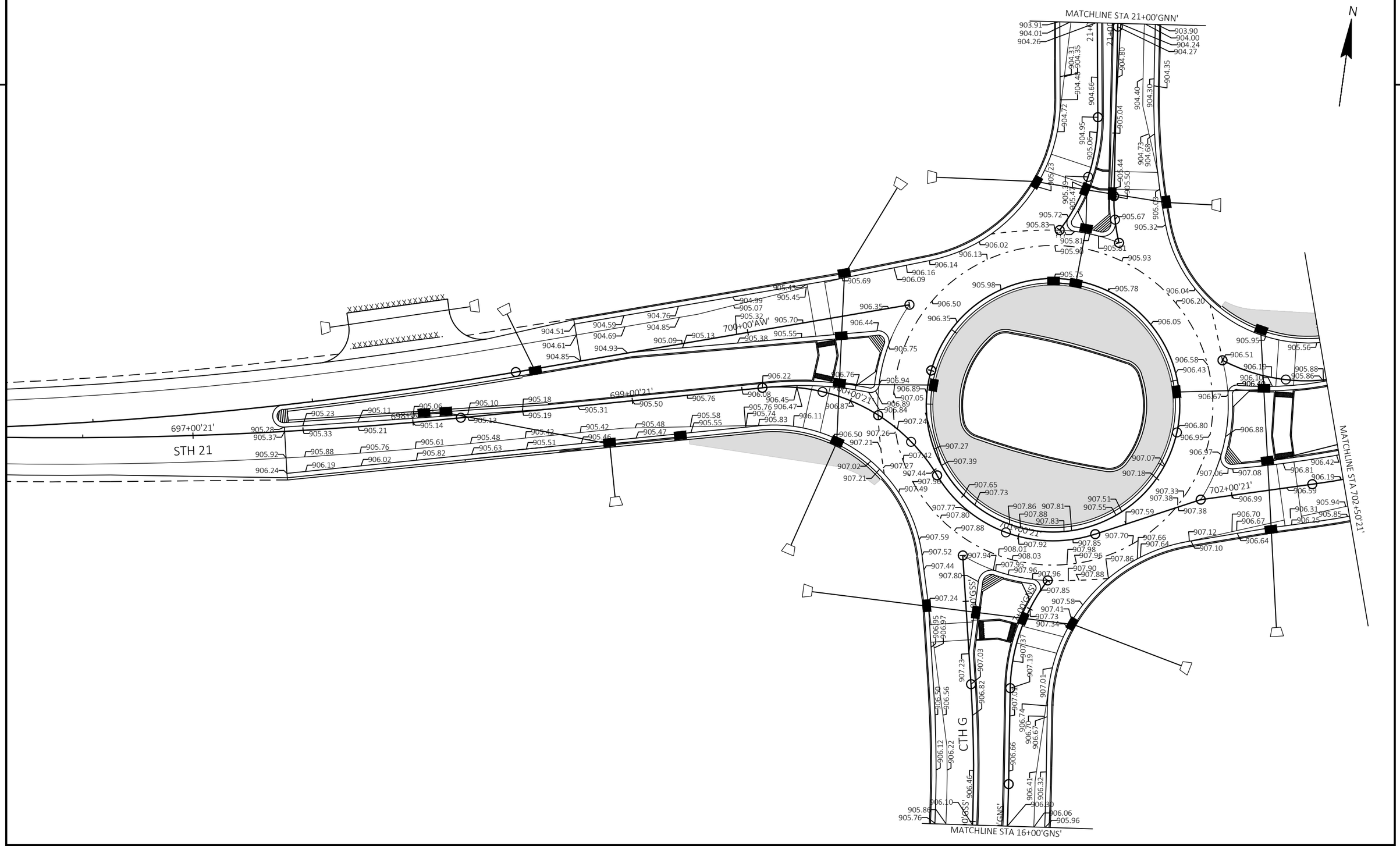


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 76	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 651+00'21' - Sta. 654+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

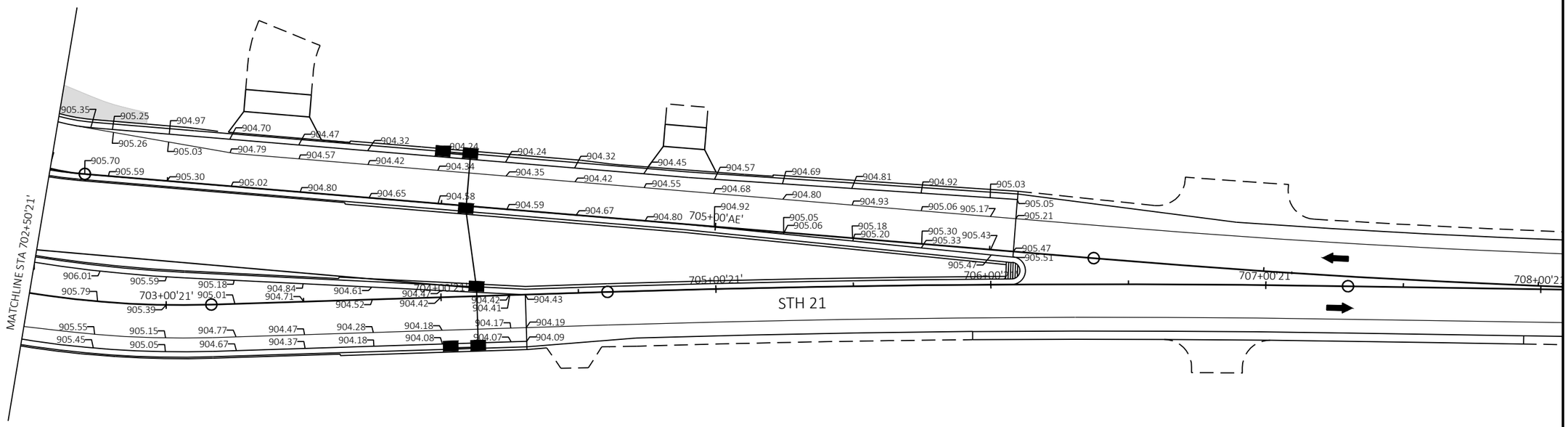


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 77	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 684+00'21' - Sta. 699+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

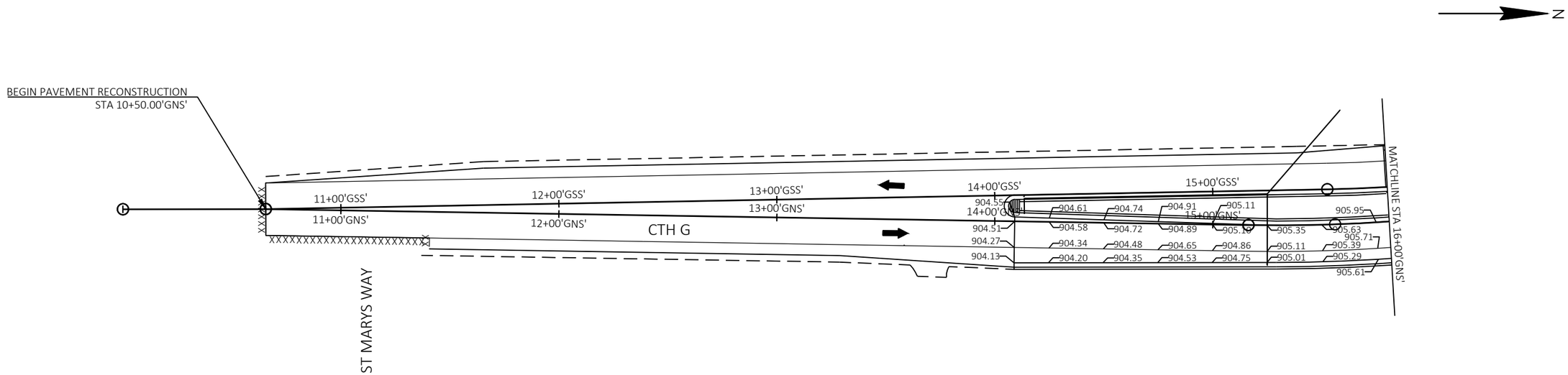


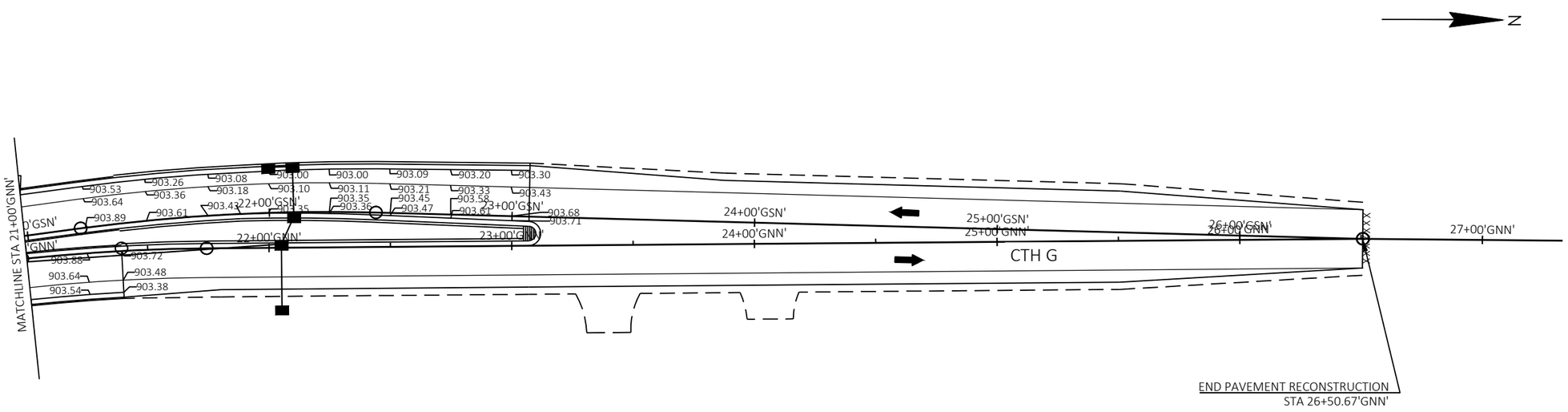
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 78	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - Sta. 699+00'21' - Sta. 707+00'21'

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

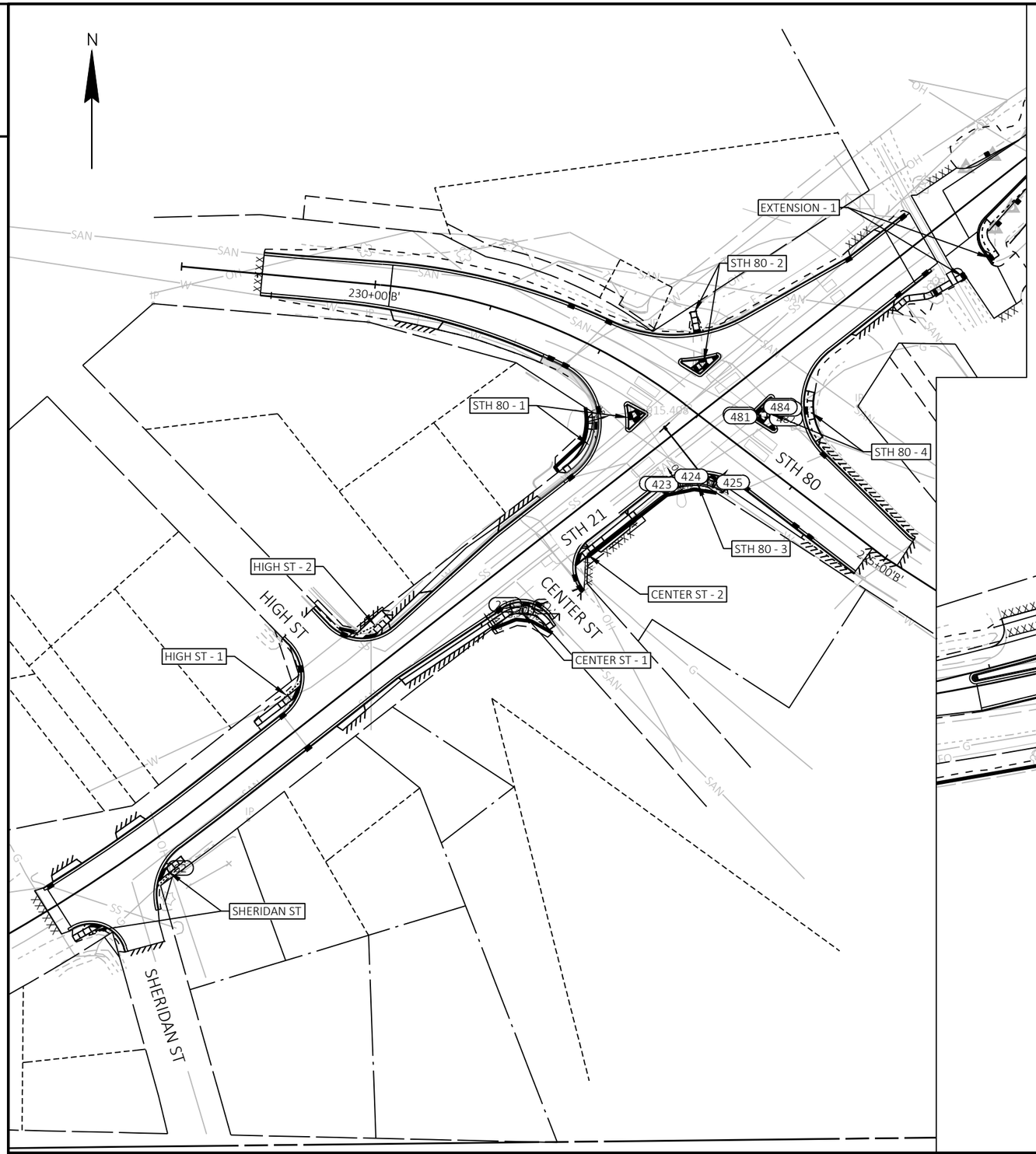


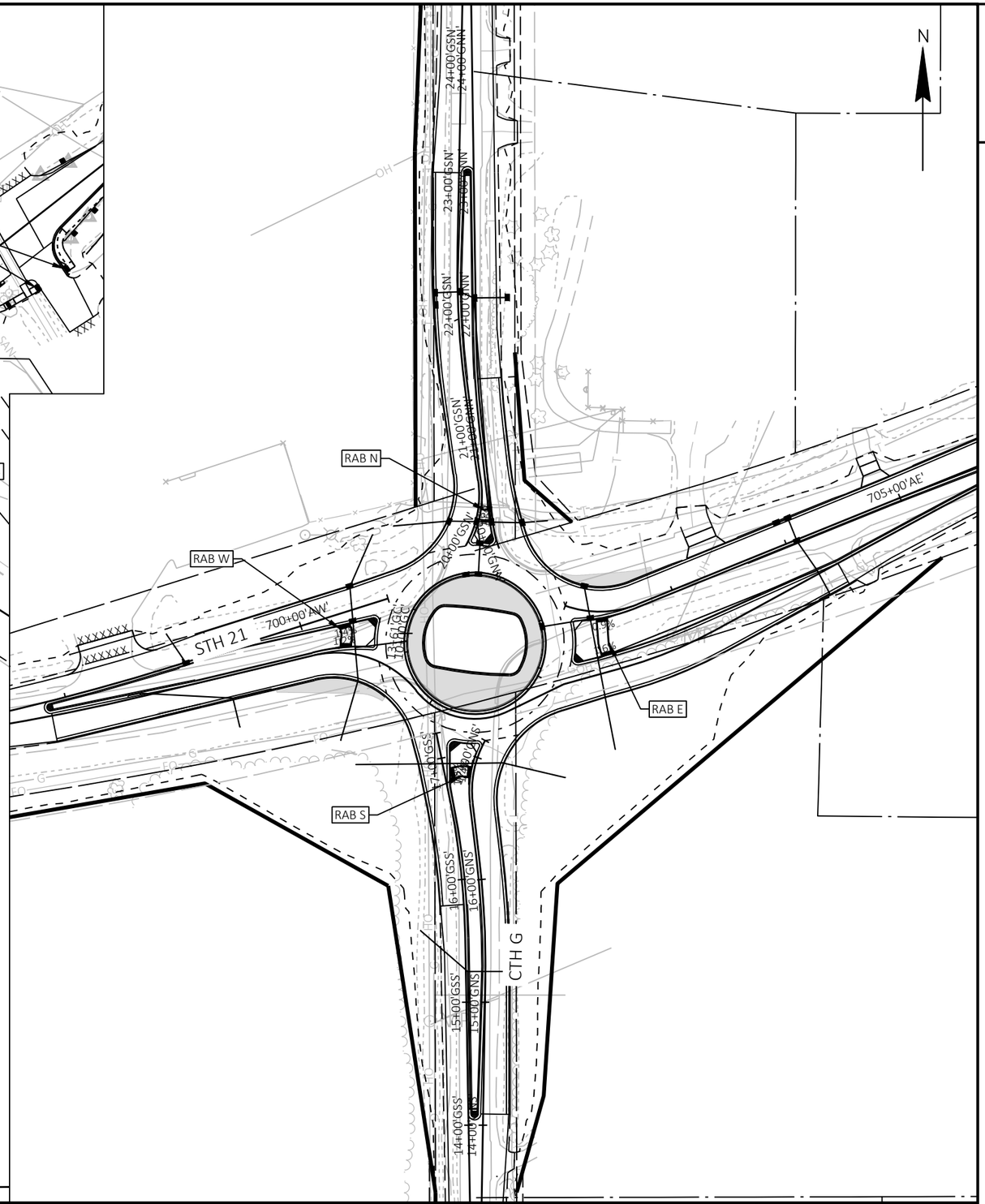


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVING GRADES	SHEET 79	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021201-PV.DWG
LAYOUT NAME - CTH G

PLOT DATE : 6/25/2024 1:52 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP OVERVIEW	SHEET 80	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 01

PLOT DATE : 7/9/2024 12:20 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

SHERIDAN ST

ALLIANT ENERGY (G)

CAUTION

CONCRETE DRIVEWAY 6-INCH

STH 21

643+50'21"

WISDOT (SS)

5'00'21"

CURB RAMP TYPE 4A1
DETECTABLE WARNING FIELD RADIAL YELLOW
ATTRIBUTES:
RADIUS (BOC) = 29.5'
LONG CHORD = 7.6'
'XR' DISTANCE = 9.7'

SLOPE INTERCEPT (TYP.)

TLE (TYP.)

EXISTING R/W (TYP.)

CONCRETE SIDEWALK 5-INCH

SAWING CONCRETE (TYP.)

CURB RAMP TYPE 4A1
DETECTABLE WARNING FIELD RADIAL YELLOW
ATTRIBUTES:
RADIUS (BOC) = 49.5'
LONG CHORD = 9.0'
'XR' DISTANCE = 12.0'

VILLAGE OF NECEDAH (SAN)

SIGN

SIGN

ALLIANT ENERGY & MEDIACOM (OH)

SHERIDAN ST

SHERIDAN ST					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
1	642+96.39	29.30' RT	--	463,076.44	239,976.27
2	643+01.29	29.48' RT	933.77	463,080.78	239,978.74
3	643+06.17	29.69' RT	933.85	463,085.11	239,981.21
4	643+15.95	30.07' RT	934.03	463,093.76	239,986.22
5	643+10.36	26.83' RT	934.59	463,087.20	239,985.91
6	643+21.34	35.33' RT	933.89	463,101.24	239,984.76
7	643+24.09	39.55' RT	0.00	463,105.89	239,982.74
8	643+06.00	34.66' RT	933.88	463,087.61	239,976.91
9	643+11.85	34.90' RT	934.06	463,092.81	239,979.90
10	643+12.06	29.90' RT	934.02	463,090.31	239,984.24
11	643+18.65	35.20' RT	933.94	463,098.85	239,983.38
12	643+01.12	34.48' RT	933.81	463,083.28	239,974.41
13	642+96.24	34.22' RT	--	463,078.90	239,972.00
50	643+78.04	33.76' RT	934.65	463,148.59	240,018.40
51	643+81.20	30.61' RT	934.25	463,149.43	240,022.84
52	643+88.31	25.30' RT	934.39	463,152.28	240,031.36
53	643+94.70	22.05' RT	934.88	463,155.68	240,037.77
54	643+84.42	30.46' RT	934.33	463,152.03	240,024.85
55	643+92.93	30.12' RT	934.47	463,158.92	240,030.16
56	643+98.80	29.92' RT	934.89	463,163.67	240,033.83

-- DENOTES "MATCH EXISTING"

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 81	E

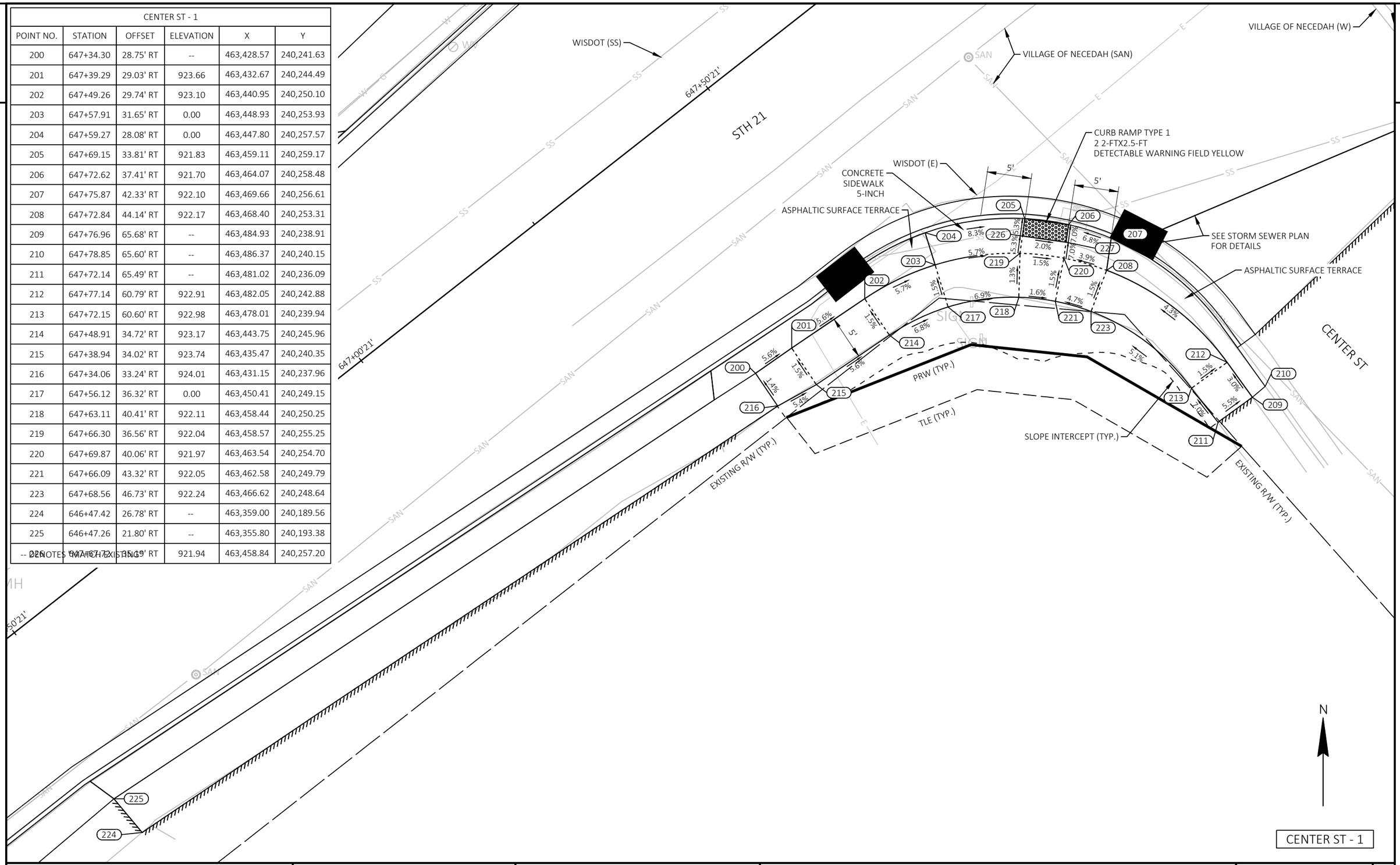
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 02

PLOT DATE : 7/9/2024 12:20 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

CENTER ST - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
200	647+34.30	28.75' RT	--	463,428.57	240,241.63
201	647+39.29	29.03' RT	923.66	463,432.67	240,244.49
202	647+49.26	29.74' RT	923.10	463,440.95	240,250.10
203	647+57.91	31.65' RT	0.00	463,448.93	240,253.93
204	647+59.27	28.08' RT	0.00	463,447.80	240,257.57
205	647+69.15	33.81' RT	921.83	463,459.11	240,259.17
206	647+72.62	37.41' RT	921.70	463,464.07	240,258.48
207	647+75.87	42.33' RT	922.10	463,469.66	240,256.61
208	647+72.84	44.14' RT	922.17	463,468.40	240,253.31
209	647+76.96	65.68' RT	--	463,484.93	240,238.91
210	647+78.85	65.60' RT	--	463,486.37	240,240.15
211	647+72.14	65.49' RT	--	463,481.02	240,236.09
212	647+77.14	60.79' RT	922.91	463,482.05	240,242.88
213	647+72.15	60.60' RT	922.98	463,478.01	240,239.94
214	647+48.91	34.72' RT	923.17	463,443.75	240,245.96
215	647+38.94	34.02' RT	923.74	463,435.47	240,240.35
216	647+34.06	33.24' RT	924.01	463,431.15	240,237.96
217	647+56.12	36.32' RT	0.00	463,450.41	240,249.15
218	647+63.11	40.41' RT	922.11	463,458.44	240,250.25
219	647+66.30	36.56' RT	922.04	463,458.57	240,255.25
220	647+69.87	40.06' RT	921.97	463,463.54	240,254.70
221	647+66.09	43.32' RT	922.05	463,462.58	240,249.79
223	647+68.56	46.73' RT	922.24	463,466.62	240,248.64
224	646+47.42	26.78' RT	--	463,359.00	240,189.56
225	646+47.26	21.80' RT	--	463,355.80	240,193.38
226	647+67.72	35.19' RT	921.94	463,458.84	240,257.20

-- DENOTES SMOOTH EXISTING



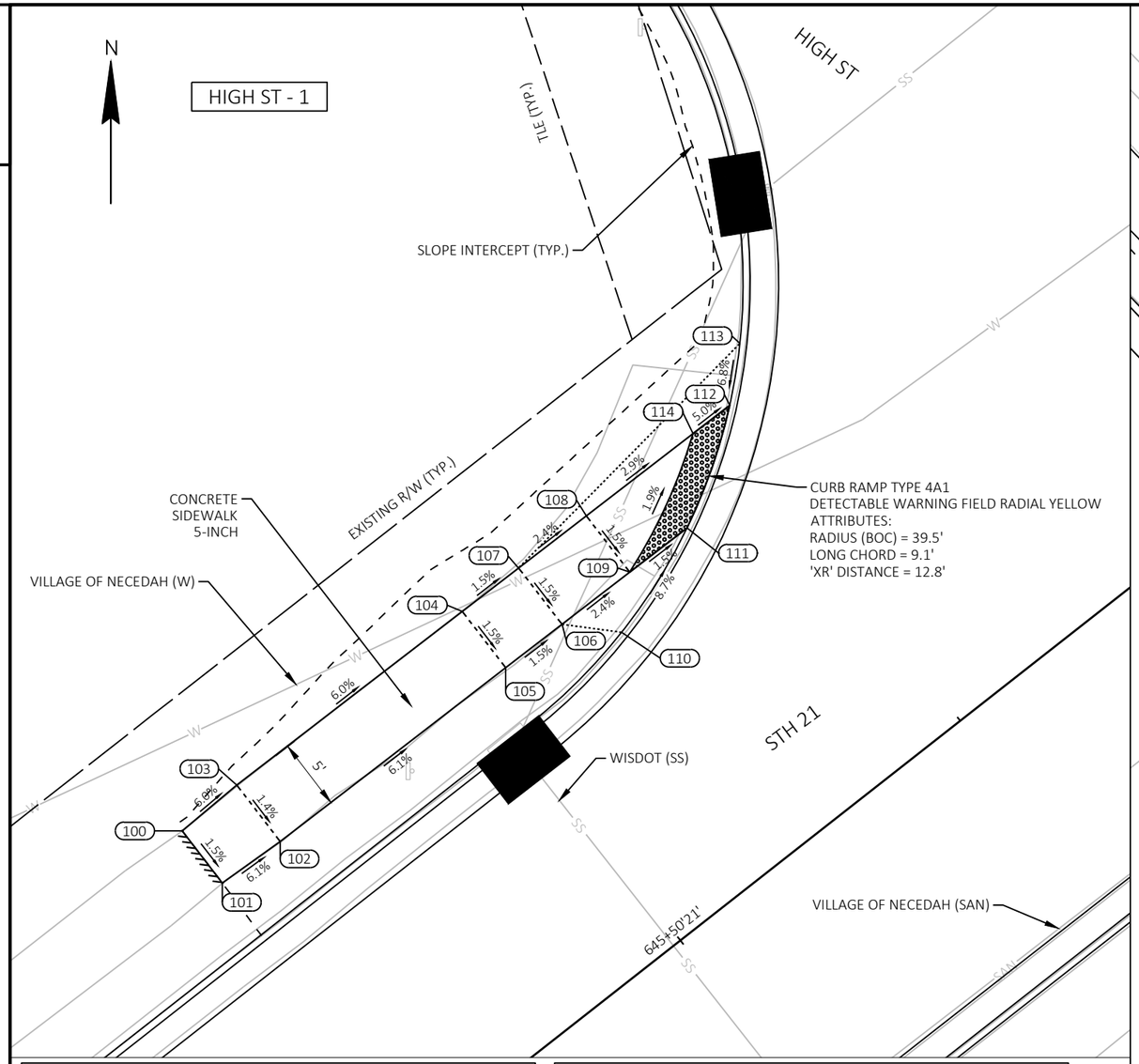
CENTER ST - 1

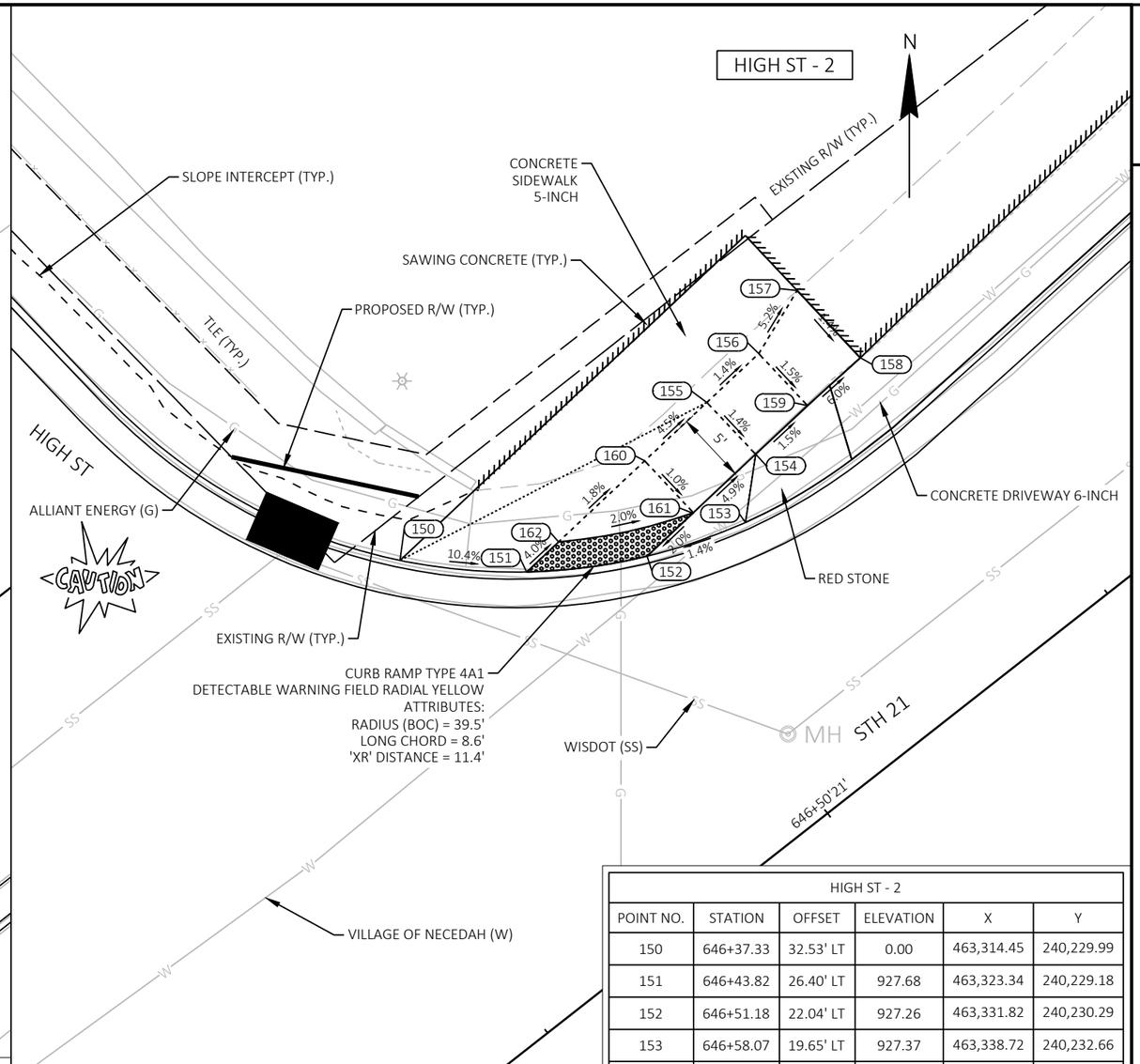
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 82	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 04

PLOT DATE : 7/9/2024 12:20 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42





HIGH ST - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
100	645+27.20	27.67' LT	0.00	--	240,158.19
101	645+27.16	23.05' LT	932.28	--	240,154.53
102	645+32.16	22.84' LT	931.97	463,237.69	240,157.45
103	645+32.21	27.84' LT	932.05	463,234.64	240,161.41
104	645+52.21	27.66' LT	930.84	463,250.49	240,173.61
105	645+52.16	22.66' LT	930.76	463,253.54	240,169.65
106	645+57.16	22.62' LT	930.69	463,257.50	240,172.70
107	645+57.20	27.61' LT	930.76	463,254.45	240,176.67

HIGH ST - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
108	645+63.20	27.56' LT	930.34	463,259.20	240,180.33
109	645+63.16	22.56' LT	930.40	463,262.25	240,176.37
110	645+60.11	19.59' LT	931.22	463,261.69	240,172.14
111	645+68.25	22.52' LT	930.47	463,266.29	240,179.47
112	645+75.93	27.45' LT	930.18	463,269.29	240,188.09
113	645+79.17	30.42' LT	930.48	463,270.00	240,192.43
114	645+72.68	27.48' LT	930.24	463,266.71	240,186.11

-- DENOTES "MATCH EXISTING"

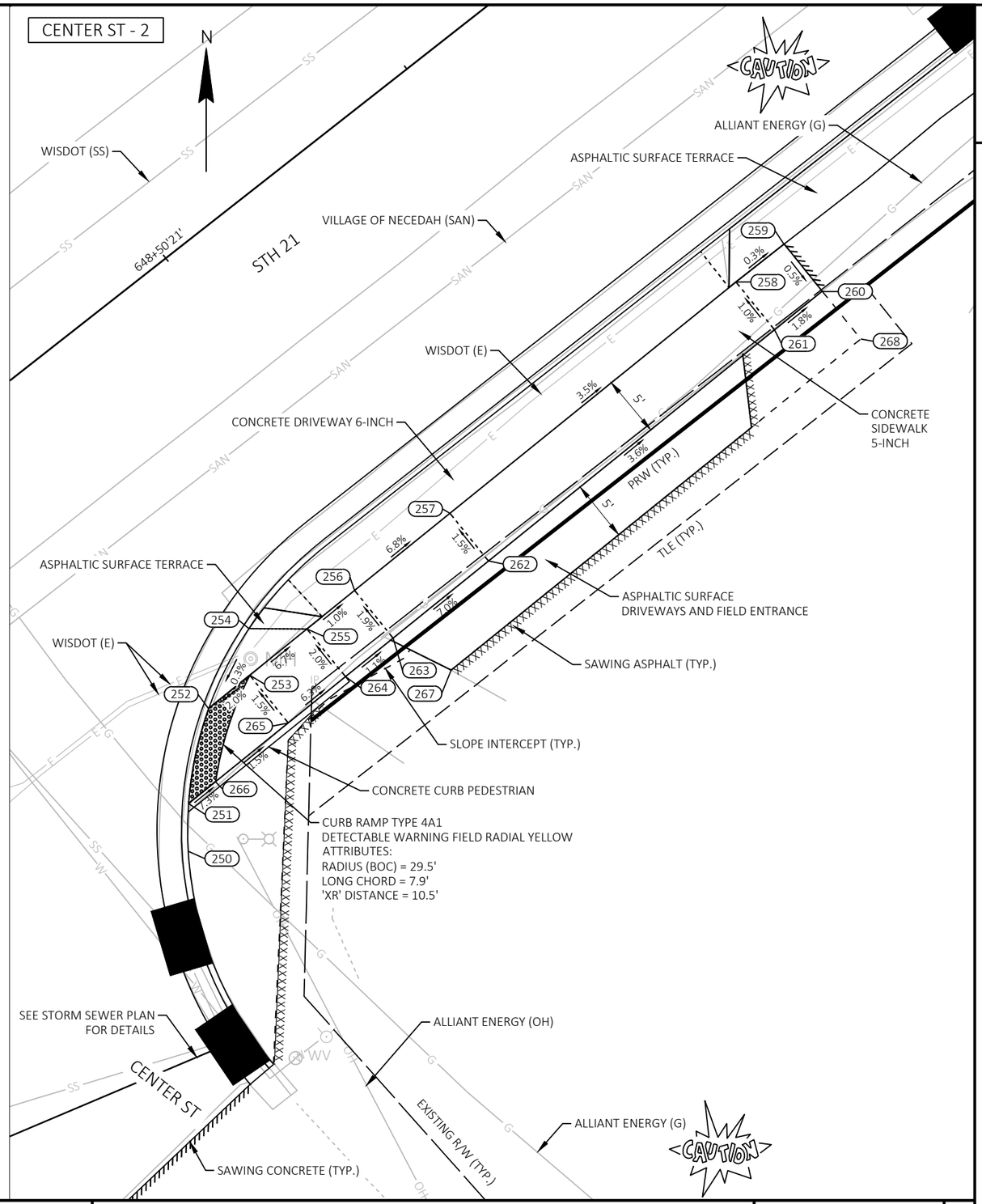
HIGH ST - 2					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
150	646+37.33	32.53' LT	0.00	463,314.45	240,229.99
151	646+43.82	26.40' LT	927.68	463,323.34	240,229.18
152	646+51.18	22.04' LT	927.26	463,331.82	240,230.29
153	646+58.07	19.65' LT	927.37	463,338.72	240,232.66
154	646+61.60	22.98' LT	927.04	463,339.44	240,237.45
155	646+61.15	27.96' LT	927.13	463,336.02	240,241.09
156	646+66.13	28.40' LT	927.03	463,339.66	240,244.52
157	646+70.99	30.22' LT	--	463,342.36	240,248.95
158	646+71.56	23.81' LT	--	463,346.77	240,244.26
159	646+66.58	23.42' LT	926.96	463,343.08	240,240.88
160	646+55.17	27.42' LT	927.40	463,331.65	240,236.98
161	646+55.55	22.46' LT	927.33	463,335.01	240,233.32
162	646+46.90	26.68' LT	927.59	463,325.60	240,231.30

-- DENOTES "MATCH EXISTING"

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 83	E

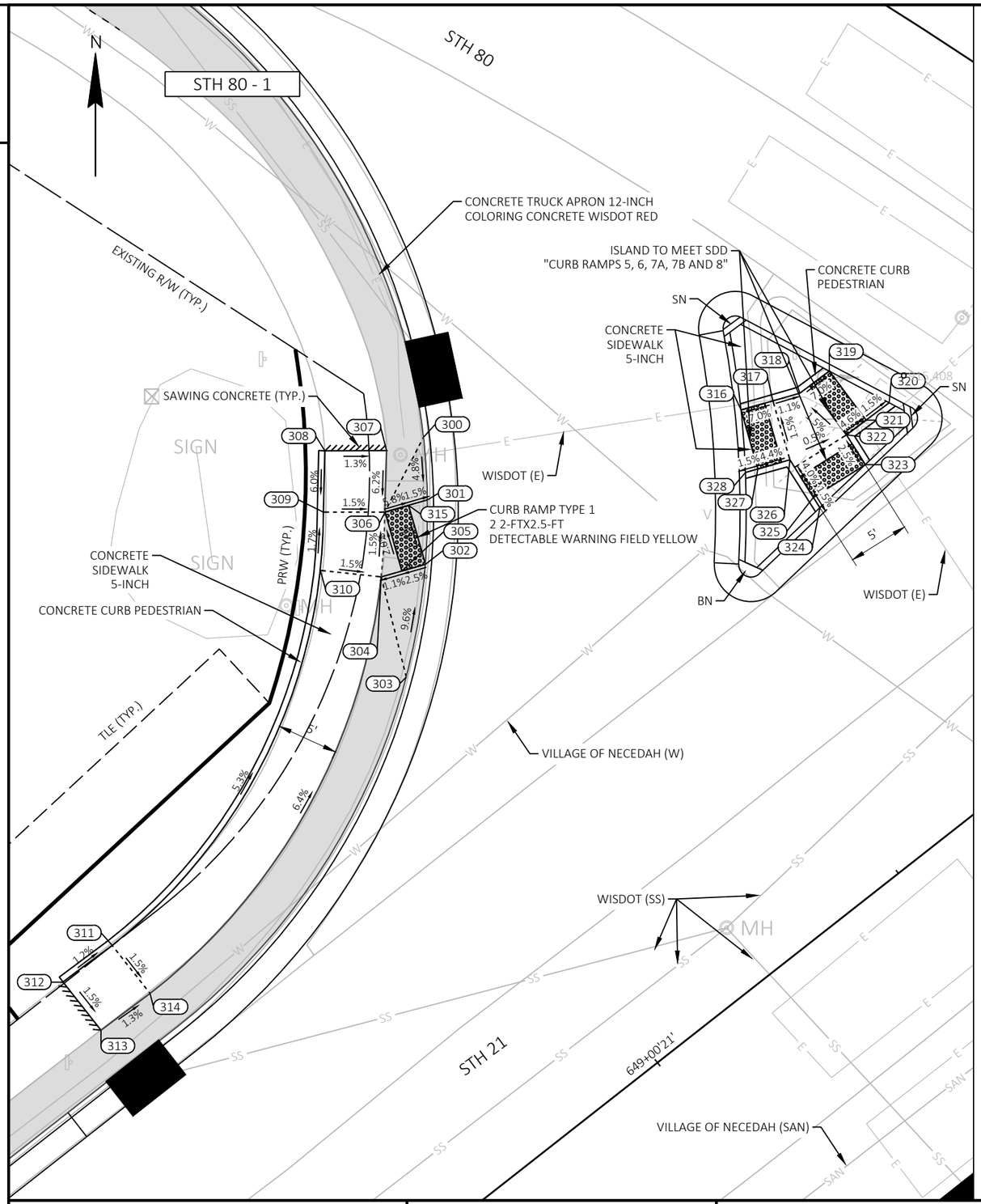
CENTER ST - 2					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
250	648+21.59	39.17' RT	920.53	463,503.68	240,287.32
251	648+24.01	36.13' RT	919.89	463,503.71	240,291.20
252	648+30.09	31.04' RT	919.41	463,505.35	240,298.96
253	648+34.41	30.98' RT	919.47	463,508.71	240,301.67
254	648+36.69	27.95' RT	919.43	463,508.63	240,305.47
255	648+40.40	30.89' RT	919.14	463,513.37	240,305.44
256	648+45.40	30.82' RT	919.06	463,517.26	240,308.59
257	648+55.40	30.68' RT	918.36	463,525.04	240,314.87
258	648+85.40	30.24' RT	917.30	463,548.37	240,333.73
259	648+90.39	30.23' RT	--	463,552.29	240,336.82
260	648+90.47	35.20' RT	--	463,555.42	240,332.96
261	648+85.47	35.24' RT	917.35	463,551.51	240,329.84
262	648+55.48	35.67' RT	918.44	463,528.18	240,310.98
263	648+45.48	35.82' RT	919.14	463,520.40	240,304.70
264	648+40.48	35.89' RT	919.21	463,516.52	240,301.55
265	648+34.48	35.98' RT	919.63	463,511.85	240,297.78
266	648+26.85	36.09' RT	919.82	463,505.91	240,292.99
267	648+47.58	40.79' RT	--	463,525.13	240,302.09
268	648+90.54	40.18' RT	--	463,558.55	240,329.09

-- DENOTES "MATCH EXISTING"



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 84	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 04 (2)
PLOT DATE : 7/9/2024 12:21 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



STH 80 - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
300	649+16.46	51.91' LT	915.50	463,522.10	240,417.53
301	649+13.56	47.69' LT	915.25	463,522.43	240,412.42
302	649+10.19	43.66' LT	915.55	463,522.26	240,407.18
303	649+03.29	37.40' LT	0.00	463,520.69	240,397.99
304	649+06.71	45.08' LT	915.58	463,518.64	240,406.14
305	649+08.34	44.41' LT	915.55	463,520.33	240,406.62
306	649+10.22	49.05' LT	915.51	463,518.96	240,411.43
307	649+13.41	52.92' LT	--	463,519.08	240,416.45
308	649+09.44	56.02' LT	--	463,514.04	240,416.43
309	649+06.27	52.15' LT	915.58	463,513.93	240,411.43
310	649+03.13	48.57' LT	915.66	463,513.67	240,406.68
311	648+70.90	35.00' LT	918.08	463,496.69	240,376.11
312	648+65.87	35.13' LT	--	463,492.65	240,373.10
313	648+65.91	30.13' LT	--	463,495.77	240,369.20
314	648+70.91	30.00' LT	918.00	463,499.79	240,372.18
315	649+12.07	48.29' LT	915.37	463,520.88	240,411.98

STH 80 - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
316	649+38.21	37.66' LT	915.30	463,548.01	240,419.76
317	649+40.72	36.64' LT	915.48	463,550.61	240,420.50
318	649+42.85	35.78' LT	915.59	463,552.81	240,421.13
319	649+45.84	35.72' LT	915.74	463,555.21	240,422.93
320	649+48.10	30.67' LT	915.55	463,560.10	240,420.35
321	649+45.74	30.72' LT	915.58	463,558.21	240,418.93
322	649+43.74	30.76' LT	915.67	463,556.61	240,417.73
323	649+43.44	27.90' LT	915.81	463,558.14	240,415.30
324	649+38.36	27.42' LT	915.83	463,554.44	240,411.79
325	649+38.46	28.42' LT	915.81	463,553.91	240,412.64
326	649+38.84	32.01' LT	915.61	463,551.99	240,415.69
327	649+36.33	33.03' LT	915.57	463,549.38	240,414.95
328	649+35.36	33.43' LT	915.46	463,548.37	240,414.66

-- DENOTES "MATCH EXISTING"

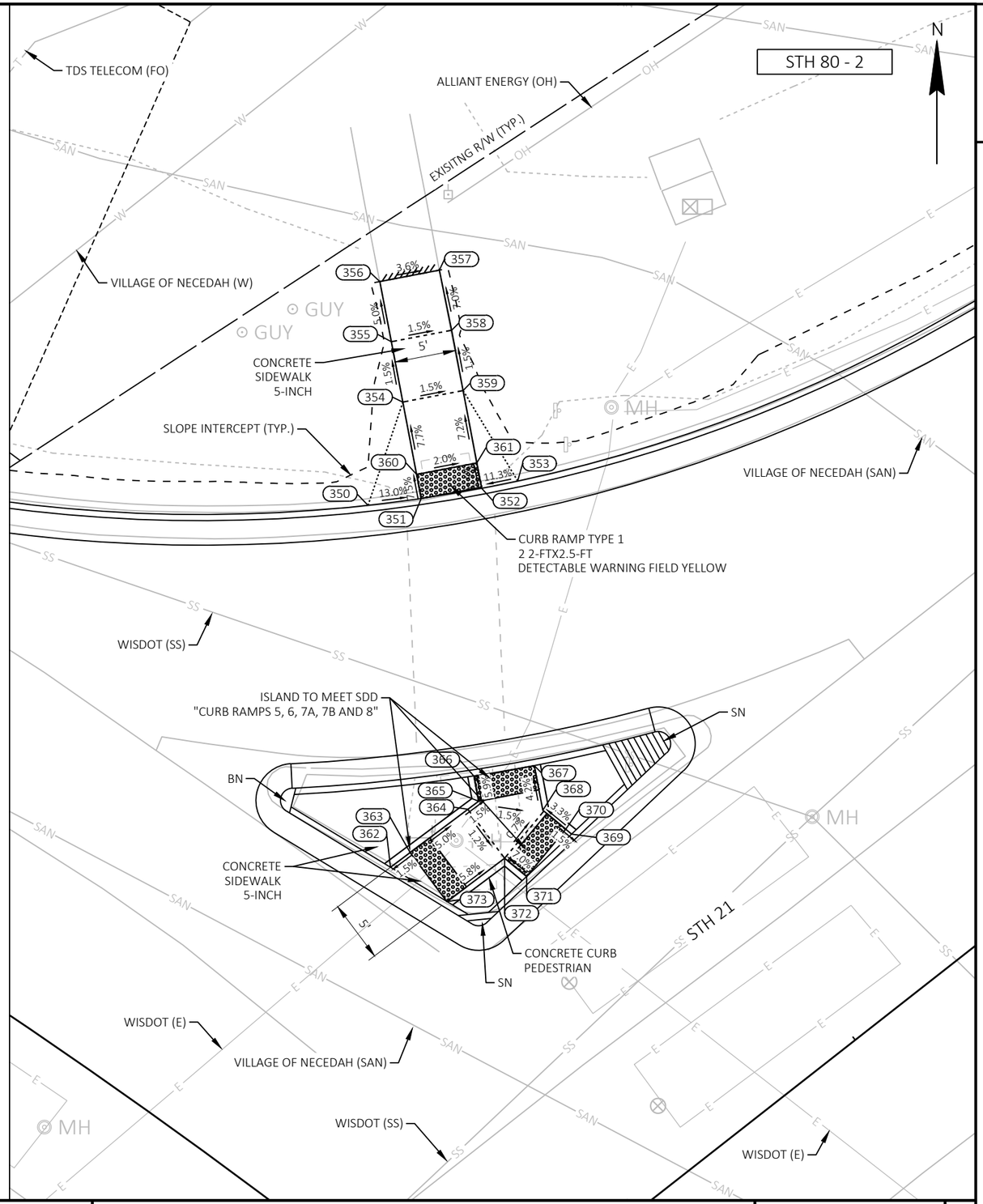
2

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 85	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 05
PLOT DATE : 7/9/2024 12:21 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

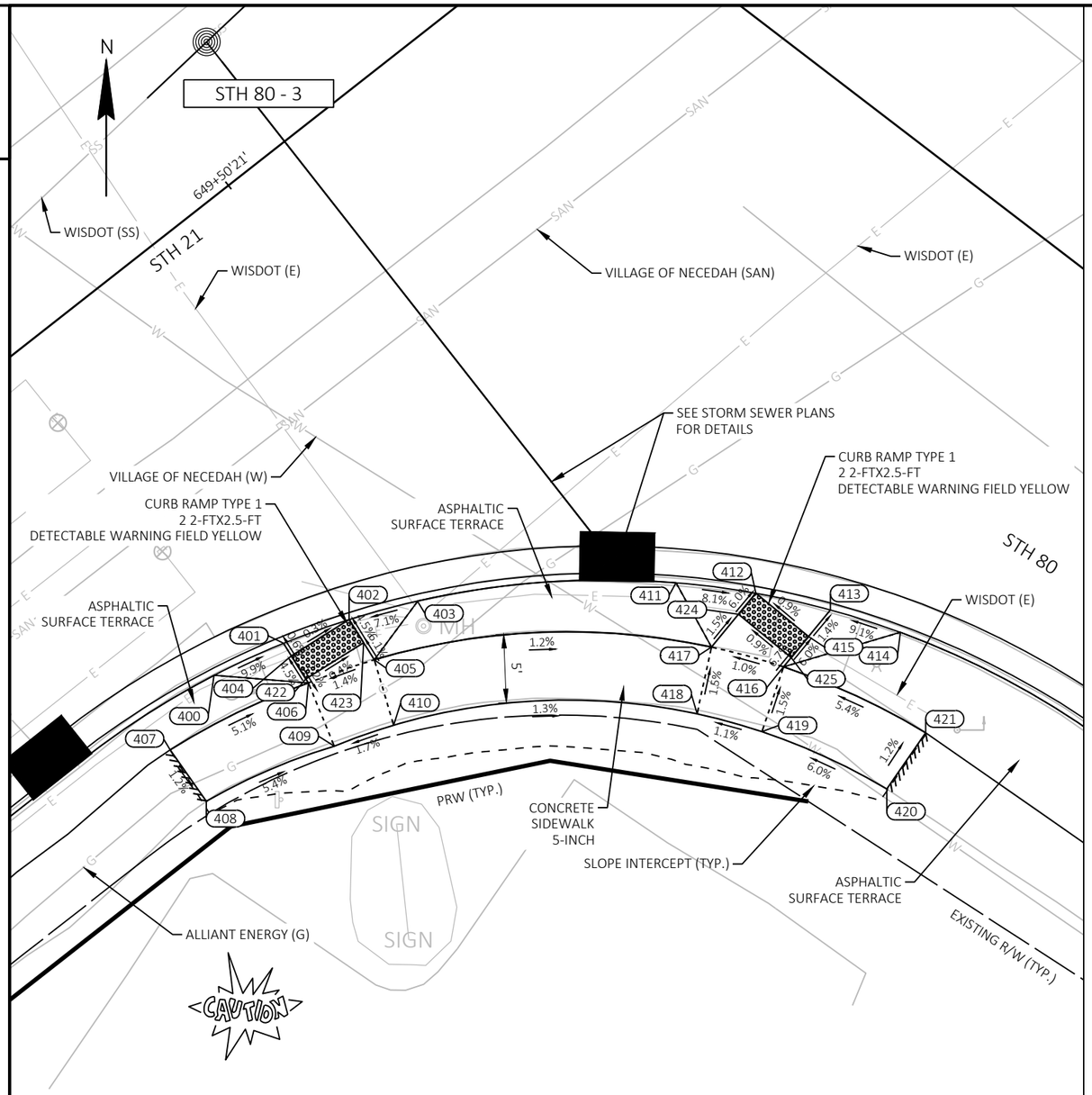
STH 80 - 2					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
350	650+20.65	58.79' LT	0.00	463,599.82	240,487.26
351	650+24.40	56.55' LT	914.27	463,604.16	240,487.82
352	650+28.80	54.16' LT	914.03	463,609.09	240,488.65
353	650+31.48	52.81' LT	914.37	463,612.03	240,489.24
354	650+28.07	63.64' LT	913.66	463,602.67	240,495.66
355	650+30.38	68.10' LT	913.58	463,601.73	240,500.59
356	650+32.66	72.54' LT	--	463,600.79	240,505.50
357	650+37.05	70.28' LT	--	463,605.63	240,506.42
358	650+34.82	65.80' LT	913.51	463,606.64	240,501.52
359	650+32.52	61.36' LT	913.58	463,607.58	240,496.61
360	650+25.32	58.33' LT	914.07	463,603.78	240,489.78
361	650+29.76	56.03' LT	913.87	463,608.69	240,490.72
362	650+03.89	34.45' LT	915.03	463,601.66	240,457.77
363	650+05.90	34.41' LT	915.00	463,603.26	240,458.97
364	650+11.77	34.28' LT	914.62	463,607.96	240,462.50
365	650+12.86	34.26' LT	914.60	463,608.84	240,463.15
366	650+13.82	36.11' LT	914.57	463,608.45	240,465.21
367	650+18.22	33.74' LT	914.48	463,613.38	240,466.05
368	650+16.52	30.45' LT	914.64	463,614.07	240,462.42
369	650+17.17	27.47' LT	914.64	463,616.41	240,460.47
370	650+17.04	28.07' LT	914.63	463,615.94	240,460.86
371	650+12.15	27.01' LT	914.77	463,612.75	240,457.02
372	650+11.66	29.28' LT	914.69	463,610.96	240,458.50
373	650+05.79	29.41' LT	915.01	463,606.26	240,454.97

-- DENOTES "MATCH EXISTING"



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 86	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 05 (2)
PLOT DATE : 7/9/2024 12:21 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########



STH 80 - 3					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
400	649+27.02	27.60' RT	0.00	463,579.49	240,361.50
401	649+32.47	28.89' RT	916.20	463,584.57	240,363.85
402	649+37.33	30.49' RT	916.18	463,589.38	240,365.59
403	649+42.10	32.54' RT	916.55	463,594.40	240,366.92
404	649+32.36	29.97' RT	916.28	463,585.14	240,362.93
405	649+36.97	33.95' RT	916.36	463,591.23	240,362.64
406	649+32.11	32.31' RT	916.44	463,586.40	240,360.94
407	649+21.11	29.90' RT	--	463,576.26	240,356.04
408	649+20.87	34.51' RT	--	463,578.91	240,352.27
409	649+30.75	37.12' RT	916.52	463,588.30	240,356.31
410	649+35.12	38.60' RT	916.44	463,592.65	240,357.85
411	649+57.85	43.17' RT	916.38	463,613.35	240,368.28
412	649+61.98	47.38' RT	915.90	463,619.20	240,367.52
413	649+65.52	51.72' RT	915.91	463,624.66	240,366.29
414	649+68.54	56.17' RT	916.40	463,629.79	240,364.65
415	649+63.06	52.26' RT	916.09	463,623.06	240,364.34
416	649+60.25	52.88' RT	916.24	463,621.23	240,362.12
417	649+56.98	48.48' RT	916.16	463,615.94	240,363.57
418	649+53.13	51.67' RT	916.24	463,614.89	240,358.68
419	649+56.07	55.63' RT	916.32	463,619.65	240,357.38
420	649+60.68	64.59' RT	--	463,628.80	240,353.18
421	649+65.47	63.11' RT	--	463,631.65	240,357.29
422	649+32.15	31.96' RT	916.30	463,586.21	240,361.24
423	649+37.12	32.48' RT	916.27	463,590.44	240,363.90
424	649+60.03	47.81' RT	916.02	463,617.93	240,365.98

-- DENOTES "MATCH EXISTING"

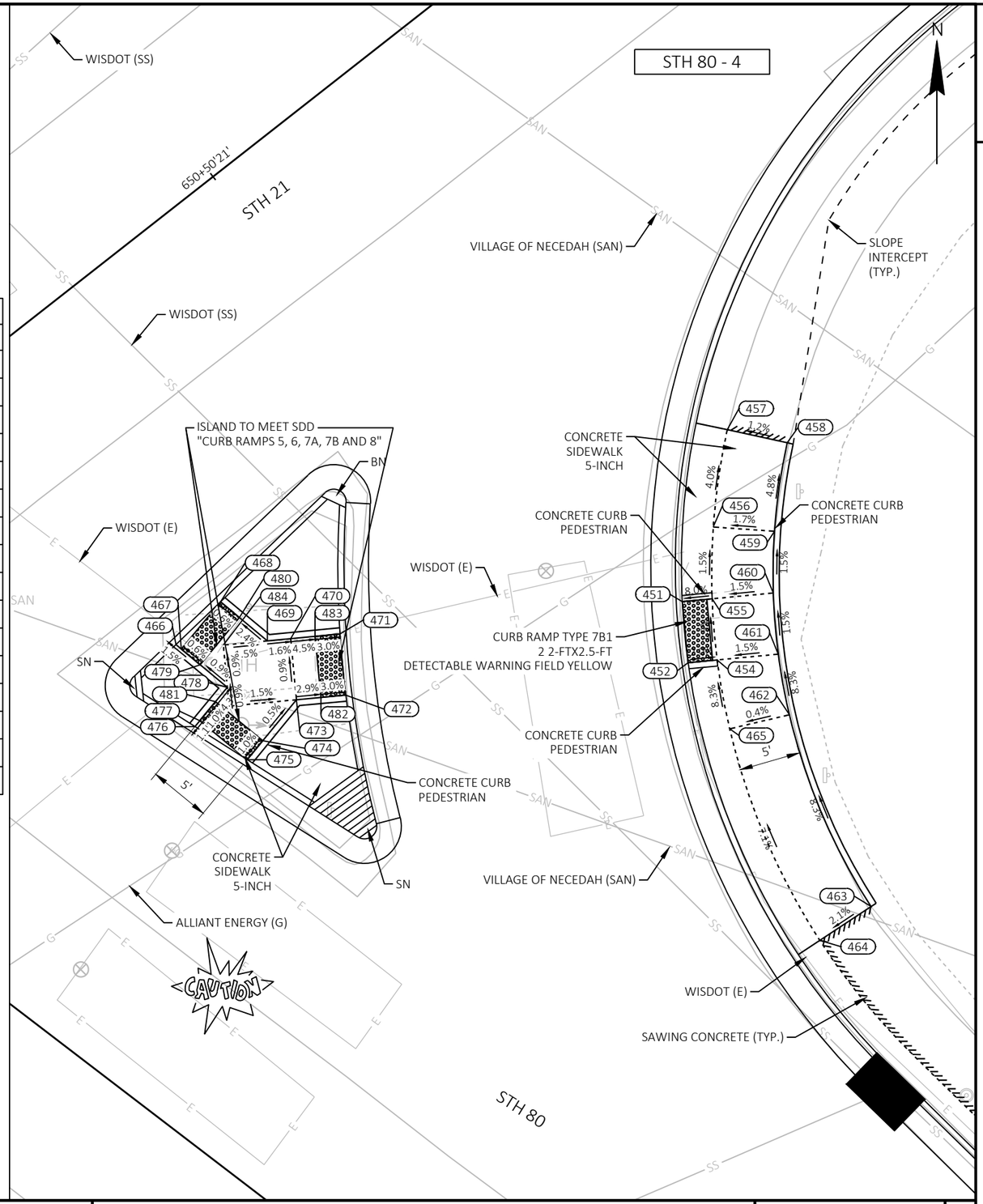
STH		
POINT NO.	STATION	OFFSET
425	649+61.10	52.69' RT

2

STH 80 - 4					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
451	650+58.71	50.85' RT	914.00	463,697.45	240,424.50
452	650+56.01	55.06' RT	914.31	463,697.92	240,419.52
454	650+58.01	56.34' RT	914.28	463,700.28	240,419.74
455	650+60.76	52.17' RT	914.21	463,699.87	240,424.73
456	650+64.45	47.62' RT	914.12	463,699.97	240,430.58
457	650+70.24	42.09' RT	913.80	463,701.11	240,438.51
458	650+73.42	45.94' RT	913.86	463,705.99	240,437.44
459	650+68.16	50.98' RT	--	463,704.96	240,430.23
460	650+64.98	54.87' RT	--	463,704.86	240,425.20
461	650+62.22	59.05' RT	914.36	463,705.27	240,420.21
462	650+59.89	63.49' RT	914.77	463,706.17	240,415.28
463	650+55.48	79.87' RT	0.00	463,712.81	240,399.67
464	650+50.49	79.48' RT	916.09	463,708.64	240,396.90
465	650+55.35	61.39' RT	--	463,701.30	240,414.13
466	650+24.09	28.14' RT	--	463,656.19	240,420.99
467	650+24.21	28.69' RT	914.79	463,656.62	240,420.63
468	650+29.09	27.64' RT	914.59	463,659.81	240,424.48

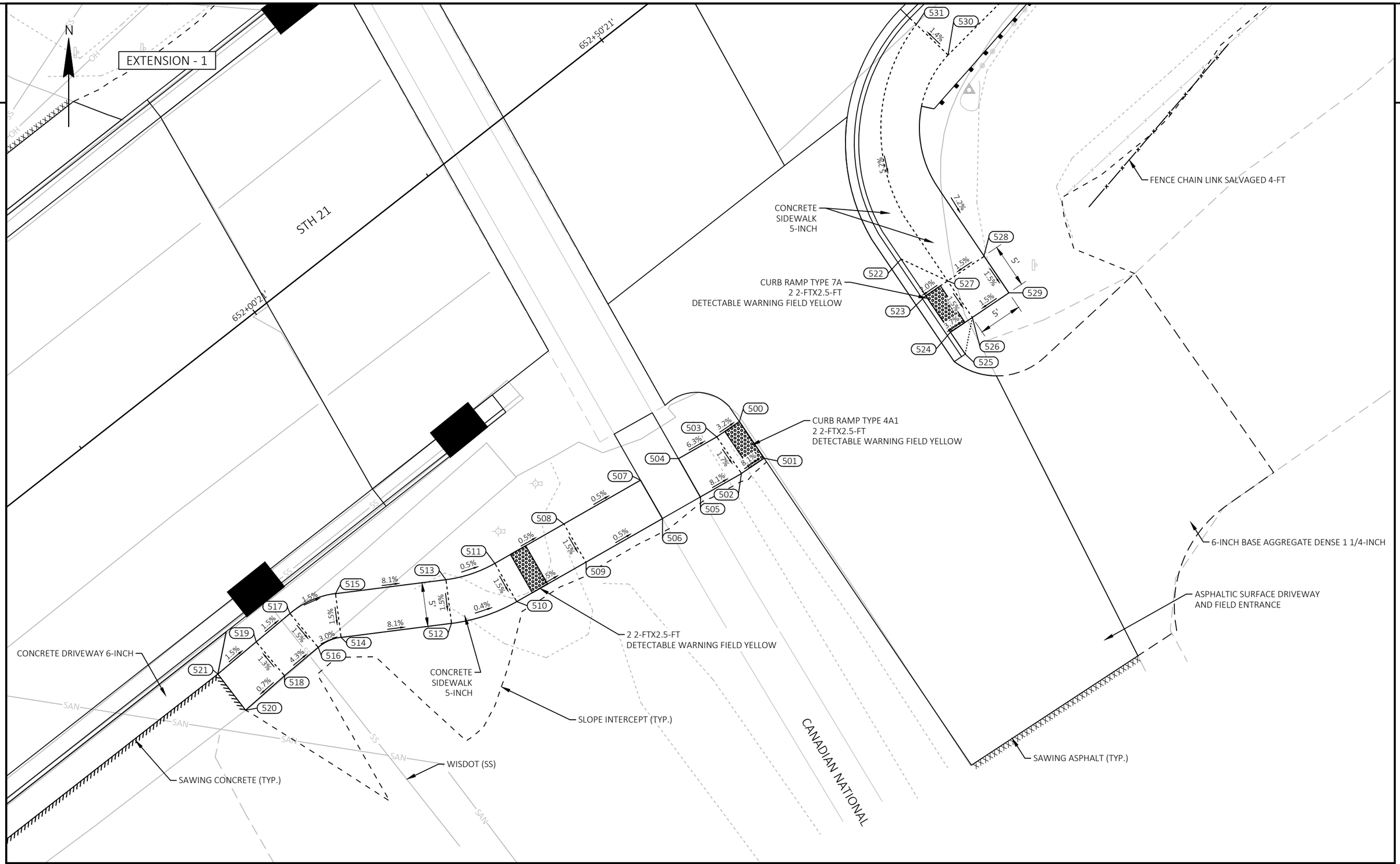
STH 80 - 4					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
469	650+30.15	32.50' RT	0.00	463,663.64	240,421.30
470	650+31.74	33.53' RT	914.80	463,665.53	240,421.48
471	650+35.14	35.71' RT	914.52	463,669.55	240,421.86
472	650+32.44	39.91' RT	914.73	463,670.02	240,416.88
473	650+29.04	37.73' RT	914.98	463,666.01	240,416.50
474	650+24.82	38.66' RT	0.00	463,663.26	240,413.17
475	650+22.87	39.09' RT	915.27	463,661.99	240,411.62
476	650+21.19	34.34' RT	915.16	463,657.73	240,414.32
477	650+21.79	34.21' RT	915.15	463,658.13	240,414.80
478	650+25.24	33.45' RT	915.00	463,660.37	240,417.52
479	650+24.63	30.65' RT	915.02	463,658.16	240,419.35
480	650+29.52	29.59' RT	914.89	463,661.35	240,423.20
481	650+23.75	33.78' RT	915.12	463,659.40	240,416.34
482	650+30.73	38.81' RT	914.92	463,668.00	240,416.69
483	650+33.43	34.61' RT	914.84	463,667.53	240,421.67
484	650+27.11	30.55' RT	915.02	463,660.05	240,420.96

-- DENOTES "MATCH EXISTING"



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 88	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 06 (2)
PLOT DATE : 7/9/2024 12:21 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 89	E

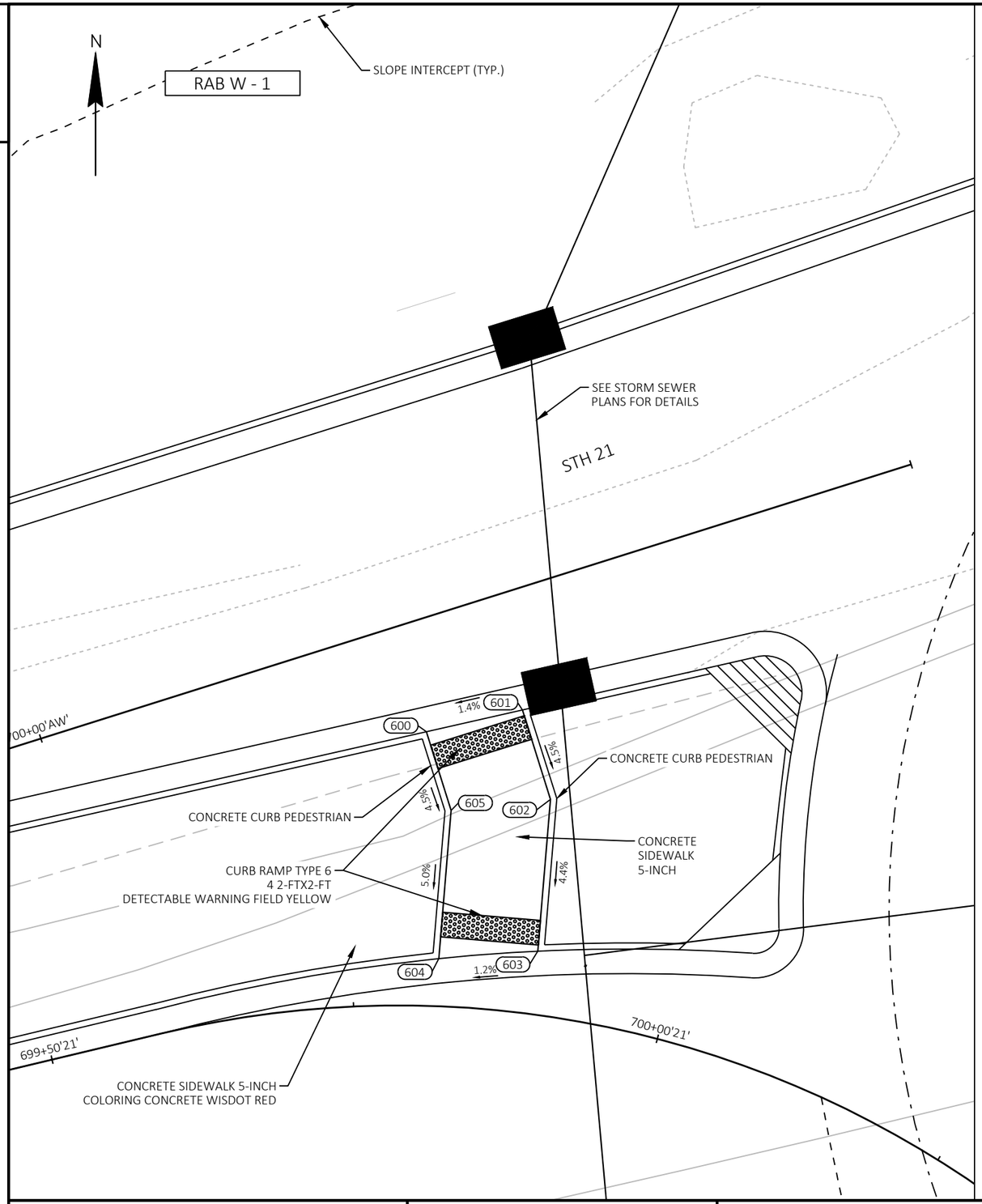
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 07
PLOT DATE : 7/9/2024 12:21 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

EXTENSION - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
500	652+35.59	43.68' RT	907.39	463,832.18	240,539.32
501	652+35.23	48.67' RT	907.17	463,834.98	240,535.18
502	652+32.15	48.44' RT	907.42	463,832.41	240,533.44
503	652+32.50	43.46' RT	907.50	463,829.61	240,537.59
504	652+27.56	42.72' RT	907.82	463,825.27	240,535.11
505	652+26.84	47.67' RT	907.85	463,827.76	240,530.78
506	652+21.94	46.95' RT	908.13	463,823.46	240,528.32
507	652+22.66	42.00' RT	908.06	463,820.97	240,532.66
508	652+12.76	40.56' RT	908.11	463,812.30	240,527.68
509	652+12.05	45.51' RT	908.18	463,814.79	240,523.34
510	652+03.11	44.15' RT	908.23	463,806.92	240,518.90
511	652+03.84	39.21' RT	908.15	463,804.44	240,523.24
512	651+95.77	41.53' RT	908.26	463,799.53	240,516.43
513	651+98.34	37.24' RT	908.18	463,798.90	240,521.39
514	651+84.94	35.05' RT	909.28	463,787.00	240,514.84
515	651+87.51	30.76' RT	909.20	463,786.37	240,519.81
516	651+82.21	34.34' RT	909.36	463,784.42	240,513.72

EXTENSION - 1					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
517	651+82.05	29.34' RT	909.29	463,781.20	240,517.55
518	651+77.21	34.51' RT	909.43	463,780.59	240,510.50
519	651+77.05	29.51' RT	909.36	463,777.37	240,514.33
520	651+71.32	34.86' RT	--	463,776.17	240,506.58
521	651+71.37	29.69' RT	--	463,773.02	240,510.68
522	652+61.39	40.51' RT	907.75	463,850.52	240,557.74
523	652+61.02	45.50' RT	907.02	463,853.31	240,553.59
524	652+60.67	50.48' RT	906.78	463,856.11	240,549.45
525	652+60.45	53.48' RT	907.09	463,857.79	240,546.96
526	652+63.66	50.70' RT	906.98	463,858.60	240,551.12
527	652+64.02	45.71' RT	907.06	463,855.80	240,555.27
528	652+69.01	46.02' RT	907.14	463,859.92	240,558.10
529	652+68.65	51.05' RT	907.06	463,862.74	240,553.92
530	652+79.87	25.58' RT	--	463,855.85	240,580.89
531	652+79.17	20.63' RT	--	463,852.24	240,584.35

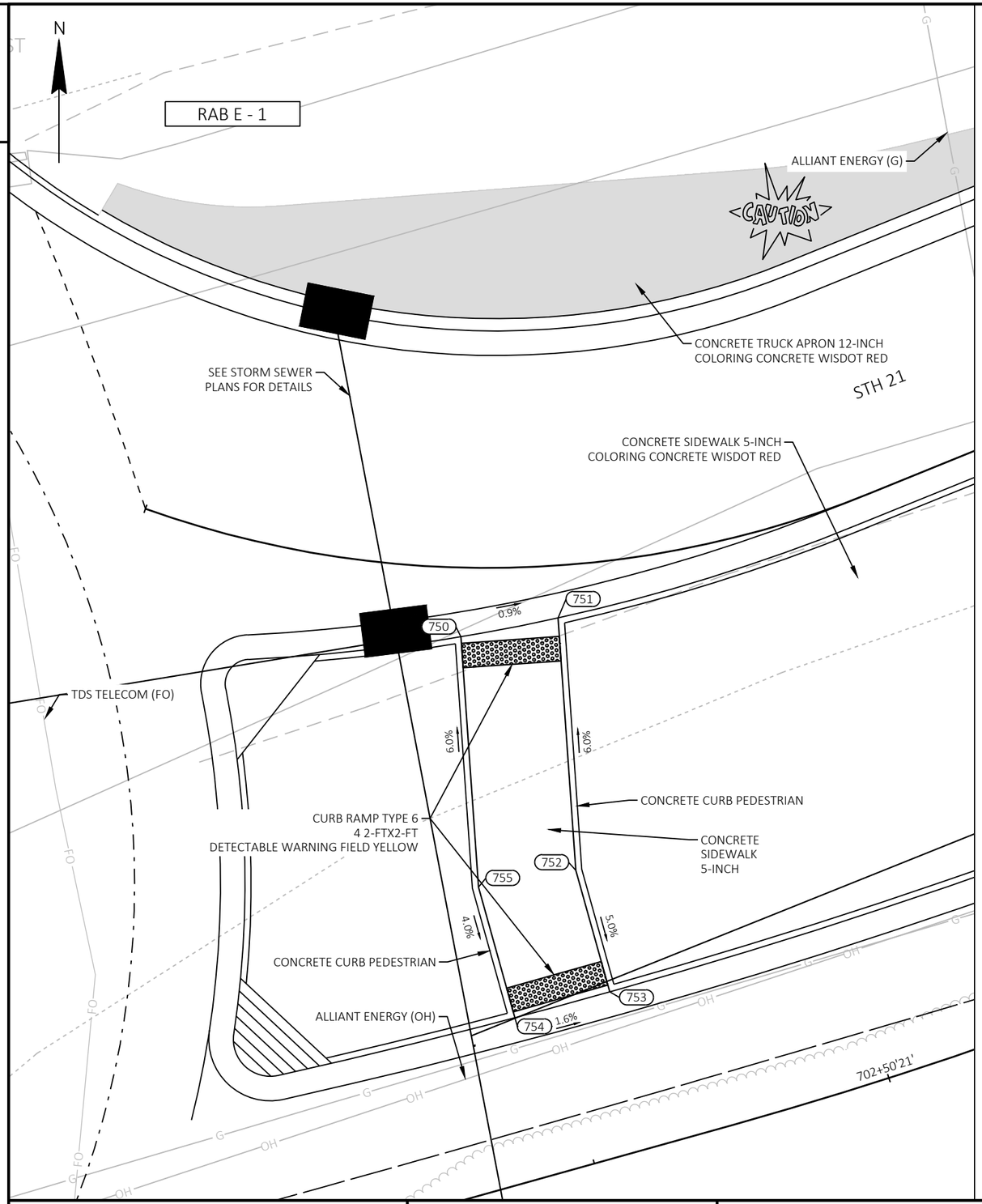
-- DENOTES "MATCH EXISTING"



RAB W					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
600	699+80.47	22.33' LT	905.63	468,365.59	241,173.00
601	699+86.48	24.55' LT	905.74	468,373.42	241,174.77
602	699+88.93	17.56' LT	906.08	468,375.71	241,167.49
603	699+89.39	5.15' LT	906.64	468,374.67	241,155.12
604	699+81.80	3.88' LT	906.54	468,366.59	241,154.51
605	699+82.27	15.99' LT	905.93	468,367.61	241,166.59

-- DENOTES "MATCH EXISTING"

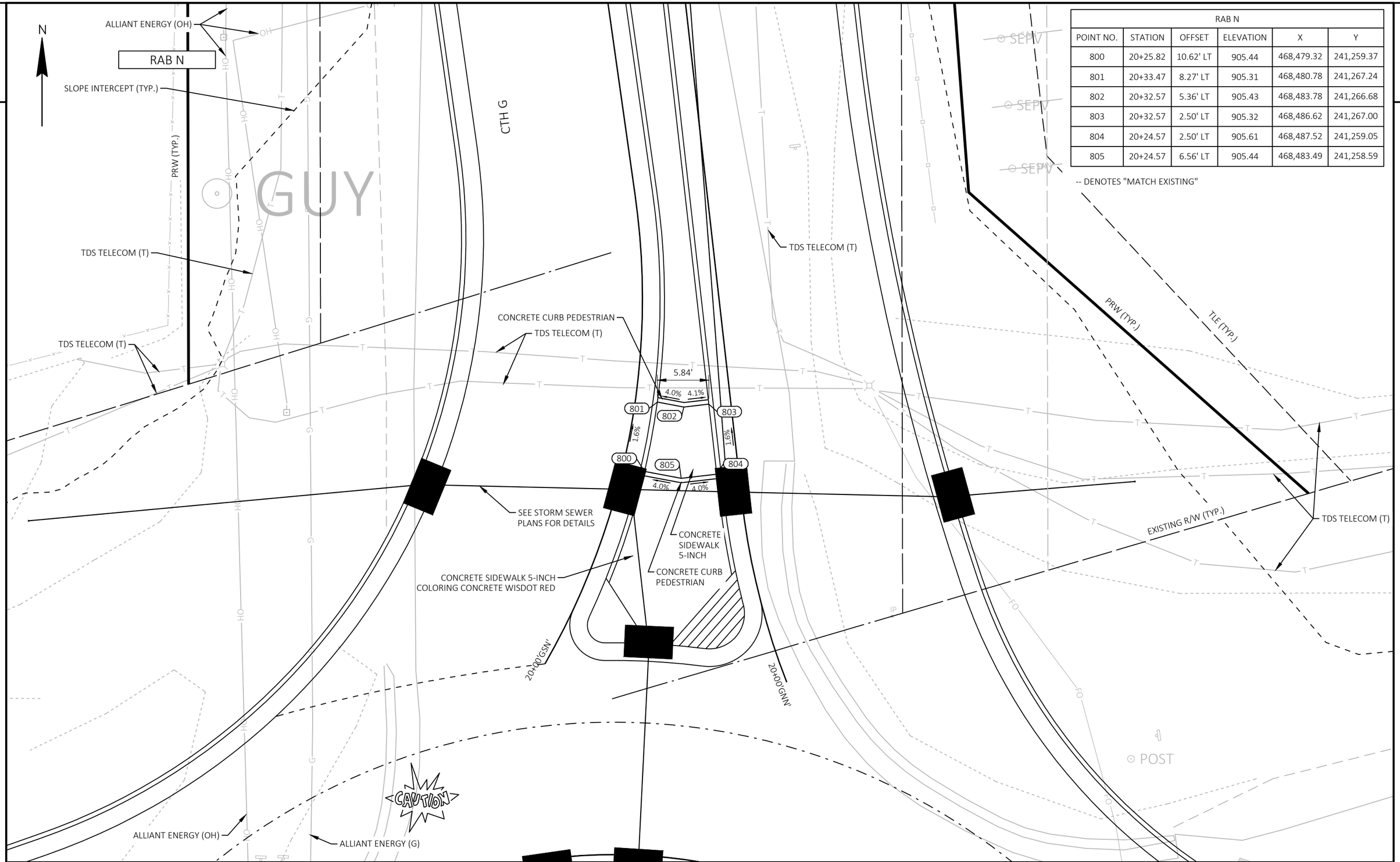
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 91	E



RAB E					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
750	702+26.08	44.28' LT	906.09	468,574.91	241,178.59
751	702+34.11	43.62' LT	906.01	468,582.82	241,180.12
752	702+29.96	23.42' LT	907.25	468,584.26	241,159.55
753	702+29.96	13.14' LT	906.73	468,587.03	241,149.65
754	702+21.96	13.19' LT	906.86	468,579.31	241,147.54
755	702+21.96	24.24' LT	907.30	468,576.34	241,158.18

-- DENOTES "MATCH EXISTING"

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 92	E



RAB N					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
800	20+25.82	10.62' LT	905.44	468,479.32	241,259.37
801	20+33.47	8.27' LT	905.31	468,480.78	241,267.24
802	20+32.57	5.36' LT	905.43	468,483.78	241,266.68
803	20+32.57	2.50' LT	905.32	468,486.62	241,267.00
804	20+24.57	2.50' LT	905.61	468,487.52	241,259.05
805	20+24.57	6.56' LT	905.44	468,483.49	241,258.59

-- DENOTES "MATCH EXISTING"

2

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 93	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 10
PLOT DATE : 7/9/2024 12:21 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

2

TDS TELECOM (T)

RAB S

ALLIANT ENERGY (G)

TDS TELECOM (FO)

CAUTION

GUY

ALLIANT ENERGY (OH)

SIGN

SIGN

701+00'21"

CONCRETE SIDEWALK 5-INCH
COLORING CONCRETE WISDOT RED

CONCRETE CURB
PEDESTRIAN

CONCRETE
SIDEWALK
5-INCH

17+00'GSS'

17+00'GNS'

4.6%

4.0%

902

901

903

1.8%

1.4%

905

900

904

4.6%

4.0%

CURB RAMP TYPE 6
4 2-FTX2-FT
DETECTABLE WARNING FIELD YELLOW

CONCRETE CURB
PEDESTRIAN

CTH G

ALLIANT ENERGY (G)

CAUTION

TDS TELECOM (FO)

TDS TELECOM (T)

SEE STORM SEWER
PLANS FOR DETAILS

POST

EXISTING R/W (TYP.)

N

RAB S					
POINT NO.	STATION	OFFSET	ELEVATION	X	Y
900	16+80.71	18.18' LT	907.36	468,455.65	241,048.51
901	16+87.30	19.35' LT	907.49	468,455.61	241,056.66
902	16+90.39	10.62' LT	907.93	468,464.89	241,058.53
903	16+91.18	2.50' LT	907.61	468,473.00	241,057.58
904	16+83.40	2.50' LT	907.49	468,471.57	241,049.69
905	16+83.31	8.89' LT	907.76	468,465.22	241,050.44

-- DENOTES "MATCH EXISTING"

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CURB RAMP DETAILS	SHEET 94	E

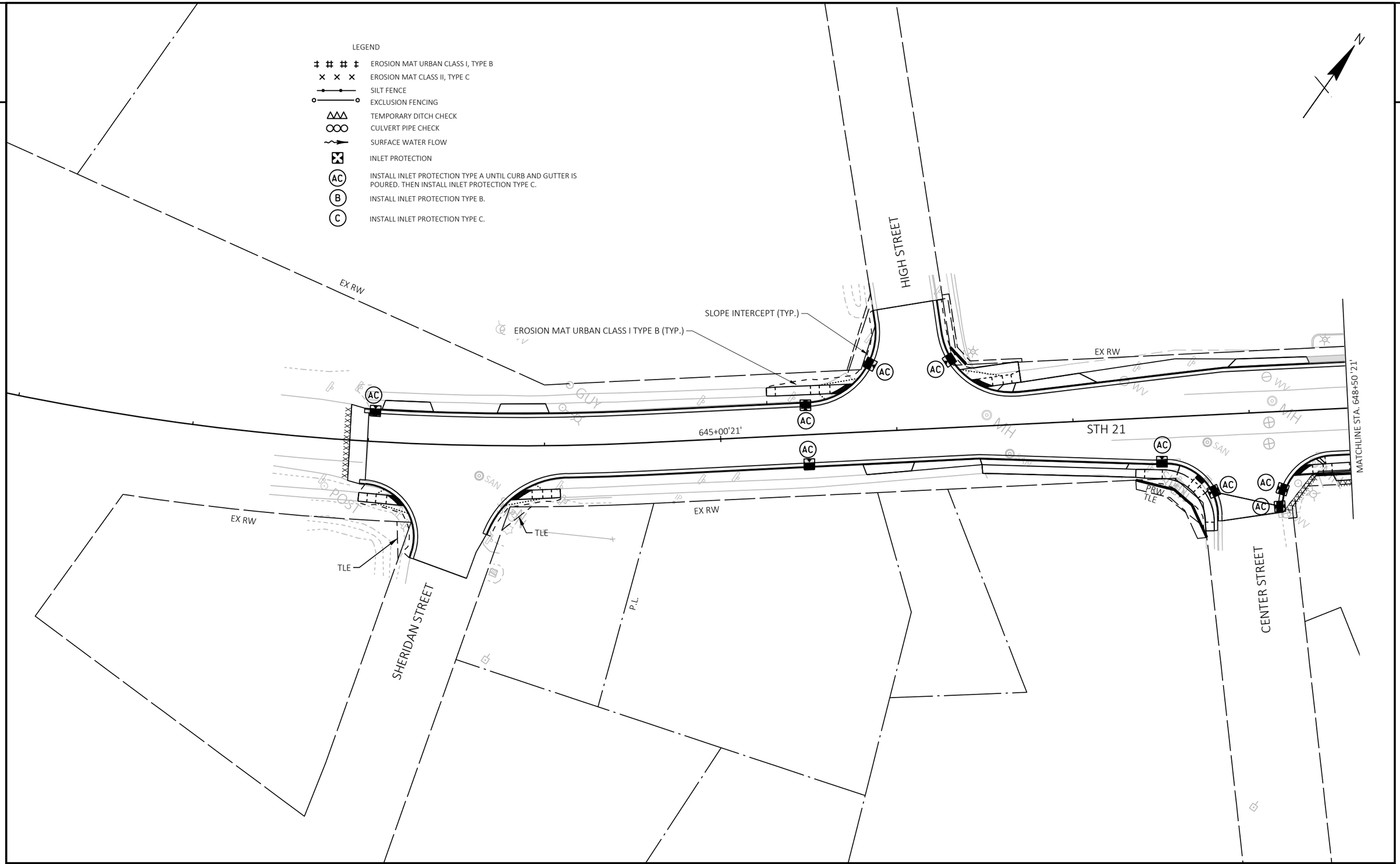
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\021301-CR.DWG
LAYOUT NAME - 11

PLOT DATE : 7/9/2024 12:21 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

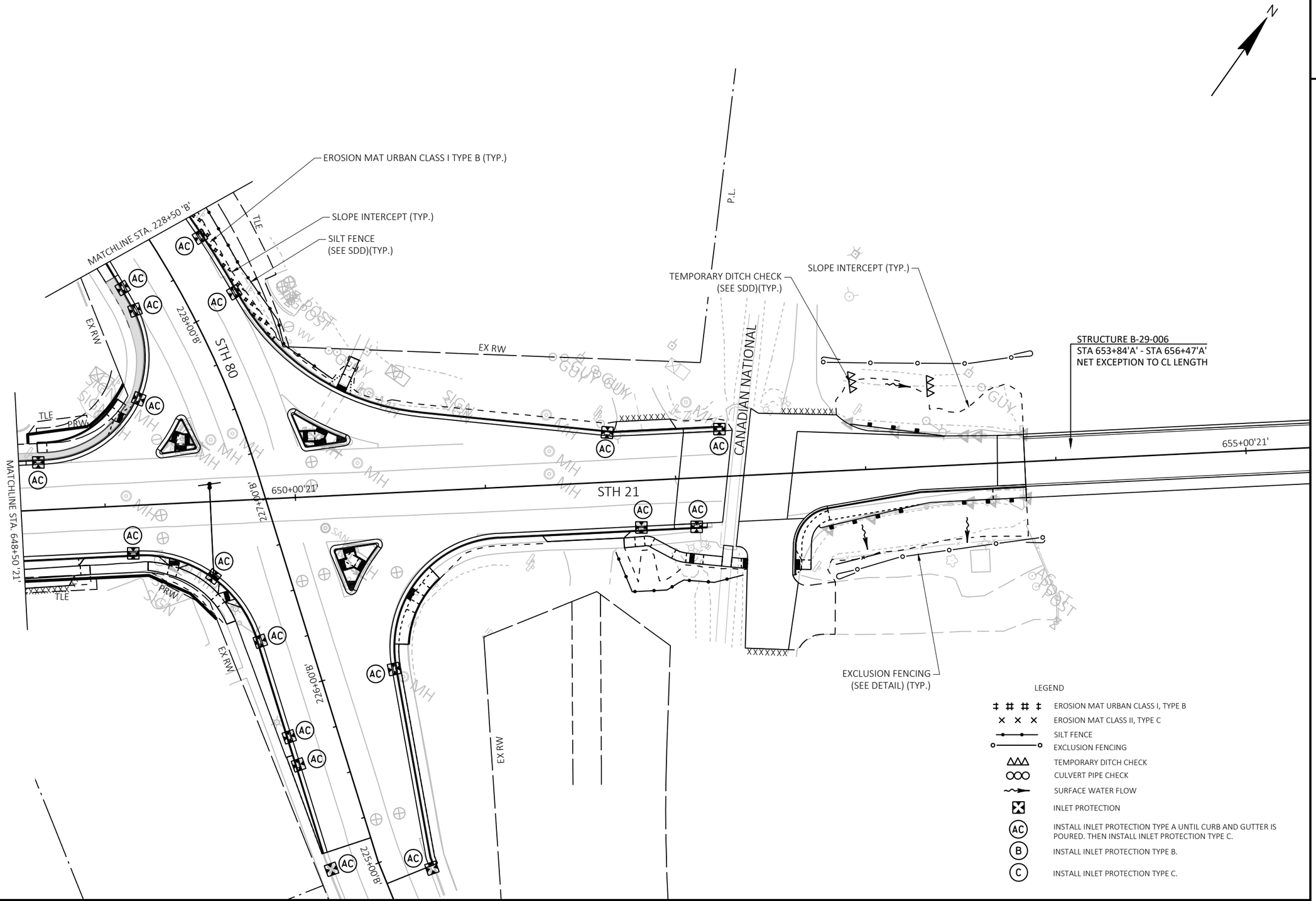


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 95	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022001-EC - STH 21.DWG
LAYOUT NAME - STH 21

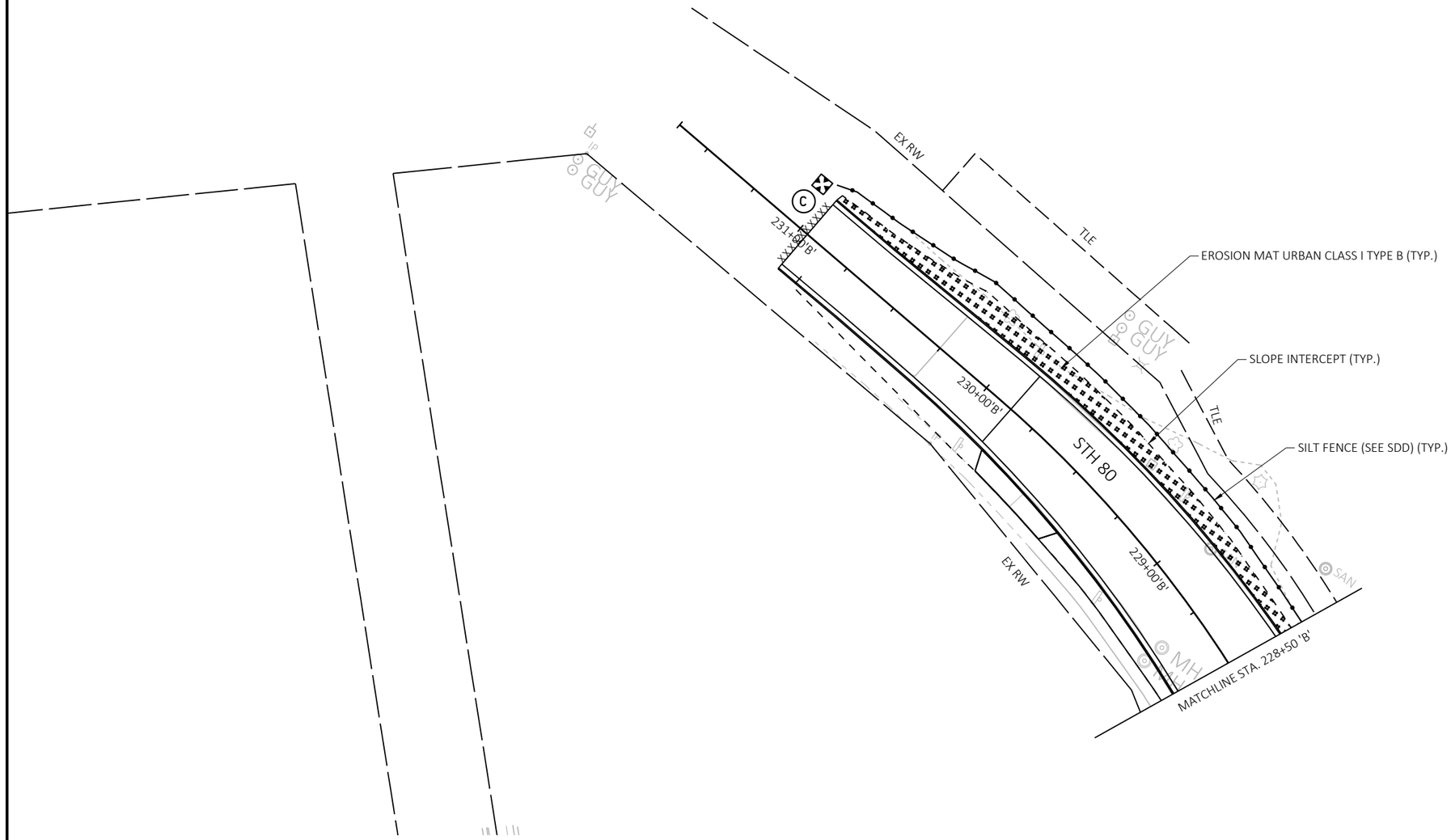
PLOT DATE : 6/25/2024 1:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 96	E

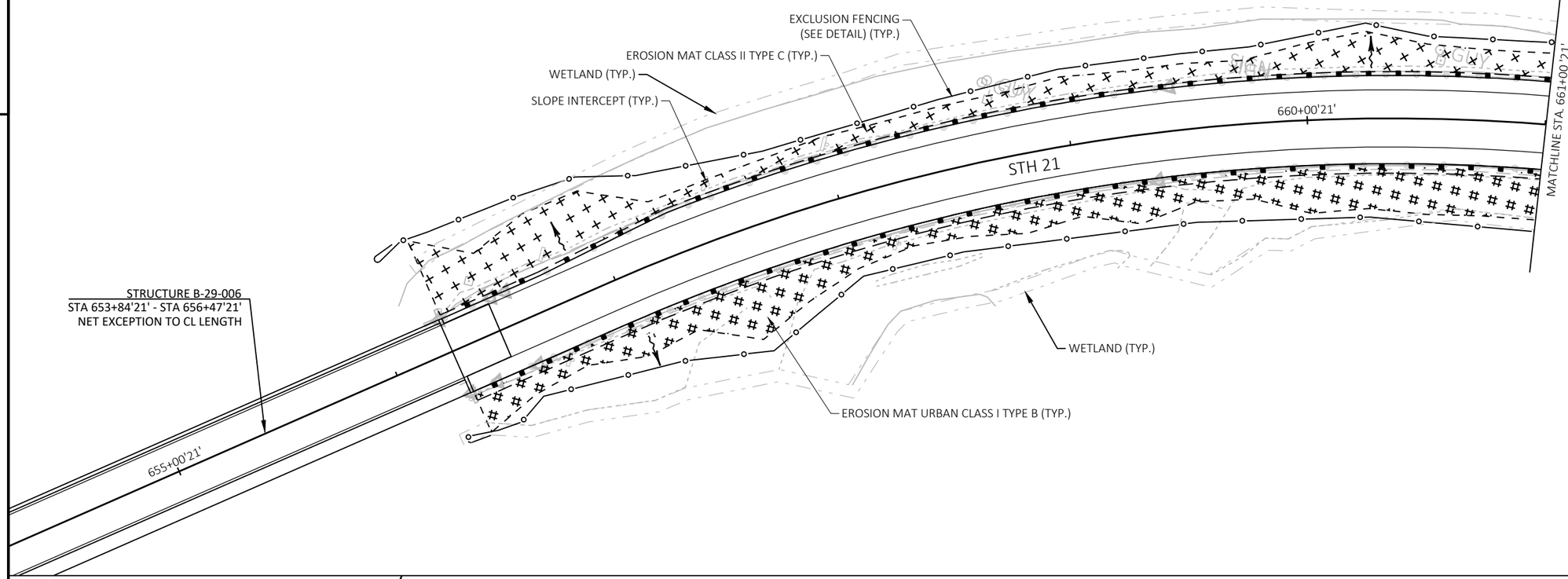
2

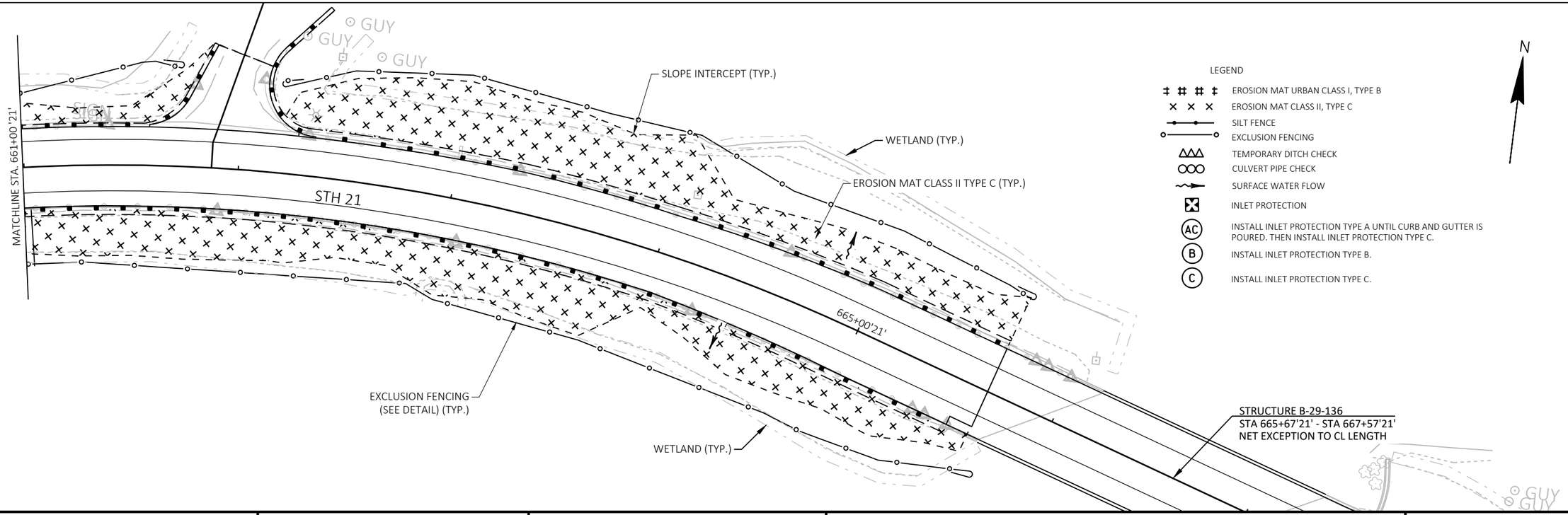


LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 97	E





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 98	E

2

N

WETLAND (TYP.)

SLOPE INTERCEPT (TYP.)

STRUCTURE B-29-100
STA 677+27'21" - STA 678+75'21"
NET EXCEPTION TO CL LENGTH

EROSION MAT URBAN CLASS I TYPE B (TYP.)

675+00'21"

680+00'21"

STH 21

WETLAND (TYP.)

EXCLUSION FENCING
(SEE DETAIL) (TYP.)

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 99	E

2

2

N

P.L

SLOPE INTERCEPT (TYP.)

EROSION MAT URBAN CLASS I TYPE B (TYP.)

EX RW

690+00'21'

STH 21

MATCHLINE STA. 695+00 '21'

EX RW

PRW

STRUCTURE C-29-015
STA 691+18'21' - STA 691+31'21'

SILT FENCE (SEE SDD) (TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

TEMPORARY DITCH CHECK
(SEE SDD)(TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL	SHEET 100	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022001-EC - STH 21.DWG
LAYOUT NAME - C-29-015

PLOT DATE : 6/25/2024 1:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

MATCHLINE STA. 21+00 'GNN'

MATCHLINE STA. 695+00 '21'

MATCHLINE STA. 702+00 '21'

MATCHLINE STA. 16+00 'GNS'

P.L.

EX RW

PRW

21+00'GSN'

21+00'GNN'

700+00'AW'

STH 21 WB

STH 21 EB

CTH G SB

CTH G NB

SLOPE INTERCEPT (TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

EROSION MAT TREATMENTS AT
CULVERTS (SEE DETAIL)(TYP.)

EROSION MAT URBAN CLASS I TYPE B (TYP.)

TEMPORARY DITCH CHECK
(SEE SDD)(TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

EROSION MAT TREATMENTS AT
CULVERTS (SEE DETAIL)(TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

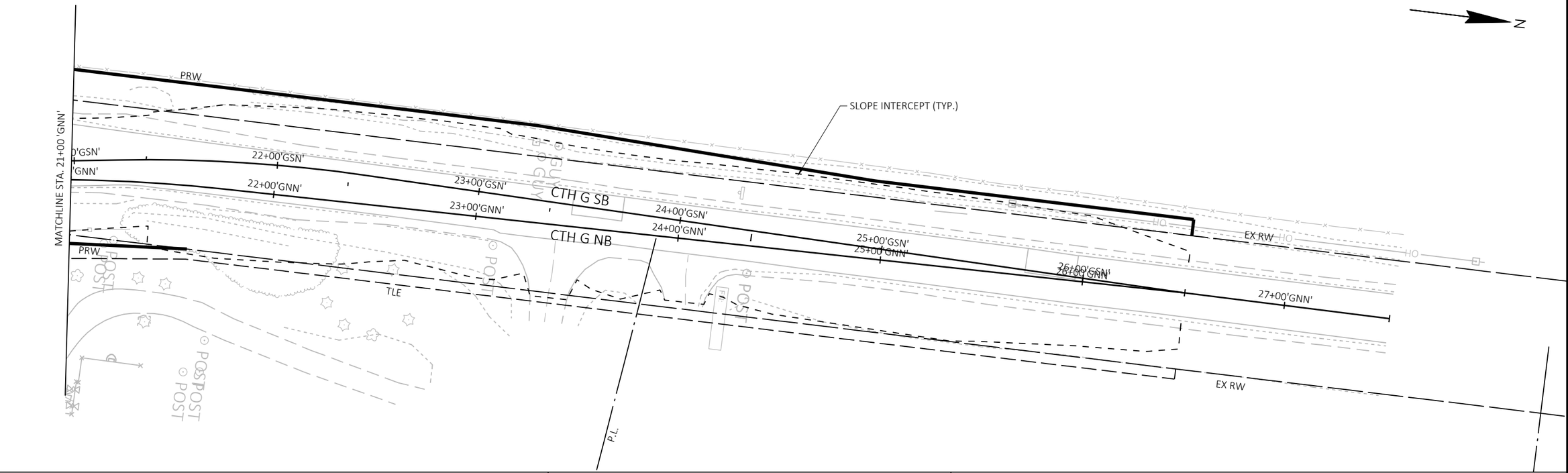
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 1	SHEET 101	E

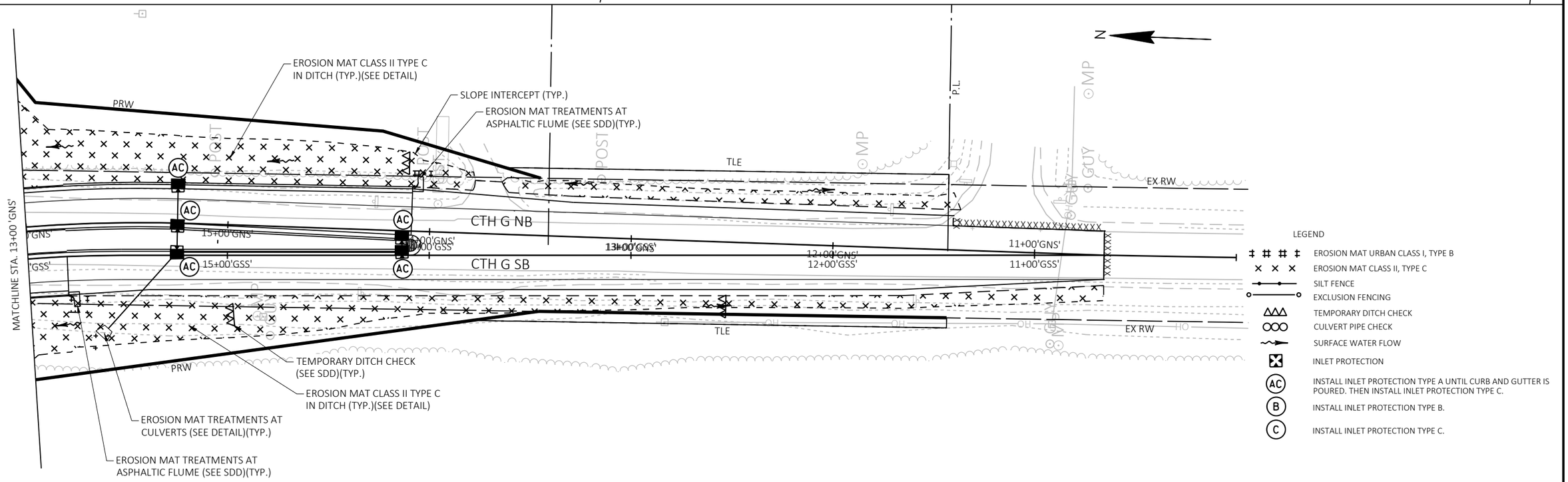
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022002-EC - RAB 1.DWG
LAYOUT NAME - RAB-STAGE 1

PLOT DATE : 6/25/2024 2:25 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 1	SHEET 102	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022002-EC - RAB 1.DWG
LAYOUT NAME - CTH G-STAGE 1
PLOT DATE : 6/25/2024 2:25 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

N

SLOPE INTERCEPT (TYP.)

EX RW

P.L.

STH 21 WB

705+00'AE'

705+00'21'

STH 21 EB

MATCHLINE STA. 702+00'21'

PRW

TLE

SILT FENCE (SEE SDD) (TYP.)

TEMPORARY DITCH CHECK
(SEE SDD)(TYP.)

EROSION MAT CLASS II TYPE C
IN DITCH (TYP.)(SEE DETAIL)

EROSION MAT TREATMENTS AT
CULVERTS (SEE DETAIL)(TYP.)

EROSION MAT URBAN CLASS I TYPE B (TYP.)

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 1	SHEET 103	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022002-EC - RAB 1.DWG
LAYOUT NAME - RAB2-STAGE 1

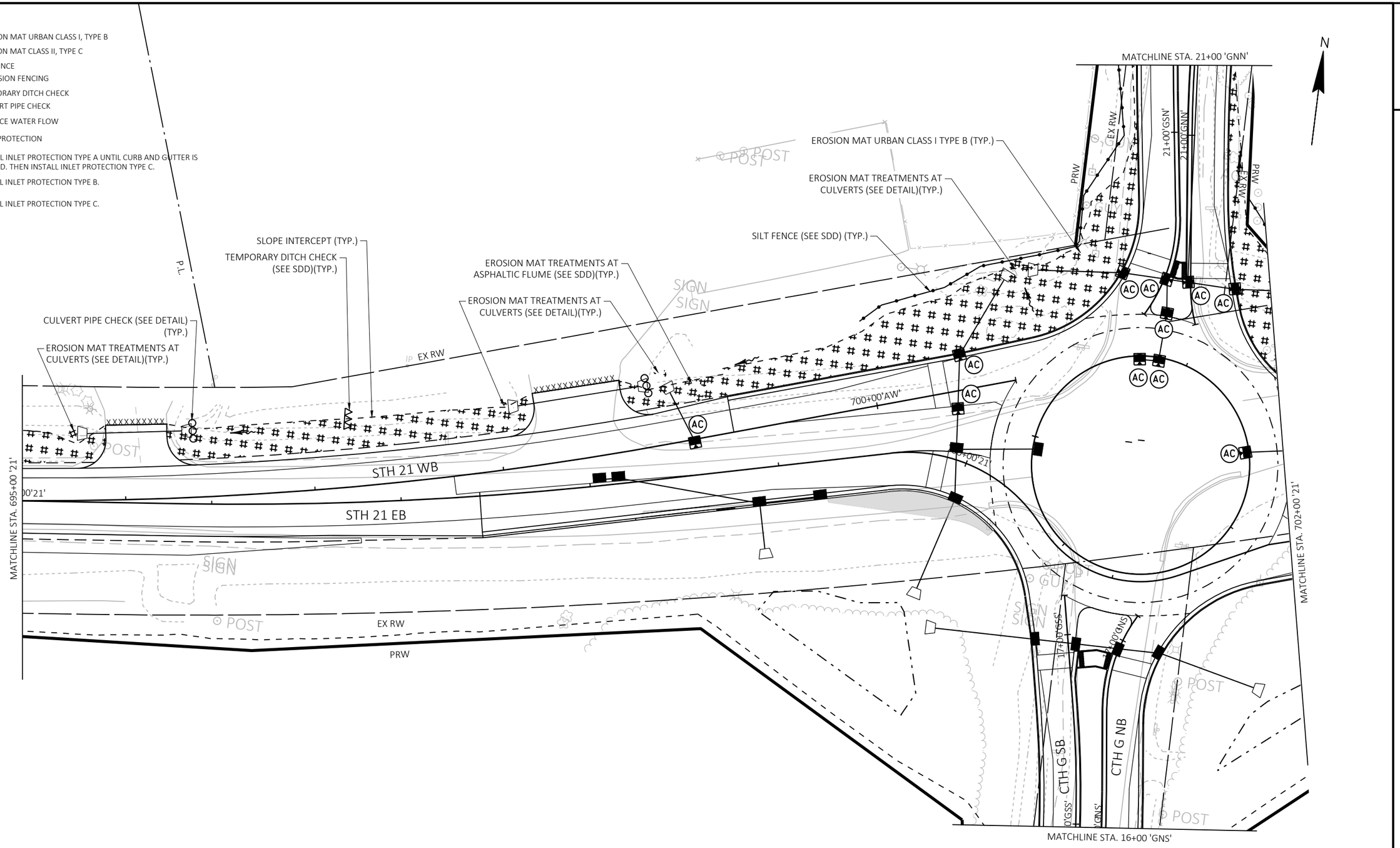
PLOT DATE : 6/25/2024 2:25 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EXCLUSION FENCING
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- INLET PROTECTION
- (AC) INSTALL INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED. THEN INSTALL INLET PROTECTION TYPE C.
- (B) INSTALL INLET PROTECTION TYPE B.
- (C) INSTALL INLET PROTECTION TYPE C.



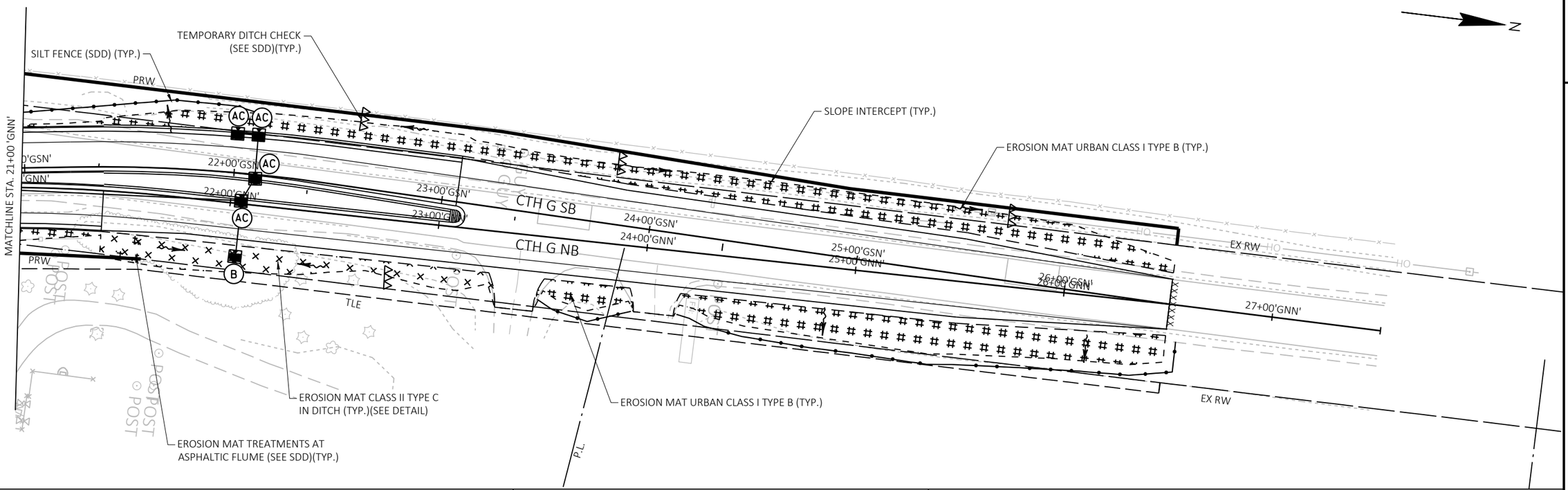
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 2	SHEET 104	E

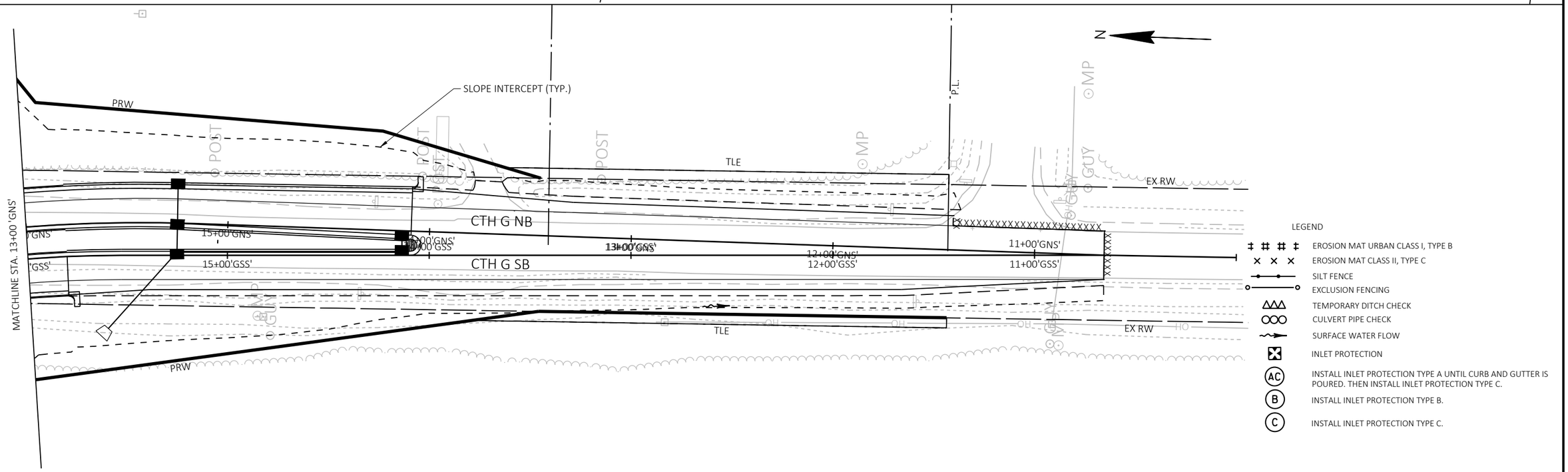
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022003-EC - RAB 2.DWG
LAYOUT NAME - RAB-STAGE 2

PLOT DATE : 6/25/2024 2:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

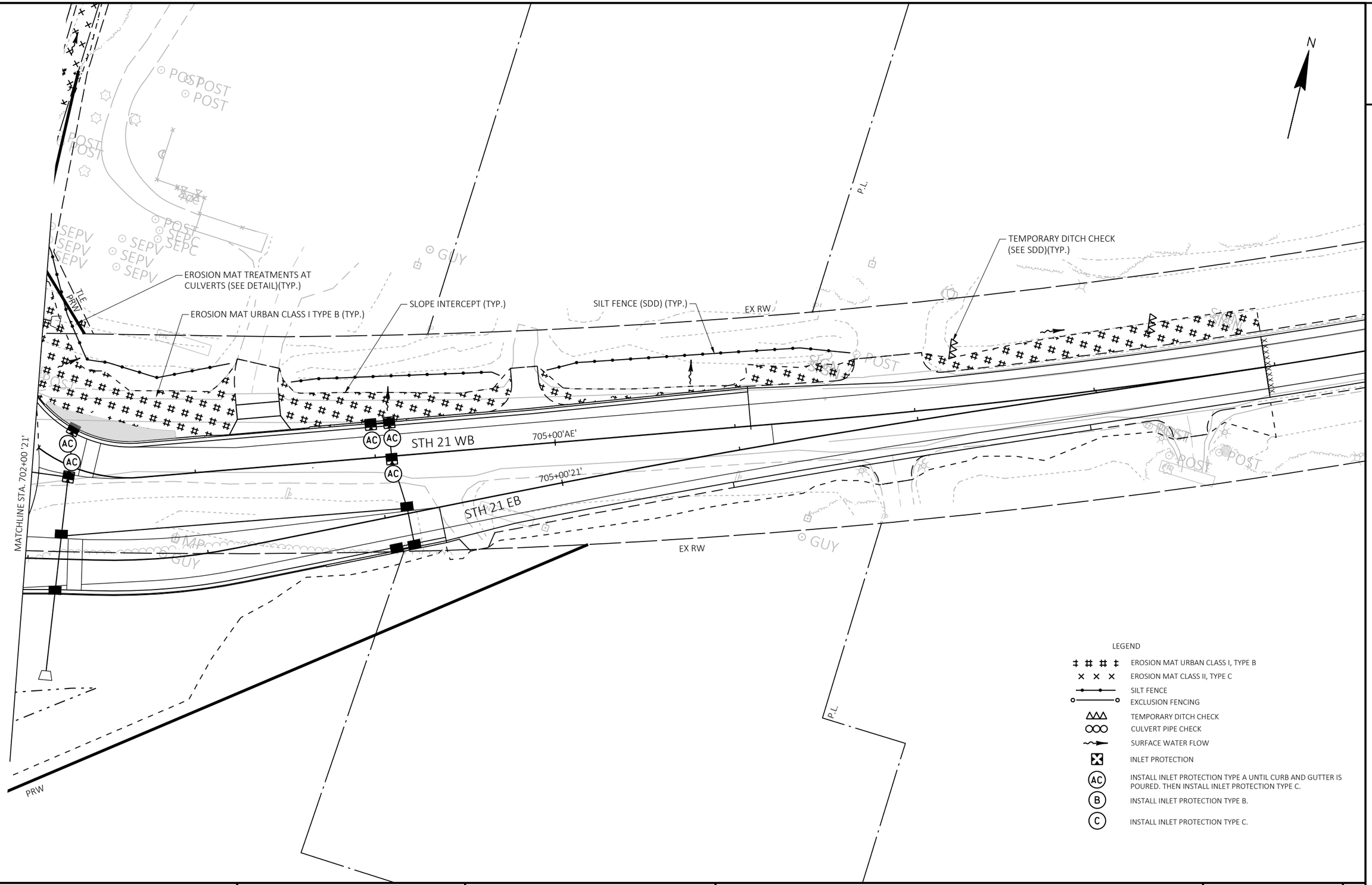
2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 2	SHEET 105	E

2



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	EROSION CONTROL-STAGE 2	SHEET 106	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022003-EC - RAB 2.DWG
LAYOUT NAME - RAB2-STAGE 2
PLOT DATE : 6/25/2024 2:24 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

LEGEND
- INLET
- MANHOLE
- ENDWALL
- WATER FLOW DIRECTION
- ASPHALTIC FLUME

N

STH 80

HIGH ST

ADJUSTING INLET COVERS

ADJUSTING INLET COVERS

ADJUSTING INLET COVERS

VILLAGE OF NECEDAH (W)

MATCH LINE STA 648+75 '21'

643+00'21'

644+00'21'

645+00'21'

646+00'21'

647+00'21'

648+00'21'

STH 21

WISDOT (E)

STA 647+49'21', 25.8' RT
1.2 ADJUSTING INLET COVERS
CONNECT PROPOSED PIPE
TO EXISTING STRUCTURE

WISDOT (SS)

ADJUSTING INLET COVERS

ADJUSTING INLET COVERS

VILLAGE OF NECEDAH (SAN.)

ADJUSTING INLET COVERS

1.1 STA 648+15'21', 53.8' RT
ADJUSTING INLET COVERS
CONNECT PROPOSED PIPE
TO EXISTING STRUCTURE

1.0 STA 647+78'21', 43.6' RT
INLETS 2x3-FT - TYPE H

CENTER ST

SHERIDAN ST

ALLIANT ENERGY & MEDIACOM (OH)

ALLIANT ENERGY (G)

CAUTION

2

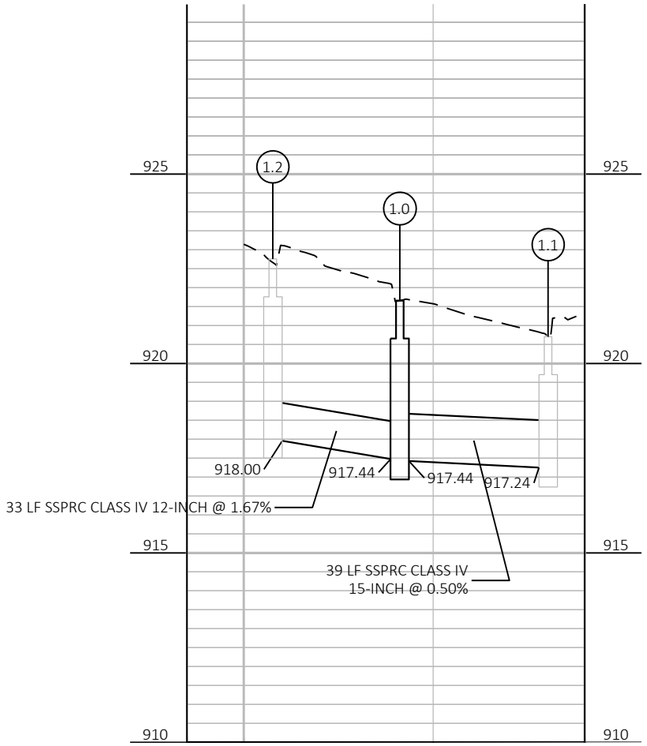
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / STH 80	SHEET 107	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022501_SS-2.DWG
LAYOUT NAME - Sheet - (5)

PLOT DATE : 6/25/2024 2:30 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2


925
925
1.2
1.0
1.1
920
920
918.00
917.44
917.44
917.24
33 LF SSPRC CLASS IV 12-INCH @ 1.67%
915
915
39 LF SSPRC CLASS IV
15-INCH @ 0.50%
910
910

2

REMOVE AND INSTALL INLET CASTINGS,
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED
(SEE TRAFFIC CONTROL STAGE 1A & 1B)

REMOVE AND INSTALL INLET CASTINGS,
REMOVING INLETS REQUIRED
INLET COVERS TYPE HM-GJ REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED
(SEE TRAFFIC CONTROL STAGE 2)

TDS
TELECOM
(T)

ADJUSTING INLET COVERS

VILLAGE OF
NECEDAH (W)

WISDOT (E)

STA 649+55'21', 9.2' LT
MANHOLES 6-FT DIA. - TYPE J

2.2

STA 649+49'21', 8.7' LT
CONCRETE COLLAR

2.1

2.3

STA 649+61'21', 9.8' LT
CONCRETE COLLAR

MATCH LINE STA 648+75 '21'

649+00'21

650+00'21'

651+00'21'

652+00'21'

653+00'21'

654+00'21'

NOTE TO ENGINEER: ELEVATIONS
OF EXISTING PIPES WILL NEED TO
BE FIELD VERIFIED.

CAUTION

STH 21

VILLAGE OF
NECEDAH
(FORCE MAIN)

STH 80

228+00'18"

227+00'18"

226+00'18"

225+00'18"

2.0

STA 649+55'21', 39.6' RT
INLETS 2x3-FT - TYPE H-S

ADJUSTING INLET COVERS

VILLAGE OF
NECEDAH (SAN.)

ADJUSTING INLET COVERS

ADJUSTING INLET COVERS

SOUTH BRANCH YELLOW RIVER

CAUTION

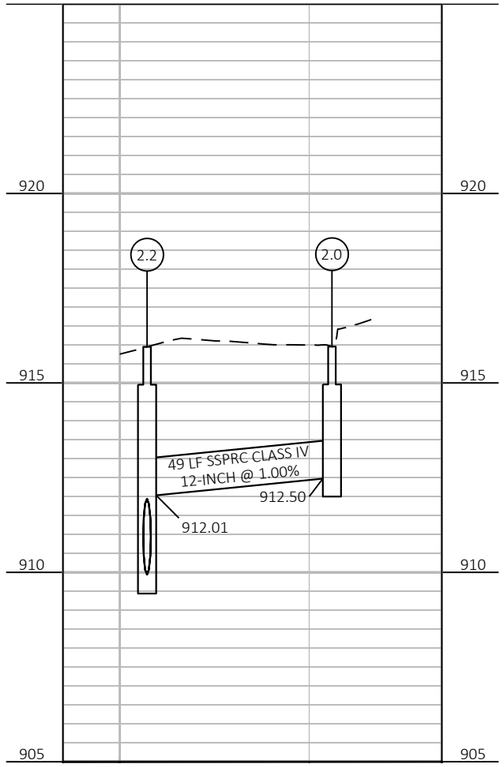
ALLIANT
ENERGY (G)

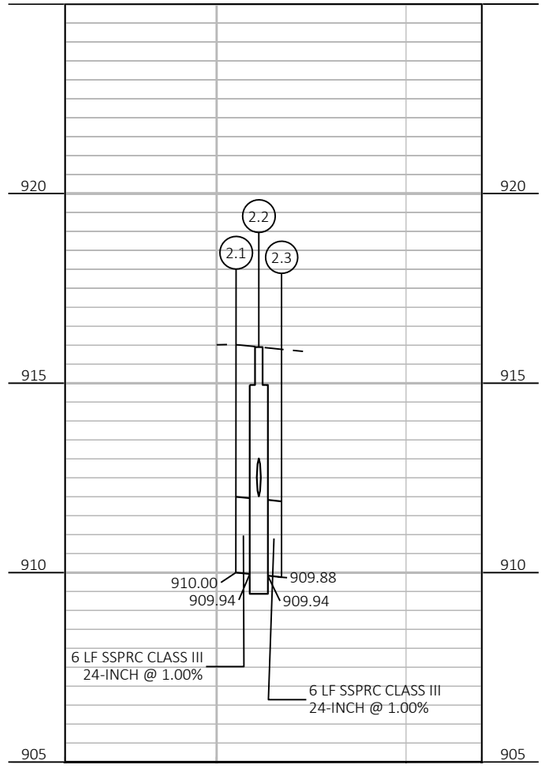
LEGEND
- INLET
- MANHOLE
- ENDWALL
- WATER FLOW DIRECTION
- ASPHALTIC FLUME

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / STH 80	SHEET 109	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022501_SS-2.DWG
LAYOUT NAME - Sheet - (6)
PLOT DATE : 10/28/2024 10:45 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / STH 80	SHEET 110	E

2

2

LEGEND
- INLET
- MANHOLE
- ENDWALL
- WATER FLOW DIRECTION
- ASPHALTIC FLUME

MATCH LINE STA 21+00 'GNN'

STA 20+22'GSN', 1.5' RT
INLETS 4-FT DIA. - TYPE H
STAGE 2
7.10

STA 20+15'GSN', 21.4' LT
INLETS 4-FT DIA. - TYPE H
STAGE 2
7.11

STA 10+47'GC', 58.7' LT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 2
7.12

STA 10+75'GC', 1.8' RT
INLETS 2x2.5-FT - TYPE T
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
7.7

STA 10+39'GC', 63.9' LT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 2
5.0

STA 699+93'21', 5.4' LT
INLETS 4-FT DIA. - TYPE H
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
5.4

STA 700+48'21W', 18.5' LT
INLETS 4-FT DIA. - TYPE H
STAGE 2
5.1

4.1 STA 698+94'21W', 26.7' LT
APRON ENDWALLS FOR CPRC 12-INCH
STAGE 2

4.0 STA 699+02'21W', 1.5' RT
INLETS 2x3-FT - TYPE H-S
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

5.2 STA 700+42'21W', 9.3' RT
INLETS 4-FT DIA. - TYPE H
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

7.8 STA 10+85'GC', 1.8' RT
INLETS 2x2.5-FT - TYPE T
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

STA 11+58'GC', 1.8' RT
INLETS 2x2.5-FT - TYPE T
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
6.7

5.3 STA 13+55'GC', 1.8' RT
INLETS 2x2.5-FT - TYPE T
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

3.2 STA 699+20'21', 18.5' RT
INLETS 2x3-FT - TYPE HM
STAGE 1

5.5 STA 700+02'21', 19.9' RT
INLETS 4-FT DIA. - TYPE HM
STAGE 1

3.3 STA 698+88'21', 18.5' RT
INLETS 4-FT DIA. - TYPE H-S
STAGE 1

3.4 STA 698+88'21', 42.6' RT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 1

3.1 STA 698+15'21', 2.9' LT
INLETS 2x3-FT - TYPE HM-S
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

STA 700+01'21', 70.8' RT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 1
5.6

STA 17+09'GSS', 69.3' LT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 1
9.5

3.0 STA 698+05'21', 3.2' LT
INLETS 2x3-FT - TYPE HM-S
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D

STA 16+99'GSS', 18.5' LT
INLETS 2x3-FT - TYPE H
STAGE 1
9.4

STA 16+95'GSS', 5.1' RT
INLETS 2x3-FT - TYPE H
STAGE 1
9.3

CAUTION

11+00'GC

12+00'GC

STA 20+22'GNN', 1.5' LT
INLETS 4-FT DIA. - TYPE H
STAGE 2
7.6

STA 20+18'GNN', 23.1' RT
INLETS 2x3-FT - TYPE H
STAGE 2
7.5

STA 20+15'GNN', 44.4' RT
APRON ENDWALLS FOR CPRC 15-INCH
STAGE 2
7.4

STA 10+85'21', 23.5' LT
INLETS 2x3-FT - TYPE H-S
STAGE 2
7.9

STA 704+09'21E', 1.5' RT
INLETS 2x3-FT - TYPE HM-S
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
6.4

STA 704+09'21E', 18.5' LT
INLETS 2x3-FT - TYPE HM-S
STAGE 2
6.3

STA 703+99'21E', 18.5' LT
INLETS 2x3-FT - TYPE HM
STAGE 2
6.2

STA 702+22'21E', 18.9' LT
INLETS 2x3-FT - TYPE HM
STAGE 2
6.6

STA 702+31'21E', 6.2' RT
INLETS 2x3-FT - TYPE H
STAGE 2
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
6.8

STA 702+18'21', 12.7' LT
INLETS 4-FT DIA. - TYPE H
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
6.9

STA 702+16'GNS', 18.5' RT
INLETS 4-FT DIA. - TYPE H
STAGE 1
6.10

STA 704+13'21', 2.9' LT
INLETS 4-FT DIA. - TYPE HM-S
STAGE 1
CASTING TO BE PLACED IN STAGE 3
TEMPORARY COVER PLATE REQ'D
6.5

STA 704+03'21', 18.5' RT
INLETS 2x3-FT - TYPE HM
STAGE 1
6.0

STA 704+13'21', 18.5' RT
INLETS 2x3-FT - TYPE HM-S
STAGE 1
6.1

9.1 STA 17+03'GNS', 20.8' RT
INLETS 2x3-FT - TYPE H
STAGE 1

6.11 STA 702+12'GNS', 62.1' RT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 1

9.0 STA 12+29'GNS', 74.2' LT
APRON ENDWALLS FOR CPRC 18-INCH
STAGE 1

9.2 STA 16+95'GNS', 1.5' LT
INLETS 2x3-FT - TYPE H
STAGE 1

STH 21

CTH G

699+00'AW'

699+00'21'

700+00'AW'

700+00'21'

701+00'21'

702+00'21'

703+00'21'

703+00'AE'

704+00'AE'

MATCH LINE STA 16+00 'GNS'

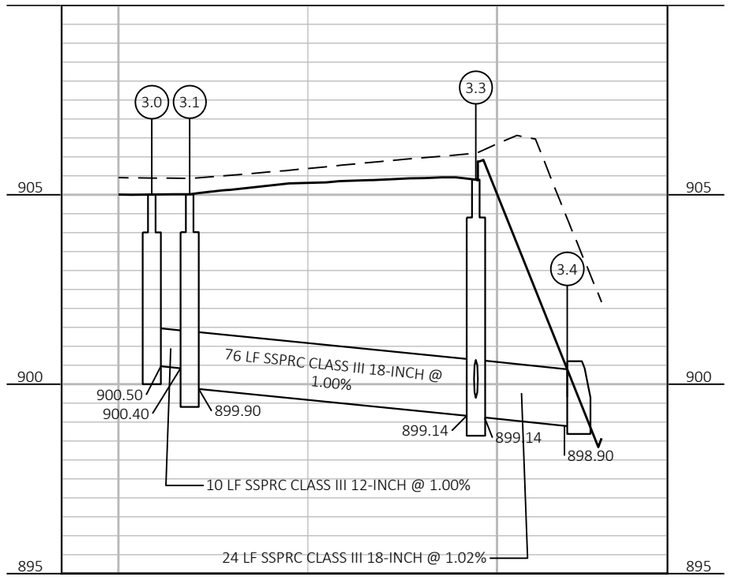
N

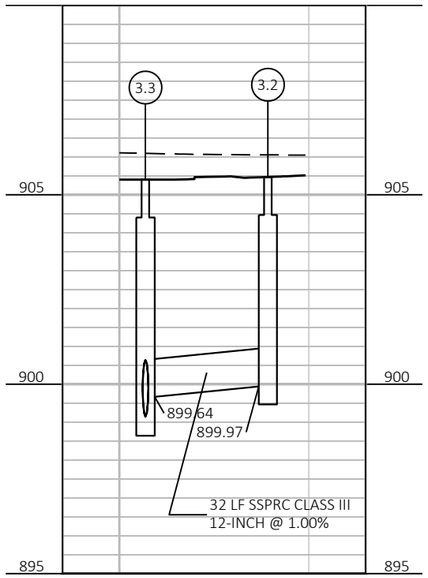
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 111	E

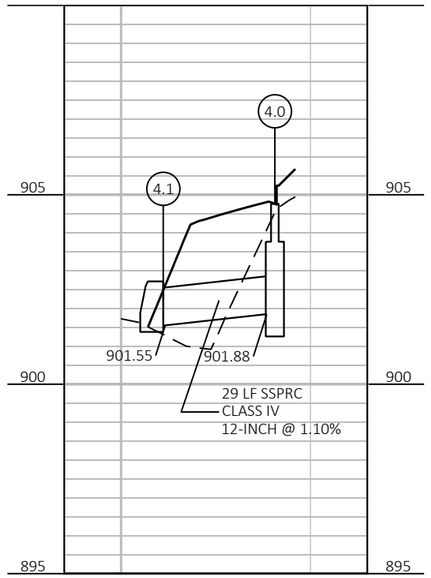
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022501_SS-2.DWG
LAYOUT NAME - Sheet - (04)

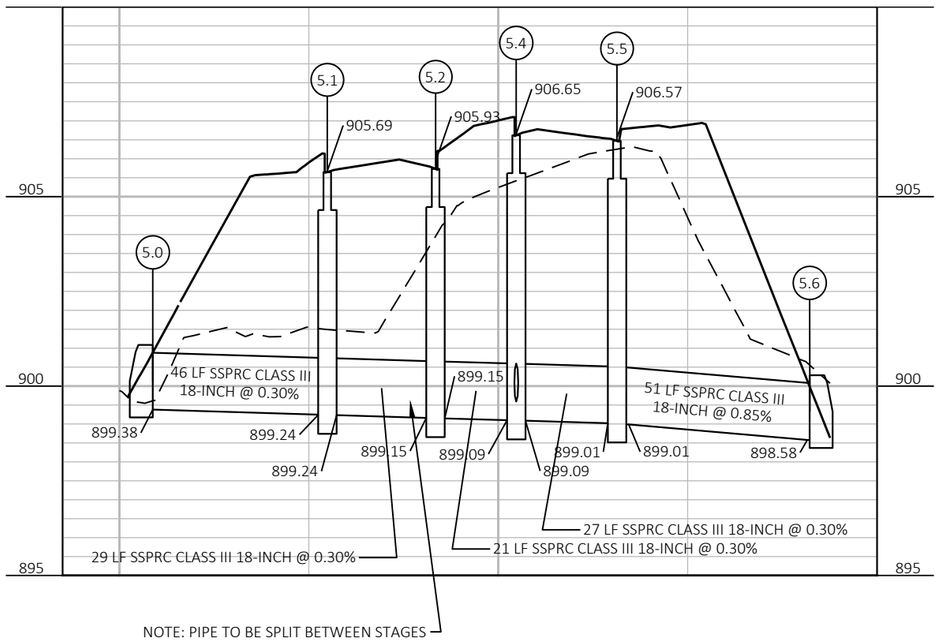
PLOT DATE : 6/25/2024 2:31 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

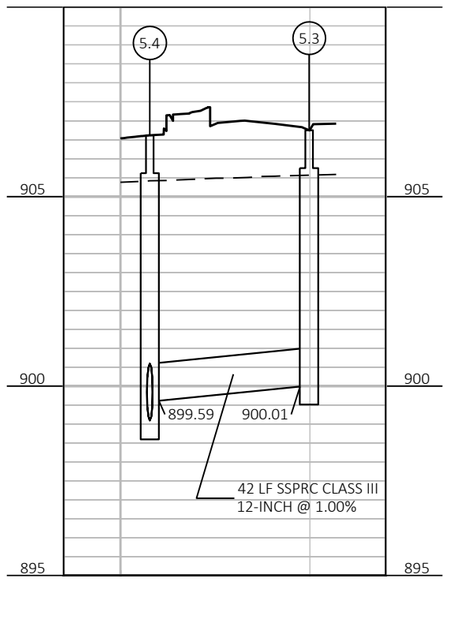
WISDOT/CADDS SHEET 42

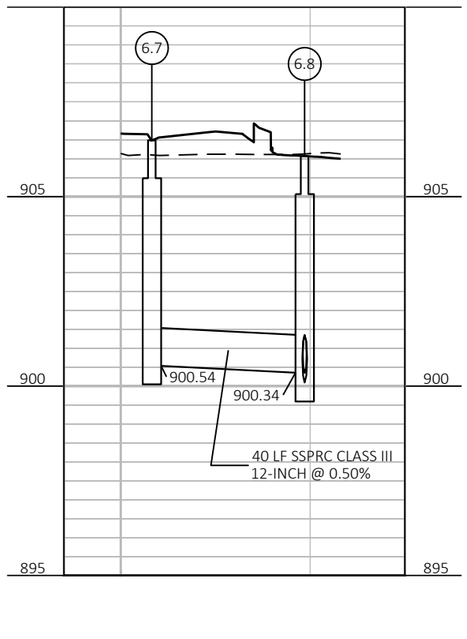

3.0
3.1
3.3
3.4
905
900
895
900.50
900.40
899.90
76 LF SSPRC CLASS III 18-INCH @ 1.00%
899.14
899.14
898.90
10 LF SSPRC CLASS III 12-INCH @ 1.00%
24 LF SSPRC CLASS III 18-INCH @ 1.02%


3.3
3.2
905
900
895
899.64
899.97
32 LF SSPRC CLASS III
12-INCH @ 1.00%

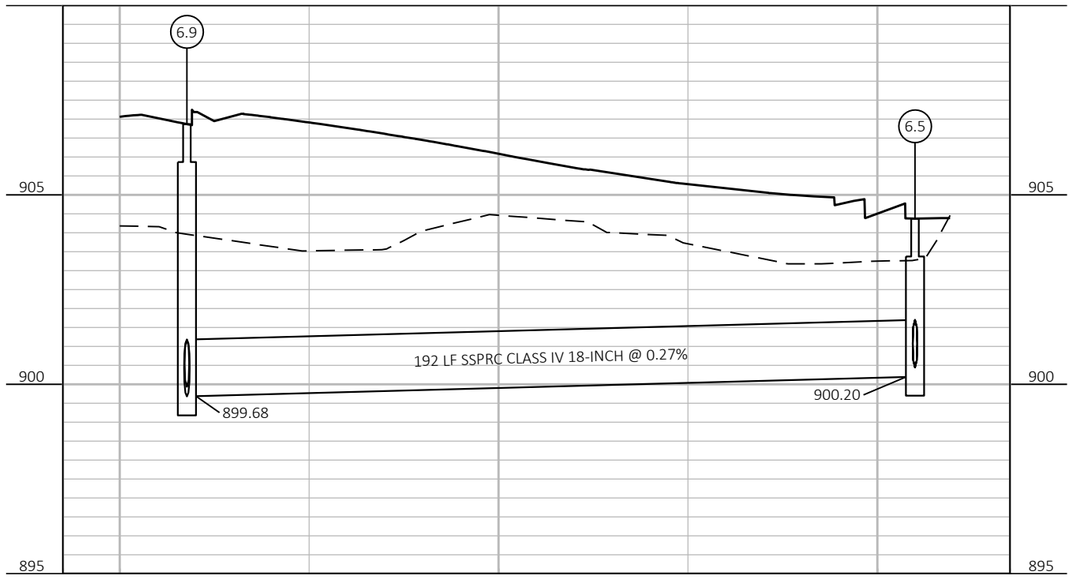

4.0
4.1
905
900
895
901.55
901.88
29 LF SSPRC
CLASS IV
12-INCH @ 1.10%

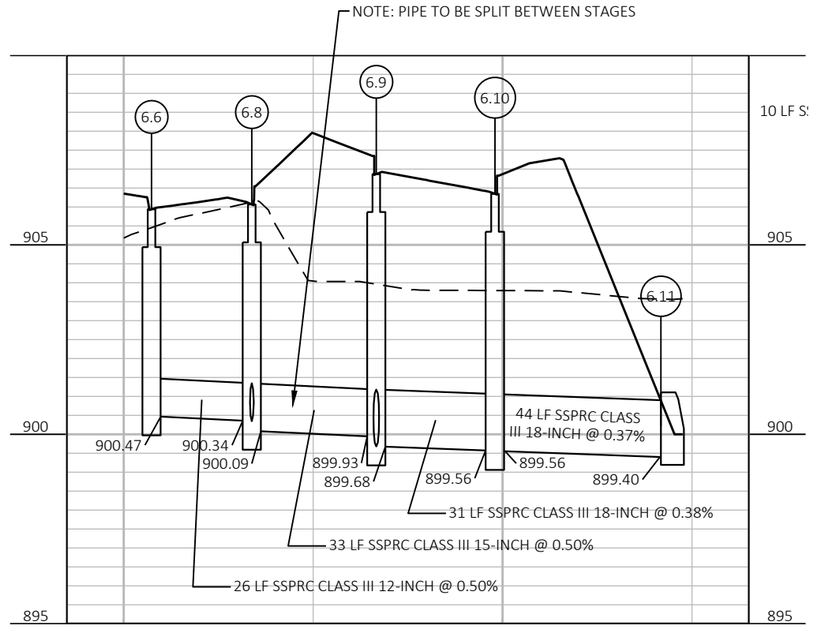

5.1
5.2
5.4
5.5
5.0
5.6
905
900
895
905.69
905.93
906.65
906.57
46 LF SSPRC CLASS III
18-INCH @ 0.30%
899.38
899.24
899.24
899.15
899.15
899.09
899.09
899.01
899.01
898.58
51 LF SSPRC CLASS III
18-INCH @ 0.85%
27 LF SSPRC CLASS III 18-INCH @ 0.30%
21 LF SSPRC CLASS III 18-INCH @ 0.30%
29 LF SSPRC CLASS III 18-INCH @ 0.30%
NOTE: PIPE TO BE SPLIT BETWEEN STAGES

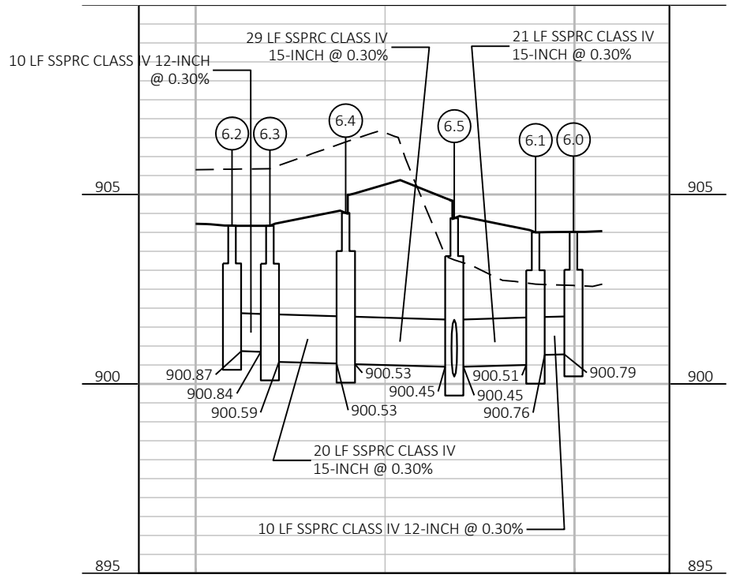

5.4
5.3
905
900
895
899.59
900.01
42 LF SSPRC CLASS III
12-INCH @ 1.00%

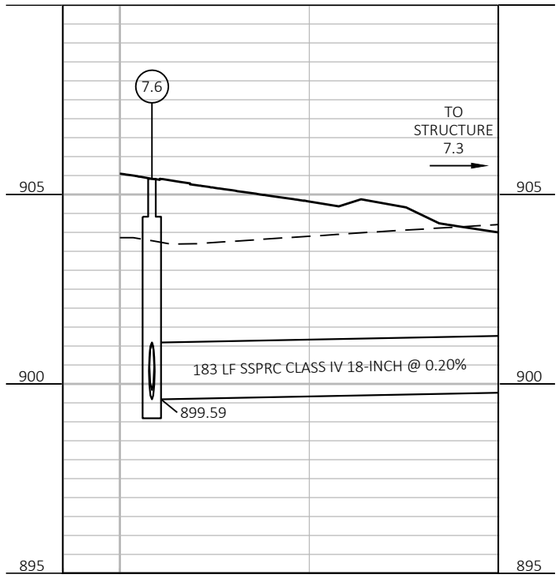

6.7
6.8
905
900
895
900.54
900.34
40 LF SSPRC CLASS III
12-INCH @ 0.50%

2



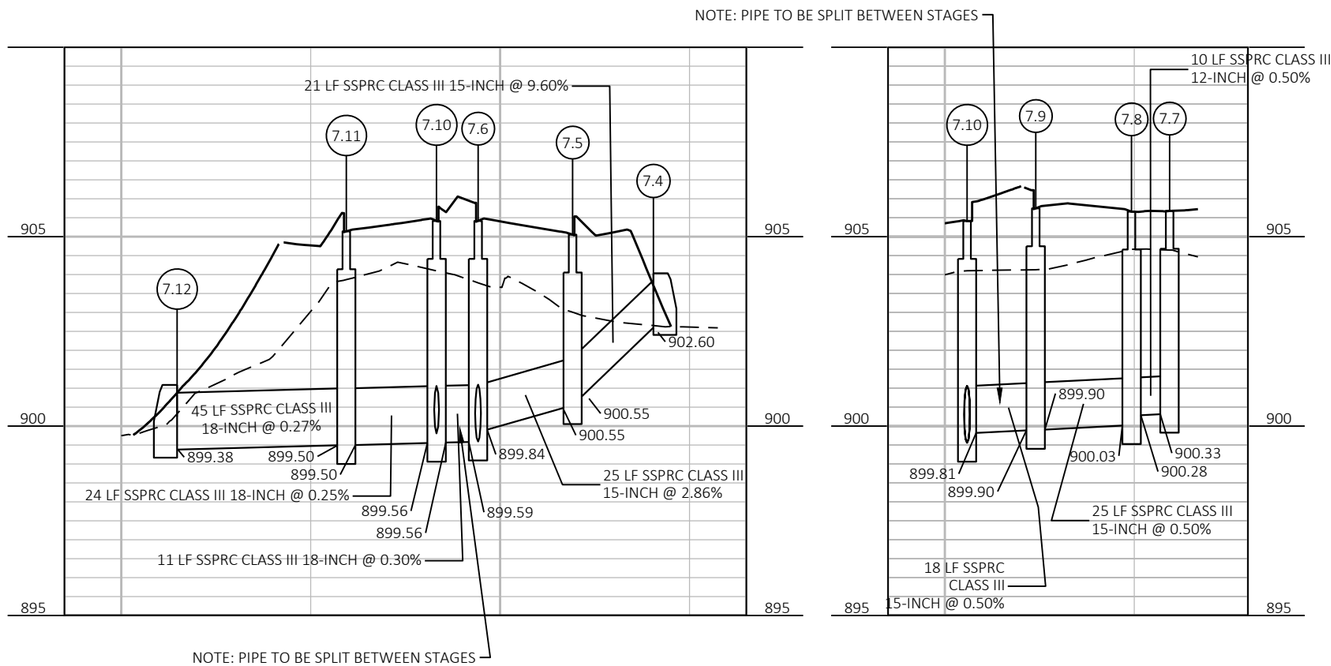


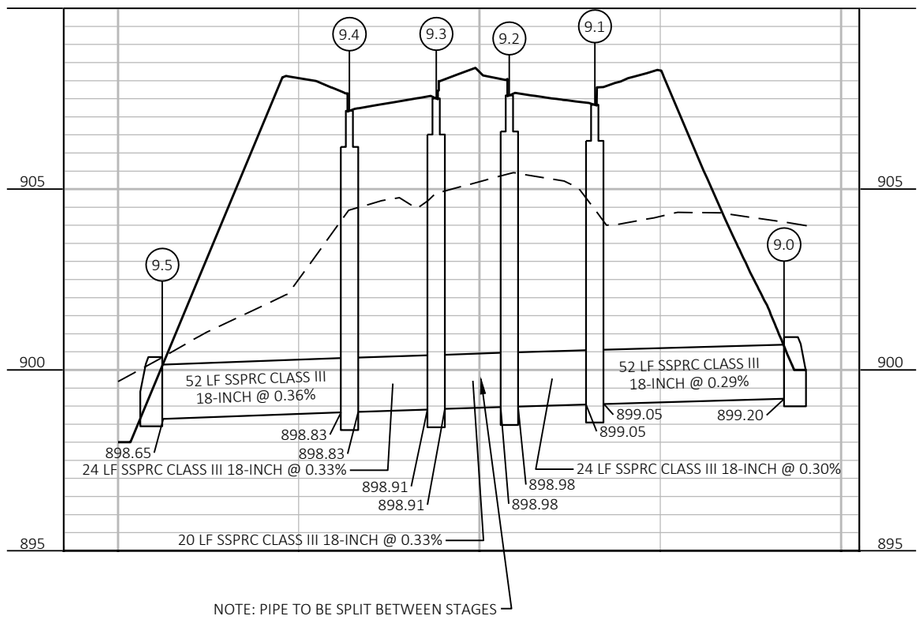




PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 113	E

2

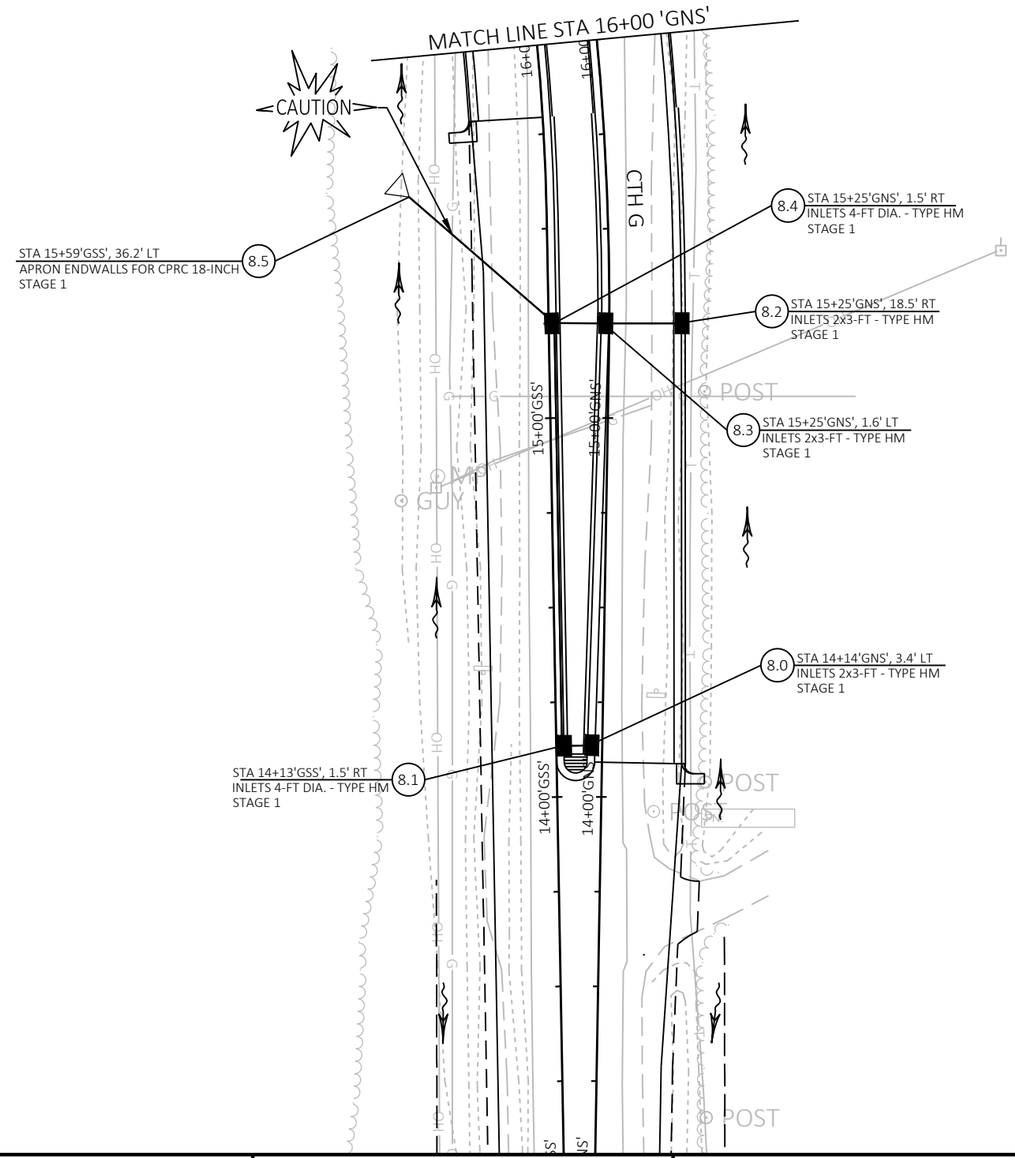




PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 114	E

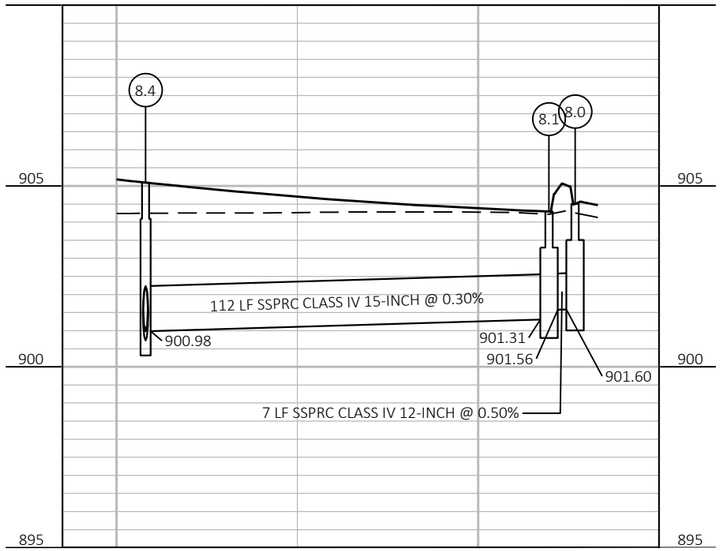
LEGEND
- INLET
- MANHOLE
- ENDWALL
- WATER FLOW DIRECTION
- ASPHALTIC FLUME

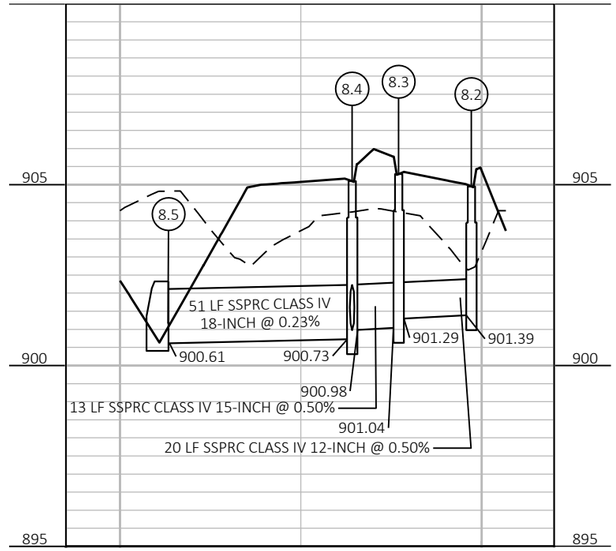
N



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 115	E

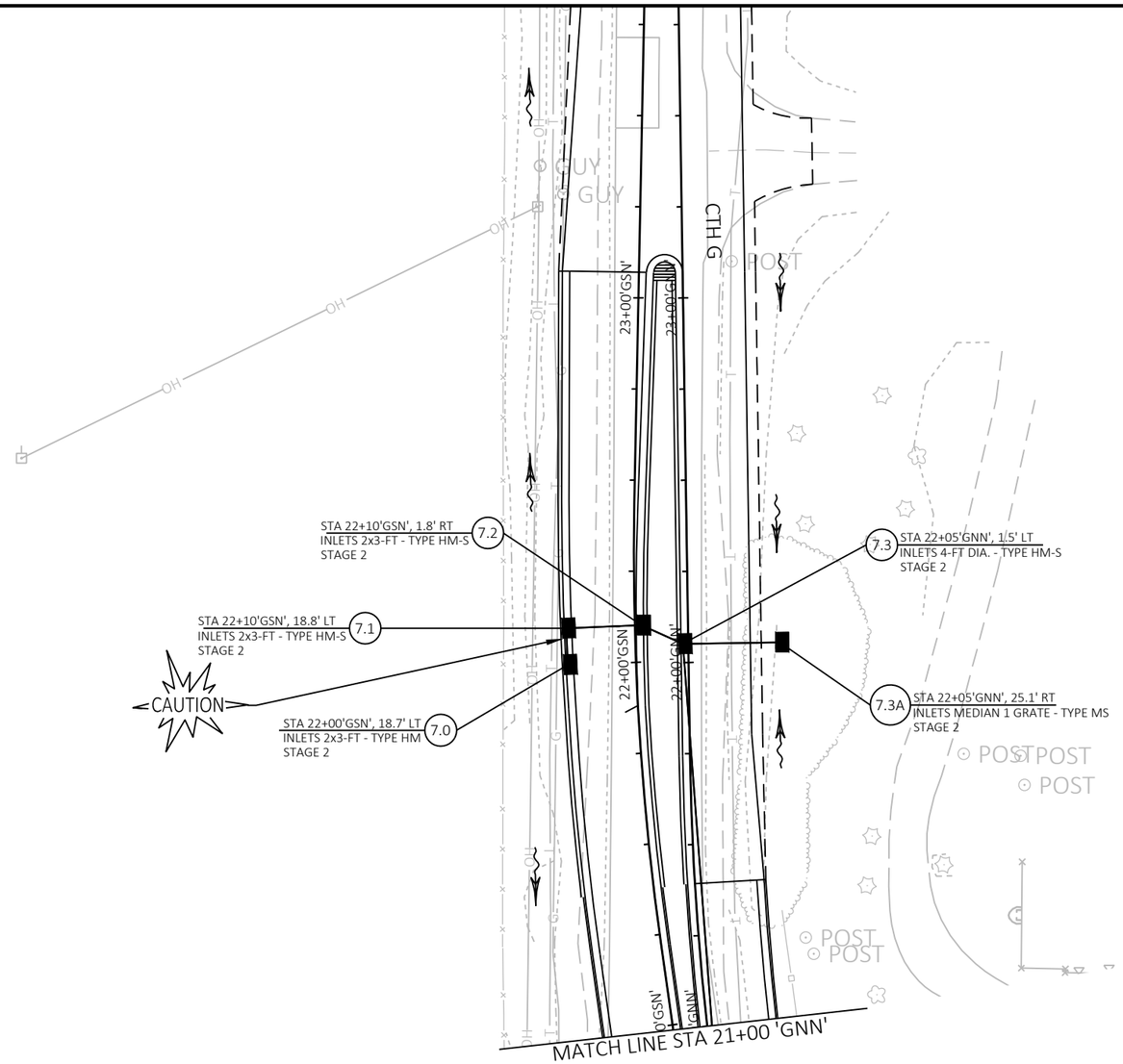
2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 116	E

LEGEND
- INLET
- MANHOLE
- ENDWALL
- WATER FLOW DIRECTION
- ASPHALTIC FLUME

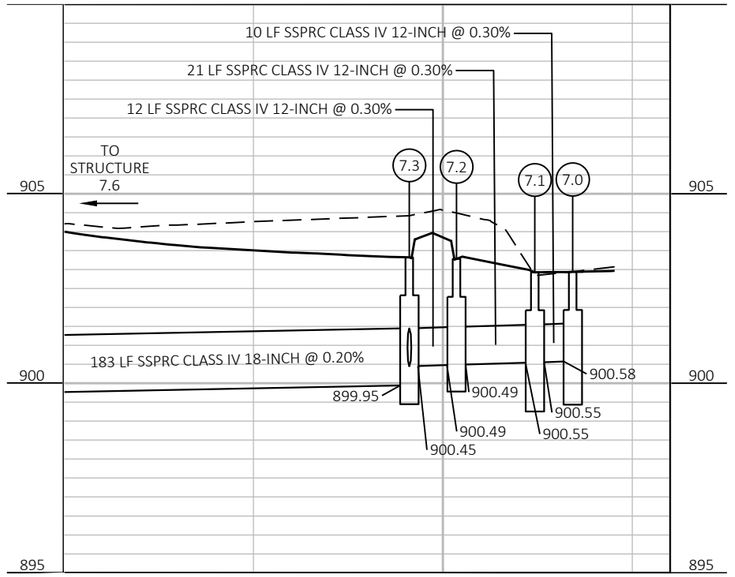


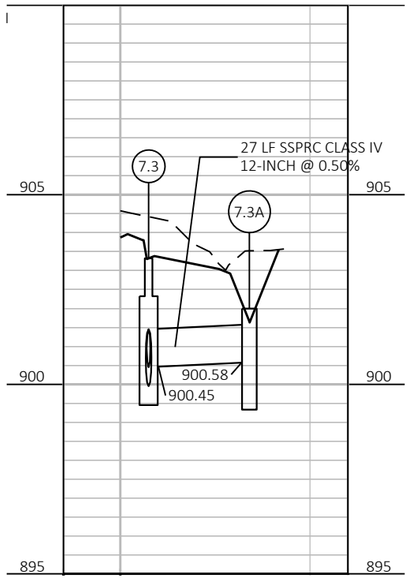
2

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 117	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\022501_SS-2.DWG
LAYOUT NAME - Sheet - (8)
PLOT DATE : 6/25/2024 2:31 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



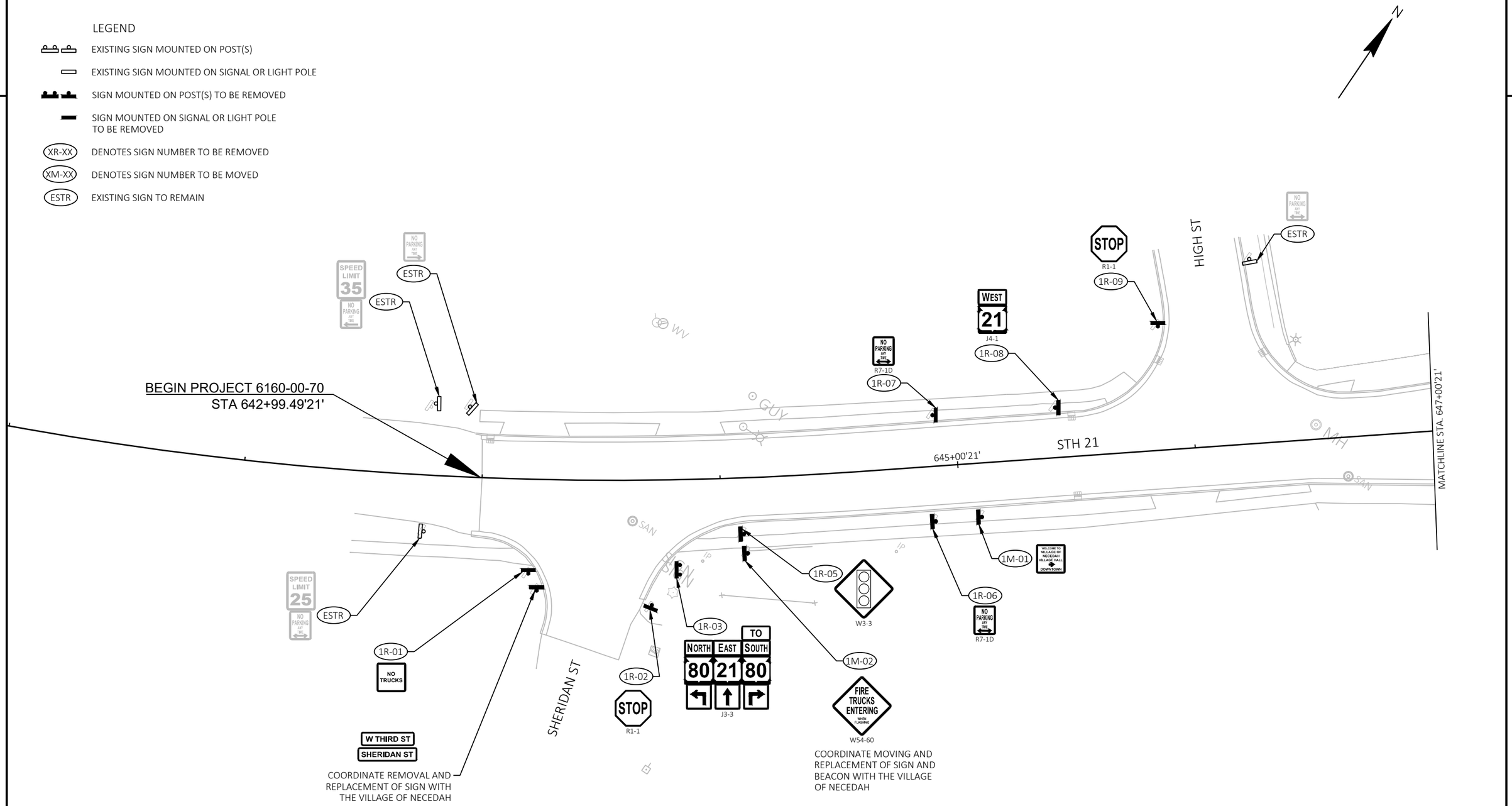


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	STORM SEWER - STH 21 / CTH G	SHEET 118	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- (XR-XX) DENOTES SIGN NUMBER TO BE REMOVED
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 119	E

2

2

BEGIN PAVEMENT REPLACEMENT
STA 230+25'B'

230+00'B'

229+00'B'

228+00'B'

227+00'B'

650+00'21'

226+00'B'

225+00'B'

STH 21

STH 80

MATCHLINE STA. 647+00'21'

MATCHLINE STA. 653+00'21'

CENTER ST

N

2R-01 W3-3

2R-02 R3-8LF

2R-03 R2-1 SPEED LIMIT 25

2R-04 R7-1D NO PARKING ANY TIME

2R-05 R7-1R NO PARKING ANY TIME

2R-06 R1-2 YIELD

2R-07 J2-2 EAST 21 WEST 21

2R-08 W4-2R

2R-09 R2-1 SPEED LIMIT 25

2R-10

2R-11 R5-1 DO NOT ENTER

2R-12 R1-1F STOP

2R-13 W12-1D

2R-14 R7-1D NO PARKING ANY TIME

2R-15 R1-1 STOP 30"X30"

2R-16 R1-1F STOP

2R-17 J2-2 NORTH 80 SOUTH 80

2R-18 J4-1 SOUTH 80

2R-19 W16-9P AHEAD

2R-20 W12-1D

2R-21 R1-1F STOP

2R-22 R5-1 DO NOT ENTER

2R-23 J2-2 WEST 21 EAST 21

2R-24 J4-1 NORTH 80

2R-25 R5-1 DO NOT ENTER

2R-26 R1-2 YIELD

2R-27 W12-1D

2R-28 R1-1F STOP

2R-29 J3-3 SOUTH 80 WEST 21 NORTH 80

2R-30 R3-8LF ONLY / R8-8 DO NOT STOP ON TRACKS

2R-31 R1-1 STOP

2R-32 R1-2 YIELD

2R-33 W3-3

2R-34

2R-35

2M-01 WELCOME TO VILLAGE OF NECEDAH / VILLAGE HALL / LIBRARY

2M-02 WELCOME TO VILLAGE OF NECEDAH / DOWNTOWN / SCHOOL

2M-03 TREE CITY USA

2M-04 R7-51L NO PARKING HERE TO CORNER

2M-05 W54-60 FIRE TRUCKS ENTERING WHEN FLASHING

2M-06

2R-36 R3-8LF ONLY

ESTR

New Lisbon
Coloma
Tomah

Tomah
New Lisbon
Marshfield

Marshfield
Tomah
Coloma

Coloma
Marshfield
New Lisbon

W THIRD ST
CENTER ST

COORDINATE REMOVAL AND REPLACEMENT OF SIGN WITH THE VILLAGE OF NECEDAH

COORDINATE MOVING AND REPLACEMENT OF SIGN AND BEACON WITH THE VILLAGE OF NECEDAH

BEGIN PAVEMENT REPLACEMENT
STA 224+88.33'B'

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- XR-XX DENOTES SIGN NUMBER TO BE REMOVED
- XM-XX DENOTES SIGN NUMBER TO BE MOVED
- ESTR EXISTING SIGN TO REMAIN

R3-8LF ONLY / 2R-36 / 2M-04 / R7-51L NO PARKING HERE TO CORNER

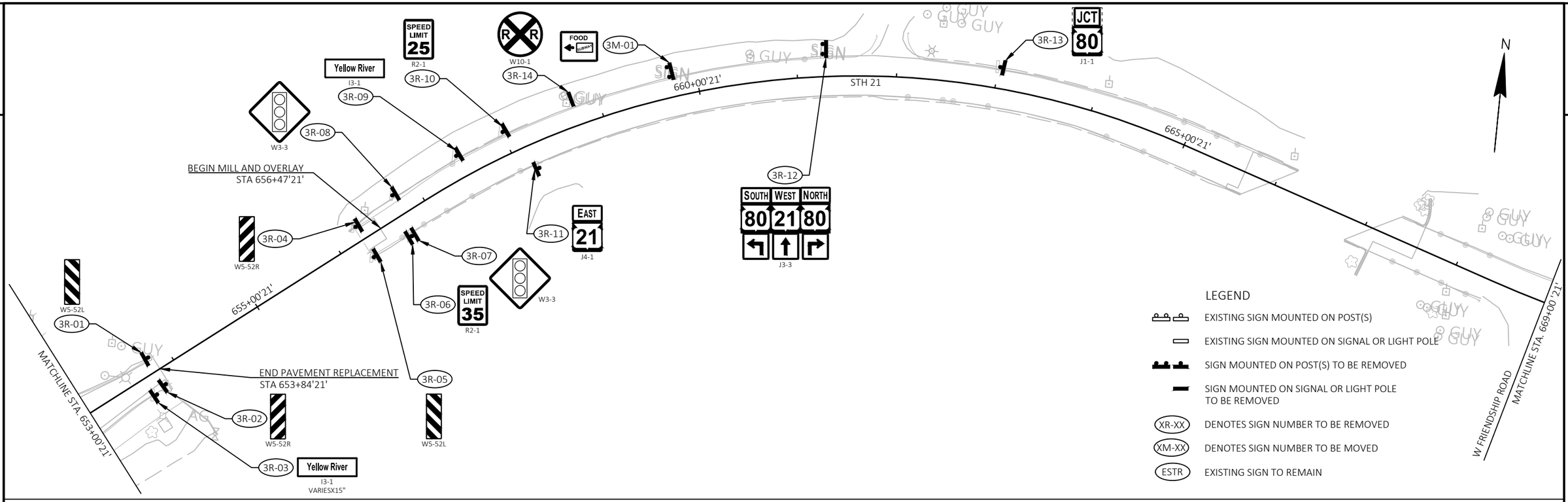
POST TO REMAIN AND MOVE SIGN ON EXISTING POST TO CORRECT HEIGHT.

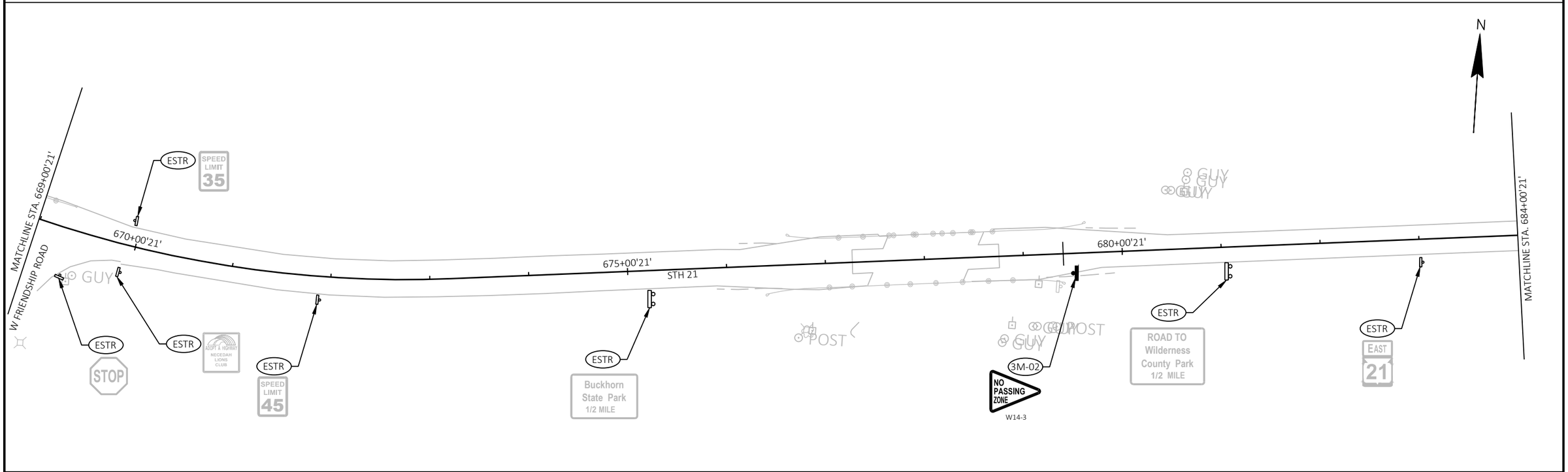
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 120	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 2:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





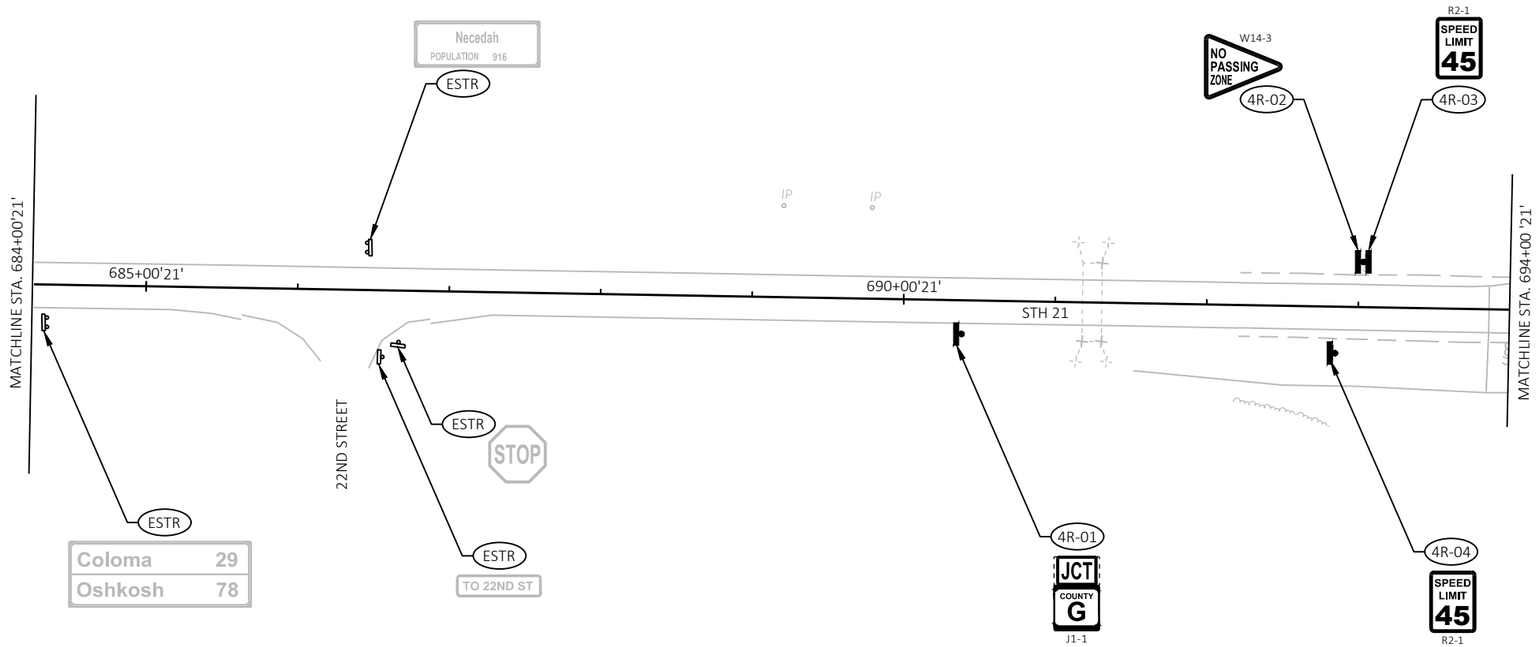
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 121	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 03

PLOT DATE : 6/25/2024 2:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

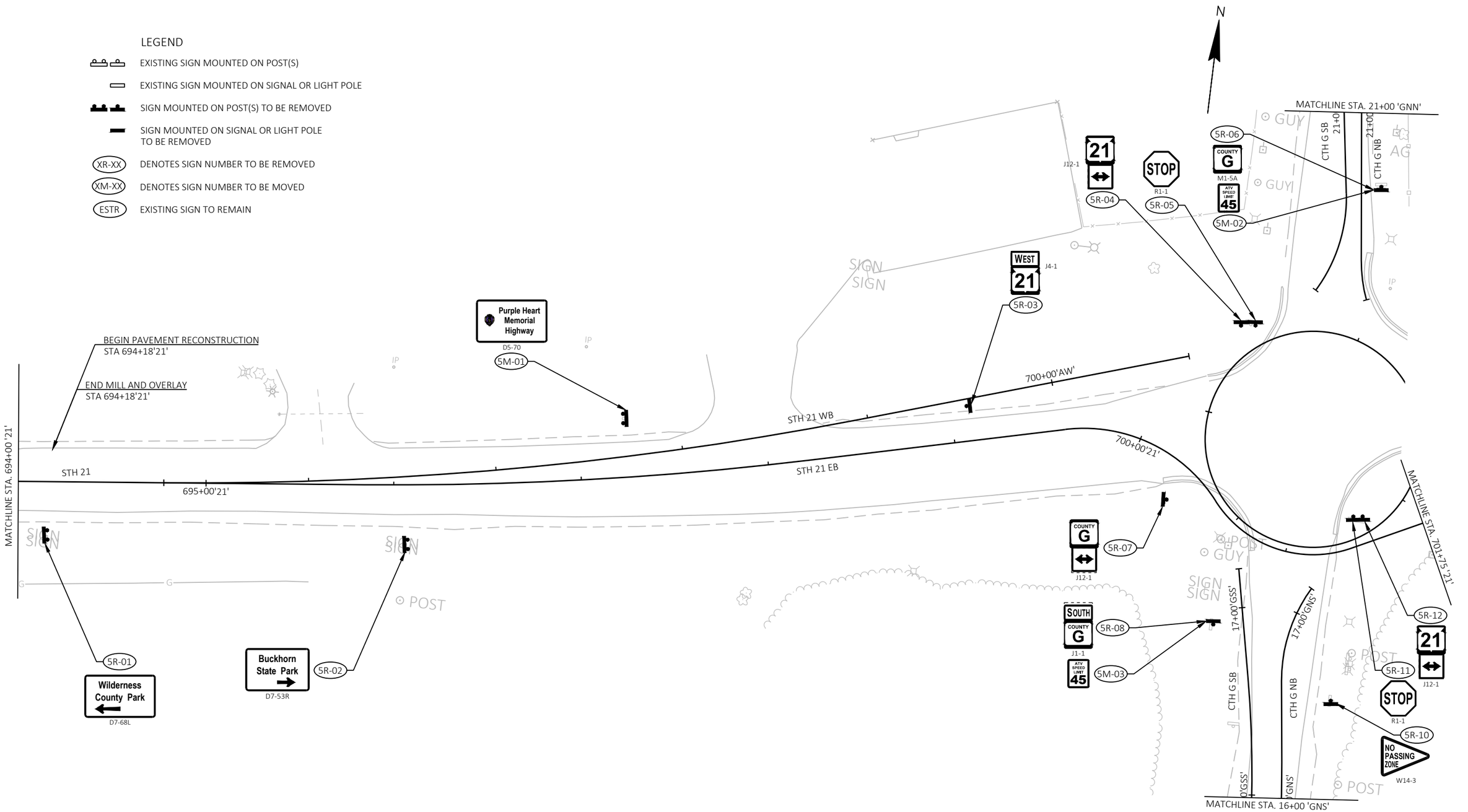
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- (XR-XX) DENOTES SIGN NUMBER TO BE REMOVED
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN



2

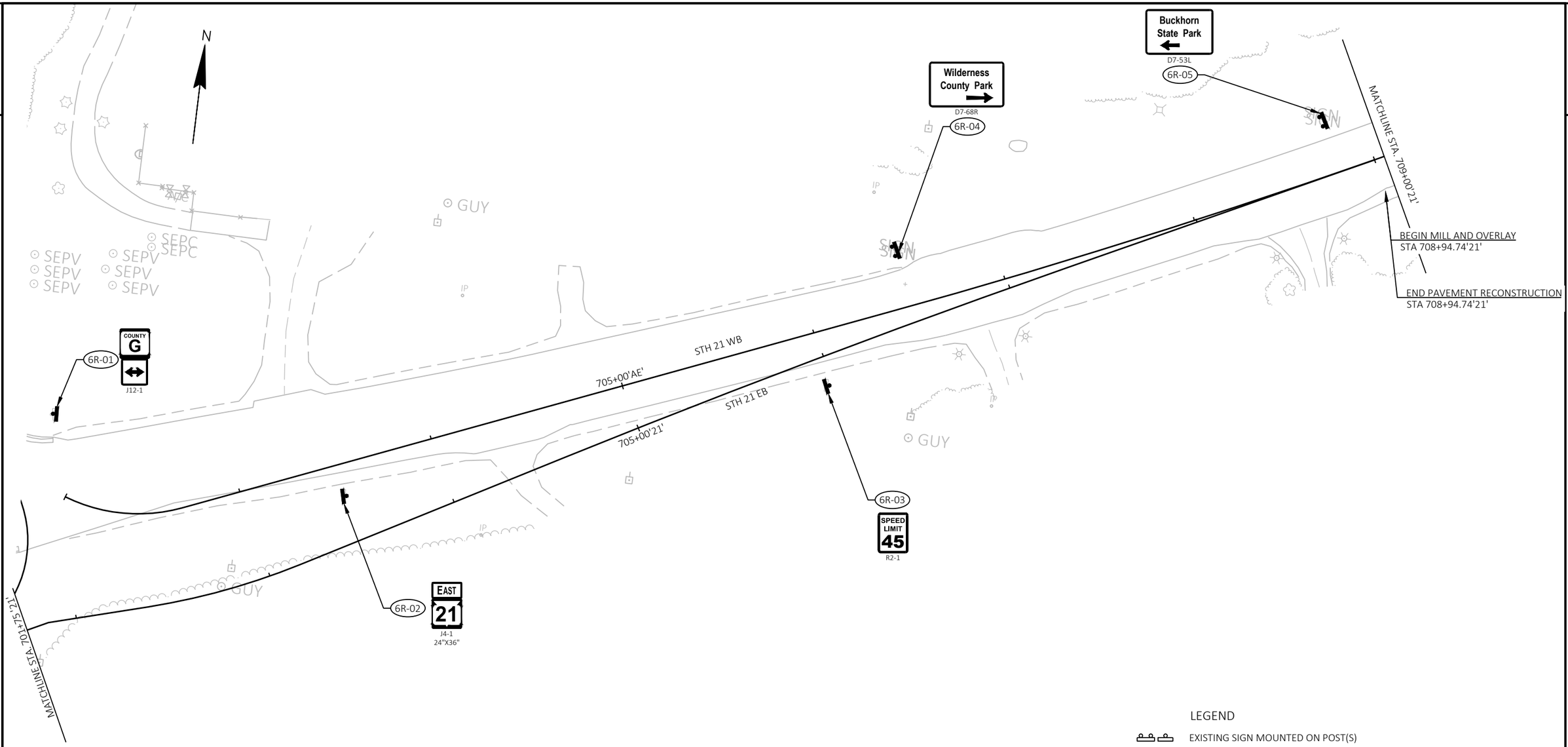
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- (XR-XX) DENOTES SIGN NUMBER TO BE REMOVED
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 123	E

2



LEGEND

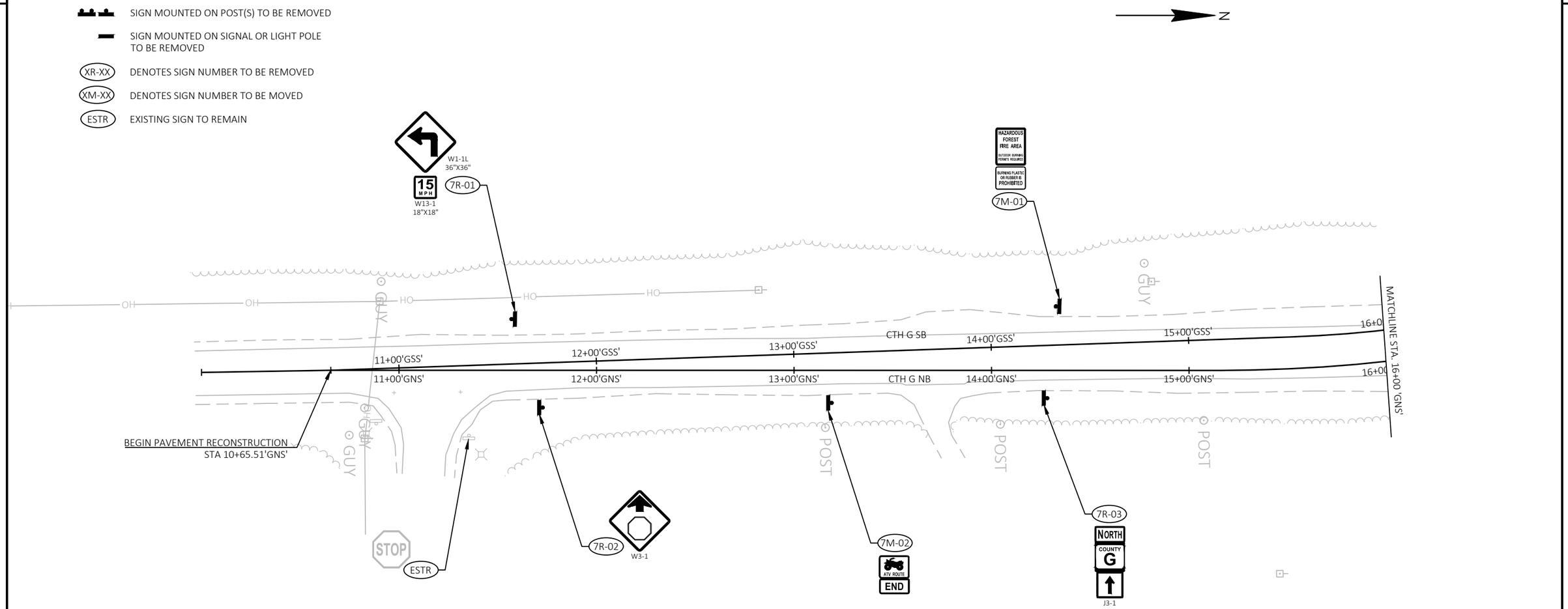
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- (XR-XX) DENOTES SIGN NUMBER TO BE REMOVED
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 124	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- XR-XX — DENOTES SIGN NUMBER TO BE REMOVED
- XM-XX — DENOTES SIGN NUMBER TO BE MOVED
- ESTR — EXISTING SIGN TO REMAIN

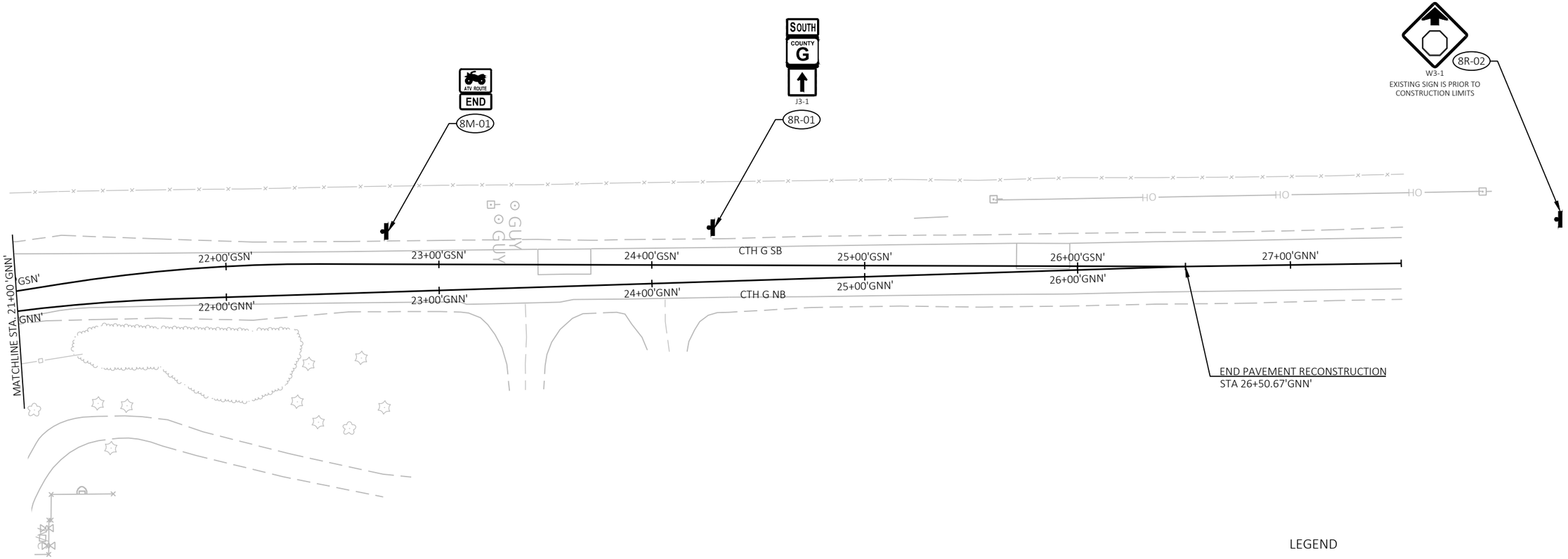


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 125	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 07
PLOT DATE : 6/25/2024 2:36 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

N



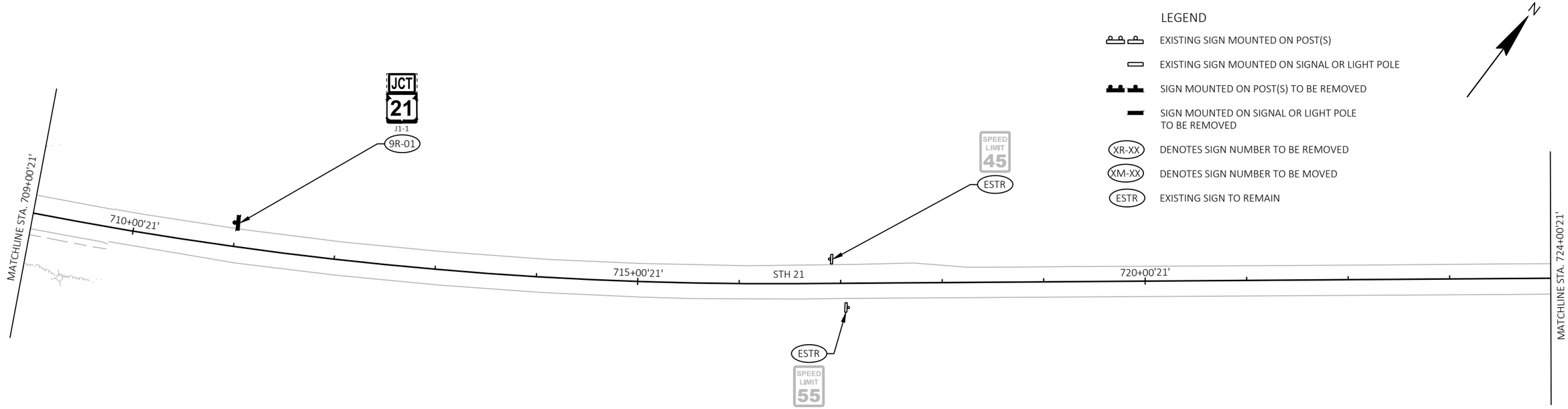
LEGEND

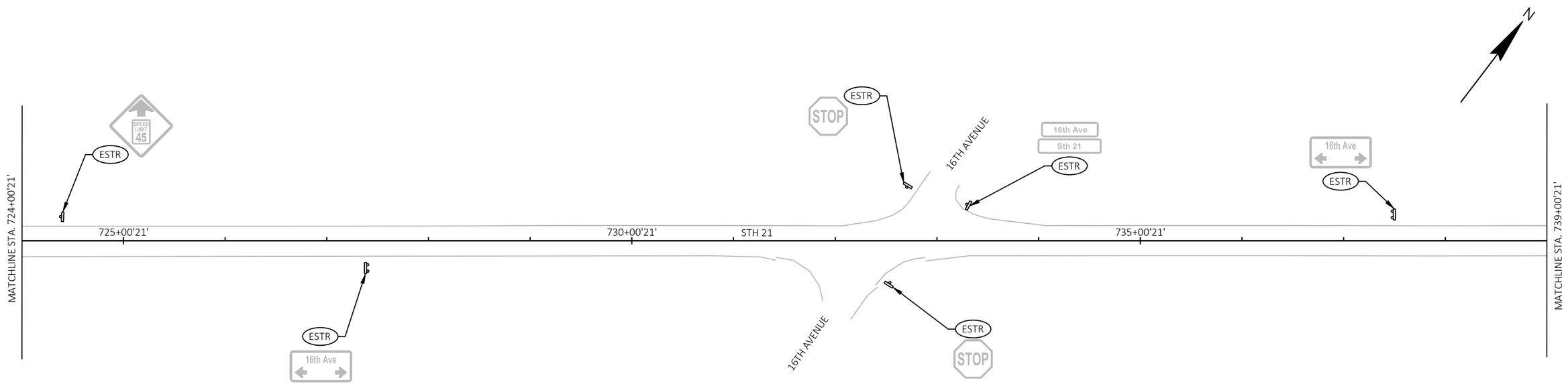
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- (XR-XX) DENOTES SIGN NUMBER TO BE REMOVED
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 126	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 08
PLOT DATE : 6/25/2024 2:36 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

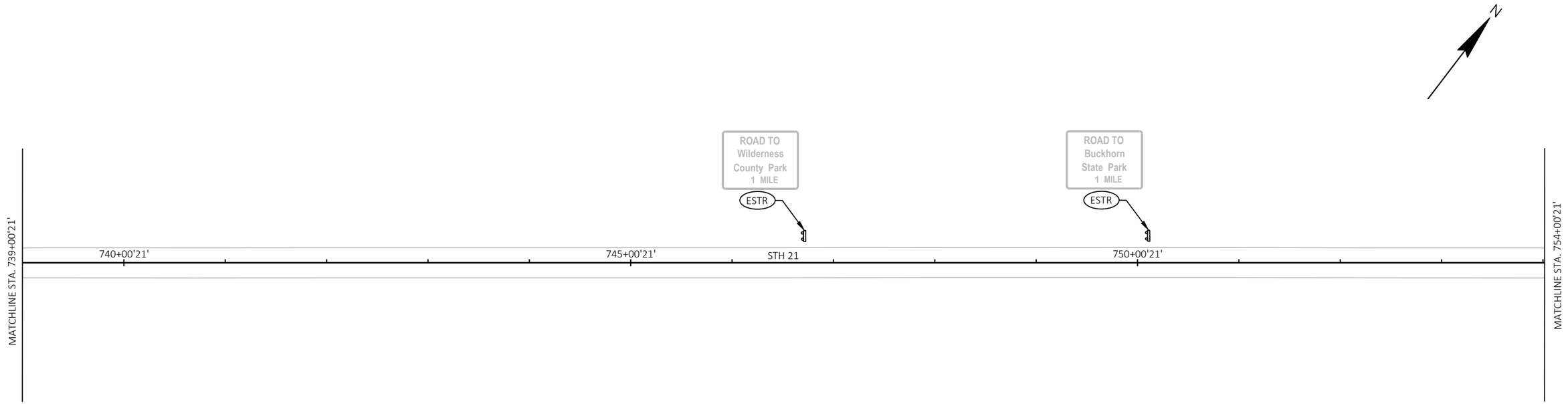
2





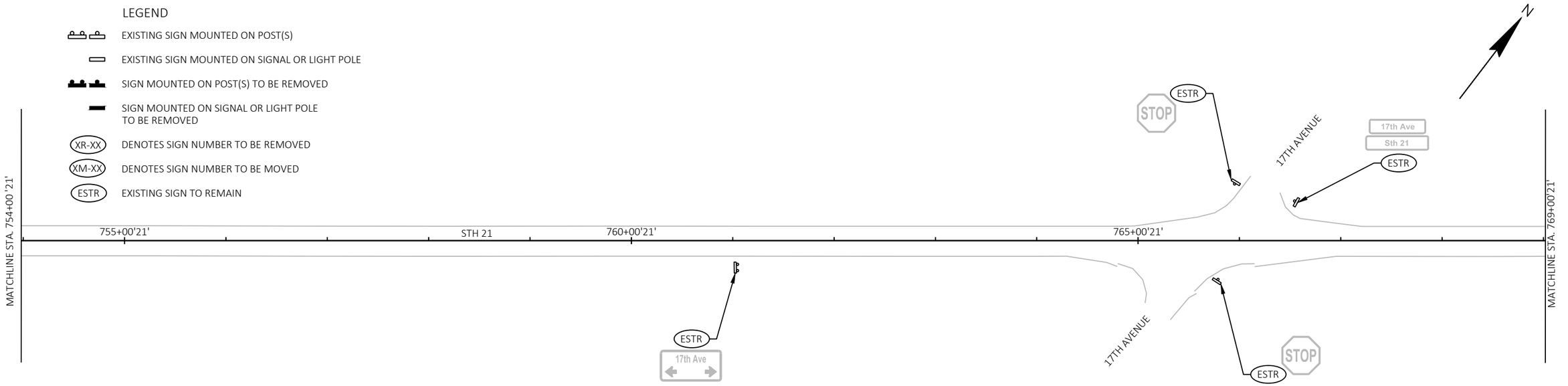
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 127	E

2



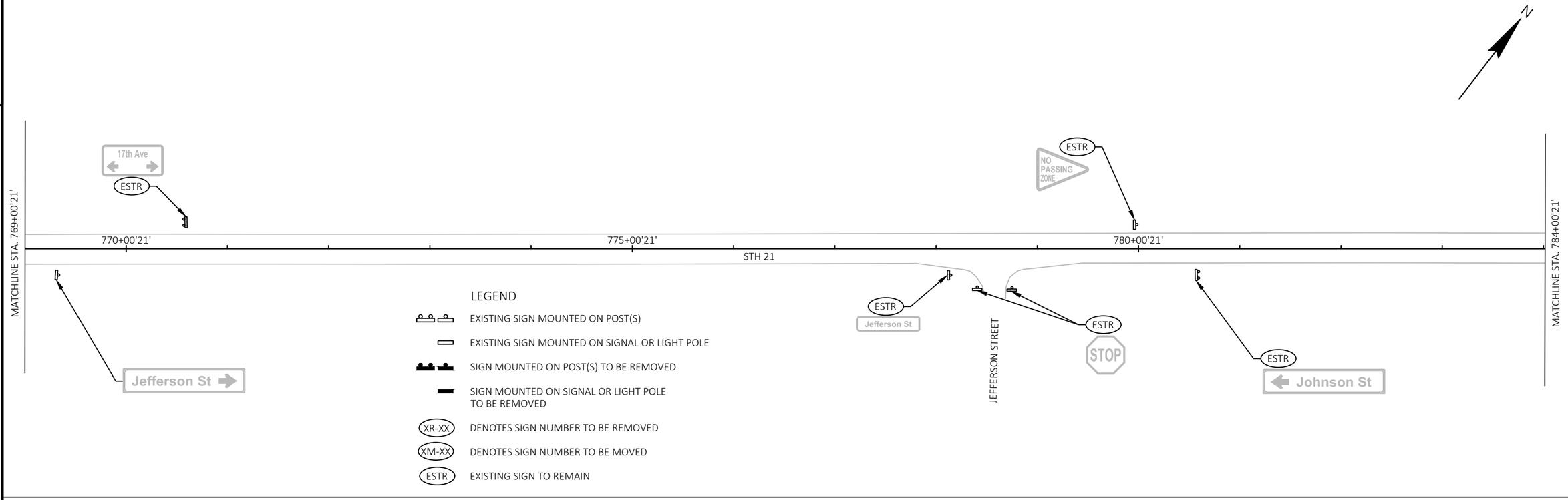
LEGEND

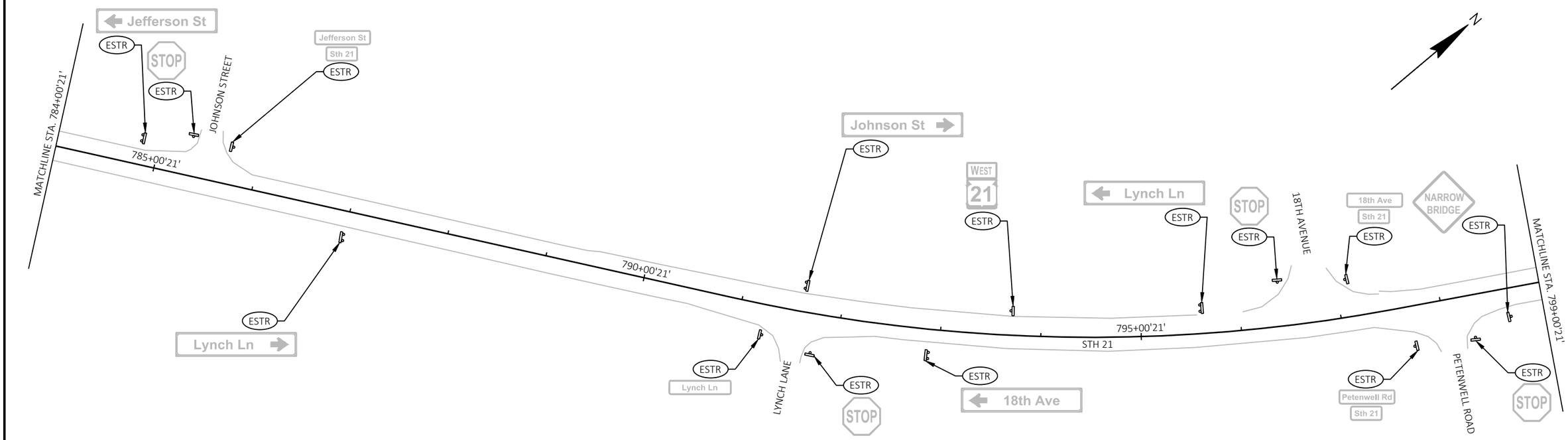
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- SIGN MOUNTED ON POST(S) TO BE REMOVED
- SIGN MOUNTED ON SIGNAL OR LIGHT POLE TO BE REMOVED
- XR-XX DENOTES SIGN NUMBER TO BE REMOVED
- XM-XX DENOTES SIGN NUMBER TO BE MOVED
- ESTR EXISTING SIGN TO REMAIN



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 128	E

2



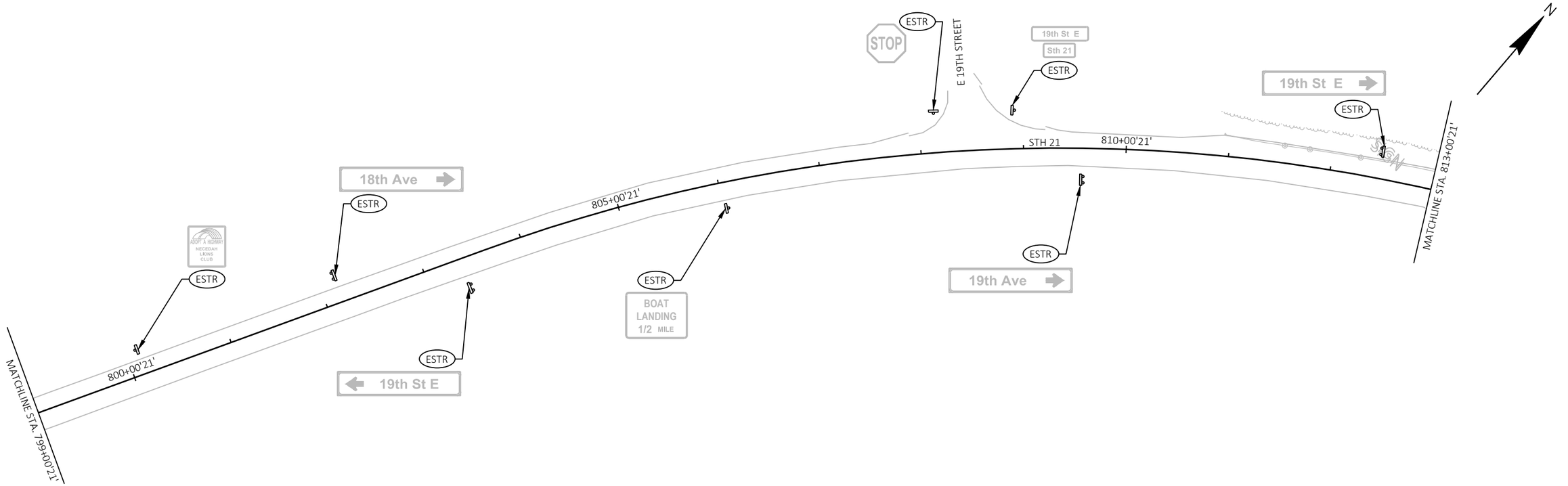


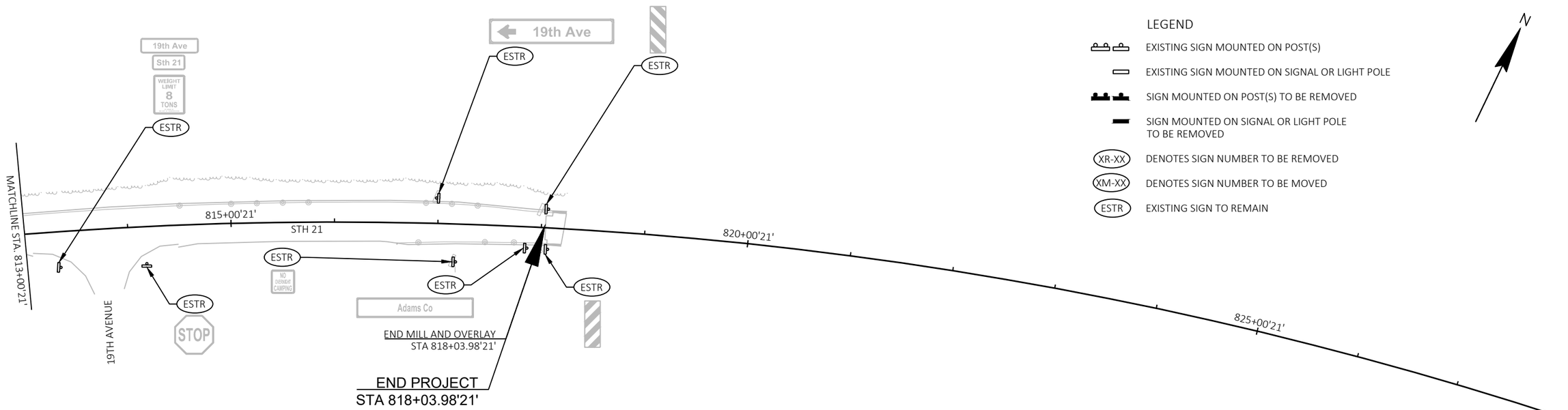
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 129	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 11

PLOT DATE : 6/25/2024 2:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

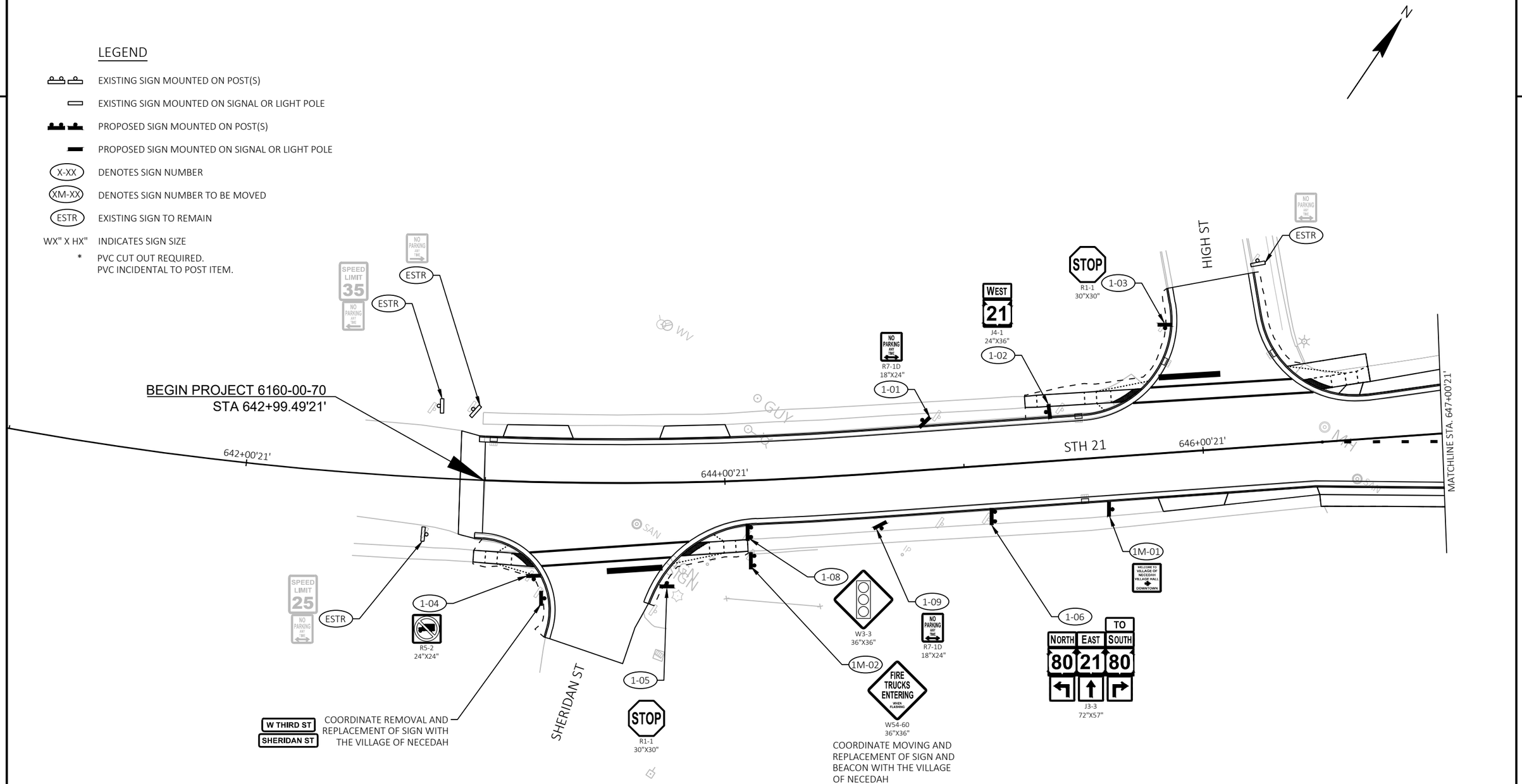




PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SIGNING REMOVALS	SHEET 130	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 131	E

2

2

BEGIN PAVEMENT REPLACEMENT
STA 230+25'B'

230+00'B'

229+00'B'

228+00'B'

227+00'B'

226+00'B'

225+00'B'

652+00'21"

650+00'21"

648+00'21"

MATCHLINE STA 653+00'21"

MATCHLINE STA 647+00'21"

STH 21

STH 80

CENTER ST

N

2-01 W3-3 36"X36"

2-02 SPEED LIMIT 25 R2-1 24"X30"

2-04 NO PARKING ANY TIME R7-1D 18"X24"

2-05 NO PARKING ANY TIME R7-1R 18"X24"

2-06 W4-2R 36"X36"

2-08 SPEED LIMIT 25 R2-1 24"X30"

2M-01 WELCOME TO VILLAGE OF NECEDAH MILLVIEW MALL LIBRARY

2-09 NO PARKING ANY TIME R7-1D 18"X24"

2-10 STOP R1-1 30"X30"

2M-06

2-11 NO PARKING ANY TIME R7-1L 18"X24"

2-12 DO NOT ENTER R5-1 30"X30"

2-13 STOP R1-1F 30"X30"

2-14

2-15 YIELD R1-2 36"X31"

2-16 STOP R1-1F 30"X30"

2-17 DO NOT BLOCK INTERSECTION R10-7 24"X30"

2-18 NORTH 80 SOUTH 80 J2-2 48"X57"

2-19 EAST 21 WEST 21 J2-2 48"X57"

2-20 SOUTH 80 J4-1 24"X36"

2-21 W11-2 30"X30" AHEAD W16-9P 24"X12"

2-22

2-23 NORTH 80 J4-1 24"X36"

2-24 DO NOT ENTER R5-1 30"X30"

2-25 YIELD R1-2 36"X31"

2-26 W12-1D 24"X24"

2-27 STOP R1-1F 30"X30"

2-28 SOUTH 80 WEST 21 NORTH 80 J3-3 72"X57"

2-29 STOP R1-1F 30"X30"

2-30 W12-1D 24"X24"

2-31 YIELD R1-2 36"X31"

2-32 DO NOT ENTER R5-1 30"X30"

2-33 WEST 21 EAST 21 J2-2 48"X57"

2-35 DO NOT STOP ON TRACKS R8-8 24"X30"

2-36 STOP R1-1 30"X30"

2-37 D1-3 54"X36" New Lisbon / Coloma / Tomah
SEE SPECIAL SIGN DETAILS

2-38 D1-3 54"X36" Coloma / Marshfield / New Lisbon
SEE SPECIAL SIGN DETAILS

D1-3 54"X36" Tomah / New Lisbon / Marshfield
SEE SPECIAL SIGN DETAILS

2M-02 WELCOME TO VILLAGE OF NECEDAH DOWNTOWN SCHOOL

2M-03 TREE CITY USA

2M-04 NO PARKING HERE TO CORNER R7-51L
REPLACE SIGN ON EXISTING POST AT CORRECT HEIGHT.

2M-05 FIRE TRUCKS ENTERING WHEN FLASHING W54-60 36"X36"

ESTR

Marshfield / Tomah / Coloma

EXIT ONLY ENTER ON CENTER ST

COORDINATE REMOVAL AND REPLACEMENT OF SIGN WITH THE VILLAGE OF NECEDAH

W THIRD ST
CENTER ST

COORDINATE MOVING AND REPLACEMENT OF SIGN AND BEACON WITH THE VILLAGE OF NECEDAH

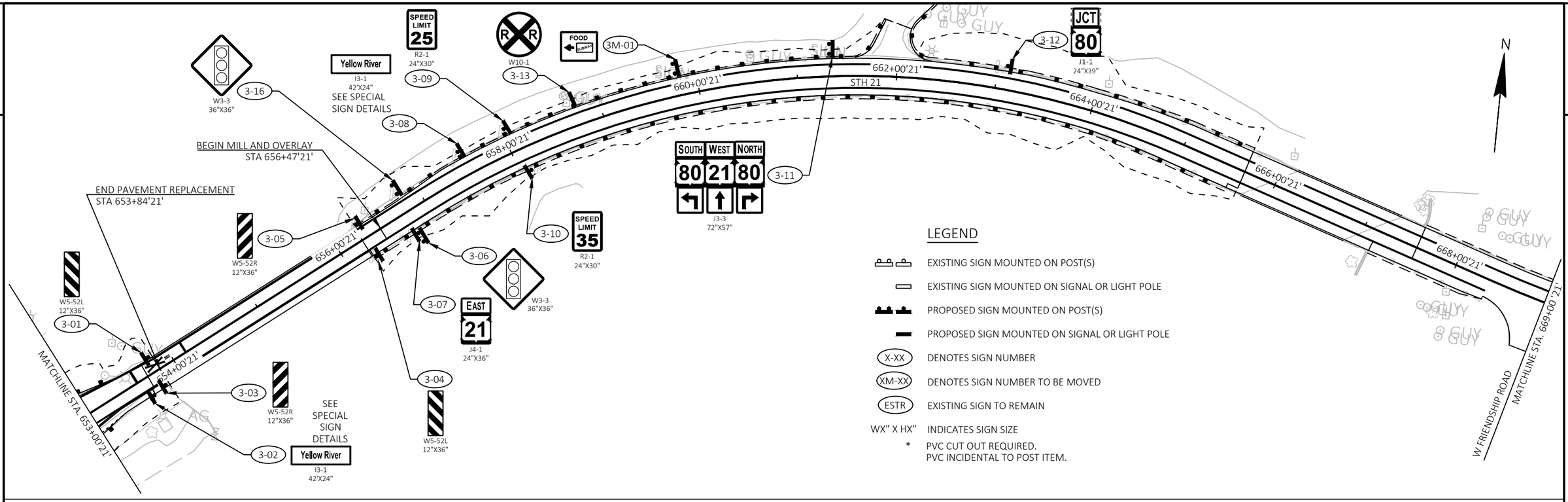
BEGIN PAVEMENT REPLACEMENT
STA 224+88.33'B'

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- X-XX — DENOTES SIGN NUMBER
- XM-XX — DENOTES SIGN NUMBER TO BE MOVED
- ESTR — EXISTING SIGN TO REMAIN
- WX" X HX" — INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.

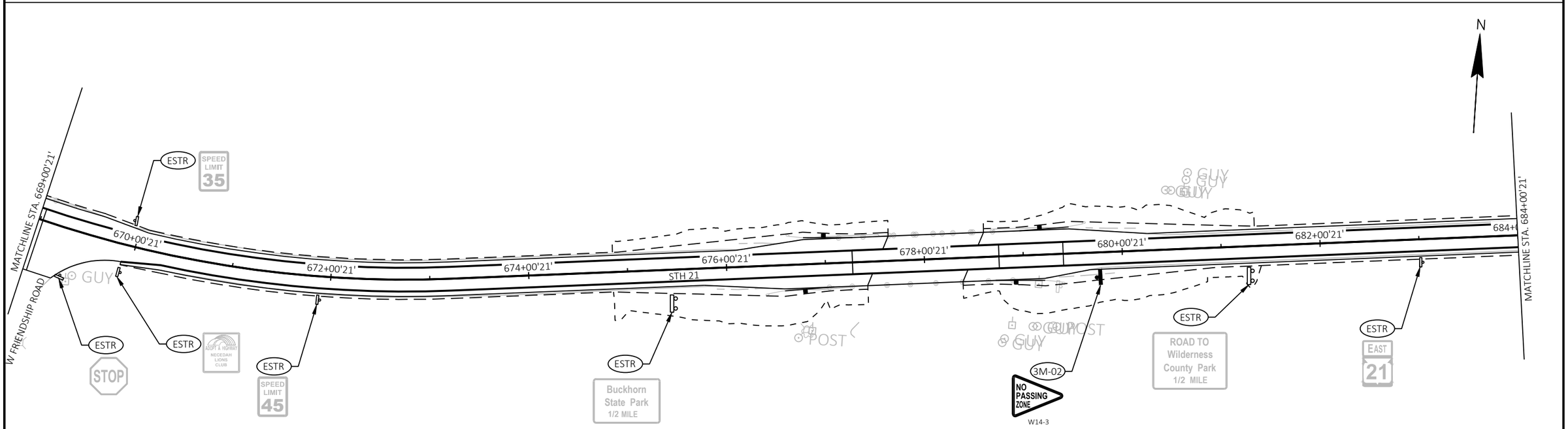
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 132	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 02
PLOT DATE : 6/25/2024 2:34 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.

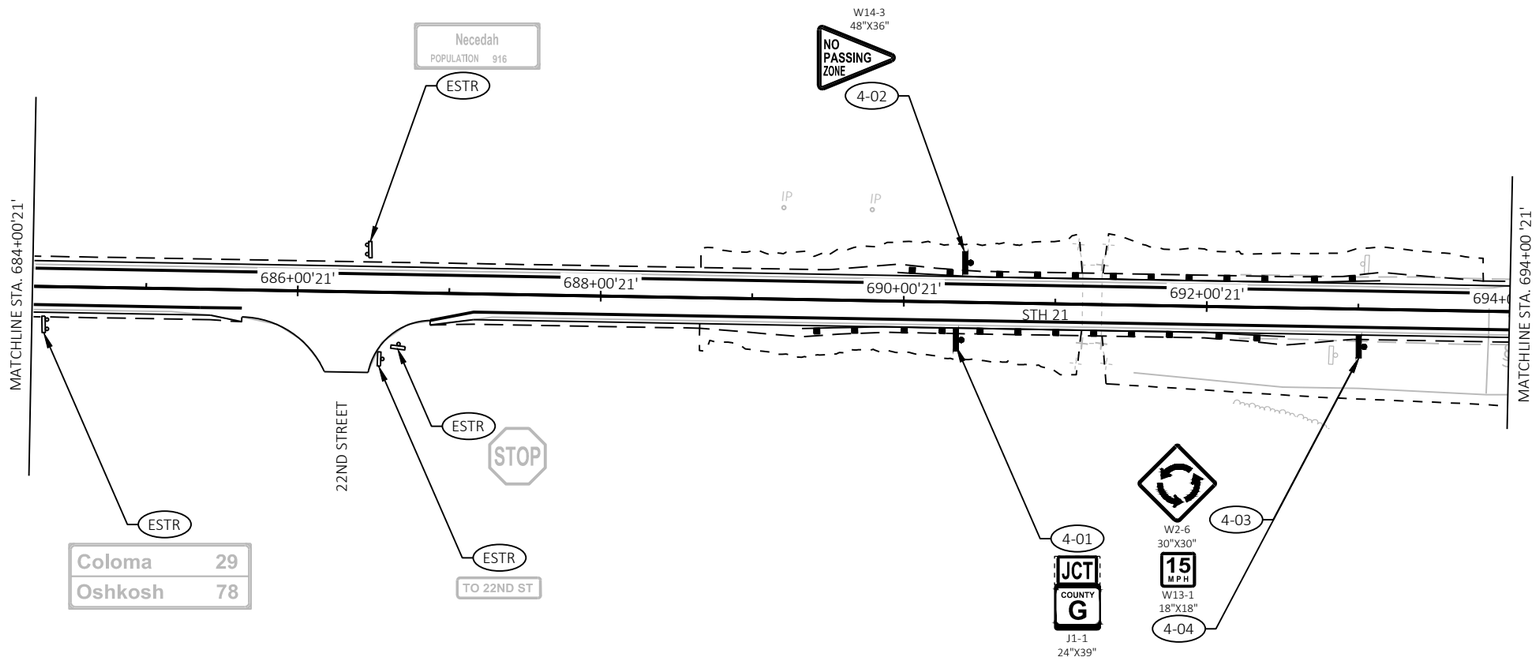


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 133	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 134	E

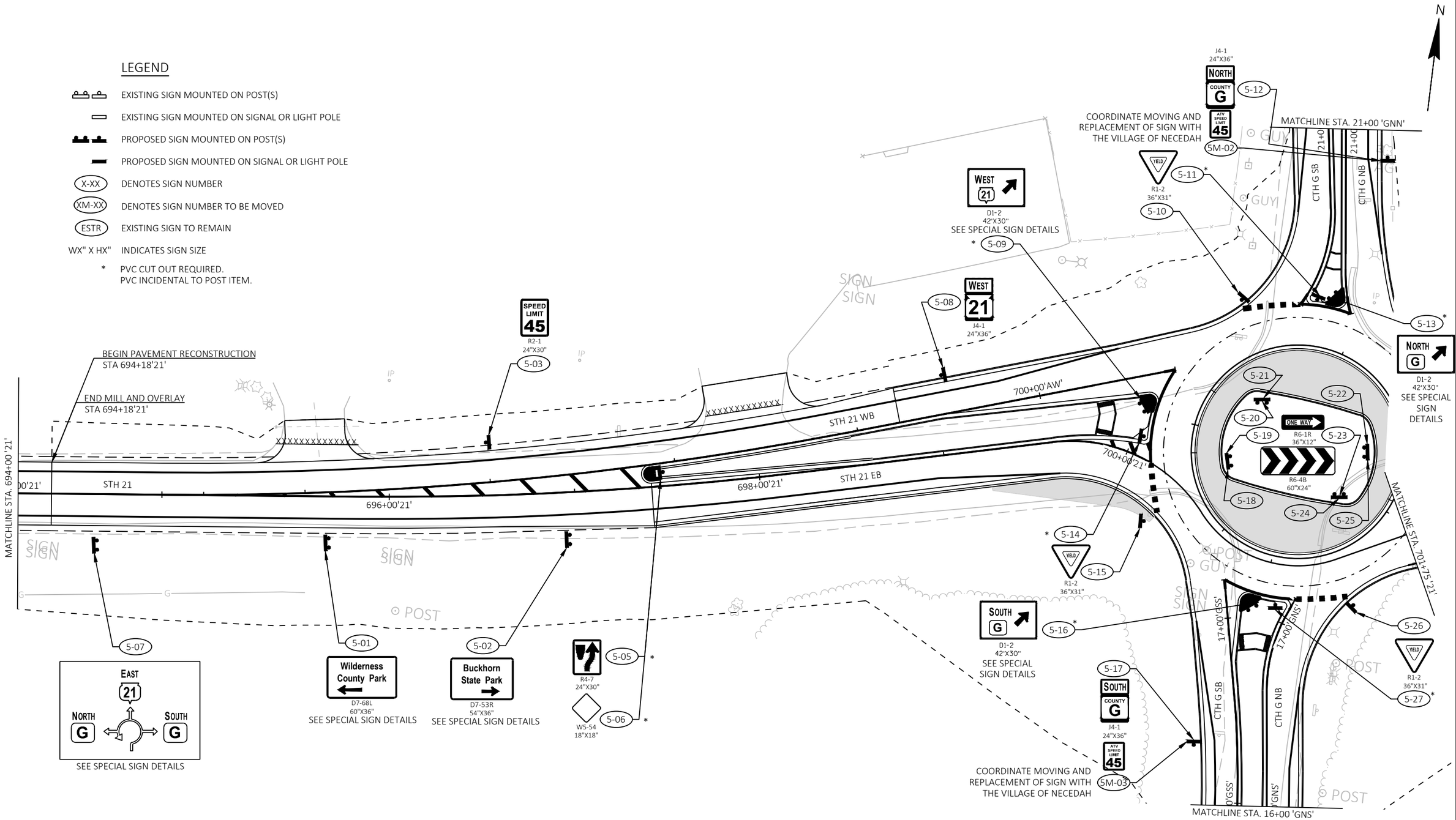
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 04

PLOT DATE : 6/25/2024 2:34 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

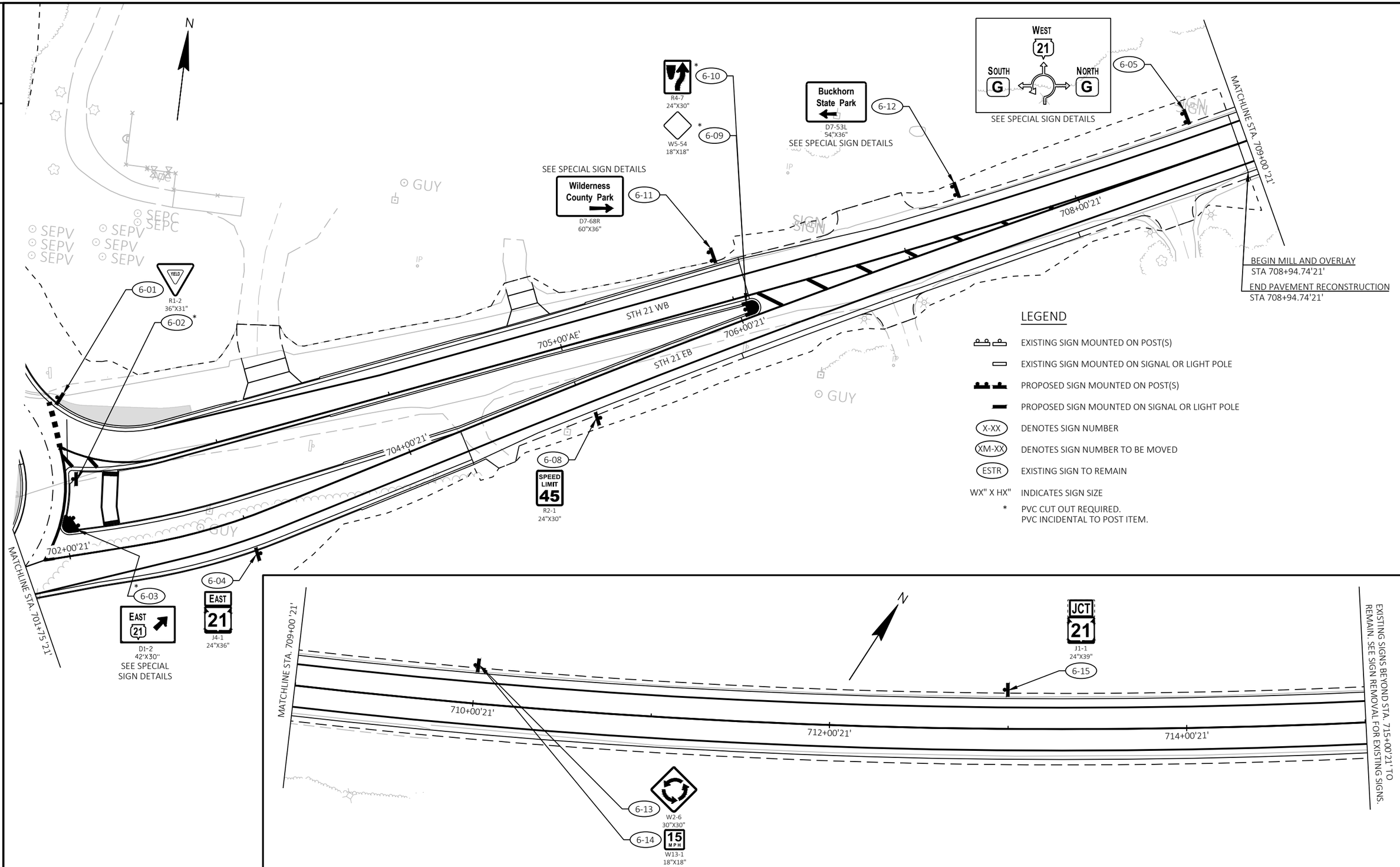
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 135	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 05
PLOT DATE : 6/25/2024 2:34 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

2



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.

