SUP

MAY 2024

PROJECT ID: 8351-07-78

WITH: N/A

COUNTY: BAYFIELD

ORDER OF SHEETS

TOTAL SHEETS = 56

35

DESIGN DESIGNATION

A.A.D.T.	2024	=	310
A.A.D.T.	2044	=	420
D.H.V.		=	30
D.D.		=	51/49
T.		=	10%
DESIGN SPEED		=	55
ESALS		=	109,500

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 OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 63 - INO

USH 63 TO TOWN ROAD 36

CTH E

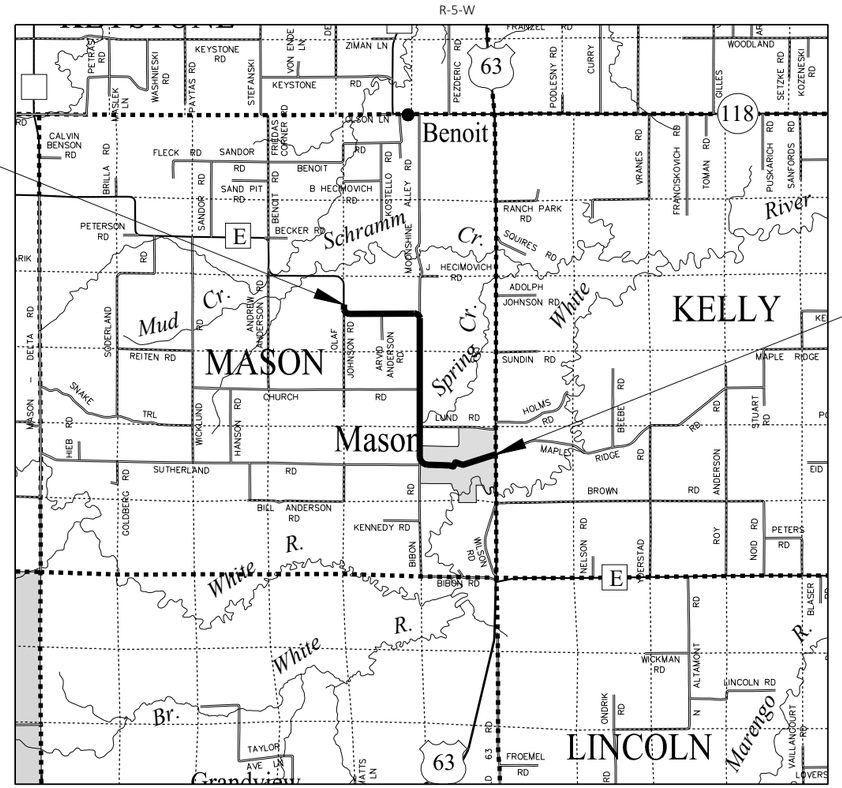
BAYFIELD COUNTY

STATE PROJECT NUMBER
8351-07-78

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8351-07-78	WISC 2024334	1

BEGIN PROJECT
STA 10+00.00
Y = 412925.210
X = 765142.139

END PROJECT
STA 222+78.29
Y = 402570.259
X = 775608.739



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 4.03 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BAYFIELD COUNTY, NAD83 (2021), 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 (2021). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A

ACCEPTED FOR
BAYFIELD COUNTY

Date 1/30/2024

Bayfield County Highway Commissioner
(Signature and Title of Official)

Original Plans Prepared by

SEH
Building a Better World for All of Us®

Short Elliott Hendrickson Inc.
326 S Main Street Suite 100
Rice Lake, WI 54868
715.236.4000 | Main
www.sehinc.com

WISCONSIN
DERRICK D. BACHA
E-47066
BIRCHWOOD, WI
PROFESSIONAL ENGINEER

(Signature) 1/29/2024 (Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SEH
Designer	SEH
Project Manager	PAULA GROOM
Regional Examiner	TOU YANG
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT

DATE: 02/01/2024 (Signature)

E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\010101_TI.DWG PLOT DATE : 1/29/2024 1:58 PM PLOT BY : DERRICK BACHA PLOT NAME :

STANDARD ABBREVIATIONS

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

DESIGN CONTACT:

SHORT ELLIOTT HENDRICKSON INC
326 S MAIN STREET SUITE 100
RICE LAKE, WI 54868
TELEPHONE: 715.790.6620
ATTENTION: DERRICK BACHA
EMAIL: DBACHA@SEHINC.COM

DNR AREA LIAISON:

WI DEPT OF NATURAL RESOURCES
DNR NORTHERN REGIONAL HQ
810 W MAPLE STREET
SPOONER, WI 54801
TELEPHONE: 715.635.4228
ATTENTION: SHAWN HASELEU
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

BAYFIELD COUNTY HD CONTACT:

BAYFIELD COUNTY HIGHWAY DEPARTMENT
311 S 1ST AVENUE E
PO BOX 428
WASHBURN, WI 54891
TELEPHONE: 715.373.6115
CELLPHONE: 715.209.0186
ATTENTION: BOB ANDERSON
EMAIL: BOB.ANDERSON@BAYFIELDCOUNTY.WI.GOV

UTILITY CONTACT LIST:

LIST DATE 10/10 /23

XCEL ENERGY

GAS/PETRO/ELECTRIC/TRANSMISSION
2400 FARM ROAD
ASHLAND, WI 54806
TELEPHONE: 906.364.5786
ATTENTION: BRIAN DARY
EMAIL: BRIAN.M.DARY@XCELENERGY.COM

BAYFIELD ELECTRIC CO-OP

ELECTRIC
68460 DISTRICT STREET
PO BOX 68
IRON RIVER, WI 54847
TELEPHONE: 715.372.4287
ATTENTION: ROBERT LAHTI
EMAIL: BOB.LAHTI@BAYFIELDELECTRIC.COM

NORVADO

COMMUNICATION LINES
43705 US HWY 63
CABLE, WI 54821
TELEPHONE: 715.580.8123
ATTENTION: GUY FOLSOM
EMAIL: GFOLSOM@NORVADO.COM

TOWN OF MASON

SANITARY SEWER
60020 HANSON ROAD
MASON, WI 54856
TELEPHONE: 715.765.4711
ATTENTION: SUSAN HIATT (CLERK)
EMAIL: RHHIATT@CHEQNET.NET

LUMEN/BRIGHTSPEED

COMMUNICATIONS LINES
425 ELLINGSON AVE
HAWKINS, WI 54530
TELEPHONE: 715.567.0725
ATTENTION: BEN BAKER
EMAIL: BEN.BAKER@BRIGHTSPEED.COM

GENERAL NOTES:

SUPER ELEVATIONS SHALL MATCH EXISTING ROADWAY SUPER ELEVATIONS.

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

ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED DURING CONSTRUCTION.

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

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE DENSE IS MEASURED BY THE TON, THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

QUANTITIES OF HMA PAVEMENT AND ASPHALTIC SURFACE WERE COMPUTED USING 112 LBS PER SQUARE YARD INCH OF COMPACTED MATERIAL.

RESTORE SIDE ROAD INTERSECTIONS AND PRIVATE ENTRANCES TO EXISTING CONDITIONS UNLESS OTHERWISE SHOWN.

THE EXACT CONSTRUCTION LIMITS OF PRIVATE ENTRANCES SHALL BE COORDINATED WITH THE ENGINEER IN THE FIELD.

PAVEMENT MARKING SHALL MEET MUTCD STANDARDS.

ORDER OF SHEETS - SECTION 2:

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

DIGGERS HOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

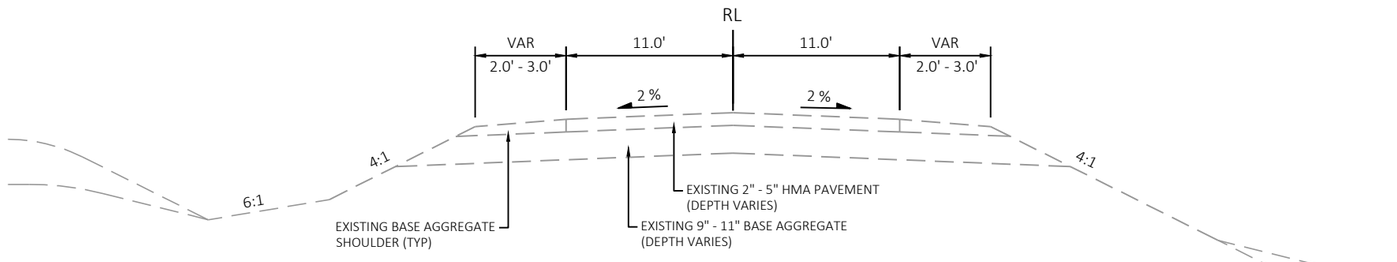
BORING LOG			
NO.	STATION (APPROX)	ASPHALT THICKNESS (INCHES)	EXISTING BASE THICKNESS (INCHES)
1	211+00	3	9
2	143+00	3	9
3	96+00	2	10
4	39+00	2	11

PREVIOUS EXCAVATIONS COMPLETED BY BAYFIELD COUNTY HIGHWAY DEPARTMENT DURING STORM SEWER AND DRAINAGE PIPE REPLACEMENTS SHOWED AN EXISTING ASPHALT THICKNESS OF 4 TO 5 INCHES IN THOSE EXCAVATIONS.

RUNOFF COEFFICIENT TABLE

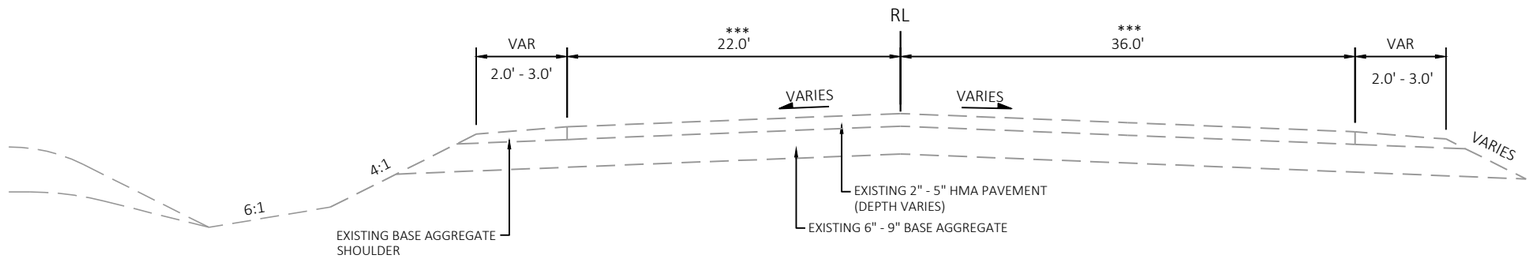
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 0.04 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 14.066 ACRES



EXISTING TYPICAL SECTION

CTH E
STA 10+00.00 - STA 190+71
STA 195+10 - STA 222+78.29

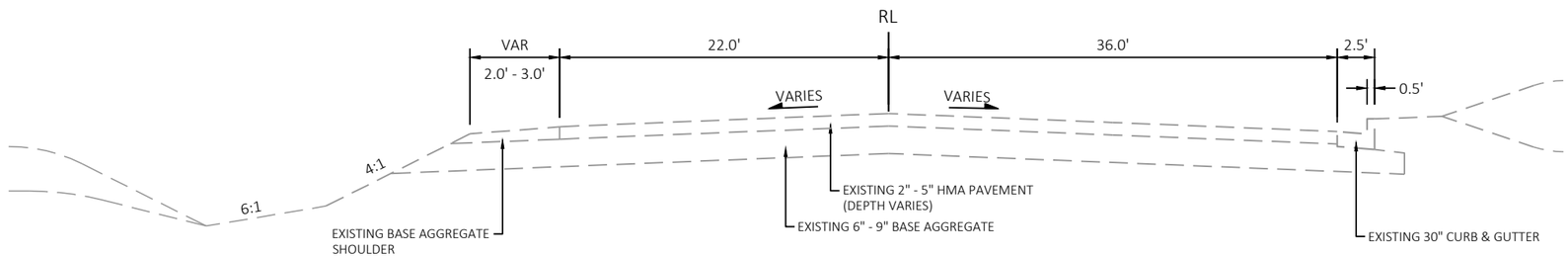


NOTES:

*** PAVEMENT WIDTH VARIES
BETWEEN STA 190+91 - 192+01 LT
AND STA 194+65 - 195+10 LT & RT

EXISTING TYPICAL SECTION

CTH E
STA 190+71 - STA 192+96
STA 194+65 - STA 195+10



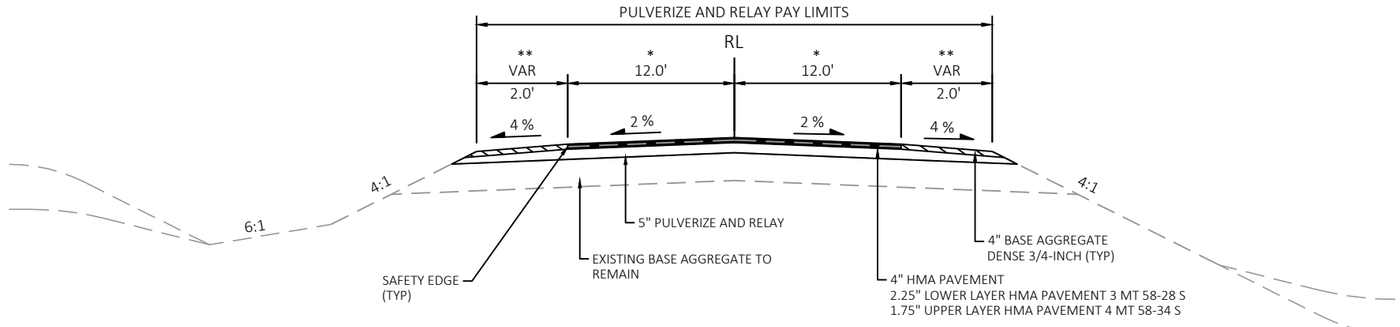
EXISTING TYPICAL SECTION

CTH E
STA 192+96 - STA 194+65

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 3	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\020301_TS.DWG
LAYOUT NAME - 01
PLOT DATE : 2/1/2024 1:57 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



FINISHED TYPICAL SECTION

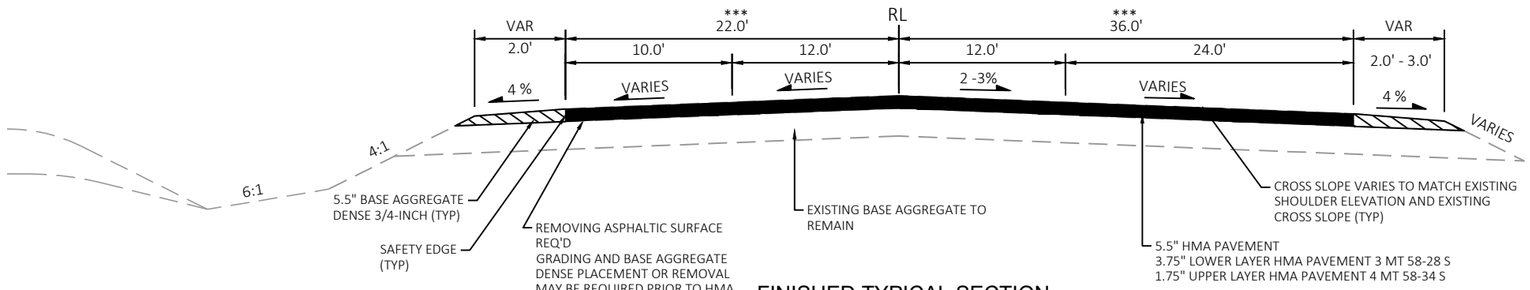
CTH E
STA 10+00 - STA 190+71
STA 195+55 - STA 222+78.29

NOTES:

* PAVEMENT WIDTH TO BE 13.0' ON INSIDE CURVES FROM PC TO PT BETWEEN STA 11+38.44 - STA 189+85.34.

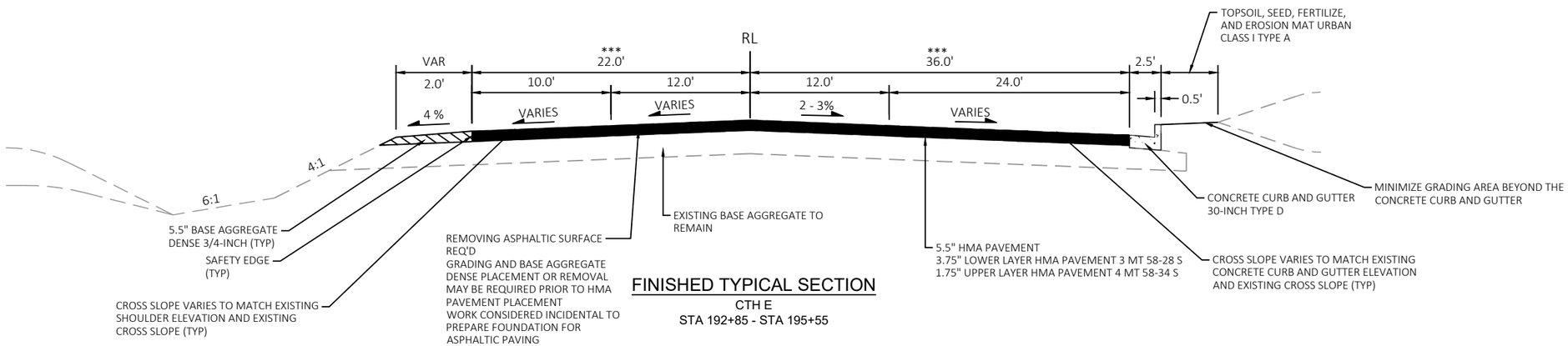
** SHOULDER WIDTH TO BE 1.0' - 2.0' ON INSIDE CURVES FROM PC TO PT.

*** PAVEMENT WIDTH VARIES BETWEEN STA 190+91 - 192+01 LT AND STA 194+65 - 195+55 LT & RT



FINISHED TYPICAL SECTION

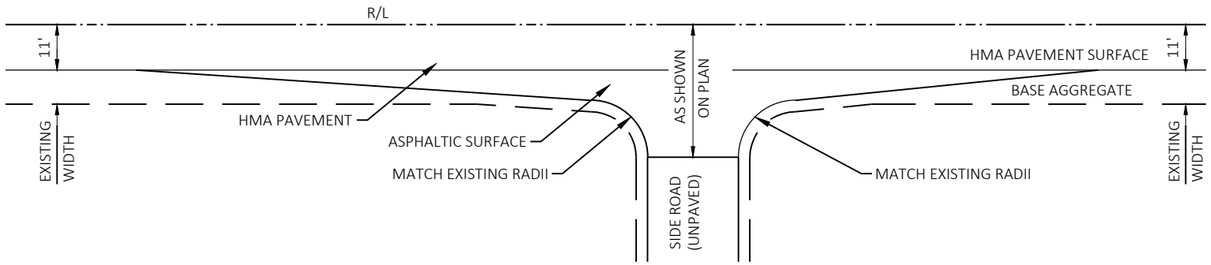
CTH E
STA 190+71 - STA 192+85



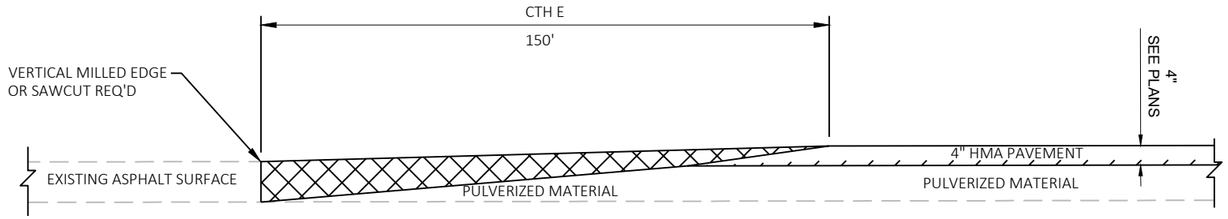
FINISHED TYPICAL SECTION

CTH E
STA 192+85 - STA 195+55

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 4	E



GRAVEL SIDE ROAD DETAIL

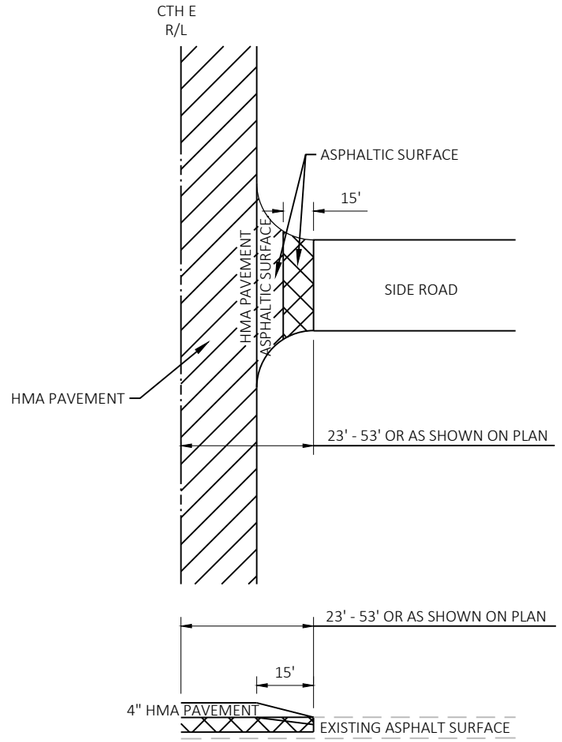


BUTT JOINT

BEGIN PROJECT STA 10+00 - STA 11+50
STA 189+41 - STA 190+91
STA 195+10 - STA 196+60
END PROJECT STA 221+28.29 - STA 222+78.29

PAID FOR AS REMOVING ASPHALTIC SURFACE BUTT JOINTS AND HMA PAVEMENT

NOTE:
ANY SAWCUT USED IN THIS OPERATION CONSIDERED INCIDENTAL TO THIS ITEM.



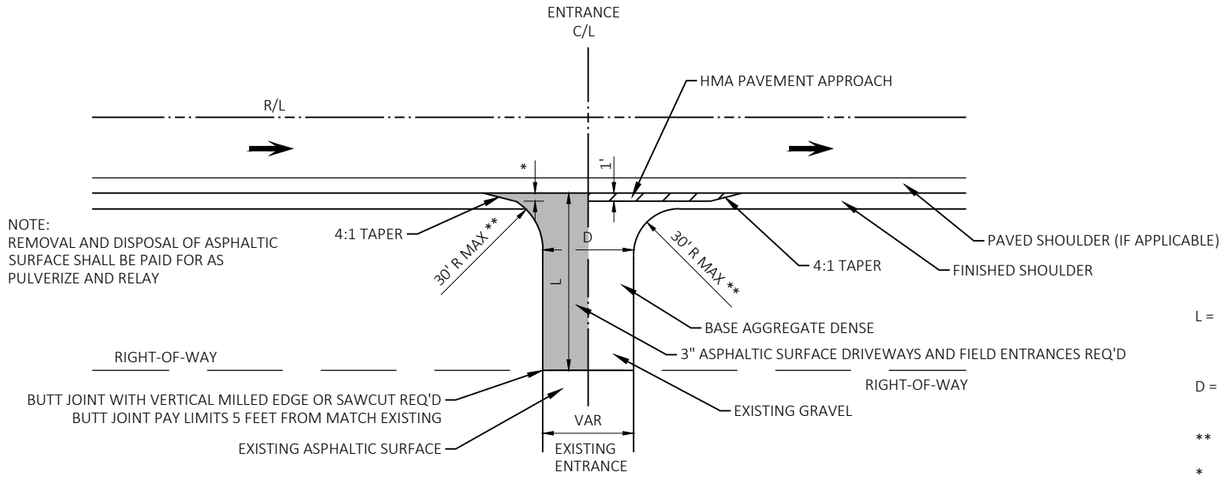
REMOVE MATERIAL UNDER ITEM "REMOVING ASPHALTIC SURFACE BUTT JOINTS" MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDE ROAD PAVING.

SIDE ROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 4" MINIMUM AT JOINT.

ANY SAWCUT USED WILL BE CONSIDERED INCIDENTAL TO THE ITEM "REMOVING ASPHALTIC SURFACE BUTT JOINTS".

PAVEMENT TRANSITION

NOT TO SCALE



RURAL DRIVEWAY DETAIL

(PE'S AND FE'S)

L = VARIABLE, EXACT LENGTH TO DE DETERMINED IN THE FIELD BY THE ENGINEER. BLEND BACK ON THE ENTRANCE FAR ENOUGH TO GET A SMOOTH PROFILE.

D = DRIVEWAY WIDTH (MATCH EXISTING SURFACE MATERIAL AND WIDTH).

