RHI

May 10, 2022

PROJECT ID: 9130-00-70

WITH: N/A

COUNTY: FOREST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MOUNTAIN - WABENO

OCONTO COUNTY LINE TO CTH C

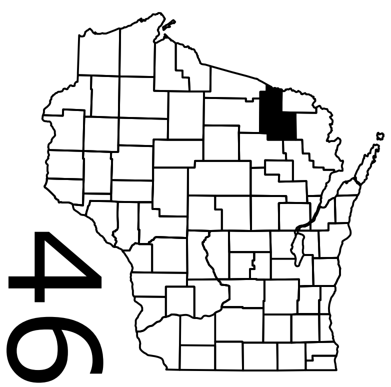
STH 32
FOREST COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9130-00-70	WISC 2022408	1

ORDER OF SHEETS

TOTAL SHEETS = 208

46



N

DESIGN DESIGNATION

A.A.D.T.	2023	=	4,300
A.A.D.T.	2043	=	5,100
D.H.V.	2043	=	690
D.D.		=	61/39
T.		=	14.8%
DESIGN SPEED		=	40 MPH - 55 MPH
ESALS		=	1,110,000

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SLOPE INTERCEPT
REFERENCE LINE (300'EB')
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
COMBUSTIBLE FLUIDS (CAUTION)
MARSH AREA
WOODED OR SHRUB AREA

PROFILE

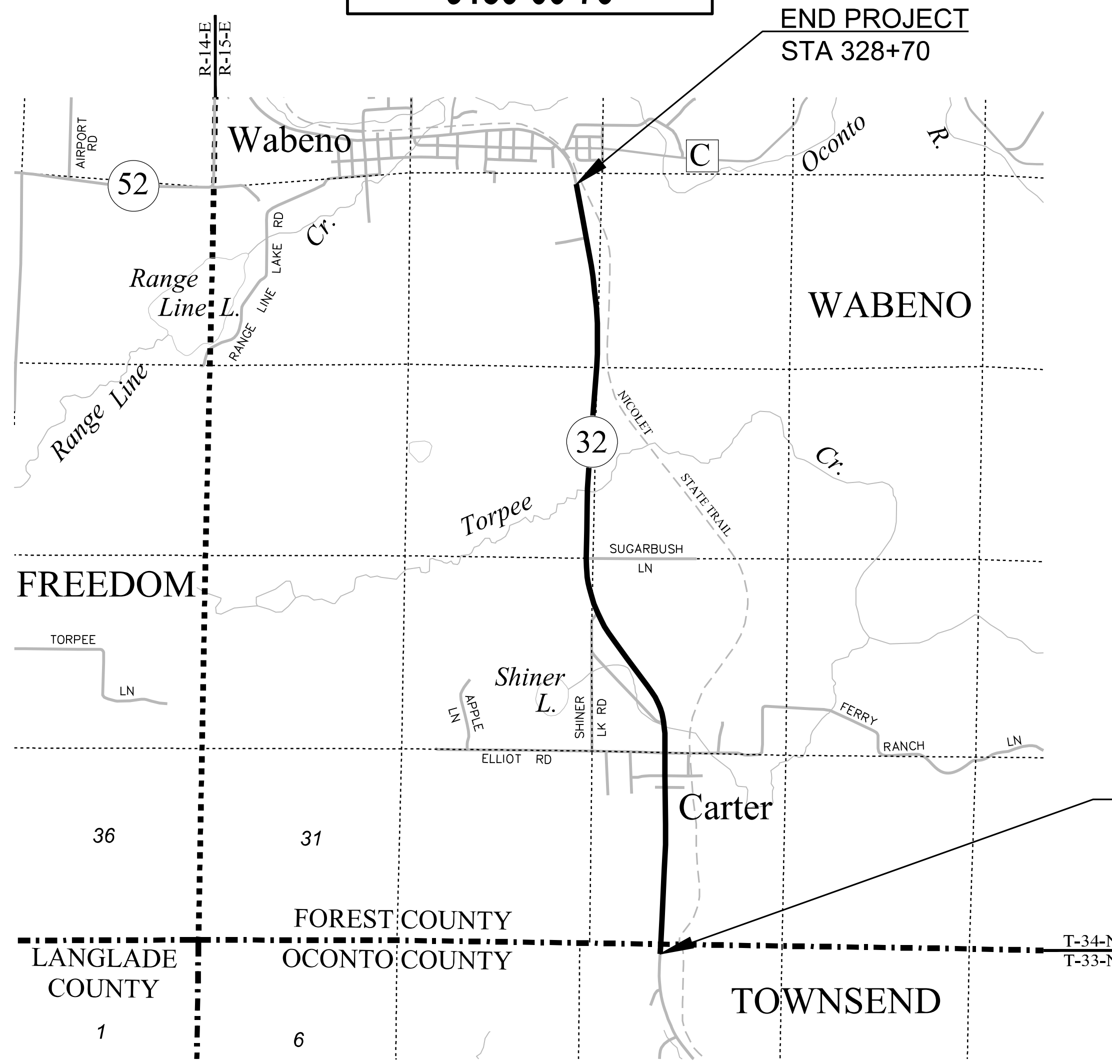
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
SPECIAL DITCH (LABEL)
GRADE ELEVATION (95.36)
CULVERT (Profile View)

UTILITIES

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

STATE PROJECT NUMBER

9130-00-70



LAYOUT

SCALE 0 — 1 MI

TOTAL NET LENGTH OF CENTERLINE = 4.043 MI

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

emcs inc

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN PROFESSIONAL ENGINEER SCOTT M. KAISER E-41772-6 MOSINEE WI

1-13-2022 (Date) Scott Kaiser (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	NICHOLAS VOS
Regional Examiner	ZACHARY GRULING
Regional Supervisor	KAI KILEN

APPROVED FOR THE DEPARTMENT

DATE: 1/18/2022 (Signature)

E

GENERAL NOTES

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

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 7796, CONSTRUCTION YEAR: 1928
PROJECT NO: 9130-01-70/9131-01-70, CONSTRUCTION YEAR: 1970
PROJECT NO: 9131-04-70, CONSTRUCTION YEAR: 1986
PROJECT NO: 9130-03-70, CONSTRUCTION YEAR: 2003
PROJECT NO: 9130-03-81, CONSTRUCTION YEAR: 2011

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
EROSION CONTROL
STORM SEWER PLAN
PERMANENT SIGNING AND MARKING
TRAFFIC CONTROL

UTILITIES

COMMUNICATIONS

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ANDY.HEIGL@ASTREACONNECT.COM

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ELECTRIC

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GREEN BAY, WI 54307-9001
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MOBILE PHONE: (920) 655-1596
RANDY.STEIER@WISCONSINPUBLICSERVICE.COM

GAS

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MENOMINEE, MI 49858
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MOBILE PHONE: (920) 606-3338
STEVE.BONECK@WISCONSINPUBLICSERVICE.COM

24-HOUR EMERGENCY GAS NUMBER

WISCONSIN PUBLIC SERVICE CORPORATION
1-800-450-7280

24-HOUR COSTUMER SERVICE NUMBER

WISCONSIN PUBLIC SERVICE CORPORATION
1-800-450-7260

SANITARY SEWER

FOREST COUNTY POTAWATOMI
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CRANDON, WI 54520
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MOBILE PHONE: (715) 889-0496
BRUCE.JOHNSON@FCPOTAWATOMI-NSN.GOV

WATER

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RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 137 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.5 ACRES

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

OTHER CONTACTS

DNR LIAISON

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RHINELANDER, WI 54501
(715) 367-1936
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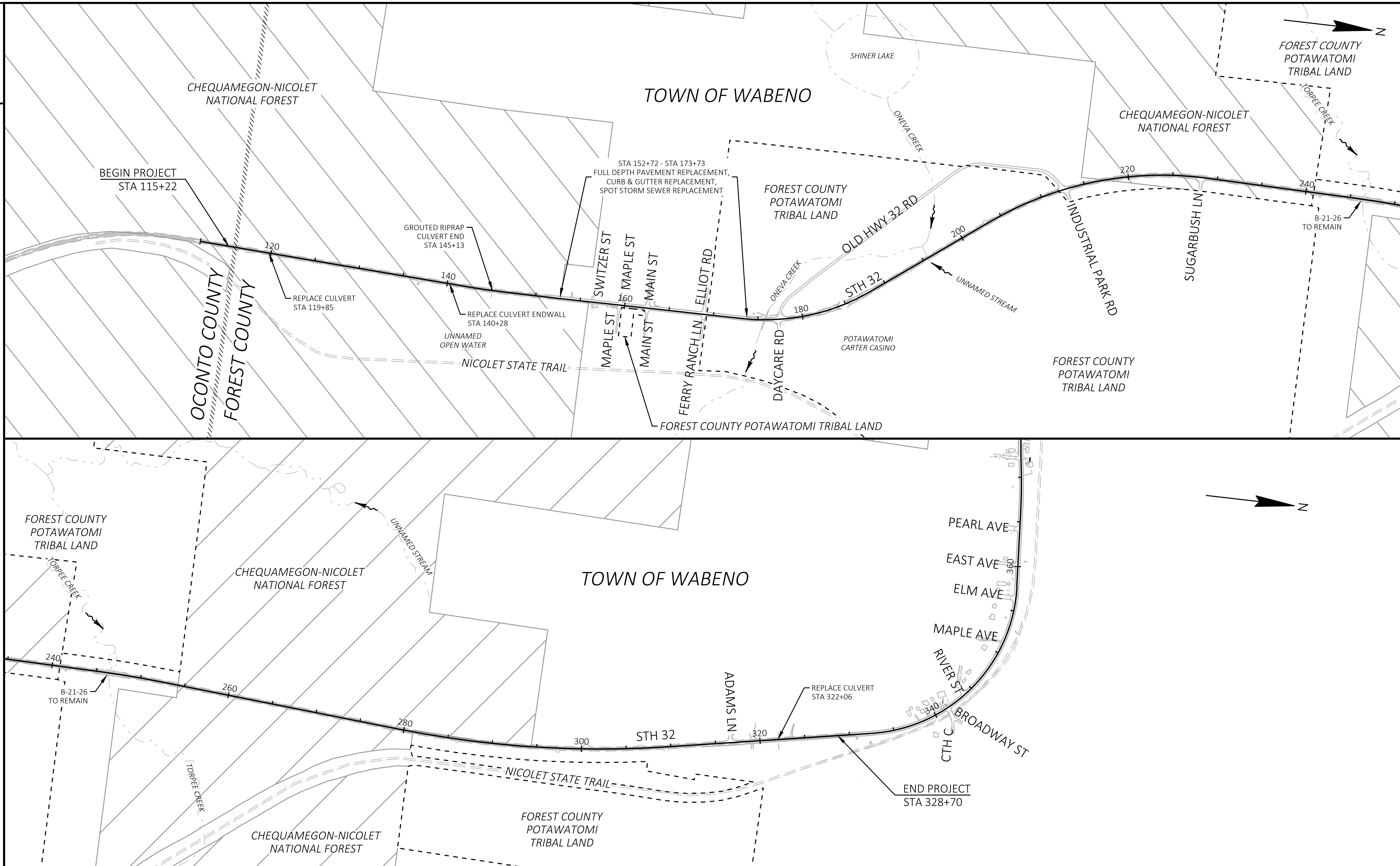

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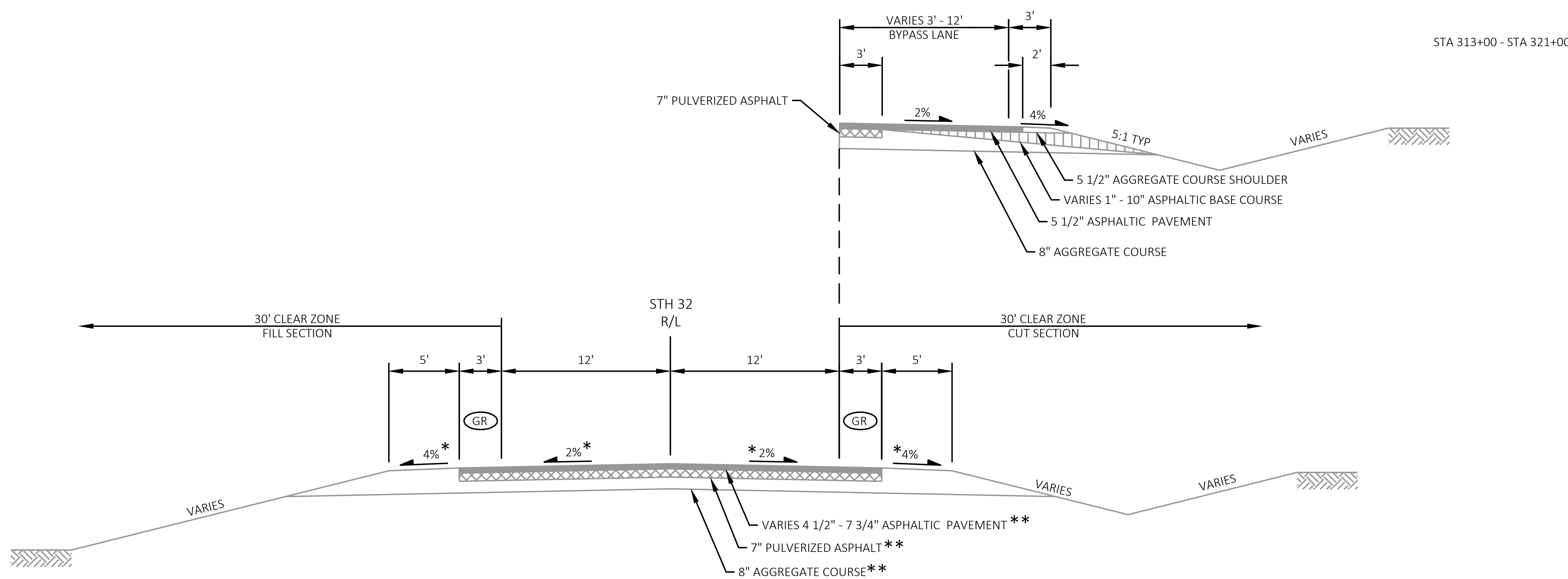
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01
PLOT DATE : 1/21/2022 7:57 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 44



TYPICAL EXISTING SECTION
STH 32

STA 115+22 - STA 152+72
STA 173+73 - STA 180+00
STA 188+00 - STA 328+70

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION

** BETWEEN STA 244+51 AND STA 248+85 THE PAVEMENT STRUCTURE IS 4" ASPHALTIC PAVEMENT OVER 12" AGGREGATE COURSE

GR GUARDRAIL IS PRESENT BETWEEN STA 245+08 - STA 248+12, RT AND STA 245+13 - STA 248+16, LT

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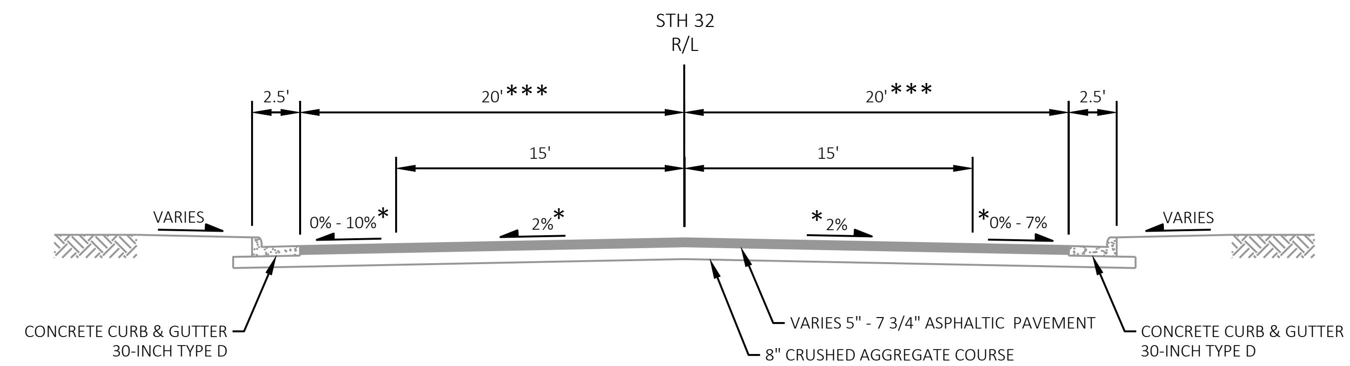
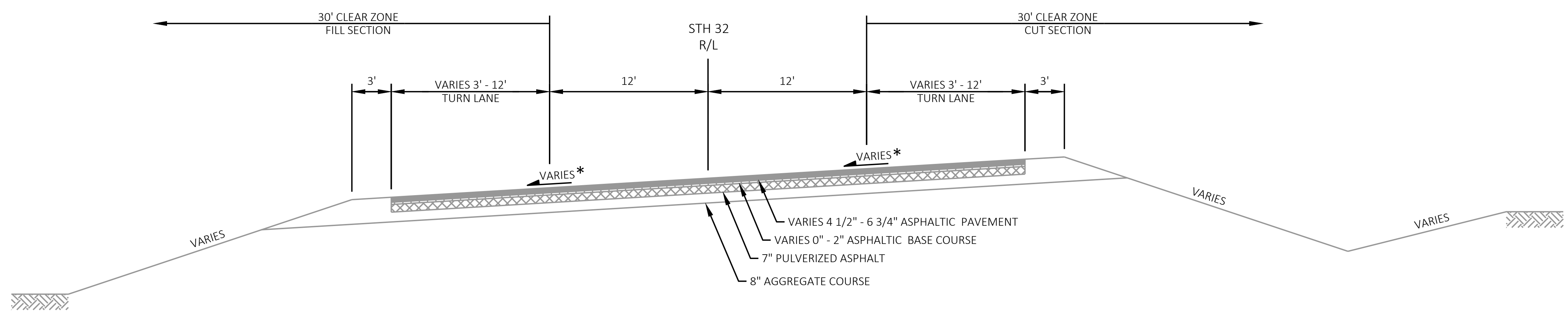


TYPICAL EXISTING SECTION
STH 32
STA 152+72 - STA 173+73



TYPICAL EXISTING SECTION
STH 32
STA 180+00 - STA 188+00

NOTES

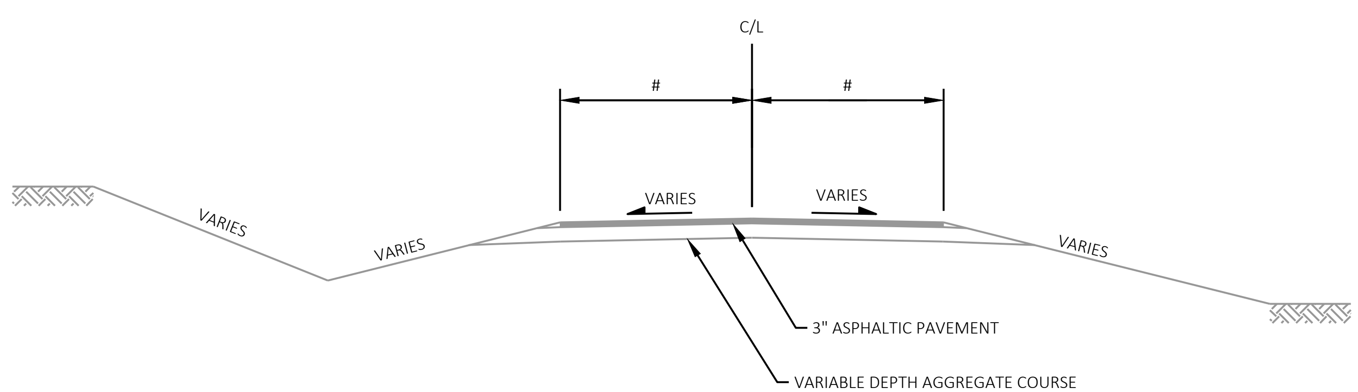
* CROSS SLOPE VARIES DUE TO SUPERELEVATION

*** BETWEEN STA 170+45 - STA 173+74 THE WIDTH BETWEEN THE CURB AND GUTTER FLAG LINE AND THE CENTERLINE IS APPROXIMATELY 19.5'

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 5	E

2

	* MAPLE ST (WEST)	MAPLE ST (EAST)	MAIN ST	ELLIOT RD	FERRY RANCH LN
#	12'	13'	12'	13'	15'



TYPICAL EXISTING SECTION
SIDE ROADS ##

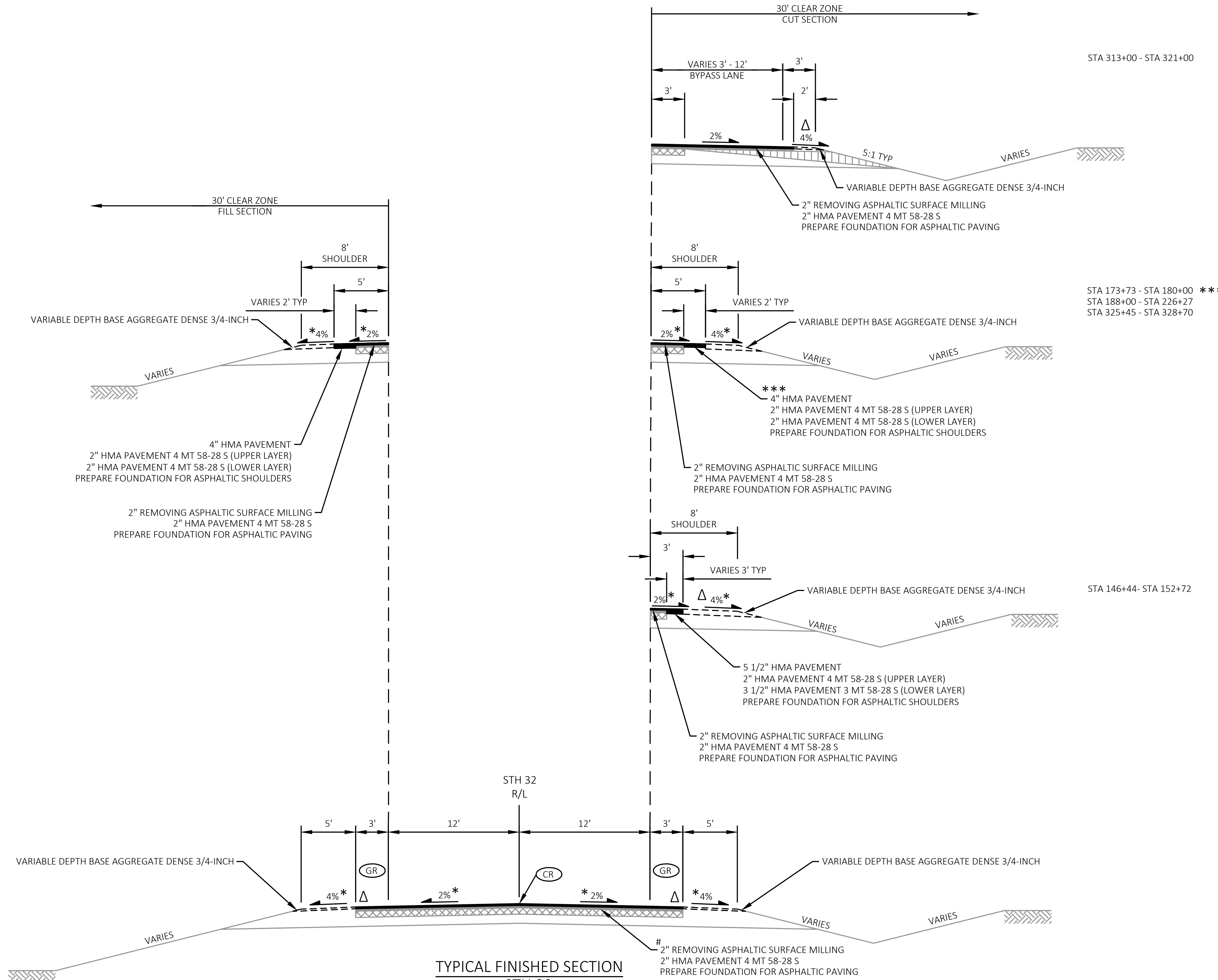
MAPLE ST
MAIN ST
ELLIOT RD
FERRY RANCH LN

NOTES

* MAPLE ST (WEST), BEYOND THE CURB & GUTTER RADII IS AN UNPAVED ROADWAY WITH VARIABLE DEPTH AGGREGATE COURSE

ALL OTHER SIDE ROADS IN THE RURAL SECTION WILL NOT BE MODIFIED AND THEREFORE ARE NOT SHOWN ON THE TYPICAL SECTIONS, SEE THE CONSTRUCTION DETAILS AND THE SECTION 5 PLANS FOR ADDITIONAL INFORMATION.

2



TYPICAL FINISHED SECTION
STH 32

STA 115+22 - STA 152+72
STA 173+73 - STA 180+00
STA 188+00 - STA 328+70

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION

*** SEE PAVING DETAILS FOR ADDITIONAL INFORMATION
STA 173+73 - STA 180+00, RT
5 1/2" ASPHALT PAVEMENT
2" HMA PAVEMENT 4 MT 58-28 S (UPPER LAYER)
3 1/2" HMA PAVEMENT 4 MT 58-28 S (LOWER LAYER)
PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

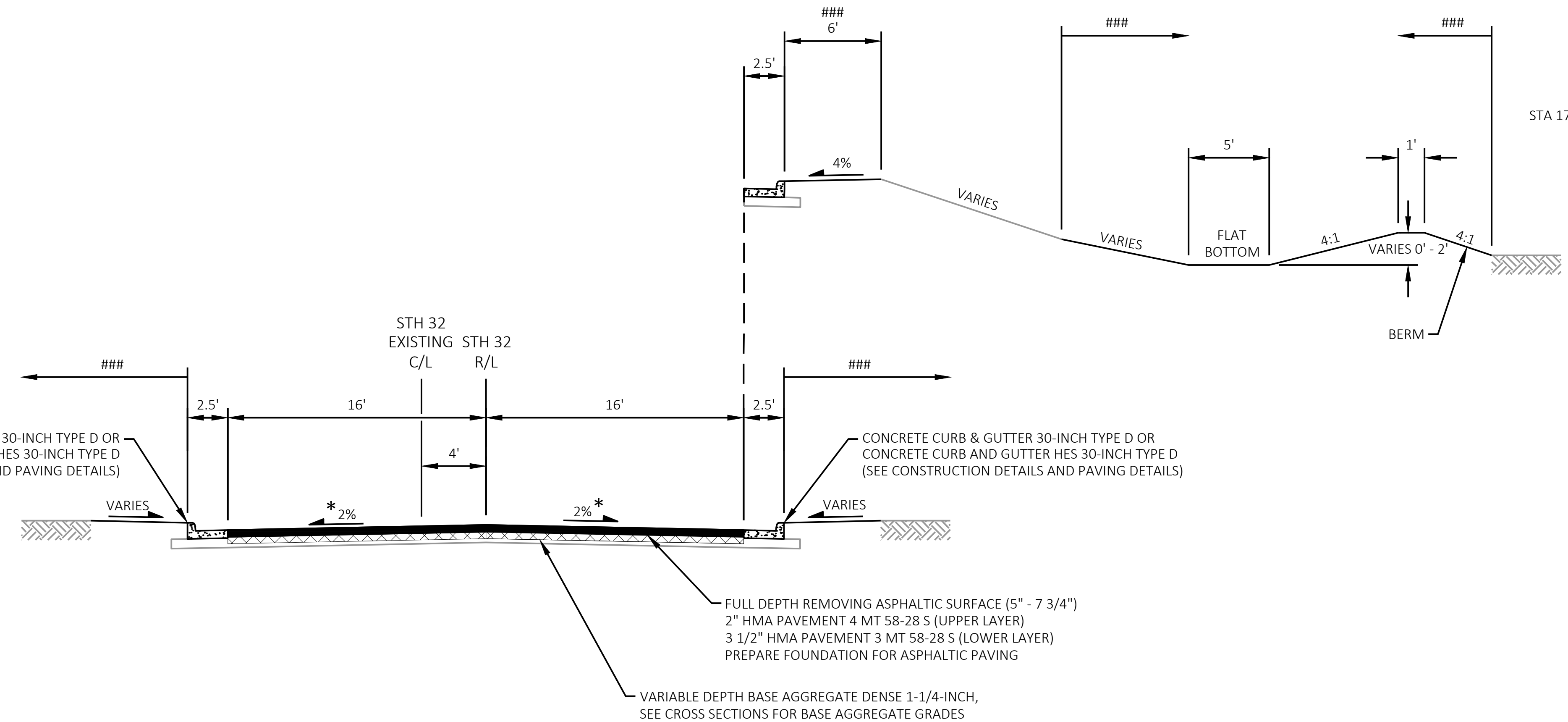
\# MILLING DEPTH VARIES DUE TO CROWN LINE LOCATION ADJUSTMENT BETWEEN STA 146+45 - STA 152+72

CR ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL, SEE SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION. CENTERLINE RUMBLE STRIPS ARE NOT REQUIRED BETWEEN STA 173+73 - STA 188+00.

GR GUARDRAIL IS PRESENT BETWEEN STA 245+08 - STA 248+12, RT AND STA 245+13 - STA 248+16, LT

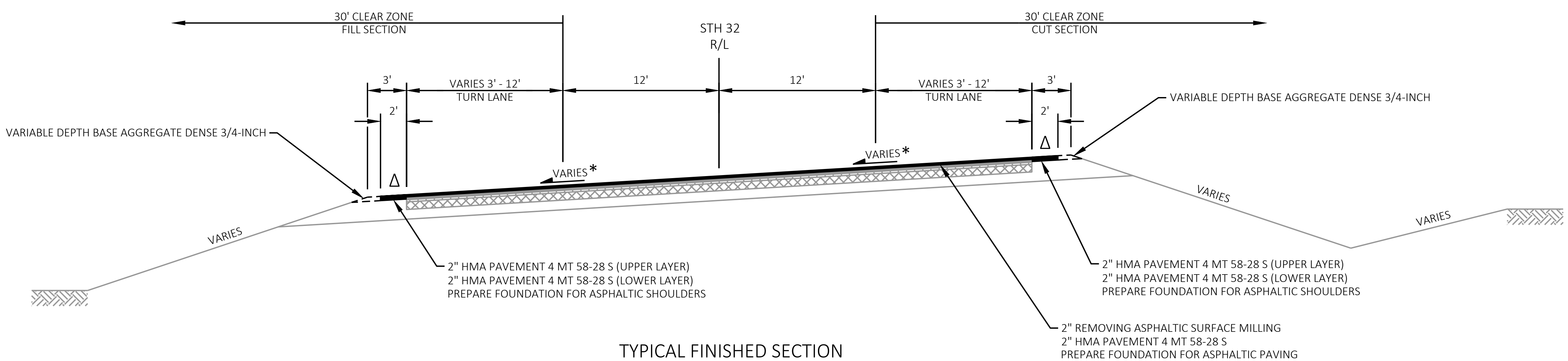
Δ SAFETY EDGE

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 7	E



TYPICAL FINISHED SECTION
STH 32

STA 152+72 - STA 173+73



TYPICAL FINISHED SECTION
STH 32

STA 180+00 - STA 188+00

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION

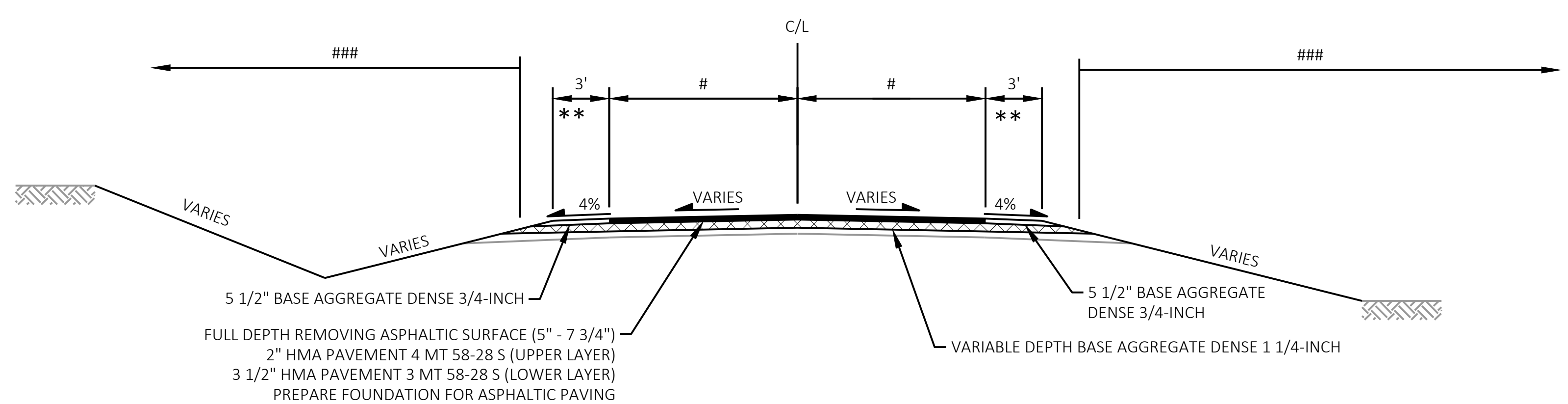
DITCHGRADING EXTENDS TO STA 174+57 (SEE CROSS SECTIONS)

TOPSOIL, SEEDING, FERTILIZER AND EROSION MAT (SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION)

Δ SAFETY EDGE

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TYPICAL SECTIONS	SHEET 8	E

	* MAPLE ST (WEST)	MAPLE ST (EAST)	MAIN ST	ELLIOT RD	FERRY RANCH LN
#	12'	13'	12'	13'	15'



TYPICAL FINISHED SECTION
SIDE ROADS

MAPLE ST
MAIN ST
ELLIOT RD
FERRY RANCH LN

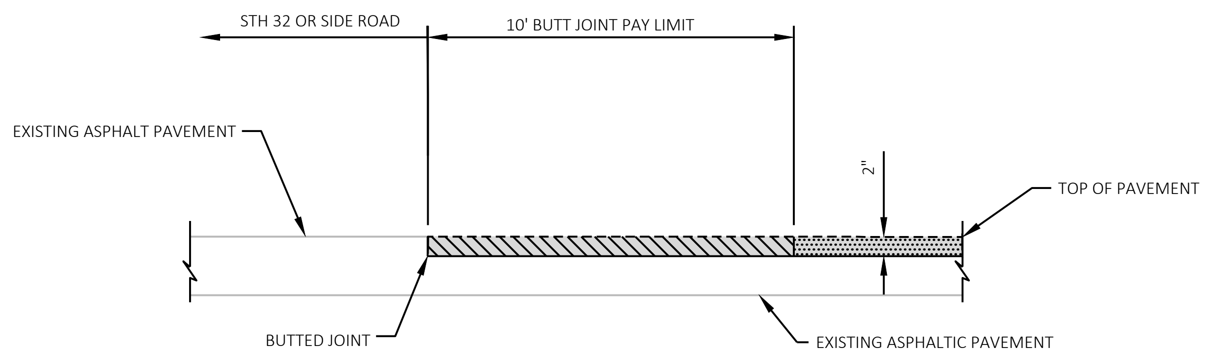
NOTES

* MAPLE ST (WEST), BEYOND THE CURB & GUTTER RADII IS AN UNPAVED ROADWAY WITH VARIABLE DEPTH AGGREGATE COURSE

** SHOULDER WIDTH VARIES AT BEGIN AND END CONSTRUCTION LIMITS, MATCH EXISTING

ALL OTHER SIDE ROADS IN THE RURAL SECTION WILL NOT BE MODIFIED AND THEREFORE ARE NOT SHOWN ON THE TYPICAL SECTIONS, SEE THE CONSTRUCTION DETAILS AND THE SECTION 5 PLANS FOR ADDITIONAL INFORMATION.

TOPSOIL, SEEDING, FERTILIZER AND EROSION MAT (SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION)



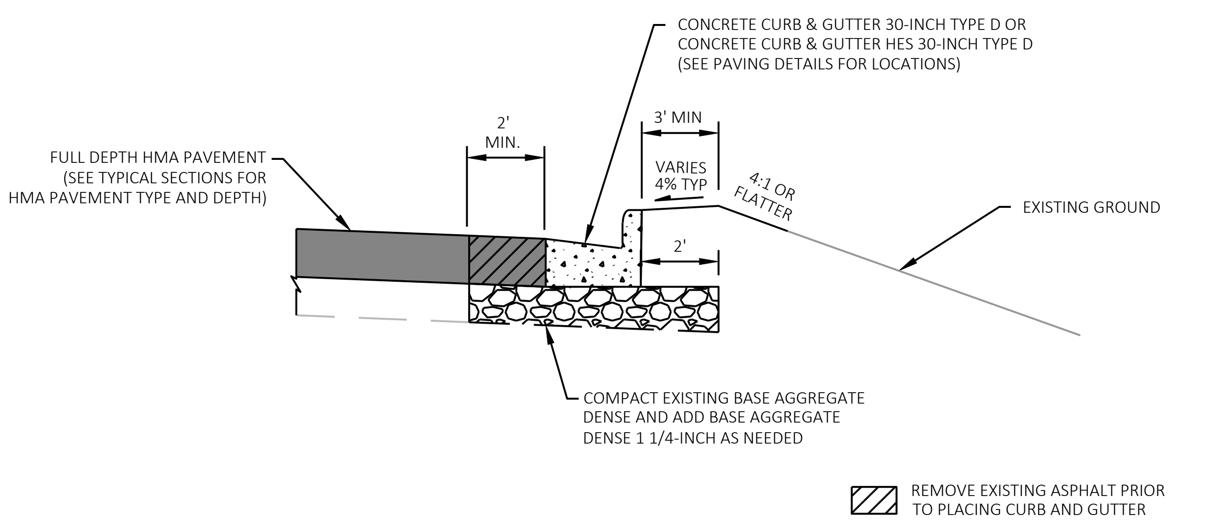
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

BUTT JOINT DETAIL

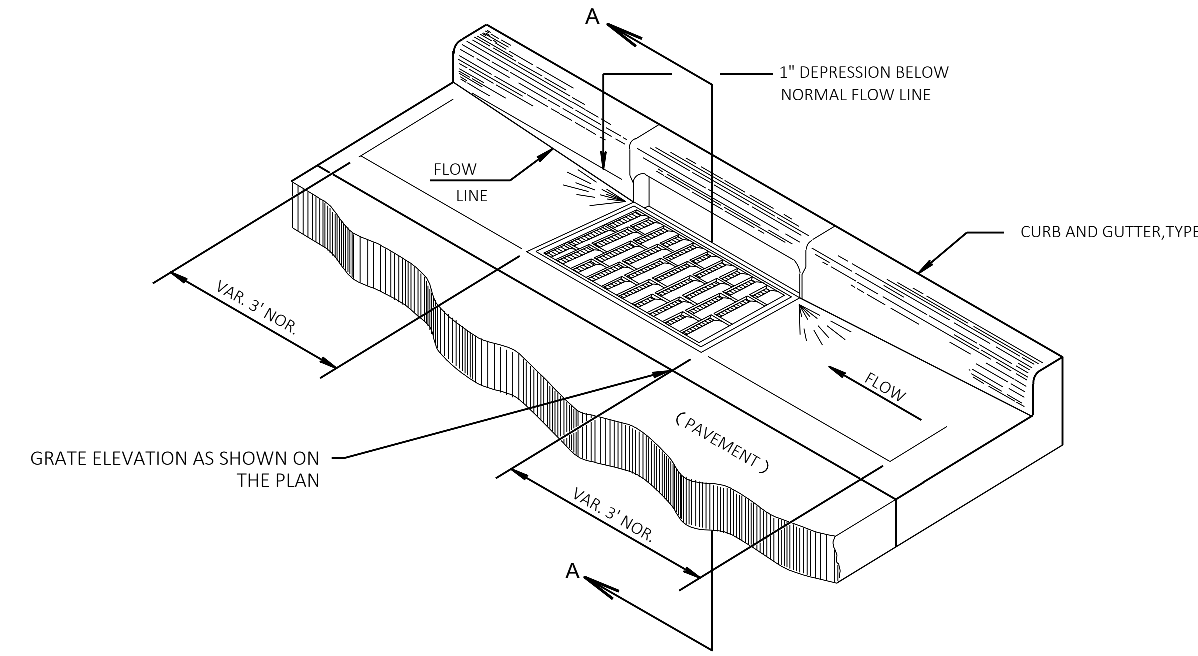
STA 115+22 (BEGIN PROJECT)
STA 328+70 (END PROJECT)
SEE SECTION 5 PLAN SHEETS FOR RURAL SIDE ROAD MATCH LOCATIONS

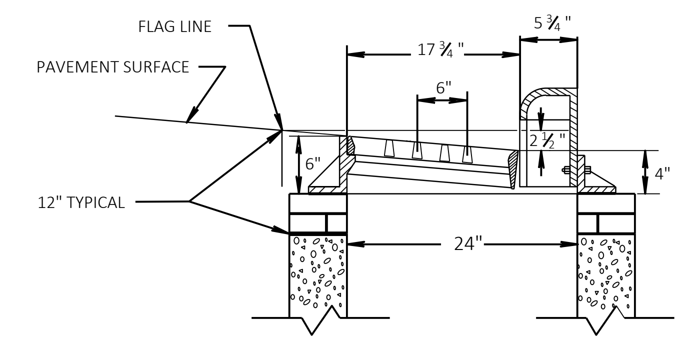


CONCRETE CURB & GUTTER REPLACEMENT DETAIL

SEE PAVING DETAILS FOR CURB & GUTTER LOCATIONS
SEE STAGING TYPICAL SECTIONS - STAGE 2B AND STAGE 3A

NOTE
FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES"

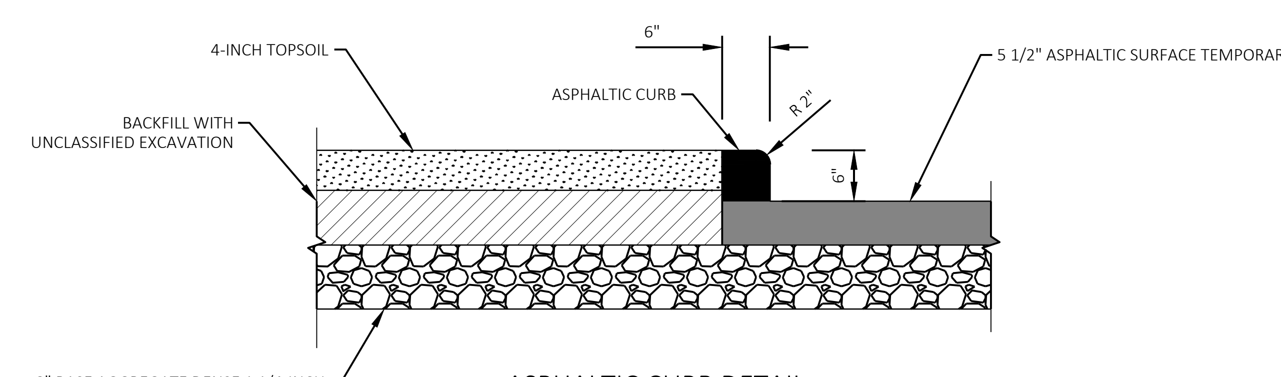




SECTION A-A

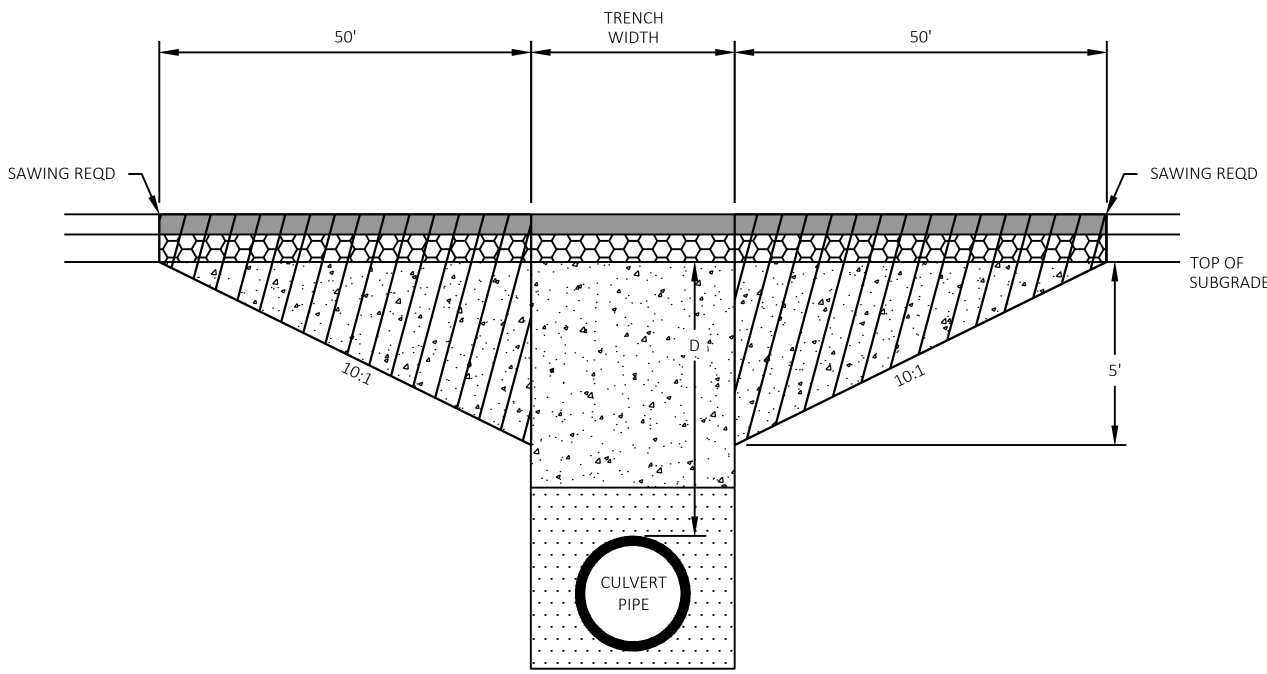
CONCRETE CURB AND GUTTER AT INLETS DETAIL

(TYPE 2X3-FT / H INLET SHOWN)

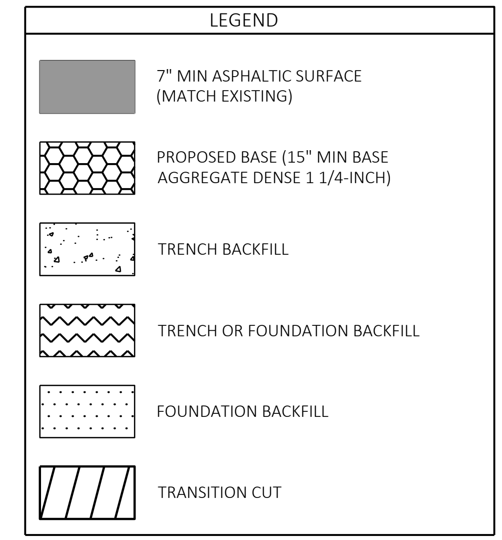


ASPHALTIC CURB DETAIL

STA 169+20 - STA 169+60, LT



DEPTH D ≥ 6 FT



NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON

TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT

BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPEDIFIED IN STANDARD SPEC 520

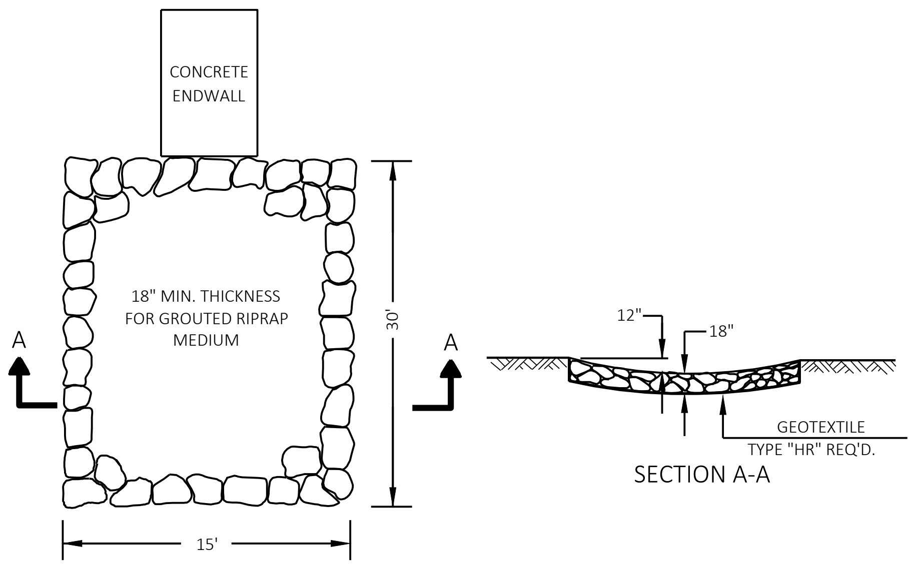
PERFORM CULVERT PIPE INSTALLATION BEFORE THE MILLING AND OVERLAY OPERATIONS

PLACE ASPHALTIC SURFACE AFTER CULVERT PIPE INSTALLATION AND BEFORE THE MILLING AND OVERLAY OPERATIONS

* DEPTH IS MEASURED AT THE DEEPEST PORTION OF THE PIPE WITHIN THE SUBGRADE SHOULDER POINTS

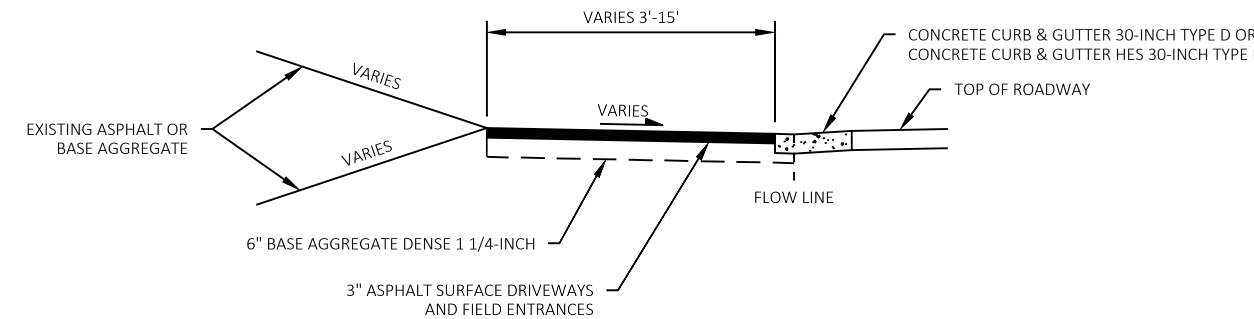
CULVERT PIPE TRANSITION DETAIL

ROUTE	CULVERT ID	STA (CL)	DEPTH D (FT)*	PIPE DIA (IN)
STH 32	21032000270	119+85	6.0'	30"
STH 32	21032000278	322+06	15.5'	36"



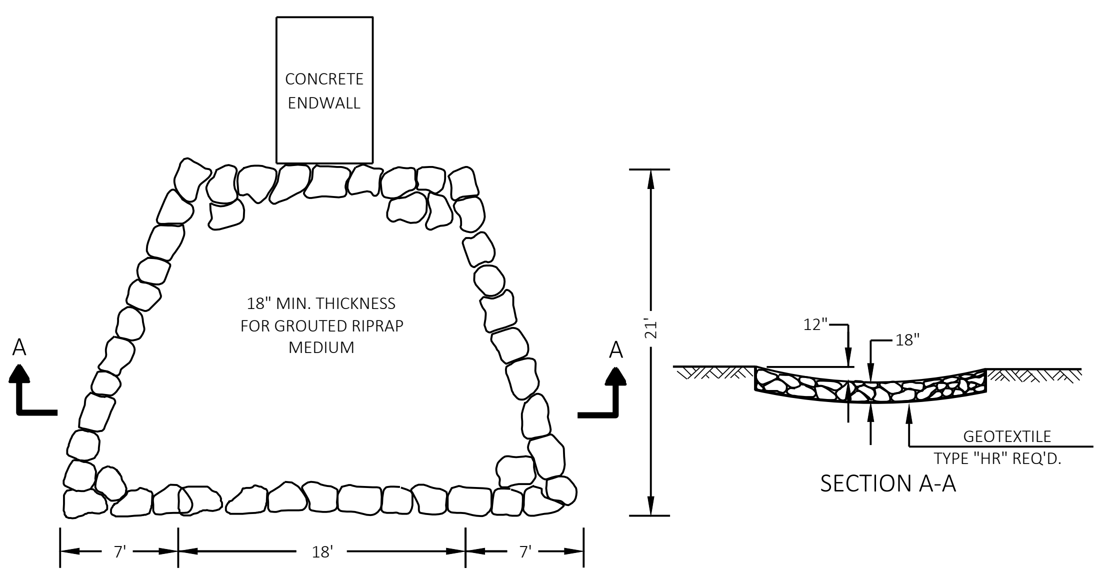
GROUTED RIPRAP MEDIUM TREATMENT DETAIL AT ENDWALL

STA 145+13, RT



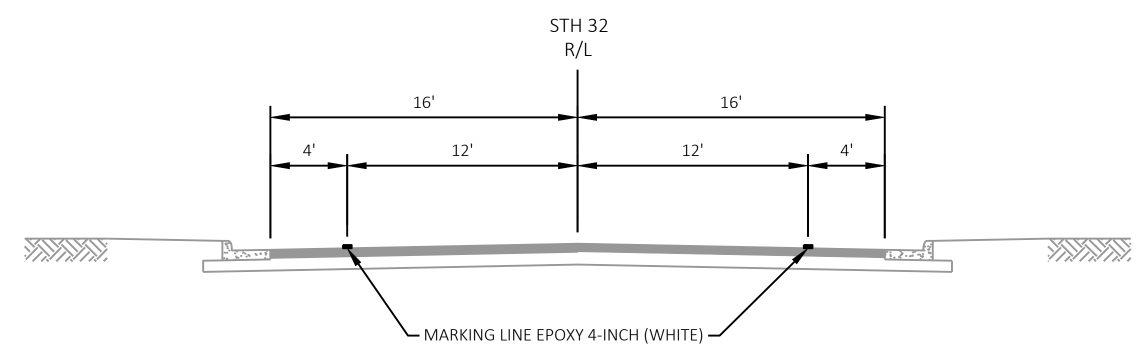
ASPHALTIC DRIVEWAY APRON BEHIND CURB & GUTTER DETAIL

SEE PAVING DETAILS FOR LOCATIONS
FROM STA 152+72 - STA 173+73



GROUTED RIPRAP MEDIUM TREATMENT DETAIL AT ENDWALL

STA 322+06, RT



URBAN EDGELINE MARKING DETAIL
STH 32

STA 152+72 - STA 173+73

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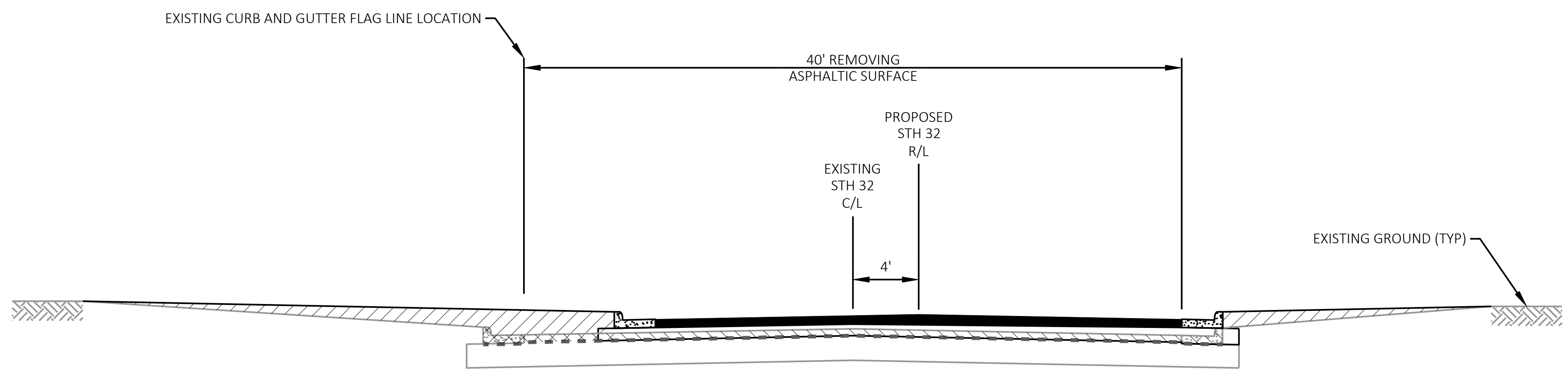


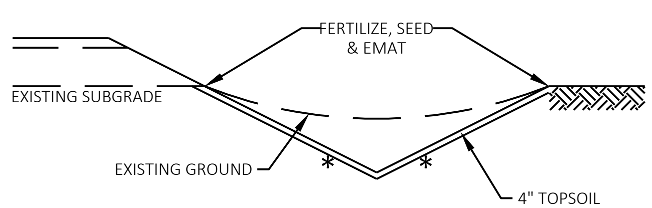
FULL DEPTH PAVEMENT REPLACEMENT EARTHWORK DETAIL
STH 32
STA 152+72 - STA 173+73

LEGEND

- BORROW
- EXCAVATION COMMON
- NEW HMA PAVEMENT (32' WIDTH)
- ESTIMATED TOP OF EXISTING BASE AGGREGATE COURSE (SHOWN ON CROSS SECTIONS)

NOTES
REMOVE EXISTING ASPHALTIC PAVEMENT FULL DEPTH
(PAID AS REMOVING ASPHALTIC SURFACE)

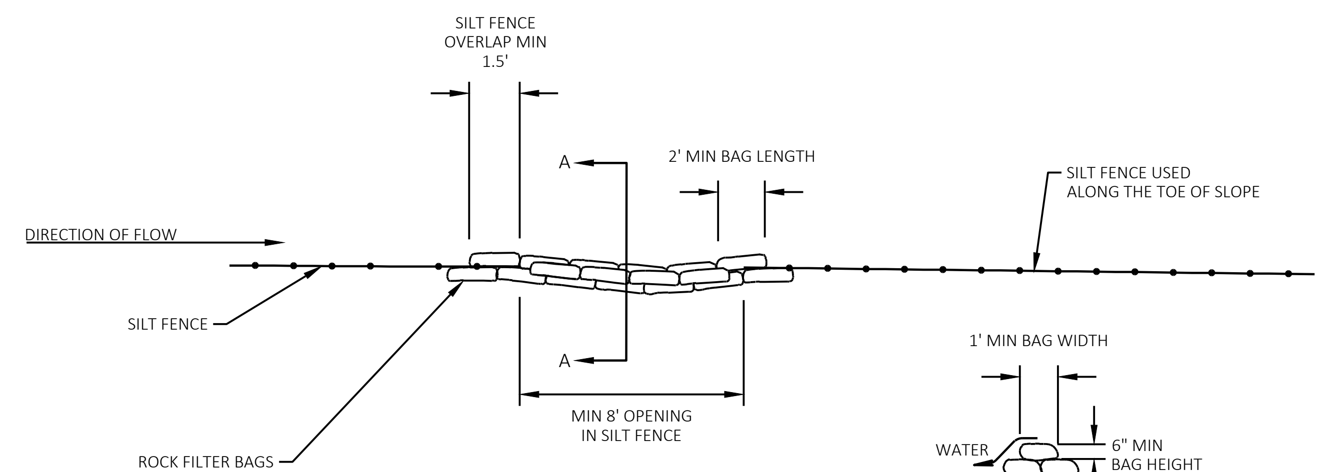
REMOVING ASPHALTIC SURFACE VOLUME IS ALSO INCLUDED IN EXCAVATION COMMON



DITCH CLEANING DETAIL
STA 140+33, FROM AEW TO 60' RT

NOTES
* SLOPES VARY, 4:1 MAX

SEE SECTION 5 SHEETS FOR ADDITIONAL DRAINAGE WORK THAT MAY BE OCCURRING NEAR DITCH CLEANING AREAS



TOP VIEW

SECTION A-A

DETAIL OF ROCK BAGS USED FOR SILT FENCE RELIEF
PAID AS ROCK BAGS

NOTE
SEE EROSION CONTROL PLANS FOR LOCATIONS

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CONSTRUCTION DETAILS	SHEET 13	E

2

LEGEND

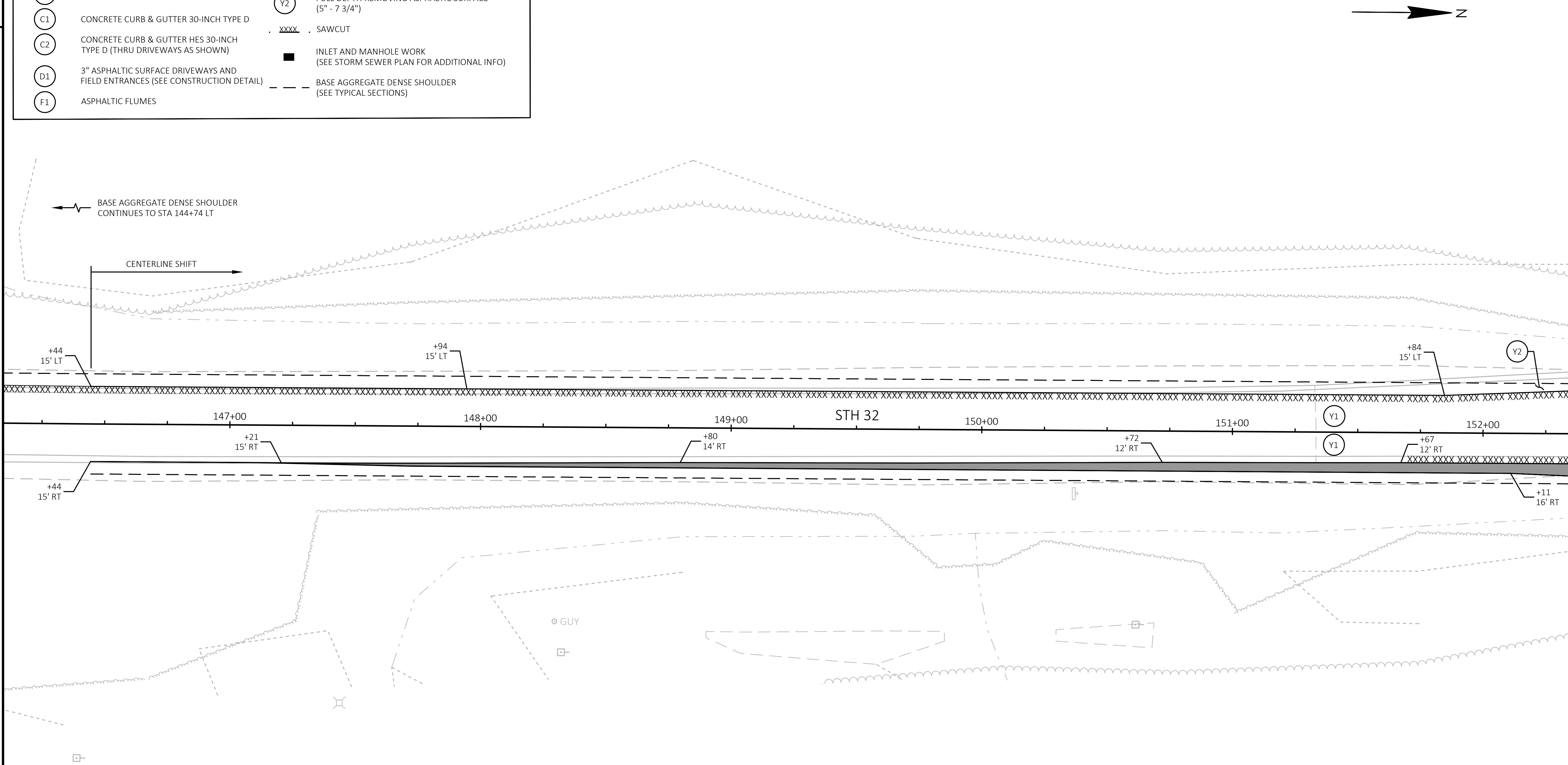
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR DEPTH AND LAYER INFORMATION)
- B1 — BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D
- C2 — CONCRETE CURB & GUTTER HES 30-INCH TYPE D (THRU DRIVEWAYS AS SHOWN)
- D1 — 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (SEE CONSTRUCTION DETAIL)
- F1 — ASPHALTIC FLUMES
- Y1 — 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE)
- Y2 — FULL DEPTH REMOVING ASPHALTIC SURFACE (5" - 7 3/4")
- XXXX — SAWCUT
- INLET AND MANHOLE WORK (SEE STORM SEWER PLAN FOR ADDITIONAL INFO)
- BASE AGGREGATE DENSE SHOULDER (SEE TYPICAL SECTIONS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

CURB & GUTTER GRADES ARE SHOWN AT 50' INTERVALS.

CURB & GUTTER GRADES ARE SHOWN AT THE END AND MID-POINT OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PAVING DETAILS	SHEET 14	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 01
PLOT DATE : 1/25/2022 2:39 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

LEGEND

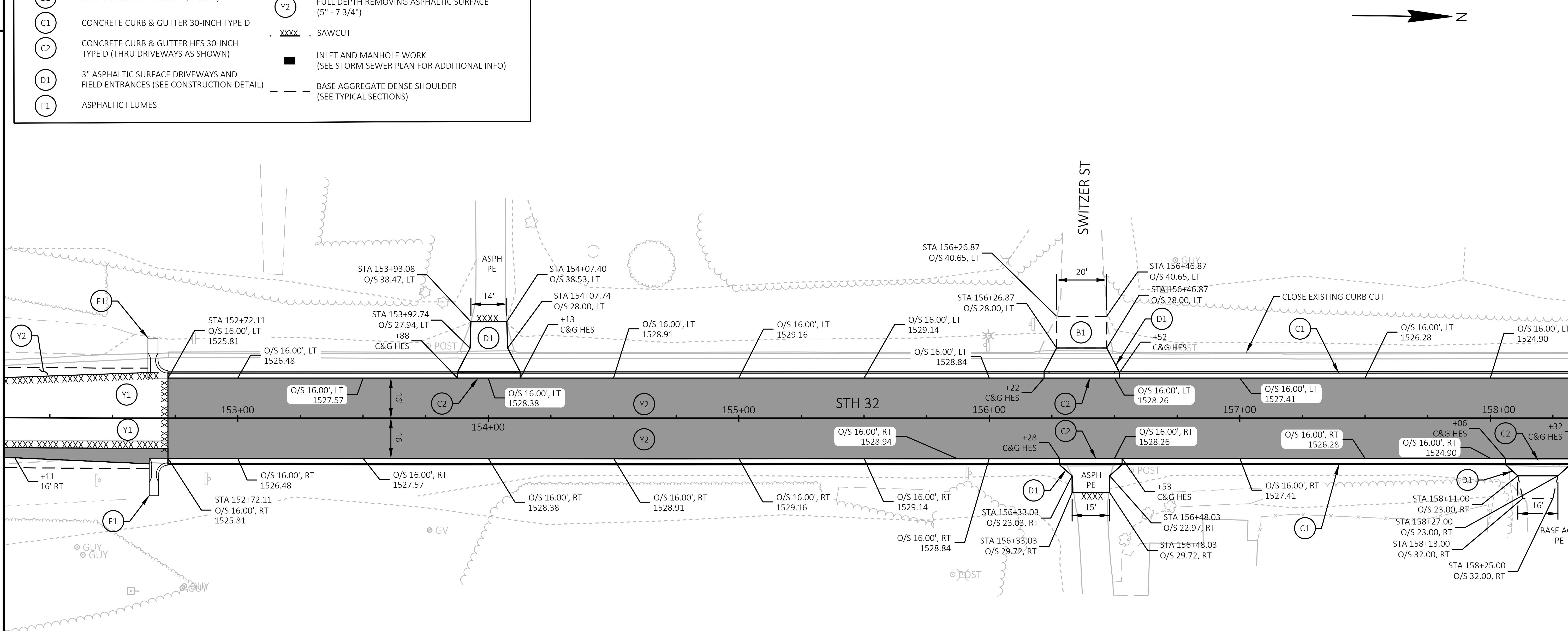
(shaded)	HMA PAVEMENT (SEE TYPICAL SECTIONS FOR DEPTH AND LAYER INFORMATION)	Y1	2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE)
B1	BASE AGGREGATE DENSE 3/4-INCH, 6"	Y2	FULL DEPTH REMOVING ASPHALTIC SURFACE (5" - 7 3/4")
C1	CONCRETE CURB & GUTTER 30-INCH TYPE D	XXXX	SAWCUT
C2	CONCRETE CURB & GUTTER HES 30-INCH TYPE D (THRU DRIVEWAYS AS SHOWN)	■	INLET AND MANHOLE WORK (SEE STORM SEWER PLAN FOR ADDITIONAL INFO)
D1	3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (SEE CONSTRUCTION DETAIL)	— —	BASE AGGREGATE DENSE SHOULDER (SEE TYPICAL SECTIONS)
F1	ASPHALTIC FLUMES		

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

CURB & GUTTER GRADES ARE SHOWN AT 50' INTERVALS.

CURB & GUTTER GRADES ARE SHOWN AT THE END AND MID-POINT OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



LEGEND

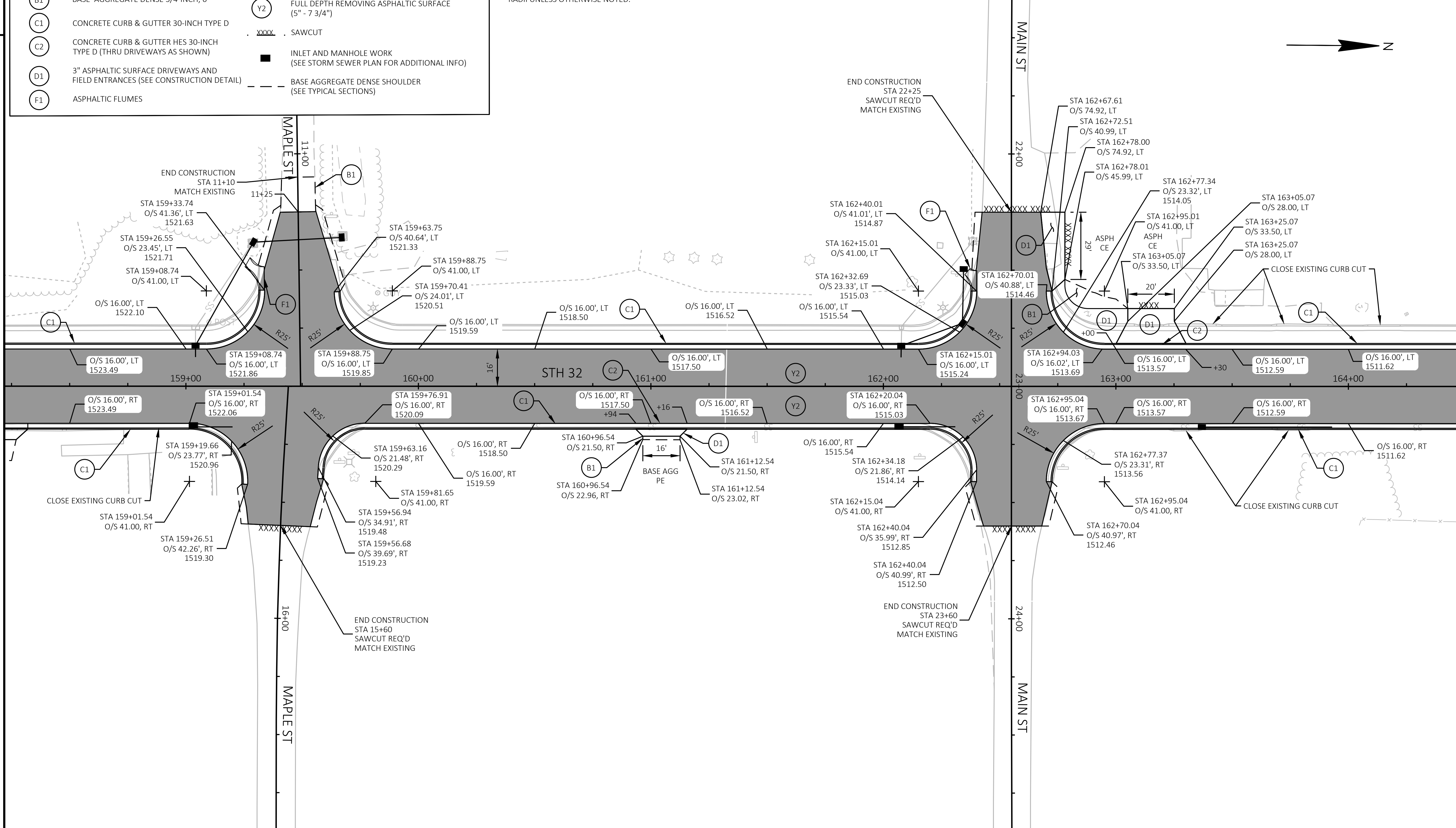
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR DEPTH AND LAYER INFORMATION)
- B1 — BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D
- C2 — CONCRETE CURB & GUTTER HES 30-INCH TYPE D (THRU DRIVEWAYS AS SHOWN)
- D1 — 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (SEE CONSTRUCTION DETAIL)
- F1 — ASPHALTIC FLUMES
- Y1 — 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE)
- Y2 — FULL DEPTH REMOVING ASPHALTIC SURFACE (5" - 7 3/4")
- XXXX — SAWCUT
- INLET AND MANHOLE WORK (SEE STORM SEWER PLAN FOR ADDITIONAL INFO)
- BASE AGGREGATE DENSE SHOULDER (SEE TYPICAL SECTIONS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

CURB & GUTTER GRADES ARE SHOWN AT 50' INTERVALS.

CURB & GUTTER GRADES ARE SHOWN AT THE END AND MID-POINT OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PAVING DETAILS	SHEET 16	E

2

LEGEND

- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR DEPTH AND LAYER INFORMATION)
- B1 — BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 — CONCRETE CURB & GUTTER 30-INCH TYPE D
- C2 — CONCRETE CURB & GUTTER HES 30-INCH TYPE D (THRU DRIVEWAYS AS SHOWN)
- D1 — 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (SEE CONSTRUCTION DETAIL)
- F1 — ASPHALTIC FLUMES
- Y1 — 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE)
- Y2 — FULL DEPTH REMOVING ASPHALTIC SURFACE (5" - 7 3/4")
- XXXX — SAWCUT
- INLET AND MANHOLE WORK (SEE STORM SEWER PLAN FOR ADDITIONAL INFO)
- BASE AGGREGATE DENSE SHOULDER (SEE TYPICAL SECTIONS)

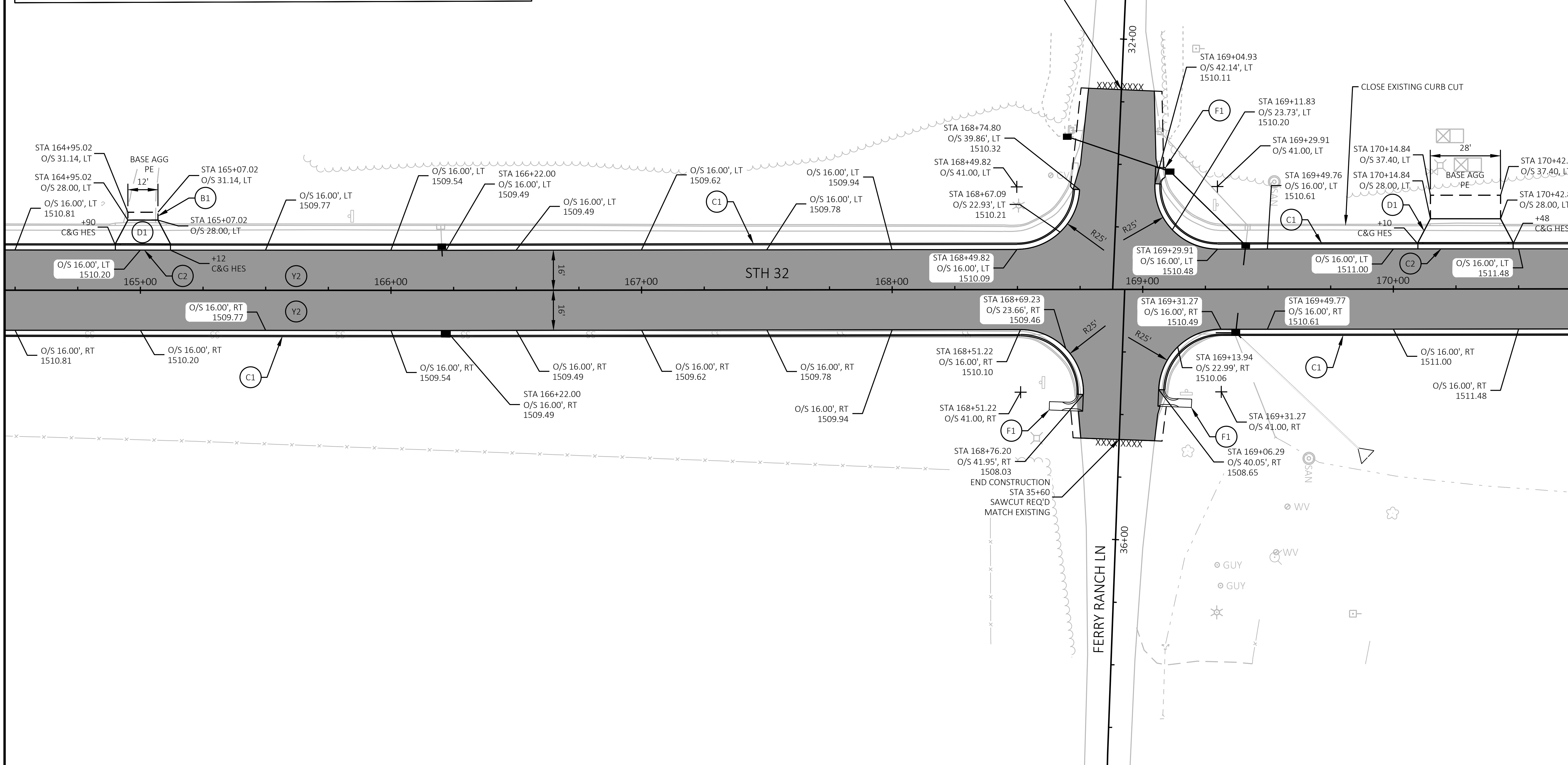
NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

CURB & GUTTER GRADES ARE SHOWN AT 50' INTERVALS.

CURB & GUTTER GRADES ARE SHOWN AT THE END AND MID-POINT OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

2



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PAVING DETAILS	SHEET 17	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\021201-PD.DWG LAYOUT NAME - 04 PLOT DATE : 1/25/2022 2:39 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT WISDOT/CADDS SHEET 44

2

LEGEND

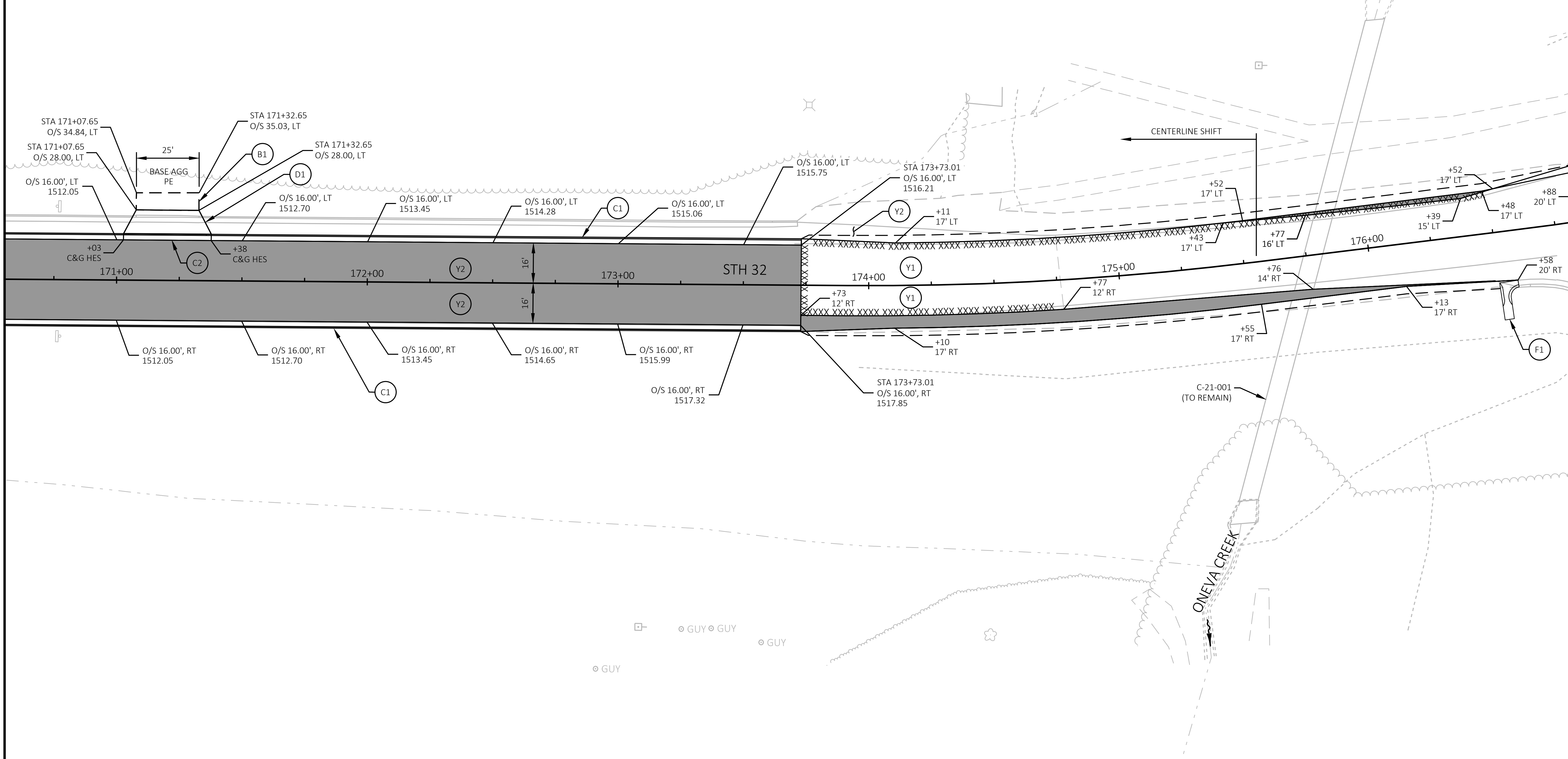
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR DEPTH AND LAYER INFORMATION)
- B1 BASE AGGREGATE DENSE 3/4-INCH, 6"
- C1 CONCRETE CURB & GUTTER 30-INCH TYPE D
- C2 CONCRETE CURB & GUTTER HES 30-INCH TYPE D (THRU DRIVEWAYS AS SHOWN)
- D1 3" ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (SEE CONSTRUCTION DETAIL)
- F1 ASPHALTIC FLUMES
- Y1 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE)
- Y2 FULL DEPTH REMOVING ASPHALTIC SURFACE (5" - 7 3/4")
- XXXX SAWCUT
- INLET AND MANHOLE WORK (SEE STORM SEWER PLAN FOR ADDITIONAL INFO)
- BASE AGGREGATE DENSE SHOULDER (SEE TYPICAL SECTIONS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

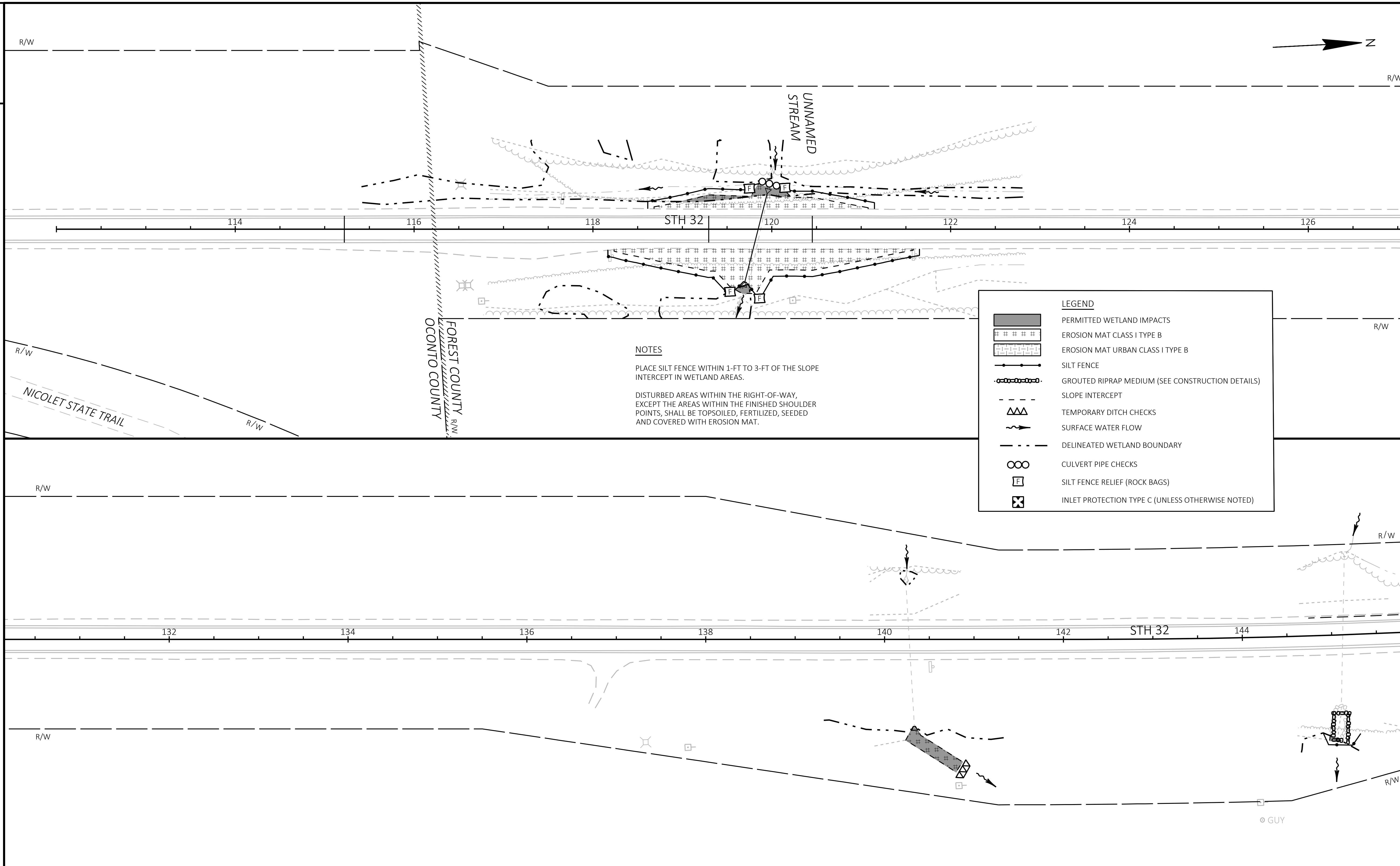
CURB & GUTTER GRADES ARE SHOWN AT 50' INTERVALS.

CURB & GUTTER GRADES ARE SHOWN AT THE END AND MID-POINT OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PAVING DETAILS	SHEET 18	E

2



NOTES

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- GROUTED RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

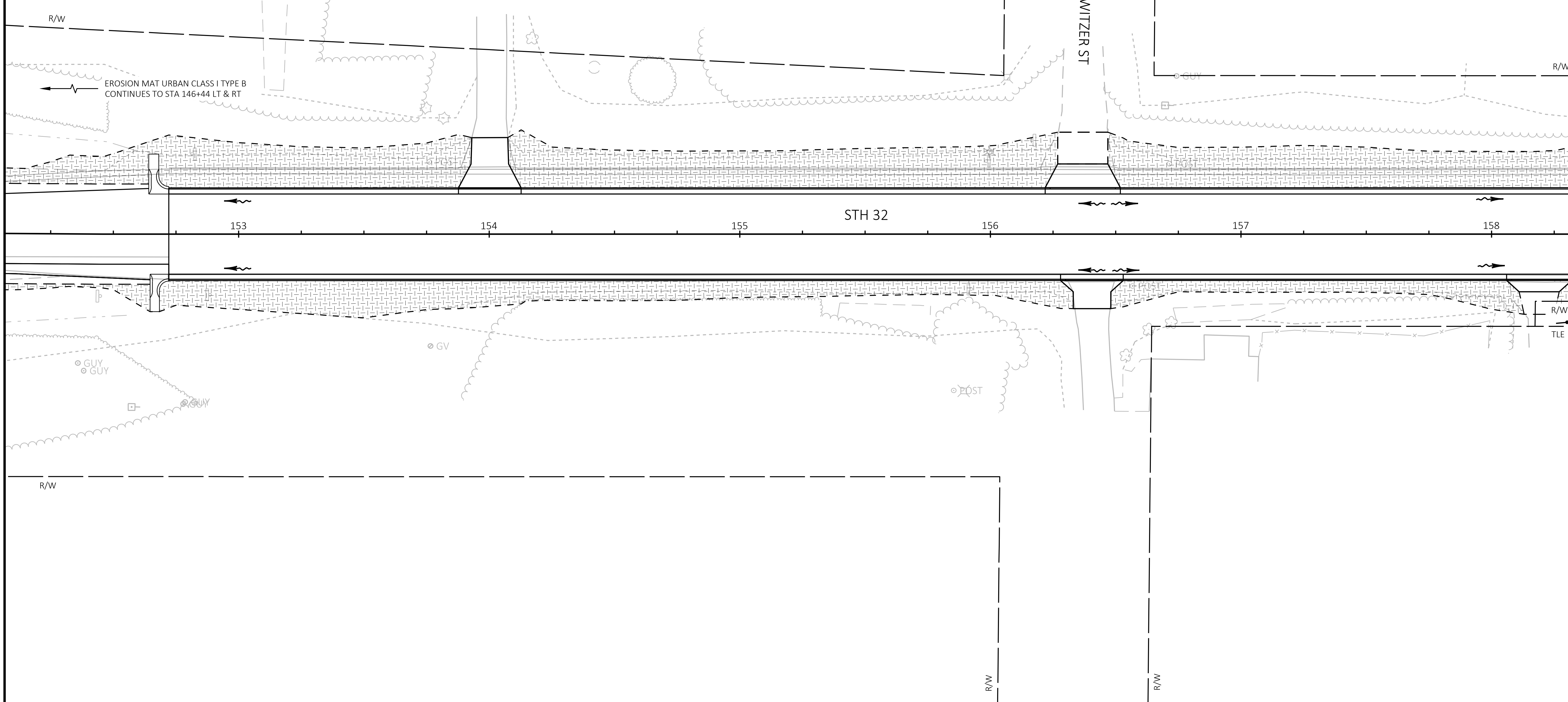
LEGEND

	PERMITTED WETLAND IMPACTS
	EROSION MAT CLASS I TYPE B
	EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE
	GROUTED RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
	SLOPE INTERCEPT
	TEMPORARY DITCH CHECKS
	SURFACE WATER FLOW
	DELINEATED WETLAND BOUNDARY
	CULVERT PIPE CHECKS
F	SILT FENCE RELIEF (ROCK BAGS)
	INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

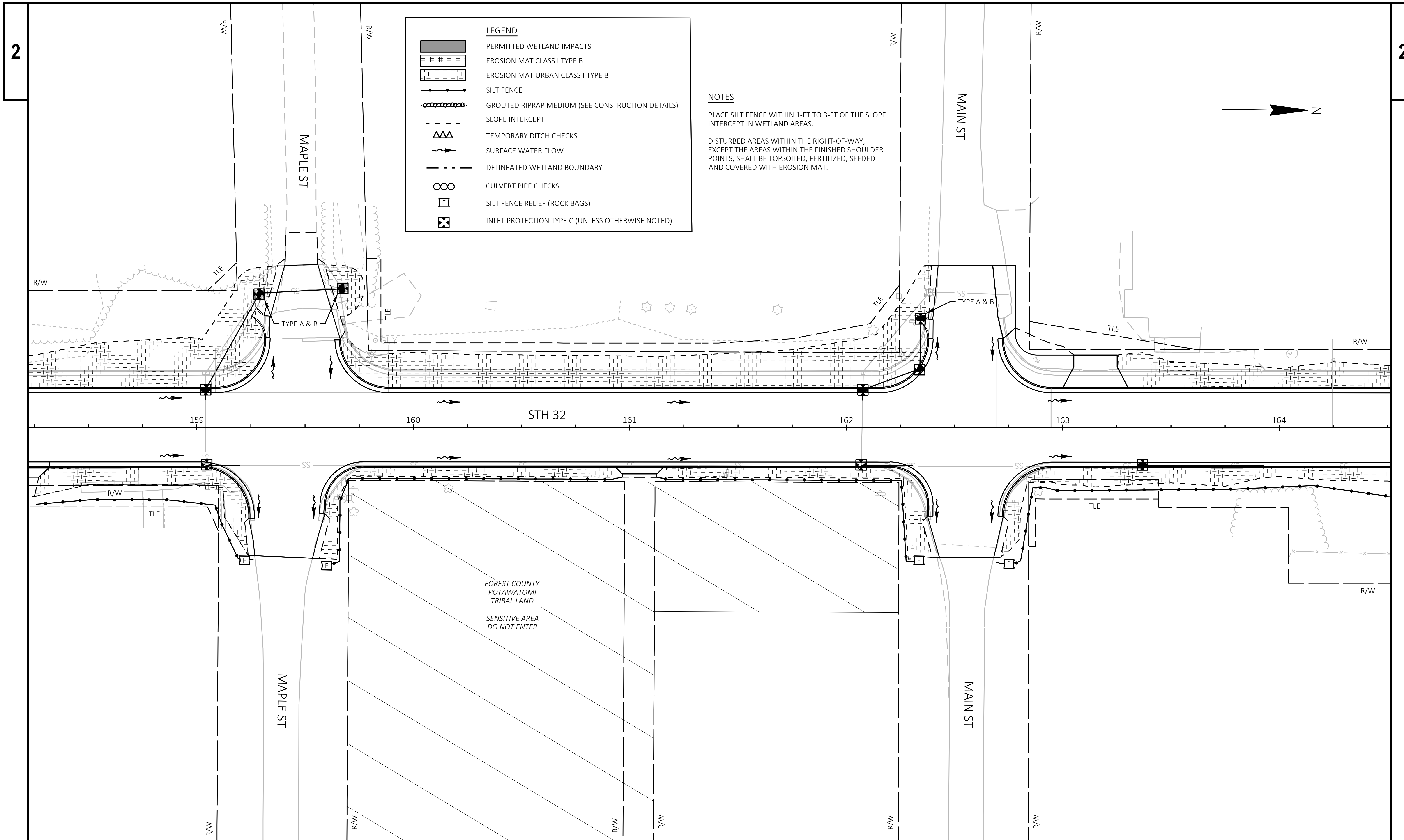
NOTES

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	EROSION CONTROL	SHEET 20	E



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	EROSION CONTROL	SHEET 21	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/25/2022 2:39 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

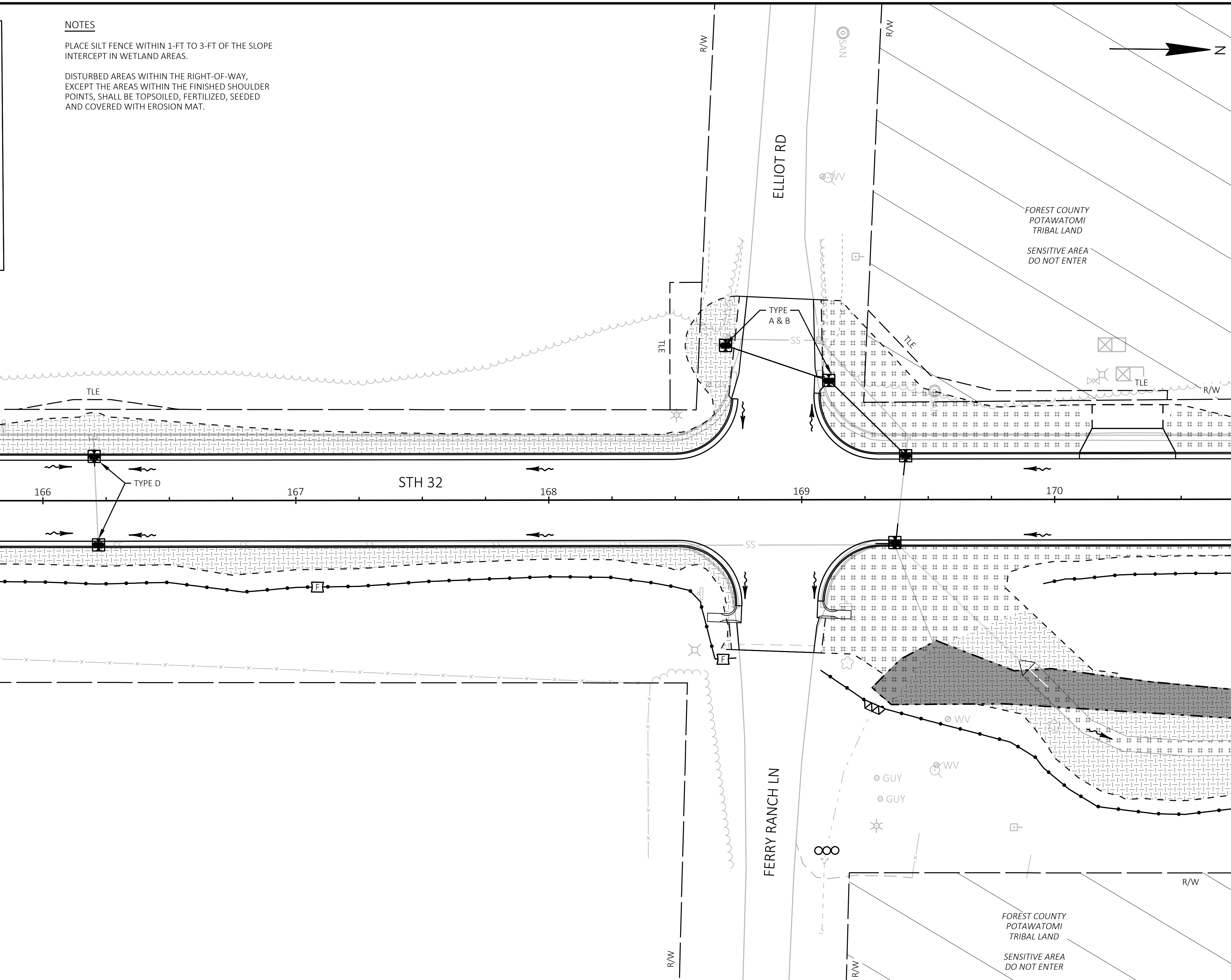
LEGEND

	PERMITTED WETLAND IMPACTS
	EROSION MAT CLASS I TYPE B
	EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE
	GROUTED RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
	SLOPE INTERCEPT
	TEMPORARY DITCH CHECKS
	SURFACE WATER FLOW
	DELINEATED WETLAND BOUNDARY
	CULVERT PIPE CHECKS
F	SILT FENCE RELIEF (ROCK BAGS)
	INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

NOTES

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.



2

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	EROSION CONTROL	SHEET 22	E

2

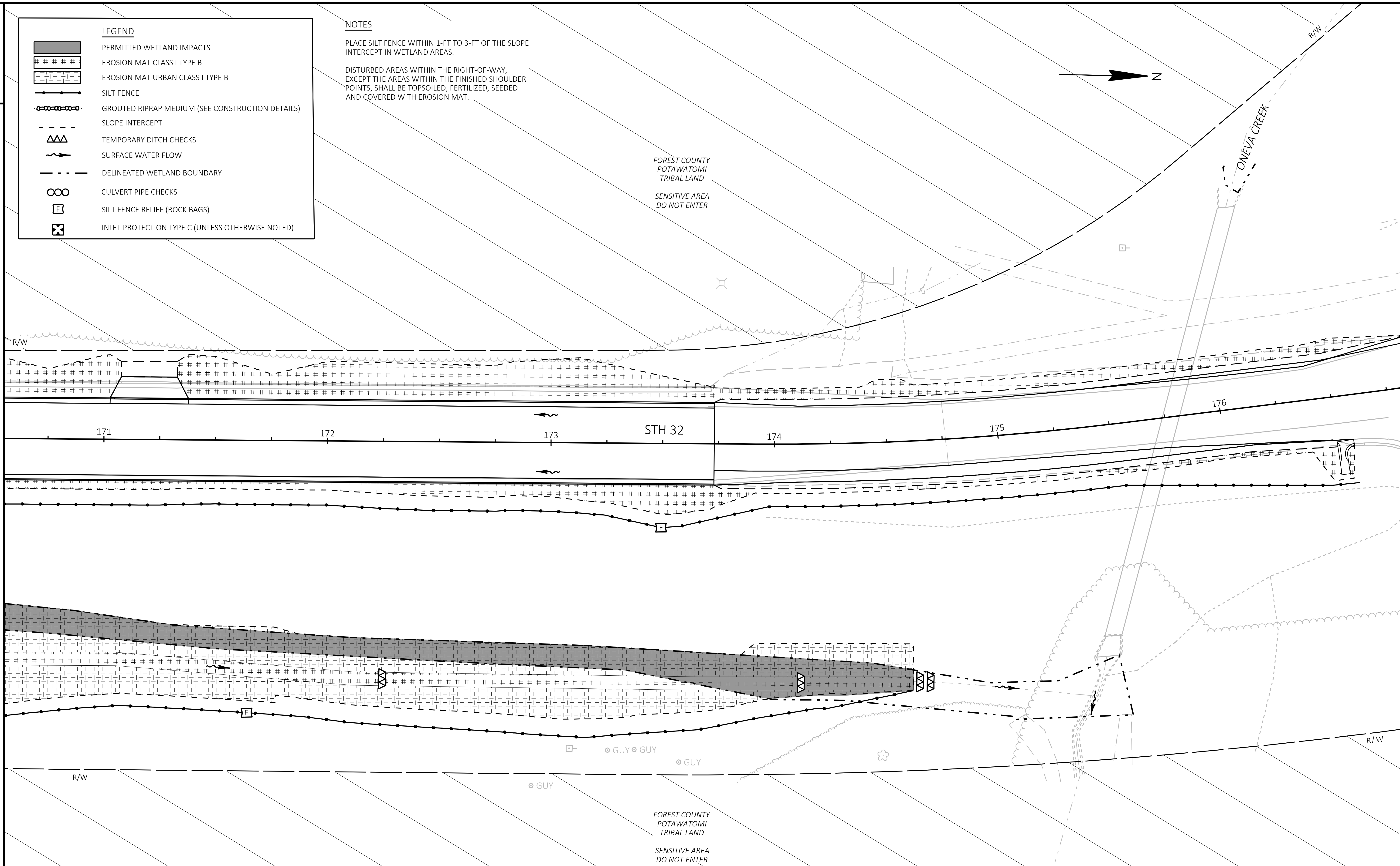
LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- GROUTED RIPRAP MEDIUM (SEE CONSTRUCTION DETAILS)
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

NOTES

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.



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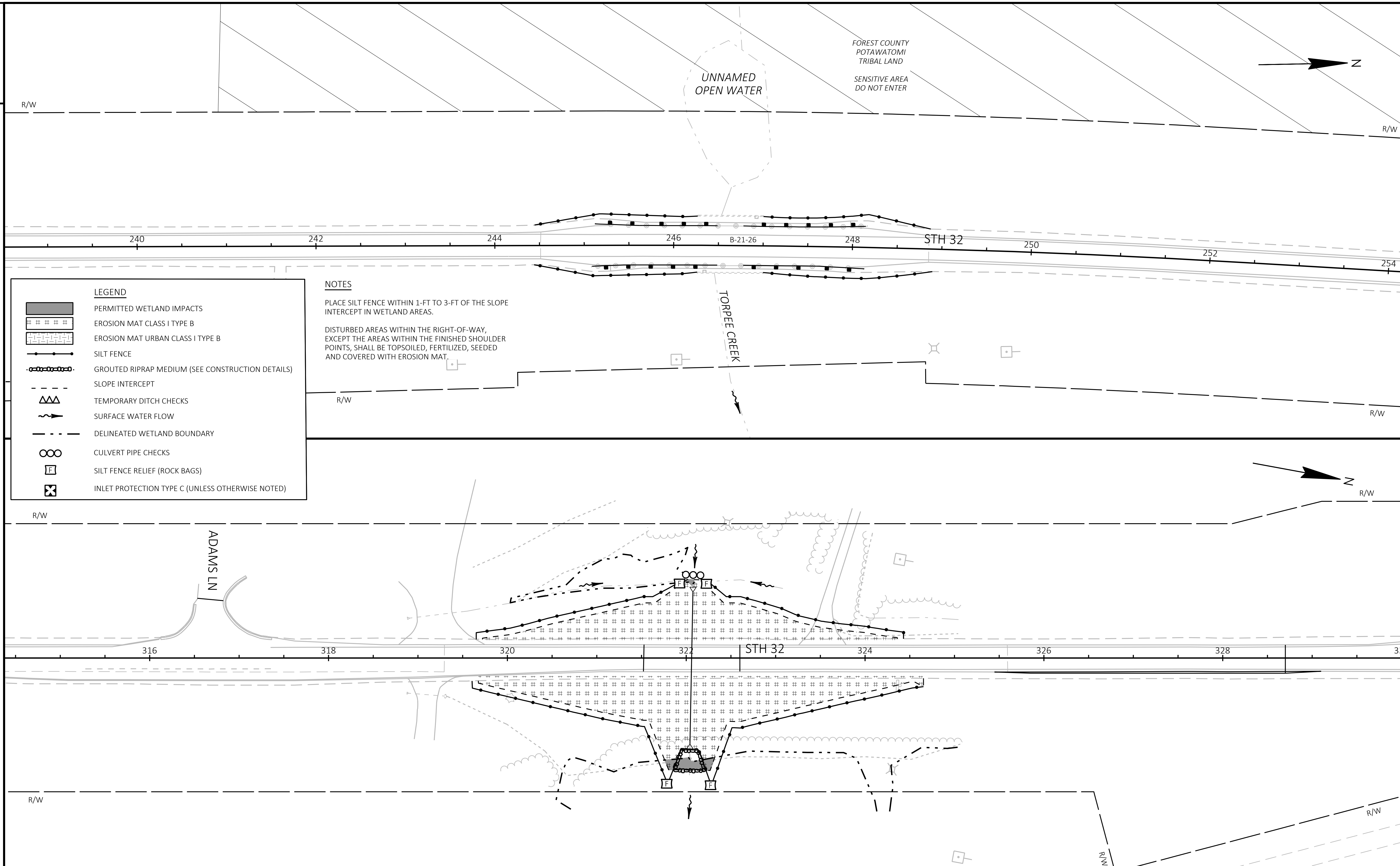
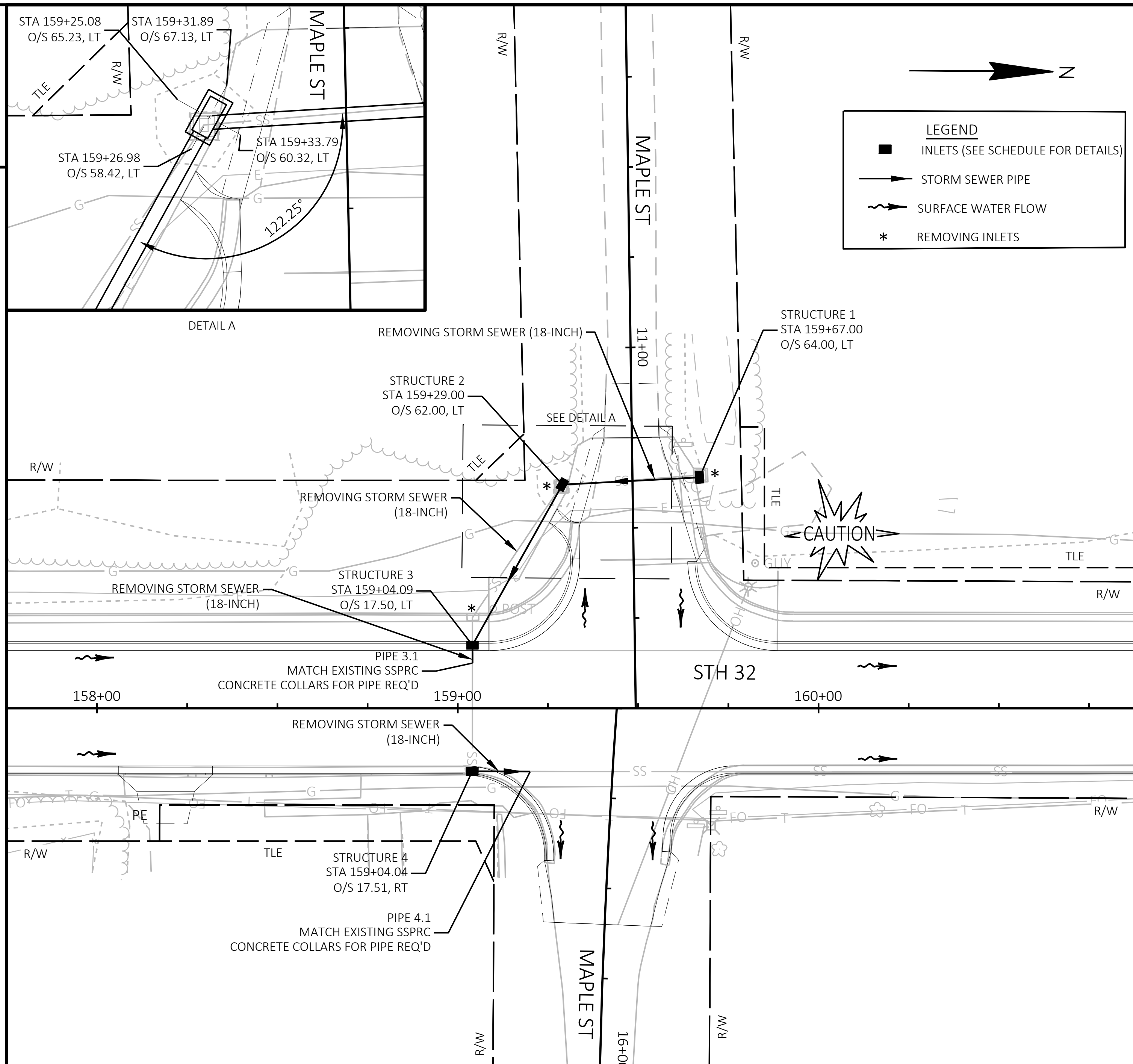
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	EROSION CONTROL	SHEET 23	E

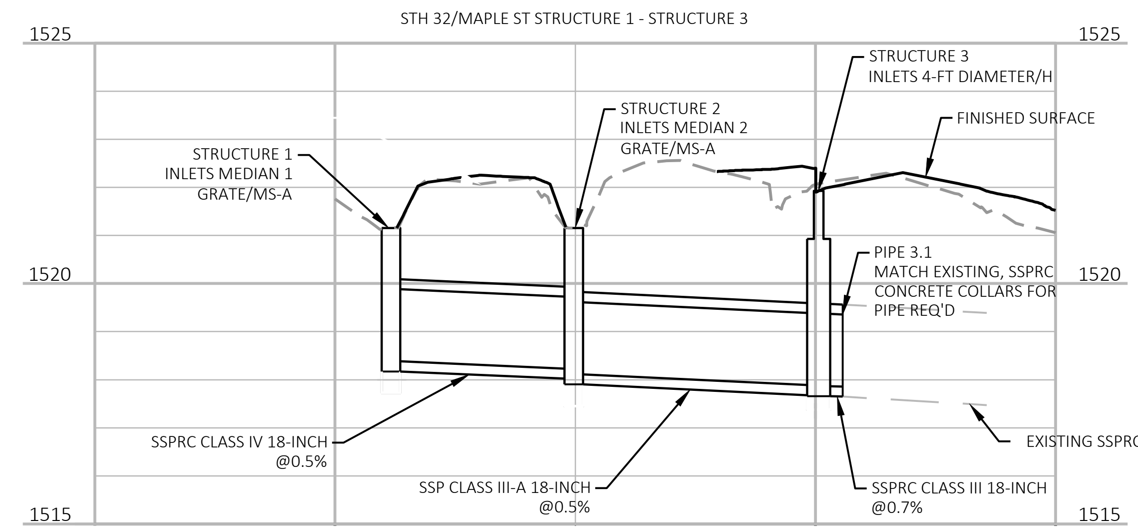


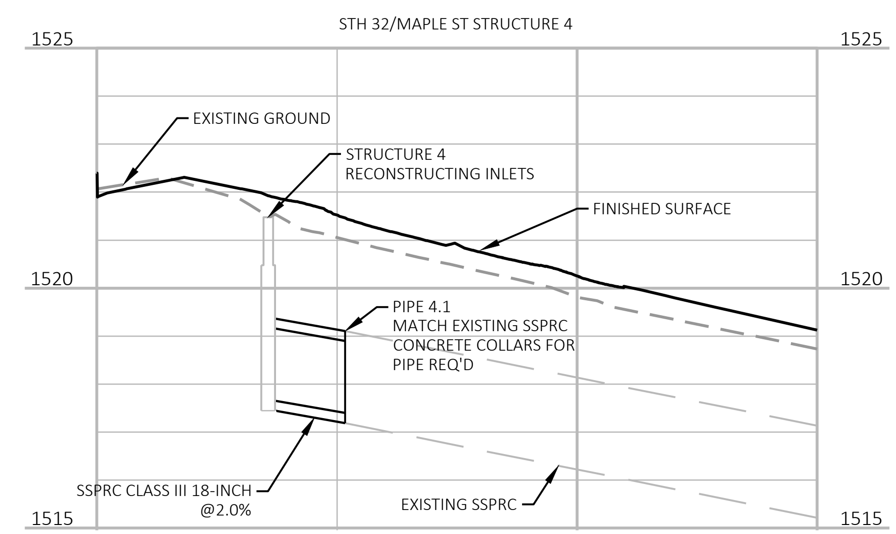
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	EROSION CONTROL	SHEET 24	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\022003-EC.DWG
LAYOUT NAME - 06
PLOT DATE : 1/25/2022 2:39 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



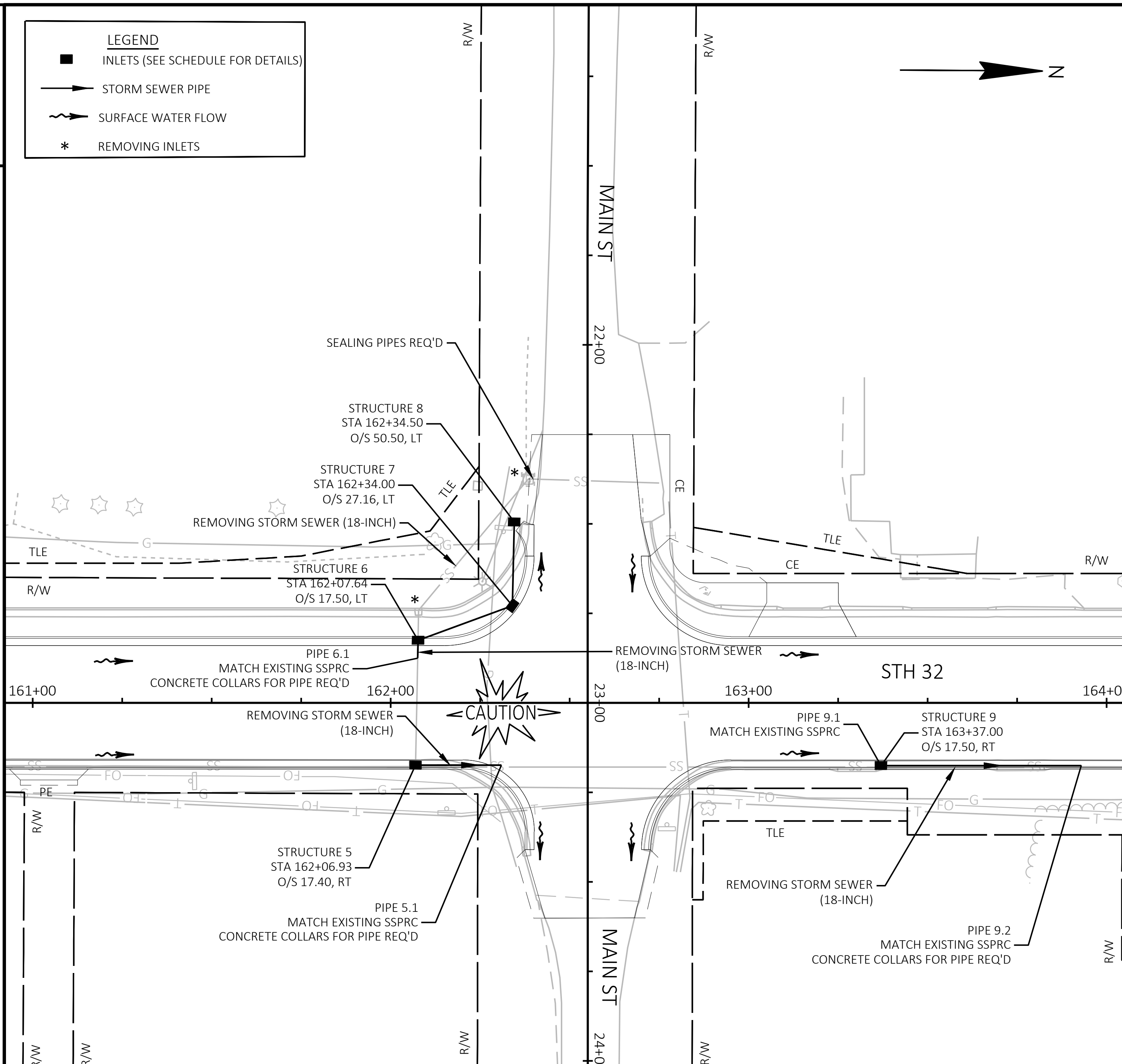




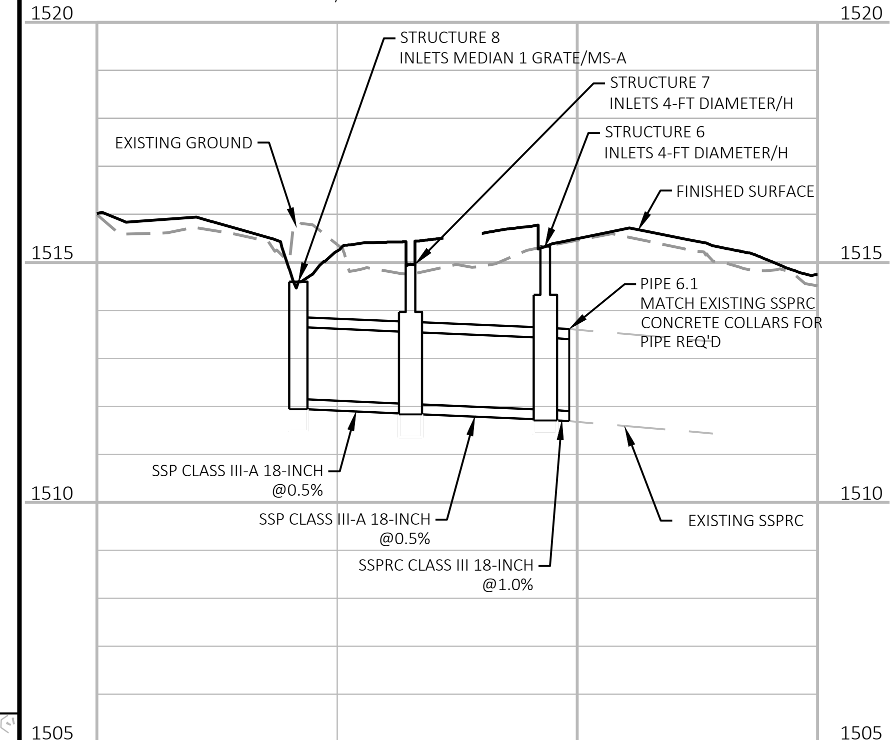
STORM SEWER SCHEDULE

STRUCT NO.	STATION	(1) OFFSET	C-C (FT)	TO STRUCTURE OR PIPE	INLET TYPE / COVER	RIM/ GRATE ELEV.	(2) T.O.S. ELEV.	(3) DEPTH (FT)	DISCHARGE PIPE CLASS	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	(4) LENGTH (FT)	(5) SLOPE (%)	REMARKS
1	159+67.00	64.00' LT	38.1	2	MEDIAN 1 GRATE/MS-A	1521.11	1521.11	2.72	SSPRC IV	18	1518.39	1518.22	34.1	0.5	
2	159+29.00	62.00' LT	51.0	3	MEDIAN 2 GRATE/MS-A	1521.34	1521.34	3.22	SSP III-A	18	1518.12	1517.88	49.0	0.5	
3	159+04.09	17.50' LT	5.0	3.1	4-FT DIAMETER/H	1522.00	1521.00	3.12	SSPRC III	18	1517.88	1517.86	3.0	0.7	CONCRETE COLLARS FOR PIPE REQ'D
4	159+04.04	17.51' RT	16.0	4.1	EXISTING	1521.99	1520.48	--	SSPRC III	18	1517.68	1517.40	14.1	2.0	EXISTING MANHOLE, RECONSTRUCTING INLETS AND CONCRETE COLLARS FOR PIPE REQ'D

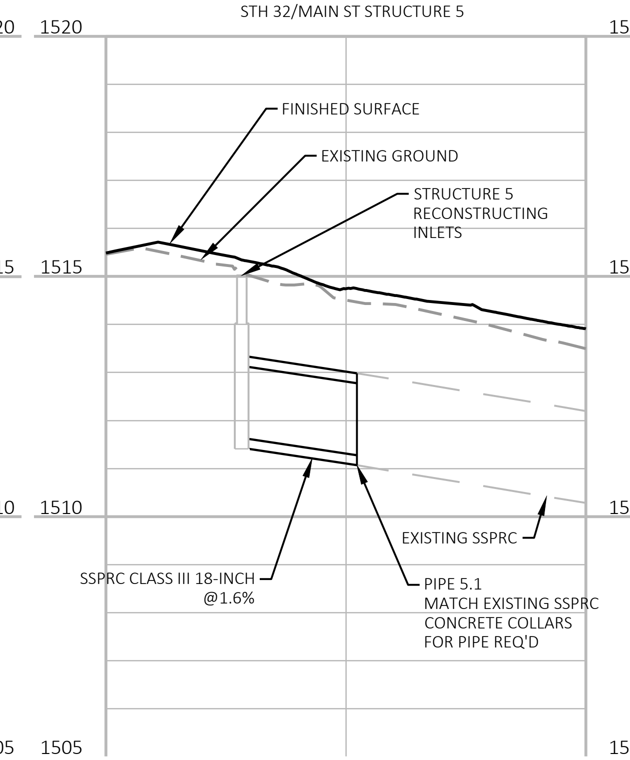
(1) STRUCTURE OFFSET IS TO CENTER OF STRUCTURE.
(2) TOP OF STRUCTURE ELEVATION (T.O.S.) IS DETERMINED BY SUBTRACTING THE CASTING HEIGHT AND 6 INCHES FOR ADJUSTMENT, FROM THE RIM ELEVATION. A TYPE H INLET CASTING IS 6-INCHES.
FOR MEDIAN 1 GRATE AND MEDIAN 2 GRATE INLETS,
THE TOP OF STRUCTURE (T.O.S.) ELEVATION IS EQUAL TO THE RIM GRATE ELEVATION. EXISTING T.O.S. ELEVATION IS BASED ON ESTIMATED FIELD MEASUREMENTS.
(3) DEPTH OF STRUCTURE IS MEASURED BY SUBTRACTING INVERT ELEVATION FROM T.O.S.
(4) PIPE LENGTH IS MEASURED FROM INSIDE WALL OF STRUCTURE TO THE INSIDE WALL OF STRUCTURE OR INSIDE WALL OF STRUTURE TO THE EXISTING PIPE CONNECTION. PAYMENT IS C-C PER STANDARD SPEC.
(5) PIPE SLOPE IS CALCULATED USING ((INLET ELEVATION - DISCHARGE ELEVATION) / PIPE LENGTH)*100



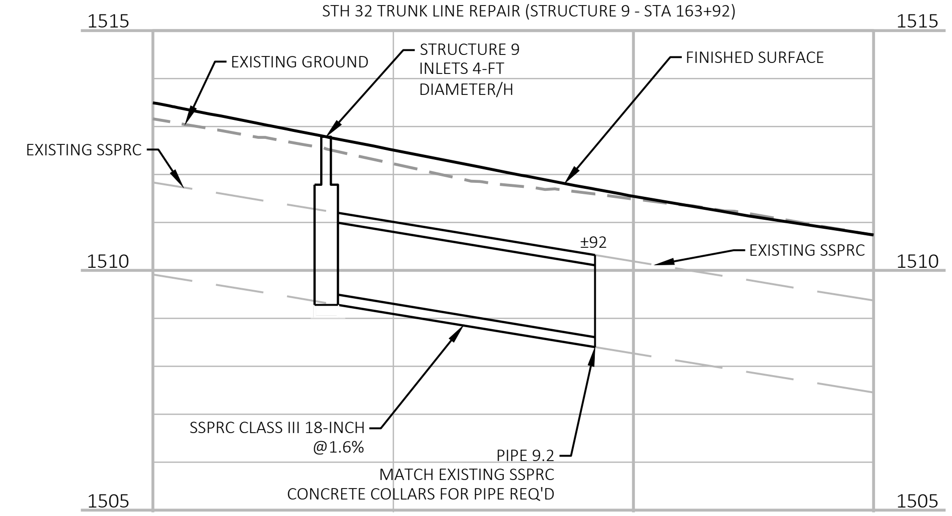
STH 32/MAIN ST STRUCTURE 6 - STRUCTURE 8



STH 32/MAIN ST STRUCTURE 5



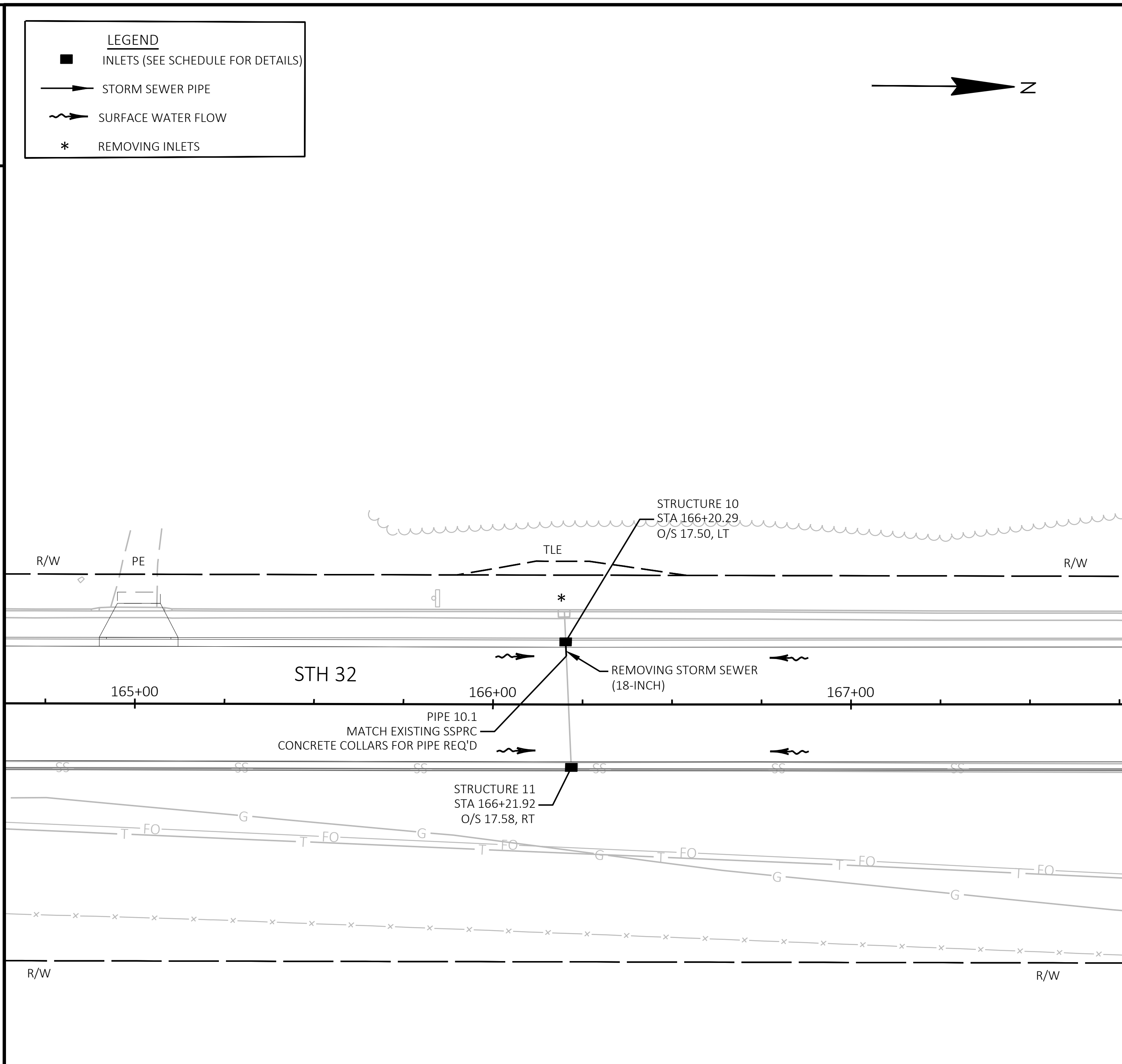
STH 32 TRUNK LINE REPAIR (STRUCTURE 9 - STA 163+92)

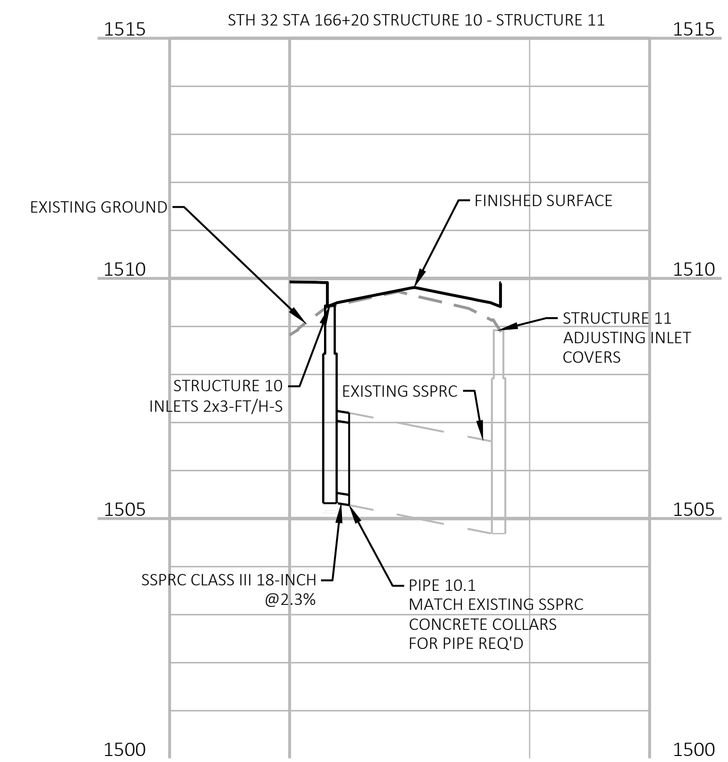


STORM SEWER SCHEDULE

STRUCT OR PIPE NO.	STATION	(1) OFFSET	C-C (FT)	TO STRUCTURE OR PIPE	INLET TYPE / COVER	RIM/ GRATE ELEV.	(2) T.O.S. ELEV.	(3) DEPTH (FT)	DISCHARGE PIPE CLASS	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	(4) LENGTH (FT)	(5) SLOPE (%)	REMARKS
8	162+34.50	50.50' LT	23.4	7	MEDIAN 1 GRATE/MS-A	1515.65	1515.65	3.50	SSP III-A	18	1512.15	1512.05	20.1	0.5	SEALING PIPES REQ'D
7	162+34.00	27.16' LT	28.1	6	4-FT DIAMETER/H	1515.01	1514.34	2.29	SSP III-A	18	1512.05	1511.93	24.1	0.5	ONLY ALLOWS 2 INCHES FOR ADJUSTMENT
6	162+07.64	17.50' LT	5.0	6.1	4-FT DIAMETER/H	1515.39	1514.39	2.46	SSPRC III	18	1511.93	1511.90	3.0	1.0	CONCRETE COLLARS FOR PIPE REQ'D
5	162+06.93	17.40' RT	24.0	5.1	EXISTING	1515.41	1514.16	--	SSPRC III	18	1511.64	1511.28	22.1	1.6	EXISTING MANHOLE, RECONSTRUCTING INLETS AND CONCRETE COLLAR REQ'D
9	163+37.00	17.50' RT	56.0	9.2	4-FT DIAMETER/H	1512.85	1511.85	2.32	SSPRC III	18	1509.53	1508.61	56.0	1.6	1- CONCRETE COLLARS FOR PIPE REQ'D

(1) STRUCTURE OFFSET IS TO CENTER OF STRUCTURE.
(2) TOP OF STRUCTURE ELEVATION (T.O.S.) IS DETERMINED BY SUBTRACTING THE CASTING HEIGHT AND 6 INCHES FOR ADJUSTMENT, FROM THE RIM ELEVATION. A TYPE H INLET CASTING IS 6-INCHES.
FOR MEDIAN 1 GRATE AND MEDIAN 2 GRATE INLETS,
THE TOP OF STRUCTURE (T.O.S.) ELEVATION IS EQUAL TO THE RIM GRATE ELEVATION. EXISTING T.O.S. ELEVATION IS BASED ON ESTIMATED FIELD MEASUREMENTS.
(3) DEPTH OF STRUCTURE IS MEASURED BY SUBTRACTING INVERT ELEVATION FROM T.O.S.
(4) PIPE LENGTH IS MEASURED FROM INSIDE WALL OF STRUCTURE TO THE INSIDE WALL OF STRUCTURE OR INSIDE WALL OF STRUTURE TO THE EXISTING PIPE CONNECTION. PAYMENT IS C-C PER STANDARD SPEC.
(5) PIPE SLOPE IS CALCULATED USING ((INLET ELEVATION - DISCHARGE ELEVATION) / PIPE LENGTH)*100

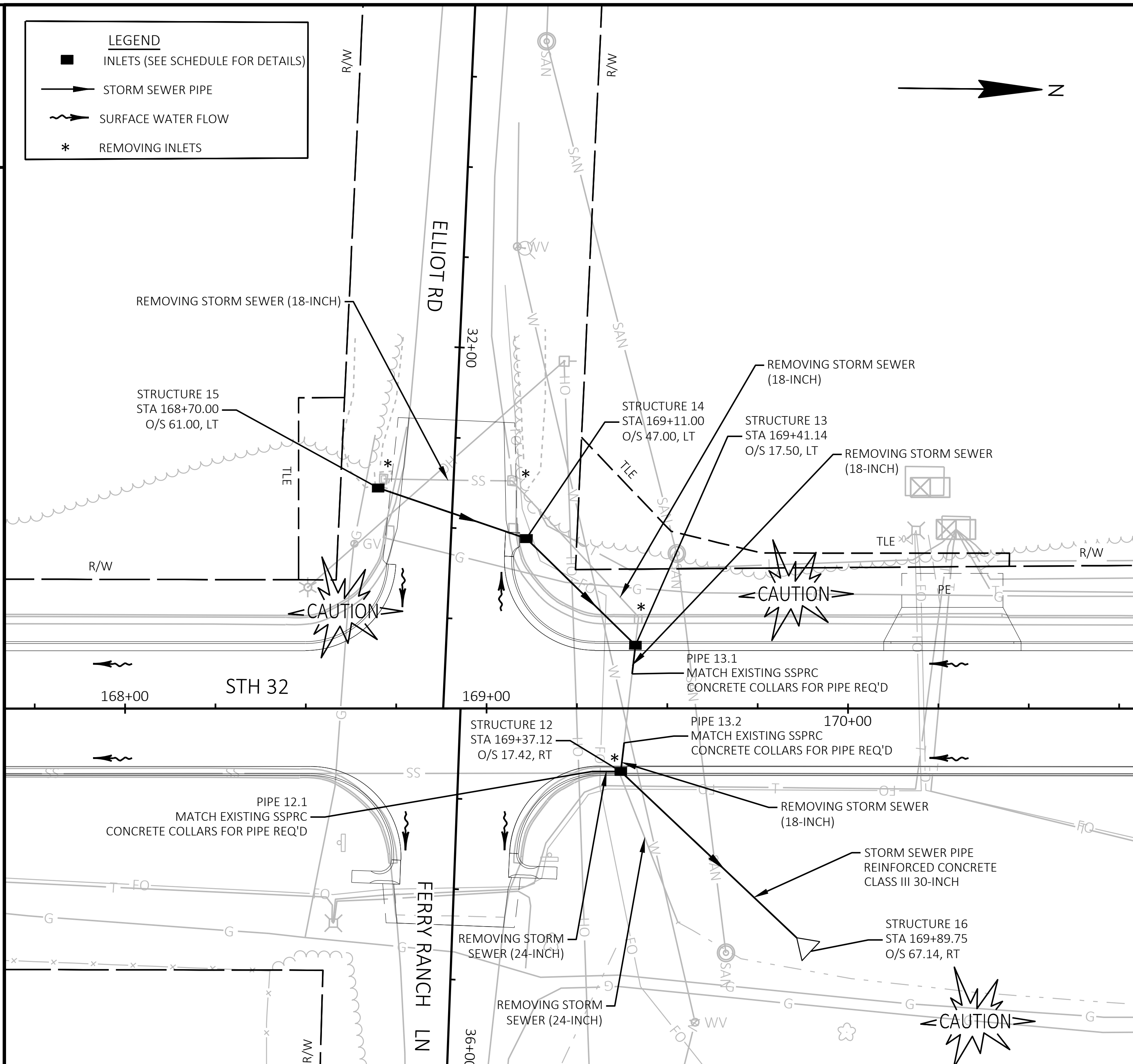


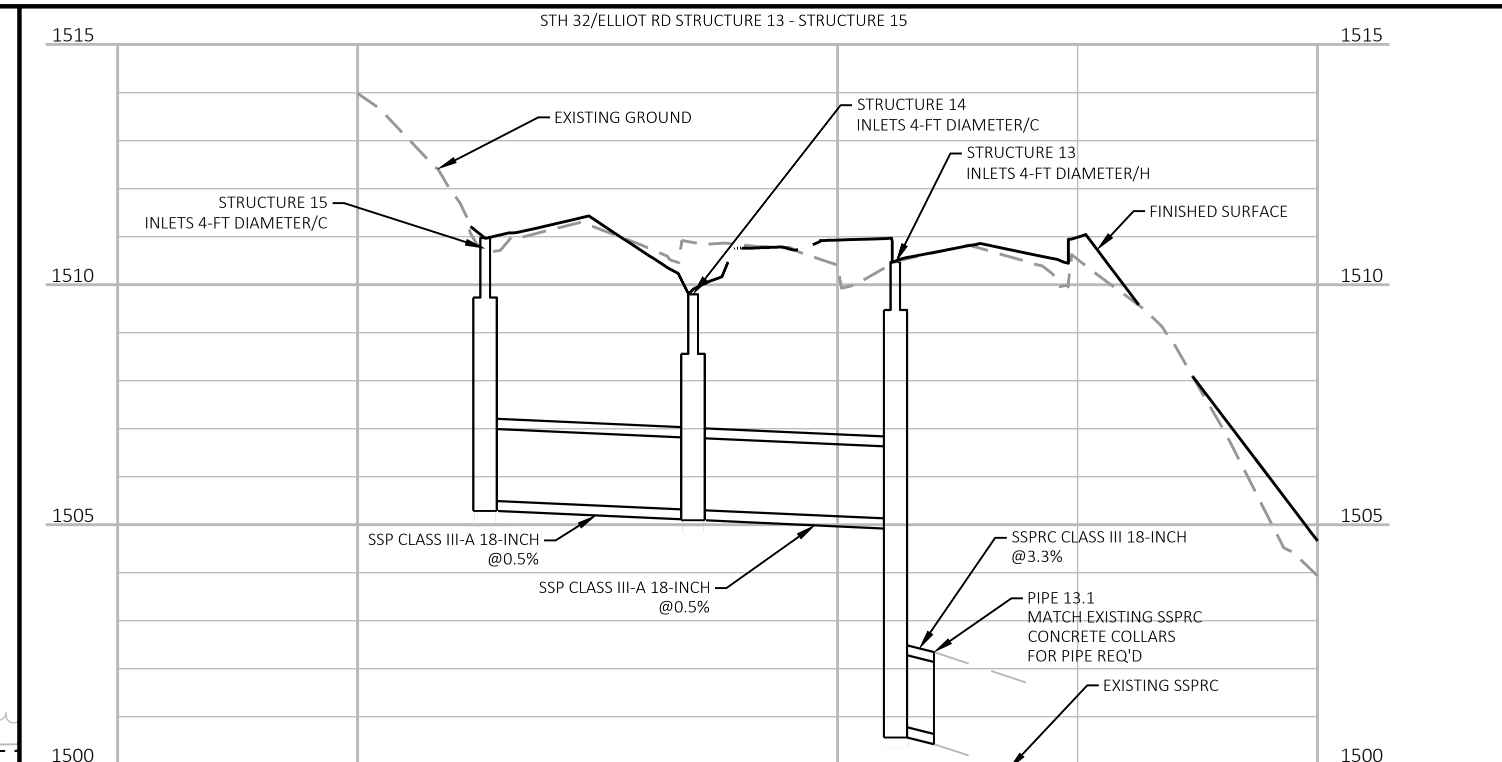


STORM SEWER SCHEDULE

STRUCT NO.	STATION	(1) OFFSET	C-C (FT)	TO STRUCTURE OR PIPE	INLET TYPE / COVER	RIM/ GRATE ELEV.	(2) T.O.S. ELEV.	(3) DEPTH (FT)	DISCHARGE PIPE CLASS	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	(4) LENGTH (FT)	(5) SLOPE (%)	REMARKS
10	166+20.29	17.50' LT	4.0	10.1	INLET 2x3-FT/H-S	1509.47	1508.47	2.91	SSPRC III	18	1505.56	1505.49	3.0	2.3	CONCRETE COLLARS FOR PIPE REQ'D
11	166+21.92	17.58' RT	--	--	EXISTING	1509.50	1508.59	--	--	--	--	--	--	--	EXISTING MANHOLE, ADJUSTING INLET COVERS REQ'D

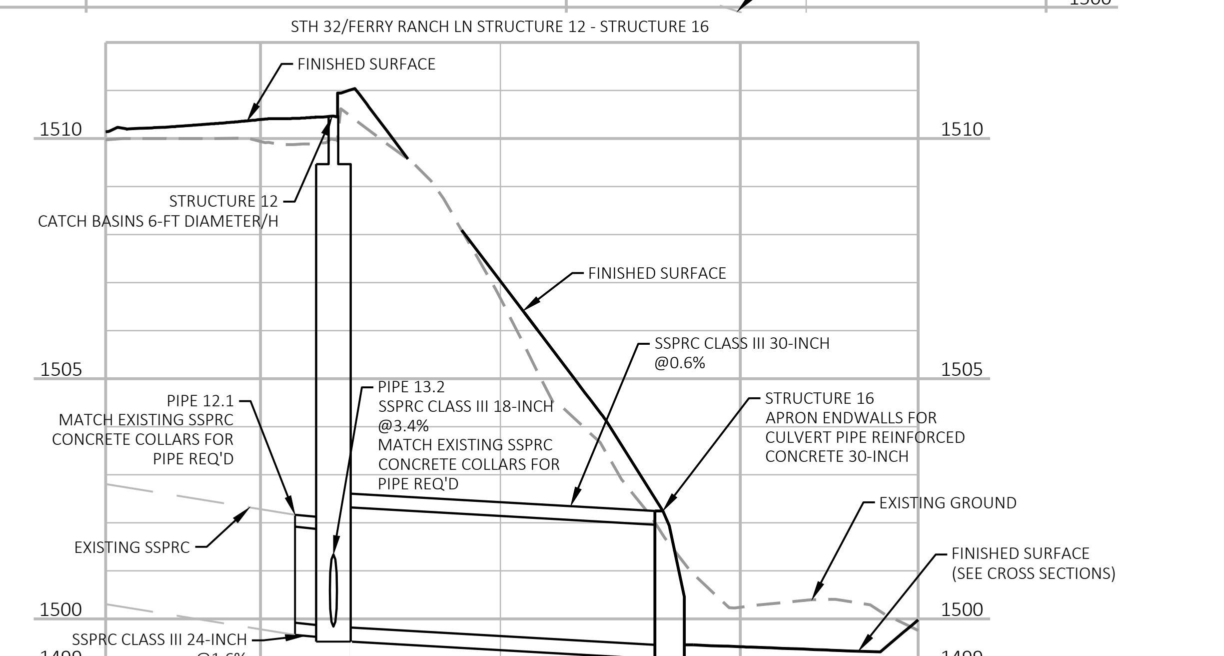
(1) STRUCTURE OFFSET IS TO CENTER OF STRUCTURE.
(2) TOP OF STRUCTURE ELEVATION (T.O.S.) IS DETERMINED BY SUBTRACTING THE CASTING HEIGHT AND 6 INCHES FOR ADJUSTMENT, FROM THE RIM ELEVATION. A TYPE H INLET CASTING IS 6-INCHES IN HEIGHT. EXISTING T.O.S. ELEVATION IS BASED ON ESTIMATED FIELD MEASUREMENTS.
(3) DEPTH OF STRUCTURE IS MEASURED BY SUBTRACTING INVERT ELEVATION FROM T.O.S.
(4) PIPE LENGTH IS MEASURED FROM INSIDE WALL OF STRUCTURE TO THE INSIDE WALL OF STRUCTURE OR INSIDE WALL OF STRUTURE TO THE EXISTING PIPE CONNECTION. PAYMENT IS C-C PER STANDARD SPEC.
(5) PIPE SLOPE IS CALCULATED USING ((INLET ELEVATION - DISCHARGE ELEVATION) / PIPE LENGTH)*100





NOTE

APPROXIMATE SANITARY ELEVATION UNDER SSPRC CLASS III 30-INCH IS 1492.28. APPROXIMATE WATER LINE ELEVATION UNDER SSPRC CLASS III 30-INCH IS 1496.10.