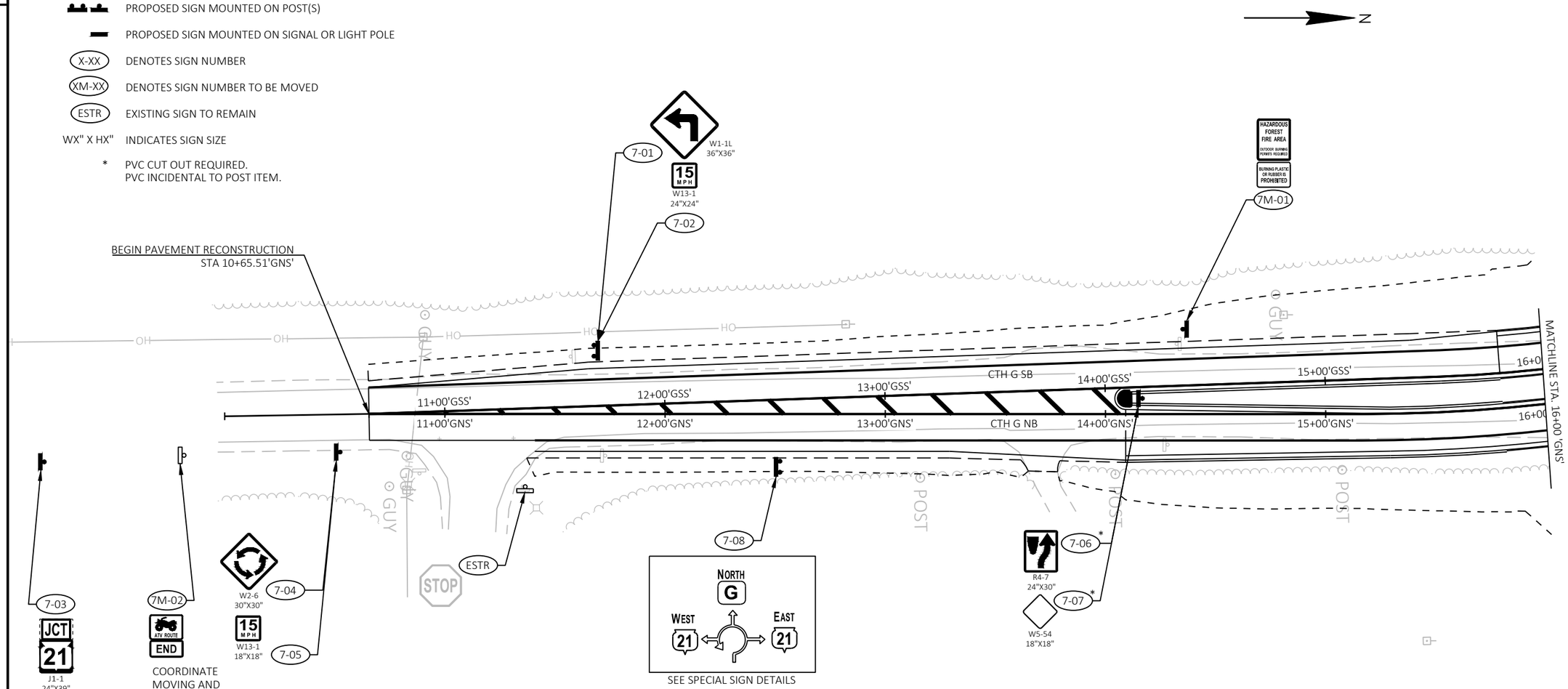
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 136	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 06
PLOT DATE : 6/25/2024 2:34 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

LEGEND

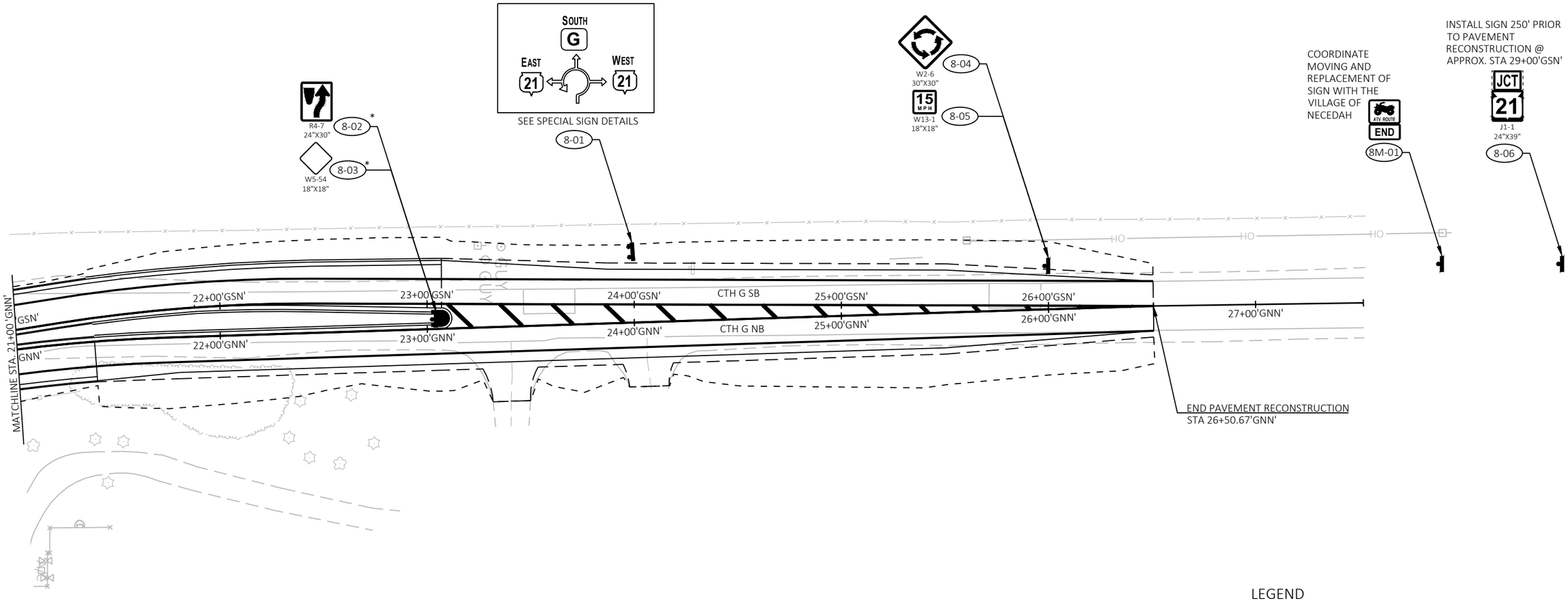
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (X-XX) DENOTES SIGN NUMBER
- (XM-XX) DENOTES SIGN NUMBER TO BE MOVED
- (ESTR) EXISTING SIGN TO REMAIN
- WX" X HX" INDICATES SIGN SIZE
- * PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 137	E

2

N



LEGEND

	EXISTING SIGN MOUNTED ON POST(S)
	EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
X-XX	DENOTES SIGN NUMBER
XM-XX	DENOTES SIGN NUMBER TO BE MOVED
ESTR	EXISTING SIGN TO REMAIN
WX" X HX"	INDICATES SIGN SIZE
*	PVC CUT OUT REQUIRED. PVC INCIDENTAL TO POST ITEM.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 138	E

2

N

CTH G

12+00

11+00

9+00

STH 21

699+00

700+00

701+00

702+00

703+00

704+00

EXSL100

EXSL101

SIGN

SIGN

GUY

POST

SEPV

SEPC

AG

SAN

FN:

IP

CONSTRUCTION NOTES

1. THE LOCATIONS OF UTILITY FACILITIES SHOWN ON THE SHEET PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2. EXISTING UTILITY OWNED LIGHTING TO BE REMOVED BY OTHERS.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	LIGHTING PLAN - REMOVALS	SHEET 139	E

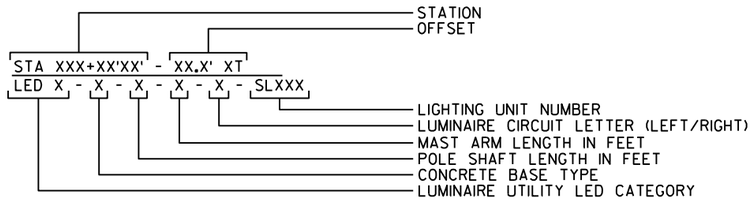
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023401-LR.DWG
LAYOUT NAME - Sheet - (1)

PLOT DATE : 7/5/2023 1:36 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

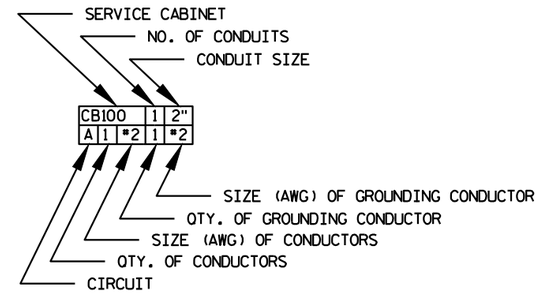
2

LIGHTING PLAN LEGEND:

- SINGLE ARM LIGHTING UNIT
- UTILITY OWNED LIGHTING UNIT, REMOVAL BY OTHERS
- CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE
- PULL BOX NON-CONDUCTIVE (24"X42")
- LIGHTING CONDUIT (2" SCHEDULE 40 PVC UNLESS NOTED)
- LIGHTING CONDUIT (2" SCHEDULE 80 PVC UNLESS NOTED)



CONDUIT/CONDUCTOR LEGEND



PWO = PULL WIRE ONLY

GENERAL STREET LIGHTING NOTES:

1. THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.
2. PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO DITCH OR STORM SEWER AS REQUIRED FOR DRAINAGE. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM. DRAIN DUCT IS NOT SHOWN.
3. THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

CONDUCTOR COLOR LEGEND

CB100

LIGHTING CONDUCTORS
1/3 - RED
2/4 - RED
5/7 - BLACK
6/8 - BLACK
240V PHASE TO PHASE

2

N

MATCH LINE STA. 21+25'GSN'

STA 20+53 'GSN' - 35.1' LT
LED B-5-30-6-5/7-SL100

STA 20+41 - 38' LT
PB101

STA 10+57 - 46.7' LT
PB100

STA 10+51 'GC' - 44.9' RT
CB100

STA 700+54 '21W' - 34.6' LT
LED B-5-30-6-6/8-SL115

STA 700+27 - 37.4' LT
PB108

STA 10+46 - 42.2' LT
PB109

STA 698+88 '21W' - 22.8' LT
LED B-5-30-6-6/8-SL114

STA 20+36 - 37.7' RT
PB102

STA 11+18 'GC' - 46.2' LT
LED B-5-30-6-1/3-SL103

STA 702+57 - 44.5' LT
PB103

STA 702+70 21E'- 41.9' LT
LED B-5-30-6-5/7-SL104

R/W (TYP.)

CTH G

21+00'GSN'

21+00'GNS'

11+00'GC'

10RWG

699+00'21W'

700+00'21W'

699+00'21'

700+00'21'

701+00'21'

702+00'21'

703+00'21'

703+00'21E'

704+00'21E'

STH 21

MATCH LINE STA. 698+75'21W'

MATCH LINE STA. 704+25'21E'

STA 699+58 '21' - 44' RT
LED B-5-30-6-2/4-SL112

STA 699+73 - 46.6' RT
PB107

PROPOSED R/W (TYP.)

STA 17+10 'GSS' - 38.1' LT
LED B-5-30-6-6/8-SL111

STA 16+79 - 38.5' LT
PB106

17+00'GSS'

13+00'GC'

STA 16+74 - 39.8' RT
PB105

STA 16+66 'GNS' - 38.1' RT
LED B-5-30-6-2/4-SL108

MATCH LINE STA. 16+25'GSS'

STA 703+55 '21' - 21.8' RT
LED B-5-30-6-1/3-SL106

STA 702+36 - 38.4' RT
PB104

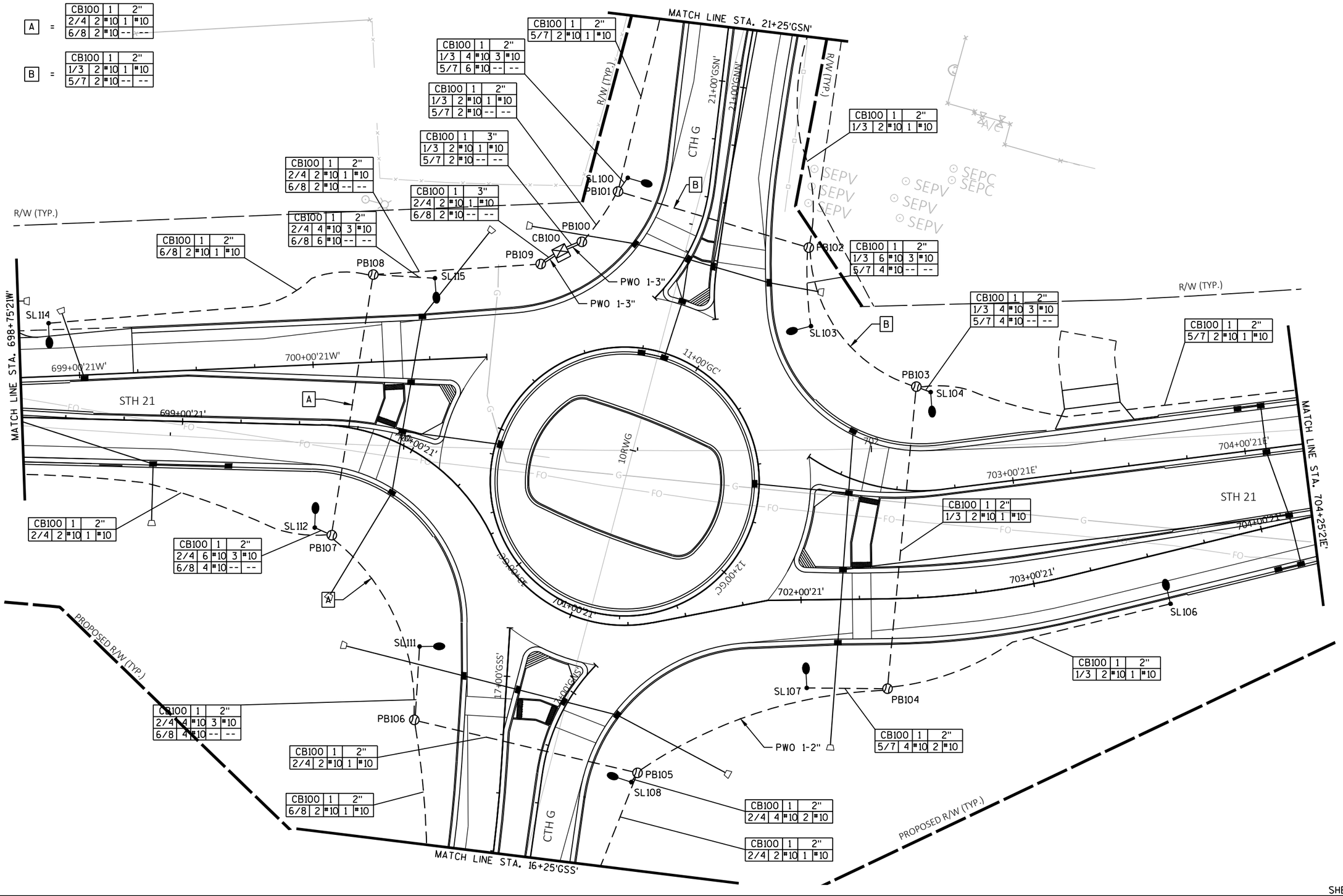
STA 702+02 '21' - 37.7' RT
LED B-5-30-6-1/3-SL107

SHEET 02 OF 05

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	LIGHTING PLAN	SHEET 141	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - RAB
PLOT DATE : 7/17/2023 2:23 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

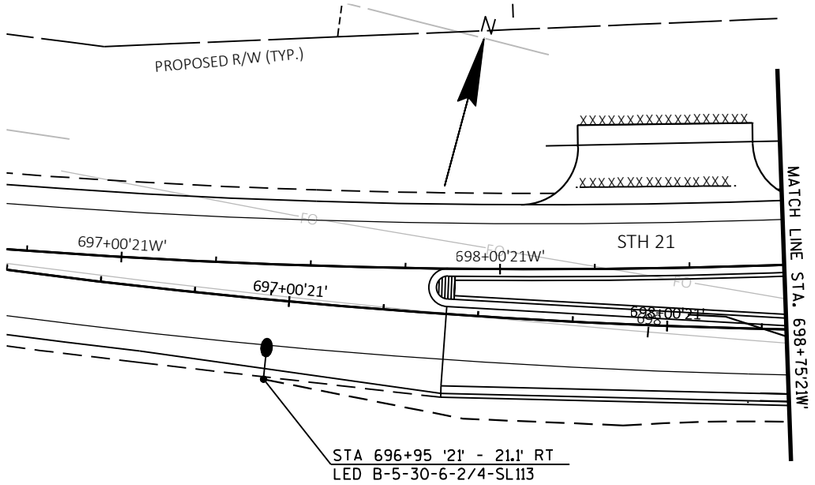


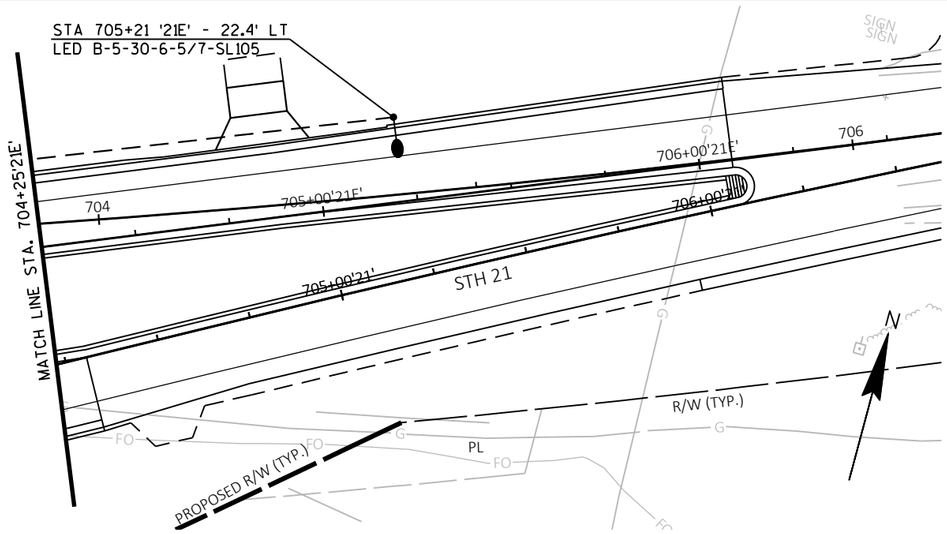
SHEET 03 OF 05

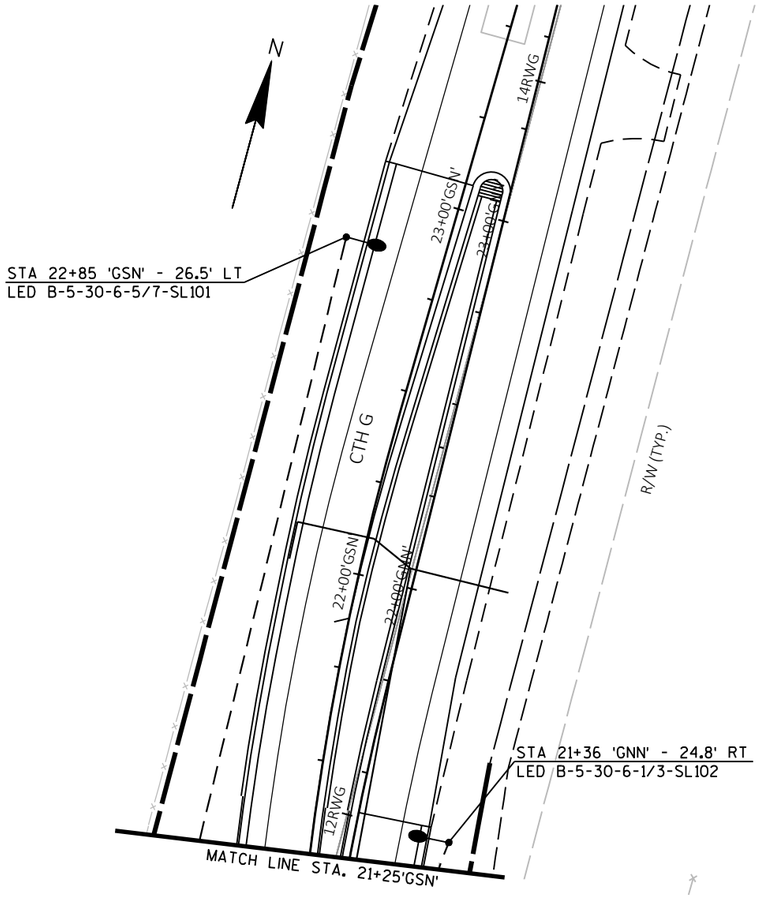
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	LIGHTING PLAN	SHEET 142	E

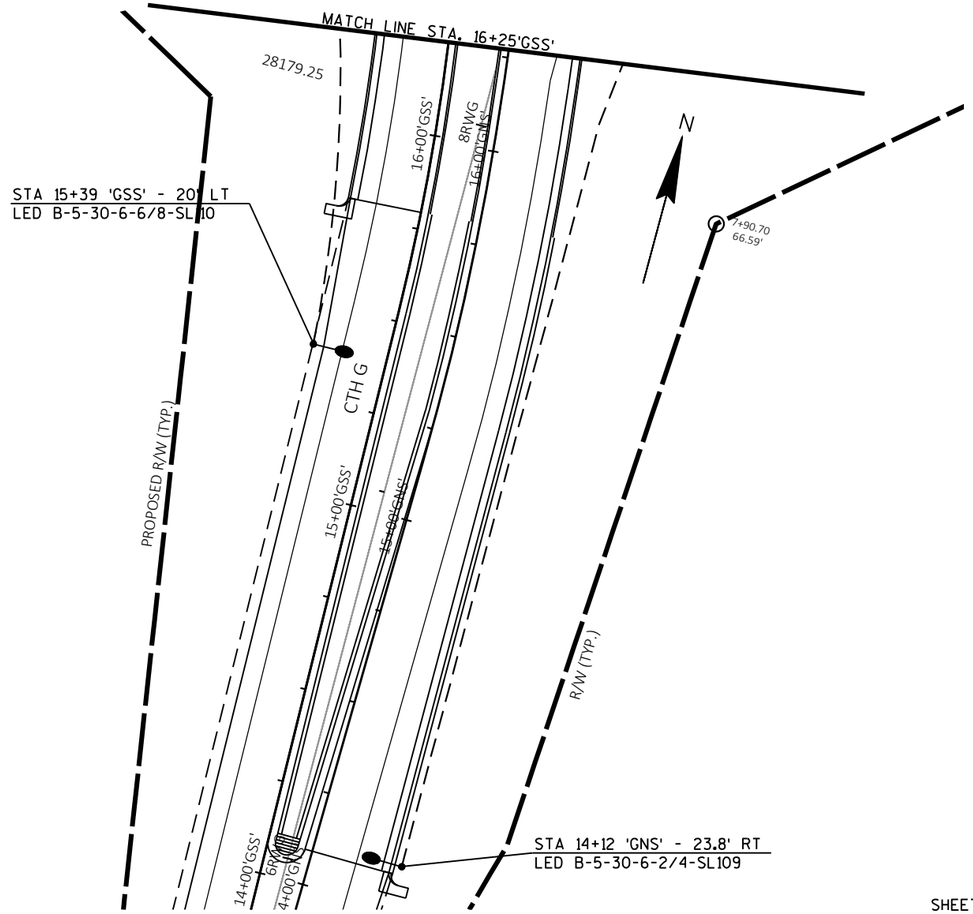
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - RAB-A

PLOT DATE : 7/17/2023 2:23 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT









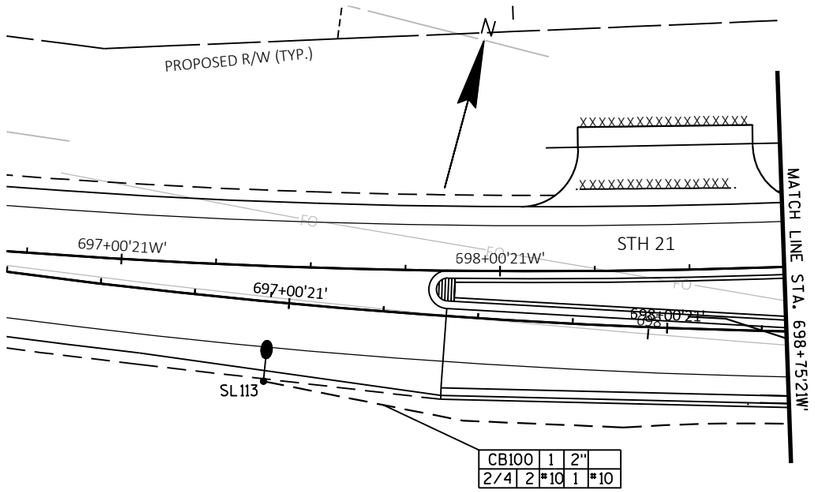
SHEET 04 OF 05

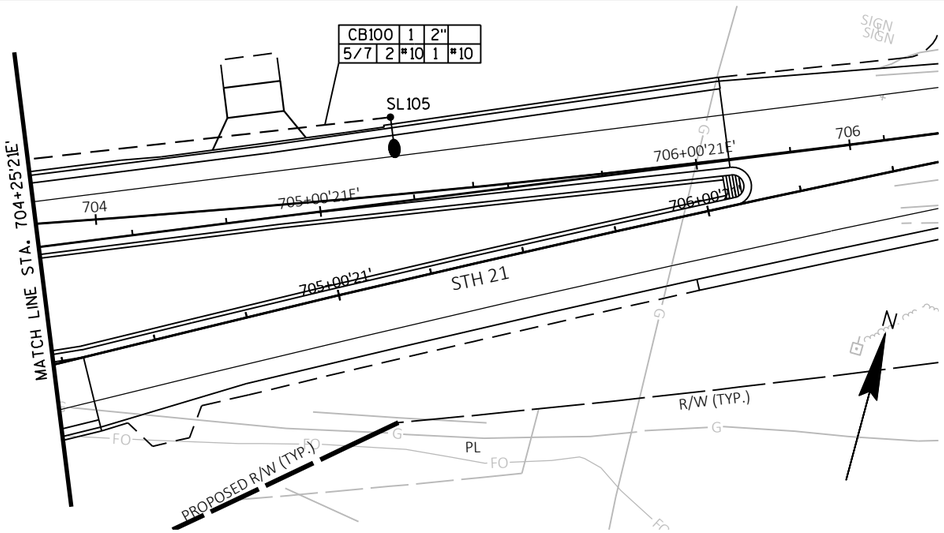
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	LIGHTING PLAN	SHEET 143	E

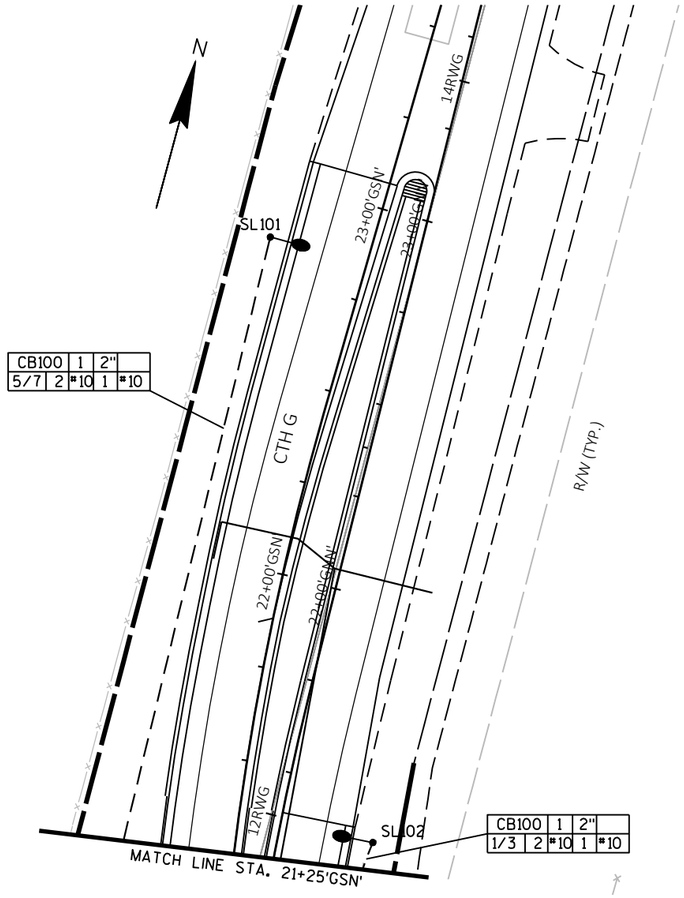
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - RAB (2)

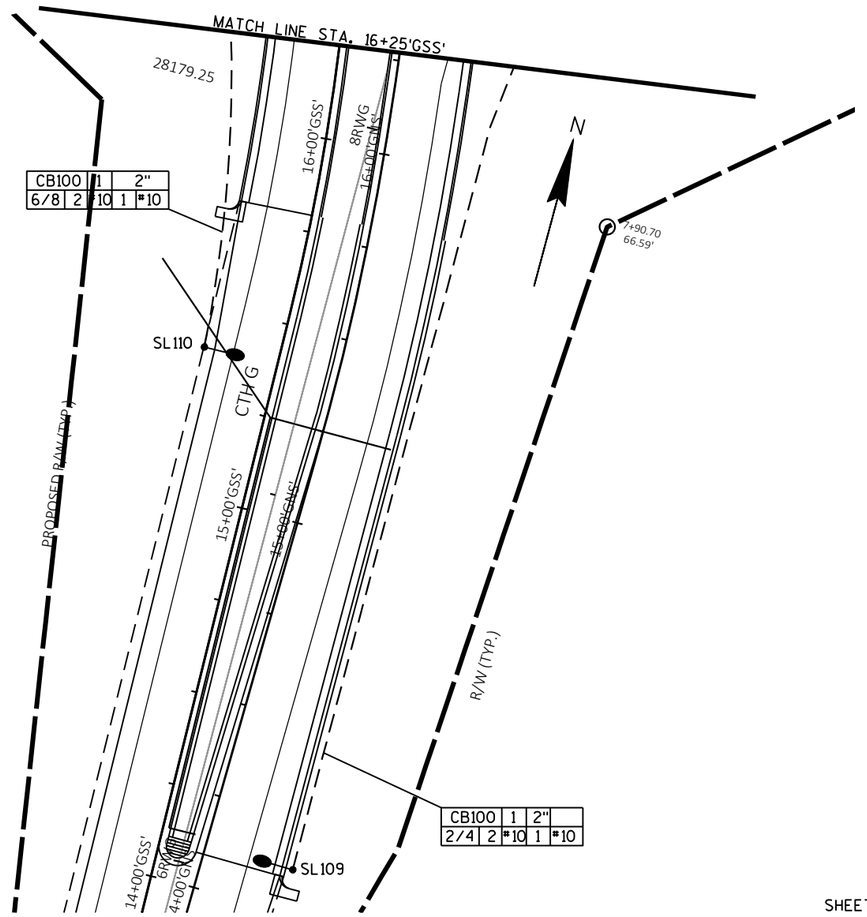
PLOT DATE : 7/17/2023 2:23 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





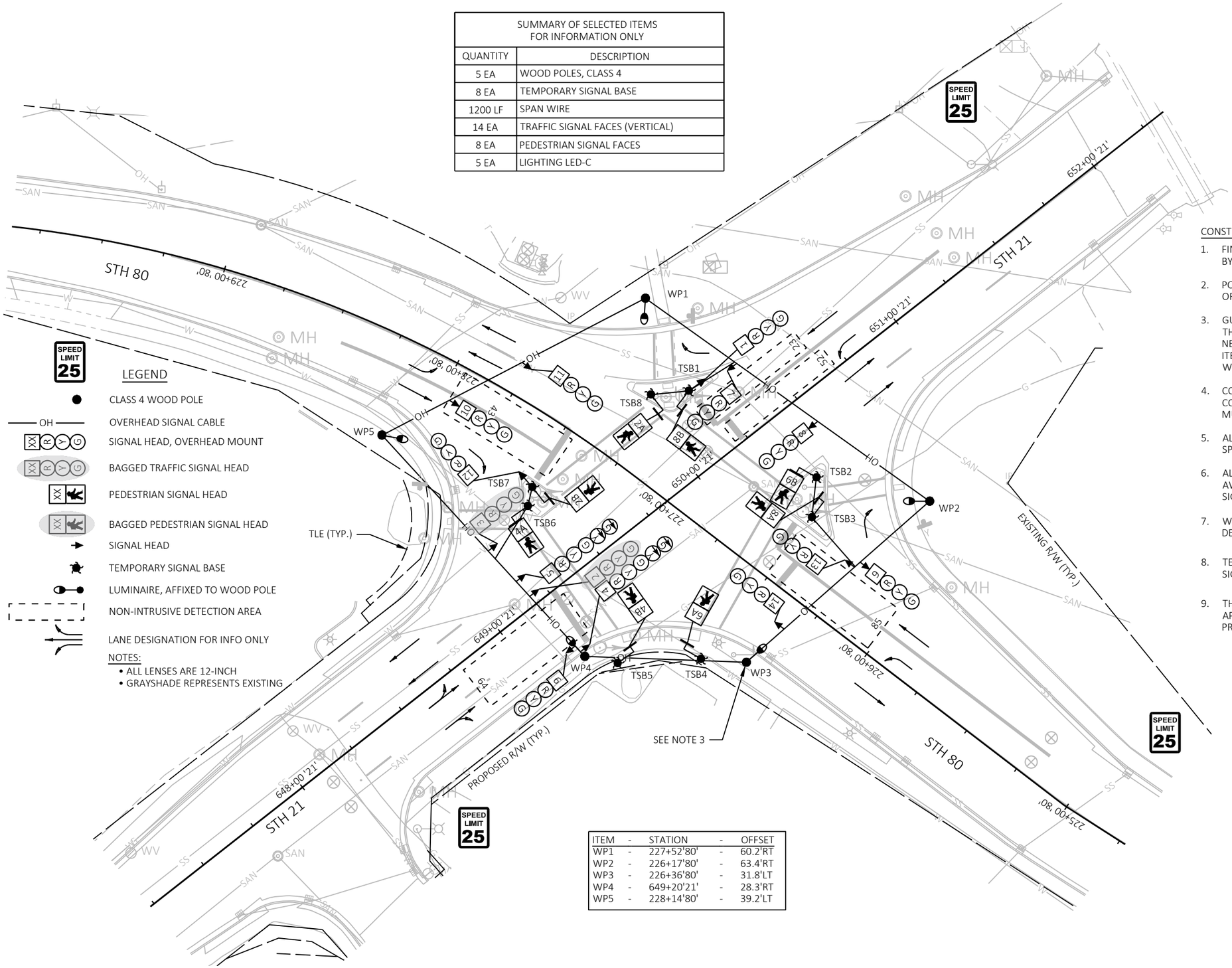




SHEET 05 OF 05

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	LIGHTING PLAN	SHEET 144	E

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
5 EA	WOOD POLES, CLASS 4
8 EA	TEMPORARY SIGNAL BASE
1200 LF	SPAN WIRE
14 EA	TRAFFIC SIGNAL FACES (VERTICAL)
8 EA	PEDESTRIAN SIGNAL FACES
5 EA	LIGHTING LED-C



LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- BAGGED TRAFFIC SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

ITEM	-	STATION	-	OFFSET
WP1	-	227+52'80'	-	60.2'RT
WP2	-	226+17'80'	-	63.4'RT
WP3	-	226+36'80'	-	31.8'LT
WP4	-	649+20'21'	-	28.3'RT
WP5	-	228+14'80'	-	39.2'LT

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. ADJUSTMENTS TO GUY WIRES BETWEEN STAGES MAY BE NECESSARY AND ARE INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM. BALLAST MAY BE REQUIRED TO GUY WP3 TO AVOID CONFLICT WITH WATER MAIN.
4. CONTRACTOR SHALL ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. ALL NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
6. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
7. WISDOT TO INSTALL EQUIPMENT ON CONTRACTOR POLES/SPAN WIRE. DETECTION WILL BE SUPPLIED AND MAINTAINED BY WISDOT.
8. TEMPORARY TRAFFIC SIGNAL SHALL BE OPERATED USING THE EXISTING SIGNAL CABINET. REFER TO SPECIAL PROVISIONS FOR DETAILS
9. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

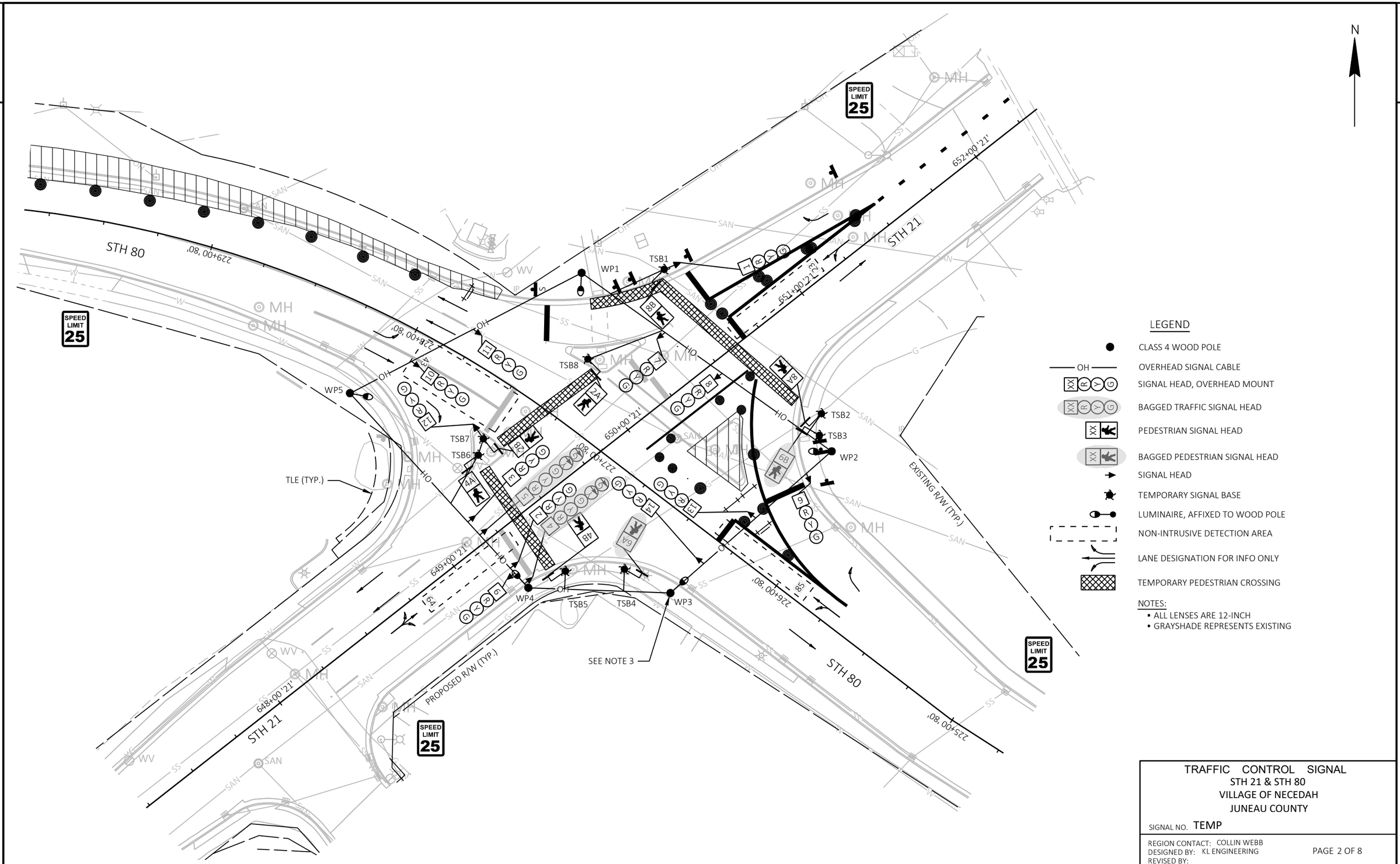
SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 8

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - PRECONSTRUCTION	SHEET 145	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-PRECONSTRUCTION.DWG
LAYOUT NAME - Preconstruction
PLOT DATE : 6/24/2024 10:30 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT



TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

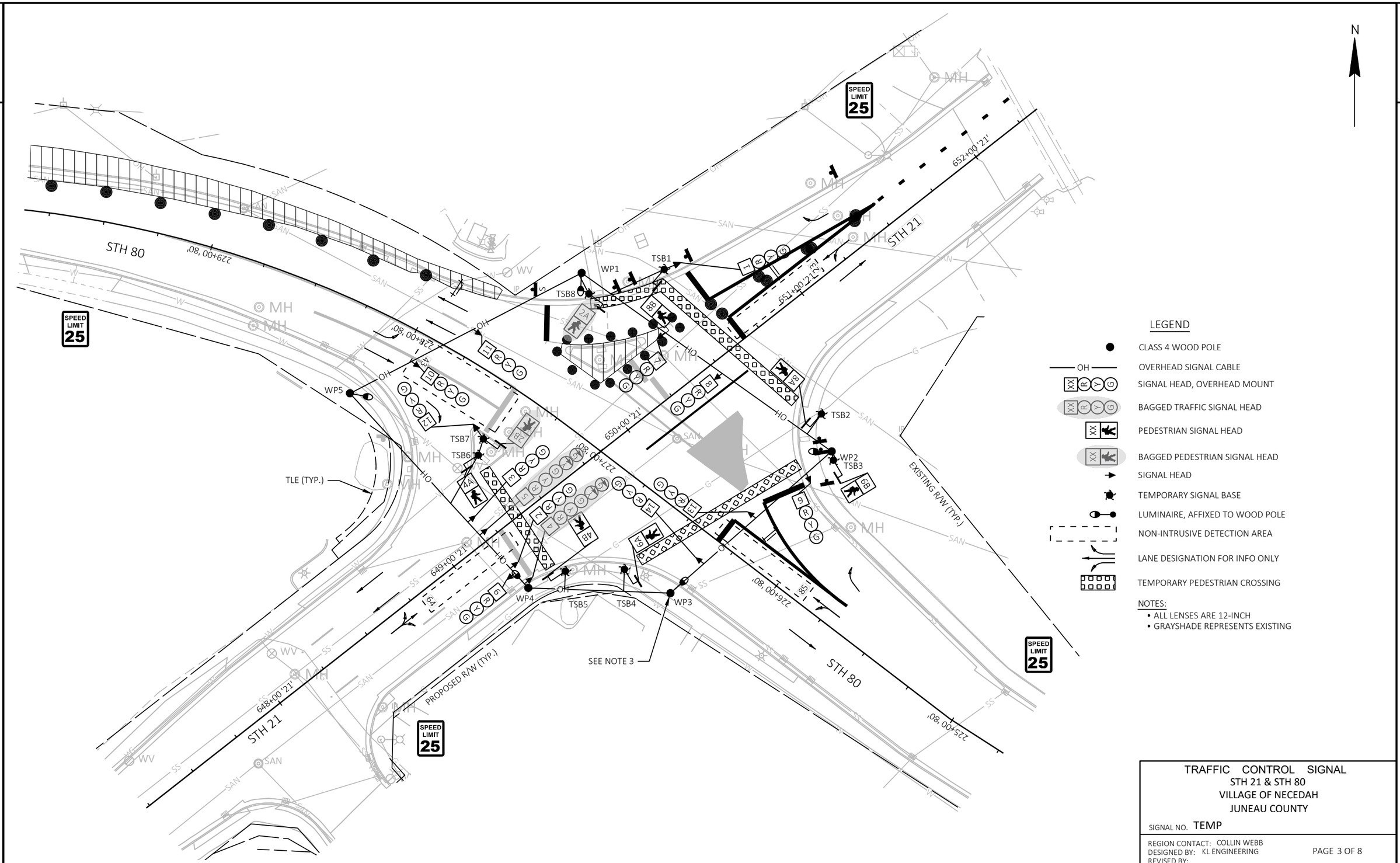
SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 8

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 146	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-STAGE 1A.DWG
LAYOUT NAME - Stage 1A
PLOT DATE : 5/1/2024 8:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 8

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 147	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-STAGE 1B.DWG
LAYOUT NAME - Stage 1B
PLOT DATE : 5/1/2024 8:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

STH 80

STH 21

SPEED LIMIT 25

WP1 TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7 TSB8 TSB9 TSB10 WP2 WP3 WP4 WP5

TLE (TYP.)

SEE NOTE 3

EXISTING R/W (TYP.)

PROPOSED R/W (TYP.)

652+00 '21'

649+00 '21'

648+00 '21'

LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- BAGGED TRAFFIC SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- LANE DESIGNATION FOR INFO ONLY
- TEMPORARY PEDESTRIAN CROSSING

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

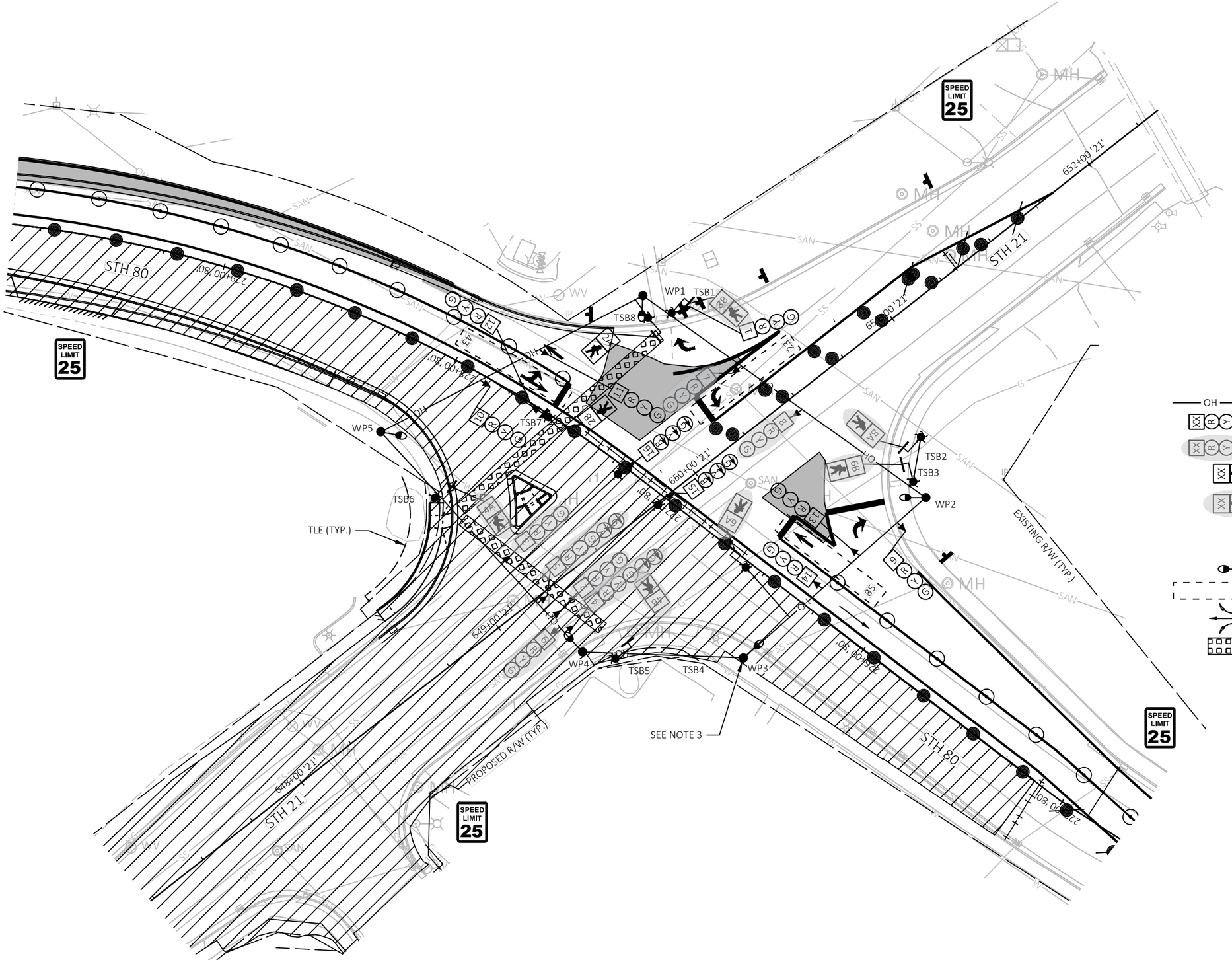
TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 148	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-STAGE 2A.DWG
LAYOUT NAME - Stage 2A
PLOT DATE : 5/1/2024 8:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



N

LEGEND

- CLASS 4 WOOD POLE
- OH — OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- BAGGED TRAFFIC SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- LANE DESIGNATION FOR INFO ONLY
- TEMPORARY PEDESTRIAN CROSSING

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

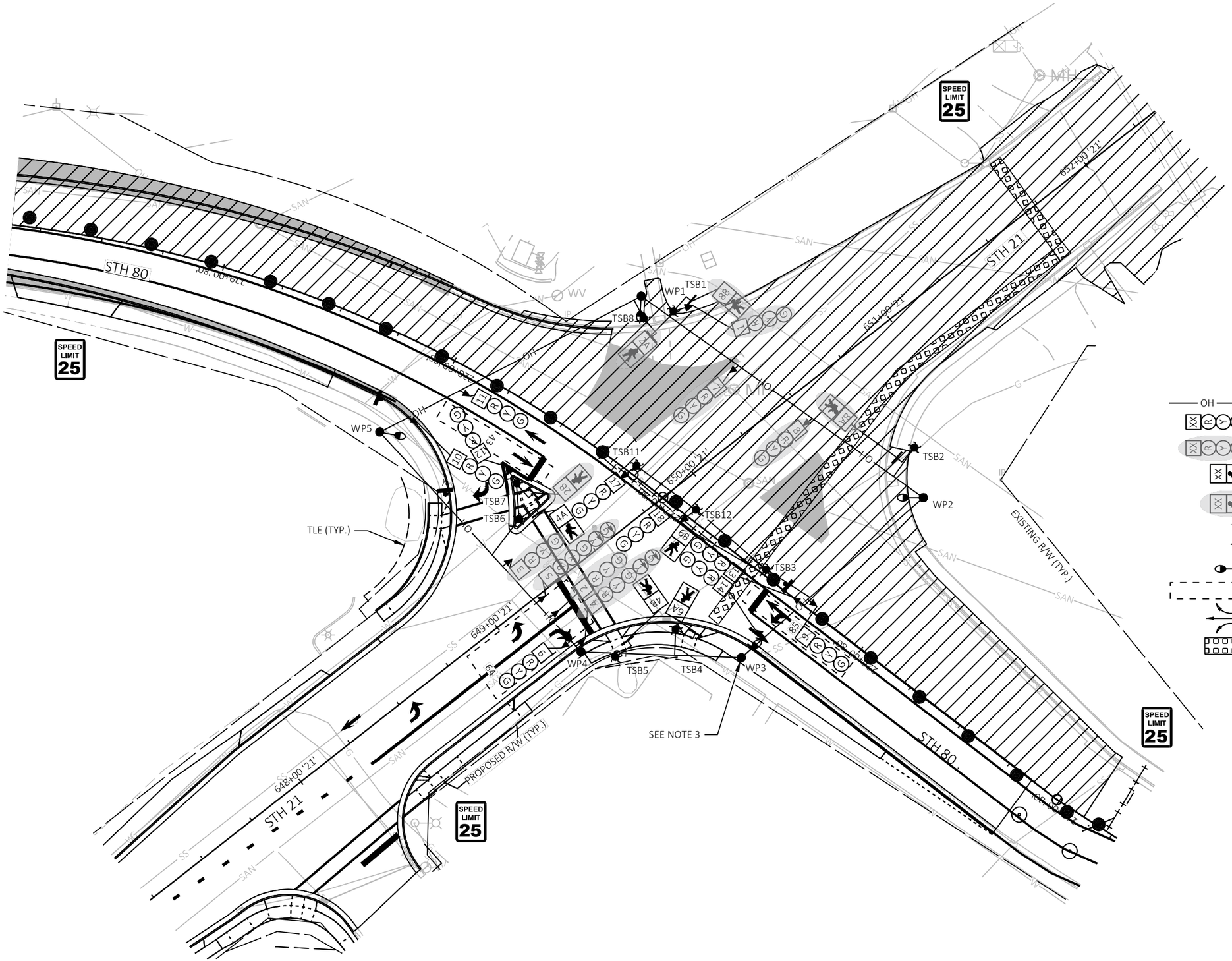
PAGE 5 OF 8

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 149	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-STAGE 2B.DWG
LAYOUT NAME - Stage 2B
PLOT DATE : 5/1/2024 8:24 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 3	SHEET 150	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-STAGE 3.DWG
LAYOUT NAME - Stage 3
PLOT DATE : 5/1/2024 8:25 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

STH 80

STH 21

SPEED LIMIT 25

WP1 WP2 WP3 WP4 WP5

TSB1 TSB2 TSB3 TSB4 TSB5 TSB6 TSB7 TSB8

TLE (TYP.)

SEE NOTE 3

PROPOSED R/W (TYP.)

EXISTING R/W (TYP.)

229+00 '80'

228+00 '80'

227+00 '80'

226+00 '80'

225+00 '80'

652+00 '21'

651+00 '21'

650+00 '21'

649+00 '21'

648+00 '21'

LEGEND

- CLASS 4 WOOD POLE
- OVERHEAD SIGNAL CABLE
- SIGNAL HEAD, OVERHEAD MOUNT
- BAGGED TRAFFIC SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- BAGGED PEDESTRIAN SIGNAL HEAD
- SIGNAL HEAD
- TEMPORARY SIGNAL BASE
- LUMINAIRE, AFFIXED TO WOOD POLE
- NON-INTRUSIVE DETECTION AREA
- LANE DESIGNATION FOR INFO ONLY

NOTES:

- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

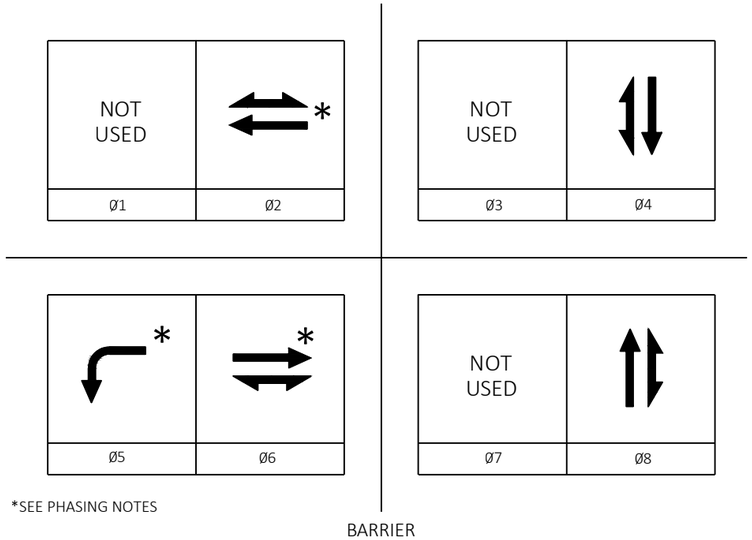
REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - POST STAGE 3	SHEET 151	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-POST STAGE 3.DWG
LAYOUT NAME - POST STAGE 3

PLOT DATE : 5/1/2024 8:26 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	1,2,3,15,16	R
Ø3		
Ø4	13,14	R
Ø5	4,5,15,16	R
Ø6	6,7,8,17,18	R
Ø7		
Ø8	9,10,11	R
Ø2 PED	2A,2B	
Ø4 PED	4A,4B	
Ø6 PED	6A,6B	
Ø8 PED	8A,8B	



*SEE PHASING NOTES

PHASING NOTES

- PHASE 5 AND PED PHASE 6 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 1A.
- PHASE 5 AND PED PHASE 2 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 1B.
- PHASE 6 AND PED PHASES 2,4, AND 8 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 2A.
- PHASE 6 AND PED PHASES 4,6, AND 8 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 2B.
- PHASE 2 AND 5 AND PED PHASES 2 AND 8 TO BE DEACTIVATED DURING CONSTRUCTION STAGE 3.

LEGEND

PHASE

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	23	42	43	52	64	85		
PHASE CALLED	2	4	4	5	6	8		
PHASE EXTENDED	2	4	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY			X	X	X	X		
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

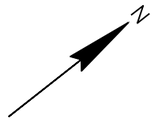
DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	MIN	X*
3				
4		8		X*
5		2		X*
6		2	MIN	X*
7				
8		4		X*

*SEE PHASING NOTES



TYPE OF PRE-EMPT	
NONE	
RAILROAD	X
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. TEMP

REGION CONTACT: COLLIN WEBB
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TEMPORARY TRAFFIC SIGNAL PLAN - SEQUENCE OF OPERATIONS	SHEET 152	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TEMPORARY SIGNALS\024101-ST-SOO.DWG
LAYOUT NAME - Temp Signals SOO
PLOT DATE : 5/1/2024 8:26 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

N

650+00'21'

651+00'21'

652+00'21'

649+00'21'

648+00'21'

225+00'8'

REMOVALS:
4 - TYPE 1 CONCRETE BASE
4 - TYPE 2 CONCRETE BASE
1 - TYPE 9 SPECIAL CONCRETE BASE
4 - TYPE 3 POLE, TRANSFORMER BASE, MAST ARM, LUMINAIRE ARM
4 - 15' STANDARD, PEDESTAL BASE
10 - TRAFFIC SIGNAL FACE, 3S
2 - TRAFFIC SIGNAL FACE, 4S
8 - PEDESTRIAN SIGNAL FACE
4 - LED LUMINAIRE
16 - STEEL PULLBOX

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 153	E

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\61600000\TRAFFIC\ELECTRICAL\SIGNALS\6160-00-70.SIGNALDESIGN.DWG
LAYOUT NAME - 024001-sr

PLOT DATE : 6/30/2023 2:47 PM PLOT BY : WEBB, COLLIN J PLOT NAME : PLOT SCALE : 1 IN:40 FT

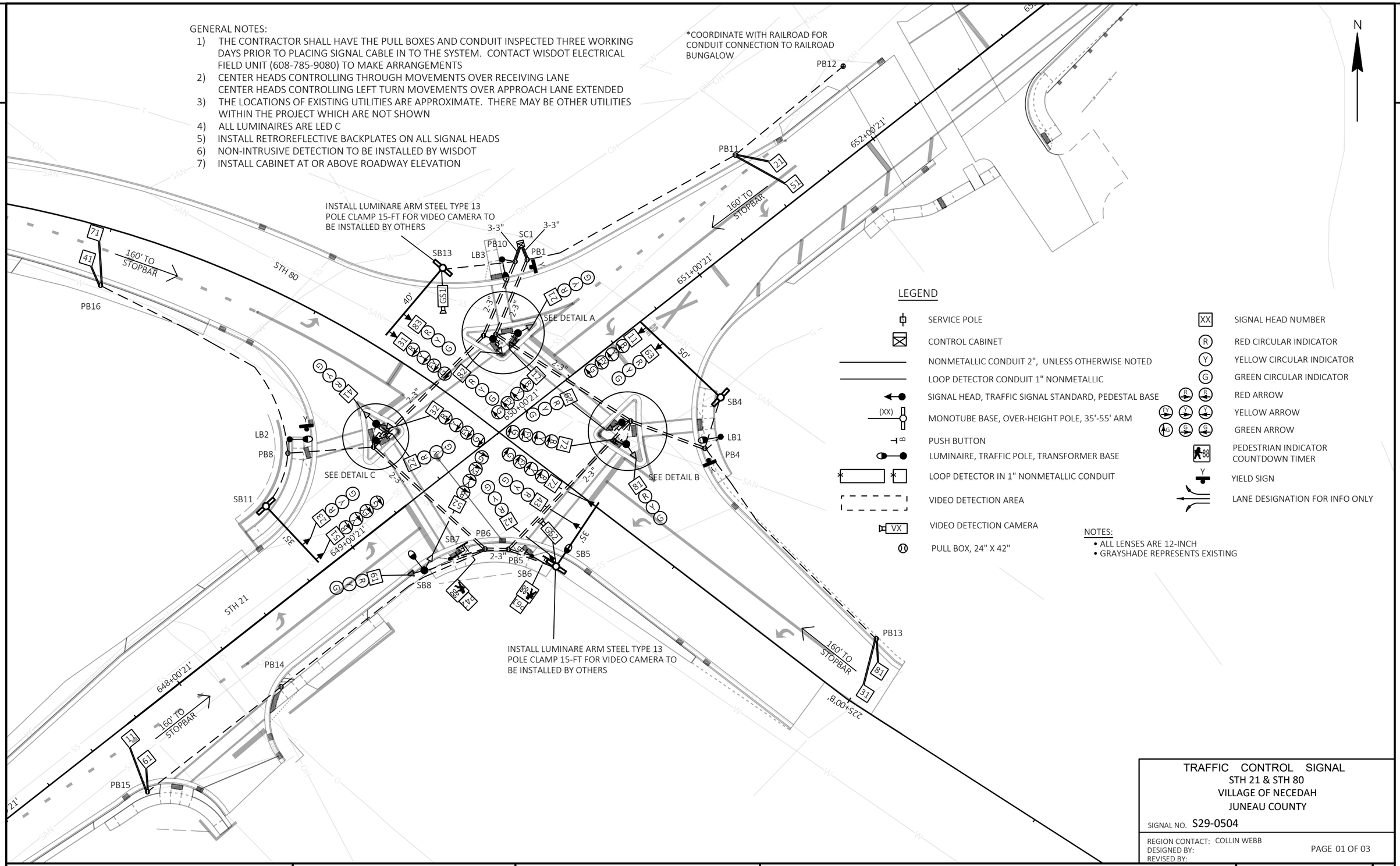
GENERAL NOTES:

1) THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT INSPECTED THREE WORKING DAYS PRIOR TO PLACING SIGNAL CABLE IN TO THE SYSTEM. CONTACT WISDOT ELECTRICAL FIELD UNIT (608-785-9080) TO MAKE ARRANGEMENTS
2) CENTER HEADS CONTROLLING THROUGH MOVEMENTS OVER RECEIVING LANE
   CENTER HEADS CONTROLLING LEFT TURN MOVEMENTS OVER APPROACH LANE EXTENDED
3) THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT WHICH ARE NOT SHOWN
4) ALL LUMINAIRES ARE LED C
5) INSTALL RETROREFLECTIVE BACKPLATES ON ALL SIGNAL HEADS
6) NON-INTRUSIVE DETECTION TO BE INSTALLED BY WISDOT
7) INSTALL CABINET AT OR ABOVE ROADWAY ELEVATION

*COORDINATE WITH RAILROAD FOR CONDUIT CONNECTION TO RAILROAD BUNGALOW

INSTALL LUMINARE ARM STEEL TYPE 13 POLE CLAMP 15-FT FOR VIDEO CAMERA TO BE INSTALLED BY OTHERS

INSTALL LUMINARE ARM STEEL TYPE 13 POLE CLAMP 15-FT FOR VIDEO CAMERA TO BE INSTALLED BY OTHERS



LEGEND

- SERVICE POLE
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, OVER-HEIGHT POLE, 35'-55' ARM
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- 08 PEDESTRIAN INDICATOR COUNTDOWN TIMER
- Y YIELD SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. S29-0504

REGION CONTACT: COLLIN WEBB
DESIGNED BY:
REVISED BY:

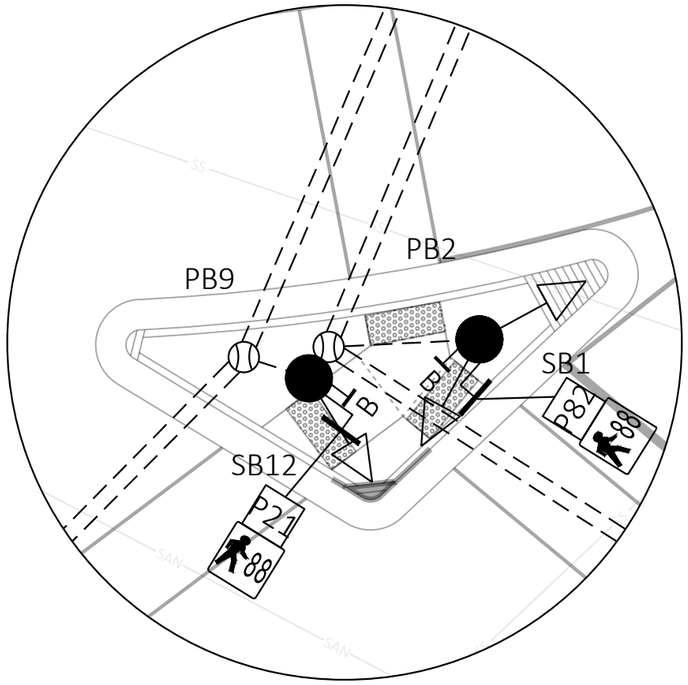
PAGE 01 OF 03

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC SIGNAL PLAN	SHEET 154	E

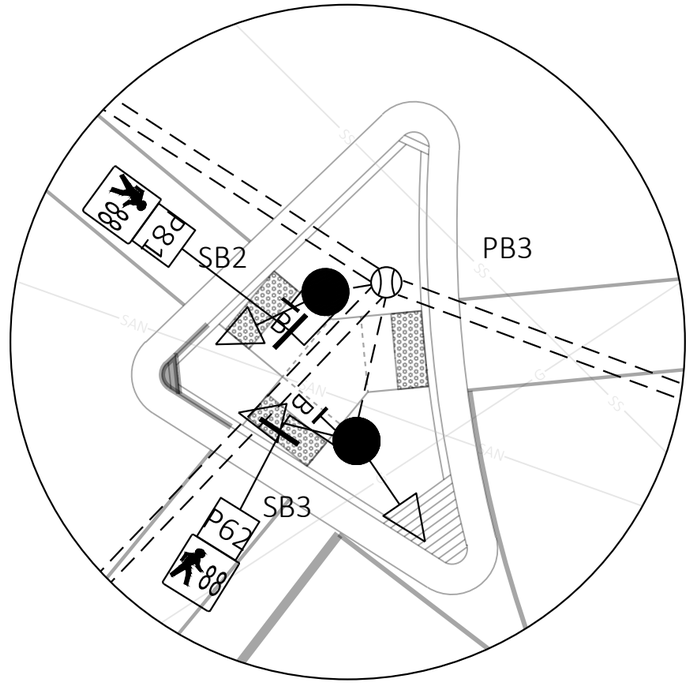
FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\61600000\TRAFFIC\ELECTRICAL\SIGNALS\6160-00-70.SIGNALDESIGN.DWG
LAYOUT NAME - 024201-sp
PLOT DATE : 6/30/2023 2:47 PM PLOT BY : WEBB, COLLIN J PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

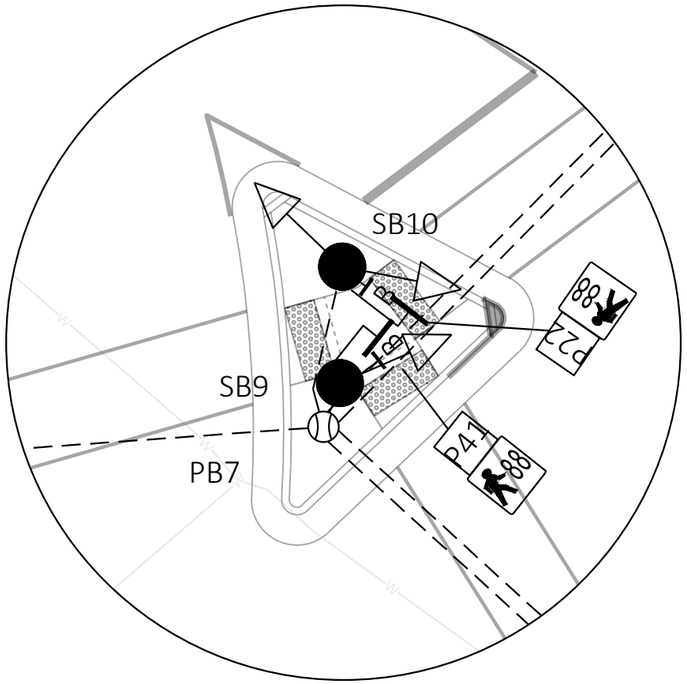
2



DETAIL A



DETAIL B



DETAIL C

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. S29-0504

REGION CONTACT: COLLIN WEBB
DESIGNED BY:
REVISED BY:

PAGE 02 OF 03

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC SIGNAL PLAN - PORK CHOP ISLAND DETAILS	SHEET 155	E

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\61600000\TRAFFIC\ELECTRICAL\SIGNALS\6160-00-70.SIGNALDESIGN.DWG
LAYOUT NAME - 024202-sp

PLOT DATE : 6/30/2023 2:47 PM PLOT BY : WEBB, COLLIN J PLOT NAME : PLOT SCALE : ##########

STH 21 AT STH 80

HOME RUN	CABLE	INDICATION / WIRE COLOR											
		BLACK	WHITE	RED	GREEN	ORANGE	BLUE	WHITE/BLK	RED/BLK	GREEN/BLK	ORANGE/BLK	BLUE/BLK	BLK/WHITE
SC1 - SB1	7/C	8-DW	NEUTRAL	2-RED	2-GRN	2-YEL	8-WALK						
SC1 - SB2	7/C	8-DW	NEUTRAL	6-RED	6-GRN	6-YEL	8-WALK						
SC1 - SB3	12/C	6-DW	NEUTRAL	8-RED	8-GRN	8-YEL	6-WALK		7-R-ARROW	7-G-ARROW	7-Y-ARROW	7-FY-ARROW	
SC1 - SB4	12/C		NEUTRAL	6-RED	6-GRN	6-YEL			1-R-ARROW	1-G-ARROW	1-Y-ARROW	1-FY-ARROW	
SC1 - SB5	12/C	6-DW	NEUTRAL	4-RED	4-GRN	4-YEL	6-WALK		7-R-ARROW	7-G-ARROW	7-Y-ARROW	7-FY-ARROW	
SC1 - SB7	7/C	4-DW	NEUTRAL				4-WALK						
SC1 - SB8	12/C		NEUTRAL	6-RED	6-GRN	6-YEL			5-R-ARROW	5-G-ARROW	5-Y-ARROW	5-FY-ARROW	
SC1 - SB9	7/C	4-DW	NEUTRAL	2-RED	2-GRN	2-YEL	4-WALK						
SC1 - SB10	12/C	2-DW	NEUTRAL	4-RED	4-GRN	4-YEL	2-WALK		3-R-ARROW	3-G-ARROW	3-Y-ARROW	3-FY-ARROW	
SC1 - SB11	12/C		NEUTRAL	2-RED	2-GRN	2-YEL			5-R-ARROW	5-G-ARROW	5-Y-ARROW	5-FY-ARROW	
SC1 - SB12	7/C	2-DW	NEUTRAL	8-RED	8-GRN	8-YEL	2-WALK						
SC1 - SB13	12/C		NEUTRAL	8-RED	8-GRN	8-YEL			3-R-ARROW	3-G-ARROW	3-Y-ARROW	3-FY-ARROW	

TRAFFIC CONTROL SIGNAL
STH 21 & STH 80
VILLAGE OF NECEDAH
JUNEAU COUNTY

SIGNAL NO. S29-0504

REGION CONTACT: COLLIN WEBB
DESIGNED BY:
REVISED BY:

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC SIGNAL PLAN - CABLE ROUTING	SHEET 156	E

FILE NAME : C:\BOXDRV\BOX\DTSD-PROJECTS-PUBLIC\SWR-PROJECTS-STATE\DESIGN\61600000\TRAFFIC\ELECTRICAL\SIGNALS\6160-00-70.SIGNALDESIGN.DWG
LAYOUT NAME - 024401-cr
PLOT DATE : 6/30/2023 2:47 PM PLOT BY : WEBB, COLLIN J PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

NOTES:

- REFER TO S.D.D. "PERMANENT LONGITUDINAL PAVEMENT MARKINGS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "PAVEMENT MARKING, INTERSECTIONS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "PAVEMENT MARKING ARROWS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "ROUNDABOUT MARKING ARROWS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "PAVEMENT MARKINGS, MEDIAN ISLANDS" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "PAVEMENT MARKINGS, MEDIAN ISLAND NOSE" FOR DETAILS NOT SHOWN.
- REFER TO S.D.D. "STOP LINE AND CROSSWALK PAVEMENT MARKING" FOR DETAILS NOT SHOWN.

LEGEND

1. MARKING LINE EPOXY 6-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
2A. MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
3. MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
3A. MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
4. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
4A. MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) 3-FT LINE, 9-FT GAP
5. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
5A. MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) 3-FT LINE, 9-FT GAP
6. MARKING ARROW EPOXY (WHITE)
7. MARKING WORD EPOXY (WHITE)
8. MARKING STOP LINE EPOXY 18-INCH (WHITE)
9. MARKING YIELD LINE EPOXY 18-INCH (WHITE)
9A. MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE)
10. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
10A. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
11. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
12. MARKING RAILROAD CROSSING EPOXY (WHITE)
13. MARKING CURB EPOXY (YELLOW)
14. MARKING ISLAND NOSE EPOXY (YELLOW)
15. ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE, RURAL
15. ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE, RURAL

2

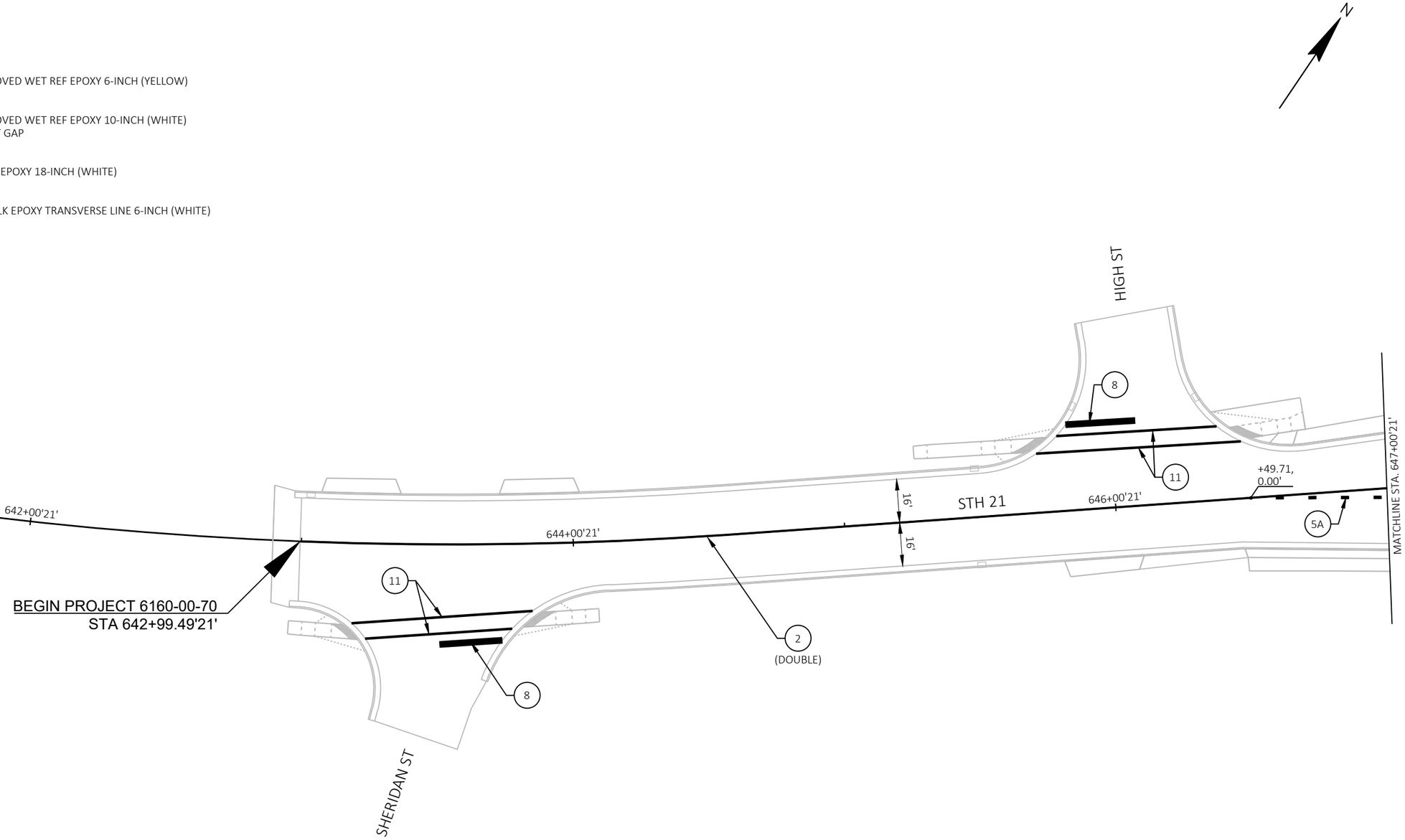
LEGEND

(2) MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)

(5A) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
3-FT LINE, 9-FT GAP

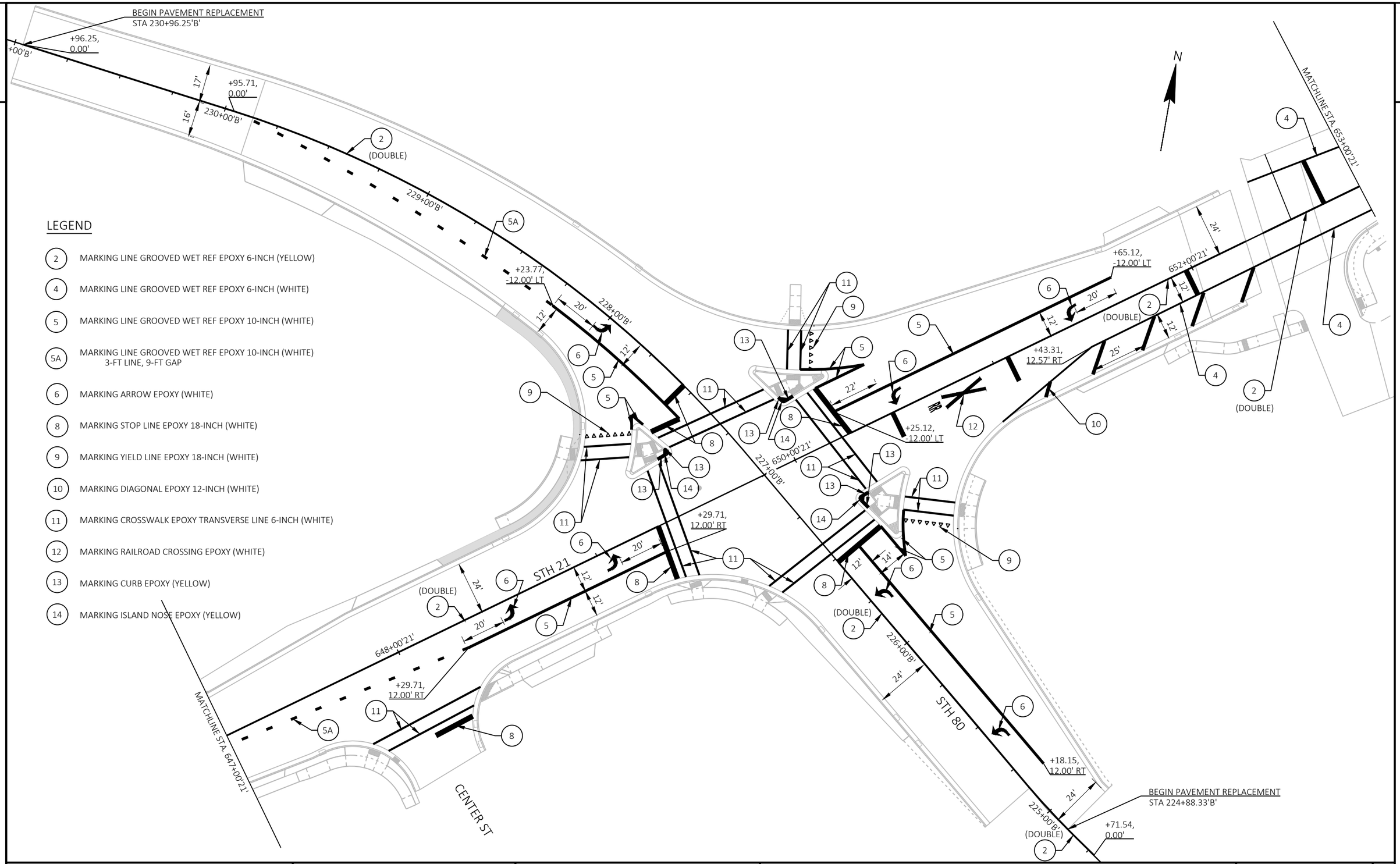
(8) MARKING STOP LINE EPOXY 18-INCH (WHITE)

(11) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 158	E

2

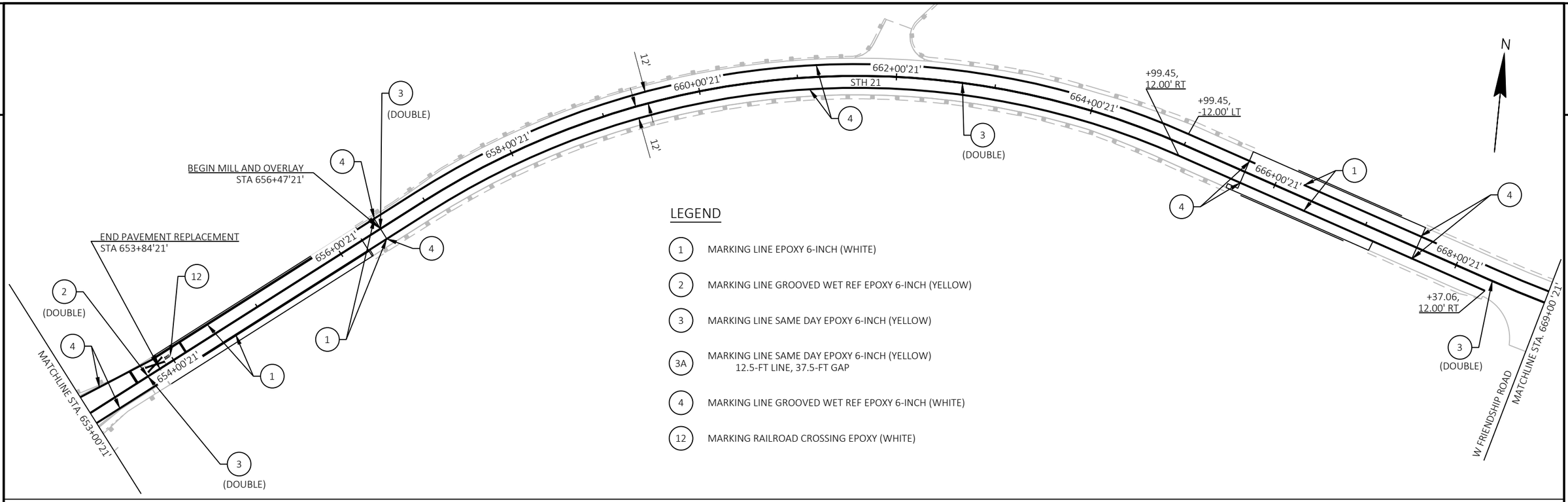


LEGEND

- (2) MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (5) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
- (5A) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (6) MARKING ARROW EPOXY (WHITE)
- (8) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (9) MARKING YIELD LINE EPOXY 18-INCH (WHITE)
- (10) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (11) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- (12) MARKING RAILROAD CROSSING EPOXY (WHITE)
- (13) MARKING CURB EPOXY (YELLOW)
- (14) MARKING ISLAND NOSE EPOXY (YELLOW)

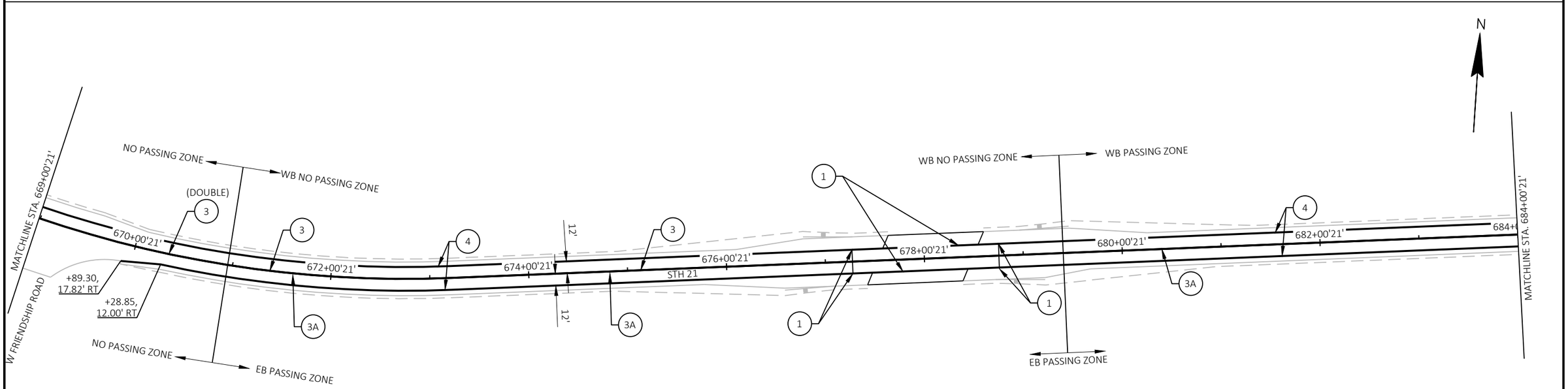
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 159	E

2



LEGEND

1	MARKING LINE EPOXY 6-INCH (WHITE)
2	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
3	MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
3A	MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
4	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
12	MARKING RAILROAD CROSSING EPOXY (WHITE)

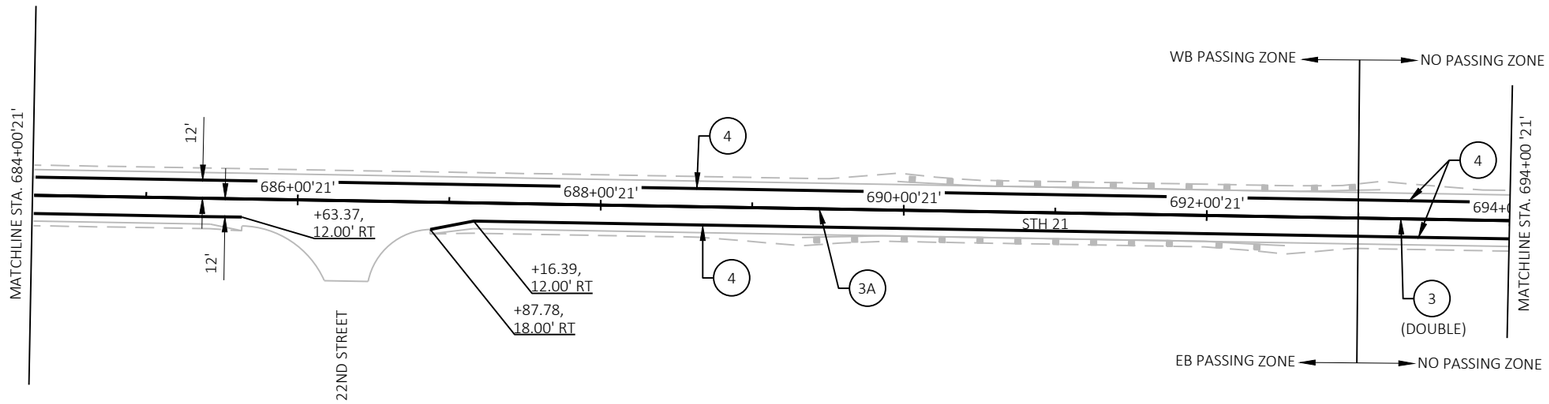


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 160	E

LEGEND

- (3) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (3A) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)

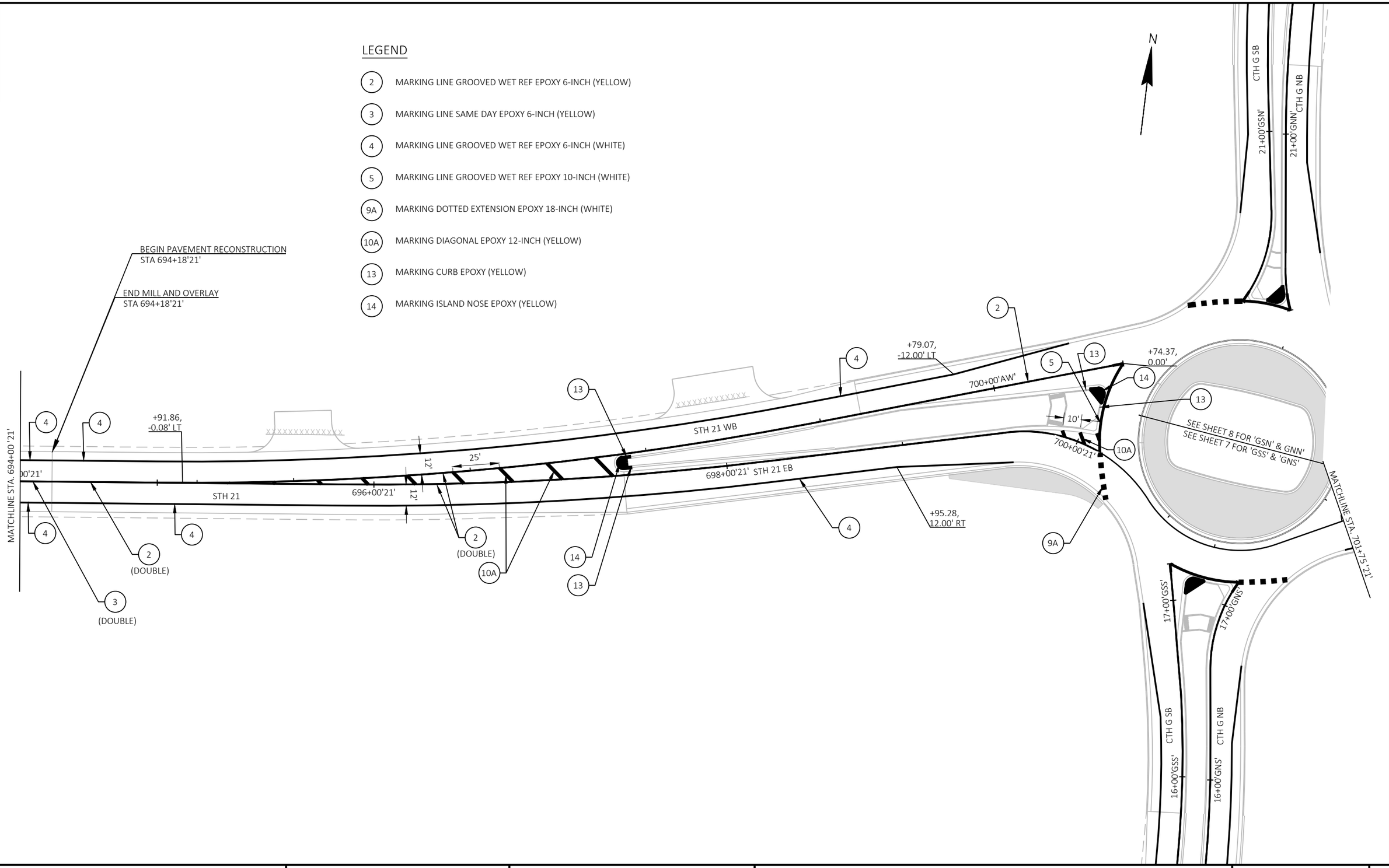
N



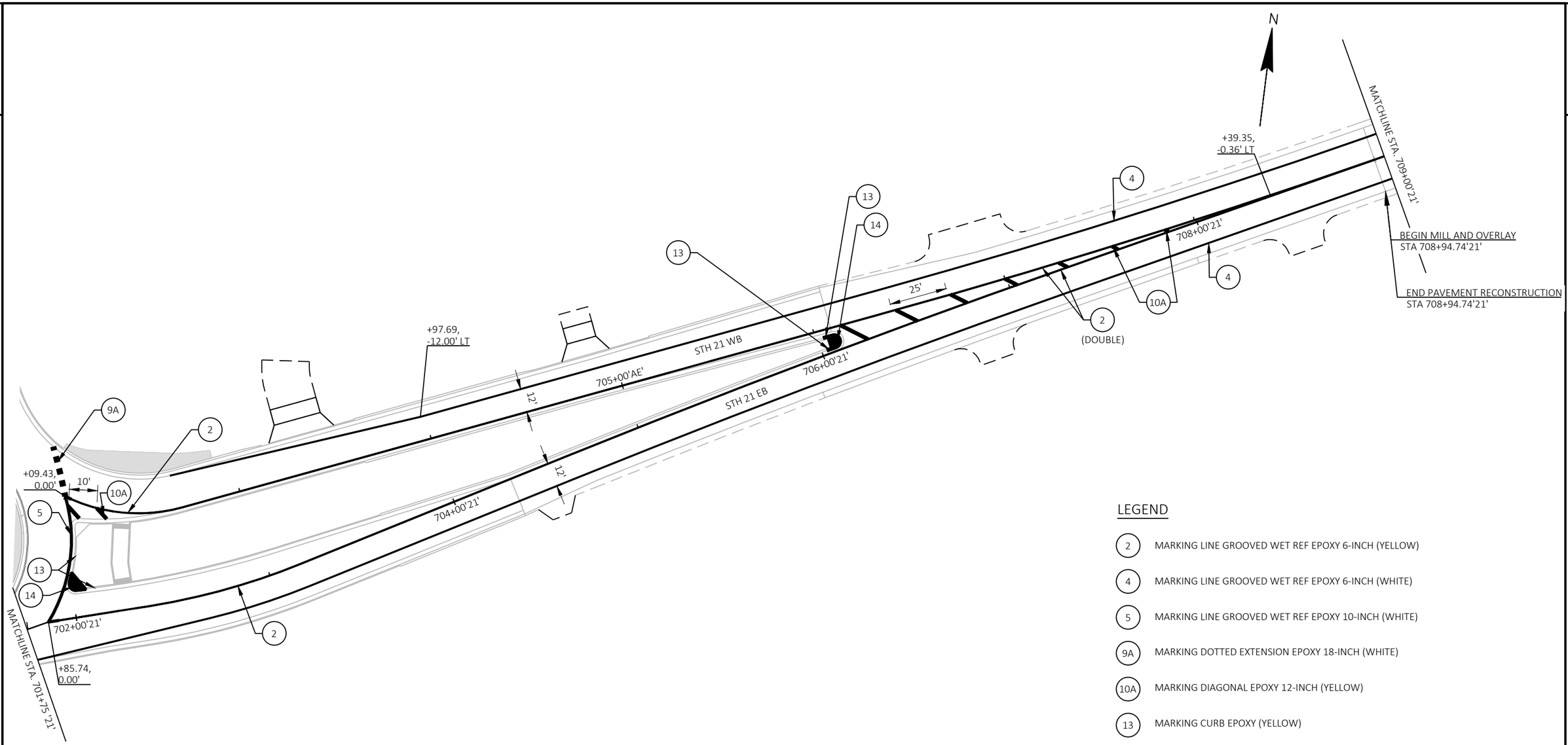
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 161	E

LEGEND

- (2) MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
- (3) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (5) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
- (9A) MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE)
- (10A) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (13) MARKING CURB EPOXY (YELLOW)
- (14) MARKING ISLAND NOSE EPOXY (YELLOW)



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 162	E

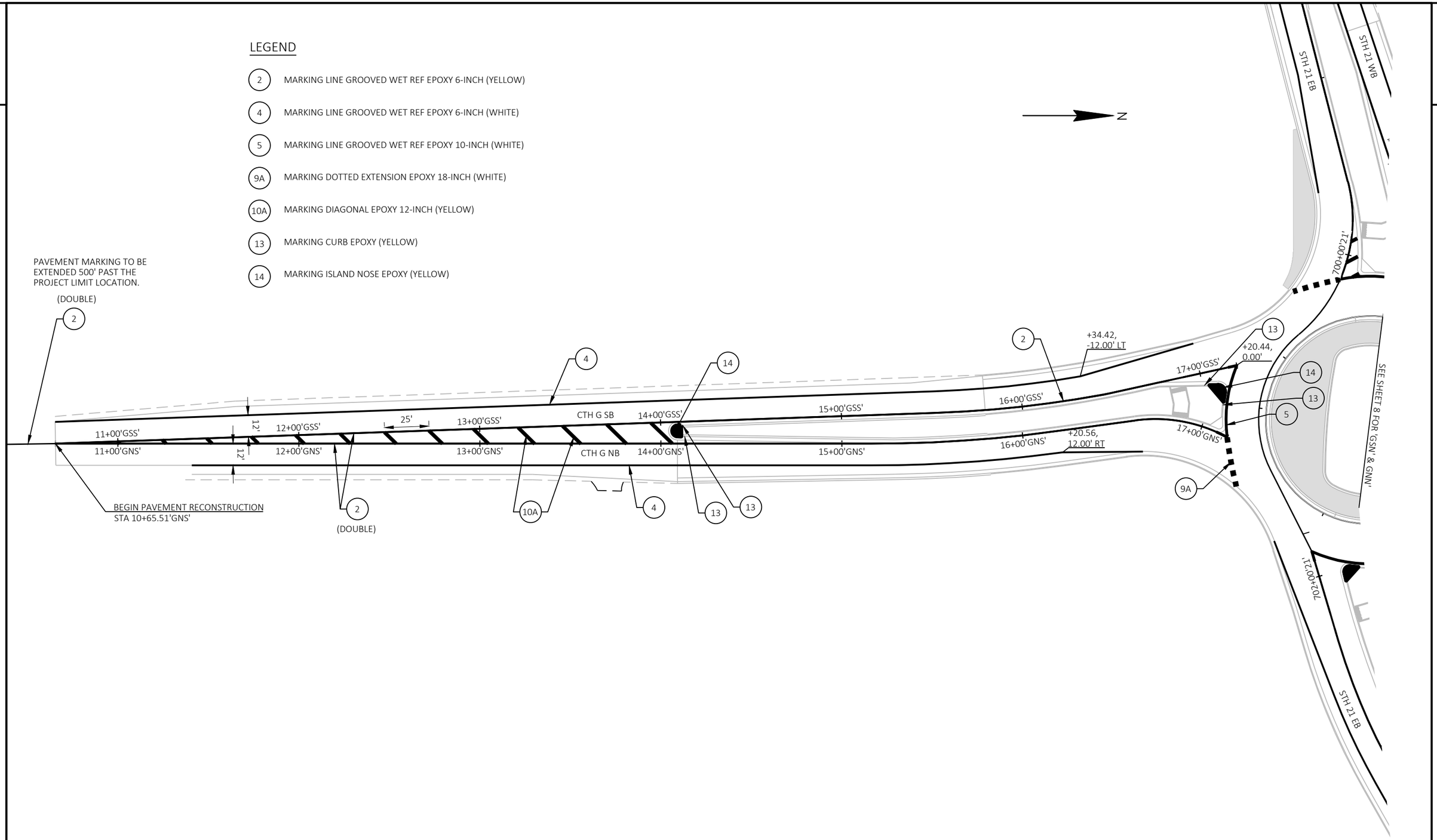


LEGEND

- (2) MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (5) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
- (9A) MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE)
- (10A) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (13) MARKING CURB EPOXY (YELLOW)
- (14) MARKING ISLAND NOSE EPOXY (YELLOW)

LEGEND

- (2) MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (5) MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
- (9A) MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE)
- (10A) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (13) MARKING CURB EPOXY (YELLOW)
- (14) MARKING ISLAND NOSE EPOXY (YELLOW)



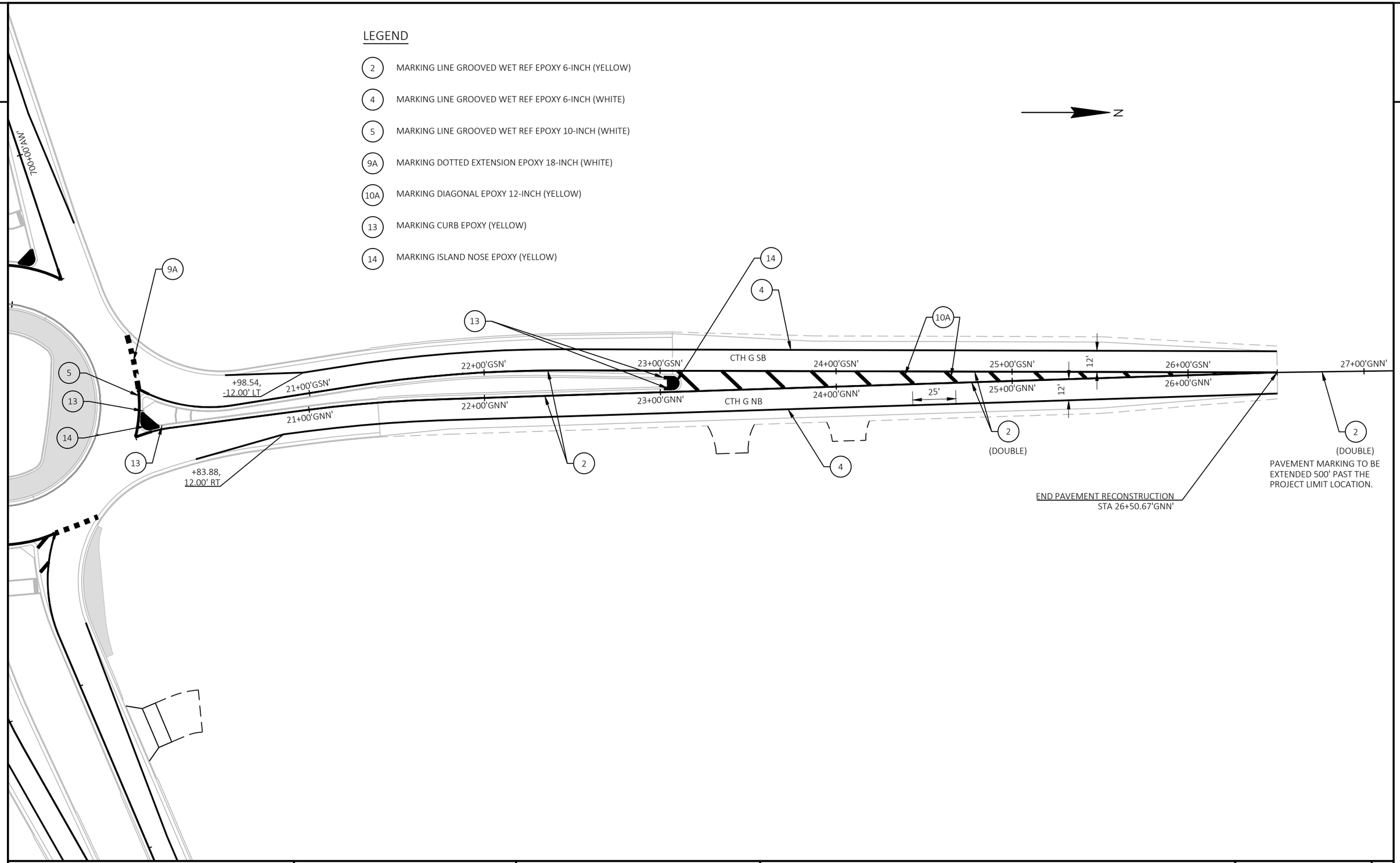
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 164	E

2

2

LEGEND

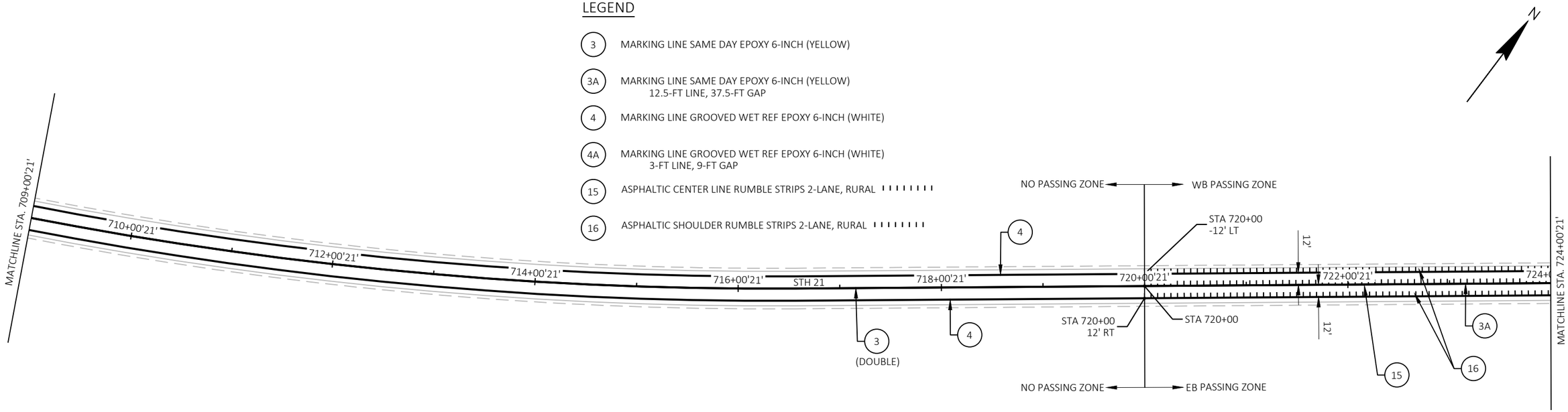
- 2 MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
- 4 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- 5 MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
- 9A MARKING DOTTED EXTENSION EPOXY 18-INCH (WHITE)
- 10A MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- 13 MARKING CURB EPOXY (YELLOW)
- 14 MARKING ISLAND NOSE EPOXY (YELLOW)

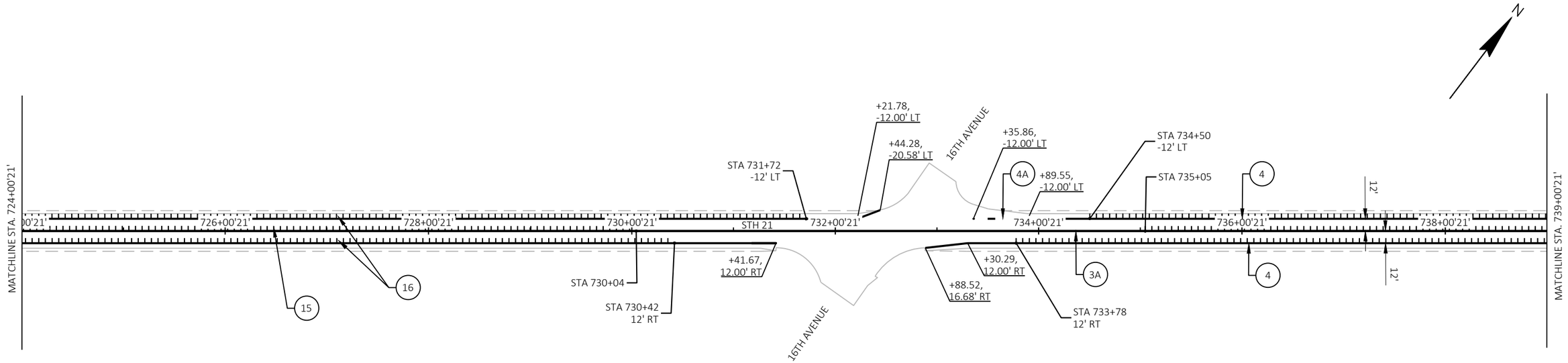


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 165	E

LEGEND

- (3) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (3A) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (4A) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (15) ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE, RURAL
- (16) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE, RURAL



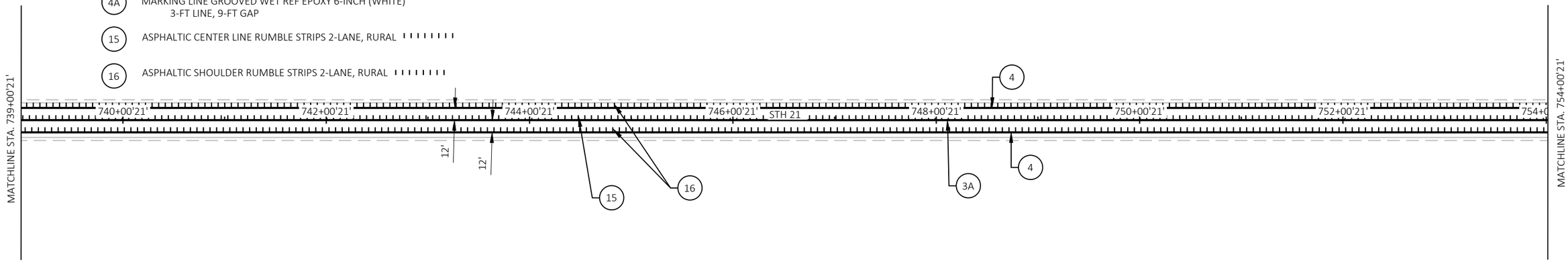


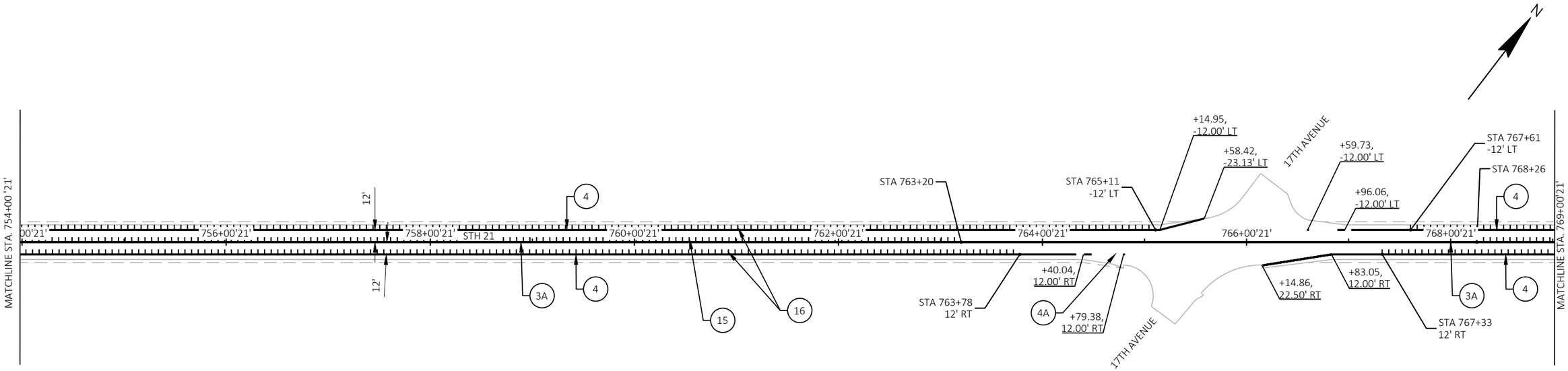
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 166	E

2

LEGEND

- (3) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (3A) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) 12.5-FT LINE, 37.5-FT GAP
- (4) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- (4A) MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) 3-FT LINE, 9-FT GAP
- (15) ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE, RURAL
- (16) ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE, RURAL



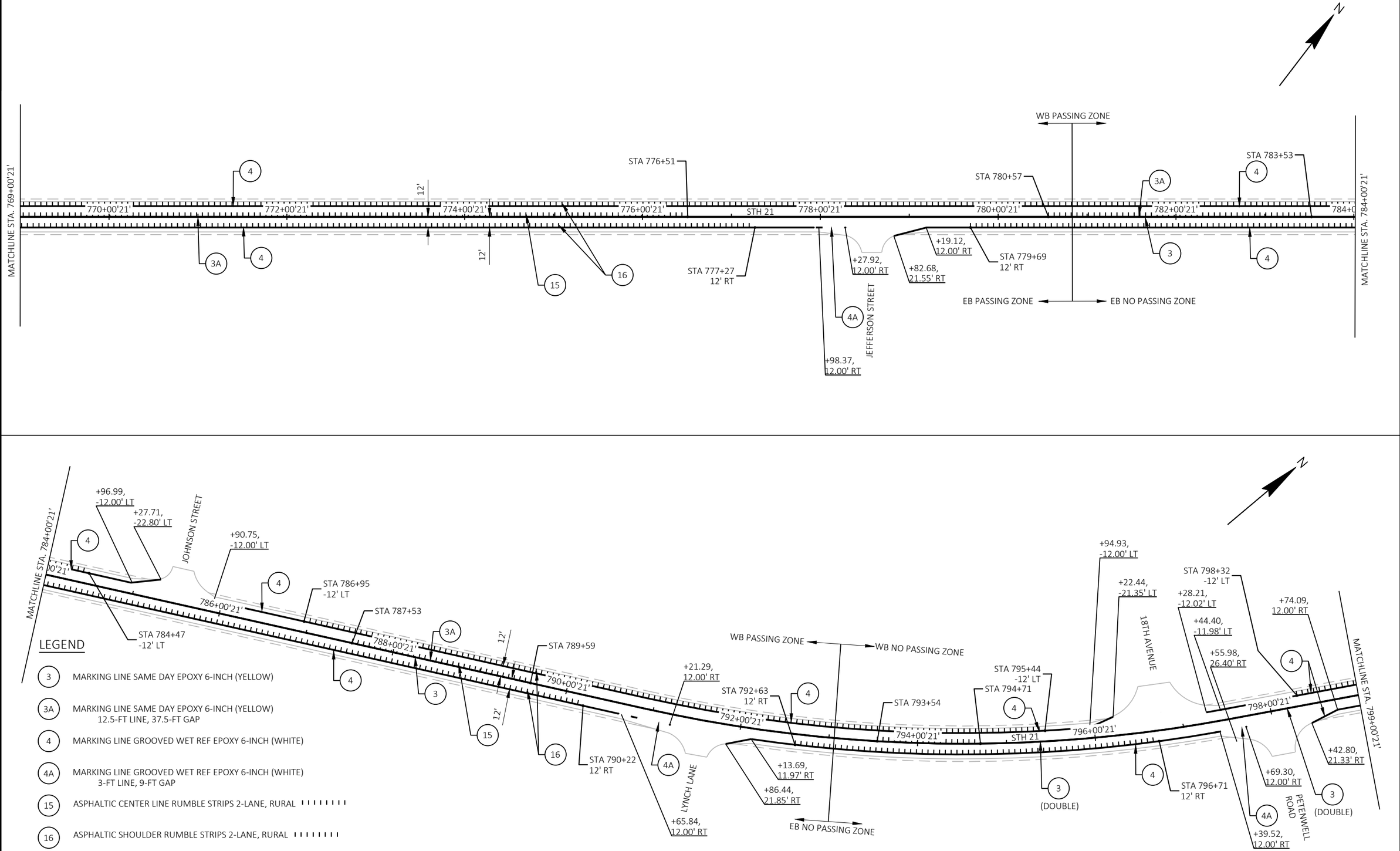


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 167	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 10

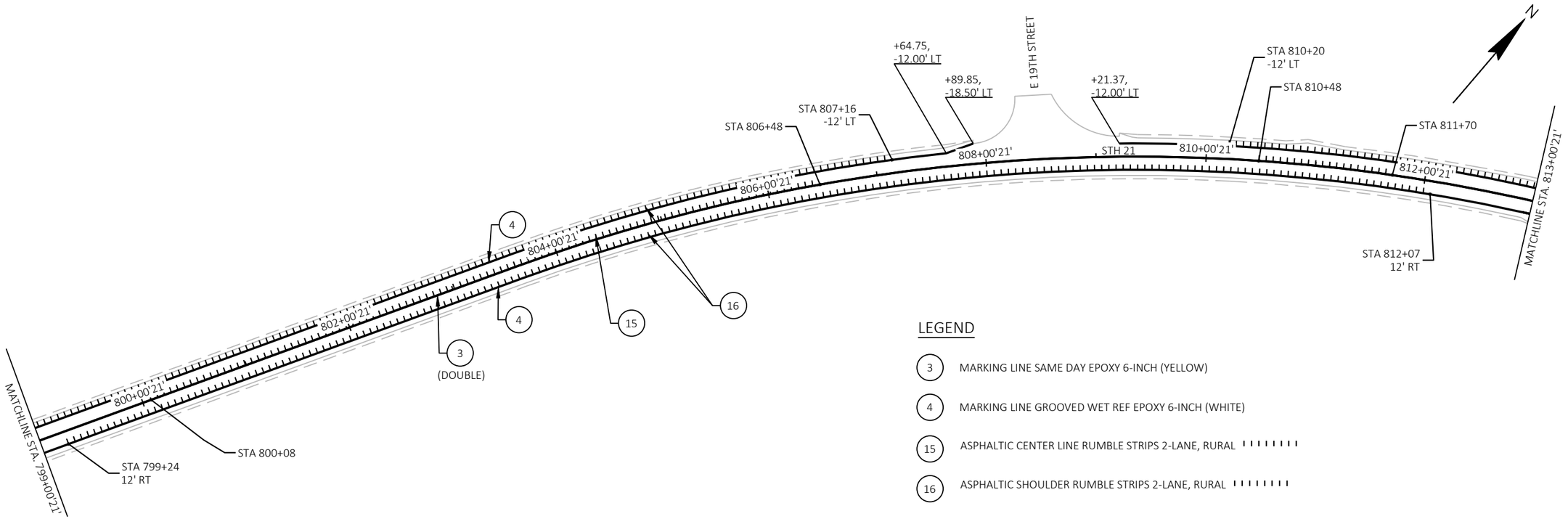
PLOT DATE : 6/25/2024 4:25 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



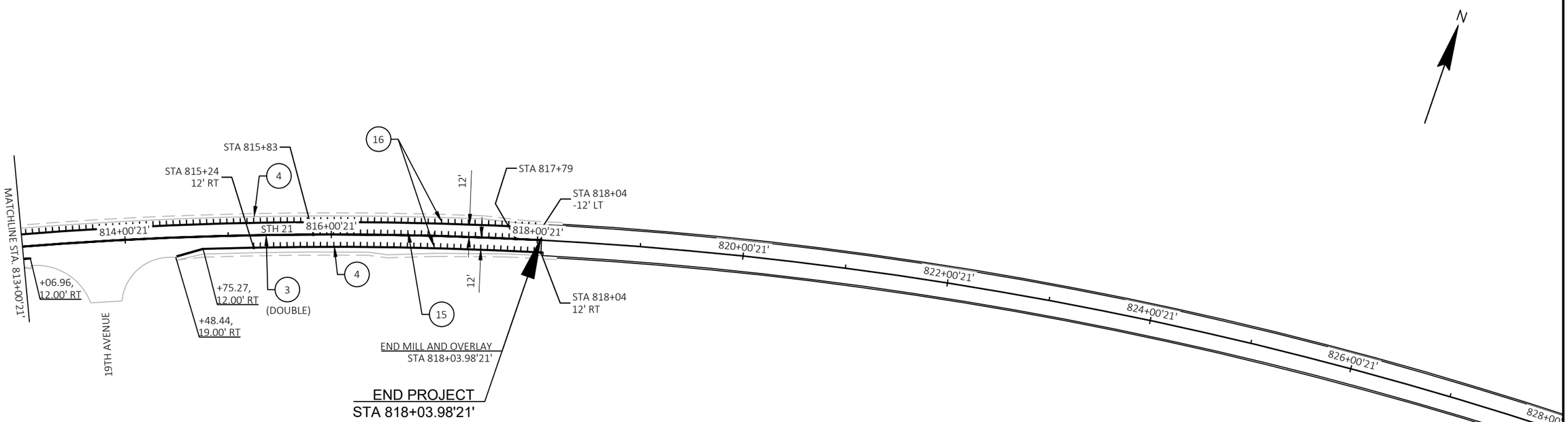
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 168	E

2



LEGEND

3	MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
4	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
15	ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE, RURAL
16	ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE, RURAL



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PAVEMENT MARKING	SHEET 169	E

2

MAINTENANCE OF TRAFFIC:

- STH 21, EAST OF NECEDAH LAKE, SHALL REMAIN OPEN TO ALL EXISTING LANES AT ALL TIMES EXCEPT FOR FLAGGING OPERATIONS AS NOTED IN THE CONTRACT SPECIAL PROVISIONS.
- SEE STAGING PLANS FOR STH 21/STH 80 INTERSECTION AND STH 21/CTH G INTERSECTION CONSTRUCTION.

CONSTRUCTION TO BE COMPLETED:

STH 21

- MILL & OVERLAY
- CONSTRUCT PROPOSED PAVEMENT AND ISLANDS AT STH 21 AND STH 80 INTERSECTION
- CONSTRUCT PROPOSED ROUNDABOUT AT STH 21 AND CTH G INTERSECTION.
- BEAM GUARD IMPROVEMENTS.
- PAVEMENT MARKING
  - MILLED SURFACE - TEMPORARY MARKING LINE EPOXY 6-INCH (CL)
  - LOWER LAYER - TEMPORARY MARKING LINE EPOXY 6-INCH (CL)
  - SURFACE LAYER
    - -EDGE LINES - MARKING LINE GROOVED WET REF EPOXY 6-INCH
    - -CENTERLINE (WITH RUMBLE STRIPS) - TEMPORARY MARKING LINE EPOXY 6-INCH PRIOR TO RUMBLE INSTALLATION. AFTER RUMBLE STRIPS APPLY FINAL MARKING LINE SAME DAY EPOXY LINE 6-INCH
    - -CENTERLINE (NO RUMBLE STRIPS) - MARKING LINE SAME DAY EPOXY 6-INCH

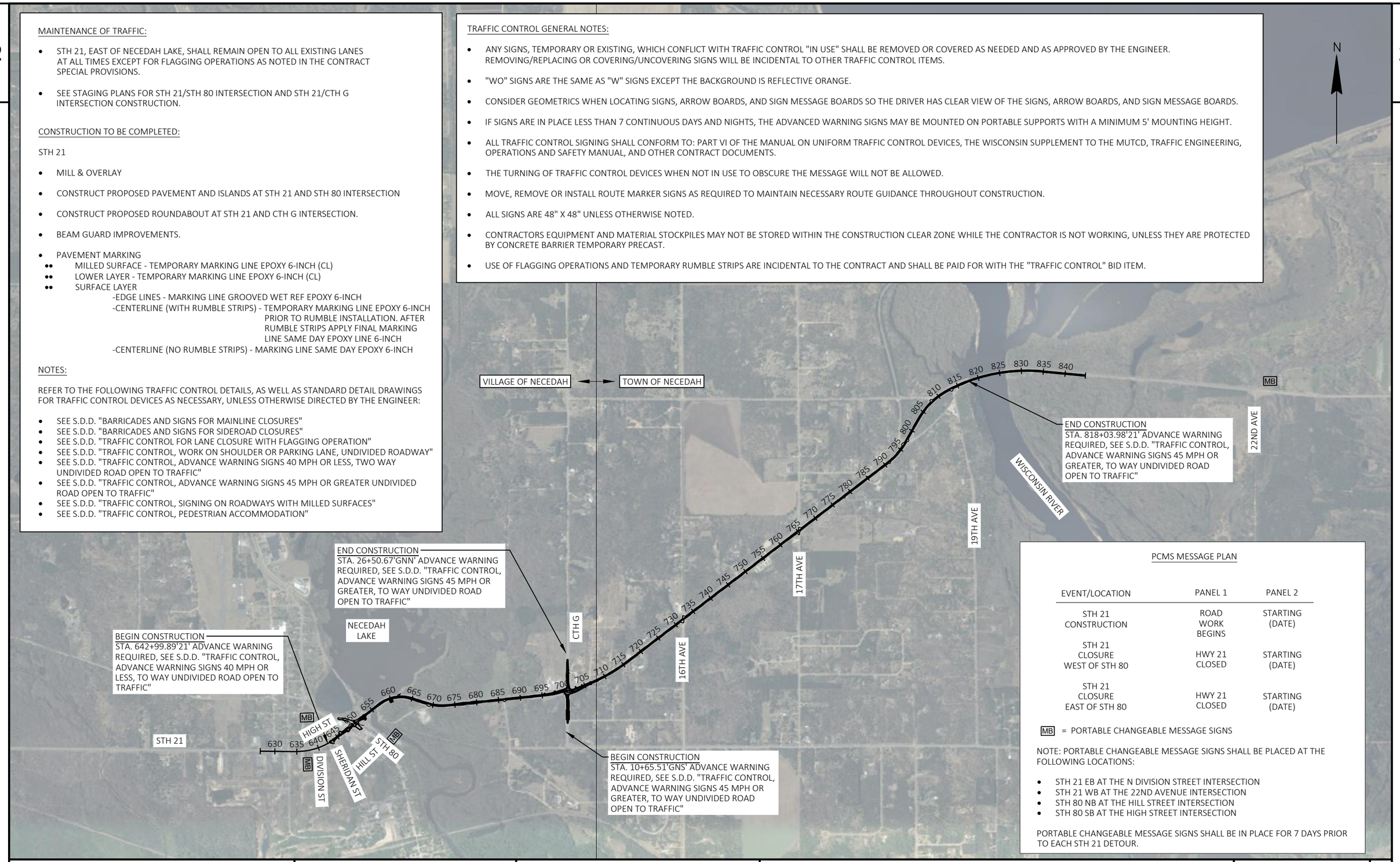
NOTES:

REFER TO THE FOLLOWING TRAFFIC CONTROL DETAILS, AS WELL AS STANDARD DETAIL DRAWINGS FOR TRAFFIC CONTROL DEVICES AS NECESSARY, UNLESS OTHERWISE DIRECTED BY THE ENGINEER:

- SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
- SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"
- SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"
- SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"
- SEE S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES"
- SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"

TRAFFIC CONTROL GENERAL NOTES:

- ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS SO THE DRIVER HAS CLEAR VIEW OF THE SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS.
- IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS WITH A MINIMUM 5' MOUNTING HEIGHT.
- ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE WISCONSIN SUPPLEMENT TO THE MUTCD, TRAFFIC ENGINEERING, OPERATIONS AND SAFETY MANUAL, AND OTHER CONTRACT DOCUMENTS.
- THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
- MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST.
- USE OF FLAGGING OPERATIONS AND TEMPORARY RUMBLE STRIPS ARE INCIDENTAL TO THE CONTRACT AND SHALL BE PAID FOR WITH THE "TRAFFIC CONTROL" BID ITEM.



PCMS MESSAGE PLAN

EVENT/LOCATION	PANEL 1	PANEL 2
STH 21 CONSTRUCTION	ROAD WORK BEGINS	STARTING (DATE)
STH 21 CLOSURE WEST OF STH 80	HWY 21 CLOSED	STARTING (DATE)
STH 21 CLOSURE EAST OF STH 80	HWY 21 CLOSED	STARTING (DATE)

MB = PORTABLE CHANGEABLE MESSAGE SIGNS

NOTE: PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT THE FOLLOWING LOCATIONS:

- STH 21 EB AT THE N DIVISION STREET INTERSECTION
- STH 21 WB AT THE 22ND AVENUE INTERSECTION
- STH 80 NB AT THE HILL STREET INTERSECTION
- STH 80 SB AT THE HIGH STREET INTERSECTION

PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN PLACE FOR 7 DAYS PRIOR TO EACH STH 21 DETOUR.

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL OVERVIEW	SHEET 170	E

STH 80 INTERSECTION STAGE 1A OVERVIEW

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC

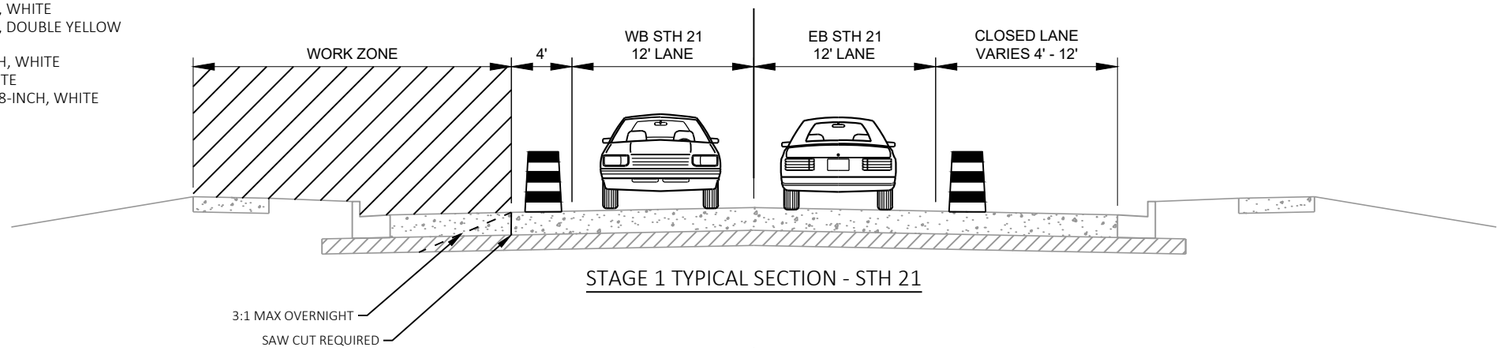
- CLOSE OUTERMOST LANE IN BOTH THE EB AND WB STH 21 DIRECTIONS
- STH 80 (SOUTH LEG) - CLOSE RIGHT THRU LANE.
- STH 80 (NORTH LEG) - MERGE NB DUAL LANES TO INSIDE LANE VIA TRAFFIC CONTROL DEVICES

CONSTRUCTION

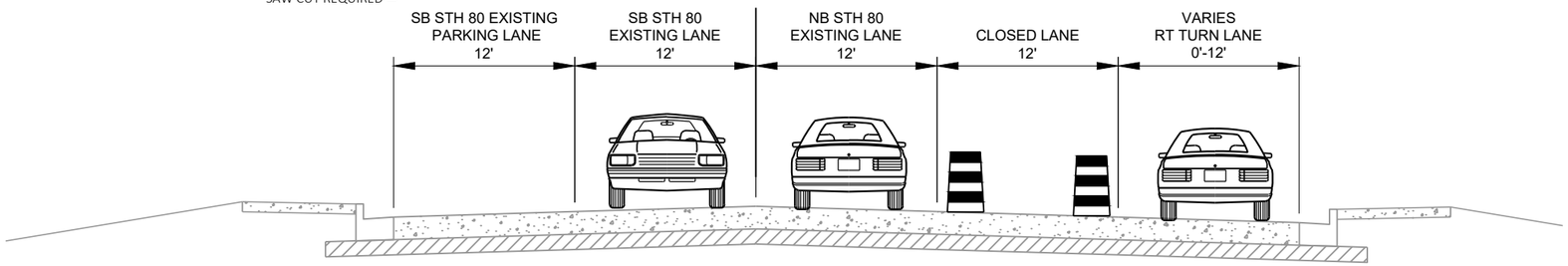
- CONSTRUCT TEMPORARY WIDENING ON NORTH LEG OF STH 80 ON THE EAST SIDE
- REMOVE EXISTING ISLANDS ON SOUTH LEG OF STH 80, PREP AND PAVE ISLAND AREA WITH TEMP ASPHALT FOR USE WITH STAGE 2 TRAFFIC CONFIGURATION

DETOUR

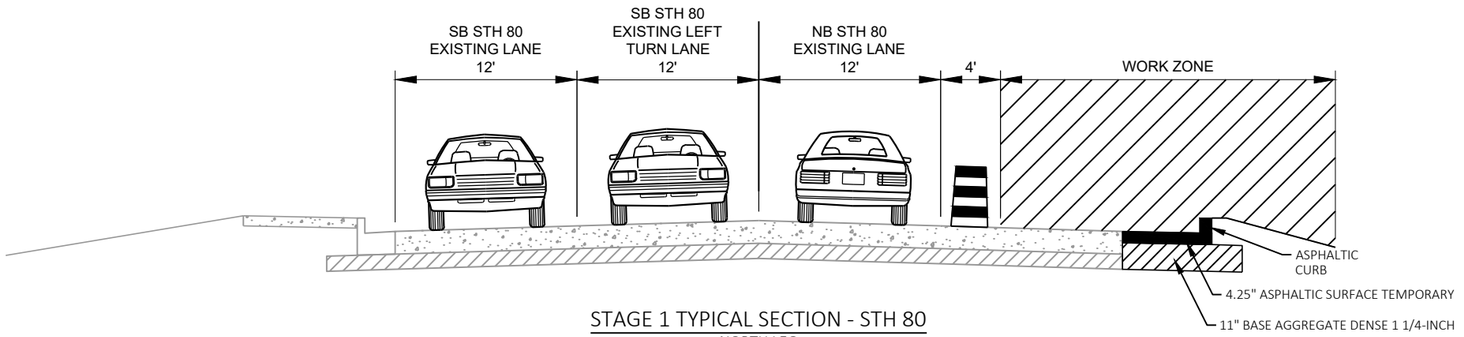
- NO DETOURS IN THIS STAGE



STAGE 1 TYPICAL SECTION - STH 21



STAGE 1 TYPICAL SECTION - STH 80
SOUTH LEG

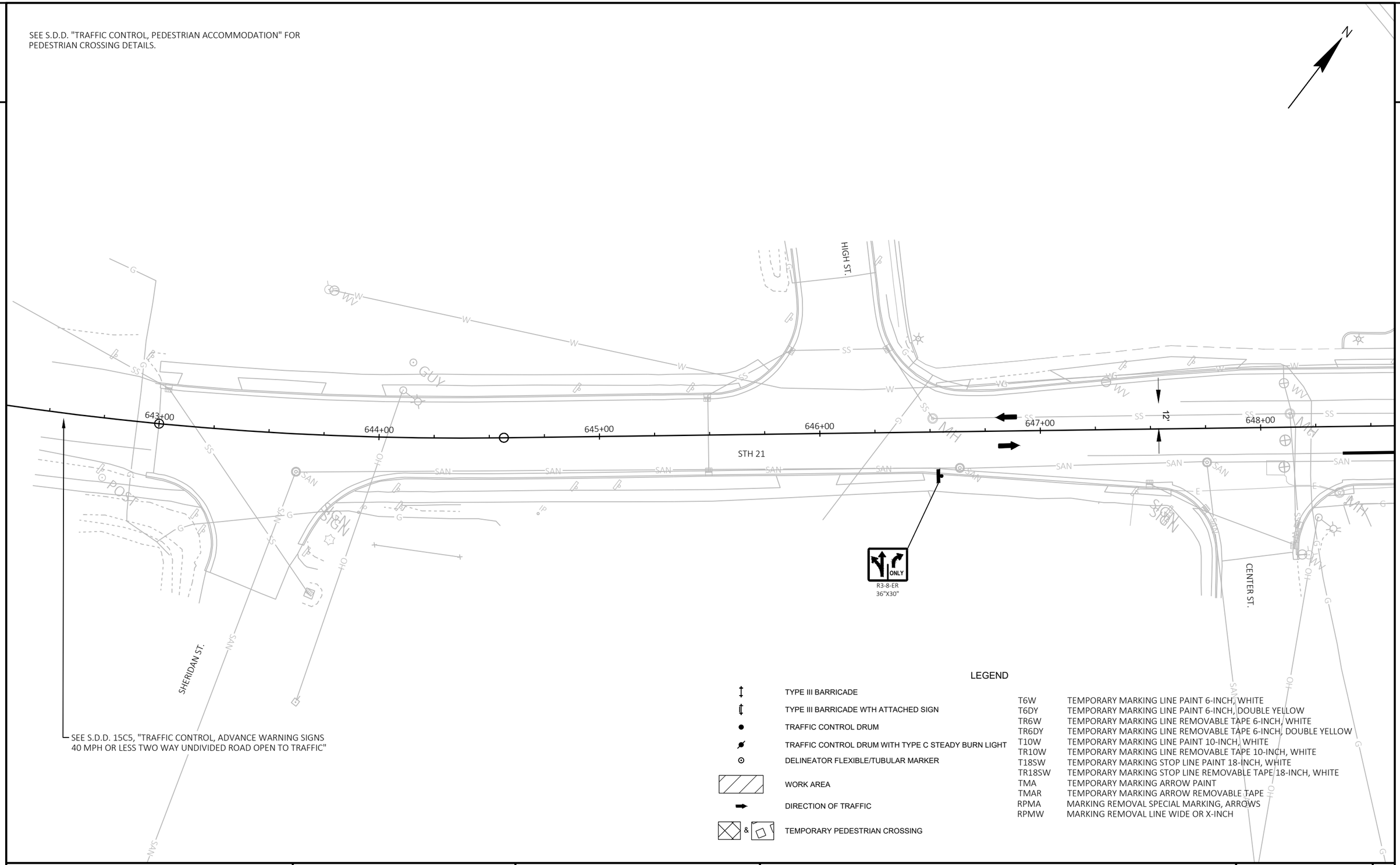


STAGE 1 TYPICAL SECTION - STH 80
NORTH LEG

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1 OVERVIEW	SHEET 171	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1A.DWG
LAYOUT NAME - Stage 1 Overview
PLOT DATE : 7/8/2024 11:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.



SEE S.D.D. 15C5, "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1A	SHEET 172	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1A.DWG
LAYOUT NAME - 01
PLOT DATE : 7/8/2024 11:44 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

CONSTRUCT TEMPORARY WIDENING
SAWING CONCRETE REQ'D

WO1-6
48"X24"

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

TRAFFIC CONTROL STAGE 1A:
CLOSE EXISTING PEDESTRIAN
CROSSING

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN BARRICADE REQ'D

STOP
R1-1
30"X30"

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:

NO TURN ON RED
R10-11B
24"X24"

TURNING VEHICLES YIELD TO
R10-15R
30"X30"

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:

TR18SW

STOP HERE ON RED
R10-6
24"X36"

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

COVER EXISTING SIGN

R3-8-ER ONLY
36"X30"

TR18SW
T10W
RPMW
T10W
(3' LINE, 9' GAPS)

228+00
227+00
226+00
STH 80
STH 21

648+00
649+00
650+00
651+00
652+00
653+00
654+00

12'
25'

T10W
T6W
T6W

TMA

TRAFFIC CONTROL STAGE 1A:
CLOSE EXISTING PEDESTRIAN
CROSSING

TR18SW

LANE CLOSED
R11-21
48"X30"

FLAG RIGHT TURN LANE AS NEEDED TO
REMOVE/CONSTRUCT ISLAND. SEE S.D.D. "TRAFFIC
CONTROL FOR LANE CLOSURE WITH FLAGGING
OPERATION"

TURNING VEHICLES YIELD TO
R10-15R
30"X30"

NO TURN ON RED
R10-11B
24"X24"

STOP HERE ON RED
R10-6
24"X36"

T10W

REMOVE EXISTING ISLAND - RECONSTRUCT WITH TEMP
ASPHALT FOR FOR STAGE 2 TRAFFIC CONDITIONS
SAWING CONCRETE REQ'D

WO12-1D
48"X48"

SEE S.D.D. "TRAFFIC
CONTROL, WORK ON
SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY"

COVER EXISTING SIGN

R3-8-ER ONLY
36"X30"

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:
USE EXISTING CROSSING 650' SOUTH OF THE INTERSECTION

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR
PEDESTRIAN CROSSING DETAILS.

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
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T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1A	SHEET 173	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1A.DWG
LAYOUT NAME - 02
PLOT DATE : 7/8/2024 11:44 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

12 FT

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:

TRAFFIC CONTROL STAGE 1A: CLOSE EXISTING PEDESTRIAN CROSSING

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

STH 80

226+00

227+00

228+00

229+00

230+00

231+00

648+00

649+00

650+00

651+00

652+00

STH 21

TR18SW

T10W

T6W

RPMW

25'

WO12-1D
48"X48"

STOP HERE ON RED
R10-6
24"X36"

TURNING VEHICLES TO
R10-15R
30"X30"

NO TURN ON RED
R10-11B
24"X24"

STOP
R1-1
30"X30"

WO1-6
48"X24"

EXISTING INLET COVER TO REMAIN

CONSTRUCT TEMPORARY WIDENING SAWING CONCRETE REQ'D

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

TRAFFIC CONTROL STAGE 1A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN BARRICADE REQ'D

REMOVE EXISTING ISLAND - RECONSTRUCT WITH TEMP ASPHALT FOR FOR STAGE 2 TRAFFIC CONDITIONS
SAWING CONCRETE REQ'D

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1A	SHEET 174	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1A.DWG
LAYOUT NAME - 03
PLOT DATE : 7/8/2024 11:44 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

STH 80 INTERSECTION STAGE 1B OVERVIEW

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC

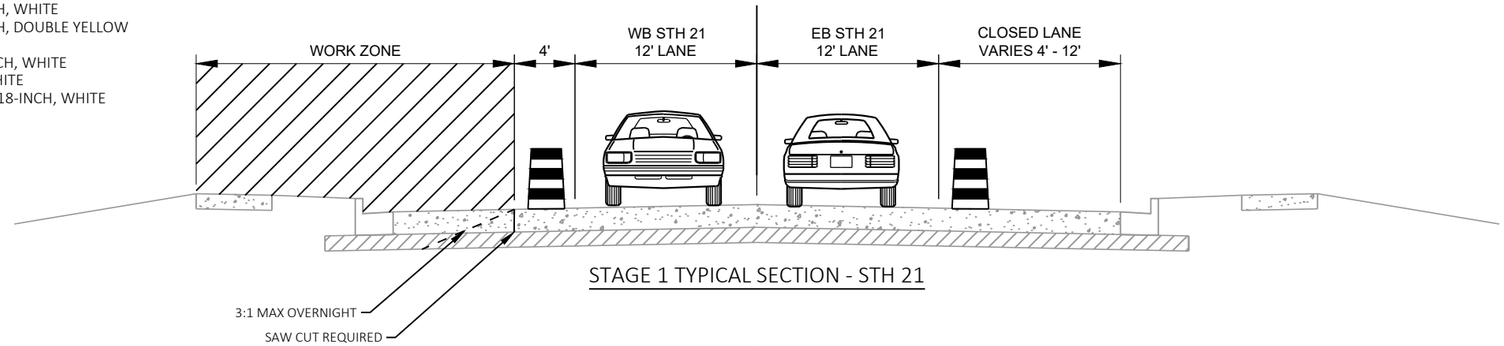
- CLOSE OUTERMOST LANE IN BOTH THE EB AND WB STH 21 DIRECTIONS
- STH 80 (SOUTH LEG) - CLOSE RIGHT THRU LANE.
- STH 80 (NORTH LEG) - MERGE NB DUAL LANES TO INSIDE LANE VIA TRAFFIC CONTROL DEVICES

CONSTRUCTION

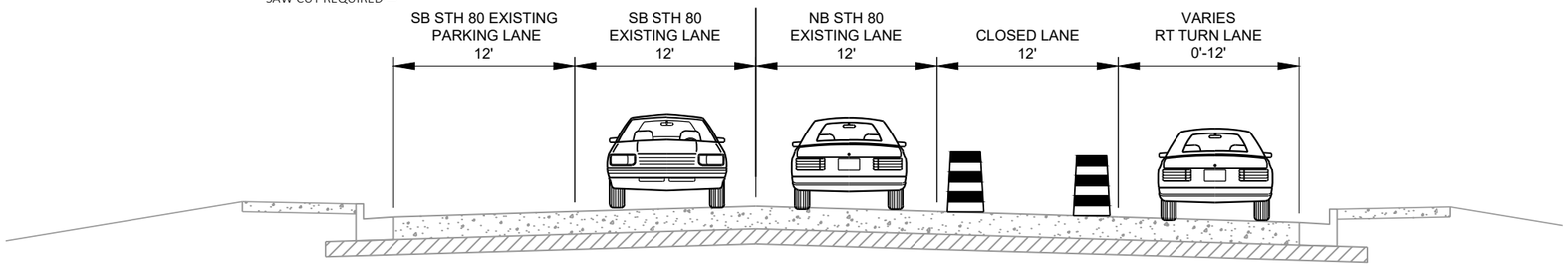
- CONSTRUCT TEMPORARY WIDENING ON NORTH LEG OF STH 80 ON THE EAST SIDE
- REMOVE EXISTING ISLANDS ON NORTH LEG OF STH 80, PREP AND PAVE ISLAND AREA WITH TEMP ASPHALT FOR USE WITH STAGE 2 TRAFFIC CONFIGURATION

DETOUR

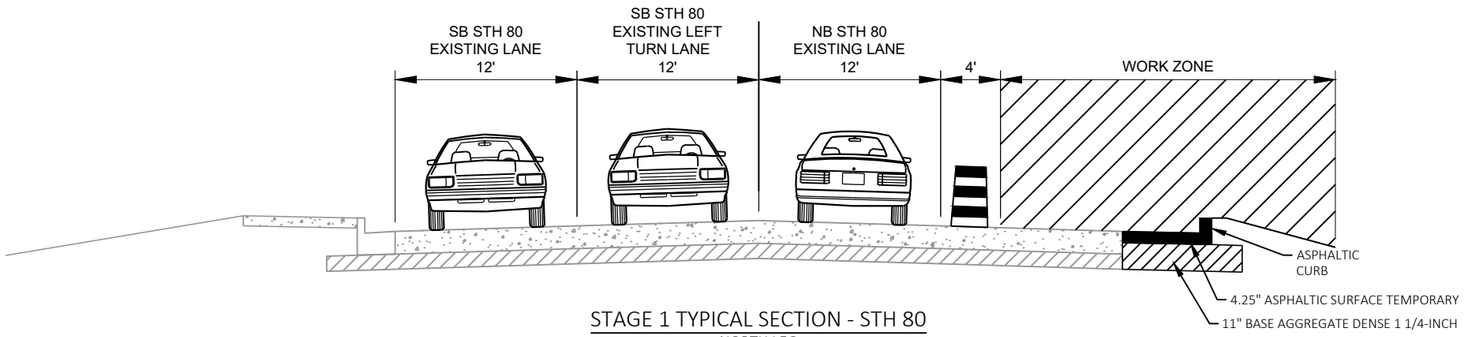
- NO DETOURS IN THIS STAGE



STAGE 1 TYPICAL SECTION - STH 21



STAGE 1 TYPICAL SECTION - STH 80
SOUTH LEG

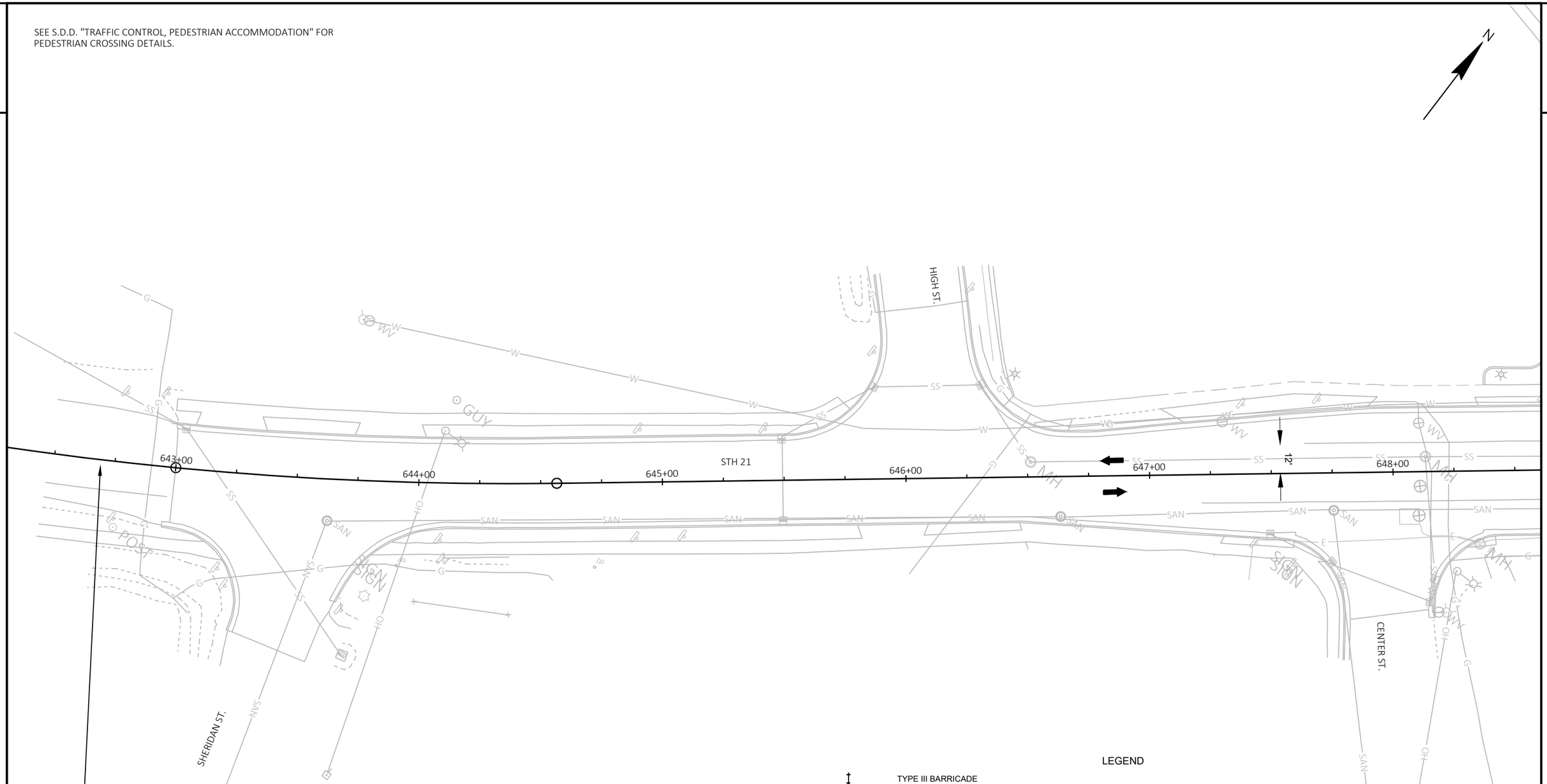


STAGE 1 TYPICAL SECTION - STH 80
NORTH LEG

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1B OVERVIEW	SHEET 175	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1B.DWG
LAYOUT NAME - Stage 1 Overview
PLOT DATE : 7/8/2024 11:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.



SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1B	SHEET 176 E

CONSTRUCT TEMPORARY WIDENING
SAWING CONCRETE REQ'D

WO1-6
48"X24"

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

REMOVE EXISTING ISLAND - RECONSTRUCT WITH TEMP
ASPHALT FOR FOR STAGE 2 TRAFFIC CONDITIONS
SAWING CONCRETE REQ'D

TRAFFIC CONTROL STAGE 1B:
CLOSE EXISTING PEDESTRIAN
CROSSING

MAINTAIN RIGHT TURN LANE AND PEDESTRIAN CROSSING.
FLAG RIGHT TURN LANE AS NEEDED TO REMOVE/CONSTRUCT ISLAND.
SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING
OPERATION"

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

TRAFFIC CONTROL STAGE 1B:
CLOSE EXISTING PEDESTRIAN
CROSSING

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:

STOP
R1-1
30"X30"

NO TURN ON RED
R10-11B
24"X24"

TURNING VEHICLES YIELD TO
R10-15R
30"X30"

STOP HERE ON RED
R10-6
24"X36"

WO12-1D
48"X48"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

R3-8-F
36"X30"

COVER
EXISTING
SIGN

TR18SW
T6W
RPMW
TR18SW
T10W
T10W
(3' LINE, 9' GAPS)

25'
12'

648+00
649+00
650+00
651+00
652+00
653+00
654+00
STH 21

227+00
228+00
229+00

T6W

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN BARRICADE REQ'D
TRAFFIC CONTROL STAGE 1B: CLOSE EXISTING PEDESTRIAN CROSSING

TR18SW
TR18SW

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:

NO TURN ON RED
R10-11B
24"X24"

TURNING VEHICLES YIELD TO
R10-15R
30"X30"

12'
226+00
T10W

STOP HERE ON RED
R10-6
24"X36"

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D

WO12-1D
48"X48"

COVER
EXISTING
SIGN

R3-8-ER
36"X30"

STH 80

SEE S.D.D. "TRAFFIC
CONTROL, WORK ON
SHOULDER OR
PARKING LANE,
UNDIVIDED
ROADWAY"

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR
PEDESTRIAN CROSSING DETAILS.

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1B	SHEET 177	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1B.DWG
LAYOUT NAME - 02

PLOT DATE : 7/8/2024 11:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

12 FT

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

TRAFFIC CONTROL STAGE 1B: CLOSE EXISTING PEDESTRIAN CROSSING

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

STH 80

226+00 227+00 228+00 229+00 230+00 231+00

TR18SW T10W T6W RPMW T6W TR18SW

650+00 648+00 649+00

25'

EXISTING INLET COVER TO REMAIN

CONSTRUCT TEMPORARY WIDENING SAWING CONCRETE REQ'D

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

WO1-6 48"X24"

WO12-1D 48"X48"

STOP HERE ON RED R10-6 24"X36"

TURNING VEHICLES TO R10-15R 30"X30"

NO TURN ON RED R10-11B 24"X24"

STOP R1-1 30"X30"

TRAFFIC CONTROL STAGE 1B: CLOSE EXISTING PEDESTRIAN CROSSING

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D

TRAFFIC CONTROL STAGE 1B: CLOSE EXISTING PEDESTRIAN CROSSING

TR18SW T10W

651+00 652+00

STH 21

25'

12 FT

REMOVE EXISTING ISLAND - RECONSTRUCT WITH TEMP ASPHALT FOR FOR STAGE 2 TRAFFIC CONDITIONS
SAWING CONCRETE REQ'D

TRAFFIC CONTROL STAGE 1B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN BARRICADE REQ'D

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 1B	SHEET 178	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 1B.DWG
LAYOUT NAME - 03
PLOT DATE : 7/8/2024 11:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

STH 80 INTERSECTION STAGE 2 OVERVIEW

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC

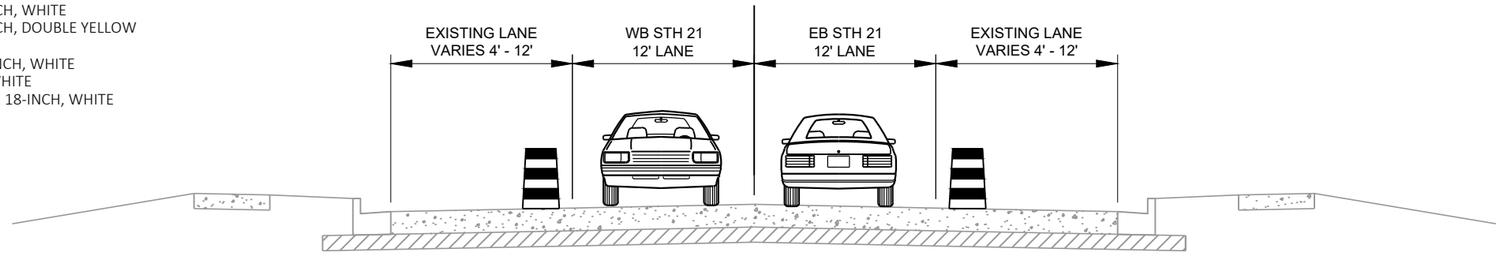
- CLOSE STH 21 WEST OF STH 80 INTERSECTION
- CLOSE OUTERMOST LANE IN EB STH 21 DIRECTIONS (EAST OF STH 80)
- RESTRICT STH 80 TO ONE 11FT LANE IN EACH DIRECTION

CONSTRUCTION

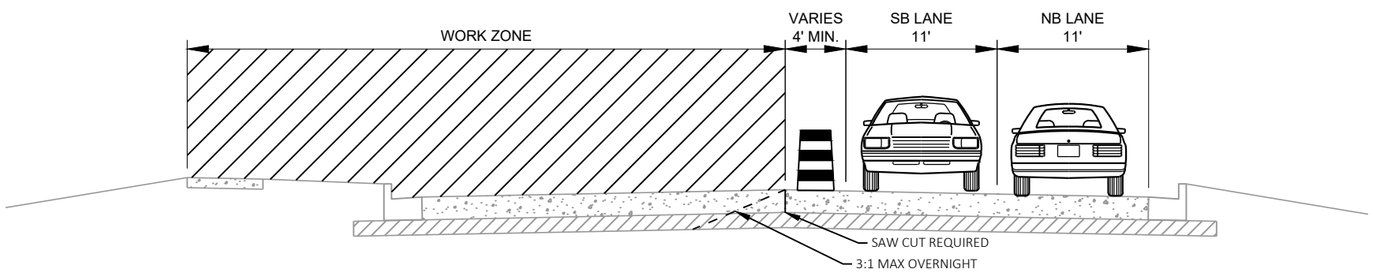
- CONSTRUCT STH 21 WEST OF STH 80 INTERSECTION
- CONSTRUCT TEMPORARY WIDENING ON NORTH LEG OF STH 80 ON THE WEST SIDE
- CONSTRUCT WEST HALF OF THE NORTH AND SOUTH LEGS OF STH 80

DETOUR

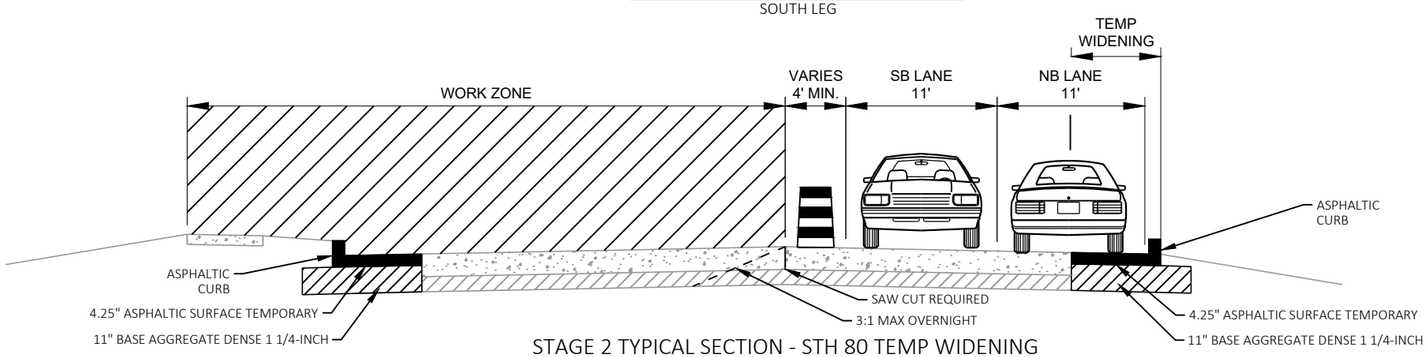
- DETOUR ROUTE FOR STH 21 (TRAVELING EB): STH 21 TO STH 80 TO STH 173 TO STH 21



STAGE 2 TYPICAL SECTION - STH 21
EAST OF STH 80 INTERSECTION



STAGE 2 TYPICAL SECTION - STH 80
SOUTH LEG



STAGE 2 TYPICAL SECTION - STH 80 TEMP WIDENING
NORTH LEG

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 2 OVERVIEW	SHEET 179	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 2.DWG
LAYOUT NAME - Stage 2 Overview
PLOT DATE : 7/8/2024 11:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : Custom

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

N

MAINTAIN THREE DRIVEWAY ACCESS POINTS TO KWIK TRIP FOR ENTIRETY OF STAGE 2

HIGH ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

FULL CLOSURE OF STH 21 - ESTABLISH DETOUR ROUTE MAINTAIN LOCAL ACCESS AS NEEDED. SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

STH 21

643+00 644+00 645+00 646+00 647+00 648+00

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SIDEWALK CLOSED
R9-9
24"X12"

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

SHERIDAN ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

CENTER ST.

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

SEE S.D.D. "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 2	SHEET 180 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 2.DWG
LAYOUT NAME - 04

PLOT DATE : 7/8/2024 11:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

CONSTRUCT TEMPORARY WIDENING

ASPHALTIC CURB

ASPHALTIC CURB

T6W

R3-1
24"X24"

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE HM-GJ REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

MAINTAIN THREE DRIVEWAY ACCESS POINTS TO KWIK TRIP FOR ENTIRETY OF STAGE 2

T6DY

T18SW

T18SW

T10W

TMA

T6W

T18SW

T6Y

25'

11'

11'

STH 21

25'

12'

TRAFFIC CONTROL STAGE 2A & 2B: CLOSE EXISTING PEDESTRIAN CROSSING

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

STOP
R1-1
30"X30"

NO TURN ON RED
R10-11B
24"X24"

TURNING VEHICLES YIELD TO
R10-15R
30"X30"

STOP HERE ON RED
R10-6
24"X36"

WO1-6
48" X 24"

TYPE III BARRICADE

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

ONLY ONLY
R3-8LR
36"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

WO1-4R
48"X48"

MAINTAIN ACCESS TO BANK OF MAUSTON FOR ENTIRETY OF STAGE 2

EXISTING CONCRETE SLAB ANTICIPATED TO REMAIN

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

WO1-7
48"X24"

R3-2
24"X24"

TRAFFIC CONTROL STAGE 2 PEDESTRIAN CROSSING:
USE EXISTING CROSSING 650' SOUTH OF THE INTERSECTION

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

T10W

T18SW

T6DY

T6W

TEMPORARY ASPHALT CONSTRUCTED AS PART OF STAGE 1 CONSTRUCTION

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

TRAFFIC CONTROL STAGE 2A & 2B: CLOSE EXISTING PEDESTRIAN CROSSING

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 2	SHEET 181	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

CONSTRUCT WEST HALF OF STH 21

MAINTAIN ACCESS TO BANK OF MAUSTON FOR ENTIRETY OF STAGE 2

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

WO1-7
48"X24"

CONSTRUCT WEST HALF OF STH 80 - SOUTH LEG

TR6W
TR6DY
TR6W
11'
11'
25'
T6DY
T6W
T18SW
T10W
T18SW
T6W
T6DY
T18SW
T18SW
25'
TMA
98'
T10W
T6Y
STH 80
STH 21
223+00
224+00
225+00
226+00
227+00
228+00
650+00
651+00
WO1-6
48" X 24"
TYPE III BARRICADE
WO1-6
48" X 24"
TYPE III BARRICADE
WO1-4R
48"X48"
SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"
TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TRAFFIC CONTROL STAGE 2A & 2B: CLOSE EXISTING PEDESTRIAN CROSSING
STOP
R1-1
30"X30"
ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"
TURNING VEHICLES YIELD TO
R10-15R
30"X30"
NO TURN ON RED
R10-11B
24"X24"
STOP HERE ON RED
R10-6
24"X36"
SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

2

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 2	SHEET 182	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 2.DWG
LAYOUT NAME - 06

PLOT DATE : 7/8/2024 11:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

CONSTRUCT WEST HALF
OF STH 80 - SOUTH LEG

CONSTRUCT WEST HALF
OF STH 21

WO1-7
48"X24"

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

TRAFFIC CONTROL STAGE 2B PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

MAINTAIN THREE DRIVEWAY
ACCESS POINTS TO KWIK TRIP
FOR ENTIRETY OF STAGE 2

REMOVE AND INSTALL INLET CASTINGS
REMOVING INLETS REQUIRED
INLET COVERS TYPE H REQUIRED
INLET COVER FLAT TEMPORARY REQUIRED

R3-1
24"X24"

CONSTRUCT WEST HALF
OF STH 80 - NORTH LEG

CONSTRUCT
TEMPORARY
WIDENING

ASPHALTIC CURB

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

LANE
CLOSED
R11-2
48"X30"

WO1-6
48" X 24"

TYPE III BARRICADE

WO1-4L
48"X48"

N

T6DY
T18SW
T10W
T6W
T18SW
T18SW
T6W
T6DY
T6W
TMA
T10W
T6Y
25'
00+
STH 21
TRAFFIC CONTROL STAGE
2A & 2B: CLOSE EXISTING
PEDESTRIAN CROSSING

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"X30"

STOP
R1-1
30"X30"

TURNING
VEHICLES
R10-15R
30"X30"

NO
TURN
ON RED
R10-11B
24"X24"

STOP
HERE ON
RED
R10-6
24"X36"

WO1-6
48" X 24"

TYPE III BARRICADE

TRAFFIC CONTROL STAGE 2A PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR
PEDESTRIAN CROSSING DETAILS.

TR6W
TR6DY
TR6W
STH 80
ASPHALTIC CURB

EXISTING INLET
COVER TO REMAIN

LEGEND

‡	TYPE III BARRICADE	T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
‡	TYPE III BARRICADE WTH ATTACHED SIGN	T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
●	TRAFFIC CONTROL DRUM	TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
		TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER	TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
		T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
	WORK AREA	TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
		TMA	TEMPORARY MARKING ARROW PAINT
➡	DIRECTION OF TRAFFIC	TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
		RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
	TEMPORARY PEDESTRIAN CROSSING	RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 2	SHEET 183	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 2.DWG
LAYOUT NAME - 07
PLOT DATE : 7/8/2024 11:48 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

STH 80 INTERSECTION STAGE 3 OVERVIEW

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC

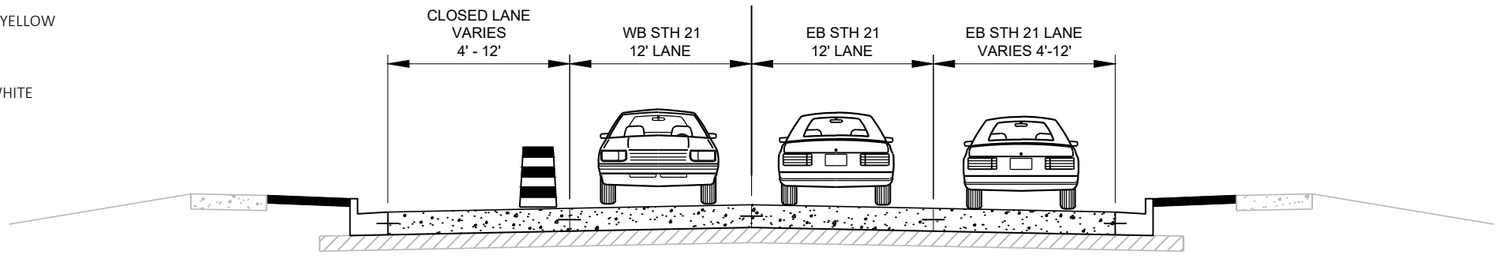
- CLOSE STH 21 EAST OF STH 80 INTERSECTION
- CLOSE OUTERMOST LANE IN BOTH THE EB AND WB STH 21 DIRECTIONS (WEST OF STH 80)
- RESTRICT STH 80 TO ONE 11FT LANE IN EACH DIRECTION (SOUTH LEG)
- RESTRICT STH 80 TO ONE 11FT LANE IN EACH DIRECTION (NORTH LEG)

CONSTRUCTION

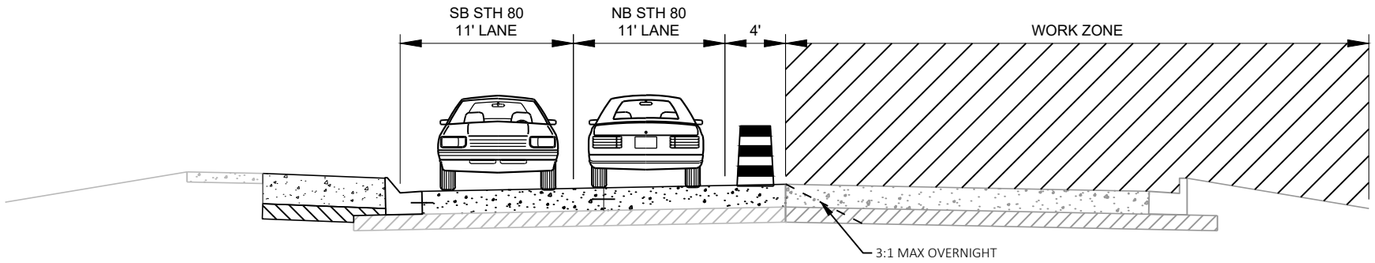
- CONSTRUCT STH 21 EAST OF STH 80 INTERSECTION
- CONSTRUCT EAST HALF OF NORTH AND SOUTH LEGS OF STH 80

DETOUR

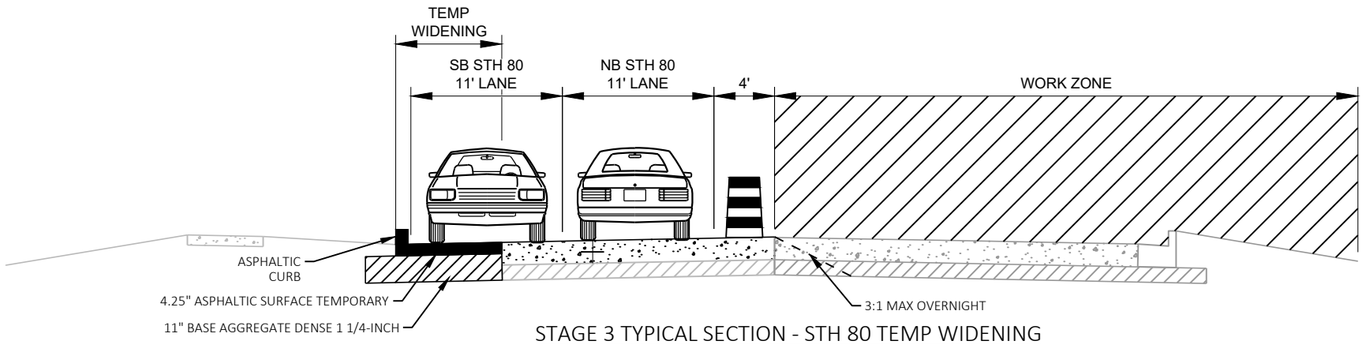
- DETOUR ROUTE FOR STH 21 (TRAVELING WB): STH 21 TO STH 13 TO STH 82 TO STH 58 TO STH 80 TO STH 21



STAGE 3 TYPICAL SECTION - STH 21
WEST OF STH 80 INTERSECTION



STAGE 3 TYPICAL SECTION - STH 80
SOUTH LEG



STAGE 3 TYPICAL SECTION - STH 80 TEMP WIDENING
NORTH LEG

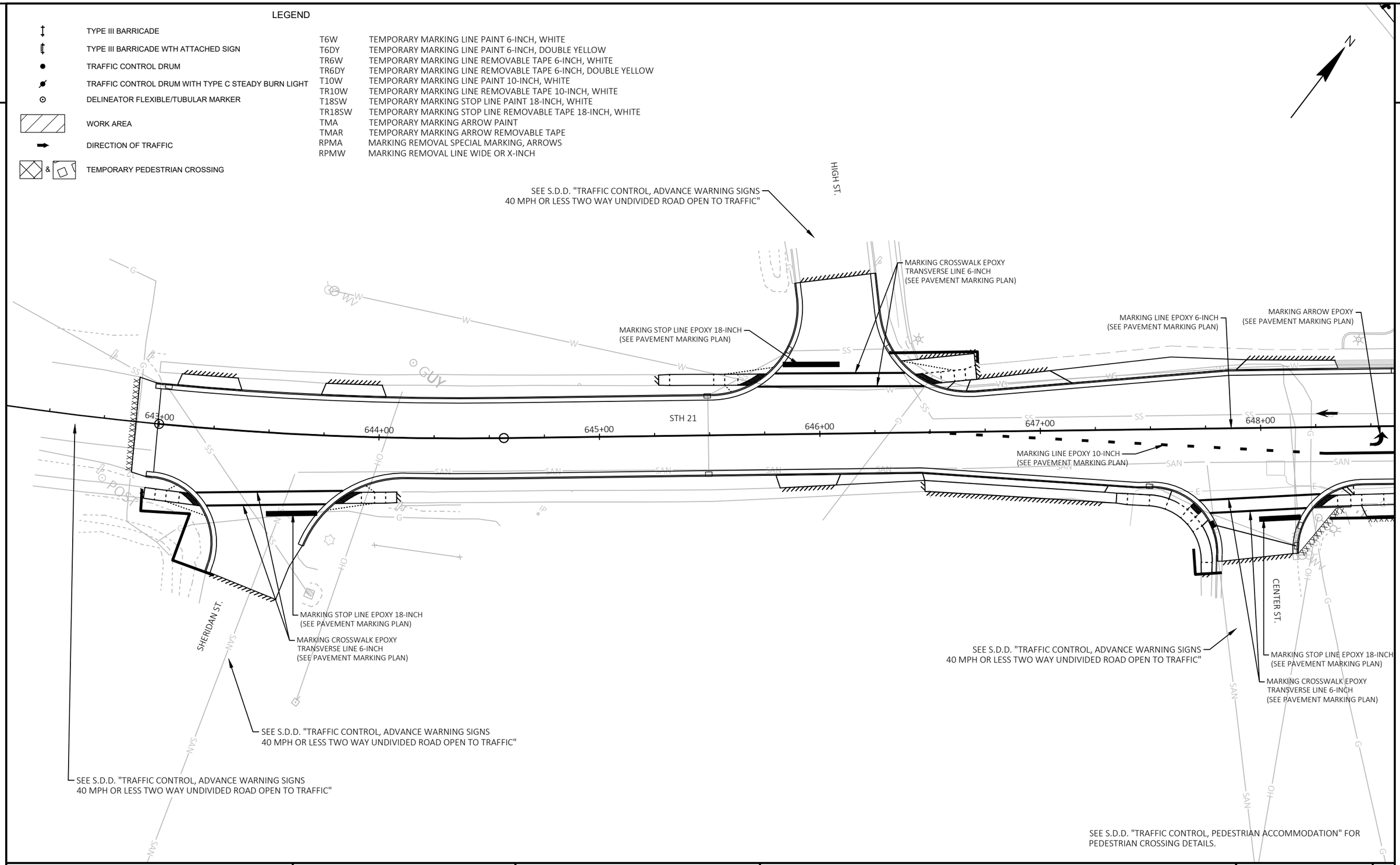
PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 3 OVERVIEW	SHEET 184	E

2

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 3	SHEET 185 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 3.DWG
LAYOUT NAME - 07
PLOT DATE : 7/8/2024 11:50 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

N

R3-2
24"X24"

TR6W

CONSTRUCT EAST HALF
OF STH 80 - NORTH LEG

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN
CROSSING

WO1-7
48"X24"

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN
CROSSING

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"X30"

MAINTAIN ACCESS TO RESIDENTIAL PROPERTIES

FULL CLOSURE OF STH 21 - ESTABLISH DETOUR ROUTE MAINTAIN
LOCAL ACCESS AS NEEDED. SEE S.D.D. "BARRICADES AND SIGNS
FOR MAINLINE CLOSURES"

TR6DY

11'
11'
4'
25'

MARKING LINE EPOXY 10-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY
TRANSVERSE LINE 6-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING ARROW EPOXY
(SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 6-INCH
(SEE PAVEMENT MARKING PLAN)

TR18SW

CONSTRUCT EAST HALF
OF STH 21

TR6W

648+00

STH 21

649+00

650+00

651+00

652+00

653+00

654+00

TMAR

MARKING LINE EPOXY 10-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING STOP LINE EPOXY 18-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY
TRANSVERSE LINE 6-INCH
(SEE PAVEMENT MARKING PLAN)

TR18SW

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN
CROSSING

11'
11'
4'

TR6DY

R3-1
24"X24"

STH 80

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
USE EXISTING CROSSING 650' SOUTH OF THE INTERSECTION

CONSTRUCT EAST HALF
OF STH 80 - SOUTH LEG

TR6W

MAINTAIN ACCESS TO PROPERTIES

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

MAINTAIN PARK ACCESS. CROSSING CAN BE MOVED ONCE CURB
RAMPS ARE CONSTRUCTED.

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR
PEDESTRIAN CROSSING DETAILS.

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 3	SHEET 186	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 3.DWG
LAYOUT NAME - 08

PLOT DATE : 7/8/2024 11:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN CROSSING DETAILS.

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
USE EXISTING CROSSING 650' SOUTH OF THE INTERSECTION

MARKING STOP LINE EPOXY 18-INCH (SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 6-INCH (SEE PAVEMENT MARKING PLAN)

MARKING ARROW EPOXY (SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 10-INCH (SEE PAVEMENT MARKING PLAN)

MARKING ARROW EPOXY (SEE PAVEMENT MARKING PLAN)

MARKING STOP LINE EPOXY 18-INCH (SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 10-INCH (SEE PAVEMENT MARKING PLAN)

TR6W
TR6DY
TR18SW
TMAR
STH 80
STH 21
223+00
224+00
225+00
226+00
227+00
228+00
648+00
649+00
650+00
651+00
11'
14'
25'

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

WO1-2L
48"X48"

SIDEWALK CLOSED
R9-9
24"X12"

CONSTRUCT EAST HALF OF STH 80 - SOUTH LEG

R3-1
24"X24"

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

WO1-7
48"X24"

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

CONSTRUCT EAST HALF OF STH 21

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 3	SHEET 187	E

2

MARKING LINE EPOXY 10-INCH
(SEE PAVEMENT MARKING PLAN)

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
USE EXISTING CROSSING 650' SOUTH OF THE INTERSECTION

MARKING STOP LINE EPOXY 18-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING CROSSWALK EPOXY
TRANSVERSE LINE 6-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 6-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING ARROW EPOXY
(SEE PAVEMENT MARKING PLAN)

STH 21

TMAR

TR6DY

TR6W

TR18SW

MARKING CROSSWALK EPOXY
TRANSVERSE LINE 6-INCH
(SEE PAVEMENT MARKING PLAN)

MARKING LINE EPOXY 10-INCH
(SEE PAVEMENT MARKING PLAN)

TR18SW

TR6DY

TR6W

R3-2
24"X24"

WO1-6
48"X24"

WO1-4R
48"X48"

STH 80

25'

11'

11'

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

WO1-7
48"X24"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

CONSTRUCT EAST HALF
OF STH 80 - NORTH LEG

WO1-4R
48"X48"

WO1-6
48"X24"

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"

TRAFFIC CONTROL STAGE 3:
CLOSE EXISTING PEDESTRIAN CROSSING

CONSTRUCT EAST HALF
OF STH 21

TRAFFIC CONTROL STAGE 3 PEDESTRIAN CROSSING:
TEMPORARY PEDESTRIAN SURFACE REQ'D
TEMPORARY PEDESTRIAN CURB RAMP REQ'D
TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD REQ'D
TEMPORARY PEDESTRIAN BARRICADE REQ'D

SEE S.D.D. "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR
PEDESTRIAN CROSSING DETAILS.

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 3	SHEET 188 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 3.DWG
LAYOUT NAME - 10

PLOT DATE : 7/8/2024 11:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
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TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
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TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

STH 80 INTERSECTION STAGE 4 OVERVIEW

TRAFFIC

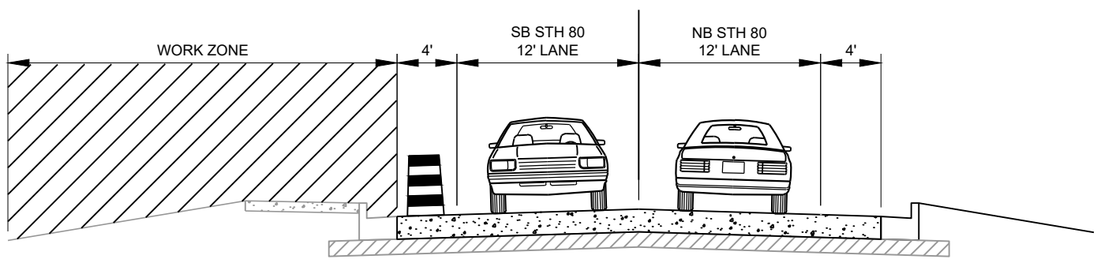
- CLOSE THE SB SHOULDER ON THE NORTH LEG OF STH 80
- CLOSE THE SB SHOULDER ON THE SOUTH LEG OF STH 80

CONSTRUCTION

- CONSTRUCT THE SB STH 80 CURB AND GUTTER NORTH OF THE STH 21 INTERSECTION.
- CONSTRUCT THE SB STH 80 ASPHALT TERRACE SOUTH OF THE STH 21 INTERSECTION ONCE THE TEMPORARY SIGNAL BASES ARE REMOVED.

DETOUR

- NO DETOURS IN THIS STAGE



STAGE 4 TYPICAL SECTION - STH 80 TEMP WIDENING

NORTH LEG AND SOUTH LEG

2

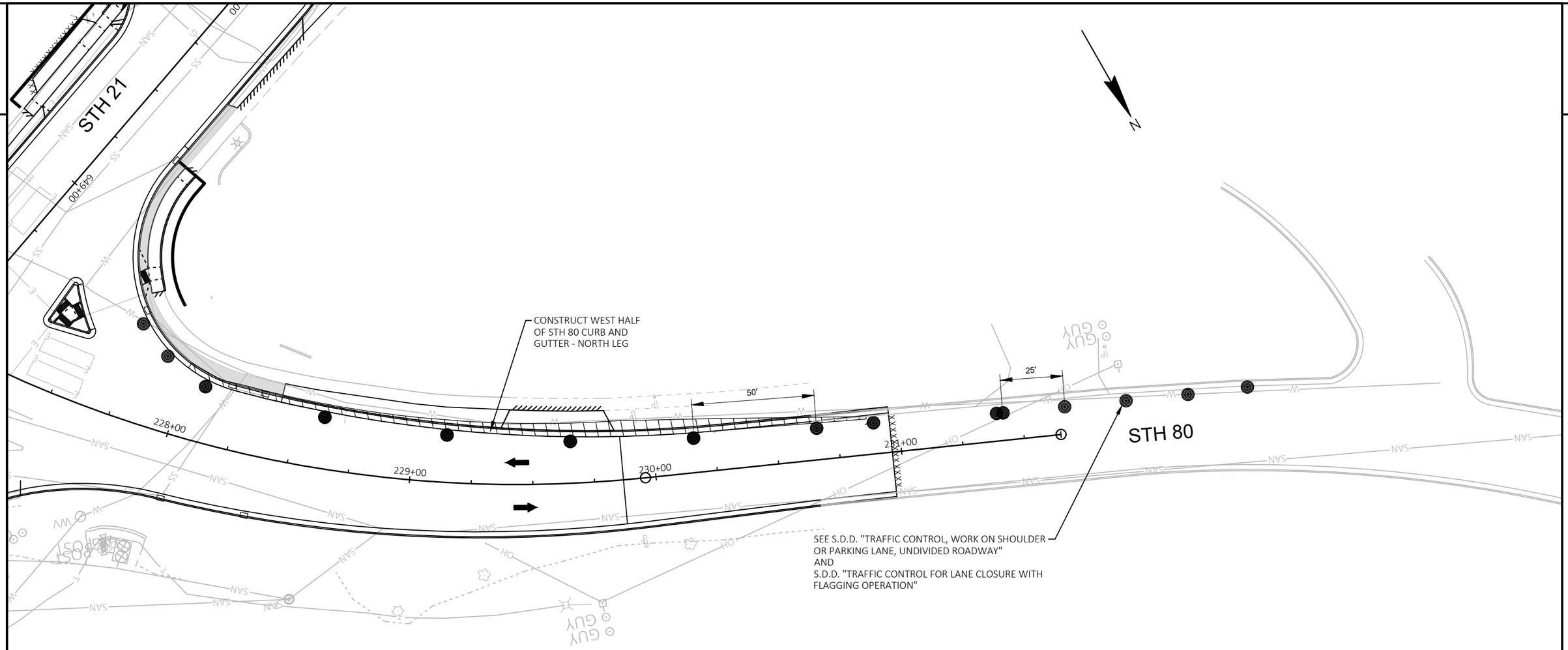
PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 4 OVERVIEW	SHEET 189 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 4.DWG
LAYOUT NAME - Stage 4 Overview

PLOT DATE : 6/25/2024 4:43 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 42

2



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
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TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 4	SHEET 190 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 4.DWG
LAYOUT NAME - 10
PLOT DATE : 6/25/2024 4:43 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

W 2ND ST

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

50'

CONSTRUCT ASPHALTIC SURFACE TERRACE OF STH 80 - SOUTH LEG AFTER TEMPORARY SIGNAL BASES ARE REMOVED

223+00

224+00

225+00

226+00

227+00

228+00

STH 80

STH 21

648+00

649+00

650+00

651+00

N

LEGEND

‡	TYPE III BARRICADE	
‡	TYPE III BARRICADE WTH ATTACHED SIGN	
●	TRAFFIC CONTROL DRUM	
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER	
▨	WORK AREA	
➡	DIRECTION OF TRAFFIC	
⊠ & ▭	TEMPORARY PEDESTRIAN CROSSING	

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
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TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: STH 80 INTERSECTION - STAGE 4	SHEET 191 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026001-TC_STH 80 STAGE 4.DWG
LAYOUT NAME - 11
PLOT DATE : 6/25/2024 4:43 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
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TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

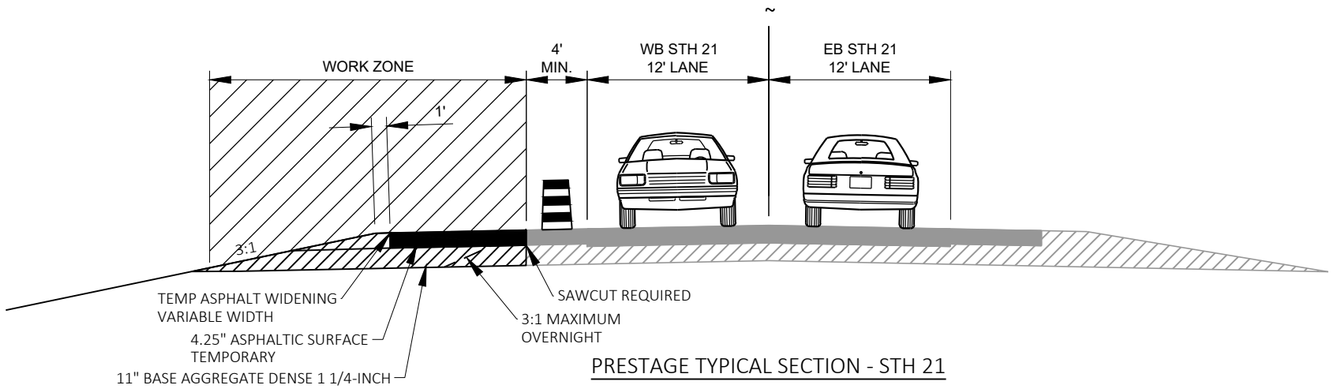
CTH G INTERSECTION PRESTAGE OVERVIEW

TRAFFIC

- TRAFFIC UTILIZING EXISTING ROADWAY CONDITIONS
- WORKZONE IN SHOULDER TO CONSTRUCT TEMP ASPHALT WIDENING ON OUTSIDE SHOULDER OF WB STH 21
- STH 21 SPEED REDUCED TO 25 MPH THROUGH WORKZONE

CONSTRUCTION

- CONSTRUCT TEMP WIDENING. UTILIZE SHOULDER CLOSURES AND FLAGGING OPERATIONS



PRESTAGE TYPICAL SECTION - STH 21

2

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CONSTRUCT TEMPORARY ASPHALT WIDENING
SAWING ASPHALT REQ'D

50 LF CULVERT PIPE TEMPORARY 18-INCH REQ'D

+67.01, -15.98' L
+67.01, -14.98' L
+91.86, -15.95' L
+73.25, -14.91' L
+88.42, -15.53' L
+02.55, -17.59' L
+54.66, -27.62' L
+75.01, -28.00' L
+84.10, -28.00' L
+02.98, -19.64' L
+35.19, -29.77' L
+20.43, -18.86' L

692+00'21'
693+00'21'
694+00'21'
695+00'21'
696+00'21'
697+00'21'

25'
12'
12'

T6W

STH 21

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

SIGN
SIGN
SIGN
POST

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - PRESTAGE	SHEET 193	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB PRESTAGE.DWG
LAYOUT NAME - Sheet - (02)
PLOT DATE : 6/25/2024 4:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" DURING WORKING HOURS
SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" DURING NON WORKING HOURS

CONSTRUCT TEMPORARY ASPHALT WIDENING
SAWING ASPHALT REQ'D

+36.83, -34.03' L
+65.76, -35.02' L
+88.08, -38.79' L
+37.28, -11.13' L
+81.82, -12.13' L
+62.20, -13.36' L
+22.95, -66.11' L
+21.44, -57.57' L
+19.81, -52.54' L
T6W
25'
699+00'21'
700+00'21'
698+00'21'
703+00'21'
702+00'21'
701+00'21'
STH 21
CTH G
N

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
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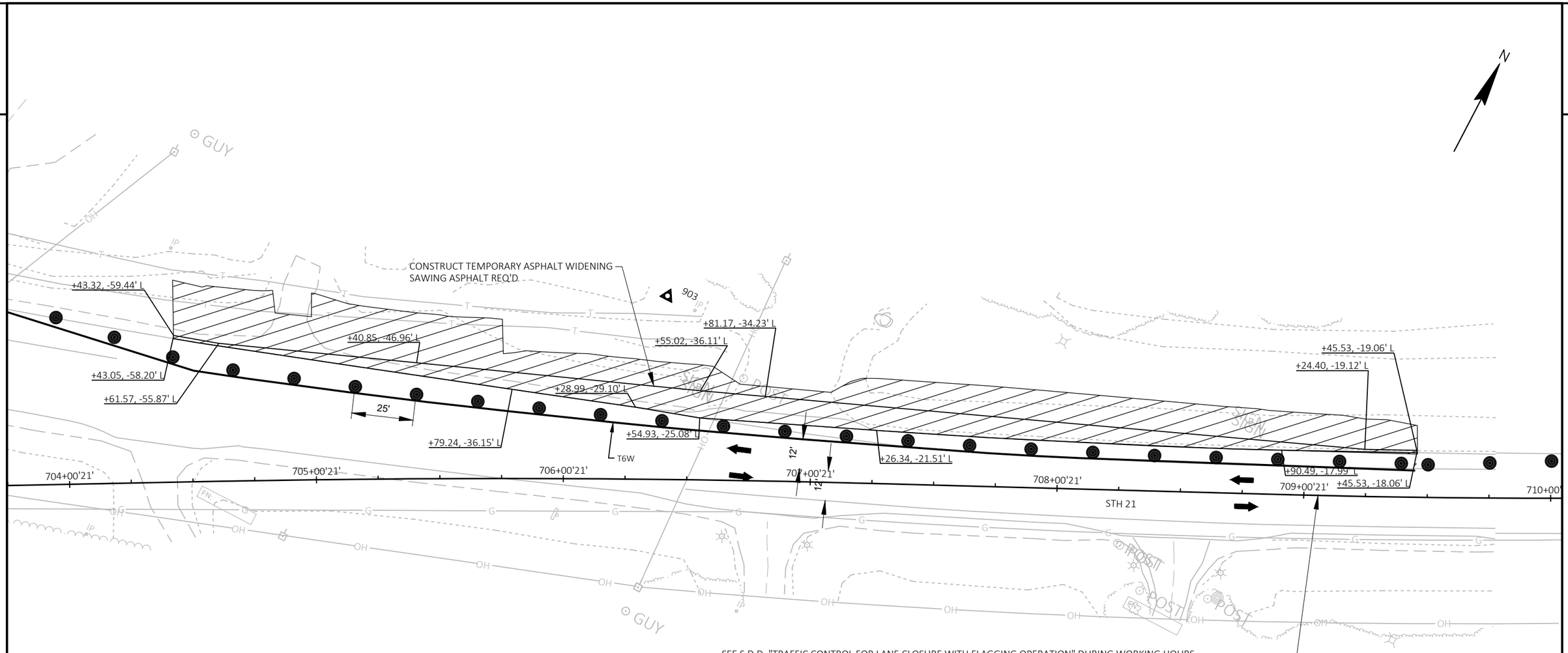
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - PRESTAGE	SHEET 194	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB PRESTAGE.DWG
LAYOUT NAME - Sheet - (03)
PLOT DATE : 6/25/2024 4:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

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TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - PRESTAGE	SHEET 195	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB PRESTAGE.DWG
LAYOUT NAME - Sheet - (04)
PLOT DATE : 6/25/2024 4:44 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

CTH G INTERSECTION STAGE 1 OVERVIEW

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
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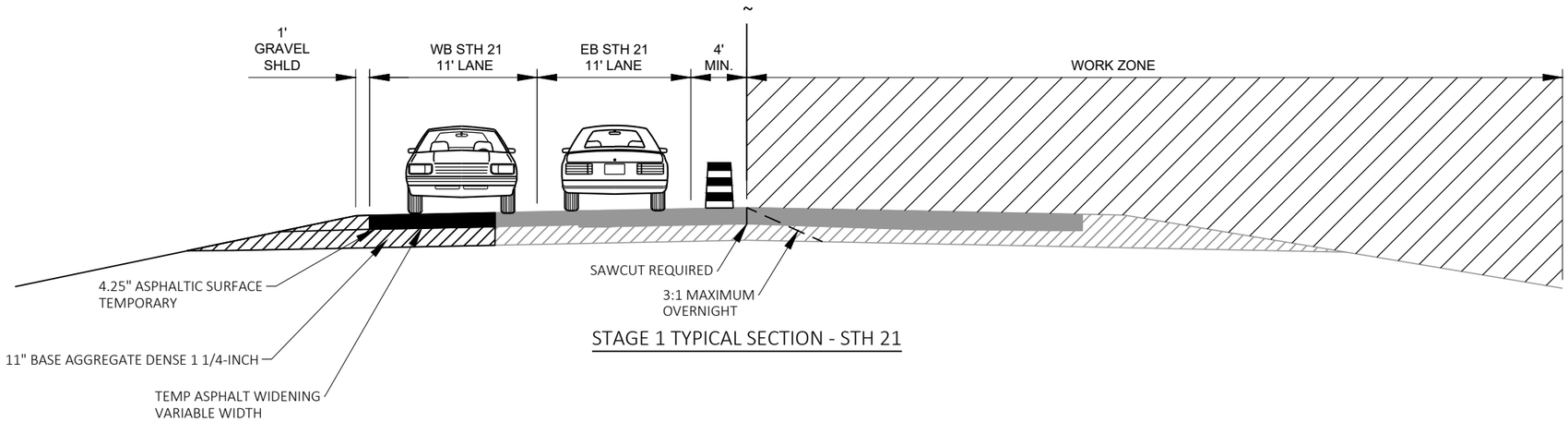
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

TRAFFIC

- TRAFFIC ON NEW ALIGNMENT UTILIZING CONSTRUCTED TEMP ASPHALT WIDENING ON OUTSIDE SHOULDER OF WB STH 21
- STH 21 SPEED REDUCED TO 35 MPH THROUGH WORKZONE
- TRAFFIC LANES OF 11 FT MAINTAINED THROUGHOUT
- SOUTH CTH G CLOSED

CONSTRUCTION

- CONSTRUCT TEMP WIDENING PRIOR TO STAGE 1. UTILIZE SHOULDER CLOSURES AND FLAGGING OPERATIONS
- CONSTRUCT SOUTH HALF OF ROUNDABOUT
- CONSTRUCT SOUTH LEG OF CTH G
- CONSTRUCT TEMP WIDENING IN MEDIAN AND OUTSIDE SHOULDER OF WB LANES FOR STAGE 2 CONFIGURATION



STAGE 1 TYPICAL SECTION - STH 21

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 1 OVERVIEW	SHEET 196	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 1.DWG
LAYOUT NAME - Stage 1 Overview
PLOT DATE : 6/25/2024 4:45 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

LEGEND

↕	TYPE III BARRICADE
↕	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER
▨	WORK AREA
➡	DIRECTION OF TRAFFIC
⊠ & ▱	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
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TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

N

2

WO1-6
48" X 24"
TYPE III BARRICADE

L=20.353, R=538.000
4.25" TEMPORARY ASPHALT WIDENING
L=57.609, R=528.959

BP: 1+00.00TA
PI: 1+24.85TA
PC: 3+87.91TA
PT: 4+08.26TA
PC: 5+10.08TA
PT: 5+67.69TA

+67.01, -15.98' L
+91.86, -15.95' L
+54.66, -27.62' L
+88.42, -15.53' L
+73.25, -14.91' L
+02.55, -17.59' L
+75.01, -28.00' L
+84.10, -28.00' L
+35.19, -29.77' L
+02.98, -19.64' L

2TA
3TA
4TA
5TA

T6W
T6DY
25'
11'

STH 21
691+00
692+00
693+00
694+00
695+00
696+00

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

W01-4L
48"X48"

WO1-6
48" X 24"
TYPE III BARRICADE

SPEED LIMIT 45
R2-1
24"X30"

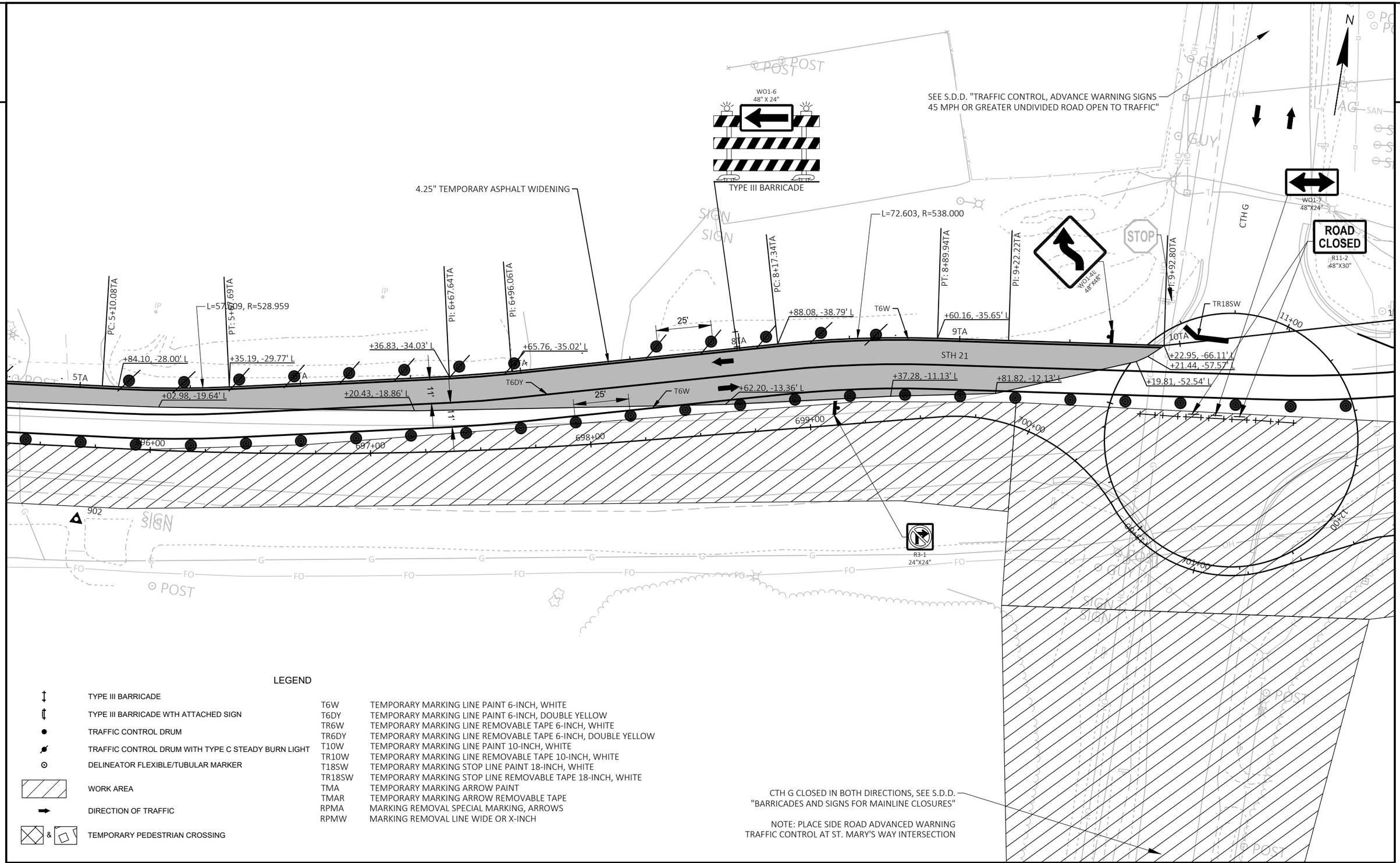
LANE CLOSED
R11-2L
48"X30"

902

SIGN
POST
G
FO

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 1	SHEET 197	E

2



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 1	SHEET 198 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 1.DWG
LAYOUT NAME - Sheet - (03)
PLOT DATE : 6/25/2024 4:45 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

4.25" TEMPORARY ASPHALT WIDENING

STOP

WO1-7
48"X24"

ROAD CLOSED
R11-2
48"X30"

R3-2
24"X24"

PI: 9+22.22TA

PI: 9+92.80TA

PI: 13+18.74TA

PI: 13+37.35TA

PI: 13+81.03TA

PI: 14+17.83TA

PI: 15+33.35TA

TR18SW

10TA

11TA

12TA

13TA

14TA

15TA

+22.95, -66.11' L

+21.44, -57.57' L

+19.81, -52.54' L

+43.32, -59.44' L

+43.05, -58.20' L

+61.57, -55.87' L

+40.85, -46.96' L

+55.02, -36.11' L

+54.93, -25.08' L

+79.31, -36.13' L

+28.99, -29.10' L

STH 21

T6W

T6DY

25'

11'

11'

700+00

701+00

702+00

703+00

704+00

705+00

706+00

CTH G CLOSED IN BOTH DIRECTIONS, SEE S.D.D.
"BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

NOTE: PLACE SIDE ROAD ADVANCED WARNING
TRAFFIC CONTROL AT ST. MARY'S WAY INTERSECTION

LEGEND

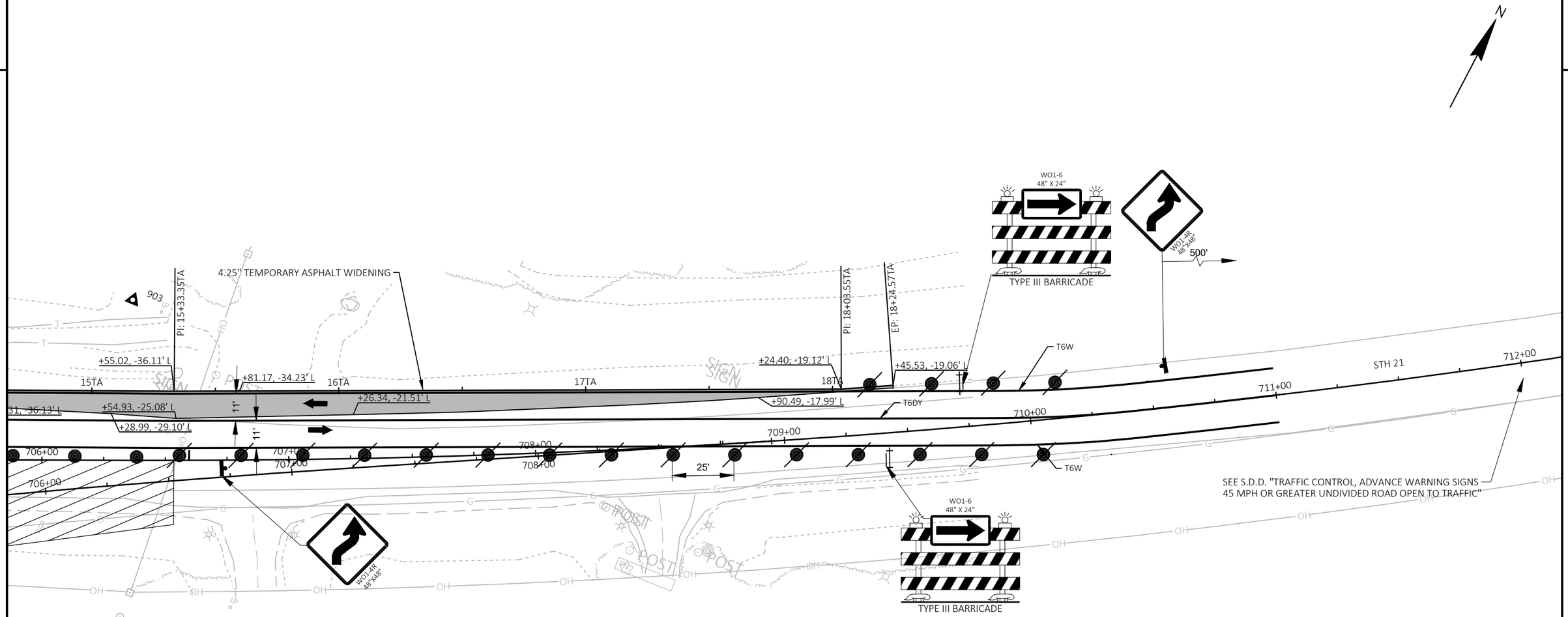
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 1	SHEET 199	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 1.DWG
LAYOUT NAME - Sheet - (04)
PLOT DATE : 6/25/2024 4:45 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

‡	TYPE III BARRICADE
‡	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
➡	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 1	SHEET 200	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 1.DWG
LAYOUT NAME - Sheet - (05)
PLOT DATE : 6/25/2024 4:45 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

DELINEATOR FLEXIBLE/TUBULAR MARKER

WORK AREA

DIRECTION OF TRAFFIC

TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

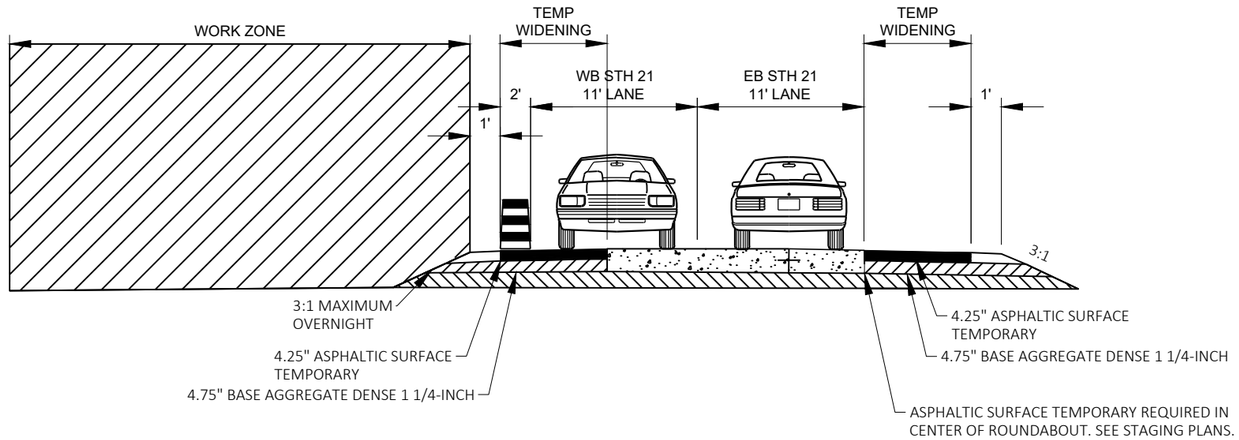
CTH G INTERSECTION STAGE 2 OVERVIEW

TRAFFIC

- TRAFFIC ON NEWLY CONSTRUCTED EB ROUNDABOUT LANES, UTILIZING TEMP ASPHALT WIDENING IN BOTH THE MEDIAN AND OUTSIDE SHOULDERS AND ROUNDABOUT CENTER
- TRAFFIC LANES OF 11FT MAINTAINED THROUGHOUT
- STH 21 SPEED REDUCED TO 25 MPH THROUGH WORK ZONE
- CTH G CLOSED IN BOTH DIRECTIONS ON THE NORTH HALF

CONSTRUCTION

- CONSTRUCT NORTH HALF OF ROUNDABOUT
- CONSTRUCT NORTH LEG OF CTH G



STAGE 2 TYPICAL SECTION - STH 21

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 2 OVERVIEW	SHEET 201	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 2.DWG
LAYOUT NAME - Stage 2 Overview

PLOT DATE : 6/25/2024 4:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

N

2

WO1-6
48" X 24"
TYPE III BARRICADE

SEE S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

TR6W

STH 21

691+00 692+00 693+00 694+00 695+00 696+00

25' 25'

101TW 102TW 103TW

+15.54, 17.00' R

BP: 100+00.00TW

+46.45, 27.27' R

+74.99, 27.78' R

+69.29, 26.96' R

+06.92, 17.14' R

+08.79, 25.31' R

+09.74, 0.18' R

TR6DY TR6W

11' 11'

4.25" TEMPORARY ASPHALT WIDENING

PC: 102+31.14TW

PT: 102+59.68TW

L=28.547, R=538.000

PC: 103+53.99TW

PT: 103+93.87TW

L=39.884, R=538.000

500'

W24-1R
48"X48"

WO1-6
48" X 24"
TYPE III BARRICADE

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 2	SHEET 202 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 2.DWG
LAYOUT NAME - Sheet - (06)
PLOT DATE : 6/25/2024 4:46 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

CTH G CLOSED IN BOTH DIRECTIONS, SEE S.D.D.
"BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

W21-1L
48"X48"

695+00
696+00
697+00
698+00
699+00
700+00
701+00

+09.74, 0.18' R
+62.33, 1.55' R
+22.14, -4.04' L
+42.09, 1.60' R
+07.36, 0.06' R
+41.66, 21.00' R
+41.70, 22.00' R
+07.67, 21.05' R
+06.92, 17.14' R
+08.79, 25.31' R
+69.29, 26.96' R
+61.69, -6.01' L
+06.82, -16.32' L
+22.79, -25.64' L
+85.74, 39.55' L
+62.49, 0.00'
+09.59, 0.00'
+12.18, -3.11' L
+08.99, -4.00' L
+85.74, 0.00

STH 21
25'
105TW
TR6W
TR6DY
TR10W
TR18SW
11.00'
10'
60.00'
R3-2
24"X24"
PC: 103+53.99TW
PT: 103+93.87TW
PI: 104+94.08TW
EP: 105+28.53TW
L=39.884, R=538.000
4.25" TEMPORARY ASPHALT WIDENING
4.25" TEMPORARY ASPHALT WIDENING
CTH G
STOP
R1-1
30"X30"
ROAD CLOSED
R11-2
48"X30"
WO1-7
48"X24"

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 2	SHEET 203 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 2.DWG
LAYOUT NAME - Sheet - (07)

PLOT DATE : 6/25/2024 4:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

CTH G CLOSED IN BOTH DIRECTIONS, SEE S.D.D.
"BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

STH 21

CTH G

STOP
R1-1
30"X30"

ROAD CLOSED
R11-2
48"X30"

WO1-7
48"X24"

LANE CLOSED
R11-2L
48"X30"

R3-1
24"X24"

WO1-4L
48"X48"

WO1-6
48" X 24"
TYPE III BARRICADE

4.25" TEMPORARY ASPHALT WIDENING

+06.82, -16.32' L
+22.79, -25.64' L
+12.18, -3.11' L
0.00'
+08.99, -4.00' L
+03.12, -35.75' L
+71.94, -25.41' L
+49.96, -13.10' L
+44.92, 0.00'
+85.74, 0.00'
+31.43, -0.29' L
+71.65, 0.00'
+86.81, -10.99' L
+49.12, -9.81' L
+88.05, 0.00'
+18.85, -9.99' L
+18.71, 0.00'

700+00
701+00
702+00
703+00
704+00
705+00
706+00
11+00

TR18SW
TR6W
TR6DY

10'
25'
60'

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

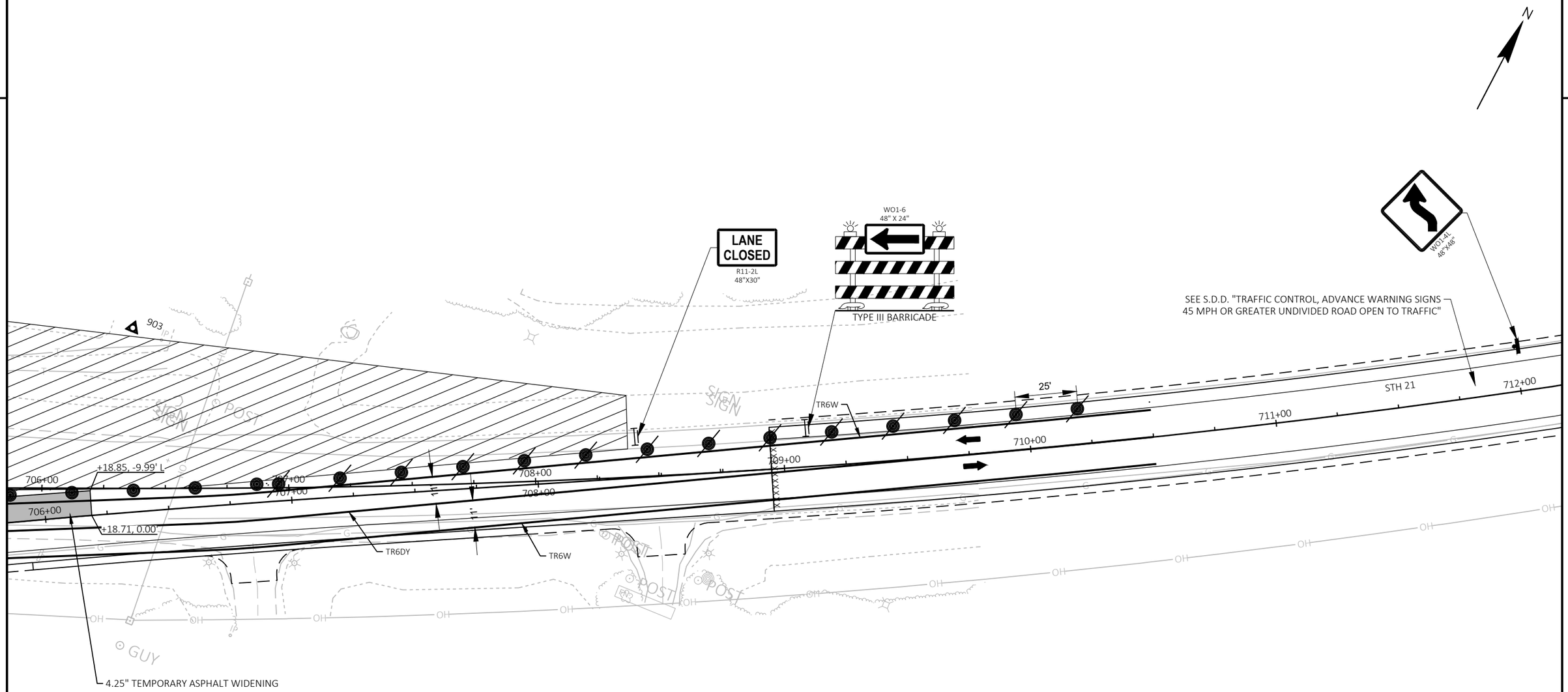
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 2	SHEET 204	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 2.DWG
LAYOUT NAME - Sheet - (08)

PLOT DATE : 6/25/2024 4:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 2	SHEET 205 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 2.DWG
LAYOUT NAME - Sheet - (09)
PLOT DATE : 6/25/2024 4:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

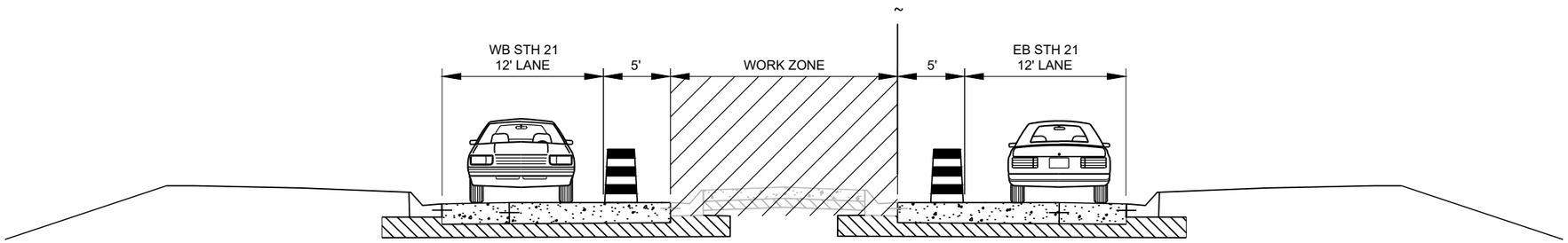
CTH G INTERSECTION STAGE 3A OVERVIEW

TRAFFIC

- TRAFFIC ON NEWLY CONSTRUCTED ROUNDABOUT IN ALL DIRECTIONS
- UTILIZE FLAGGING OPERATIONS TO COMPLETE STAGE WORK
- UTILIZE DRUMS TO RESTRICT LANE WIDTH (MINIMUM 12FT)

CONSTRUCTION

- REMOVE MEDIAN TEMPORARY WIDENING
- CONSTRUCT MEDIAN CURB AND GUTTER, SIDEWALK AND TRUCK APRON
- CONSTRUCT TEMPORARY ASPHALT ON STH 21 MEDIAN NOSES
- SAW OUTSIDE WIDENING TO PROPOSED SHOULDER WIDTH
- GRADE AND FINISH SHOULDER SLOPES



STAGE 3 TYPICAL SECTION - STH 21

2

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3 OVERVIEW	SHEET 206	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3A.DWG
LAYOUT NAME - Stage 3 Overview
PLOT DATE : 6/25/2024 4:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

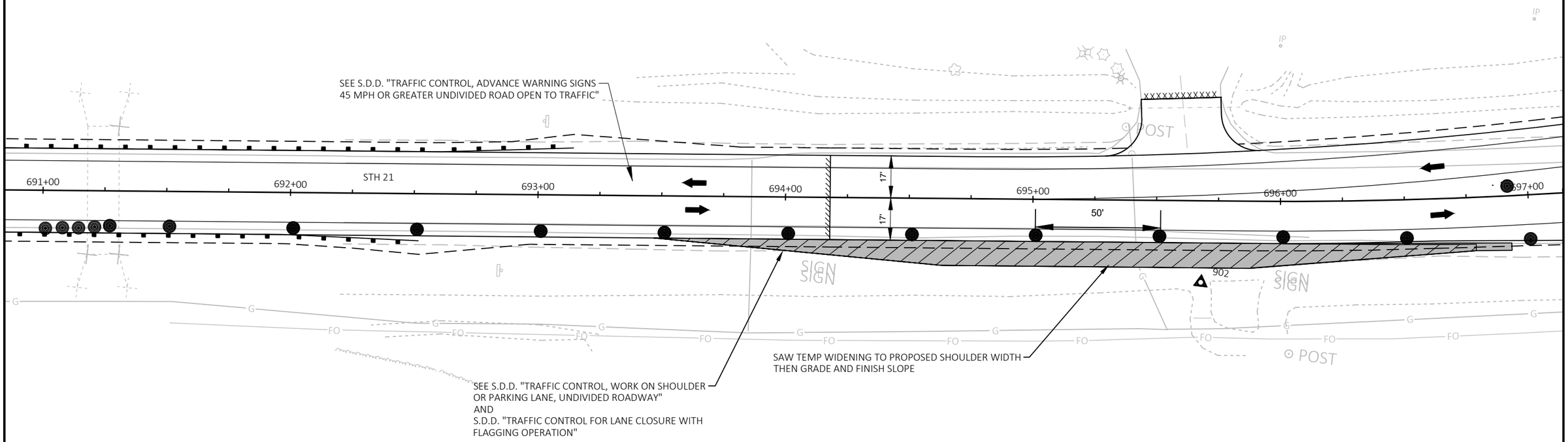
LEGEND

TYPE III BARRICADE	
TYPE III BARRICADE WTH ATTACHED SIGN	
TRAFFIC CONTROL DRUM	
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	
DELINEATOR FLEXIBLE/TUBULAR MARKER	
WORK AREA	
DIRECTION OF TRAFFIC	
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

N

2



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3A	SHEET 207	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3A.DWG
LAYOUT NAME - Sheet - (10)

PLOT DATE : 6/25/2024 4:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

SEE S.D.D. 15C4 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

CONSTRUCT MEDIAN NOSE IN STAGE 3B

CONSTRUCT MEDIAN CURB AND GUTTER AND SIDEWALK UTILIZING FLAGGING OPERATIONS SEE S.D.D. 15C12-A, "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"

CONSTRUCT TEMPORARY ASPHALT AT MEDIAN NOSE. CONSTRUCT MEDIAN NOSE IN STAGE 3B

CONSTRUCT MEDIAN NOSE IN STAGE 3B

CONSTRUCT TEMPORARY ASPHALT AT MEDIAN NOSE. CONSTRUCT MEDIAN NOSE IN STAGE 3B

SEE S.D.D. 15C4 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

STH 21

CTH G

25'

698+00

699+00

700+00

701+00

702+00

703+00

12.00

W16-1
48"X48"

N

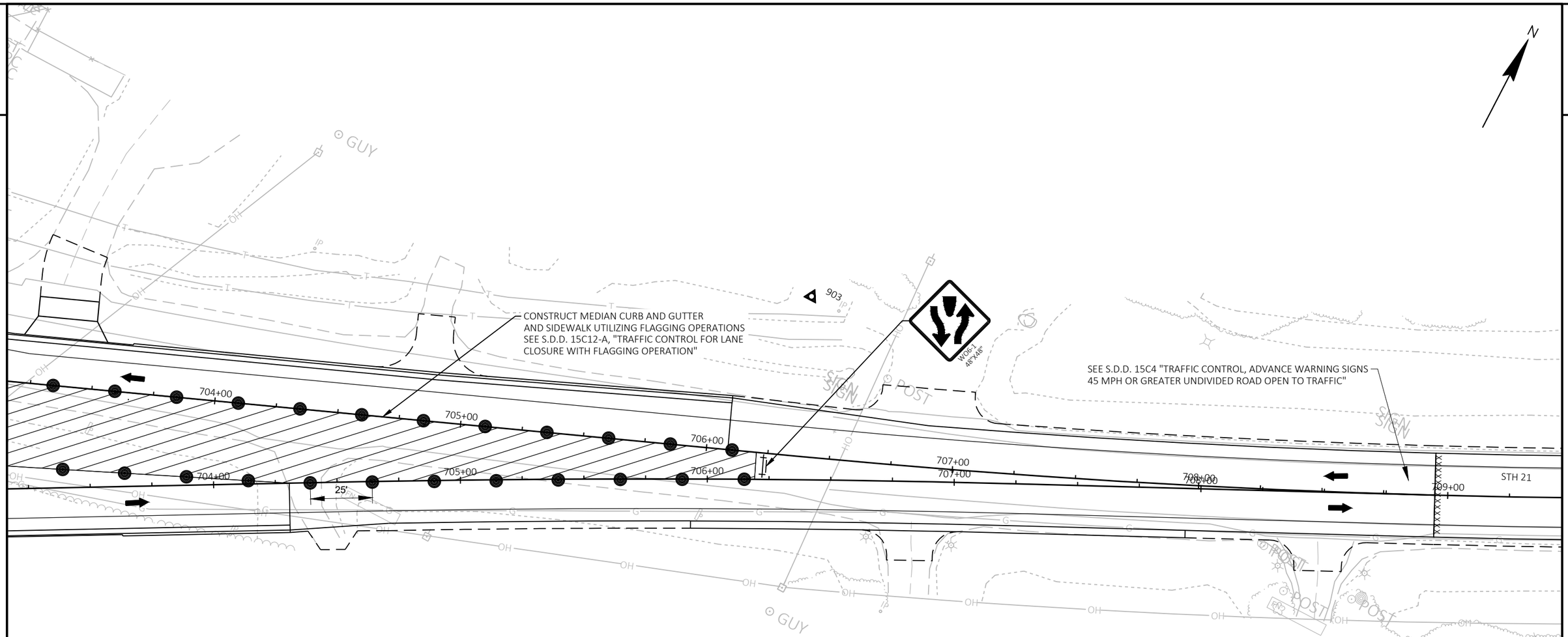
LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3A	SHEET 208	E

2



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
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TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3A	SHEET 209	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3A.DWG
LAYOUT NAME - Sheet - (12)
PLOT DATE : 6/25/2024 4:47 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- DIRECTION OF TRAFFIC
- & TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
T6DY	TEMPORARY MARKING LINE PAINT 6-INCH, DOUBLE YELLOW
TR6W	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, WHITE
TR6DY	TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH, DOUBLE YELLOW
T10W	TEMPORARY MARKING LINE PAINT 10-INCH, WHITE
TR10W	TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH, WHITE
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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

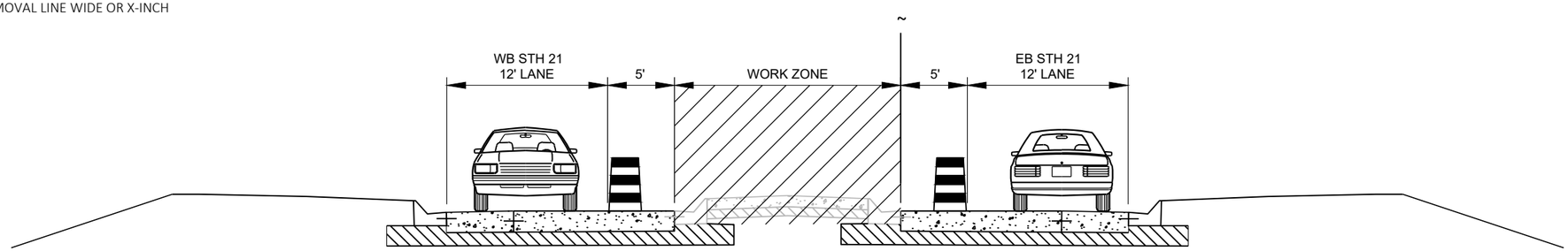
CTH G INTERSECTION STAGE 3B OVERVIEW

TRAFFIC

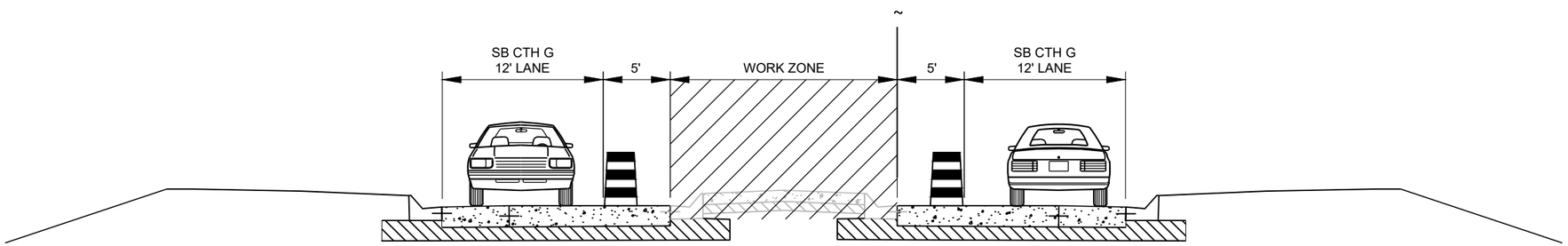
- TRAFFIC ON NEWLY CONSTRUCTED ROUNDABOUT IN ALL DIRECTIONS
- UTILIZE FLAGGING OPERATIONS TO COMPLETE STAGE WORK
- UTILIZE DRUMS TO RESTRICT LANE WIDTH (MINIMUM 12FT)

CONSTRUCTION

- REMOVE TEMPORARY ASPHALT FROM MEDIANS
- CONSTRUCT MEDIAN NOSES



STAGE 3 TYPICAL SECTION - STH 21



STAGE 3 TYPICAL SECTION - CTH G

PROJECT NO: 6100-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3B OVERVIEW	SHEET 210	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3B.DWG
LAYOUT NAME - Stage 3 Overview
PLOT DATE : 6/25/2024 4:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT

2

N

SEE S.D.D. 15C4 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

691+00 692+00 693+00 694+00 695+00 696+00 697+00

STH 21

17'

17'

902

SAW TEMP WIDENING TO PROPOSED SHOULDER WIDTH
THEN GRADE AND FINISH SLOPE

SIGN

POST

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

T6W	TEMPORARY MARKING LINE PAINT 6-INCH, WHITE
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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3B	SHEET 211	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3B.DWG
LAYOUT NAME - Sheet - (10)
PLOT DATE : 6/25/2024 4:47 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

CONSTRUCT MEDIAN NOSE
AND SIDEWALK UTILIZING FLAGGING OPERATIONS
SEE S.D.D. 15C12-A, "TRAFFIC CONTROL FOR LANE
CLOSURE WITH FLAGGING OPERATION"

SEE S.D.D. 15C4 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

SEE S.D.D. 15C4 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS
45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC"

STH 21

CTH G

25'

698+00

699+00

700+00

11+00

12+00

701+00

702+00

703+00

WORK AREA
48"X48"

N

LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

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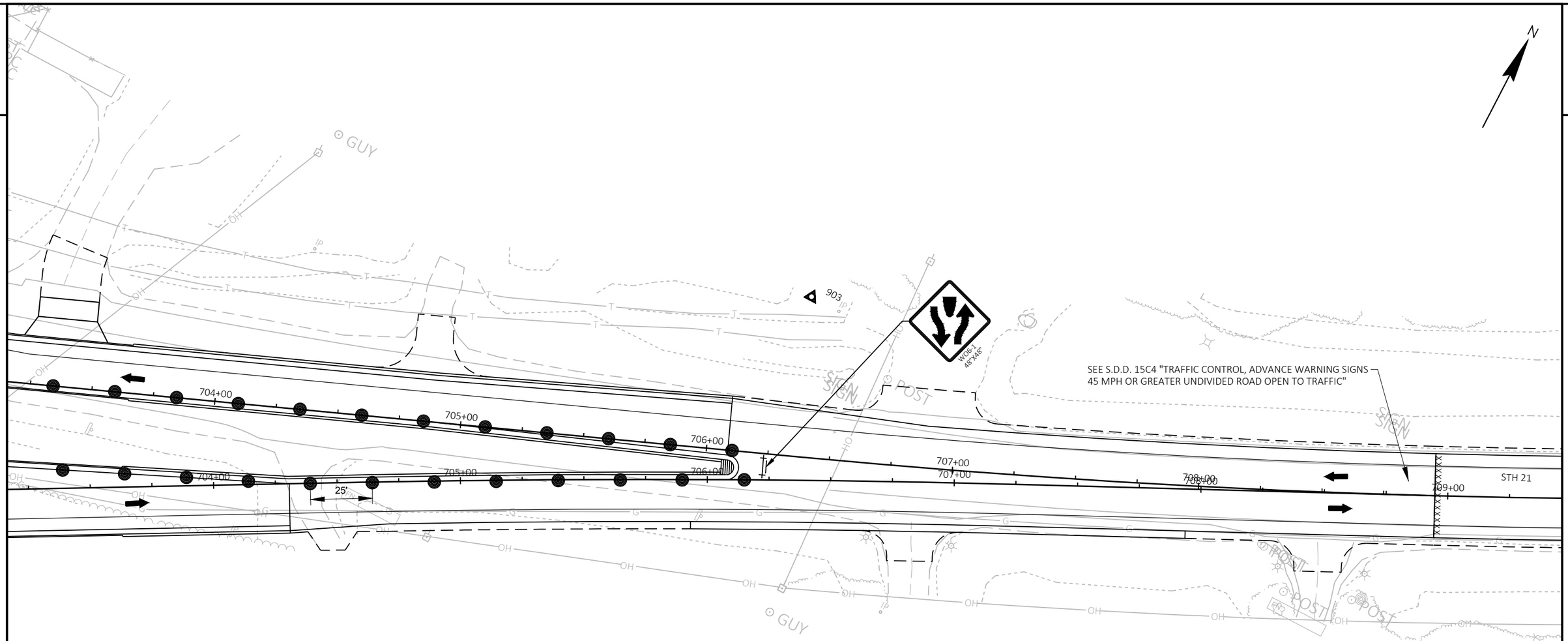
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3B	SHEET 212 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3B.DWG
LAYOUT NAME - Sheet - (11)
PLOT DATE : 6/25/2024 4:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	DIRECTION OF TRAFFIC
&	TEMPORARY PEDESTRIAN CROSSING

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TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TMA	TEMPORARY MARKING ARROW PAINT
TMAR	TEMPORARY MARKING ARROW REMOVABLE TAPE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL LINE WIDE OR X-INCH

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	TRAFFIC CONTROL: CTH G RAB INTERSECTION - STAGE 3B	SHEET 213	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\TRAFFIC CONTROL\026101-TC_RAB STAGE 3B.DWG
LAYOUT NAME - Sheet - (12)
PLOT DATE : 6/25/2024 4:47 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

PROJECT LOCATION

DETOUR ROUTE

PROPOSED SIGN SUPPORT

EXISTING SIGN SUPPORT

BABCOCK

NEKOOSA

SEE DETAILS ON SHEET 'DETOUR ROUTE - STAGE 2: WYEVILLE & BABCOCK'