** MATCH EXISTING RADIUS WHERE POSSIBLE.

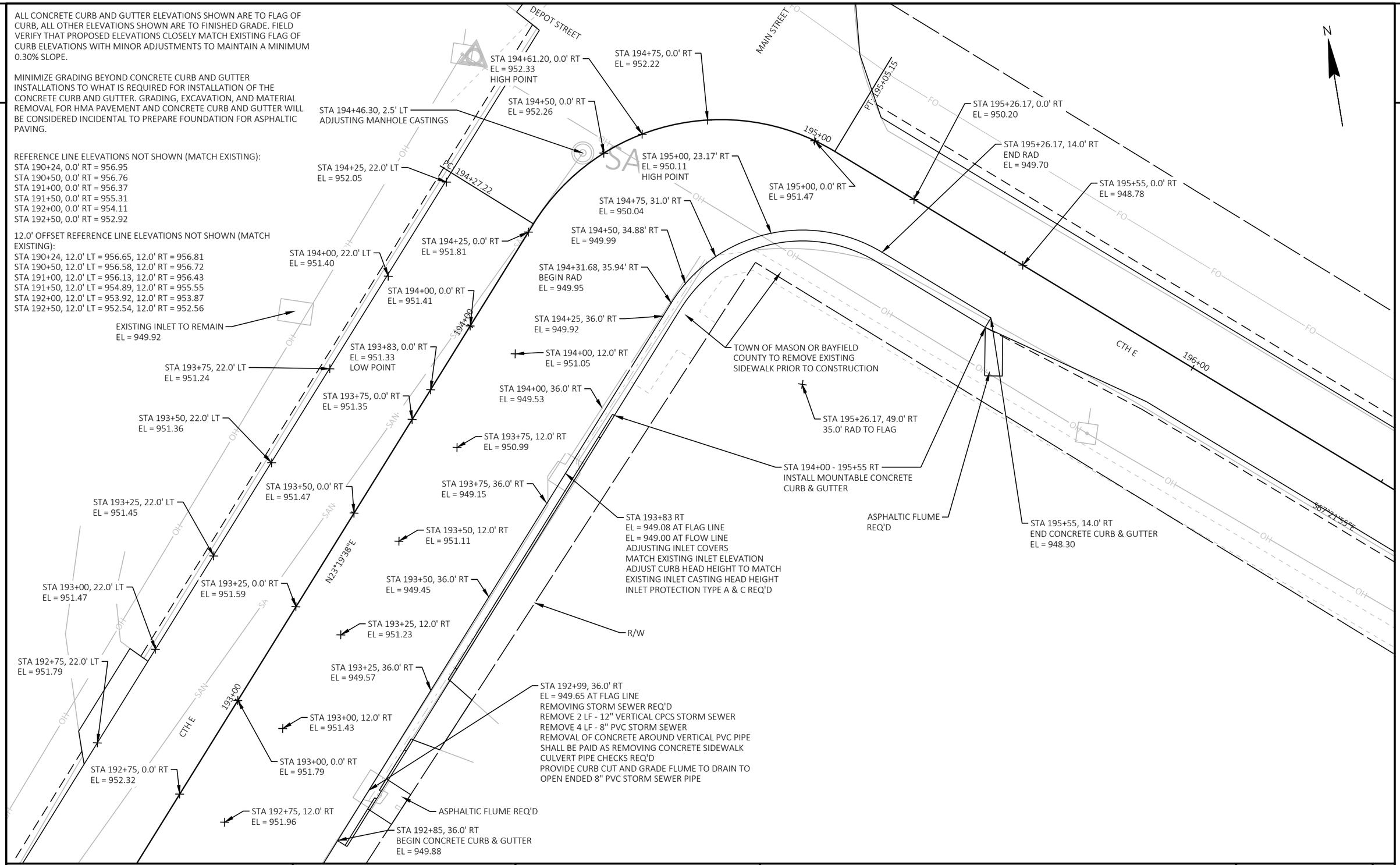
* 3' MAX OR TO FINISHED SHOULDER WHICHEVER IS LESS.

ALL CONCRETE CURB AND GUTTER ELEVATIONS SHOWN ARE TO FLAG OF CURB, ALL OTHER ELEVATIONS SHOWN ARE TO FINISHED GRADE. FIELD VERIFY THAT PROPOSED ELEVATIONS CLOSELY MATCH EXISTING FLAG OF CURB ELEVATIONS WITH MINOR ADJUSTMENTS TO MAINTAIN A MINIMUM 0.30% SLOPE.

MINIMIZE GRADING BEYOND CONCRETE CURB AND GUTTER INSTALLATIONS TO WHAT IS REQUIRED FOR INSTALLATION OF THE CONCRETE CURB AND GUTTER. GRADING, EXCAVATION, AND MATERIAL REMOVAL FOR HMA PAVEMENT AND CONCRETE CURB AND GUTTER WILL BE CONSIDERED INCIDENTAL TO PREPARE FOUNDATION FOR ASPHALTIC PAVING.

REFERENCE LINE ELEVATIONS NOT SHOWN (MATCH EXISTING):
STA 190+24, 0.0' RT = 956.95
STA 190+50, 0.0' RT = 956.76
STA 191+00, 0.0' RT = 956.37
STA 191+50, 0.0' RT = 955.31
STA 192+00, 0.0' RT = 954.11
STA 192+50, 0.0' RT = 952.92

12.0' OFFSET REFERENCE LINE ELEVATIONS NOT SHOWN (MATCH EXISTING):
STA 190+24, 12.0' LT = 956.65, 12.0' RT = 956.81
STA 190+50, 12.0' LT = 956.58, 12.0' RT = 956.72
STA 191+00, 12.0' LT = 956.13, 12.0' RT = 956.43
STA 191+50, 12.0' LT = 954.89, 12.0' RT = 955.55
STA 192+00, 12.0' LT = 953.92, 12.0' RT = 953.87
STA 192+50, 12.0' LT = 952.54, 12.0' RT = 952.56



PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	INTERSECTION DETAILS	SHEET 6	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 01
PLOT DATE : 2/1/2024 1:58 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : ##########

PI STA = 15+37.23
Y = 412388.000
X = 765146.729
DELTA = 89°49'36" LT
D = 14°19'26"
T = 398.79'
L = 627.11'
R = 400.00'
PC STA = 11+38.44
Y = 412786.777
X = 765143.321
PT STA = 17+65.55
Y = 412390.201
X = 765545.515
DB = S00°29'22"E
DA = N89°41'01"E

REFERENCE LINE TO MATCH EXISTING CENTERLINE ON CTH E.

BEGIN PROJECT
STA 10+00.00
Y = 412925.210
X = 765142.139

BP: 9+29.00
PC: 11+38.44
PT: 17+65.55
PI: 27+51.30
PI: 38+01.33
PI: 49+63.18
PI: 53+92.19
CTH E
S0°29'22"E
N89°41'01"E
N89°44'17"E
N89°39'35"E
N89°35'49"E
N89°46'31"E
S0°07'13"E
10+00
15+00
20+00
25+00
30+00
35+00
40+00
45+00
50+00
55+00
60+00
65+00
70+00
75+00
80+00
85+00

CONTROL POINT
P/K NAIL IN ASPHALT
STA 65+70.60, 164.0' LT
Y = 412415.547
X = 770435.944

PC: 62+62.83
PT: 68+76.15

PI STA = 66+53.54
Y = 412415.307
X = 770433.446
DELTA = 90°06'16" RT
D = 14°41'28"
T = 390.71'
L = 613.32'
R = 390.00'
PC STA = 62+62.83
Y = 412413.775
X = 770042.737
PT STA = 68+76.15
Y = 412024.596
X = 770434.266
DB = N89°46'31"E
DA = S00°07'13"E

MATCH LINE 87+00

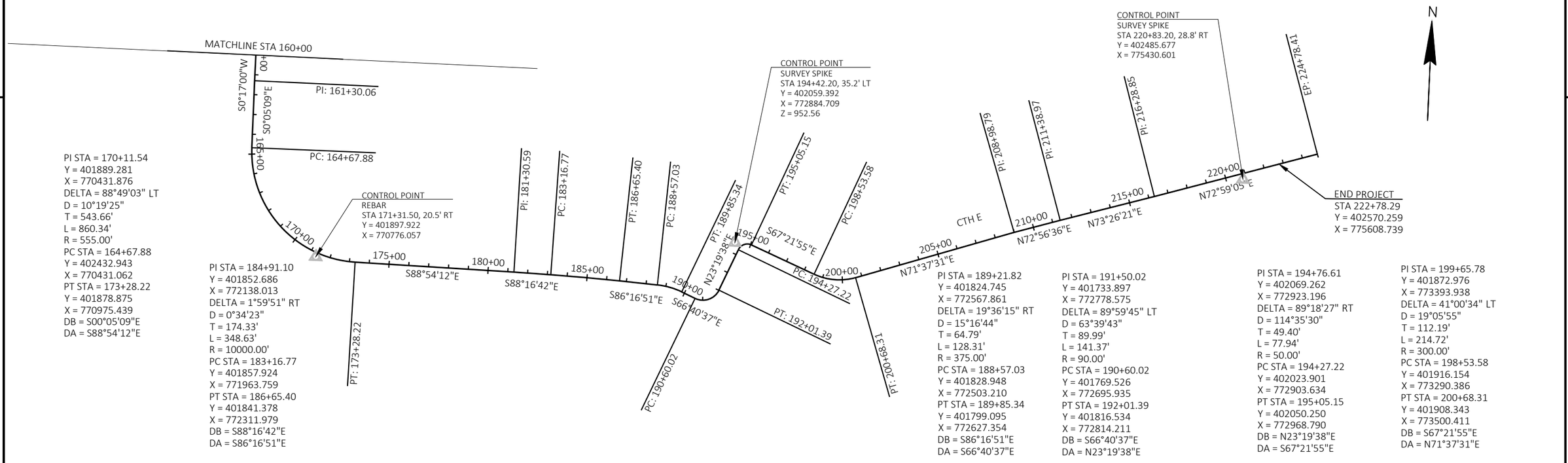
N

MATCH LINE 87+00
PI: 87+11.49
PI: 104+90.38
PI: 118+08.11
PI: 137+96.55
PI: 150+15.22
90+00
95+00
100+00
105+00
110+00
115+00
120+00
125+00
130+00
135+00
140+00
145+00
150+00
155+00
160
S0°03'39"E
S0°21'36"E
CTH E
S0°16'21"W
S0°07'46"W
S0°17'00"W
MATCHLINE STA 160+00

CONTROL POINT
REBAR
STA 108+09.20, 33.7' RT
Y = 408091.398
X = 770408.289

N

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	ALIGNMENT DETAILS	SHEET 7	E



2

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	ALIGNMENT DETAILS	SHEET 8	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 02
PLOT DATE : 2/1/2024 1:59 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 44

Estimate Of Quantities

8351-07-78

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	3,250.000	3,250.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	2,550.000	2,550.000
0006	204.0150	Removing Curb & Gutter	LF	150.000	150.000
0008	204.0155	Removing Concrete Sidewalk	SY	50.000	50.000
0010	204.0245	Removing Storm Sewer (size) 01. 8-inch PVC	LF	4.000	4.000
0012	204.0245	Removing Storm Sewer (size) 02. 12-inch CMP	LF	2.000	2.000
0014	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 8351-07-78	EACH	1.000	1.000
0016	213.0100	Finishing Roadway (project) 01. 8351-07-78	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,300.000	3,300.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	100.000	100.000
0022	325.0100	Pulverize and Relay	SY	66,700.000	66,700.000
0024	374.1020.S	QMP Pulverize and Relay Compaction	SY	66,700.000	66,700.000
0026	450.4000	HMA Cold Weather Paving	TON	3,400.000	3,400.000
0028	455.0605	Tack Coat	GAL	6,200.000	6,200.000
0030	460.2000	Incentive Density HMA Pavement	DOL	8,710.000	8,710.000
0032	460.6223	HMA Pavement 3 MT 58-28 S	TON	7,725.000	7,725.000
0034	460.6244	HMA Pavement 4 MT 58-34 S	TON	5,900.000	5,900.000
0036	460.9000.S	Material Transfer Vehicle	EACH	1.000	1.000
0038	465.0105	Asphaltic Surface	TON	600.000	600.000
0040	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	260.000	260.000
0042	465.0315	Asphaltic Flumes	SY	12.000	12.000
0044	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	230.000	230.000
0046	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0048	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0050	618.0100	Maintenance and Repair of Haul Roads (project) 01. 8351-07-78	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	500.000	500.000
0056	625.0100	Topsoil	SY	180.000	180.000
0058	628.1504	Silt Fence	LF	50.000	50.000
0060	628.1520	Silt Fence Maintenance	LF	50.000	50.000
0062	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0066	628.2006	Erosion Mat Urban Class I Type A	SY	180.000	180.000
0068	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0070	628.7015	Inlet Protection Type C	EACH	1.000	1.000
0072	628.7555	Culvert Pipe Checks	EACH	2.000	2.000
0074	629.0210	Fertilizer Type B	CWT	0.150	0.150
0076	630.0140	Seeding Mixture No. 40	LB	10.000	10.000
0078	642.5001	Field Office Type B	EACH	1.000	1.000
0080	643.0300	Traffic Control Drums	DAY	1,000.000	1,000.000
0082	643.0900	Traffic Control Signs	DAY	1,700.000	1,700.000
0084	643.5000	Traffic Control	EACH	1.000	1.000
0086	646.2020	Marking Line Epoxy 6-Inch	LF	41,375.000	41,375.000
0088	646.4505	Marking Line Same Day Paint 4-Inch	LF	19,300.000	19,300.000
0090	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	22,000.000	22,000.000
0092	648.0100	Locating No-Passing Zones	MI	4.030	4.030
0094	650.5000	Construction Staking Base	LF	484.000	484.000
0096	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	230.000	230.000
0098	650.8000	Construction Staking Resurfacing Reference	LF	20,794.000	20,794.000
0100	650.9911	Construction Staking Supplemental Control (project) 01. 8351-07-78	EACH	1.000	1.000

Estimate Of Quantities

8351-07-78

Line	Item	Item Description	Unit	Total	Qty
0102	650.9920	Construction Staking Slope Stakes	LF	484.000	484.000
0104	690.0150	Sawing Asphalt	LF	500.000	500.000
0106	740.0440	Incentive IRI Ride	DOL	16,120.000	16,120.000

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 SY	COMMENTS
CTH E			
190+71 - 195+55	LT & RT	3250	URBAN SECTION
ITEM TOTAL		3250	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	LOCATION	204.0115 SY	COMMENTS
CTH E			
10+00 - 11+50	LT & RT	470	CTH E
64+00	LT	45	MOONSHINE ALLEY RD
67+50	LT	45	MOONSHINE ALLEY RD
163+18	LT	7	PE
163+35	RT	15	PE
164+55	LT	7	PE
166+25	RT	40	BIBON RD
171+50	RT	42	SUTHERLAND RD
189+21 - 190+71	LT & RT	520	CTH E
189+61	LT	15	PE
190+86	LT	20	PE
195+55 - 197+05	LT & RT	470	CTH E
200+00	LT & RT	120	NORTHERN LIGHTS BLVD
201+62	RT	18	PE
202+53	RT	15	PE
204+00	RT	170	EAGLE AVE
205+55	LT	7	PE
209+08	RT	7	PE
209+74	RT	7	PE
210+20	RT	40	PE
221+28.29 - 222+78.29	LT & RT	470	WANNEBO ROAD
ITEM TOTAL		2550	

REMOVING CURB & GUTTER

STATION	LOCATION	204.0150 LF	COMMENTS
CTH E			
192+95 - 194+68	RT	150	
ITEM TOTAL		150	

REMOVING CONCRETE SIDEWALK

STATION	LOCATION	204.0155 SY	COMMENTS
CTH E			
190+71 - 195+55	RT	50	MAY BE PRESENT UNDER ASPHALT INCLUDES STA 192+99 OUTLET CONCRETE
ITEM TOTAL		50	

REMOVING STORM SEWER

STATION	LOCATION	204.0245.01 8-INCH LF	204.0245.02 12-INCH LF	COMMENTS
CTH E				
192+99	RT	4	2	4-INCH IS VERTICAL PIPE
ITEM TOTAL		4	2	

PREPARE FOUNDATION FOR

STATION	LOCATION	211.0101 ASPHALTIC PAVING (PROJECT) EACH	COMMENTS
CTH E			
10+00 - 222+78.29	LT & RT	1	8351-07-78
ITEM TOTALS		1	

FINISHING ROADWAY (PROJECT)

STATION	LOCATION	213.0100 EACH	COMMENTS
CTH E			
10+00 - 222+78.29	LT & RT	1	8351-07-78
ITEM TOTAL		1	

BASE AGGREGATE DENSE

STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	COMMENTS
CTH E				
10+00 - 222+78.29	LT & RT	3300		SHOULDERS/ENTRANCES
190+71 - 195+55	LT & RT		100	GRADING AFTER ASPHALT REMOVAL
ITEM TOTALS		3300	100	

PULVERIZE AND RELAY

STATION	LOCATION	325.0100 SY	COMMENTS
CTH E			
10+00 - 190+71	LT & RT	56230	MAINLINE
10+00 - 222+78.29	LT & RT	1510	INTERSECTIONS
10+00 - 222+78.29	LT & RT	460	ENTRANCES
195+55 - 222+78.29	LT & RT	8500	MAINLINE
ITEM TOTAL		66700	

ASPHALT ITEMS

STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6244 HMA PAVEMENT 4 MT 58-34 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY	COMMENTS
CTH E									
10+00 - 222+78.29	LT & RT	1925	3050.0	7725					LOWER LAYER
10+00 - 222+78.29	LT & RT	1475	3050.0		5900				UPPER LAYER
10+00 - 222+78.29	LT & RT		100.0			600	260		INTERSECTIONS/ENTRANCES
192+99	RT							6	
195+55	RT							6	
ITEM TOTALS		3400	6200	7725	5900	600	260	12	

MATERIAL TRANSFER VEHICLE (PROJECT)

STATION	LOCATION	460.9000.S 8351-07-78 EACH
CTH E		
10+00 - 222+78.29	LT & RT	1
ITEM TOTAL		1

CONCRETE CURB & GUTTER

STATION	LOCATION	601.0411 30-INCH TYPE D LF	COMMENTS
CTH E			
192+85 - 195+55	RT	230	
ITEM TOTAL		230	

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	MISCELLANEOUS QUANTITIES	SHEET 12	E

ADJUSTING

STATION	LOCATION	611.8110 MANHOLE COVERS EACH	611.8115 INLET COVERS EACH
CTH E			
193+83	RT		1
194+46.30	2.5' LT	1	
ITEM TOTALS		1	1 CAT 0020

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	COMMENTS
CTH E									
10+00 - 222+78.29	LT & RT	50	50	1	1				UNDISTRIBUTED
192+99								2	
193+82	LT					1			
193+83	RT						1		
ITEM TOTALS		50	50	1	1	1	1	2	

MAINTENANCE AND REPAIR OF HAUL ROADS

STATION	LOCATION	618.0100 EACH
CTH E		
10+00 - 222+78.29	LT & RT	1
ITEM TOTAL		1 CAT 0020

FIELD OFFICE TYPE B

STATION	LOCATION	642.5001 EACH
CTH E		
10+00 - 222+78.29		1
ITEM TOTAL		1

MOBILIZATION

STATION	LOCATION	619.1000 EACH
CTH E		
10+00 - 222+78.29		1
ITEM TOTAL		1

TRAFFIC CONTROL ITEMS

STATION - STATION	DAYS	643.0300 DRUMS DAY	643.0900 SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
CTH E				
10+00 - 222+78.29	50	1000	1700	1
ITEM TOTALS		1000	1700	1

WATER

STATION	LOCATION	624.0100 MGAL
CTH E		
10+00 - 222+78.29	LT & RT	500
ITEM TOTAL		500

TOPSOIL, EROSION MAT, FERTILIZER, & SEED

STATION	LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB
CTH E					
192+75 - 195+55	RT	180	180	0.15	10
ITEM TOTALS		180	180	0.15	10

3

MARKING ITEMS

STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH (WHITE) LF	646.4505 MARKING LINE SAME DAY PAINT 4-INCH (YELLOW) LF	646.4720 MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) LF	COMMENTS
CTH E					
10+00 - 222+78.29	LT & RT	41375			WHITE, EDGELINE
10+00 - 18+52	CL		1740	1740	YELLOW, CL DOUBLE YELLOW
18+52 - 30+00	CL		1240	1440	YELLOW, CL NO PASSING NORTHBOUND
30+00 - 55+00	CL		200	625	YELLOW, CL PASSING ZONE
55+00 - 62+63	CL		825	951	YELLOW, CL NO PASSING SOUTHBOUND
62+63 - 70+00	CL		1475	1475	YELLOW, CL DOUBLE YELLOW
70+00 - 78+50	CL		920	1065	YELLOW, CL NO PASSING NORTHBOUND
78+50 - 88+25	CL		80	250	YELLOW, CL PASSING ZONE
88+25 - 96+00	CL		835	965	YELLOW, CL NO PASSING SOUTHBOUND
96+00 - 110+00	CL		2800	2800	YELLOW, CL DOUBLE YELLOW
110+00 - 122+00	CL		1300	1500	YELLOW, CL NO PASSING NORTHBOUND
122+00 - 152+00	CL		240	750	YELLOW, CL PASSING ZONE
152+00 - 163+00	CL		1200	1375	YELLOW, CL NO PASSING SOUTHBOUND
163+00 - 172+00	CL		1800	1800	YELLOW, CL DOUBLE YELLOW
172+00 - 178+00	CL		650	750	YELLOW, CL NO PASSING NORTHBOUND
178+00 - 186+50	CL		70	215	YELLOW, CL PASSING ZONE
186+50 - 189+75	CL		355	415	YELLOW, CL NO PASSING SOUTHBOUND
189+75 - 203+50	CL		2750	2750	YELLOW, CL DOUBLE YELLOW
203+50 - 205+00	CL		165	190	YELLOW, CL NO PASSING NORTHBOUND
205+00 - 218+00	CL		105	325	YELLOW, CL PASSING ZONE
218+00 - 222+78.29	CL		550	619	YELLOW, CL NO PASSING SOUTHBOUND
ITEM TOTALS		41375	19300	22000	

LOCATING NO-PASSING ZONES

STATION	LOCATION	648.0100 MI
CTH E		
10+00 - 222+78.29	LT & RT	4.03
ITEM TOTAL		4.03

CONSTRUCTION STAKING

STATION	LOCATION	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.8000 RESURFACING REFERENCE LF	650.9911 SUPPLEMENTAL CONTROL (PROJECT) EACH	650.9920 SLOPE STAKES LF
CTH E						
10+00 - 190+71	LT & RT			18071	1	
190+71 - 195+55	LT & RT	484	230			484
195+55 - 222+78.29	LT & RT			2723		
ITEM TOTALS		484	230	20794	1	484

SAWING

STATION	LOCATION	690.0150 ASPHALT LF	COMMENTS
CTH E			
10+00 - 222+78.29	LT & RT	500	ENTRANCES
ITEM TOTAL		500	

INCENTIVE IRI RIDE

STATION	LOCATION	740.0440 DOL	COMMENTS
CTH E			
10+00 - 222+78.29	LT & RT	16120	
ITEM TOTAL		16120	

3

PI STA = 184+91.10
Y = 401852.686
X = 772138.013
DELTA = 1°59'51" RT
D = 0°34'23"
T = 174.33'
L = 348.63'
R = 10000.00'
PC STA = 183+16.77
Y = 401857.924
X = 771963.759
PT STA = 186+65.40
Y = 401841.378
X = 772311.979
DB = S88°16'42"E
DA = S86°16'51"E

PI STA = 189+21.82
Y = 401824.745
X = 772567.861
DELTA = 19°36'15" RT
D = 15°16'44"
T = 64.79'
L = 128.31'
R = 375.00'
PC STA = 188+57.03
Y = 401828.948
X = 772503.210
PT STA = 189+85.34
Y = 401799.095
X = 772627.354
DB = S86°16'51"E
DA = S66°40'37"E

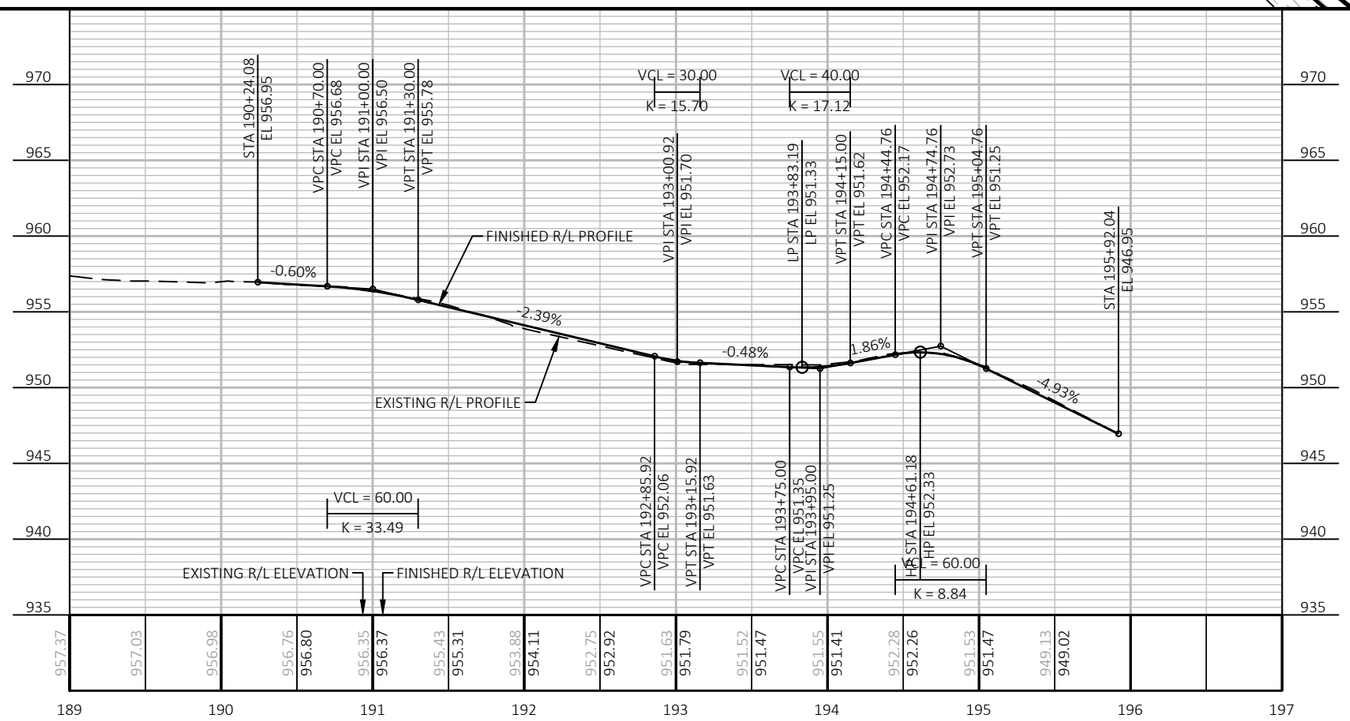
PI STA = 191+50.02
Y = 401733.897
X = 772778.575
DELTA = 89°59'45" LT
D = 63°39'43"
T = 89.99'
L = 141.37'
R = 90.00'
PC STA = 190+60.02
Y = 401769.526
X = 772695.935
PT STA = 192+01.39
Y = 401816.534
X = 772814.211
DB = S66°40'37"E
DA = N23°19'38"E