STORM SEWER SCHEDULE

STRUCT OR PIPE NO.	STATION	(1) OFFSET	C-C (FT)	TO STRUCTURE OR PIPE	INLET OR CB TYPE / COVER	RIM/ GRATE ELEV.	(2) T.O.S. ELEV.	(3) DEPTH (FT)	DISCHARGE PIPE CLASS	SIZE (IN)	INLET ELEV.	DISCHARGE ELEV.	(4) LENGTH (FT)	(5) SLOPE (%)	REMARKS
15	168+70.00	61.00' LT	43.3	14	4-FT DIAMETER/C	1510.92	1509.68	4.17	SSP III-A	18	1505.51	1505.31	39.3	0.5	
14	169+11.00	47.00' LT	42.2	13	4-FT DIAMETER/C	1509.76	1508.52	3.21	SSP III-A	18	1505.31	1505.12	38.2	0.5	
13	169+41.14	17.50' LT	8.0	13.1	4-FT DIAMETER/H	1510.54	1509.54	8.70	SSPRC III	18	1500.84	1500.64	6.0	3.3	CONCRETE COLLARS FOR PIPE REQ'D
13.2	169+38.02	9.50, RT	8.0	12	--	--	--	--	SSPRC III	18	1500.01	1499.84	5.0	3.4	CONCRETE COLLARS FOR PIPE REQ'D
12.1	169+29.10	17.42' RT	8.0	12	--	--	--	--	SSPRC III	24	1499.92	1499.84	5.0	1.6	CONCRETE COLLARS FOR PIPE REQ'D
12	169+37.12	17.42' RT	67.0	16	6-FT DIAMETER CB/H	1510.51	1509.51	9.67	SSPRC III	30	1499.84	1499.46	64.0	0.6	PROPOSED CATCH BASIN WITH SUMP DEPTH EQUAL TO ZERO
16	169+89.75	67.14' RT (6)	--	--	--	--	--	--	--	30	--	1499.38	--	--	APRON ENDWALL REQ'D

(1) STRUCTURE OFFSET IS TO CENTER OF STRUCTURE.
(2) TOP OF STRUCTURE ELEVATION (T.O.S.) IS DETERMINED BY SUBTRACTING THE CASTING HEIGHT AND 6 INCHES FOR ADJUSTMENT, FROM THE RIM ELEVATION. A TYPE H INLET CASTING IS 6-INCHES AND A TYPE C INLET CASTING IS 8 7/8-INCHES IN HEIGHT.
(3) DEPTH OF STRUCTURE IS MEASURED BY SUBTRACTING INVERT ELEVATION FROM T.O.S.
(4) PIPE LENGTH IS MEASURED FROM INSIDE WALL OF STRUCTURE TO THE INSIDE WALL OF STRUCTURE OR INSIDE WALL OF STRUTURE TO THE EXISTING PIPE CONNECTION. PAYMENT IS C-C PER STANDARD SPEC.
(5) PIPE SLOPE IS CALCULATED USING ((INLET ELEVATION - DISCHARGE ELEVATION) / PIPE LENGTH)*100
(6) STATION AT ENDWALL IS TO THE END OF ENDWALL

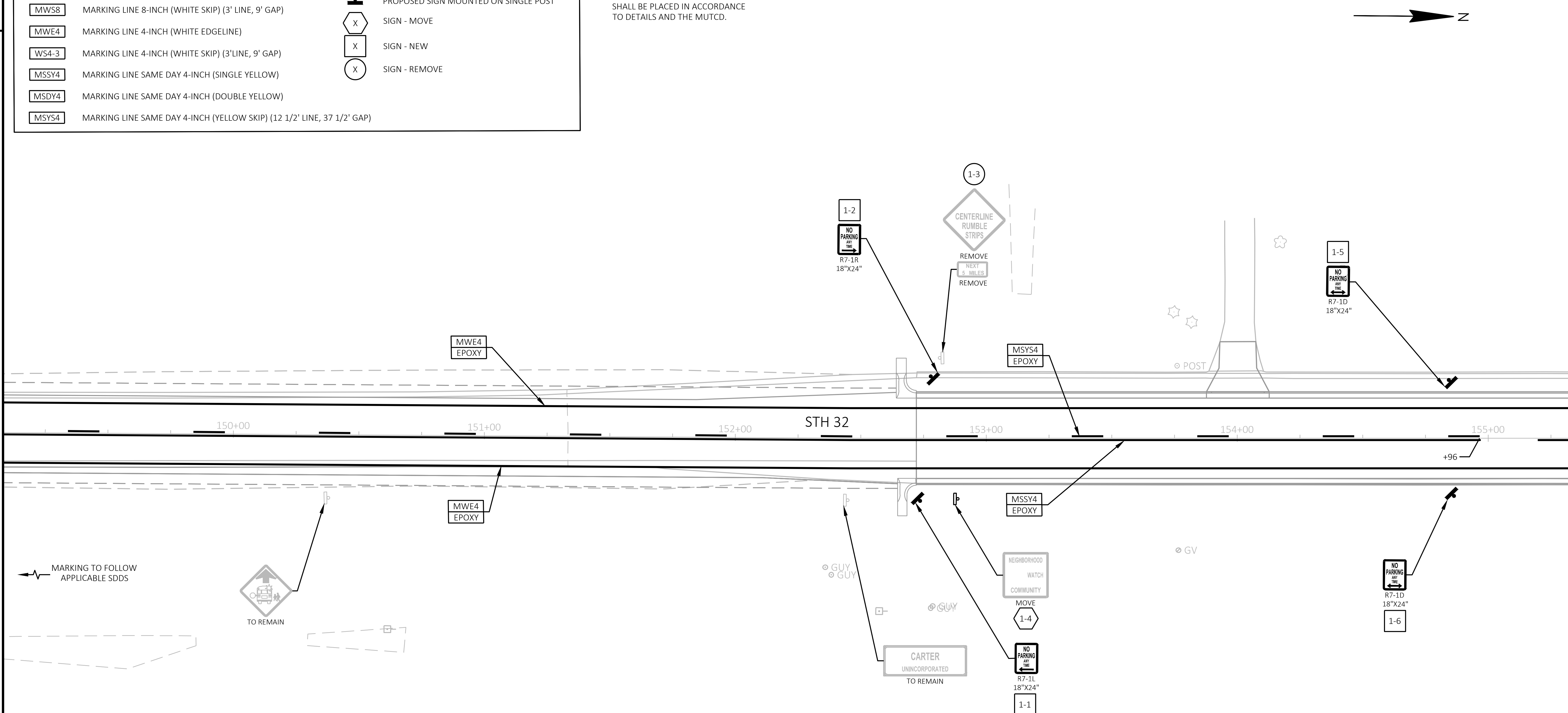
LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST
MOVE EXISTING SIGN MOUNTED ON SINGLE POST
PROPOSED SIGN MOUNTED ON SINGLE POST
X SIGN - MOVE
X SIGN - NEW
X SIGN - REMOVE

NOTE
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.



2

LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST

MOVE EXISTING SIGN MOUNTED ON SINGLE POST

PROPOSED SIGN MOUNTED ON SINGLE POST

X SIGN - MOVE

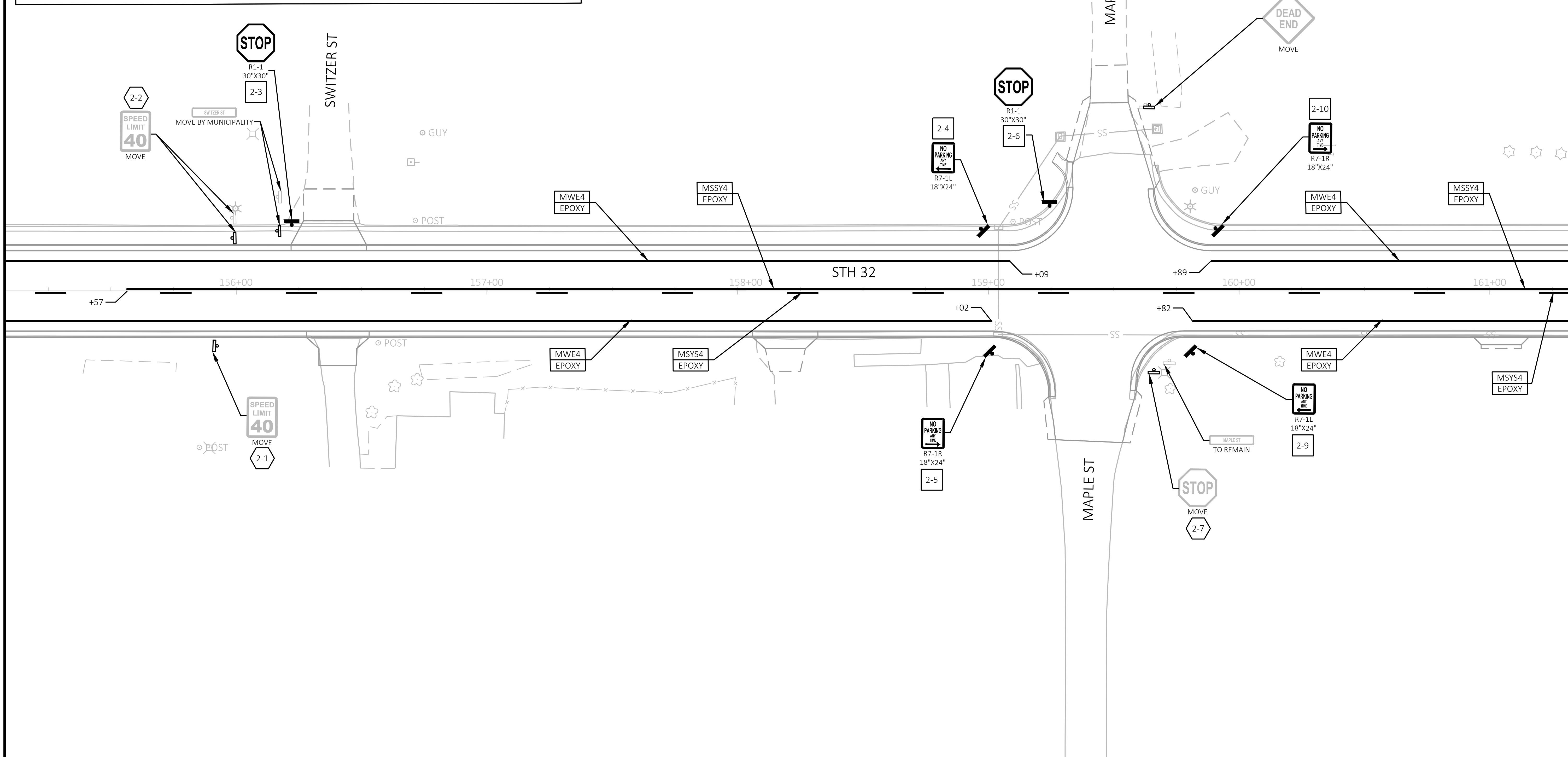
X SIGN - NEW

X SIGN - REMOVE

NOTE

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.



2

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PERMANENT SIGNING AND MARKING	SHEET 30	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 02
PLOT DATE : 1/21/2022 7:58 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST

MOVE EXISTING SIGN MOUNTED ON SINGLE POST

PROPOSED SIGN MOUNTED ON SINGLE POST

X SIGN - MOVE

X SIGN - NEW

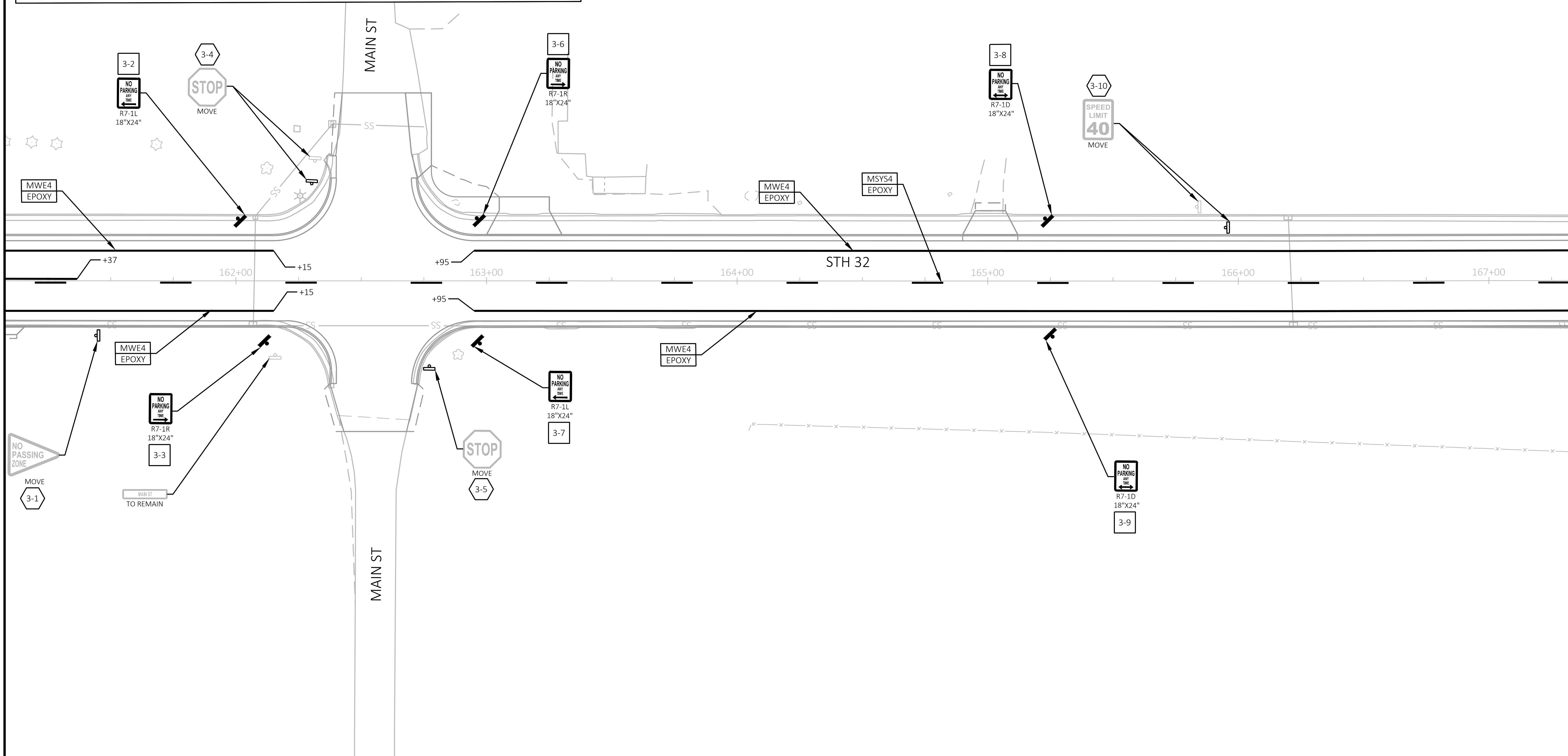
X SIGN - REMOVE

NOTE

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

N



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PERMANENT SIGNING AND MARKING	SHEET 31	E

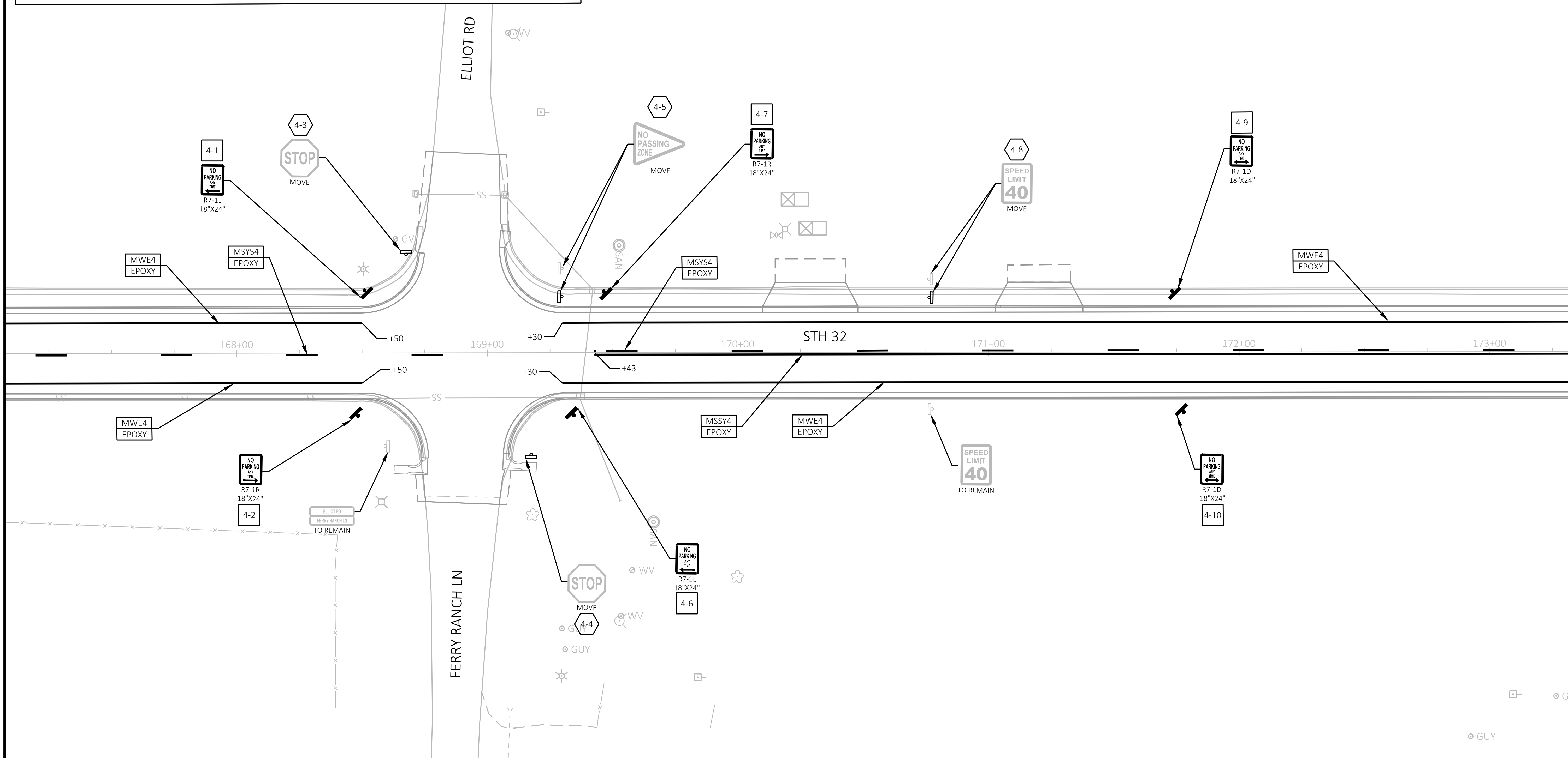
LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST
MOVE EXISTING SIGN MOUNTED ON SINGLE POST
PROPOSED SIGN MOUNTED ON SINGLE POST
X SIGN - MOVE
X SIGN - NEW
X SIGN - REMOVE

NOTE
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.



2

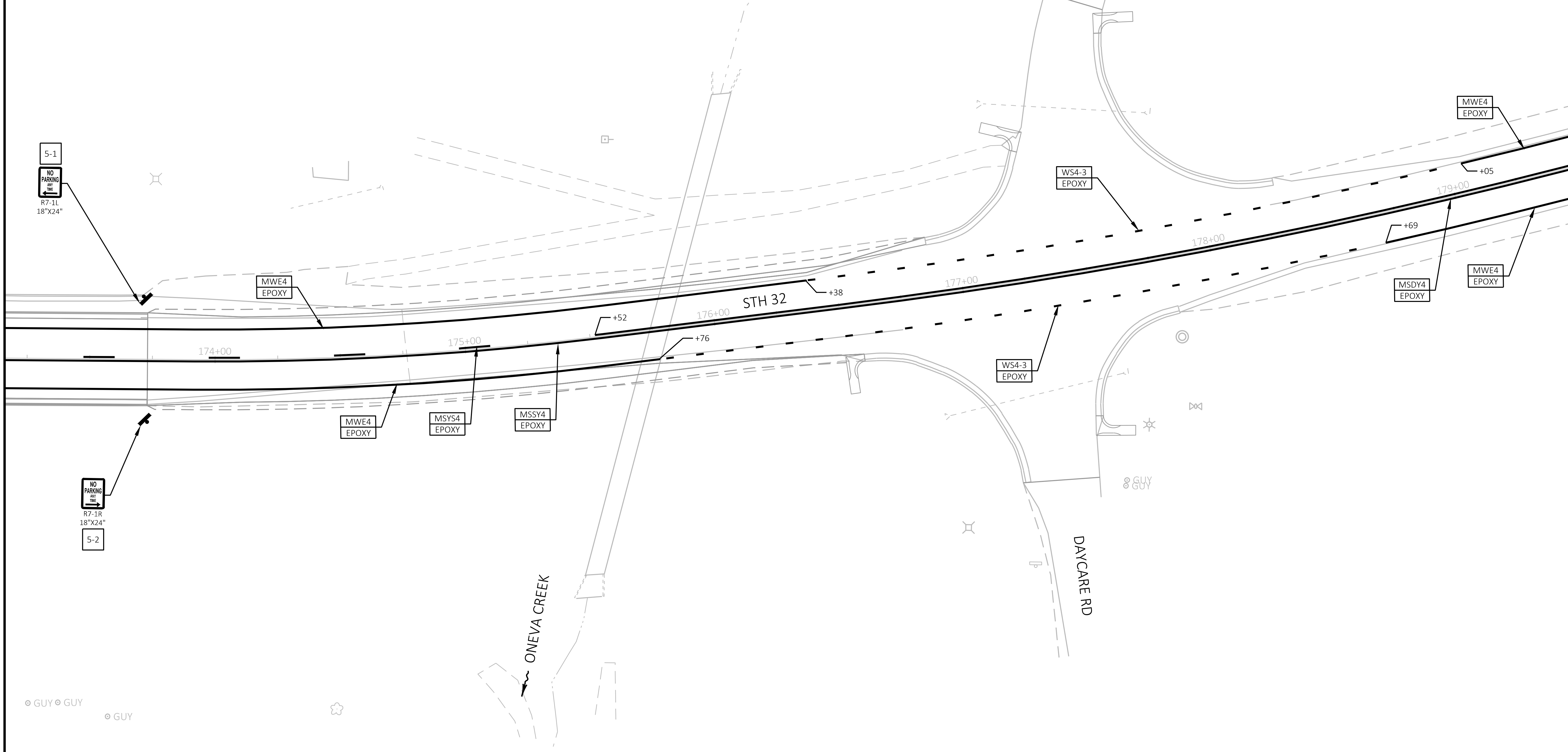
LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37 1/2' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST
MOVE EXISTING SIGN MOUNTED ON SINGLE POST
PROPOSED SIGN MOUNTED ON SINGLE POST
X SIGN - MOVE
X SIGN - NEW
X SIGN - REMOVE

NOTE
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.



2

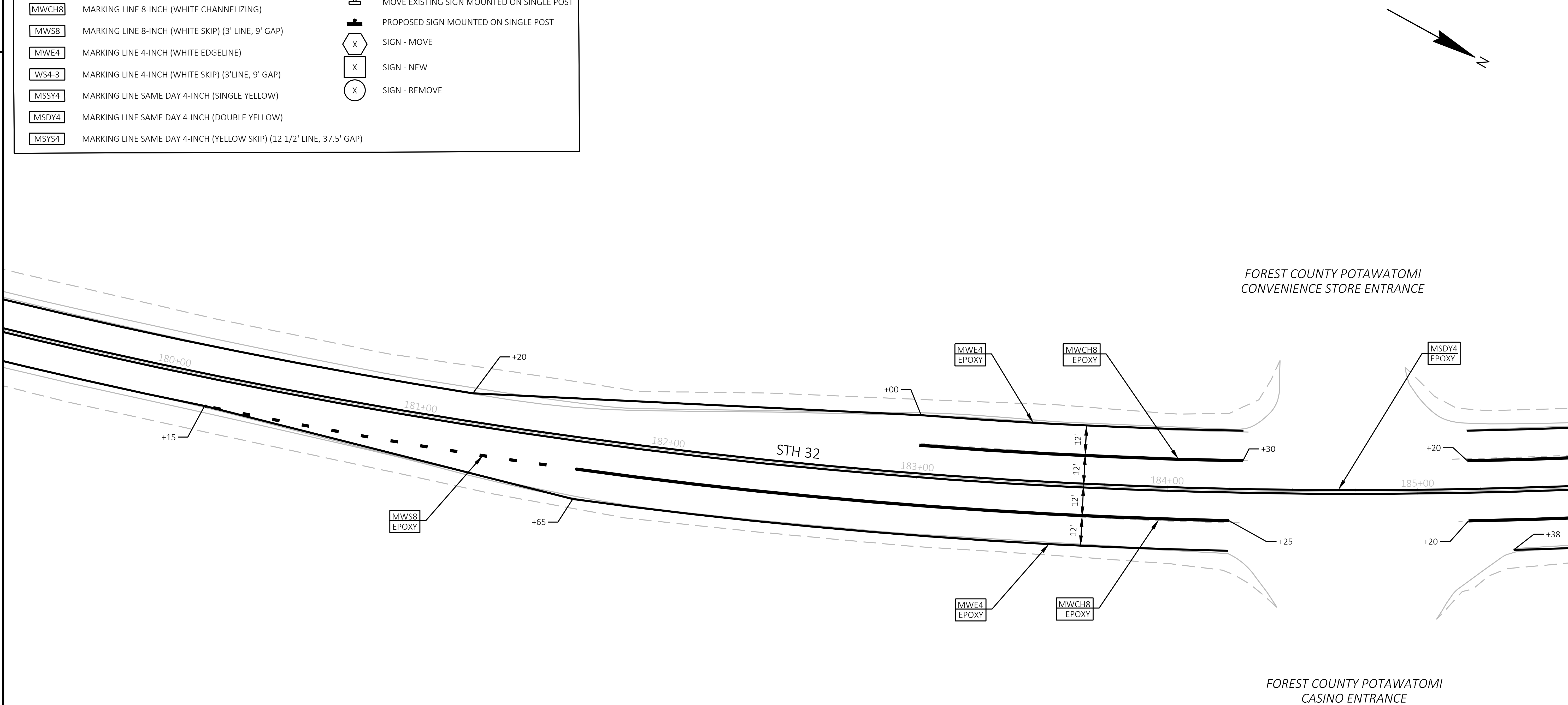
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PERMANENT SIGNING AND MARKING	SHEET 33	E

LEGEND

EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37.5' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST
MOVE EXISTING SIGN MOUNTED ON SINGLE POST
PROPOSED SIGN MOUNTED ON SINGLE POST
X SIGN - MOVE
X SIGN - NEW
X SIGN - REMOVE

NOTE
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.



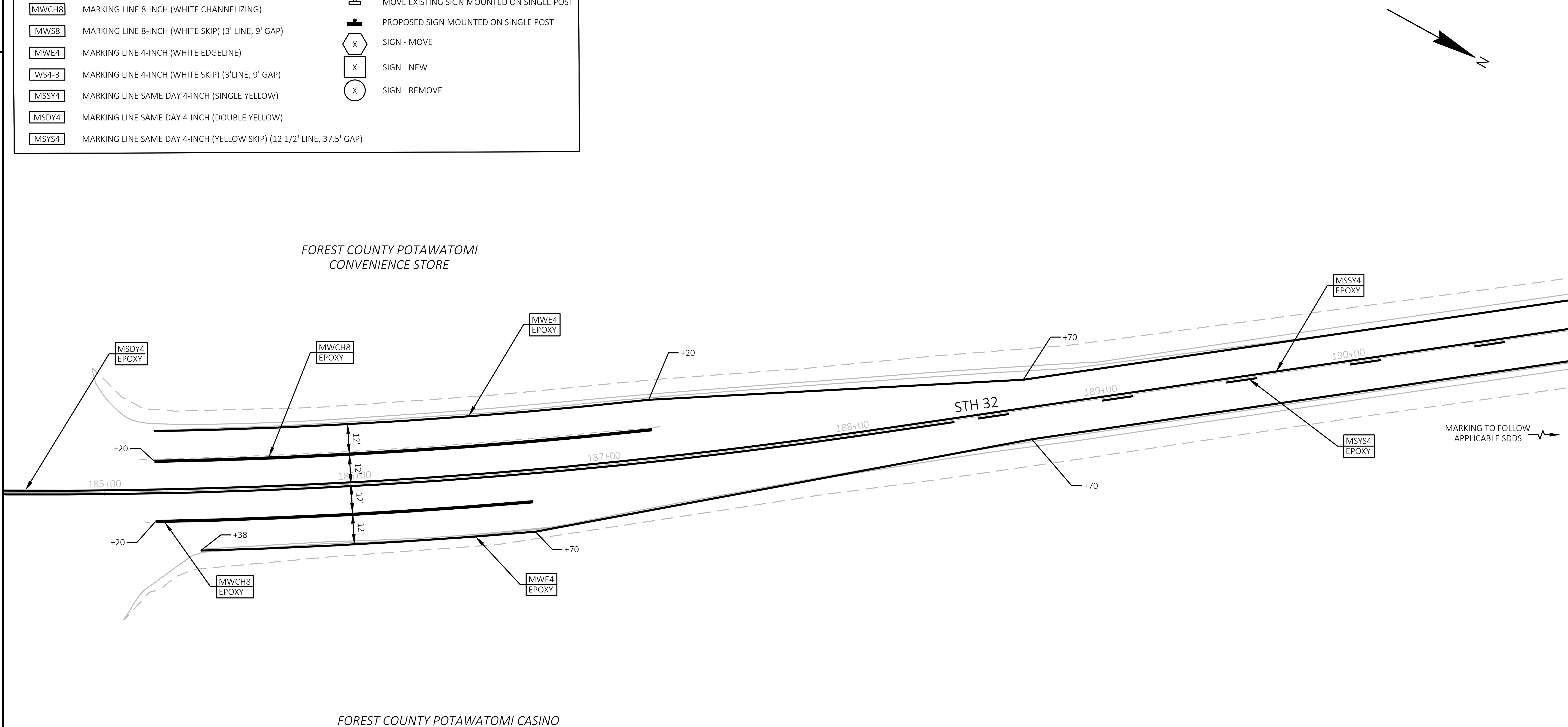
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PERMANENT SIGNING AND MARKING	SHEET 34	E

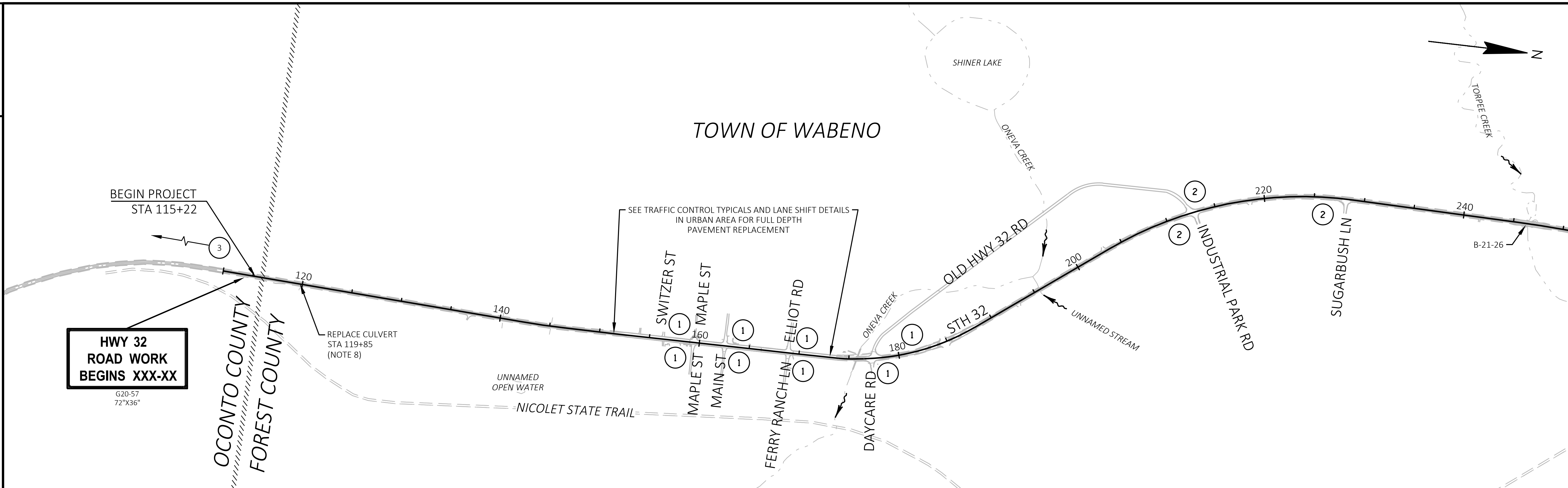
LEGEND

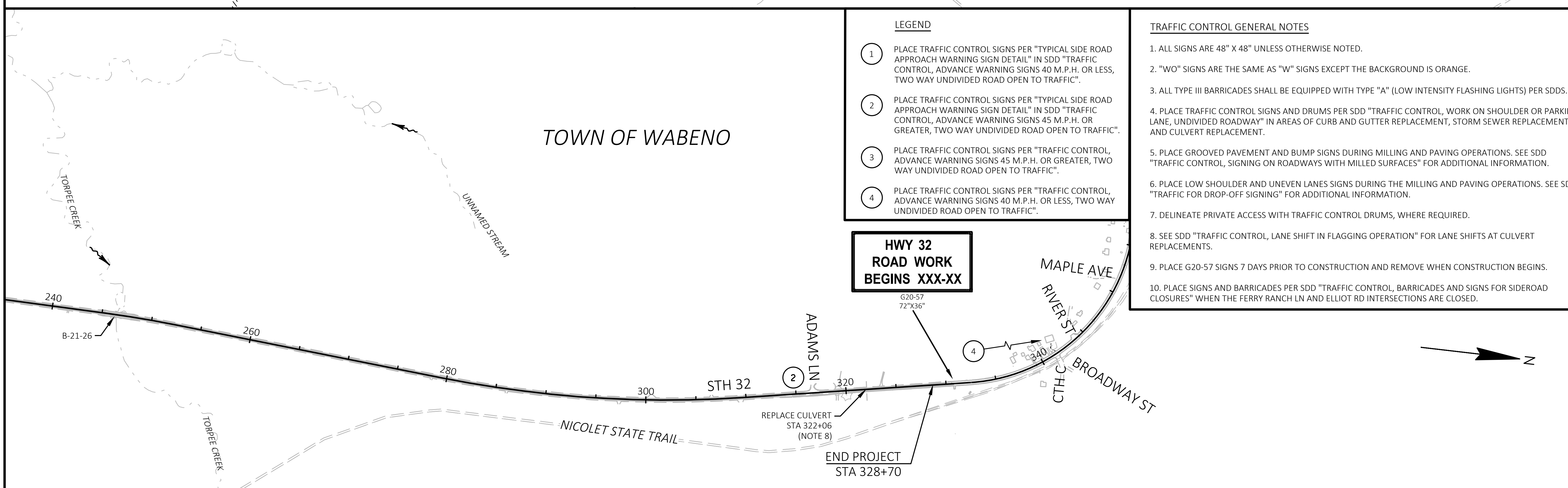
EPOXY	EPOXY
MWCH8	MARKING LINE 8-INCH (WHITE CHANNELIZING)
MWS8	MARKING LINE 8-INCH (WHITE SKIP) (3' LINE, 9' GAP)
MWE4	MARKING LINE 4-INCH (WHITE EDGELINE)
WS4-3	MARKING LINE 4-INCH (WHITE SKIP) (3'LINE, 9' GAP)
MSSY4	MARKING LINE SAME DAY 4-INCH (SINGLE YELLOW)
MSDY4	MARKING LINE SAME DAY 4-INCH (DOUBLE YELLOW)
MSYS4	MARKING LINE SAME DAY 4-INCH (YELLOW SKIP) (12 1/2' LINE, 37.5' GAP)

EXISTING SIGN MOUNTED ON SINGLE POST
MOVE EXISTING SIGN MOUNTED ON SINGLE POST
PROPOSED SIGN MOUNTED ON SINGLE POST
X SIGN - MOVE
X SIGN - NEW
X SIGN - REMOVE

NOTE
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.





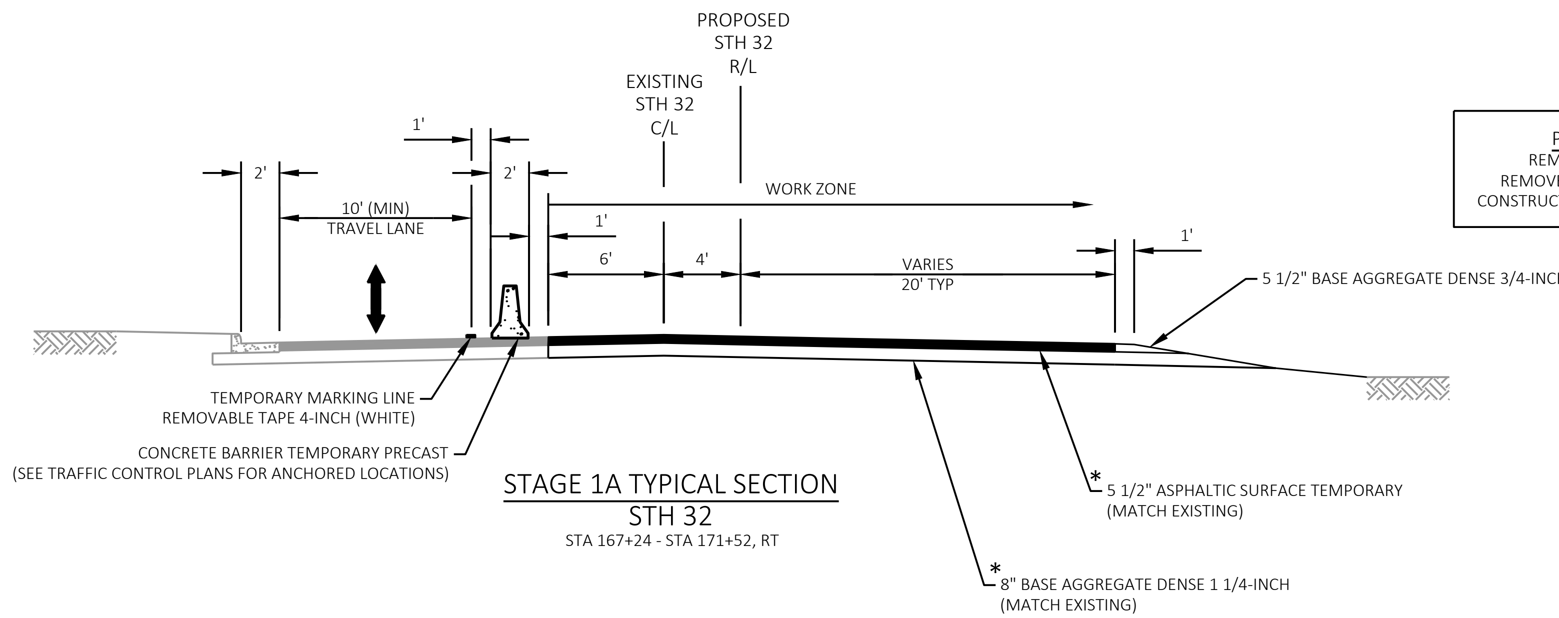


LEGEND

1. PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
2. PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
3. PLACE TRAFFIC CONTROL SIGNS PER "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
4. PLACE TRAFFIC CONTROL SIGNS PER "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

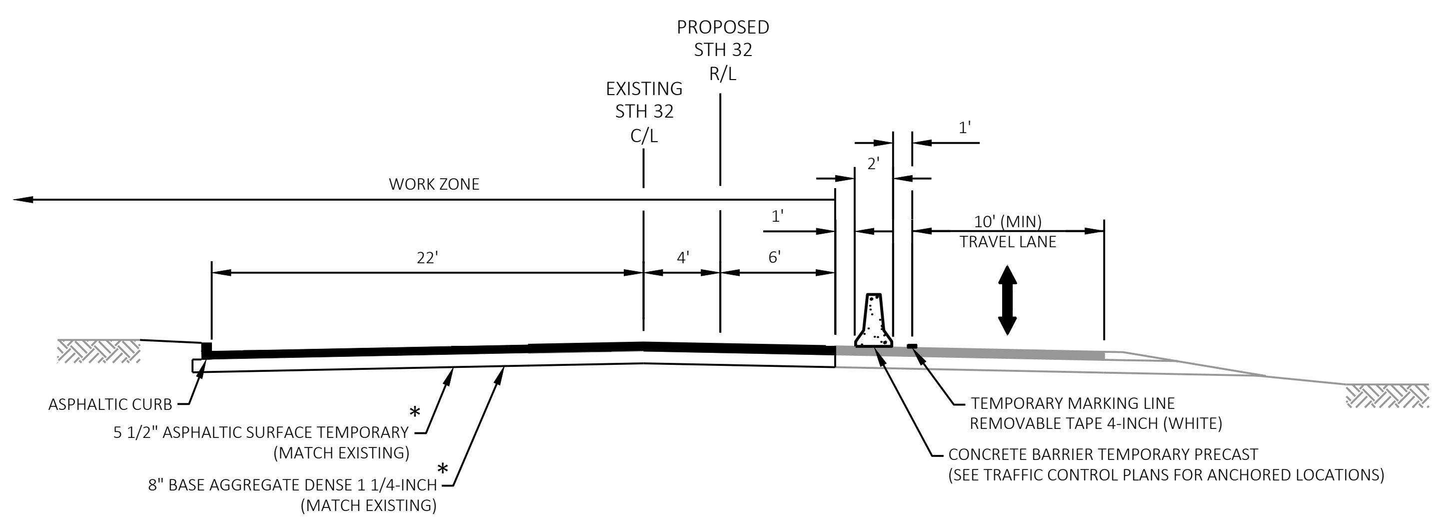
TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS) PER SDDS.
4. PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CURB AND GUTTER REPLACEMENT, STORM SEWER REPLACEMENT AND CULVERT REPLACEMENT.
5. PLACE GROOVED PAVEMENT AND BUMP SIGNS DURING MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR ADDITIONAL INFORMATION.
6. PLACE LOW SHOULDER AND UNEVEN LANES SIGNS DURING THE MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC FOR DROP-OFF SIGNING" FOR ADDITIONAL INFORMATION.
7. DELINEATE PRIVATE ACCESS WITH TRAFFIC CONTROL DRUMS, WHERE REQUIRED.
8. SEE SDD "TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION" FOR LANE SHIFTS AT CULVERT REPLACEMENTS.
9. PLACE G20-57 SIGNS 7 DAYS PRIOR TO CONSTRUCTION AND REMOVE WHEN CONSTRUCTION BEGINS.
10. PLACE SIGNS AND BARRICADES PER SDD "TRAFFIC CONTROL, BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" WHEN THE FERRY RANCH LN AND ELLIOT RD INTERSECTIONS ARE CLOSED.



STAGE 1A TYPICAL SECTION
STH 32
STA 167+24 - STA 171+52, RT

PROPOSED WORK STAGE 1A
REMOVE EXISTING CURB & GUTTER, RT
REMOVE AND REPLACE SS, RT (STR 12 - STR 16)
CONSTRUCT TEMPORARY PAVING FOR TRAFFIC SHIFT



STAGE 1B TYPICAL SECTION
STH 32
STA 169+04 - STA 169+60, LT

PROPOSED WORK STAGE 1B
REMOVE EXISTING CURB & GUTTER, LT
REMOVE AND REPLACE SS, LT (STR 13 - STR 15)

NOTES

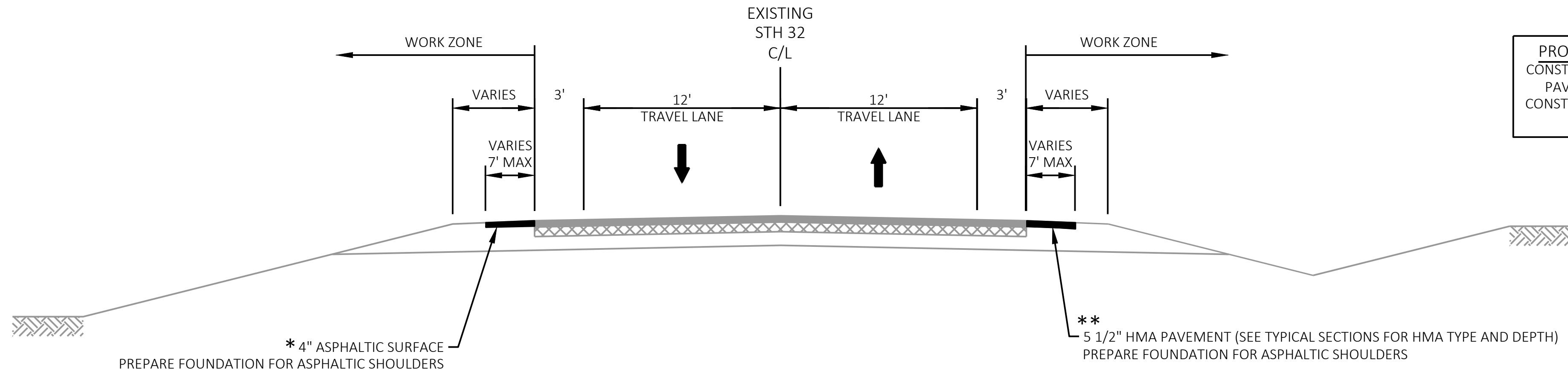
TRAFFIC WILL BE MAINTAINED WITH THE USE OF TEMPORARY TRAFFIC SIGNALS DURING STAGE 1A AND STAGE 1B. SEE TRAFFIC CONTROL PLAN SHEETS.

* SEE TRAFFIC CONTROL PLAN SHEETS FOR ADDITIONAL INFORMATION REGARDING THE LAYOUT OF THE ASPHALTIC SURFACE TEMPORARY.

ALL WORK OUTSIDE OF THE CONCRETE BARRIER TEMPORARY PRECAST WILL BE COMPLETED UNDER FLAGGING OPERATIONS, SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR ADDITIONAL DETAILS.

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 37	E

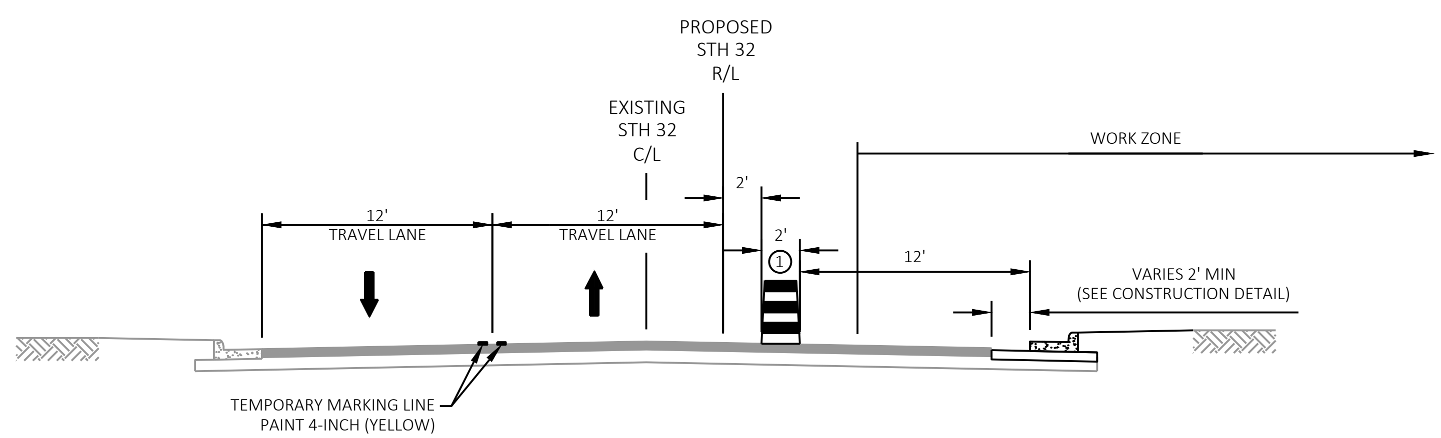
2



PROPOSED WORK STAGE 2A
CONSTRUCT TEMPORARY SHOULDER PAVING FOR TRAFFIC SHIFT, LT
CONSTRUCT PERMANENT SHOULDER FOR TRAFFIC SHIFT , RT

STAGE 2A TYPICAL SECTION
STH 32

STA 144+75 - STA 152+72, LT
STA 147+21 - STA 152+72, RT
STA 173+73 - STA 176+69, LT
STA 173+73 - STA 176+20, RT
STA 178+37 - STA 180+42, LT
STA 178+22 - STA 180+82, RT



PROPOSED WORK STAGE 2B
REMOVE EXISTING CURB & GUTTER, RT
REMOVE, REPLACE AND ADJUST SS, RT
CONSTRUCT CURB & GUTTER, RT

STAGE 2B TYPICAL SECTION
STH 32

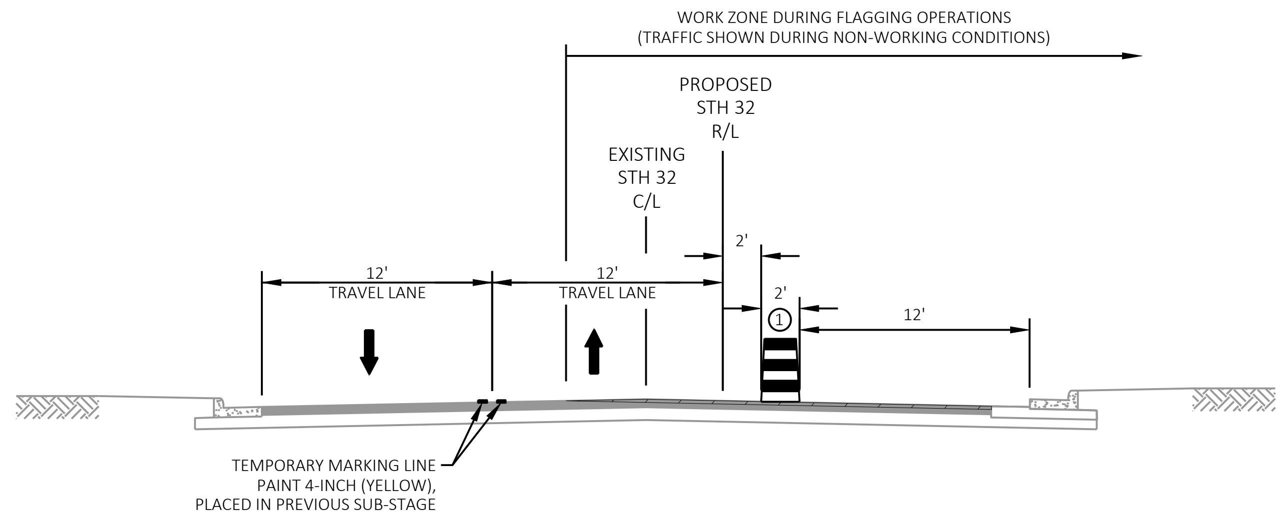
STA 152+72 - STA 173+73

NOTES
THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

* ASPHALTIC SURFACE TEMPORARY LAYOUT SHOWN ON STAGE 2B - STAGE 2D DETAILS.

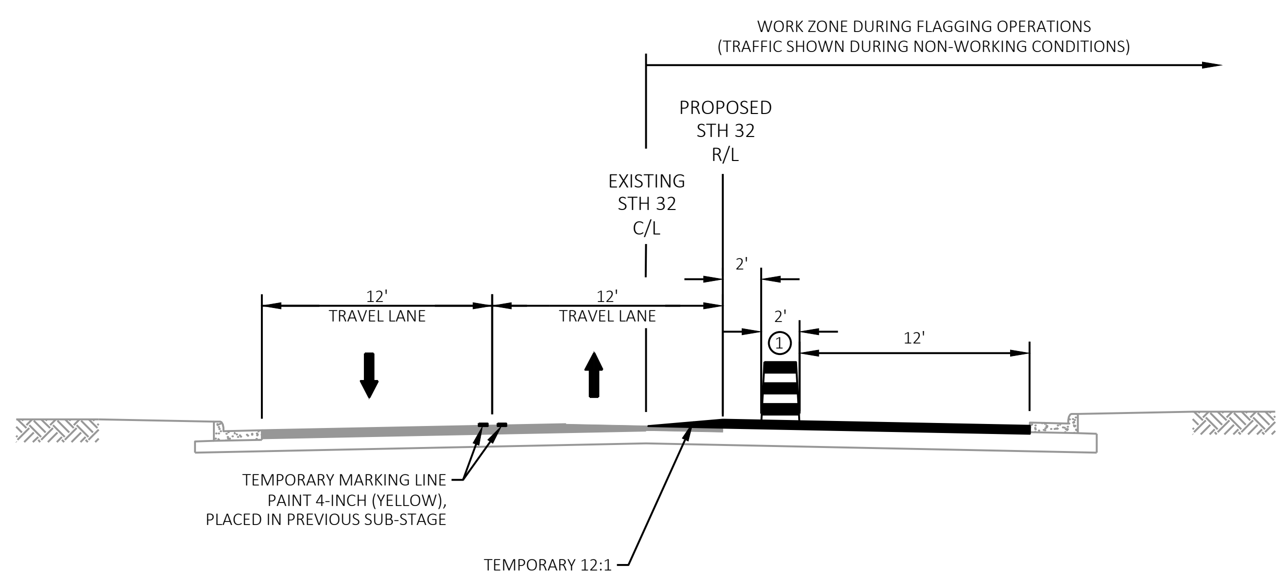
** HMA PAVEMENT LAYOUT SHOWN ON THE PAVING DETAILS.

1 DRUM PLACEMENT SHOWN DURING NON-WORKING HOURS, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION. SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC FOR SHOULDER PAVING OPERATION, STORM SEWER WORK AND CURB & GUTTER REPLACEMENT DURING WORKING HOURS.



PROPOSED WORK STAGE 2C
MILL 2" OF EXISTING ASPHALT, RT

STAGE 2C TYPICAL SECTION
STH 32
STA 152+72 - STA 173+73



PROPOSED WORK STAGE 2D
REMOVE ASPHALTIC SURFACE FULL DEPTH AND PAVE LOWER LAYER IN SAME DAY, RT

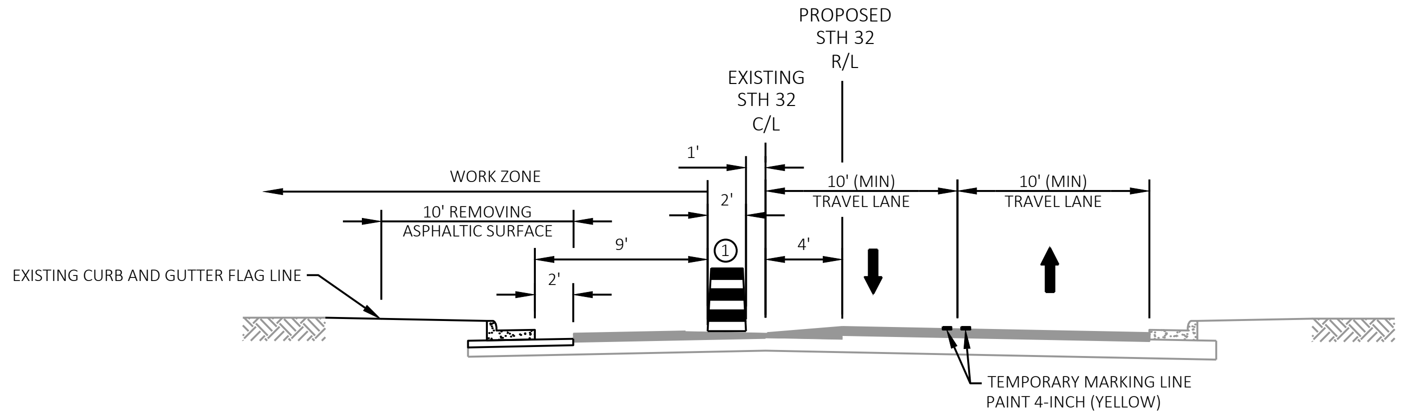
STAGE 2D TYPICAL SECTION
STH 32
STA 152+72 - STA 173+73

NOTES
THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

1 DRUM PLACEMENT SHOWN DURING NON-WORKING HOURS, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION. SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC FOR MILLING AND PAVING OPERATION, DURING WORKING HOURS.

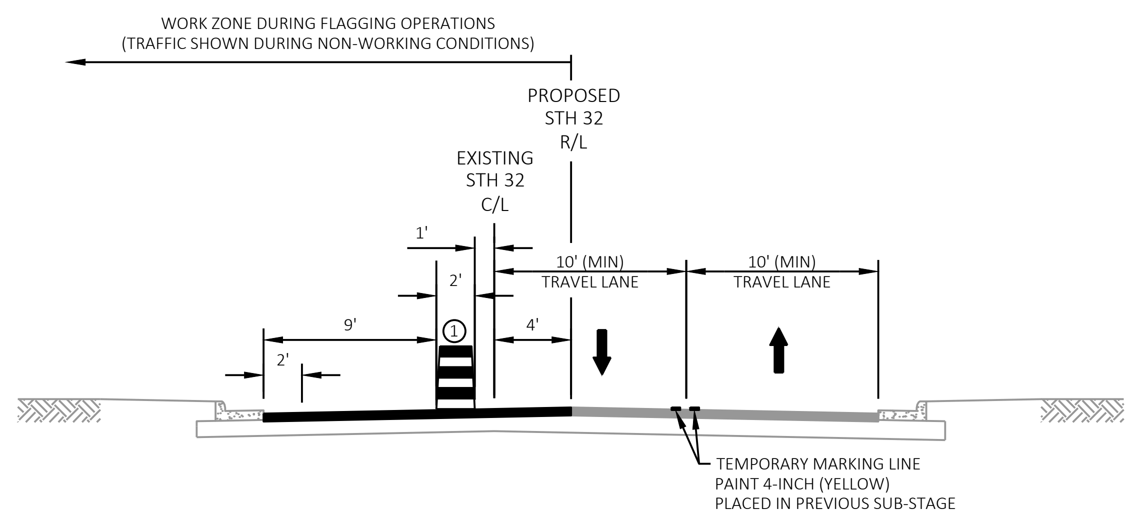
THE ASPHALT TO BE REMOVED VIA MILLING IN STAGE 2C TO MAINTAIN TRAFFIC IS PAID AS REMOVING ASPHALTIC SURFACE.

2



STAGE 3A TYPICAL SECTION
STH 32

PROPOSED WORK STAGE 3A
REMOVE EXISTING CURB & GUTTER, LT
REMOVING ASPHALTIC SURFACE FULL DEPTH OUTER 10' OF EXISTING ASPHALT, LT
REMOVE AND REPLACE SS, LT
CONSTRUCT CURB & GUTTER, LT



STAGE 3B TYPICAL SECTION
STH 32

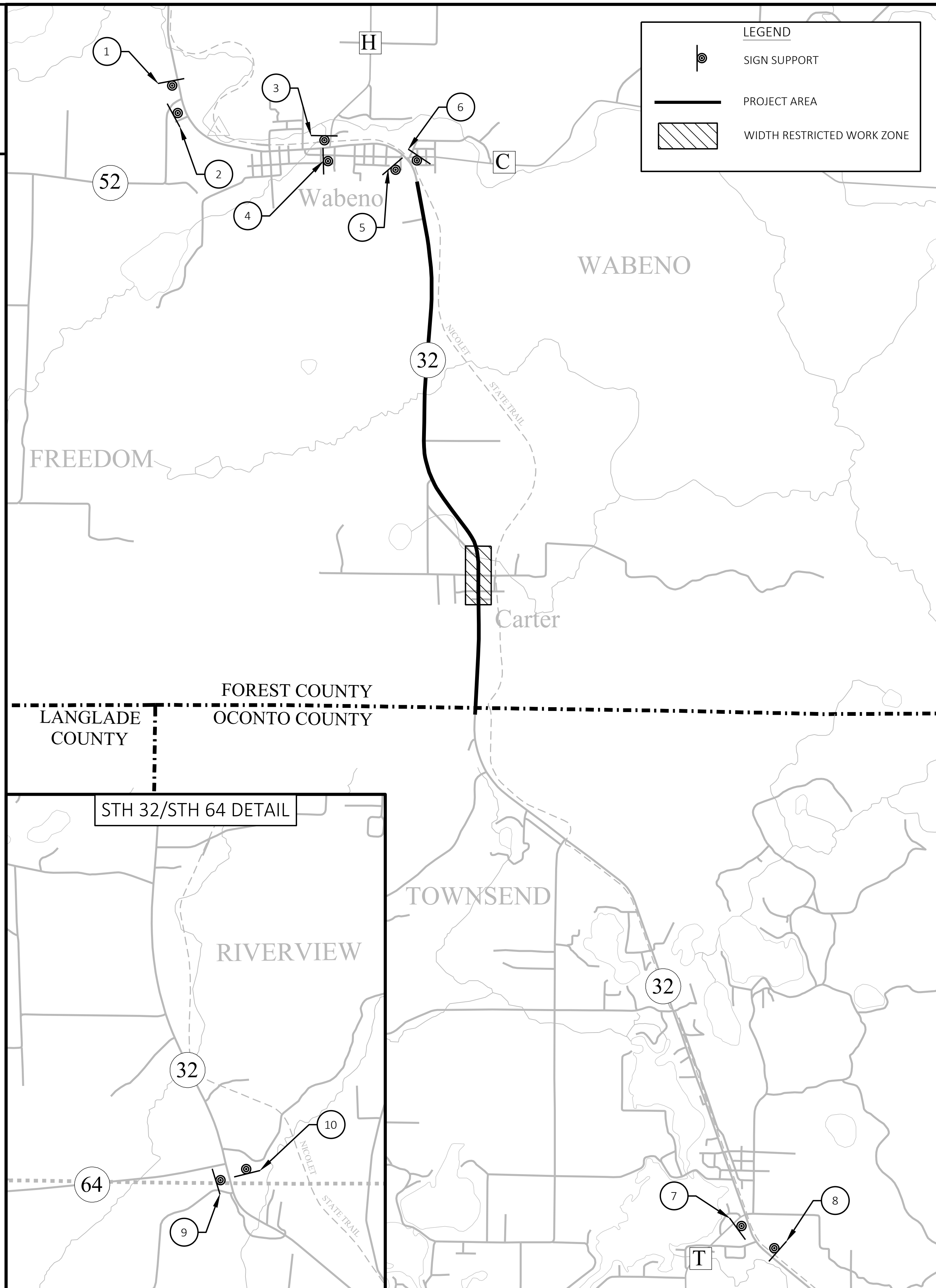
PROPOSED WORK STAGE 3B
REMOVE ASPHALTIC SURFACE FULL DEPTH AND PAVE LOWER LAYER IN SAME DAY, LT

NOTES

THE WORK ZONE AS SHOWN INCLUDES WORKING ROOM AND BUFFER TO LIVE TRAFFIC.

1 DRUM PLACEMENT SHOWN DURING NON-WORKING HOURS, SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION. SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC FOR STORM SEWER WORK, CURB & GUTTER REPLACEMENT, AND MILLING AND PAVING OPERATION DURING WORKING HOURS.

STAGE 4 NOT SHOWN, PLACE 2-INCH HMA UPPER LAYER THROUGHOUT THE PROJECT LIMITS.



N

NOTES FOR WIDTH RESTRICTION SIGNING

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

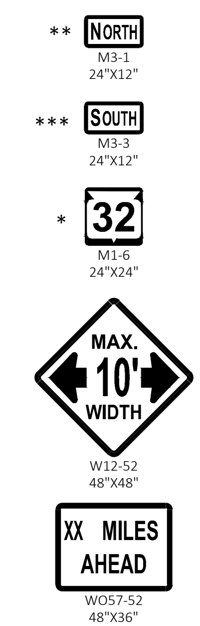
* PLACE SIGN M1-6 AND M3-1 OR M3-3 WHEN ASSEMBLY IS MOUNTED ON ALL ROADWAYS OTHER THAN STH 32.

** PLACE SIGN M3-1 ON THE FOLLOWING ASSEMBLIES. 7 9

*** PLACE SIGN M3-3 ON THE FOLLOWING ASSEMBLIES. 2 3 6

DURING STAGE 4, MAINTAIN 16-FEET CLEAR WIDTH DURING FLAGGING OPERATIONS .

1	STH 32 / STH 52 INTERSECTION - 4 1/2 MILES AHEAD
2	STH 52 / STH 32 INTERSECTION - 4 1/2 MILES AHEAD
3	CTH H / STH 32 INTERSECTION - 3 MILES AHEAD
4	STH 32 / CTH H INTERSECTION - 3 MILES AHEAD
5	STH 32 / CTH C INTERSECTION - 2 1/2 MILES AHEAD
6	CTH C / STH 32 INTERSECTION - 2 1/2 MILES AHEAD
7	CTH T / STH 32 INTERSECTION - 5 1/2 MILES AHEAD
8	STH 32 / CTH T INTERSECTION - 5 1/2 MILES AHEAD
9	STH 64 / STH 32 INTERSECTION - 16 MILES AHEAD
10	STH 32 / STH 64 INTERSECTION - 16 MILES AHEAD



PLACE ABOVE SIGNS AT ALL LOCATIONS DURING STAGE 1, STAGE 2 AND STAGE 3

LEGEND

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	(REM) MARKING REMOVAL LINE 4-INCH
EXISTING PAVEMENT MARKING	(TW) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	(TY) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
SIGN ON TEMPORARY SUPPORT	(TTY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
CONCRETE BARRIER TEMPORARY PRECAST	(TTW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
5 1/2-INCH ASPHALTIC SURFACE TEMPORARY	(STP) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
WORK AREA	XXXXXX SAWCUT

NOTES

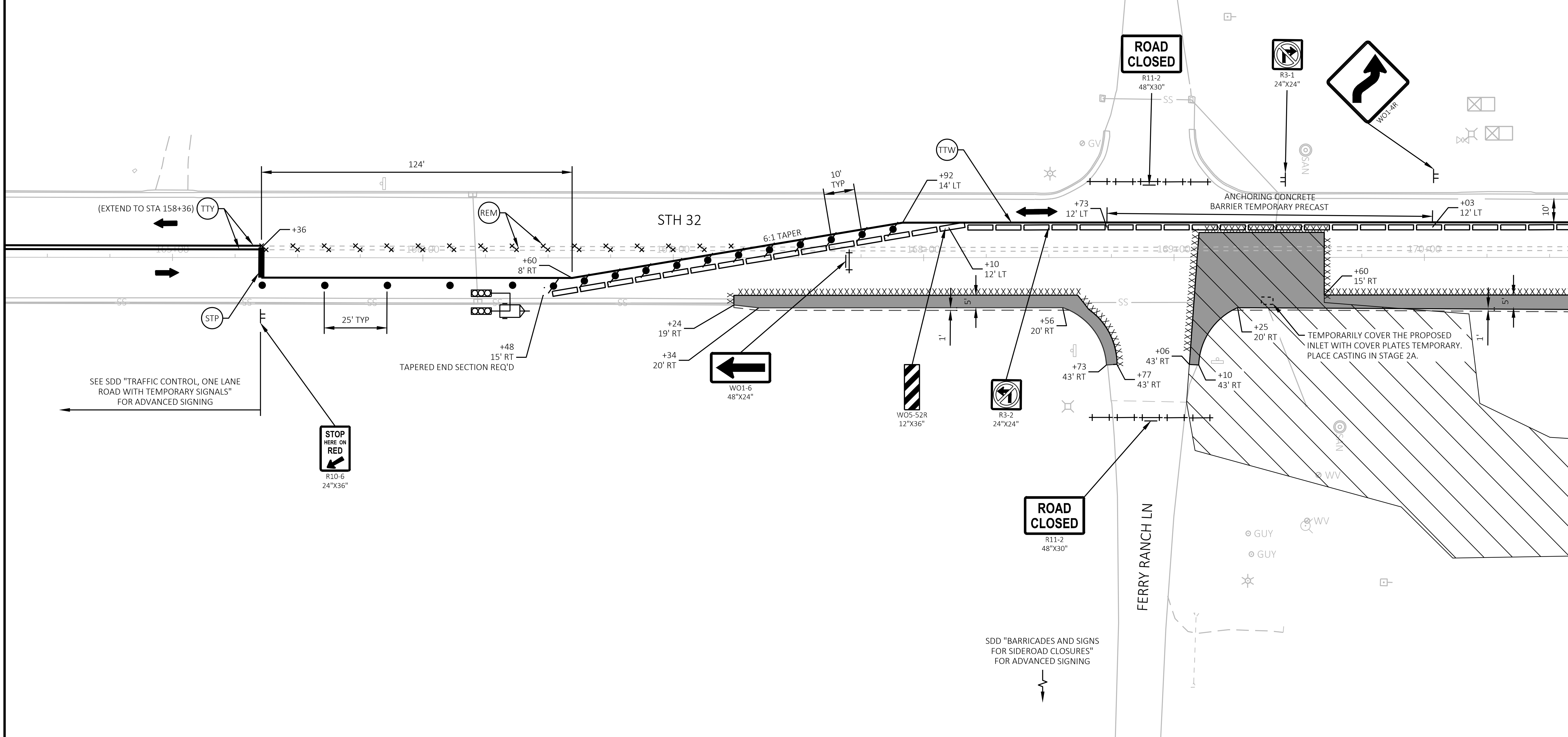
TEMPORARY MARKING, TRAFFIC CONTROL DRUMS AND TEMPORARY SIGNAL PLACEMENT ARE SHOWN ON THE PLANS, SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL INFORMATION

GRADING FOR THE DITCH BETWEEN STA 169+37 - STA 174+57 IS TO BE COMPLETED UNDER FLAGGING OPERATIONS TO MINIMIZE THE LENGTH OF SIDEROAD CLOSURES

SIGNAL TIMING

SIGNAL TIMING PROVIDED BY NC REGION, TRAFFIC SECTION.
SIGNAL TIMING ASSUMES 812' SPACING BETWEEN STOP LINES.

NB: GREEN = 24 SEC, YELLOW = 4 SEC, ALL RED = 25 SEC
SB: GREEN = 24 SEC, YELLOW = 4 SEC, ALL RED = 25 SEC



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 1A	SHEET 42	E

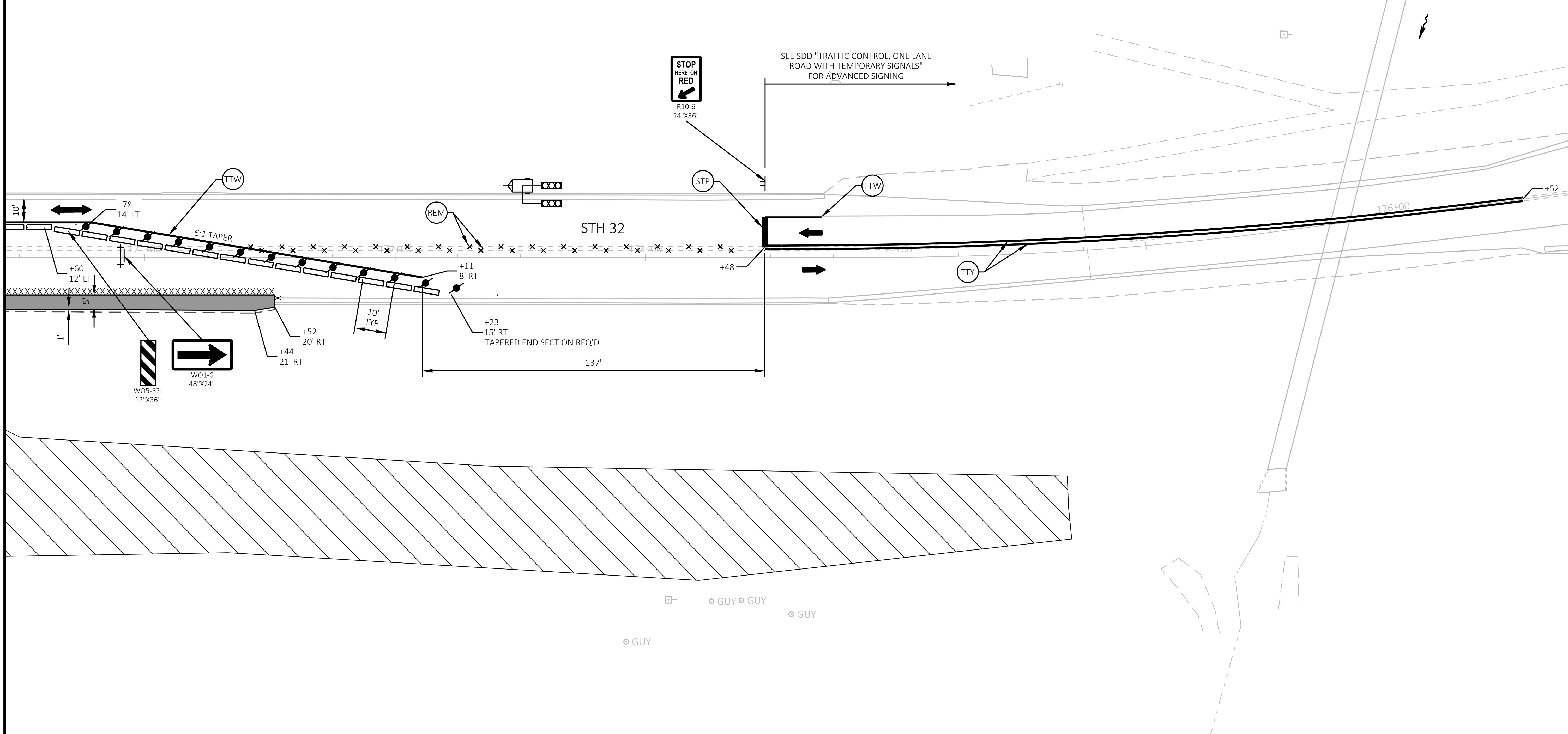
LEGEND

	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN		DIRECTION OF TRAFFIC
	TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	REM	MARKING REMOVAL LINE 4-INCH
	EXISTING PAVEMENT MARKING	TW	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
	TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	TY	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
	SIGN ON TEMPORARY SUPPORT	TTY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
	CONCRETE BARRIER TEMPORARY PRECAST	TTW	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
	5 1/2-INCH ASPHALTIC SURFACE TEMPORARY	STP	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
	WORK AREA	XXXXXX	SAWCUT

NOTES

TEMPORARY MARKING, TRAFFIC CONTROL DRUMS AND TEMPORARY SIGNAL PLACEMENT ARE SHOWN ON THE PLANS, SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL INFORMATION

GRADING FOR THE DITCH BETWEEN STA 169+37 - STA 174+57 IS TO BE COMPLETED UNDER FLAGGING OPERATIONS TO MINIMIZE THE LENGTH OF SIDEROAD CLOSURES



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 1A	SHEET 43	E

LEGEND

	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN		DIRECTION OF TRAFFIC
● /	TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	REM	MARKING REMOVAL LINE 4-INCH
	EXISTING PAVEMENT MARKING	TW	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
	TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	TY	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
	SIGN ON TEMPORARY SUPPORT	TTY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
	CONCRETE BARRIER TEMPORARY PRECAST	TTW	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
	ASPHALT PLACED IN A PREVIOUS STAGE	STP	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
	5 1/2-INCH ASPHALTIC SURFACE TEMPORARY	XXXXXX	SAWCUT
	WORK AREA		

NOTES

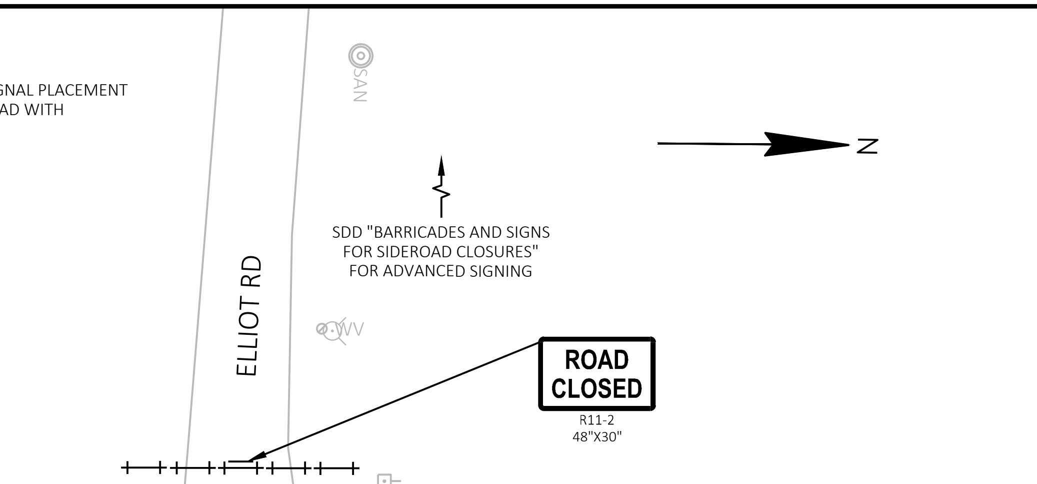
TEMPORARY MARKING, TRAFFIC CONTROL DRUMS AND TEMPORARY SIGNAL PLACEMENT ARE SHOWN ON THE PLANS, SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL INFORMATION

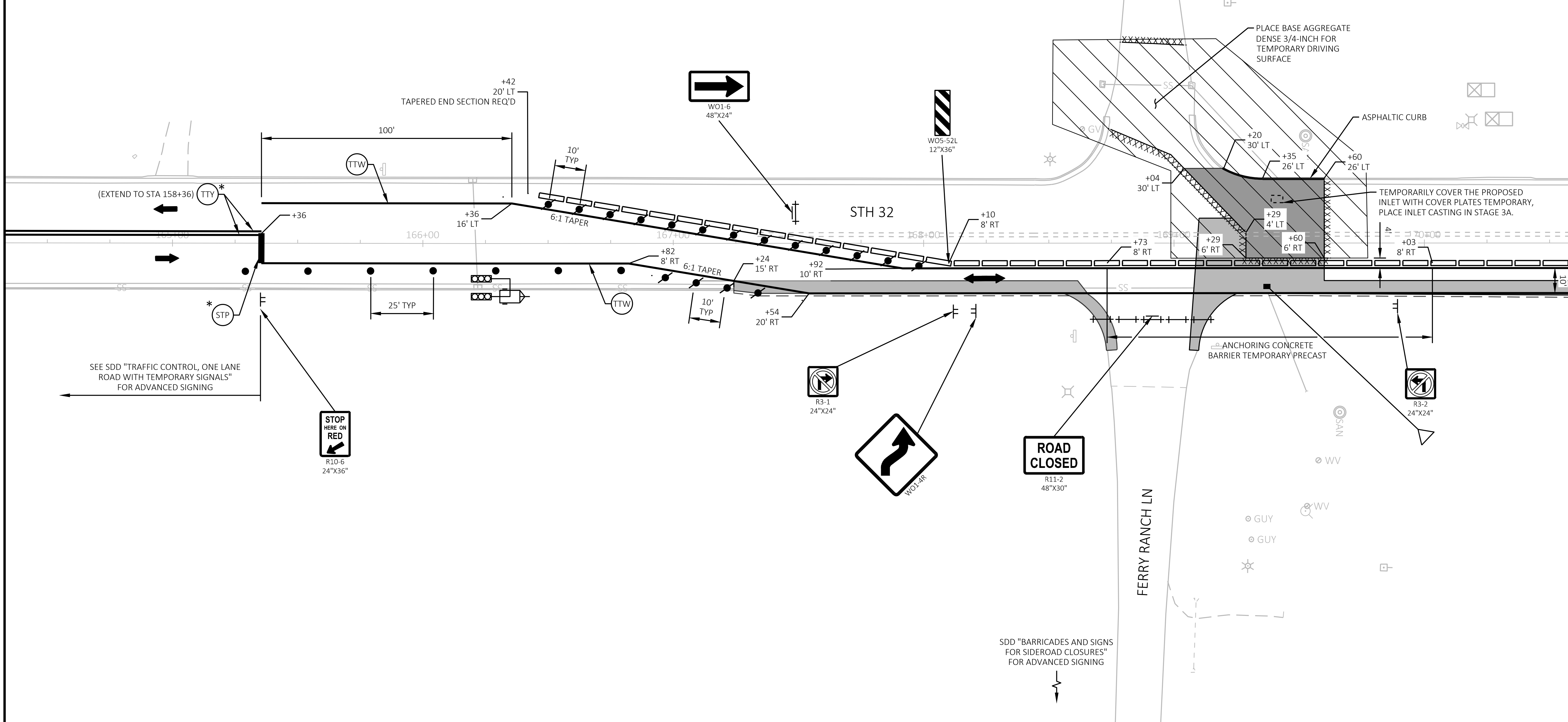
* TEMPORARY MARKING PLACED IN PREVIOUS STAGE

SIGNAL TIMING

SIGNAL TIMING PROVIDED BY NC REGION, TRAFFIC SECTION.
SIGNAL TIMING ASSUMES 812' SPACING BETWEEN STOP LINES.

NB: GREEN = 24 SEC, YELLOW = 4 SEC, ALL RED = 25 SEC
SB: GREEN = 24 SEC, YELLOW = 4 SEC, ALL RED = 25 SEC





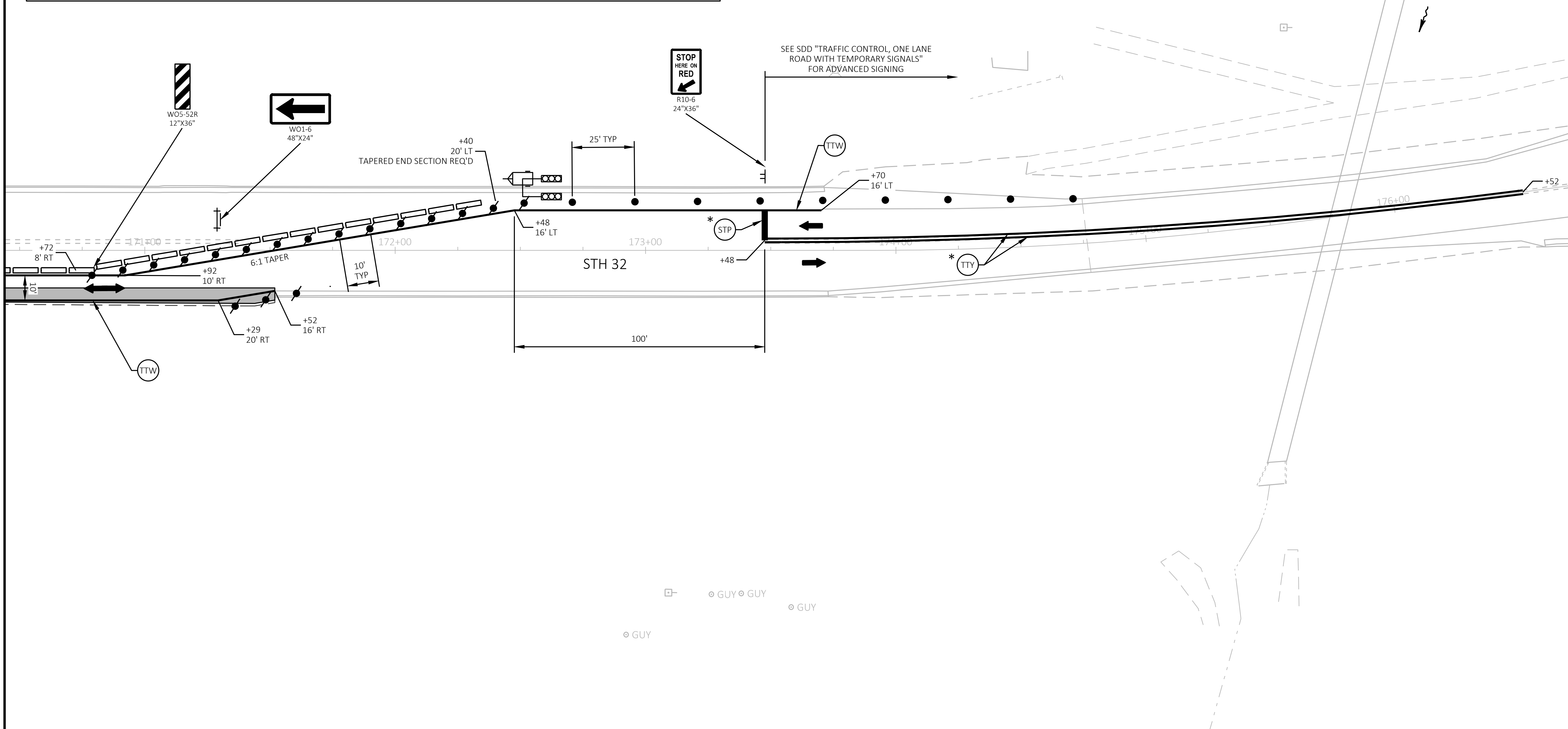
LEGEND

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	(REM) MARKING REMOVAL LINE 4-INCH
EXISTING PAVEMENT MARKING	(TW) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	(TY) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
SIGN ON TEMPORARY SUPPORT	(TTY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
CONCRETE BARRIER TEMPORARY PRECAST	(TTW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
ASPHALT PLACED IN A PREVIOUS STAGE	(STP) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
5 1/2-INCH ASPHALTIC SURFACE TEMPORARY	XXXXXX SAWCUT
WORK AREA	

NOTES

TEMPORARY MARKING, TRAFFIC CONTROL DRUMS AND TEMPORARY SIGNAL PLACEMENT ARE SHOWN ON THE PLANS, SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL INFORMATION

* TEMPORARY MARKING PLACED IN PREVIOUS STAGE



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - STAGE 1B	SHEET 45	E

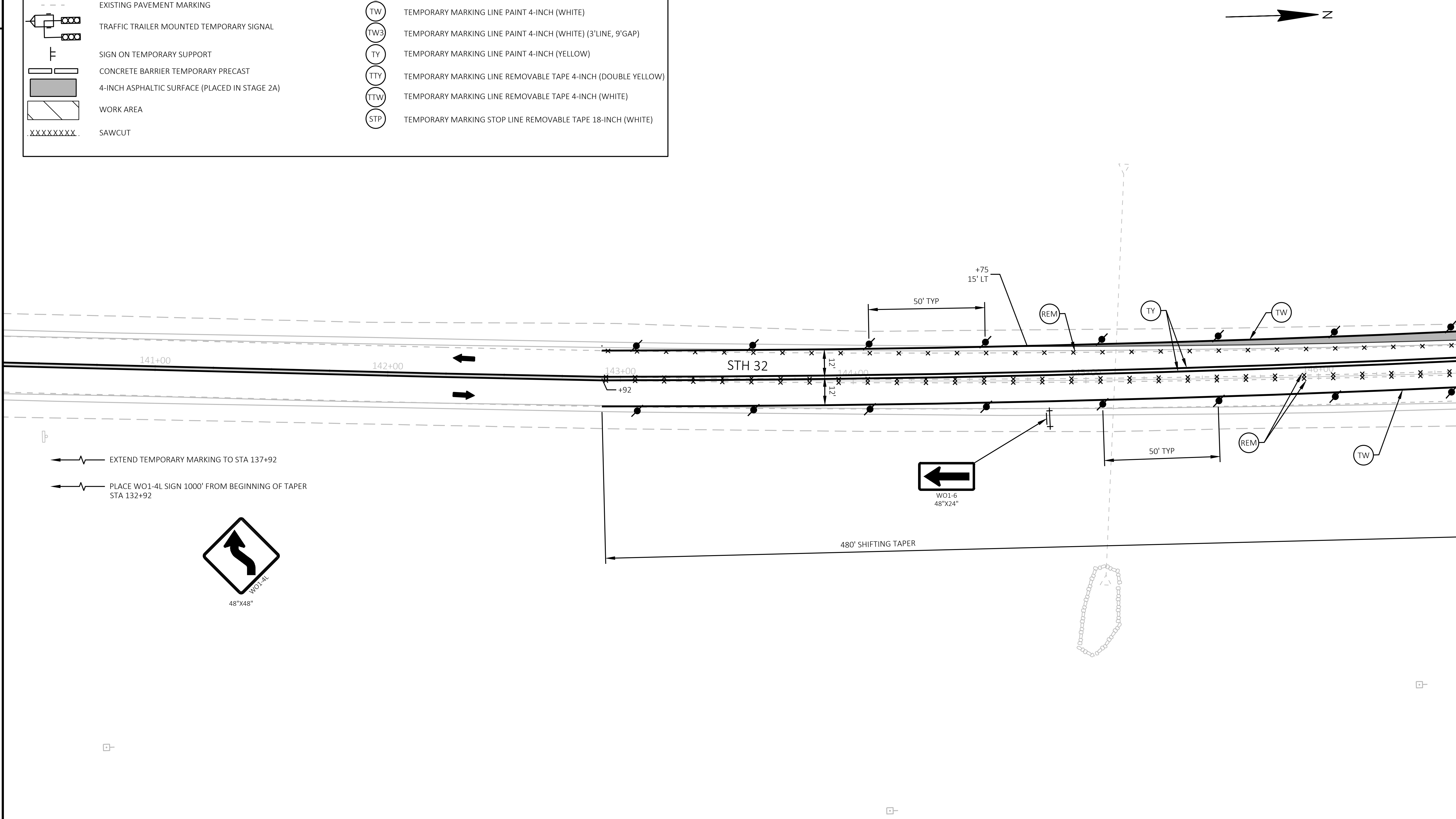
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\025004-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 1/21/2022 7:58 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)
- EXISTING PAVEMENT MARKING
- TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- 4-INCH ASPHALTIC SURFACE (PLACED IN STAGE 2A)
- WORK AREA
- XXXXXXXX SAWCUT
- DIRECTION OF TRAFFIC
- REM MARKING REMOVAL LINE 4-INCH
- TW TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- TW3 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
- TY TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- TTY TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- TTW TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- STP TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 2B - STAGE 2D	SHEET 46	E

2

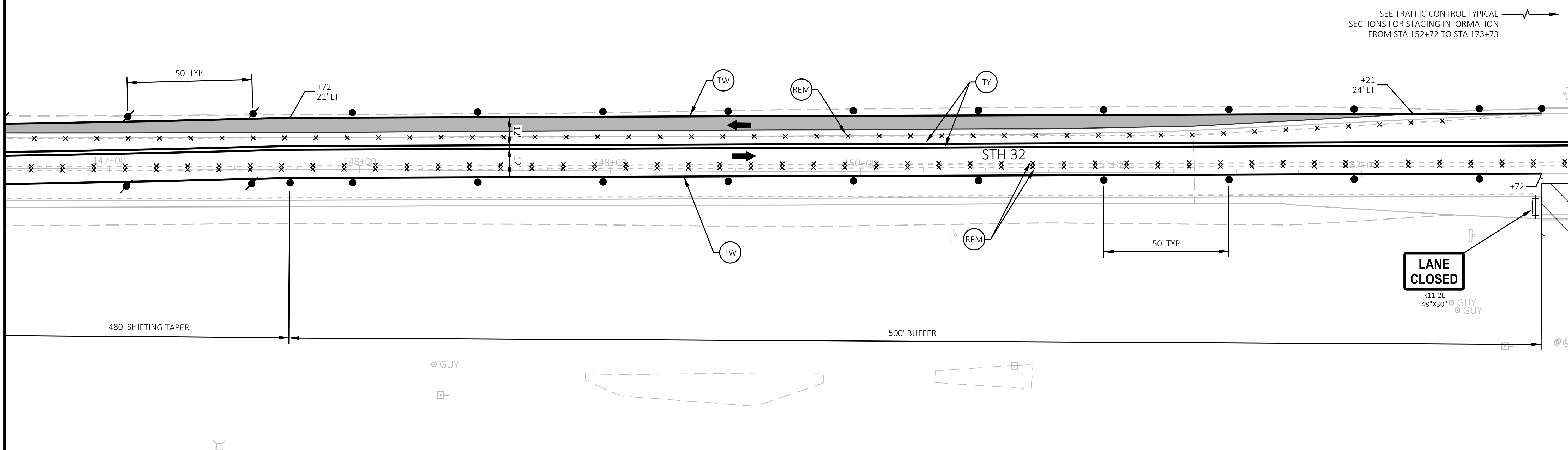
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)
- EXISTING PAVEMENT MARKING
- TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- 4-INCH ASPHALTIC SURFACE (PLACED IN STAGE 2A)
- WORK AREA
- XXXXXXXX SAWCUT
- DIRECTION OF TRAFFIC
- REM MARKING REMOVAL LINE 4-INCH
- TW TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- TW3 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
- TY TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- TTY TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- TTW TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- STP TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

THE TEMPORARY CENTERLINE MARKING IN STAGE 2B - STAG 2D IS OFFSET BY 8' FROM THE EXISTING CENTERLINE THROUGH THE LENGTH OF BUFFER.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 2B - STAGE 2D	SHEET 47	E

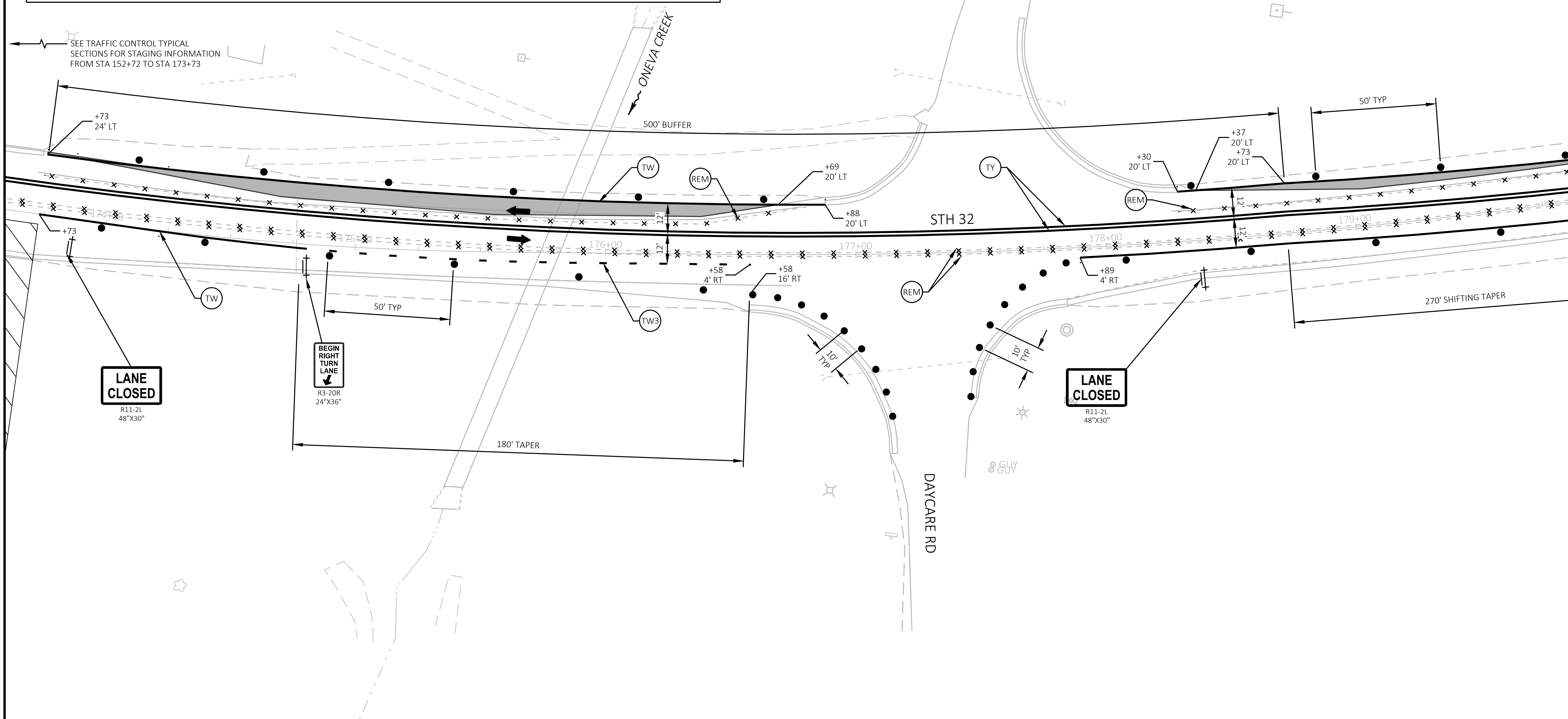
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)
- EXISTING PAVEMENT MARKING
- TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- 4-INCH ASPHALTIC SURFACE (PLACED IN STAGE 2A)
- WORK AREA
- SAWCUT
- DIRECTION OF TRAFFIC
- REM — MARKING REMOVAL LINE 4-INCH
- TW — TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- TW3 — TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
- TY — TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- STP — TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

THE TEMPORARY CENTERLINE MARKING IN STAGE 2B - STAG 2D IS OFFSET BY 8' FROM THE EXISTING CENTERLINE THROUGH THE LENGTH OF THE BUFFER.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 2B - STAGE 2D	SHEET 48	E

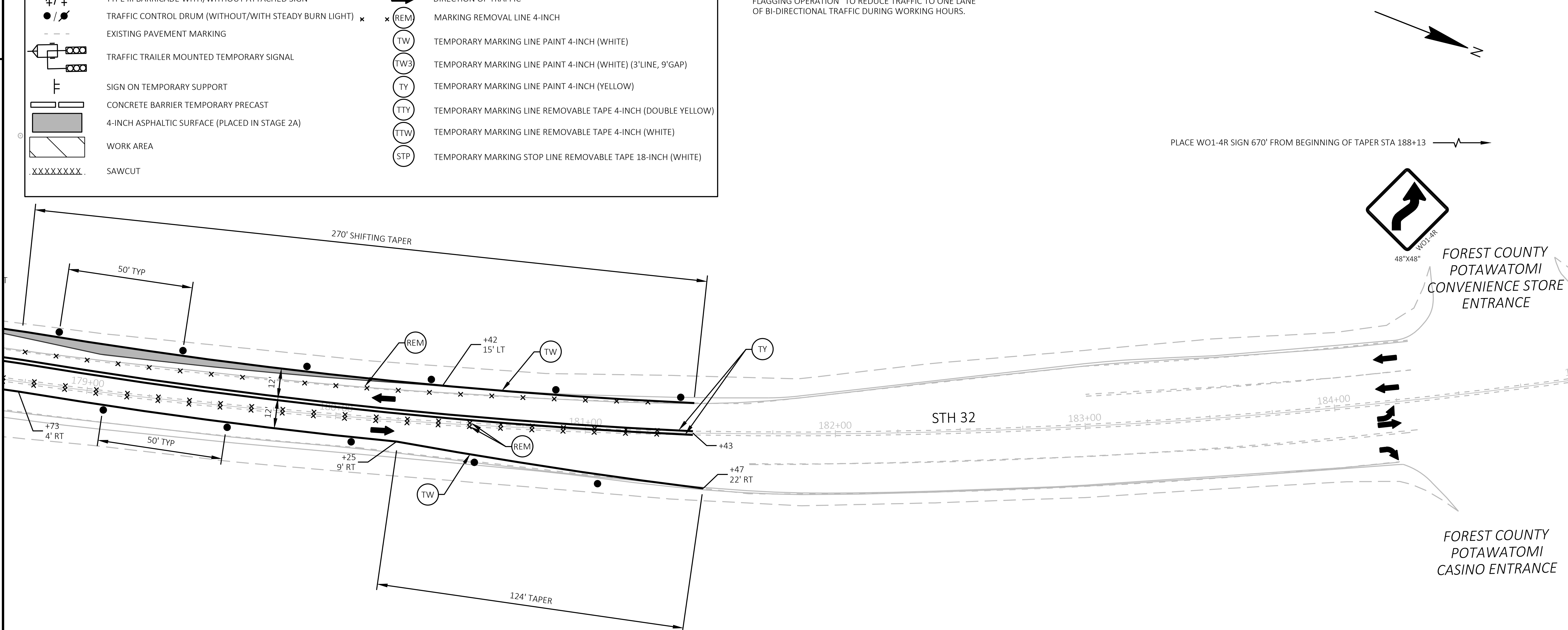
2

LEGEND

ǂ/ǂ	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
●/●	TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)
- - -	EXISTING PAVEMENT MARKING
	TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL
	SIGN ON TEMPORARY SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	4-INCH ASPHALTIC SURFACE (PLACED IN STAGE 2A)
	WORK AREA
XXXXXXXX	SAWCUT
	DIRECTION OF TRAFFIC
REM	MARKING REMOVAL LINE 4-INCH
TW	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TW3	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
TY	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
TTY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
TTW	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
STP	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTE

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 2B - STAGE 2D	SHEET 49	E

2

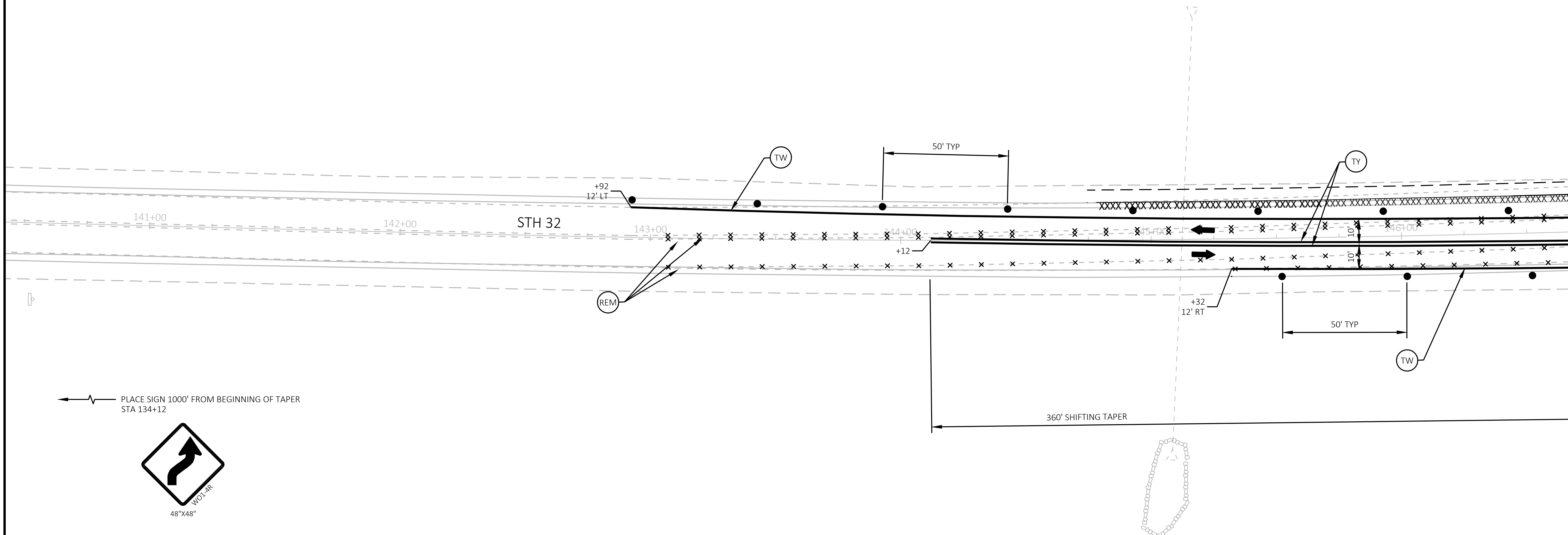
LEGEND

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN		DIRECTION OF TRAFFIC	
TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	REM	MARKING REMOVAL LINE 4-INCH	
EXISTING PAVEMENT MARKING	TW	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)	
TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	TW3	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)	
SIGN ON TEMPORARY SUPPORT	TY	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)	
CONCRETE BARRIER TEMPORARY PRECAST	TTY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)	
5 1/2-INCH HMA PAVEMENT (PLACED IN STAGE 2A, SEE PAVING DETAILS FOR LAYOUT INFORMATION AND SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER THICKNESS)	TTW	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)	
WORK AREA	STP	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)	
SAWCUT			

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

REMOVAL OF TEMPORARY MARKING LINE FROM STAGE 2 IS INCIDENTAL TO TEMPORARY MARKING LINE ITEM.



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 3A - STAGE 3B	SHEET 50	E

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)
- EXISTING PAVEMENT MARKING
- TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL
- SIGN ON TEMPORARY SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- 5 1/2-INCH HMA PAVEMENT (PLACED IN STAGE 2A, SEE PAVING DETAILS FOR LAYOUT INFORMATION AND SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER THICKNESS)
- WORK AREA
- XXXXXXXX SAWCUT
- DIRECTION OF TRAFFIC
- REM MARKING REMOVAL LINE 4-INCH
- TW TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- TW3 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
- TY TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- TTY TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- TTW TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- STP TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

THE TEMPORARY CENTERLINE MARKING IN STAGE 3A - STAGE 3B IS OFFSET BY 10' FROM THE EXISTING CENTERLINE THROUGH THE LENGTH OF THE BUFFER.

REMOVAL OF TEMPORARY MARKING LINE FROM STAGE 2 IS INCIDENTAL TO TEMPORARY MARKING LINE ITEM.

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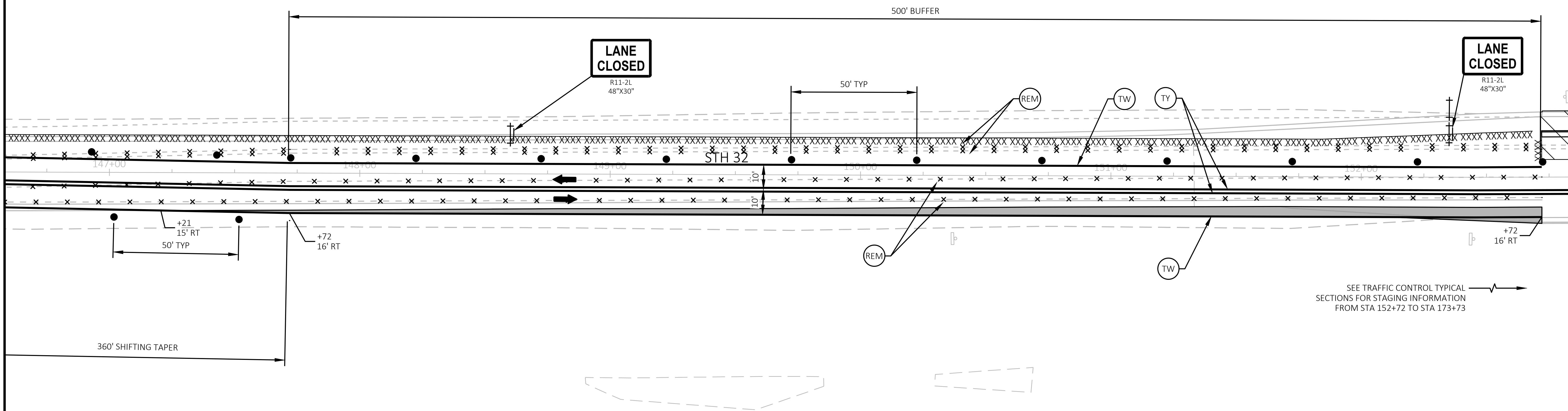


SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR STAGING INFORMATION FROM STA 152+72 TO STA 173+73

2

LEGEND

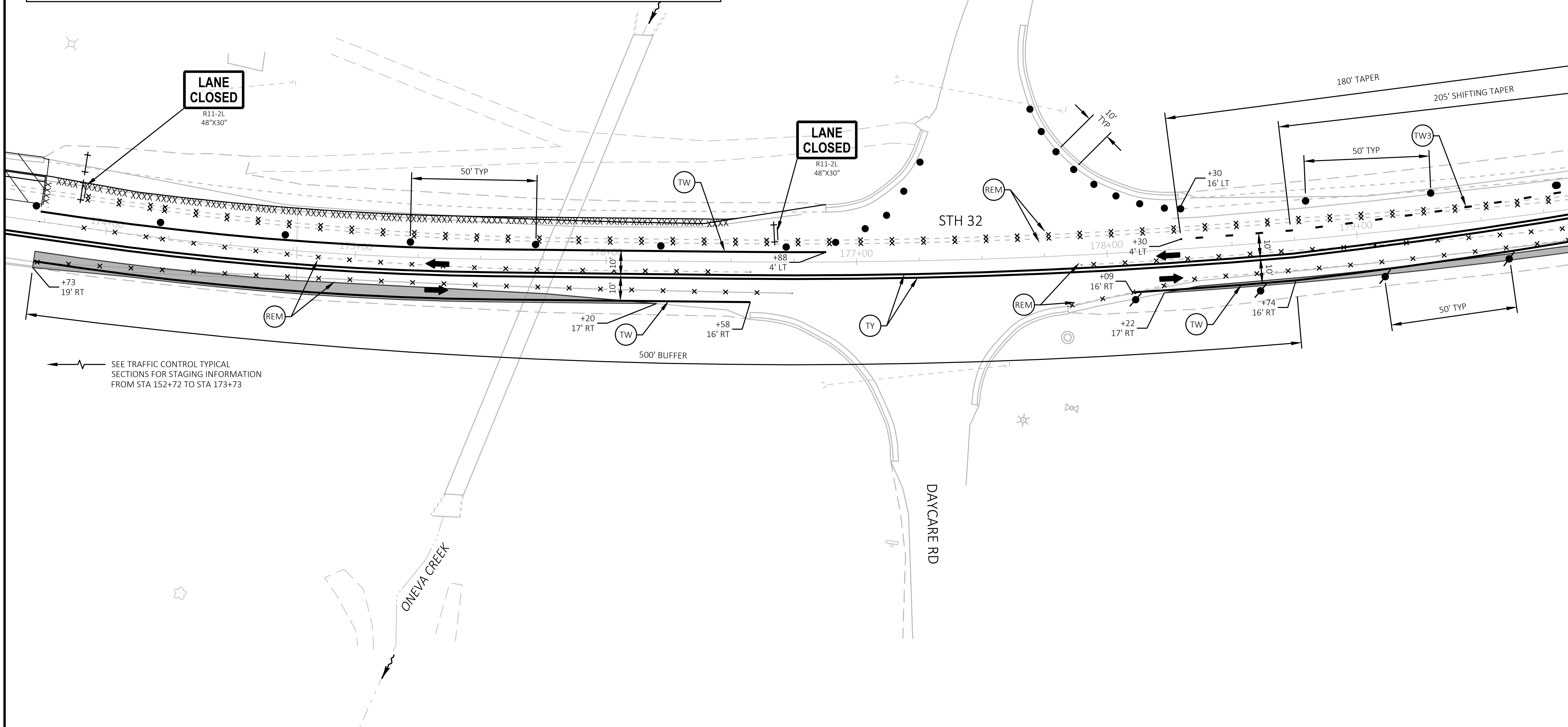
	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN		DIRECTION OF TRAFFIC
● / ●	TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	× REM ×	MARKING REMOVAL LINE 4-INCH
- - -	EXISTING PAVEMENT MARKING	TW	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
	TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	TW3	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
	SIGN ON TEMPORARY SUPPORT	TY	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
	CONCRETE BARRIER TEMPORARY PRECAST	TTY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
	5 1/2-INCH HMA PAVEMENT (PLACED IN STAGE 2A, SEE PAVING DETAILS FOR LAYOUT INFORMATION AND SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER THICKNESS)	TTW	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
	WORK AREA	STP	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
XXXXXXXX	SAWCUT		

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

THE TEMPORARY CENTERLINE MARKING IN STAGE 3A - STAGE 3B IS OFFSET BY 10' FROM THE EXISTING CENTERLINE THROUGH THE LENGTH OF THE BUFFER.

REMOVAL OF TEMPORARY MARKING LINE FROM STAGE 2 IS INCIDENTAL TO TEMPORARY MARKING LINE ITEM.



2

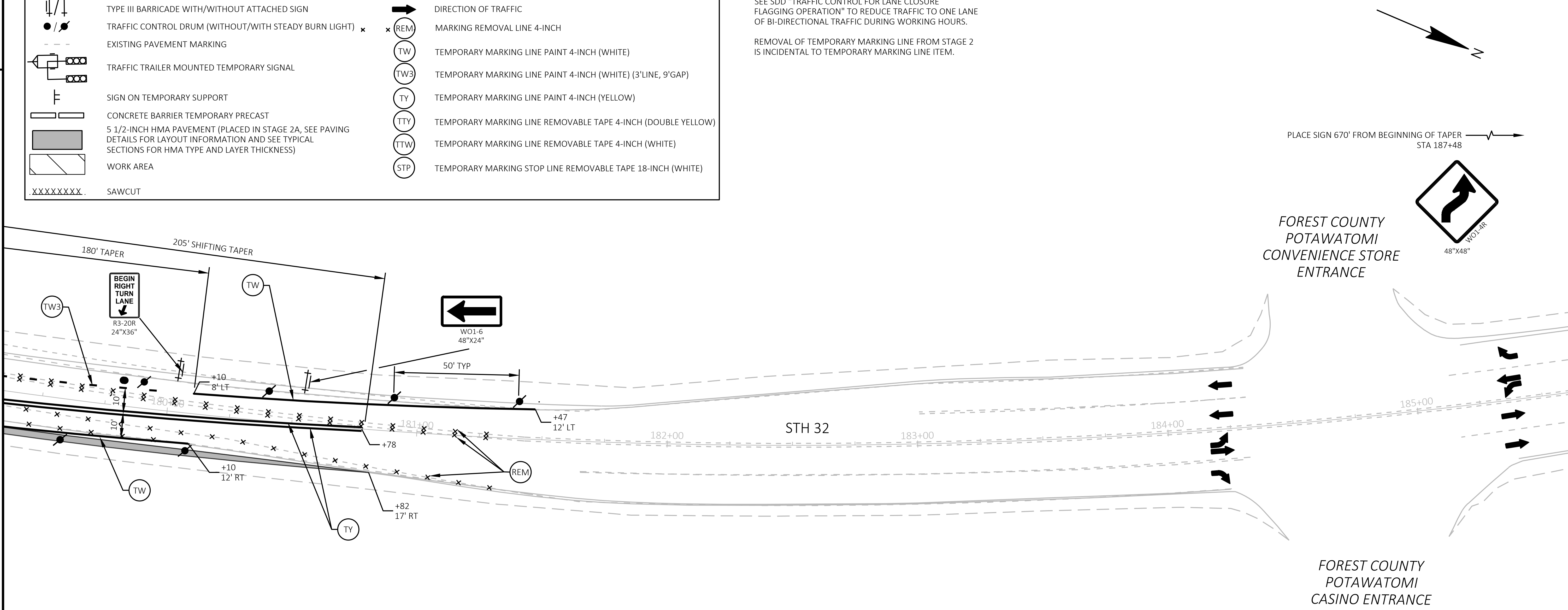
LEGEND

TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN	DIRECTION OF TRAFFIC
TRAFFIC CONTROL DRUM (WITHOUT/WITH STEADY BURN LIGHT)	(REM) MARKING REMOVAL LINE 4-INCH
EXISTING PAVEMENT MARKING	(TW) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TRAFFIC TRAILER MOUNTED TEMPORARY SIGNAL	(TW3) TEMPORARY MARKING LINE PAINT 4-INCH (WHITE) (3'LINE, 9'GAP)
SIGN ON TEMPORARY SUPPORT	(TY) TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
CONCRETE BARRIER TEMPORARY PRECAST	(TTY) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
5 1/2-INCH HMA PAVEMENT (PLACED IN STAGE 2A, SEE PAVING DETAILS FOR LAYOUT INFORMATION AND SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER THICKNESS)	(TTW) TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
WORK AREA	(STP) TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
XXXXXXXX SAWCUT	

NOTES

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE FLAGGING OPERATION" TO REDUCE TRAFFIC TO ONE LANE OF BI-DIRECTIONAL TRAFFIC DURING WORKING HOURS.

REMOVAL OF TEMPORARY MARKING LINE FROM STAGE 2 IS INCIDENTAL TO TEMPORARY MARKING LINE ITEM.