MEADOW VALLEY

WILDLIFE

MEADOW VALLEY WILDLIFE AREA

WYEVILLE

NECEDAH

SEE DETAILS ON SHEET 'DETOUR ROUTE - STAGE 2: NECEDAH'

SEE DETAILS ON SHEET 'DETOUR ROUTE - STAGE 2: WYEVILLE & BABCOCK'

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

ROAD CLOSED 500 FT — W20-3D 48"X48"

ROAD CLOSED AHEAD — W20-3A 48"X48"

ACCESS TO LOCAL BUSINESSES — R10-71 66"X36"

DETOUR AHEAD — W20-2A 48"X48"

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 2 OVERVIEW	SHEET 214 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027002-DT_STAGE 2.DWG
LAYOUT NAME - Overview

PLOT DATE : 6/25/2024 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:2.5 MI

WISDOT/CADDS SHEET 42

2

LEGEND

PROJECT LOCATION

DETOUR ROUTE

PROPOSED SIGN SUPPORT

EXISTING SIGN SUPPORT

MEADOW VALLEY WILDLIFE AREA

N

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

SOUTH 173 COUNTY N

NORTH 173

173

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

G

COVER EXISTING SIGN — EAST 21 / COUNTY N / WEST 21

COVER EXISTING SIGN — EAST 21 / COUNTY N / WEST 21

M4-8A 24"X18"

END DETOUR

DETOUR NEXT 43 MILES

G20-51 60"X24"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

NORTH 173 COUNTY N

48"X48"

DETOUR AHEAD

W20-2A

WYEVILLE

DETOUR NORTH EAST 173 21 — M4-8 24"X12" / M05-1-L 21"X21"

COVER EXISTING SIGN

Wyeville
Necedah
Mather

COVER EXISTING ARROW A4-12 9 ½ "X9 ½"

DETOUR EAST 21 21 — M4-8 24"X12" / MO6-1 21"X21"

COVER EXISTING SIGN

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24" / MO6-1 21"X21"

PP

ET

NORTH 173 COUNTY N

ROAD CLOSED 16 MILES AHEAD LOCAL TRAFFIC ONLY

R11-3 60"X30"

HWY 21 NO ACCESS TO HWY 80 IN NECEDAH USE ALT ROUTE

SEE TEMPORARY SIGNING SPECIAL SIGN DETAILS

WYEVILLE

N

2

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24" / MO5-1R 21"X21"

WEST 21 — M3-4 24"X12" / M1-6 24"X24"

DETOUR AHEAD 48"X48" W20-2A

BABCOCK

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24" / MO6-1 21"X21"

NORTH 80 / NORTH 173 / SOUTH 80

SOUTH 173

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24" / MO6-1 21"X21"

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24" / MO6-1 21"X21"

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24" / MO5-1R 21"X21"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

SOUTH 173 / NORTH 80 / NORTH 173

173

80

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24" / MO5-1L 21"X21"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

CAMP WI

F

DETOUR WEST 21 — M4-8 24"X12" / M3-4 24"X12" / M1-6 24"X24"

DETOUR EAST 21 — M4-8 24"X12" / M3-2 24"X12" / M1-6 24"X24"

BABCOCK

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 2 WYEVILLE & BABCOCK	SHEET 215	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027002-DT_STAGE 2.DWG
LAYOUT NAME - WYEVILLE+BABCOCK

PLOT DATE : 6/25/2024 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:1 MI

WISDOT/CADDS SHEET 42

2

2

N

13

21

G

M4-8 24"X12"
M3-2 24"X12"
M1-6 24"X24"
DETOUR EAST 21

M4-8 24"X12"
M3-4 24"X12"
M1-6 24"X24"
DETOUR WEST 21

M4-8 24"X12"
M3-4 24"X12"
M1-6 24"X24"
DETOUR WEST 21

NORTH 80

DETOUR NEXT 43 MILES
G20-51
60"X24"

M4-8 24"X12"
M3-4 24"X12"
M1-6 24"X24"
DETOUR WEST 21

ACCESS TO LOCAL BUSINESSES

R10-7
66"X36"

M4-8 24"X12"
DETOUR SOUTH 80 WEST 21 NORTH 80
MO6-1 21"X21"
COVER EXISTING SIGN

Tomah
New Lisbon
Marshfield
COVER EXISTING ARROW A4-12
9 ½ "X9 ½"

New Lisbon
Coloma
Tomah
COVER EXISTING SIGN

M4-8A 24"X18"
END DETOUR
EAST 21 SOUTH 80 WEST 21
COVER EXISTING SIGN

DETOUR
M4-9R
30"X24"

M4-8 24"X12"
DETOUR SOUTH 80 WEST 21 NORTH 80
M05-1-R
21"X21"

EAST 21 WEST 21
COVER EXISTING SIGN

M4-8 24"X12"
DETOUR WEST 21 NORTH 80 EAST 21
MO6-1 21"X21"
COVER EXISTING SIGN

M4-8 24"X12"
DETOUR WEST 21 EAST 21
MO6-1 21"X21"
COVER EXISTING SIGN

NECEDAH

SEE S.D.D. 'BARRICADES AND SIGN FOR VARIOUS CLOSURES' FOR MORE DETAILS

NECEDAH

LEGEND

PROJECT LOCATION

DETOUR ROUTE

PROPOSED SIGN SUPPORT

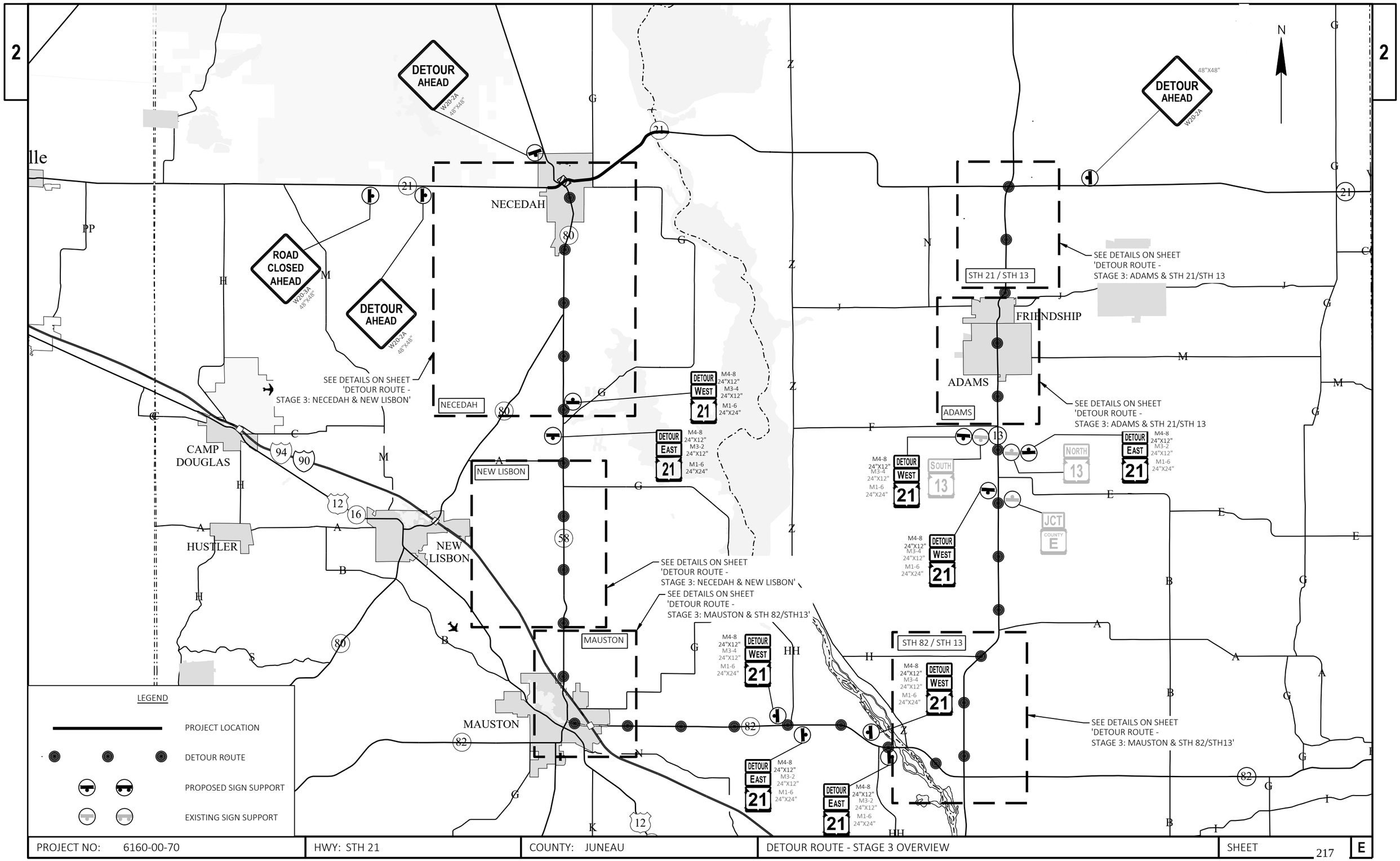
EXISTING SIGN SUPPORT

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 2 NECEDAH	SHEET 216	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027002-DT_STAGE 2.DWG
LAYOUT NAME - NECEDAH

PLOT DATE : 6/25/2024 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:0.5 MI

WISDOT/CADDS SHEET 42

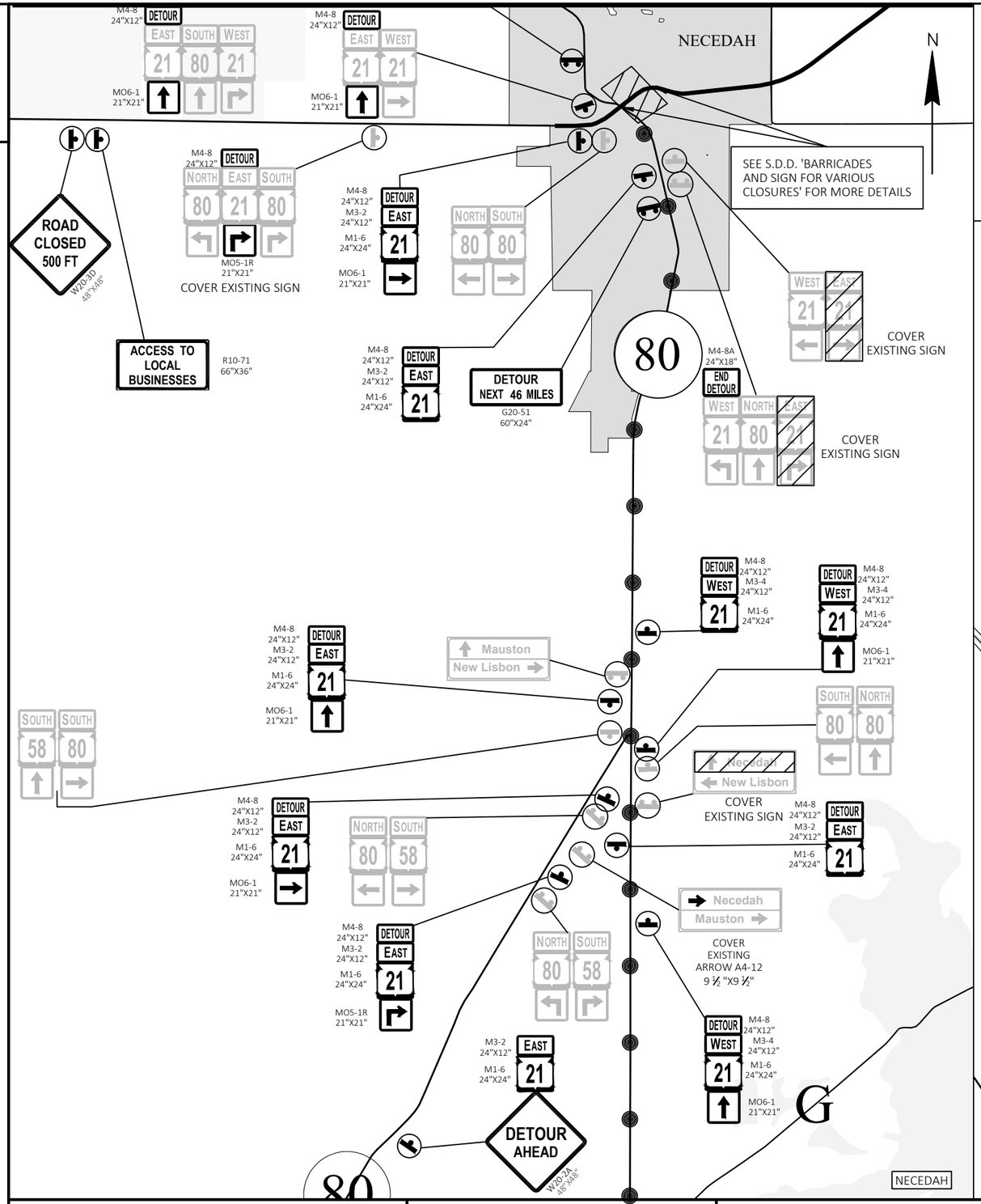


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 3 OVERVIEW	SHEET 217	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027001-DT_STAGE 3.DWG
LAYOUT NAME - OVERVIEW

PLOT DATE : 6/25/2024 2:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:2.5 MI

WISDOT/CADDS SHEET 42

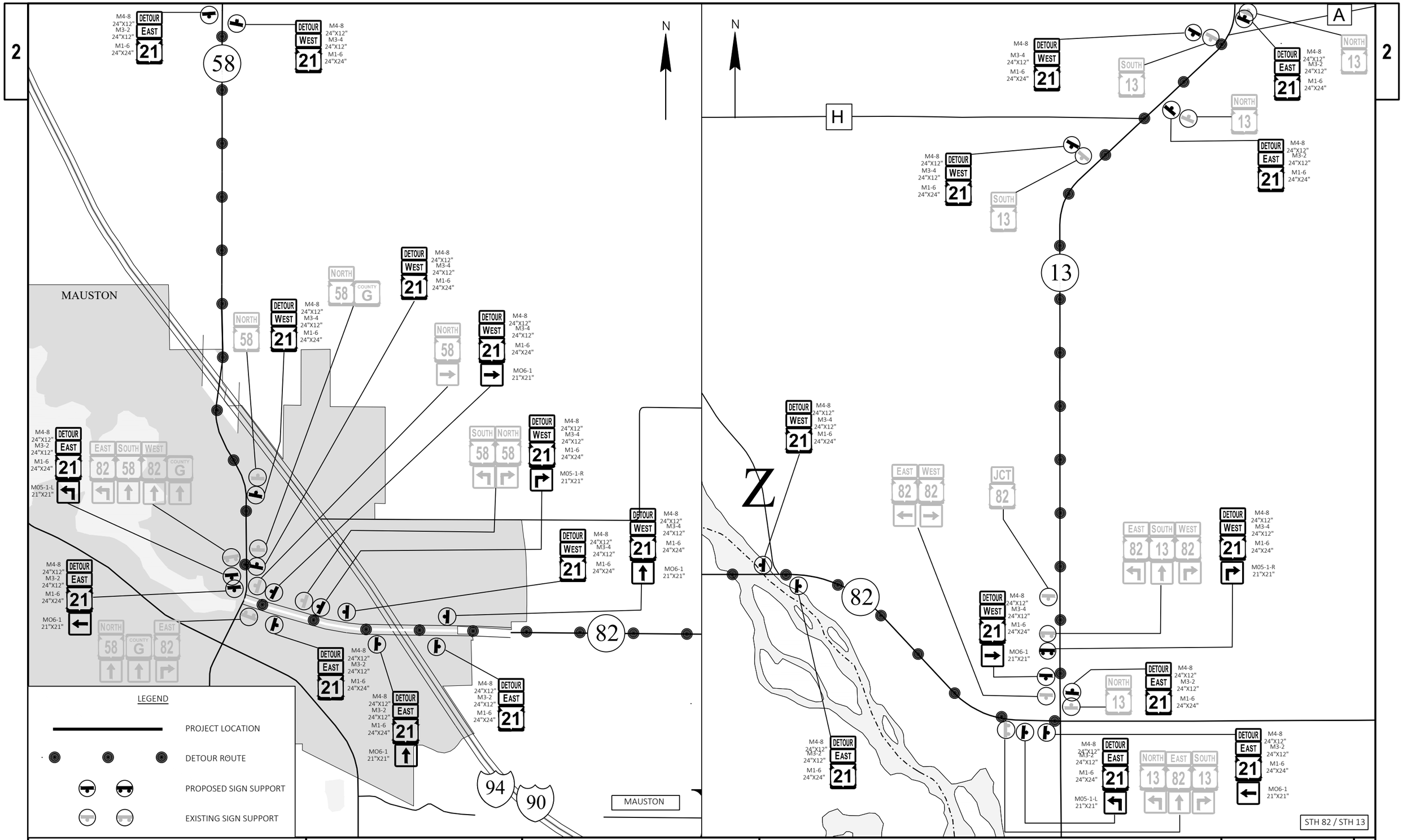


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 3 NECEDAH & NEW LISBON	SHEET 218	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027001-DT_STAGE 3.DWG
LAYOUT NAME - NECEDAH+NEW LISBON

PLOT DATE : 6/25/2024 2:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:0.75MI

WISDOT/CADDS SHEET 42

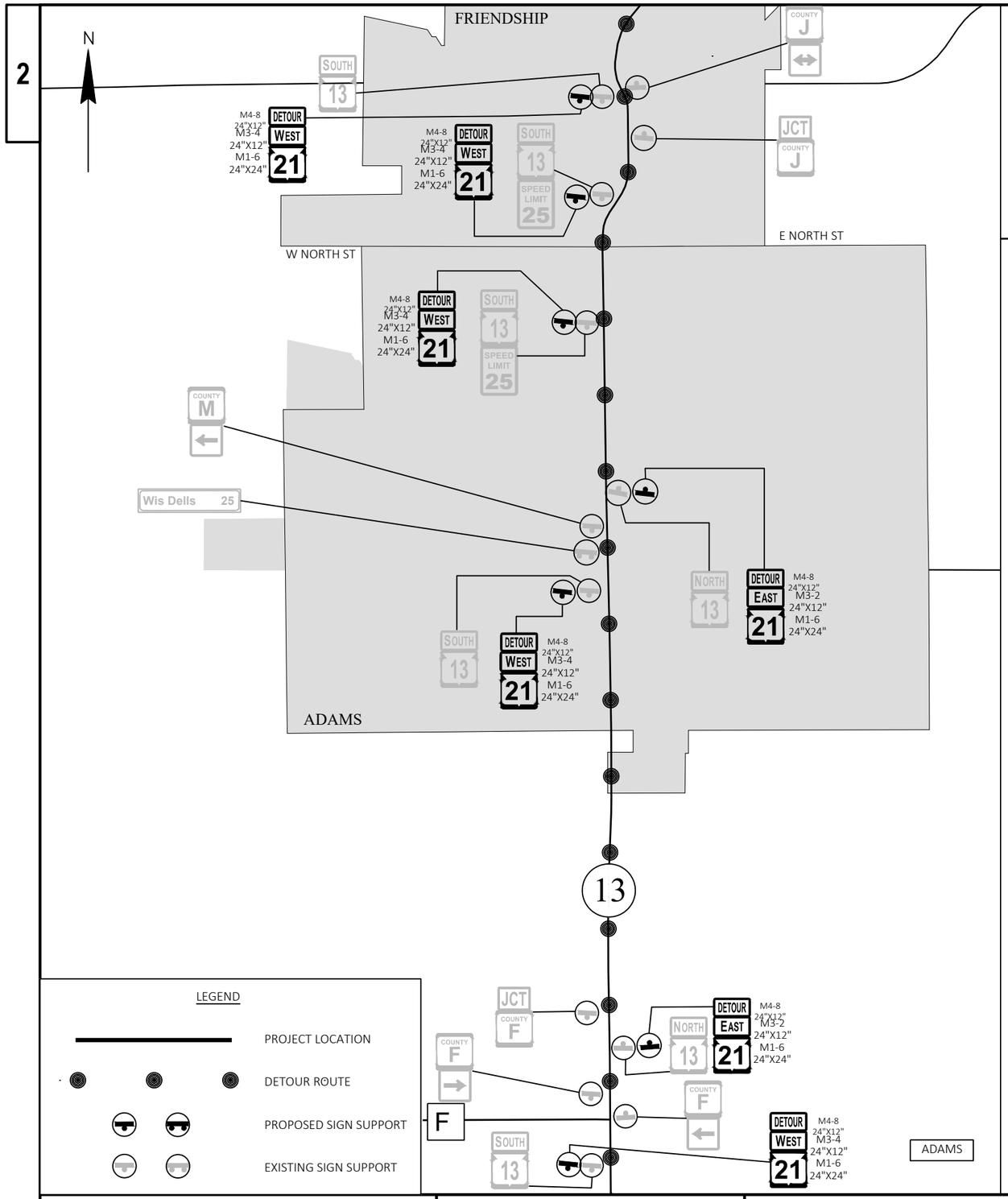


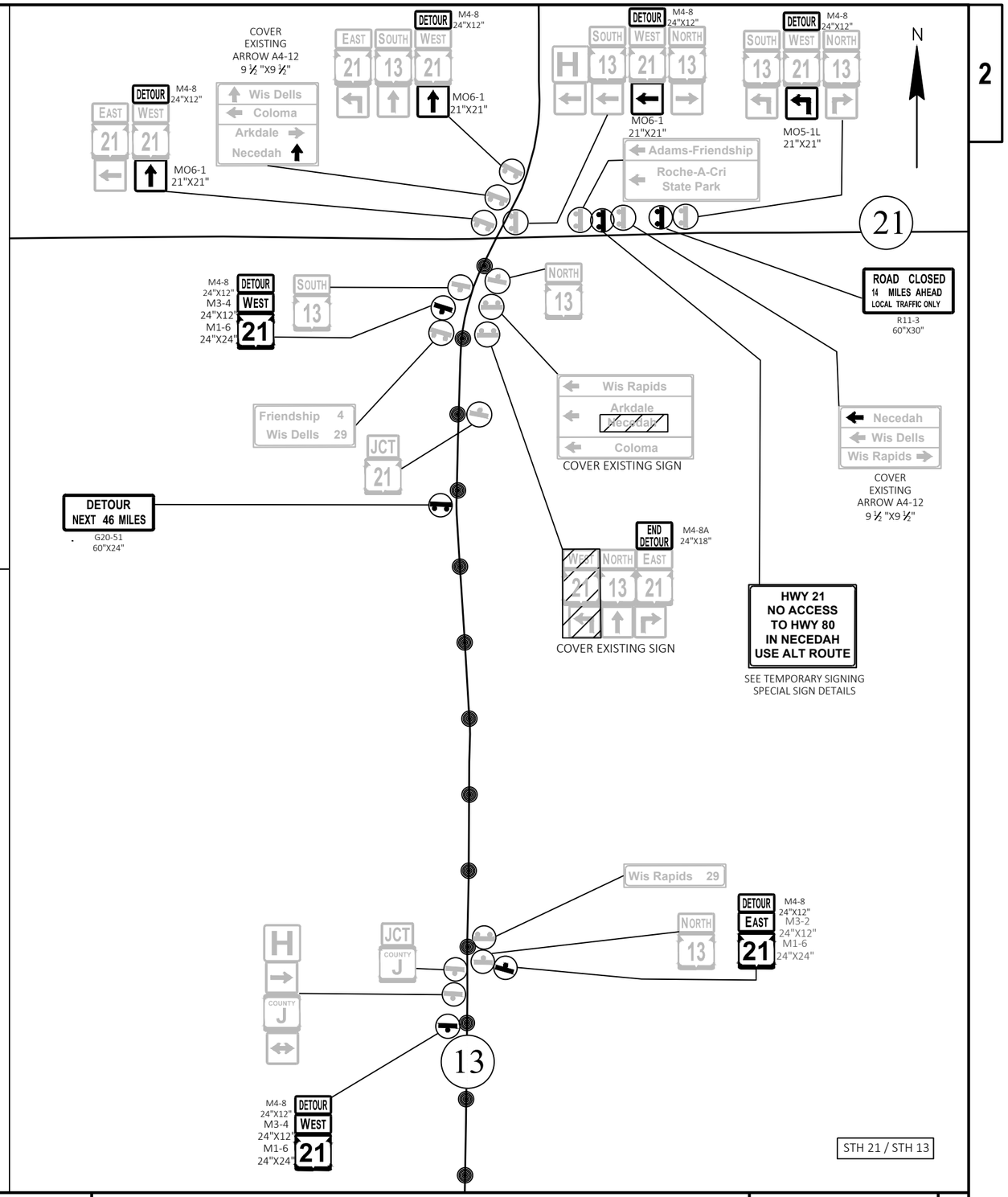
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 3 MAUSTON & STH 82/STH 13	SHEET 219	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027001-DT_STAGE 3.DWG
LAYOUT NAME - MAUSTON+STH82-STH13

PLOT DATE : 6/25/2024 2:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	DETOUR ROUTE - STAGE 3 ADAMS & STH 21/STH 13	SHEET 220	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027001-DT_STAGE 3.DWG
LAYOUT NAME - ADAMS+STH21-STH13

PLOT DATE : 6/25/2024 2:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

'21' R/L
STA. 626+67.33'21'
Y = 239,797.2999
X = 461,471.8902

BP: 626+67.33'21'

630'21'

S89° 18' 43"E
819.07'

PC: 634+86.40'21'

635'21'

640'21'

STH 21

645'21'

PT: 644+56.59'21'

'B' R/L
STA. 231+64.91'B'
Y = 240,544.3180
X = 463,169.1927

EP: 231+64.91'B'

N84° 42' 23"W
169.20'

PT: 229+95.71'B'

PI STA = 228+59.20'B'
Y = 240,515.412
X = 463,481.170
DELTA = 32°09'26"
D = 11°27'33"
T = 144.12'
L = 280.62'
R = 500.00'
PC STA = 227+15.09'B'
Y = 240,427.778
X = 463,595.580
PT STA = 229+95.71'B'
Y = 240,528.708
X = 463,337.669
BK = N52°32'56.9"W
AH = N84°42'22.9"W
SE = NC

STH 80

PC: 227+15.09'B'

N51° 53' 00"E
1240.67'

MATCHLINE STA 654+00'21'

N52° 32' 57"W
213.99'

PI: 225+01.10'B'

N57° 17' 31"W
225.36'

BP: 222+75.74'B'

PI STA = 639+90.93'21'
Y = 239,781.403
X = 462,795.394
DELTA = 38°48'18"
D = 3°59'59"
T = 504.53'
L = 970.19'
R = 1,432.50'
PC STA = 634+86.40'21'
Y = 239,787.463
X = 462,290.898
PT STA = 644+56.59'21'
Y = 240,092.834
X = 463,192.337
BK = S89°18'42.7"E
AH = N51°52'59.6"E
SE = NC

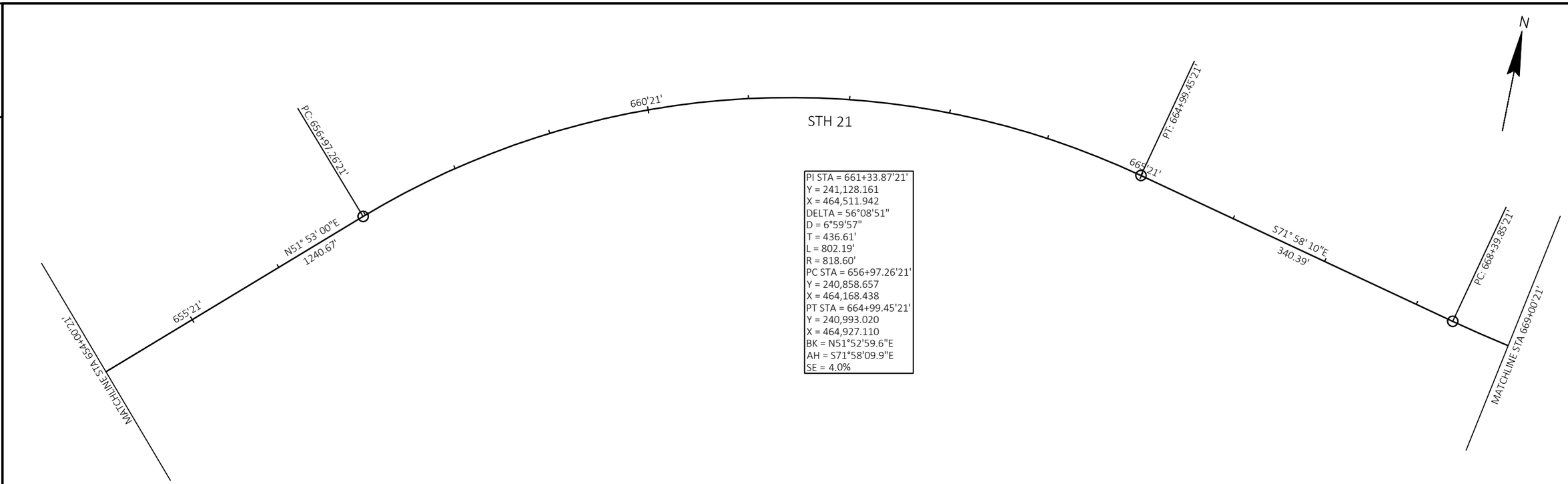
'B' R/L
STA. 222+75.74'B'
Y = 240,175.8839
X = 463,955.0808

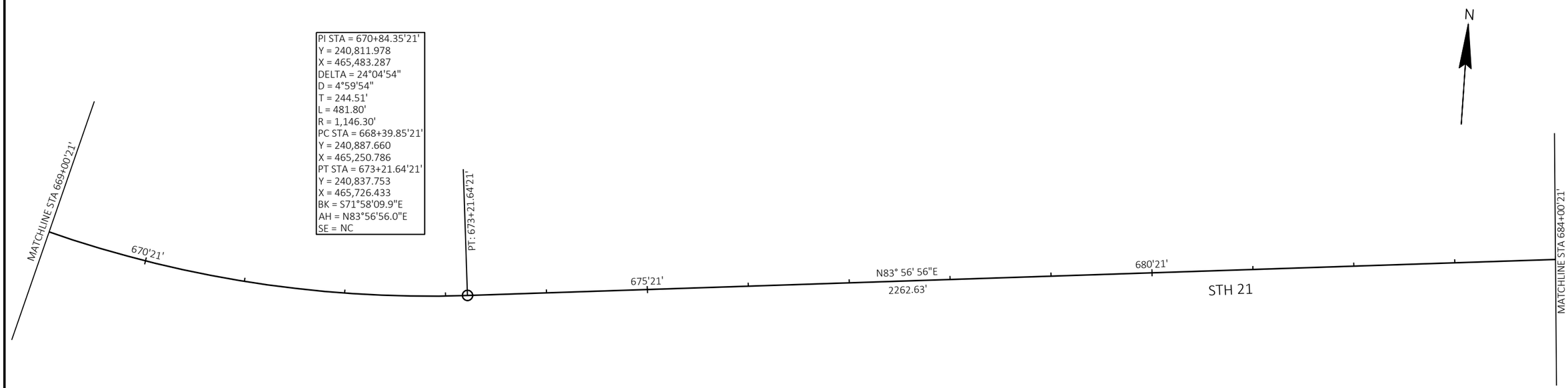
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 221	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - SOP - Sta. 645+00'21' (4)

PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:200 FT

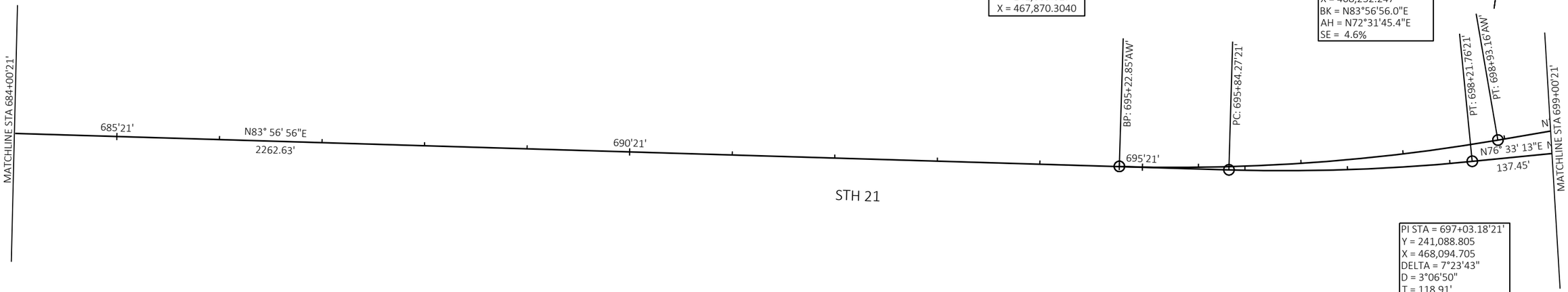
2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 222	E

2



'AW' R/L
STA. 695+22.85'AW'
Y = 241,065.0174
X = 467,870.3040

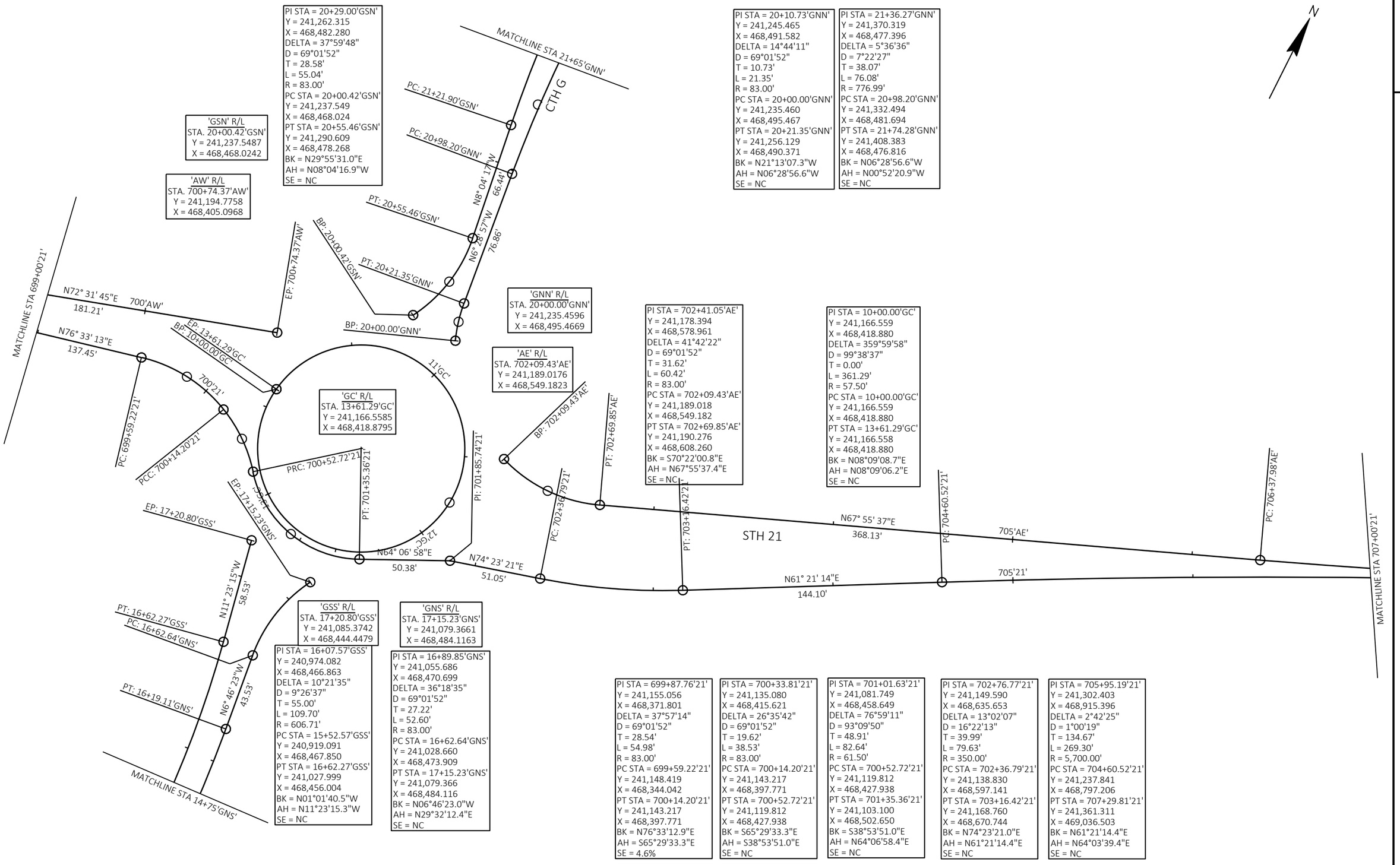
PI STA = 697+08.62'AW'
Y = 241,084.601
X = 468,055.043
DELTA = 11°25'11"
D = 3°05'01"
T = 185.77'
L = 370.32'
R = 1,858.00'
PC STA = 695+22.85'AW'
Y = 241,065.017
X = 467,870.304
PT STA = 698+93.16'AW'
Y = 241,140.374
X = 468,232.247
BK = N83°56'56.0"E
AH = N72°31'45.4"E
SE = 4.6%

PI STA = 697+03.18'21'
Y = 241,088.805
X = 468,094.705
DELTA = 7°23'43"
D = 3°06'50"
T = 118.91'
L = 237.49'
R = 1,840.00'
PC STA = 695+84.27'21'
Y = 241,076.270
X = 467,976.456
PT STA = 698+21.76'21'
Y = 241,116.456
X = 468,210.357
BK = N83°56'56.0"E
AH = N76°33'12.9"E
SE = NC

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 223	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 684+00'21' - Sta. 699+00'21'

PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT



'GSN' R/L
STA. 20+00.42'GSN'
Y = 241,237.5487
X = 468,468.0242

'AW' R/L
STA. 700+74.37'AW'
Y = 241,194.7758
X = 468,405.0968

'GC' R/L
STA. 13+61.29'GC'
Y = 241,166.5585
X = 468,418.8795

'GNN' R/L
STA. 20+00.00'GNN'
Y = 241,235.4596
X = 468,495.4669

'AE' R/L
STA. 702+09.43'AE'
Y = 241,189.0176
X = 468,549.1823

'GSS' R/L
STA. 17+20.80'GSS'
Y = 241,085.3742
X = 468,444.4479

'GNS' R/L
STA. 17+15.23'GNS'
Y = 241,079.3661
X = 468,484.1163

PI STA = 20+29.00'GSN'
Y = 241,262.315
X = 468,482.280
DELTA = 37°59'48"
D = 69°01'52"
T = 28.58'
L = 55.04'
R = 83.00'
PC STA = 20+00.42'GSN'
Y = 241,237.549
X = 468,468.024
PT STA = 20+55.46'GSN'
Y = 241,290.609
X = 468,478.268
BK = N29°55'31.0"E
AH = N08°04'16.9"W
SE = NC

PI STA = 20+10.73'GNN'
Y = 241,245.465
X = 468,491.582
DELTA = 14°44'11"
D = 69°01'52"
T = 10.73'
L = 21.35'
R = 83.00'
PC STA = 20+00.00'GNN'
Y = 241,235.460
X = 468,495.467
PT STA = 20+21.35'GNN'
Y = 241,256.129
X = 468,490.371
BK = N21°13'07.3"W
AH = N06°28'56.6"W
SE = NC

PI STA = 21+36.27'GNN'
Y = 241,370.319
X = 468,477.396
DELTA = 5°36'36"
D = 7°22'27"
T = 38.07'
L = 76.08'
R = 776.99'
PC STA = 20+98.20'GNN'
Y = 241,332.494
X = 468,481.694
PT STA = 21+74.28'GNN'
Y = 241,408.383
X = 468,476.816
BK = N06°28'56.6"W
AH = N00°52'20.9"W
SE = NC

PI STA = 702+41.05'AE'
Y = 241,178.394
X = 468,578.961
DELTA = 41°42'22"
D = 69°01'52"
T = 31.62'
L = 60.42'
R = 83.00'
PC STA = 702+09.43'AE'
Y = 241,189.018
X = 468,549.182
PT STA = 702+69.85'AE'
Y = 241,190.276
X = 468,608.260
BK = S70°22'00.8"E
AH = N67°55'37.4"E
SE = NC

PI STA = 10+00.00'GC'
Y = 241,166.559
X = 468,418.880
DELTA = 359°59'58"
D = 99°38'37"
T = 0.00'
L = 361.29'
R = 57.50'
PC STA = 10+00.00'GC'
Y = 241,166.559
X = 468,418.880
PT STA = 13+61.29'GC'
Y = 241,166.558
X = 468,418.880
BK = N08°09'08.7"E
AH = N08°09'06.2"E
SE = NC

PI STA = 16+07.57'GSS'
Y = 240,974.082
X = 468,466.863
DELTA = 10°21'35"
D = 9°26'37"
T = 55.00'
L = 109.70'
R = 606.71'
PC STA = 15+52.57'GSS'
Y = 240,919.091
X = 468,467.850
PT STA = 16+62.27'GSS'
Y = 241,027.999
X = 468,456.004
BK = N01°01'40.5"W
AH = N11°23'15.3"W
SE = NC

PI STA = 16+89.85'GNS'
Y = 241,055.686
X = 468,470.699
DELTA = 36°18'35"
D = 69°01'52"
T = 27.22'
L = 52.60'
R = 83.00'
PC STA = 16+62.64'GNS'
Y = 241,028.660
X = 468,473.909
PT STA = 17+15.23'GNS'
Y = 241,079.366
X = 468,484.116
BK = N06°46'23.0"W
AH = N29°32'12.4"E
SE = NC

PI STA = 699+87.76'21'
Y = 241,155.056
X = 468,371.801
DELTA = 37°57'14"
D = 69°01'52"
T = 28.54'
L = 54.98'
R = 83.00'
PC STA = 699+59.22'21'
Y = 241,148.419
X = 468,344.042
PT STA = 700+14.20'21'
Y = 241,143.217
X = 468,397.771
BK = N76°33'12.9"E
AH = S65°29'33.3"E
SE = 4.6%

PI STA = 700+33.81'21'
Y = 241,135.080
X = 468,415.621
DELTA = 26°35'42"
D = 69°01'52"
T = 19.62'
L = 38.53'
R = 83.00'
PC STA = 700+14.20'21'
Y = 241,143.217
X = 468,397.771
PT STA = 700+52.72'21'
Y = 241,119.812
X = 468,427.938
BK = S65°29'33.3"E
AH = S38°53'51.0"E
SE = NC

PI STA = 701+01.63'21'
Y = 241,081.749
X = 468,458.649
DELTA = 76°59'11"
D = 93°09'50"
T = 48.91'
L = 82.64'
R = 61.50'
PC STA = 700+52.72'21'
Y = 241,119.812
X = 468,427.938
PT STA = 701+35.36'21'
Y = 241,103.100
X = 468,502.650
BK = S38°53'51.0"E
AH = N64°06'58.4"E
SE = NC

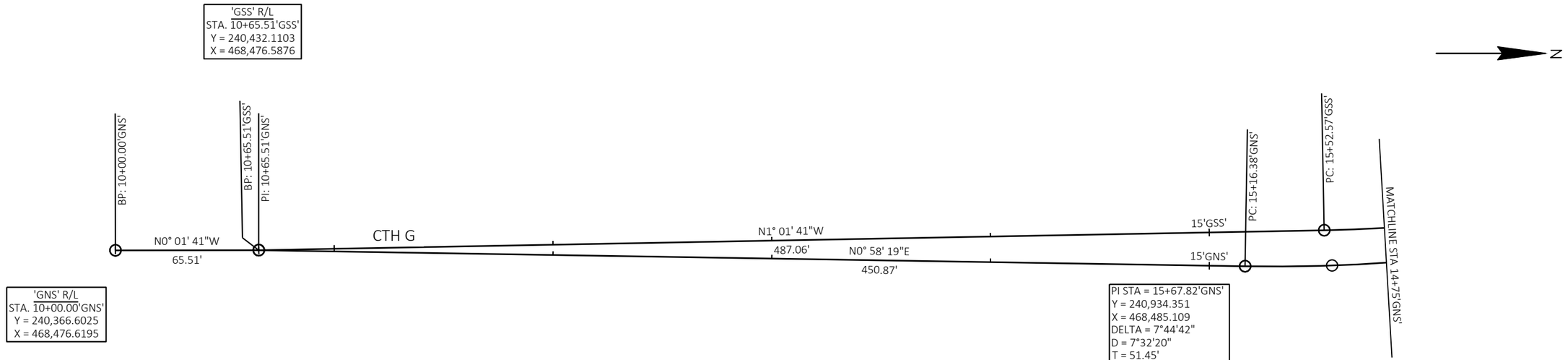
PI STA = 702+76.77'21'
Y = 241,149.590
X = 468,635.653
DELTA = 13°02'07"
D = 16°22'13"
T = 39.99'
L = 79.63'
R = 350.00'
PC STA = 702+36.79'21'
Y = 241,138.830
X = 468,597.141
PT STA = 703+16.42'21'
Y = 241,168.760
X = 468,670.744
BK = N74°23'21.0"E
AH = N61°21'14.4"E
SE = NC

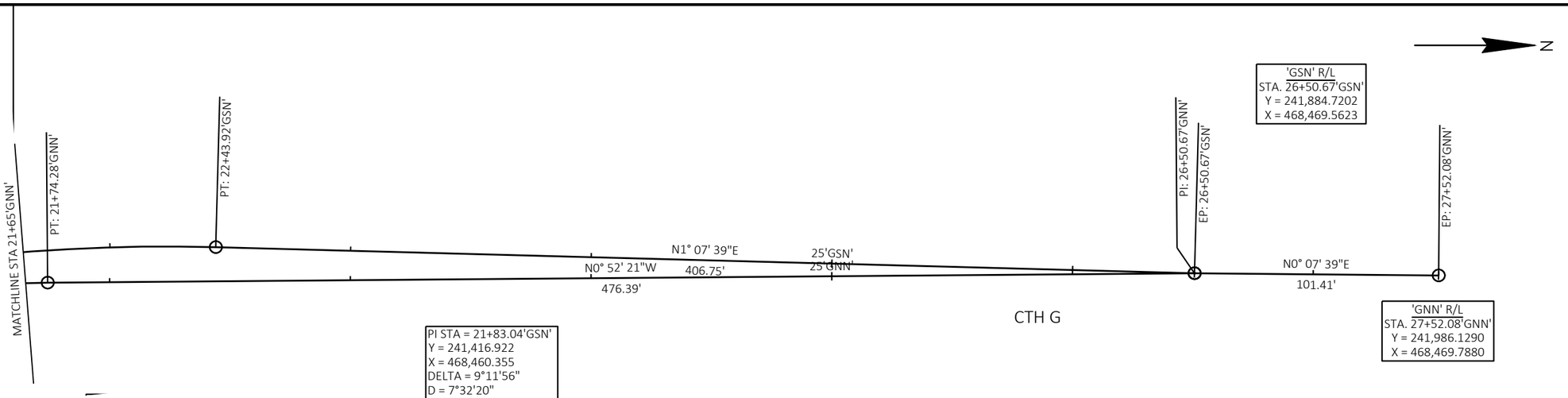
PI STA = 705+95.19'21'
Y = 241,302.403
X = 468,915.396
DELTA = 2°42'25"
D = 1°00'19"
T = 134.67'
L = 269.30'
R = 5,700.00'
PC STA = 704+60.52'21'
Y = 241,237.841
X = 468,797.206
PT STA = 707+29.81'21'
Y = 241,361.311
X = 469,036.503
BK = N61°21'14.4"E
AH = N64°03'39.4"E
SE = NC

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 224	E

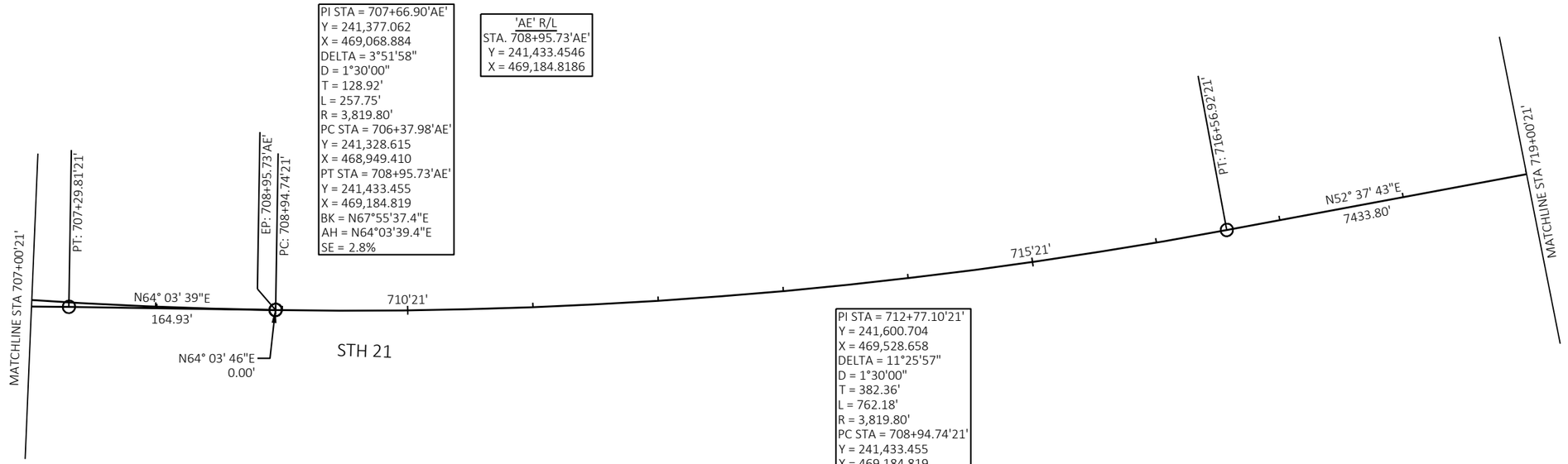
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 699+00'21' - Sta. 707+00'21'
PLOT DATE : 6/25/2024 2:44 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

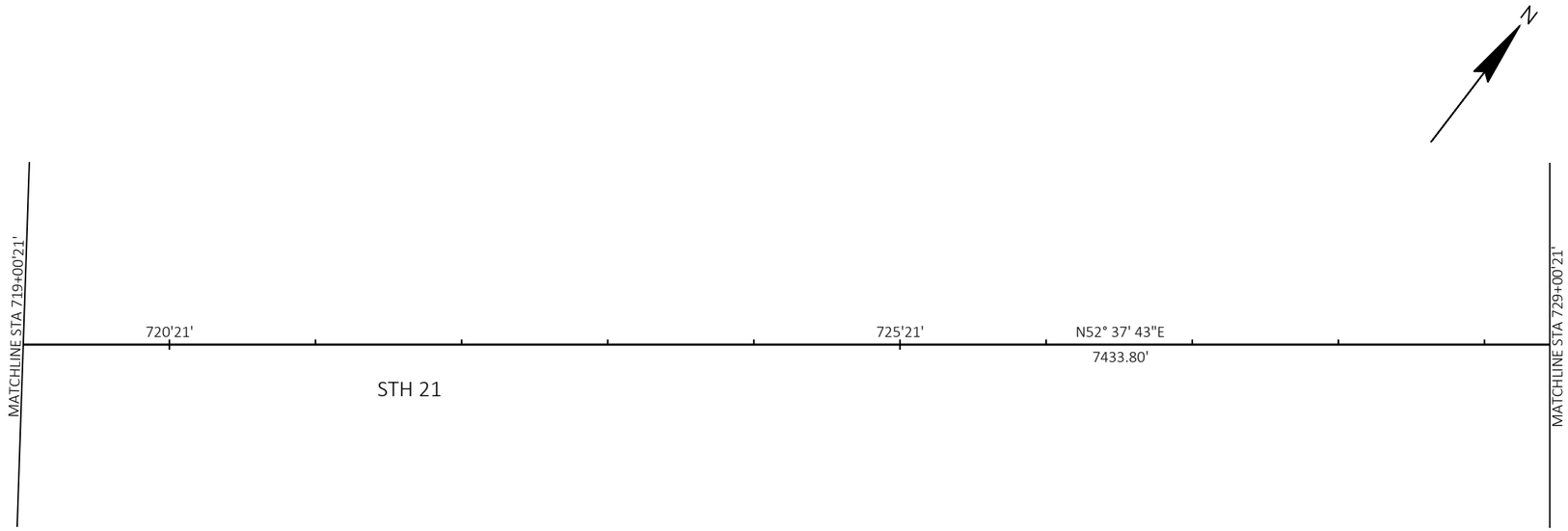
2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 225	E

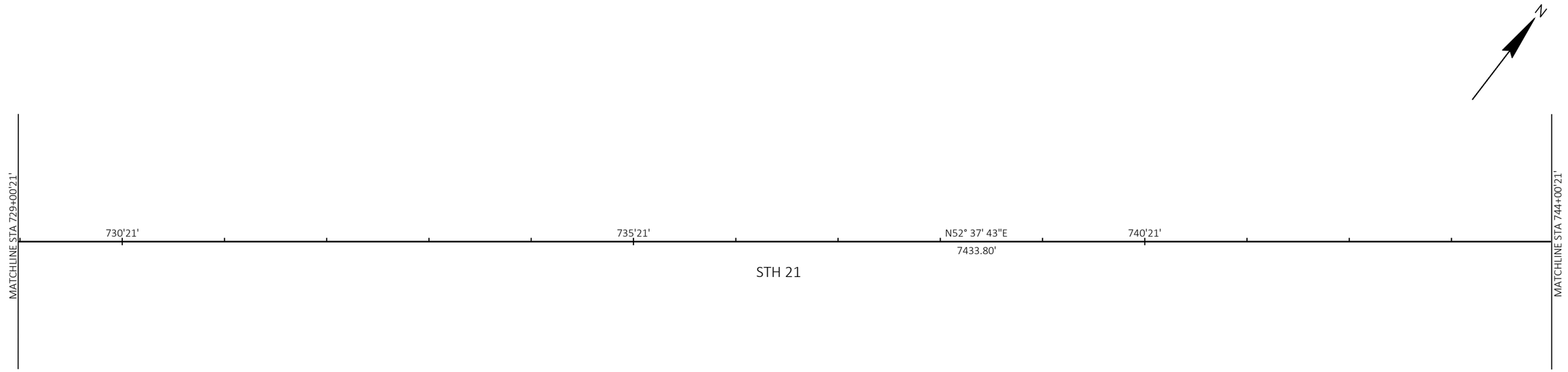


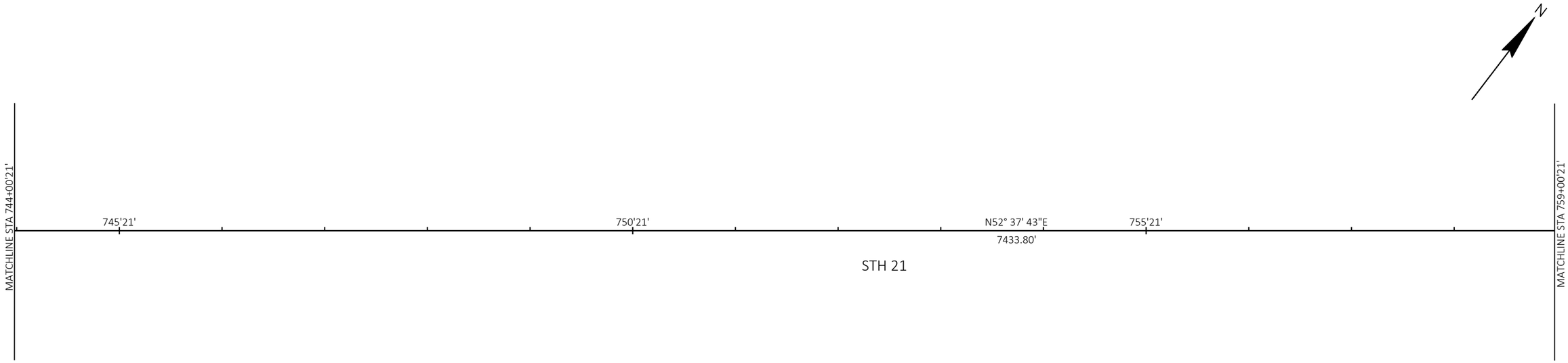


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 226	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 707+00'21' - Sta. 729+00'21'
PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 227	E

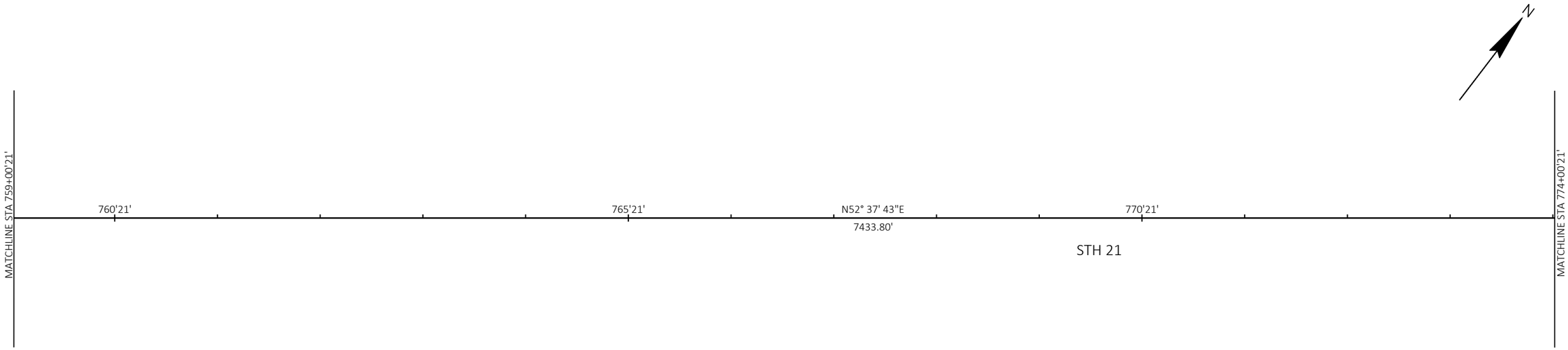
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 729+00'21' - Sta. 759+00'21'

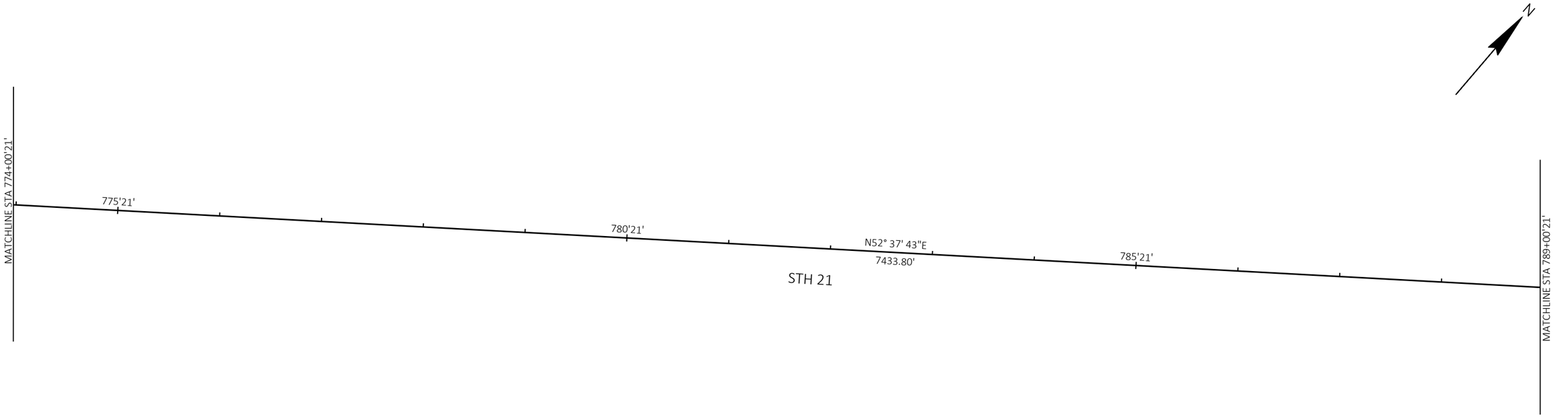
PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2





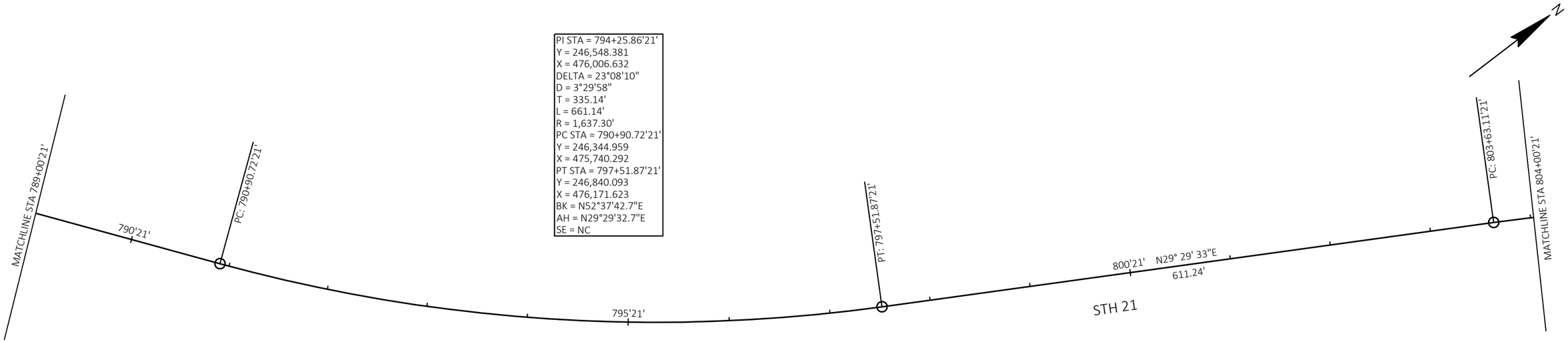
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 228	E

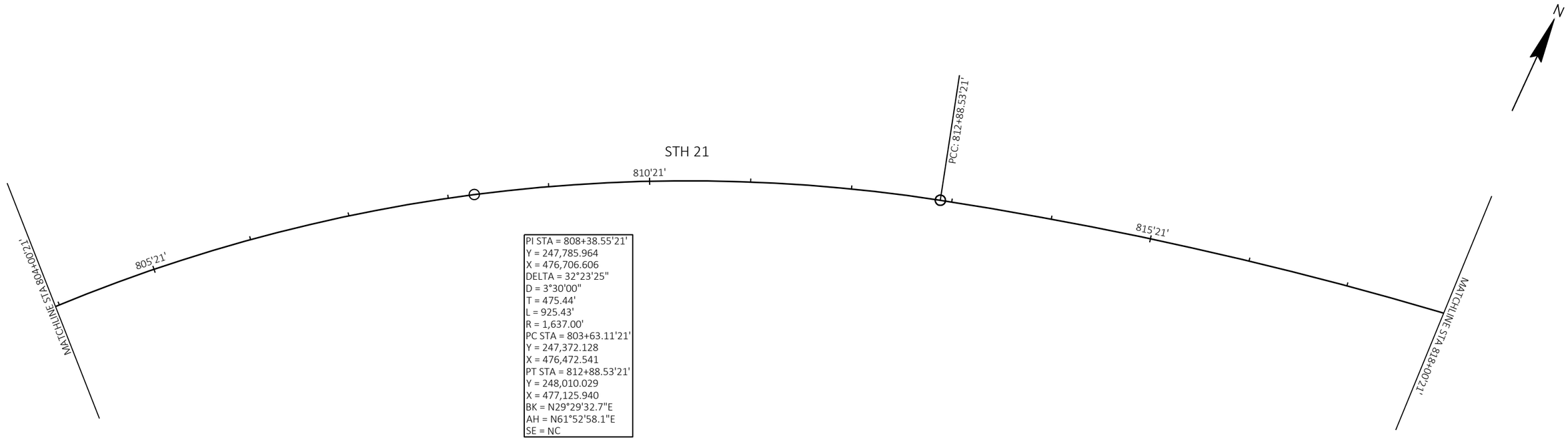
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 759+00'21' - Sta. 789+00'21'

PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



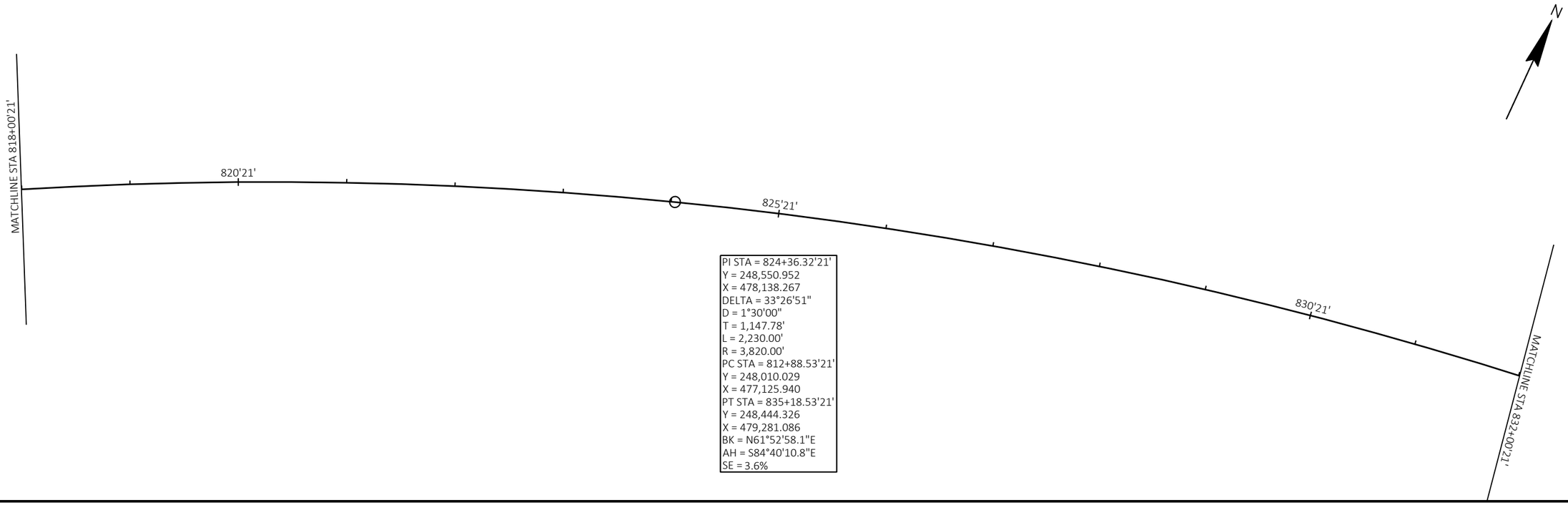


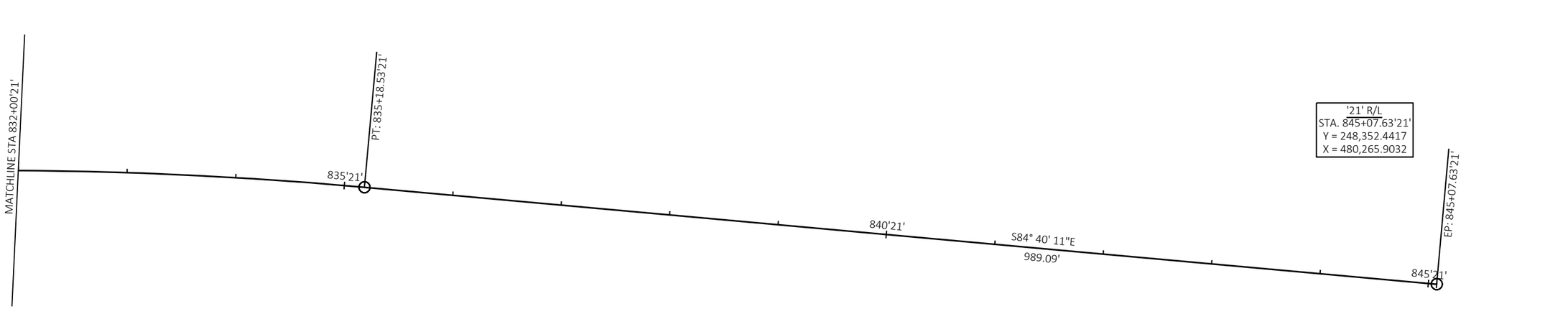
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 229	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - Sta. 789+00'21" - EOP

PLOT DATE : 6/25/2024 2:44 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

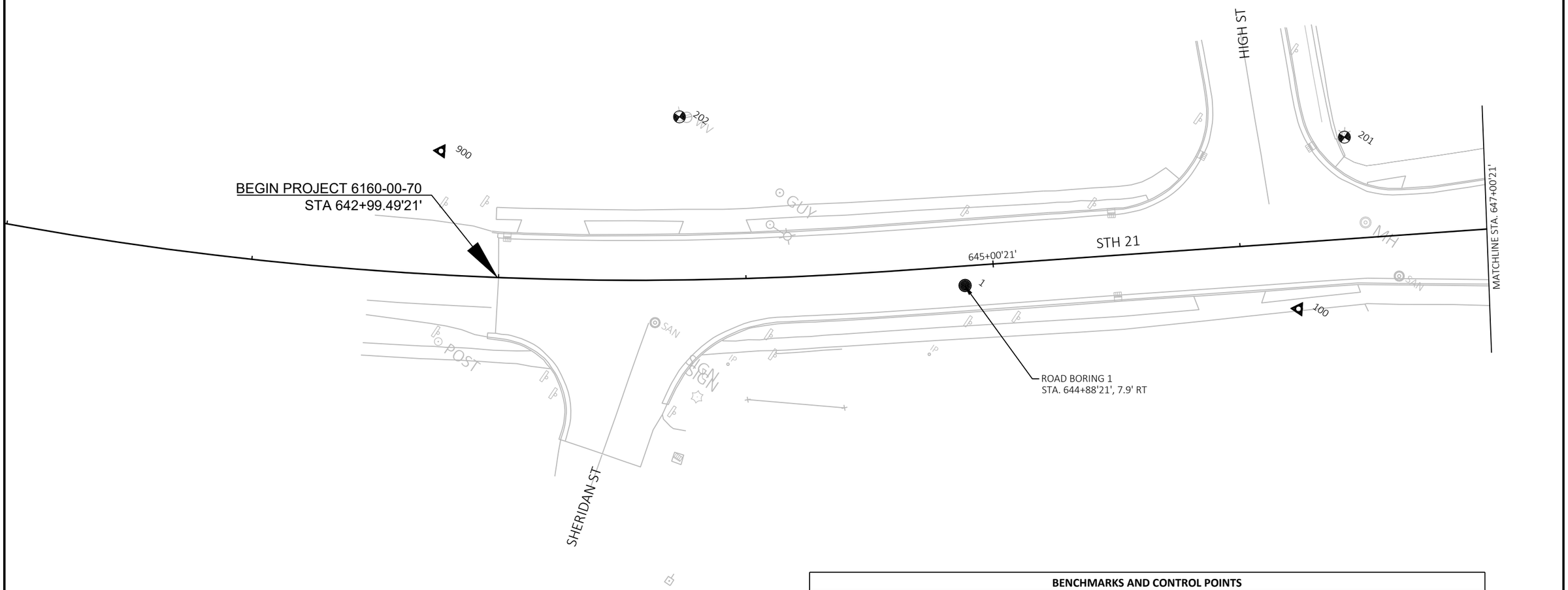
2





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	ALIGNMENT DIAGRAM	SHEET 230	E

BORING SUMMARY			
BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-1	9	13	SAND



BENCHMARKS AND CONTROL POINTS

POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
100	CP	240,173.68	463,338.85	929.31	646+22'21'	26.8 RT	CUT X CONC S/W
201	BM	240,241.52	463,315.35	929.98	646+45'21'	41.0 LT	CUT SQ IN CONC BASE LPOL
202	BM	240,097.76	463,088.23	935.91	643+74'21'	65.9 LT	CUT X SW FLANGE BOLT HYD
900	CP	240,032.36	463,016.17	932.01	642+74'21'	49.9 LT	FENO MON W/ WI DOT CAP
907	HMOD	228,271.66	463,951.03	900.9	636+84'21'	11,620 RT	DH5686 (NEC SO)

NOTE: POINT NO. 907 NOT SHOWN ON PLANS

2

BENCHMARKS AND CONTROL POINTS							
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
101	CP	240,318.91	463,429.00	921.39	647+82'21'	31.8 LT	CUT X CONC S/W
102	CP	240,494.35	463,583.46	914.58	650+12'21'	74.5 LT	5/8IN RB KL CAP
103	CP	240,450.94	463,712.16	913.33	650+87'21'	39.1 RT	5/8IN RB KL CAP
200	BM	240,512.86	463,623.84	911.84	650+55'21'	64.2 LT	CUT SQ NW COR CONC BASE TFSB
901	CP	240,544.31	463,443.58	916.83	228+98'B'	35.5 RT	FENO MON W/ WI DOT CAP
906	HMOD	243,590.95	460,721.87	911.11	646+72'21'	4,277.1 LT	PO0780 (FAA 77C A)

NOTE: POINT NO. 906 NOT SHOWN ON PLANS

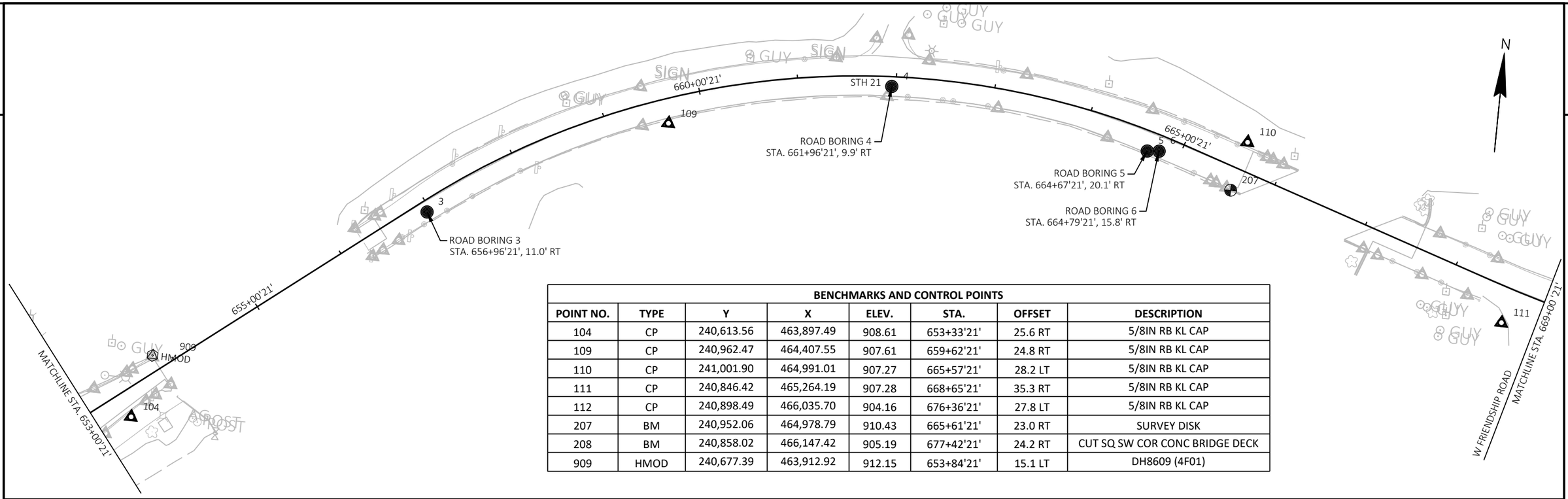
ROAD BORING 2
STA. 650+84'21', 32.9' RT

BORING SUMMARY			
BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-2	0	0	TOPSOIL, GRAVEL, SAND

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 232	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 2:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

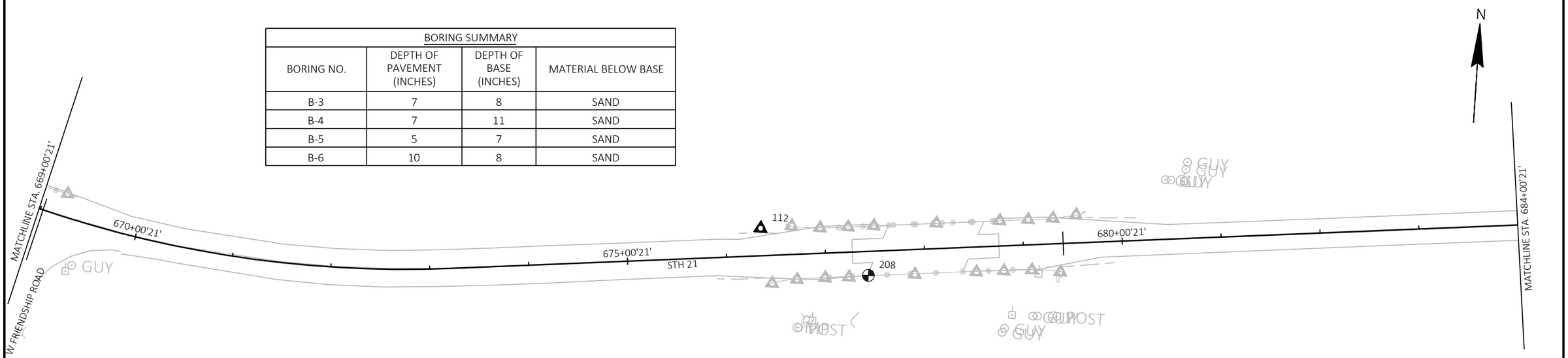


BENCHMARKS AND CONTROL POINTS

POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
104	CP	240,613.56	463,897.49	908.61	653+33'21'	25.6 RT	5/8IN RB KL CAP
109	CP	240,962.47	464,407.55	907.61	659+62'21'	24.8 RT	5/8IN RB KL CAP
110	CP	241,001.90	464,991.01	907.27	665+57'21'	28.2 LT	5/8IN RB KL CAP
111	CP	240,846.42	465,264.19	907.28	668+65'21'	35.3 RT	5/8IN RB KL CAP
112	CP	240,898.49	466,035.70	904.16	676+36'21'	27.8 LT	5/8IN RB KL CAP
207	BM	240,952.06	464,978.79	910.43	665+61'21'	23.0 RT	SURVEY DISK
208	BM	240,858.02	466,147.42	905.19	677+42'21'	24.2 RT	CUT SQ SW COR CONC BRIDGE DECK
909	HMOD	240,677.39	463,912.92	912.15	653+84'21'	15.1 LT	DH8609 (4F01)

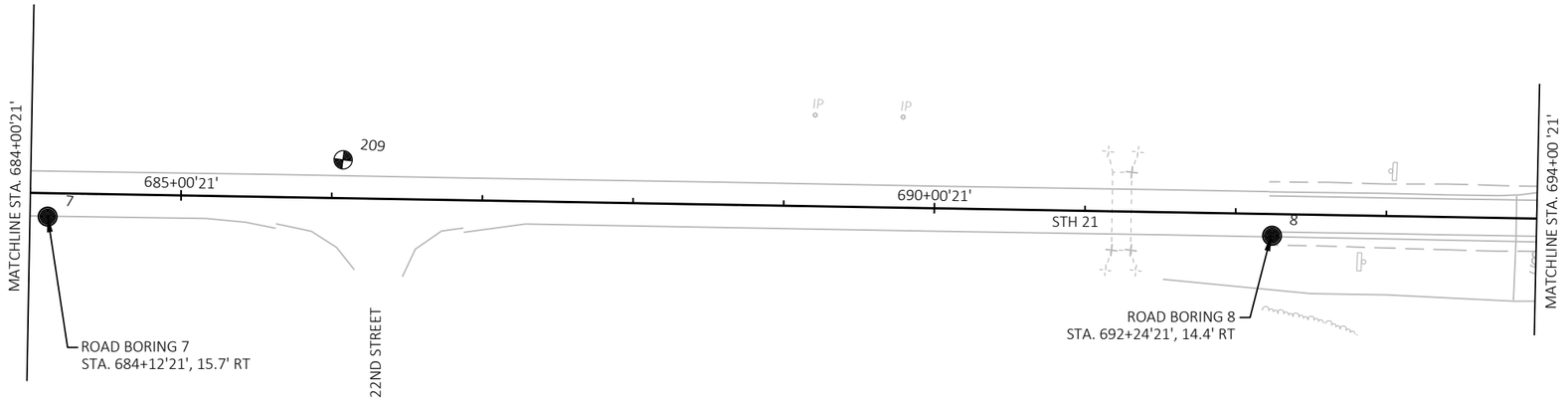
BORING SUMMARY

BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-3	7	8	SAND
B-4	7	11	SAND
B-5	5	7	SAND
B-6	10	8	SAND



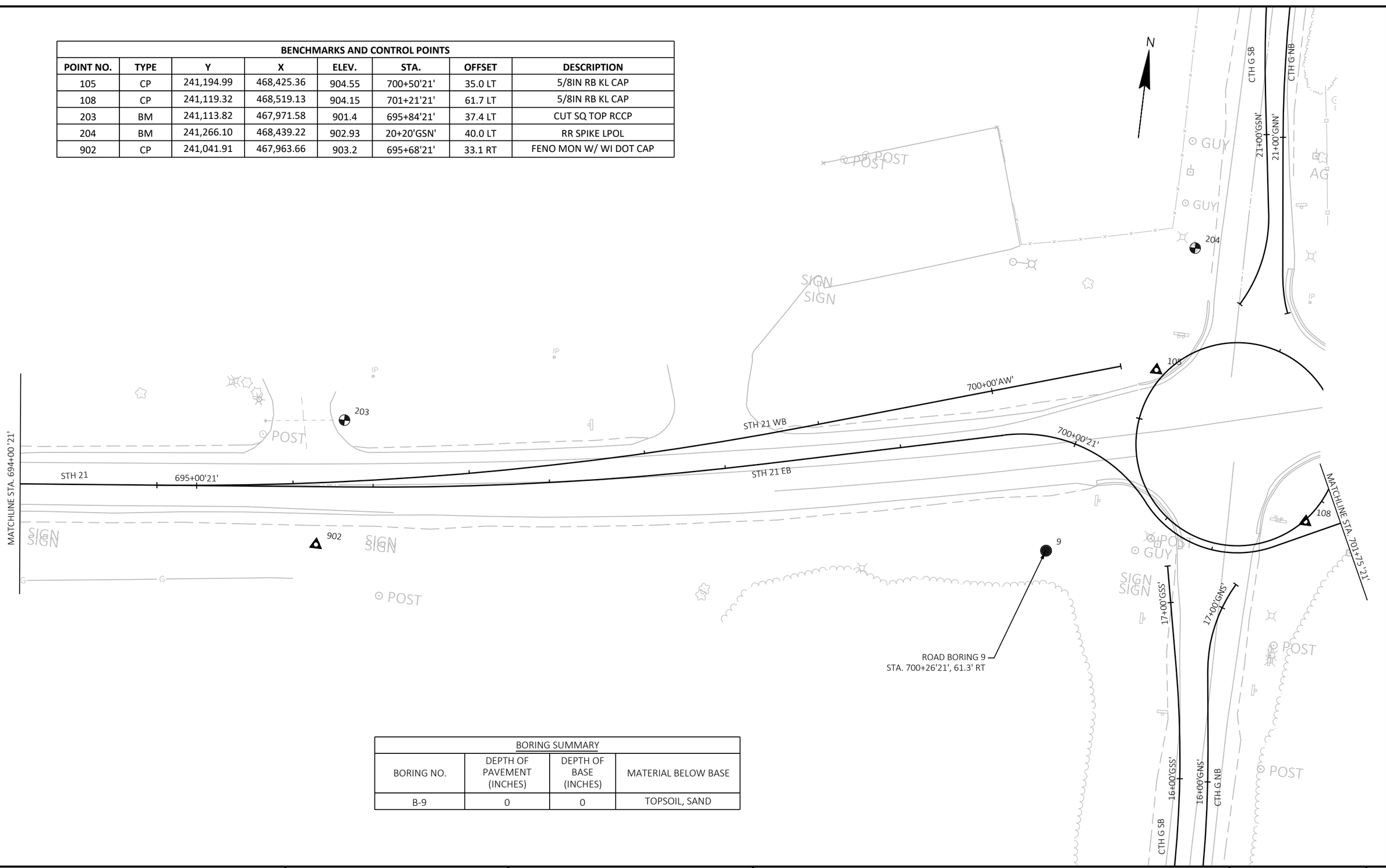
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 233	E

BORING SUMMARY			
BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-7	9.5	10	SAND
B-8	8	8	SAND



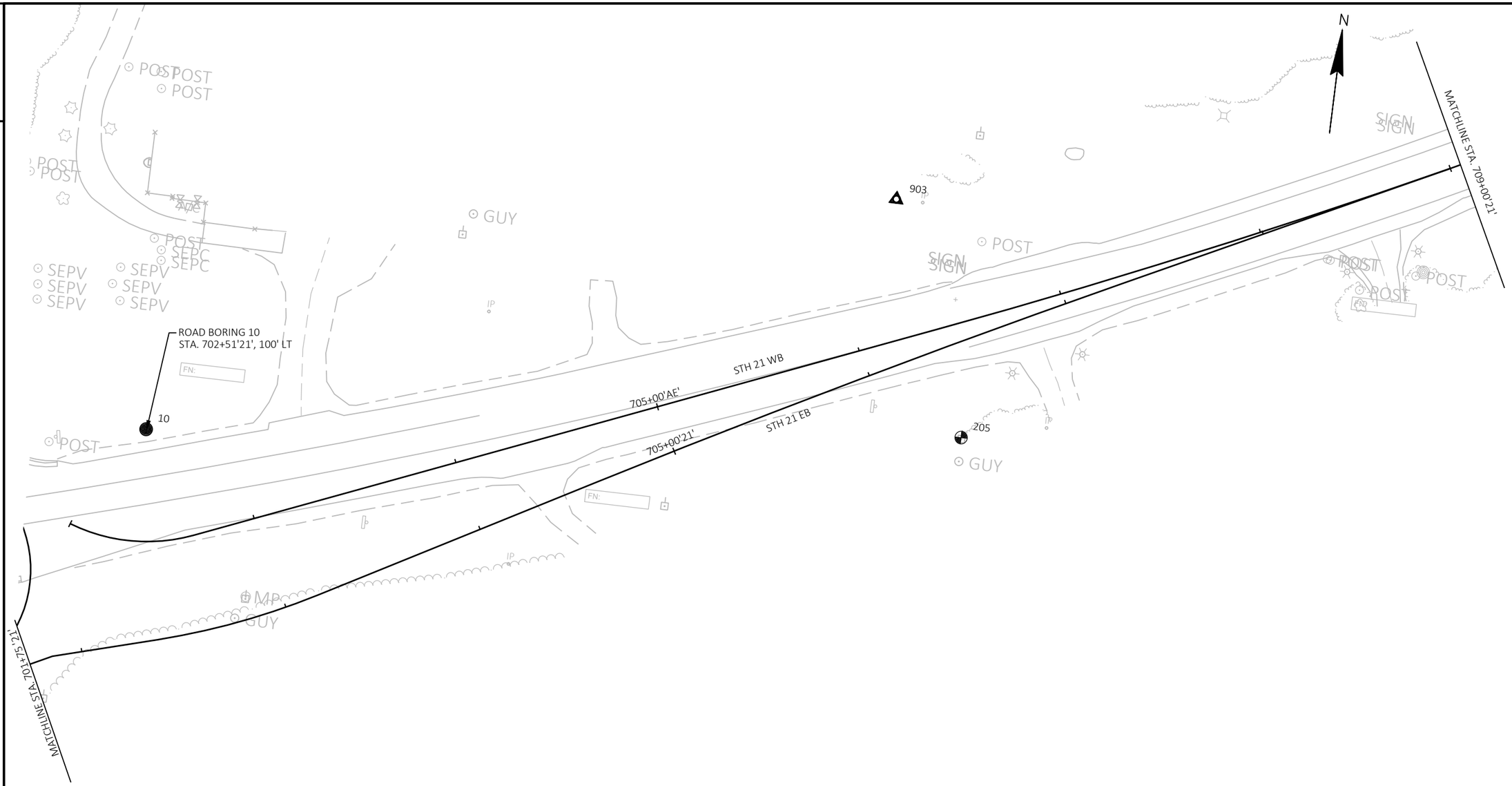
BENCHMARKS AND CONTROL POINTS							
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
209	BM	240,998.50	467,001.96	903.76	686+07'21'	25.4 LT	RR SPIKE LPOL 18-4-18

BENCHMARKS AND CONTROL POINTS							
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
105	CP	241,194.99	468,425.36	904.55	700+50'21'	35.0 LT	5/8IN RB KL CAP
108	CP	241,119.32	468,519.13	904.15	701+21'21'	61.7 LT	5/8IN RB KL CAP
203	BM	241,113.82	467,971.58	901.4	695+84'21'	37.4 LT	CUT SQ TOP RCCP
204	BM	241,266.10	468,439.22	902.93	20+20'GSN'	40.0 LT	RR SPIKE LPOL
902	CP	241,041.91	467,963.66	903.2	695+68'21'	33.1 RT	FENO MON W/ WI DOT CAP



BORING SUMMARY			
BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-9	0	0	TOPSOIL, SAND

2



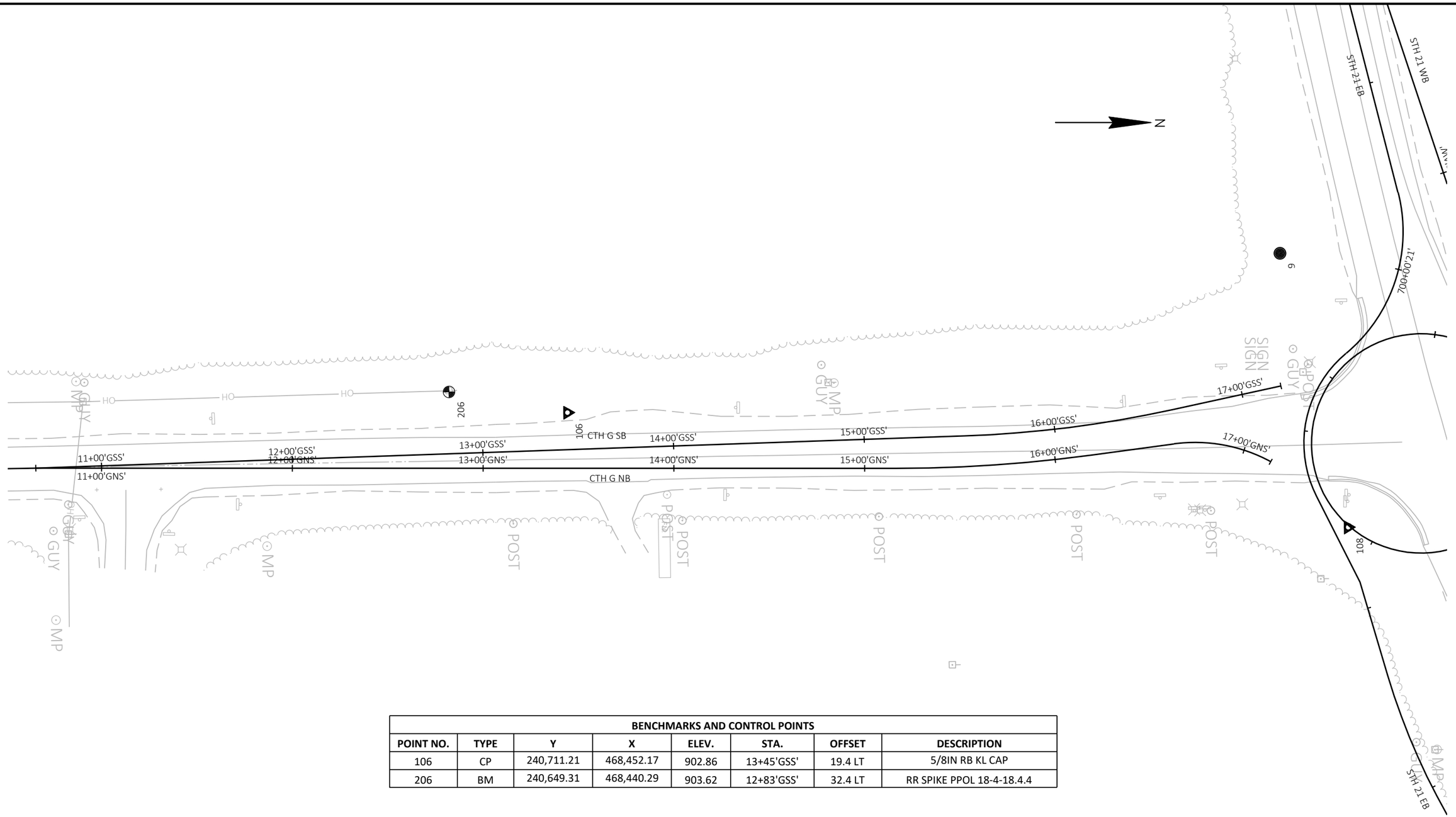
BORING SUMMARY

BORING NO.	DEPTH OF PAVEMENT (INCHES)	DEPTH OF BASE (INCHES)	MATERIAL BELOW BASE
B-10	0	15	SAND

BENCHMARKS AND CONTROL POINTS

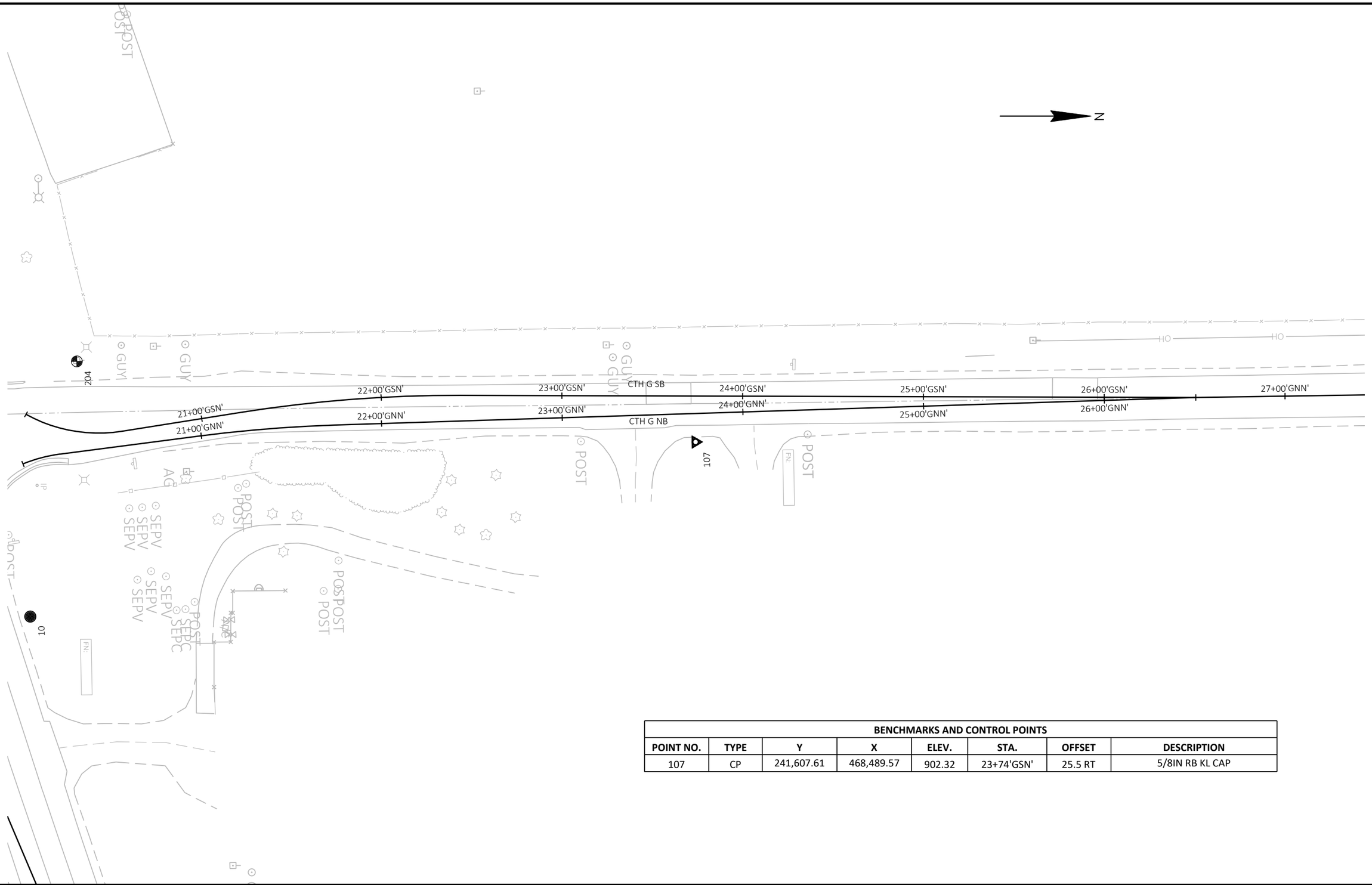
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
205	BM	241,278.80	468,967.34	903.56	705+90'21'	52.9 RT	RR SPIKE PPOL 18-04-17
903	CP	241,388.36	468,923.53	903.8	705+91'21'	65.1 LT	FENO MON W/ WI DOT CAP

2



BENCHMARKS AND CONTROL POINTS							
POINT NO.	**TYPE**	**Y**	**X**	**ELEV.**	**STA.**	**OFFSET**	**DESCRIPTION**
106	CP	240,711.21	468,452.17	902.86	13+45'GSS'	19.4 LT	5/8IN RB KL CAP
206	BM	240,649.31	468,440.29	903.62	12+83'GSS'	32.4 LT	RR SPIKE PPOL 18-4-18.4.4

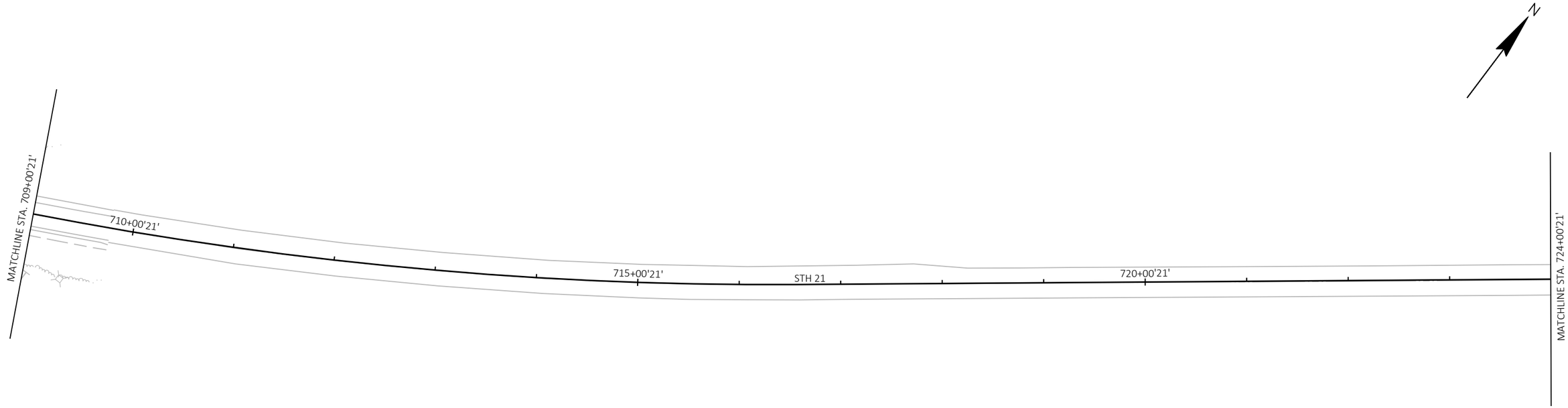
2

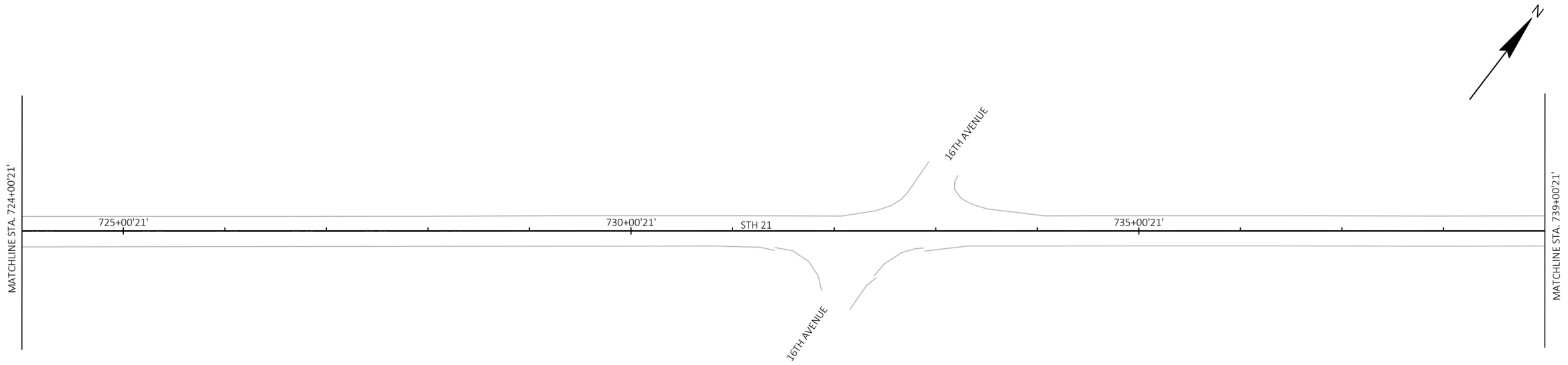


BENCHMARKS AND CONTROL POINTS							
POINT NO.	**TYPE**	**Y**	**X**	**ELEV.**	**STA.**	**OFFSET**	**DESCRIPTION**
107	CP	241,607.61	468,489.57	902.32	23+74'GSN'	25.5 RT	5/8IN RB KL CAP

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 238	E

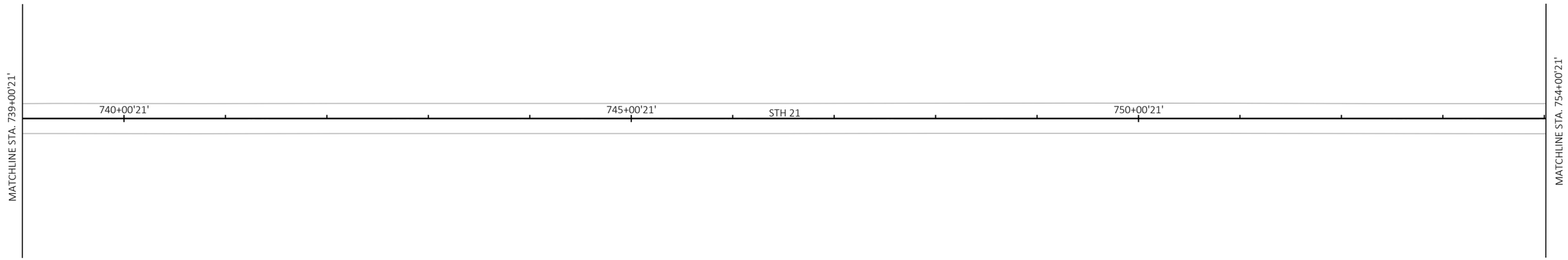
2



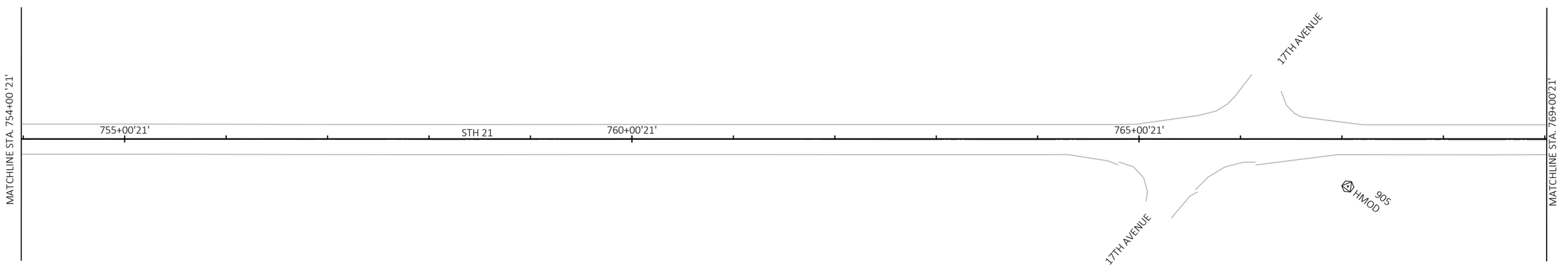


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 239	E

2



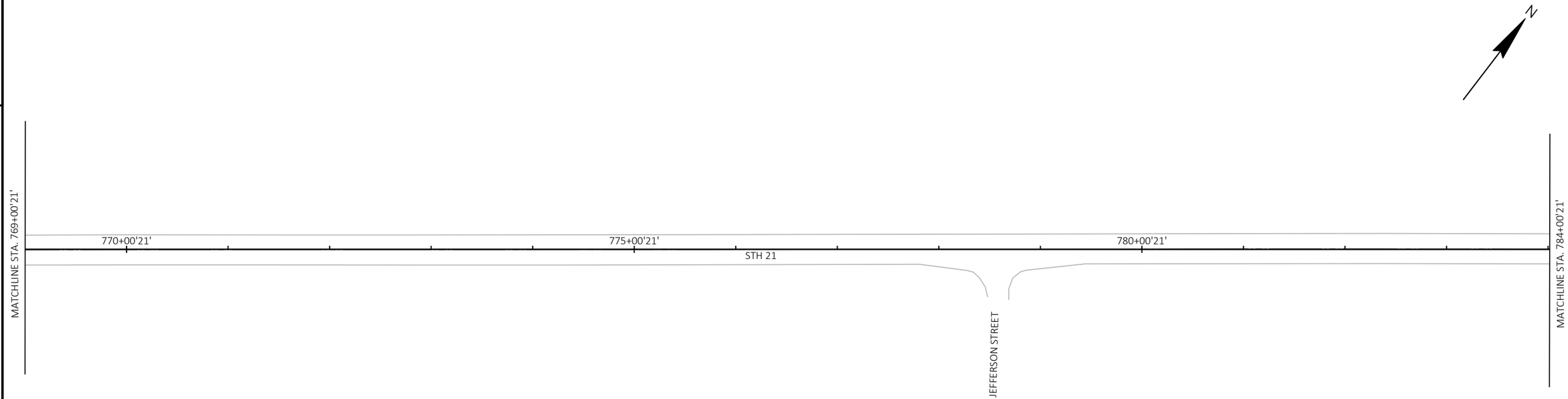
BENCHMARKS AND CONTROL POINTS							
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
905	HMOD	244,860.08	473,873.36	906.91	766+61'21'	46.9 RT	DH8610 (4F02)

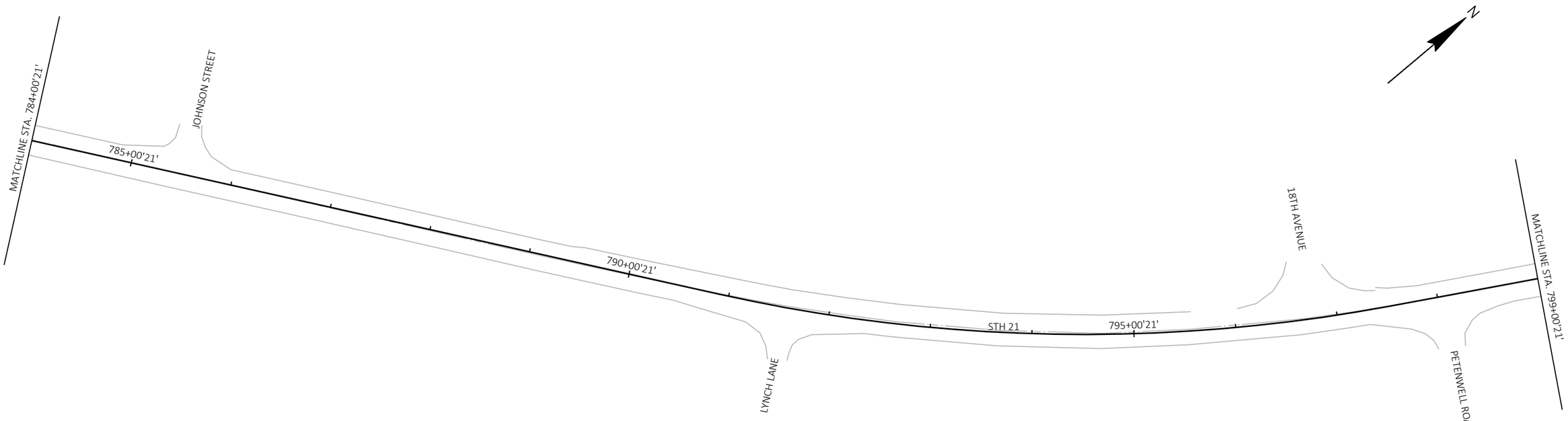


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 240	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - 10
PLOT DATE : 6/25/2024 2:46 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

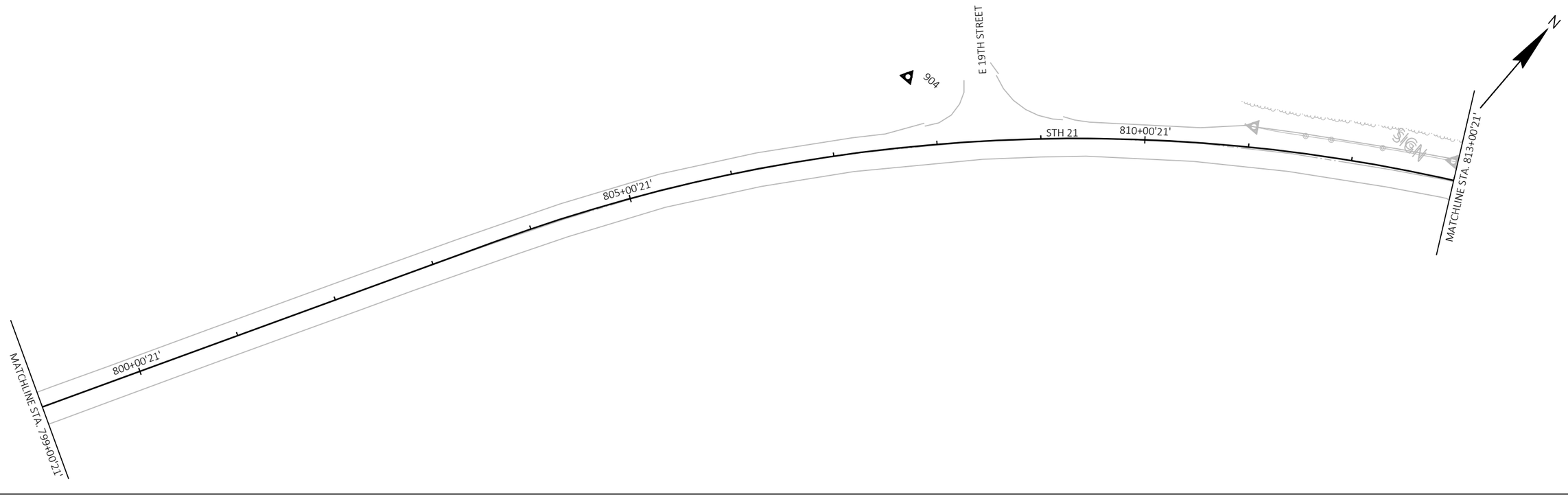
2





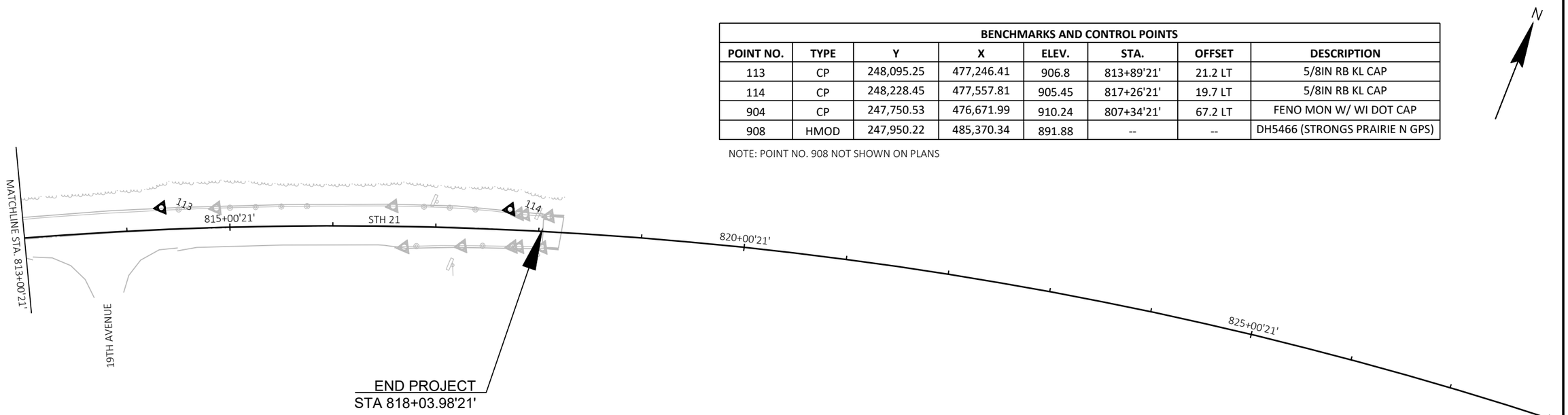
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 241	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - 11
PLOT DATE : 6/25/2024 2:46 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



BENCHMARKS AND CONTROL POINTS							
POINT NO.	TYPE	Y	X	ELEV.	STA.	OFFSET	DESCRIPTION
113	CP	248,095.25	477,246.41	906.8	813+89'21'	21.2 LT	5/8IN RB KL CAP
114	CP	248,228.45	477,557.81	905.45	817+26'21'	19.7 LT	5/8IN RB KL CAP
904	CP	247,750.53	476,671.99	910.24	807+34'21'	67.2 LT	FENO MON W/ WI DOT CAP
908	HMOD	247,950.22	485,370.34	891.88	--	--	DH5466 (STRONGS PRAIRIE N GPS)

NOTE: POINT NO. 908 NOT SHOWN ON PLANS



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	SURVEY CONTROL AND ROADWAY BORINGS	SHEET 242	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\027301-CP.DWG
LAYOUT NAME - 12

PLOT DATE : 6/25/2024 2:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

Estimate Of Quantities

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	10.000	10.000
0004	201.0220	Grubbing	ID	66.000	66.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	204.0100	Removing Concrete Pavement	SY	9,490.000	9,490.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,120.000	2,120.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	59,000.000	59,000.000
0014	204.0150	Removing Curb & Gutter	LF	775.000	775.000
0016	204.0155	Removing Concrete Sidewalk	SY	400.000	400.000
0018	204.0165	Removing Guardrail	LF	2,310.000	2,310.000
0020	204.0170	Removing Fence	LF	25.000	25.000
0022	204.0195	Removing Concrete Bases	EACH	9.000	9.000
0024	204.0220	Removing Inlets	EACH	6.000	6.000
0026	204.0245	Removing Storm Sewer (size) 01. (15-Inch)	LF	72.000	72.000
0028	204.9060.S	Removing (item description) 01. Traffic Signals	EACH	8.000	8.000
0030	205.0100	Excavation Common	CY	13,185.000	13,185.000
0032	208.0100	Borrow	CY	2,652.000	2,652.000
0034	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 6160-00-70	EACH	1.000	1.000
0036	211.0201	Prepare Foundation for Concrete Pavement (project) 01. 6160-00-70	EACH	1.000	1.000
0038	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	24.000	24.000
0040	213.0100	Finishing Roadway (project) 01. 6160-00-70	EACH	1.000	1.000
0042	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,830.000	1,830.000
0044	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	10,950.000	10,950.000
0046	305.0500	Shaping Shoulders	STA	245.000	245.000
0048	405.0100	Coloring Concrete WisDOT Red	CY	270.000	270.000
0050	415.0090	Concrete Pavement 9-Inch	SY	13,500.000	13,500.000
0052	415.0410	Concrete Pavement Approach Slab	SY	42.000	42.000
0054	415.1090	Concrete Pavement HES 9-Inch	SY	2,200.000	2,200.000
0056	415.2010	Concrete Truck Apron 12-inch	SY	785.000	785.000
0058	415.4100	Concrete Pavement Joint Filling	SY	15,860.000	15,860.000
0060	416.0610	Drilled Tie Bars	EACH	44.000	44.000
0062	416.0750.S	Concrete Pavement Partial Depth Repair Joint Repair	LF	260.000	260.000
0064	455.0605	Tack Coat	GAL	10,023.000	10,023.000
0066	460.2000	Incentive Density HMA Pavement	DOL	9,910.000	9,910.000
0068	460.6223	HMA Pavement 3 MT 58-28 S	TON	8,940.000	8,940.000
0070	460.6424	HMA Pavement 4 MT 58-28 H	TON	6,510.000	6,510.000
0072	465.0105	Asphaltic Surface	TON	390.000	390.000
0074	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	90.000	90.000
0076	465.0125	Asphaltic Surface Temporary	TON	990.000	990.000
0078	465.0310	Asphaltic Curb	LF	526.000	526.000
0080	465.0315	Asphaltic Flumes	SY	24.000	24.000
0082	465.0520	Asphaltic Rumble Strips, Shoulder	LF	16,495.000	16,495.000
0084	465.0560	Asphaltic Rumble Strips, Centerline	LF	6,220.000	6,220.000
0086	520.2018	Culvert Pipe Temporary 18-Inch	LF	50.000	50.000
0088	520.3312	Culvert Pipe Class III-A 12-Inch	LF	64.000	64.000
0090	520.3318	Culvert Pipe Class III-A 18-Inch	LF	50.000	50.000
0092	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0094	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	3.000	3.000
0096	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	1.000	1.000
0098	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	10.000	10.000

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0100	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	345.000	345.000
0102	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	44.000	44.000
0104	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	5,450.000	5,450.000
0106	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	39.000	39.000
0108	601.0551	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	LF	1,425.000	1,425.000
0110	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	643.000	643.000
0112	601.0574	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type G	LF	140.000	140.000
0114	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	74.000	74.000
0116	601.0600	Concrete Curb Pedestrian	LF	262.000	262.000
0118	602.0410	Concrete Sidewalk 5-Inch	SF	22,000.000	22,000.000
0120	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	308.000	308.000
0122	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	91.000	91.000
0124	602.0810	Concrete Driveway 6-Inch	SY	193.000	193.000
0126	602.0820	Concrete Driveway 8-Inch	SY	55.000	55.000
0128	602.0860	Concrete Driveway HES 6-Inch	SY	21.000	21.000
0130	602.0870	Concrete Driveway HES 8-Inch	SY	64.000	64.000
0132	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	134.000	134.000
0134	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	122.000	122.000
0136	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	570.000	570.000
0138	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	12.000	12.000
0140	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	254.000	254.000
0142	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	234.000	234.000
0144	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	457.000	457.000
0146	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0148	611.0624	Inlet Covers Type H	EACH	17.000	17.000
0150	611.0627	Inlet Covers Type HM	EACH	11.000	11.000
0152	611.0630	Inlet Covers Type HM-GJ	EACH	3.000	3.000
0154	611.0636	Inlet Covers Type HM-S	EACH	9.000	9.000
0156	611.0639	Inlet Covers Type H-S	EACH	4.000	4.000
0158	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0160	611.0652	Inlet Covers Type T	EACH	4.000	4.000
0162	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0164	611.3004	Inlets 4-FT Diameter	EACH	14.000	14.000
0166	611.3225	Inlets 2x2.5-FT	EACH	4.000	4.000
0168	611.3230	Inlets 2x3-FT	EACH	25.000	25.000
0170	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0172	611.8110	Adjusting Manhole Covers	EACH	9.000	9.000
0174	611.8115	Adjusting Inlet Covers	EACH	18.000	18.000
0176	611.8120.S	Cover Plates Temporary	EACH	13.000	13.000
0178	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	5.000	5.000
0180	614.0400	Adjusting Steel Plate Beam Guard	LF	1,117.000	1,117.000
0182	614.2300	MGS Guardrail 3	LF	443.750	443.750
0184	614.2330	MGS Guardrail 3 K	LF	1,631.250	1,631.250
0186	614.2350	MGS Guardrail Short Radius	LF	183.000	183.000
0188	614.2500	MGS Thrie Beam Transition	LF	198.000	198.000
0190	614.2610	MGS Guardrail Terminal EAT	EACH	5.000	5.000
0192	614.2630	MGS Guardrail Short Radius Terminal	EACH	2.000	2.000
0194	616.0404	Fence Chain Link Salvaged 4-FT	LF	24.000	24.000
0196	616.0700.S	Fence Safety	LF	2,000.000	2,000.000

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0198	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6160-00-70	EACH	1.000	1.000
0200	619.1000	Mobilization	EACH	1.000	1.000
0202	620.0200	Concrete Median Blunt Nose	SF	306.000	306.000
0204	620.0300	Concrete Median Sloped Nose	SF	678.000	678.000
0206	624.0100	Water	MGAL	129.000	129.000
0208	625.0100	Topsoil	SY	5,000.000	5,000.000
0210	625.0500	Salvaged Topsoil	SY	17,860.000	17,860.000
0212	627.0200	Mulching	SY	1,920.000	1,920.000
0214	628.1504	Silt Fence	LF	3,610.000	3,610.000
0216	628.1520	Silt Fence Maintenance	LF	21,390.000	21,390.000
0218	628.1905	Mobilizations Erosion Control	EACH	21.000	21.000
0220	628.1910	Mobilizations Emergency Erosion Control	EACH	10.000	10.000
0222	628.2004	Erosion Mat Class I Type B	SY	18,060.000	18,060.000
0224	628.2027	Erosion Mat Class II Type C	SY	6,000.000	6,000.000
0226	628.7005	Inlet Protection Type A	EACH	90.000	90.000
0228	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0230	628.7015	Inlet Protection Type C	EACH	95.000	95.000
0232	628.7504	Temporary Ditch Checks	LF	480.000	480.000
0234	628.7555	Culvert Pipe Checks	EACH	4.000	4.000
0236	629.0210	Fertilizer Type B	CWT	17.300	17.300
0238	630.0120	Seeding Mixture No. 20	LB	290.000	290.000
0240	630.0140	Seeding Mixture No. 40	LB	196.000	196.000
0242	630.0500	Seed Water	MGAL	3,230.000	3,230.000
0244	633.5200	Markers Culvert End	EACH	10.000	10.000
0246	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	13.000	13.000
0248	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	68.000	68.000
0250	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	35.000	35.000
0252	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	17.000	17.000
0254	637.2210	Signs Type II Reflective H	SF	767.150	767.150
0256	637.2215	Signs Type II Reflective H Folding	SF	20.720	20.720
0258	637.2230	Signs Type II Reflective F	SF	145.880	145.880
0260	638.2102	Moving Signs Type II	EACH	14.000	14.000
0262	638.2602	Removing Signs Type II	EACH	83.000	83.000
0264	638.3000	Removing Small Sign Supports	EACH	80.000	80.000
0266	642.5001	Field Office Type B	EACH	1.000	1.000
0268	643.0300	Traffic Control Drums	DAY	12,400.000	12,400.000
0270	643.0420	Traffic Control Barricades Type III	DAY	4,070.000	4,070.000
0272	643.0705	Traffic Control Warning Lights Type A	DAY	7,410.000	7,410.000
0274	643.0715	Traffic Control Warning Lights Type C	DAY	4,530.000	4,530.000
0276	643.0900	Traffic Control Signs	DAY	17,200.000	17,200.000
0278	643.0920	Traffic Control Covering Signs Type II	EACH	12.000	12.000
0280	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0282	643.3165	Temporary Marking Line Paint 6-Inch	LF	16,470.000	16,470.000
0284	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	8,590.000	8,590.000
0286	643.3265	Temporary Marking Line Paint 10-Inch	LF	612.000	612.000
0288	643.3280	Temporary Marking Line Removable Tape 10-Inch	LF	26.000	26.000
0290	643.3550	Temporary Marking Arrow Removable Tape	EACH	2.000	2.000
0292	643.3820	Temporary Marking Stop Line Epoxy 18-Inch	LF	58.000	58.000
0294	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	138.000	138.000

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0296	643.5000	Traffic Control	EACH	1.000	1.000
0298	644.1440	Temporary Pedestrian Surface Matting	SF	4,500.000	4,500.000
0300	644.1601	Temporary Pedestrian Curb Ramp	DAY	450.000	450.000
0302	644.1605	Temporary Pedestrian Detectable Warning Field	SF	180.000	180.000
0304	644.1810	Temporary Pedestrian Barricade	LF	1,640.000	1,640.000
0306	646.2020	Marking Line Epoxy 6-Inch	LF	1,200.000	1,200.000
0308	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	44,200.000	44,200.000
0310	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	880.000	880.000
0312	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	14,900.000	14,900.000
0314	646.5020	Marking Arrow Epoxy	EACH	7.000	7.000
0316	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000
0318	646.6120	Marking Stop Line Epoxy 18-Inch	LF	220.000	220.000
0320	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	34.000	34.000
0322	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	56.000	56.000
0324	646.7120	Marking Diagonal Epoxy 12-Inch	LF	472.000	472.000
0326	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	907.000	907.000
0328	646.8120	Marking Curb Epoxy	LF	96.000	96.000
0330	646.8220	Marking Island Nose Epoxy	EACH	11.000	11.000
0332	646.9200	Marking Removal Line Wide	LF	130.000	130.000
0334	648.0100	Locating No-Passing Zones	MI	3.199	3.199
0336	650.4000	Construction Staking Storm Sewer	EACH	56.000	56.000
0338	650.4500	Construction Staking Subgrade	LF	4,254.000	4,254.000
0340	650.5000	Construction Staking Base	LF	2,561.000	2,561.000
0342	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,060.000	1,060.000
0344	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0346	650.7000	Construction Staking Concrete Pavement	LF	4,355.000	4,355.000
0348	650.8000	Construction Staking Resurfacing Reference	LF	14,510.000	14,510.000
0350	650.8501	Construction Staking Electrical Installations (project) 01. 6160-00-70	EACH	1.000	1.000
0352	650.9000	Construction Staking Curb Ramps	EACH	30.000	30.000
0354	650.9500	Construction Staking Sidewalk (project) 01. 6160-00-70	EACH	1.000	1.000
0356	650.9911	Construction Staking Supplemental Control (project) 01. 6160-00-70	EACH	1.000	1.000
0358	650.9920	Construction Staking Slope Stakes	LF	6,381.000	6,381.000
0360	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,835.000	2,835.000
0362	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,084.000	1,084.000
0364	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	435.000	435.000
0366	652.0800	Conduit Loop Detector	LF	464.000	464.000
0368	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	26.000	26.000
0370	653.0905	Removing Pull Boxes	EACH	13.000	13.000
0372	654.0101	Concrete Bases Type 1	EACH	8.000	8.000
0374	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0376	654.0105	Concrete Bases Type 5	EACH	19.000	19.000
0378	654.0113	Concrete Bases Type 13	EACH	4.000	4.000
0380	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0382	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0384	655.0210	Cable Traffic Signal 3-14 AWG	LF	120.000	120.000
0386	655.0230	Cable Traffic Signal 5-14 AWG	LF	766.000	766.000
0388	655.0240	Cable Traffic Signal 7-14 AWG	LF	748.000	748.000
0390	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,408.000	1,408.000
0392	655.0305	Cable Type UF 2-12 AWG Grounded	LF	721.000	721.000

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0394	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,304.000	1,304.000
0396	655.0610	Electrical Wire Lighting 12 AWG	LF	3,158.000	3,158.000
0398	655.0615	Electrical Wire Lighting 10 AWG	LF	11,821.000	11,821.000
0400	655.0700	Loop Detector Lead In Cable	LF	3,829.000	3,829.000
0402	655.0800	Loop Detector Wire	LF	1,752.000	1,752.000
0404	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. (STH 80)	EACH	1.000	1.000
0406	656.0201	Electrical Service Meter Breaker Pedestal (location) 02. (CB100)	EACH	1.000	1.000
0408	657.0100	Pedestal Bases	EACH	8.000	8.000
0410	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	20.000	20.000
0412	657.0315	Poles Type 4	EACH	1.000	1.000
0414	657.0322	Poles Type 5-Aluminum	EACH	19.000	19.000
0416	657.0356	Poles Type 12-Over Height	EACH	2.000	2.000
0418	657.0361	Poles Type 13-Over Height	EACH	2.000	2.000
0420	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000
0422	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	3.000	3.000
0424	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	3.000	3.000
0426	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	1.000	1.000
0428	657.0535	Monotube Arms 35-FT	EACH	2.000	2.000
0430	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0432	657.0550	Monotube Arms 50-FT	EACH	1.000	1.000
0434	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	1.000	1.000
0436	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	16.000	16.000
0438	657.0710	Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	EACH	3.000	3.000
0440	657.0815	Luminaire Arms Steel 15-FT	EACH	1.000	1.000
0442	657.0825	Luminaire Arms Steel Type 13 Pole Clamp 15-FT	EACH	2.000	2.000
0444	658.0173	Traffic Signal Face 3S 12-Inch	EACH	12.000	12.000
0446	658.0174	Traffic Signal Face 4S 12-Inch	EACH	8.000	8.000
0448	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000
0450	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0452	658.5070	Signal Mounting Hardware (location) 01. (STH 80)	EACH	1.000	1.000
0454	659.1120	Luminaires Utility LED B	EACH	16.000	16.000
0456	659.1125	Luminaires Utility LED C	EACH	5.000	5.000
0458	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
0460	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	24.000	24.000
0462	661.0201	Temporary Traffic Signals for Intersections (location) 01. (STH 80 & STH 21)	EACH	1.000	1.000
0464	690.0150	Sawing Asphalt	LF	4,300.000	4,300.000
0466	690.0250	Sawing Concrete	LF	2,110.000	2,110.000
0468	740.0440	Incentive IRI Ride	DOL	4,717.000	4,717.000
0470	801.0117	Railroad Flagging Reimbursement	DOL	11,000.000	11,000.000
0472	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,000.000	1,000.000
0474	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	775.000	775.000
0476	SPV.0060	Special 01. Adjusting Water Valve Boxes	EACH	3.000	3.000
0478	SPV.0060	Special 02. Inlet Cover Flat Temporary	EACH	5.000	5.000
0480	SPV.0060	Special 03. Connect Proposed Pipe to Existing Structure	EACH	2.000	2.000
0482	SPV.0085	Special 01. Seeding Low Maintenance Fescue	LB	10.000	10.000
0484	SPV.0090	Special 01. Exclusion Fencing	LF	4,320.000	4,320.000
0486	SPV.0090	Special 02. Concrete Curb & Gutter 2-Inch Sloped 36-Inch Special	LF	275.000	275.000
0488	SPV.0090	Special 03. Install State-Supplied Non-Intrusive Detection Cable	LF	622.000	622.000
0490	SPV.0180	Special 01. Salvage and Reinstall Landscape Stone	SY	100.000	100.000

6160-00-70

Line	Item	Item Description	Unit	Total	Qty
0492	SPV.0180	Special 02. Removing Distressed Pavement Milling	SY	2,000.000	2,000.000
0494	SPV.0195	Special 01. Landscape Stone	TON	30.000	30.000

GRUBBING

PROJECT	CATEGORY		LOCATION	STATION - STATION	LT/RT	201.0205 GRUBBING STA	201.0220 GRUBBING ID
6160-00-70							
	0010						
		STAGE 3					
			STH 80 NORTH	229+31 'B'	RT	-	10
			STH 80 NORTH	230+11 'B'	RT	-	6
			STAGE 3 SUBTOTAL			0	16
				CAT 0010 TOTAL		0	16
	0020						
		STAGE 1					
			RAB WEST LEG	698+00 - 701+00 '21'	RT	3	10
			RAB EAST LEG	701+00 - 705+00 '21'	RT	4	-
			CTH G SOUTH	13+00 - 16+00 'GNS'	RT	3	-
			STAGE 1 SUBTOTAL			10	10
		STAGE 2					
			CTH G NORTH	20+00 - 21+00 'GNN'	LT	-	36
			CTH G NORTH	20+00 - 21+00 'GNN'	RT	-	4
			STAGE 2 SUBTOTAL			0	40
				CAT 0020 TOTAL		10	50
PROJECT 6160-00-70 TOTAL						**10**	**66**

REMOVING SMALL PIPE CULVERTS

PROJECT	CATEGORY		LOCATION	STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH
6160-00-70						
	0020					
		STAGE 2				
			RAB	695+61'21'	37.5'LT	1
			STAGE 2 SUBTOTAL			1
					CAT 0020 TOT	1
PROJECT 6160-00-70 TOTAL						**1**

REMOVING CONCRETE SIDEWALK

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0155 REMOVING CONCRETE SIDEWALK SY
6160-00-70					
	0010				
		STAGE 1			
			STH 80 INTERSECTION	650+00 - 651+00 '21'	62
			STAGE 1 SUBTOTAL		62
		STAGE 2			
			SHERIDAN ST	642+99 - 645+00 '21'	32
			HIGH ST	645+00 - 647+00 '21'	63
			CENTER ST	646+00 - 649+00 '21'	85
			STH 80 INTERSECTION	649+00 - 650+00 '21'	73
			STAGE 2 SUBTOTAL		253
		STAGE 3			
			STH 80 INTERSECTION	650+00 - 651+00 '21'	57
			RR CROSSING	651+00 - 653+00 '21'	28
			STAGE 3 SUBTOTAL		85
				CAT 0010 TOTAL	400
PROJECT 6160-00-70 TOTAL					**400**

REMOVING CONCRETE PAVEMENT

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0100 REMOVING CONCRETE PAVEMENT SY
6160-00-70					
	0010				
		STAGE 2			
			SHERIDAN ST - STH 80	642+99 - 649+85 '21'	5,910
			STAGE 2 SUBTOTAL		5,910
		STAGE 3			
			STH 80 - B-29-006	649+85 - 653+84 '21'	3,580
			STAGE 3 SUBTOTAL		3,580
				CAT 0010 TOTAL	9,490
PROJECT 6160-00-70 TOTAL					**9,490**

REMOVING ASPHALTIC SURFACE

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0115 BUTT JOINTS (SY)	204.0120 MILLING (SY)	NOTES
6160-00-70							
	0010						
		STAGE 2					
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	174	-
			STAGE 2 SUBTOTAL		0	174	
		STAGE 3					
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	83	-
			BOP - B-29-006	642+99 - 653+84 '21'	-	295	-
			B-29-006 - B-29-136	656+47 - 665+67 '21'	440	3,870	-
			B-29-136 - B-29-100	667+57 - 677+27 '21'	677	4,695	-
			B-29-100 - C-29-015	678+75 - 691+18 '21'	332	5,748	-
			C-29-015 - RAB	691+31 - 694+18 '21'	-	-	-
			RAB - 16TH AVE	708+95 - 732+63 '21'	95	8,894	-
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	81	11,896	-
			17TH AVE - EOP	765+84 - 818+04 '21'	495	20,044	-
			STAGE 3 SUBTOTAL		2,120	55,526	
			UNDISTRIBUTED		-	3,300	FOR REMOVAL OF SAFETY WEDGE
			CAT 0010 TOTAL		2,120	59,000	
PROJECT 6160-00-70 TOTAL					**2,120**	**59,000**	

REMOVING GUARDRAIL AND FENCE

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF
6160-00-70						
	0010					
		STAGE 3				
			RR CROSSING - B-29-006	652+32 - 653+84 '21'	162	25
			B-29-006 - B-29-136	656+47 - 665+67 '21'	1,873	-
			B-29-100	674+85 - 681+40 '21'	275	-
			STAGE 3 SUBTOTAL		2,310	25
			CAT 0010 TOTAL		2,310	25
PROJECT 6160-00-70 TOTAL					**2,310**	**25**

REMOVING CURB AND GUTTER

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0150 REMOVING CURB AND GUTTER LF
6160-00-70					
	0010				
		STAGE 1			
			STH 80 INTERSECTION	650+00 - 651+00 '21'	162
			STH 80 NORTH	227+00'B' - 230+96'B'	333
			STAGE 1 SUBTOTAL		495
			CAT 0010 TOTAL		495
	0020				
		STAGE 1			
			RAB	700+00 - 702+00 '21'	138
			STAGE 1 SUBTOTAL		138
		STAGE 2			
			RAB	700+00 - 702+00 '21'	142
			STAGE 2 SUBTOTAL		142
			CAT 0020 TOTAL		280
PROJECT 6160-00-70 TOTAL					**775**

3

BASE AGGREGATE DENSE

PROJECT	CATEGORY		LOCATION	STATION - STATION	305.0110 3/4-INCH TON	**305.0120 1 1/4-INCH TON	305.0500 SHAPING SHOULDER STA	**624.0100 WATER MGAL	NOTES
6160-00-70									
	0010								
		STAGE 2							
			STH 80 NORTH LEG	227+61 - 229+87 'B'	22	21	-	0.4	-
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	-	-	0.0	
			BOP - HIGH STREET	642+99 - 646+08 '21'	14	16	-	0.3	
			HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	39	18	-	0.6	
			CENTER STREET - STH 80	647+98 - 649+84 '21'	69	29	-	1.0	
			STAGE 2 SUBTOTAL		144	84	0	2.3	
		STAGE 3							
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	6	-	0.1	
			STH 80 - B-29-006	649+84 - 653+84 '21'	130	90	-	2.2	-
			B-29-006 - B-29-136	656+47 - 665+67 '21'	192	392	-	5.8	-
			B-29-136 - B-29-100	667+57 - 677+27 '21'	100	175	11	2.8	-
			B-29-100 - C-29-015	678+75 - 691+18 '21'	162	293	15	4.6	-
			C-29-015 - RAB	691+31 - 694+18 '21'	60	114	-	1.7	-
			RAB - 16TH AVE	708+95 - 732+63 '21'	-	-	47	0.0	-
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	-	-	67	0.0	-
			17TH AVE - EOP	765+84 - 818+04 '21'	-	-	105	0.0	-
			STAGE 3 SUBTOTAL		644	1,063	245	17.1	
			UNDISTRIBUTED		14	425	-	4.6	FOR USE IN SHAPING SHOULDERS AND CONCRETE REPLACEMENT AREAS
			CAT 0010 TOTAL		802	1,572	245	24.0	
	0020								
		STAGE 1							
			RAB WEST LEG	694+18 - 700+53 '21'	56	873	-	9.3	-
			RAB EAST LEG	700+53 - 708+95 '21'	85	1,240	-	13.2	
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	223	1,602	-	18.2	
			STAGE 1 SUBTOTAL		363	3,715	0	40.7	
		STAGE 2							
			RAB WEST LEG	694+18 - 700+53 '21'	90	1,054	-	11.4	-
			RAB EAST LEG	700+53 - 708+95 '21'	51	955	-	10.1	
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	205	1,634	-	18.4	
			STAGE 2 SUBTOTAL		346	3,643	0	39.9	
		STAGE 3							
			RAB WEST LEG	694+18 - 700+53 '21'	91	-	-	0.9	-
			RAB EAST LEG	700+53 - 708+95 '21'	227	-	-	2.5	
			STAGE 3 SUBTOTAL		318	0	0	3.4	
			CAT 0020 TOTAL		1,028	7,358	0	84.0	
PROJECT 6160-00-70 TOTAL					**1,830**	**8,930**	**245**	**108.0**	

** ADDITIONAL QUANTITIES FOUND IN "TEMPORARY ASPHALT ITEMS"

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	205.0500 MARSH EXCAVATION (6)	205.0200 ROCK EXCAVATION (7)	REDUCED MARSH IN FILL (8) FACTOR 0.60	REDUCED EBS IN FILL (9) FACTOR 0.80	EXPANDED MARSH BACKFILL (10) FACTOR 1.50	EXPANDED EBS BACKFILL (11) FACTOR 1.30	EXPANDED ROCK (12) FACTOR 1.10	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.25	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1																			
EW-BETWEENBRIDGES	656+50/665+50	'21'	1,399	0	0	1,399	0	0	0	0	0	0	0	454	568	832	832	0	
EW-BOXCULVERT	688+65.75/693+81.782	'21'	301	0	0	301	0	0	0	0	0	0	0	251	314	-13	0	13	
EW-FLOWAGEBRIDGE	674+85.48/681+34.364	'21'	434	0	0	434	0	0	0	0	0	0	0	345	431	3	3	0	
EW-SIDEWALKEXTENSION	651+71.557/653+80	'21'	395	0	0	395	0	0	0	0	0	0	0	48	60	335	335	0	
EW-STH80TEMPWIDENINGNB	228+00/231+00	'B'	142	0	0	142	0	0	0	0	0	0	0	0	0	142	142	0	
EW-STH80TEMPWIDENINGSB	228+00/231+00	'B'	91	0	0	91	0	0	0	0	0	0	0	0	0	91	91	0	
DIVISION 1 SUBTOTAL			2,762	0	0	2,762	0	0	0	0	0	0	0	1,098	1,373	1,390	1,402	13	
DIVISION 2																			
EW-PRESTAGE-21	691+50/709+50	'21'	627	0	0	627	0	0	0	0	0	0	0	875	1,094	-467	0	467	
EW-PRESTAGE-CTHGNB-NORTH	21+00/26+00	'GNN'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-PRESTAGE-CTHGNB-SOUTH	11+00/16+50	'GNS'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-PRESTAGE-RAB	10+00/13+61.287	'GC'	65	0	0	65	0	0	0	0	0	0	0	29	36	29	29	0	
EW-RABSTAGE1-21	691+50/709+50	'21'	4,825	0	0	4,825	0	0	0	0	0	0	0	682	853	3,973	3,973	0	
EW-RABSTAGE1-CTHGNB-NORTH	21+00/26+00	'GNN'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-RABSTAGE1-CTHGNB-SOUTH	11+00/16+50	'GNS'	1,225	0	0	1,225	0	0	0	0	0	0	0	406	508	718	718	0	
EW-RABSTAGE1-RAB	10+00/13+61.287	'GC'	491	0	0	491	0	0	0	0	0	0	0	1,027	1,284	-793	0	793	
EW-RABSTAGE2-21	691+50/709+50	'21'	1,569	0	0	1,569	0	0	0	0	0	0	0	800	1,000	569	569	0	
EW-RABSTAGE2-CTHGNB-NORTH	21+00/26+00	'GNN'	1,209	0	0	1,209	0	0	0	0	0	0	0	199	249	960	960	0	
EW-RABSTAGE2-CTHGNB-SOUTH	11+00/16+50	'GNS'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-RABSTAGE2-RAB	10+00/13+61.287	'GC'	64	0	0	64	0	0	0	0	0	0	0	560	700	-636	0	636	
EW-RABSTAGE3-21	691+50/709+50	'21'	207	0	0	207	0	0	0	0	0	0	0	640	800	-593	0	593	
EW-RABSTAGE3-CTHGNB-NORTH	21+00/26+00	'GNN'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-RABSTAGE3-CTHGNB-SOUTH	11+00/16+50	'GNS'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
EW-RABSTAGE3-RAB	10+00/13+61.287	'GC	141	0	0	141	0	0	0	0	0	0	0	233	291	-150	0	150	
DIVISION 2 SUBTOTAL			10,423	0	0	10,423	0	0	0	0	0	0	0	5,451	6,814	3,609	6,248	2,639	
GRAND TOTAL			13,185	0	0	13,185	0	0	0	0	0	0	0	6,549	8,186	4,999	7,650	2,652	
TOTAL COMMON EXC			13,185																

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(6) MARSH EXCAVATION - TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL. ITEM NUMBER 205.0500

(7) ROCK EXCAVATION ITEM NUMBER 205.0200

(8) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = X.1X

(9) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = X.2X

(10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. MARSH BACKFILL FACTOR = X.3X. ITEM NUMBER 208.1100

(11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = X.4X. ITEM NUMBER 208.1100

(12) EXPANDED ROCK FACTOR = X.5X

(13) EXPANDED FILL FACTOR = X.6X

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

3

CONCRETE ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	405.0100 COLORING CONCRETE WISDOT RED CY	415.0090 CONCRETE PAVEMENT 9-INCH SY	415.1090 CONCRETE PAVEMENT HES 9-INCH SY	415.2010 CONCRETE TRUCK APRON 12-INCH SY	415.4100 CONCRETE PAVEMENT JOINT FILLING SY	416.0610 DRILLED TIE BARS EACH	602.0810 CONCRETE DRIVEWAY 6-INCH SY	602.0820 CONCRETE DRIVEWAY 8-INCH SY	602.0860 CONCRETE DRIVEWAY HES 6-INCH SY	602.0870 CONCRETE DRIVEWAY HES 8-INCH SY
6160-00-70													
	0010												
	STAGE 2												
		STH 80 NORTH LEG	227+61 - 229+87 'B'	-	889	-	-	870	10	36	-	-	-
		STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	494	-	-	351	11	-	-	-	-
		BOP - HIGH STREET	642+99 - 646+08 '21'	-	1,539	-	-	1,747	-	48	-	-	-
		HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	-	1,011	-	-	1,130	-	17	55	21	14
		CENTER STREET - STH 80	647+98 - 649+84 '21'	25	1,181	-	69	1,784	-	40	-	-	-
		STAGE 2 SUBTOTAL		25	5,114	0	69	5,882	21	142	55	21	14
	STAGE 3												
		STH 80 NORTH LEG	227+61 - 229+87 'B'	-	649	-	-	541	4	36	-	-	-
		STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	816	-	-	416	19	-	-	-	-
		STH 80 - B-29-006	649+84 - 653+84 '21'	-	1,364	-	-	2,211	-	15	-	-	-
		STAGE 3 SUBTOTAL		0	2,828	0	0	3,168	23	51	0	0	0
			UNDISTRIBUTED	0	0	2,200	0	0	0	0	0	0	50
			CAT 0010 TOTAL	25	7,942	2,200	69	9,050	44	193	55	21	64
	0020												
	STAGE 1												
		RAB WEST LEG	694+18 - 700+53 '21'	28	720	-	79	1,178	-	-	-	-	-
		RAB EAST LEG	700+53 - 708+95 '21'	-	936	-	-	1,382	-	-	-	-	-
		CTH G SOUTH LEG	10+50 - 17+15 'GNS'	-	1,216	-	-	939	-	-	-	-	-
		STAGE 1 SUBTOTAL		28	2,872	0	79	3,499	0	0	0	0	0
	STAGE 2												
		RAB WEST LEG	694+18 - 700+53 '21'	-	556	-	-	937	-	-	-	-	-
		RAB EAST LEG	700+53 - 708+95 '21'	23	925	-	62	1,414	-	-	-	-	-
		CTH G NORTH LEG	20+00 - 26+51 'GNN'	-	1,205	-	-	961	-	-	-	-	-
		STAGE 2 SUBTOTAL		23	2,686	0	62	3,312	0	0	0	0	0
	STAGE 3												
		RAB	10+00 - 13+61 'GC'	193	-	-	574	-	-	-	-	-	-
		STAGE 3 SUBTOTAL		193	0	0	574	0	0	0	0	0	0
			CAT 0020 TOTAL	245	5,558	0	716	6,810	0	0	0	0	0
PROJECT 6160-00-70 TOTAL				**270**	**13,500**	**2,200**	**785**	**15,860**	**44**	**193**	**55**	**21**	**64**

CONCRETE PAVEMENT APPROACH SLAB

PROJECT	CATEGORY		LOCATION	STATION - STATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0750.S CONCRETE PAVEMENT PARTIAL DEPTH REPAIR JOINT REPAIR LF
6160-00-70						
	0010					
		STAGE 3				
			B-29-006	653+69 - 653+84 '21'	42	-
			B-29-006	656+25 - 656+47 '21'	-	20
			B-29-136	665+56 - 666+16 '21'	-	75
			B-29-136	666+86 - 667+57 '21'	-	100
			B-29-100	667+28 - 677+59 '21'	-	30
			B-29-100	678+44 - 678+75 '21'	-	35
			STAGE 3 SUBTOTAL		42	260
				CAT 0010 TOTAL	42	260
PROJECT 6160-00-70 TOTAL					**42**	**260**

HMA PAVEMENT

PROJECT	CATEGORY		LOCATION	STATION - STATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS (STA)	*455.0605 TACK COAT (GAL)	460.6223 3 MT 58-28 S (TON)	460.6424 4 MT 58-28 H (TON)
6160-00-70								
	0010							
		STAGE 2						
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	38	50	26
			STAGE 2 SUBTOTAL		0	38	50	26
		STAGE 3						
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	19	25	13
			STH 80 - B-29-006	649+84 - 653+84 '21'	-	46	42	32
			B-29-006 - B-29-136	656+47 - 665+67 '21'	10	543	489	380
			B-29-136 - B-29-100	667+57 - 677+27 '21'	4	624	562	437
			B-29-100 - C-29-015	678+75 - 691+18 '21'	7	661	595	463
			C-29-015 - RAB	691+31 - 694+18 '21'	3	138	124	97
			RAB - 16TH AVE	708+95 - 732+63 '21'	-	1,177	1,060	824
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	-	1,645	1,486	1,152
			17TH AVE - EOP	765+84 - 818+04 '21'	-	2,809	2,528	1,966
			STAGE 3 SUBTOTAL		24	7,663	6,910	5,364
				CAT 0010 TOTAL	24	7,700	6,960	5,390
	0020							
		STAGE 1						
			RAB WEST	694+18 - 700+53 '21'	-	97	205	68
			RAB EAST	700+53 - 708+95 '21'	-	150	315	107
			CTH G	10+66 - 17+15 'GNS'	-	252	227	177
			STAGE 1 SUBTOTAL		0	500	747	353
		STAGE 2						
			RAB WEST	694+18 - 700+53 '21'	-	133	279	93
			RAB EAST	700+53 - 708+95 '21'	-	78	164	55
			CTH G	20+00 - 26+51 'GNN'	-	254	230	179
			STAGE 2 SUBTOTAL		0	465	673	327
				CAT 0020 TOTAL	0	965	1,420	680
	0040							
		STAGE 3						
			B-29-100 - C-29-015	678+75 - 691+18 '21'	-	67	60	45
			C-29-015 - RAB	691+31 - 694+18 '21'	-	17	15	13
			RAB - 16TH AVE	708+95 - 732+63 '21'	-	114	102	82
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	-	212	191	150
			17TH AVE - EOP	765+84 - 818+04 '21'	-	215	191	151
			STAGE 1 SUBTOTAL		0	625	560	440
				CAT 0040 SUBTOTAL	0	625	560	440
PROJECT 6160-00-70 TOTAL					**24**	**9,290**	**8,940**	**6,510**

*ADDITIONAL QUANTITY FOUND IN "TEMPORARY ASPHALT ITEMS" & "REMOVING DISTRESS PAVEMENT MILLING"

3

ASPHALT ITEMS

PROJECT	CATEGORY		LOCATION	STATION - STATION	**465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY
6160-00-70							
	0010						
		STAGE 2					
			BOP - HIGH ST	642+99 - 646+08 '21'	10	-	-
			HIGH ST - CENTER ST	646+08 - 647+98 '21'	6	-	-
			CENTER ST - STH 80	647+98 - 649+84 '21'	10	4	-
			STH 80 SOUTH	224+88'B' - 227+00'B'	9	-	-
			STAGE 2 SUBTOTAL		35	4	0
		STAGE 3					
			STH 80 - B-29-006	651+50 - 653+00 '21'	-	36	-
			STAGE 3 SUBTOTAL		0	36	0
				CAT 0010 TOTAL	35	40	0
	0020						
		STAGE 1					
			CTH G SOUTH	15+50'B' - 16+00'B'	-	-	6
			STAGE 1 SUBTOTAL		0	0	6
		STAGE 2					
			RAB WEST	695+25 - 699+00 '21'	-	35	9
			CTH G NORTH	21+25'B' - 21+75'B'	-	-	9
			RAB EAST	703+41 '21'	-	8	-
			RAB EAST	704+89 '21'	-	7	-
			RAB EAST	705+93 - 707+94	15	-	-
			STAGE 2 SUBTOTAL		15	50	18
				CAT 0020 TOTAL	15	50	24
PROJECT 6160-00-70 TOTAL					**50**	**90**	**24**

**ADDITIONAL QUANTITY FOUND IN "REMOVING DISTRESS PAVEMENT MILLING"

TEMPORARY ASPHALT ITEMS

PROJECT	CATEGORY		LOCATION	STATION - STATION	**305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	*455.0605 TACK COAT (GAL)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	465.0310 ASPHALTIC CURB (LF)	520.2018 CULVERT PIPE TEMPORARY 18-INCH (LF)	**624.0100 WATER (MGAL)
6160-00-70										
	0010									
		STAGE 1								
			STH 80 INTERSECTION	650+00 - 651+00 '21'	166	50	78	292	-	1.8
			STAGE 1 SUBTOTAL		166	50	78	292	0	1.8
		STAGE 2								
			STH 80 NORTH	228+00'B' - 230+00'B'	124	20	29	234	-	1.2
			STAGE 2 SUBTOTAL		124	20	29	234	0	1.2
			CAT 0010 TOTAL		290	70	107	526	0	3.0
	0020									
		PRE STAGE								
			RAB	694+18 - 708+95 '21'	1,159	226	383	-	50	12.0
			PRE STAGE SUBTOTAL		1,159	226	383	0	50	12.0
		STAGE 1								
			RAB SOUTH	694+18 - 708+95 '21'	571	290	487	-	-	6.0
			STAGE 1 SUBTOTAL		571	290	487	0	0	6.0
		STAGE 2								
			RAB NORTH	694+18 - 708+95 '21'	-	7	13		-	0.0
			STAGE 2 SUBTOTAL		0	7	13	0		0.0
			CAT 0020 TOTAL		1,730	523	883	0	50	18.0
PROJECT 6160-00-70 TOTAL					**2,020**	**593**	**990**	**526**	**50**	**21.0**

* ADDITIONAL QUANTITIES FOUND IN "REMOVING DISTRESS PAVEMENT MILLING" & "HMA PAVEMENT"
** ADDITIONAL QUANTITIES FOUND IN "BASE AGGREGATE DENSE"

CULVERT PIPE

PROJECT	CATEGORY		LOCATION	STATION - STATION	520.3312 CULVERT PIPE CLASS III-A 12-INCH LF	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	**522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH LF	**522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH LF
6160-00-70								
	0020							
		STAGE 2						
			RAB	695+59 '21' LT	-	50	-	2
			RAB	697+98 '21' LT	64	-	2	-
			STAGE 2 SUBTOTAL		64	50	2	2
			CAT 0020 TOTAL		64	50	2	2
PROJECT 6160-00-70 TOTAL					**64**	**50**	**2**	**2**

**ADDITIONAL QUANTITIES FOUND ON 'STORM SEWER STRUCTURES'

RUMBLE STRIPS

PROJECT	CATEGORY		LOCATION	STATION - STATION	465.0520 ASPHALTIC RUMBLE STRIPS, SHOULDER LF	465.0560 ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
6160-00-70						
	0040					
		STAGE 3				
			RAB - 16TH AVE	708+95 - 732+63 '21'	2,214	1,004
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	6,060	2,815
			17TH AVE - EOP	765+84 - 818+04 '21'	8,221	2,401
			STAGE 1 SUBTOTAL		16,495	6,220
			CAT 0040 SUBTOTAL		16,495	6,220
PROJECT 6160-00-70 TOTAL					**16,495**	**6,220**

CONCRETE CURB AND GUTTER

PROJECT	CATEGORY		LOCATION	STATION - STATION	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	601.0574 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE G LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	SPV.0090.02 CONCRETE CURB & GUTTER 2-INCH SLOPED 36-INCH SPECIAL LF	601.0600 CONCRETE CURB PEDESTRIAN LF
6160-00-70														
	0010													
		STAGE 2												
			BOP - HIGH ST	642+99 - 646+08 '21'	-	-	641	-	-	-	-	-	-	-
			HIGHT ST - CENTER ST	646+08 - 647+98 '21'	-	-	401	-	-	-	-	-	-	-
			CENTER ST - STH 80	647+98 - 649+85 '21'	-	-	263	-	-	-	-	-	-	17
			STH 80 INTERSECTION	649+00 - 650+00 '21'	-	-	59	-	-	-	-	-	-	51
			STH 80 SOUTH	225+14'B' - 227+00'B'	-	-	119	-	-	-	-	-	-	-
			STAGE 2 SUBTOTAL		0	0	1,483	0	0	0	0	0	0	68
		STAGE 3												
			STH 80 INTERSECTION	650+00 - 651+00 '21'	-	-	150	-	-	-	112	-	-	44
			STH 80 NORTH	227+00'B' - 230+96'B'	-	-	303	-	-	-	-	-	-	-
			STH 80 SOUTH	224+88'B' - 227+00'B'	-	-	106	-	-	-	-	-	-	-
			STH 80 - B-29-006	649+84 - 653+84 '21'	106	44	448	39	-	-	-	-	-	-
			STAGE 3 SUBTOTAL		106	44	1,007	39	0	0	112	0	0	44
		STAGE 4												
			STH 80 NORTH	227+00'B' - 230+96'B'	-	-	187	-	-	-	28	-	-	-
			STAGE 4 SUBTOTAL		0	0	187	0	0	0	28	0	0	0
			CAT 0010 TOTAL		106	44	2,677	39	0	0	140	0	0	112
	0020													
		STAGE 1												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	63	-	215	-	-	-	-	-
			RAB EAST LEG	700+53 - 708+95 '21'	-	-	294	-	-	-	-	-	-	-
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	-	-	618	-	341	176	-	-	-	34
			STAGE 1 SUBTOTAL		0	0	975	0	556	176	0	0	0	34
		STAGE 2												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	190	-	-	-	-	-	-	-
			RAB EAST LEG	700+53 - 708+95 '21'	-	-	150	-	248	-	-	-	-	-
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	-	-	609	-	340	177	-	-	-	14
			STAGE 2 SUBTOTAL		0	0	949	0	588	177	0	0	0	14
		STAGE 3												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	338	-	120	119	-	74	275	39
			RAB EAST LEG	700+53 - 708+95 '21'	-	-	511	-	161	171	-	-	-	63
			RAB	10+00 - 13+61 'GC'	239	-	-	-	-	-	-	-	-	-
			STAGE 3 SUBTOTAL		239	0	849	0	281	290	0	74	275	102
			CAT 0020 TOTAL		239	0	2,773	0	1,425	643	0	74	275	150
PROJECT 6160-00-70 TOTAL					**345**	**44**	**5,450**	**39**	**1,425**	**643**	**140**	**74**	**275**	**262**

3

CONCRETE SIDEWALK

PROJECT	CATEGORY		LOCATION	STATION - STATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF
6160-00-70							
	0010						
		STAGE 2					
			BOP - HIGH STREET	642+99 - 646+08 '21'	245	-	36
			HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	420	-	38
			CENTER STREET - STH 80	647+98 - 649+84 '21'	1,147	10	17
			STH 80 INTERSECTION	649+84 - 651+71 '21'	795	60	-
			STAGE 2 SUBTOTAL		2,607	70	91
		STAGE 3					
			STH 80 INTERSECTION	649+84 - 651+71 '21'	823	80	-
			SIDEWALK EXTENSION	651+71 - 653+84 '21'	1,270	30	-
			STAGE 3 SUBTOTAL		2,093	110	0
				CAT 0010 TOTAL	4,700	180	91
	0020						
		STAGE 1					
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	3,129	32	-
			STAGE 1 SUBTOTAL		3,129	32	0
		STAGE 2					
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	1,889	32	-
			STAGE 2 SUBTOTAL		1,889	32	0
		STAGE 3					
			RAB	694+18 - 708+95 '21'	12,282	64	-
			STAGE 3 SUBTOTAL		12,282	64	0
				CAT 0020 TOTAL	17,300	128	0
PROJECT 6160-00-70 TOTAL					**22,000**	**308**	**91**

3

STORM SEWER PIPES

									608.0312	608.0315	608.0318	608.0324	608.0412	608.0415	608.0418		
									STORM SEWER PIPE REINFORCED CONCRETE								
STAGE	CATEGORY	FROM STRUCT.	-	TO STRUCT.	INLET ELEV	OUTLET ELEV	SLOPE %	THICKNESS	CLASS III 12-INCH LF	CLASS III 15-INCH LF	CLASS III 18-INCH LF	CLASS III 24-INCH LF	CLASS IV 12-INCH LF	CLASS IV 15-INCH LF	CLASS IV 18-INCH LF	JOINT TIES* EACH	NOTES
CAT 0010																	
2	0010	1.0	-	1.1	917.44	917.24	0.50	0.188	--	--	--	--	--	39	--	--	--
2	0010	1.0	-	1.2	918.00	917.44	1.70	0.167	--	--	--	--	33	--	--	--	--
2	0010	2.0	-	2.2	912.50	912.01	1.00	0.167	--	--	--	--	49	--	--	--	--
2	0010	2.1	-	2.2	910.00	909.94	1.00	0.250	--	--	--	6	--	--	--	--	--
2	0010	2.3	-	2.2	909.88	909.94	1.00	0.250	--	--	--	6	--	--	--	--	--
CAT 0010 TOTALS									--	--	--	12	82	39	--	--	
CAT 0020																	
1	0020	3.0	-	3.1	900.50	900.40	1.00	0.167	10	--	--	--	--	--	--	--	--
1	0020	3.1	-	3.3	899.90	899.15	0.99	0.208	--	--	76	--	--	--	--	--	--
1	0020	3.3	-	3.4	899.15	898.90	1.03	0.208	--	--	24	--	--	--	--	6	--
1	0020	3.2	-	3.3	899.97	899.65	1.01	0.167	32	--	--	--	--	--	--	--	--
1	0020	5.3	-	5.4	900.01	899.59	1.00	0.167	42	--	--	--	--	--	--	--	--
1	0020	5.4	-	5.5	899.09	899.01	0.30	0.208	--	--	27	--	--	--	--	--	--
1	0020	5.5	-	5.6	899.01	898.58	0.85	0.208	--	--	51	--	--	--	--	6	--
1	0020	6.0	-	6.1	900.79	900.76	0.30	0.167	--	--	--	--	10	--	--	--	--
1	0020	6.1	-	6.5	900.51	900.45	0.30	0.188	--	--	--	--	--	21	--	--	--
1	0020	6.4	-	6.5	900.53	900.45	0.30	0.188	--	--	--	--	--	29	--	--	--
1	0020	6.5	-	6.90	900.20	899.68	0.27	0.208	--	--	--	--	--	--	192	--	--
1	0020	6.7	-	6.8	900.54	900.34	0.50	0.167	40	--	--	--	--	--	--	--	--
1	0020	6.8	-	6.9	900.09	899.93	0.49	0.188	--	33	--	--	--	--	--	--	PIPE TO BE SPLIT BETWEEN STAGES
1	0020	6.9	-	6.10	899.68	899.56	0.39	0.208	--	--	--	--	--	--	31	--	--
1	0020	6.10	-	6.11	899.56	899.40	0.37	0.208	--	--	44	--	--	--	--	6	--
1	0020	8.0	-	8.1	899.56	899.40	2.33	0.167	--	--	--	--	7	--	--	--	--
1	0020	8.1	-	8.4	899.56	899.40	0.15	0.188	--	--	--	--	--	112	--	--	--
1	0020	8.2	-	8.3	899.56	899.40	0.81	0.167	--	--	--	--	20	--	--	--	--
1	0020	8.3	-	8.4	899.56	899.40	1.25	0.188	--	--	--	--	--	13	--	--	--
1	0020	8.4	-	8.5	899.56	899.40	0.32	0.208	--	--	--	--	--	--	51	6	--
1	0020	9.0	-	9.1	899.20	899.05	0.29	0.208	--	--	52	--	--	--	--	6	--
1	0020	9.1	-	9.2	899.05	898.98	0.29	0.208	--	--	24	--	--	--	--	--	--
1	0020	9.2	-	9.3	898.98	898.91	0.34	0.208	--	--	20	--	--	--	--	--	PIPE TO BE SPLIT BETWEEN STAGES
1	0020	9.3	-	9.4	898.91	898.83	0.33	0.208	--	--	24	--	--	--	--	--	--
1	0020	9.4	-	9.5	899.56	899.40	0.31	0.208	--	--	52	--	--	--	--	6	--
2	0020	4.0	-	4.1	901.88	901.55	#DIV/0!	0.167	--	--	--	--	29	--	--	6	--
2	0020	5.0	-	5.1	899.38	899.24	0.30	0.208	--	--	46	--	--	--	--	6	--
2	0020	5.1	-	5.2	899.24	899.15	0.30	0.208	--	--	29	--	--	--	--	--	--
2	0020	5.2	-	5.4	899.15	899.09	0.30	0.208	--	--	21	--	--	--	--	--	PIPE TO BE SPLIT BETWEEN STAGES
2	0020	6.2	-	6.3	900.87	900.84	0.30	0.167	--	--	--	--	10	--	--	--	--
2	0020	6.3	-	6.4	900.59	900.53	0.30	0.188	--	--	--	--	--	20	--	--	--
2	0020	6.6	-	6.8	900.47	900.34	0.50	0.167	--	--	--	--	26	--	--	--	--
2	0020	7.0	-	7.1	900.58	900.55	0.30	0.167	--	--	--	--	10	--	--	--	--
2	0020	7.1	-	7.2	900.55	900.49	0.30	0.167	--	--	--	--	21	--	--	--	--
2	0020	7.2	-	7.3	900.49	900.45	0.31	0.167	--	--	--	--	12	--	--	--	--
2	0020	7.3	-	7.6	899.95	899.59	0.20	0.167	--	--	--	--	--	--	183	--	--
2	0020	7.3A	-	7.3	900.58	900.45	0.49	0.167	--	--	--	--	27	--	--	--	--
2	0020	7.4	-	7.5	902.60	900.55	9.74	0.188	--	21	--	--	--	--	--	6	--
2	0020	7.5	-	7.6	900.55	899.84	2.86	0.188	--	25	--	--	--	--	--	--	--
2	0020	7.6	-	7.10	899.59	899.56	0.30	0.208	--	--	11	--	--	--	--	--	PIPE TO BE SPLIT BETWEEN STAGES
2	0020	7.7	-	7.8	900.33	900.28	0.50	0.167	10	--	--	--	--	--	--	--	--
2	0020	7.8	-	7.9	900.03	899.90	0.51	0.167	--	25	--	--	--	--	--	--	--
2	0020	7.9	-	7.10	899.90	899.81	0.50	0.188	--	18	--	--	--	--	--	--	PIPE TO BE SPLIT BETWEEN STAGES
2	0020	7.10	-	7.11	899.56	899.50	0.25	0.208	--	--	24	--	--	--	--	--	--
2	0020	7.11	-	7.12	899.50	899.38	0.27	0.208	--	--	45	--	--	--	--	6	--
CAT 0020 TOTALS									134	122	570	--	172	195	457	60	
PROJECT 1020-01-80 TOTAL									**134**	**122**	**570**	**12**	**254**	**234**	**457**	**60**	

* NON-BID ITEM: FOR INFORMATION ONLY

STORM SEWER STRUCTURES

STAGE	CATEGORY	STRUCTURE NO.	STATION	OFFSET*	TOP STRUCTURE ELEV	LOW STRUCT INV	FLANGE ELEV	BOTTOM STRUCT ELEV	DEPTH (FT)	**522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	**522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	611.0530 MANHOLE COVERS TYPE J EACH	*611.0624 INLET COVERS TYPE H EACH	611.0627 INLET COVERS TYPE HM EACH	611.0636 INLET COVERS TYPE HM-S EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.0652 INLET COVERS TYPE T EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3225 INLETS 2X2.5-FT EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	633.5200 MARKERS CULVERT END EACH	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.8120.S COVER PLATE TEMPORARY EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	SPV.0060.03 CONNECT PROPOSED PIPE TO EXISTING STRUCTURE EACH	NOTES
STAGE 2	0010	1.0	647+78'21'	43.6' RT	920.66	917.44	921.66	916.94	3.72	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0010	1.1	648+15'21'	53.8'RT	--	917.24	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 2	0010	1.2	647+49'21'	25.8'RT	--	918.00	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 2	0010	2.0	649+55'21'	39.6'RT	914.96	912.50	915.96	912.00	2.96	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--
STAGE 2	0010	2.1	649+49'21'	8.7' LT	--	910.00	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
STAGE 2	0010	2.2	649+55'21'	9.2' LT	914.95	909.94	915.95	909.44	5.51	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--
STAGE 2	0010	2.3	649+61'21'	9.8' LT	--	909.88	--	--	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--
CAT 0010 TOTAL										--	--	--	1	1	--	--	1	--	--	1	--	--	2	--	--	2	--	4	2		
CAT 0020																																
STAGE 1	0020	3.0	698+05'21'	3.2'LT	904.19	900.50	905.19	900.00	4.19	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	3.1	698+15'21'	2.9' LT	904.14	899.90	905.14	899.40	4.74	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	3.2	699+20'21'	18.5' RT	904.47	899.97	905.47	899.47	5.00	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	3.3	698+88'21'	18.5' RT	904.09	899.14	905.09	898.64	5.45	--	--	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	1	--	--
STAGE 1	0020	3.4	698+88'21'	43.1' RT	--	898.90	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 1	0020	5.3	13+55'GC'	1.8' RT	905.75	900.01	906.75	899.51	6.24	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	5.4	699+93'21'	5.4' LT	905.62	899.09	906.62	898.59	7.03	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	5.5	700+02'21'	19.9' RT	905.47	899.01	906.47	898.51	6.96	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 1	0020	5.6	700+01'21'	63.2' RT	--	898.58	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 1	0020	6.0	704+03'21'	18.5' RT	902.70	900.79	903.70	900.20	2.50	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--
STAGE 1	0020	6.1	704+13'21'	18.5' RT	902.68	900.51	903.68	900.01	2.67	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	6.5	704+13'21'	2.9' LT	903.51	900.20	904.51	899.70	3.81	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	6.9	702+18'21'	12.7' LT	905.87	899.68	906.87	899.18	6.69	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 1	0020	6.10	702+16'21'	18.5' RT	905.34	899.56	906.34	899.06	6.28	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 1	0020	6.11	702+12'21'	52.8' RT	--	899.40	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 1	0020	8.0	14+14'GNS'	3.4' LT	903.71	901.60	904.71	901.00	2.71	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	8.1	14+13'GSS'	1.5' RT	903.57	901.31	904.57	900.81	2.76	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 1	0020	8.2	15+25'GNS'	18.5' RT	903.64	901.39	904.64	900.98	2.66	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	8.3	15+25'GNS'	1.6' LT	904.47	900.04	905.47	900.63	3.84	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	8.4	15+25'GNS'	1.5' RT	904.32	900.73	905.32	900.31	4.01	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 1	0020	8.5	15+59'GSS'	36.2' LT	--	900.58	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 1	0020	9.0	12+29'GNS'	72.6' LT	--	899.20	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 1	0020	9.1	17+03'GNS'	20.8' RT	906.33	899.05	907.33	898.55	7.78	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	9.2	16+95'GNS'	1.5' LT	906.59	898.98	907.59	898.48	8.11	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	9.3	16+95'GSS'	5.1' RT	906.51	898.91	907.51	898.41	8.10	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	9.4	16+99'GSS'	18.5' LT	906.16	898.83	907.16	898.33	7.83	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 1	0020	9.5	17+09'GSS'	71.3' LT	--	898.65	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 2	0020	4.0	699+02'21W'	1.5' RT	904.00	901.88	905.00	901.38	2.62	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	4.1	698+93'21W'	29.6' LT	--	901.55	--	--	0.00	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 2	0020	5.0	10+39'GC'	64.1' LT	--	899.38	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 2	0020	5.1	700+48'21W'	18.5' LT	904.64	899.24	905.64	898.74	5.90	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 2	0020	5.2	700+42'21W'	9.3' RT	904.73	899.15	905.73	898.65	6.08	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	6.2	703+99'21E'	18.5' LT	903.61	900.87	904.61	900.37	3.24	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	6.3	704+09'21E'	18.5' LT	903.61	900.59	904.61	900.09	3.52	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	6.4	704+09'21E'	1.5' RT	903.65	900.53	904.65	900.03	3.62	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	6.6	702+22'21E'	18.9' LT	904.94	900.47	905.94	899.97	4.97	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	6.7	11+58'GC'	1.8 RT	905.48	900.54	906.48	900.04	5.44	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	6.8	702+31'21E'	6.2' RT	905.07	900.09	906.06	899.59	5.48	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	7.0	22+00'GSN'	18.7' LT	901.98	900.58	902.98	899.44	2.54	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	7.1	22+10'GSN'	18.8' LT	901.76	900.55	902.76	899.26	2.50	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	7.2	22+10'GSN'	1.8' RT	902.47	900.49	903.47	899.78	2.69	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	7.3	22+05'GNN'	1.5' LT	902.44	899.95	903.44	899.45	2.99	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--
STAGE 2	0020	7.3A	22+05'GNN'	25.1' RT	902.00	900.58	902.00	899.33	2.67	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	1	--	--
STAGE 2	0020	7.4	20+13'GNN'	52.1' RT	--	902.60	--	--	0.00	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
STAGE 2	0020	7.5	20+18'GNN'	23.1' RT	904.05	900.55	905.05	900.05	4.00	--	--	--	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	7.6	20+22'GNN'	1.5' LT	904.42	899.59	905.42	899.09	5.33	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 2	0020	7.7	10+75'GC'	1.8' RT	904.68	900.33	905.68	899.83	4.85	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	7.8	10+85'GC'	1.8' RT	904.66	900.03	905.66	899.53	5.13	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	1	1	--	CASTING TO BE PLACED IN STAGE 3
STAGE 2	0020	7.9	10+85'21'	23.5'LT	904.75	899.90	905.75	899.40	5.35	--	--	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--	--	1	--	--
STAGE 2	0020	7.10	20+22'GSN'	1.5' RT	904.42	899.56	905.42	899.06	5.36	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 2	0020	7.11	20+15'GSN'	21.4' LT	904.14	899.50	905.14	899.00	5.14	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--
STAGE 2	0020	7.12	10+46'GC'	60.0' LT	--	899.38	--	--	0.00	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--
CAT 0020 TOTAL										1	1	8	--	14	11	9	3	1	4	--	14	4	23	1	10	--	13	52	--		
PROJECT 1020-01-80 TOTAL										**1**	**1**	**8**	**1**	**15**	**11**	**9**	**4**	**1**	**4**	**1**	**14**	**4**	**25**	**1**	**10**	**2**	**13**	**56**	**2**		

*ADDITIONAL QUANTITIES FOUND ON 'ADJUSTING AND REINSTALLING UTILITIES'
**ADDITIONAL QUANTITIES FOUND ON 'CULVERT PIPE'

3

ADJUSTING AND REINSTALLING UTILITIES

PROJECT	CATEGORY		LOCATION	STATION - STATION	204.0220 REMOVING INLETS EACH	204.0245 REMOVING STORM SEWER (15-INCH) LF	611.0624* INLET COVERS TYPE H EACH	611.0630 INLET COVERS TYPE HM-GJ EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.01 ADJUSTING WATER VALVE BOXES EACH	SPV.0060.02 INLET COVER FLAT TEMPORARY EACH
6160-00-70												
	0010											
		STAGE 2										
			BOP - HIGH STREET	642+99 - 646+08 '21'	-	-	-	-	-	4	-	-
			HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	-	-	-	-	-	2	-	-
			CENTER STREET - STH 80	647+98 - 649+84 '21'	1	72	-	-	-	4	-	-
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	-	-	-	-	3	-	-
			STH 80 NORTH LEG	227+61 - 229+87 'B'	3	-	-	-	-	-	-	3
			STAGE 2 SUBTOTAL		4	72	0	0	0	13	0	3
		STAGE 3										
			STH 80 - B-29-006	649+84 - 653+84 '21'	-	-	-	-	-	4	-	-
			STH 80 NORTH LEG	227+61 - 229+87 'B'	2	-	2	-	-	-	-	2
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	-	-	-	-	1	-	-
			STAGE 3 SUBTOTAL		2	0	2	0	0	5	0	2
		STAGE 4										
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	-	-	3	-	-	-	-
			STAGE 4 SUBTOTAL		0	0	0	3	0	0	0	0
			CAT 0010 TOTAL		6	72	2	3	0	18	0	5
	0030											
		STAGE 2										
			BOP - HIGH STREET	642+99 - 646+08 '21'	-	-	-	-	1	-	-	-
			HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	-	-	-	-	3	-	1	-
			CENTER STREET - STH 80	647+98 - 649+84 '21'	-	-	-	-	2	-	2	-
			STAGE 2 SUBTOTAL		0	0	0	0	6	0	3	0
		STAGE 3										
			STH 80 - B-29-006	649+84 - 653+84 '21'	-	-	-	-	2	-	-	-
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	-	-	-	1	-	-	-
			STAGE 3 SUBTOTAL		0	0	0	0	3	0	0	0
			CAT 0030 TOTAL		0	0	0	0	9	0	3	0
PROJECT 6160-00-70 TOTAL					**6**	**72**	**2**	**3**	**9**	**18**	**3**	**5**

*ADDITIONAL QUANTITIES FOUND ON 'STORM SEWER STRUCTURES'

3

GUARDRAIL

PROJECT	CATEGORY		LOCATION	STATION - STATION	RT/LT	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL EACH
6160-00-70													
	0010												
		STAGE 3											
			STH 80 - B-29-006	649+84 - 653+84 '21'	RT	-	-	18.75	-	-	40	1	-
			STH 80 - B-29-006	649+84 - 653+84 '21'	LT	1	-	-	-	-	-	-	-
			B-29-006 - B-29-136	656+47 - 665+67 '21'	RT	-	-	-	837.50	-	79	-	-
			B-29-006 - B-29-136	656+47 - 665+67 '21'	LT	-	-	-	793.75	183	79	-	2
			B-29-136	667+57 - 668+36 '21'	RT	-	78	-	-	-	-	-	-
			B-29-136	667+57 - 669+32 '21'	LT	-	174	-	-	-	-	-	-
			B-29-100	674+88 - 681+34 '21'	RT	2	-	-	-	-	-	-	-
			B-29-100	674+88 - 681+34 '21'	LT	2	-	-	-	-	-	-	-
			C-29-015	688+66 - 693+82 '21'	RT	-	-	212.50	-	-	-	2	-
			C-29-015	688+66 - 693+82 '21'	LT	-	-	212.50	-	-	-	2	-
			B-01-013	816+60 - 818+04 '21'	RT	-	144	-	-	-	-	-	-
			B-01-013	810+95 - 818+04 '21'	LT	-	721	-	-	-	-	-	-
		STAGE 3 SUBTOTAL				5	1,117	443.75	1631.25	183	198	5	2
			CAT 0010 TOTAL			5	1,117	443.75	1631.25	183	198	5	2
PROJECT 6160-00-70 TOTAL						**5**	**1,117**	**443.75**	**1631.25**	**183**	**198**	**5**	**2**

FENCE CHAIN LINK SALVAGED 4-FT

PROJECT	CATEGORY	LOCATION	STATION - STATION	LT/RT	616.0404 FENCE CHAIN LINK SALVAGED 4-FT LF
6160-00-70					
	0010				
		STAGE 3			
		STH 80 - B-29-006	649+84 - 653+84 '21'	RT	24
		STAGE 3 SUBTOTAL			24
			CAT 0010 TOTAL		24
PROJECT 6160-00-70 TOTAL					**24**

FENCE SAFETY

PROJECT	CATEGORY	LOCATION	616.0700.S FENCE SAFETY LF
6160-00-70			
	0020		
		PROJECT 6160-00-70	2,000
		CAT 0020 TOTAL	2,000
PROJECT 6160-00-70 TOTAL			**2,000**

3

CONCRETE MEDIAN

PROJECT	CATEGORY	LOCATION	STATION - STATION	620.0200 BLUNT NOSE SF	620.0300 SLOPED NOSE SF
6160-00-70					
	0010				
		STAGE 2			
		CENTER STREET - STH 80	647+98 - 649+84 '21'	14	29
		STAGE 2 SUBTOTAL		14	29
		STAGE 3			
		STH 80 - B-29-006	649+84 - 653+84 '21'	28	123
		STAGE 3 SUBTOTAL		28	123
			CAT 0010 TOTAL	42	152
	0020				
		STAGE 1			
		CTH G SOUTH LEG	10+50 - 17+15 'GNS'	-	59
		STAGE 1 SUBTOTAL		0	59
		STAGE 2			
		CTH G NORTH LEG	20+00 - 26+51 'GNN'	-	59
		STAGE 2 SUBTOTAL		0	59
		STAGE 3			
		RAB WEST LEG	694+18 - 700+53 '21'	71	124
		RAB EAST LEG	700+53 - 708+95 '21'	69	129
		CTH G SOUTH LEG	10+50 - 17+15 'GNS'	62	79
		CTH G NORTH LEG	20+00 - 26+51 'GNN'	62	76
		STAGE 3 SUBTOTAL		264	408
			CAT 0020 TOTAL	264	526
PROJECT 6160-00-70 TOTAL				**306**	**678**

FINISHING ITEMS

PROJECT	CATEGORY	LOCATION	STATION - STATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL	SPV.0085.01 SEEDING LOW MAINTENANCE FESCUE LB
6160-00-70											
	0010										
		STAGE 2									
		BOP - HIGH STREET	642+99 - 646+08 '21'	-	283	283	0.18	-	5.10	33	-
		HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	-	34	34	0.02	-	0.61	4	-
		CENTER STREET - STH 80	647+98 - 649+84 '21'	-	24	24	0.02	-	0.43	3	-
		STAGE 2 SUBTOTAL		0	341	341	0.21	0	6.14	41	0
		STAGE 3									
		STH 80 NORTH LEG	227+61 - 229+87 'B'	-	248	248	0.16	-	4.47	29	-
		STH 80 - B-29-006	649+84 - 653+84 '21'	500	194	306	0.36	7.11	3.24	68	-
		B-29-006 - B-29-136	656+47 - 665+67 '21'	500	1,877	-	1.91	54.69	-	358	-
		B-29-100	674+88 - 681+34 '21'	500	1,187	-	1.31	37.41	-	245	-
		C-29-015	688+66 - 694+18 '21'	500	1,636	-	1.55	44.33	-	290	-
		STAGE 3 SUBTOTAL		2,000	4,754	554	5.29	143.53	7.71	990	0
		STAGE 4									
		STH 80 NORTH LEG	227+61 - 229+87 'B'	-	182	182	0.11	-	3.28	22	-
		STAGE 4 SUBTOTAL		0	182	182	0	0	3.28	22	0
		UNDISTRIBUTED		500	1,343	295	1.68	36.47	7.87	287	0
		CAT 0010 TOTAL		2,500	6,620	1,373	7.30	180.00	25.00	1,340	0
	0020										
		STAGE 1									
		RAB WEST LEG	694+18 - 700+53 '21'	310	3,160	-	2.28	32.25	32.97	427	-
		RAB EAST LEG	700+53 - 708+95 '21'	310	1,289	-	1.13	6.62	25.57	211	-
		CTH G SOUTH LEG	10+50 - 17+15 'GNS'	310	2,477	-	1.99	15.09	41.74	372	-
		STAGE 1 SUBTOTAL		930	6,926	0	5.40	53.96	100.28	1,010	0
		STAGE 2									
		RAB WEST LEG	694+18 - 700+53 '21'	310	466	-	0.75	11.48	10.06	141	-
		RAB EAST LEG	700+53 - 708+95 '21'	310	575	-	0.56	4.32	11.62	104	-
		CTH G NORTH LEG	20+00 - 26+51 'GNN'	310	882	-	1.00	18.17	10.31	187	-
		STAGE 2 SUBTOTAL		930	1,924	0	2.31	33.97	31.99	432	0
		STAGE 3									
		RAB	694+18 - 708+95 '21'	310	113	423	0.27	-	-	50	7.61
		STAGE 3 SUBTOTAL		310	113	423	0.27	0.00	-	50	8
		UNDISTRIBUTED		330	2,278	125	2.02	22.07	38.74	398	2.39
		CAT 0020 TOTAL		2,500	11,240	547	10.00	110.00	171.00	1,890	10.00
PROJECT 6160-00-70 TOTAL				**5,000**	**17,860**	**1,920**	**17.30**	**290.00**	**196.00**	**3,230**	**10.00**

MOBILIZATIONS

PROJECT	CATEGORY	LOCATION	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH
6160-00-70				
	0010			
		PROJECT 6160-00-70	12	5
			12	5
	0020			
		PROJECT 6160-00-70	9	5
			9	5
PROJECT 6160-00-70 TOTAL			**21**	**10**

3

EROSION CONTROL

PROJECT	CATEGORY		LOCATION	STATION - STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	SPV.0090.01 EXCLUSION FENCING LF
6160-00-70														
	0010													
		STAGE 2												
			BOP - B-29-006	642+99 - 653+84 '21'	-	-	-	-	12	-	12	-	-	-
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	-	-	-	3	-	3	-	-	-
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	-	-	-	4	-	4	-	-	-
			STAGE 2 SUBTOTAL		0	0	0	0	19	0	19	0	0	0
		STAGE 3												
			BOP - B-29-006	642+99 - 653+84 '21'	83	498	-	-	4	-	4	32	-	270
			STH 80 NORTH LEG	227+61 - 229+87 'B'	347	2,082	-	-	2	-	3	-	-	-
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	-	-	-	2	-	2	-	-	-
			B-29-006 - B-29-136	656+47 - 665+67 '21'	-	-	642	1,991	-	-	-	-	-	1,958
			B-29-100	678+75 - 691+18 '21'	-	-	2,082	-	-	-	-	-	-	1,223
			C-29-015	691+31 - 694+18 '21'	963	5,778	2,316	179	-	-	-	16	-	-
			STAGE 3 SUBTOTAL		1,393	8,358	5,039	2,171	8	0	9	48	0	3,451
		STAGE 4												
			BOP - B-29-006	642+99 - 653+84 '21'	-	-	67	-	-	-	-	-	-	-
			STAGE 4 SUBTOTAL		0	0	67	0	0	0	0	0	0	0
			UNDISTRIBUTED		377	2,102	1,314	560	8	0	12	12	0	869
			CAT 0010 TOTAL		1,770	10,460	6,420	2,730	35	0	40	60	0	4,320
	0020													
		STAGE 1												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	2,902	406	7	-	7	48	-	-
			RAB EAST LEG	700+53 - 708+95 '21'	410	2,460	1,595	85	5	-	5	64	-	-
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	-	-	-	-	-	-	-	-	-	-
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	-	-	1,318	1,817	9	-	9	96	-	-
			STAGE 1 SUBTOTAL		410	2,460	5,816	2,308	21	0	21	208	0	0
		STAGE 2												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	1,170	-	5	-	5	32	3	-
			RAB EAST LEG	700+53 - 708+95 '21'	444	2,664	893	-	6	-	6	32	-	-
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	603	3,618	1,406	219	9	1	9	64	-	-
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	-	-	-	-	-	-	-	-	-	-
			STAGE 2 SUBTOTAL		1,047	6,282	3,469	219	20	1	20	128	3	0
			UNDISTRIBUTED		383	2,188	2,355	743	14	1	14	84	1	0
			CAT 0020 TOTAL		1,840	10,930	11,640	3,270	55	2	55	420	4	0
PROJECT 6160-00-70 TOTAL					**3,610**	**21,390**	**18,060**	**6,000**	**90**	**2**	**95**	**480**	**4**	**4,320**

PERMANENT SIGNING TYPE II REMOVALS

SIGN #	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON/SAME POST AS	REMARKS
CAT. 0010					
1R-01		1	1	---	NO TRUCKS
1R-02	R1-1	1	1	---	STOP SIGN
1R-03	J3-3	1	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
1R-05	W3-3	1	1	---	SIGNAL AHEAD
1R-06	R7-1D	1	1	---	NO PARKING ANY TIME (DOUBLE ARROW)
1R-07	R7-1D	1	1	---	NO PARKING ANY TIME (DOUBLE ARROW)
1R-08	J4-1	1	1	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
1R-09	R1-1	1	1	---	STOP SIGN
2R-01	W3-3	1	1	---	SIGNAL AHEAD
2R-02	R3-8	1	1	---	VARIOUS ONLYS
2R-03	R2-1	1	1	---	SPEED LIMIT 25 MPH
2R-04	R7-1D	1	1	---	NO PARKING ANY TIME (DOUBLE ARROW)
2R-05	R7-1R	1	1	---	NO PARKING ANY TIME (RIGHT ARROW)
2R-06	R1-2	1	1	---	YIELD
2R-07	J2-2	1	---	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2R-08	W4-2R	1	1	---	LANE REDUCTION TRANSITION SYMBOL (RIGHT)
2R-09	R2-1	1	1	---	SPEED LIMIT 25 MPH
2R-10	R7-1L	1	1	---	NO PARKING ANY TIME (LEFT ARROW)
2R-11	R5-1	1	1	---	DO NOT ENTER
2R-12	R1-1F	1	---	---	STOP SIGN (FOLDING)
2R-13	W12-1D	1	1	---	DOUBLE DOWN ARROWS
2R-14	R7-1D	1	1	---	NO PARKING ANY TIME (DOUBLE ARROW)
2R-15	R1-1	1	---	---	STOP SIGN
2R-15		---	---	R1-1	NO ATV SIGN
2R-16	R1-1F	1	---	R10-7	STOP SIGN (FOLDING)
2R-16	R10-7	---	---	R1-1F	DO NOT BLOCK INTERSECTION
2R-17	J2-2	1	1	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2R-18	J4-1	1	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
2R-19	W11-2	1	---	W16-9P	PEDESTRIAN CROSSING SYMBOL
2R-19	W16-9P	---	---	W11-2	AHEAD PLAQUE (YELLOW)
2R-20	W12-1D	1	1	---	DOUBLE DOWN ARROWS
2R-21	R1-1F	1	---	---	STOP SIGN (FOLDING)
2R-22	R5-1	1	1	---	DO NOT ENTER
2R-23	J2-2	1	---	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2R-24	J4-1	1	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
2R-25	R5-1	1	1	---	DO NOT ENTER
2R-26	R1-2	1	1	---	YIELD
2R-27	W12-1D	1	1	---	DOUBLE DOWN ARROWS
2R-28	R1-1F	1	---	---	STOP SIGN (FOLDING)
2R-29	J3-3	1	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
2R-30	R8-8	1	1	R3-8	DO NOT STOP ON TRACKS
2R-30	R3-8	---	---	R8-8	VARIOUS ONLYS
2R-31	R1-1	1	1	---	STOP SIGN
2R-32	R1-2	1	1	---	YIELD
2R-33	D1-3	1	2	---	NEW LISBON/COLOMA/TOMAH
2R-34	D1-3	1	2	---	COLOMA/MARSHFIELD/NEW LISBON
2R-35	D1-3	1	1	---	TOMAH/NEW LISBON/MARSHFIELD
2R-36	R3-8	1	---	2M-04	VARIOUS ONLYS
3R-01	W5-52L	1	1	---	CLEARANCE STRIPER DOWN RIGHT
3R-02	W5-52R	1	1	---	CLEARANCE STRIPER DOWN LEFT
3R-03	I3-1	1	1	---	LAKE OR RIVER NAME
3R-04	W5-52R	1	1	---	CLEARANCE STRIPER DOWN LEFT
3R-05	W5-52L	1	1	---	CLEARANCE STRIPER DOWN RIGHT
3R-06	R2-1	1	1	W3-3	SPEED LIMIT 25 MPH
3R-07	W3-3	---	---	R2-1	SIGNAL AHEAD
3R-08	W3-3	1	1	---	SIGNAL AHEAD
3R-09	I3-1	1	1	---	LAKE OR RIVER NAME
3R-10	R2-1	1	1	---	SPEED LIMIT 25 MPH
3R-11	J4-1	1	1	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
3R-12	J3-3	1	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
3R-13	J1-1	1	1	---	JUNCTION OR END ASSEMBLY
3R-14	W10-1	1	---	---	
4R-01	J1-1	1	1	---	JUNCTION OR END ASSEMBLY
4R-02	W14-3	1	1	---	NO PASSING ZONE
4R-03	R2-1	1	1	---	SPEED LIMIT 25 MPH
4R-04	R2-1	1	1	---	SPEED LIMIT 25 MPH
CAT. 0010 TOTALS		61	54		

PERMANENT SIGNING TYPE II REMOVALS CONT.

SIGN #	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON/SAME POST AS	REMARKS
CAT. 0020					
5R-01	D7-68L	1	2	---	WILDERNESS COUNTY PARK/ARROW RIGHT
5R-02	D7-53R	1	2	---	BUCKHORN STATE PARK/ARROW RIGHT
5R-03	J4-1	1	1	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
5R-04	J12-1	1	1	---	ROUTE TURN WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
5R-05	R1-1	1	1	---	STOP SIGN
5R-06	M1-5A	1	1	5M-02	COUNTY MARKER (2-3 DIGITS)
5R-07	J12-1	1	1	---	ROUTE TURN WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
5R-08	J1-1	1	1	5M-03	JUNCTION OR END ASSEMBLY
5R-10	W14-3	1	1	---	NO PASSING ZONE
5R-11	R1-1	1	1	---	STOP SIGN
5R-12	J12-1	1	1	---	ROUTE TURN WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
6R-01	J12-1	1	1	---	ROUTE TURN WITHOUT CARDINAL (1 HEADED ROUTE PANEL)
6R-02	J4-1	1	1	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
6R-03	R2-1	1	1	---	SPEED LIMIT 45 MPH
6R-04	D7-68R	1	2	---	WILDERNESS COUNTY PARK/ARROW RIGHT
6R-05	D7-53L	1	2	---	BUCKHORN STATE PARK/ARROW LEFT
7R-01	W1-1L	1	1	W13-1	LEFT ARROW
7R-01	W13-1	---	---	W1-1L	ADVISORY SPEED PLATE (YELLOW BACK)
7R-02	W3-1	1	1	---	STOP AHEAD
7R-03	J4-1	1	1	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
8R-01	J3-1	1	1	---	DIRECTIONAL ASSEMBLY (1 HEAD PANEL)
8R-02	W3-1	1	1	---	STOP AHEAD
9R-01	J1-1	1	1	---	JUNCTION OR END ASSEMBLY
CAT. 0020 TOTALS		22	26		
PROJECT TOTALS		**83**	**80**		

3

PERMANENT SIGNING TYPE II

				637.2210	637.2215	637.2230	638.2102	634.0612	634.0614	634.0616	634.0618		
			SIGN SIZE	SIGNS TYPE II REFLECTIVE H			MOVING SIGNS	POSTS WOOD 4X6-INCH				SIGN MOUNTED	
SIGN #	SIGN CODE	SIGN SIZE	WXH IN	REFLECTIVE H SF	FOLDING SF	REFLECTIVE F SF	TYPE II EACH	12 FT EACH	14 FT EACH	16 FT EACH	18 FT EACH	ON/SAME POST AS	REMARKS
CAT. 0010													
1-01	R7-1D	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
1-02	J4-1	2S	24X36	6.00	---	---	---	---	---	1	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
1M-01		Custom	0X0	---	---	---	1	---	1	---	---	---	WELCOME TO VILLAGE OF NECEDAH VILLAGE HALL
1-03	R1-1	2S	30X30	5.18	---	---	---	---	1	---	---	---	STOP SIGN
1-04	R5-2	2S	24X24	4.00	---	---	---	---	1	---	---	---	NO TRUCKS SYMBOL
1-05	R1-1	2S	30X30	5.18	---	---	---	---	1	---	---	---	STOP SIGN
1-06	J3-3	2S	72X57	28.50	---	---	---	---	---	---	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
1M-02	W54-60	Custom	0X0	---	---	---	1	---	---	2	---	---	FIRE TRUCKS ENTERING WHEN SIGNAL FLASHES WITH BEACON
1-08	W3-3	2S	36X36	---	---	9.00	---	---	---	2	---	---	SIGNAL AHEAD
1-09	R7-1D	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
2-01	W3-3	2S	36X36	---	---	9.00	---	---	---	2	---	---	SIGNAL AHEAD
2M-01		Custom	0X0	---	---	---	1	---	1	---	---	---	WELCOME TO VILLAGE OF NECEDAH
2-02	R2-1	2S	24X30	5.00	---	---	---	---	1	---	---	---	SPEED LIMIT 25 MPH
2M-02		Custom	0X0	---	---	---	1	---	1	---	---	---	WELCOME TO VILLAGE OF NECEDAH
2M-03		Custom	0X0	---	---	---	1	---	1	---	---	---	TREE CITY USA
2-04	R7-1D	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
2-05	R7-1R	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (RIGHT ARROW)
2-06	W4-2R	2S	36X36	---	---	9.00	---	---	---	2	---	---	LANE REDUCTION TRANSITION SYMBOL (RIGHT)
2-08	R2-1	2S	24X30	5.00	---	---	---	---	1	---	---	---	SPEED LIMIT 25 MPH
2-09	R7-1D	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (DOUBLE ARROW)
2-10	R1-1	2S	30X30	5.18	---	---	---	---	1	---	---	2M-06	STOP SIGN
2M-06		Custom	0X0	---	---	---	1	---	---	---	---	2-10	NO ATV'S SYMBOL
2-11	R7-1L	2S	18X24	3.00	---	---	---	---	1	---	---	---	NO PARKING ANY TIME (LEFT ARROW)
2-12	R5-1	2S	30X30	6.25	---	---	---	---	1	---	---	---	DO NOT ENTER
2-13	R1-1F	2S	30X30	---	5.18	---	---	---	---	---	---	---	STOP SIGN (FOLDING)
2-14	W12-1D	2S	24X24	---	---	4.00	---	1	---	---	---	---	DOUBLE DOWN ARROWS
2-15	R1-2	2S	36X31	3.88	---	---	---	---	---	1	---	---	YIELD
2-16	R1-1F	2S	30X30	---	5.18	---	---	---	---	---	---	2-17	STOP SIGN (FOLDING)
2-17	R10-7	2S	24X30	5.00	---	---	---	---	---	---	---	2-16	DO NOT BLOCK INTERSECTION
2-18	J2-2	2S	48X57	19.00	---	---	---	---	---	---	1	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2-19	J2-2	2S	48X57	19.00	---	---	---	---	---	---	1	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2-20	J4-1	2S	24X36	6.00	---	---	---	---	1	---	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
2-21	W11-2	2S	30X30	---	---	6.25	---	---	---	1	---	2-22	PEDESTRIAN CROSSING SYMBOL
2-22	W16-9P	2S	24X12	---	---	2.00	---	---	---	---	---	2-21	AHEAD PLAQUE (YELLOW)
2-23	J4-1	2S	24X36	6.00	---	---	---	---	---	1	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
2-24	R5-1	2S	30X30	6.25	---	---	---	---	1	---	---	---	DO NOT ENTER
2-25	R1-2	2S	36X31	3.88	---	---	---	---	---	1	---	---	YIELD
2-26	W12-1D	2S	24X24	---	---	4.00	---	1	---	---	---	---	DOUBLE DOWN ARROWS
2-27	R1-1F	2S	30X30	---	5.18	---	---	---	---	---	---	---	STOP SIGN (FOLDING)
2-28	J3-3	2S	72X57	28.50	---	---	---	---	---	---	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
2-29	R1-1F	2S	30X30	---	5.18	---	---	---	---	---	---	---	STOP SIGN (FOLDING)
2-30	W12-1D	2S	24X24	---	---	4.00	---	1	---	---	---	---	DOUBLE DOWN ARROWS
2-31	R1-2	2S	36X31	3.88	---	---	---	---	---	1	---	---	YIELD
2-32	R5-1	2S	30X30	6.25	---	---	---	---	1	---	---	---	DO NOT ENTER
2-33	J2-2	2S	48X57	19.00	---	---	---	---	---	---	1	---	ROUTE TURN ASSEMBLY (2 HEADED ROUTE PANEL)
2-35	R8-8	2S	24X30	5.00	---	---	---	---	1	---	---	---	DO NOT STOP ON TRACKS
2-36	R1-1	2S	30X30	5.18	---	---	---	---	1	---	---	---	STOP SIGN
2-37	D1-3	2S	54X36	13.50	---	---	---	---	---	2	---	---	NEW LISBON/COLOMA/TOMAH
2-38	D1-3	2S	54X36	13.50	---	---	---	---	---	2	---	---	COLOMA/MARSHFIELD/NEW LISBON
2M-05		Custom	0X0	---	---	---	1	---	---	2	---	---	FIRE TRUCKS ENTERING WHEN SIGNAL FLASHES WITH BEACON
2-39	D1-3	2S	54X36	13.50	---	---	---	---	---	2	---	---	TOMAH/NEW LISBON/MARSHFIELD
				265.61	20.72	47.25	7	3	22	22	7		

3

PERMANENT SIGNING TYPE II CONT.

				637.2210	637.2215	637.2230	638.2102	634.0612	634.0614	634.0616	634.0618		
			SIGN SIZE	SIGNS TYPE II REFLECTIVE H			MOVING SIGNS	POSTS WOOD 4X6-INCH				SIGN MOUNTED	
SIGN #	SIGN CODE	SIGN SIZE	WXH IN	REFLECTIVE H SF	FOLDING SF	REFLECTIVE F SF	TYPE II EACH	12 FT EACH	14 FT EACH	16 FT EACH	18 FT EACH	ON/SAME POST AS	REMARKS
CAT. 0010													
3-01	W5-52L	2S	12X36	---	---	3.00	---	---	---	1	---	---	CLEARANCE STRIPER DOWN RIGHT
3-02	I3-1	Custom	42X24	7.00	---	---	---	---	1	---	---	---	LAKE OR RIVER NAME
3-03	W5-52R	2S	12X36	---	---	3.00	---	---	---	1	---	---	CLEARANCE STRIPER DOWN LEFT
3-04	W5-52R	2S	12X36	---	---	3.00	---	---	---	1	---	---	CLEARANCE STRIPER DOWN LEFT
3-05	W5-52L	2S	12X36	---	---	3.00	---	---	---	1	---	---	CLEARANCE STRIPER DOWN RIGHT
3-06	W3-3	2S	36X36	---	---	9.00	---	---	---	2	---	3-07	SIGNAL AHEAD
3-07	J4-1	2S	24X36	6.00	---	---	---	---	---	---	---	3-06	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
3-08	I3-1	Custom	42X24	7.00	---	---	---	---	1	---	---	---	LAKE OR RIVER NAME
3-09	R2-1	2S	24X30	5.00	---	---	---	---	1	---	---	---	SPEED LIMIT 25 MPH
3M-01		Custom	0X0	---	---	---	1	---	2	---	---	---	FOOD - SUBWAY
3-10	R2-1	2S	24X30	5.00	---	---	---	---	---	1	---	---	SPEED LIMIT 35 MPH
3-11	J3-3	2S	72X57	28.50	---	---	---	---	---	---	2	---	DIRECTIONAL ASSEMBLY (3 HEADED PANEL)
3-12	J1-1	2S	24X39	6.50	---	---	---	---	1	---	---	---	JUNCTION OR END ASSEMBLY
3-13	W10-1	2S	36X36	---	---	7.07	---	---	---	1	---	---	RAILROAD CROSSING
3-16	W3-3	2S	36X36	---	---	9.00	---	---	---	2	---	---	SIGNAL AHEAD
3M-02	W14-3	0	0X0	---	---	---	1	---	1	---	---	---	NO PASSING ZONE
4-01	J1-1	2S	24X39	6.50	---	---	---	---	1	---	---	---	JUNCTION OR END ASSEMBLY
4-02	W14-3	2S	48X36	---	---	5.56	---	---	1	---	---	---	NO PASSING ZONE
4-03	W2-6	2S	30X30	---	---	6.25	---	---	---	1	---	4-04	ROUNDABOUT AHEAD
4-04	W13-1	2S	18X18	---	---	2.25	---	---	---	---	---	4-03	ADVISORY SPEED PLATE (YELLOW BACK) 15 MPH
CAT. 0010 TOTALS				337.11	20.72	98.38	9.00	3.00	31.00	33.00	9.00		

PERMANENT SIGNING TYPE II CONT.

				637.2210	637.2215	637.2230	638.2102	634.0612	634.0614	634.0616	634.0618		
				SIGNS TYPE II REFLECTIVE H			MOVING SIGNS	POSTS WOOD 4X6-INCH				SIGN MOUNTED	
SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	REFLECTIVE H SF	FOLDING SF	REFLECTIVE F SF	TYPE II EACH	12 FT EACH	14 FT EACH	16 FT EACH	18 FT EACH	ON/SAME POST AS	REMARKS
CAT. 0020													
5-01		Custom	60X36	15.00	---	---	---	---	2	---	---	---	WILDERNESS COUNTY PARK/ARROW LEFT
5-02		Custom	54X36	13.50	---	---	---	---	2	---	---	---	BUCKHORN STATE PARK/ARROW LEFT
5-03	R2-1	2S	24X30	5.00	---	---	---	---	1	---	---	---	SPEED LIMIT 45 MPH
5-05	R4-7	2S	24X30	5.00	---	---	---	---	1	---	---	5-06	KEEP RIGHT
5-06	W5-54	2S	18X18	---	---	2.25	---	---	---	---	---	5-05	IN ROAD OBJECT MARKER WITH YELLOW TYPE F SHEETING
5-07		Custom	102X66	46.75	---	---	---	---	---	---	2	---	ROUNDABOUT 21/G
5-08	J4-1	2S	24X36	6.00	---	---	---	---	1	---	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
5-09	D1-2	Custom	42X30	8.75	---	---	---	---	1	---	---	---	WEST STH 21
5-10	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
5-11	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
5-12	J4-1	2S	24X36	6.00	---	---	---	---	1	---	---	5M-02	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
5M-02		Custom	12X18	---	---	---	1	---	---	---	---	5-12	ATV SPEED LIMIT 45 MPH
5-13	D1-2	Custom	42X30	8.75	---	---	---	---	1	---	---	---	SOUTH CTH G
5-14	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
5-15	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
5-16	D1-2	Custom	42X30	8.75	---	---	---	---	1	---	---	---	NORTH CTH G
5-17	J4-1	2S	24X36	6.00	---	---	---	---	1	---	---	5M-03	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
5M-03		Custom	12X18	---	---	---	1	---	---	---	---	5-17	ATV SPEED LIMIT 45 MPH
5-18	R6-1R	2S	36X12	3.00	---	---	---	---	---	---	---	5-19	ONE WAY RIGHT ARROW (ROUNDABOUTS)
5-19	R6-4-B	2S	60X24	10.00	---	---	---	2	---	---	---	5-18	ROUNDABOUT CHEVRON BANK
5-20	R6-1R	2S	36X12	3.00	---	---	---	---	---	---	---	5-21	ONE WAY RIGHT ARROW (ROUNDABOUTS)
5-21	R6-4-B	2S	60X24	10.00	---	---	---	2	---	---	---	5-20	ROUNDABOUT CHEVRON BANK
5-22	R6-1R	2S	36X12	3.00	---	---	---	---	---	---	---	5-23	ONE WAY RIGHT ARROW (ROUNDABOUTS)
5-23	R6-4-B	2S	60X24	10.00	---	---	---	2	---	---	---	5-22	ROUNDABOUT CHEVRON BANK
5-24	R6-1R	2S	36X12	3.00	---	---	---	---	---	---	---	5-25	ONE WAY RIGHT ARROW (ROUNDABOUTS)
5-25	R6-4-B	2S	60X24	10.00	---	---	---	2	---	---	---	5-24	ROUNDABOUT CHEVRON BANK
5-26	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
5-27	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
6-01	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
6-02	R1-2	2S	36X31	3.88	---	---	---	---	1	---	---	---	YIELD
6-03	D1-2	Custom	42X30	8.75	---	---	---	---	1	---	---	---	EAST STH 21
6-04	J4-1	2S	24X36	6.00	---	---	---	---	1	---	---	---	REASSURANCE ASSEMBLY (1 HEADED ROUTE PANEL)
6-05		Custom	102X66	46.75	---	---	---	---	---	---	2	---	ROUNDABOUT 21/G
6-08	R2-1	2S	24X30	5.00	---	---	---	---	1	---	---	---	SPEED LIMIT 45 MPH
6-09	R4-7	2S	24X30	5.00	---	---	---	---	1	---	---	6-10	KEEP RIGHT
6-10	W5-54	2S	18X18	---	---	2.25	---	---	---	---	---	6-09	IN ROAD OBJECT MARKER WITH YELLOW TYPE F SHEETING
6-11		Custom	60X36	15.00	---	---	---	---	2	---	---	---	WILDERNESS COUNTY PARK/ARROW RIGHT
6-12		Custom	54X36	13.50	---	---	---	---	2	---	---	---	BUCKHORN STATE PARK/ARROW LEFT
6-13	W2-6	2S	30X30	---	---	6.25	---	---	---	1	---	6-14	ROUNDABOUT AHEAD
6-14	W13-1	2S	18X18	---	---	2.25	---	---	---	---	---	6-13	ADVISORY SPEED PLATE (YELLOW BACK)
6-15	J1-1	2S	24X39	6.50	---	---	---	---	1	---	---	---	JUNCTION OR END ASSEMBLY
7-01	W1-1L	2S	36X36	---	---	9.00	---	---	2	---	---	7-02	LEFT TURN ARROW
7-02	W13-1	2S	24X24	---	---	4.00	---	---	---	---	---	7-01	ADVISORY SPEED PLATE (YELLOW BACK)
7M-01		Custom	0X0	---	---	---	1	---	1	---	---	---	FOREST FIRE AREA
7M-02		Custom	0X0	---	---	---	1	1	---	---	---	---	ATV ROUTE ENDS
7-03	J1-1	2S	24X39	6.50	---	---	---	---	1	---	---	---	JUNCTION OR END ASSEMBLY
7-04	W2-6	2S	30X30	---	---	6.25	---	---	1	---	---	7-05	ROUNDABOUT AHEAD
7-05	W13-1	2S	18X18	---	---	2.25	---	---	---	---	---	7-04	ADVISORY SPEED PLATE (YELLOW BACK)
7-06	R4-7	2S	24X30	5.00	---	---	---	---	1	---	---	7-07	KEEP RIGHT
7-07	W5-54	2S	18X18	---	---	2.25	---	---	---	---	---	7-06	IN ROAD OBJECT MARKER WITH YELLOW TYPE F SHEETING
7-08		Custom	96X66	44.00	---	---	---	---	---	---	2	---	SPECIAL SIGN
8-01		Custom	96X66	44.00	---	---	---	---	---	---	2	---	SPECIAL SIGN
8-02	R4-7	2S	24X30	5.00	---	---	---	---	1	---	---	8-03	KEEP RIGHT
8-03	W5-54	2S	18X18	---	---	2.25	---	---	---	---	---	8-02	IN ROAD OBJECT MARKER WITH YELLOW TYPE F SHEETING
8-04	W2-6	2S	30X30	---	---	6.25	---	---	---	1	---	8-05	ROUNDABOUT AHEAD
8-05	W13-1	2S	18X18	---	---	2.25	---	---	---	---	---	8-04	ADVISORY SPEED PLATE (YELLOW BACK)
8M-01		Custom	0X0	---	---	---	1	1	---	---	---	---	ATV ROUTE ENDS
8-06	J1-1	2S	24X39	6.50	---	---	---	---	1	---	---	---	JUNCTION OR END ASSEMBLY
CAT 0020 TOTALS				430.04	0.00	47.50	5.00	10.00	37.00	2.00	8.00		
PROJECT TOTALS				**767.15**	**20.72**	**145.88**	**14.00**	**13.00**	**68.00**	**35.00**	**17.00**		

3

TRAFFIC CONTROL

PROJECT	CATEGORY	LOCATION		643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	*643.0900 SIGNS DAY	643.0920 COVERING SIGNS TYPE II EACH	643.1050 SIGNS PCMS DAY
6160-00-70										
	0010		NO. OF DAYS							
		STAGE 1A	3	133	14	26	-	106	2	28
		STAGE 1B	3	142	10	18	-	103	-	-
		STAGE 2	24	1,214	458	915	434	994	-	-
		STAGE 3	42	1,435	798	1,599	876	1,270	-	-
		STAGE 4	1	52	-	-	-	22	-	-
		DETOUR STAGE 2	24	-	-	-	-	3,225	5	-
		DETOUR STAGE 3	42	-	-	-	-	8,820	5	-
		CAT 0010 SUBTOTAL		2,976	1,280	2,558	1,310	14,540	12	28
	0020									
		PRE STAGE	6	417	-	-	-	108	-	-
		STAGE 1	33	3,619	464	926	2,082	961	-	-
		STAGE 2	27	2,880	299	596	1,138	712	-	-
		STAGE 3A	9	1,464	20	37	-	365	-	-
		STAGE 3B	9	1,045	36	73	-	184	-	-
		CAT 0020 SUBTOTAL		9,424	2,790	4,852	3,220	2,330	0	0
PROJECT 6160-00-70 TOTAL				**12,400**	**4,070**	**7,410**	**4,530**	**16,870**	**12**	**28**

* ADDITIONAL QUANTITIES FOUND ON "TEMPORARY PEDESTRIAN"

PAVEMENT MARKING REMOVAL AND TEMPORARY PAVEMENT MARKING

PROJECT	CATEGORY	LOCATION	646.9200 MARKING REMOVAL LINE WIDE LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW) LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (WHITE) LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW) LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE) LF	643.3265 TEMPORARY MARKING LINE PAINT 10-INCH (WHITE) LF	643.3280 TEMPORARY MARKING LINE REMOVABLE TAPE 10-INCH (WHITE) LF	643.3550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	643.3820 TEMPORARY MARKING STOP LINE EPOXY 18-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF
6160-00-70												
	0010											
		STAGE 1A	130	-	378	-	-	490	-	-	-	76
		STAGE 1B	-	-	159	-	-	-	-	-	-	-
		STAGE 2	-	884	1,050	350	350	122	-	1	58	-
		STAGE 3	-	3,376	1,288	-	-	-	26	1	-	22
		STAGE 4	-	-	-	-	-	-	-	-	-	-
		CAT 0010 TOTAL	130	4,260	2,875	350	350	612	26	2	58	98
				7,135		700						
	0020											
		PRE STAGE	-	-	1,507	-	-	-	-	-	-	-
		STAGE 1	-	3,960	3,868	-	-	-	-	-	-	-
		STAGE 2	-	-	-	3,945	3,945	-	-	-	-	40
		STAGE 3	-	-	-	-	-	-	-	-	-	-
		CAT 0020 TOTAL	0	3,960	5,375	3,945	3,945	0	0	0	0	40
				9,335		7,890						
PROJECT 6160-00-70 TOTAL			**130**	8,220	8,250	4,295	4,295	**612**	**26**	**2**	**58**	**138**
				16,470		**8,590**						

TEMPORARY PEDESTRIAN

PROJECT	CATEGORY	LOCATION	643.0900* TRAFFIC CONTROL SIGNS DAY	644.1440 SURFACE MATTING SF	644.1601 CURB RAMP DAY	644.1605 DETECTABLE WARNING FIELD SF	644.1810 BARRICADE LF
6160-00-70							
	0010						
		STAGE 1A	18	-	-	-	70
		STAGE 1B	21	-	6	10	70
		STAGE 2	123	3,000	360	150	1,000
		STAGE 3	168	1,500	84	20	500
		STAGE 4	-	-	-	-	-
		CAT 0010 TOTAL	330	4,500	450	180	1,640
PROJECT 6160-00-70 TOTAL			**330**	**4,500**	**450**	**180**	**1,640**

* ADDITIONAL ITEMS SHOWN ON 'TRAFFIC CONTROL'

LOCATING NO-PASSING ZONES

PROJECT	CATEGORY	LOCATION	648.0100 LOCATING NO-PASSING ZONES MI
6160-00-70			
	0010		
		PROJECT 6160-00-70	3.199
		CAT 0010 TOTAL	3.199
PROJECT 6160-00-70 TOTAL			**3.199**

3

PAVEMENT MARKING

PROJECT	CATEGORY		LOCATION	STATION - STATION	646.2020 MARKING LINE EPOXY 6-INCH LF (WHITE)	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF (WHITE)	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH LF (YELLOW)	646.4720 MARKING LINE SAME DAY EPOXY 6-INCH LF (YELLOW)	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH LF (WHITE)	646.5020 MARKING ARROW EPOXY EACH (WHITE)	646.5320 MARKING RAILROAD CROSSING EPOXY EACH (WHITE)	646.6120 MARKING STOP LINE EPOXY 18-INCH LF (WHITE)	646.6220 MARKING YIELD LINE EPOXY 18-INCH LF (WHITE)	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH LF (WHITE)	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF (YELLOW)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF (WHITE)	646.8120 MARKING CURB EPOXY LF (YELLOW)	646.8220 MARKING ISLAND NOSE EPOXY EACH (YELLOW)
6160-00-70																		
	0010																	
		STAGE 2																
			BOP - STH 80	642+99 - 649+84 '21'	-	-	1,264	-	279	3	-	120	12	-	-	617	5	1
			STAGE 2 SUBTOTAL		0	0	1,264	0	279	3	0	120	12	0	0	617	5	1
		STAGE 3																
			STH 80 - B-29-006	649+84 - 653+84 '21'	-	439	1,736	-	366	4	2	100	23	-	76	290	11	2
			B-29-006 - B-29-136	656+47 - 665+67 '21'	494	1,885	-	2,269	-	-	-	-	-	-	-	-	-	-
			B-29-136 - B-29-100	667+57 - 677+27 '21'	393	1,789	-	1,663	-	-	-	-	-	-	-	-	-	-
			B-29-100 - C-29-015	678+75 - 691+18 '21'	313	2,359	-	365	-	-	-	-	-	-	-	-	-	-
			C-29-015 - RAB	691+31 - 694+18 '21'	-	588	-	281	-	-	-	-	-	-	-	-	-	-
			RAB - 16TH AVE	708+95 - 732+63 '21'	-	4,603	-	2,621	-	-	-	-	-	-	-	-	-	-
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	-	6,339	-	837	-	-	-	-	-	-	-	-	-	-
			17TH AVE - EOP	765+84 - 818+04 '21'	-	9,699	-	6,864	-	-	-	-	-	-	-	-	-	-
			STAGE 3 SUBTOTAL		1,200	27,700	1,736	14,900	366	4	2	100	23	0	76	290	11	2
				CAT 0010 TOTAL	1,200	27,700	3,000	14,900	645	7	2	220	34	0	76	907	16	3
							30,700											
	0020																	
		STAGE 1																
			RAB	694+18 - 708+95 '21'	-	1,164	1,985	-	53	-	-	-	-	14	120	-	20	2
			STAGE 1 SUBTOTAL		0	1,164	1,985	0	53	0	0	0	0	14	120	0	20	2
		STAGE 2																
			RAB	694+18 - 708+95 '21'	-	1,220	2,444	-	45	-	-	-	-	16	120	-	20	2
			STAGE 2 SUBTOTAL		0	1,220	2,444	0	45	0	0	0	0	16	120	0	20	2
		STAGE 3																
			RAB	694+18 - 708+95 '21'	-	2,486	4,201	-	137	-	-	-	-	27	156	-	40	4
			STAGE 3 SUBTOTAL		0	2,486	4,201	0	137	0	0	0	0	27	156	0	40	4
				CAT 0020 TOTAL	0	4,870	8,630	0	235	0	0	0	0	56	396	0	80	8
							13,500											
PROJECT 6160-00-70 TOTAL					**1,200**	32,570	11,630	**14,900**	**880**	**7**	**2**	**220**	**34**	**56**	**472**	**907**	**96**	**11**
							44,200											

3

CONSTRUCTION STAKING

PROJECT	CATEGORY		LOCATION	STATION - STATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.6000 PIPE CULVERTS EACH	650.7000 CONCRETE PAVEMENT LF	650.8000 RESURFACING REFERENCE LF	650.9000 CURB RAMPS EACH	650.9500 SIDEWALK 6170-00-70 EACH	650.9911 SUPPLEMENTAL CONTROL 6170-00-70 EACH	650.9920 SLOPE STAKES LF
6160-00-70														
	0010													
		STAGE 2												
			STH 80 NORTH	227+00'B' - 230+96'B'	-	-	111	-	287	-	-	-	-	-
			STH 80 SOUTH	224+88'B' - 227+00'B'	-	-	-	-	212	-	-	-	-	-
			BOP - HIGH ST	642+99 - 646+08 '21'	-	-	-	-	309	-	3	-	-	-
			HIGHT ST - CENTER ST	646+08 - 647+98 '21'	-	-	-	-	190	-	2	-	-	-
			CENTER ST - STH 80	647+98 - 649+85 '21'	-	-	-	-	187	-	7	-	-	-
			STAGE 2 SUBTOTAL		0	0	111	0	1,185	0	12	0	0	0
		STAGE 3												
			STH 80 NORTH	227+00'B' - 230+96'B'	-	-	110	-	287	-	-	-	-	-
			STH 80 SOUTH	224+88'B' - 227+00'B'	-	-	-	-	212	-	-	-	-	-
			STH 80 - B-29-006	649+84 - 653+84 '21'	-	-	150	-	326	-	10	-	-	148
			B-29-006 - B-29-136	656+47 - 665+67 '21'	-	-	-	-	-	920	-	-	-	-
			B-29-136 - B-29-100	667+57 - 677+27 '21'	-	-	-	-	-	1,051	-	-	-	-
			B-29-100 - C-29-015	678+75 - 691+18 '21'	-	-	-	-	-	1,329	-	-	-	-
			C-29-015 - RAB	691+31 - 694+18 '21'	-	-	-	-	-	298	-	-	-	-
			RAB - 16TH AVE	708+95 - 732+63 '21'	-	-	-	-	-	2,369	-	-	-	-
			16TH AVE - 17TH AVE	732+63 - 765+84 '21'	-	-	-	-	-	3,322	-	-	-	-
			17TH AVE - EOP	765+84 - 818+04 '21'	-	-	-	-	-	5,221	-	-	-	-
			STAGE 3 SUBTOTAL		0	0	260	0	825	14,510	10	0	0	148
			UNDISTRIBUTED		-	-	-	-	-	-	-	1	1	-
			CAT 0010 TOTAL		0	0	371	0	2,010	14,510	22	1	1	148
	0020													
		STAGE 1												
			RAB WEST LEG	694+18 - 700+53 '21'	635	324	-	-	311	-	-	-	-	635
			RAB EAST LEG	700+53 - 708+95 '21'	842	464	186	-	555	-	-	-	-	841
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	649	515	180	-	306	-	2	-	-	650
			STAGE 1 SUBTOTAL		2,126	1,303	366	0	1,172	0	2	0	0	2,126
		STAGE 2												
			RAB WEST LEG	694+18 - 700+53 '21'	635	460	146	1	311	-	-	-	-	635
			RAB EAST LEG	700+53 - 708+95 '21'	842	286	-	-	555	-	-	-	-	841
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	651	512	177	-	307	-	2	-	-	2,631
			STAGE 2 SUBTOTAL		2,128	1,258	323	1	1,173	0	2	0	0	4,107
		STAGE 3												
			RAB WEST LEG	694+18 - 700+53 '21'	-	-	-	-	-	-	2	-	-	-
			RAB EAST LEG	700+53 - 708+95 '21'	-	-	-	-	-	-	2	-	-	-
			STAGE 3 SUBTOTAL		0	0	0	0	0	0	4	0	0	0
			CAT 0020 TOTAL		4,254	2,561	689	1	2,345	0	8	0	0	6,233
PROJECT 6160-00-70 TOTAL					**4,254**	**2,561**	**1,060**	**1**	**4,355**	**14,510**	**30**	**1**	**1**	**6,381**

SAWING

PROJECT	CATEGORY		LOCATION	STATION - STATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
6160-00-70						
	0010					
		PRESTAGE				
			C-29-015 - RAB	691+31 - 694+18	251	-
			STAGE 1 SUBTOTAL		251	0
		STAGE 1				
			STH 80 NORTH LEG	227+61 - 229+87 'B'	-	413
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	492
			STAGE 1 SUBTOTAL		0	905
		STAGE 2				
			STH 80 NORTH LEG	227+61 - 229+87 'B'	32	371
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	267
			BOP - HIGH STREET	642+99 - 646+08 '21'	43	97
			HIGH STREET - CENTER STREET	646+08 - 647+98 '21'	-	138
			CENTER STREET - STH 80	647+98 - 649+84 '21'	48	97
			C-29-015 - RAB	691+31 - 694+18	202	-
			STAGE 2 SUBTOTAL		325	970
		STAGE 3				
			STH 80 SOUTH LEG	224+88 - 226+93 'B'	-	178
			STH 80 - B-29-006	649+84 - 653+84 '21'	84	57
			STAGE 3 SUBTOTAL		84	235
				CAT 0010 TOTAL	660	2,110
	0020					
		PRESTAGE				
			RAB WEST LEG	694+18 - 700+53 '21'	650	-
			RAB EAST LEG	700+53 - 708+95 '21'	507	-
			STAGE 1 SUBTOTAL		1,157	0
		STAGE 1				
			RAB WEST LEG	694+18 - 700+53 '21'	695	-
			RAB EAST LEG	700+53 - 708+95 '21'	772	-
			CTH G SOUTH LEG	10+50 - 17+15 'GNS'	104	-
			STAGE 1 SUBTOTAL		1,571	0
		STAGE 2				
			RAB WEST LEG	694+18 - 700+53 '21'	342	-
			RAB EAST LEG	700+53 - 708+95 '21'	19	-
			CTH G NORTH LEG	20+00 - 26+51 'GNN'	24	-
			STAGE 2 SUBTOTAL		385	0
		STAGE 3A				
			RAB WEST LEG	694+18 - 700+53 '21'	527	-
			STAGE 3 SUBTOTAL		527	0
				CAT 0020 TOTAL	3,640	0
PROJECT 6160-00-70 TOTAL					**4,300**	**2,110**

LANDSCAPE STONE

PROJECT	CATEGORY			LOCATION	STATION - STATION	RT/LT	SPV.0195.01 LANDSCAPE STONE TON	SPV.0180.01 SALVAGE AND REINSTALL LANDSCAPE STONE SY
6160-00-70								
	0010							
		STAGE 2						
				CENTER STREET - STH 80	647+98 - 649+84 '21'	LT	30	100
				STAGE 2 SUBTOTAL			30	100
					CAT 0010 TOTAL		30	100
PROJECT 6160-00-70 TOTAL							**30**	**100**

REMOVING DISTRESSED PAVEMENT MILLING

PROJECT	CATEGORY	LOCATION	SPV.0180.02 REMOVING DISTRESSED PAVEMENT MILLING SY	*455.0605 TACK COAT GAL	**465.0105 ASPHALTIC SURFACE TON
6160-00-70					
	0010				
		UNDISTRIBUTED	2,000	140	340
		CAT 0010 SUBTOTAL	2,000	140	340
PROJECT 6160-00-70 TOTAL			**2,000**	**140**	**340**

*ADDITIONAL QUANTITY FOUND IN "HMA ITEMS"
**ADDITIONAL QUANTITY FOUND IN "ASPHALT ITEMS"

3

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTION

PROJECT	CATEGORY	LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR FOR INTERSECTION (STH 80 & STH 21) EACH
6160-00-70			
	0010		
		STH80 & STH 21	1
			1
PROJECT 6160-00-70 TOTAL			**1**

PROJECT 6160-00-70 TOTAL **1**

Pull Boxes

Category	Station	Dir	Location	* 653.0164 Pull Boxes Non-Conductive 24x42-Inch EACH	Description
0010	650 + 43	LEFT	54	1	PB1
0010	650 + 11	LEFT	36	1	PB2
0010	650 + 34	RIGHT	33	1	PB3
0010	650 + 53	RIGHT	63	1	PB4
0010	649 + 55	RIGHT	44	1	PB5
0010	649 + 47	RIGHT	38	1	PB6
0010	649 + 35	LEFT	30	1	PB7
0010	649 + 3	LEFT	52	1	PB8
0010	650 + 6	LEFT	39	1	PB9
0010	650 + 38	LEFT	56	1	PB10
0010	651 + 46	LEFT	33	1	PB11
0010	652 + 10	LEFT	34	1	PB12
0010	650 + 61	RIGHT	179	1	PB13
0010	648 + 35	RIGHT	30	1	PB14
0010	647 + 58	RIGHT	30	1	PB15
0010	648 + 83	LEFT	164	1	PB16
		Total		**16**	

Signal Bases

Category	Station	Dir	Location	654.0101 Concrete Bases Type 1 EACH	654.0102 Concrete Bases Type 2 EACH	* 654.0105 Concrete Bases Type 5 EACH	654.0113 Concrete Bases Type 13 EACH	Description
0010	650 + 19	LEFT	30	1				SB1
0010	650 + 31	RIGHT	31	1				SB2
0010	650 + 26	RIGHT	40	1				SB3
0010	650 + 73	RIGHT	50				1	SB4
0010	649 + 67	RIGHT	64				1	SB5
0010	649 + 62	RIGHT	53	1				SB6
0010	649 + 31	RIGHT	31	1				SB7
0010	649 + 19	RIGHT	28		1			SB8
0010	649 + 38	LEFT	32	1				SB9
0010	649 + 43	LEFT	37	1				SB10
0010	648 + 80	LEFT	39				1	SB11
0010	650 + 8	LEFT	35	1				SB12
0010	650 + 10	LEFT	74				1	SB13
0010	650 + 62	RIGHT	64			1		LB1
0010	649 + 8	LEFT	56			1		LB2
0010	650 + 34	LEFT	61			1		LB3
		Total		**8**	**1**	**3**	**4**	

3

Electrical Items

Category	Station	Dir	Location	656.0201.01 Electrical Service Meter Breaker Pedestal STH 80 EACH	650.8501 Construction Staking Electrical Installations 6160-00-70 EACH	658.5070 Signal Mounting Hardware EACH	654.0217 Concrete Control Cabinet Bases Type 9 Special EACH	204.0195 Removing Concrete Bases EACH	204.9060.S Removing Traffic Signals EACH	653.0905 Removing Pull Boxes EACH	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor EACH	Description
0010	650 + 45	LEFT	61	1		1	1	9	8	13	24	SC1
0010	650 + 45	LEFT	61		1							Project
			Total	**1**	**1**	**1**	**1**	**9**	**8**	**13**	**24**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE.

Electrical Conduit

Category	Station	to	Station	652.0225* Conduit Rigid Nonmetallic Schedule 40 2-Inch LF	652.0235* Conduit Rigid Nonmetallic Schedule 40 3-Inch LF	652.0800 Conduit Loop Detector LF	Description
0010	651 + 46					54	LOOP 21 - PB11
0010	651 + 46					78	LOOP 51 - PB11
0010	650 + 61					44	LOOP 81 - PB13
0010	650 + 61					68	LOOP 31 - PB13
0010	647 + 58					44	LOOP 61 - PB15
0010	647 + 58					68	LOOP 11 - PB15
0010	648 + 83					42	LOOP 41 - PB16
0010	648 + 83					66	LOOP 71 - PB16
0010	650 + 45	to	650 0 + 43		23		SC1 to PB1
0010	650 + 43	to	650 0 + 11		74		PB1 to PB2
0010	650 + 11	to	650 0 + 34		146		PB2 to PB3
0010	650 + 34	to	649 0 + 55		161		PB3 to PB5
0010	649 + 55	to	649 0 + 47		21		PB5 to PB6
0010	649 + 47	to	649 0 + 35		138		PB6 to PB7
0010	649 + 35	to	650 0 + 06		142		PB7 to PB9
0010	650 + 06	to	650 0 + 38		74		PB9 to PB10
0010	650 + 38	to	650 0 + 45		25		PB10 to SC1
0010	650 + 34	to	650 0 + 53		72		PB3 to PB4
0010	649 + 35	to	649 0 + 03		78		PB7 to PB8
0010	650 + 43	to	651 0 + 46	106			PB1 to PB11
0010	651 + 46	to	652 0 + 10	64			PB11 to PB12
0010	650 + 53	to	650 0 + 61	117			PB4 to PB13
0010	649 + 47	to	648 0 + 35	112			PB6 to PB14
0010	648 + 35	to	647 0 + 58	78			PB14 to PB15
0010	649 + 03	to	648 0 + 83	115			PB8 to PB16
0010	650 + 11	to	650 0 + 19	10			PB2 to SB1
0010	650 + 34	to	650 0 + 31	5			PB3 to SB2
0010	650 + 34	to	650 0 + 26	11			PB3 to SB3
0010	650 + 53	to	650 0 + 73		25		PB4 to SB4
0010	649 + 55	to	649 0 + 67		24		PB5 to SB5
0010	649 + 55	to	649 0 + 62	12			PB5 to SB6
0010	649 + 47	to	649 0 + 31	17			PB6 to SB7
0010	649 + 47	to	649 0 + 19	30			PB6 to SB8
0010	649 + 35	to	649 0 + 38	4			PB7 to SB9
0010	649 + 35	to	649 0 + 43	11			PB7 to SB10
0010	649 + 03	to	648 0 + 80		27		PB8 to SB11
0010	650 + 06	to	650 0 + 08	5			PB9 to SB12
0010	650 + 38	to	650 0 + 10		34		PB10 to SB13
0010	650 + 53	to	650 0 + 62	9			PB4 to LB1
0010	649 + 03	to	649 0 + 08	7			PB8 to LB2
0010	650 + 38	to	650 0 + 34	7			PB10 to LB3
			Total	**720**	**1064**	**464**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE.