PI STA = 194+76.61
Y = 402069.262
X = 772923.196
DELTA = 89°18'27" RT
D = 114°35'30"
T = 49.40'
L = 77.94'
R = 50.00'
PC STA = 194+27.22
Y = 402023.901
X = 772903.634
PT STA = 195+05.15
Y = 402050.250
X = 772968.790
DB = N23°19'38"E
DA = S67°21'55"E

PI STA = 199+65.78
Y = 401872.976
X = 773393.938
DELTA = 41°00'34" LT
D = 19°05'55"
T = 112.19'
L = 214.72'
R = 300.00'
PC STA = 198+53.58
Y = 401916.154
X = 773290.386
PT STA = 200+68.31
Y = 401908.343
X = 773500.411
DB = S67°21'55"E
DA = N71°37'31"E

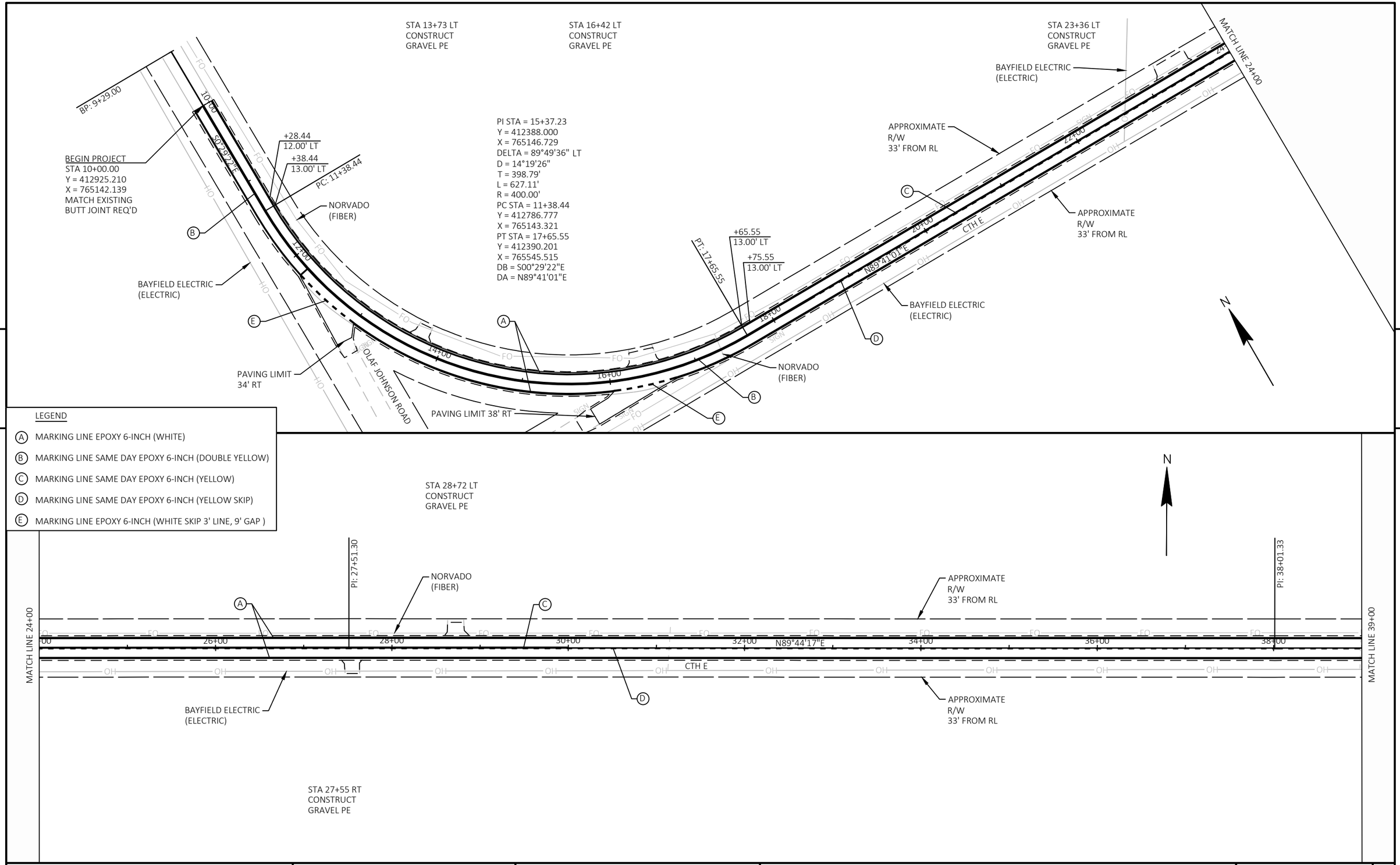
LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW SKIP)
- (E) MARKING LINE EPOXY 6-INCH (WHITE SKIP 3' LINE, 9' GAP)



PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN AND PROFILE: CTH E	SHEET 15 E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050101_PP.DWG
LAYOUT NAME - 01
PLOT DATE : 2/1/2024 2:02 PM
PLOT BY : ANNIE JEROME
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



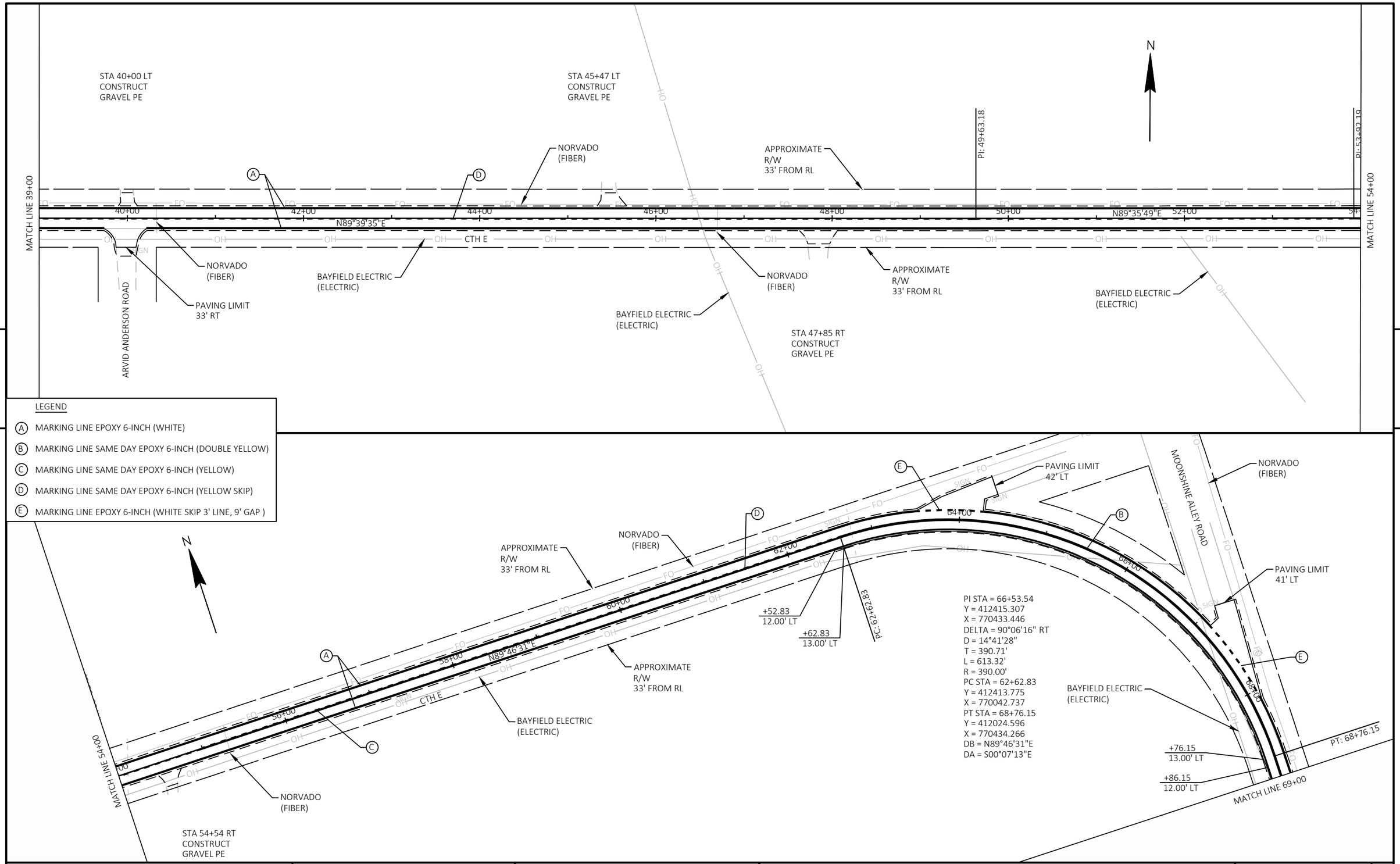
LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW SKIP)
- (E) MARKING LINE EPOXY 6-INCH (WHITE SKIP 3' LINE, 9' GAP)

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 16	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 01

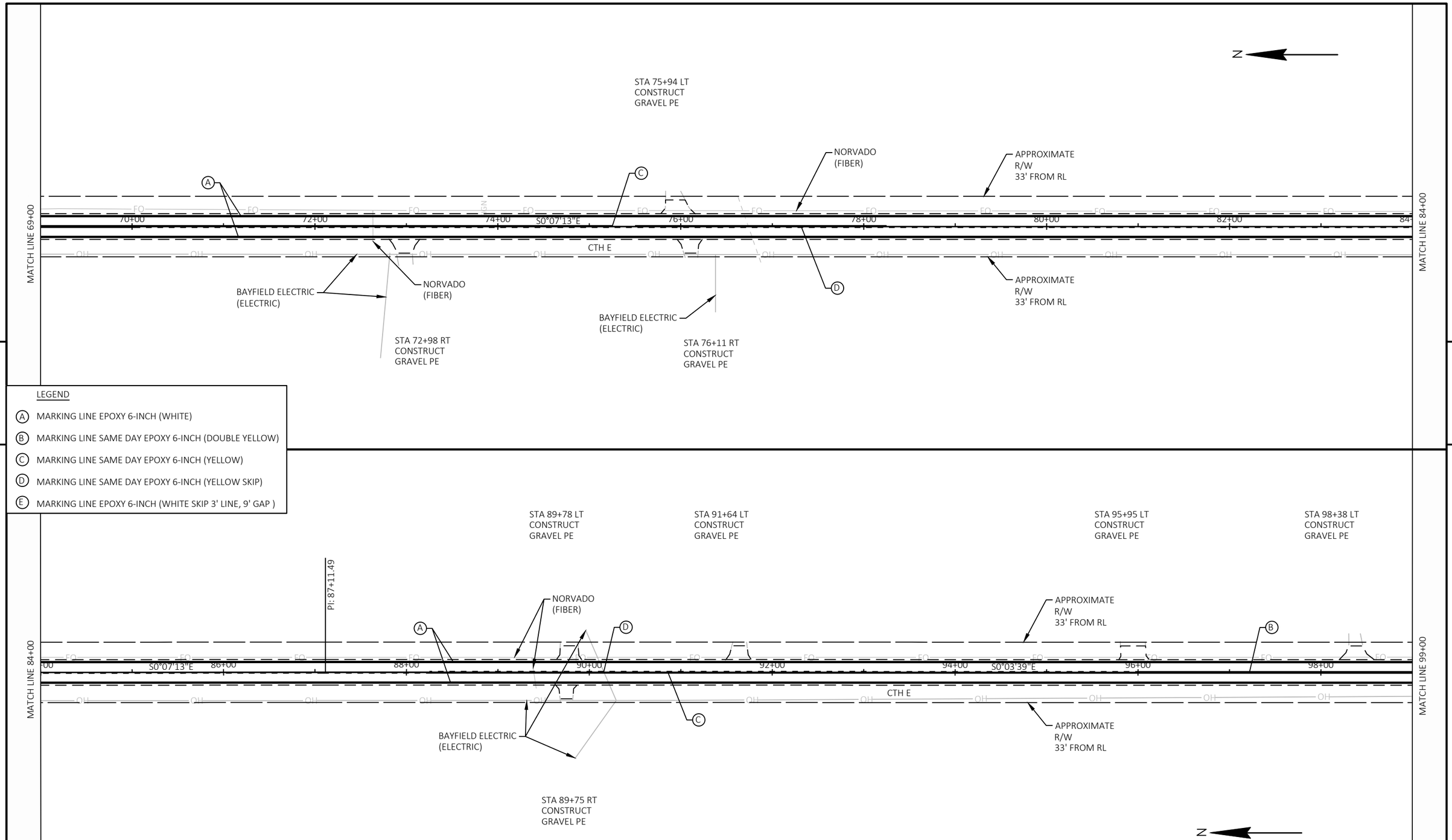
PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 17	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 02

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT



5

LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW SKIP)
- (E) MARKING LINE EPOXY 6-INCH (WHITE SKIP 3' LINE, 9' GAP)

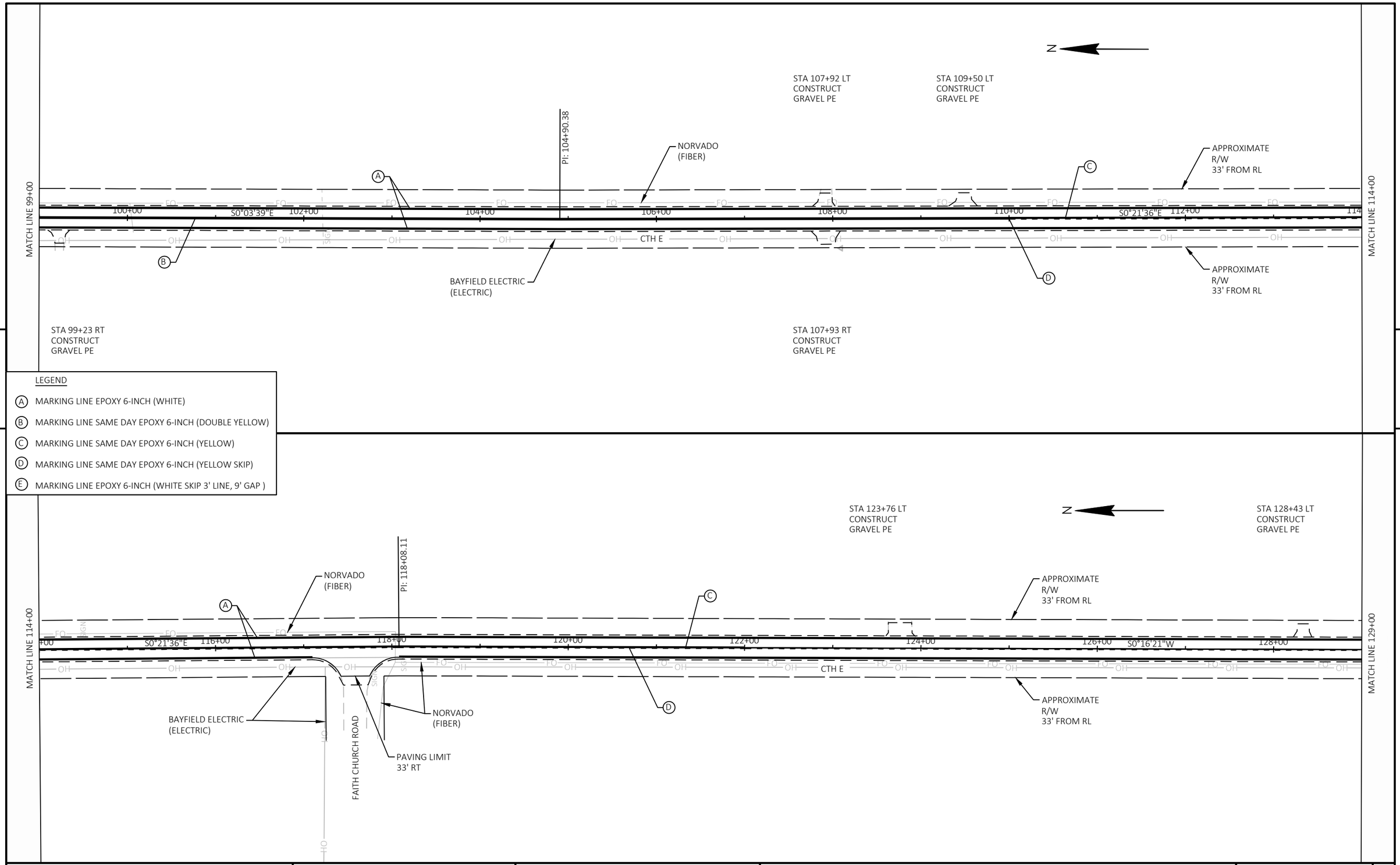
5

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 18	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 03

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

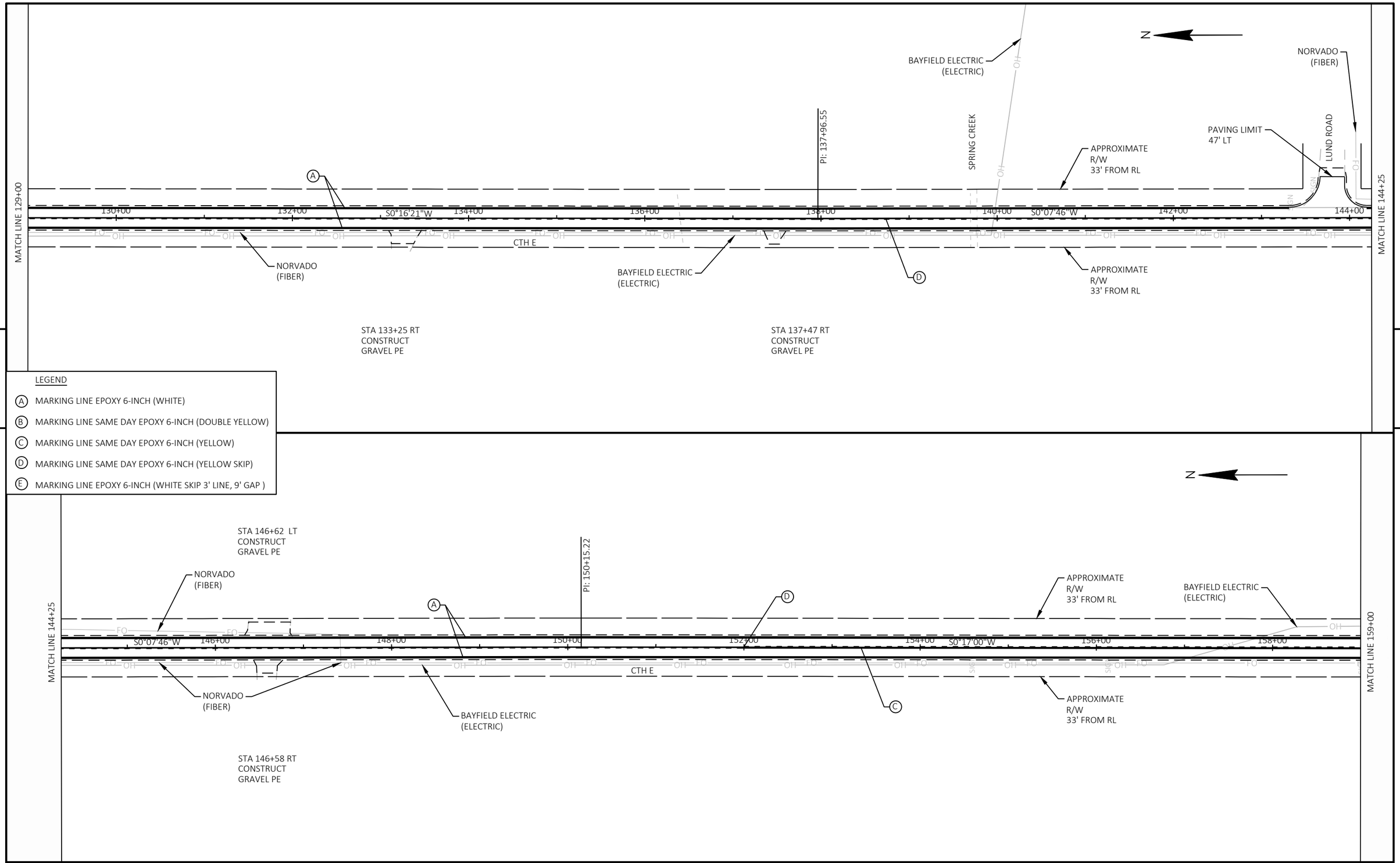


PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 19	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 04

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 20	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 05

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW SKIP)
- (E) MARKING LINE EPOXY 6-INCH (WHITE SKIP 3' LINE, 9' GAP)

MATCH LINE 159+00

PI: 161+30.06

160+00

S0°17'00"W

CTH E

162+00

S0°05'09"E

164+00

STA 163+18 LT
CONSTRUCT
ASPH PE
SAWCUT REQ'D

STA 164+55 LT
CONSTRUCT
ASPH PE
SAWCUT REQ'D

+43.54
12.00' LT

+67.88
13.00' LT

PC: 164+67.88

BAYFIELD ELECTRIC
(ELECTRIC)

NORVADO
(FIBER)

NORVADO
(FIBER)

166+00

STA 163+35 RT
CONSTRUCT
ASPH PE
SAWCUT REQ'D

PAVING LIMIT
41' RT

BIBON ROAD

STA 166+39 LT
CONSTRUCT
GRAVEL PE

PI STA = 170+11.54
Y = 401889.281
X = 770431.876
DELTA = 88°49'03" LT
D = 10°19'25"
T = 543.66'
L = 860.34'
R = 555.00'
PC STA = 164+67.88
Y = 402432.943
X = 770431.062
PT STA = 173+28.22
Y = 401878.875
X = 770975.439
DB = S00°05'09"E
DA = S88°54'12"E

APPROXIMATE
R/W
33' FROM RL

168+00

170+00

STA 171+46 LT
CONSTRUCT
GRAVEL PE

+38.22
12.00' LT

+28.22
13.00' LT

PT: 173+28.22

TOWN OF MASON
(SANITARY SEWER)

S88°54'12"E

MATCH LINE 174+00

NORVADO
(FIBER)

APPROXIMATE
R/W
33' FROM RL

172+00

PAVING LIMIT
53' RT

SUTHERLAND ROAD

XCEL ENERGY
(ELECTRIC)

N

STA 177+99 LT
CONSTRUCT
GRAVEL PE

STA 179+49 LT
CONSTRUCT
GRAVEL PE

STA 180+93 LT
CONSTRUCT
GRAVEL PE

MATCH LINE 174+00

176+00

CTH E

178+00

S88°54'12"E

TOWN OF MASON
(SANITARY SEWER)

NORVADO
(FIBER)

PI: 181+30.59

180+00

XCEL ENERGY
(ELECTRIC)

PC: 183+16.77

182+00

S88°16'42"E

APPROXIMATE
R/W
33' FROM RL

184+00

APPROXIMATE
R/W
33' FROM RL

PI STA = 184+91.10
Y = 401852.686
X = 772138.013
DELTA = 1°59'51" RT
D = 0°34'23"
T = 174.33'
L = 348.63'
R = 10000.00'
PC STA = 183+16.77
Y = 401857.924
X = 771963.759
PT STA = 186+65.40
Y = 401841.378
X = 772311.979
DB = S88°16'42"E
DA = S86°16'51"E

PT: 186+65.40

186+00

S86°16'51"E

188+00

PC: 188+57.03

+47.03
12.00' LT

+57.03
13.00' LT

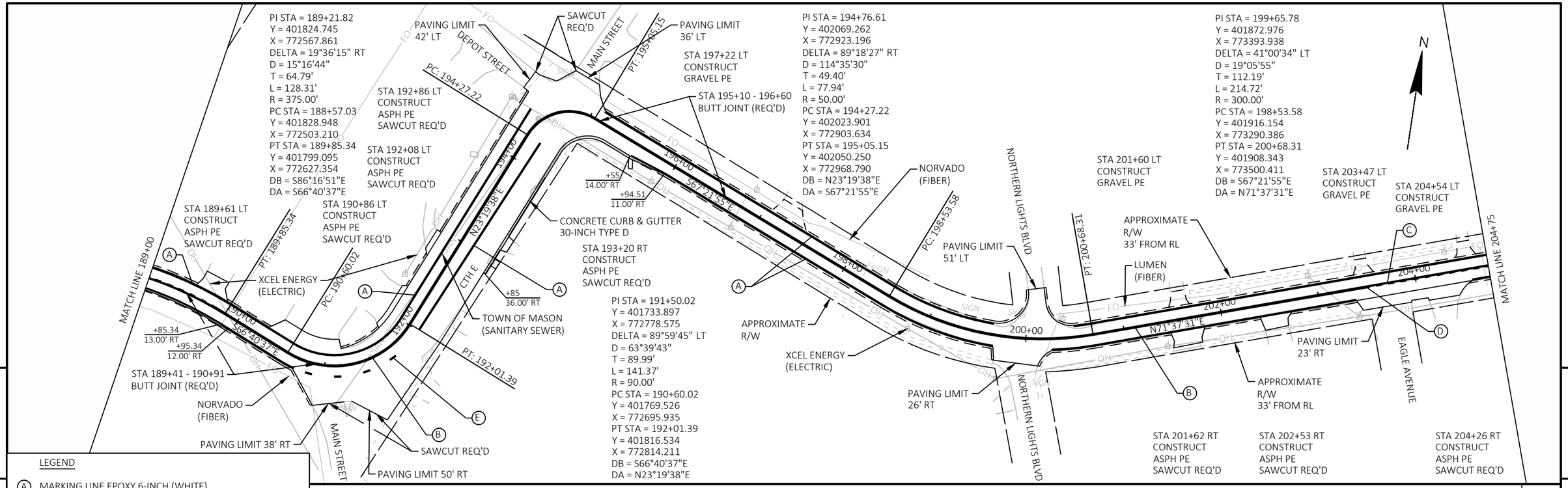
MATCH LINE 189+00

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 21	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 06