2

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	TRAFFIC CONTROL - TRAFFIC SHIFT STAGE 3A - STAGE 3B	SHEET 53	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\025006-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 1/21/2022 7:58 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

				9130-00-70	
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	8.000	8.000
0004	201.0205	Grubbing	STA	8.000	8.000
0006	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0008	204.0110	Removing Asphaltic Surface	SY	11,780.000	11,780.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	250.000	250.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	69,160.000	69,160.000
0014	204.0150	Removing Curb & Gutter	LF	4,160.000	4,160.000
0016	204.0180	Removing Delineators and Markers	EACH	9.000	9.000
0018	204.0220	Removing Inlets	EACH	10.000	10.000
0020	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	382.000	382.000
0022	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	48.000	48.000
0024	204.0280	Sealing Pipes	EACH	1.000	1.000
0026	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	1.000	1.000
0028	205.0100	Excavation Common	CY	3,245.000	3,245.000
0030	208.0100	Borrow	CY	1,254.000	1,254.000
0032	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	4.000	4.000
0034	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 9130-00-70	LS	1.000	1.000
0036	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	126.000	126.000
0038	213.0100	Finishing Roadway (project) 01. 9130-00-70	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,823.000	1,823.000
0042	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,602.000	3,602.000
0044	305.0504.S	Hauling Excess Shoulder Material	CY	80.000	80.000
0046	450.4000	HMA Cold Weather Paving	TON	2,359.000	2,359.000
0048	455.0605	Tack Coat	GAL	5,796.000	5,796.000
0050	460.2000	Incentive Density HMA Pavement	DOL	7,760.000	7,760.000
0052	460.6223	HMA Pavement 3 MT 58-28 S	TON	1,805.000	1,805.000
0054	460.6224	HMA Pavement 4 MT 58-28 S	TON	9,488.000	9,488.000
0056	465.0105	Asphaltic Surface	TON	420.000	420.000
0058	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0060	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	53.000	53.000
0062	465.0125	Asphaltic Surface Temporary	TON	275.000	275.000
0064	465.0310	Asphaltic Curb	LF	41.000	41.000
0066	465.0315	Asphaltic Flumes	SY	117.000	117.000
0068	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	16,850.000	16,850.000
0070	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	2.000	2.000
0072	520.3430	Culvert Pipe Class III-A Non-metal 30-Inch	LF	102.000	102.000
0074	520.8000	Concrete Collars for Pipe	EACH	9.000	9.000
0076	522.0436	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	170.000	170.000
0078	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000
0080	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0082	525.0330	Apron Endwalls for Culvert Pipe Aluminum 30-Inch	EACH	1.000	1.000
0084	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	3,906.000	3,906.000
0086	603.8000	Concrete Barrier Temporary Precast Delivered	LF	545.000	545.000
0088	603.8125	Concrete Barrier Temporary Precast Installed	LF	1,090.000	1,090.000
0090	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	260.000	260.000
0092	606.0600	Grouted Riprap Medium	CY	55.000	55.000
0094	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	126.000	126.000
0096	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	8.000	8.000
0098	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	67.000	67.000

Line	Item	Item Description	Unit	Total	9130-00-70 Qty
0100	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	38.000	38.000
0102	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	187.000	187.000
0104	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0106	611.0612	Inlet Covers Type C	EACH	2.000	2.000
0108	611.0624	Inlet Covers Type H	EACH	6.000	6.000
0110	611.0639	Inlet Covers Type H-S	EACH	1.000	1.000
0112	611.0645	Inlet Covers Type MS-A	EACH	4.000	4.000
0114	611.1006	Catch Basins 6-FT Diameter	EACH	1.000	1.000
0116	611.3004	Inlets 4-FT Diameter	EACH	7.000	7.000
0118	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0120	611.3901	Inlets Median 1 Grate	EACH	2.000	2.000
0122	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0124	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0126	611.8120.S	Cover Plates Temporary	EACH	2.000	2.000
0128	614.0950	Replacing Guardrail Posts and Blocks	EACH	80.000	80.000
0130	614.0952	Replacing Guardrail Reflectors	EACH	4.000	4.000
0132	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9130-00-70	EACH	1.000	1.000
0134	619.1000	Mobilization	EACH	1.000	1.000
0136	624.0100	Water	MGAL	15.000	15.000
0138	625.0100	Topsoil	SY	16,040.000	16,040.000
0140	628.1504	Silt Fence	LF	6,200.000	6,200.000
0142	628.1520	Silt Fence Maintenance	LF	6,200.000	6,200.000
0144	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0146	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0148	628.2004	Erosion Mat Class I Type B	SY	8,680.000	8,680.000
0150	628.2008	Erosion Mat Urban Class I Type B	SY	7,360.000	7,360.000
0152	628.7005	Inlet Protection Type A	EACH	6.000	6.000
0154	628.7010	Inlet Protection Type B	EACH	6.000	6.000
0156	628.7015	Inlet Protection Type C	EACH	9.000	9.000
0158	628.7020	Inlet Protection Type D	EACH	3.000	3.000
0160	628.7504	Temporary Ditch Checks	LF	93.000	93.000
0162	628.7555	Culvert Pipe Checks	EACH	20.000	20.000
0164	628.7570	Rock Bags	EACH	218.000	218.000
0166	629.0210	Fertilizer Type B	CWT	6.000	6.000
0168	630.0120	Seeding Mixture No. 20	LB	70.000	70.000
0170	630.0130	Seeding Mixture No. 30	LB	110.000	110.000
0172	630.0140	Seeding Mixture No. 40	LB	140.000	140.000
0174	630.0500	Seed Water	MGAL	170.000	170.000
0176	633.5200	Markers Culvert End	EACH	9.000	9.000
0178	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	24.000	24.000
0180	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	5.000	5.000
0182	637.2210	Signs Type II Reflective H	SF	76.360	76.360
0184	638.2102	Moving Signs Type II	EACH	18.000	18.000
0186	638.2602	Removing Signs Type II	EACH	1.000	1.000
0188	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0190	642.5001	Field Office Type B	EACH	1.000	1.000
0192	643.0300	Traffic Control Drums	DAY	8,763.000	8,763.000
0194	643.0420	Traffic Control Barricades Type III	DAY	684.000	684.000
0196	643.0705	Traffic Control Warning Lights Type A	DAY	1,368.000	1,368.000

Line	Item	Item Description	Unit	Total	9130-00-70 Qty
0198	643.0715	Traffic Control Warning Lights Type C	DAY	952.000	952.000
0200	643.0900	Traffic Control Signs	DAY	6,294.000	6,294.000
0202	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0204	643.5000	Traffic Control	EACH	1.000	1.000
0206	645.0120	Geotextile Type HR	SY	140.000	140.000
0208	646.1020	Marking Line Epoxy 4-Inch	LF	26,911.000	26,911.000
0210	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	34,430.000	34,430.000
0212	646.3020	Marking Line Epoxy 8-Inch	LF	779.000	779.000
0214	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	4,630.000	4,630.000
0216	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	32,658.000	32,658.000
0218	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	779.000	779.000
0220	646.9000	Marking Removal Line 4-Inch	LF	7,995.000	7,995.000
0222	648.0100	Locating No-Passing Zones	MI	4.040	4.040
0224	649.0105	Temporary Marking Line Paint 4-Inch	LF	44,770.000	44,770.000
0226	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	20,760.000	20,760.000
0228	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	4,160.000	4,160.000
0230	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0232	650.4000	Construction Staking Storm Sewer	EACH	11.000	11.000
0234	650.5000	Construction Staking Base	LF	2,101.000	2,101.000
0236	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	4,159.000	4,159.000
0238	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0240	650.8000	Construction Staking Resurfacing Reference	LF	21,348.000	21,348.000
0242	650.9910	Construction Staking Supplemental Control (project) 01. 9130-00-70	LS	1.000	1.000
0244	650.9920	Construction Staking Slope Stakes	LF	2,101.000	2,101.000
0246	661.0200	Temporary Traffic Signals for Intersections (location) 01. Station 169+00	LS	1.000	1.000
0248	690.0150	Sawing Asphalt	LF	2,350.000	2,350.000
0250	690.0250	Sawing Concrete	LF	8.000	8.000
0252	740.0440	Incentive IRI Ride	DOL	16,320.000	16,320.000
0254	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0256	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,260.000	1,260.000
0258	SPV.0030	Special 01. Fertilizer for Lawn Type Turf	CWT	5.000	5.000
0260	SPV.0060	Special 01. Research and Locate Existing Land Parcel Monuments	EACH	7.000	7.000
0262	SPV.0060	Special 02. Verify and Replace Existing Land Parcel Monuments	EACH	7.000	7.000
0264	SPV.0090	Special 01. Concrete Curb and Gutter HES 30-Inch Type D	LF	253.000	253.000
0266	SPV.0090	Special 02. Ditch Cleaning	LF	60.000	60.000
0268	SPV.0180	Special 01. Preparing Topsoil for Lawn Type Turf	SY	7,551.000	7,551.000

CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010						
	119+00	-	121+00	LT&RT	2	2
	159+00	-	160+00	LT	1	1
	162+00	-	163+00	LT	1	1
	168+00	-	170+00	LT&RT	2	2
	321+00	-	323+00	RT	2	2
TOTALS					8	8

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.0180* REMOVING DELINEATORS AND MARKERS EACH	204.9060.S REMOVING APRON ENDWALLS EACH	COMMENTS
0010						
	119+85	LT&RT	1	2	--	30" CMCP
	140+28	RT	--	2	1	30" CMCP
	322+06	LT&RT	1	2	--	36" CMCP
TOTALS			2	6	1	

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING DRAINAGE ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	204.0180* REMOVING DELINEATORS AND MARKERS EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (18-INCH) LF	204.0245.02 REMOVING STORM SEWER (24-INCH) LF
0010									
	1A	169+37	-	169+53	RT	1	1	5	48
	1B	168+70	-	169+11	LT	--	1	36	--
	1B	169+11	-	169+41	LT	--	1	52	--
	1B	169+41	-	169+43	LT	--	1	24	--
STAGE 1 TOTALS						1	4	116	48
	2B	159+04	-	159+20	RT	--	--	16	--
	2B	162+07	-	162+31	RT	--	--	24	--
	2B	163+37	-	163+93	RT	--	--	56	--
STAGE 2 TOTALS						--	--	96	--
	3A	159+04	-	159+29	LT	--	2	57	--
	3A	159+29	-	159+67	LT	--	1	39	--
	3A	162+08	-	162+39	LT	--	2	61	--
	3A	166+20	-	166+21	LT	--	1	12	--
STAGE 3 TOTALS						--	6	169	--
TOTALS						1	10	382	48

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVAL ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	COMMENTS
0010										
	1A	167+24	-	171+52	RT	250	--	--	420	STORM SEWER REPLACEMENT
	1B	169+08	-	169+60	LT	280	--	--	67	STORM SEWER REPLACEMENT
STAGE 1 TOTALS						530	--	--	487	
	2A	151+67	-	152+72	RT	40	--	--	--	SHOULDER WIDENING
	2A	173+73	-	174+77	RT	30	--	--	--	SHOULDER WIDENING
	2B	152+72	-	173+73	RT	1,240	--	--	1,663	NB C&G REMOVAL
	2C/2D	152+72	-	173+73	RT	3,270	--	--	--	NB PAVEMENT REPLACEMENT
STAGE 2 TOTALS						4,580	--	--	1,663	
	3A	144+74	-	152+72	LT	490	--	--	--	SHOULDER WIDENING
	3A	152+72	-	173+73	LT	2,730	--	--	2,010	SB C&G REMOVAL
	3A	173+73	-	176+69	LT	180	--	--	--	SHOULDER WIDENING
	3B	152+72	-	173+73	LT	3,270	--	--	--	SB PAVEMENT REPLACEMENT
STAGE 3 TOTALS						6,670	--	--	2,010	
	4	115+22	-	152+72	LT&RT	--	30	12,480	--	MILL AND OVERLAY
	4	173+73	-	328+70	LT&RT	--	220	56,680	--	MILL AND OVERLAY
STAGE 4 TOTALS						--	250	69,160	--	
TOTALS						11,780	250	69,160	4,160	

BASE AGGREGATE ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0504.S HAULING EXCESS SHOULDER MATERIAL CY	COMMENTS
0010									
	--	119+30	-	120+45	LT&RT	57	529	--	CULVERT REPLACEMENT
	--	321+53	-	322+60	LT&RT	53	492	--	CULVERT REPLACEMENT
	1A	167+24	-	171+52	LT&RT	--	179	--	STORM SEWER REPLACEMENT
	1B	169+08	-	169+60	LT&RT	49	132	--	STORM SEWER REPLACEMENT
STAGE 1 TOTALS						159	1,332	--	
	2A	146+44	-	152+72	LT&RT	52	--	--	MAINLINE SHOULDERS
	2A	173+73	-	180+00	LT&RT	27	--	9	MAINLINE SHOULDERS
	2B/2D	152+72	-	173+73	RT	--	1,084	--	NB PAVEMENT REPLACEMENT
	2D	15+39	-	15+60	LT&RT	3	51	--	MAPLE ST
	2D	23+41	-	23+60	LT&RT	3	51	--	MAIN ST
	2D	35+40	-	35+60	LT&RT	3	52	--	FERRY RANCH LN
STAGE 2 TOTALS						88	1,238	9	
	3A/3B	152+72	-	173+73	LT	--	730	--	SB PAVEMENT REPLACEMENT
	3B	11+10	-	11+60	LT&RT	13	67	--	MAPLE ST
	3B	22+25	-	22+59	LT&RT	5	64	--	MAIN ST
	3B	32+20	-	32+61	LT&RT	6	29	--	ELLIOT RD
STAGE 3 TOTALS						24	890	--	
	4	115+22	-	146+44	LT&RT	122	--	--	MAINLINE SHOULDERS
	4	180+00	-	188+00	LT&RT	50	--	--	MAINLINE SHOULDERS
	4	188+00	-	226+27	RT	90	--	71	MAINLINE SHOULDERS
	4	188+00	-	228+75	LT	222	--	--	MAINLINE SHOULDERS
	4	226+27	-	313+00	RT	608	--	--	MAINLINE SHOULDERS
	4	228+75	-	328+70	LT	388	--	--	MAINLINE SHOULDERS
	4	313+00	-	321+00	RT	19	--	--	MAINLINE SHOULDERS
	4	321+00	-	328+70	RT	30	--	--	MAINLINE SHOULDERS
STAGE 4 TOTALS						1,529	--	71	
TOTALS						1,800	3,460	80	

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (NOTE 1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOTE 2)	AVAILABLE MATERIAL (NOTE 3)	UNEXPANDED FILL	EXPANDED FILL (NOTE 4)	MASS ORDINATE +/- (NOTE 5)	208.0100 BORROW
CATEGORY 0010			CY	CY	CY	CY	FACTOR CY 1.25	CY	CY
1	STA 119+30 - STA 120+45	CULVERT REPLACEMENT	733	72	661	0	0	661	0
2	STA 321+53 - STA 322+60	CULVERT REPLACEMENT	733	72	661	0	0	661	0
3	STA 170+00 - STA 174+57	OUTFALL DITCHING	473	0	473	64	80	393	0
4	STA 152+72 - STA 173+73	STH 32 NB PAVEMENT REPLACEMENT AND RT SIDE ROADS	793	793	0	150	188	-188	188
5	STA 152+72 - STA 173+73	STH 32 SB PAVEMENT REPLACEMENT AND LT SIDE ROADS	1,246	1,246	0	853	1,066	-1,066	1,066
TOTALS			3,245	2,111	1,134	1,003	1,254	-1,254	1,254

NOTES:
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL = (AREA OF PROJECT PAVEMENT) * (TYPICAL DEPTH)
3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
4) EXPANDED FILL FACTOR = (UNEXPANDED FILL) * (FILL FACTOR)
5) MASS ORDINATE = AVAILABLE MATERIAL - (EXPANDED FILL); POSITIVE INDICATES AN EXCESS OF MATERIAL

3

DRIVEWAY ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	305.0110* BASE AGGREGATE DENSE 3/4-INCH TON	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0010								
	2	152+72	-	173+73	RT	4	20	7
	3	152+72	-	173+73	LT	19	122	46
TOTALS						23	142	53

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY LANE SHIFT

CATEGORY	STATION	OFFSET	208.1500.S TEMPORARY LANE SHIFT DURING CULVERT WORK EACH
0010			
	119+85	LT&RT	2
	322+06	LT&RT	2
TOTALS			4

NOTE:
1) EXCAVATION COMMON, BORROW, AND BASE AGGREGATE DENSE 1 1/4-INCH ITEMS INCIDENTAL TO TEMPORARY LANE SHIFT DURING CULVERT WORK

PREPARE FOUNDATION ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	211.0100.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (9130-00-70) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0010						
	144+75	-	152+72	LT	--	9
	146+44	-	152+72	RT	--	7
	173+73	-	226+27	RT	--	54
	173+73	-	228+75	LT	--	56
	PROJECT				1	--
TOTALS					1	126

CULVERT ITEMS

CATEGORY	INLET STATION	INLET OFFSET	INLET ELEVATION	DISCHARGE STATION	DISCHARGE OFFSET	DISCHARGE ELEVATION	204.0180* REMOVING DELINEATORS AND MARKERS EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	520.3430 CULVERT PIPE CLASS III-A NON-METAL 30-INCH LF	522.0436 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	525.0330 APRON ENDWALLS FOR CULVERT PIPE ALUMINUM 30-INCH EACH	633.5200* MARKERS CULVERT END EACH	SPV.0090.02 DITCH CLEANING LF	JOINT TIES* EACH
0010															
	119+97	39.8' LT	1481.80'	119+69	59.1' RT	1475.63'	--	2	102	--	--	--	2	--	28
	140+24	62.8' LT	--	140+33	97.3' RT	--	--	--	--	--	--	1	2	60	--
	145+17	88.4' LT	--	145+08	83.9' RT	--	2	--	--	--	--	--	2	--	--
	322+08	73.8' LT	1540.88'	322+04	96.2' RT	1536.04'	--	--	--	170	2	--	2	--	46
TOTALS							2	2	102	170	2	1	8	60	74

NOTES:
1) STATION AND OFFSETS SHOWN ARE TO THE END OF PIPE AT APRON ENDWALLS (NOT INCLUDING LENGTH OF ENDWALL).
2) FOR CLASS III-A NON METAL PIPES, LENGTH IS CALCULATED USING POLYETHYLENE PIPE, IF REINFORCED CONCRETE IS USED THE PIPE LENGTH WILL DIFFER DUE TO DIFFERENCES IN APRON ENDWALL DIMENSIONS.
3) JOINT TIES ARE NOT A PAY ITEM AND ARE LISTED FOR INFORMATION ONLY
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER HES 30-INCH TYPE D LF
0010							
	2B	152+72	-	173+73	RT	2,008	73
	3A	152+72	-	173+73	LT	1,898	180
TOTALS						3,906	253

MANHOLE & INLET ADJUSTMENT ITEMS

CATEGORY	STAGE	STATION	OFFSET	611.0430 RECONSTRUCTING INLETS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH
0010						
	1A	169+37	RT	--	--	1
	1B	169+41	LT	--	--	1
STAGE 1 TOTALS				--	--	2
	2B	159+04	RT	1	--	--
	2B	162+07	RT	1	--	--
	2B	166+22	RT	--	1	--
STAGE 2 TOTALS				2	1	--
TOTALS				2	1	2

SEALING PIPES

CATEGORY	STAGE	STATION	OFFSET	204.0280 SEALING PIPES EACH
0010				
	3A	162+39	LT	1
TOTAL				1

ASPHALTIC ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF	465.0315 ASPHALTIC FLUMES SY	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
0010															
	--	119+30	-	120+45	LT&RT	--	--	--	155	--	--	--	--	--	CULVERT REPLACEMENT
	--	321+53	-	322+60	LT&RT	--	--	--	140	--	--	--	--	--	CULVERT REPLACEMENT
	1A	167+24	-	171+52	LT&RT	--	--	--	--	--	125	--	--	--	STORM SEWER REPLACEMENT
	1B	169+08	-	173+73	LT&RT	--	--	--	--	--	45	41	--	--	STORM SEWER REPLACEMENT
STAGE 1 TOTALS						--	--	--	295	--	170	41	--	--	
	2A	144+75	-	152+21	LT	--	--	--	80	--	--	--	--	--	SHOULDER WIDENING
	2A	145+32	-	152+75	RT	--	41	22	--	--	--	--	--	--	SHOULDER WIDENING
	2A	173+73	-	180+42	LT	--	--	--	45	--	--	--	--	--	SHOULDER WIDENING
	2A	173+73	-	180+82	RT	--	42	23	--	--	--	--	--	--	SHOULDER WIDENING
	2A	325+45	-	329+10	RT	--	15	8	--	--	--	--	--	--	SHOULDER WIDENING
	2D	152+72	-	173+73	RT	--	735	--	--	--	105	--	8	--	NB PAVEMENT REPLACEMENT
	2D	15+39	-	15+60	LT&RT	--	34	--	--	--	--	--	--	--	MAPLE ST
	2D	23+41	-	23+60	LT&RT	--	34	--	--	--	--	--	--	--	MAIN ST
	2D	35+40	-	35+60	LT&RT	--	35	--	--	--	--	--	--	--	FERRY RANCH LN
STAGE 2 TOTALS						--	936	53	125	--	105	--	8	--	
	3B	152+72	-	173+73	LT	--	735	--	--	--	--	--	8	--	SB PAVEMENT REPLACEMENT
	3B	11+10	-	11+60	LT&RT	--	42	--	--	--	--	--	--	--	MAPLE ST
	3B	22+25	-	22+59	LT&RT	--	44	--	--	--	--	--	--	--	MAIN ST
	3B	32+20	-	32+61	LT&RT	--	48	--	--	--	--	--	--	--	ELLIOT RD
STAGE 3 TOTALS						--	869	--	--	--	--	--	8	--	
	4	115+22	-	146+44	LT&RT	298	--	1,190	--	--	--	--	--	3,122	MILL AND OVERLAY
	4	146+44	-	152+72	LT&RT	63	--	250	--	--	--	--	--	391	MILL AND OVERLAY
	4	152+72	-	173+73	LT&RT	209	--	837	--	--	--	--	40	--	PAVEMENT REPLACEMENT
	4	173+73	-	180+00	LT&RT	93	--	370	--	--	--	--	31	--	MILL AND OVERLAY
	4	180+00	-	188+00	LT&RT	116	--	464	--	--	--	--	--	--	MILL AND OVERLAY
	4	188+00	-	226+27	RT	245	--	980	--	--	--	--	15	3,827	MILL AND OVERLAY
	4	188+00	-	228+75	LT	258	--	1,033	--	--	--	--	15	--	MILL AND OVERLAY
	4	226+27	-	313+00	RT	446	--	1,784	--	--	--	--	--	8,300	MILL AND OVERLAY
	4	228+75	-	328+70	LT	504	--	2,016	--	--	--	--	--	--	MILL AND OVERLAY
	4	313+00	-	321+00	RT	57	--	227	--	--	--	--	--	440	MILL AND OVERLAY
	4	321+00	-	328+70	RT	38	--	150	--	--	--	--	--	770	MILL AND OVERLAY
	4	15+39	-	15+60	LT&RT	11	--	43	--	--	--	--	--	--	MAPLE ST
	4	23+41	-	23+60	LT&RT	11	--	44	--	--	--	--	--	--	MAIN ST
	4	35+40	-	35+60	LT&RT	12	--	47	--	--	--	--	--	--	FERRY RANCH LN
STAGE 4 TOTALS						2,359	--	9,435	--	--	--	--	102	16,850	
	--		PROJECT		--	--	--	--	--	50	--	--	--	--	
TOTALS						2,359	1,805	9,488	420	50	275	41	117	16,850	

NOTES:
UNDISTRIBUTED ASPHALTIC SURFACE PATCHING QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE

3

CONCRETE CURB & GUTTER ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER HES 30-INCH TYPE D LF
0010							
	2B	152+72	-	173+73	RT	2,008	73
	3A	152+72	-	173+73	LT	1,898	180
TOTALS						3,906	253

MANHOLE & INLET ADJUSTMENT ITEMS

CATEGORY	STAGE	STATION	OFFSET	611.0430 RECONSTRUCTING INLETS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH
0010						
	1A	169+37	RT	--	--	1
	1B	169+41	LT	--	--	1
STAGE 1 TOTALS				--	--	2
	2B	159+04	RT	1	--	--
	2B	162+07	RT	1	--	--
	2B	166+22	RT	--	1	--
STAGE 2 TOTALS				2	1	--
TOTALS				2	1	2

SEALING PIPES

CATEGORY	STAGE	STATION	OFFSET	204.0280 SEALING PIPES EACH
0010				
	3A	162+39	LT	1
TOTAL				1

ASPHALTIC ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF	465.0315 ASPHALTIC FLUMES SY	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF	COMMENTS
0010																
	--	119+30	-	120+45	LT&RT	--	19	--	--	155	--	--	--	--	--	CULVERT REPLACEMENT
	--	321+53	-	322+60	LT&RT	--	18	--	--	140	--	--	--	--	--	CULVERT REPLACEMENT
	1A	167+24	-	171+52	LT&RT	--	20	--	--	--	--	125	--	--	--	STORM SEWER REPLACEMENT
	1B	169+08	-	173+73	LT&RT	--	7	--	--	--	--	45	41	--	--	STORM SEWER REPLACEMENT
STAGE 1 TOTALS						--	64	--	--	295	--	170	41	--	--	
	2A	144+75	-	152+21	LT	--	17	--	--	80	--	--	--	--	--	SHOULDER WIDENING
	2A	145+32	-	152+75	RT	--	9	41	22	--	--	--	--	--	--	SHOULDER WIDENING
	2A	173+73	-	180+42	LT	--	14	--	--	45	--	--	--	--	--	SHOULDER WIDENING
	2A	173+73	-	180+82	RT	--	13	42	23	--	--	--	--	--	--	SHOULDER WIDENING
	2A	325+45	-	329+10	RT	--		15	8	--	--	--	--	--	--	SHOULDER WIDENING
	2D	152+72	-	173+73	RT	--	--	735	--	--	--	105	--	8	--	NB PAVEMENT REPLACEMENT
	2D	15+39	-	15+60	LT&RT	--	--	34	--	--	--	--	--	--	--	MAPLE ST
	2D	23+41	-	23+60	LT&RT	--	--	34	--	--	--	--	--	--	--	MAIN ST
	2D	35+40	-	35+60	LT&RT	--	--	35	--	--	--	--	--	--	--	FERRY RANCH LN
STAGE 2 TOTALS						--	53	936	53	125	--	105	--	8	--	
	3B	152+72	-	173+73	LT	--	--	735	--	--	--	--	--	8	--	SB PAVEMENT REPLACEMENT
	3B	11+10	-	11+60	LT&RT	--	--	42	--	--	--	--	--	--	--	MAPLE ST
	3B	22+25	-	22+59	LT&RT	--	--	44	--	--	--	--	--	--	--	MAIN ST
	3B	32+20	-	32+61	LT&RT	--	--	48	--	--	--	--	--	--	--	ELLIOT RD
STAGE 3 TOTALS						--	--	869	--	--	--	--	--	8	--	
	4	115+22	-	146+44	LT&RT	298	728	--	1,190	--	--	--	--	--	3,122	MILL AND OVERLAY
	4	146+44	-	152+72	LT&RT	63	153	--	250	--	--	--	--	--	391	MILL AND OVERLAY
	4	152+72	-	173+73	LT&RT	209	374	--	837	--	--	--	--	40	--	PAVEMENT REPLACEMENT
	4	173+73	-	180+00	LT&RT	93	228	--	370	--	--	--	--	31	--	MILL AND OVERLAY
	4	180+00	-	188+00	LT&RT	116	286	--	464	--	--	--	--	--	--	MILL AND OVERLAY
	4	188+00	-	226+27	RT	245	650	--	980	--	--	--	--	15	3,827	MILL AND OVERLAY
	4	188+00	-	228+75	LT	258	686	--	1,033	--	--	--	--	15	--	MILL AND OVERLAY
	4	226+27	-	313+00	RT	446	1,074	--	1,784	--	--	--	--	--	8,300	MILL AND OVERLAY
	4	228+75	-	328+70	LT	504	1,212	--	2,016	--	--	--	--	--	--	MILL AND OVERLAY
	4	313+00	-	321+00	RT	57	138	--	227	--	--	--	--	--	440	MILL AND OVERLAY
	4	321+00	-	328+70	RT	38	90	--	150	--	--	--	--	--	770	MILL AND OVERLAY
	4	15+39	-	15+60	LT&RT	11	19	--	43	--	--	--	--	--	--	MAPLE ST
	4	23+41	-	23+60	LT&RT	11	20	--	44	--	--	--	--	--	--	MAIN ST
	4	35+40	-	35+60	LT&RT	12	21	--	47	--	--	--	--	--	--	FERRY RANCH LN
STAGE 4 TOTALS						2,359	5,679	--	9,435	--	--	--	--	102	16,850	
	--	PROJECT			--	--		--	--	--	50	--	--	--	--	
TOTALS						2,359	5,796	1,805	9,488	420	50	275	41	117	16,850	

NOTES:
UNDISTRIBUTED ASPHALTIC SURFACE PATCHING QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE

3

STORM SEWER PIPE ITEMS

CATEGORY	STAGE	STATION	FROM STRUCTURE	TO STRUCTURE	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.3018 STORM SEWER PIPE CLASS III-A 18-INCH LF	633.5200* MARKERS CULVERT END EACH	JOINT TIES* EACH
0010													
	1A	169+29	12.1	12	1	--	--	8	--	--	--	--	--
	1A	169+37	12	16	--	1	--	--	67	--	--	1	16
	1A	169+37	13.2	12	1	--	8	--	--	--	--	--	--
	1B	168+70	15	14	--	--	--	--	--	--	43	--	--
	1B	169+11	14	13	--	--	--	--	--	--	42	--	--
	1B	169+41	13	13.1	1	--	8	--	--	--	--	--	--
STAGE 1 TOTALS					3	1	16	8	67	--	85	1	16
	2B	159+04	4	4.1	1	--	16	--	--	--	--	--	--
	2B	162+08	5	5.1	1	--	24	--	--	--	--	--	--
	2B	163+37	9	9.2	1	--	56	--	--	--	--	--	--
STAGE 2 TOTALS					3	--	96	--	--	--	--	--	--
	3A	159+04	3	3.1	1	--	5	--	--	--	--	--	--
	3A	159+29	2	3	--	--	--	--	--	--	51	--	--
	3A	159+67	1	2	--	--	--	--	--	38	--	--	--
	3A	162+08	6	6.1	1	--	5	--	--	--	--	--	--
	3A	162+34	7	6	--	--	--	--	--	--	28	--	--
	3A	162+35	8	7	--	--	--	--	--	--	23	--	--
	3A	166+20	10	10.1	1	--	4	--	--	--	--	--	--
STAGE 3 TOTALS					3	--	14	--	--	38	102	--	--
TOTALS					9	1	126	8	67	38	187	1	16

NOTES:
JOINT TIES ARE NOT A PAY ITEM AND ARE LISTED FOR INFORMATION ONLY
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STORM SEWER STRUCTURE ITEMS

CATEGORY	STAGE	STATION	OFFSET	STRUCTURE NUMBER	611.1006 CATCH BASINS 6-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0645 INLET COVERS TYPE MS-A EACH
0010													
	1A	169+37	17.5' RT	12	1	--	--	--	--	--	1	--	--
	1B	168+70	61.0' LT	15	--	1	--	--	--	1	--	--	--
	1B	169+11	47.0' LT	14	--	1	--	--	--	1	--	--	--
	1B	169+41	17.5' LT	13	--	1	--	--	--	--	--	--	--
STAGE 1 TOTALS					1	3	--	--	--	2	1	--	--
	2B	163+37	17.5'RT	9	--	1	--	--	--	--	1	--	--
STAGE 2 TOTALS					--	1	--	--	--	--	1	--	--
	3A	159+04	17.5' LT	3	--	1	--	--	--	--	1	--	--
	3A	159+29	62.0' LT	2	--	--	--	--	1	--	--	--	2
	3A	159+67	64.0' LT	1	--	--	--	1	--	--	--	--	1
	3A	162+08	17.5' LT	6	--	1	--	--	--	--	1	--	--
	3A	162+34	27.2'LT	7	--	1	--	--	--	--	1	--	--
	3A	162+35	50.5'LT	8	--	--	--	1	--	--	--	--	1
	3A	166+20	17.5' LT	10	--	--	1	--	--	--	--	1	--
	3A	169+41	17.5' LT	13	--	--	--	--	--	--	1	--	--
STAGE 3 TOTALS					--	3	1	2	1	--	4	1	4
TOTALS					1	7	1	2	1	2	6	1	4

NOTES:
STATION AND OFFSETS SHOWN ARE TO THE CENTER OF STRUCTURE

RIPRAP ITEMS

CATEGORY	STATION	OFFSET	606.0600 GROUTED RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010				
	145+13	RT	25	65
	322+06	RT	30	75
TOTALS			55	140

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS EACH	614.0952 REPLACING GUARDRAIL REFLECTORS EACH
0010						
	245+08	-	246+49	LT&RT	41	2
	246+78	-	248+14	LT&RT	39	2
TOTALS					80	4

EROSION CONTROL MOBILIZATION ITEMS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010			
	PROJECT	5	3
TOTALS		5	3

3

3

EROSION CONTROL ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	COMMENTS
0010															
	--	118+23	-	121+58	LT&RT	650	650	--	--	--	--	--	7	40	
	--	140+24	-	140+87	RT	--	--	--	--	--	--	12	--	--	
	--	144+87	-	145+28	RT	60	60	--	--	--	--	--	--	--	
	--	319+68	-	324+65	LT&RT	1,160	1,160	--	--	--	--	--	8	40	
	1A	169+00	-	175+00	RT	570	570	--	--	--	--	60	--	10	
	1B	168+50	-	169+50	LT	--	--	2	--	--	--	--	--	--	
STAGE 1 TOTALS						2,440	2,440	2	--	--	--	72	15	90	
	2	152+72	-	173+73	RT	1,770	1,770	--	2	4	1	--	--	80	
STAGE 2 TOTALS						1,770	1,770	--	2	4	1	--	--	80	
	3	152+72	-	173+73	LT	--	--	3	3	3	1	--	--	--	
STAGE 3 TOTALS						--	--	3	3	3	1	--	--	--	
	PROJECT	244+44	-	248+90	LT&RT	750	750	--	--	--	--	--	--	--	GUARDRAIL POST REPLACEMENT
	PROJECT	UNDISTRIBUTED				1,240	1,240	1	1	2	1	21	5	48	
TOTALS						6,200	6,200	6	6	9	3	93	20	218	

RESTORATION ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY
0010														
	--	118+23	-	121+58	LT&RT	1,237	1,237	--	0.8	--	22	--	--	--
	--	140+24	-	140+87	RT	104	104	--	0.1	--	2	--	--	--
	--	319+68	-	324+65	LT&RT	3,599	3,599	--	2.3	--	65	--	--	--
	1A	169+35	-	174+58	RT	1,856	313	1,543	1.2	50	--	--	--	--
STAGE 1 TOTALS						6,796	5,253	1,543	4.4	50	89	--	--	--
	2	152+72	-	173+73	RT	2,151	665	1,487	--	--	--	39	1.4	2,151
STAGE 2 TOTALS						2,151	665	1,487	--	--	--	39	1.4	2,151
	3	152+72	-	173+73	LT	3,886	1,027	2,859	--	--	--	70	2.4	3,886
STAGE 3 TOTALS						3,886	1,027	2,859	--	--	--	70	2.4	3,886
	--	UNDISTRIBUTED				3,207	1,735	1,469	1.6	20	21	31	1.2	1,514
TOTALS						16,040	8,680	7,360	6.0	70	110	140	5.0	7,551

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SIGNING ITEMS

CATEGORY	SIGN NUMBER	SIGN CODE	SIGN DIMENSION W X H IN X IN	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
0010										
	1-1	R7-1L	18 X 24	1	--	3.00	--	--	--	
	1-2	R7-1R	18 X 24	1	--	3.00	--	--	--	
	1-3	--	-- X --	--	--	--	--	1	1	
	1-4	--	-- X --	--	--	--	1	--	--	
	1-5	R7-1D	18 X 24	1	--	3.00	--	--	--	
	1-6	R7-1D	18 X 24	1	--	3.00	--	--	--	
	2-1	--	-- X --	--	--	--	1	--	--	
	2-2	--	-- X --	--	--	--	1	--	--	
	2-3	R1-1	30 X 30	1	--	5.18	--	--	--	
	2-4	R7-1L	18 X 24	1	--	3.00	--	--	--	
	2-5	R7-1R	18 X 24	1	--	3.00	--	--	--	
	2-6	R1-1	30 X 30	1	--	5.18	--	--	--	
	2-7	--	-- X --	--	--	--	1	--	--	
	2-8	--	-- X --	--	--	--	1	--	--	
	2-9	R7-1L	18 X 24	1	--	3.00	--	--	--	
	2-10	R7-1R	18 X 24	1	--	3.00	--	--	--	
	3-1	--	-- X --	--	--	--	1	--	--	
	3-2	R7-1L	18 X 24	1	--	3.00	--	--	--	
	3-3	R7-1R	18 X 24	1	--	3.00	--	--	--	
	3-4	--	-- X --	--	--	--	1	--	--	
	3-5	--	-- X --	--	--	--	1	--	--	
	3-6	R7-1R	18 X 24	1	--	3.00	--	--	--	
	3-7	R7-1L	18 X 24	1	--	3.00	--	--	--	
	3-8	R7-1D	18 X 24	1	--	3.00	--	--	--	
	3-9	R7-1D	18 X 24	1	--	3.00	--	--	--	
	3-10	--	-- X --	--	--	--	1	--	--	
	4-1	R7-1L	18 X 24	1	--	3.00	--	--	--	
	4-2	R7-1R	18 X 24	1	--	3.00	--	--	--	
	4-3	--	-- X --	--	--	--	1	--	--	
	4-4	--	-- X --	--	--	--	1	--	--	
	4-5	--	-- X --	--	--	--	1	--	--	
	4-6	R7-1L	18 X 24	1	--	3.00	--	--	--	
	4-7	R7-1R	18 X 24	1	--	3.00	--	--	--	
	4-8	--	-- X --	--	--	--	1	--	--	
	4-9	R7-1D	18 X 24	1	--	3.00	--	--	--	
	4-10	R7-1D	18 X 24	1	--	3.00	--	--	--	
	5-1	R7-1L	18 X 24	1	--	3.00	--	--	--	
	5-2	R7-1R	18 X 24	1	--	3.00	--	--	--	
	UNDISTRIBUTED			--	5	--	5	--	--	NO PASSING ZONES
TOTALS				24	5	76.36	18	1	1	

NOTE:
UNDISTRIBUTED QUANTITY INCLUDED FOR DAMAGED POSTS, LOCATIONS IN WHICH NO PASSING ZONE SIGNS ARE RELOCATED, OR LOCATIONS IN WHICH SIGN HEIGHT ADJUSTMENTS REQUIRE A NEW POST

3

TEMPORARY BARRIER ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8500 ANCHORING CONRETE BARRIER TEMPORARY PRECAST LF
0010								
	1A	166+66	-	172+04	LT&RT	545	545	130
	1B	166+90	-	172+25	LT&RT	--	545	130
TOTALS						545	1,090	260

WATER ITEMS

CATEGORY	LOCATION	624.0100 WATER MGAL	630.0500 SEED WATER MGAL
0010			
	PROJECT	15	170
TOTAL		15	170

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 DAY	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (STA 169+00) LS
0010														
	--	CULVERT REPLACEMENT STA 119+85	3	38	114	--	--	--	--	--	--	--	--	--
	--	CULVERT REPLACEMENT STA 322+06	5	56	280	--	--	--	--	--	--	--	--	--
	1A	STORM SEWER REPLACEMENT	3	36	108	12	36	24	72	32	96	23	69	--
	1B	STORM SEWER REPLACEMENT	3	60	180	12	36	24	72	46	138	23	69	--
STAGE 1 TOTALS					682		72		144		234		138	--
	2B	RT CURB & GUTTER AND STORM SEWER REPLACEMENT	7	156	1,093	12	84	24	168	19	134	33	231	--
	2C/2D	RT PAVEMENT REPLACEMENT	16	156	2,496	12	192	24	384	19	304	33	528	--
STAGE 2 TOTALS					3,589		276		552		438		759	--
	3A	LT CURB & GUTTER AND STORM SEWER REPLACEMENT	12	133	1,596	12	144	24	288	10	120	33	396	--
	3B	LT PAVEMENT REPLACEMENT	16	181	2,896	12	192	24	384	10	160	33	528	--
STAGE 3 TOTALS					4,492		336		672		280		924	--
	4	MILLING AND PAVING	15	--	--	--	--	--	--	--	--	24	360	--
STAGE 4 TOTALS					--		--		--		--		360	--
		PROJECT - ADVANCED WARNING	103	--	--	--	--	--	--	--	--	21	2,163	--
		PROJECT - WIDTH RESTRICTION	65	--	--	--	--	--	--	--	--	30	1,950	--
		PROJECT	--	--	--	--	--	--	--	--	--	--	--	1
TOTALS					8,763		684		1,368		952		6,294	1

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	LOCATION	SIGN SIZE W X H FT X FT	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
0010				
	SOUTH PROJECT LIMIT	6' X 3'	18.00	HWY 32 / ROAD WORK / BEGINS XX-XX
	NORTH PROJECT LIMIT	6' X 3'	18.00	HWY 32 / ROAD WORK / BEGINS XX-XX
TOTAL			36.00	

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	STATION	TO	STATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	649.0105* TEMPORARY MARKING LINE PAINT 4-INCH SOLID WHITE LF	649.0105* 3' LINE 9' SKIP WHITE LF	649.0105* SOLID YELLOW LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH SOLID WHITE LF	649.0150 SOLID YELLOW LF	649.0850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF
0010											
	1A	158+35	-	176+50	315	--	--	--	700	2,000	24
	1B	158+35	-	176+50	--	--	--	--	1,460	--	--
	2B/2C/2D	137+92	-	181+43	6,406	3,050	45	8,900	--	--	--
	3B	142+92	-	181+47	1,275	2,680	45	7,340	--	--	--
TOTALS					7,995	5,730	90	16,240	2,160	2,000	24
							22,060		4,160		

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LOCATING NO-PASSING ZONES

CATEGORY	STATION	TO	STATION	648.0100 LOCATING NO-PASSING ZONES MI
0010				
	115+22	-	328+70	4.04
TOTAL				4.04

PERMANENT AND TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.1020 SOLID YELLOW LF	646.1020 3' LINE 9' SKIP WH ITE LF	646.1020 SOLID WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH 3' LINE 9' SKIP WHITE LF	646.1040 12.5' LINE 37.5' SKIP WHITE LF	646.1040 SOLID WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH 3' LINE 9' SKIP WH ITE LF	646.3020 SOLID WHITE LF
0010												
	115+22	-	152+72	915	1,280	--	--	--	--	7,449	--	--
	152+72	-	190+03	--	--	141	6,010	--	--	--	39	740
	190+03	-	328+70	2,425	16,140	--	--	276	63	26,919	--	--
TOTALS				3,340	17,420	141	6,010	276	63	34,368	39	740
					26,911				34,430		779	

CATEGORY	STATION	TO	STATION	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	646.4520 SOLID YELLOW LF	646.6464 COLD WEATHER MARKING EPOXY 4-INCH SOLID WHITE LF	646.6464 SOLID YELLOW LF	646.6468 COLD WEATHER MARKING EPOXY 8-INCH SOLID WHITE LF	649.0105* TEMPORARY MARKING LINE PAINT 4-INCH 4' LINE 46' SKIP YELLOW LF	649.0105* SOLID YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP YELLOW LF	649.0120 SOLID YELLOW LF
0010												
	115+22	-	152+72	--	--	--	2,195	--	295	1,280	915	1,280
	152+72	-	190+03	600	4,030	6,930	4,630	779	190	4,030	--	--
	190+03	-	328+70	--	--	339	18,565	--	775	16,140	2,425	16,140
TOTALS				600	4,030	7,269	25,389	779	1,260	21,450	3,340	17,420
					4,630		32,658			22,710		20,760

NOTES:
1) TEMPORARY MARKING LINE PAINT FOR APPLICATION ON MILLED SURFACE AND LOWER LAYER IN REPLACEMENT AREA
2) TEMPORARY MARKING LINE EPOXY FOR APPRLIACTION PRIOR TO CENTERLINE RUMBLE STRIPS
*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

3

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010										
	115+22	-	152+72	LT&RT	--	--	--	1	3,750	--
	152+72	-	173+73	LT&RT	11	2,101	4,159	--	2,101	2,101
	173+73	-	328+70	LT&RT	--	--	--	1	15,497	--
		PROJECT			--	--	--	--	--	--
TOTALS					11	2,101	4,159	2	21,348	2,101

SAWING ITEMS

CATEGORY	STAGE	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
0010								
	--	119+30	-	120+45	LT&RT	60	--	CULVERT REPLACEMENT
	--	321+53	-	322+60	LT&RT	60	--	CULVERT REPLACEMENT
	1A	167+24	-	171+52	LT&RT	500	5	STORM SEWER REPLACEMENT
	1B	168+74	-	169+60	LT&RT	170	3	STORM SEWER REPLACEMENT
STAGE 1 TOTALS						790	8	
	2A	151+67	-	152+72	RT	135	--	SHOULDER WIDENING
	2A	156+33	-	156+48	RT	15	--	DRIVEWAY
	2A	159+27	-	159+53	RT	27	--	MAPLE ST
	2A	162+43	-	162+68	RT	25	--	MAIN ST
	2A	168+75	-	169+05	RT	29	--	FERRY RANCH LN
	2A	173+73	-	174+77	RT	135	--	SHOULDER WIDENING
STAGE 2 TOTALS						366	--	
	3A	144+74	-	152+72	LT	800	--	SHOULDER WIDENING
	3A	153+93	-	154+07	LT	14	--	DRIVEWAY
	3A	162+42	-	162+78	LT	70	--	MAIN ST
	3A	163+05	-	163+26	LT	33	--	COMMERCIAL ENTRANCE
	3A	173+73	-	176+52	LT	277	--	SHOULDER WIDENING
STAGE 3 TOTALS						1,194	--	
TOTALS						2,350	8	

EXISTING LAND PARCEL MONUMENT ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	SPV.0060.01 RESEARCH AND LOCATE EXISTING LAND PARCEL MONUMENTS EACH	SPV.0060.02 VERIFY AND REPLACE EXISTING LAND PARCEL MONUMENTS EACH
0010						
	152+72	-	173+73	LT&RT	7	7
TOTALS					7	7

4

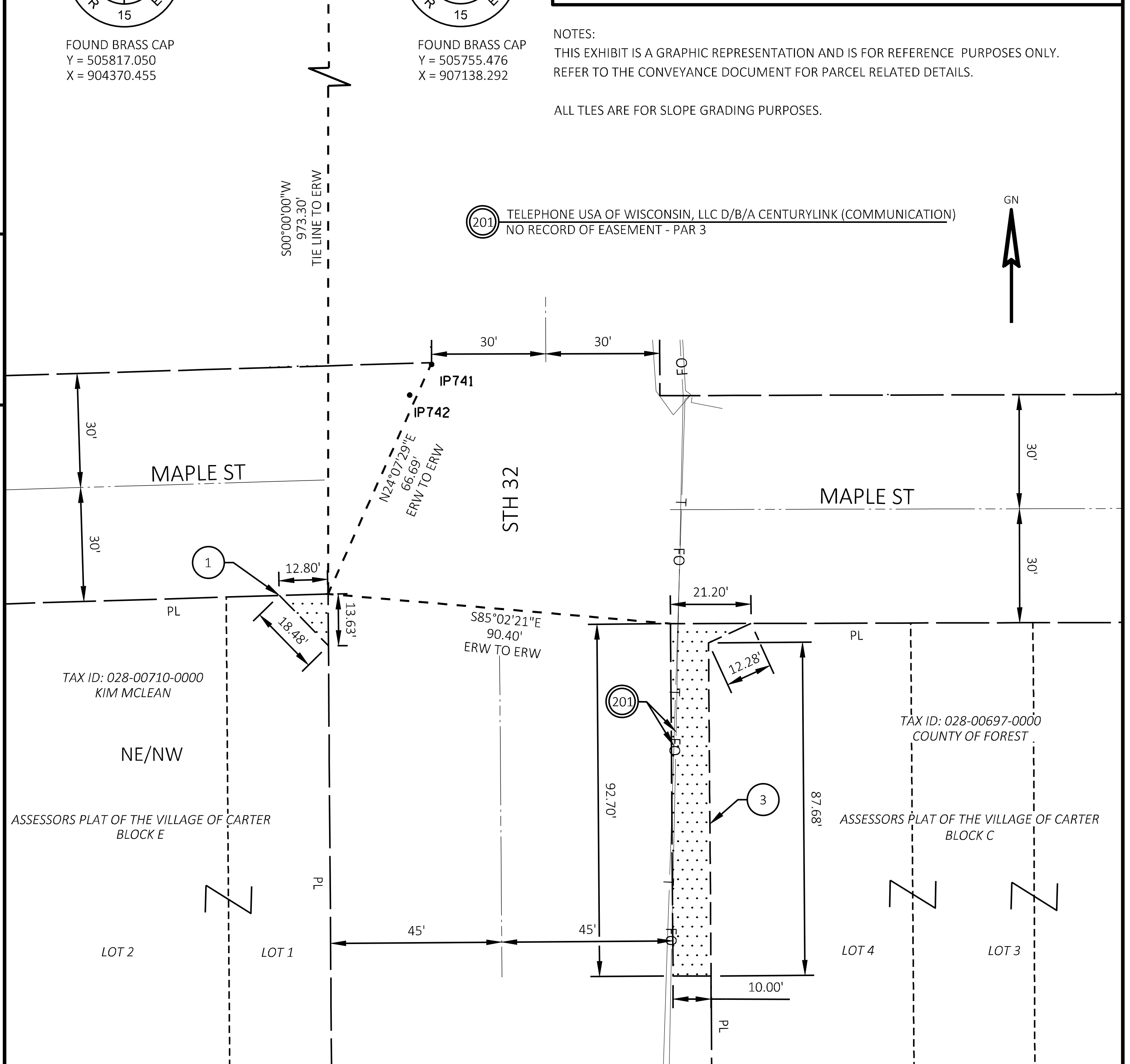
R/W PROJECT NUMBER: 9130-00-20	SHEET NUMBER: 1

TLE ACQUISITION EXHIBIT
MOUNTAIN - WABENO
OCONTO COUNTY LINE TO CTH C
STH 32 FOREST COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 33, T 34 N, R 15 E, TOWN OF WABENO, FOREST COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS 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)	INTEREST REQUIRED	TLE S.F.
1	KIM MCLEAN	TLE	87
3	COUNTY OF FOREST	TLE	955

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
201	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP741	504860.408	906362.761	1.0" OD IRON PIPE
IP742	504852.357	906356.964	1.0" OD IRON PIPE

SCALE, FEET
0 20 40

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTH CENTERAL - RHINELANDER

SIGNATURE: Brent L Stella DATE: 4-15-21
PRINT NAME: Brent L Stella

FILE NAME : TLE EXHIBIT.DWG PLOT DATE : 7/26/2021 1:50 PM R/W PROJECT: 9130-00-20

4

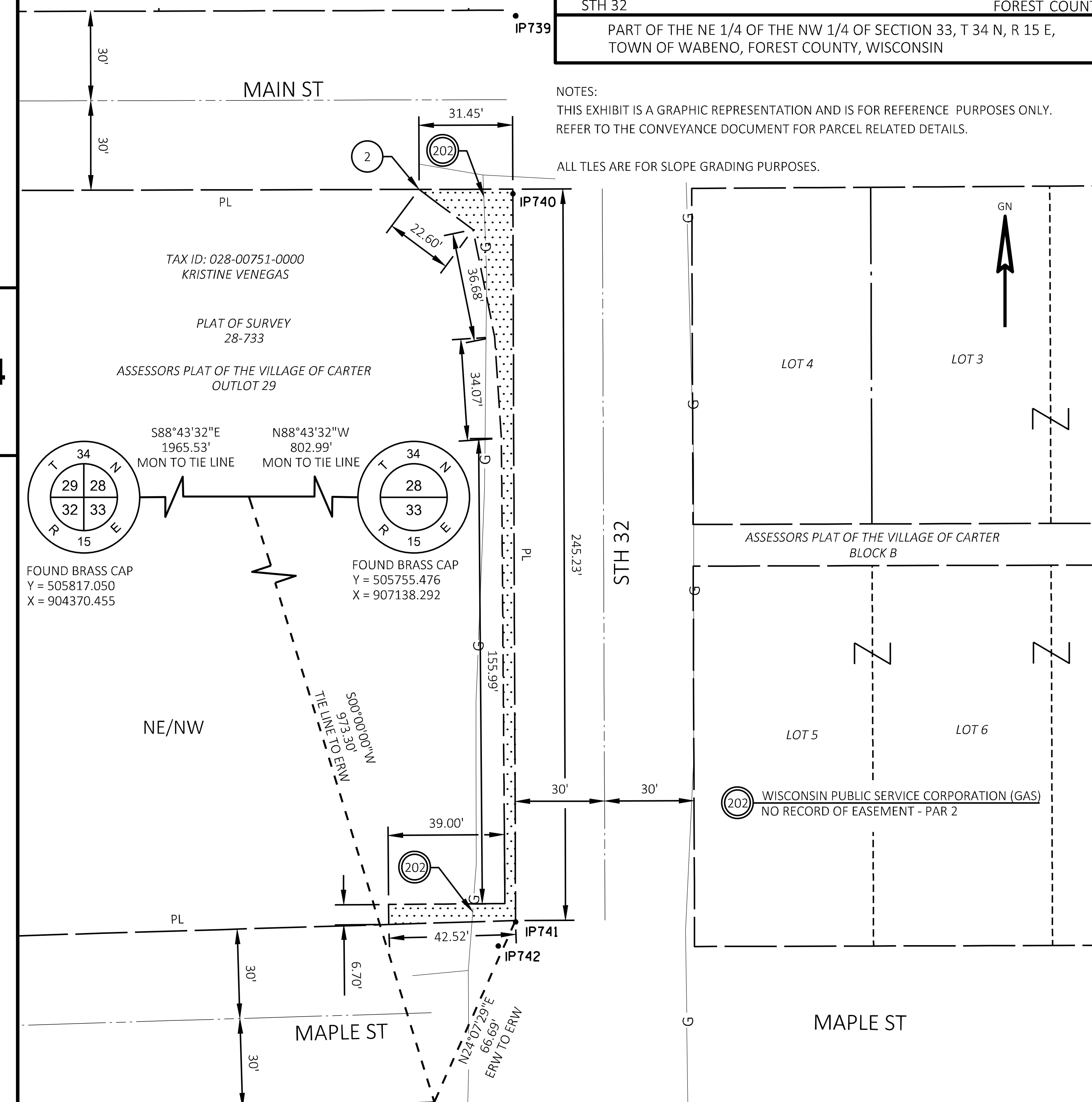
R/W PROJECT NUMBER: 9130-00-20	SHEET NUMBER: 2

TLE ACQUISITION EXHIBIT
MOUNTAIN - WABENO
OCONTO COUNTY LINE TO CTH C
STH 32 FOREST COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 33, T 34 N, R 15 E, TOWN OF WABENO, FOREST COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS 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)	INTEREST REQUIRED	TLE S.F.
2	KRISTINE VENEGAS	TLE	1696

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
202	WISCONSIN PUBLIC SERVICE CORPORATION (GAS)	RELEASE OF RIGHTS

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP739	505164.254	906362.766	1.0" OD IRON PIPE
IP740	505104.543	906361.860	1.0" OD IRON PIPE
IP741	504860.408	906362.761	1.0" OD IRON PIPE
IP742	504852.357	906356.964	1.0" OD IRON PIPE

SCALE, FEET
0 25 50

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTH CENTERAL - RHINELANDER

SIGNATURE: Brent L Stella DATE: 4-15-21
PRINT NAME: Brent L Stella

FILE NAME : TLE EXHIBIT.DWG PLOT DATE : 7/26/2021 1:50 PM R/W PROJECT: 9130-00-20

R/W PROJECT NUMBER: 9130-00-20 | SHEET NUMBER: 3

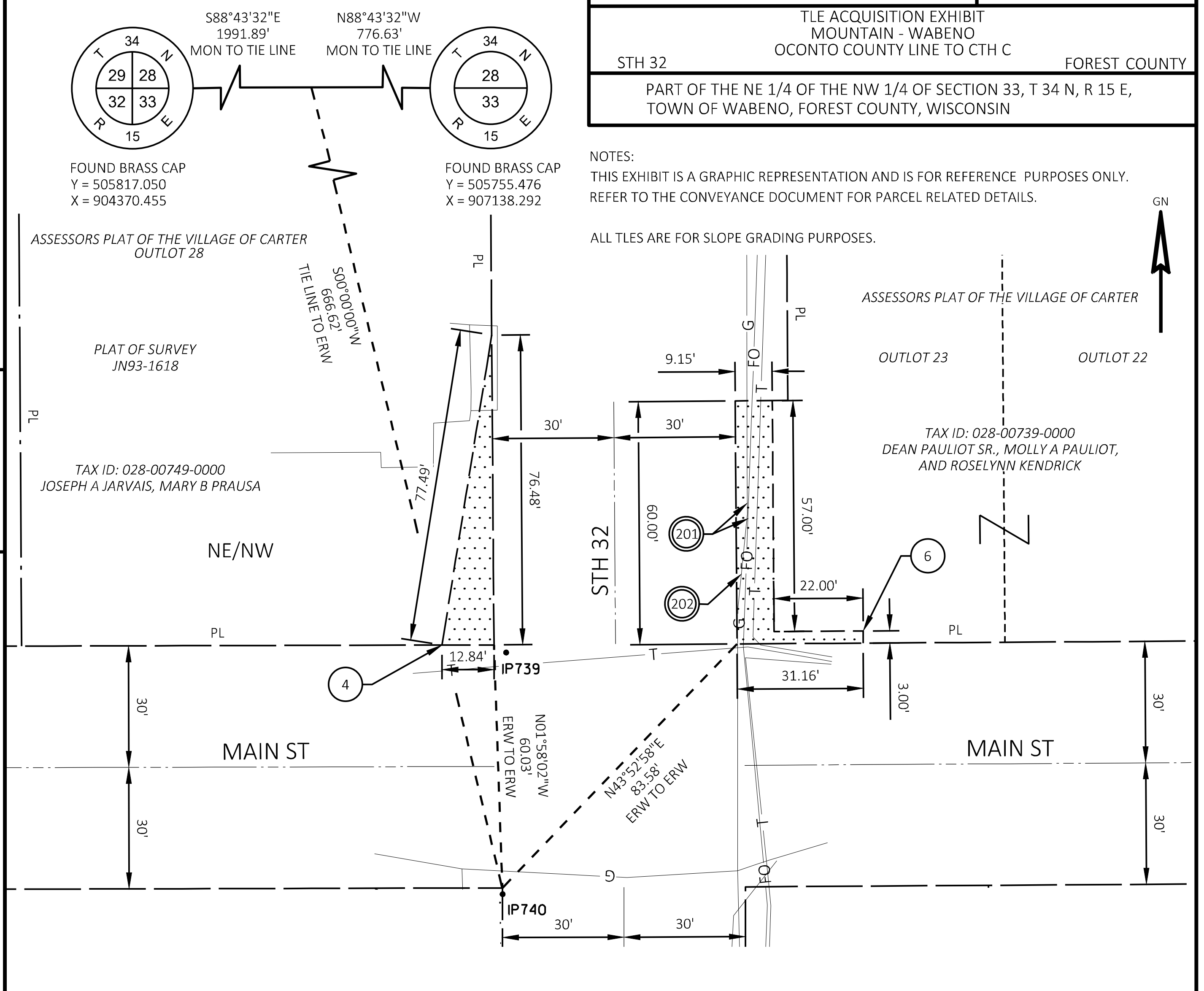
TLE ACQUISITION EXHIBIT
MOUNTAIN - WABENO
OCONTO COUNTY LINE TO CTH C

STH 32 FOREST COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 33, T 34 N, R 15 E,
TOWN OF WABENO, FOREST COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.



(201) TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)
VOL 114 PG 253 DOC 103665 - PAR 4
VOL 230 PG 726 DOC 170056 - PAR 4
NO RECORD OF EASEMENT - PAR 6

(202) WISCONSIN PUBLIC SERVICE CORPORATION (GAS)
NO RECORD OF EASEMENT - PAR 6

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS 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)	INTEREST REQUIRED	TLE S.F.
4	JOSEPH A JARVAIS, MARY B PRAUSA	TLE	491
6	DEAN PAULIOT SR., MOLLY A PAULIOT, AND ROSELYNN KENDRICK	TLE	616

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
201	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS
202	WISCONSIN PUBLIC SERVICE CORPORATION (GAS)	RELEASE OF RIGHTS

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP739	505164.254	906362.766	1.0" OD IRON PIPE
IP740	505104.543	906361.860	1.0" OD IRON PIPE

SCALE, FEET
0 20 40

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTH CENTERAL - RHINELANDER

SIGNATURE: Brent L Stella DATE: 4-15-21

PRINT NAME: Brent L Stella

FILE NAME : TLE EXHIBIT.DWG PLOT DATE : 7/26/2021 1:50 PM R/W PROJECT: 9130-00-20

R/W PROJECT NUMBER: 9130-00-20 | SHEET NUMBER: 4

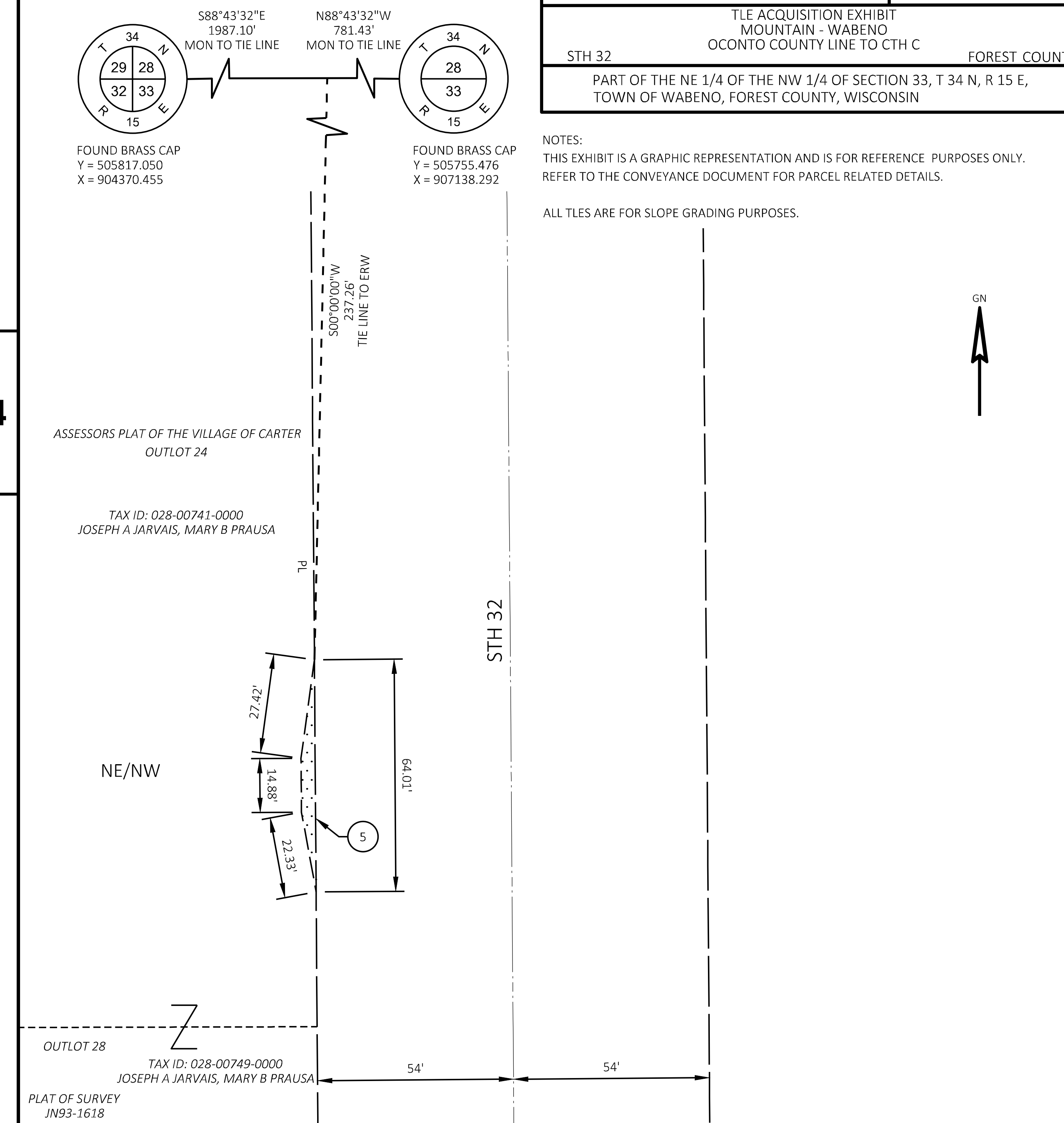
TLE ACQUISITION EXHIBIT
MOUNTAIN - WABENO
OCONTO COUNTY LINE TO CTH C

STH 32 FOREST COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 33, T 34 N, R 15 E,
TOWN OF WABENO, FOREST COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.



(201) TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)
VOL 114 PG 253 DOC 103665 - PAR 5
VOL 230 PG 726 DOC 170056 - PAR 5

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS 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)	INTEREST REQUIRED	TLE S.F.
5	JOSEPH A JARVAIS, MARY B PRAUSA	TLE	153

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
201	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS

SCALE, FEET
0 20 40

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTH CENTERAL - RHINELANDER

SIGNATURE: Brent L Stella DATE: 4-15-21

PRINT NAME: Brent L Stella

FILE NAME : TLE EXHIBIT.DWG PLOT DATE : 7/26/2021 1:50 PM R/W PROJECT: 9130-00-20

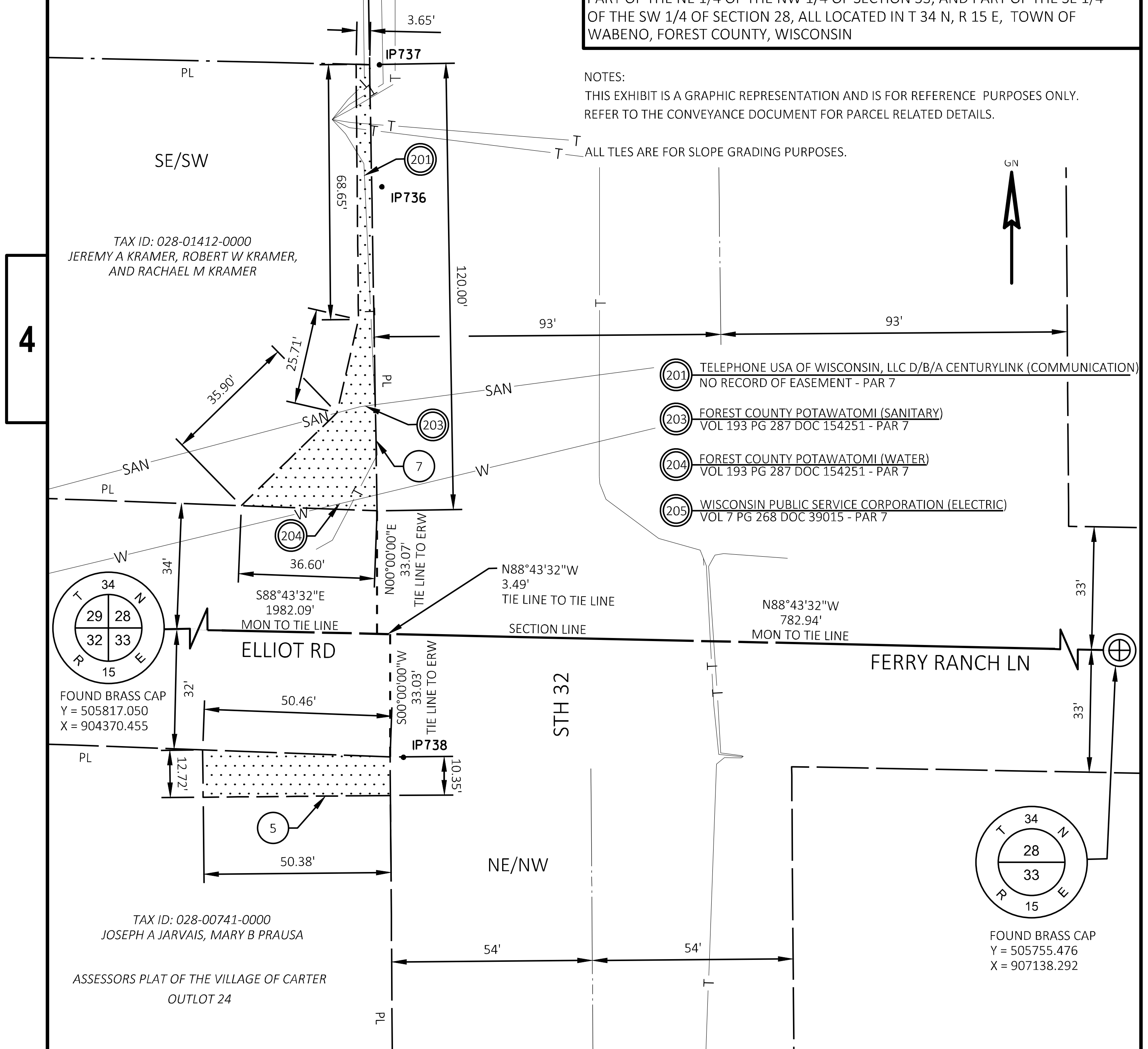
R/W PROJECT NUMBER: 9130-00-20 | SHEET NUMBER: 5

TLEACQUISITIONEXHIBIT
MOUNTAIN - WABENO
OCONTO COUNTY LINE TO CTH C
STH 32 FOREST COUNTY

PART OF THE NE 1/4 OF THE NW 1/4 OF SECTION 33, AND PART OF THE SE 1/4 OF THE SW 1/4 OF SECTION 28, ALL LOCATED IN T 34 N, R 15 E, TOWN OF WABENO, FOREST COUNTY, WISCONSIN

NOTES:
THIS EXHIBIT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY.
REFER TO THE CONVEYANCE DOCUMENT FOR PARCEL RELATED DETAILS.

ALL TLES ARE FOR SLOPE GRADING PURPOSES.



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS 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)	INTEREST REQUIRED	TLE S.F.
5	JOSEPH A JARVAIS, MARY B PRAUSA	TLE	581
7	JEREMY A KRAMER, ROBERT W KRAMER, AND RACHAEL M KRAMER	TLE	1062

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
201	TELEPHONE USA OF WISCONSIN, LLC D/B/A CENTURYLINK (COMMUNICATION)	RELEASE OF RIGHTS
203	FOREST COUNTY POTAWATOMI (SANITARY)	RELEASE OF RIGHTS
204	FOREST COUNTY POTAWATOMI (WATER)	RELEASE OF RIGHTS
205	WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)	RELEASE OF RIGHTS

EXISTING MONUMENTS

POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP736	505893.152	906353.289	1.0" OD IRON PIPE TIPPED
IP737	505925.889	906352.596	1.0" OD IRON PIPE TIPPED
IP738	505739.728	906359.094	1.0" OD IRON PIPE

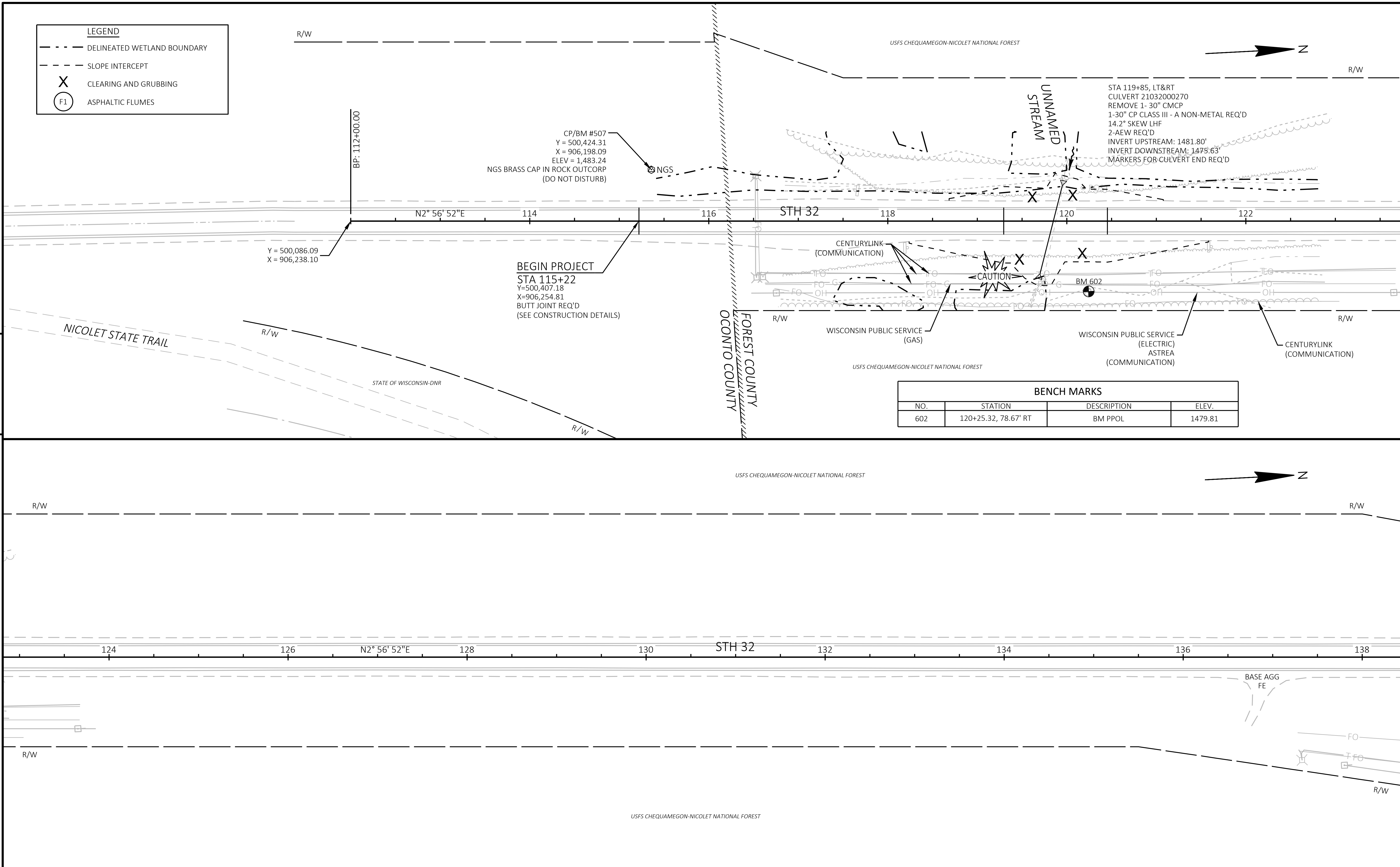
SCALE, FEET
0 20 40

THIS MAP IS APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
NORTH CENTERAL - RHINELANDER

SIGNATURE: Brent L Stella DATE: 4-19-21

PRINT NAME: Brent L Stella

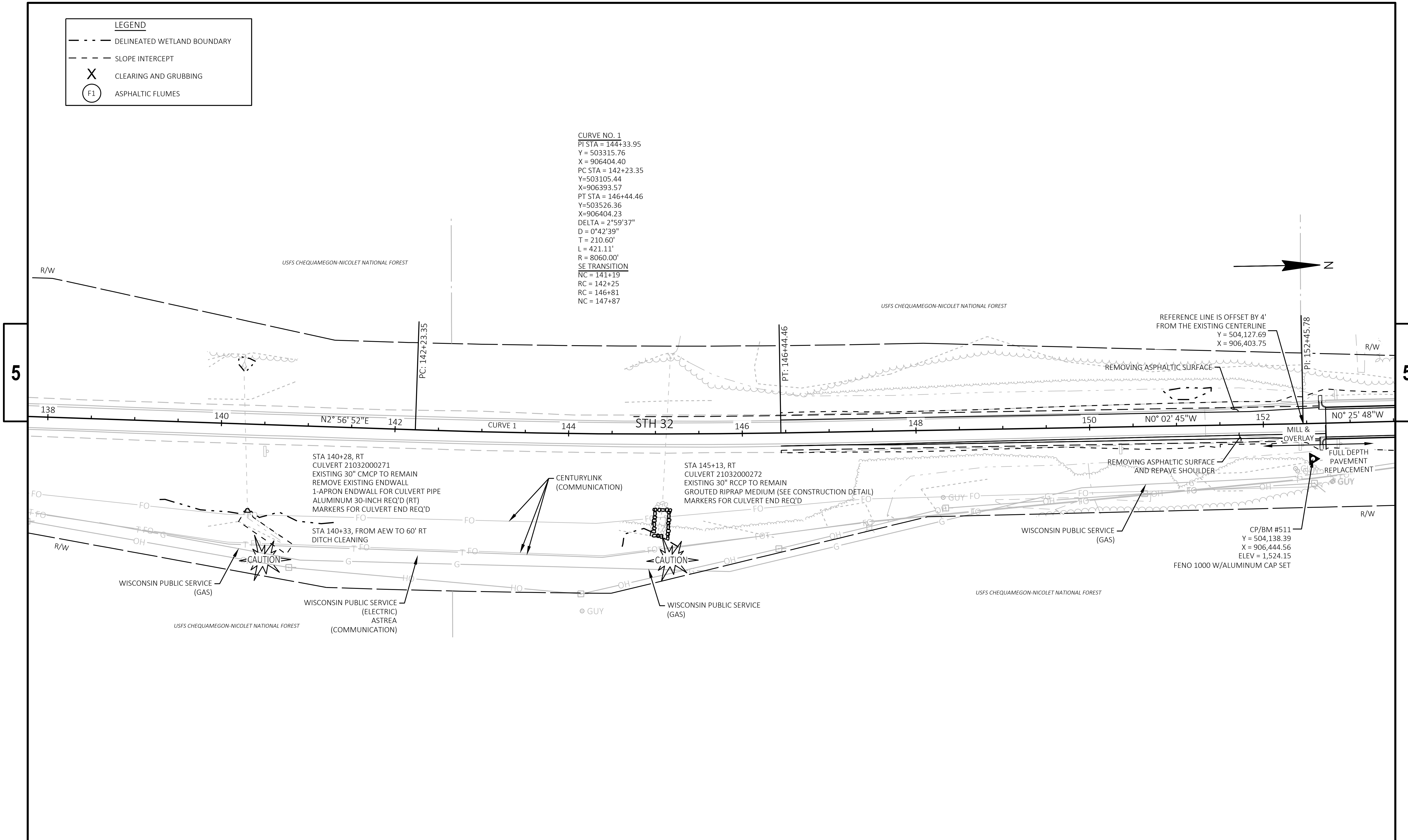
4



BENCH MARKS

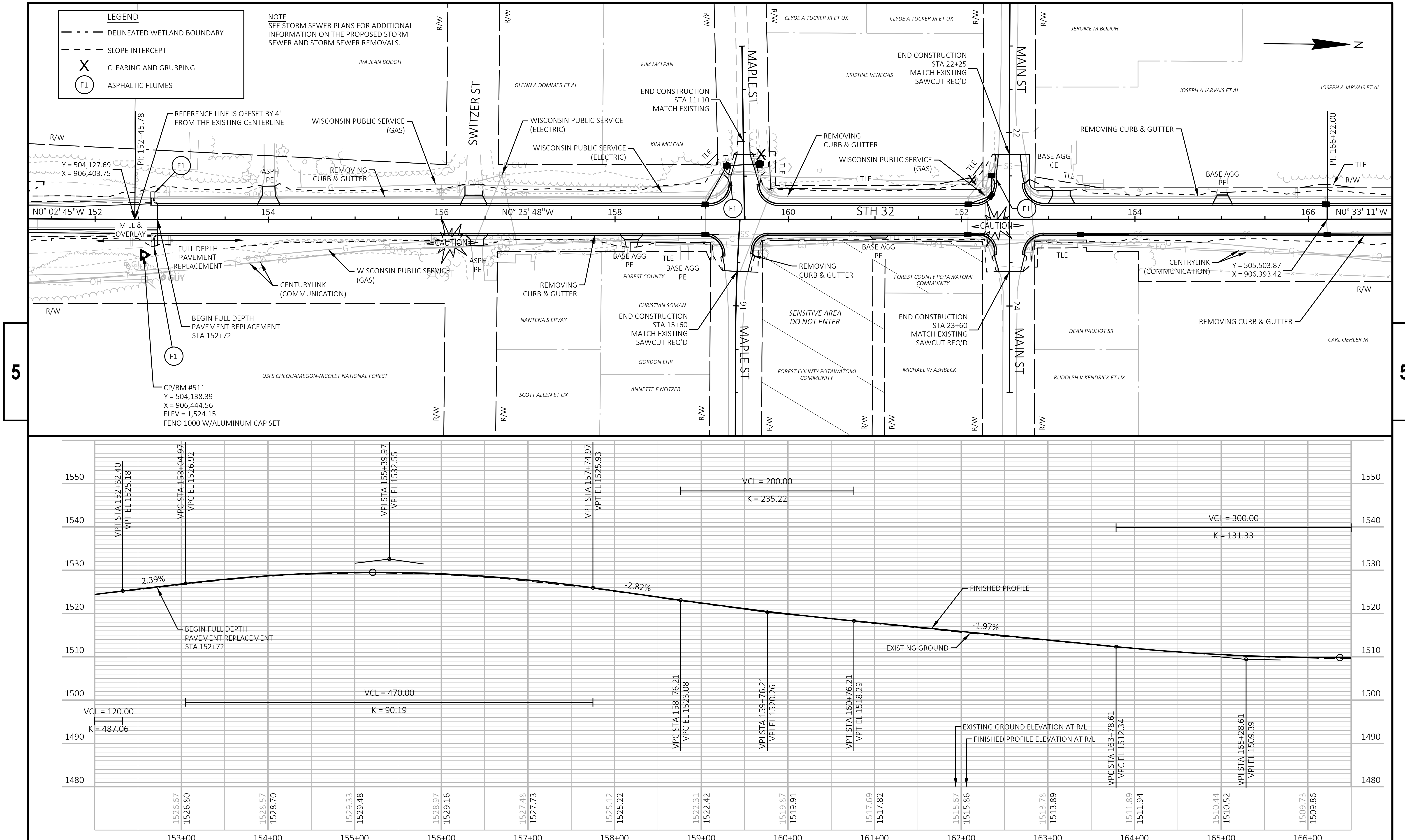
NO.	STATION	DESCRIPTION	ELEV.
602	120+25.32, 78.67' RT	BM PPOL	1479.81

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 69	E



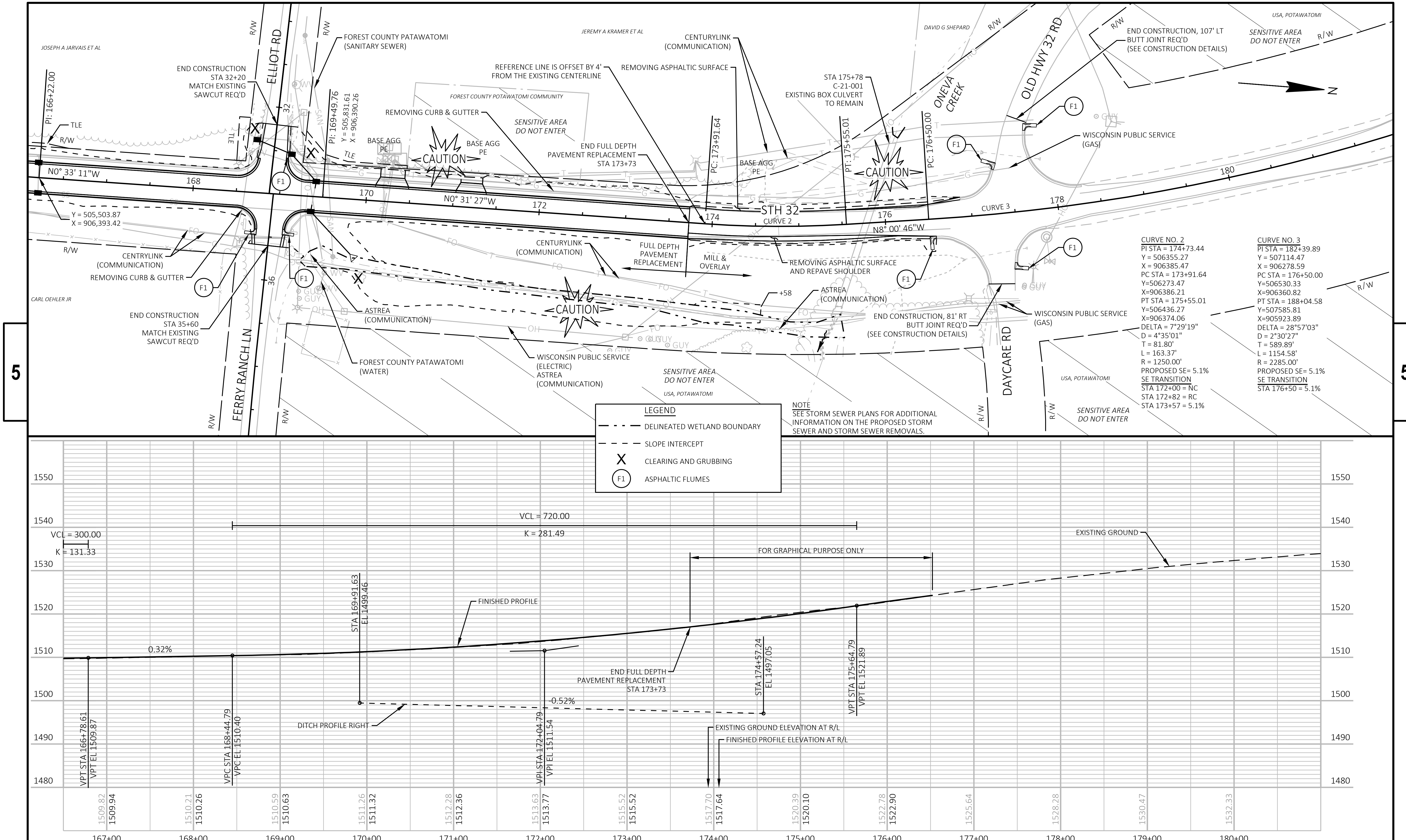
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 70	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 1/21/2022 7:59 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

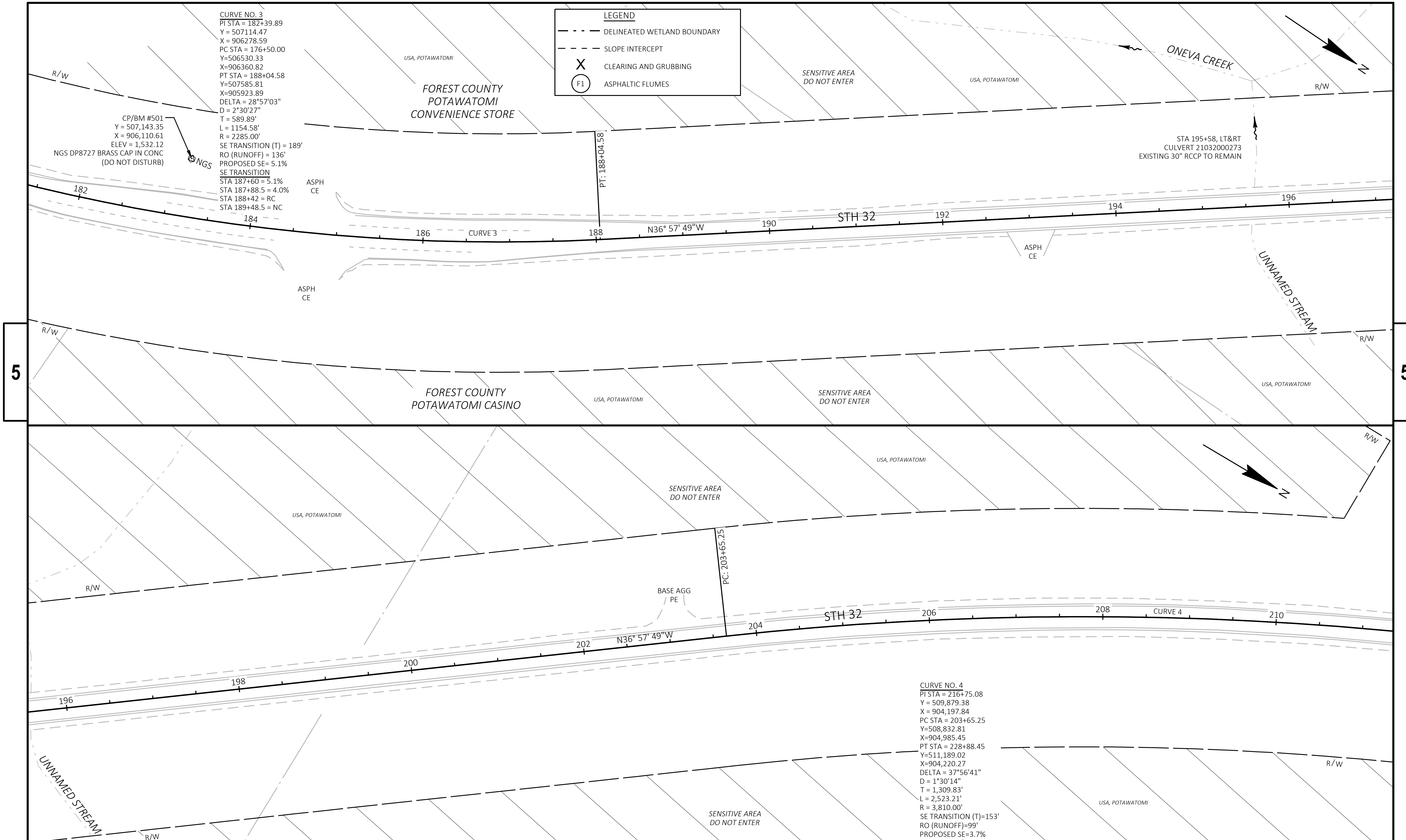


PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN AND PROFILE	SHEET 71	E

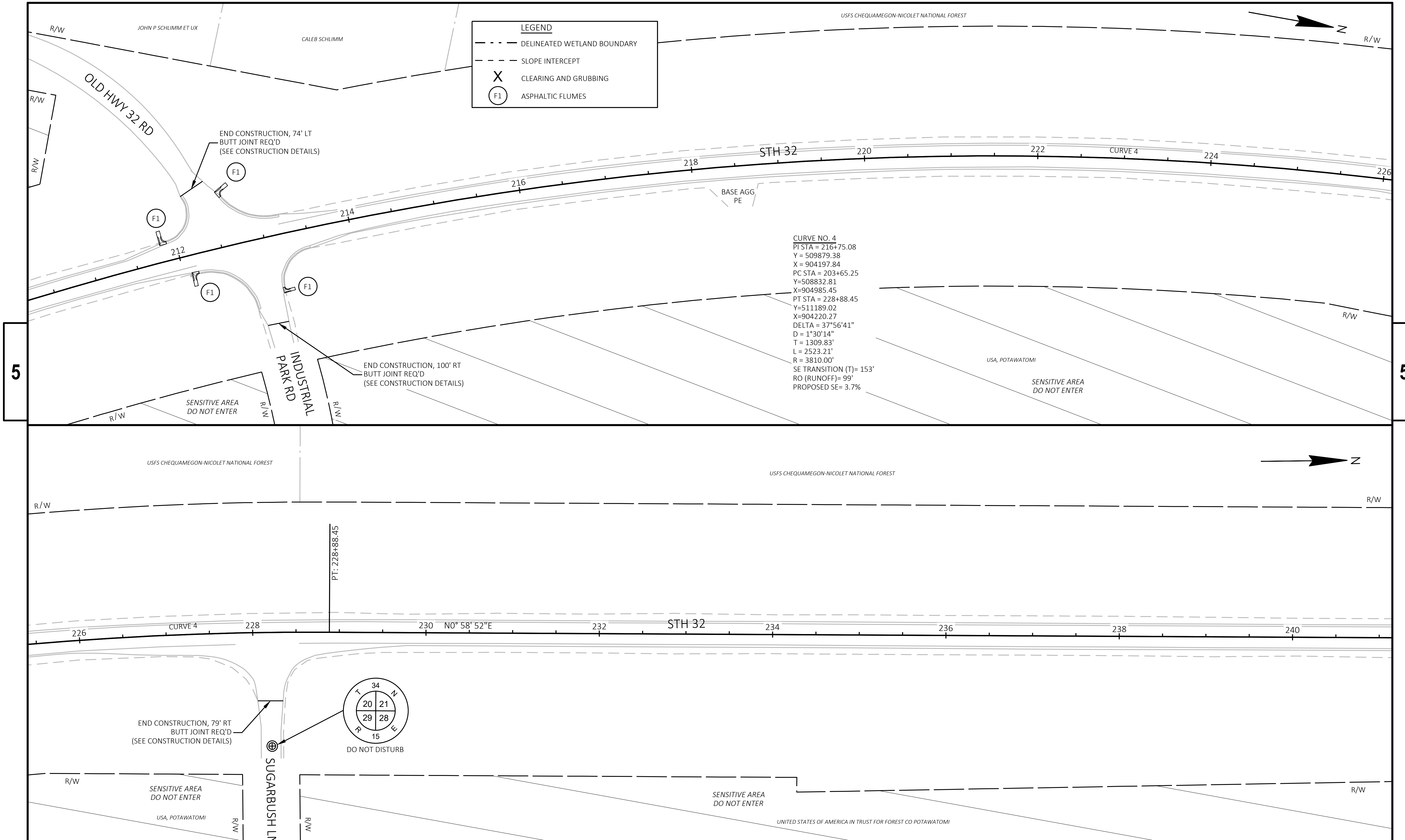
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050202-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 1/25/2022 2:54 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN AND PROFILE	SHEET 72	E

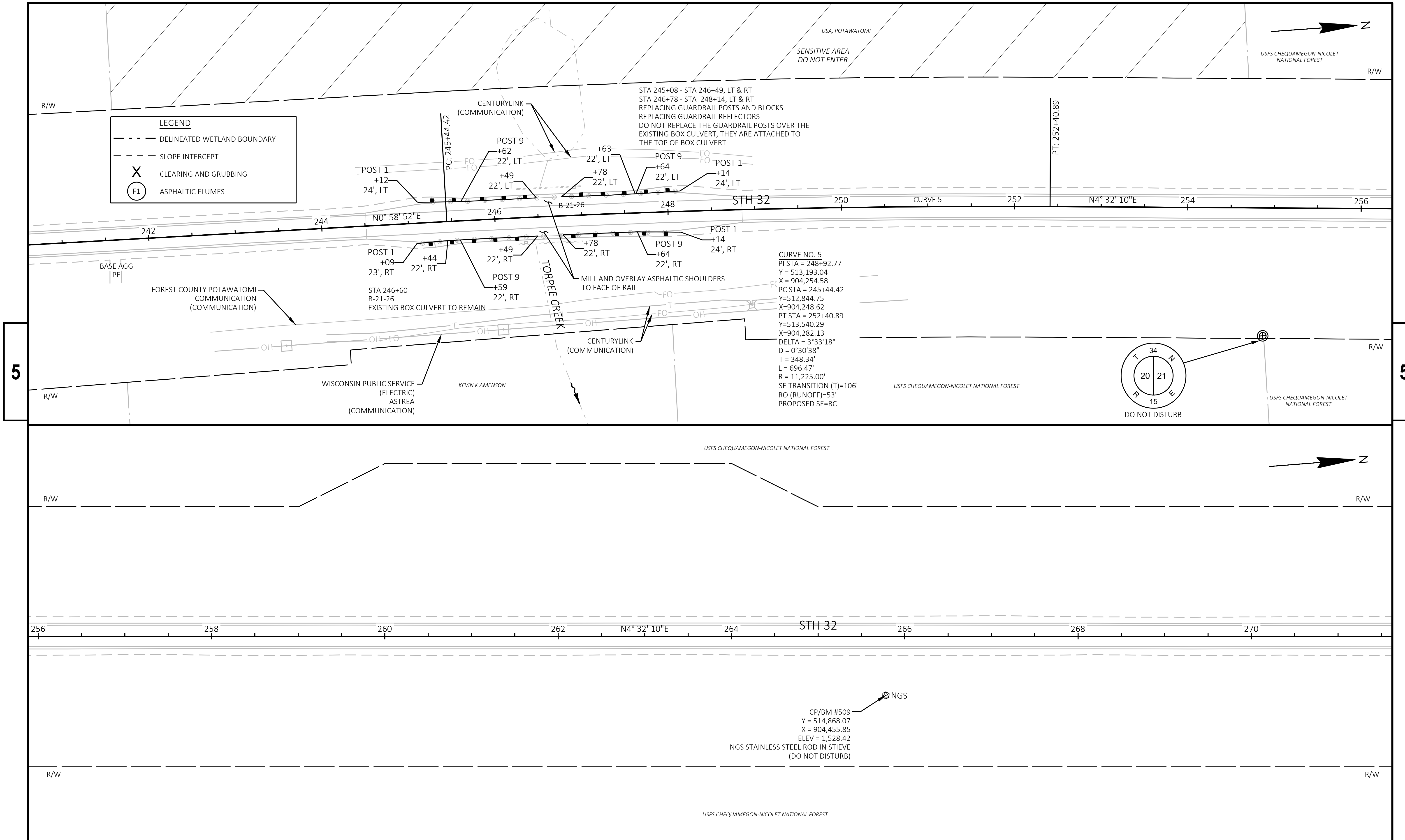


PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 73	E



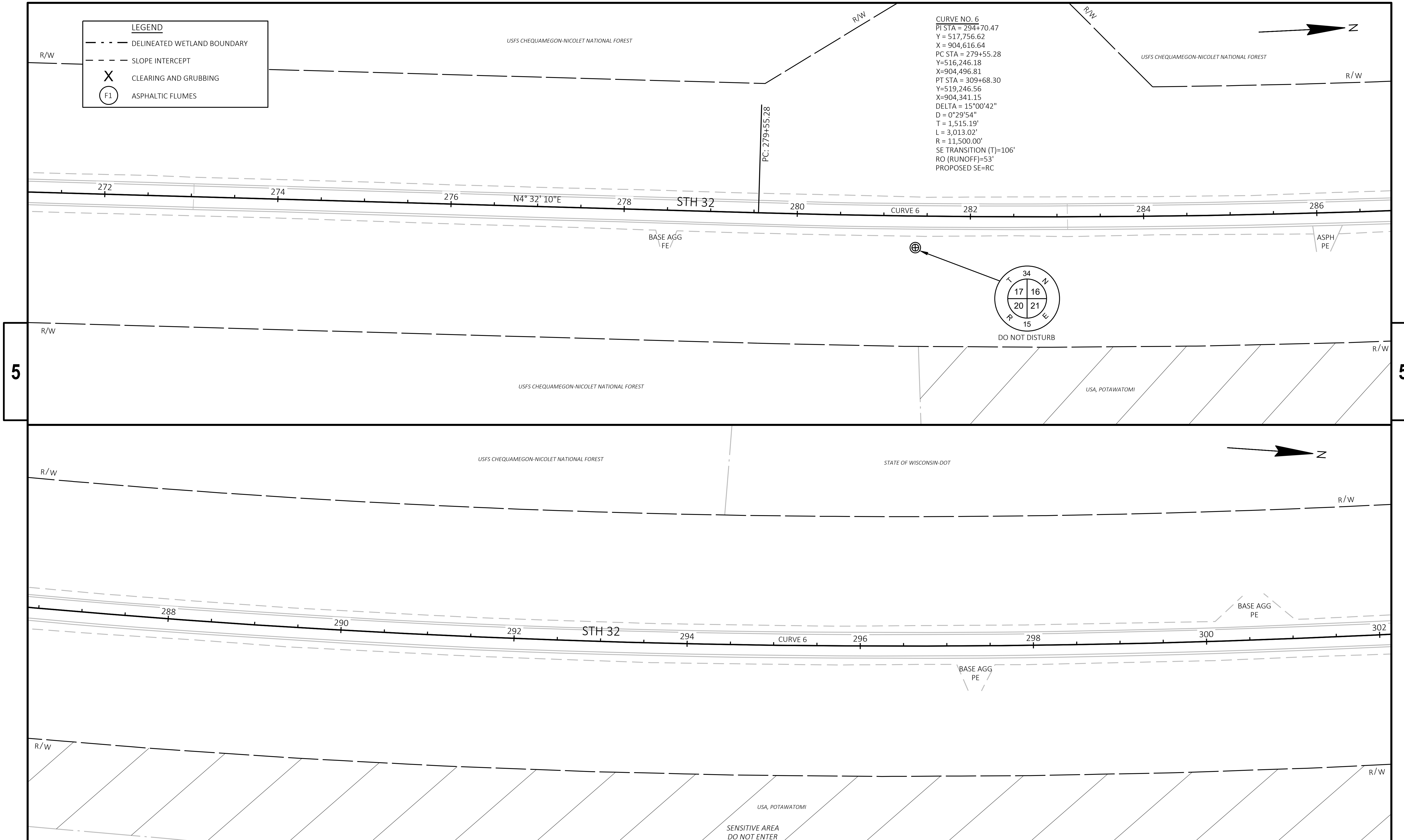
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 74	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 04
PLOT DATE : 1/21/2022 7:59 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



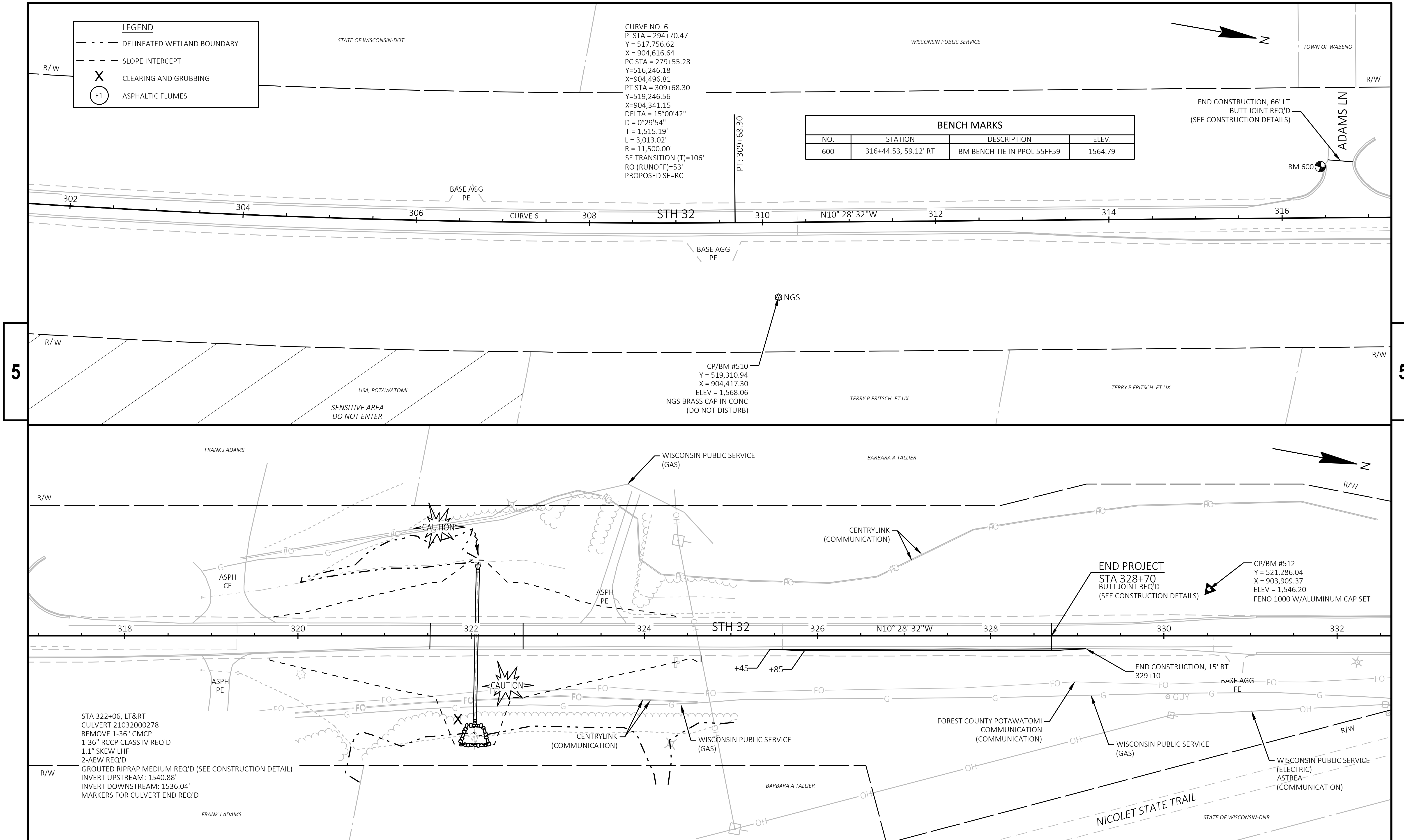
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 75	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 05
PLOT DATE : 1/25/2022 10:13 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 76	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 06
PLOT DATE : 1/21/2022 7:59 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

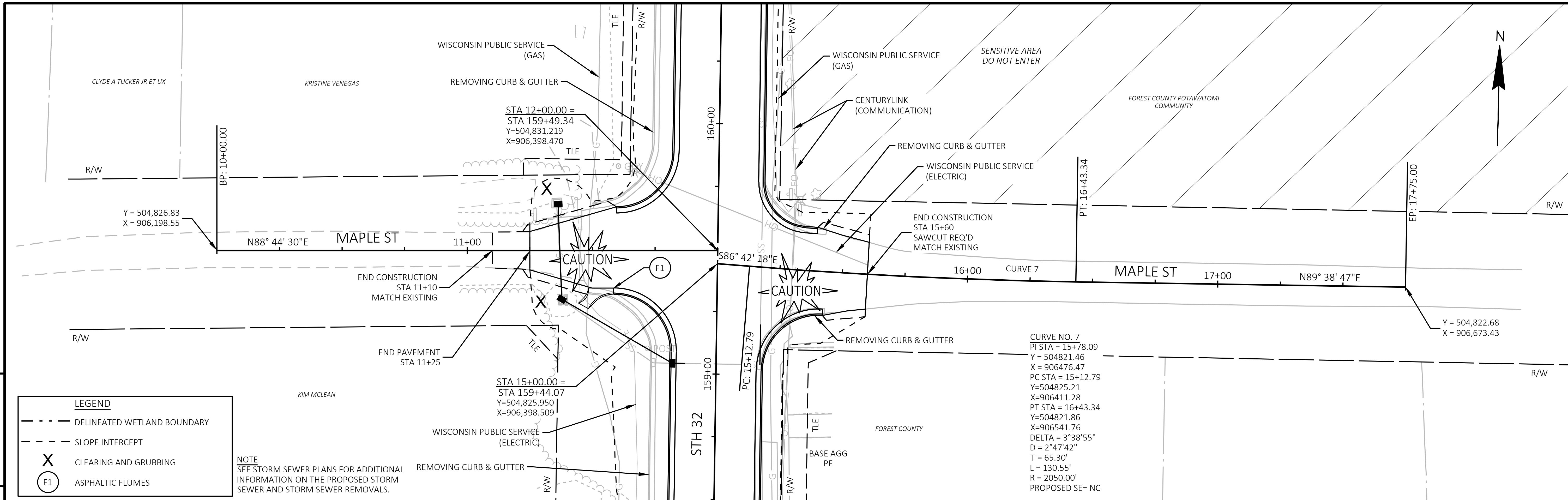


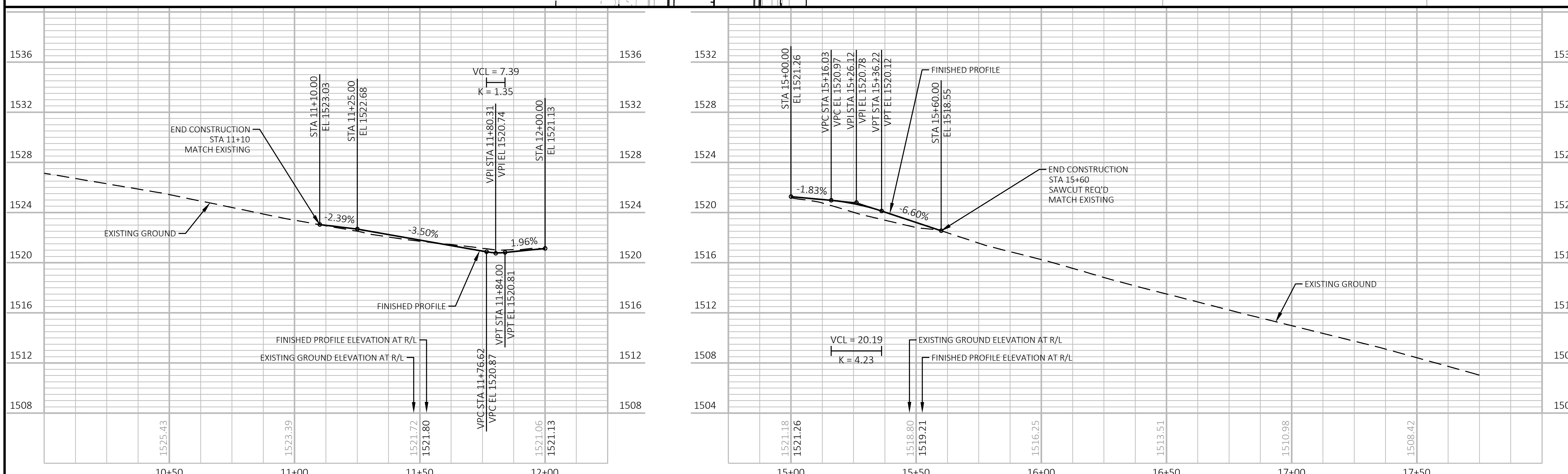
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
600	316+44.53, 59.12' RT	BM BENCH TIE IN PPOL 55FF59	1564.79

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN	SHEET 77 E

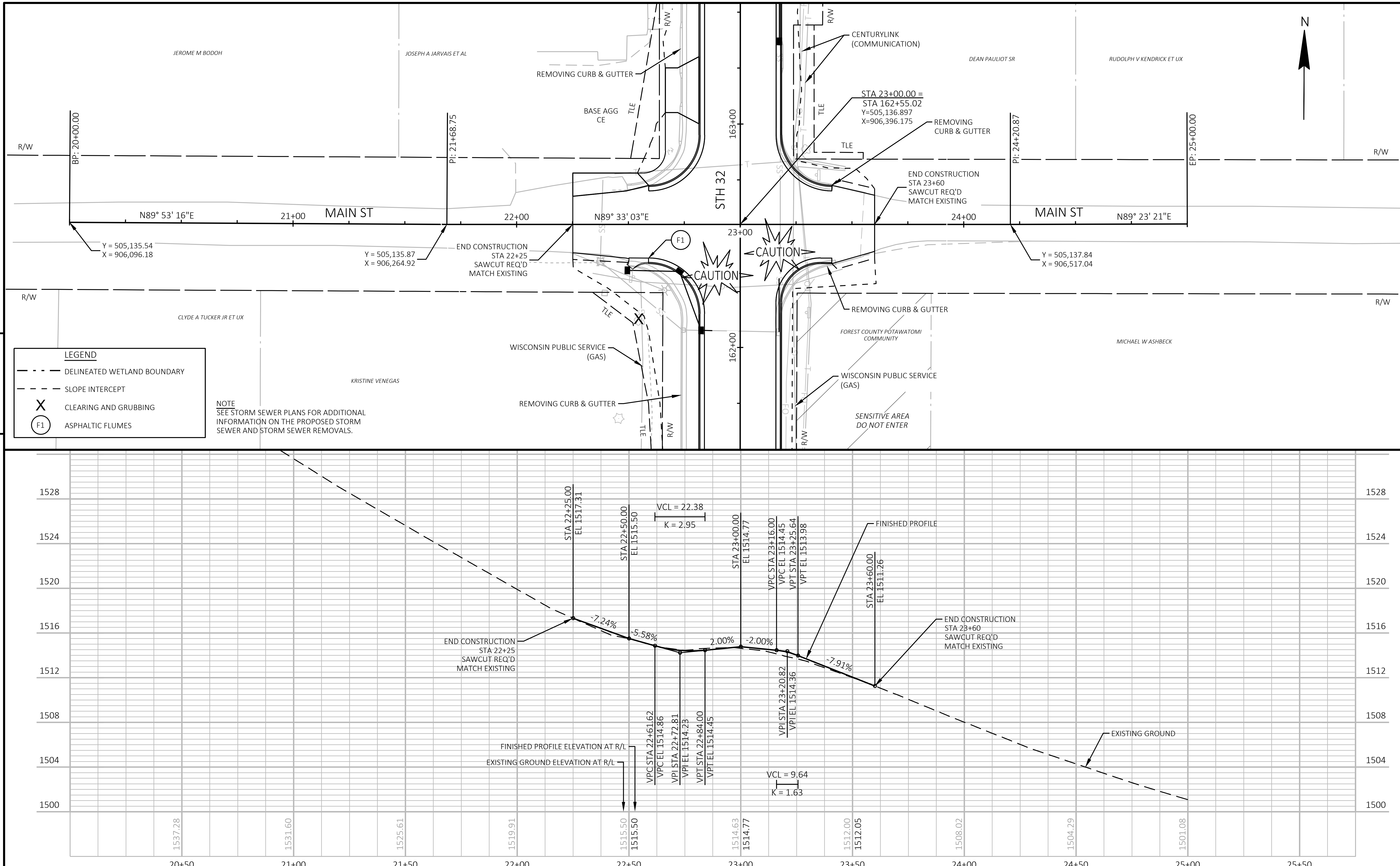
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050203-PN.DWG
LAYOUT NAME - 07
PLOT DATE : 1/26/2022 12:27 PM PLOT BY : SCOTT KAISER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44





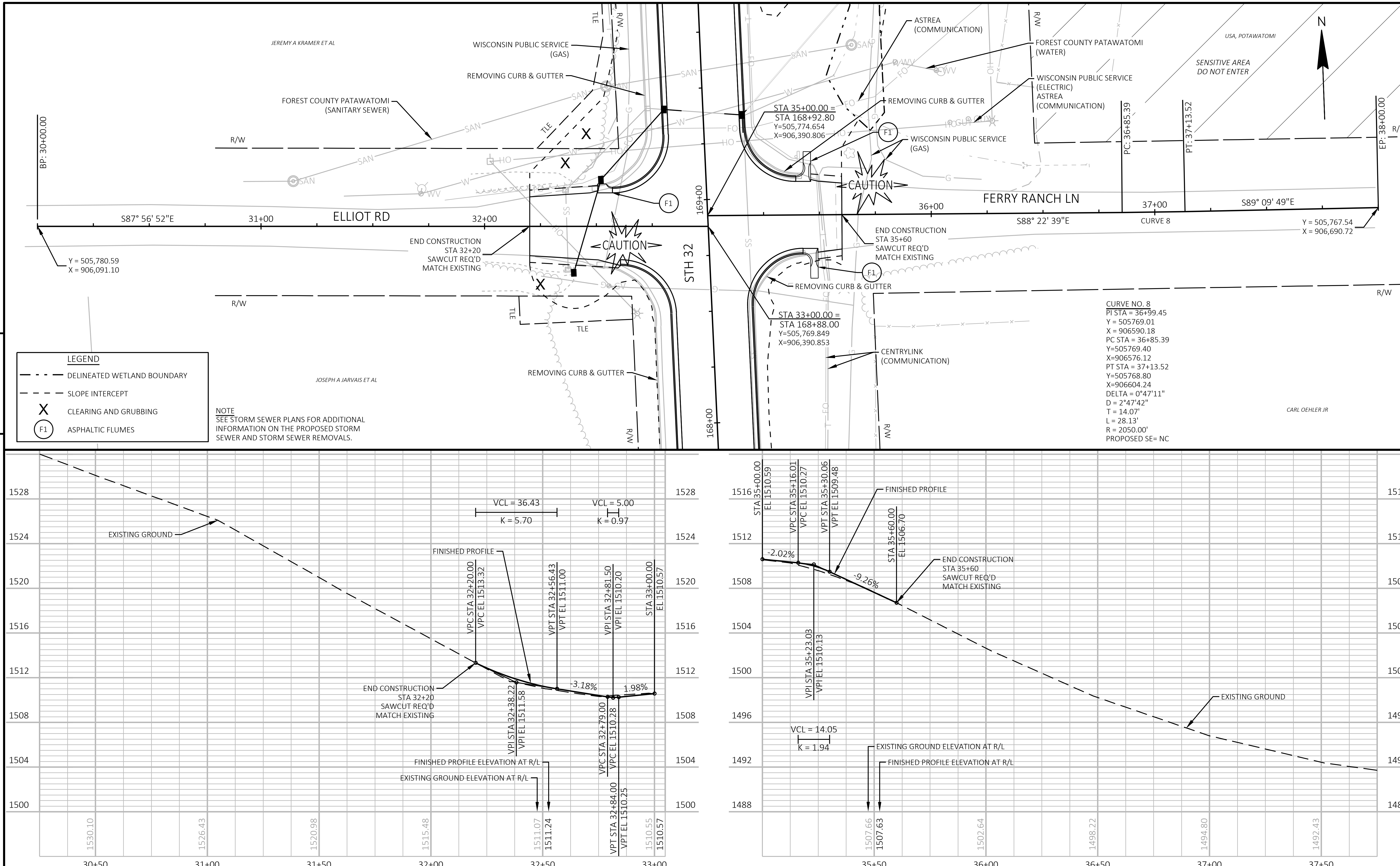
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN AND PROFILE: MAPLE ST	SHEET 78	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050204-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 1/25/2022 2:52 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN AND PROFILE: MAIN ST	SHEET 79	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050204-PP.DWG
LAYOUT NAME - 02
PLOT DATE : 1/25/2022 2:52 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	PLAN AND PROFILE: ELLIOT RD/FERRY RANCH LN	SHEET 80	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\050204-PP.DWG
LAYOUT NAME - 03
PLOT DATE : 1/25/2022 2:53 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
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
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
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)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-08	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D33-06	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

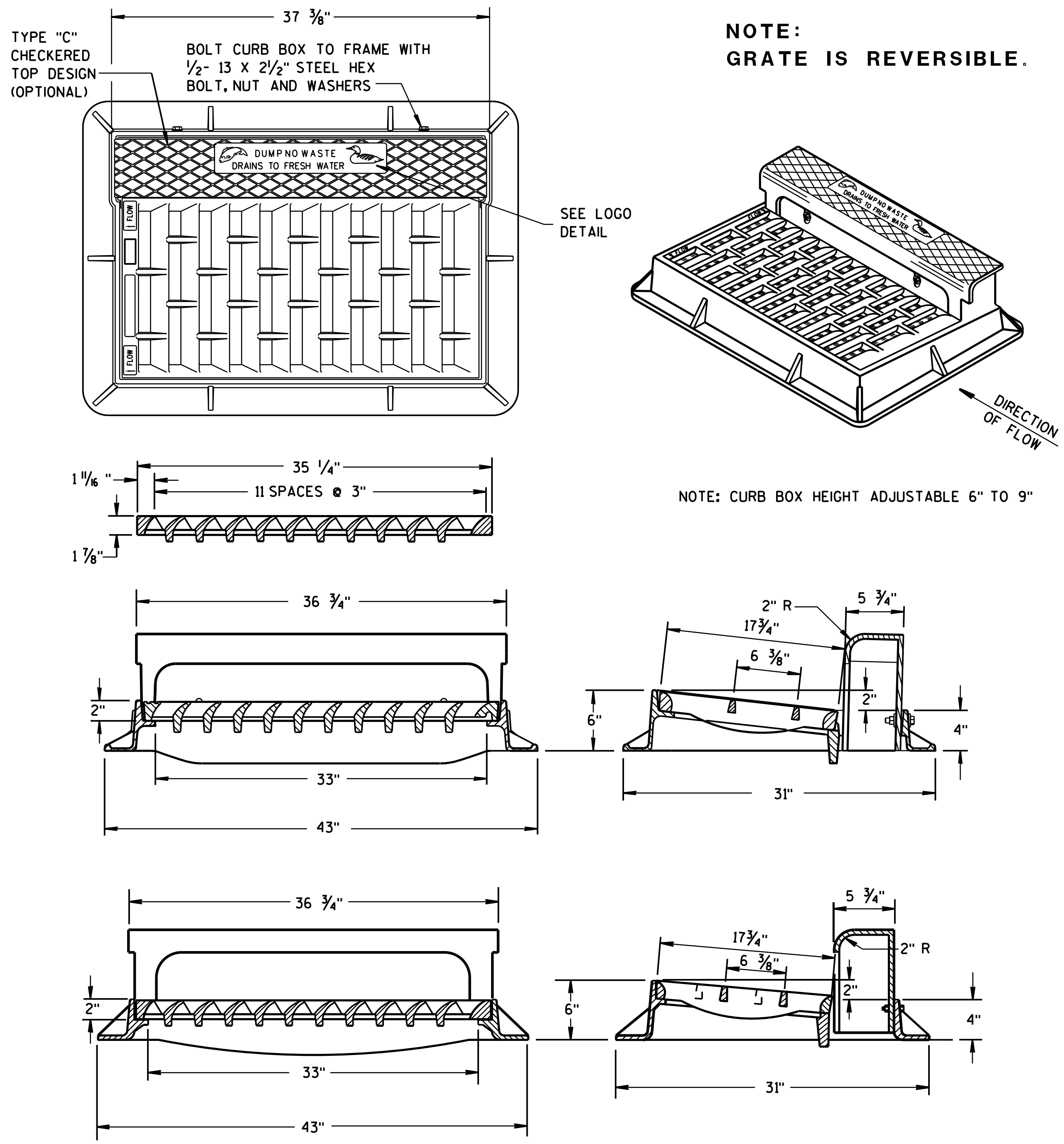
6

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.

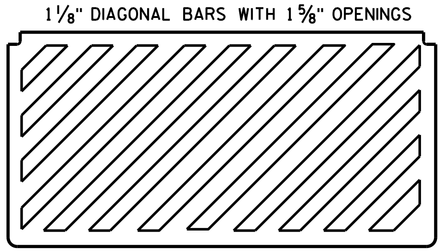
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



TYPE "H"

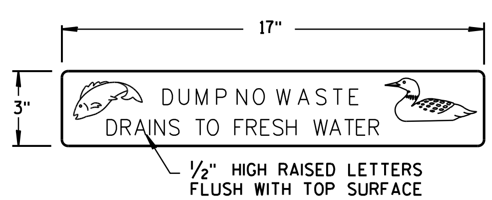
NOTE: EITHER CASTING IS ACCEPTABLE



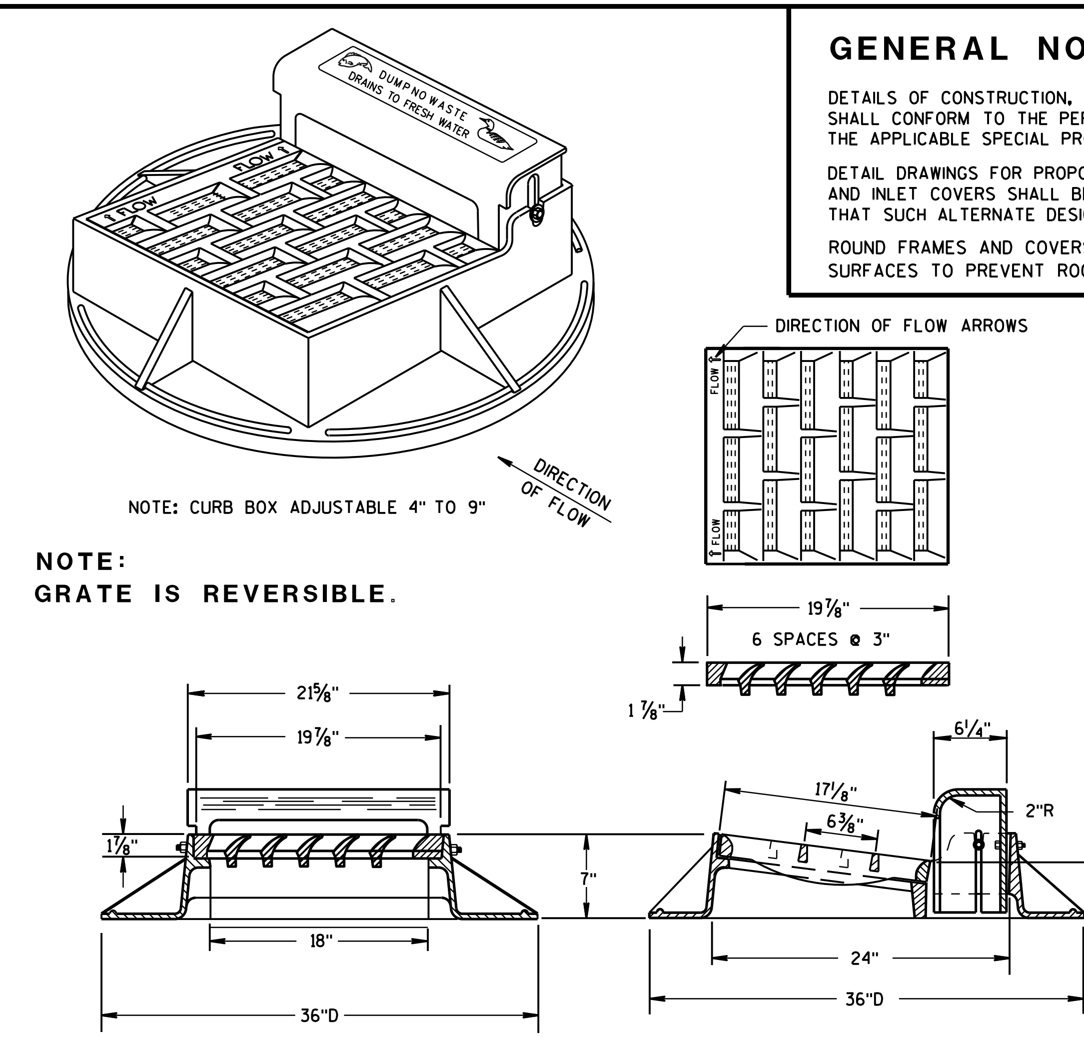
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

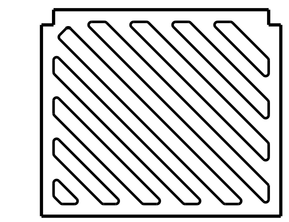
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



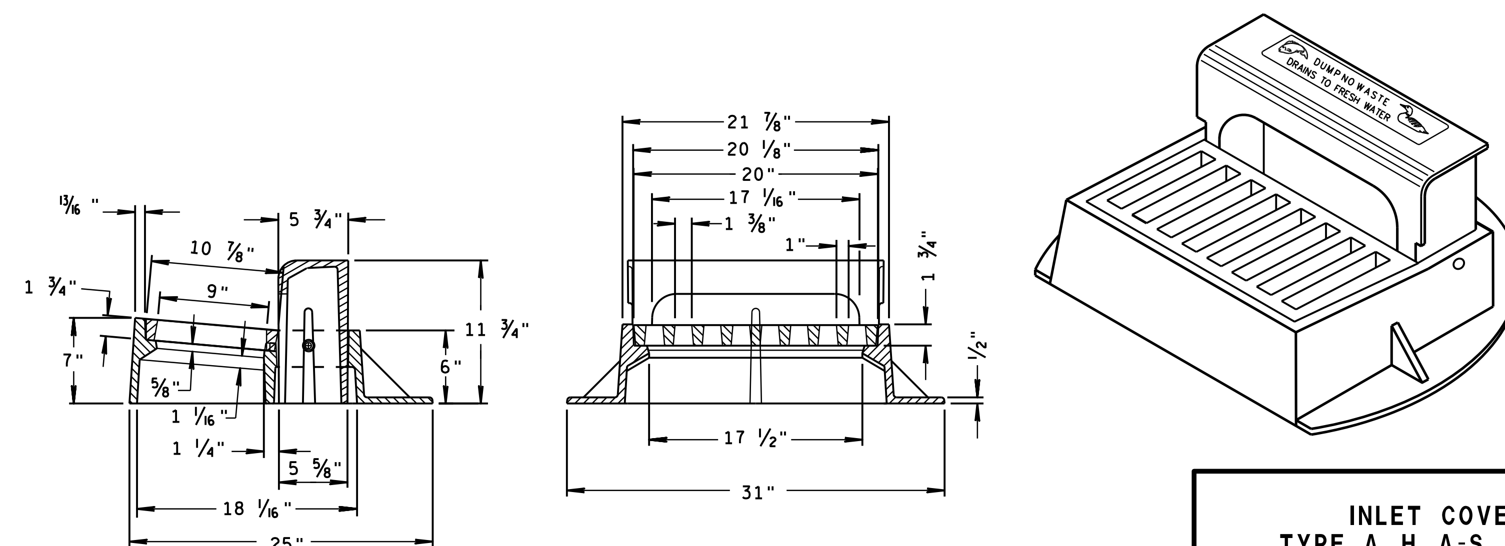
TYPE "A"



SPECIAL GRATE FOR TYPE "A" COVER

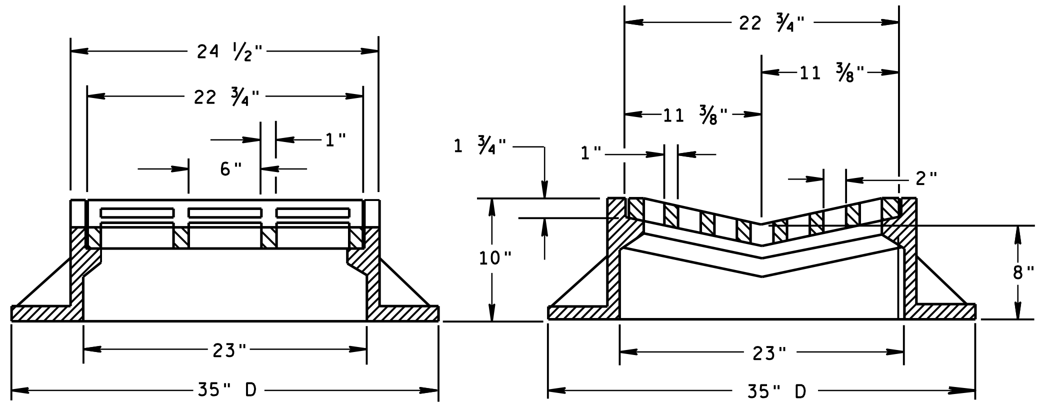
(MEASURES 19 3/4" X 17" X 1 7/8")

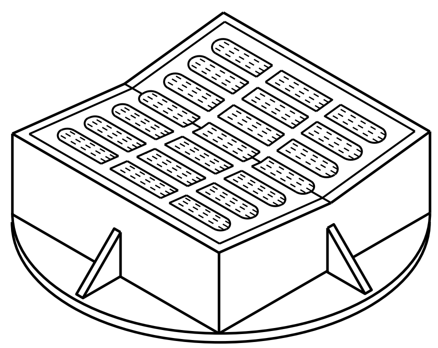
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



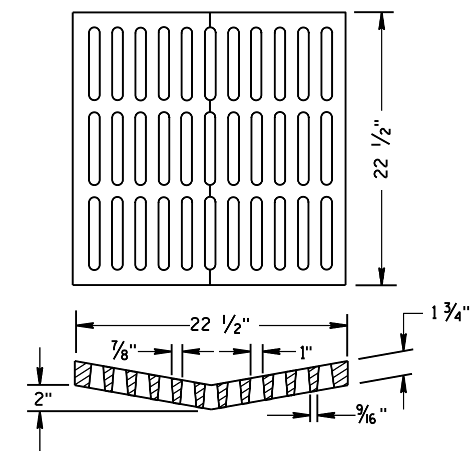
TYPE "Z"

INLET COVERS TYPE A, H, A-S, H-S & Z
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 11-27-13 /S/ Jerry H. Zogg DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA





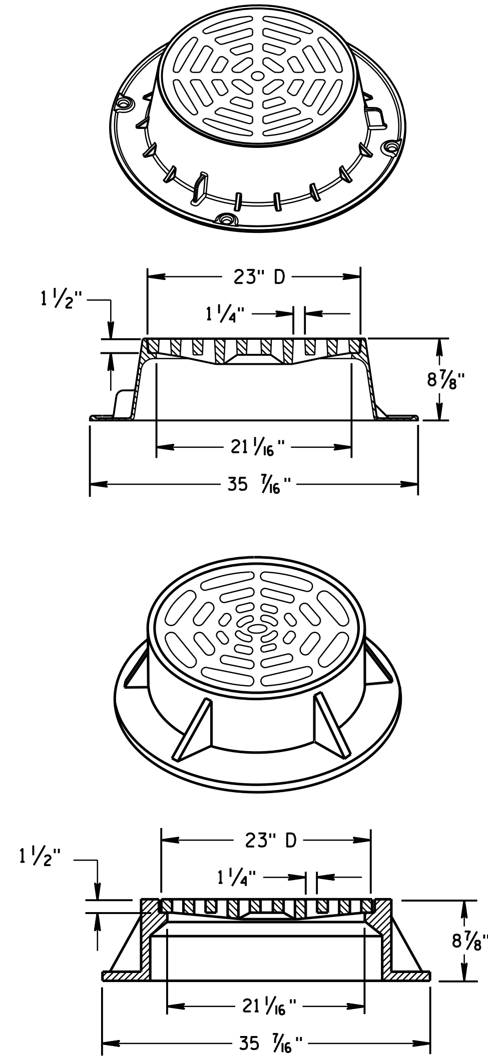
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

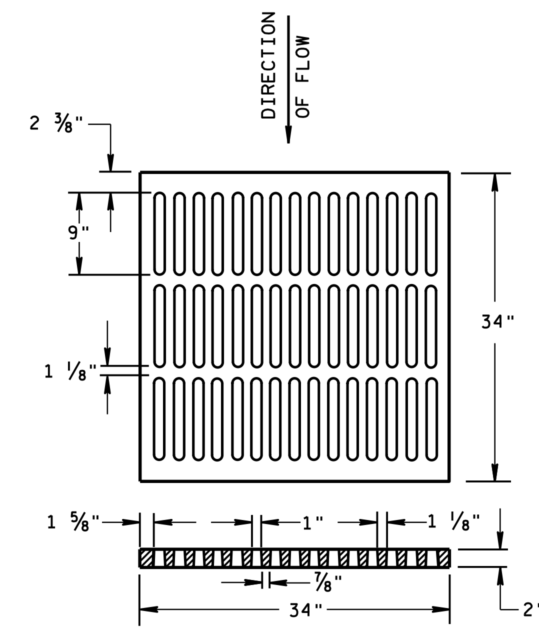
NOTE: EITHER CASTING IS ACCEPTABLE

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.