Signal Wire

Category	Station		Station		655.0210 Cable Traffic Signal 3-14 AWG LF	655.0230 Cable Traffic Signal 5-14 AWG LF	655.0240 Cable Traffic Signal 7-14 AWG LF	655.0260 Cable Traffic Signal 12-14 AWG LF	655.0305 Cable Type UF 2-12 AWG Grounded LF	655.0515 Electrical Wire Traffic Signals 10 AWG LF	* 655.0610 Electrical Wire Traffic Lighting 12 AWG LF	655.0700 Loop Dectector Lead in Cable LF	655.0800 Loop Detector Wire LF	SPV.0090.03 Install State-Supplied Non-Intrusive Detection Cable LF	Description
0010	651 0	+ 46											172		PB11 LOOP 21
0010	651 0	+ 46											322		PB11 LOOP 51
0010	650 0	+ 61											142		PB13 LOOP 81
0010	650 0	+ 61											282		PB13 LOOP 31
0010	647 0	+ 58											142		PB15 LOOP 61
0010	647 0	+ 58											282		PB15 LOOP 11
0010	648 0	+ 83											136		PB16 LOOP 41
0010	648 0	+ 83											274		PB16 LOOP 71
0010	650 0	+ 19			15	40									SB1 - Up Pole
0010	650 0	+ 31			15	18									SB2 - Up Pole
0010	650 0	+ 26			15	40									SB3 - Up Pole
0010	650 0	+ 73				152									SB4 - Up Pole
0010	649 0	+ 67			15	146					159			152	SB5 - Up Pole
0010	649 0	+ 62													SB6 - Up Pole
0010	649 0	+ 31			15										SB7 - Up Pole
0010	649 0	+ 19				40					132				SB8 - Up Pole
0010	649 0	+ 38			15	18									SB9 - Up Pole
0010	649 0	+ 43			15	40									SB10 - Up Pole
0010	648 0	+ 80				122									SB11 - Up Pole
0010	650 0	+ 8			15	18									SB12 - Up Pole
0010	650 0	+ 10				132								132	SB13 - Up Pole
0010	650 0	+ 62									150				LB1 - Up Pole
0010	649 0	+ 8									150				LB2 - Up Pole
0010	650 0	+ 34									150				LB3 - Up Pole
0010	650 000	+ 45	to 650 000	+ 19			86								SC1 to SB1
0010	650 000	+ 45	to 650 000	+ 31			164								SC1 to SB2
0010	650 000	+ 45	to 650 000	+ 26				170							SC1 to SB3
0010	650 000	+ 45	to 650 000	+ 73				230							SC1 to SB4
0010	650 000	+ 45	to 649 000	+ 67				274						274	SC1 to SB5
0010	650 000	+ 45	to 649 000	+ 31			254								SC1 to SB7
0010	650 000	+ 45	to 649 000	+ 19				267							SC1 to SB8
0010	650 000	+ 45	to 649 000	+ 38			162								SC1 to SB9
0010	650 000	+ 45	to 649 000	+ 43				169							SC1 to SB10
0010	650 000	+ 45	to 648 000	+ 80				234							SC1 to SB11
0010	650 000	+ 45	to 650 000	+ 8			82								SC1 to SB12
0010	650 000	+ 45	to 650 000	+ 10				64						64	SC1 to SB13
0010	650 000	+ 45	to 650 000	+ 19								86			SC1 to SB1
0010	650 000	+ 45	to 650 000	+ 31								164			SC1 to SB2
0010	650 000	+ 45	to 650 000	+ 26								170			SC1 to SB3
0010	650 000	+ 45	to 649 000	+ 62								262			SC1 to SB6
0010	650 000	+ 45	to 649 000	+ 31								254			SC1 to SB7
0010	650 000	+ 45	to 649 000	+ 38								162			SC1 to SB9
0010	650 000	+ 45	to 649 000	+ 43								169			SC1 to SB10
0010	650 000	+ 45	to 650 000	+ 8								82			SC1 to SB12
0010	650 000	+ 45	to 651 000	+ 46								141			SC1 to PB11
0010	650 000	+ 45	to 651 000	+ 46								141			SC1 to PB11
0010	650 000	+ 45	to 650 000	+ 61								328			SC1 to PB13
0010	650 000	+ 45	to 650 000	+ 61								328			SC1 to PB13
0010	650 000	+ 45	to 647 000	+ 58								443			SC1 to PB15
0010	650 000	+ 45	to 647 000	+ 58								443			SC1 to PB15
0010	650 000	+ 45	to 648 000	+ 83								328			SC1 to PB16
0010	650 000	+ 45	to 648 000	+ 83								328			SC1 to PB16
0010	650 000	+ 45	to 650 000	+ 62					210						SC1 to LB1
0010	650 000	+ 62	to 649 000	+ 67					184						LB1 to SB5
0010	649 000	+ 67	to 649 000	+ 19					93						SB5 to SB8
0010	650 000	+ 45	to 650 000	+ 34					33						SC1 to LB3
0010	650 000	+ 34	to 649 000	+ 8					201						LB3 to LB2
0010	650 000	+ 45	to 650 000	+ 73						324					SC1 to SB4 Grounding Conductor
0010	650 000	+ 73	to 649 000	+ 19						379					SB4 to SB8 Grounding Conductor
0010	649 000	+ 19	to 650 000	+ 8						437					SB8 to SB12 Grounding Conductor
0010	650 000	+ 08	to 650 000	+ 45						164					SB12 to SC1 Grounding Conductor
				Total	120	766	748	1408	721	1304	741	3829	1752	622	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE.

3

Poles, Arms & Equipment

Category	Station	Dir	Location	657.0356 Poles Type 12 Over Height EACH	657.0361 Poles Type 13 Over Height EACH	657.0535 Monotube Arms 35-FT EACH	657.0540 Monotube Arms 40-FT EACH	657.0550 Monotube Arms 50-FT EACH	657.0815 Luminaire Arms Steel 15-FT EACH	657.0825 Luminaire Arms Steel Type 13 Pole Clamp 15-FT	657.0100 Pedestal Bases EACH	* 657.0255 Transformer Bases Breakaway 11 1/2 Inch Bolt Circle EACH	657.0405 Traffic Signal Standard Aluminum 3.5' EACH	657.0420 Traffic Signal Standard Aluminum 13' EACH	657.0425 Traffic Signal Standard Aluminum 15' EACH	657.0430 Traffic Signal Standard Aluminum 10' EACH	657.0315 Poles Type 4 EACH	* 657.0322 Poles Type 5- Aluminum EACH	657.0710 Luminaire Arms Truss Member 4.5-Inch Clamp 12-FT EACH	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT EACH	658.0173 Traffic Signal Face 3S 12-Inch EACH	658.0174 Traffic Signal Face 4S 12-Inch EACH	658.0500 Pedestrian Push Button EACH	658.0416 Pedestrian Signal Face Ped 16-inch EACH	659.1125 Luminaires Utility LED C EACH	Desc
0010	650 + 19	LEFT	30								1				1						1	1	1	1		SB1
0010	650 + 31	RIGHT	31								1			1							1		1	1		SB2
0010	650 + 26	RIGHT	40								1				1						1	1	1	1		SB3
0010	650 + 73	RIGHT	50	1				1													1	1				SB4
0010	649 + 67	RIGHT	64		1	1			1	1											2	1		1	1	SB5
0010	649 + 62	RIGHT	53								1		1										1			SB6
0010	649 + 31	RIGHT	31								1						1						1	1		SB7
0010	649 + 19	RIGHT	28									1					1			1	1	1			1	SB8
0010	649 + 38	LEFT	32								1			1							1		1	1		SB9
0010	649 + 43	LEFT	37								1				1						1	1	1	1		SB10
0010	648 + 80	LEFT	39	1		1															1	1				SB11
0010	650 + 8	LEFT	35								1			1							1		1	1		SB12
0010	650 + 10	LEFT	74		1		1														1	1				SB13
0010	650 + 62	RIGHT	64									1						1	1						1	LB1
0010	649 + 8	LEFT	56									1						1	1						1	LB2
0010	650 + 34	LEFT	61							1		1						1	1						1	LB3
		Total		**2**	**2**	**2**	**1**	**1**	**1**	**2**	**8**	**4**	**1**	**3**	**3**	**1**	**1**	**3**	**3**	**1**	**12**	**8**	**8**	**8**	**5**	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE.

LIGHTING CONDUIT AND WIRE

FROM	-	TO	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	REMARKS
ALL ITEMS ARE CATEGORY 0020								
SL 114	-	PB 108	145	--	--	--	474	--
PB 108	-	PB 107	--	--	115	--	655	--
PB 108	-	SL 115	30	--	--	--	559	--
PB 108	-	PB 109	75	--	--	--	455	--
PB 109	-	CB 100	--	5	--	23	--	PULL WIRE ONLY
PB 109	-	CB 100	--	5	--	--	115	--
CB 100	-	PB 100	--	5	--	23	--	PULL WIRE ONLY
CB 100	-	PB 100	--	5	--	--	115	--
PB 100	-	PB 101	25	--	--	--	205	--
PB 101	-	SL 100	10	--	--	--	299	--
PB 101	-	SL 101	245	--	--	--	774	--
PB 101	-	PB 102	--	--	90	--	530	--
PB 102	-	SL 102	100	--	--	--	339	--
PB 102	-	SL 103	35	--	--	--	624	--
PB 102	-	PB 103	80	--	--	--	480	--
PB 103	-	SL 104	10	--	--	--	253	--
PB 103	-	PB 104	--	--	130	--	438	--
PB 103	-	SL 105	260	--	--	--	819	--
SL 106	-	PB 104	130	--	--	--	429	--
PB 104	-	SL 107	35	--	--	--	288	--
PB 104	-	PB 105	115	--	--	115	--	PULL WIRE ONLY
PB 105	-	PB 106	--	--	100	--	348	--
PB 105	-	SL 108	5	--	--	--	108	--
PB 105	-	SL 109	265	--	--	--	834	--
SL 110	-	PB 106	140	--	--	--	459	--
PB 106	-	SL 111	35	--	--	--	528	--
PB 106	-	PB 107	90	--	--	--	530	--
PB 107	-	SL 112	10	--	--	--	299	--
PB 107	-	SL 113	275	--	--	--	864	--
PRJOECT TOTALS			2115	20	435	161	11821	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING PULLBOXES

PULLBOX NUMBER	STATION	OFFSET	R/L	* 653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
ALL ITEMS ARE CATEGORY 0020				
PB 100	10+57'GC'	46.7	LT	1
PB 101	20+41'GSN'	38	LT	1
PB 102	20+36'GNN'	37.7	RT	1
PB 103	702+57'21E'	44.5	LT	1
PB 104	702+36'21'	38.4	RT	1
PB 105	16+74'GNS'	39.8	RT	1
PB 106	16+79'GSS'	38.5	LT	1
PB 107	699+73'21'	46.6	RT	1
PB 108	700+27'21W'	37.4	LT	1
PB 109	10+46'GC'	42.2	LT	1
PROJECT TOTALS				10

* ADDITIONAL QUANTITIES FOUND ELSEWHERE.

STREET LIGHTING

LIGHT NUMBER	STATION	OFFSET	R/L	* 654.0105 CONCRETE BASES TYPE 5 EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/12-INCH BOLT CIRCLE EACH	* 657.0322 POLES TYPE 5 ALUMINUM EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	659.1120 LUMINAIRES UTILITY LED B EACH	*655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
ALL ITEMS ARE CATEGORY 0020									
SL 100	20+53'GSN'	35.1'	LT	1	1	1	1	1	141
SL 101	22+85'GSN'	26.5'	LT	1	1	1	1	1	141
SL 102	21+36'GNN'	24.8'	RT	1	1	1	1	1	141
SL 103	11+18'GC'	46.2'	LT	1	1	1	1	1	141
SL 104	702+70'21E'	41.9'	LT	1	1	1	1	1	141
SL 105	705+21'21E'	22.4'	LT	1	1	1	1	1	141
SL 106	703+55'21'	21.8'	RT	1	1	1	1	1	141
SL 107	702+02'21'	37.7'	RT	1	1	1	1	1	141
SL 108	16+66'GNS'	38.1'	RT	1	1	1	1	1	141
SL 109	14+12'GNS'	23.8'	RT	1	1	1	1	1	141
SL 110	15+39'GSS'	20'	LT	1	1	1	1	1	141
SL 111	17+10'GSS'	38.1'	LT	1	1	1	1	1	141
SL 112	699+58'21'	44'	RT	1	1	1	1	1	141
SL 113	696+95'21'	21.1'	RT	1	1	1	1	1	141
SL 114	698+88'21W'	22.8'	LT	1	1	1	1	1	141
SL 115	700+54'21W'	34.6'	LT	1	1	1	1	1	141
PROJECT TOTALS				16	16	16	16	16	2256

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH	656.0201.001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CB100) EACH	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH
ALL ITEMS ARE CATEGORY 0020						
CB100	10+51'GC'	44.9'	RT	1	1	1
PROJECT TOTALS				1	1	1

DOCUMENT # 749451
RECORDED 01-31-2022 at 8:37 AM
STACY D. HAVILL, REGISTER OF DEEDS
JUNEAU CO., WI
FEE AMOUNT: $25.00

TOTAL PAGES: 3
DOCUMENT HAS BEEN ELECTRONICALLY RECORDED

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6160-00-20 - 4.01
SHEET 1 OF 3

TRANSPORTATION PROJECT PLAT NO: 6160-00-20 - 4.01

THAT PART OF LOT 73, LOT 74 AND LOT 77 OF VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 4, PART OF LOT 1 OF VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 7, PART OF LOT 1, BLOCK 2 AND PART OF LOT 6, BLOCK 8 OF T WESTON CO'S FIRST ADDITION TO THE VILLAGE OF NECEDAH, PART OF LOT 1 AND PART OF OUTLOT 1 OF CSM 2052, RECORDED IN VOLUME 8, PAGE 19 AS DOCUMENT NUMBER 336622, ALL LOCATED IN AND INCLUDING PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 13, T18N, R3E, VILLAGE OF NECEDAH, JUNEAU COUNTY, WISCONSIN.

RELOCATION ORDER: STH 21, NECEDAH - COLOMA, (SHERIDAN STREET TO EAST COUNTY LINE), JUNEAU COUNTY.

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT.
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JUNEAU COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

BASIS OF EXISTING ACCESS CONTROL FROM PREVIOUS R/W PROJECT 7010-04-21, 7010-04-29.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3.

FOR COURSE AND STATION OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 3 OF 3.

HIGHWAY	BASIS OF EXISTING R/W
STH 21 / 3RD STREET	PREVIOUS R/W PROJECT S0500(15), 7010-04-21, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 4, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 7, CSM 2052, CSM 3703, POS 10OCT82, POS 23APR15
S. SHERIDAN STREET	PREVIOUS R/W PROJECT S0500(15), 7010-04-21, T WESTON CO'S FIRST ADDITION TO THE VILLAGE OF NECEDAH, POS 10OCT82, POS 25FEB09
N. SHERIDAN STREET	PREVIOUS R/W PROJECT 7010-04-21, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 4
HIGH STREET	PREVIOUS R/W PROJECT 7010-04-21, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 4, POS 23APR15
CENTER STREET	PREVIOUS R/W PROJECT 7010-04-21, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 7
STH 80 / MAIN STREET	PREVIOUS R/W PROJECT 7010-04-21, 1628-00-21, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 4, VILLAGE OF NECEDAH ASSESSOR'S PLAT NO. 7, CSM 2052, CSM 3703

PI STA = 228+59.20'B'
Y = 240515.412
X = 463481.170
DELTA = 32°09'26" RT
D = 11°27'33"
T = 144.12'
L = 280.62'
R = 500.00'
PC STA = 227+15.09'B'
PT STA = 229+95.71'B'

PI STA = 640+04.18
Y = 239781.169
X = 462793.443
DELTA = 38°43'00" LT
D = 04°00'00"
T = 503.29'
L = 967.99'
R = 1432.50'
PC STA = 635+00.89
PT STA = 644+68.88
DB = S89°20'08"E

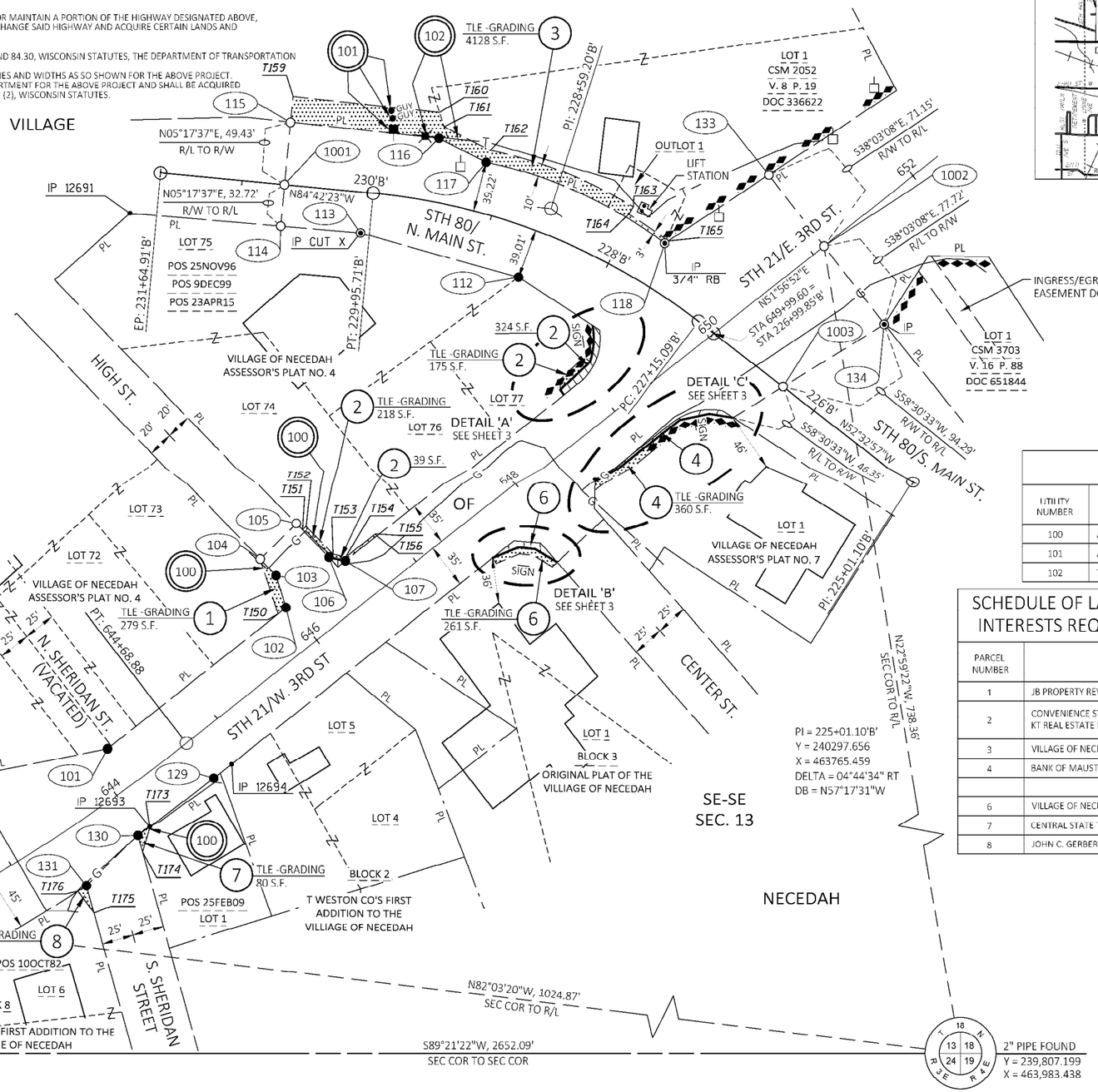
PC STA 635+00.89
TO PT # 1000
L = 704.34'
LCH = 697.27'
LCB = N76°34'43"E
R = 1432.50'

PT # 1000 TO
PT STA 644+68.88
L = 263.65'
LCH = 263.28'
LCB = N57°13'13"E
R = 1432.50'

PI = 225+01.10'B'
Y = 240297.656
X = 463765.459
DELTA = 04°44'34" RT
DB = N57°17'31"W

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	ALLIANT ENERGY - GAS	NO EASEMENT OF RECORD FOUND	1, 2, 4, 7
101	ALLIANT ENERGY - ELECTRIC	GENERAL UTILITY EASEMENT DOC 336622	3
102	TDS - TELECOM	GENERAL UTILITY EASEMENT DOC 336622	3



UTILITY INTERESTS REQUIRED

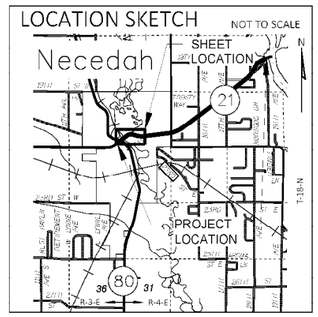
UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	ALLIANT ENERGY - GAS	RELEASE OF RIGHTS
101	ALLIANT ENERGY - ELECTRIC	RELEASE OF RIGHTS
102	TDS TELECOM	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
1	JB PROPERTY REVIVAL, LLC	TLE	----	----	----	279
2	CONVENIENCE STORE INVESTMENTS k/n/a KT REAL ESTATE HOLDINGS	FEE/TLE	363	----	363	393
3	VILLAGE OF NECEDAH	TLE	----	----	----	4128
4	BANK OF MAUSTON	FEE/TLE	312	----	312	360
6	VILLAGE OF NECEDAH AND TOWNSHIP OF NECEDAH	FEE/TLE	221	----	221	261
7	CENTRAL STATE TELEPHONE COMPANY	TLE	----	----	----	80
8	JOHN C. GERBER	TLE	----	----	----	85

LOCATION SKETCH
NOT TO SCALE



GN
SCALE, FEET
0 50 100

KL Engineering
[A] Better Experience

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

SIGNATURE: _____ DATE: 01/11/2022
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT.

SIGNATURE: _____ DATE: _____2022
PRINT NAME: CORY SCHLAGEL

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : JANUARY 11, 2022
PLOT DATE : 1/10/2022 1:28 PM
PLOT BY : TIMOTHY HELD
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

6160-00-20 - 4.01

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
6160-00-20
NECEDAH - COLOMA
(SHERIDAN STREET TO EAST COUNTY LINE)
STH 21
JUNEAU COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE
CULVERT

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

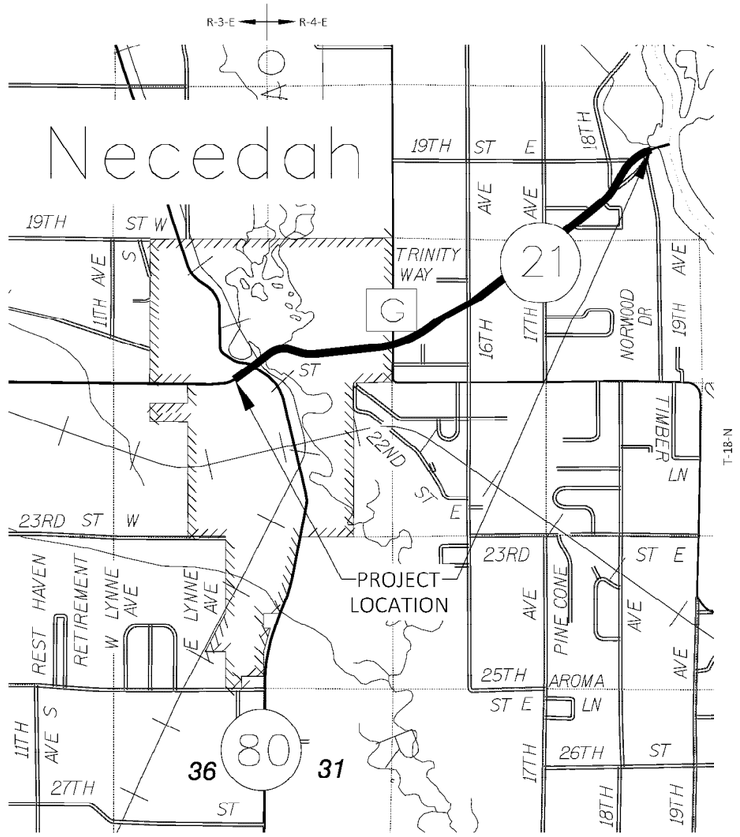
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE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

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

W WATER
G GAS
T TELEPHONE
OH OVERHEAD TRANSMISSION LINES
E ELECTRIC
TV CABLE TELEVISION
FO FIBER OPTIC
SAN SANITARY SEWER
SS STORM SEWER



LAYOUT
SCALE 0 0.5 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 6160-00-20.

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

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

PROJECT NUMBER: 6160-00-20 - 4.01
SHEET: 2 OF 3

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\040101-RP-TITLE.DWG
LAYOUT NAME: TPP Title 34x22
PLOT DATE : 9/16/2015 3:04 PM PLOT BY : TIMOTHY HELD PLOT NAME : _____
APPRAISAL PLAT DATE : JANUARY 11, 2022
6160-00-20 4.01

TRANSPORTATION PROJECT PLAT NO: 6160-00-20 - 4.01
EXTENSION SHEET

RELOCATION ORDER: STH 21, NECEDAH - COLOMA, (SHERIDAN STREET TO EAST COUNTY LINE), JUNEAU COUNTY.

NOTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JUNEAU COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3.

4

EXISTING MONUMENTS			
POINT	Y	X	DESCRIPTION
12691	240512.845	463144.995	3/4" RB
12693	240026.012	463160.417	1/2" RB
12694	240074.930	463225.573	1/2" RB
12695	240300.553	463513.878	CUT X

R/W COURSE TABLE			
FROM POINT	TO POINT	BEARING	DISTANCE
100	101	N78° 57' 41"E	182.27'
101	102	N51° 56' 52"E	179.73'
102	103	N17° 31' 15"W	26.54'
103	104	N44° 13' 59"W	18.00'
104	105	N45° 46' 01"E	40.00'
105	106	S44° 13' 59"E	36.98'
106	107	S77° 59' 46"E	13.43'
107	108	N51° 56' 52"E	220.01'
108	109	N38° 03' 08"W	5.00'
109	110	N47° 11' 47"E	32.15'
110	111	SEE CURVE NOTE	
111	112	N57° 07' 39"W	69.94'
112	113	N74° 34' 04"W	129.85'
113	114	N85° 06' 43"W	63.34'
115	116	S83° 52' 05"E	118.26'
116	117	S63° 00' 19"E	42.02'
117	118	SEE CURVE NOTE	
118	133	N56° 52' 04"E	98.40'
119	120	N81° 02' 44"W	19.17'
120	121	S78° 21' 15"W	23.88'
121	122	S51° 56' 52"W	85.10'
122	123	S01° 25' 42"W	22.48'
123	124	S41° 38' 22"E	11.94'
124	125	S48° 21' 38"W	50.00'
125	126	N59° 56' 52"W	20.25'
126	127	N84° 00' 24"W	13.24'
127	128	S68° 28' 30"W	22.49'
128	129	S51° 56' 52"W	280.35'
129	130	SEE CURVE NOTE	
130	131	S45° 49' 51"W	56.85'
131	132	SEE CURVE NOTE	

CURVE 110-111
L = 29.21'
LCH = 28.93'
LCB = N04°12'50"E
R = 60.00'

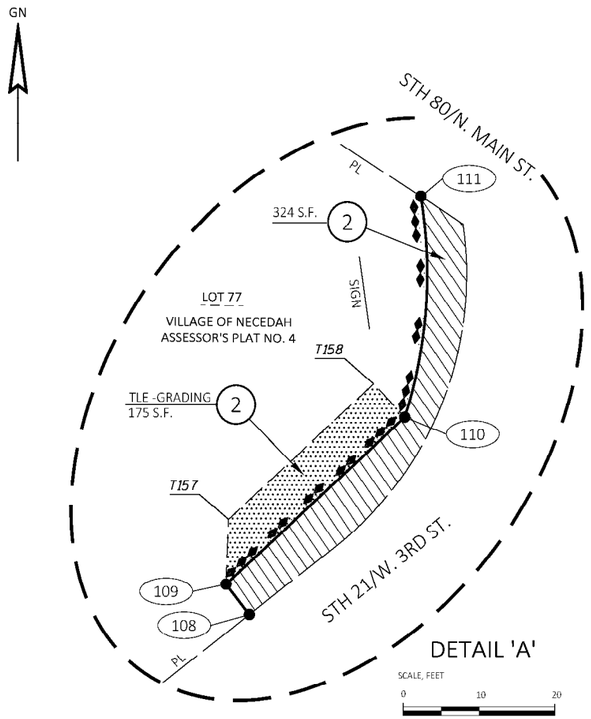
CURVE 117-118
L = 156.50'
LCH = 155.19'
LCB = S65°49'43"E
R = 349.70'

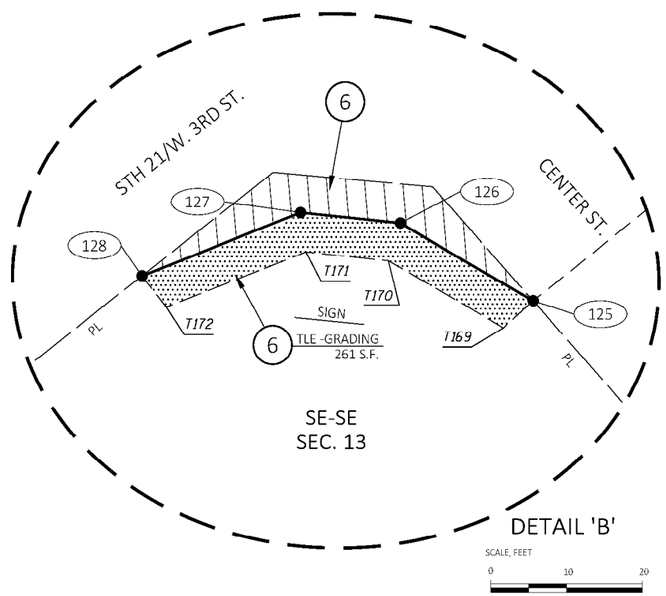
CURVE 129-130
L = 74.86'
LCH = 74.85'
LCB = S53°24'32"W
R = 1467.50'

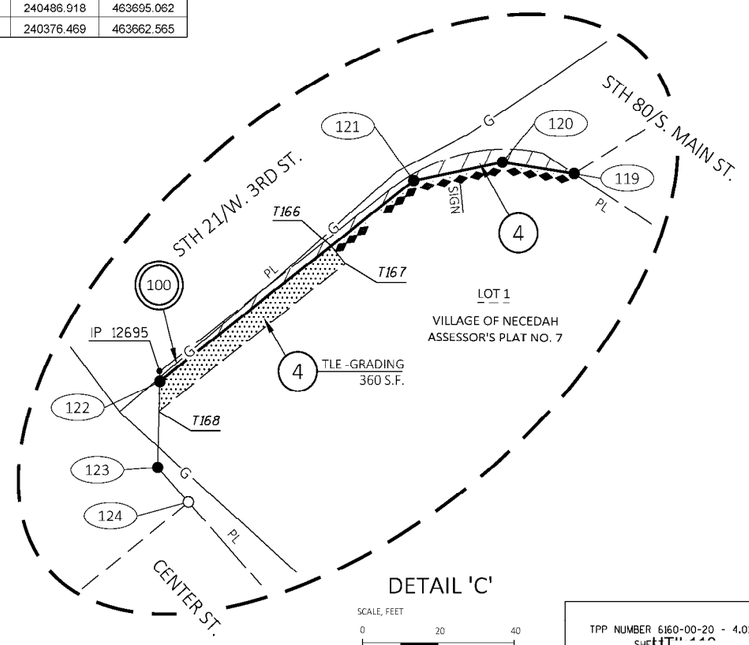
CURVE 131-132
L = 164.24'
LCH = 164.15'
LCB = S60°13'58"W
R = 1477.50'

R/W Station & Offset Table				
Point No.	Station	Offset	Y	X
100	642+37.26	100.41' LT	240051.961	462948.292
101	644+15.54	34.03' LT	240086.861	463127.192
102	645+96.55	35.00' LT	240197.644	463268.722
103	646+05.86	59.86' LT	240222.953	463260.732
104	646+03.92	77.75' LT	240235.851	463248.175
105	646+43.69	82.06' LT	240263.754	463276.836
106	646+47.67	45.30' LT	240237.260	463302.629
107	646+56.29	35.00' LT	240234.467	463315.764
108	648+76.30	35.00' LT	240370.075	463489.008
109	648+76.30	40.00' LT	240374.012	463485.926
110	649+08.33	42.66' LT	240395.856	463509.512
111	227+87.11 'B'	48.81' LT	240424.703	463511.638
112	228+63.11 'B'	39.01' LT	240462.664	463452.896
113	230+02.70 'B'	32.27' LT	240497.217	463327.728
114	230+66.04 'B'	32.72' LT	240502.615	463264.620
115	230+66.04 'B'	49.43' RT	240584.412	463272.199
116	229+52.08 'B'	49.79' RT	240571.779	463389.780
117	229+14.72 'B'	39.22' RT	240552.706	463427.222
118	227+69.87 'B'	35.66' RT	240489.159	463568.810
119	649+70.86	61.65' RT	240352.260	463623.045
120	649+57.79	47.62' RT	240355.245	463604.106
121	649+36.40	37.00' RT	240350.423	463580.713
122	648+51.30	37.00' RT	240297.972	463513.705
123	648+37.01	54.35' RT	240275.500	463513.145
124	648+37.76	66.27' RT	240266.578	463521.078
125	647+87.86	69.39' RT	240233.355	463483.711
126	647+80.30	50.60' RT	240243.499	463466.179
127	647+70.79	41.40' RT	240244.881	463453.015
128	647+49.22	35.00' RT	240236.628	463432.091
129	644+68.88	35.00' RT	240063.681	463211.145
130	643+95.81	35.00' RT	240019.211	463151.237
131	643+41.36	45.00' RT	239979.596	463110.456
132	641+82.12	45.00' RT	239808.097	462967.962
133	651+10.57	71.15' LT	240542.941	463651.210
134	651+10.57	77.72' RT	240425.721	463742.965
1000	642+05.23	0.00'	239948.848	462968.408
1001	230+66.04 'B'	0.00'	240535.197	463267.639
1002	651+10.57	0.00'	240486.918	463695.062
1003	226+30.71 'B'	0.00'	240376.469	463662.565

TLE Station & Offset Table				
Point No.	Station	Offset	Y	X
T150	645+88.55	35.00' LT	240192.713	463262.422
T151	646+44.45	75.06' LT	240258.710	463281.746
T152	646+48.42	75.49' LT	240261.500	463284.612
T153	646+51.71	45.14' LT	240239.627	463305.907
T154	646+58.53	37.00' LT	240237.421	463316.294
T155	646+87.87	37.00' LT	240255.507	463339.399
T156	646+87.87	35.00' LT	240253.932	463340.632
T157	648+81.82	46.48' LT	240382.516	463486.278
T158	649+07.84	48.64' LT	240400.258	463505.435
T159	230+65.75 'B'	69.42' RT	240604.297	463274.335
T160	229+54.75 'B'	69.63' RT	240591.835	463390.335
T161	229+49.85 'B'	59.49' RT	240580.870	463393.965
T162	229+13.98 'B'	49.28' RT	240562.236	463430.546
T163	228+02.90 'B'	48.66' RT	240518.002	463543.932
T164	228+03.31 'B'	41.68' RT	240512.005	463540.322
T165	227+68.60 'B'	38.54' RT	240490.906	463571.475
T166	649+08.75 'B'	37.00' RT	240333.380	463558.940
T167	649+08.84 'B'	43.00' RT	240328.712	463562.711
T168	648+46.36 'B'	43.00' RT	240290.201	463513.511
T169	647+82.60	69.72' RT	240229.856	463479.775
T170	647+76.06	53.45' RT	240238.637	463464.598
T171	647+68.19	45.84' RT	240239.780	463453.710
T172	647+49.22	40.22' RT	240232.521	463435.306
T173	644+07.54	35.00' RT	240026.165	463161.034
T174	643+91.30	48.23' RT	240005.716	463155.041
T175	643+35.12	66.06' RT	239958.386	463116.435
T176	643+33.59	45.00' RT	239975.257	463103.722







4

TPP NUMBER 6160-00-20 - 4.01
SHEET 284

TRANSPORTATION PROJECT PLAT NO: 6160-00-20 - 4.02

THAT PART OF PARCEL 1, CSM 1855, RECORDED IN VOLUME 7, PAGE 40, AS DOCUMENT NUMBER 326861, LOCATED IN THE NE 1/4 OF THE SE 1/4 OF SECTION 18, AND PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 18, VILLAGE OF NECEDAH, AND PART OF LOT 1 AND LOT 2 OF CSM 4619, RECORDED IN VOLUME 21, PAGE 14, AS DOCUMENT NUMBER 722509, LOCATED IN THE NW 1/4 OF THE SW 1/4 OF SECTION 17, PART OF PARCEL 1 AND PARCEL 2 OF CSM 1859, RECORDED IN VOLUME 7, PAGE 44, AS DOCUMENT NUMBER 327046, AND PART OF PARCEL 1 OF CSM 968, RECORDED IN VOLUME 4, PAGE 84, AS DOCUMENT NUMBER 279021, LOCATED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 17, TOWN OF NECEDAH, ALL IN T18N, R4E, JUNEAU COUNTY, WISCONSIN.

RELOCATION ORDER: STH 21, NECEDAH - COLOMA, (SHERIDAN STREET TO EAST COUNTY LINE), JUNEAU COUNTY.

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR NOTES, EASEMENT, BASIS, COURSE AND STATION OFFSET TABLES REFER TO THE EXTENSION SHEET, RECORDED AS SHEET 2 OF 2.

CAST IRON MONUMENT
STEM FOUND
Y = 242,503.035
X = 468,472.914

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6160-00-20 - 4.02
SHEET 1 OF 2

UT 285

GN

SCALE, FEET
0 50 100

NE-SE SEC. 18
SE-SE SEC. 18
NW-SW SEC. 17
SW-SW SEC. 17
OF NECEDAH

PARCEL 1 CSM 943 V. 4, P. 59 DOC 277169
LOT 1 CSM 3249 V. 14, P. 29 DOC 628522
INGRESS/EGRESS EASEMENT DOC 340750
SIXTEENTH LINE
MATCHLINE
STA 696+00
PC: 695+37.96
N06°08'33"W, 60.00' R/L TO R/W
N86°51'27"E
N06°08'33"W, 60.00' R/W TO R/L
STH 21/E 3RD STREET
CTH G
SECTION LINE/RWG' R/L
N00°07'23"W
S00°07'23"E, 711.63' TRAV PT TO R/L
S00°07'23"E, 2653.38' SEC COR TO SEC COR
LOT 2 CSM 4619 V. 21, P. 14 DOC 722509
LOT 1 CSM 4619 V. 21, P. 14 DOC 722509
PARCEL 1 CSM 1855 V. 7, P. 40 DOC 326861
PARCEL 2 CSM 1859 V. 7, P. 44 DOC 327046
PARCEL 1 CSM 1859 V. 7, P. 44 DOC 327046
PARCEL 1 CSM 968 V. 4, P. 84 DOC 279021
N89°52'37"E, 33.00' R/W TO R/L
N89°52'37"E, 33.00' R/L TO R/W
S00°07'23"E, 618.25' SEC COR TO TRAV PT
S89°52'37"W, 33.00' R/W TO R/L
S89°52'37"W, 33.00' R/L TO R/W
N00°07'23"W, 660.00' SEC. COR. TO TRAV. PT.
S20°11'24"E, 60.00' R/W TO R/L
S20°11'24"E, 60.00' R/L TO R/W
SEPTIC TANK COVERS
10+04.19RWG
701+14.58RW21
STA 700+98.00 = STA 10+00.00'RWG'
18'RWG'
16'RWG'
14'RWG'
12'RWG'
10'RWG'
8'RWG'
6'RWG'
4'RWG'
33'
54'
13'
126'
IP 12683
IP 12684
IP 12685
IP 12680
T252
T253
T254
T255
T251
T250
3" COUNTY MON. FOUND
Y = 239,849.659
X = 468,478.617
TLE - GRADING 1330 S.F.
TLE - GRADING 1225 S.F.
TLE - GRADING 66 S.F.
TLE - GRADING 991 S.F.
TLE - GRADING 1094 S.F.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	ALLIANT ENERGY - GAS	RELEASE OF RIGHTS
101	ALLIANT ENERGY - ELECTRIC	RELEASE OF RIGHTS
102	TDS TELECOM	RELEASE OF RIGHTS

SCHEDULE OF SIGN STRUCTURES

SIGN NUMBER	SIGN OWNER	OASIS NUMBER
17-1	LENNY'S LUMBER / FOR MY GOD AND FOR MY COUNTRY, INC	019955

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
9	NELSON AUTO OF NECEDAH, LLC	FEE/AR	7502	19988	27490	----
11	RICHARD W. WINTERS	FEE/TLE	----	----	----	1330
12	BENJAMIN T. YERKE	FEE/AR/TLE	2455	12634	15089	1225
13	THOMAS M. DEACY REVOCABLE TRUST	FEE	2303	----	2303	----
14	GLENN W. POVKOVICH & DORTHY A. POVKOVICH	FEE/TLE	33832	13425	47257	66
16	DANIEL J. BROWNFIELD	FEE/TLE	----	----	----	991
17	FOR MY GOD AND MY COUNTRY, INC / LENNY'S LUMBER	FEE/TLE	28180	19684	47864	1094

KL Engineering (A) Better Experience

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

SIGNATURE: _____ DATE: 02/03/2022
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

WISCONSIN TIMOTHY M. HELD S-2591 MADISON, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT.

SIGNATURE: _____ DATE: _____
PRINT NAME: CORY SCHLAGEL

LOCATION SKETCH
NOT TO SCALE
Necedah
SHEET LOCATION
PROJECT LOCATION
T-18-N
R-3-E
R-4-E

FILE NAME : G:\WDOT\SW\13092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : FEBRUARY 03, 2022
PLOT DATE : 2/3/2023 3:22 PM
PLOT BY : Timothy Held
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
6160-00-20 - 4.02

TRANSPORTATION PROJECT PLAT NO: 6160-00-20 - 4.02
EXTENSION SHEET

RELOCATION ORDER: STH 21, NECEDAH - COLOMA, (SHERIDAN STREET TO EAST COUNTY LINE), JUNEAU COUNTY.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JUNEAU COUNTY, NAD 83(2011) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LA CROSSE.

SIXTEENTH LINES WERE ESTABLISHED FROM PUBLISHED COORDINATES AND FROM OBSERVED PLSS MONUMENTS. BASIS OF EXISTING ACCESS CONTROL FROM PREVIOUS PROJECT 7010-04-29.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 3, OF TRANSPORTATION PROJECT PLAT 6160-00-20-4.01, DOCUMENT NO. 749451.

EASEMENT TABLE

UTILITY NUMBER	OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL NO.
100	ALLIANT ENERGY - GAS	NO EASEMENT OF RECORD FOUND	9, 17
101	ALLIANT ENERGY - ELECTRIC	NO EASEMENT OF RECORD FOUND	9, 17
101	ALLIANT ENERGY - ELECTRIC	BLANKET EASEMENT V. 27, P. 579, DOC 179634	11, 12, 13, 14
102	TDS TELECOM	16.5' WIDE EASEMENT V. 410, P. 341, DOC 321482	11, 12
102	TDS TELECOM	16.5' WIDE EASEMENT V. 410, P. 242, DOC 321422	13, 14
102	TDS TELECOM	16.5' WIDE EASEMENT V. 410, P. 245, DOC 321425	17
102	TDS TELECOM	NO EASEMENT OF RECORD FOUND	9, 16

PI STA = 706+09.92
Y = 241186.402
X = 468991.129
DELTA = 31°21'00" LT
D = 01°30'00"
T = 1071.96'
L = 2090.15'
R = 3820.00'
PC STA = 695+37.96
PT STA = 716+28.11
DB = N83°51'27"E
DA = N52°30'27"E

PC STA 695+37.96
TO PT # 2000
L = 560.04'
LCH = 559.54'
LCB = N79°39'28"E
R = 3820.00'

PT # 2000 TO
PT # 2002
L = 376.55'
LCH = 376.40'
LCB = N72°38'02"E
R = 3820.00'

PT # 2002 TO
PT STA 716+28.11
L = 1153.57'
LCH = 1149.19'
LCB = N61°09'31"E
R = 3820.00'

HIGHWAY	BASIS OF EXISTING R/W
STH 21 / 3RD STREET	PREVIOUS R/W PROJECT S0500(15), 7010-04-21, CSM 1855
STH 21	PREVIOUS R/W PROJECT S0500(15), 7010-04-21, CSM 1859, CSM 4619
CTH G	PREVIOUS R/W PROJECT S0500(15), 7010-04-21, CSM 1855, CSM 1859, CSM 4619

R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
200	201	N00° 07' 23"W	202.19'
201	202	N08° 45' 31"W	252.43'
202	203	N60° 51' 15"W	170.83'
203	204	S80° 09' 52"W	237.07'
204	205	S86° 28' 55"W	387.77'
206	207	N83° 51' 27"E	297.96'
207	208	SEE CURVE NOTE	
208	209	N72° 43' 07"E	419.90'
209	210	N00° 07' 23"W	289.17'
210	211	N02° 15' 38"E	168.30'
211	212	N00° 07' 23"W	158.09'
212	213	N89° 52' 37"E	8.00'
214	215	S00° 07' 23"E	489.90'
215	216	S06° 51' 52"E	70.50'
216	217	S29° 09' 17"E	77.96'
217	218	N73° 35' 09"E	111.76'
218	219	SEE CURVE NOTE	
220	221	S49° 43' 07"W	410.17'
221	222	S03° 40' 32"W	172.87'
222	223	S15° 37' 08"W	81.59'
223	224	S00° 07' 23"E	202.19'

CURVE 207-208
L = 108.52'
LCH = 108.51'
LCB = N83°01'51"E
R = 3760.00'

CURVE 218-219
L = 161.15'
LCH = 161.14'
LCB = N71°02'16"E
R = 3760.00'

EXISTING MONUMENTS

POINT	Y	X	DESCRIPTION
12680	241193.980	468759.377	1/2" O.D. PIPE
12683	241312.662	468736.249	2" O.D. PIPE
12684	241242.948	468507.433	1" O.D. PIPE
12685	241162.879	468085.528	3/4" RB

R/W Station & Offset Table

Point No.	Station	Offset	Y	X
200	3+37.50 'RWG'	33.00' LT	240509.585	468444.199
201	5+39.68 'RWG'	33.00' LT	240711.771	468443.764
202	7+89.25 'RWG'	70.90' LT	240961.258	468405.326
203	698+57.95	76.15' RT	241044.458	468256.127
204	696+25.57	78.78' RT	241003.961	468022.540
205	692+40.00	60.00' RT	240980.167	467635.498
206	692+40.00	60.00' LT	241099.478	467622.658
207	695+37.96	60.00' LT	241131.359	467918.908
208	696+48.21	60.00' LT	241144.526	468026.620
209	10+97.21 'RWG'	48.00' LT	241269.264	468427.566
210	13+86.38 'RWG'	48.00' LT	241558.437	468426.944
211	15+54.54 'RWG'	41.00' LT	241726.605	468433.583
212	17+12.63 'RWG'	41.00' LT	241884.695	468433.243
213	17+12.63 'RWG'	33.00' LT	241884.712	468441.243
214	17+12.63 'RWG'	33.00' RT	241884.854	468507.243
215	12+22.73 'RWG'	33.00' RT	241394.958	468508.296
216	11+52.72 'RWG'	41.28' RT	241324.961	468516.722
217	701+97.27	60.91' LT	241256.874	468554.705
218	703+10.82	60.00' LT	241288.454	468661.908
219	704+74.55	60.00' LT	241340.816	468814.304
220	704+74.55	60.00' RT	241228.190	468855.720
221	7+90.70 'RWG'	66.59' RT	240963.002	468542.813
222	6+18.21 'RWG'	55.14' RT	240790.491	468531.731
223	5+39.68 'RWG'	33.00' RT	240711.913	468509.764
224	3+37.50 'RWG'	33.00' RT	240509.727	468510.198
2000	692+40.00	0.00'	241039.822	467629.078
2001	17+12.63 'RWG'	0.00'	241884.783	468474.243
2002	704+74.55	0.00'	241284.503	468835.012
2003	3+37.50 'RWG'	0.00'	240509.656	468477.198

TLE Station & Offset Table

Point No.	Station	Offset	Y	X
T250	3+37.50 'RWG'	38.00' LT	240509.575	468439.199
T251	5+72.61 'RWG'	38.00' LT	240744.683	468438.693
T252	17+12.52 'RWG'	38.00' RT	241884.760	468512.243
T253	11+80.43 'RWG'	38.00' RT	241352.665	468513.387
T254	5+57.42 'RWG'	38.00' RT	240729.662	468514.726
T255	3+37.50 'RWG'	38.00' RT	240509.738	468515.198

4

UT 286
6160-00-20 - 4.02
PLOT SCALE :
PLOT NAME :
PLOT BY : Timothy Held
PLOT DATE : 2/3/2023 3:23 PM
PLOT DATE :
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\040101-RP.DWG
APPRAISAL PLAT DATE : FEBRUARY 03, 2022

N

JEFF BUCH
SHELLY BUCH

NELSON AUTO OF
NECEDAH LLC

P.I.

NELSON AUTO OF
NECEDAH LLC

STA. 695+59 LT
1 EACH REMOVING SMALL PIPE CULVERT
50 LF CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH
2 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH

STA. 697+98 LT
64 LF CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH
2 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH

EX RW

STA. 695+59 LT
ASPH C.E.

STA. 697+98 LT
ASPH C.E.

700+00'AW'

699+00'AW'

700+00'21'

699+00'21'

STH 21 WB R/L '21W'

STH 21 WB

698+00'AW'

698+00'21'

STH 21 EB

695+00'21'

696+00'AW'

696+00'21'

697+00'AW'

697+00'21'

STH 21/CTH G RAB
R/L 'GC'

STH 21 EB R/L '21'

CAUTION

ALLIANT ENERGY (GAS)

902

BEGIN RECONSTRUCTION
STA 694+18.00'21'
MATCH MILL & OVERLAY LIMITS
SAWING CONCRETE

ALLIANT ENERGY (FO)

EX RW

SLOPE INTERCEPT (TYP.)

PRW

FOR MY GOD & MY COUNTRY INC

5

5

915

910

905

900

STA 694+18.00
EL 905.08

VPC STA 695+55.00
VPC EL 905.62

VPI STA 696+30.00
VPI EL 905.92

VPT STA 697+05.00
VPT EL 905.55

VCL = 200.00
K = 95.28

STA 700+14.20
EL 907.10

EXISTING TERRAIN PROFILE ALONG R/L

PROPOSED PROFILE ALONG R/L

1.60%

0.40%

-0.50%

VPC STA 697+67.50
VPC EL 905.24

VPI STA 698+67.50
VPI EL 904.74

VPT STA 699+67.50
VPT EL 906.35

VCL = 150.00
K = 167.32

EXISTING

PROPOSED

904.98	905.11	905.20	905.20	905.40	905.29	905.60	905.38	905.74	905.44	905.73	905.47	905.58	905.57	905.33	905.56	905.14	905.48	905.19	905.40	905.50	905.36	906.08	905.71	906.87	906.02

694 695 696 697 698 699 700 700

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 EB '21'	SHEET 287 E

BENJAMIN T YERKE
TDS TELECOM (TEL)
STA. 703+43 LT
ASPH C.E.
ALLIANT ENERGY (OH)
P.L.
MICHAEL D ISTVANEK
TAMMY ISTVANEK
EX RW
STA. 704+91 LT
ASPH P.E.
STH 21 WB R/L '21E'
MATCH LINE STA 706+60 '21'
11+00'GC'
ALLIANT ENERGY (OH)
ALLIANT ENERGY (GAS)
CAUTION
STH 21 WB
703+00'AE'
704+00'AE'
705+00'AE'
706+00'AE'
706+00'21'
705+00'21'
704+00'21'
703+00'21'
702+00'21'
STH 21 EB
CTH G SB
CTH G NB
17+00'GSS'
7+00'GAS'
STA. 704+78 RT
BAD P.E.
EX RW
ALLIANT ENERGY (OH)
STH 21 EB R/L '21'
STH 21/CTH G RAB
R/L 'GC'
CTH G NB R/L 'GNS'
CTH G SB R/L 'GSS'
TDS TELECOM (TEL)
ALLIANT ENERGY (GAS)
TDS TELECOM (FO)
SLOPE INTERCEPT (TYP.)
GLENN W POVKOVICH
DOROTHY A POVKOVICH
PRW
THOMAS M DEACY REVOCABLE TRUST
ZBIGNIEW SZAJNER
WERONIKAW MICHALSKA
N
5

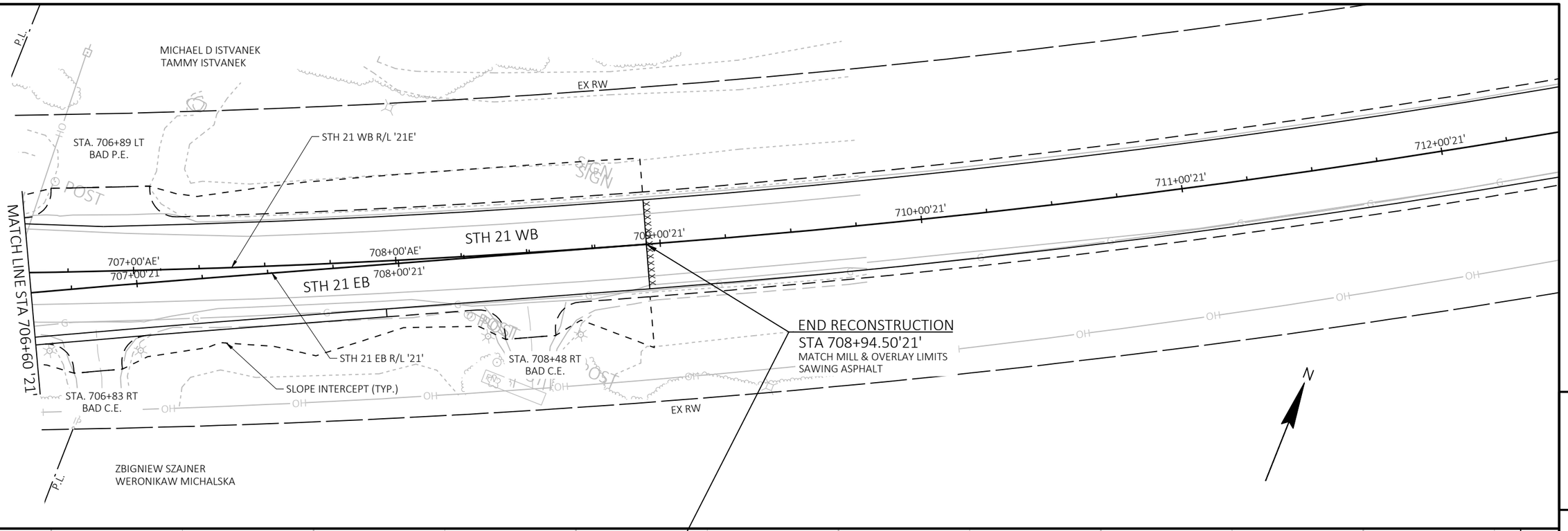
EXISTING TERRAIN PROFILE ALONG R/L
STA 701+85.50
EL 907.22
-1.60%
VCL = 160.00
K = 64.52
VPC STA 703+09.76
VPC EL 905.23
VPI STA 703+89.76
VPI EL 903.95
VPT STA 704+69.76
VPT EL 904.65
VPC STA 704+99.76
VPC EL 904.92
0.88%
VPI STA 705+74.76
VPI EL 905.58
VPT STA 706+49.76
VPT EL 905.80
PROPOSED PROFILE ALONG R/L
VCL = 150.00
K = 258.58
EXISTING
PROPOSED

915
910
905
900

905.84 905.81 904.24 904.32 906.99 903.44 906.19 904.96 905.39 904.20 904.71 903.02 904.42 905.92 904.51 905.79 904.92 906.83 905.31 906.84 905.60 906.76 905.80 906.74 905.83

700 701 702 703 704 705 706 706

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 EB '21'	SHEET 288 E



5

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 EB '21'	SHEET 289	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (3)

PLOT DATE : 6/25/2024 2:48 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

STA. 695+59 LT
1 EACH REMOVING SMALL PIPE CULVERT
50 LF CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH
2 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH

JEFF BUCH
SHELLY BUCH

NELSON AUTO OF
NECEDAH LLC

NELSON AUTO OF
NECEDAH LLC

STA. 697+98 LT
64 LF CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH
2 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH

P.L.

P.L.

N

EX RW

SLOPE INTERCEPT (TYP.)

STA. 695+59 LT
ASPH C.E.

STA. 697+98 LT
ASPH C.E.

STH 21 WB R/L '21W'

695+00'21'

696+00'AW'

696+00'21'

697+00'AW'

697+00'21'

698+00'AW'

STH 21 WB

699+00'AW'

700+00'AW'

698+00'21'

699+00'21'

700+00'21'

STH 21 EB

BEGIN CONSTRUCTION
STA 695+22.85'AW'

902

STH 21 EB R/L '21'

STH 21/CTH G RAB
R/L 'GC'

ALLIANT ENERGY (GAS)

CAUTION

ALLIANT ENERGY (FO)

EX RW

PRW

FOR MY GOD & MY COUNTRY INC

STA 695+22.85
EL 905.31

VPC STA 696+00.00
VPC EL 905.58

VPI STA 696+75.00
VPI EL 905.85

VPT STA 697+50.00
VPT EL 905.47

VCL = 200.00
K = 87.01

STA 700+74.37
EL 906.52

EXISTING TERRAIN PROFILE ALONG R/L

PROPOSED PROFILE ALONG R/L

0.35%

-0.50%

1.80%

VCL = 150.00
K = 176.74

VPC STA 698+58.47
VPC EL 904.93

VPI STA 699+58.47
VPI EL 904.43

VPT STA 700+58.47
VPT EL 906.13

EXISTING

PROPOSED

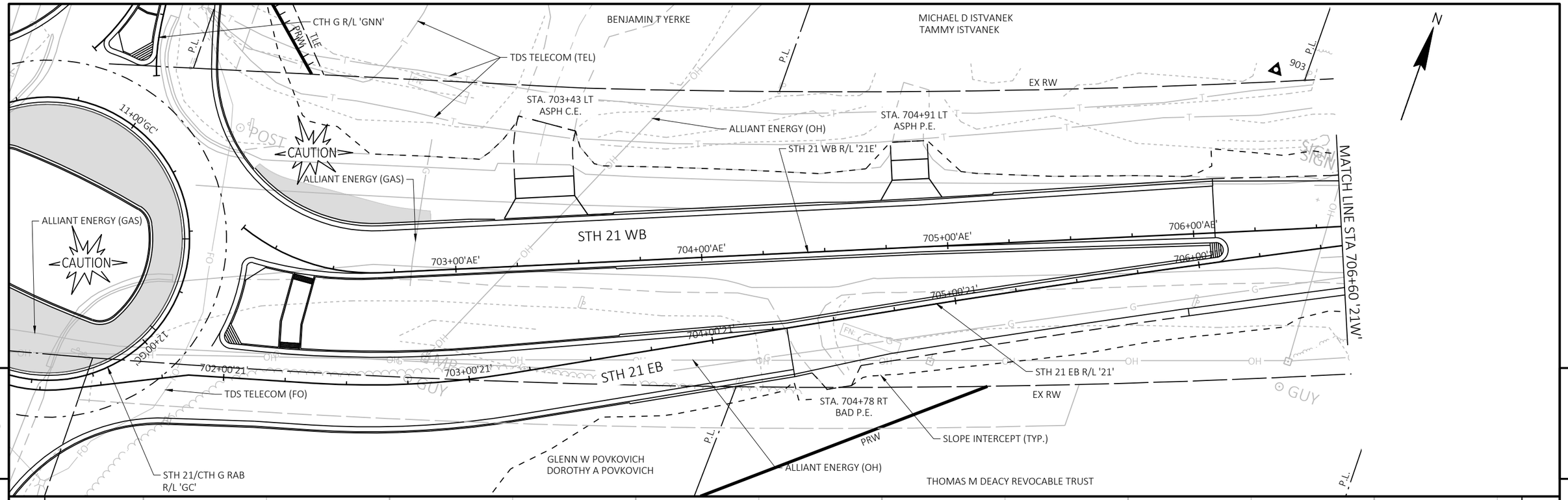
695	696	697	698	699	700	701
905.21	905.26	905.25	905.19	905.14	905.07	904.91	904.24	903.00	902.21	902.43
905.41	905.58	905.69	905.65	905.47	905.22	904.97	904.82	904.96	905.38	906.08

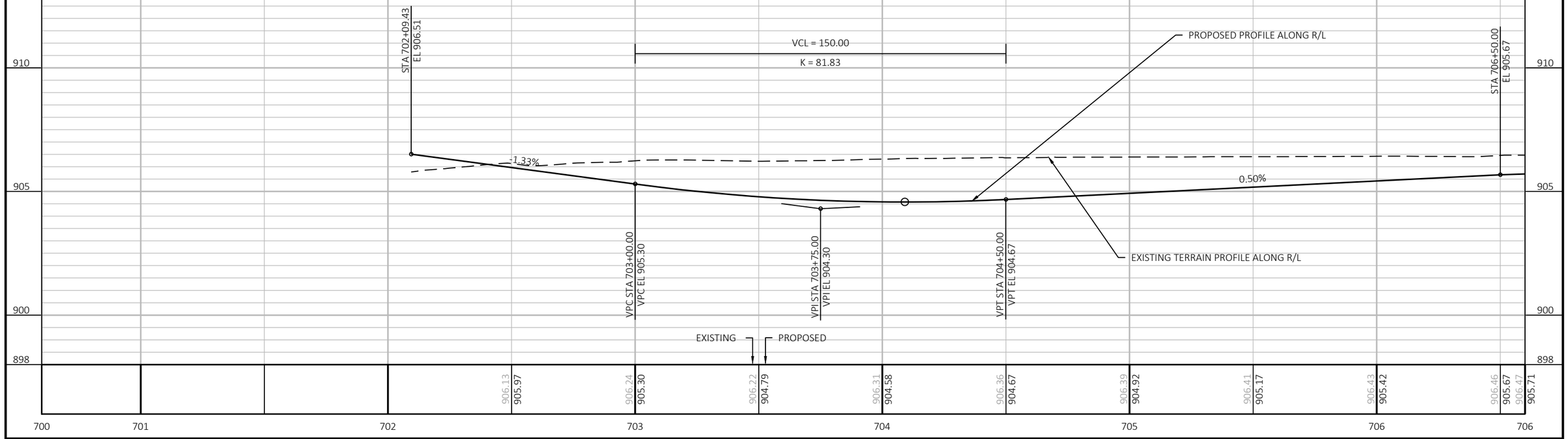
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 WB '21W'	SHEET 290	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (5)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



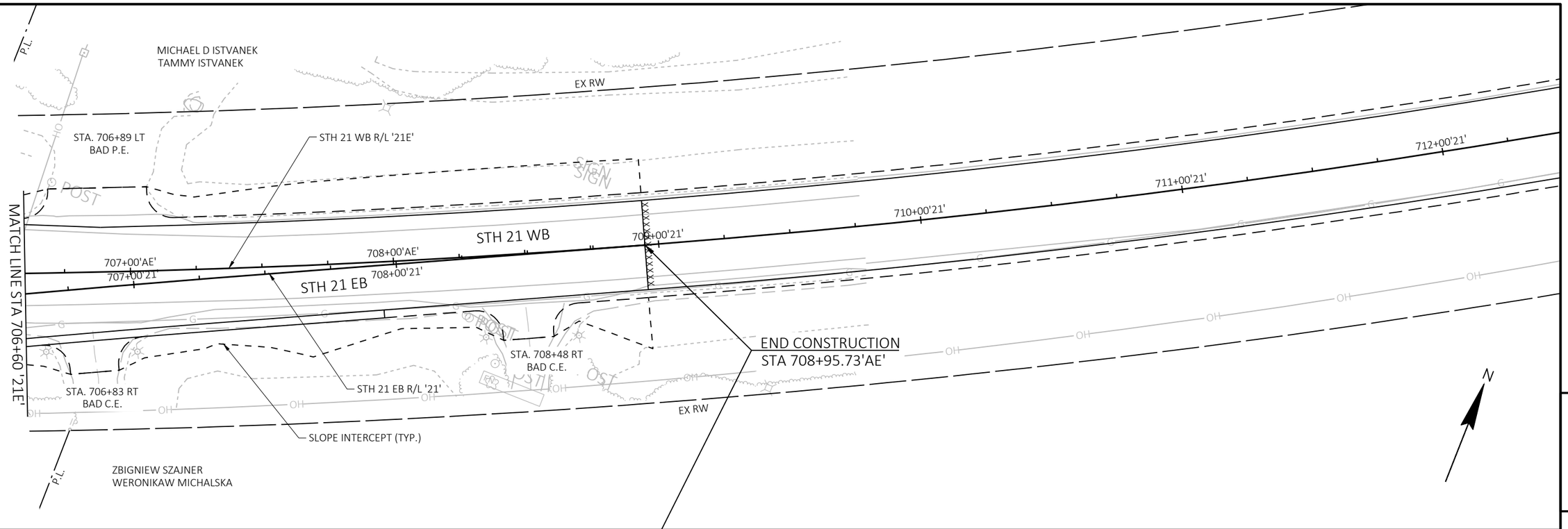


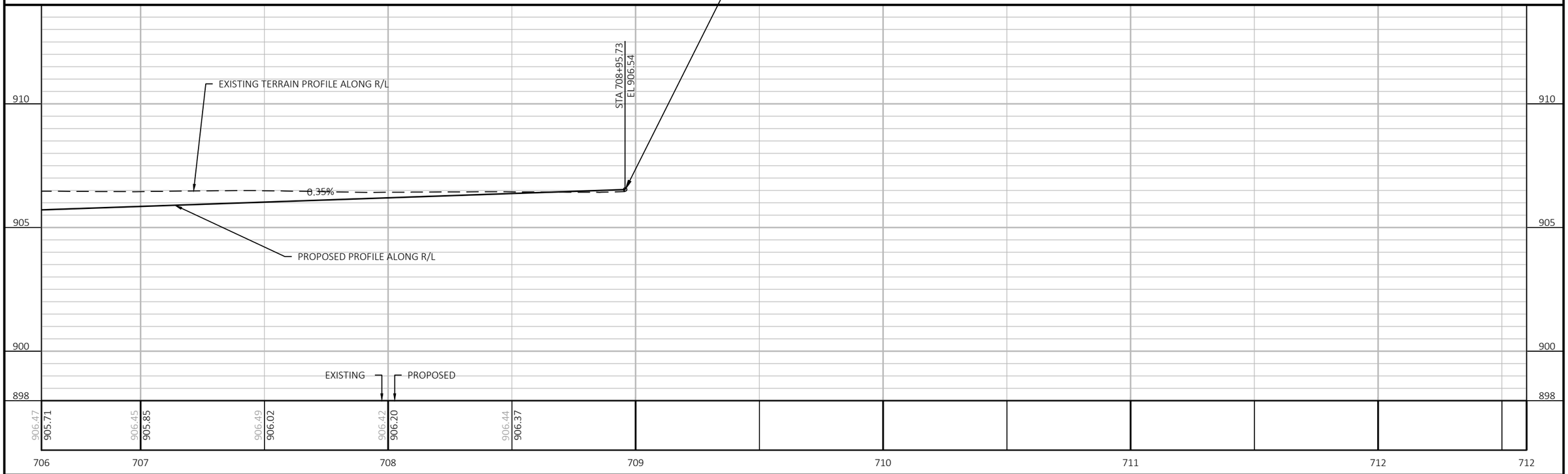
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 WB '21E'	SHEET 291 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (6a)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 WB '21E'	SHEET 292	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (6b)
PLOT DATE : 6/25/2024 2:49 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

FOR MY GOD & MY COUNTRY INC

ALLIANT ENERGY (OH)

N

EX RW

CTH G SB R/L 'GSS'

T.L.E.

PRW

CTH G SB

11+00'GSS'

12+00'GSS'

12+00'GNS'

11+00'GNS'

CTH G NB

MATCH LINE STA 12+50 'GNS'

CTH G NB R/L 'GNS'

EX RW

T.L.E.

BEGIN RECONSTRUCTION
STA 10+65.51'GNS'
MATCH EXISTING
SAWING ASPHALT

JAMES E BROWN
WENDY T BROWN

ST MARYS WAY

TDS TELECOM (TEL)

SLOPE INTERCEPT (TYP.)

P.L.

DANIEL J BROWNFIELD

5

5

915

910

905

900

PROPOSED PROFILE ALONG R/L

STA 10+65.51
EL 903.12

0.40%

EXISTING TERRAIN PROFILE ALONG R/L

EXISTING

PROPOSED

902.83 903.03 903.28 903.26 903.41 903.46 903.43 903.66 903.49 903.86

6 7 8 9 10 11 12 12

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G NB 'GNS'	SHEET 293	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (7a)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

FOR MY GOD & MY COUNTRY INC

P.L.

PRW

CAUTION

ALLIANT ENERGY (OH)

ALLIANT ENERGY (GAS)

CTH G SB R/L 'GSS'

T.L.E.

EX RW

CTH G SB

17+00'GSS'

16+00'GSS'

15+00'GSS'

14+00'GSS'

13+00'GSS'

13+00'GNS'

14+00'GNS'

15+00'GNS'

16+00'GNS'

17+00'GNS'

MATCH LINE STA 12+50 'GNS'

CTH G NB

EX RW

T.L.E.

STA. 13+72 RT
BAD P.E.

PRW

CTH G NB R/L 'GNS'

TDS TELECOM (TEL)

TDS TELECOM (FO)

STH 21/CTH G RAB
R/L 'GC'

ALLIANT ENERGY (OH)

SLOPE INTERCEPT (TYP.)

STH 21 EB R/L '21'

GLENN W POVKOVICH
DOROTHY A POVKOVICH

ALLIANT ENERGY (GAS)

CAUTION

STH 21 EB

STH 21 WB

N

5

5

PROPOSED PROFILE ALONG R/L

VCL = 180.00

K = 175.58

1.43%

STA 17+15.23
EL 907.95

VPC STA 14+10.00
VPC EL 904.51

VPI STA 15+00.00
VPI EL 904.87

VPT STA 15+90.00
VPT EL 906.16

EXISTING TERRAIN PROFILE ALONG R/L

EXISTING

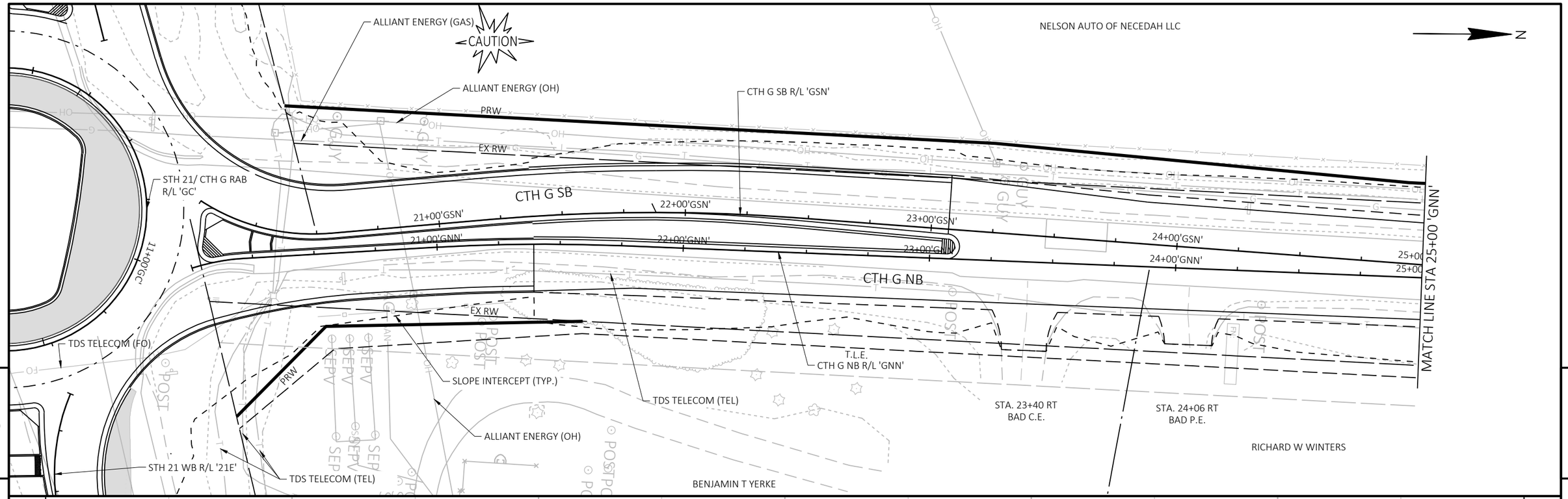
PROPOSED

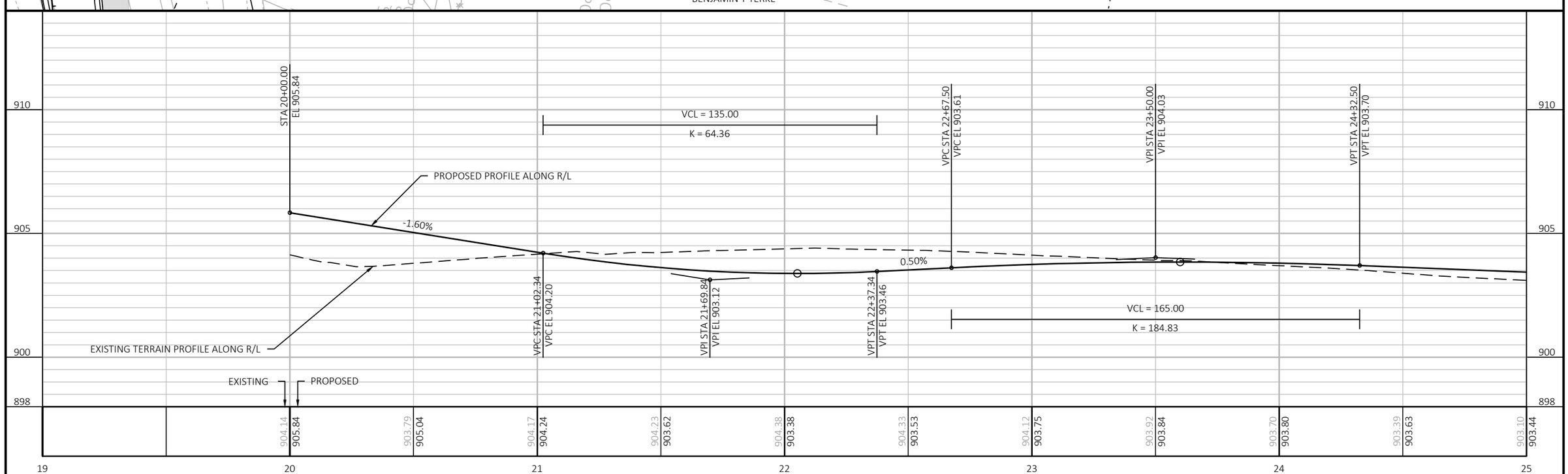
915
910
905
900

903.49	903.86	903.62	904.07	903.86	904.27	904.13	904.47	904.30	904.72	904.25	905.10	904.25	905.63	904.46	906.30	904.84	907.01	905.47	907.73

12 13 14 15 16 17 18 18

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G NB 'GNS'	SHEET 294 E





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G NB 'GNN'	SHEET 295 E

N

ALLIANT ENERGY (OH)

CTH G SB R/L 'GSN'

NELSON AUTO OF NECEDAH LLC

MATCH LINE STA 25+00 'GNN'

PRW

EX RW

END RECONSTRUCTION
STA 26+50.67'GNN'
MATCH EXISTING
SAWING ASPHALT

CTH G SB

00'GSN'

00'GNN'

26+00'GSN'

26+00'GNN'

27+00'GNN'

CTH G NB

EX RW

T.L.E.

SLOPE INTERCEPT (TYP.)

TDS TELECOM (TEL)

CTH G NB R/L 'GNN'

RICHARD W WINTERS

MICHAEL D ISTVANEK
TAMMY ISTVANEK

STAWOMIR E MASLON
ZDZISLAWA E MASLON

5

5

910

905

900

898

PROPOSED PROFILE ALONG R/L

STA 26+50.67
EL 902.84

-0.39%

EXISTING TERRAIN PROFILE ALONG R/L

EXISTING

PROPOSED

903.10 903.44 902.88 903.24 902.76 903.04 902.85 902.85 902.80 902.79

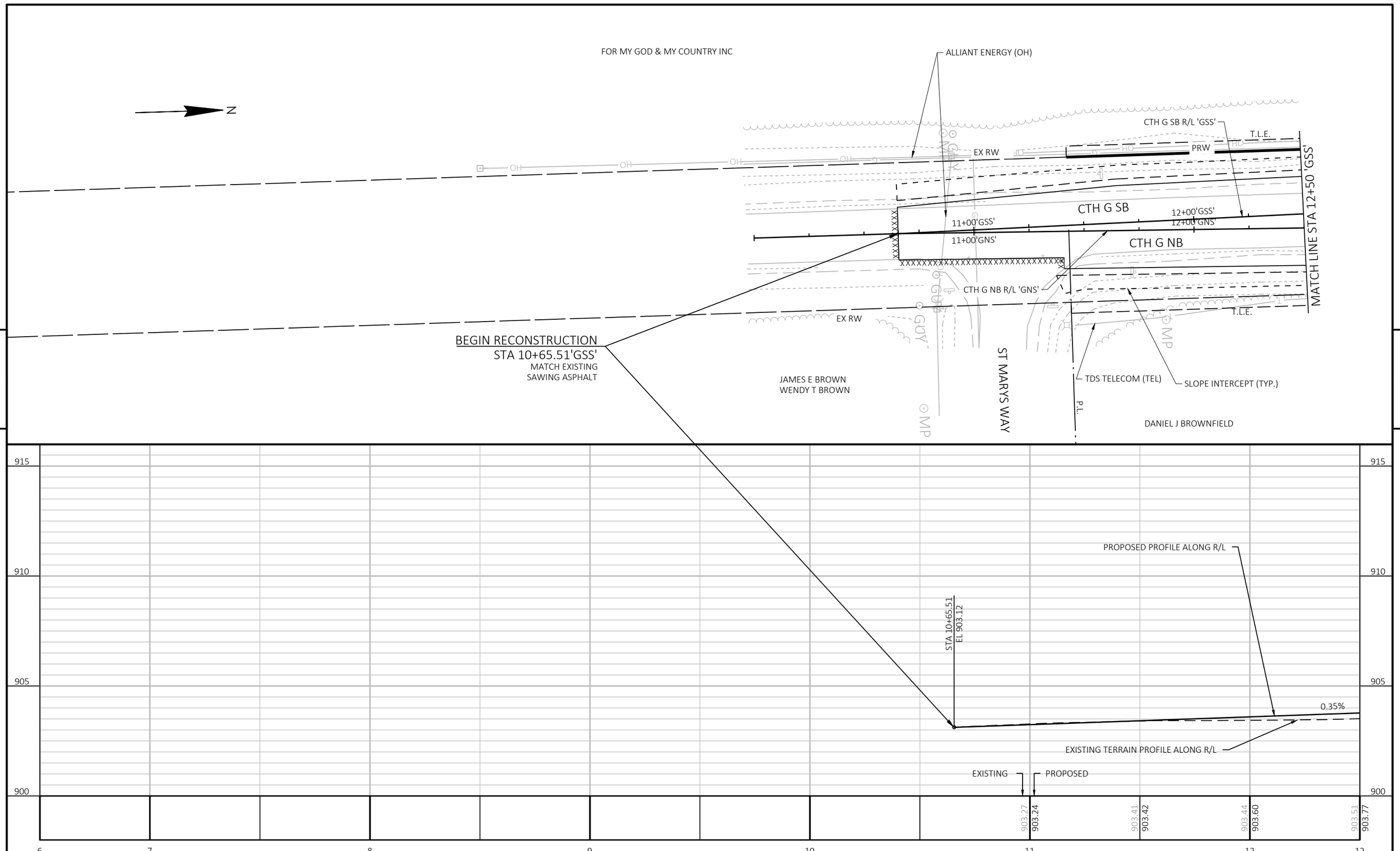
25 26 27 28 29 30 31

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G NB 'GNN'	SHEET 296	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (8b)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G SB 'GSS'	SHEET 297 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (9a)
PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

FOR MY GOD & MY COUNTRY INC

PRW

T.L.E.

EX RW

MATCH LINE STA 12+50 'GSS'

13+00'GSS'

13+00'GNS'

14+00'GSS'

14+00'GNS'

15+00'GSS'

15+00'GNS'

16+00'GSS'

16+00'GNS'

17+00'GSS'

17+00'GNS'

CTH G SB

CTH G NB

CTH G SB R/L 'GSS'

CTH G NB R/L 'GNS'

ALLIANT ENERGY (OH)

ALLIANT ENERGY (GAS)

CAUTION

TDS TELECOM (TEL)

TDS TELECOM (FO)

STA. 13+72 RT
BAD P.E.

T.L.E.

PRW

ALLIANT ENERGY (OH)

SLOPE INTERCEPT (TYP.)

STH 21/CTH G RAB
R/L 'GC'

STH 21 EB R/L '21'

STH 21 EB

STH 21 WB

GLENN W POVKOVICH
DOROTHY A POVKOVICH

N

5

5

PROPOSED PROFILE ALONG R/L

VCL = 180.00

K = 162.89

1.46%

STA 17+20.80
EL 907.88

VPC STA 14+10.00
VPC EL 904.34

VPI STA 15+00.00
VPI EL 904.66

VPT STA 15+90.00
VPT EL 905.97

EXISTING TERRAIN PROFILE ALONG R/L

EXISTING

PROPOSED

903.51	903.77	903.73	903.95	903.93	904.13	904.13	904.31	904.25	904.53	904.23	904.91	904.21	905.44	904.29	906.12	904.44	906.85	904.59	907.58				

915 910 905 900

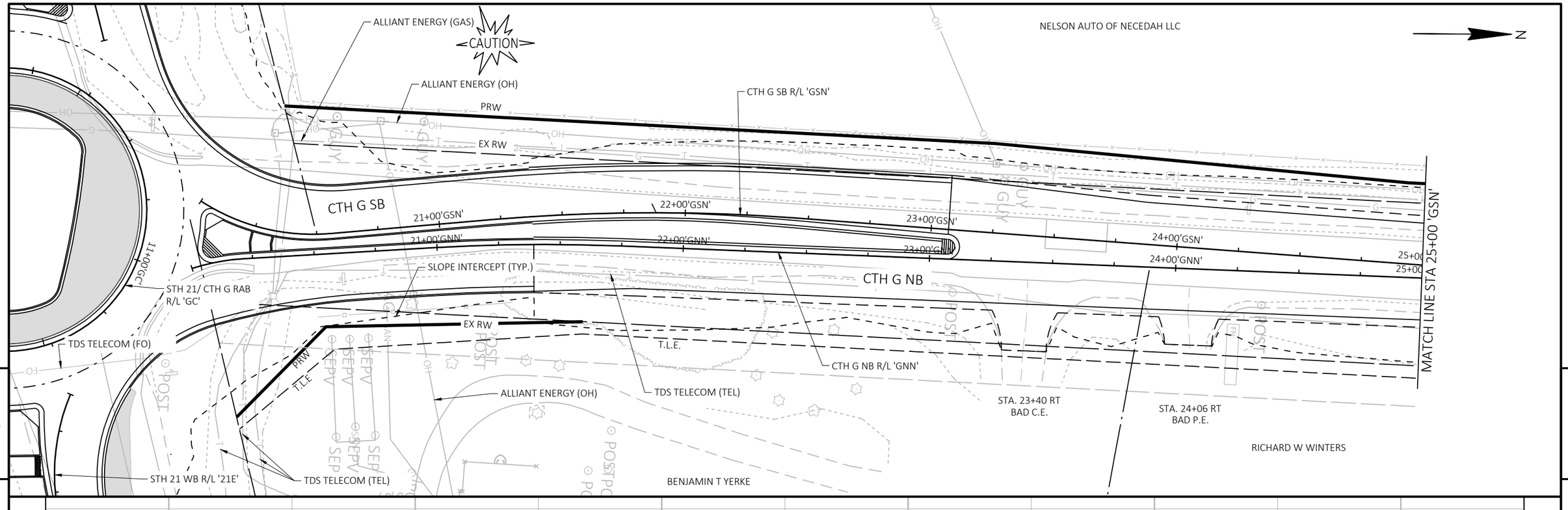
12 13 14 15 16 17 18 18

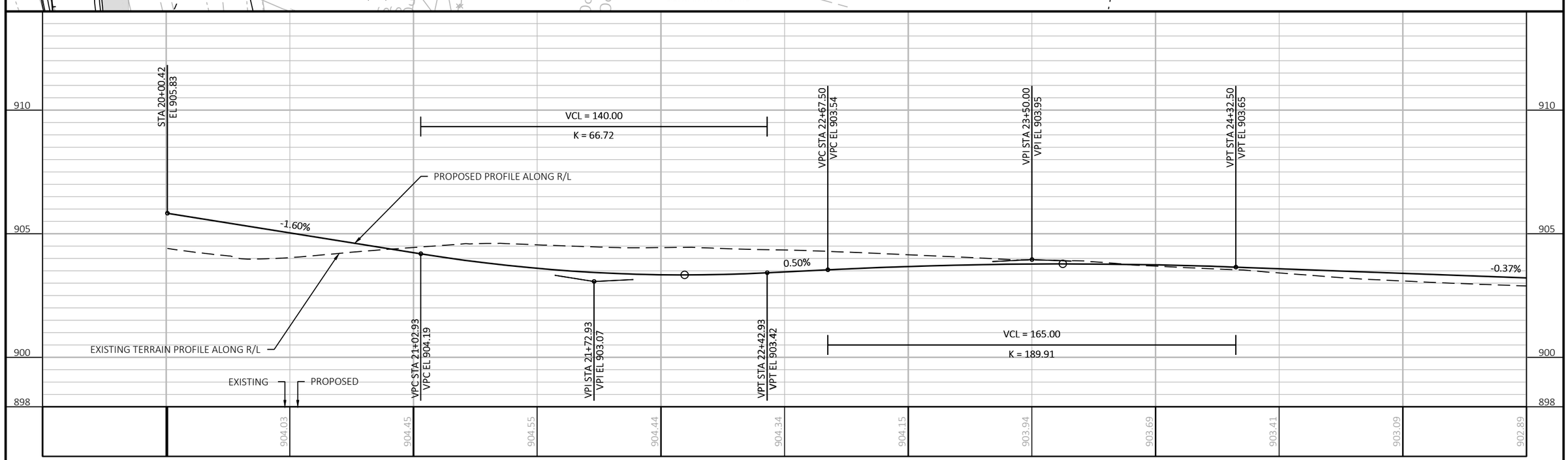
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G SB 'GSS'	SHEET 298 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (9b)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G SB 'GSN'	SHEET 299 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (10a)
PLOT DATE : 6/25/2024 2:49 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

N

ALLIANT ENERGY (OH)

CTH G SB R/L 'GSN'

NELSON AUTO OF NECEDAH LLC

MATCH LINE STA 25+00 'GNN'

PRW

EX RW

CTH G SB

00'GSN'

00'GNN'

26+00'GSN'

26+00'GNN'

CTH G NB

27+00'GNN'

END RECONSTRUCTION
STA 26+50.67'GSN'
MATCH EXISTING
SAWING ASPHALT

T.L.E.

EX RW

SLOPE INTERCEPT (TYP.)

TDS TELECOM (TEL)

CTH G NB R/L 'GNN'

RICHARD W WINTERS

MICHAEL D ISTVANEK
TAMMY ISTVANEK

STAWOMIR E MASLON
ZDZISLAWA E MASLON

5

5

910

905

900

898

PROPOSED PROFILE ALONG R/L

STA 26+50.67
EL 902.84

-0.37%

EXISTING TERRAIN PROFILE ALONG R/L

EXISTING

PROPOSED

903.09

902.89

902.76

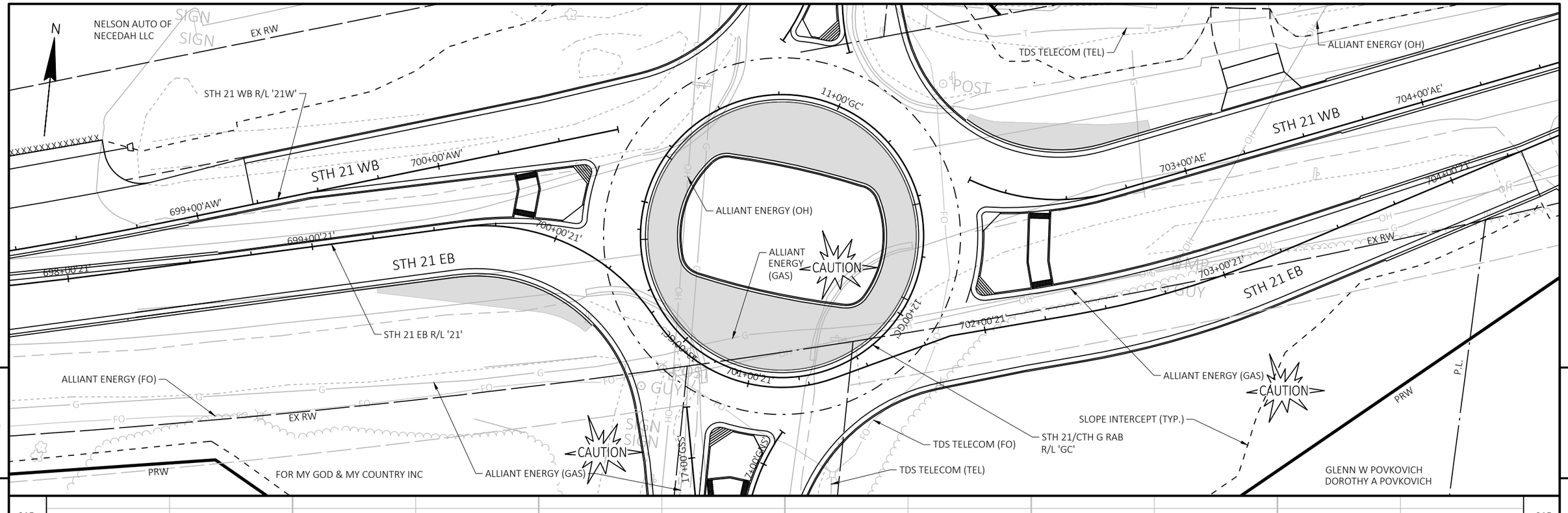
902.85

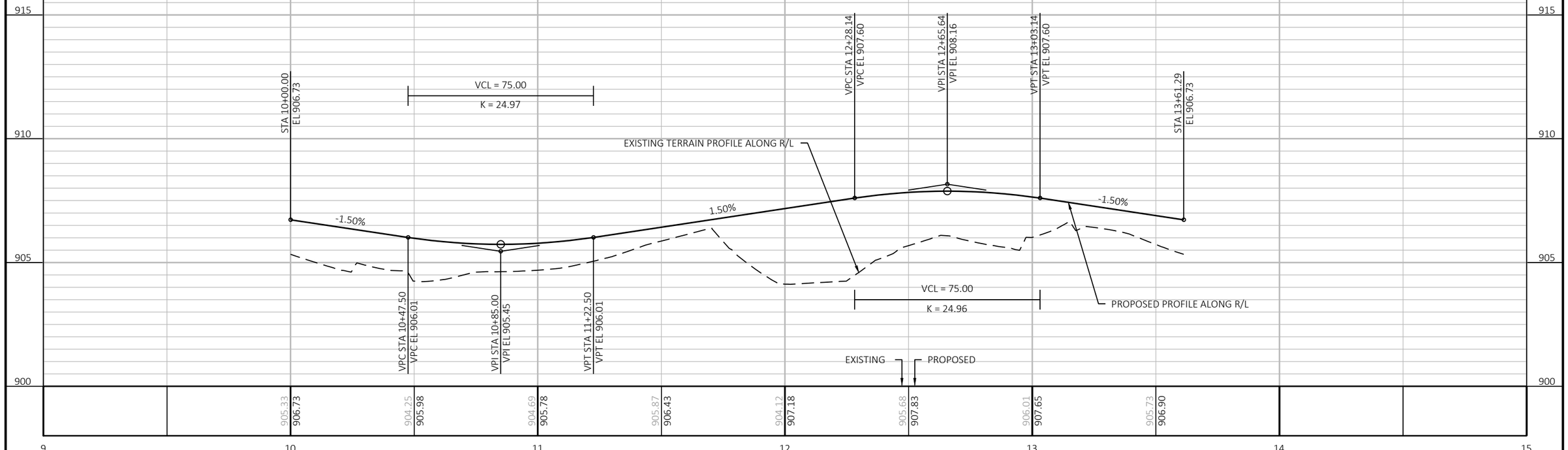
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: CTH G SB 'GSN'	SHEET 300	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (10b)

PLOT DATE : 6/25/2024 2:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44





PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	PLAN AND PROFILE: STH 21 / CTH G RAB 'GC'	SHEET 301 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\050100-PP.DWG
LAYOUT NAME - Sheet - (11)
PLOT DATE : 6/25/2024 2:49 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-21C	INLET COVERS TYPE F, HM, HM-S, S, T, HM-GJ & HM-GJ-S
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D18-04	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-04	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E12-01C	OVER HEIGHT TYPE 12 POLE 35'-55' MONOTUBE ARM
09E12-01D	OVER HEIGHT TYPE 13 POLE 35'-55' MONOTBE ARM
09E12-01E	GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
13A03-07	CONCRETE PAVEMENT SHOULDERS
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03E	EDGE LINE RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH

6

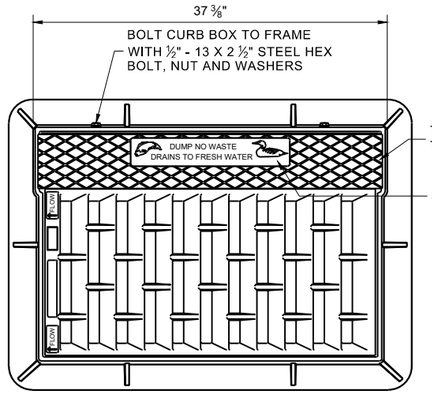
Standard Detail Drawing List

13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C08-02	CONCRETE PAVEMENT PARTIAL DEPTH REPAIR
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08E	CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B18-06B	STEEL PLATE BEAM GUARD, CLASS "A" AT MEDIAN APPROACH TO BRIDGES
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-02A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-02I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15D	ROUNDABOUT ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)

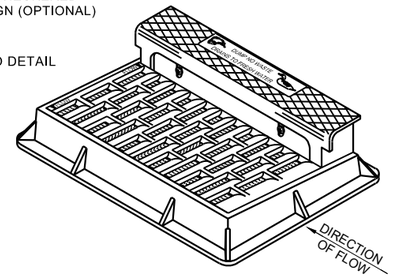
6

Standard Detail Drawing List

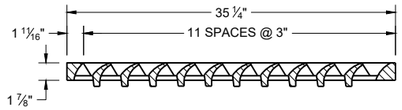
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C20-02	YIELD MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D12-12A	TRAFFIC CONTROL, LANE CLOSURE, WITH TEMPORARY RUMBLE STRIPS
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-08A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-08B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-08C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

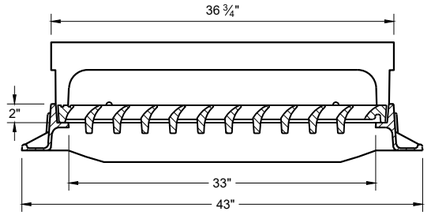


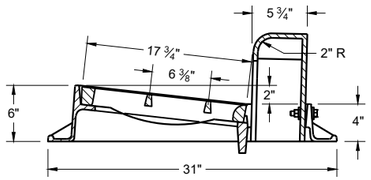
NOTE: EITHER CASTING IS ACCEPTABLE

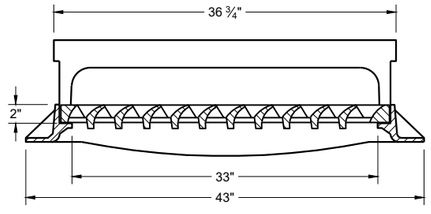


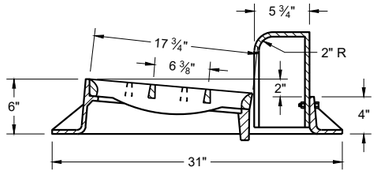
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







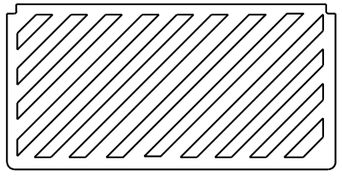




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

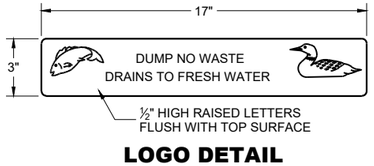
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



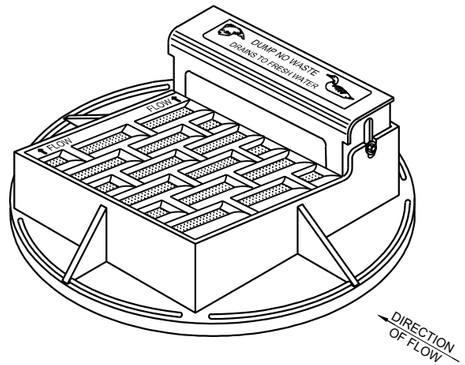
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

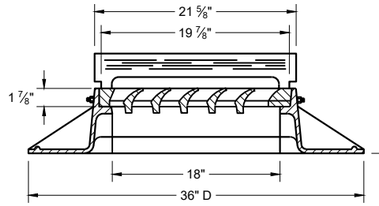


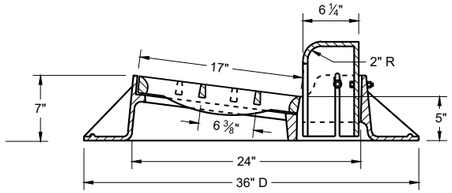
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





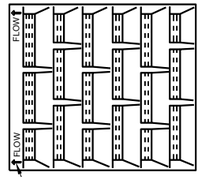
TYPE "A"

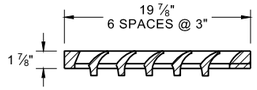
GENERAL NOTES

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

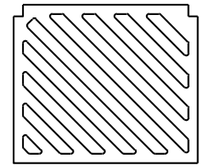
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





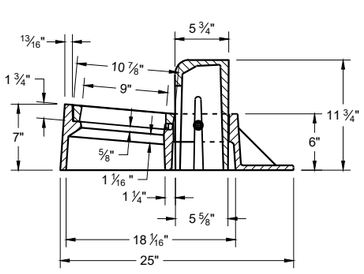
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



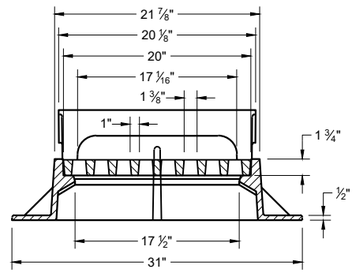
SPECIAL GRATE FOR TYPE "A" COVER

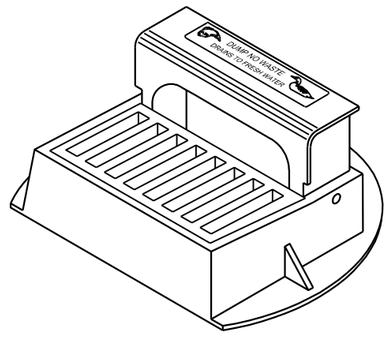
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





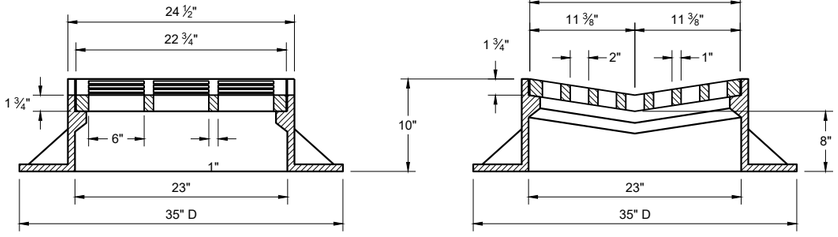
INLET COVERS
TYPES A, H, A-S, H-S AND Z

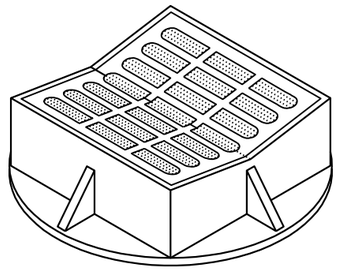
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

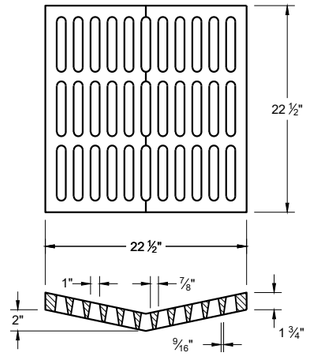
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA





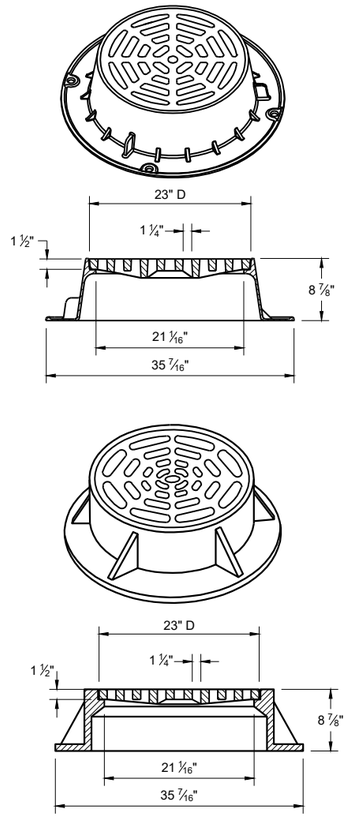
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

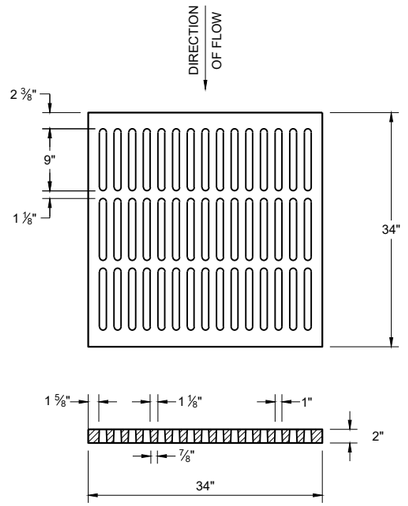
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

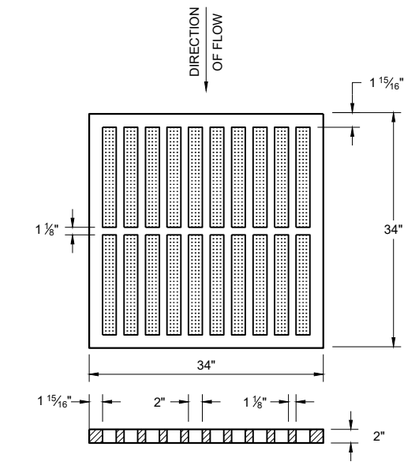
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

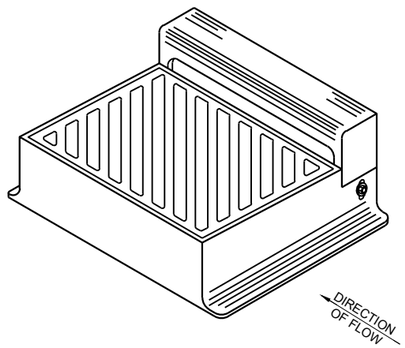
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



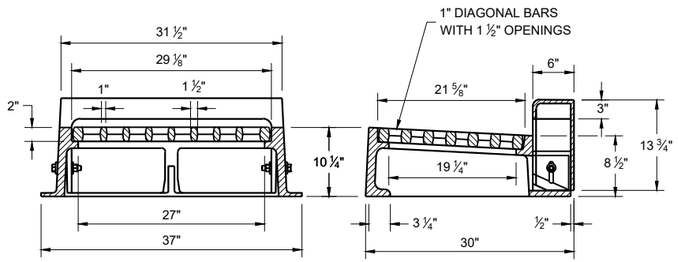
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS
TYPES B, B-A, C,
MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

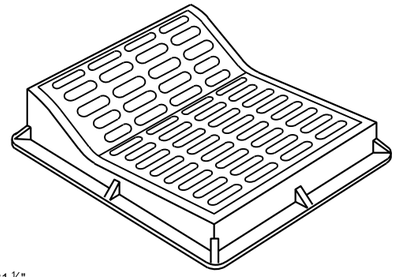
6

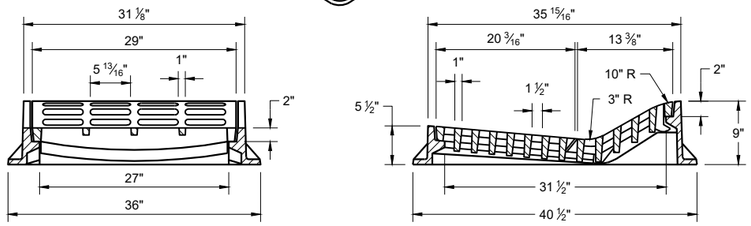
SDD 08A05-21b

GENERAL NOTES

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

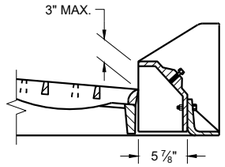
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

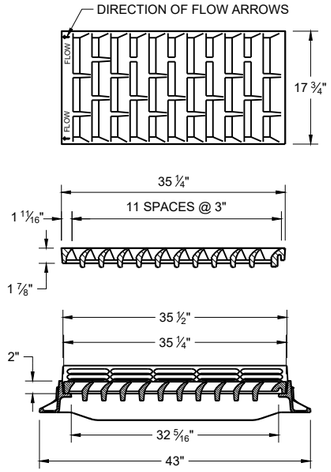


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

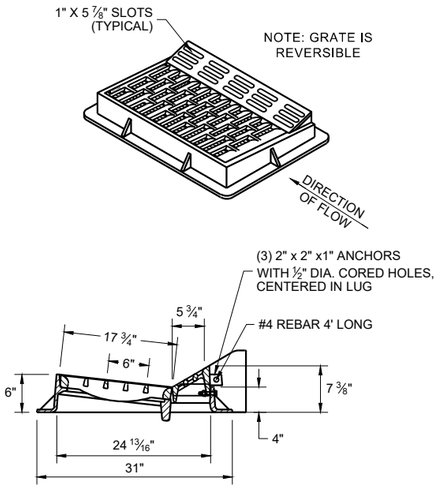
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



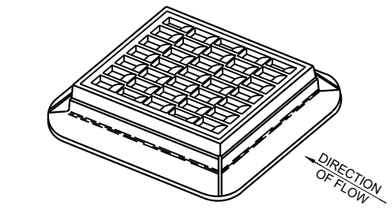
TYPE "HM"

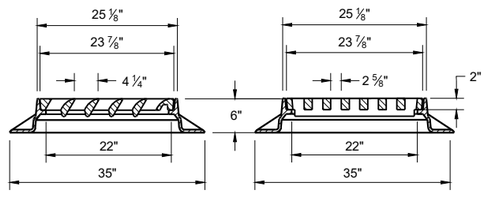
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



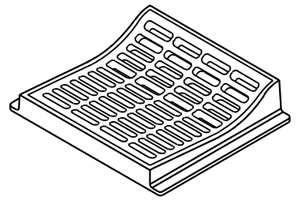
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

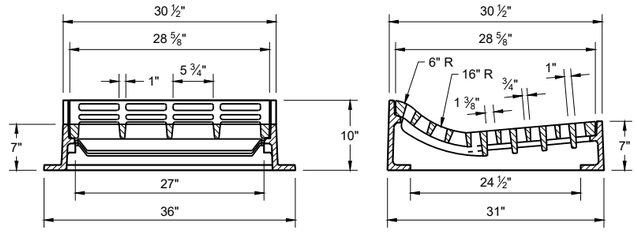
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





TYPE "S"





TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

INLET COVERS
TYPES F, HM, HM-S, S, T, HM-GJ AND HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

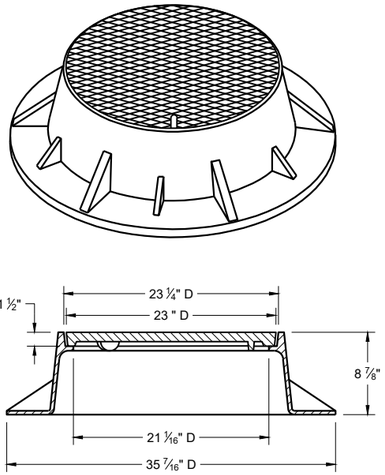
6
SDD 08A05-21c

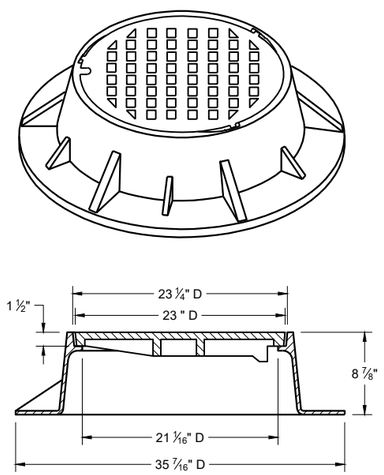
GENERAL NOTES

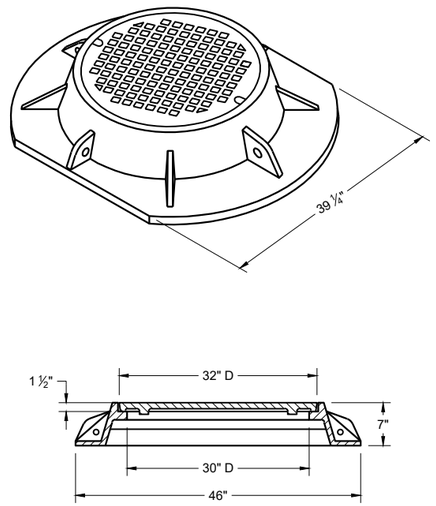
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

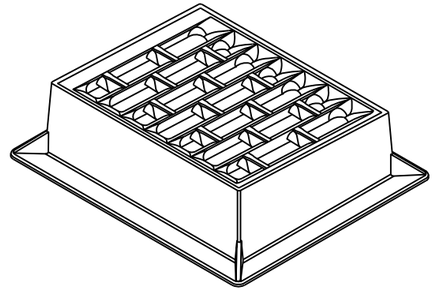
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

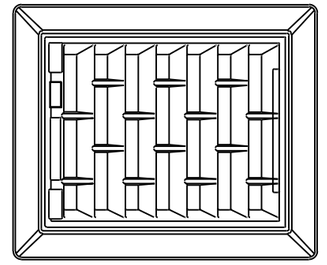


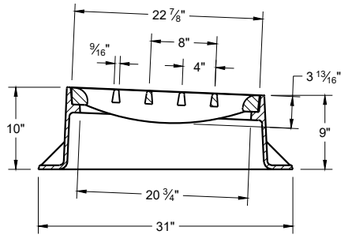


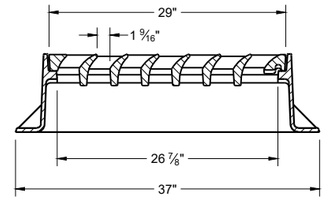


TYPE "K"

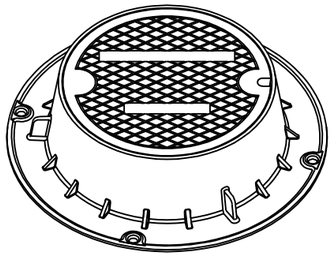


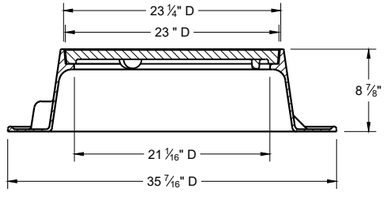






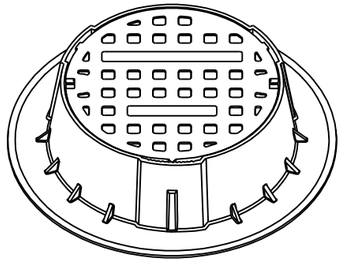
INLET COVER TYPE "BW"

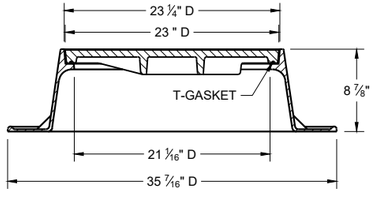




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

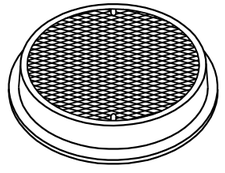


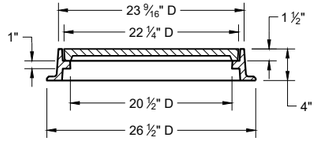


TYPE "J" SPECIAL

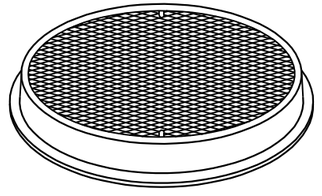
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

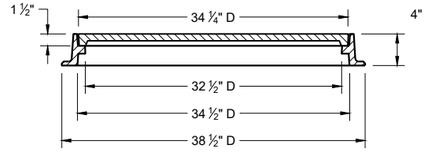
NOTE: EITHER CASTING IS ACCEPTABLE





TYPE "L"





TYPE "M"

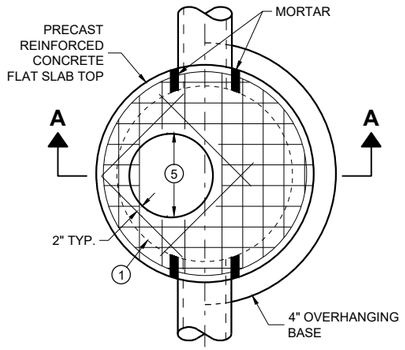
INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

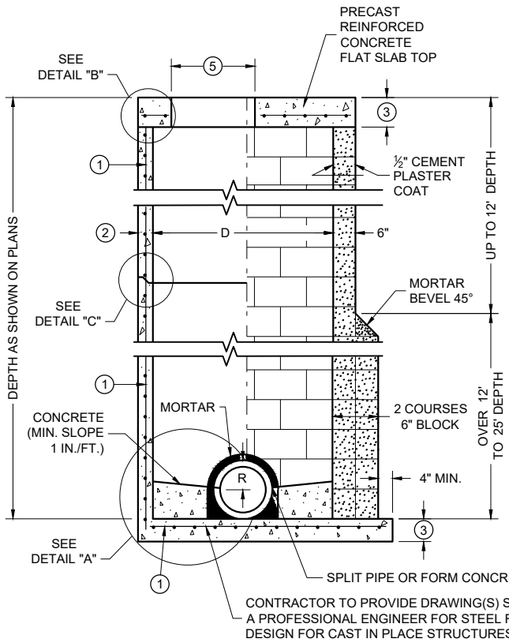
FHWA

6
SDD 08A05-21e



PLAN VIEW

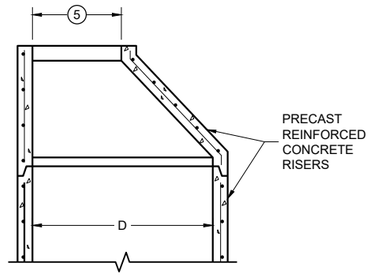
CIRCULAR OPENING



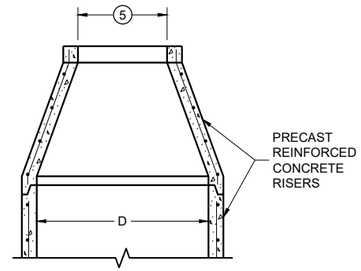
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

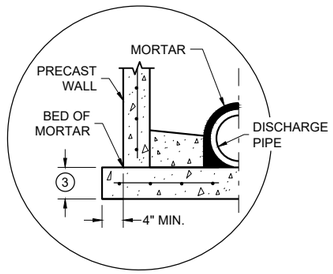
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



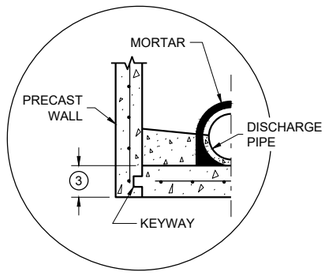
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

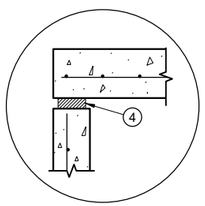


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

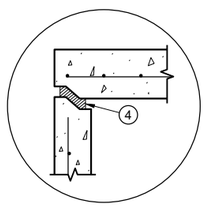


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

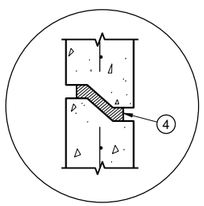
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

DETAIL "C"

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

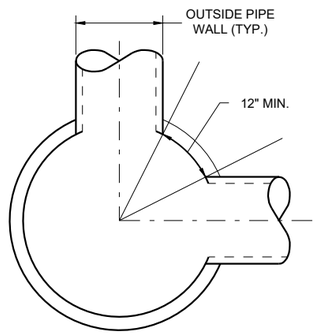
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

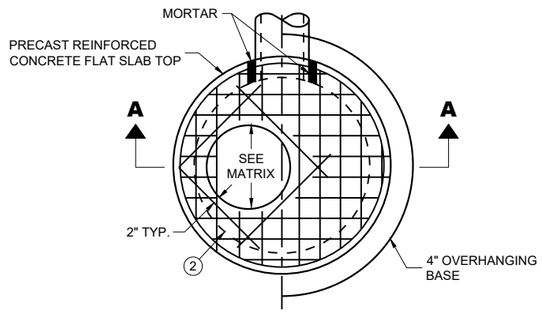
MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

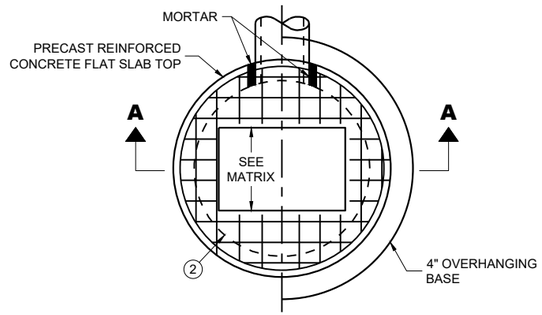
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

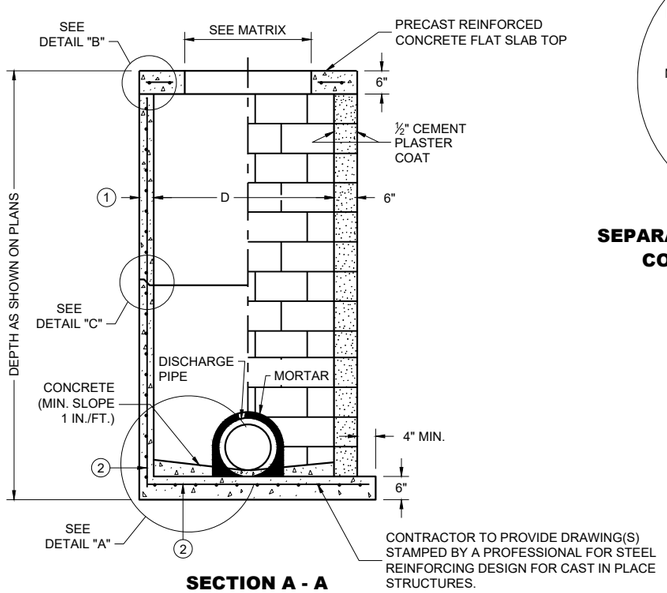
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER



PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

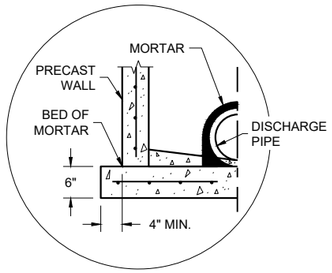
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

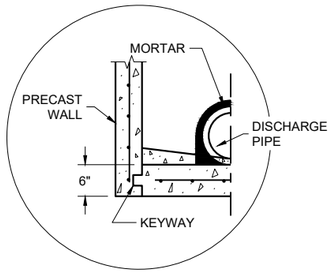
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

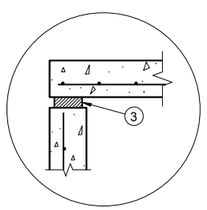


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

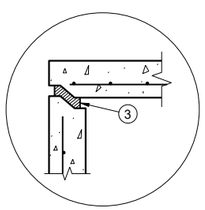


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

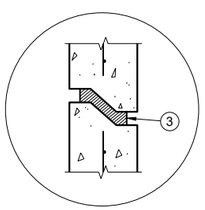
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

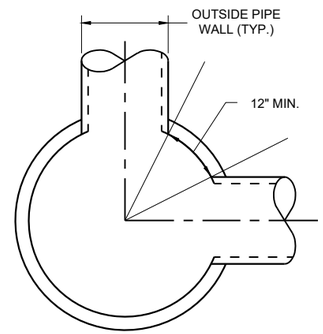
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMTER PRECAST INLETS.

(2) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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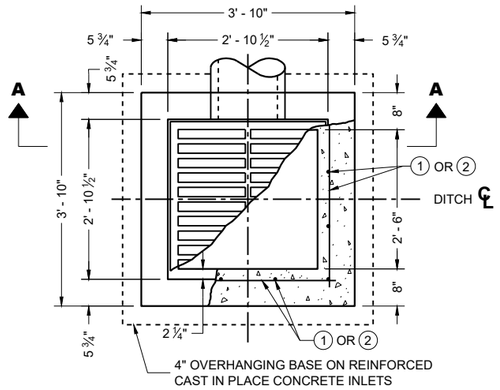
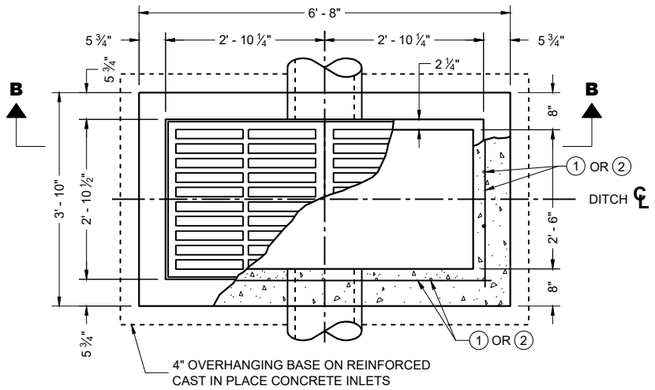
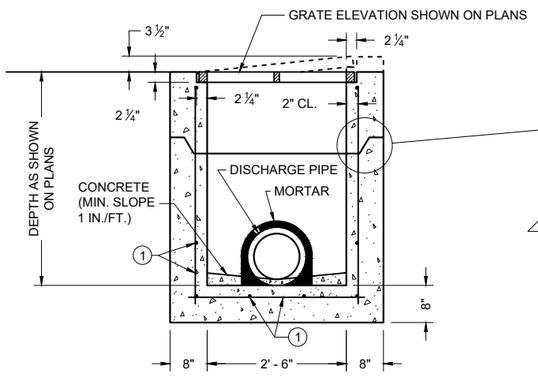


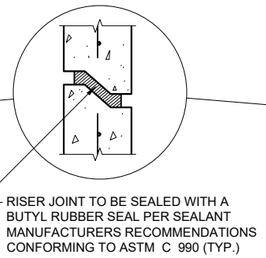
PLAN VIEW

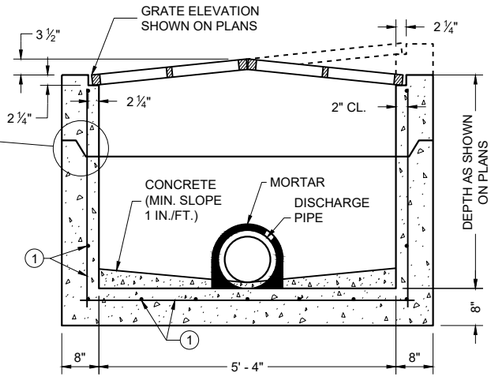


PLAN VIEW

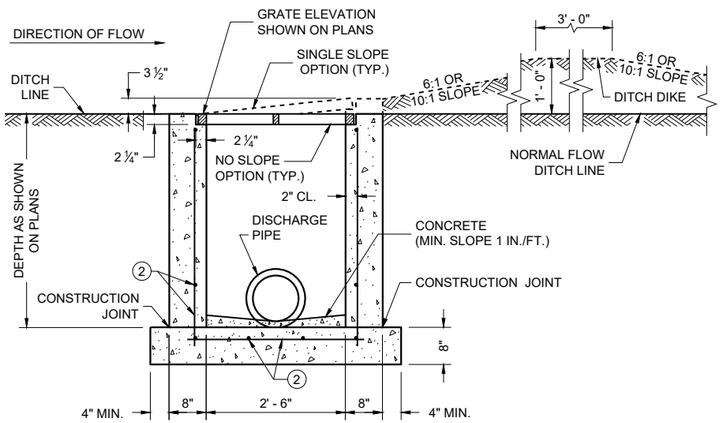


PRECAST REINFORCED CONCRETE SECTION A - A



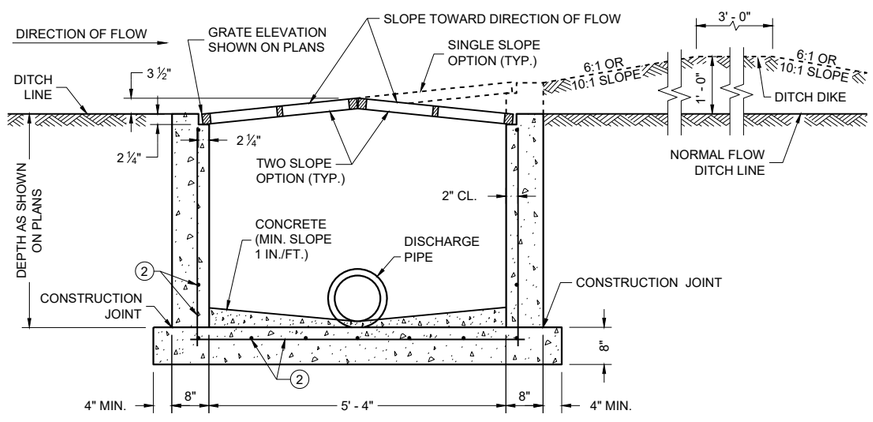


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

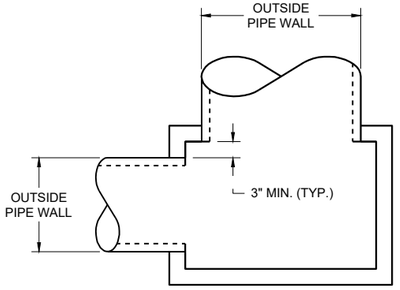
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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

(1) FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

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



DETAIL "A"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
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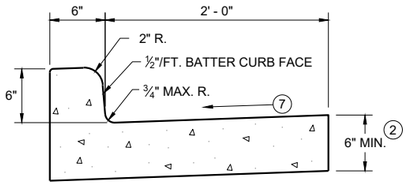
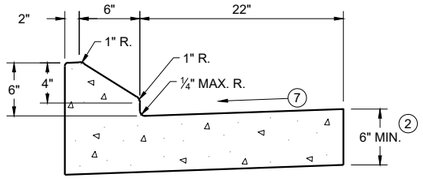
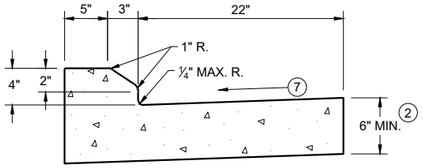


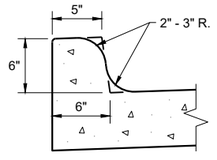
TYPES A (1) & D



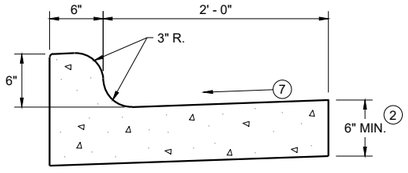
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

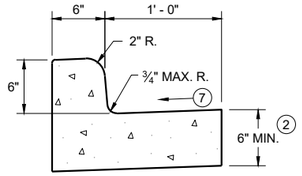


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



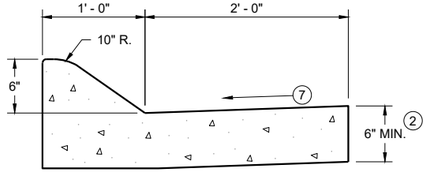
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

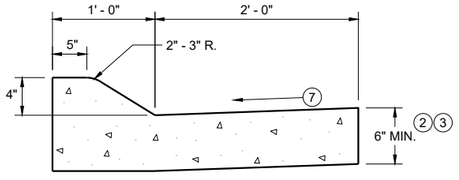


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

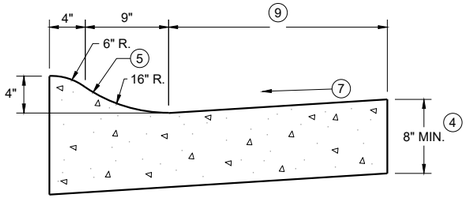


6" SLOPED CURB TYPES A (1) & D



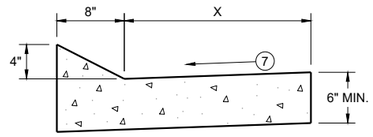
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

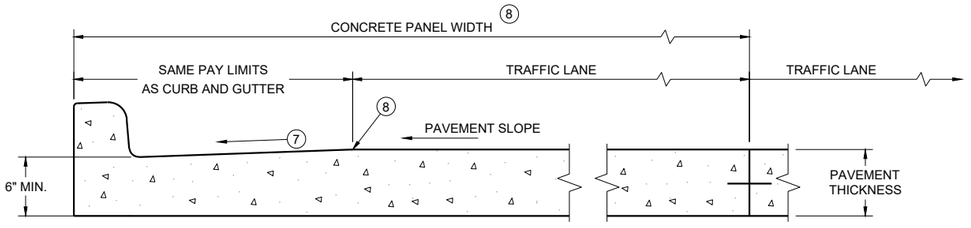


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

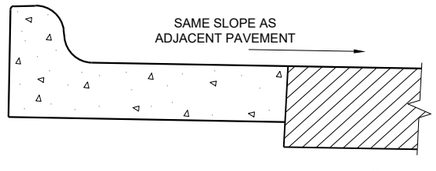
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

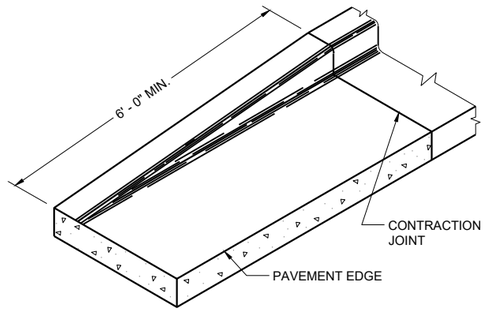
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(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

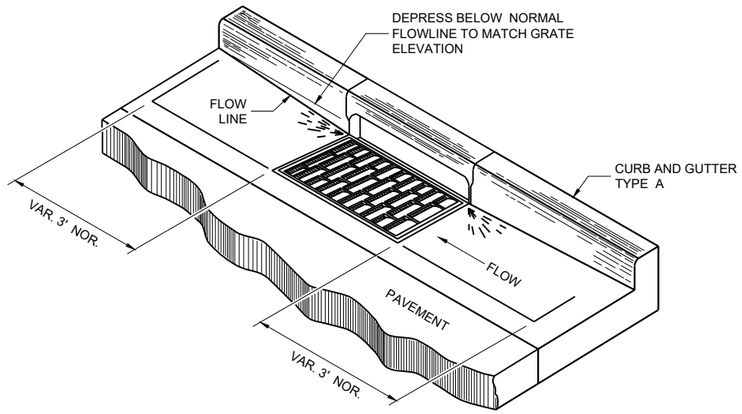
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

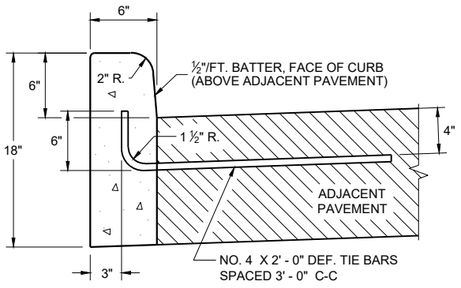
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

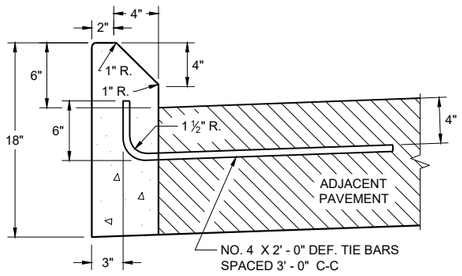
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

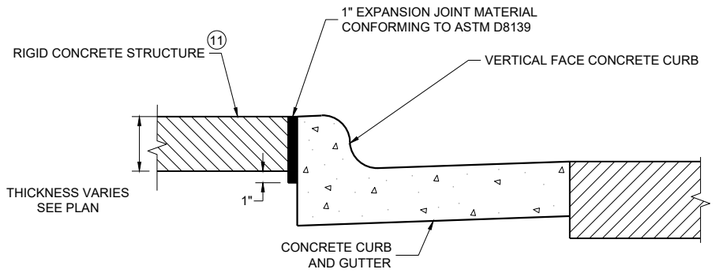


TYPES A (1) & D

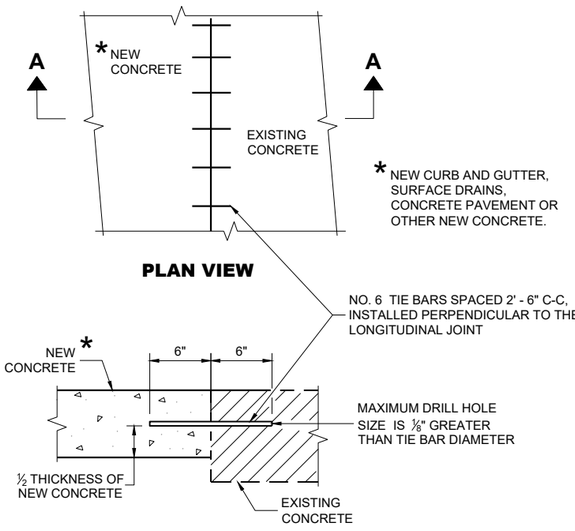


TYPES G (1) & J

CONCRETE CURB



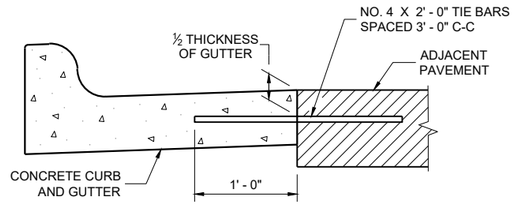
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



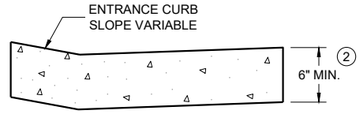
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

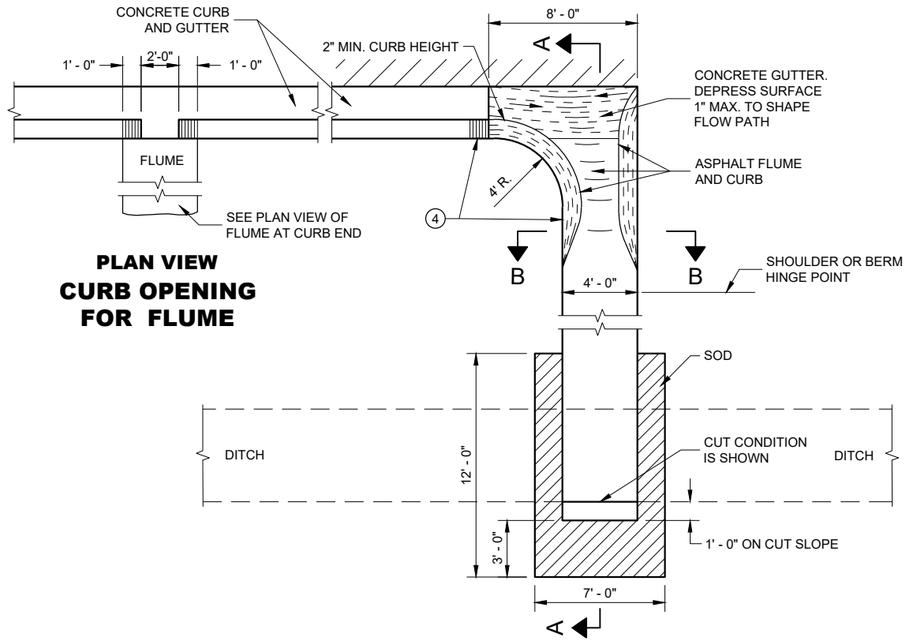
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

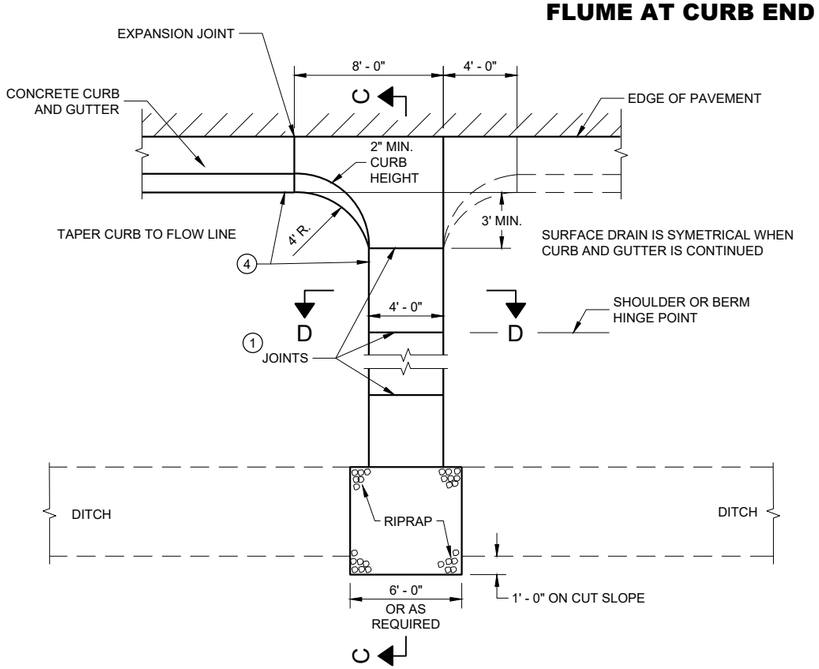
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



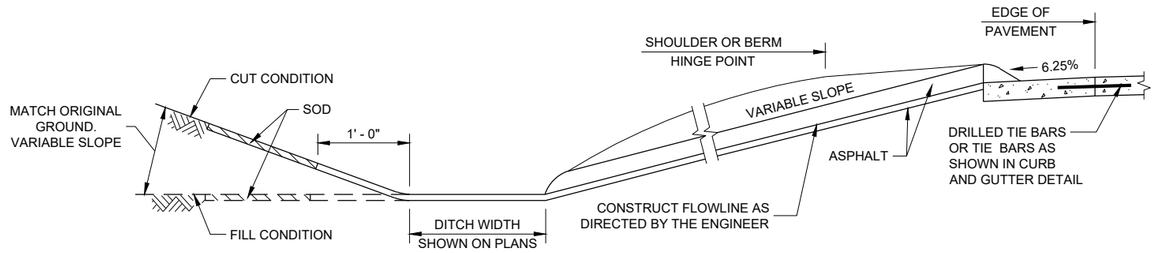
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

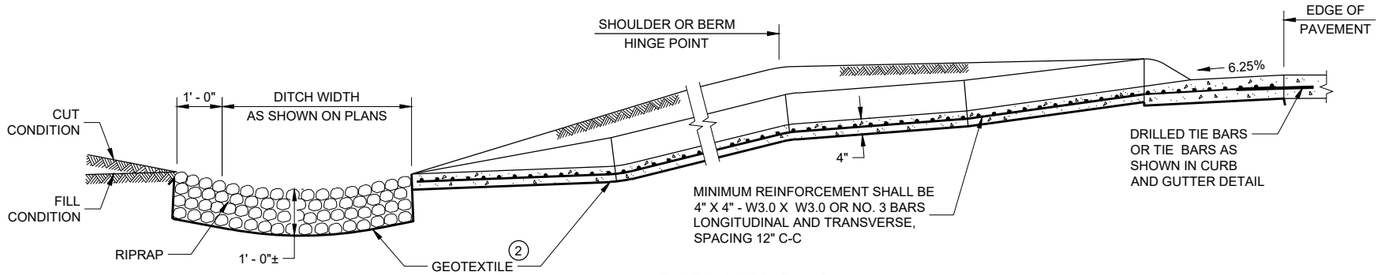
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

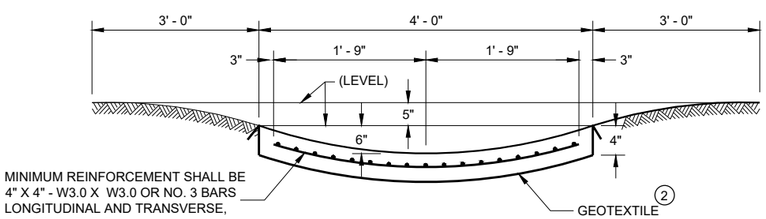


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

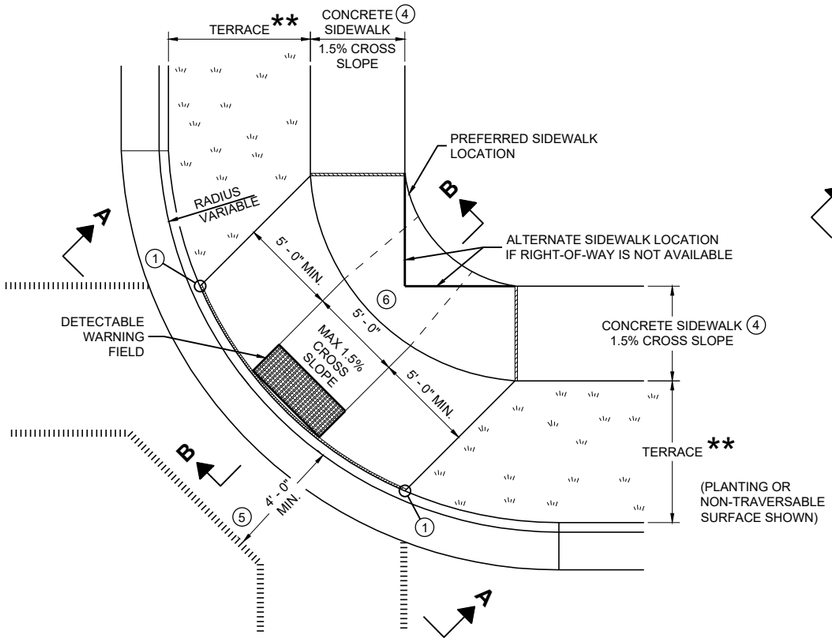
APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

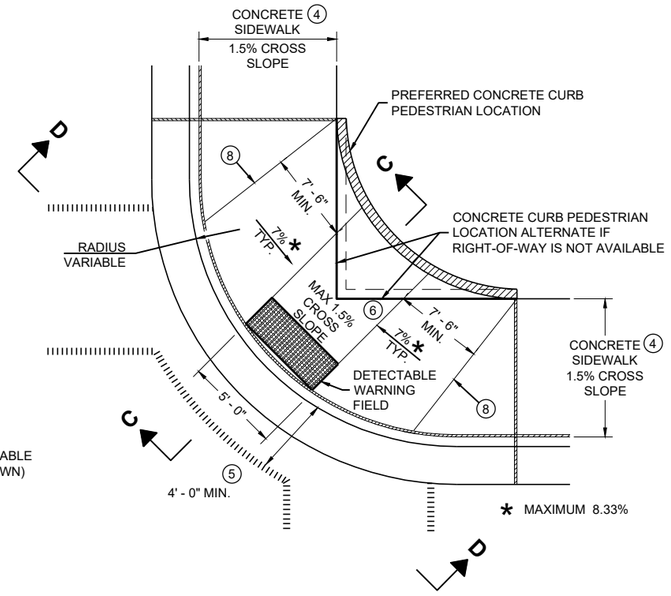
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

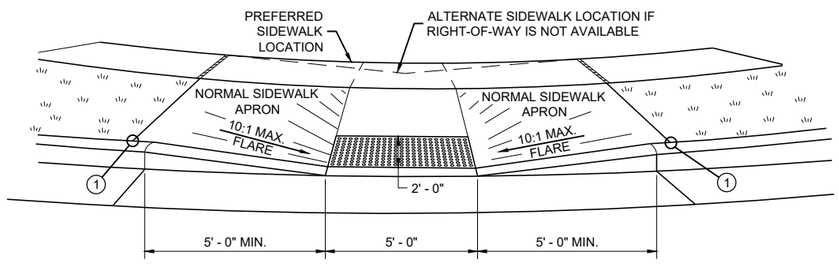
(CENTER OF CORNER RADIUS)



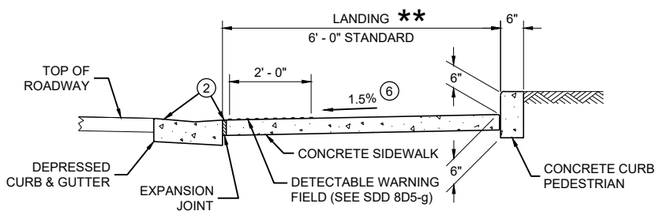
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

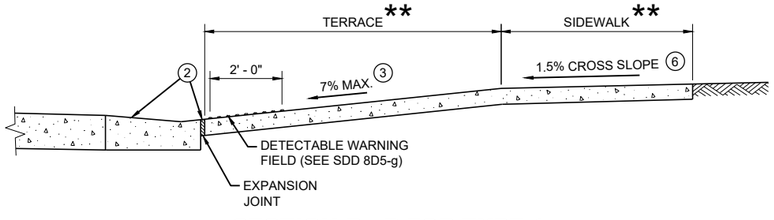


VIEW A - A FOR TYPE 1

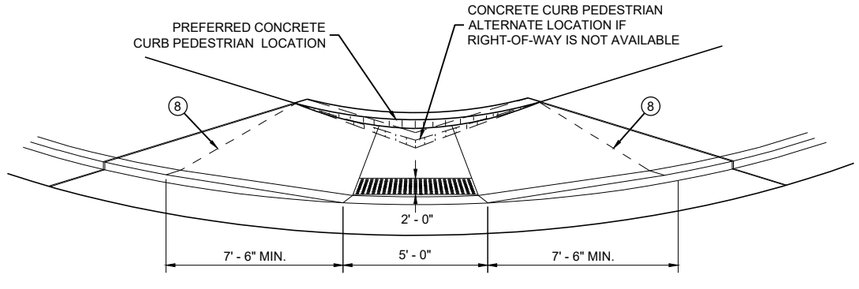


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



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 FILED 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 ½ - 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. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

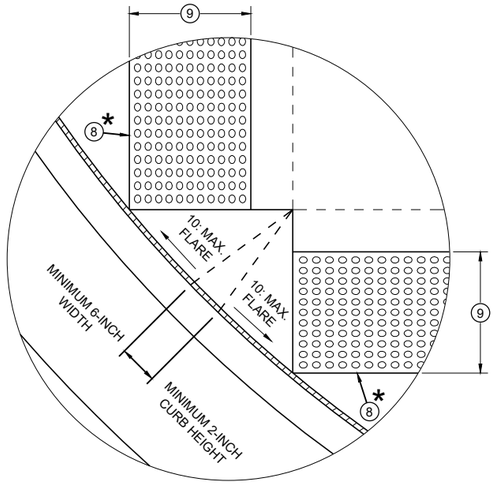
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

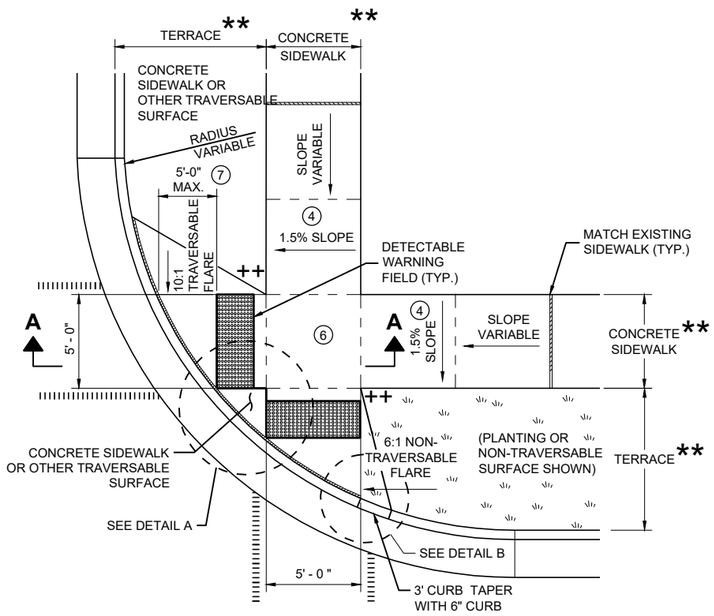
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

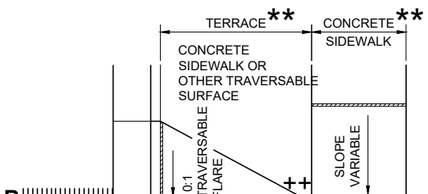
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

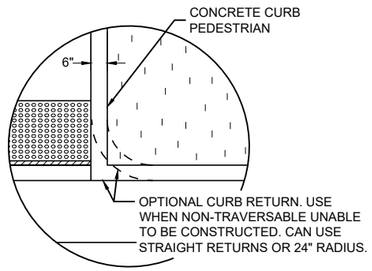


DETAIL A



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





DETAIL B

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

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - 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.

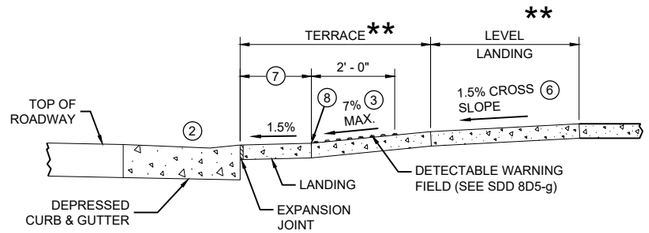
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

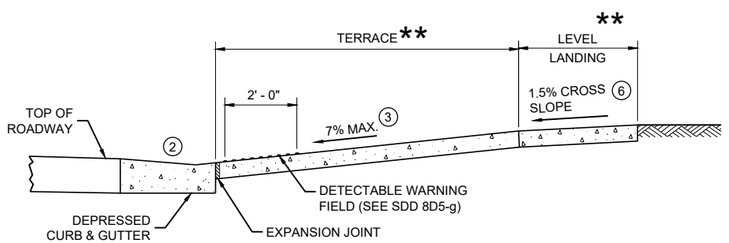


SECTION A - A FOR TYPE 2

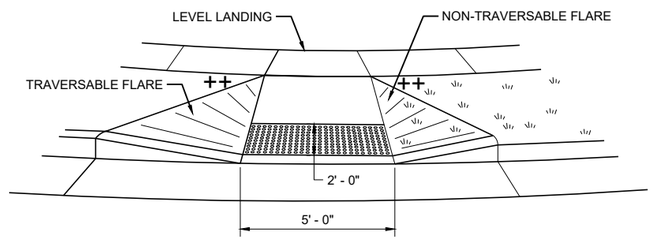
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



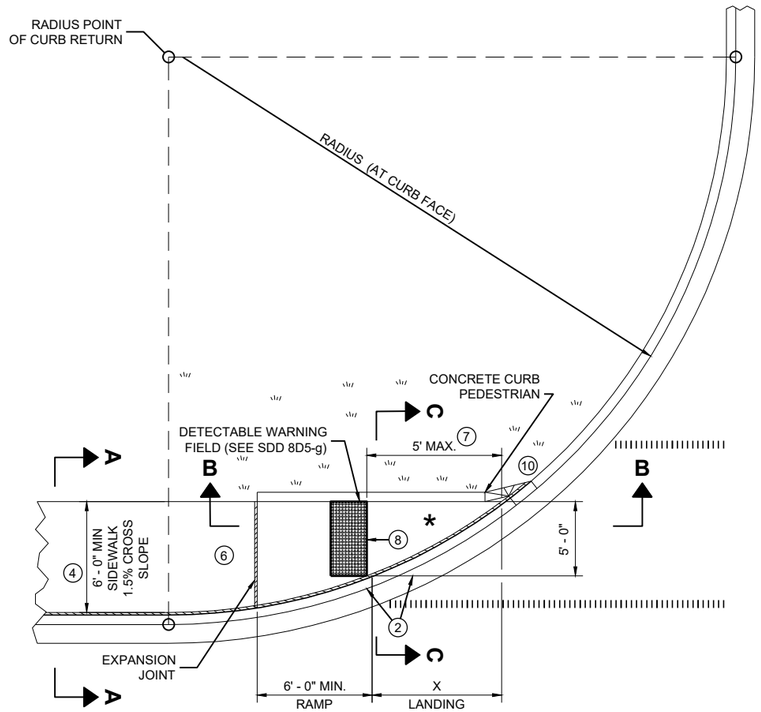
VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

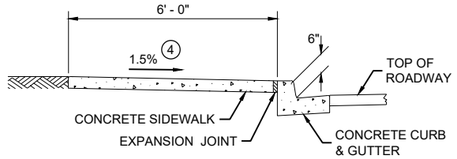


PLAN VIEW

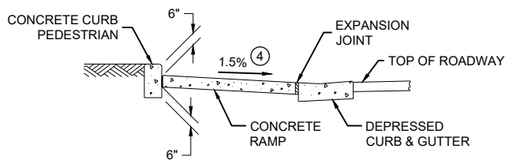
CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

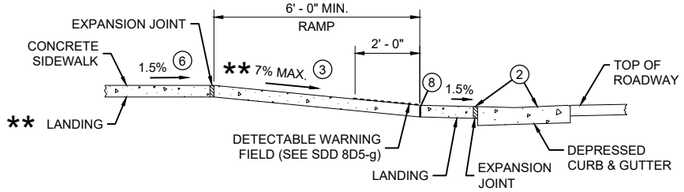
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

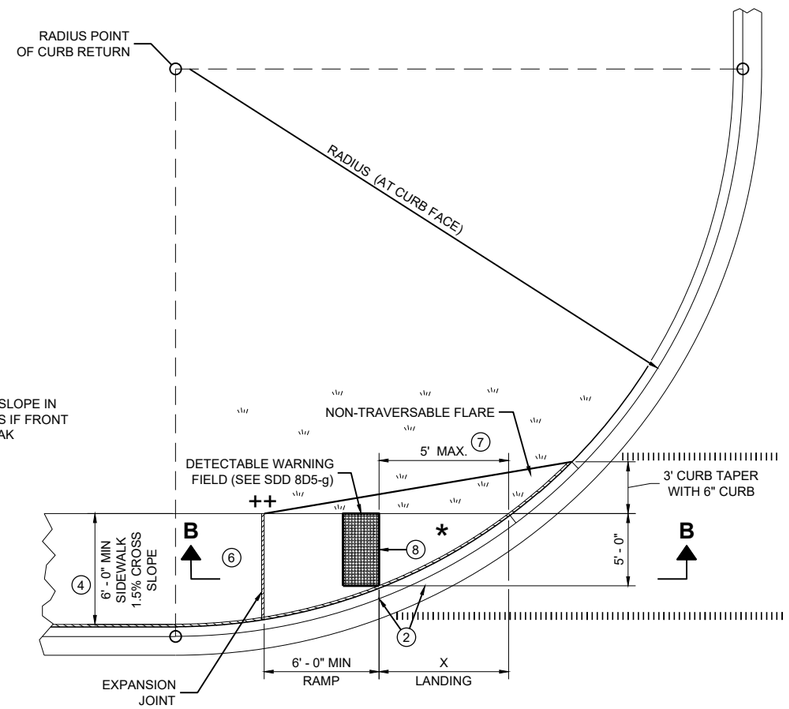


SECTION C - C FOR TYPE 4A



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

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

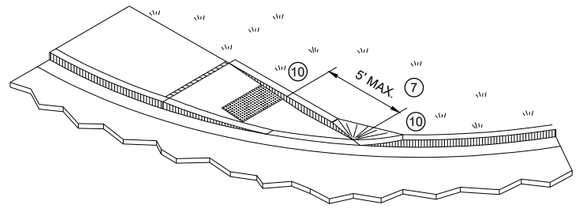


PLAN VIEW

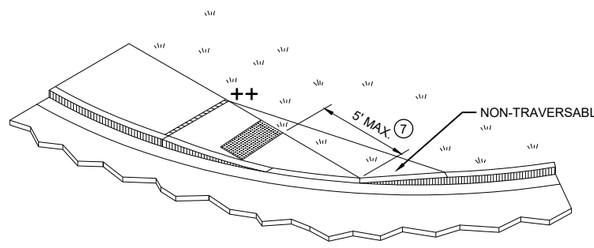
CURB RAMP TYPE 4A1

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

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 ¼ - 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

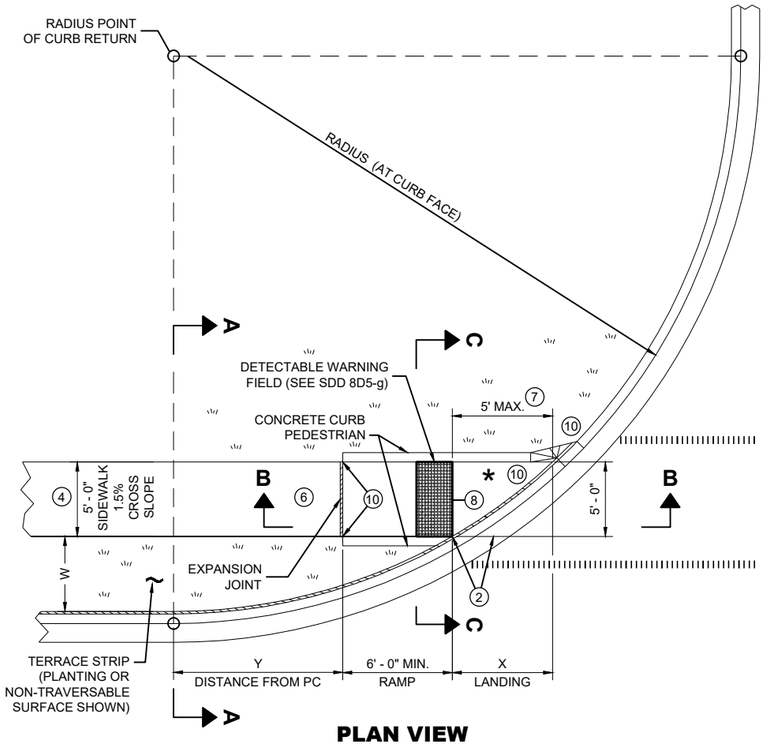
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A AND 4A1

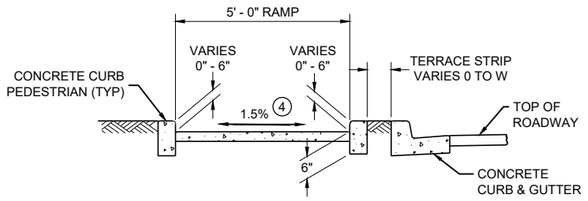
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									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															4' - 10 3/4"	19' - 8 1/4"

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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" 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 ¼ - 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.

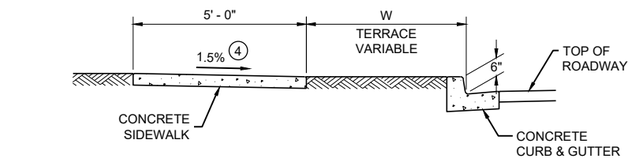
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

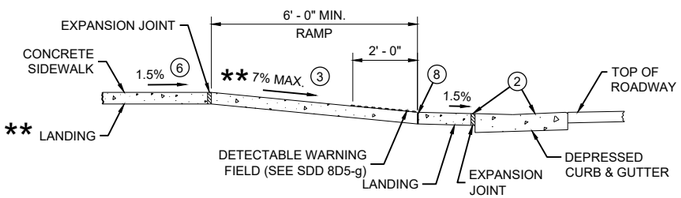
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

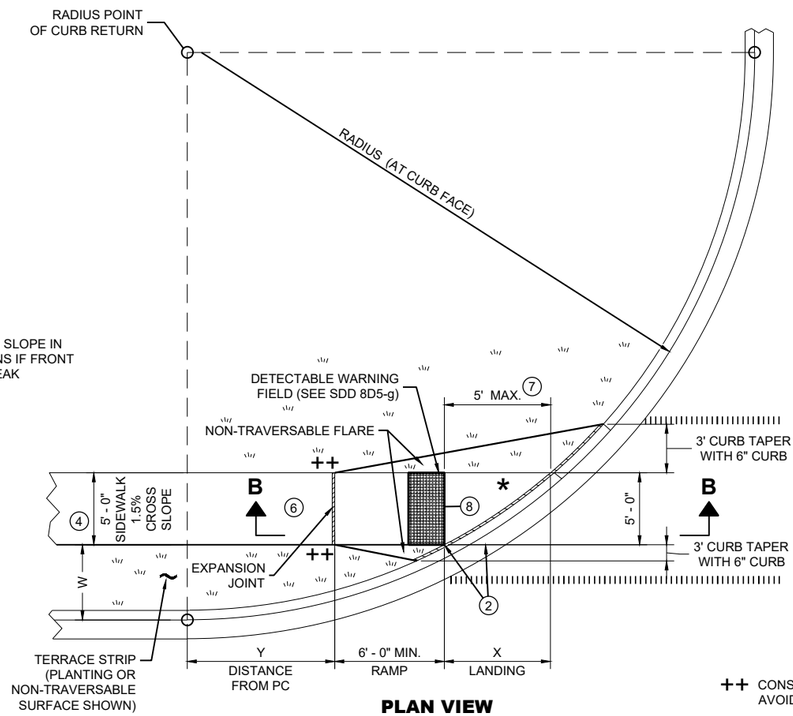


SECTION A - A FOR TYPE 4B



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

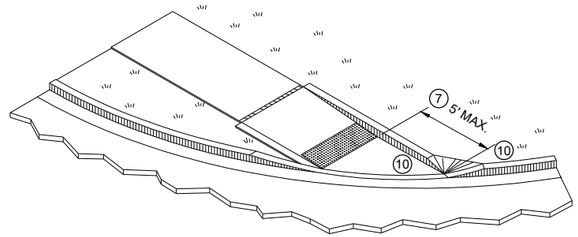
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



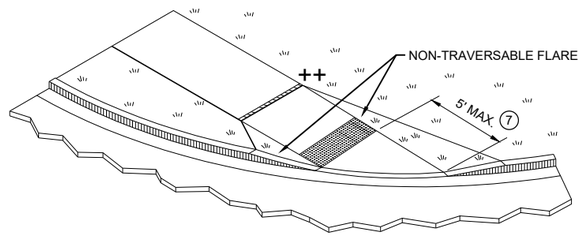
PLAN VIEW
CURB RAMP TYPE 4B1

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4B



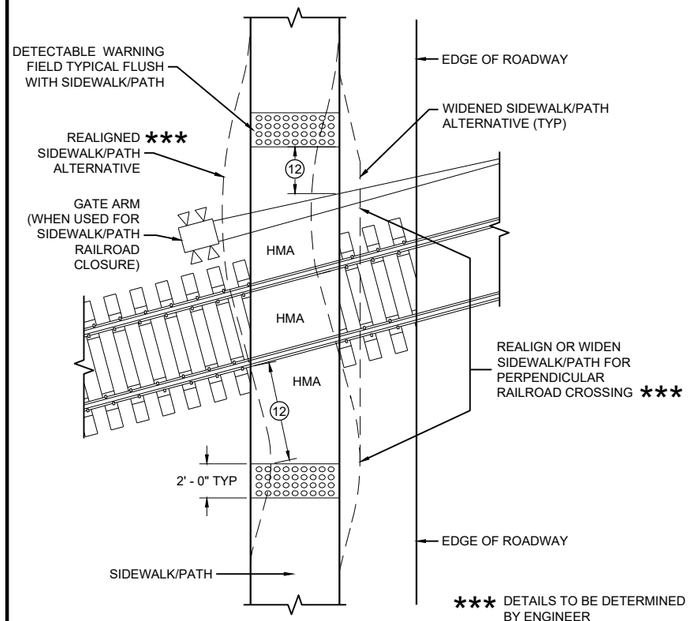
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

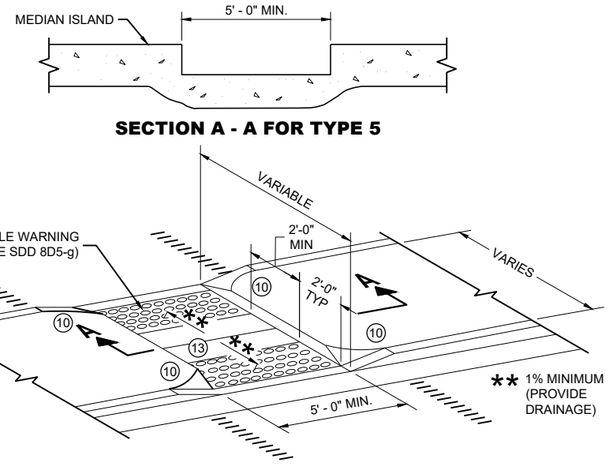
6

SDD 08D05-21d



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



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 ¼ - 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.

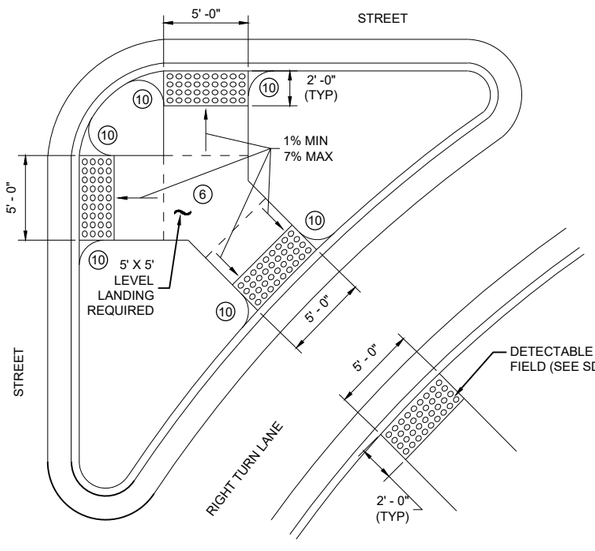
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-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

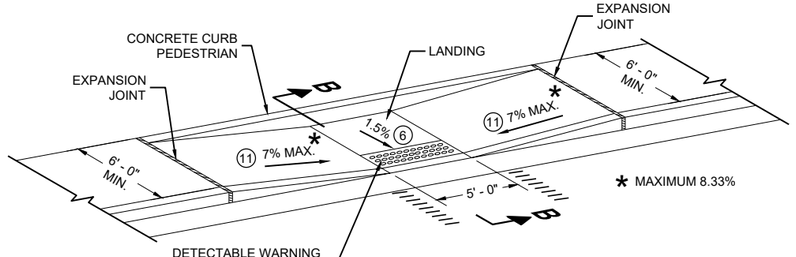
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

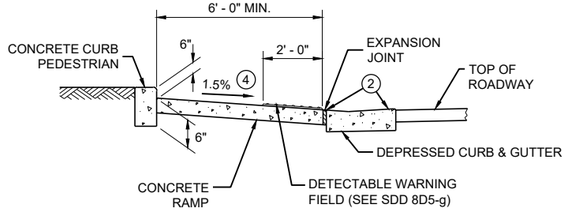
DETECTABLE WARNING AT ISLANDS

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

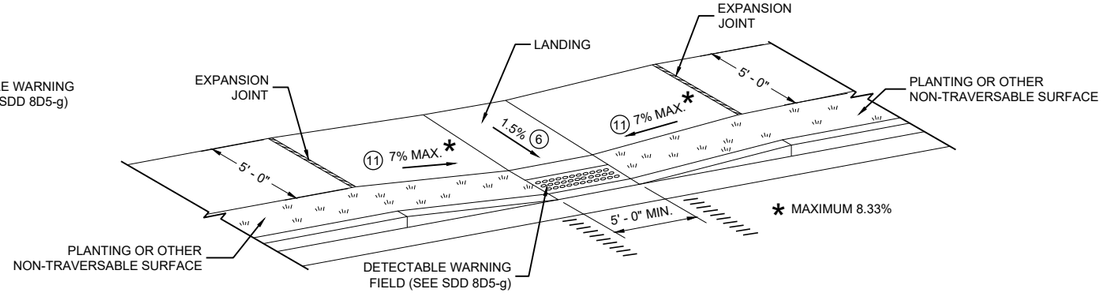


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

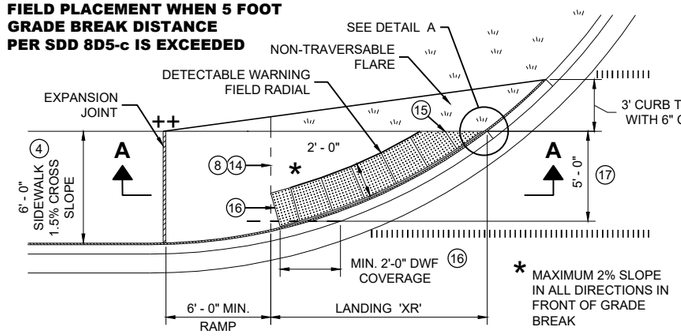
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

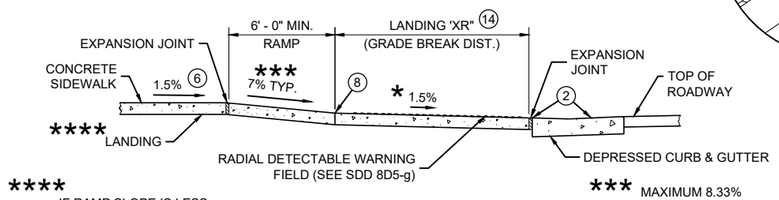
SDD 08D05-21e

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

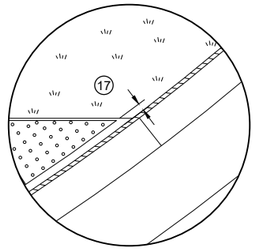


PLAN VIEW

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



SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" 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.

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 CURB 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 AD 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 ¼ - 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.

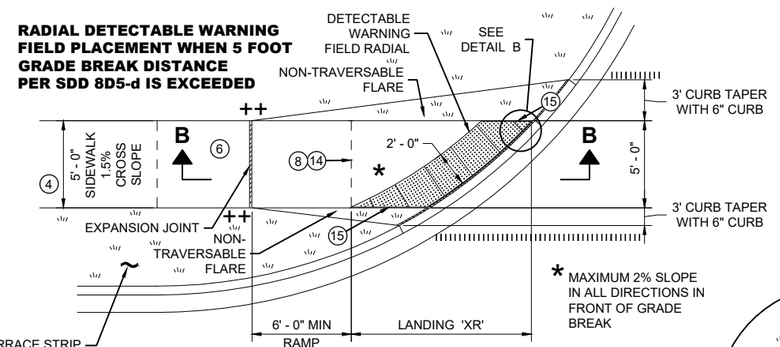
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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 ⅛" 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.

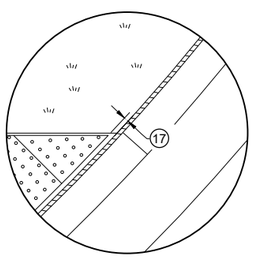
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

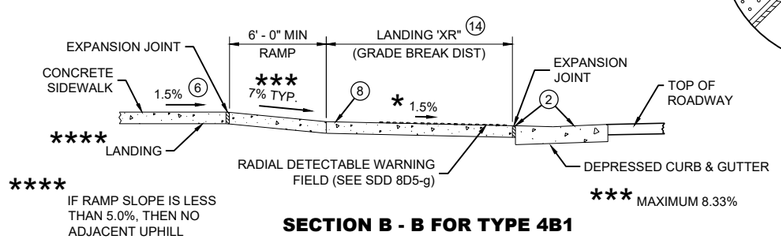


PLAN VIEW

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

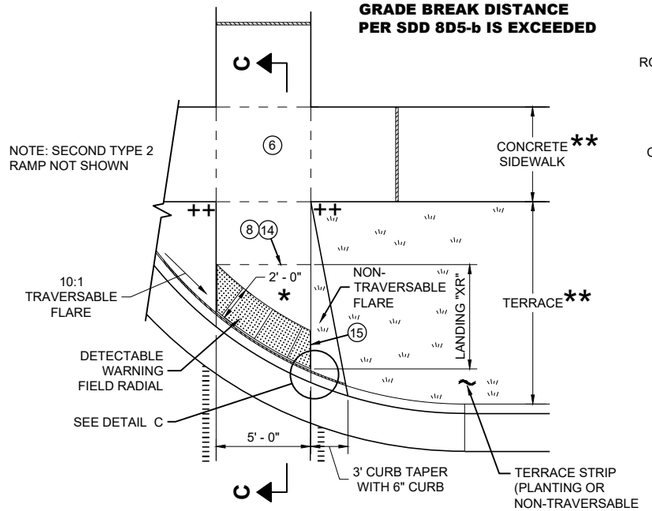


DETAIL B



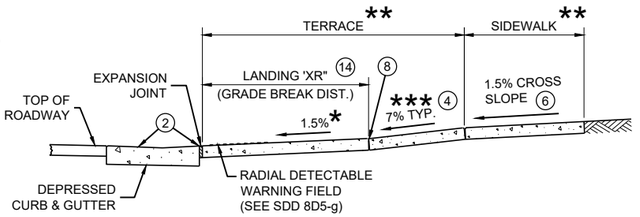
SECTION B - B FOR TYPE 4B1

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

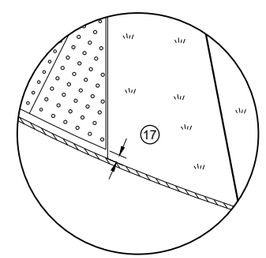


PLAN VIEW

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



SECTION C - C FOR TYPE 2



DETAIL C

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

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

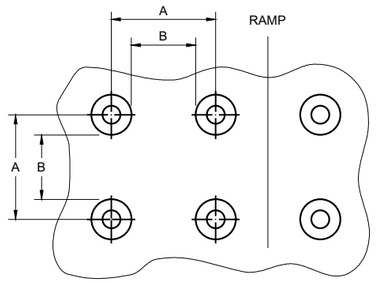
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

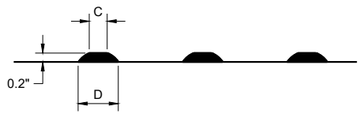
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

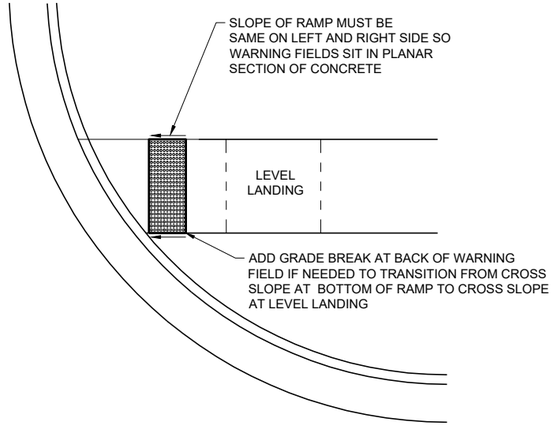
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

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 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.

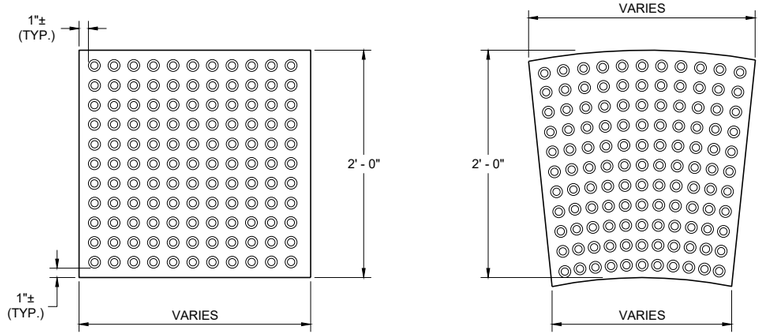
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. 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 ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

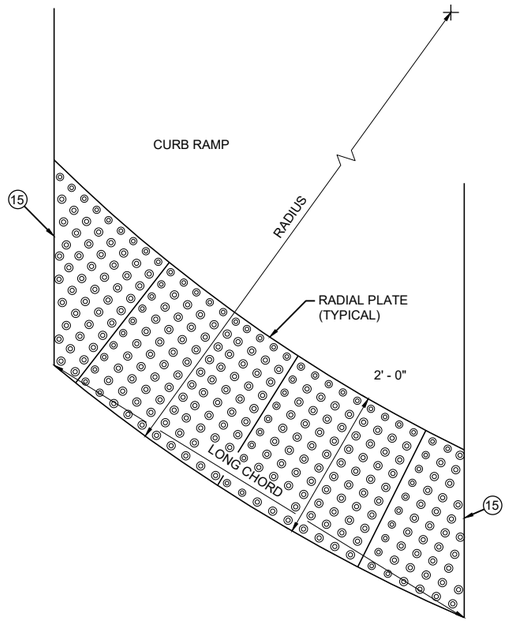
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



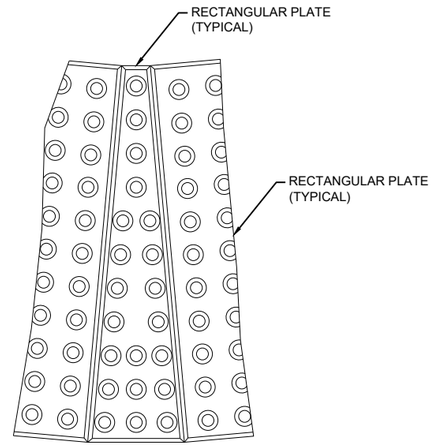
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

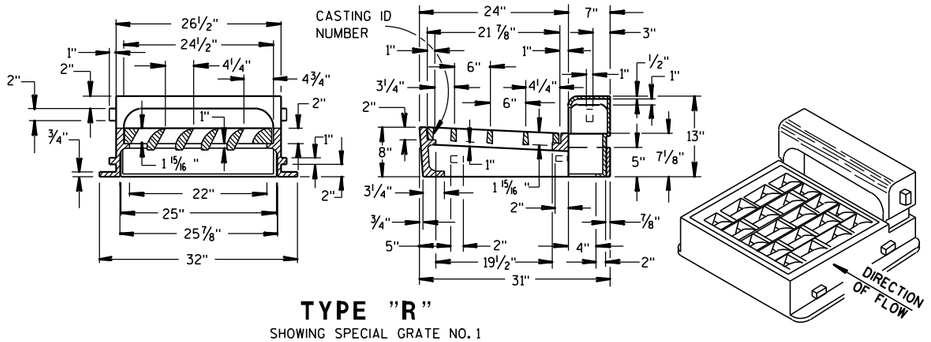
July 2023 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

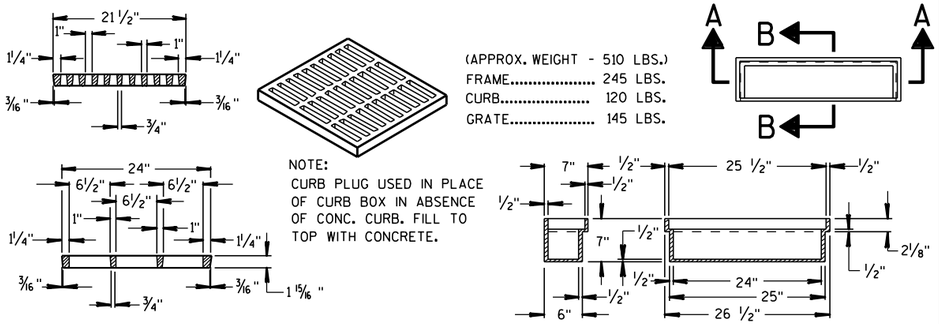
6
SDD 08D05-21g

INLET COVERS



TYPE "R"

SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.

NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.

GRATE FOR TYPE "R" INLET COVER

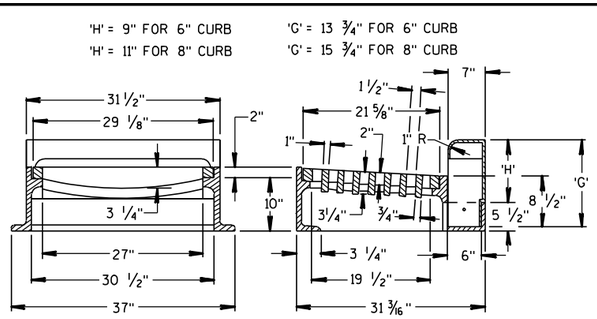
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SECTION B-B SECTION A-A

SPECIAL CURB PLUG "P"

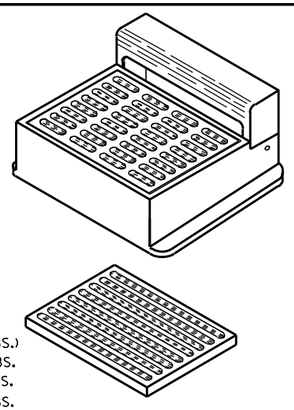
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB

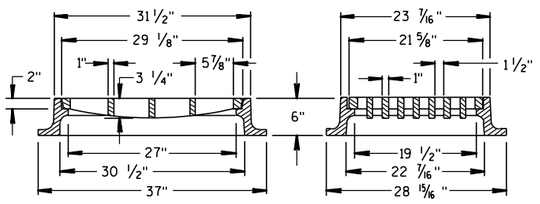


TYPE "W"

(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.



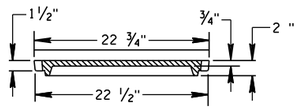
ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"



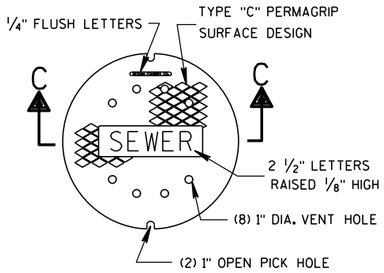
TYPE "X"

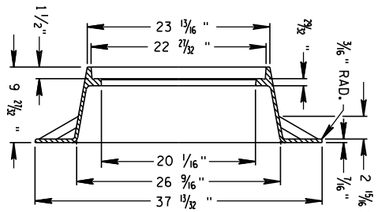
(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

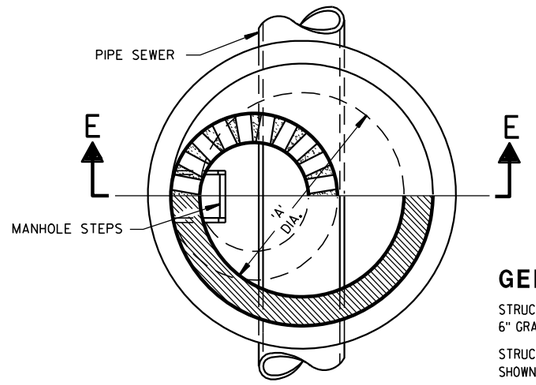
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

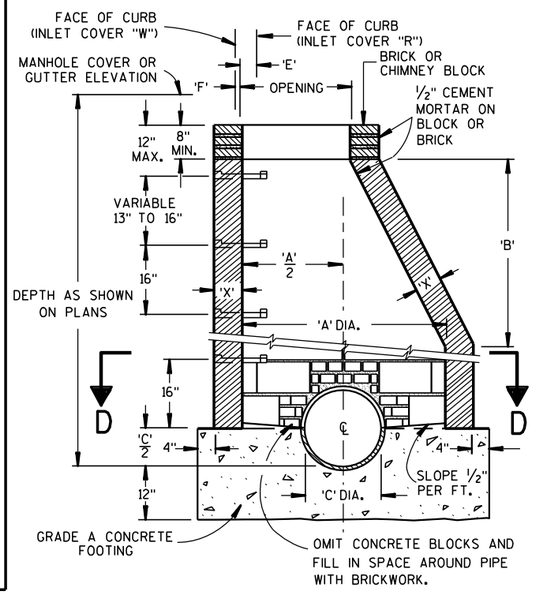
MANHOLE



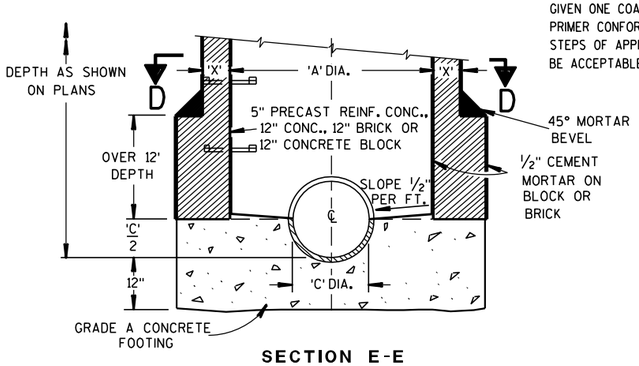
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

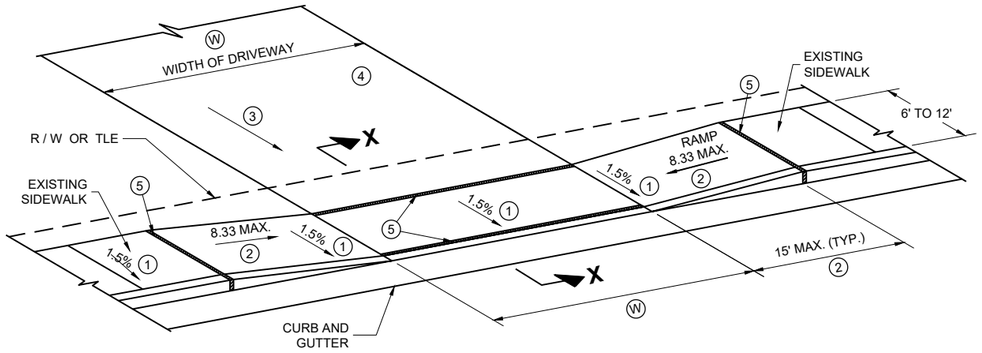
SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

MANHOLES, MANHOLE & INLET COVERS

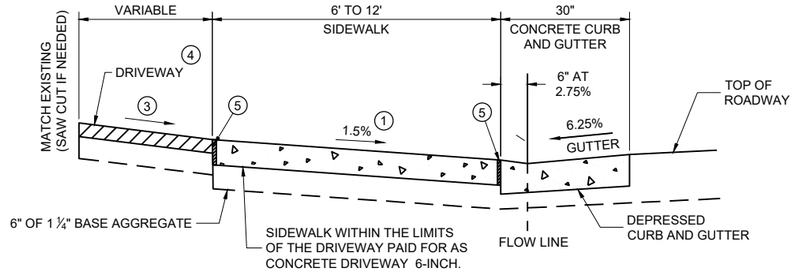
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
322
FHWA

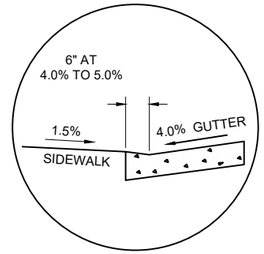
6
S.D.D. 8 D 17-6



TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X - X



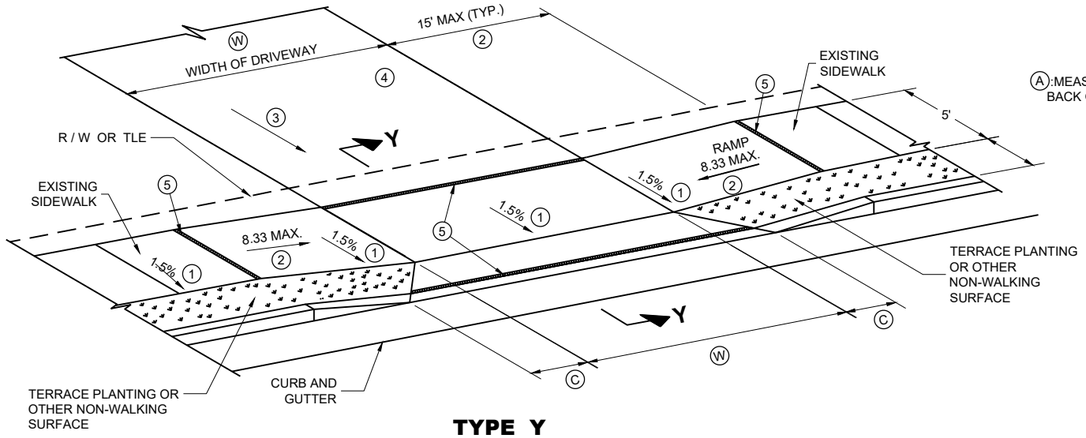
SECTION X - X
4% GUTTER SLOPE

Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)

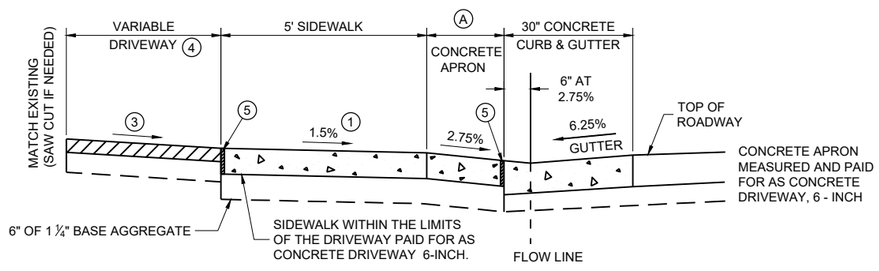
TABLE Y

Ⓐ FEET	Ⓒ FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

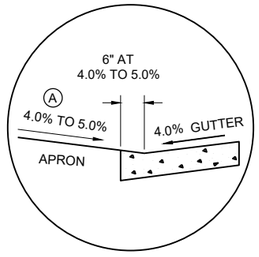


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

Ⓐ:MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS



SECTION Y - Y
4% GUTTER SLOPE

SECTION Y - Y

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

(URBAN AND SUBURBAN)

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

Ⓦ IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

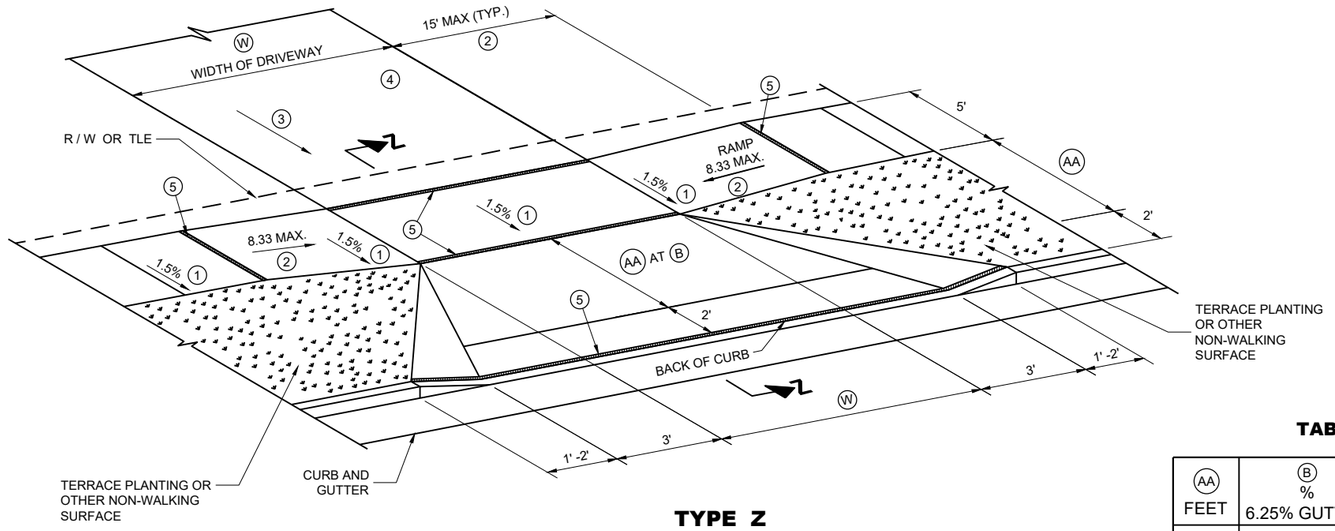
⑤ ½" EXPANSION JOINT FILLER

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA



TYPE Z

SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

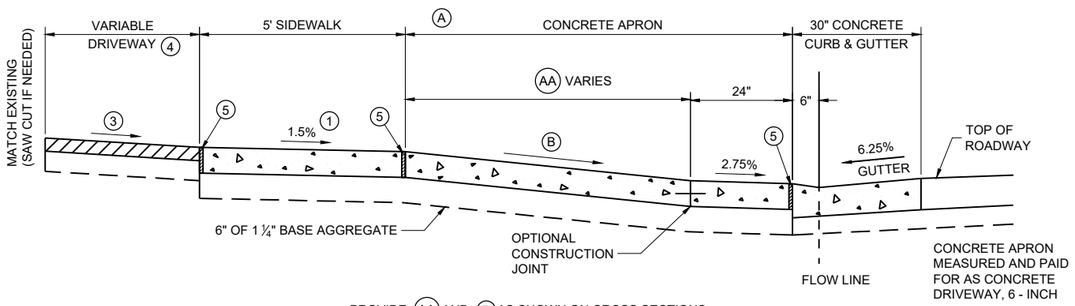
(5) ½" EXPANSION JOINT FILLER.

TABLE Z

(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

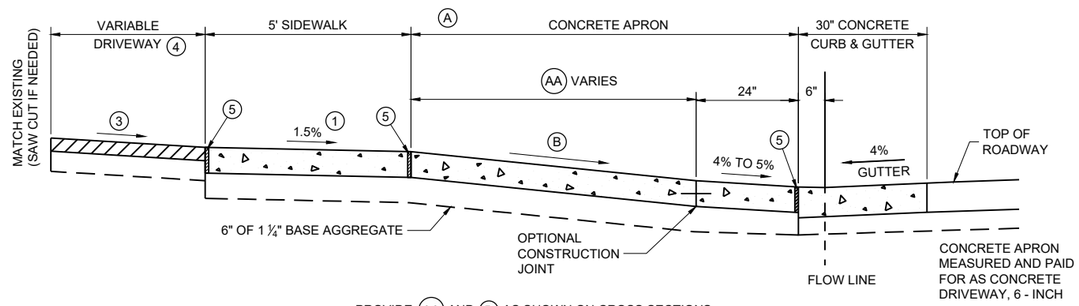
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SECTION Z - Z

DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER

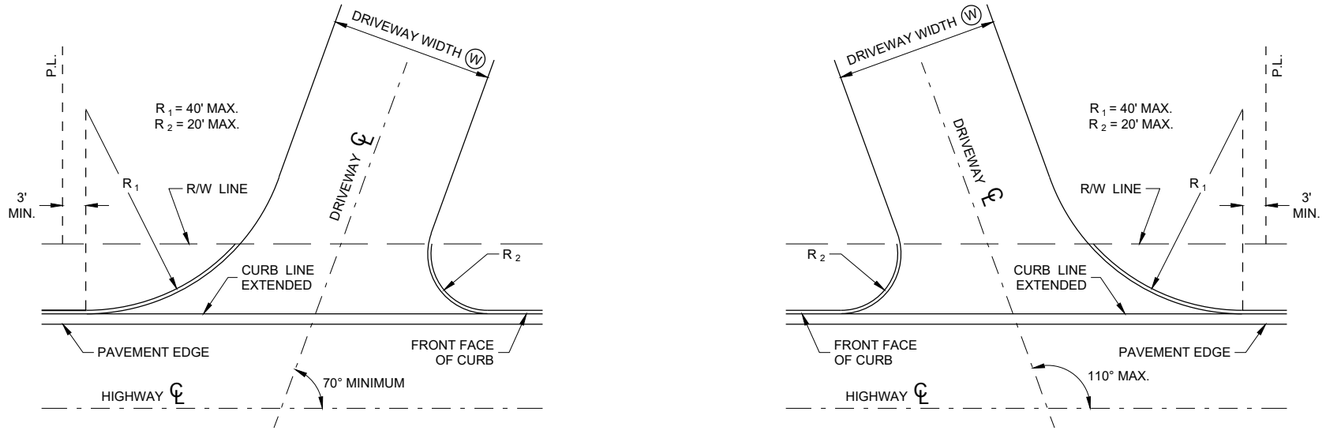
(URBAN AND SUBURBAN)

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA



SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN

GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

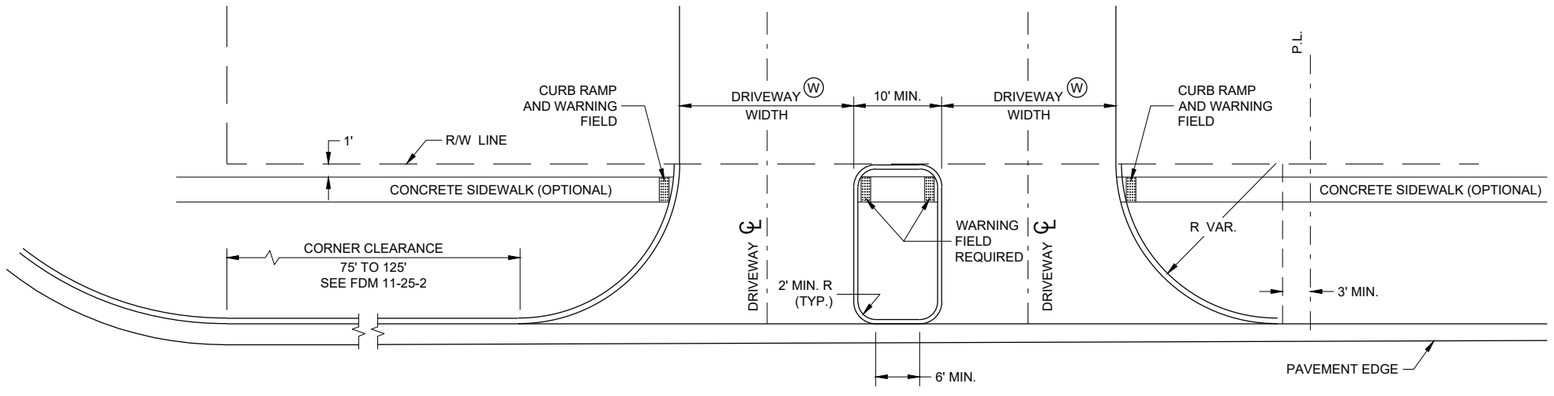
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

DRIVEWAYS WITH CURB AND GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

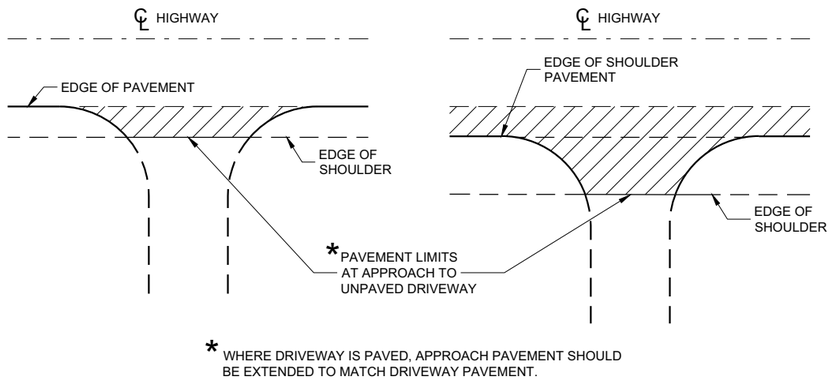
00-00-00
DATE

/S/ <AUTHOR>
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D20 - 01

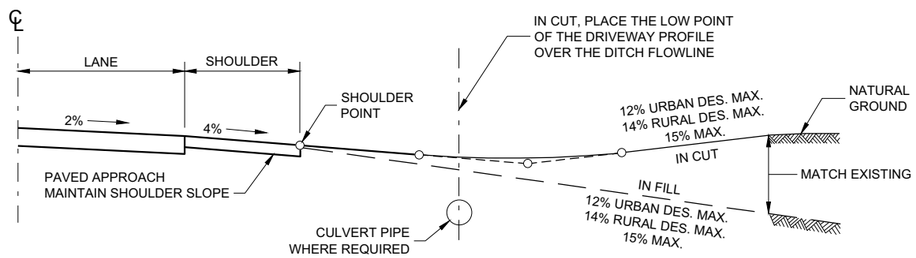
SDD 08D20 - 01



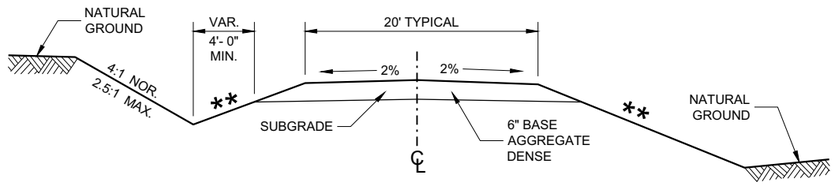
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

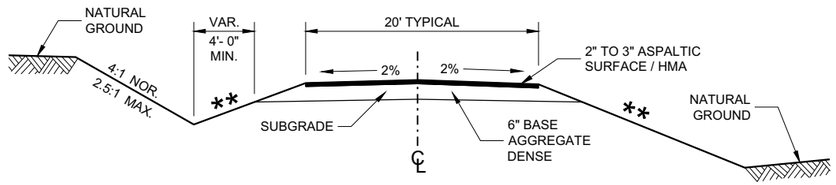


IN CUT IN FILL

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE



IN CUT IN FILL

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

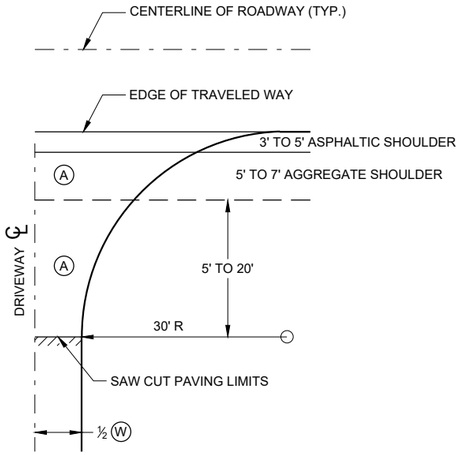
FHWA

6

SDD 08D21 - 01

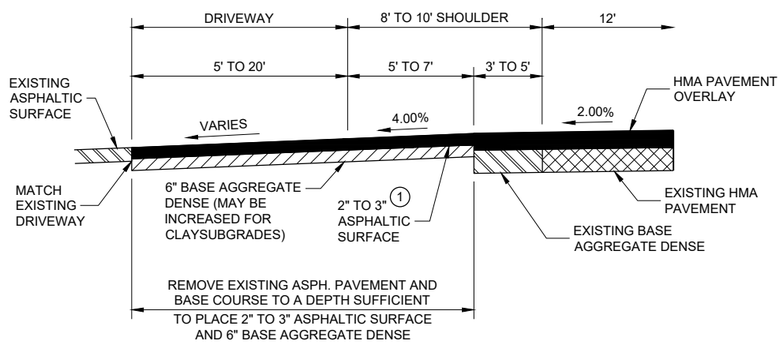
GENERAL NOTES

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



PLAN VIEW

HALF SECTION



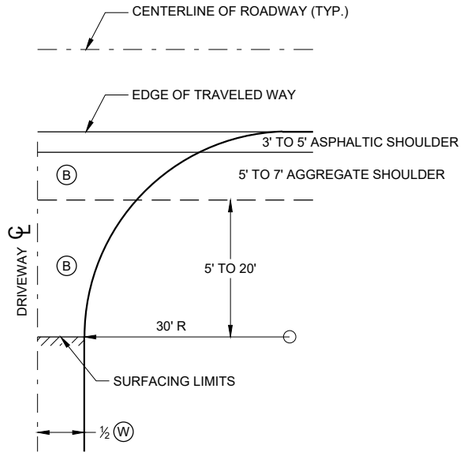
PROFILE VIEW

RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS

(A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

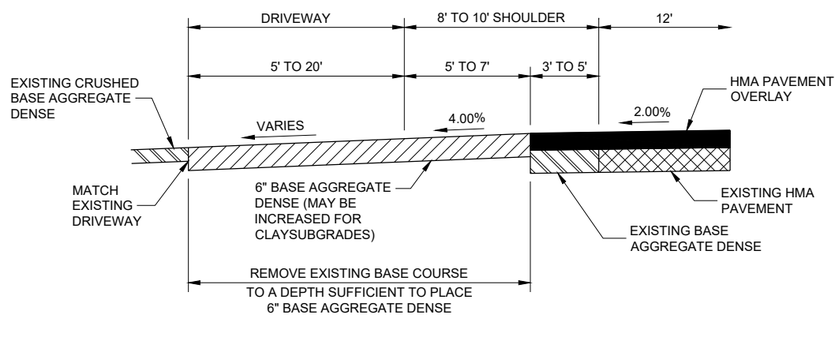
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

(W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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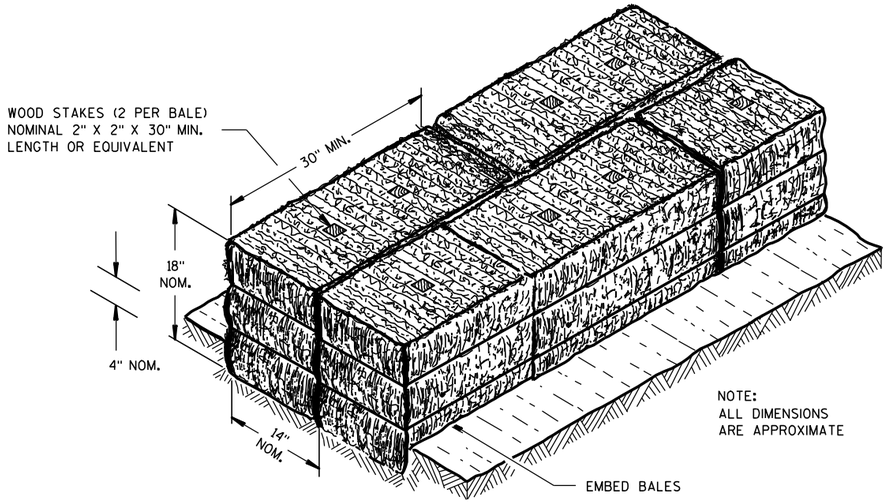
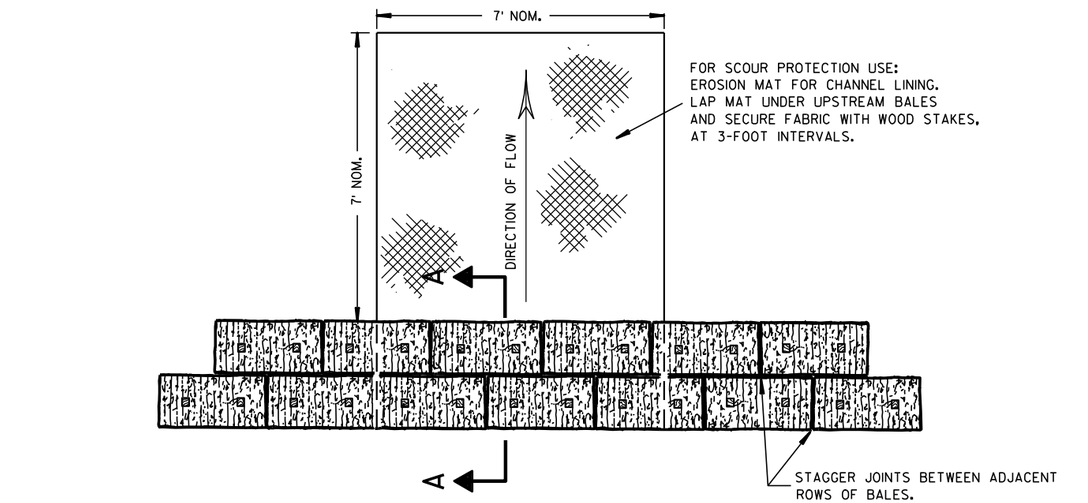
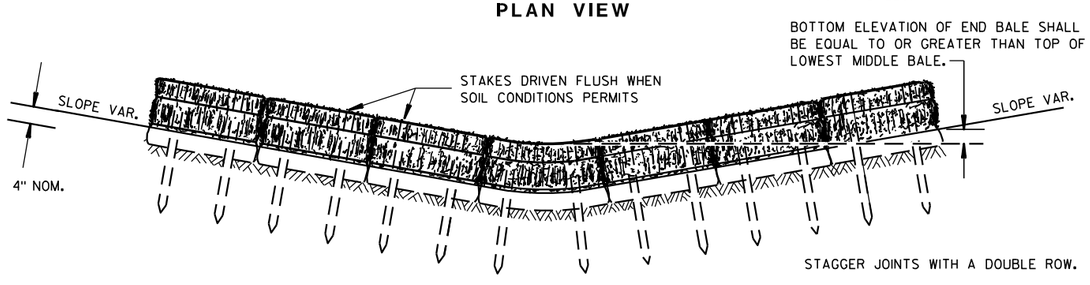
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



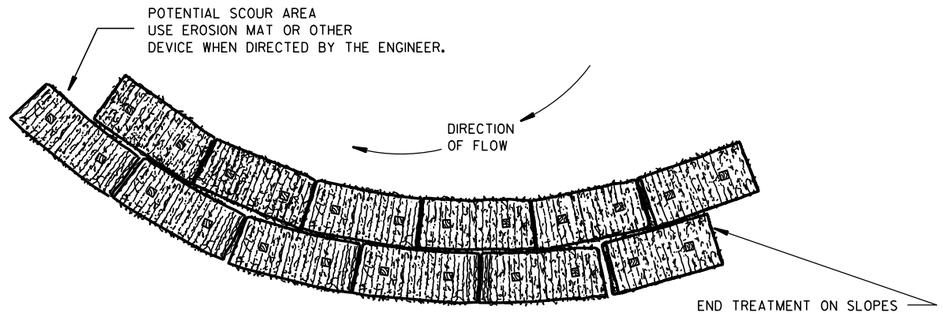
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

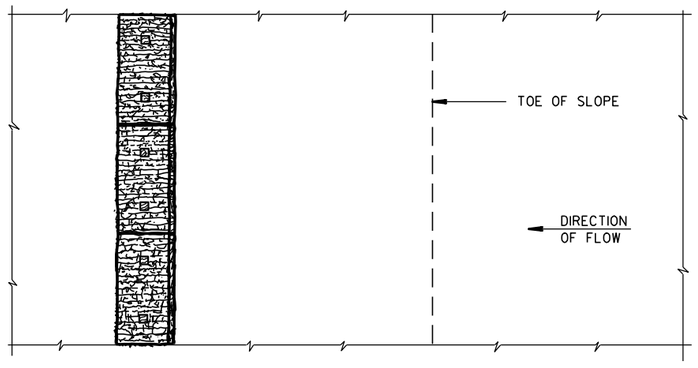
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

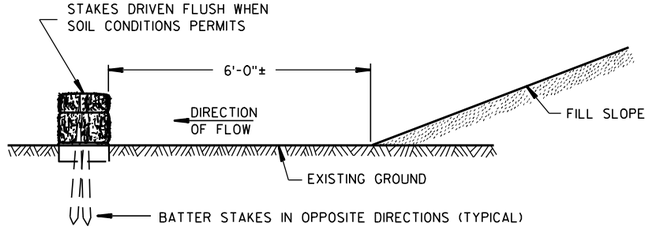


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

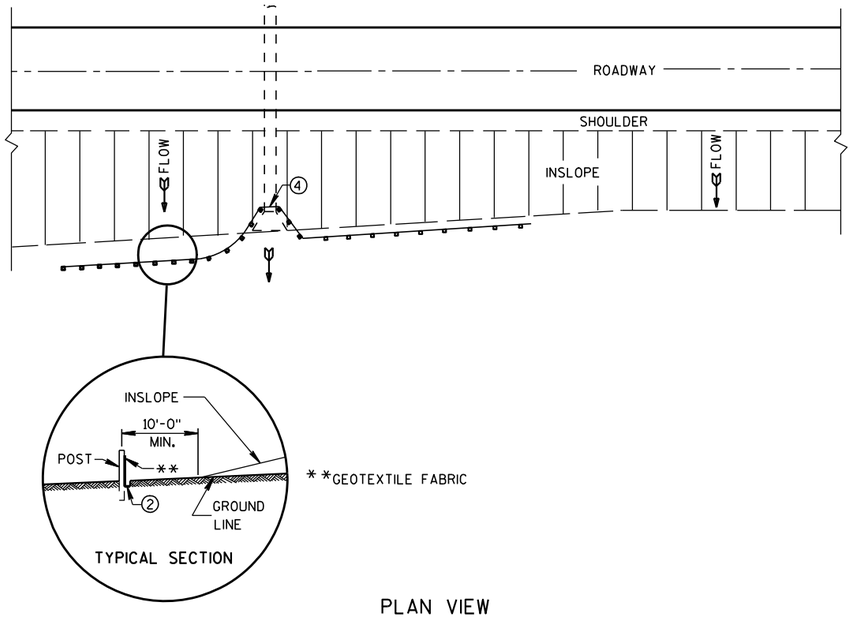
FHWA

6

S.D.D. 8 E 8-3

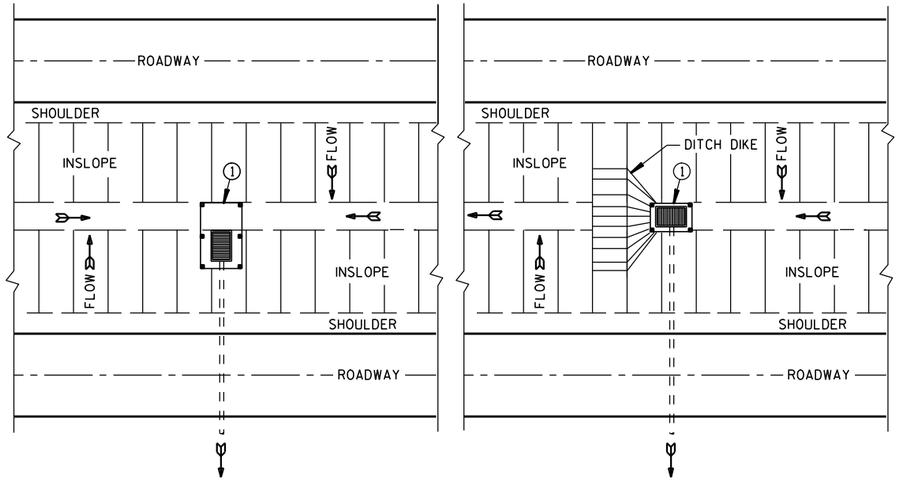
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



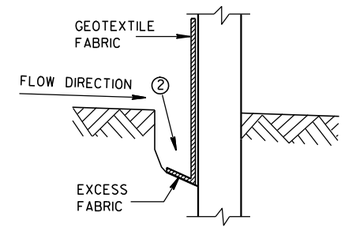
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

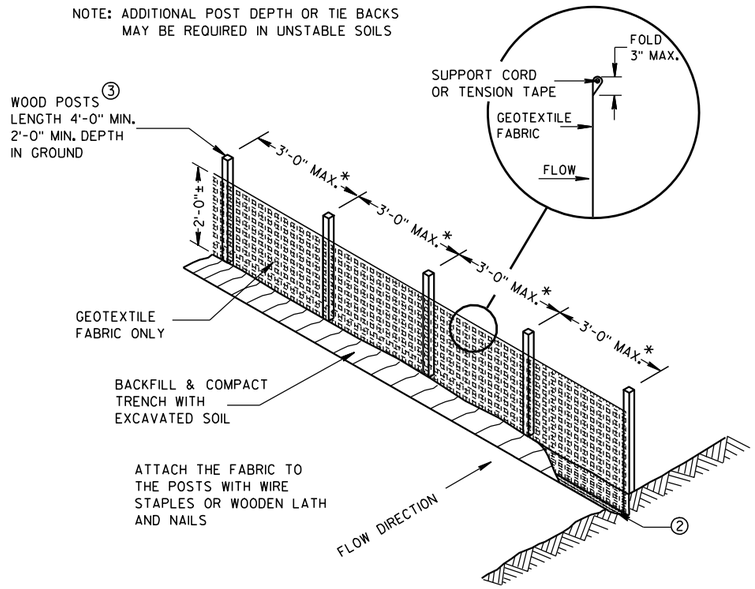
GENERAL NOTES

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

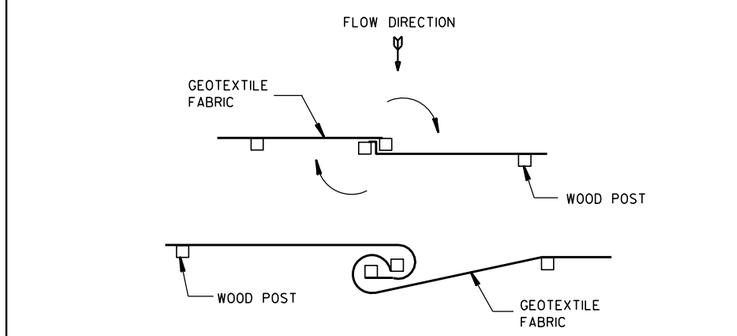
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



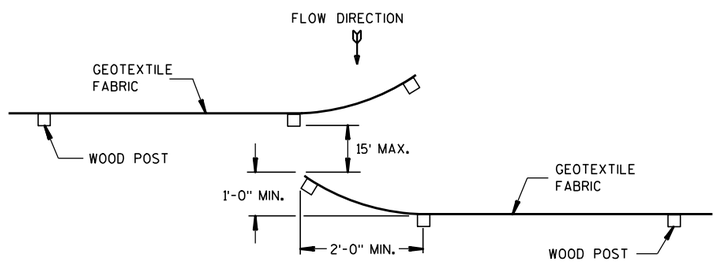
TRENCH DETAIL



SILT FENCE

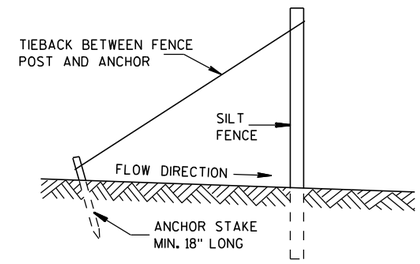


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

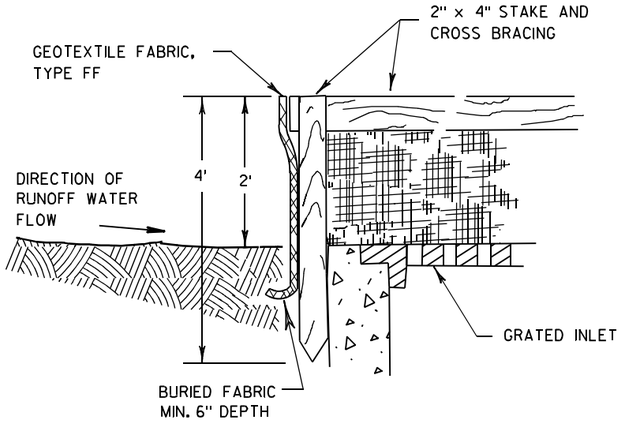
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

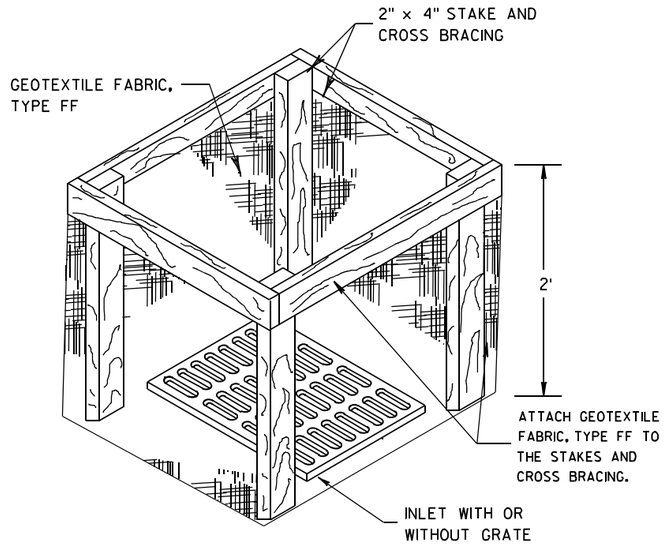
6

S.D.D. 8 E 9-6

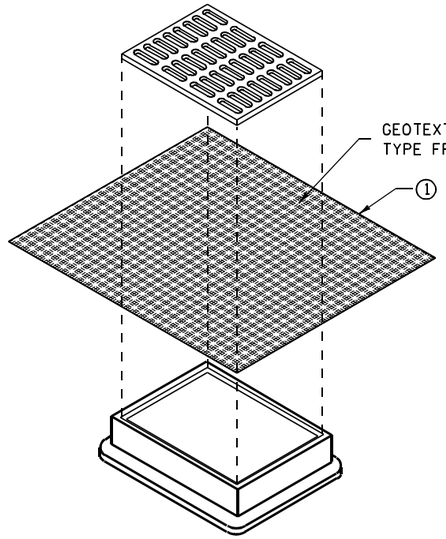
6

S.D.D. 8 E 9-6



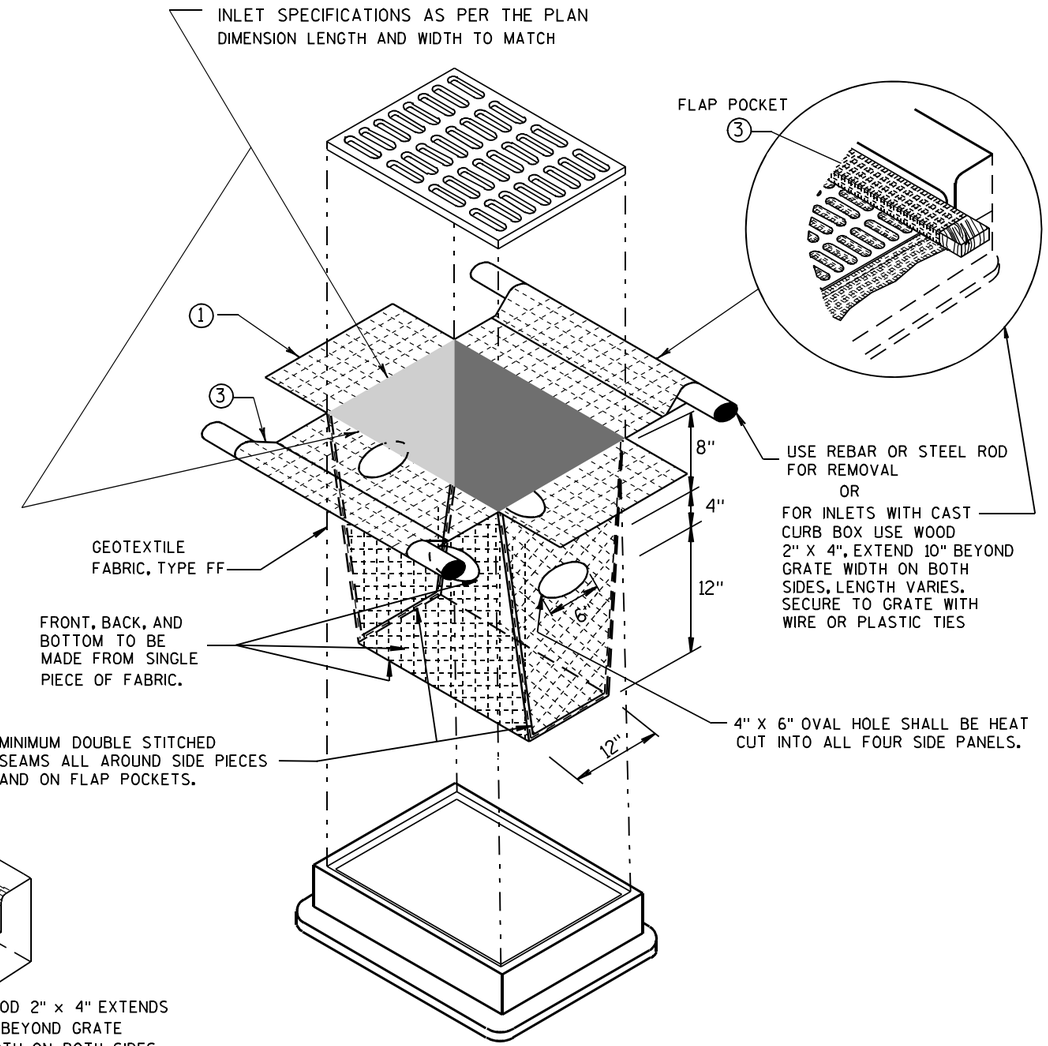


INLET PROTECTION, TYPE A



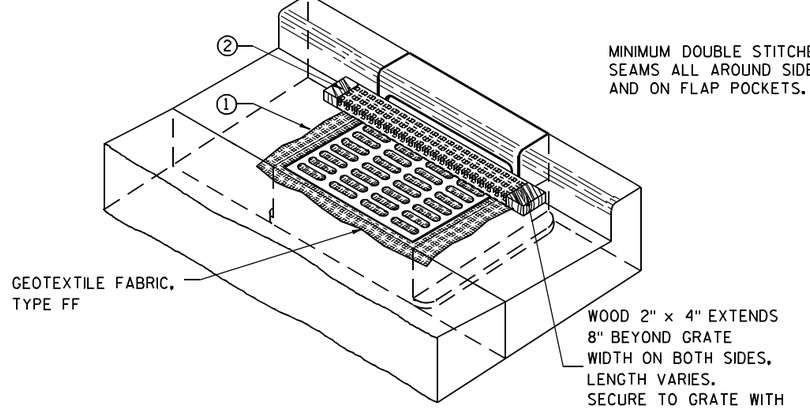
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

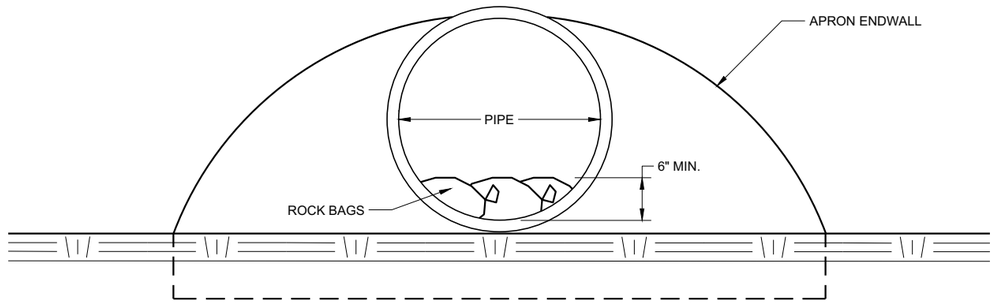
FHWA

6

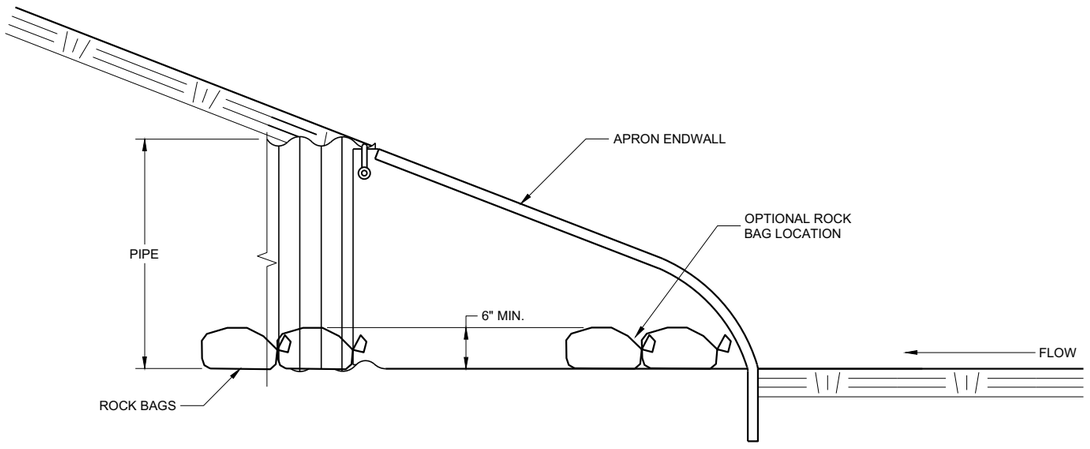
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

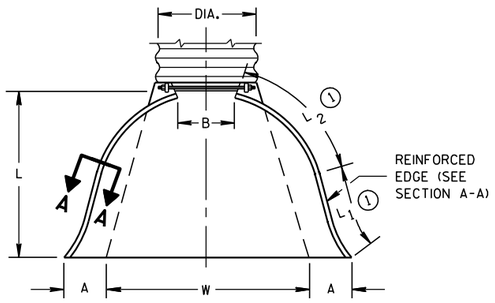
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

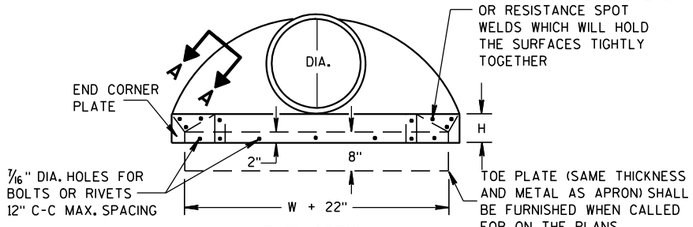
REINFORCED CONCRETE APRON ENDWALLS

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

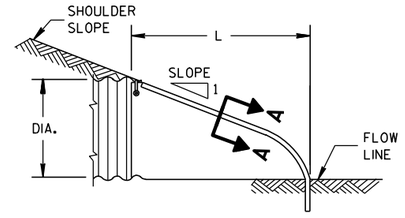
*MINIMUM
**MAXIMUM



PLAN VIEW

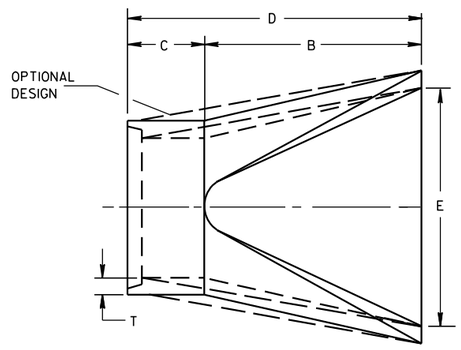


END VIEW

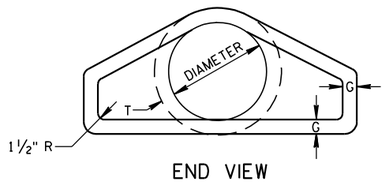


SIDE ELEVATION

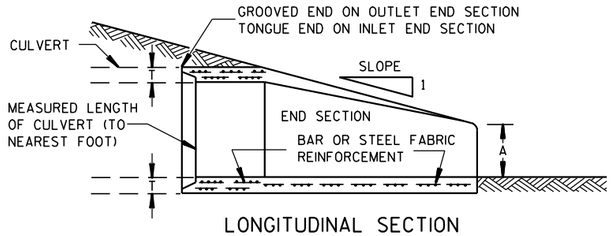
METAL ENDWALLS



PLAN

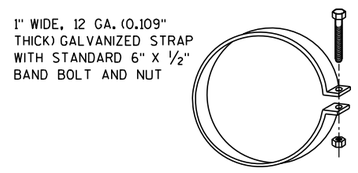


END VIEW



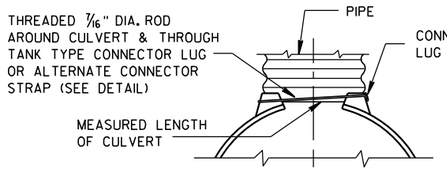
LONGITUDINAL SECTION

CONCRETE ENDWALLS

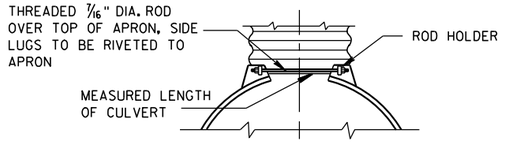


ALTERNATE FOR TYPE 1 CONNECTION

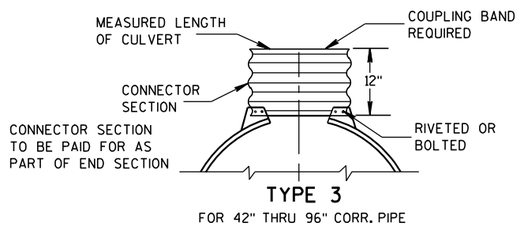
END SECTION CONNECTOR STRAP



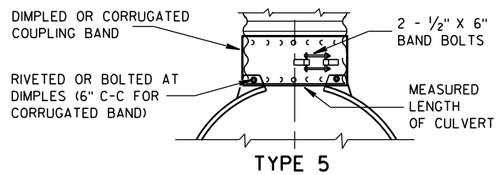
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

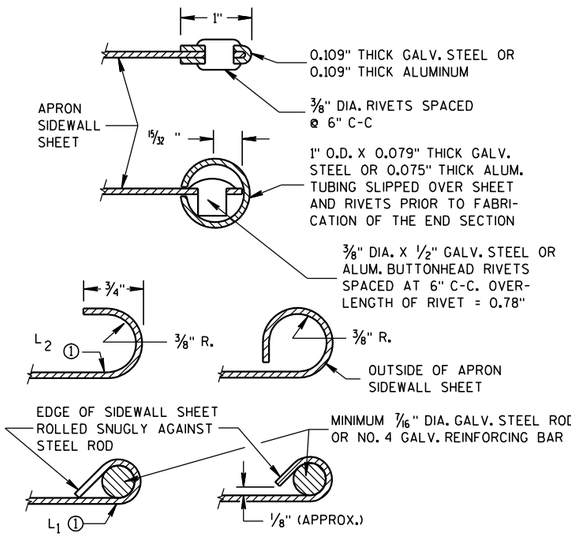
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

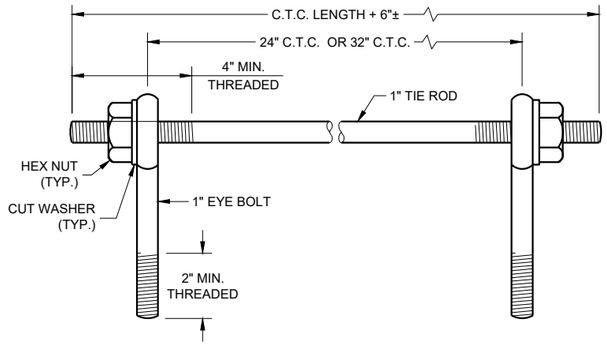
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