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

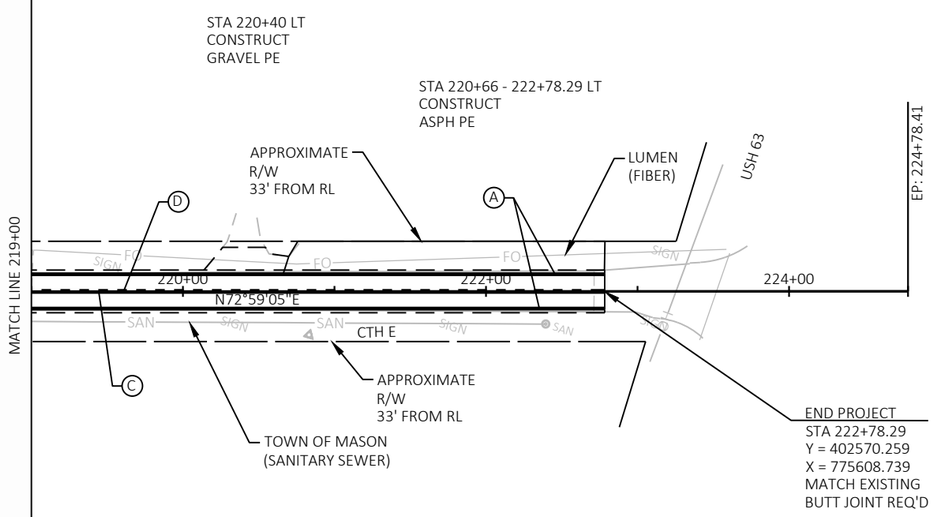


PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 22	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 07

PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



5

5

LEGEND

- (A) MARKING LINE EPOXY 6-INCH (WHITE)
- (B) MARKING LINE SAME DAY EPOXY 6-INCH (DOUBLE YELLOW)
- (C) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW)
- (D) MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW SKIP)
- (E) MARKING LINE EPOXY 6-INCH (WHITE SKIP 3' LINE, 9' GAP)

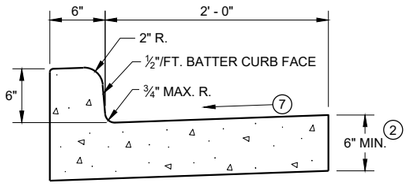
PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	PLAN: CTH E	SHEET 23	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\050201_PN.DWG
LAYOUT NAME - 08

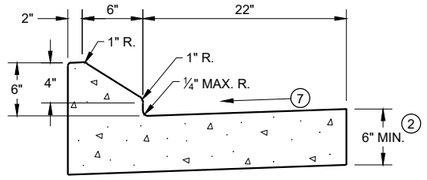
PLOT DATE : 2/1/2024 2:03 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:100 FT

Standard Detail Drawing List

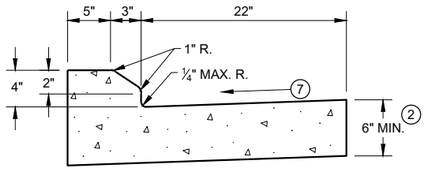
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D20-01	DRIVEWAYS WITH CURB & GUTTER RETURNS
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
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
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



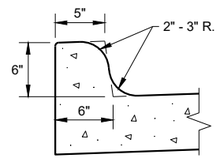
TYPES A (1) & D



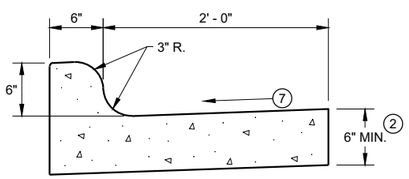
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

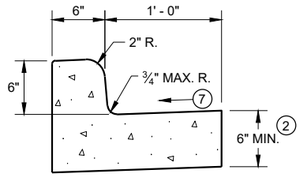


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



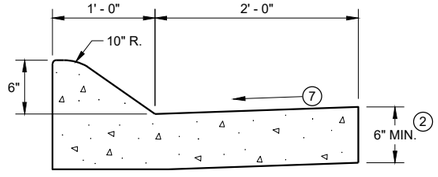
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

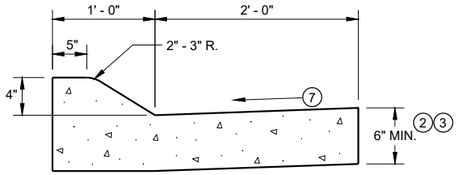


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

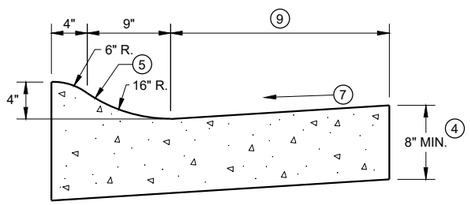


6" SLOPED CURB TYPES A (1) & D



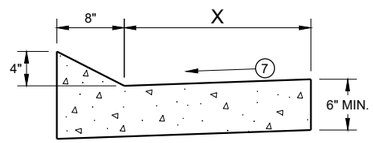
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

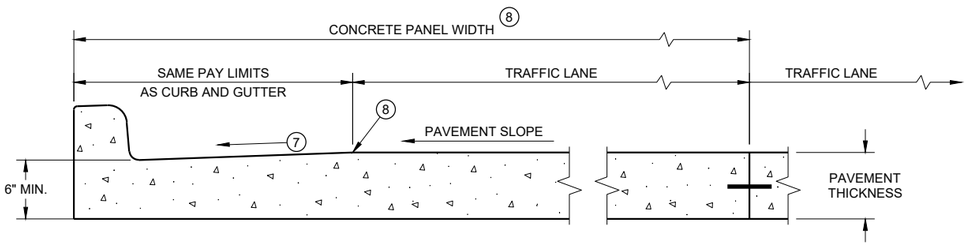


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

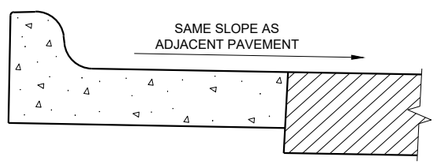
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

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

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

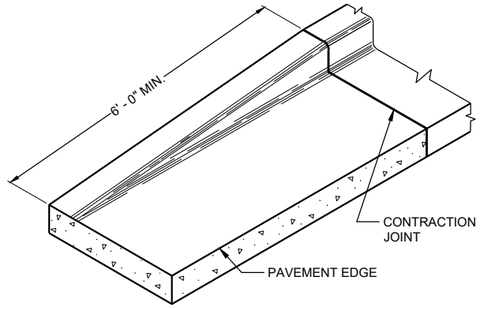
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

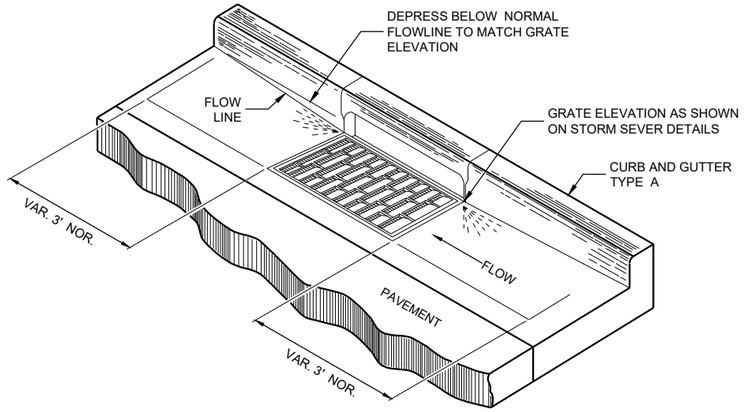
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

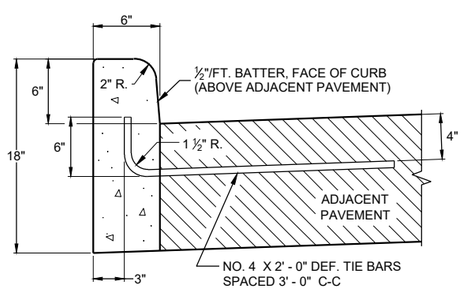
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

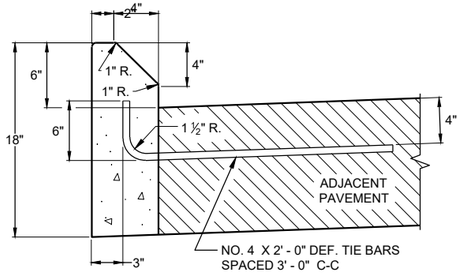
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

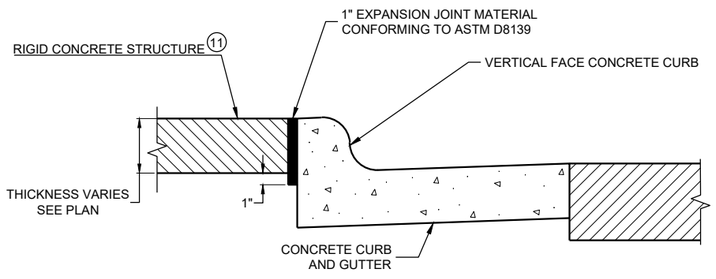


TYPES A(1) & D

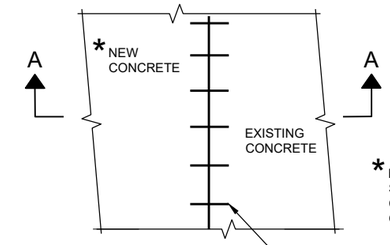


TYPES G(1) & J

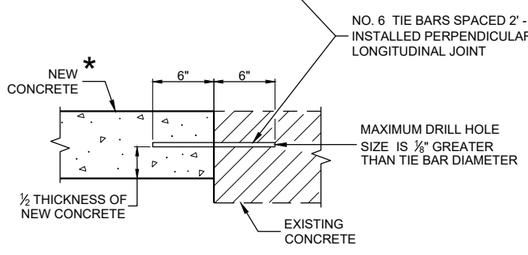
CONCRETE CURB



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE(11)

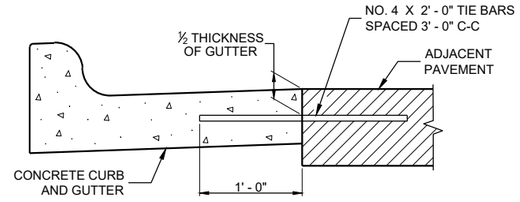


PLAN VIEW

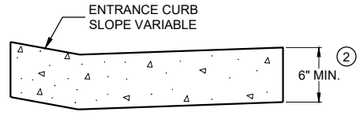


SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION(1)



DRIVEWAY ENTRANCE CURB(10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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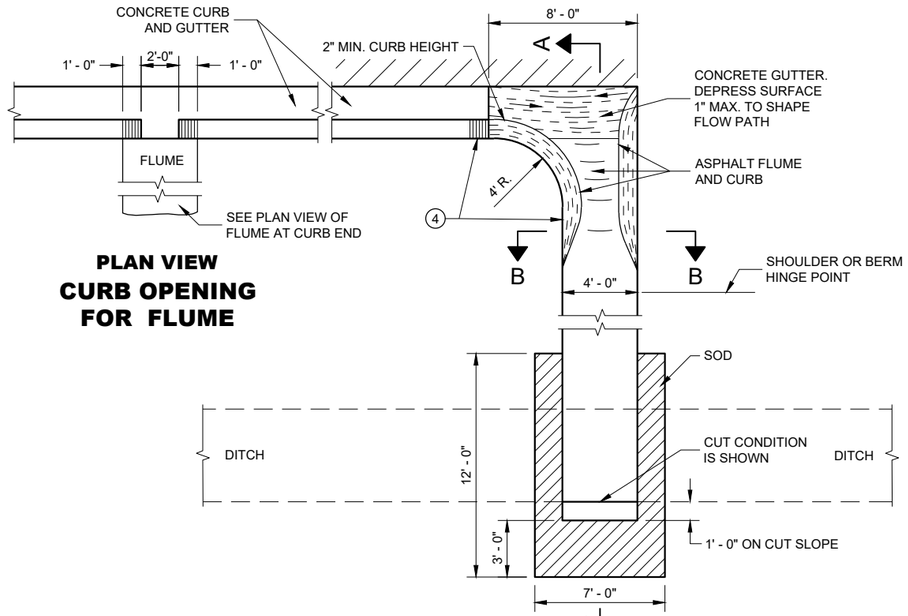
SDD08D01 - 23b

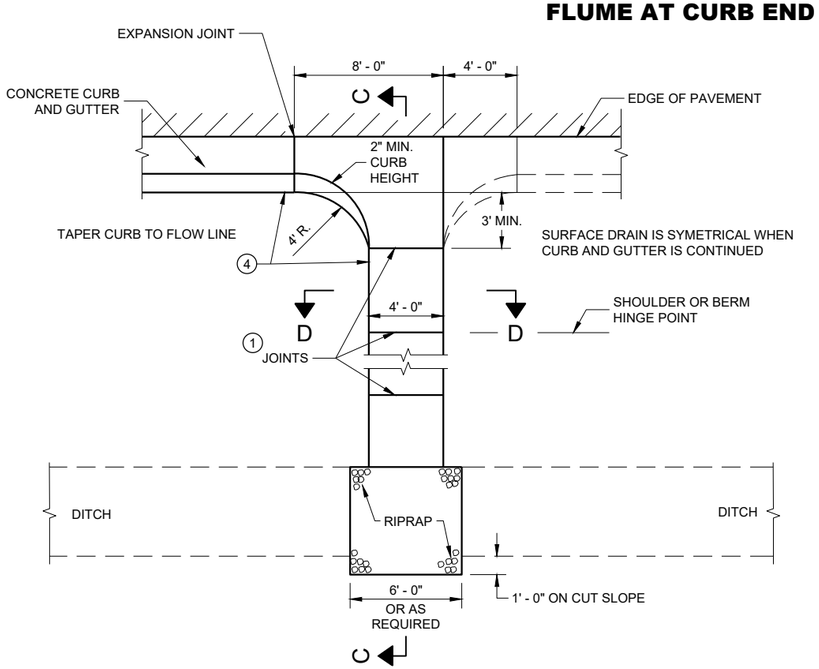
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



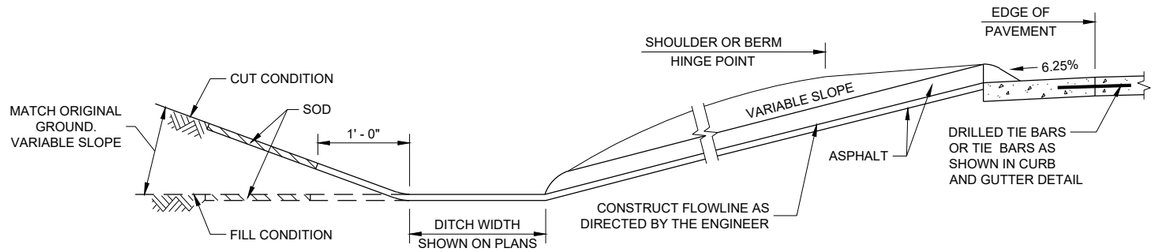
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

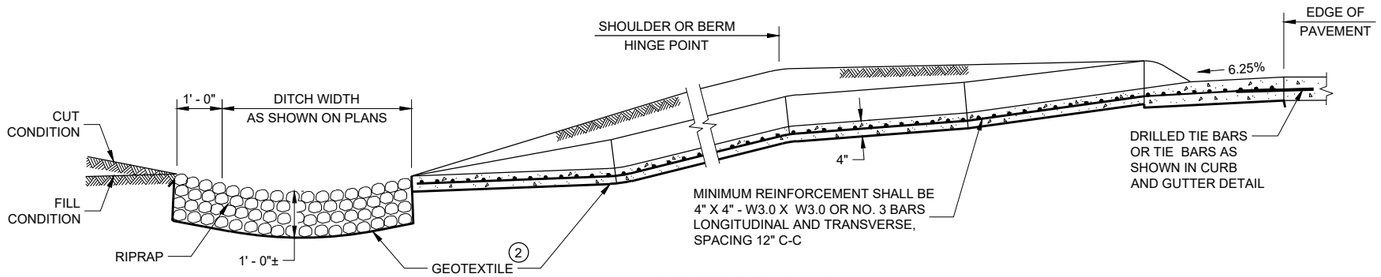
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

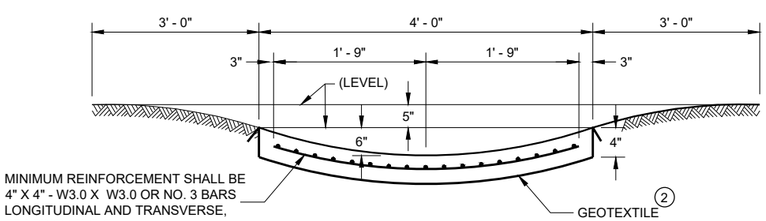


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 08D04 - 07

6

SDD 08D04 - 07

GENERAL NOTES

A MAXIMUM RADIUS OF 10 FEET SHALL BE USED FOR NON-COMMERCIAL PRIVATE ENTRANCES. RADII FOR COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER BASED ON TRAFFIC AND DRIVEWAY PERMIT RESTRICTIONS.

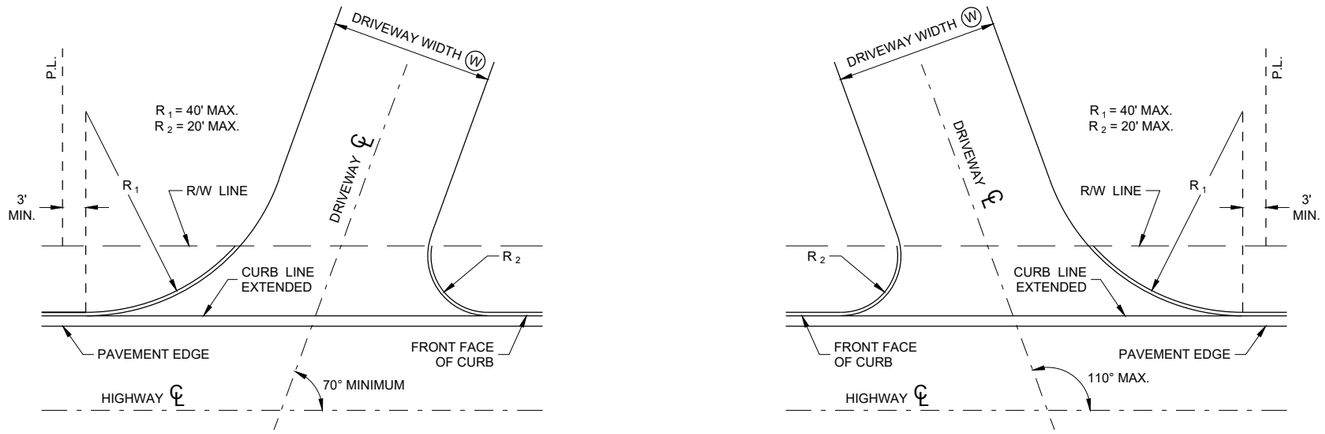
THE MINIMUM ANGLE OF INTERSECTION BETWEEN THE DRIVEWAY AND HIGHWAY CENTERLINES SHALL BE 70°.

ALL CURVILINEAR PRIVATE ENTRANCE OUTLINES SHALL BE CONTAINED WITHIN THE HIGHWAY R/W.

NO DRIVEWAY SHALL BE BUILT WITHIN 3 FEET OF THE PROPERTY LINE EXCEPT FOR EXISTING JOINT DRIVEWAY SHARED BY TWO OWNERS.

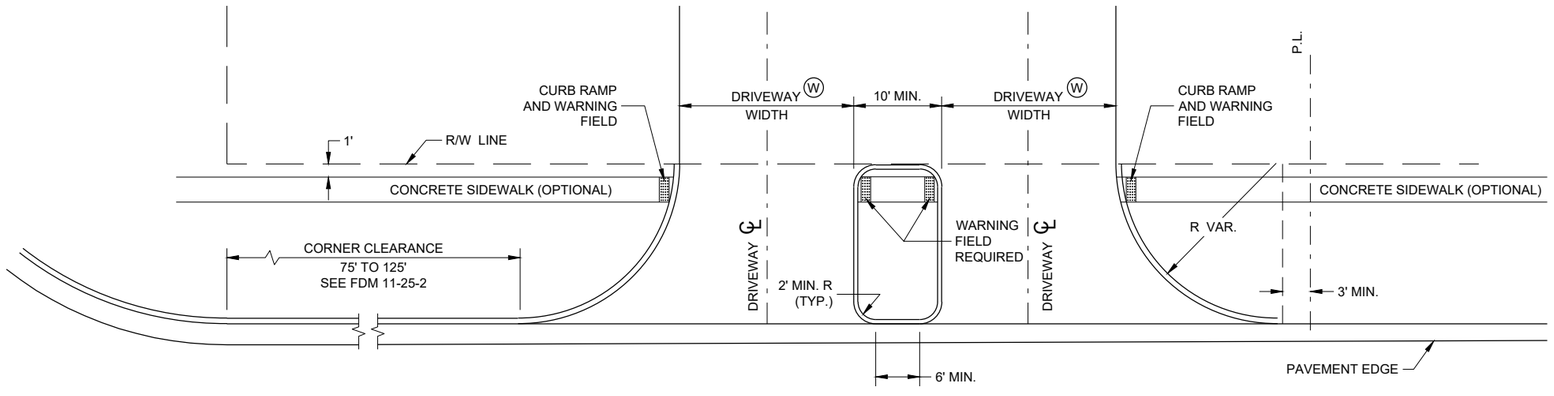
Ⓦ: 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)



SKEWED DRIVEWAY DETAILS (COMMERCIAL AND NON-COMMERCIAL)

SIDEWALK NOT SHOWN



DRIVEWAY LOCATION AND SPACING DETAILS

SIDEWALK SHOWN

DRIVEWAYS WITH CURB AND GUTTER RETURNS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

00-00-00 — DATE

/S/ <AUTHOR> — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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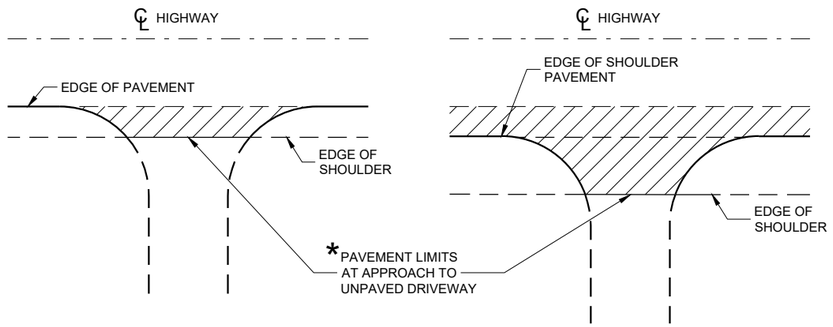
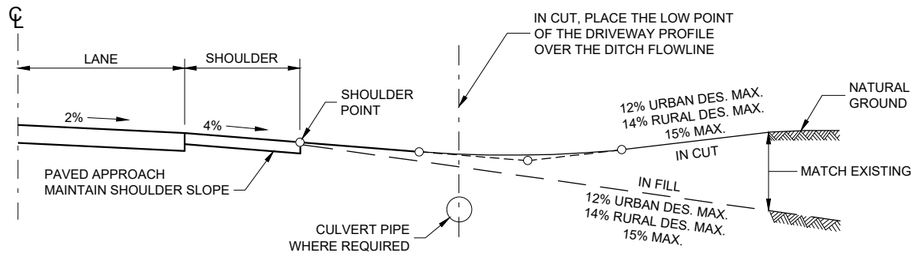
SDD 08D20 - 01



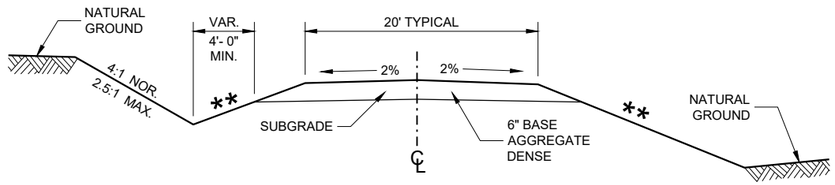
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