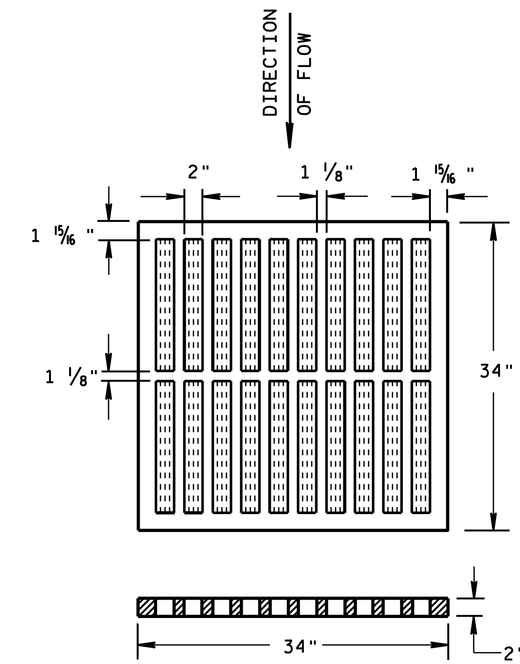
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

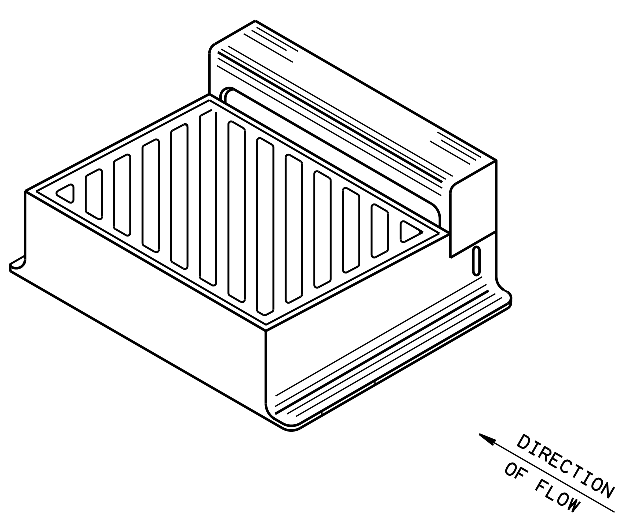
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



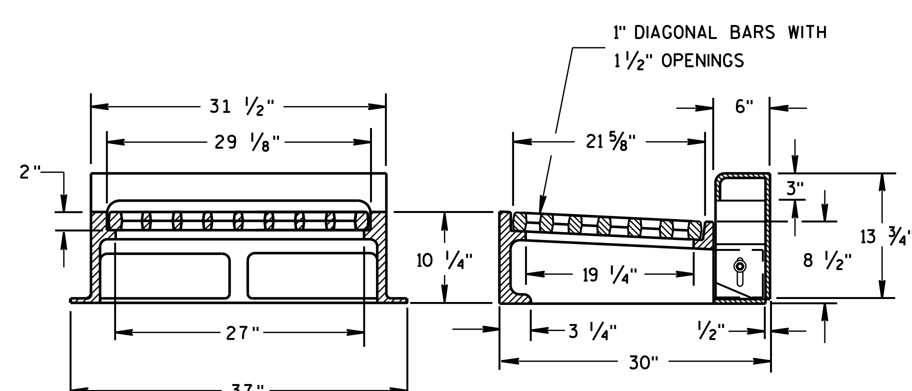
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

11/27/2013	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER

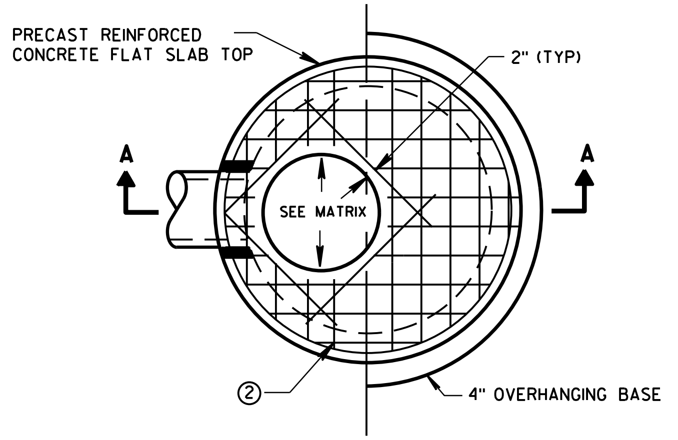
FHWA

6

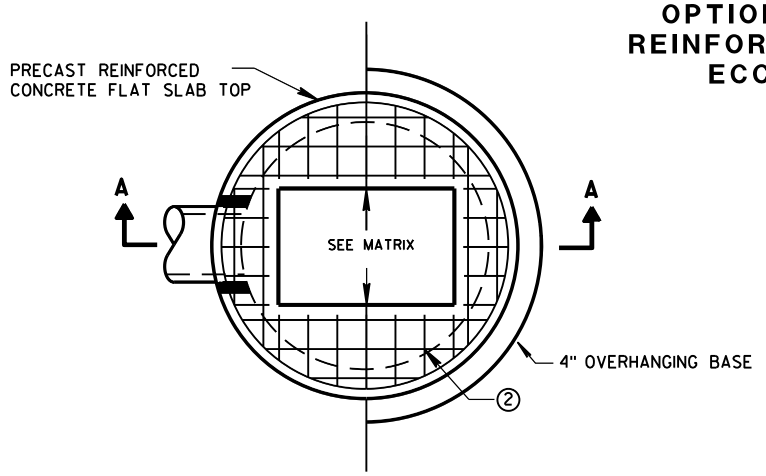
6

S.D.D. 8 A 5-19b

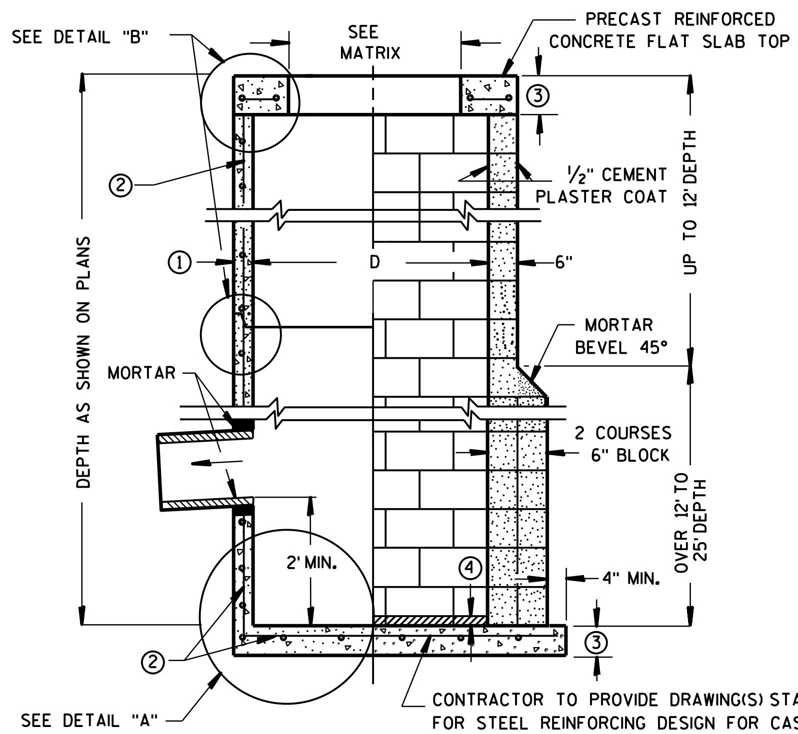
S.D.D. 8 A 5-19b



PLAN VIEW CIRCULAR OPENING



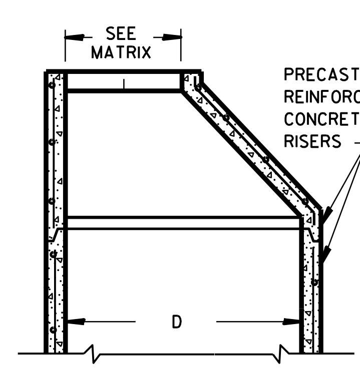
PLAN VIEW RECTANGULAR OPENING



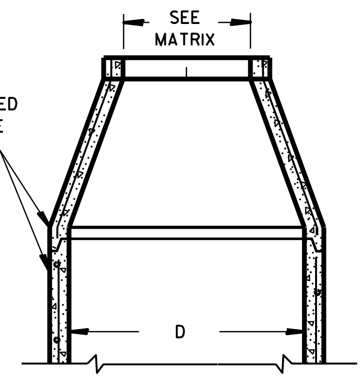
SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

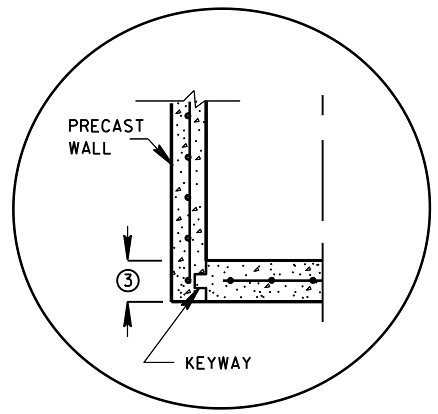
CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



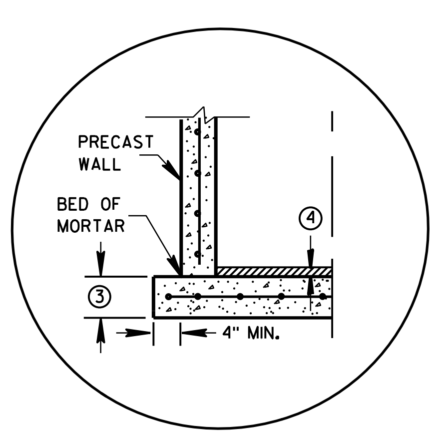
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

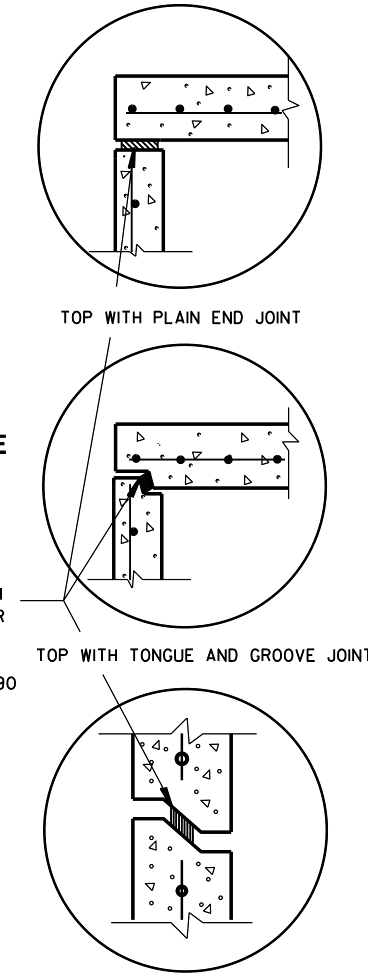


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

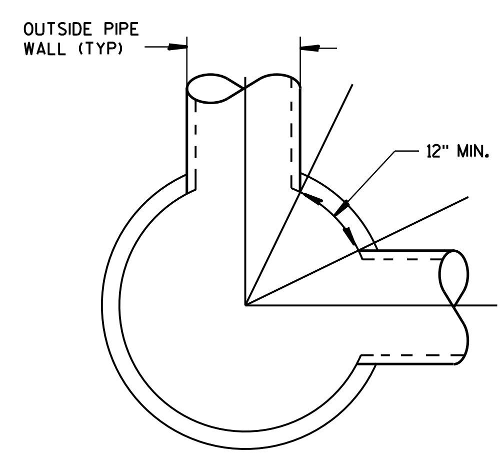


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"



DETAIL "C"

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 CATCH BASIN 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, AND 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 DIMENSION 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 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.

CONCRETE BLOCK WILL NOT BE PERMITED 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 "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN 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	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

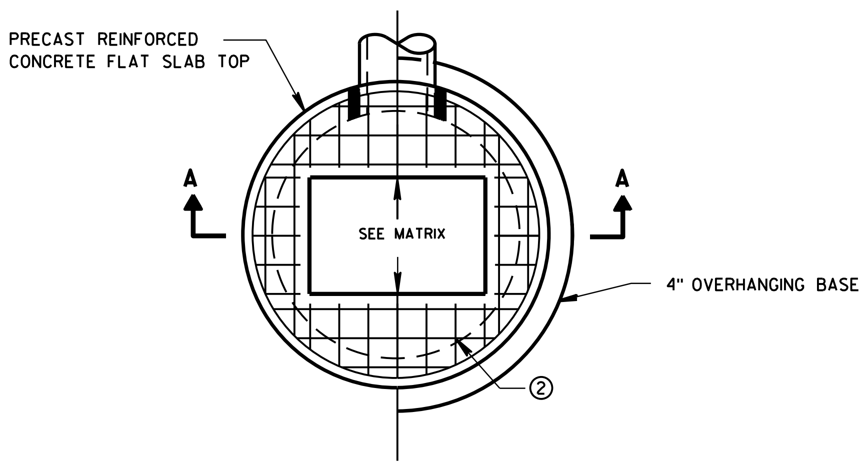
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

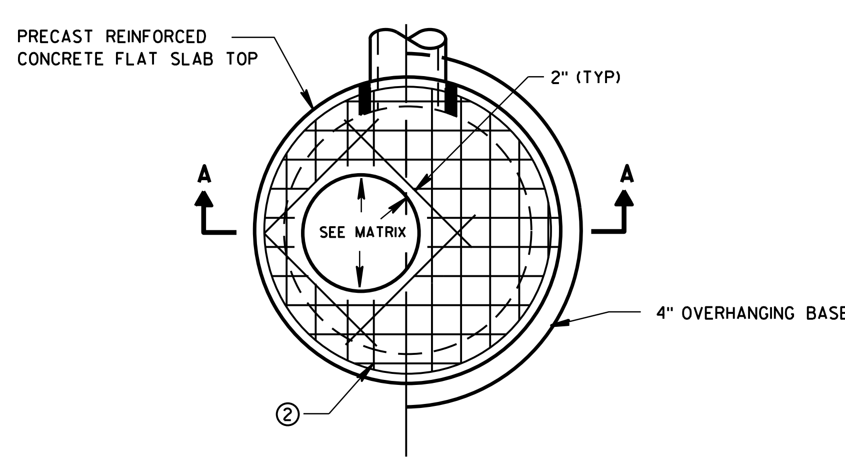
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVI... ENT
FHWA

6

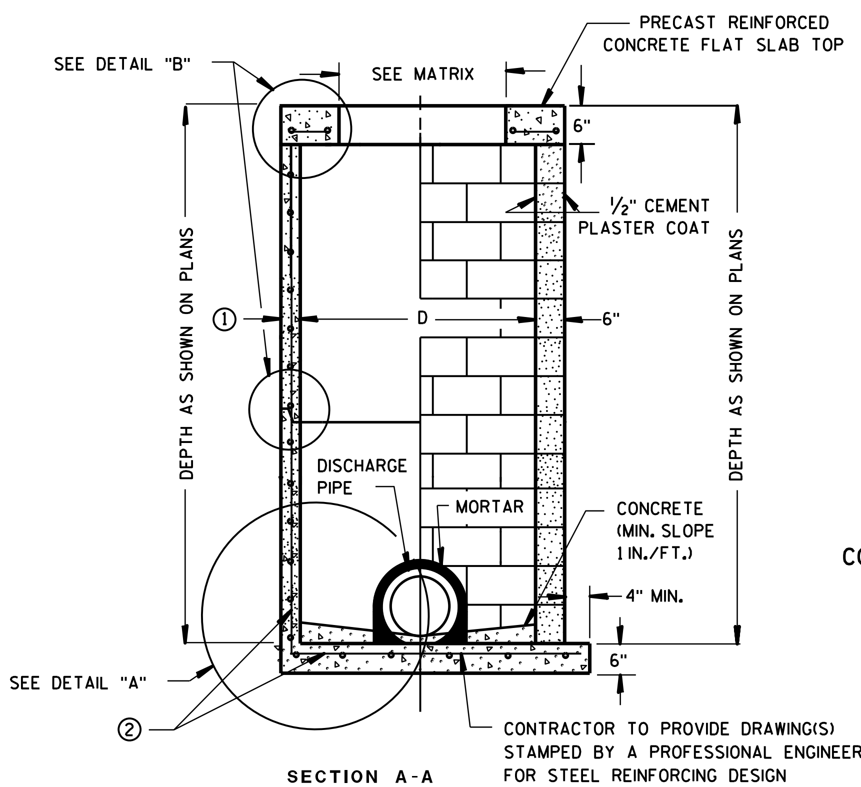
S.D.D. 8 A 8-2



PLAN VIEW RECTANGULAR OPENING



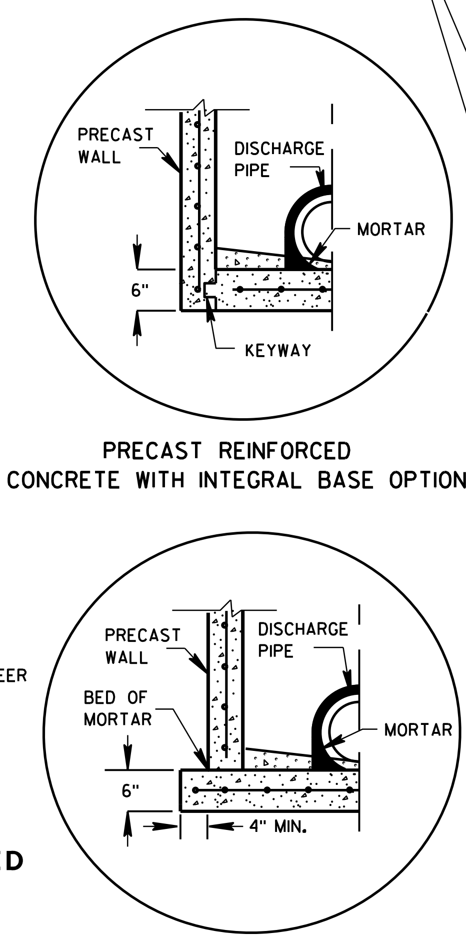
PLAN VIEW CIRCULAR OPENING



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

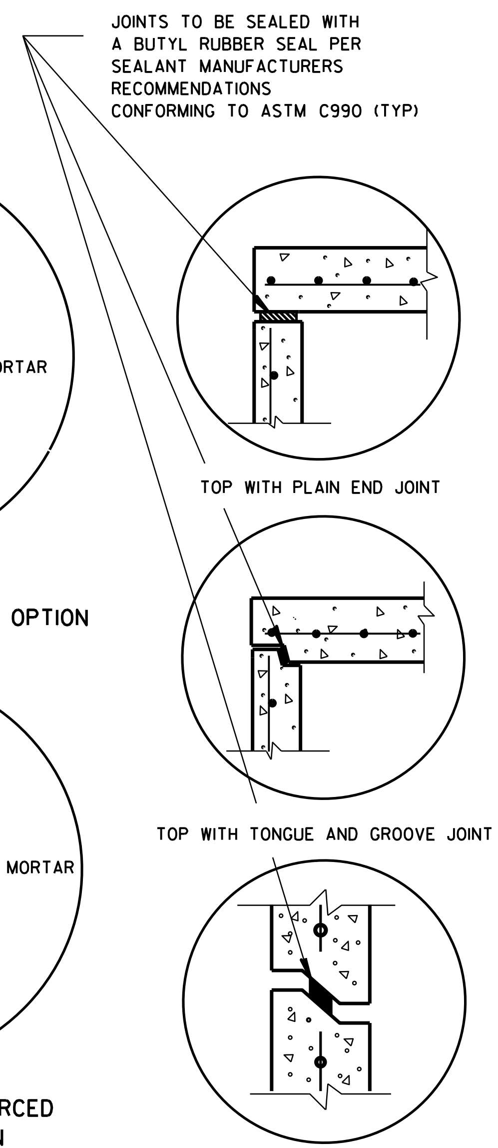
CIRCULAR INLETS W/ FLAT TOP



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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.

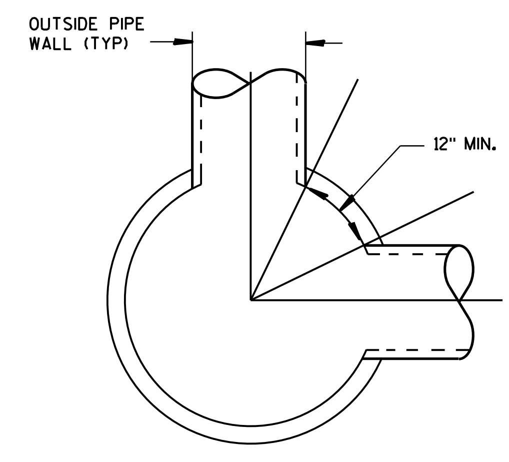
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

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

INLETS 3-FT AND 4-FT DIAMETER

INLETS 3-FT AND 4-FT DIAMETER

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S.D.D. 8 C 6-2

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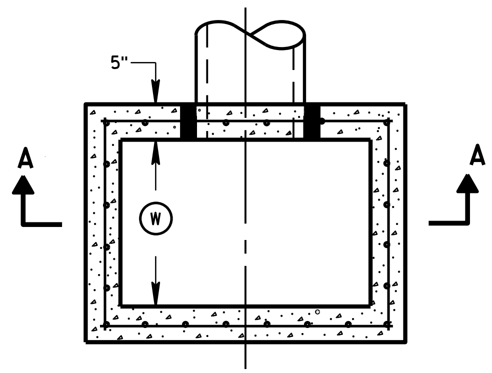
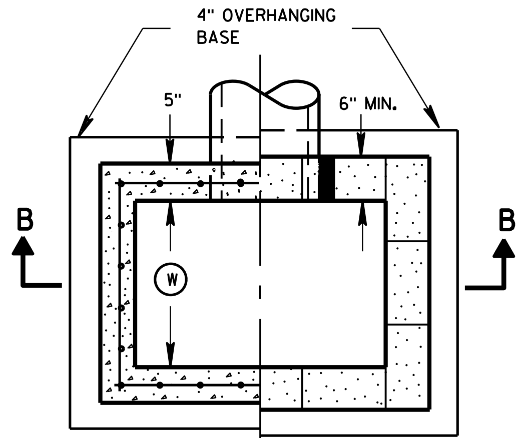
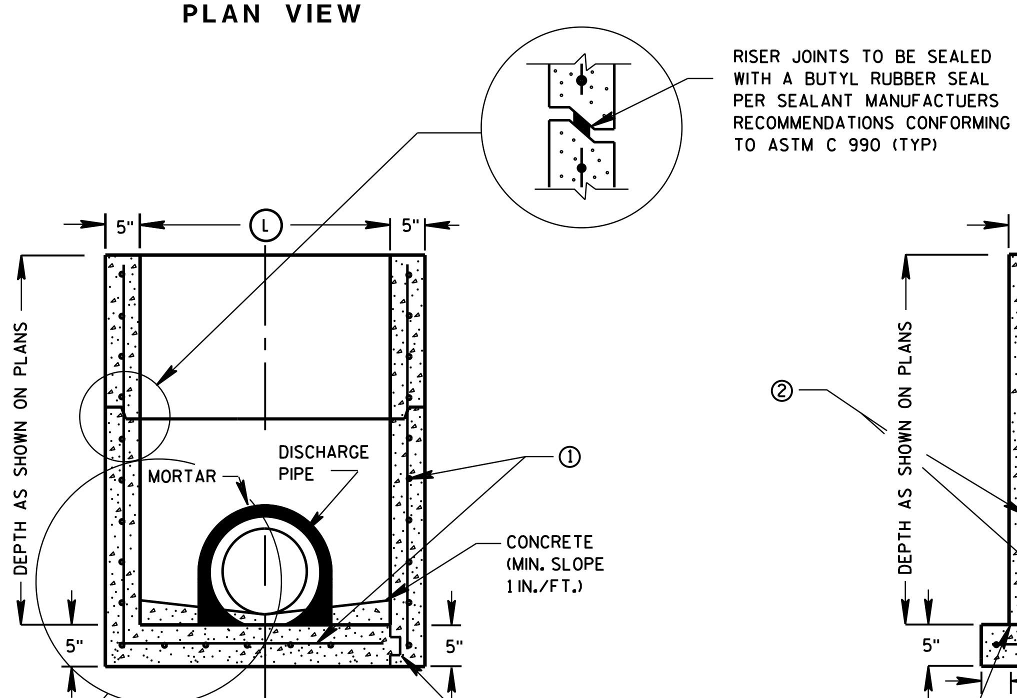


PLAN VIEW



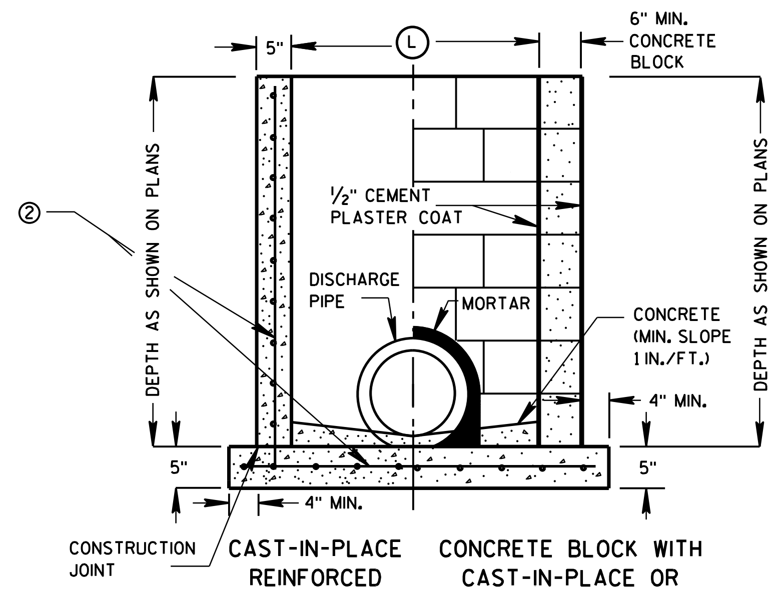
PLAN VIEW



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

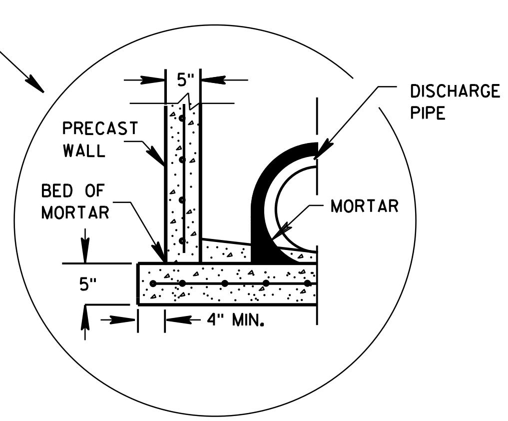
SECTION A-A



CAST-IN-PLACE REINFORCED CONCRETE

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

SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

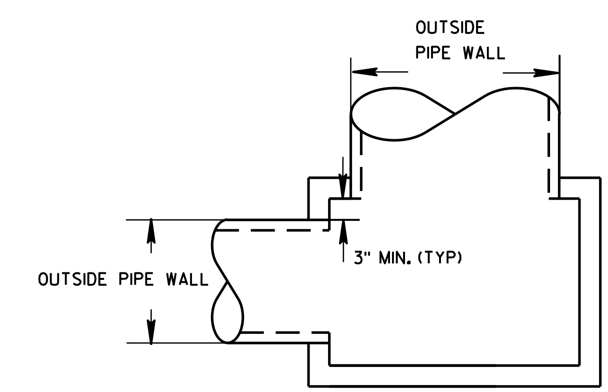
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
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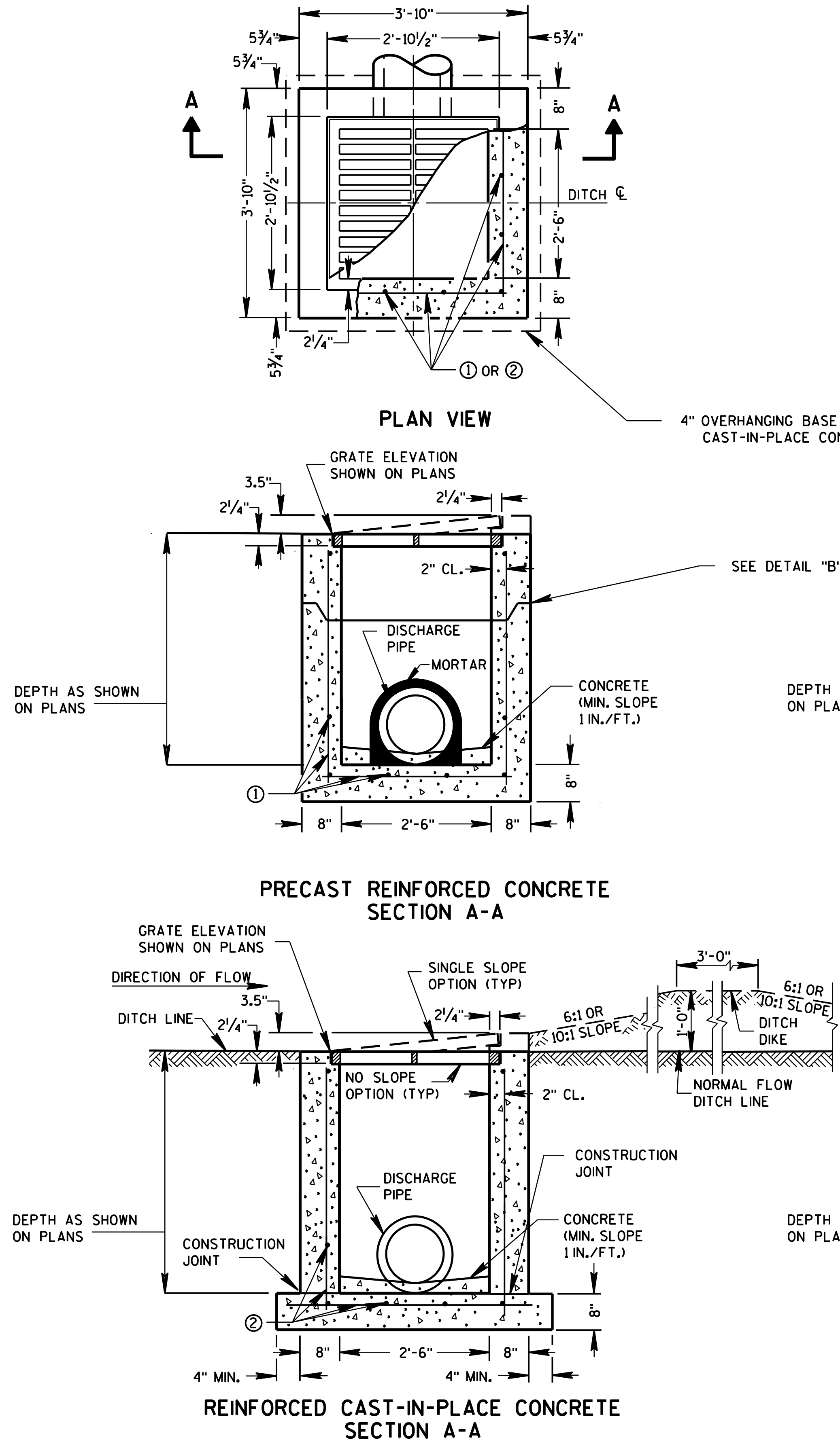
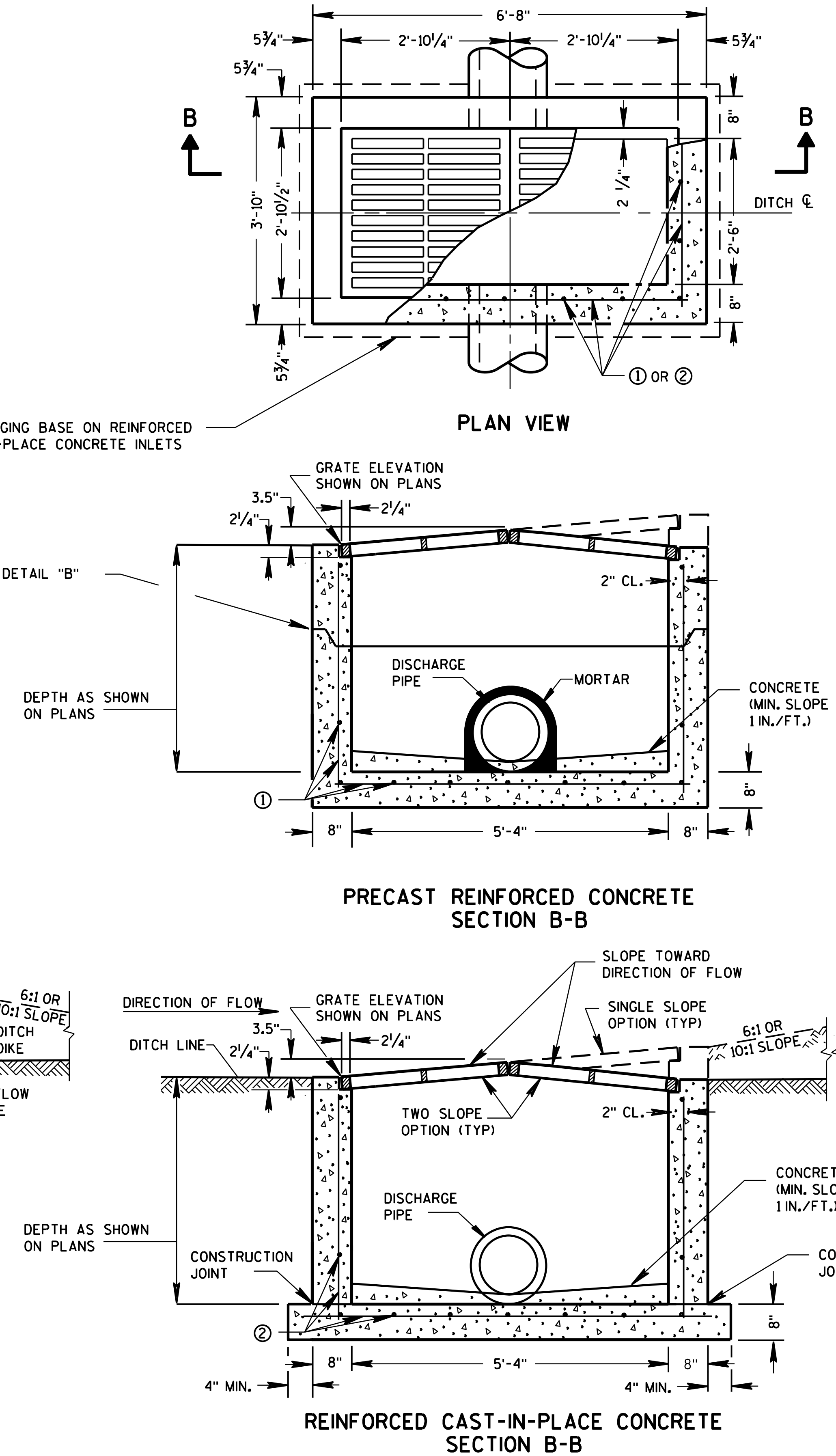


INLETS MEDIAN 1 GRATE



INLETS MEDIAN 2 GRATE

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 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 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.

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

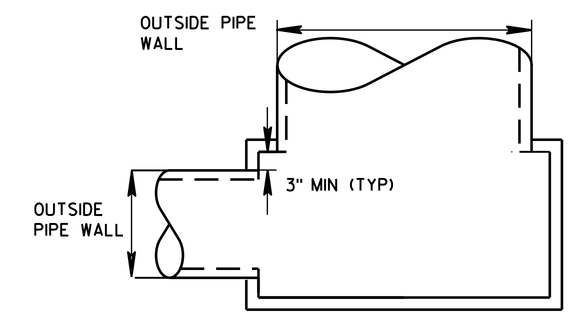
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

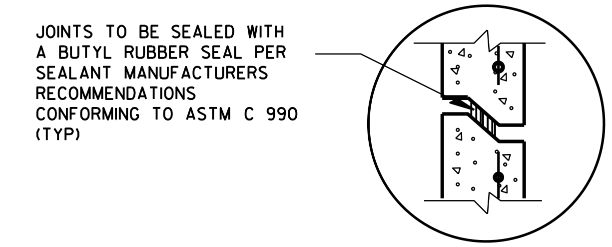
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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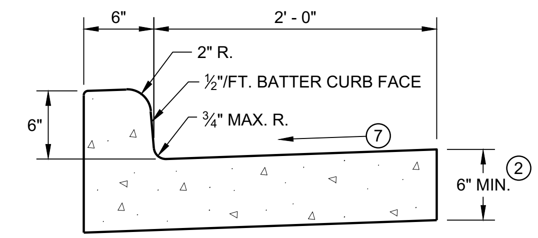
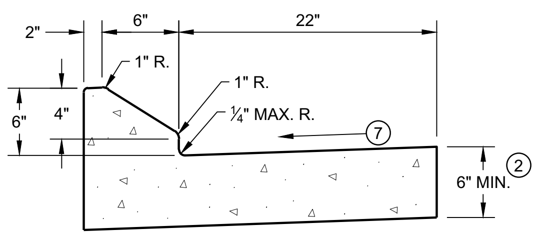
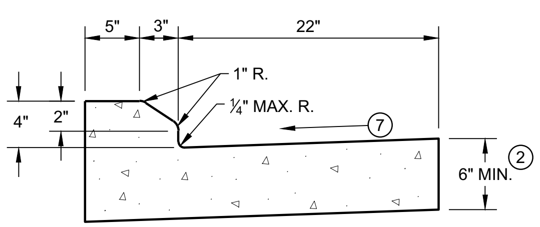


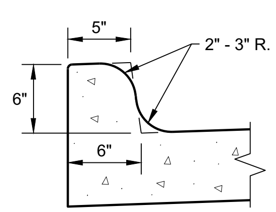
TYPES A (1) & D



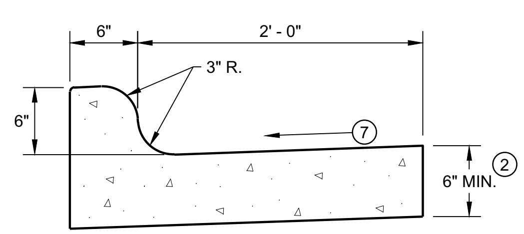
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

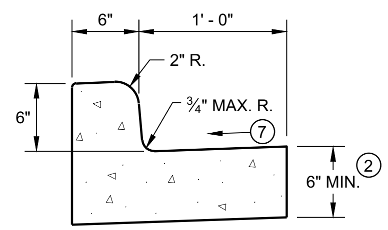


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



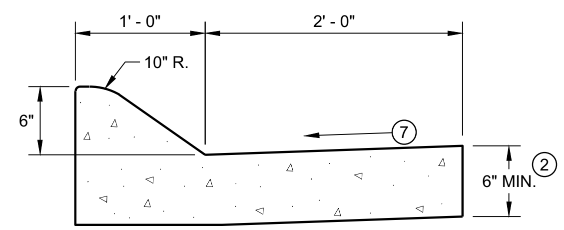
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

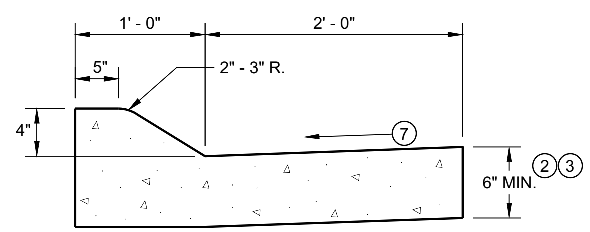


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

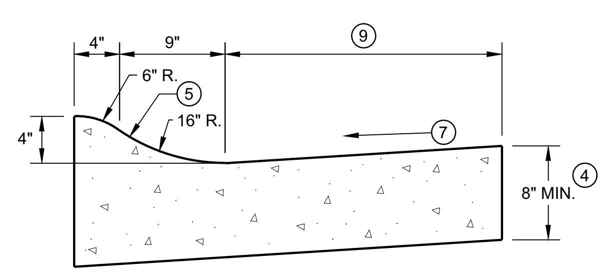


6" SLOPED CURB TYPES A (1) & D



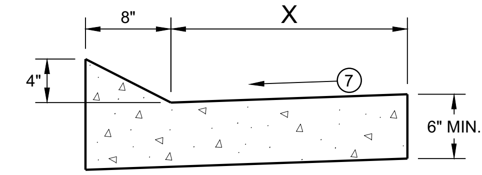
4" SLOPED CURB TYPES A (1) & D

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

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.

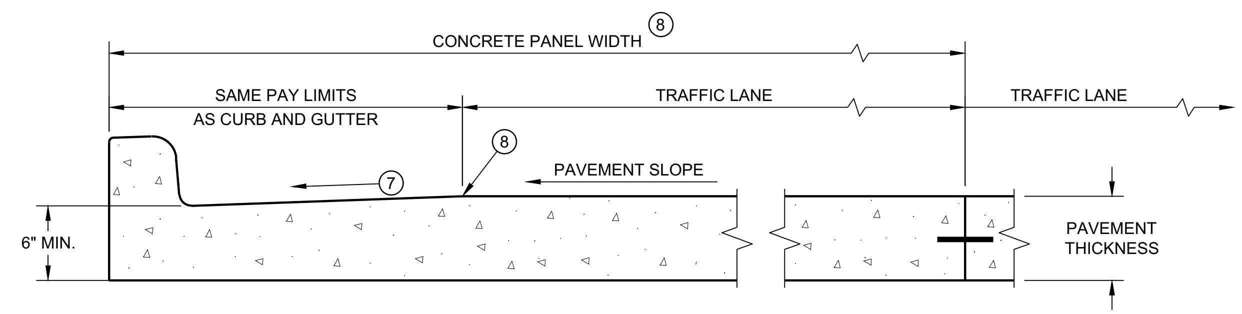
(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(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

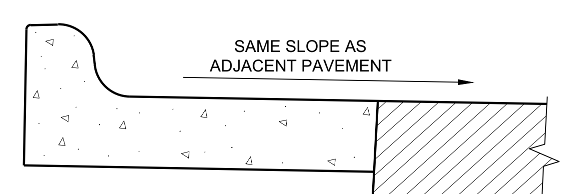
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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)

6

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CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01 - 22a

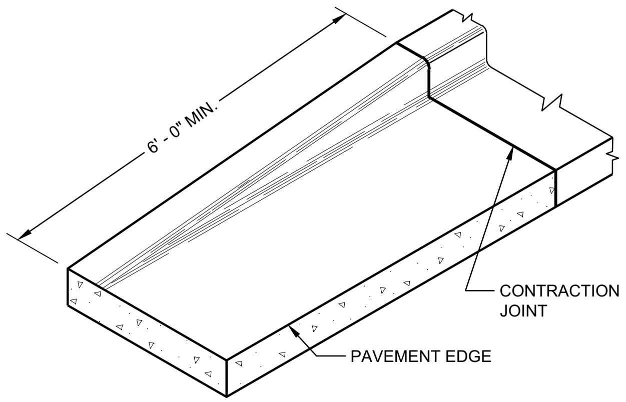
GENERAL NOTES

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

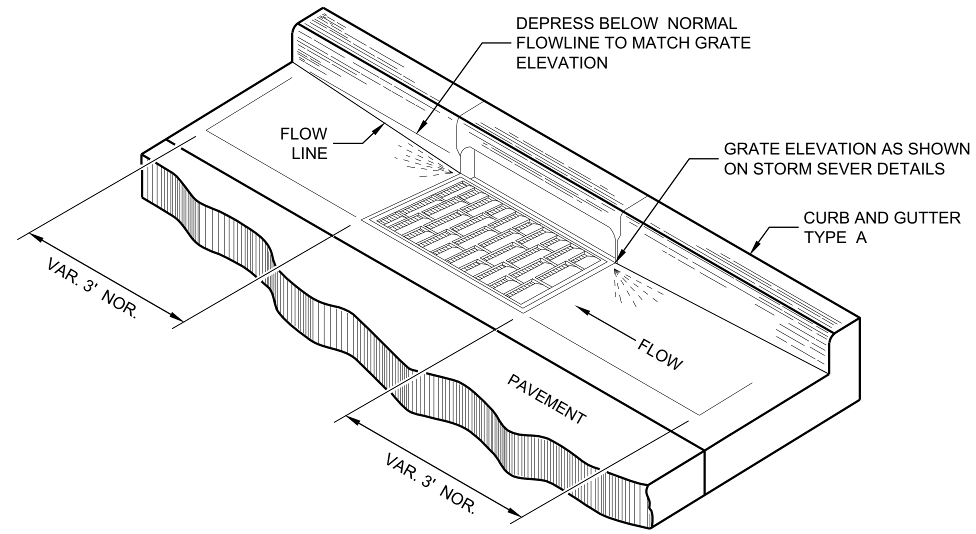
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.
9. REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

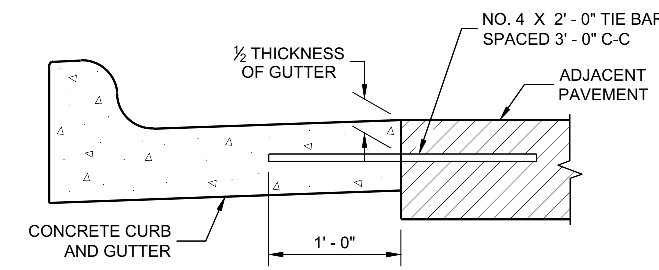


END SECTIONCURB AND GUTTER

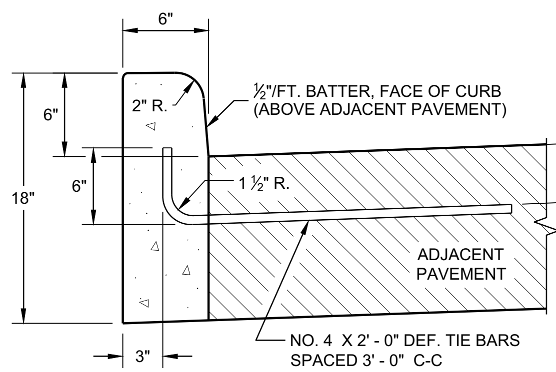


DETAIL OF CURB AND GUTTER AT INLETS

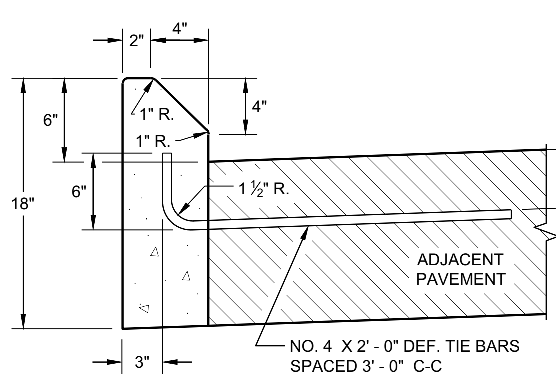
(TYPICAL H INLET COVER SHOWN)



TYPICAL TIE BAR LOCATION (1)

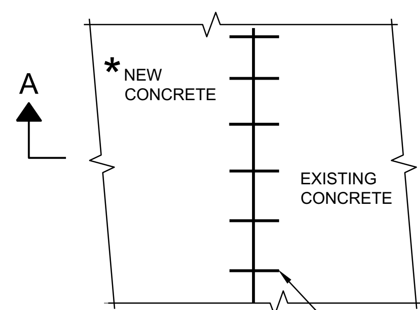


TYPES A(1) & D



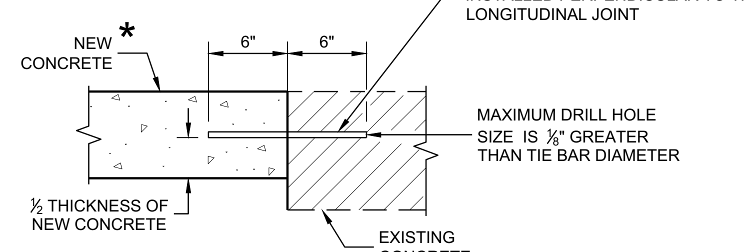
TYPES G(1) & J

CONCRETE CURB



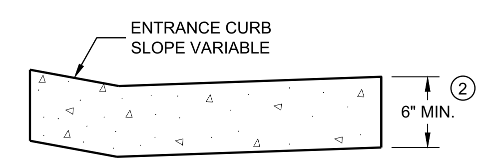
* NEW CURB AND GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

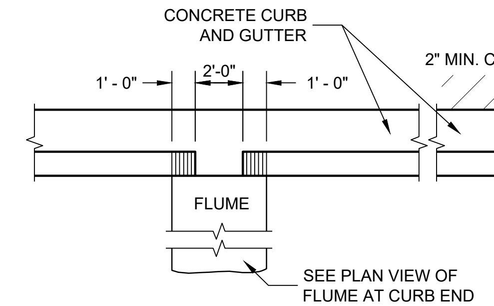
February 2021 — DATE

/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

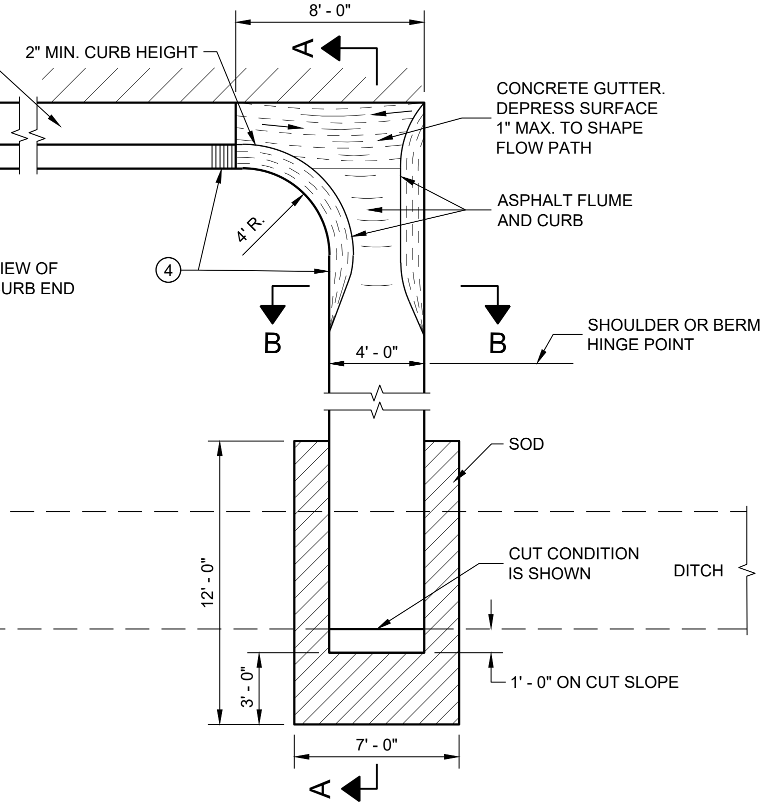
FHWA

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

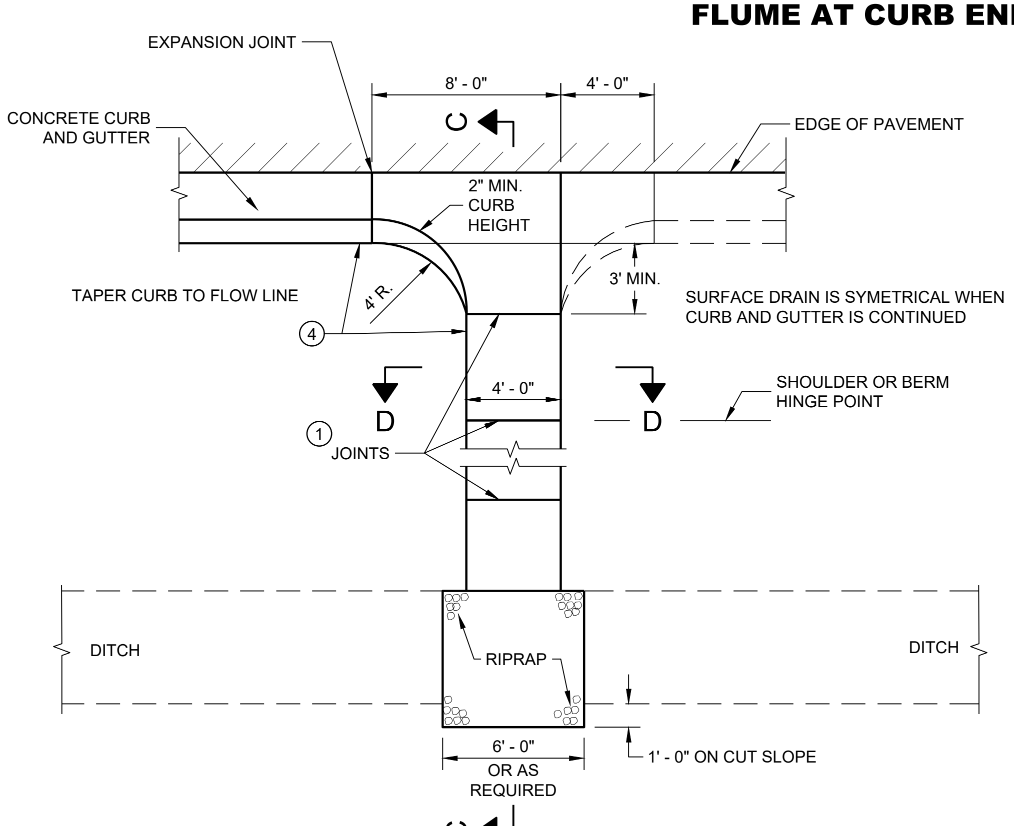
ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME



PLAN VIEW
FLUME AT CURB END



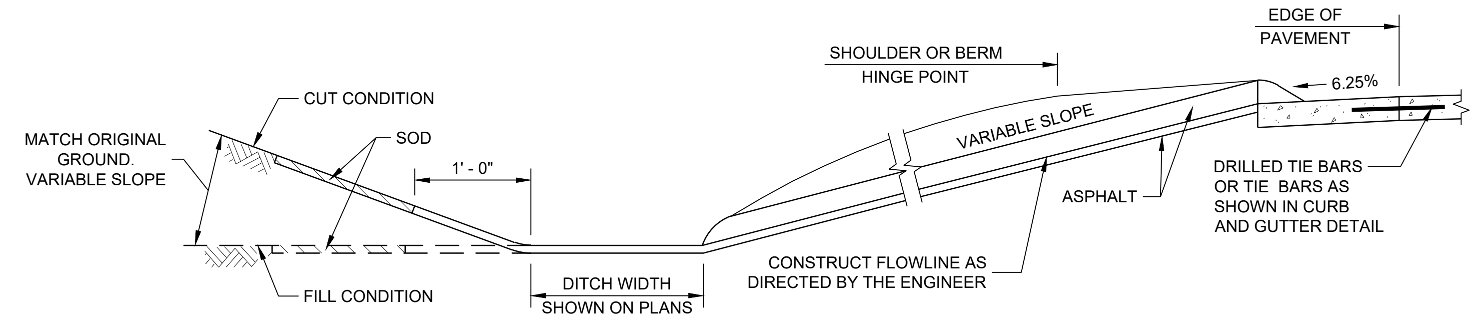
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

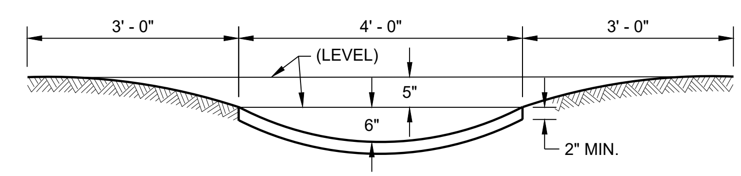
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

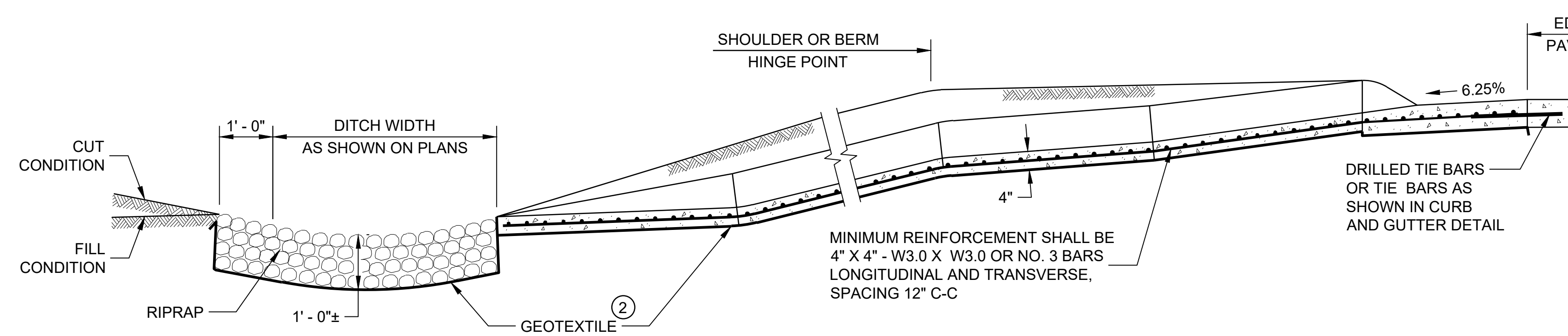
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



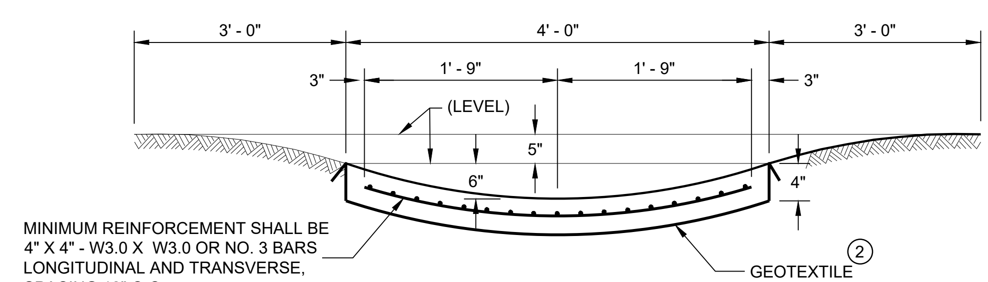
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED November 2021 DATE — /S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

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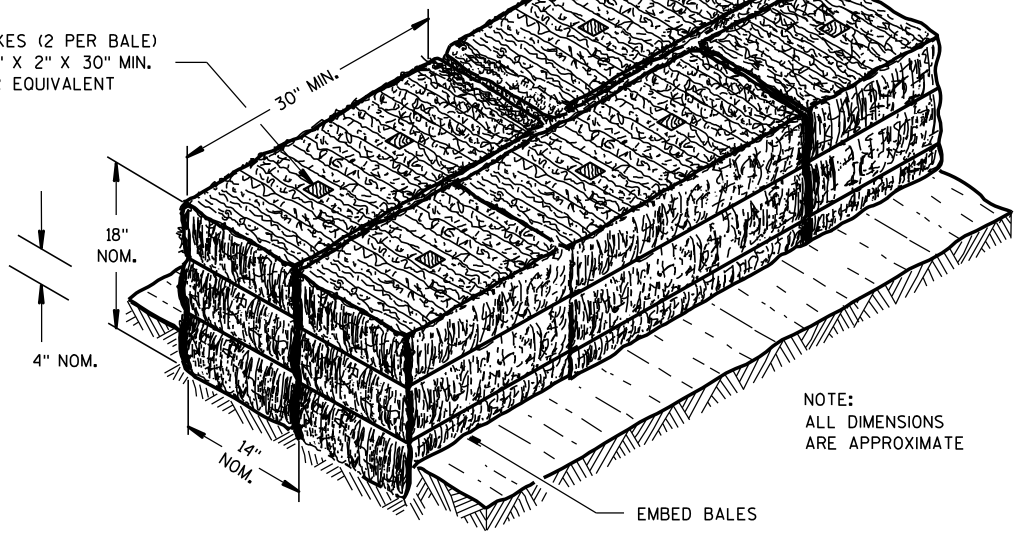
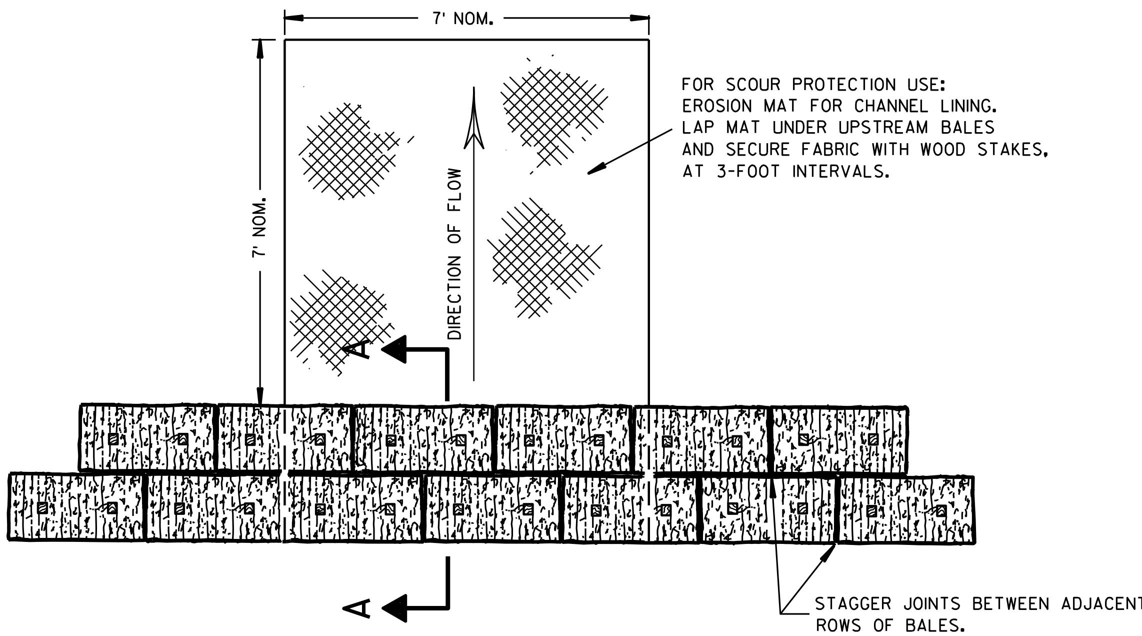
SDD 08D04 - 06

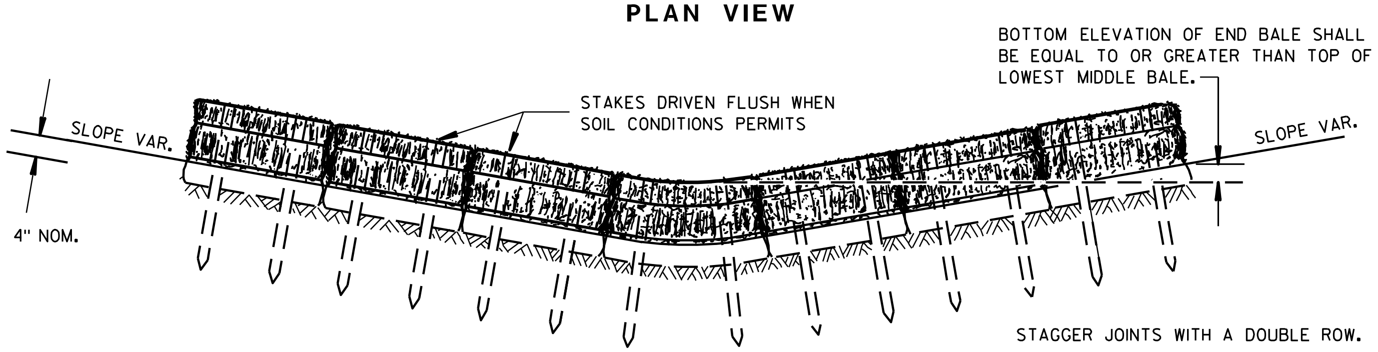
SDD 08D04 - 06



SECTION A-A



PLAN VIEW



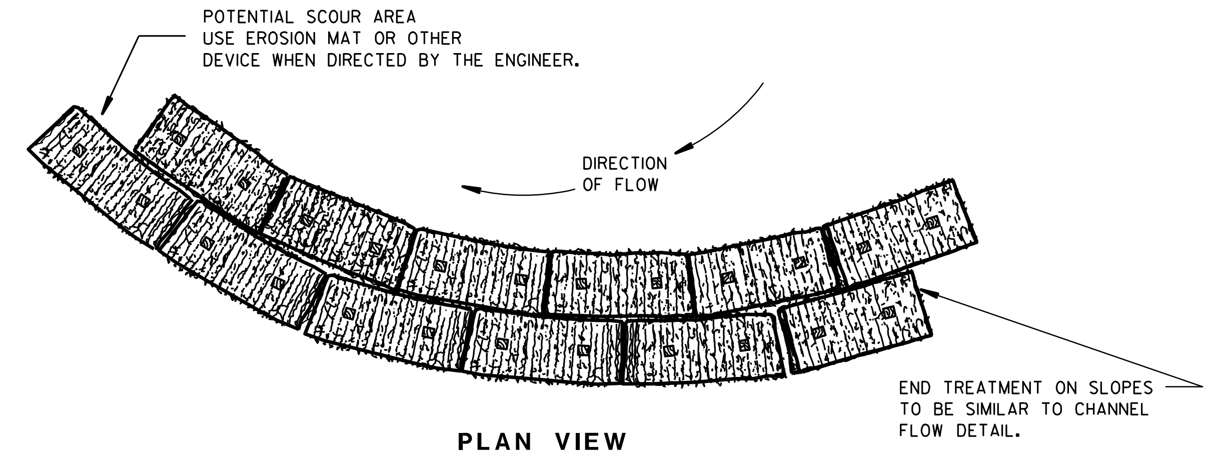
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

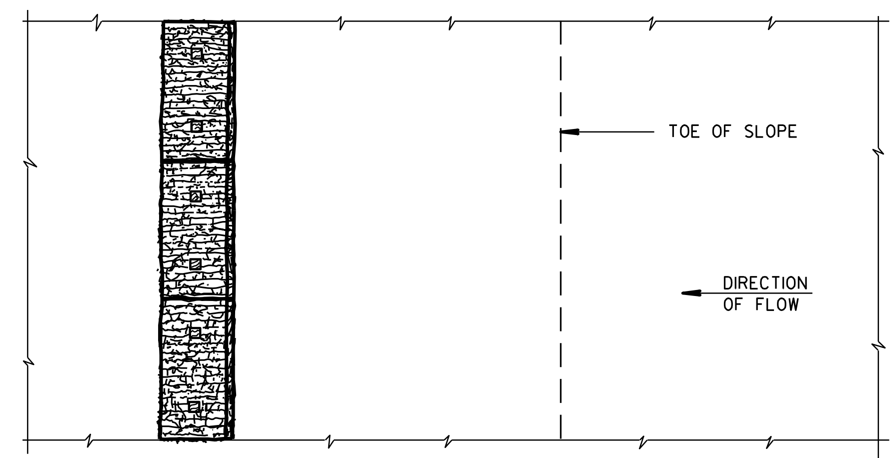
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

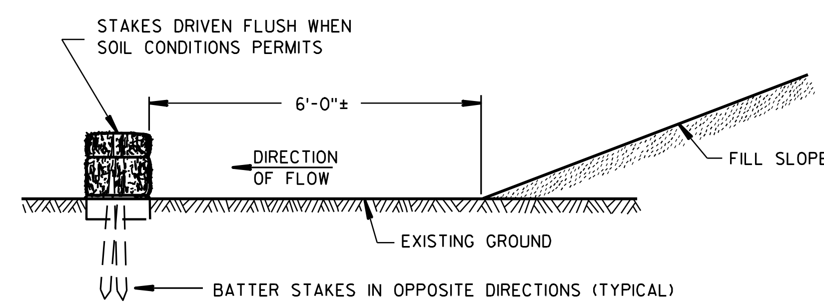


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

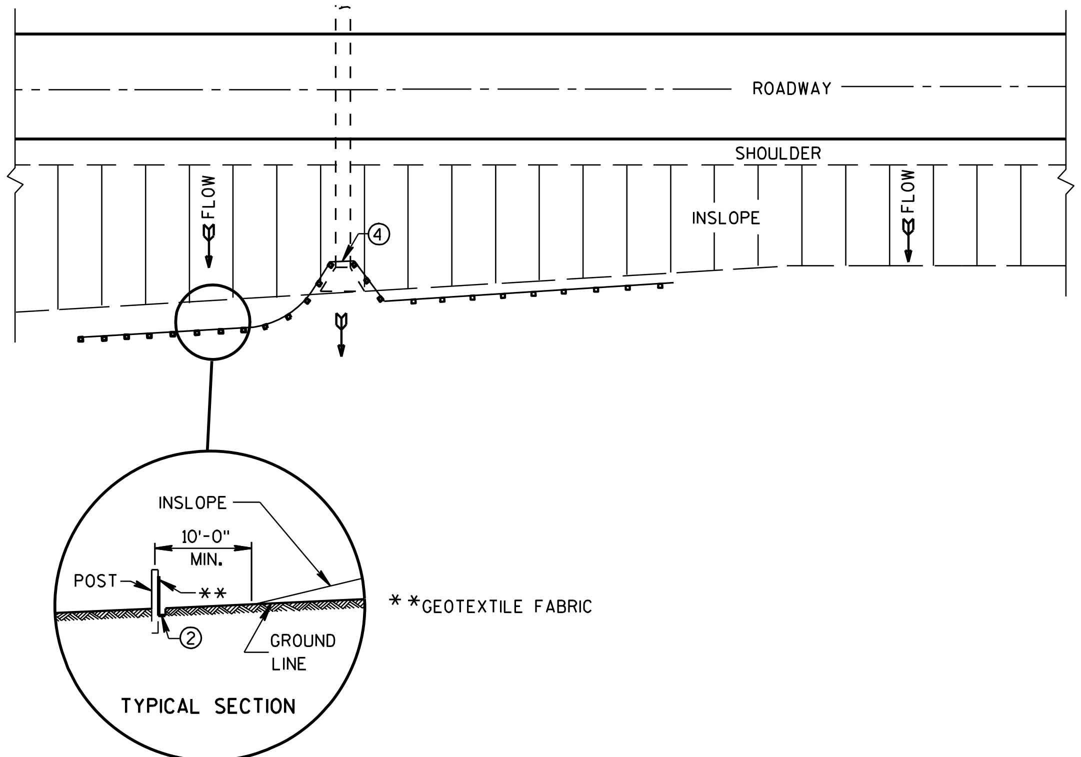
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

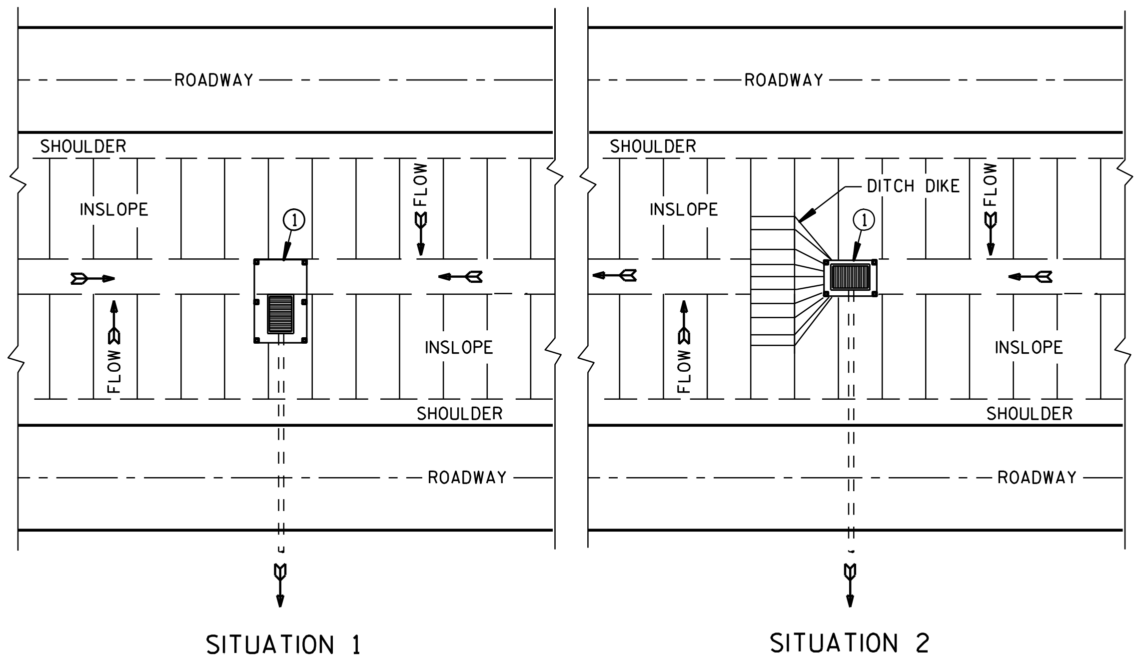
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 — DATE
/S/ Beth Cann— — CHIEF ROADWAY DEVELOP 91 —INEER
FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



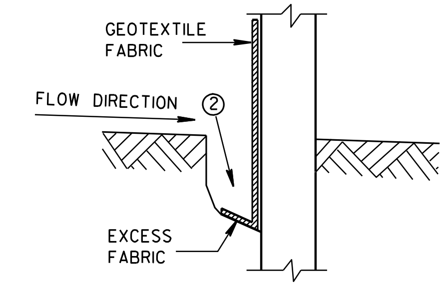
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

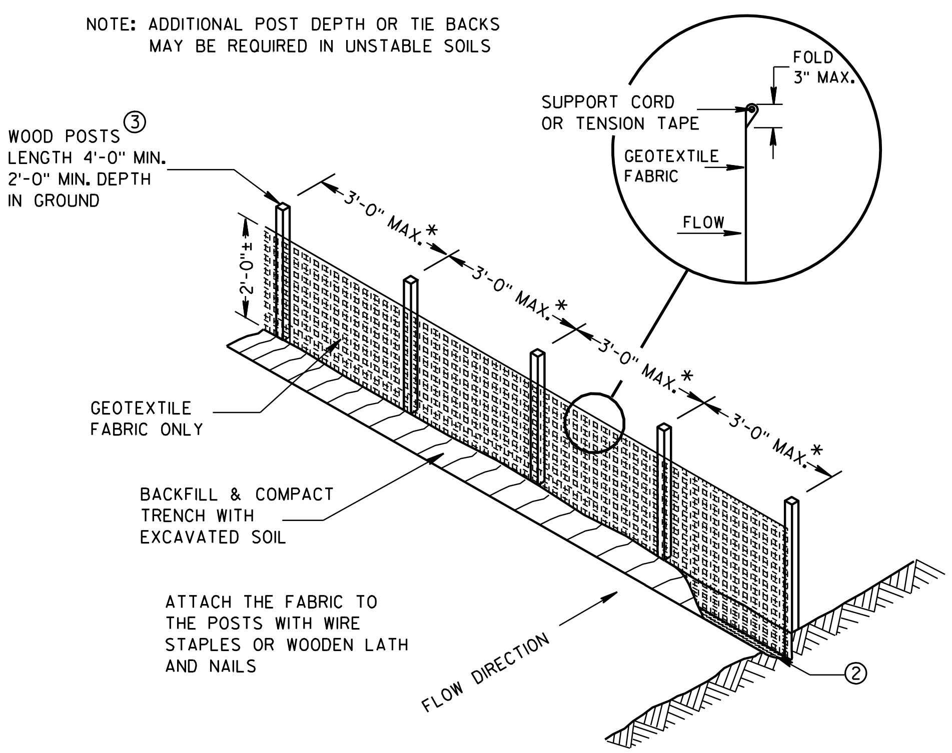
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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 $1\frac{1}{8}$" X $1\frac{1}{8}$" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



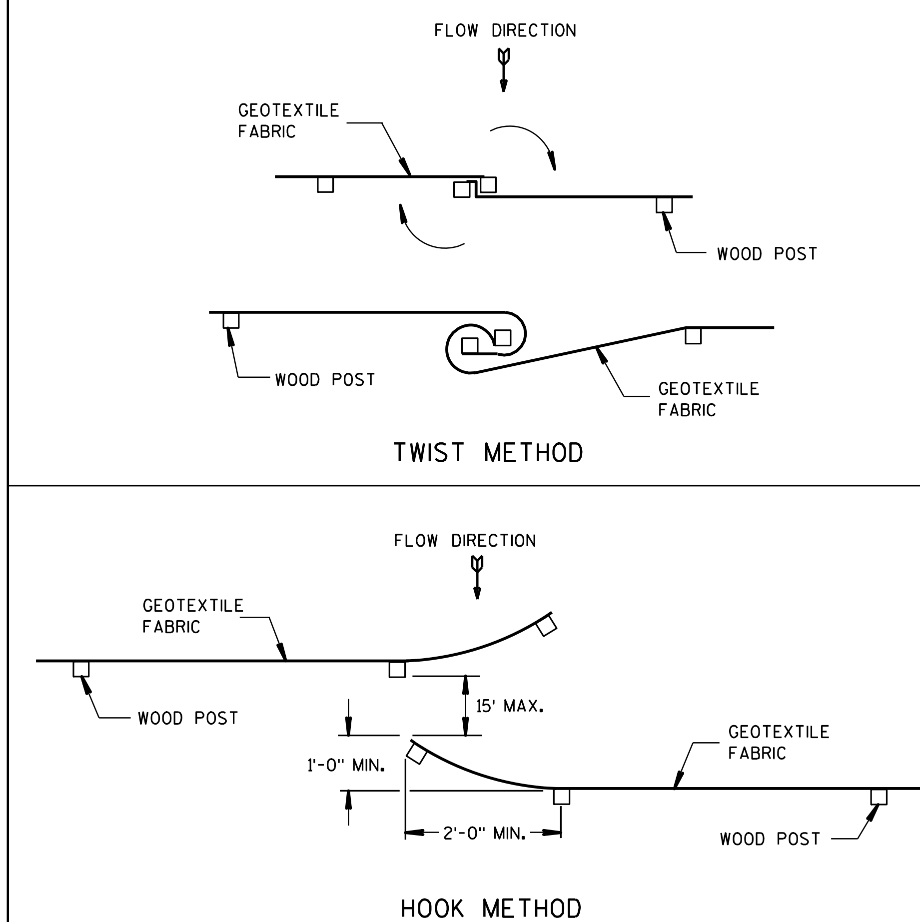
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

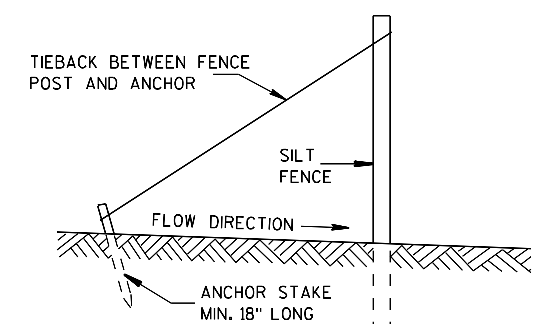


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



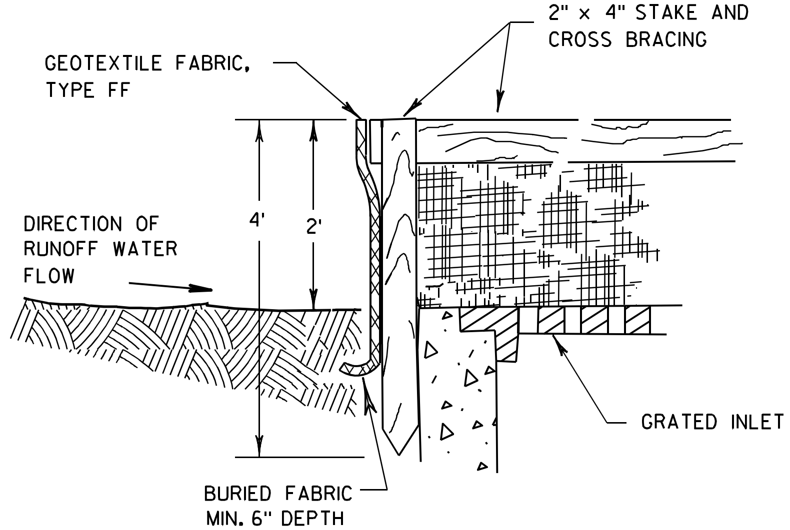
JOINING TWO LENGTHS OF SILT FENCE 5

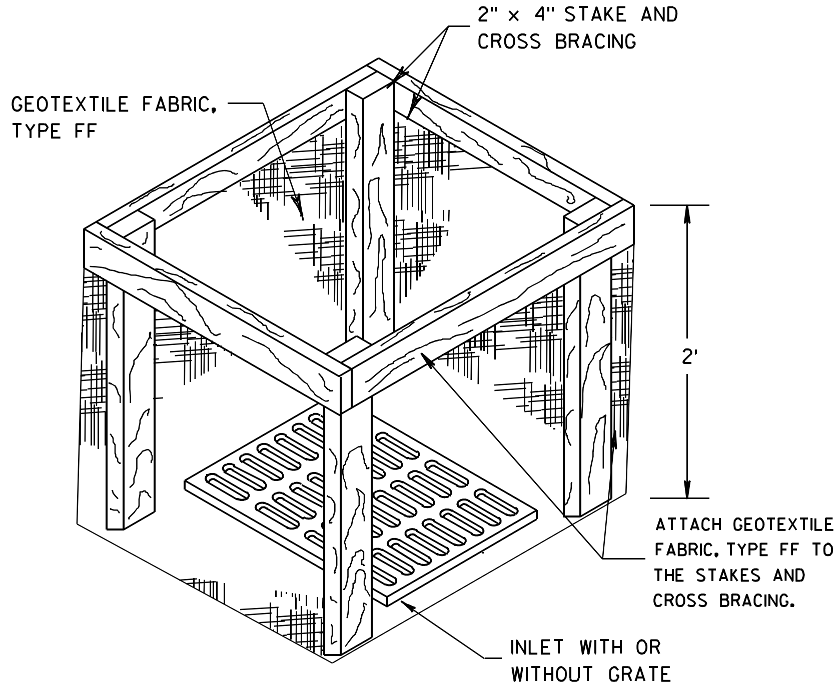


SILT FENCE TIE BACK

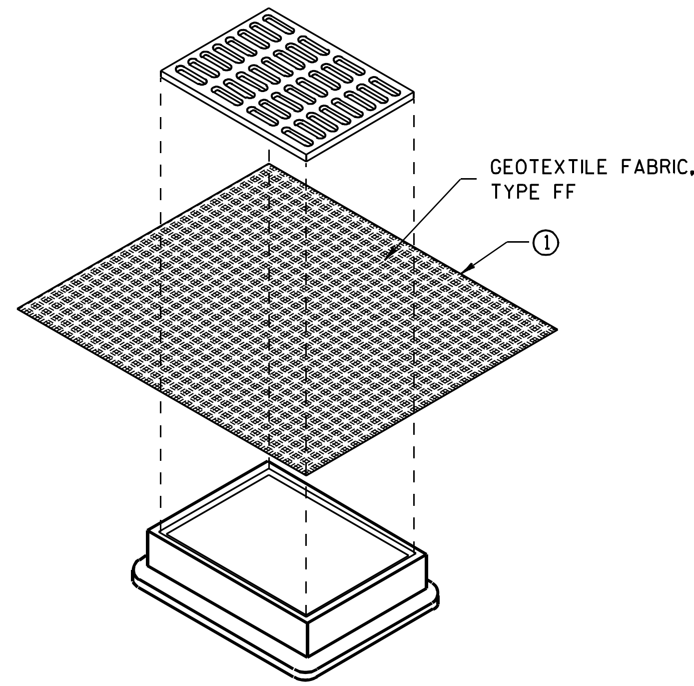
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 4-29-05 /S/ Beth Cann... DATE CHIEF ROADWAY DEVELOP... ...INEER FHWA

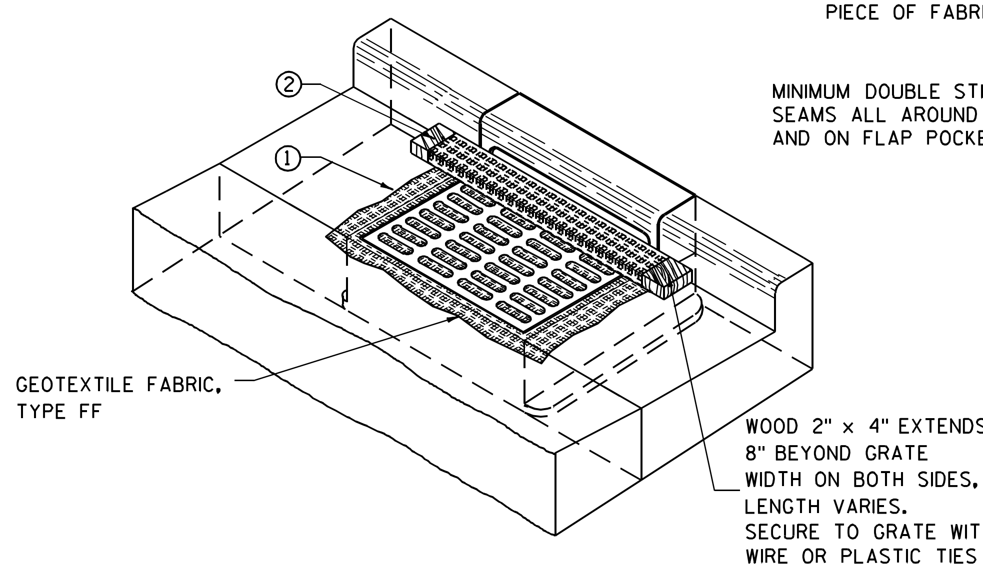




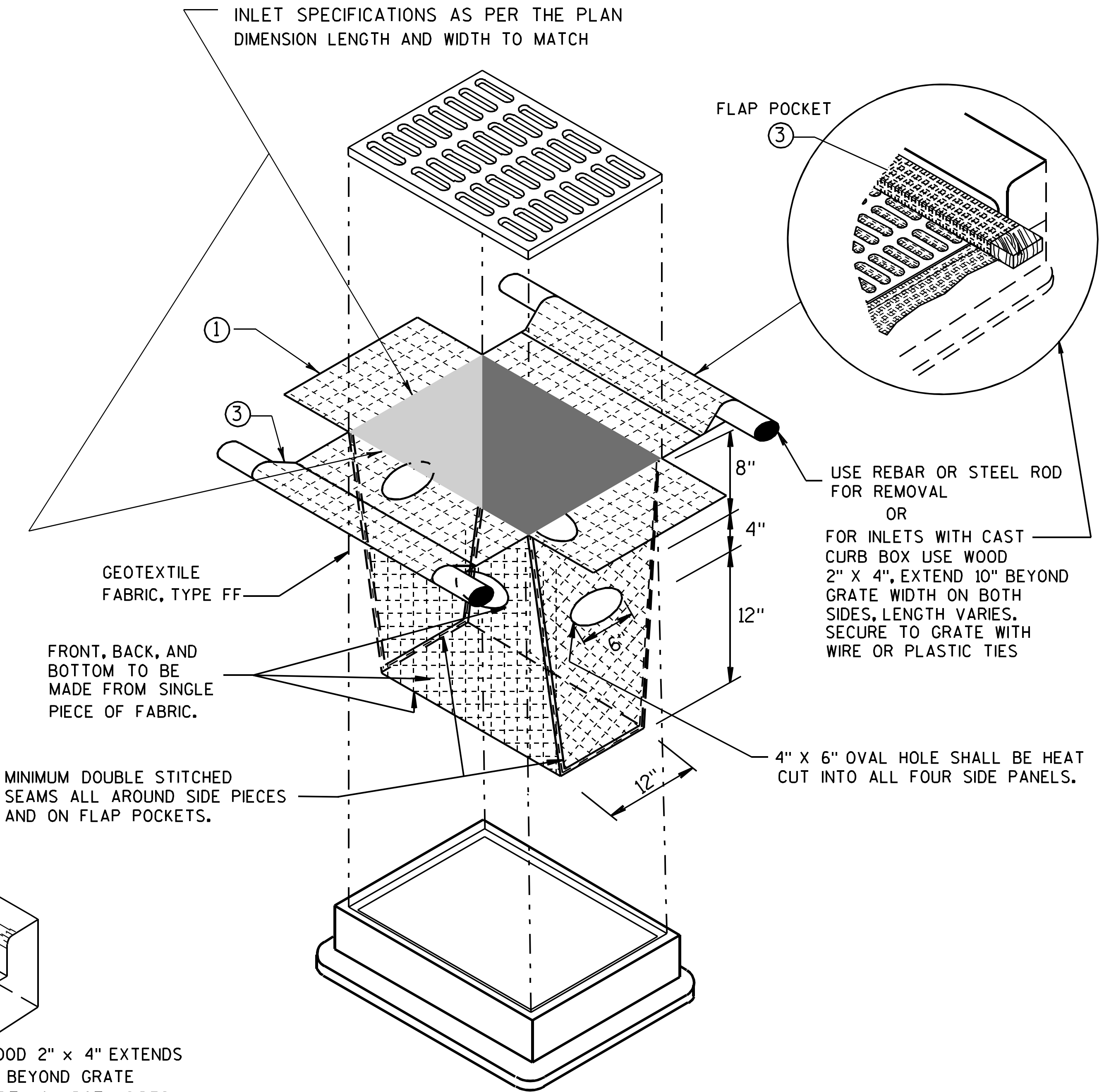
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)
(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



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

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.

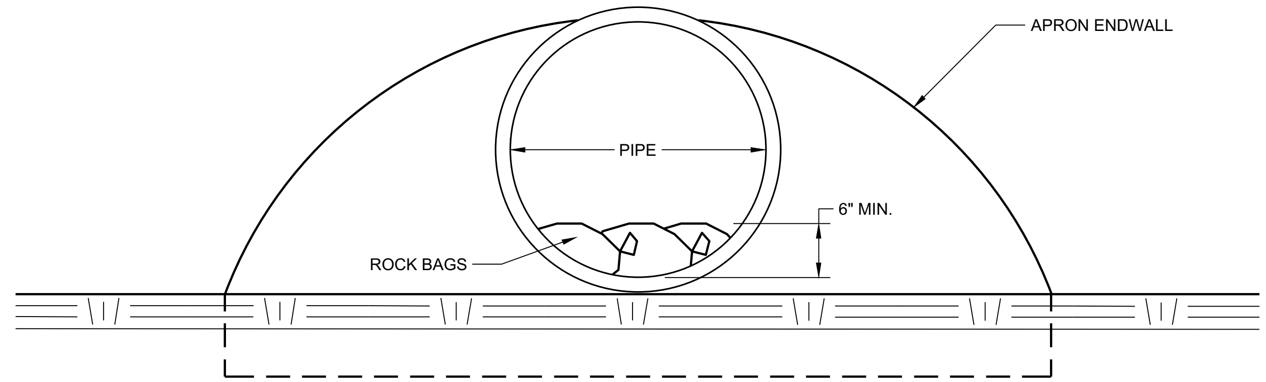
TYPE D

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.

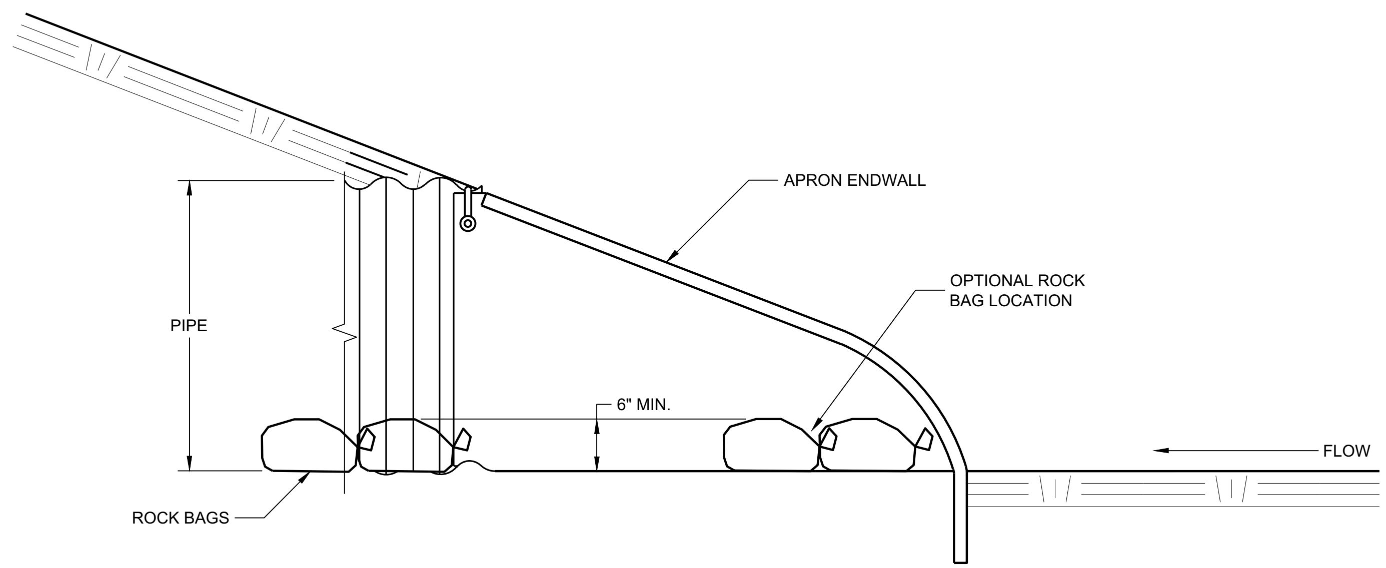
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

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 /S/ Beth Cannestra DATE CHIEF ROADWAY DEVELOPMENT ENGINEER FHWA



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED May 2019 — /S/ Daniel Schave DATE — EROSION CONTROL ENGI FHWA

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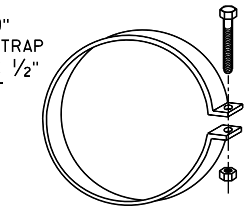
SDD 08E15 - 01

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

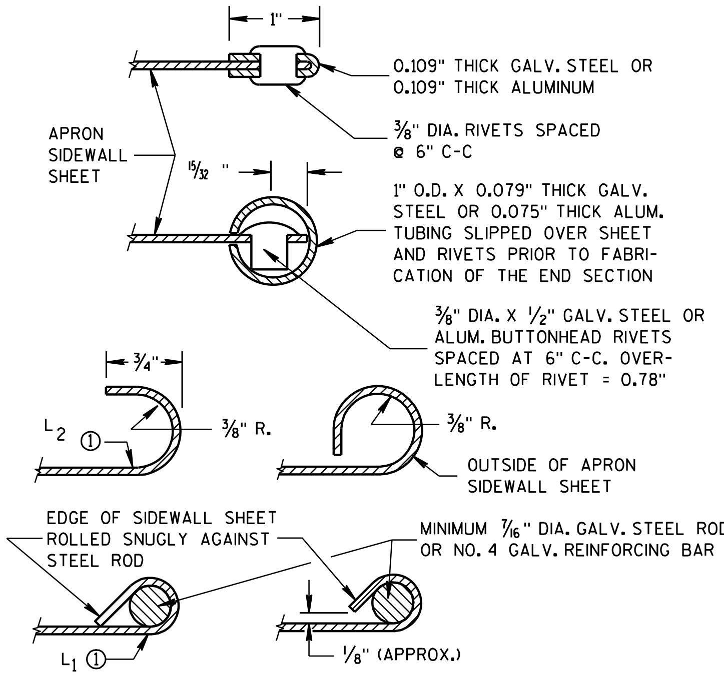
REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 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

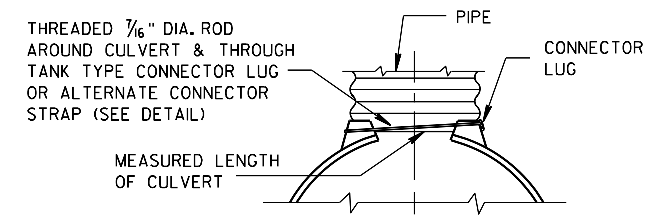


ALTERNATE FOR TYPE 1 CONNECTION

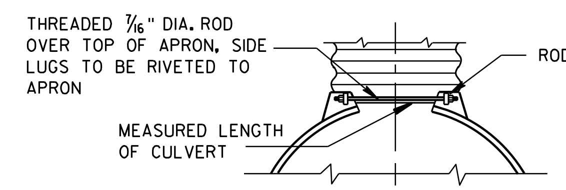
END SECTION CONNECTOR STRAP



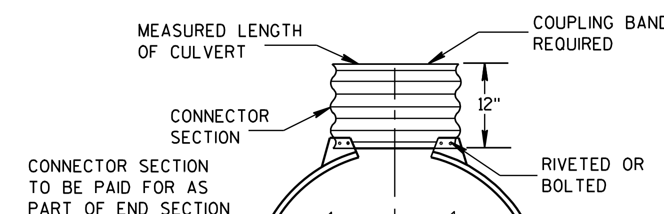
SECTION A-A



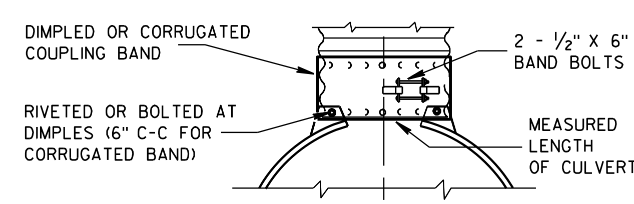
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

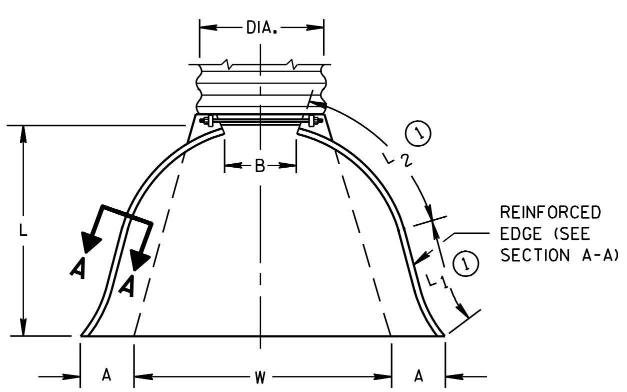
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

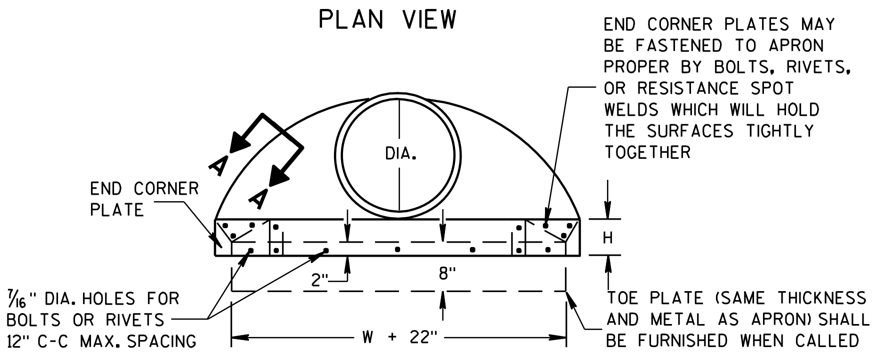
FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

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

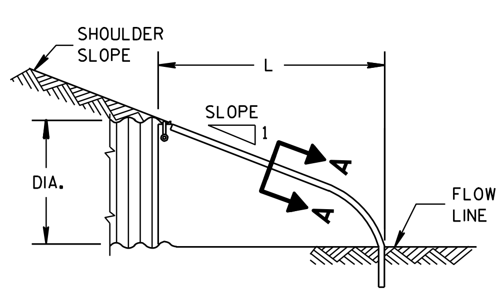
CONNECTION DETAILS



PLAN VIEW

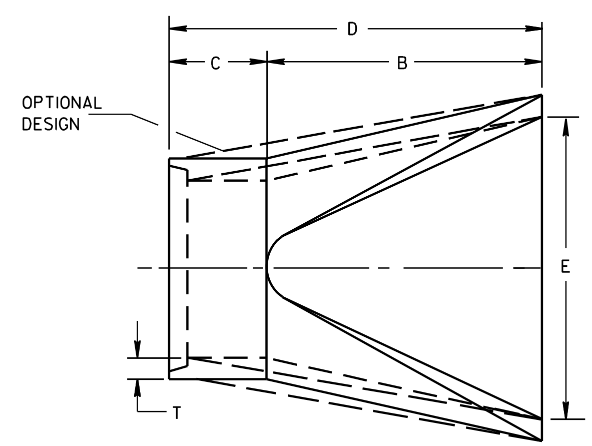


END VIEW

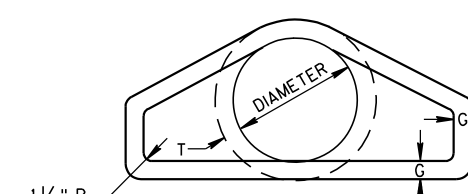


SIDE ELEVATION

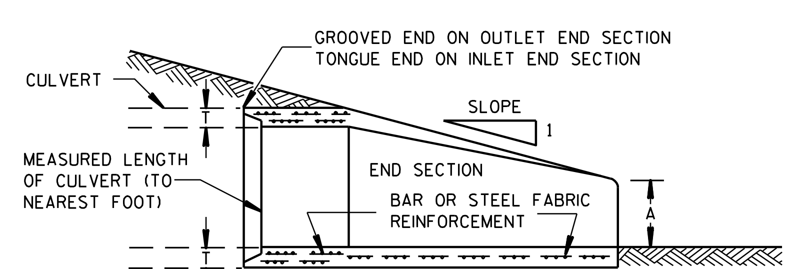
METAL ENDWALLS



PLAN



END VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS

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.

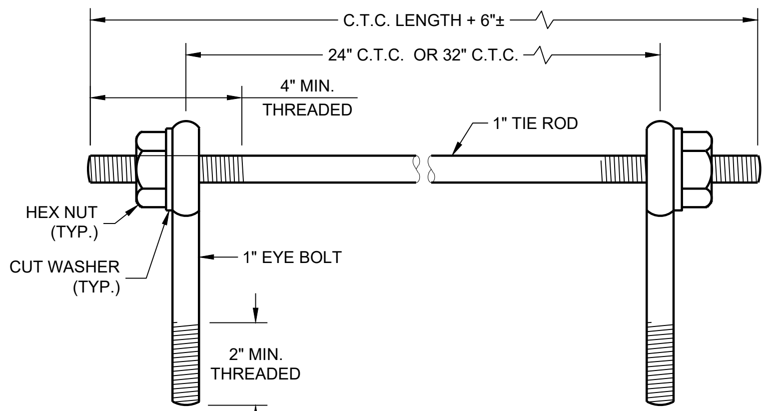
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

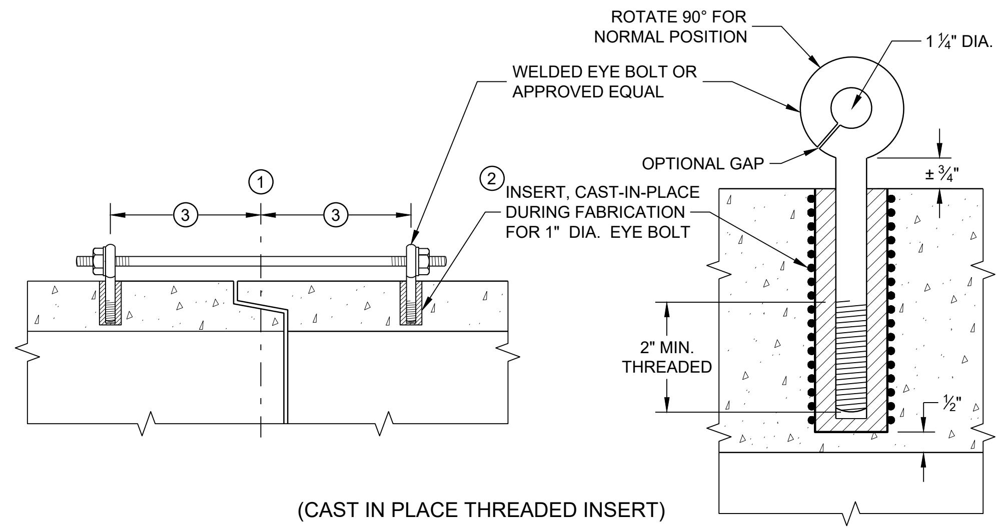
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

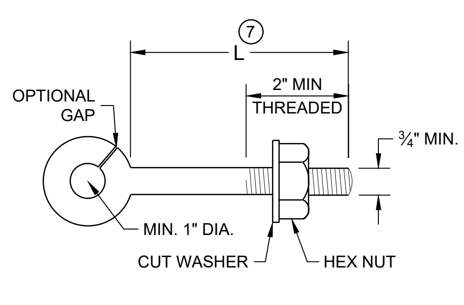
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

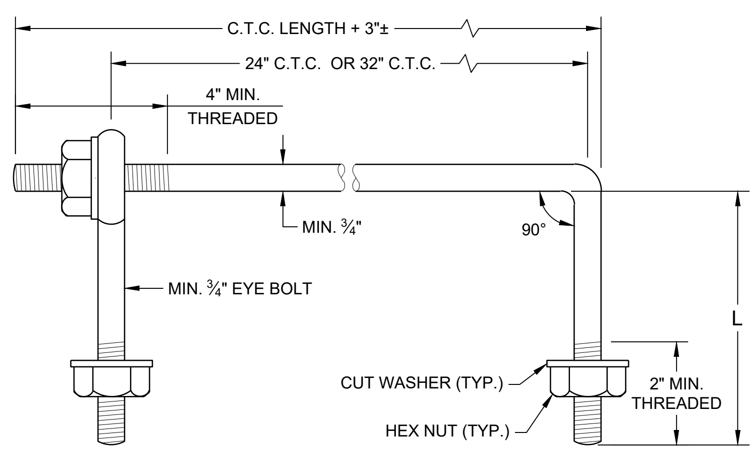
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1. CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
2. THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
3. HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
5. OPENING TO BE ROD DIAMETER PLUS 1 INCH.
6. LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
7. EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

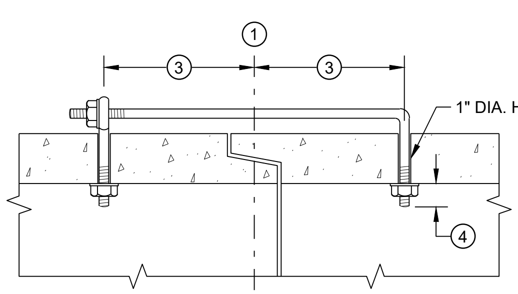


EYE BOLT 7

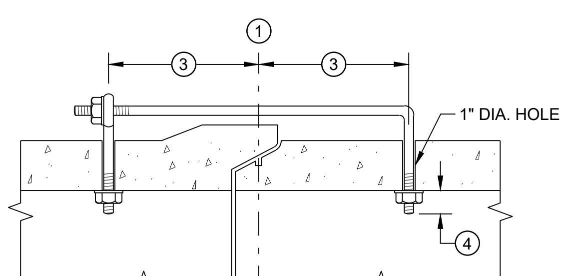
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

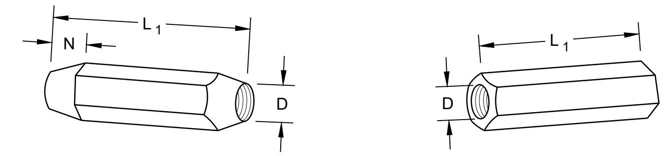
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

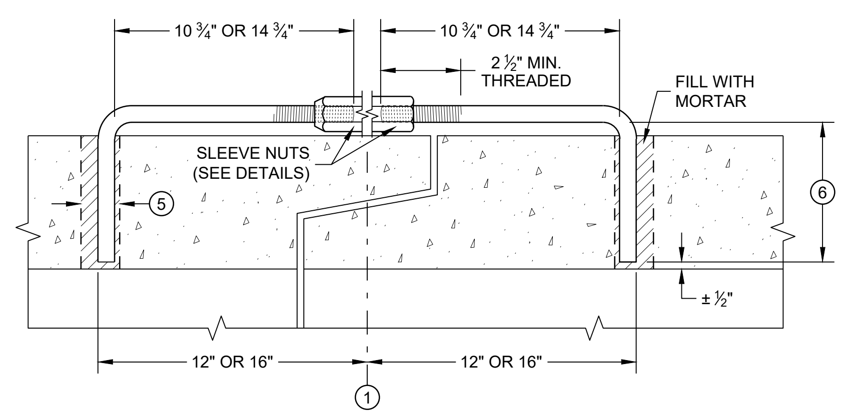
PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	5/8	5/8	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



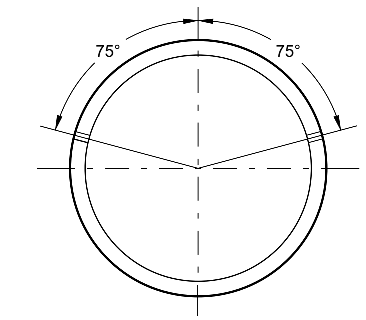
RIGHT AND LEFT THREADS

SLEEVE NUTS



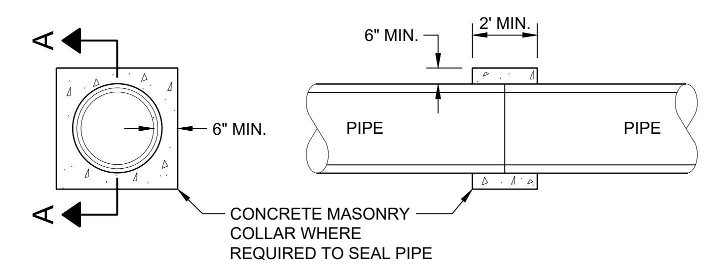
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FO CONCRETE PIPE AND CONCRETE COLLAR DETAIL

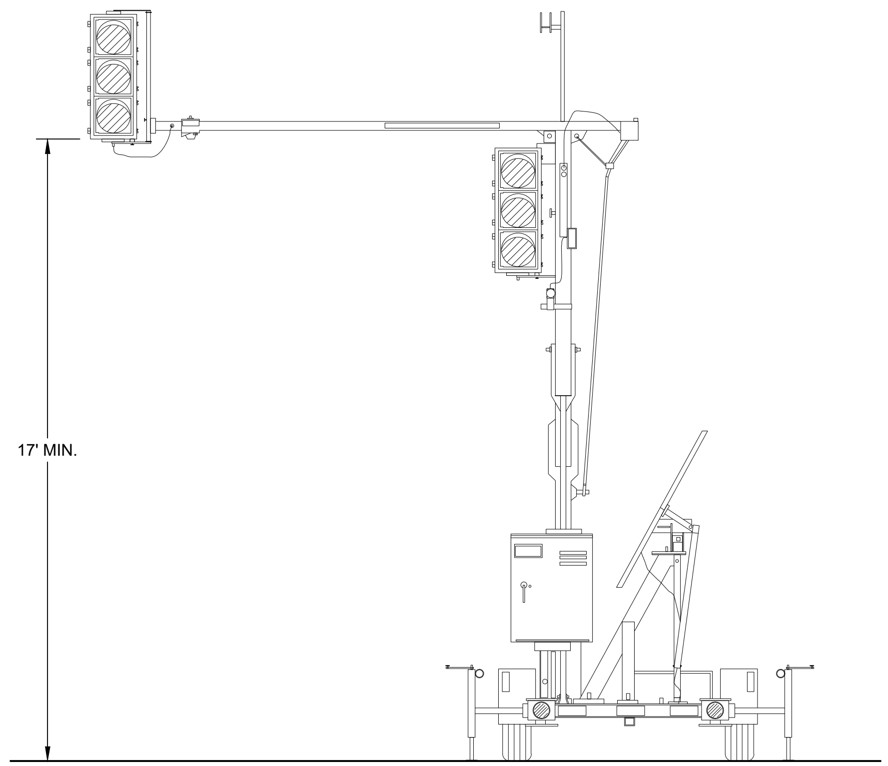
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2021 — DATE

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

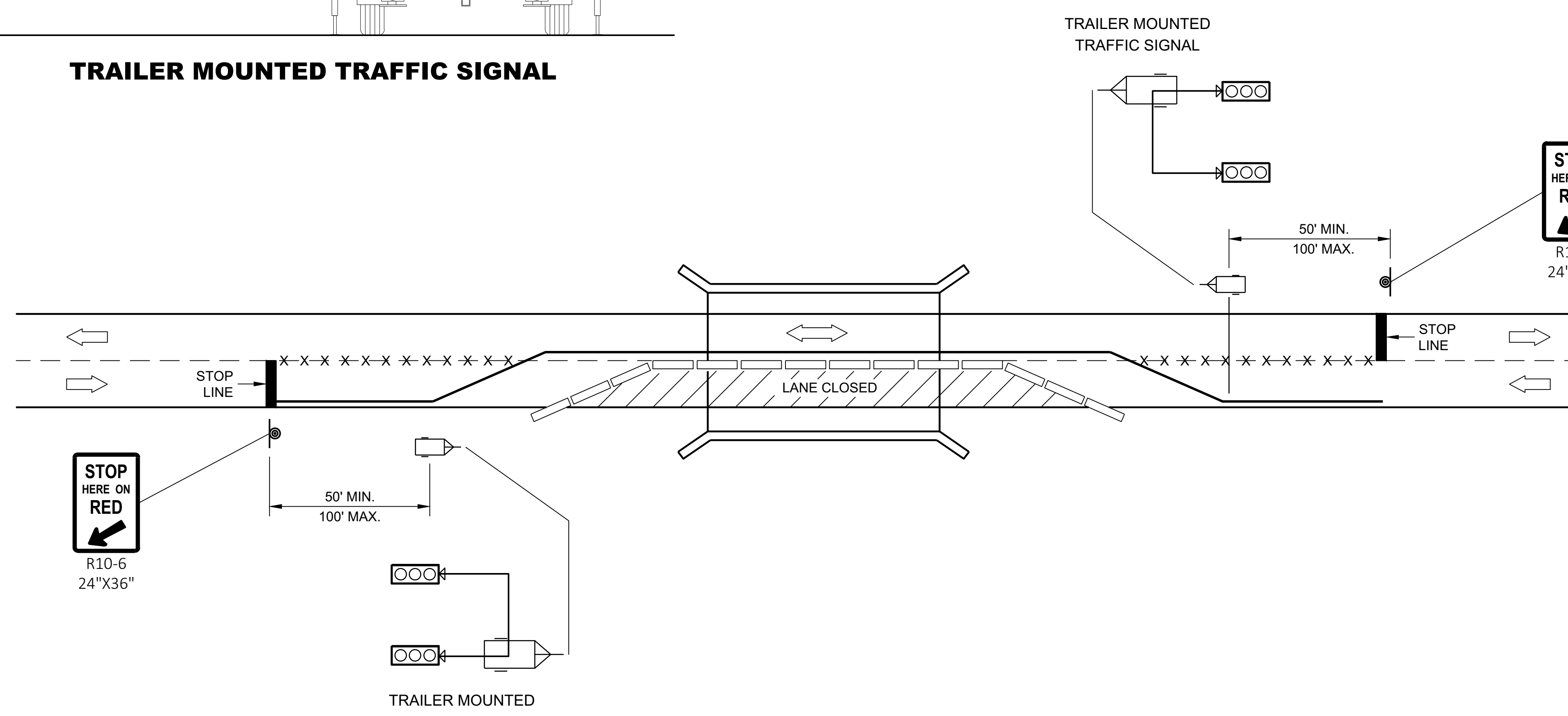


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

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



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

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

6

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BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015 — DATE

/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

SDD09G02 - 05c

GENERAL NOTES

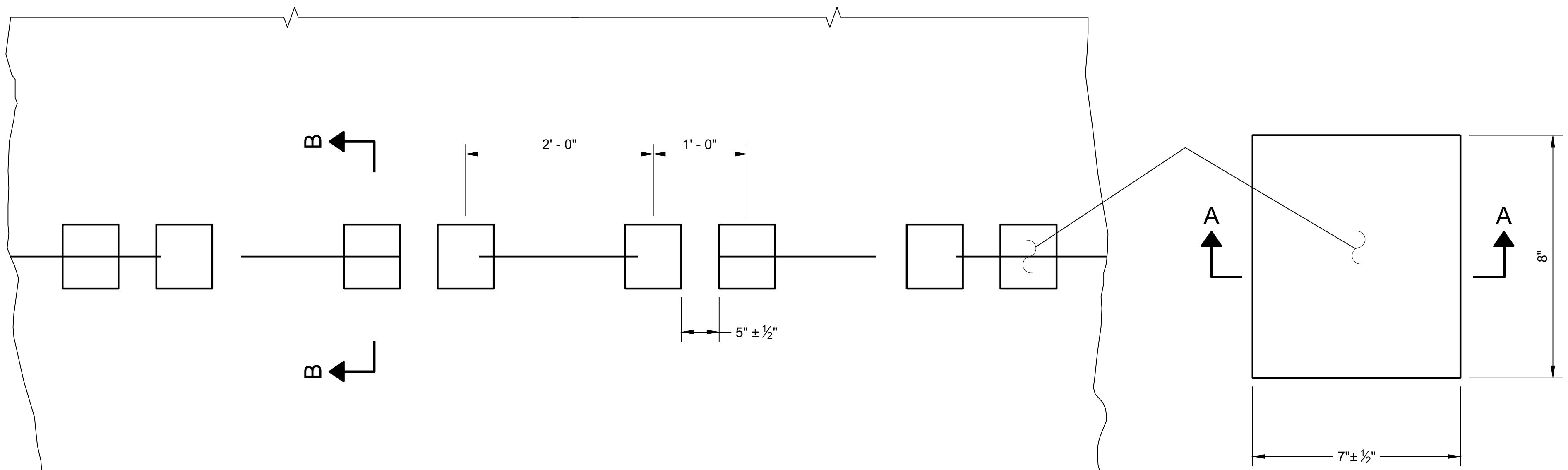
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

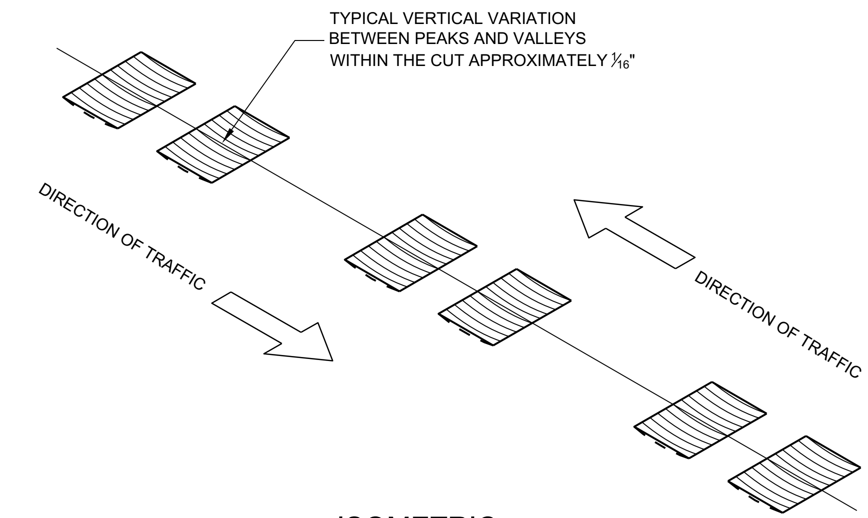
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



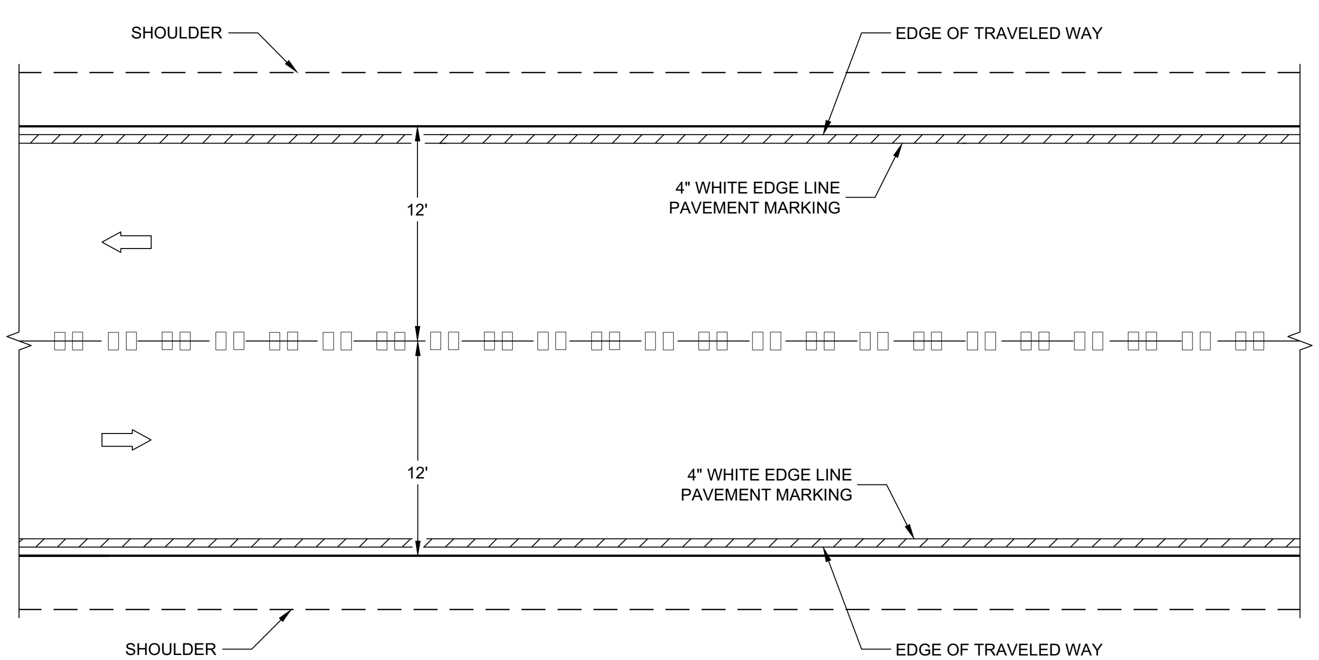
PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

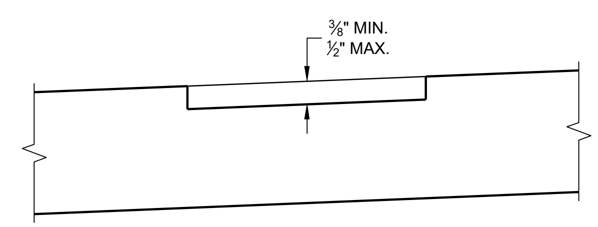
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



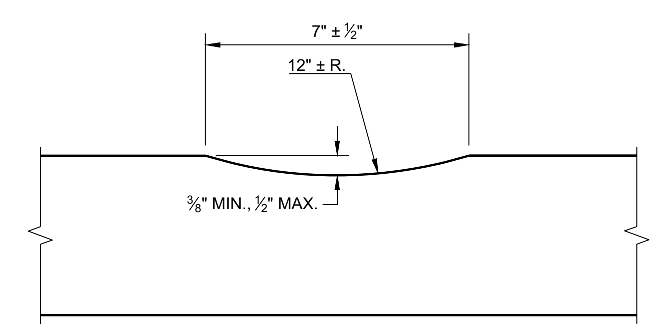
ISOMETRIC



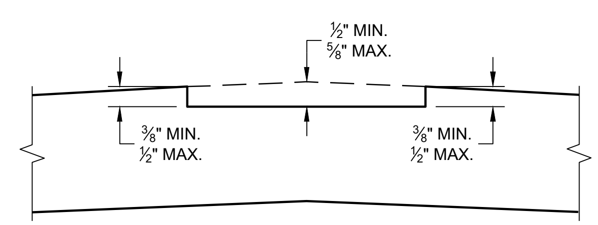
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION A - A



SECTION B - B
CROWNED ROADWAY

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

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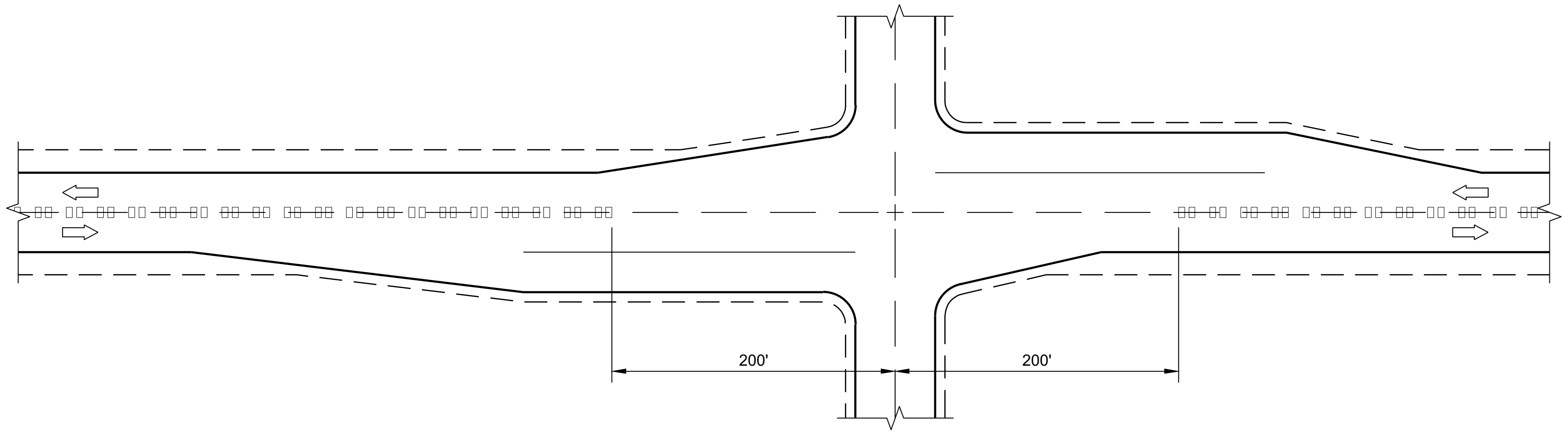
SDD 13A11 - 03a

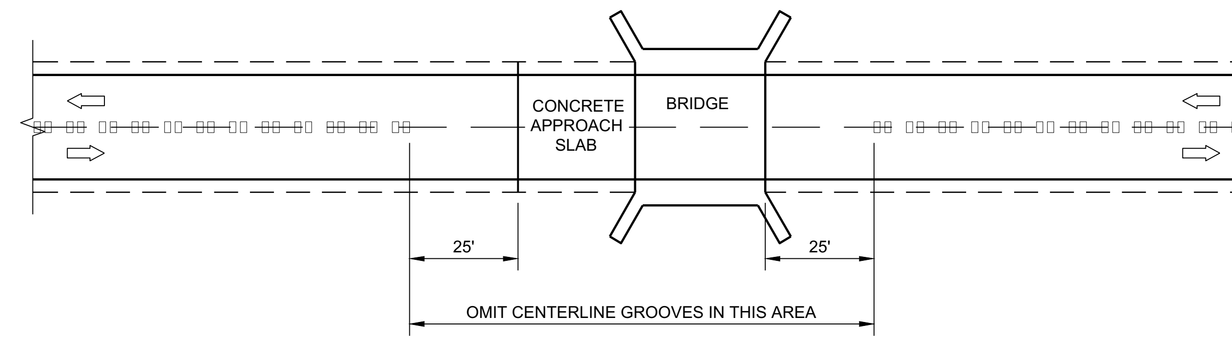
SDD 13A11 - 03a

GENERAL NOTES

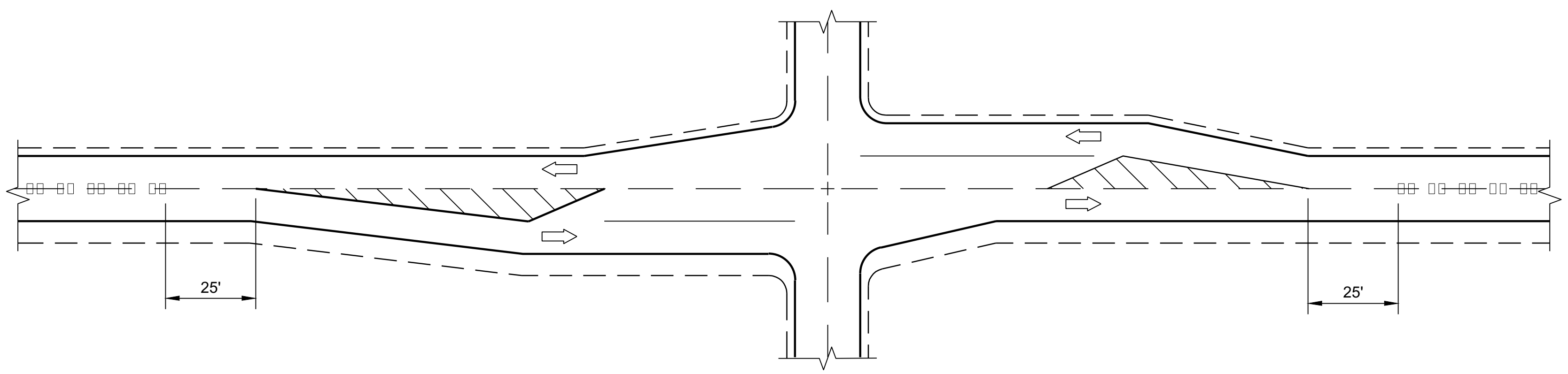
1. CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



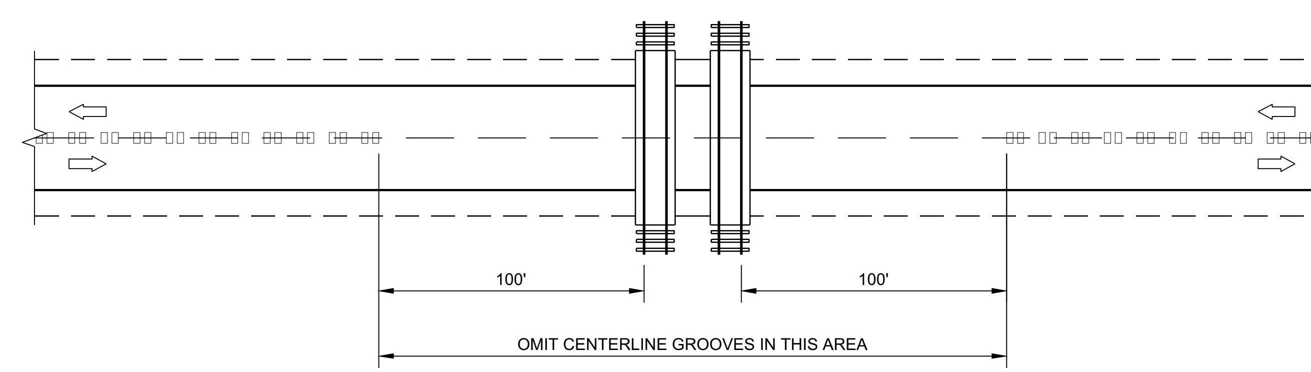
CENTERLINE GROOVES AT INTERSECTIONS



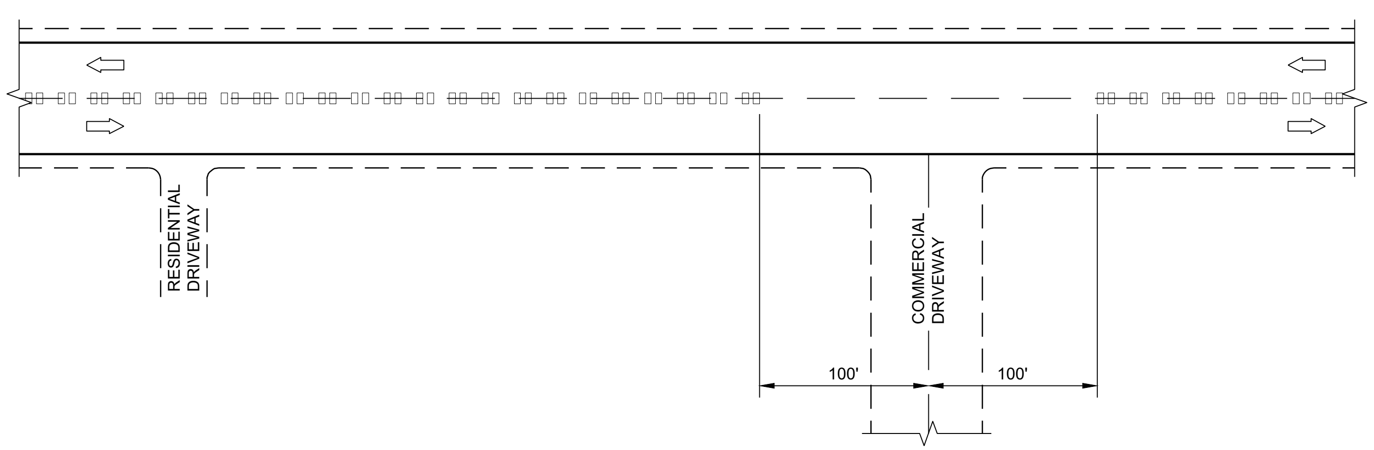
CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

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SDD 13A11 - 03b

SDD 13A11 - 03b

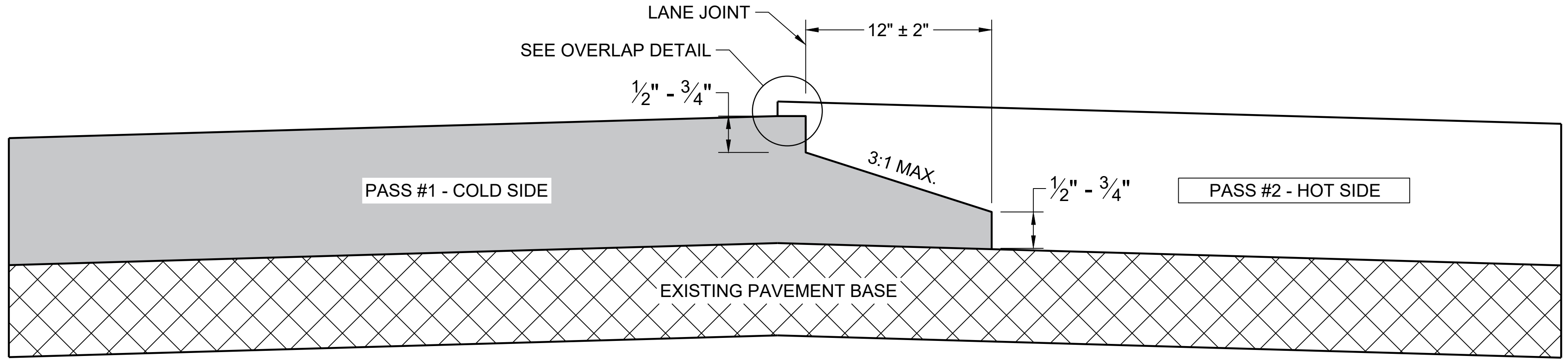
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT

GENERAL NOTES

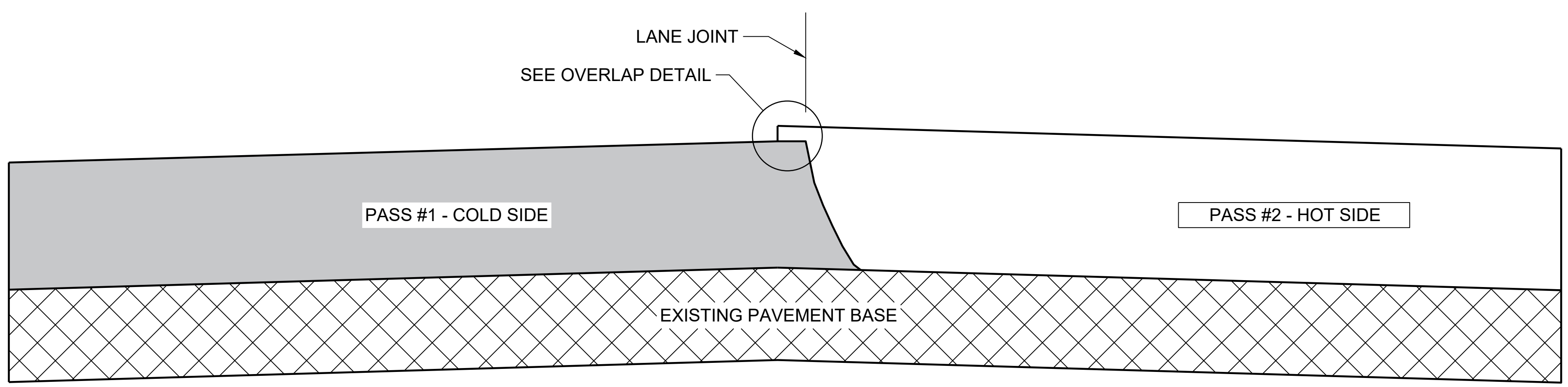
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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.)