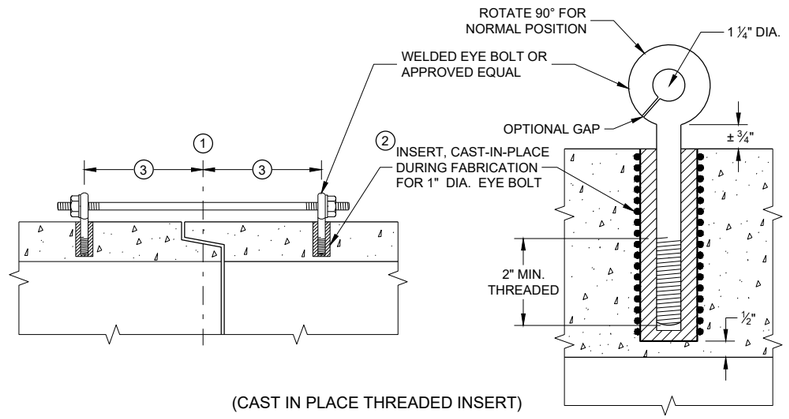
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

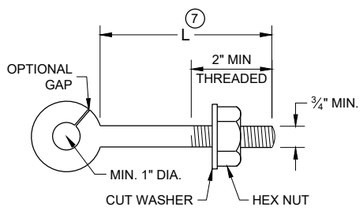
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

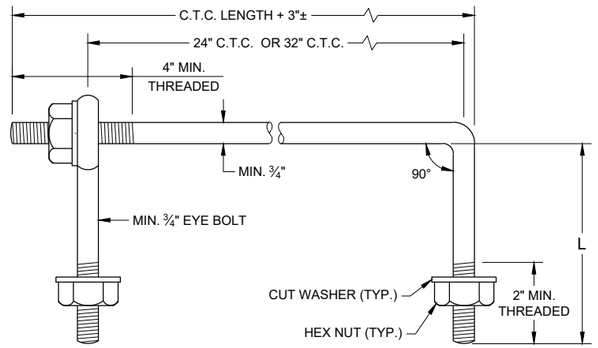
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1. CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
2. THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
3. HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
5. OPENING TO BE ROD DIAMETER PLUS 1 INCH.
6. LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
7. EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

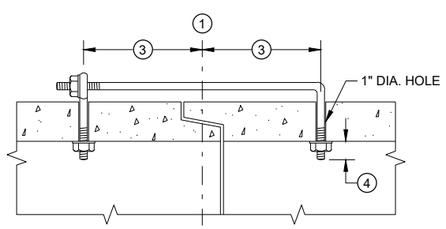


EYE BOLT 7

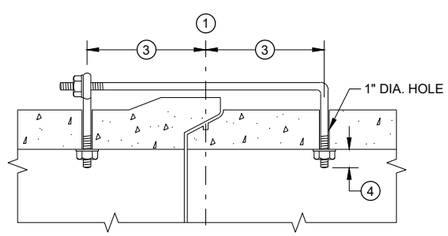
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

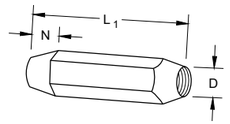
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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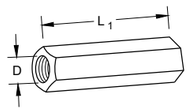
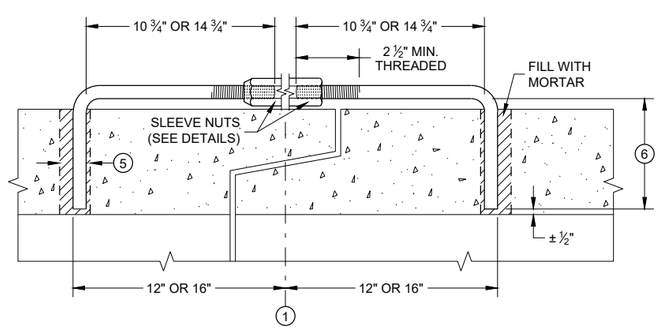


PLAIN

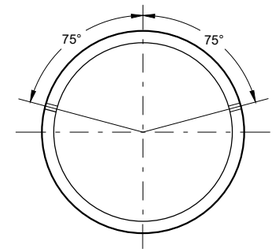
RIGHT AND LEFT THREADS

SLEEVE NUTS



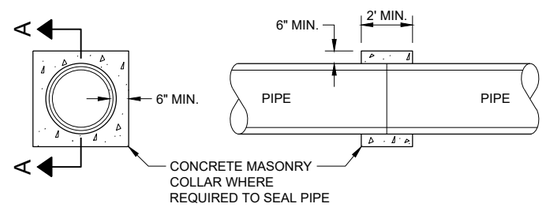
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

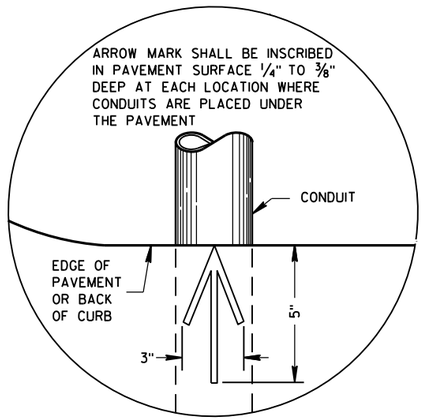
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

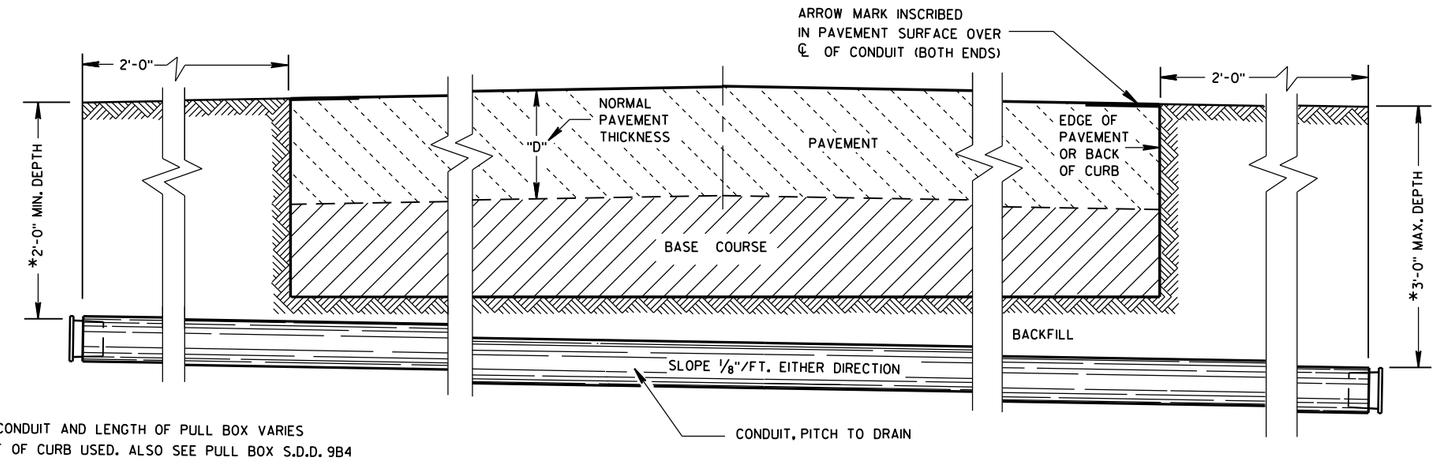
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 334
FHWA

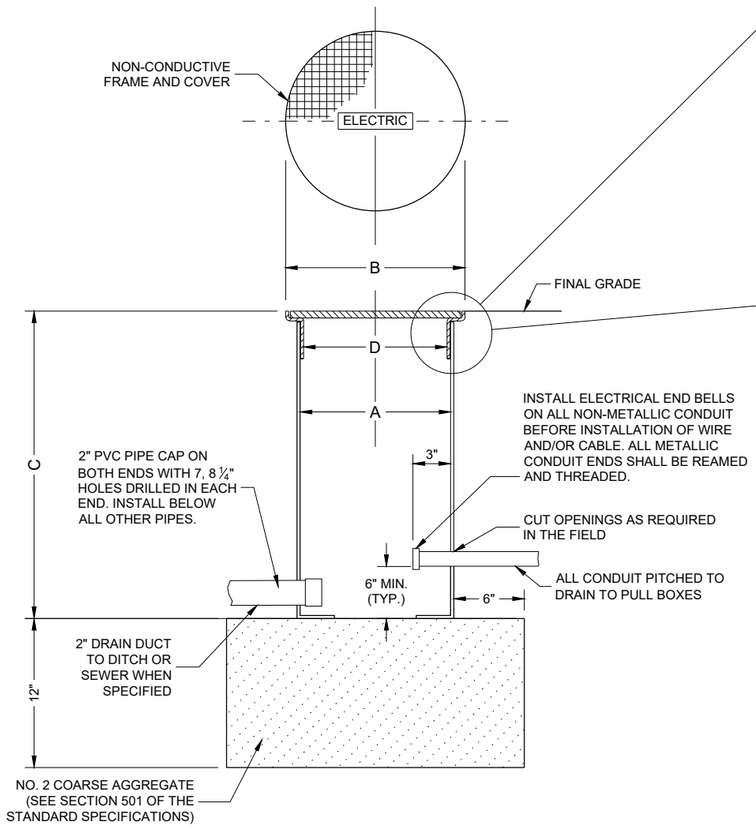
6
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

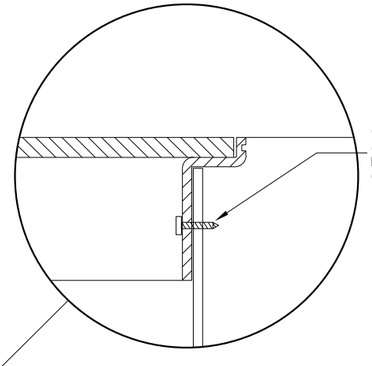
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

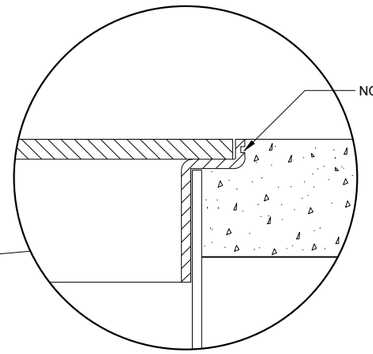
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



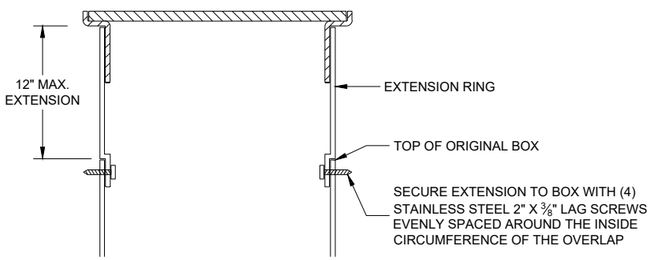
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

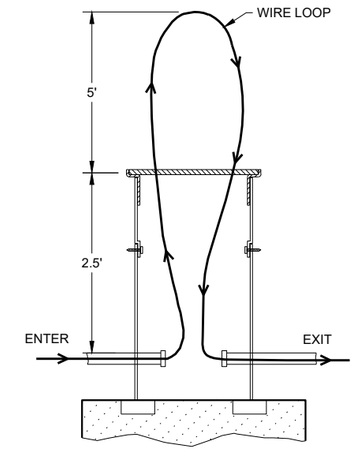
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

PULL BOXES NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 335

FHWA

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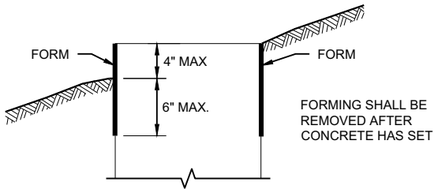
SDD 09B16 - 02

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

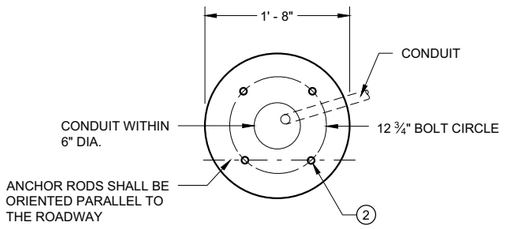
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

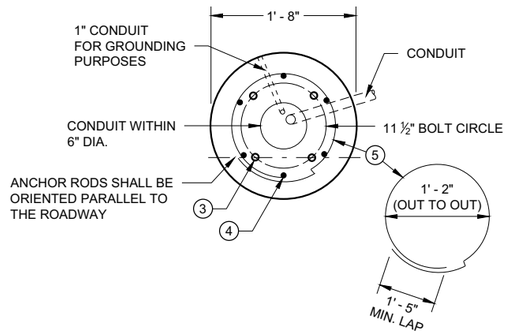
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

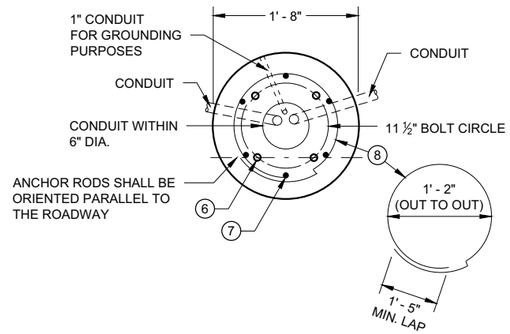
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

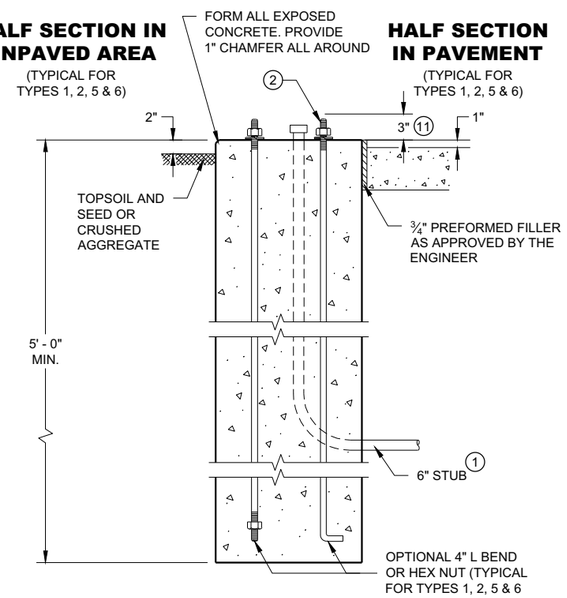
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

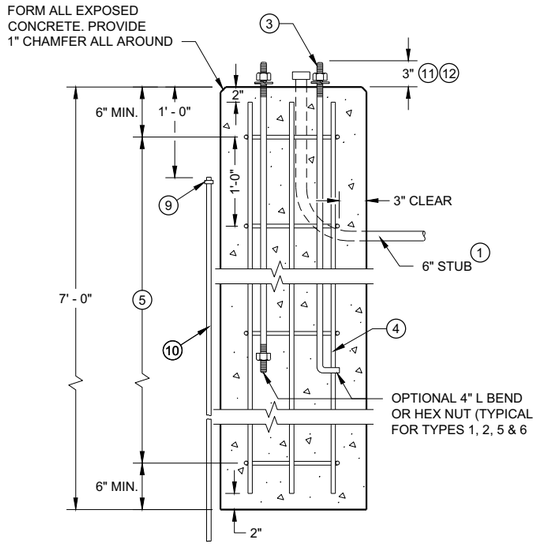
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

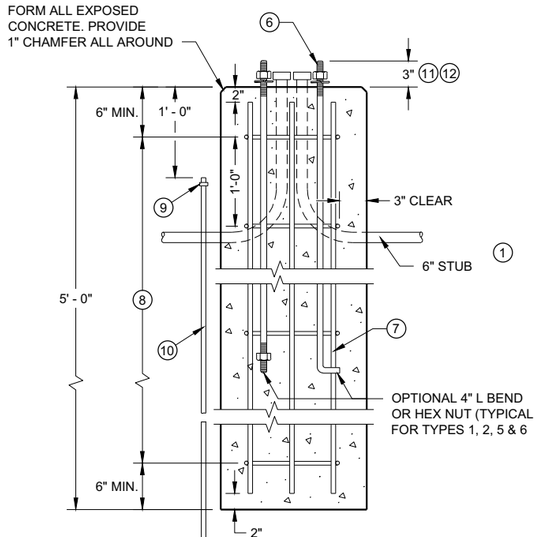
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 336

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

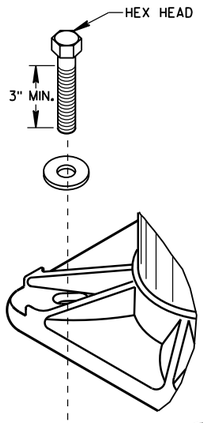
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

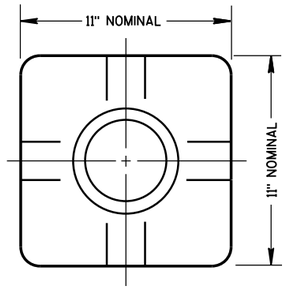
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

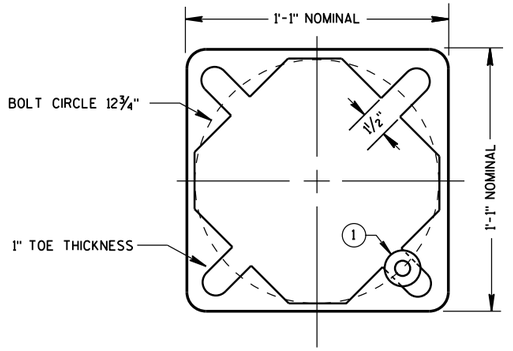
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

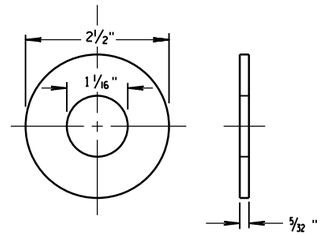




TOP VIEW
(PEDESTAL BASE)

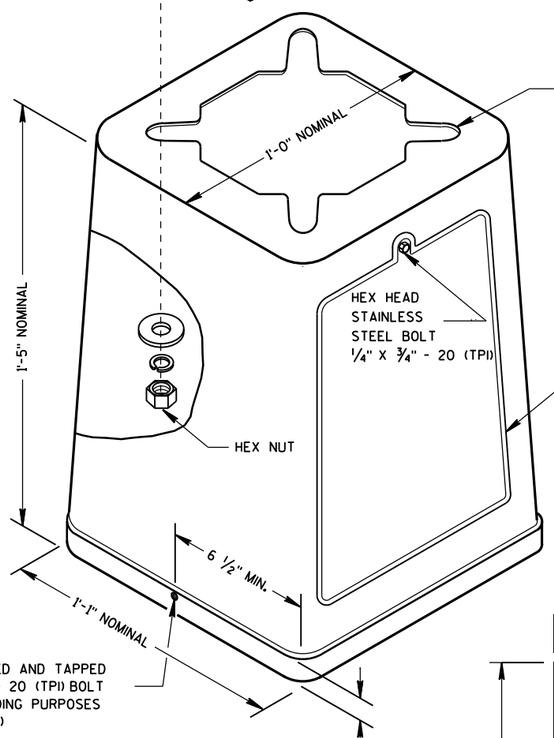


BOTTOM VIEW
(PEDESTAL BASE)

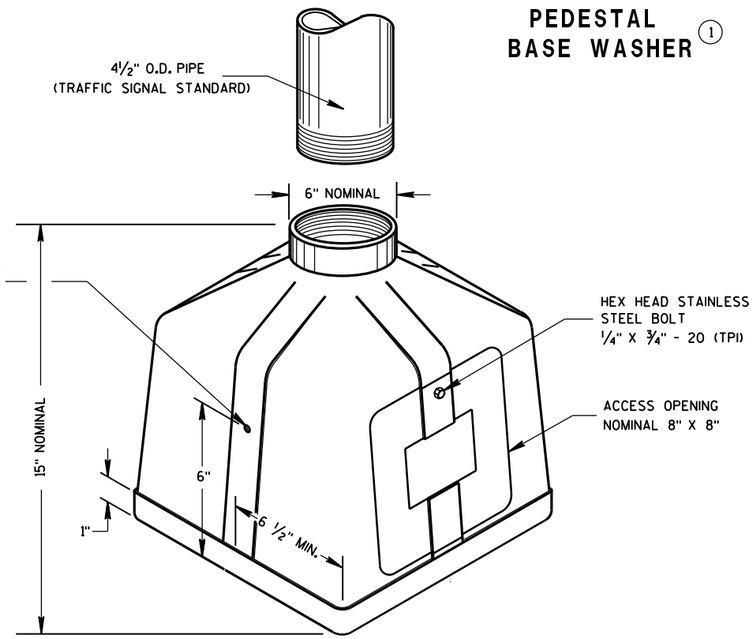


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

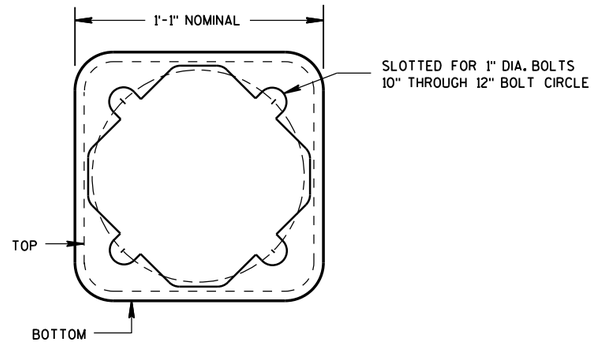


ISOMETRIC VIEW

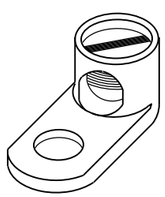


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

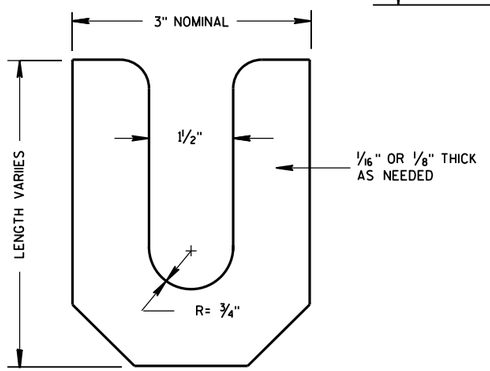


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 3-4

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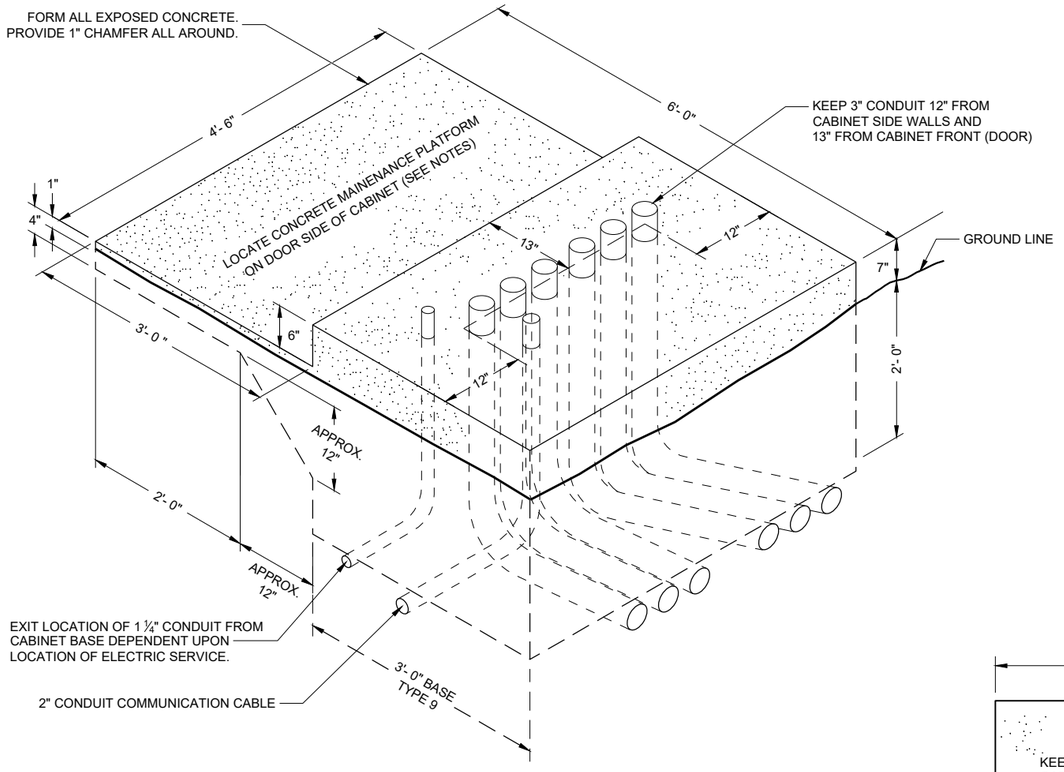
S.D.D. 9 C 3-4

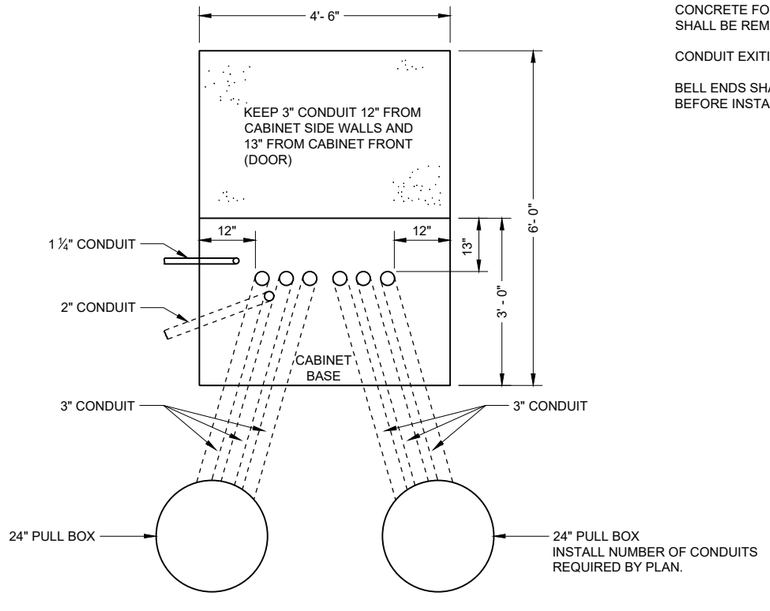
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW

TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 338

FHWA

GENERAL NOTES

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 ½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

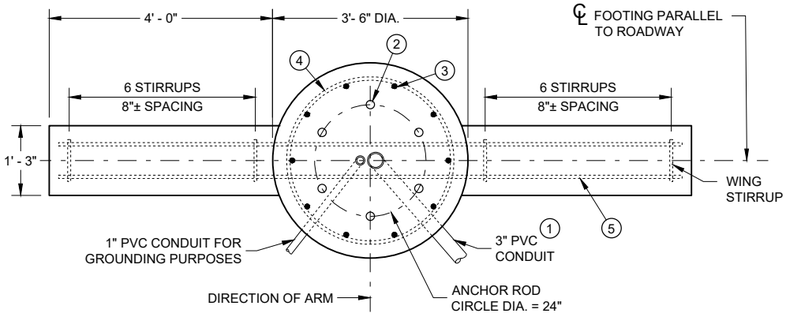
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

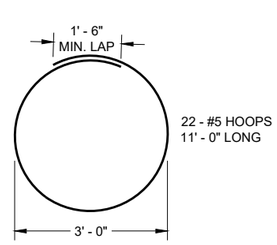
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

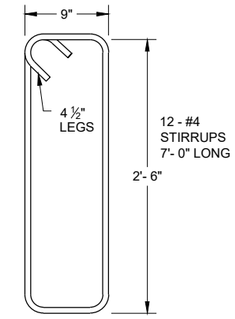
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



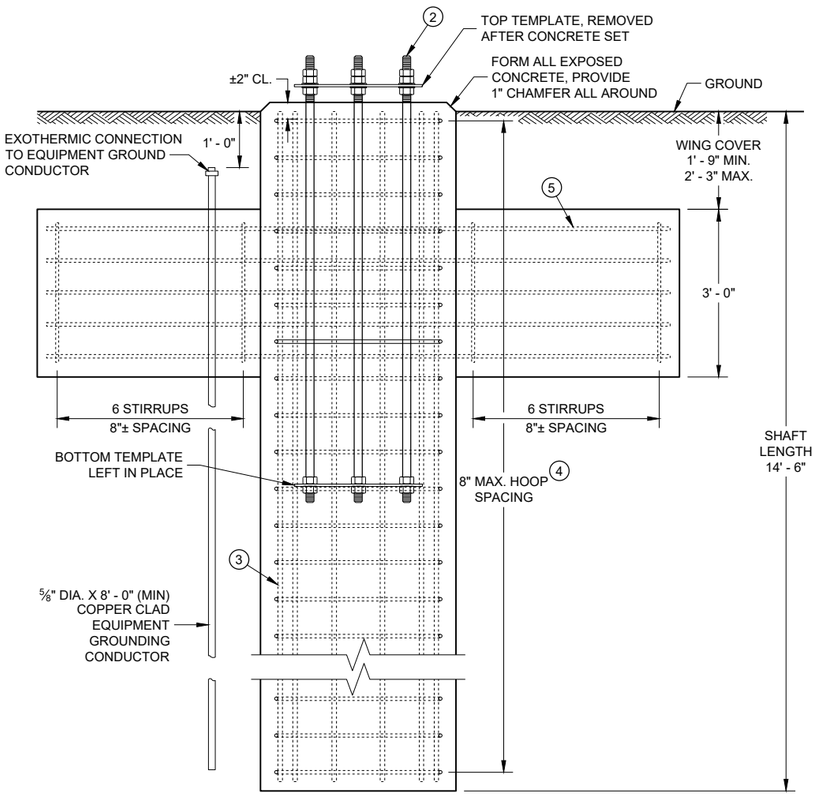
PLAN VIEW



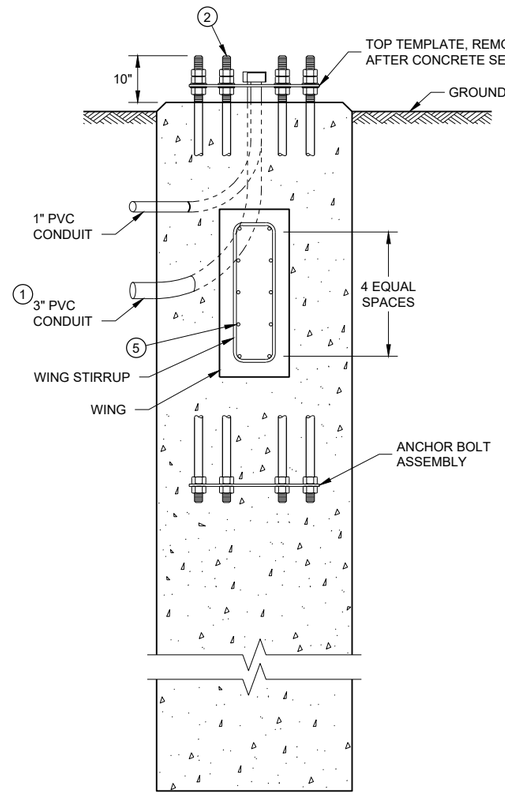
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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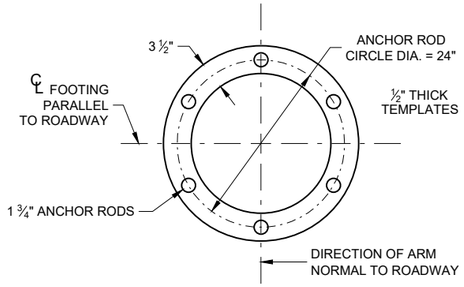
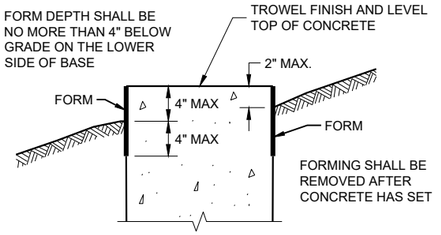
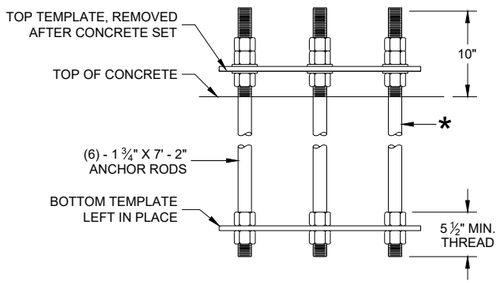
SDD 09C12 - 09a



TOP AND BOTTOM TEMPLATE



FORMING DETAIL



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

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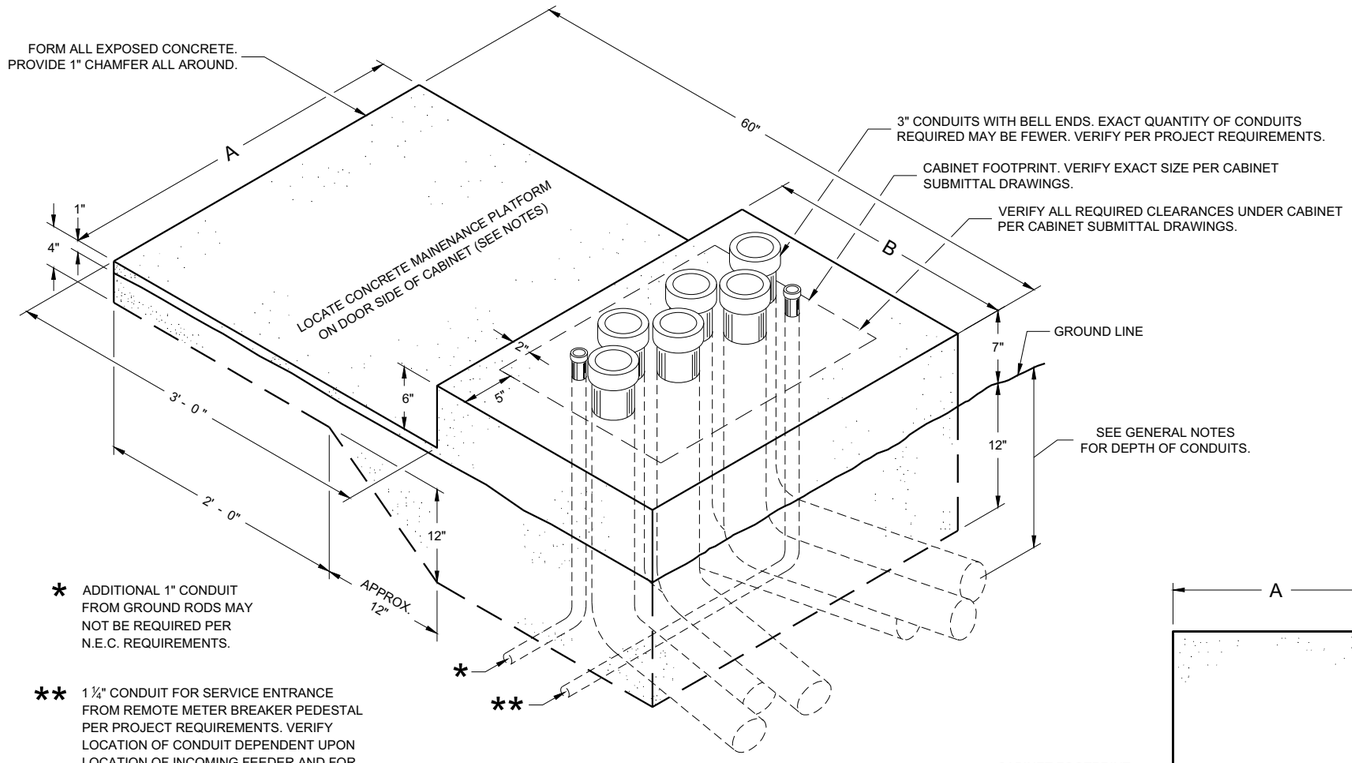
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017
DATE
/S/ Ahmet Demirbilek
WIND LOADED STRUCTU
PROGRAM LEADER
FHWA

SDD 09C12 - 09b



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

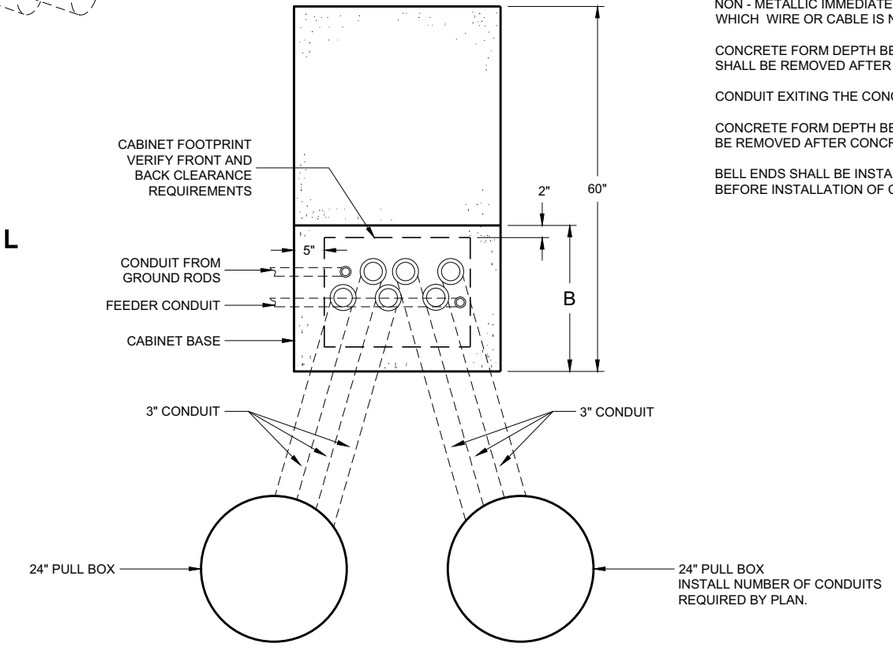
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 341

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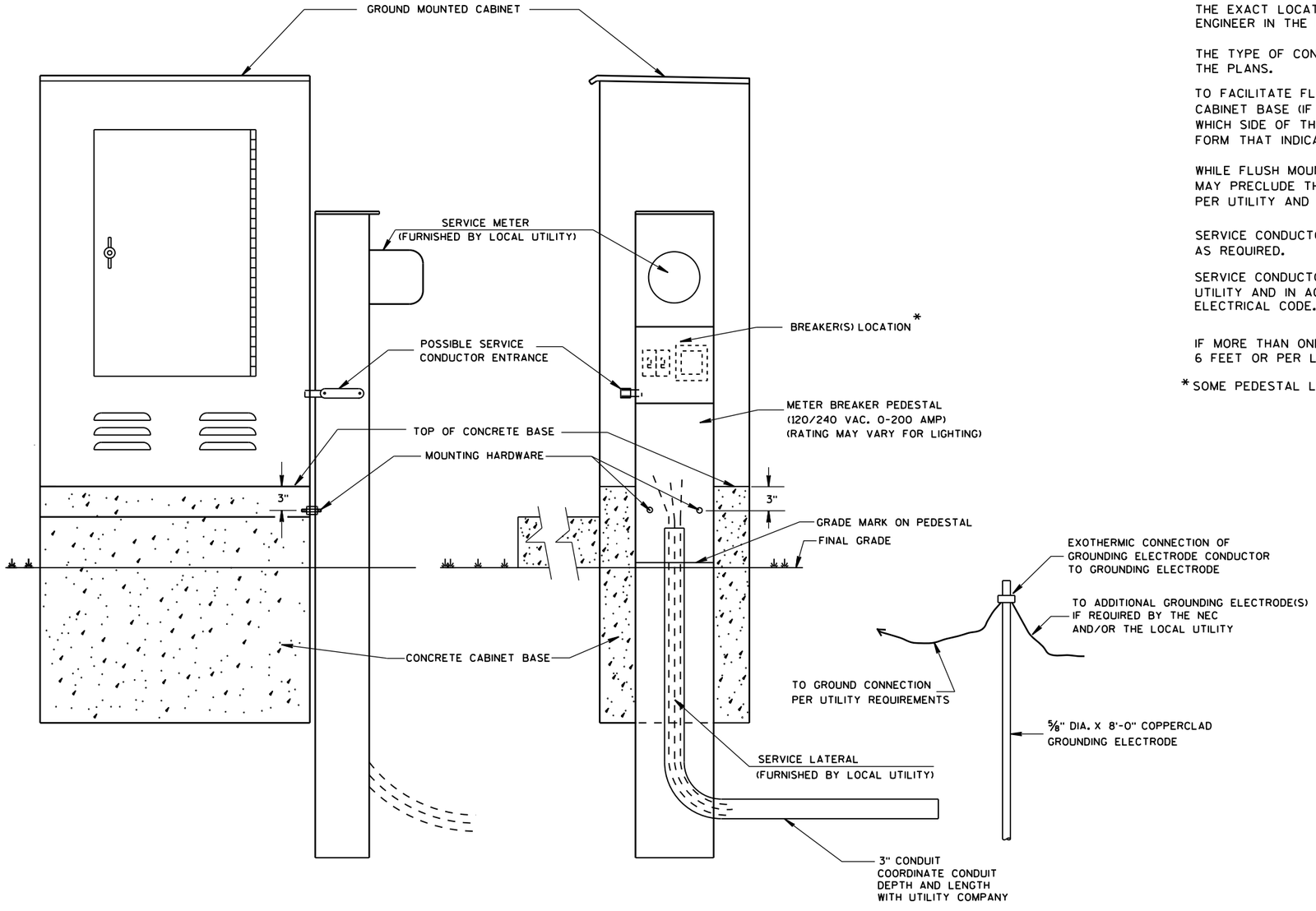

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

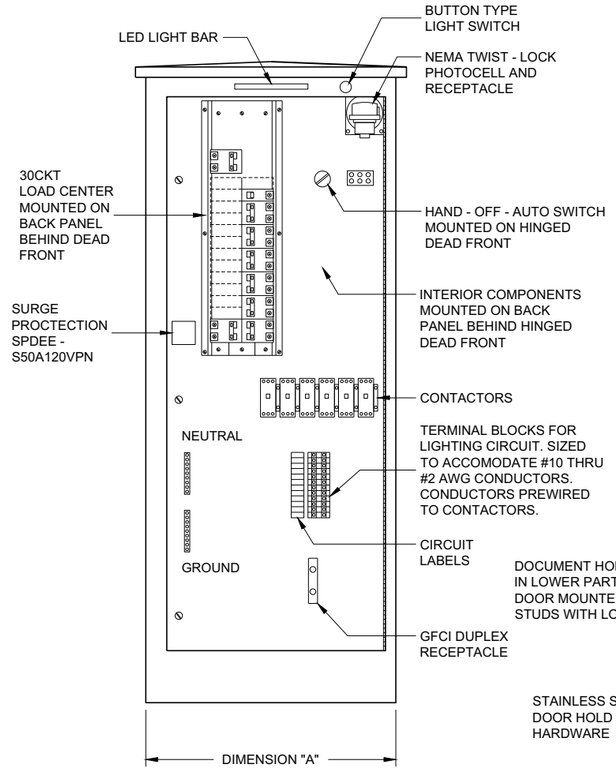
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

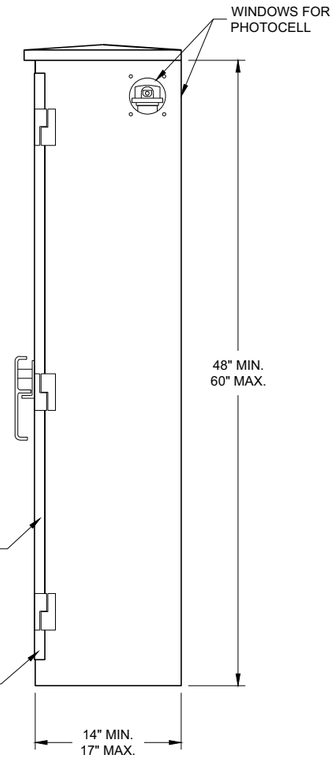
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

FRONT INTERIOR ELEVATION



SIDE VIEW



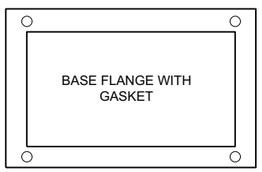
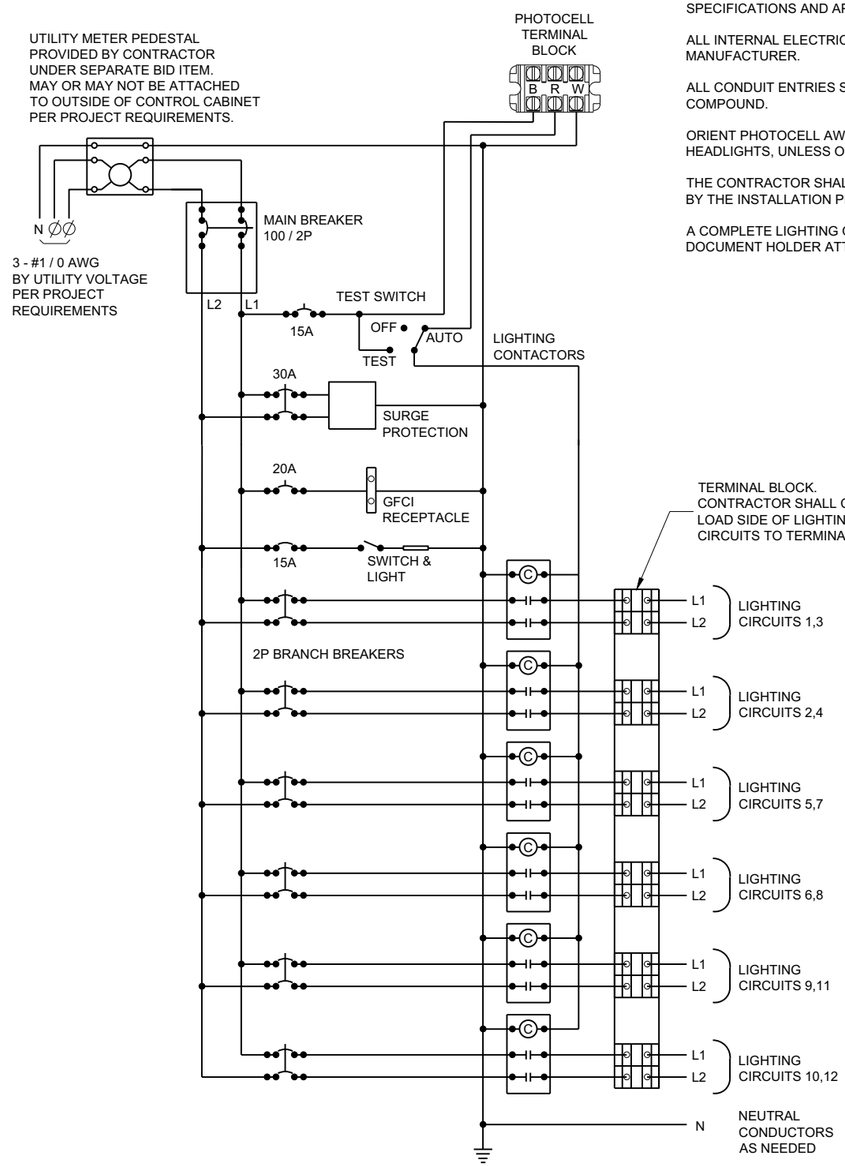


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET
120 / 240 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 343

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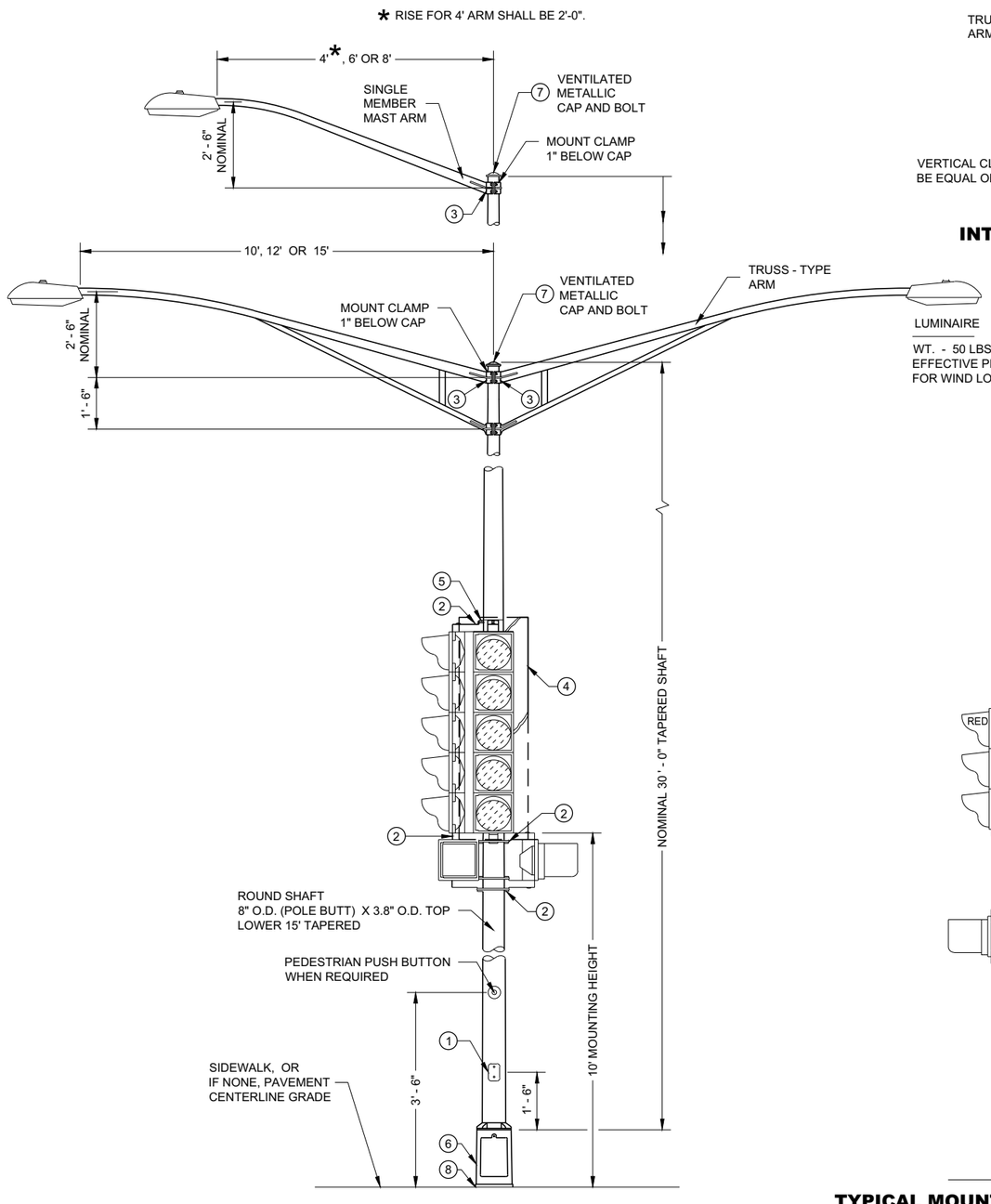
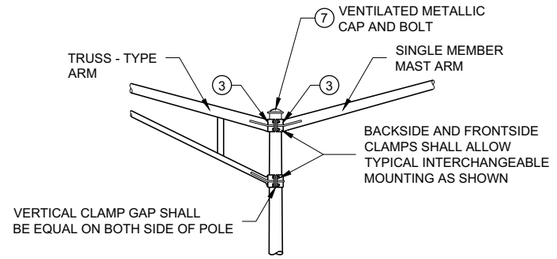


(MAXIMUM LOAD)



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

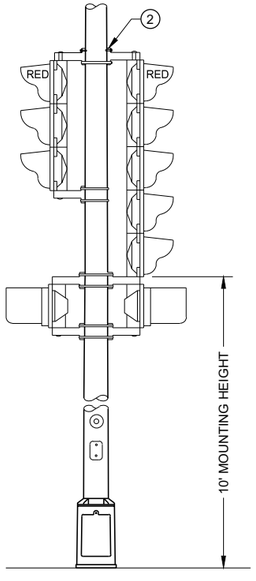
(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

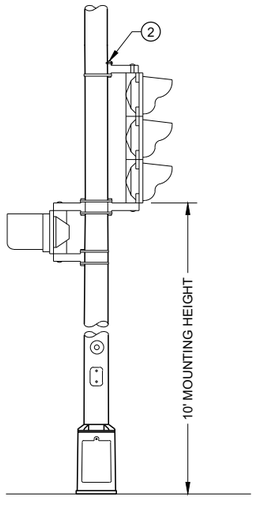
(7) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

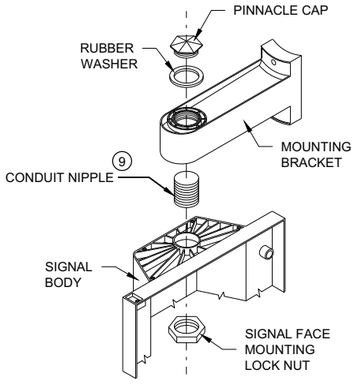
(9) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TYPE 4 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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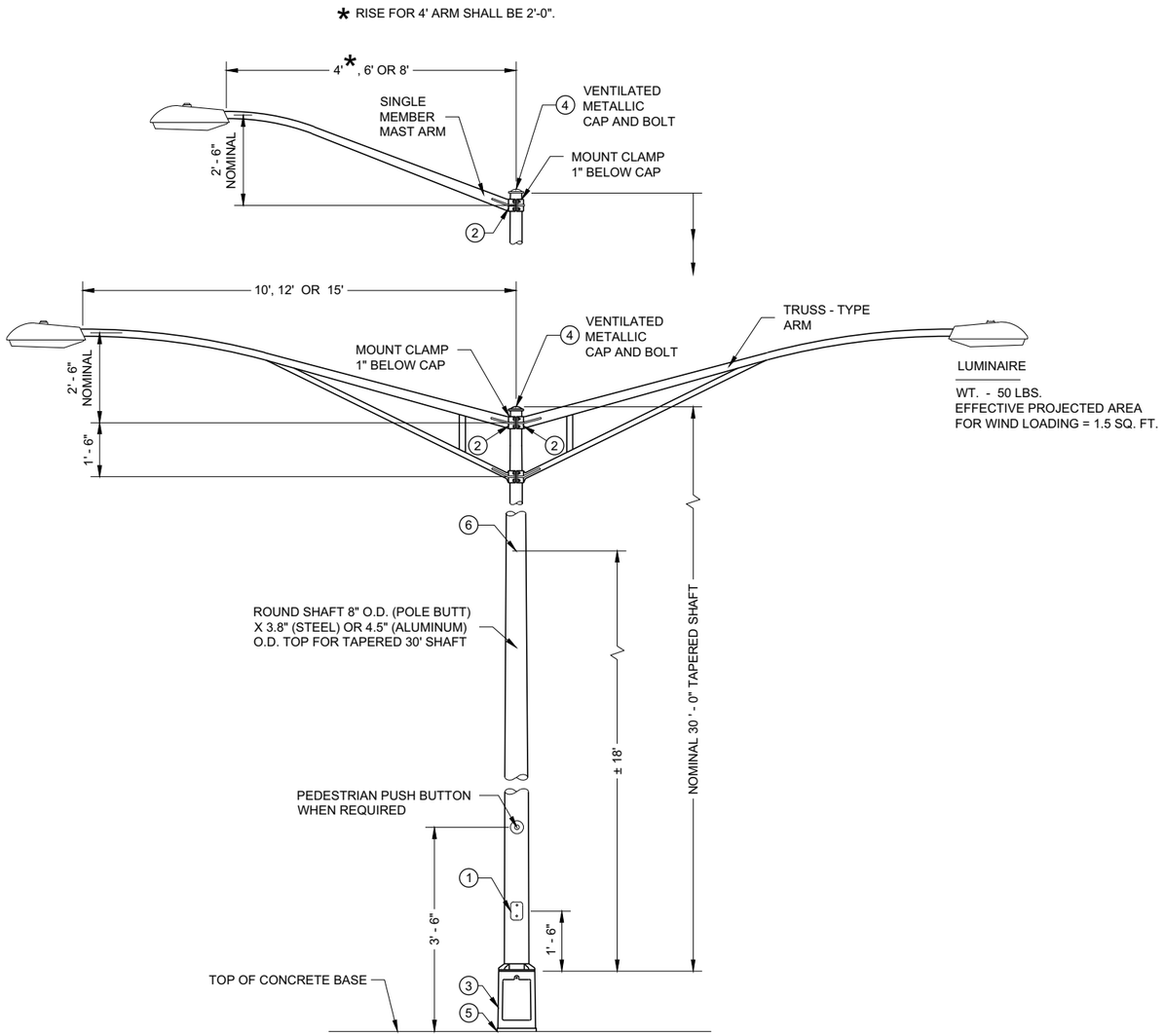
SDD 09E01 - 15c



TYPE 5 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

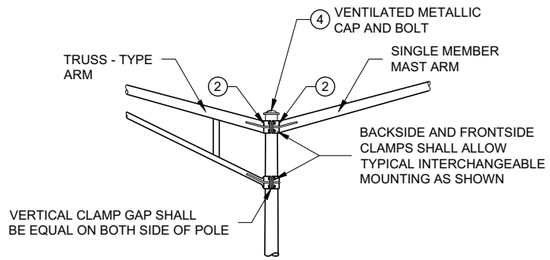
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

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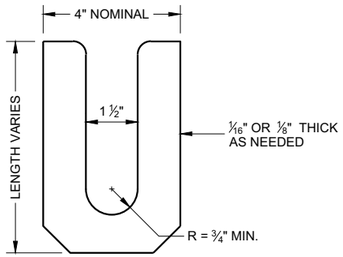
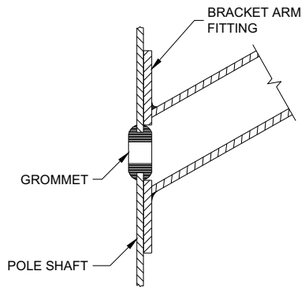
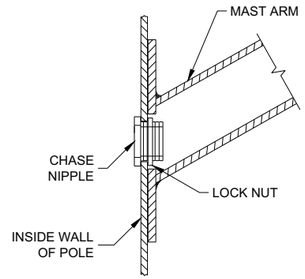


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

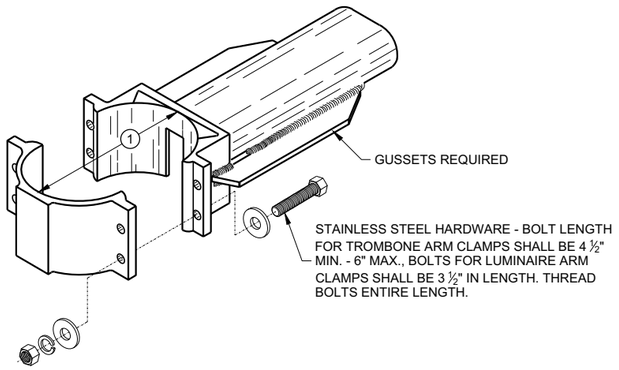
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

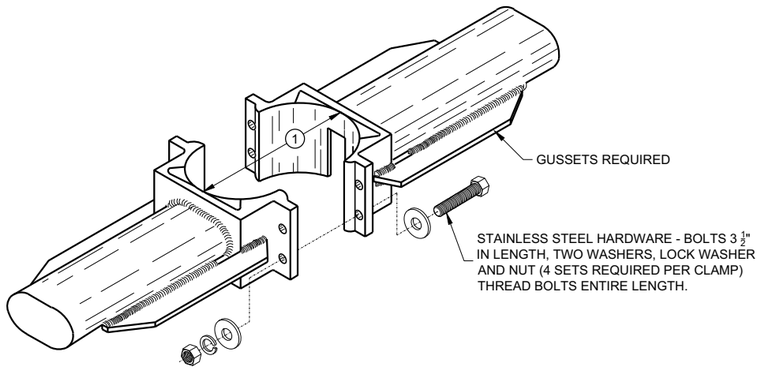
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

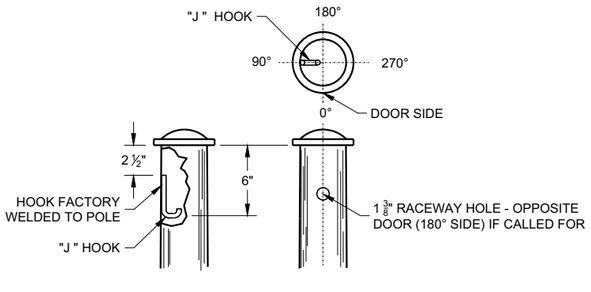
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



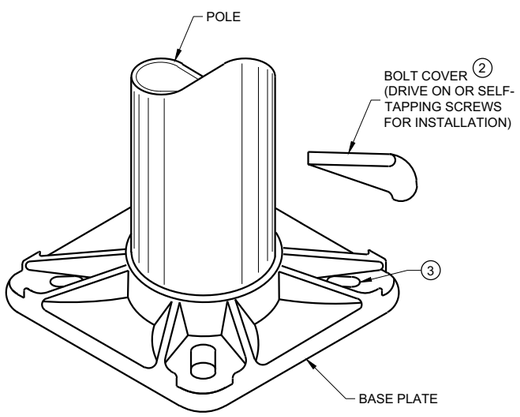
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



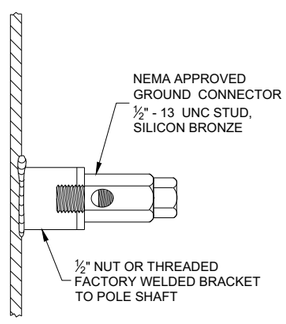
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

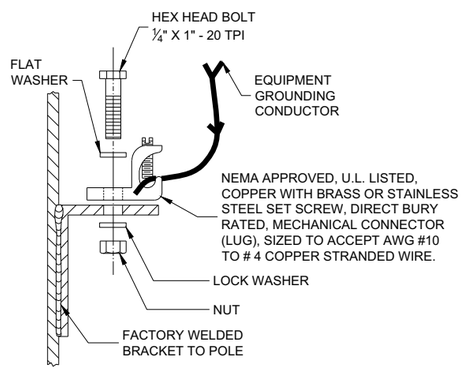


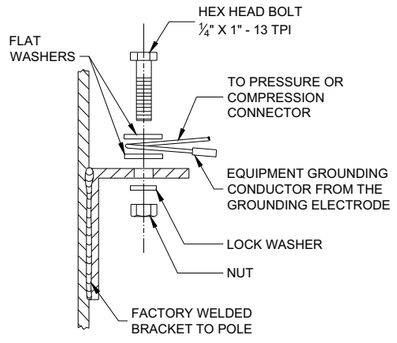
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 346

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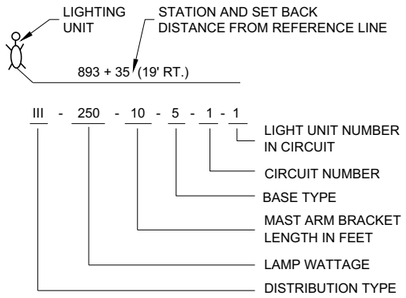
GENERAL NOTES

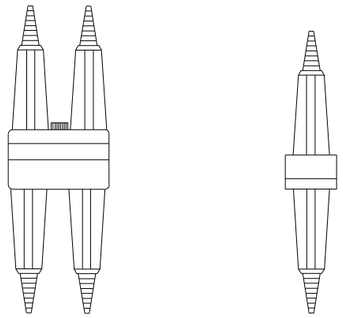
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

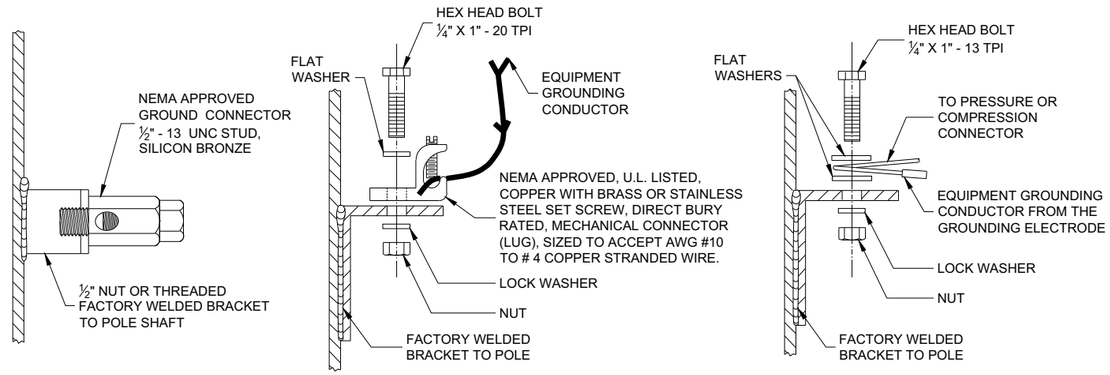


LIGHTING UNIT CODE
(TYPICAL)

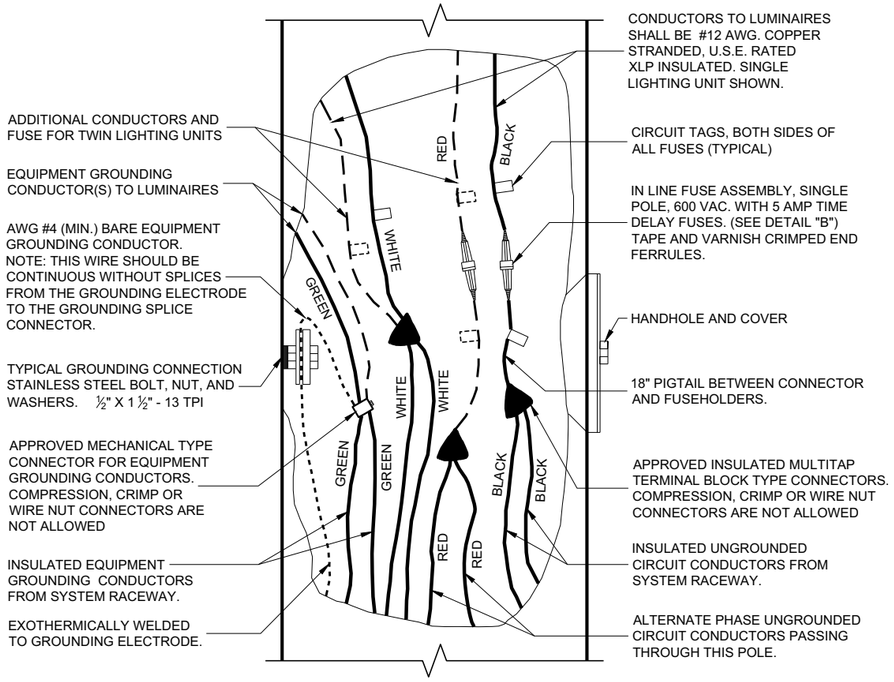


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

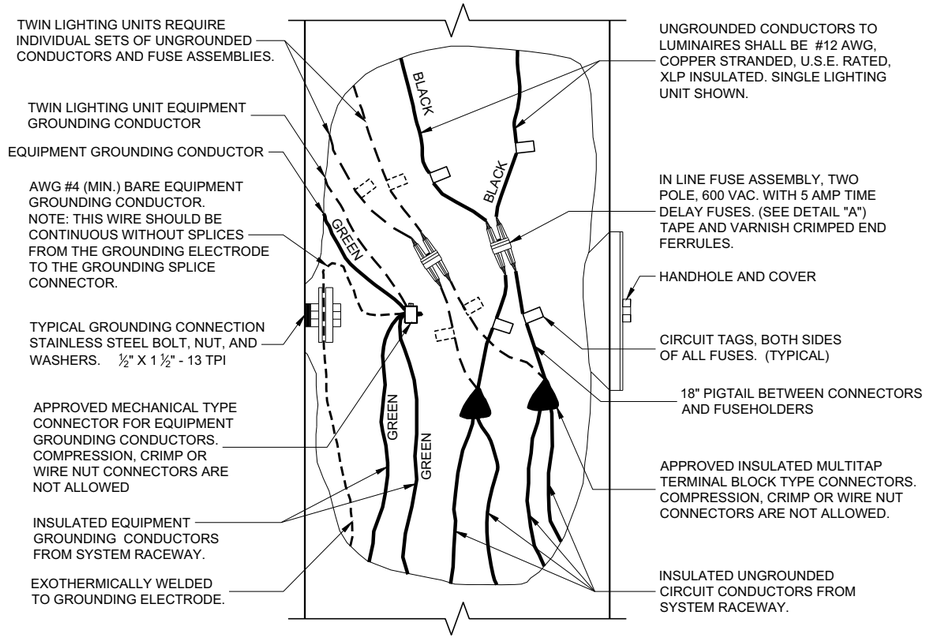
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

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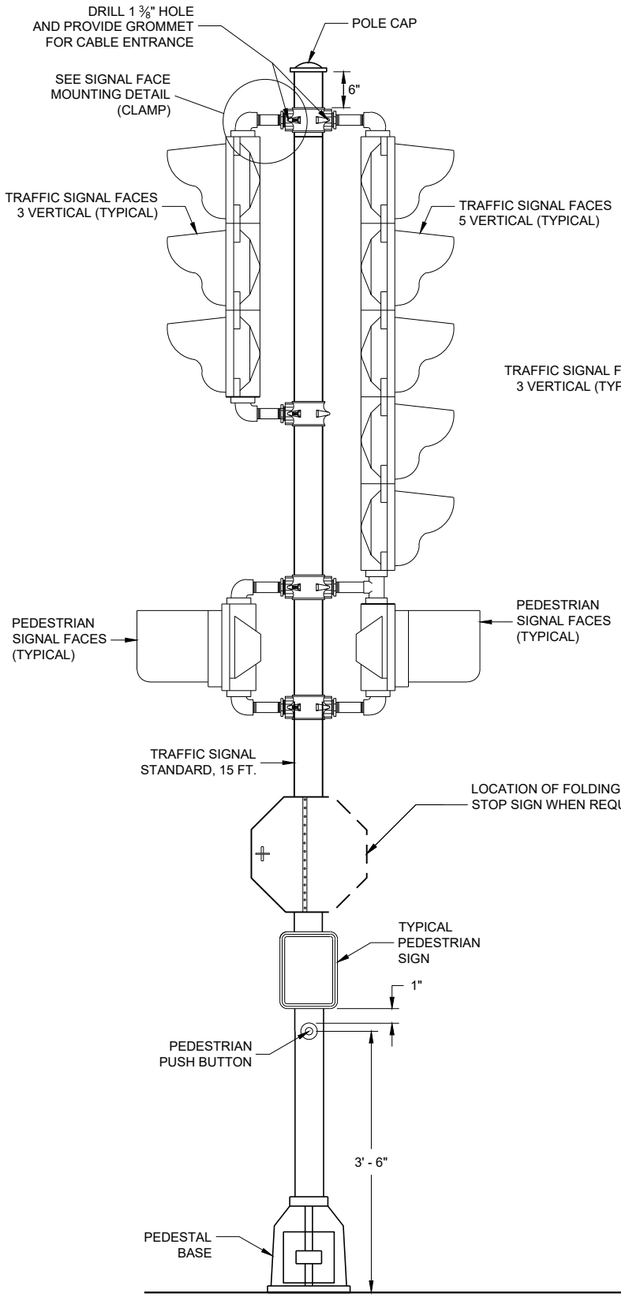
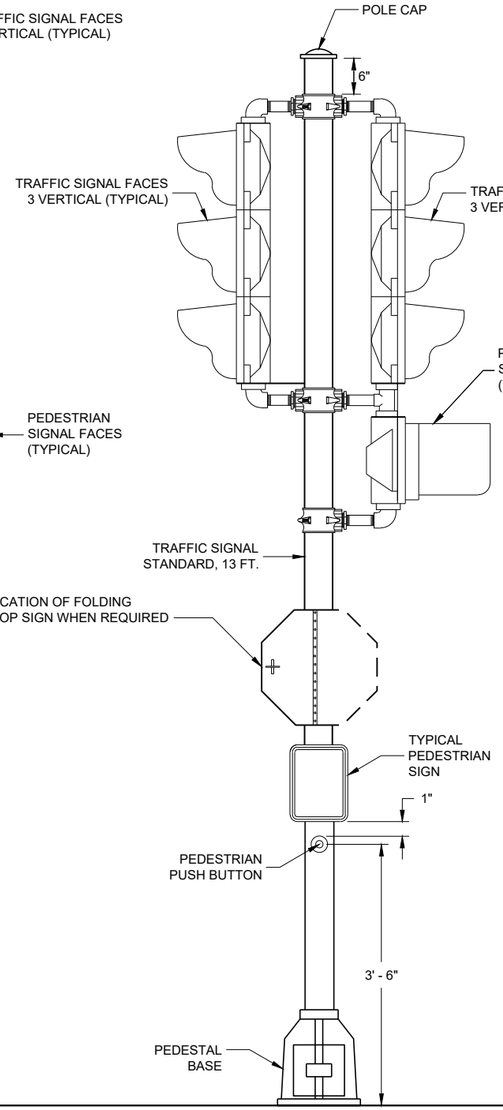
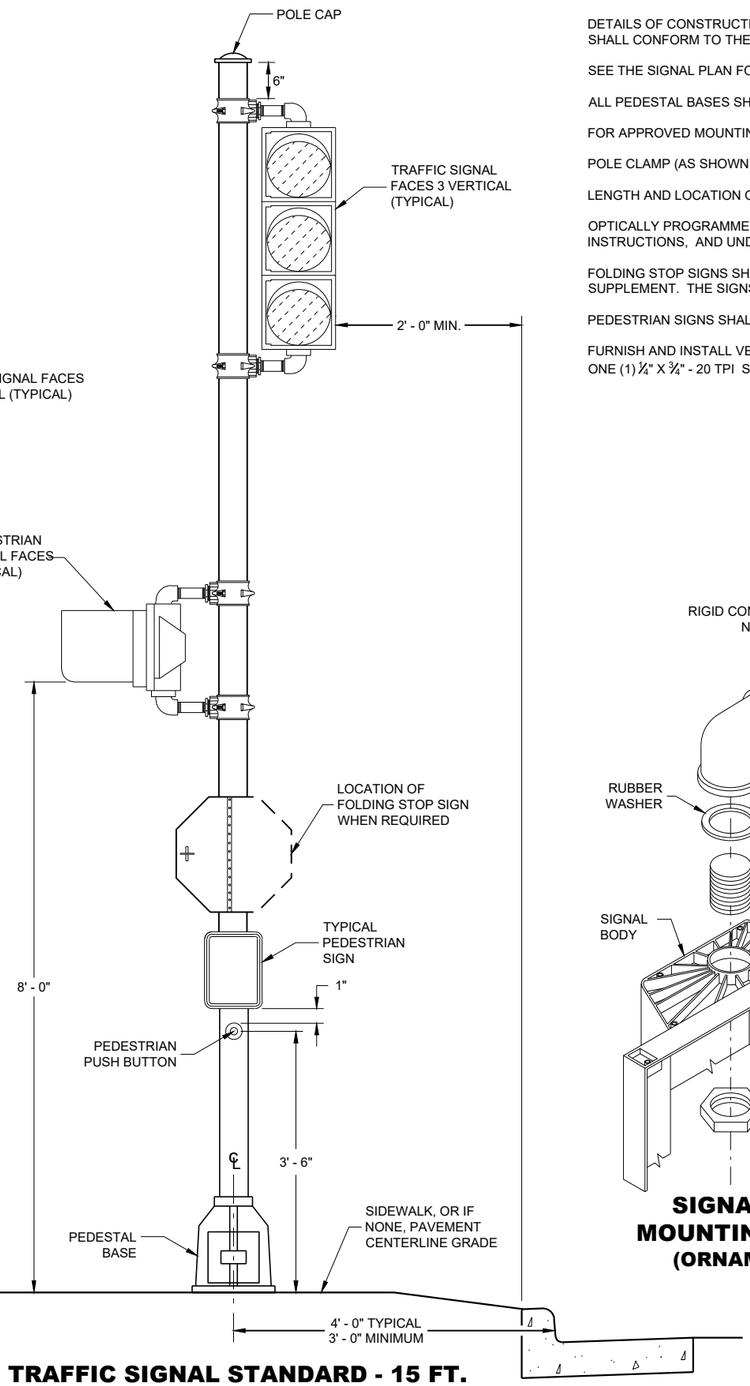


TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL STANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

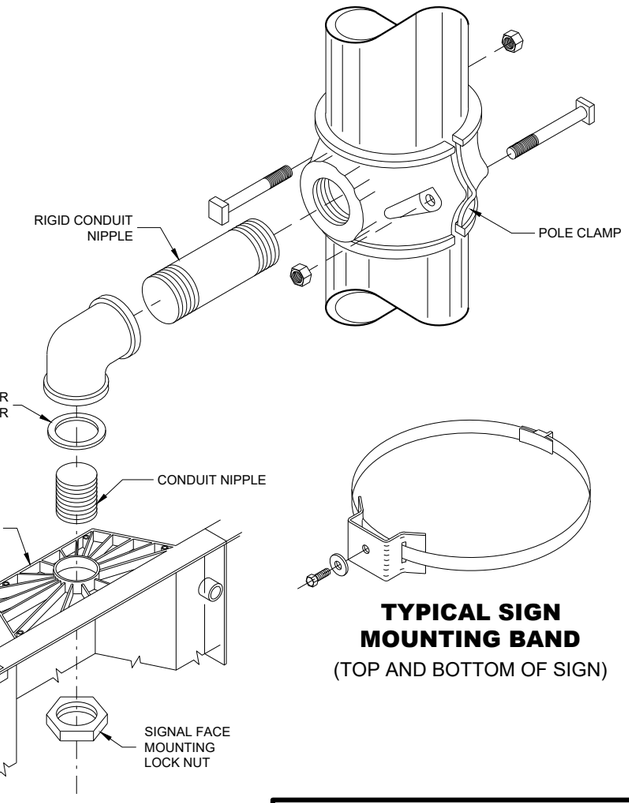
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL (ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
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348

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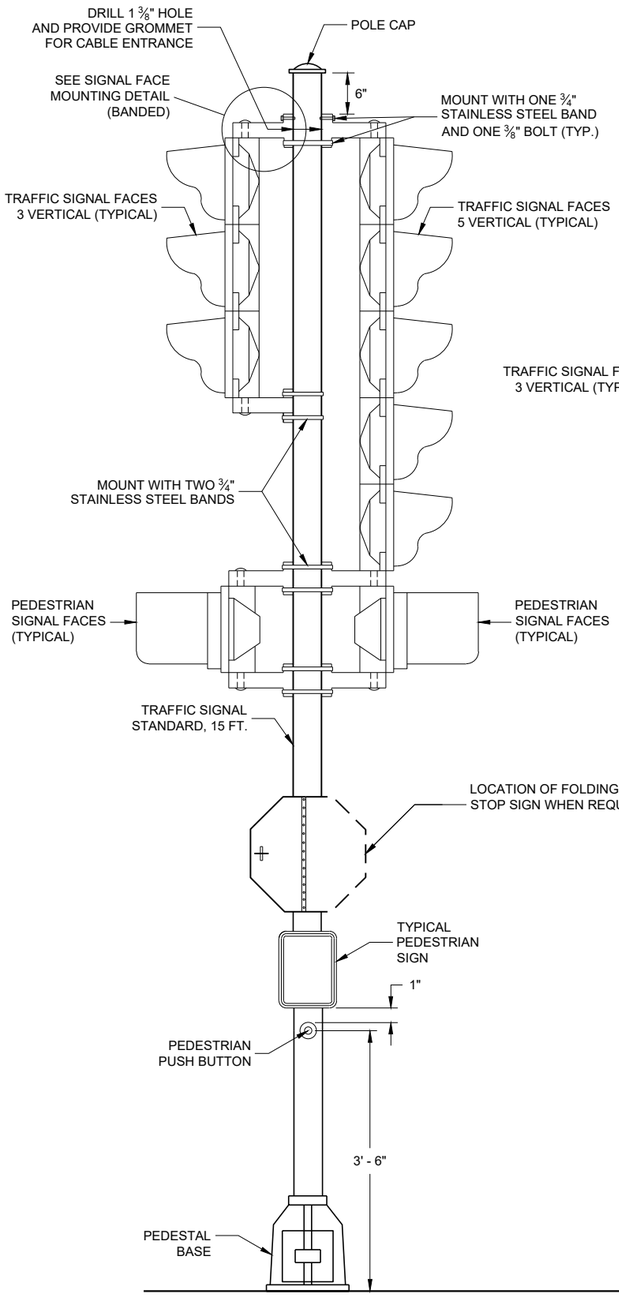
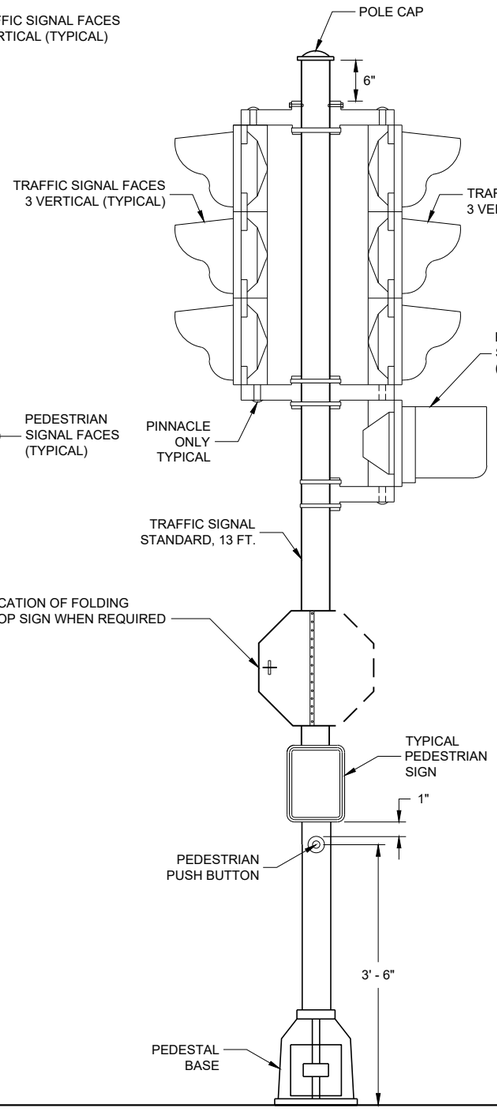
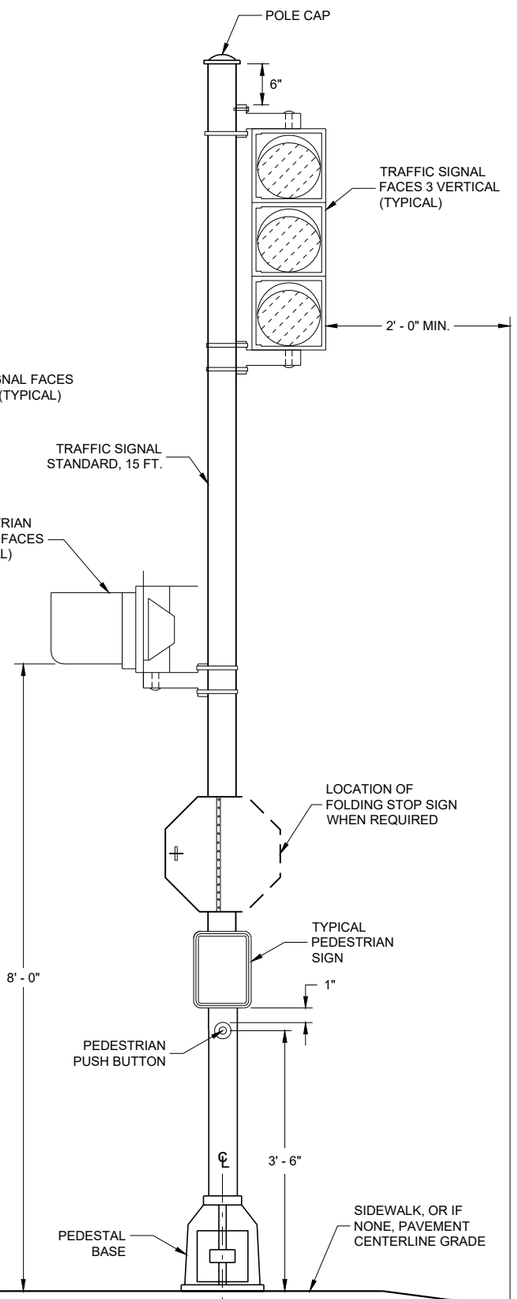
SDD 09E05 - 06



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

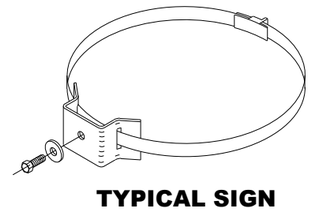
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

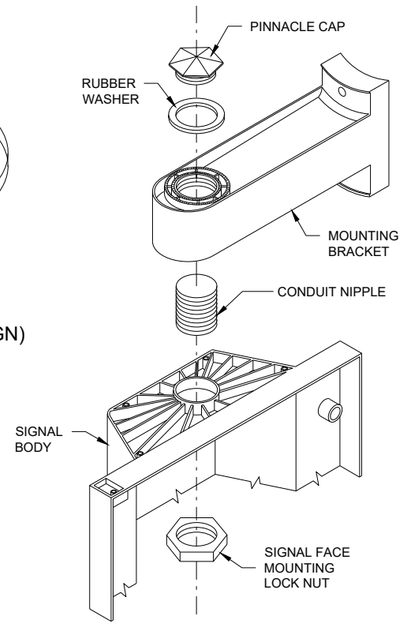
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

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2/28/2013
DATE

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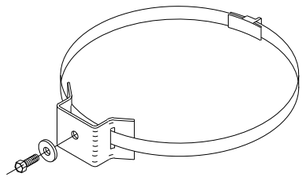
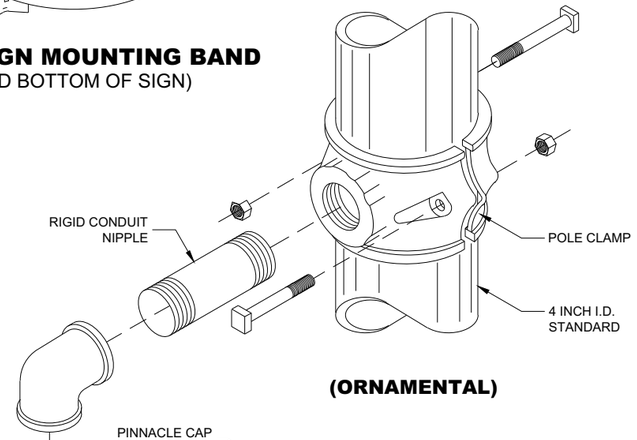
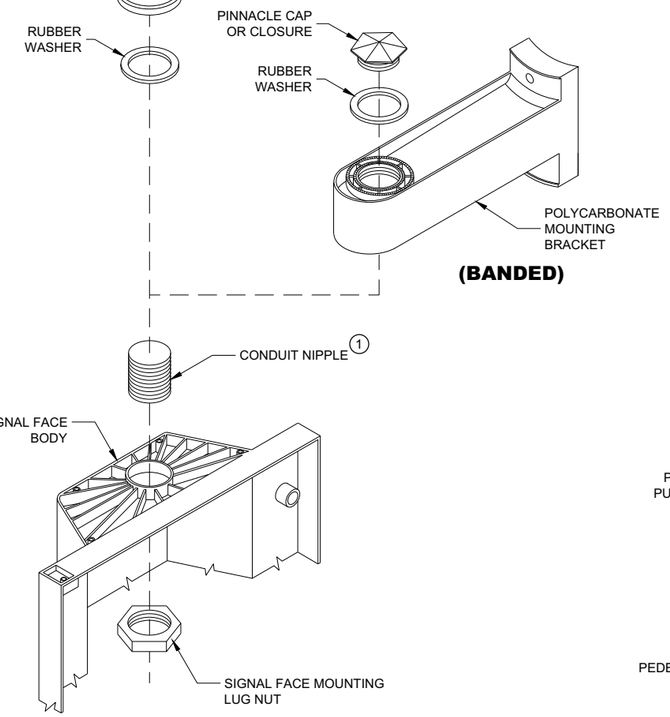


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

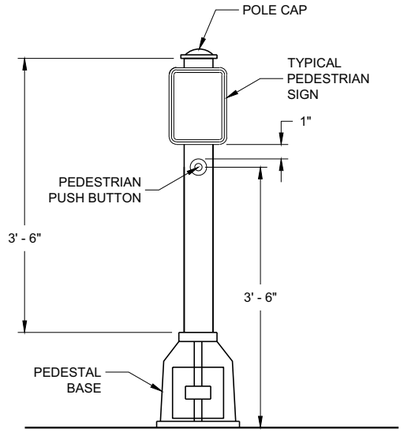


(ORNAMENTAL)



(BANDED)

SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

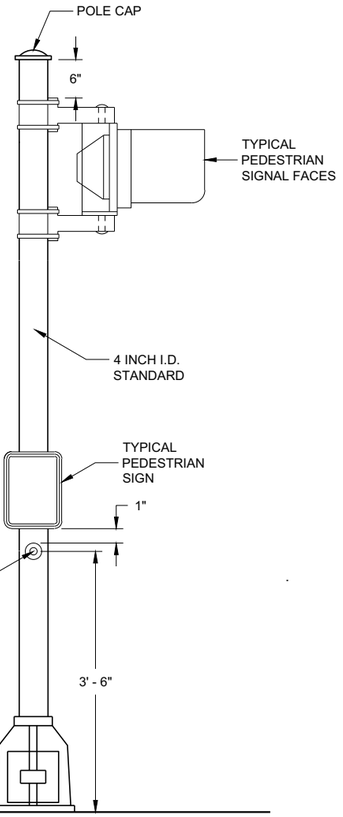
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

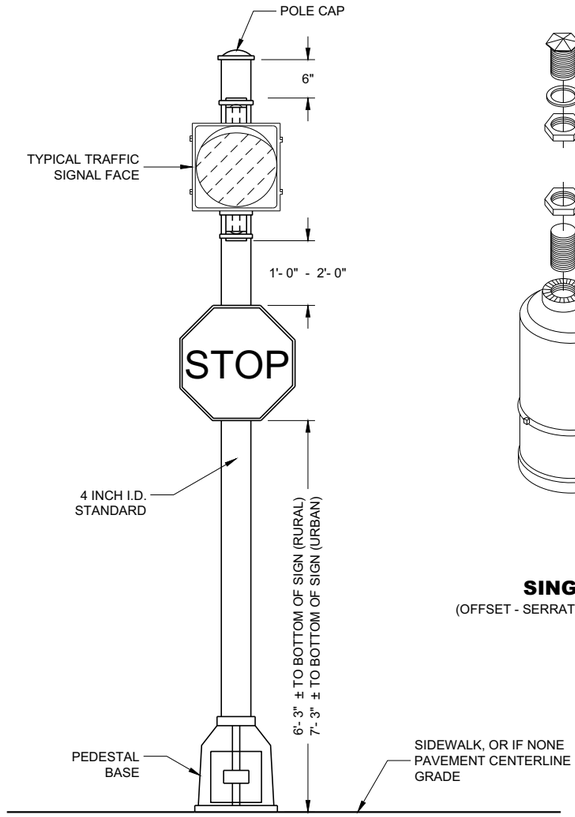
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

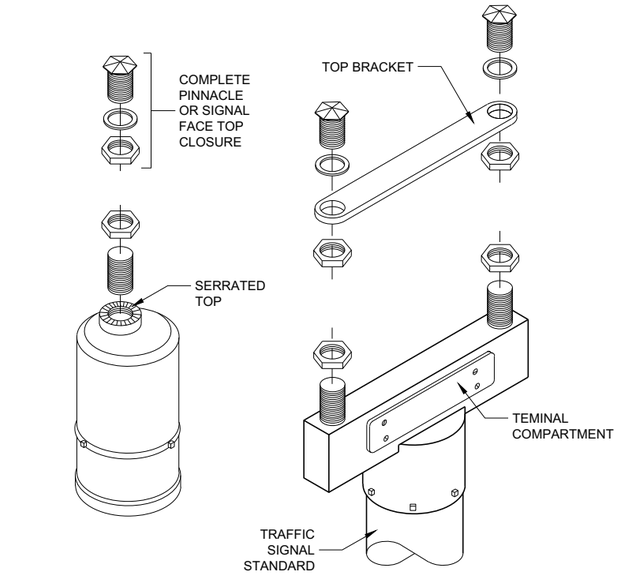
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
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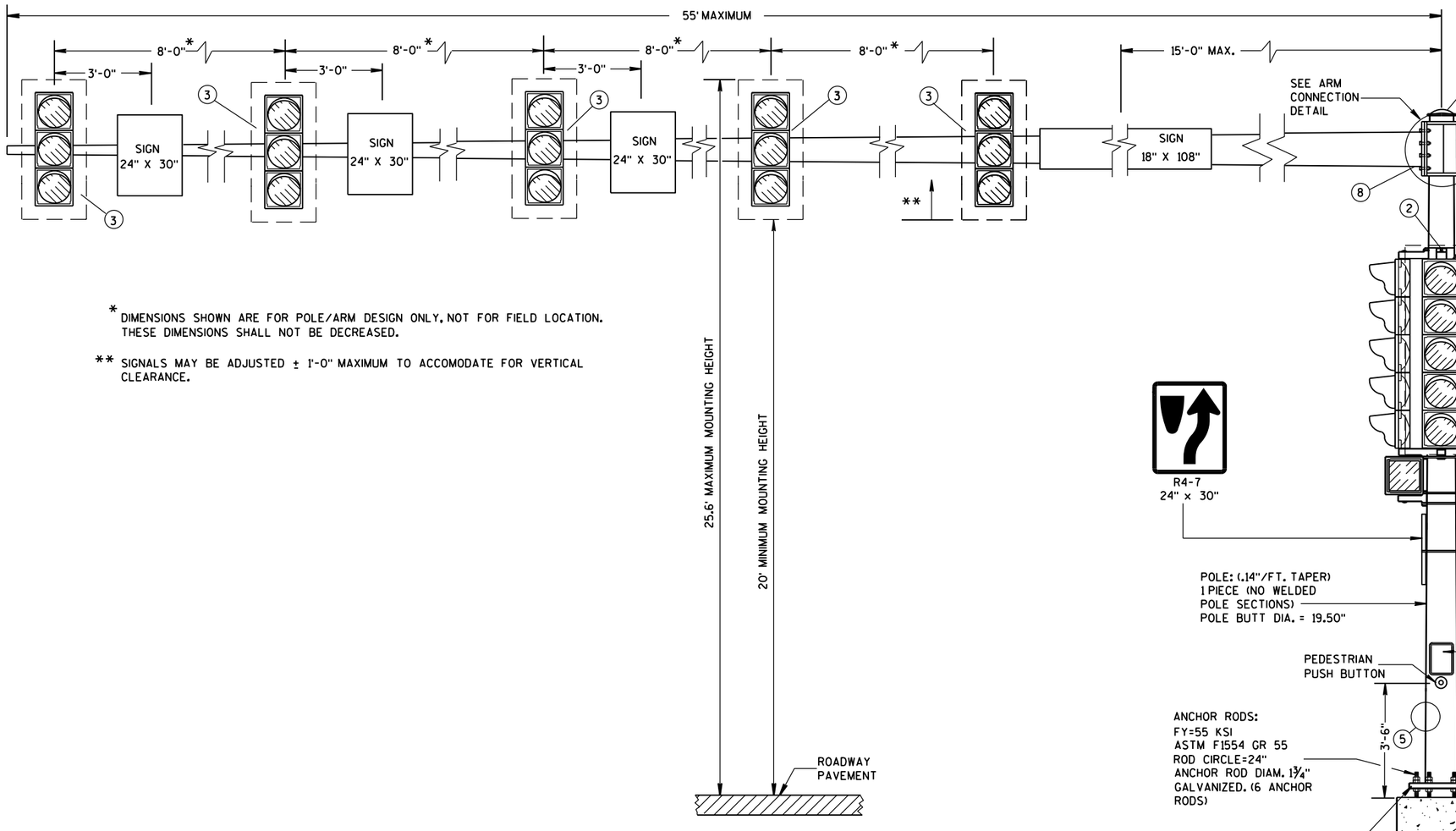
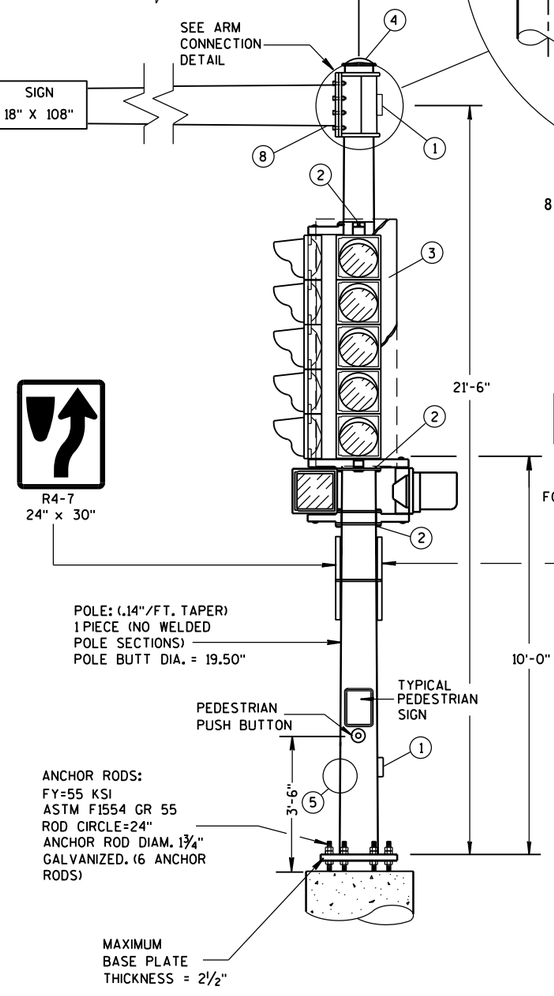
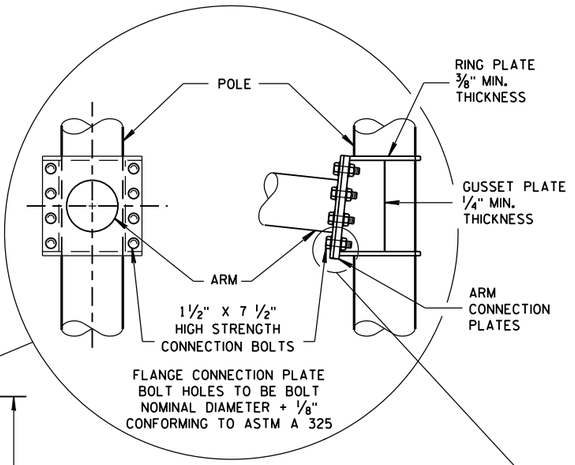


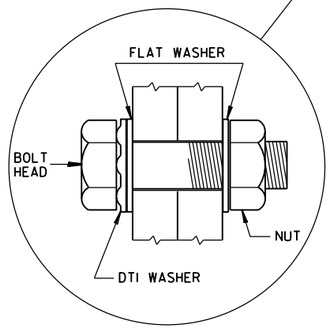
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

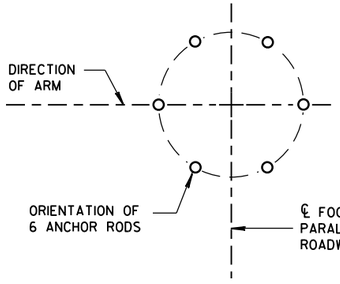




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

OVER HEIGHT TYPE 12 POLE 35'- 55' MONOTUBE ARM

OVER HEIGHT TYPE 12 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 351
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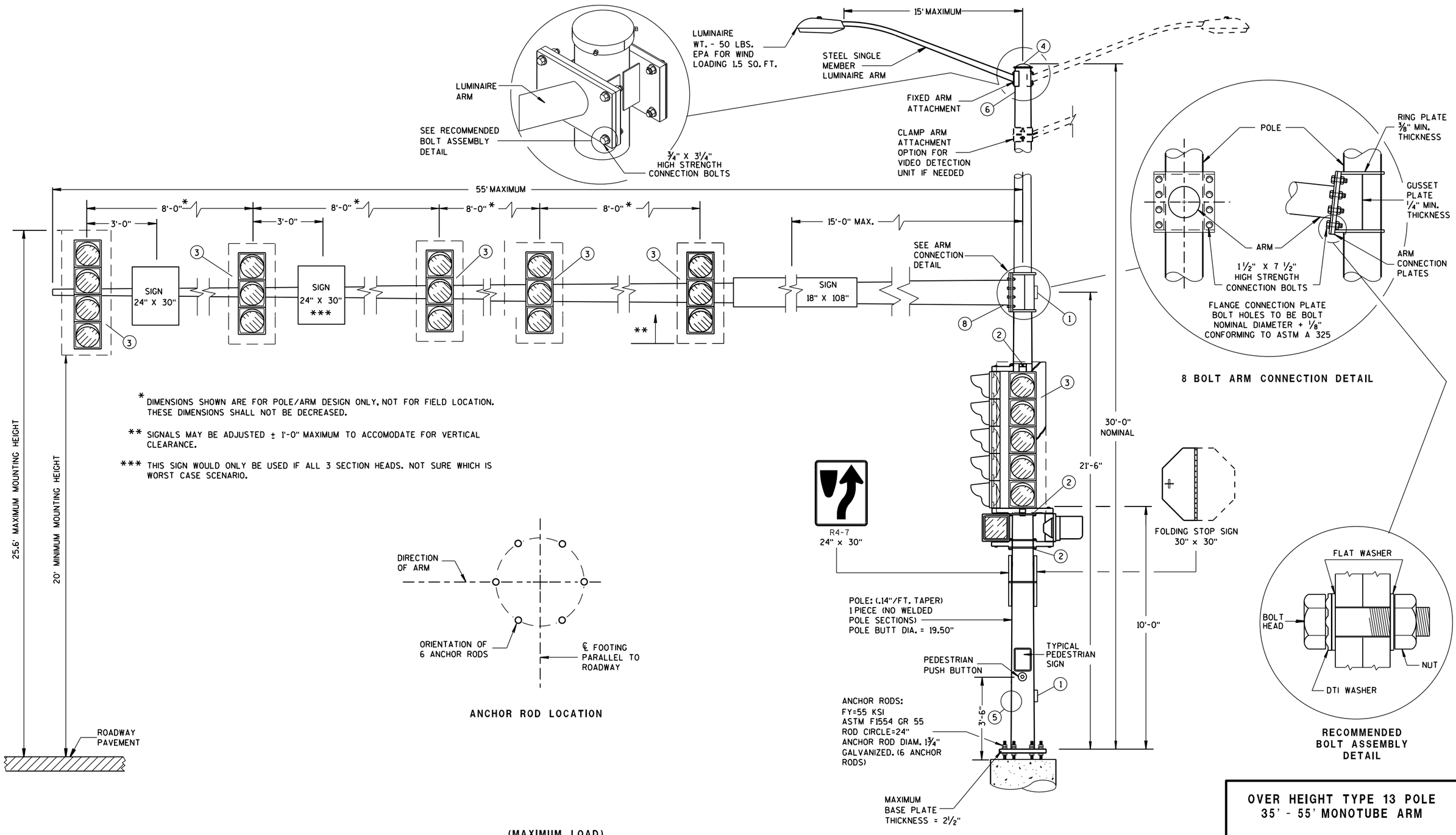

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** THIS SIGN WOULD ONLY BE USED IF ALL 3 SECTION HEADS. NOT SURE WHICH IS WORST CASE SCENARIO.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

RECOMMENDED BOLT ASSEMBLY DETAIL

(MAXIMUM LOAD)

OVER HEIGHT TYPE 13 POLE 35'- 55' MONOTUBE ARM

OVER HEIGHT TYPE 13 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May, 2017 — DATE
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GENERAL NOTES

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

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING 2017 INTERIM REVISIONS) AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

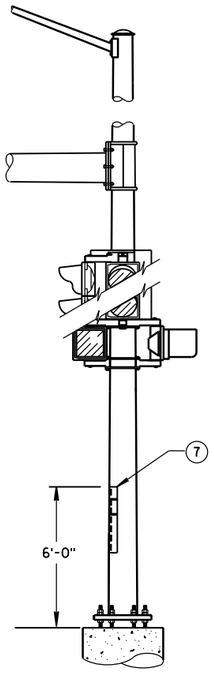
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

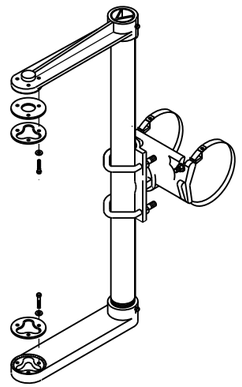
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

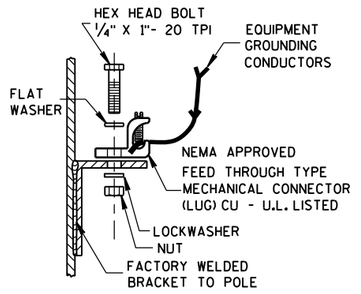


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



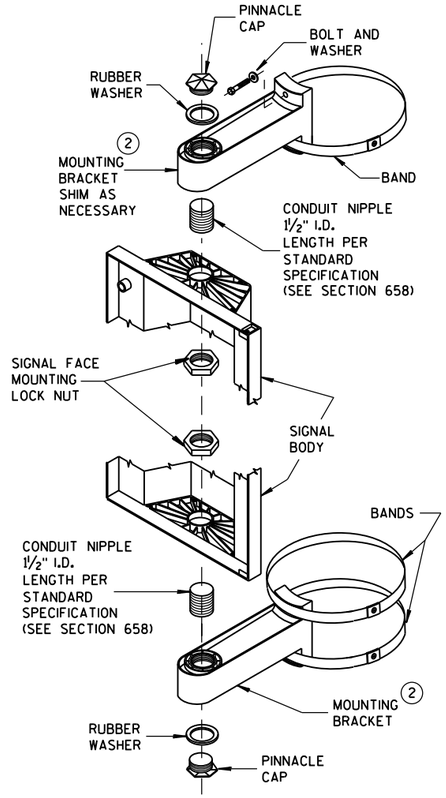
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

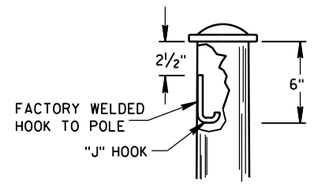


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR OVER HEIGHT TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 353
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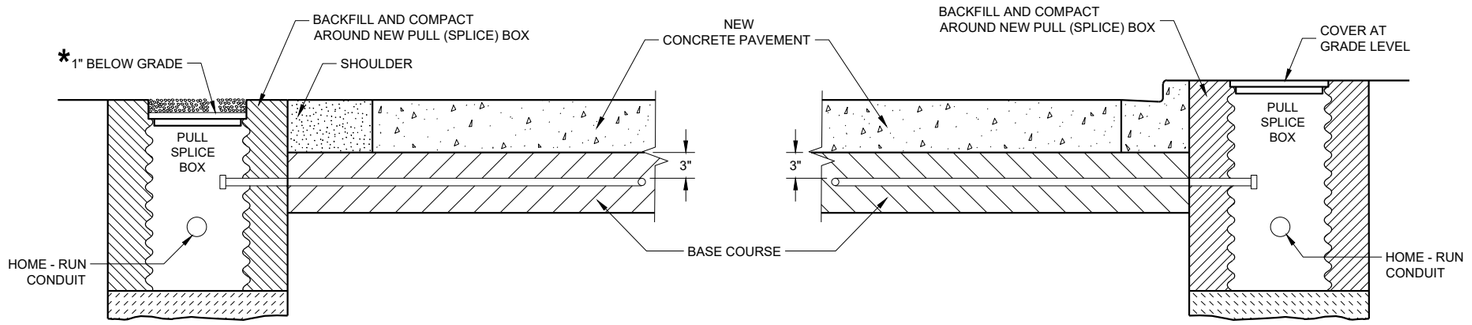


SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

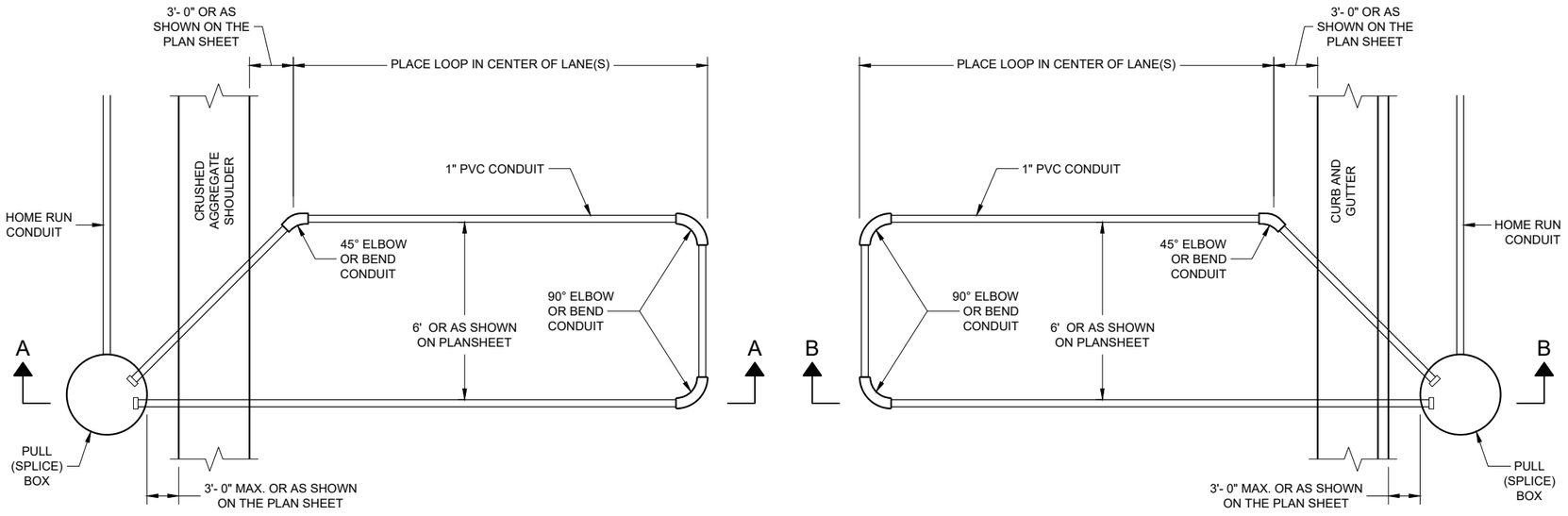
THE #12 AWG LOOP WIRE IN THE ROADSIDE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
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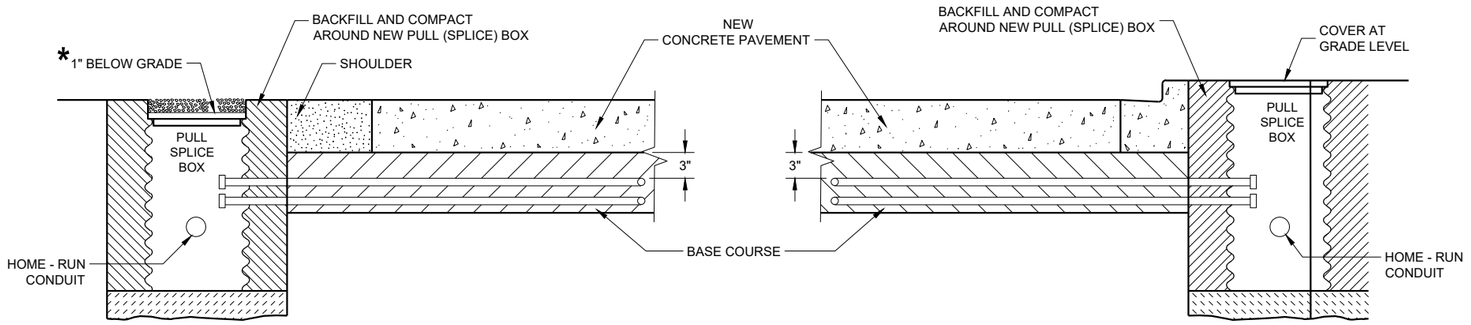

SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

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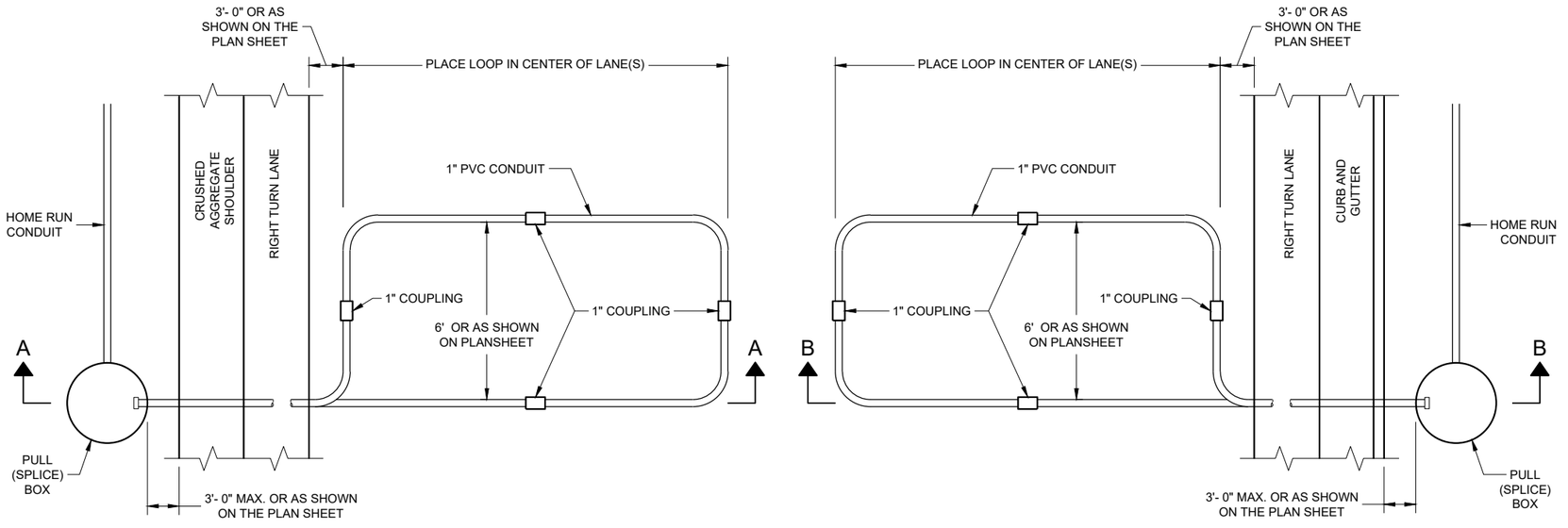
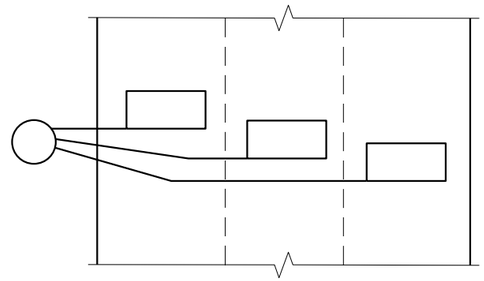
PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR
WITH 24" PULL (SPLICE) BOX



MULTI-LANE
INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
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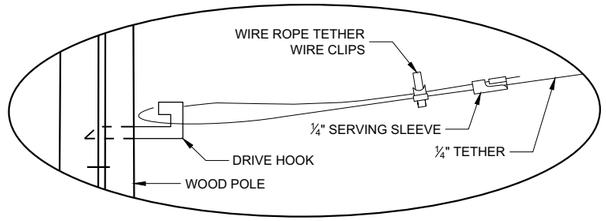
MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

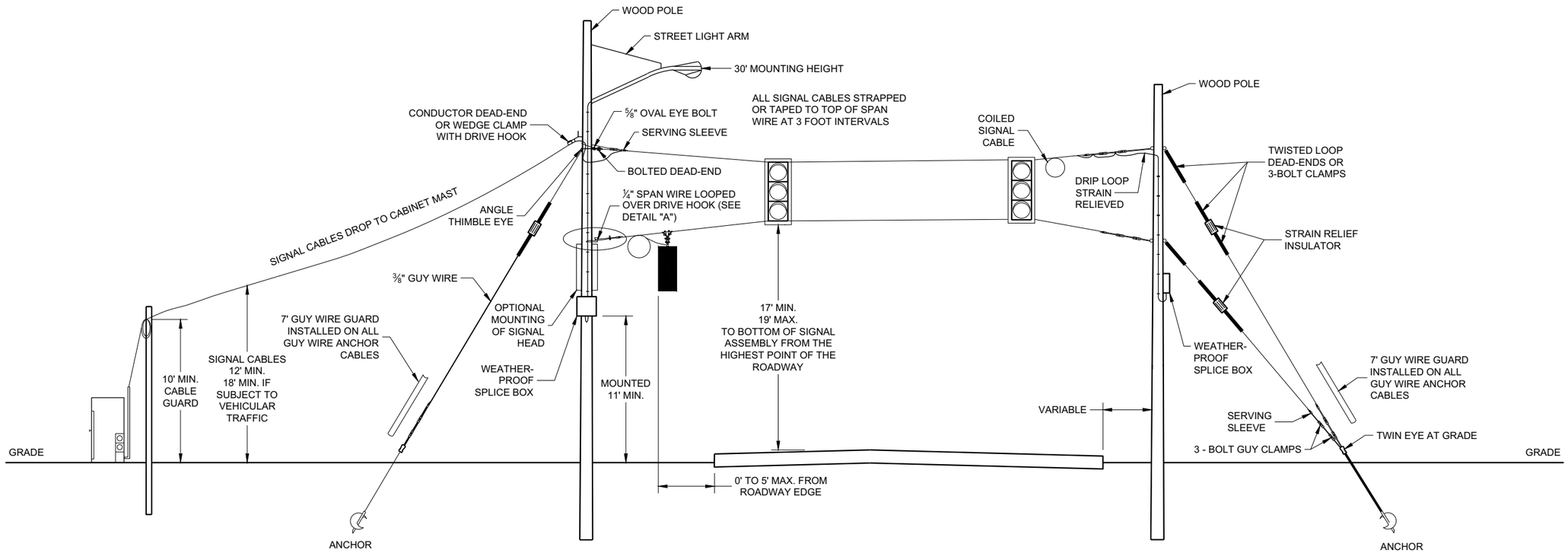


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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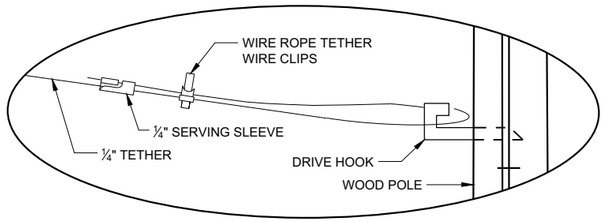
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



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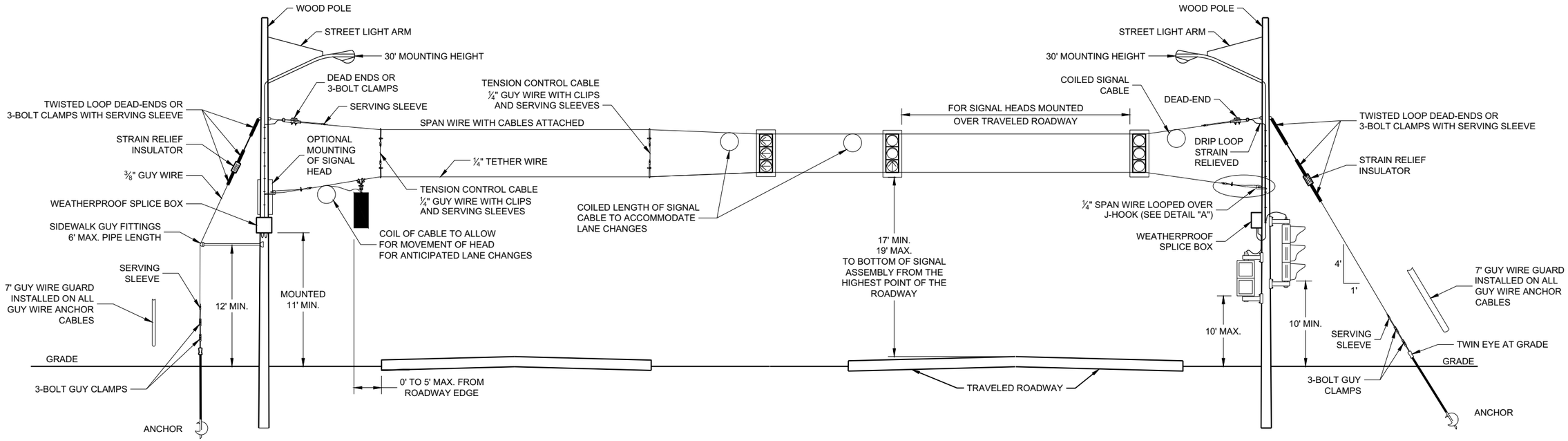
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
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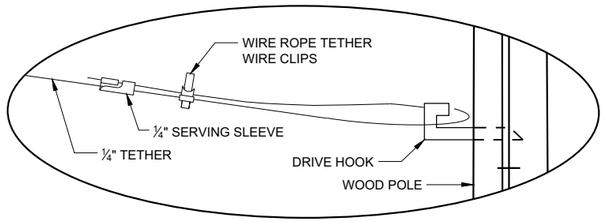
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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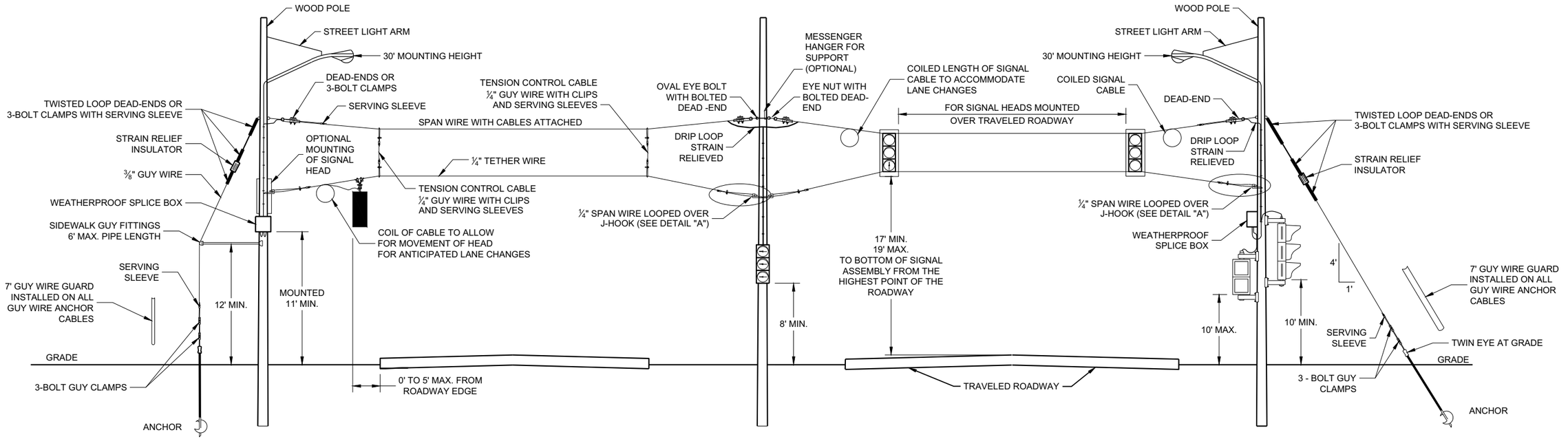
3. SPAN WIRE:
   - A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   - B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   - C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

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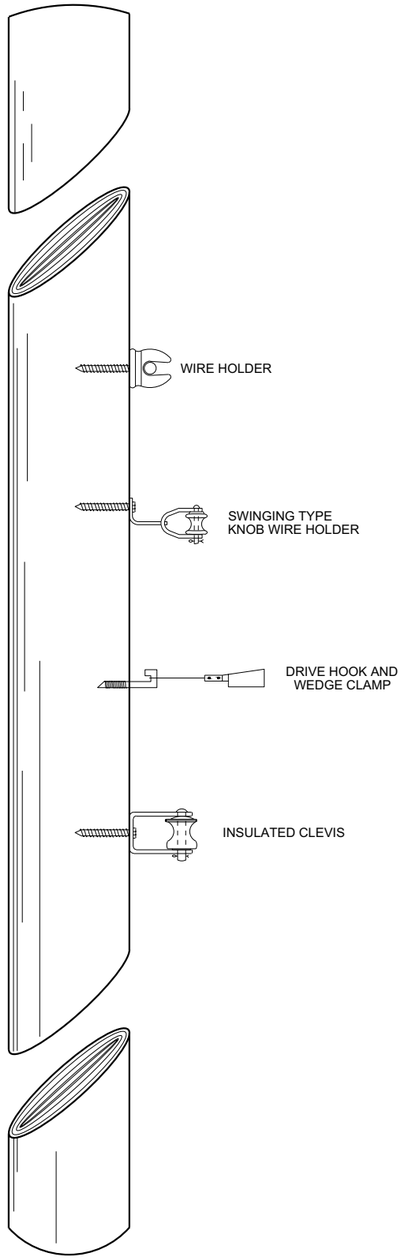
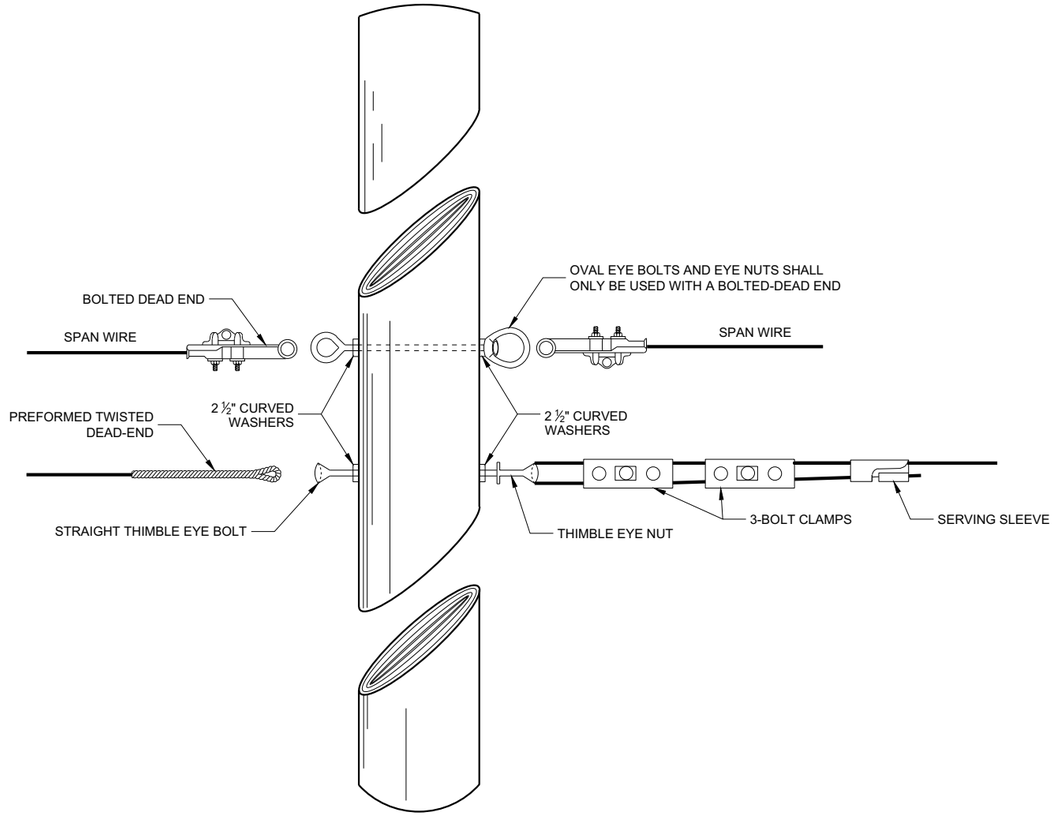
SDD09G01 - 04c





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SDD 09G01 - 4d

SDD 09G01 - 4d

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

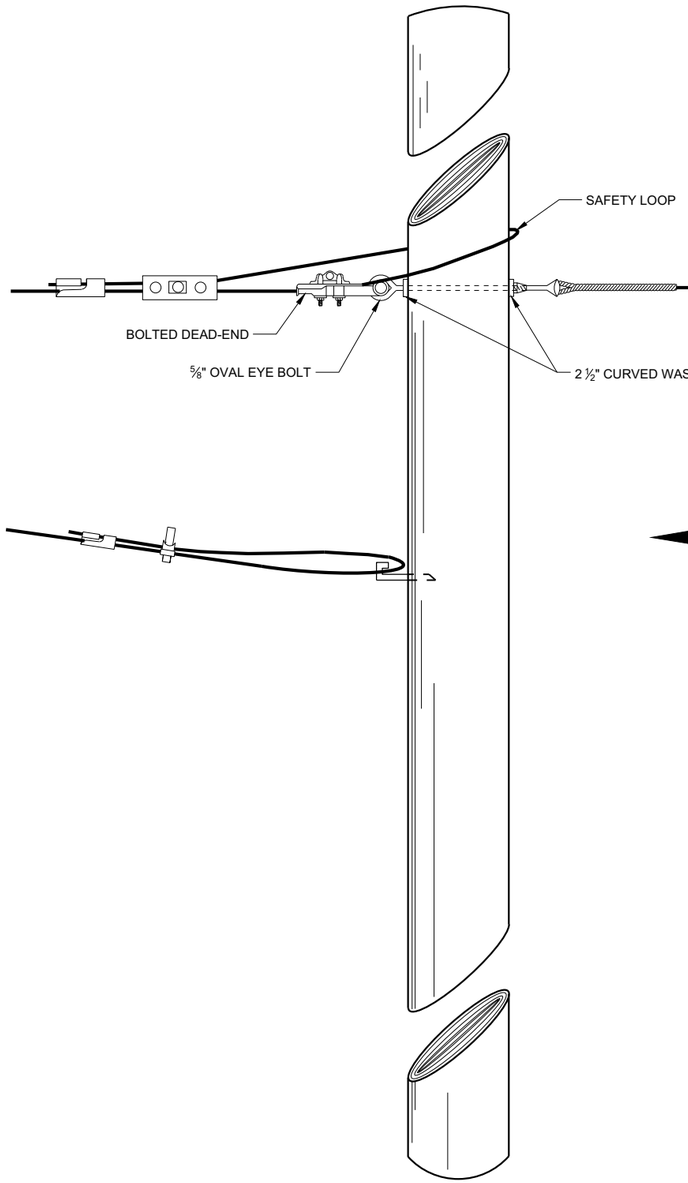
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

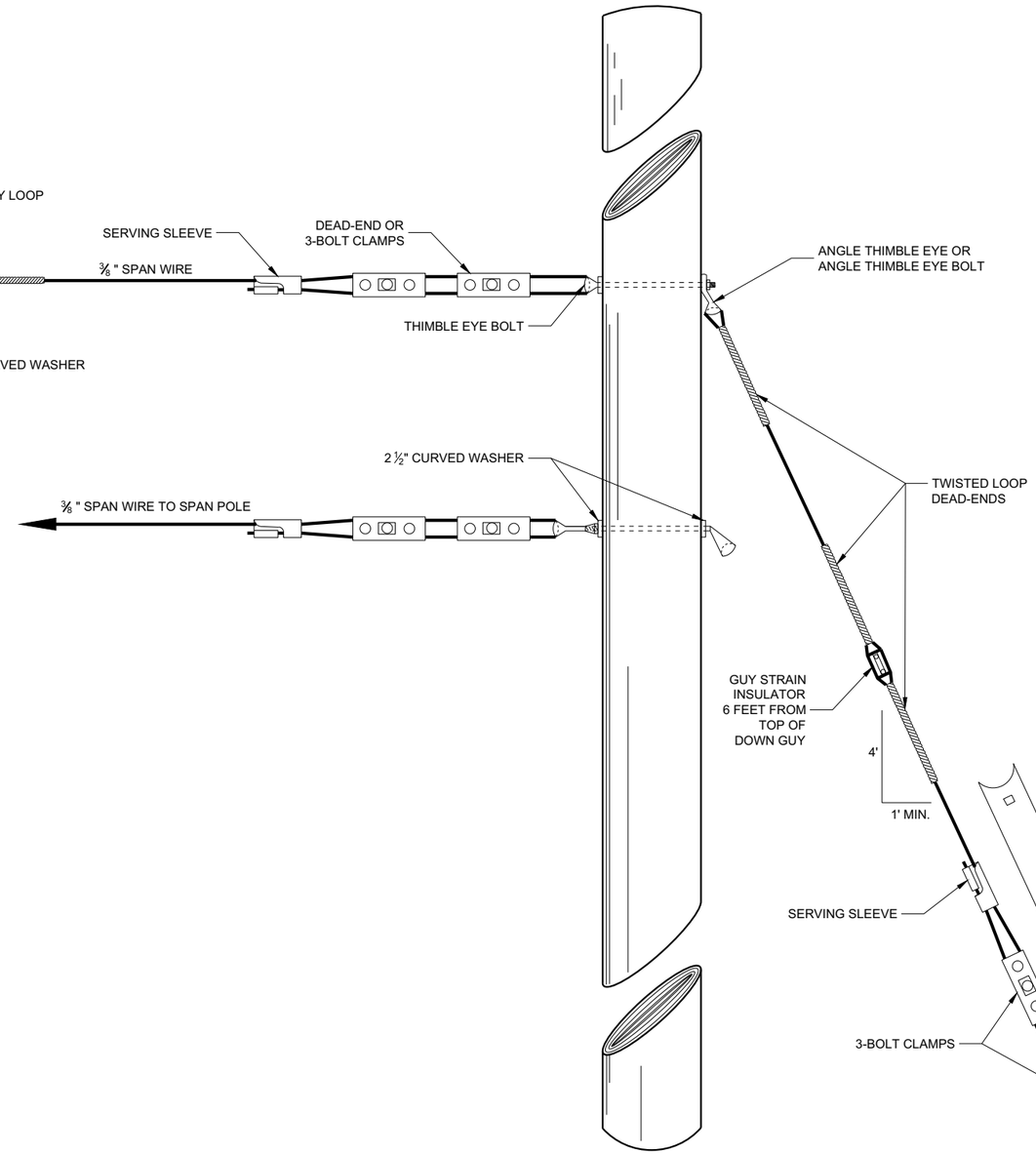
FHWA

GENERAL NOTES

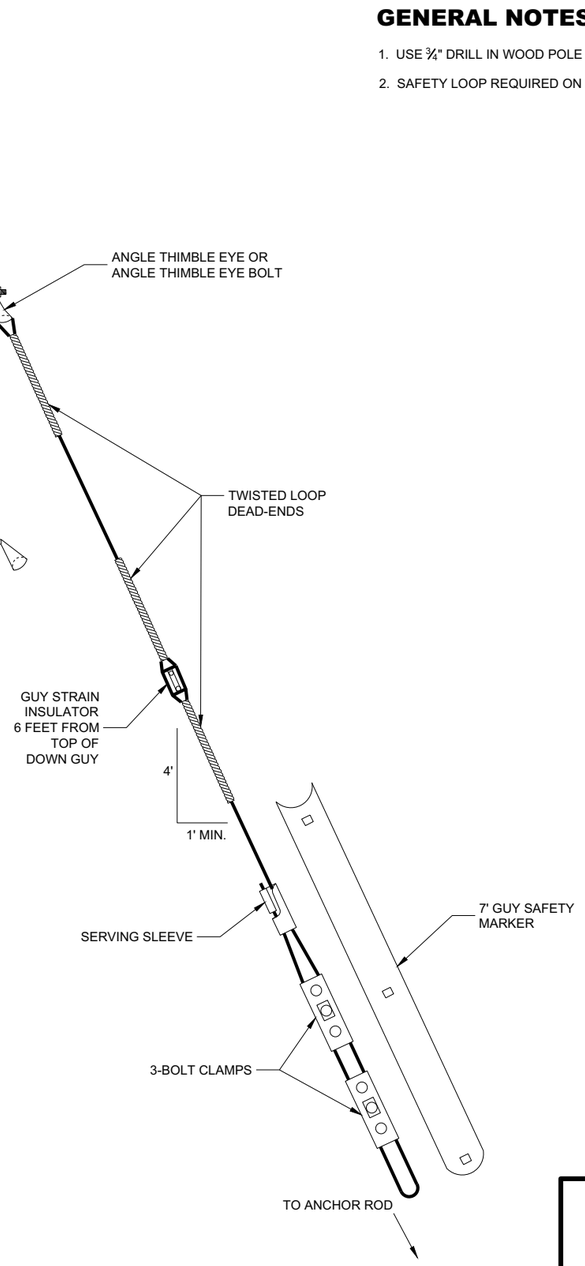
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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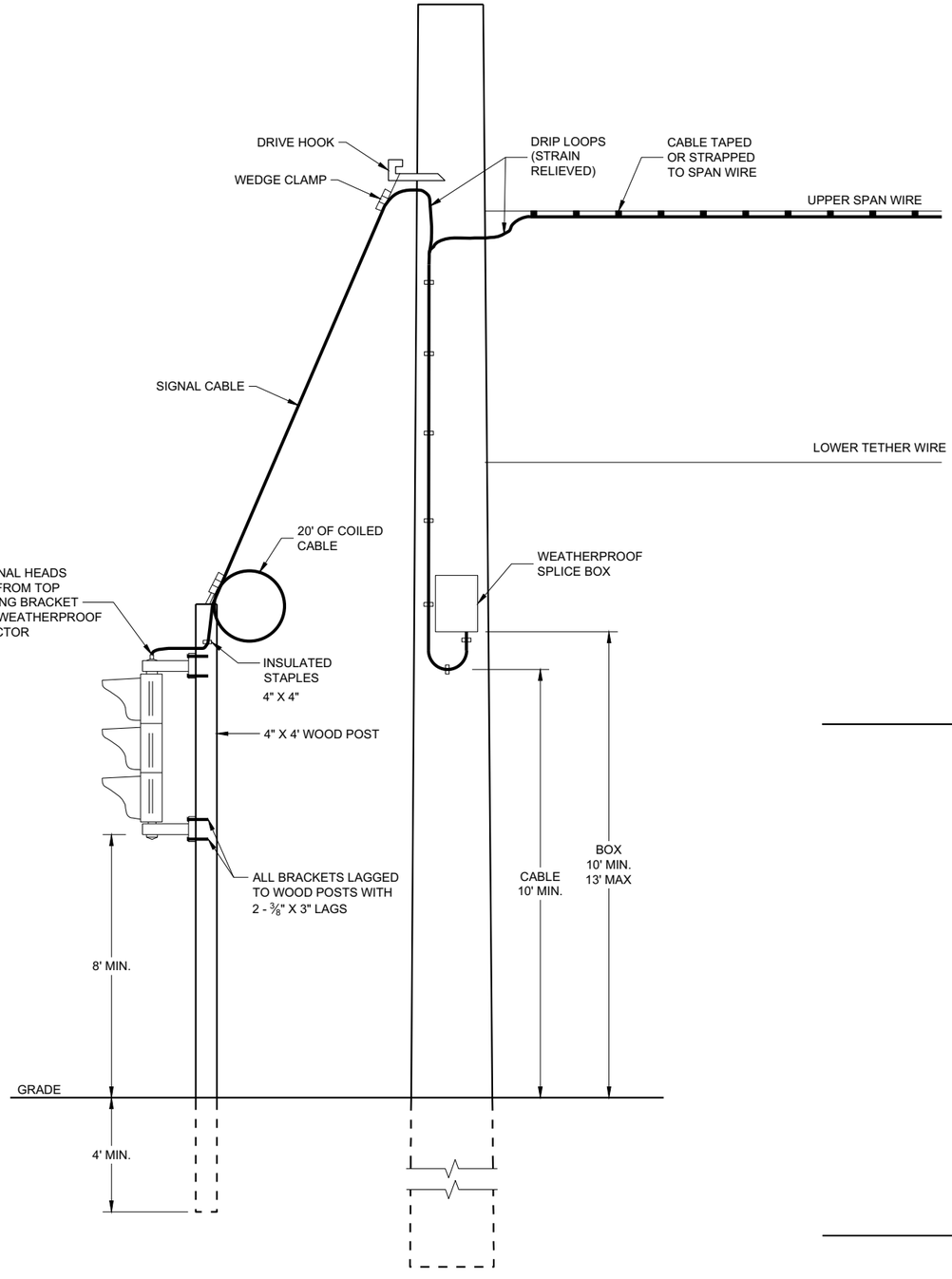
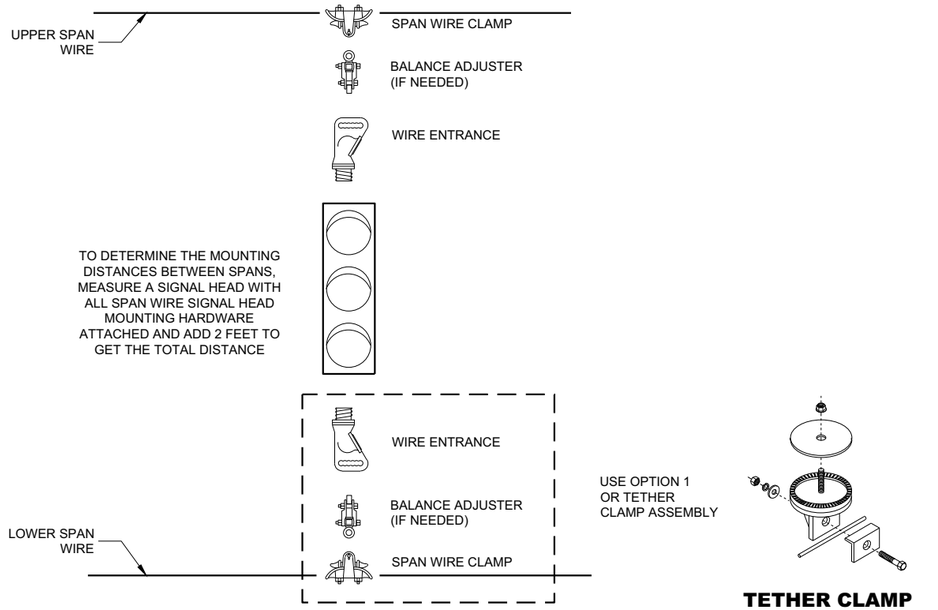
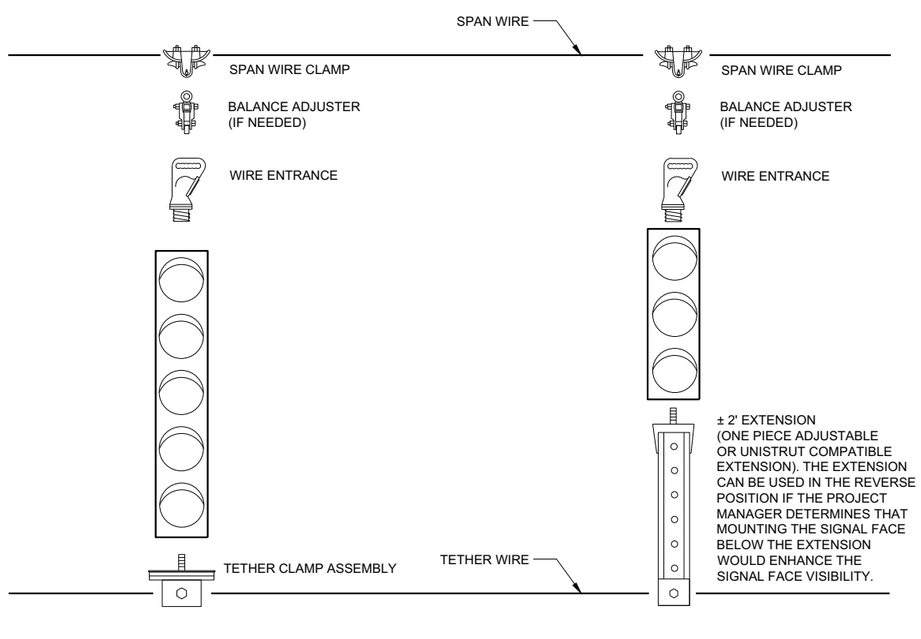
SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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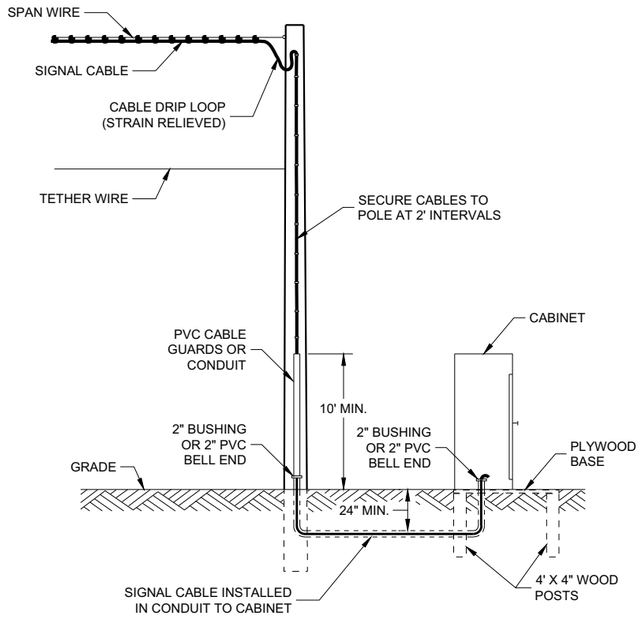
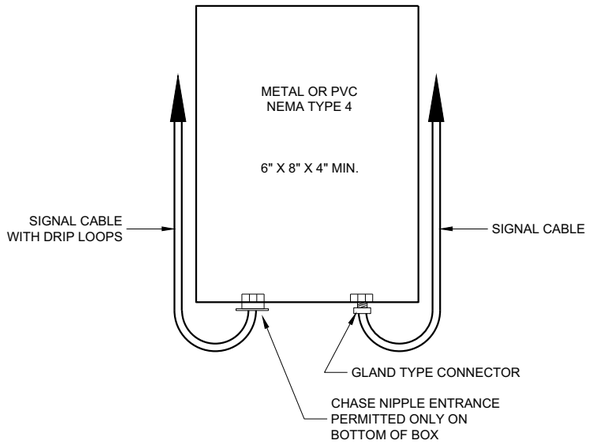
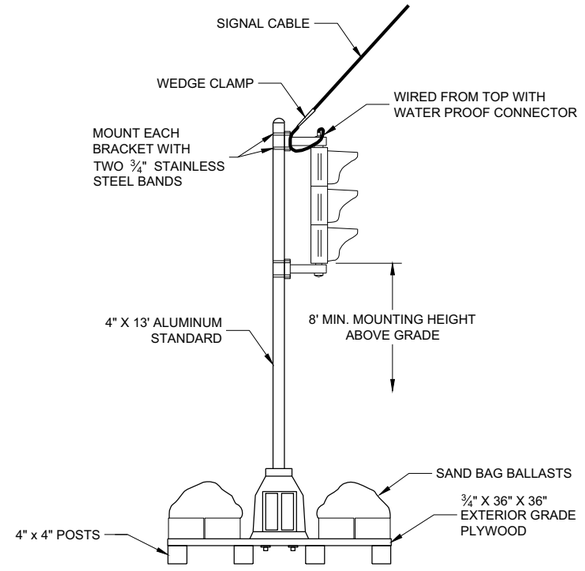
SDD 09G01 - 4f

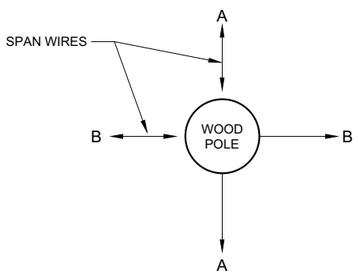




SPLICE BOX

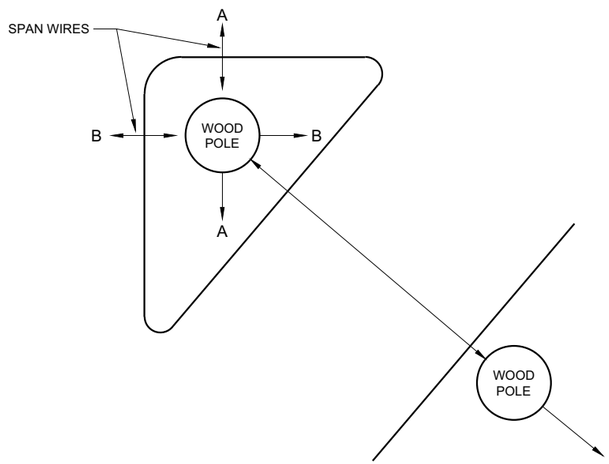


TYPICAL SKID TYPE TEMPORARY

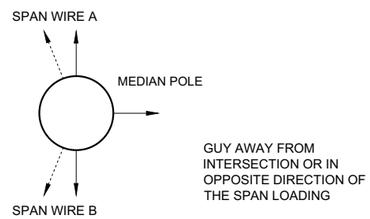


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 09G01 - 4g

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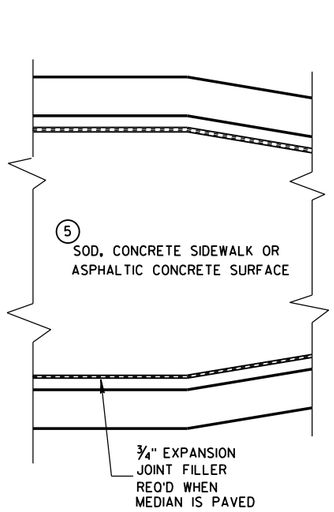
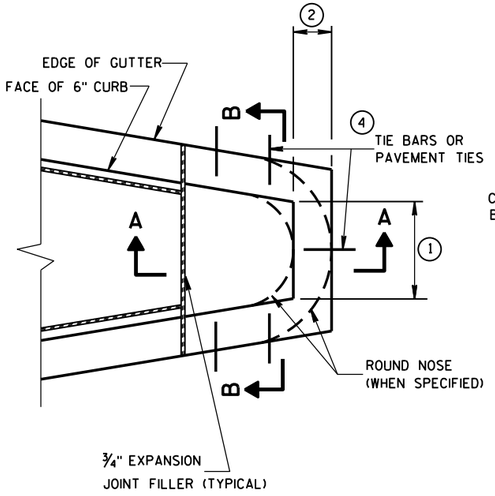
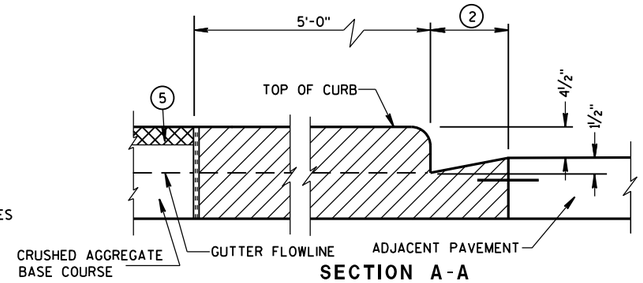
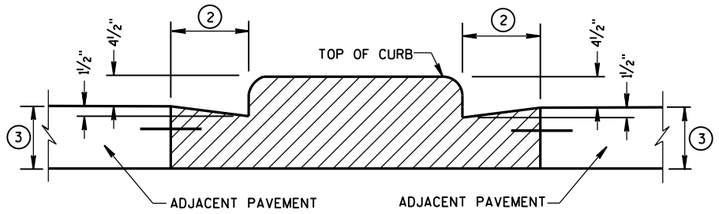
SDD 09G01 - 4g







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

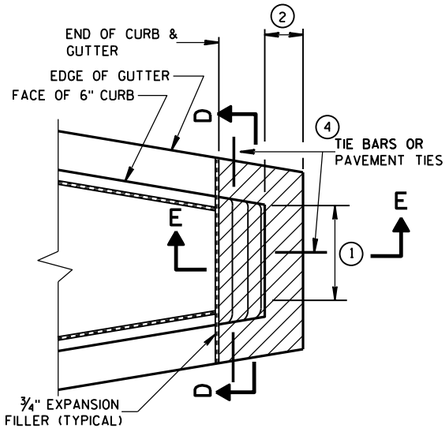
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

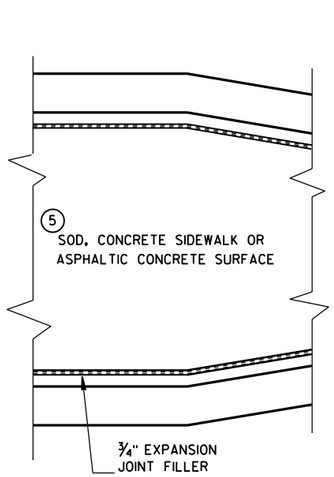
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

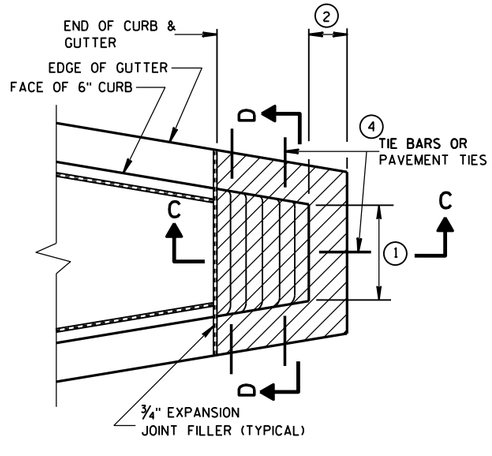
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

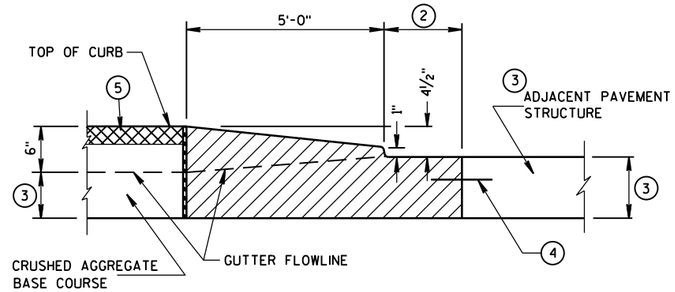
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



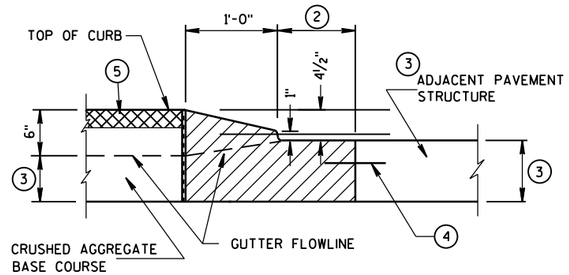




CONCRETE MEDIAN SLOPED NOSE TYPE 1

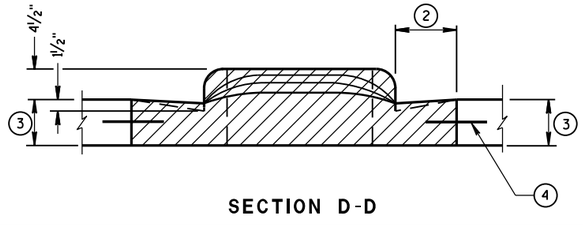


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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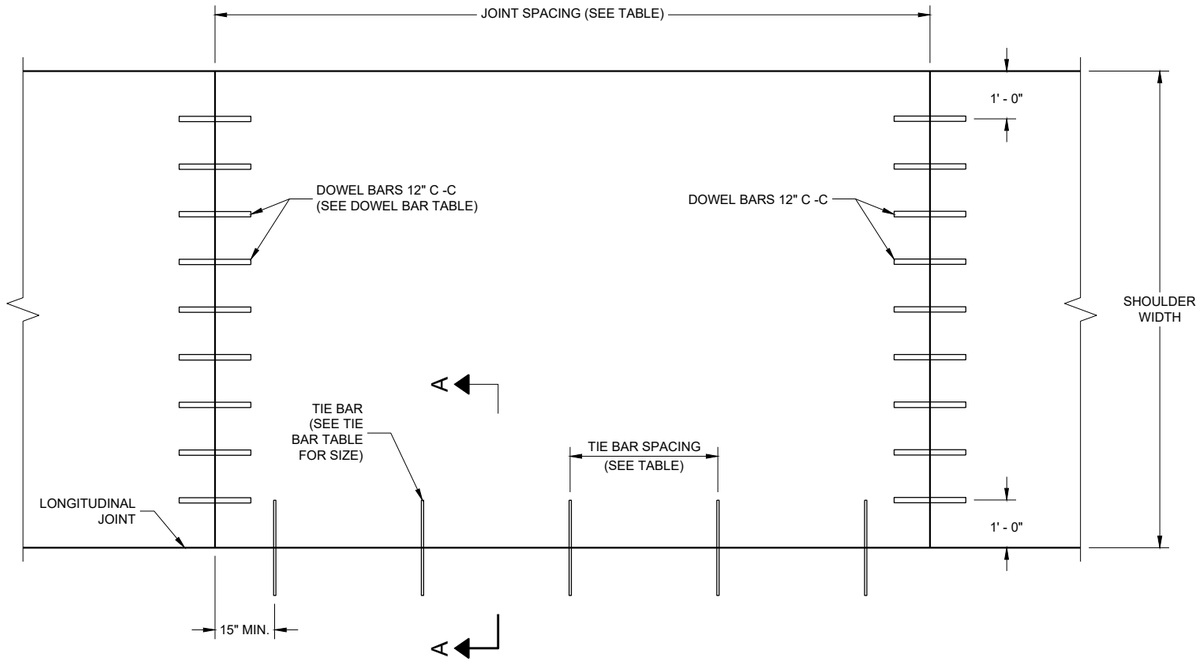
S.D.D. 11 B 2-2



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

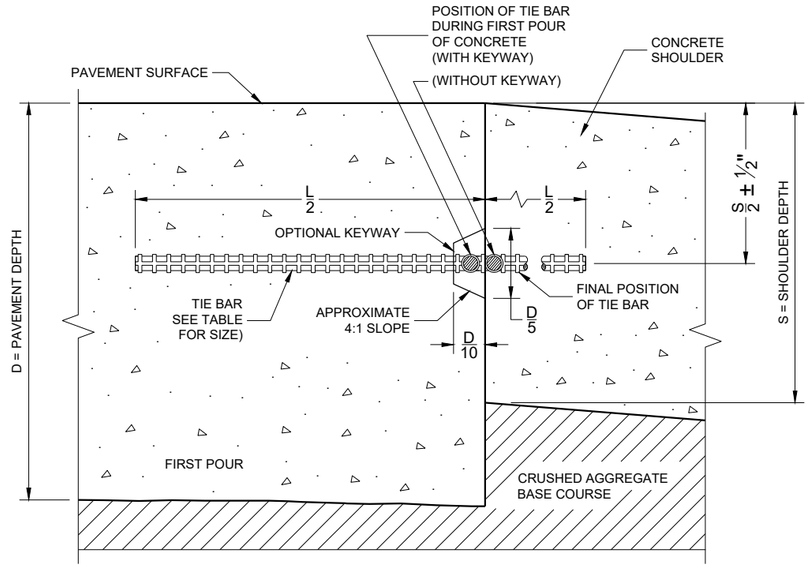
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 ½"	NO. 4	30"	36"
>10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BATS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES.

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER ***	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12"
7", 7 ½"	1"	14"
8" & ABOVE	1 ¼"	15"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp
PAVEMENT SUPERVIS

FHWA

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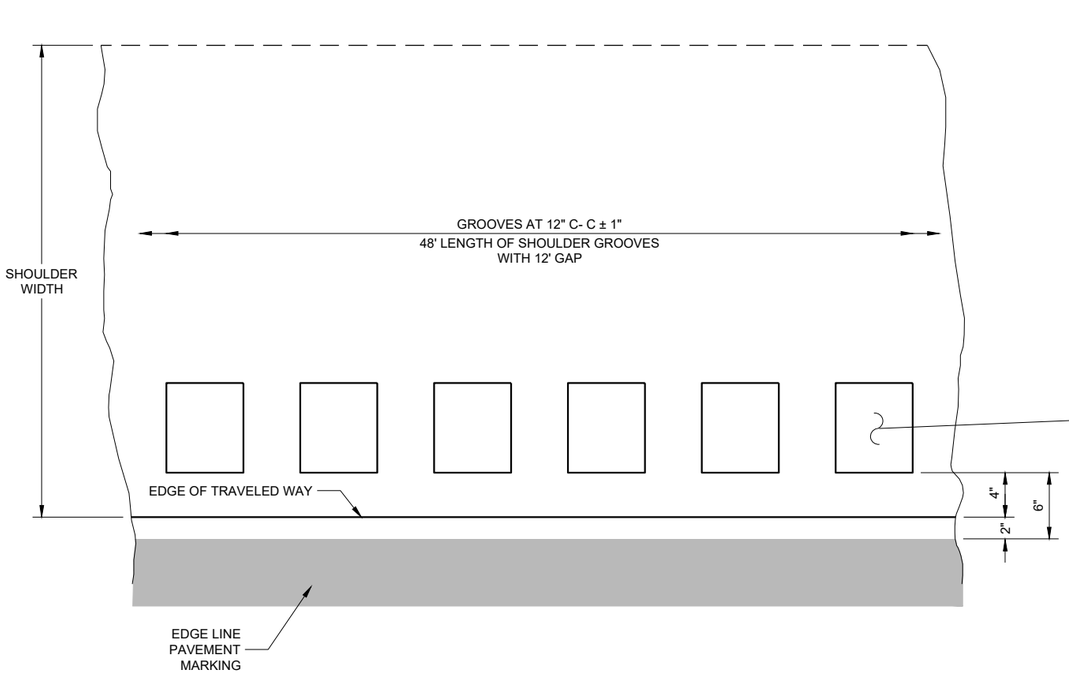
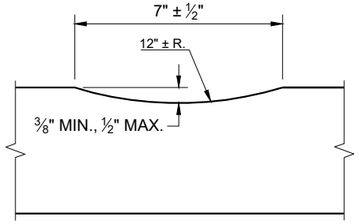
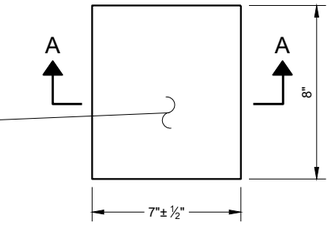
SDD 13A03 - 07



PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

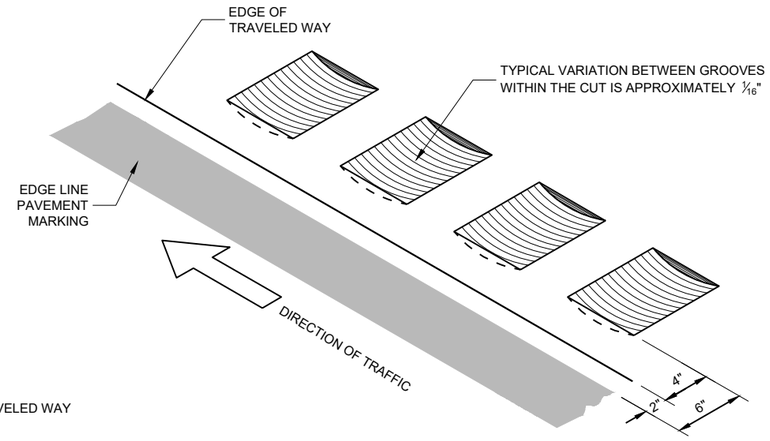


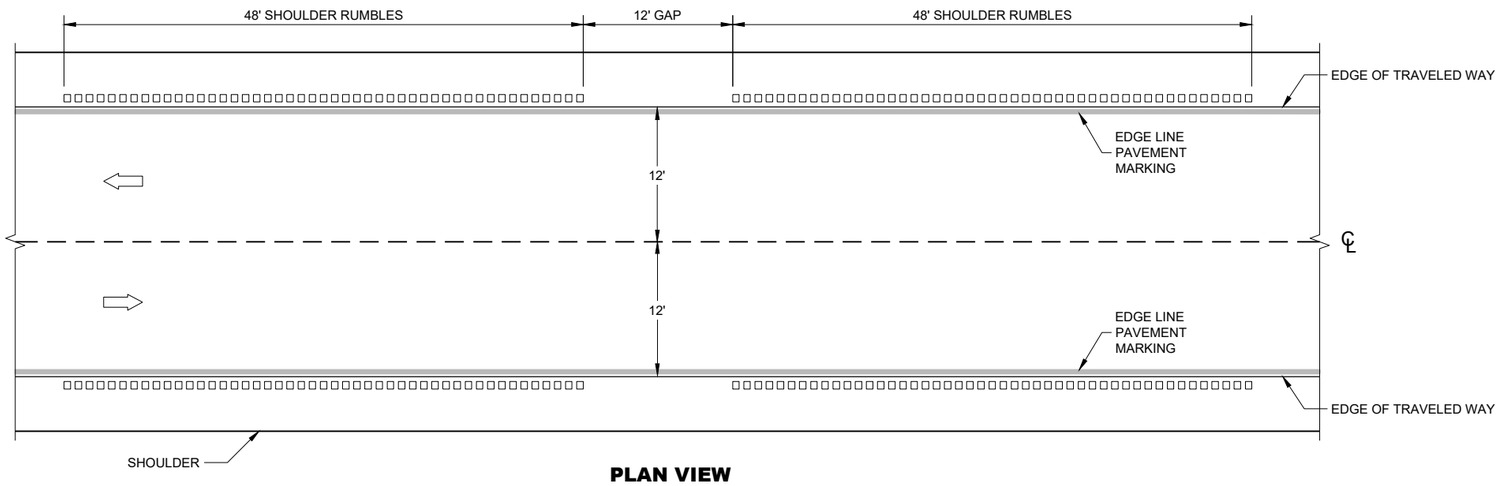
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

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





PLAN VIEW

SHOULDER RUMBLE STRIPS - ASPHALT

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SDD 13A10 - 03a

SHOULDER RUMBLE STRIPS ASPHALT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 365

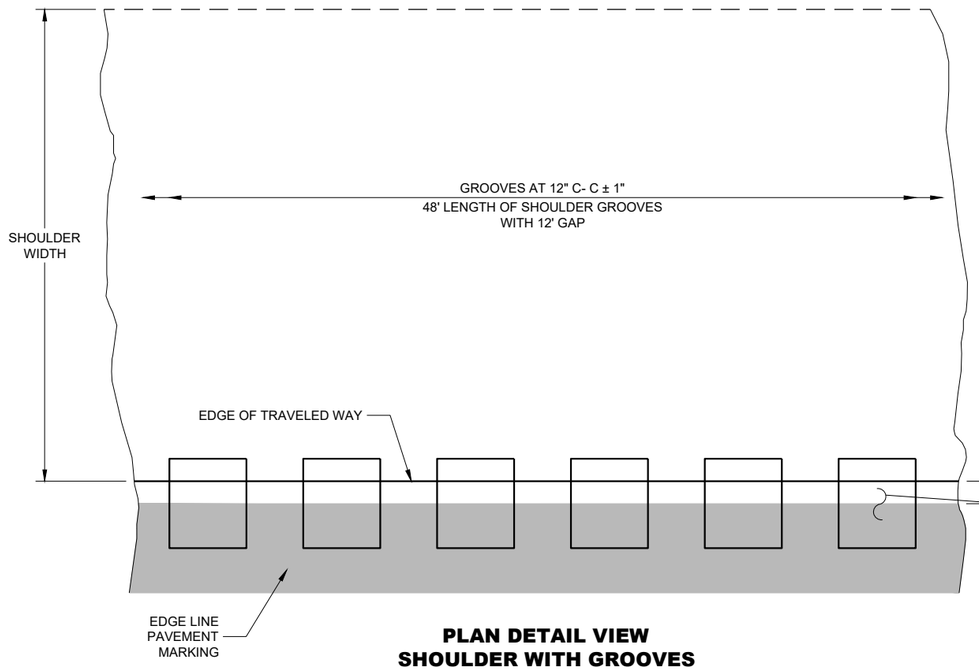
6

SDD 13A10 - 03a

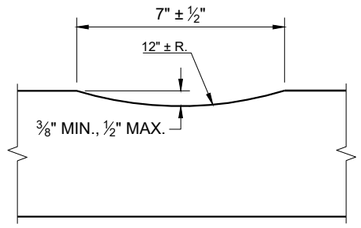
GENERAL NOTES

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

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

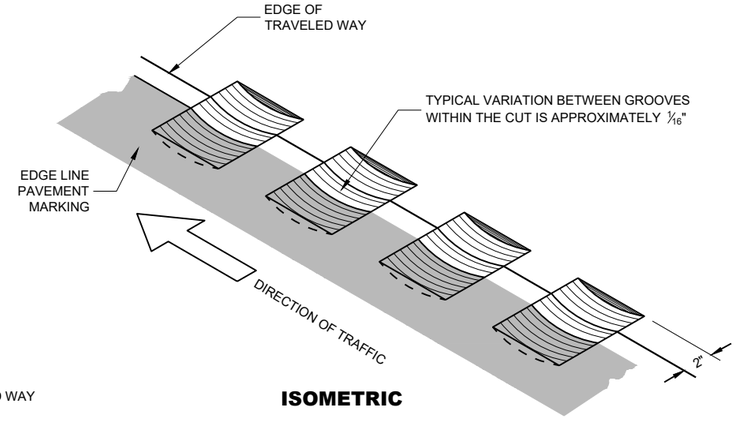


PLAN DETAIL VIEW
SHOULDER WITH GROOVES



SECTION A - A

PLAN VIEW
(SINGLE GROOVE)



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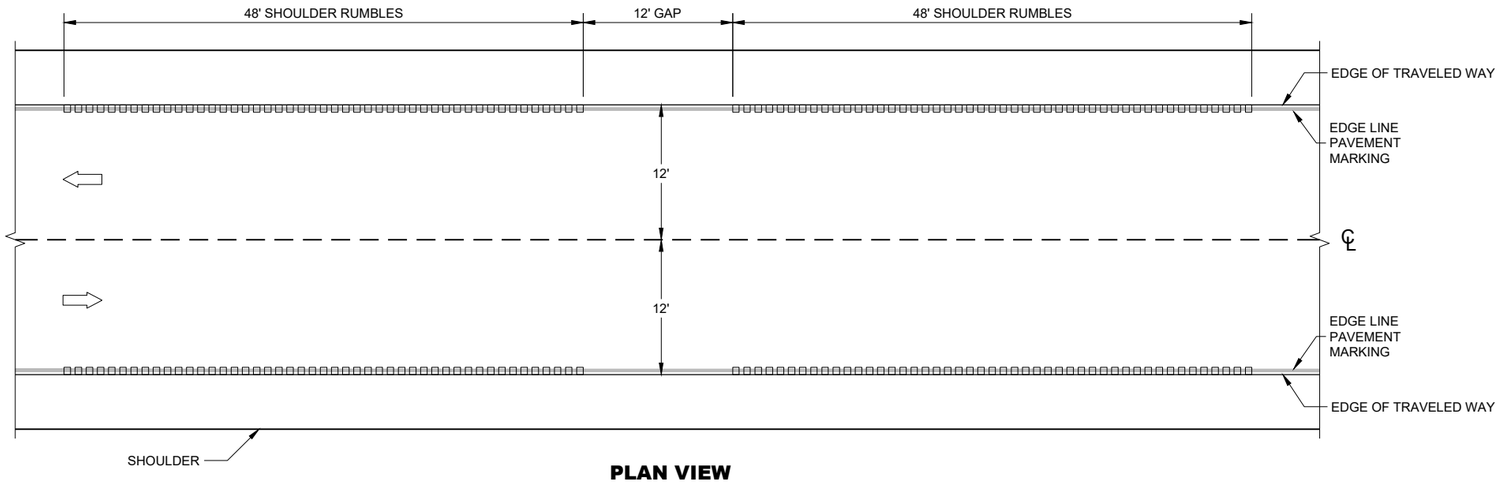

PLAN VIEW

EDGE LINE RUMBLE STRIPS - ASPHALT

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SDD 13A10 - 03e

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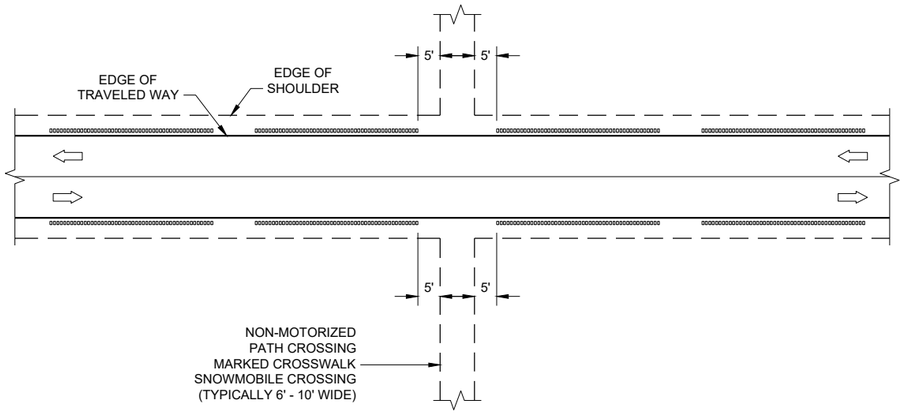
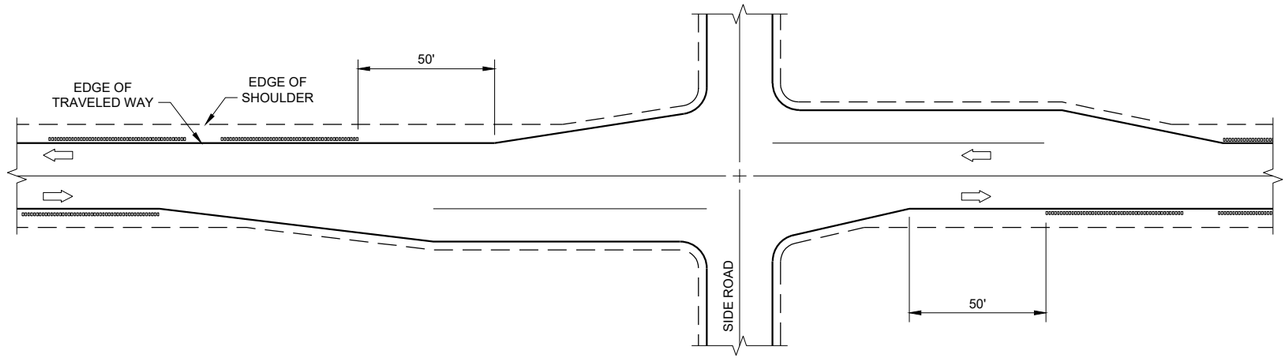
SDD13A10 - 03e

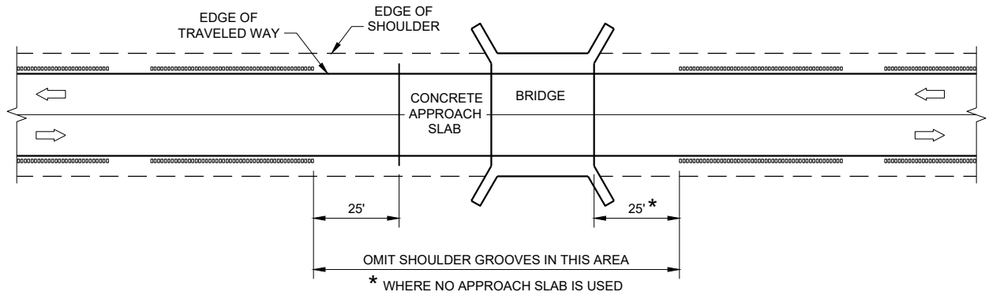
EDGE LINE RUMBLE STRIPS - ASPHALT



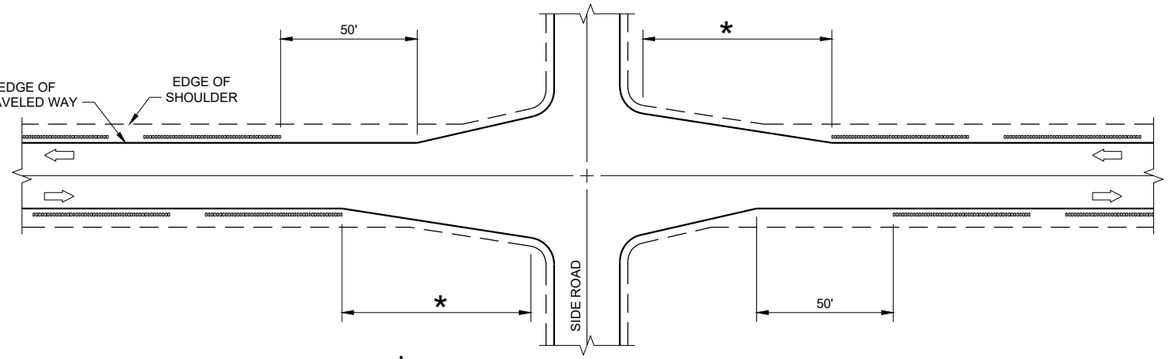
GROOVES AT MISCELLANEOUS CROSSINGS



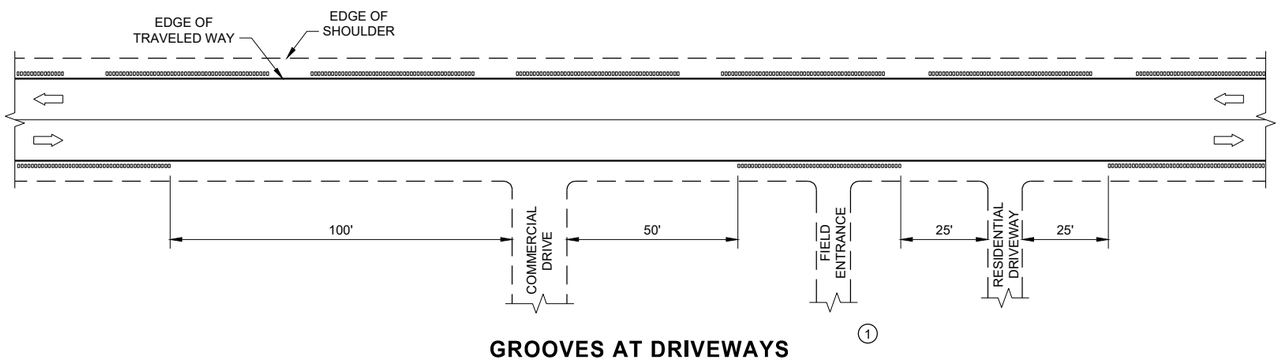
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



GROOVES AT DRIVEWAYS ①

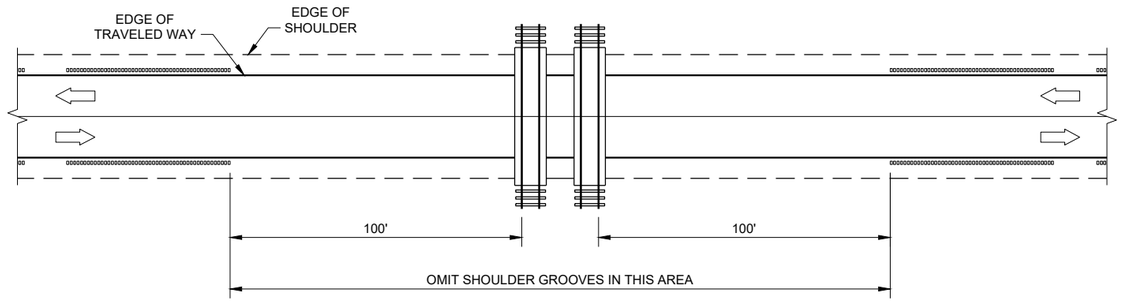
GENERAL NOTES

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

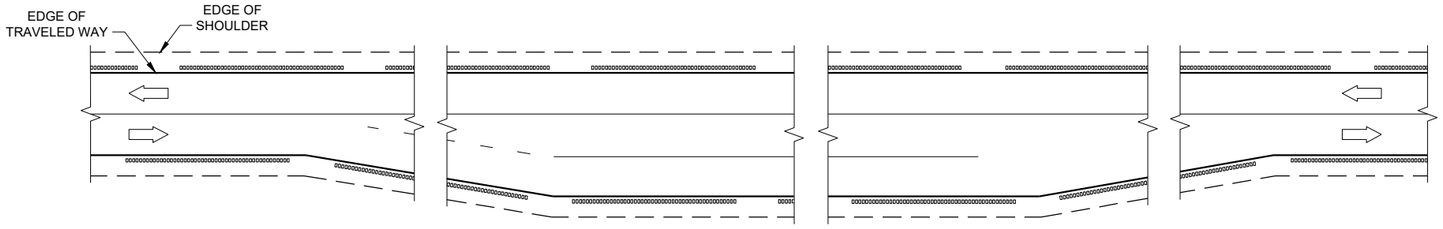
SHOULDER AND EDGE LINE RUMBLE STRIPS CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

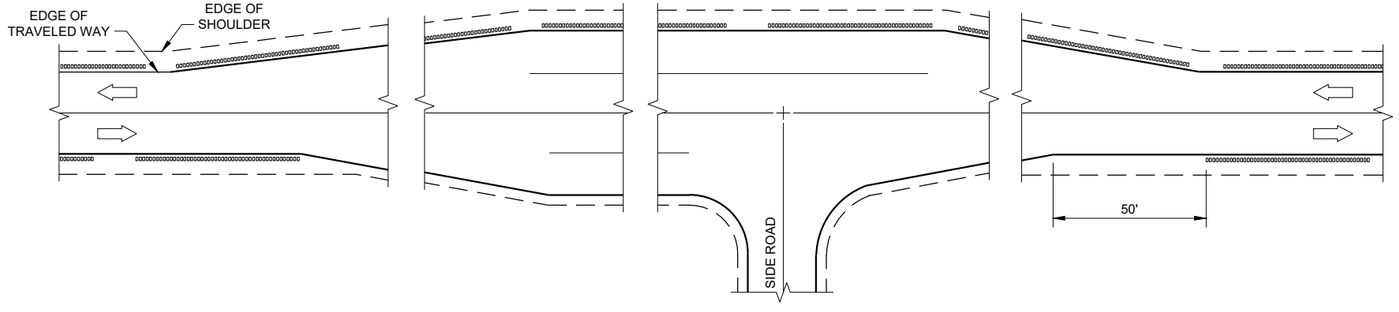
6
SDD 13A10 - 03g



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



GROOVES AT BYPASS LANES

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SDD 13A10 - 03h

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ John Jenkins
ROADWAY STANDARDS DEVE ENGINEER

FHWA

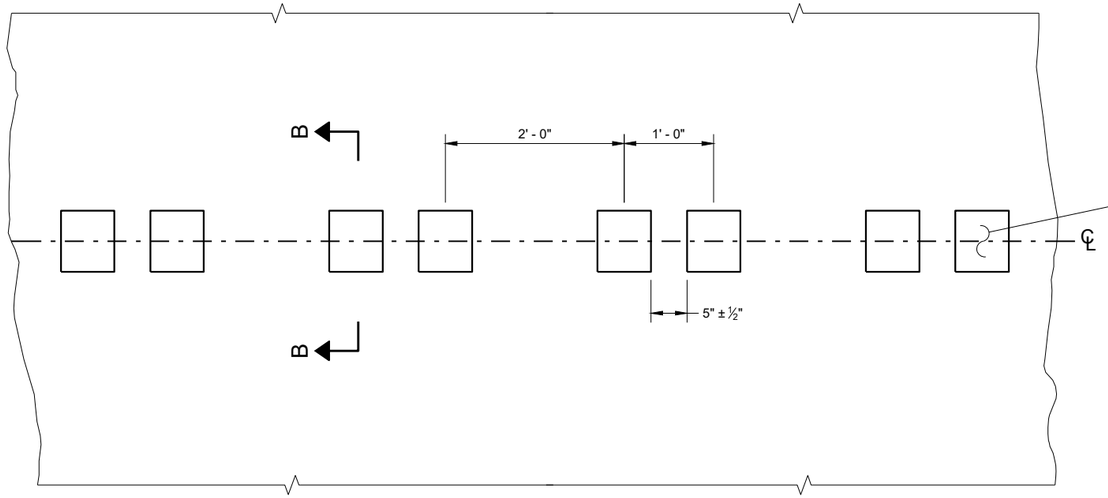
6

SDD 13A10 - 03h

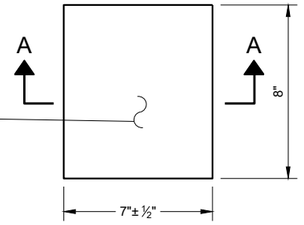
GENERAL NOTES

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

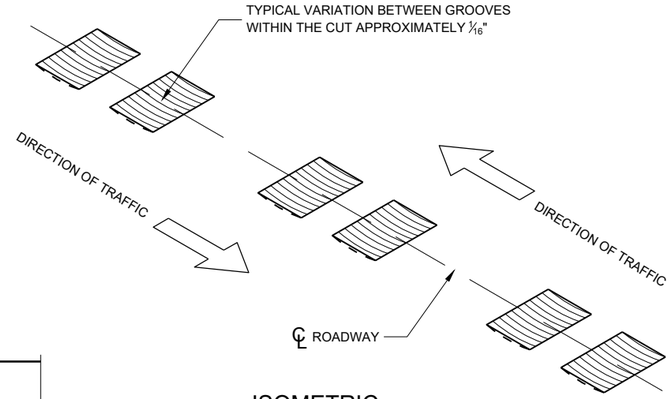
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



PLAN DETAIL VIEW



PLAN VIEW (SINGLE GROOVE)



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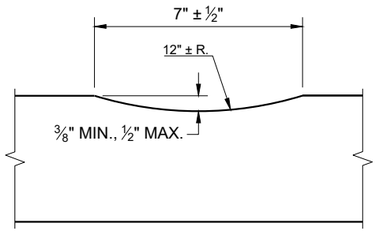
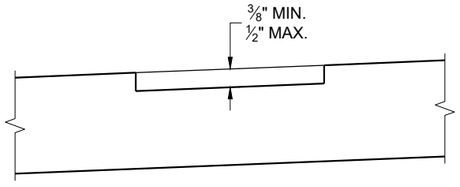
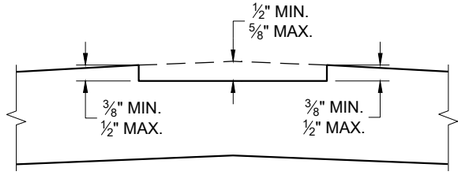


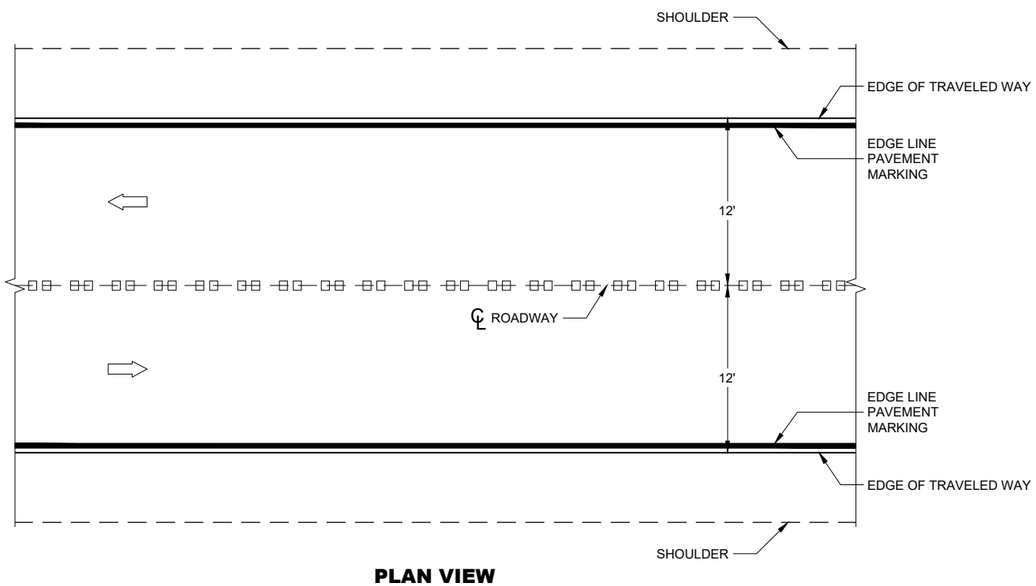
SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

CENTERLINE RUMBLE STRIPS - ASPHALT

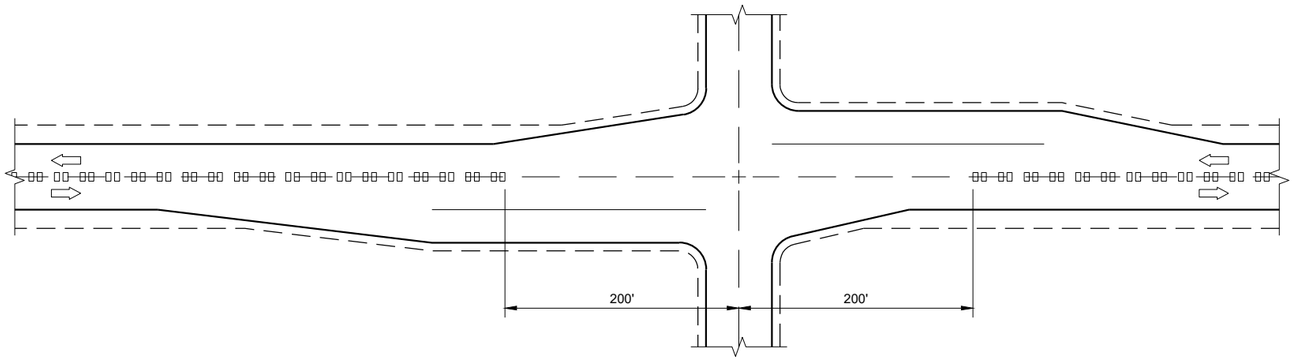
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A11 - 04a

6

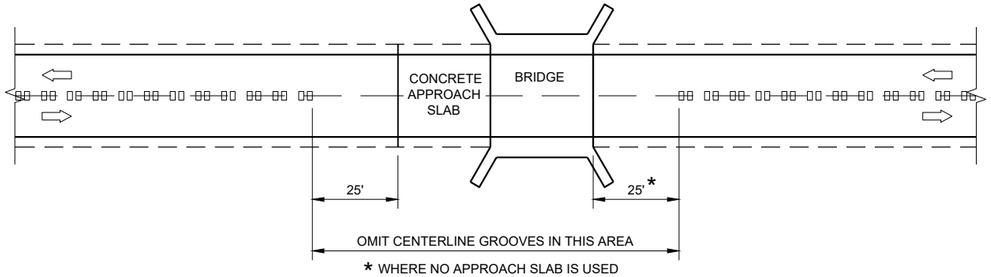
SDD 13A11 - 04a



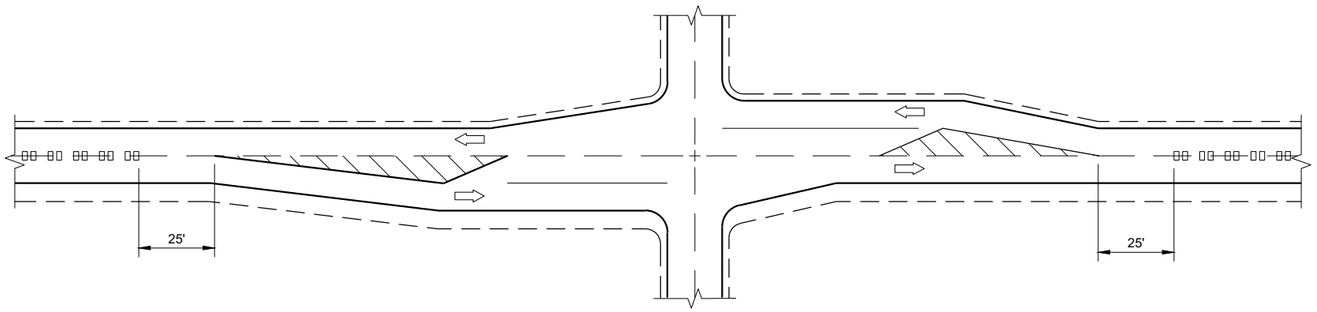
CENTERLINE GROOVES AT INTERSECTIONS

GENERAL NOTES

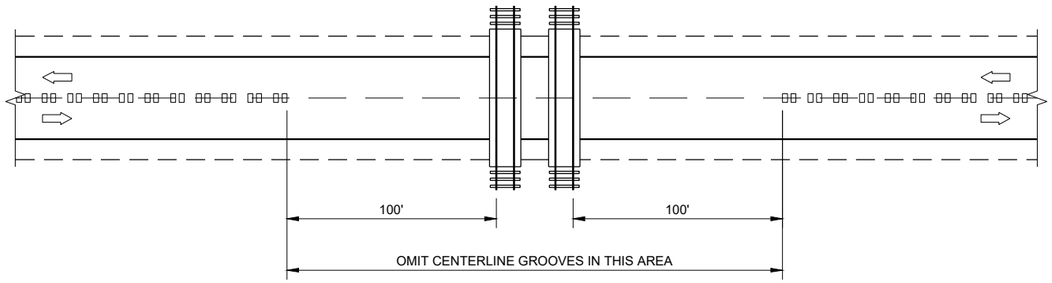
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



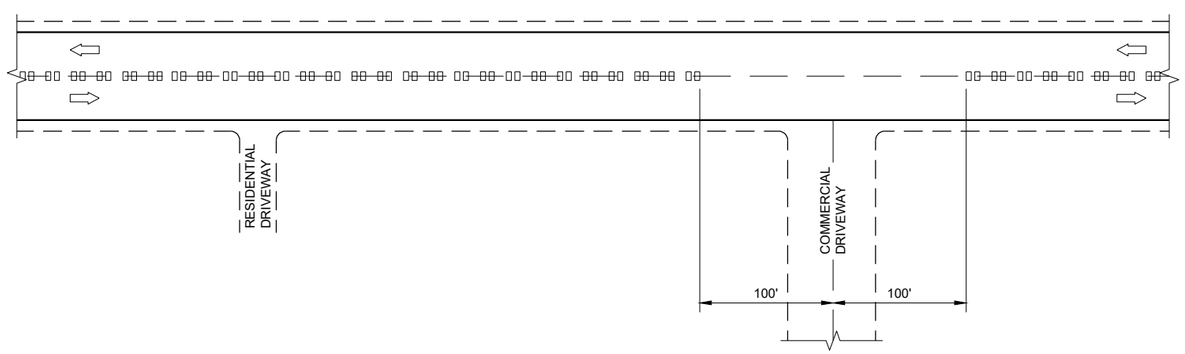
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

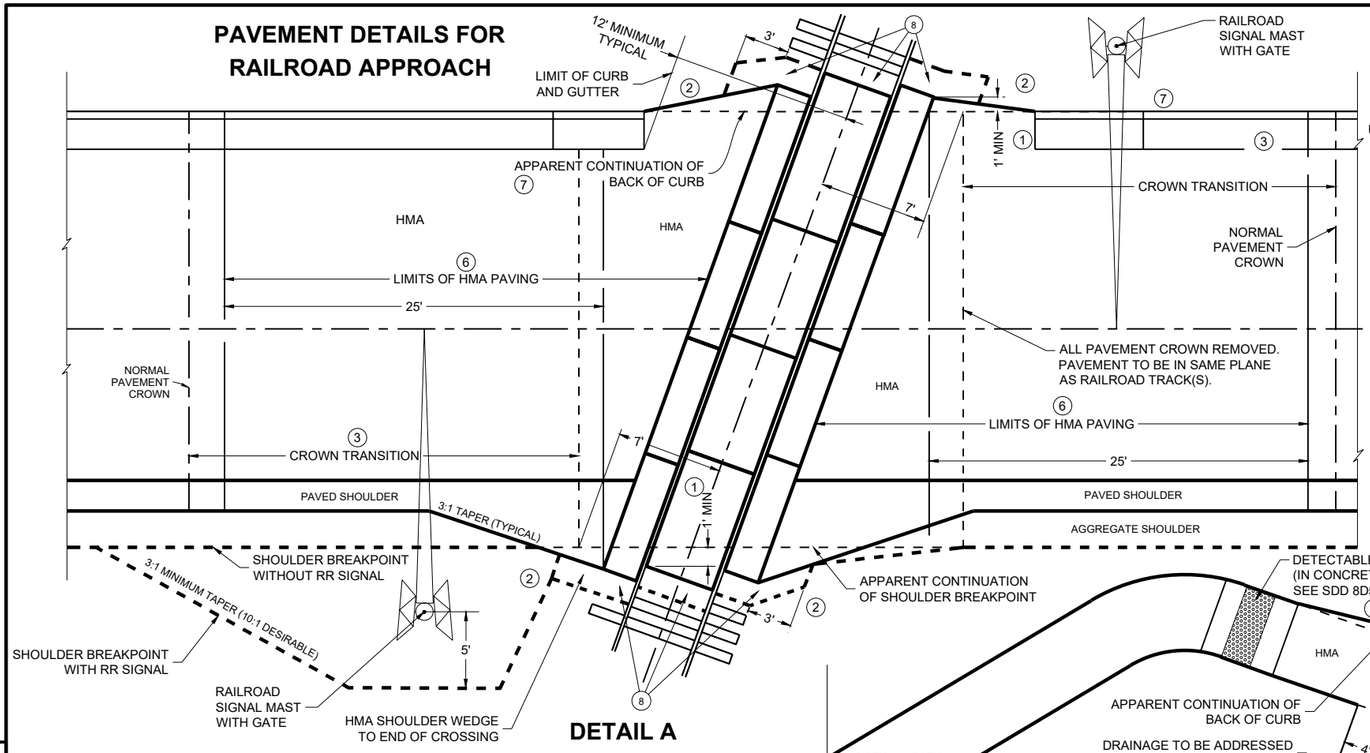
FHWA

6

SDD 13A11 - 04d

SDD 13A11 - 04d

PAVEMENT DETAILS FOR RAILROAD APPROACH



DETAIL A
RAILROAD APPROACH

GENERAL NOTES CONTINUED

(1) 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.

(2) HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.

(3) CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

(4) NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.

(5) TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.

(6) 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.

(7) REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

(8) IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.

GENERAL NOTES

PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.

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

CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.

HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGEWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.

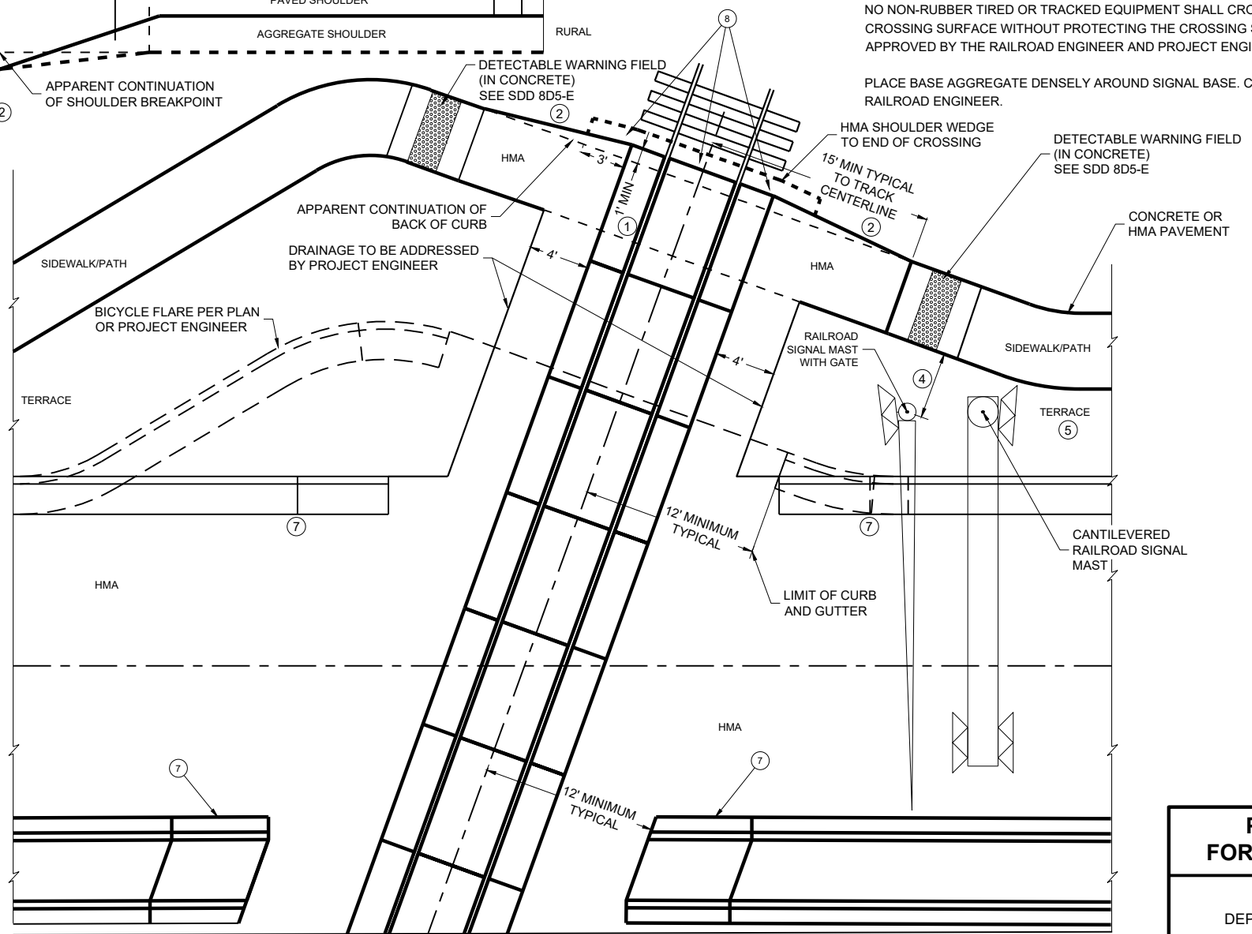
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.

THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

NO NON-RUBBER TIRED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.

PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.



DETAIL B
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

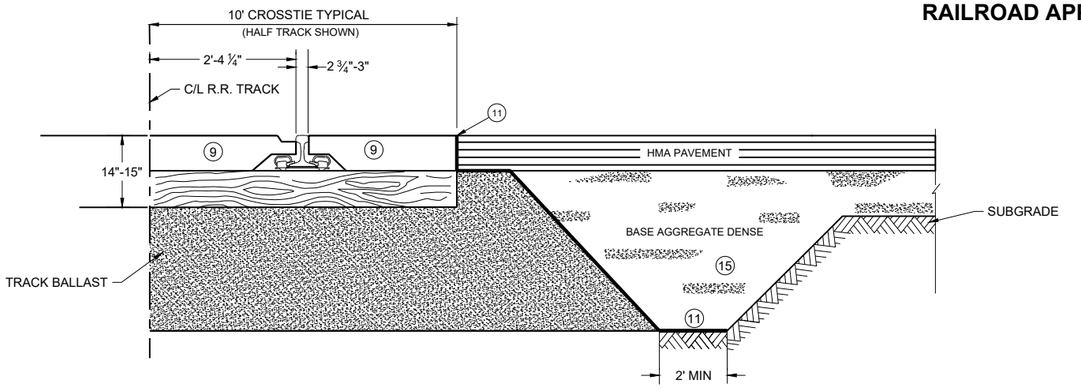
/S/ Kristen Sommers
STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR

FHWA

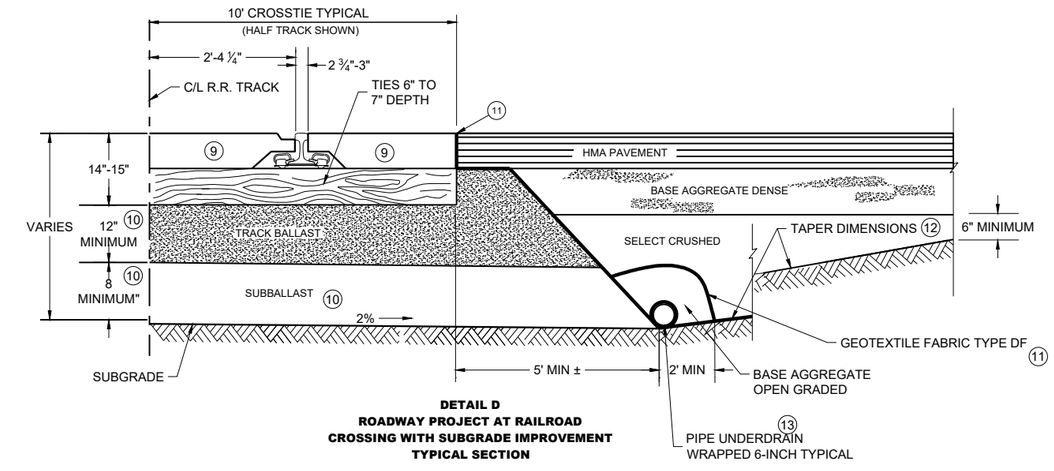
6

SDD 13B01-11a

TYPICAL SECTIONS FOR RAILROAD APPROACH



DETAIL C
ROADWAY PROJECT AT RAILROAD
CROSSING WITHOUT SUBGRADE IMPROVEMENT
TYPICAL SECTION



DETAIL D
ROADWAY PROJECT AT RAILROAD
CROSSING WITH SUBGRADE IMPROVEMENT
TYPICAL SECTION

GENERAL NOTES

(8) IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL A AND B.

(9) MATCH THE CROSSING TYPE THAT IS INSTALLED UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.

(10) TRACK BALLAST AND SUBBALLAST REQUIRED 12" AND 8" MINIMUM DEPTHS RESPECTIVELY. DIMENSION FROM BOTTOM OF TRACK TIE TO HIGH SIDE OF 2% SLOPE. THE 2% SLOPE IS REQUIRED ON RAILROAD SUBBALLAST. SEE PLAN FOR CROWN, MATERIAL THICKNESS, AND SLOPE DIRECTION. SUBBALLAST CAN BE HMA, 1 1/2" BASE AGGREGATE DENSE, SELECT CRUSHED, OR A COMBINATION OF THEM.

(11) GEOTEXTILE FABRIC TYPE SAS PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION ON TOP OF THE TRACK BALLAST WHERE IT IS UNDER HMA PAVEMENT, BASE AGGREGATE DENSE OR SELECT CRUSHED MATERIAL AND THE FIELD SIDE BALLAST CRIBS. GEOTEXTILE FABRIC TYPE DF PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION UNDER AND AROUND THE PIPE UNDERDRAIN. PLACING GEOTEXTILE FABRIC OR GEOGRID UNDER THE SUBBALLAST IS OPTIONAL.

(12) TAPER DIMENSIONS PROVIDED BY PLAN OR BY PROJECT ENGINEER.

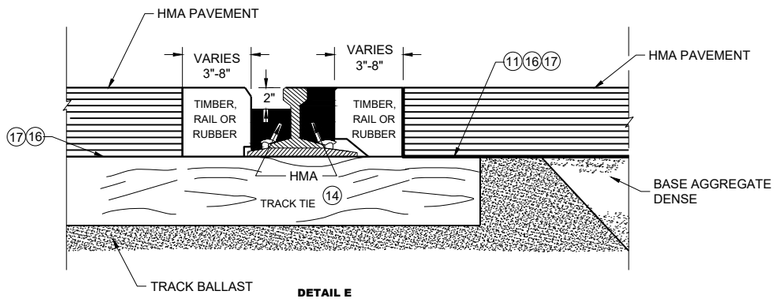
(13) IF SHOWN ON THE PLAN, TYPICAL 6-INCH PERFORATED PVC SCHEDULE 80 PIPE UNDERDRAIN TO BE PLACED ALONG THE TOE OF SLOPE, GRADED TO DRAIN AND DAYLIGHT OR INTO STORM SEWER. BASE AGGREGATE OPEN GRADED OVER PIPE UNDERDRAIN AND THEN WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE A IN ORDER TO STABILIZE AND SEPARATE FROM SELECT CRUSHED.

(14) HMA FLANGEWAY AND FIELD FILLERS ARE TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR, WHEN NOT PROVIDED BY OTHERS AS PART OF THE CROSSING SURFACE MATERIAL. IF THE CROSSING SURFACE IS NOT BEING REPLACED, THEN REMOVE AND REPLACE THE HMA FLANGEWAY AND FIELD FILLERS AS DIRECTED BY THE RAILROAD OR PROJECT ENGINEER.

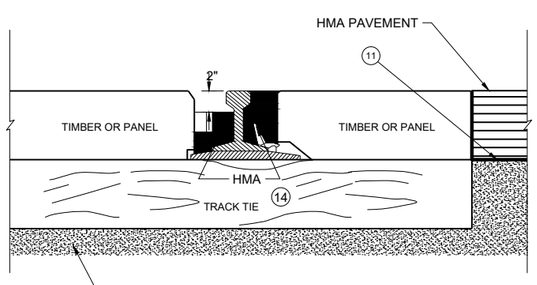
(15) GRADE TO MATCH EXISTING OR PROPOSED TYPICAL SECTION OF ROADWAY. SEE PLAN OR PROJECT ENGINEER FOR MORE DETAIL. IF NOT NOTED OTHERWISE IN THE PLAN, BACKFILL ANY REMOVED BASE AND SUBGRADE WITH BASE AGGREGATE DENSE.

(16) IF THE CROSSING IS NOT BEING REPLACED, REMOVE AND REPLACE HMA AS DIRECTED BY RAILROAD AND PROJECT ENGINEER. CARE MUST BE TAKEN TO NOT DAMAGE CROSSING PANELS, TIES, RAIL, PLATES AND SPIKES.

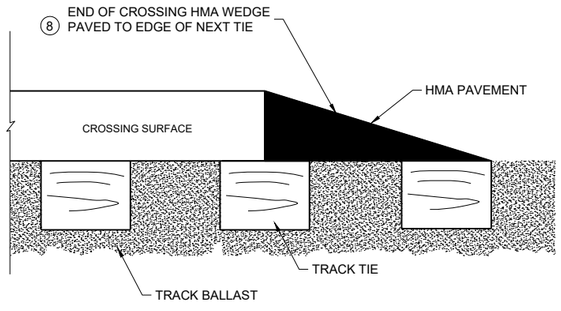
(17) PLACE HMA FULL DEPTH. AGGREGATE IS NOT TO BE PLACED BETWEEN THE RAILROAD TIES AND THE HMA PAVEMENT.



DETAIL E
TIMBER, RAIL OR RUBBER SECTION
HMA FLANGEWAY
AND FIELD FILLERS



DETAIL F
PANEL SECTION
HMA FLANGEWAY
AND FIELD FILLERS



DETAIL G
END OF CROSSING HMA WEDGE

TYPICAL SECTIONS FOR RAILWAY APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Kristen Sommers
STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR

FHWA

6

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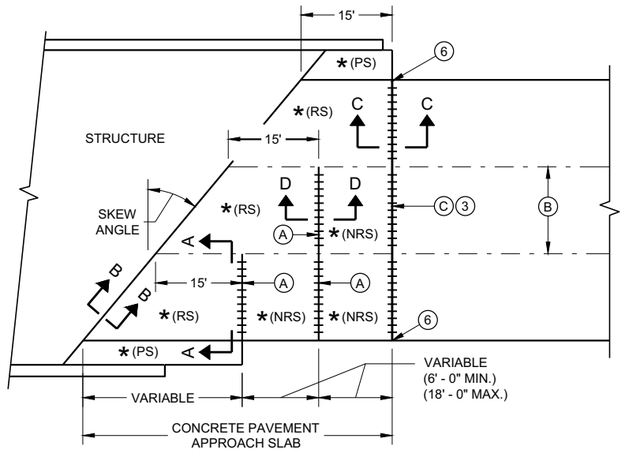
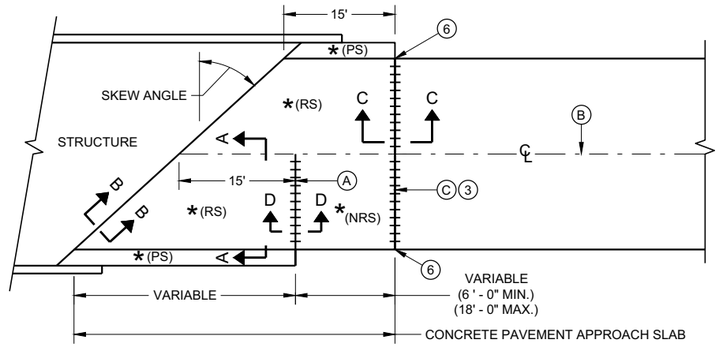
6

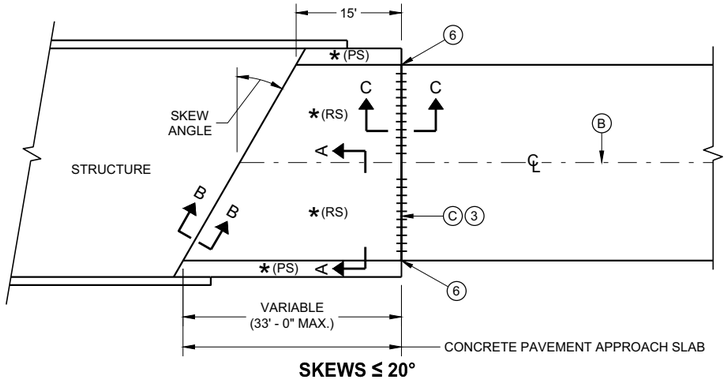
SDD 13B01-11b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

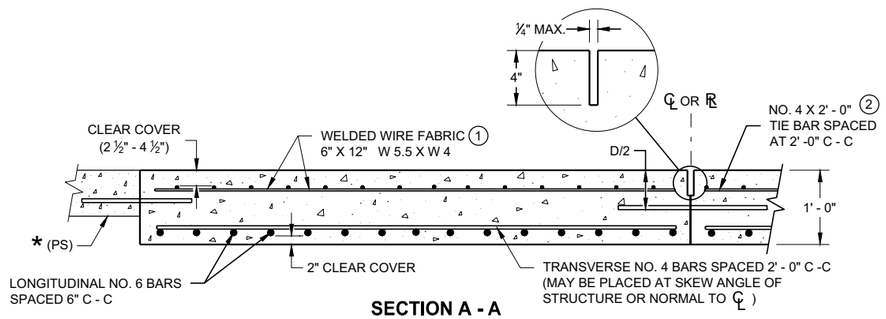
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

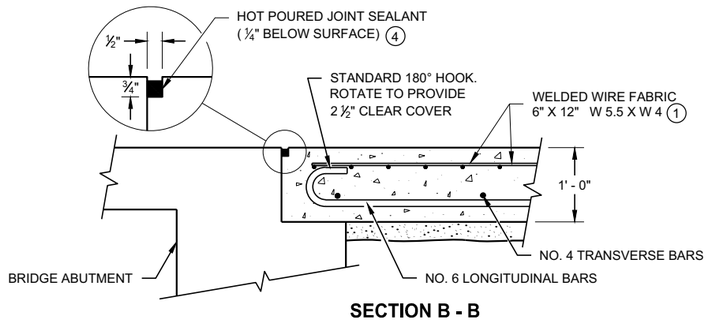
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

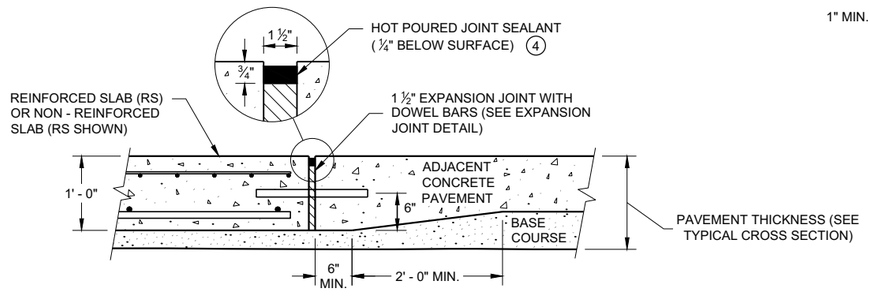
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

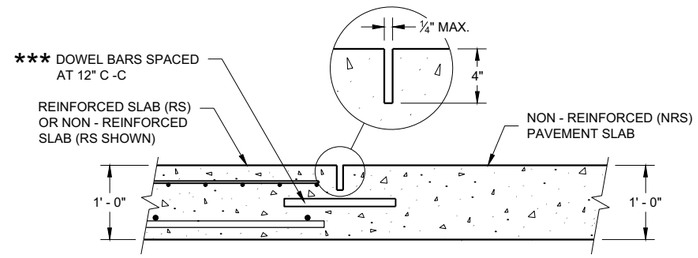
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

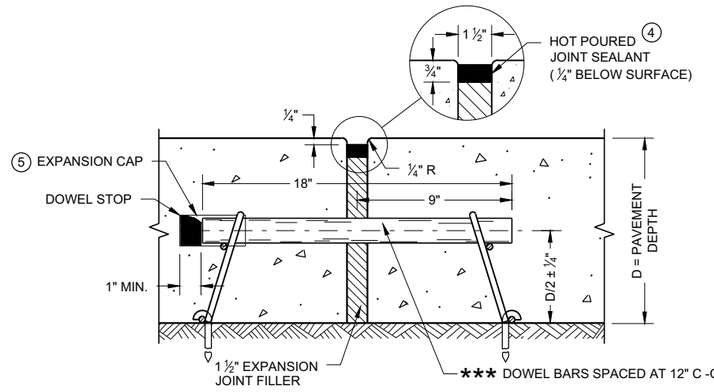
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

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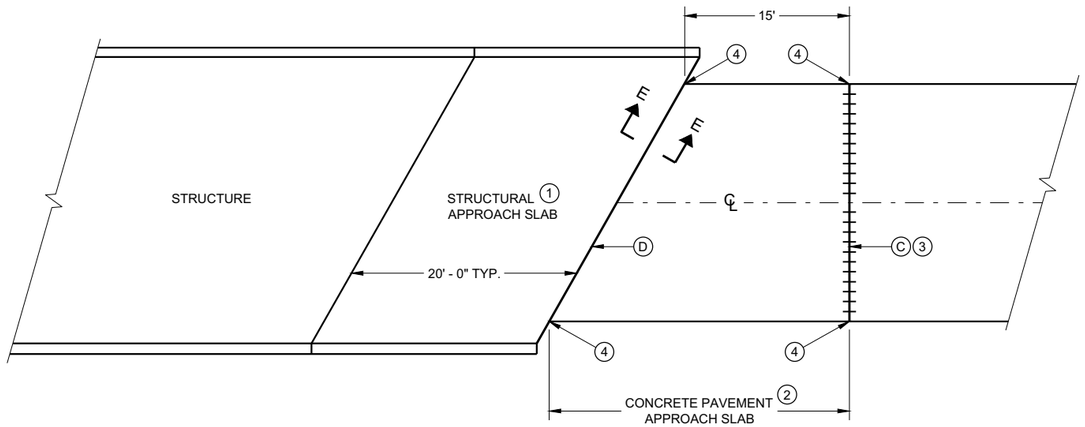
SDD 13B02 - 09a



BRIDGE APPROACHES

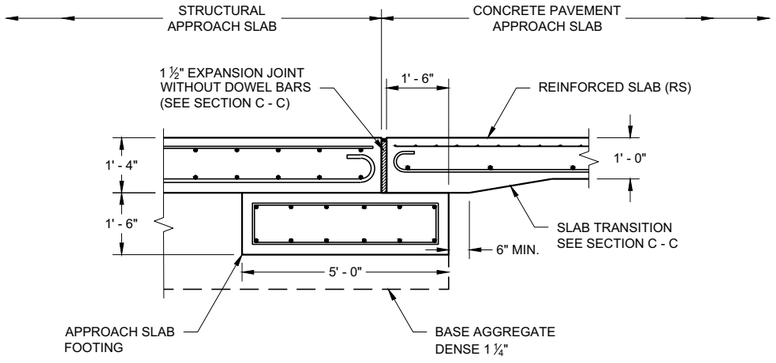
GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

1. SEE BRIDGE PLAN.
2. CONFORM TO SDD 13B02 SHEET A FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS
3. DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
4. EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

C. 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞.

D. 1 ½" EXPANSION JOINT (NO DOWELS)



SECTION E - E
FOOTING DETAIL
STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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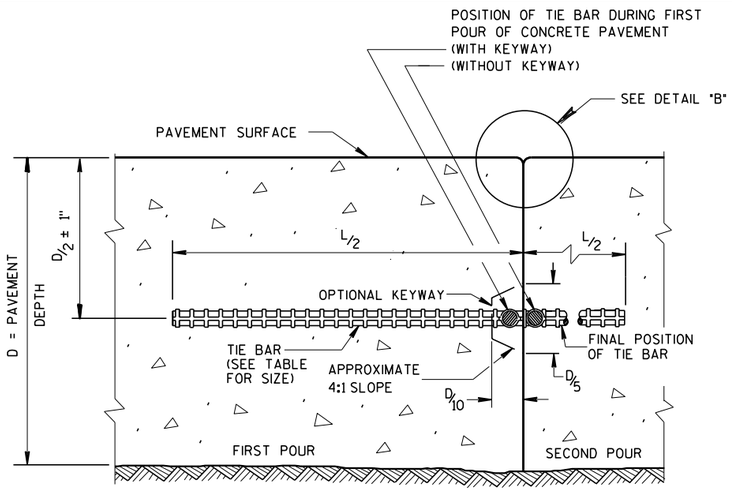
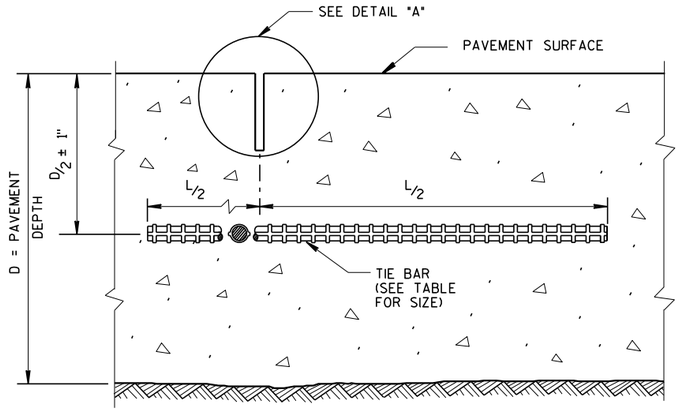
SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

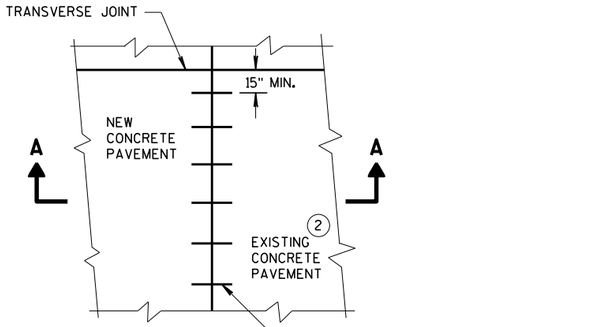
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

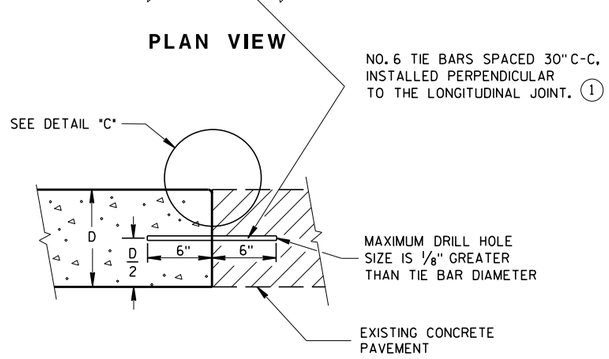
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

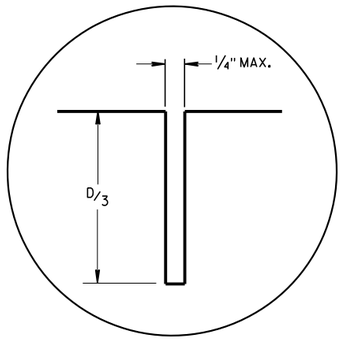


PLAN VIEW

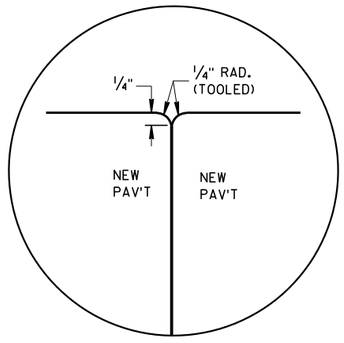


SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



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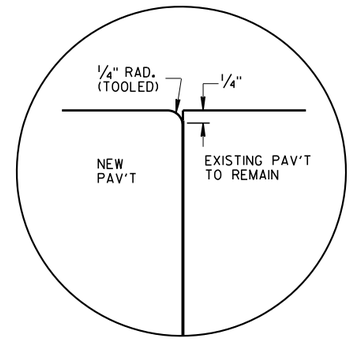


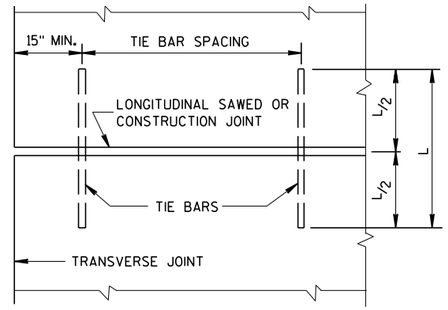
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPE
FHWA

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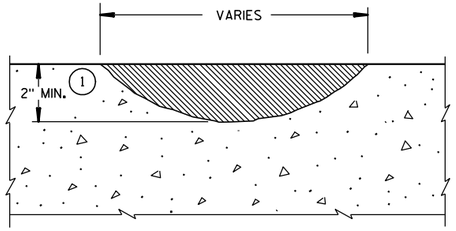
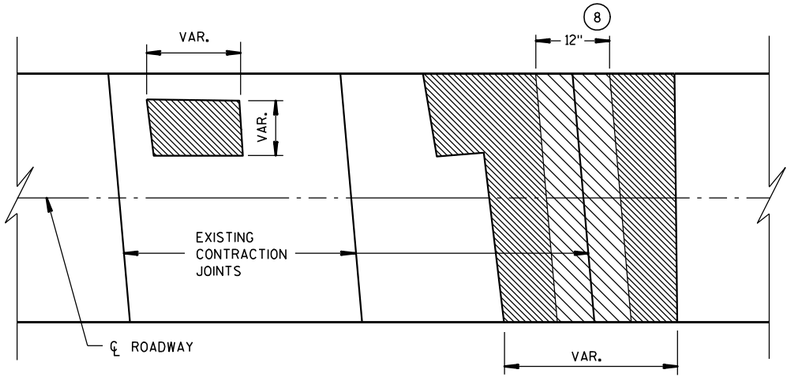
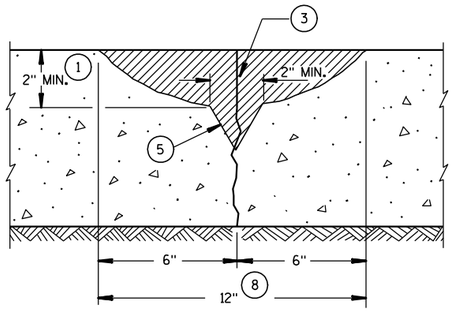


PROFILE VIEW

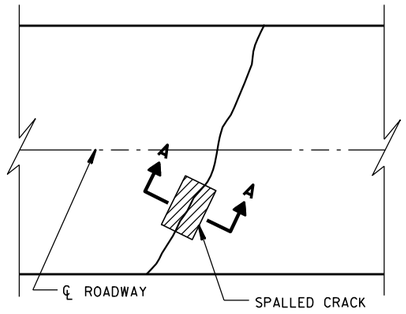


PLAN VIEW

SURFACE REPAIR



SECTION A-A

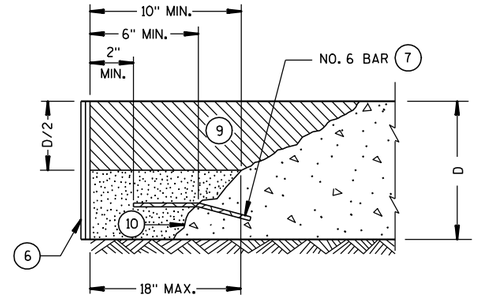


PLAN VIEW

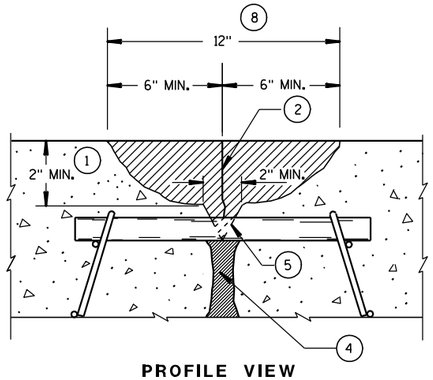
CRACK REPAIR

GENERAL NOTES

1. REMOVE ALL CONCRETE, TO LIMITS SHOWN, TO A MAXIMUM OF ½ THE PAVEMENT DEPTH OR TOP OF DOWELS.
2. IF REPAIR IS DEEPER THAN ANTICIPATED SAWCUT, COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
3. COMPRESSION RELIEF MATERIAL MUST BE USED. THE THICKNESS OF COMPRESSION RELIEF MATERIAL MUST BE EQUAL TO OR GREATER THAN THE WIDTH OF THE JOINT OR CRACK (1/4"). THIS MATERIAL SHOULD EXTEND FULL DEPTH OF THE REPAIR.
4. CLEAN, DRY SAND WHEN NECESSARY.
5. REMOVE UNSOUND MATERIAL BY CHIPPING AT 1:1 SLOPE.
6. ¼" MINIMUM PREFORMED JOINT FILLER IF ADJACENT TO CONCRETE. EDGING REQUIRED. FULLY FORMED EDGE IF ADJACENT TO SHOULDER.
7. PAVEMENT TIES AS SHOWN. ALL EMBEDMENTS 6" MINIMUM AND INSTALLED WITH GROUT.
8. OVER 12" (NOMINAL WIDTH) WILL BE PAID AS SURFACE REPAIR.
9. PAID AS JOINT OR CRACK REPAIR.
10. FULL-DEPTH ADJUSTMENT SHALL BE CHIPPED TO BOTTOM OF PCC PAVEMENT AT 1:1 SLOPE.
11. BEYOND 18" WILL BE PAID AS SURFACE REPAIR.