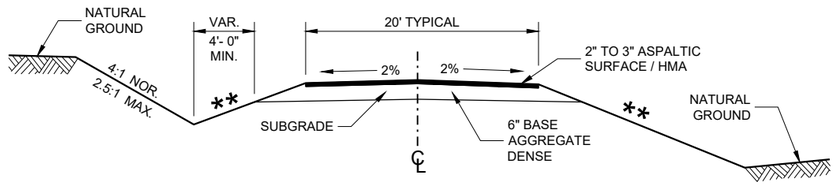


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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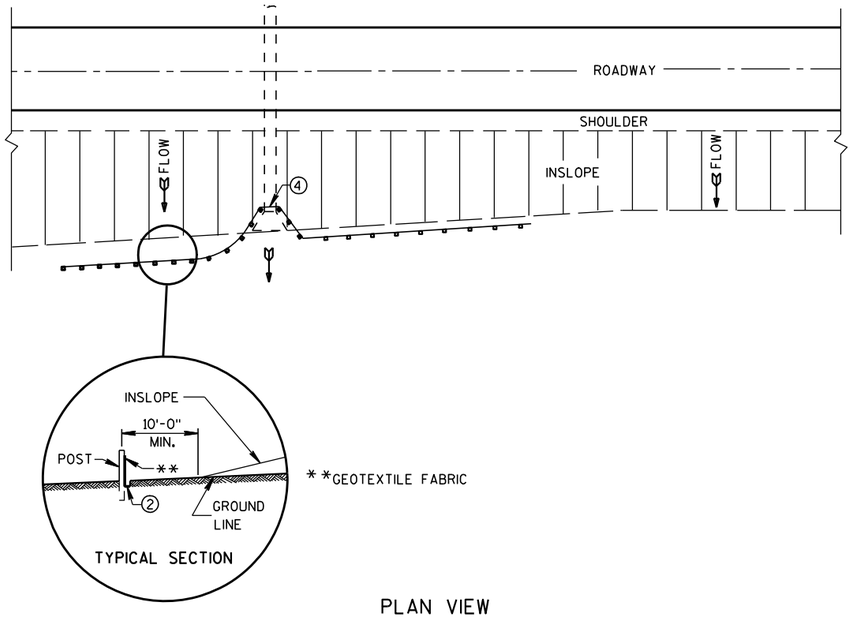
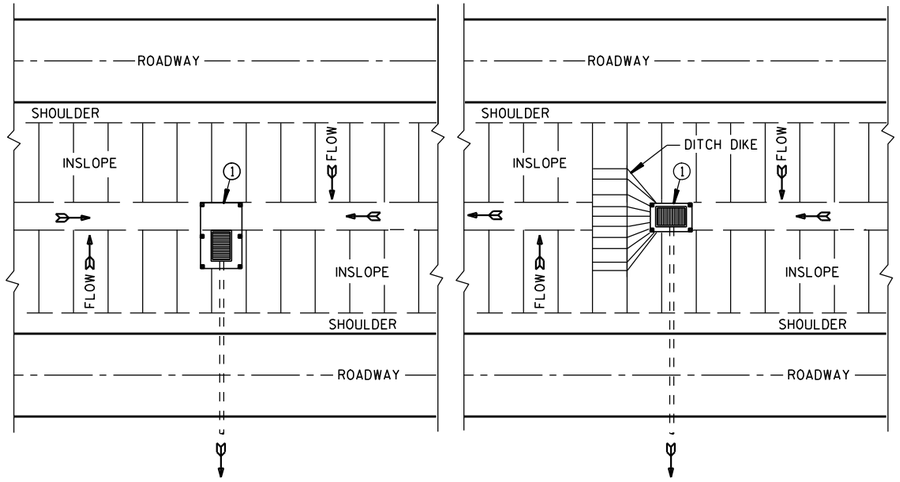
SDD 08D21 - 01



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



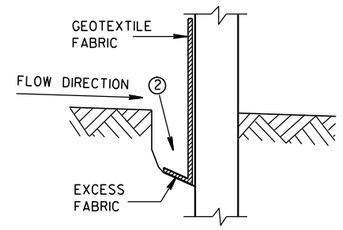
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

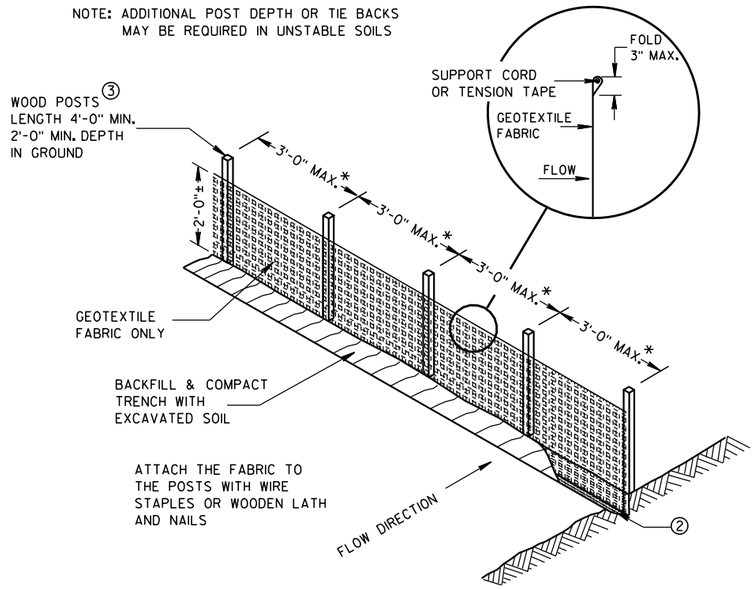
GENERAL NOTES

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

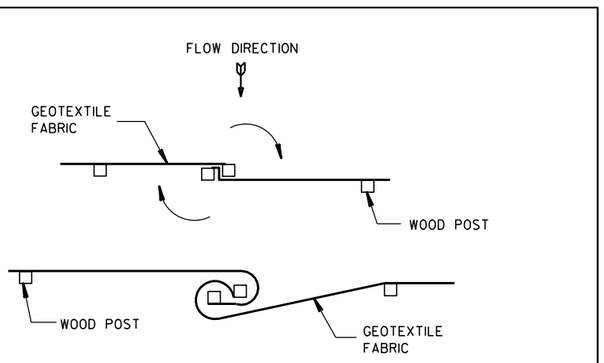
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



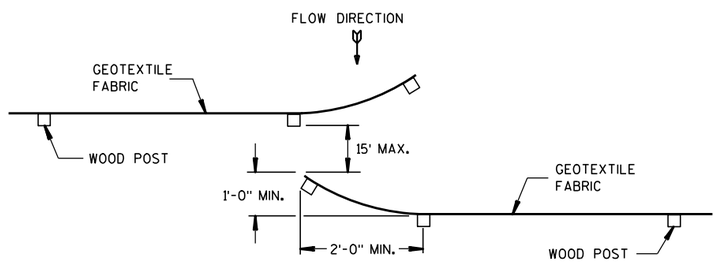
TRENCH DETAIL



SILT FENCE

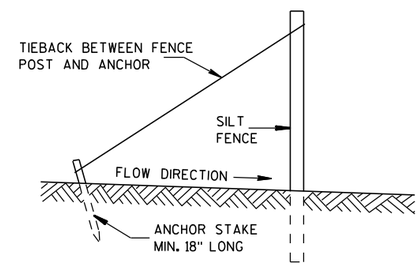


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 8 E 9-6

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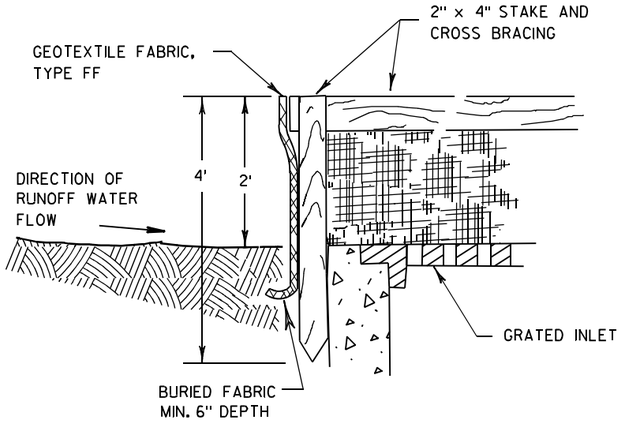
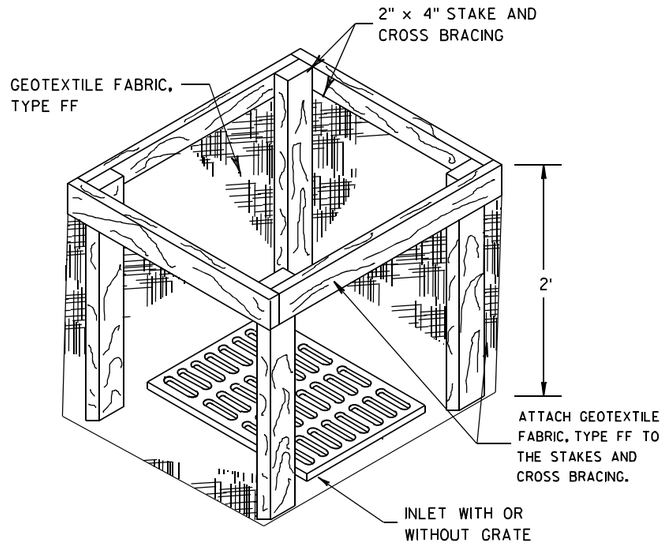
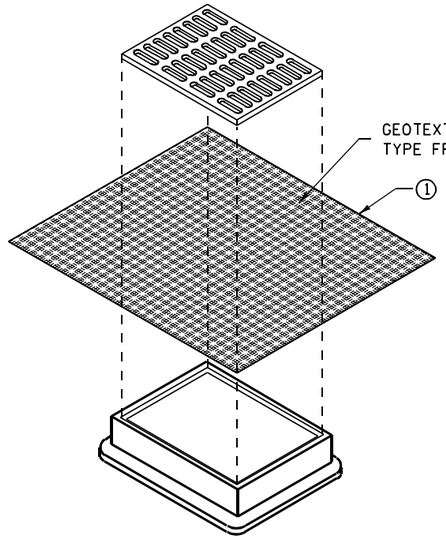
S.D.D. 8 E 9-6



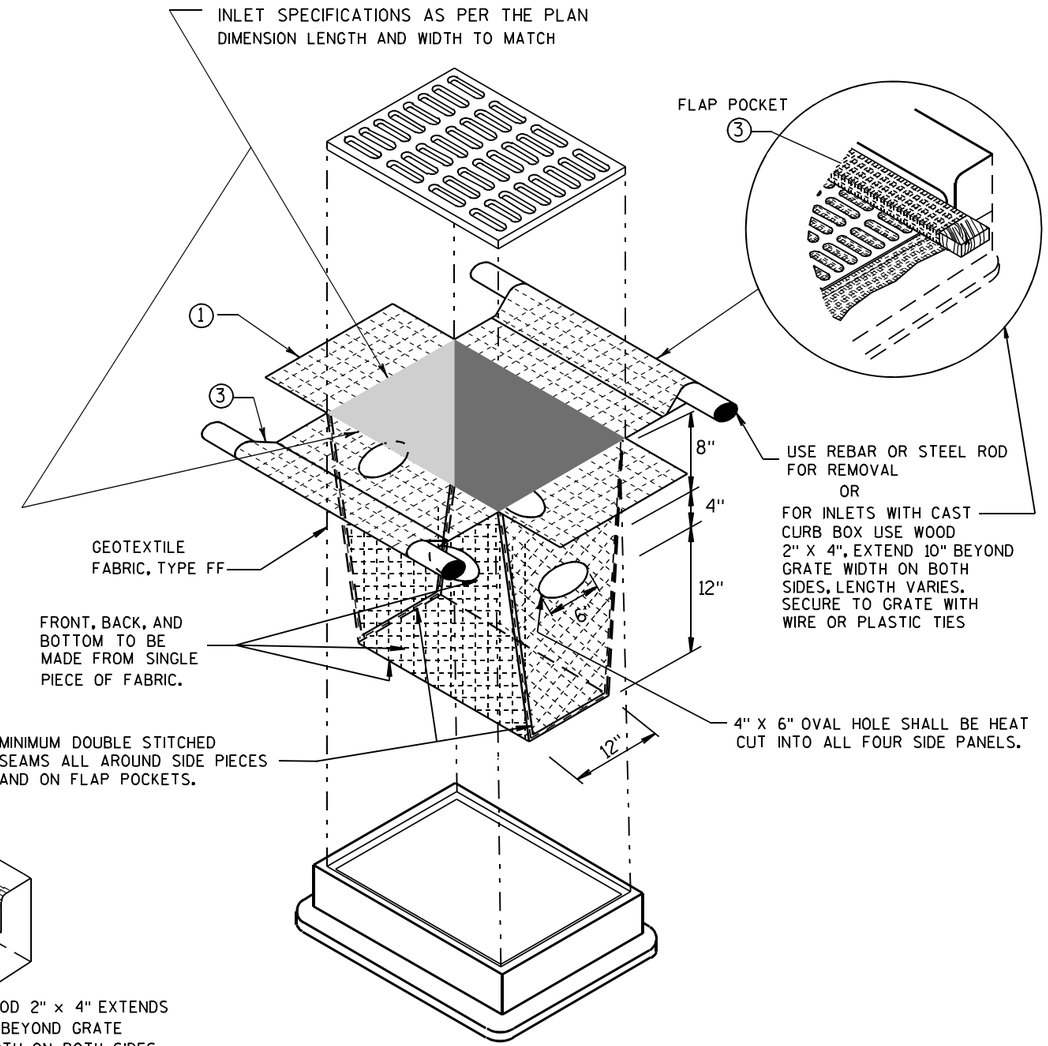


INLET PROTECTION, TYPE A



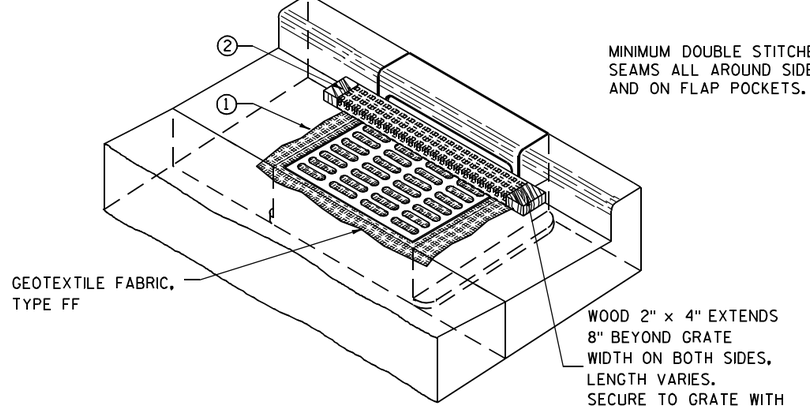
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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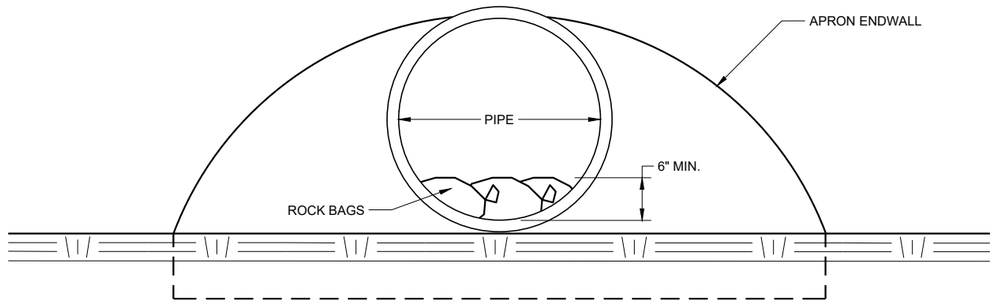
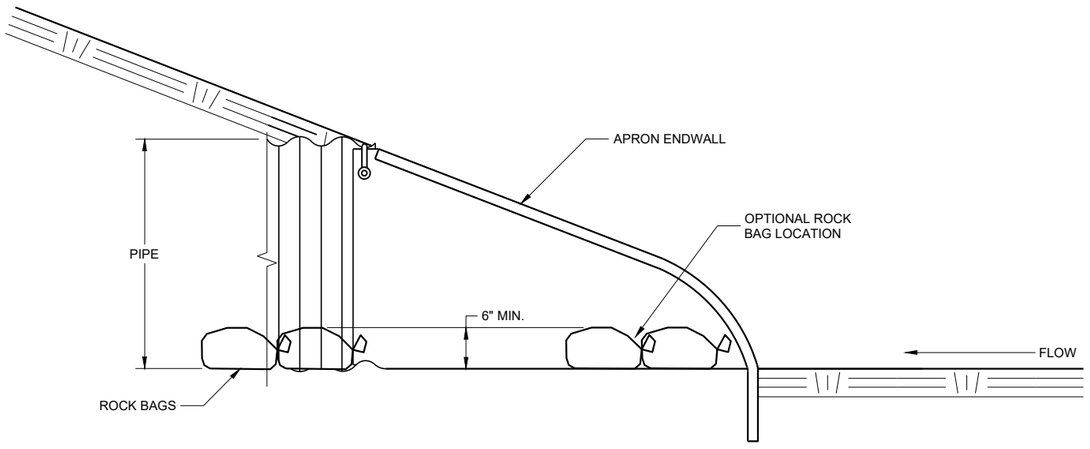
S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

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

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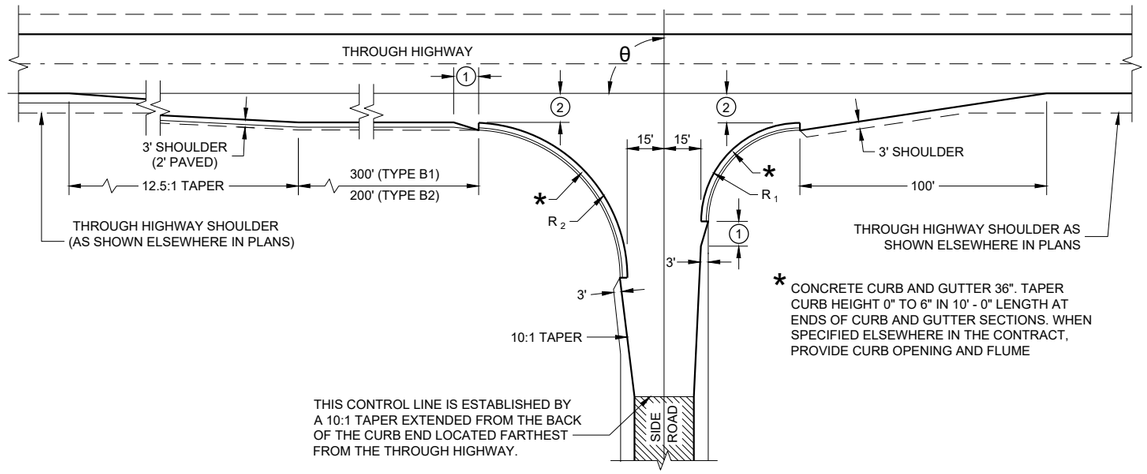
SDD 08E15 - 01



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

TYPE "B1" AND "B2"

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

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

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

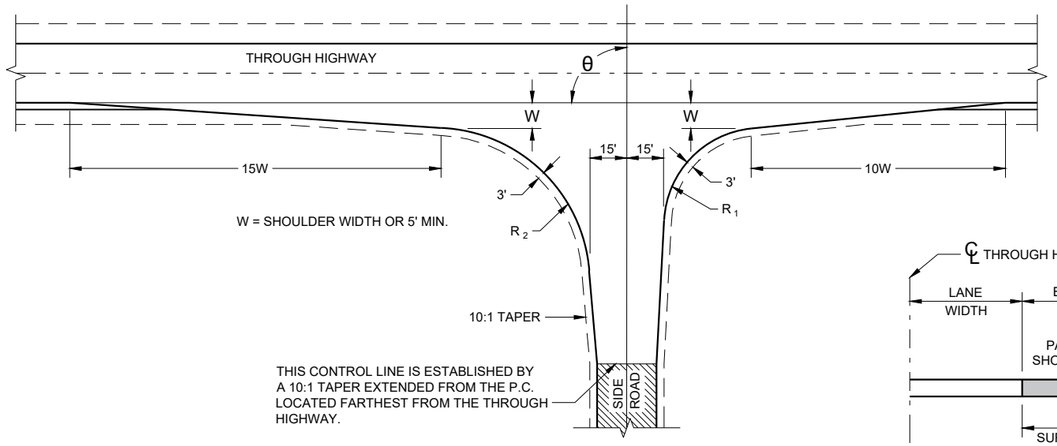
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

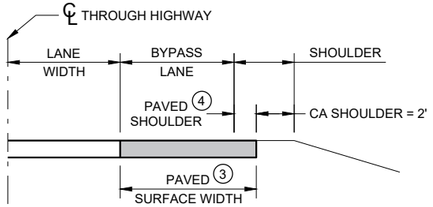
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

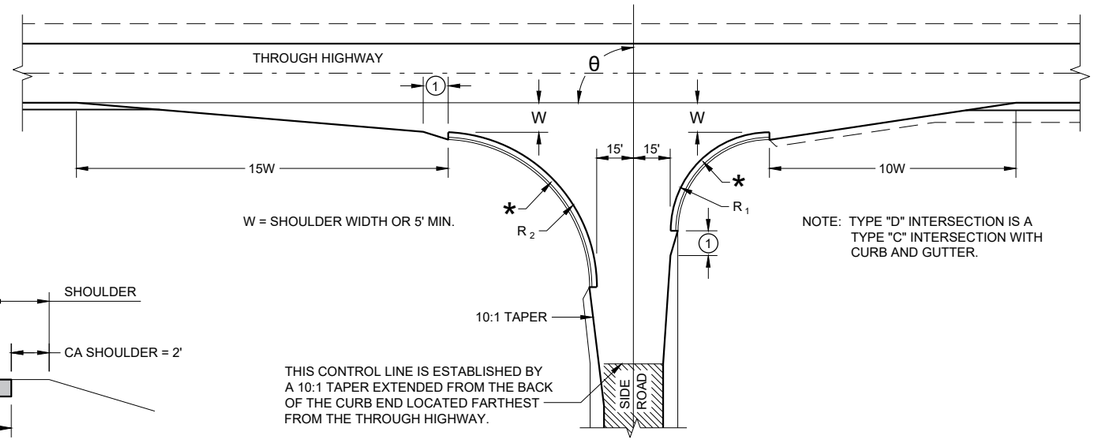
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

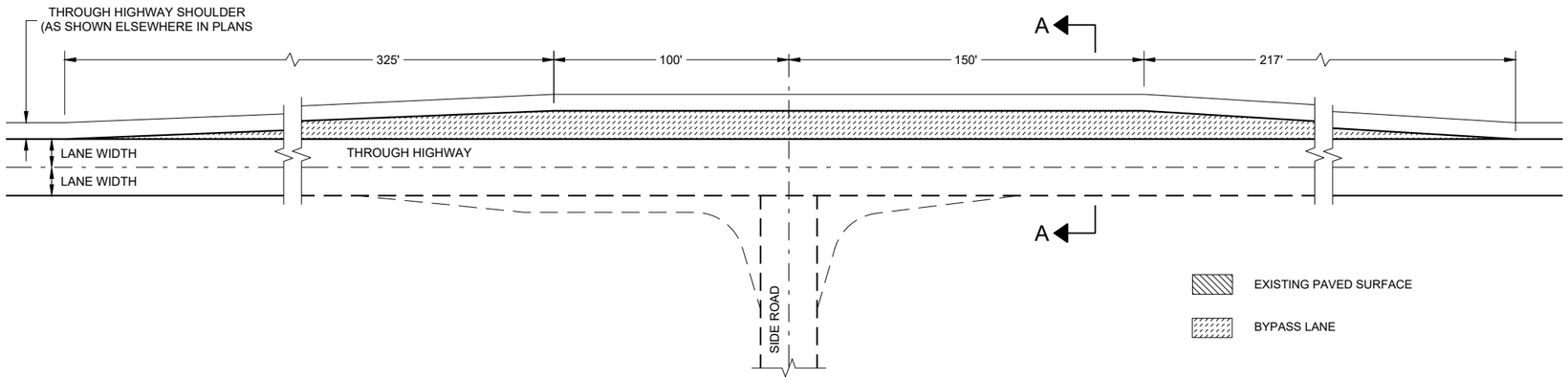


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



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

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 09A01 - 14a

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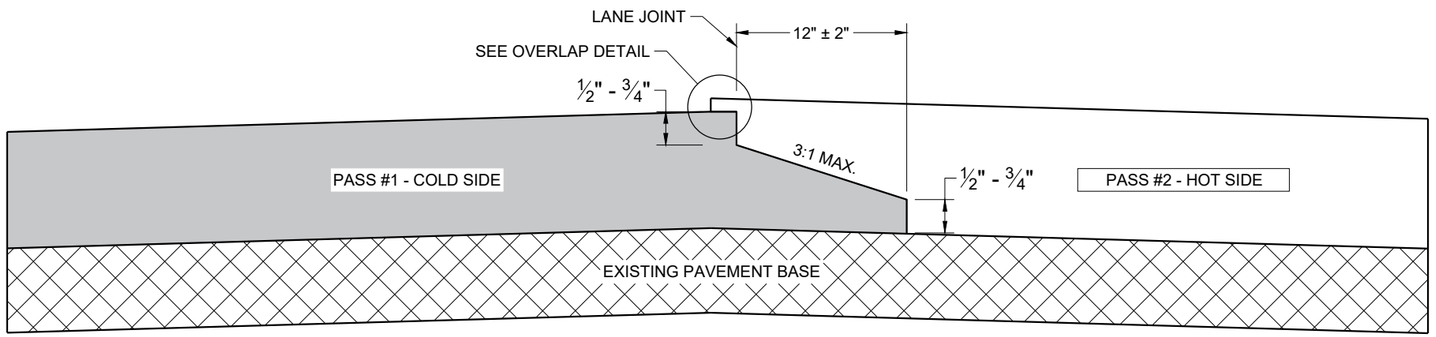
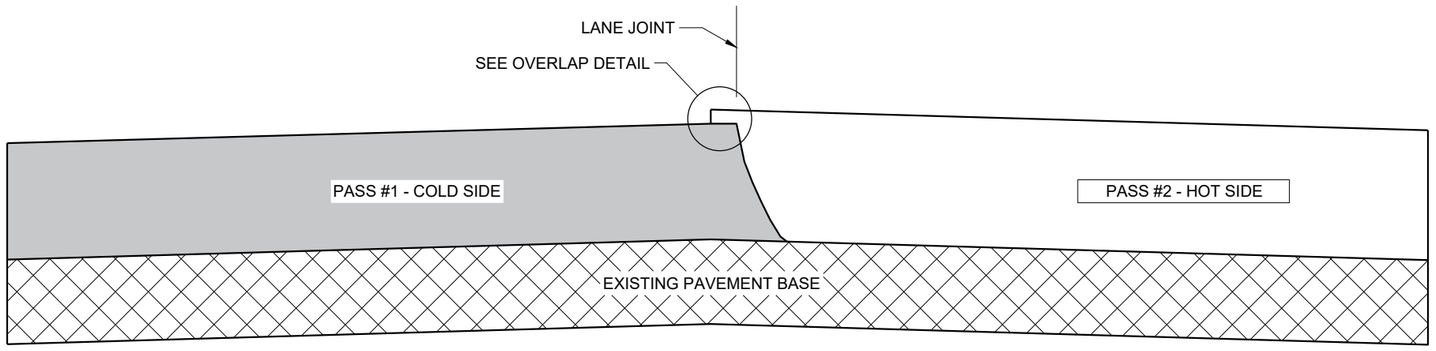
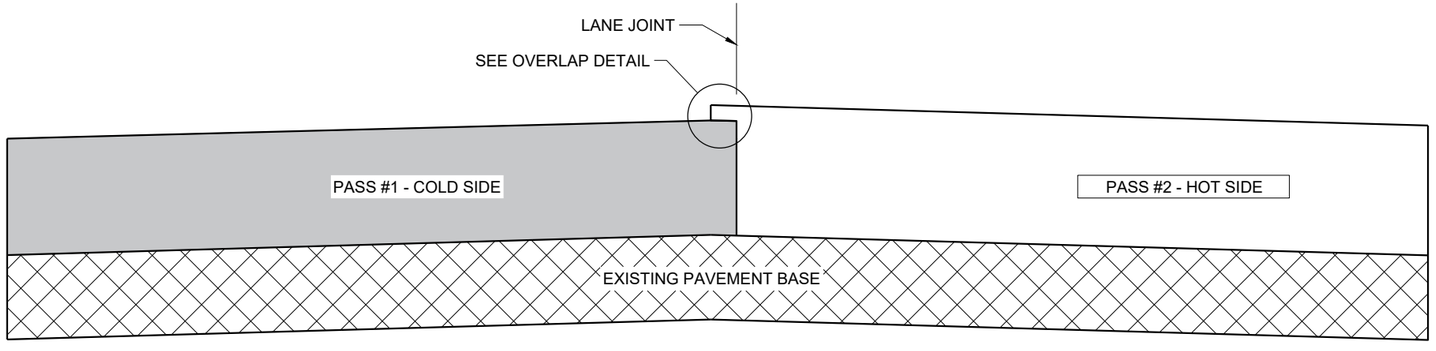
SDD 09A01 - 14a



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

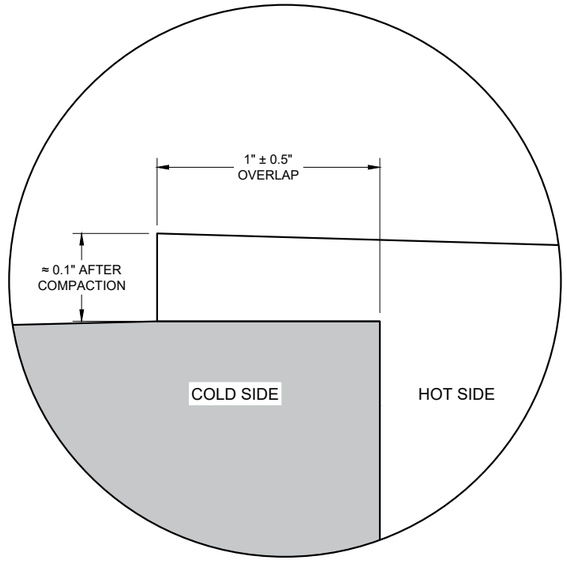
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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SDD 13C19 - 03

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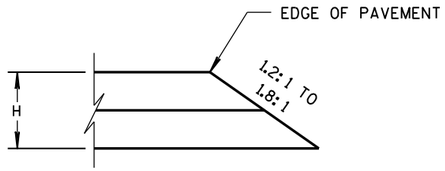
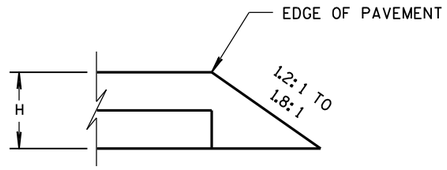
SDD 13C19 - 03



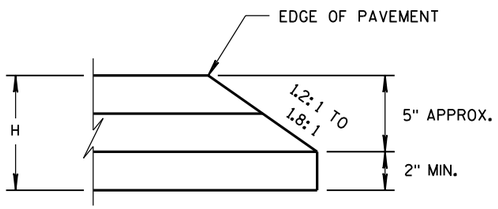
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



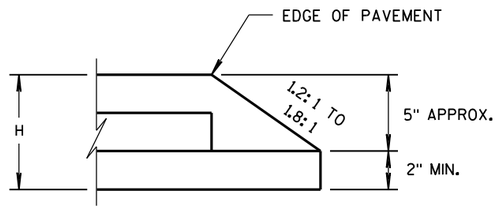
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

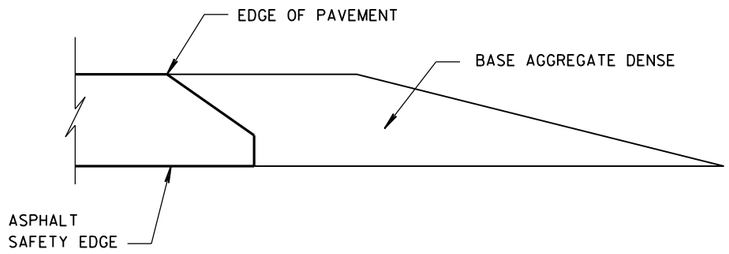
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

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

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

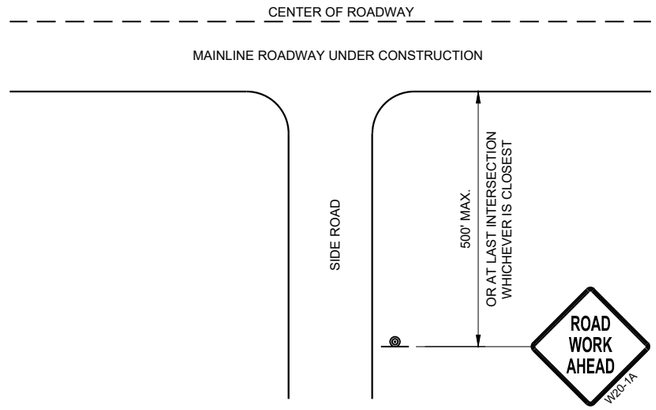
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

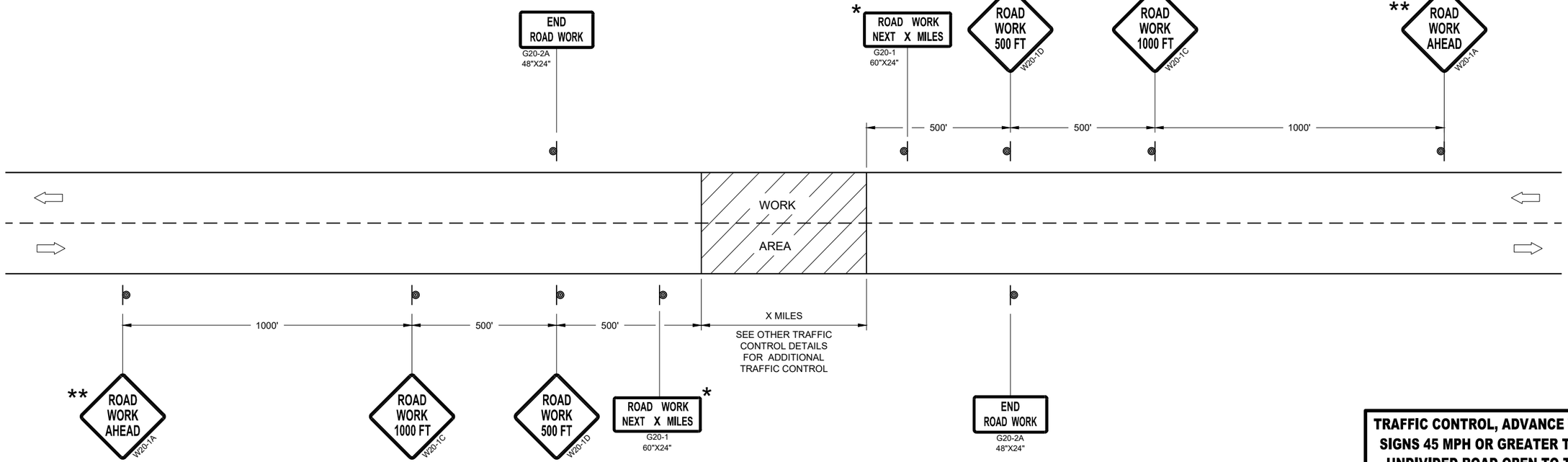
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

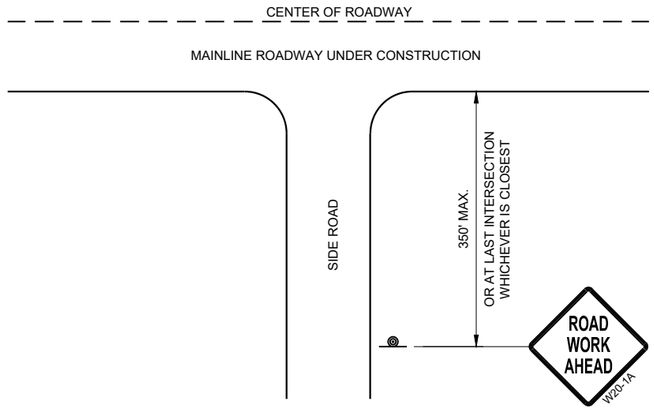
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



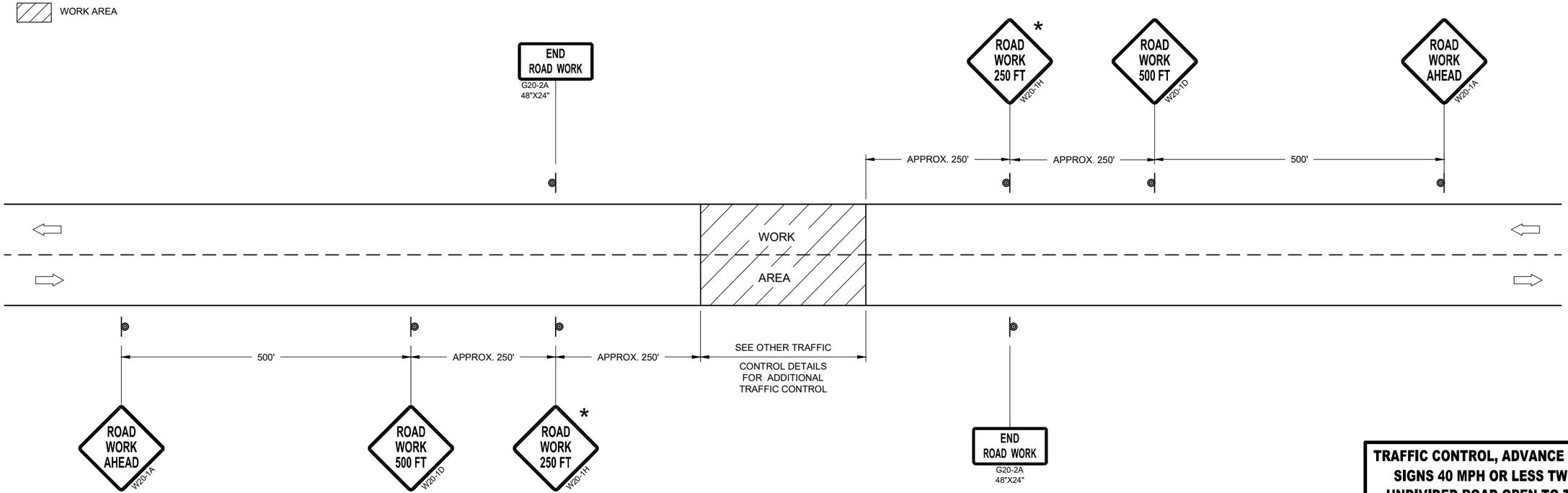
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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 ENGINEE

FHWA

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SDD 15C05 - 05

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

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

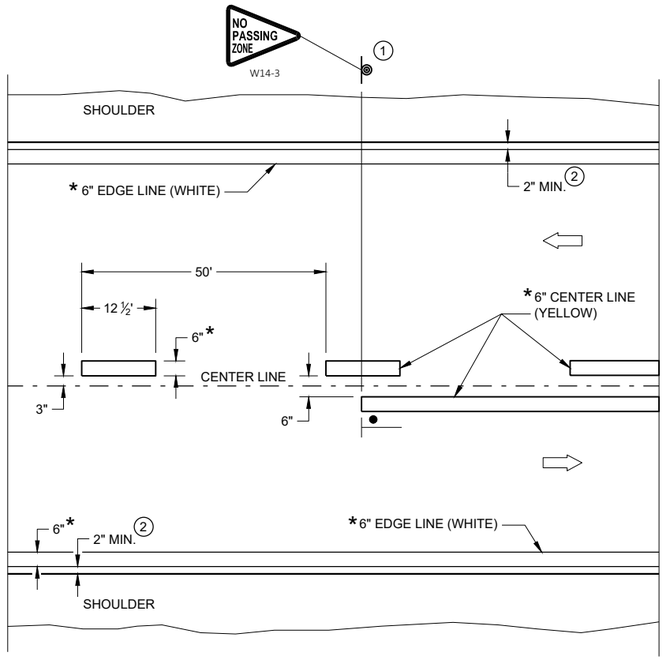
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

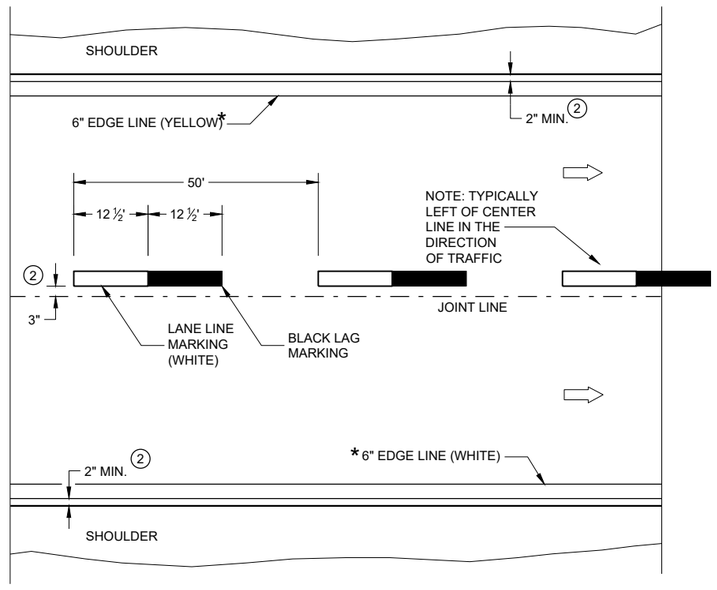
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER
FHWA

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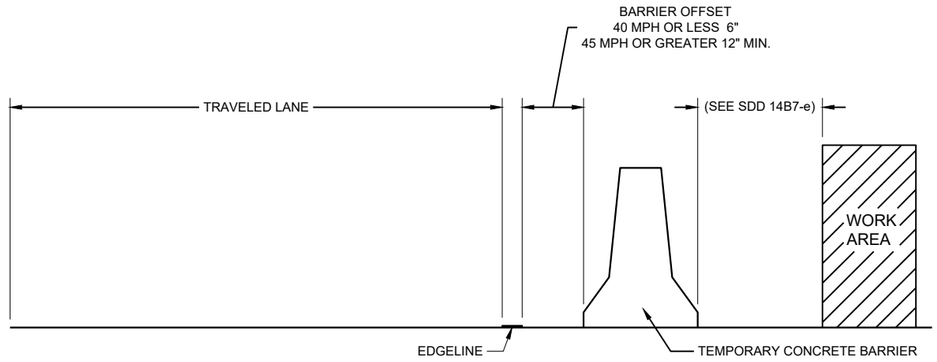
SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

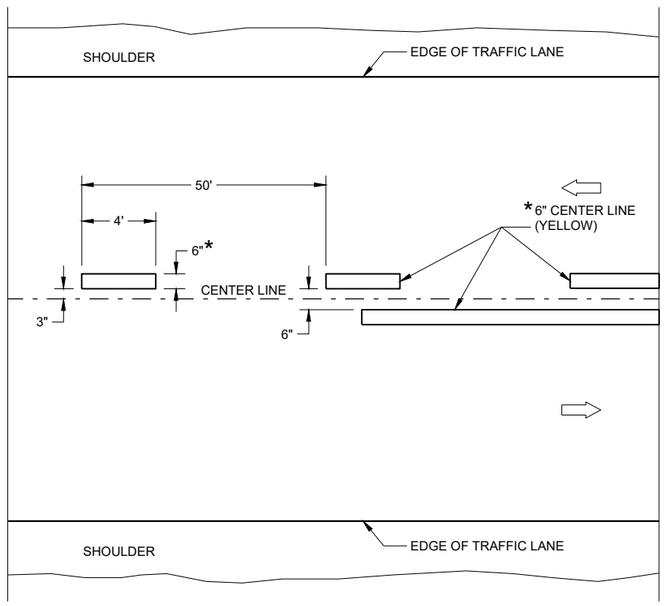
GENERAL NOTES

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

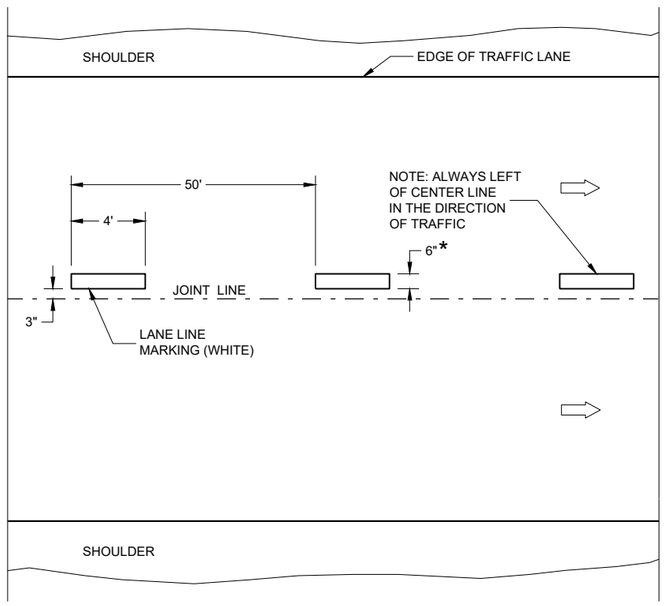
LEGEND

⇨ DIRECTION OF TRAFFIC

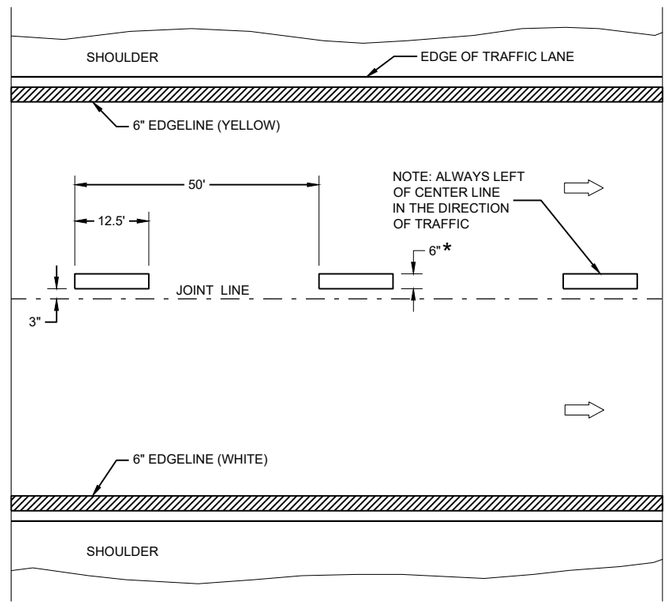
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C08-23b

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SDD 15C08-23b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

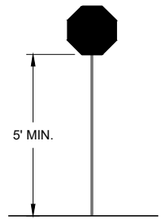
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



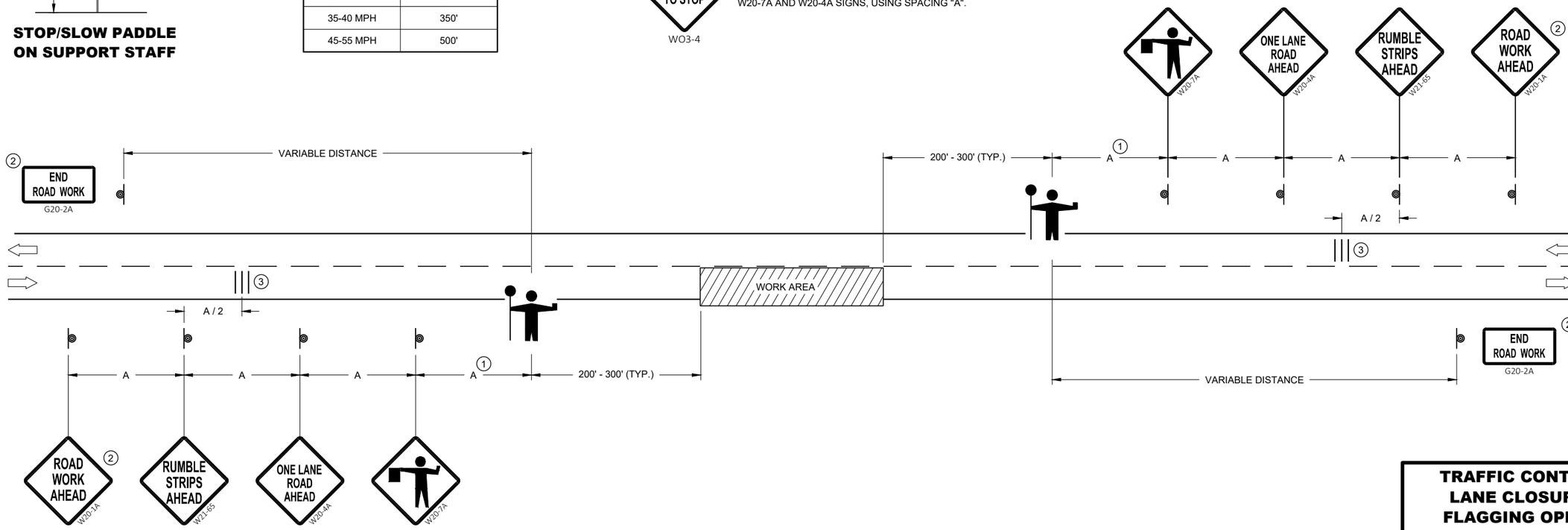
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C12 - 09a

6

SDD 15C12 - 09a

GENERAL NOTES

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL CONE 42-INCH

TRAFFIC CONTROL DRUM

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

AFAD — AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

(2) IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

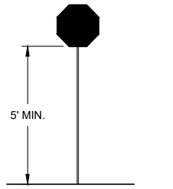
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

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

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

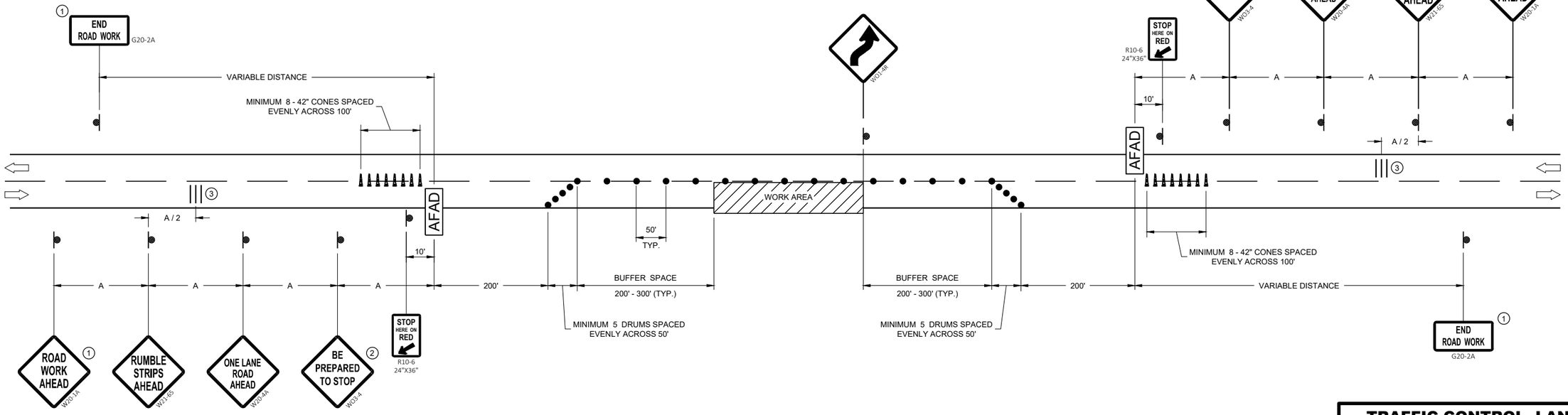
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



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'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09b

SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

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

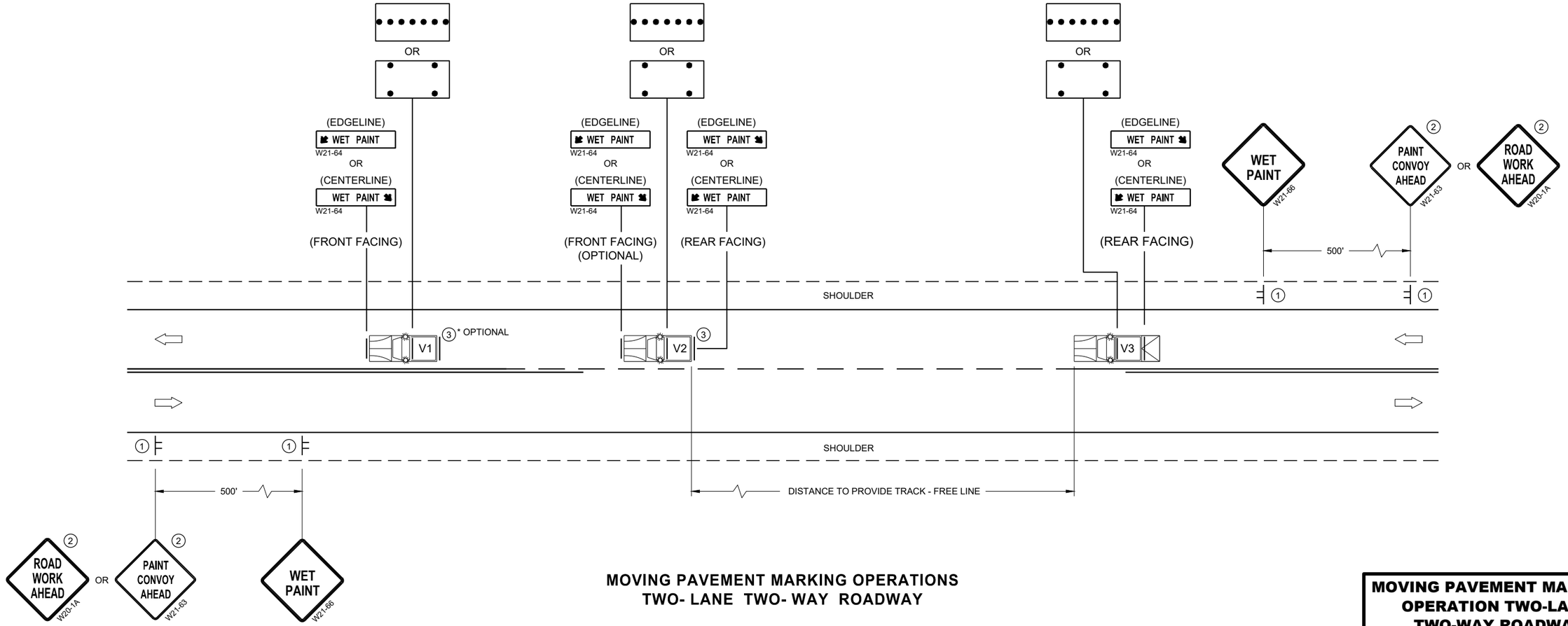
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



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
February 2023
DATE

/S/ Andrew I
WORK ZONE EN

FHWA

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SDD 15C19-08a

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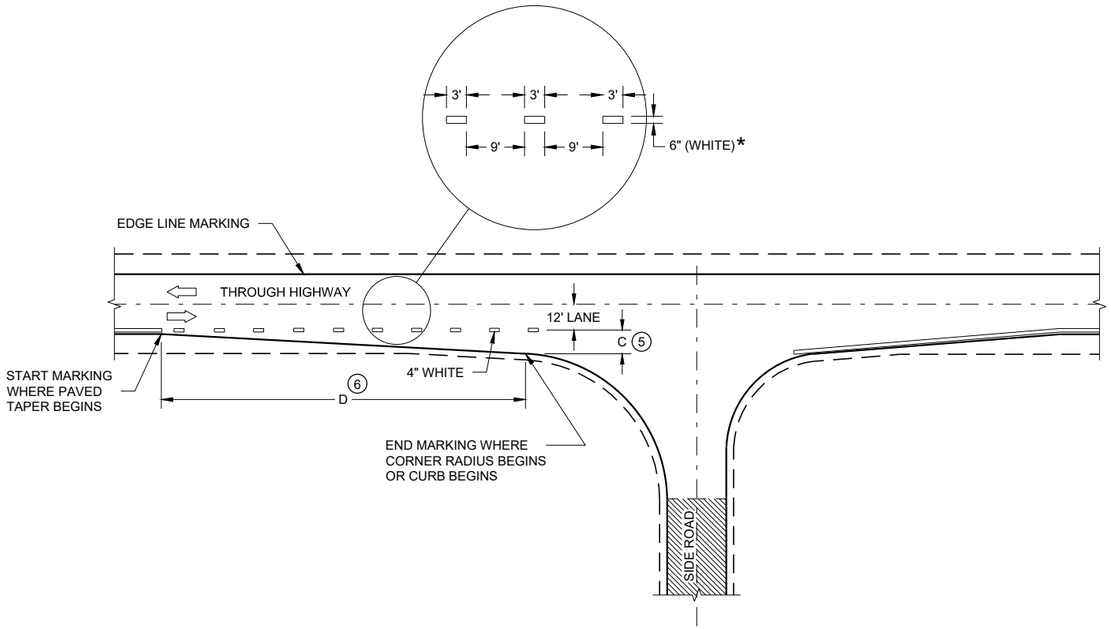
SDD 15C19-08a



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

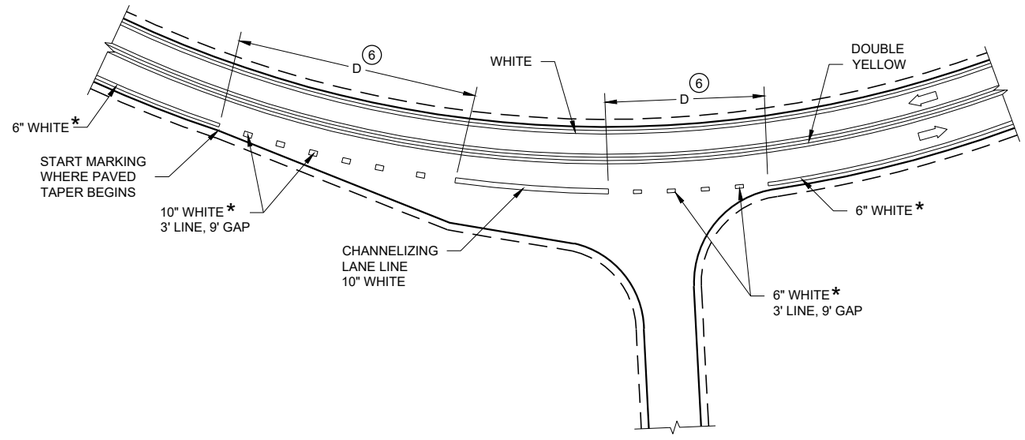
GENERAL NOTES

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

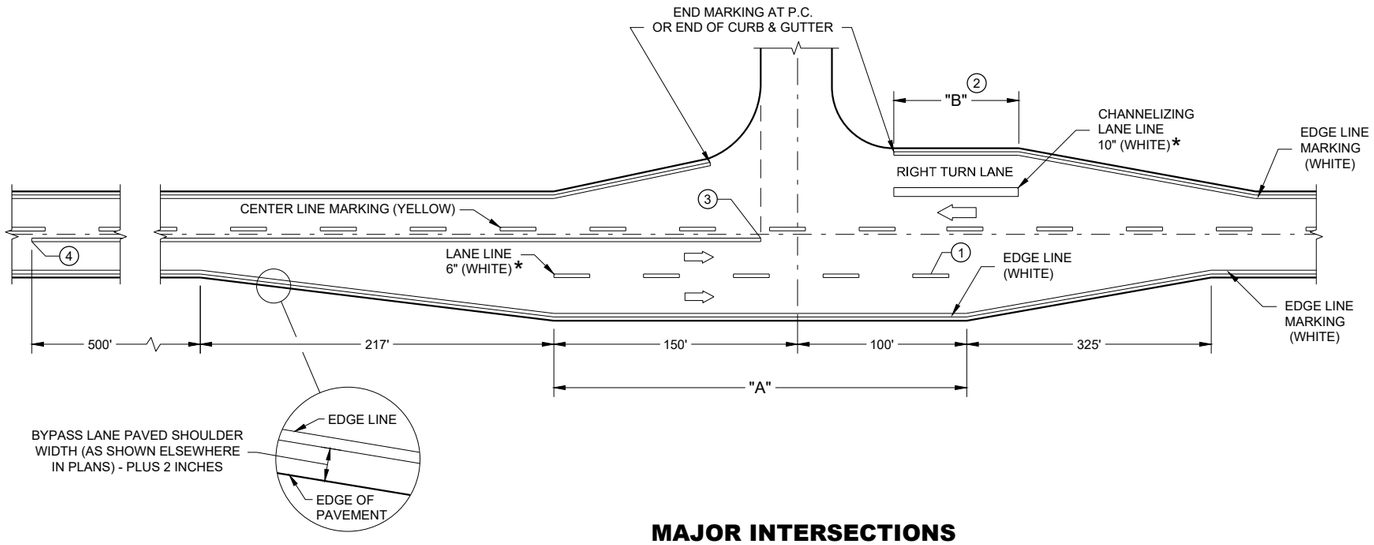
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

SDD 15C35-06a

6

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.

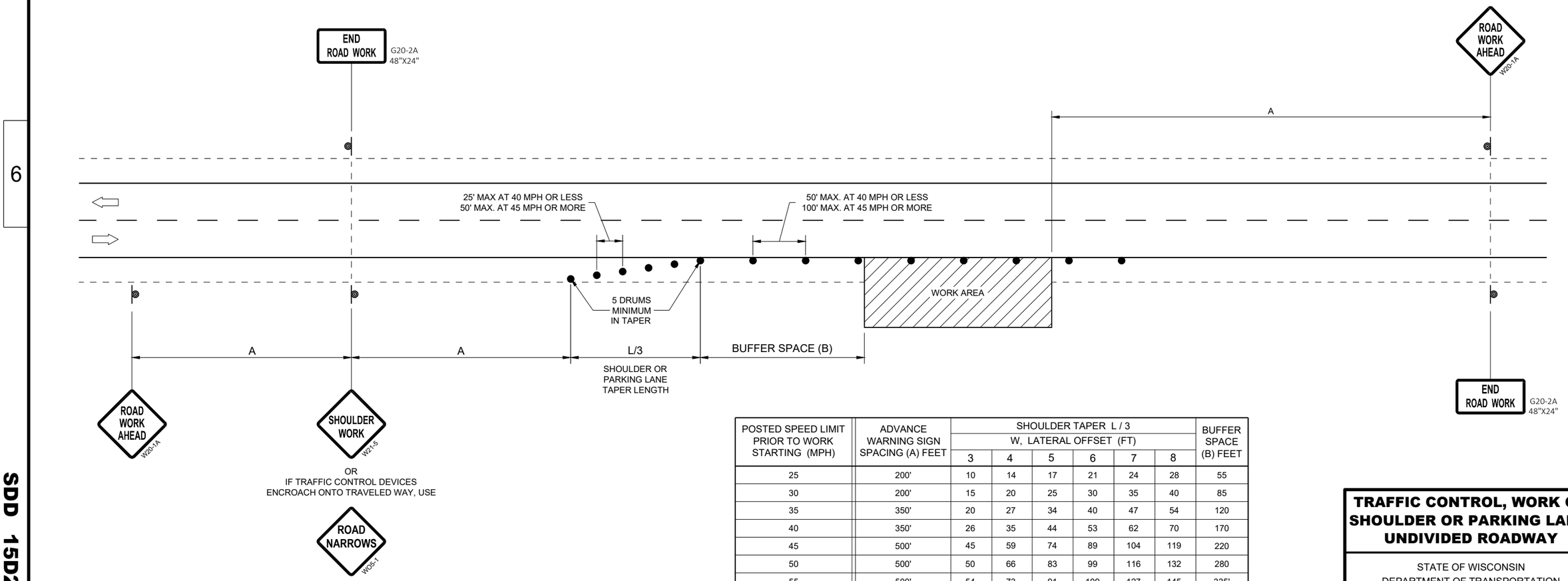
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

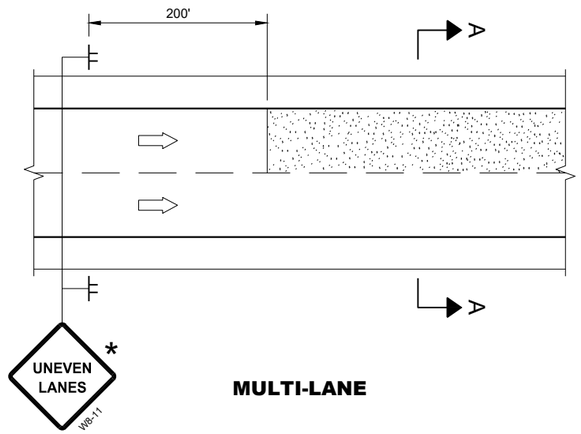
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

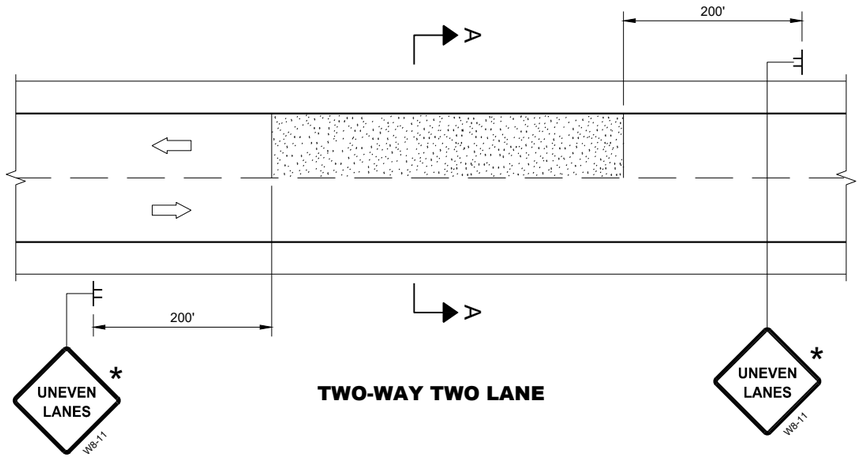
FHWA

SDD 15D28 - 04

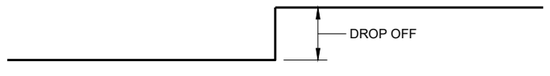
SDD 15D28 - 04



MULTI-LANE

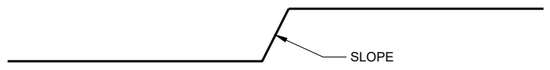


TWO-WAY TWO LANE

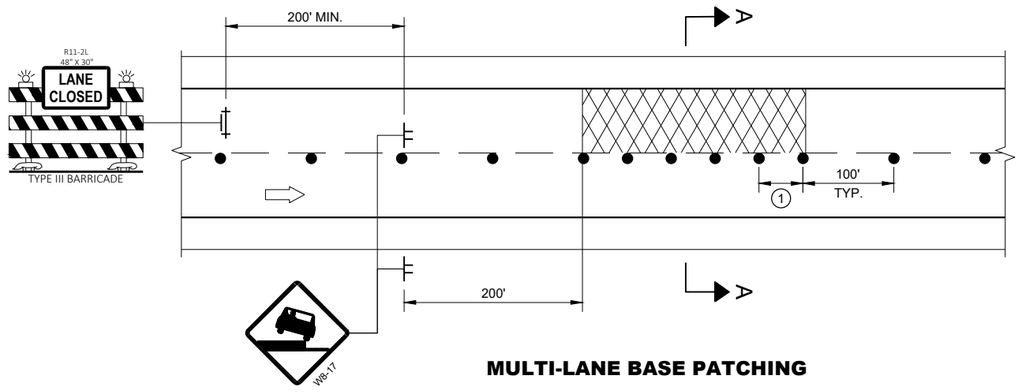


SECTION A - A

OR

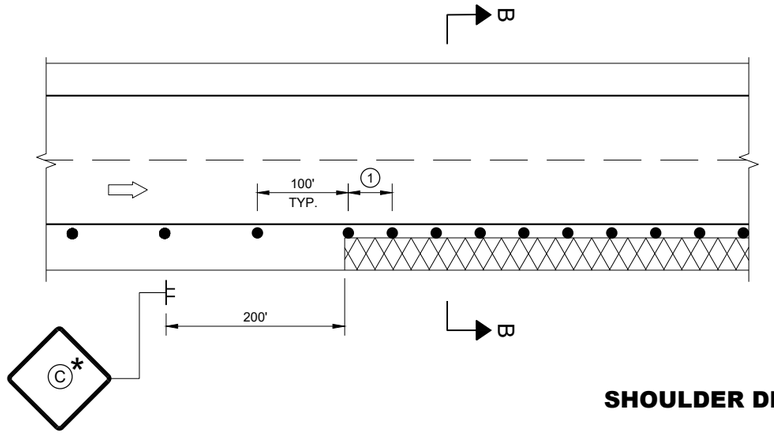


SECTION A - A

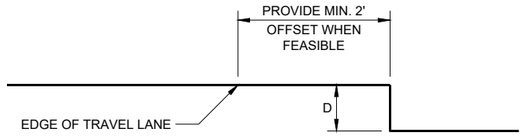


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

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

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

FHWA

6

SDD 15D39 - 02

GENERAL NOTES

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

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

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

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

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

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

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

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

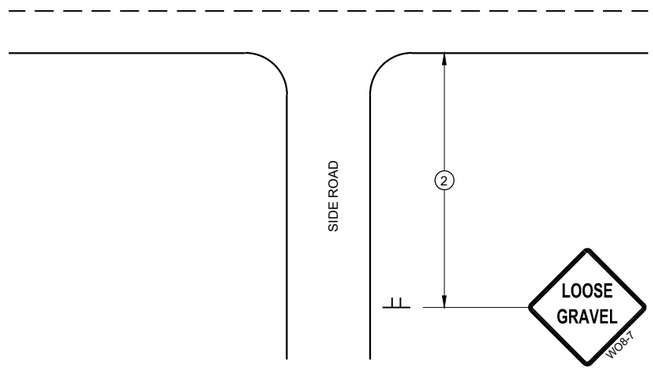
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

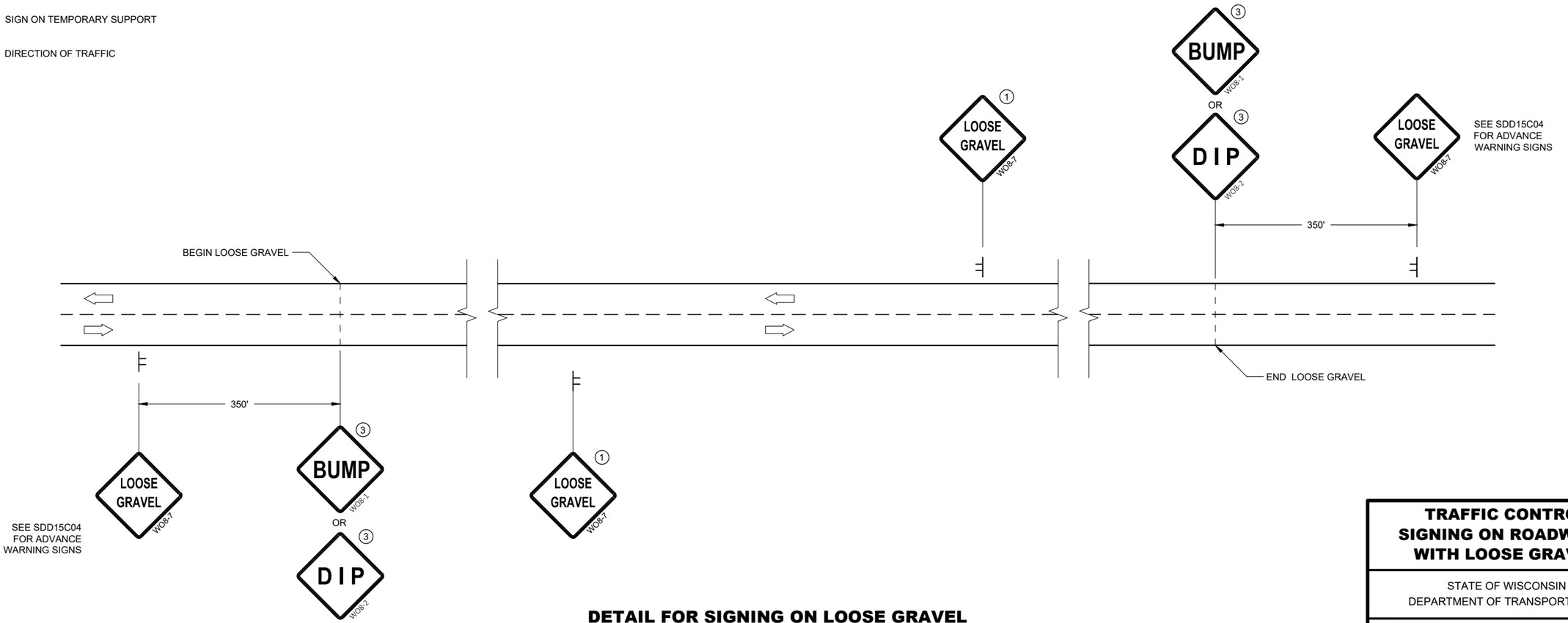
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D45 - 03

6

SDD 15D45 - 03

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.

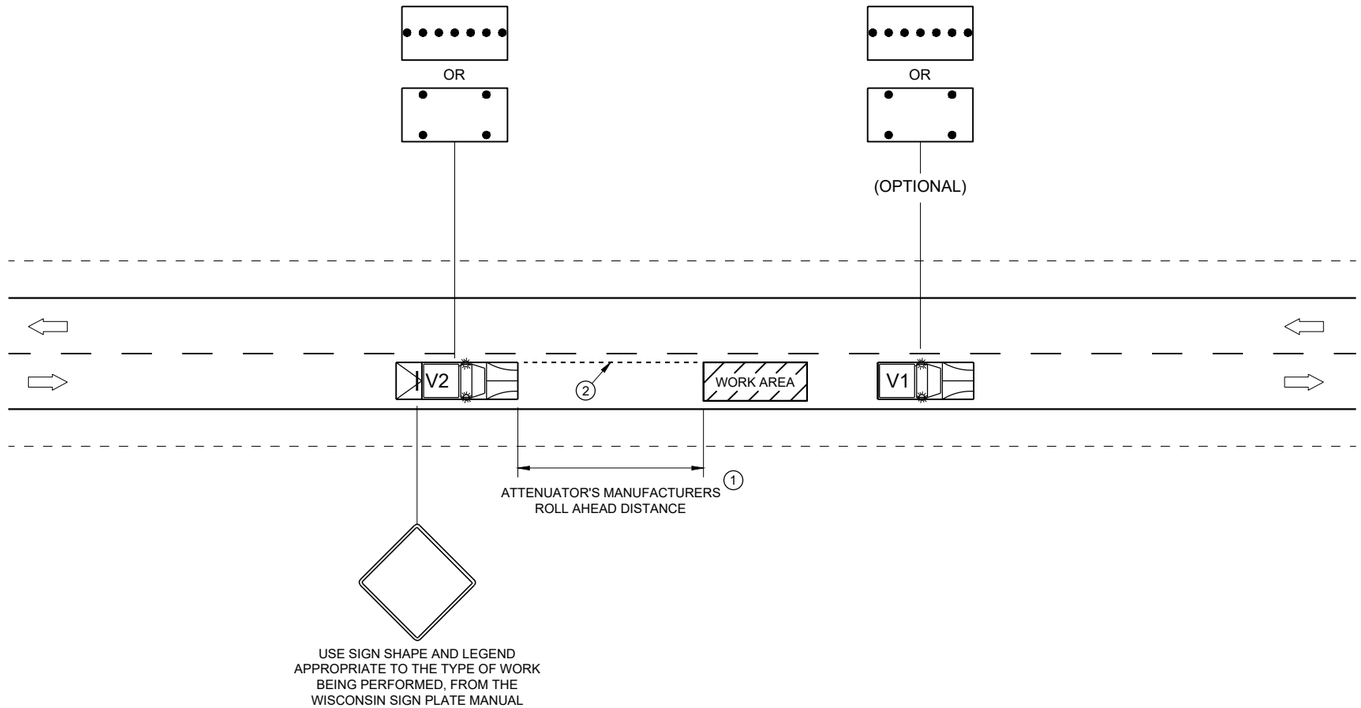
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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.



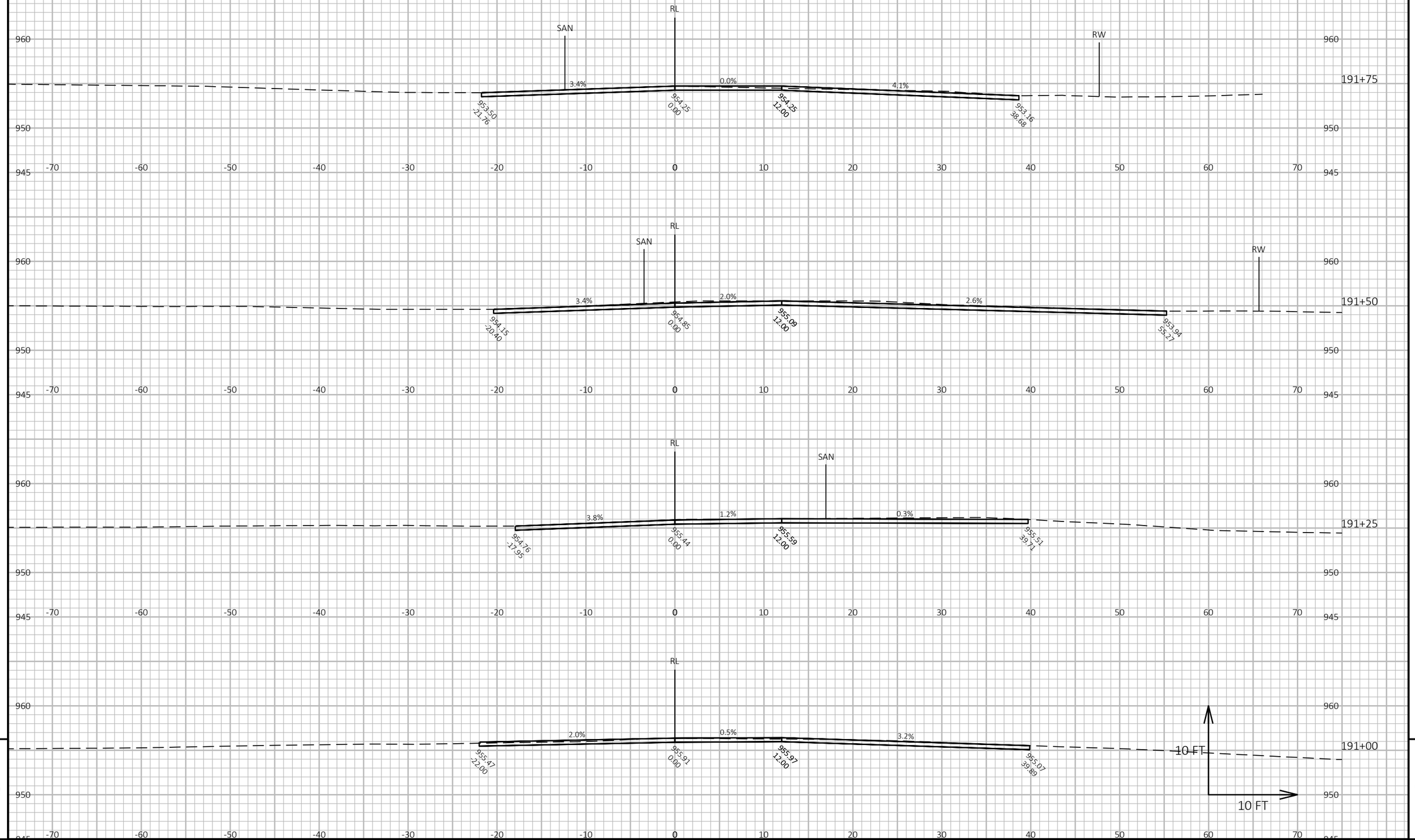
TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D51 - 01



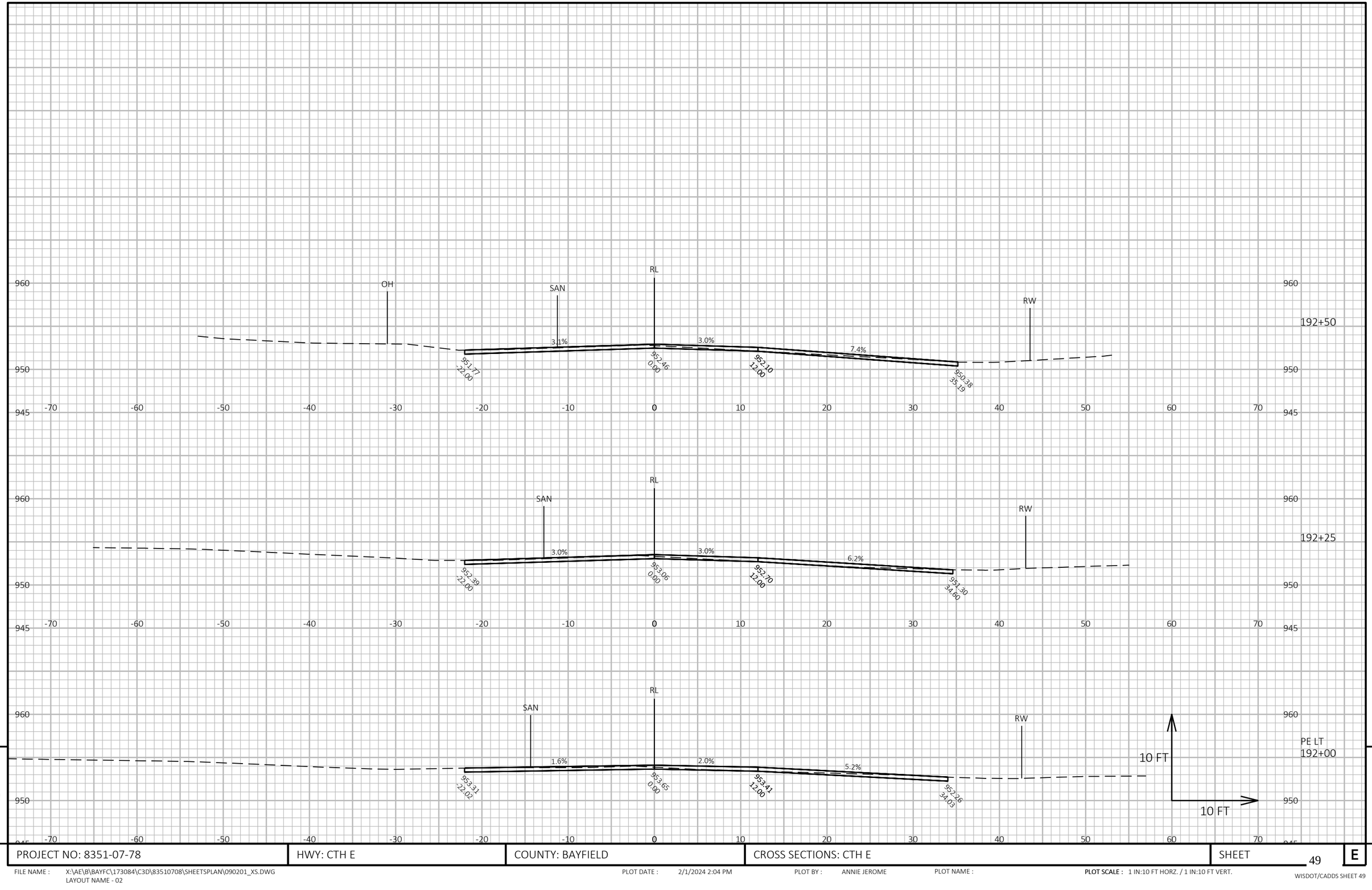
9

9

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 48	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 01

PLOT DATE : 2/1/2024 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

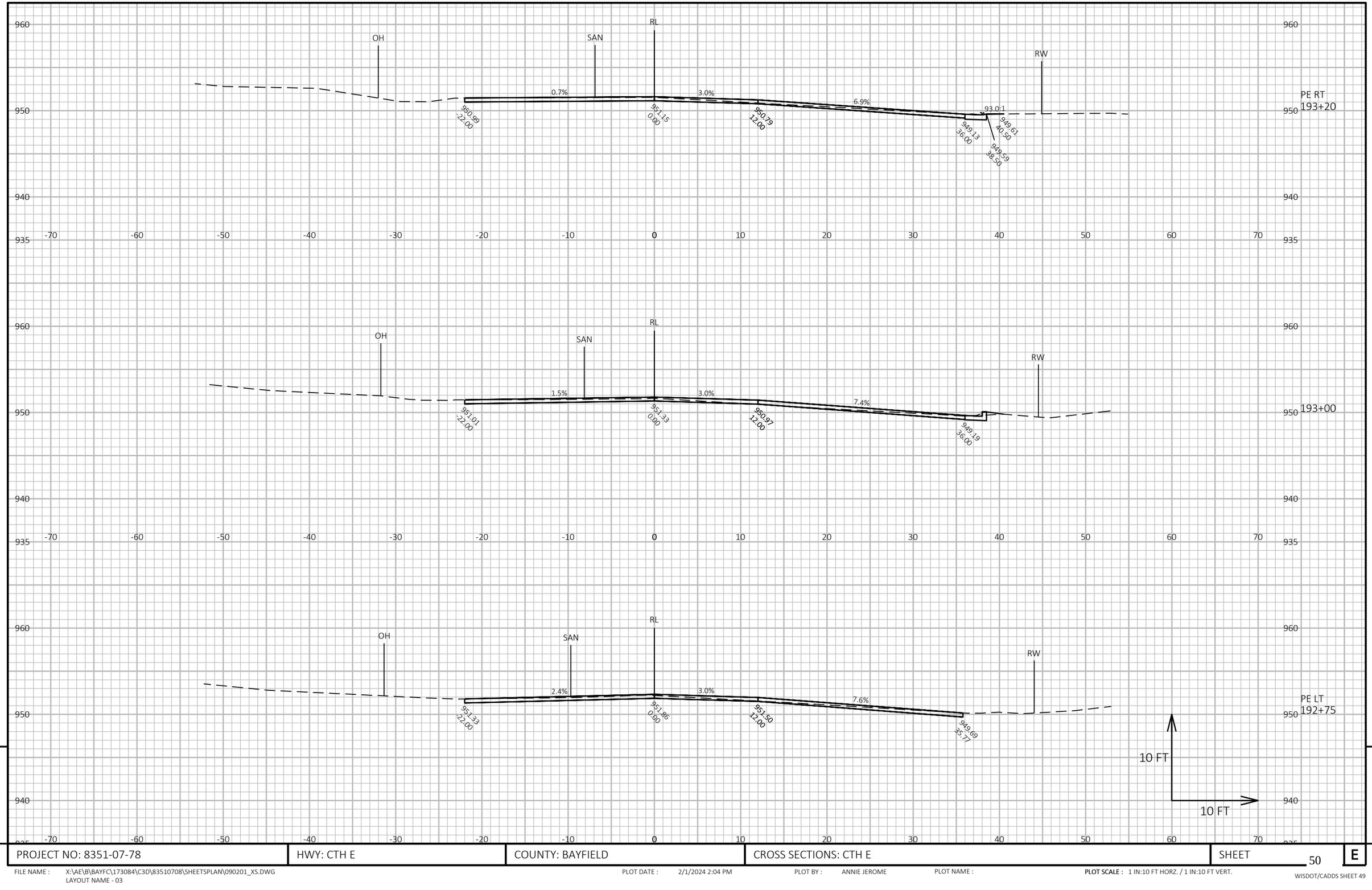
9

PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 49	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 02

PLOT DATE : 2/1/2024 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

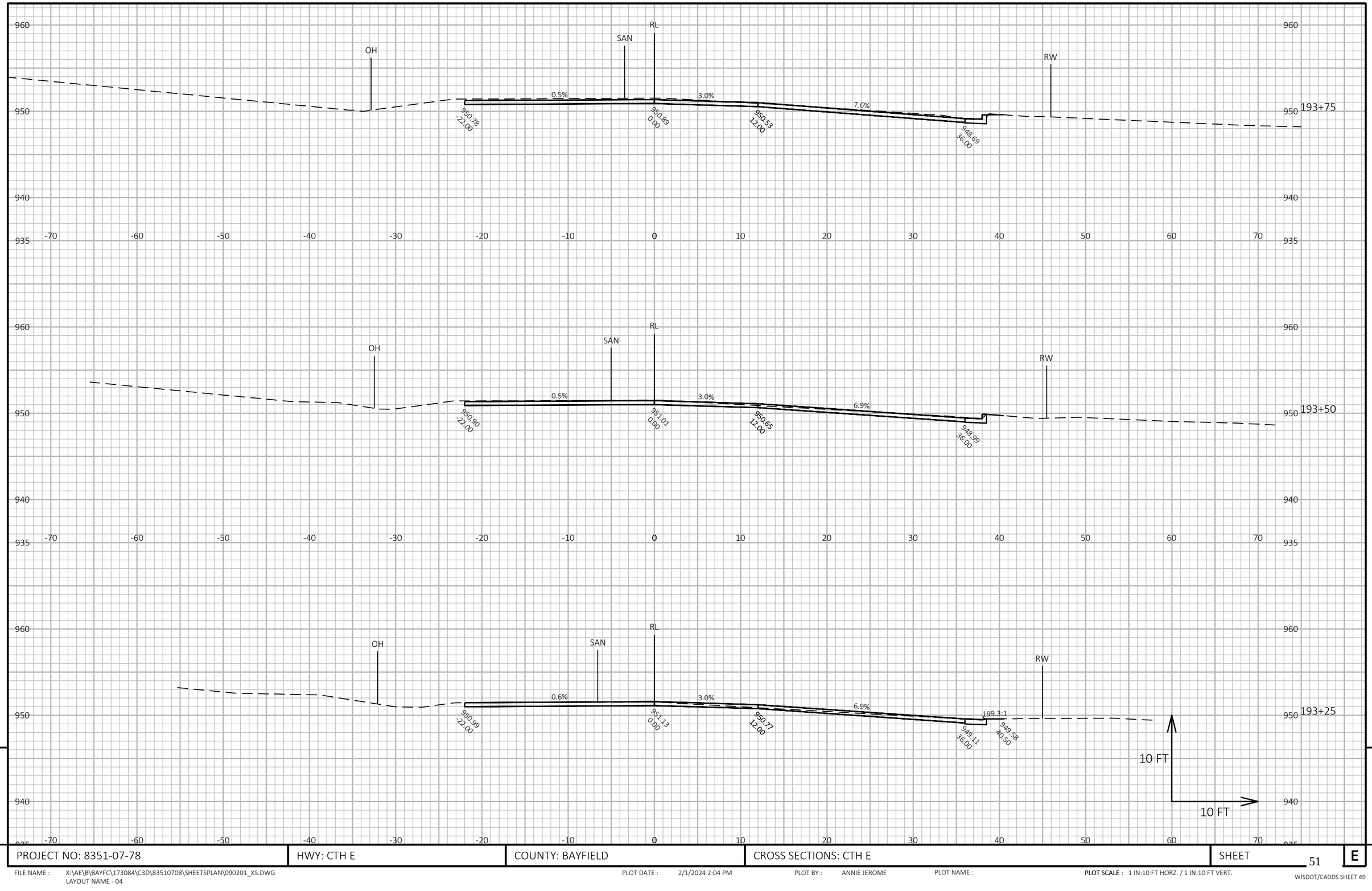


PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 50	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 03

PLOT DATE : 2/1/2024 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

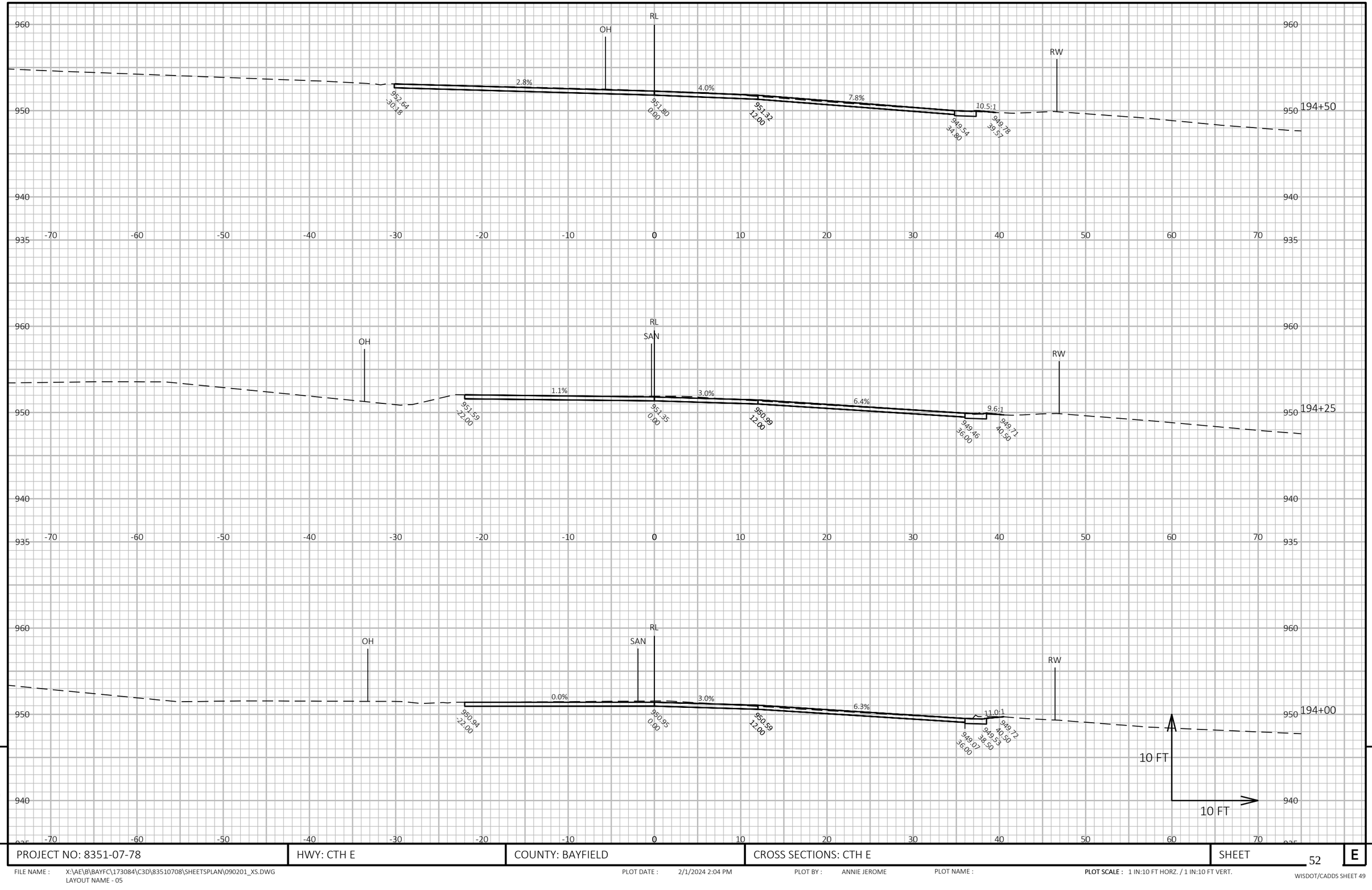
PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 51	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 04

PLOT DATE : 2/1/2024 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

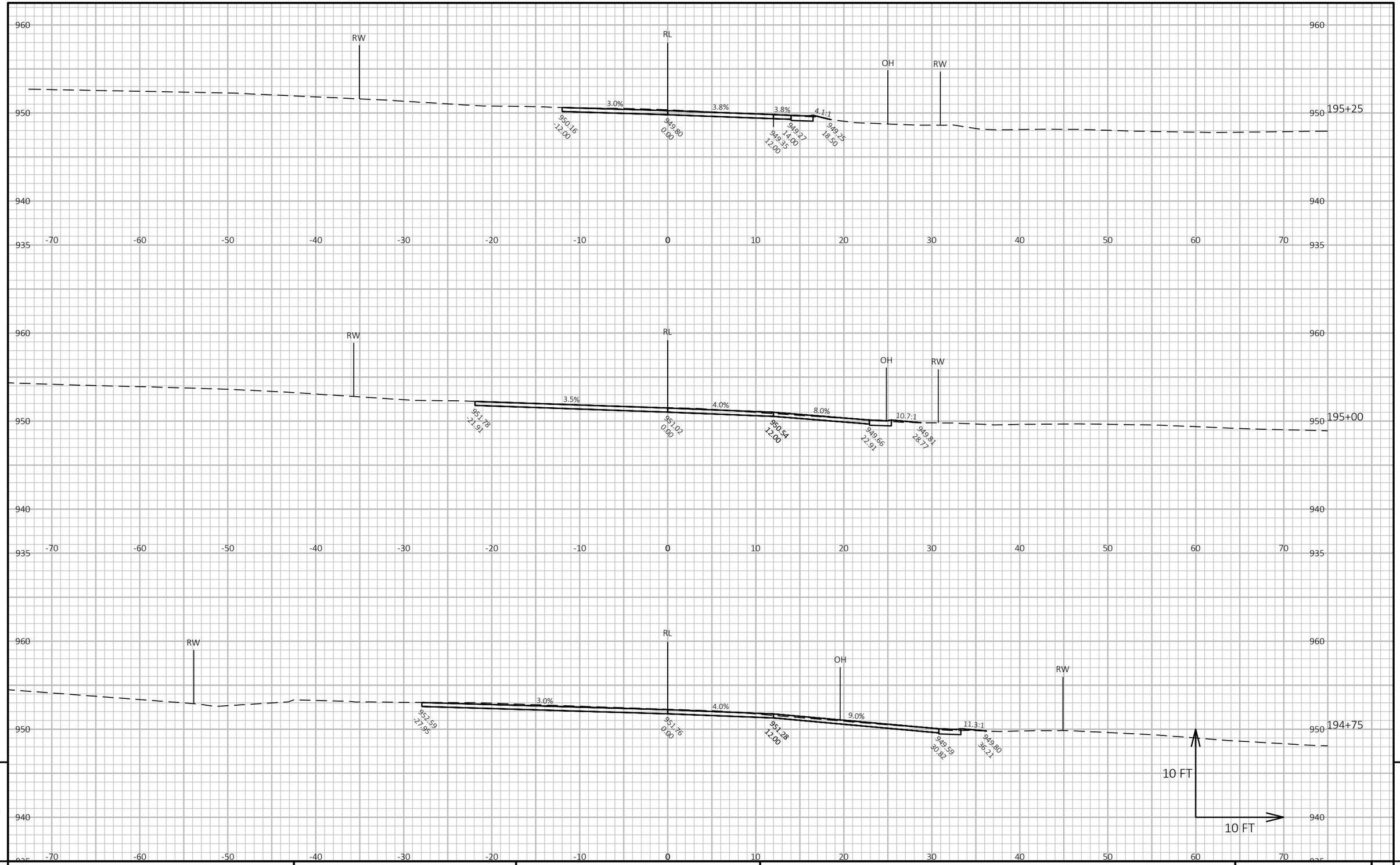


PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 52	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 05

PLOT DATE : 2/1/2024 2:04 PM PLOT BY : ANNIE JEROME PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

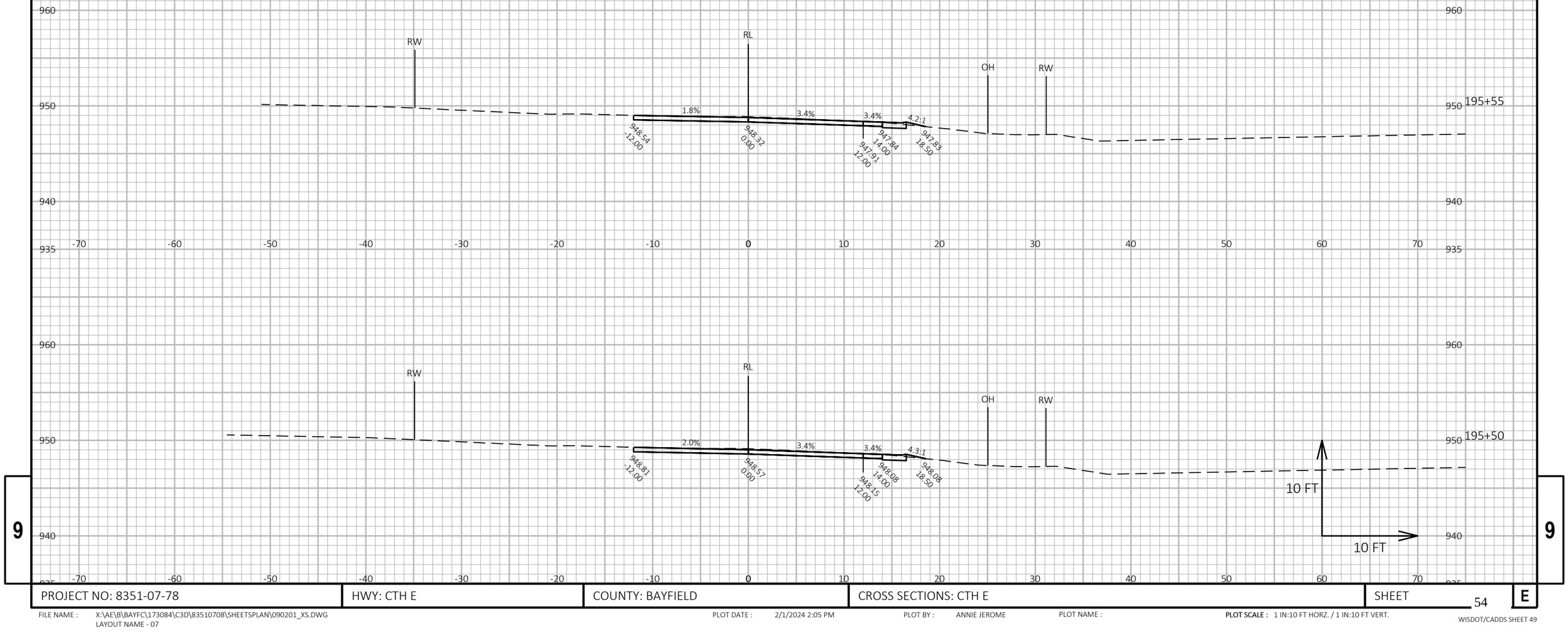


PROJECT NO: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 53	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 06

PLOT DATE : 2/1/2024 2:05 PM PLOT BY : ANNIE JEROME 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: 8351-07-78	HWY: CTH E	COUNTY: BAYFIELD	CROSS SECTIONS: CTH E	SHEET 54	E

FILE NAME : X:\AE\B\BAYFC\173084\C3D\83510708\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 07

PLOT DATE : 2/1/2024 2:05 PM PLOT BY : ANNIE JEROME PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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