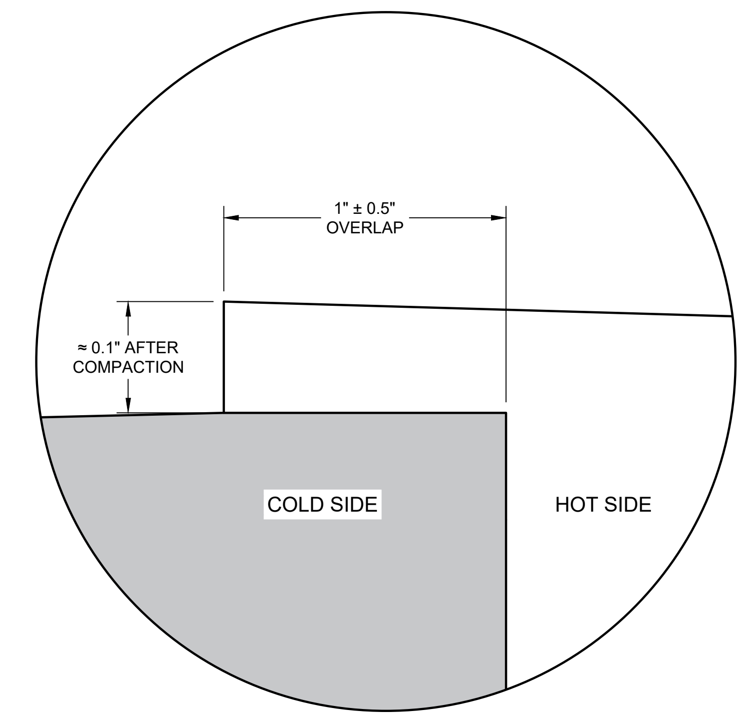
ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

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.

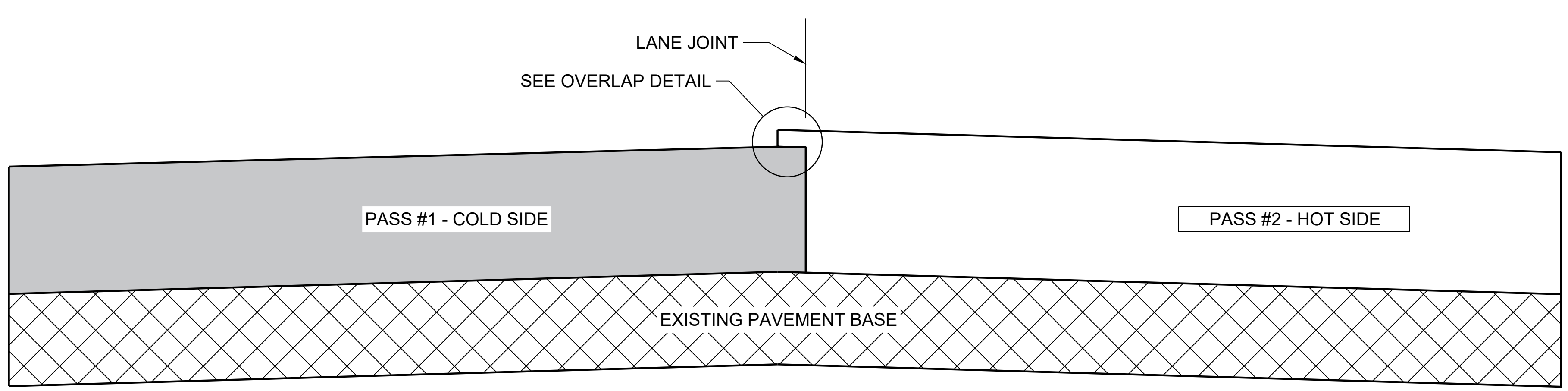
USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT

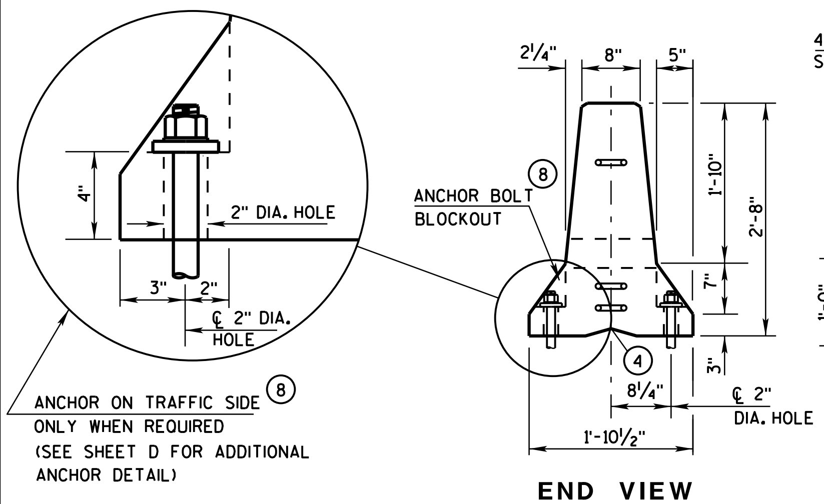


OVERLAP DETAIL (TYPICAL)

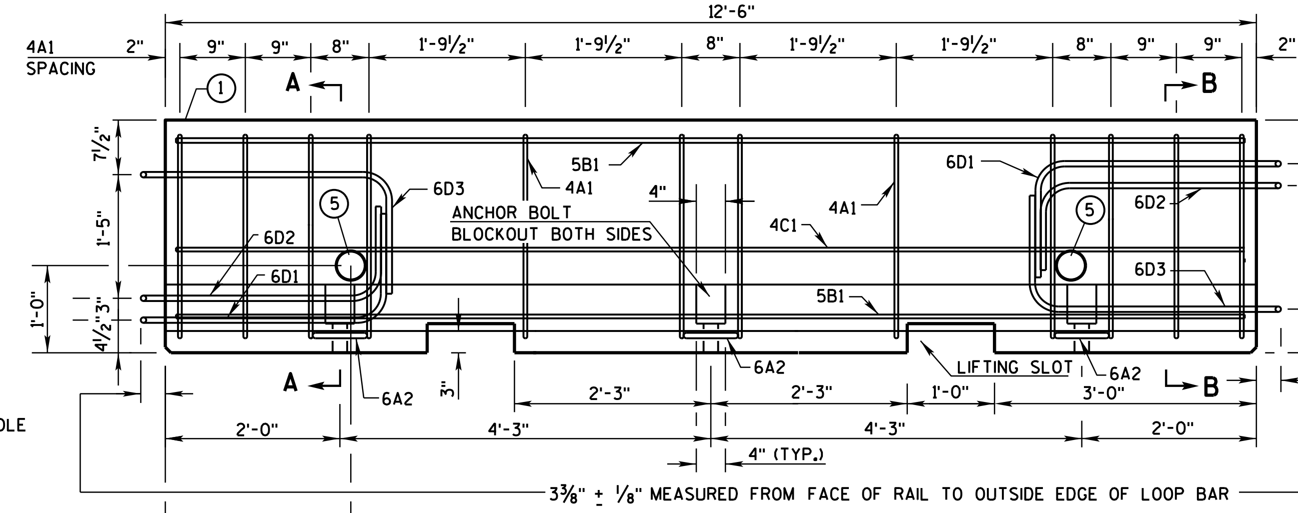


TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

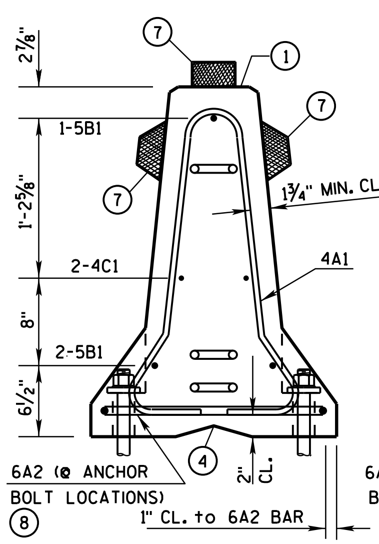
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGIN 100
FHWA	



END VIEW

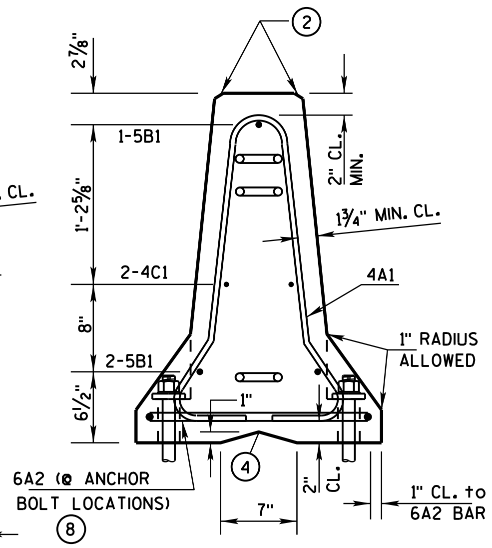


ELEVATION VIEW



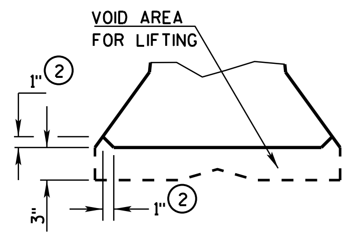
SECTION A-A

(STIRRUP PLACEMENT)



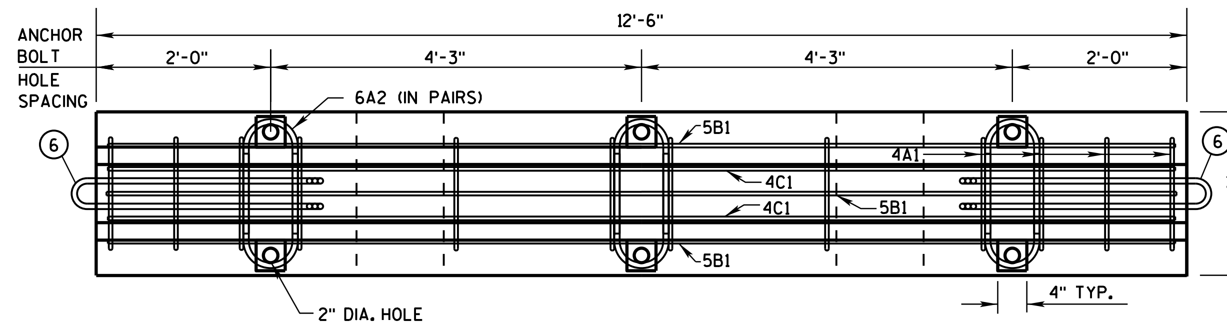
SECTION B-B

(STIRRUP PLACEMENT)



DETAIL "B"

LIFTING SLOT DETAIL



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

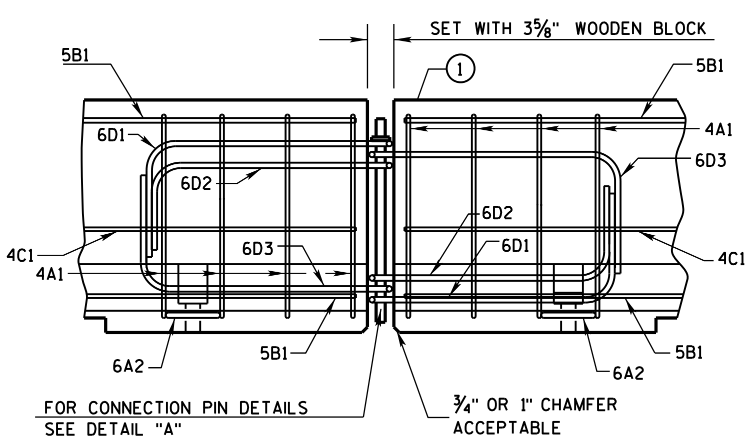
CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

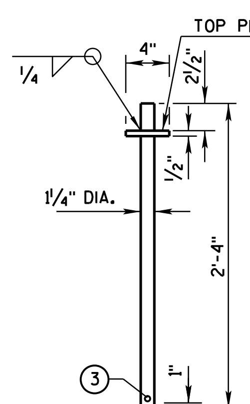
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE: WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
4. "V" NOTCH IS OPTIONAL.
5. THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
6. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
7. USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
8. SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
9. 1" CHAMFER OPTIONAL.

f'c = 4,000 psi



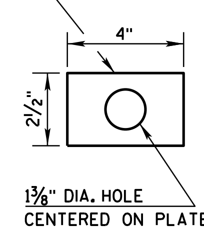
DETAILS OF BARRIER CONNECTION



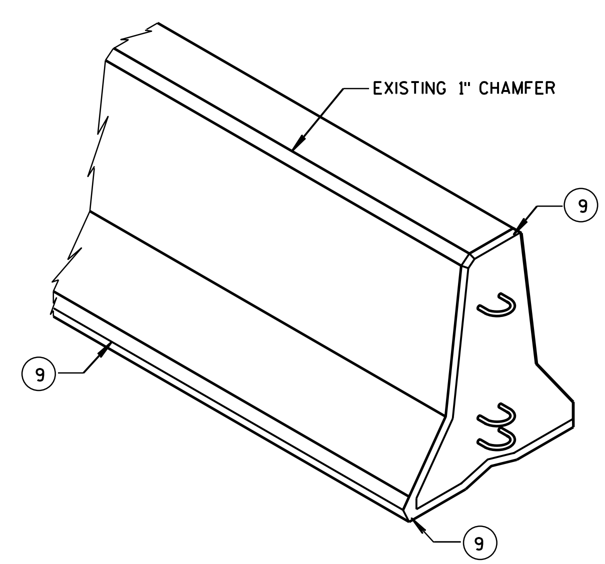
DETAIL "A"

CONNECTION PIN

(A36 STEEL (10.9 LB EACH))



1/2" TOP PLATE DETAIL



CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

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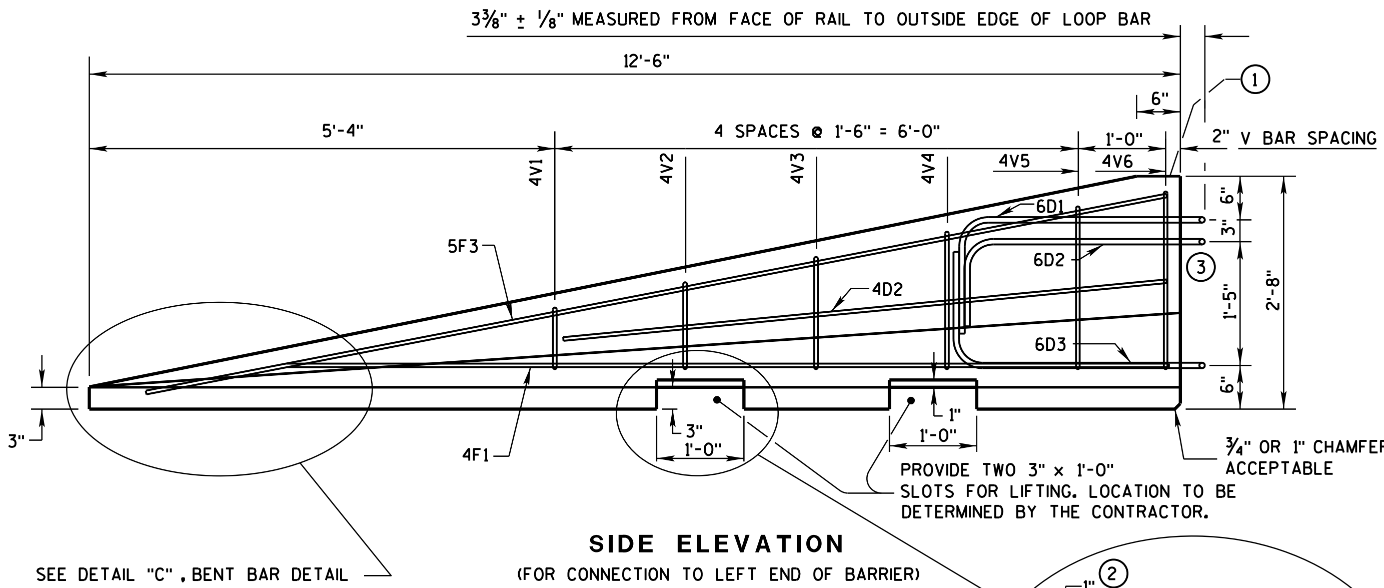
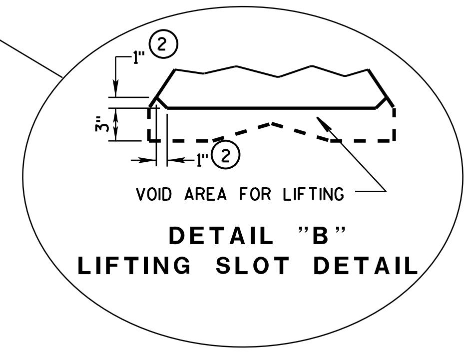
S.D.D. 14 B 7-15a

S.D.D. 14 B 7-15a

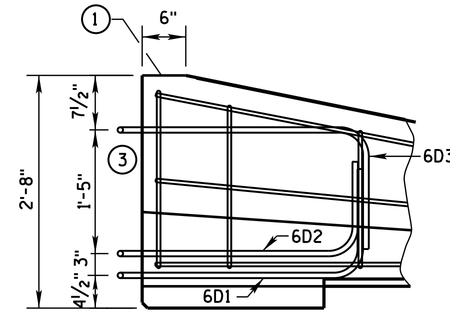


SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)



DETAIL "B"
LIFTING SLOT DETAIL

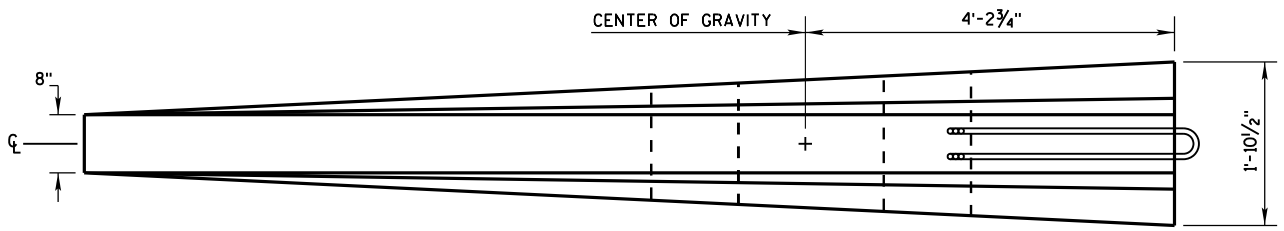


SIDE ELEVATION

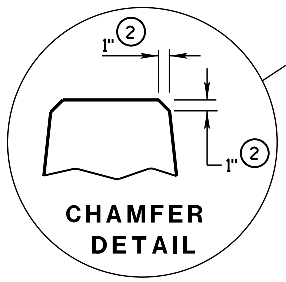
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

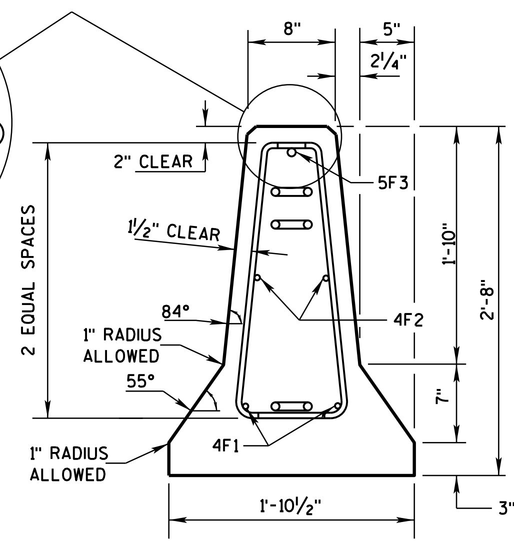
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



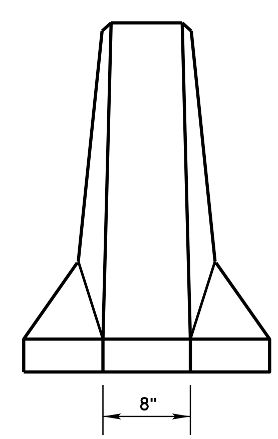
PLAN VIEW



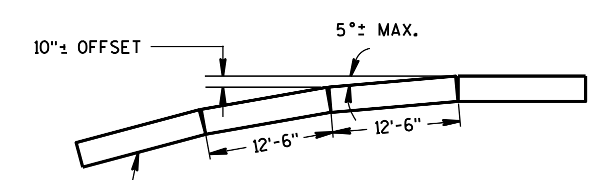
CHAMFER DETAIL



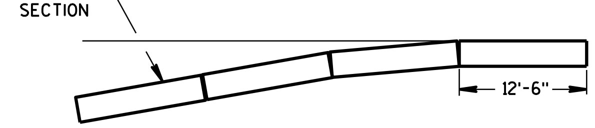
END SECTION



FRONT ELEVATION



BARRIER ON CURVE



FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

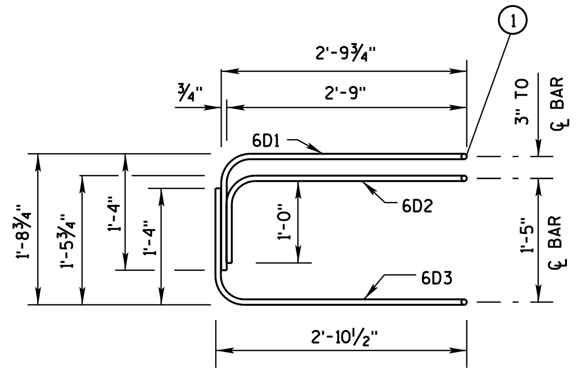
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

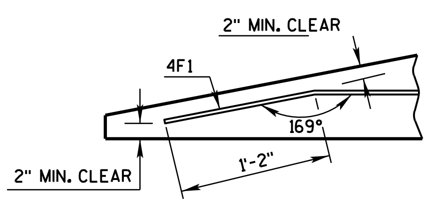
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

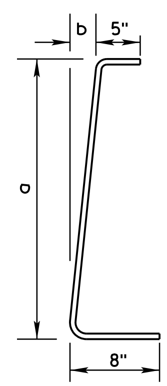
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

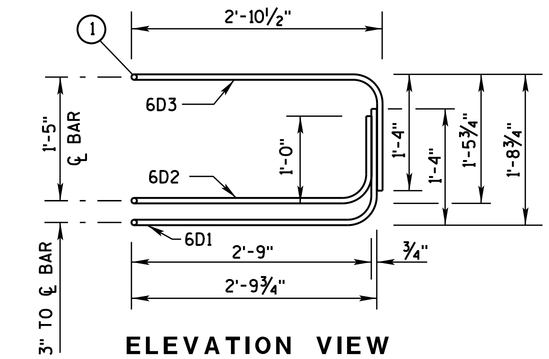
4V BARS
2 AT EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

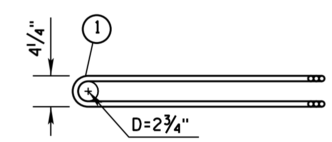
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

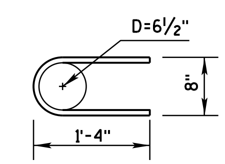
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



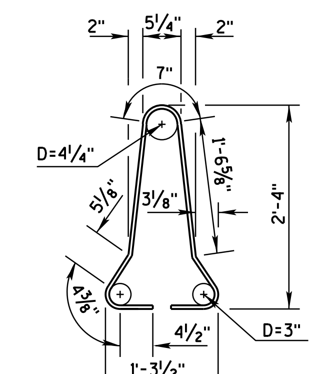
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



VERTICAL STIRRUPS
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

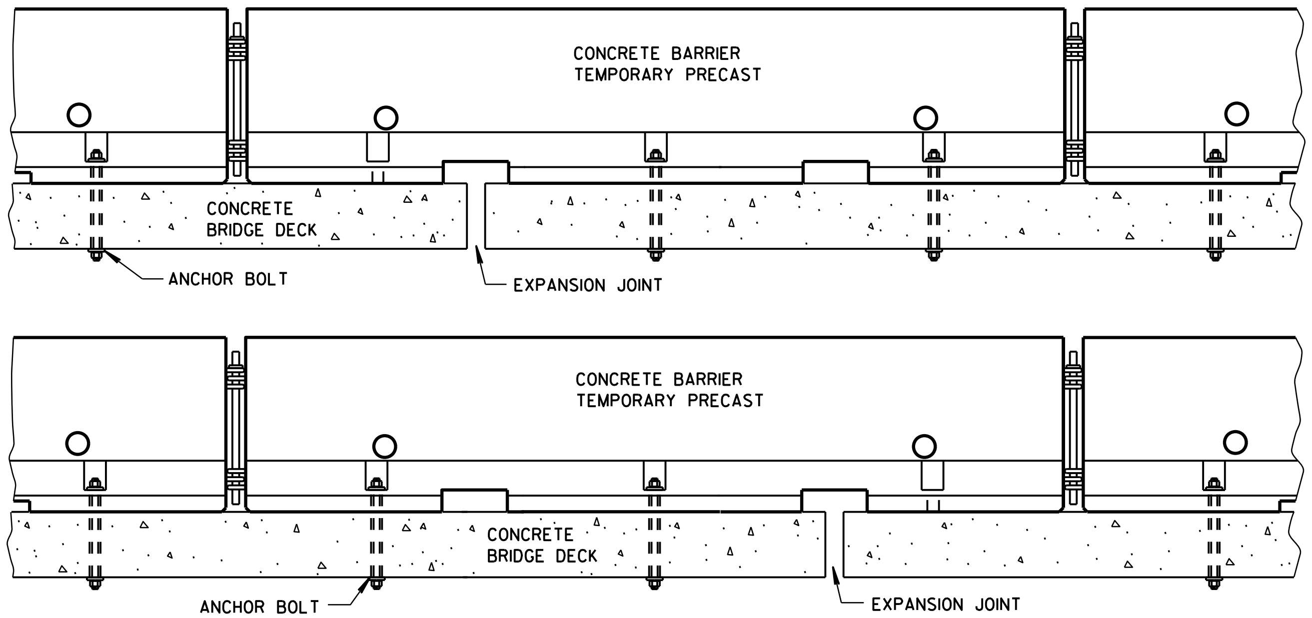
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

GENERAL NOTES

SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

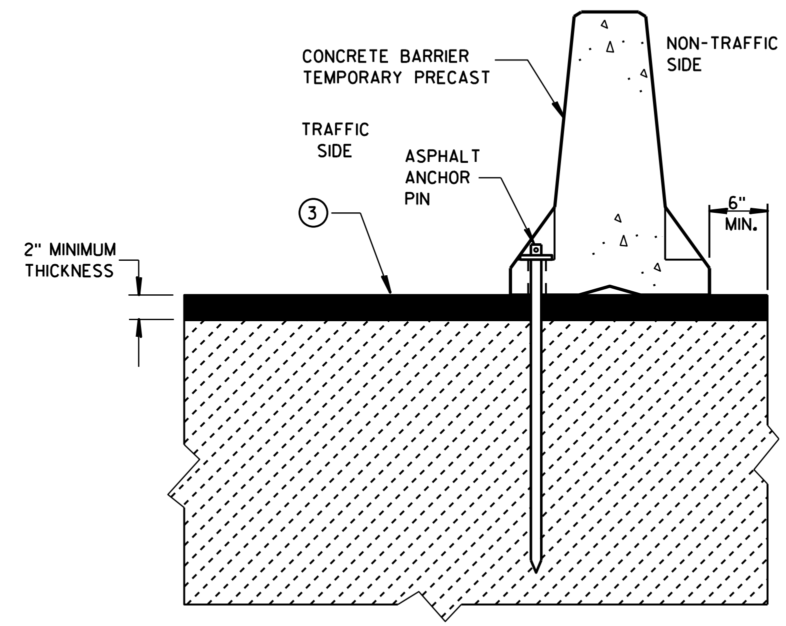
REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

1. 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
2. ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
3. ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.

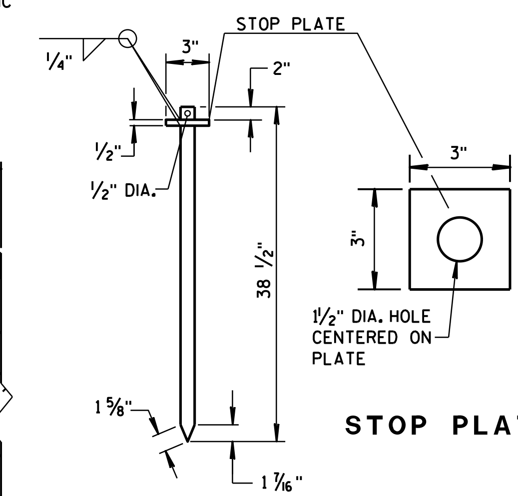


TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)

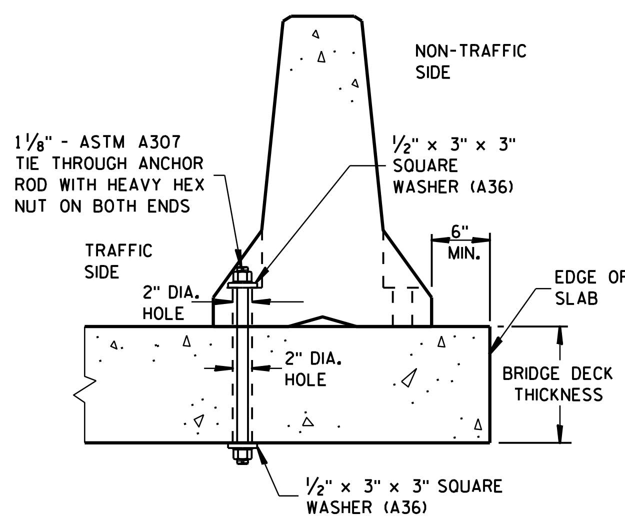


STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



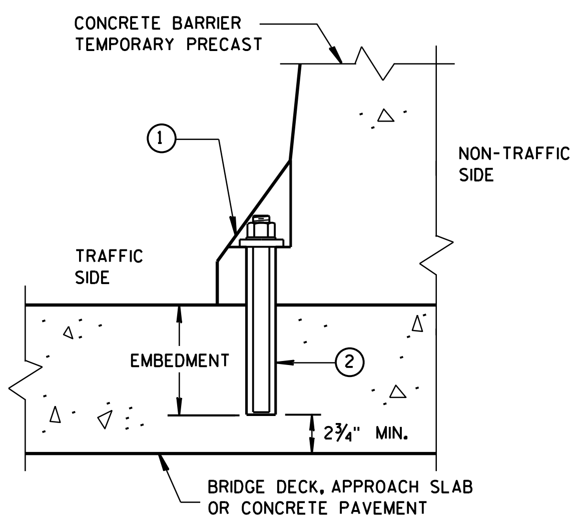
ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



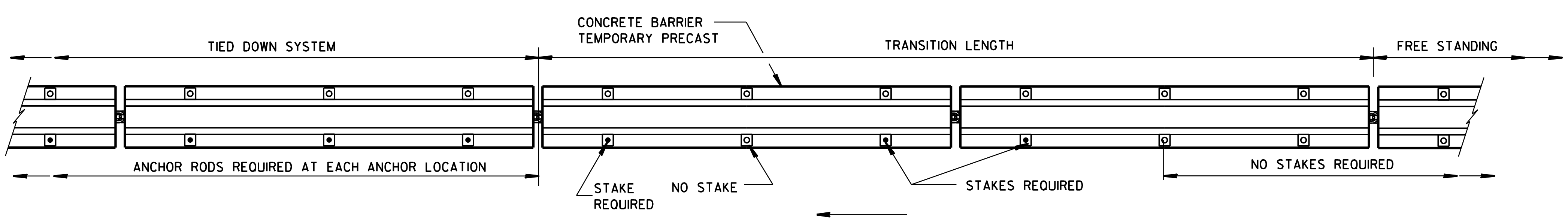
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

6

6

S.D.D. 14 B 7-15d

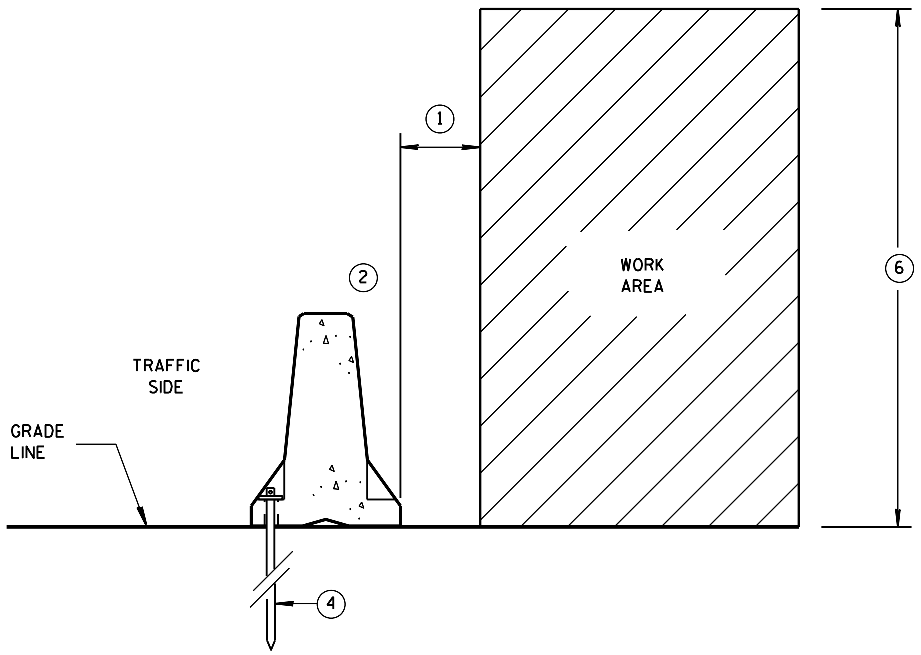
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

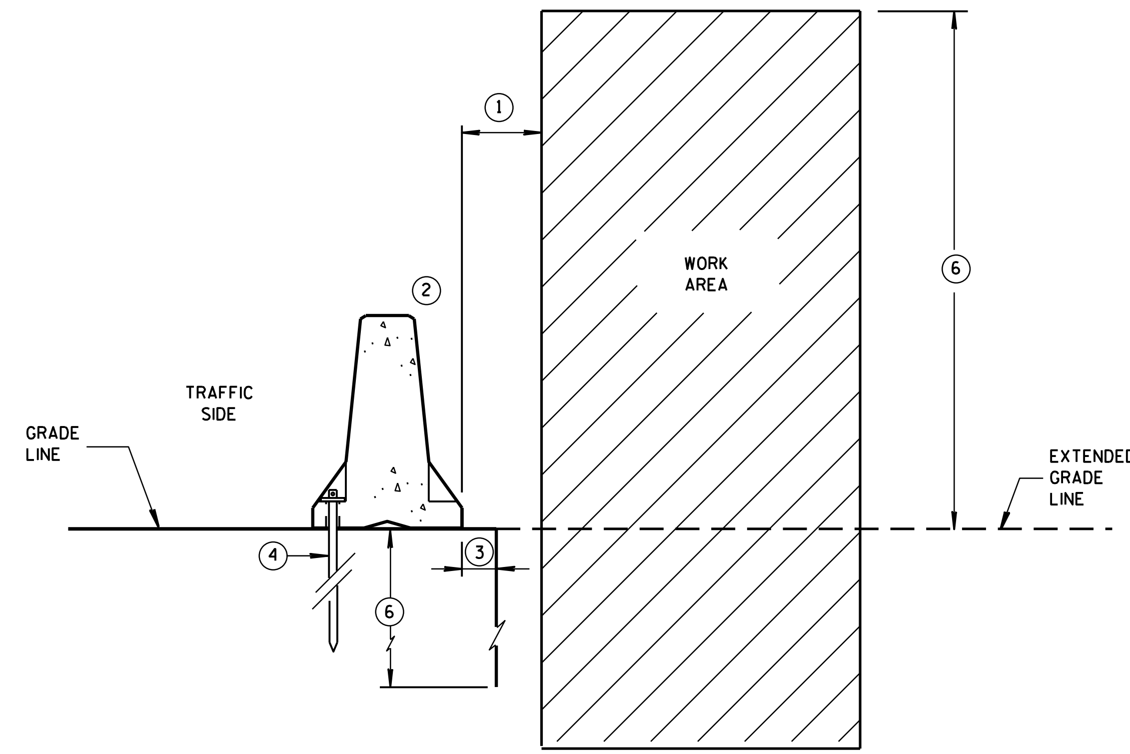
S.D.D. 14 B 7-15d

GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

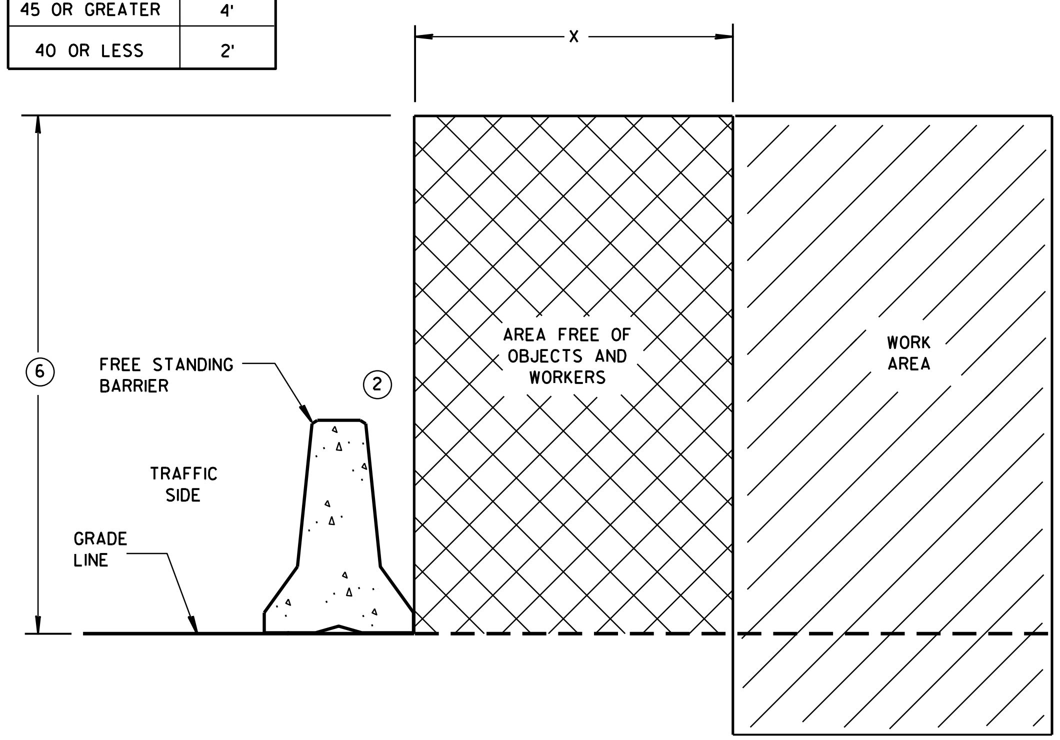


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

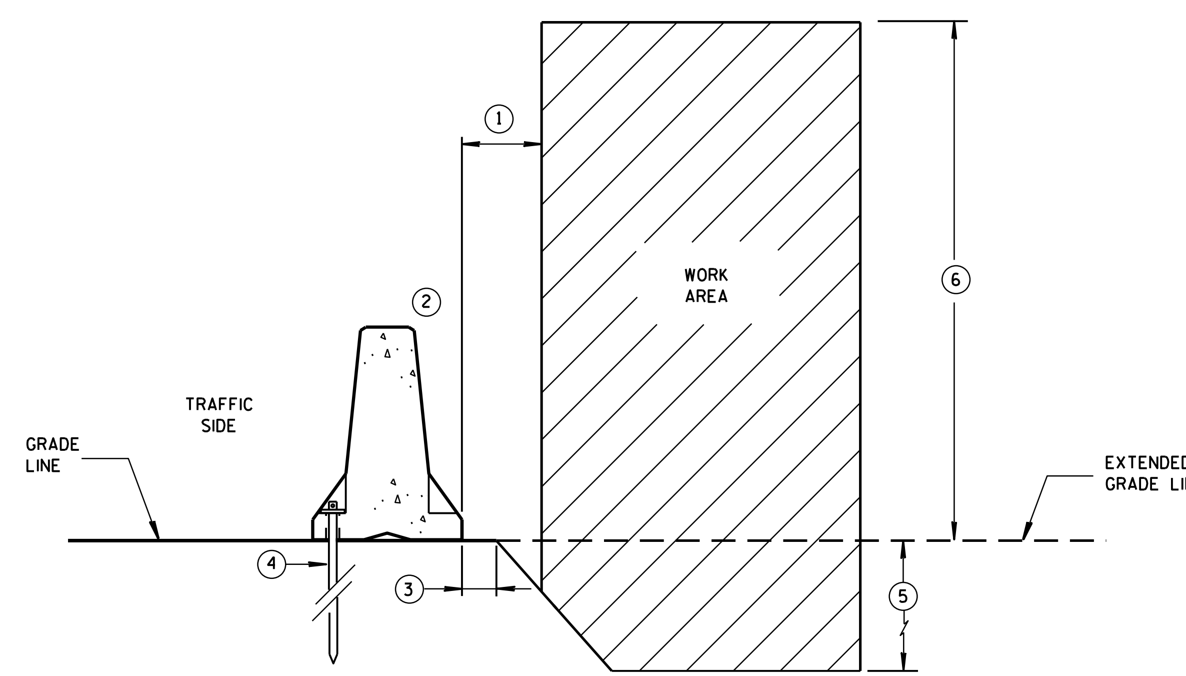


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



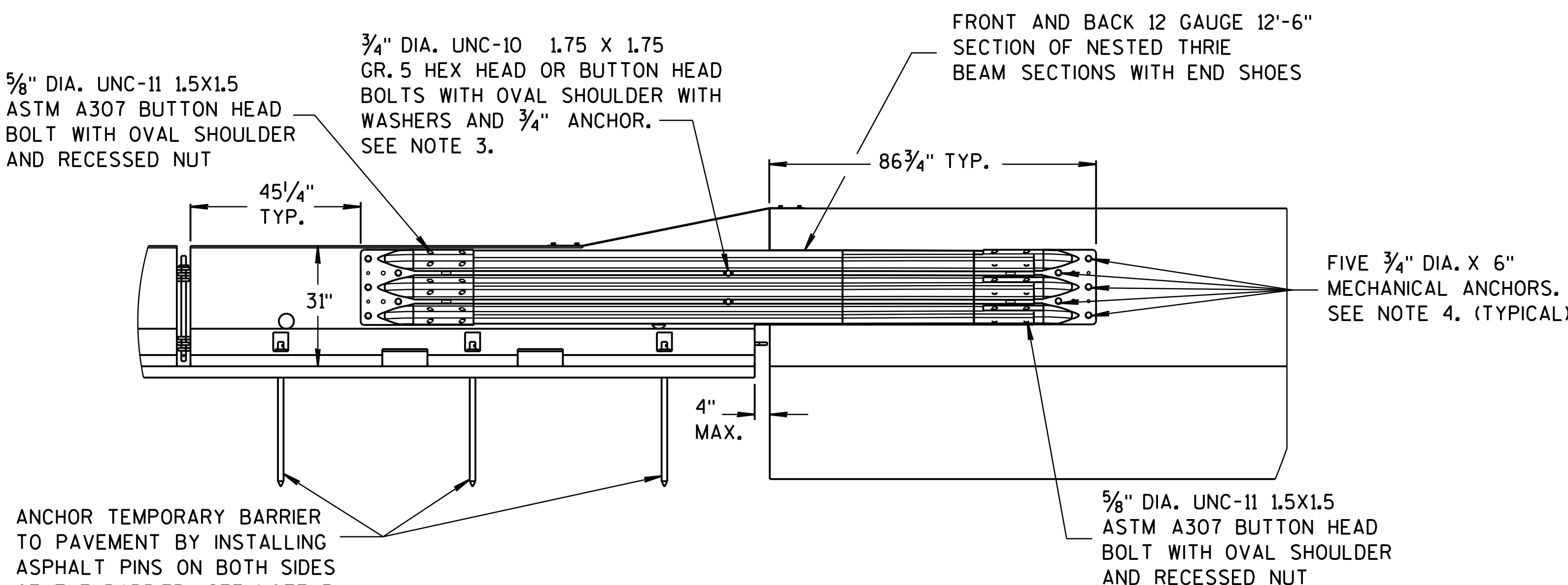
FREE STANDING BARRIER SPACE REQUIREMENTS



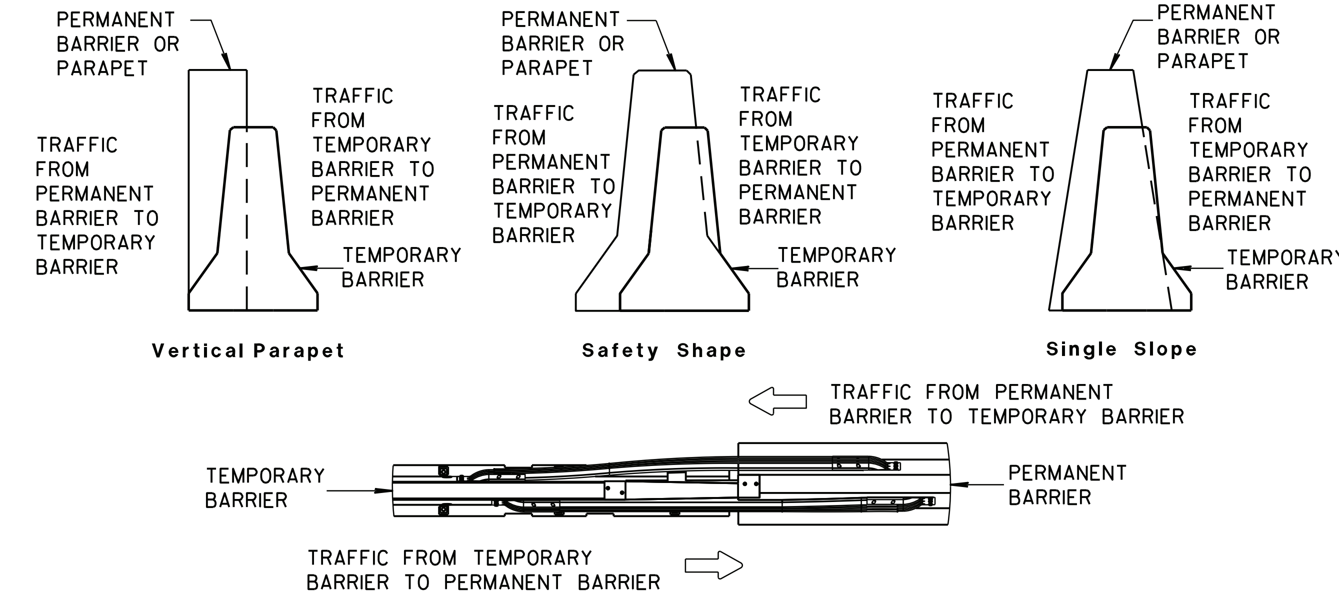
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



FRONT VIEW

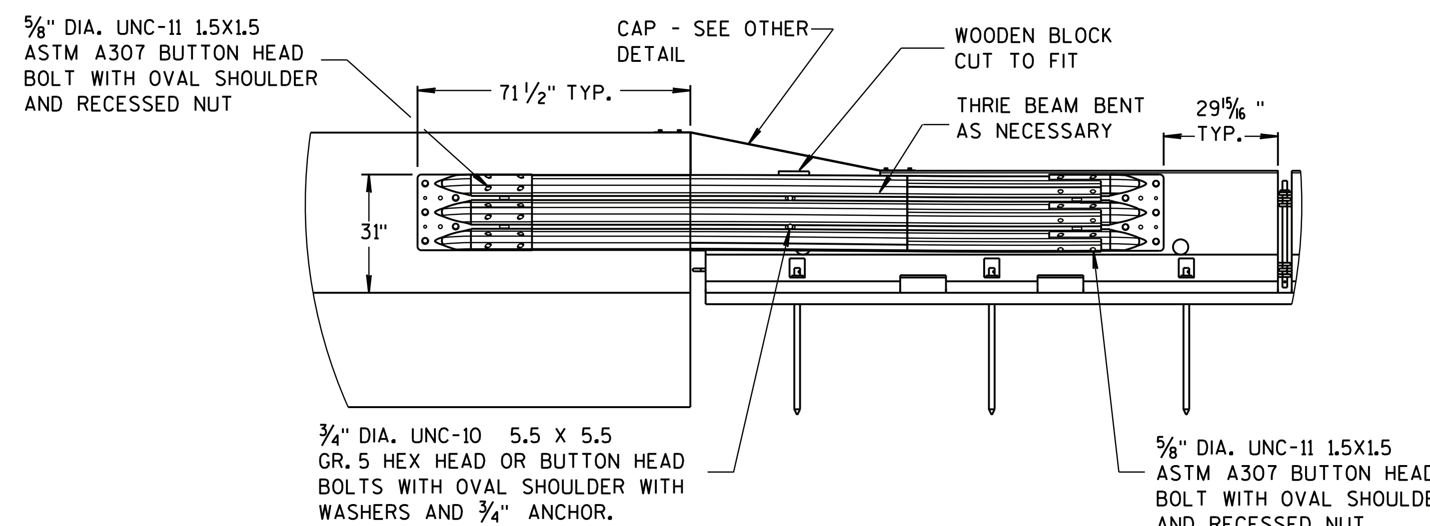


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

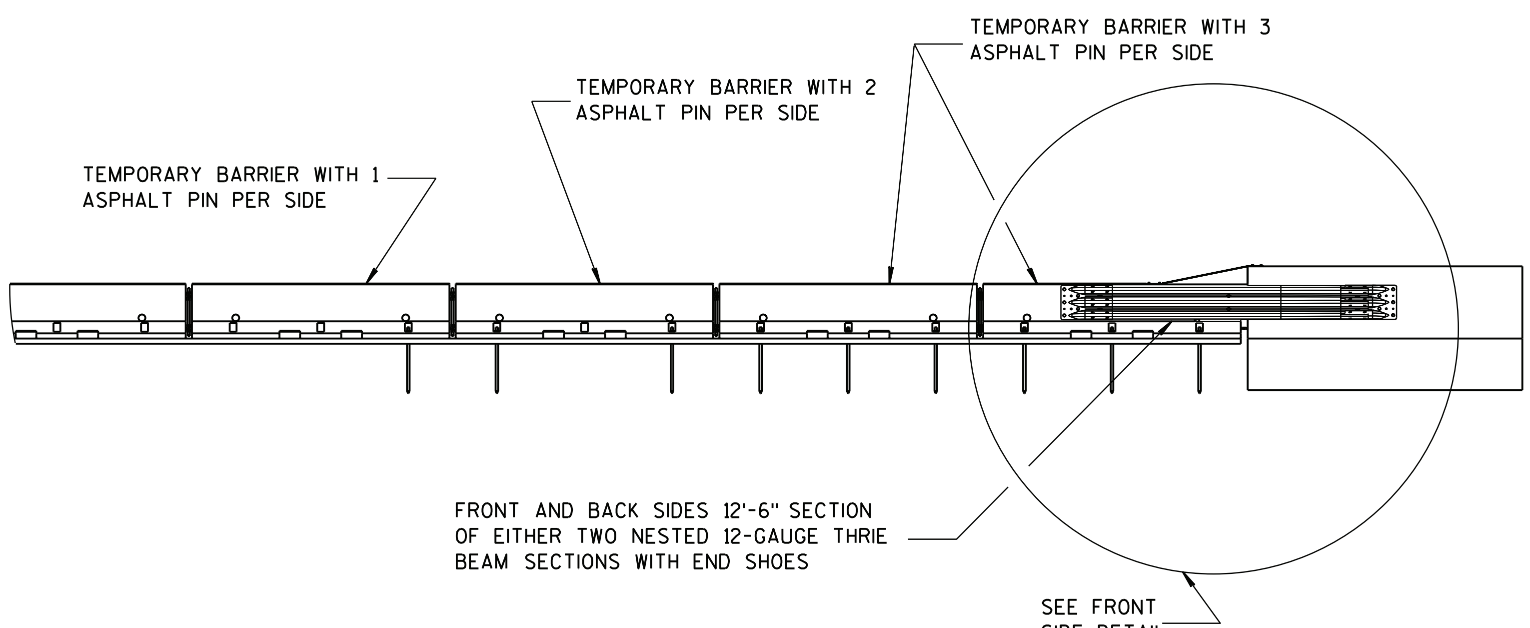
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

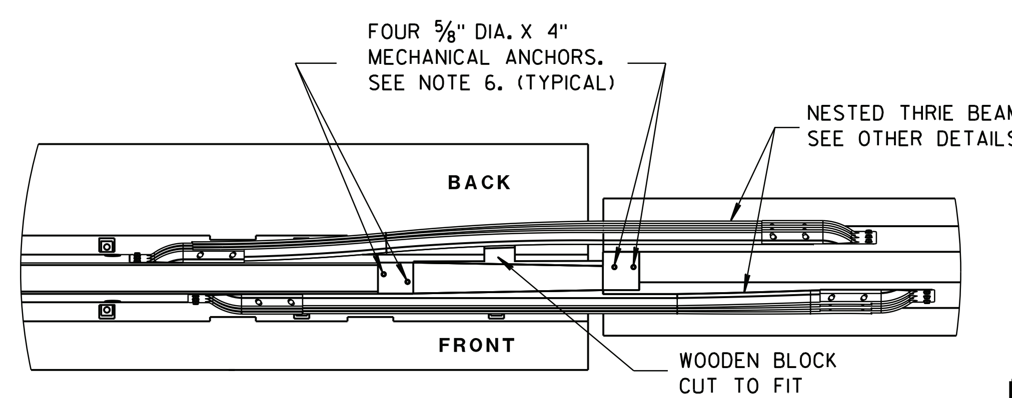
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

TRANSITION TO TIED DOWN SYSTEM

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPO[RTATION]

6

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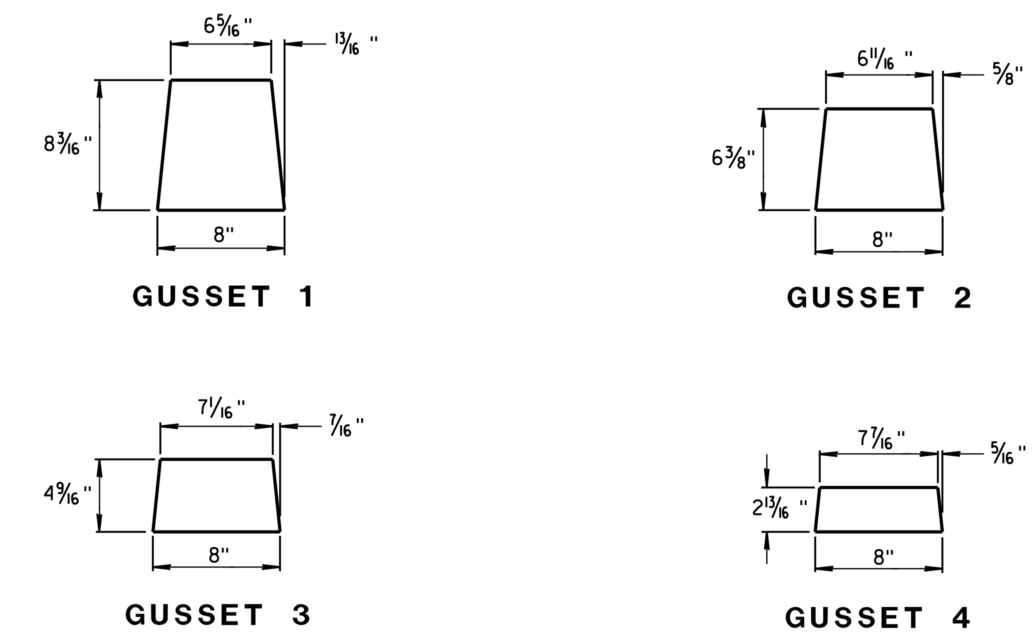
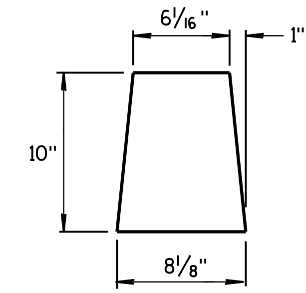
S.D.D. 14 B 7-15f

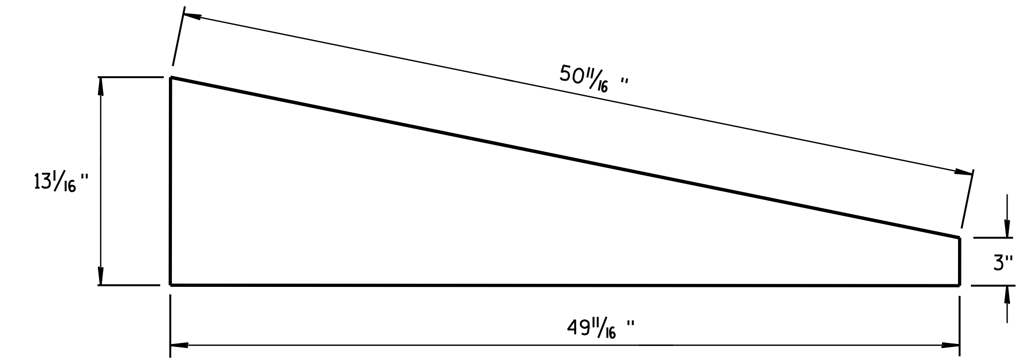
S.D.D. 14 B 7-15f



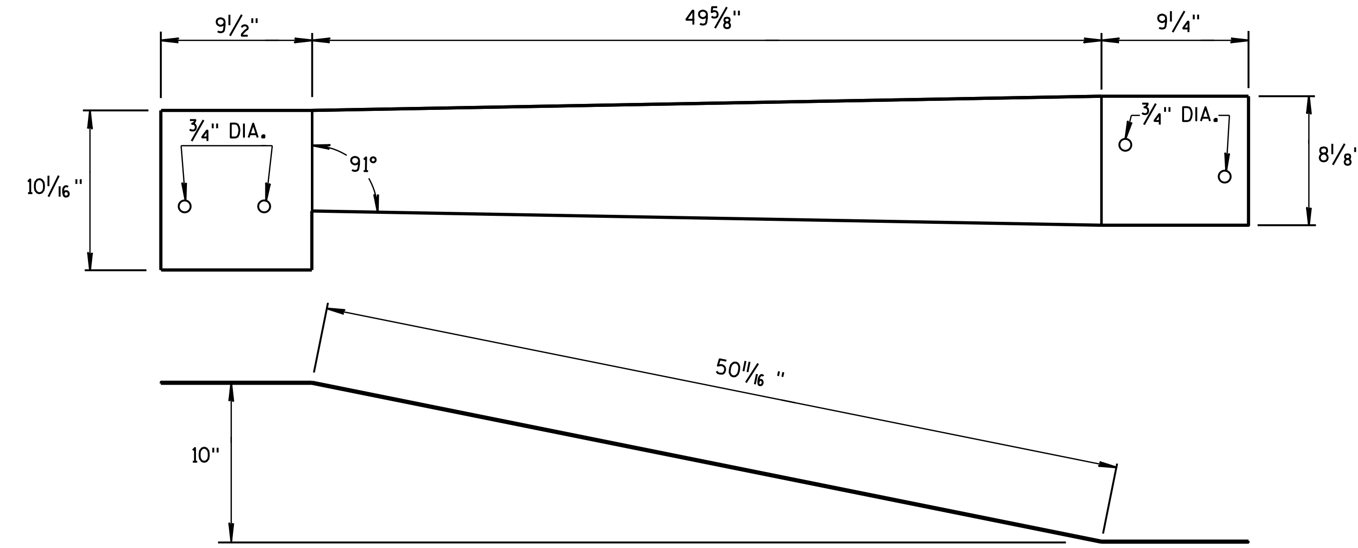
GUSSETS



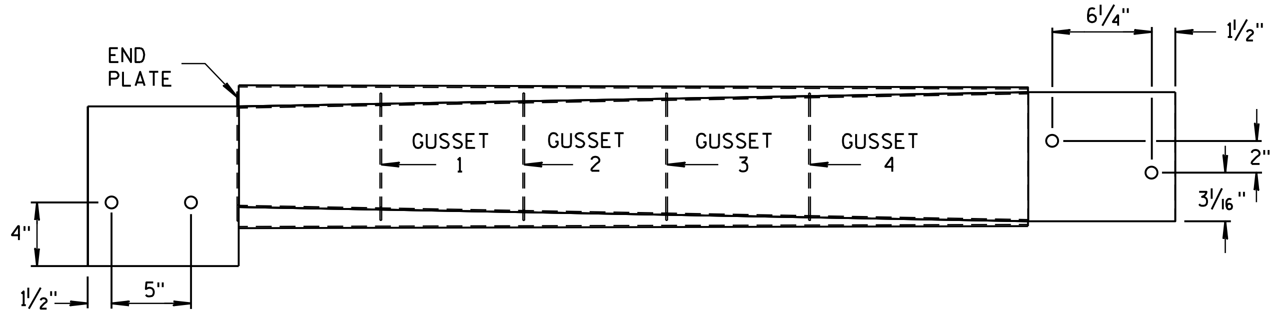
END PLATE

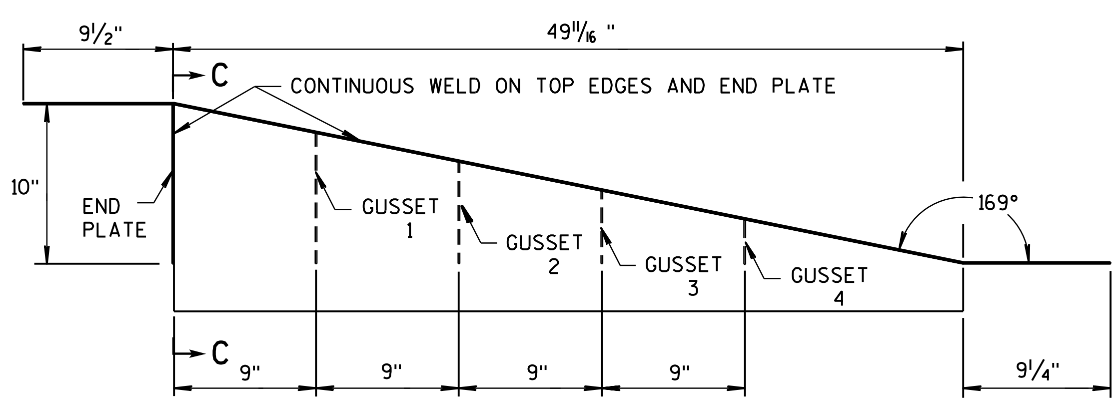


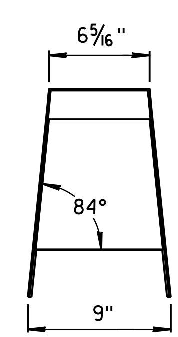
SIDE PLATE



TOP PLATE







SECTION C-C

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

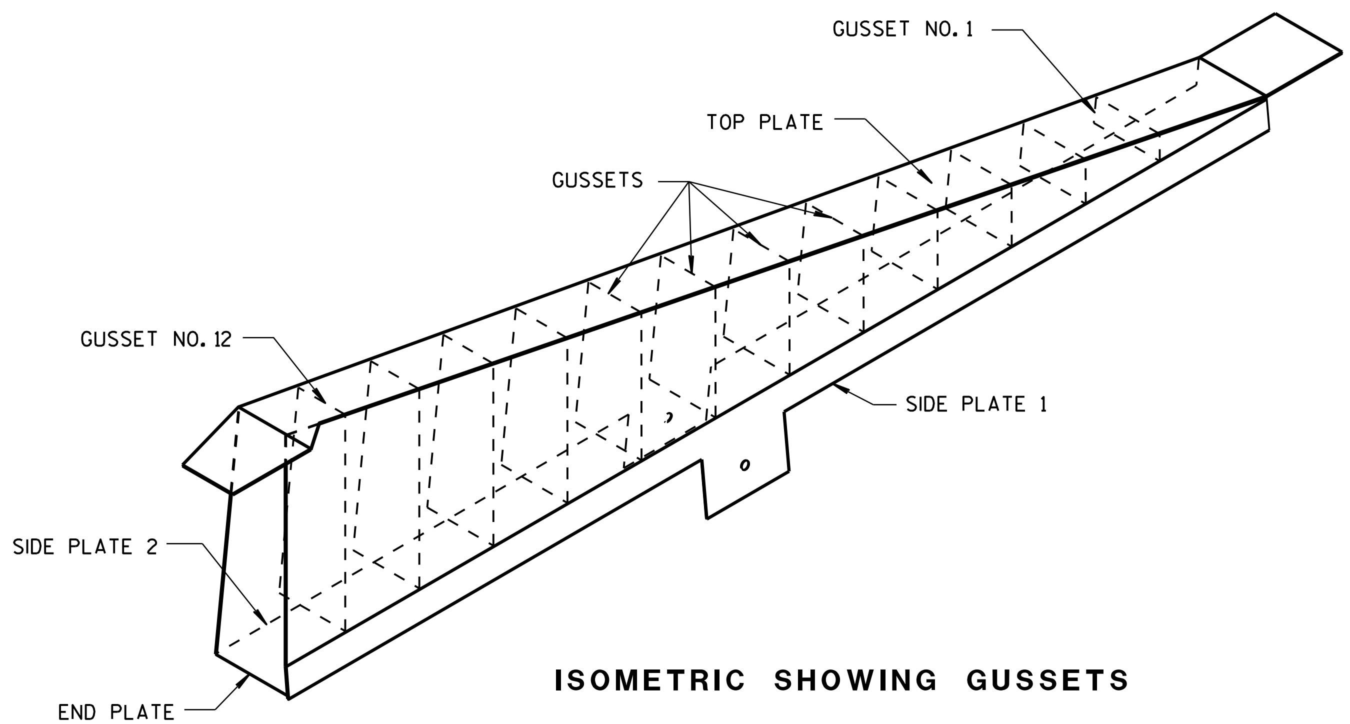
6

6

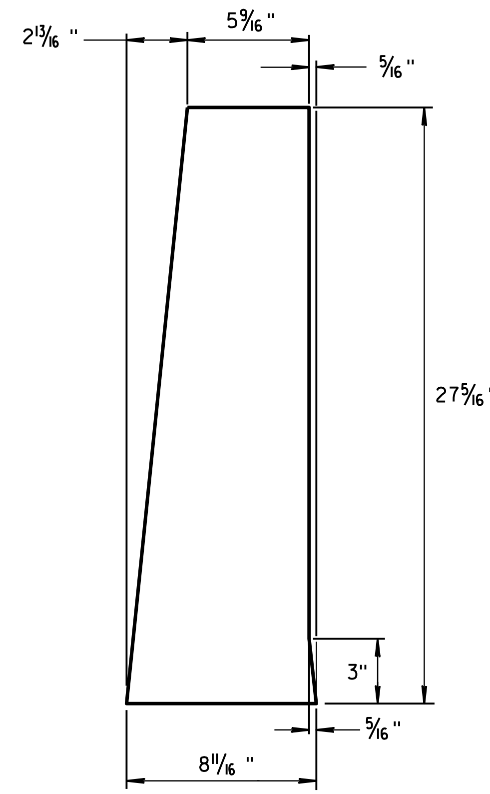
S.D.D. 14 B 7-15g

S.D.D. 14 B 7-15g

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPO[illegible]	

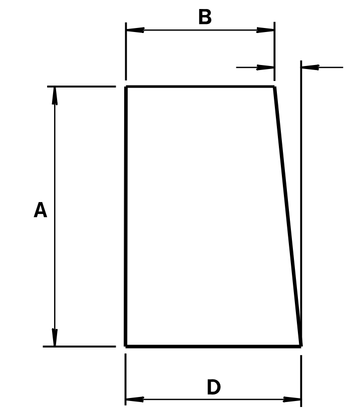


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



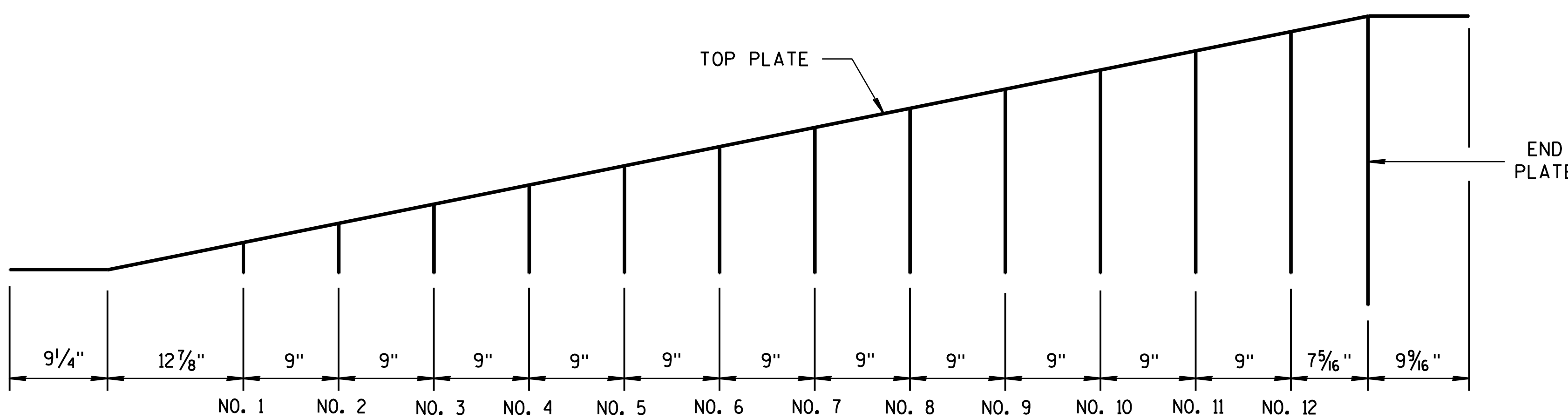
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16"	7 9/16"	1/2"	8
3	6 1/2"	7 3/8"	11/16"	8 1/16"
4	8 5/16"	7 3/16"	7/8"	8 1/16"
5	10 1/8"	7"	1 1/16"	8 1/16"
6	11 15/16"	6 13/16"	1 1/4"	8 1/16"
7	13 3/4"	6 5/8"	1 7/16"	8 1/16"
8	15 9/16"	6 7/16"	1 9/16"	8 1/16"
9	17 3/8"	6 1/4"	1 13/16"	8 1/16"
10	19 3/16"	6 1/16"	1 15/16"	8 1/16"
11	21"	5 7/8"	2 3/16"	8 1/16"
12	22 13/16"	5 11/16"	2 5/16"	8 1/16"

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

6

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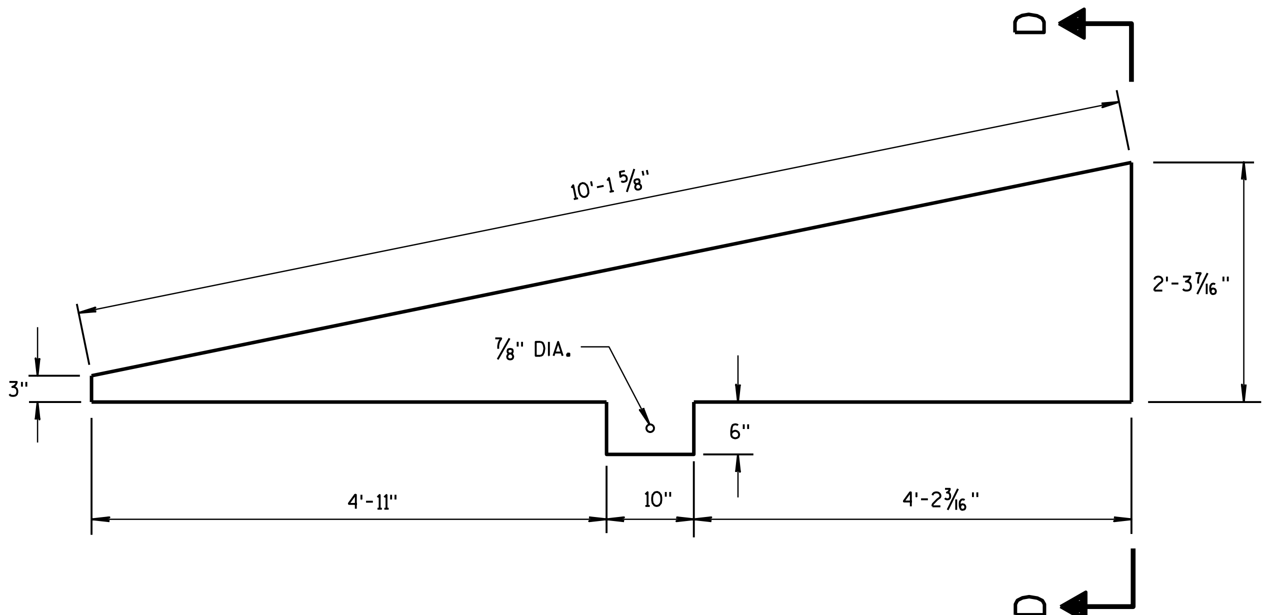
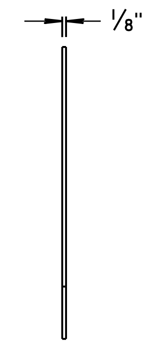
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

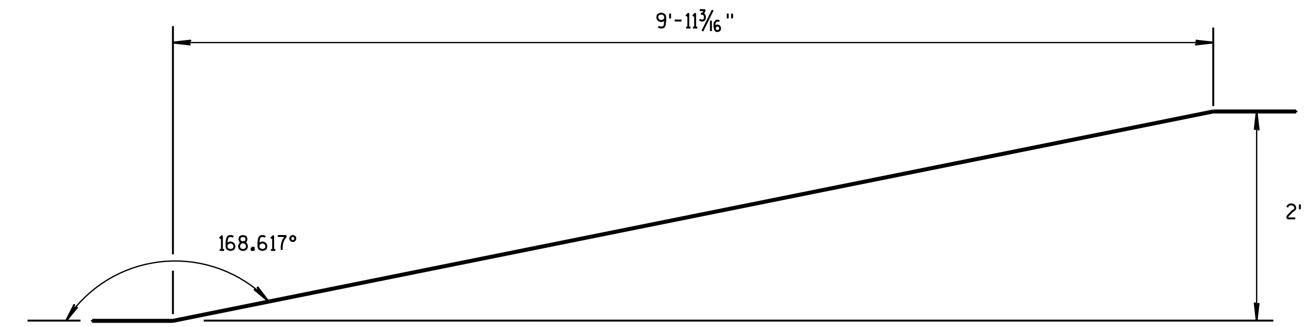
S.D.D. 14 B 7-15h





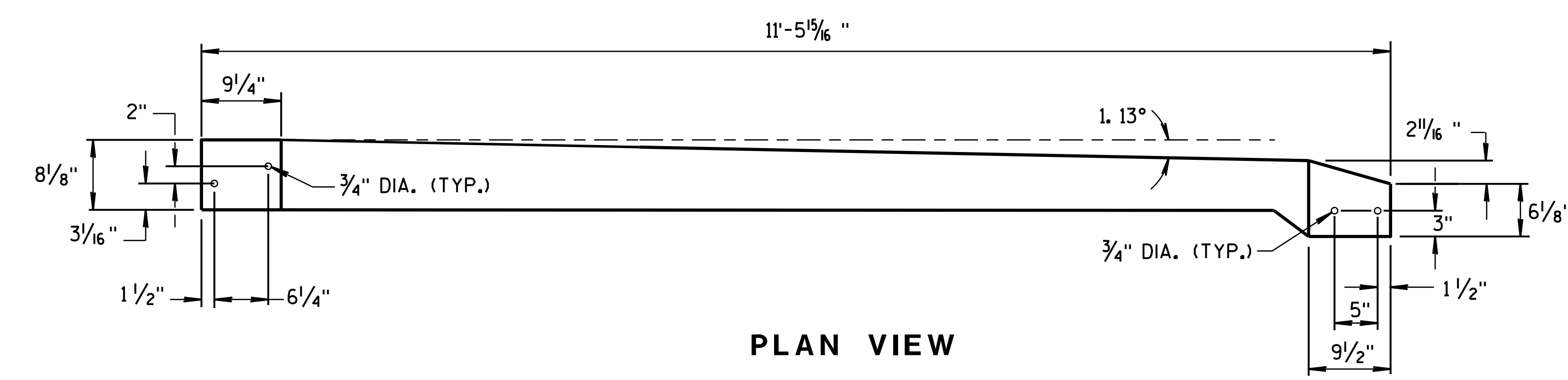
END VIEW

SIDE PLATE 2



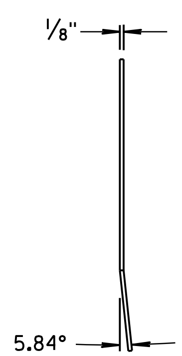
SIDE VIEW

TOP PLATE

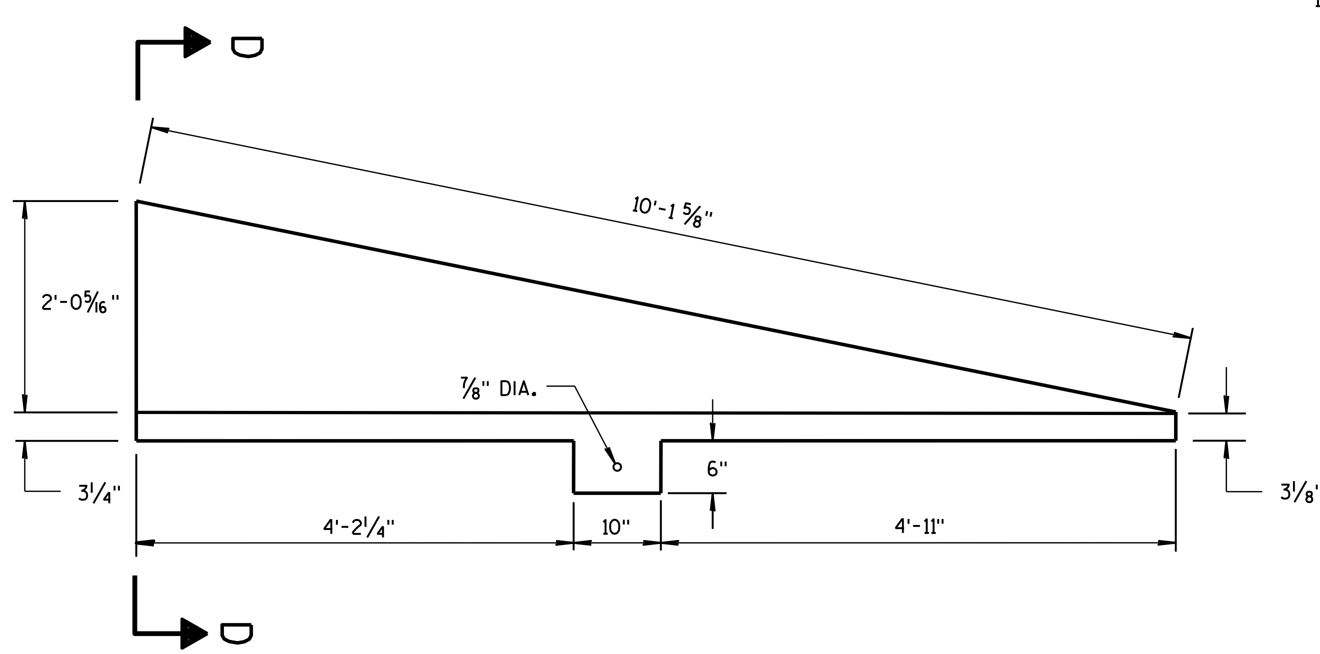


PLAN VIEW

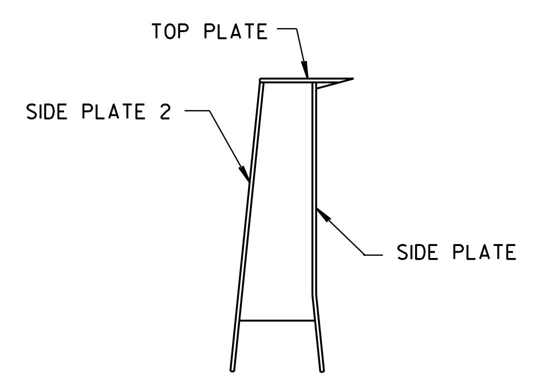
TOP PLATE



END VIEW



SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER

6

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CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

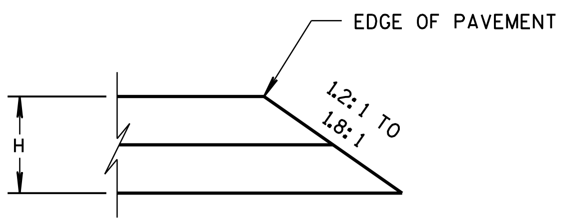
APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARD UNIT SUPERV

ENT

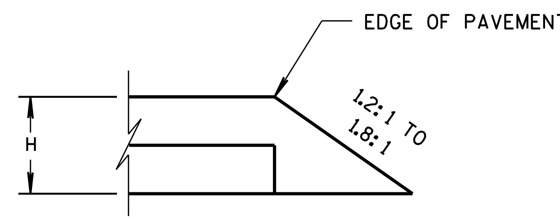
S.D.D. 14 B 7-15i

S.D.D. 14 B 7-15i



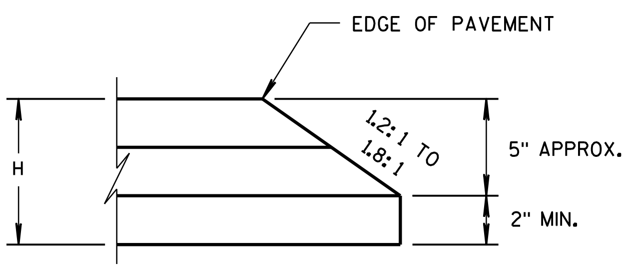
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



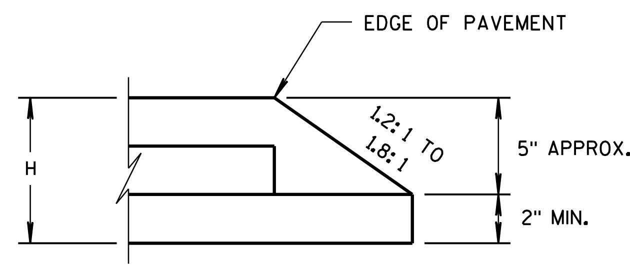
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

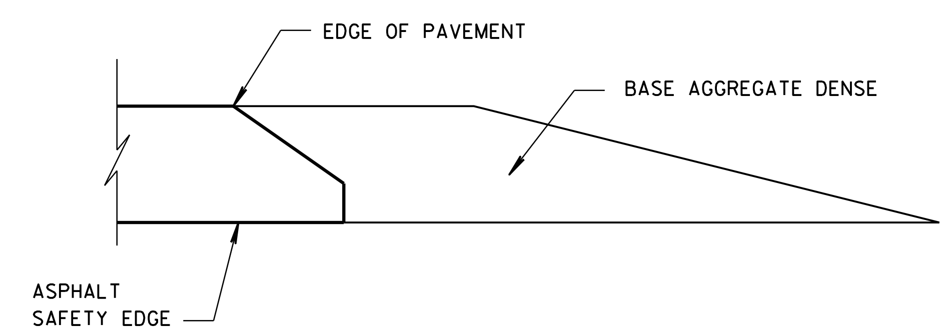
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS
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.

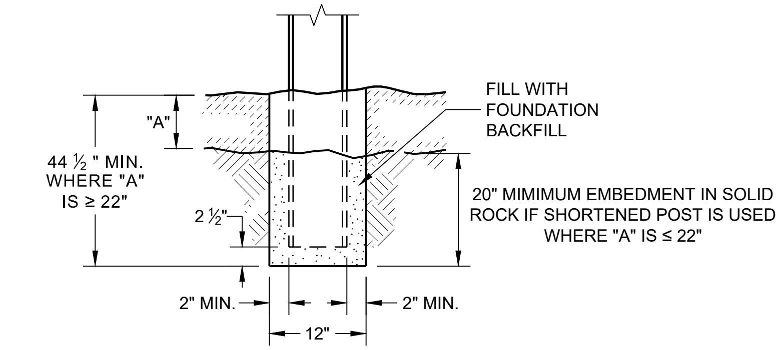
③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS 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).

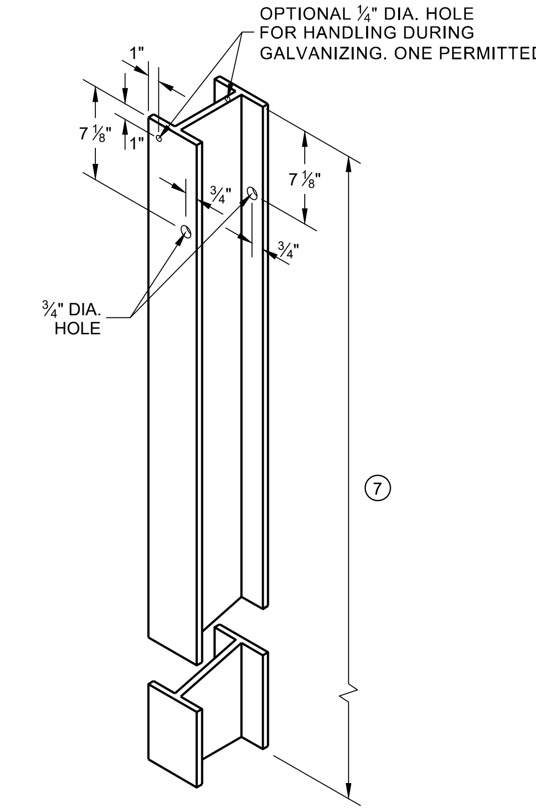
⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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.

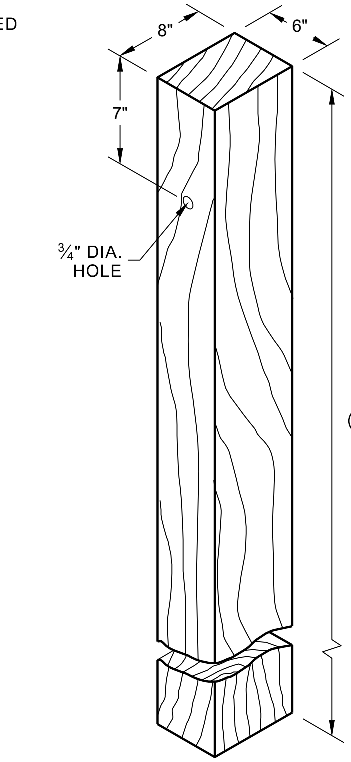
⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



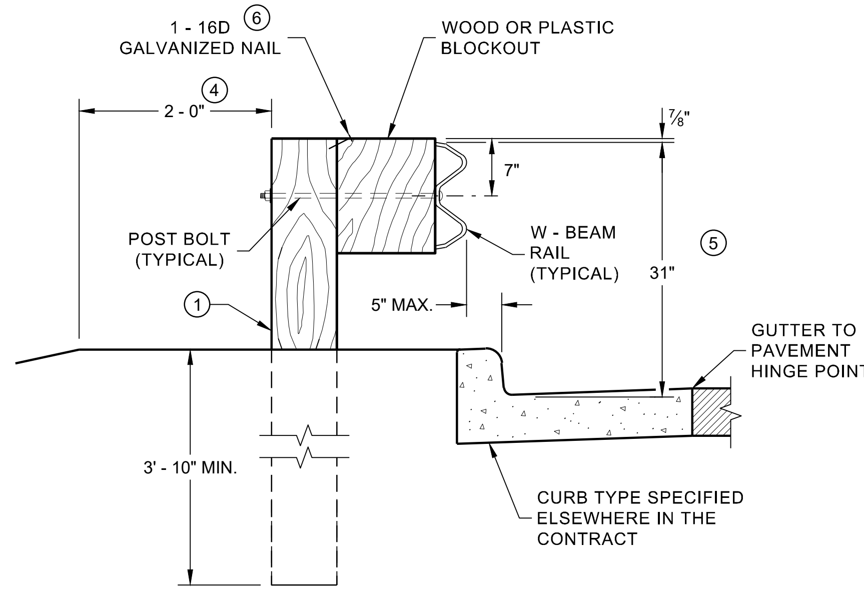
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



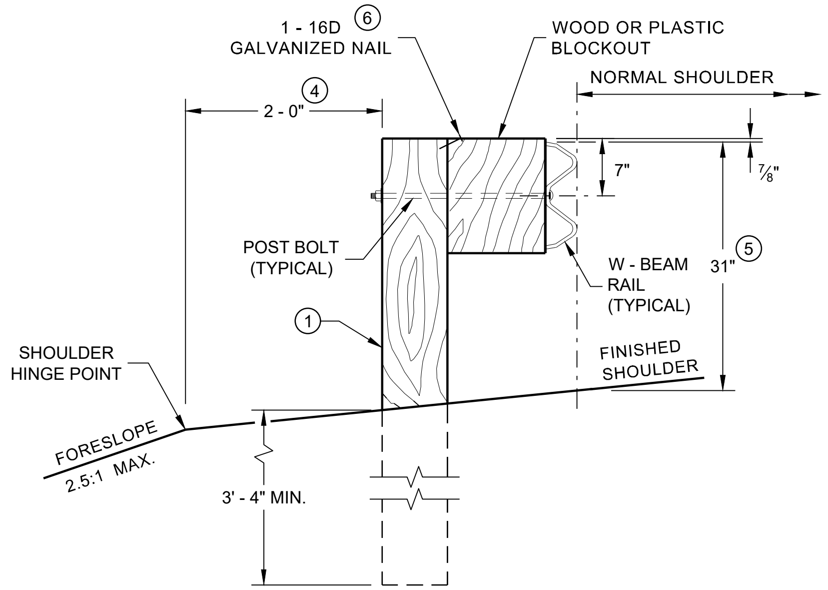
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) ①



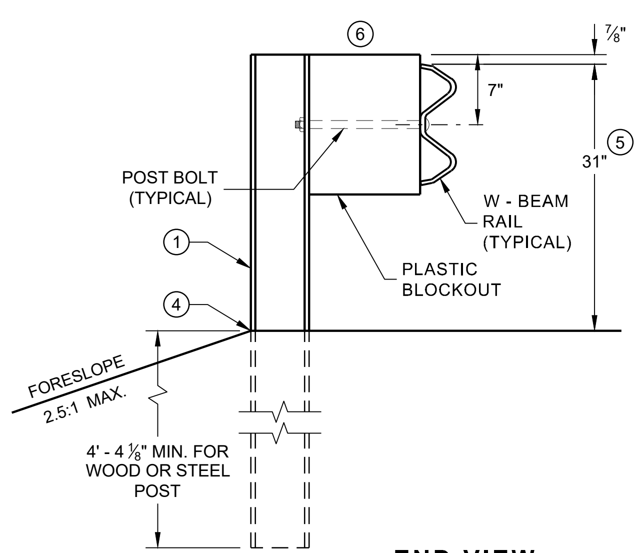
WOOD POST (6" X 8") NOMINAL ①



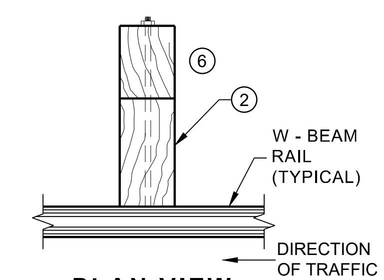
END VIEW
LOCATED ALONG A CURBED ROADWAY



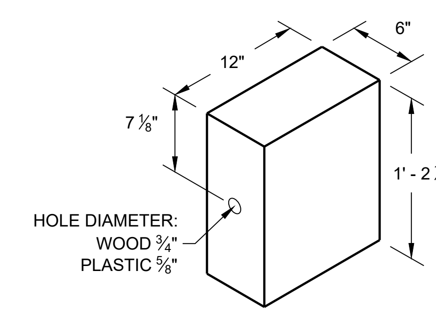
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



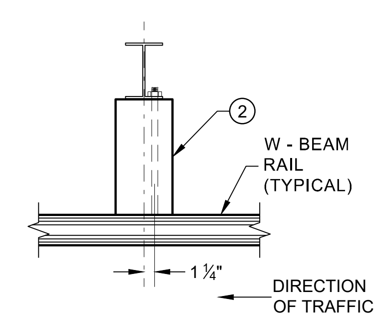
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

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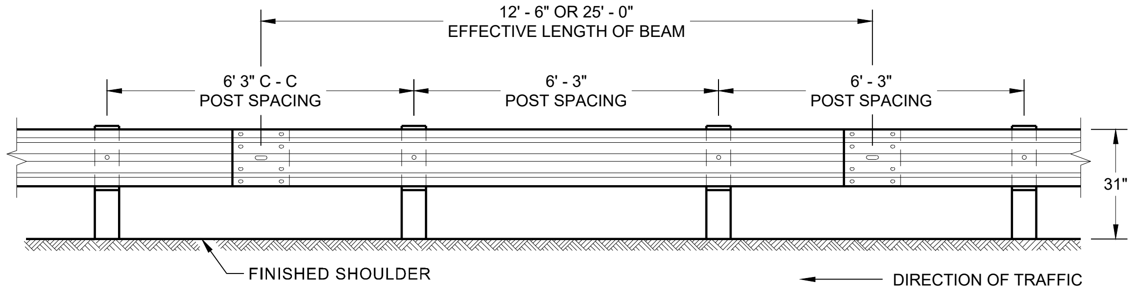
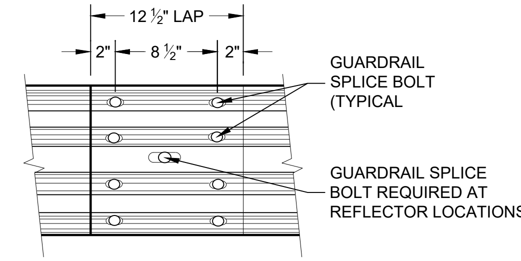
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

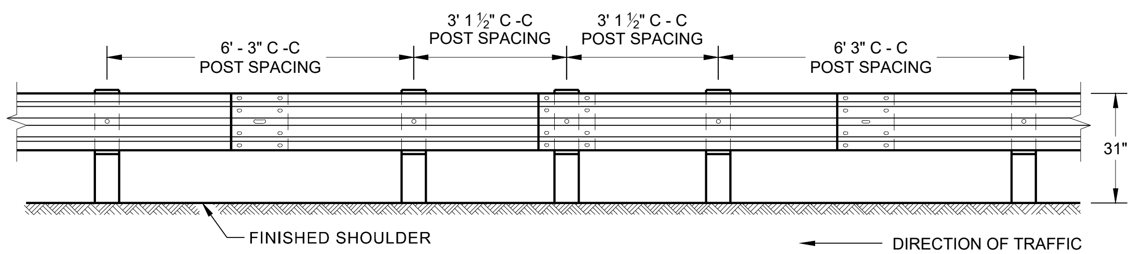
GENERAL NOTES

(8) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

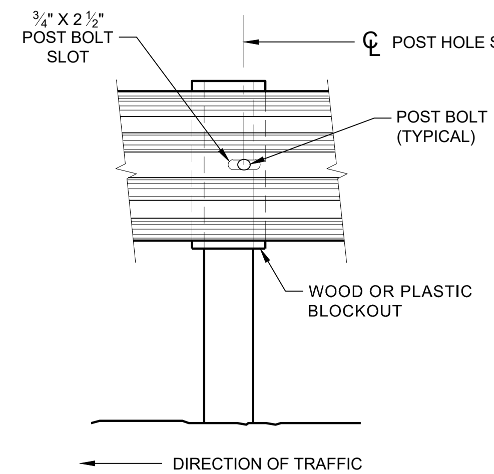
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

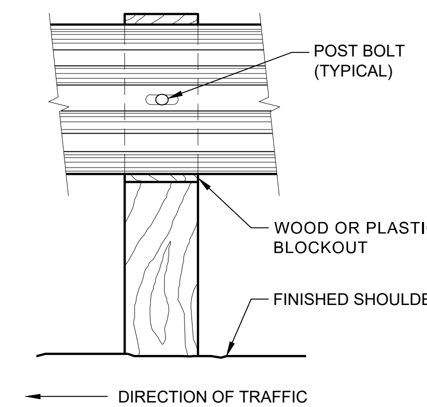
GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



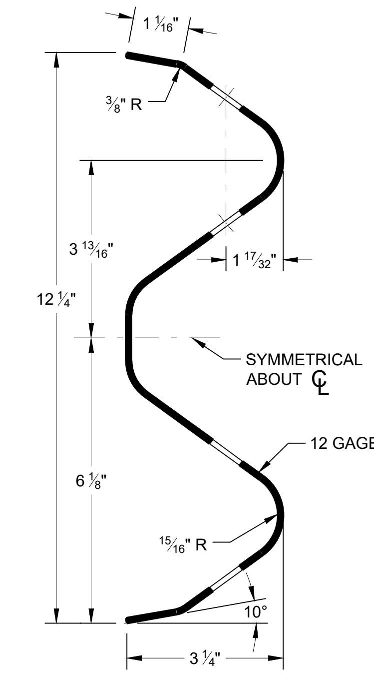
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



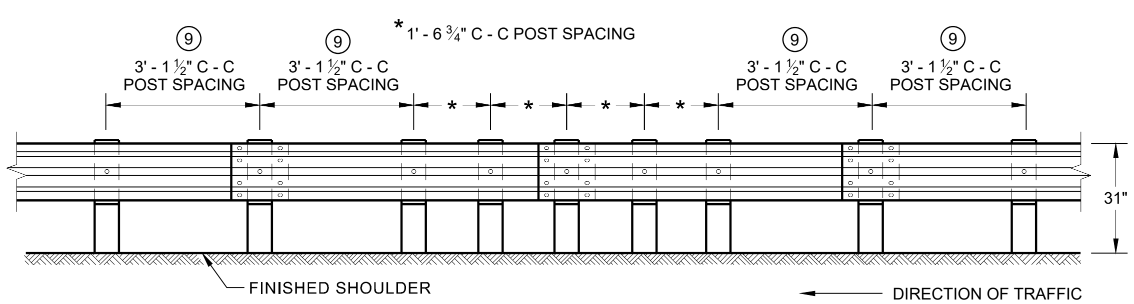
FRONT VIEW AT STEEL POST



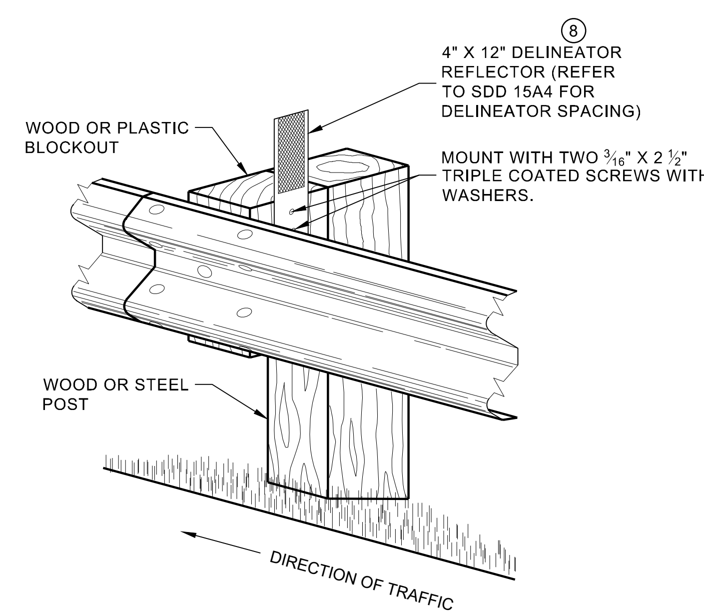
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



FRONT VIEW
QUARTER POST SPACING (QS)



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT 112

SDD 14B42 - 07b

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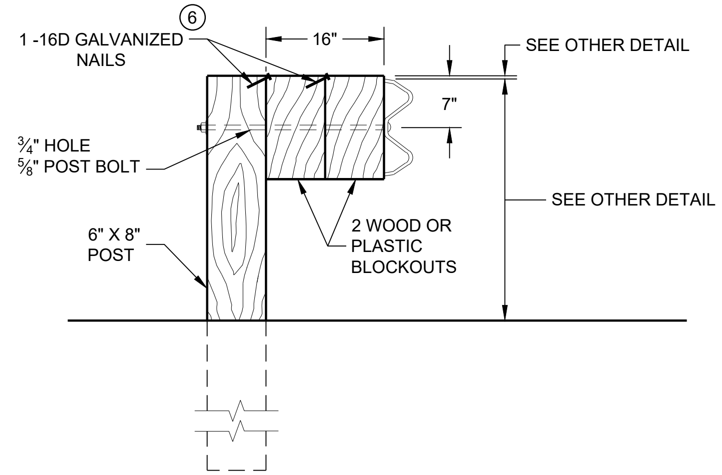
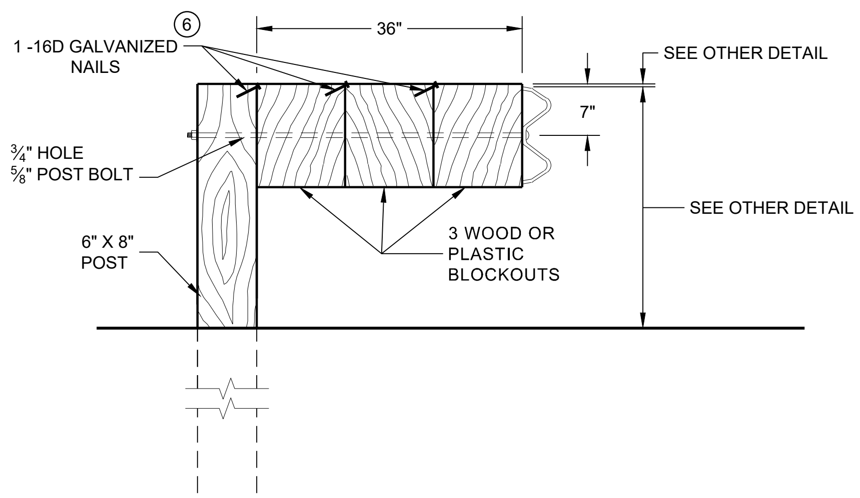


DETAIL FOR 16" BLOCKOUT DEPTH

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.



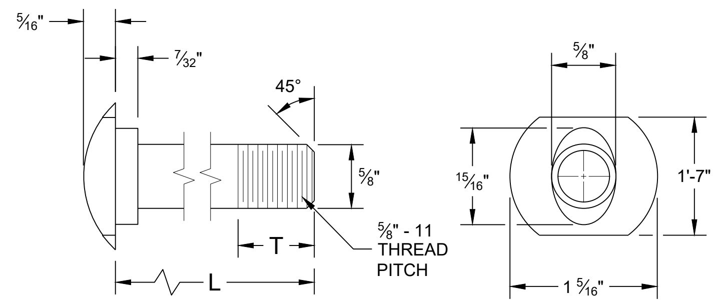
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

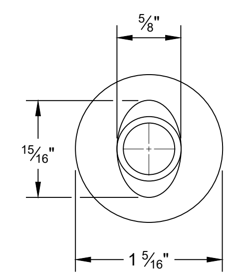
NOTE:

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.

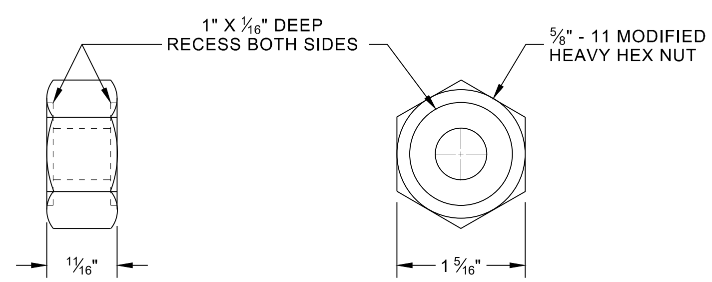


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

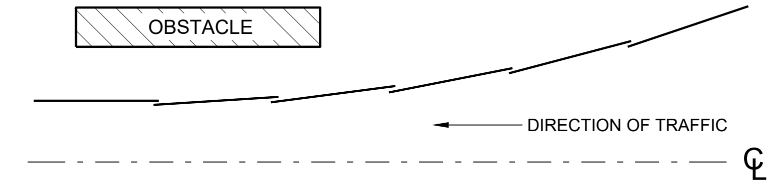


ALTERNATE BOLT HEAD

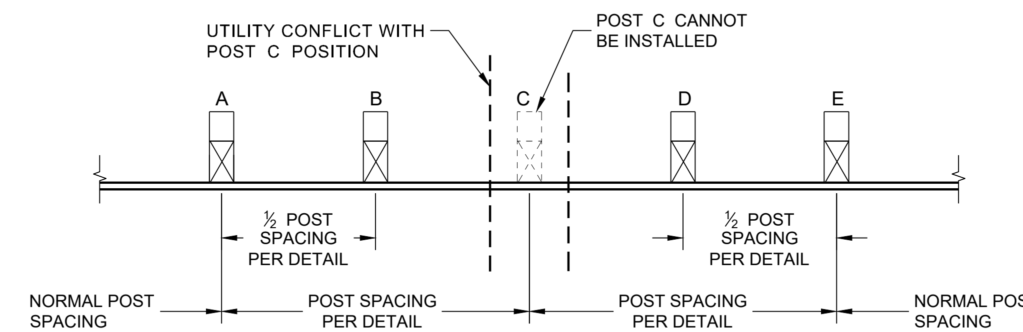


POST BOLT, SPLICE BOLT AND RECESS NUT

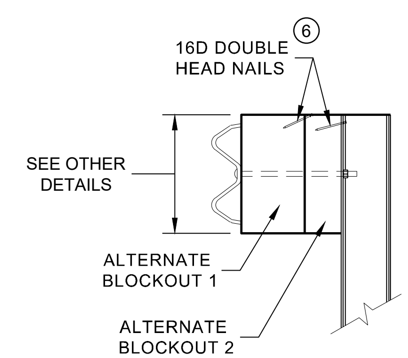
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



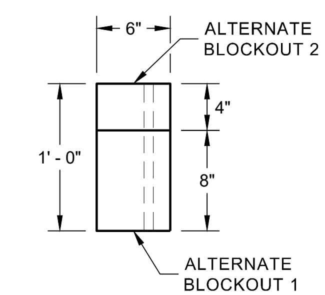
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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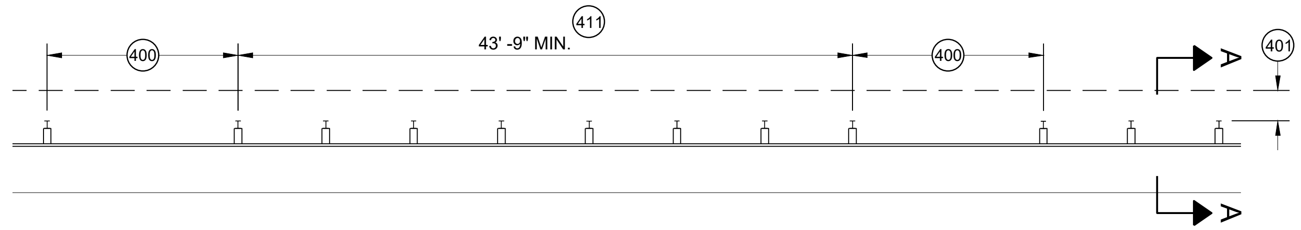
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

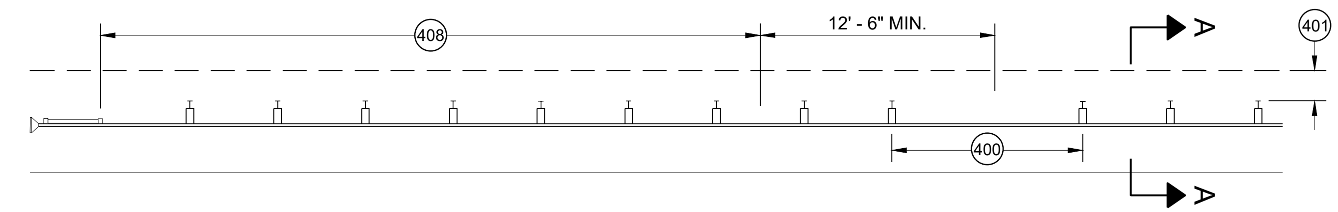
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07c

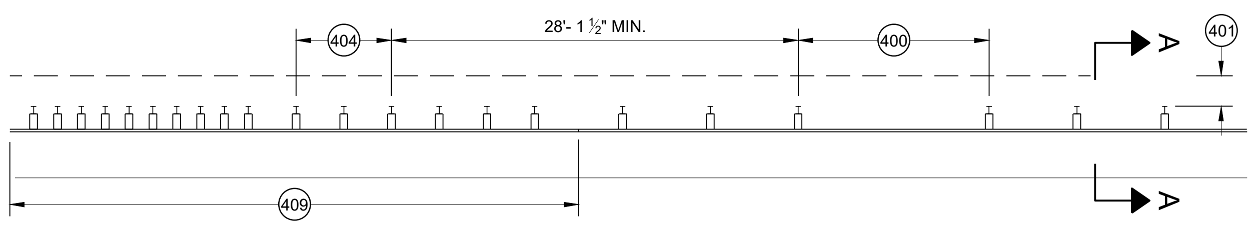
SDD 14B42 - 07c



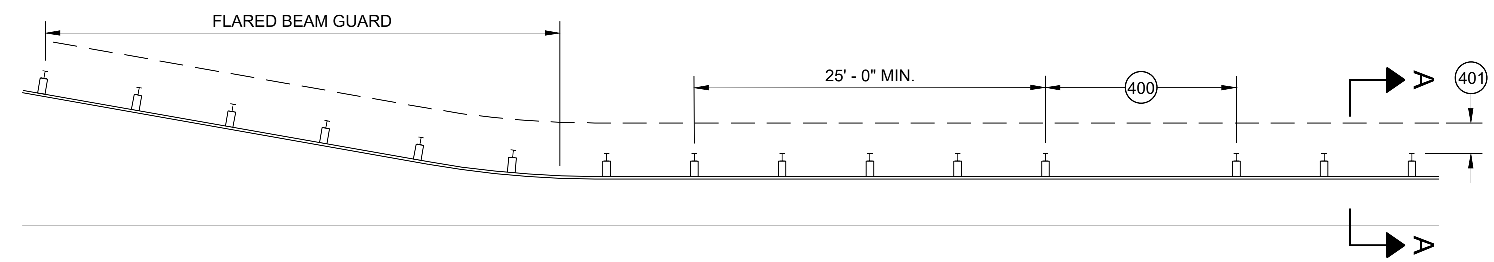
MISSING POST IN MGS GUARDRAIL



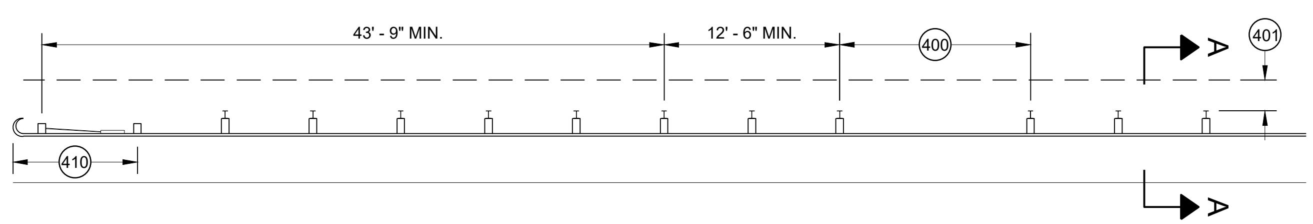
MISSING POST IN MGS GUARDRAIL NEAR EAT



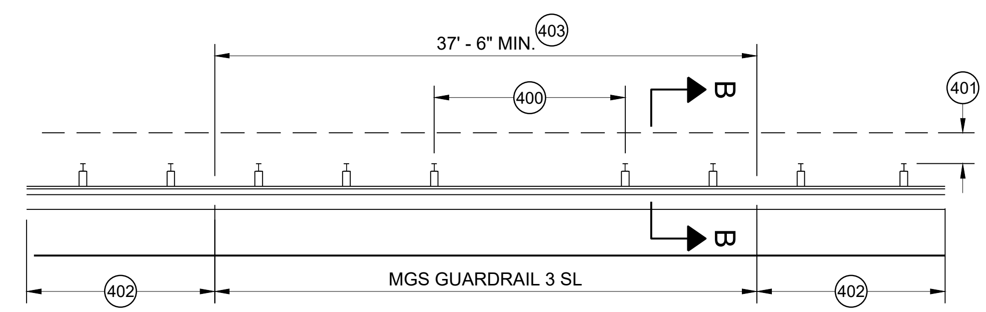
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

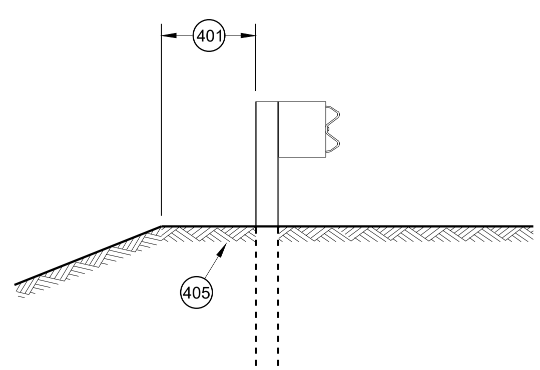


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

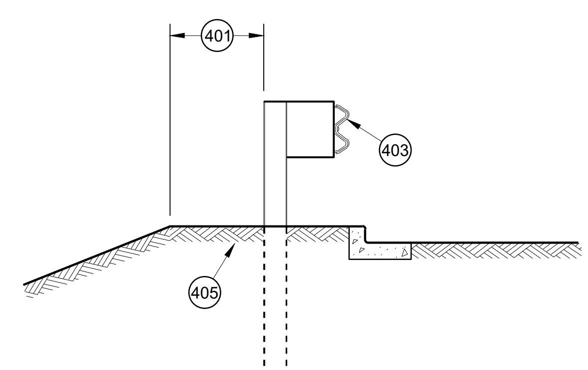


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

- 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 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

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.

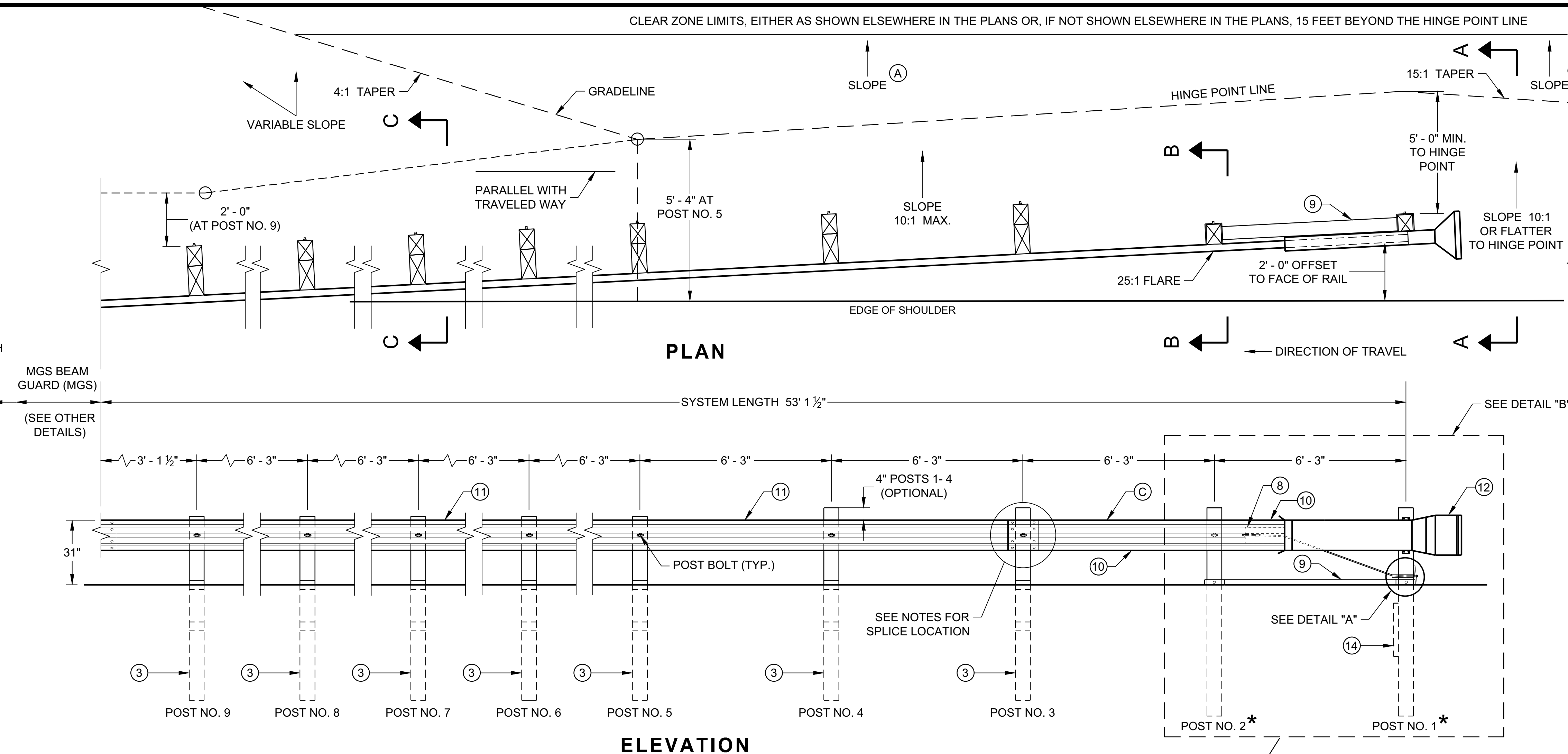
SEE SDD 14B42 FOR MORE INFORMATION.

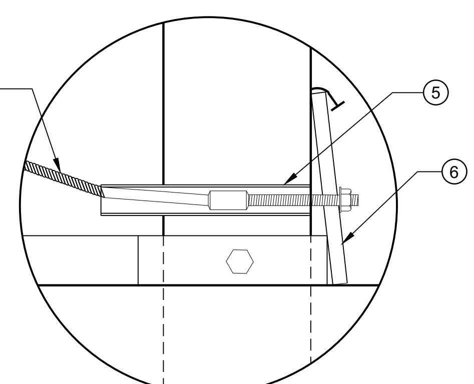
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

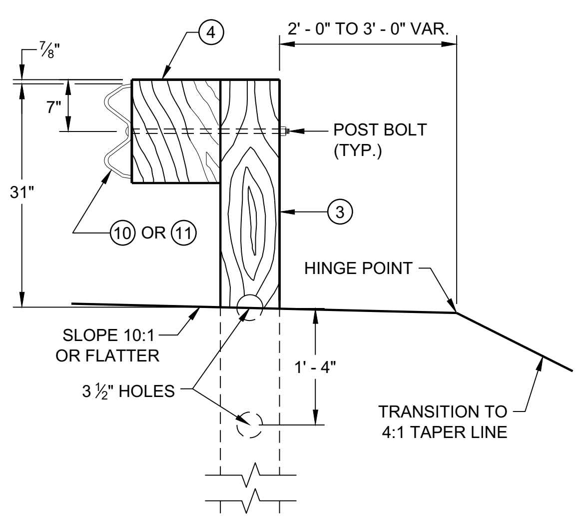
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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.