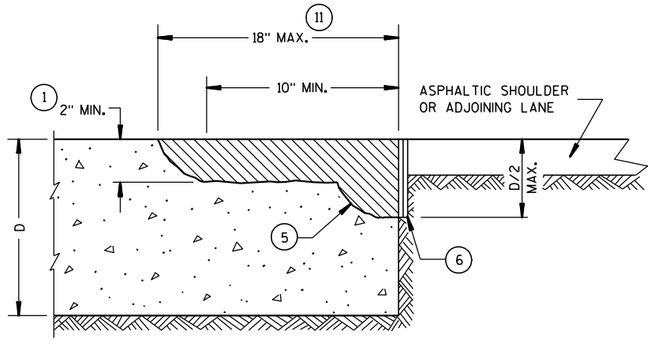


PROFILE VIEW

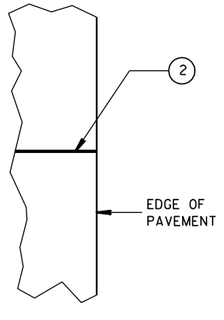


PROFILE VIEW

JOINT REPAIR

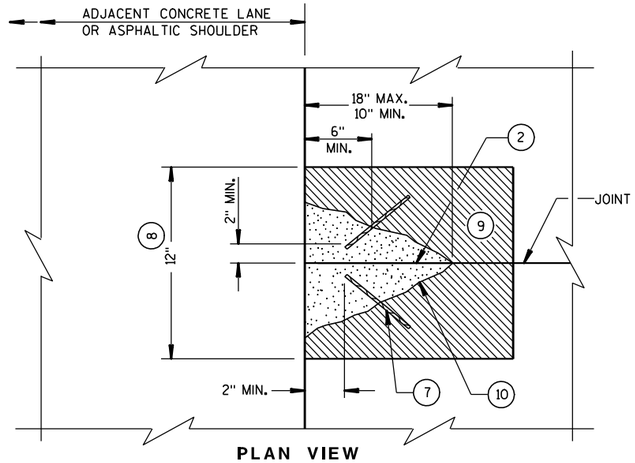


PROFILE VIEW



PLAN VIEW

EDGE REPAIR



PLAN VIEW

FULL DEPTH REPAIR ADJUSTMENT

CONCRETE PAVEMENT PARTIAL DEPTH REPAIR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/03 — DATE
/S/ Bill Ducker — PAVEMENT ENGR
FHWA

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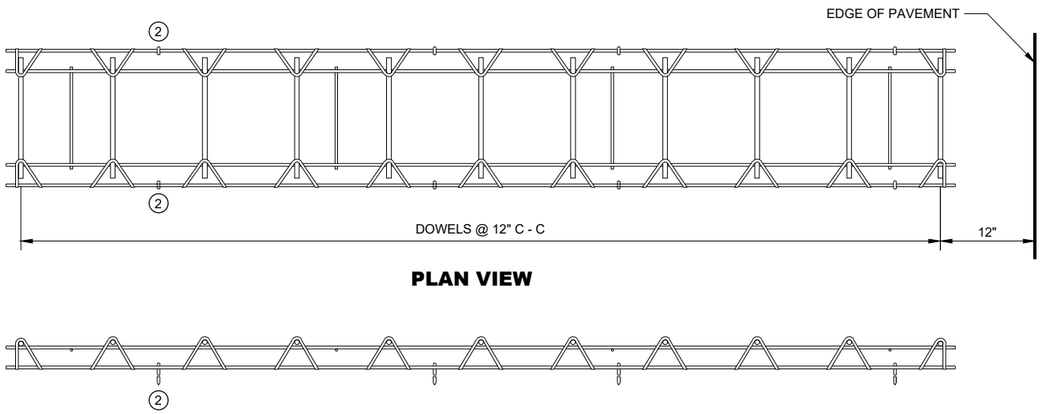
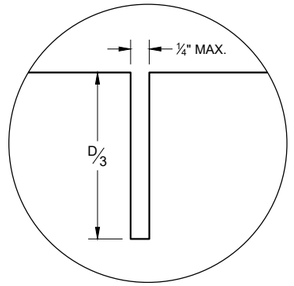


PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

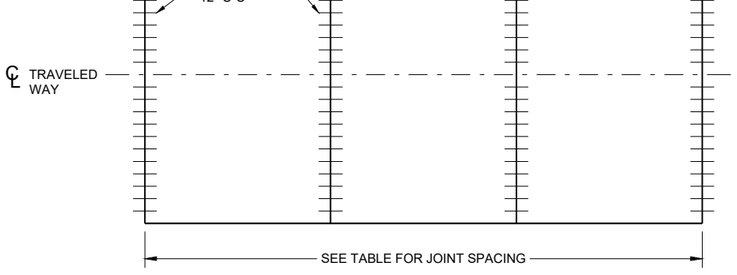
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

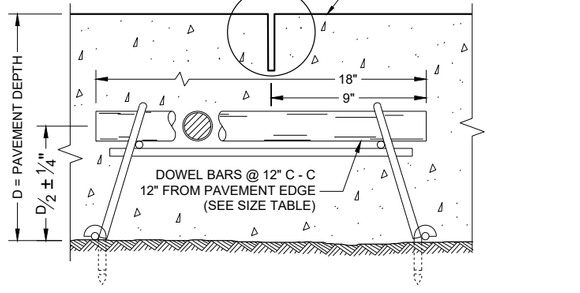
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



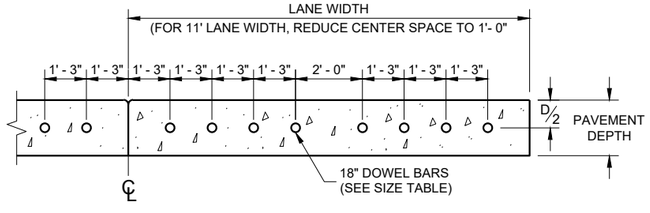
CONTRACTION JOINT LOCATIONS



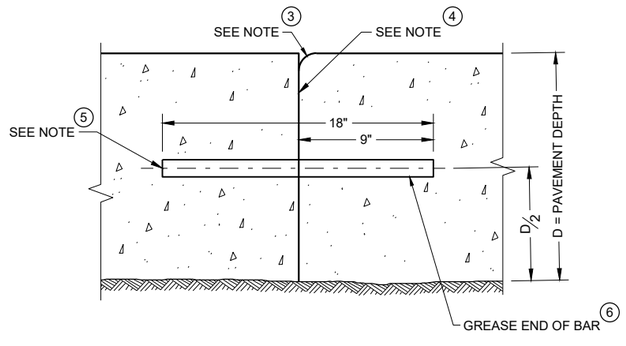
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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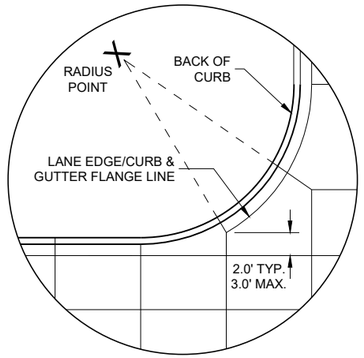
SDD 13C13 - 11



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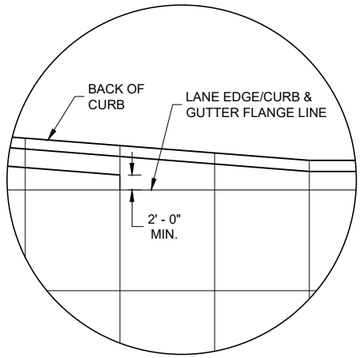

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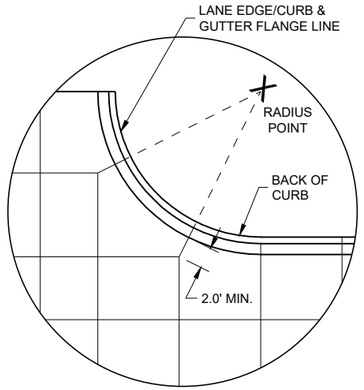
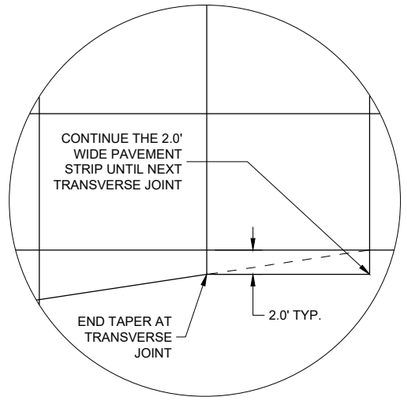


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

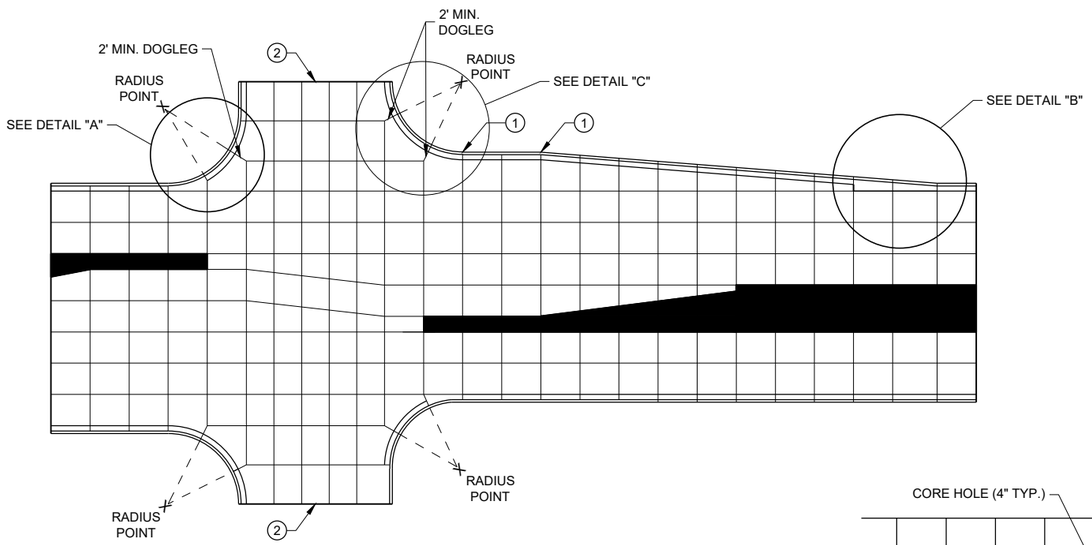
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

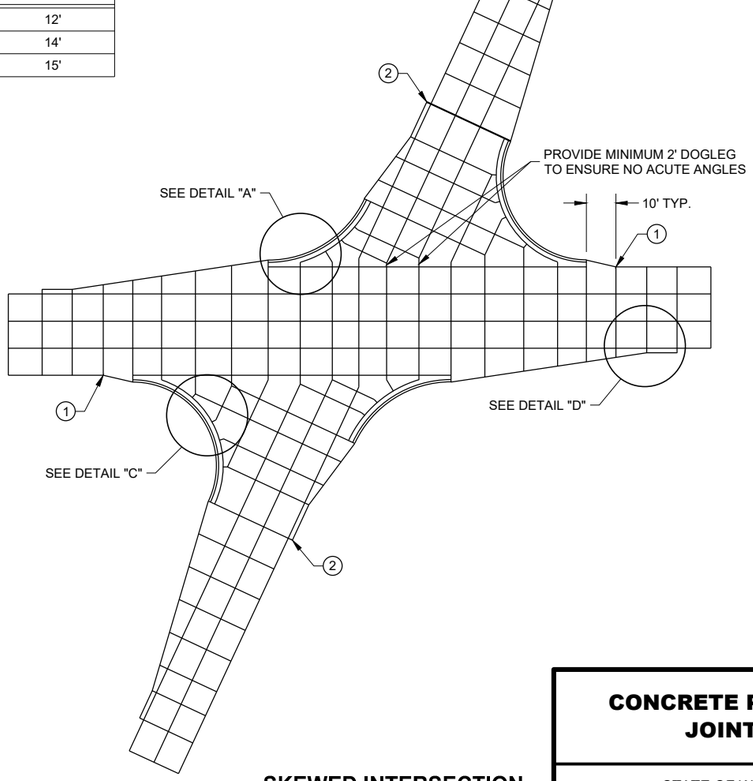
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



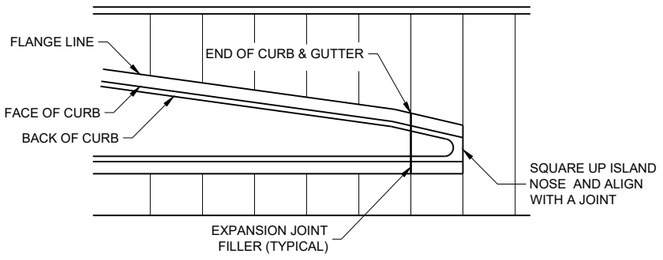
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

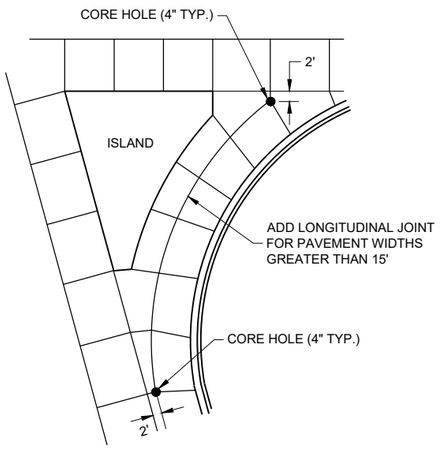
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 08a

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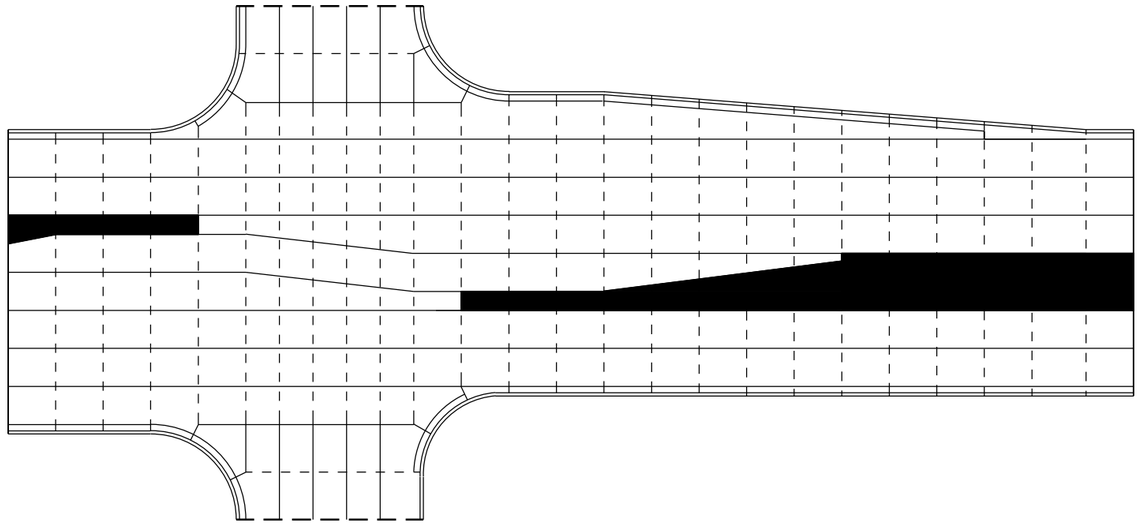
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

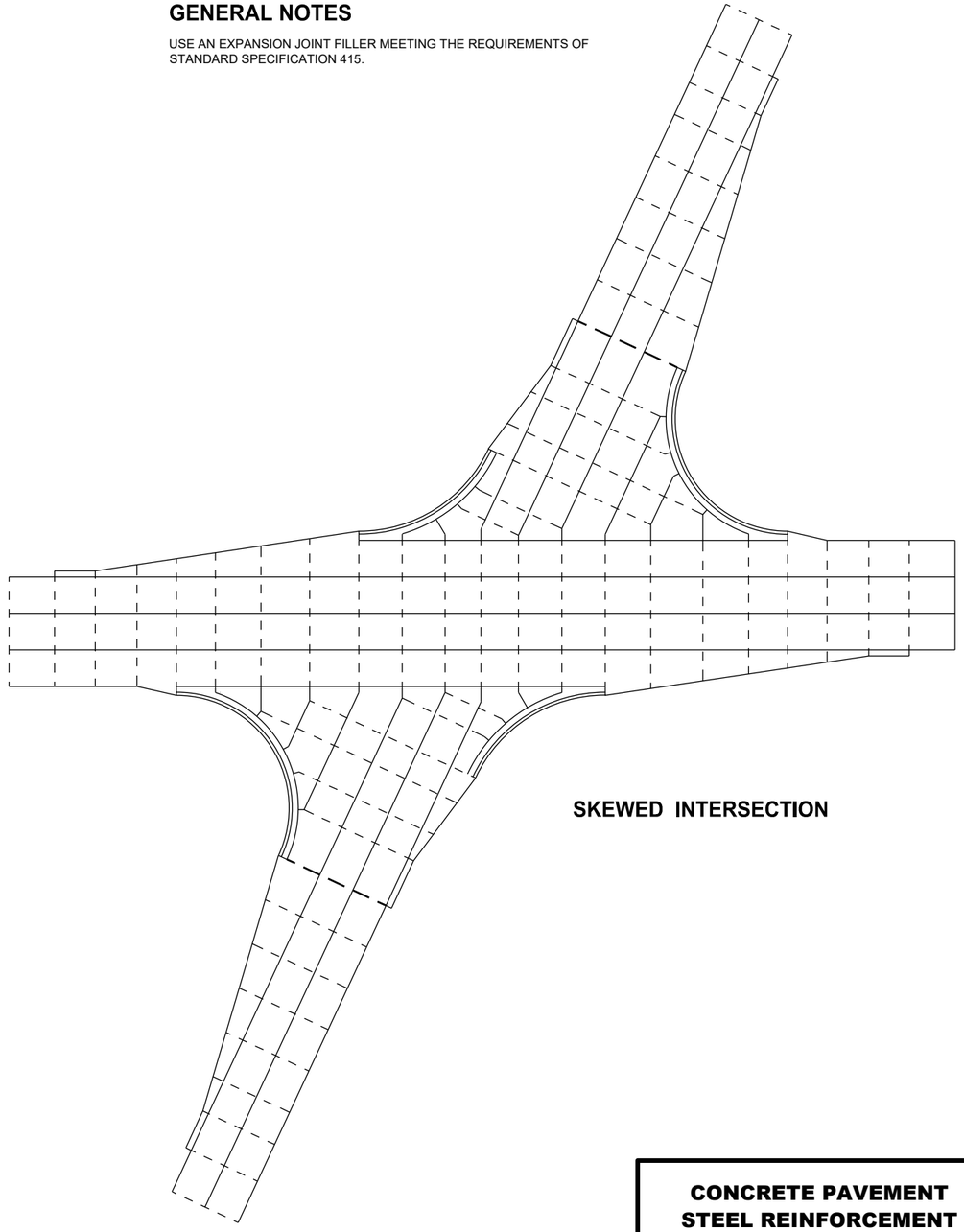
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

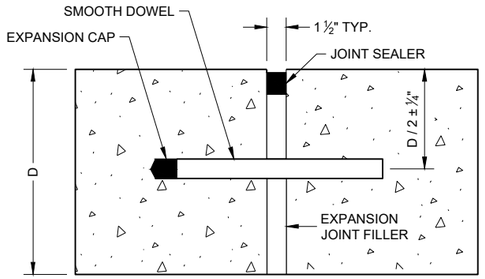
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

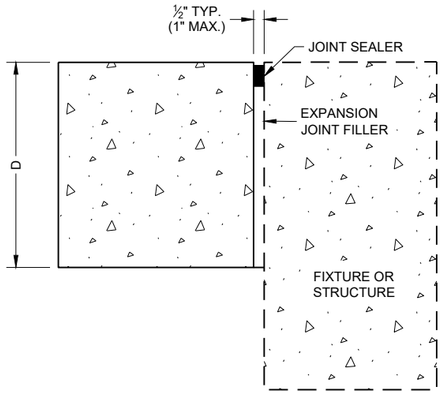
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

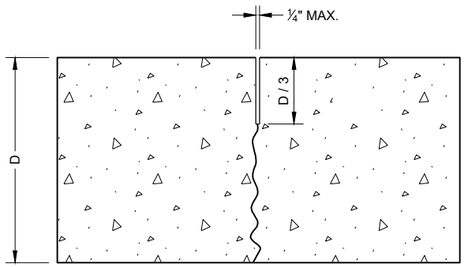
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

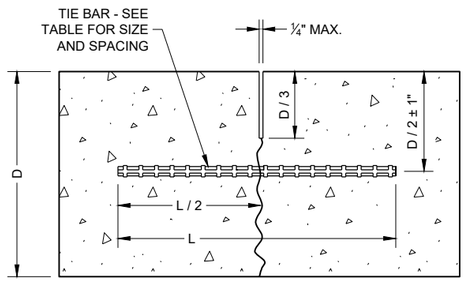
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

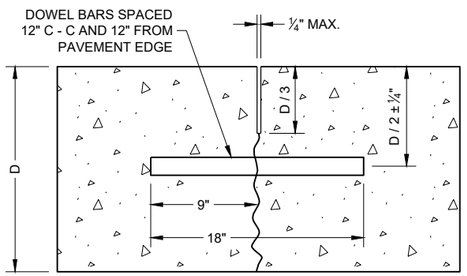
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

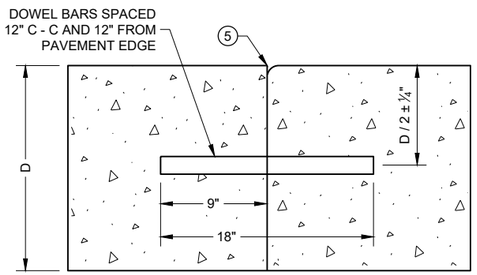


TIED LONGITUDINAL

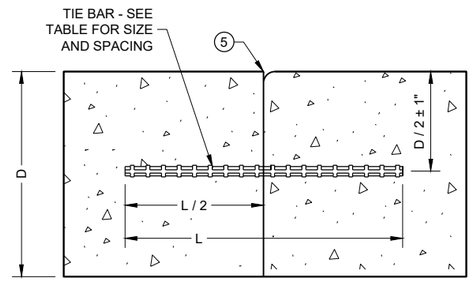


DOWELED TRANSVERSE

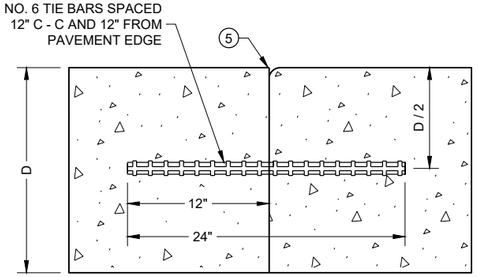
CONTRACTION JOINTS (2)



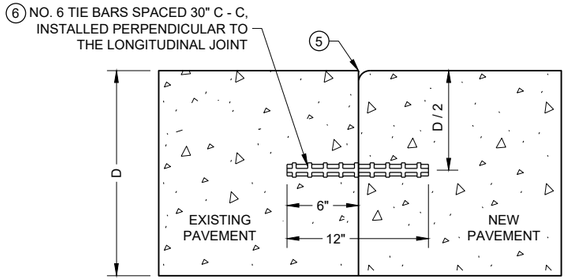
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

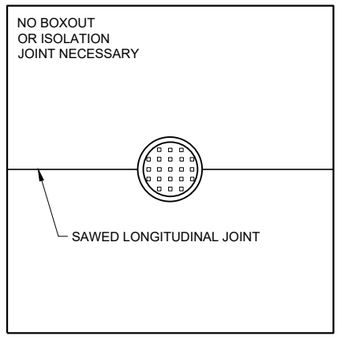
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

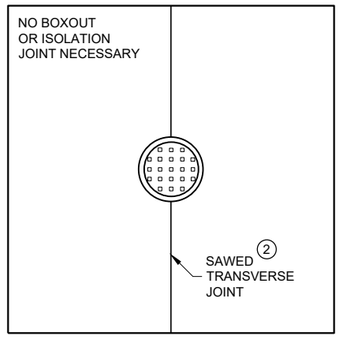
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

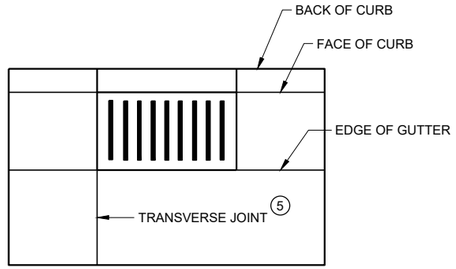
SDD 13C18 - 08c



MANHOLE WITH LONGITUDINAL JOINT



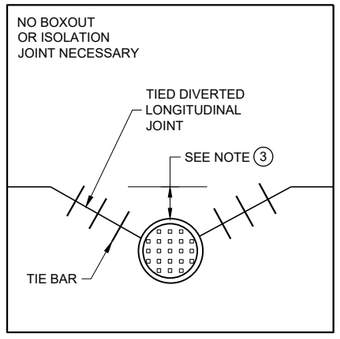
MANHOLE WITH TRANSVERSE JOINT



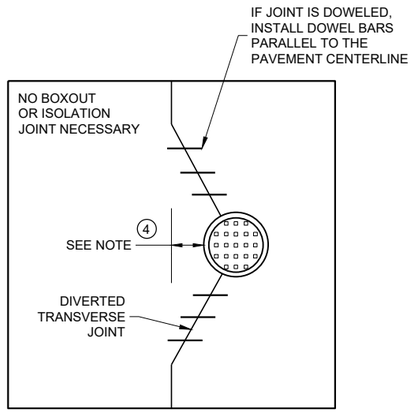
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

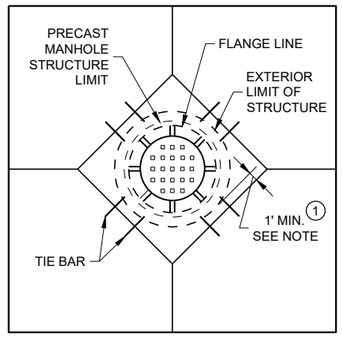
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

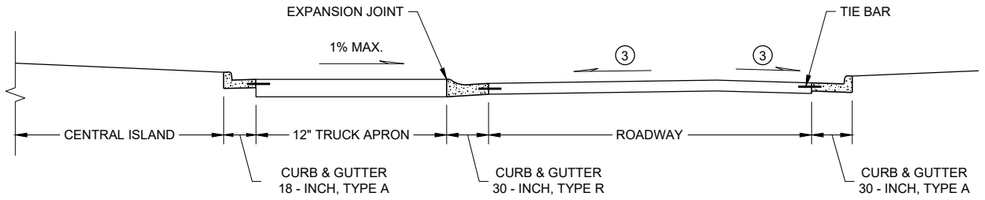
APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

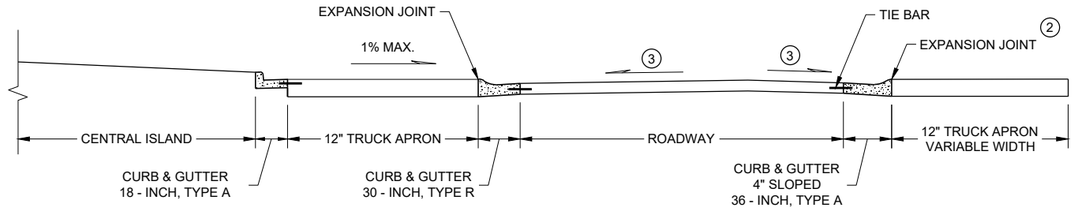
FHWA

6

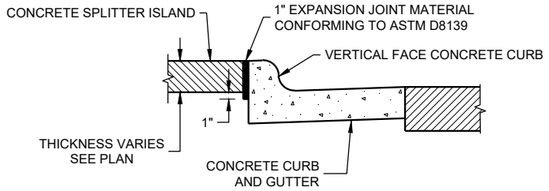
SDD13C18 - 08d



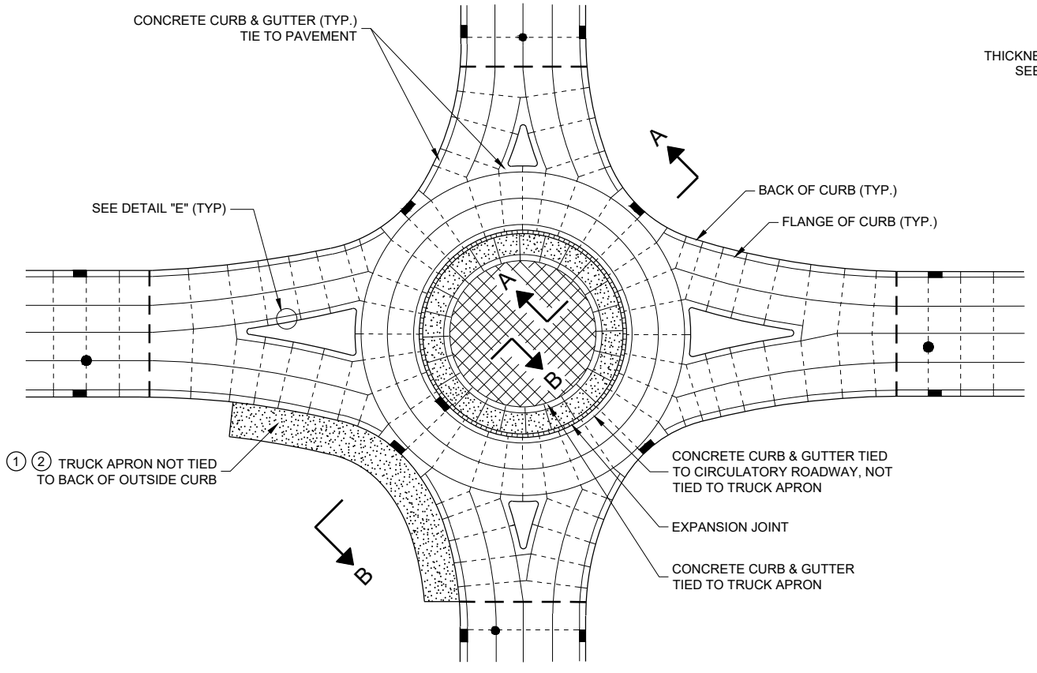
SECTION A - A



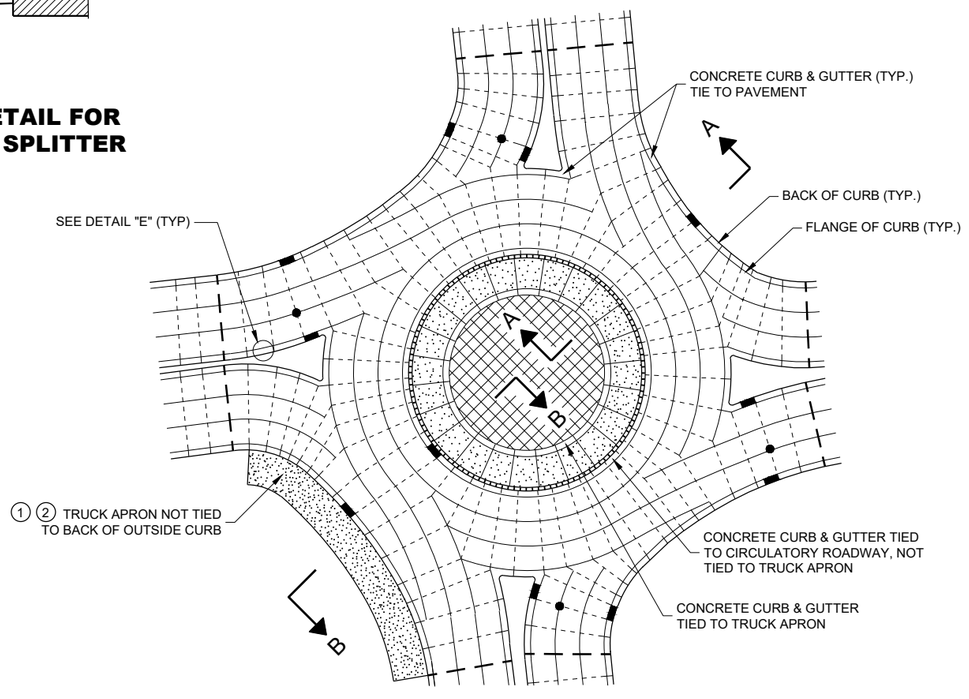
SECTION B - B



DETAIL 'E'
EXPANSION JOINT DETAIL FOR VERTICAL CURB AT A SPLITTER ISLAND



ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS



PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS

GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"

USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

(1) DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.

(2) TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.

(3) CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- TRUCK APRON
- CENTRAL ISLAND
- UTILITY STRUCTURES

CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS

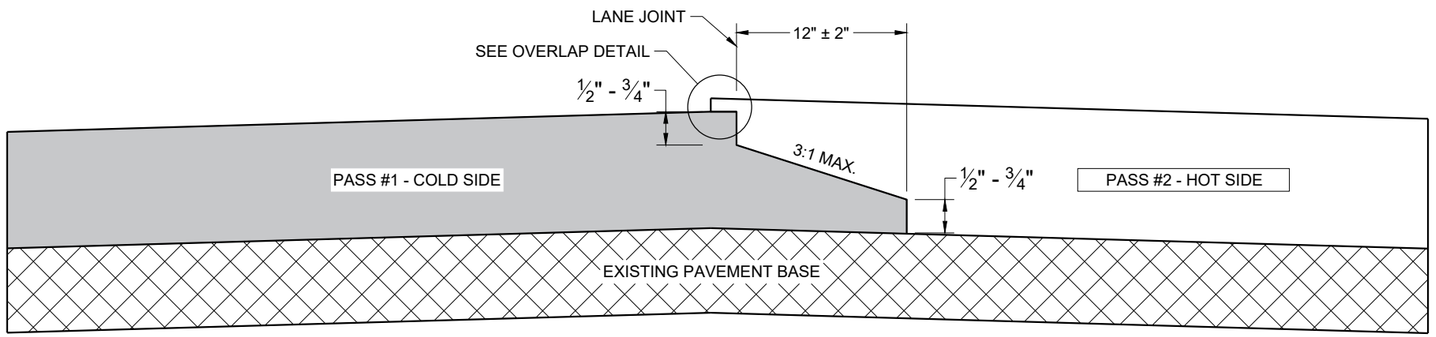
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

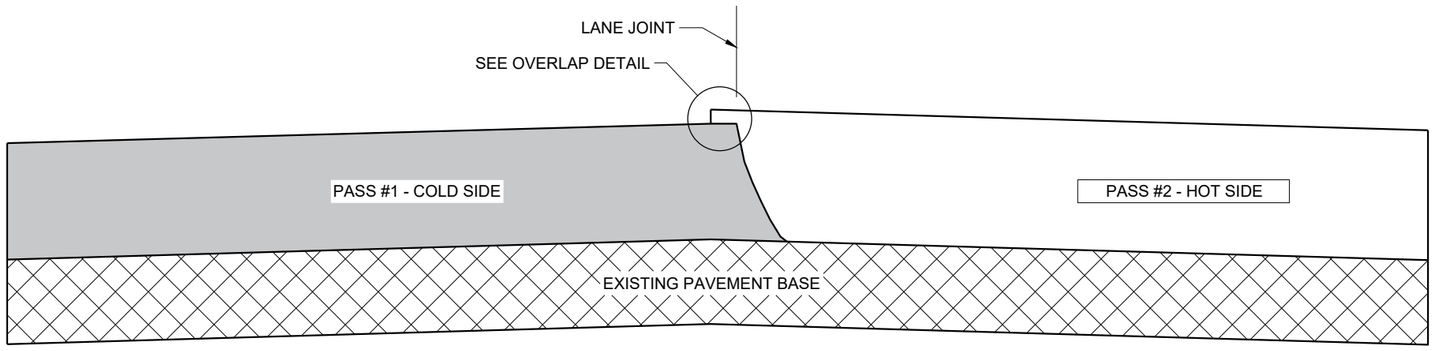
FHWA

6

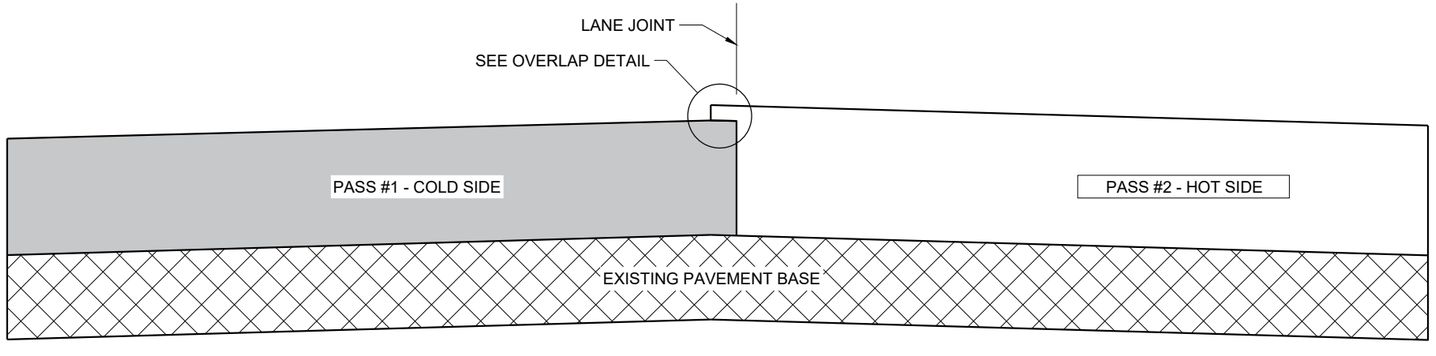
SDD 13C18 - 08e



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

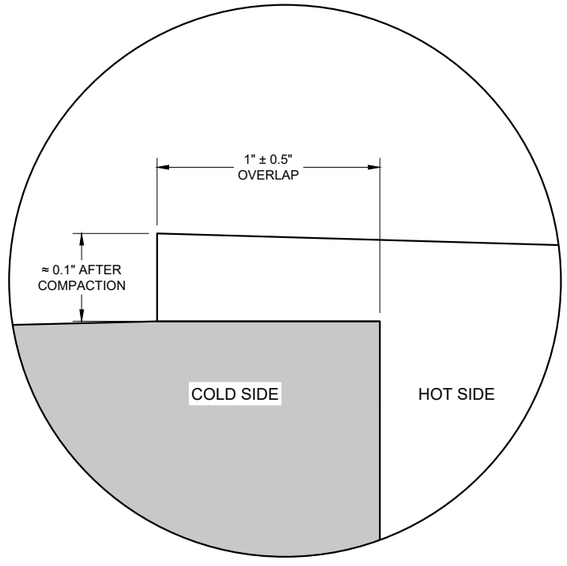
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

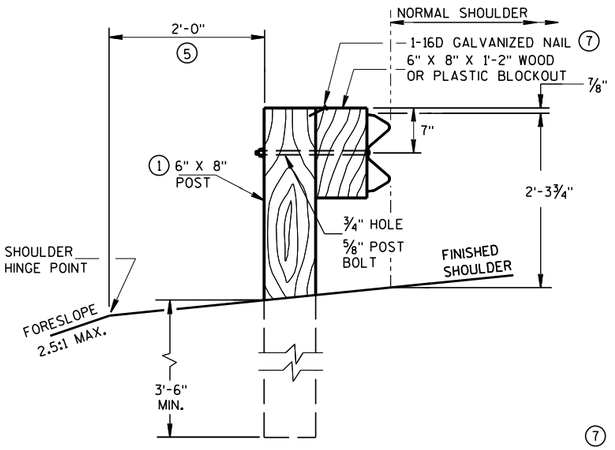
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

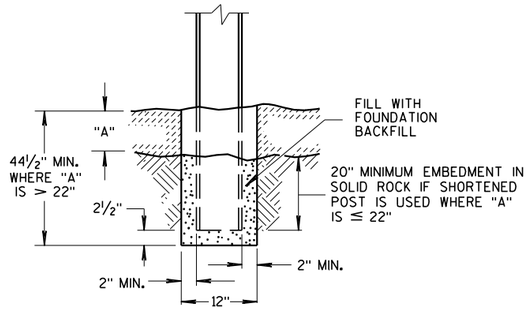
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

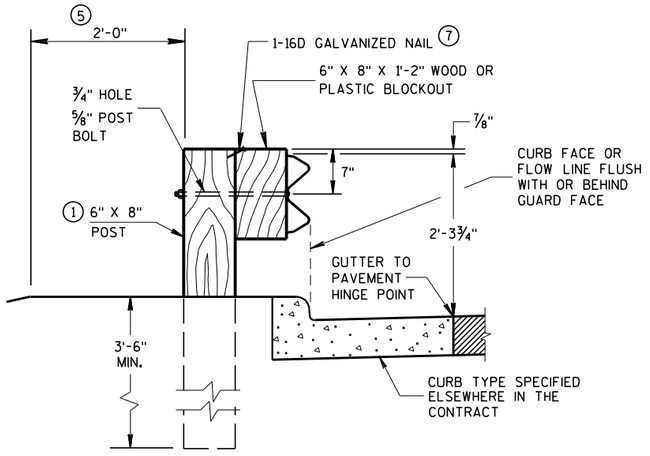
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



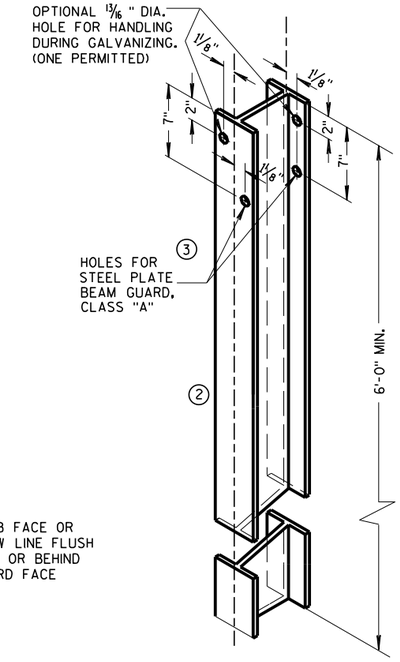
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

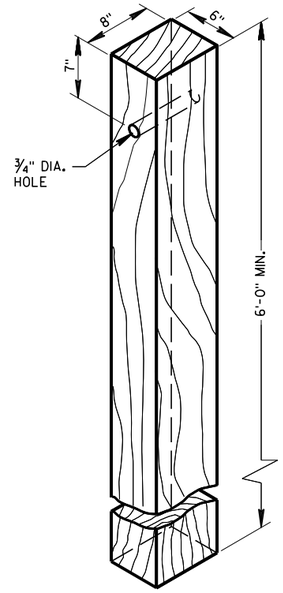


END VIEW
LOCATED ALONG A CURBED ROADWAY

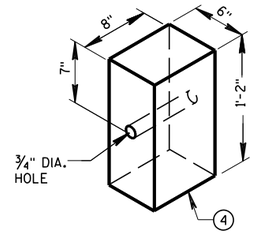


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

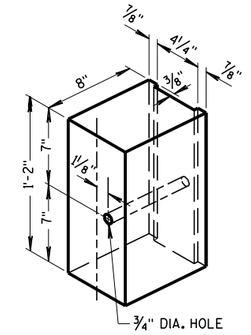
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



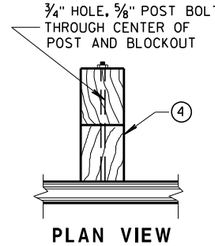
WOOD POST
(6"X8") NOMINAL



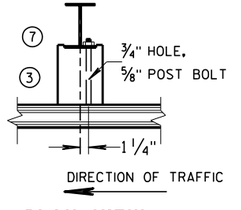
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



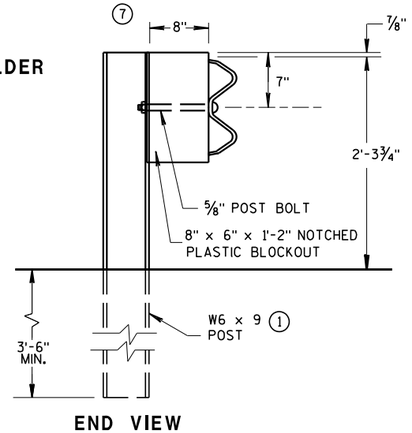
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



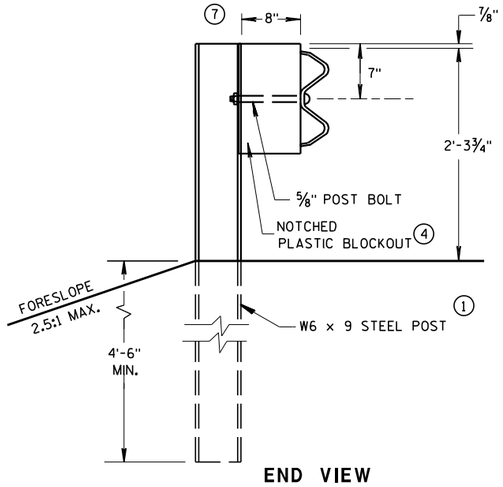
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



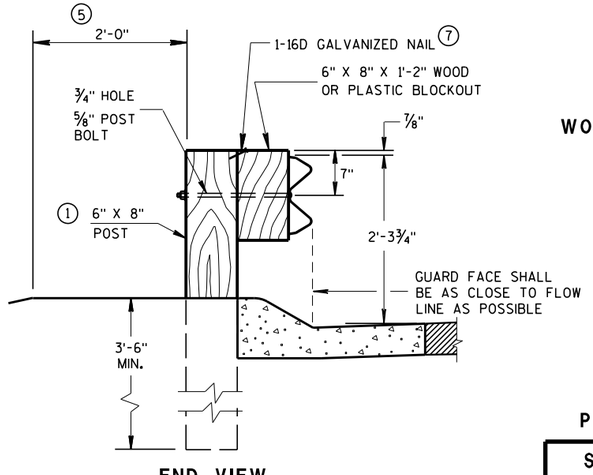
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

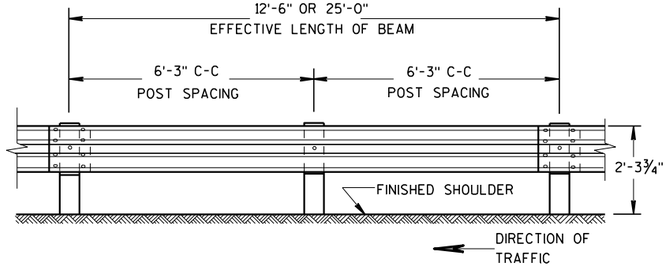


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

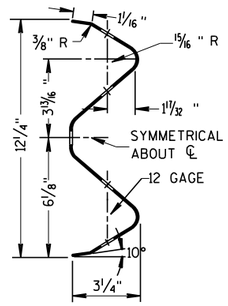
STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

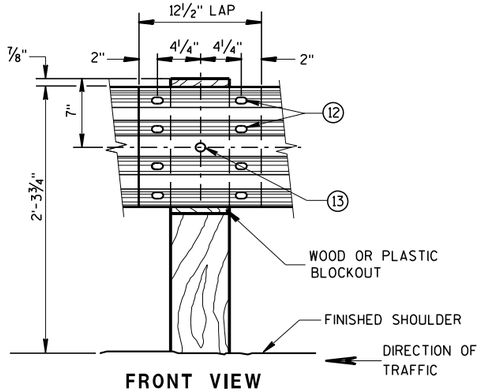


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

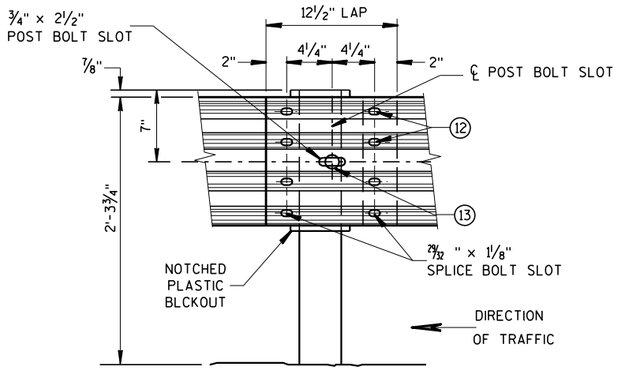
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

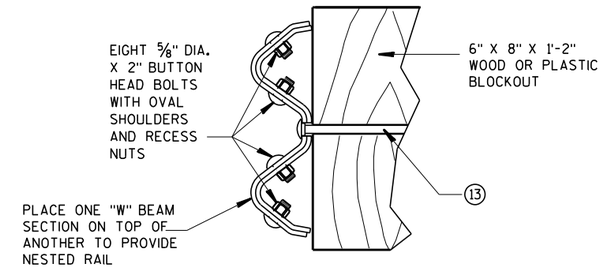
FRONT VIEW

POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

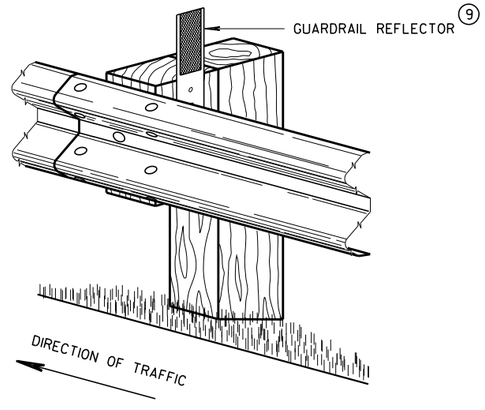


NESTED W BEAM (NW)

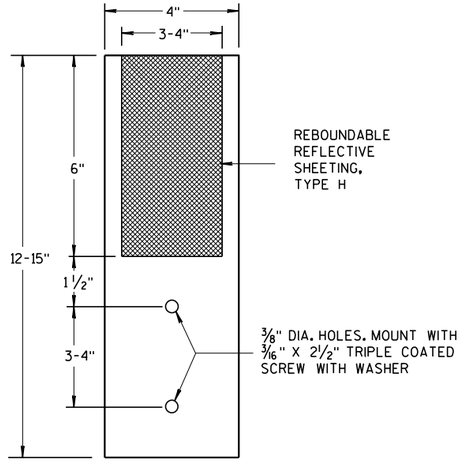
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

* USE DOUBLE SIDED WHITE GUADRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.



4" X 12" GUARDRAIL REFLECTOR DETAIL AND TYPICAL INSTALLATION *



4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

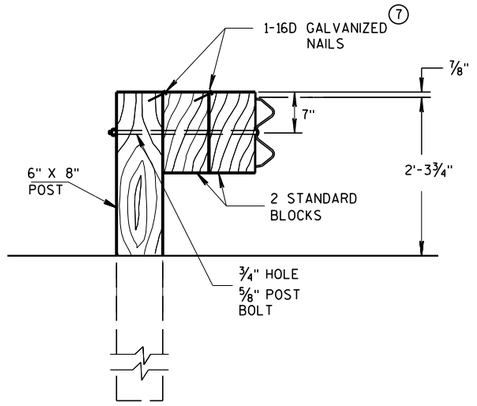
STATE OF WISCO 385
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 15-11b

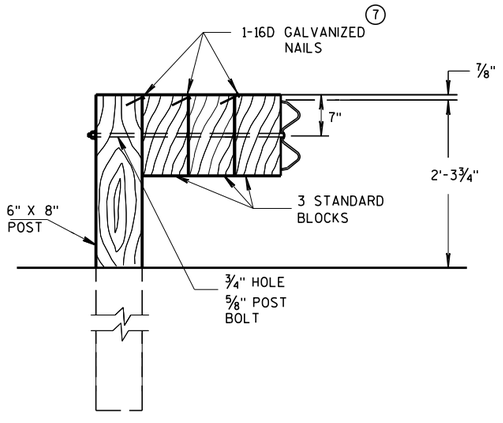
6

S.D.D. 14 B 15-11b



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

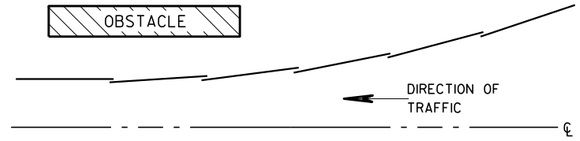


DETAIL FOR TRIPLE BLOCKS

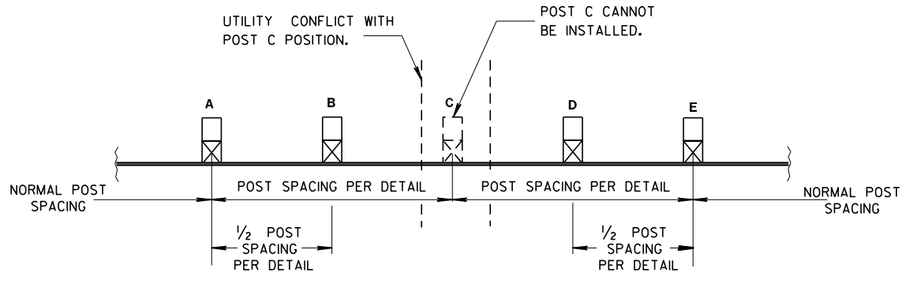
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

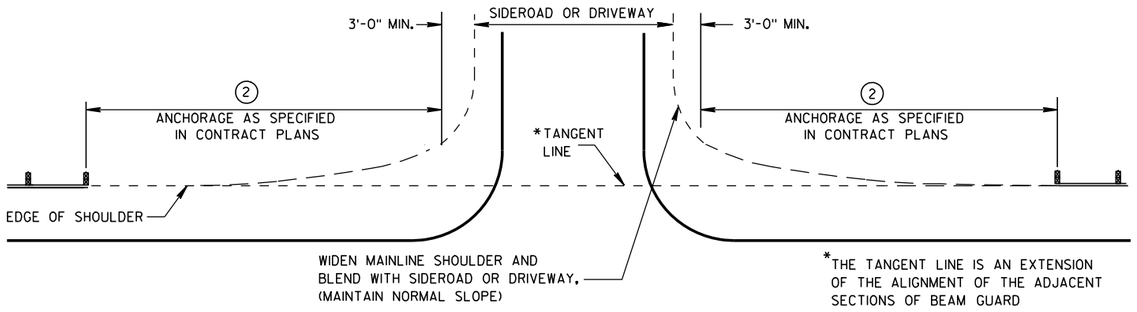
APPROVED
June 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
386
FHWA

6

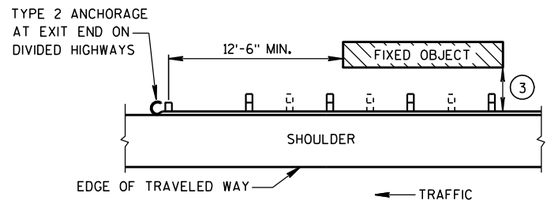
S.D.D. 14 B 15-11c

6

S.D.D. 14 B 15-11c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

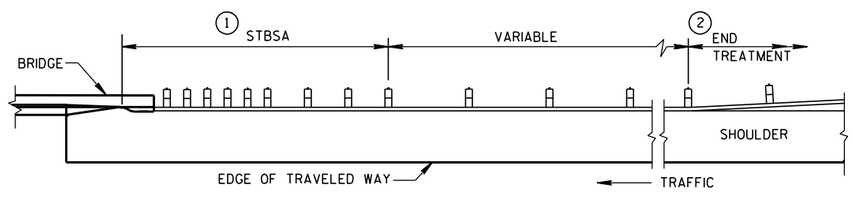
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

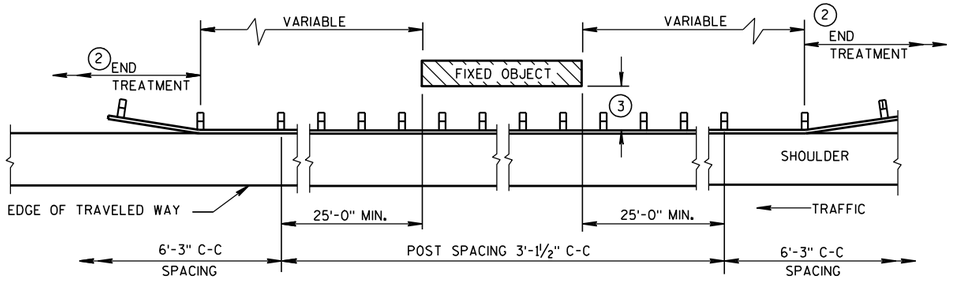
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

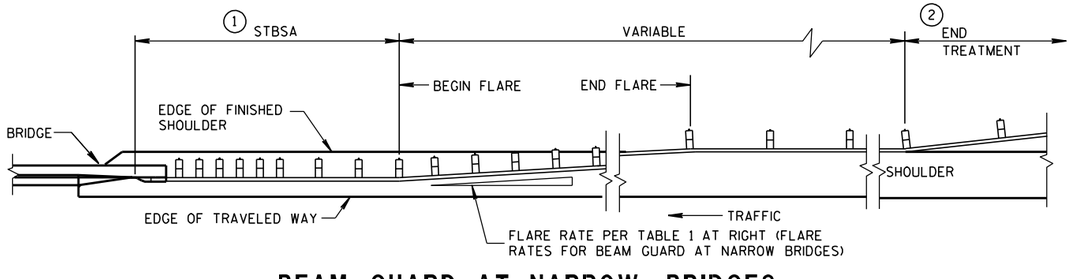


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

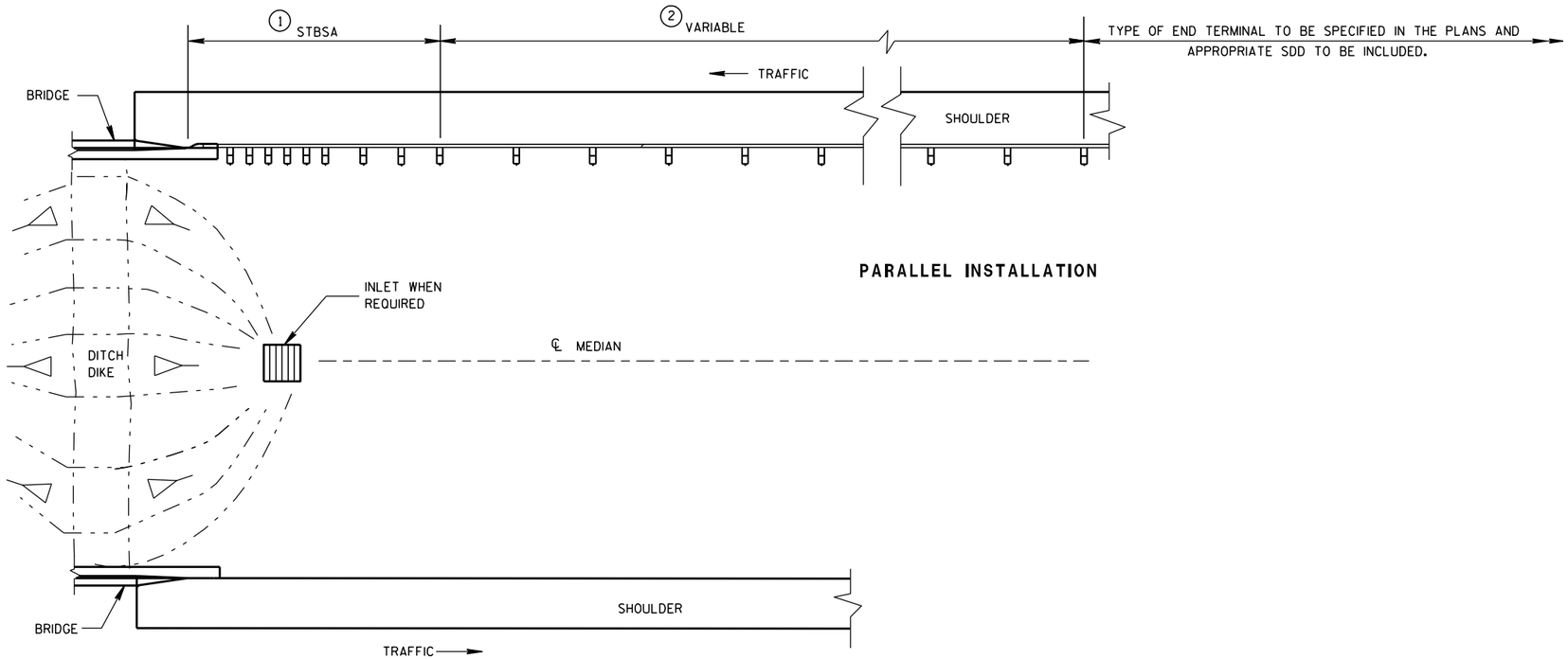
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 18-6a

GENERAL NOTES

1. STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
2. LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.



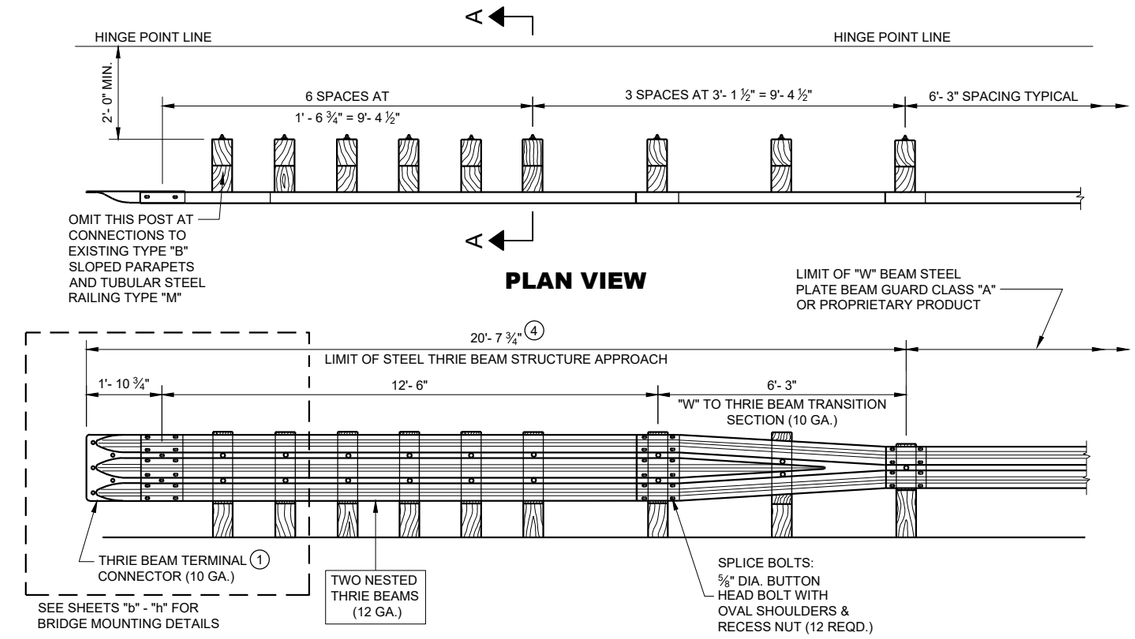
PARALLEL INSTALLATION

BEAM GUARD AT MEDIAN APPROACH TO BRIDGES

STEEL PLATE BEAM GUARD CLASS "A" AT MEDIAN APPROACH TO BRIDGES
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8-21-07 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

6

S.D.D. 14 B 18-6b



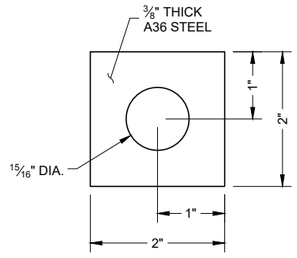


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

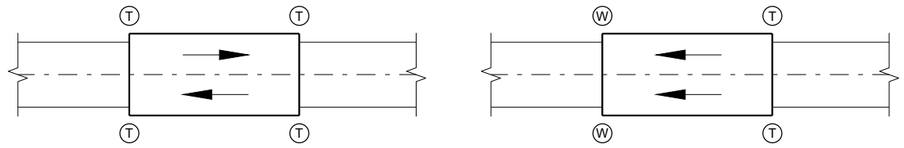
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) MINIMUM EMBEDMENT SHALL BE 4'- 0".

(3) POST BOLTS ARE ⅝" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A ⅝" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

(4) ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



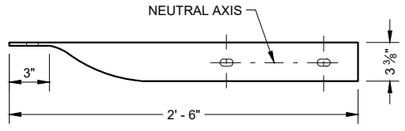
TWO WAY TRAFFIC

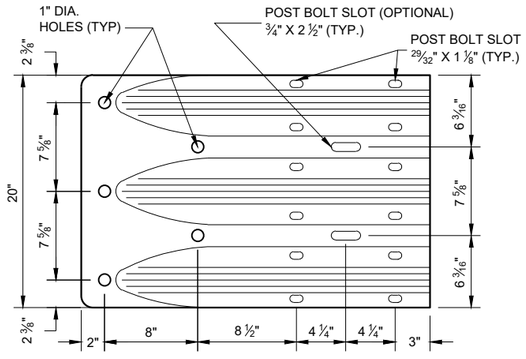
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

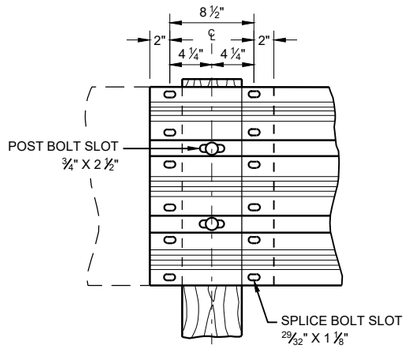
(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

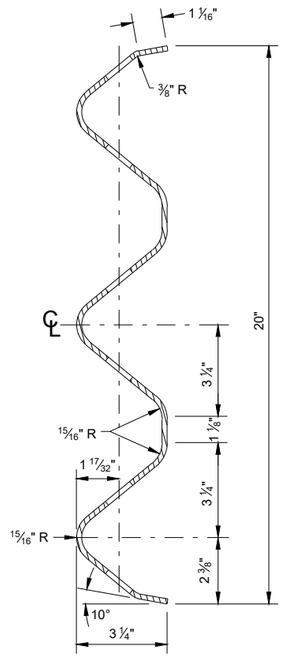




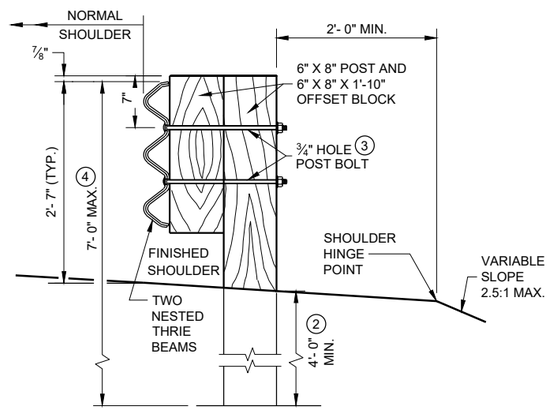
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

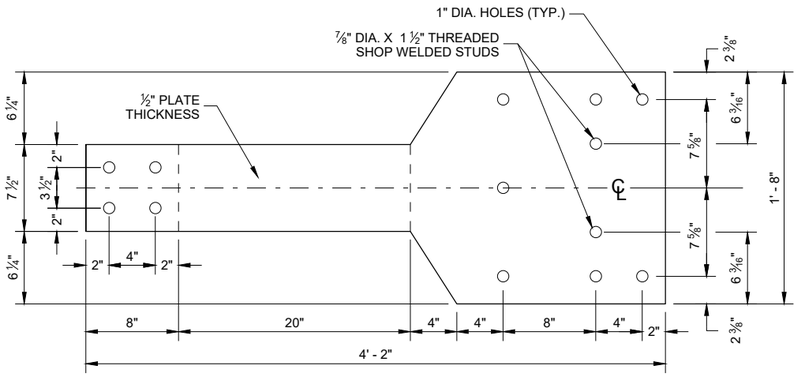
6

SDD 14B20 - 12a

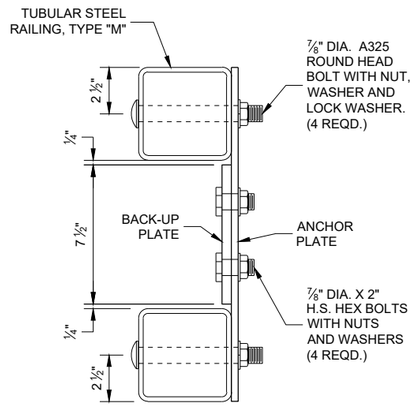
SDD 14B20 - 12a

GENERAL NOTES

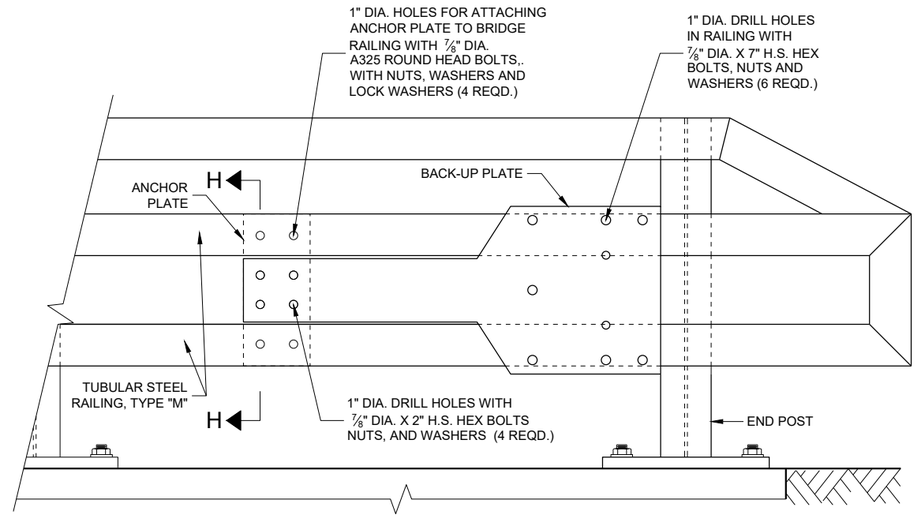
(1) VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AN ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

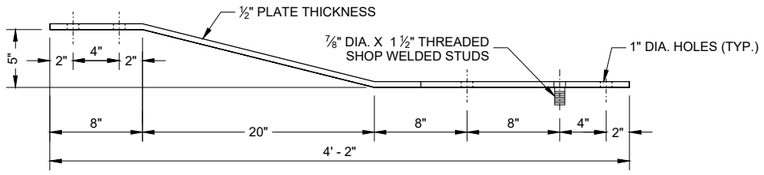


SECTION H - H



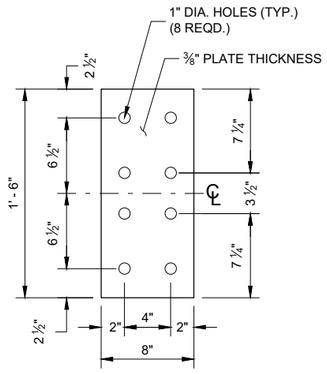
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



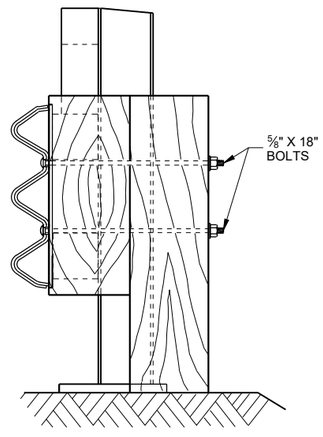
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

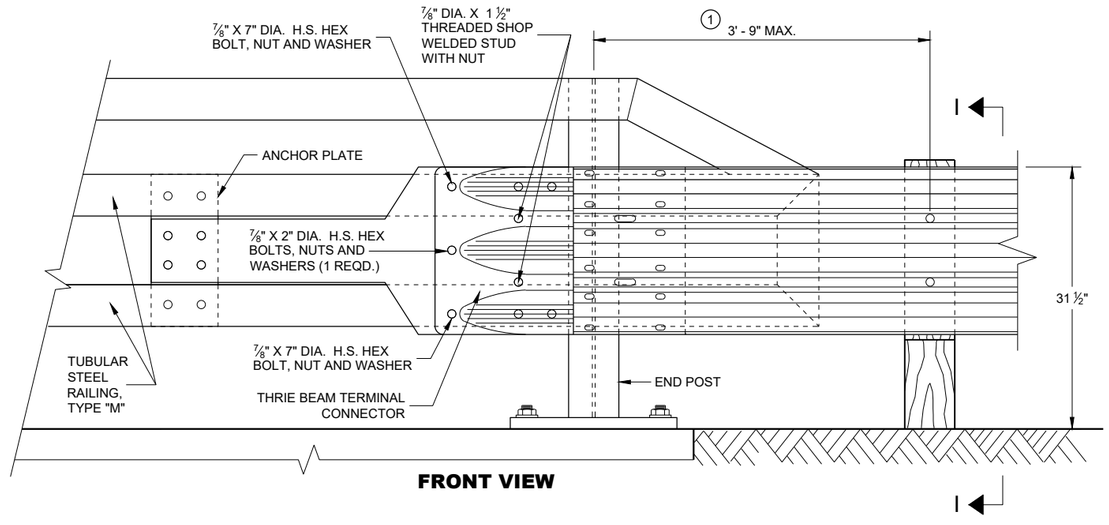


PLAN VIEW

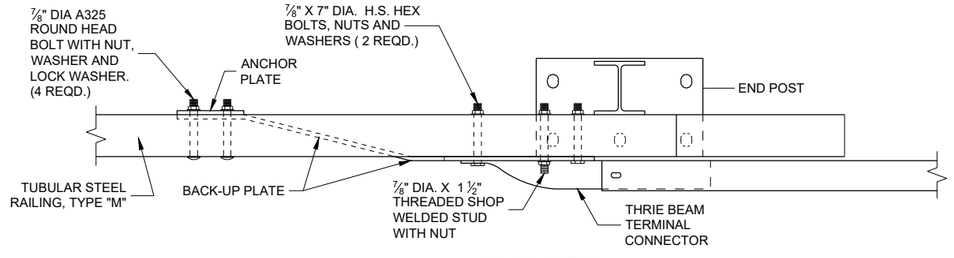
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I - I



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 14B20 - 12f

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

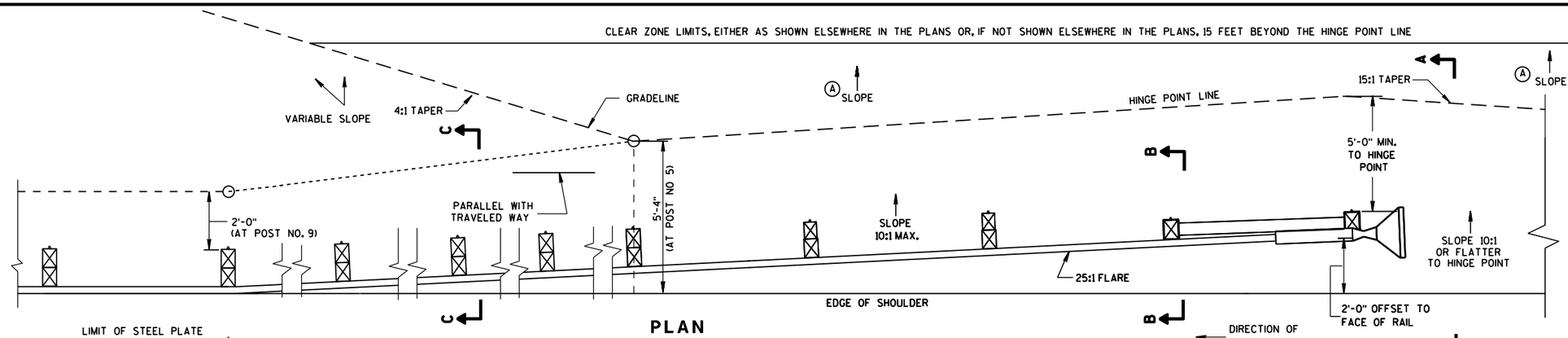
(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

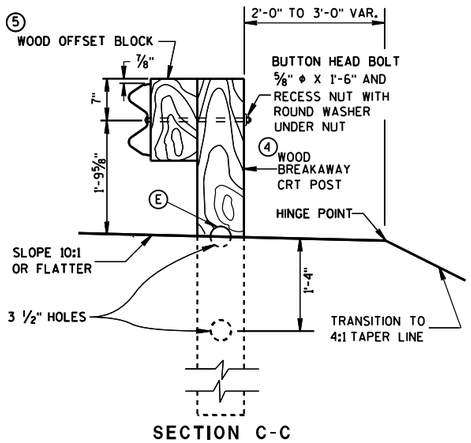
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

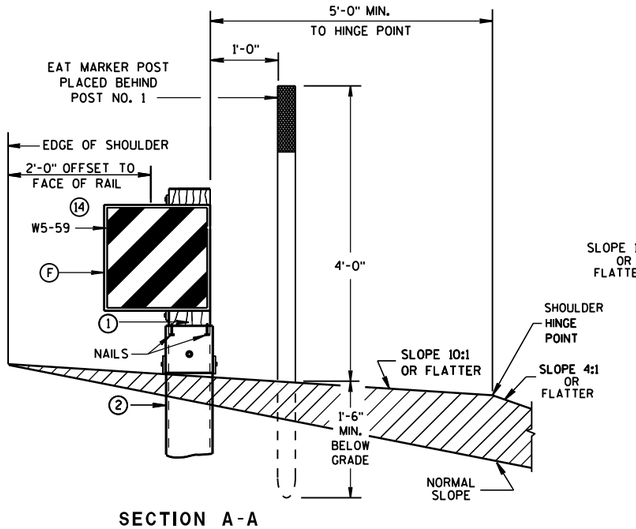
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

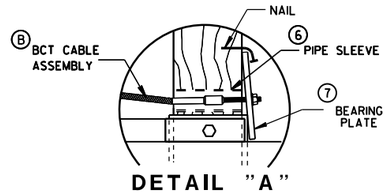




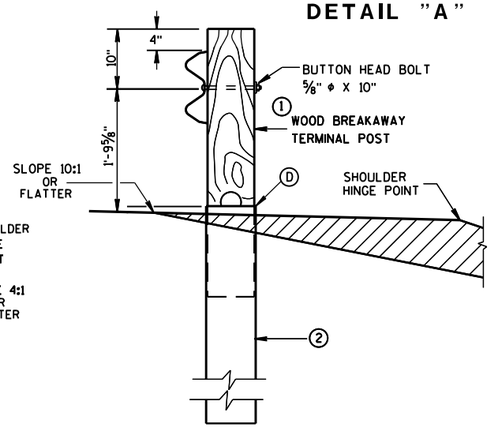
SECTION C-C
TYPICAL AT POST NOS. 6, 8



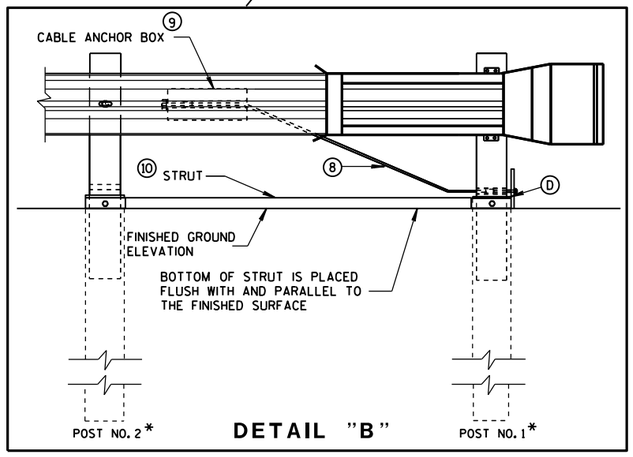
SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



SECTION B-B
TYPICAL AT POST NO. 2*

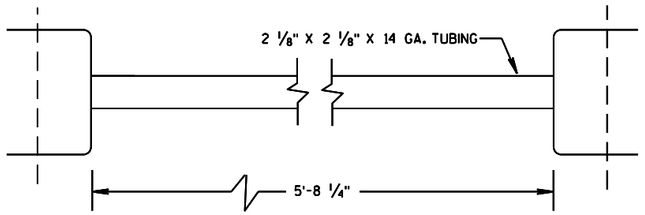


DETAIL "B"

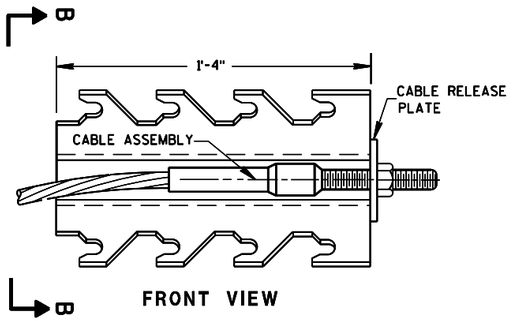
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

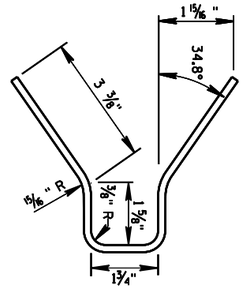
6
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL

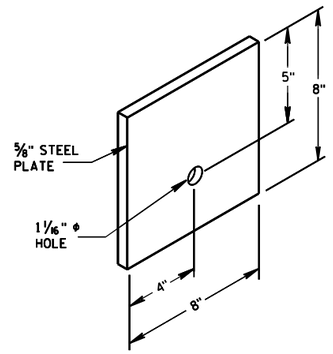


FRONT VIEW



SECTION B-B

⑨ CABLE ANCHOR BOX



⑦ STEEL BEARING PLATE

6

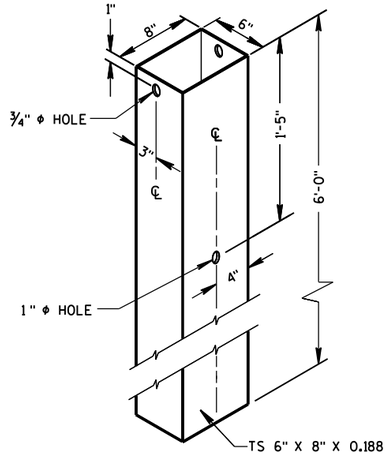
6

S.D.D. 14 B 24-9b

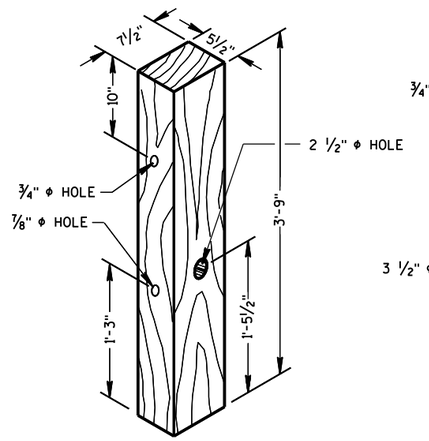
S.D.D. 14 B 24-9b

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

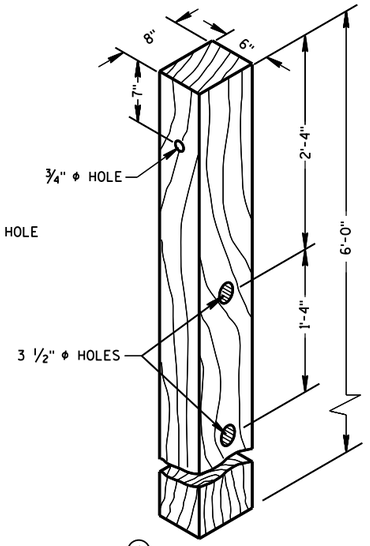
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



② 72" STEEL TUBE
(POSTS NO. 1-2



① TERMINAL POST

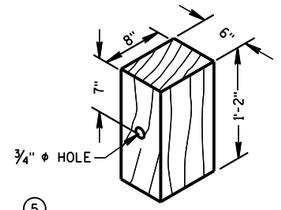


④ CRT POST
(POSTS NO'S 5-8)

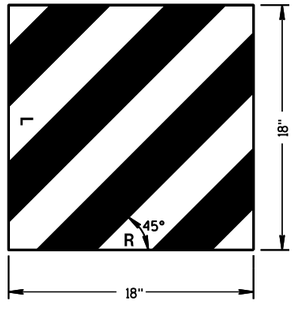
WOOD BREAKAWAY POSTS

GENERAL NOTES

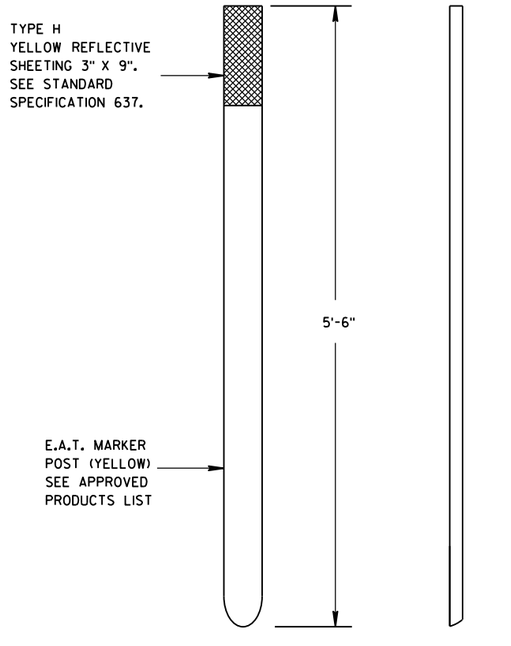
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ REFLECTIVE SHEETING DETAILS



E.A.T. MARKER POST

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV.

393

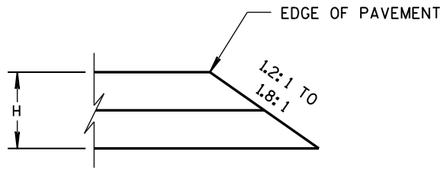
ENT

6

S.D.D. 14 B 24-9c

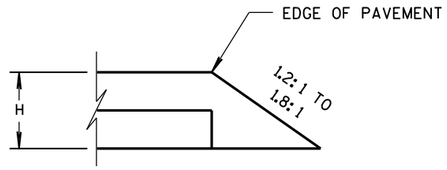
6

S.D.D. 14 B 24-9c



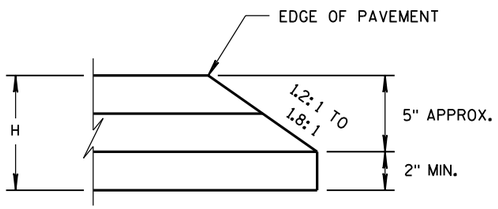
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



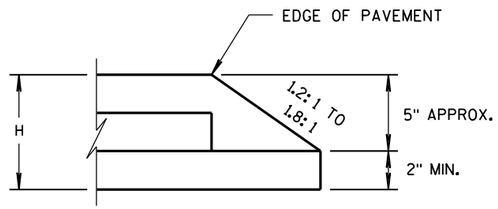
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

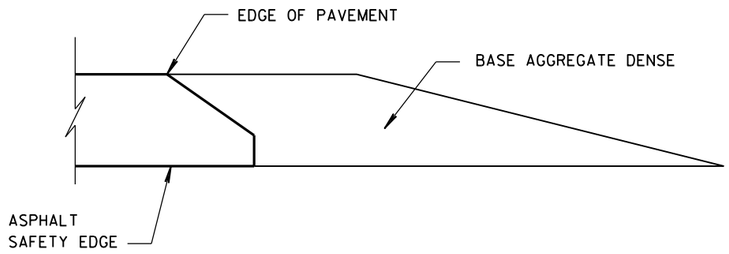
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

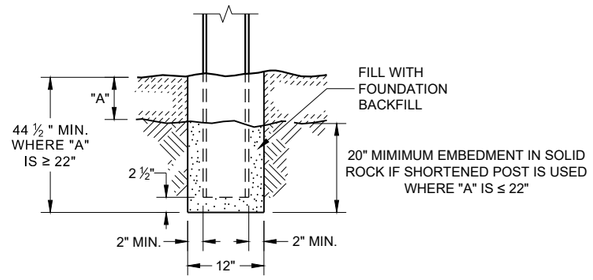
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

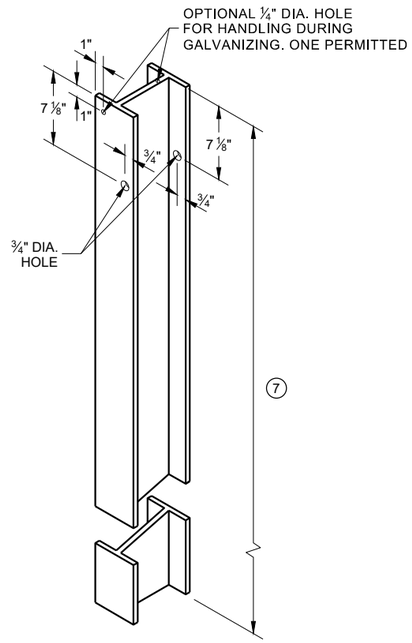
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

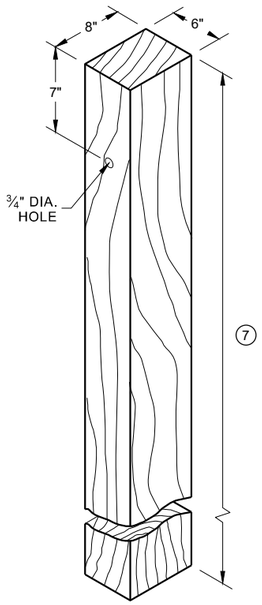
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



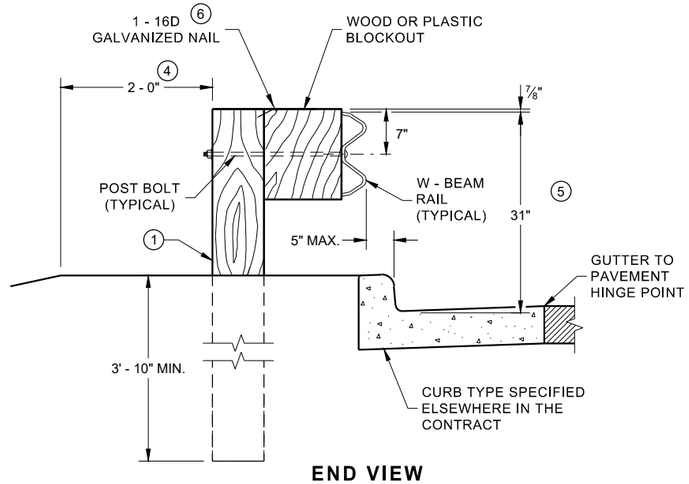
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



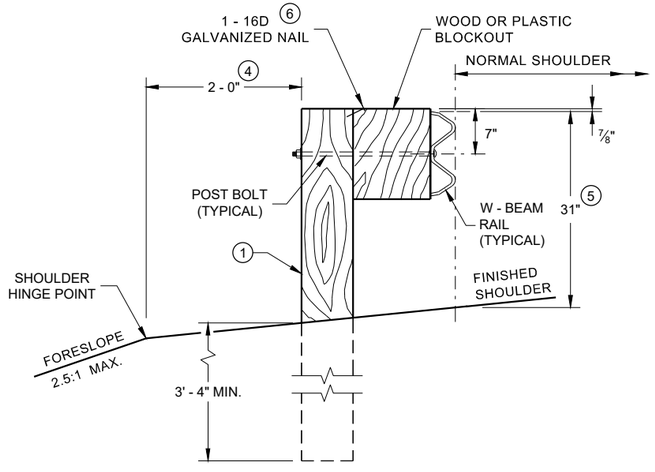
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



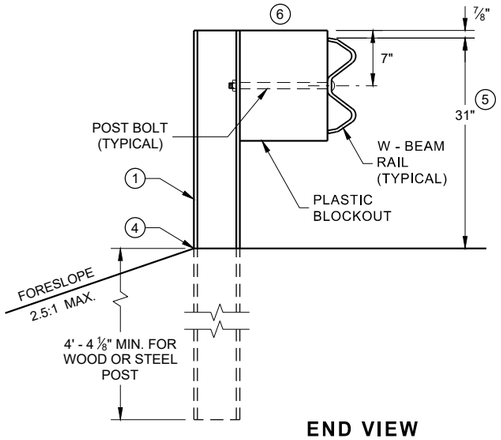
WOOD POST (6" X 8") NOMINAL (1)



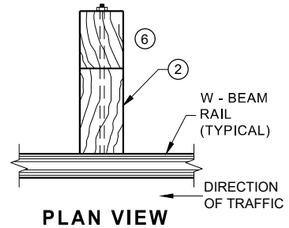
END VIEW
LOCATED ALONG A CURBED ROADWAY



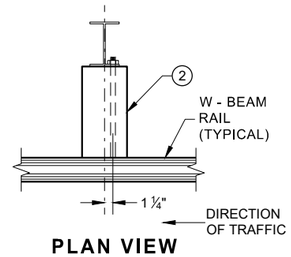
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



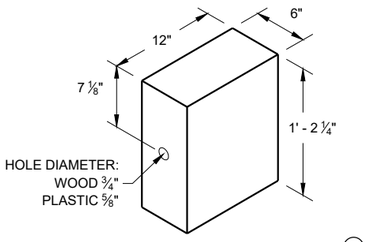
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

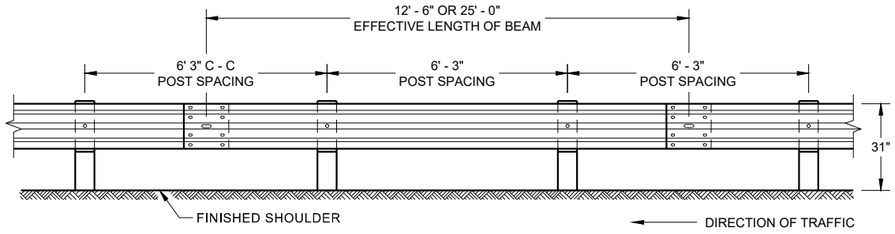
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

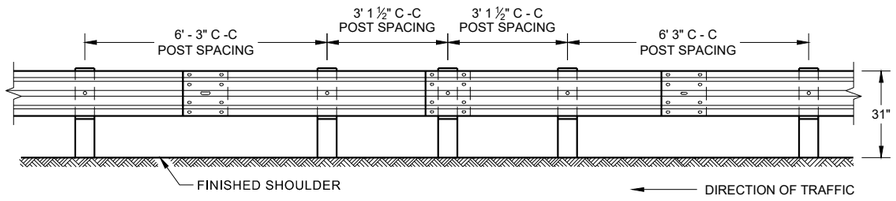
SDD 14B42 - 07a

6

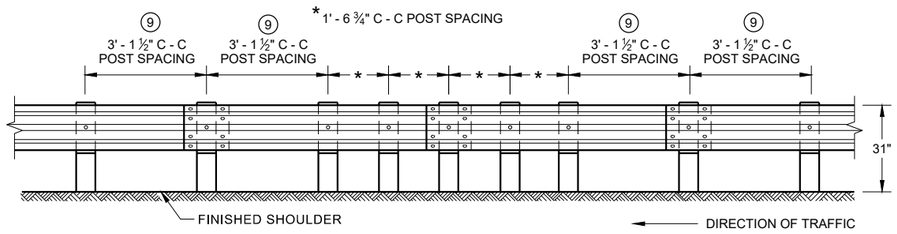
SDD 14B42 - 07a



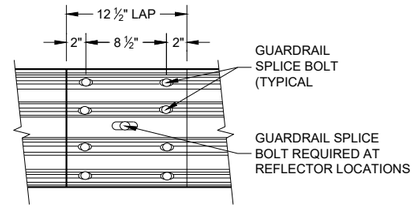
FRONT VIEW
POST SPACING STANDARD INSTALLATION



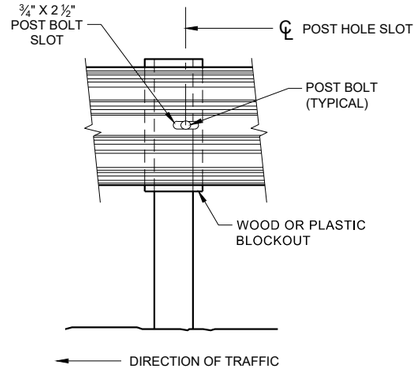
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



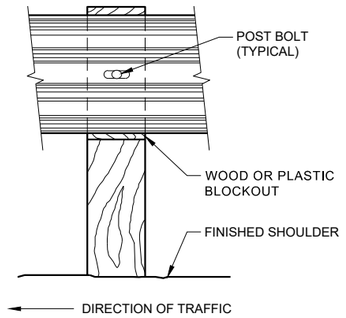
FRONT VIEW
QUARTER POST SPACING (QS)



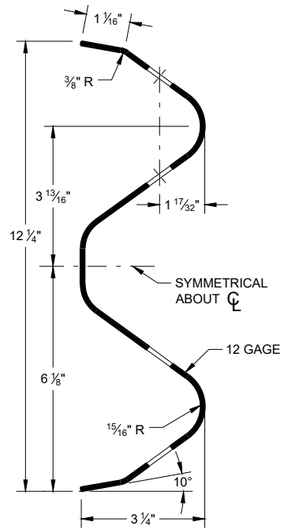
FRONT VIEW
MID-SPAN BEAM SPLICE



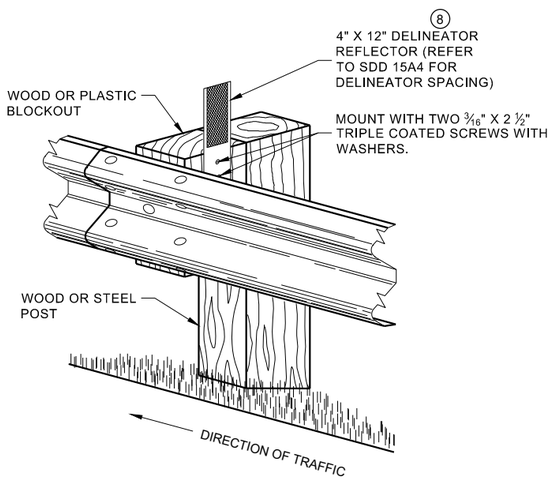
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

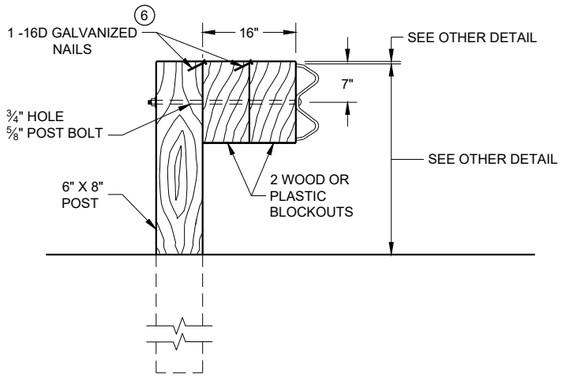
⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

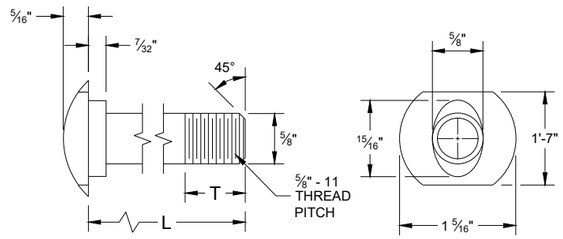


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

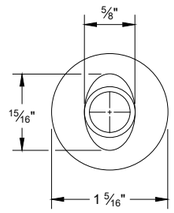
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

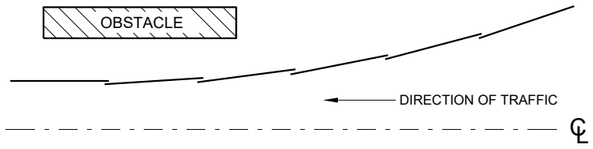


POST BOLT TABLE

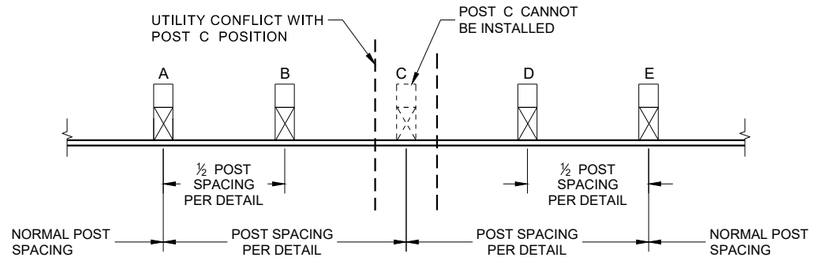
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



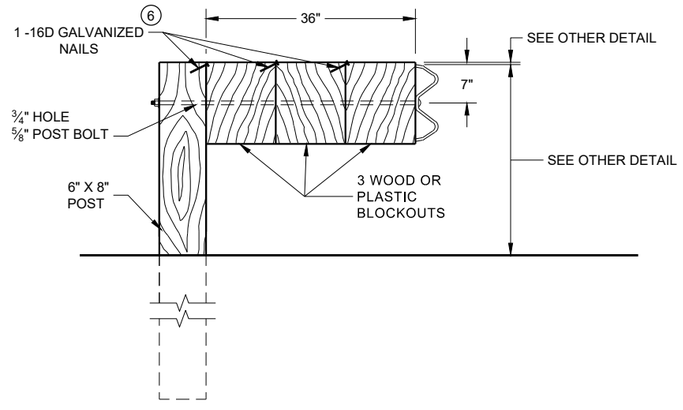
ALTERNATE BOLT HEAD



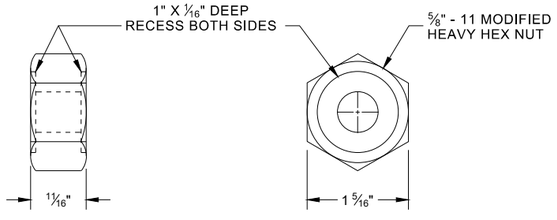
PLAN VIEW
BEAM LAPPING DETAIL



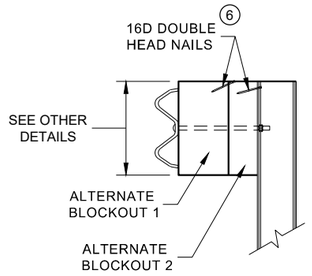
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



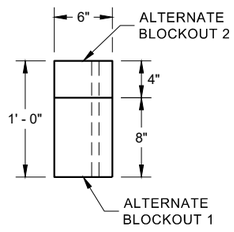
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

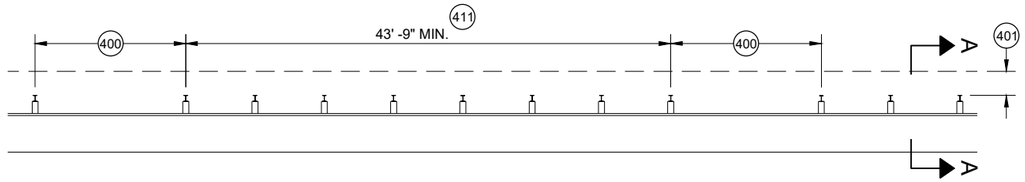
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

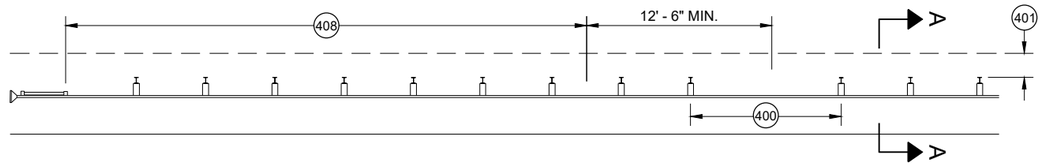
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

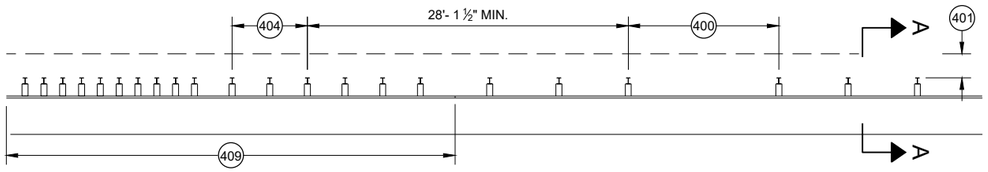
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



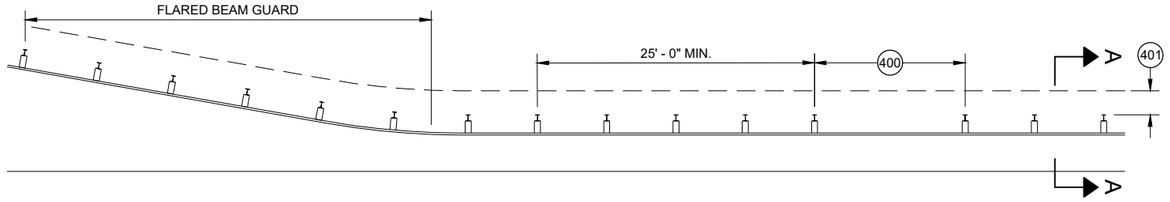
MISSING POST IN MGS GUARDRAIL



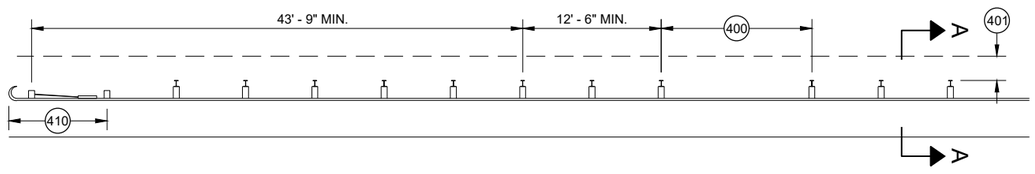
MISSING POST IN MGS GUARDRAIL NEAR EAT



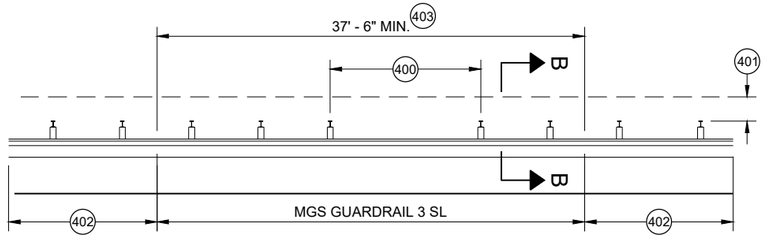
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

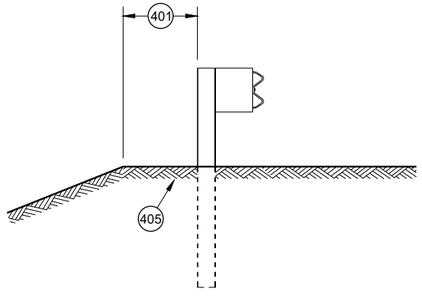


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

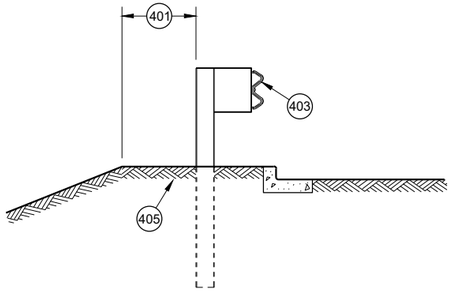


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

400 MAX SPAN 12' - 6"
401 2' MIN.
402 MGS GUARDRAIL 3
403 NESTING BEAM GUARD
404 ASYMMETRIC TRANSITION
405 SOIL WELL DRAINED AND COMPACTED
406 SEE OTHER DRAWINGS IN THIS SDD
407 SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
408 SEE SDD 14B44
409 SEE SDD 14B45
410 SEE SDD 14B47
411 MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

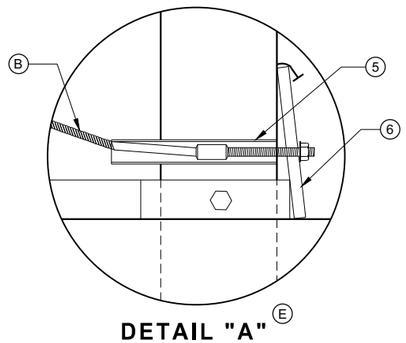
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

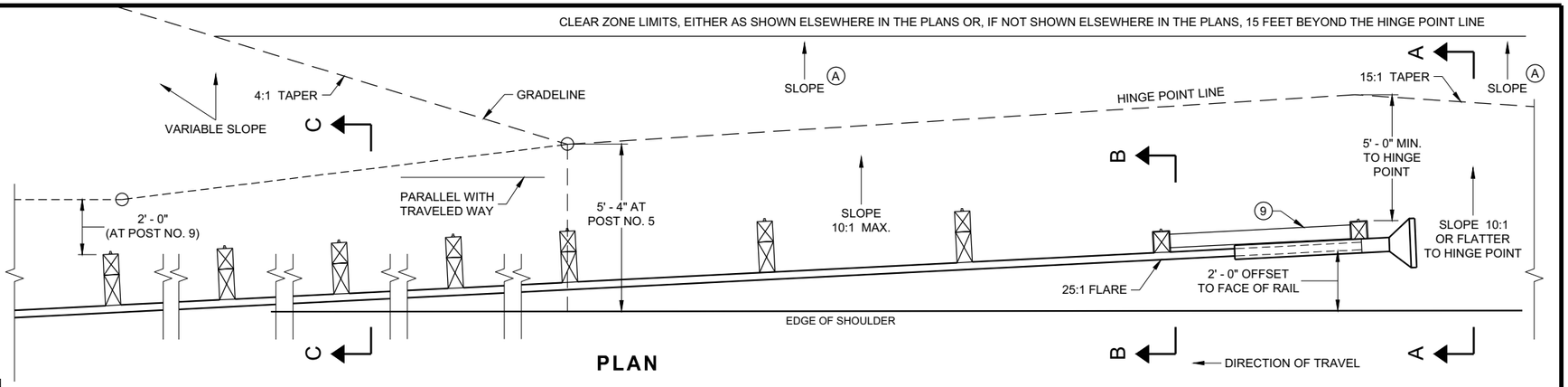
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

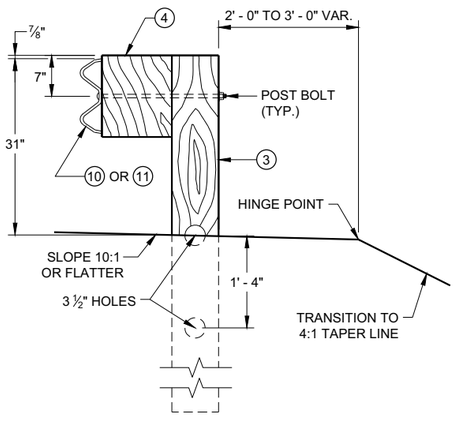
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

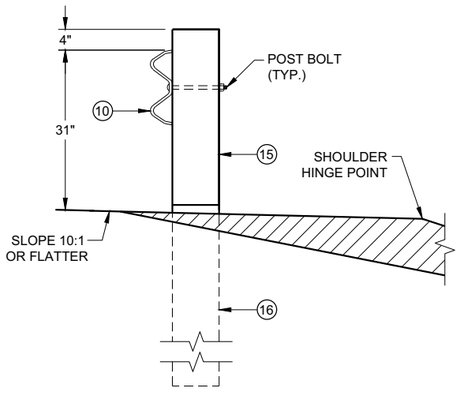


DETAIL "A" (E)

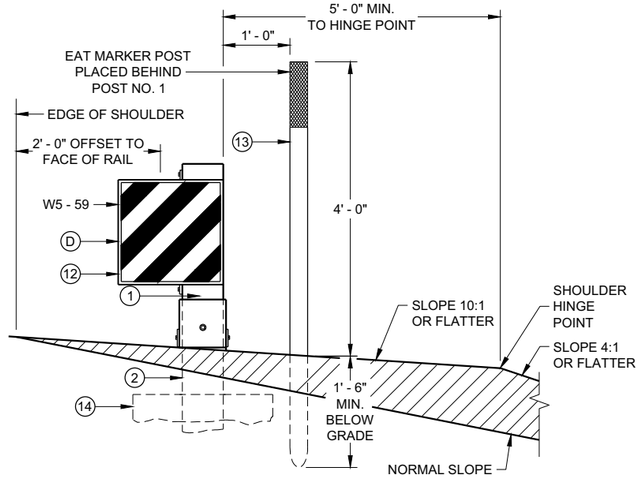




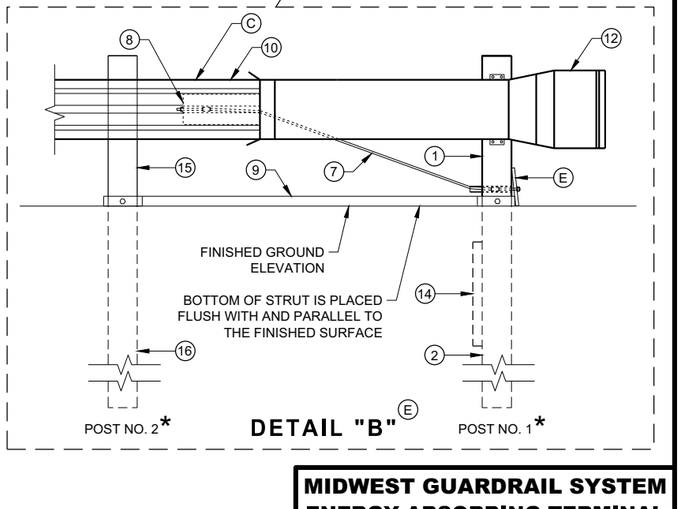
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

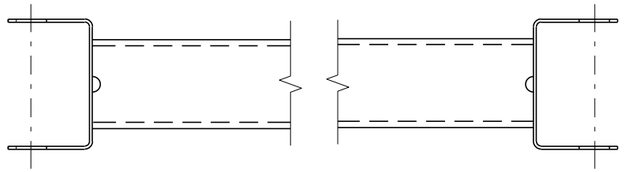
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

6

SDD 14B44 - 04a

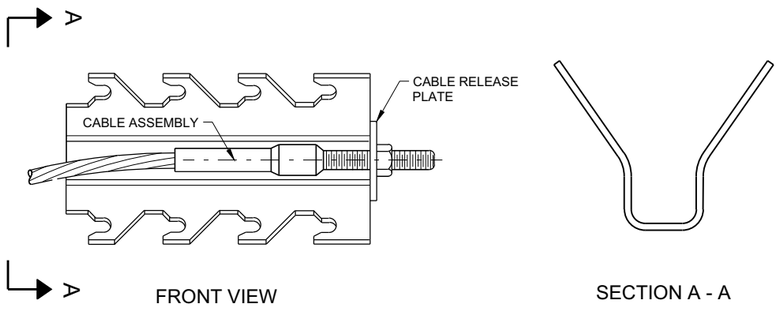
6



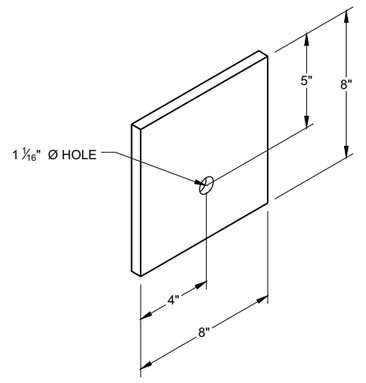
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

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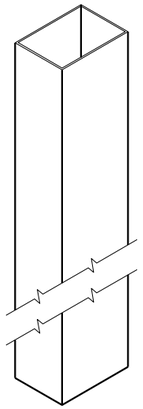
SDD 14B44 - 04b

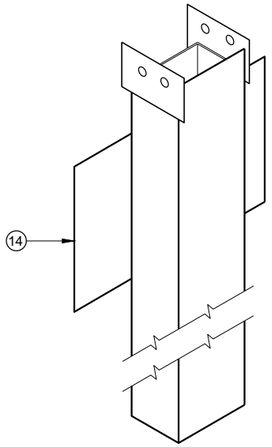
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

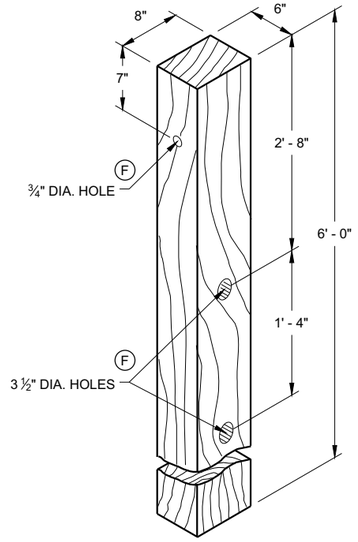
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



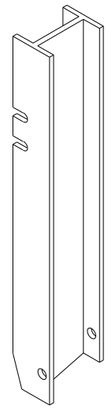
UPPER POST NO. 1 (1) (E)



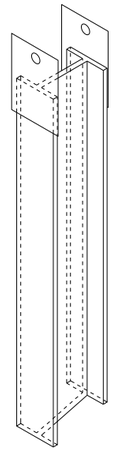
LOWER POST NO. 1 (2) (E)



WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



UPPER POST NO. 2 (15) (E)



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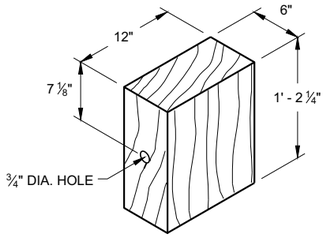
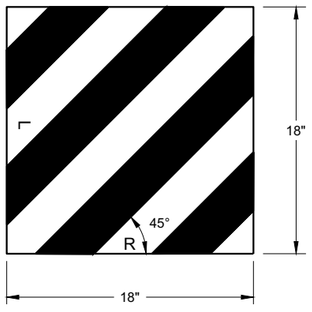
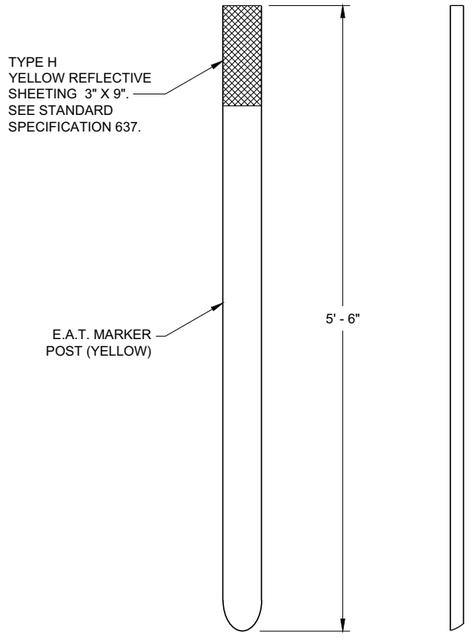


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



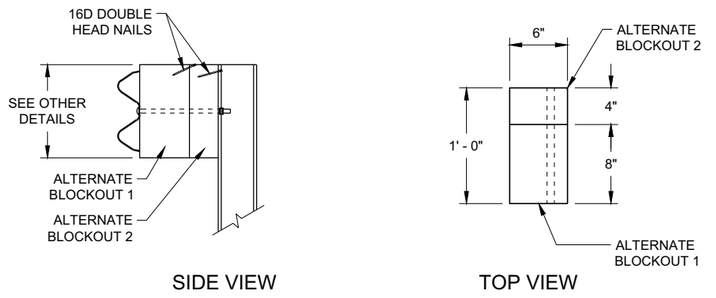
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

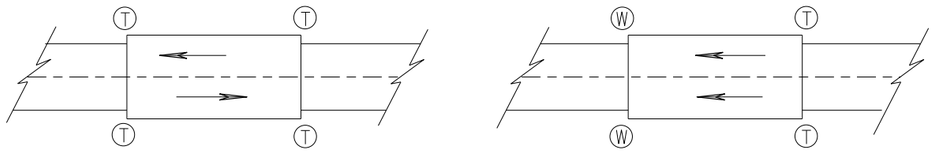
FHWA

6

SDD 14B44 - 04c

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

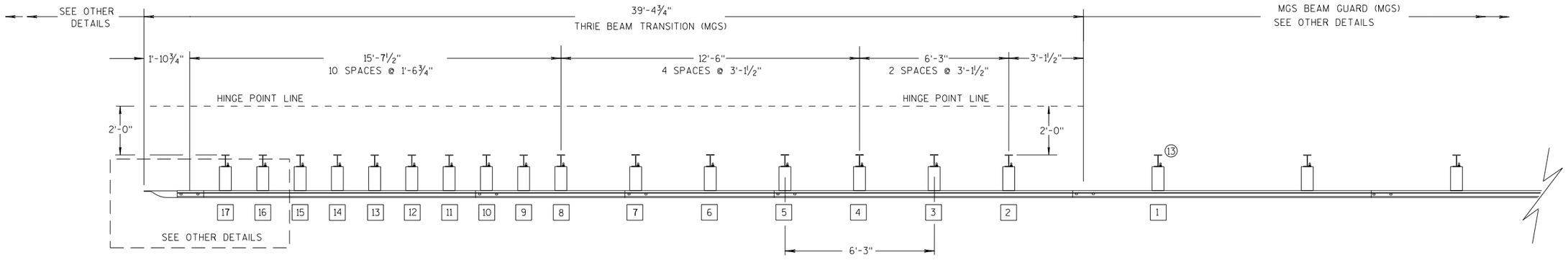
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

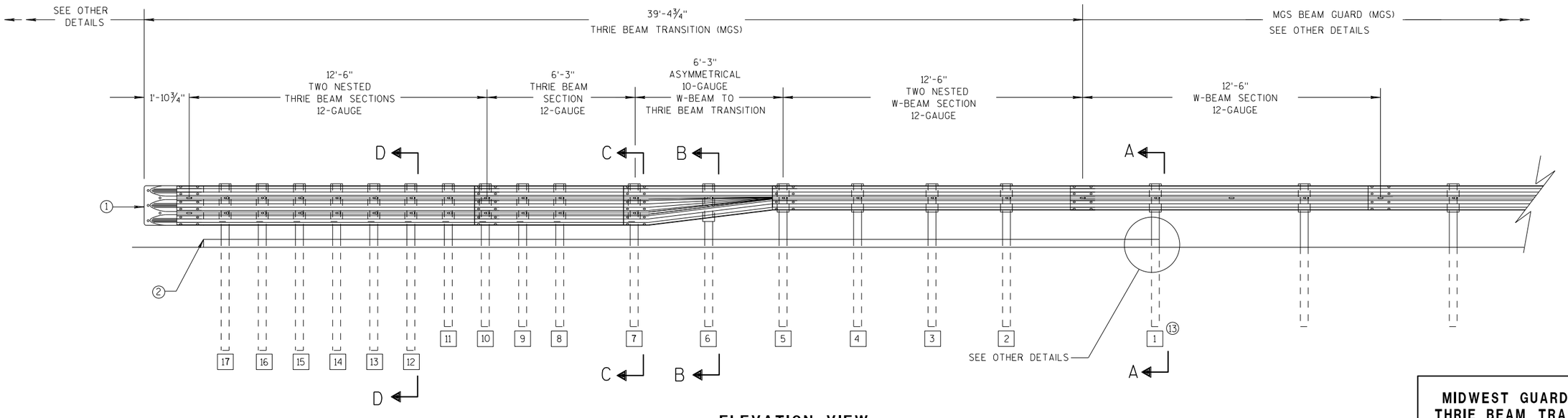
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 402

6

S.D.D. 14 B 45-5a

6

S.D.D. 14 B 45-5a

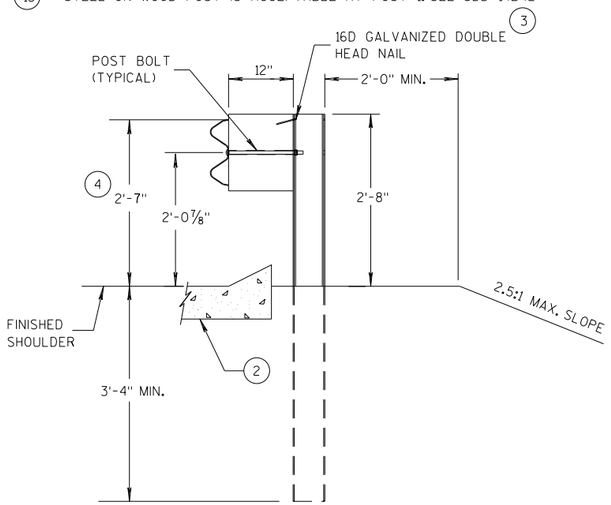
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

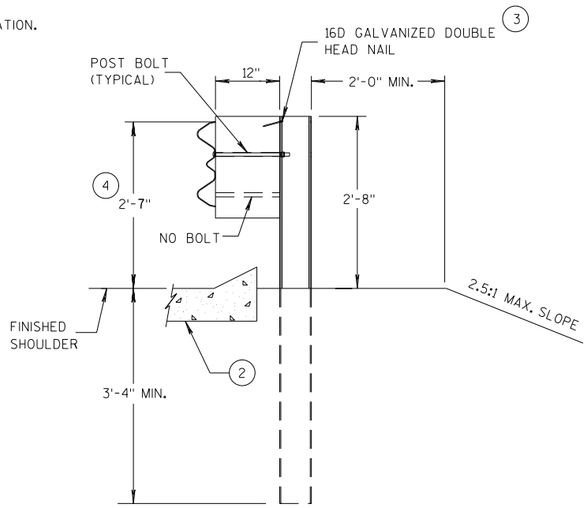
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



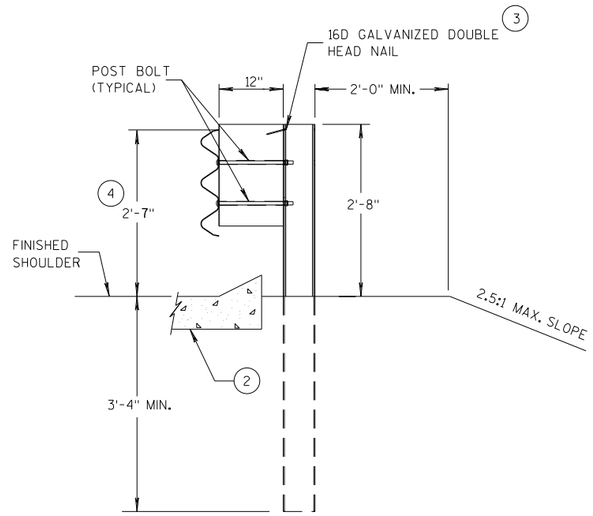
SECTION A-A (13)

POSTS 1-5



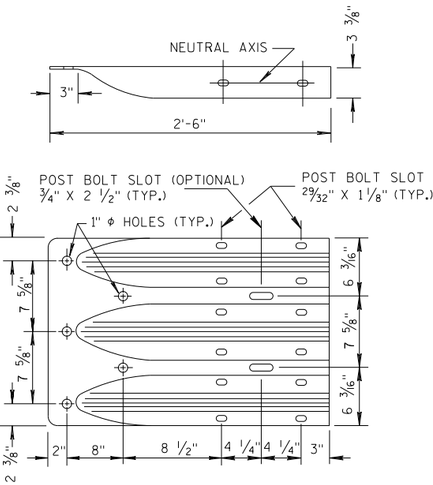
SECTION B-B

POST 6

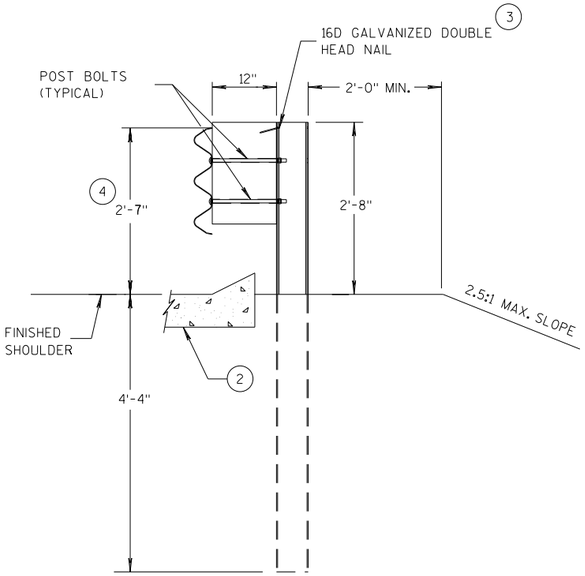


SECTION C-C

POSTS 7-11

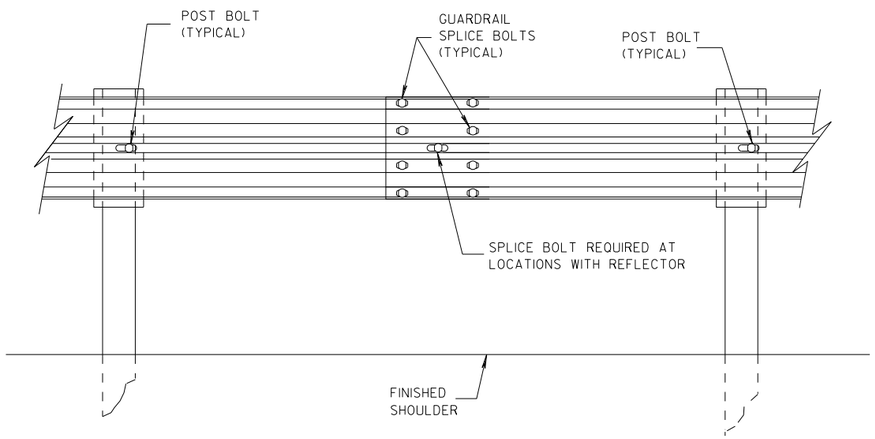


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

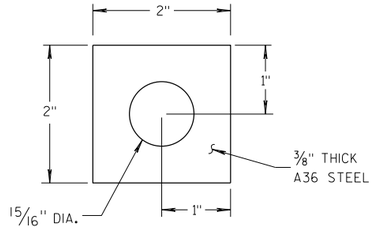
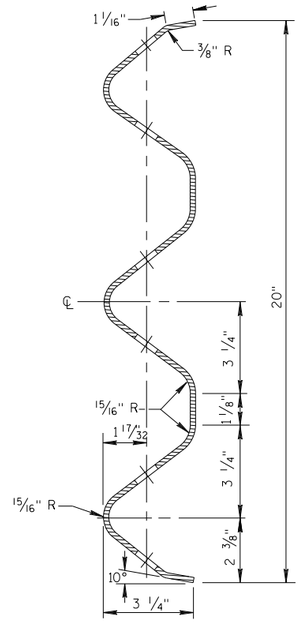


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 403

6

S.D.D. 14 B 45-5b

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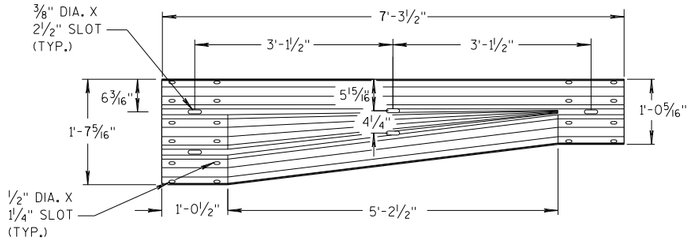
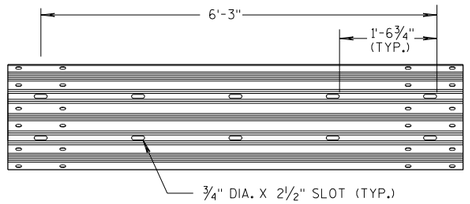
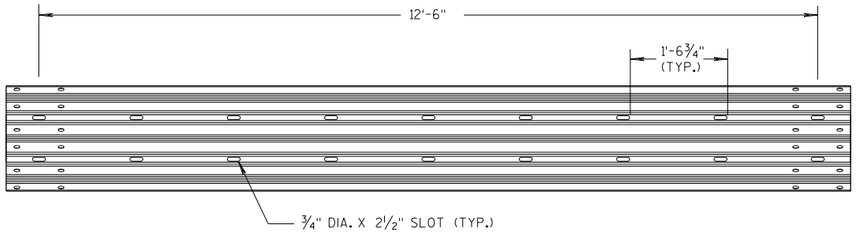
S.D.D. 14 B 45-5b



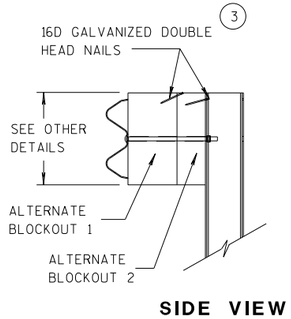
W-BEAM TO THRIE BEAM TRANSITION SECTION



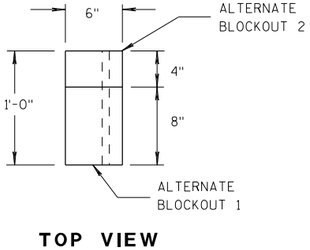
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

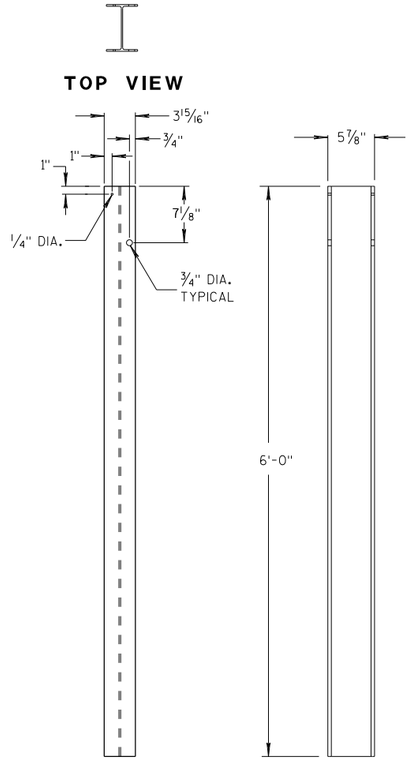


SIDE VIEW



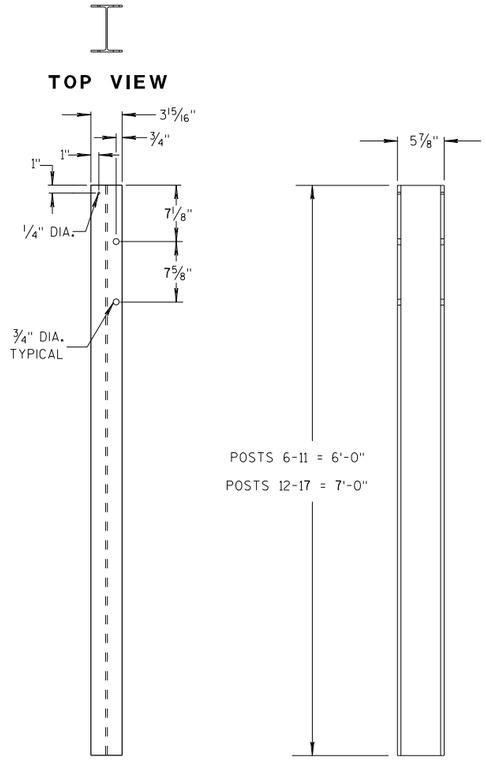
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



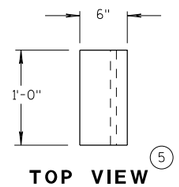
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

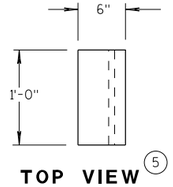


FRONT VIEW SIDE VIEW

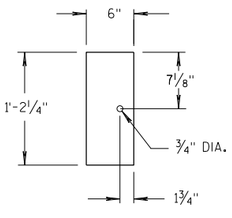
STEEL POSTS 6-17



TOP VIEW (5)

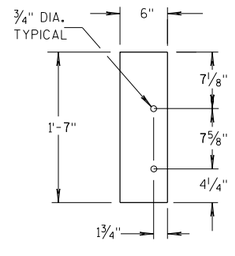


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

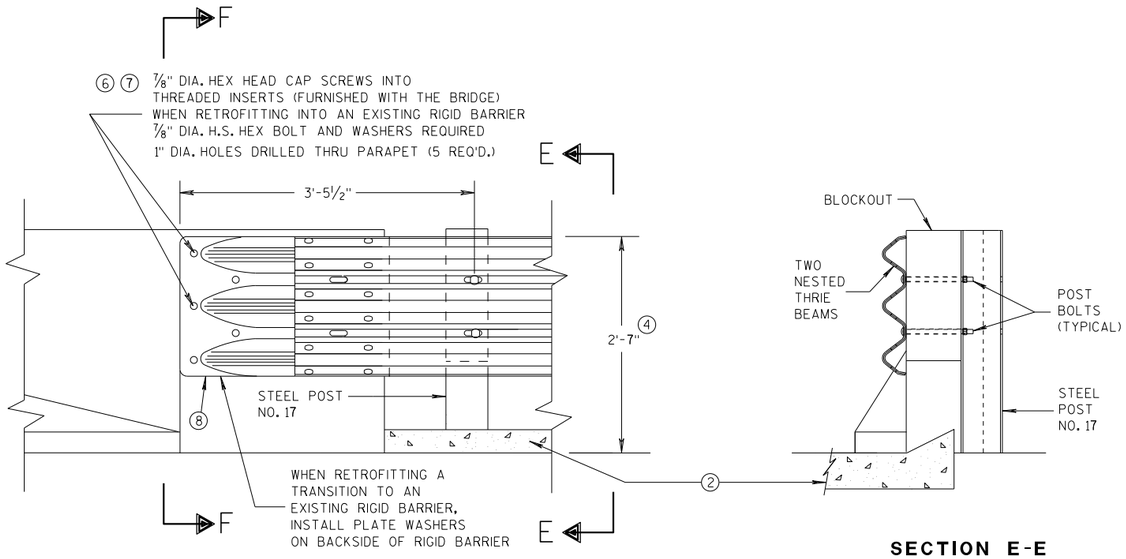
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 404

6
S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

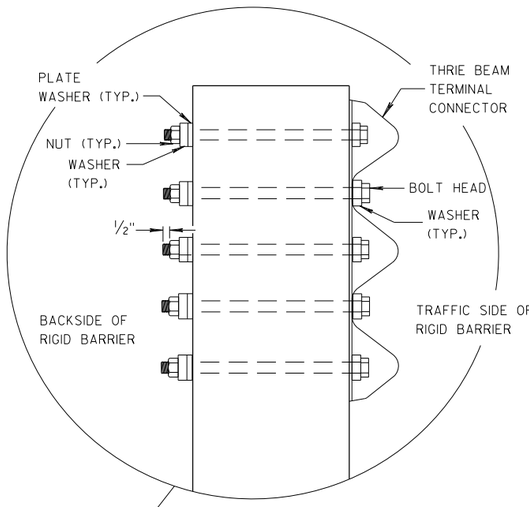
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

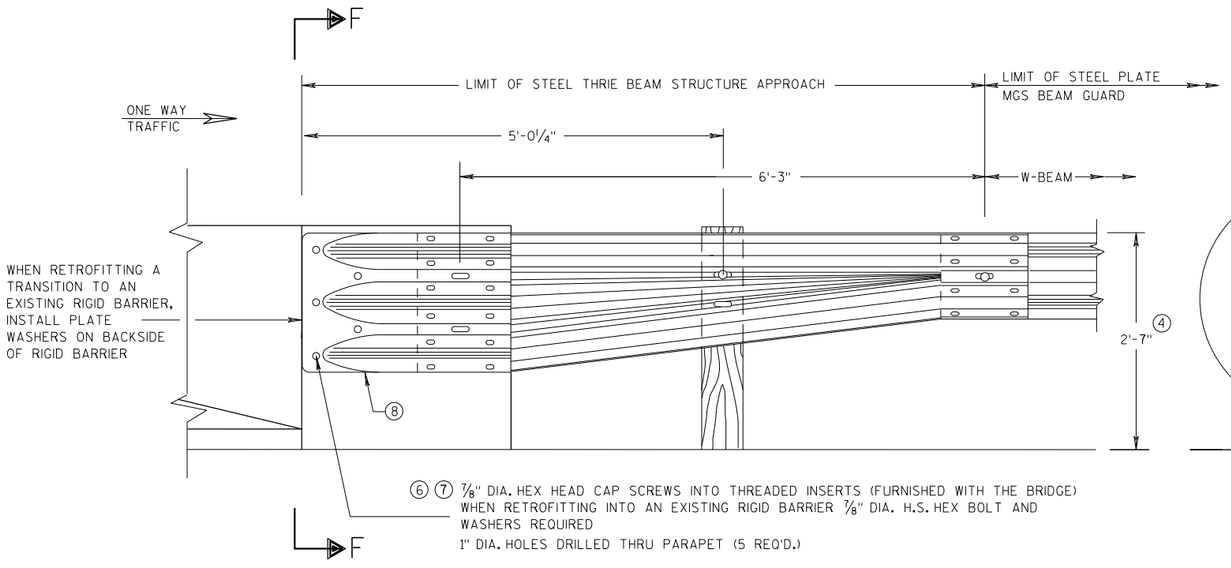
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

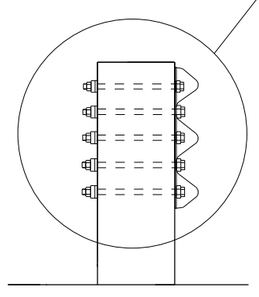
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

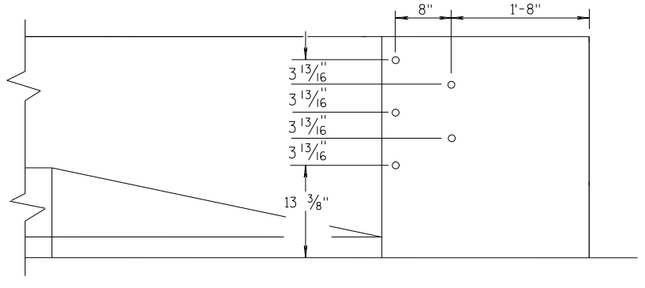




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

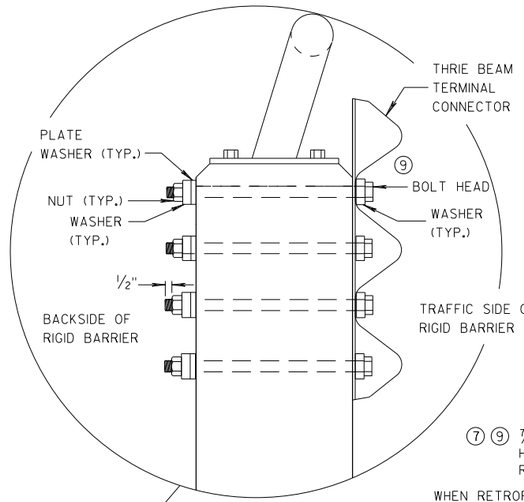
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

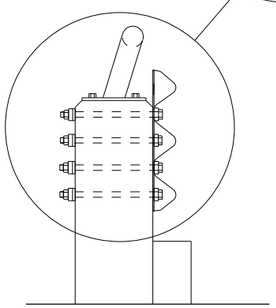
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

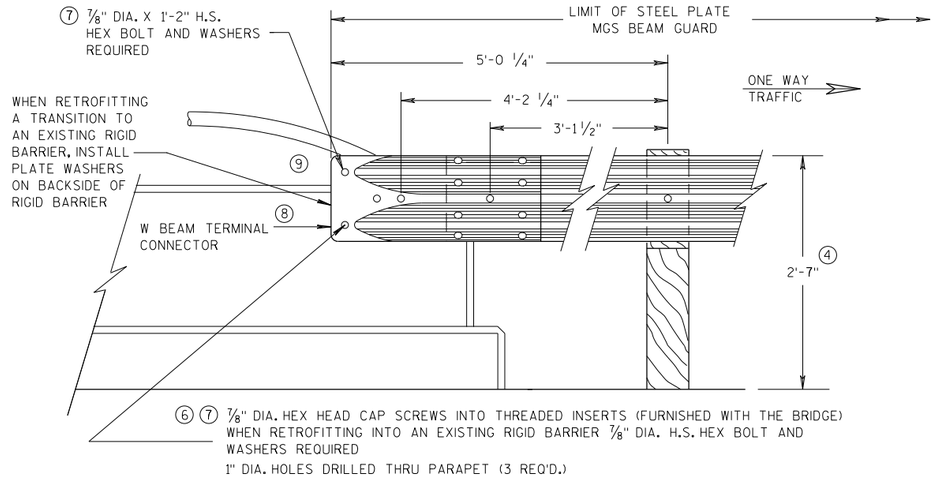
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





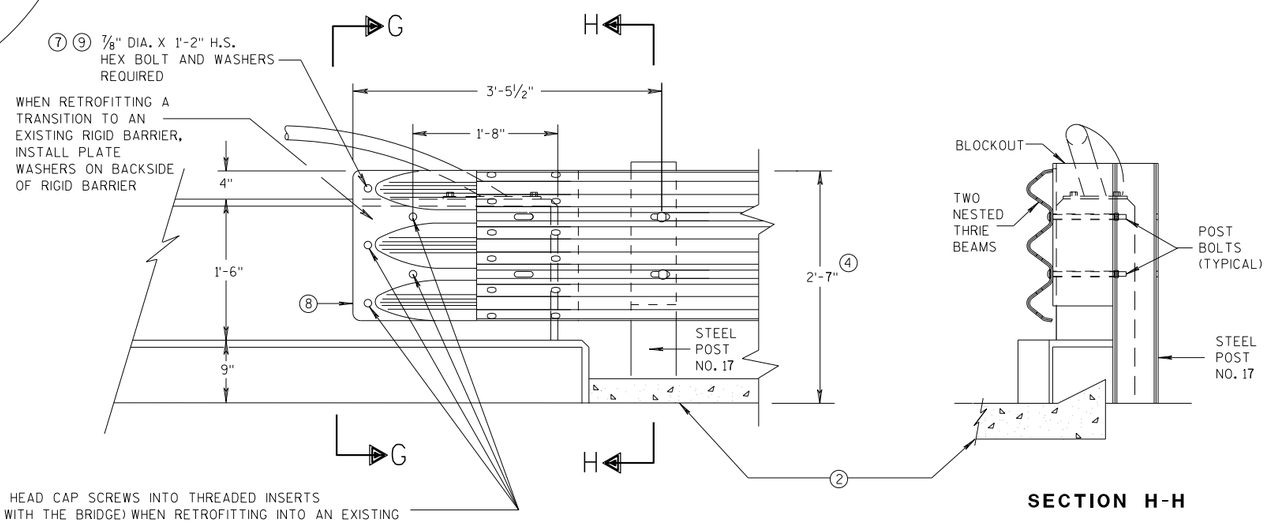
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]

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S.D.D. 14 B 45-5e

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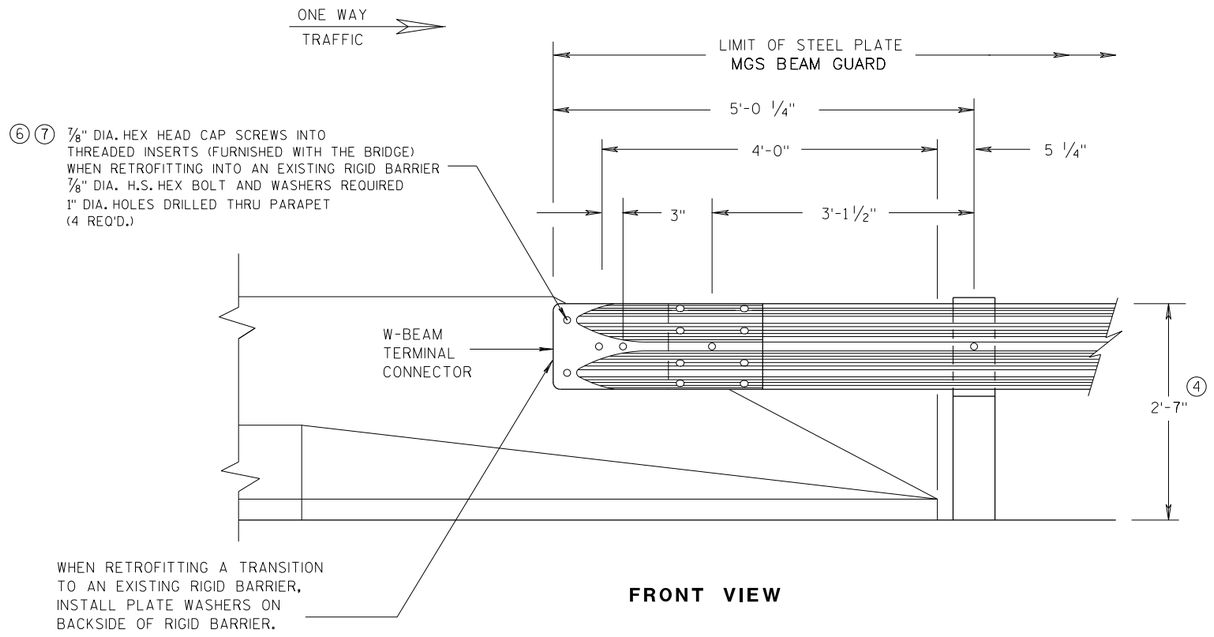
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

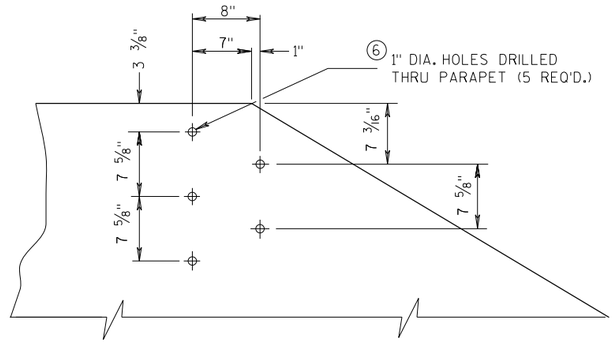
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

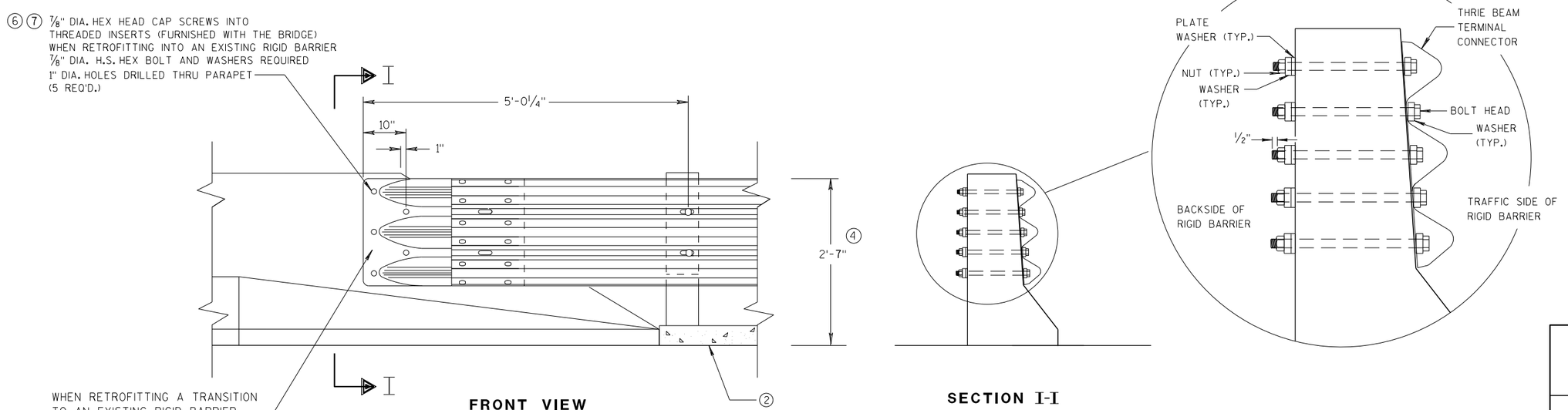
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
FHWA

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S.D.D. 14 B 45-5f

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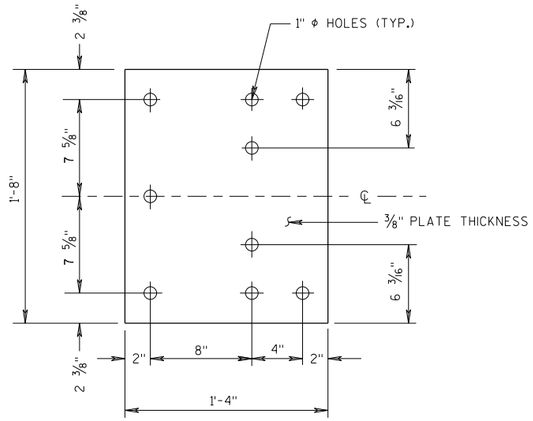
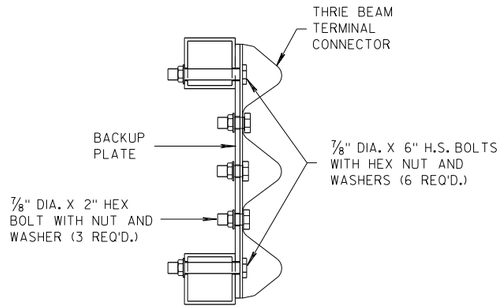
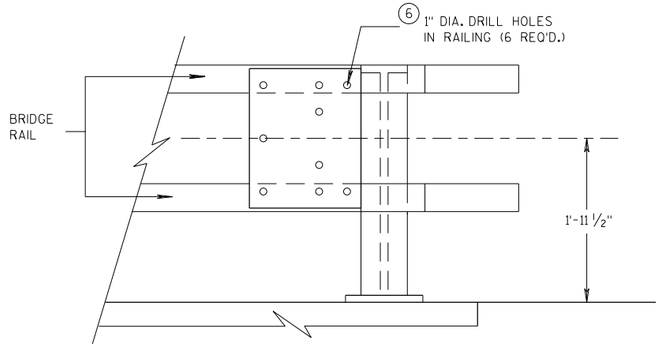
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

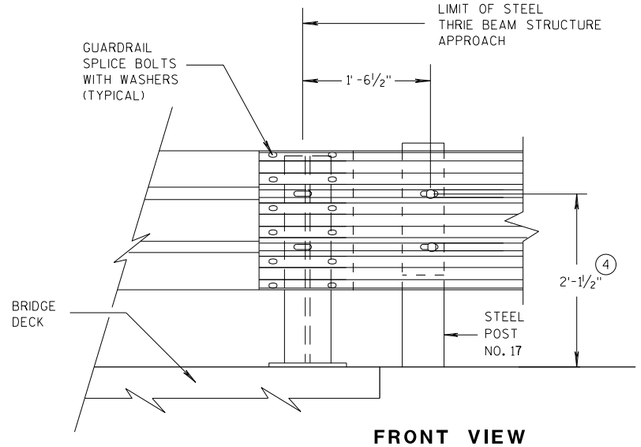


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

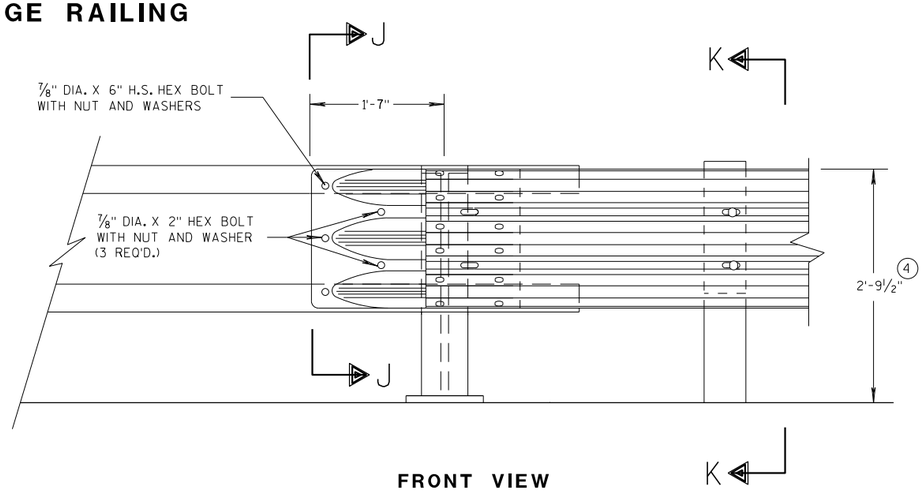
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

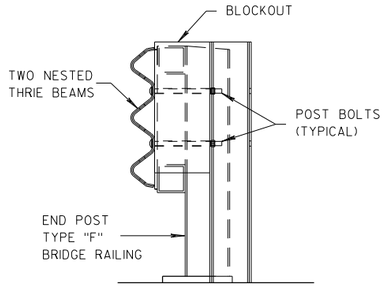


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor 408
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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S.D.D. 14 B 45-5g

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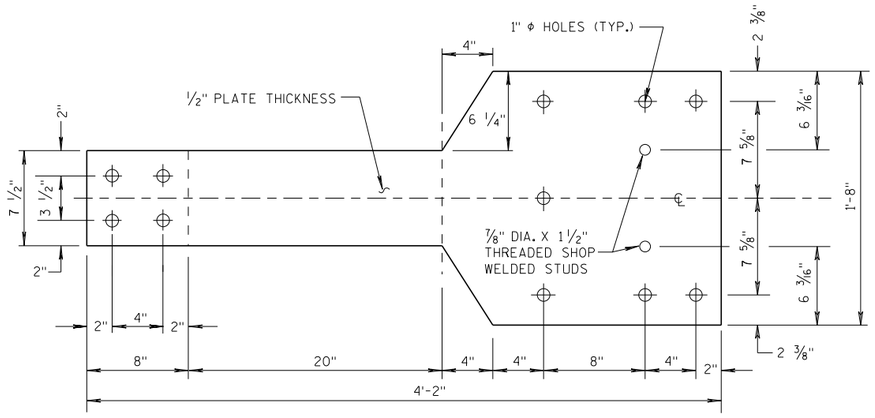
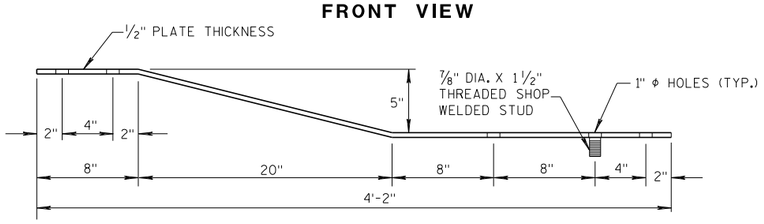
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

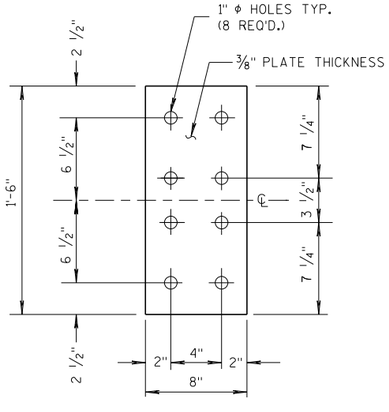


FRONT VIEW



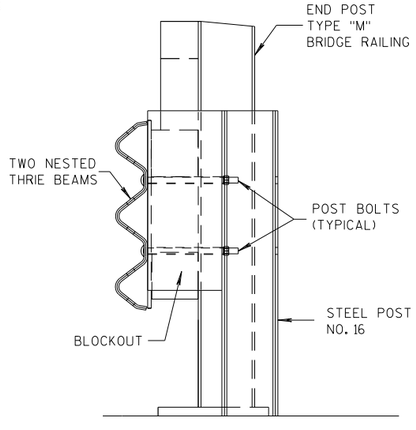
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

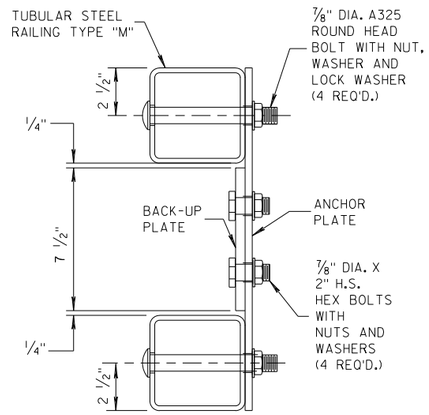


FRONT VIEW

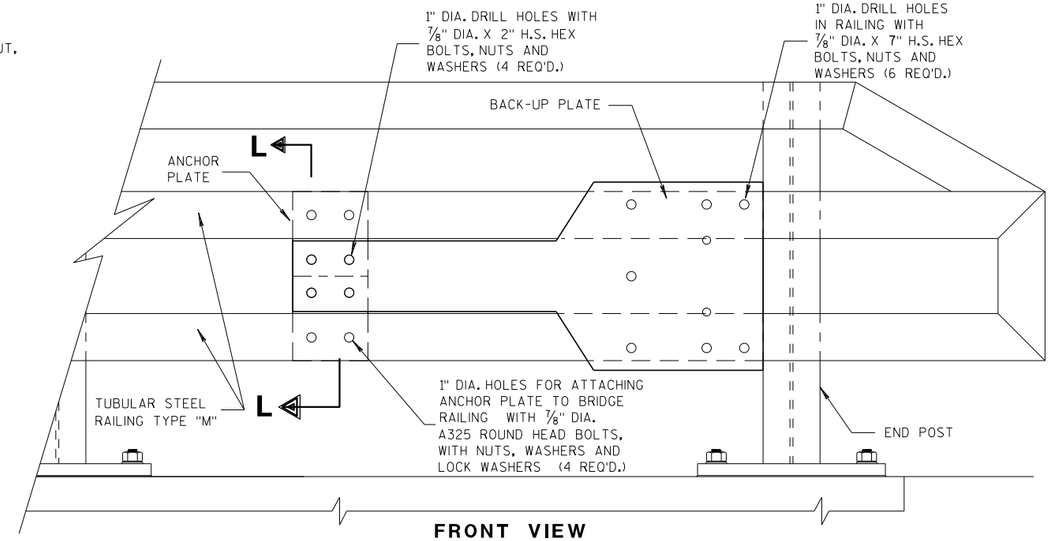
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

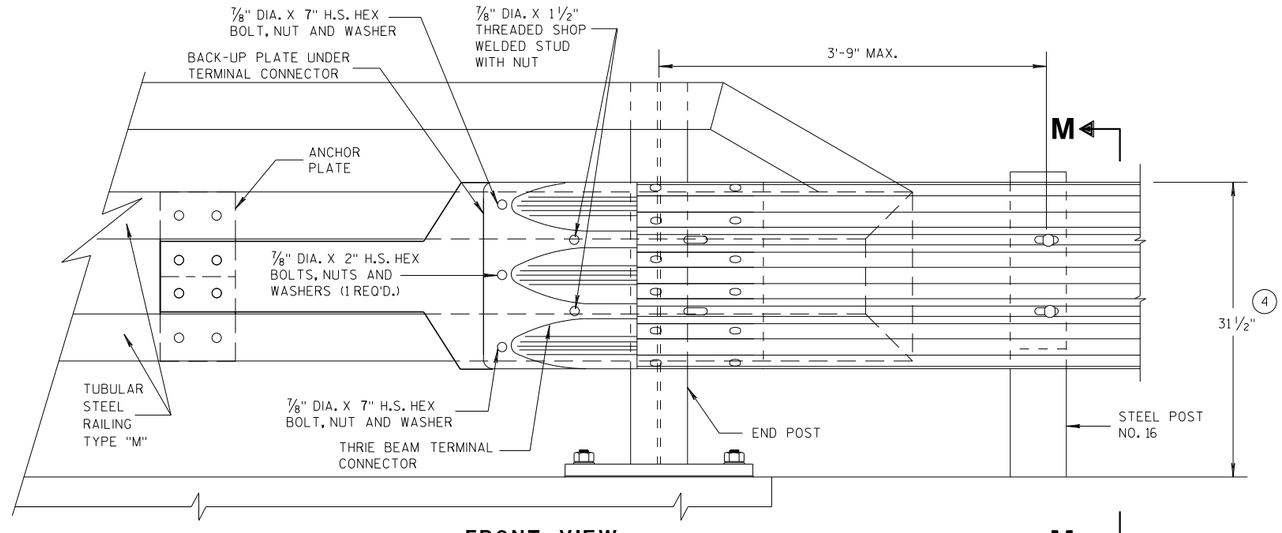


SECTION L-L

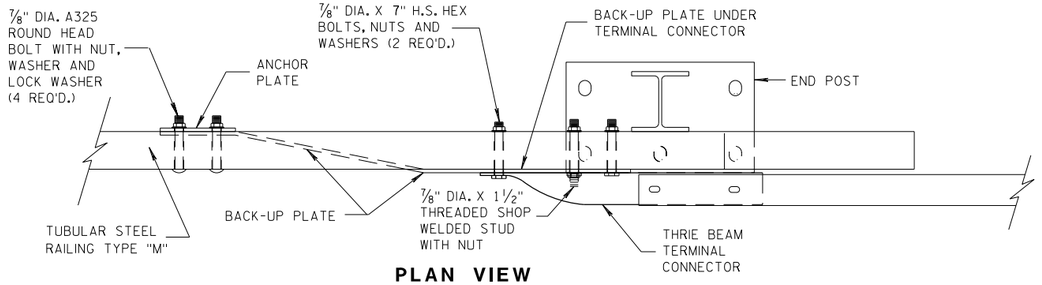


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
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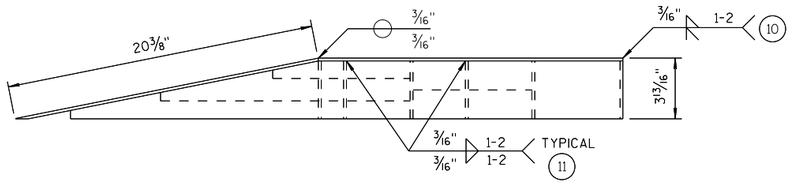

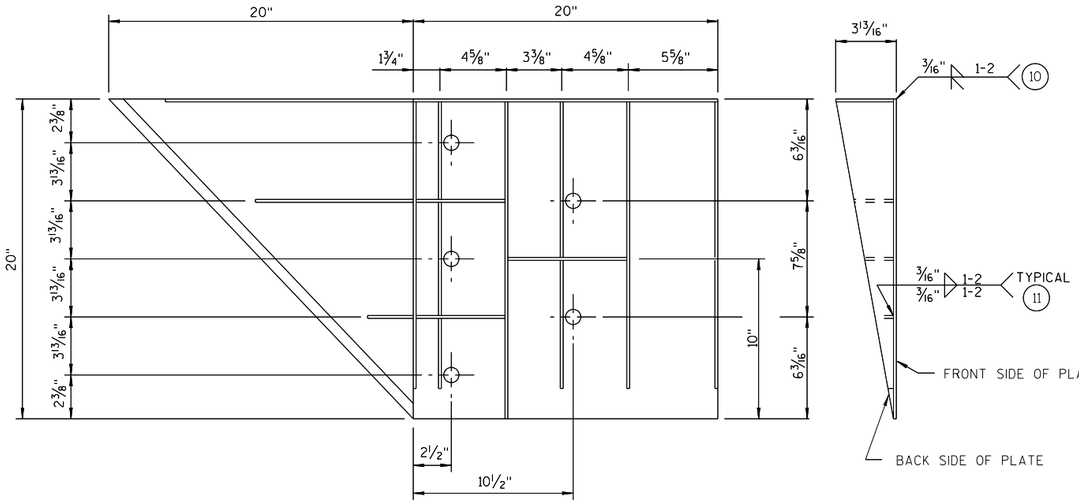

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

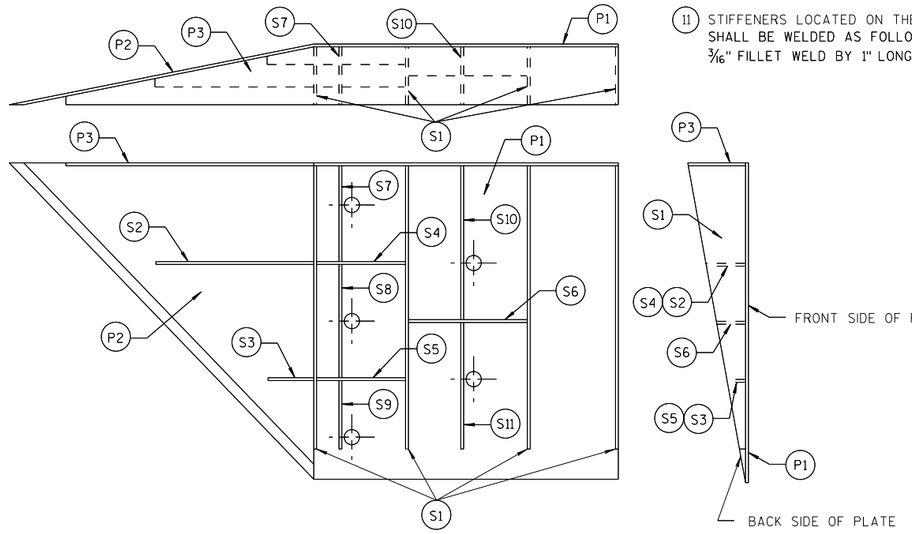

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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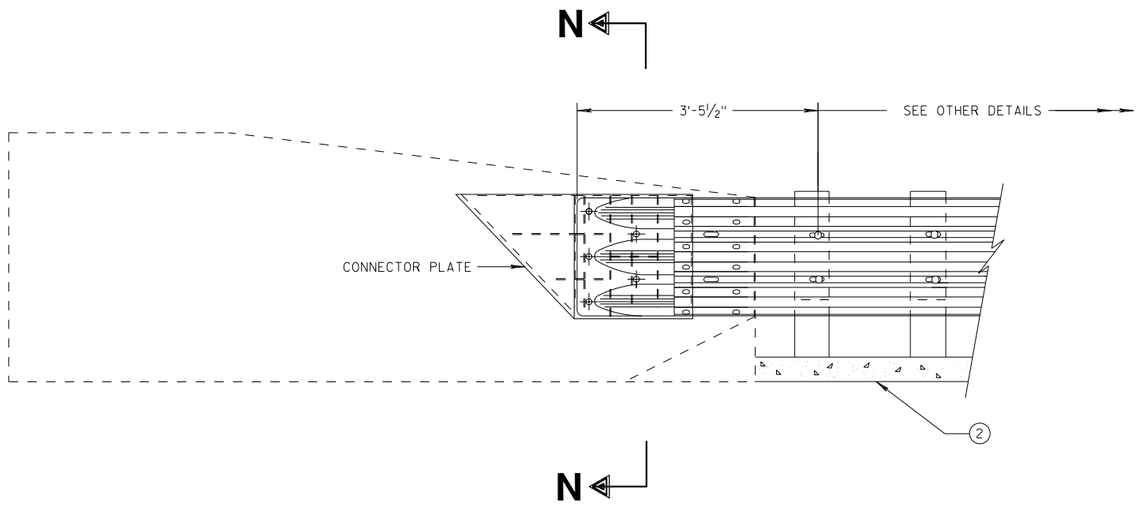
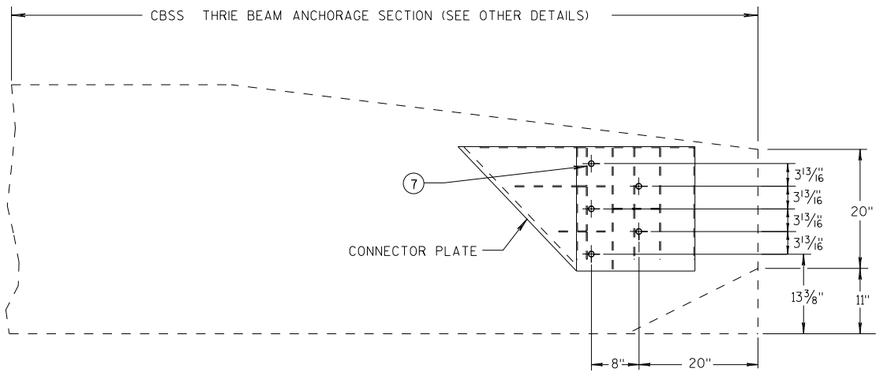


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



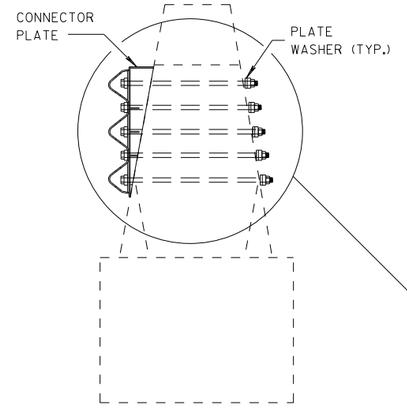
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

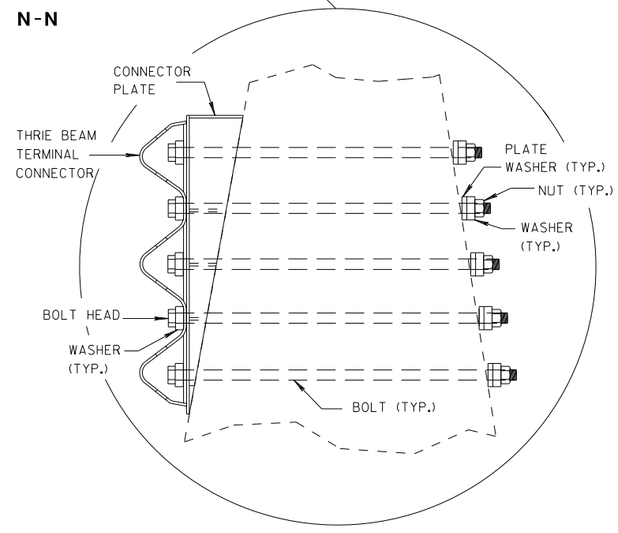
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE
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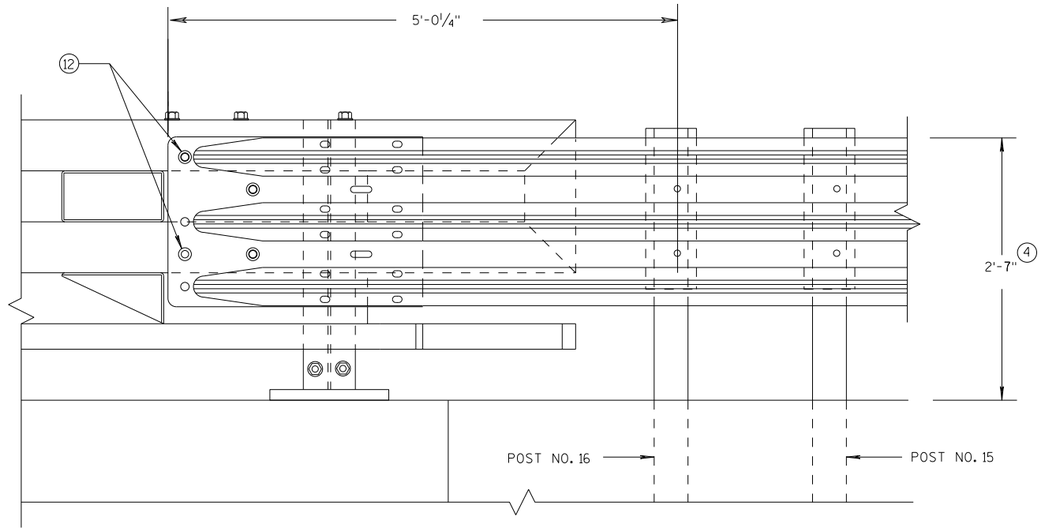
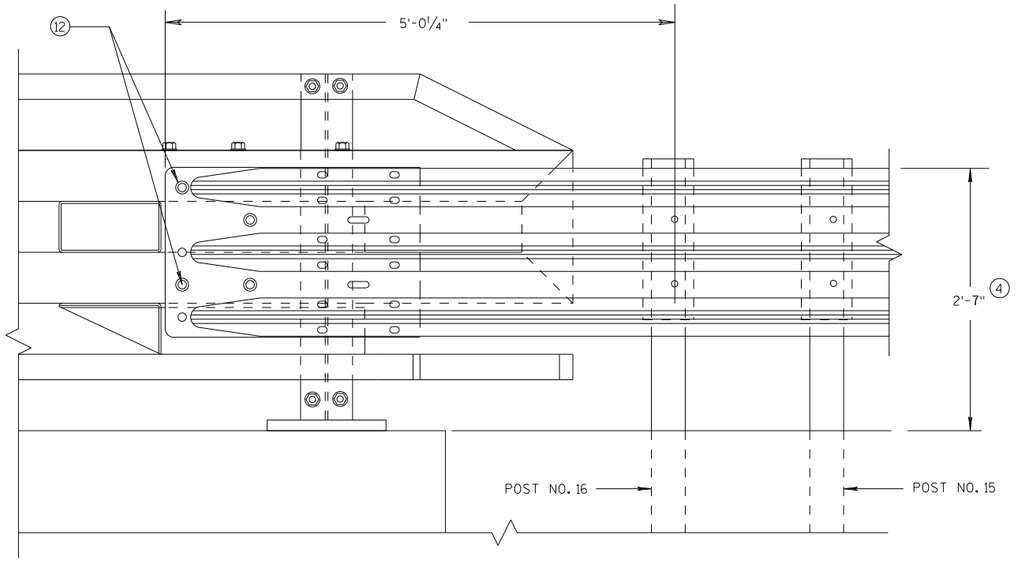


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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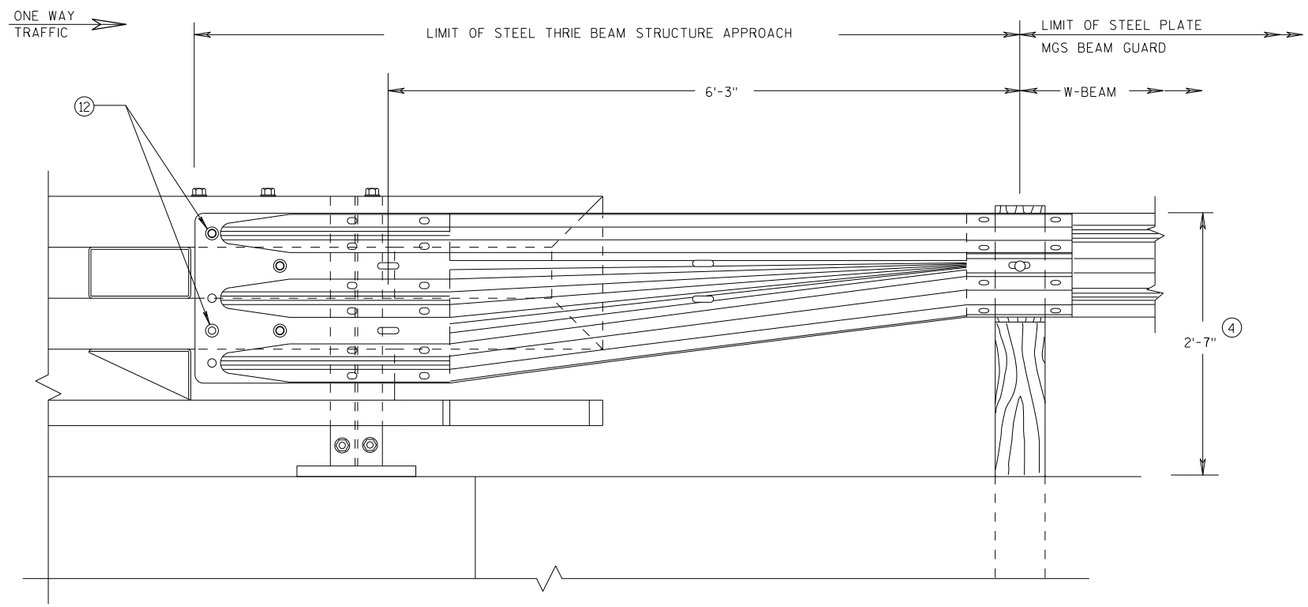


FRONT VIEW

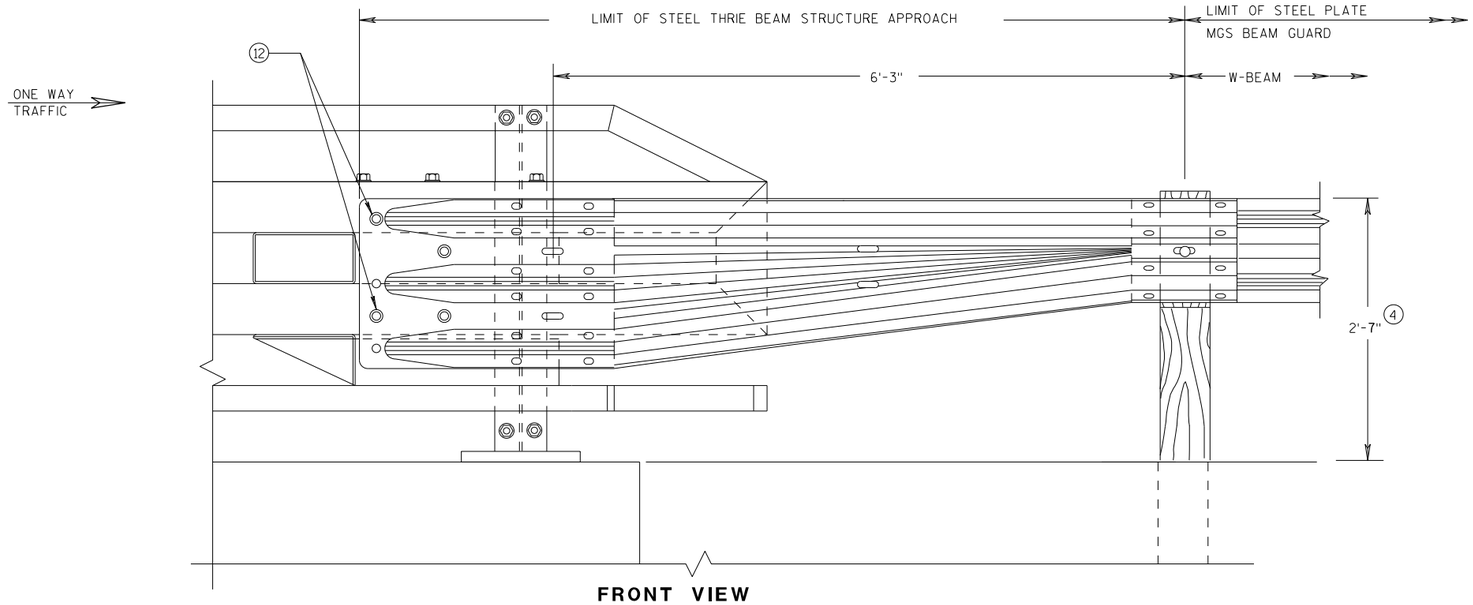
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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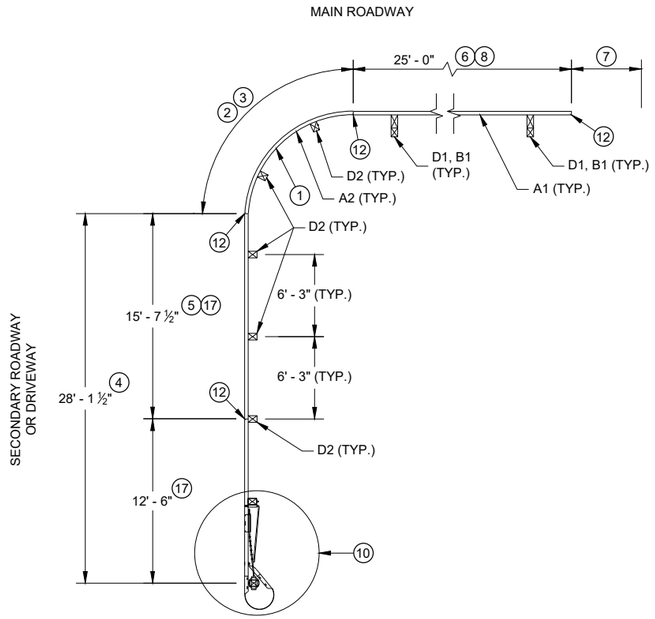
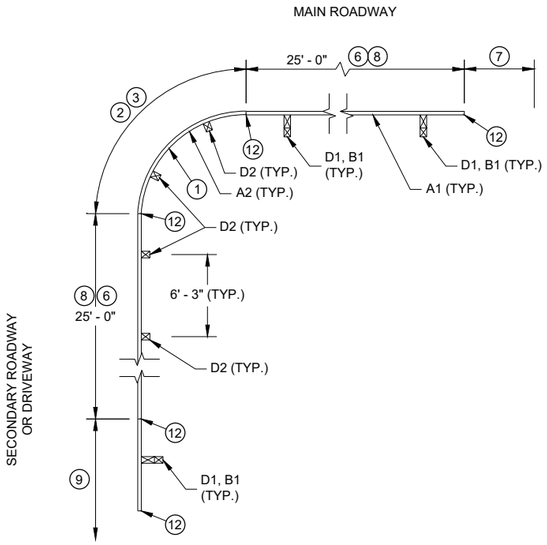


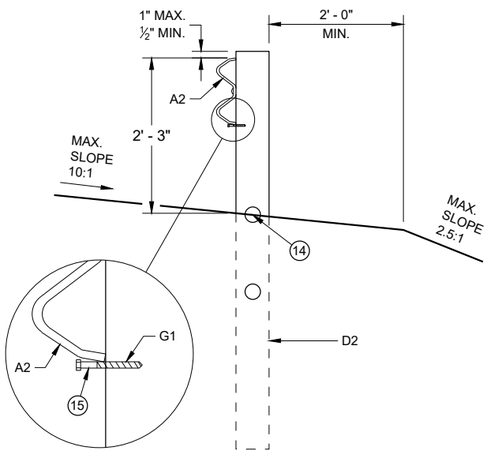
PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

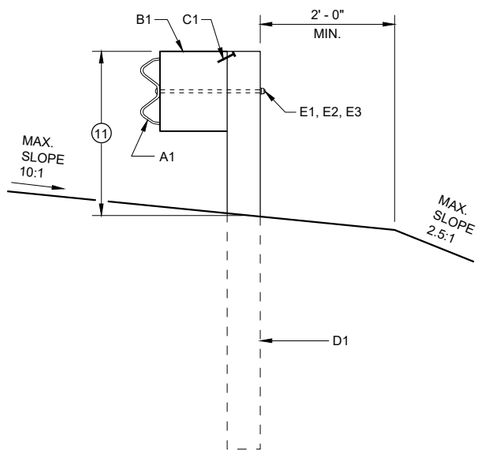


PLAN VIEW

SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY



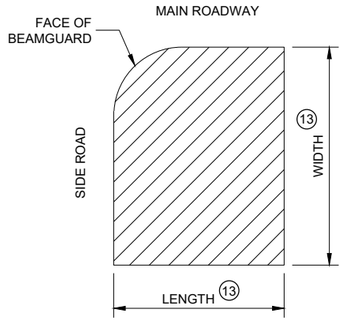
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



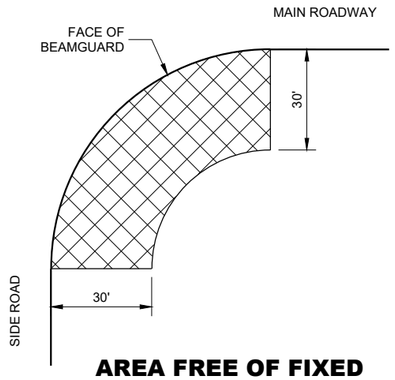
BEAM GUARD POSTS IN HEIGHT TRANSITION

TABLE FOR RADIUS OF 32' AND LESS

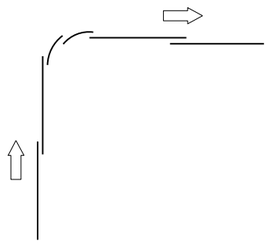
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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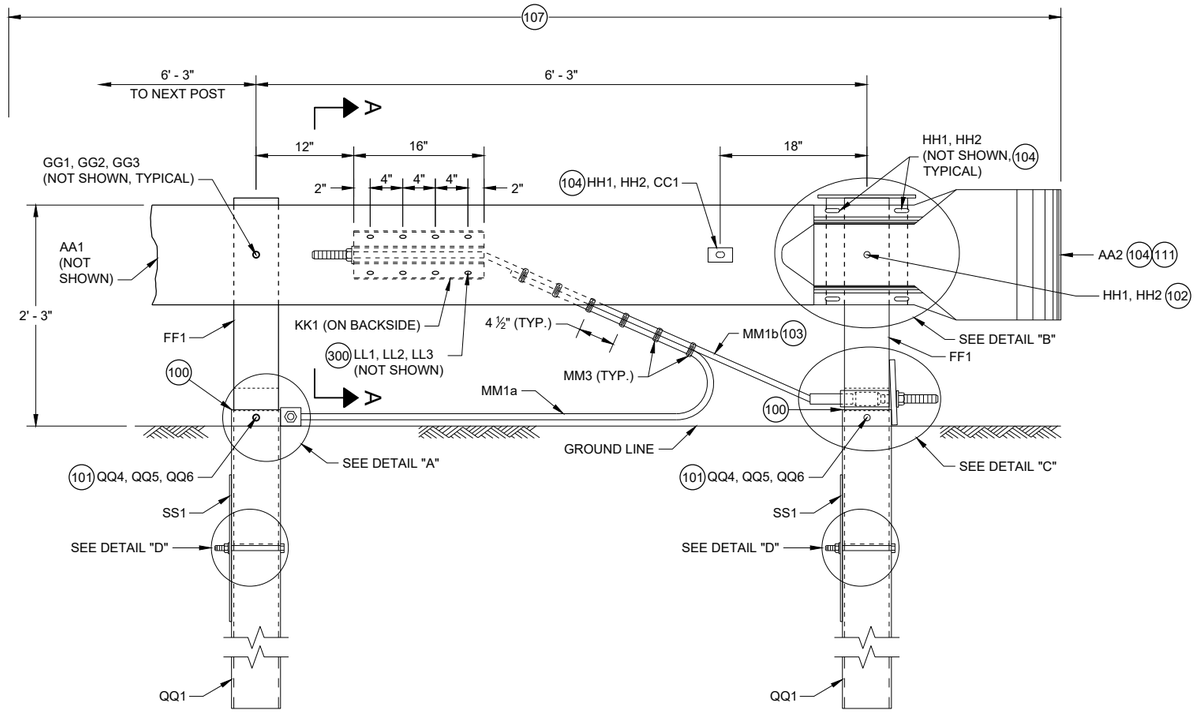
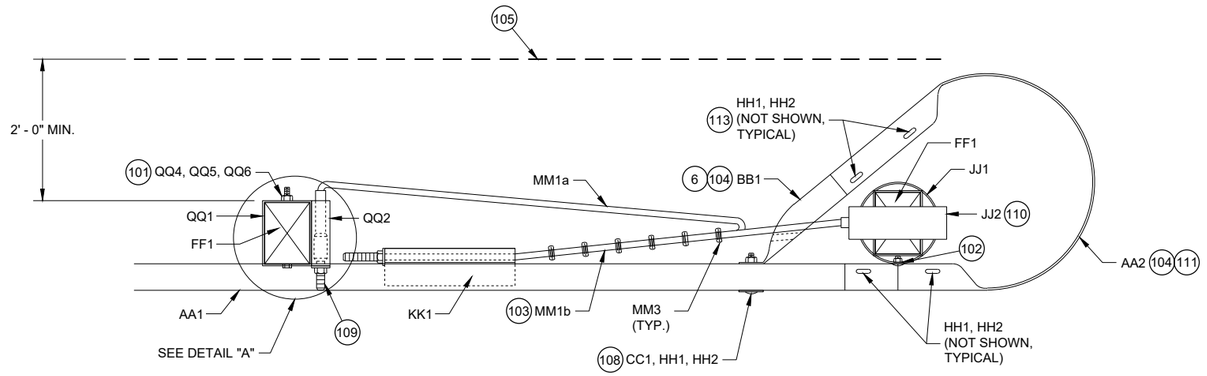


PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

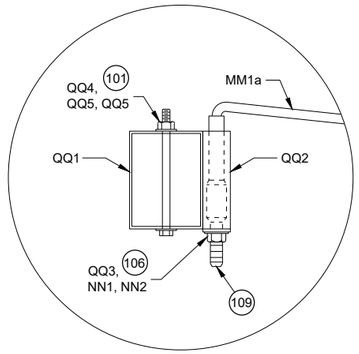
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

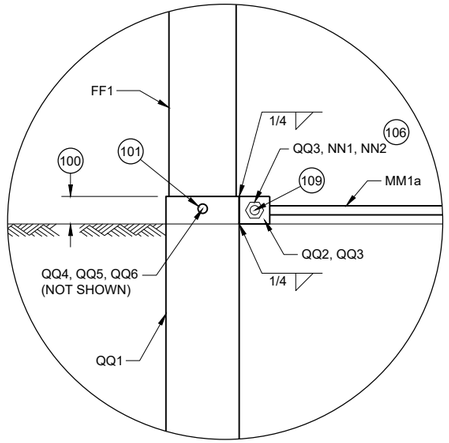
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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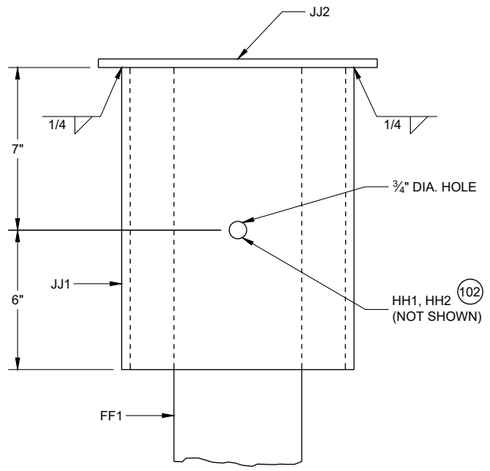
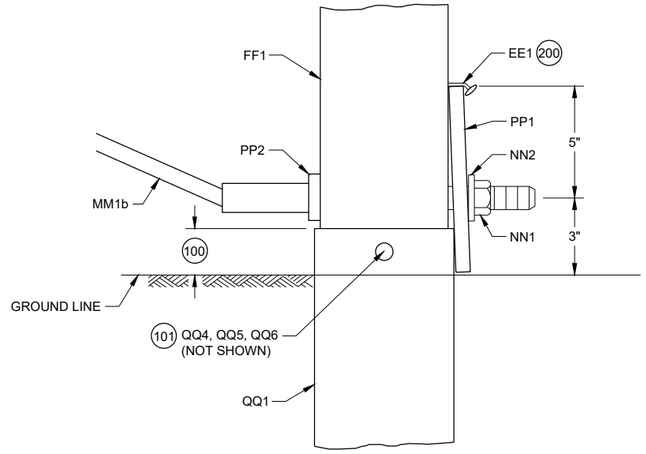
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



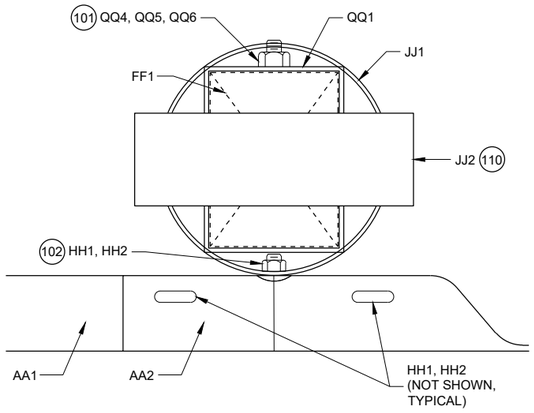
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



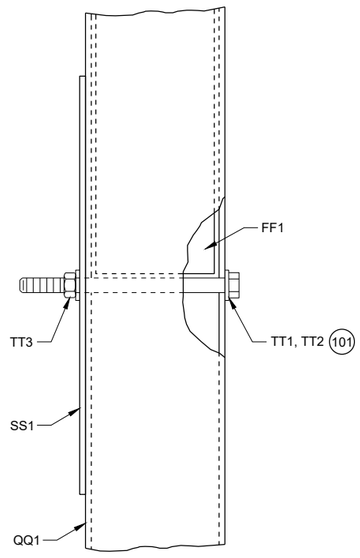
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

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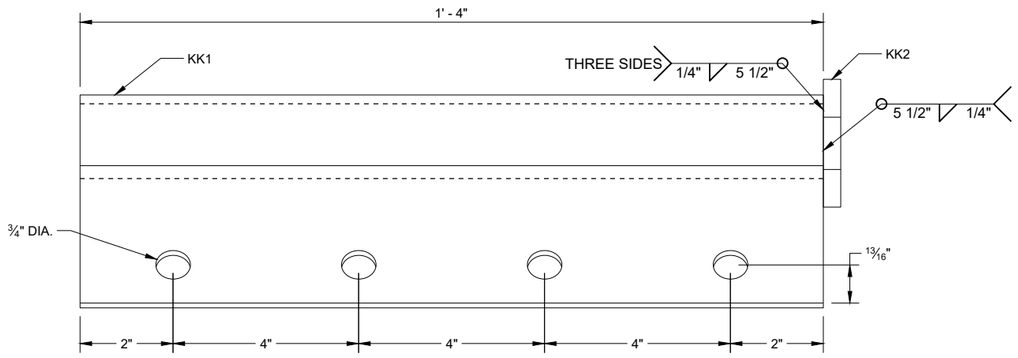
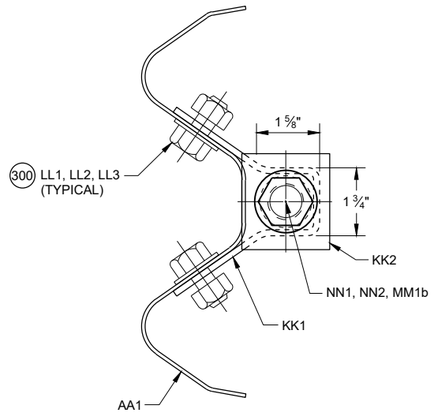
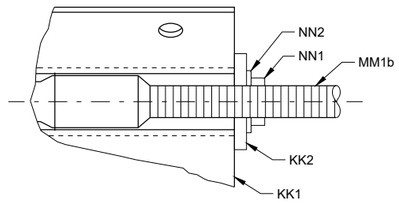
SDD 14B53 - 02c

GENERAL NOTES

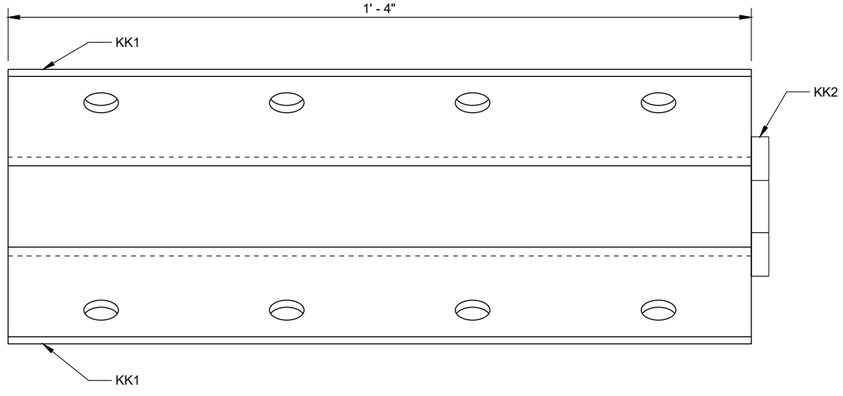
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

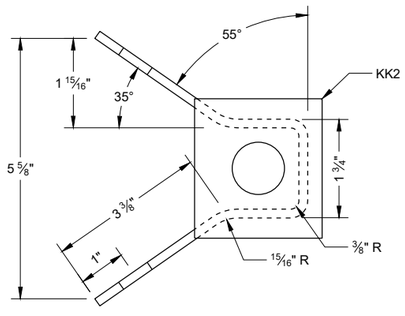




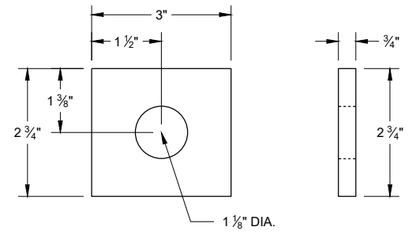


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

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SDD 14B53 - 02d

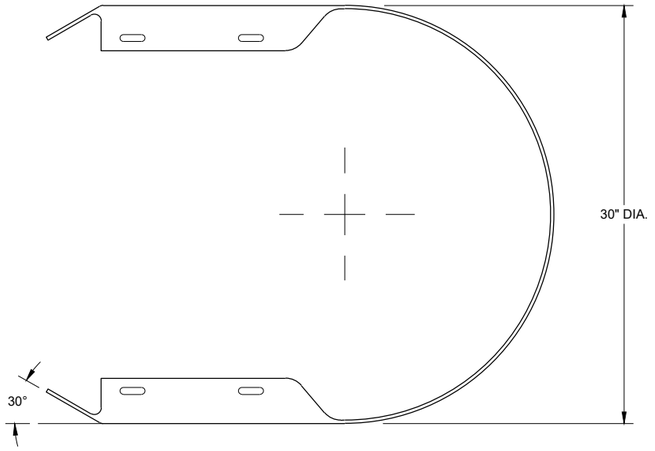
SDD 14B53 - 02d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

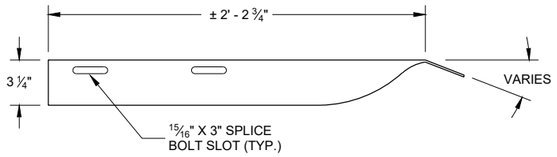
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

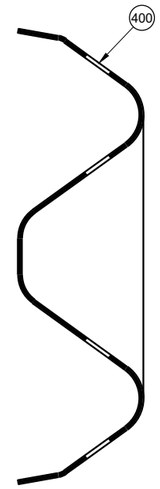
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



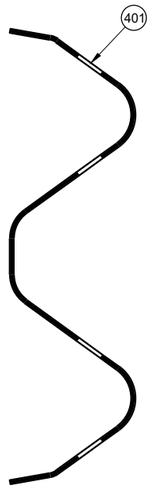
TOP VIEW



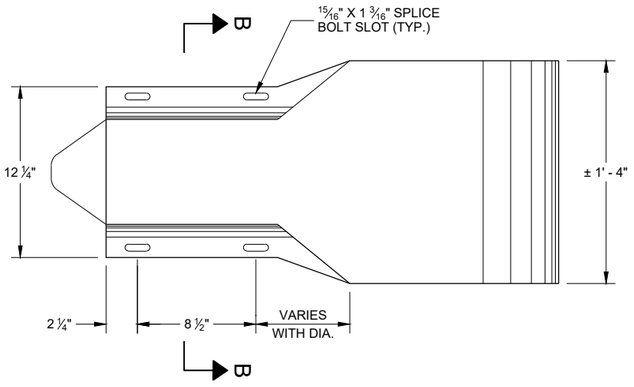
TOP VIEW



SECTION B -B

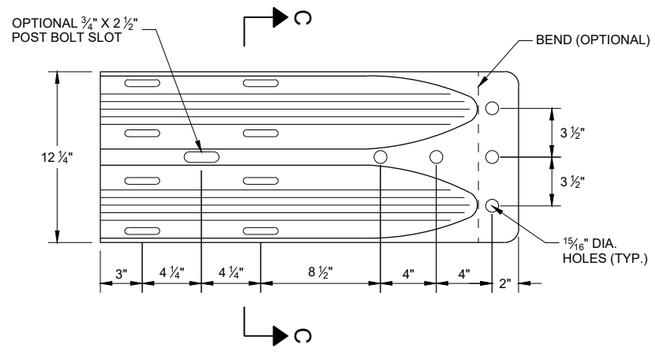


SECTION C -C



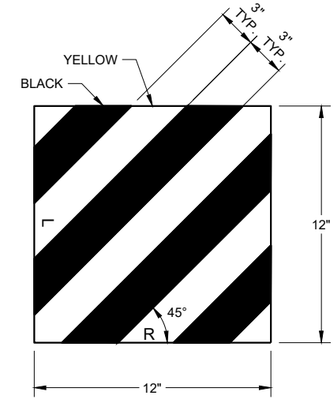
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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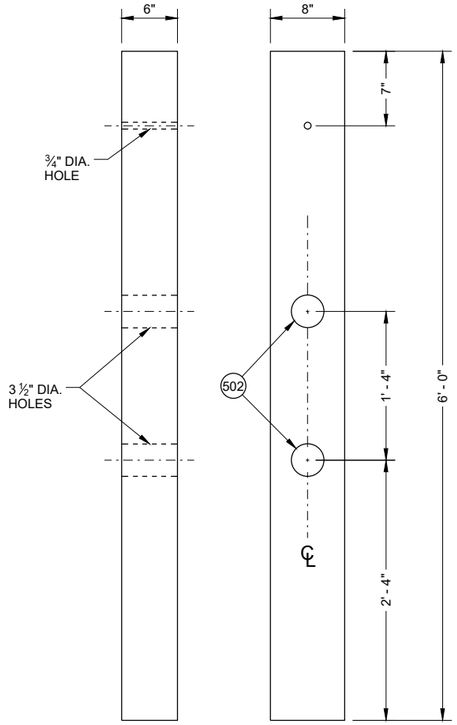
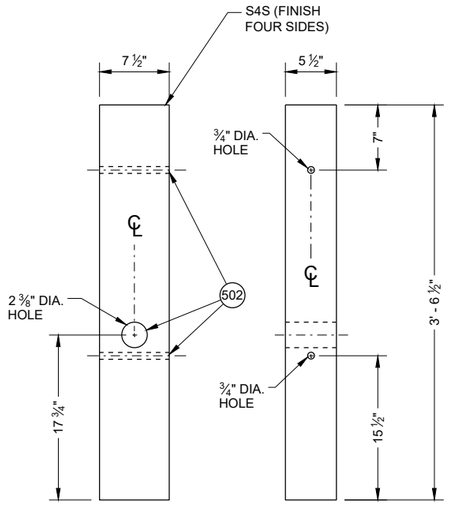
SDD 14B53 - 02e



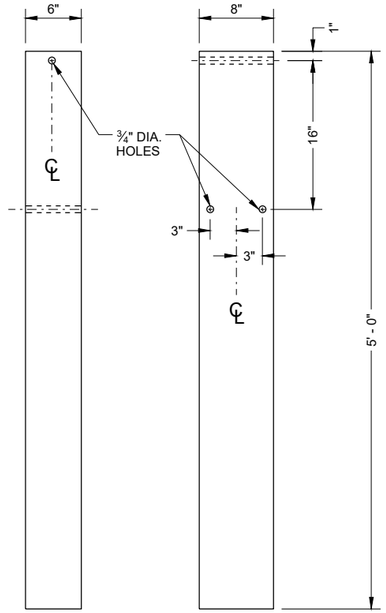
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) (500)

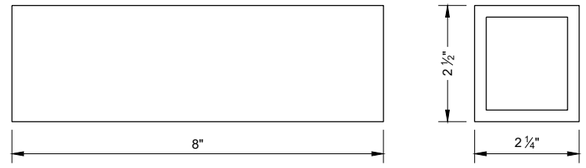
GENERAL NOTES

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

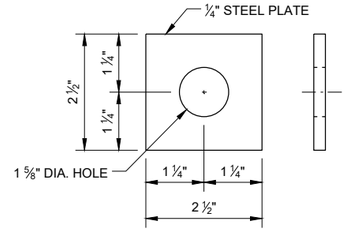
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

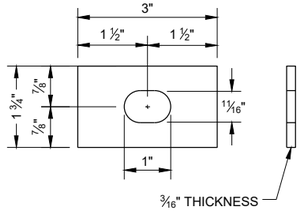
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



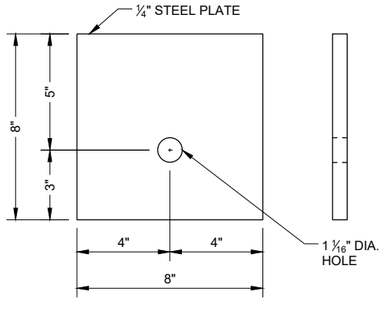
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



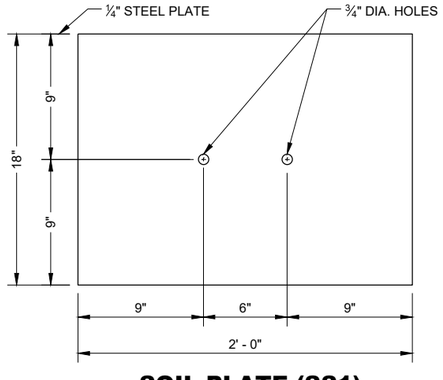
ANCHOR CABLE TUBE END PLATE (QQ3)



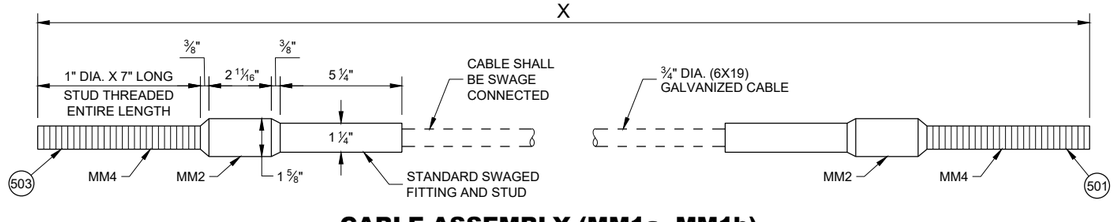
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 02g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 02h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

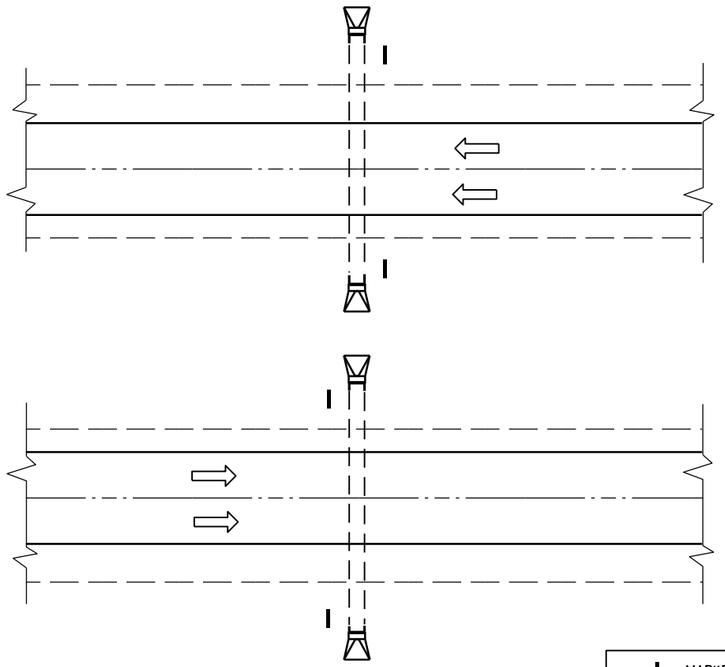
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

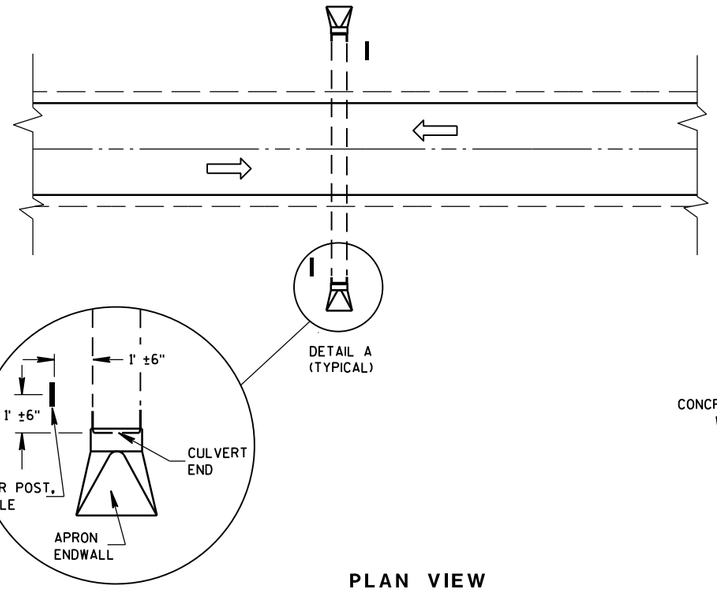
6

SDD 14B53 - 02i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

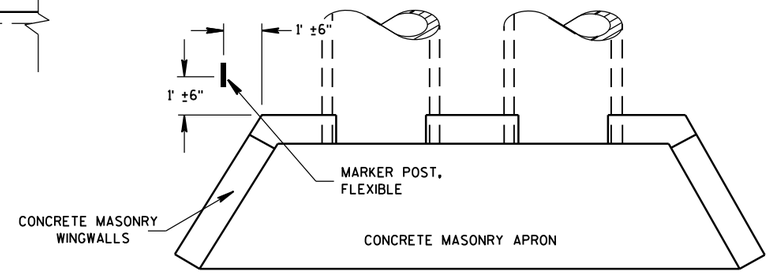
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

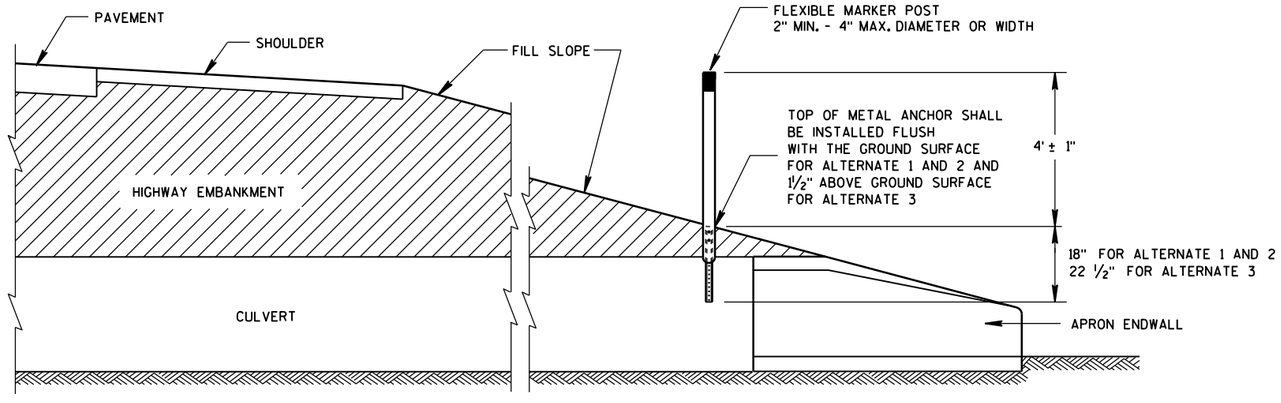
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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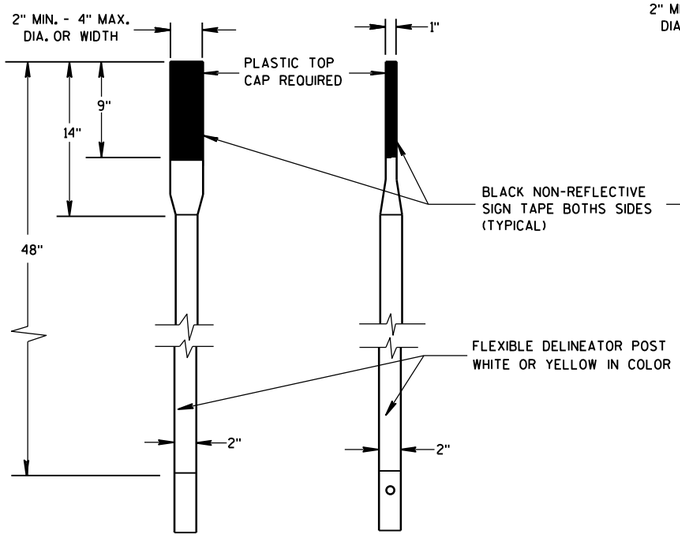
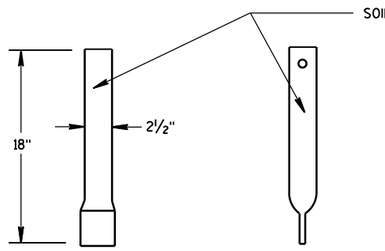
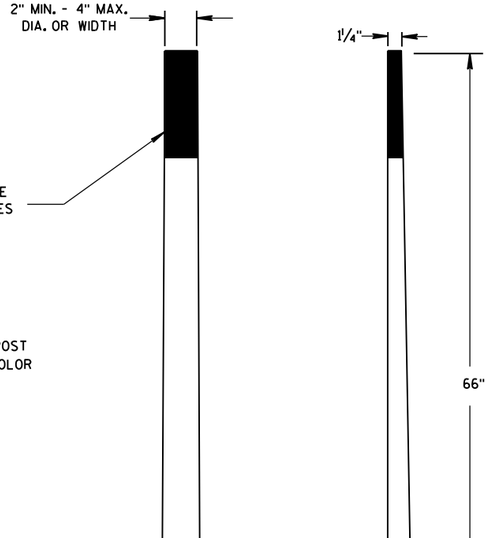
S.D.D. 15 A 3-2a





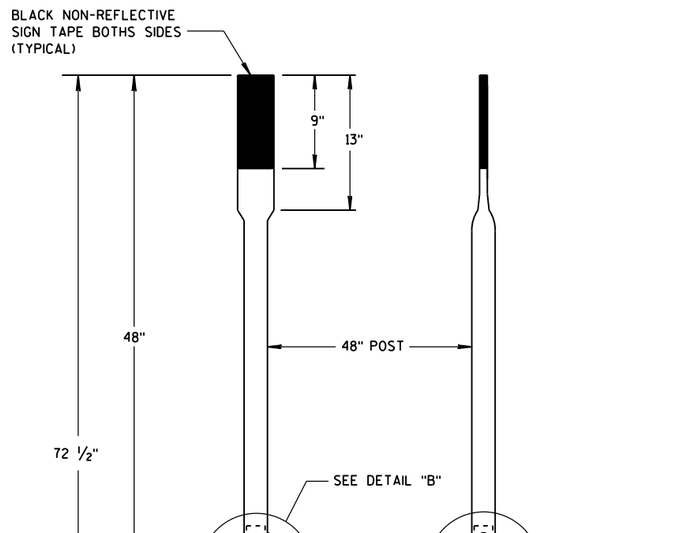
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

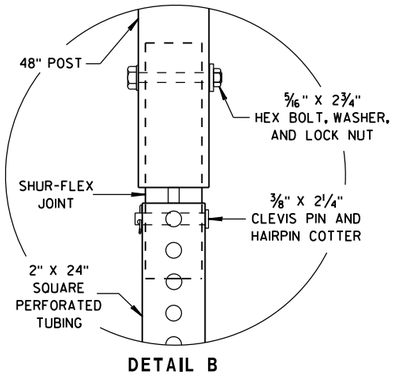
ALTERNATE 2



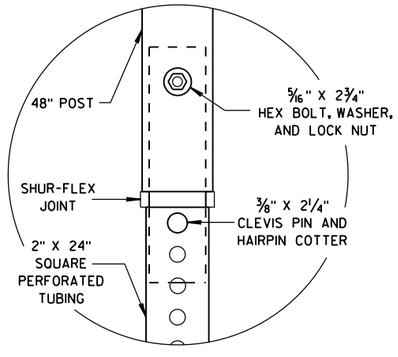
FRONT VIEW SIDE VIEW

ALTERNATE 3

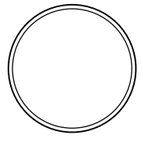
FLEXIBLE MARKER POSTS



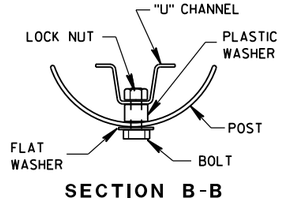
DETAIL B



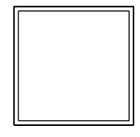
DETAIL C



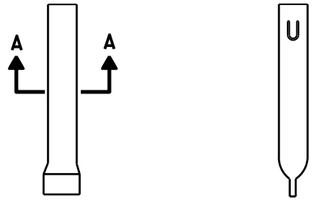
SECTION A-A



SECTION B-B

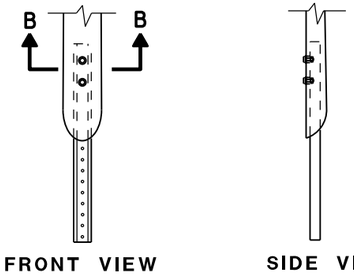


SECTION C-C



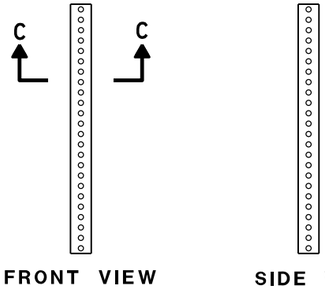
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	

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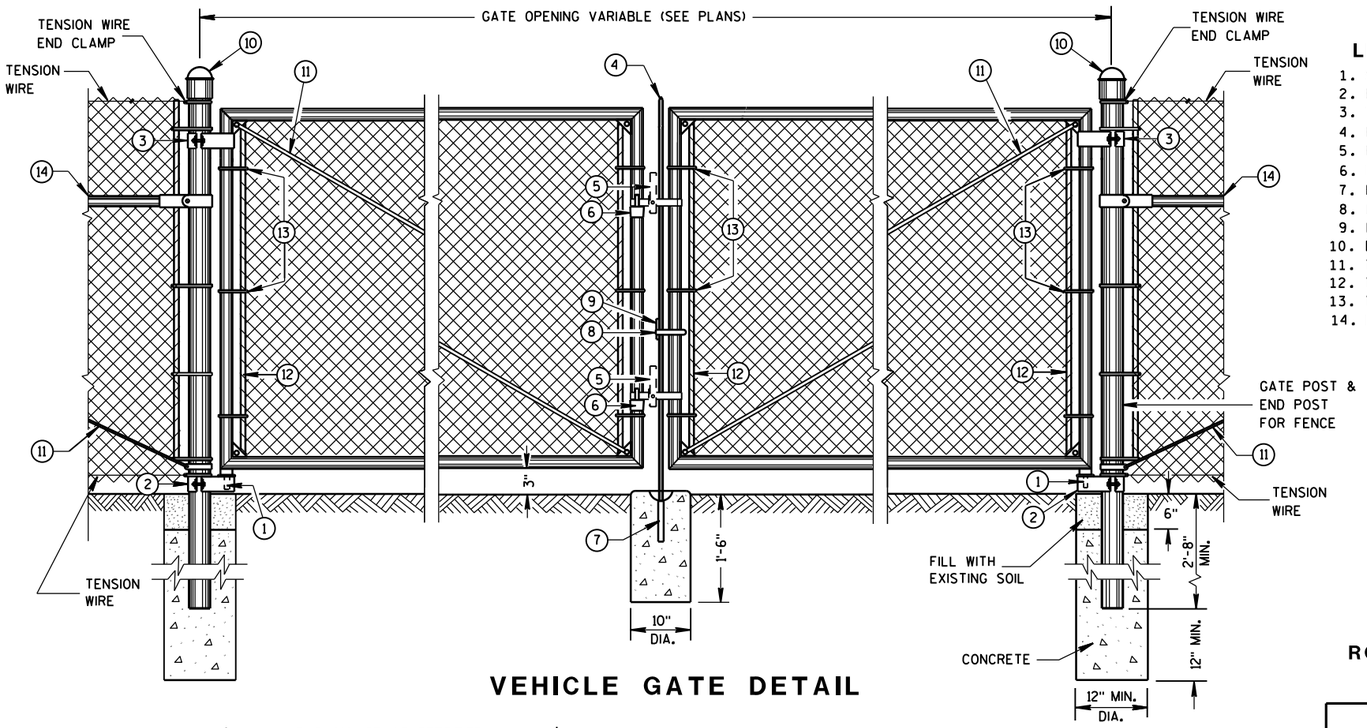
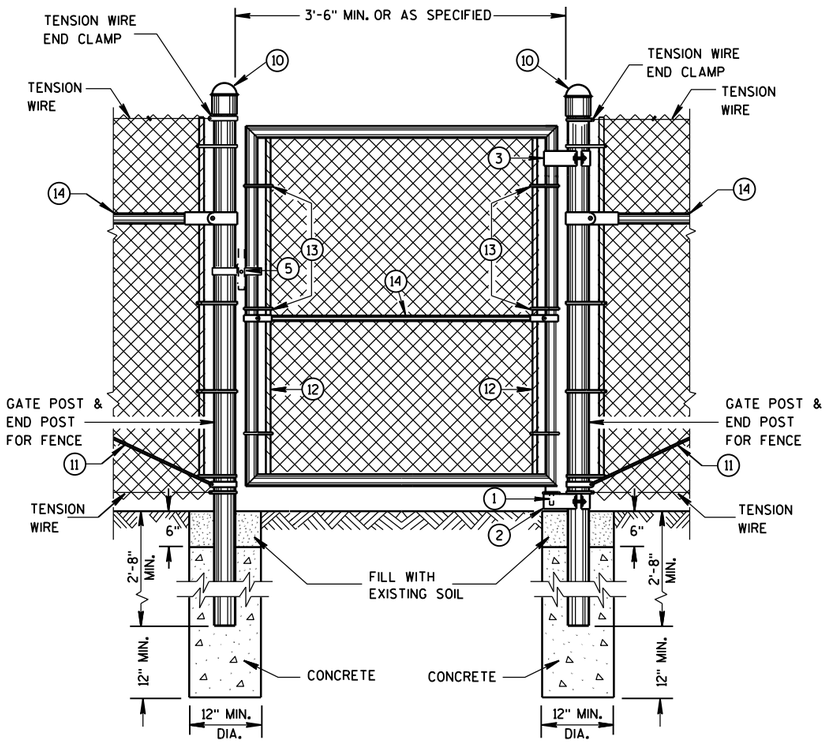
S.D.D. 15 A 3-2b

6

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

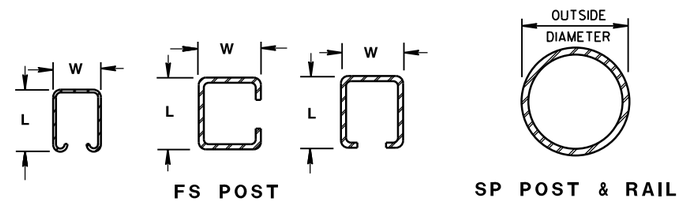
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

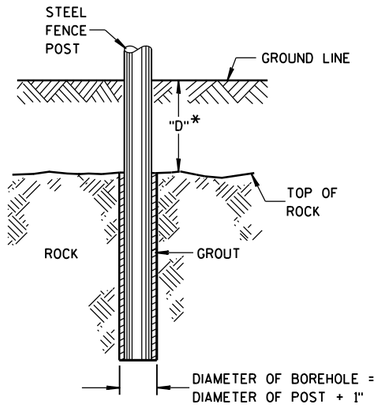
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

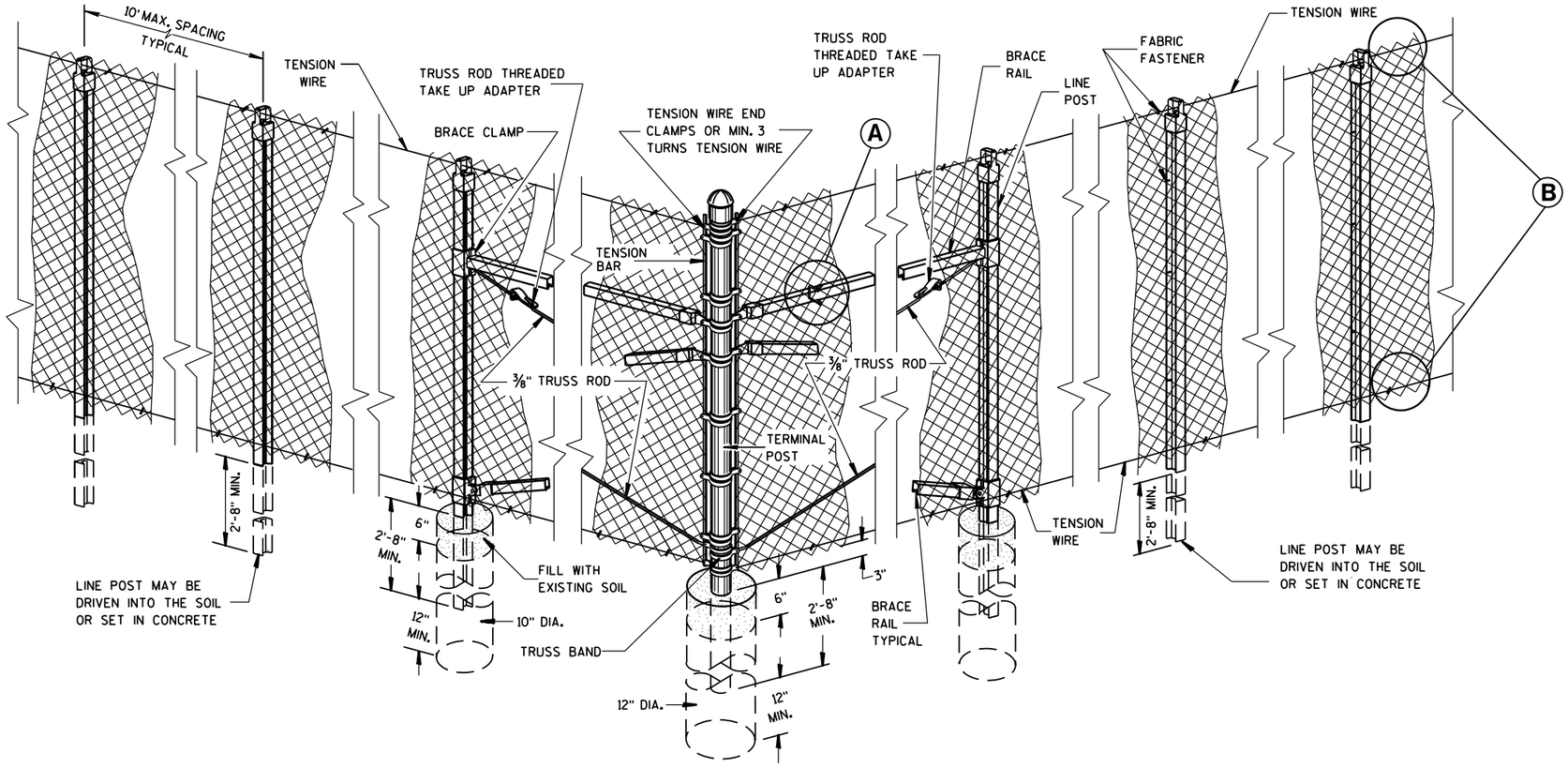
6

S.D.D. 15 B 3-15a

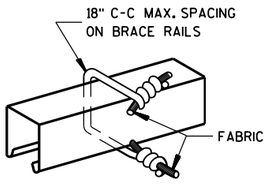


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



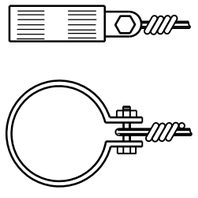
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



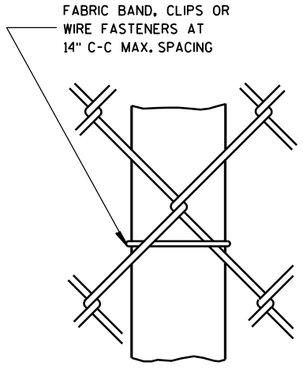
BRACE RAIL

FABRIC FASTENER

Ⓐ



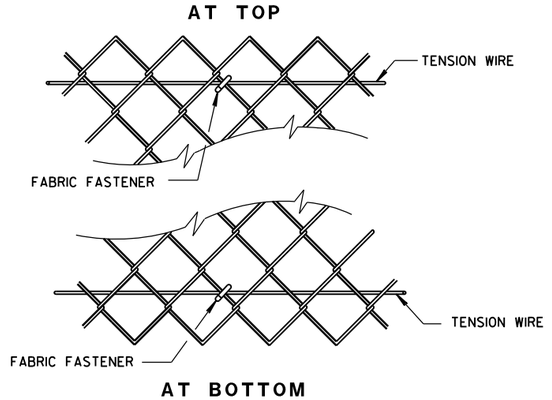
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

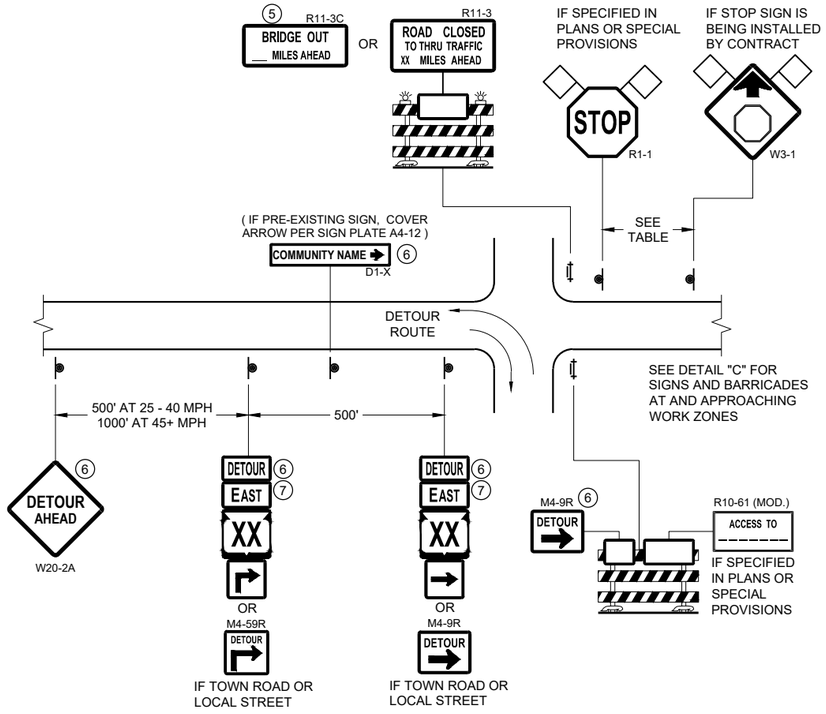
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-15b

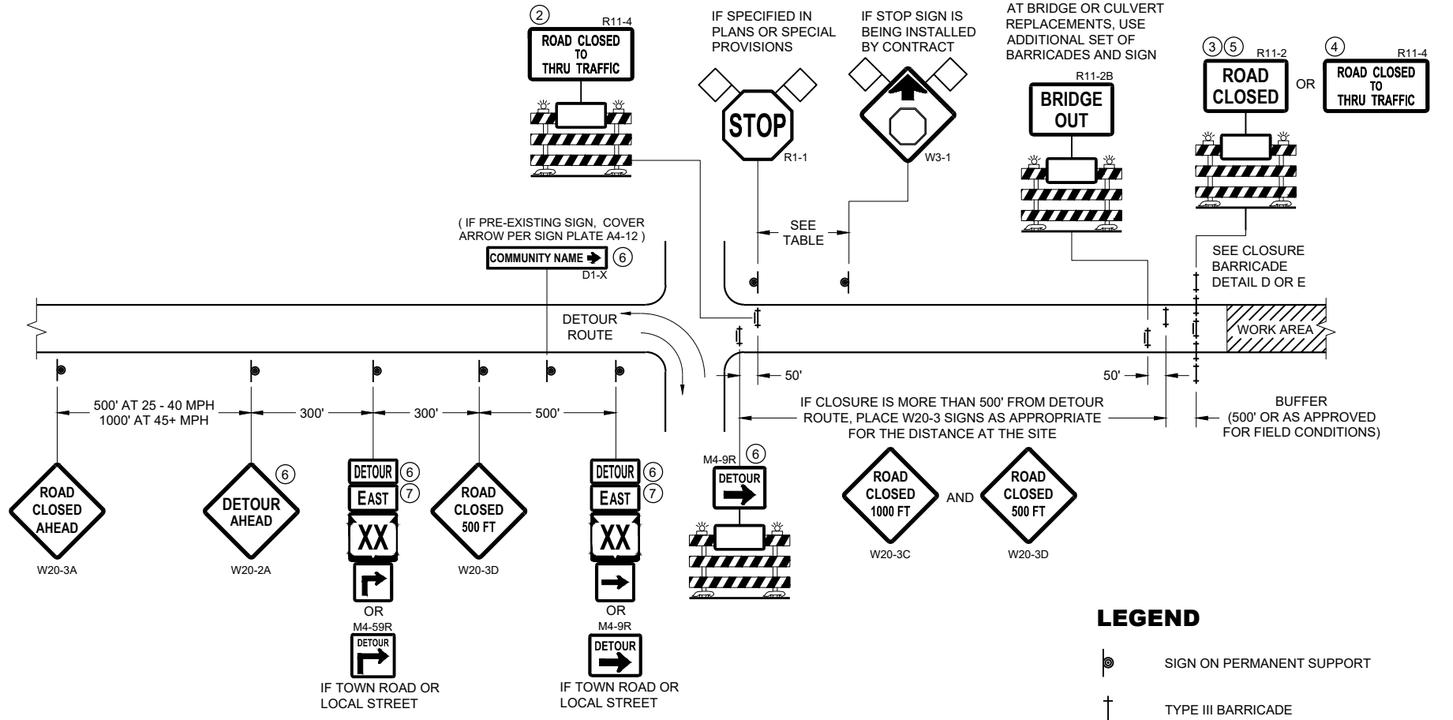
6

S.D.D. 15 B 3-15b



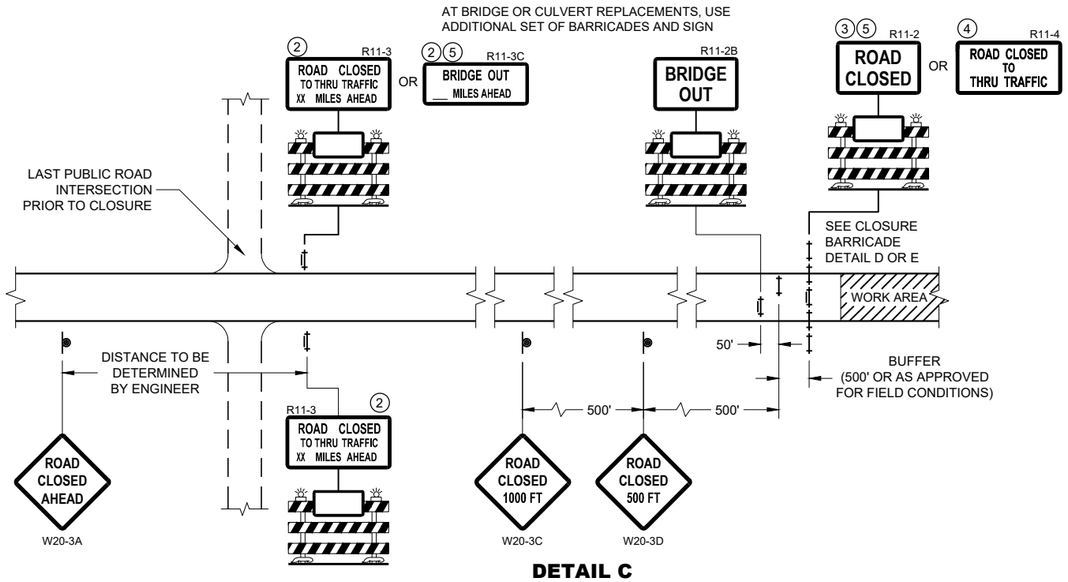
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

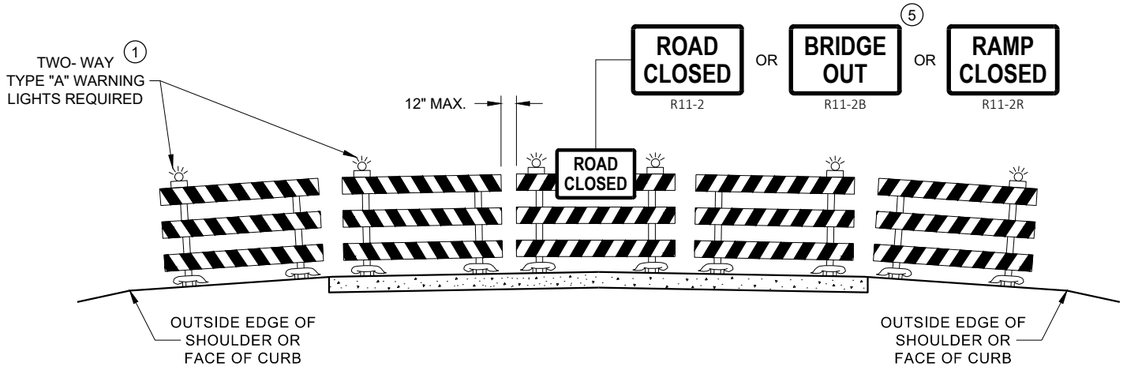
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

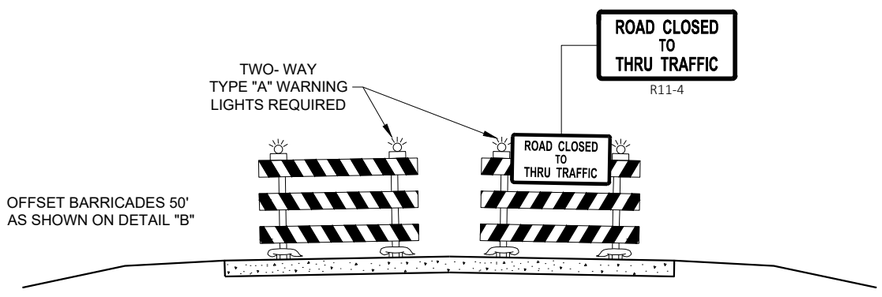
FHWA

6

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- M05 - 1
- OR M06 - 1
- OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

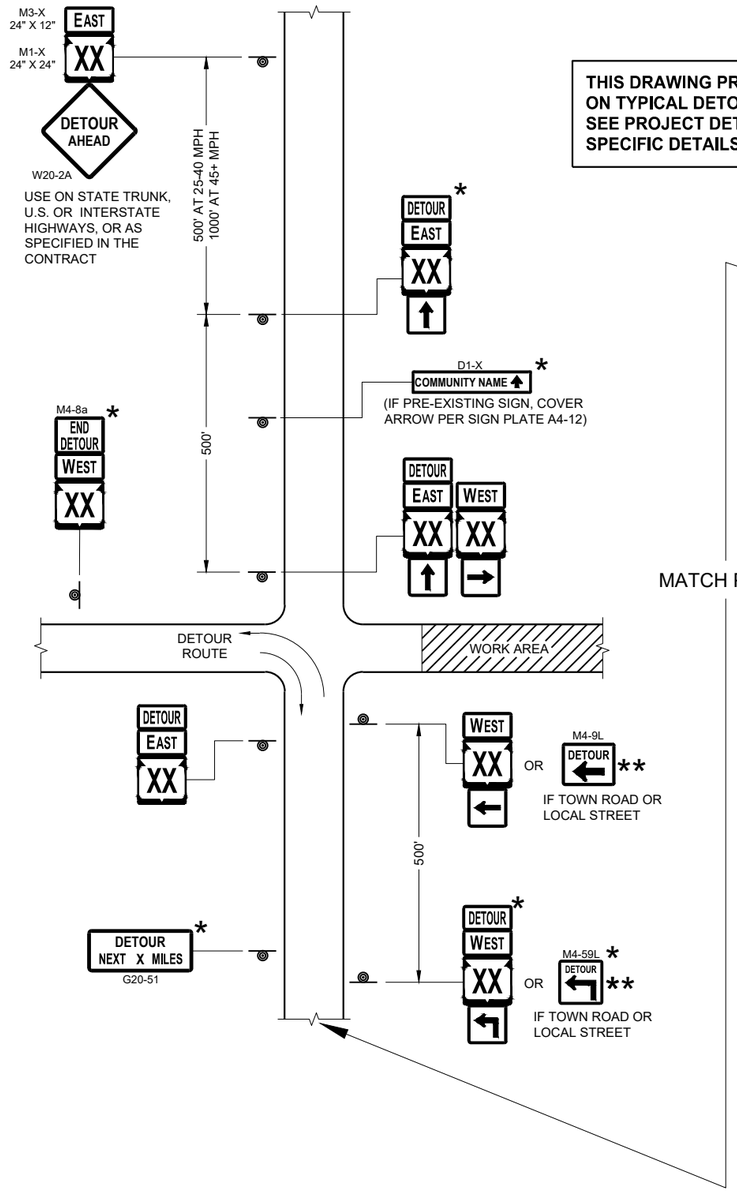
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

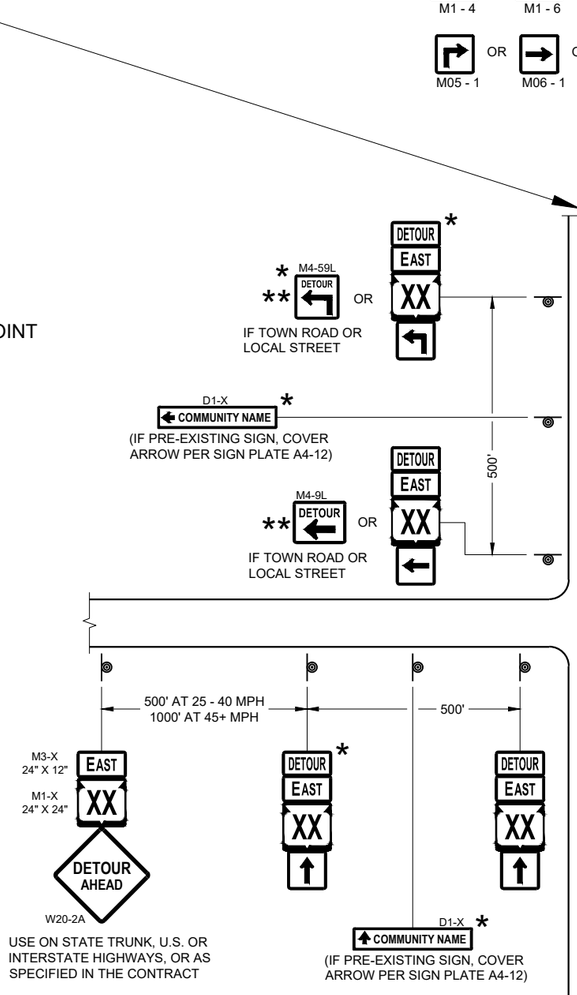
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

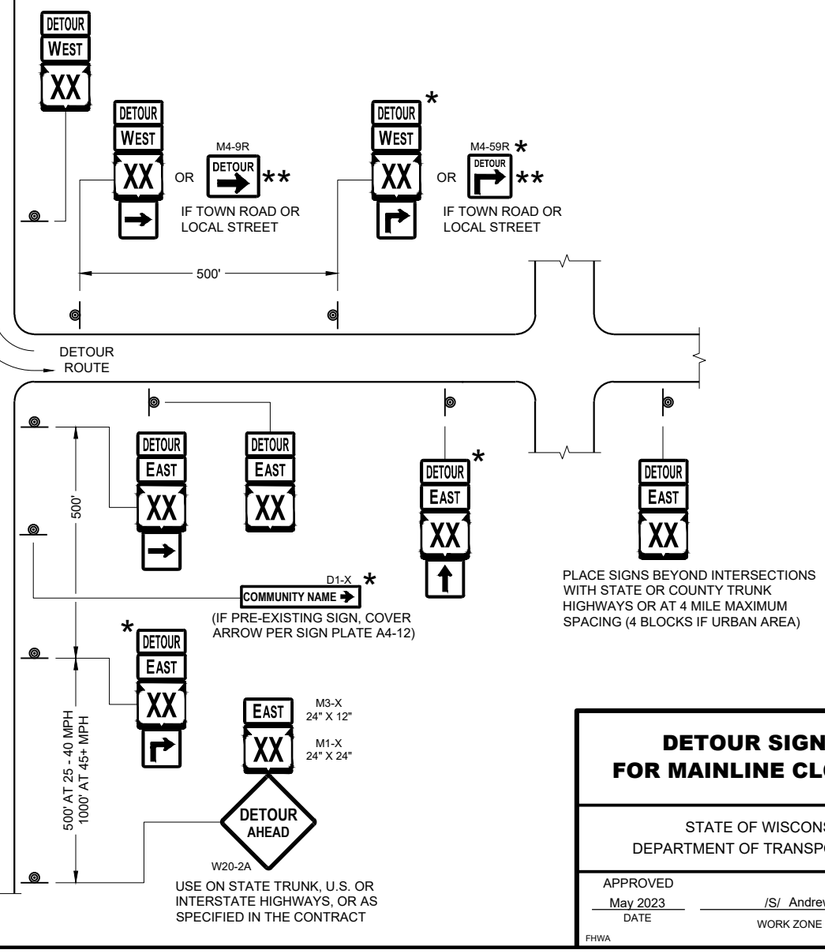
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT



MATCH POINT





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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C02 - 09c

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.