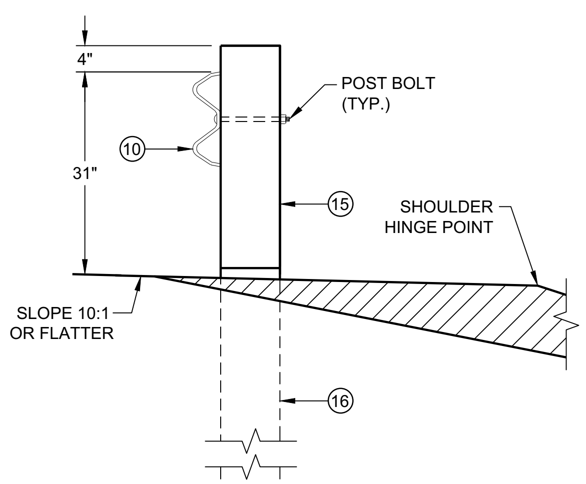




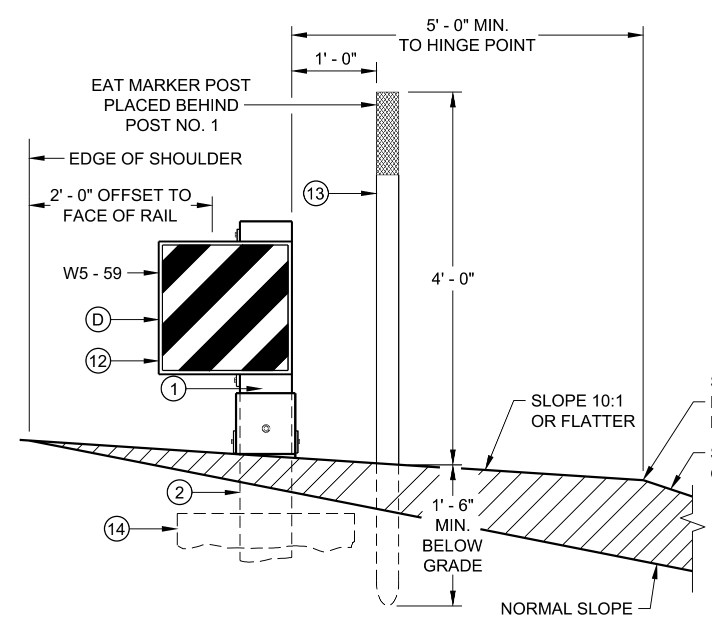
DETAIL "A" (E)



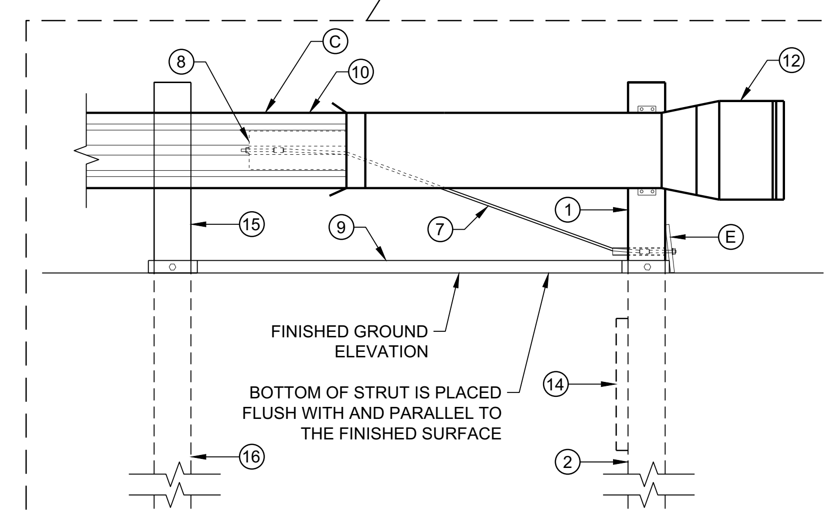
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



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 TRANSPORTATI

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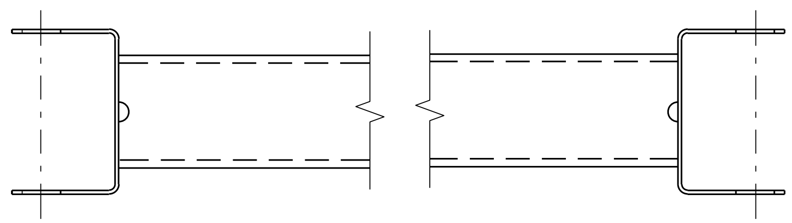
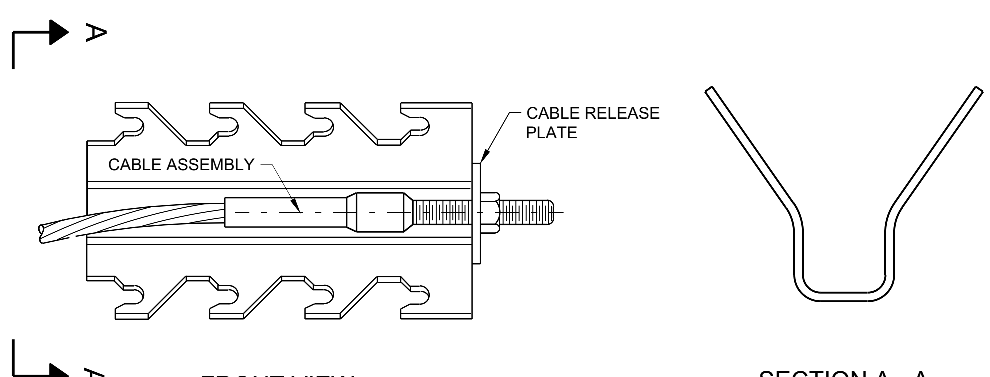
SDD 14B44 - 04a

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



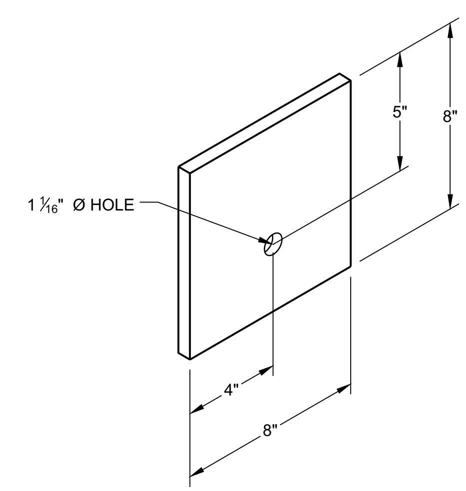
GENERIC GROUND STRUT 9 E



FRONT VIEW

SECTION A - A

GENERIC ANCHOR CABLE BOX 9 E



BEARING PLATE 6 E

6

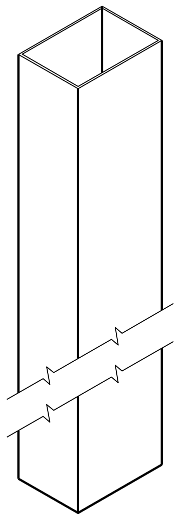
6

SDD 14B44 - 04b

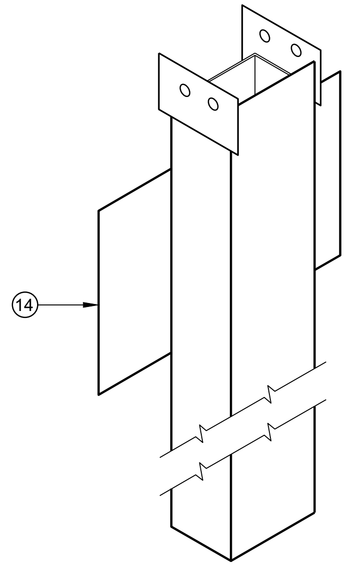
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

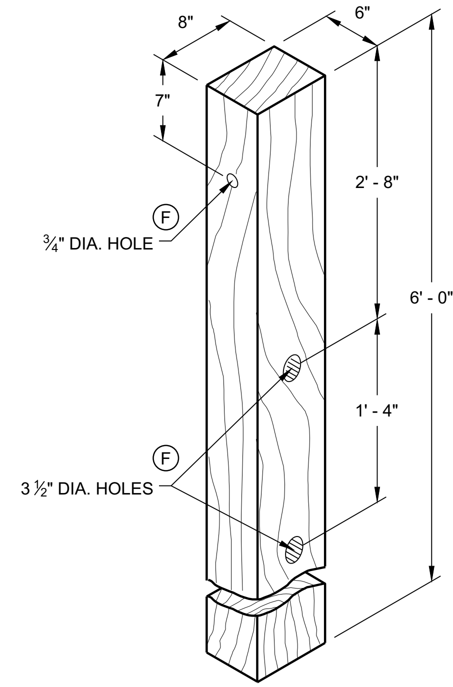
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



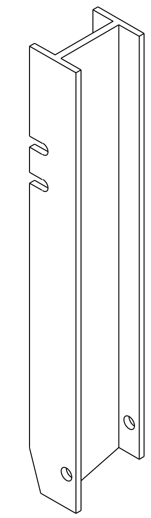
UPPER POST NO. 1 ① Ⓔ



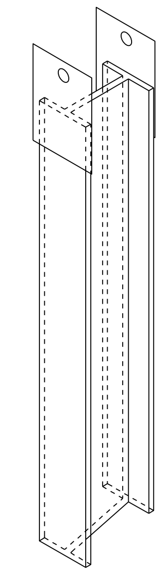
LOWER POST NO. 1 ② Ⓔ



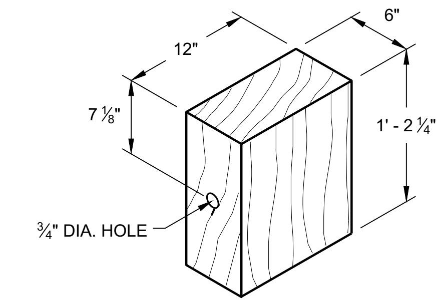
WOOD CRT POST ③ Ⓔ
POSTS NUMBER 3-9



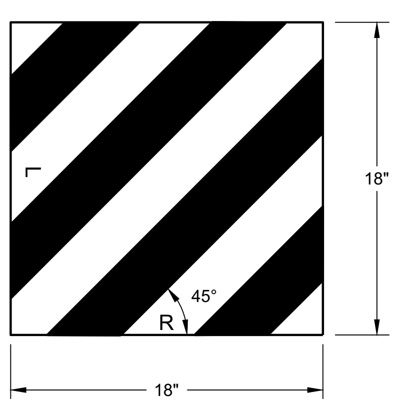
UPPER POST NO. 2 ⑮ Ⓔ



LOWER POST NO. 2 ⑯ Ⓔ

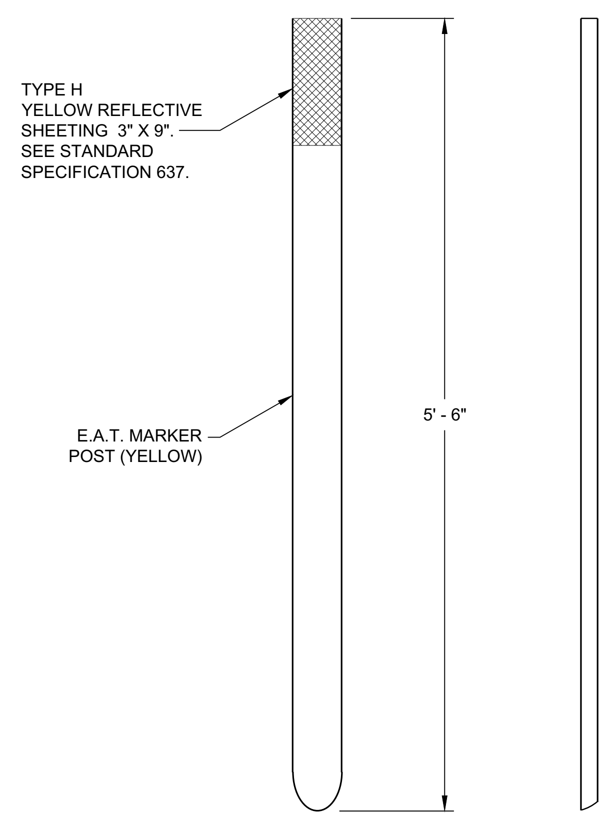


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



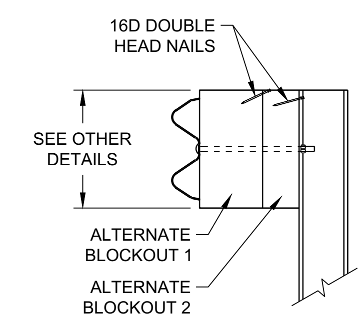
W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ

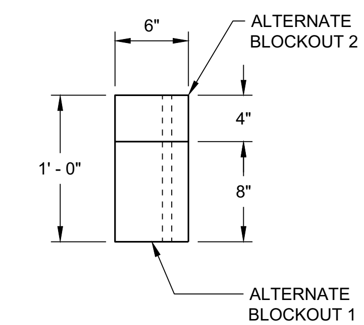


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST ⑬



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

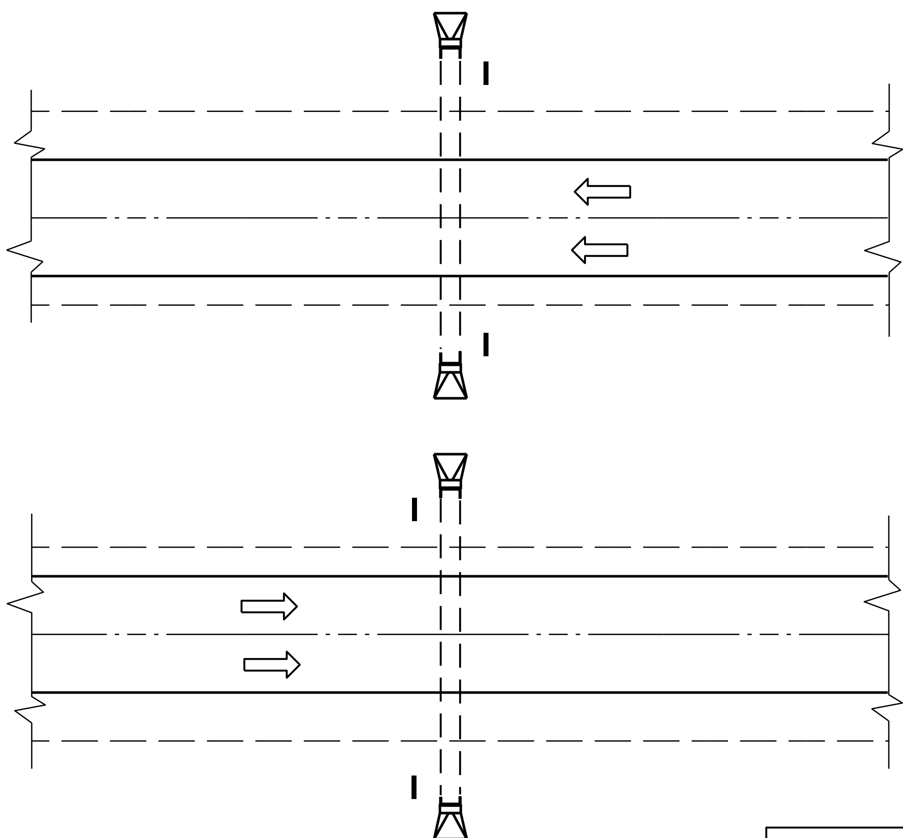
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

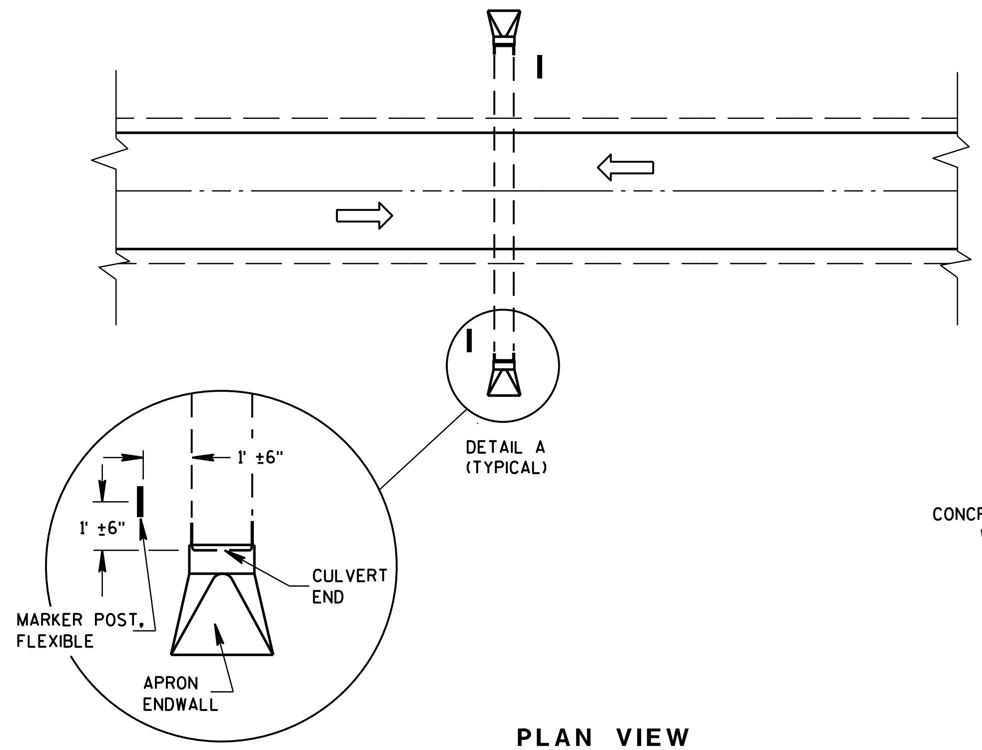
GENERAL NOTES

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

DIVIDED HIGHWAY

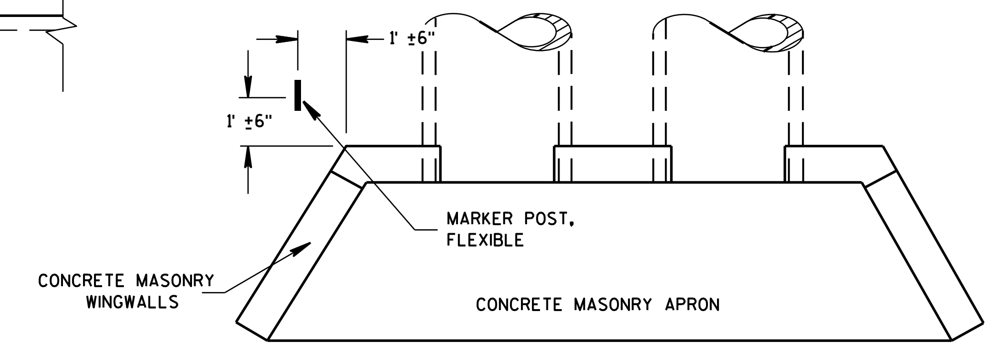


DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY

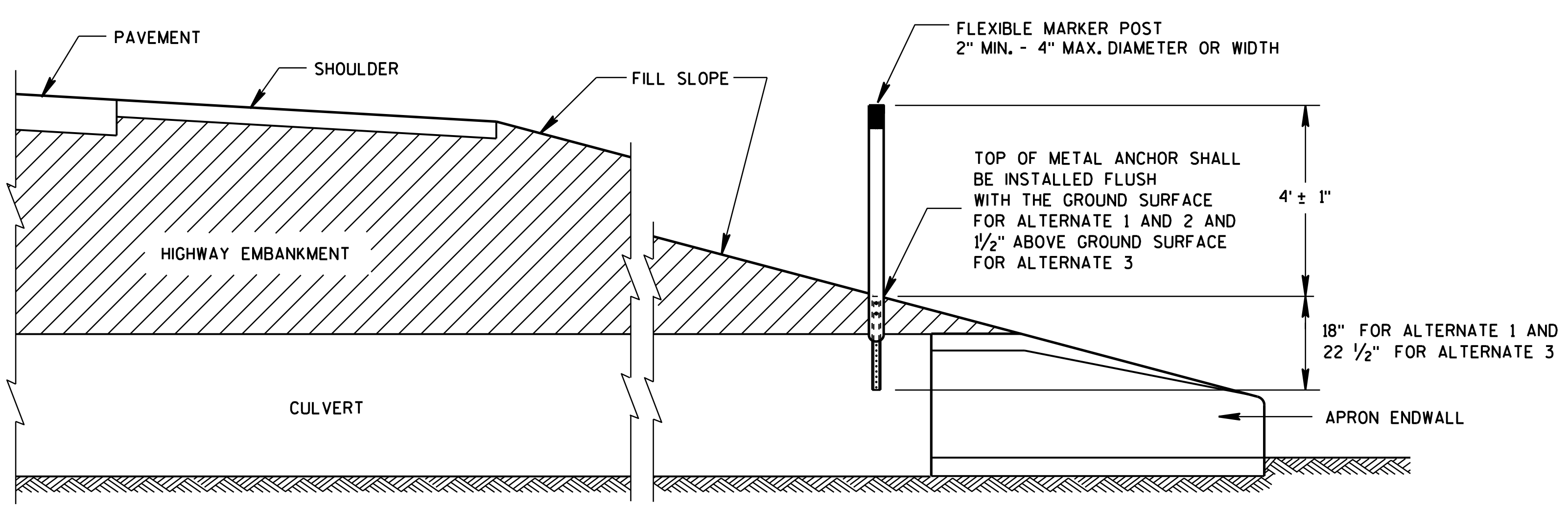
I	MARKER POST, FLEXIBLE
⇨	DIRECTION OF TRAFFIC FLOW



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

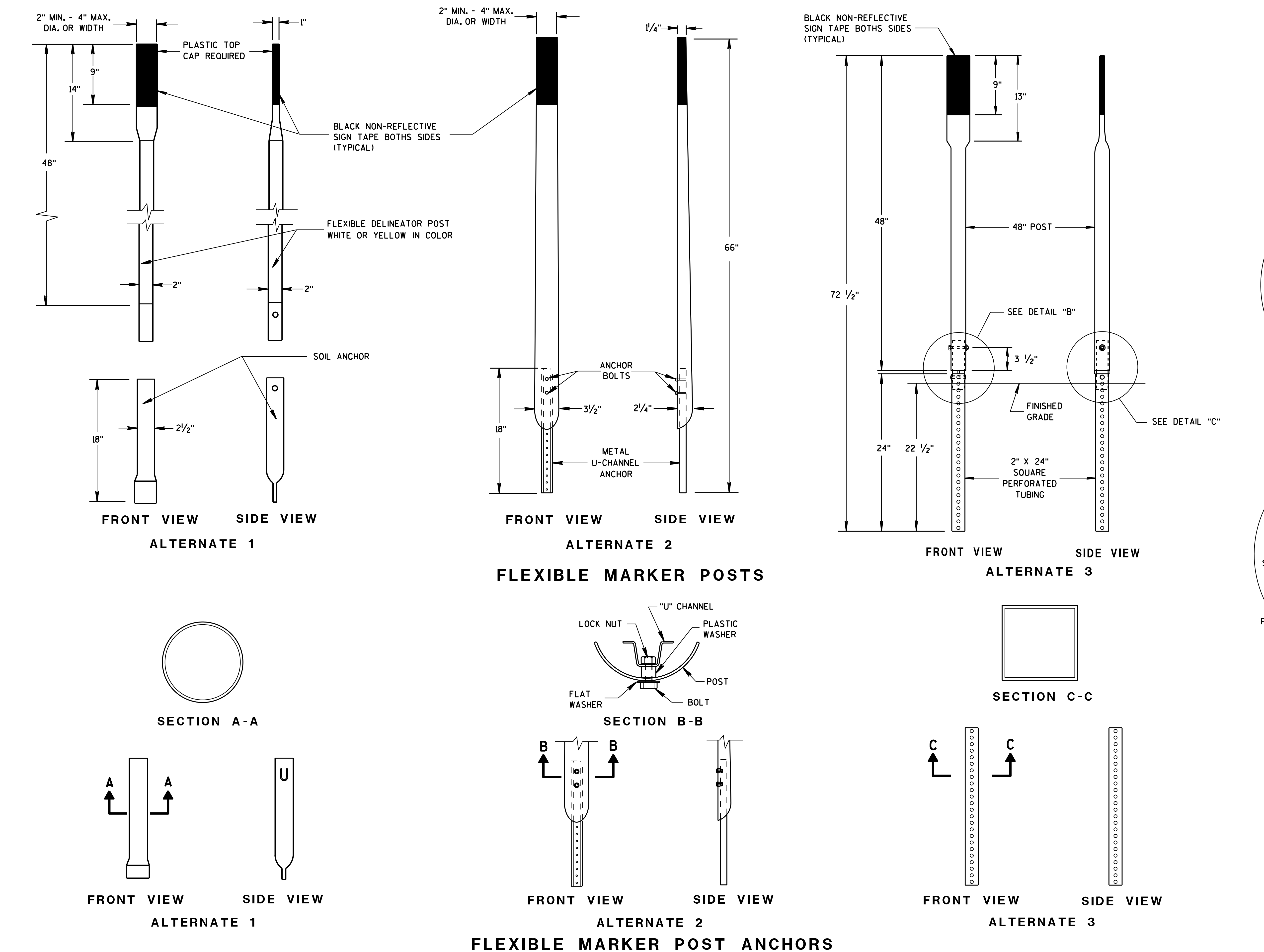
6

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

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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



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

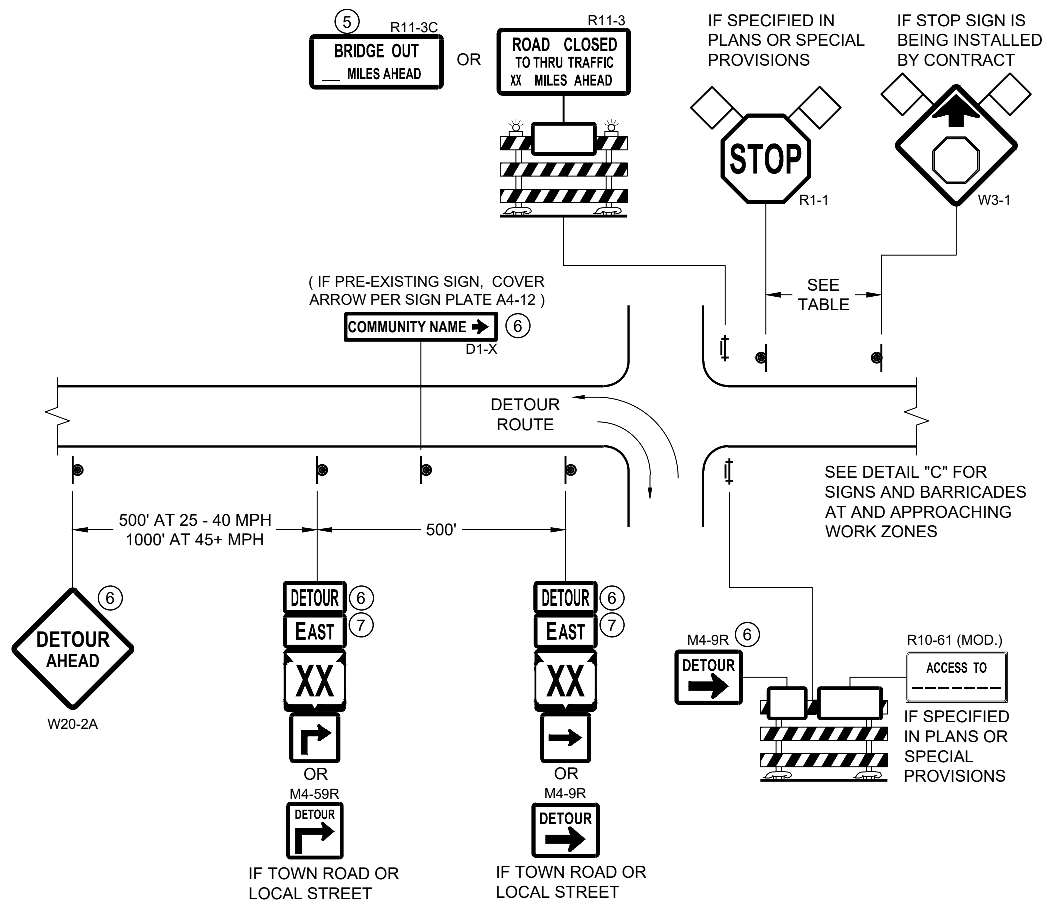
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

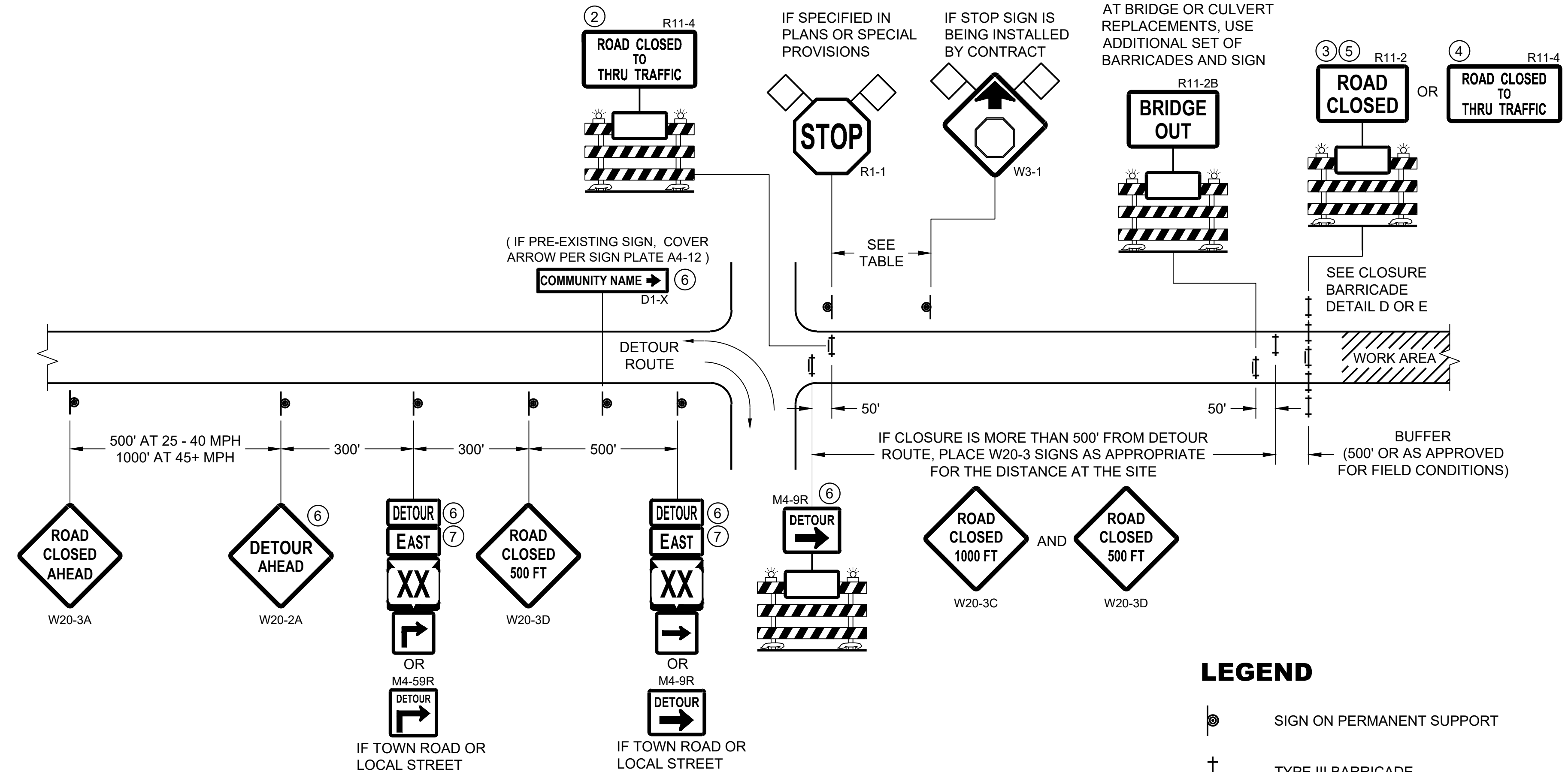
S.D.D. 15 A 3-2b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



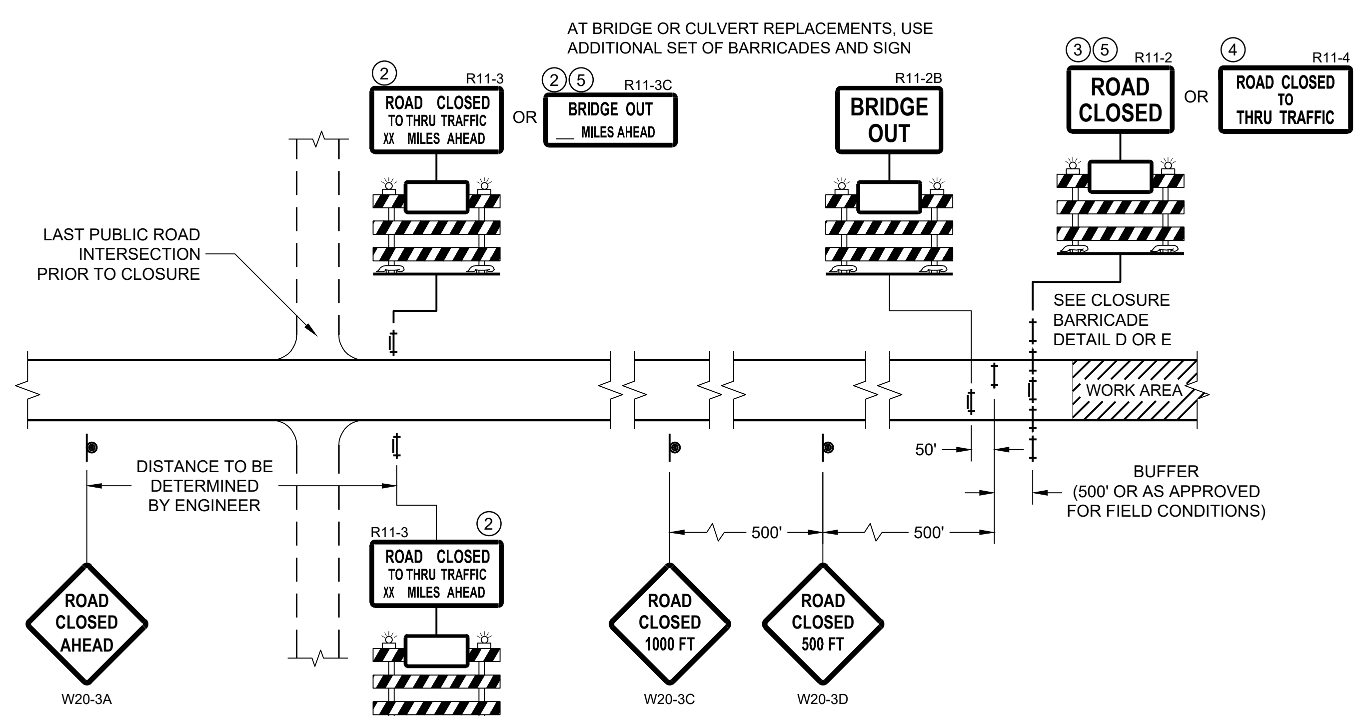
DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

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 OR XX OR COUNTY X: M1 - 4, M1 - 6, M1 - 5A
- OR: M05 - 1, M06 - 1



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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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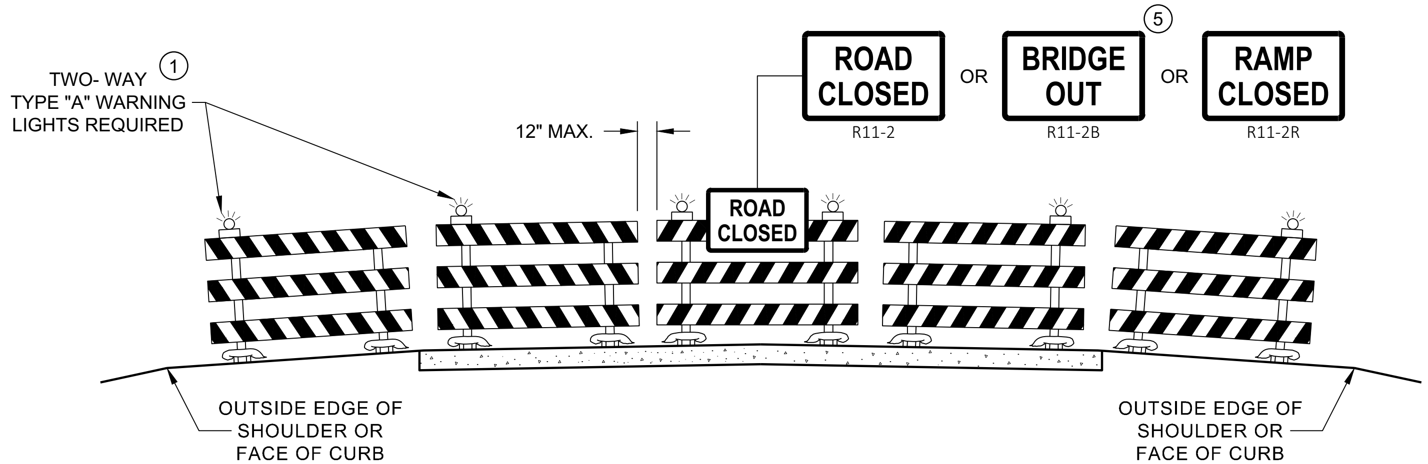
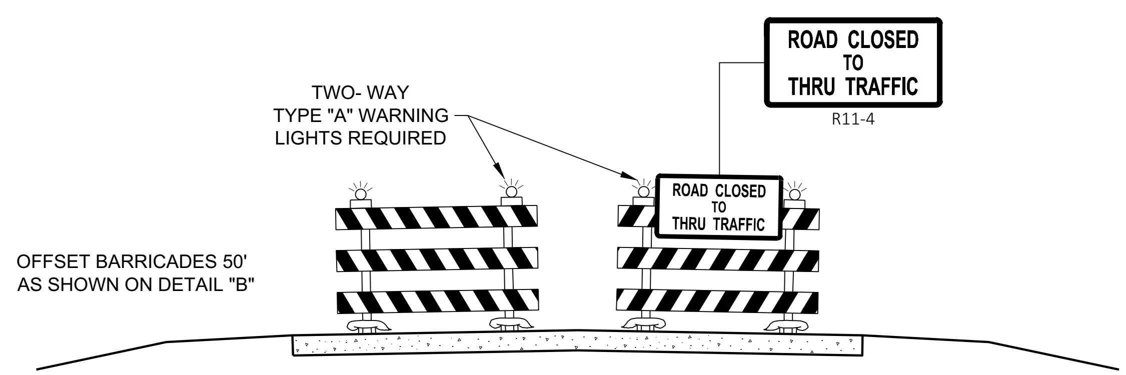
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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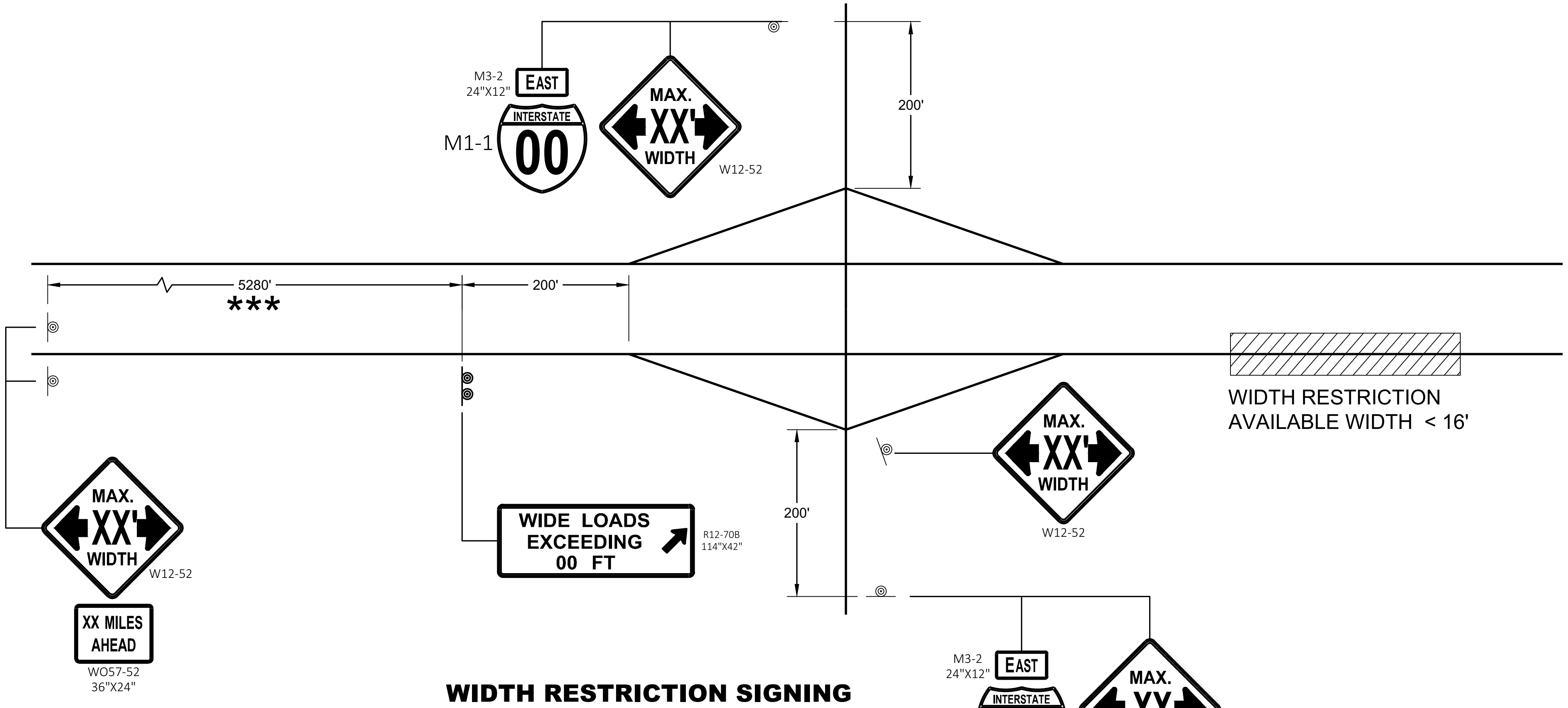
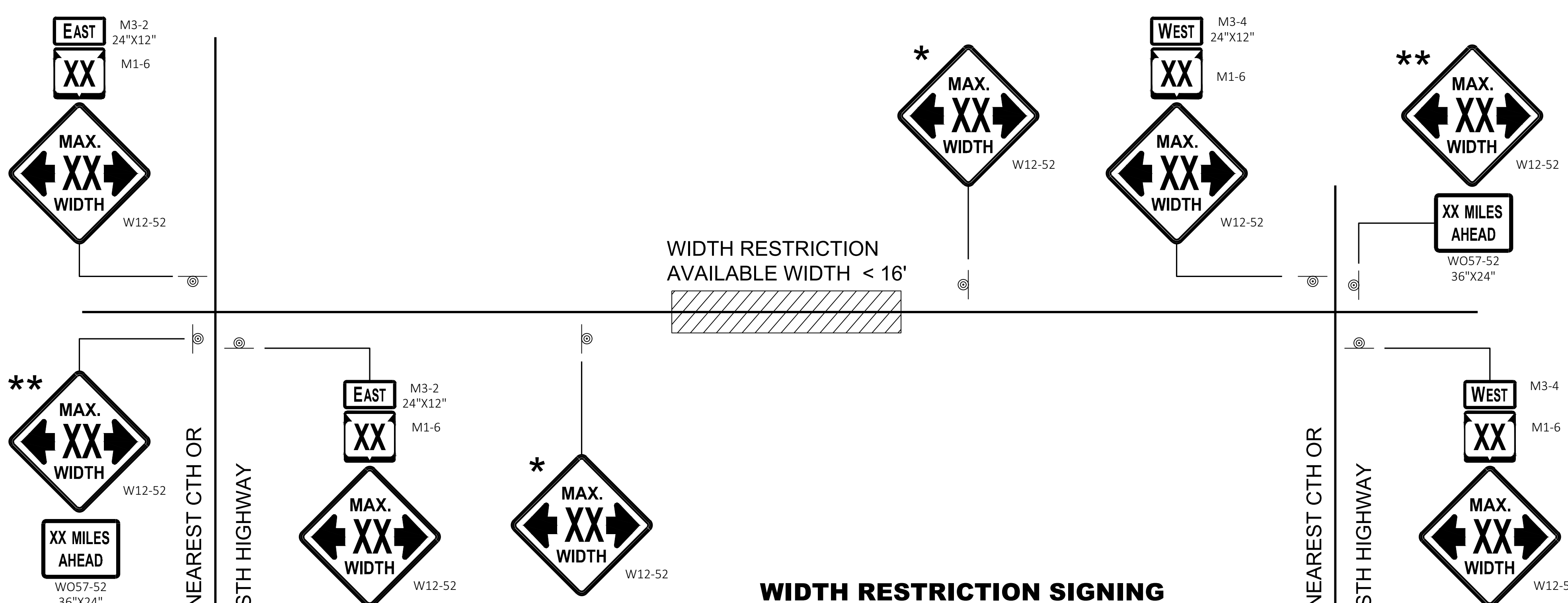
SDD 15C02 - 08b



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

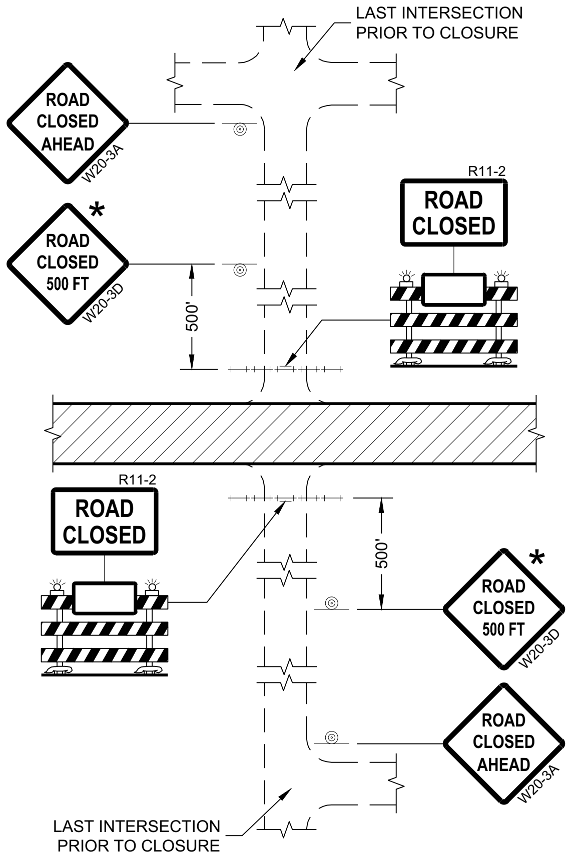
*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

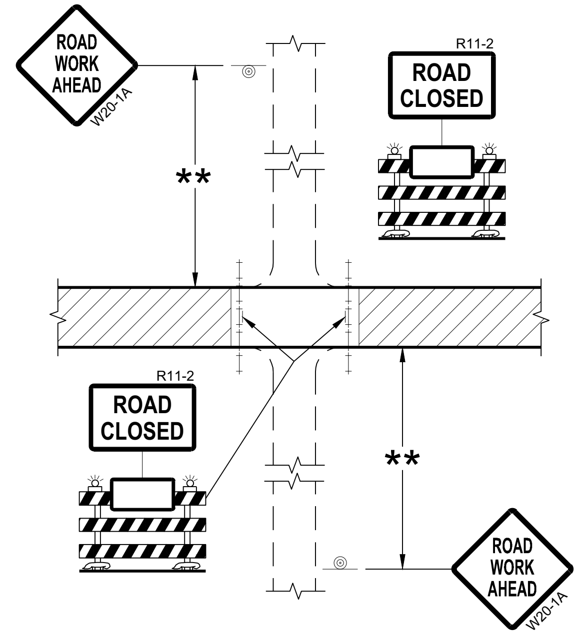
ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

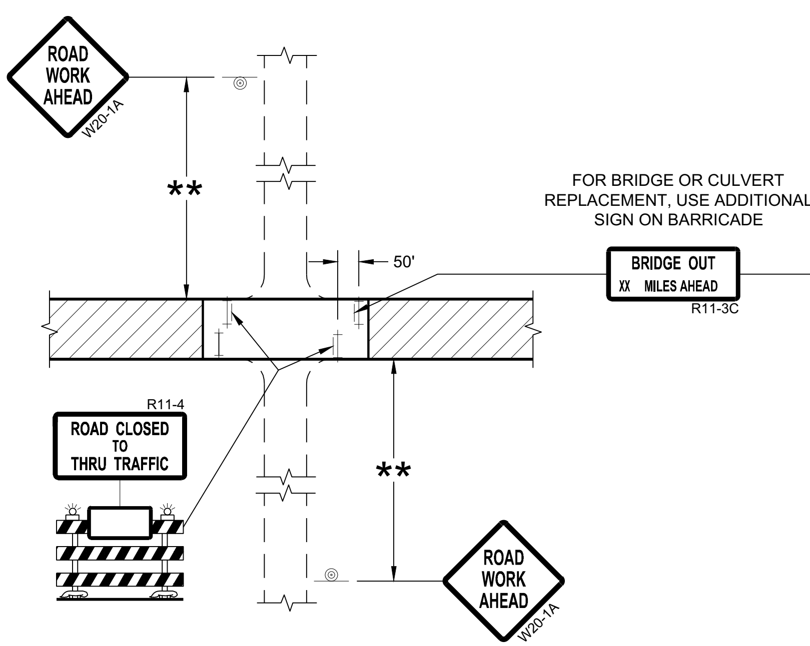
APPROVED
February 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA



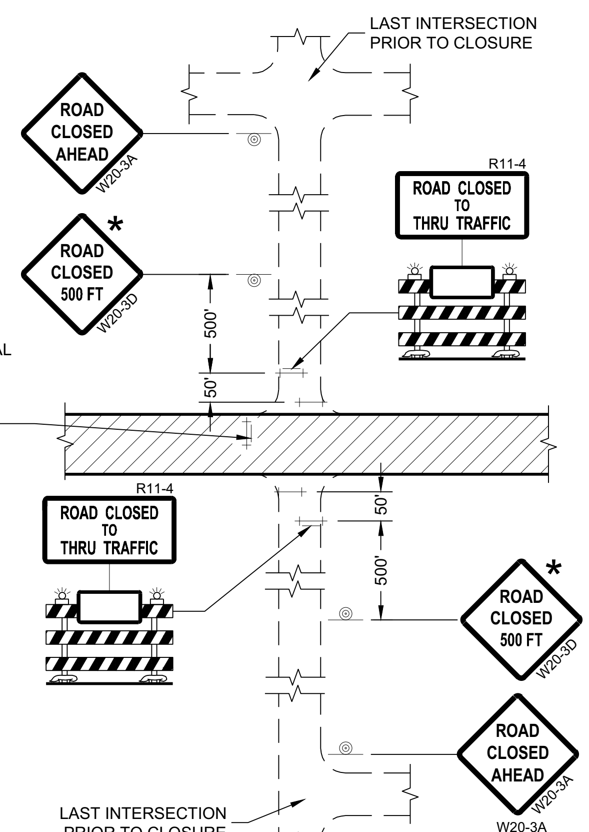
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

SIGN ON PERMANENT SUPPORT

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C03 - 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.

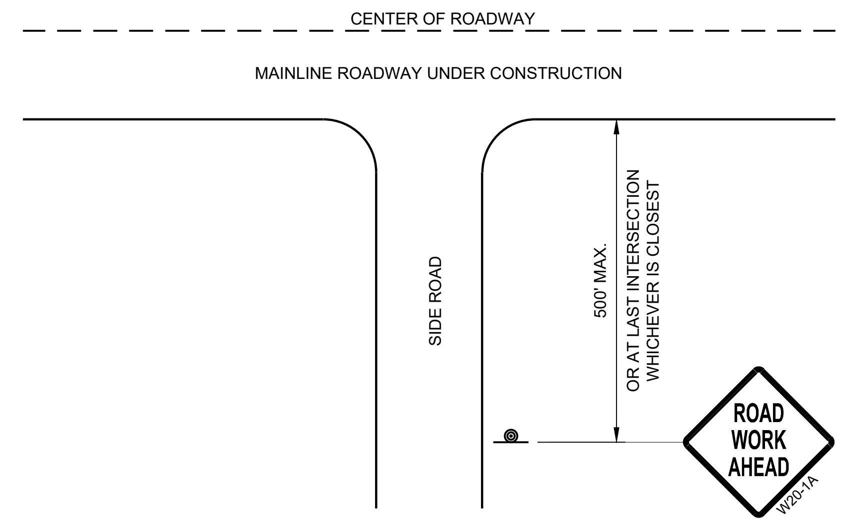
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



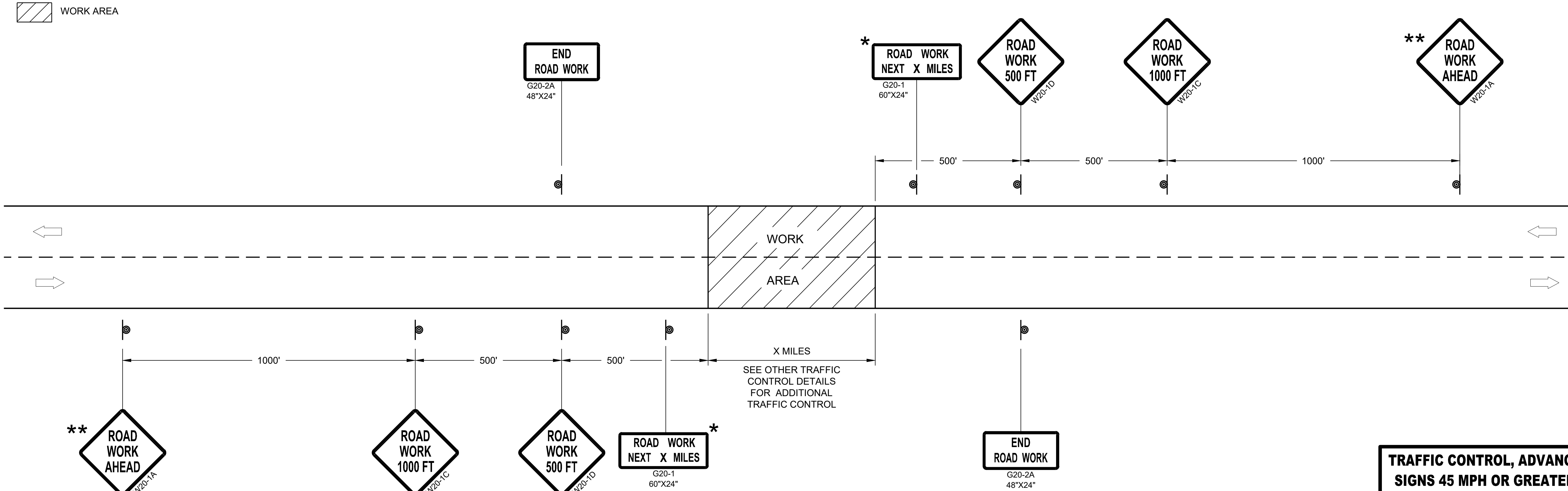
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

6

6

SDD 15C04 - 05

SDD 15C04 - 05

GENERAL NOTES

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

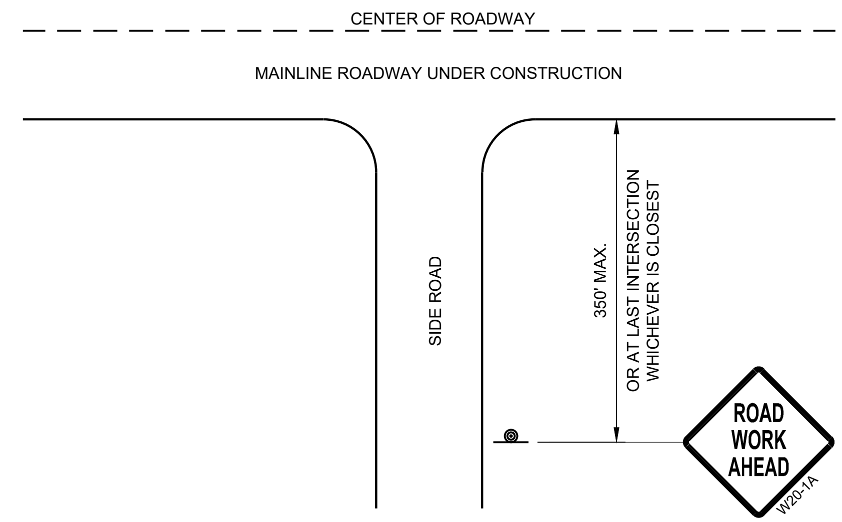
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



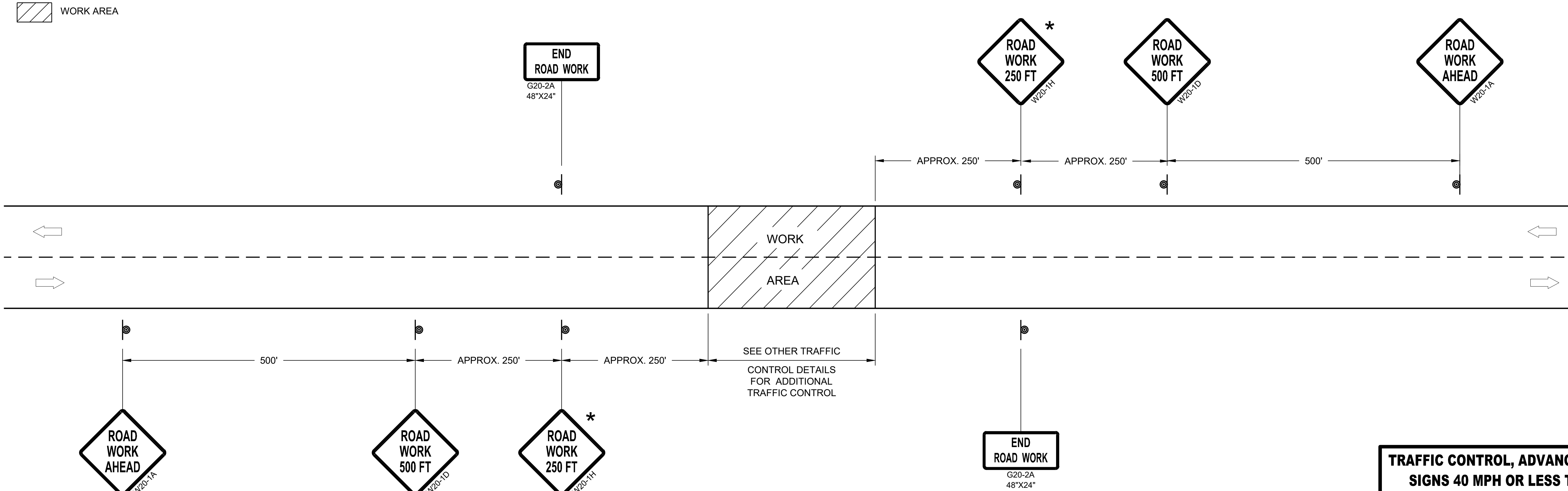
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

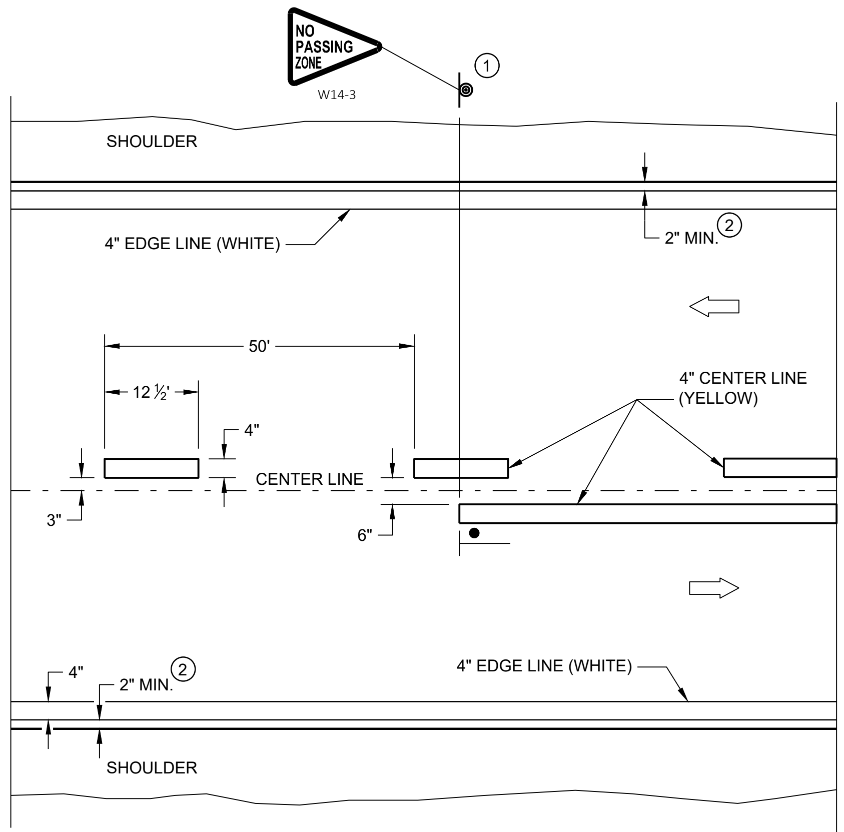


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

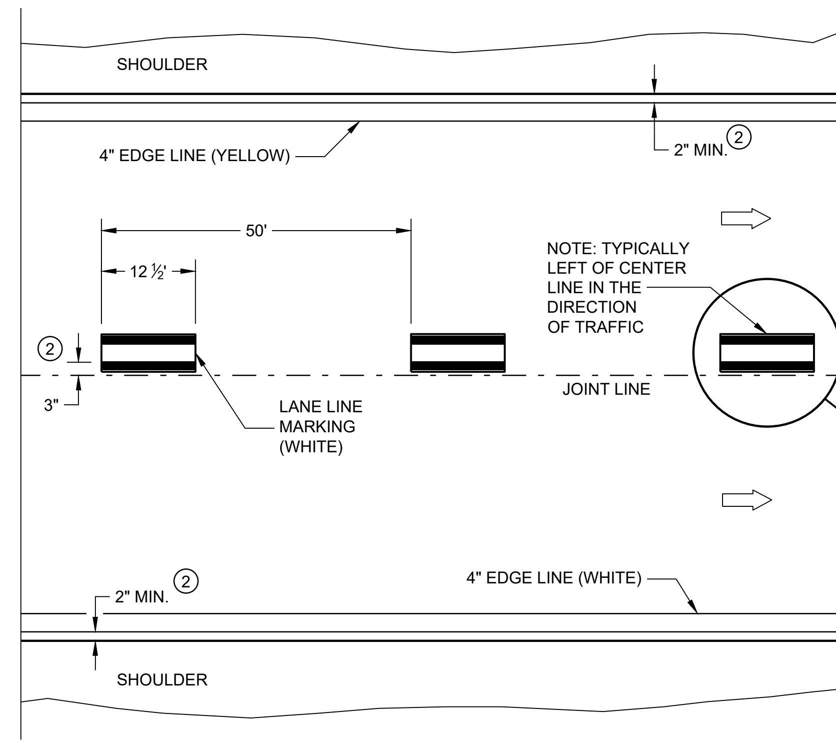
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

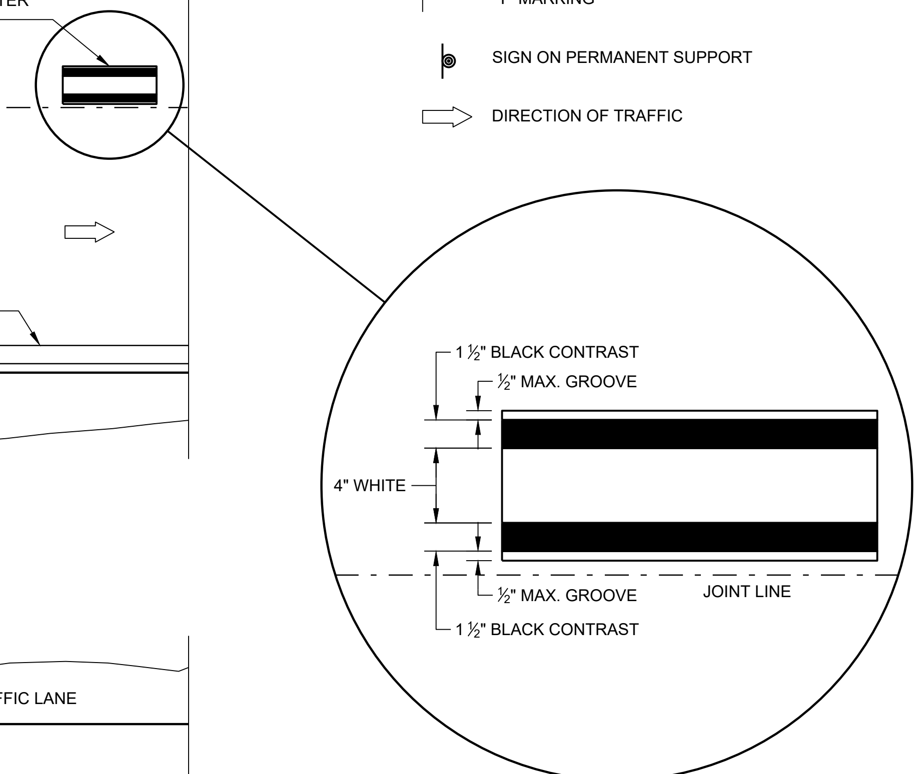


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



GENERAL NOTES

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

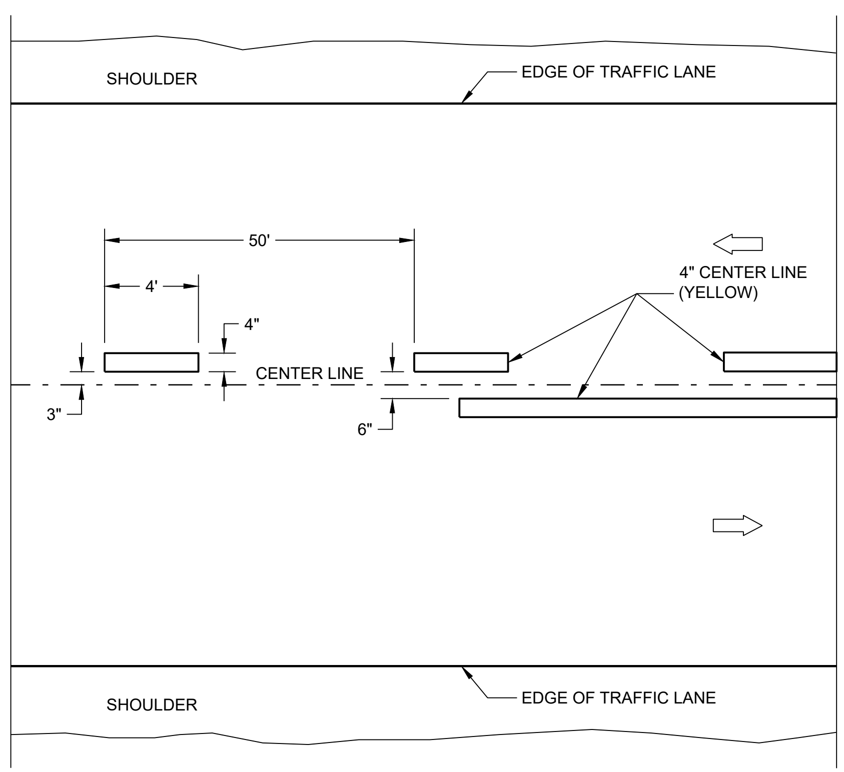
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

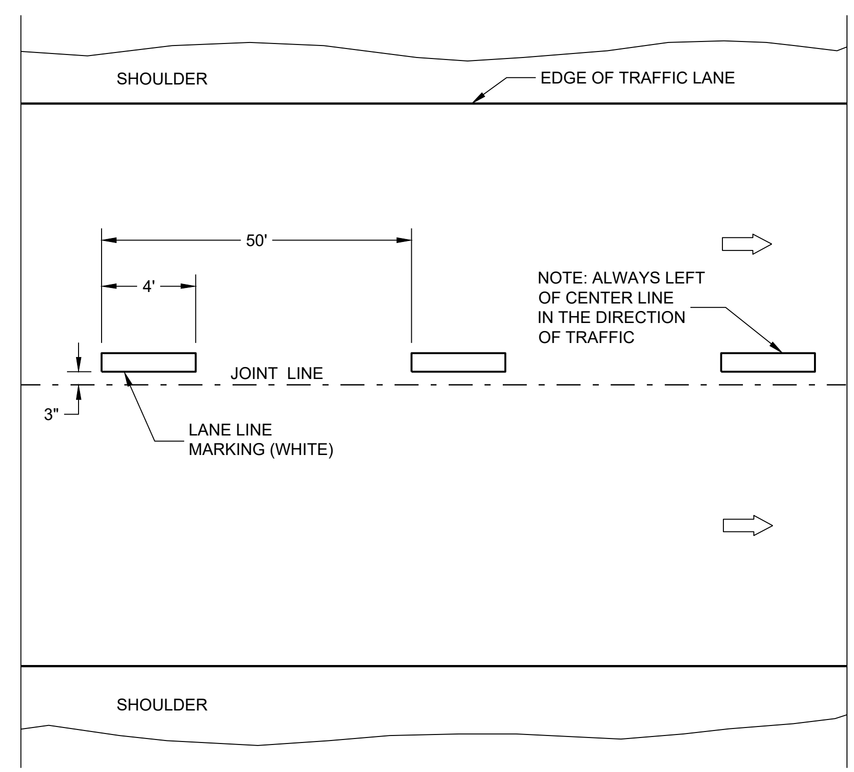
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

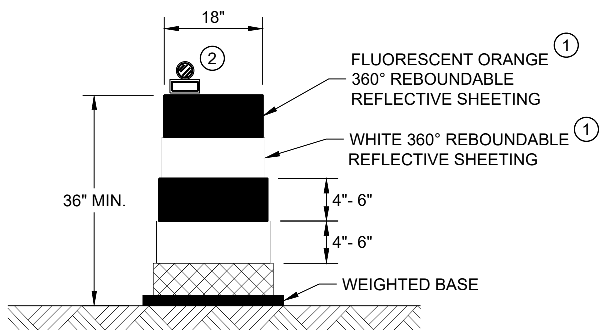
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

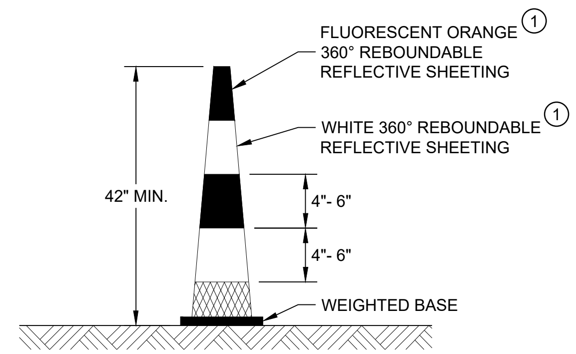
APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER
FHWA

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.

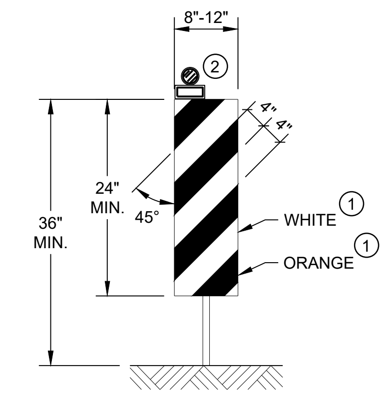


DRUM



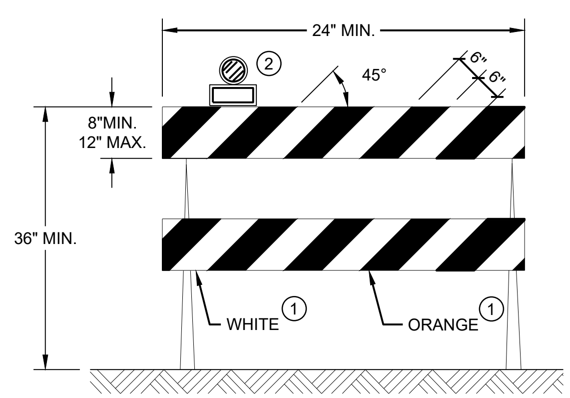
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



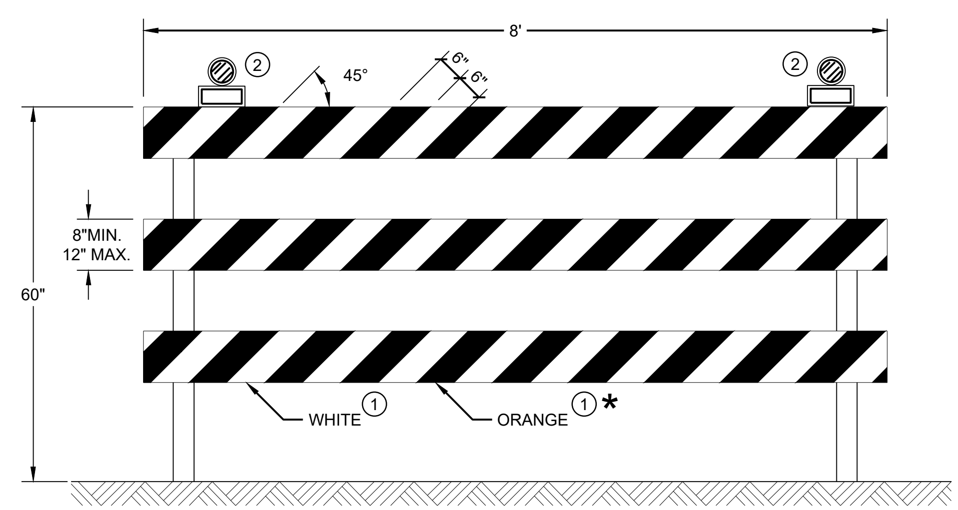
VERTICAL PANEL

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.

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SDD 15C11 - 09b

SDD 15C11 - 09b

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TEMPORARY PORTABLE RUMBLE STRIP ARRAY
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

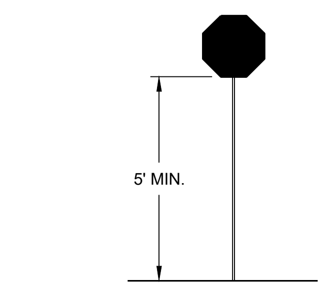
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

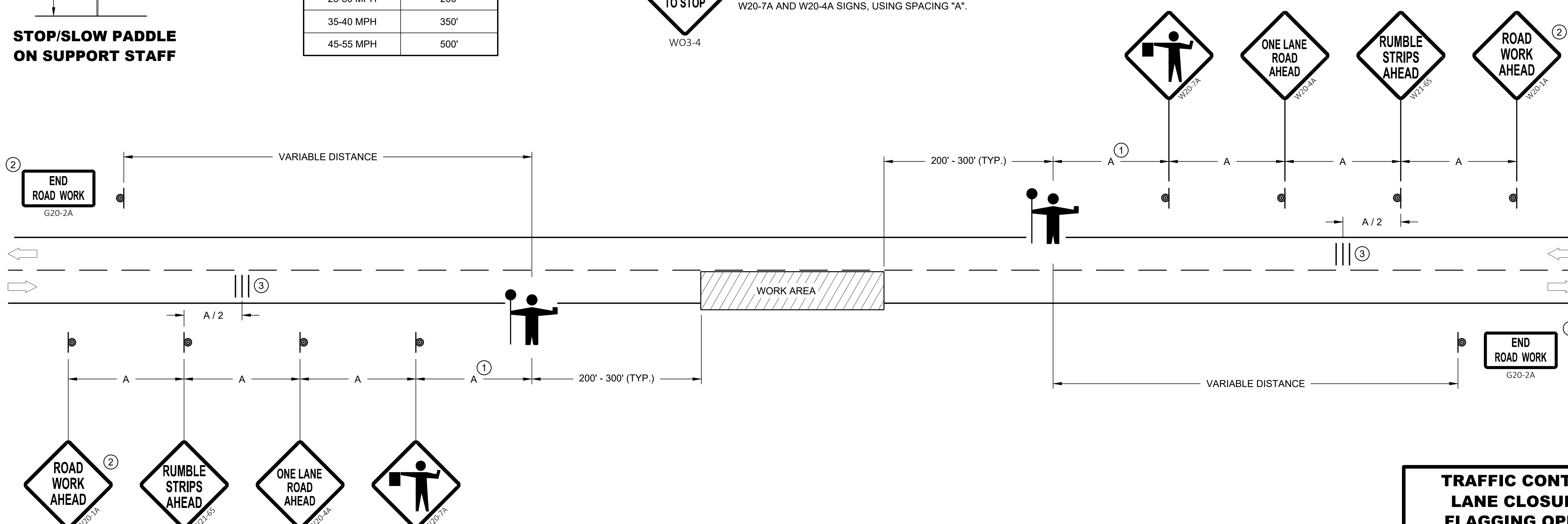


STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



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TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED November 2021 /S/ Andrew Heidtke DATE WORK ZONE ENGINEER FHWA

SDD 15C12 - 08

SDD 15C12 - 08

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

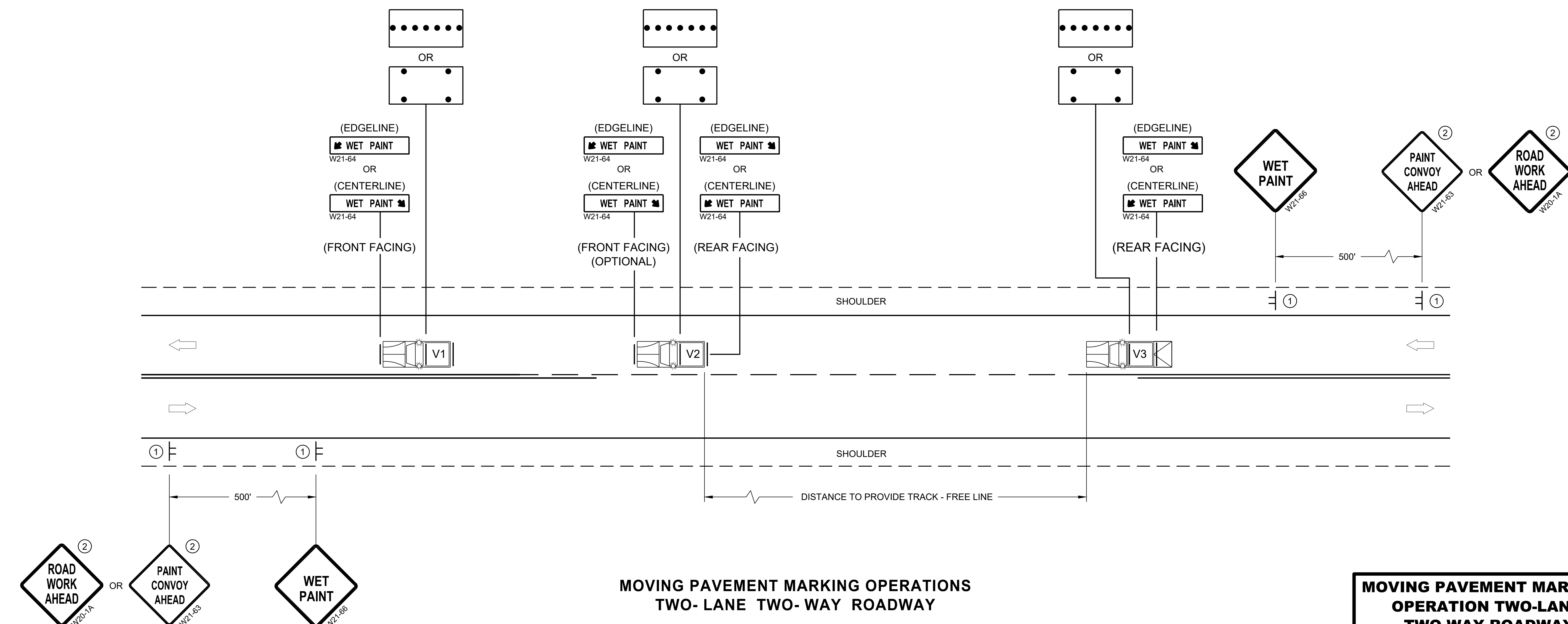
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

1. SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
2. IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

6

SDD 15C19 - 06a

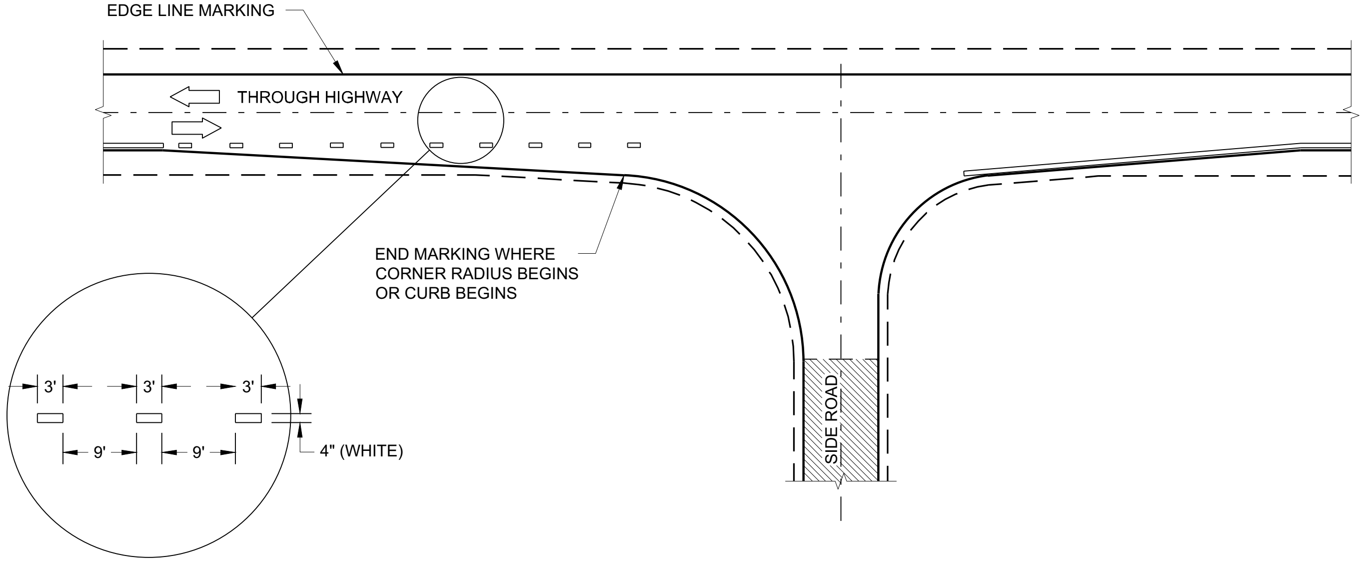
GENERAL NOTES

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

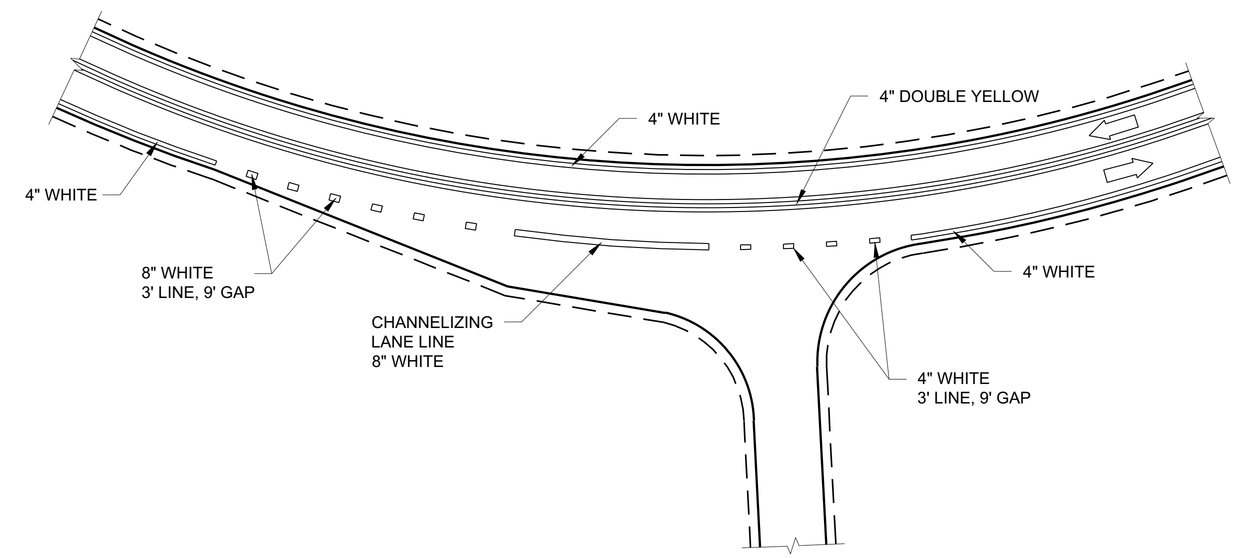
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

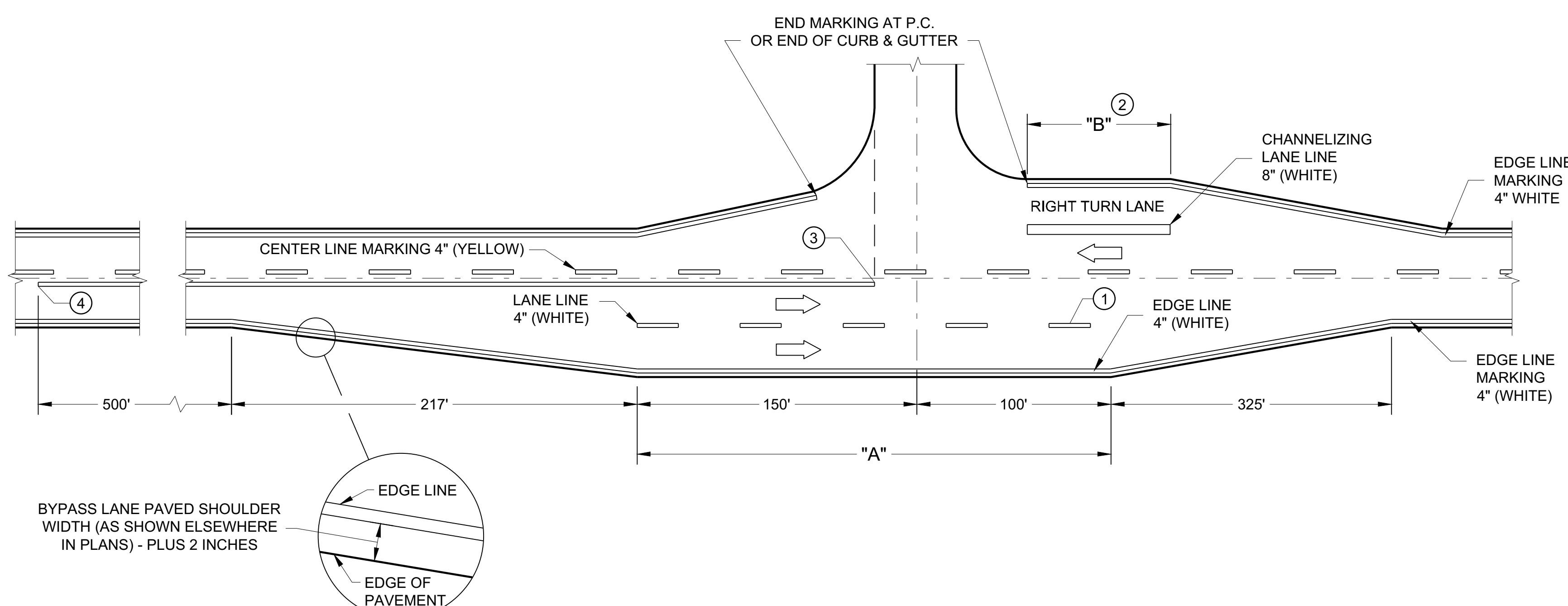
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

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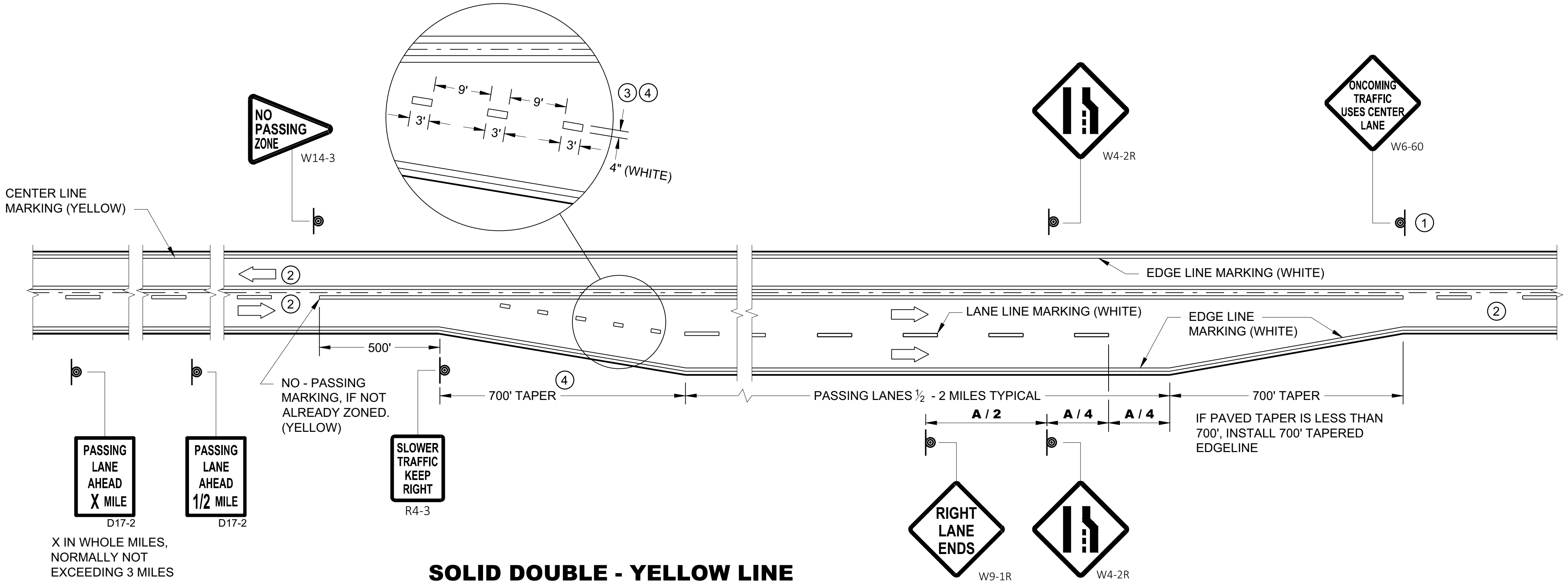
SDD 15C35 - 04a
SDD 15C35 - 04a



SOLID DOUBLE - YELLOW LINE
(THROUGHOUT ENTIRE PASSING / CLIMBING LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

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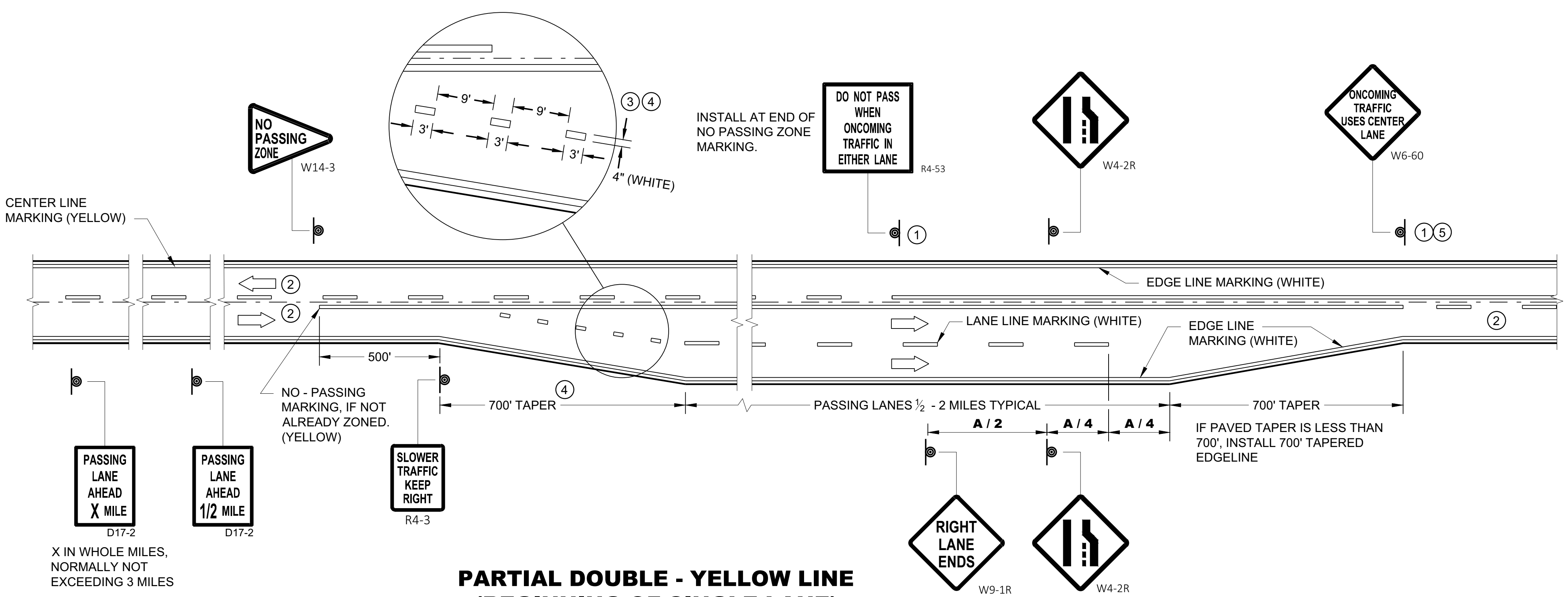

PARTIAL DOUBLE - YELLOW LINE
(BEGINNING OF SINGLE LANE)

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SDD 15C35 - 04b

PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

SDD 15C35 - 04b

LEGEND

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

GENERAL NOTES

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

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

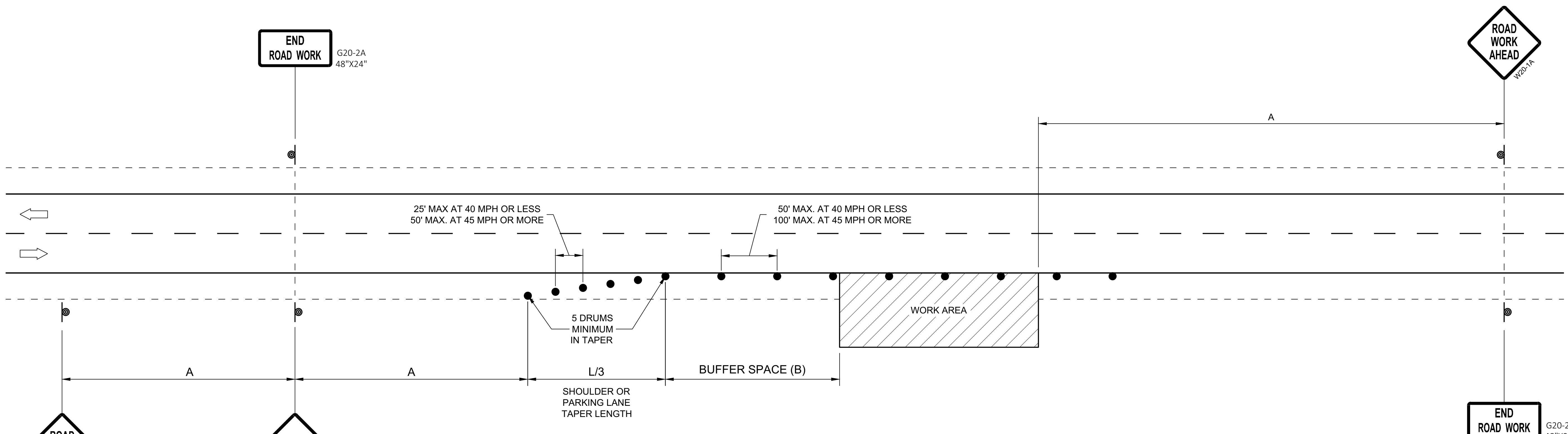
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

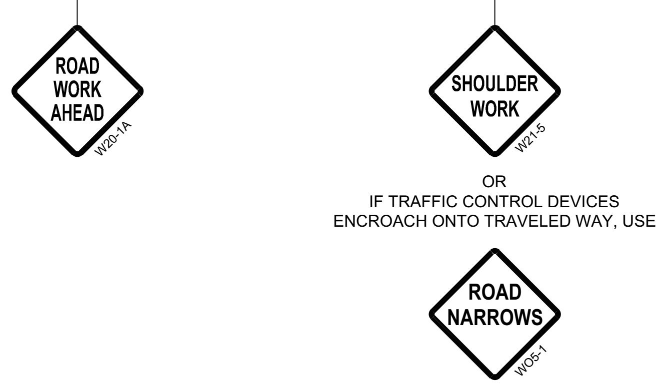
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

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





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'

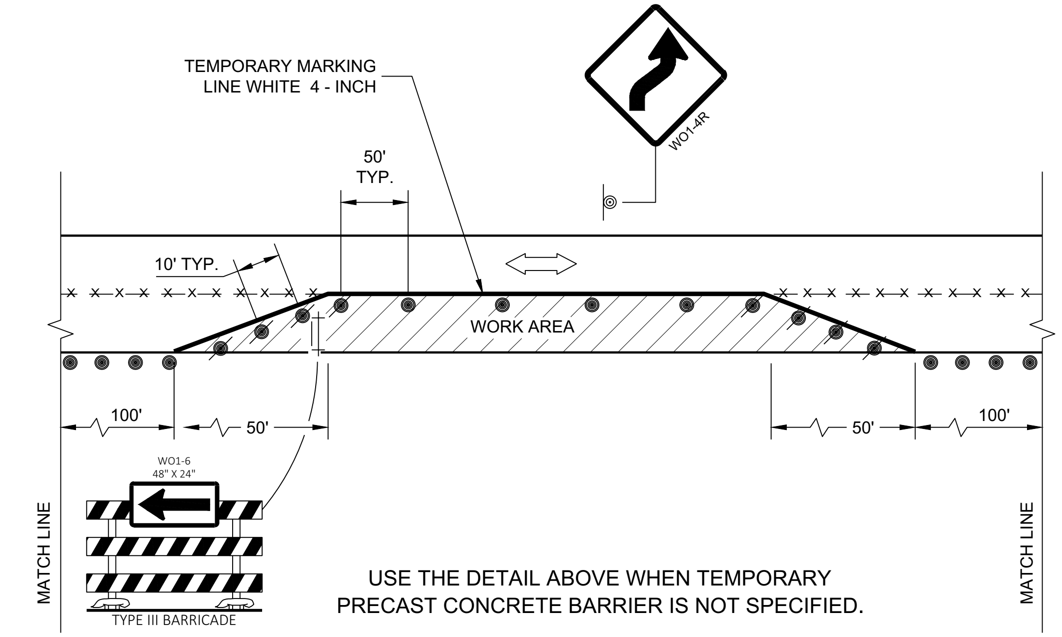
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT



USE THE DETAIL ABOVE WHEN TEMPORARY PRECAST CONCRETE BARRIER IS NOT SPECIFIED.

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

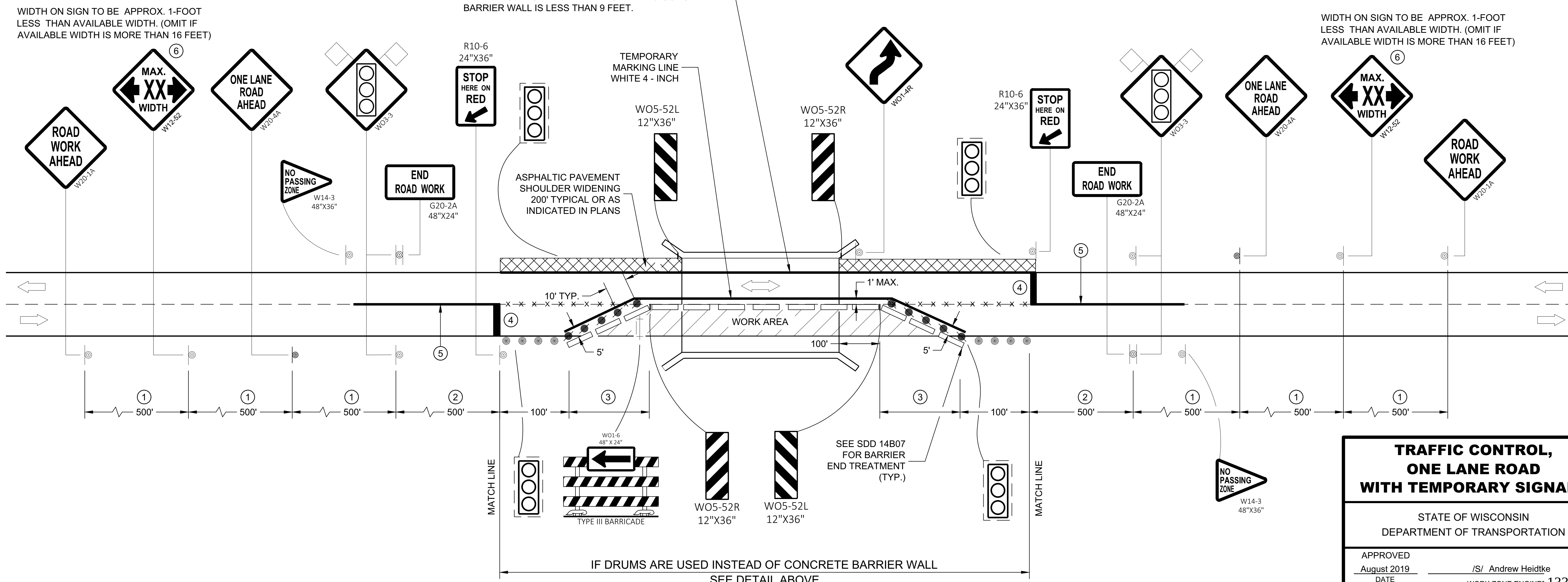
ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

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

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

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

1. 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
2. USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
3. DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
4. TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.
5. 700 FOOT TEMPORARY MARKING LINE, DOUBLE YELLOW 4 - INCH . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
6. SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



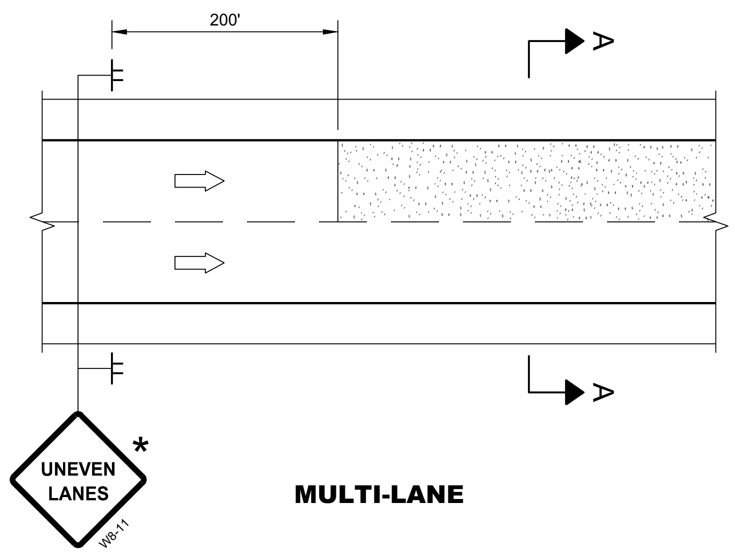
IF DRUMS ARE USED INSTEAD OF CONCRETE BARRIER WALL SEE DETAIL ABOVE

TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

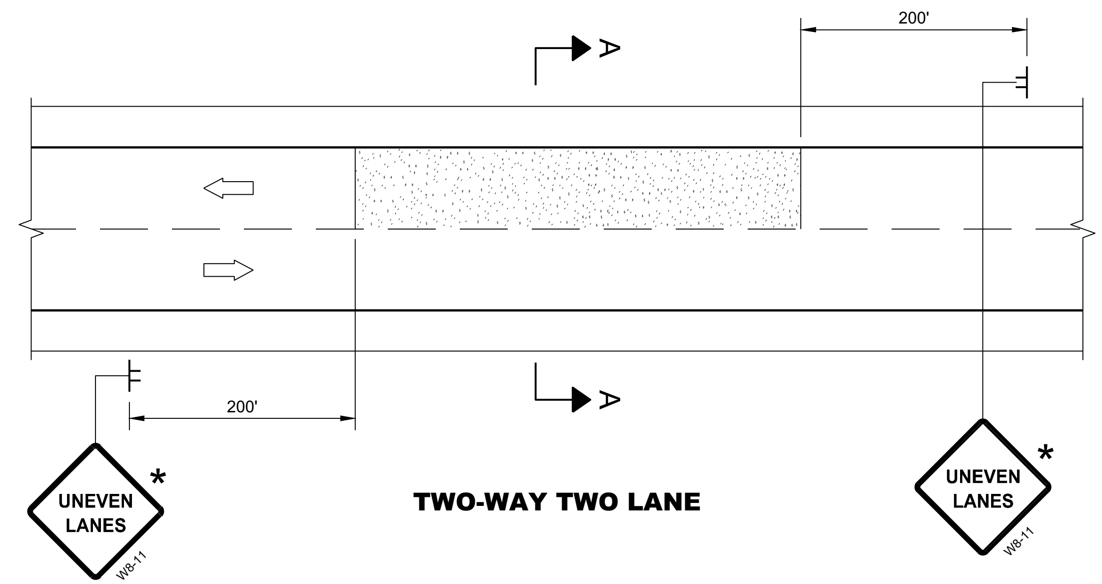
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

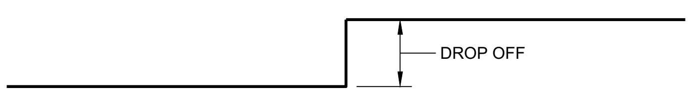
FHWA



MULTI-LANE

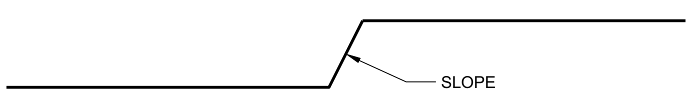


TWO-WAY TWO LANE

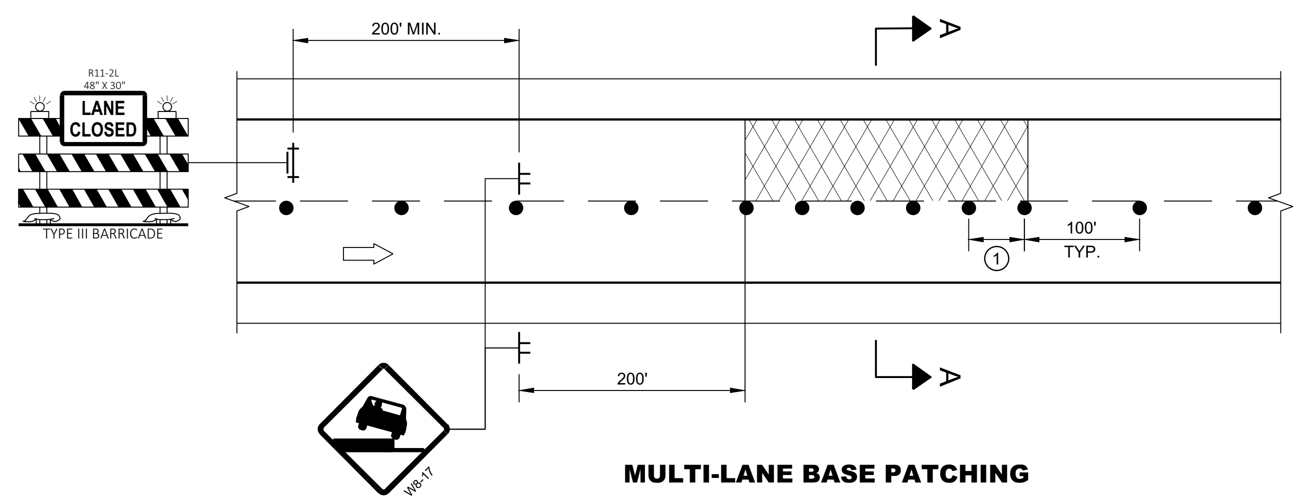


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

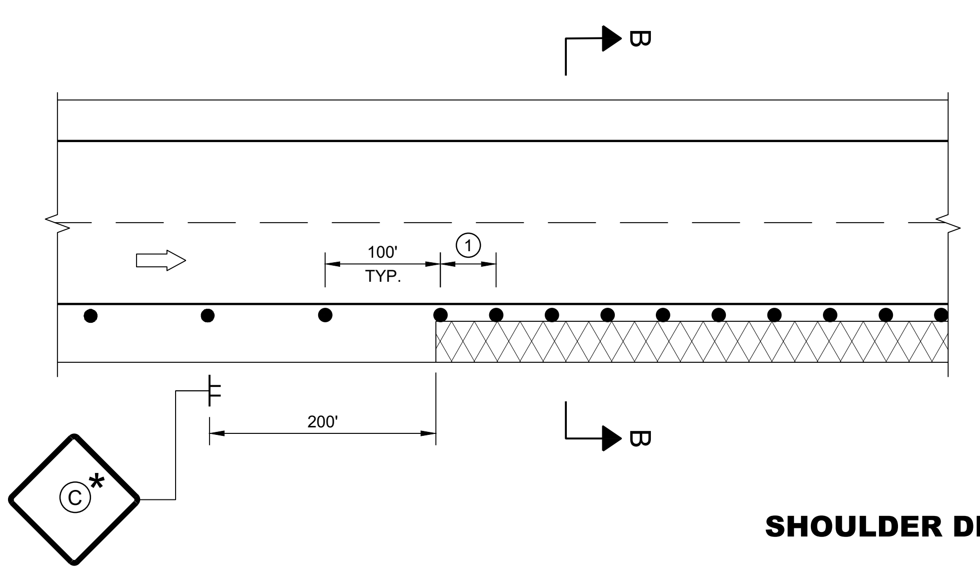
TYPE III BARRICADE WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

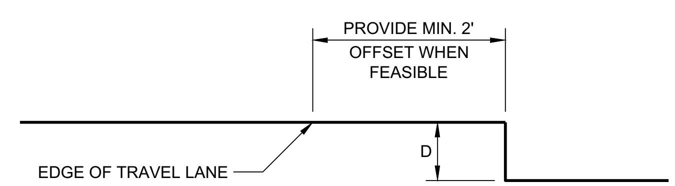
DIRECTION OF TRAFFIC

WORK AREA WITH DROP-OFF

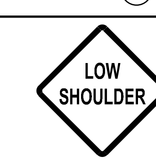
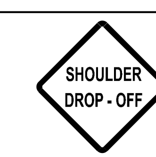
MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15D39 - 02

6

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.

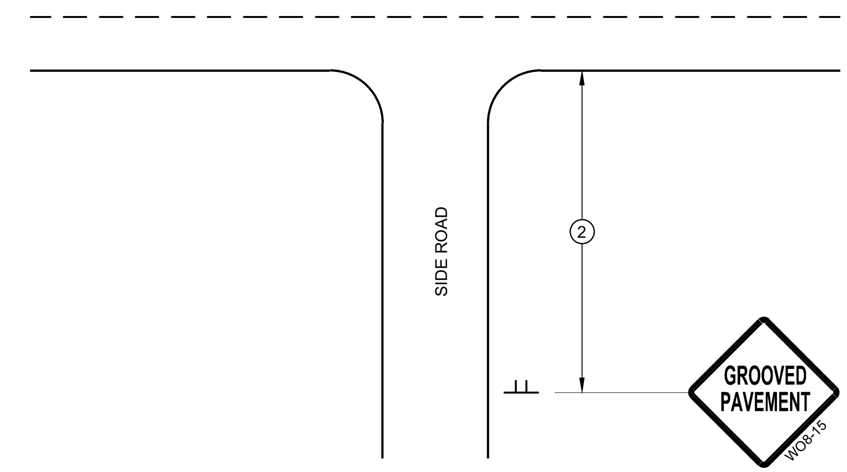
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.

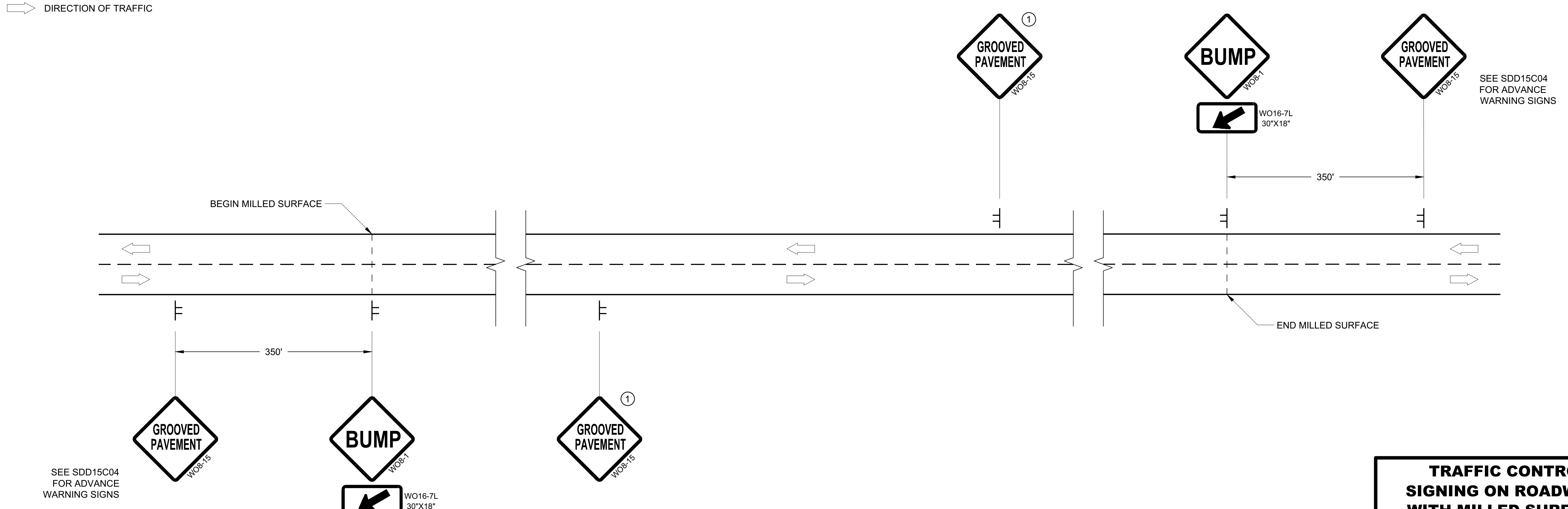


TYPICAL SIDE ROAD APPROACH SIGN DETAIL

LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D44 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

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

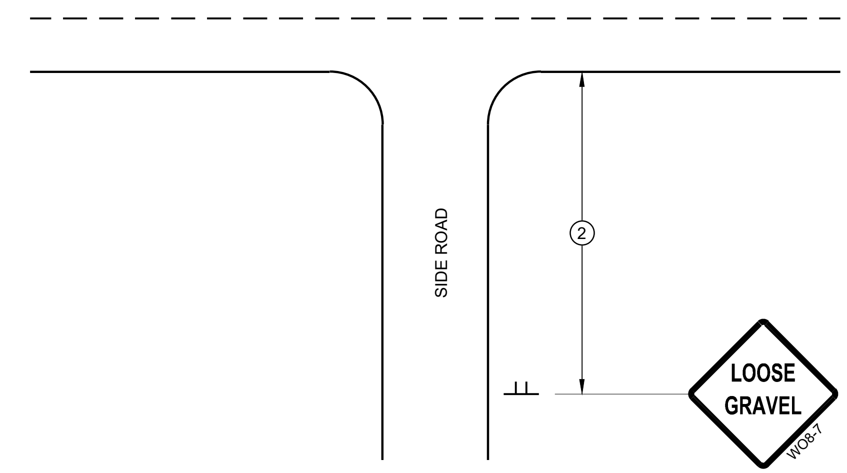
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

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

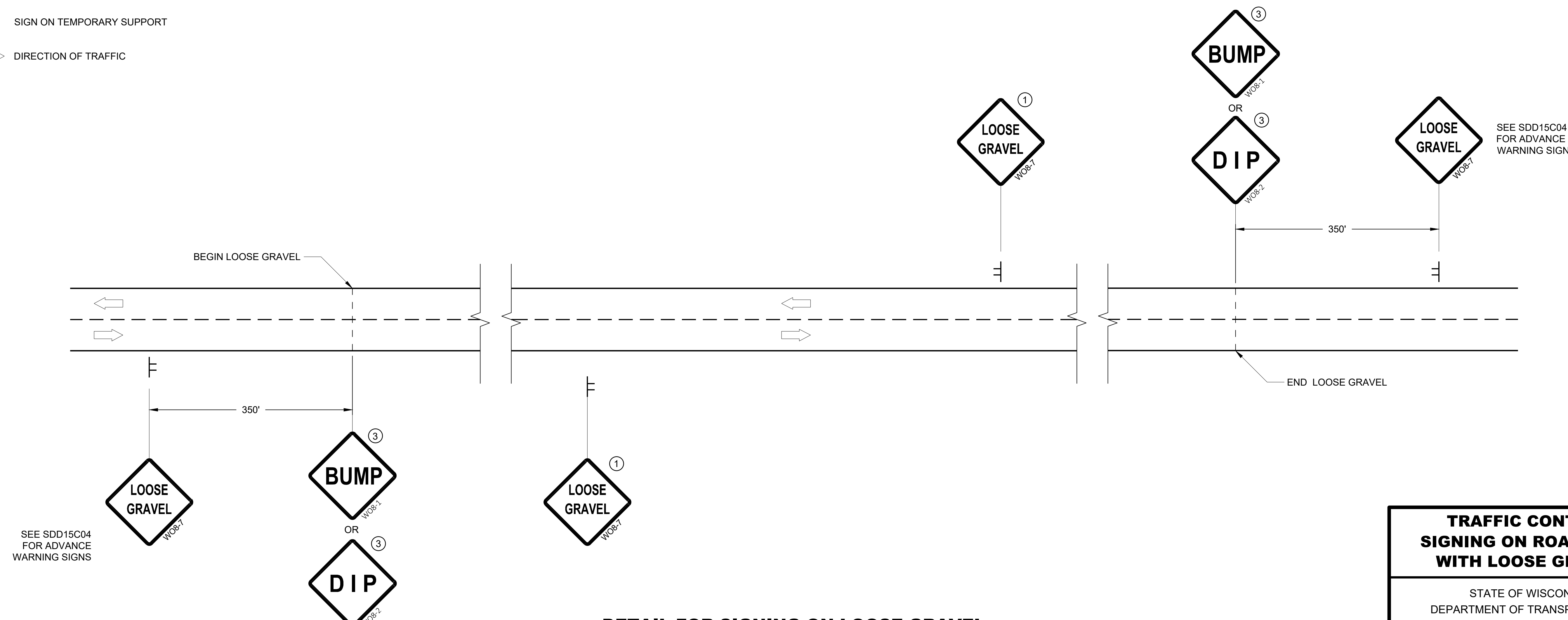
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

6

6

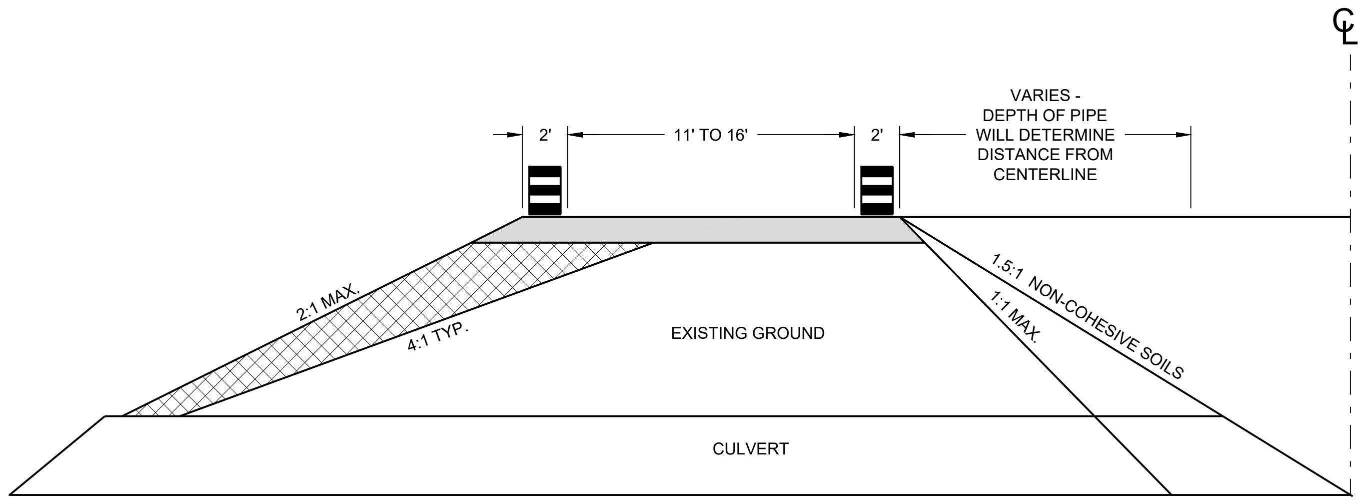
SDD 15D45 - 03

SDD 15D45 - 03

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



CROSS SECTION

GENERAL NOTES

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

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

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

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

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

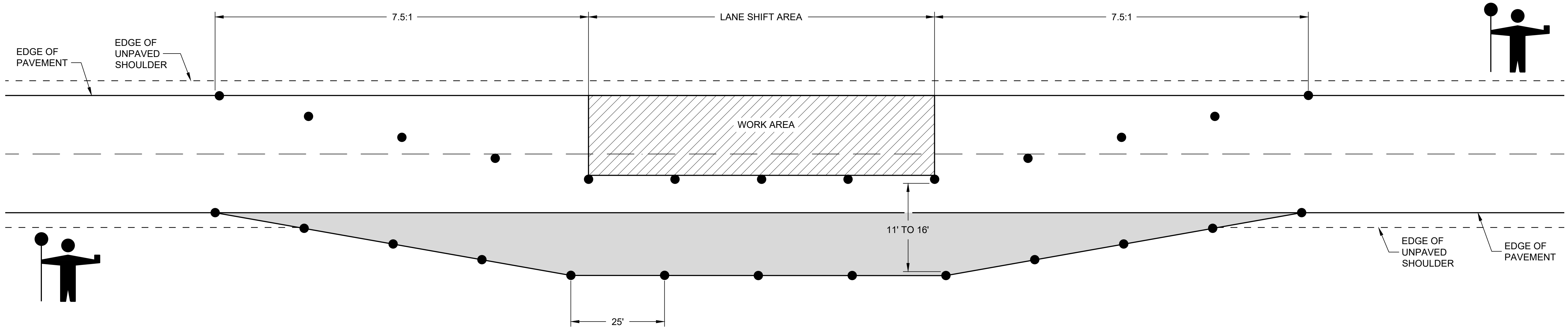
USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

6

6



LANE SHIFT IN FLAGGING OPERATION

SDD 15D48 - 01

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

SDD 15D48 - 01

LEGEND

- V1 — WORK VEHICLE
- V2 — SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- FLASHING ARROW PANEL (CAUTION)
- WORK AREA
- DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

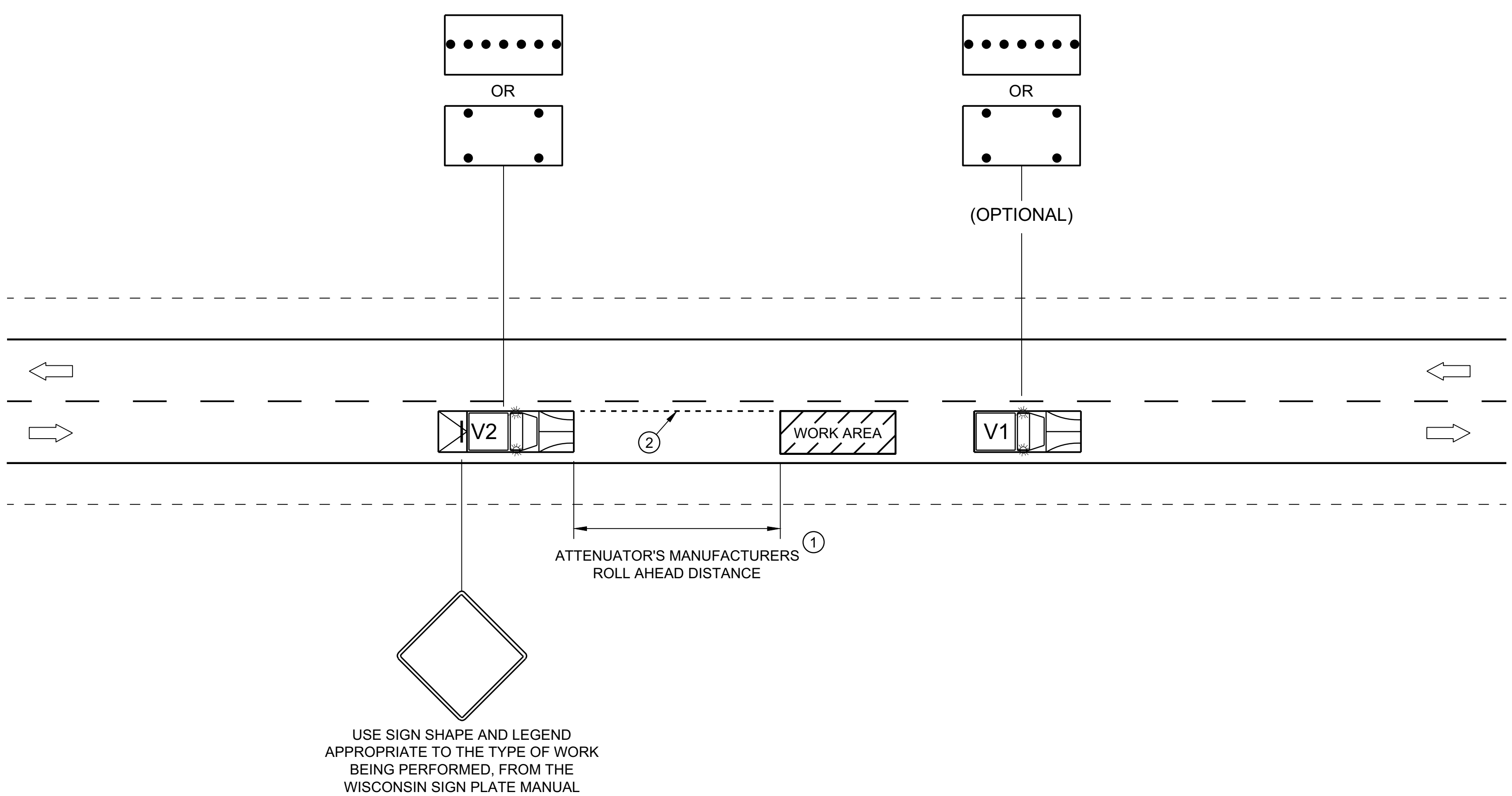
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

1 DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

2 ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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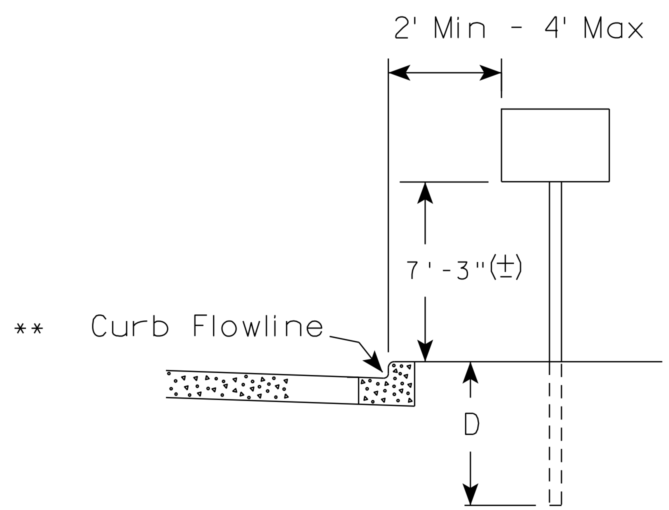
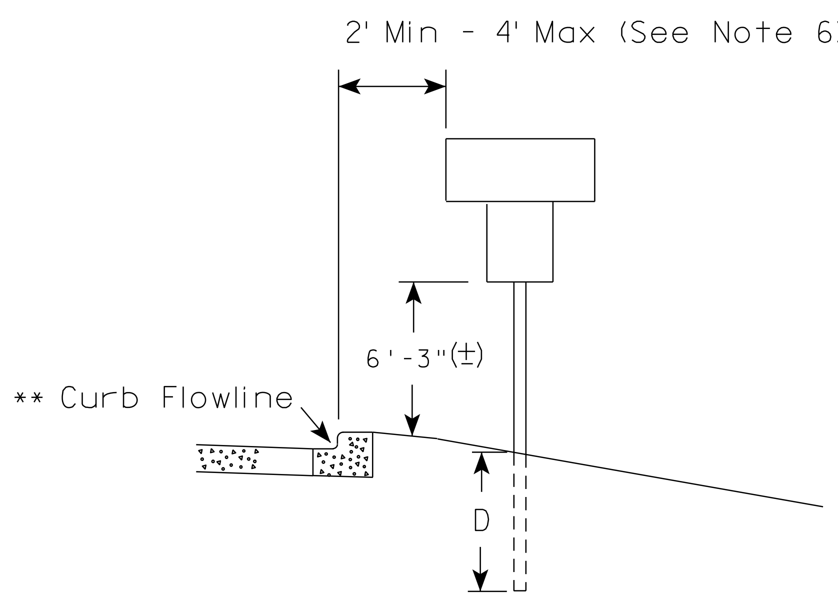
SDD 15D51 - 01

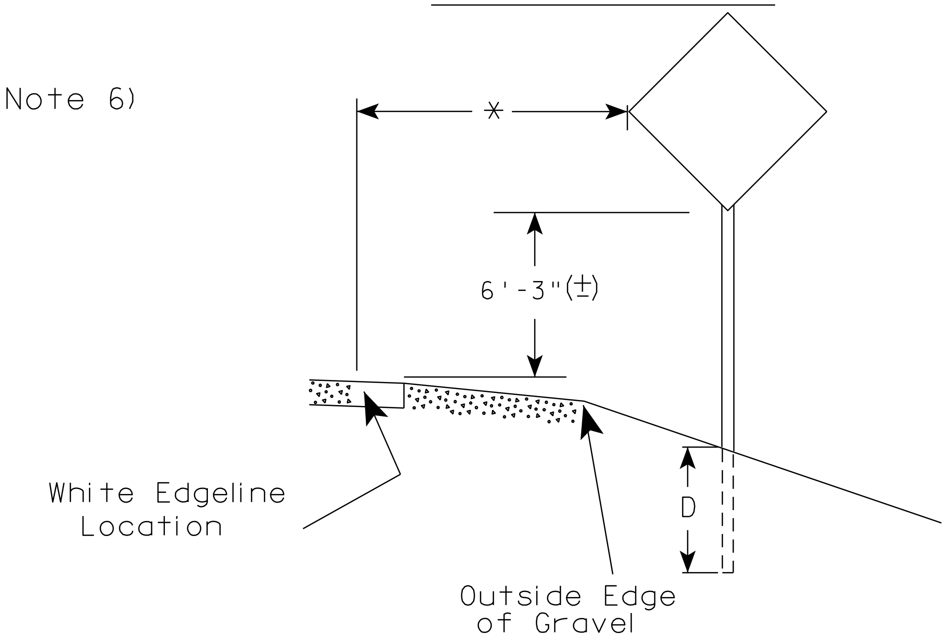
SDD 15D51 - 01

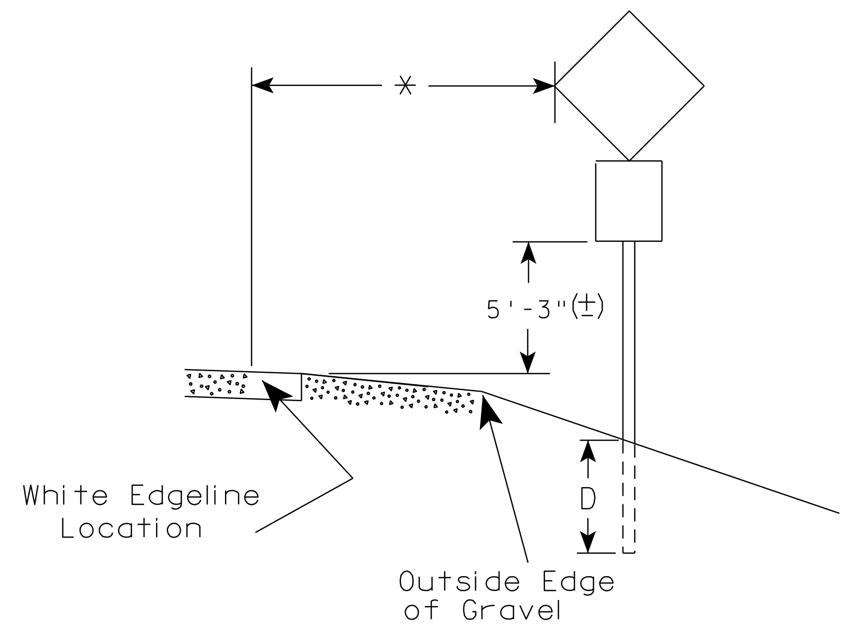
URBAN AREA





RURAL AREA (See Note 2)





GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

POST EMBEDMENT DEPTH

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

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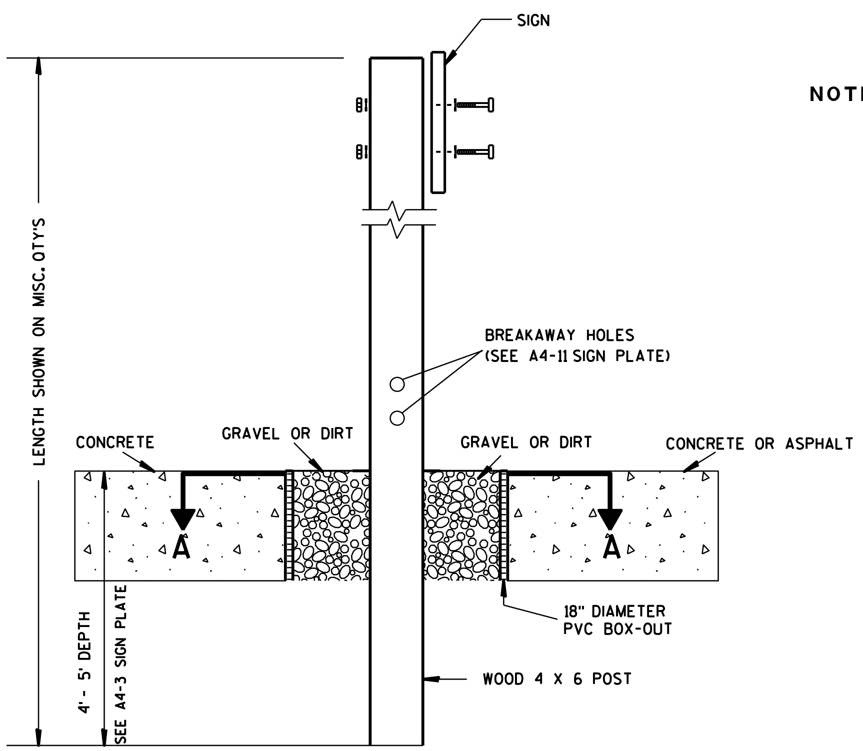


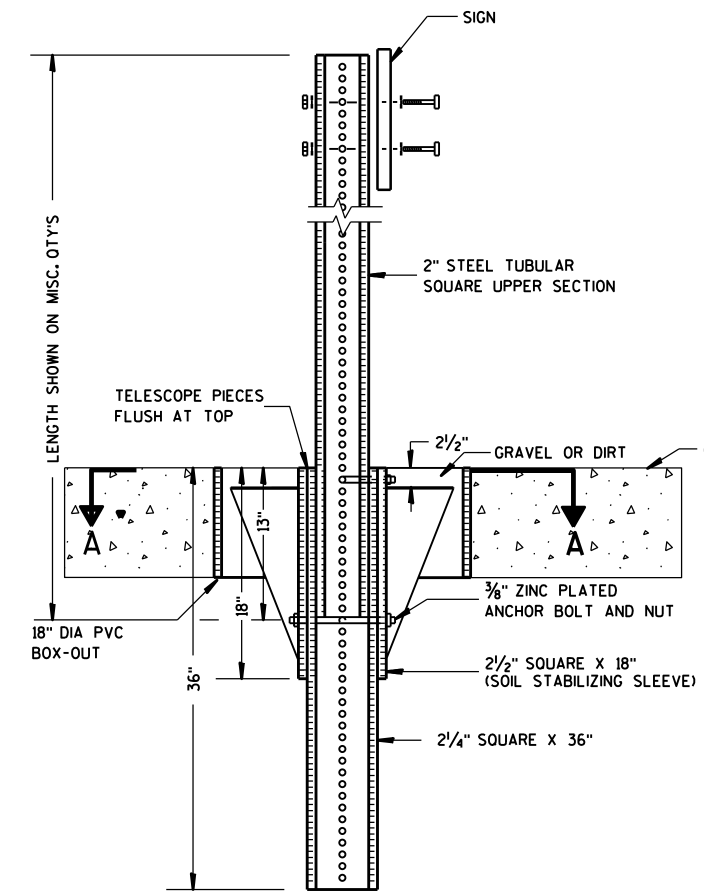
NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION

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.

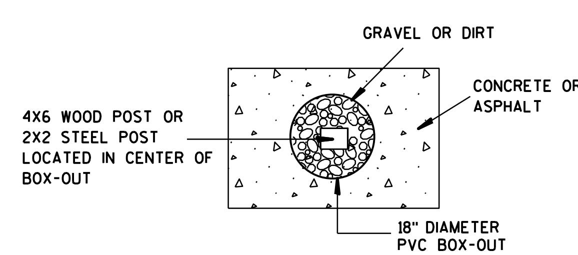
ELEVATION VIEW

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



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

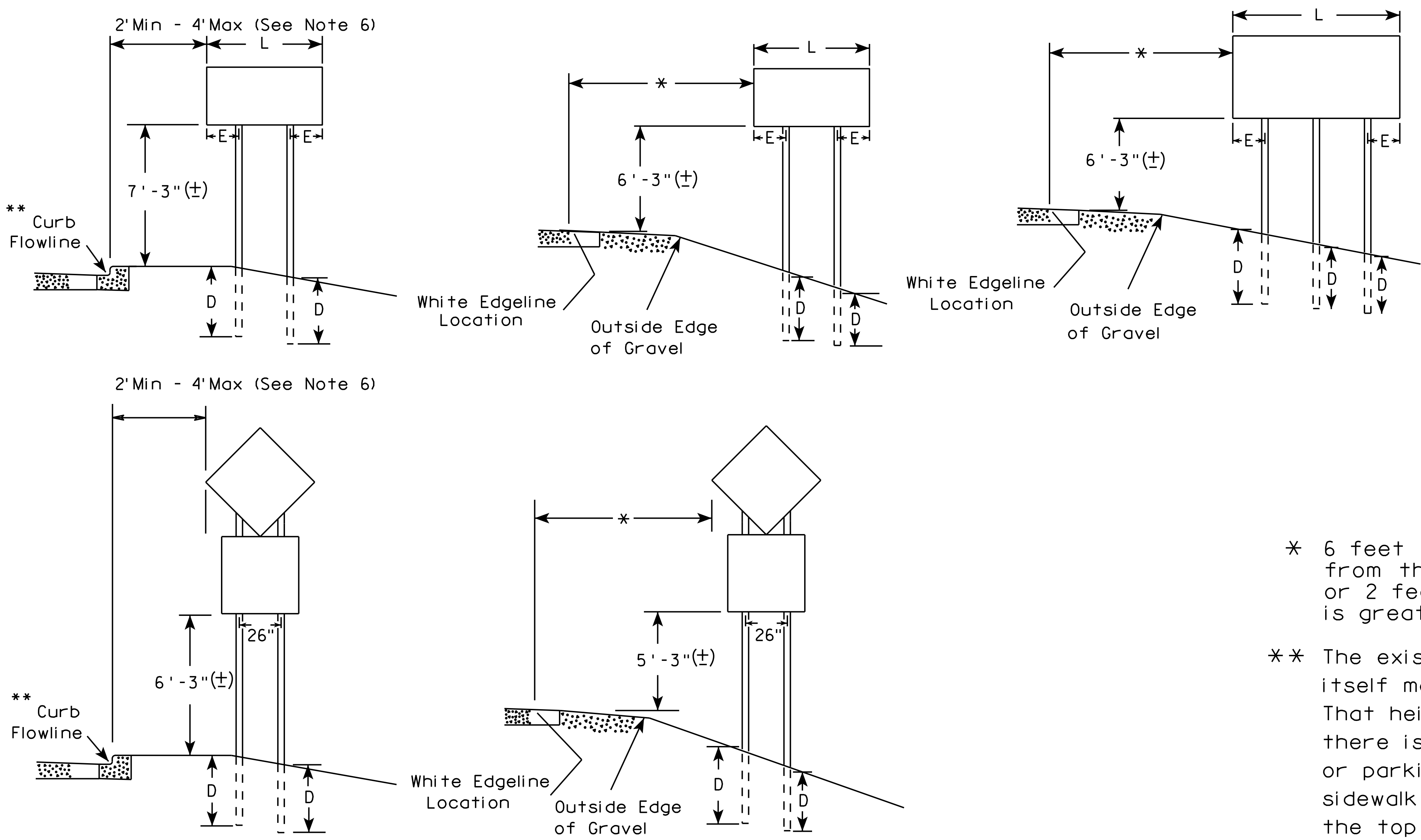
APPROVED Matthew R Rauch
for State Traffic Engineer

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

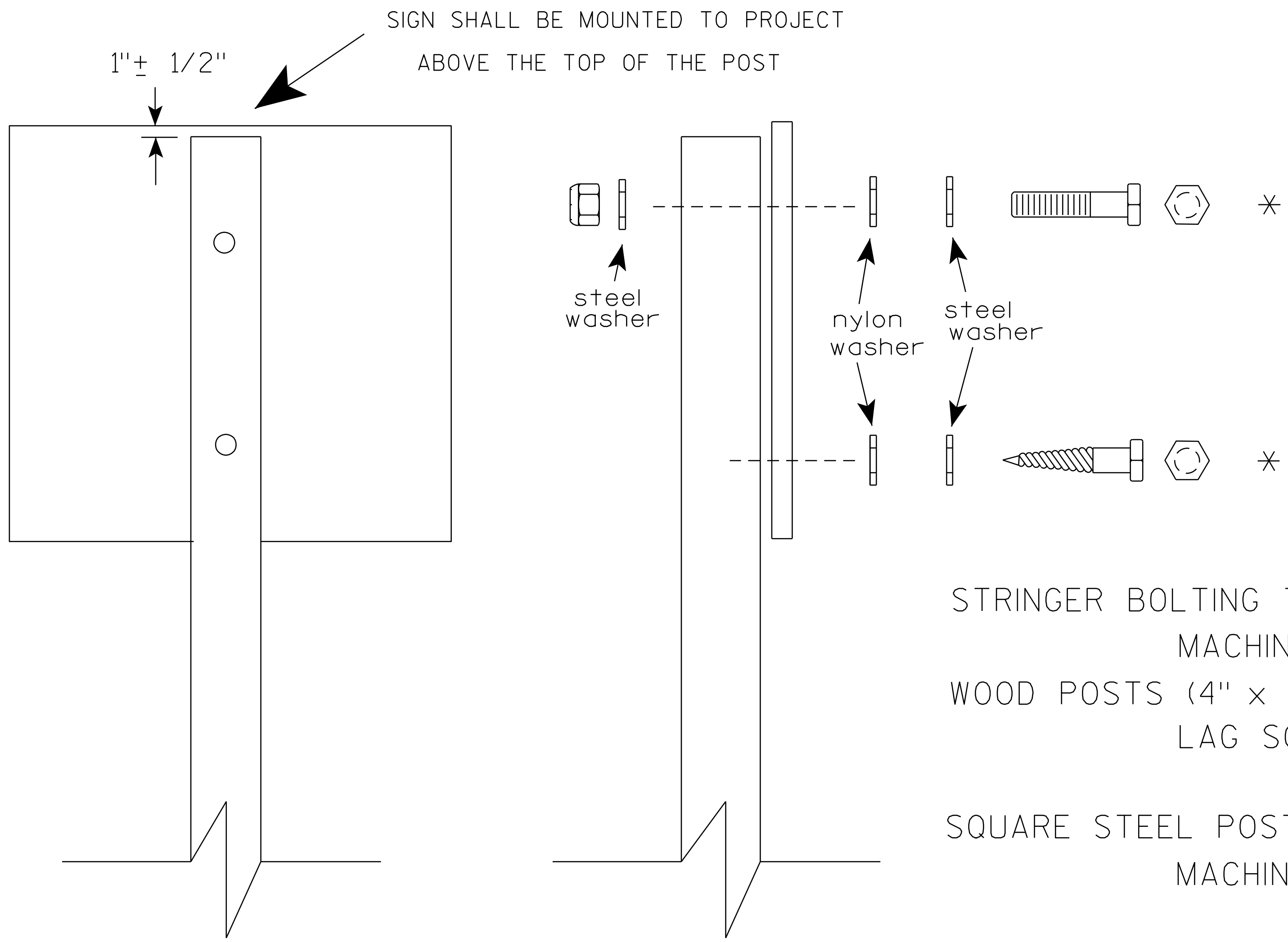
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17   PLATE NO. A4-4.15

7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	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.

7

7

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

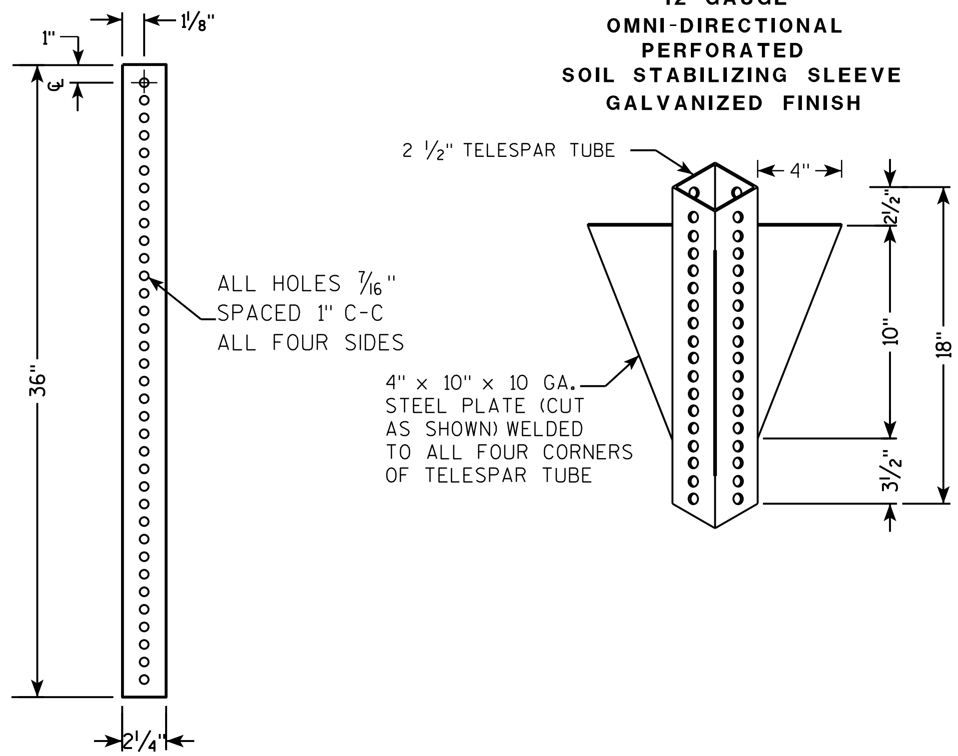
APPROVED Matthew R Rauch
for State Traffic Engineer

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

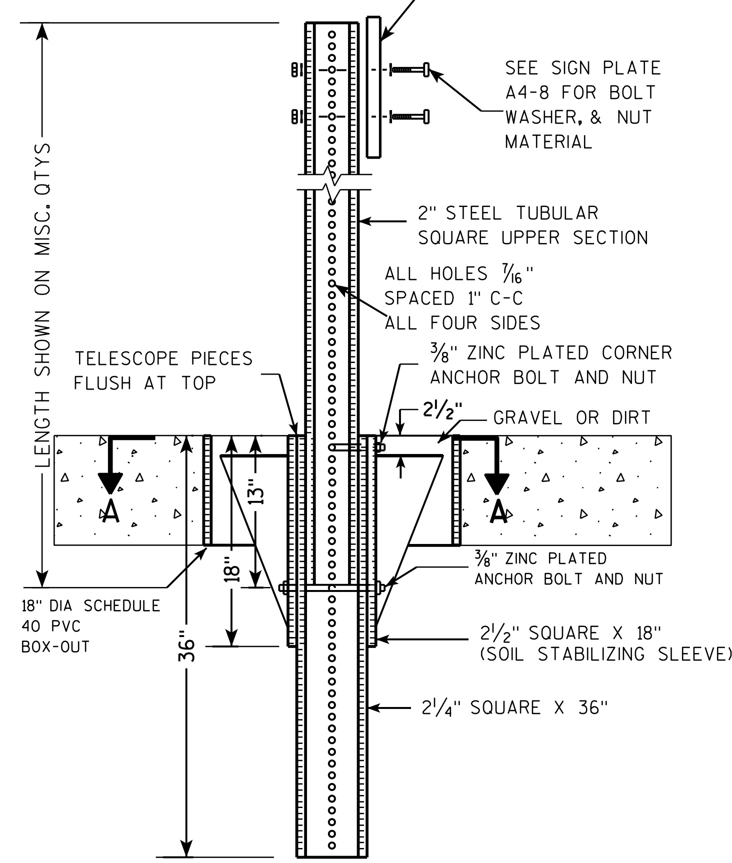
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH

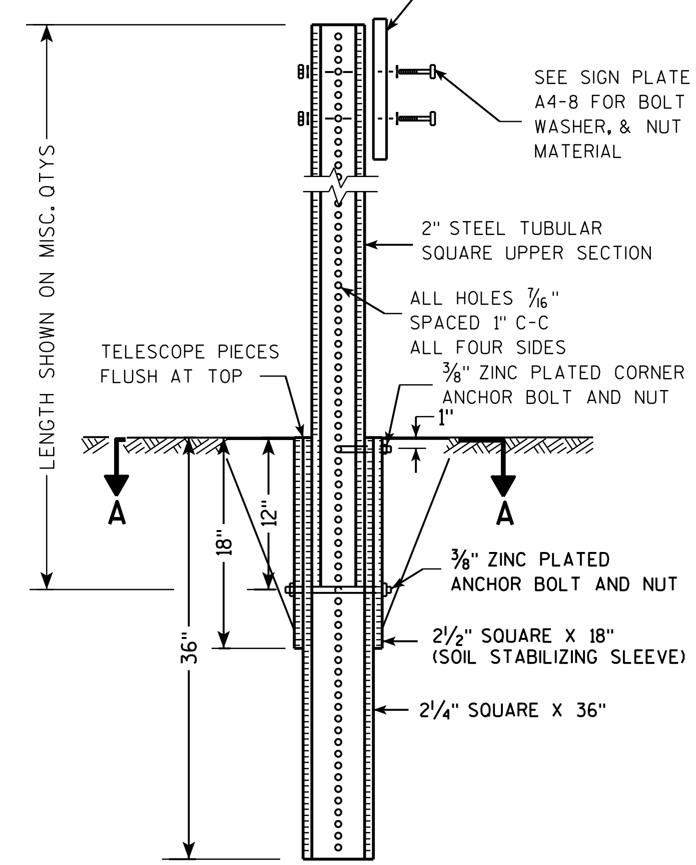
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

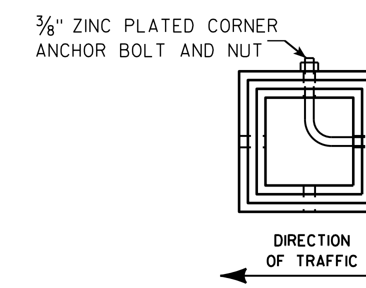


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





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).

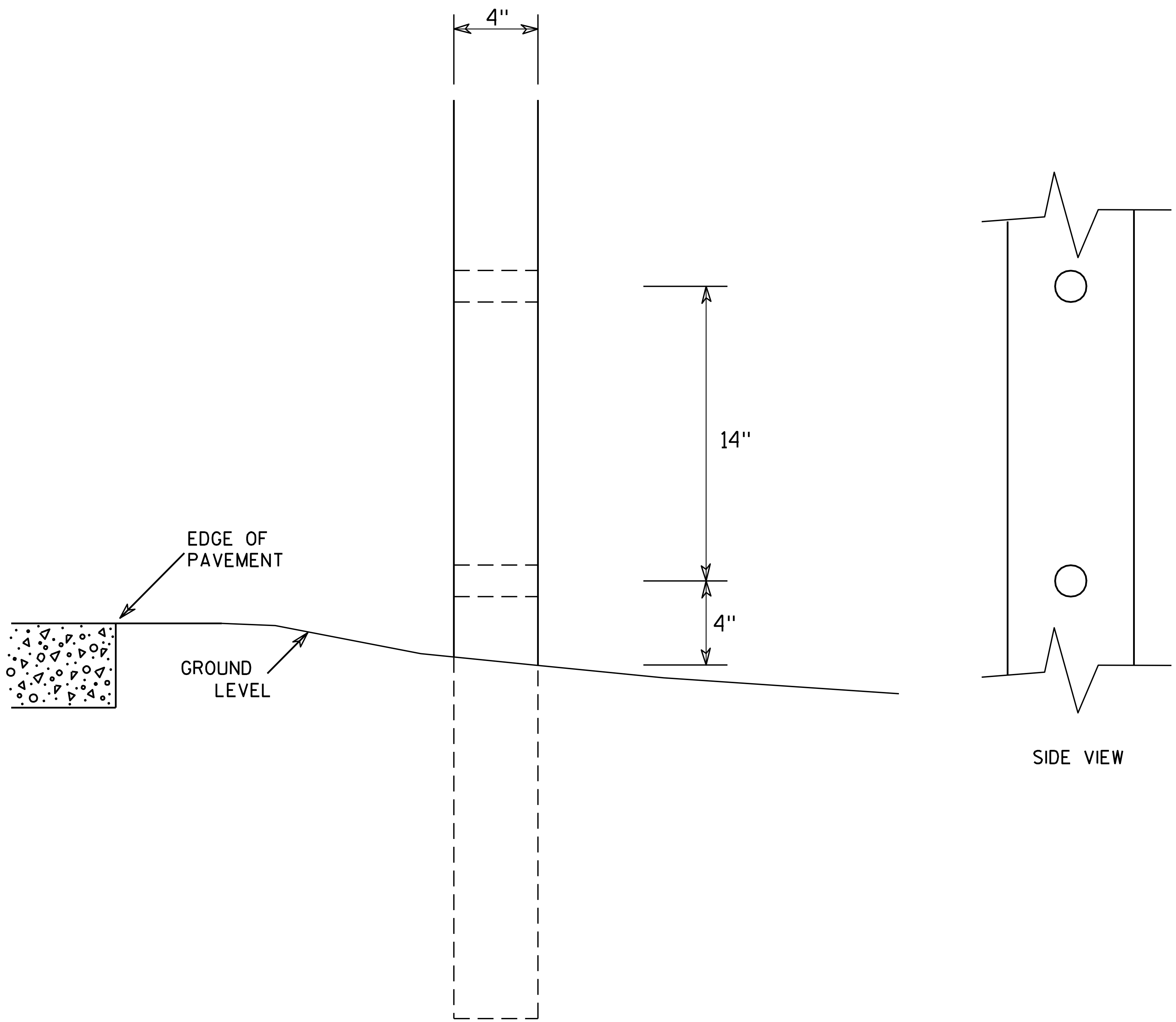
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two $1\frac{1}{2}$" diameter holes drilled perpendicular to the roadway centerline.

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

7

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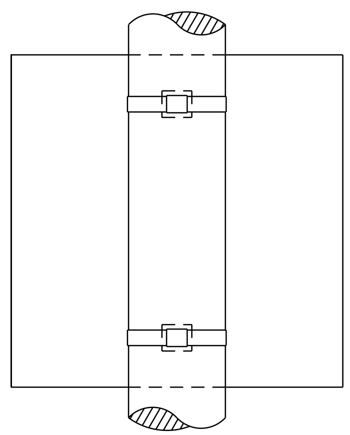
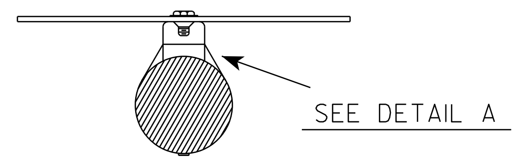
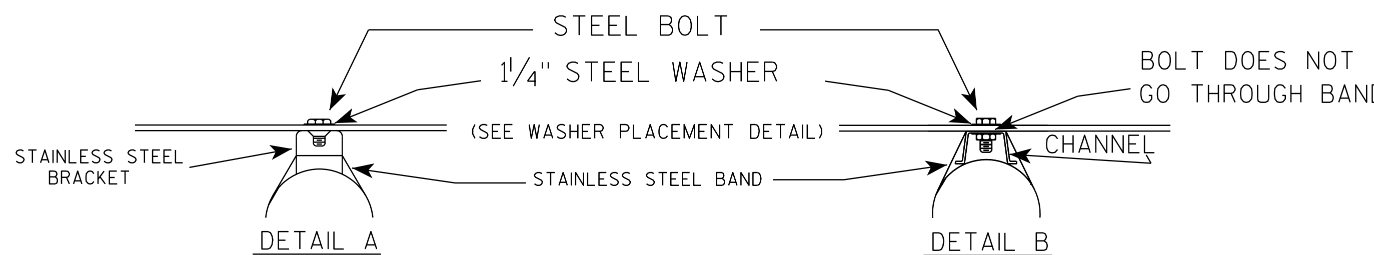
BANDING

SINGLE SIGN



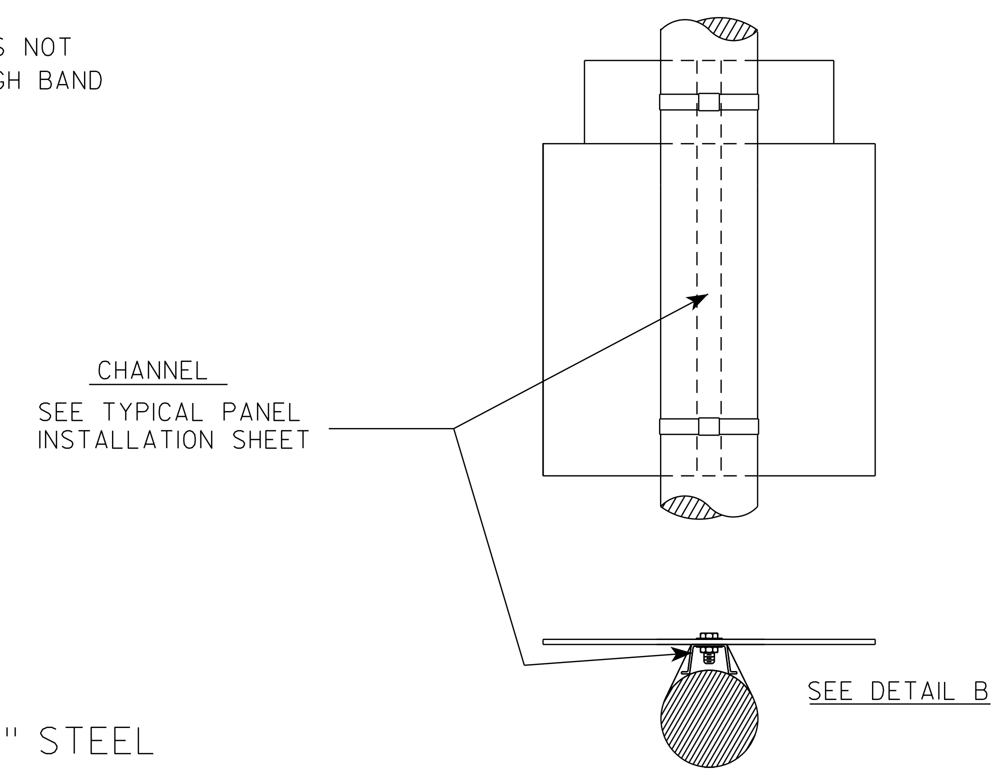




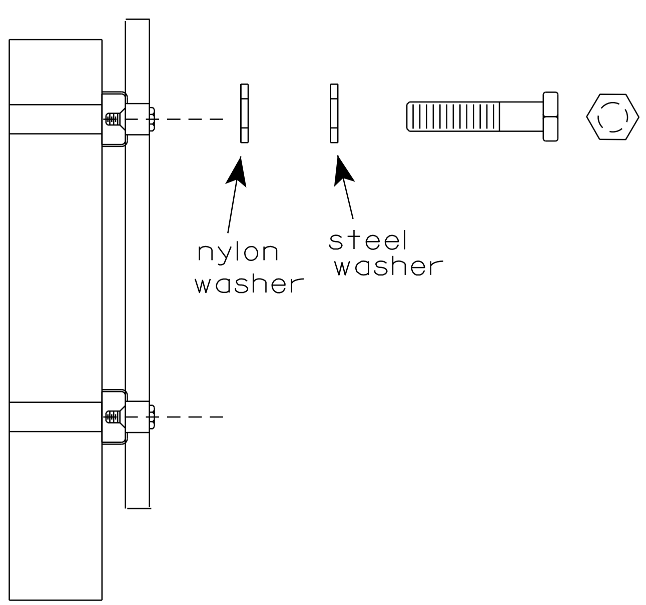
GENERAL NOTES

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. X3/8" I.D. X1/16" STEEL
1-1/4" O.D. X3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

7

7

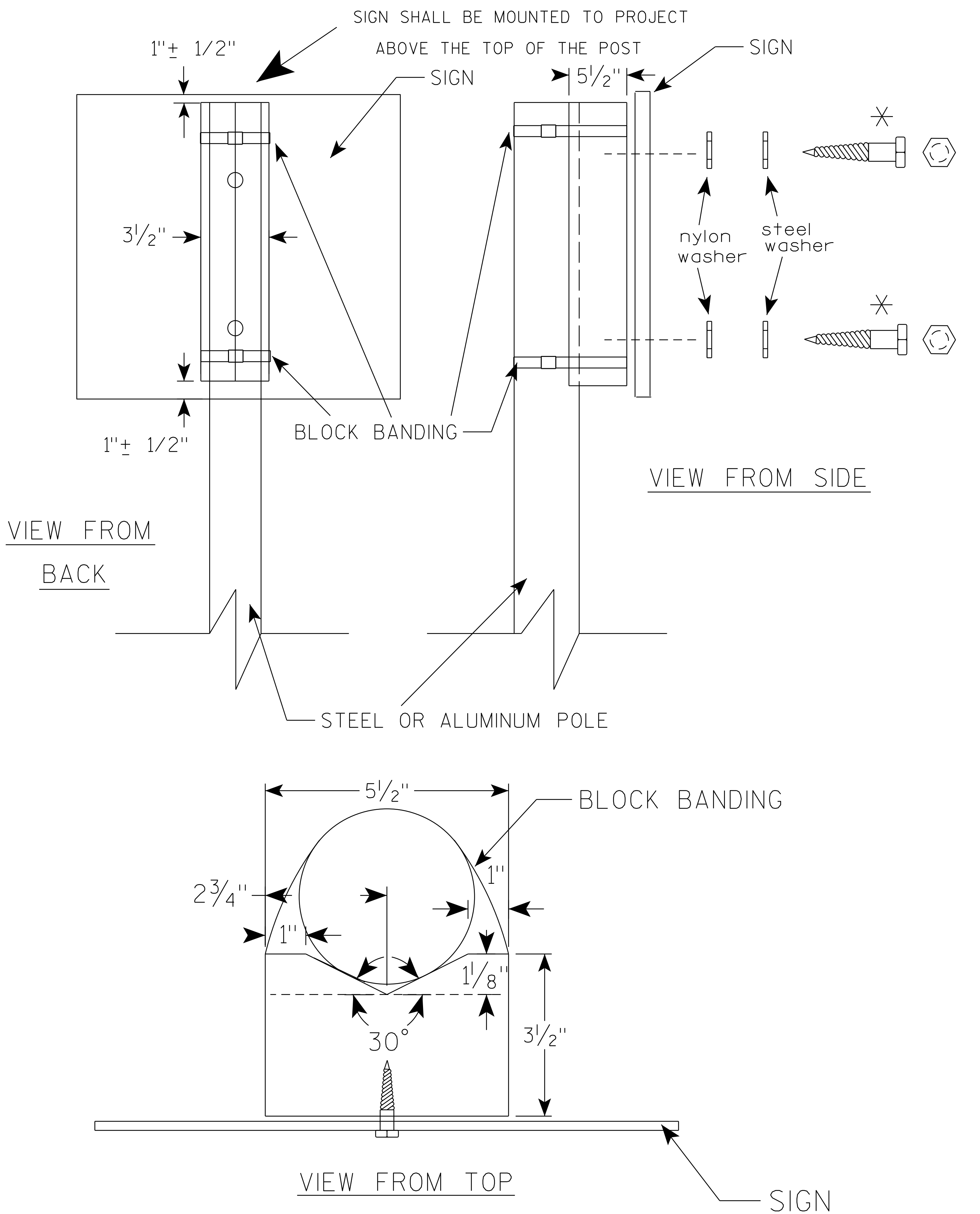
STANDARD SIGN
SIGN BANDING DETAILS

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: 145	E



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 $\frac{1}{16}$"
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

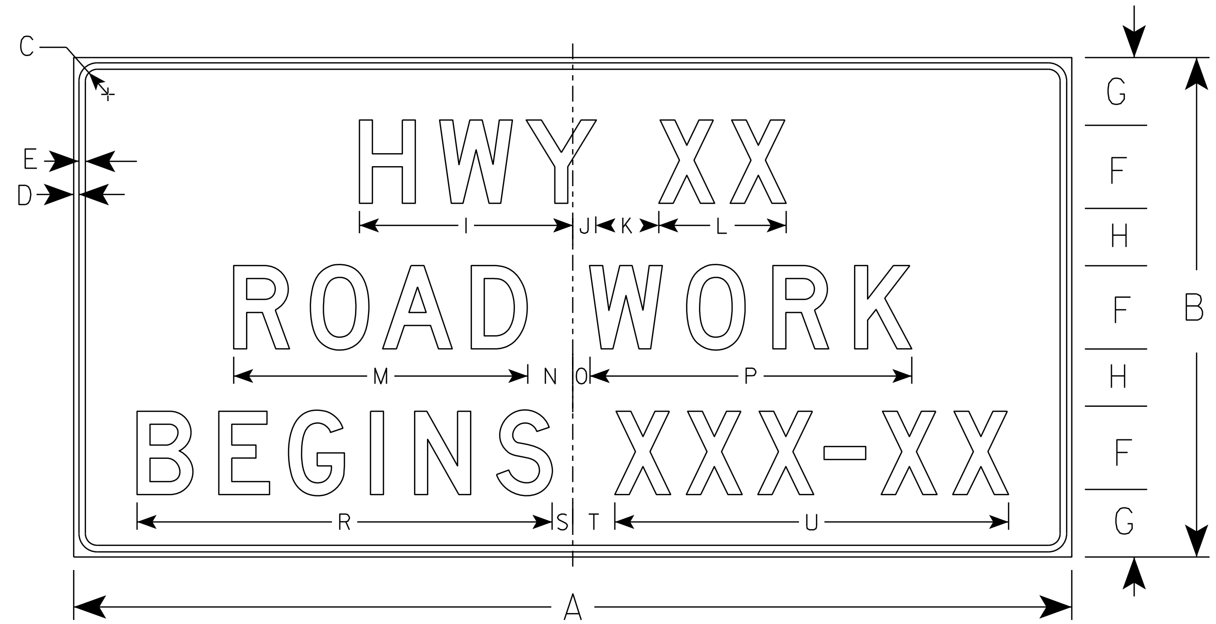
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:				SHEET NO: 146	E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

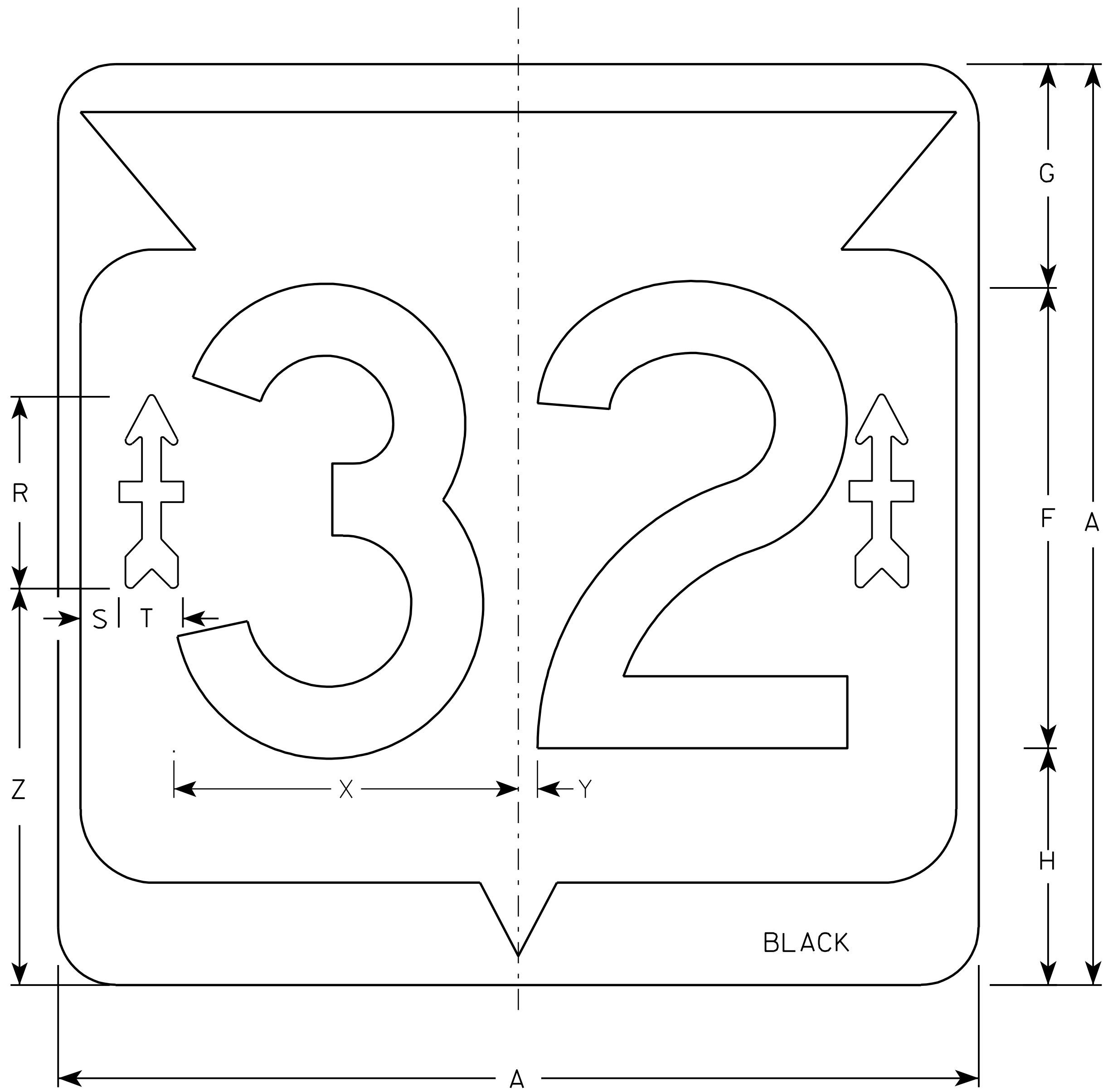
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 147 | E

7

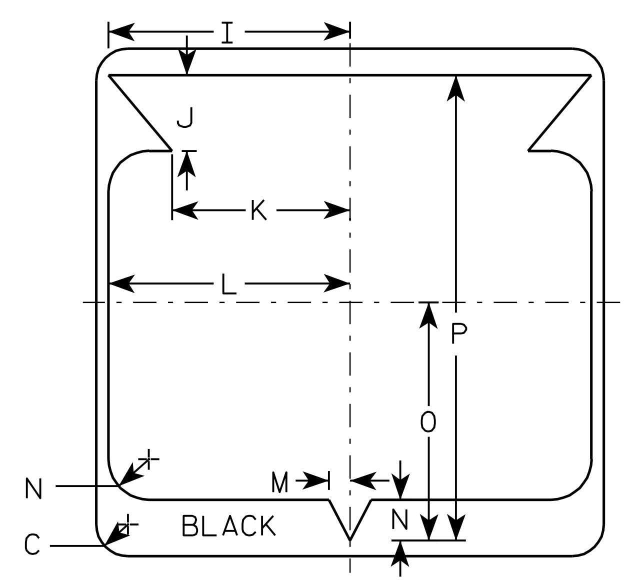
7



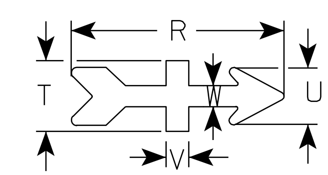
M1-6B

NOTES

1. Sign is Type II - Type H - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black
   Message - Black
   Arrow - Type H Reflective Red
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.



32nd DIVISION ARROW
ACTUAL SIZE



7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8		5 1/8	3/4	1 7/8	1 1/2	5/8	5/8	9	1/2	10 1/2	4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33		7 1/2	1 1/2	2 1/2	2	7/8	3/4	13 1/2	3/4	15 1/2	9.0	.81

STATE ROUTE MARKER"32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

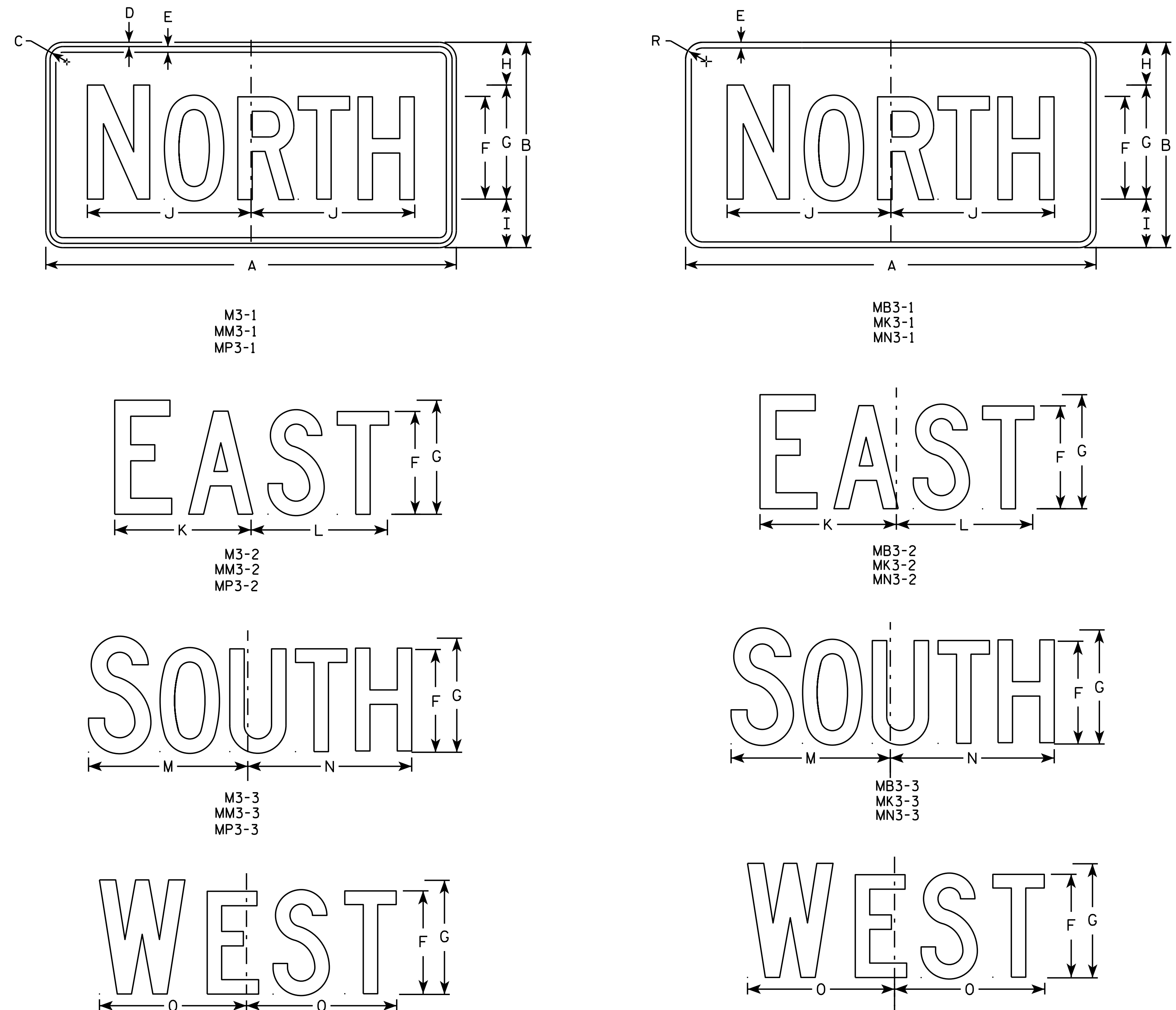
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 148 | E

FILE NAME : C:\Users\Projects\tr_stdplate\M16B.DGN PLOT DATE : 05-DEC-2005 11:29 PLOT BY : DOTDZK PLOT NAME : PLOT SCALE : 6.808143:1.000000

WISDOT/CADDS SHEET 42



M3-1
MM3-1
MP3-1

MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

MB3-2
MK3-2
MN3-2

M3-3
MM3-3
MP3-3

MB3-3
MK3-3
MN3-3

M3-4
MM3-4
MP3-4

MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   - Background - See note 5
   - Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White, Message - Black
   - MB3-1 thru MB3-4 Background - Blue, Message - White
   - MK3-1 thru MK3-4 Background - Green, Message - White
   - MM3-1 thru MM3-4 Background - White, Message - Green
   - MN3-1 thru MN3-4 Background - Brown, Message - White
   - MP3-1 thru MP3-4 Background - White, Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

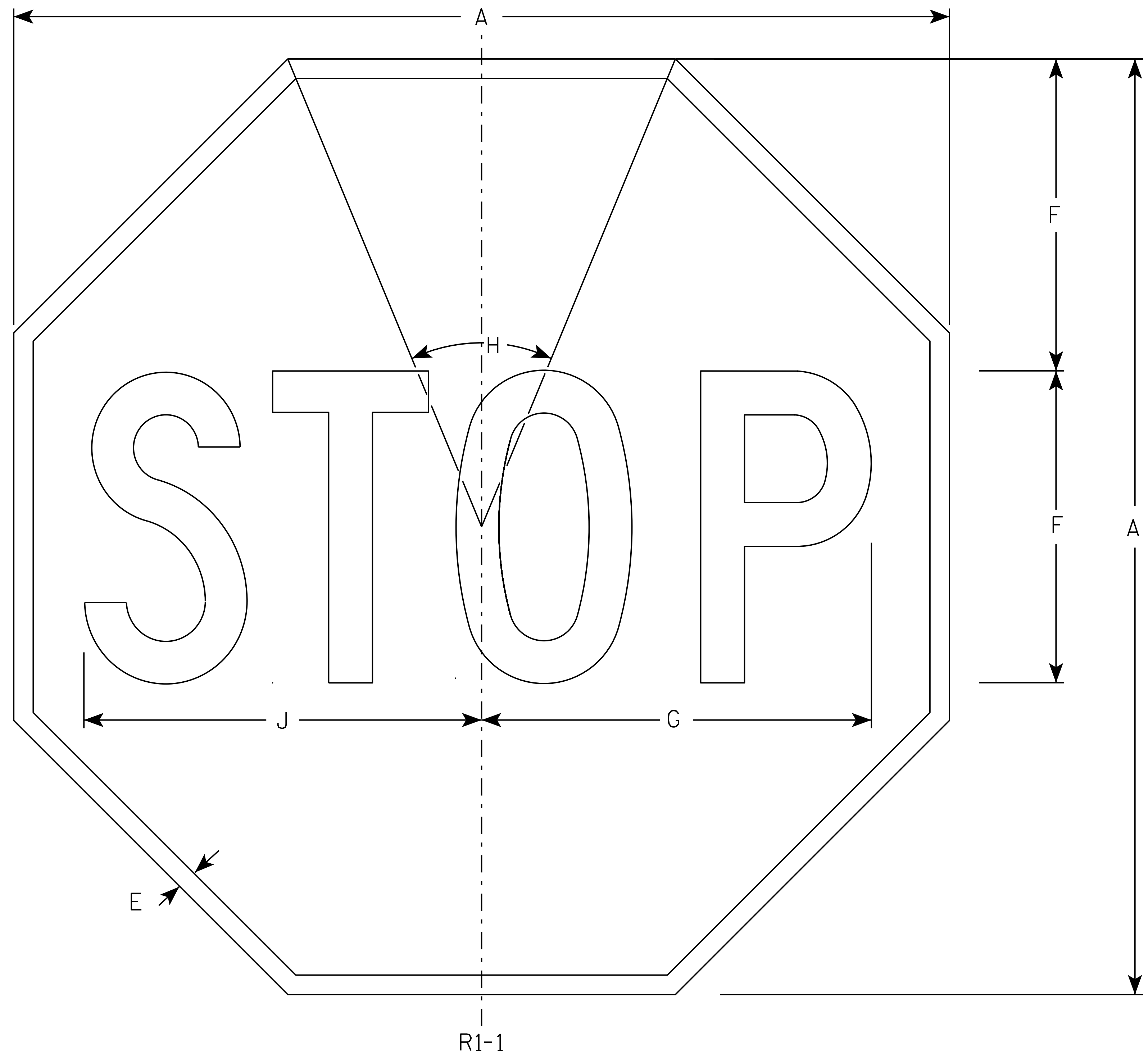
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

PROJECT NO: HWY: COUNTY: SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

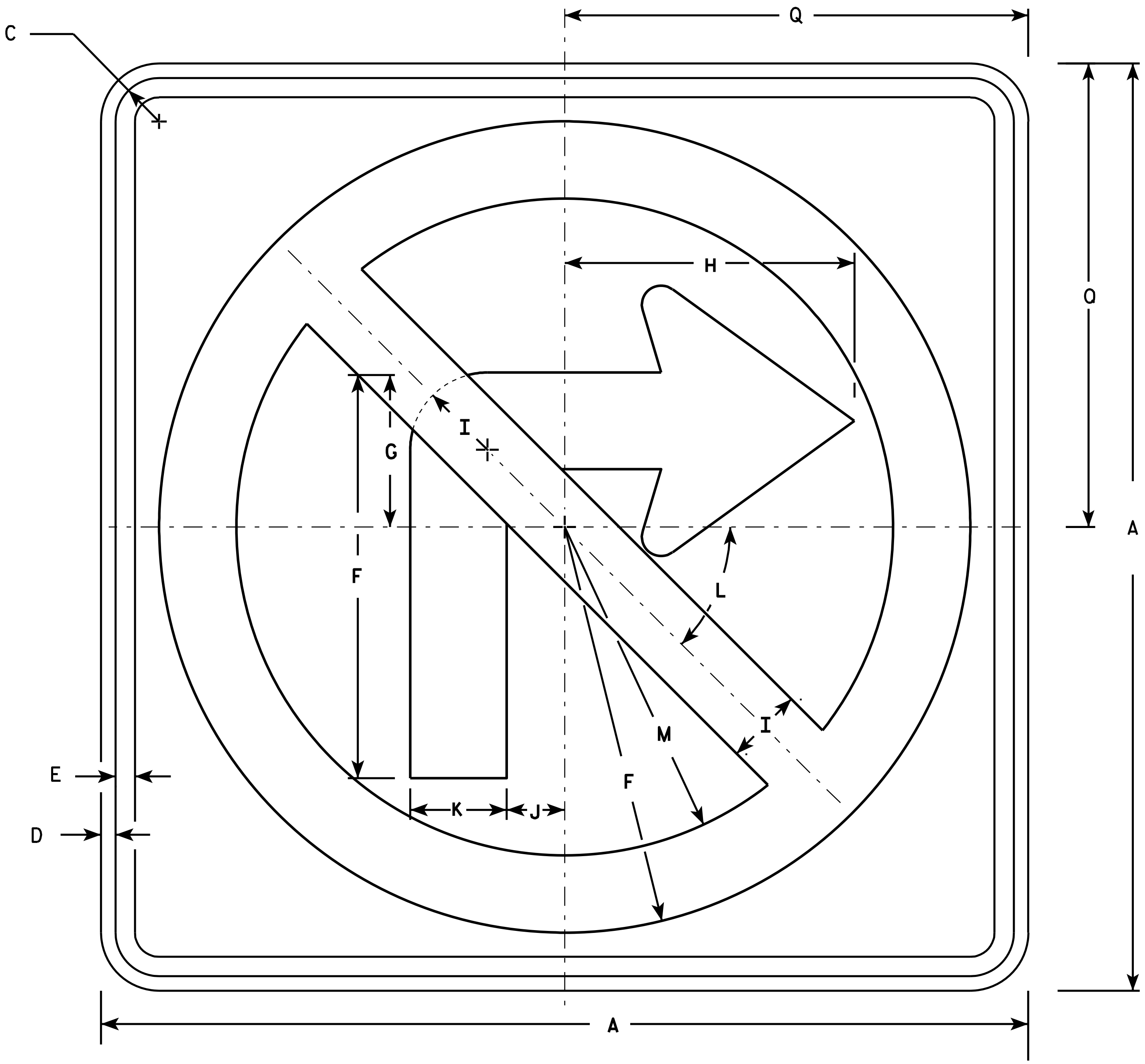
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

7

7

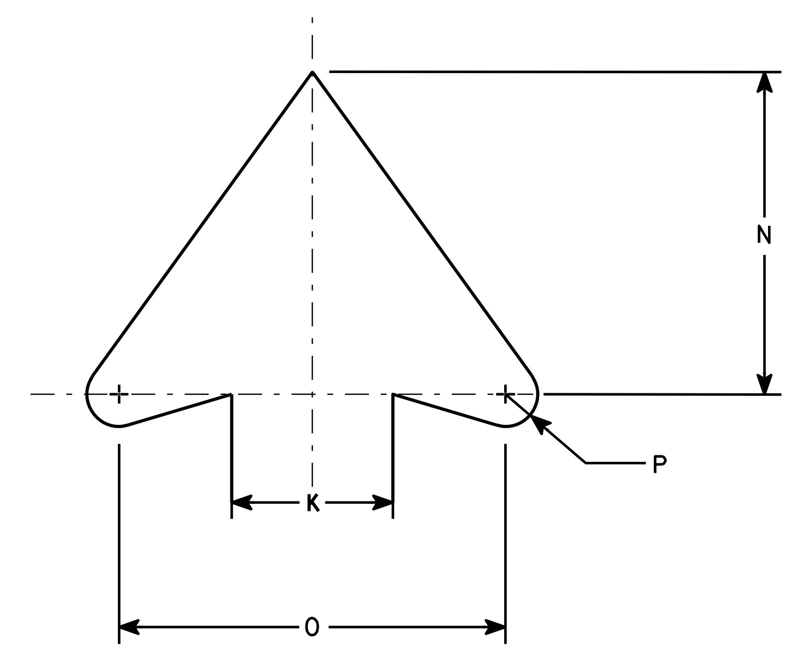
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 150 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

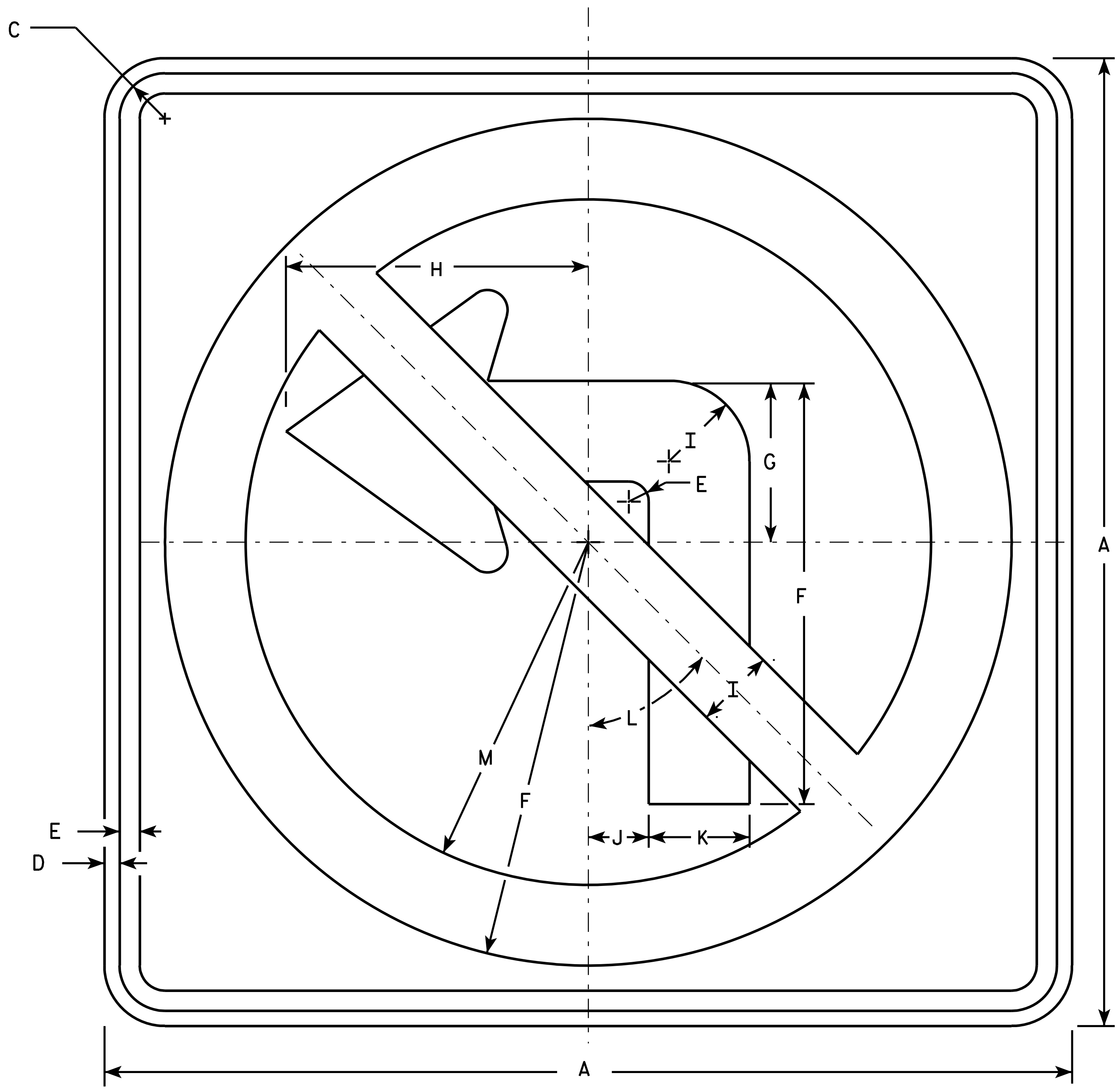
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 151 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R31.DGN PLOT DATE : 08-DEC-2010 13:23 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

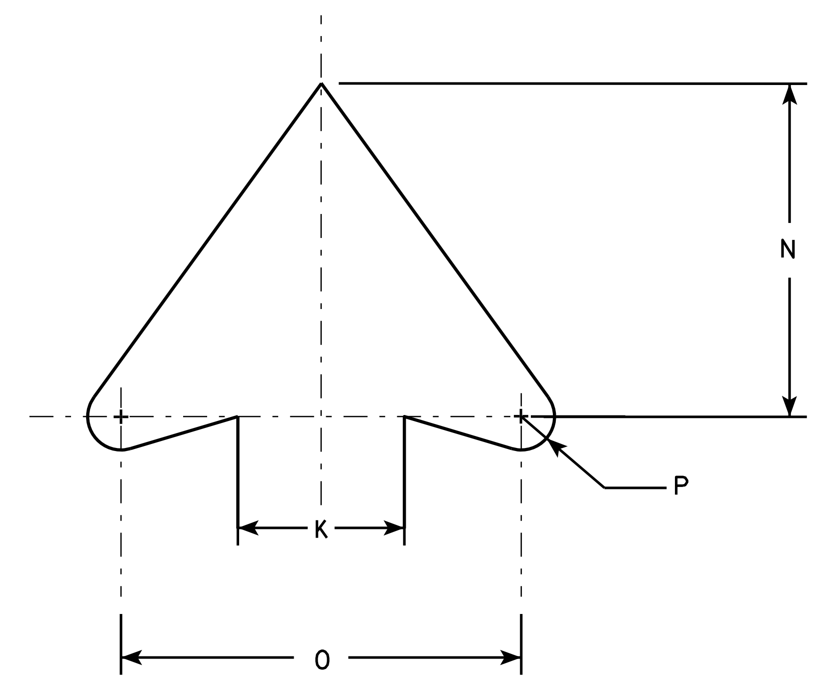
7 7



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

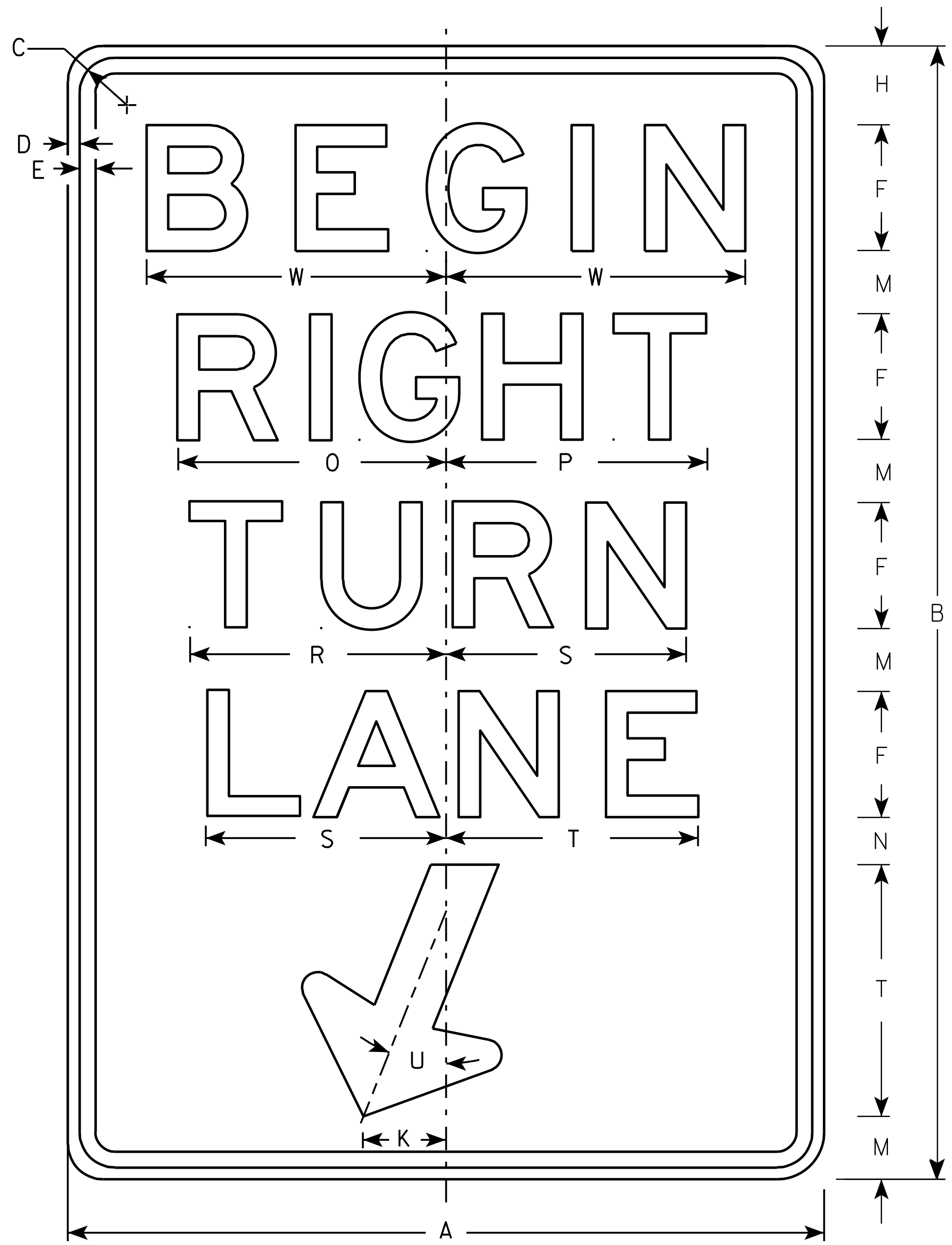
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

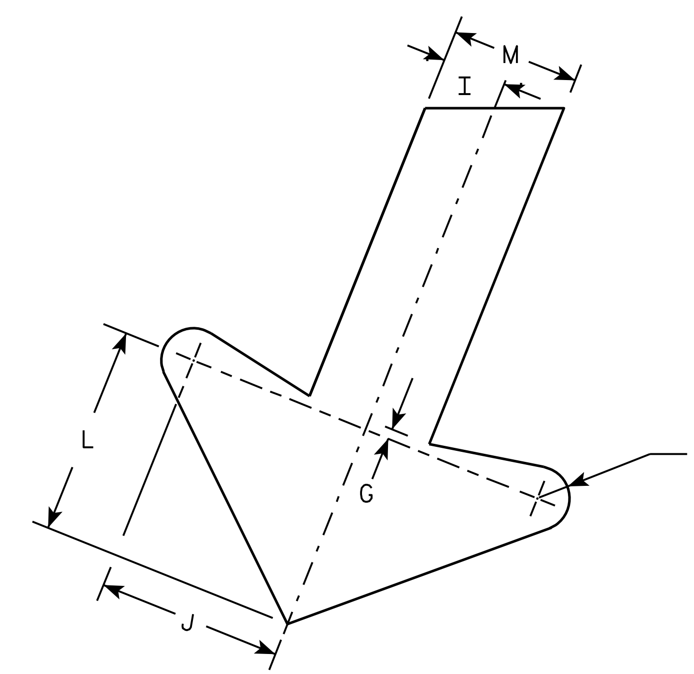
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 152 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

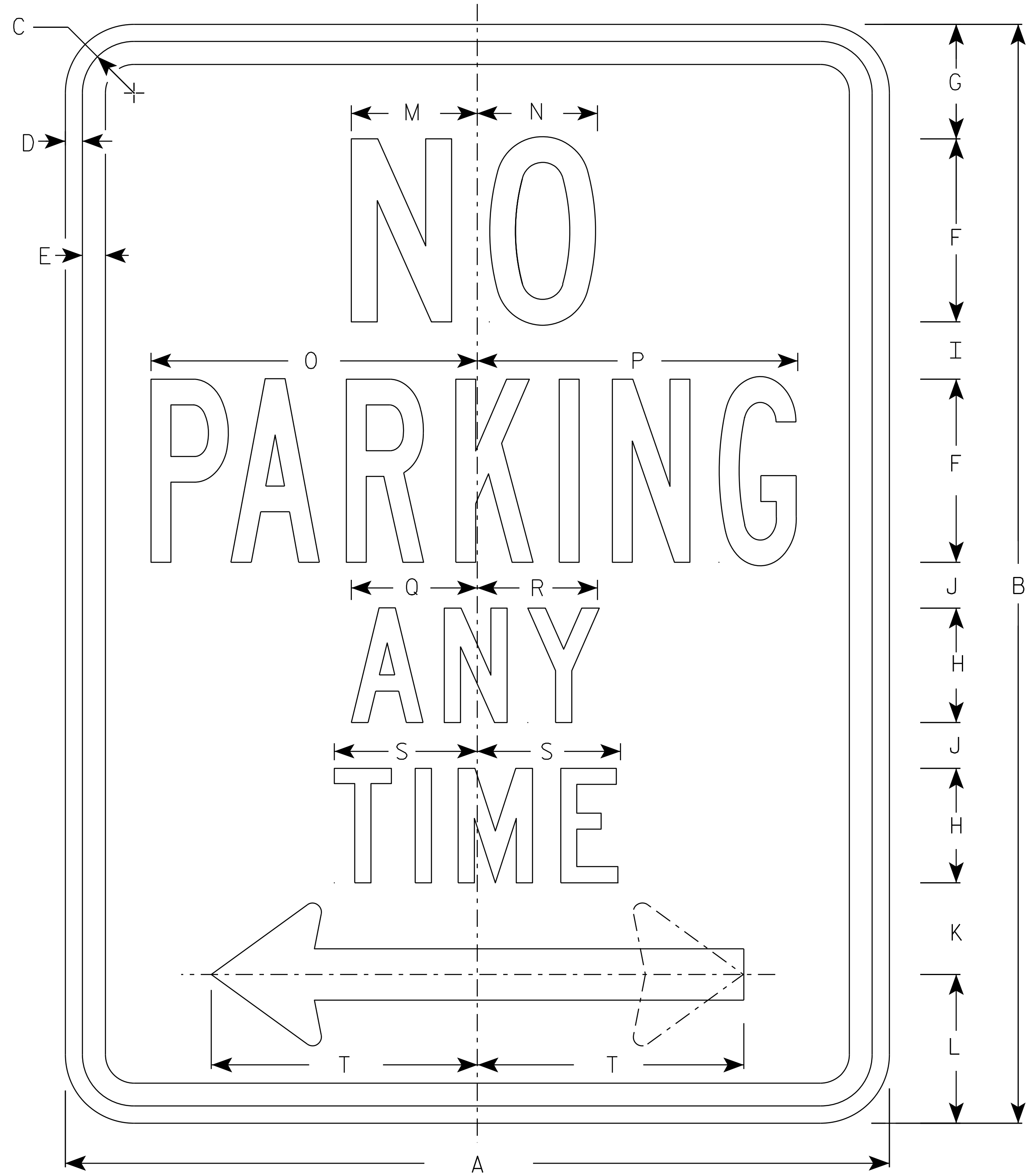
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20R

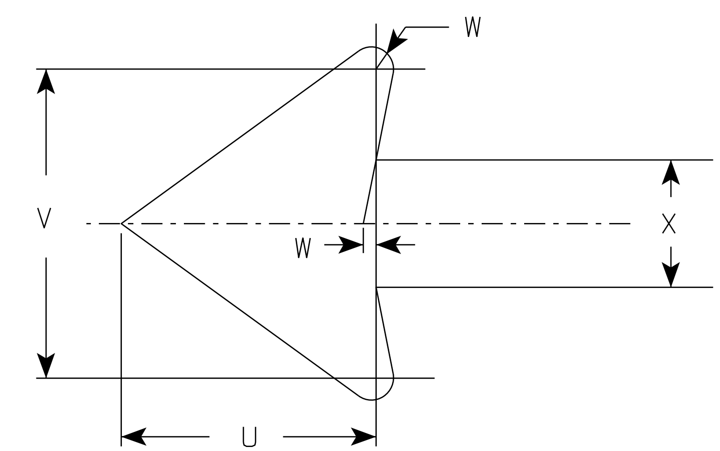
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6



R7-1



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)

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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

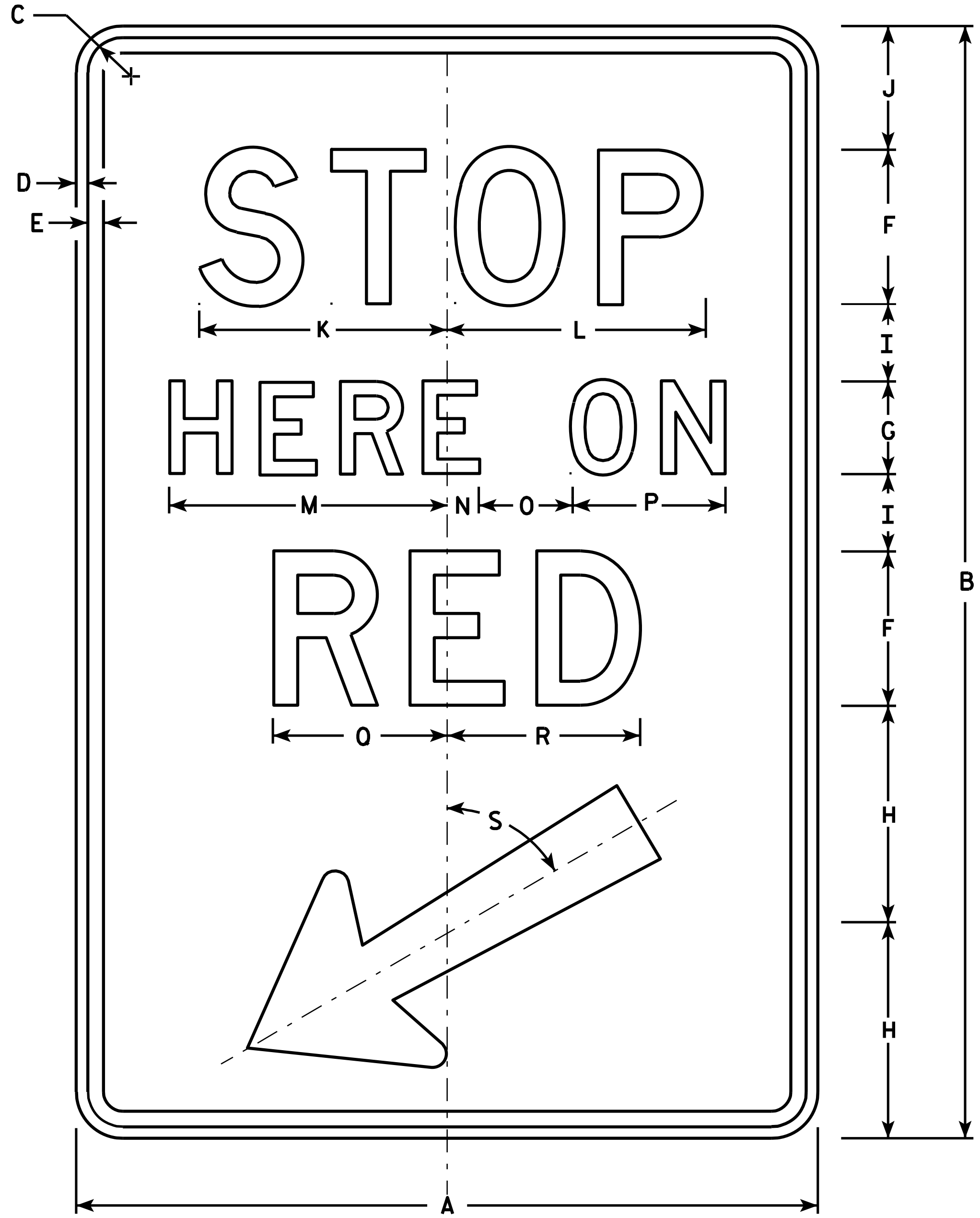
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 154 | E

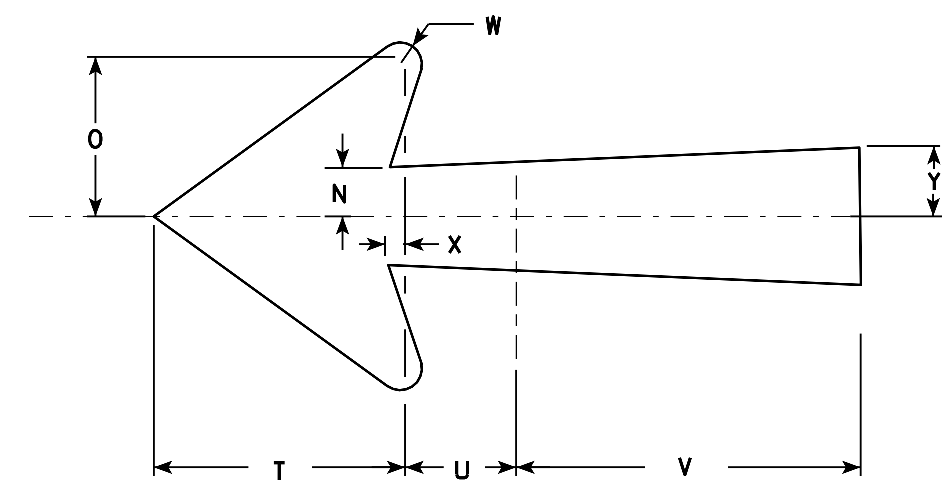
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.dgn PLOT DATE : 30-MAR 2021 1:22 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



R10-6

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

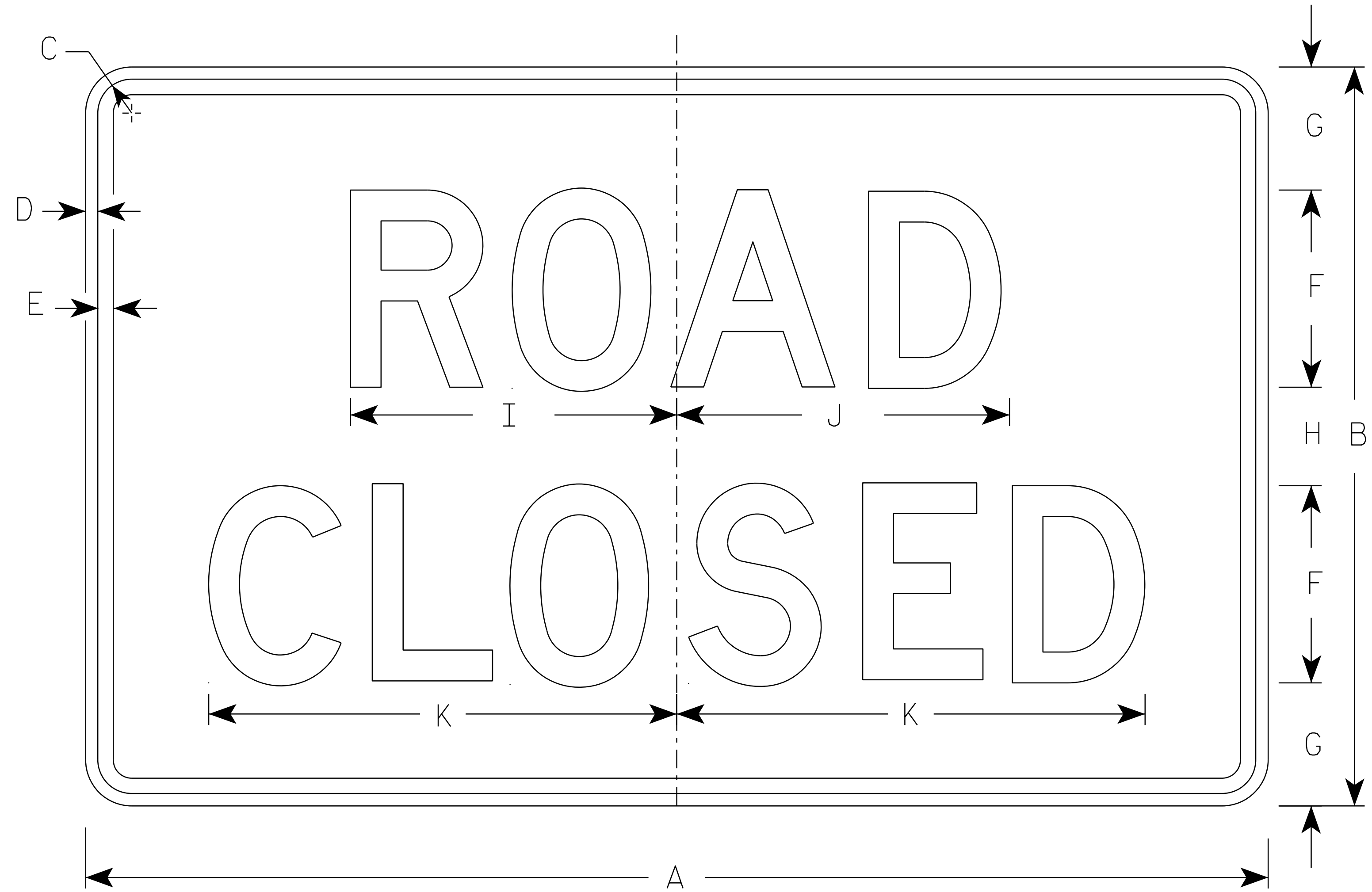
DATE 4/5/11 PLATE NO. R10-6.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 155 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R106.DGN PLOT DATE : 05-APR-2011 09:50 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.959043:1.000000

7

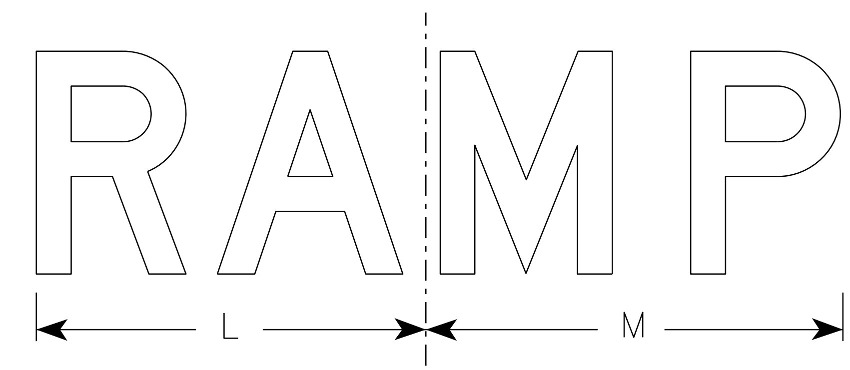
7



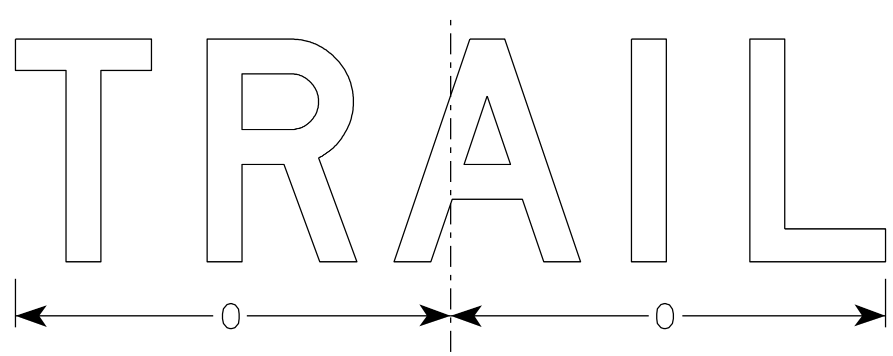
R11-2

NOTES

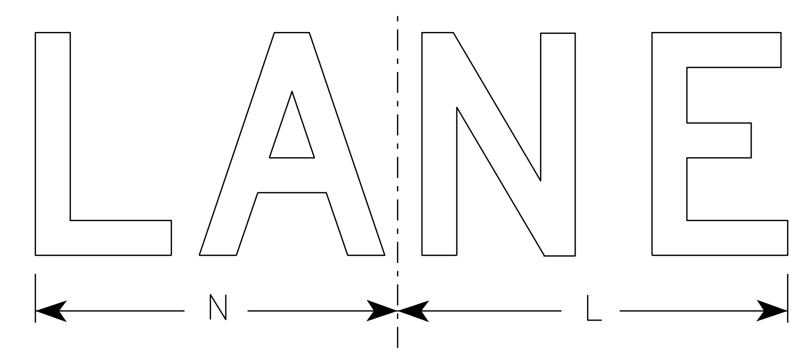
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

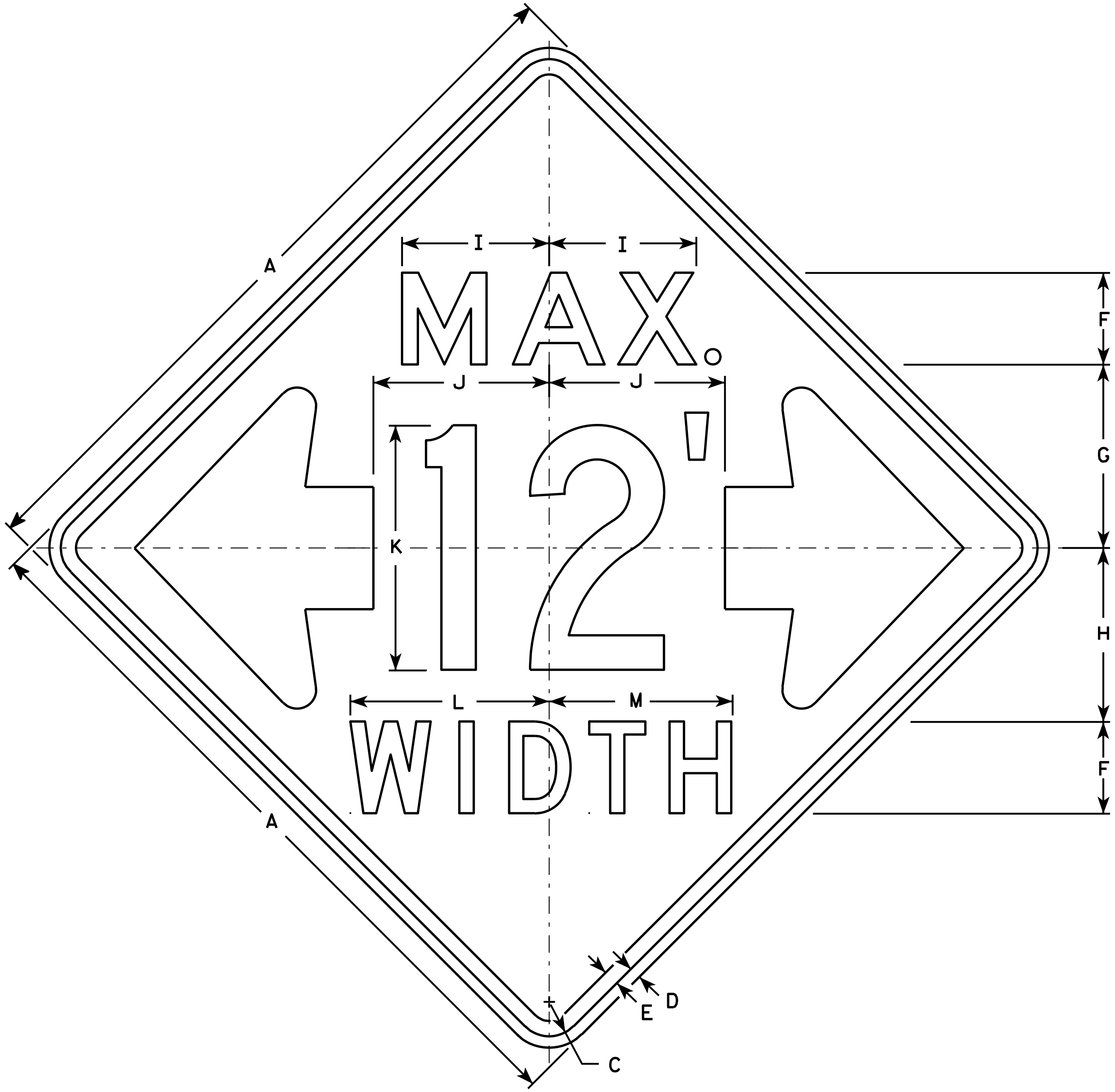
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

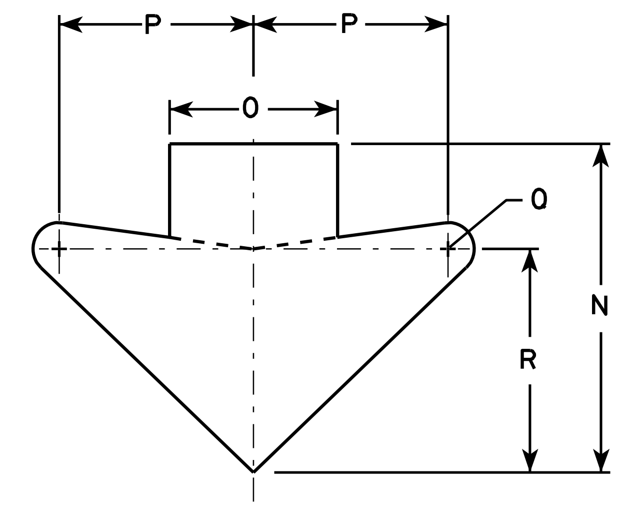
DATE 3/29/2021 PLATE NO. R11-2.11



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

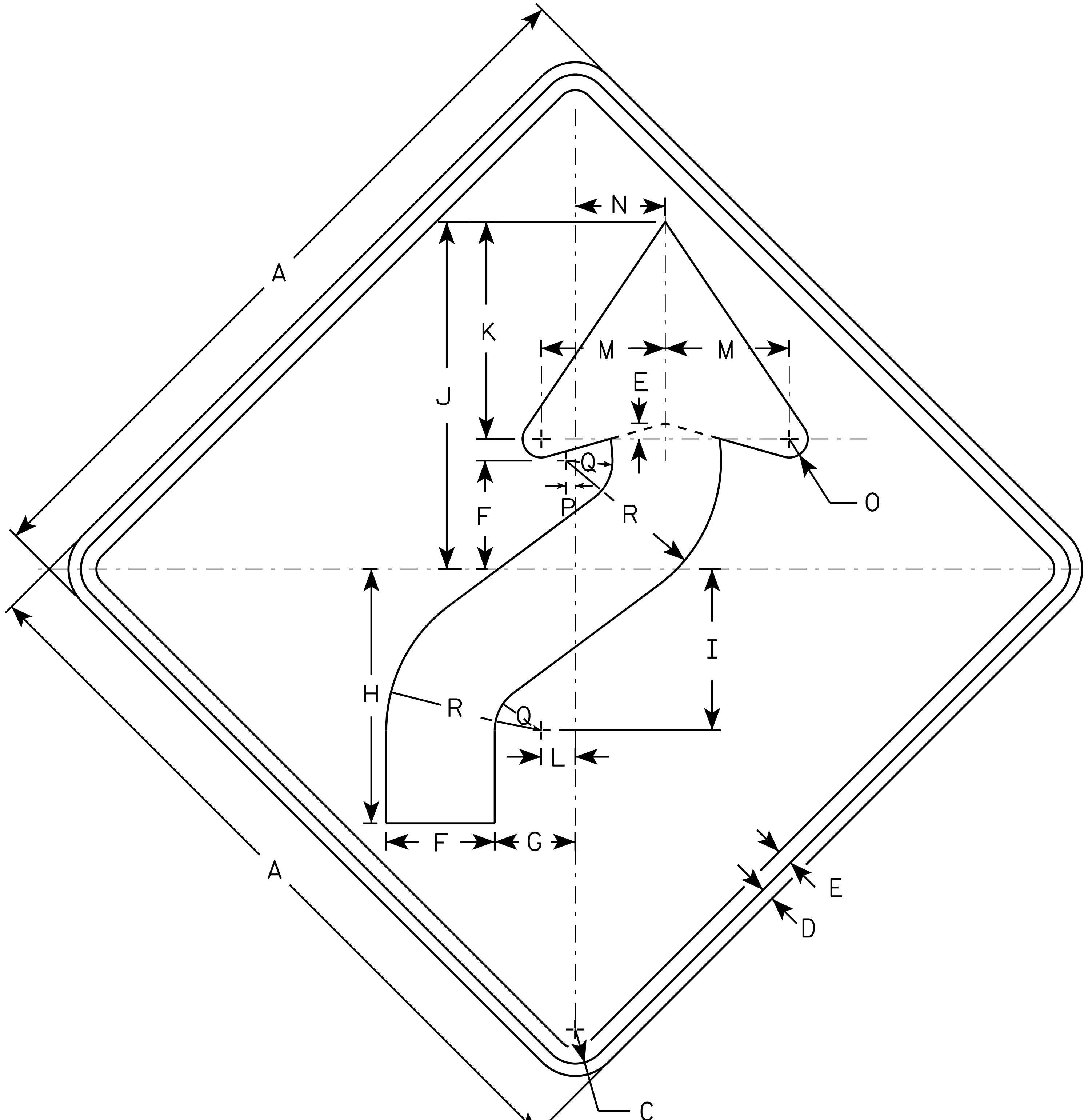
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

7

PROJECT NO: HWY: COUNTY: SHEET NO: 157 E



W01-4R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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STANDARD SIGN
W01-4

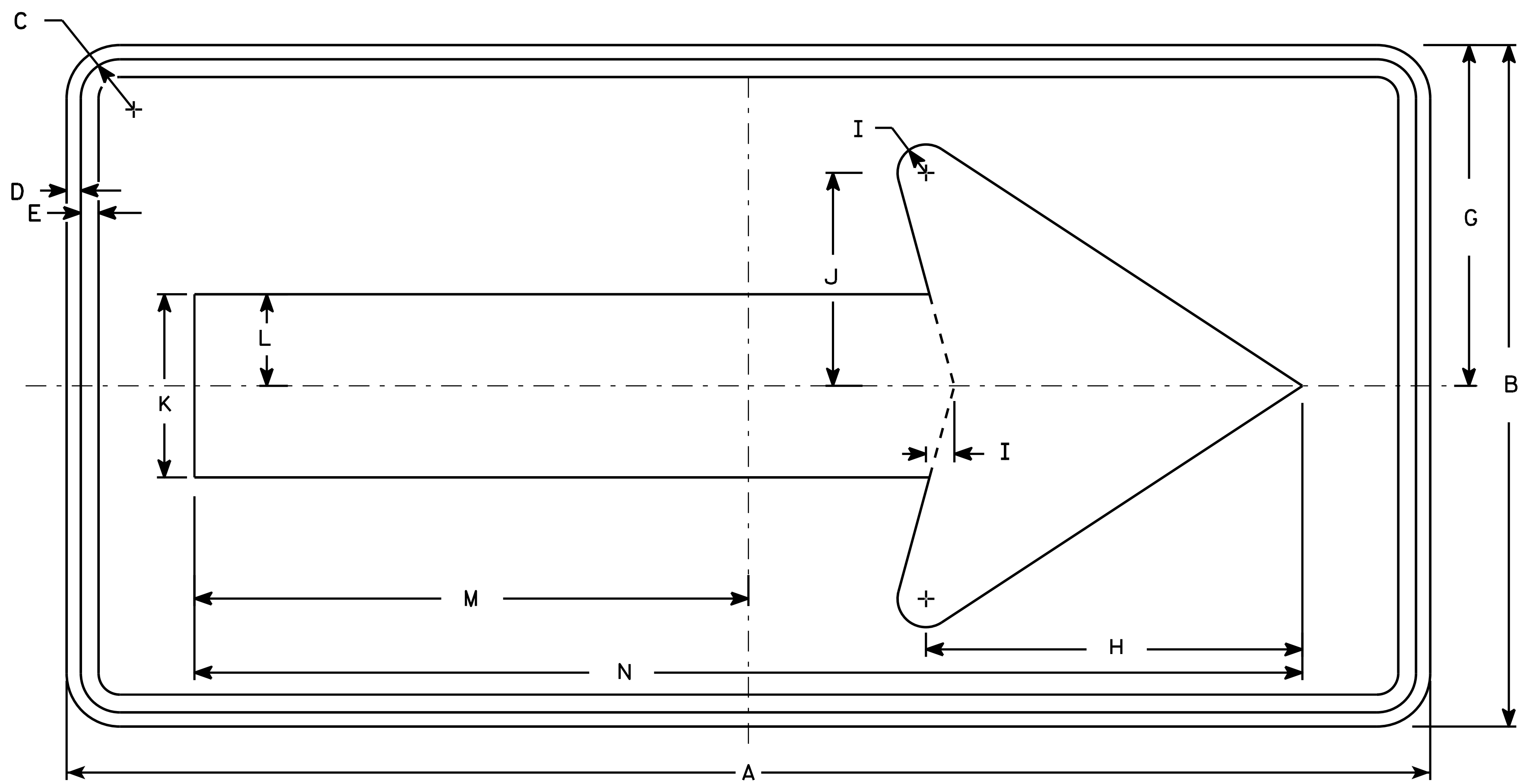
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E

7



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

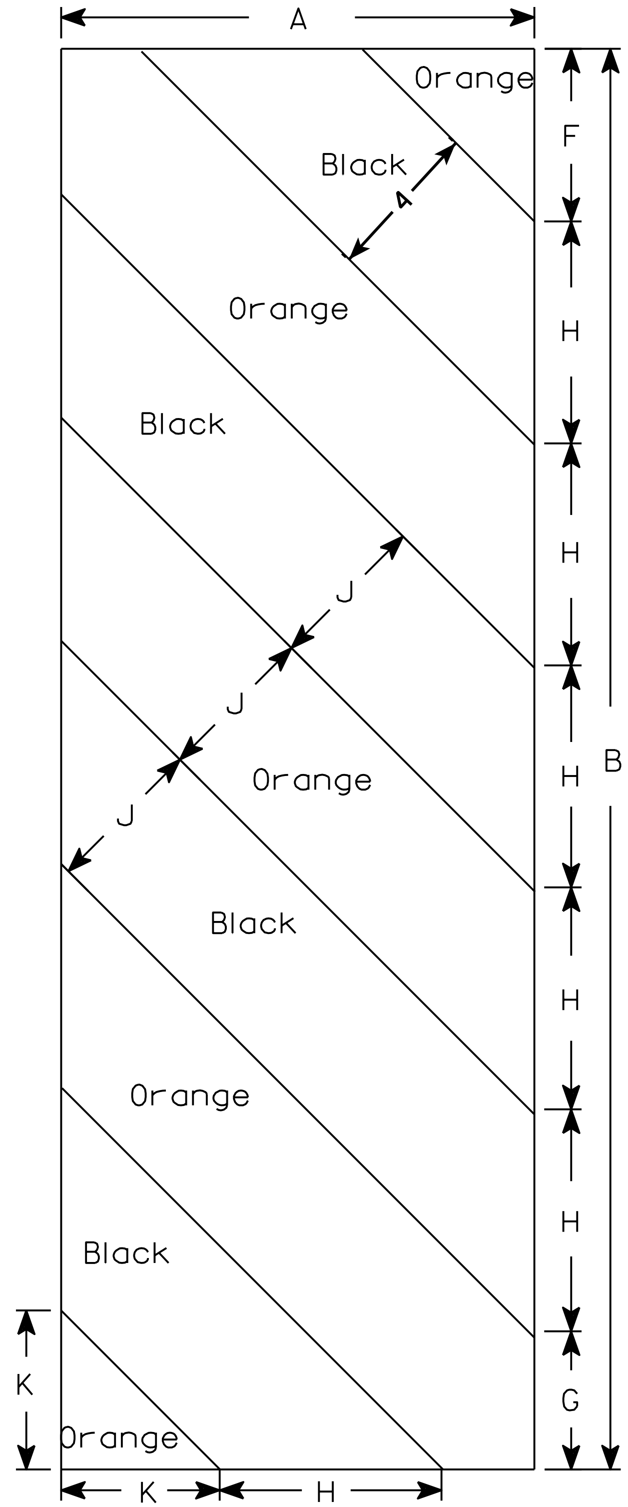
STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

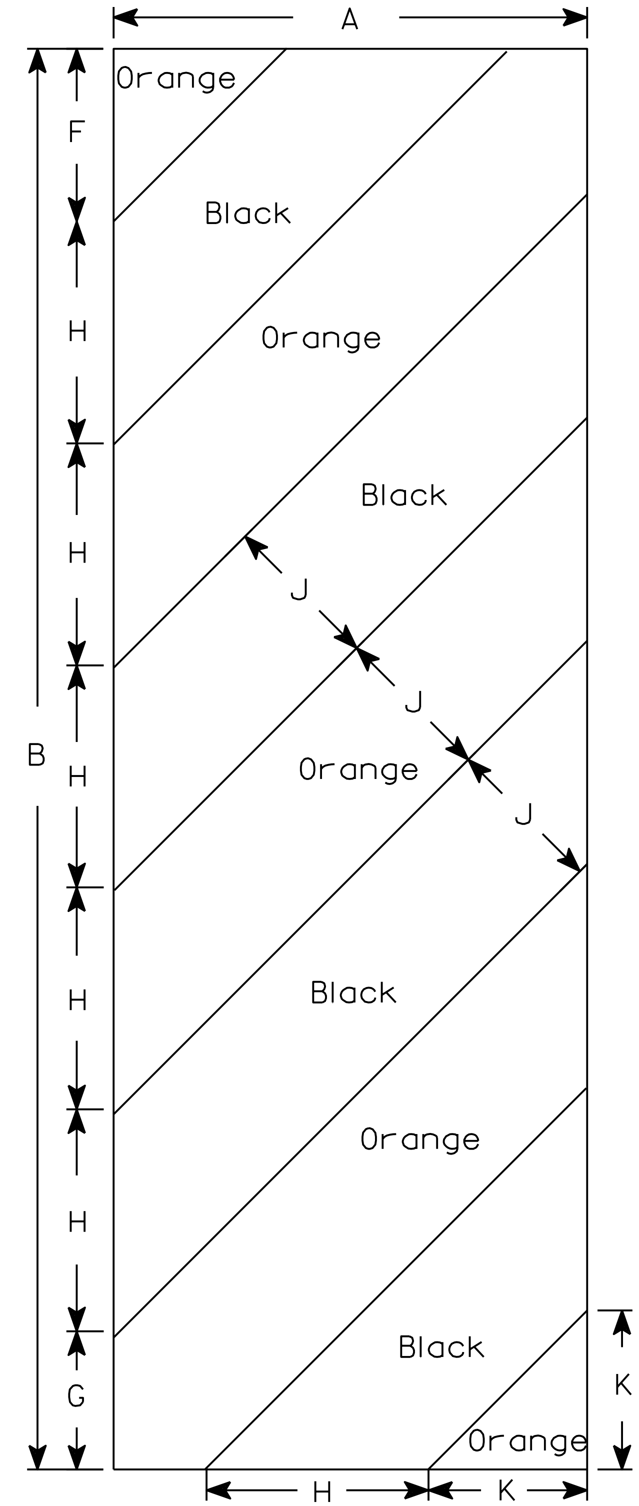
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W05-52.1

PROJECT NO: HWY: COUNTY: SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0552.DGN PLOT DATE : 28-FEB-2014 11:39 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.864607:1.000000 WISDOT/CADDS SHEET 42

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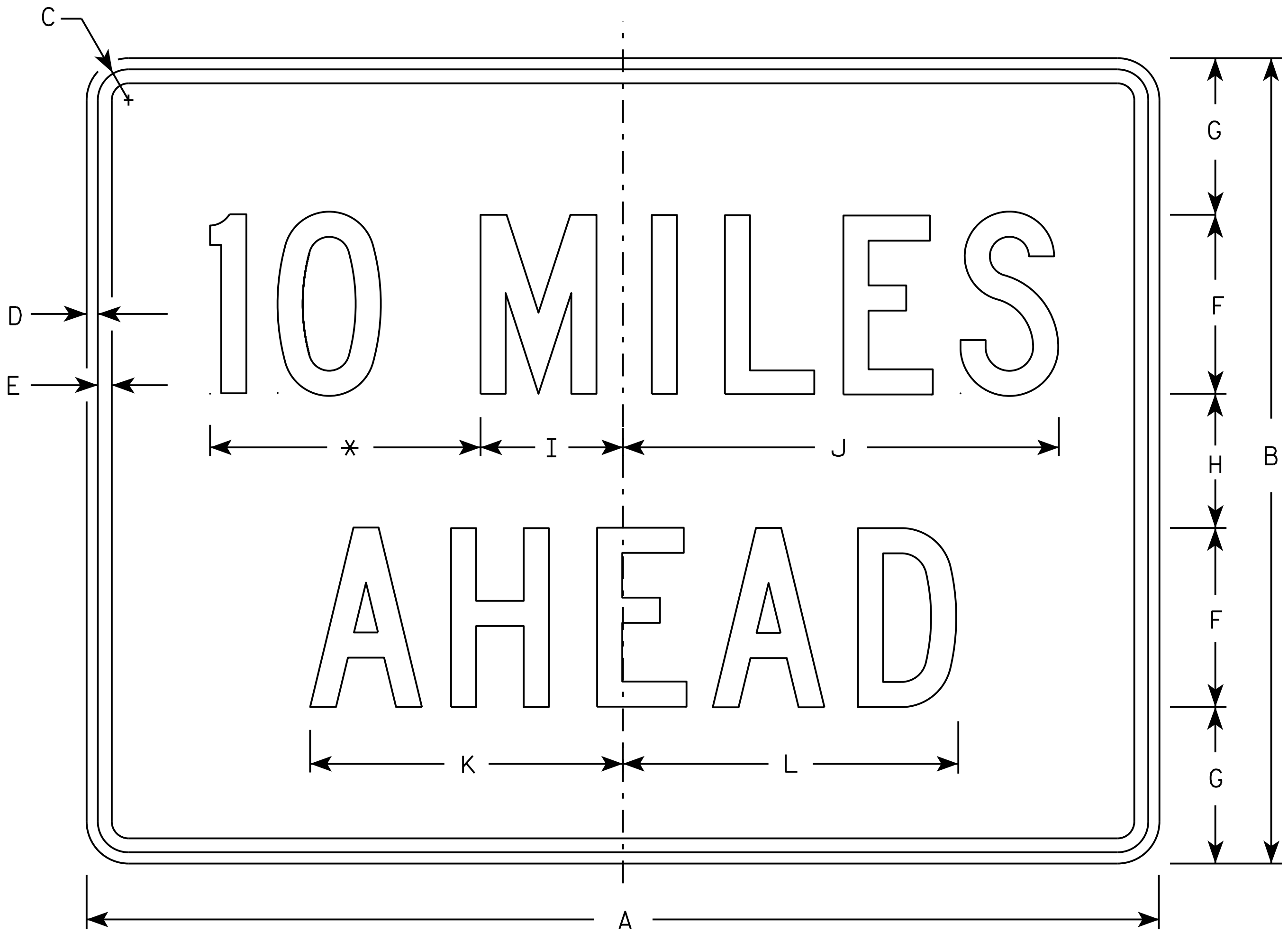
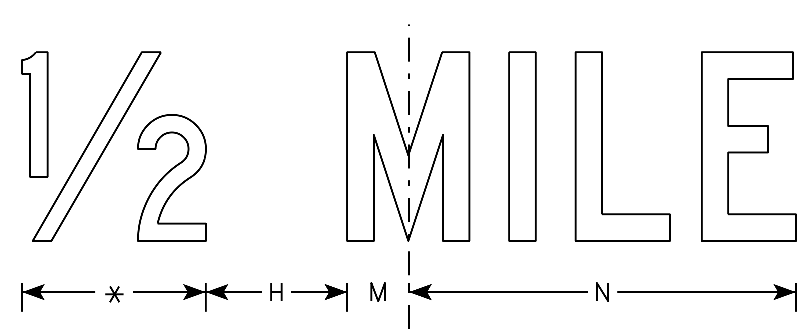


W057-52



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

STH 32 NB - OUTFALL DITCHING - STA 170+00 TO STA 174+57 - DIVISION 3

STATION	DISTANCE	AREA (SF) CUT NOTE 1	AREA (SF) FILL NOTE 2	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL NOTE 2	CUMULATIVE VOLUME (CY) CUT NOTE 1 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
170+00	0	11	4	0	0	0	0	0
170+29	29	13	22	13	14	13	18	-5
170+50	21	18	18	12	16	25	38	-13
171+00	50	22	6	37	22	62	65	-3
171+20	20	23	3	17	3	79	69	10
171+50	30	33	1	31	2	110	71	39
172+00	50	40	1	68	2	178	74	104
172+44	44	49	1	73	2	251	76	175
172+50	6	50	1	11	0	262	76	186
172+82	32	51	1	60	1	322	78	245
173+00	18	47	1	33	1	355	79	276
173+50	50	30	0	71	1	426	80	346
173+57	7	27	0	7	0	433	80	353
173+73	16	21	0	14	0	447	80	367
173+92	19	12	0	12	0	459	80	379
174+00	8	9	0	3	0	462	80	382
174+46	46	3	0	10	0	472	80	392
174+57	11	0	0	1	0	473	80	393
				473	64			

STH 32 NB PAVEMENT REPLACEMENT AND SIDE ROADS - STA 152+72 TO STA 173+73 - DIVISION 4

STATION	DISTANCE	AREA (SF) CUT NOTE 1	AREA (SF) FILL NOTE 2	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL NOTE 2	CUMULATIVE VOLUME (CY) CUT NOTE 1 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
152+72	0	11	5	0	0	0	0	0
153+00	28	10	4	11	5	11	6	5
153+50	50	9	5	18	8	29	16	13
154+00	50	9	4	17	8	46	26	20
154+50	50	10	3	18	6	64	34	30
155+00	50	10	2	19	5	83	40	43
155+50	50	9	1	18	3	101	44	57
156+00	50	9	2	17	3	118	48	71
156+38	38	9	1	13	2	131	50	81
156+50	12	9	0	4	0	135	50	85
157+00	50	9	1	17	1	152	51	101
157+50	50	9	1	17	2	169	54	115
158+00	50	9	4	17	5	186	60	126
158+19	19	10	12	7	6	193	68	126
158+50	31	9	4	11	9	204	79	125
159+00	50	10	2	18	6	222	86	136
159+09	9	7	3	3	1	225	88	138
159+26	17	16	0	7	1	232	89	143
159+35	9	13	0	5	0	237	89	148
159+41	6	10	3	3	0	240	89	151
159+48	7	13	1	3	1	243	90	153
159+54	6	16	0	3	0	246	90	156
159+58	4	12	1	2	0	248	90	158
159+66	8	7	5	3	1	251	91	160
159+82	16	11	1	5	2	256	94	162
159+89	7	12	1	3	0	259	94	165
160+00	11	11	1	5	0	264	94	170
160+50	50	11	1	20	2	284	96	188
161+00	50	9	0	19	1	303	98	206
161+50	50	8	1	16	1	319	99	220
162+00	50	8	1	15	2	334	101	233
162+12	12	6	2	3	1	337	103	235
162+15	3	7	4	1	0	338	103	236
162+39	24	24	0	14	2	352	105	247
162+42	3	27	0	3	0	355	105	250
162+55	13	20	0	11	0	366	105	261
162+68	13	22	0	10	0	376	105	271
162+72	4	17	0	3	0	379	105	274
162+95	23	7	3	10	1	389	106	283
163+15	20	10	3	6	2	395	109	286
163+50	35	10	2	13	3	408	113	296
164+00	50	10	1	19	3	427	116	311
164+50	50	8	1	17	2	444	119	325
165+00	50	9	1	16	2	460	121	339
165+50	50	8	1	16	2	476	124	352
166+00	50	9	2	16	3	492	128	365
166+22	22	10	4	8	2	500	130	370
166+50	28	10	3	10	4	510	135	375
167+00	50	9	2	18	5	528	141	387
167+50	50	9	1	17	3	545	145	400
168+00	50	9	1	17	2	562	148	415
168+50	50	7	3	15	4	577	153	425
168+51	1	7	3	0	0	577	153	425
168+74	23	29	0	15	1	592	154	438
168+76	2	29	0	2	0	594	154	440
168+80	4	28	0	4	0	598	154	444
168+91	11	22	0	10	0	608	154	454
169+05	14	23	0	12	0	620	154	466
169+06	1	21	0	1	0	621	154	467
169+30	24	7	3	12	1	633	155	478
169+31	1	7	3	0	0	633	155	478
169+50	19	10	2	6	2	639	158	482
170+00	50	10	1	19	3	658	161	497
170+29	29	9	1	10	1	668	163	506
170+50	21	10	1	7	1	675	164	511
171+00	50	9	1	18	2	693	166	527
171+20	20	9	1	7	1	700	168	533
171+50	30	8	1	9	1	709	169	540
172+00	50	8	0	15	1	724	170	554
172+44	44	10	1	15	1	739	171	568
172+50	6	10	1	2	0	741	171	570
172+82	32	11	2	12	2	753	174	579
173+00	18	12	2	8	1	761	175	586
173+50	50	12	5	22	6	783	183	601
173+57	7	11	6	3	1	786	184	602
173+73	16	12	4	7	3	793	188	606
				793	150			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); POSITIVE. INDICATES AN EXCESS OF MATERIAL

9

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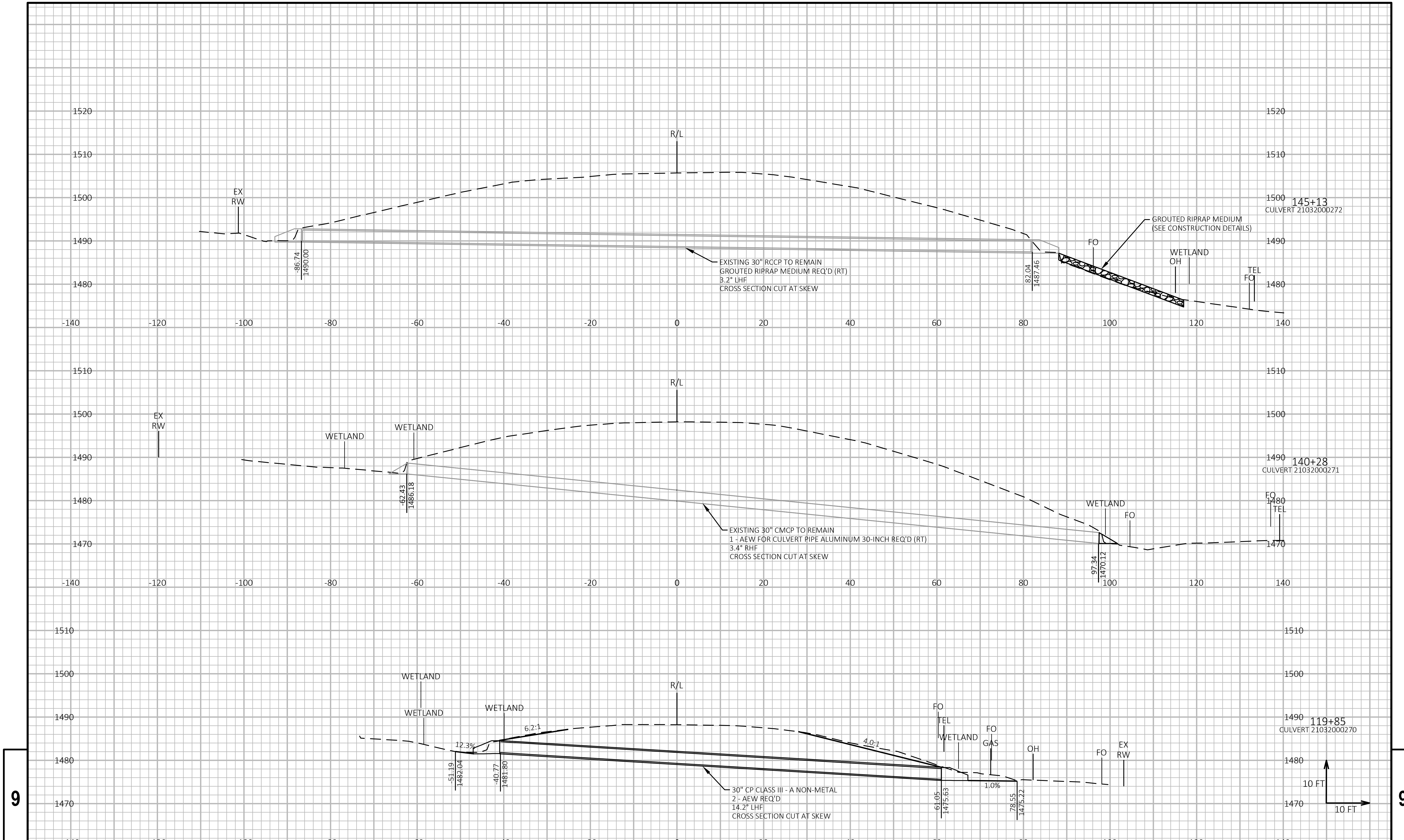
STH 32 SB PAVEMENT REPLACEMENT AND SIDE ROADS - STA 152+72 TO STA 173+73 - DIVISION 5

STATION	DISTANCE	AREA (SF) CUT NOTE 1	AREA (SF) FILL NOTE 2	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL NOTE 2	CUMULATIVE VOLUME (CY) CUT NOTE 1 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
152+72	0	13	18	0	0	0	0	0
153+00	28	13	15	13	17	13	21	-8
153+50	50	13	14	24	27	37	55	-18
154+00	50	13	9	24	21	61	81	-20
154+50	50	16	14	27	21	88	108	-20
155+00	50	14	13	28	25	116	139	-23
155+50	50	14	14	26	25	142	170	-28
156+00	50	13	15	25	27	167	204	-37
156+38	38	13	9	18	17	185	225	-40
156+50	13	13	14	6	5	191	231	-40
157+00	50	13	15	24	27	215	265	-50
157+50	50	14	14	25	27	240	299	-59
158+00	50	15	12	27	24	267	329	-62
158+19	19	16	12	11	8	278	339	-61
158+50	31	14	13	17	14	295	356	-61
159+00	50	18	15	30	26	325	389	-64
159+09	9	14	17	5	5	330	395	-65
159+26	18	29	11	14	9	344	406	-62
159+35	9	35	10	11	3	355	410	-55
159+41	5	40	6	7	2	362	413	-51
159+48	8	41	7	11	2	373	415	-42
159+54	5	43	6	8	1	381	416	-35
159+58	5	45	6	8	1	389	418	-29
159+66	7	32	6	10	2	399	420	-21
159+82	16	15	11	14	5	413	426	-13
159+89	7	14	16	4	3	417	430	-13
160+00	11	14	11	6	6	423	438	-15
160+50	50	15	11	27	20	450	463	-13
161+00	50	14	11	27	20	477	488	-11
161+50	50	14	11	26	20	503	513	-10
162+00	50	18	16	30	25	533	544	-11
162+12	12	14	16	7	7	540	553	-13
162+15	2	13	15	1	1	541	554	-13
162+39	25	33	7	21	10	562	566	-4
162+42	3	34	5	4	1	566	568	-2
162+55	13	37	5	17	2	583	570	13
162+68	13	38	5	17	2	600	573	28
162+72	4	27	11	5	1	605	574	31
162+95	23	10	11	16	9	621	585	36
163+15	20	13	6	9	6	630	593	38
163+50	35	14	8	17	9	647	604	43
164+00	50	14	8	26	15	673	623	51
164+50	50	15	9	27	16	700	643	58
165+00	50	17	6	30	14	730	660	70
165+50	50	14	9	29	14	759	678	82
166+00	50	17	11	29	19	788	701	87
166+22	22	18	13	14	10	802	714	88
166+50	28	15	10	17	12	819	729	90
167+00	50	12	8	25	17	844	750	94
167+50	50	12	8	22	15	866	769	97
168+00	50	12	8	22	15	888	788	101
168+50	50	11	7	21	14	909	805	104
168+51	1	13	7	1	0	910	805	105
168+74	23	33	10	20	7	930	814	116
168+76	2	36	7	2	1	932	815	117
168+80	4	42	5	5	1	937	816	121
168+91	11	35	5	16	2	953	819	134
169+04	13	45	6	20	3	973	823	151
169+05	2	43	8	2	0	975	823	153
169+30	25	12	13	25	10	1,000	835	165
169+31	1	13	13	0	0	1,000	835	165
169+50	19	16	13	10	9	1,010	846	164
170+00	50	14	12	28	23	1,038	875	163
170+29	29	14	7	15	10	1,053	888	166
170+50	21	14	10	11	7	1,064	896	168
171+00	50	14	10	26	19	1,090	920	170
171+20	20	14	6	10	6	1,100	928	173
171+50	30	15	10	16	9	1,116	939	177
172+00	50	14	11	27	19	1,143	963	181
172+44	44	16	13	24	20	1,167	988	180
172+50	6	16	13	4	3	1,171	991	180
172+82	32	18	15	20	17	1,191	1,013	179
173+00	18	18	16	12	10	1,203	1,025	178
173+50	50	18	11	33	25	1,236	1,056	180
173+57	7	18	11	5	3	1,241	1,060	181
173+73	16	0	6	5	5	1,246	1,066	180
				1,246	853			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); POSITIVE. INDICATES AN EXCESS OF MATERIAL

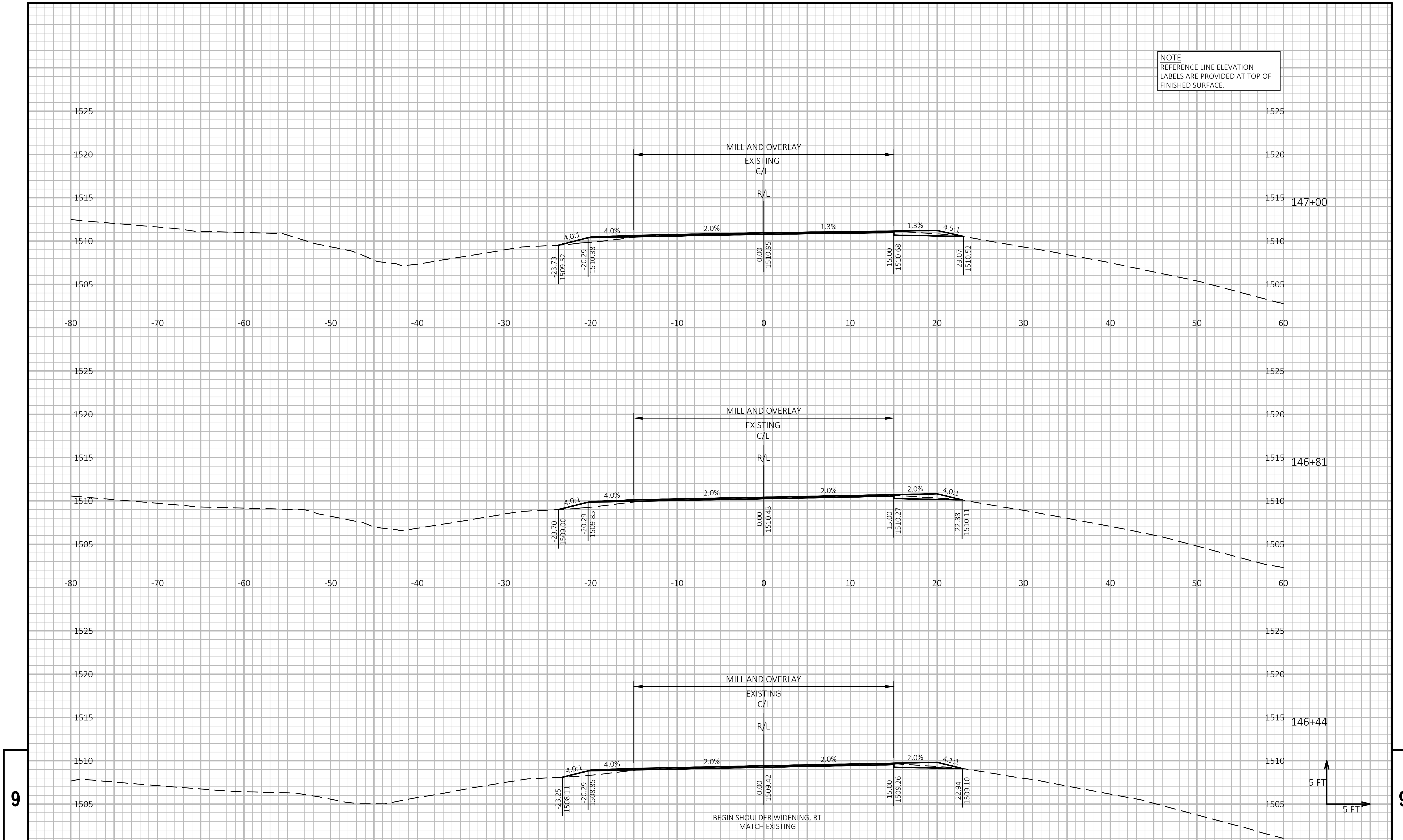
9

9



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: CULVERTS	SHEET 164	E

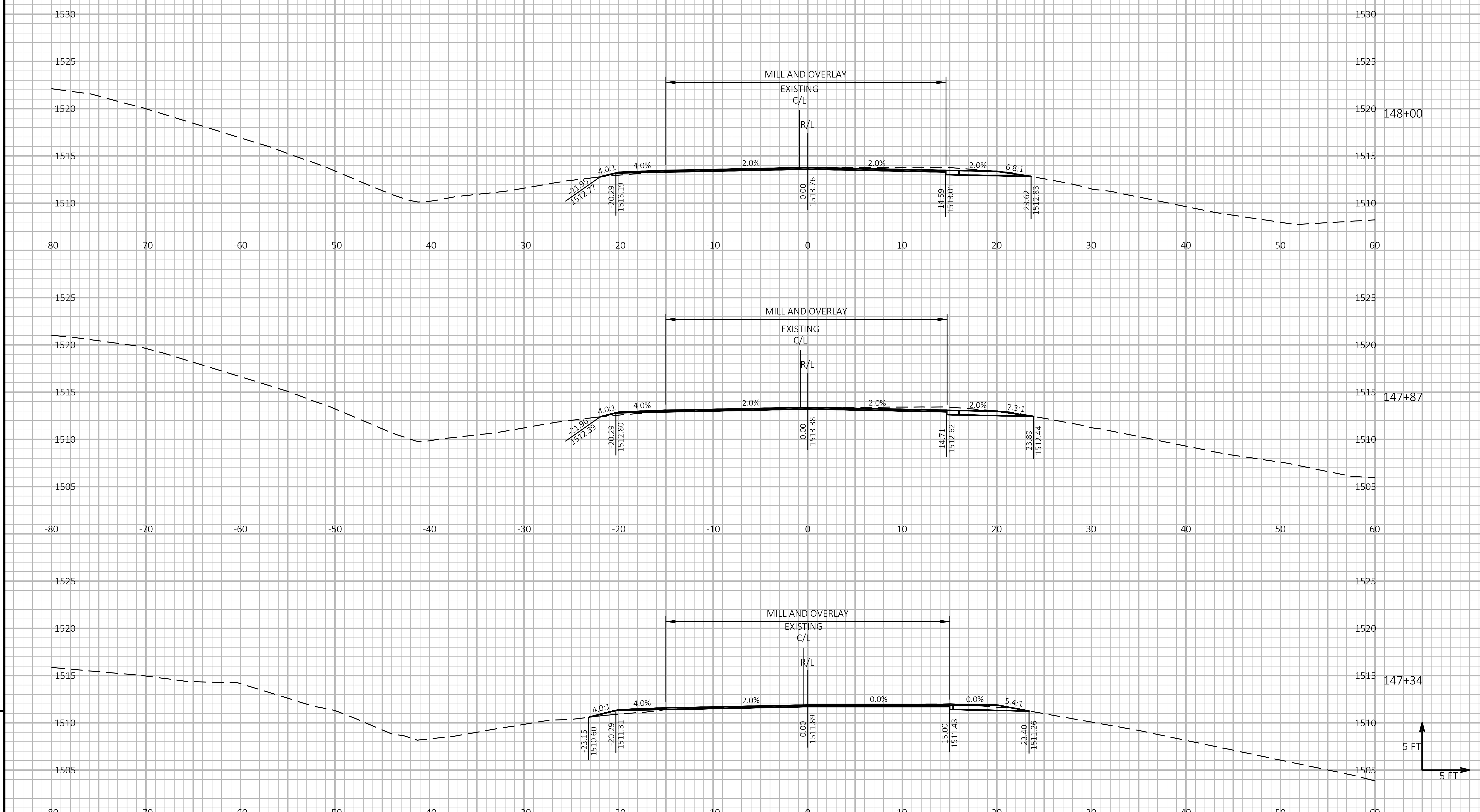
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090201-XS-S CULVERTS.DWG
LAYOUT NAME - 01
PLOT DATE : 1/21/2022 8:00 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 165	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01
PLOT DATE : 1/28/2022 3:04 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

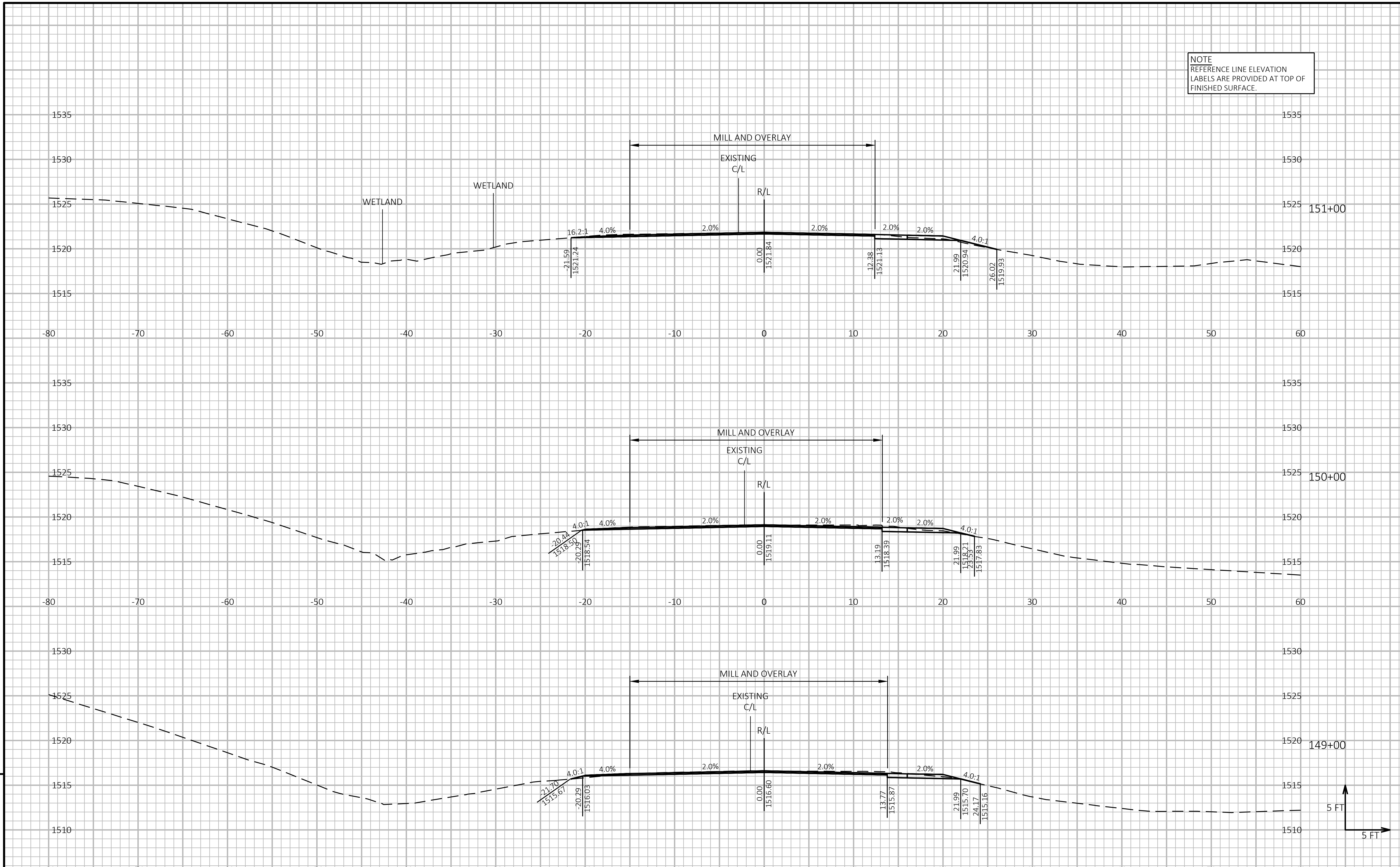
NOTE
REFERENCE LINE ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED SURFACE.



9

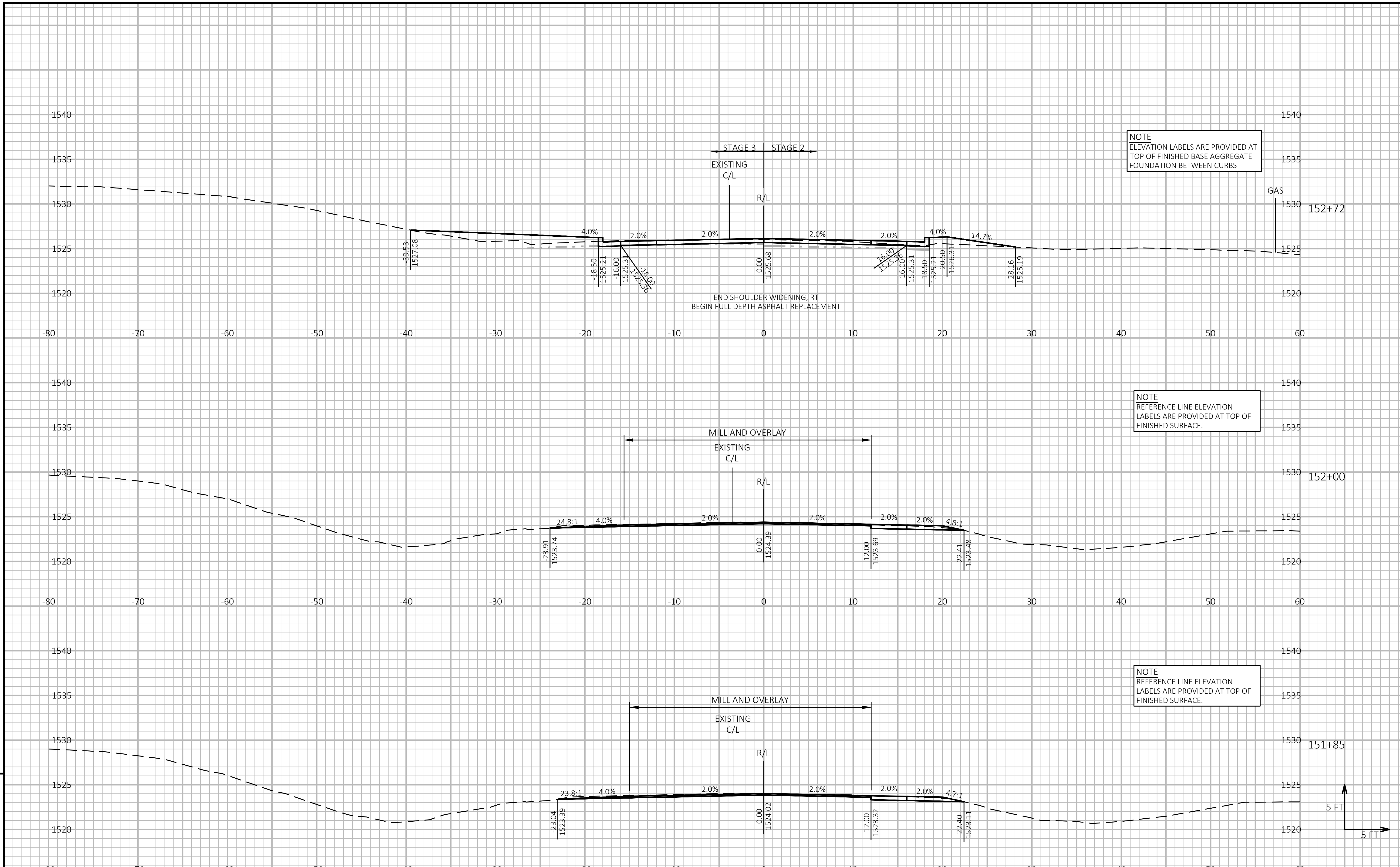
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 166	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02
PLOT DATE : 1/28/2022 3:04 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 167	E

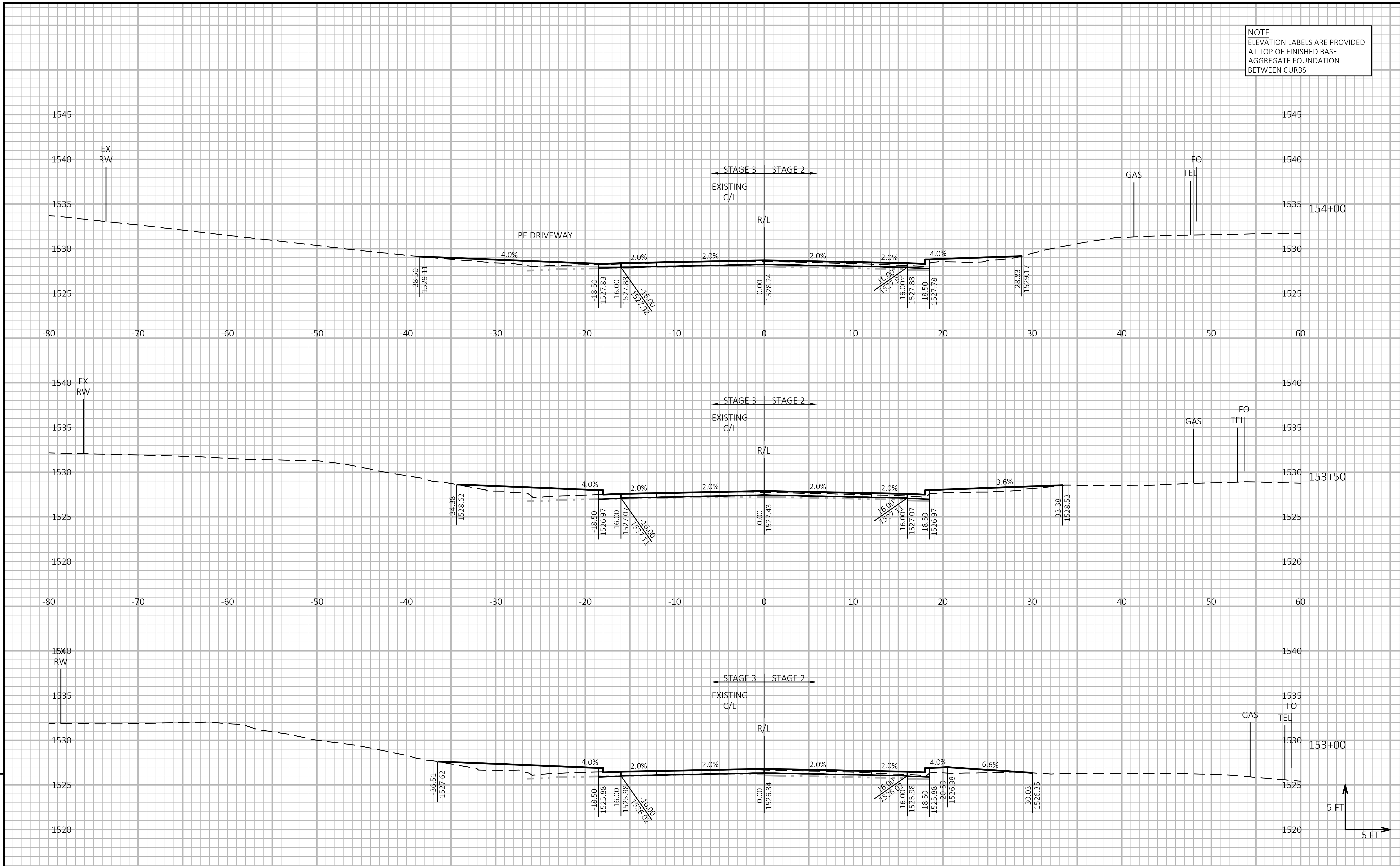
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03
PLOT DATE : 1/28/2022 3:05 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



NOTE
ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED BASE AGGREGATE FOUNDATION BETWEEN CURBS
STAGE 3
STAGE 2
EXISTING C/L
R/L
GAS
152+72
4.0%
2.0%
2.0%
2.0%
2.0%
4.0%
14.7%
-39.53 1527.08
-18.50 1525.21
-16.00 1525.31
-16.00 1525.36
0.00 1525.68
16.00 1525.36
16.00 1525.31
18.50 1525.21
20.50 1526.31
28.16 1525.19
END SHOULDER WIDENING, RT
BEGIN FULL DEPTH ASPHALT REPLACEMENT
NOTE
REFERENCE LINE ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED SURFACE.
MILL AND OVERLAY
EXISTING C/L
R/L
152+00
24.8:1
4.0%
2.0%
2.0%
2.0%
2.0%
4.8:1
-23.91 1523.74
0.00 1524.39
12.00 1523.69
22.41 1523.48
NOTE
REFERENCE LINE ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED SURFACE.
MILL AND OVERLAY
EXISTING C/L
R/L
151+85
23.8:1
4.0%
2.0%
2.0%
2.0%
2.0%
4.7:1
-23.04 1523.39
0.00 1524.02
12.00 1523.32
22.40 1523.11
1540
1535
1530
1525
1520
-80
-70
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
5 FT
5 FT

9

9



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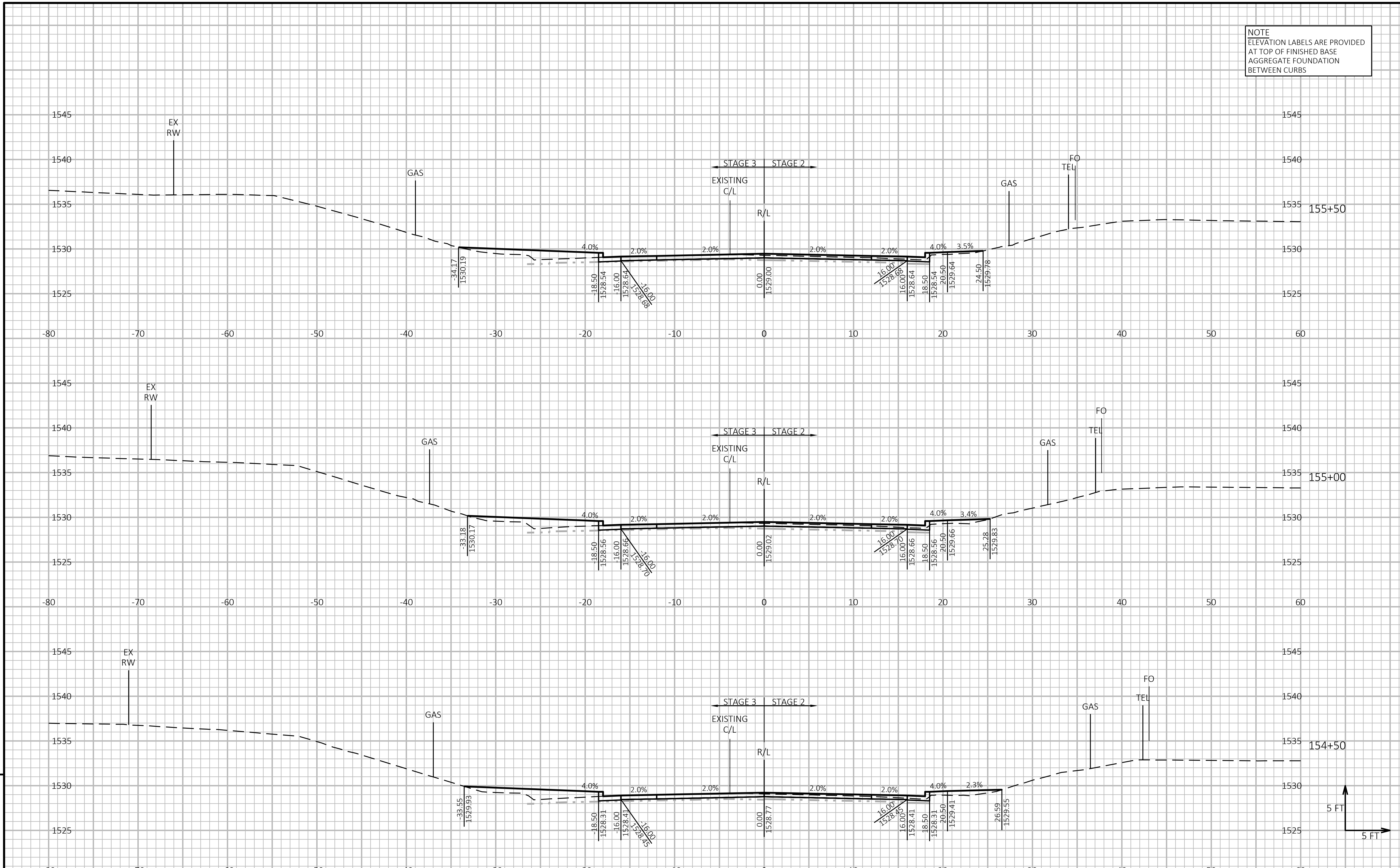
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 169	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 05
PLOT DATE : 1/28/2022 3:05 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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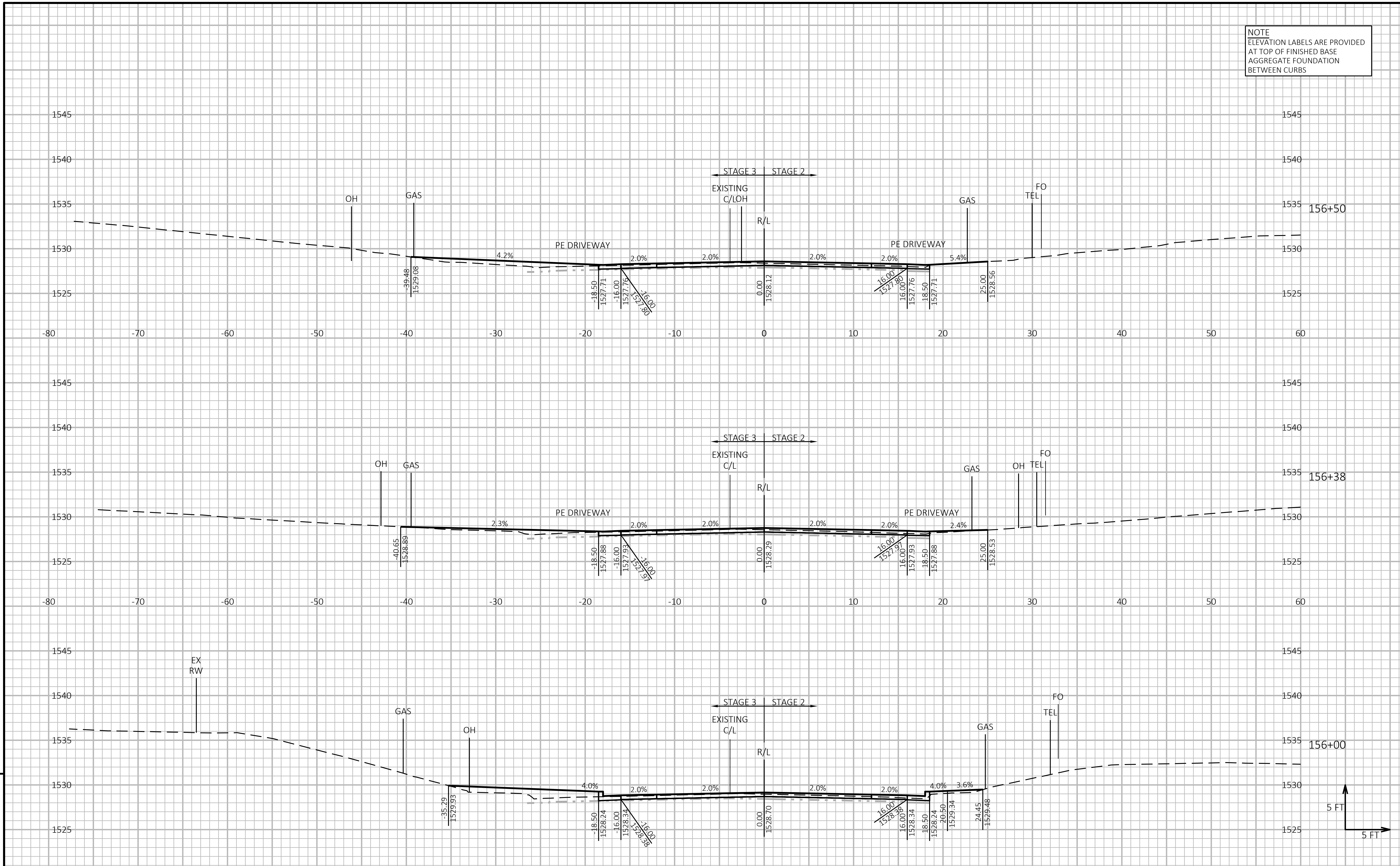
PROJECT NO: 9130-00-70 | HWY: STH 32 | COUNTY: FOREST | CROSS SECTIONS: STH 32 | SHEET 170 | E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 06
PLOT DATE : 1/28/2022 3:05 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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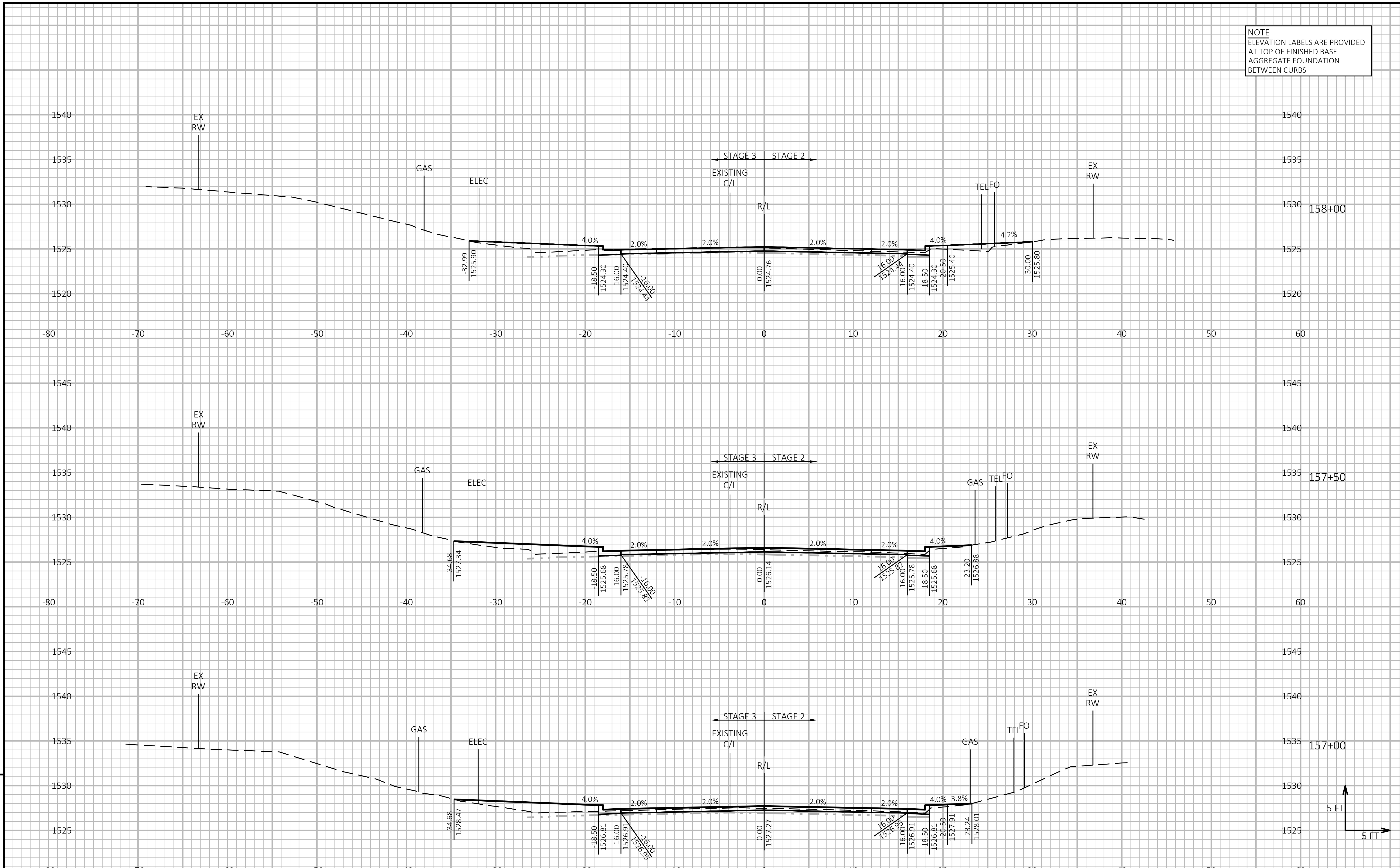
9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 171	E

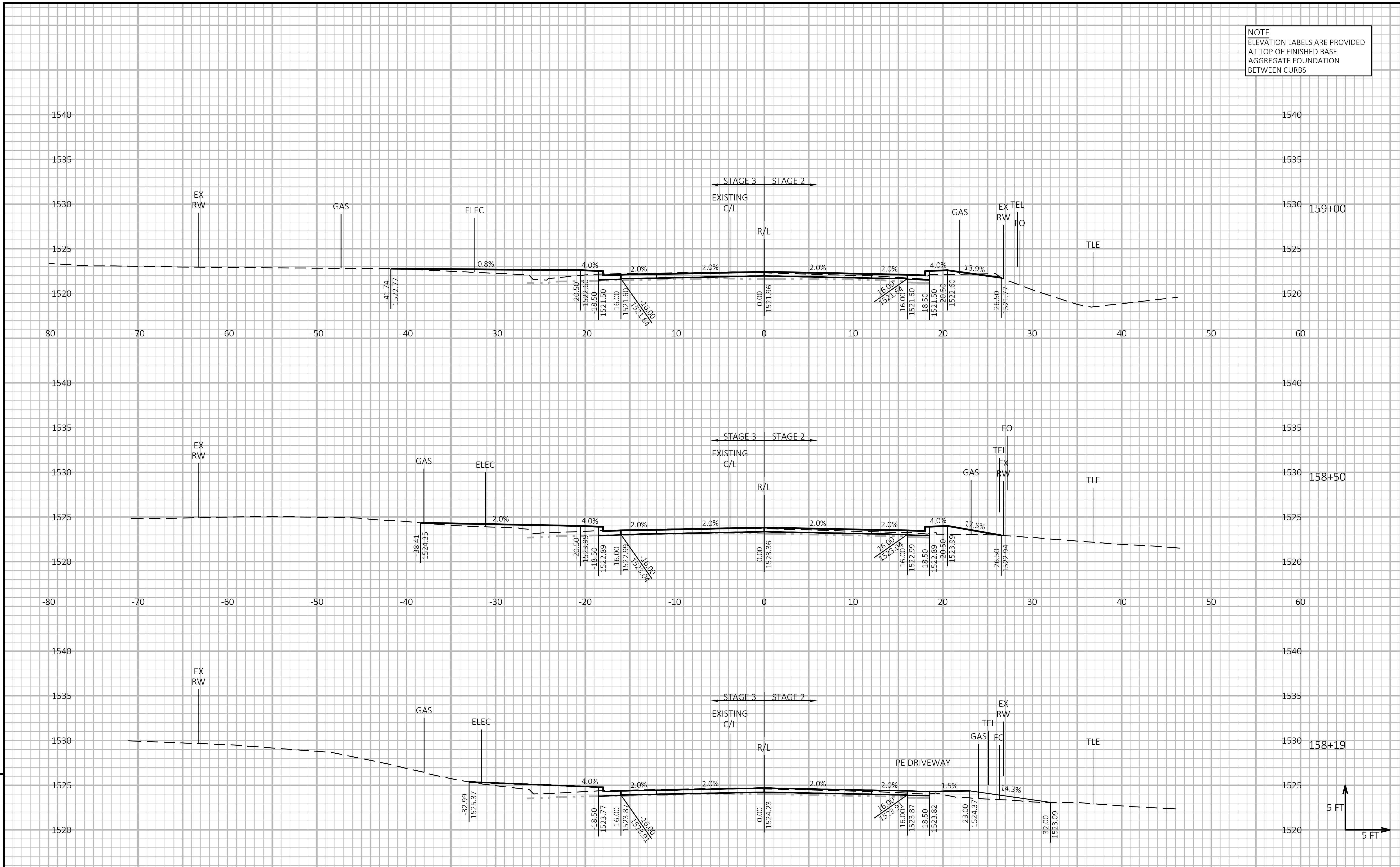
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 07
PLOT DATE : 1/28/2022 3:05 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 172	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 08
PLOT DATE : 1/28/2022 3:06 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

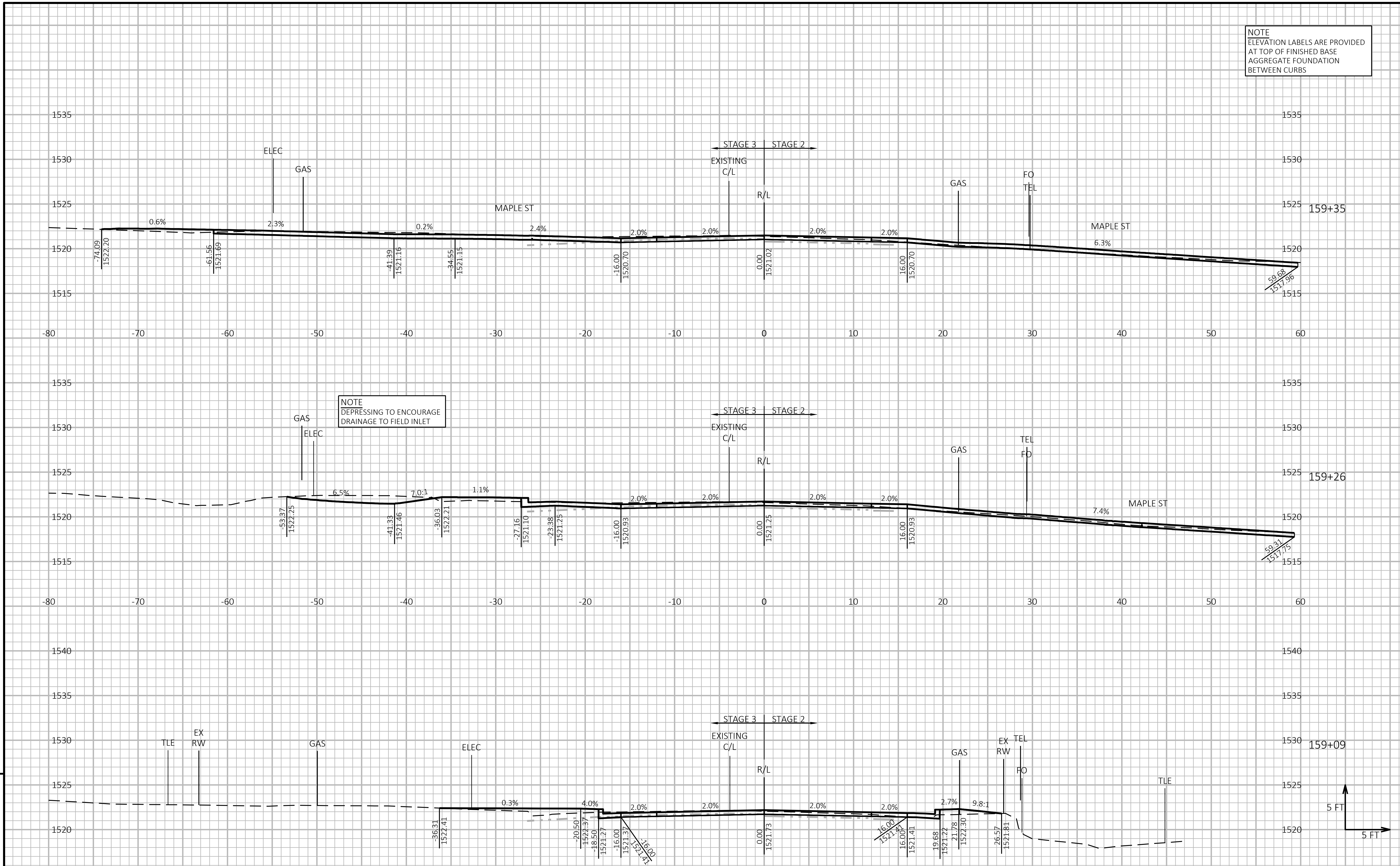


9

9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 173	E

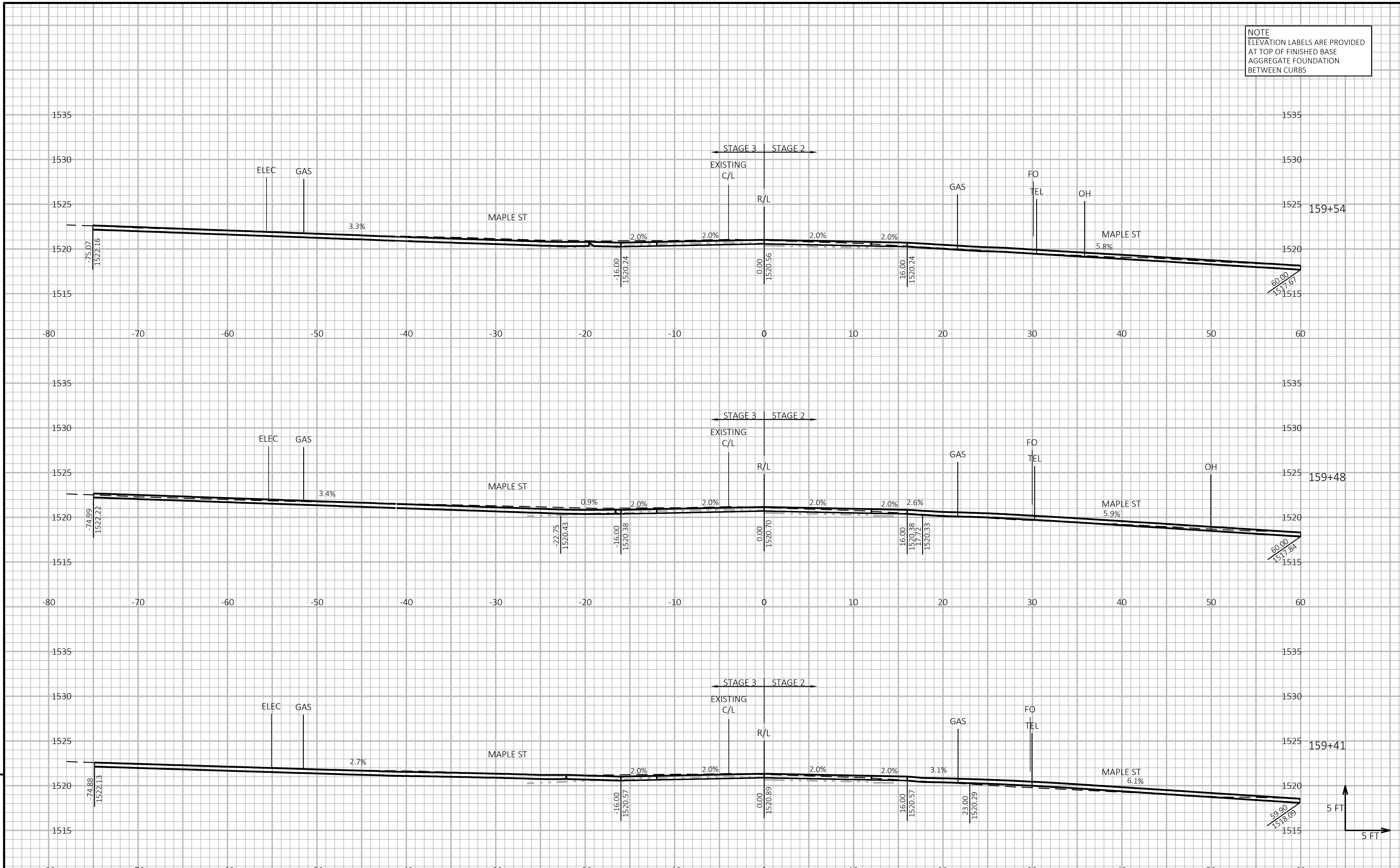
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 09
PLOT DATE : 1/28/2022 3:06 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 174	E

9

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 10
PLOT DATE : 1/28/2022 3:06 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

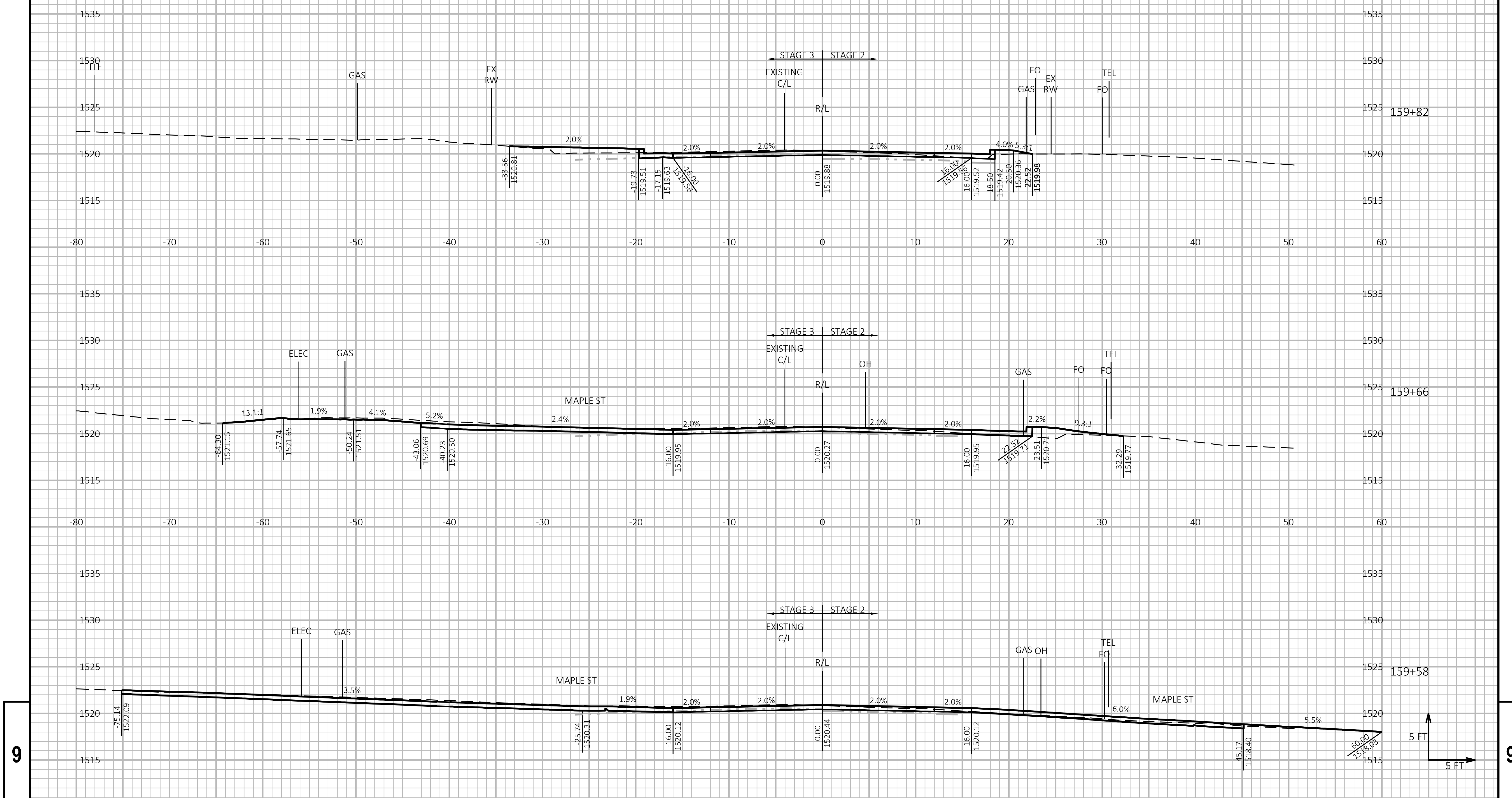


9

9

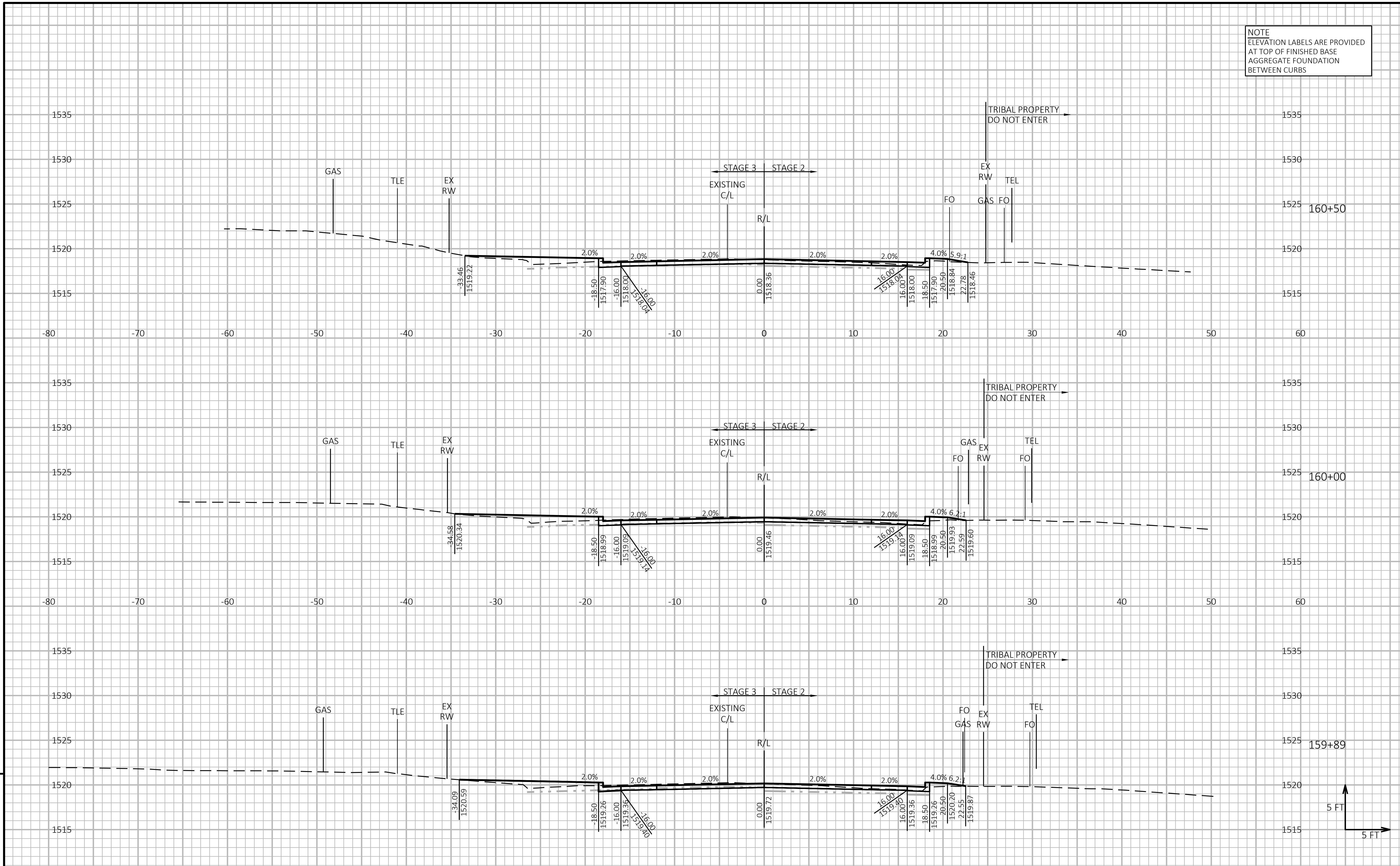
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 175	E

NOTE
ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED BASE AGGREGATE FOUNDATION BETWEEN CURBS



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 176	E

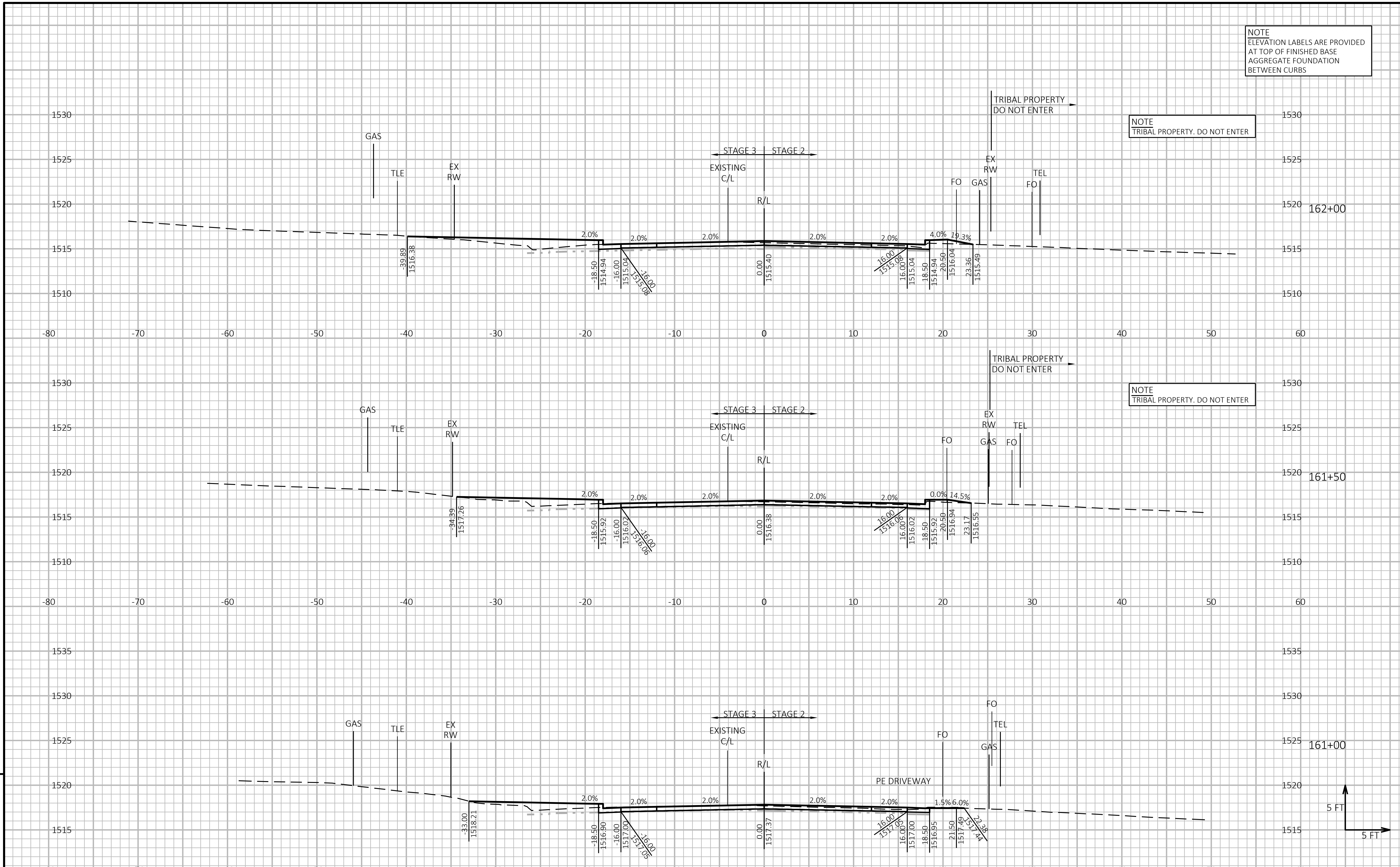
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 12
PLOT DATE : 1/28/2022 3:06 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

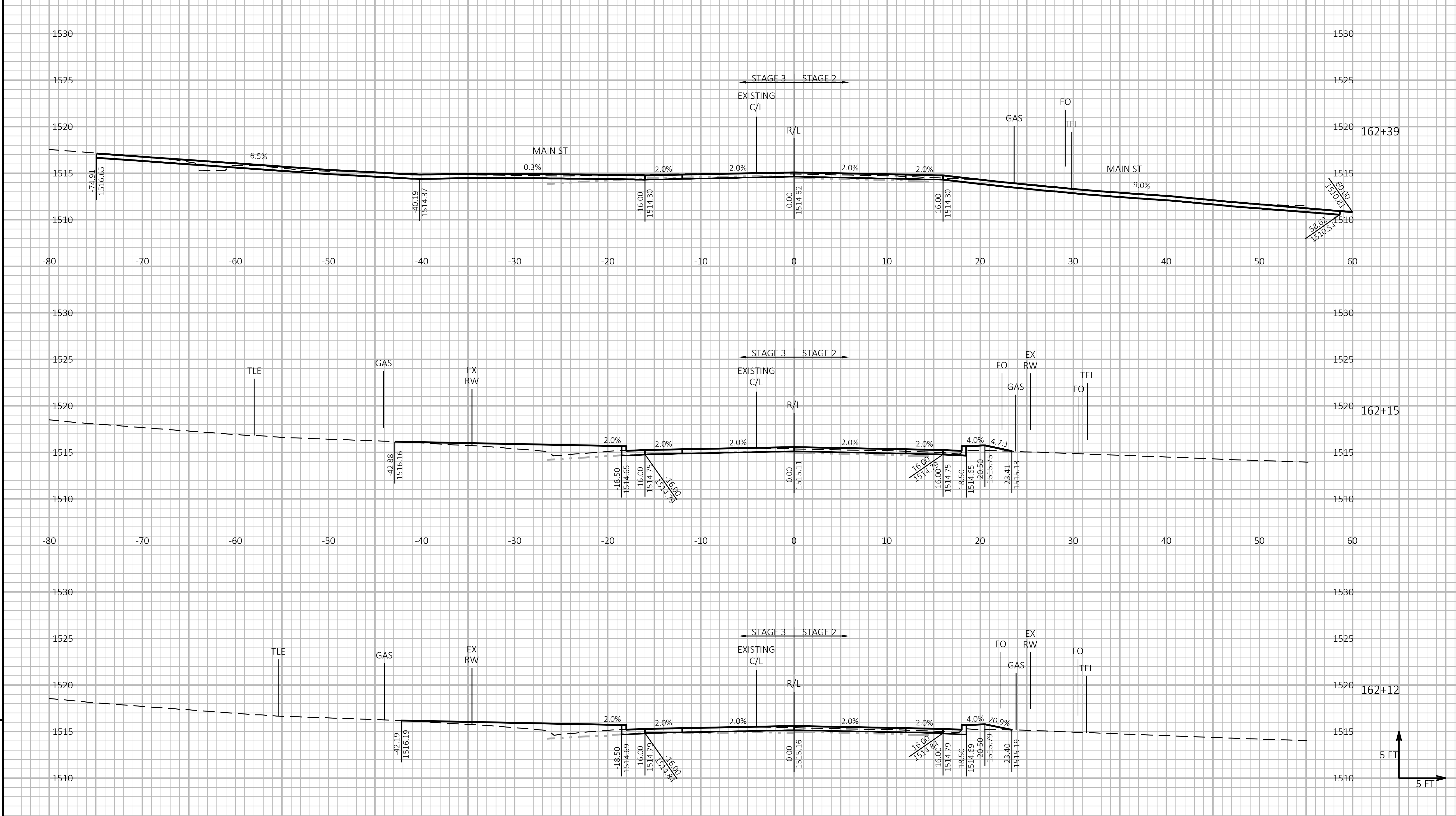
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 13
PLOT DATE : 1/28/2022 3:06 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



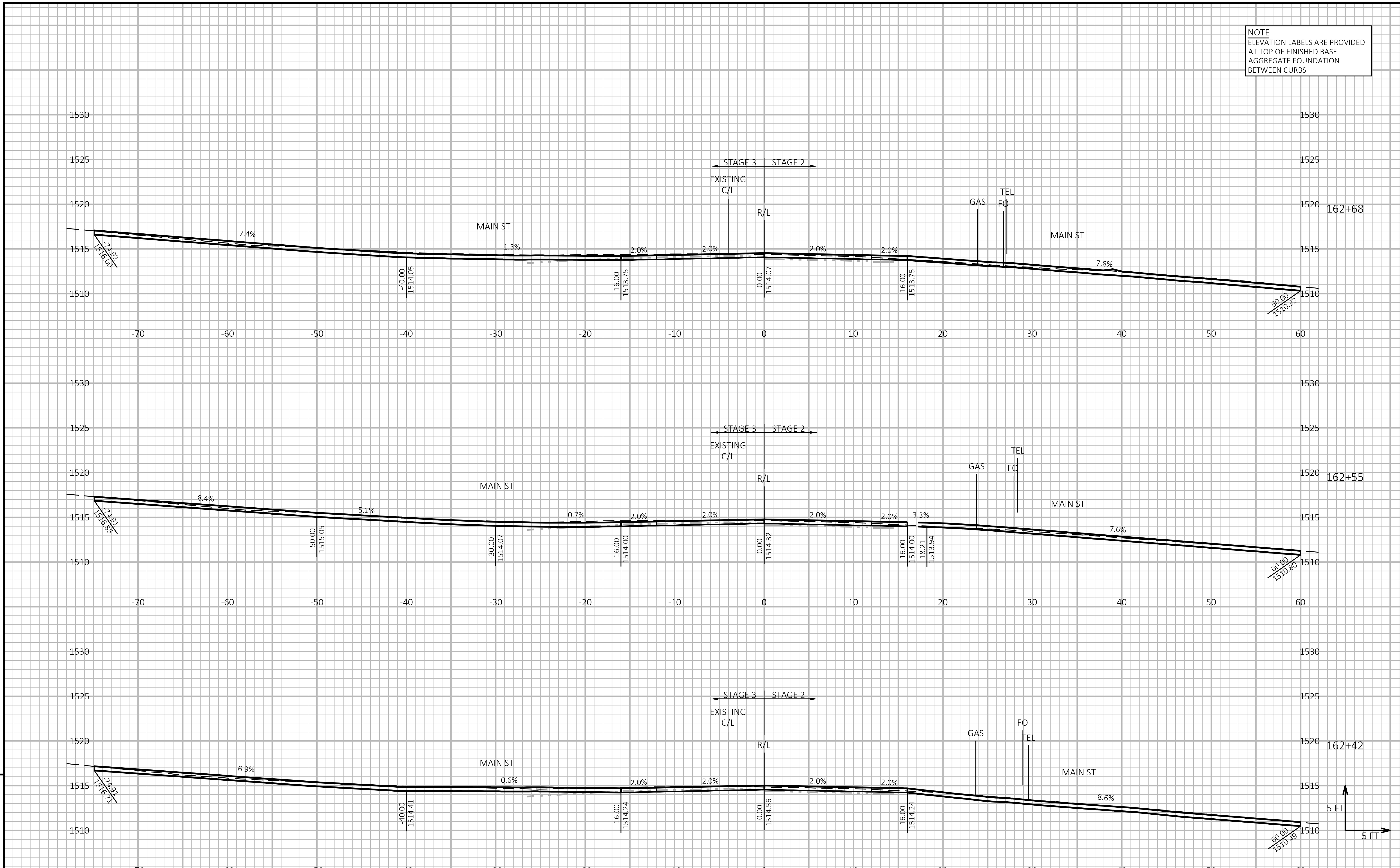
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 178 E

NOTE
ELEVATION LABELS ARE PROVIDED AT TOP OF FINISHED BASE AGGREGATE FOUNDATION BETWEEN CURBS



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 179	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 15
PLOT DATE : 1/28/2022 3:07 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

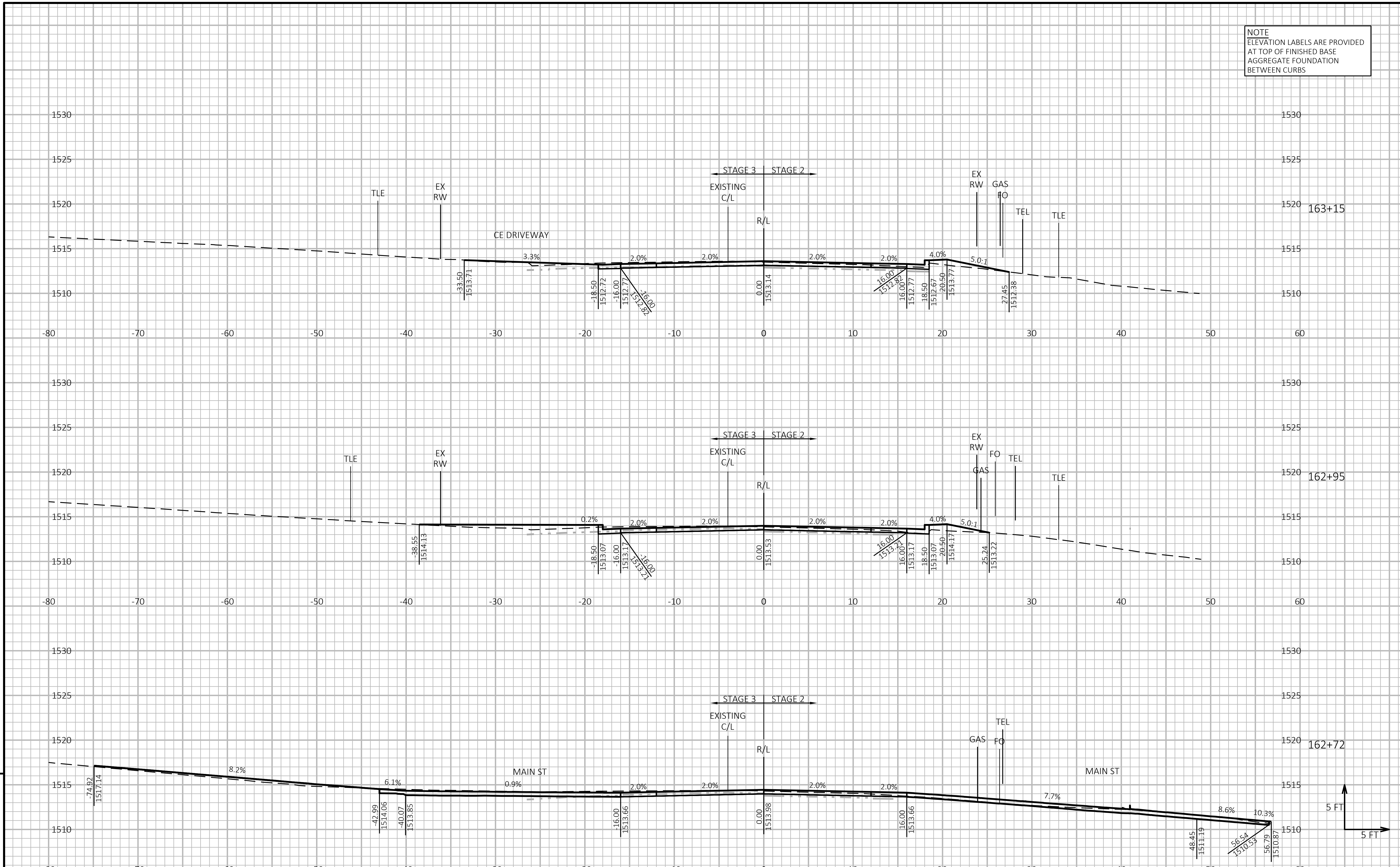


9

9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 180	E

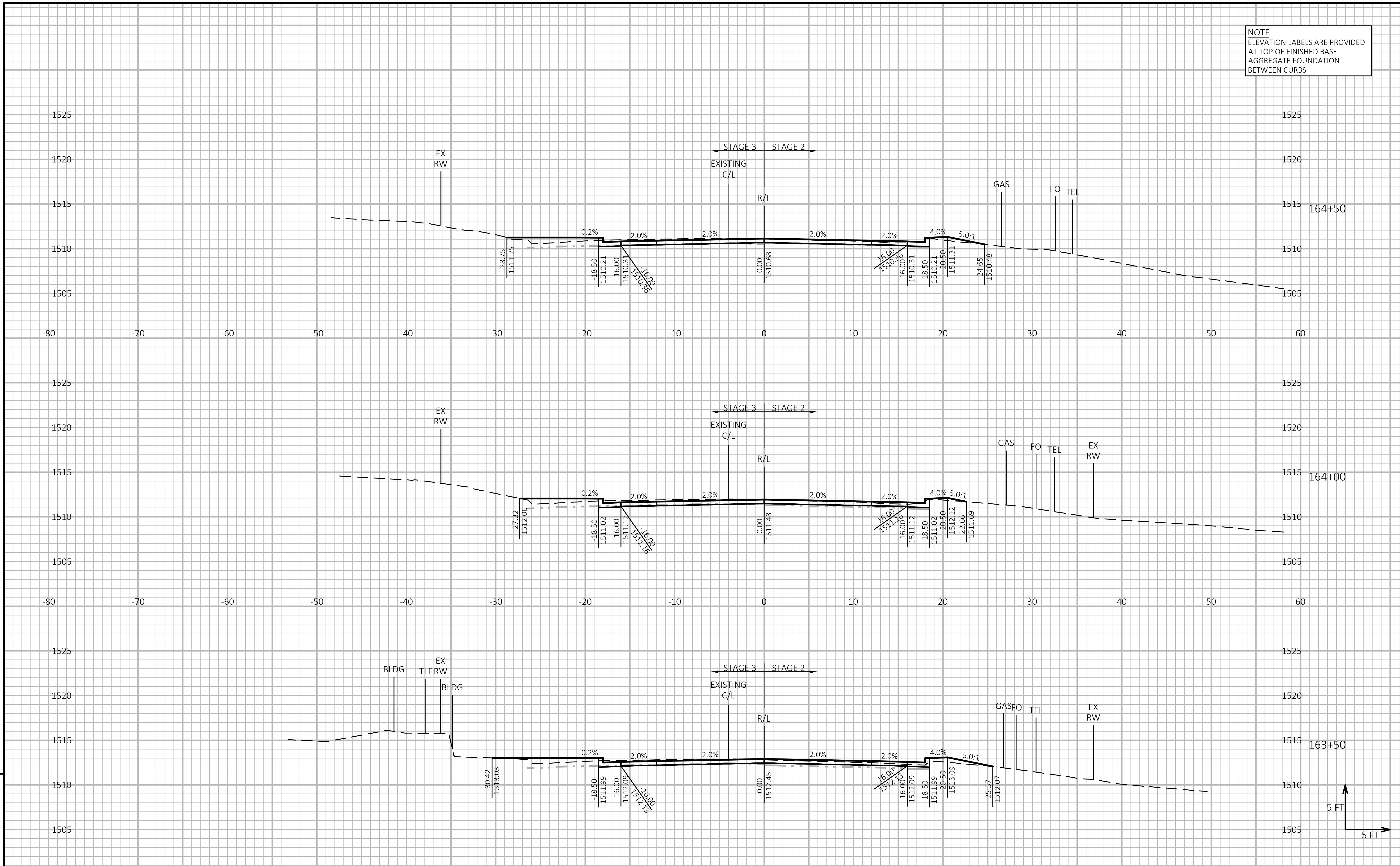
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 16
PLOT DATE : 1/28/2022 3:07 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 181	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 17
PLOT DATE : 1/28/2022 3:07 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

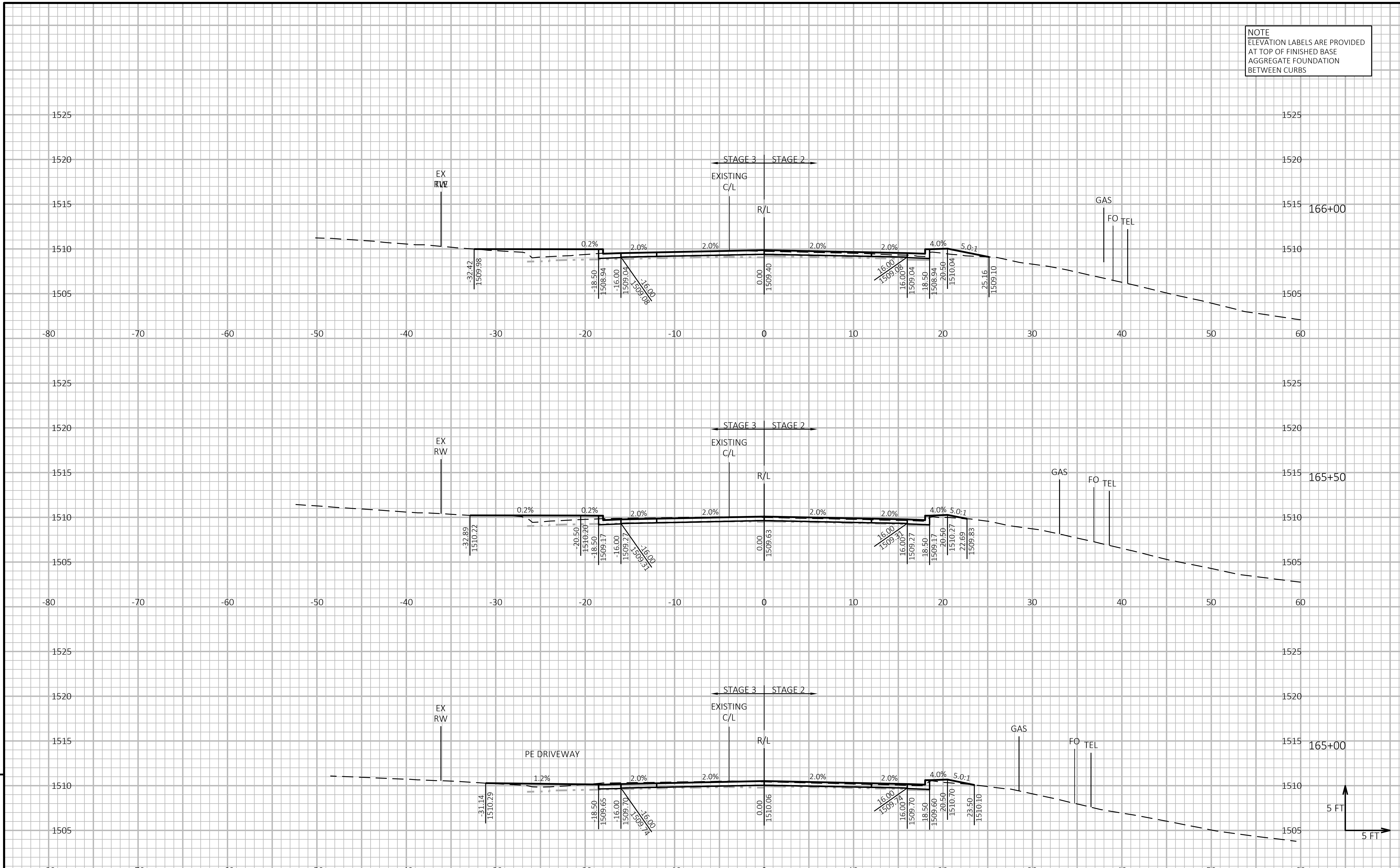


9

9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 182	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 18
PLOT DATE : 1/28/2022 3:07 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



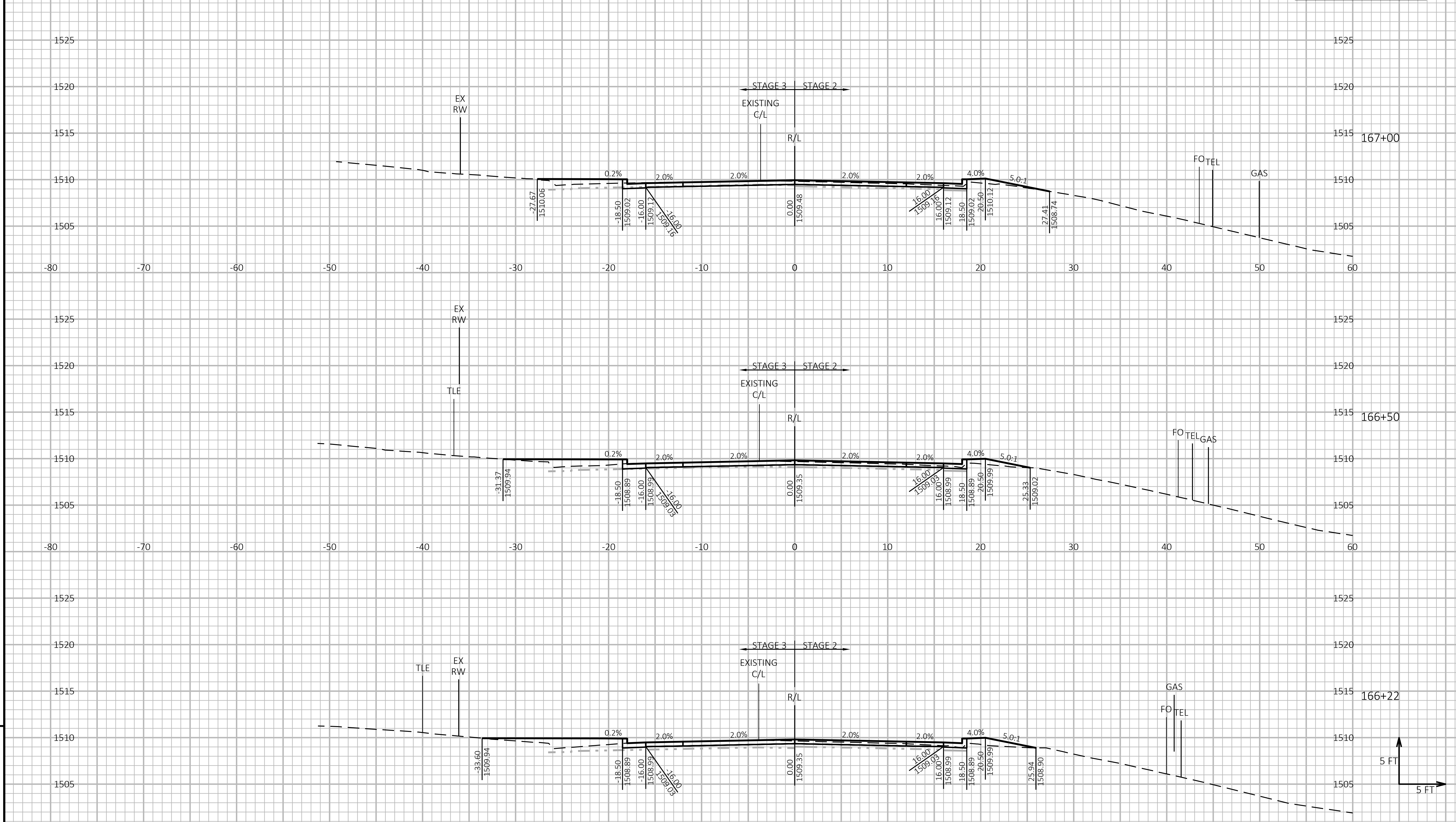
9

9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 183	E

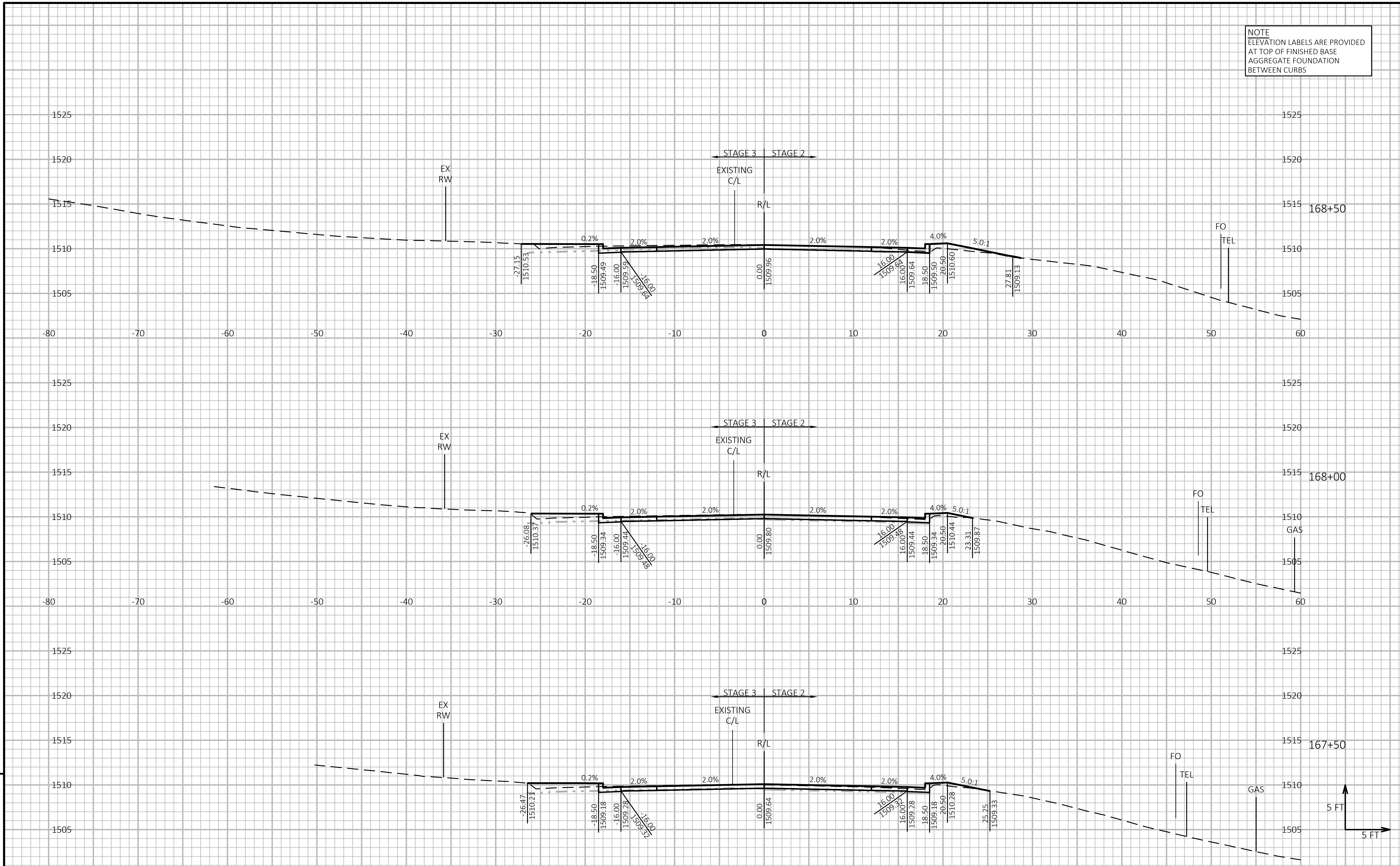
FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 19
PLOT DATE : 1/28/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

NOTE
ELEVATION LABELS ARE PROVIDED
AT TOP OF FINISHED BASE
AGGREGATE FOUNDATION
BETWEEN CURBS



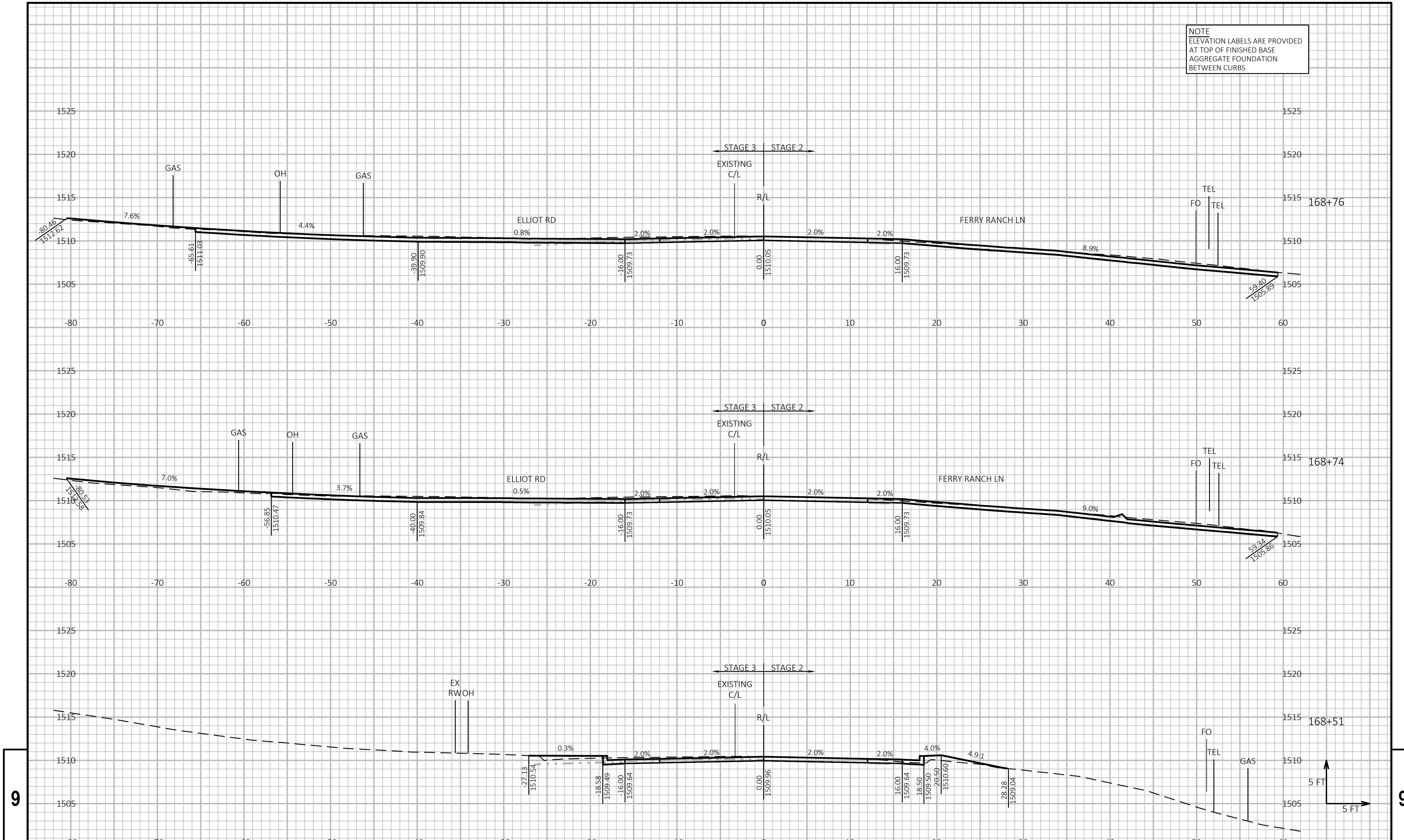
9

PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 184	E



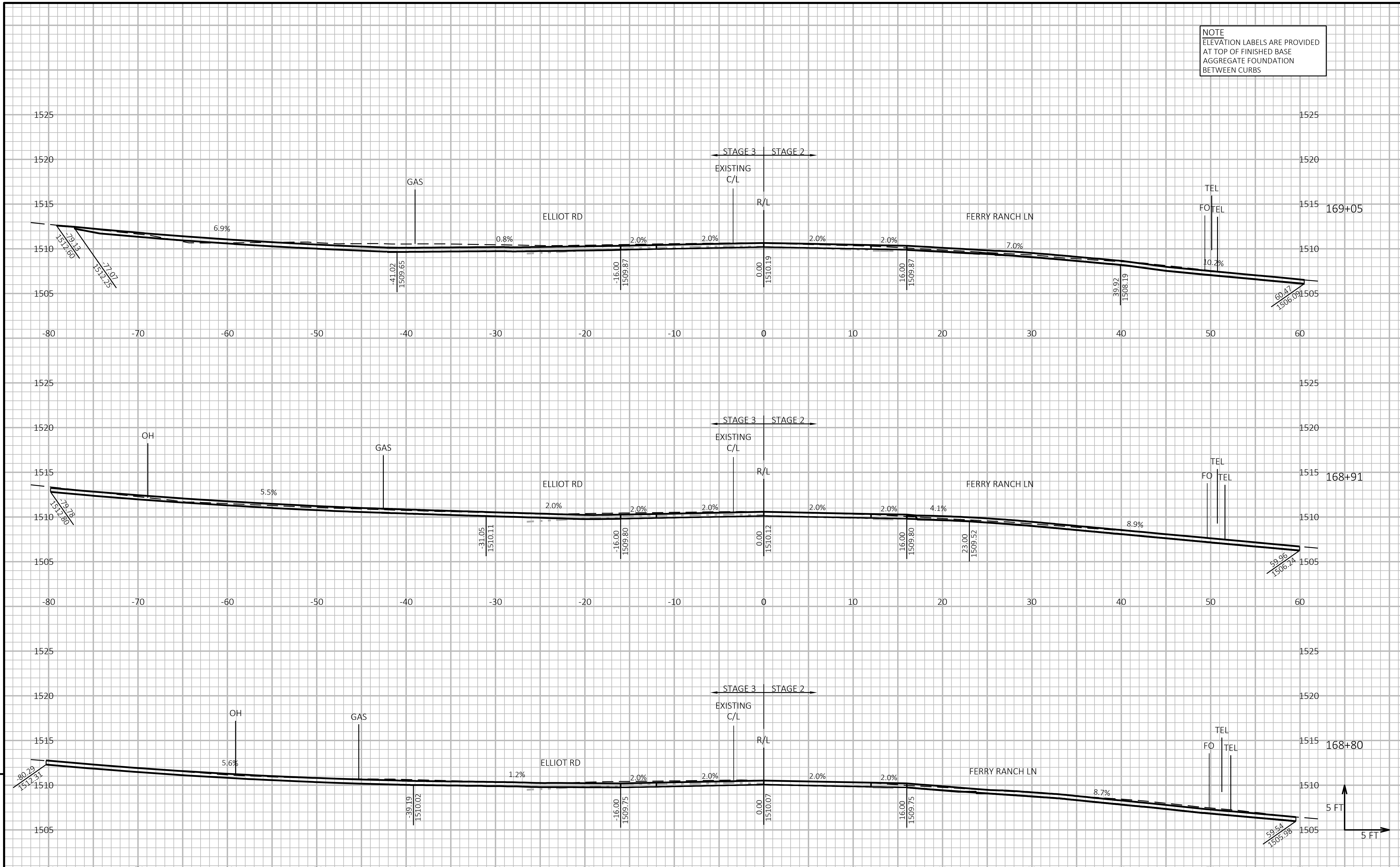
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 185	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 21
PLOT DATE : 1/28/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 186	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 22
PLOT DATE : 1/28/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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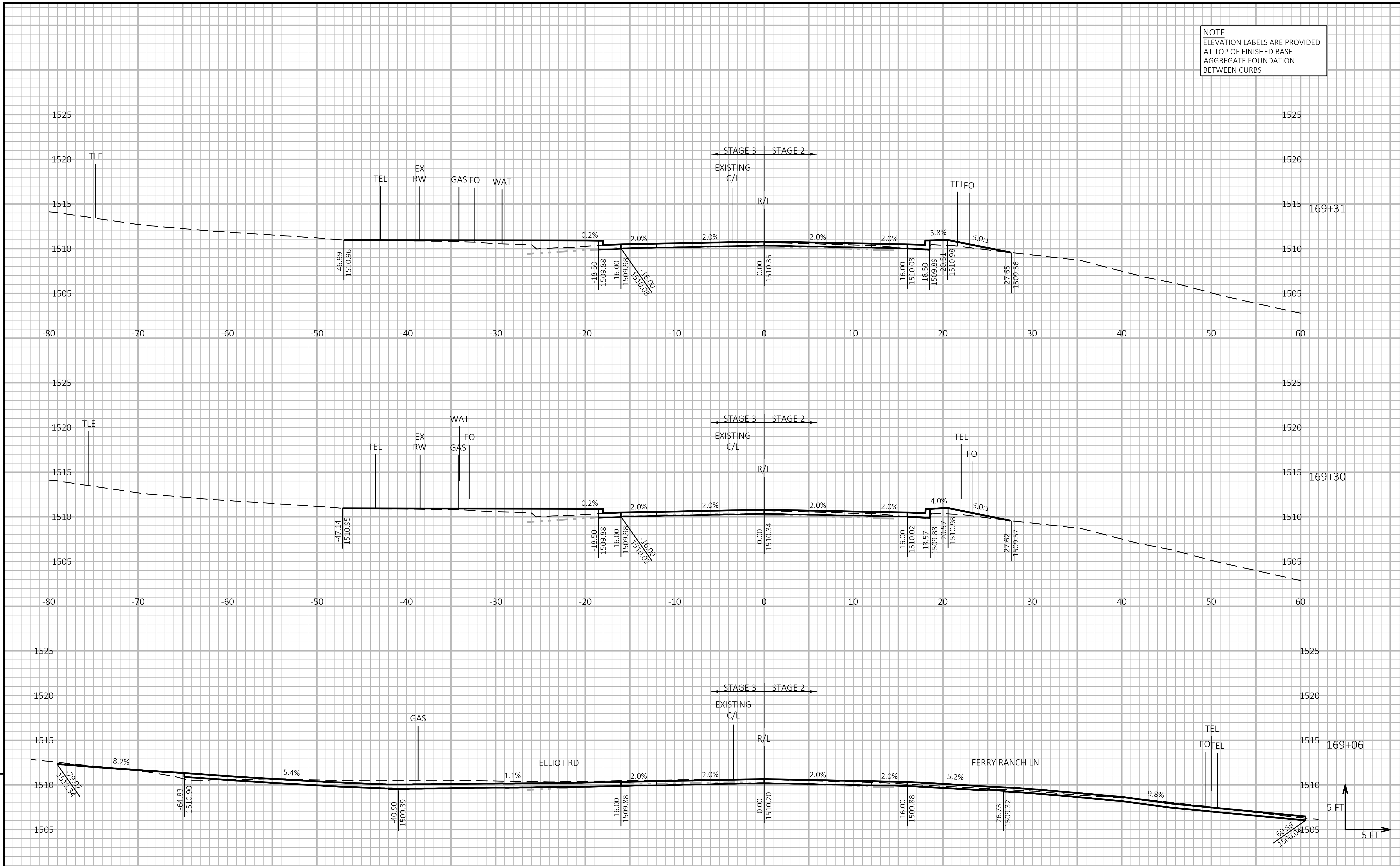
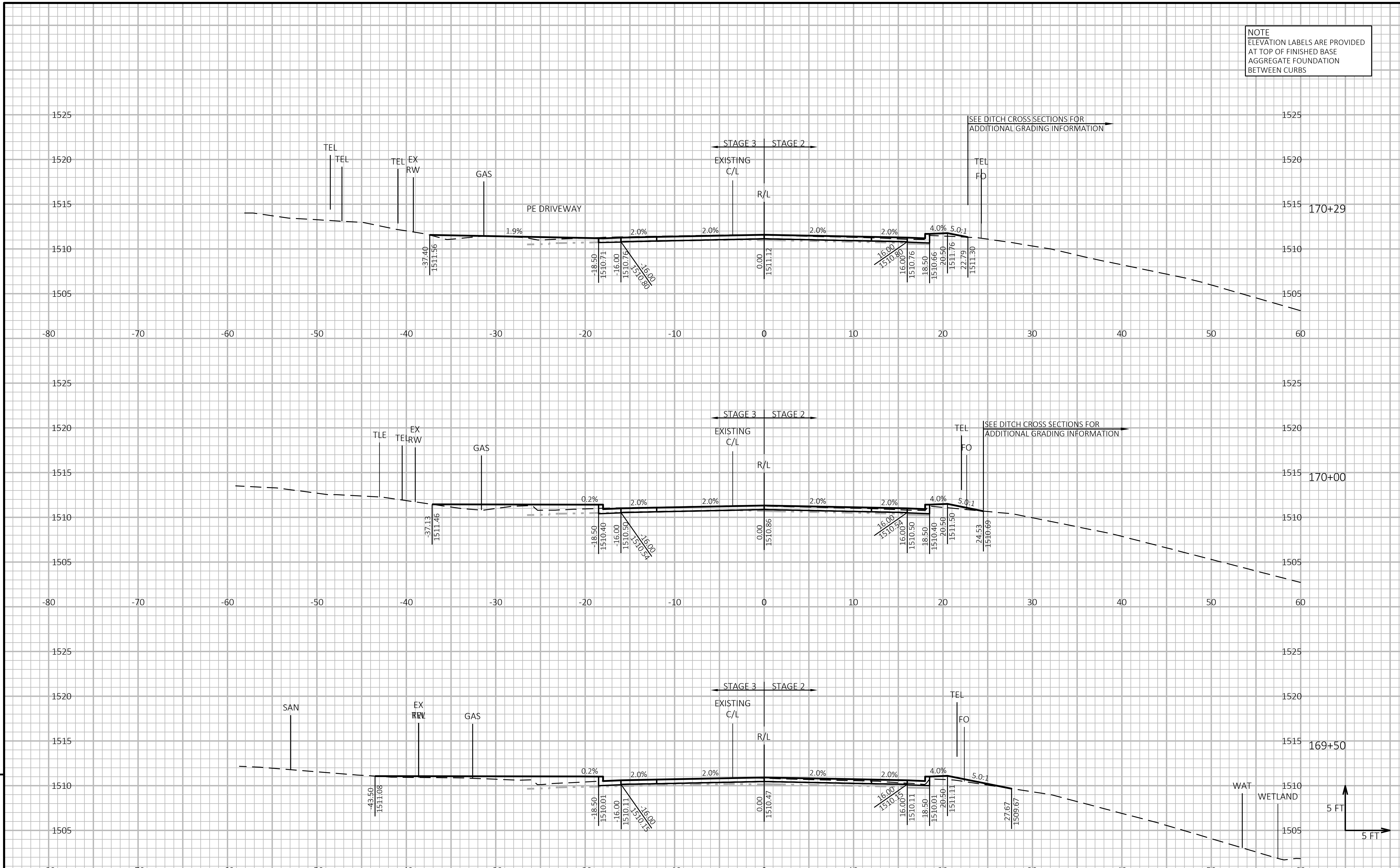
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 187	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 23
PLOT DATE : 1/28/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

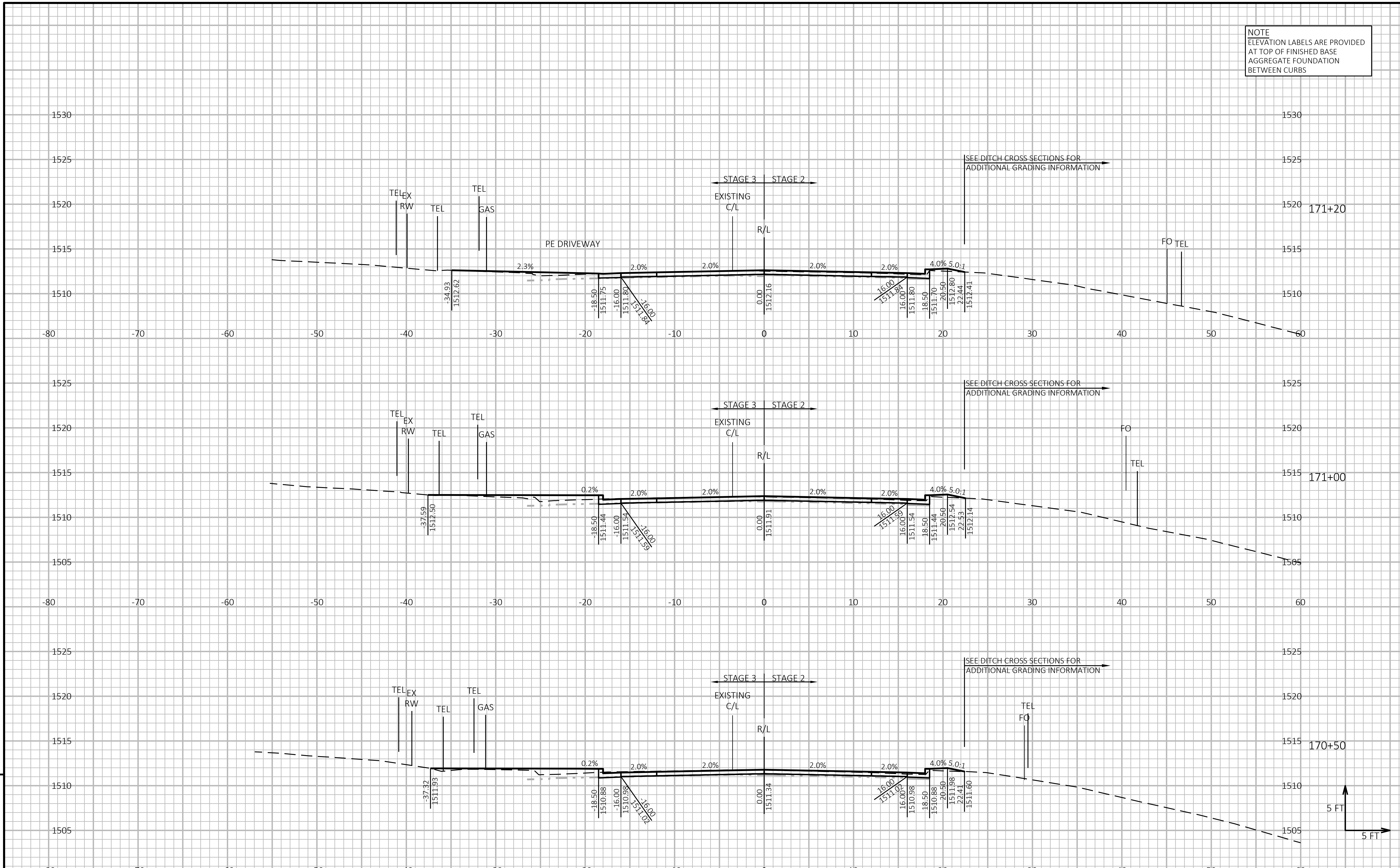


PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 188	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 24
PLOT DATE : 1/28/2022 3:09 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

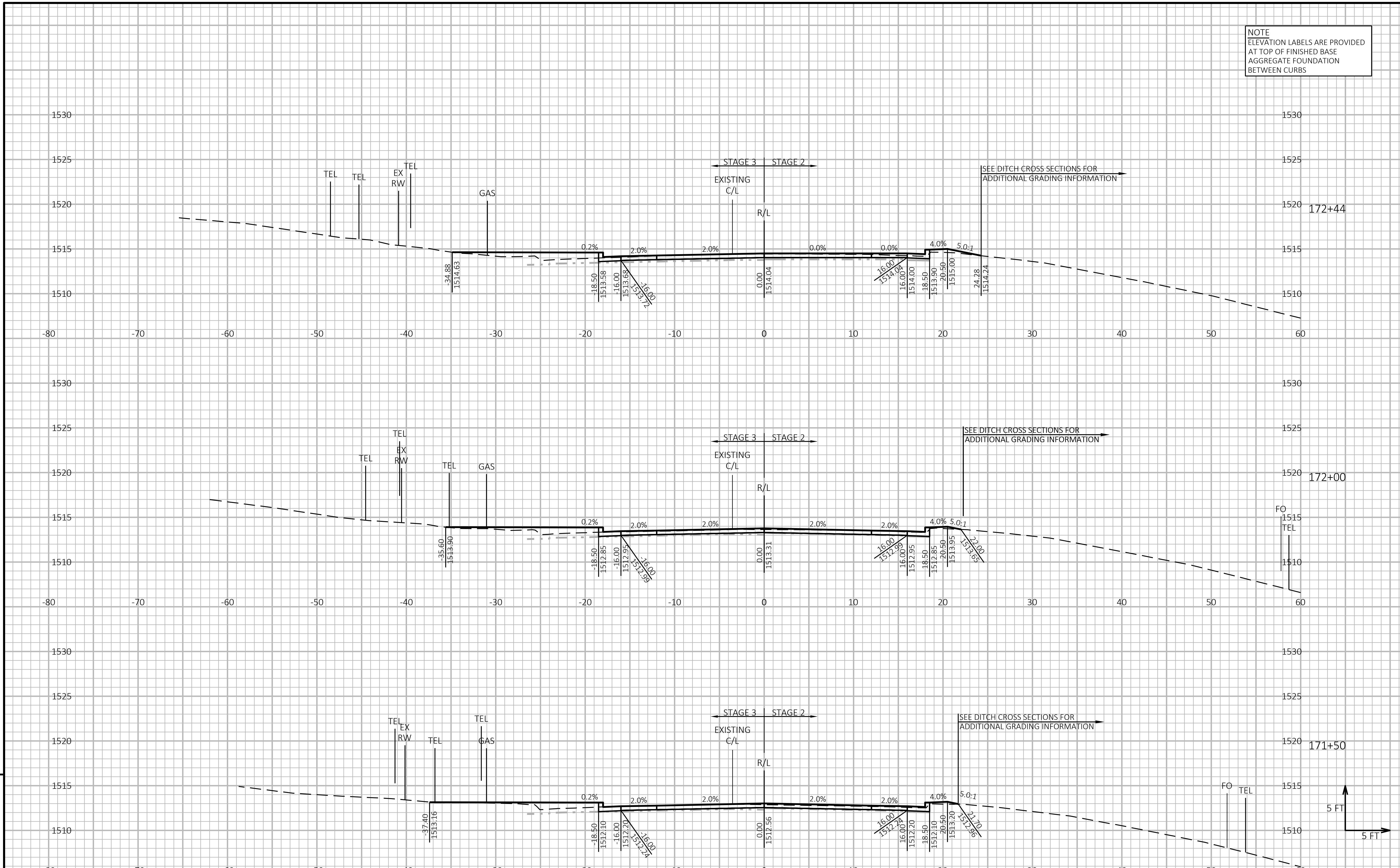


PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 189	E



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 190	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 26
PLOT DATE : 1/28/2022 3:09 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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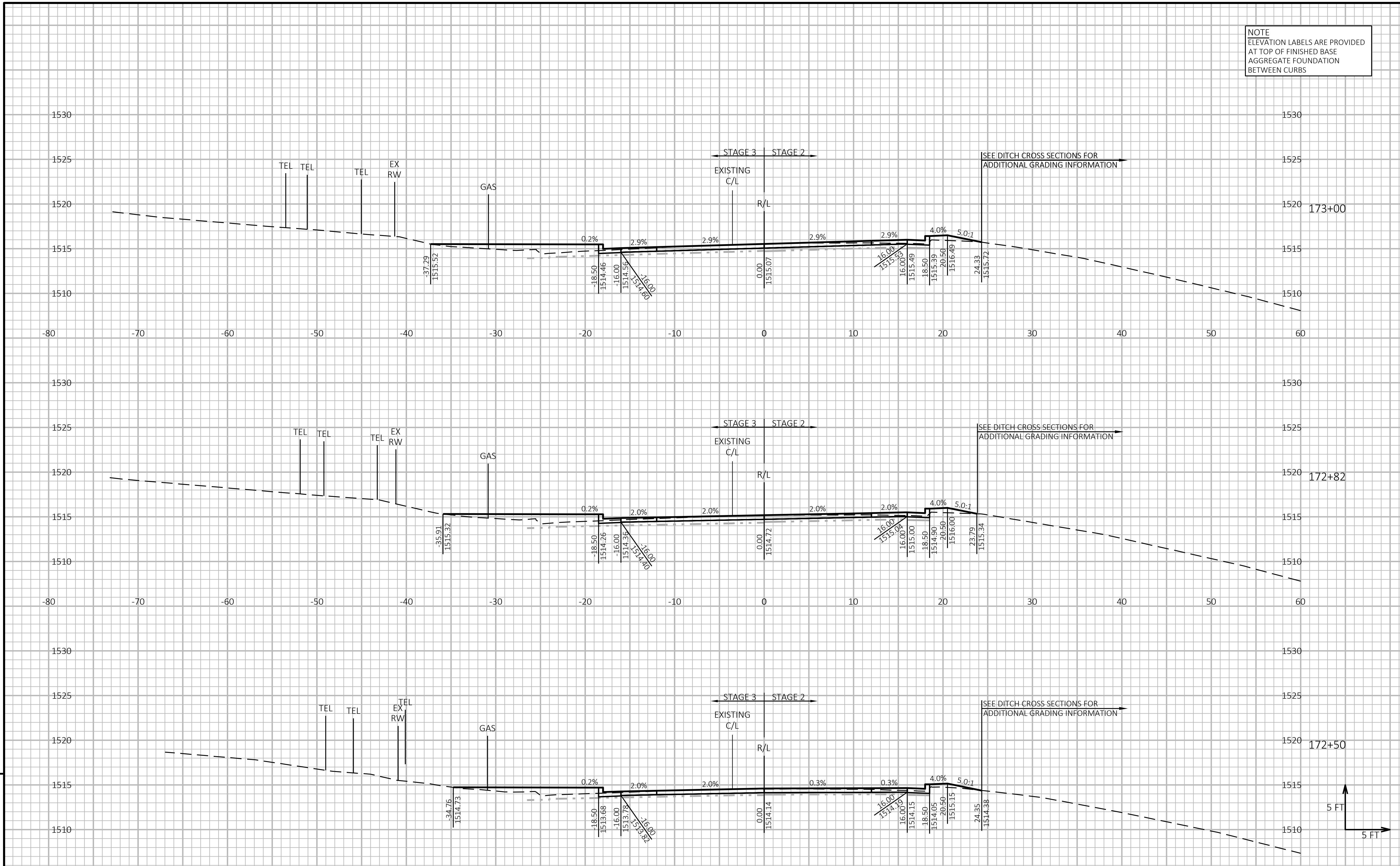
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 191	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 27
PLOT DATE : 1/28/2022 3:09 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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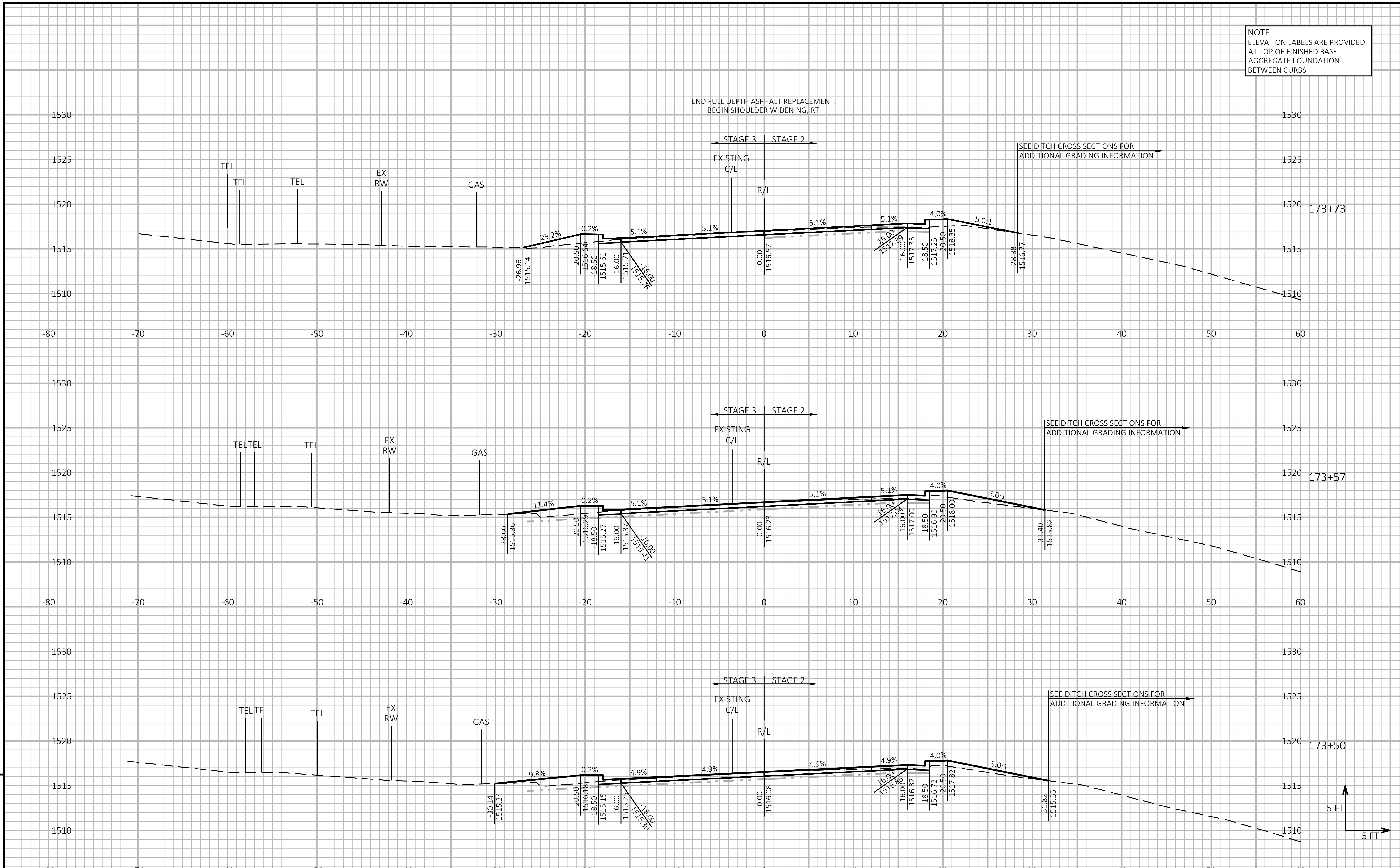
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 192	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 28
PLOT DATE : 1/28/2022 3:09 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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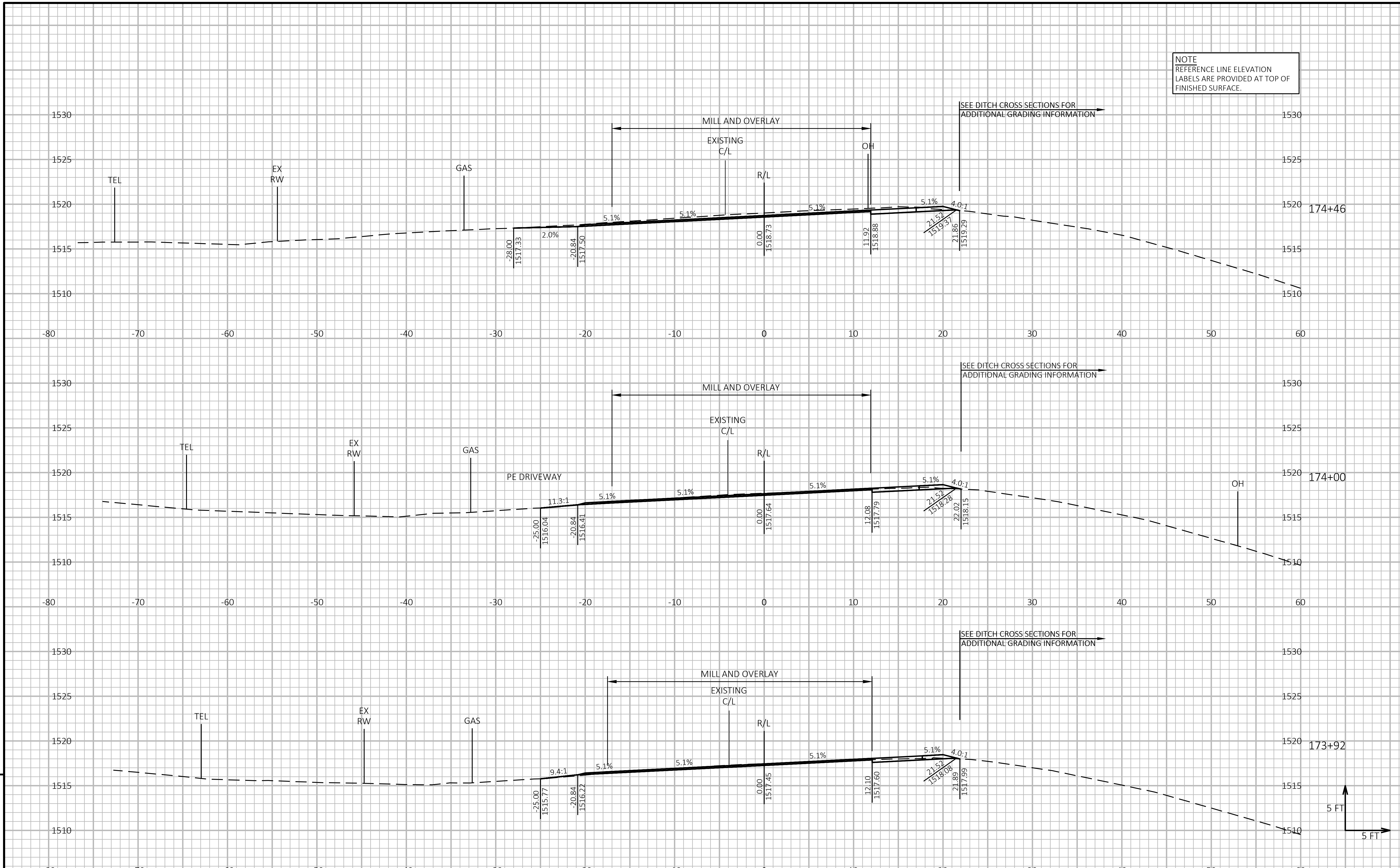
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 193	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 29
PLOT DATE : 1/28/2022 3:09 PM
PLOT BY : JESSICA SPLITTGERBER
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: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 194	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 30
PLOT DATE : 1/28/2022 3:10 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

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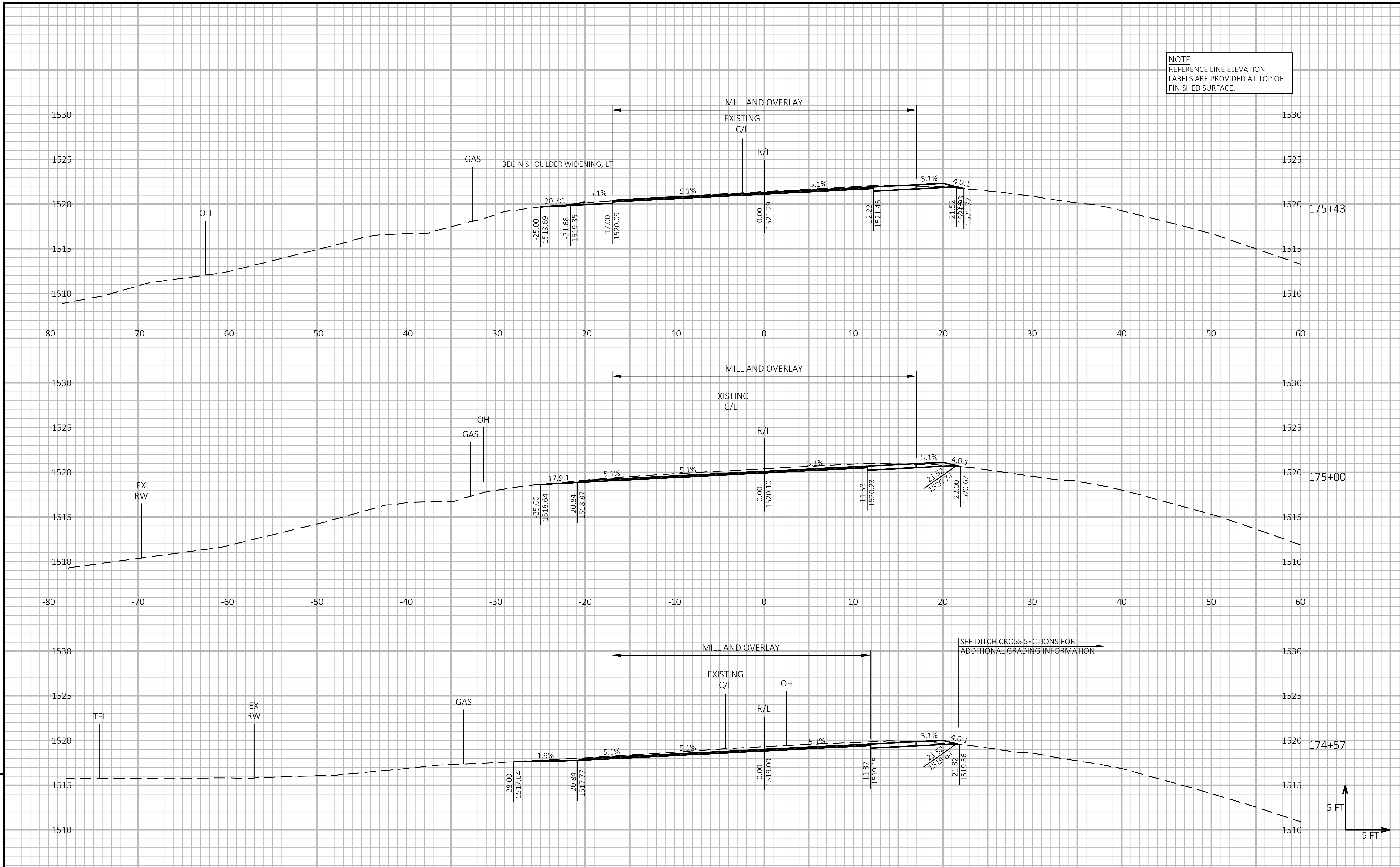

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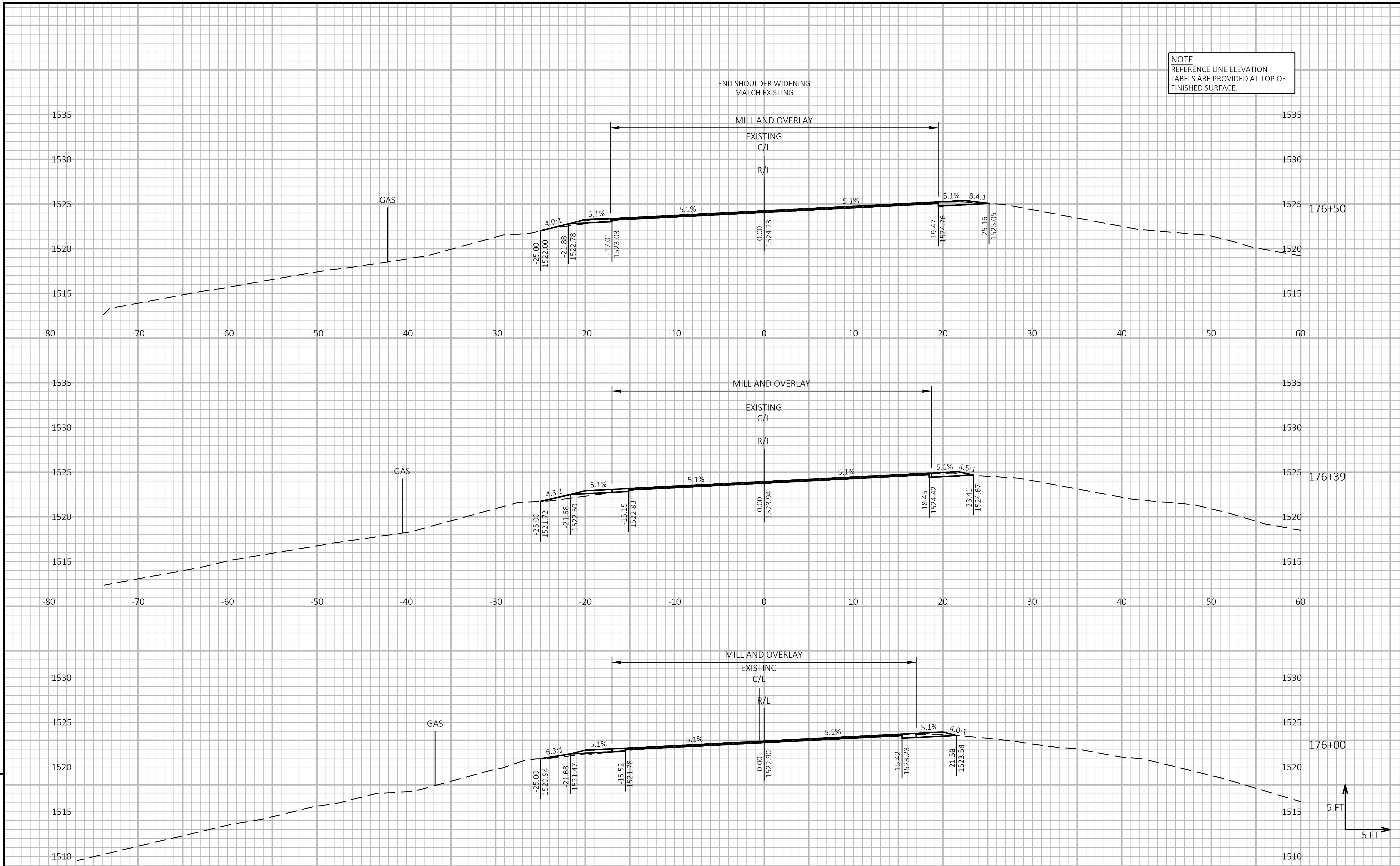
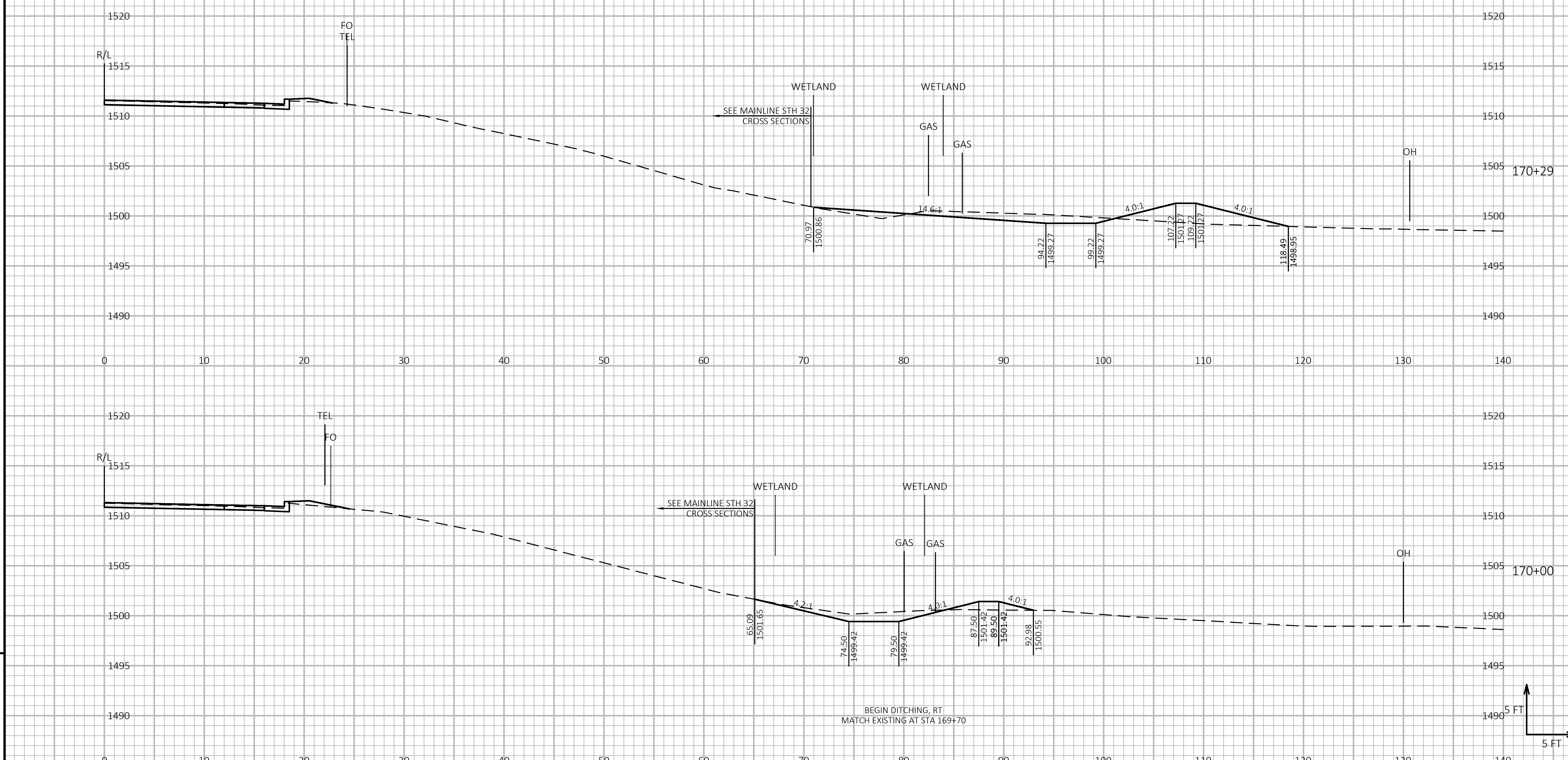
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 195	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 31
PLOT DATE : 1/28/2022 3:10 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32	SHEET 196	E

NOTE
CROSS SLOPES ARE SHOWN PERPENDICULAR TO STH 32 ALIGNMENT. TYPICAL SECTION DEMONSTRATES THE DITCH SLOPES PERPENDICULAR TO THE DITCH LINE.



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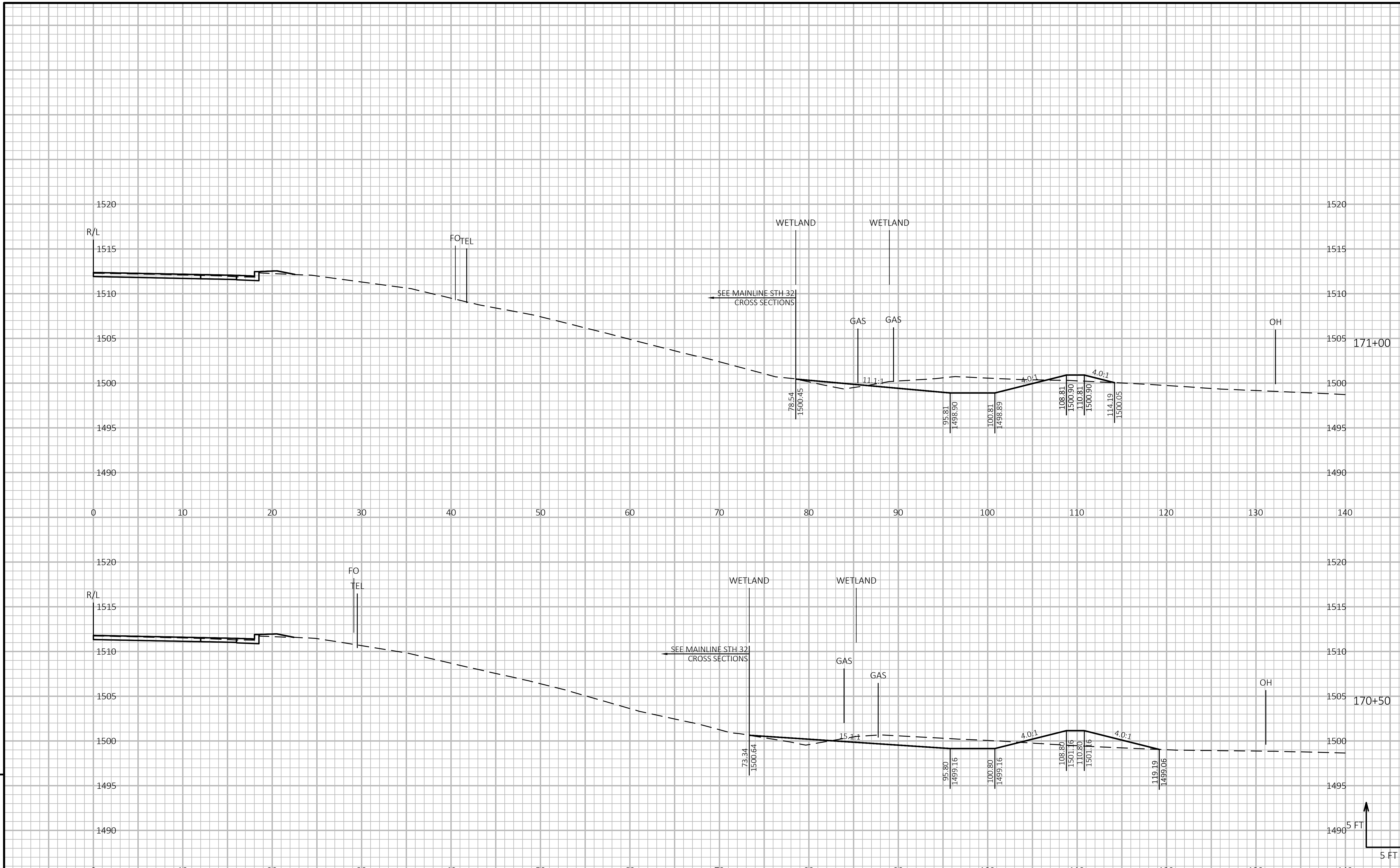
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 197	E



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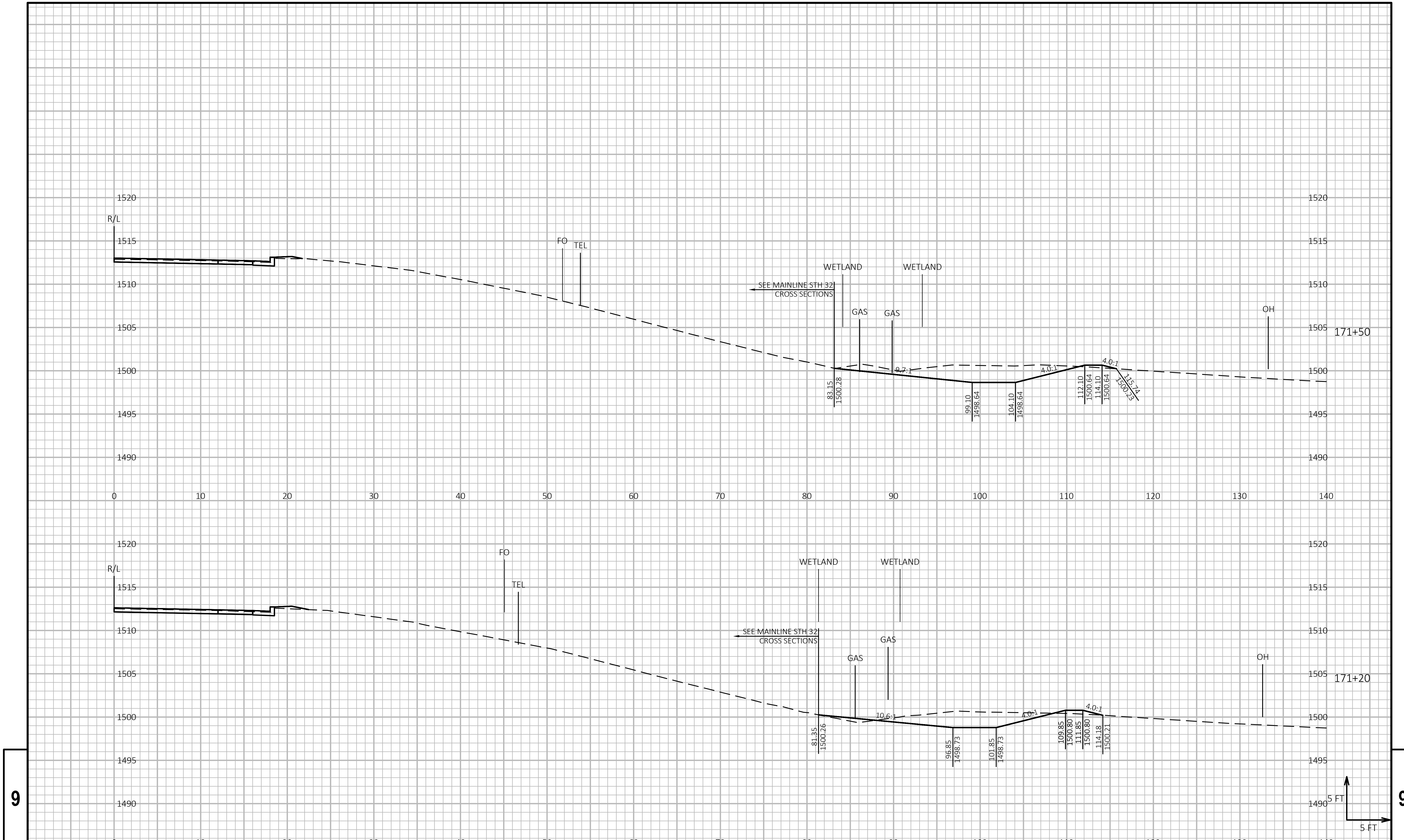
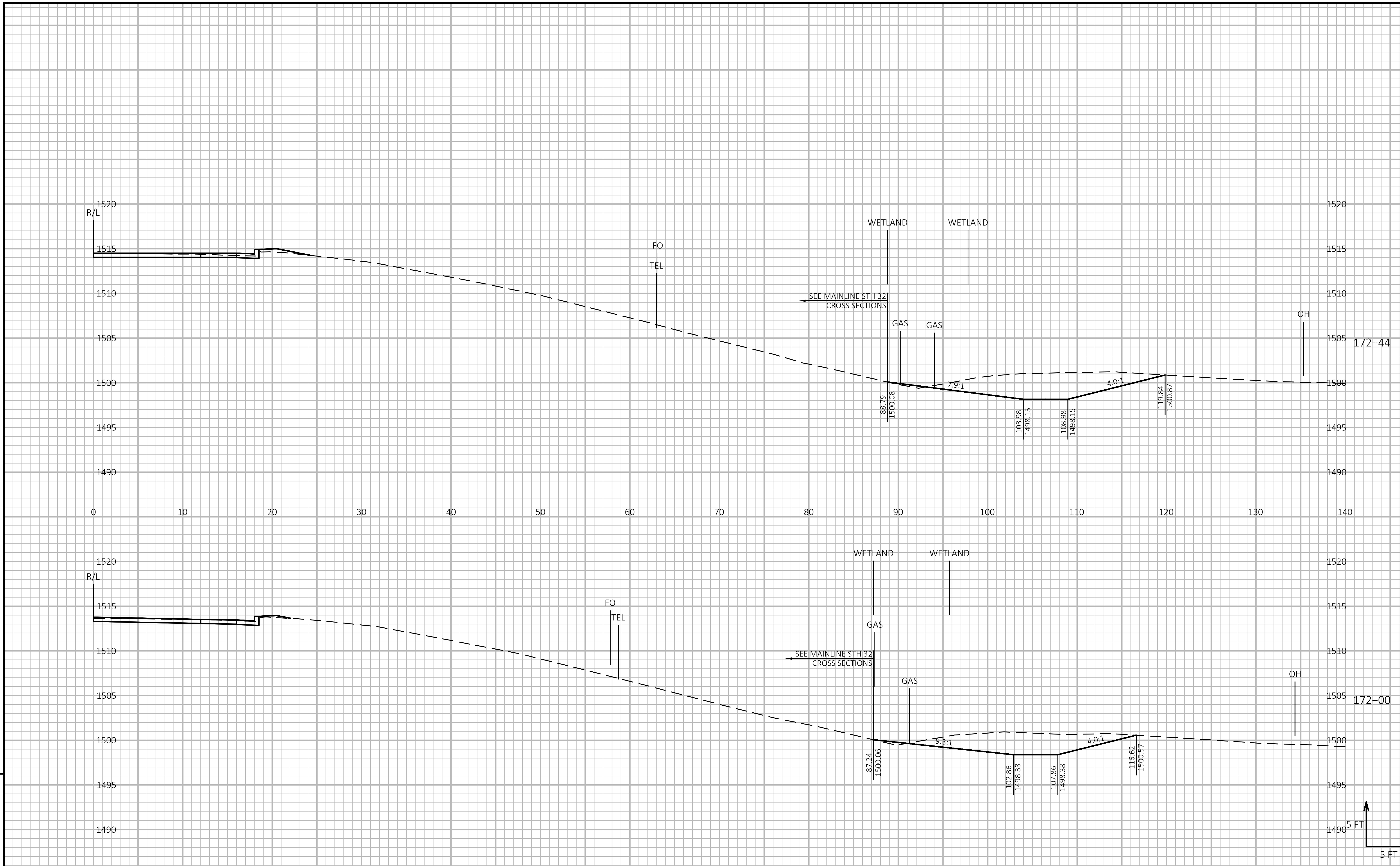
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 198	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 02
PLOT DATE : 1/21/2022 8:06 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 199 E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 03
PLOT DATE : 1/21/2022 8:06 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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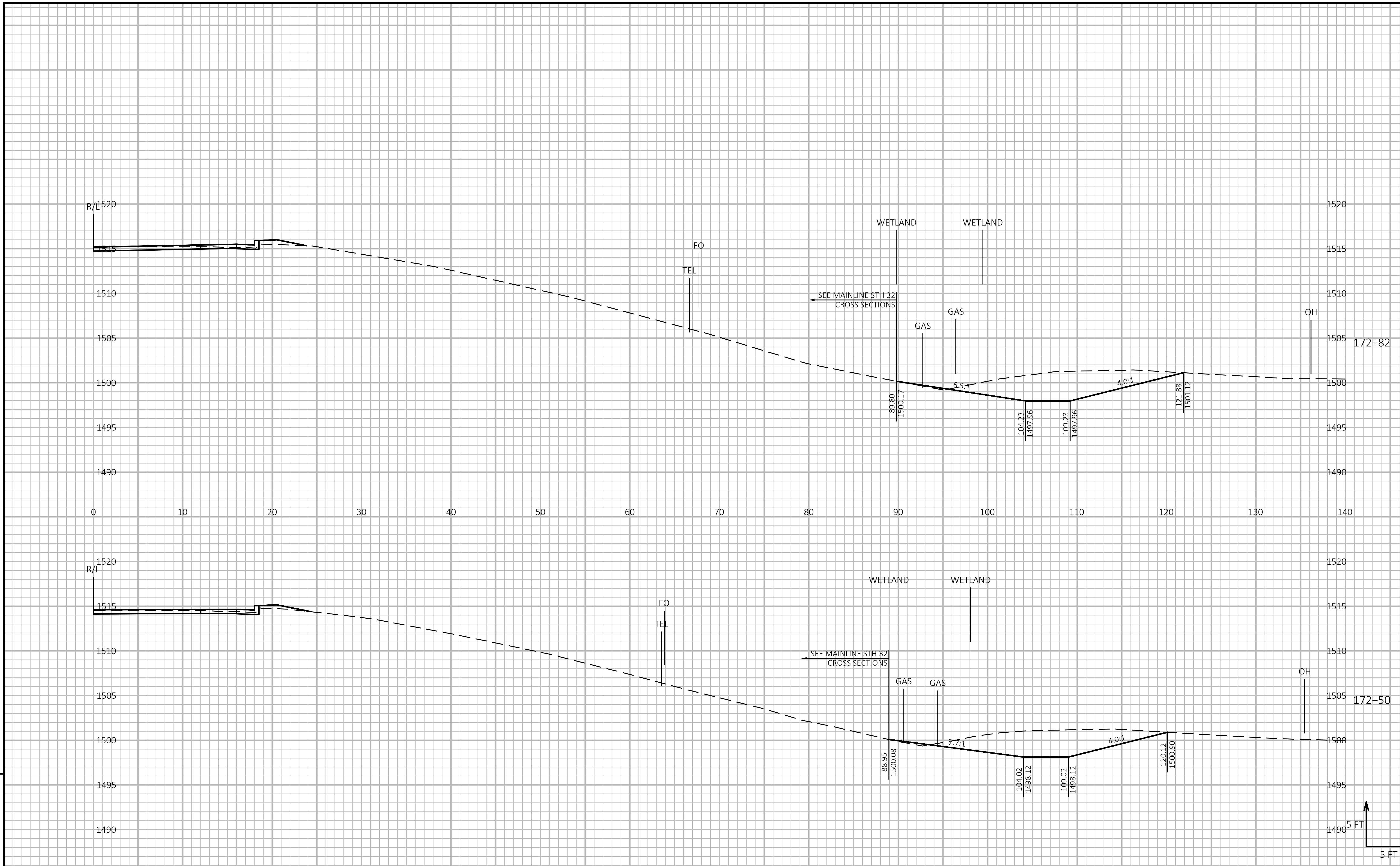
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 200	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 04

PLOT DATE : 1/21/2022 8:06 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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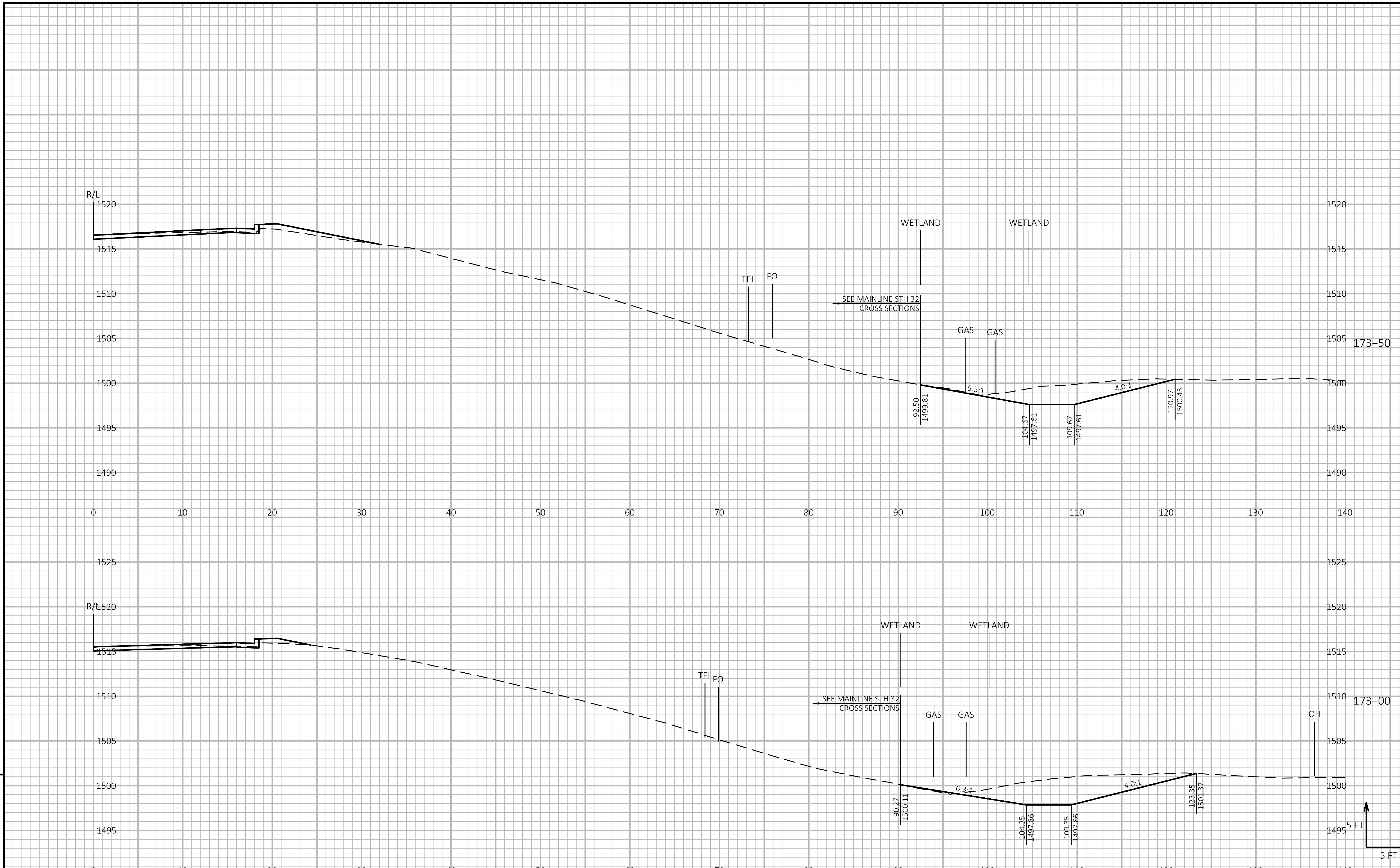
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 201	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 05
PLOT DATE : 1/21/2022 8:07 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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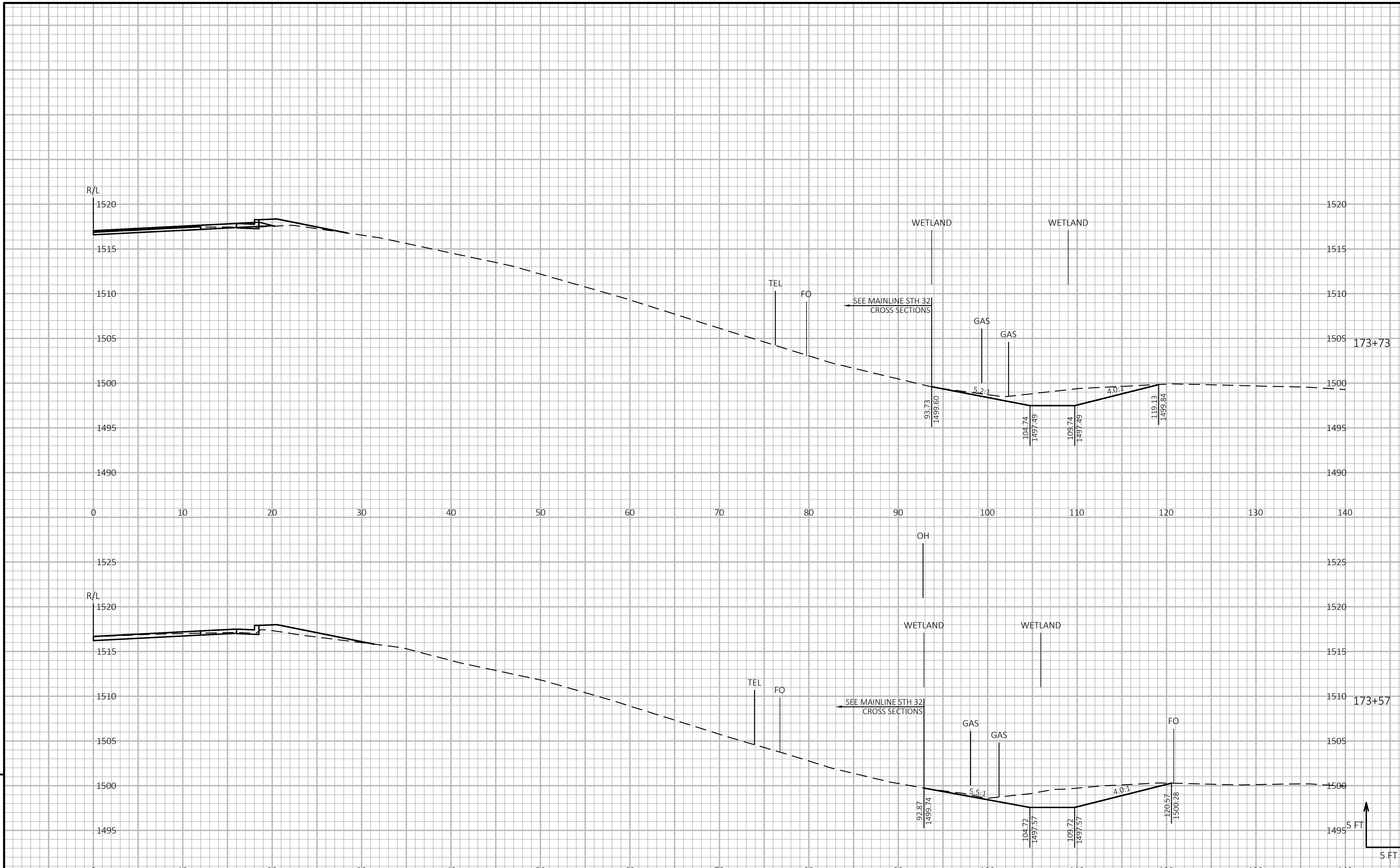
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 202	E



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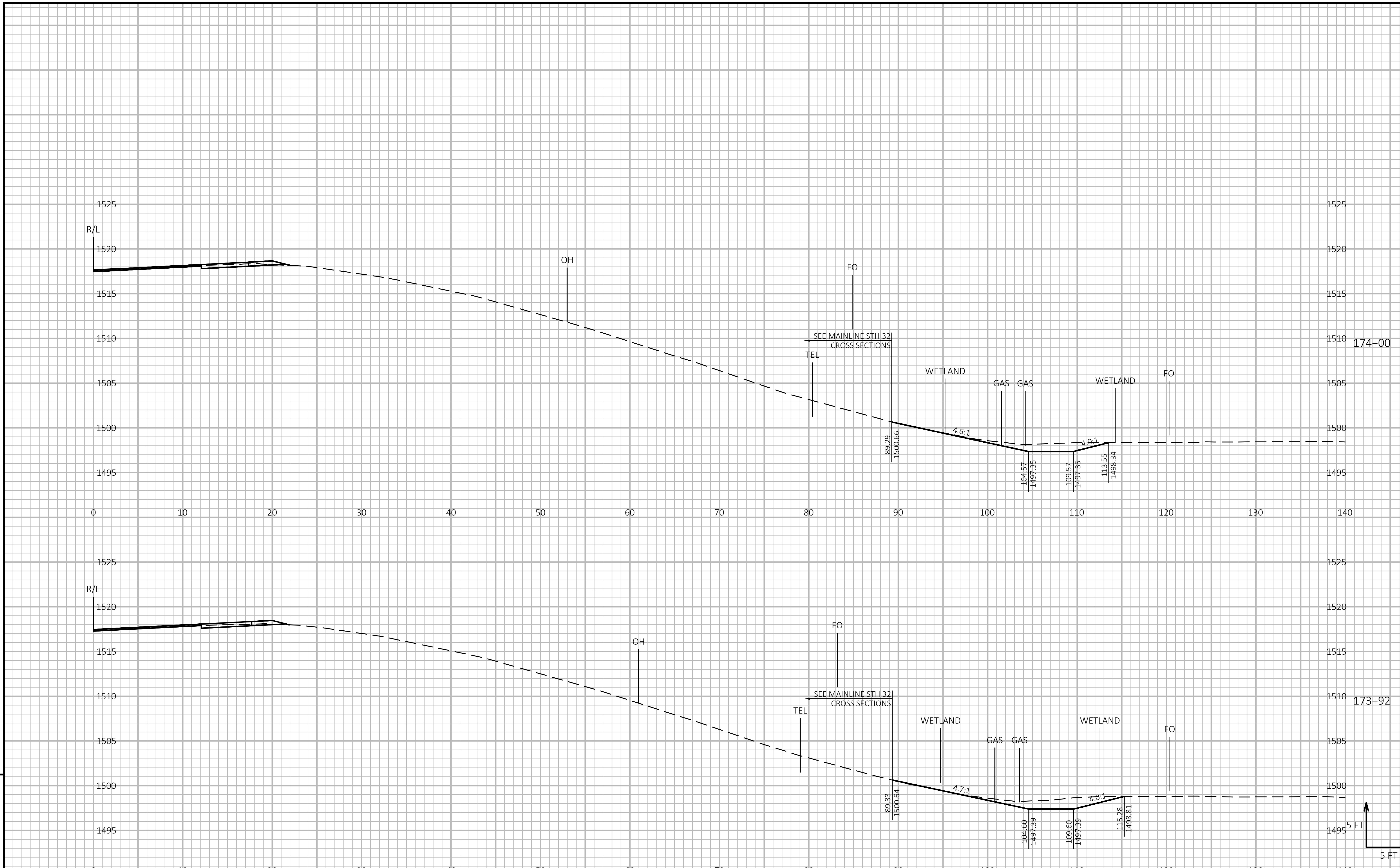
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 203	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 07
PLOT DATE : 1/21/2022 8:07 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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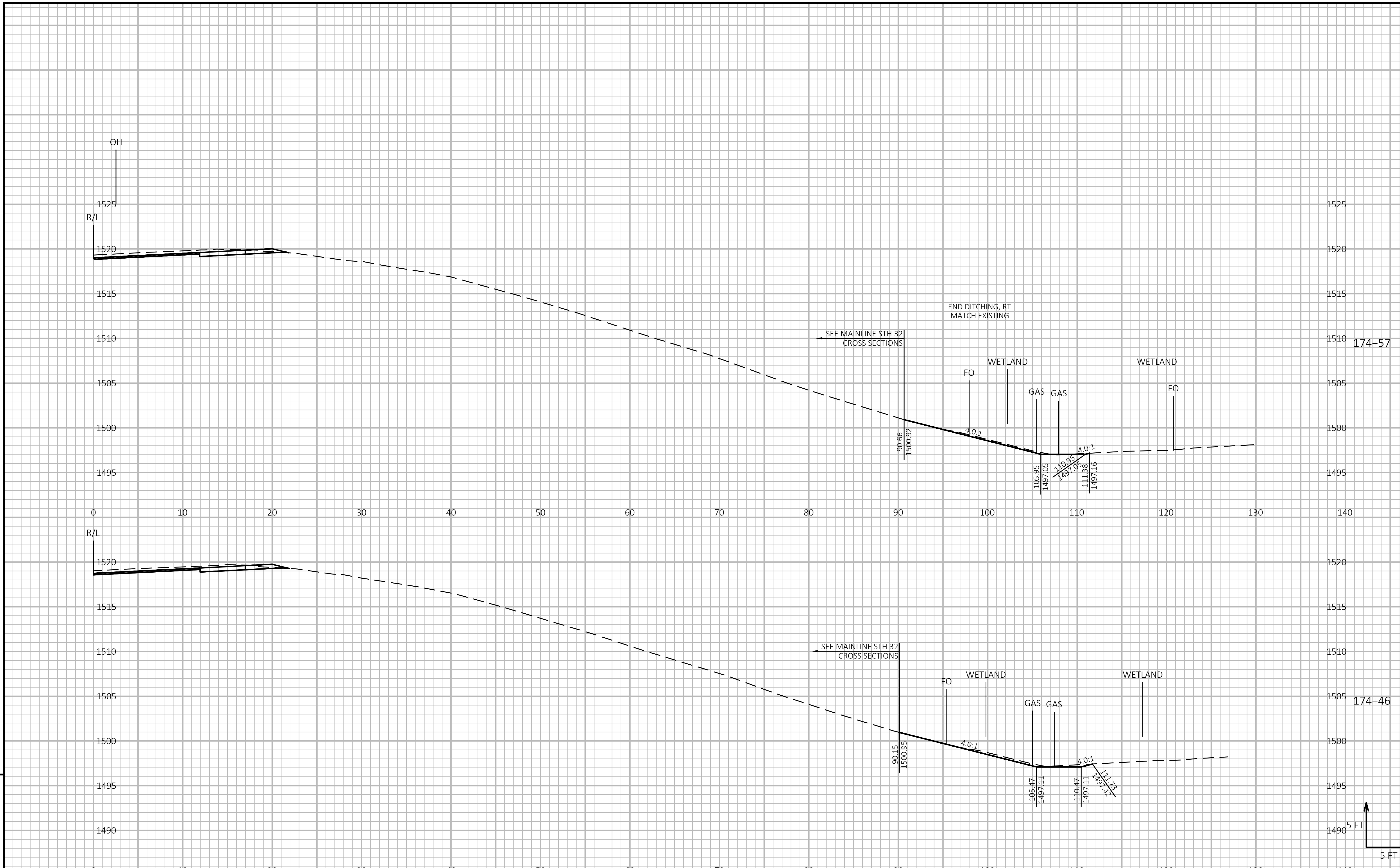
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 204	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090204-XS-DITCH.DWG
LAYOUT NAME - 08
PLOT DATE : 1/25/2022 12:14 PM
PLOT BY : SCOTT KAISER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

9



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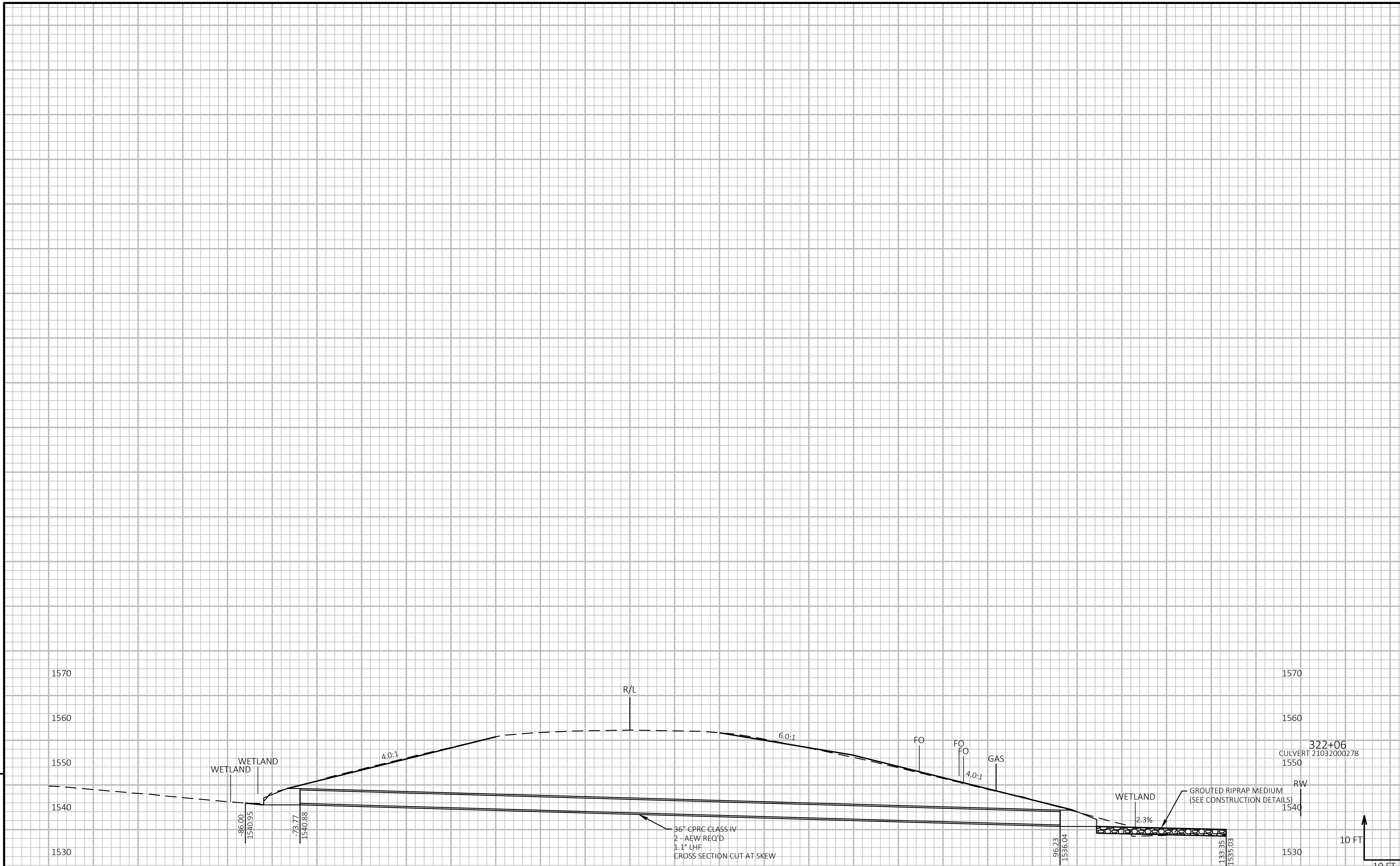
PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: STH 32 OUTFALL DITCHING	SHEET 205	E

9



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PROJECT NO: 9130-00-70	HWY: STH 32	COUNTY: FOREST	CROSS SECTIONS: CULVERTS	SHEET 206	E

FILE NAME : P:\51XX\5195.DP.19.STH32.FOR\CADDS\91300070_SOUTH\SHEETSPLAN\090205-XS-N CULVERT.DWG
LAYOUT NAME - 01
PLOT DATE : 1/21/2022 8:07 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 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