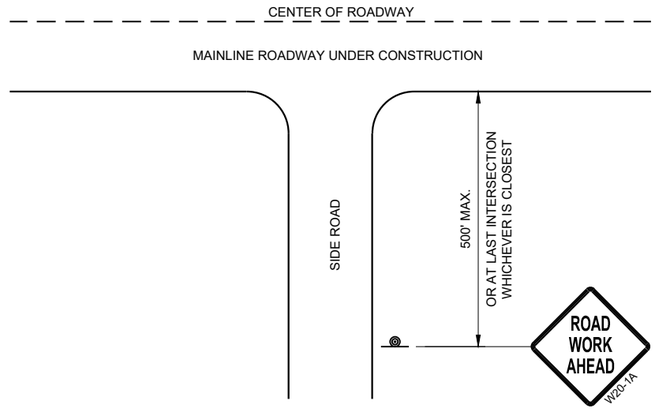
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



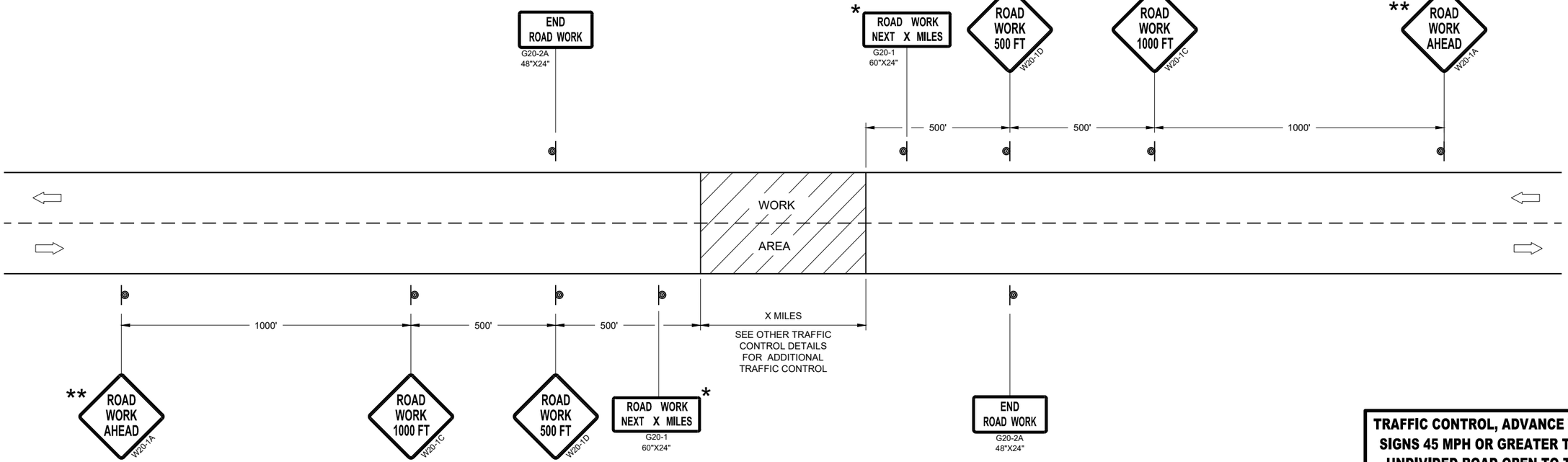
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



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
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

GENERAL NOTES

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

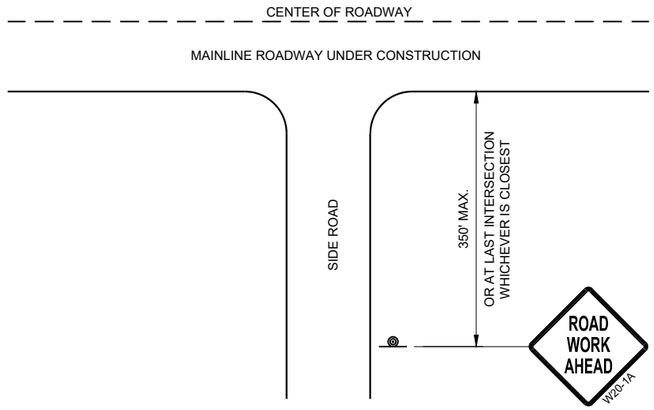
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



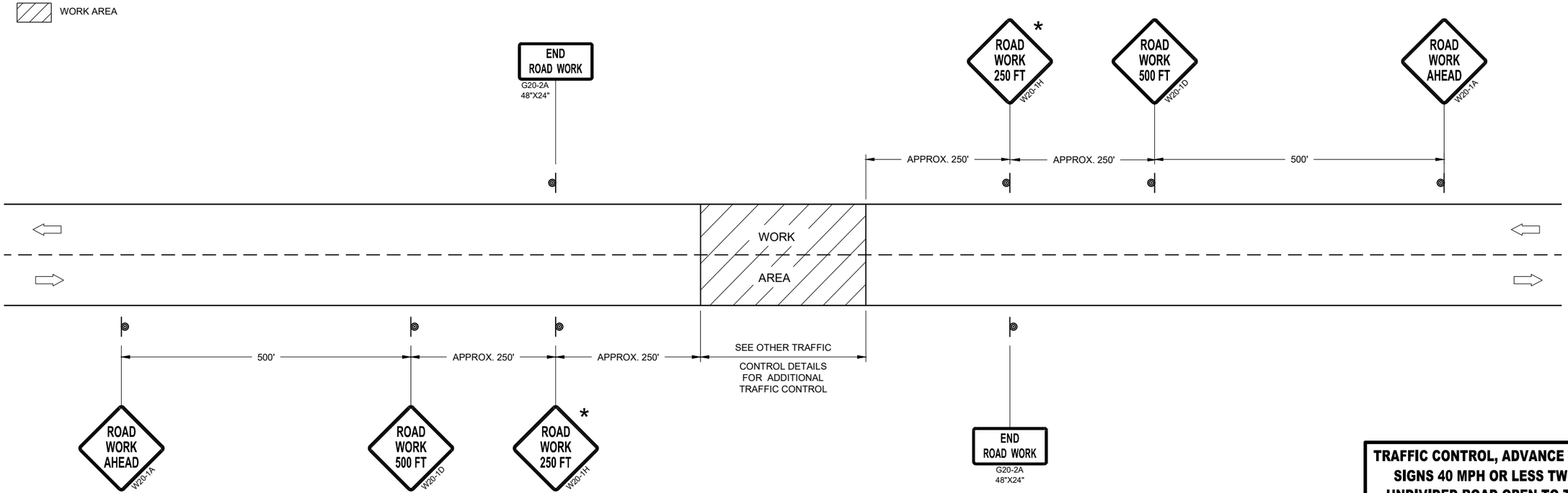
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



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
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WORK ZONE ENGINEE

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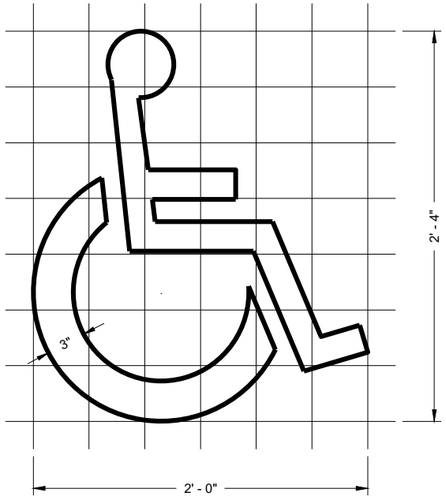
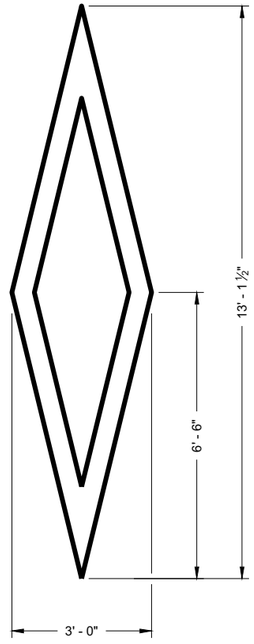
SDD 15C05 - 05

GENERAL NOTES

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



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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STATE SIGNING AND MAR ENGINEER

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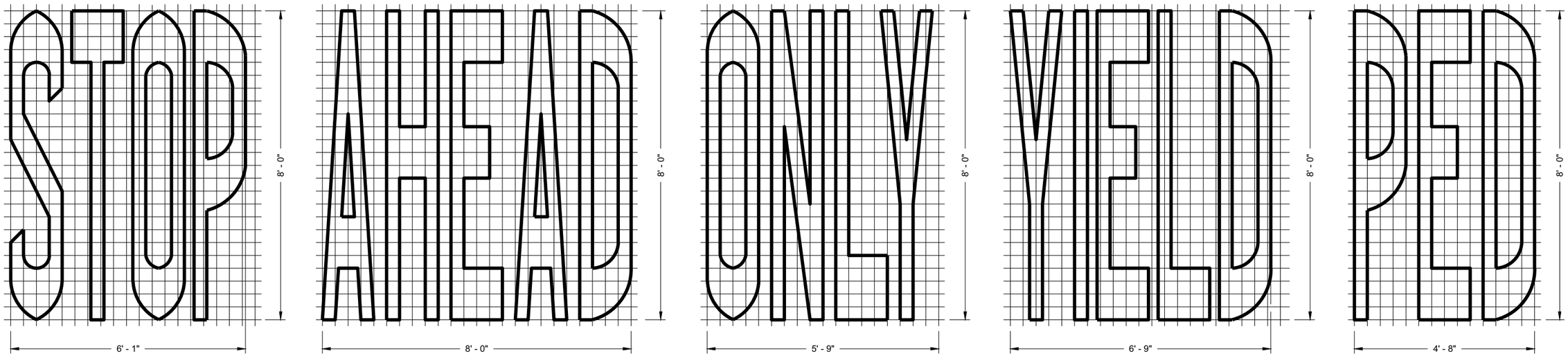
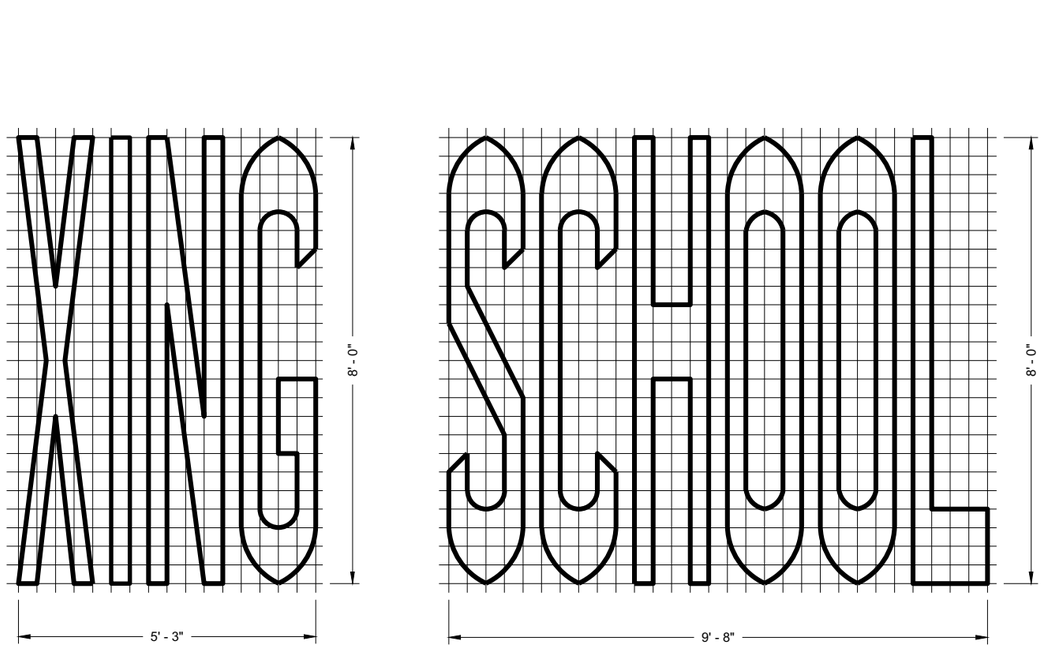
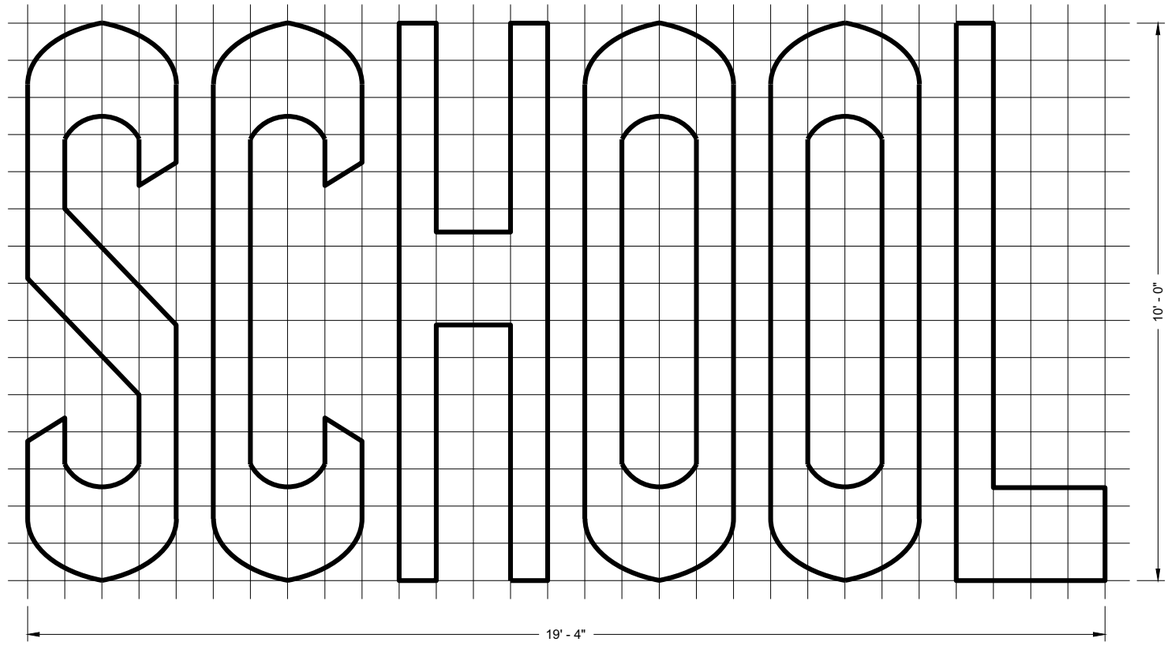




SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

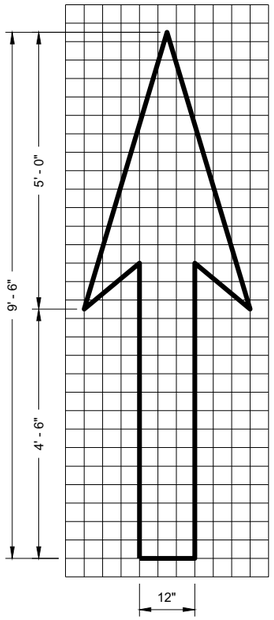
6

SDD 15C07 - 15b

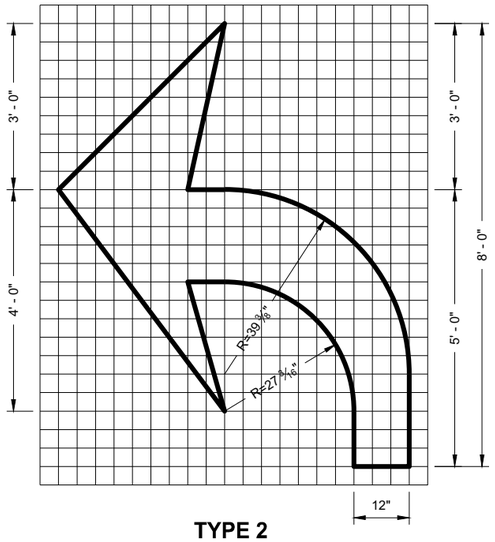
SDD 15C07 - 15b

GENERAL NOTES

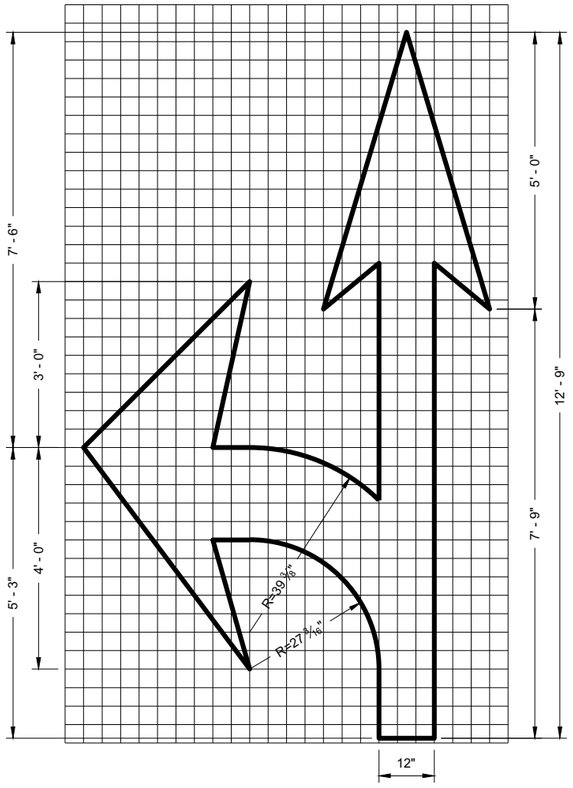
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



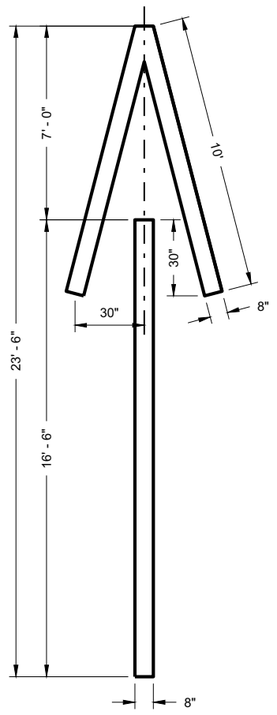
TYPE 1



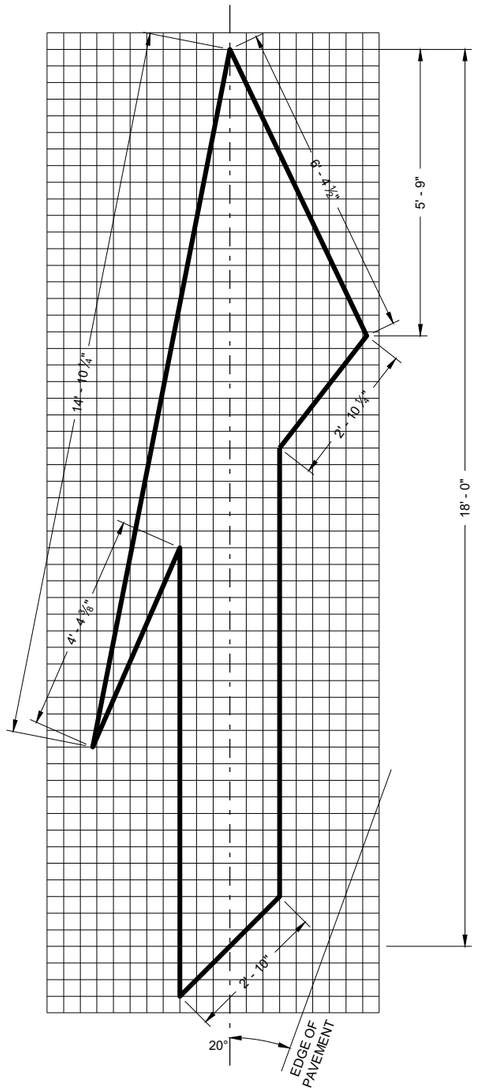
TYPE 2



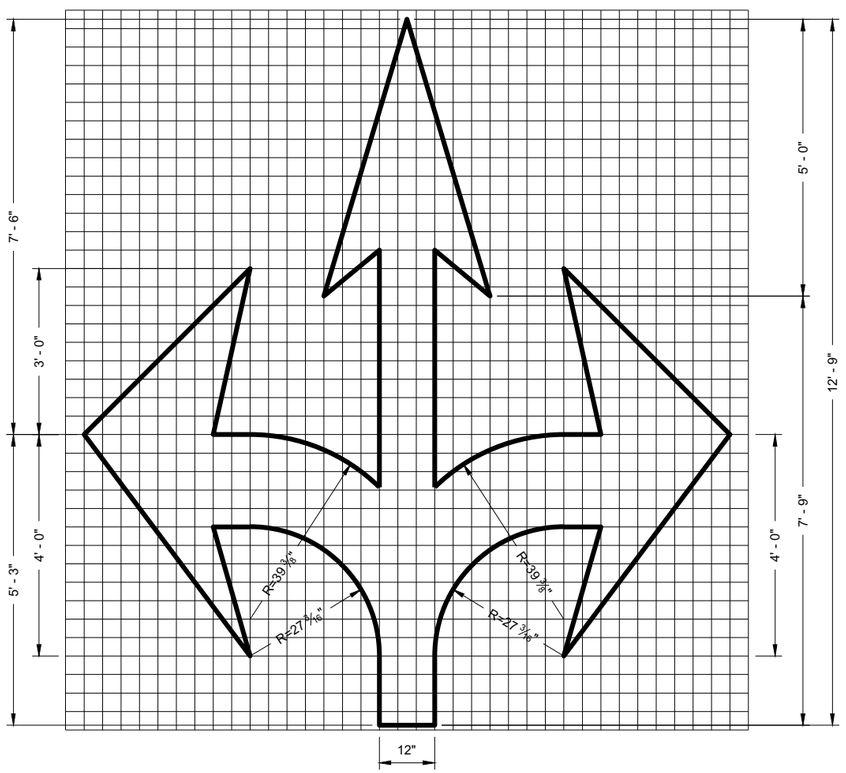
TYPE 3



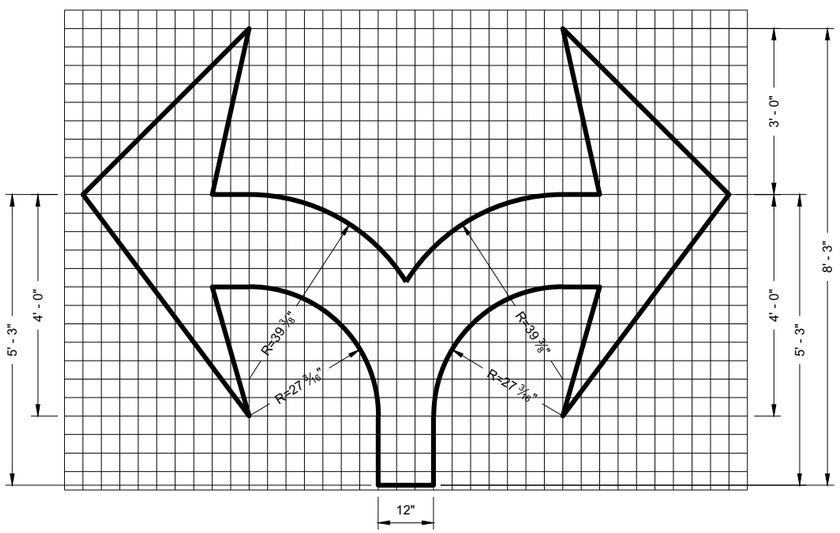
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

434

6

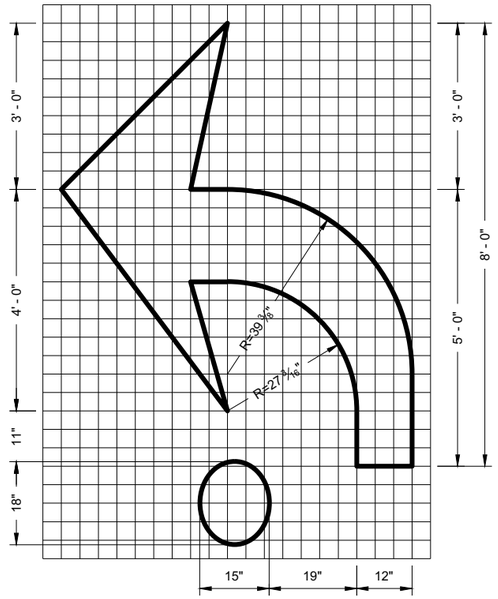
SDD 15C07 - 15c

6

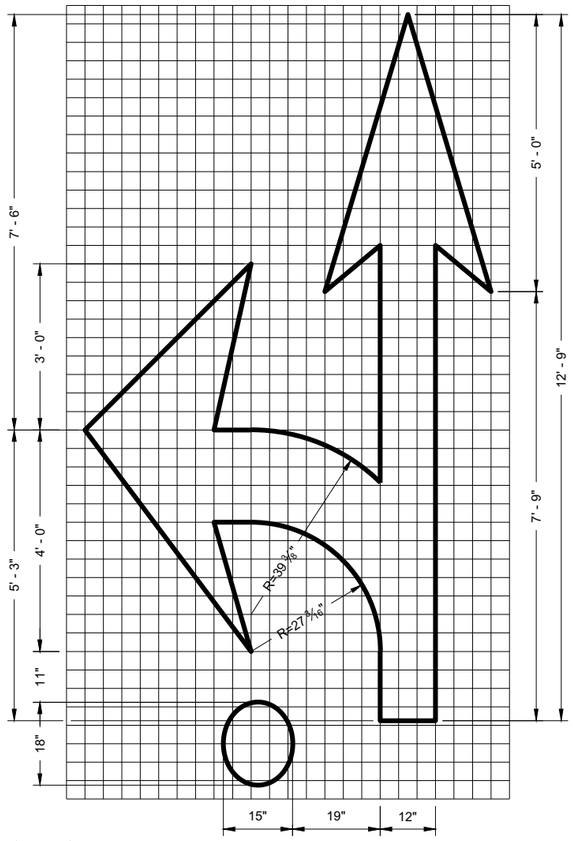
SDD 15C07 - 15c

GENERAL NOTES

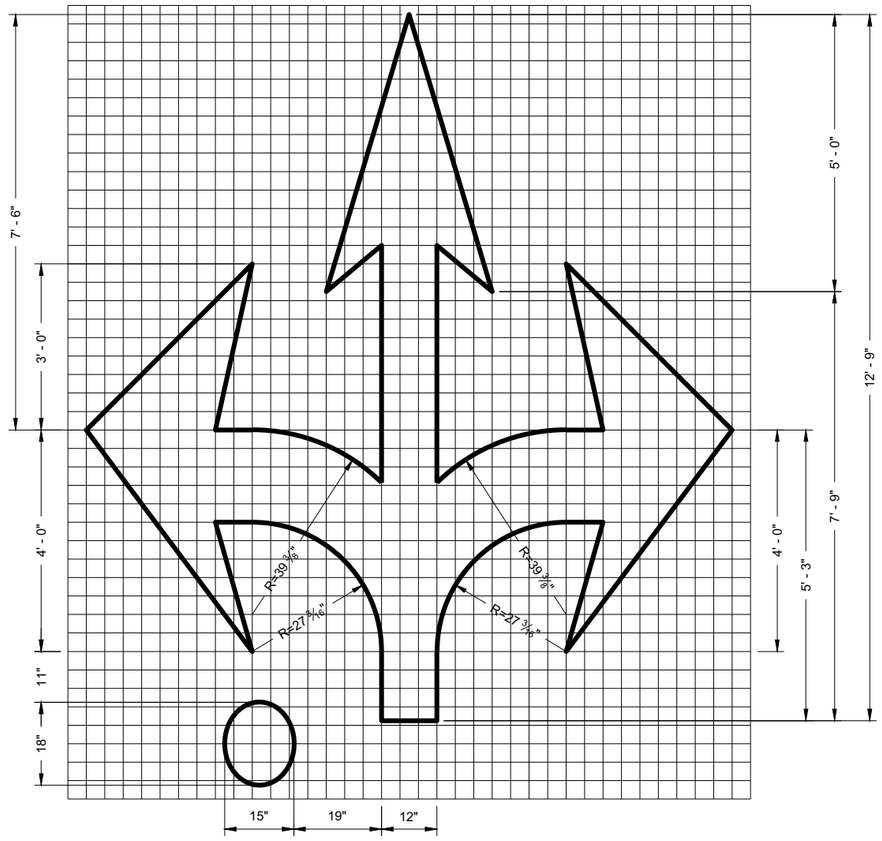
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



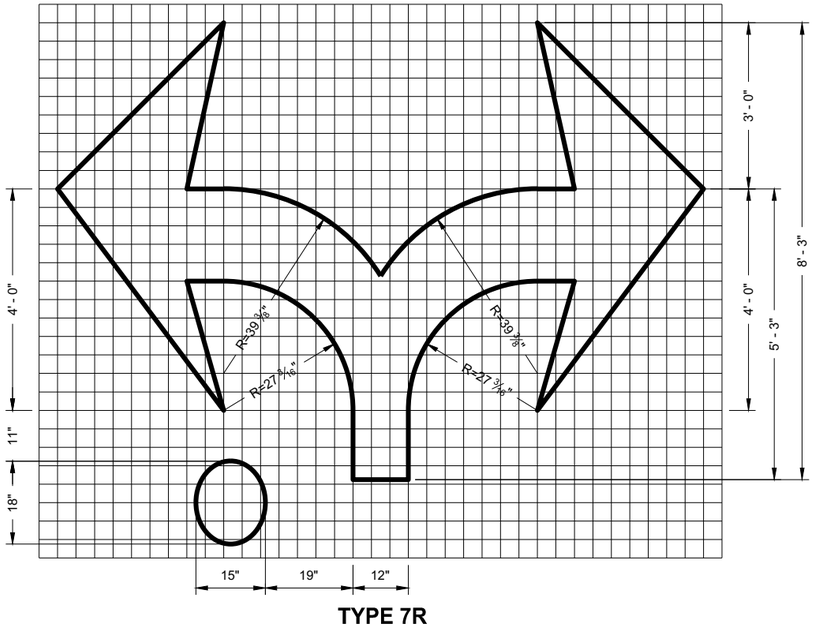
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

ROUNDABOUT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15d

6

SDD 15C07 - 15d

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

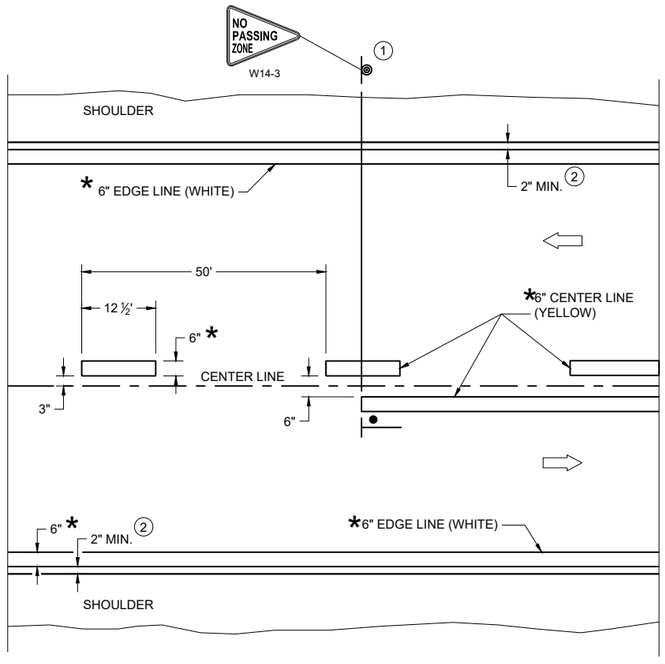
LEGEND

"T" MARKING

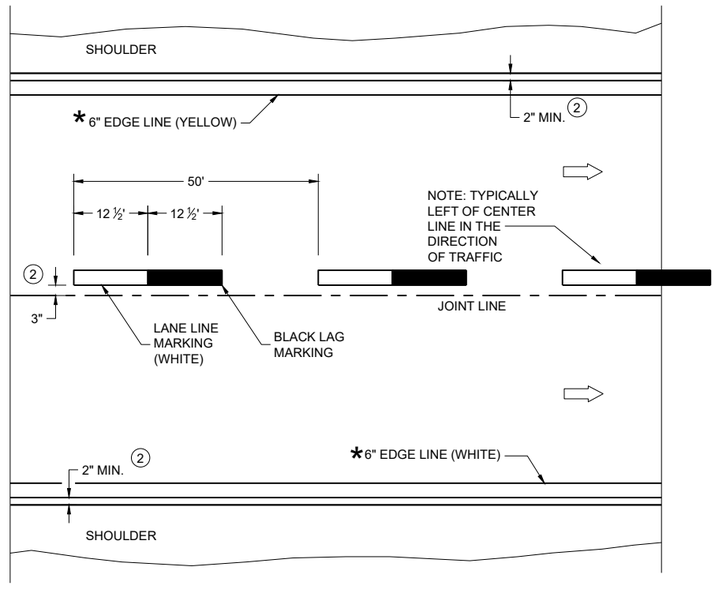
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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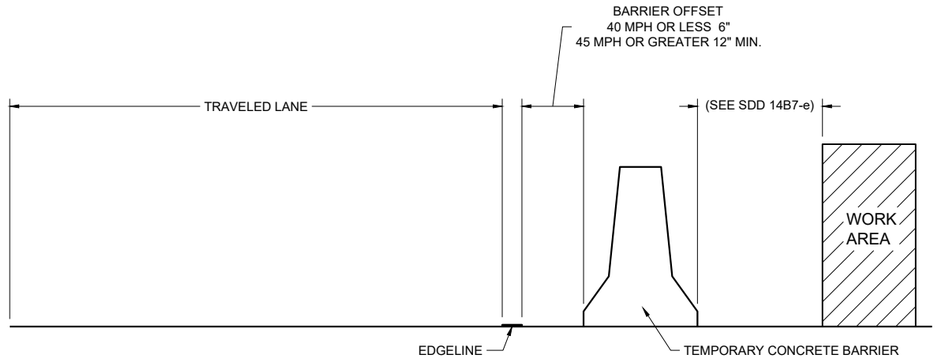
SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

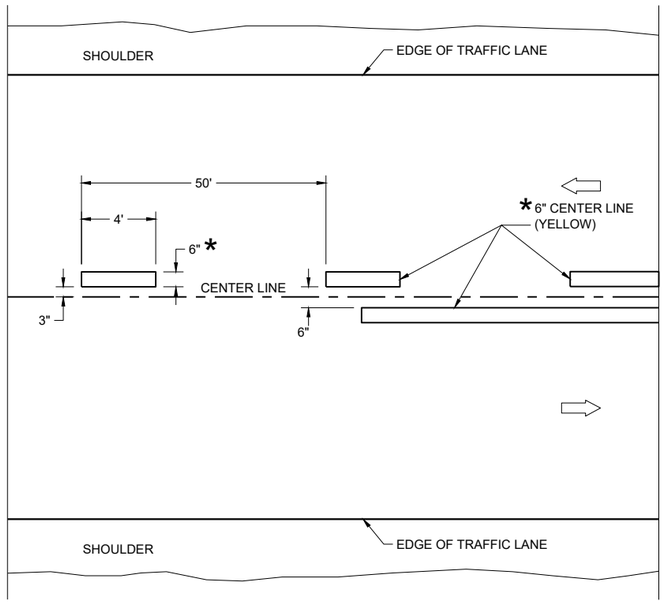
GENERAL NOTES

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

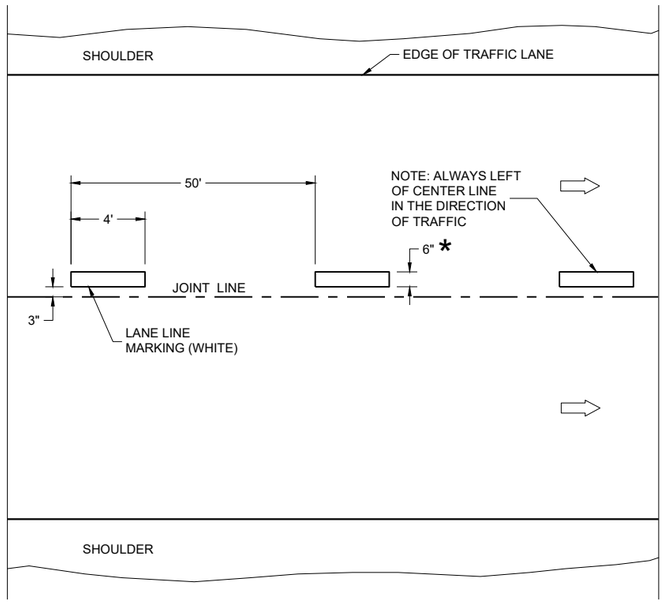
LEGEND

DIRECTION OF TRAFFIC

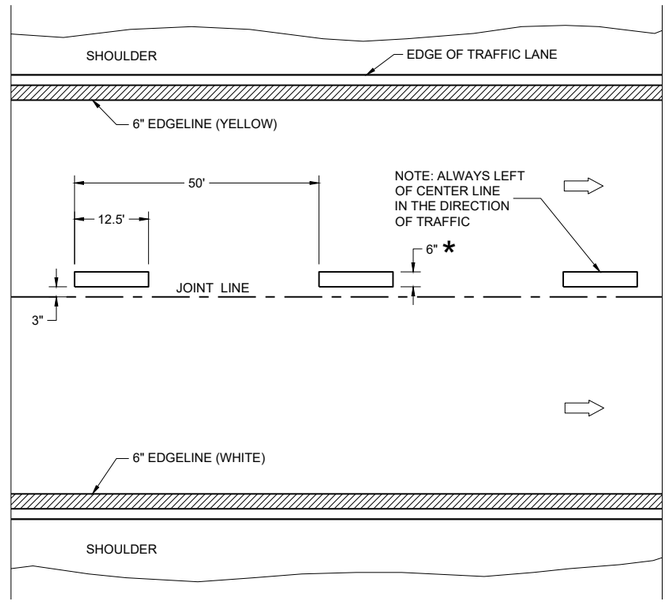
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — Statewide Pavement Marking Engineer

FHWA

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SDD 15C08-23b

6

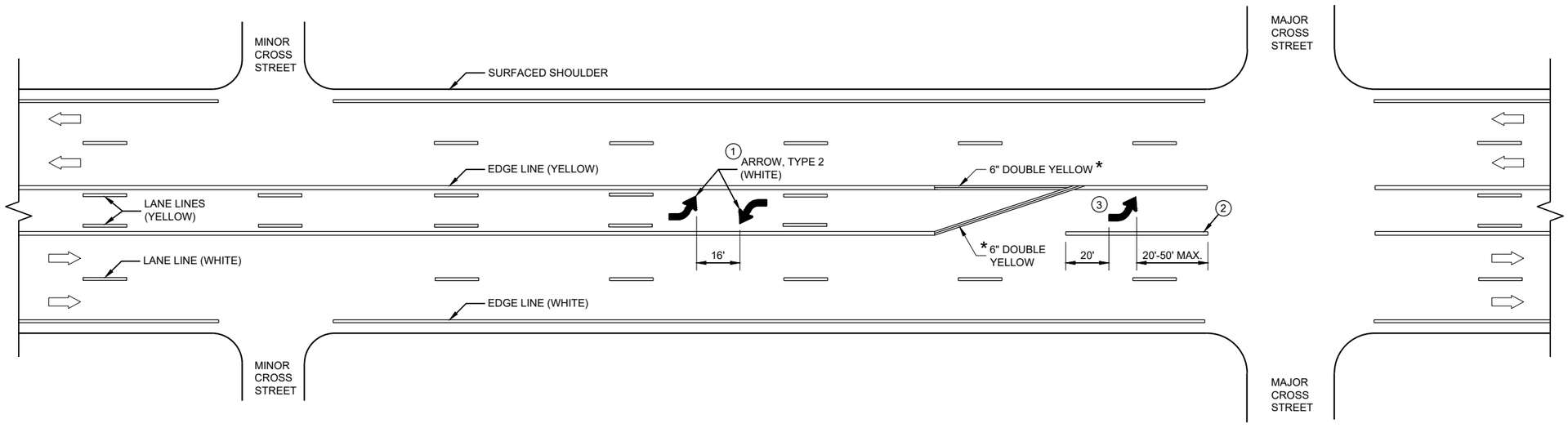
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

6

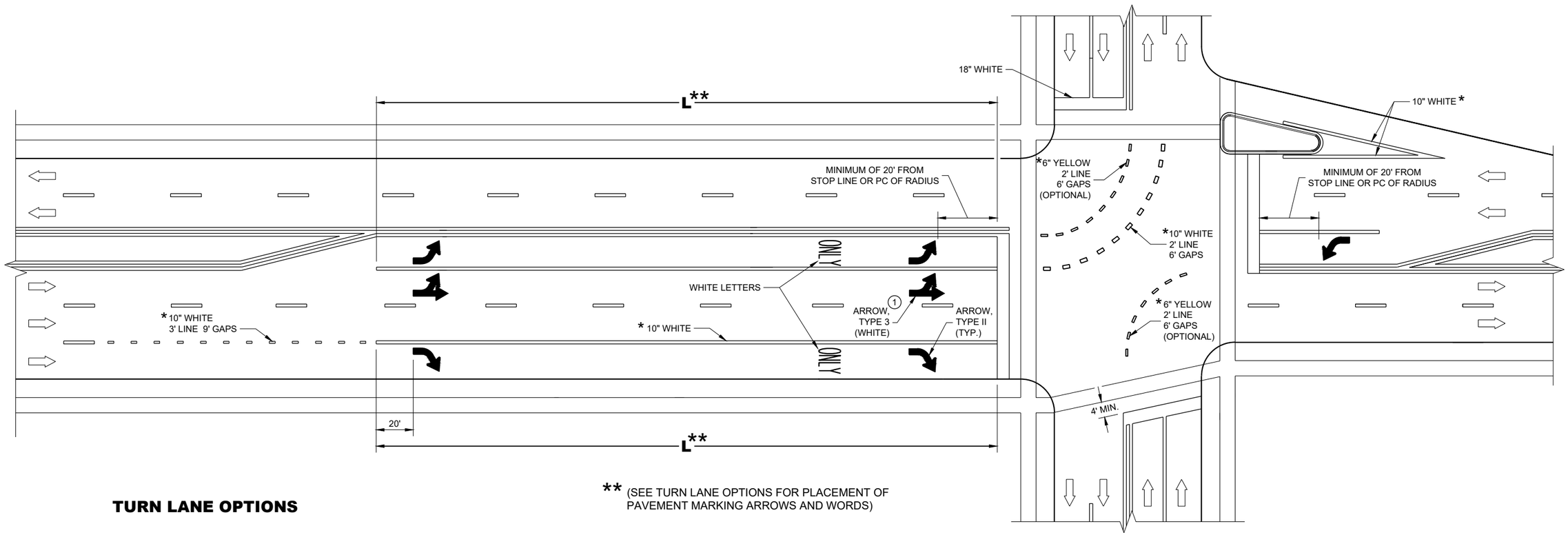
SDD 15C08-23c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 438

6

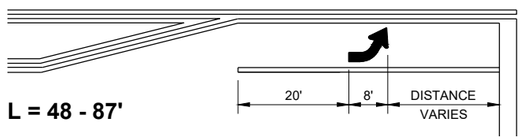
SDD 15C08-23c



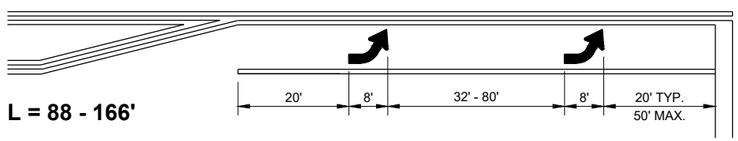
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

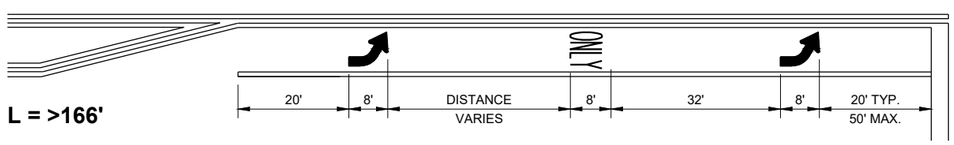
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

(1) QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

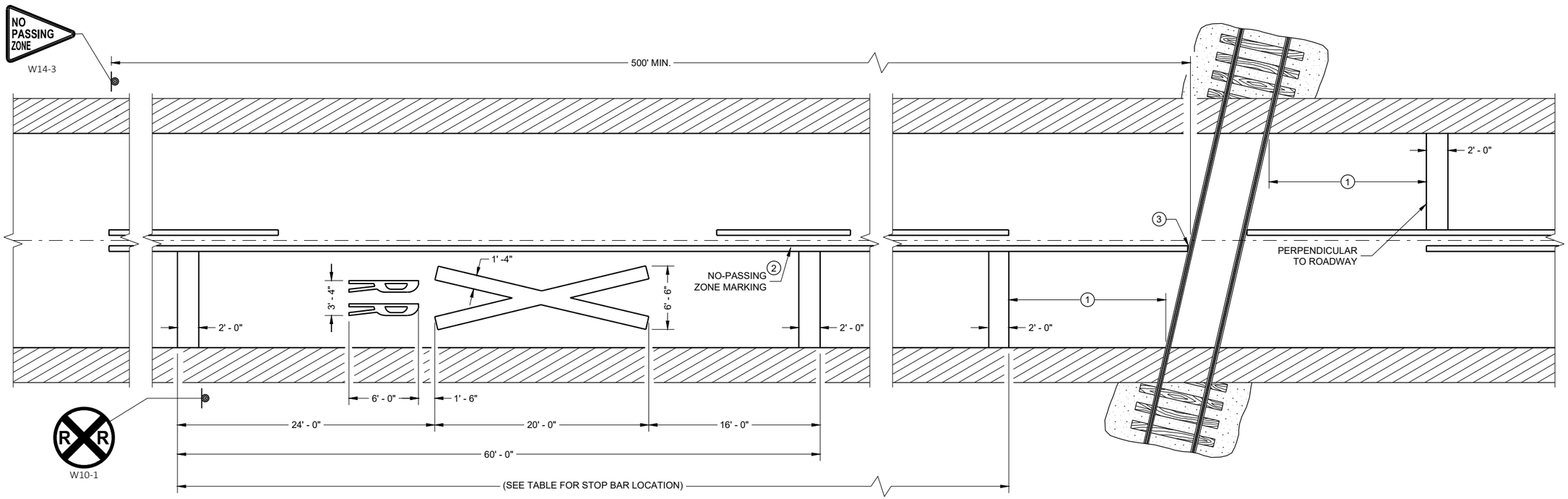
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING (TURN LANES)

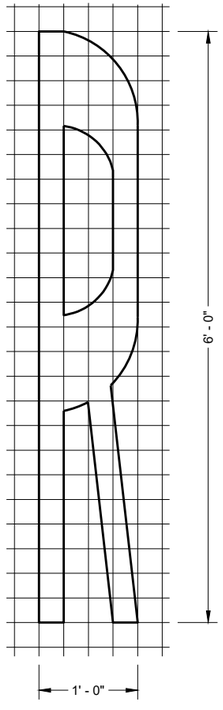
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d



PAVEMENT MARKING



LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

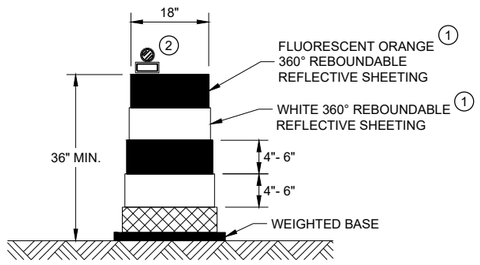
6

SDD 15C09-13a

SDD 15C09-13a

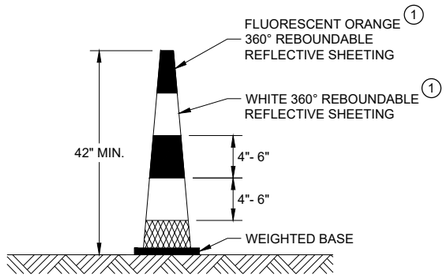
GENERAL NOTES

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



DRUM

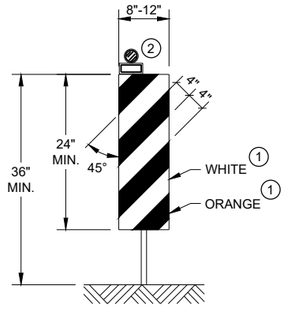
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

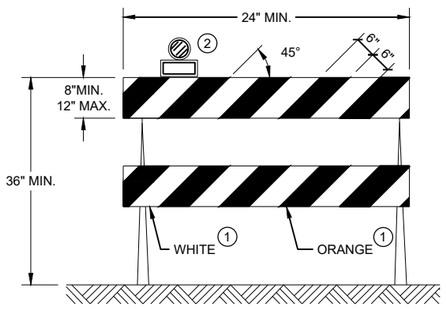
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



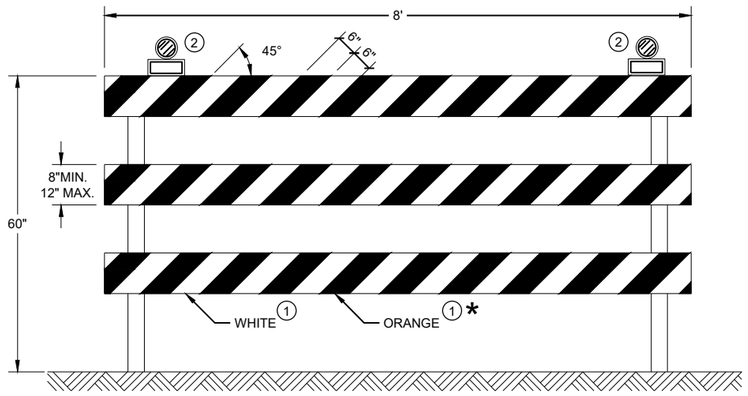
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

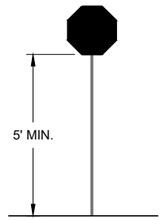
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



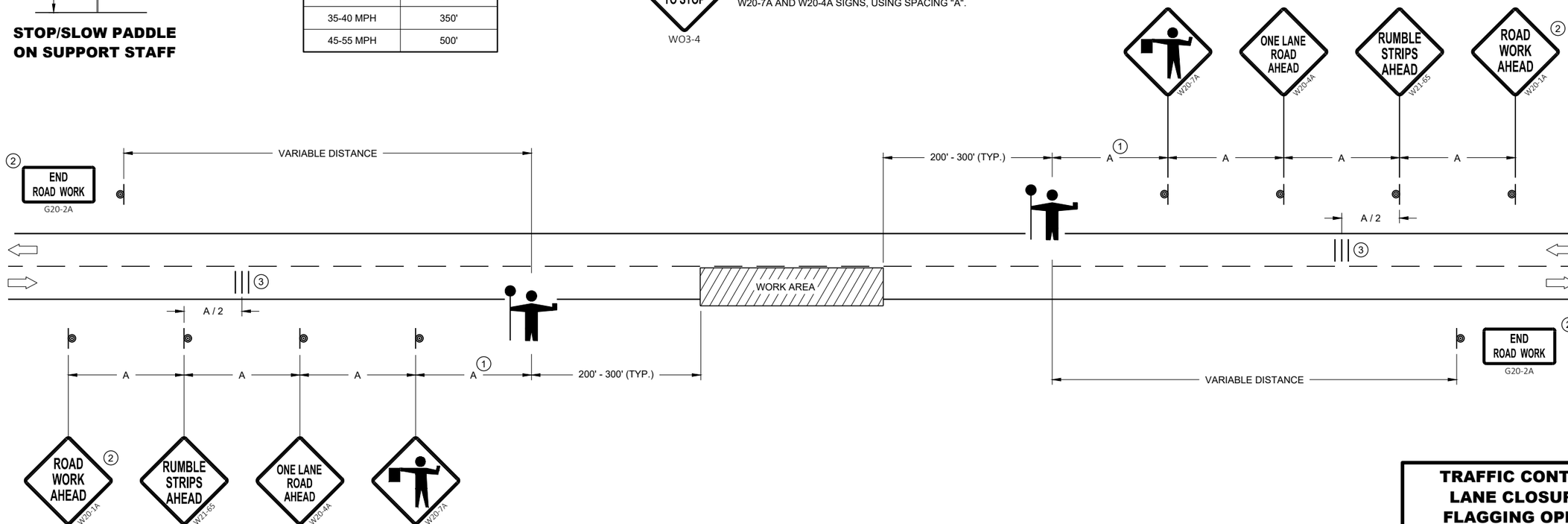
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

442

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SDD 15C12 - 09a

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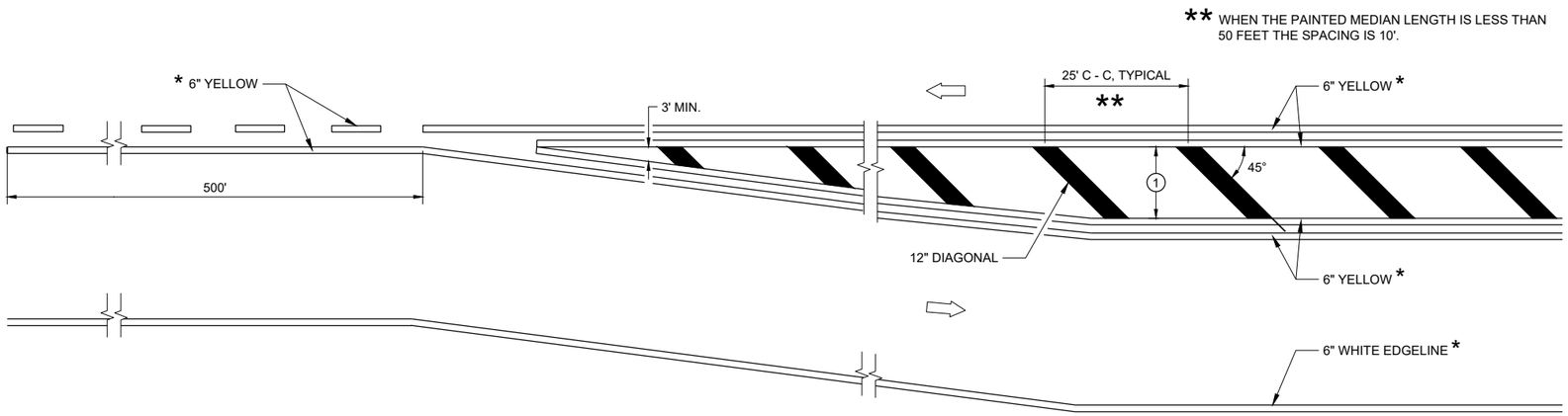
SDD 15C12 - 09a



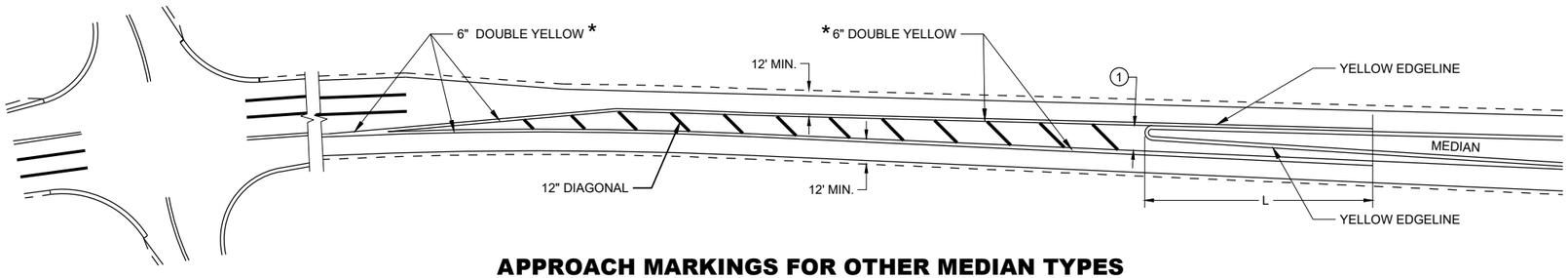
MEDIAN ISLAND DETAIL

GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

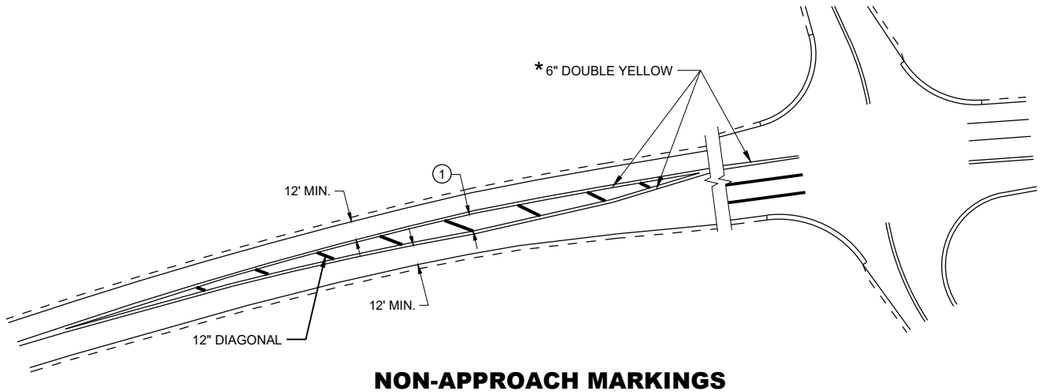
DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 15C18-08a

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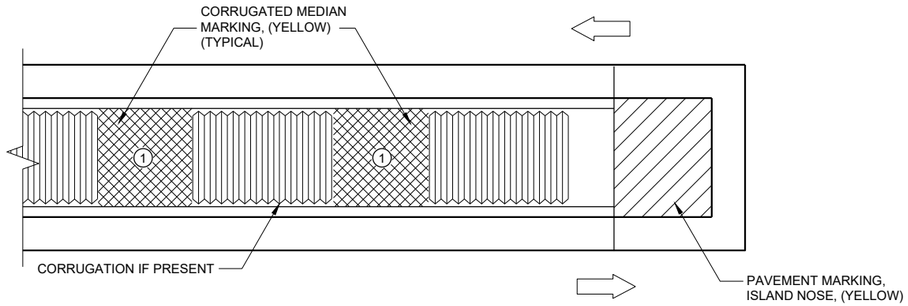
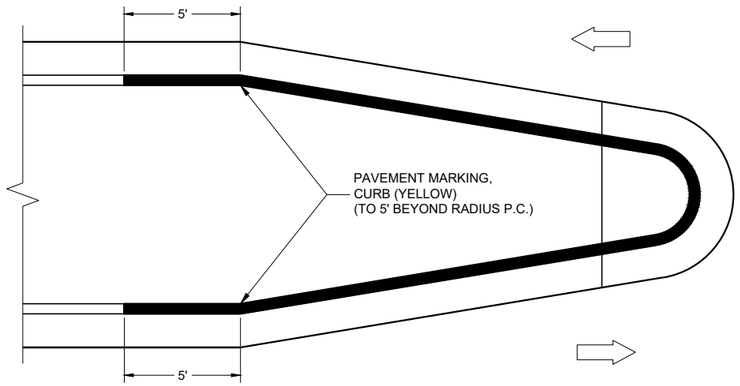
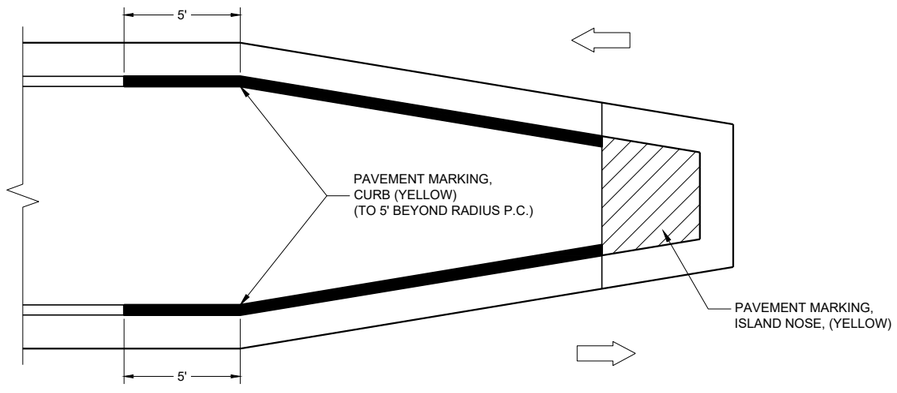


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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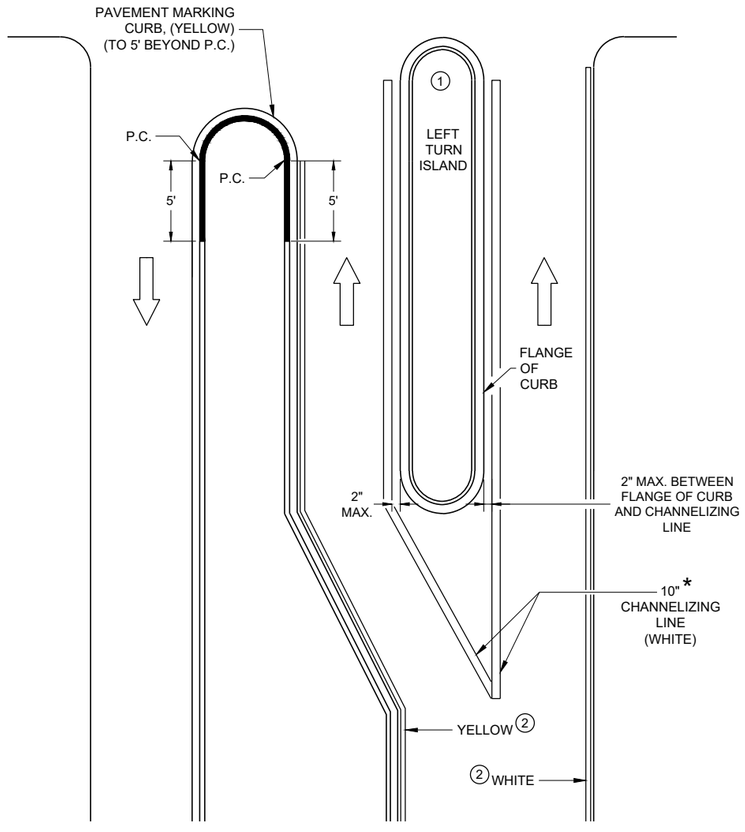
SDD 15C18-08b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

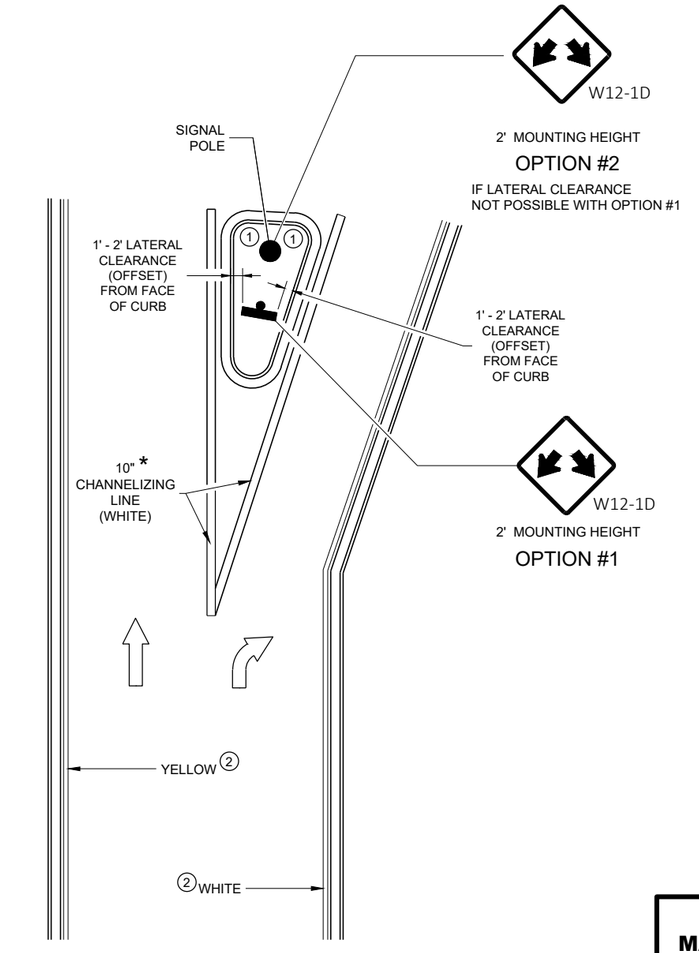
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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SDD 15C18-08c

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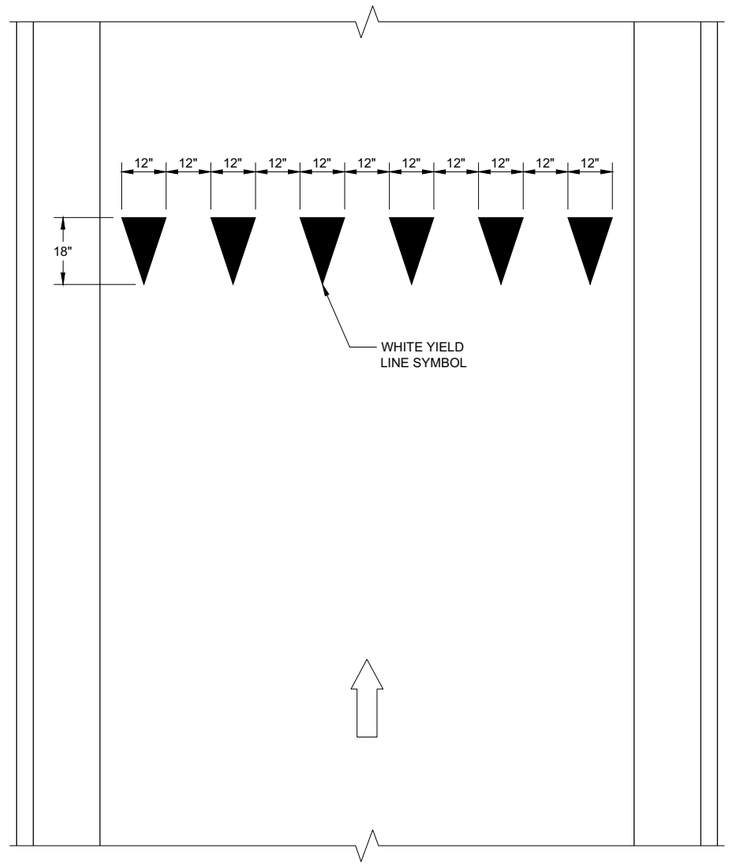
SDD 15C18-08c

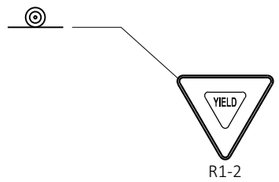


YIELD LINE

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



R1-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-81-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

6

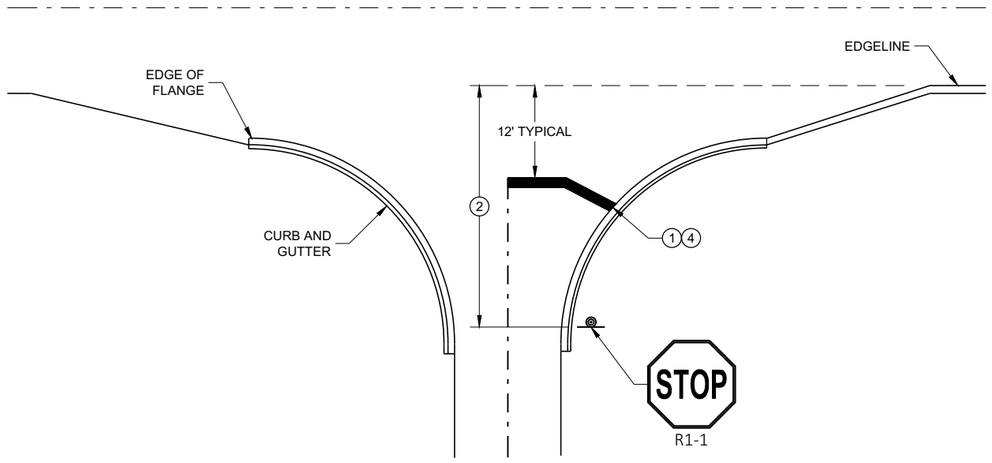
SDD 15C20 - 02

SDD 15C20 - 02

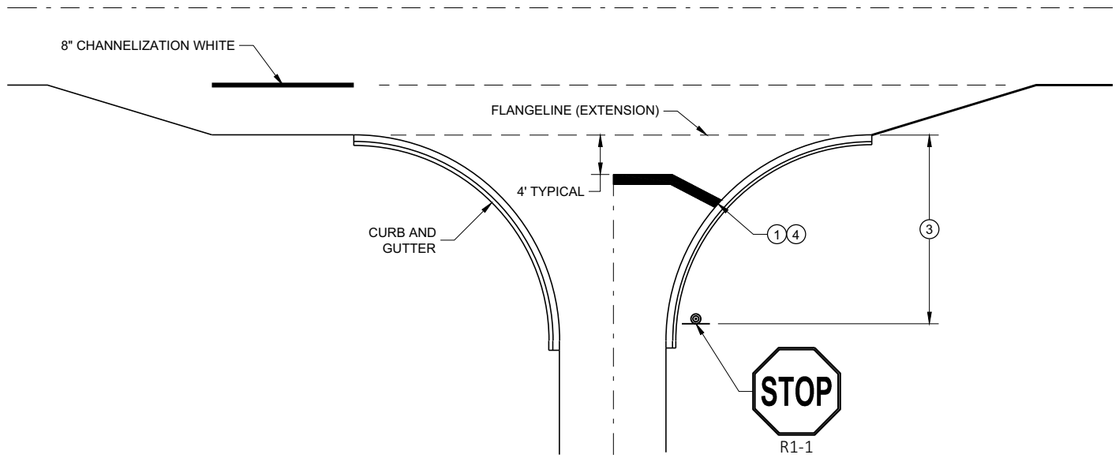
GENERAL NOTES

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

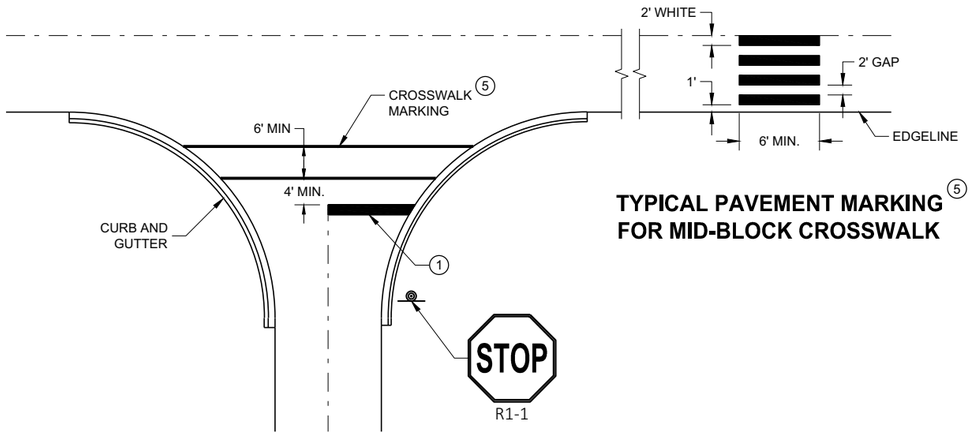
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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

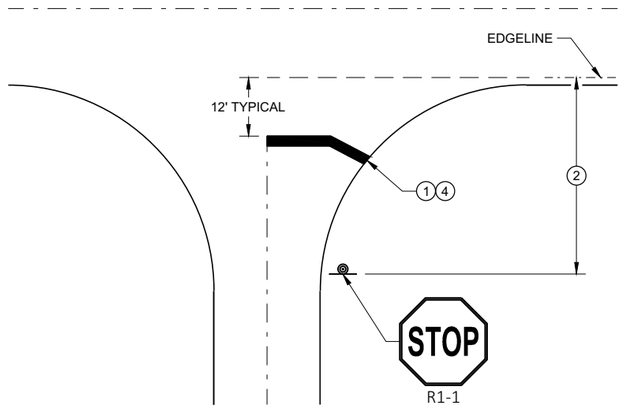


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

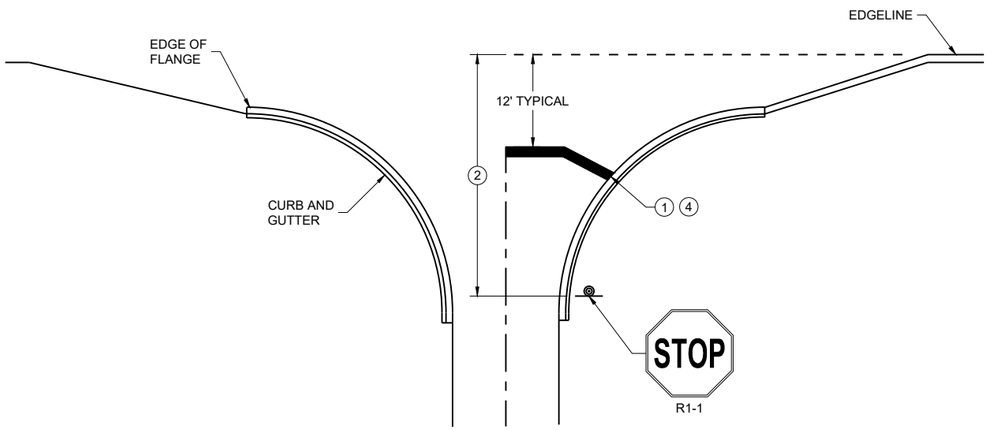
6

SDD 15C33 - 04

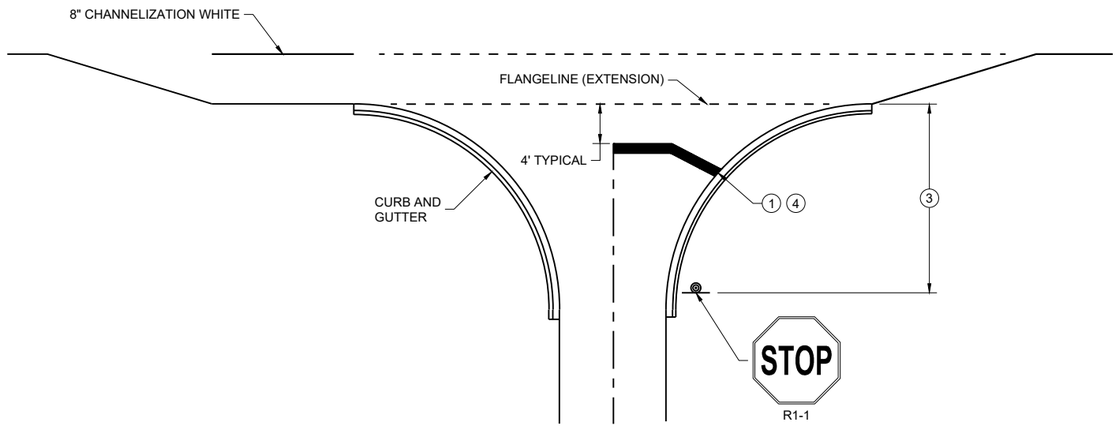
GENERAL NOTES

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

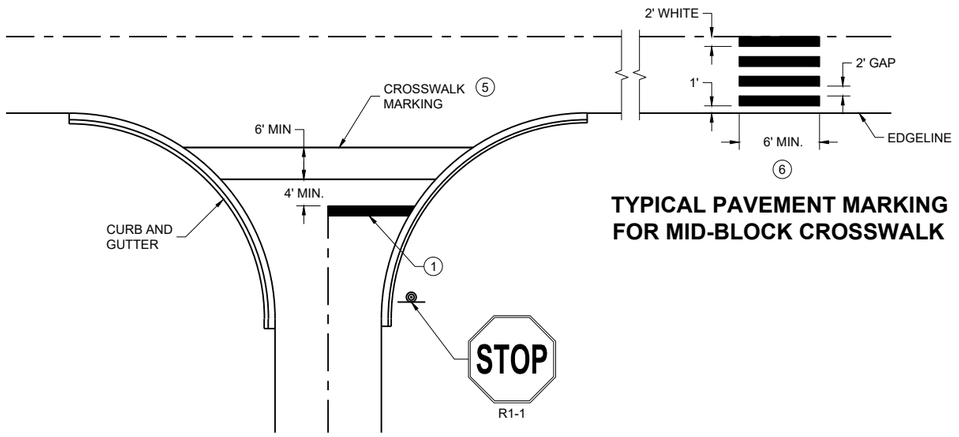
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

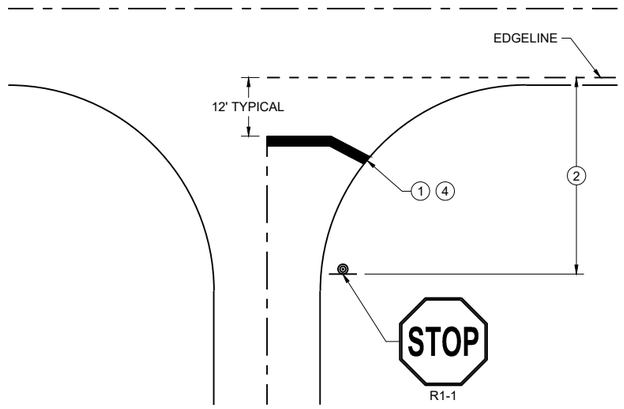


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C33-05

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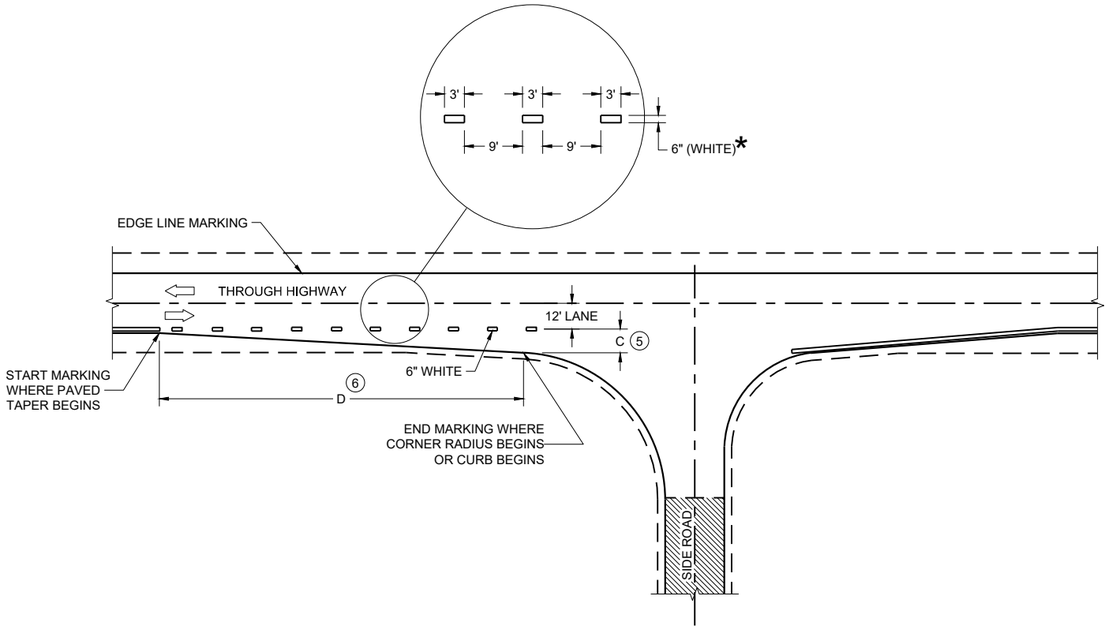
SDD 15C33-05



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

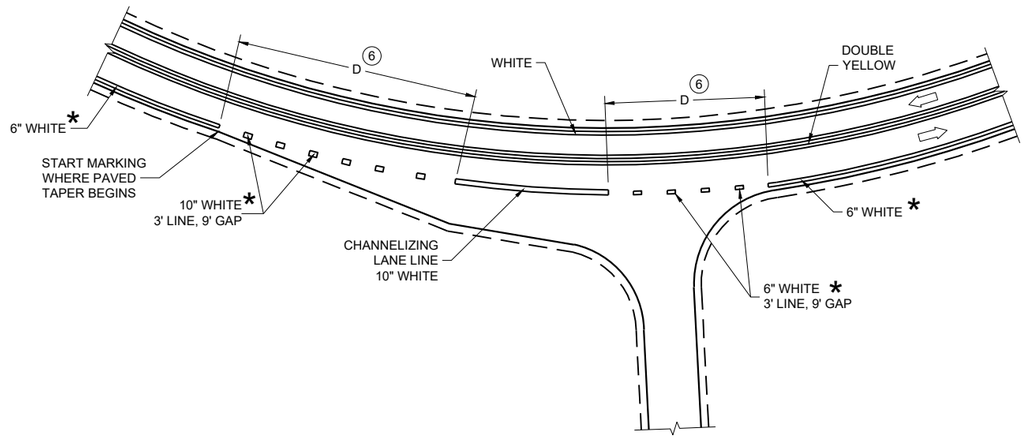
GENERAL NOTES

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

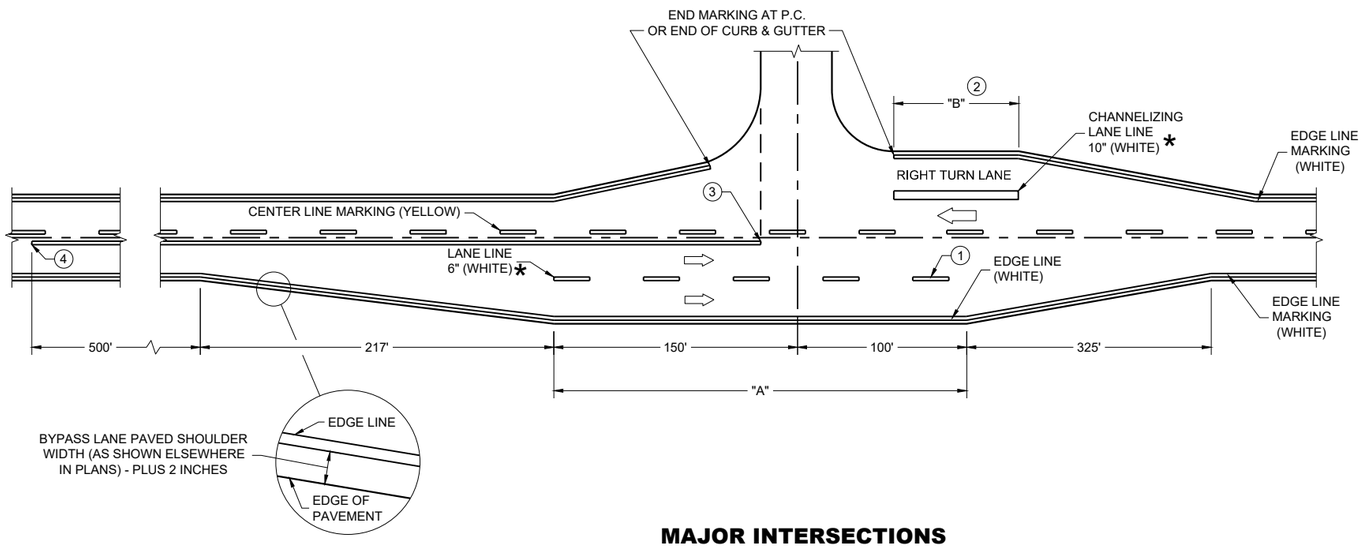
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

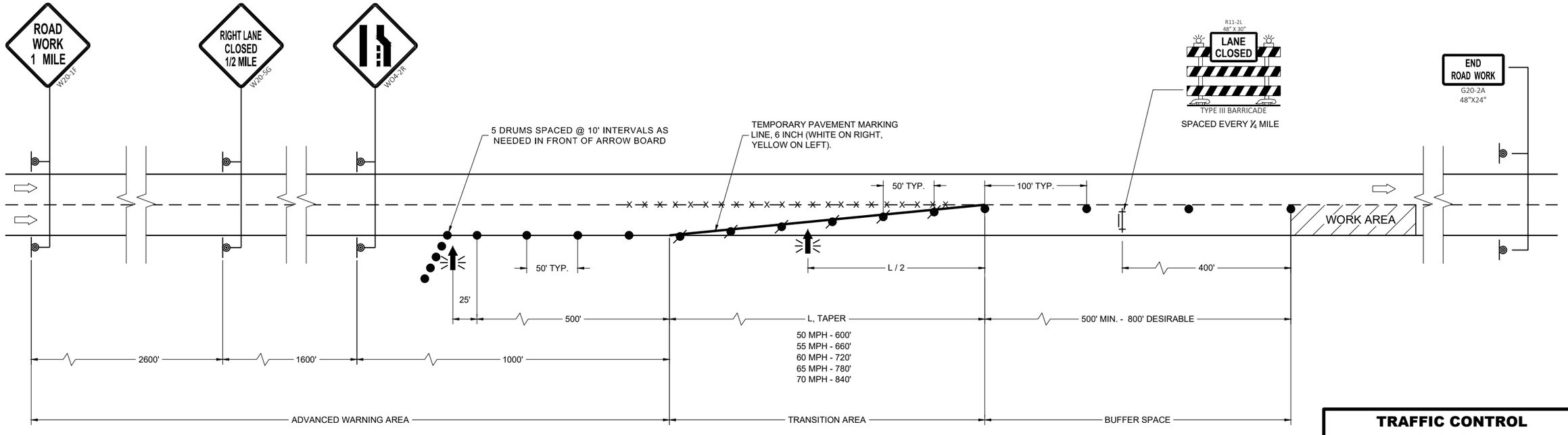
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

SDD 15D12-12a

6

SDD 15D12-12a

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

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

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

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

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

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

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

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

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

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

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

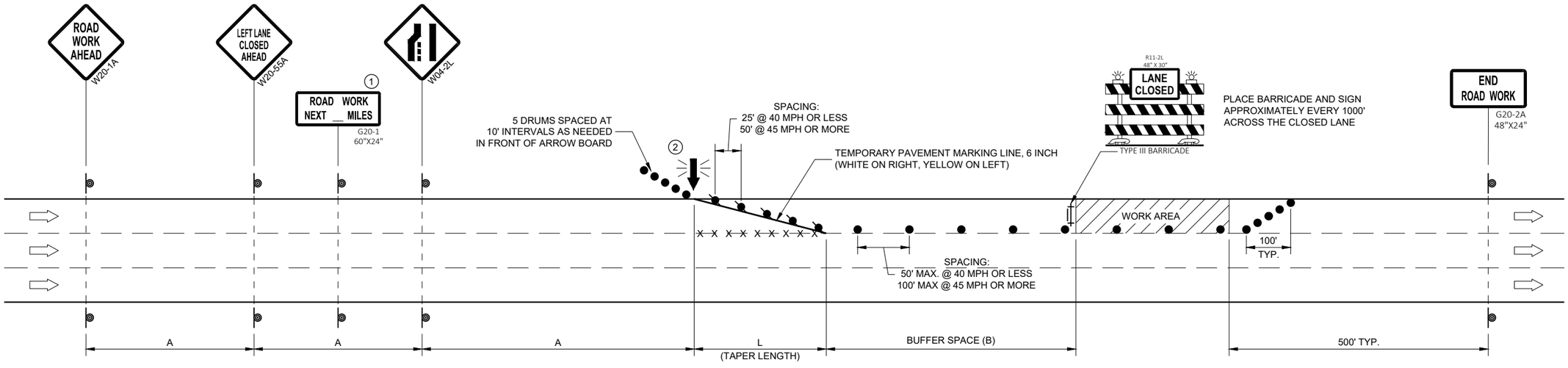
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-07a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

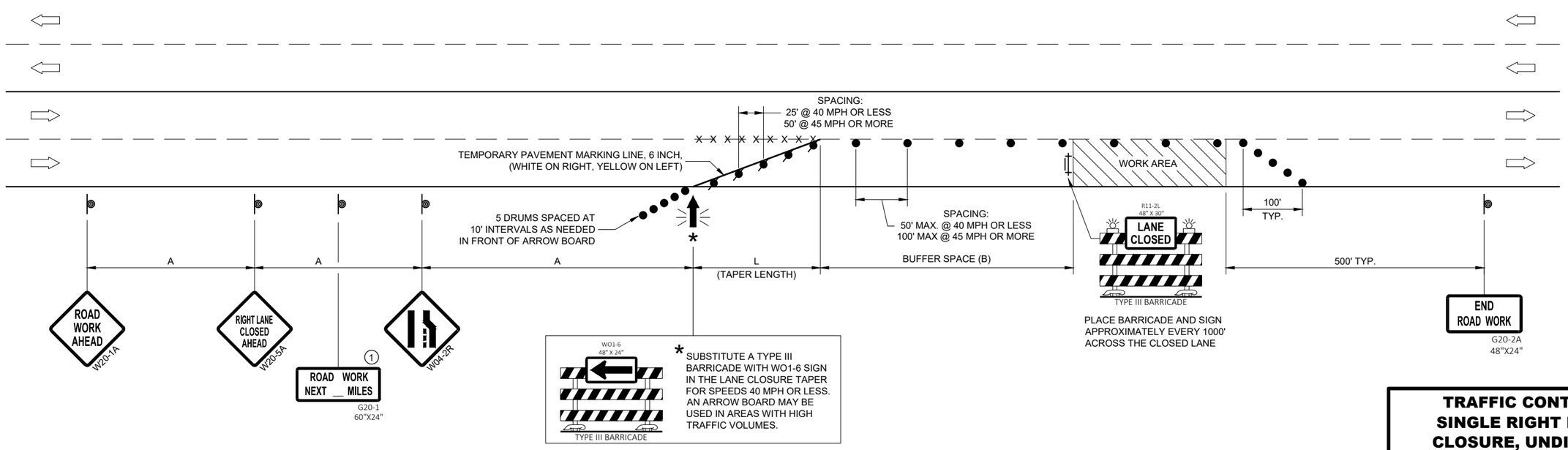
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20-07b
SDD 15D20-07b

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

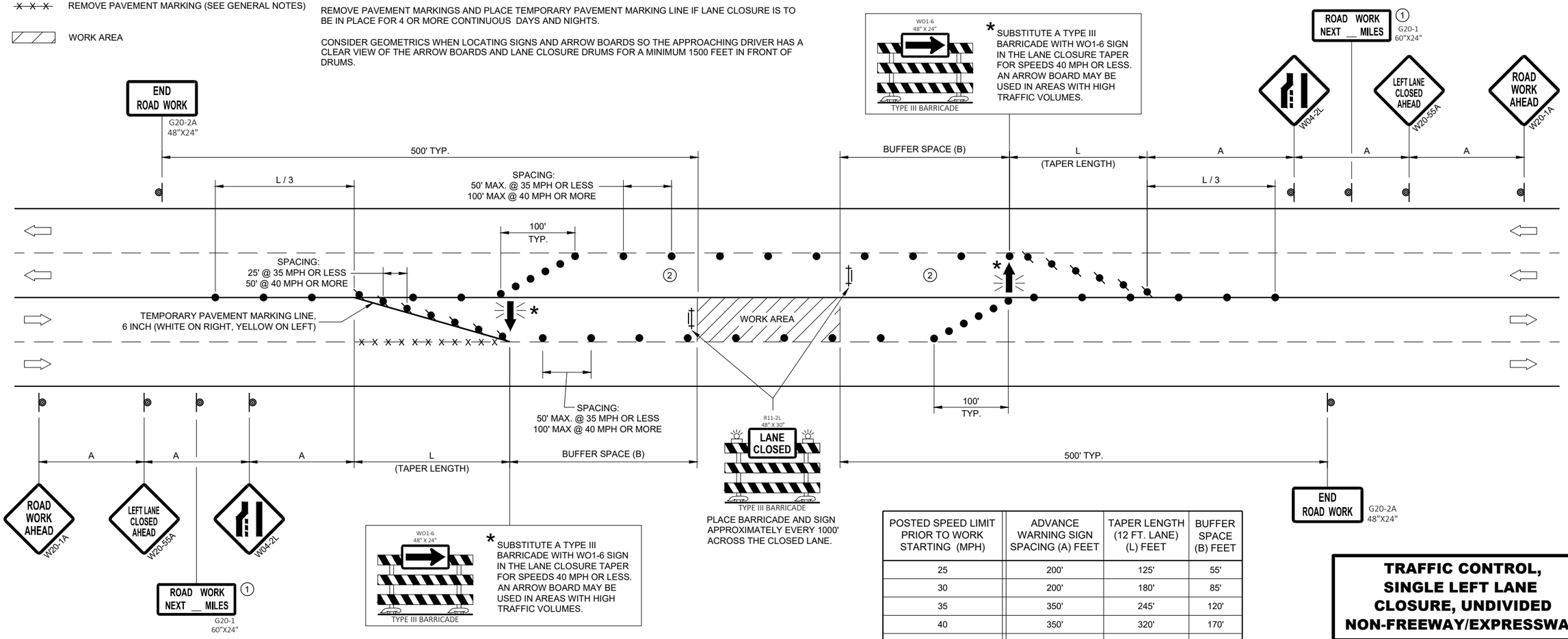
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



WO1-6 48" X 24"

TYPE III BARRICADE

* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20-07c

6

SDD 15D20-07c

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

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

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

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

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

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

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

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

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

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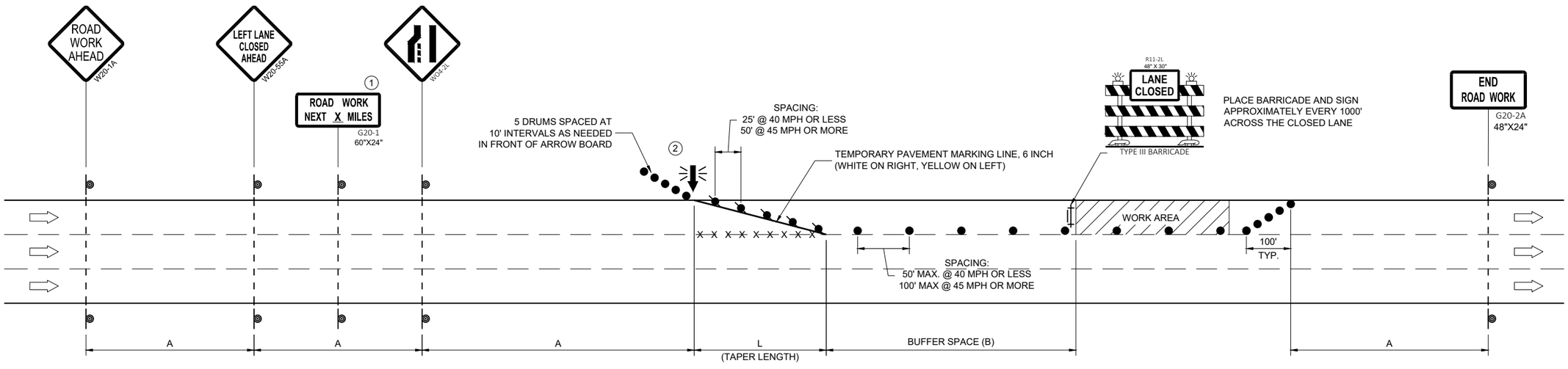
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



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25	200'	125'	55'
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40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-08a

6

SDD 15D20-08a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

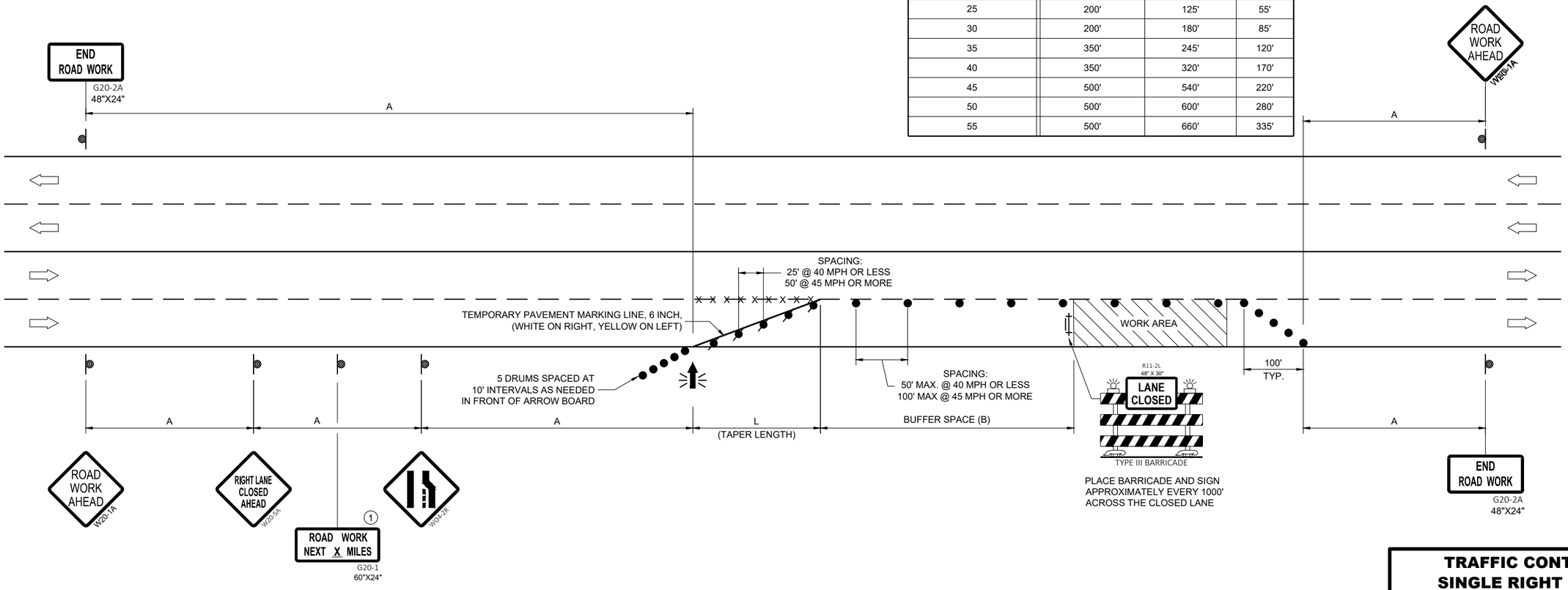
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-08b
SDD 15D20-08b

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

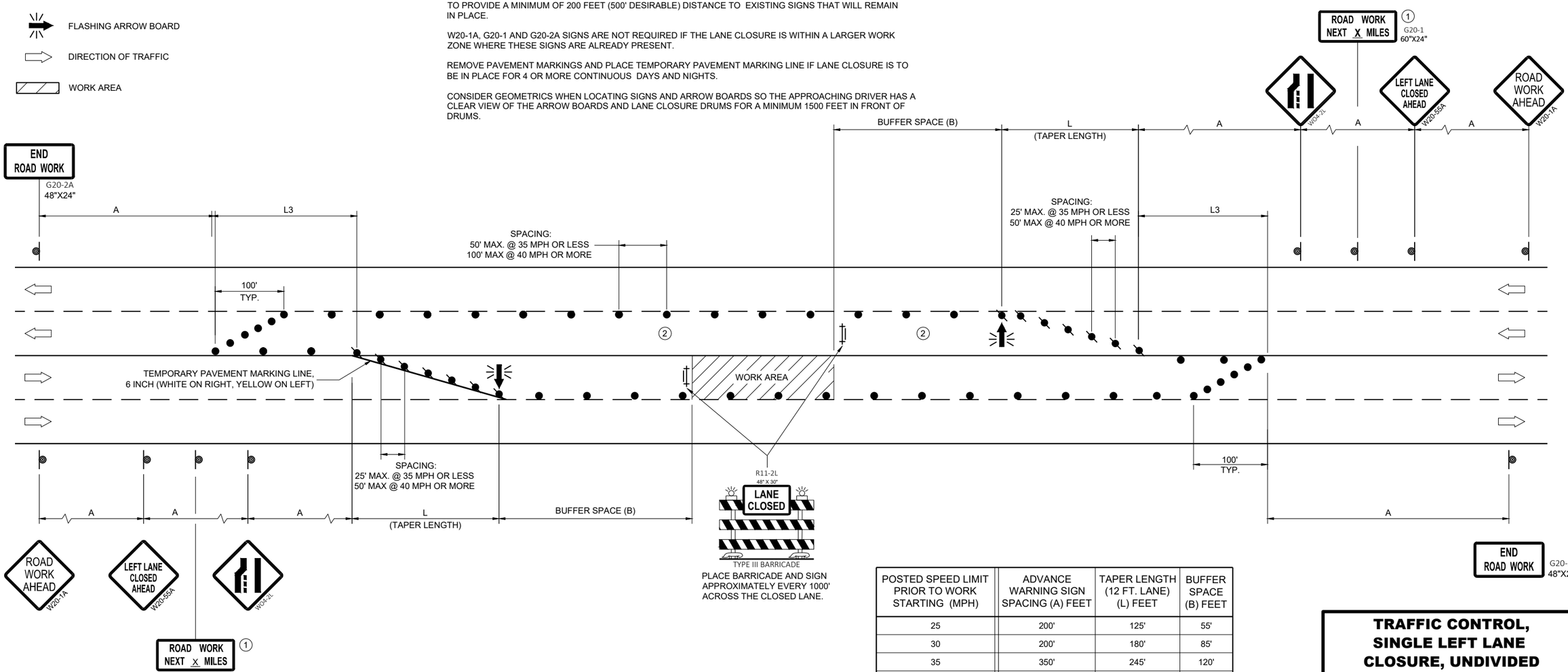
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

(2) LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

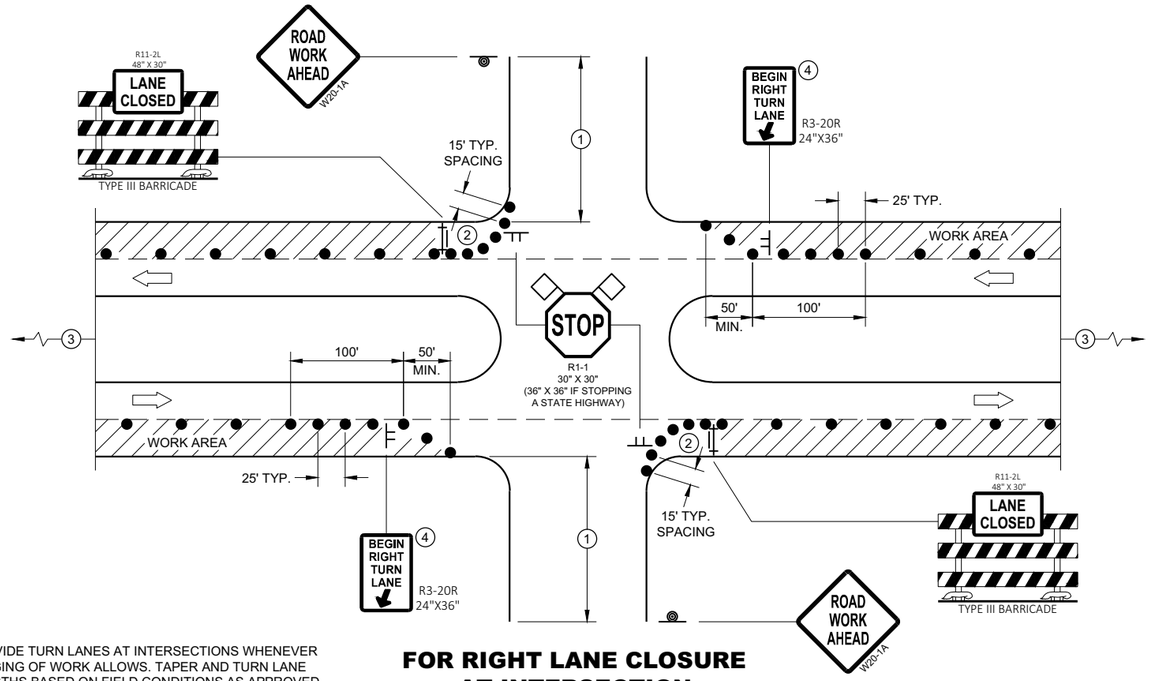
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

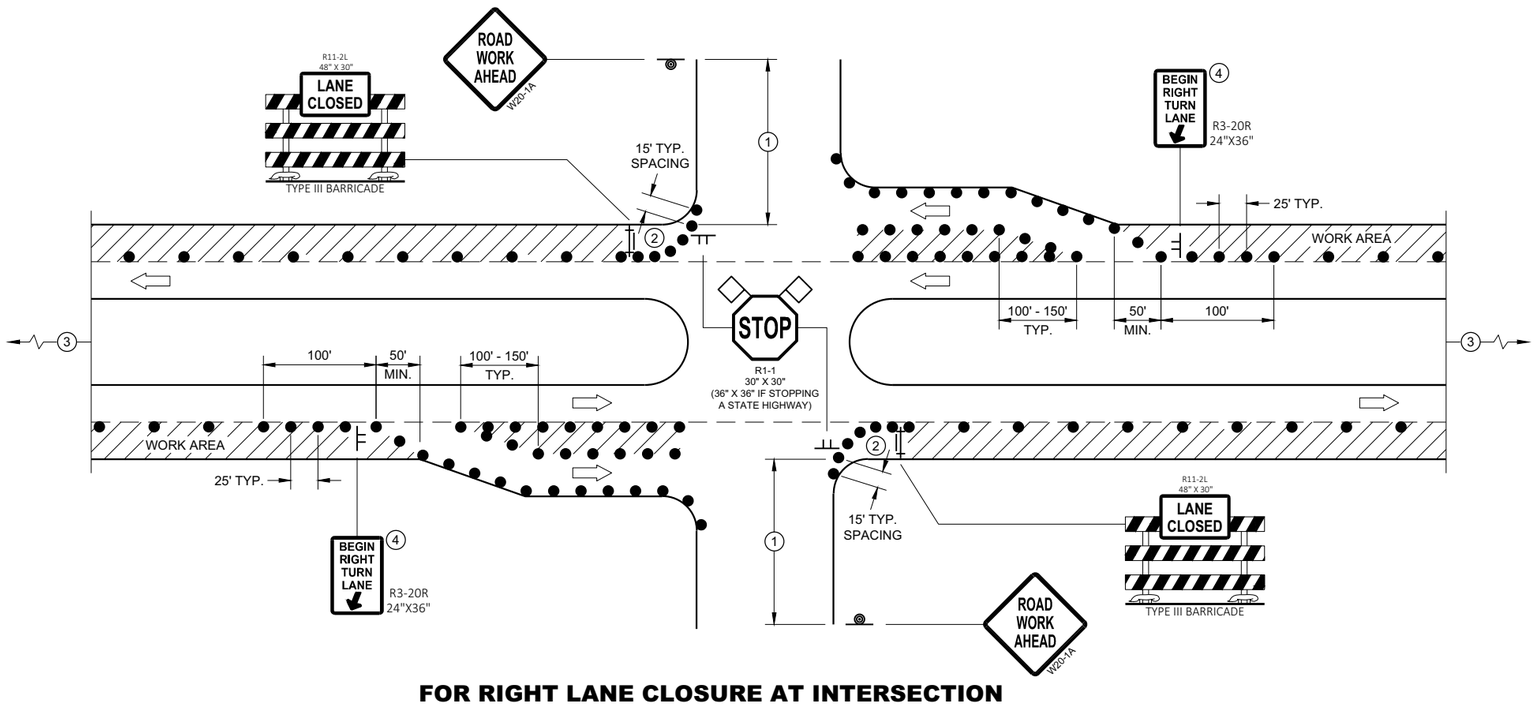
6

SDD 15D20-08c



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

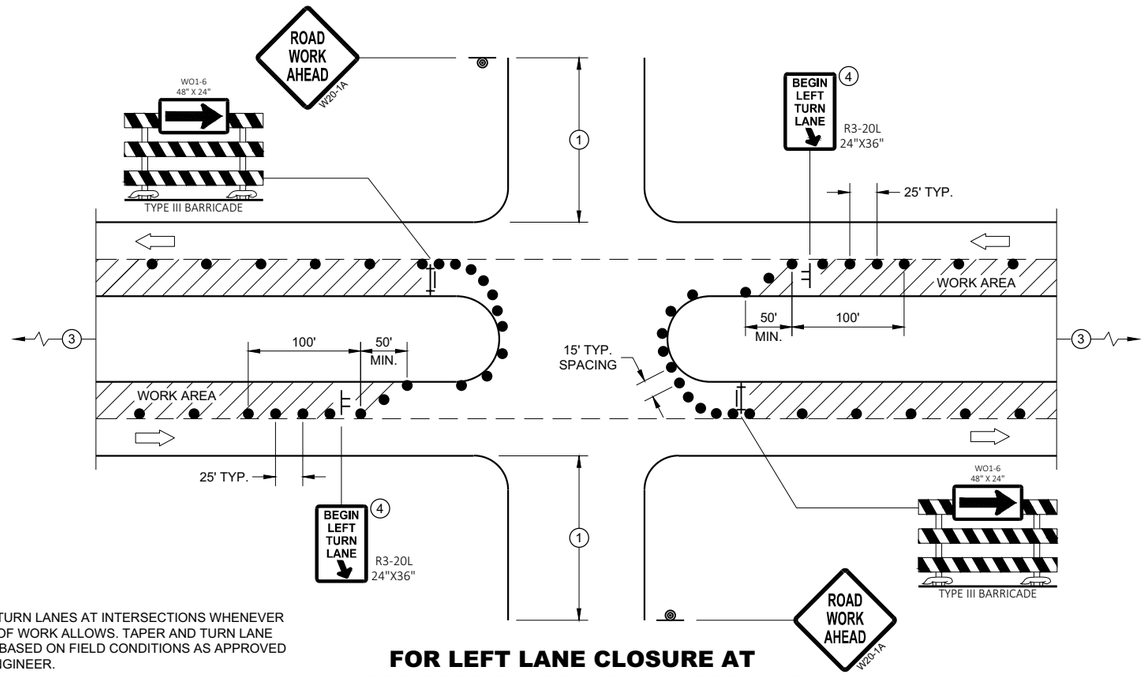
LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

6

SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

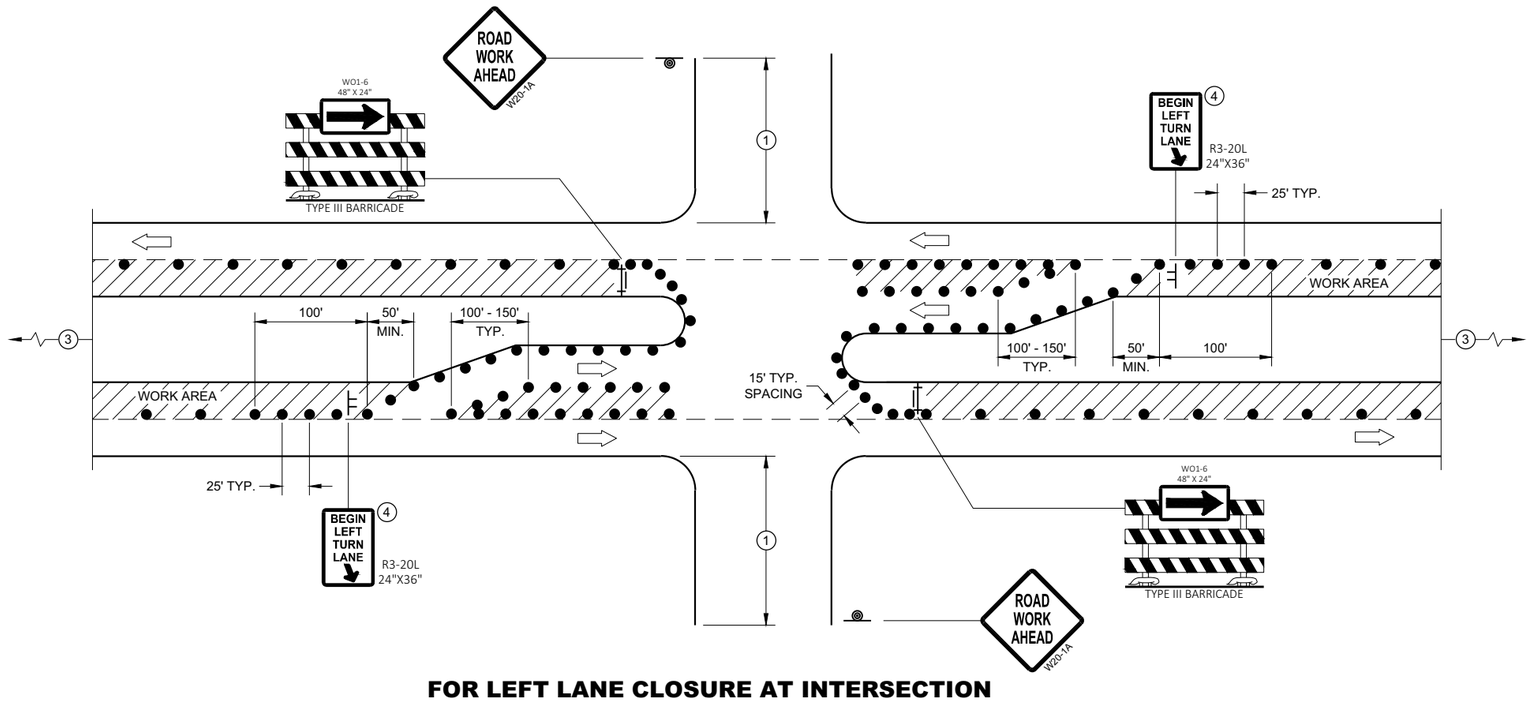
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

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.

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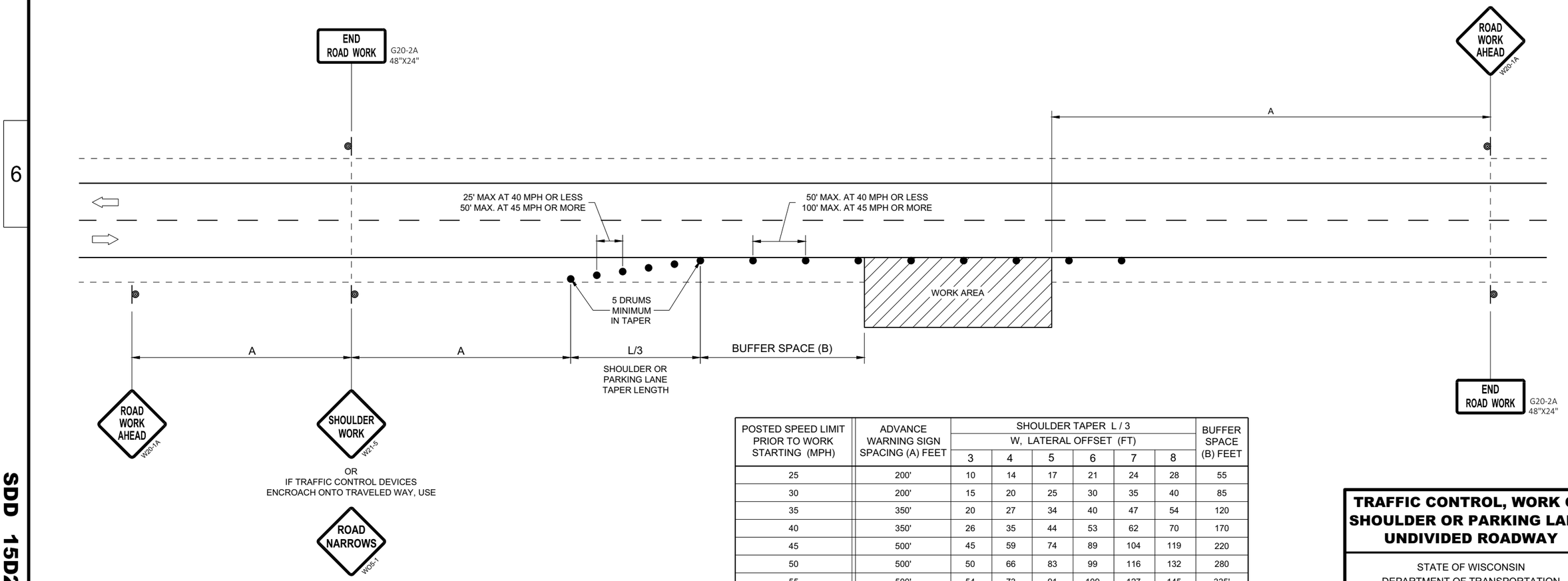
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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.



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 T SAFETY ENGINEER

FHWA

6

SDD 15D28 - 04

GENERAL NOTES

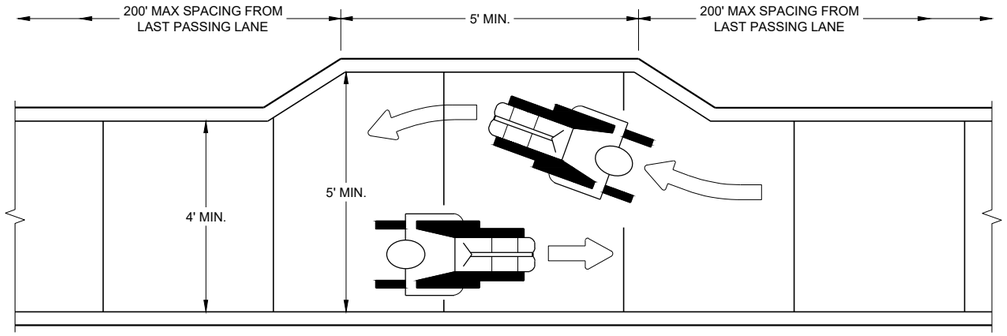
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

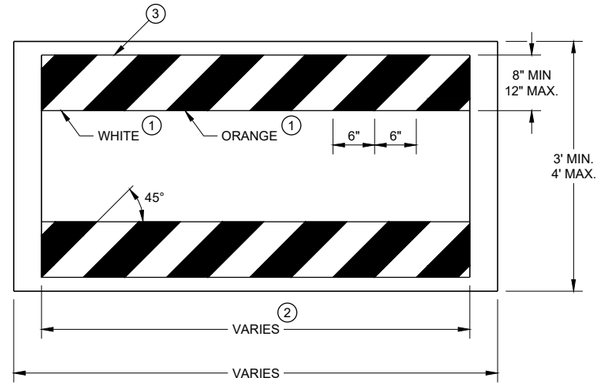
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

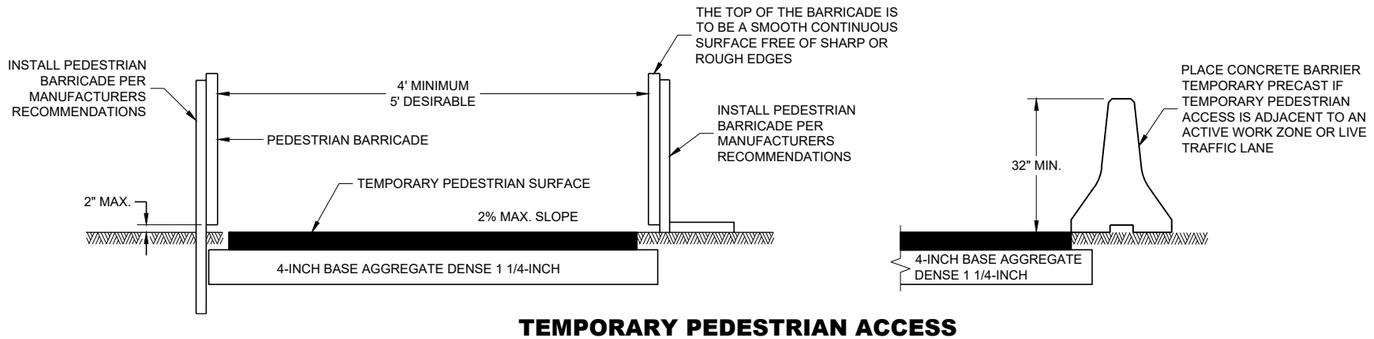
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN BARRICADE*



TEMPORARY PEDESTRIAN ACCESS

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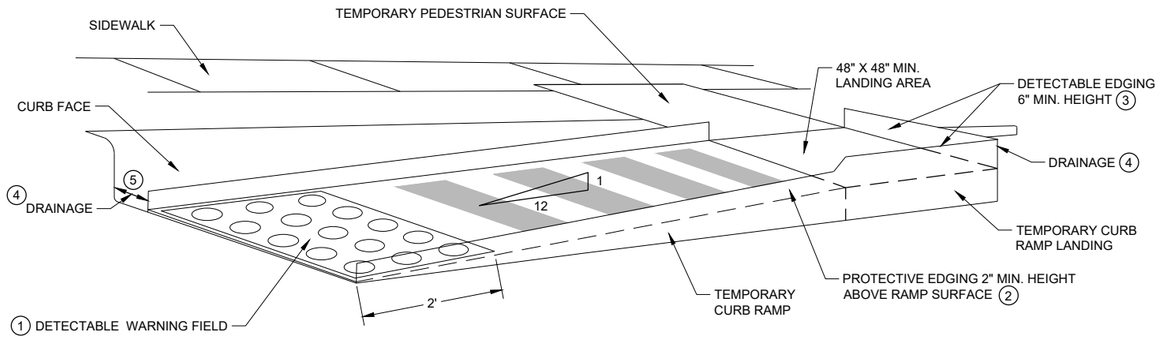
SDD 15D30 - 09a

SDD 15D30 - 09a

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



PERSPECTIVE VIEW

GENERAL NOTES

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.

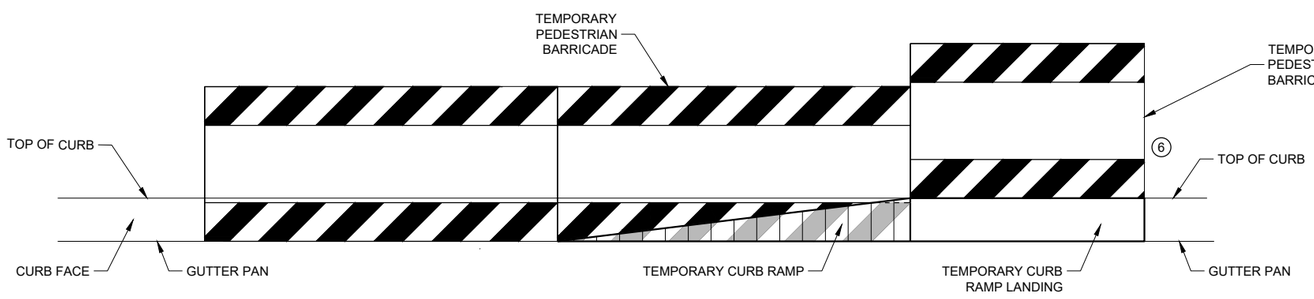
(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

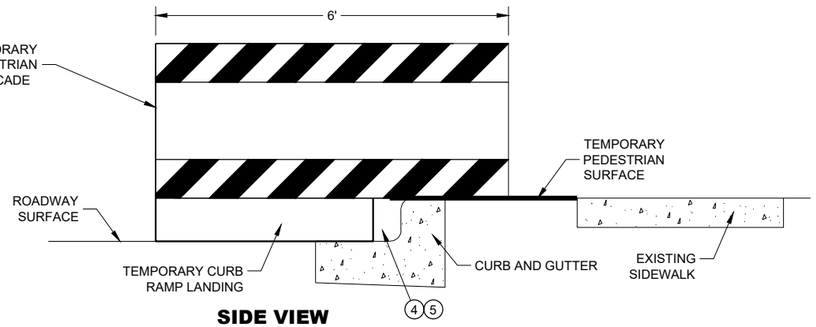
(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.

(6) IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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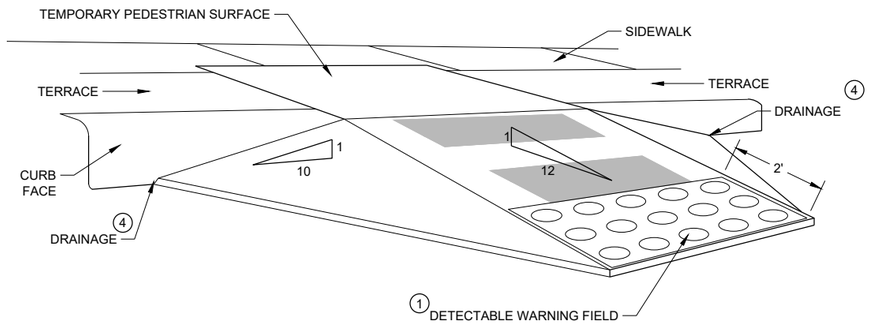
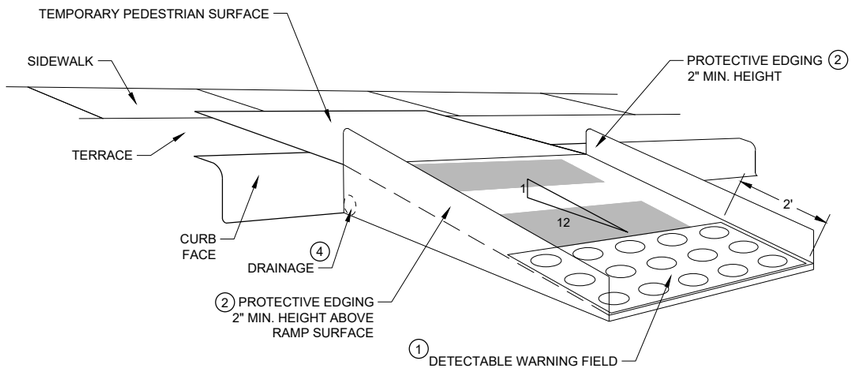
SDD 15D30 - 09b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

6

SDD 15D30 - 09c

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

GENERAL NOTES

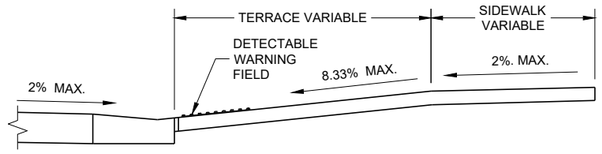
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

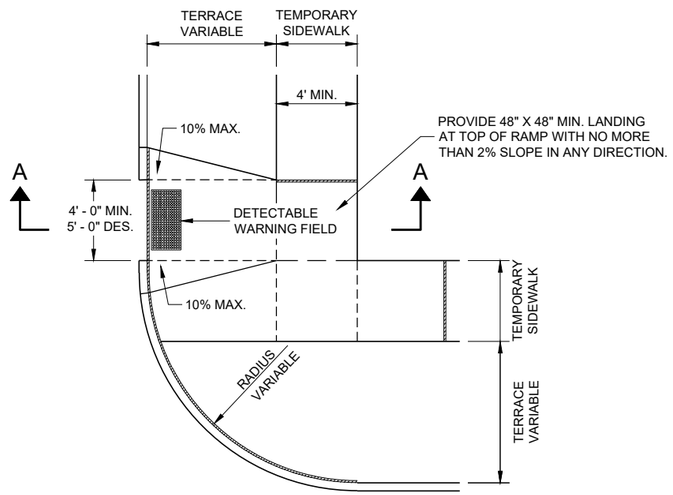
(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



SECTION A - A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D30-09d

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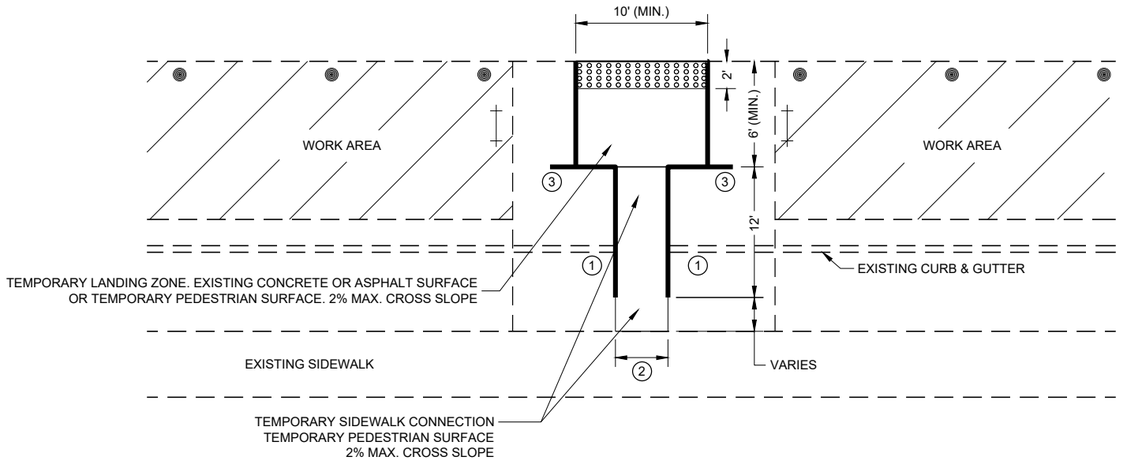
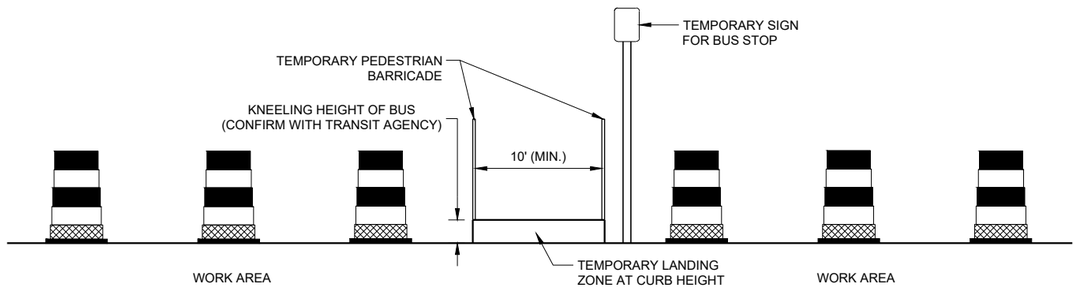
SDD 15D30-09d



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

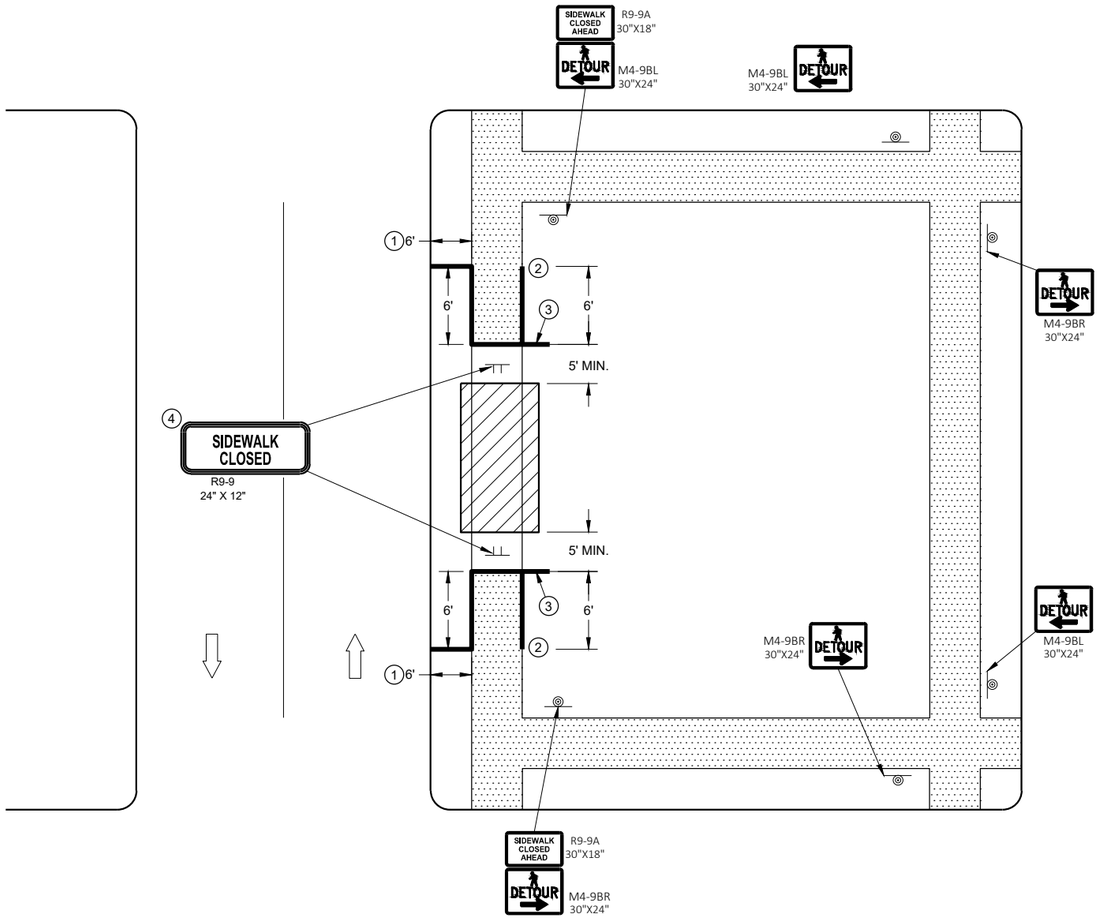
6

SDD 15D30 - 09e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

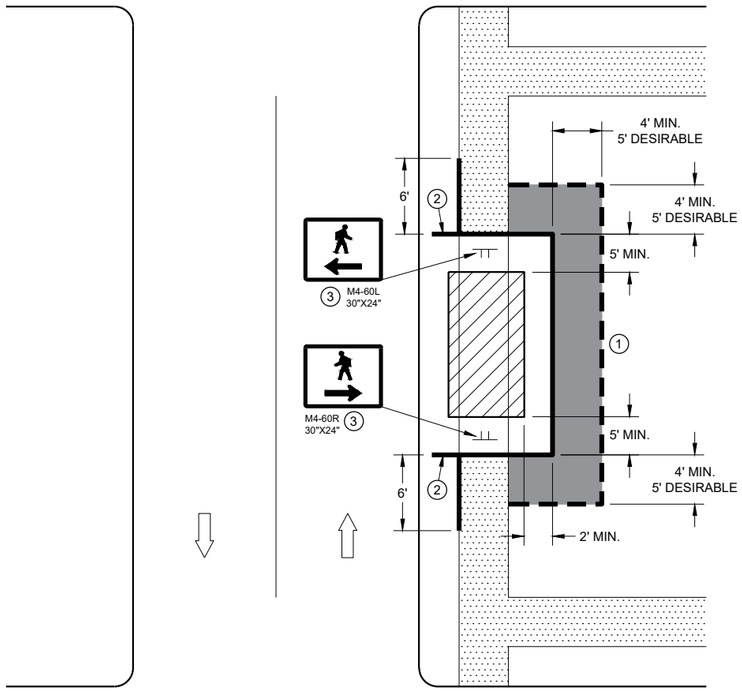
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

1. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
2. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DIVERSION
SINGLE SIDE

6

SDD 15D30 - 09g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD15D30 - 09g

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

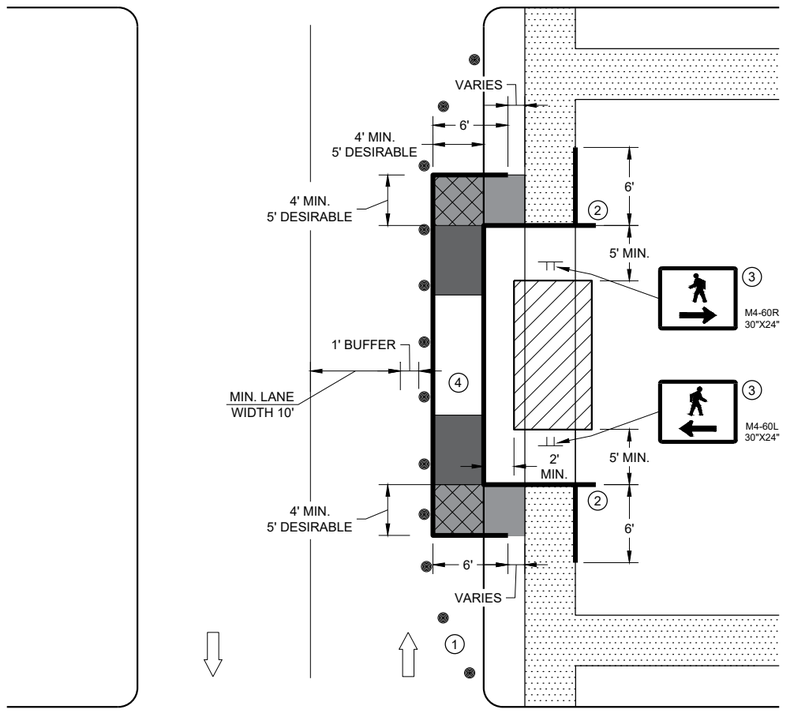
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.

(2) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

(4) USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



SIDEWALK DIVERSION, SINGLE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

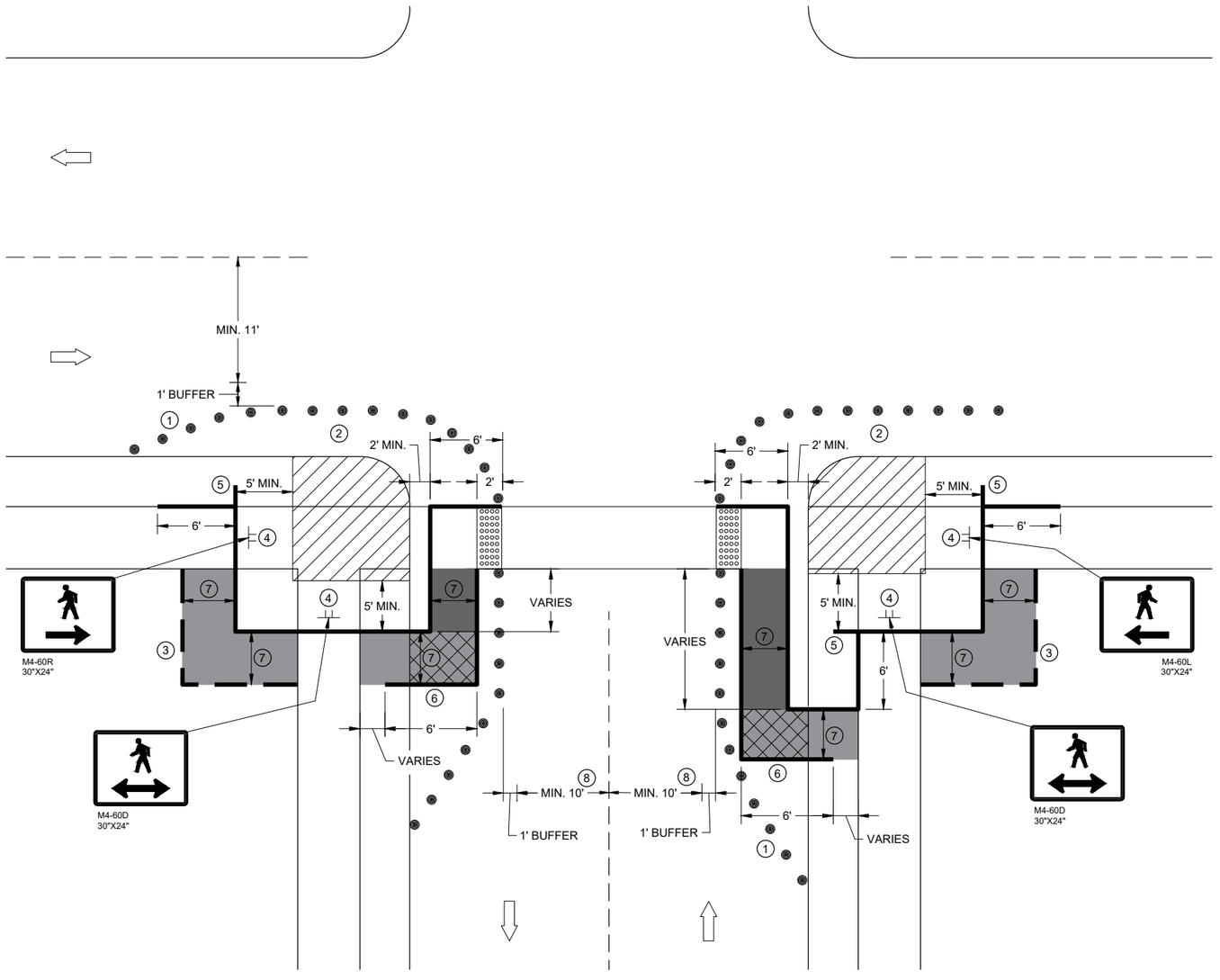
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30 - 09h

6

SDD 15D30 - 09h



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

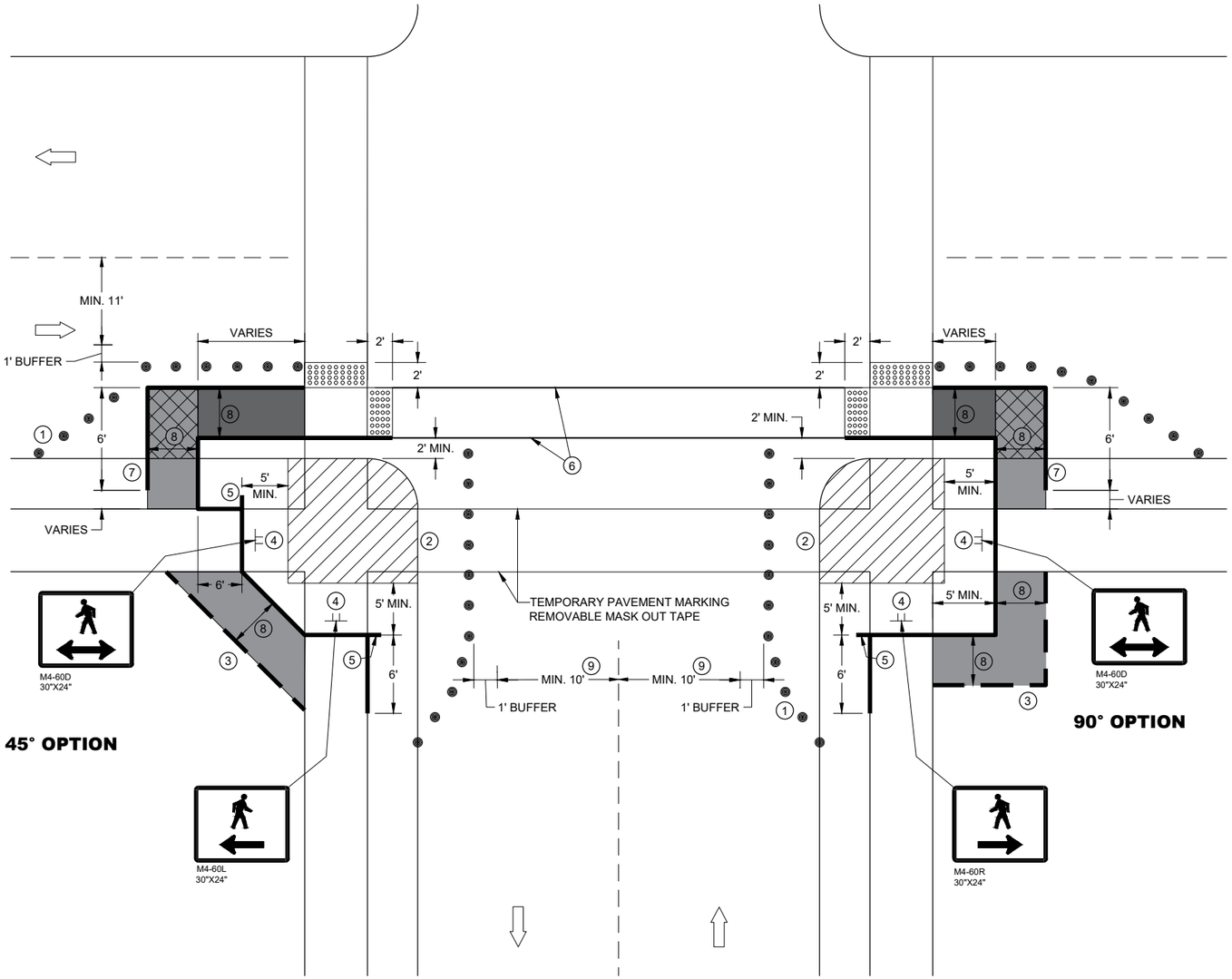
WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

LEGEND

SIGN ON PERMANENT SUPPORT

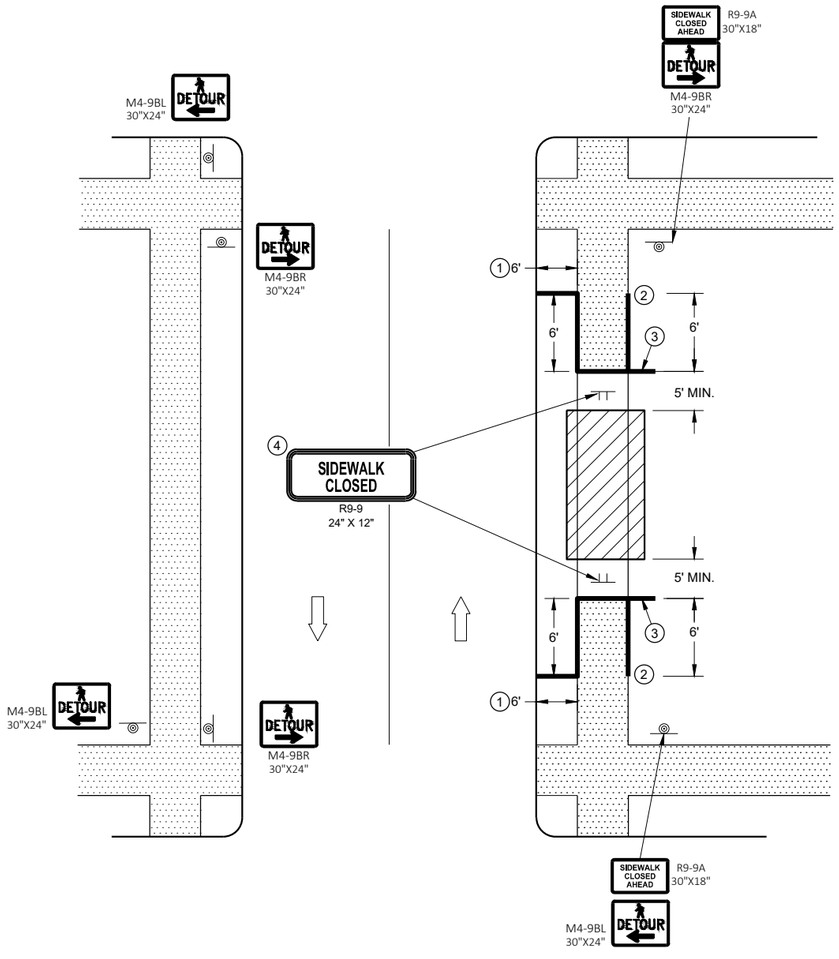
SIGN ON TEMPORARY SUPPORT

UNDER PEDESTRIAN TRAFFIC

WORK AREA

TEMPORARY PEDESTRIAN BARRICADE

DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

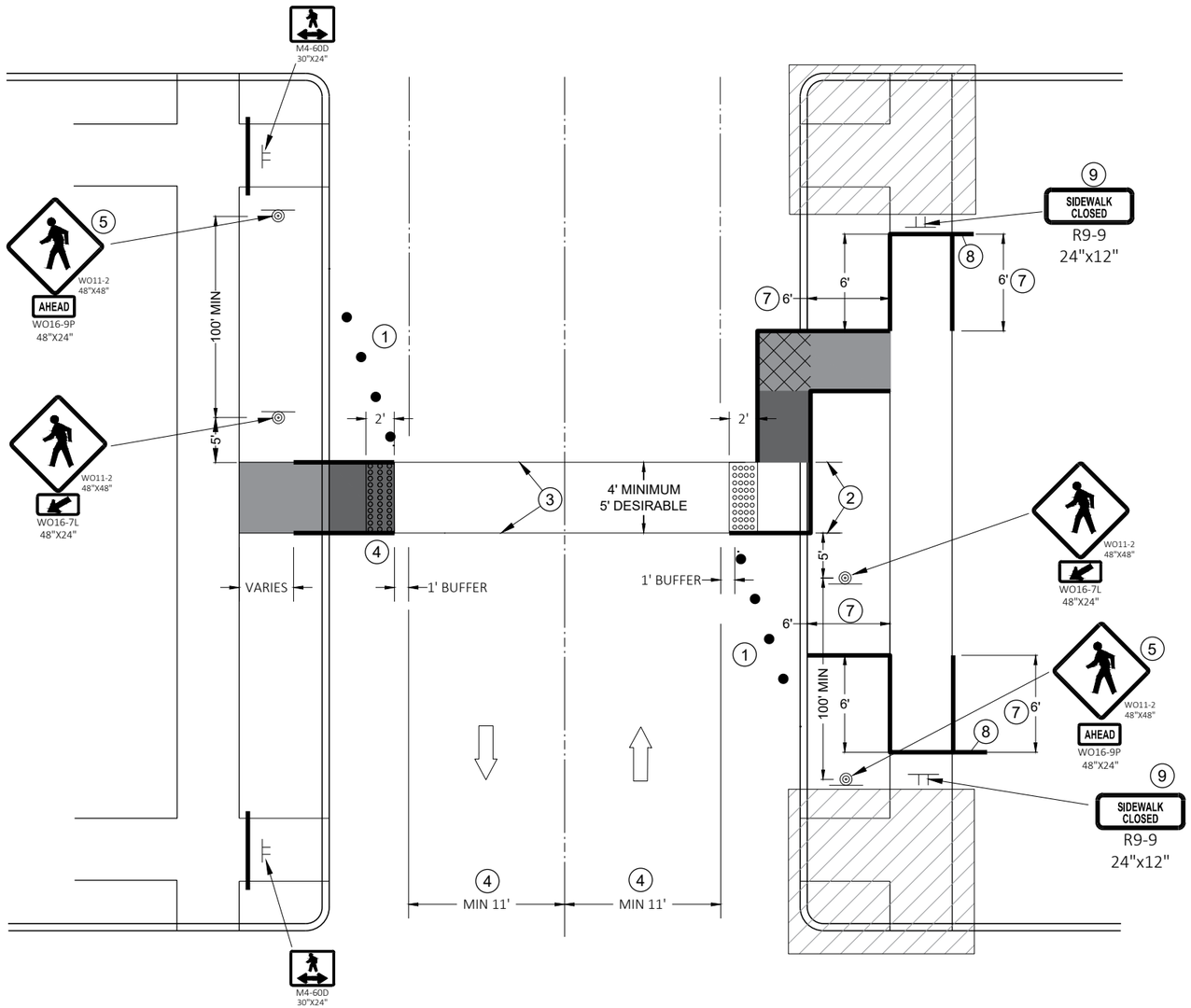
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

(1) SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) 4 FEET MINIMUM, 5 FEET DESIRABLE.

(3) WHITE 6" TEMPORARY PAVEMENT MARKING.

(4) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.

(5) IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.

(6) IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.

(7) PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.

(8) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(9) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

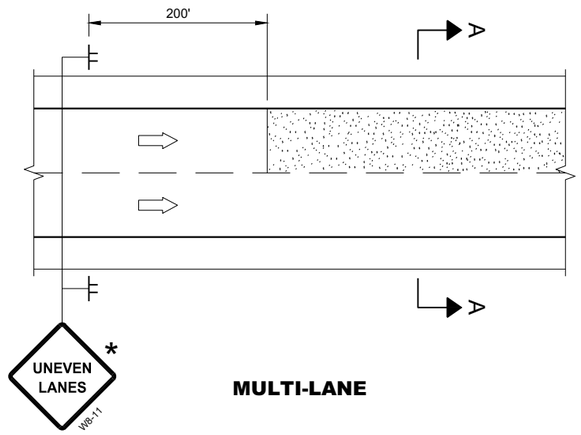
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

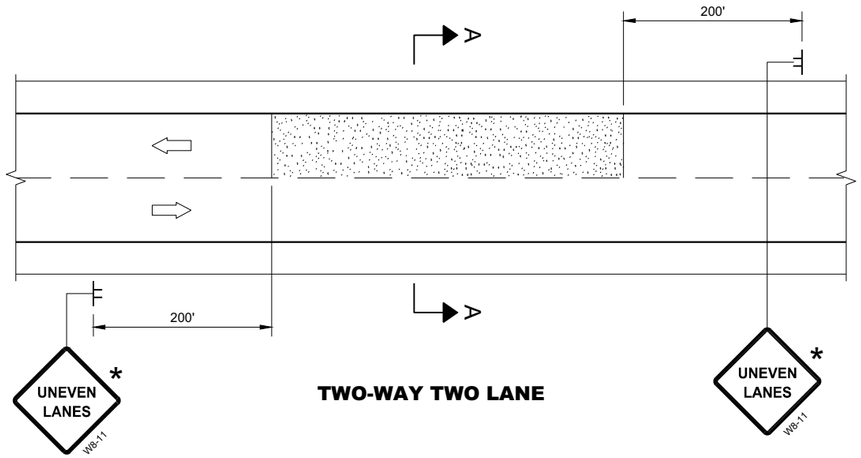
6

SDD 15D30 - 09L

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



MULTI-LANE



TWO-WAY TWO LANE

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.

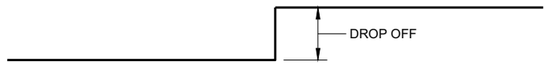
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* 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.

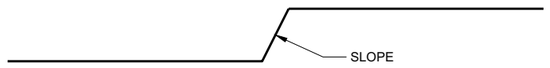
LEGEND

- 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

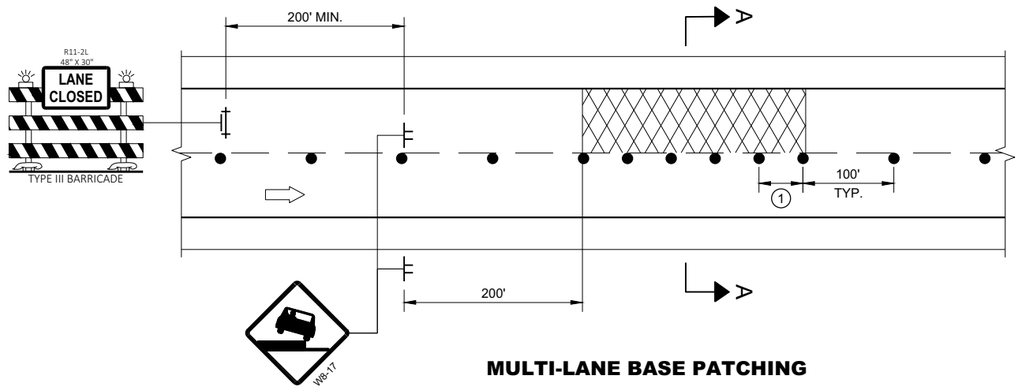


SECTION A - A

OR

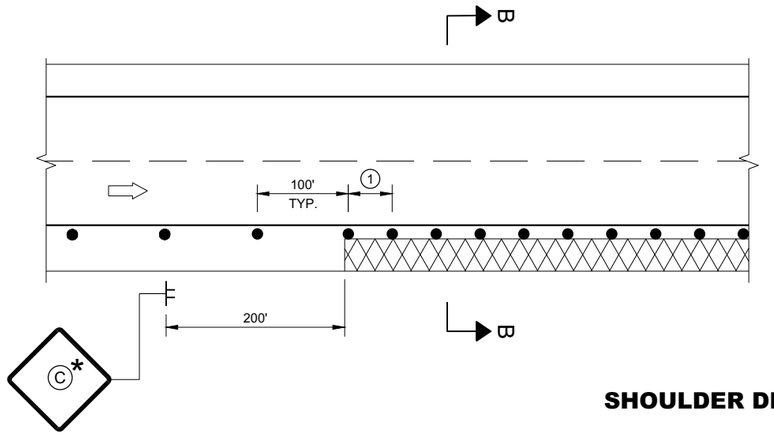


SECTION A - A

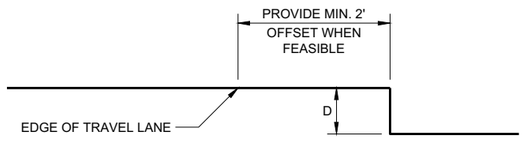


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

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

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

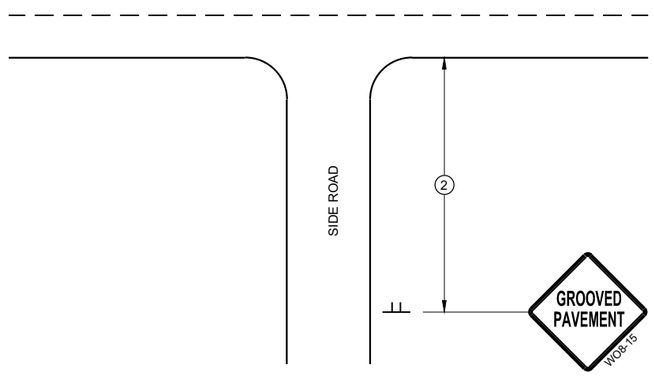
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

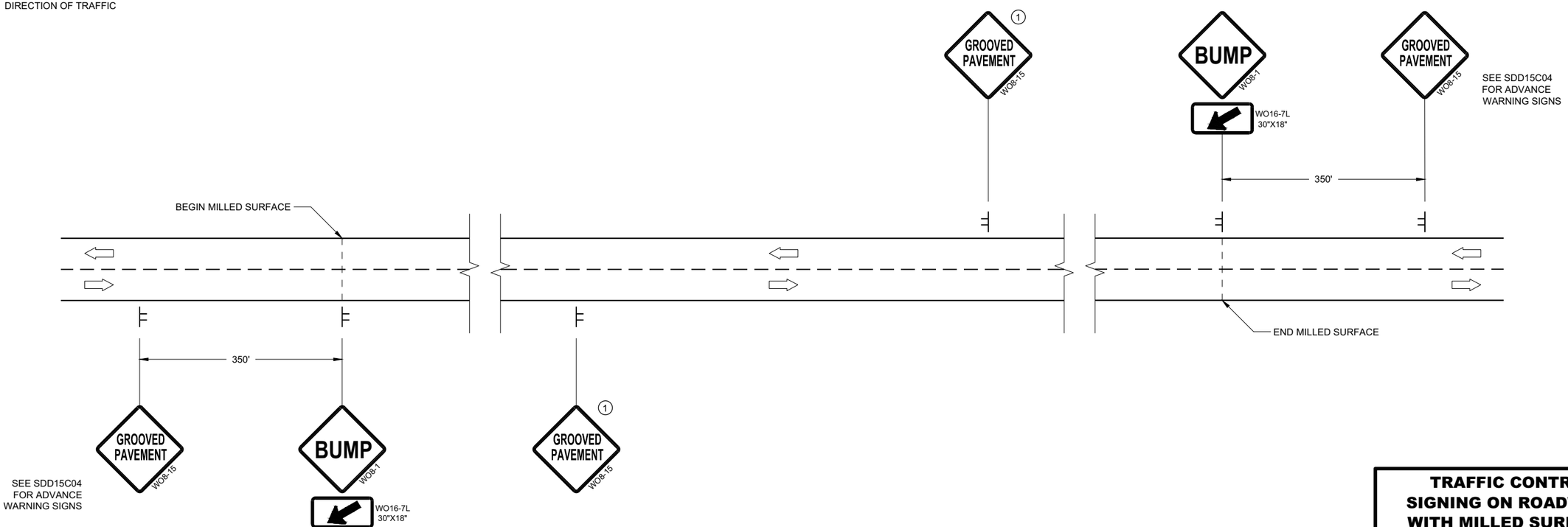
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

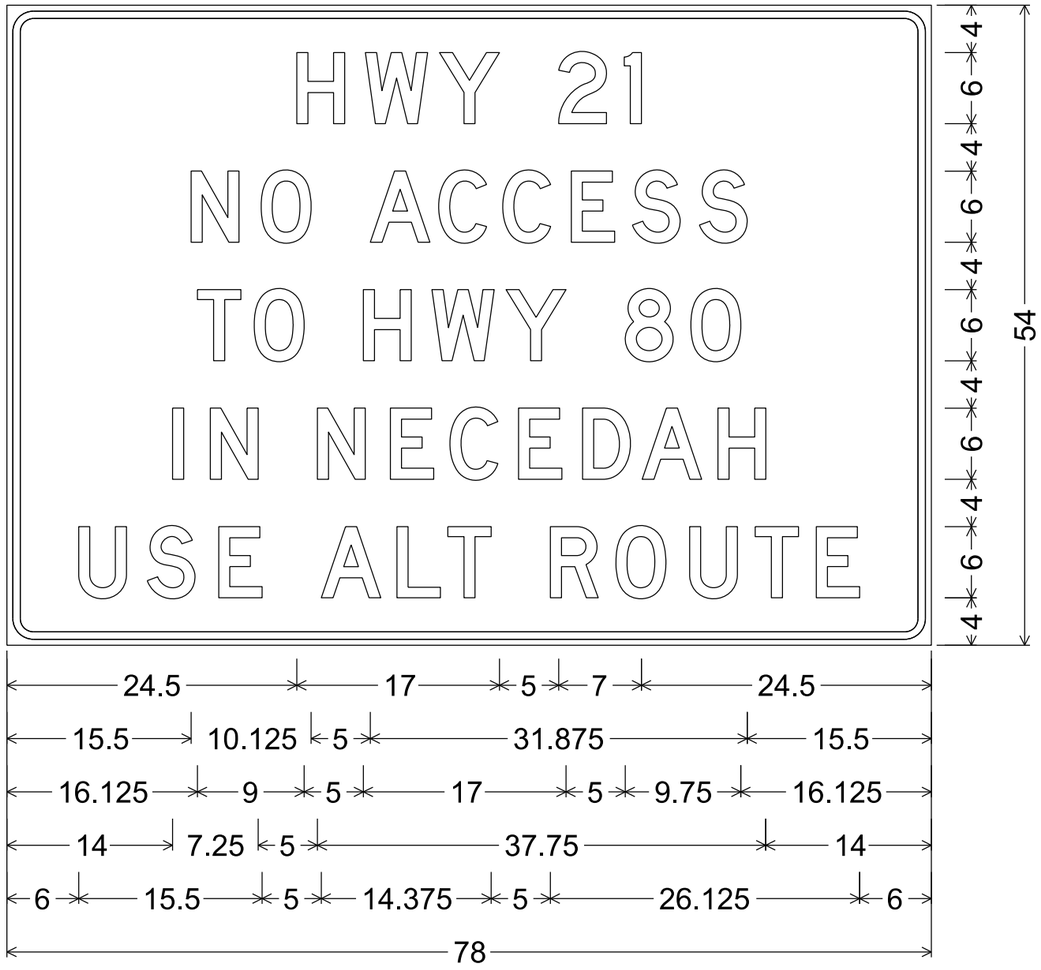
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

NOTES

1. Fixed Message Sign Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

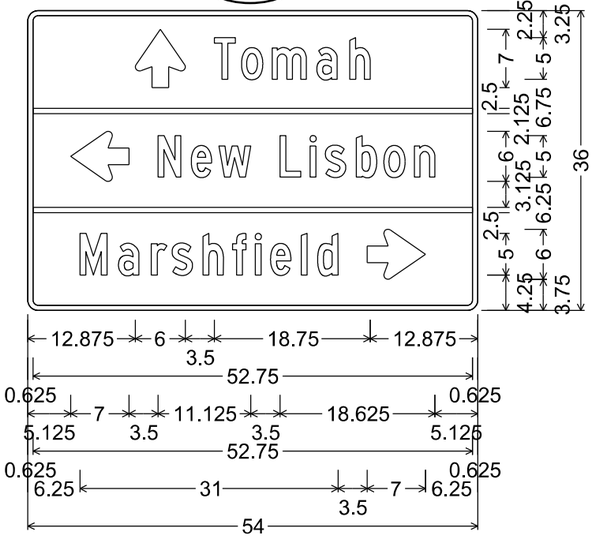


2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

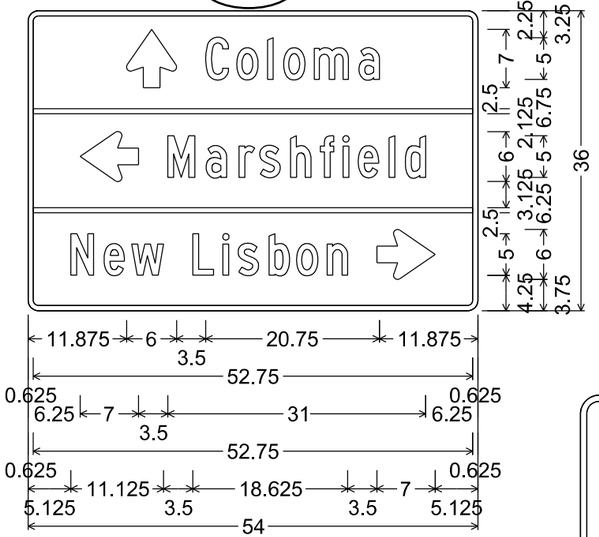
1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - C except as noted

2-39



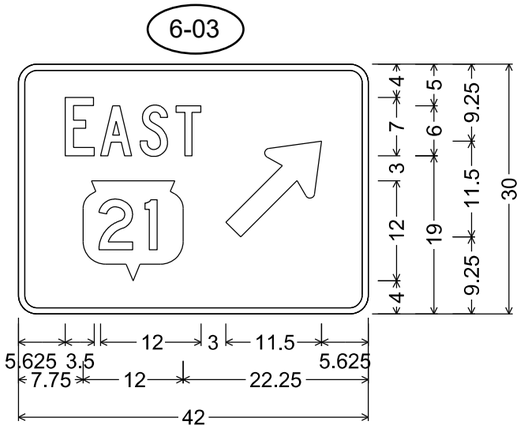
D1-3; 1.250" Radius, 0.625" Border

2-38



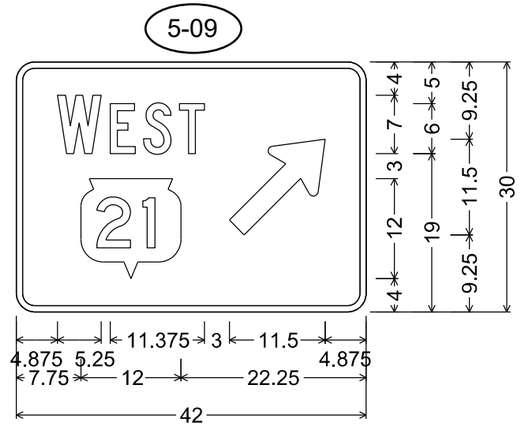
D1-3; 1.250" Radius, 0.625" Border

6-03



D1-1; 2.250" Radius, 0.750" Border

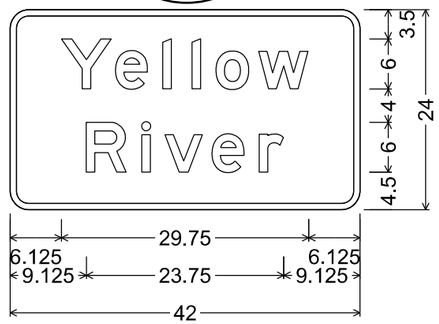
5-09



D1-1; 2.250" Radius, 0.750" Border

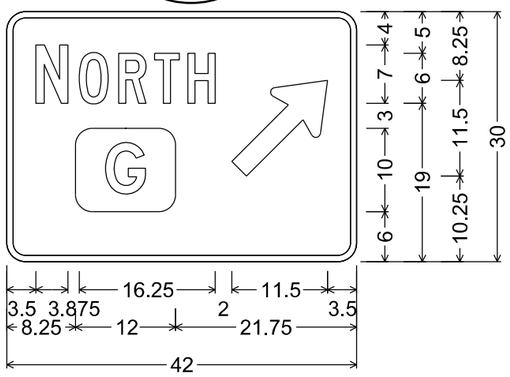
3-02

3-08



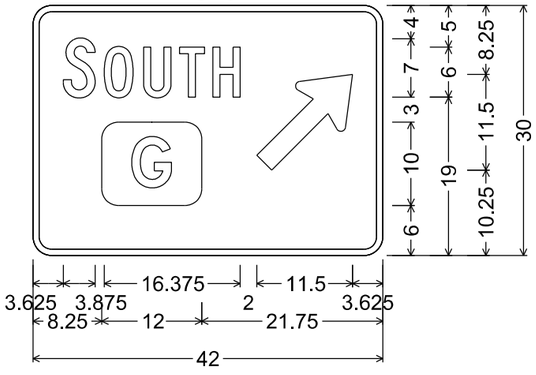
I3-1; 2.250" Radius, 0.750" Border
"Yellow", E; "River", E;

5-13



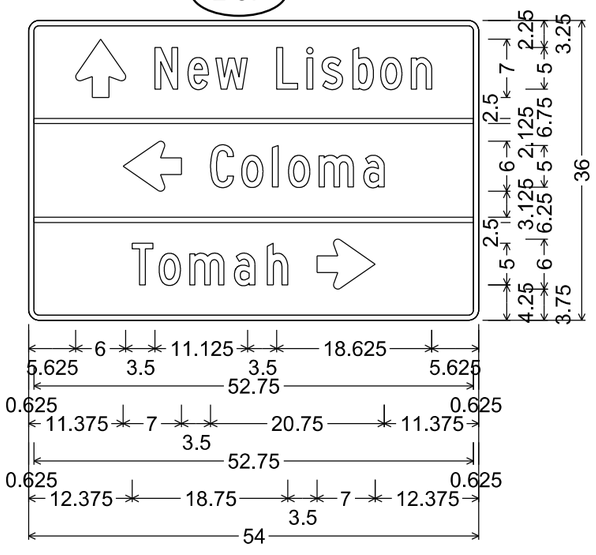
D1-1; 2.250" Radius, 0.750" Border

5-16



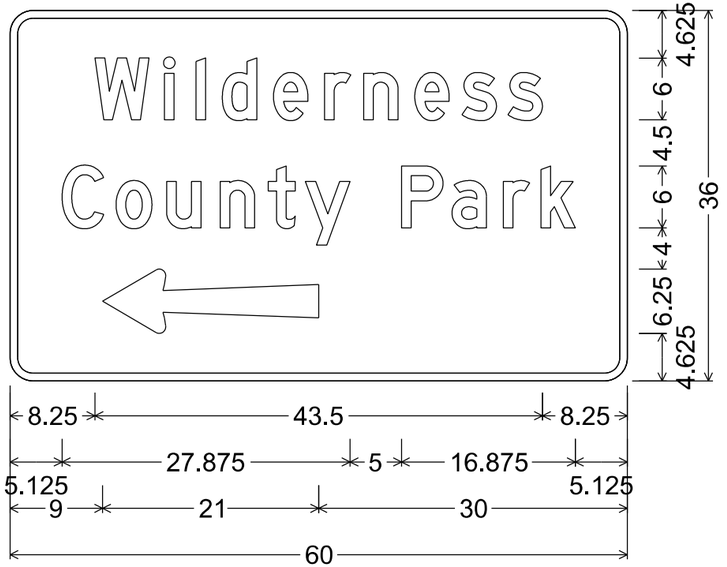
D1-1; 2.250" Radius, 0.750" Border

2-37



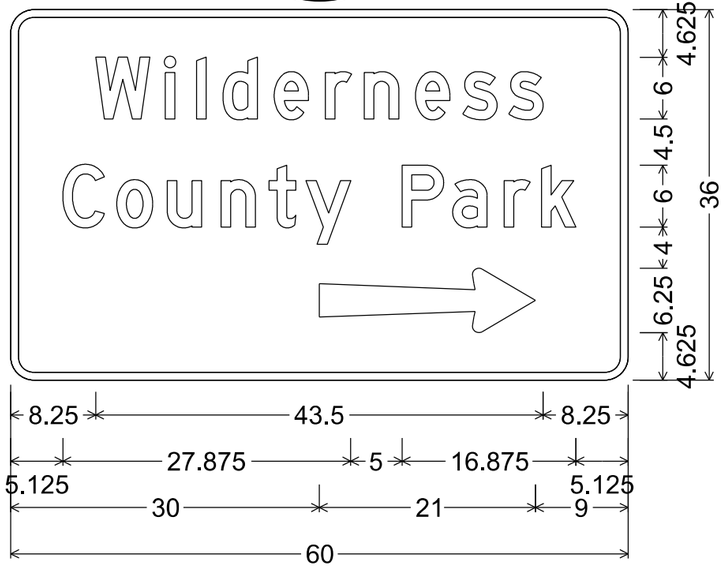
D1-3; 1.250" Radius, 0.625" Border

5-01



D7-68L; 2.250" Radius, 0.750" Border
2.250" Radius, 0.750" Border, White on Brown;

6-11

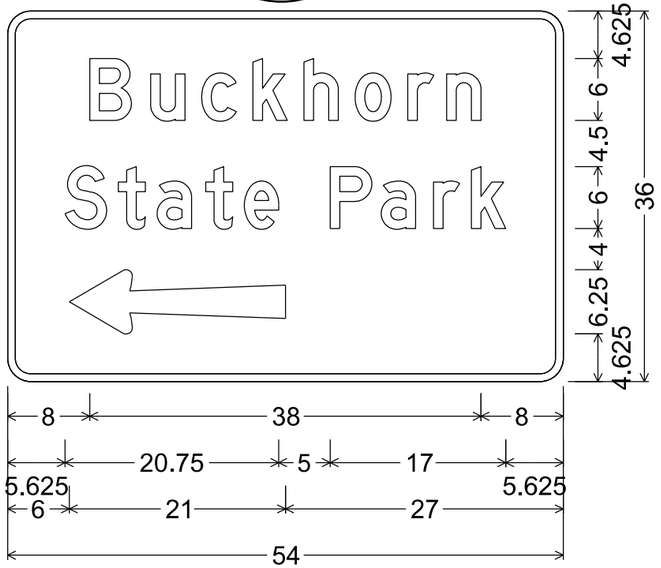


D7-68R; 2.250" Radius, 0.750" Border

NOTES

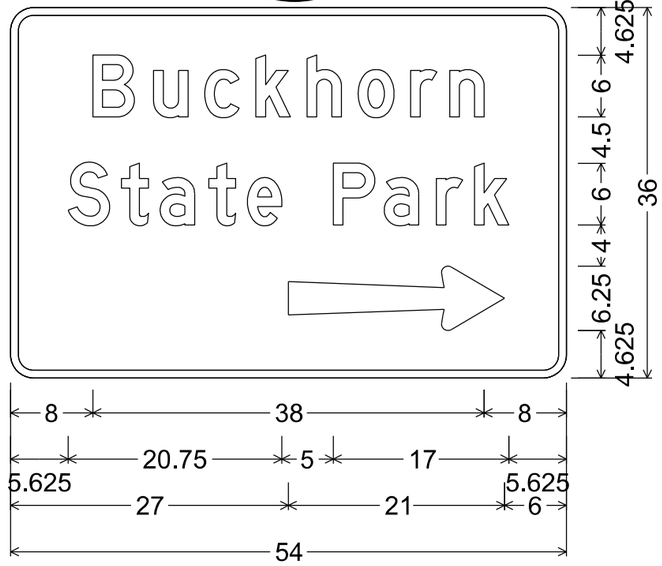
1. Signs are Type II - Type H Reflective
2. Color:
   Background - Brown
   Message - White
3. Message Series - D

6-12



D7-53L; 2.250" Radius, 0.750" Border

5-02

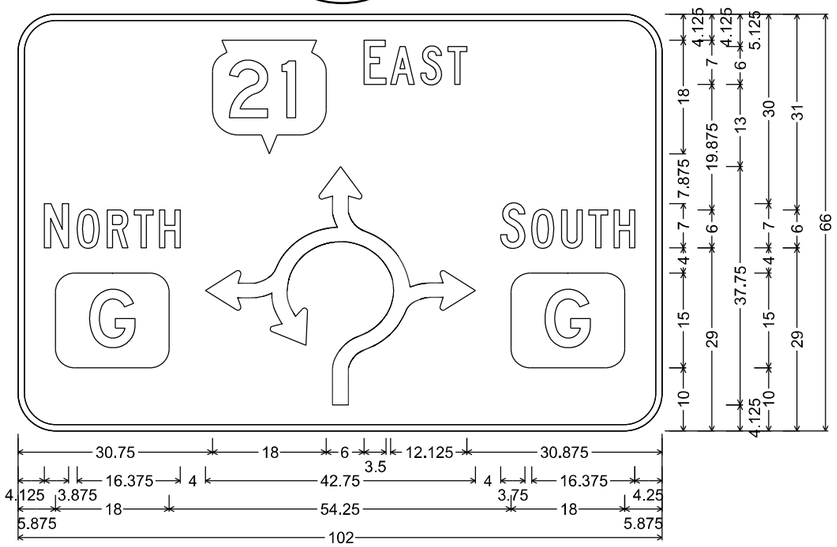


D7-53R; 2.250" Radius, 0.750" Border

NOTES

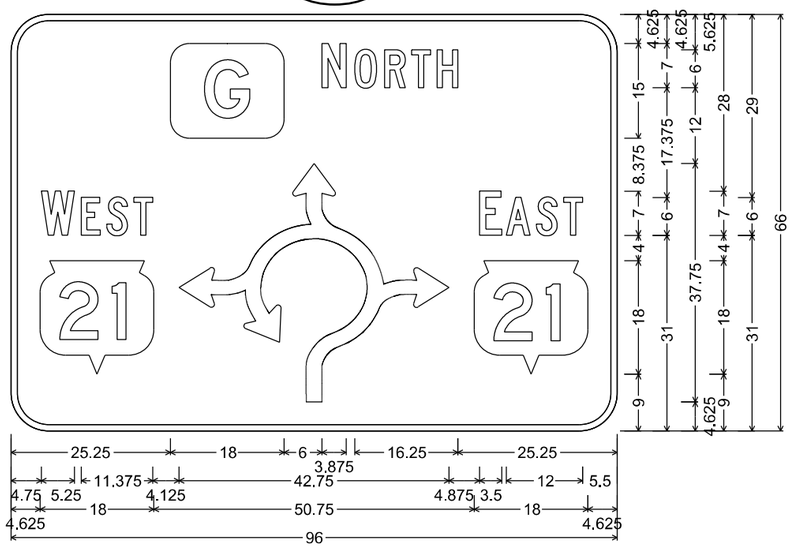
1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - C

5-07



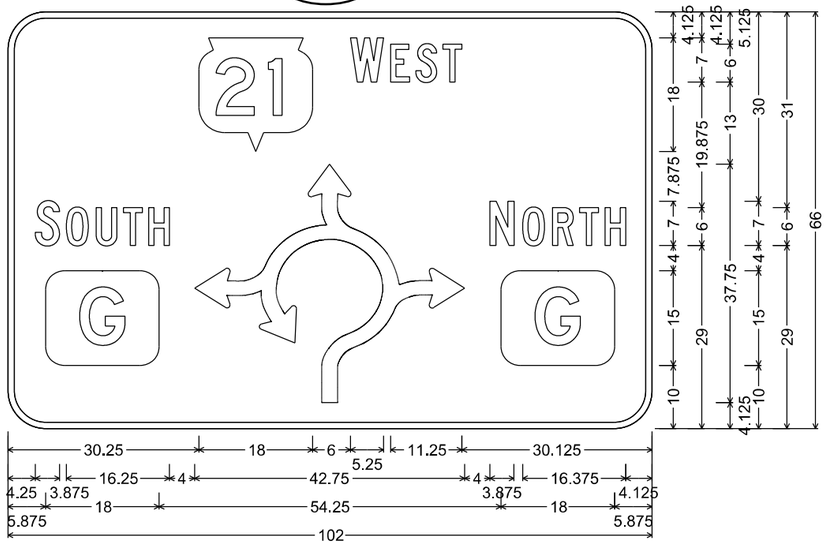
D1-62; 6.000" Radius, 1.000" Border

7-08



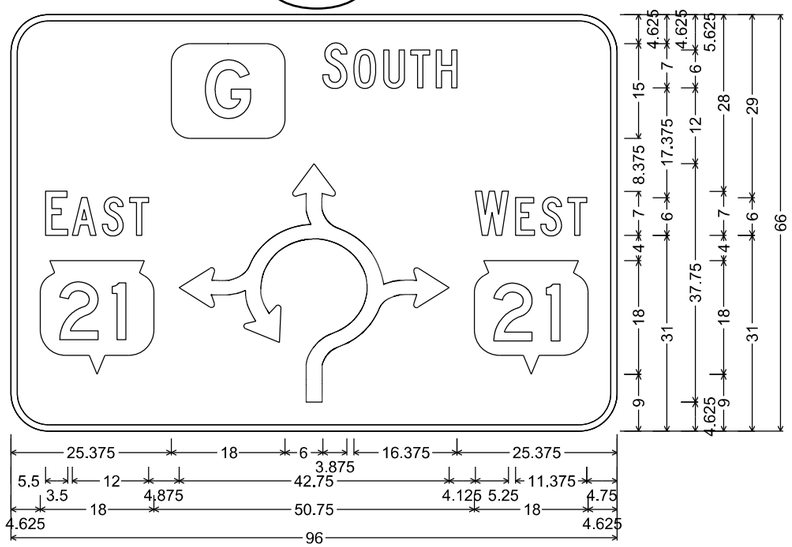
D1-62; 6.000" Radius, 1.000" Border

6-05



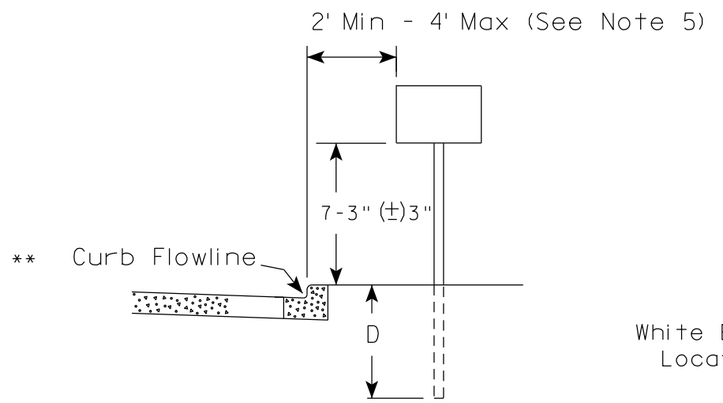
D1-62; 6.000" Radius, 1.000" Border

8-01

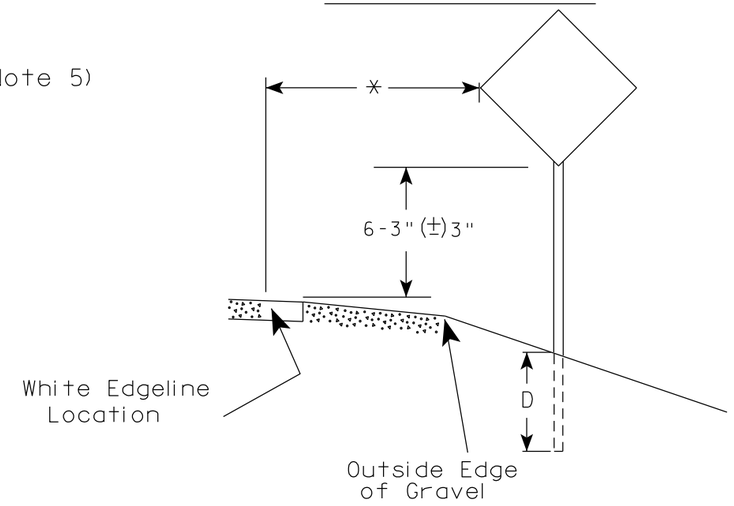


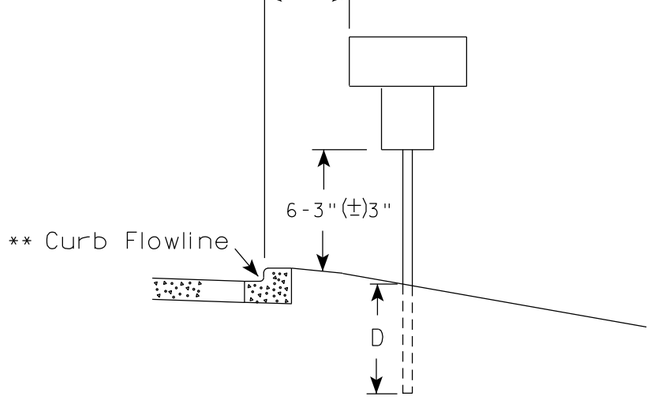
D1-62; 6.000" Radius, 1.000" Border

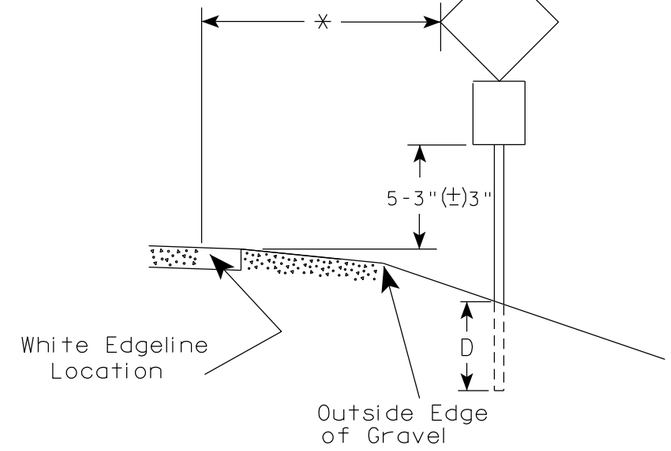
URBAN AREA



RURAL AREA (See Note 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. Offset of signs is measured from the flow line.

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

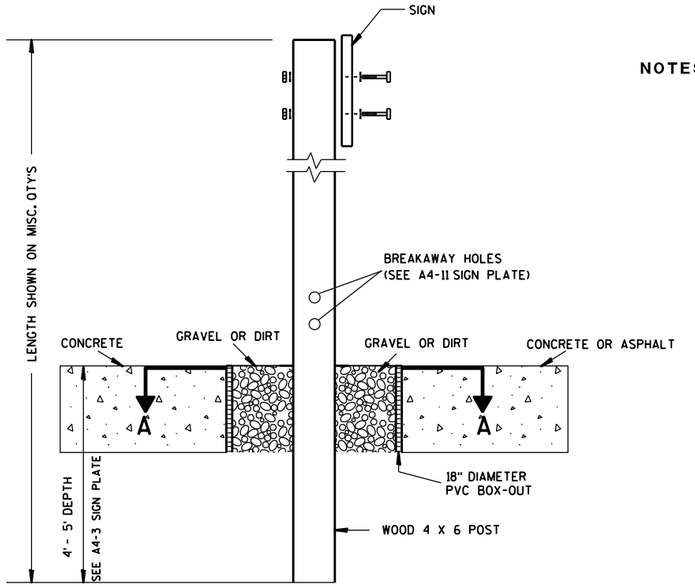
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-3.23

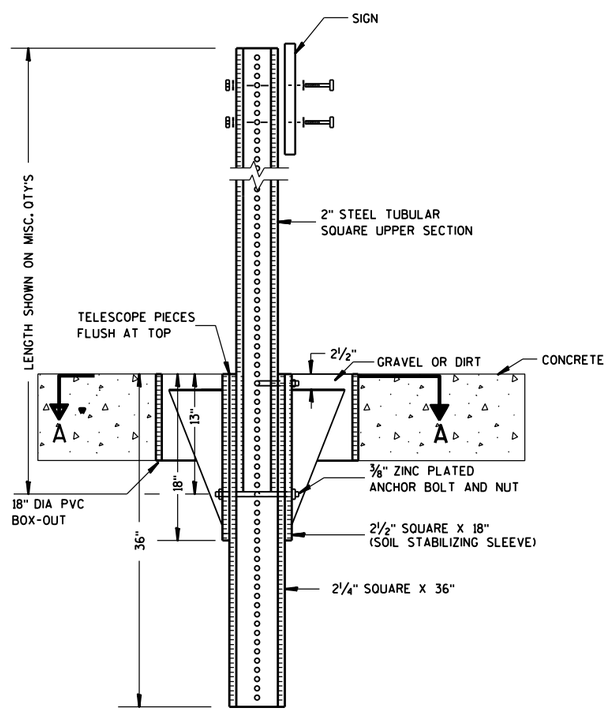
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 478	E



ELEVATION VIEW

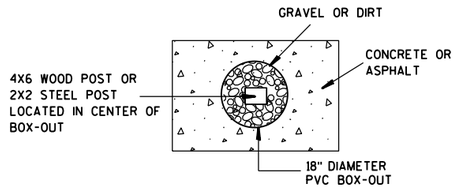
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

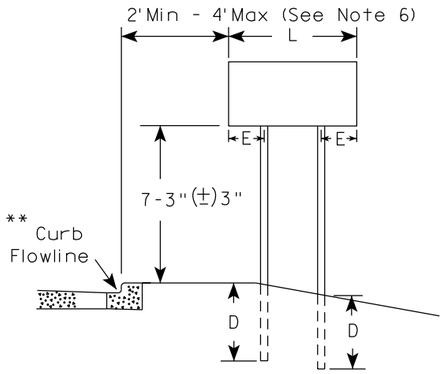
APPROVED Matthew R Rauch
for State Traffic Engineer

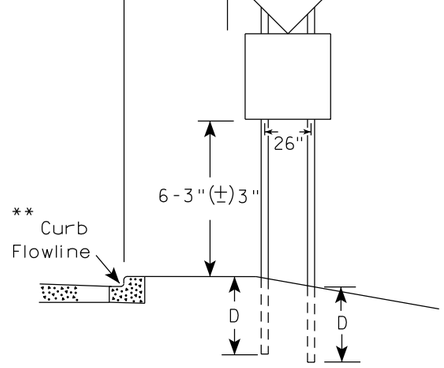
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

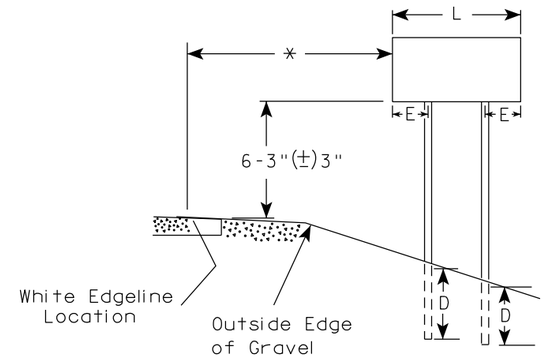
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

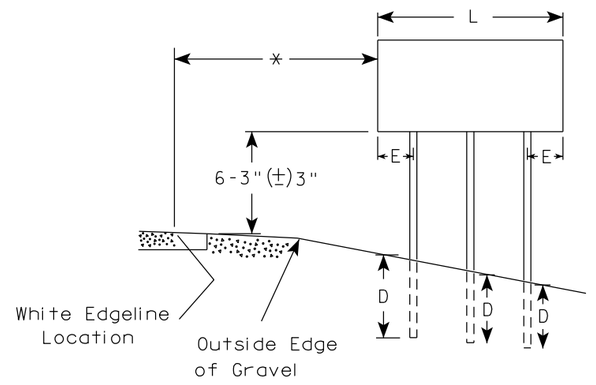
URBAN AREA

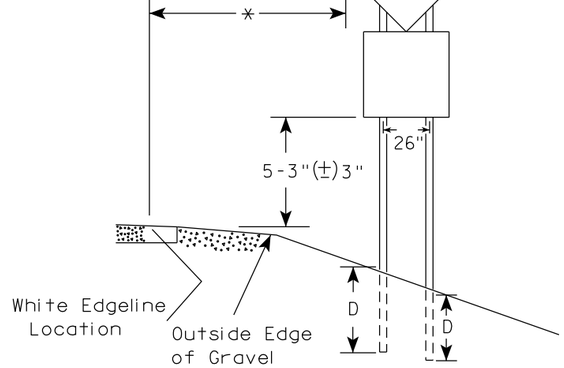




RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

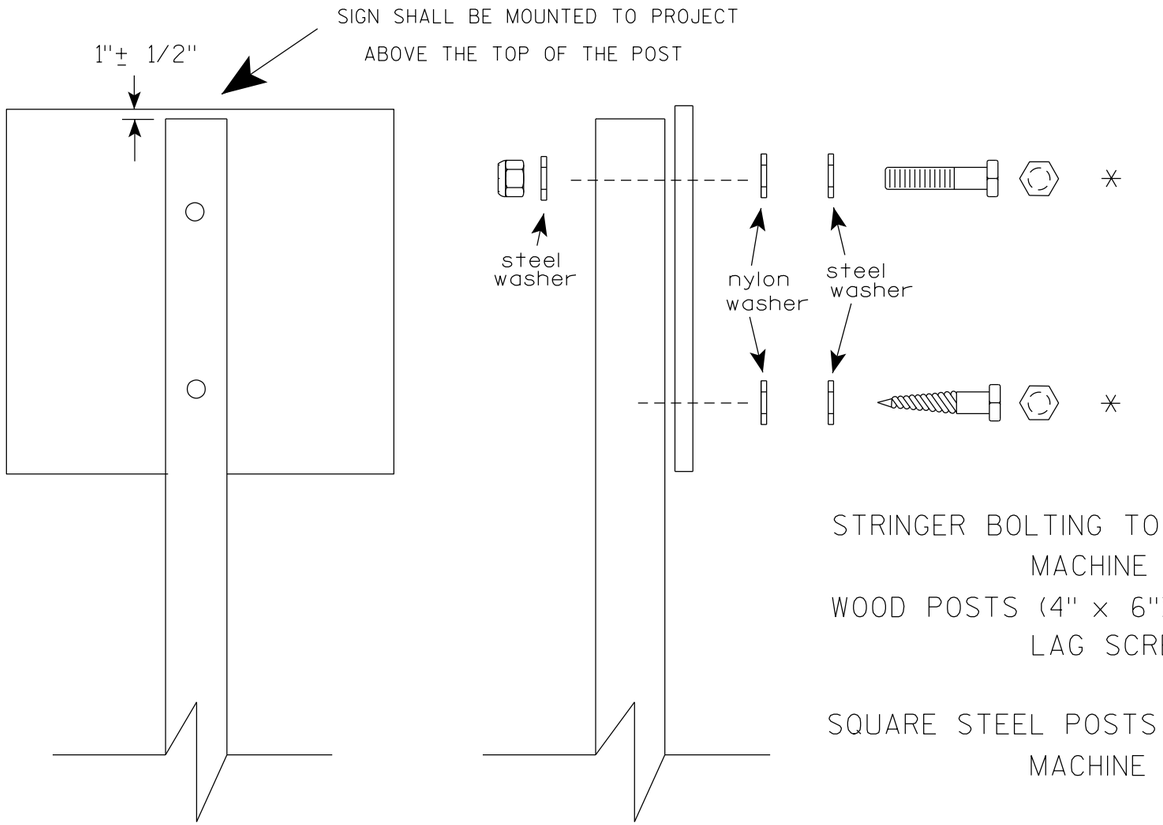
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 480	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

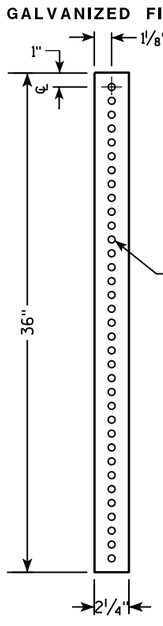
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

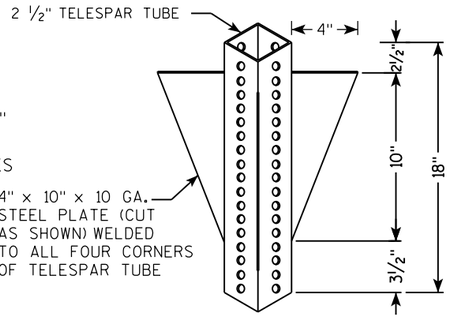
SHEET NO: 481 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

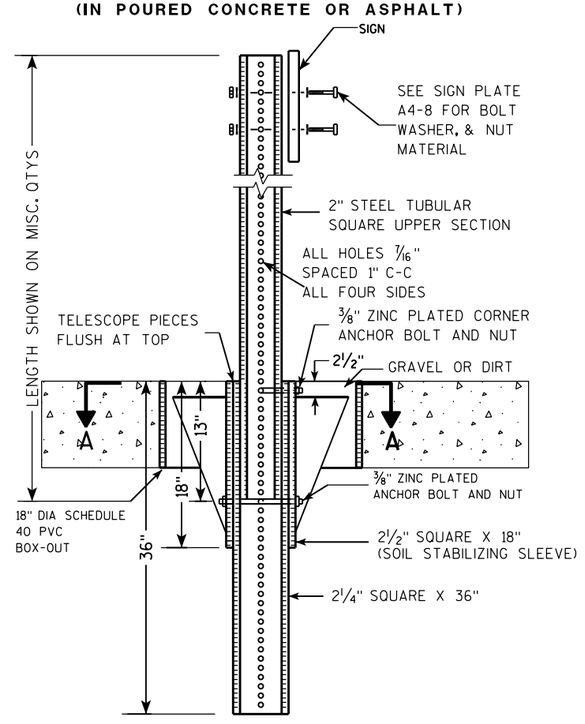
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



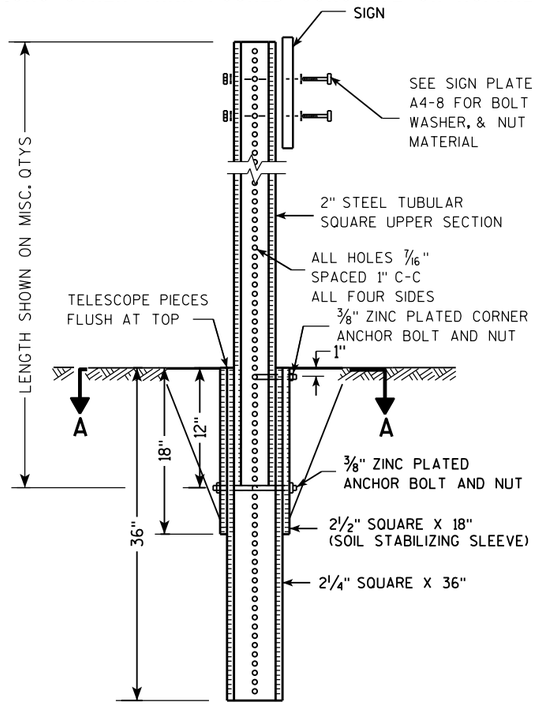
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

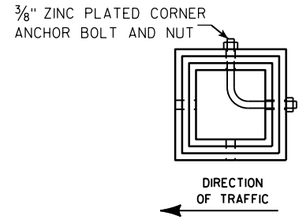


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

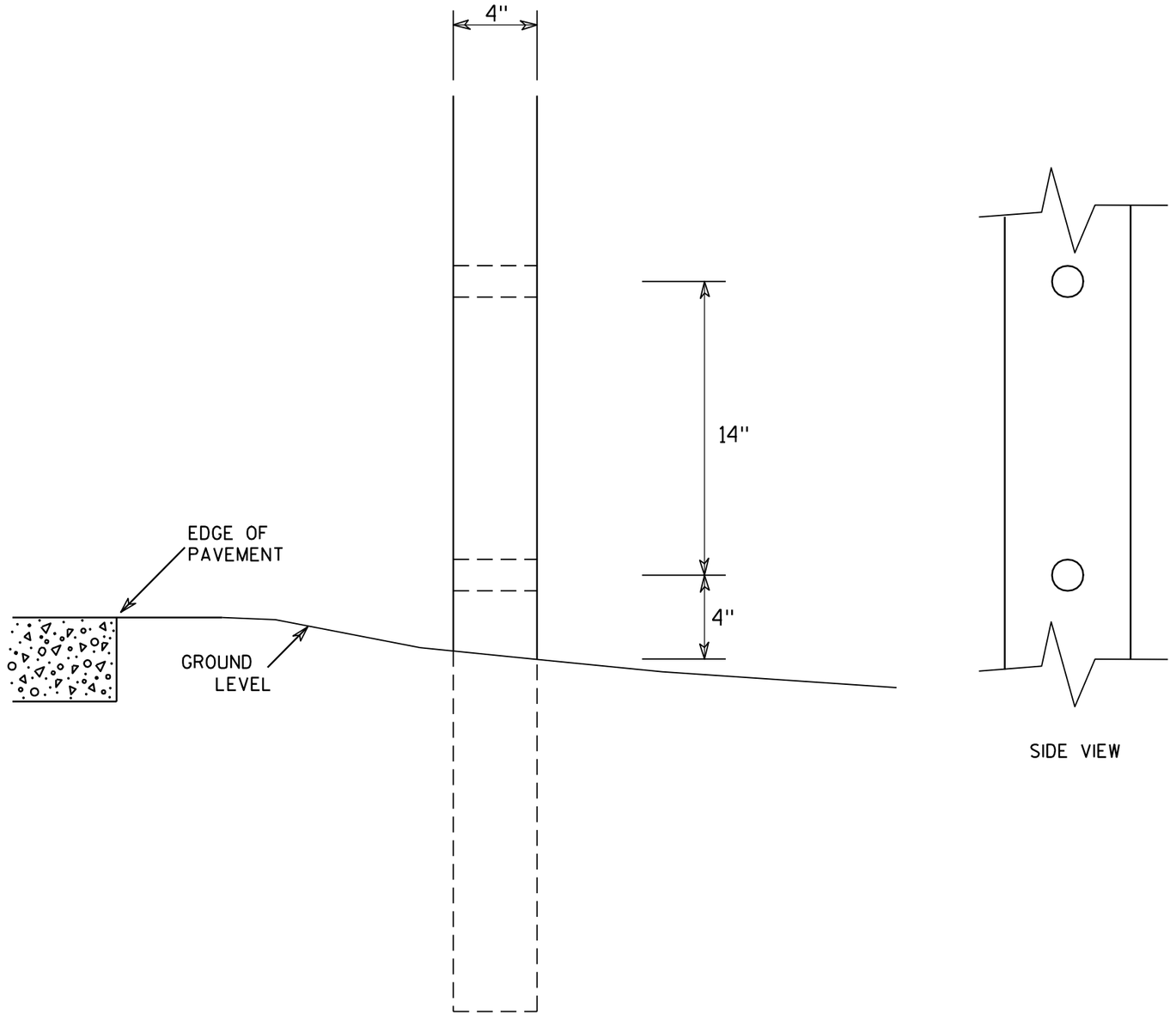
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 482 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

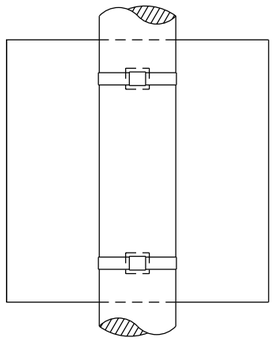
APPROVED Chester J Spang for State Traffic Engineer

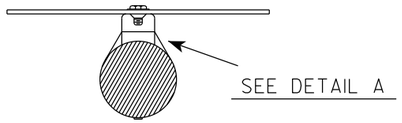
DATE 3/27/97 PLATE NO. A4-11.2

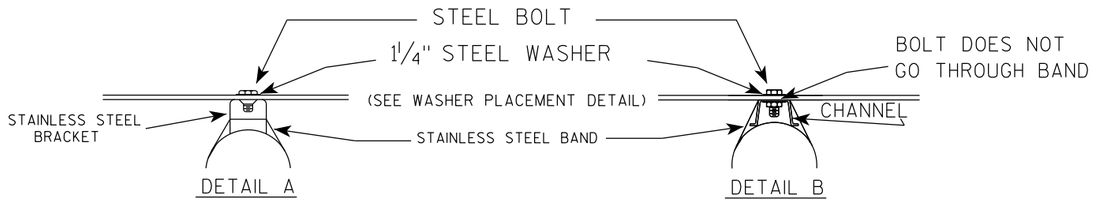
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 483	E

BANDING

SINGLE SIGN



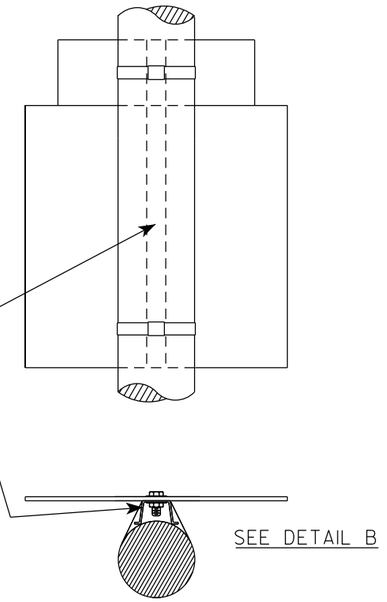




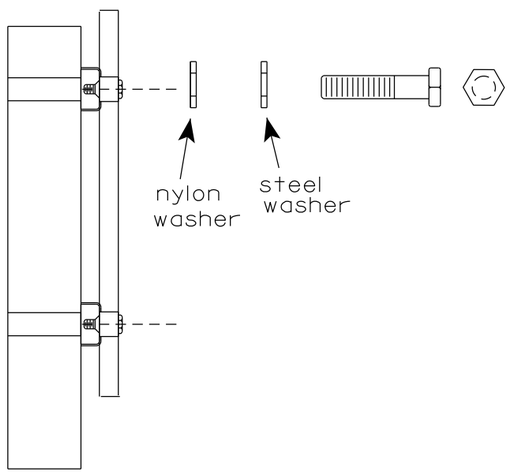
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

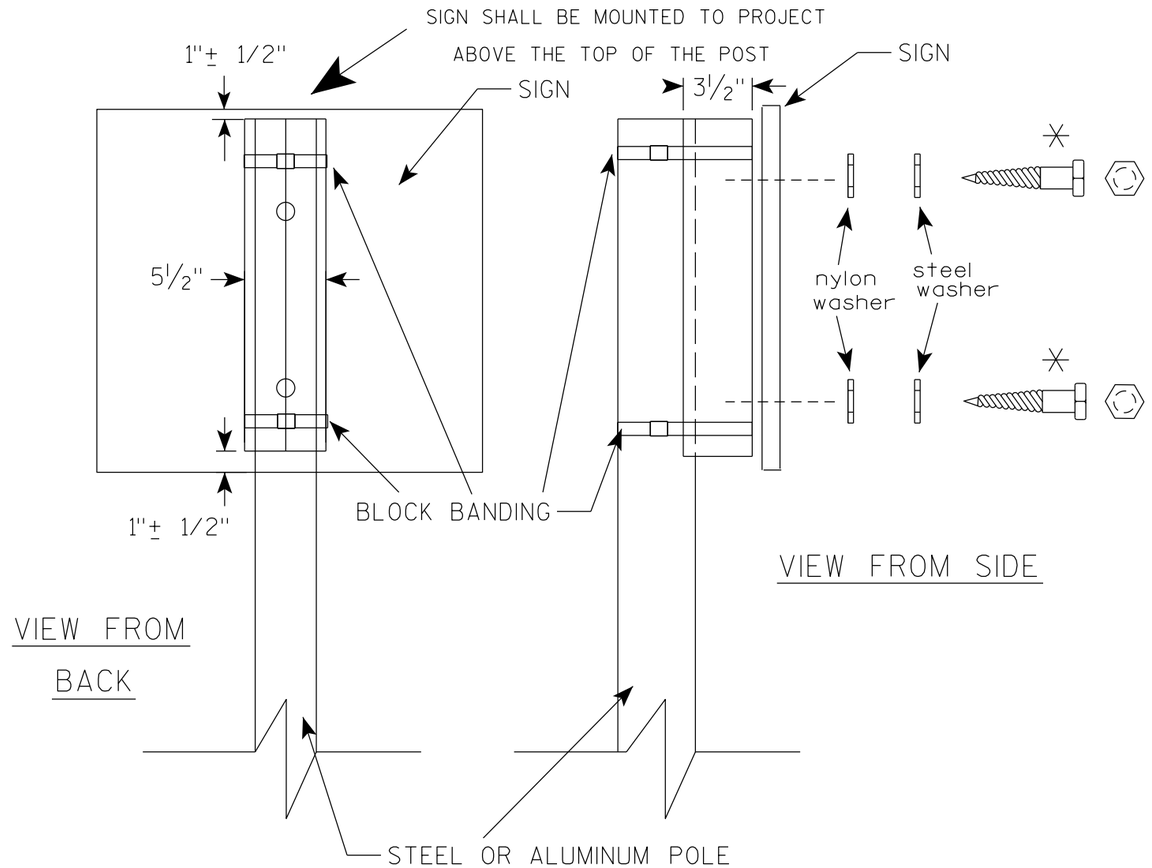
WISCONSIN DEPT OF TRANSPORTATION

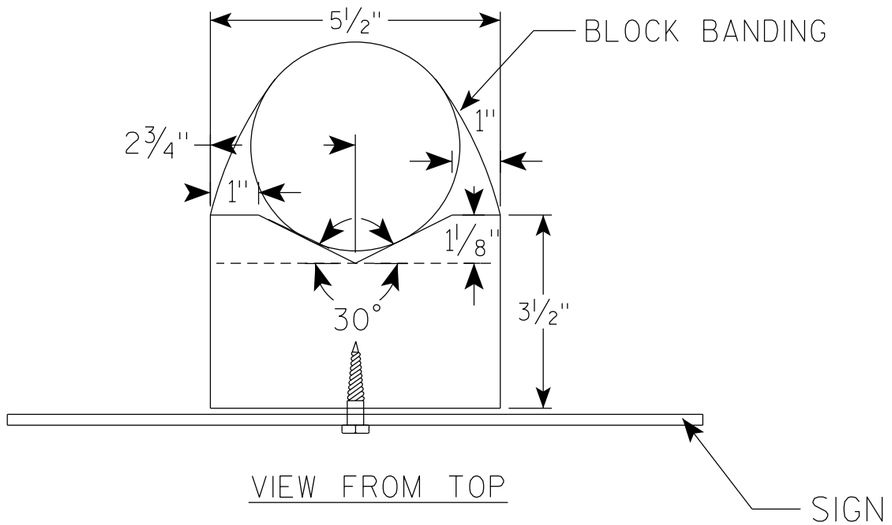
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 484	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

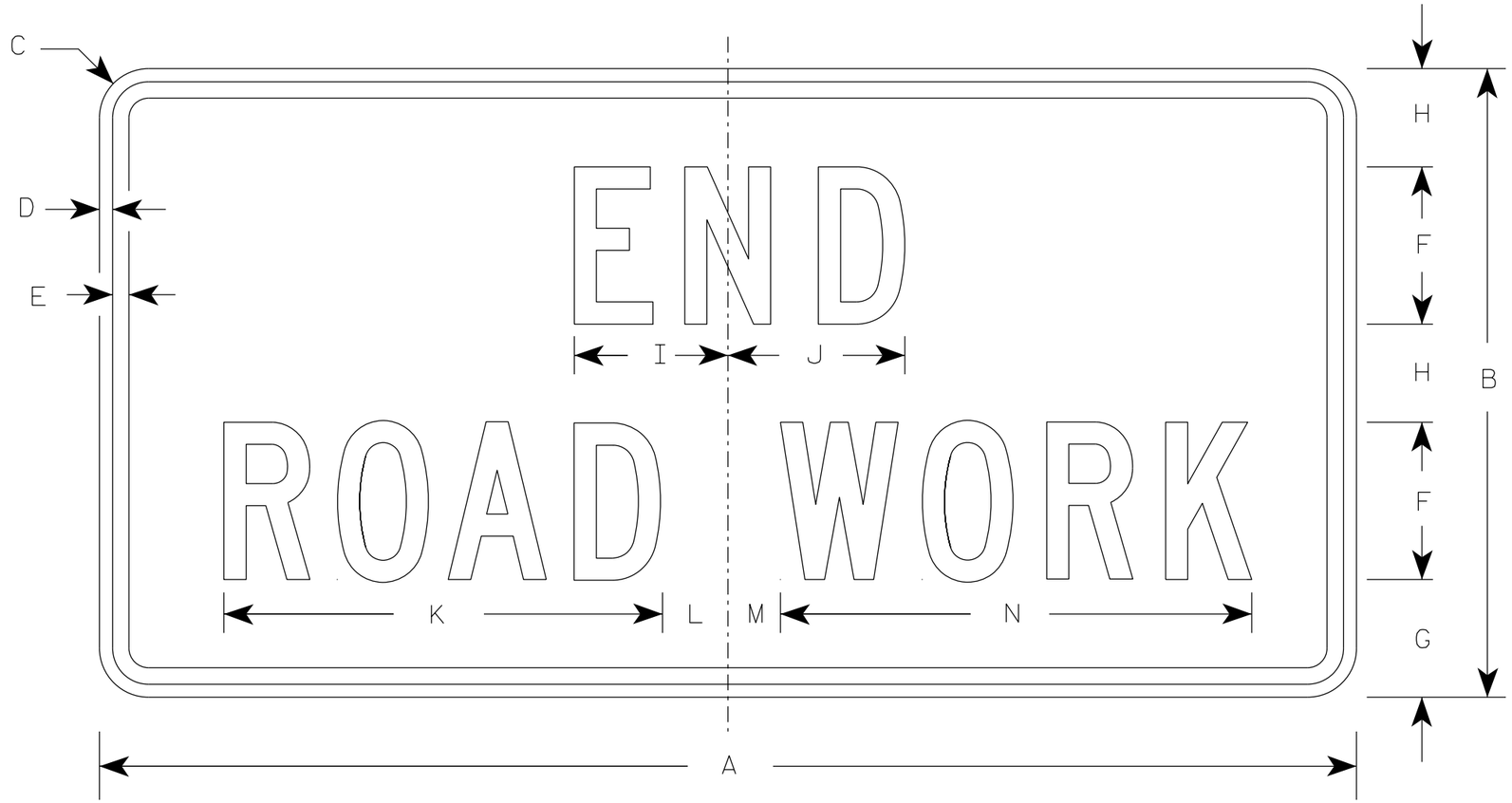
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 485 E



G20-2A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

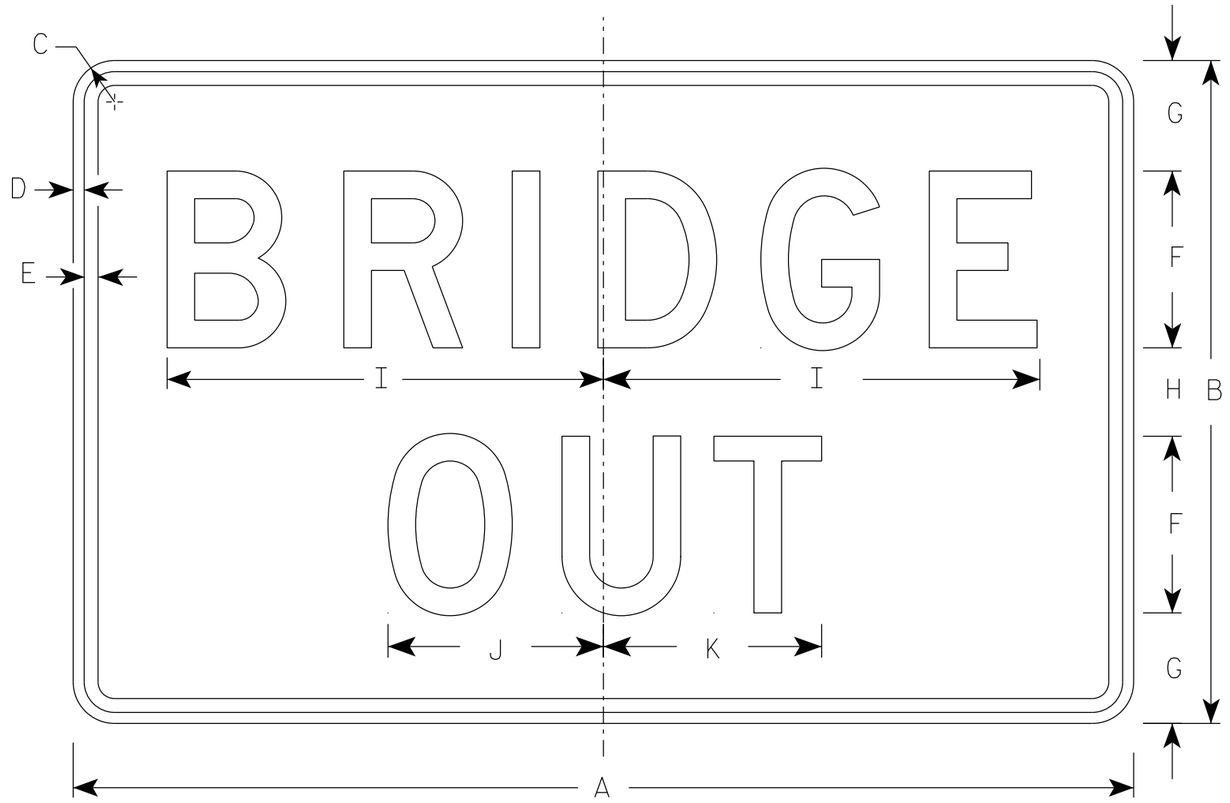
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



R11-2B

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

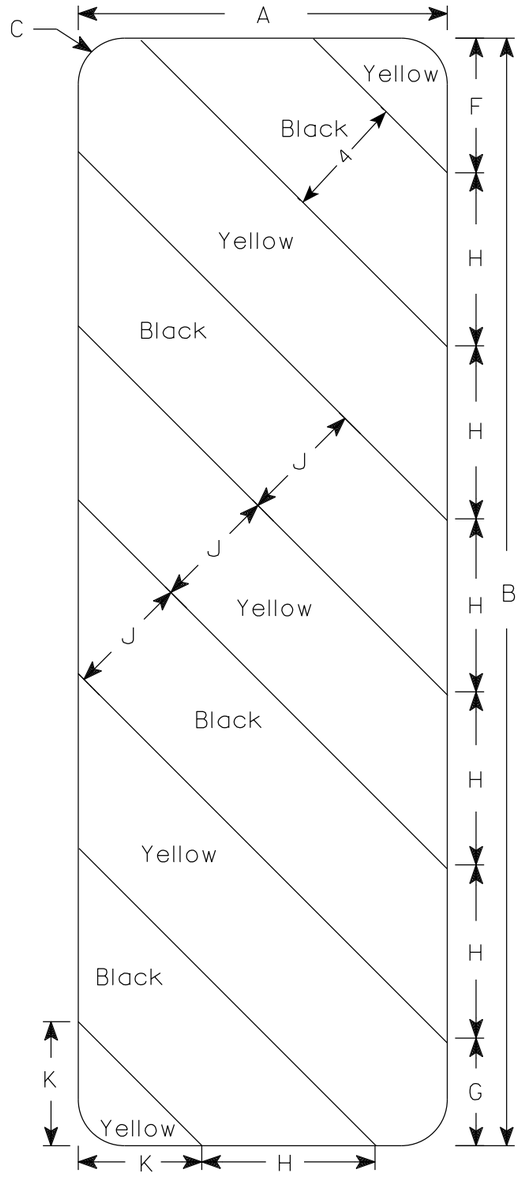
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

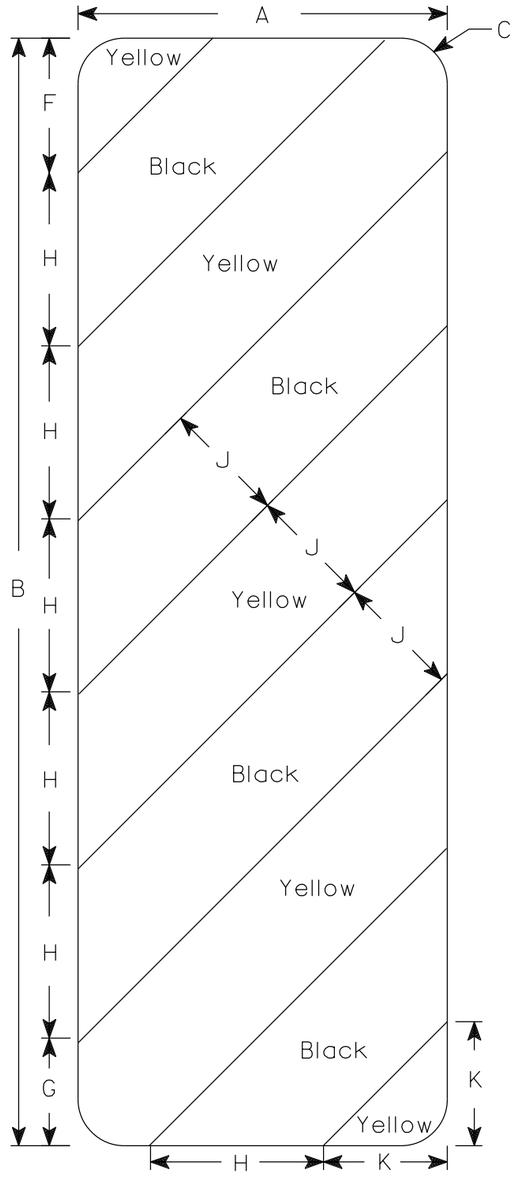
DATE 2/5/24 PLATE NO. R11-2B.3

PROJECT NO:

SHEET NO: 487 E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

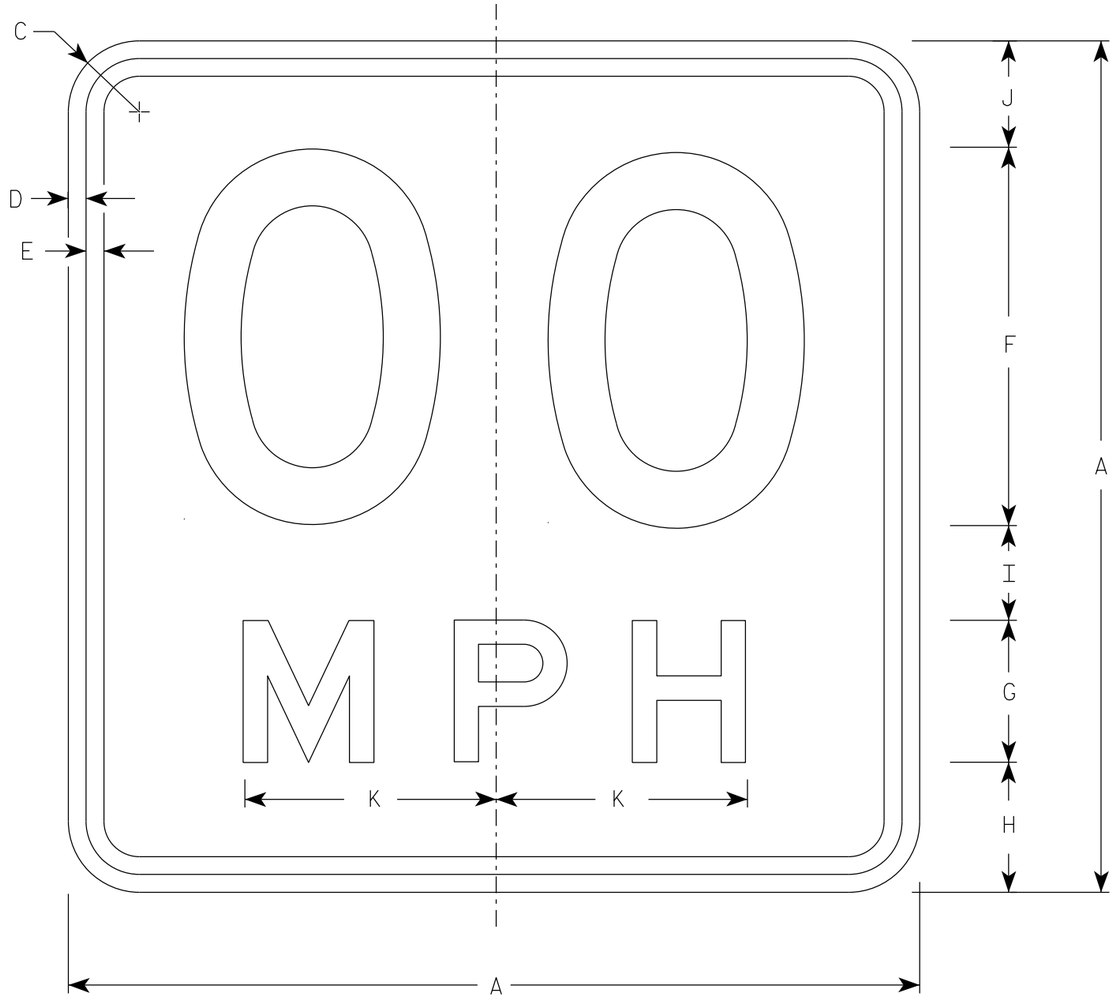
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 488 E



W13-1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 5
4. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
5. Line 1 is Series D
   Line 2 is Series E

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/2	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

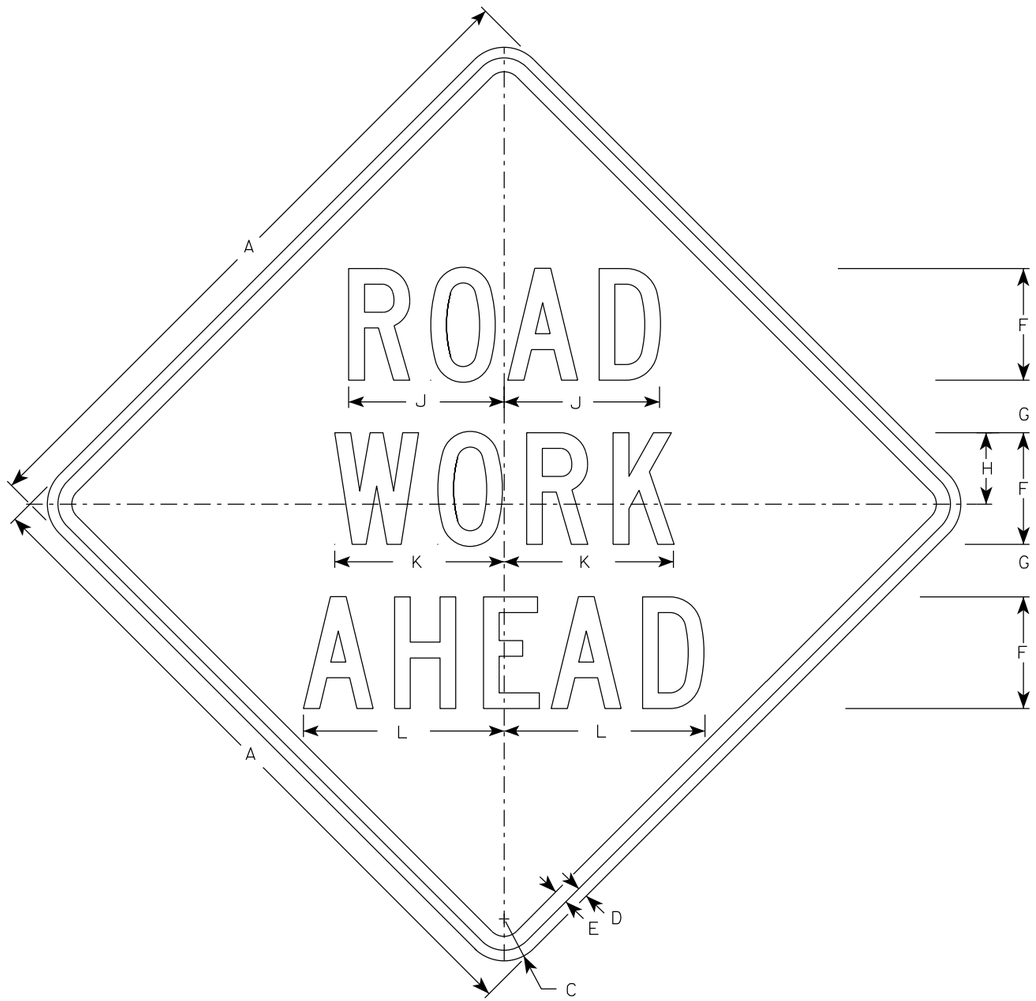
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/8/2024 PLATE NO. W13-1.17

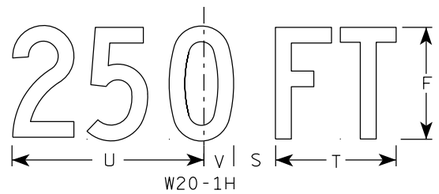
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

NOTES

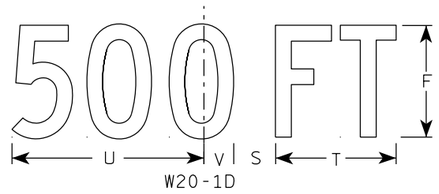
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A

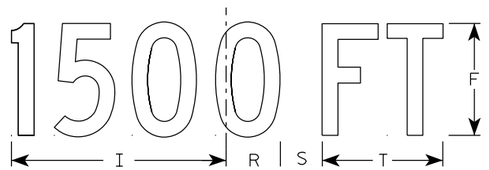


W20-1H

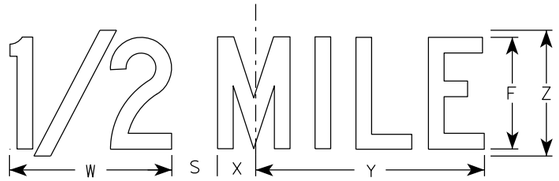


W20-1D

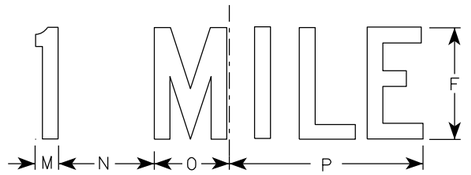
W20-1C



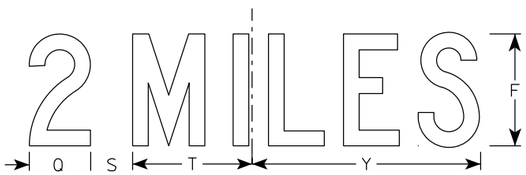
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

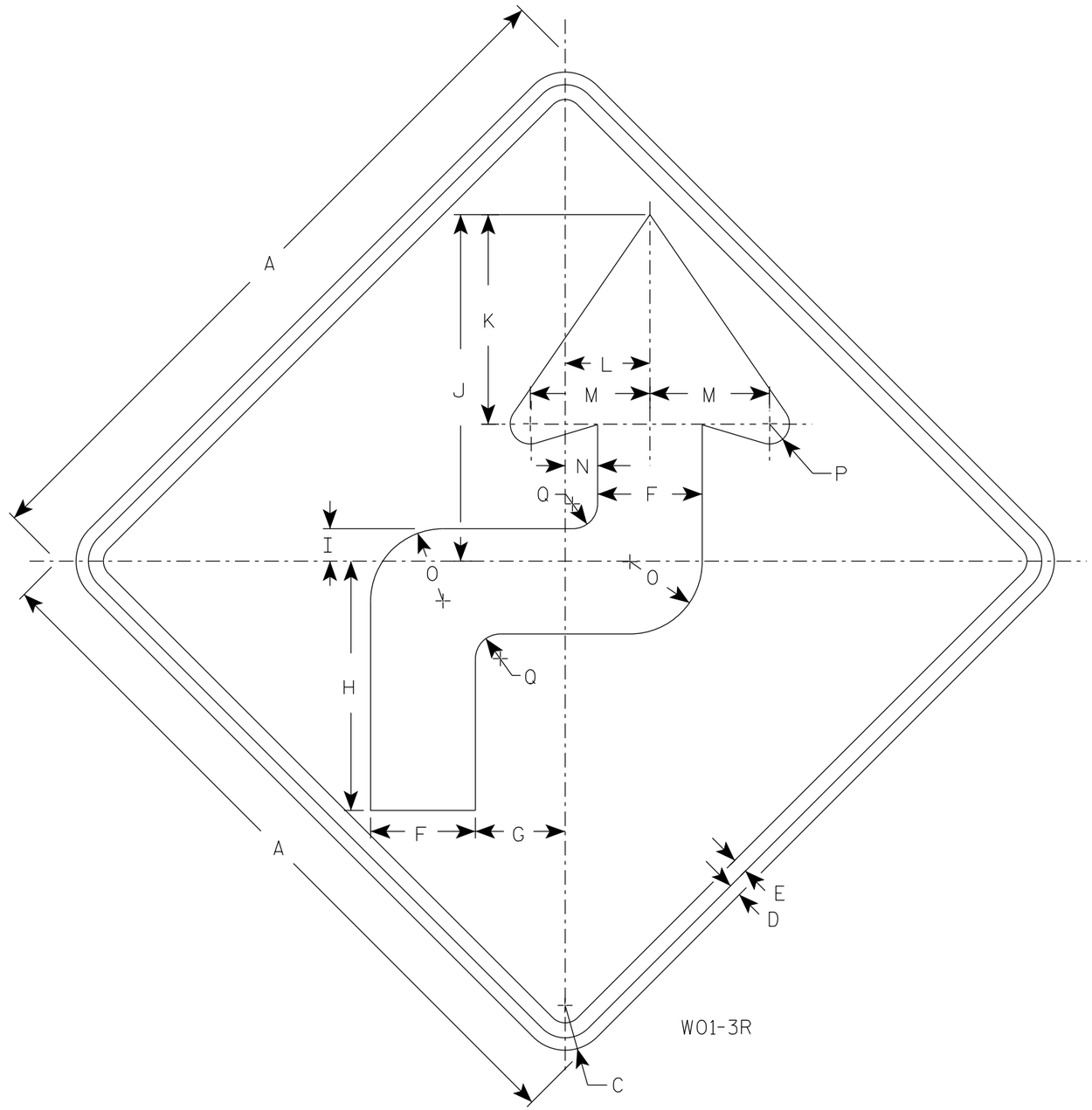
SHEET NO: 490 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 10-JAN 2024 11:16 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



W01-3R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-3L is the same as W01-3R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2S	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
2M	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
3	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
4	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
5	48		3	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

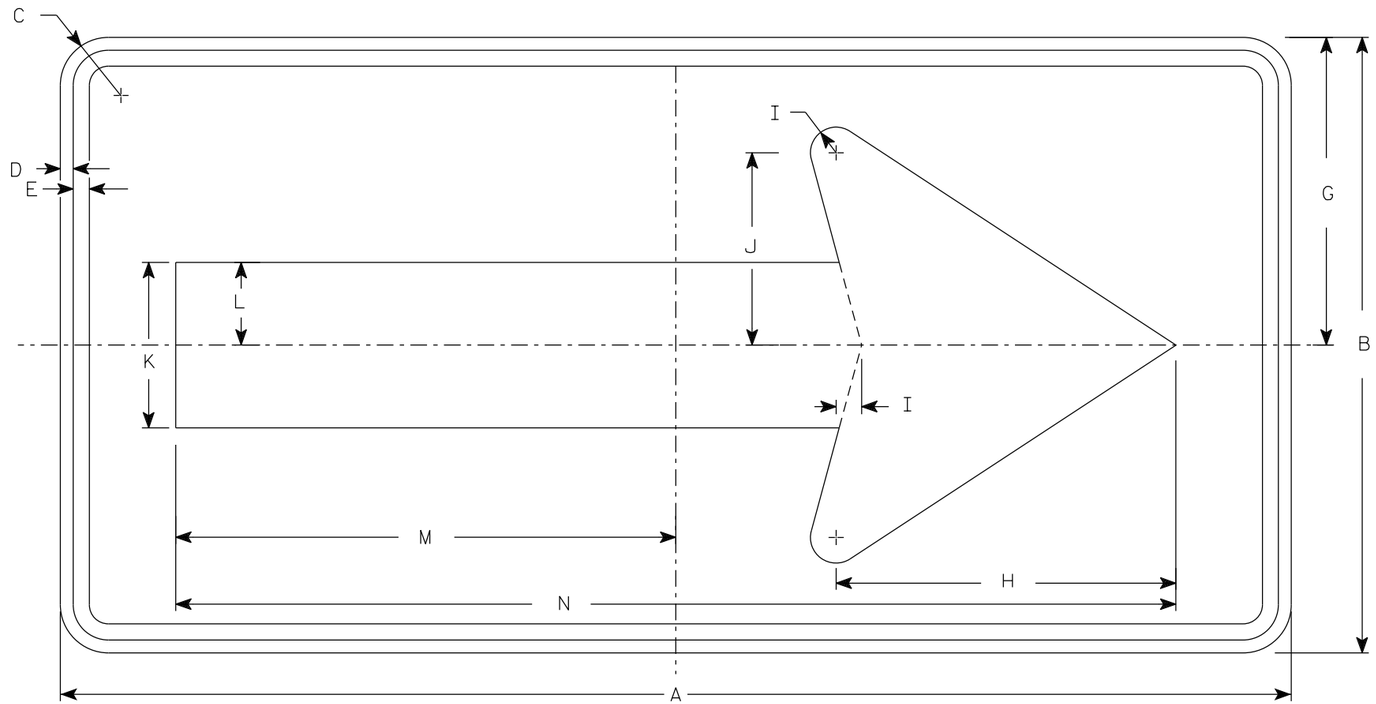
STANDARD SIGN
W01-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-3.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 491 | E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

DIVISION 1 - STH 80 - NB TEMPORARY WIDENING (CAT 0010 STA. 228+00'B' - 231+00'B')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
228+00	22800.00	0.00	0.00	0.00	0	0	0	0	0
228+14.092	22814.09	14.09	6.82	0.00	2	0	2	0	2
228+50	22850.00	35.91	10.18	0.00	11	0	13	0	13
229+00	22900.00	50.00	13.53	0.00	22	0	35	0	35
229+50	22950.00	50.00	15.80	0.00	27	0	62	0	62
230+00	23000.00	50.00	18.93	0.00	32	0	94	0	94
230+50	23050.00	50.00	13.19	0.00	30	0	124	0	124
230+95.657	23095.66	45.66	7.08	0.00	17	0	141	0	141
231+00	23100.00	4.34	0.00	0.00	1	0	142	0	142

DIVISION 1 - STH 80 - SB TEMPORARY WIDENING (CAT 0010 STA. 228+00'B' - 231+00'B')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
228+00	22800.00	0.00	6.21	0.00	0	0	0	0	0
228+50	22850.00	50.00	6.88	0.00	12	0	12	0	12
229+00	22900.00	50.00	8.28	0.00	14	0	26	0	26
229+50	22950.00	50.00	9.42	0.00	16	0	42	0	42
230+00	23000.00	50.00	12.95	0.00	21	0	63	0	63
230+50	23050.00	50.00	8.08	0.00	19	0	82	0	82
230+86.956	23086.96	36.96	3.60	0.00	8	0	90	0	90
231+00	23100.00	13.04	0.00	0.00	1	0	91	0	91

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - STH 21 - SIDEWALK EXTENSION (CAT0010 STA. 651+71'21' - 653+84'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
651+71.557	65171.56	0.00	51.07	0.00	0	0	0	0	0
652+00	65200.00	28.44	62.48	0.00	60	0	60	0	60
652+01.7	65201.70	1.70	65.79	0.10	4	0	64	0	64
652+50	65250.00	48.30	86.85	0.00	137	0	201	0	201
652+57.811	65257.81	7.81	85.47	0.00	25	0	226	0	226
652+74.85	65274.85	17.04	32.78	3.32	37	1	263	1	262
652+92.926	65292.93	18.08	38.40	4.72	24	3	287	5	282
652+99.878	65299.88	6.95	37.94	9.97	10	2	297	8	290
653+06.132	65306.13	6.25	36.52	13.83	9	3	306	11	295
653+17.542	65317.54	11.41	33.04	10.00	15	5	321	18	304
653+27.097	65327.10	9.56	35.04	1.12	12	2	333	20	313
653+42.157	65342.16	15.06	34.56	1.01	19	1	352	21	331
653+50	65350.00	7.84	31.65	0.85	10	0	362	21	341
653+80	65380.00	30.00	27.40	55.59	33	31	395	60	335

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - STH 21 - BETWEEN BRIDGES (CAT 0010 STA. 656+50'21' - 665+50'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
656+50	65650.00	0.00	41.34	1.08	0	0	0	0	0
657+00	65700.00	50.00	47.17	0.00	82	1	82	1	81
657+50	65750.00	50.00	44.35	0.01	85	0	167	1	166
658+00	65800.00	50.00	37.21	0.50	76	0	243	1	242
658+50	65850.00	50.00	35.91	0.00	68	0	311	1	310
659+00	65900.00	50.00	38.33	0.00	69	0	380	1	379
659+50	65950.00	50.00	40.43	0.12	73	0	453	1	452
660+00	66000.00	50.00	37.87	4.24	73	4	526	6	520
660+50	66050.00	50.00	39.51	4.45	72	8	598	16	582
661+00	66100.00	50.00	37.64	6.83	71	10	669	29	640
661+50	66150.00	50.00	37.58	25.43	70	30	739	66	673
662+00	66200.00	50.00	42.20	5.33	74	28	813	101	712
662+50	66250.00	50.00	35.79	39.80	72	42	885	154	731
663+00	66300.00	50.00	34.81	70.23	65	102	950	281	669
663+50	66350.00	50.00	35.55	61.35	65	122	1,015	434	581
664+00	66400.00	50.00	38.38	26.56	68	81	1,083	535	548
664+50	66450.00	50.00	57.73	0.02	89	25	1,172	566	606
665+00	66500.00	50.00	65.75	0.00	114	0	1,286	566	720
665+50	66550.00	50.00	56.61	0.84	113	1	1,399	568	832

DIVISION 1 - STH 21 - FLOWAGE BRIDGE (CAT 0010 STA. 674+85'21' - 681+35'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
674+85.48	67485.48	0.00	18.75	8.13	0	0	0	0	0
675+00	67500.00	14.52	18.54	1.14	10	2	10	3	8
675+50	67550.00	50.00	18.71	14.83	34	15	44	21	23
676+00	67600.00	50.00	23.15	44.42	39	55	83	90	-7
676+50	67650.00	50.00	23.25	36.15	43	75	126	184	-58
676+57.986	67657.99	7.99	21.60	37.26	7	11	133	198	-65
676+78.349	67678.35	20.36	20.01	21.18	16	22	149	225	-76
676+82.986	67682.99	4.64	20.46	11.81	3	3	152	229	-77
677+00	67700.00	17.01	20.09	0.71	13	4	165	234	-69
677+03.349	67703.35	3.35	20.10	1.81	2	0	167	234	-67
677+07.986	67707.99	4.64	19.70	1.30	3	0	170	234	-64
677+28.289	67728.29	20.30	17.31	0.56	14	1	184	235	-51
678+71.218	67871.22	142.93	0.00	0.00	46	1	230	236	-6
678+96.186	67896.19	24.97	20.04	11.28	9	5	239	243	-4
678+96.899	67896.90	0.71	20.05	11.76	1	0	240	243	-3
679+00	67900.00	3.10	19.99	13.73	2	1	242	244	-2
679+21.178	67921.18	21.18	21.73	25.15	16	15	258	263	-5
679+21.899	67921.90	0.72	22.18	24.55	1	1	259	264	-5
679+46.899	67946.90	25.00	24.08	21.81	21	21	280	290	-10
679+50	67950.00	3.10	24.75	21.09	3	2	283	293	-10
680+00	68000.00	50.00	22.76	19.52	44	38	327	340	-13
680+50	68050.00	50.00	19.33	22.36	39	39	366	389	-23
680+93.678	68093.68	43.68	23.45	5.92	35	23	401	418	-17
681+00	68100.00	6.32	26.23	8.19	6	2	407	420	-13
681+34.364	68134.36	34.36	15.67	5.55	27	9	434	431	3

NOTES:	
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2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 1 - STH 21 - BOX CULVERT (CAT 0010 STA. 688+65'21' - 693+82'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
688+65.75	68865.75	0.00	16.85	2.85	0	0	0	0	0
689+00	68900.00	34.25	16.63	3.64	21	4	21	5	16
689+33.075	68933.08	33.08	14.46	9.04	19	8	40	15	25
689+50	68950.00	16.92	15.23	5.96	9	5	49	21	28
689+57.951	68957.95	7.95	17.73	6.16	5	2	54	24	30
689+86.075	68986.08	28.12	15.88	8.29	18	8	72	34	38
690+00	69000.00	13.92	15.23	12.59	8	5	80	40	40
690+50	69050.00	50.00	16.26	10.85	29	22	109	68	42
691+00	69100.00	50.00	14.79	21.35	29	30	138	105	33
691+50	69150.00	50.00	13.94	24.03	27	42	165	158	8
692+00	69200.00	50.00	15.84	14.78	28	36	193	203	-10
692+50	69250.00	50.00	15.09	24.27	29	36	222	248	-26
692+61.032	69261.03	11.03	15.50	19.13	6	9	228	259	-31
692+86.032	69286.03	25.00	15.83	9.27	15	13	243	275	-32
693+00	69300.00	13.97	16.07	10.50	8	5	251	281	-30
693+14.33	69314.33	14.33	16.18	15.30	9	7	260	290	-30
693+50	69350.00	35.67	16.42	4.88	22	13	282	306	-24
693+81.782	69381.78	31.78	15.41	4.85	19	6	301	314	-13

DIVISION 2 - RAB - PRESTAGE STH 21 (CAT 0020 STA. 694+18'21' - 708+98'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
691+50	69150.00	0.00	0.00	0.00	0	0	0	0	0
692+00	69200.00	50.00	8.92	3.67	8	3	8	4	4
692+50	69250.00	50.00	10.00	7.77	18	11	26	18	9
693+00	69300.00	50.00	9.34	16.40	18	22	44	45	-1
693+50	69350.00	50.00	9.86	20.22	18	34	62	88	-26
694+00	69400.00	50.00	5.90	29.15	15	46	77	145	-68
694+50	69450.00	50.00	4.78	29.42	10	54	87	213	-126
695+00	69500.00	50.00	5.75	23.31	10	49	97	274	-177
695+50	69550.00	50.00	28.22	0.00	31	22	128	301	-173
696+00	69600.00	50.00	6.86	15.52	32	14	160	319	-159
696+50	69650.00	50.00	6.28	20.62	12	33	172	360	-188
697+00	69700.00	50.00	6.88	24.30	12	42	184	413	-229
697+50	69750.00	50.00	7.42	23.52	13	44	197	468	-271
698+00	69800.00	50.00	50.33	0.00	53	22	250	495	-245
698+50	69850.00	50.00	8.28	28.70	54	27	304	529	-225
699+00	69900.00	50.00	8.07	33.93	15	58	319	601	-282
699+50	69950.00	50.00	7.50	38.76	14	67	333	685	-352
703+00	70300.00	350.00	0.00	0.00	49	251	382	999	-617
703+50	70350.00	50.00	0.00	0.00	0	0	382	999	-617
704+00	70400.00	50.00	0.00	0.00	0	0	382	999	-617
704+50	70450.00	50.00	14.86	0.00	14	0	396	999	-603
705+00	70500.00	50.00	39.15	0.00	50	0	446	999	-553
705+50	70550.00	50.00	24.17	0.00	59	0	505	999	-494
706+00	70600.00	50.00	9.38	2.25	31	2	536	1,001	-465
706+50	70650.00	50.00	7.91	7.06	16	9	552	1,013	-461
707+00	70700.00	50.00	18.15	0.00	24	7	576	1,021	-445
707+50	70750.00	50.00	4.94	12.21	21	11	597	1,035	-438
708+00	70800.00	50.00	4.66	9.84	9	20	606	1,060	-454
708+50	70850.00	50.00	4.60	5.97	9	15	615	1,079	-464
709+00	70900.00	50.00	3.94	3.48	8	9	623	1,090	-467
709+50	70950.00	50.00	0.00	0.00	4	3	627	1,094	-467

NOTES:	
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2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - RAB - PRESTAGE RAB (CAT 0020 STA. 10+00'GC' - 13+61'GC')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+00	1000.00	0.00	21.33	29.66	0	0	0	0	0
10+05	1005.00	5.00	19.89	65.66	4	9	4	11	-7
10+10	1010.00	5.00	20.43	40.30	4	10	8	24	-16
10+15	1015.00	5.00	20.26	19.04	4	5	12	30	-18
10+20	1020.00	5.00	21.74	6.33	4	2	16	33	-17
10+25	1025.00	5.00	23.94	0.00	4	1	20	34	-14
10+30	1030.00	5.00	30.69	0.00	5	0	25	34	-9
10+35	1035.00	5.00	37.39	0.00	6	0	31	34	-3
10+40	1040.00	5.00	38.78	0.00	7	0	38	34	4
10+45	1045.00	5.00	37.24	0.00	7	0	45	34	11
10+50	1050.00	5.00	28.32	0.00	6	0	51	34	17
10+55	1055.00	5.00	11.99	0.00	4	0	55	34	21
10+60	1060.00	5.00	0.78	0.03	1	0	56	34	22
10+65	1065.00	5.00	0.00	0.00	0	0	56	34	22
10+70	1070.00	5.00	0.00	0.00	0	0	56	34	22
10+75	1075.00	5.00	0.00	0.00	0	0	56	34	22
10+80	1080.00	5.00	0.00	0.00	0	0	56	34	22
10+85	1085.00	5.00	0.00	0.00	0	0	56	34	22
10+90	1090.00	5.00	0.00	0.00	0	0	56	34	22
10+95	1095.00	5.00	0.00	0.00	0	0	56	34	22
11+00	1100.00	5.00	0.00	0.00	0	0	56	34	22
11+05	1105.00	5.00	0.00	0.00	0	0	56	34	22
11+10	1110.00	5.00	0.00	0.00	0	0	56	34	22
11+15	1115.00	5.00	0.00	0.00	0	0	56	34	22
11+20	1120.00	5.00	0.00	0.00	0	0	56	34	22
11+25	1125.00	5.00	0.00	0.00	0	0	56	34	22
11+30	1130.00	5.00	0.00	0.00	0	0	56	34	22
11+35	1135.00	5.00	0.00	0.00	0	0	56	34	22
11+40	1140.00	5.00	0.00	0.00	0	0	56	34	22
11+45	1145.00	5.00	0.00	0.00	0	0	56	34	22
11+50	1150.00	5.00	0.00	0.00	0	0	56	34	22
11+55	1155.00	5.00	0.00	0.00	0	0	56	34	22
11+60	1160.00	5.00	0.00	0.00	0	0	56	34	22
11+65	1165.00	5.00	0.00	0.00	0	0	56	34	22
11+70	1170.00	5.00	0.00	0.00	0	0	56	34	22
11+75	1175.00	5.00	0.00	0.00	0	0	56	34	22
11+80	1180.00	5.00	0.00	0.00	0	0	56	34	22
11+85	1185.00	5.00	0.00	0.00	0	0	56	34	22
11+90	1190.00	5.00	0.00	0.00	0	0	56	34	22
11+95	1195.00	5.00	0.00	0.00	0	0	56	34	22
12+00	1200.00	5.00	0.00	0.00	0	0	56	34	22
12+05	1205.00	5.00	0.00	0.00	0	0	56	34	22
12+10	1210.00	5.00	0.00	0.00	0	0	56	34	22
12+15	1215.00	5.00	0.00	0.00	0	0	56	34	22
12+20	1220.00	5.00	0.00	0.00	0	0	56	34	22
12+25	1225.00	5.00	0.00	0.00	0	0	56	34	22
12+30	1230.00	5.00	0.00	0.00	0	0	56	34	22
12+35	1235.00	5.00	0.00	0.00	0	0	56	34	22
12+40	1240.00	5.00	0.00	0.00	0	0	56	34	22
12+45	1245.00	5.00	0.00	0.00	0	0	56	34	22
12+50	1250.00	5.00	0.00	0.00	0	0	56	34	22
12+55	1255.00	5.00	0.00	0.00	0	0	56	34	22
12+60	1260.00	5.00	0.00	0.00	0	0	56	34	22
12+65	1265.00	5.00	0.00	0.00	0	0	56	34	22
12+70	1270.00	5.00	0.00	0.00	0	0	56	34	22
12+75	1275.00	5.00	0.00	0.00	0	0	56	34	22
12+80	1280.00	5.00	0.00	0.00	0	0	56	34	22
12+85	1285.00	5.00	0.00	0.00	0	0	56	34	22
12+90	1290.00	5.00	0.00	0.00	0	0	56	34	22
12+95	1295.00	5.00	0.00	0.00	0	0	56	34	22
13+00	1300.00	5.00	0.00	0.00	0	0	56	34	22
13+05	1305.00	5.00	0.00	0.00	0	0	56	34	22
13+10	1310.00	5.00	0.00	0.00	0	0	56	34	22
13+15	1315.00	5.00	0.00	0.00	0	0	56	34	22
13+20	1320.00	5.00	0.00	0.00	0	0	56	34	22
13+25	1325.00	5.00	0.00	0.00	0	0	56	34	22
13+30	1330.00	5.00	0.00	0.00	0	0	56	34	22
13+35	1335.00	5.00	0.00	0.00	0	0	56	34	22
13+40	1340.00	5.00	0.00	0.00	0	0	56	34	22
13+45	1345.00	5.00	0.00	0.00	0	0	56	34	22
13+50	1350.00	5.00	0.00	0.00	0	0	56	34	22
13+55	1355.00	5.00	30.68	0.00	3	0	59	34	25
13+60	1360.00	5.00	22.15	15.66	5	1	64	35	29
13+61.287	1361.29	1.29	21.33	29.65	1	1	65	36	29

9

9

PROJECT NO: 6160-00-70 | HWY: STH 21 | COUNTY: JUNEAU | EARTHWORK DATA SHEETS | SHEET 496 E

FILE NAME: G:\WDOTSW\WSW10-11024\PS&E\Draft PS&E\Sheets | ORIGINATOR: KL ENGINEERING, INC. | ORIG. DATE: | REV. DATE: | PRINT DATE: April 29, 2024

DIVISION 2 - RAB - STAGE 1 STH 21 (CAT 0020 STA. 694+18'21' - 708+95'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
691+50	69150.00	0.00	0.00	0.00	0	0	0	0	0
692+00	69200.00	50.00	0.00	0.00	0	0	0	0	0
692+50	69250.00	50.00	8.65	10.95	8	10	8	13	-5
693+00	69300.00	50.00	9.89	10.34	17	20	25	38	-13
693+50	69350.00	50.00	9.34	17.65	18	26	43	70	-27
694+00	69400.00	50.00	9.26	20.42	17	35	60	114	-54
694+50	69450.00	50.00	23.17	38.90	30	55	90	183	-93
695+00	69500.00	50.00	43.67	37.96	62	71	152	271	-119
695+50	69550.00	50.00	41.70	43.01	79	75	231	365	-134
696+00	69600.00	50.00	46.47	27.89	82	66	313	448	-135
696+50	69650.00	50.00	66.10	11.92	104	37	417	494	-77
697+00	69700.00	50.00	92.57	0.05	147	11	564	508	57
697+50	69750.00	50.00	118.39	0.28	195	0	759	508	252
698+00	69800.00	50.00	147.10	0.00	246	0	1,005	508	498
698+50	69850.00	50.00	151.34	0.00	276	0	1,281	508	774
699+00	69900.00	50.00	229.17	0.27	352	0	1,633	508	1,126
699+50	69950.00	50.00	183.70	28.25	382	26	2,015	540	1,475
703+00	70300.00	350.00	67.47	0.01	1,628	183	3,643	769	2,874
703+50	70350.00	50.00	35.54	0.39	95	0	3,738	769	2,969
704+00	70400.00	50.00	4.31	10.26	37	10	3,775	781	2,994
704+50	70450.00	50.00	79.51	0.00	78	10	3,853	794	3,059
705+00	70500.00	50.00	52.02	9.36	122	9	3,975	805	3,170
705+50	70550.00	50.00	58.71	10.25	103	18	4,078	828	3,251
706+00	70600.00	50.00	65.45	4.54	115	14	4,193	845	3,348
706+50	70650.00	50.00	67.94	0.25	124	4	4,317	850	3,467
707+00	70700.00	50.00	75.59	0.00	133	0	4,450	850	3,600
707+50	70750.00	50.00	60.13	0.39	126	0	4,576	850	3,726
708+00	70800.00	50.00	46.14	1.19	98	1	4,674	851	3,823
708+50	70850.00	50.00	42.05	0.00	82	1	4,756	853	3,904
709+00	70900.00	50.00	15.84	0.00	54	0	4,810	853	3,958
709+50	70950.00	50.00	0.00	0.00	15	0	4,825	853	3,973

DIVISION 2 - RAB - STAGE 1 CTH G LEG NB SOUTH (CAT 0020 STA. 10+00'GNS' - 17+15'GNS')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
11+00	1100.00	0.00	51.30	0.03	0	0	0	0	0
11+50	1150.00	50.00	51.86	0.34	96	0	96	0	96
12+00	1200.00	50.00	41.27	2.62	86	3	182	4	178
12+50	1250.00	50.00	34.71	4.71	70	7	252	13	240
13+00	1300.00	50.00	37.23	9.05	67	13	319	29	290
13+50	1350.00	50.00	43.06	8.89	74	17	393	50	343
14+00	1400.00	50.00	55.52	0.49	91	9	484	61	423
14+50	1450.00	50.00	69.15	1.06	115	1	599	63	537
15+00	1500.00	50.00	55.38	11.15	115	11	714	76	638
15+50	1550.00	50.00	48.18	39.94	96	47	810	135	675
16+00	1600.00	50.00	54.67	77.20	95	108	905	270	635
16+50	1650.00	50.00	290.43	128.43	320	190	1,225	508	718

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - RAB - STAGE 1 RAB (CAT 0020 STA. 10+00'GC' - 13+61'GC')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
10+00	1000.00	0.00	16.65	16.70	0	0	0	0	0
10+05	1005.00	5.00	11.58	6.09	3	2	3	3	1
10+10	1010.00	5.00	8.60	1.10	2	1	5	4	1
10+15	1015.00	5.00	6.87	0.00	1	0	6	4	2
10+20	1020.00	5.00	5.75	0.00	1	0	7	4	3
10+25	1025.00	5.00	4.98	0.00	1	0	8	4	4
10+30	1030.00	5.00	4.42	0.01	1	0	9	4	5
10+35	1035.00	5.00	4.00	0.00	1	0	10	4	6
10+40	1040.00	5.00	3.68	0.00	1	0	11	4	7
10+45	1045.00	5.00	3.44	0.00	1	0	12	4	8
10+50	1050.00	5.00	3.25	0.00	1	0	13	4	9
10+55	1055.00	5.00	3.09	0.00	1	0	14	4	10
10+60	1060.00	5.00	2.97	0.00	1	0	15	4	11
10+65	1065.00	5.00	2.88	0.00	1	0	16	4	12
10+70	1070.00	5.00	2.82	0.00	1	0	17	4	13
10+75	1075.00	5.00	2.78	0.00	1	0	18	4	14
10+80	1080.00	5.00	2.76	0.00	1	0	19	4	15
10+85	1085.00	5.00	2.77	0.00	1	0	20	4	16
10+90	1090.00	5.00	2.80	0.00	1	0	21	4	17
10+95	1095.00	5.00	2.84	0.00	1	0	22	4	18
11+00	1100.00	5.00	2.91	0.00	1	0	23	4	19
11+05	1105.00	5.00	3.00	0.00	1	0	24	4	20
11+10	1110.00	5.00	3.14	0.00	1	0	25	4	21
11+15	1115.00	5.00	3.30	0.00	1	0	26	4	22
11+20	1120.00	5.00	3.51	0.00	1	0	27	4	23
11+25	1125.00	5.00	3.76	0.00	1	0	28	4	24
11+30	1130.00	5.00	4.10	0.01	1	0	29	4	25
11+35	1135.00	5.00	4.57	0.03	1	0	30	4	26
11+40	1140.00	5.00	5.21	0.03	1	0	31	4	27
11+45	1145.00	5.00	6.21	0.01	1	0	32	4	28
11+50	1150.00	5.00	14.45	0.00	2	0	34	4	30
11+55	1155.00	5.00	27.23	0.01	4	0	38	4	34
11+60	1160.00	5.00	36.06	0.02	6	0	44	4	40
11+65	1165.00	5.00	42.70	1.38	7	0	51	4	47
11+70	1170.00	5.00	63.08	39.81	10	4	61	9	52
11+75	1175.00	5.00	55.49	78.94	11	11	72	23	50
11+80	1180.00	5.00	48.29	115.30	10	18	82	45	37
11+85	1185.00	5.00	42.31	142.88	8	24	90	75	15
11+90	1190.00	5.00	48.18	186.97	8	31	98	114	-16
11+95	1195.00	5.00	71.48	196.40	11	35	109	158	-49
12+00	1200.00	5.00	85.33	196.32	15	36	124	203	-79
12+05	1205.00	5.00	104.15	184.35	18	35	142	246	-104
12+10	1210.00	5.00	121.39	175.46	21	33	163	288	-125
12+15	1215.00	5.00	138.36	171.17	24	32	187	328	-141
12+20	1220.00	5.00	153.52	170.83	27	32	214	368	-154
12+25	1225.00	5.00	149.34	175.10	28	32	242	408	-166
12+30	1230.00	5.00	117.58	177.95	25	33	267	449	-182
12+35	1235.00	5.00	86.91	181.25	19	33	286	490	-204
12+40	1240.00	5.00	37.20	183.33	11	34	297	533	-236
12+45	1245.00	5.00	19.83	199.74	5	35	302	576	-274
12+50	1250.00	5.00	20.21	164.96	4	34	306	619	-313
12+55	1255.00	5.00	20.81	80.71	4	23	310	648	-338
12+60	1260.00	5.00	21.65	72.37	4	14	314	665	-351
12+65	1265.00	5.00	22.47	94.53	4	15	318	684	-366
12+70	1270.00	5.00	22.63	141.40	4	22	322	711	-389
12+75	1275.00	5.00	22.91	122.56	4	24	326	741	-415
12+80	1280.00	5.00	23.30	134.60	4	24	330	771	-441
12+85	1285.00	5.00	23.82	185.18	4	30	334	809	-475
12+90	1290.00	5.00	35.86	248.71	6	40	340	859	-519
12+95	1295.00	5.00	66.08	281.98	9	49	349	920	-571
13+00	1300.00	5.00	79.27	293.92	13	53	362	986	-624
13+05	1305.00	5.00	60.40	284.63	13	54	375	1,054	-679
13+10	1310.00	5.00	55.09	254.26	11	50	386	1,116	-730
13+15	1315.00	5.00	59.55	206.49	11	43	397	1,170	-773
13+20	1320.00	5.00	40.60	179.15	9	36	406	1,215	-809
13+25	1325.00	5.00	44.15	134.56	8	29	414	1,251	-837
13+30	1330.00	5.00	60.53	44.96	10	17	424	1,273	-849
13+35	1335.00	5.00	98.16	0.00	15	4	439	1,278	-839
13+40	1340.00	5.00	87.84	0.00	17	0	456	1,278	-822
13+45	1345.00	5.00	60.70	0.26	14	0	470	1,278	-808
13+50	1350.00	5.00	42.51	3.71	10	0	480	1,278	-798
13+55	1355.00	5.00	23.78	11.34	6	1	486	1,279	-793
13+60	1360.00	5.00	17.83	20.30	4	3	490	1,283	-793
13+61.287	1361.29	1.29	16.66	16.70	1	1	491	1,284	-793

DIVISION 2 - RAB - STAGE 2 STH 21 (CAT 0020 STA. 694+18'21' - 708+95'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
691+50	69150.00	0.00	0.00	0.00	0	0	0	0	0
692+00	69200.00	50.00	0.00	0.00	0	0	0	0	0
692+50	69250.00	50.00	0.00	0.00	0	0	0	0	0
693+00	69300.00	50.00	0.00	0.00	0	0	0	0	0
693+50	69350.00	50.00	0.00	0.00	0	0	0	0	0
694+00	69400.00	50.00	0.00	0.00	0	0	0	0	0
694+50	69450.00	50.00	29.63	4.79	27	4	27	5	22
695+00	69500.00	50.00	32.06	2.27	57	7	84	14	70
695+50	69550.00	50.00	13.57	18.47	42	19	126	38	89
696+00	69600.00	50.00	16.21	8.11	28	25	154	69	85
696+50	69650.00	50.00	9.80	12.66	24	19	178	93	86
697+00	69700.00	50.00	9.70	13.25	18	24	196	123	74
697+50	69750.00	50.00	6.46	12.58	15	24	211	153	59
698+00	69800.00	50.00	0.00	20.53	6	31	217	191	26
698+50	69850.00	50.00	0.00	15.39	0	33	217	233	-16
699+00	69900.00	50.00	0.01	32.47	0	44	217	288	-71
699+50	69950.00	50.00	0.03	61.38	0	87	217	396	-179
703+00	70300.00	350.00	60.18	2.68	390	415	607	915	-308
703+50	70350.00	50.00	93.36	0.00	142	2	749	918	-169
704+00	70400.00	50.00	74.87	0.00	156	0	905	918	-13
704+50	70450.00	50.00	76.02	1.57	140	1	1,045	919	126
705+00	70500.00	50.00	61.52	9.41	127	10	1,172	931	241
705+50	70550.00	50.00	48.10	0.00	101	9	1,273	943	331
706+00	70600.00	50.00	43.25	0.00	85	0	1,358	943	416
706+50	70650.00	50.00	25.26	0.00	63	0	1,421	943	479
707+00	70700.00	50.00	13.43	12.51	36	12	1,457	958	500
707+50	70750.00	50.00	20.03	1.20	31	13	1,488	974	514
708+00	70800.00	50.00	16.49	3.88	34	5	1,522	980	542
708+50	70850.00	50.00	10.69	6.75	25	10	1,547	993	555
709+00	70900.00	50.00	6.46	0.00	16	6	1,563	1,000	563
709+50	70950.00	50.00	0.00	0.00	6	0	1,569	1,000	569

DIVISION 2 - RAB - STAGE 2 - CTH G LEG NB NORTH (CAT 0020 STA. 20+00'GNN' - 26+51'GNN')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
21+00	2100.00	0.00	61.40	2.20	0	0	0	0	0
21+50	2150.00	50.00	113.70	0.65	162	3	162	4	158
22+00	2200.00	50.00	126.58	0.03	222	1	384	5	379
22+50	2250.00	50.00	97.94	0.12	208	0	592	5	587
23+00	2300.00	50.00	68.75	6.45	154	6	746	13	734
23+49.996	2350.00	50.00	55.62	7.49	115	13	861	29	832
24+00	2400.00	50.00	48.42	9.67	96	16	957	49	908
24+50	2450.00	50.00	35.68	24.90	78	32	1,035	89	946
25+00	2500.00	50.00	29.93	29.87	61	51	1,096	153	944
25+50	2550.00	50.00	29.82	21.01	55	47	1,151	211	940
26+00	2600.00	50.00	32.32	11.22	58	30	1,209	249	960

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - RAB - STAGE 2 RAB (CAT 0020 STA. 10+00'GC' - 13+61'GC')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+00	1000.00	0.00	0.00	63.67	0	0	0	0	0
10+05	1005.00	5.00	0.00	123.36	0	17	0	21	-21
10+10	1010.00	5.00	0.00	229.43	0	33	0	63	-63
10+15	1015.00	5.00	0.01	254.29	0	45	0	119	-119
10+20	1020.00	5.00	0.00	245.33	0	46	0	176	-176
10+25	1025.00	5.00	0.00	236.04	0	45	0	233	-233
10+30	1030.00	5.00	0.00	224.77	0	43	0	286	-286
10+35	1035.00	5.00	0.04	216.36	0	41	0	338	-338
10+40	1040.00	5.00	0.00	197.59	0	38	0	385	-385
10+45	1045.00	5.00	0.00	175.21	0	35	0	429	-429
10+50	1050.00	5.00	0.00	150.66	0	30	0	466	-466
10+55	1055.00	5.00	0.00	113.11	0	24	0	496	-496
10+60	1060.00	5.00	0.00	85.61	0	18	0	519	-519
10+65	1065.00	5.00	0.00	78.34	0	15	0	538	-538
10+70	1070.00	5.00	0.38	36.06	0	11	0	551	-551
10+75	1075.00	5.00	23.79	5.08	2	4	2	556	-554
10+80	1080.00	5.00	19.03	6.48	4	1	6	558	-552
10+85	1085.00	5.00	5.60	33.29	2	4	8	563	-555
10+90	1090.00	5.00	2.66	26.52	1	6	9	570	-561
10+95	1095.00	5.00	5.84	23.83	1	5	10	576	-566
11+00	1100.00	5.00	2.66	30.68	1	5	11	583	-572
11+05	1105.00	5.00	2.79	53.18	1	8	12	593	-581
11+10	1110.00	5.00	2.73	64.79	1	11	13	606	-593
11+15	1115.00	5.00	3.92	71.13	1	13	14	623	-609
11+20	1120.00	5.00	5.29	61.19	1	12	15	638	-623
11+25	1125.00	5.00	6.40	51.47	1	10	16	650	-634
11+30	1130.00	5.00	6.11	46.23	1	9	17	661	-644
11+35	1135.00	5.00	7.91	51.40	1	9	18	673	-655
11+40	1140.00	5.00	17.00	39.15	2	8	20	683	-663
11+45	1145.00	5.00	48.08	7.62	6	4	26	688	-662
11+50	1150.00	5.00	69.96	0.00	11	1	37	689	-652
11+55	1155.00	5.00	66.98	0.00	13	0	50	689	-639
11+60	1160.00	5.00	38.37	0.00	10	0	60	689	-629
11+65	1165.00	5.00	0.08	0.00	4	0	64	689	-625
11+70	1170.00	5.00	0.00	0.00	0	0	64	689	-625
11+75	1175.00	5.00	0.00	0.00	0	0	64	689	-625
11+80	1180.00	5.00	0.00	0.00	0	0	64	689	-625
11+85	1185.00	5.00	0.00	0.00	0	0	64	689	-625
11+90	1190.00	5.00	0.00	0.00	0	0	64	689	-625
11+95	1195.00	5.00	0.00	0.00	0	0	64	689	-625
12+00	1200.00	5.00	0.00	0.00	0	0	64	689	-625
12+05	1205.00	5.00	0.00	0.00	0	0	64	689	-625
12+10	1210.00	5.00	0.00	0.00	0	0	64	689	-625
12+15	1215.00	5.00	0.00	0.00	0	0	64	689	-625
12+20	1220.00	5.00	0.00	0.00	0	0	64	689	-625
12+25	1225.00	5.00	0.00	0.00	0	0	64	689	-625
12+30	1230.00	5.00	0.00	0.00	0	0	64	689	-625
12+35	1235.00	5.00	0.00	0.00	0	0	64	689	-625
12+40	1240.00	5.00	0.00	0.00	0	0	64	689	-625
12+45	1245.00	5.00	0.00	0.00	0	0	64	689	-625
12+50	1250.00	5.00	0.00	0.00	0	0	64	689	-625
12+55	1255.00	5.00	0.00	0.00	0	0	64	689	-625
12+60	1260.00	5.00	0.00	0.00	0	0	64	689	-625
12+65	1265.00	5.00	0.00	0.00	0	0	64	689	-625
12+70	1270.00	5.00	0.00	0.00	0	0	64	689	-625
12+75	1275.00	5.00	0.00	0.00	0	0	64	689	-625
12+80	1280.00	5.00	0.00	0.00	0	0	64	689	-625
12+85	1285.00	5.00	0.00	0.00	0	0	64	689	-625
12+90	1290.00	5.00	0.00	0.00	0	0	64	689	-625
12+95	1295.00	5.00	0.00	0.00	0	0	64	689	-625
13+00	1300.00	5.00	0.00	0.00	0	0	64	689	-625
13+05	1305.00	5.00	0.00	0.00	0	0	64	689	-625
13+10	1310.00	5.00	0.00	0.00	0	0	64	689	-625
13+15	1315.00	5.00	0.00	0.00	0	0	64	689	-625
13+20	1320.00	5.00	0.00	0.00	0	0	64	689	-625
13+25	1325.00	5.00	0.00	0.00	0	0	64	689	-625
13+30	1330.00	5.00	0.00	0.00	0	0	64	689	-625
13+35	1335.00	5.00	0.00	0.00	0	0	64	689	-625
13+40	1340.00	5.00	0.00	0.00	0	0	64	689	-625
13+45	1345.00	5.00	0.00	0.00	0	0	64	689	-625
13+50	1350.00	5.00	0.00	0.00	0	0	64	689	-625
13+55	1355.00	5.00	0.00	5.51	0	1	64	690	-626
13+60	1360.00	5.00	0.00	50.28	0	5	64	696	-632
13+61.287	1361.29	1.29	0.00	63.66	0	3	64	700	-636

DIVISION 2 - RAB - STAGE 3 STH 21 (CAT 0020 STA. 694+18'21' - 708+95'21')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
691+50	69150.00	0.00	0.00	0.00	0	0	0	0	0
692+00	69200.00	50.00	0.00	0.00	0	0	0	0	0
692+50	69250.00	50.00	0.00	0.00	0	0	0	0	0
693+00	69300.00	50.00	0.00	0.00	0	0	0	0	0
693+50	69350.00	50.00	0.00	0.00	0	0	0	0	0
694+00	69400.00	50.00	0.00	0.00	0	0	0	0	0
694+50	69450.00	50.00	0.00	0.00	0	0	0	0	0
695+00	69500.00	50.00	0.00	0.00	0	0	0	0	0
695+50	69550.00	50.00	0.00	0.00	0	0	0	0	0
696+00	69600.00	50.00	0.00	0.00	0	0	0	0	0
696+50	69650.00	50.00	0.00	0.00	0	0	0	0	0
697+00	69700.00	50.00	0.00	0.00	0	0	0	0	0
697+50	69750.00	50.00	6.47	0.62	6	1	6	1	5
698+00	69800.00	50.00	3.88	0.96	10	1	16	3	14
698+50	69850.00	50.00	0.56	6.48	4	7	20	11	9
699+00	69900.00	50.00	0.00	15.75	1	21	21	38	-17
699+50	69950.00	50.00	0.00	20.91	0	34	21	80	-59
703+00	70300.00	350.00	5.76	43.53	37	418	58	603	-545
703+50	70350.00	50.00	19.06	18.48	23	57	81	674	-593
704+00	70400.00	50.00	26.92	7.58	43	24	124	704	-580
704+50	70450.00	50.00	15.96	11.44	40	18	164	726	-562
705+00	70500.00	50.00	9.31	11.46	23	21	187	753	-566
705+50	70550.00	50.00	5.99	9.63	14	20	201	778	-577
706+00	70600.00	50.00	0.00	4.88	6	13	207	794	-587
706+50	70650.00	50.00	0.00	0.00	0	5	207	800	-593
707+00	70700.00	50.00	0.00	0.00	0	0	207	800	-593
707+50	70750.00	50.00	0.00	0.00	0	0	207	800	-593
708+00	70800.00	50.00	0.00	0.00	0	0	207	800	-593
708+50	70850.00	50.00	0.00	0.00	0	0	207	800	-593
709+00	70900.00	50.00	0.00	0.00	0	0	207	800	-593
709+50	70950.00	50.00	0.00	0.00	0	0	207	800	-593

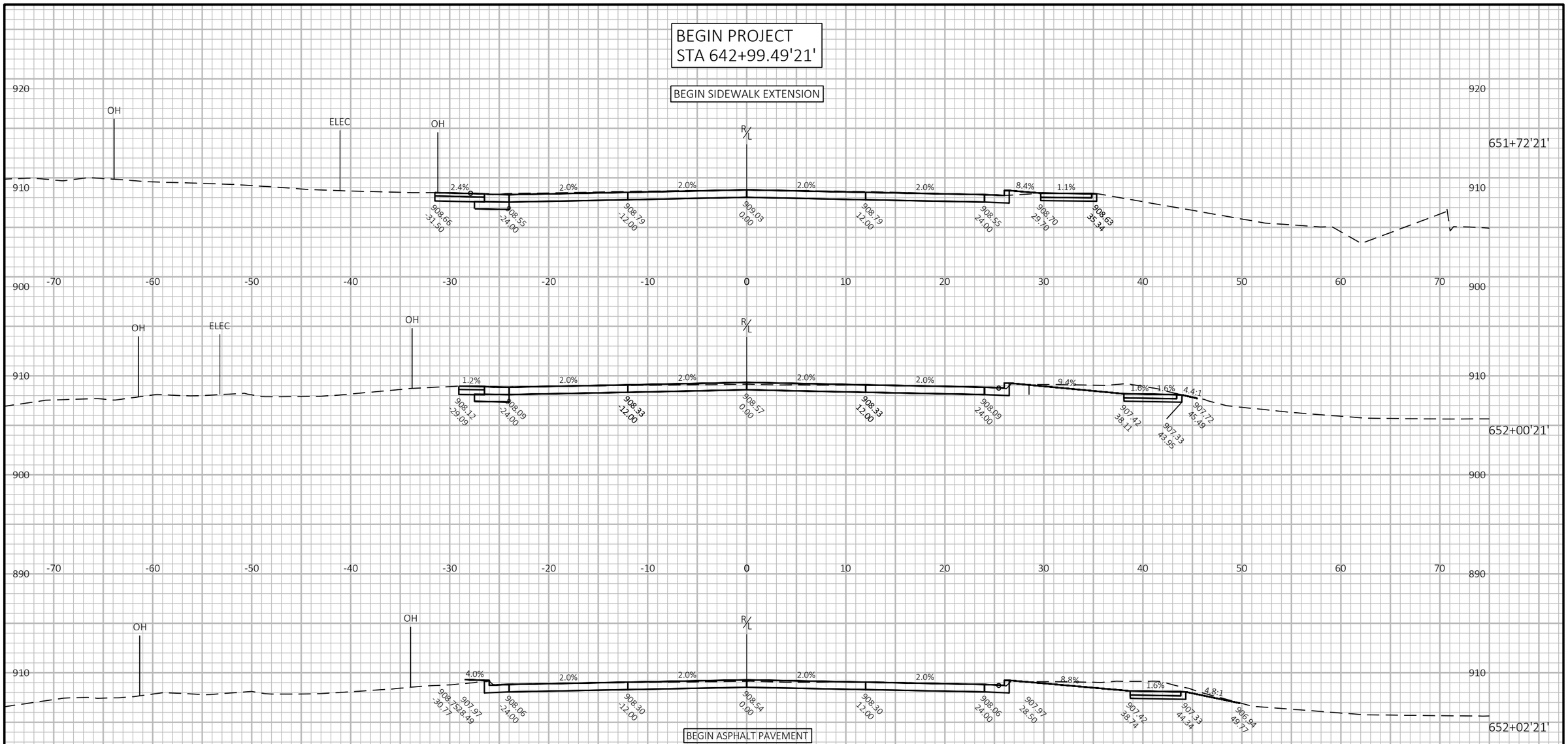
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - RAB - STAGE 3 RAB (CAT 0020 STA. 10+00'GC' - 13+61'GC')

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT NOTE 1	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+00	1000.00	0.00	4.36	46.78	0	0	0	0	0
10+05	1005.00	5.00	5.05	10.75	1	5	1	6	-5
10+10	1010.00	5.00	6.67	2.31	1	1	2	8	-6
10+15	1015.00	5.00	7.79	5.27	1	1	3	9	-6
10+20	1020.00	5.00	8.76	10.19	2	1	5	10	-5
10+25	1025.00	5.00	9.52	9.41	2	2	7	13	-6
10+30	1030.00	5.00	10.19	5.78	2	1	9	14	-5
10+35	1035.00	5.00	10.85	16.44	2	2	11	16	-5
10+40	1040.00	5.00	10.93	19.93	2	3	13	20	-7
10+45	1045.00	5.00	10.98	6.06	2	2	15	23	-8
10+50	1050.00	5.00	13.50	2.58	2	1	17	24	-7
10+55	1055.00	5.00	15.56	1.98	3	0	20	24	-4
10+60	1060.00	5.00	18.05	1.16	3	0	23	24	-1
10+65	1065.00	5.00	21.19	0.87	4	0	27	24	3
10+70	1070.00	5.00	24.17	0.72	4	0	31	24	7
10+75	1075.00	5.00	25.07	0.71	5	0	36	24	12
10+80	1080.00	5.00	26.14	0.70	5	0	41	24	17
10+85	1085.00	5.00	26.98	0.70	5	0	46	24	22
10+90	1090.00	5.00	27.63	0.70	5	0	51	24	27
10+95	1095.00	5.00	28.02	0.71	5	0	56	24	32
11+00	1100.00	5.00	28.24	0.73	5	0	61	24	37
11+05	1105.00	5.00	28.34	0.75	5	0	66	24	42
11+10	1110.00	5.00	28.50	0.78	5	0	71	24	47
11+15	1115.00	5.00	28.19	0.82	5	0	76	24	52
11+20	1120.00	5.00	28.04	0.87	5	0	81	24	57
11+25	1125.00	5.00	28.39	0.93	5	0	86	24	62
11+30	1130.00	5.00	29.55	1.01	5	0	91	24	67
11+35	1135.00	5.00	31.65	1.11	6	0	97	24	73
11+40	1140.00	5.00	32.69	1.25	6	0	103	24	79
11+45	1145.00	5.00	33.08	1.44	6	0	109	24	85
11+50	1150.00	5.00	33.73	1.70	6	0	115	24	91
11+55	1155.00	5.00	33.90	2.09	6	0	121	24	97
11+60	1160.00	5.00	62.92	2.71	9	0	130	24	106
11+65	1165.00	5.00	27.08	97.21	8	9	138	35	103
11+70	1170.00	5.00	1.53	140.02	3	22	141	63	79
11+75	1175.00	5.00	2.53	80.40	0	20	141	88	54
11+80	1180.00	5.00	2.50	34.64	0	11	141	101	40
11+85	1185.00	5.00	0.00	17.35	0	5	141	108	34
11+90	1190.00	5.00	0.00	12.27	0	3	141	111	30
11+95	1195.00	5.00	1.20	12.67	0	2	141	114	27
12+00	1200.00	5.00	0.39	14.18	0	2	141	116	25
12+05	1205.00	5.00	0.00	14.13	0	3	141	120	21
12+10	1210.00	5.00	0.00	15.42	0	3	141	124	17
12+15	1215.00	5.00	0.00	16.79	0	3	141	128	14
12+20	1220.00	5.00	0.00	18.22	0	3	141	131	10
12+25	1225.00	5.00	0.00	20.39	0	4	141	136	5
12+30	1230.00	5.00	0.00	21.22	0	4	141	141	0
12+35	1235.00	5.00	0.00	22.73	0	4	141	146	-5
12+40	1240.00	5.00	0.00	24.16	0	4	141	151	-10
12+45	1245.00	5.00	0.00	25.79	0	5	141	158	-17
12+50	1250.00	5.00	0.00	26.19	0	5	141	164	-23
12+55	1255.00	5.00	0.00	26.82	0	5	141	170	-29
12+60	1260.00	5.00	0.00	27.25	0	5	141	176	-35
12+65	1265.00	5.00	0.00	28.68	0	5	141	183	-42
12+70	1270.00	5.00	0.00	27.32	0	5	141	189	-48
12+75	1275.00	5.00	0.00	26.99	0	5	141	195	-54
12+80	1280.00	5.00	0.00	26.47	0	5	141	201	-60
12+85	1285.00	5.00	0.00	25.73	0	5	141	208	-67
12+90	1290.00	5.00	0.00	24.90	0	5	141	214	-73
12+95	1295.00	5.00	0.00	23.30	0	4	141	219	-78
13+00	1300.00	5.00	0.00	21.72	0	4	141	224	-83
13+05	1305.00	5.00	0.00	19.95	0	4	141	229	-88
13+10	1310.00	5.00	0.00	18.26	0	4	141	234	-93
13+15	1315.00	5.00	0.00	16.71	0	3	141	238	-97
13+20	1320.00	5.00	0.00	15.33	0	3	141	241	-100
13+25	1325.00	5.00	0.00	14.10	0	3	141	245	-104
13+30	1330.00	5.00	0.00	12.93	0	3	141	249	-108
13+35	1335.00	5.00	0.00	11.58	0	2	141	251	-110
13+40	1340.00	5.00	0.03	10.47	0	2	141	254	-113
13+45	1345.00	5.00	0.00	10.45	0	2	141	256	-115
13+50	1350.00	5.00	3.34	21.29	0	3	141	260	-119
13+55	1355.00	5.00	0.14	88.74	0	10	141	273	-132
13+60	1360.00	5.00	4.96	51.05	0	13	141	289	-148
13+61.287	1361.29	1.29	4.36	46.79	0	2	141	291	-150

BEGIN PROJECT
STA 642+99.49'21'

BEGIN SIDEWALK EXTENSION



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 500	E

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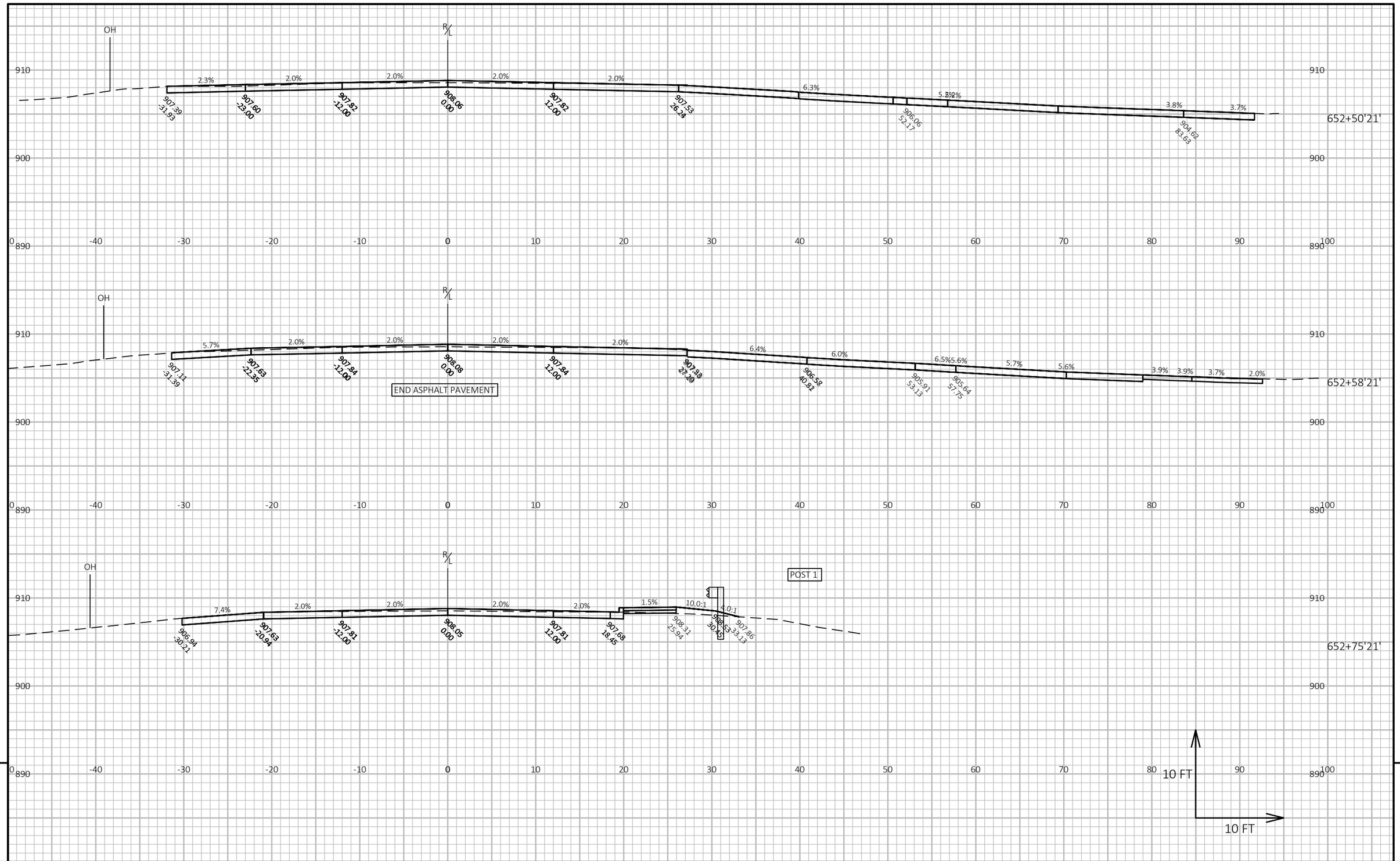
LAYOUT NAME - 01

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 501	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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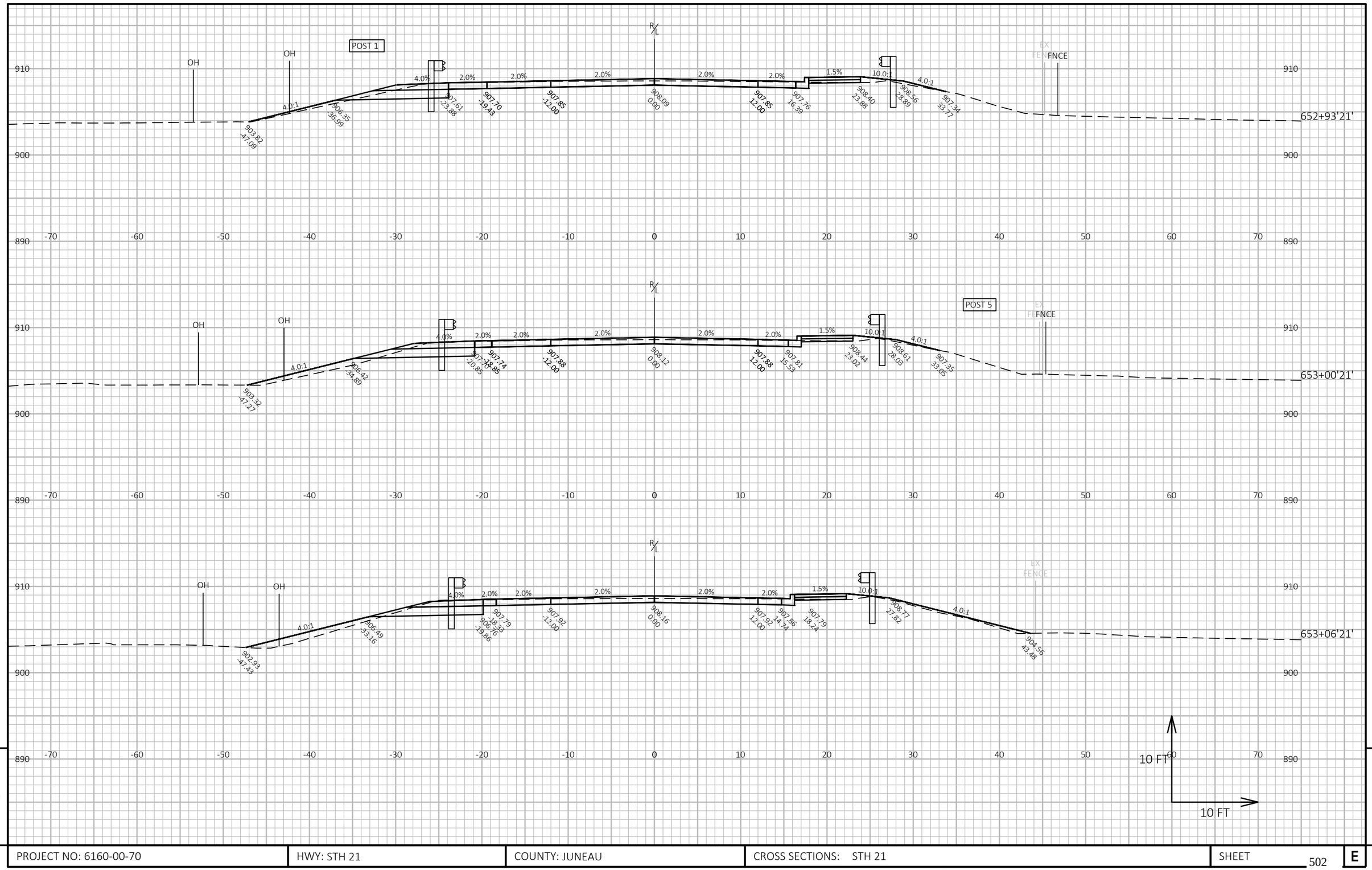

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FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 03

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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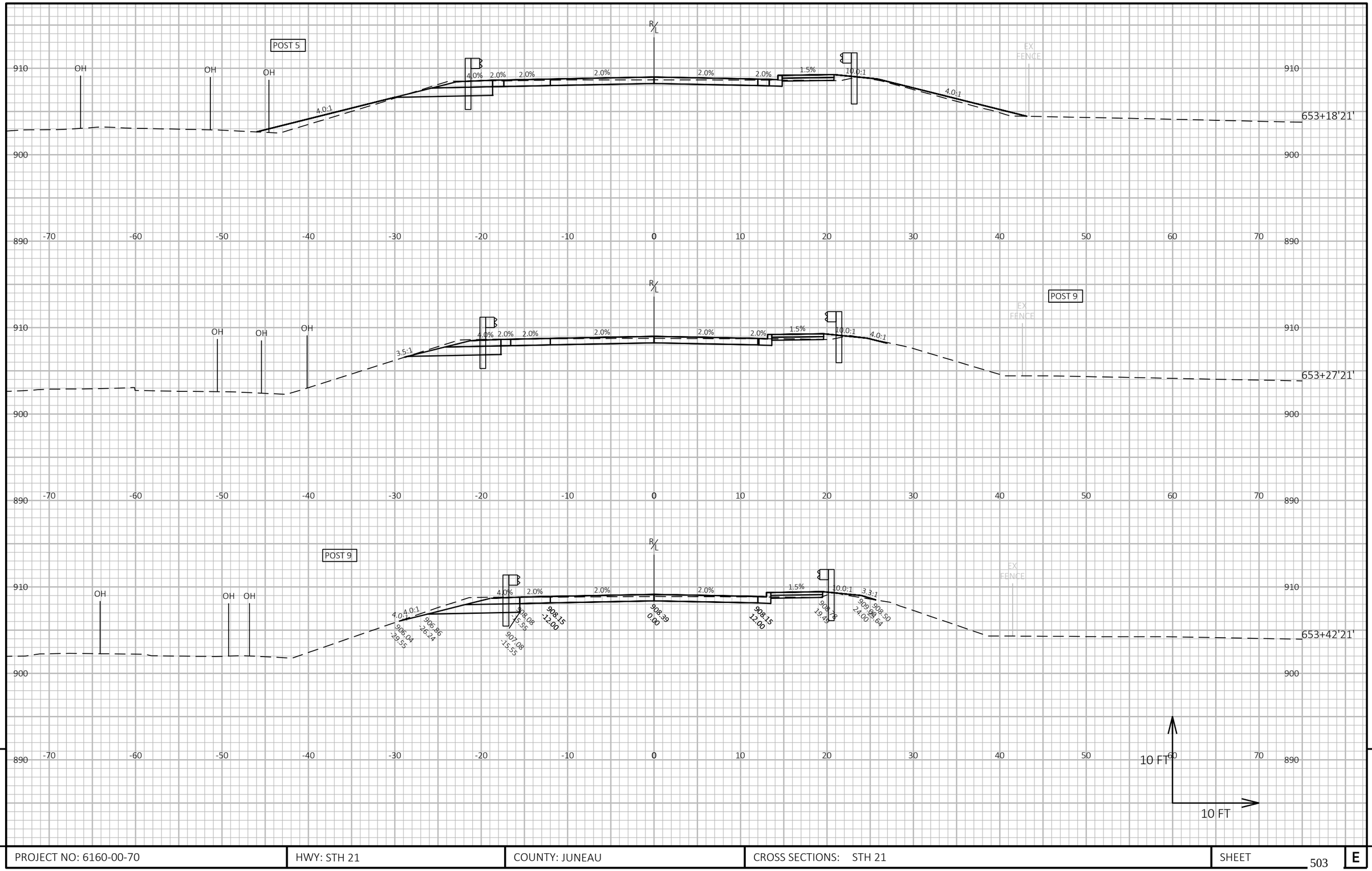

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 503	E

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LAYOUT NAME - 04

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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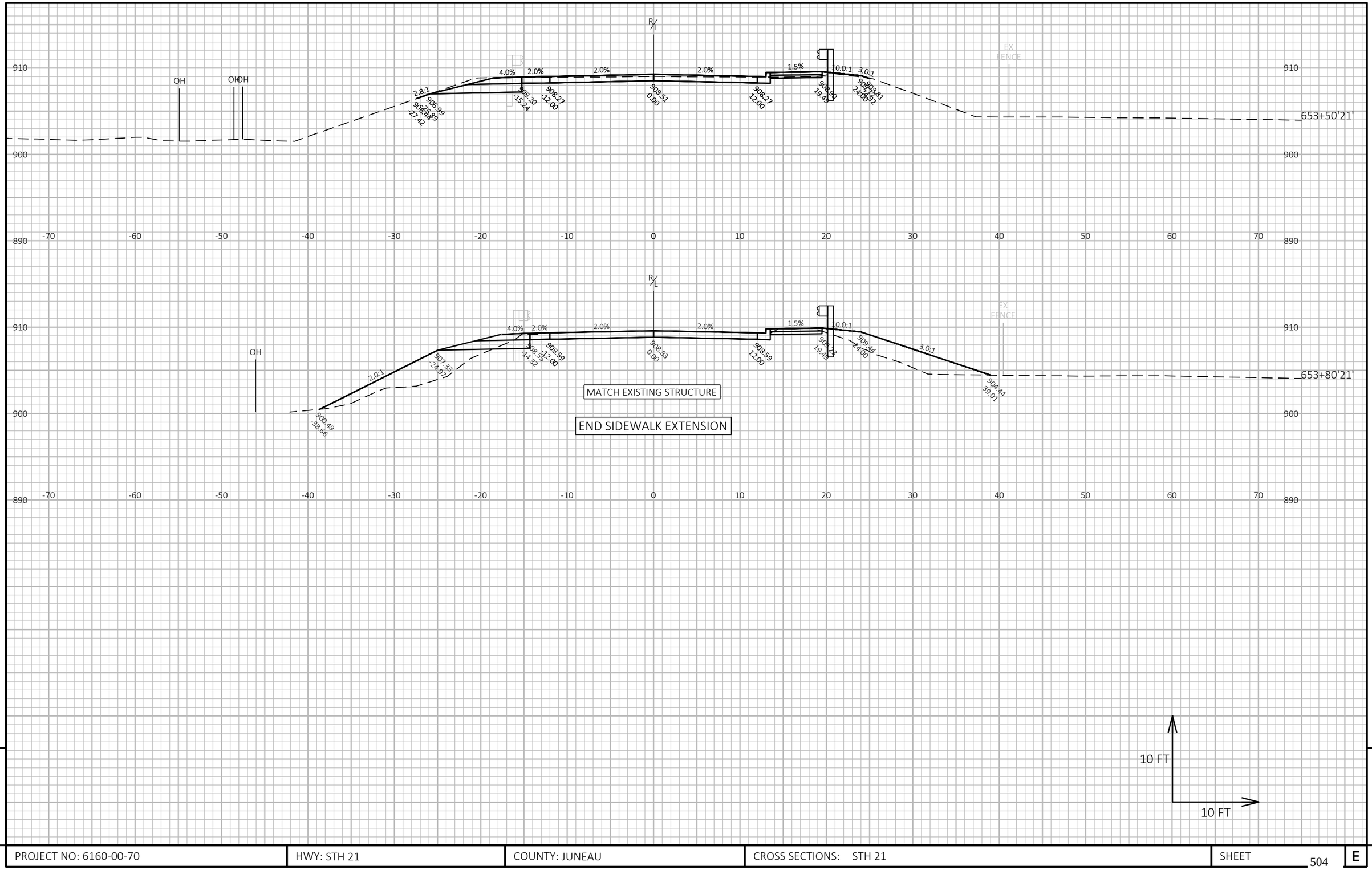

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 504	E

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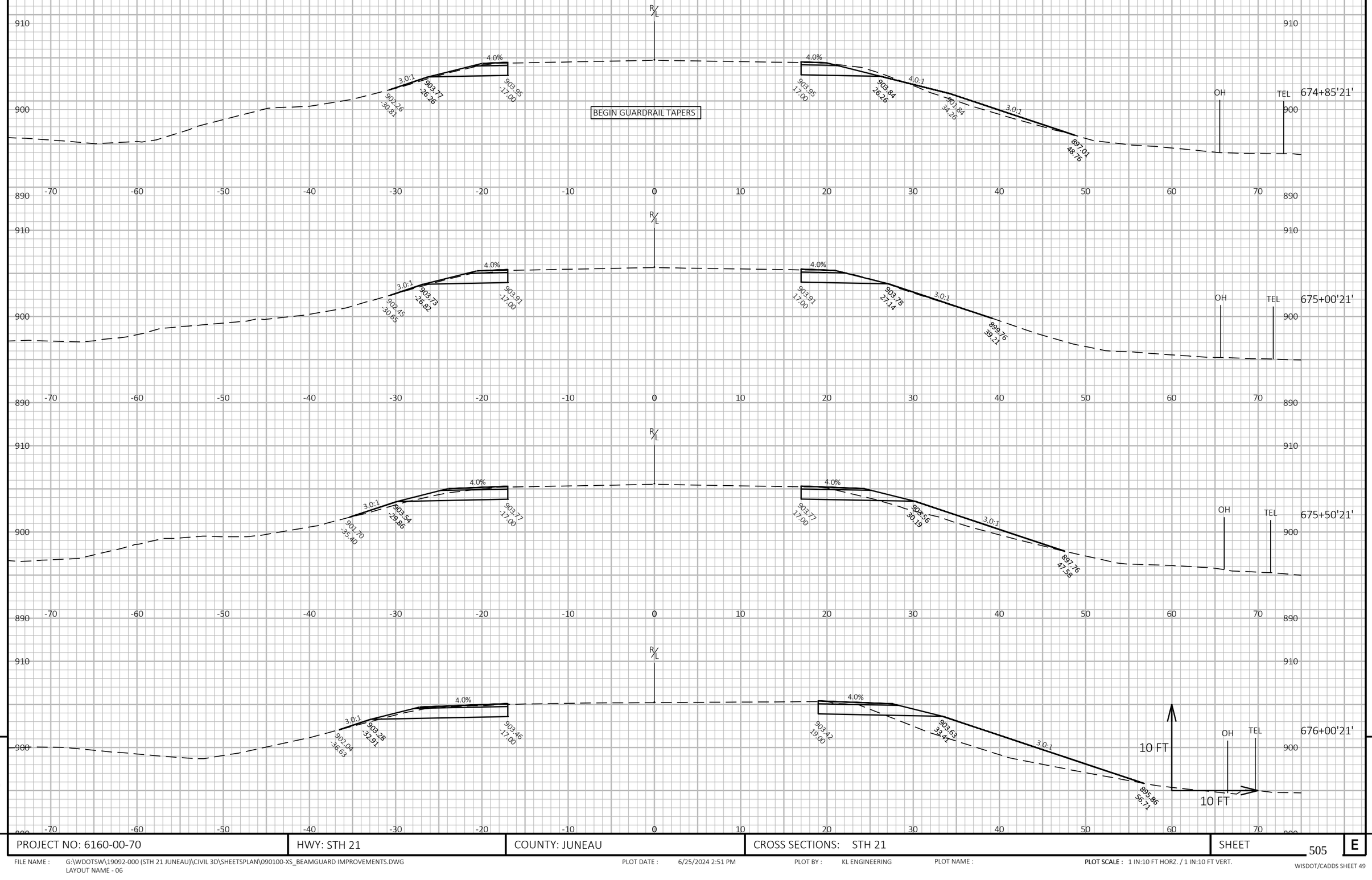
LAYOUT NAME - 05

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 505	E

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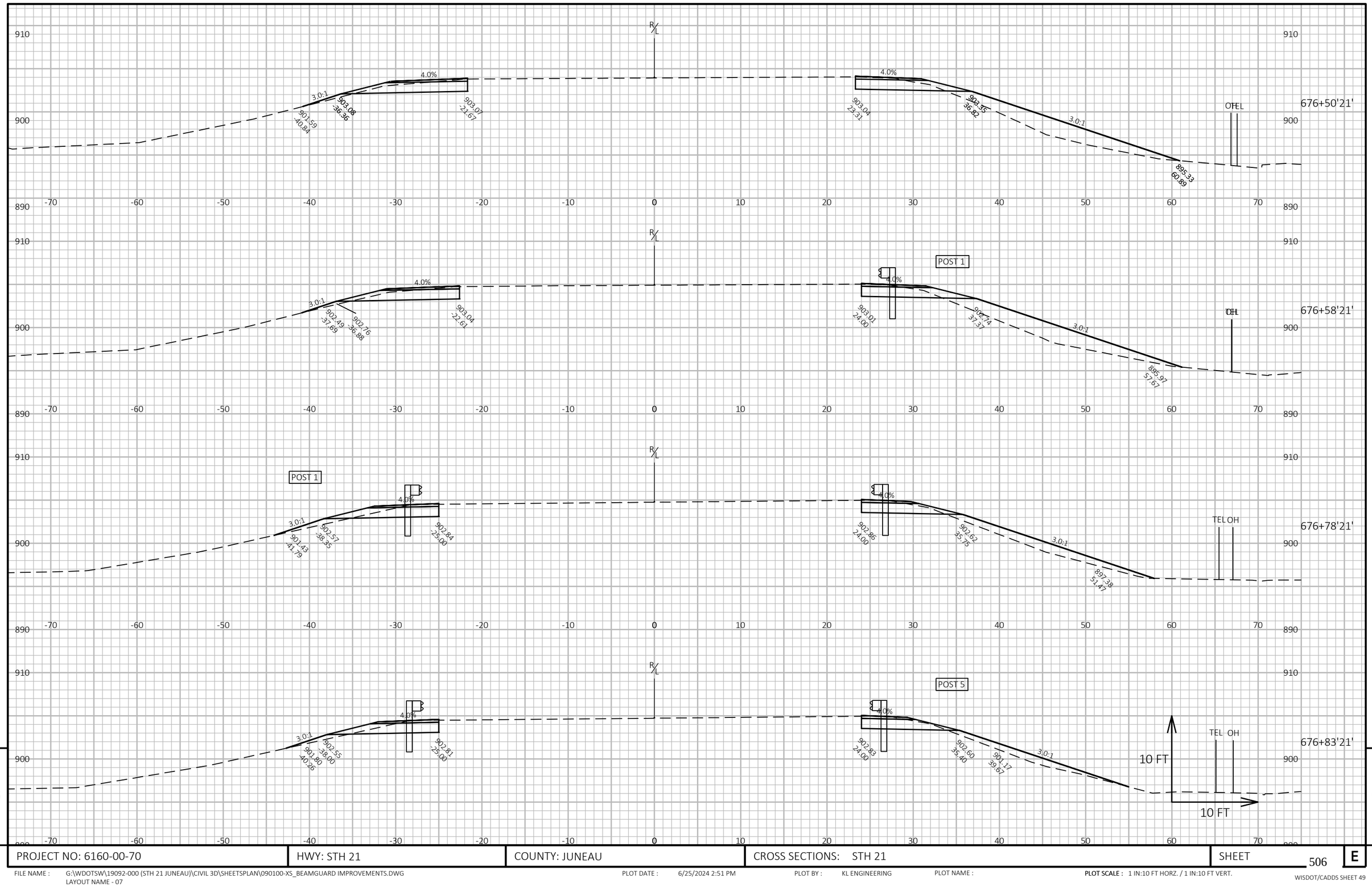
LAYOUT NAME - 06

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 506	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 07

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

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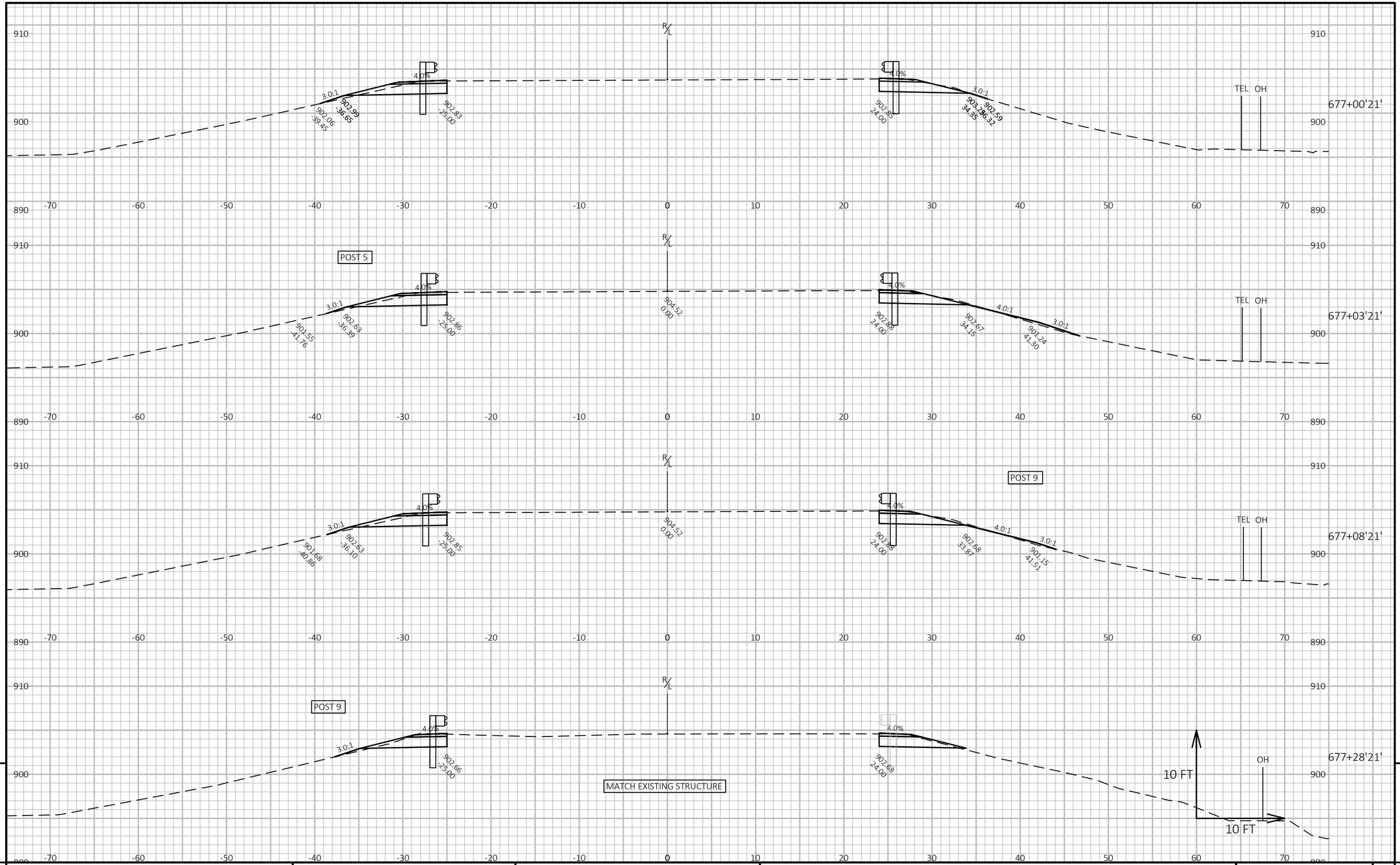

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 507	E

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LAYOUT NAME - 08

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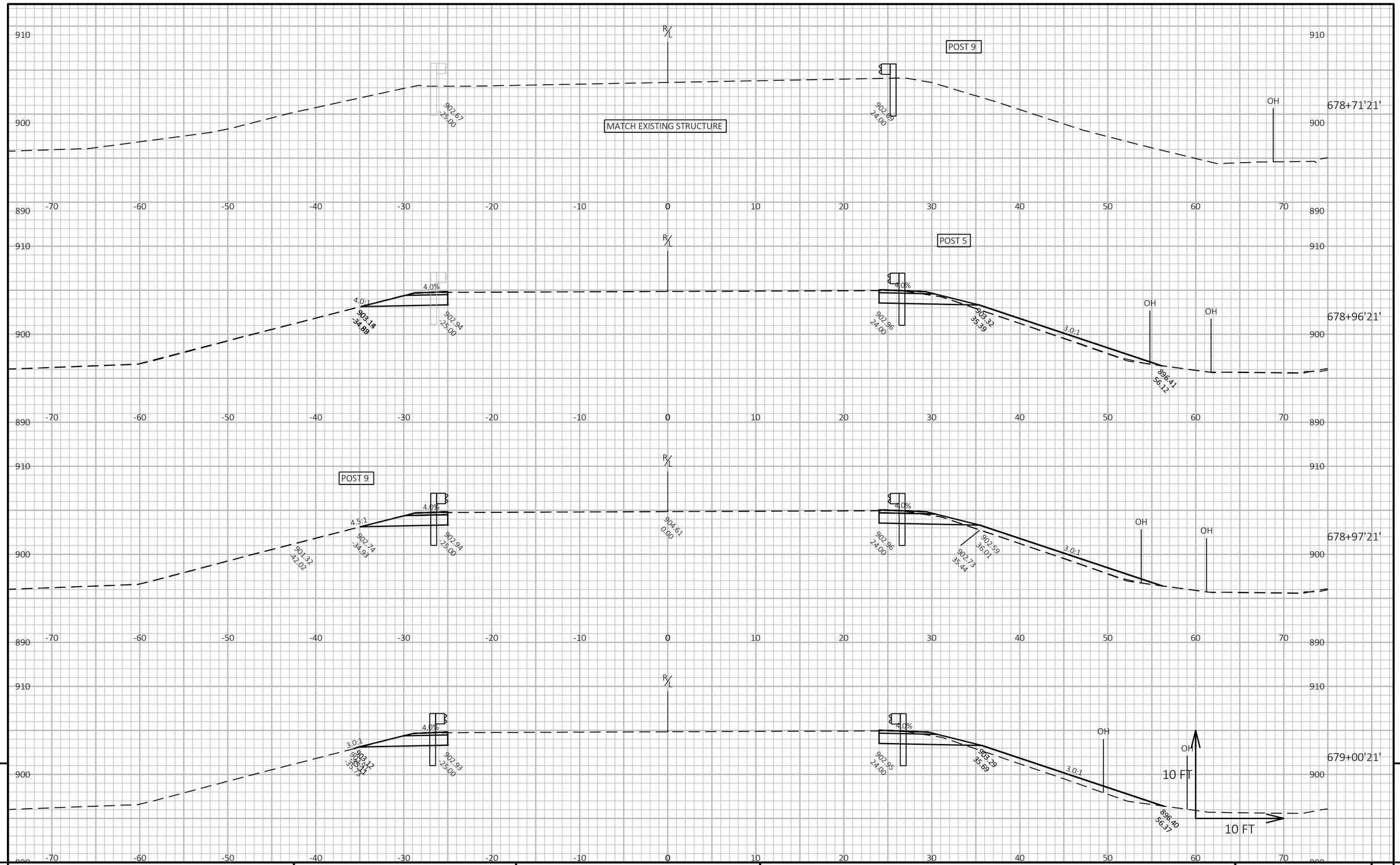

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 508	E

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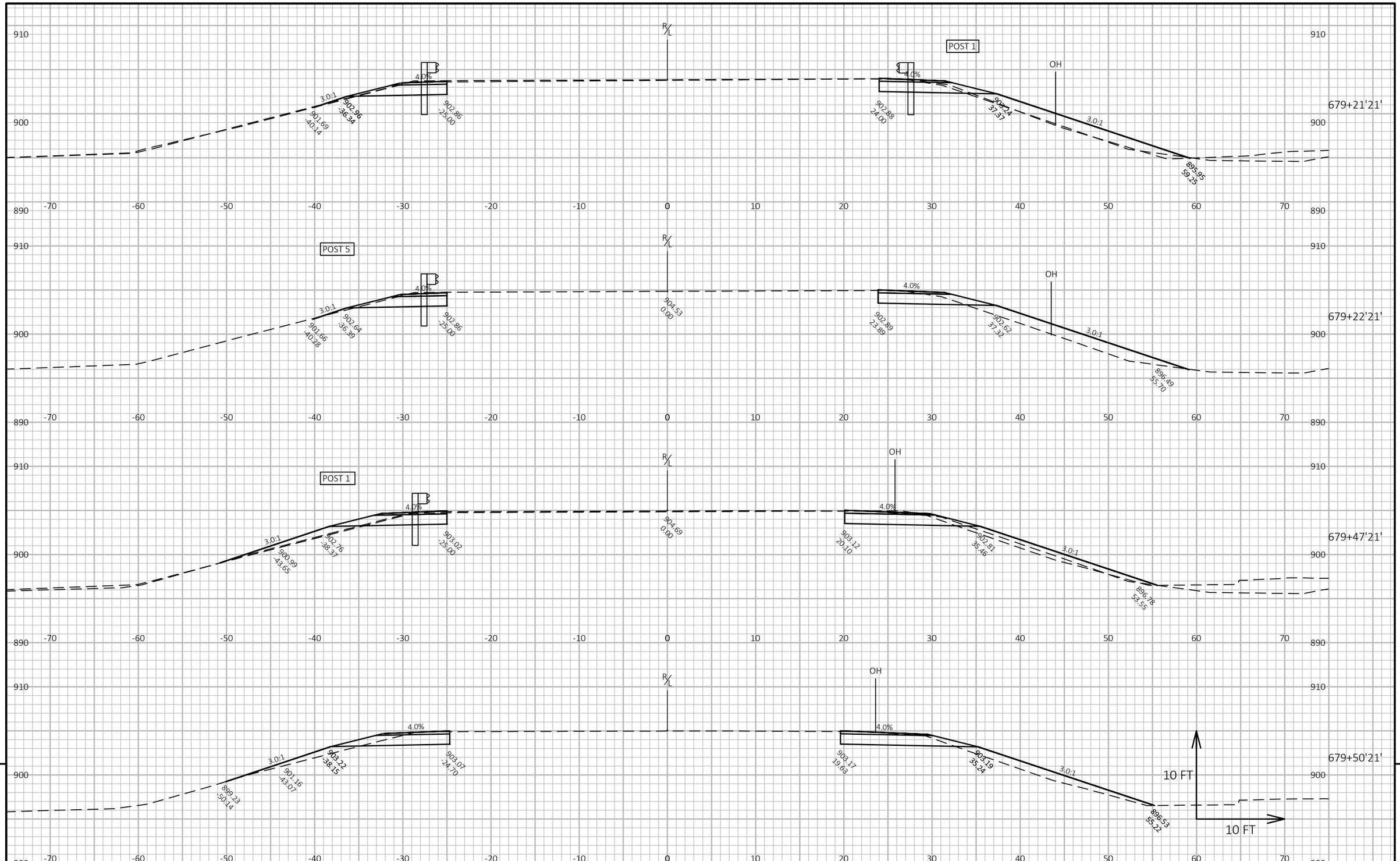
LAYOUT NAME - 09

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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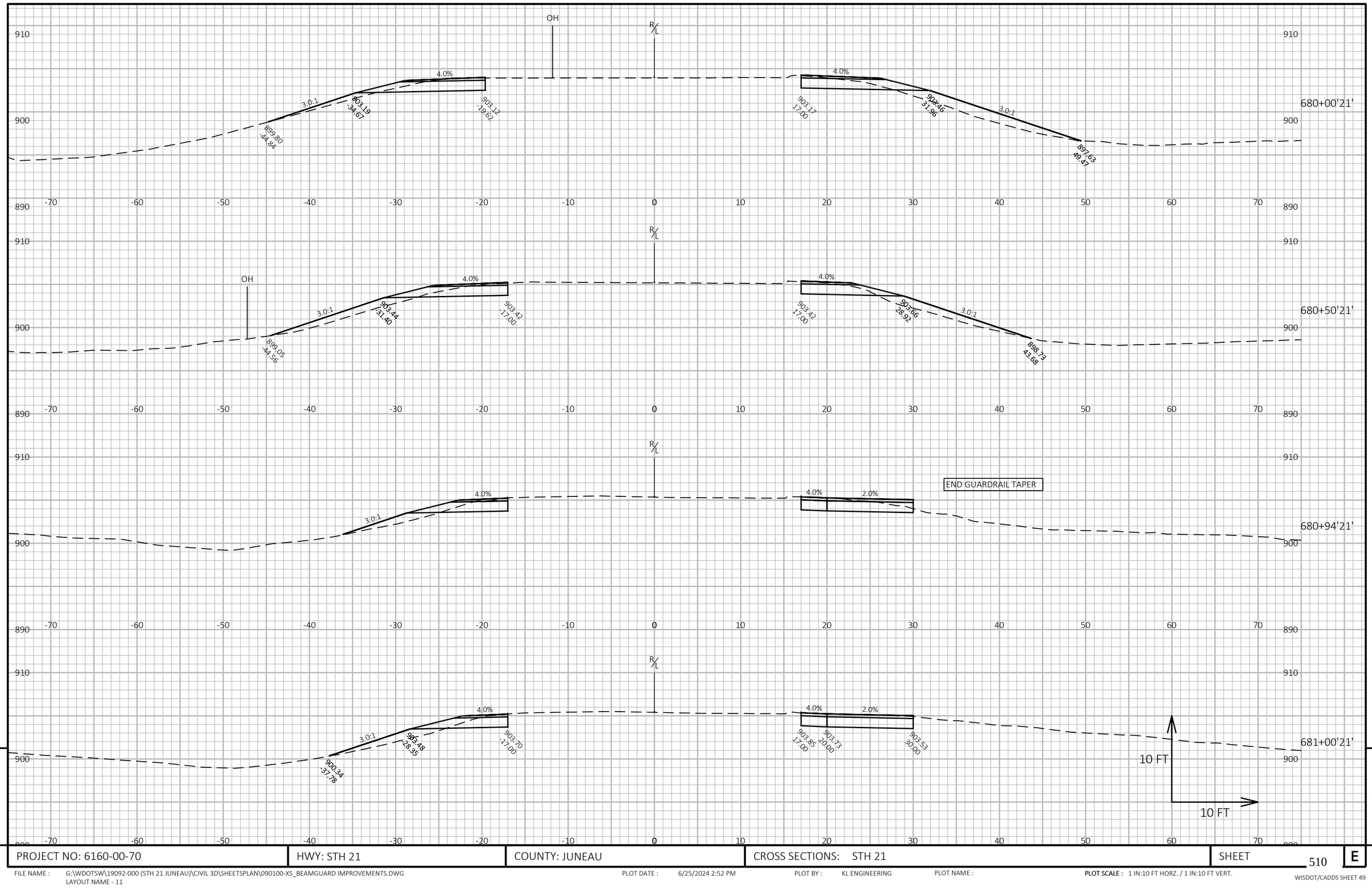
LAYOUT NAME - 10

PLOT DATE : 6/25/2024 2:51 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

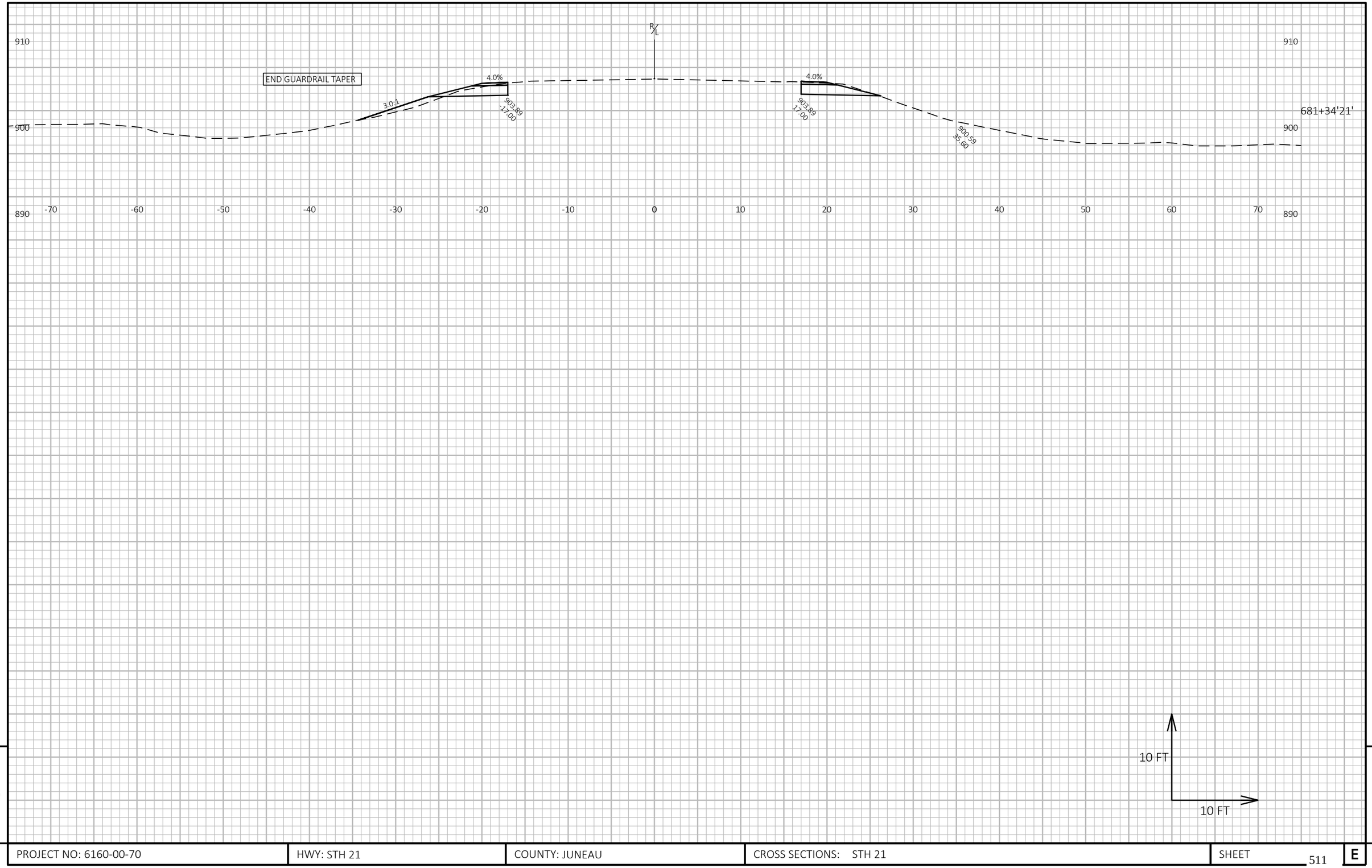
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 510	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 11

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



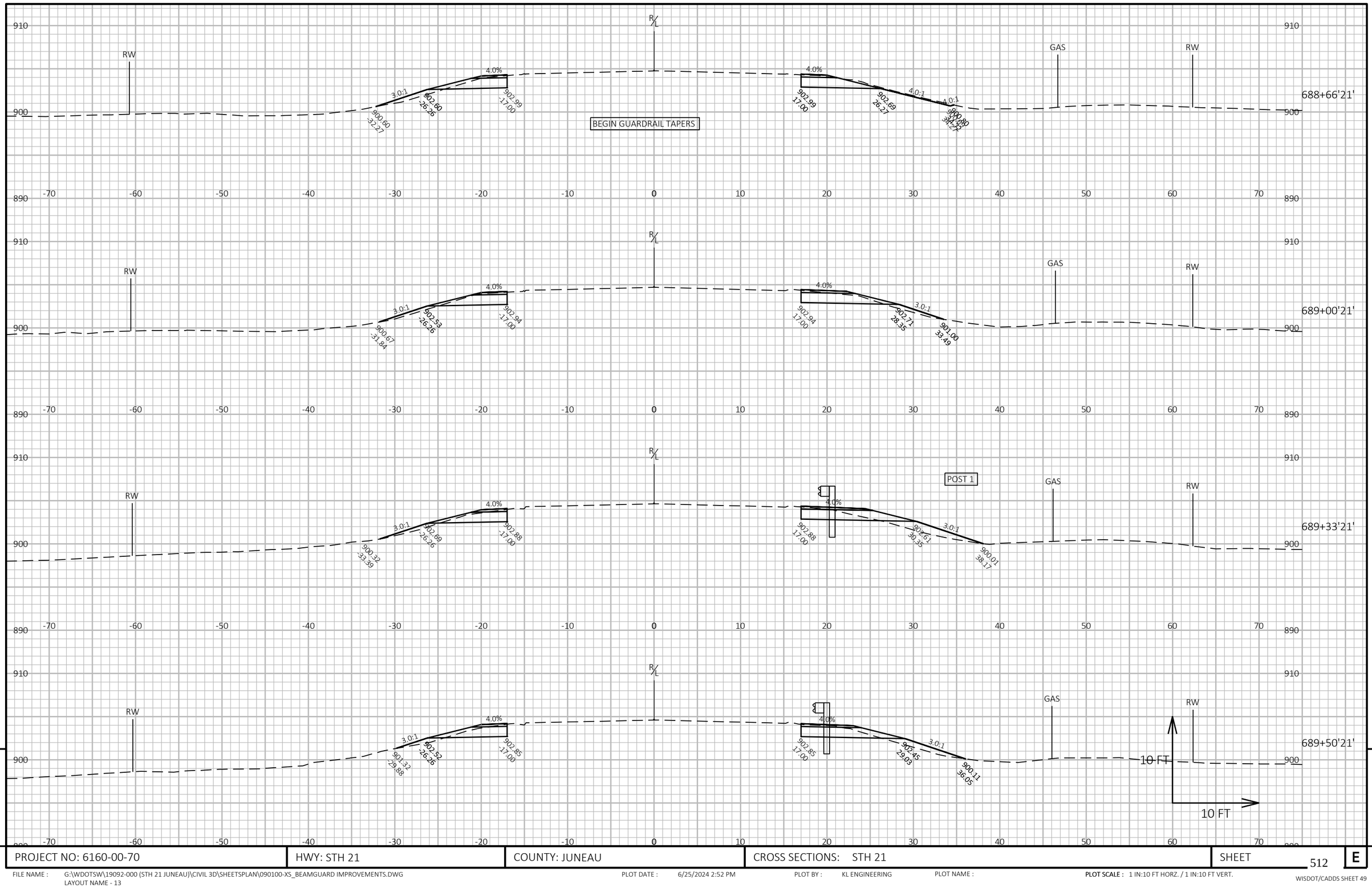
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 511	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 12

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



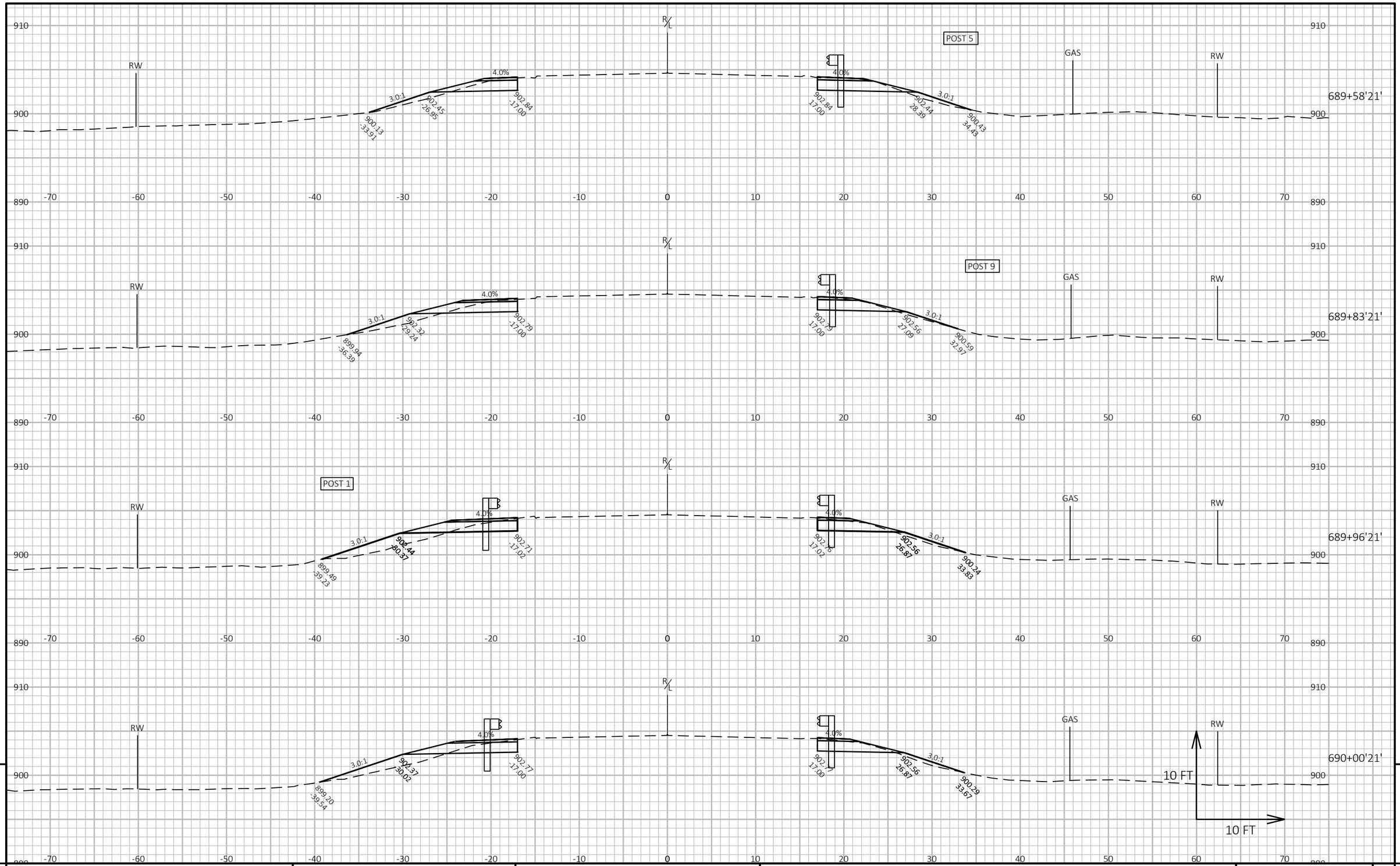
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 512	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 13

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



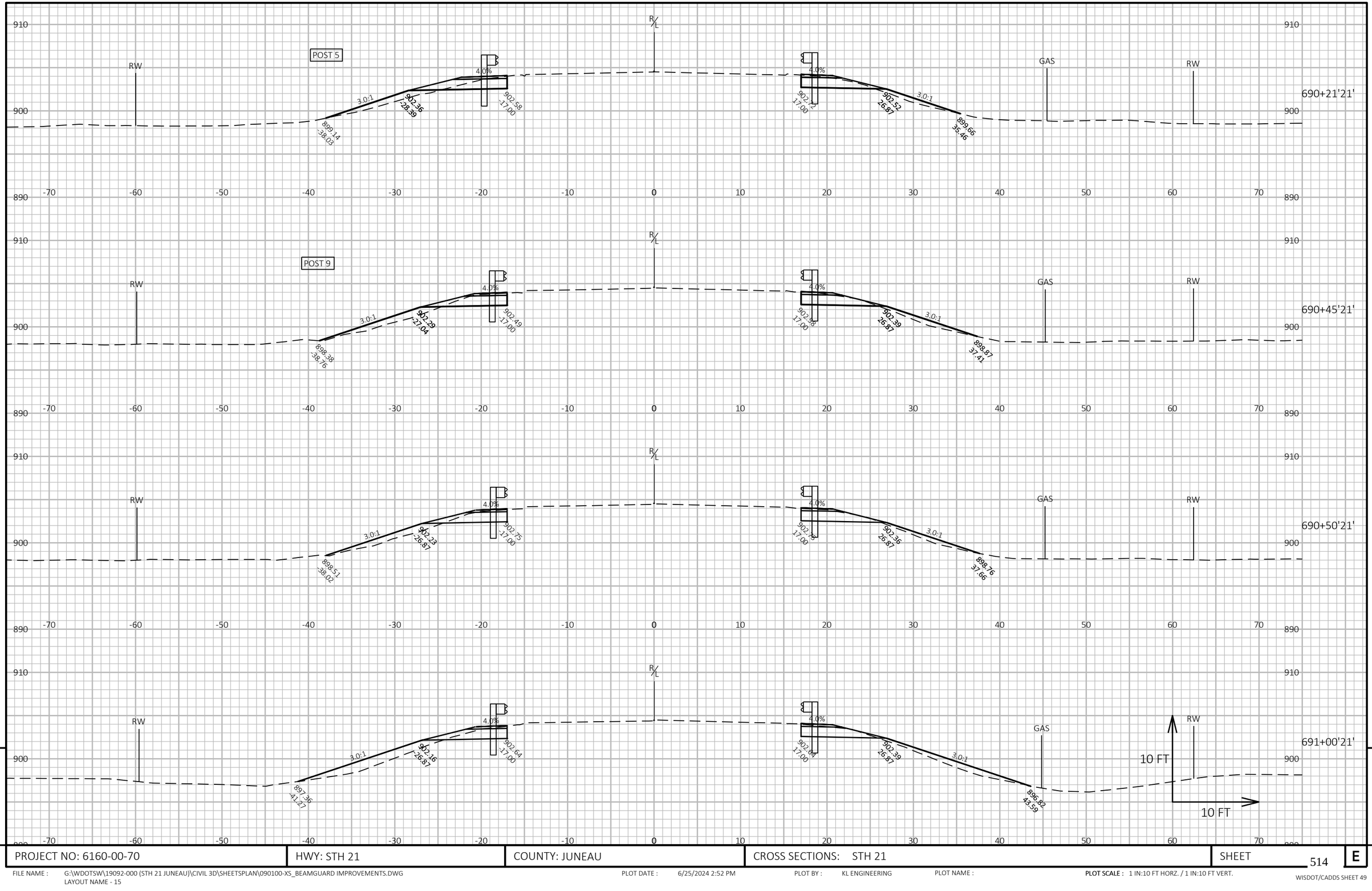
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 513	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 14

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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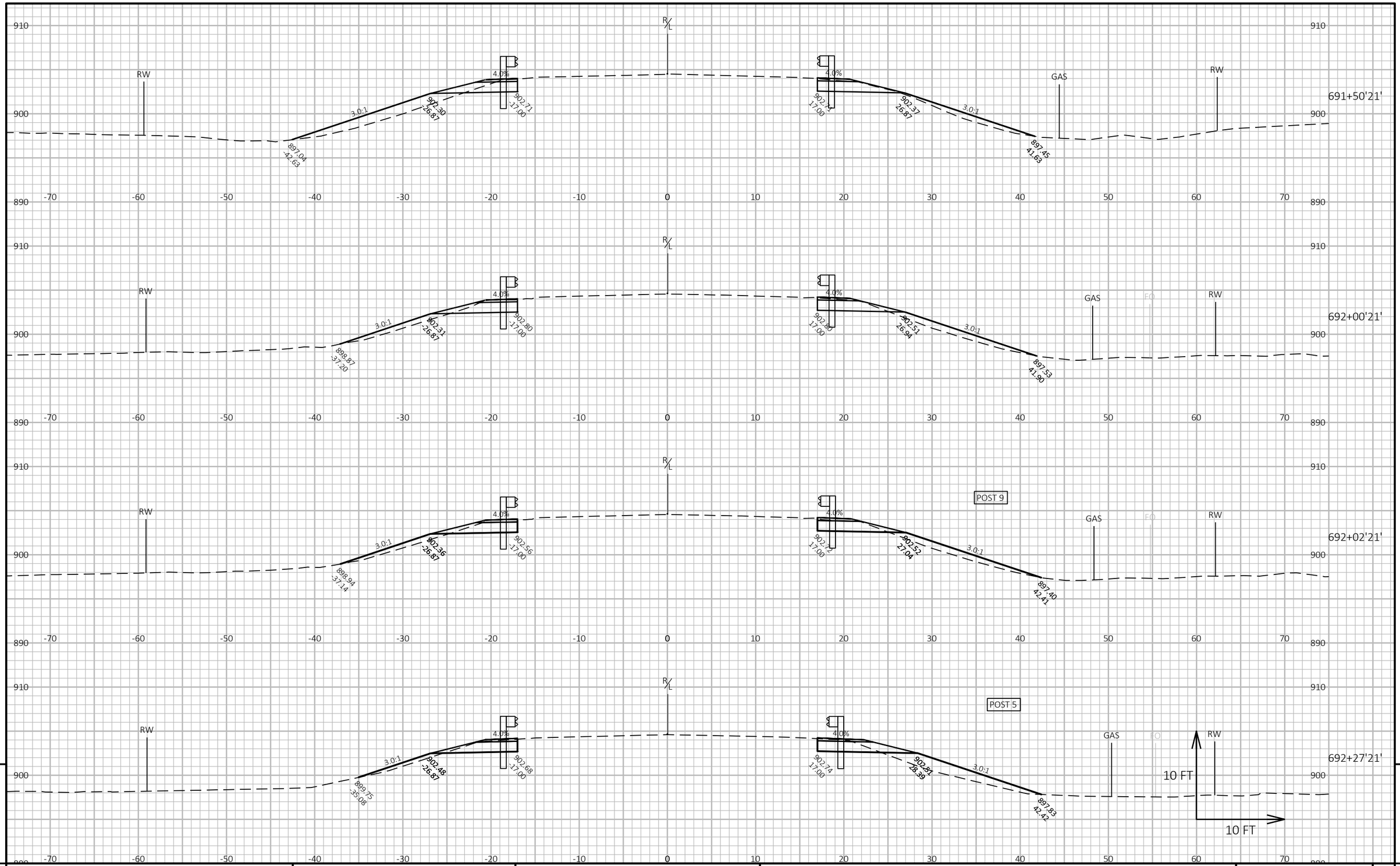
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 514	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 15

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



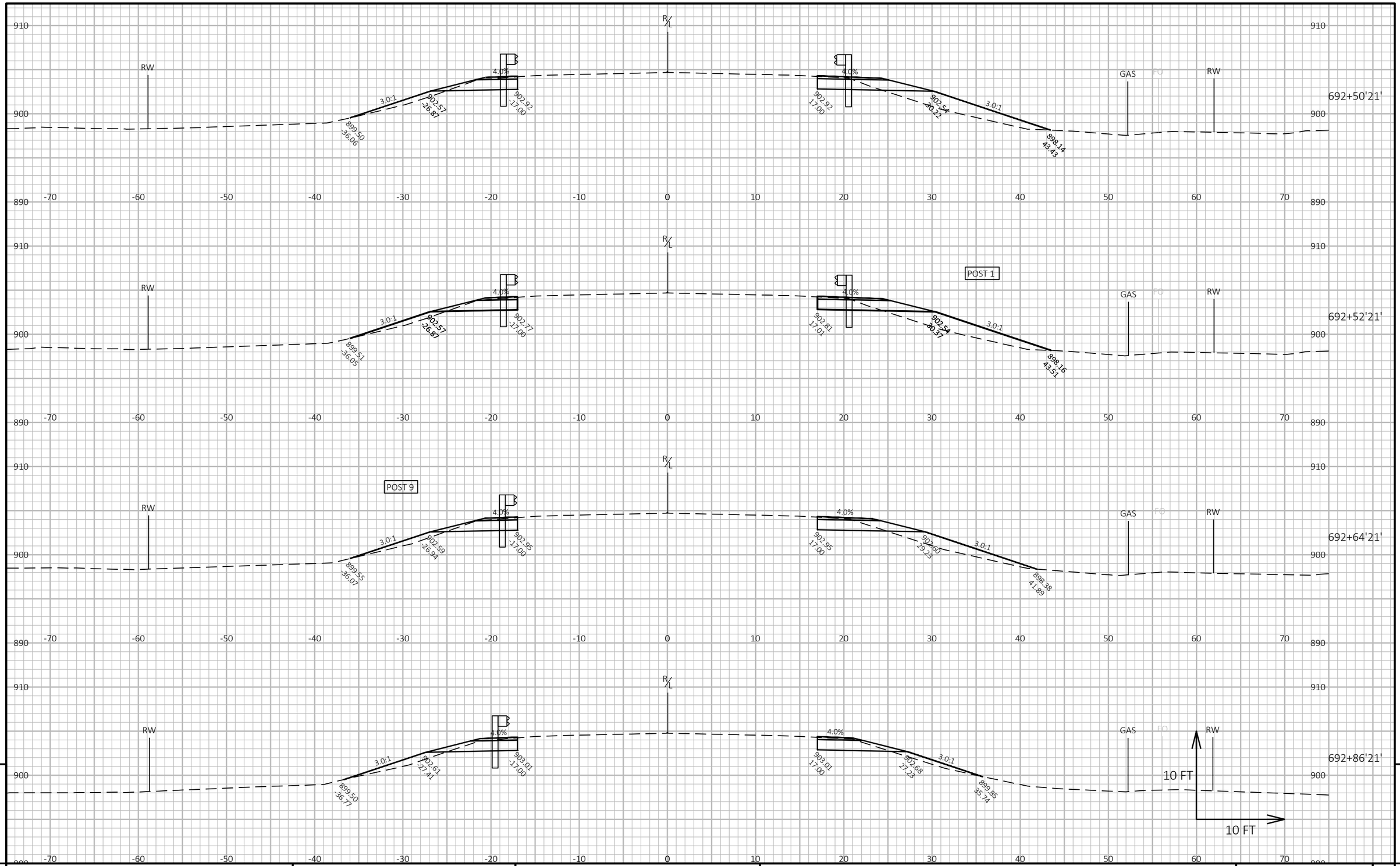
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 515	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 16

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

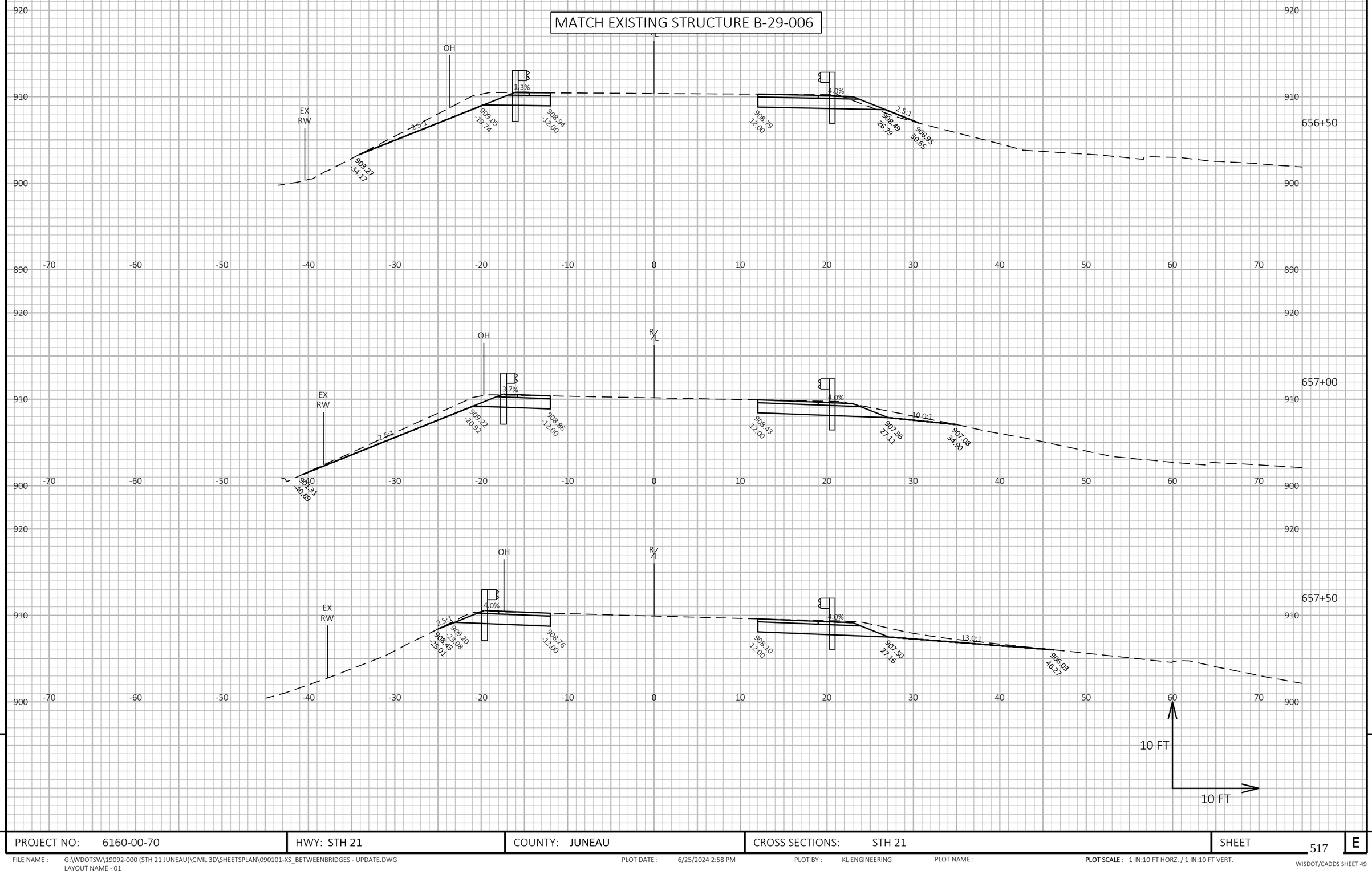
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 516	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_BEAMGUARD IMPROVEMENTS.DWG
LAYOUT NAME - 17

PLOT DATE : 6/25/2024 2:52 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

MATCH EXISTING STRUCTURE B-29-006



9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 517	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 01

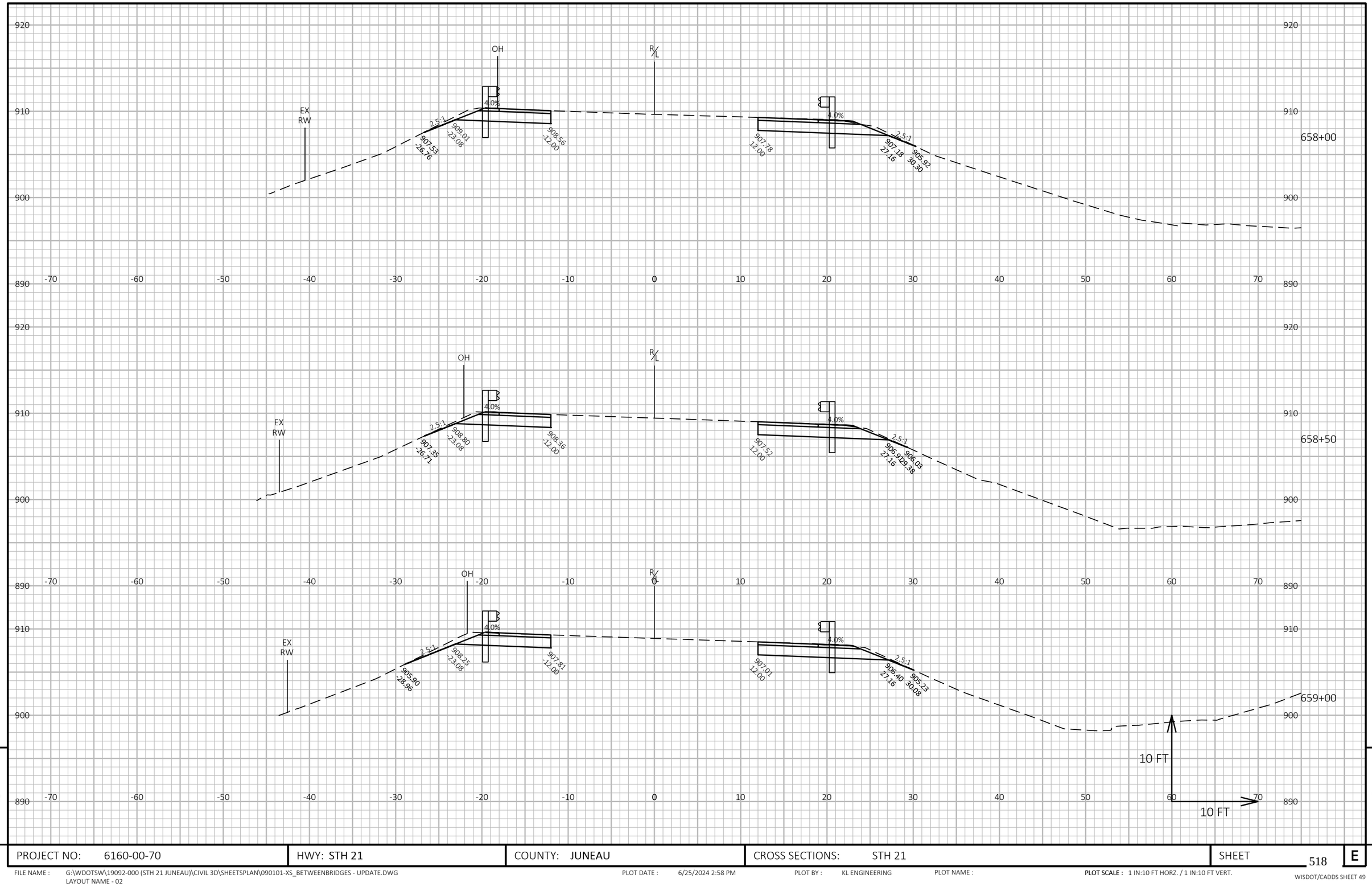
PLOT DATE : 6/25/2024 2:58 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



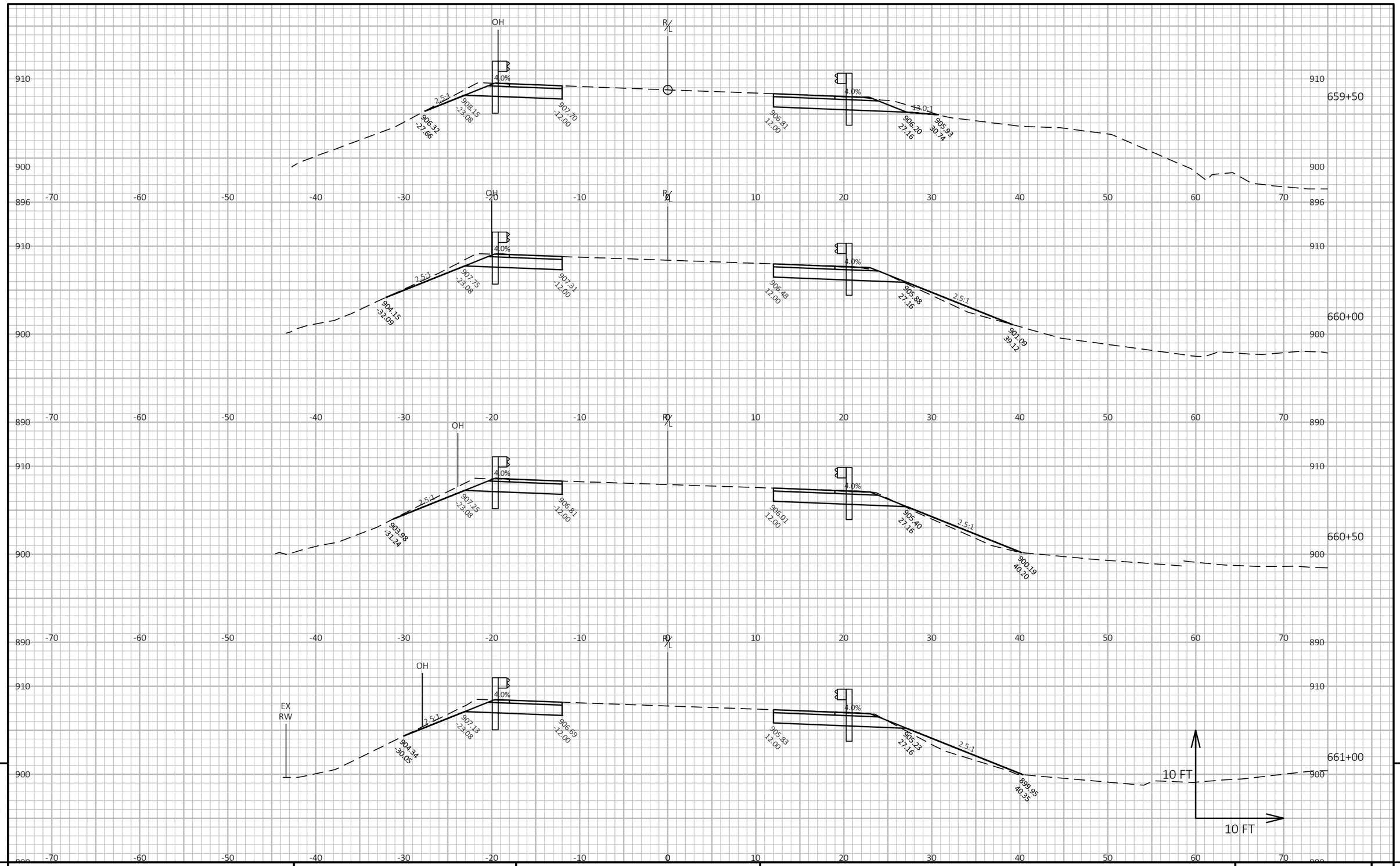
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 518	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 2:58 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 519	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 03

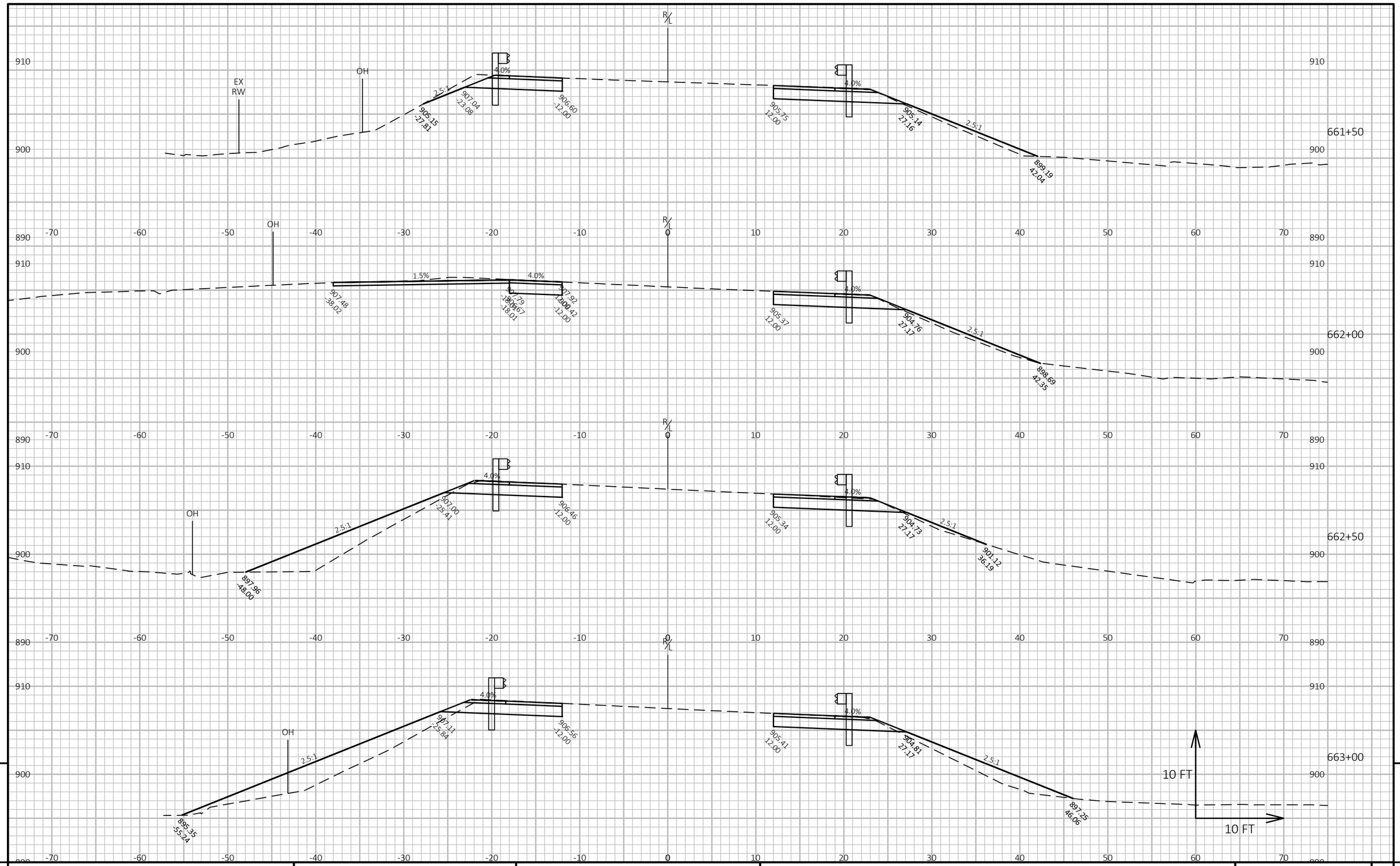
PLOT DATE : 6/25/2024 2:58 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 520	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 04

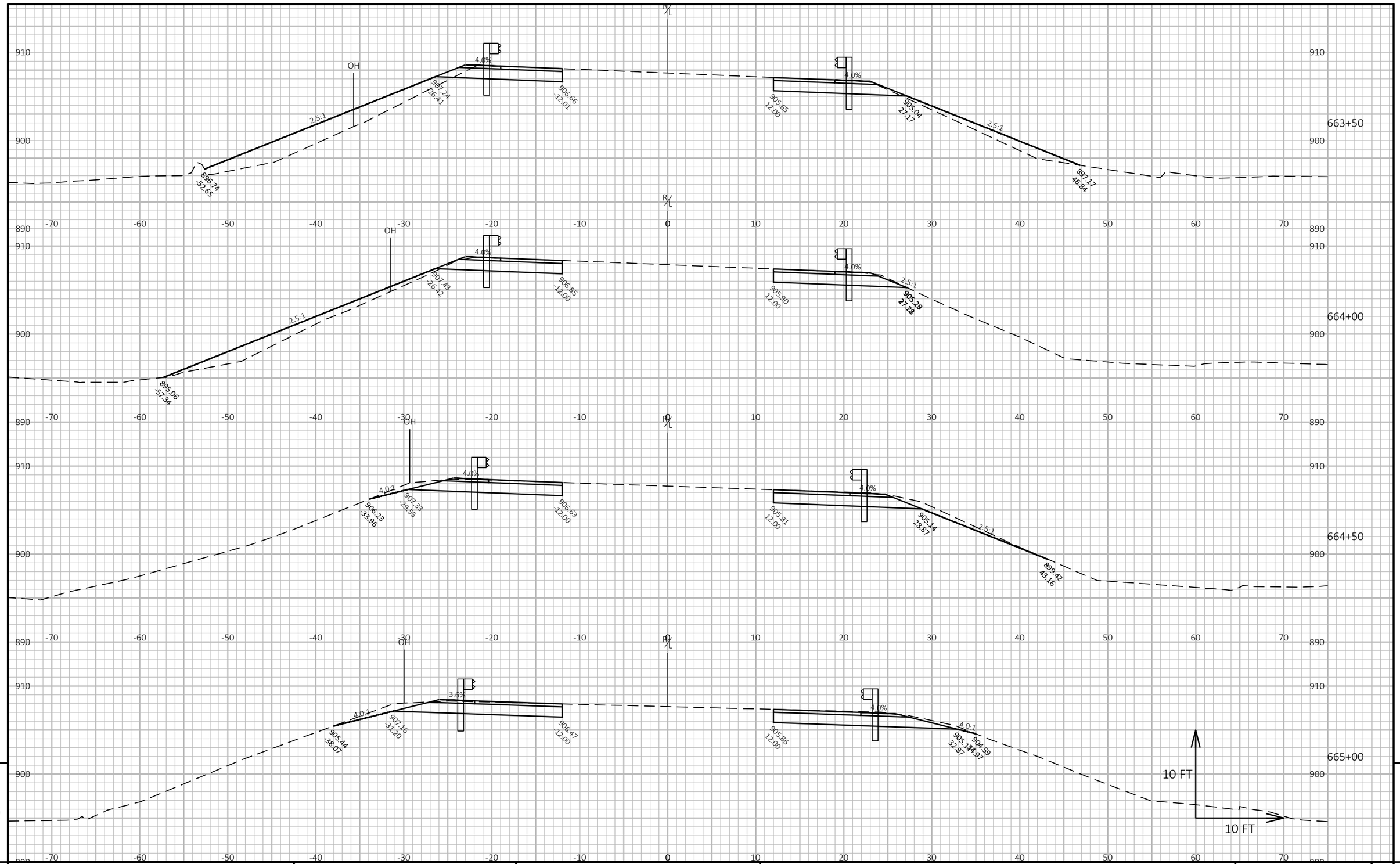
PLOT DATE : 6/25/2024 2:58 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

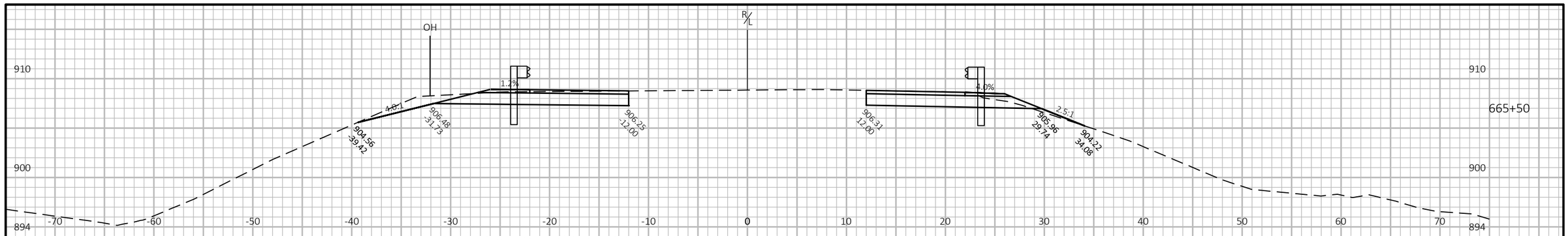
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 521	E

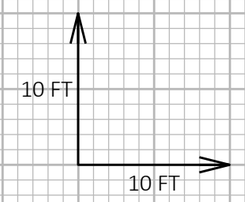
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 05

PLOT DATE : 6/25/2024 2:58 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



MATCH EXISTING STRUCTURE B-29-136



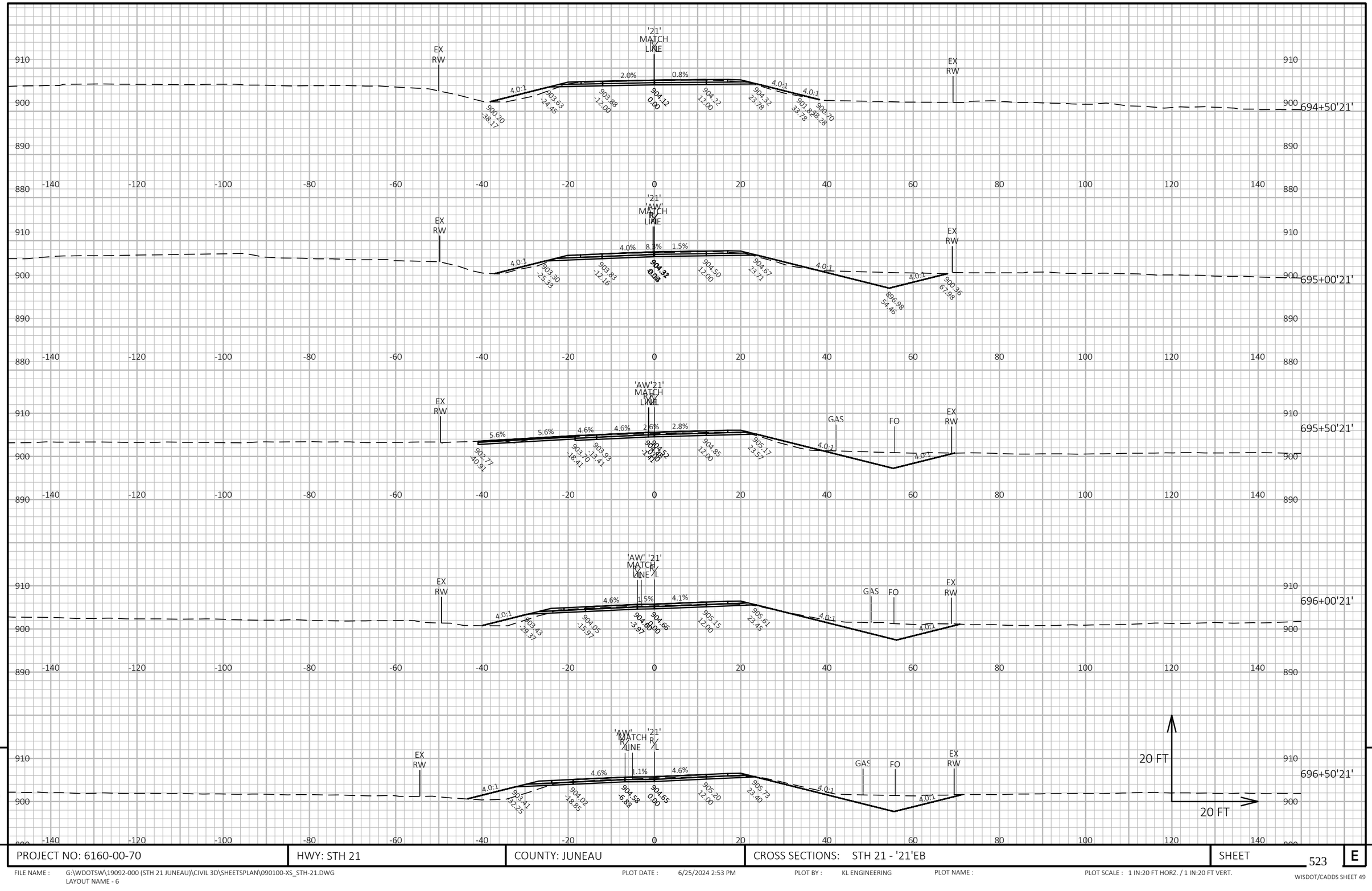
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21	SHEET 522	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_BETWEENBRIDGES - UPDATE.DWG
LAYOUT NAME - 06

PLOT DATE : 6/25/2024 2:58 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

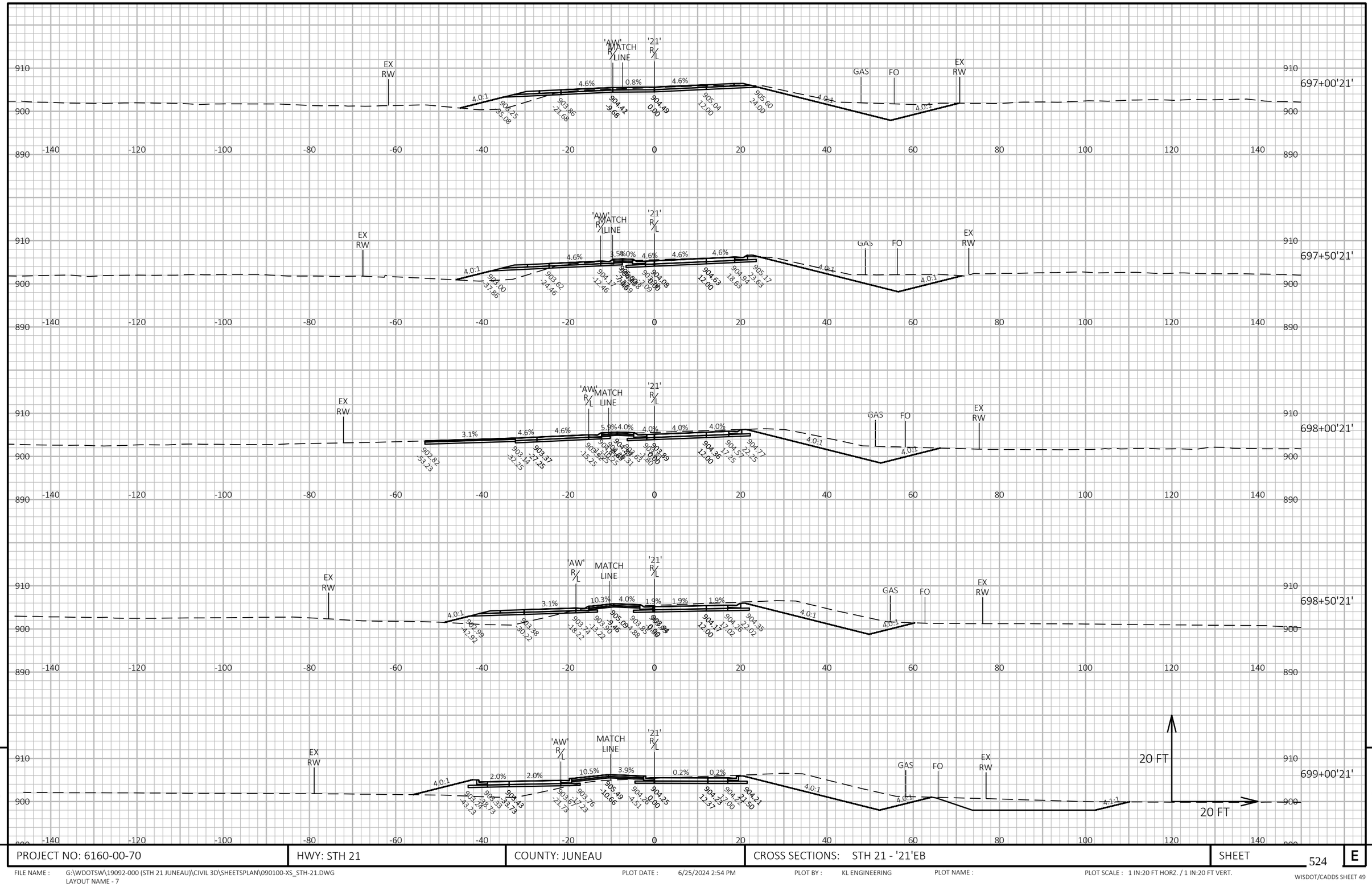
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 523	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 6

PLOT DATE : 6/25/2024 2:53 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

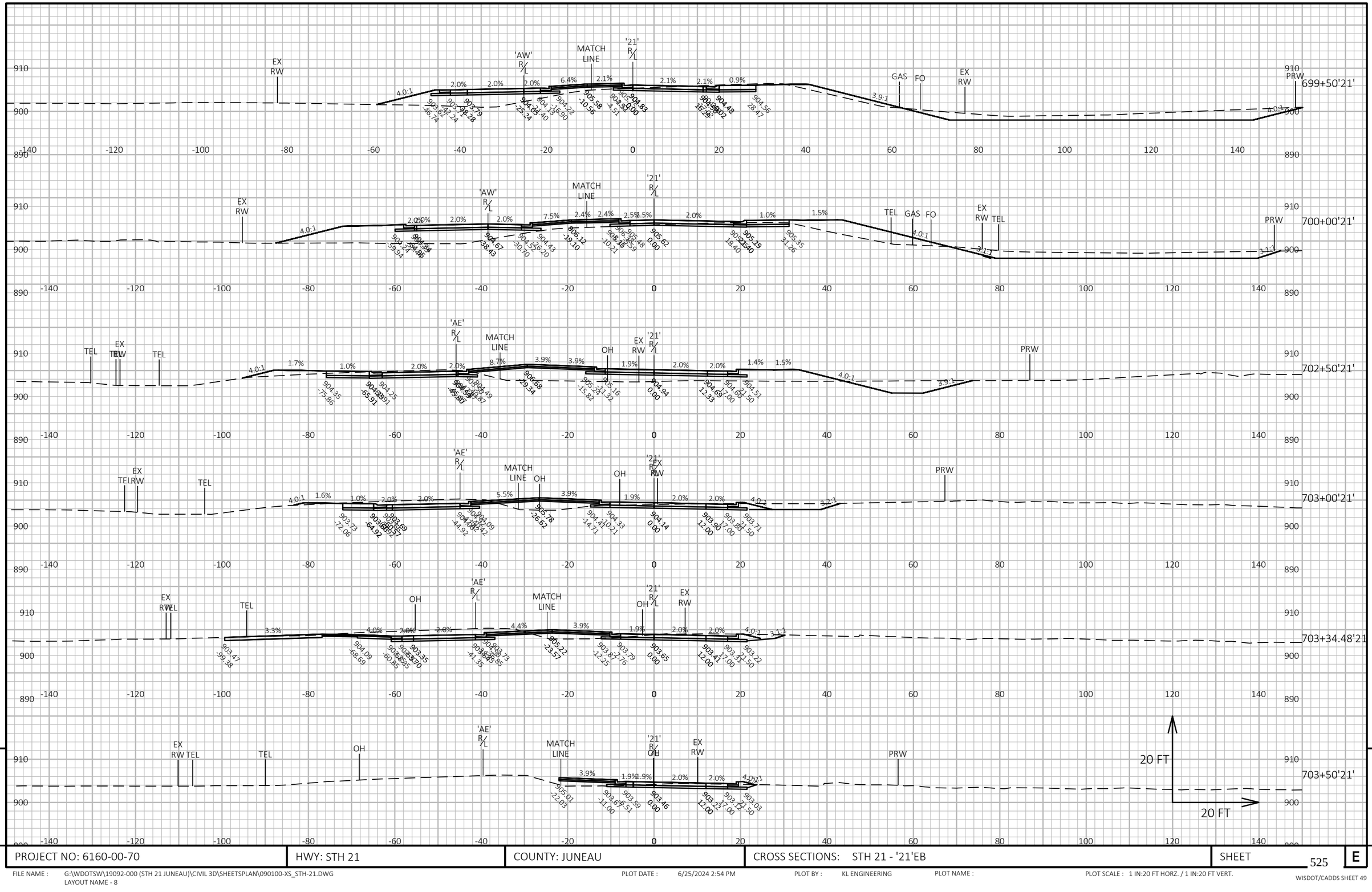


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 524 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 7

PLOT DATE : 6/25/2024 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 525	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 8

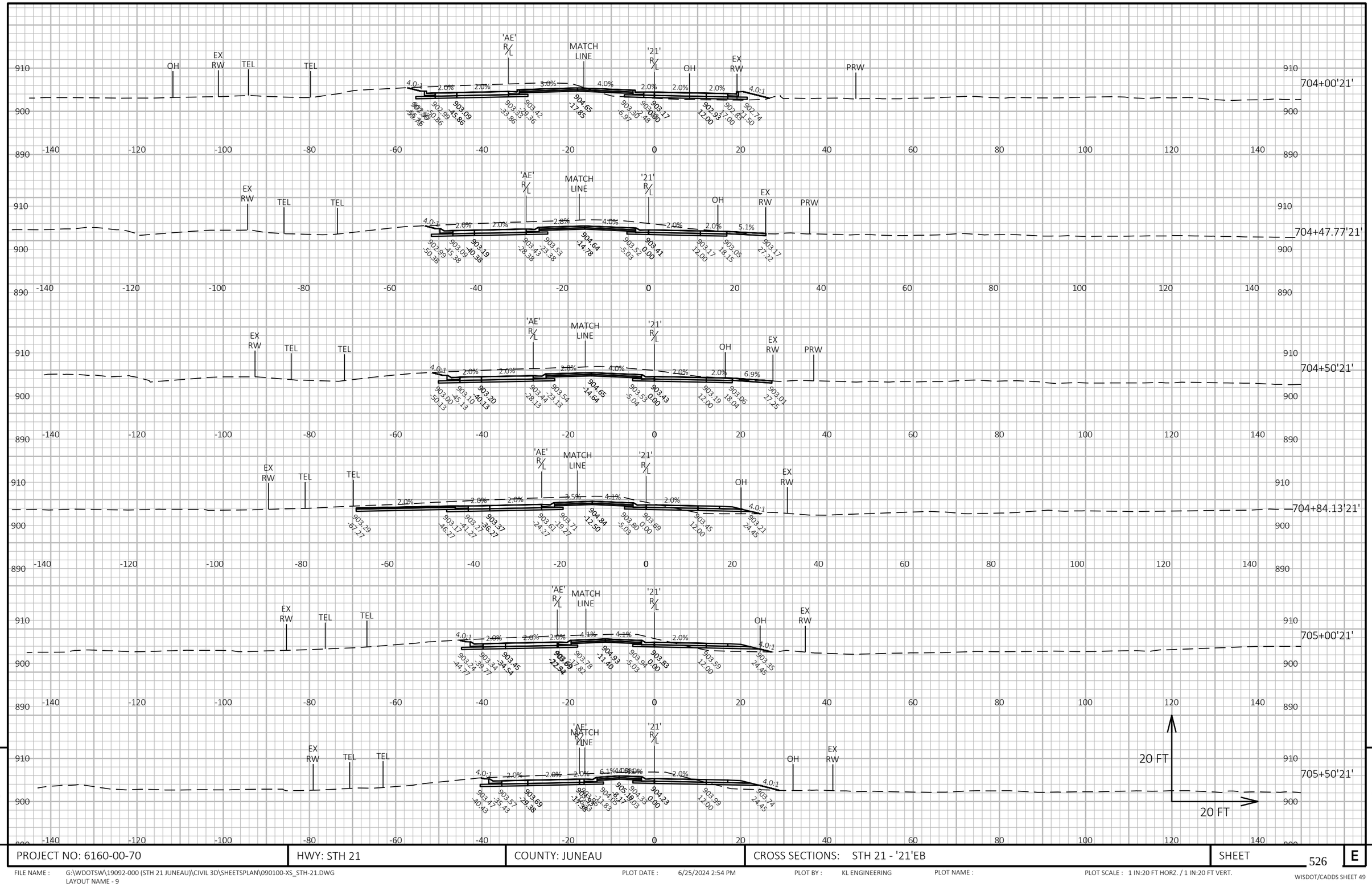
PLOT DATE : 6/25/2024 2:54 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 526	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 9

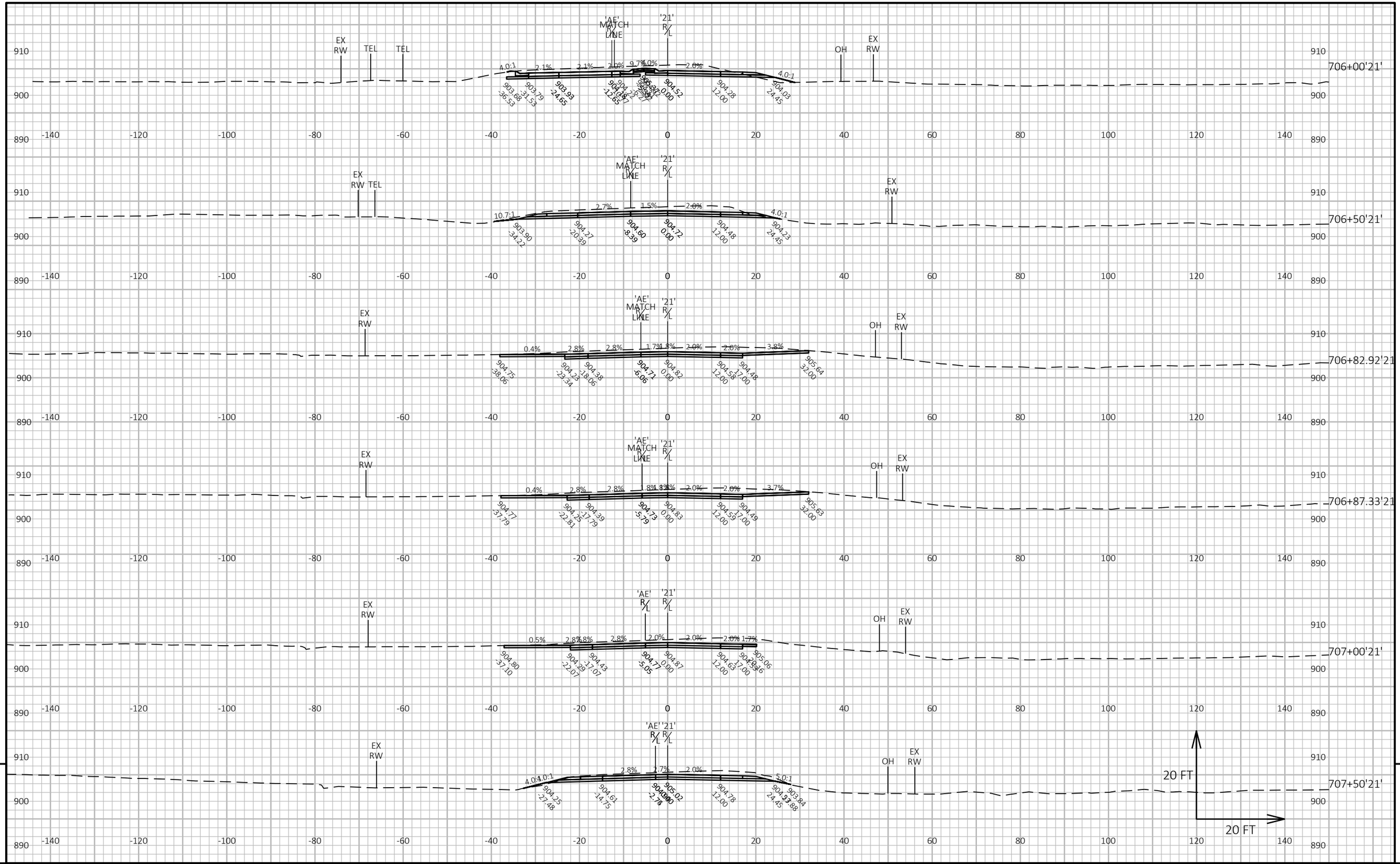
PLOT DATE : 6/25/2024 2:54 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

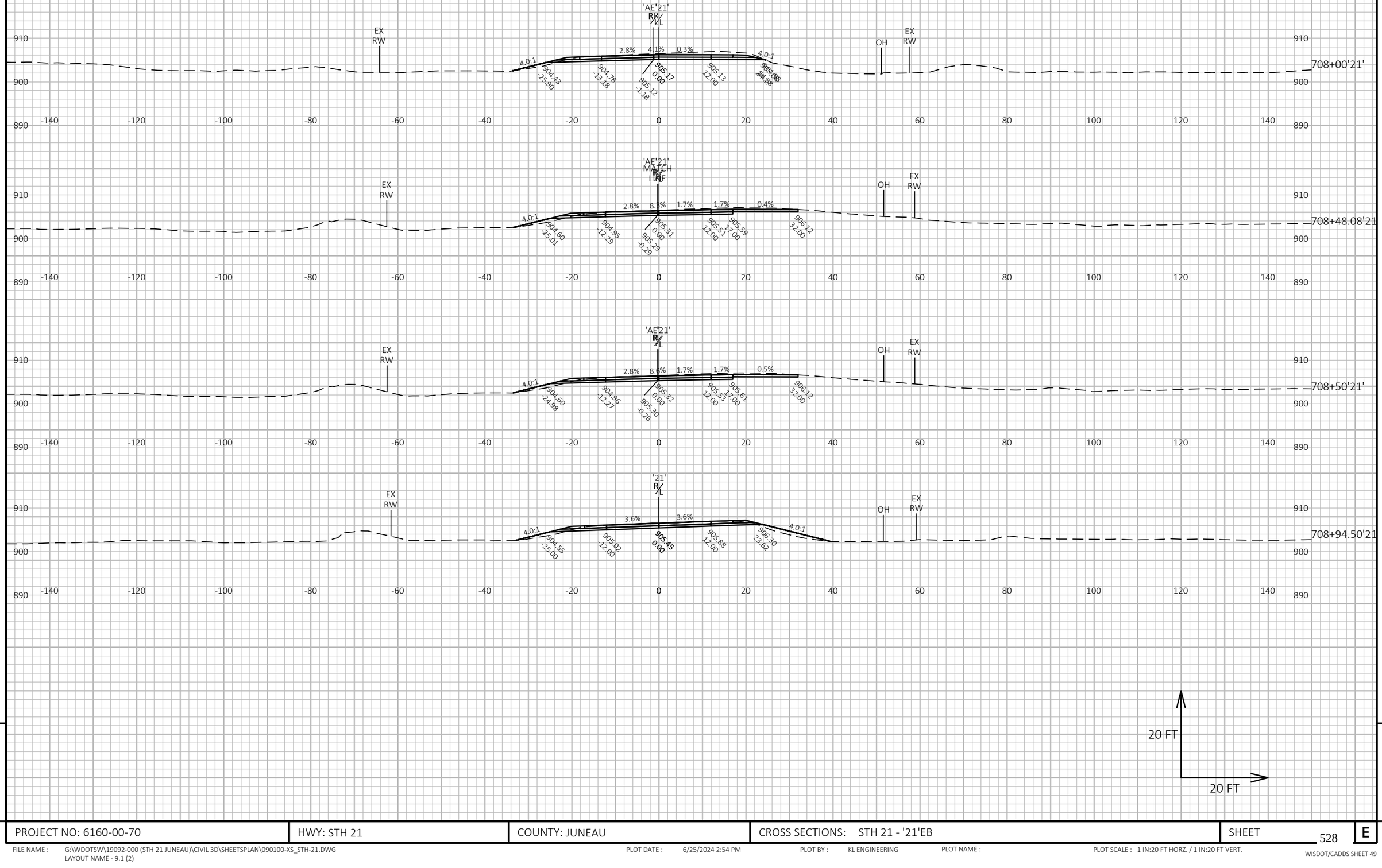
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 527	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 9.1

PLOT DATE : 6/25/2024 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



9

9

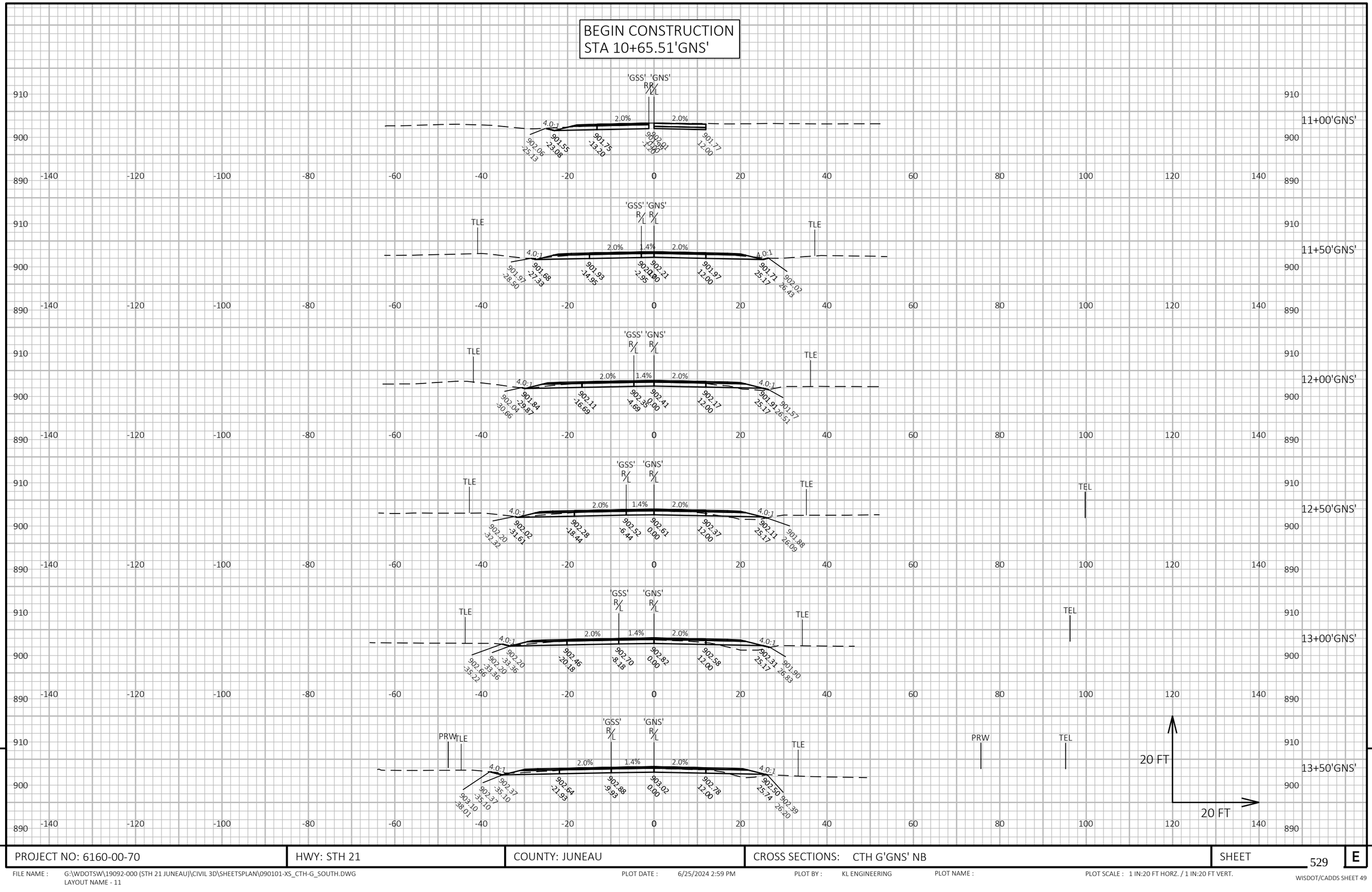
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21 - '21'EB	SHEET 528	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090100-XS_STH-21.DWG
LAYOUT NAME - 9.1 (2)

PLOT DATE : 6/25/2024 2:54 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

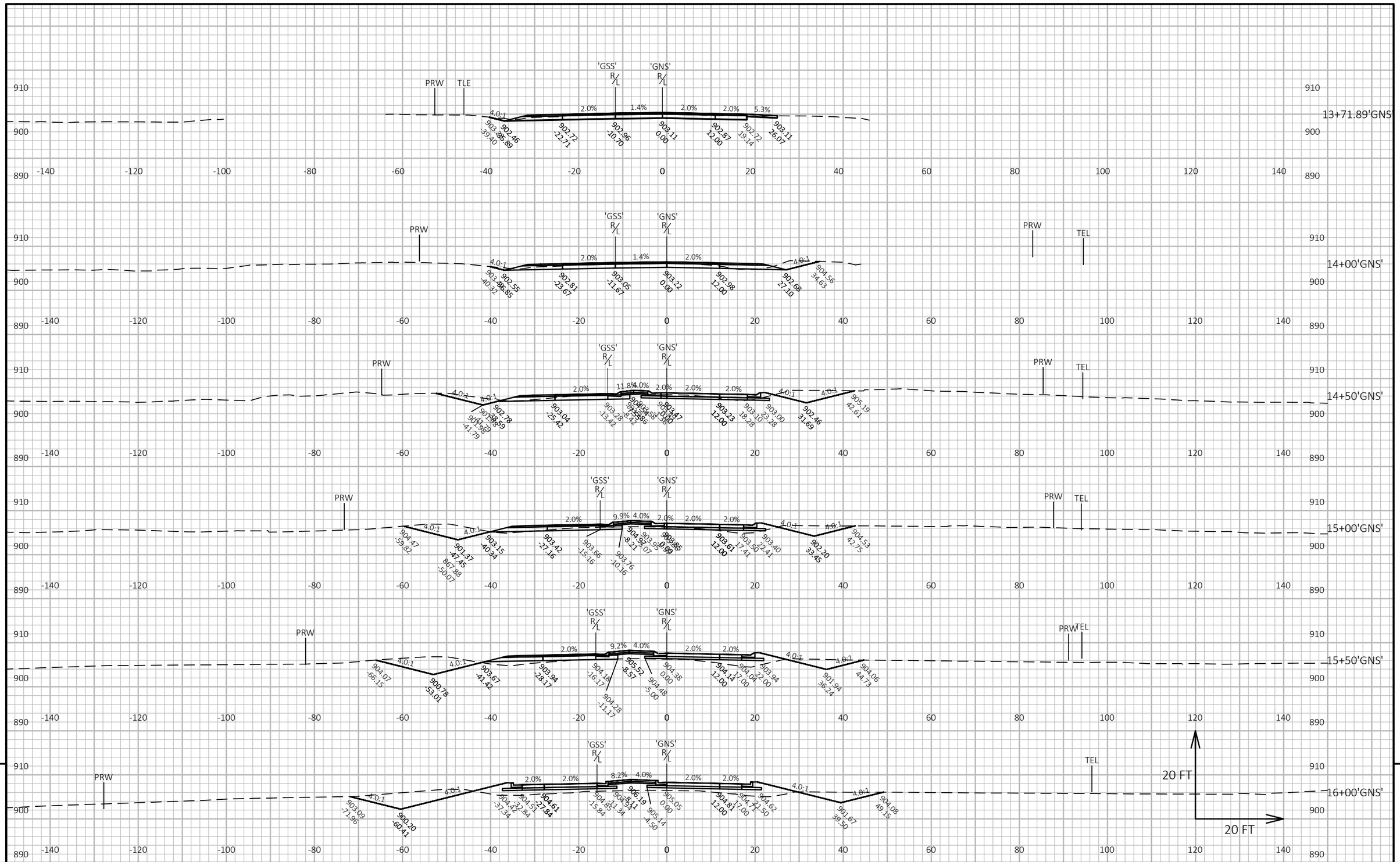
WISDOT/CADDS SHEET 49

BEGIN CONSTRUCTION
STA 10+65.51'GNS'



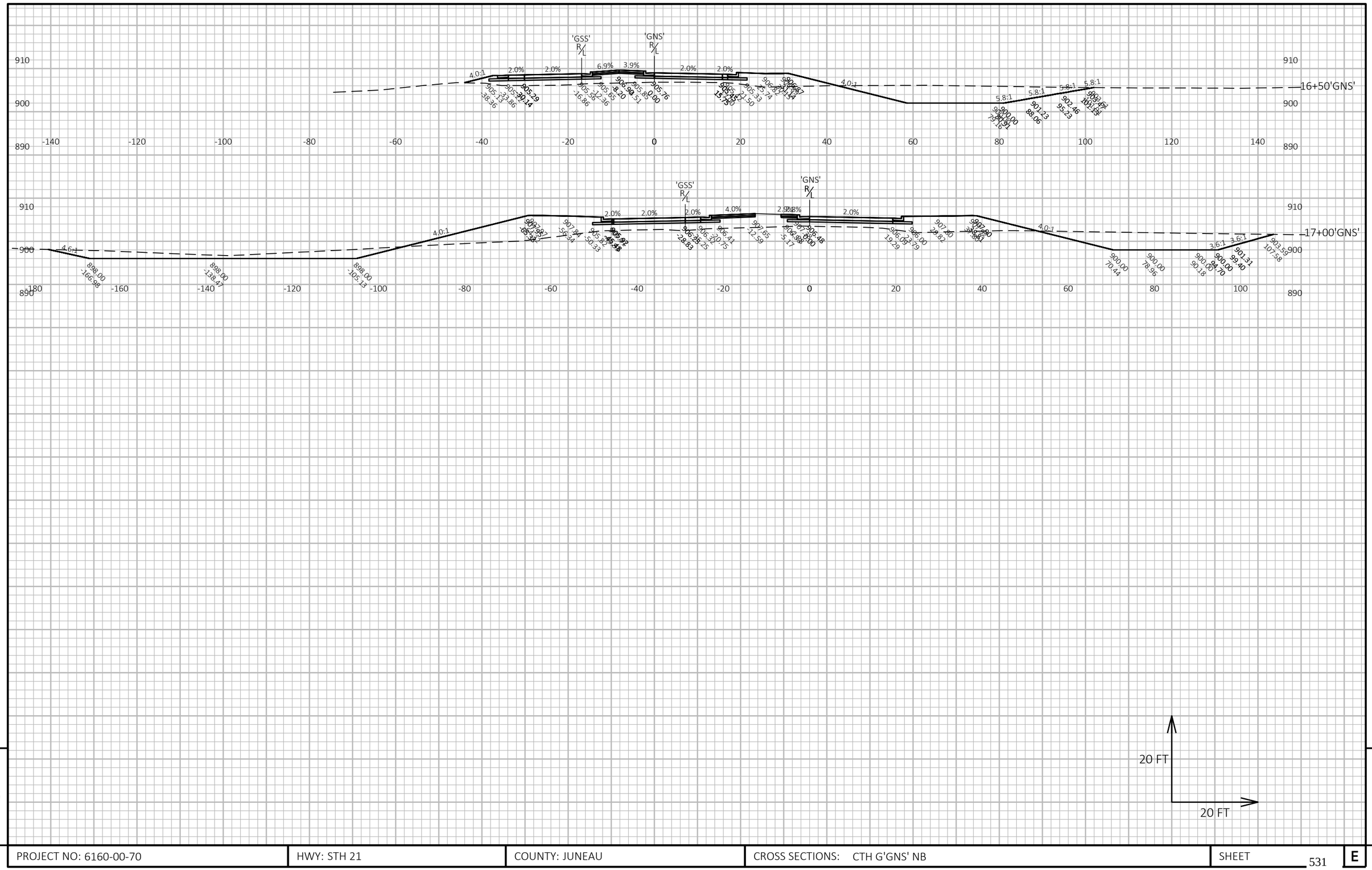
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: CTH G'GNS' NB	SHEET 529	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_CTH-G_SOUTH.DWG
LAYOUT NAME - 11
PLOT DATE : 6/25/2024 2:59 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: CTH G'GNS' NB	SHEET 530 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_CTH-G_SOUTH.DWG
LAYOUT NAME - 12
PLOT DATE : 6/25/2024 2:59 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



9

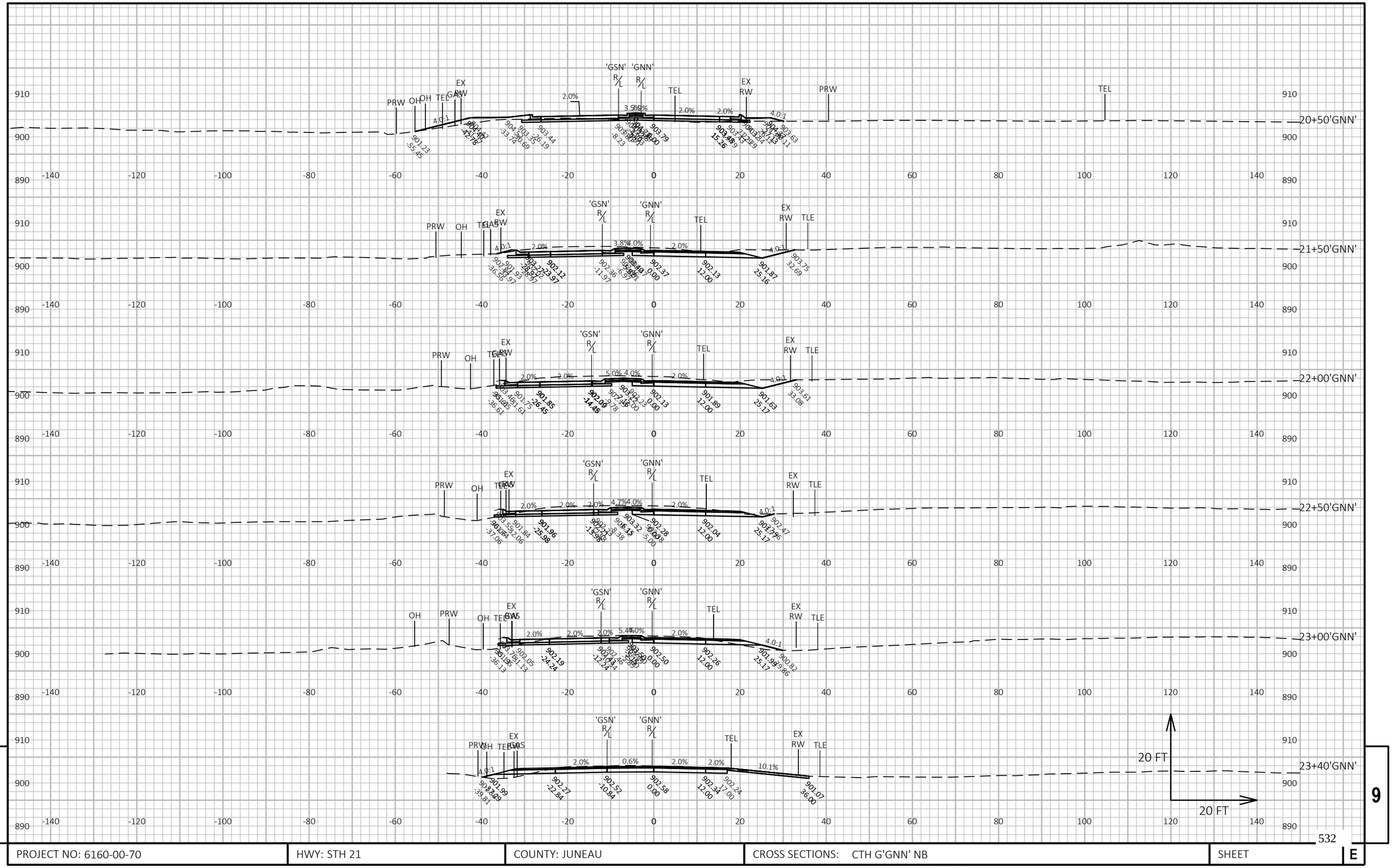
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: CTH G'GNS' NB	SHEET 531	E

9

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090101-XS_CTH-G_SOUTH.DWG
LAYOUT NAME - 13

PLOT DATE : 6/25/2024 2:59 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

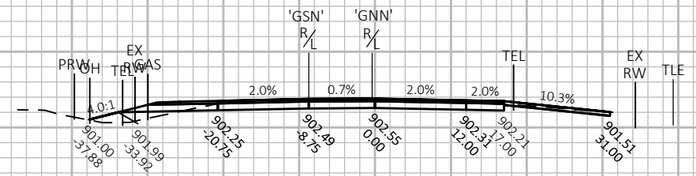


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: CTH G'GNN' NB	SHEET E

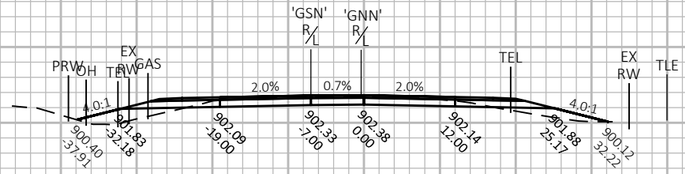
FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090102-XS_CTH-G_NORTH.DWG
LAYOUT NAME - 11

PLOT DATE : 6/25/2024 3:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

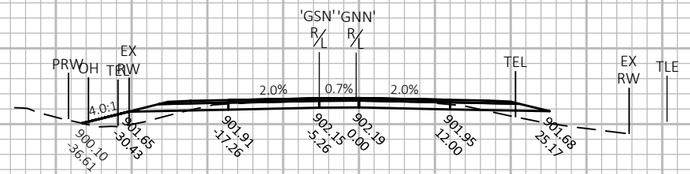
WISDOT/CADDS SHEET 49



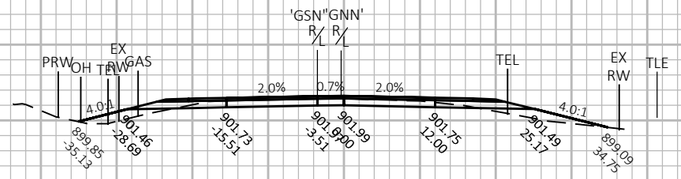
24+00'GNN'



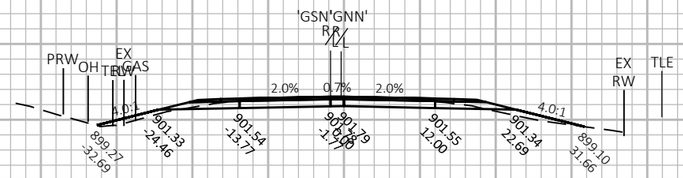
24+50'GNN'



25+00'GNN'



25+50'GNN'



26+00'GNN'

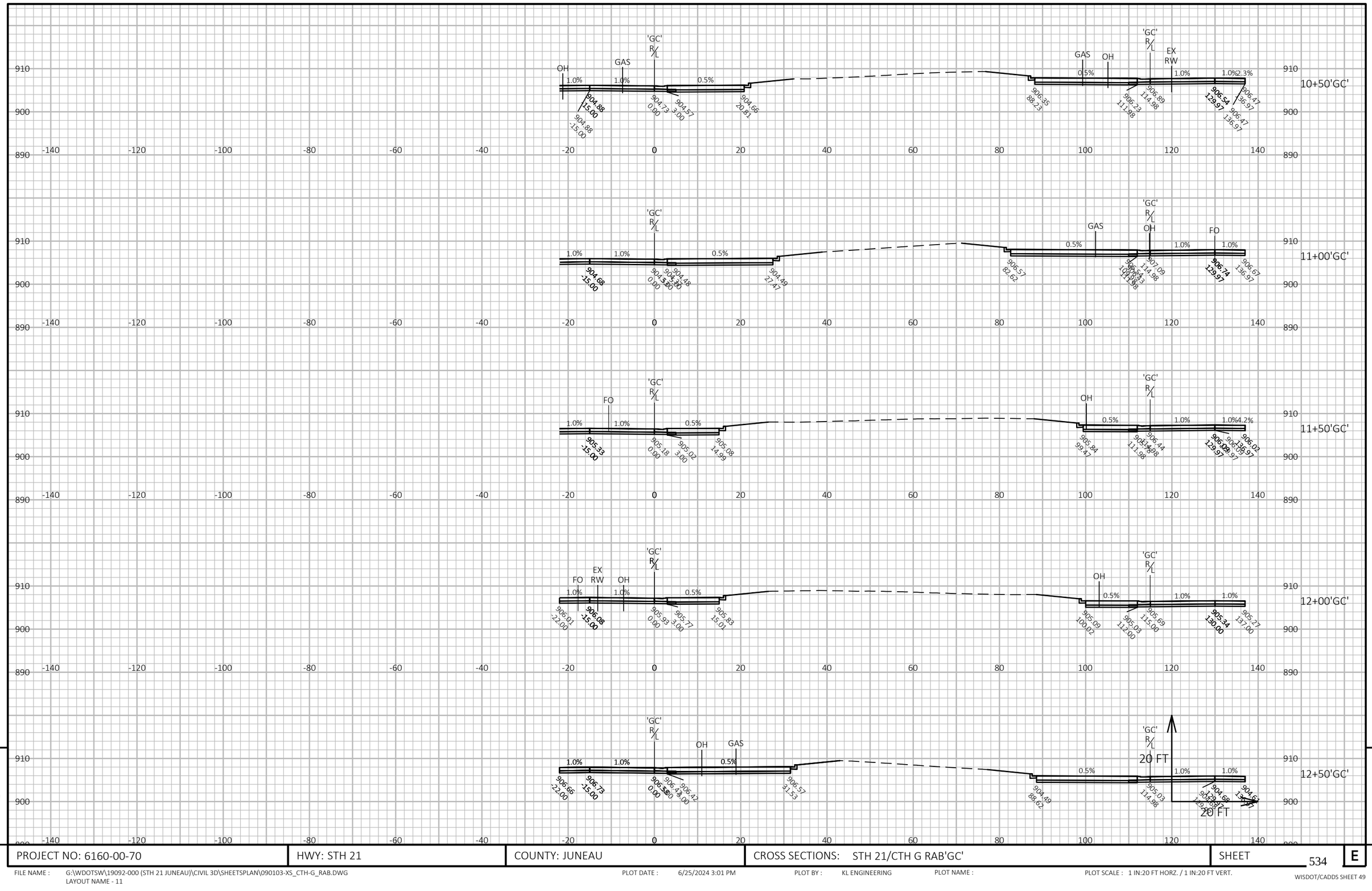
END CONSTRUCTION
STA 26+50.67'GNN'

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: CTH G'GNN' NB	SHEET 533	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090102-XS_CTH-G_NORTH.DWG
LAYOUT NAME - 12

PLOT DATE : 6/25/2024 3:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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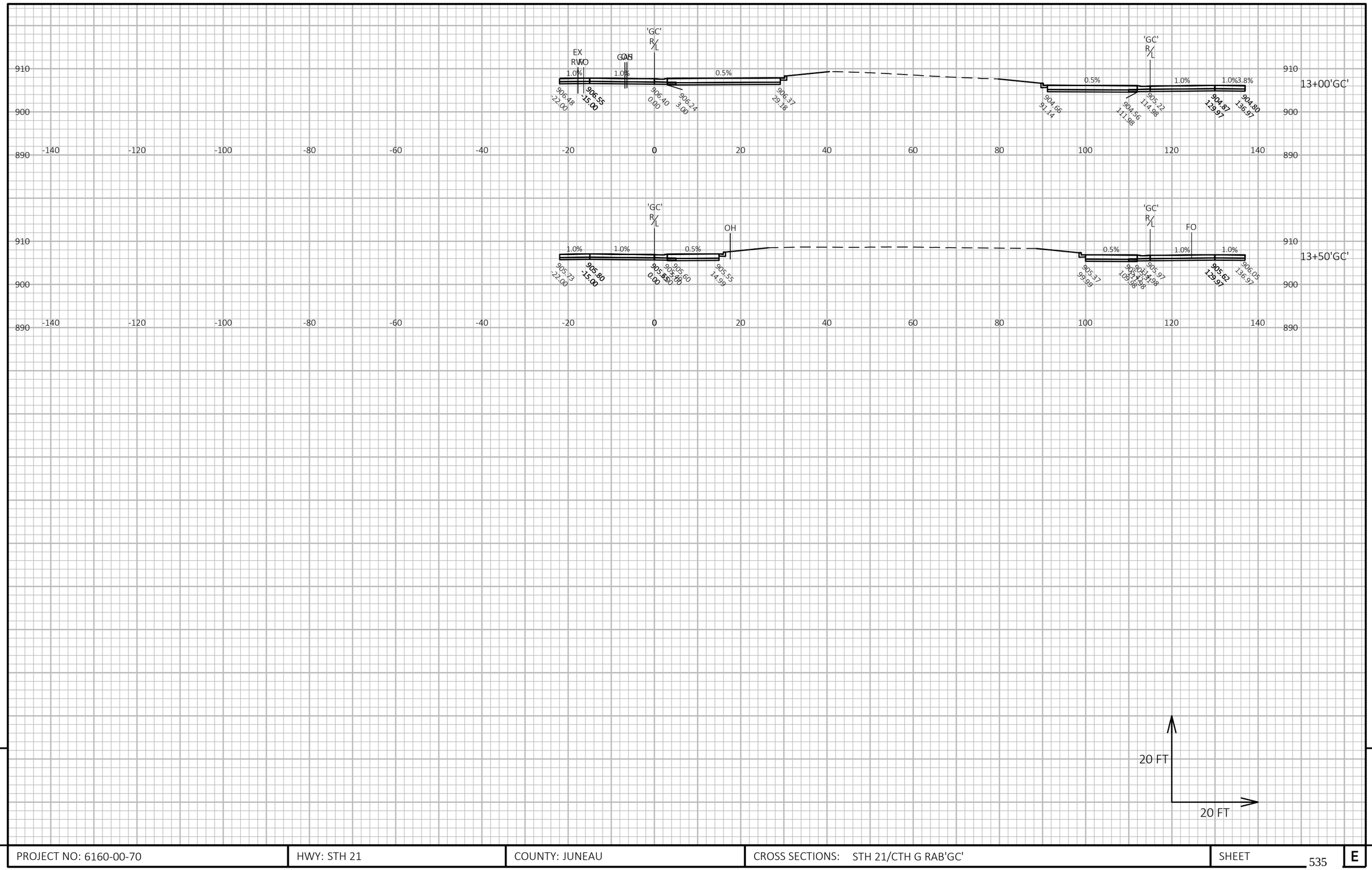
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G RAB'GC'	SHEET 534	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090103-XS_CTH-G_RAB.DWG
LAYOUT NAME - 11

PLOT DATE : 6/25/2024 3:01 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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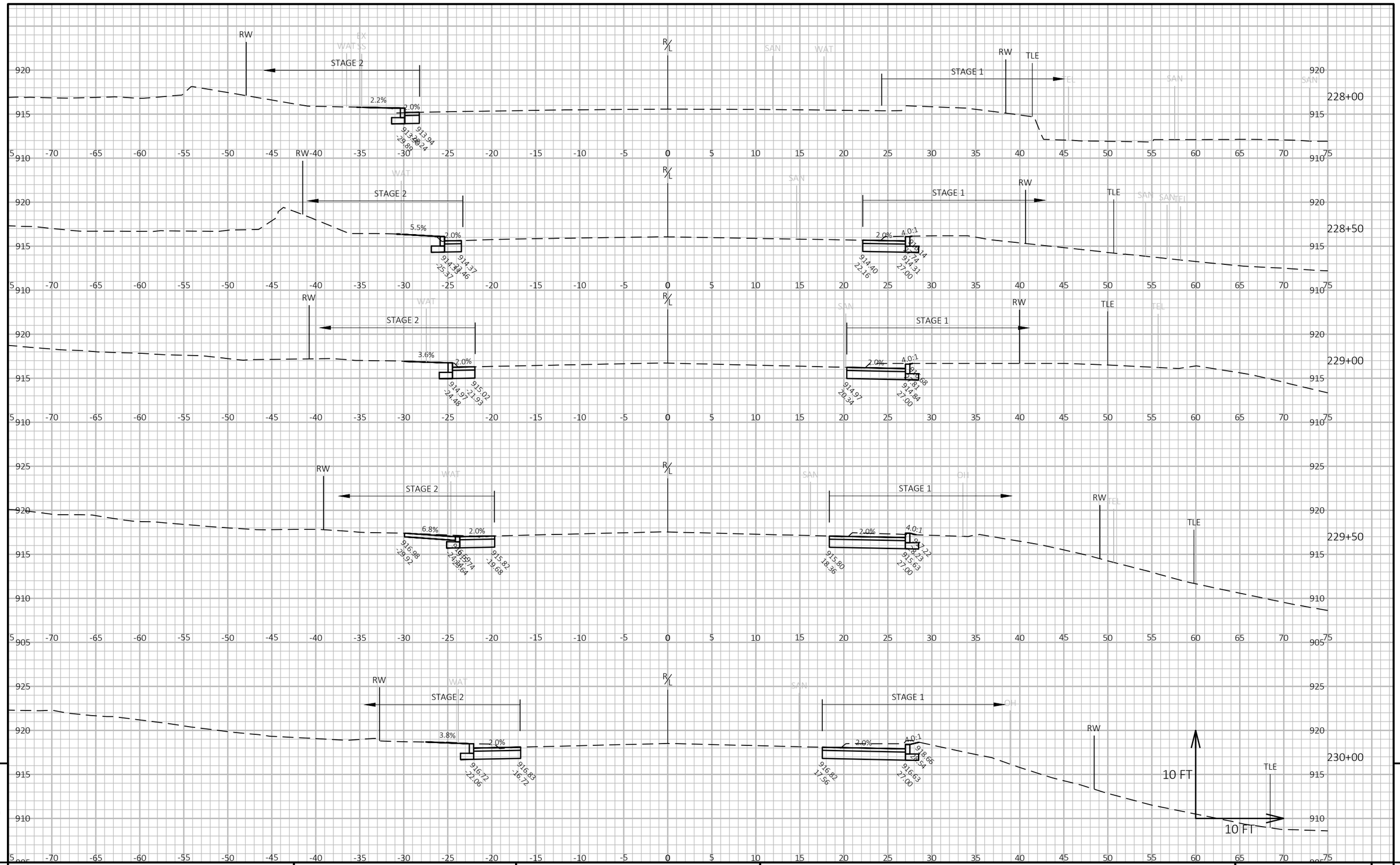
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G RAB'GC'	SHEET 535	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090103-XS_CTH-G_RAB.DWG
LAYOUT NAME - 12

PLOT DATE : 6/25/2024 3:01 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.



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9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 80 'B' STAGE 1 & STAGE 2 TEMPORARY WIDENING	SHEET 536	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENING STH80.DWG
LAYOUT NAME - 01

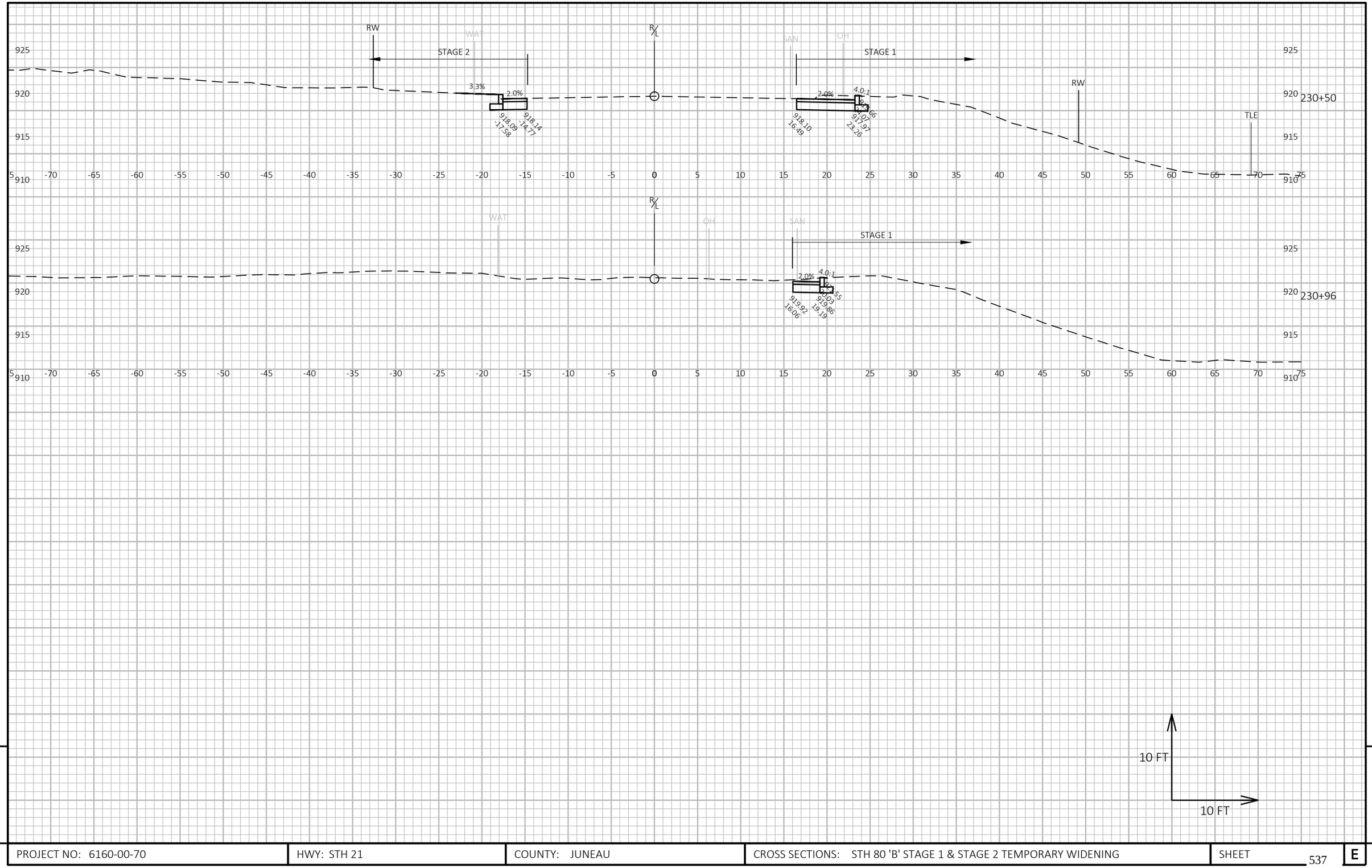
PLOT DATE : 6/25/2024 3:02 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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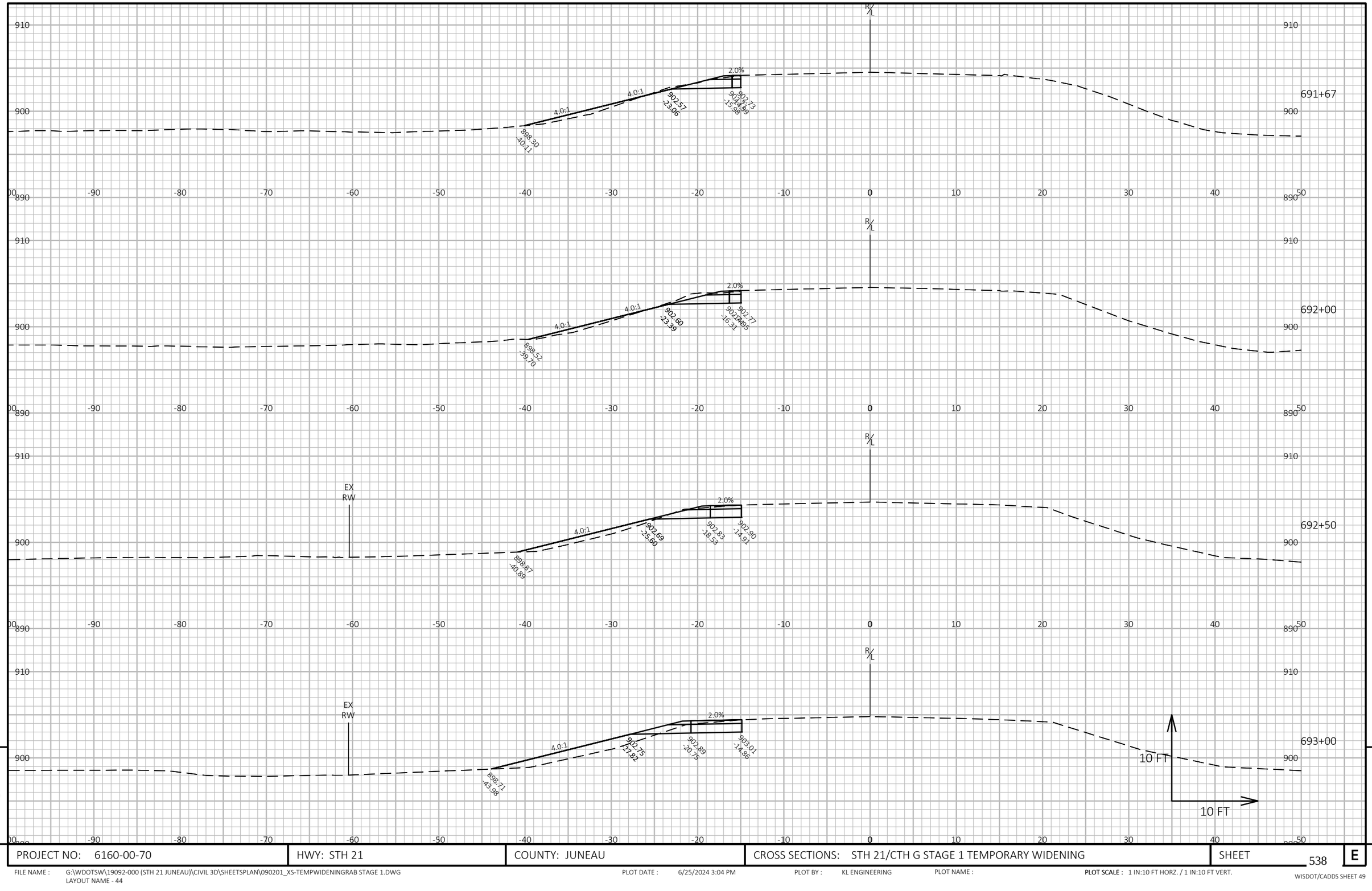
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 80 'B' STAGE 1 & STAGE 2 TEMPORARY WIDENING	SHEET 537	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENING STH80.DWG
LAYOUT NAME - 02

PLOT DATE : 6/25/2024 3:02 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 538 E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 44

PLOT DATE : 6/25/2024 3:04 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9 9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 539	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 45

PLOT DATE : 6/25/2024 3:04 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 540	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 46

PLOT DATE : 6/25/2024 3:04 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

699+00

EX RW

2.7%

4.0:1

904.48 -46.24

904.68 -48.94

903.41 -12.24

901.51 -50.12

699+50

EX RW

2.0%

4.0:1

902.80 -43.79

903.94 -39.71

903.47 -10.74

901.41 -49.32

700+00

2.0%

4.0:1

902.90 -51.23

903.04 -44.16

903.42 -25.09

901.55 -56.62

700+22

2.0%

4.0:1

4.0:1

904.05 -92.80

902.95 -72.38

903.09 -65.31

903.15 -62.32

704+43

EX RW

RW

2.0%

4.0:1

4.0:1

903.62 -66.52

903.79 -59.44

903.43 -81.78

704+50

EX RW

RW

2.0%

4.0:1

4.0:1

903.64 -65.21

903.81 -58.14

903.36 -80.88

10 FT

10 FT

9

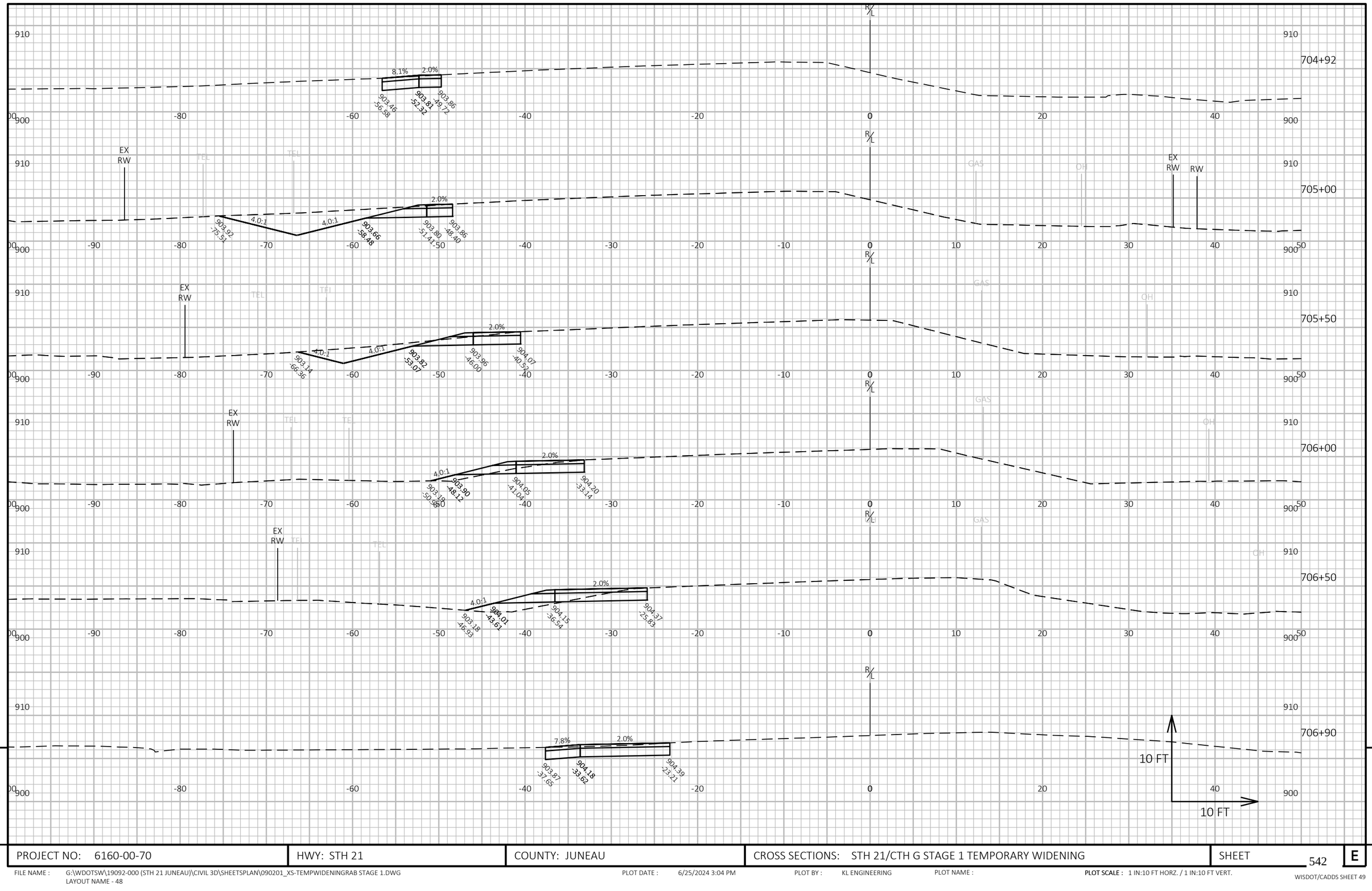
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 541	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 47

PLOT DATE : 6/25/2024 3:04 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 542	E

9

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 48

PLOT DATE : 6/25/2024 3:04 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

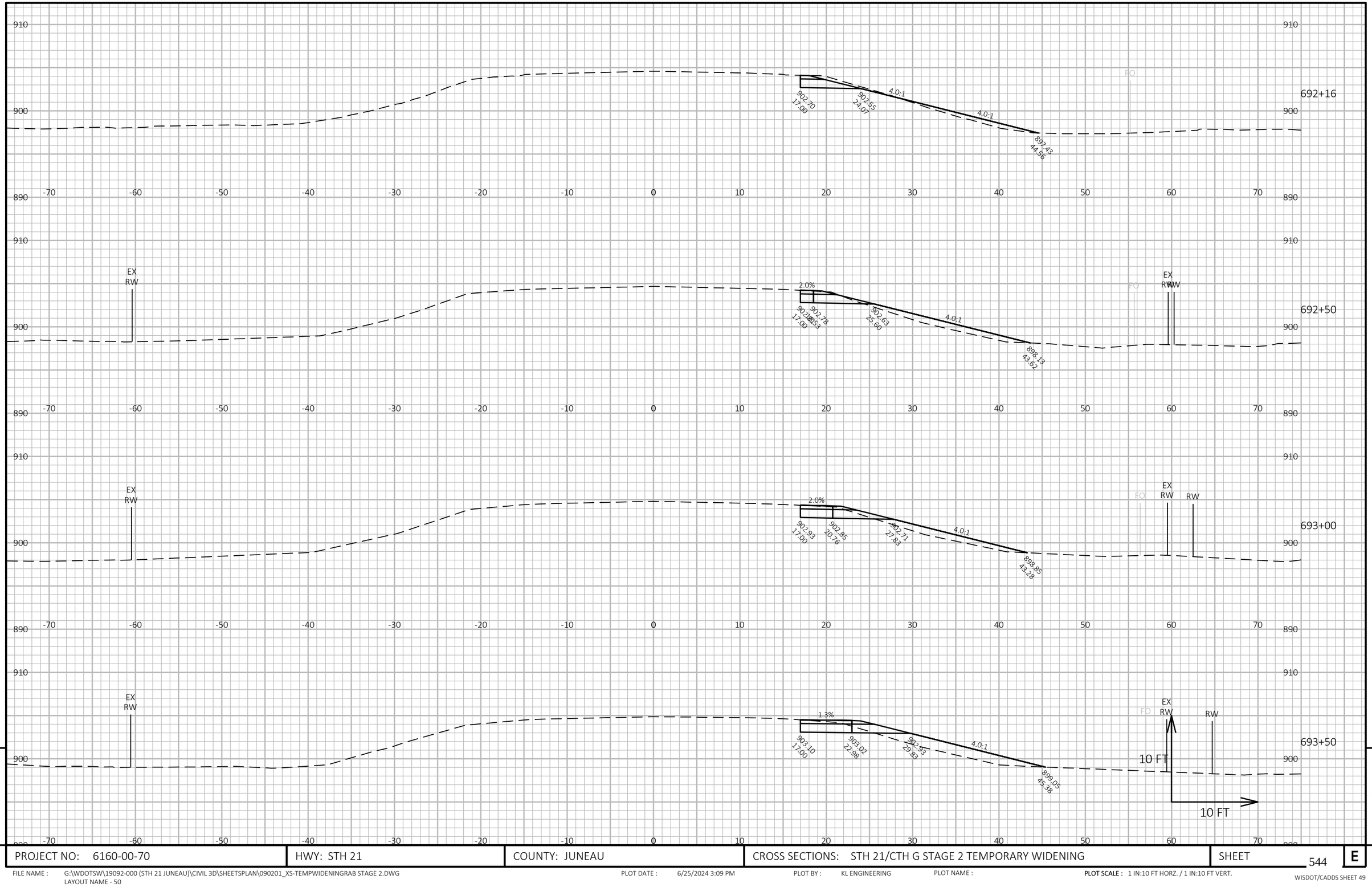
9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 1 TEMPORARY WIDENING	SHEET 543	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 1.DWG
LAYOUT NAME - 49

PLOT DATE : 6/25/2024 3:04 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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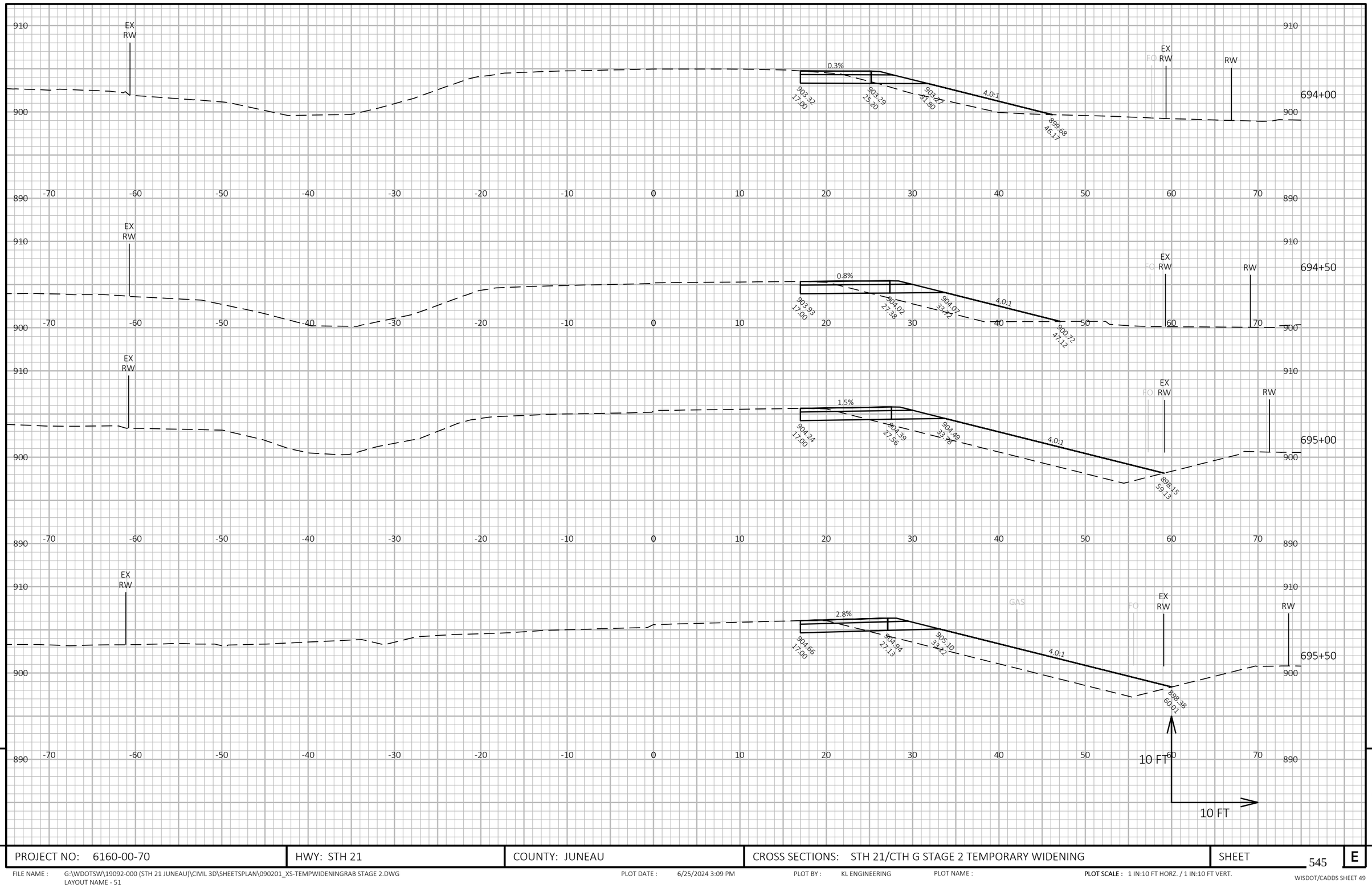
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 544	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 50

PLOT DATE : 6/25/2024 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

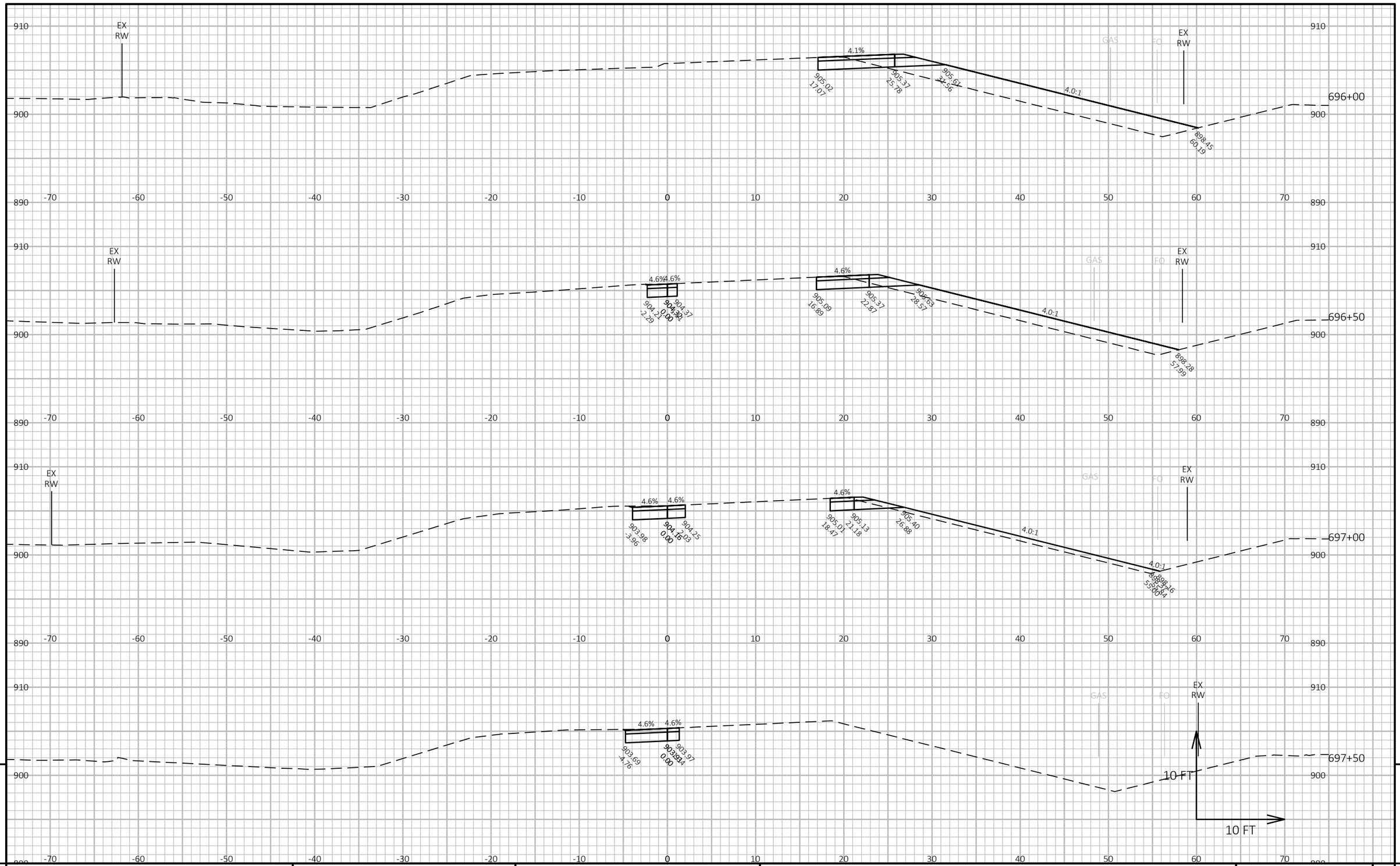


PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 545	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 51

PLOT DATE : 6/25/2024 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 546	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 52

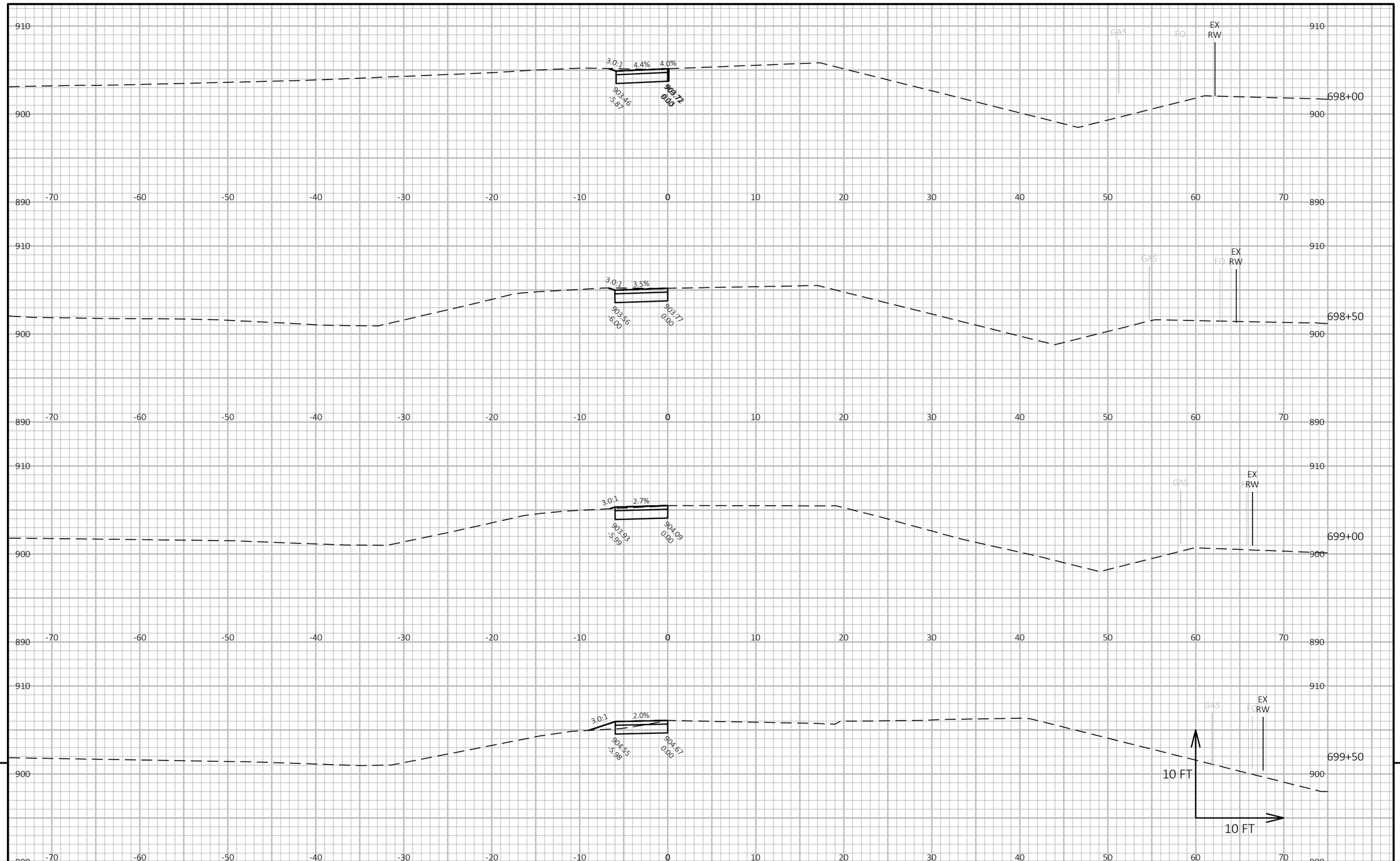
PLOT DATE : 6/25/2024 3:09 PM

PLOT BY : KL ENGINEERING

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



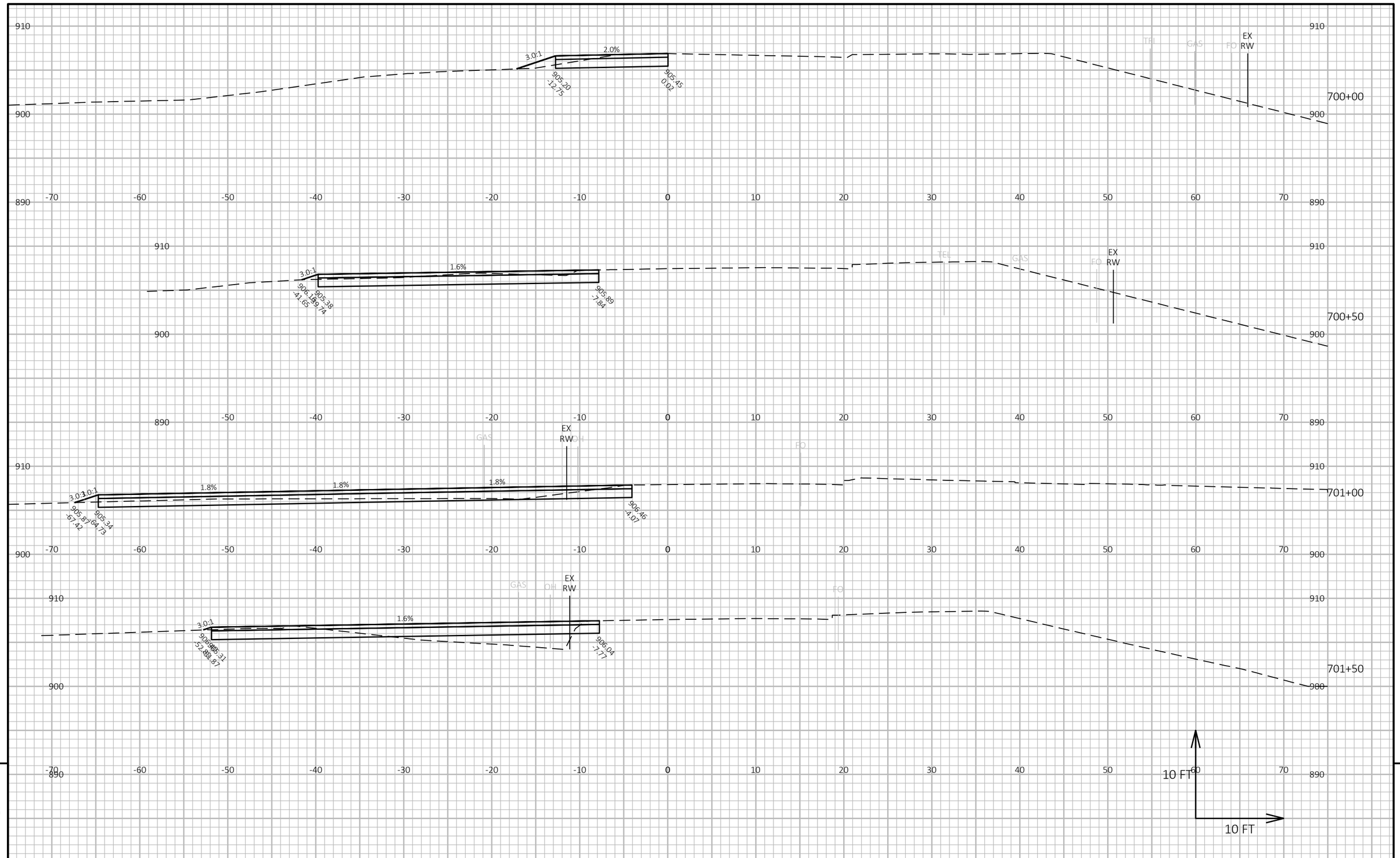
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 547	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 53

PLOT DATE : 6/25/2024 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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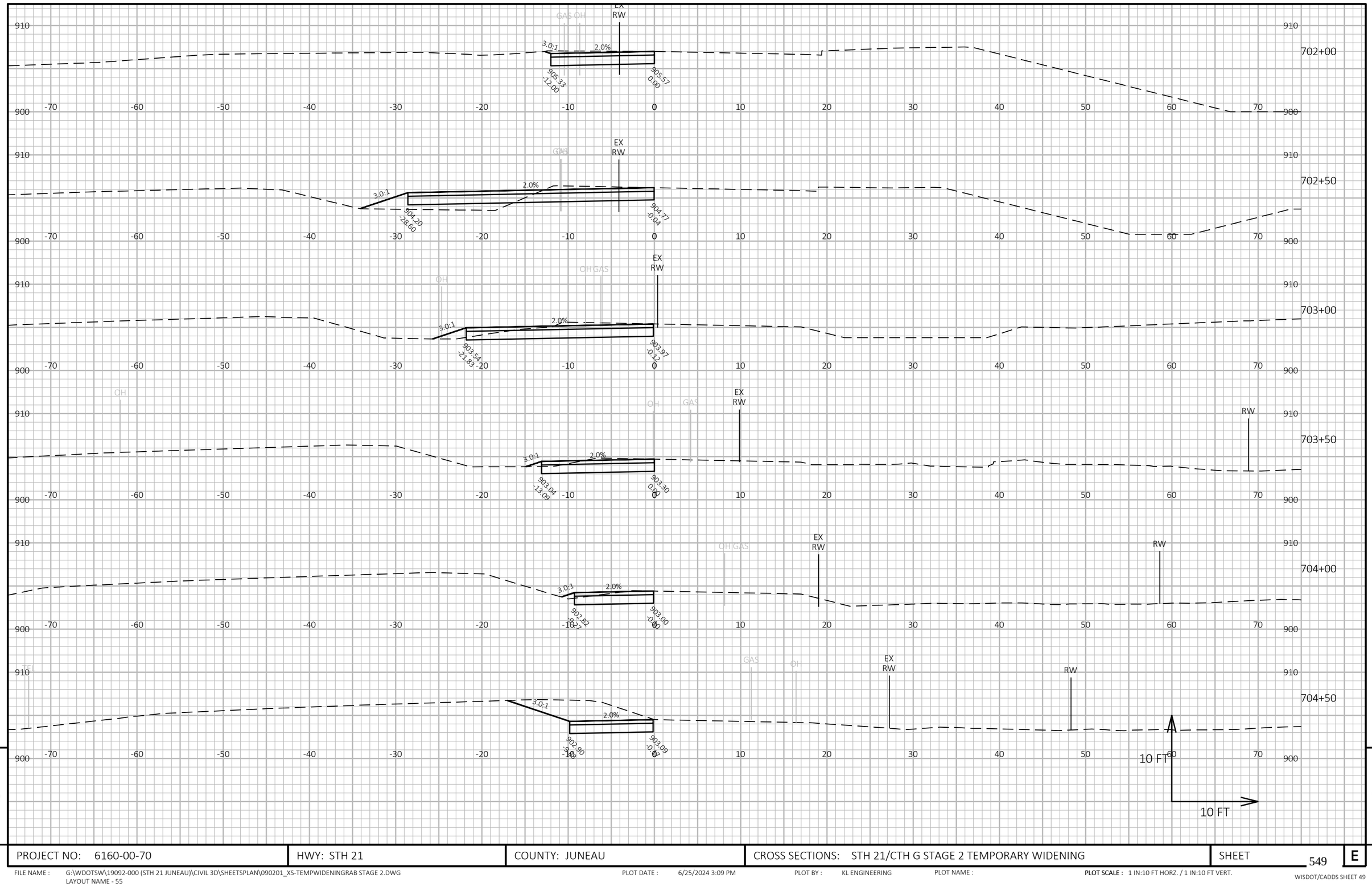
PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 548	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 54

PLOT DATE : 6/25/2024 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



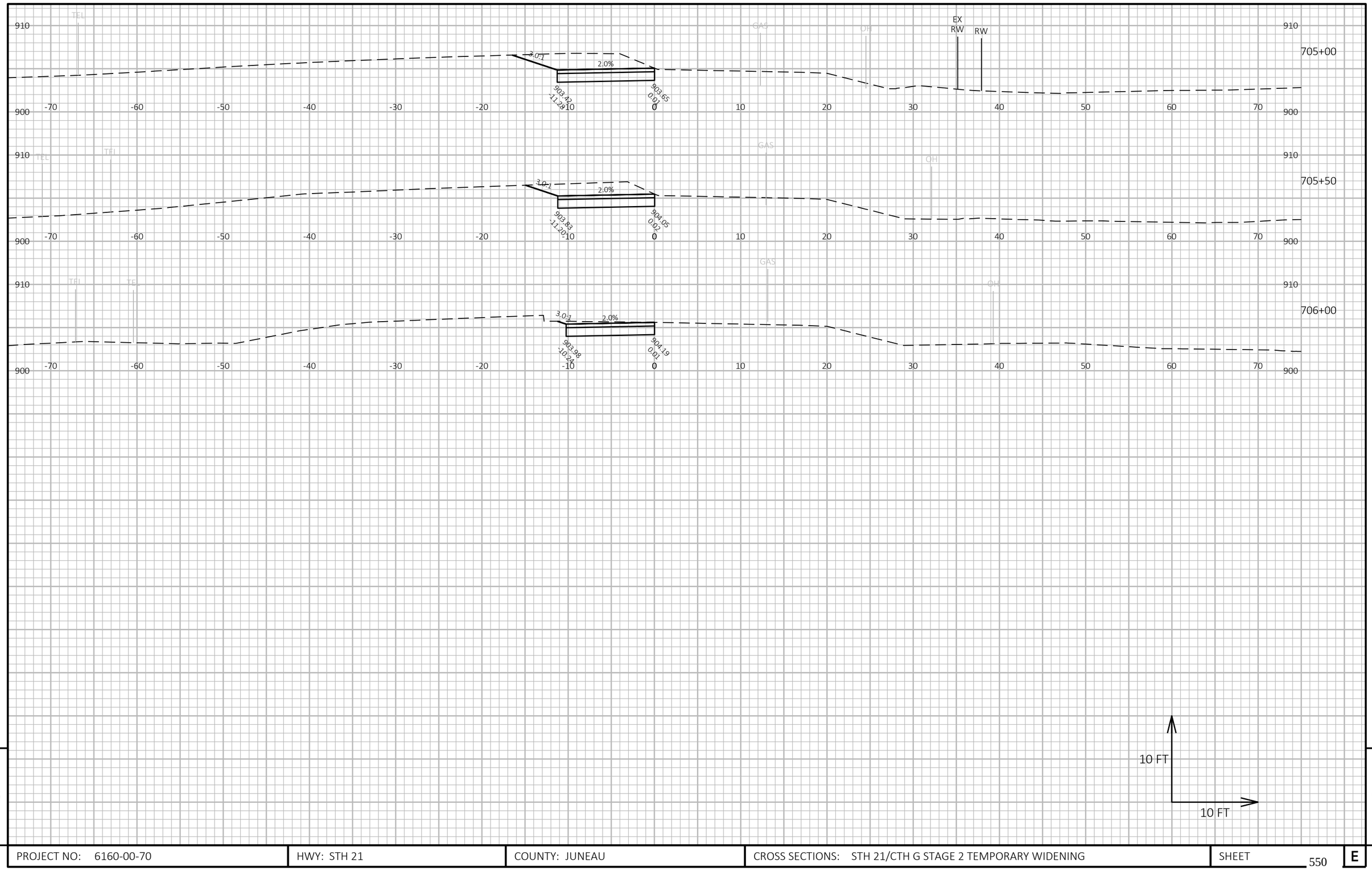
9

9

PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 549	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 55

PLOT DATE : 6/25/2024 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 6160-00-70	HWY: STH 21	COUNTY: JUNEAU	CROSS SECTIONS: STH 21/CTH G STAGE 2 TEMPORARY WIDENING	SHEET 550	E

FILE NAME : G:\WDOTSW\19092-000 (STH 21 JUNEAU)\CIVIL 3D\SHEETSPLAN\090201_XS-TEMPWIDENINGRAB STAGE 2.DWG
LAYOUT NAME - 56

PLOT DATE : 6/25/2024 3:10 PM PLOT BY : KL ENGINEERING PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov