

WIS

PROJECT ID:
WITH: N/A

6998-13-71

COUNTY:

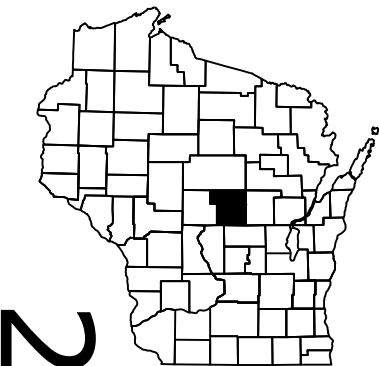
PORTAGE

MARCH 2026

ORDER OF SHEETS

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

TOTAL SHEETS = 412



29

DESIGN DESIGNATION

A.A.D.T.	2026	=	14,300
A.A.D.T.	2046	=	15,700
D.H.V.		=	
D.D.		=	50/50
T.		=	11.3%
DESIGN SPEED		=	30 MPH
ESALS		=	3,200,000

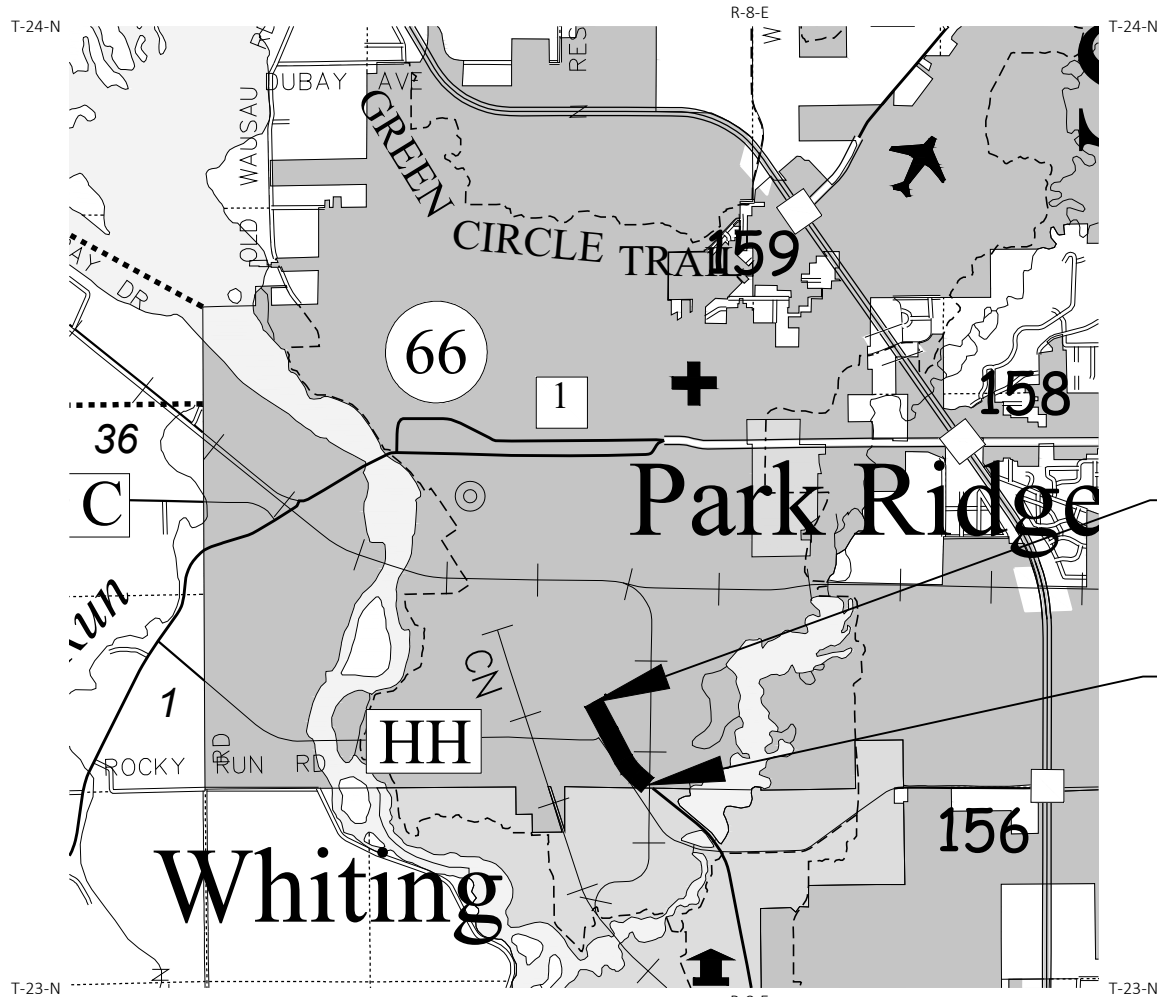
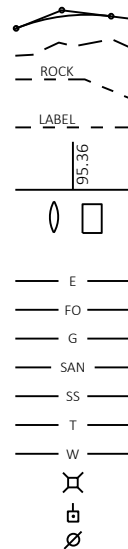
CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.552 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), PORTAGE COUNTY, NAD83 (1997), 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 NGVD 29. GPS DERIVED ELEVATIONS ARE BASED ON GEOID 09 WI.

STATE PROJECT

6998-13-71

FEDERAL PROJECT

PROJECT

WISC 2026236

CONTRACT

1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C STEVENS POINT, POST RD/CHURCH ST

SOUTH CITY LIMITS TO MICHIGAN AVE

LOC STR

PORTAGE COUNTY

STATE PROJECT NUMBER

6998-13-71

ACCEPTED FOR

CITY OF STEVENS POINT

(Signature and Title of Official) DATE: 10/27/2025

ORIGINAL PLANS PREPARED BY

AECOM



(Professional Engineer Signature) DATE: 10/24/2025

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	JASON SCHAEFFER
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	DAN ERVA

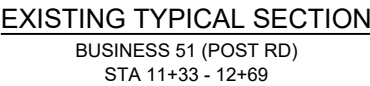
APPROVED FOR THE DEPARTMENT

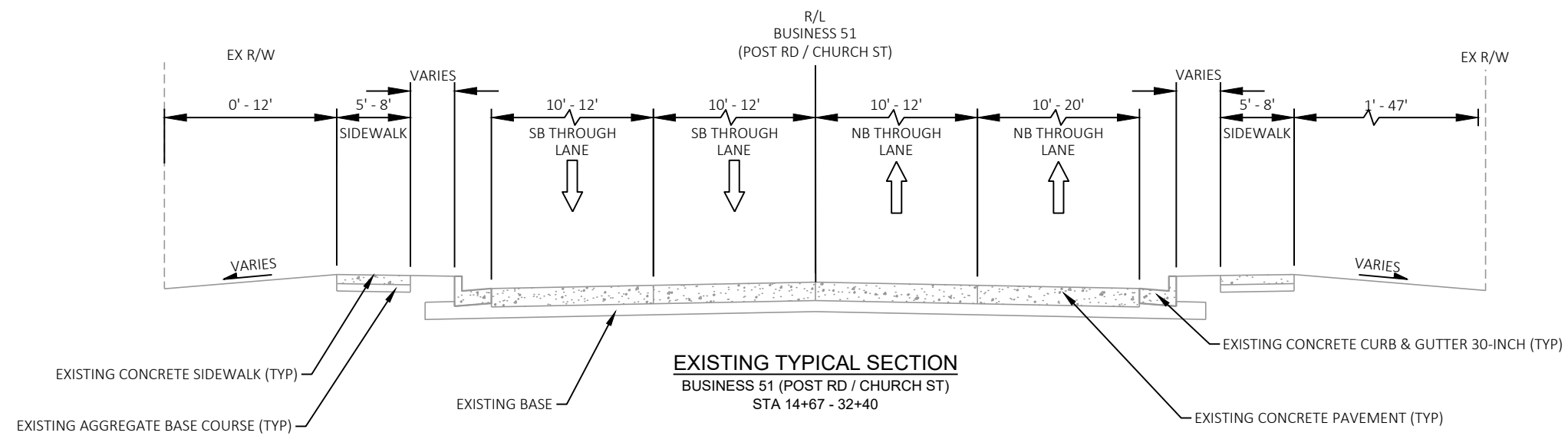
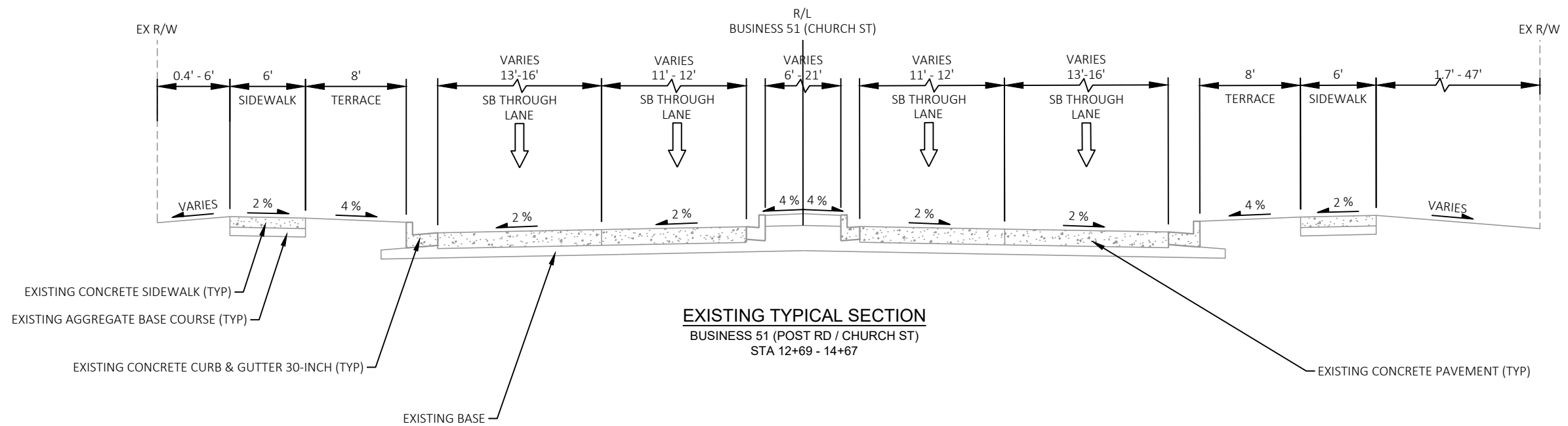
DATE: 10/27/2025
(Signature)

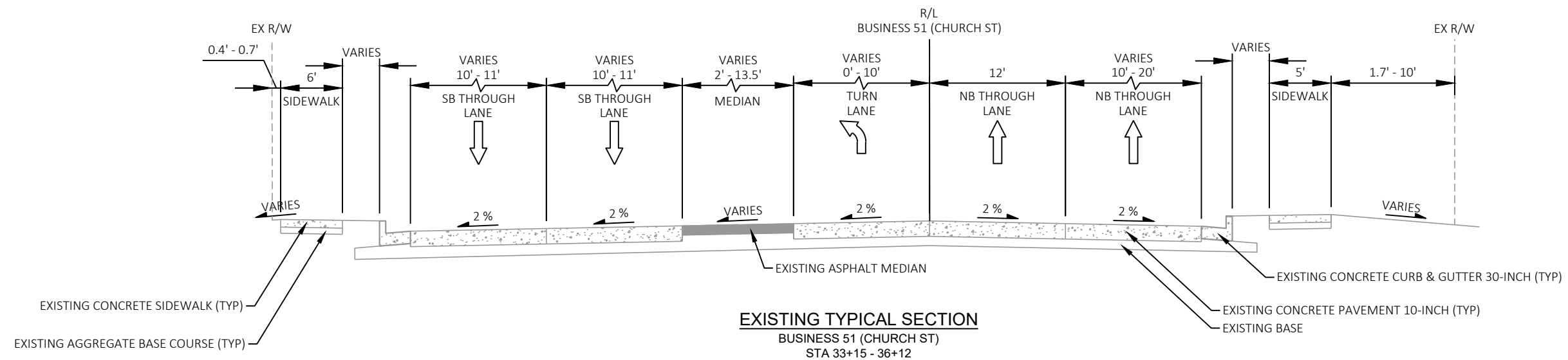
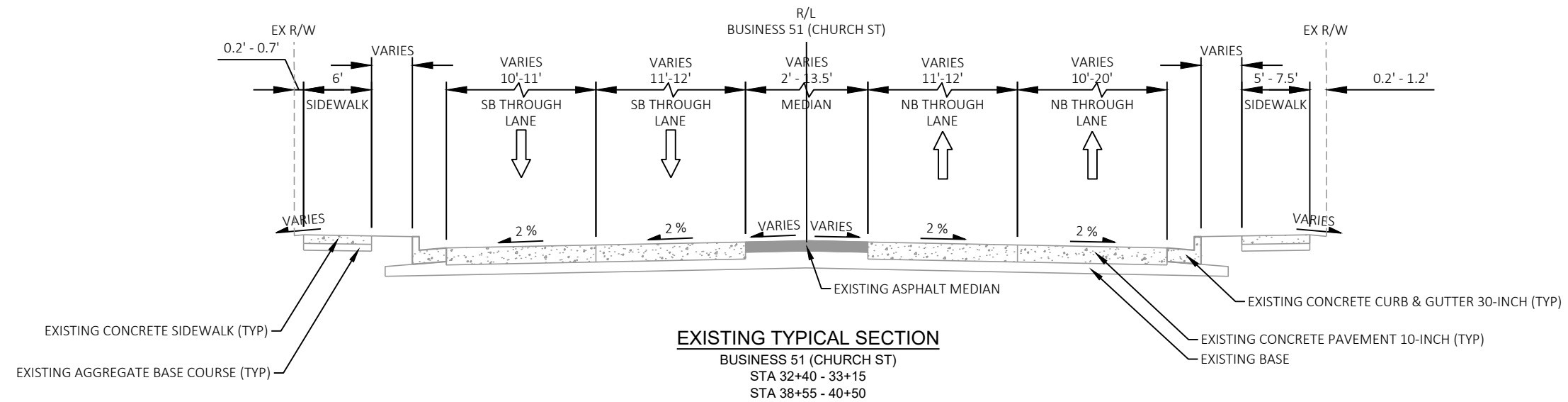
E

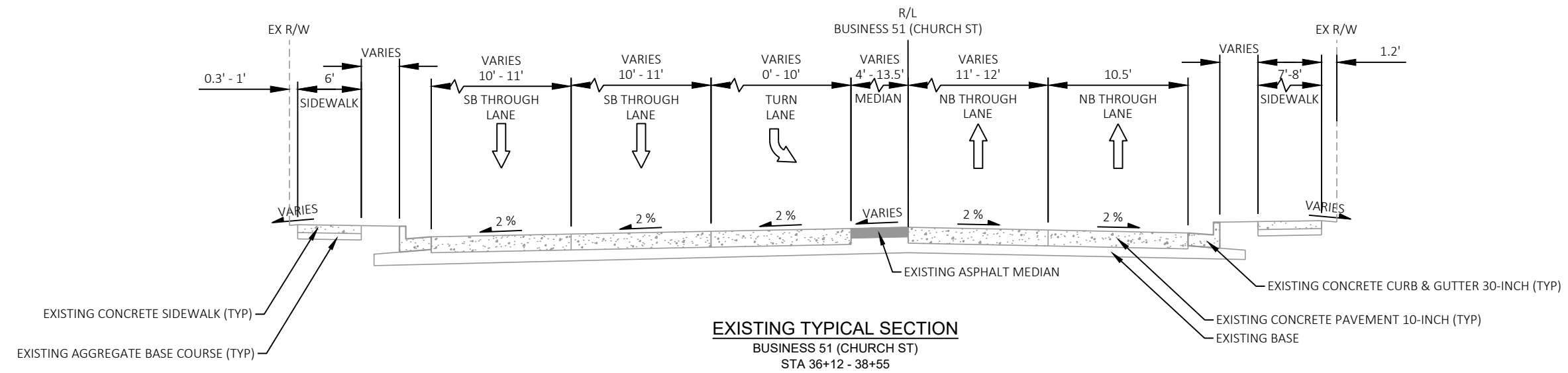
2	UTILITY CONTACTS WATER CITY OF STEVENS POINT 300 BLISS AVE STEVENS POINT, WI 54481 CONTACT: ERIC SOUTHWORTH PHONE: 715-342-4849 EMAIL: southworth@stevenspoint.com SANITARY SEWER CITY OF STEVENS POINT 300 BLISS AVE STEVENS POINT, WI 54481 CONTACT: ERIC SOUTHWORTH PHONE: 715-342-4849 EMAIL: esouthworth@stevenspoint.com COMMUNICATIONS AT&T WISCONSIN 304 S DEWEY ST EAU CLAIRE, WI 54701 CONTACT: RICK PODOLAK PHONE: 715-410-0656 EMAIL: rp4514@att.com SPECTRUM 5024 HEFFRON ST STEVENS POINT, WI 54481 CONTACT: JASON O'KEEFE PHONE: 715-382-3559 EMAIL: jason.okeefe@charter.com ELECTRICITY ATC MANAGEMENT 2489 RINDEN ROAD COTTAGE GROVE, WI 53527 CONTACT: DOUG VOXBERG PHONE: 608-877-7650 EMAIL: dvosberg@atcllc.com CITY OF STEVENS POINT 1515 STRONGS AVENUE STEVENS POINT, WI 54481 CONTACT: SCOTT BEDUHN PHONE: 715-346-1561 EMAIL: sbeduhn@stevenspoint.com WISCONSIN PUBLIC SERVICE CORPORATION PO BOX 1166 WAUSAU, WI 54402 CONTACT: DON LUTZOW PHONE: 715-848-7487 EMAIL: donald.lutzow@wisconsinpublicservice.com GAS/PETROLEUM WISCONSIN PUBLIC SERVICE CORPORATION 1700 SHERMAN ST WAUSAU, WI 54402 CONTACT: TYLER DAHLSTROM PHONE: 715-848-7387 EMAIL: tyler.dahlstrom@wisconsinpublicservice.com	CITY OF STEVENS POINT SCOTT BEDUHN, DIRECTOR OF PUBLIC WORKS ENGINEERING DEPARTMENT 1515 STRONGS AVE STEVENS POINT, WI 54481 PHONE: 715-346-1561 EMAIL: SBEDUHN@STEVENSPOINT.COM	DESIGN PROJECT MANAGER WILLIAM SCHILLING, PROJECT MANAGER AECOM 1555 N RIVERCENTER DR, SUITE 214 MILWAUKEE, WI 53212 PHONE: 414-944-6201 EMAIL: BILL.SCHILLING@AECOM.COM	GENERAL NOTES THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. CONTRACTOR WILL BE RESPONSIBLE FOR RESTORING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY OPERATIONS, OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS. RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE CURB & GUTTER FLANGE, UNLESS OTHERWISE NOTED IN THE PLANS. CONCRETE CURB & GUTTER INTEGRAL 18-INCH TO CONFORM TO THE CURB & GUTTER SHAPE OF CONCRETE CURB & GUTTER 18-INCH TYPE A & D. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER. RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. PAVEMENT REMOVAL WILL BE TO THE NEAREST JOINT OR A SAWED EDGE WILL BE REQUIRED AS DIRECTED BY THE ENGINEER. THE BASE AGGREGATE DENSE 1 1/4-INCH CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.0 TONS/CY. THE HMA PAVEMENT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LB/SY/INCH.	2	
	DIGGERSHOTLINE Dial 811 or (800)242-8511 www.DiggersHotline.com	ORDER OF SECTION 2 DETAIL SHEETS GENERAL NOTES PROJECT OVERVIEW TYPICAL SECTIONS CONSTRUCTION DETAILS INTERSECTION DETAILS REMOVAL PLANS PLAN DETAILS PAVING GRADES CURB RAMP DETAILS EROSION CONTROL UTILITY REMOVAL PLAN STORM SEWER UTILITY PLAN SITE LANDSCAPE PLAN SITE IRRIGATION PLAN SIGNING REMOVAL PLANS PERMANENT SIGNING STREET LIGHTING PLAN TRAFFIC SIGNAL PLANS PAVEMENT MARKINGS TRAFFIC CONTROL DETOURS ALIGNMENT DIAGRAM				
PROJECT NO: 6998-13-71		HWY: BUSINESS 51	COUNTY: PORTAGE	GENERAL NOTES	SHEET 2	E
FILE NAME : C:\USERS\MROZZ\AECOM\60730625 BUS51 SOUTH SEGMENT - GENERAL\900_CAD_GIS\910_CAD\60730625\SHEETS\PLAN\020101-GN.DWG		PLOT DATE : 1/23/2026 12:35 PM		PLOT BY : MROZ, ZACHARY	PLOT NAME :	PLOT SCALE : 1" = 1'
WISDOT/CADDs SHEET 42						

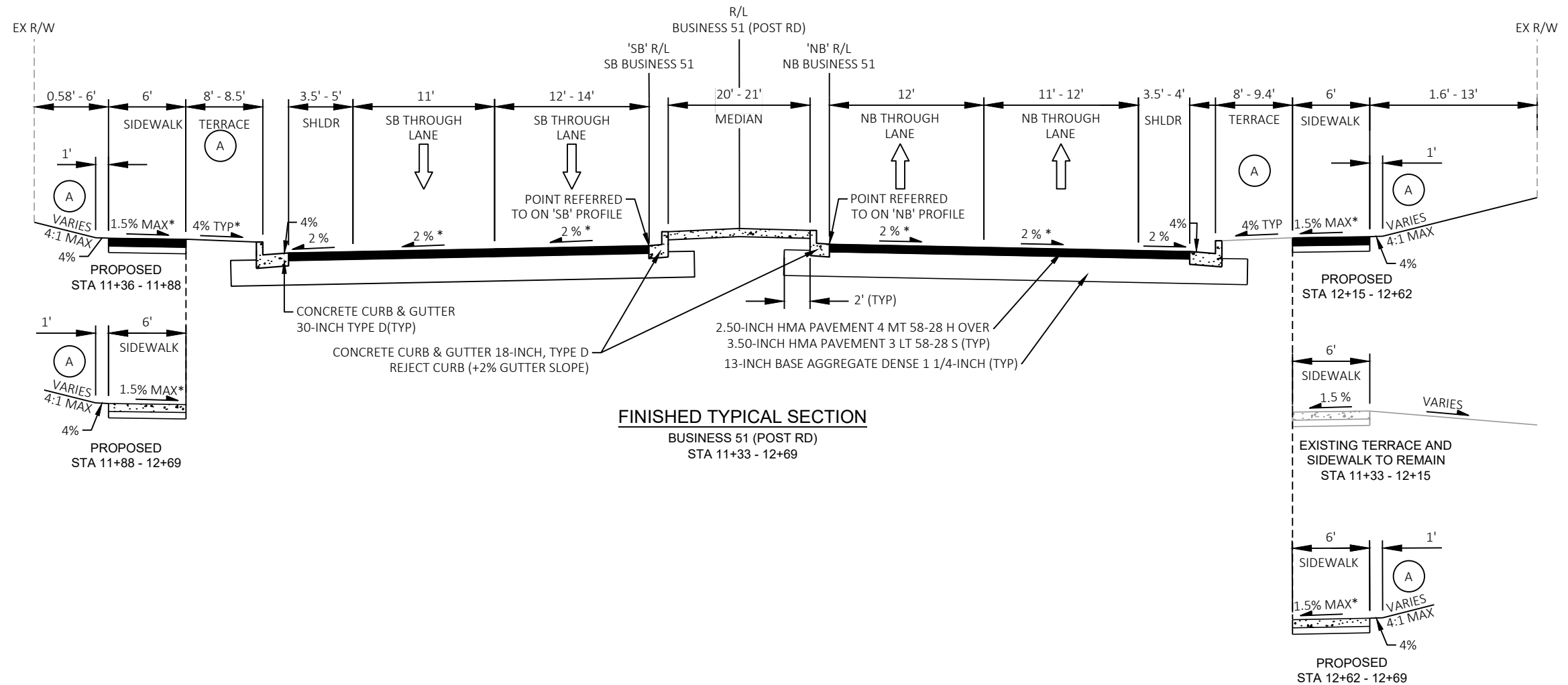








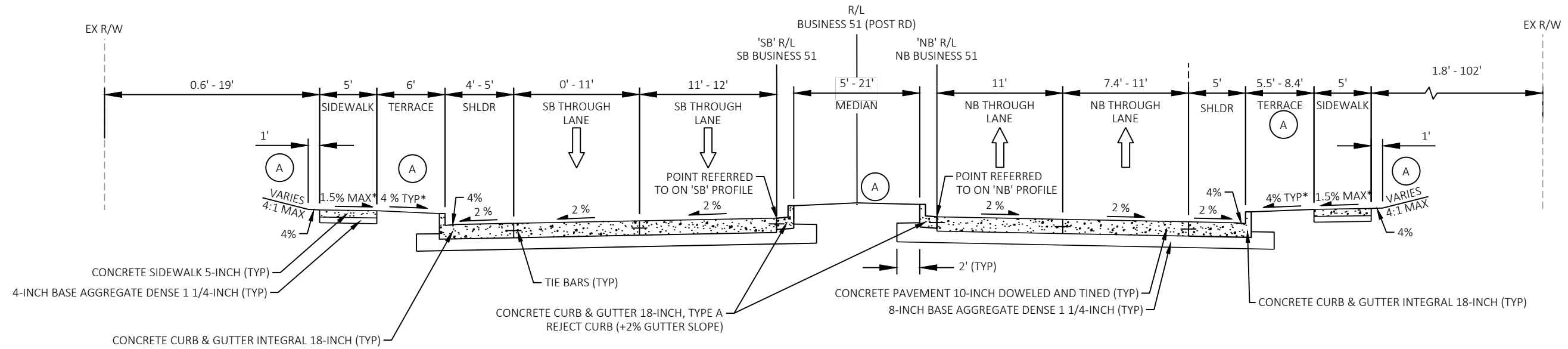




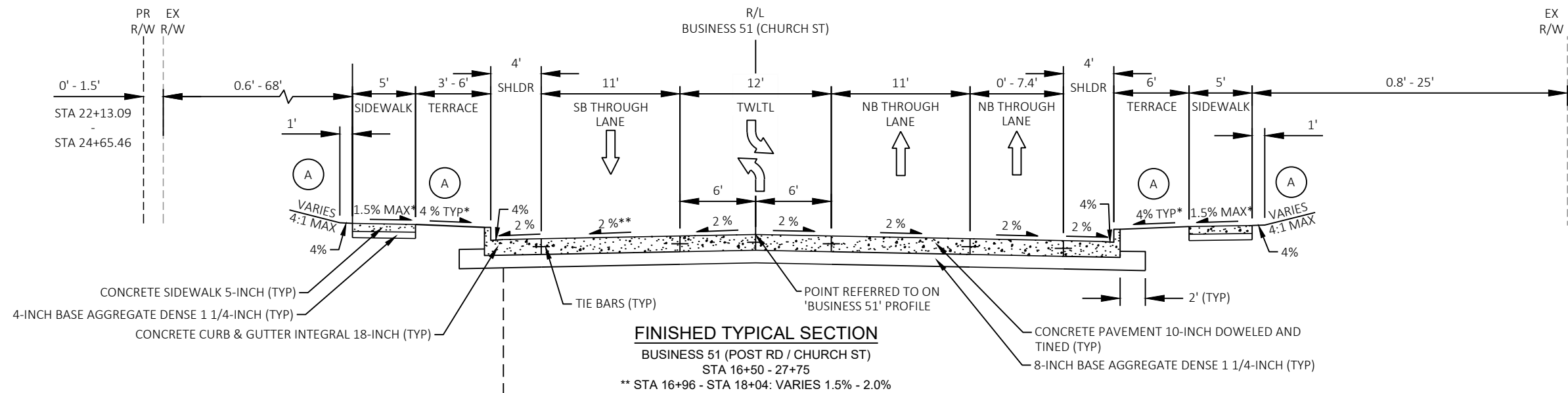
NOTES:

*SLOPE VARIES, SEE CONSTRUCTION DETAILS: SIDEWALK DETAILS

(A) - TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN EXCEPT WHERE BARK/STONE MULCH IS USED (SEE SITE LANDSCAPE PLAN)

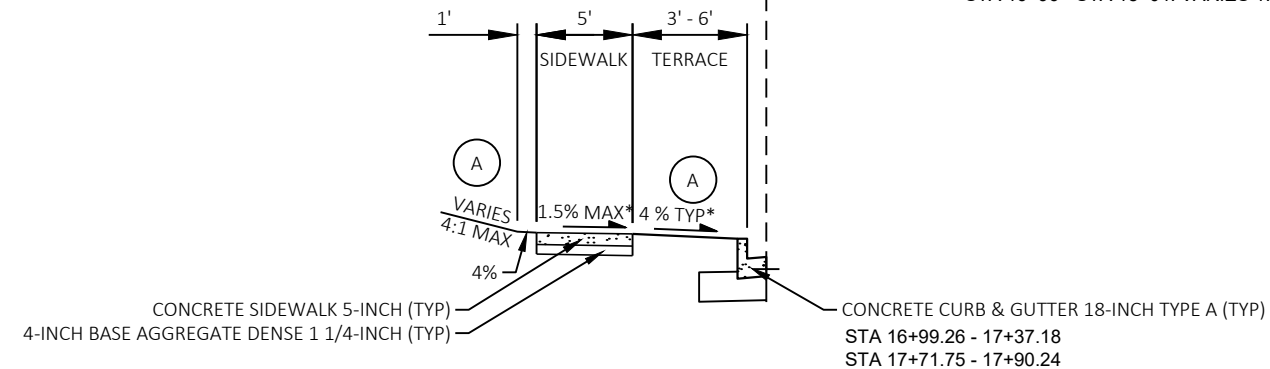
**FINISHED TYPICAL SECTION**

BUSINESS 51 (POST RD)
STA 12+69 - 16+50

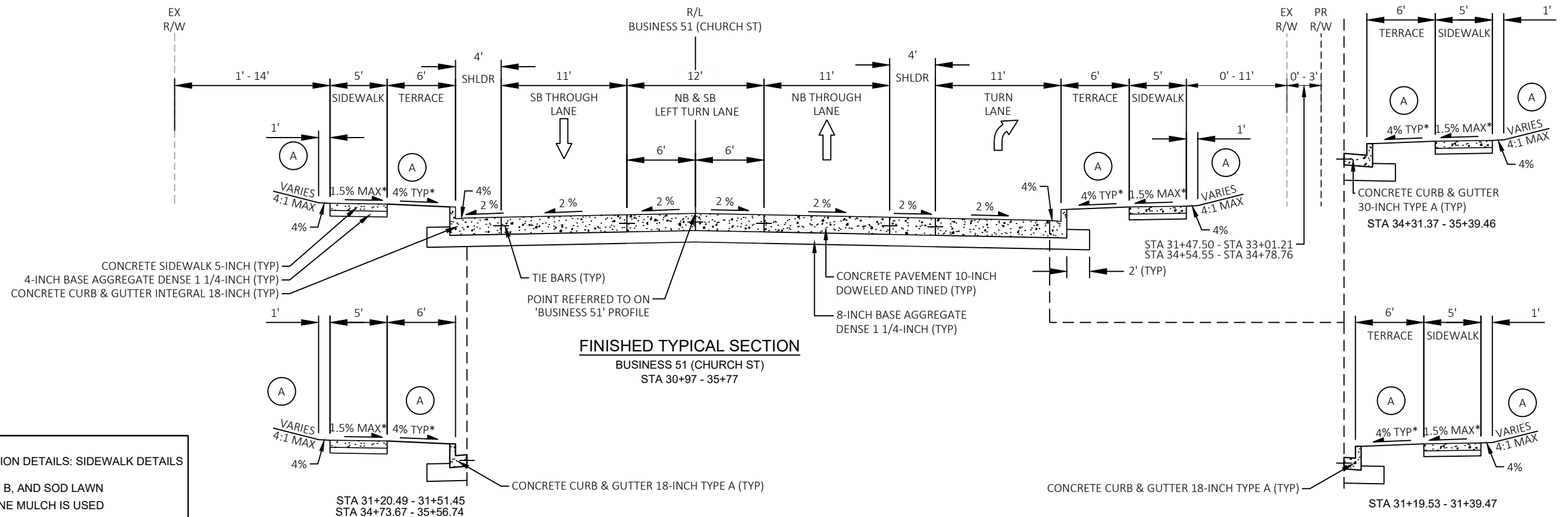
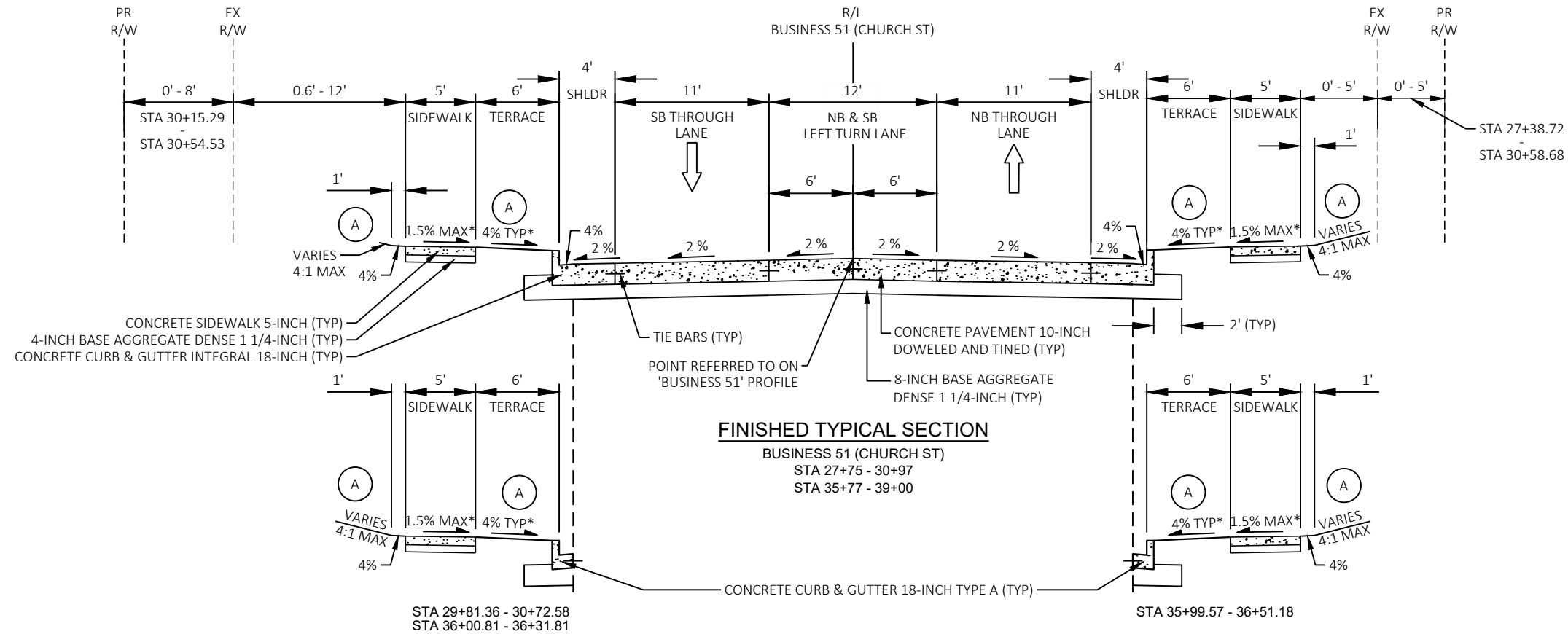
**FINISHED TYPICAL SECTION**

BUSINESS 51 (POST RD / CHURCH ST)
STA 16+50 - 27+75

** STA 16+96 - STA 18+04: VARIES 1.5% - 2.0%



NOTES:
*SLOPE VARIES, SEE CONSTRUCTION DETAILS: SIDEWALK DETAILS
(A) - TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN
EXCEPT WHERE BARK/STONE MULCH IS USED
(SEE SITE LANDSCAPE PLAN)



NOTES:
*SLOPE VARIES, SEE CONSTRUCTION DETAILS: SIDEWALK DETAILS

(A) - TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN
EXCEPT WHERE BARK/STONE MULCH IS USED
(SEE SITE LANDSCAPE PLAN)

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

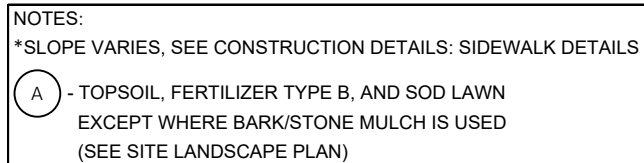
COUNTY: PORTAGE

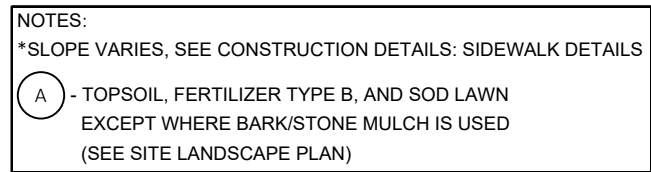
FINISHED TYPICAL SECTIONS

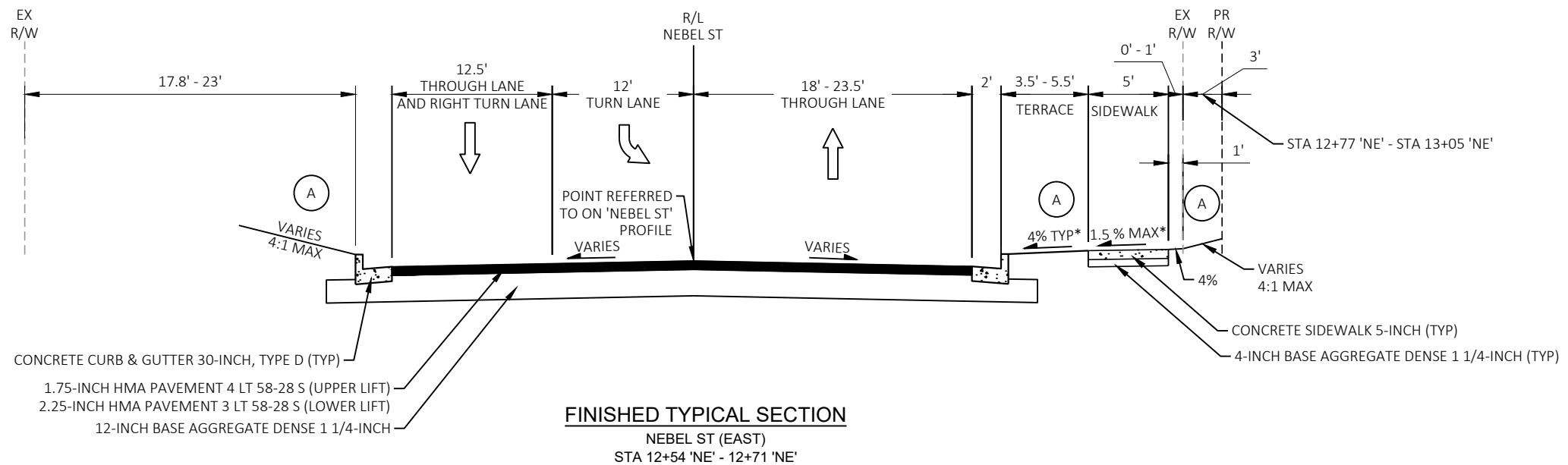
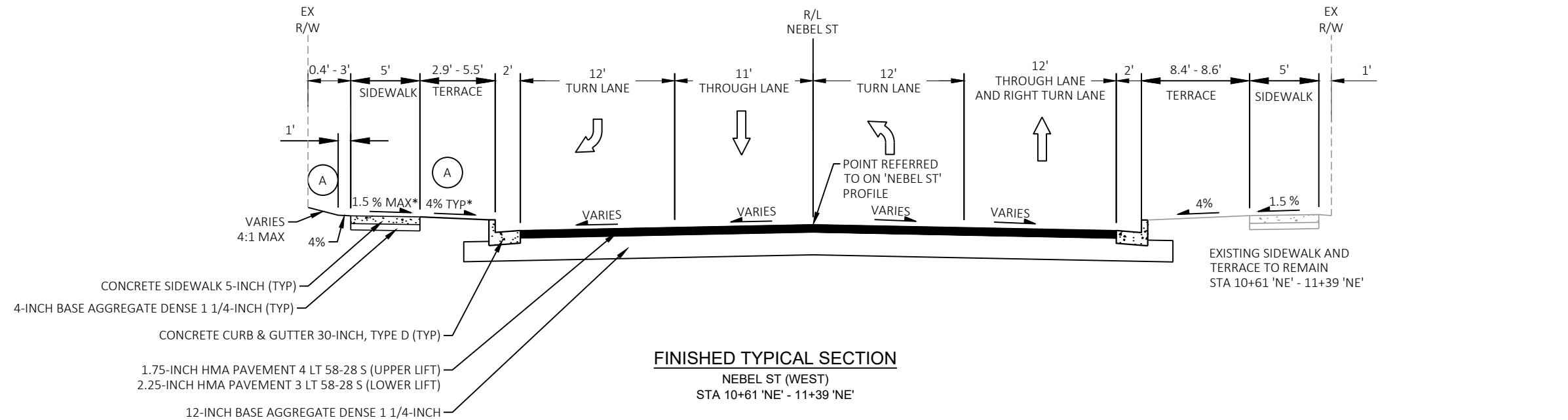
SHEET

10

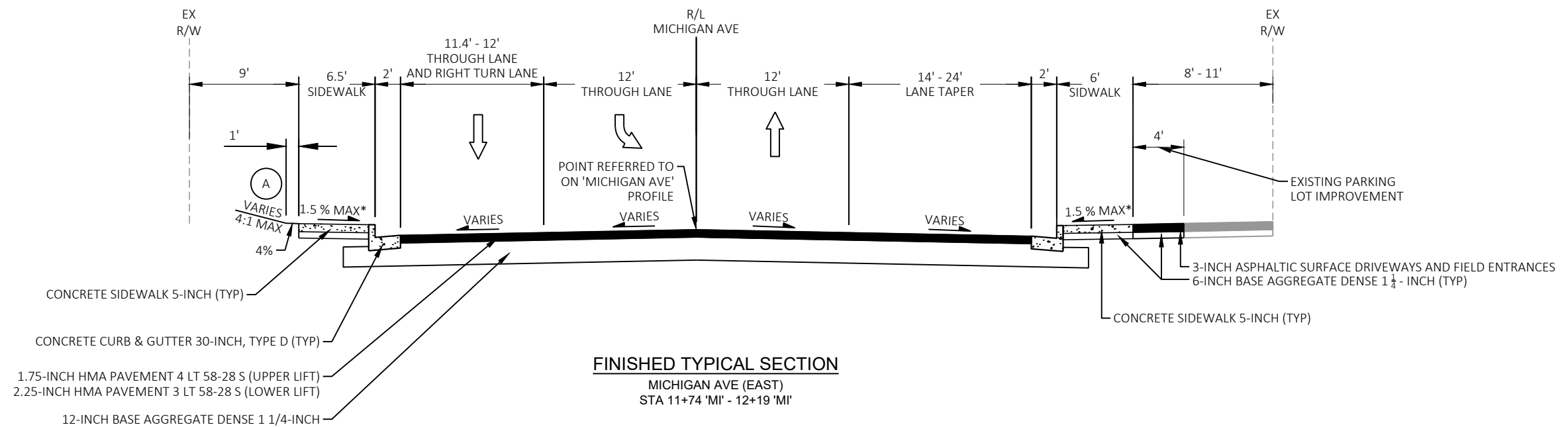
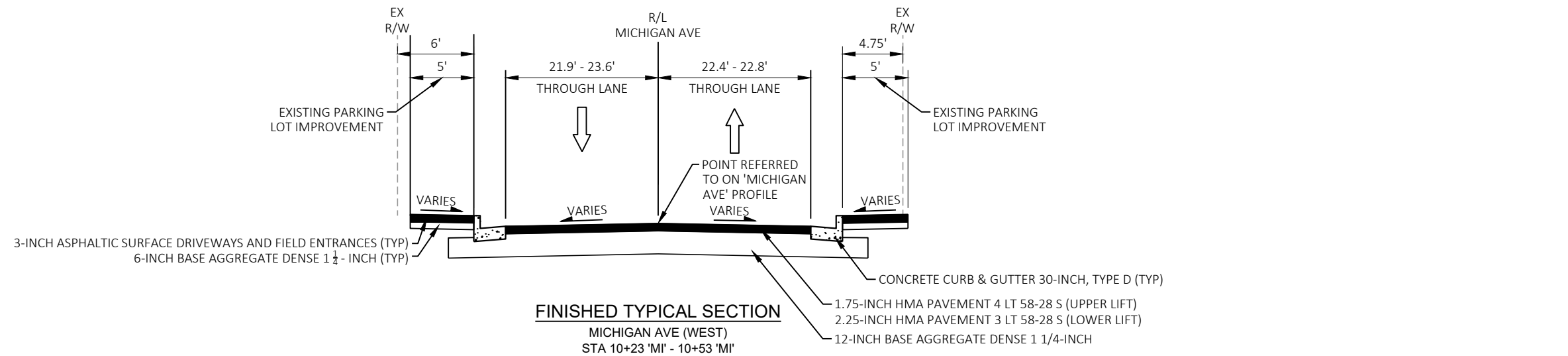
E



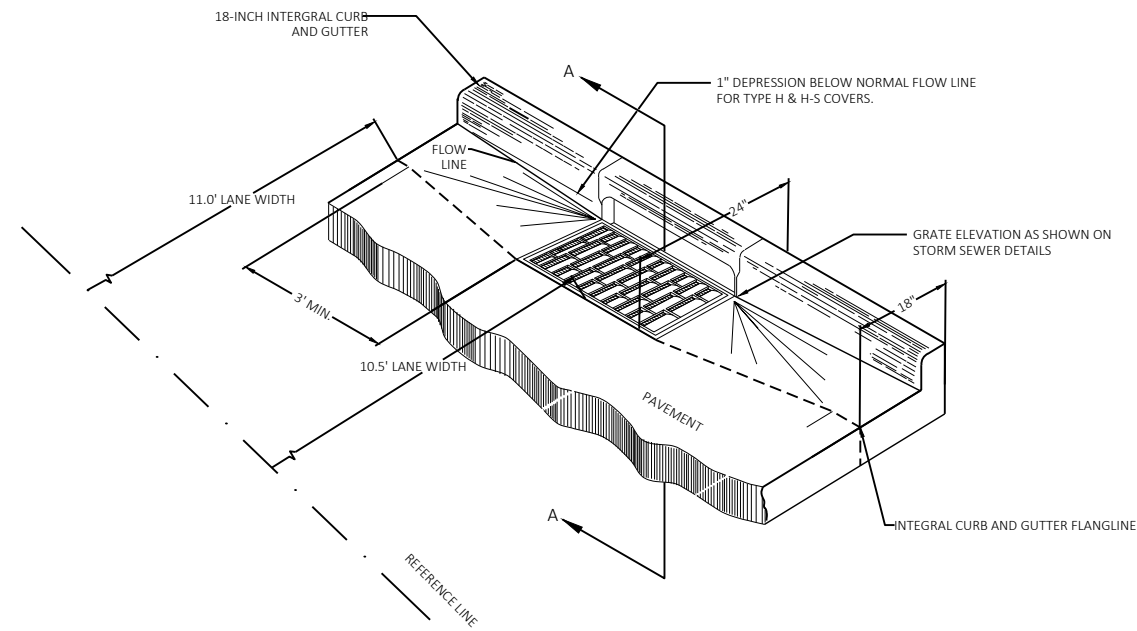




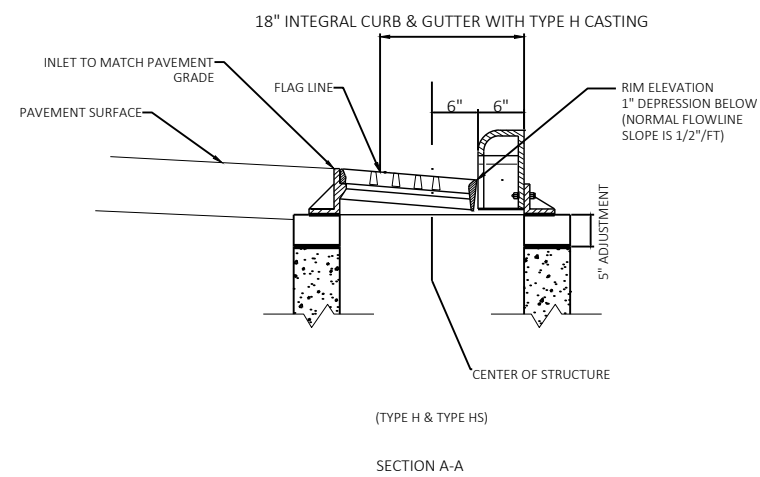
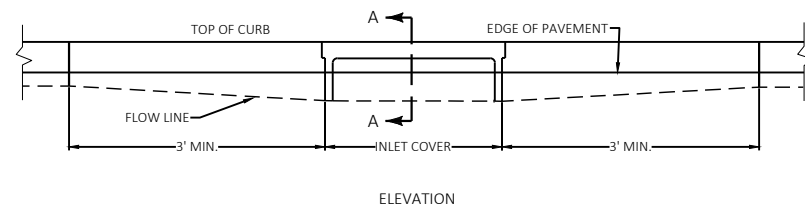
NOTES:
*SLOPE VARIES, SEE CONSTRUCTION DETAILS: SIDEWALK DETAILS
(A) - TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN EXCEPT WHERE BARK/STONE MULCH IS USED (SEE SITE LANDSCAPE PLAN)

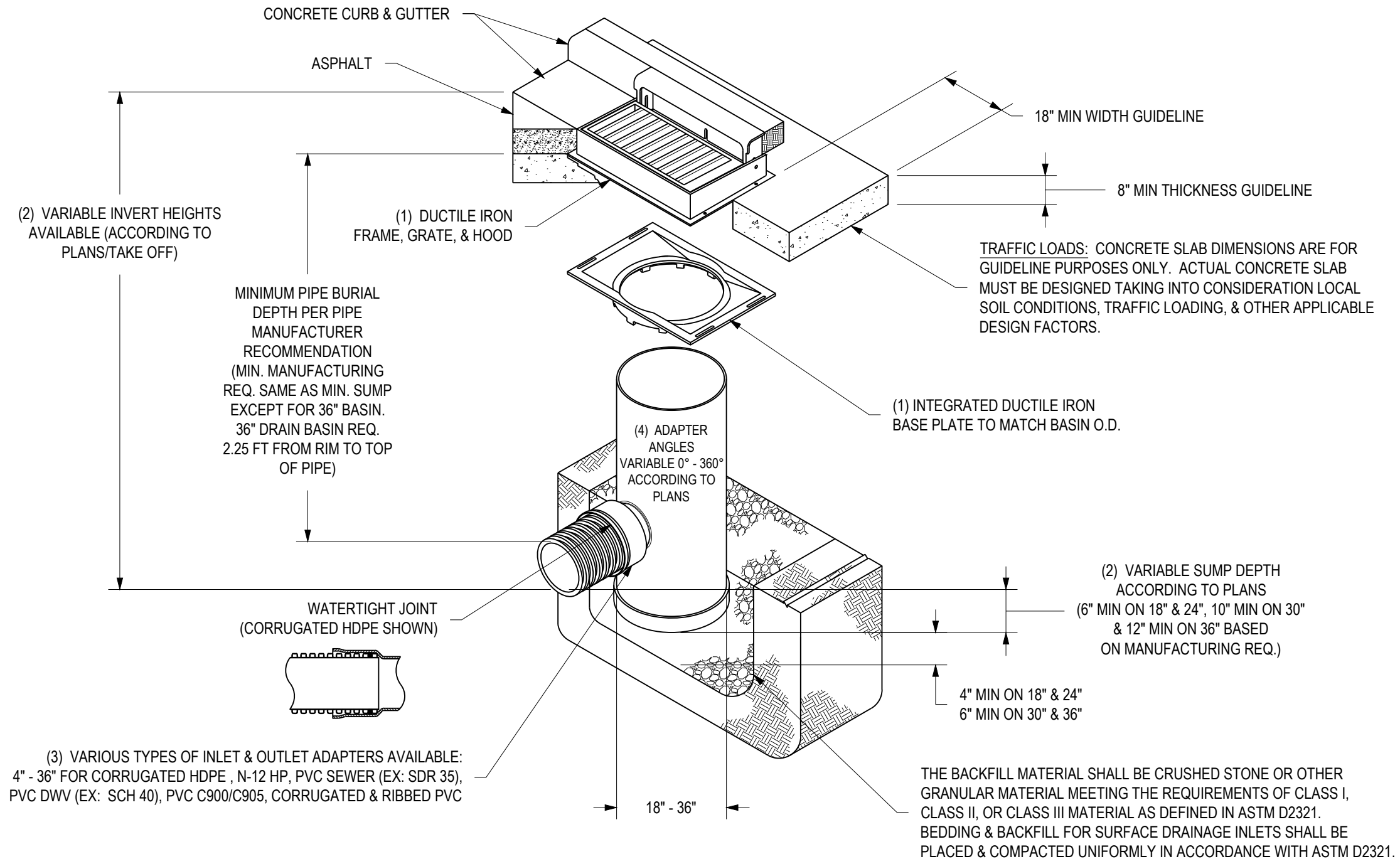


NOTES:
*SLOPE VARIES, SEE CONSTRUCTION DETAILS: SIDEWALK DETAILS
A - TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN
EXCEPT WHERE BARK/STONE MULCH IS USED
(SEE SITE LANDSCAPE PLAN)



CURB AND GUTTER DETAIL AT INLETS





- 1 - 18" - 30" FRAMES, GRATES, HOODS, & BASE PLATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
- 3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE, N-12 HP, & PVC SEWER (4" - 36").
- 4 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°.
- 5 - ALL CURB INLET GRATE OPTIONS (DIAGONAL & HIGH FLOW) SHALL MEET H-20 LOAD RATING

DRAIN BASIN 24-INCH DETAIL

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

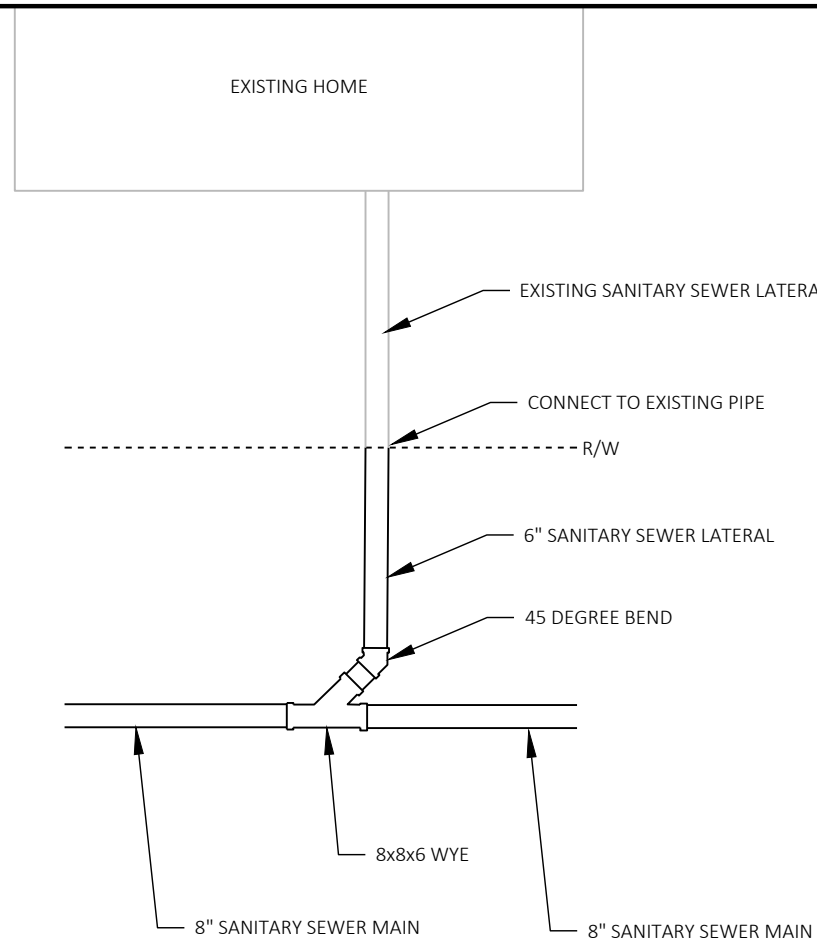
COUNTY: PORTAGE

CONSTRUCTION DETAILS:

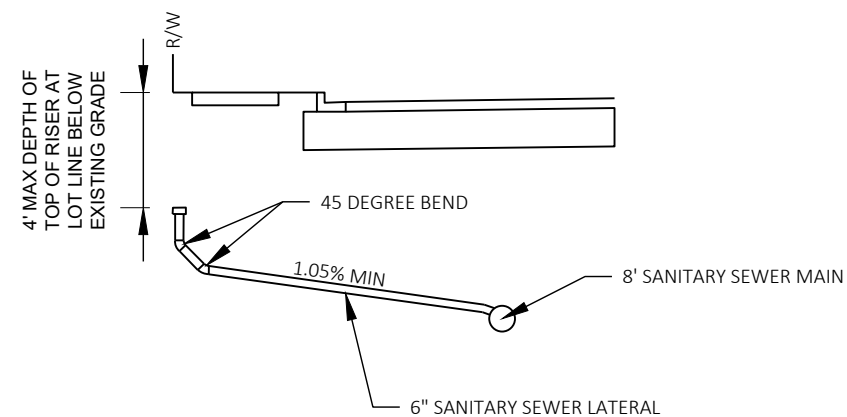
SHEET

16

E



PLAN VIEW



CROSS SECTION VIEW

SANITARY SEWER LATERAL CONNECTION

(INCIDENTAL TO SANITARY LATERAL BID ITEM)

NOTES:

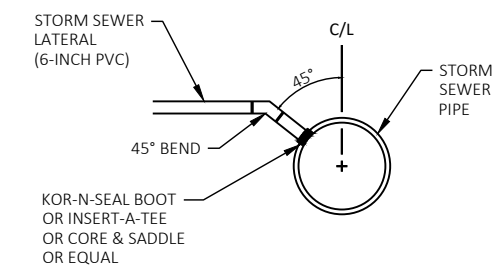
STORM SEWER LATERALS SHALL BE INSTALLED WITH 4-FEET OF DESIRABLE COVER AND 3-FEET OF MINIMUM COVER.

STORM SEWER LATERALS WHEN CONNECTED DIRECTLY TO THE STORM SEWER PIPE SHALL BE AT AN ELEVATION NO LOWER THAN THE SPRING LINE.

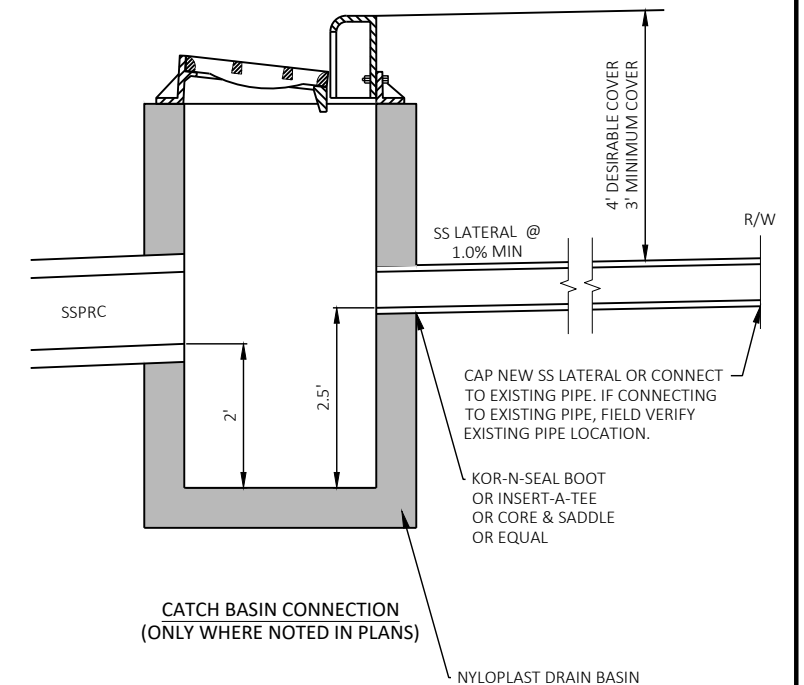
STORM SEWER LATERAL DEPTHS SHALL BE ADJUSTED TO AVOID UTILITY CONFLICTS.

STORM SEWER LATERALS SHALL BE CAPPED AT A POINT BEYOND THE RIGHT-OF-WAY LINE OR SHALL BE CONNECTED TO AN EXISTING PIPE.

STORM SEWER LATERAL LOCATIONS SHALL BE COORDINATED WITH THE CITY OF STEVENS POINT AND SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD.

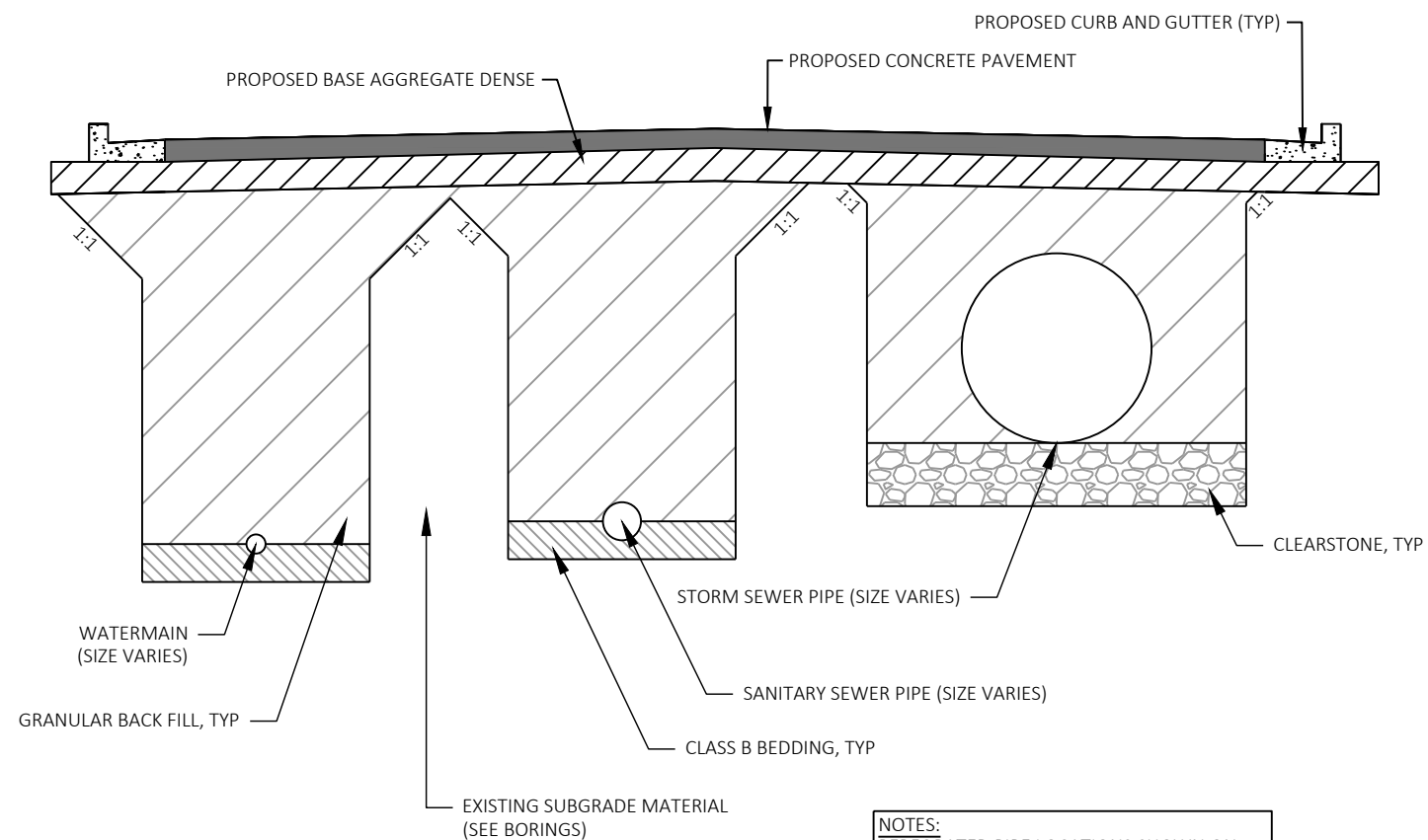


STORM SEWER PIPE CONNECTION

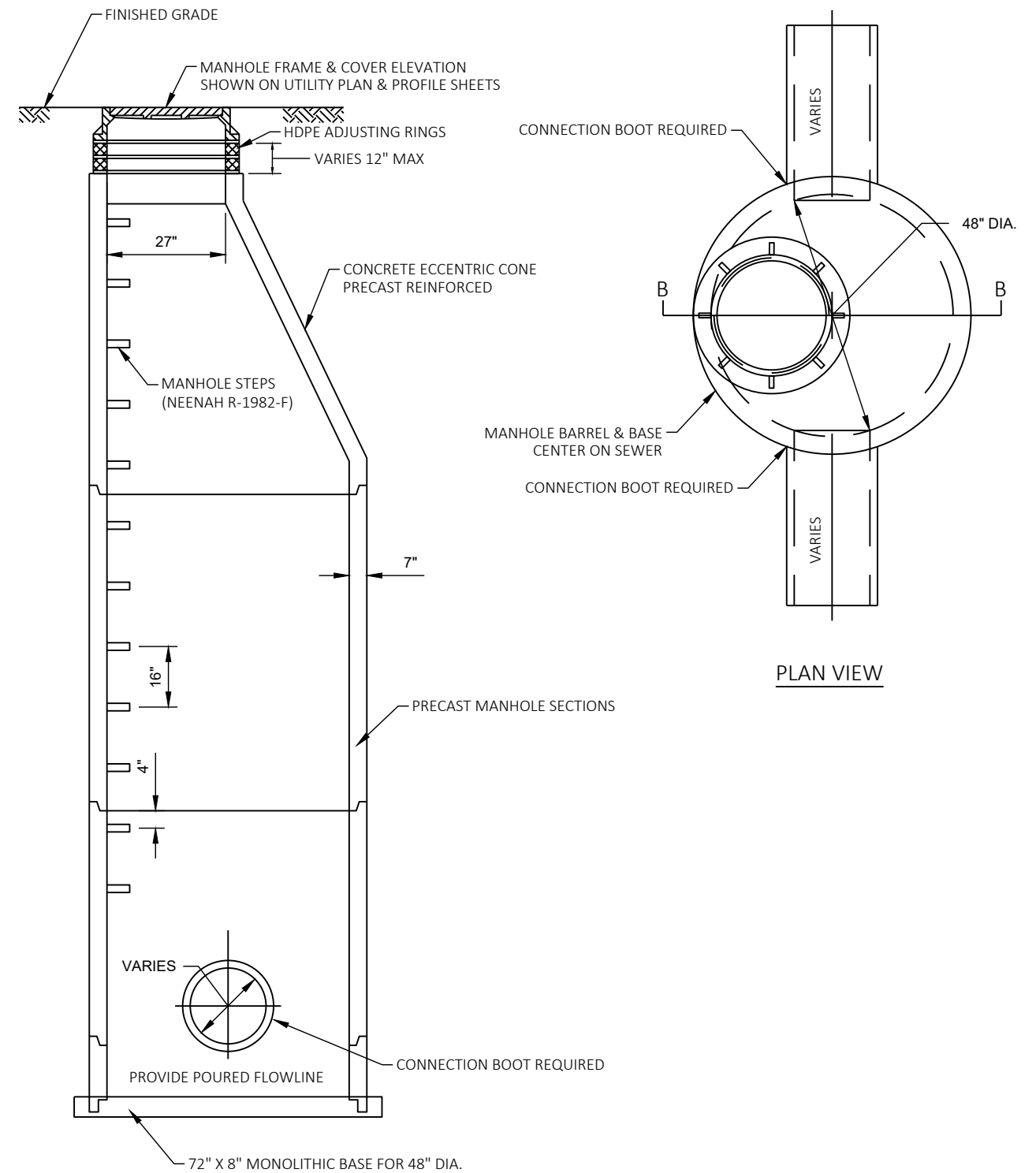
CATCH BASIN CONNECTION
(ONLY WHERE NOTED IN PLANS)

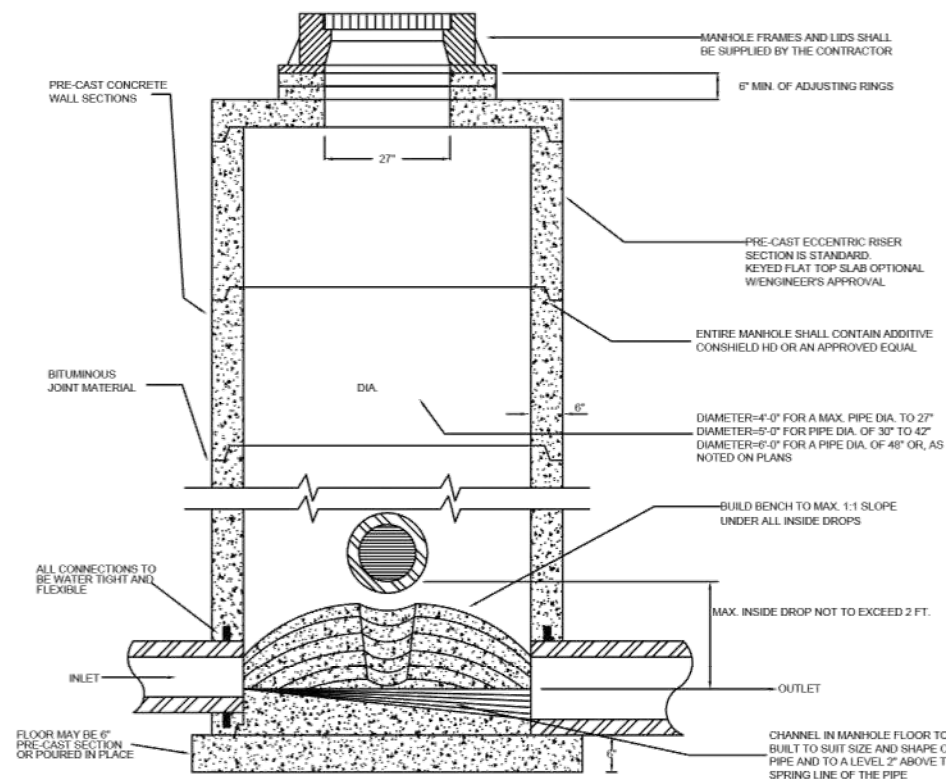
STORM SEWER LATERAL CONNECTION

(INCIDENTAL TO STORM LATERAL BID ITEM)

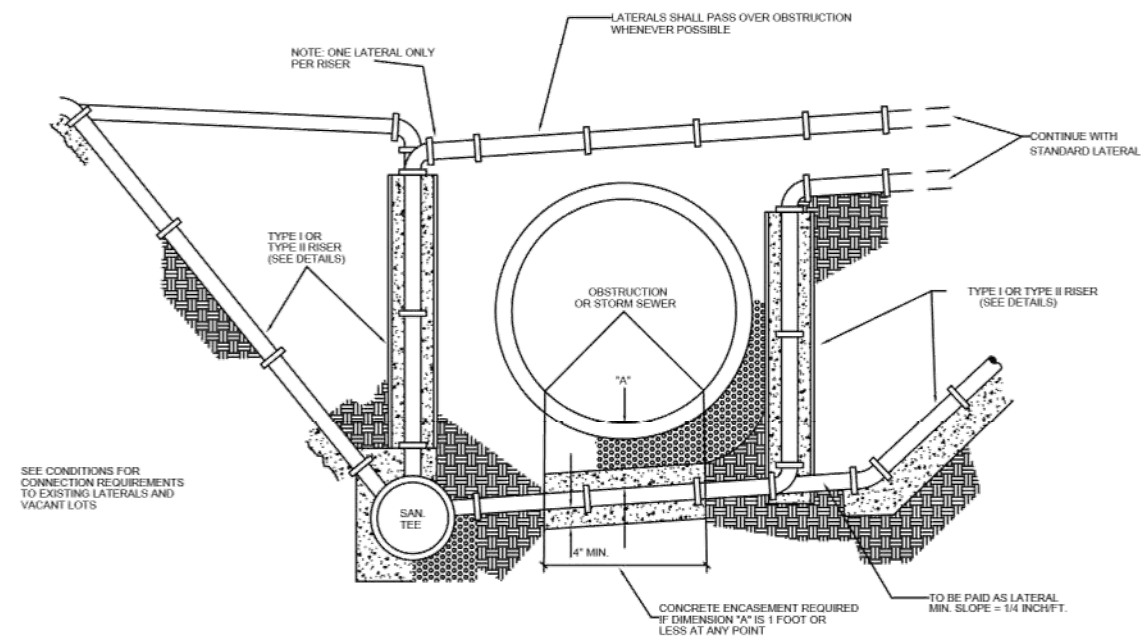


UTILITY BACKFILL DETAIL

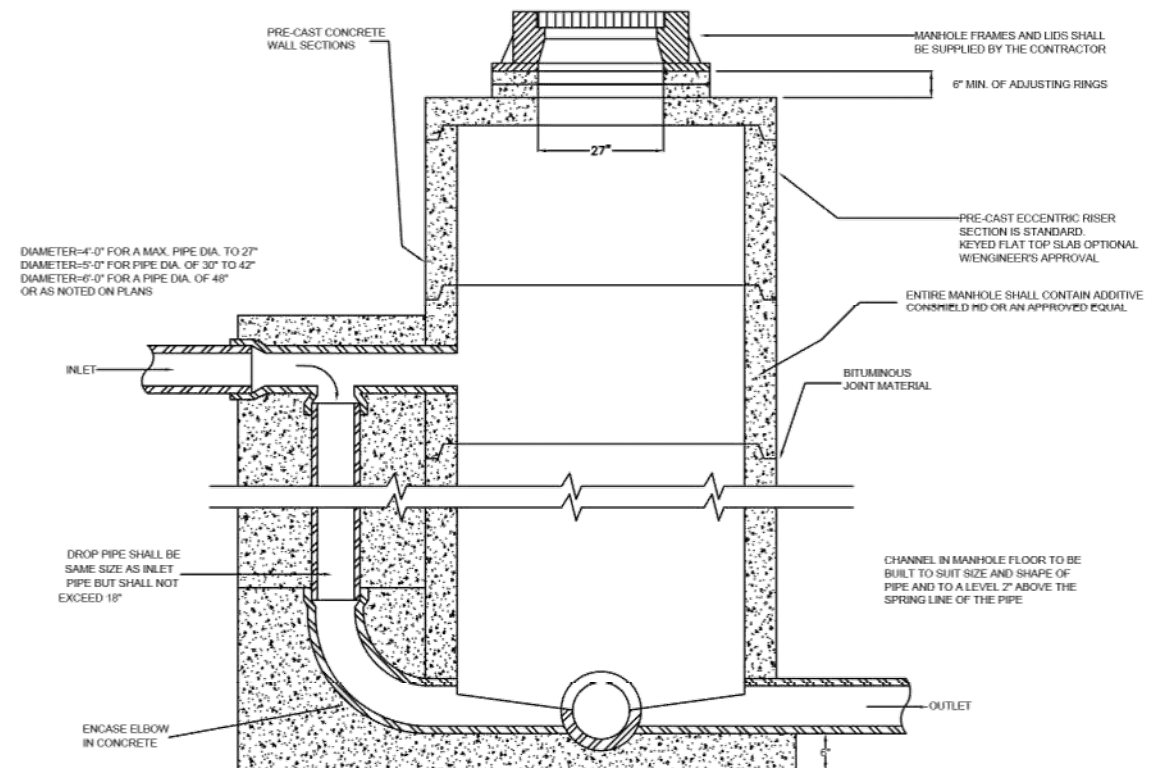




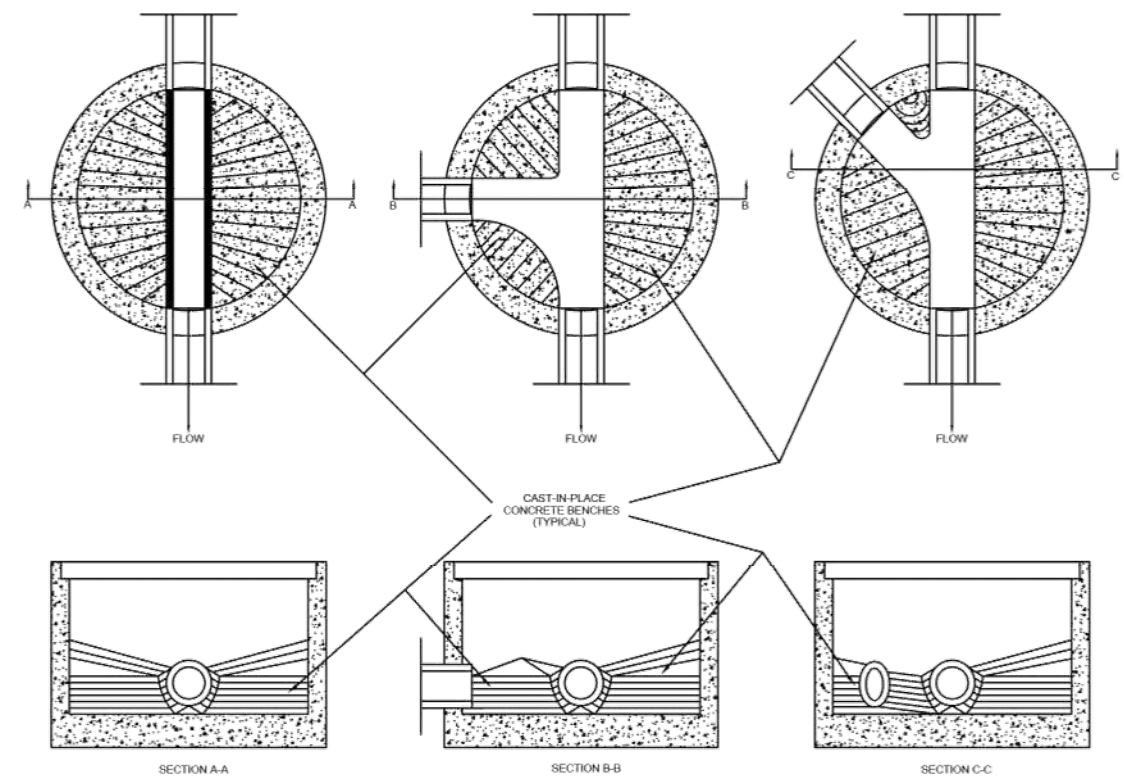
STANDARD SANITARY SEWER MANHOLE



SANITARY SEWER LATERAL DETAILS

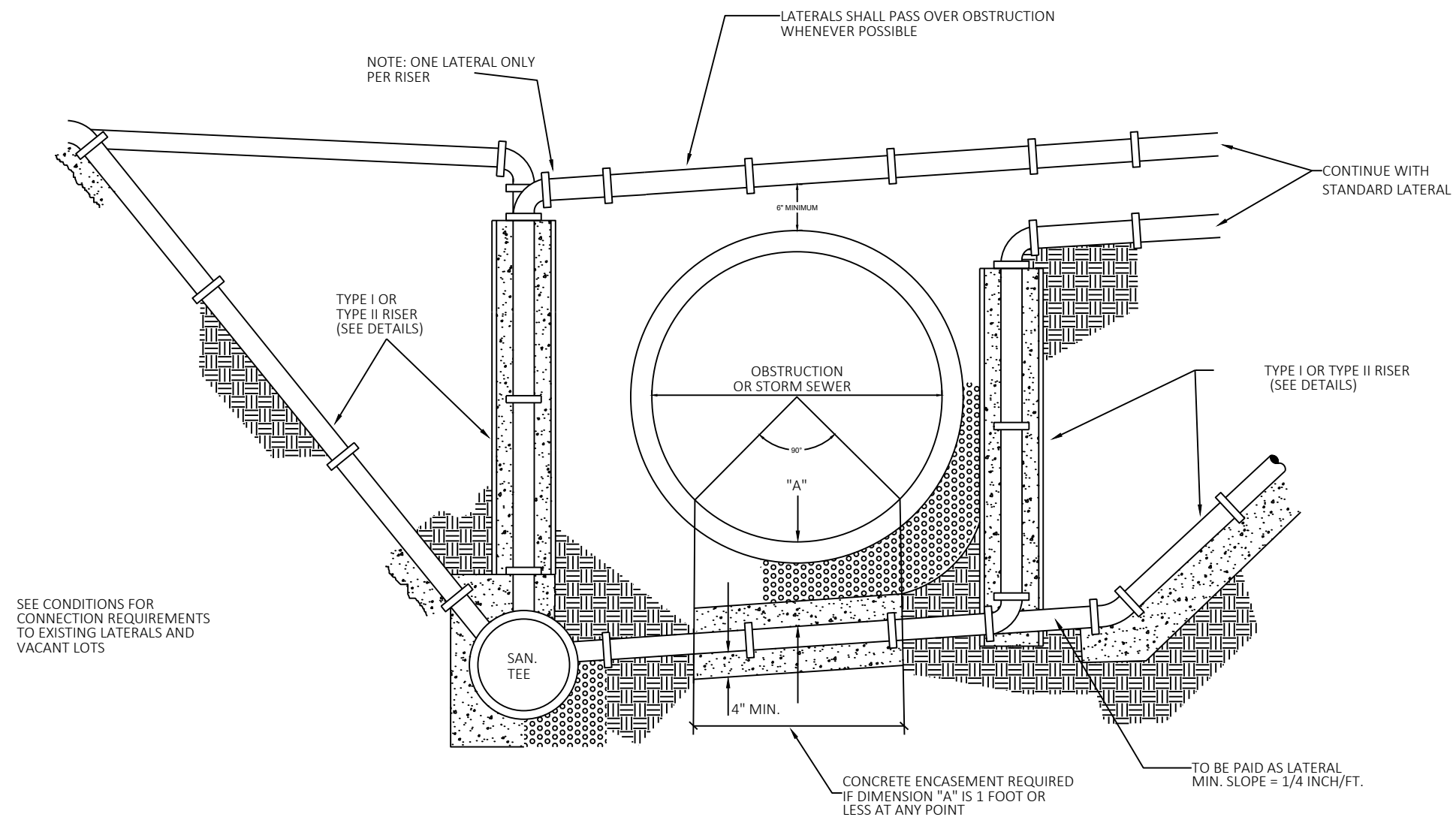


STANDARD SANITARY DROP MANHOLE



TYPICAL SANITARY MANHOLE BENCHES

SANITARY SEWER LATERAL DETAILS



A4

I:\DETAILS\SAN_LATS

M. FISHER

VARIES

MIN 3.0'

MAX 2.5'

MIN 1.0'

HYDRANT

TRAFFIC FLANGE

FINISHED GRADE

30"

CURB & GUTTER

STANDPIPE

2"

GATE VALVE BOX

8.0' BURY

MINIMUM 2 LAYERS GEOTEXTILE OR POLYETHYLENE

6" GATE VALVE

TEE

WATERMAIN SIZE VARIES

1'

CONCRETE BLOCK

CRUSHED ROCK

3/4" GALV TIE RODS (MEGA-LUGS ARE ALLOWED)

A cross-sectional diagram of a gate valve adaptor assembly. The assembly consists of a vertical pipe with a flange at the top, labeled "EXTENSIONS AS NEEDED". This pipe is connected to a "GATE VALVE ADAPTOR" which is mounted on a "#6 VALVE BOX BASE". The adaptor is shown in cross-section, revealing internal components. The entire assembly is mounted on a concrete base, which is shown in cross-section with a width of "12\"". The base is also labeled "ASSEMBLED VALVE BOX". The height of the base is indicated as "18\"".

EXTEND TO ROW LINE
UNLESS NOTED OTHERWISE ON PLANS

PROPERTY LINE

STREET

EXTEND CURB BOX TO GRADE

L

$L/2$

CURB BOX
8' BURY DEPTH

MINIMUM
7.5' COVER

60°

WATERMAIN (LOC. VARIES)

CORPORATION STOP

POLYETHYLENE SDR9 WATER SERVICE WITH GOOSENECK TO PROVIDE FOR SETTLEMENT

TRACER WIRE

COMPRESSION JOINT COUPLING

CURB STOP

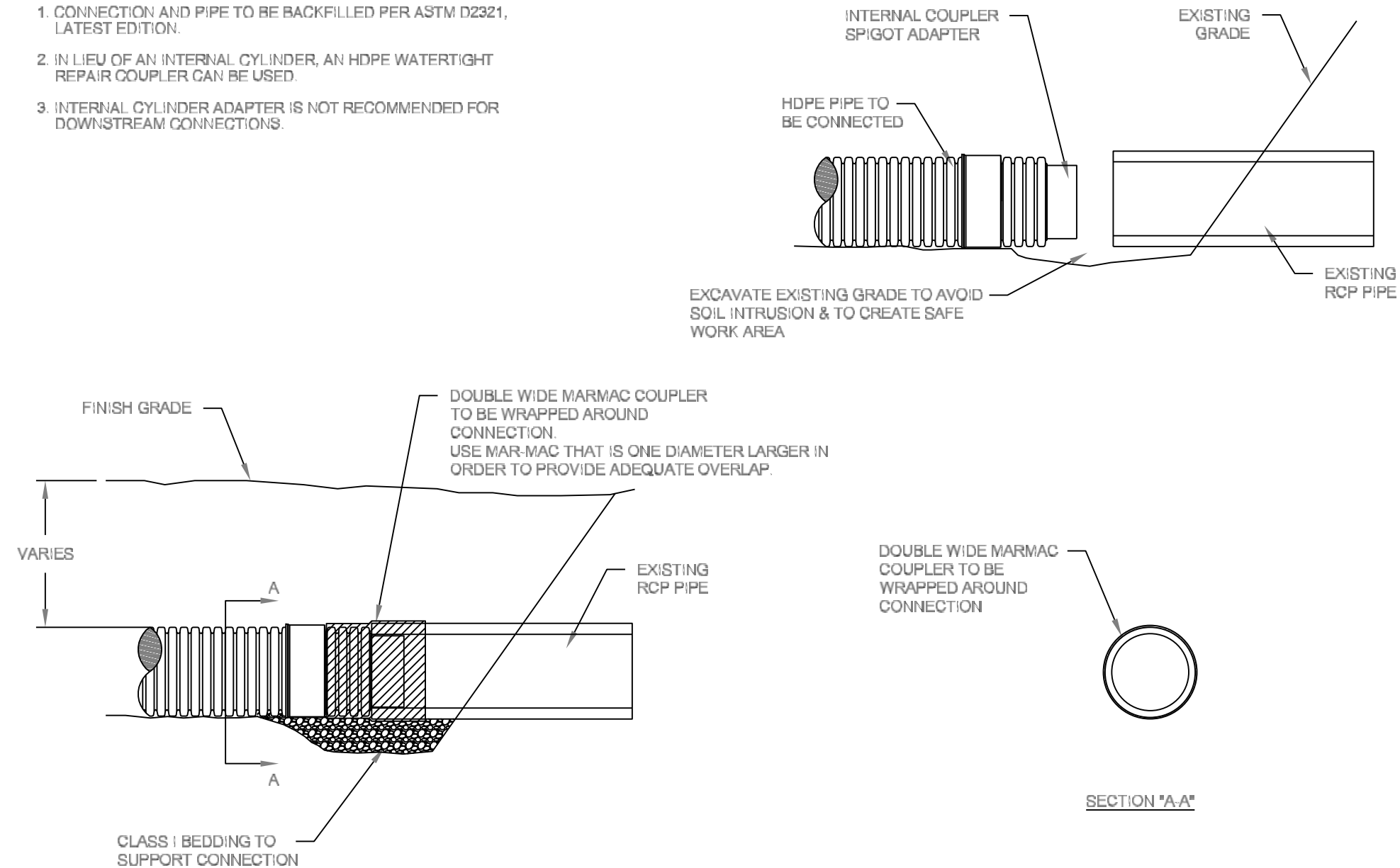
PRECAST MANHOLE BLOCK

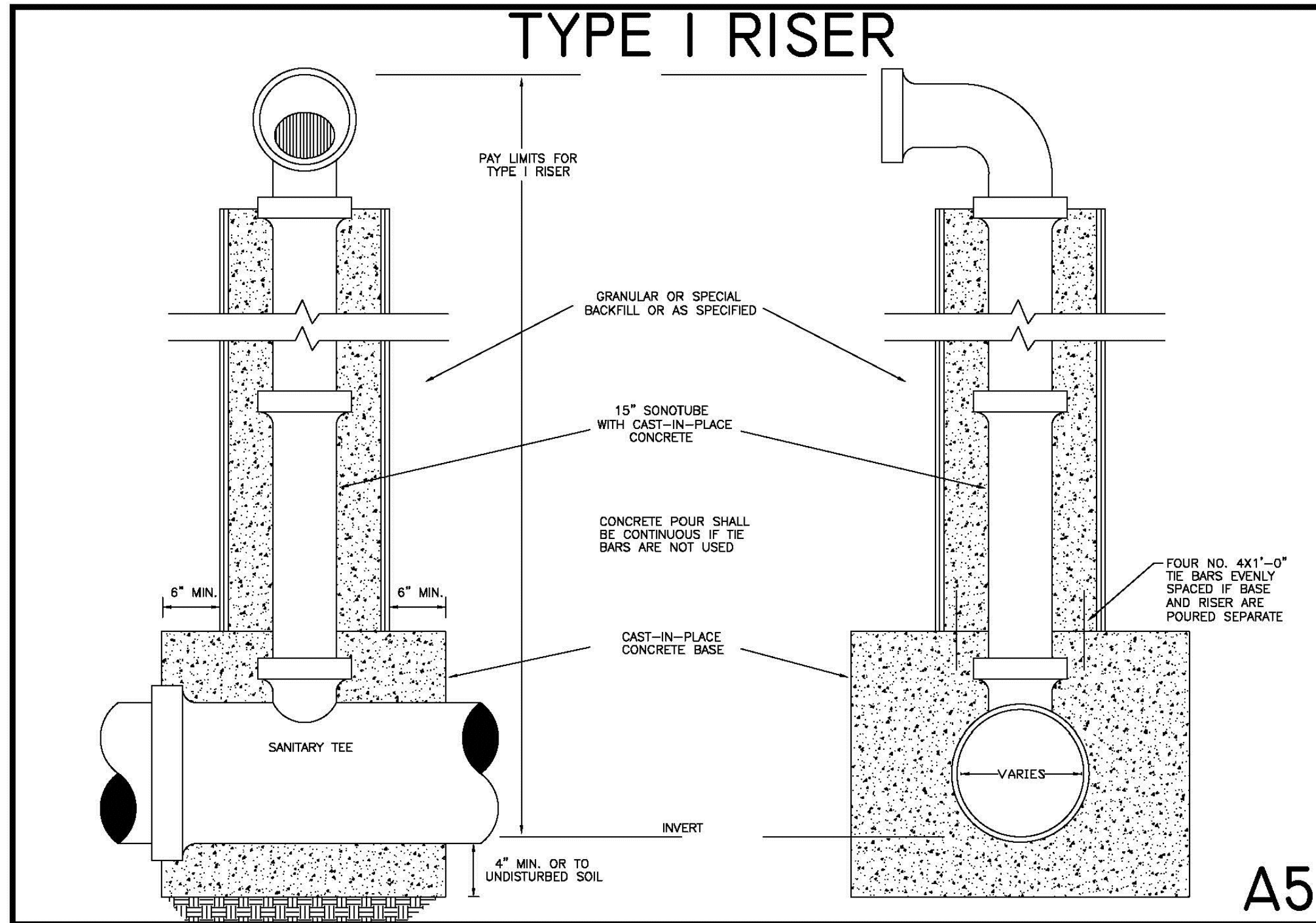
CRUSHED ROCK

WATER MAIN PIPE INSULATION

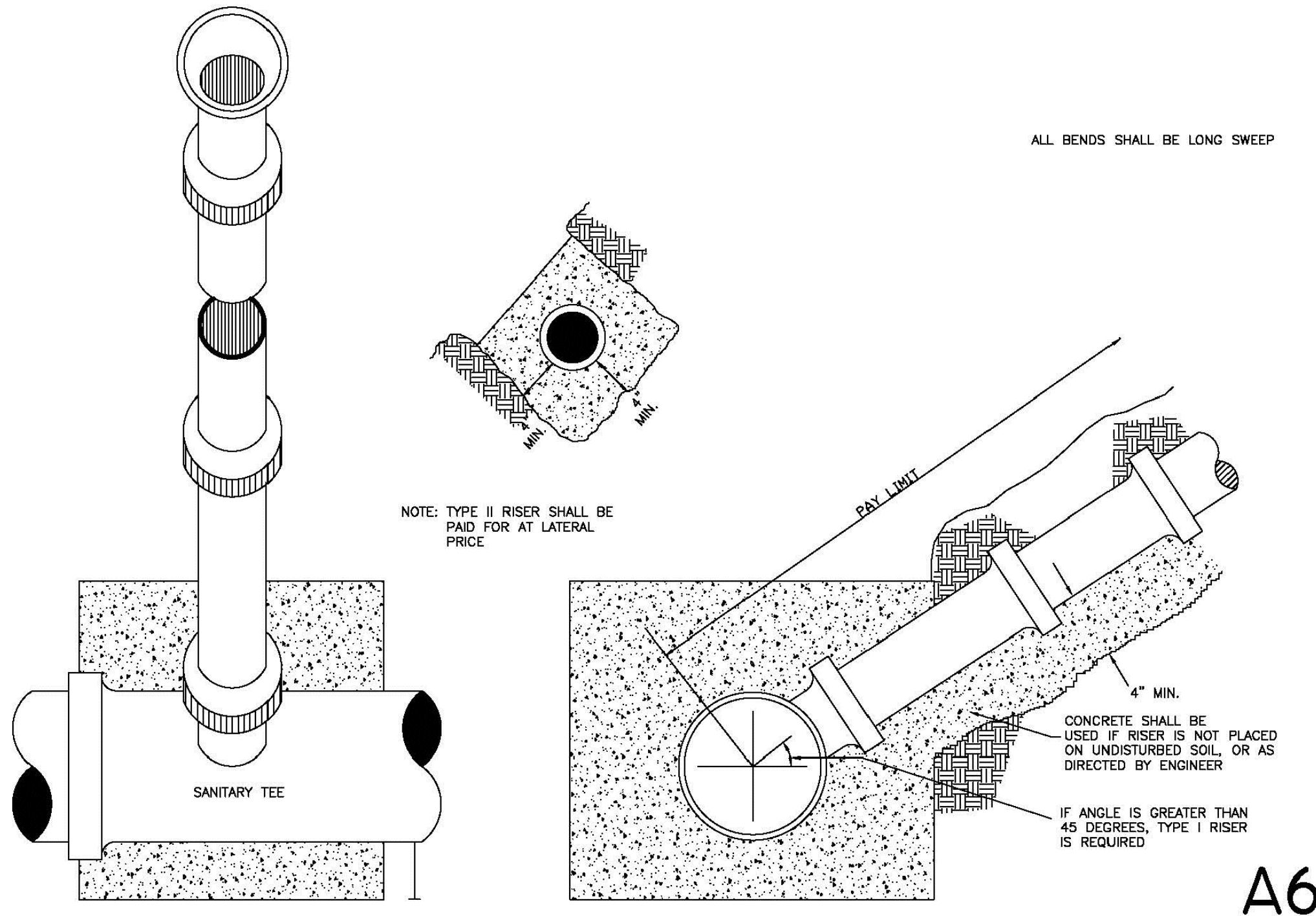
NOTES:

1. CONNECTION AND PIPE TO BE BACKFILLED PER ASTM D2321, LATEST EDITION.
2. IN LIEU OF AN INTERNAL CYLINDER, AN HDPE WATERTIGHT REPAIR COUPLER CAN BE USED.
3. INTERNAL CYLINDER ADAPTER IS NOT RECOMMENDED FOR DOWNSTREAM CONNECTIONS.

**HDPE TO CONCRETE PIPE ADAPTER DETAIL**



TYPE II RISER



Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

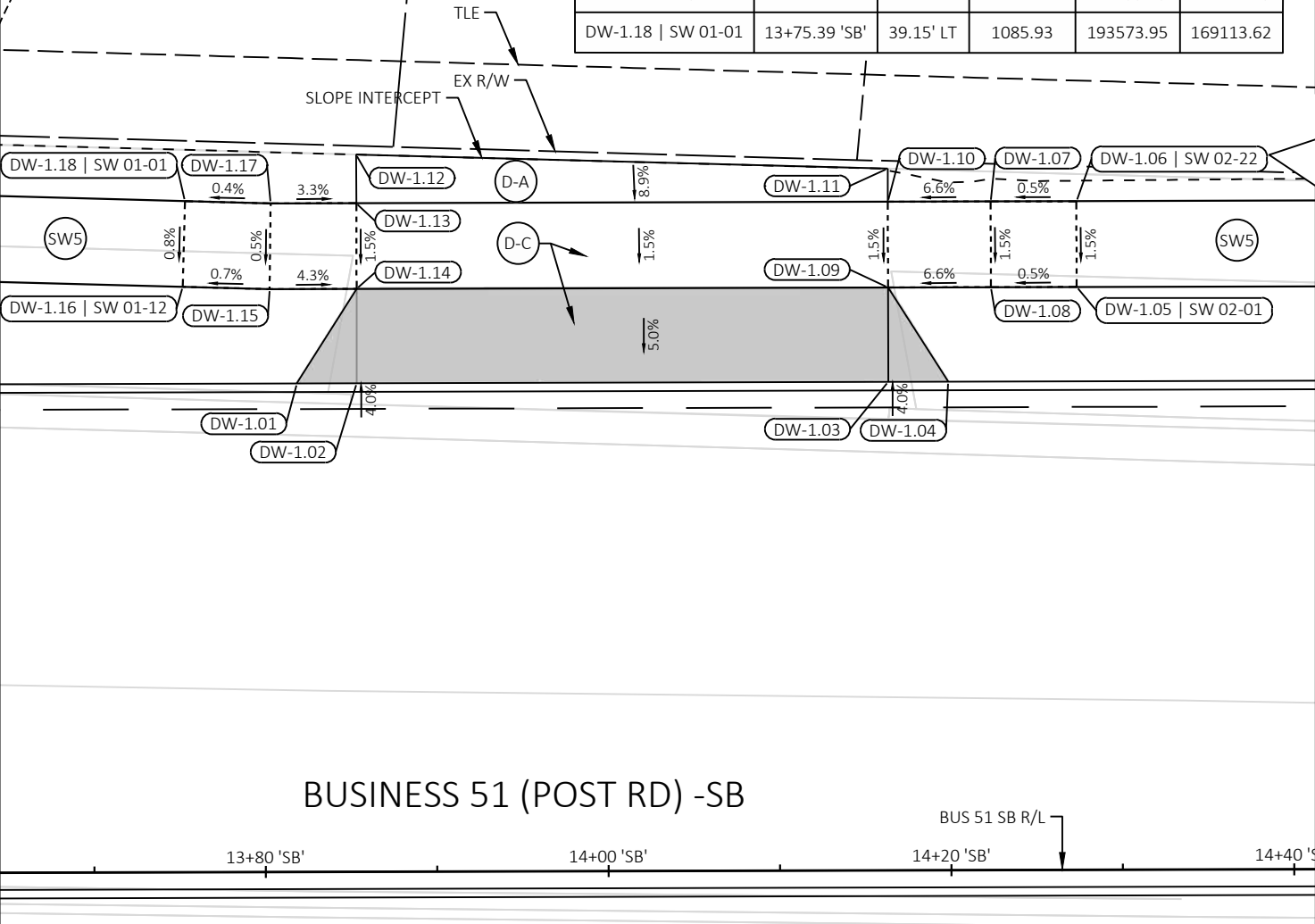
D-G

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

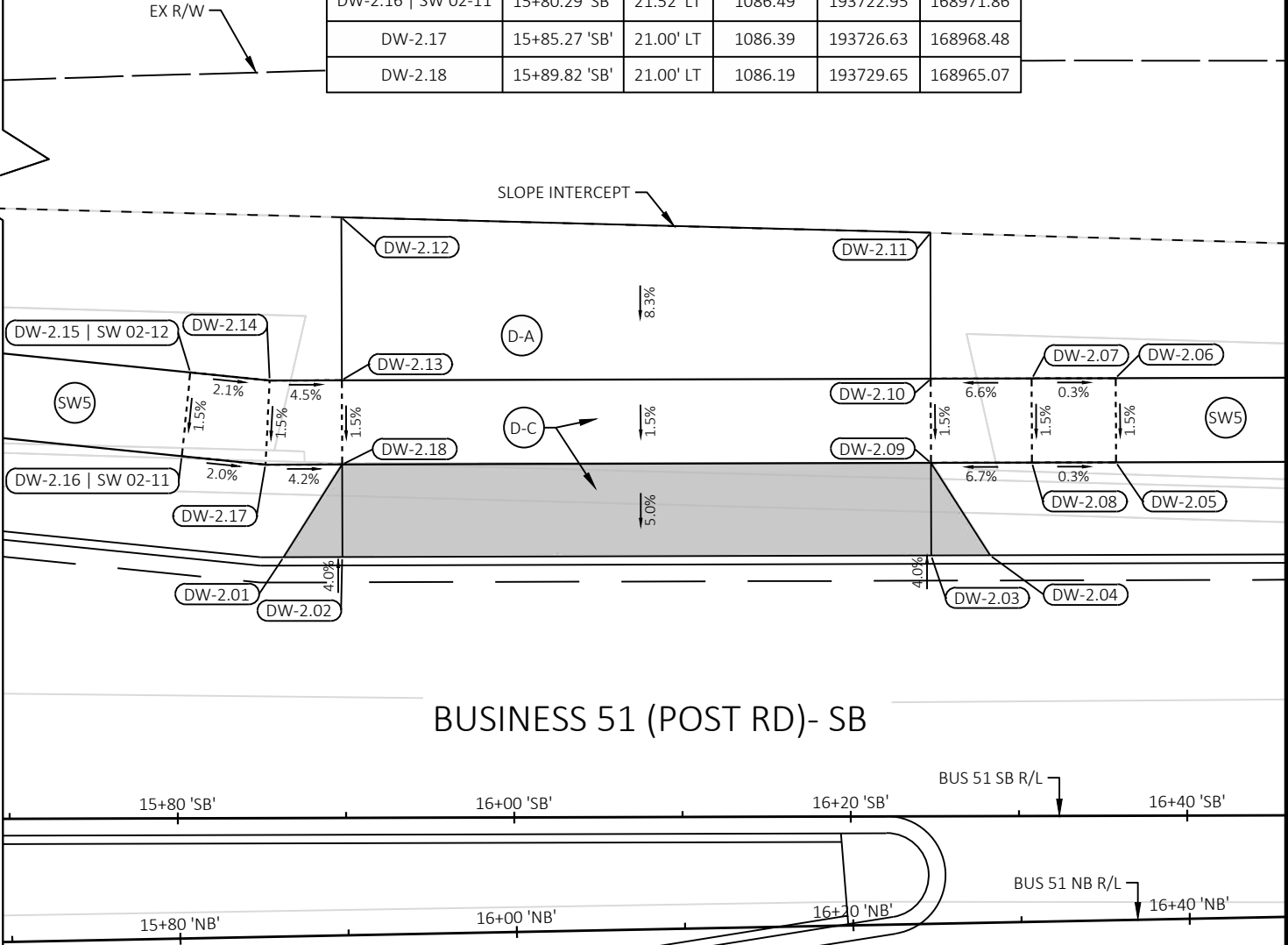
PED

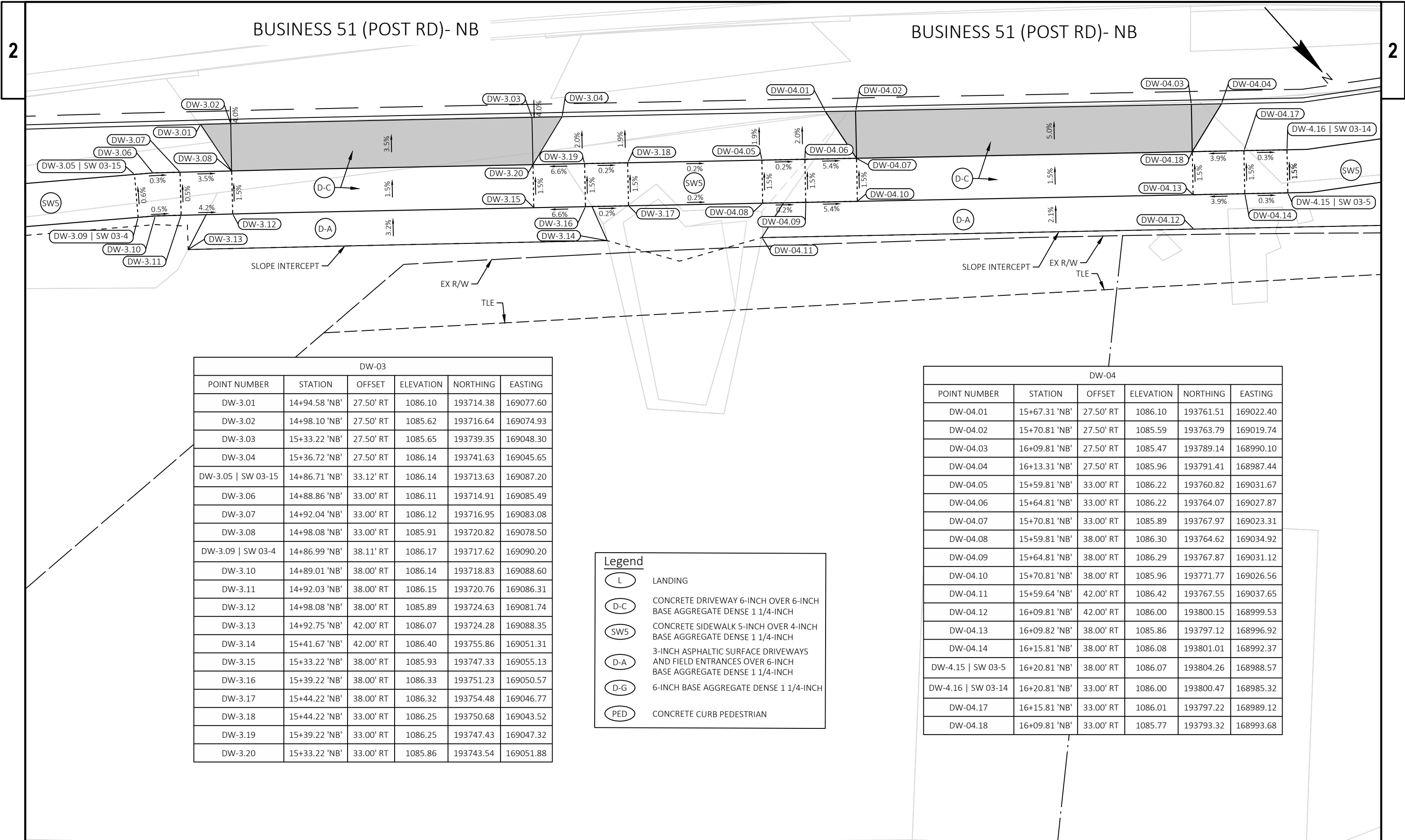
CONCRETE CURB PEDESTRIAN

DW-01					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-1.01	13+81.89 'SB'	28.50' LT	1085.89	193586.23	169115.81
DW-1.02	13+85.39 'SB'	28.50' LT	1085.41	193588.55	169113.19
DW-1.03	14+16.39 'SB'	28.50' LT	1085.62	193609.09	169089.98
DW-1.04	14+19.89 'SB'	28.50' LT	1086.14	193611.41	169087.35
DW-1.05 SW 02-01	14+27.39 'SB'	34.00' LT	1086.34	193612.27	169078.09
DW-1.06 SW 02-22	14+27.39 'SB'	38.99' LT	1086.41	193608.53	169074.79
DW-1.07	14+22.39 'SB'	38.98' LT	1086.39	193605.22	169078.54
DW-1.08	14+22.39 'SB'	34.00' LT	1086.31	193608.95	169081.84
DW-1.09	14+16.39 'SB'	34.00' LT	1085.92	193604.98	169086.33
DW-1.10	14+16.39 'SB'	39.00' LT	1085.99	193601.23	169083.02
DW-1.11	14+16.39 'SB'	40.93' LT	1086.28	193599.79	169081.74
DW-1.12	13+85.38 'SB'	41.84' LT	1085.97	193578.55	169104.36
DW-1.13	13+85.38 'SB'	39.00' LT	1085.79	193580.68	169106.24
DW-1.14	13+85.39 'SB'	34.00' LT	1085.71	193584.43	169109.54
DW-1.15	13+80.31 'SB'	34.00' LT	1085.93	193581.07	169113.34
DW-1.16 SW 01-12	13+75.24 'SB'	34.15' LT	1085.89	193577.59	169117.04
DW-1.17	13+80.39 'SB'	39.00' LT	1085.95	193577.37	169109.97
DW-1.18 SW 01-01	13+75.39 'SB'	39.15' LT	1085.93	193573.95	169113.62



DW-02					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-2.01	15+86.32 'SB'	15.50' LT	1086.41	193731.45	168971.34
DW-2.02	15+89.82 'SB'	15.50' LT	1085.89	193733.77	168968.72
DW-2.03	16+24.82 'SB'	15.50' LT	1085.66	193756.97	168942.51
DW-2.04	16+28.32 'SB'	15.50' LT	1086.15	193759.29	168939.89
DW-2.05	16+35.82 'SB'	21.00' LT	1086.35	193760.14	168930.63
DW-2.06	16+35.82 'SB'	26.00' LT	1086.42	193756.39	168927.31
DW-2.07	16+30.83 'SB'	26.00' LT	1086.44	193753.09	168931.05
DW-2.08	16+30.82 'SB'	21.00' LT	1086.36	193756.82	168934.37
DW-2.09	16+24.82 'SB'	21.00' LT	1085.96	193752.85	168938.86
DW-2.10	16+24.82 'SB'	26.00' LT	1086.04	193749.10	168935.55
DW-2.11	16+24.83 'SB'	34.67' LT	1087.09	193742.62	168929.80
DW-2.12	15+89.81 'SB'	35.69' LT	1086.95	193718.65	168955.35
DW-2.13	15+89.82 'SB'	26.00' LT	1086.27	193725.91	168961.76
DW-2.14	15+85.53 'SB'	26.00' LT	1086.46	193723.06	168964.97
DW-2.15 SW 02-12	15+80.81 'SB'	26.49' LT	1086.56	193719.57	168968.18
DW-2.16 SW 02-11	15+80.29 'SB'	21.52' LT	1086.49	193722.95	168971.86
DW-2.17	15+85.27 'SB'	21.00' LT	1086.39	193726.63	168968.48
DW-2.18	15+89.82 'SB'	21.00' LT	1086.19	193729.65	168965.07





DW-03					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-3.01	14+94.58 'NB'	27.50' RT	1086.10	193714.38	169077.60
DW-3.02	14+98.10 'NB'	27.50' RT	1085.62	193716.64	169074.93
DW-3.03	15+33.22 'NB'	27.50' RT	1085.65	193739.35	169048.30
DW-3.04	15+36.72 'NB'	27.50' RT	1086.14	193741.63	169045.65
DW-3.05 SW 03-15	14+86.71 'NB'	33.12' RT	1086.14	193713.63	169087.20
DW-3.06	14+88.86 'NB'	33.00' RT	1086.11	193714.91	169085.49
DW-3.07	14+92.04 'NB'	33.00' RT	1086.12	193716.95	169083.08
DW-3.08	14+98.08 'NB'	33.00' RT	1085.91	193720.82	169078.50
DW-3.09 SW 03-4	14+86.99 'NB'	38.11' RT	1086.17	193717.62	169090.20
DW-3.10	14+89.01 'NB'	38.00' RT	1086.14	193718.83	169088.60
DW-3.11	14+92.03 'NB'	38.00' RT	1086.15	193720.76	169086.31
DW-3.12	14+98.08 'NB'	38.00' RT	1085.89	193724.63	169081.74
DW-3.13	14+92.75 'NB'	42.00' RT	1086.07	193724.28	169088.35
DW-3.14	15+41.67 'NB'	42.00' RT	1086.40	193755.86	169051.31
DW-3.15	15+33.22 'NB'	38.00' RT	1085.93	193747.33	169055.13
DW-3.16	15+39.22 'NB'	38.00' RT	1086.33	193751.23	169050.57
DW-3.17	15+44.22 'NB'	38.00' RT	1086.32	193754.48	169046.77
DW-3.18	15+44.22 'NB'	33.00' RT	1086.25	193750.68	169043.52
DW-3.19	15+39.22 'NB'	33.00' RT	1086.25	193747.43	169047.32
DW-3.20	15+33.22 'NB'	33.00' RT	1085.86	193743.54	169051.88

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-G

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

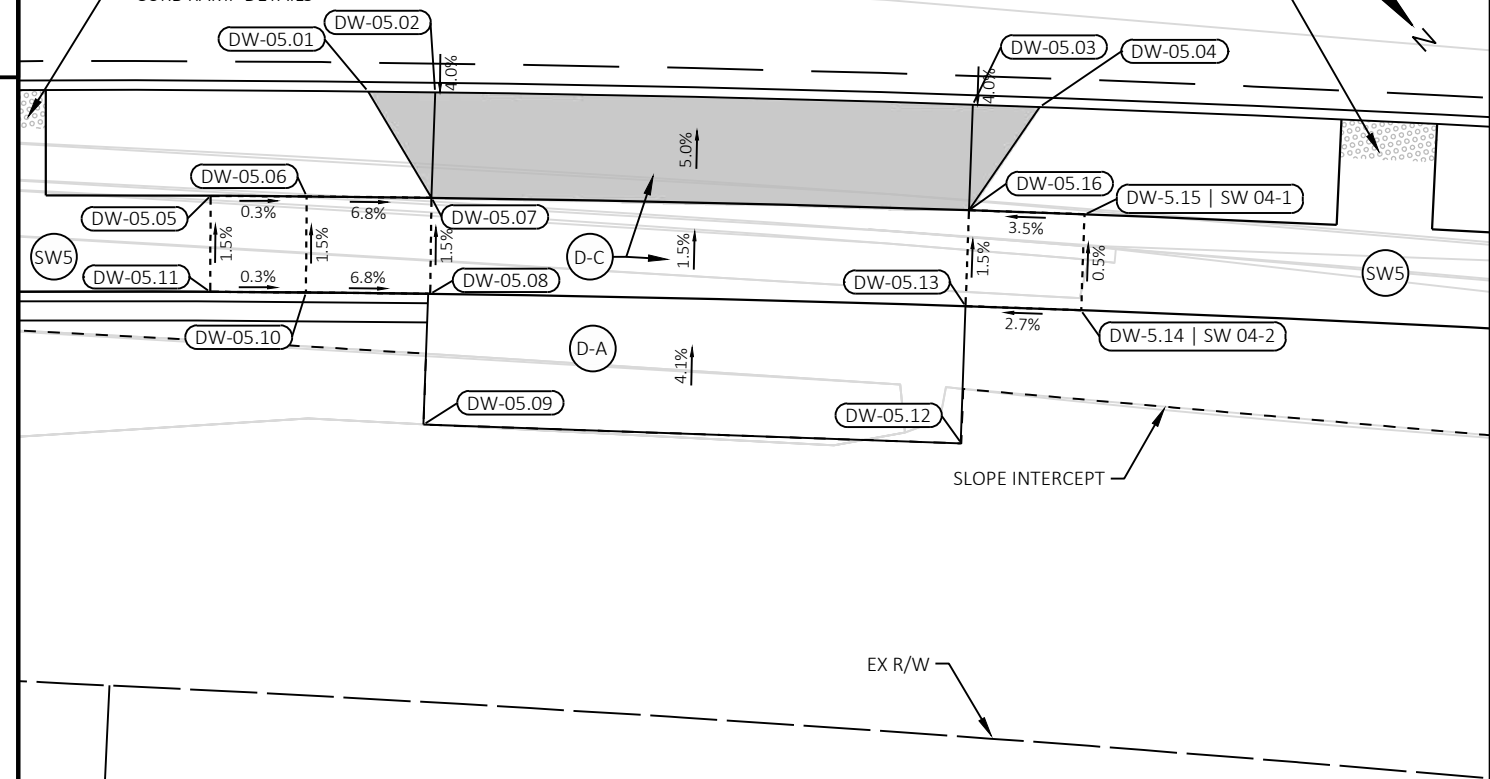
PED

CONCRETE CURB PEDESTRIAN

DW-04					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-04.01	15+67.31 'NB'	27.50' RT	1086.10	193761.51	169022.40
DW-04.02	15+70.81 'NB'	27.50' RT	1085.59	193763.79	169019.74
DW-04.03	16+09.81 'NB'	27.50' RT	1085.47	193789.14	168990.10
DW-04.04	16+13.31 'NB'	27.50' RT	1085.96	193791.41	168987.44
DW-04.05	15+59.81 'NB'	33.00' RT	1086.22	193760.82	169031.67
DW-04.06	15+64.81 'NB'	33.00' RT	1086.22	193764.07	169027.87
DW-04.07	15+70.81 'NB'	33.00' RT	1085.89	193767.97	169023.31
DW-04.08	15+59.81 'NB'	38.00' RT	1086.30	193764.62	169034.92
DW-04.09	15+64.81 'NB'	38.00' RT	1086.29	193767.87	169031.12
DW-04.10	15+70.81 'NB'	38.00' RT	1085.96	193771.77	169026.56
DW-04.11	15+59.64 'NB'	42.00' RT	1086.42	193767.55	169037.65
DW-04.12	16+09.81 'NB'	42.00' RT	1086.00	193800.15	168999.53
DW-04.13	16+09.82 'NB'	38.00' RT	1085.86	193797.12	168996.92
DW-04.14	16+15.81 'NB'	38.00' RT	1086.08	193801.01	168992.37
DW-4.15 SW 03-5	16+20.81 'NB'	38.00' RT	1086.07	193804.26	168988.57
DW-4.16 SW 03-14	16+20.81 'NB'	33.00' RT	1086.00	193800.47	168985.32
DW-04.17	16+15.81 'NB'	33.00' RT	1086.01	193797.22	168989.12
DW-04.18	16+09.81 'NB'	33.00' RT	1085.77	193793.32	168993.68

BUSINESS 51

REFER TO CURB RAMP SHEETS FOR CURB RAMP DETAILS

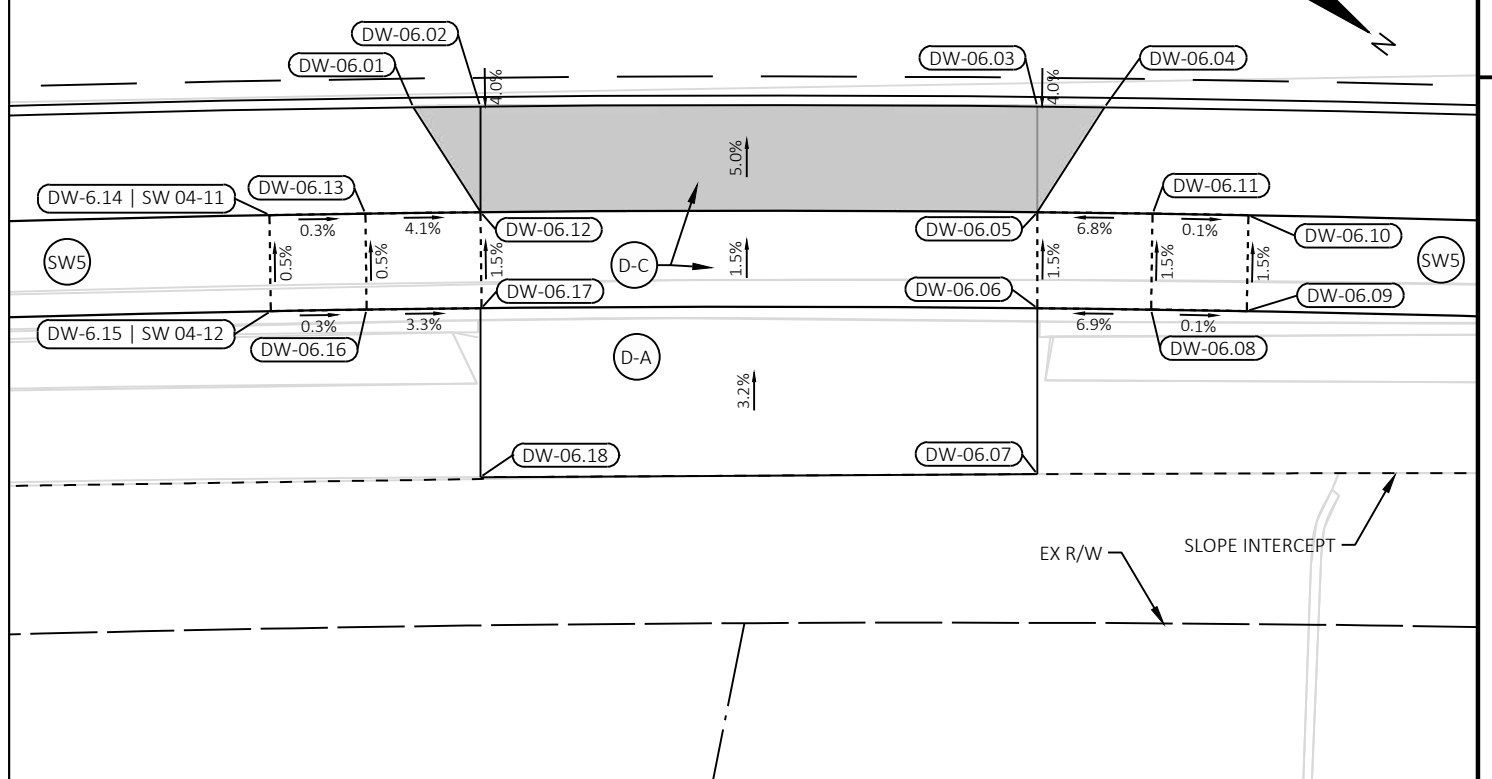


DW-05					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-05.01	17+39.88	21.50' RT	1085.82	193864.64	168884.39
DW-05.02	17+43.43	21.50' RT	1085.33	193867.00	168881.80
DW-05.03	17+71.85	21.50' RT	1085.23	193886.09	168861.32
DW-05.04	17+75.41	21.50' RT	1085.72	193888.51	168858.78
DW-05.05	17+31.59	27.00' RT	1086.07	193863.25	168894.12
DW-05.06	17+36.68	27.00' RT	1086.05	193866.60	168890.41
DW-05.07	17+43.31	27.00' RT	1085.61	193870.98	168885.60
DW-05.08	17+43.31	32.00' RT	1085.69	193874.67	168888.97
DW-05.09	17+43.04	38.82' RT	0.00	193879.52	168893.76
DW-05.10	17+36.69	32.00' RT	1086.13	193870.31	168893.76
DW-05.11	17+31.59	32.00' RT	1086.14	193866.97	168897.46
DW-05.12	17+71.84	39.15' RT	1085.84	193898.88	168873.49
DW-05.13	17+71.83	32.00' RT	1085.60	193893.69	168868.57
DW-5.14 SW 04-2	17+77.98	32.00' RT	1085.76	193897.84	168864.22
DW-5.15 SW 04-1	17+77.98	27.02' RT	1085.74	193894.24	168860.77
DW-05.16	17+71.84	27.00' RT	1085.53	193890.07	168865.11

Legend

- (L) LANDING
- (D-C) CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (SW5) CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (D-A) 3-INCH ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (D-G) 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (PED) CONCRETE CURB PEDESTRIAN

BUSINESS 51



DW-06					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-06.01	20+03.47	21.50' RT	1085.68	194055.83	168709.17
DW-06.02	20+07.03	21.50' RT	1085.18	194058.61	168707.05
DW-06.03	20+36.46	21.50' RT	1085.10	194081.90	168689.77
DW-06.04	20+40.02	21.50' RT	1085.58	194084.74	168687.72
DW-06.05	20+36.52	27.00' RT	1085.39	194085.18	168694.19
DW-06.06	20+36.57	32.00' RT	1085.47	194088.16	168698.20
DW-06.07	20+36.66	40.64' RT	1085.84	194093.31	168705.14
DW-06.08	20+42.63	32.00' RT	1085.87	194092.96	168694.73
DW-06.09	20+47.73	32.00' RT	1085.87	194097.01	168691.83
DW-06.10	20+47.73	27.00' RT	1085.79	194094.10	168687.76
DW-06.11	20+42.63	27.00' RT	1085.80	194090.04	168690.67
DW-06.12	20+06.97	27.00' RT	1085.47	194061.89	168711.47
DW-06.13	20+00.87	27.00' RT	1085.72	194057.12	168715.10
DW-6.14 SW 04-11	19+95.77	27.00' RT	1085.73	194053.16	168718.14
DW-6.15 SW 04-12	19+95.75	32.00' RT	1085.76	194056.19	168722.11
DW-06.16	20+00.86	32.00' RT	1085.74	194060.15	168719.07
DW-06.17	20+06.97	32.00' RT	1085.55	194064.91	168715.45
DW-06.18	20+06.83	40.80' RT	1085.78	194070.11	168722.55

DW-07					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-07.01	19+45.94	21.50' LT	1085.84	193984.04	168711.25
DW-07.02	19+49.39	21.50' LT	1085.34	193986.74	168709.02
DW-07.03	19+78.95	21.50' LT	1085.26	194010.10	168690.21
DW-07.04	19+82.40	21.50' LT	1085.75	194012.85	168688.04
DW-07.05	19+38.19	27.00' LT	1086.06	193974.46	168712.06
DW-07.06	19+43.08	27.00' LT	1086.06	193978.29	168708.87
DW-07.07	19+49.45	27.00' LT	1085.63	193983.29	168704.74
DW-07.08	19+38.19	32.00' LT	1086.14	193971.25	168708.22
DW-07.09	19+43.09	32.00' LT	1086.13	193975.11	168705.02
DW-07.10	19+49.50	32.00' LT	1085.70	193980.15	168700.85
DW-07.11	19+49.77	60.62' LT	1087.15	193962.20	168678.55
DW-07.12	19+78.63	54.80' LT	1087.16	193989.21	168664.27
DW-07.13	19+78.85	32.00' LT	1085.63	194003.52	168682.03
DW-07.14	19+84.79	32.00' LT	1086.03	194008.29	168678.28
DW-07.15	19+92.13	32.00' LT	1086.01	194014.21	168673.67
DW-07.16	19+92.13	27.00' LT	1085.94	194017.27	168677.62
DW-07.17	19+84.79	27.00' LT	1085.96	194011.37	168682.22
DW-07.18	19+78.89	27.00' LT	1085.56	194006.64	168685.93

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

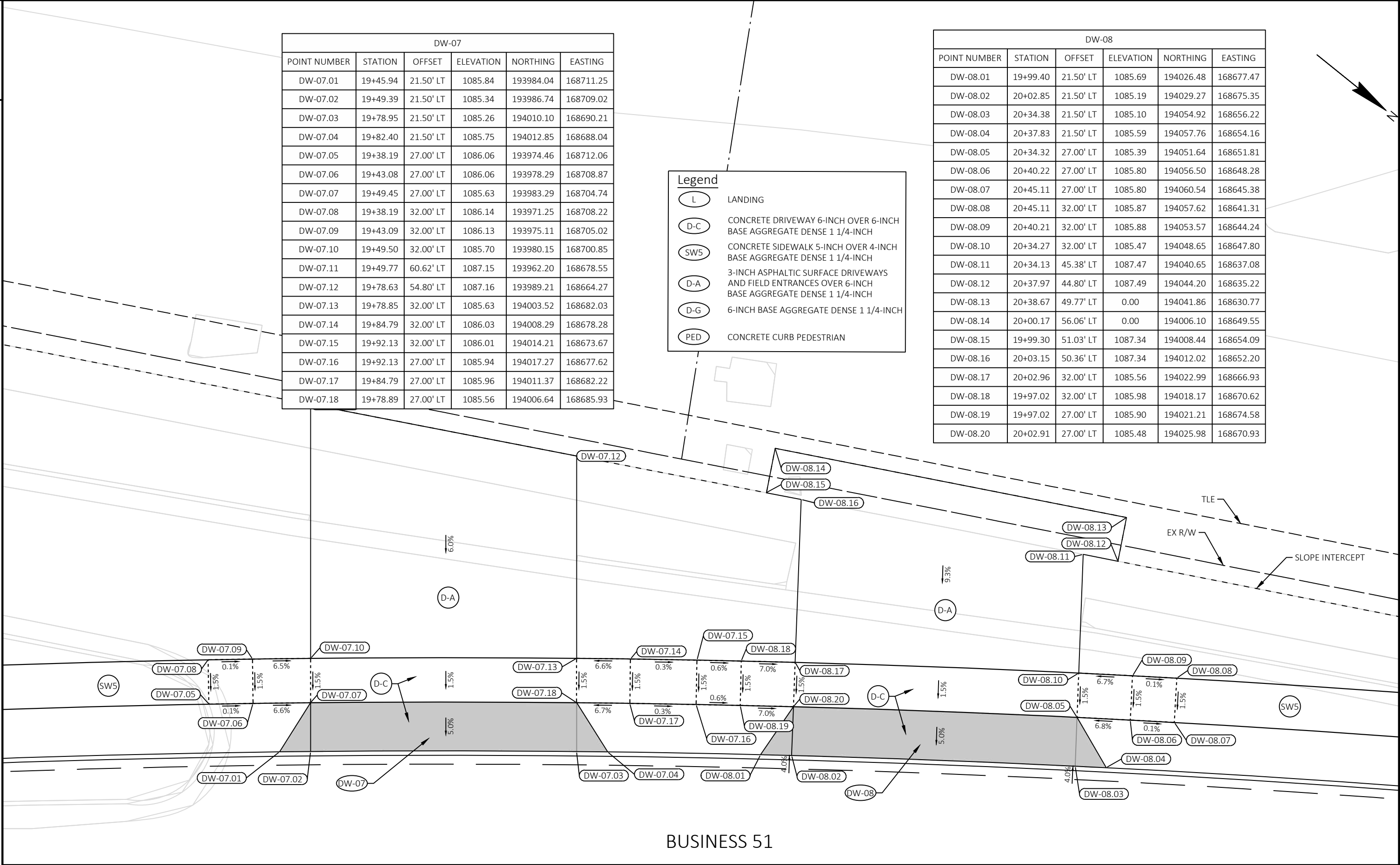
D-G

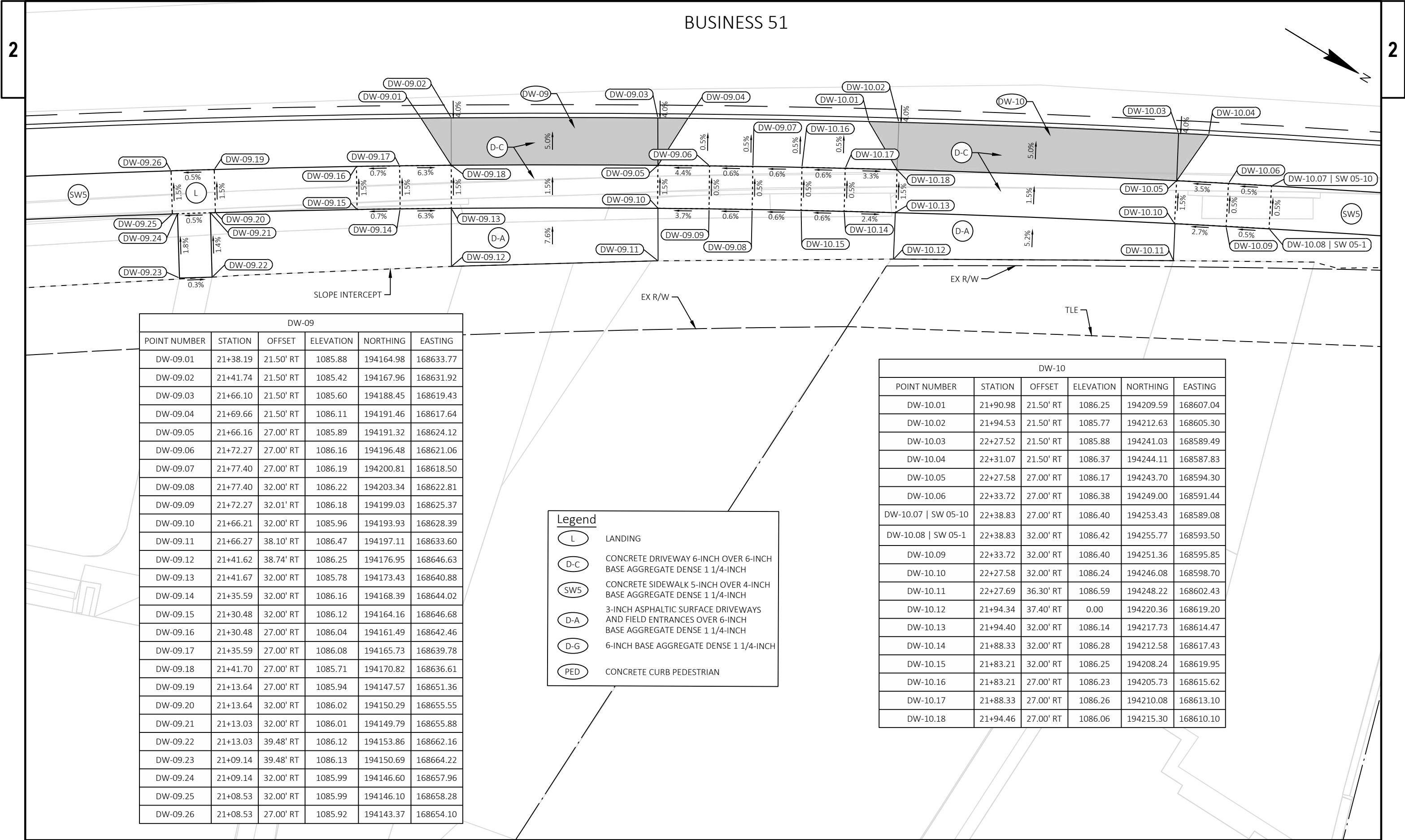
6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

PED

CONCRETE CURB PEDESTRIAN

DW-08					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-08.01	19+99.40	21.50' LT	1085.69	194026.48	168677.47
DW-08.02	20+02.85	21.50' LT	1085.19	194029.27	168675.35
DW-08.03	20+34.38	21.50' LT	1085.10	194054.92	168656.22
DW-08.04	20+37.83	21.50' LT	1085.59	194057.76	168654.16
DW-08.05	20+34.32	27.00' LT	1085.39	194051.64	168651.81
DW-08.06	20+40.22	27.00' LT	1085.80	194056.50	168648.28
DW-08.07	20+45.11	27.00' LT	1085.80	194060.54	168645.38
DW-08.08	20+45.11	32.00' LT	1085.87	194057.62	168641.31
DW-08.09	20+40.21	32.00' LT	1085.88	194053.57	168644.24
DW-08.10	20+34.27	32.00' LT	1085.47	194048.65	168647.80
DW-08.11	20+34.13	45.38' LT	1087.47	194040.65	168637.08
DW-08.12	20+37.97	44.80' LT	1087.49	194044.20	168635.22
DW-08.13	20+38.67	49.77' LT	0.00	194041.86	168630.77
DW-08.14	20+00.17	56.06' LT	0.00	194006.10	168649.55
DW-08.15	19+99.30	51.03' LT	1087.34	194008.44	168654.09
DW-08.16	20+03.15	50.36' LT	1087.34	194012.02	168652.20
DW-08.17	20+02.96	32.00' LT	1085.56	194022.99	168666.93
DW-08.18	19+97.02	32.00' LT	1085.98	194018.17	168670.62
DW-08.19	19+97.02	27.00' LT	1085.90	194021.21	168674.58
DW-08.20	20+02.91	27.00' LT	1085.48	194025.98	168670.93





DW-09					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-09.01	21+38.19	21.50' RT	1085.88	194164.98	168633.77
DW-09.02	21+41.74	21.50' RT	1085.42	194167.96	168631.92
DW-09.03	21+66.10	21.50' RT	1085.60	194188.45	168619.43
DW-09.04	21+69.66	21.50' RT	1086.11	194191.46	168617.64
DW-09.05	21+66.16	27.00' RT	1085.89	194191.32	168624.12
DW-09.06	21+72.27	27.00' RT	1086.16	194196.48	168621.06
DW-09.07	21+77.40	27.00' RT	1086.19	194200.81	168618.50
DW-09.08	21+77.40	32.00' RT	1086.22	194203.34	168622.81
DW-09.09	21+72.27	32.01' RT	1086.18	194199.03	168625.37
DW-09.10	21+66.21	32.00' RT	1085.96	194193.93	168628.39
DW-09.11	21+66.27	38.10' RT	1086.47	194197.11	168633.60
DW-09.12	21+41.62	38.74' RT	1086.25	194176.95	168646.63
DW-09.13	21+41.67	32.00' RT	1085.78	194173.43	168640.88
DW-09.14	21+35.59	32.00' RT	1086.16	194168.39	168644.02
DW-09.15	21+30.48	32.00' RT	1086.12	194164.16	168646.68
DW-09.16	21+30.48	27.00' RT	1086.04	194161.49	168642.46
DW-09.17	21+35.59	27.00' RT	1086.08	194165.73	168639.78
DW-09.18	21+41.70	27.00' RT	1085.71	194170.82	168636.61
DW-09.19	21+13.64	27.00' RT	1085.94	194147.57	168651.36
DW-09.20	21+13.64	32.00' RT	1086.02	194150.29	168655.55
DW-09.21	21+13.03	32.00' RT	1086.01	194149.79	168655.88
DW-09.22	21+13.03	39.48' RT	1086.12	194153.86	168662.16
DW-09.23	21+09.14	39.48' RT	1086.13	194150.69	168664.22
DW-09.24	21+09.14	32.00' RT	1085.99	194146.60	168657.96
DW-09.25	21+08.53	32.00' RT	1085.99	194146.10	168658.28
DW-09.26	21+08.53	27.00' RT	1085.92	194143.37	168654.10

DW-10					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-10.01	21+90.98	21.50' RT	1086.25	194209.59	168607.04
DW-10.02	21+94.53	21.50' RT	1085.77	194212.63	168605.30
DW-10.03	22+27.52	21.50' RT	1085.88	194241.03	168589.49
DW-10.04	22+31.07	21.50' RT	1086.37	194244.11	168587.83
DW-10.05	22+27.58	27.00' RT	1086.17	194243.70	168594.30
DW-10.06	22+33.72	27.00' RT	1086.38	194249.00	168591.44
DW-10.07 SW 05-10	22+38.83	27.00' RT	1086.40	194253.43	168589.08
DW-10.08 SW 05-1	22+38.83	32.00' RT	1086.42	194255.77	168593.50
DW-10.09	22+33.72	32.00' RT	1086.40	194251.36	168595.85
DW-10.10	22+27.58	32.00' RT	1086.24	194246.08	168598.70
DW-10.11	22+27.69	36.30' RT	1086.59	194248.22	168602.43
DW-10.12	21+94.34	37.40' RT	0.00	194220.36	168619.20
DW-10.13	21+94.40	32.00' RT	1086.14	194217.73	168614.47
DW-10.14	21+88.33	32.00' RT	1086.28	194212.58	168617.43
DW-10.15	21+83.21	32.00' RT	1086.25	194208.24	168619.95
DW-10.16	21+83.21	27.00' RT	1086.23	194205.73	168615.62
DW-10.17	21+88.33	27.00' RT	1086.26	194210.08	168613.10
DW-10.18	21+94.46	27.00' RT	1086.06	194215.30	168610.10

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

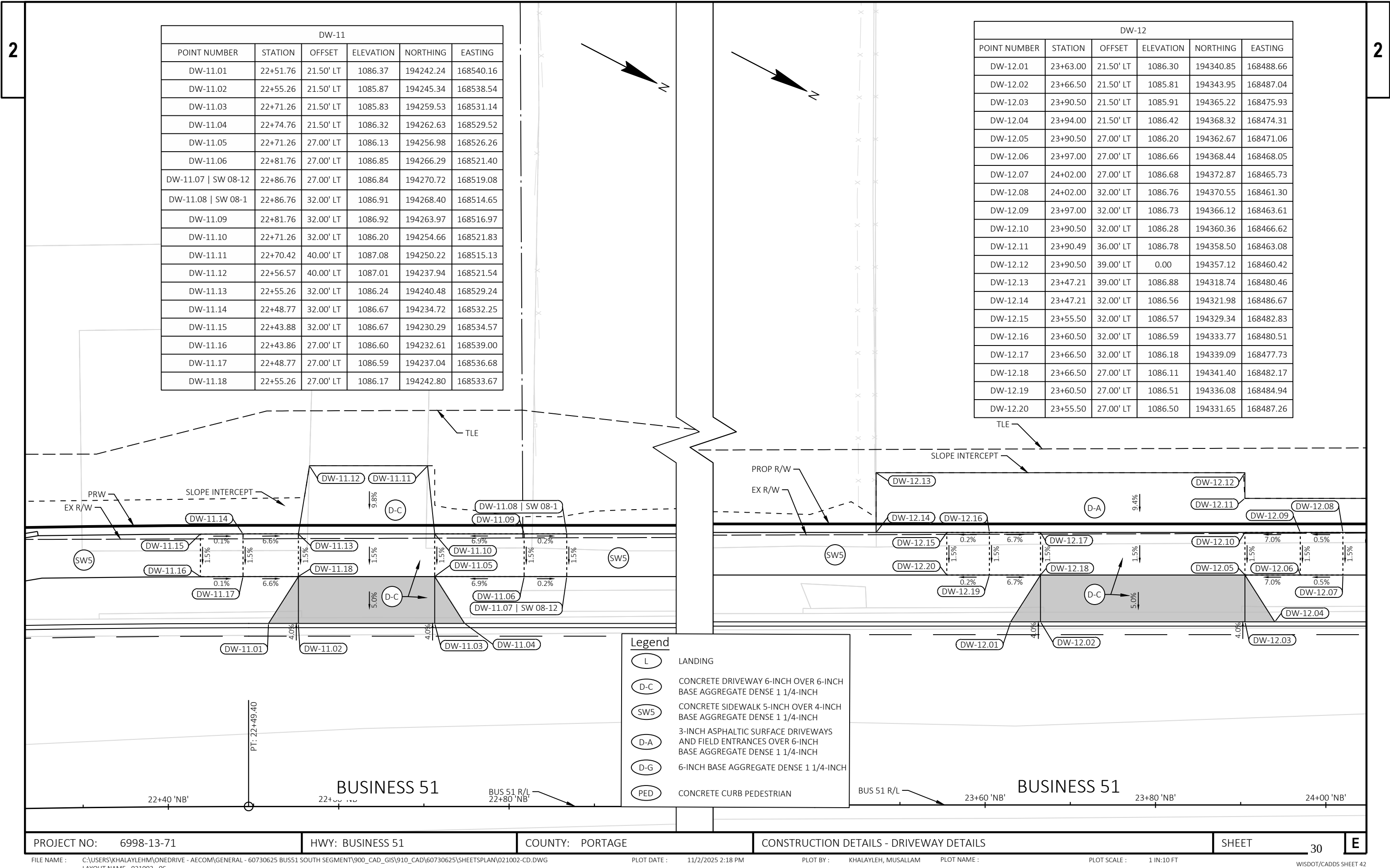
3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-G

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

PED

CONCRETE CURB PEDESTRIAN



DW-13					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-13.01	24+18.12	21.50' LT	1086.55	194389.70	168463.15
DW-13.02	24+21.62	21.50' LT	1086.06	194392.80	168461.53
DW-13.03	24+45.62	21.50' LT	1086.14	194414.07	168450.41
DW-13.04	24+49.12	21.50' LT	1086.65	194417.17	168448.79
DW-13.05	24+45.62	27.00' LT	1086.44	194411.52	168445.54
DW-13.06	24+51.62	27.00' LT	1086.68	194416.84	168442.76
DW-13.07 SW 09-6	24+56.62	27.00' LT	1086.69	194421.27	168440.45
DW-13.08 SW 09-1	24+56.60	32.00' LT	1086.72	194418.95	168436.02
DW-13.09	24+51.62	32.00' LT	1086.71	194414.53	168438.33
DW-13.10	24+45.62	32.00' LT	1086.52	194409.21	168441.11
DW-13.11	24+56.50	36.00' LT	1086.73	194417.00	168432.52
DW-13.12	24+21.62	32.00' LT	1086.44	194387.94	168452.22
DW-13.13	24+15.62	32.00' LT	1086.83	194382.62	168455.00
DW-13.14	24+10.62	32.00' LT	1086.81	194378.19	168457.31
DW-13.15	24+10.62	27.00' LT	1086.73	194380.50	168461.74
DW-13.16	24+15.62	27.00' LT	1086.75	194384.93	168459.43
DW-13.17	24+21.62	27.00' LT	1086.36	194390.25	168456.65

DW-14					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-14.01	24+85.90	21.50' LT	1086.67	194449.78	168431.76
DW-14.02	24+89.40	21.50' LT	1086.17	194452.88	168430.14
DW-14.03	25+15.40	21.50' LT	1086.12	194475.93	168418.11
DW-14.04	25+18.90	21.50' LT	1086.61	194479.03	168416.49
DW-14.05	25+15.40	27.00' LT	1086.42	194473.38	168413.23
DW-14.06	25+21.40	27.00' LT	1086.75	194478.70	168410.45
DW-14.07	25+26.40	27.00' LT	1086.77	194483.13	168408.14
DW-14.08	25+26.40	32.00' LT	1086.84	194480.82	168403.71
DW-14.09	25+21.40	32.00' LT	1086.83	194476.38	168406.02
DW-14.10	25+15.40	32.00' LT	1086.49	194471.07	168408.80
DW-14.11	25+15.40	36.97' LT	1086.68	194468.76	168404.39
DW-14.12	24+89.42	37.00' LT	1086.66	194445.72	168416.40
DW-14.13	24+89.40	32.00' LT	1086.55	194448.02	168420.84
DW-14.14	24+83.40	32.00' LT	1086.73	194442.70	168423.62
DW-14.15 SW 09-3	24+78.40	32.00' LT	1086.73	194438.27	168425.93
DW-14.16 SW 09-4	24+78.40	27.00' LT	1086.70	194440.58	168430.36
DW-14.17	24+83.40	27.00' LT	1086.70	194445.02	168428.05
DW-14.18	24+89.40	27.00' LT	1086.47	194450.33	168425.27

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

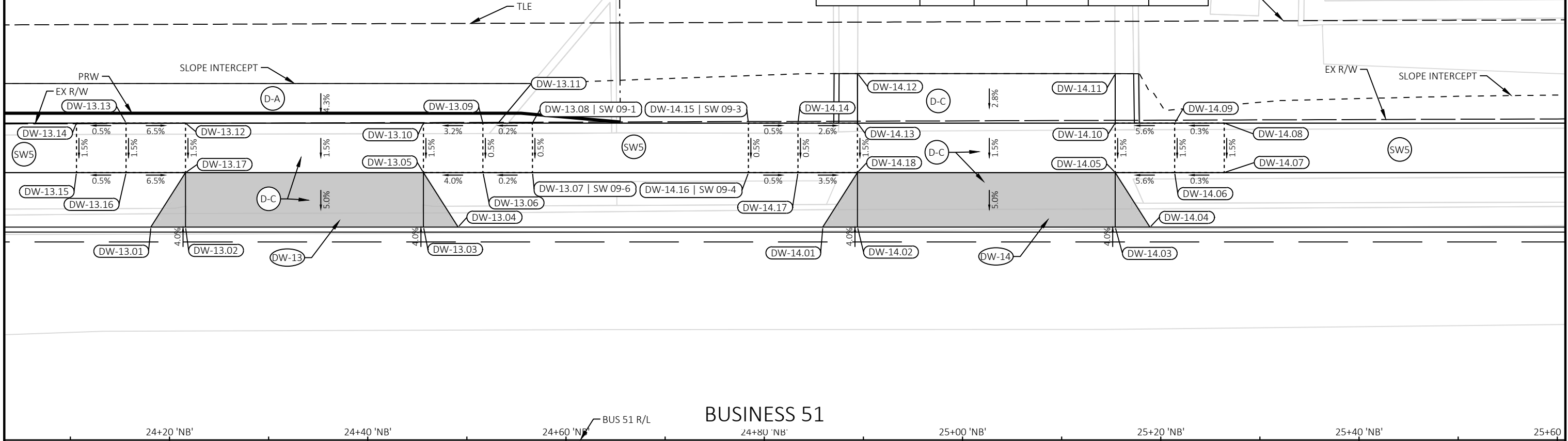
3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

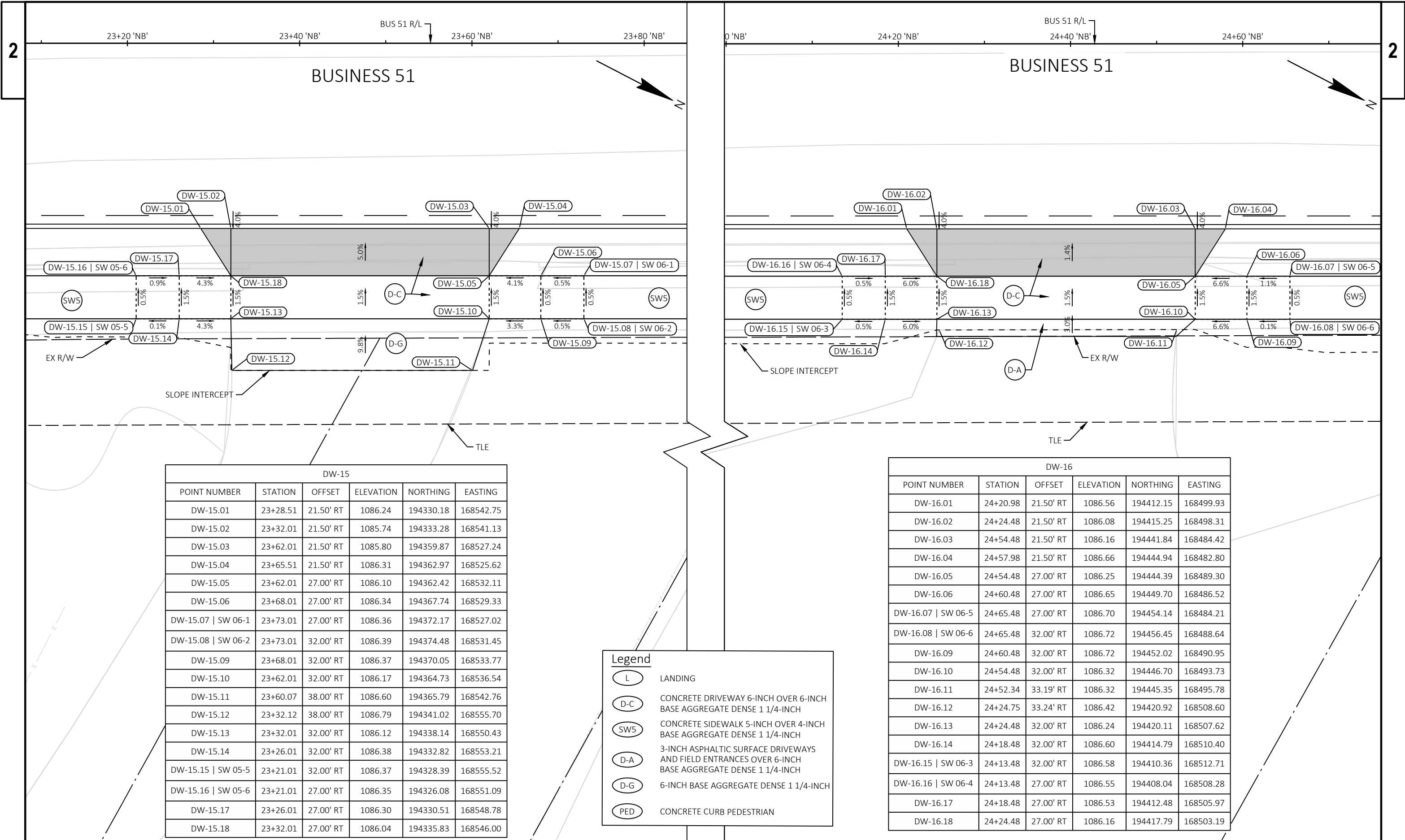
D-G

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

PED

CONCRETE CURB PEDESTRIAN





DW-15					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-15.01	23+28.51	21.50' RT	1086.24	194330.18	168542.75
DW-15.02	23+32.01	21.50' RT	1085.74	194333.28	168541.13
DW-15.03	23+62.01	21.50' RT	1085.80	194359.87	168527.24
DW-15.04	23+65.51	21.50' RT	1086.31	194362.97	168525.62
DW-15.05	23+62.01	27.00' RT	1086.10	194362.42	168532.11
DW-15.06	23+68.01	27.00' RT	1086.34	194367.74	168529.33
DW-15.07 SW 06-1	23+73.01	27.00' RT	1086.36	194372.17	168527.02
DW-15.08 SW 06-2	23+73.01	32.00' RT	1086.39	194374.48	168531.45
DW-15.09	23+68.01	32.00' RT	1086.37	194370.05	168533.77
DW-15.10	23+62.01	32.00' RT	1086.17	194364.73	168536.54
DW-15.11	23+60.07	38.00' RT	1086.60	194365.79	168542.76
DW-15.12	23+32.12	38.00' RT	1086.79	194341.02	168555.70
DW-15.13	23+32.01	32.00' RT	1086.12	194338.14	168550.43
DW-15.14	23+26.01	32.00' RT	1086.38	194332.82	168553.21
DW-15.15 SW 05-5	23+21.01	32.00' RT	1086.37	194328.39	168555.52
DW-15.16 SW 05-6	23+21.01	27.00' RT	1086.35	194326.08	168551.09
DW-15.17	23+26.01	27.00' RT	1086.30	194330.51	168548.78
DW-15.18	23+32.01	27.00' RT	1086.04	194335.83	168546.00

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

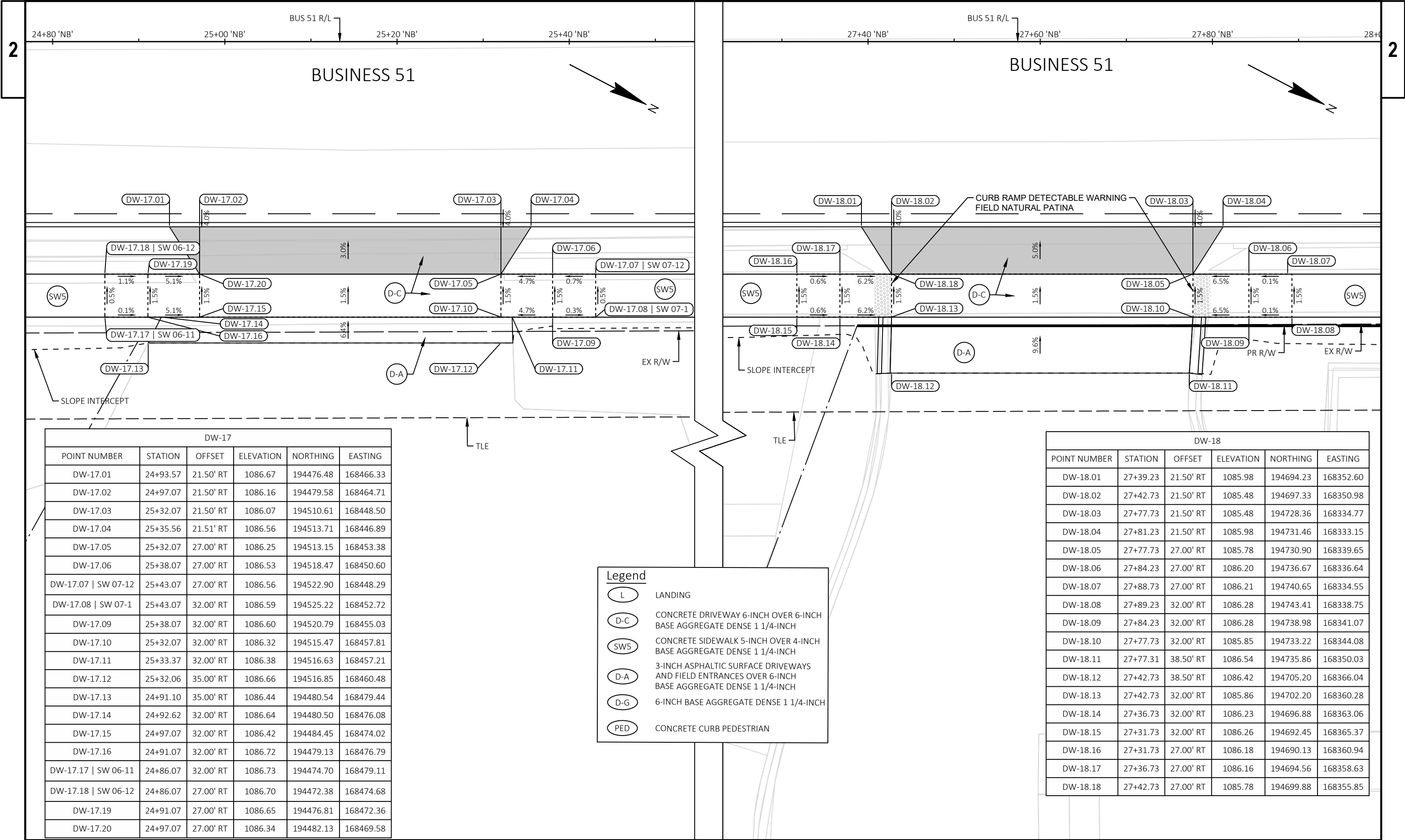
D-G

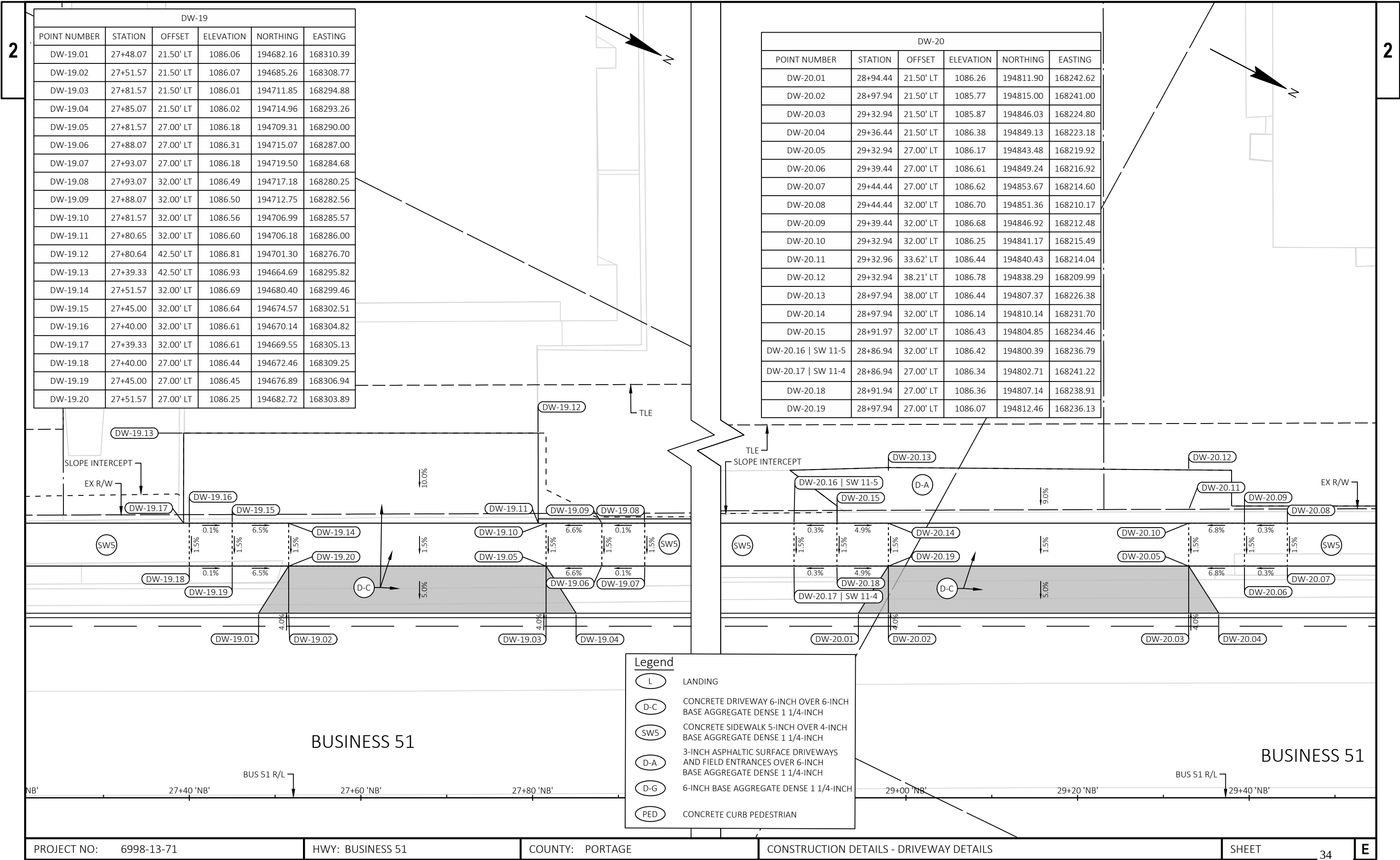
6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

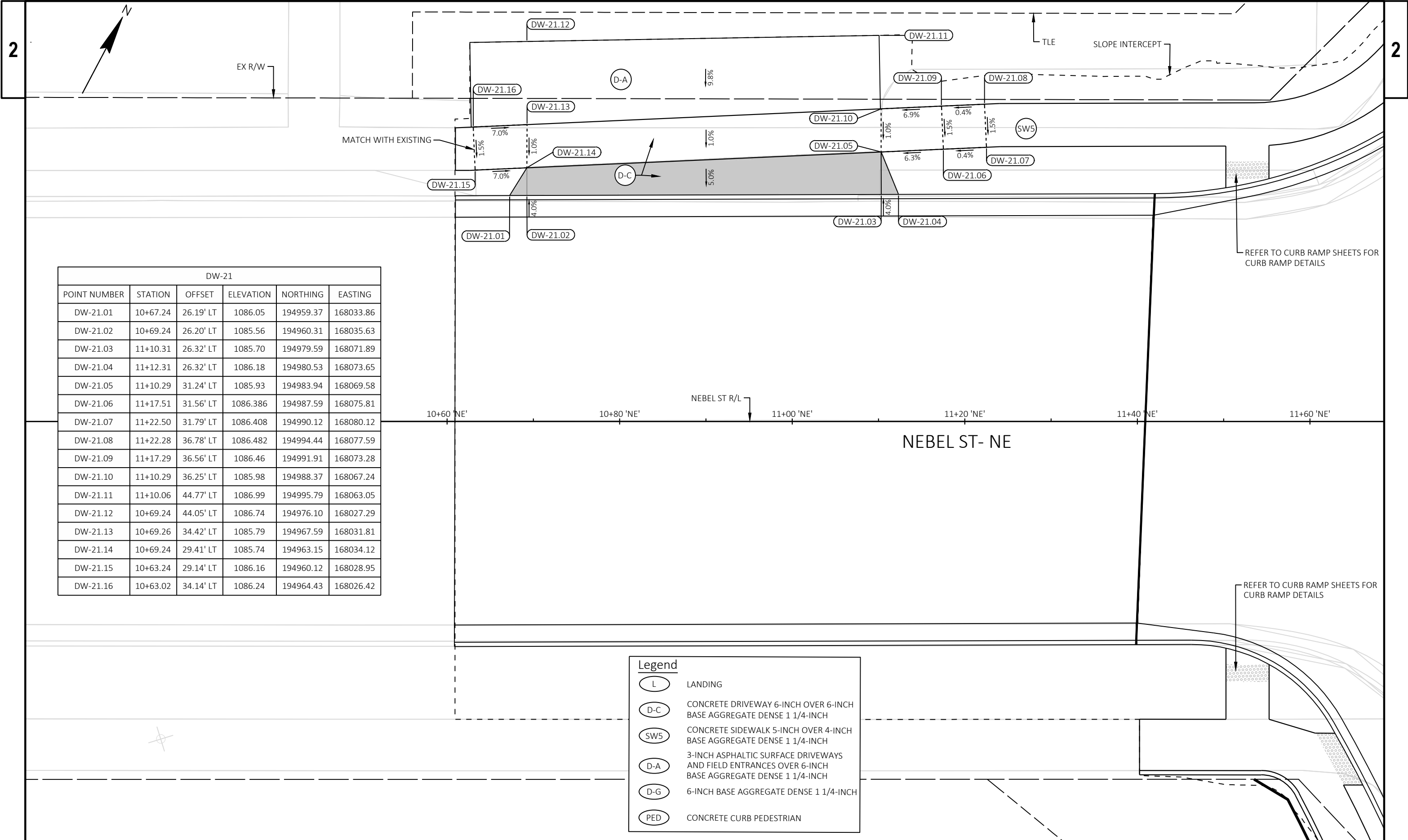
PED

CONCRETE CURB PEDESTRIAN

DW-16					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-16.01	24+20.98	21.50' RT	1086.56	194412.15	168499.93
DW-16.02	24+24.48	21.50' RT	1086.08	194415.25	168498.31
DW-16.03	24+54.48	21.50' RT	1086.16	194441.84	168484.42
DW-16.04	24+57.98	21.50' RT	1086.66	194444.94	168482.80
DW-16.05	24+54.48	27.00' RT	1086.25	194444.39	168489.30
DW-16.06	24+60.48	27.00' RT	1086.65	194449.70	168486.52
DW-16.07 SW 06-5	24+65.48	27.00' RT	1086.70	194454.14	168484.21
DW-16.08 SW 06-6	24+65.48	32.00' RT	1086.72	194456.45	168488.64
DW-16.09	24+60.48	32.00' RT	1086.72	194452.02	168490.95
DW-16.10	24+54.48	32.00' RT	1086.32	194446.70	168493.73
DW-16.11	24+52.34	33.19' RT	1086.32	194445.35	168495.78
DW-16.12	24+24.75	33.24' RT	1086.42	194420.92	168508.60
DW-16.13	24+24.48	32.00' RT	1086.24	194420.11	168507.62
DW-16.14	24+18.48	32.00' RT	1086.60	194414.79	168510.40
DW-16.15 SW 06-3	24+13.48	32.00' RT	1086.58	194410.36	168512.71
DW-16.16 SW 06-4	24+13.48	27.00' RT	1086.55	194408.04	168508.28
DW-16.17	24+18.48	27.00' RT	1086.53	194412.48	168505.97
DW-16.18	24+24.48	27.00' RT	1086.16	194417.79	168503.19







DW-21					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-21.01	10+67.24	26.19' LT	1086.05	194959.37	168033.86
DW-21.02	10+69.24	26.20' LT	1085.56	194960.31	168035.63
DW-21.03	11+10.31	26.32' LT	1085.70	194979.59	168071.89
DW-21.04	11+12.31	26.32' LT	1086.18	194980.53	168073.65
DW-21.05	11+10.29	31.24' LT	1085.93	194983.94	168069.58
DW-21.06	11+17.51	31.56' LT	1086.386	194987.59	168075.81
DW-21.07	11+22.50	31.79' LT	1086.408	194990.12	168080.12
DW-21.08	11+22.28	36.78' LT	1086.482	194994.44	168077.59
DW-21.09	11+17.29	36.56' LT	1086.46	194991.91	168073.28
DW-21.10	11+10.29	36.25' LT	1085.98	194988.37	168067.24
DW-21.11	11+10.06	44.77' LT	1086.99	194995.79	168063.05
DW-21.12	10+69.24	44.05' LT	1086.74	194976.10	168027.29
DW-21.13	10+69.26	34.42' LT	1085.79	194967.59	168031.81
DW-21.14	10+69.24	29.41' LT	1085.74	194963.15	168034.12
DW-21.15	10+63.24	29.14' LT	1086.16	194960.12	168028.95
DW-21.16	10+63.02	34.14' LT	1086.24	194964.43	168026.42

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

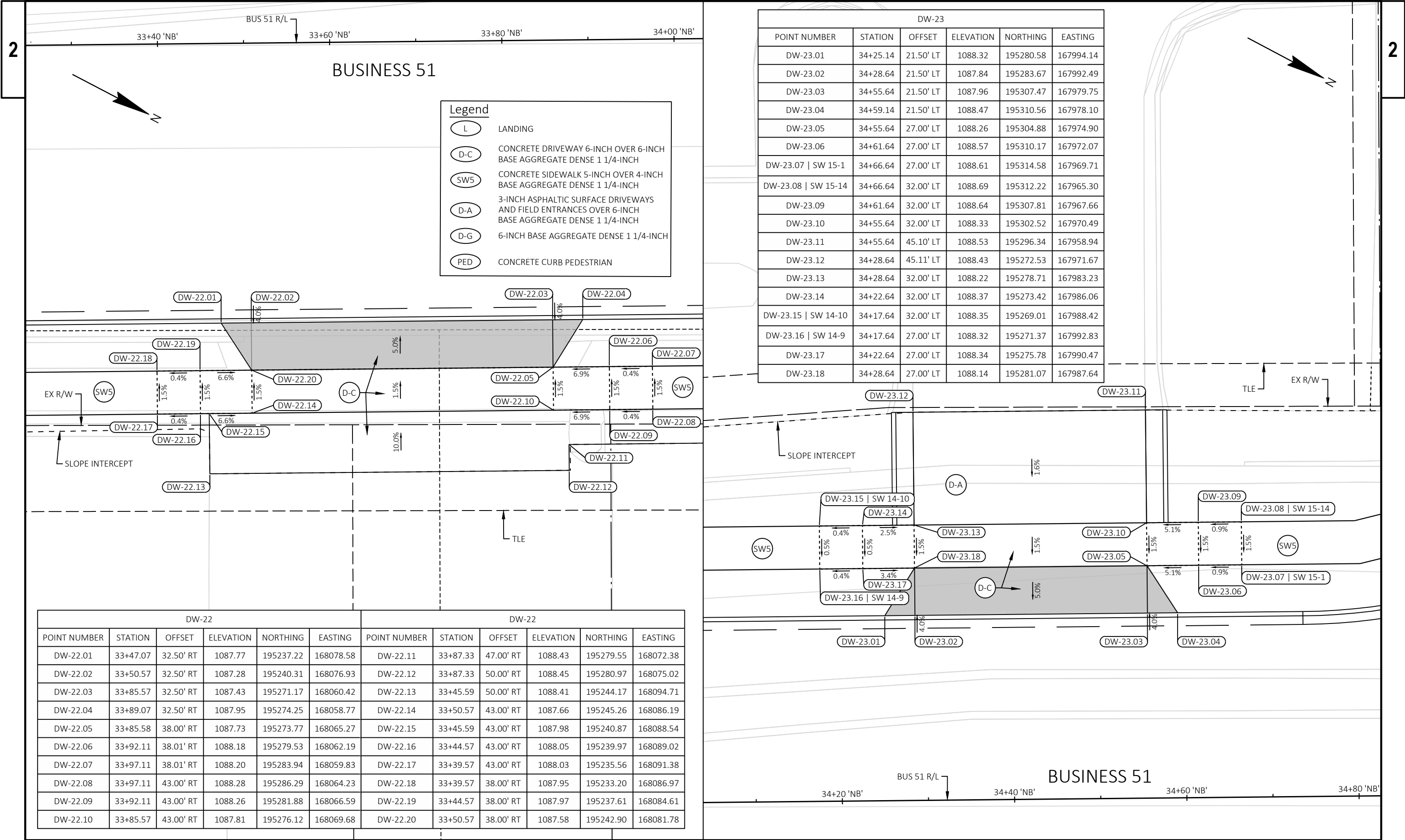
3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-G

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

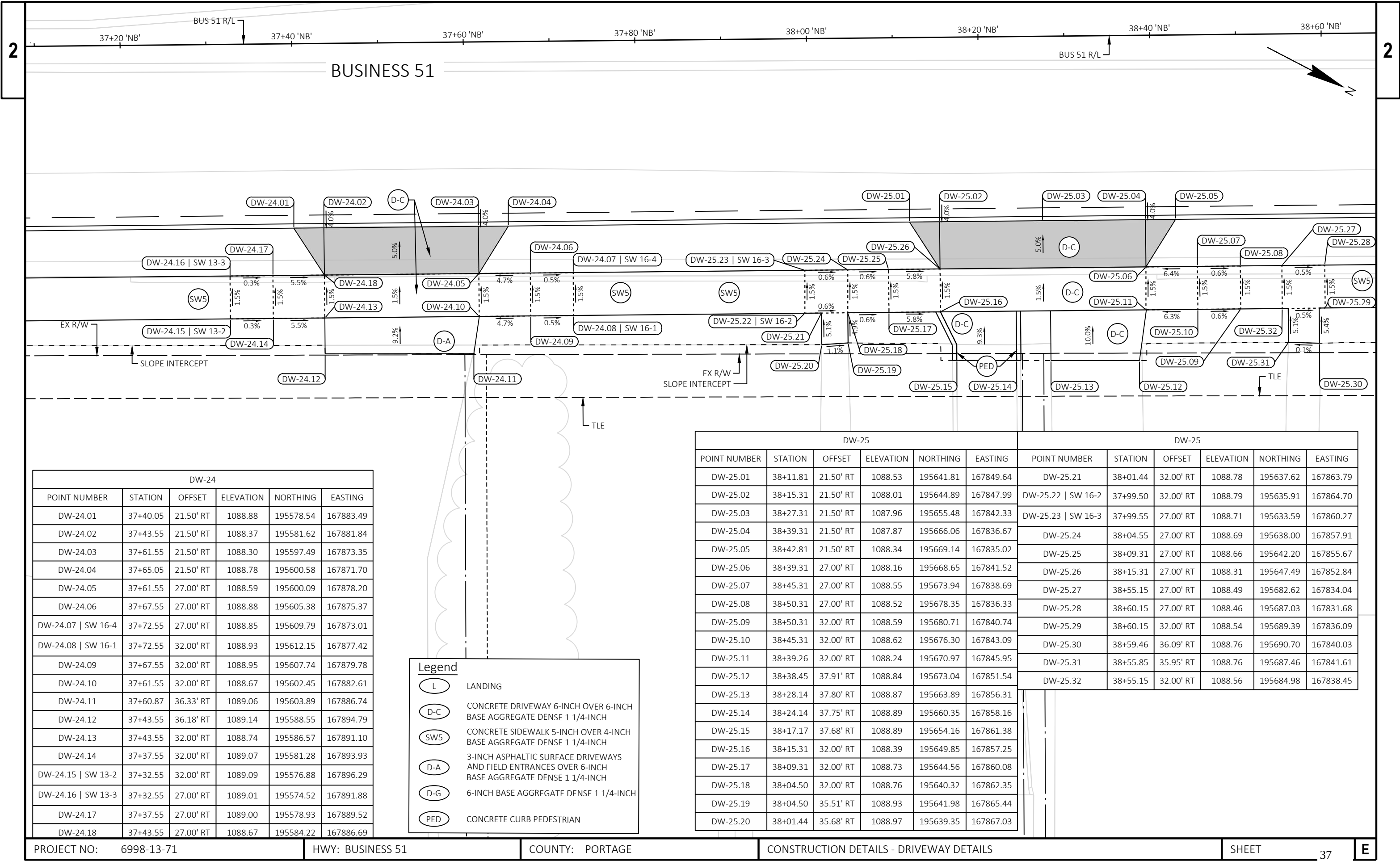
PED

CONCRETE CURB PEDESTRIAN



DW-22						DW-22					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-22.01	33+47.07	32.50' RT	1087.77	195237.22	168078.58	DW-22.11	33+87.33	47.00' RT	1088.43	195279.55	168072.38
DW-22.02	33+50.57	32.50' RT	1087.28	195240.31	168076.93	DW-22.12	33+87.33	50.00' RT	1088.45	195280.97	168075.02
DW-22.03	33+85.57	32.50' RT	1087.43	195271.17	168060.42	DW-22.13	33+45.59	50.00' RT	1088.41	195244.17	168094.71
DW-22.04	33+89.07	32.50' RT	1087.95	195274.25	168058.77	DW-22.14	33+50.57	43.00' RT	1087.66	195245.26	168086.19
DW-22.05	33+85.58	38.00' RT	1087.73	195273.77	168065.27	DW-22.15	33+45.59	43.00' RT	1087.98	195240.87	168088.54
DW-22.06	33+92.11	38.01' RT	1088.18	195279.53	168062.19	DW-22.16	33+44.57	43.00' RT	1088.05	195239.97	168089.02
DW-22.07	33+97.11	38.01' RT	1088.20	195283.94	168059.83	DW-22.17	33+39.57	43.00' RT	1088.03	195235.56	168091.38
DW-22.08	33+97.11	43.00' RT	1088.28	195286.29	168064.23	DW-22.18	33+39.57	38.00' RT	1087.95	195233.20	168086.97
DW-22.09	33+92.11	43.00' RT	1088.26	195281.88	168066.59	DW-22.19	33+44.57	38.00' RT	1087.97	195237.61	168084.61
DW-22.10	33+85.57	43.00' RT	1087.81	195276.12	168069.68	DW-22.20	33+50.57	38.00' RT	1087.58	195242.90	168081.78

DW-23					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-23.01	34+25.14	21.50' LT	1088.32	195280.58	167994.14
DW-23.02	34+28.64	21.50' LT	1087.84	195283.67	167992.49
DW-23.03	34+55.64	21.50' LT	1087.96	195307.47	167979.75
DW-23.04	34+59.14	21.50' LT	1088.47	195310.56	167978.10
DW-23.05	34+55.64	27.00' LT	1088.26	195304.88	167974.90
DW-23.06	34+61.64	27.00' LT	1088.57	195310.17	167972.07
DW-23.07 SW 15-1	34+66.64	27.00' LT	1088.61	195314.58	167969.71
DW-23.08 SW 15-14	34+66.64	32.00' LT	1088.69	195312.22	167965.30
DW-23.09	34+61.64	32.00' LT	1088.64	195307.81	167967.66
DW-23.10	34+55.64	32.00' LT	1088.33	195302.52	167970.49
DW-23.11	34+55.64	45.10' LT	1088.53	195296.34	167958.94
DW-23.12	34+28.64	45.11' LT	1088.43	195272.53	167971.67
DW-23.13	34+28.64	32.00' LT	1088.22	195278.71	167983.23
DW-23.14	34+22.64	32.00' LT	1088.37	195273.42	167986.06
DW-23.15 SW 14-10	34+17.64	32.00' LT	1088.35	195269.01	167988.42
DW-23.16 SW 14-9	34+17.64	27.00' LT	1088.32	195271.37	167992.83
DW-23.17	34+22.64	27.00' LT	1088.34	195275.78	167990.47
DW-23.18	34+28.64	27.00' LT	1088.14	195281.07	167987.64



DW-24					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-24.01	37+40.05	21.50' RT	1088.88	195578.54	167883.49
DW-24.02	37+43.55	21.50' RT	1088.37	195581.62	167881.84
DW-24.03	37+61.55	21.50' RT	1088.30	195597.49	167873.35
DW-24.04	37+65.05	21.50' RT	1088.78	195600.58	167871.70
DW-24.05	37+61.55	27.00' RT	1088.59	195600.09	167878.20
DW-24.06	37+67.55	27.00' RT	1088.88	195605.38	167875.37
DW-24.07 SW 16-4	37+72.55	27.00' RT	1088.85	195609.79	167873.01
DW-24.08 SW 16-1	37+72.55	32.00' RT	1088.93	195612.15	167877.42
DW-24.09	37+67.55	32.00' RT	1088.95	195607.74	167879.78
DW-24.10	37+61.55	32.00' RT	1088.67	195602.45	167882.61
DW-24.11	37+60.87	36.33' RT	1089.06	195603.89	167886.74
DW-24.12	37+43.55	36.18' RT	1089.14	195588.55	167894.79
DW-24.13	37+43.55	32.00' RT	1088.74	195586.57	167891.10
DW-24.14	37+37.55	32.00' RT	1089.07	195581.28	167893.93
DW-24.15 SW 13-2	37+32.55	32.00' RT	1089.09	195576.88	167896.29
DW-24.16 SW 13-3	37+32.55	27.00' RT	1089.01	195574.52	167891.88
DW-24.17	37+37.55	27.00' RT	1089.00	195578.93	167889.52
DW-24.18	37+43.55	27.00' RT	1088.67	195584.22	167886.69

Legend

L

LANDING

D-C

CONCRETE DRIVEWAY 6-INCH OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

SW5

CONCRETE SIDEWALK 5-INCH OVER 4-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

D-A

3-INCH ASPHALTIC SURFACE DRIVEWAYS
AND FIELD ENTRANCES OVER 6-INCH
BASE AGGREGATE DENSE 1 1/4-INCH

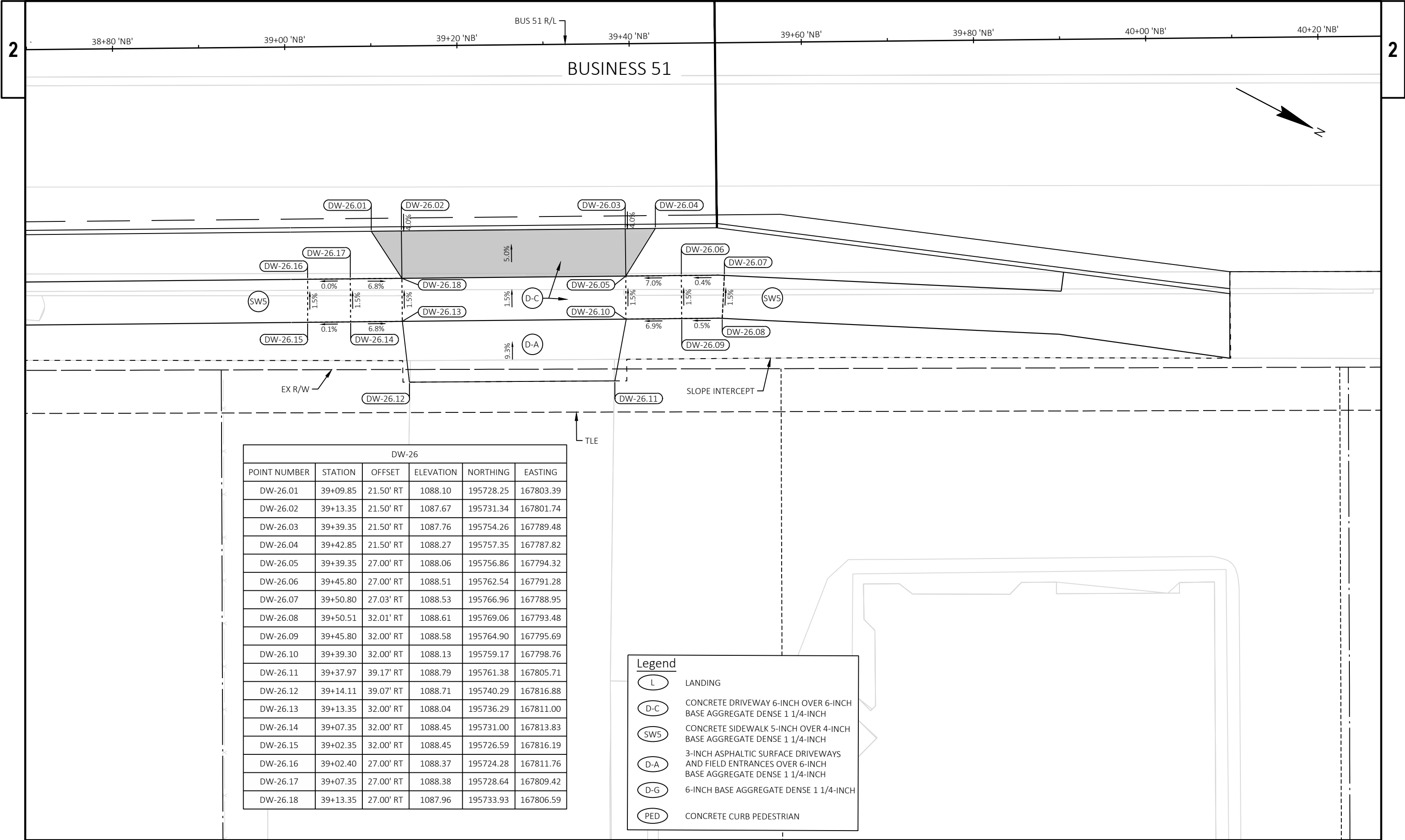
D-G

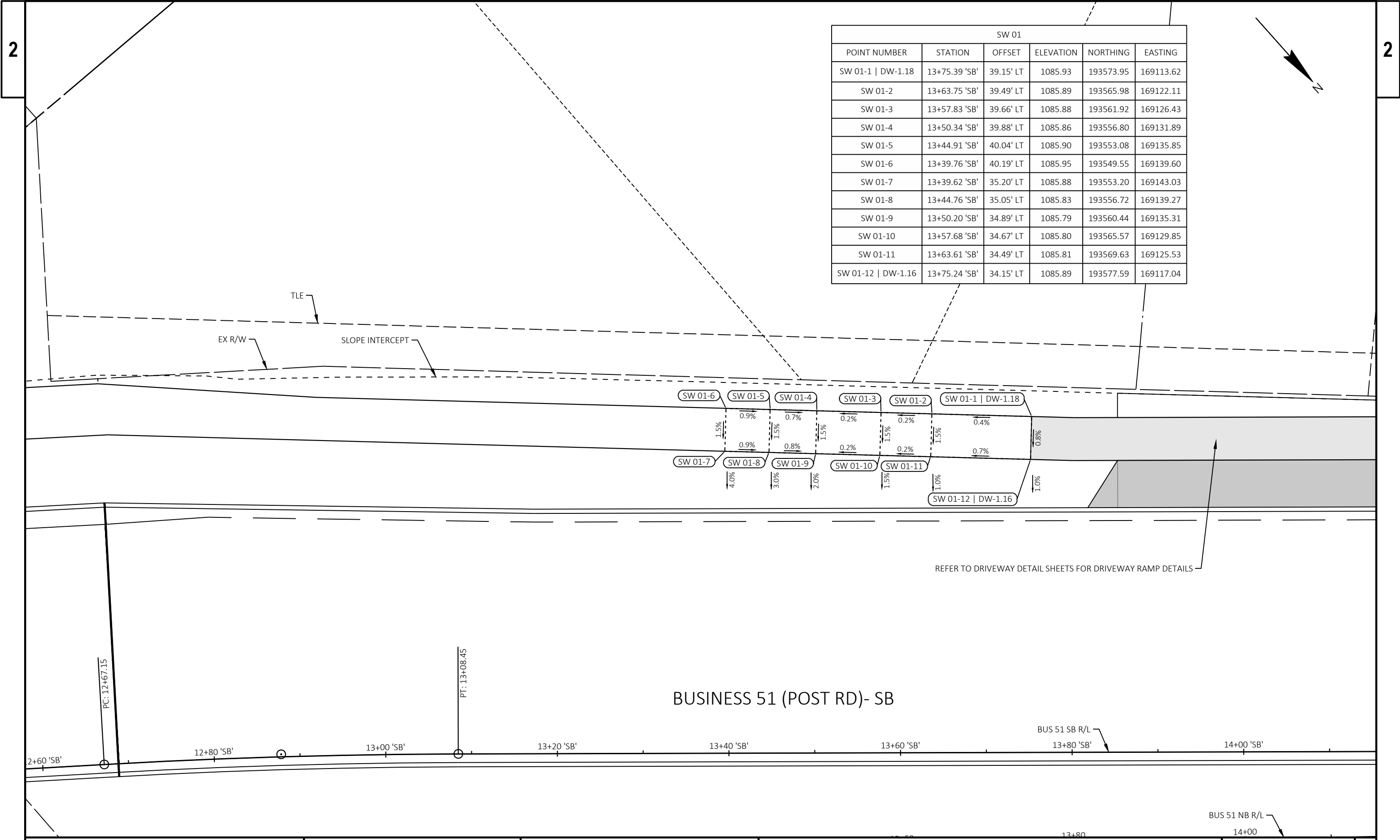
6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

PED

CONCRETE CURB PEDESTRIAN

DW-25						DW-25					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
DW-25.01	38+11.81	21.50' RT	1088.53	195641.81	167849.64	DW-25.21	38+01.44	32.00' RT	1088.78	195637.62	167863.79
DW-25.02	38+15.31	21.50' RT	1088.01	195644.89	167847.99	DW-25.22 SW 16-2	37+99.50	32.00' RT	1088.79	195635.91	167864.70
DW-25.03	38+27.31	21.50' RT	1087.96	195655.48	167842.33	DW-25.23 SW 16-3	37+99.55	27.00' RT	1088.71	195633.59	167860.27
DW-25.04	38+39.31	21.50' RT	1087.87	195666.06	167836.67	DW-25.24	38+04.55	27.00' RT	1088.69	195638.00	167857.91
DW-25.05	38+42.81	21.50' RT	1088.34	195669.14	167835.02	DW-25.25	38+09.31	27.00' RT	1088.66	195642.20	167855.67
DW-25.06	38+39.31	27.00' RT	1088.16	195668.65	167841.52	DW-25.26	38+15.31	27.00' RT	1088.31	195647.49	167852.84
DW-25.07	38+45.31	27.00' RT	1088.55	195673.94	167838.69	DW-25.27	38+55.15	27.00' RT	1088.49	195682.62	167834.04
DW-25.08	38+50.31	27.00' RT	1088.52	195678.35	167836.33	DW-25.28	38+60.15	27.00' RT	1088.46	195687.03	167831.68
DW-25.09	38+50.31	32.00' RT	1088.59	195680.71	167840.74	DW-25.29	38+60.15	32.00' RT	1088.54	195689.39	167836.09
DW-25.10	38+45.31	32.00' RT	1088.62	195676.30	167843.09	DW-25.30	38+59.46	36.09' RT	1088.76	195690.70	167840.03
DW-25.11	38+39.26	32.00' RT	1088.24	195670.97	167845.95	DW-25.31	38+55.85	35.95' RT	1088.76	195687.46	167841.61
DW-25.12	38+38.45	37.91' RT	1088.84	195673.04	167851.54	DW-25.32	38+55.15	32.00' RT	1088.56	195684.98	167838.45
DW-25.13	38+28.14	37.80' RT	1088.87	195663.89	167856.31						
DW-25.14	38+24.14	37.75' RT	1088.89	195660.35	167858.16						
DW-25.15	38+17.17	37.68' RT	1088.89	195654.16	167861.38						
DW-25.16	38+15.31	32.00' RT	1088.39	195649.85	167857.25						
DW-25.17	38+09.31	32.00' RT	1088.73	195644.56	167860.08						
DW-25.18	38+04.50	32.00' RT	1088.76	195640.32	167862.35						
DW-25.19	38+04.50	35.51' RT	1088.93	195641.98	167865.44						
DW-25.20	38+01.44	35.68' RT	1088.97	195639.35	167867.03						

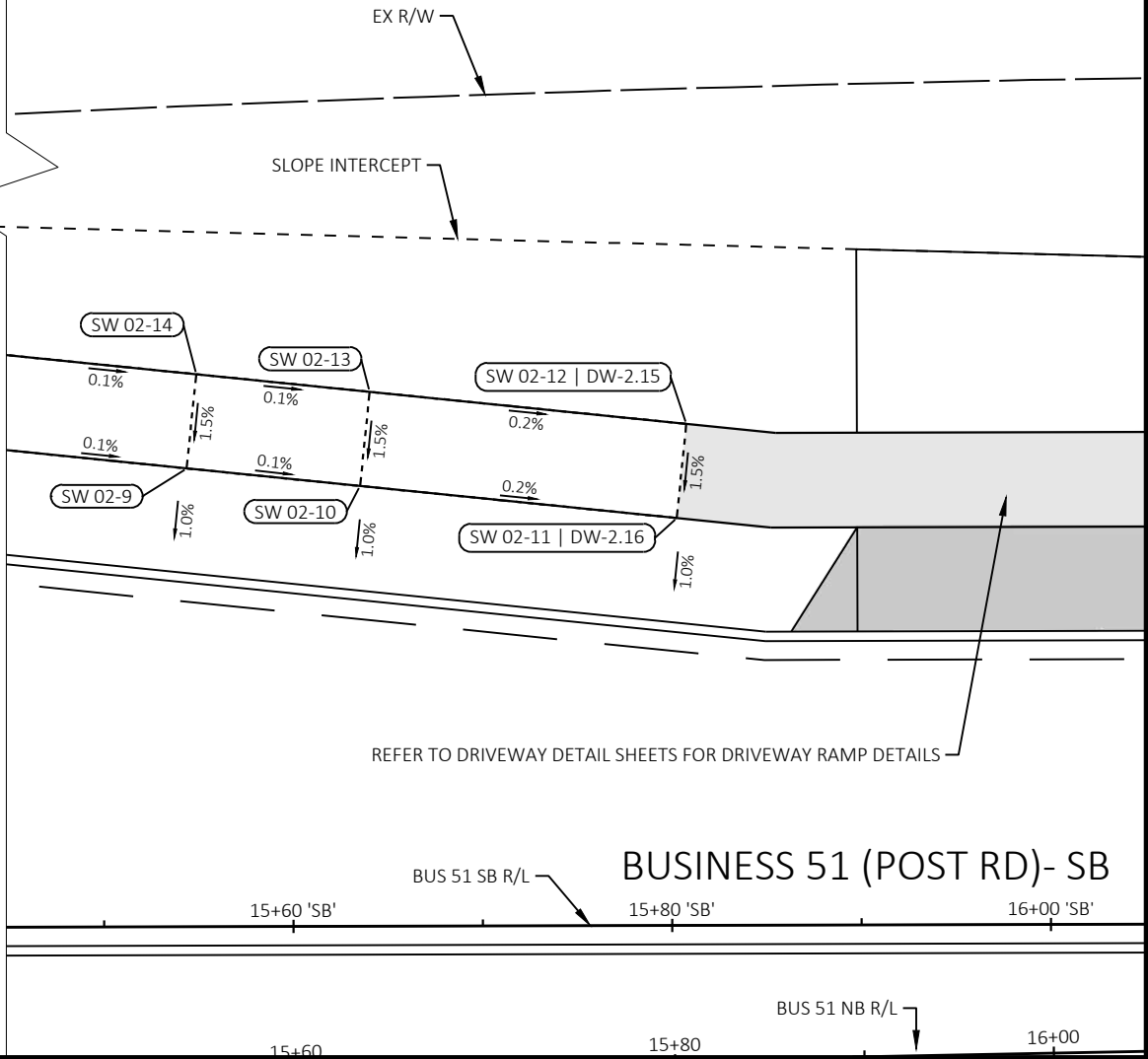
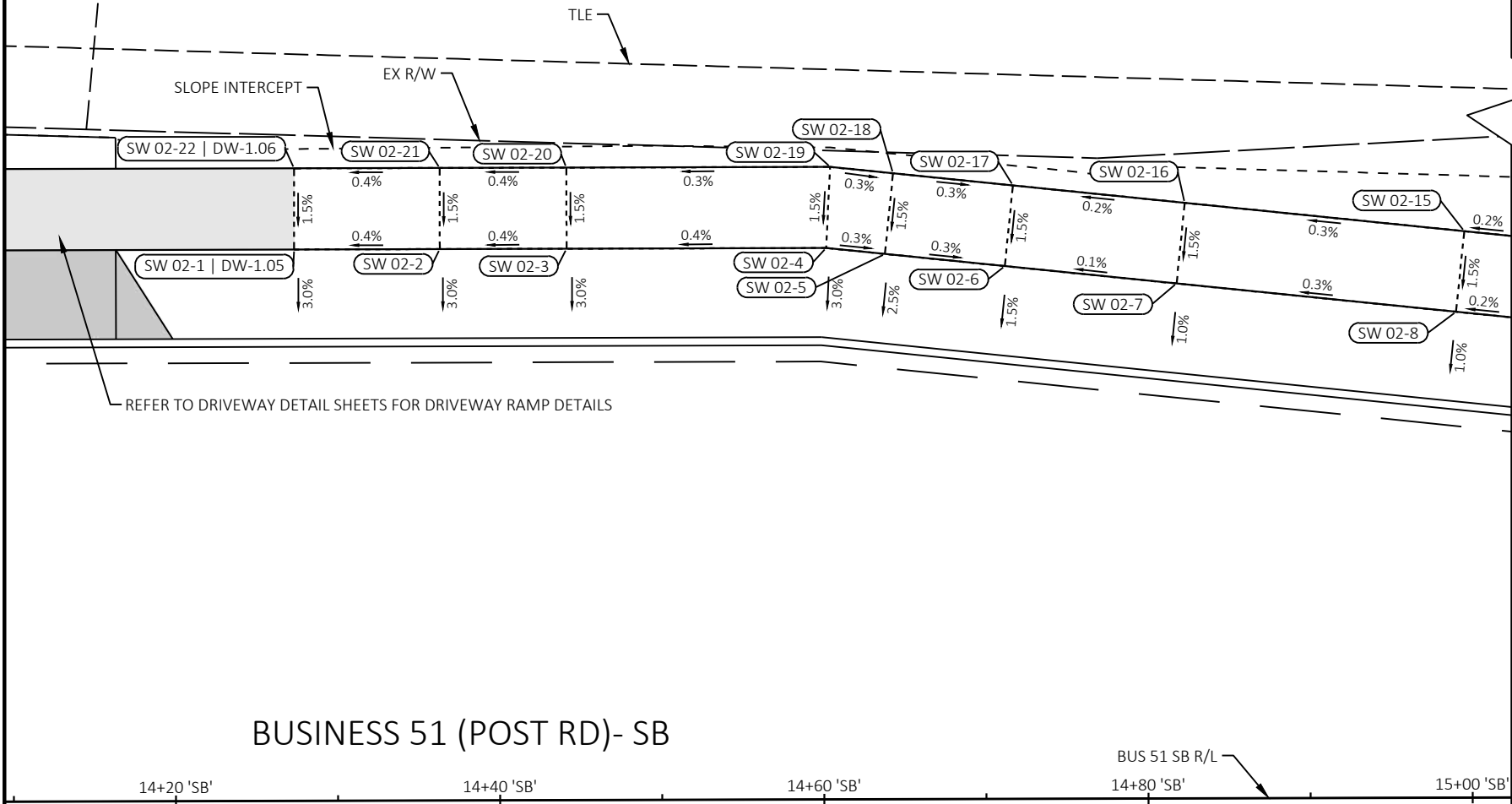


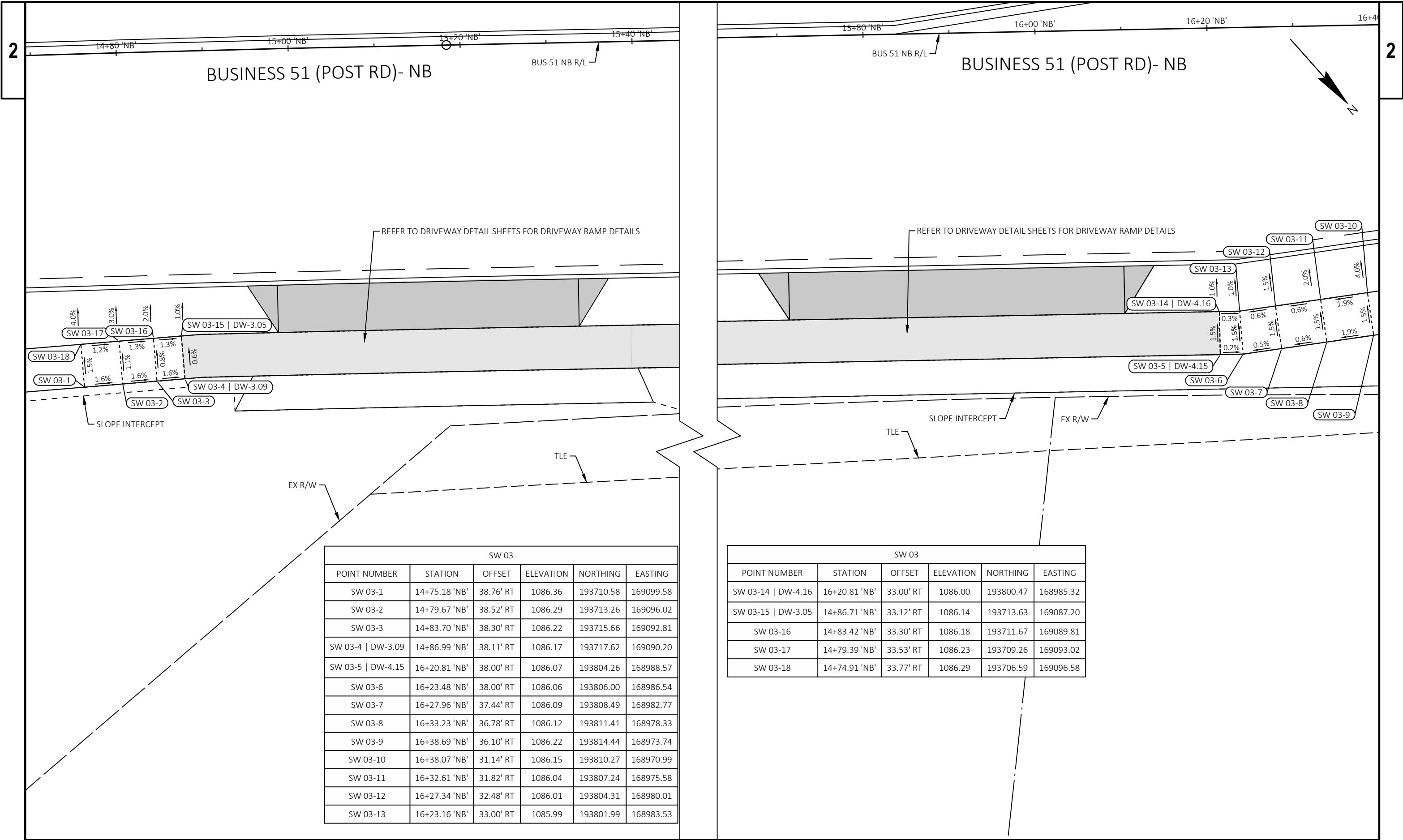


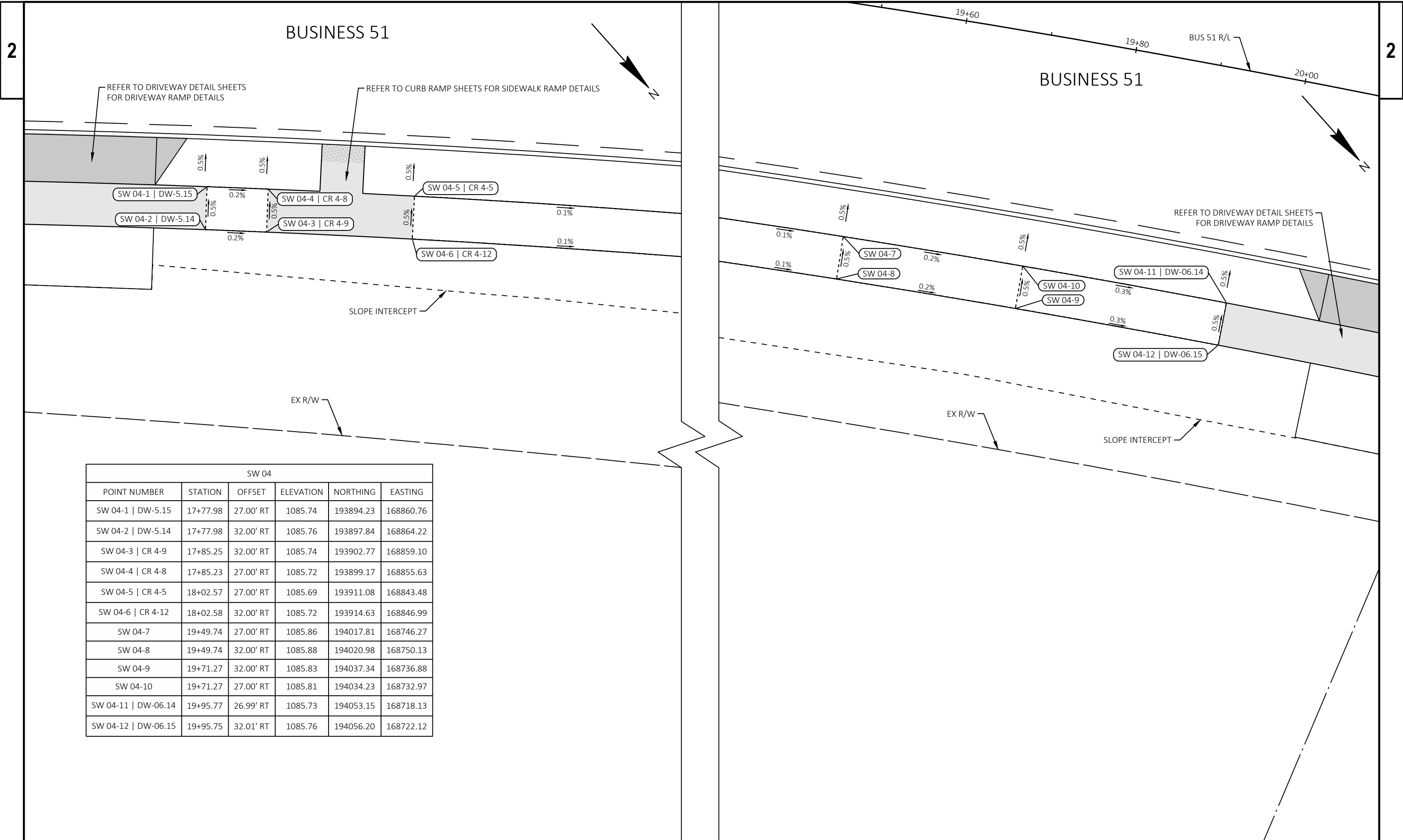
SW 01					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 01-1 DW-1.18	13+75.39 'SB'	39.15' LT	1085.93	193573.95	169113.62
SW 01-2	13+63.75 'SB'	39.49' LT	1085.89	193565.98	169122.11
SW 01-3	13+57.83 'SB'	39.66' LT	1085.88	193561.92	169126.43
SW 01-4	13+50.34 'SB'	39.88' LT	1085.86	193556.80	169131.89
SW 01-5	13+44.91 'SB'	40.04' LT	1085.90	193553.08	169135.85
SW 01-6	13+39.76 'SB'	40.19' LT	1085.95	193549.55	169139.60
SW 01-7	13+39.62 'SB'	35.20' LT	1085.88	193553.20	169143.03
SW 01-8	13+44.76 'SB'	35.05' LT	1085.83	193556.72	169139.27
SW 01-9	13+50.20 'SB'	34.89' LT	1085.79	193560.44	169135.31
SW 01-10	13+57.68 'SB'	34.67' LT	1085.80	193565.57	169129.85
SW 01-11	13+63.61 'SB'	34.49' LT	1085.81	193569.63	169125.53
SW 01-12 DW-1.16	13+75.24 'SB'	34.15' LT	1085.89	193577.59	169117.04

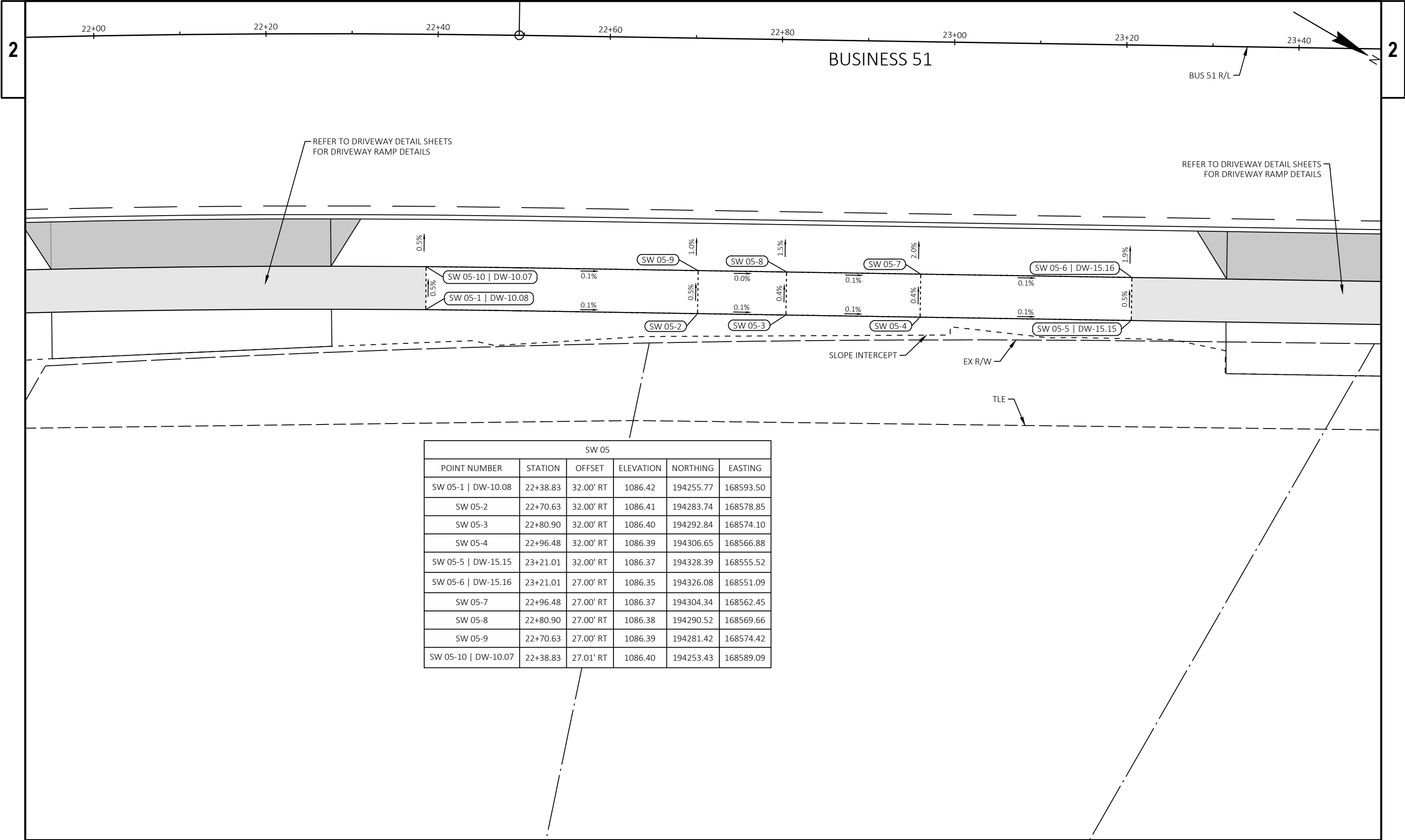
SW 02					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 02-1 DW-1.05	14+27.39 'SB'	34.00' LT	1086.34	193612.27	169078.09
SW 02-2	14+36.37 'SB'	34.00' LT	1086.38	193618.22	169071.36
SW 02-3	14+44.19 'SB'	34.00' LT	1086.41	193623.40	169065.51
SW 02-4	14+60.21 'SB'	34.00' LT	1086.47	193634.01	169053.52
SW 02-5	14+63.83 'SB'	33.62' LT	1086.46	193636.70	169051.05
SW 02-6	14+71.22 'SB'	32.85' LT	1086.43	193642.17	169046.03
SW 02-7	14+81.82 'SB'	31.75' LT	1086.45	193650.02	169038.82
SW 02-8	14+99.06 'SB'	29.96' LT	1086.50	193662.79	169027.10
SW 02-9	15+54.43 'SB'	24.21' LT	1086.54	193703.79	168989.45
SW 02-10	15+63.58 'SB'	23.25' LT	1086.52	193710.57	168983.23
SW 02-11 DW-2.16	15+80.29 'SB'	21.52' LT	1086.49	193722.95	168971.86
SW 02-12 DW-2.15	15+80.81 'SB'	26.49' LT	1086.56	193719.57	168968.18

SW 02					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 02-13	15+64.10 'SB'	28.23' LT	1086.60	193707.19	168979.54
SW 02-14	15+54.94 'SB'	29.18' LT	1086.61	193700.41	168985.77
SW 02-15	14+99.57 'SB'	34.93' LT	1086.58	193659.41	169023.42
SW 02-16	14+82.33 'SB'	36.73' LT	1086.53	193646.64	169035.14
SW 02-17	14+71.74 'SB'	37.83' LT	1086.51	193638.79	169042.34
SW 02-18	14+64.35 'SB'	38.60' LT	1086.53	193633.32	169047.37
SW 02-19	14+60.46 'SB'	39.00' LT	1086.54	193630.44	169050.01
SW 02-20	14+44.19 'SB'	39.00' LT	1086.49	193619.66	169062.19
SW 02-21	14+36.37 'SB'	39.00' LT	1086.45	193614.48	169068.05
SW 02-22 DW-1.06	14+27.39 'SB'	39.00' LT	1086.41	193608.52	169074.78

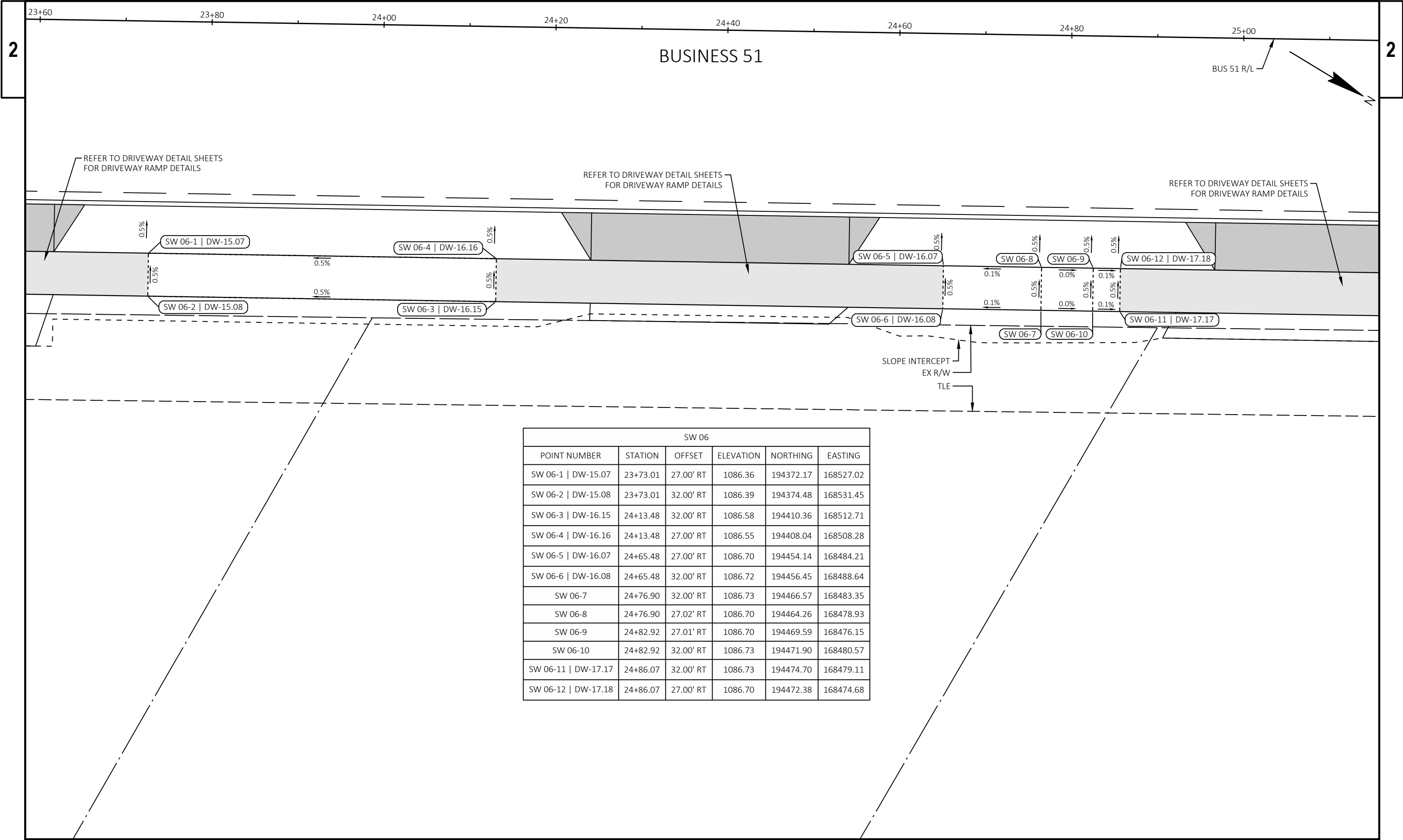




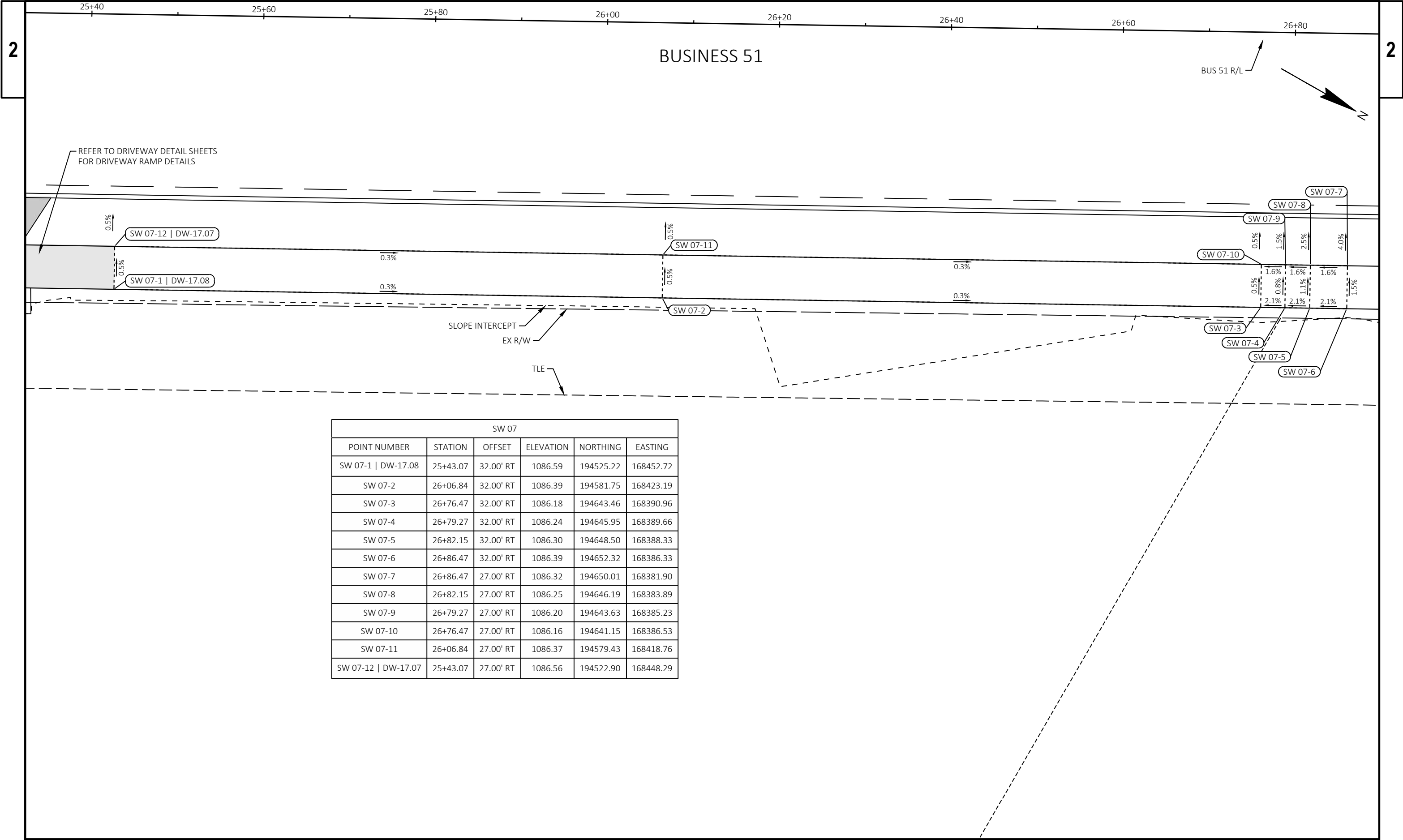




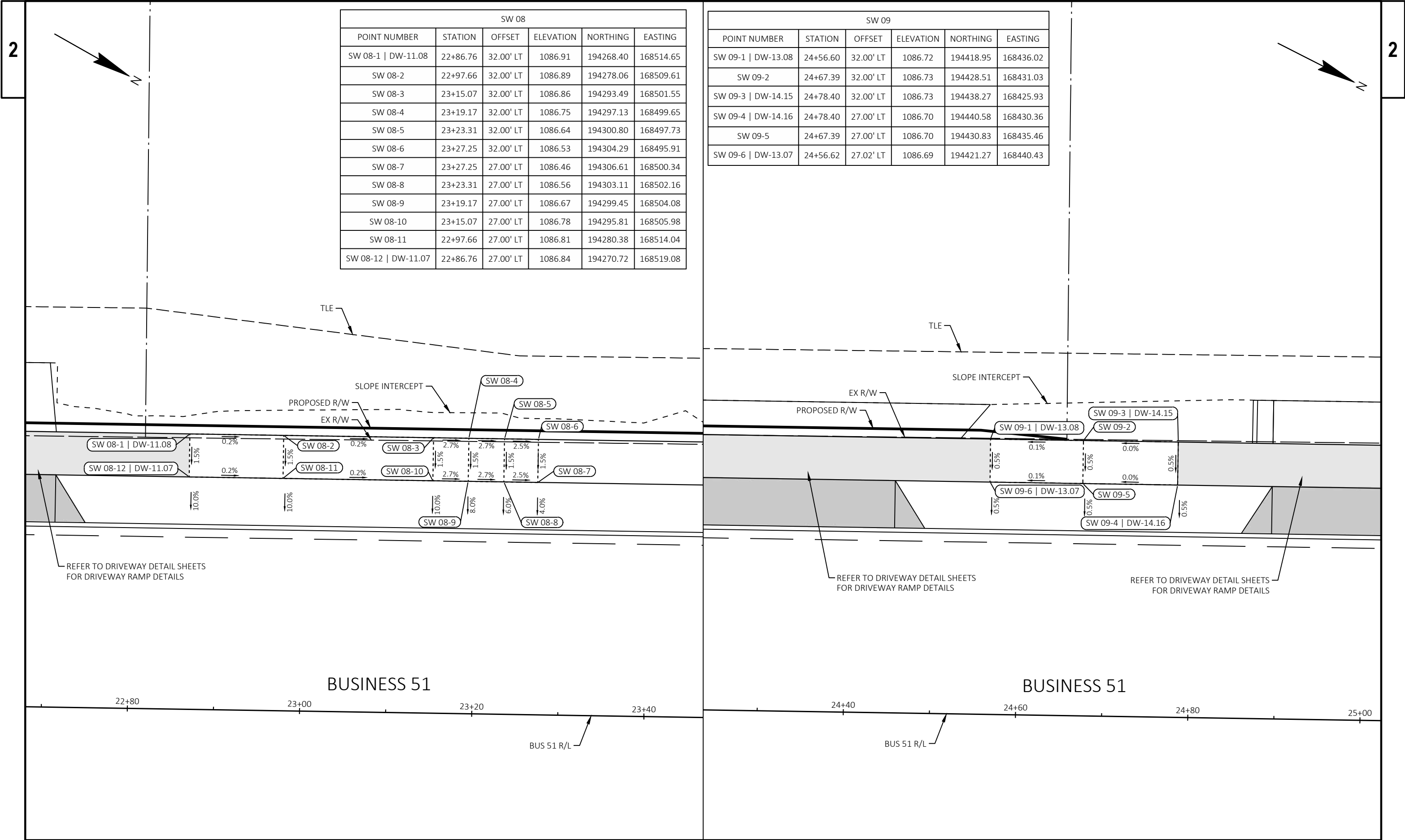
SW 05					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 05-1 DW-10.08	22+38.83	32.00' RT	1086.42	194255.77	168593.50
SW 05-2	22+70.63	32.00' RT	1086.41	194283.74	168578.85
SW 05-3	22+80.90	32.00' RT	1086.40	194292.84	168574.10
SW 05-4	22+96.48	32.00' RT	1086.39	194306.65	168566.88
SW 05-5 DW-15.15	23+21.01	32.00' RT	1086.37	194328.39	168555.52
SW 05-6 DW-15.16	23+21.01	27.00' RT	1086.35	194326.08	168551.09
SW 05-7	22+96.48	27.00' RT	1086.37	194304.34	168562.45
SW 05-8	22+80.90	27.00' RT	1086.38	194290.52	168569.66
SW 05-9	22+70.63	27.00' RT	1086.39	194281.42	168574.42
SW 05-10 DW-10.07	22+38.83	27.01' RT	1086.40	194253.43	168589.09

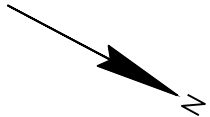


SW 06					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 06-1 DW-15.07	23+73.01	27.00' RT	1086.36	194372.17	168527.02
SW 06-2 DW-15.08	23+73.01	32.00' RT	1086.39	194374.48	168531.45
SW 06-3 DW-16.15	24+13.48	32.00' RT	1086.58	194410.36	168512.71
SW 06-4 DW-16.16	24+13.48	27.00' RT	1086.55	194408.04	168508.28
SW 06-5 DW-16.07	24+65.48	27.00' RT	1086.70	194454.14	168484.21
SW 06-6 DW-16.08	24+65.48	32.00' RT	1086.72	194456.45	168488.64
SW 06-7	24+76.90	32.00' RT	1086.73	194466.57	168483.35
SW 06-8	24+76.90	27.02' RT	1086.70	194464.26	168478.93
SW 06-9	24+82.92	27.01' RT	1086.70	194469.59	168476.15
SW 06-10	24+82.92	32.00' RT	1086.73	194471.90	168480.57
SW 06-11 DW-17.17	24+86.07	32.00' RT	1086.73	194474.70	168479.11
SW 06-12 DW-17.18	24+86.07	27.00' RT	1086.70	194472.38	168474.68

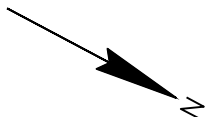
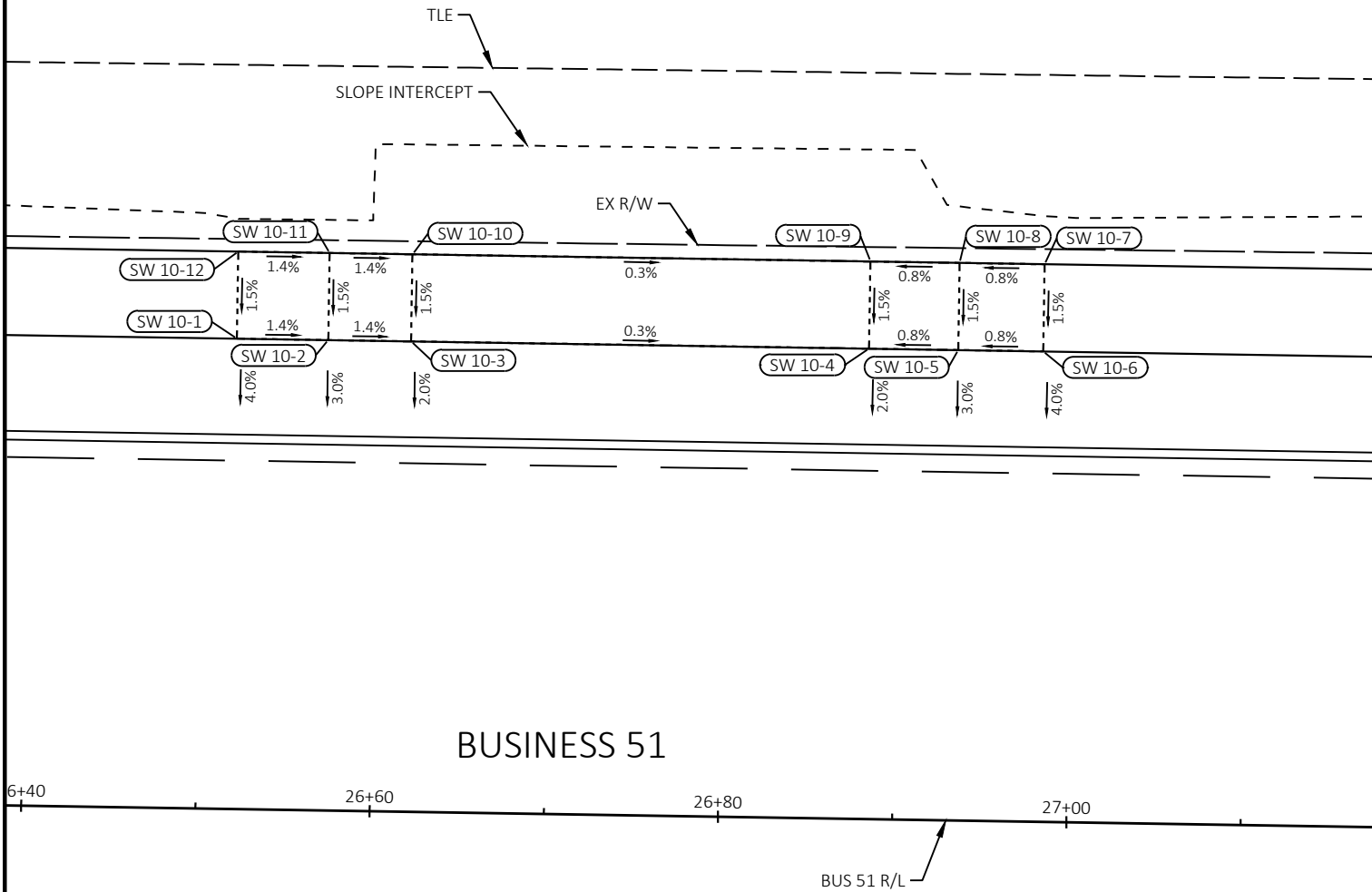


SW 07					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 07-1 DW-17.08	25+43.07	32.00' RT	1086.59	194525.22	168452.72
SW 07-2	26+06.84	32.00' RT	1086.39	194581.75	168423.19
SW 07-3	26+76.47	32.00' RT	1086.18	194643.46	168390.96
SW 07-4	26+79.27	32.00' RT	1086.24	194645.95	168389.66
SW 07-5	26+82.15	32.00' RT	1086.30	194648.50	168388.33
SW 07-6	26+86.47	32.00' RT	1086.39	194652.32	168386.33
SW 07-7	26+86.47	27.00' RT	1086.32	194650.01	168381.90
SW 07-8	26+82.15	27.00' RT	1086.25	194646.19	168383.89
SW 07-9	26+79.27	27.00' RT	1086.20	194643.63	168385.23
SW 07-10	26+76.47	27.00' RT	1086.16	194641.15	168386.53
SW 07-11	26+06.84	27.00' RT	1086.37	194579.43	168418.76
SW 07-12 DW-17.07	25+43.07	27.00' RT	1086.56	194522.90	168448.29

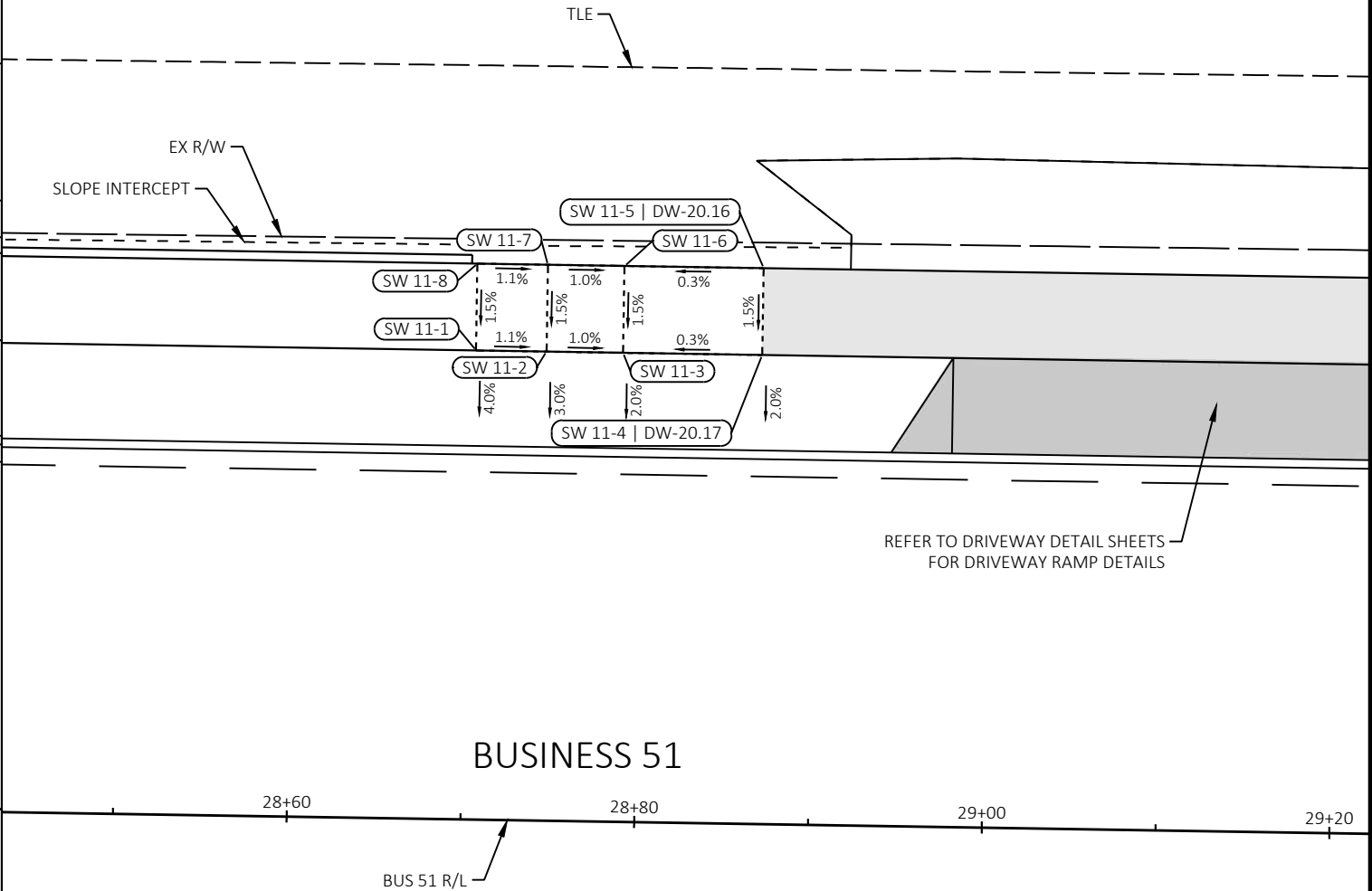


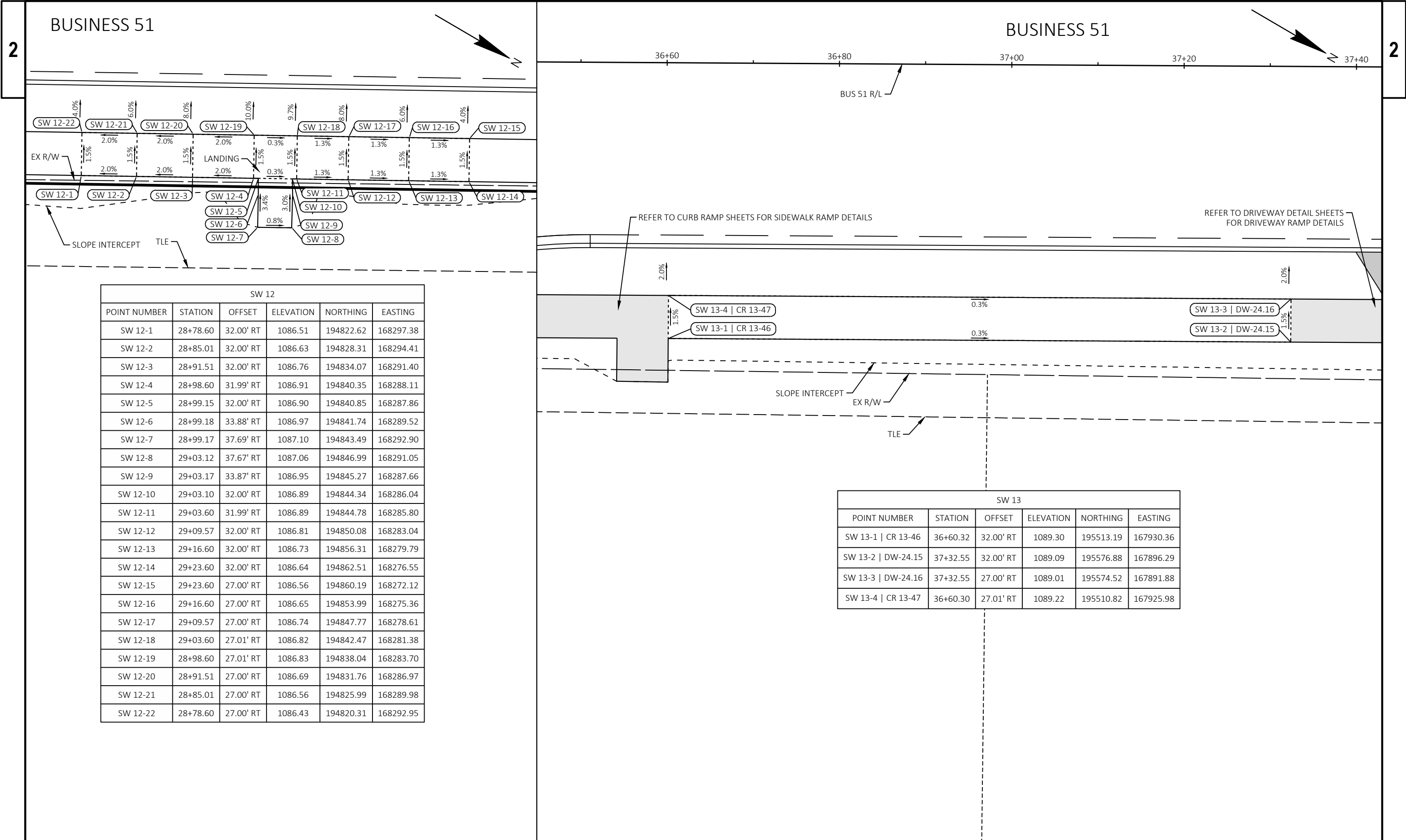


SW 10					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 10-1	26+51.95	27.00' LT	1086.42	194594.42	168350.01
SW 10-2	26+57.20	27.00' LT	1086.35	194599.07	168347.58
SW 10-3	26+61.95	27.00' LT	1086.28	194603.28	168345.38
SW 10-4	26+88.25	27.00' LT	1086.20	194626.59	168333.21
SW 10-5	26+93.37	27.00' LT	1086.24	194631.13	168330.84
SW 10-6	26+98.24	27.00' LT	1086.28	194635.45	168328.58
SW 10-7	26+98.25	32.00' LT	1086.36	194633.14	168324.15
SW 10-8	26+93.37	32.00' LT	1086.32	194628.81	168326.41
SW 10-9	26+88.25	32.00' LT	1086.28	194624.27	168328.78
SW 10-10	26+61.96	32.00' LT	1086.36	194600.97	168340.95
SW 10-11	26+57.20	32.00' LT	1086.42	194596.76	168343.15
SW 10-12	26+51.96	32.00' LT	1086.50	194592.11	168345.58



SW 11					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 11-1	28+70.47	27.00' LT	1086.41	194788.11	168248.85
SW 11-2	28+74.53	27.00' LT	1086.36	194791.71	168246.97
SW 11-3	28+78.93	27.00' LT	1086.32	194795.61	168244.93
SW 11-4 DW-20.17	28+86.94	27.00' LT	1086.34	194802.71	168241.22
SW 11-5 DW-20.16	28+86.94	32.00' LT	1086.42	194800.39	168236.79
SW 11-6	28+78.93	31.99' LT	1086.40	194793.30	168240.51
SW 11-7	28+74.53	31.99' LT	1086.44	194789.40	168242.55
SW 11-8	28+70.47	32.00' LT	1086.48	194785.79	168244.42





PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

CONSTRUCTION DETAILS - SIDEWALK DETAILS

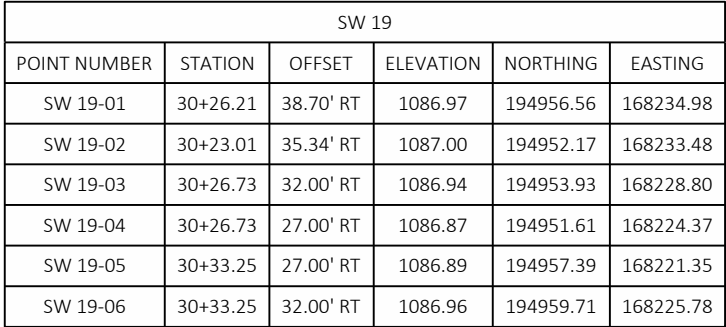
SHEET

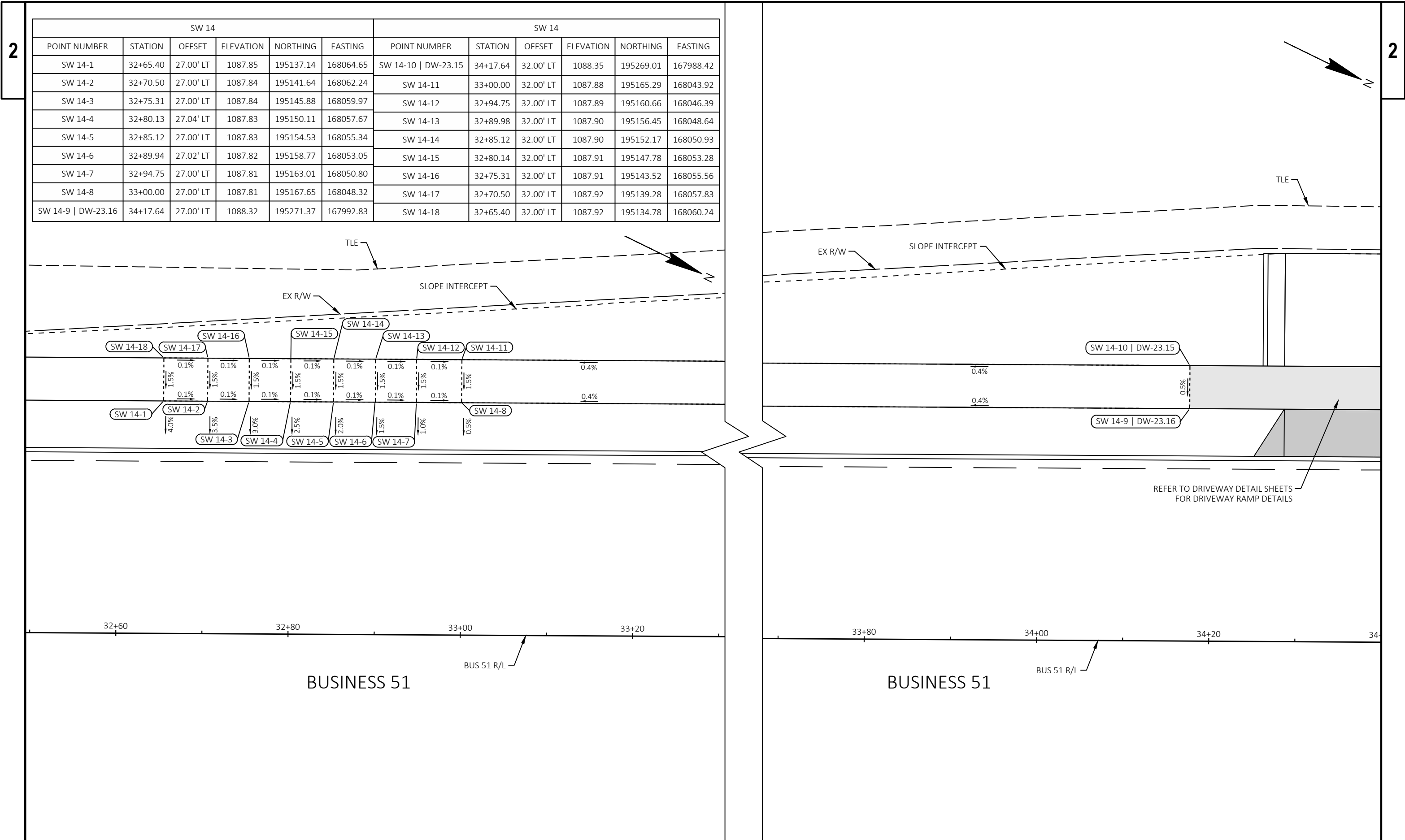
48

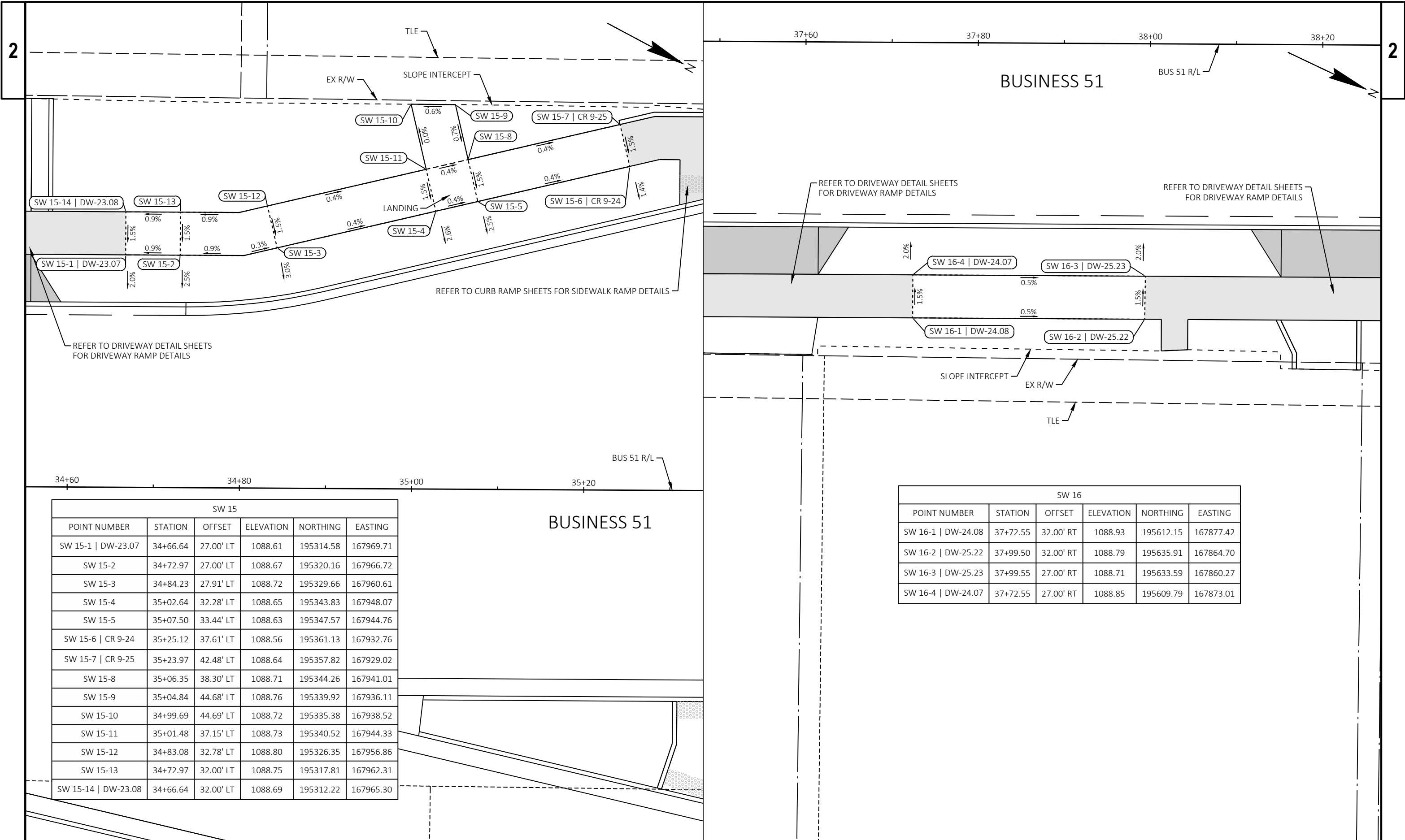
E

2

2



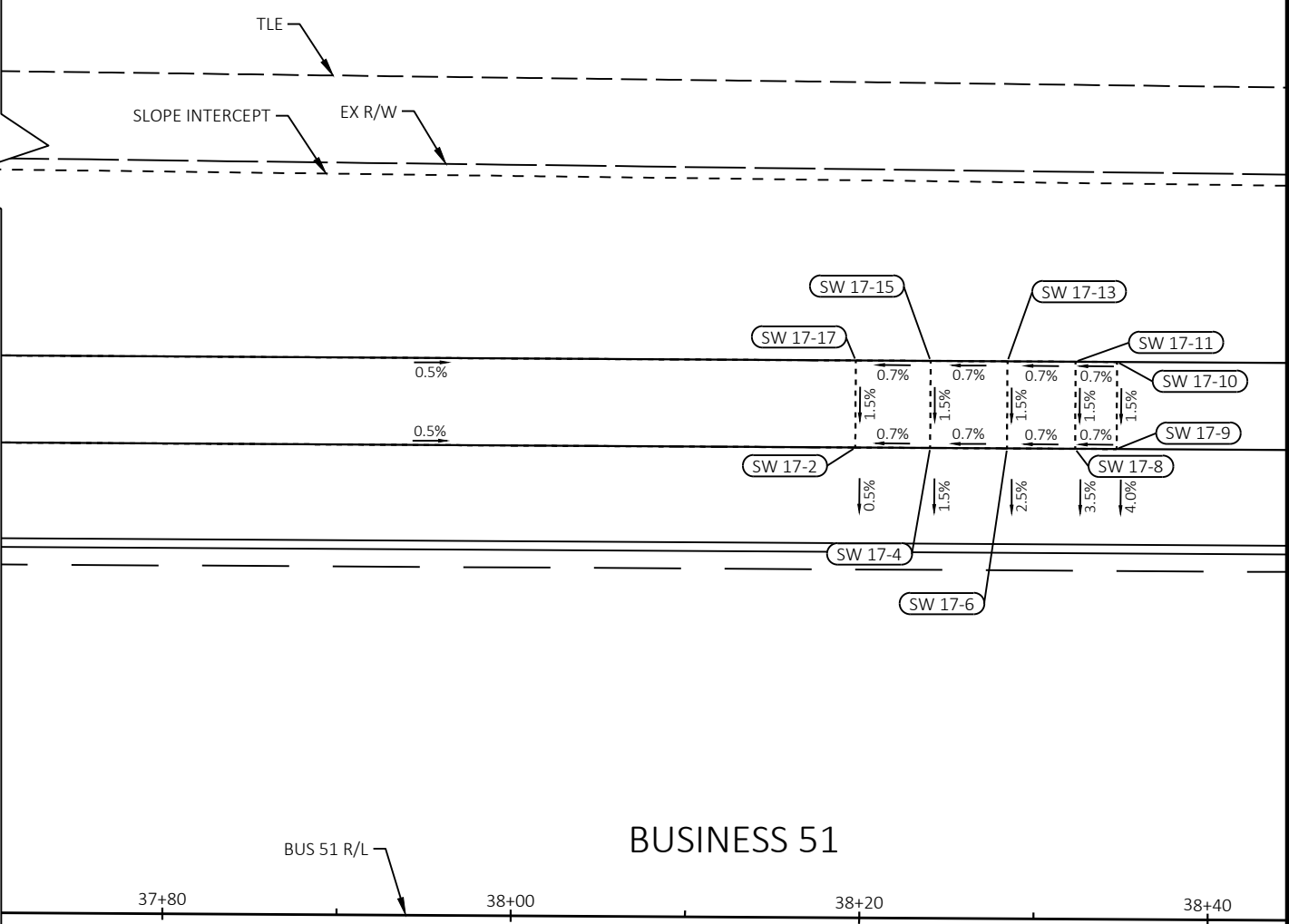
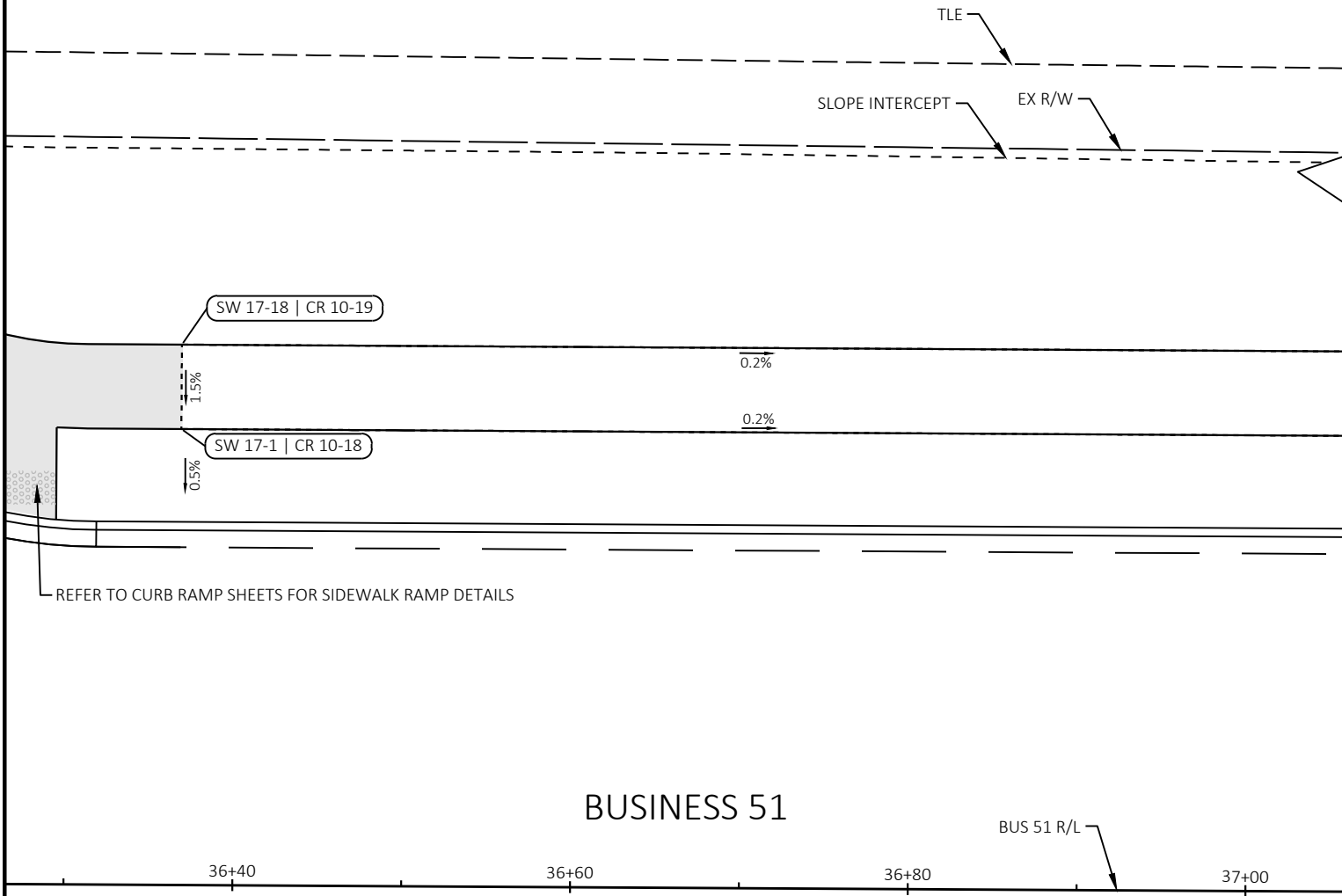
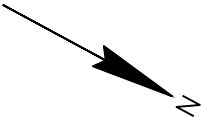
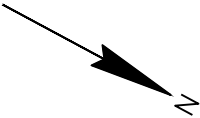


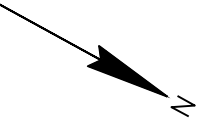


SW 15					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 15-1 DW-23.07	34+66.64	27.00' LT	1088.61	195314.58	167969.71
SW 15-2	34+72.97	27.00' LT	1088.67	195320.16	167966.72
SW 15-3	34+84.23	27.91' LT	1088.72	195329.66	167960.61
SW 15-4	35+02.64	32.28' LT	1088.65	195343.83	167948.07
SW 15-5	35+07.50	33.44' LT	1088.63	195347.57	167944.76
SW 15-6 CR 9-24	35+25.12	37.61' LT	1088.56	195361.13	167932.76
SW 15-7 CR 9-25	35+23.97	42.48' LT	1088.64	195357.82	167929.02
SW 15-8	35+06.35	38.30' LT	1088.71	195344.26	167941.01
SW 15-9	35+04.84	44.68' LT	1088.76	195339.92	167936.11
SW 15-10	34+99.69	44.69' LT	1088.72	195335.38	167938.52
SW 15-11	35+01.48	37.15' LT	1088.73	195340.52	167944.33
SW 15-12	34+83.08	32.78' LT	1088.80	195326.35	167956.86
SW 15-13	34+72.97	32.00' LT	1088.75	195317.81	167962.31
SW 15-14 DW-23.08	34+66.64	32.00' LT	1088.69	195312.22	167965.30

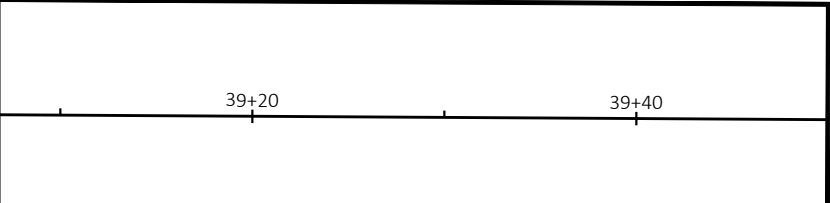
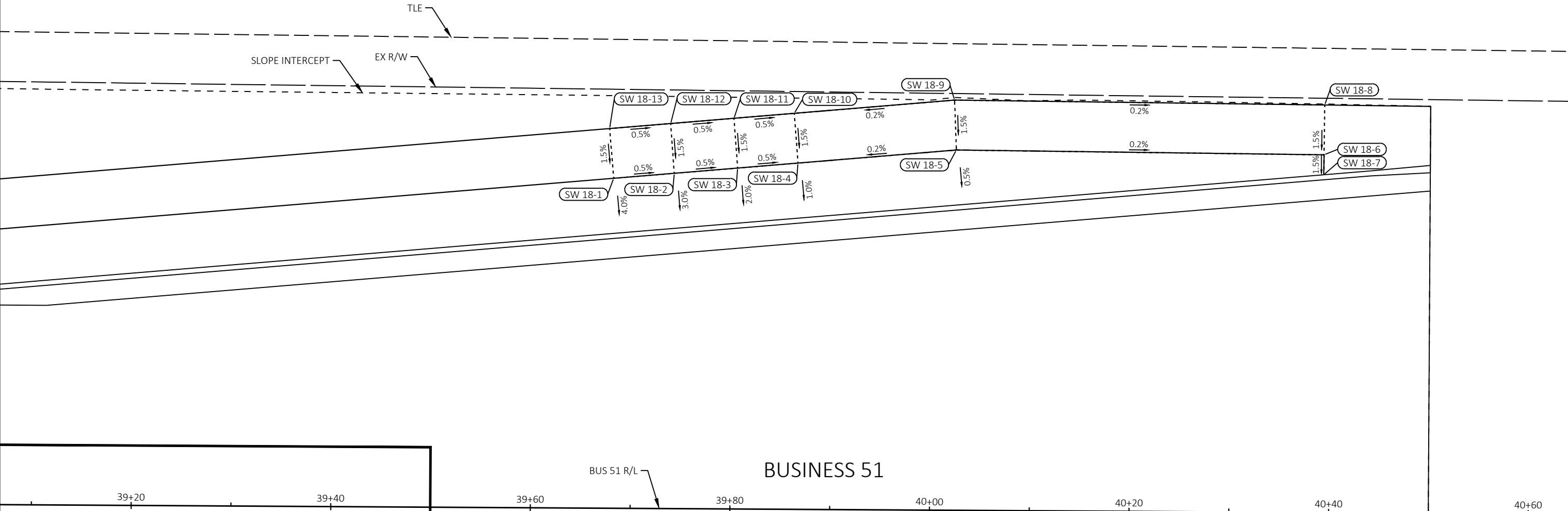
SW 16					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 16-1 DW-24.08	37+72.55	32.00' RT	1088.93	195612.15	167877.42
SW 16-2 DW-25.22	37+99.50	32.00' RT	1088.79	195635.91	167864.70
SW 16-3 DW-25.23	37+99.55	27.00' RT	1088.71	195633.59	167860.27
SW 16-4 DW-24.07	37+72.55	27.00' RT	1088.85	195609.79	167873.01

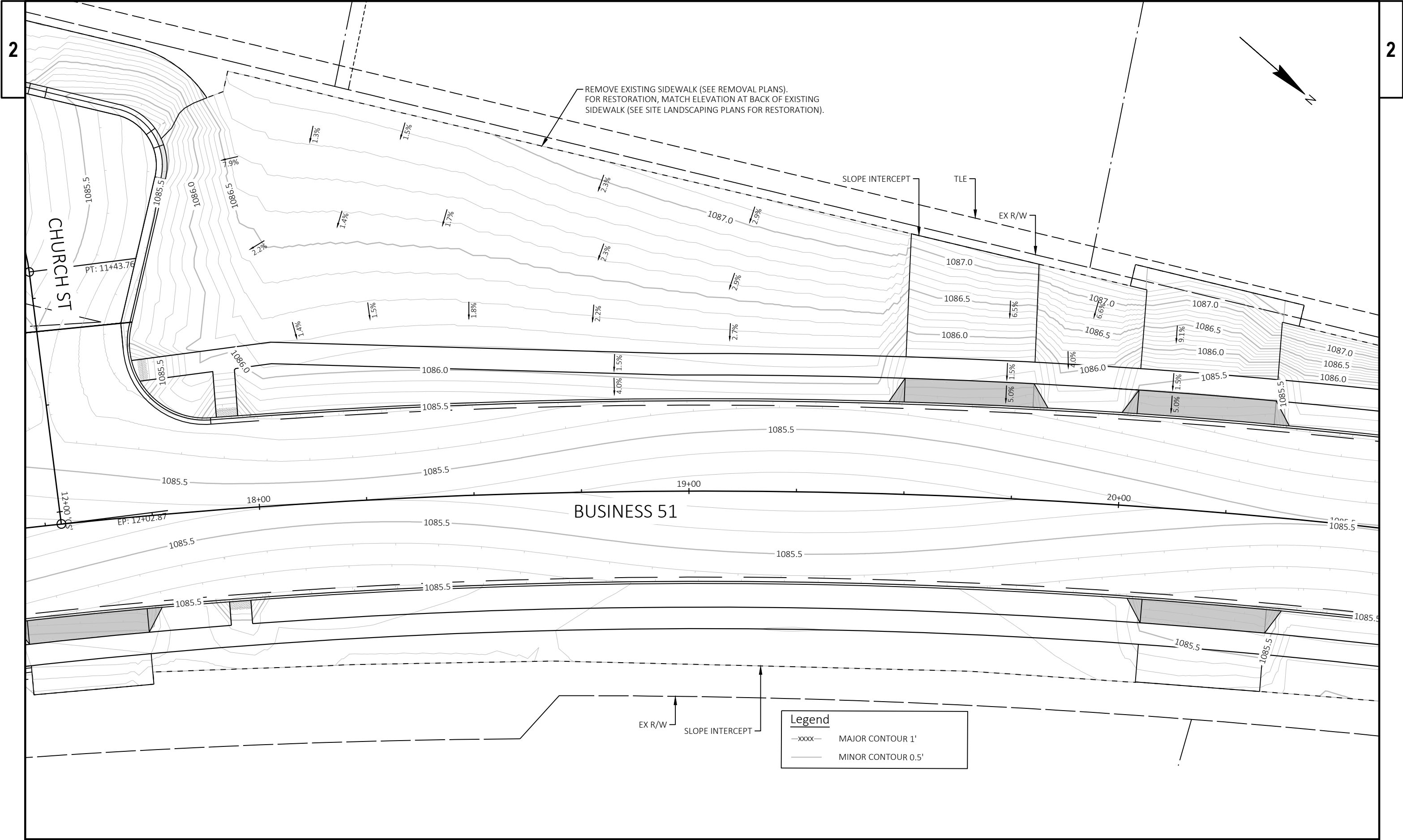
SW 17					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 17-1 CR 10-18	36+36.82	27.00' LT	1089.16	195464.64	167889.43
SW 17-2	38+19.62	27.00' LT	1088.51	195625.81	167803.19
SW 17-4	38+23.92	27.00' LT	1088.54	195629.60	167801.17
SW 17-6	38+28.33	27.00' LT	1088.57	195633.49	167799.09
SW 17-8	38+32.24	27.00' LT	1088.60	195636.94	167797.24
SW 17-9	38+34.62	27.00' LT	1088.61	195639.04	167796.12
SW 17-10	38+34.62	32.00' LT	1088.69	195636.68	167791.71
SW 17-11	38+32.24	32.00' LT	1088.67	195634.58	167792.83
SW 17-13	38+28.33	32.00' LT	1088.65	195631.13	167794.68
SW 17-15	38+23.92	32.00' LT	1088.62	195627.24	167796.76
SW 17-17	38+19.62	32.00' LT	1088.59	195623.46	167798.78
SW 17-18 CR 10-19	36+36.82	32.00' LT	1089.24	195462.28	167885.02

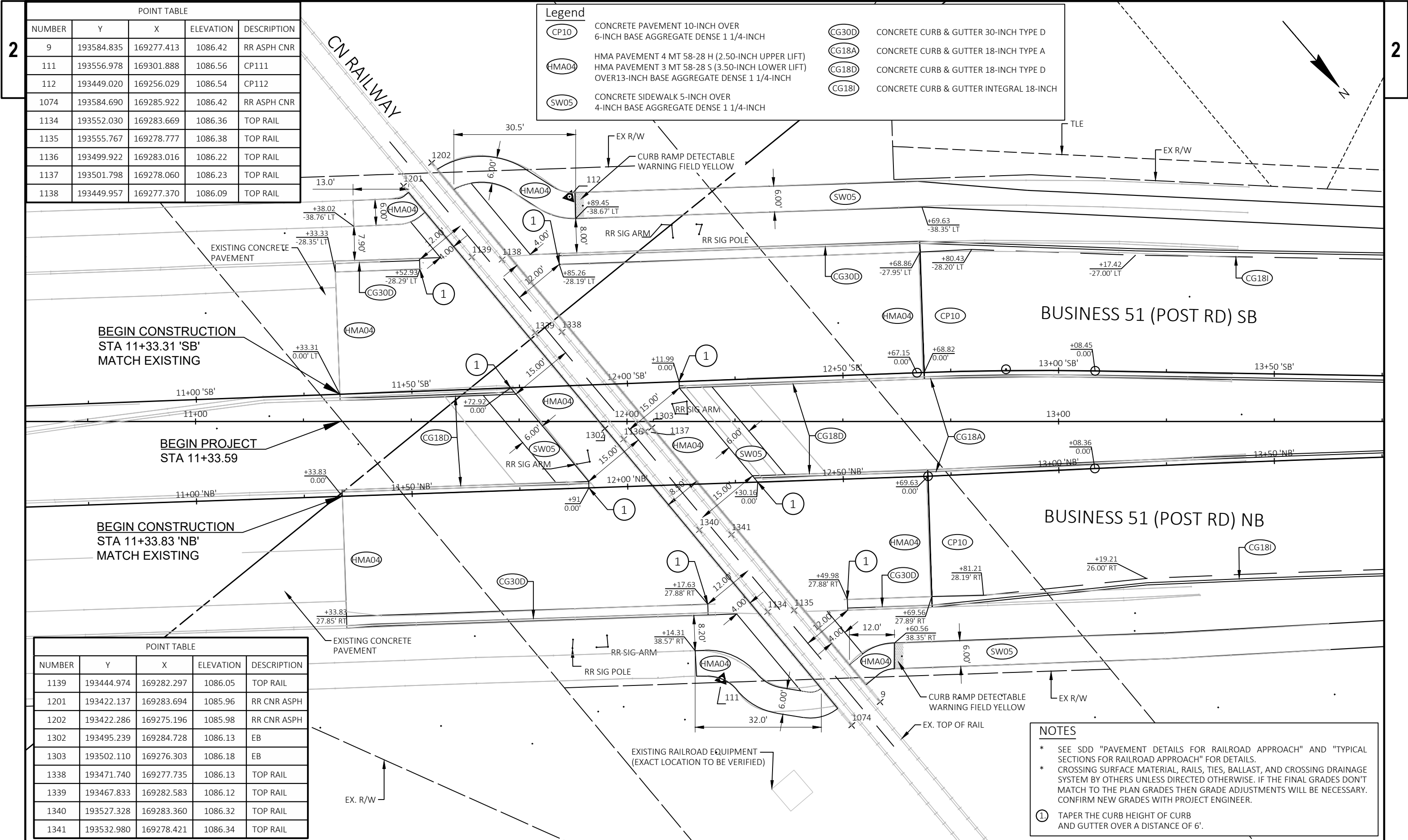




SW 18					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW 18-1	39+68.17	33.05' LT	1088.49	195753.94	167727.78
SW 18-2	39+74.23	33.59' LT	1088.46	195759.03	167724.45
SW 18-3	39+80.59	34.15' LT	1088.43	195764.37	167720.95
SW 18-4	39+86.63	34.68' LT	1088.39	195769.45	167717.63
SW 18-5	40+02.49	36.09' LT	1088.42	195782.77	167708.91
SW 18-6	40+39.35	35.82' LT	1088.24	195815.39	167691.76
SW 18-7	40+39.33	33.82' LT	1088.31	195816.32	167693.53
SW 18-8	40+39.38	40.82' LT	1088.42	195813.06	167687.33
SW 18-9	40+02.29	41.09' LT	1088.50	195780.23	167704.60
SW 18-10	39+86.23	39.67' LT	1088.47	195766.74	167713.43
SW 18-11	39+80.18	39.13' LT	1088.50	195761.66	167716.75
SW 18-12	39+73.85	38.57' LT	1088.54	195756.34	167720.23
SW 18-13	39+67.73	38.03' LT	1088.57	195751.20	167723.59

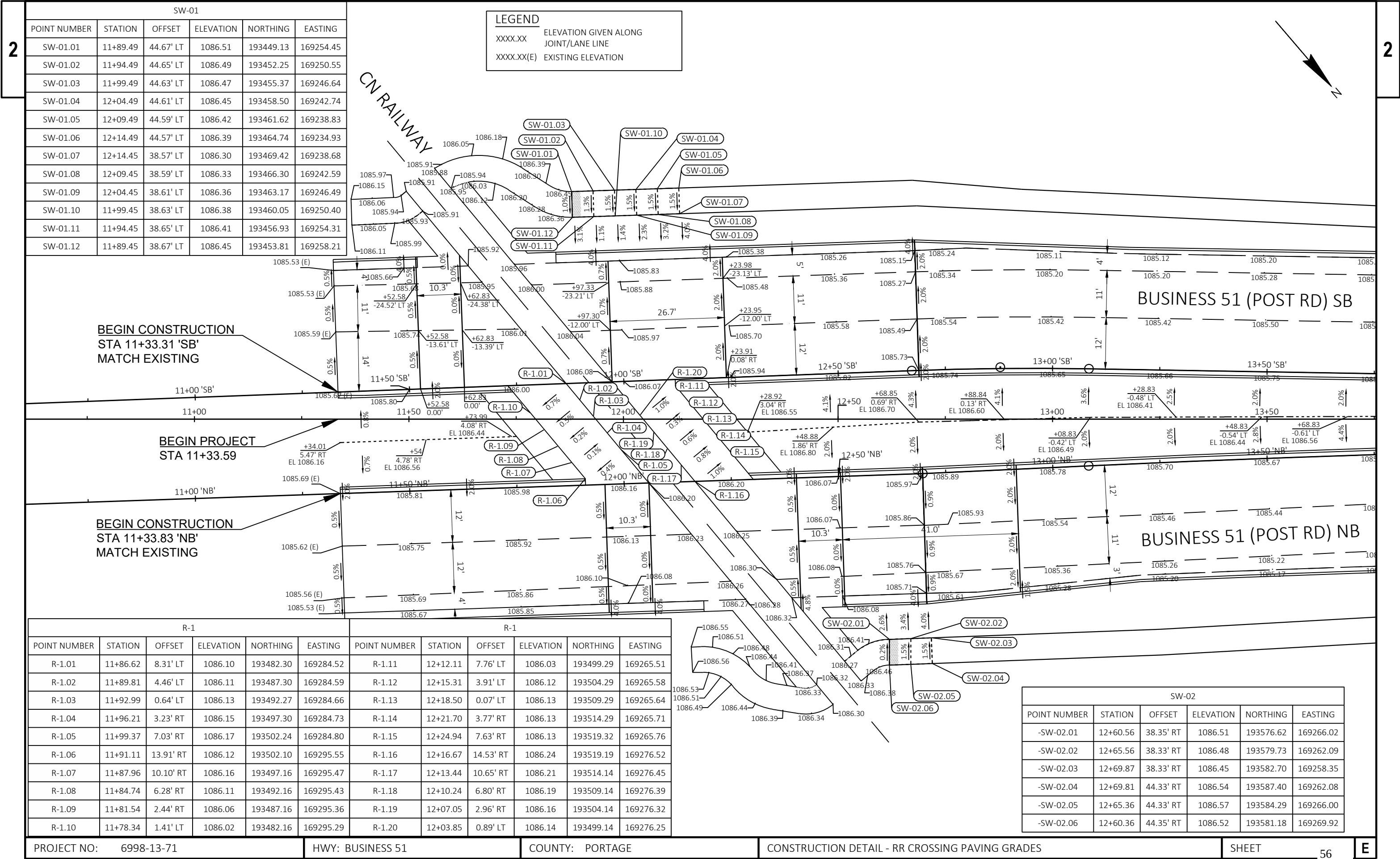






POINT TABLE				
NUMBER	Y	X	ELEVATION	DESCRIPTION
9	193584.835	169277.413	1086.42	RR ASPH CNR
111	193556.978	169301.888	1086.56	CP111
112	193449.020	169256.029	1086.54	CP112
1074	193584.690	169285.922	1086.42	RR ASPH CNR
1134	193552.030	169283.669	1086.36	TOP RAIL
1135	193555.767	169278.777	1086.38	TOP RAIL
1136	193499.922	169283.016	1086.22	TOP RAIL
1137	193501.798	169278.060	1086.23	TOP RAIL
1138	193449.957	169277.370	1086.09	TOP RAIL

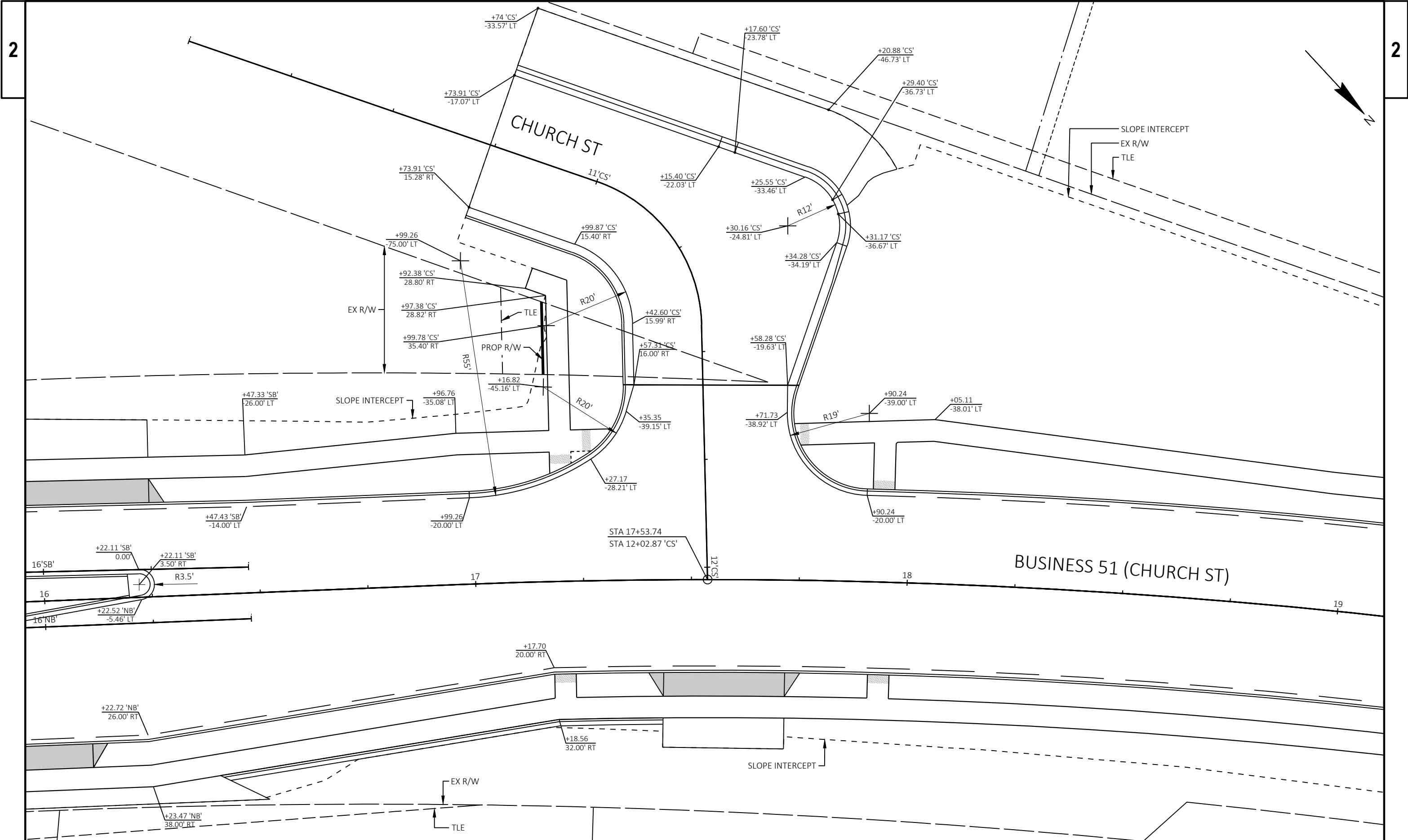
POINT TABLE				
NUMBER	Y	X	ELEVATION	DESCRIPTION
1139	193444.974	169282.297	1086.05	TOP RAIL
1201	193422.137	169283.694	1085.96	RR CNR ASPH
1202	193422.286	169275.196	1085.98	RR CNR ASPH
1302	193495.239	169284.728	1086.13	EB
1303	193502.110	169276.303	1086.18	EB
1338	193471.740	169277.735	1086.13	TOP RAIL
1339	193467.833	169282.583	1086.12	TOP RAIL
1340	193527.328	169283.360	1086.32	TOP RAIL
1341	193532.980	169278.421	1086.34	TOP RAIL



SW-01					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SW-01.01	11+89.49	44.67' LT	1086.51	193449.13	169254.45
SW-01.02	11+94.49	44.65' LT	1086.49	193452.25	169250.55
SW-01.03	11+99.49	44.63' LT	1086.47	193455.37	169246.64
SW-01.04	12+04.49	44.61' LT	1086.45	193458.50	169242.74
SW-01.05	12+09.49	44.59' LT	1086.42	193461.62	169238.83
SW-01.06	12+14.49	44.57' LT	1086.39	193464.74	169234.93
SW-01.07	12+14.45	38.57' LT	1086.30	193469.42	169238.68
SW-01.08	12+09.45	38.59' LT	1086.33	193466.30	169242.59
SW-01.09	12+04.45	38.61' LT	1086.36	193463.17	169246.49
SW-01.10	11+99.45	38.63' LT	1086.38	193460.05	169250.40
SW-01.11	11+94.45	38.65' LT	1086.41	193456.93	169254.31
SW-01.12	11+89.45	38.67' LT	1086.45	193453.81	169258.21

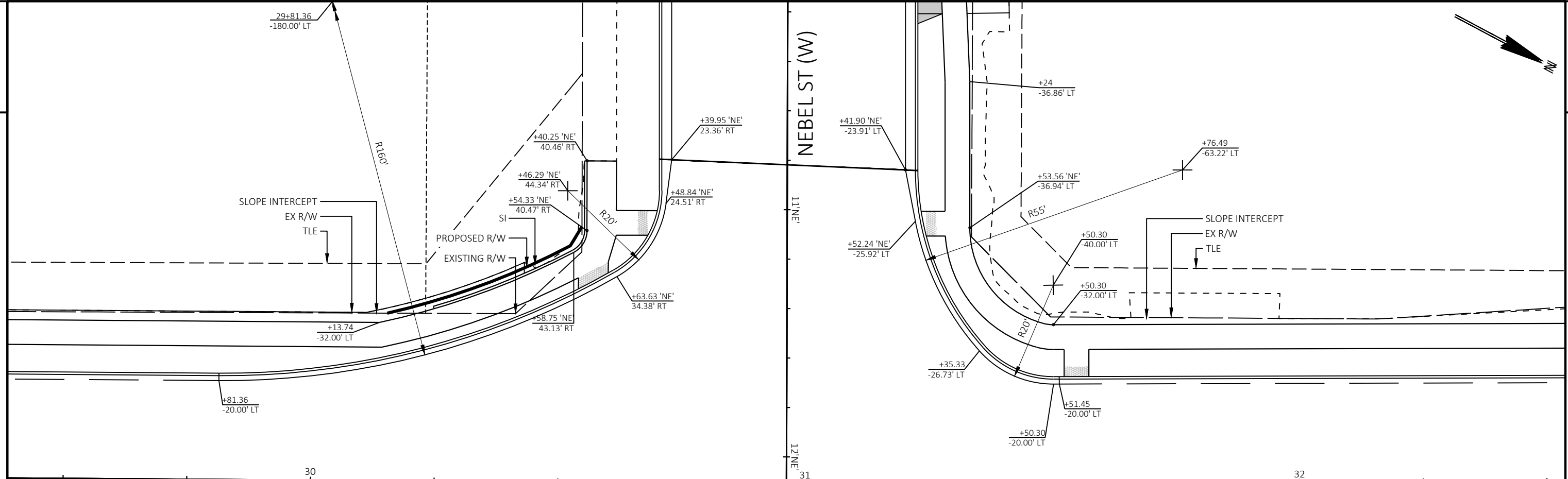
R-1						R-1					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
R-1.01	11+86.62	8.31' LT	1086.10	193482.30	169284.52	R-1.11	12+12.11	7.76' LT	1086.03	193499.29	169265.51
R-1.02	11+89.81	4.46' LT	1086.11	193487.30	169284.59	R-1.12	12+15.31	3.91' LT	1086.12	193504.29	169265.58
R-1.03	11+92.99	0.64' LT	1086.13	193492.27	169284.66	R-1.13	12+18.50	0.07' LT	1086.13	193509.29	169265.64
R-1.04	11+96.21	3.23' RT	1086.15	193497.30	169284.73	R-1.14	12+21.70	3.77' RT	1086.13	193514.29	169265.71
R-1.05	11+99.37	7.03' RT	1086.17	193502.24	169284.80	R-1.15	12+24.94	7.63' RT	1086.13	193519.32	169265.76
R-1.06	11+91.11	13.91' RT	1086.12	193502.10	169295.55	R-1.16	12+16.67	14.53' RT	1086.24	193519.19	169276.52
R-1.07	11+87.96	10.10' RT	1086.16	193497.16	169295.47	R-1.17	12+13.44	10.65' RT	1086.21	193514.14	169276.45
R-1.08	11+84.74	6.28' RT	1086.11	193492.16	169295.43	R-1.18	12+10.24	6.80' RT	1086.19	193509.14	169276.39
R-1.09	11+81.54	2.44' RT	1086.06	193487.16	169295.36	R-1.19	12+07.05	2.96' RT	1086.16	193504.14	169276.32
R-1.10	11+78.34	1.41' LT	1086.02	193482.16	169295.29	R-1.20	12+03.85	0.89' LT	1086.14	193499.14	169276.25

SW-02					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
-SW-02.01	12+60.56	38.35' RT	1086.51	193576.62	169266.02
-SW-02.02	12+65.56	38.33' RT	1086.48	193579.73	169262.09
-SW-02.03	12+69.87	38.33' RT	1086.45	193582.70	169258.35
-SW-02.04	12+69.81	44.33' RT	1086.54	193587.40	169262.08
-SW-02.05	12+65.36	44.33' RT	1086.57	193584.29	169266.00
-SW-02.06	12+60.36	44.35' RT	1086.52	193581.18	169269.92

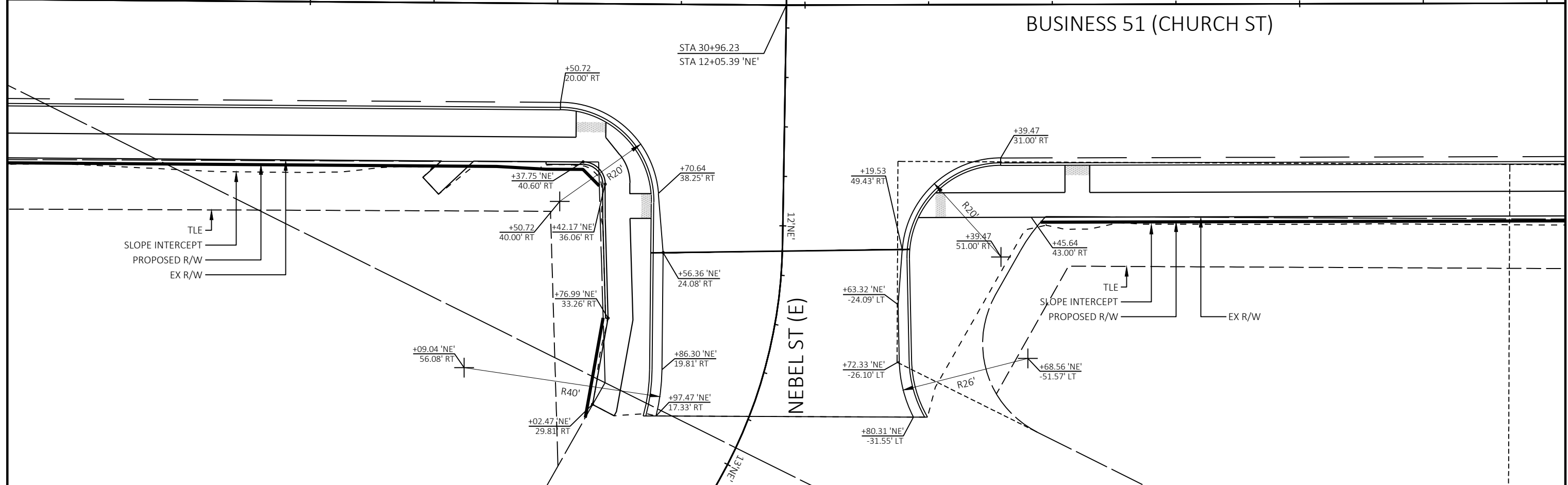


2

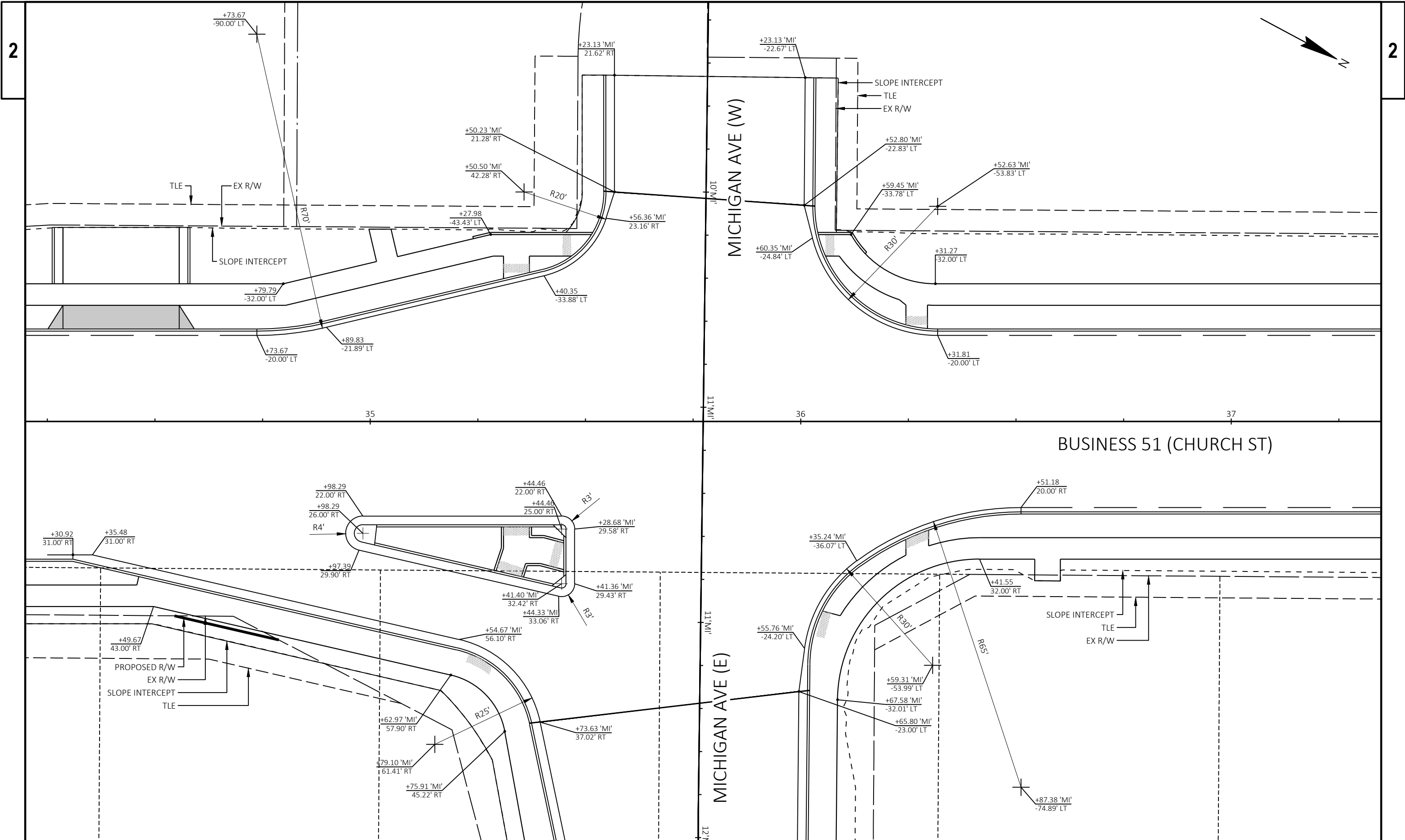
2



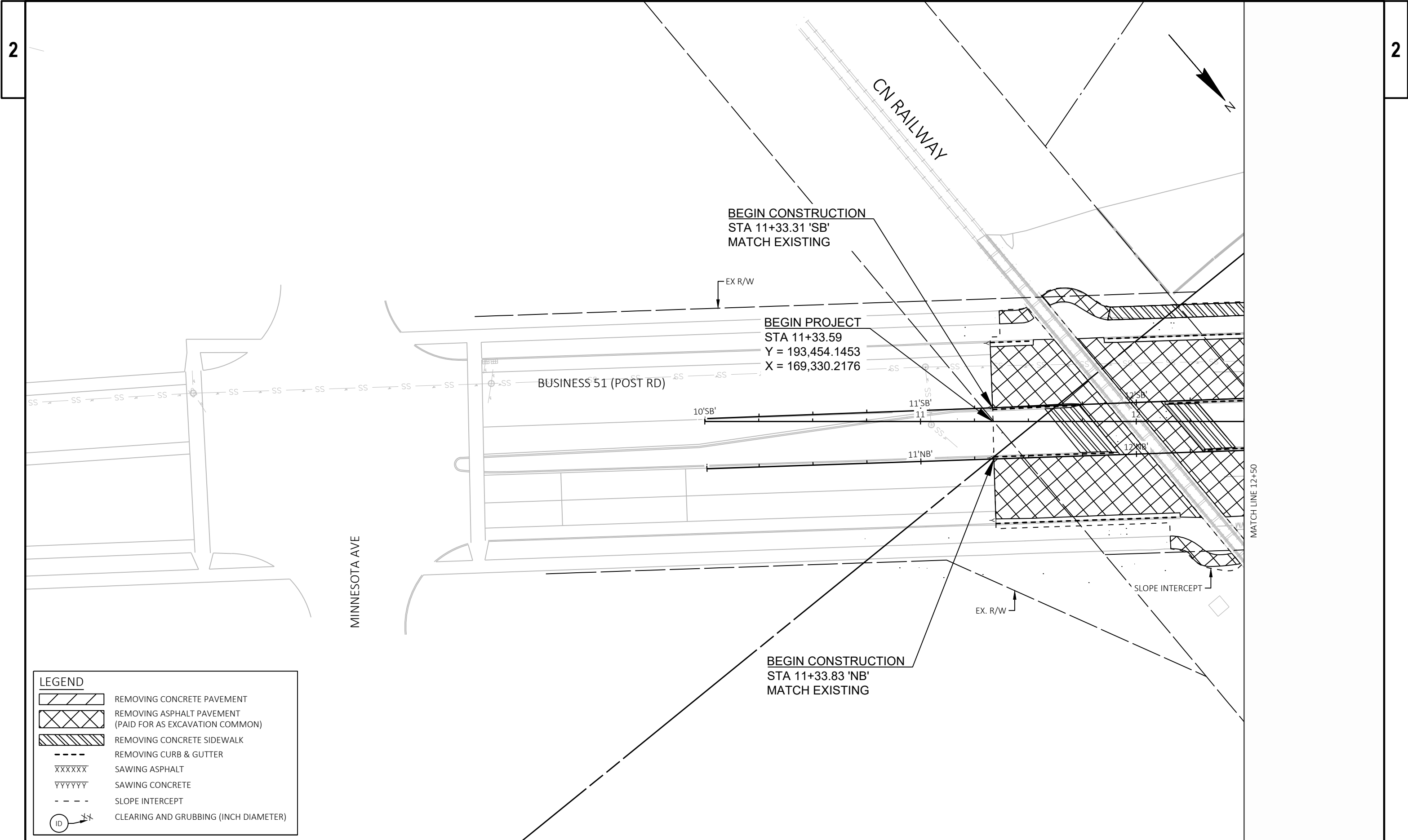
BUSINESS 51 (CHURCH ST)



PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 58	E
------------------------	------------------	-----------------	----------------------	----------	---



PROJECT NO:	6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET	59	E
-------------	------------	------------------	-----------------	----------------------	-------	----	---



LEGEND

REMOVING CONCRETE PAVEMENT

REMOVING ASPHALT PAVEMENT
(PAID FOR AS EXCAVATION COMMON)

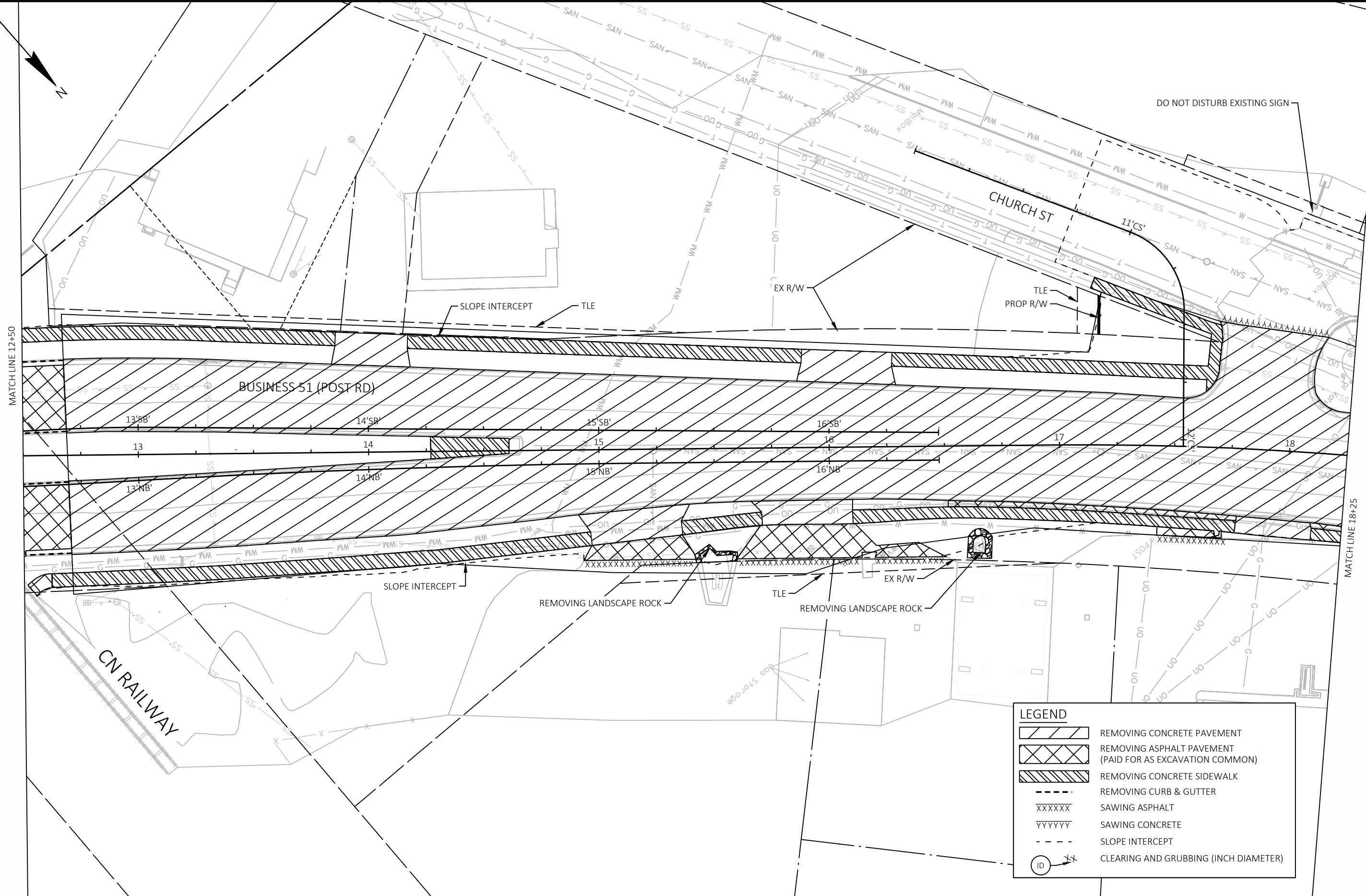
XXXXXX

YYYYYY

ID

2

2



PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

REMOVAL PLANS - STAGE 1

SHEET	61	E
-------	----	---

E

FILE NAME : C:\USERS\MROZZ\AECOM\60730625 BUS51 SOUTH SEGMENT - GENERAL\900_CAD_GIS\910_CAD\60730625\SHEETS\PLAN\021101-RM-S1.DWG PLOT DATE : 11/3/2025 11:29 AM
LAYOUT NAME - 021101-01

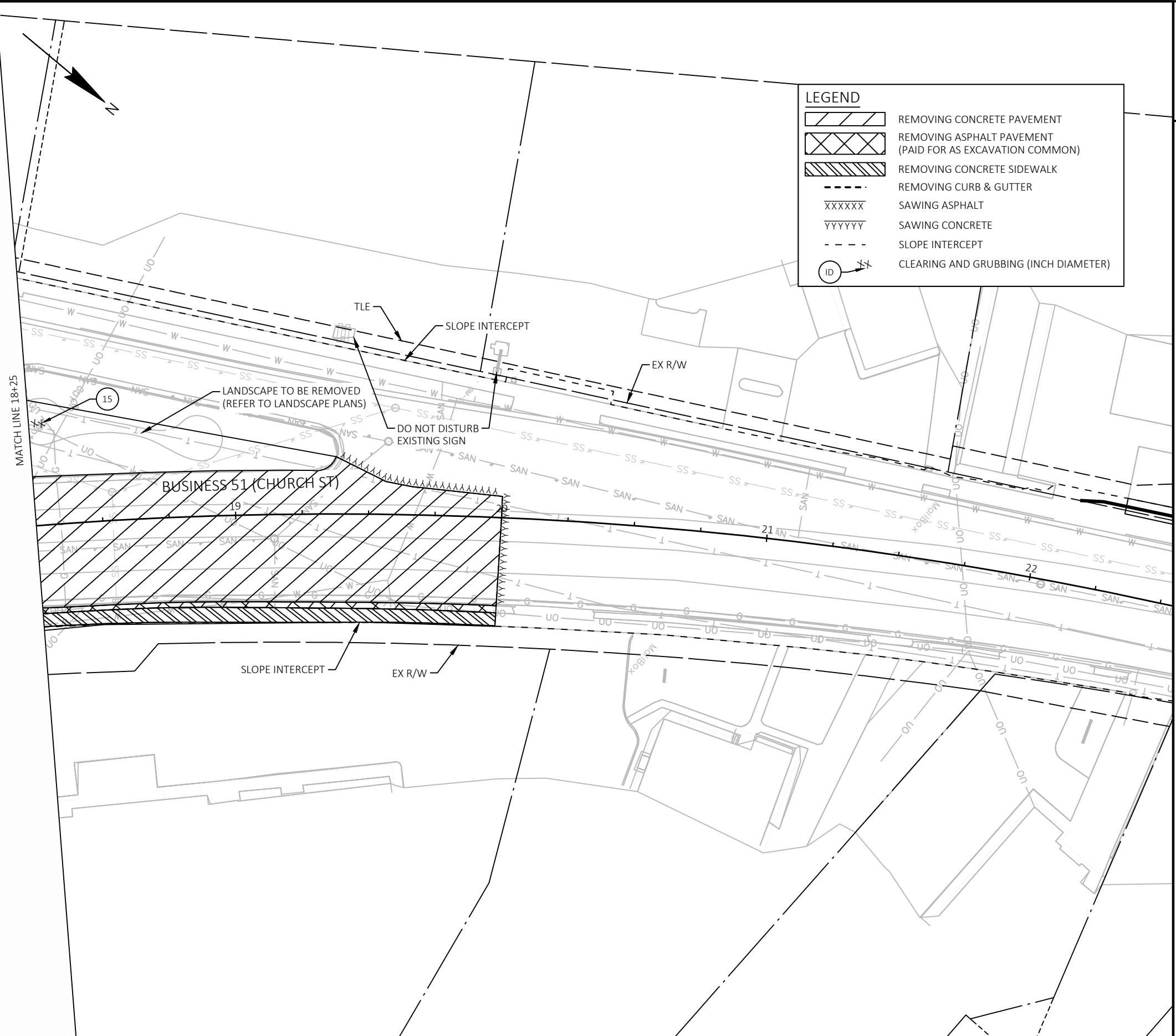
PLOT DATE : 11/3/2025 11:29 AM PLOT BY : MROZ, ZACHARY

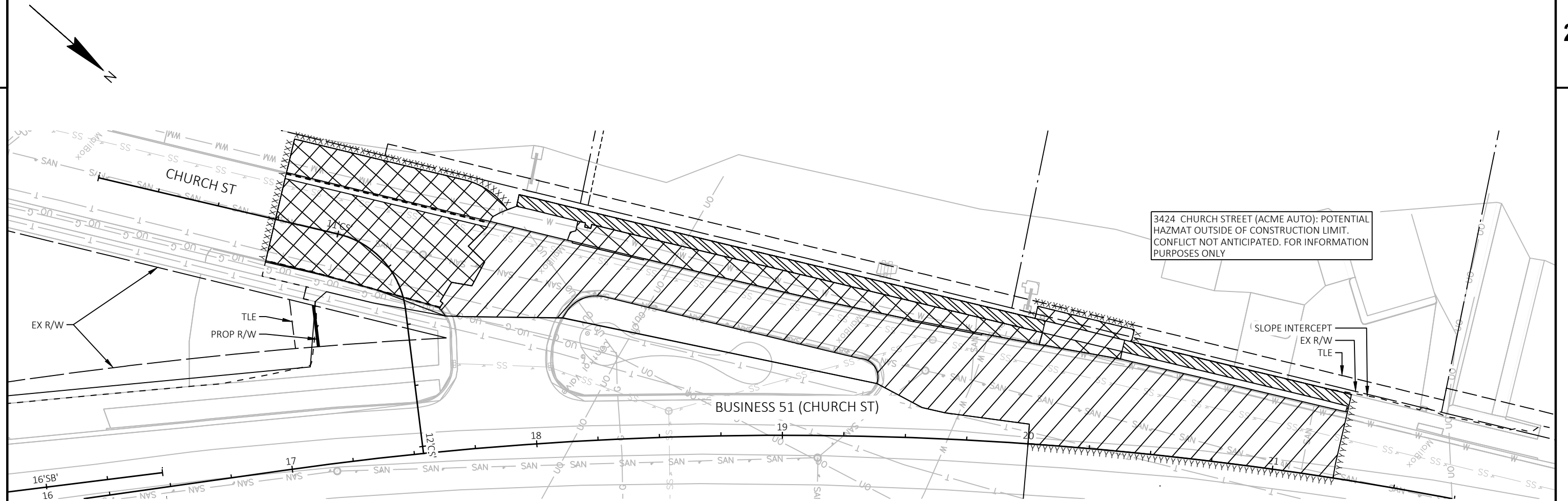
PLOT BY :	MROZ, ZACHARY	PLOT NAME :
-----------	---------------	-------------

PLOT NAME : PLOT SCALE : 1 IN:40 FT

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



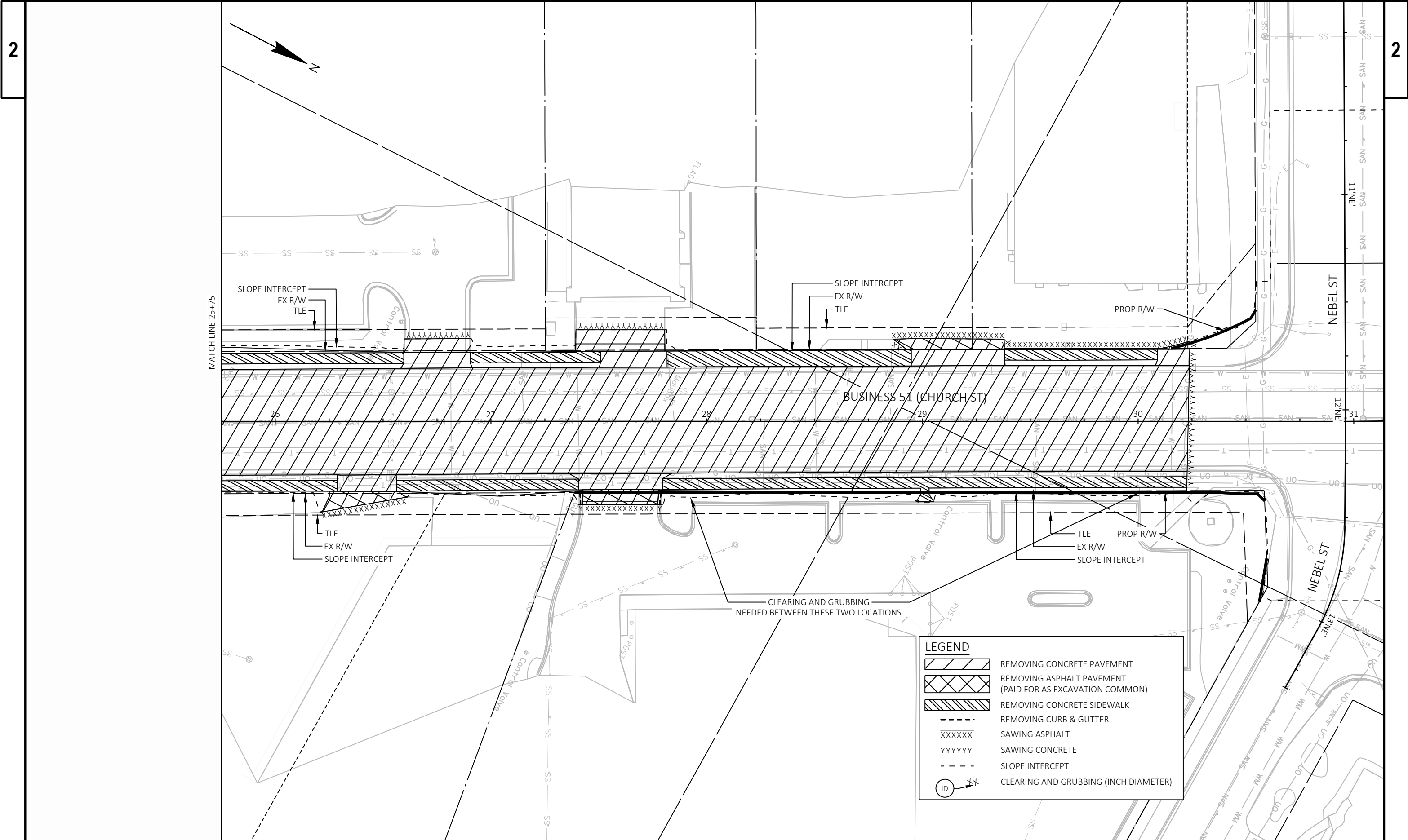


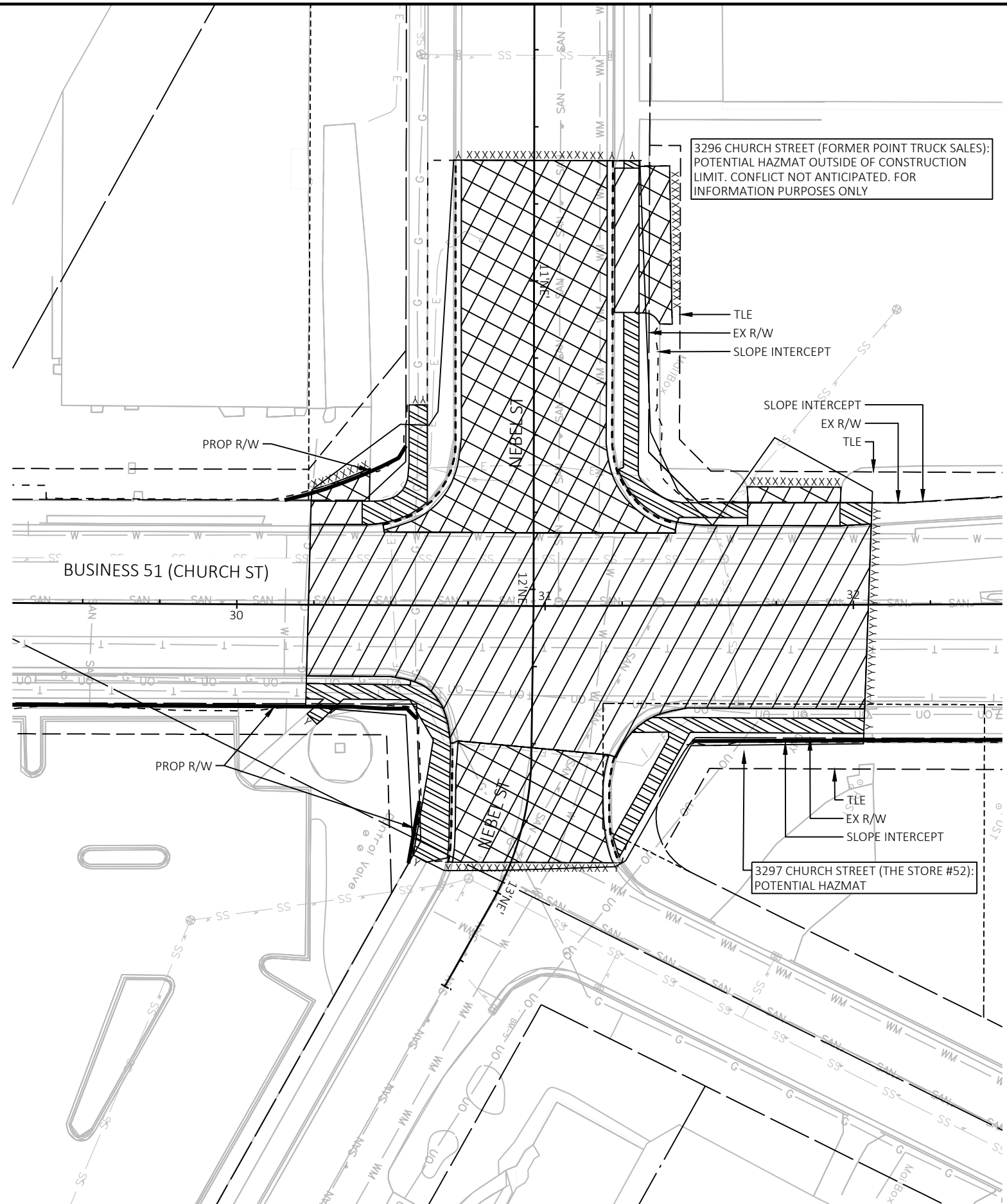
3424 CHURCH STREET (ACME AUTO): POTENTIAL HAZMAT OUTSIDE OF CONSTRUCTION LIMIT. CONFLICT NOT ANTICIPATED. FOR INFORMATION PURPOSES ONLY

LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING CONCRETE SIDEWALK
- REMOVING CURB & GUTTER
- SAWING ASPHALT
- SAWING CONCRETE
- SLOPE INTERCEPT
- CLEARING AND GRUBBING (INCH DIAMETER)



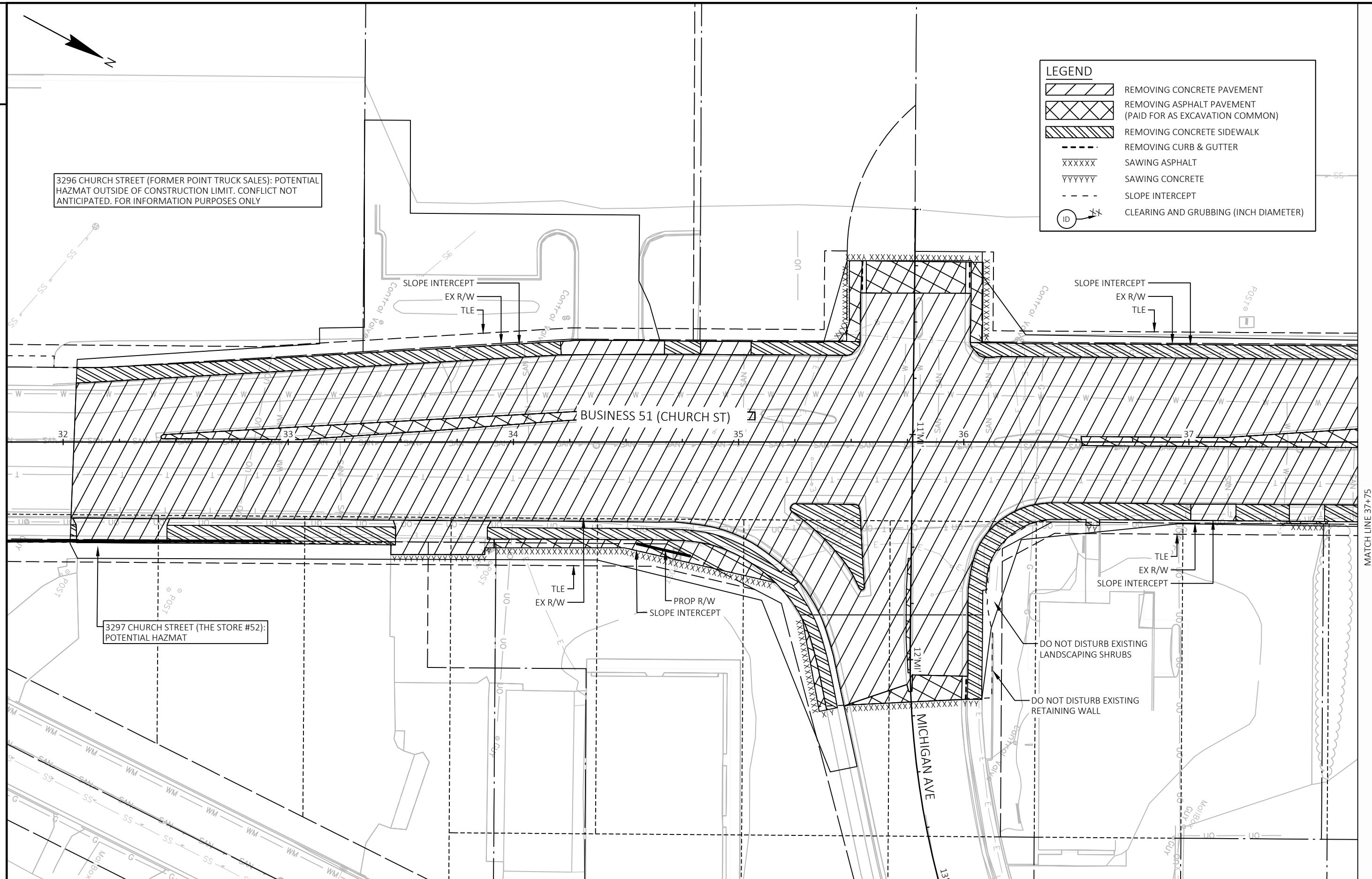




LEGEND	
	REMOVING CONCRETE PAVEMENT
	REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	SAWING ASPHALT
	SAWING CONCRETE
	SLOPE INTERCEPT
	CLEARING AND GRUBBING (INCH DIAMETER)

2

2



PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

REMOVAL PLANS - STAGE 5

SHEET

67

1

FILE NAME : C:\USERS\KHALAYLEHM\ONEDRIVE - AECOM\GENERAL - 60730625 BUS51 SOUTH SEGMENT\900_CAD_GIS\910_CAD\60730625\SHEETSPLAN\021101-RM-S5.DWG
LAYOUT NAME - 021101-01

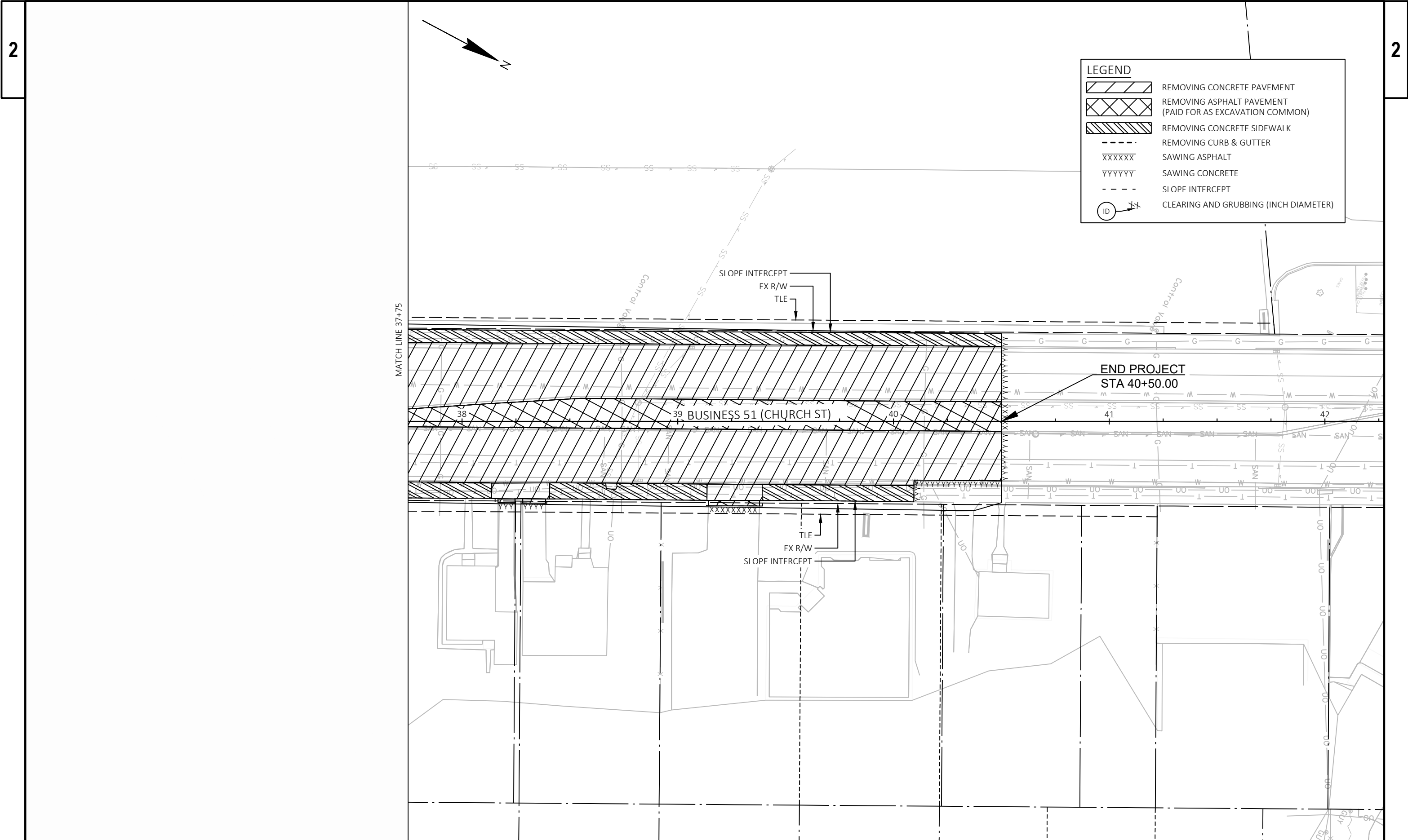
PLOT DATE : 11/2/2025 2:30 PM

PLOT BY : KHALAYLEH, MUSALLAM

PLOT NAME :

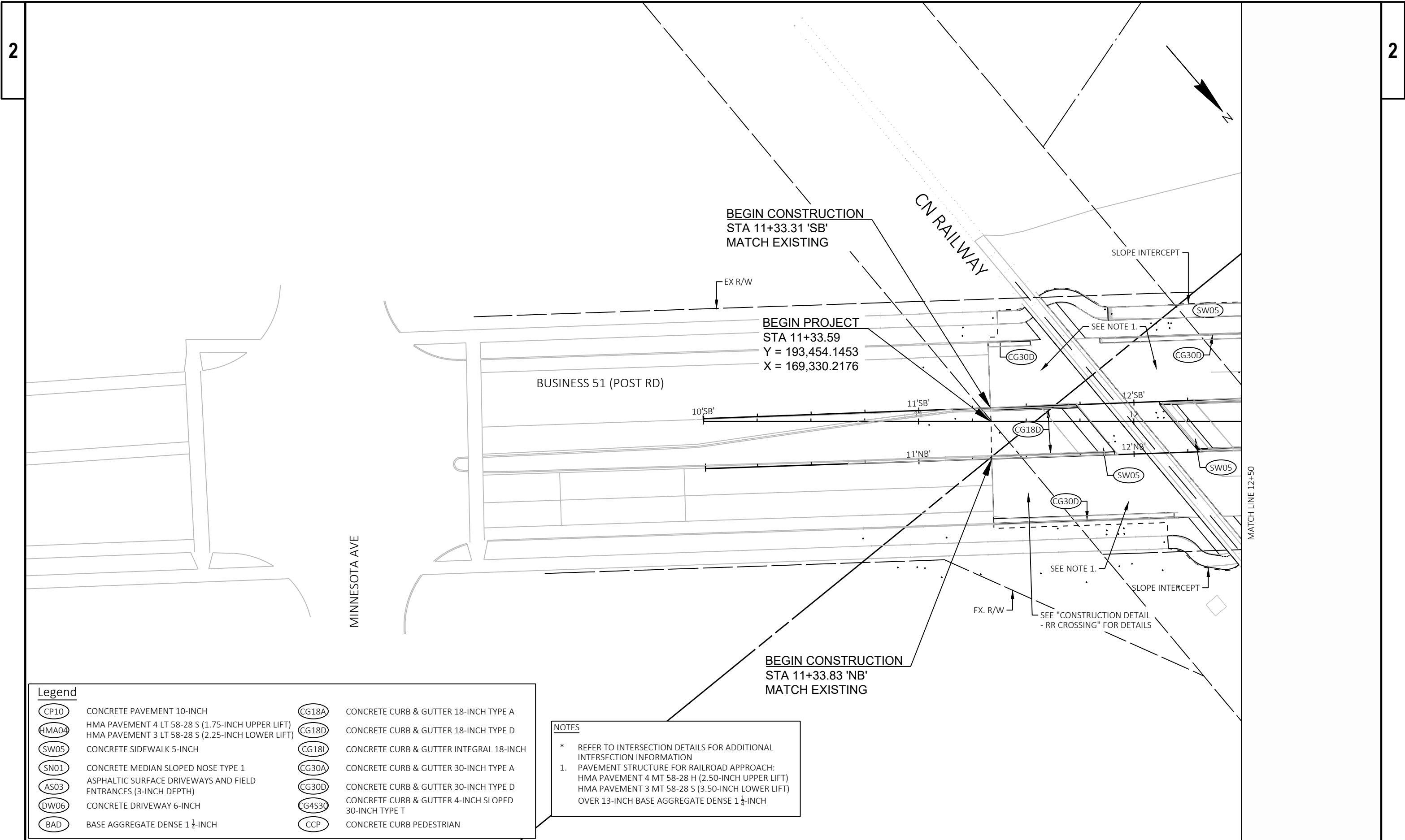
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



LEGEND

	REMOVING CONCRETE PAVEMENT
	REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB & GUTTER
	SAWING ASPHALT
	SAWING CONCRETE
	SLOPE INTERCEPT
	CLEARING AND GRUBBING (INCH DIAMETER)



Legend

CP10	CONCRETE PAVEMENT 10-INCH	CG18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
HMA04	HMA PAVEMENT 4 LT 58-28 S (1.75-INCH UPPER LIFT)	CG18D	CONCRETE CURB & GUTTER 18-INCH TYPE D
	HMA PAVEMENT 3 LT 58-28 S (2.25-INCH LOWER LIFT)	CG18I	CONCRETE CURB & GUTTER INTEGRAL 18-INCH
SW05	CONCRETE SIDEWALK 5-INCH	CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
SN01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
AS03	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (3-INCH DEPTH)	CG4S30	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE T
DW06	CONCRETE DRIVEWAY 6-INCH	CCP	CONCRETE CURB PEDESTRIAN
BAD	BASE AGGREGATE DENSE 1 1/2-INCH		

NOTES

- * REFER TO INTERSECTION DETAILS FOR ADDITIONAL INTERSECTION INFORMATION
- 1. PAVEMENT STRUCTURE FOR RAILROAD APPROACH:
HMA PAVEMENT 4 MT 58-28 H (2.50-INCH UPPER LIFT)
HMA PAVEMENT 3 MT 58-28 S (3.50-INCH LOWER LIFT)
OVER 13-INCH BASE AGGREGATE DENSE 1 1/2-INCH

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

PLAN DETAILS

SHEET

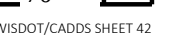
69

E

CP10	CONCRETE PAVEMENT 10-INCH	CG18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
HMA04	HMA PAVEMENT 4 LT 58-28 S (1.75-INCH UPPER LIFT) HMA PAVEMENT 3 LT 58-28 S (2.25-INCH LOWER LIFT)	CG18D	CONCRETE CURB & GUTTER 18-INCH TYPE D
SW05	CONCRETE SIDEWALK 5-INCH	CG18I	CONCRETE CURB & GUTTER INTEGRAL 18-INCH
SN01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
AS03	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (3-INCH DEPTH)	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
DW06	CONCRETE DRIVEWAY 6-INCH	CG4S30	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE T
BAD	BASE AGGREGATE DENSE 1 1/4-INCH	CCP	CONCRETE CURB PEDESTRIAN

* REFER TO INTERSECTION DETAILS FOR ADDITIONAL INTERSECTION INFORMATION

1. PAVEMENT STRUCTURE FOR RAILROAD APPROACH:
HMA PAVEMENT 4 MT 58-28 H (2.50-INCH UPPER LIFT)
HMA PAVEMENT 3 MT 58-28 S (3.50-INCH LOWER LIFT)
OVER 13-INCH BASE AGGREGATE DENSE 1 $\frac{1}{2}$ -INCH



Legend

CP10	CONCRETE PAVEMENT 10-INCH	CG18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
HMA04	HMA PAVEMENT 4 LT 58-28 S (1.75-INCH UPPER LIFT)	CG18D	CONCRETE CURB & GUTTER 18-INCH TYPE D
SW05	CONCRETE SIDEWALK 5-INCH	CG18I	CONCRETE CURB & GUTTER INTEGRAL 18-INCH
SN01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
AS03	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (3-INCH DEPTH)	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
DW06	CONCRETE DRIVEWAY 6-INCH	CG4S3C	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE T
BAD	BASE AGGREGATE DENSE 1 1/4-INCH	CCP	CONCRETE CURB PEDESTRIAN

MATCH LINE 18+12

BUSINESS 51 (CHURCH ST)

CG18I

19

20

21

22

MATCH LINE 23+00

SW05

30'

DW06

32'

SW05

CP10

ACCESS REMOVED

ACCESS REMOVED

SW05

16'

SW05

DW06

SW05

SW05

DW06

SW05

DW06

SW05

ACCESS REMOVED

SW05

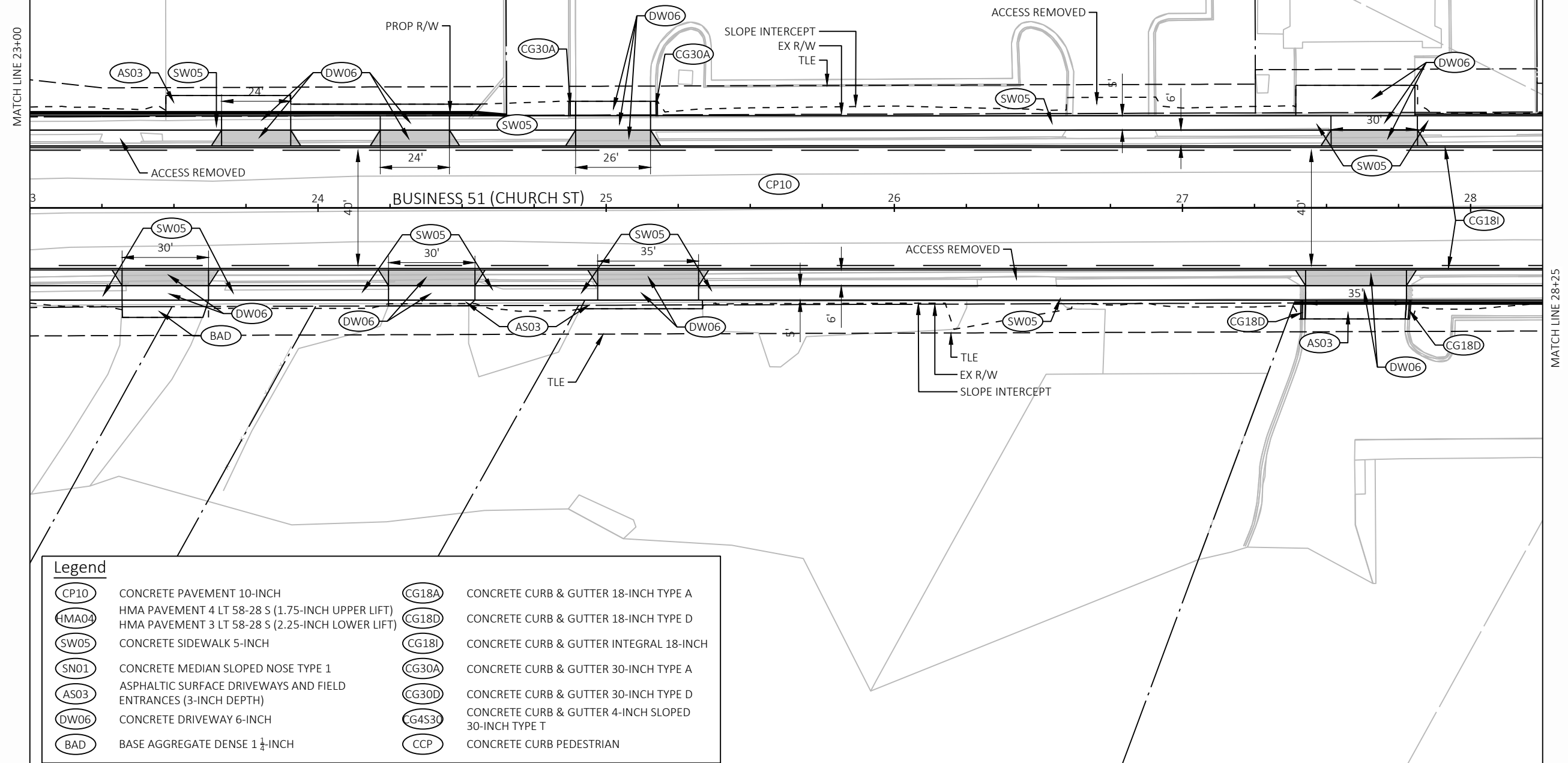
AS03

TLE
EX R/W
SLOPE INTERCEPT

AS03

32'

SW05



PROJECT NO: 6998-13-71

HWY: BUSINESS 51

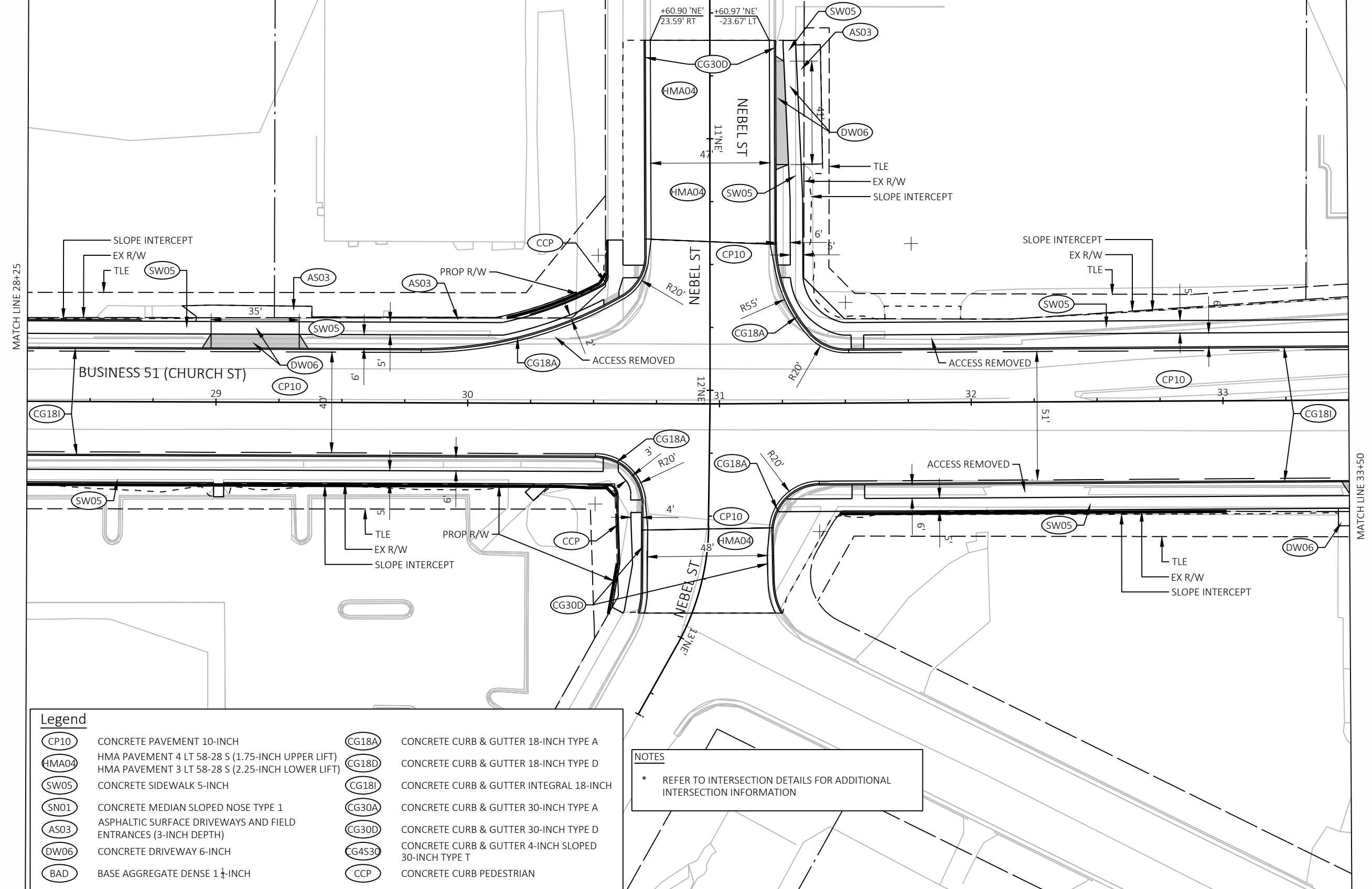
COUNTY: PORTAGE

PLAN DETAILS

SHEET

72

E



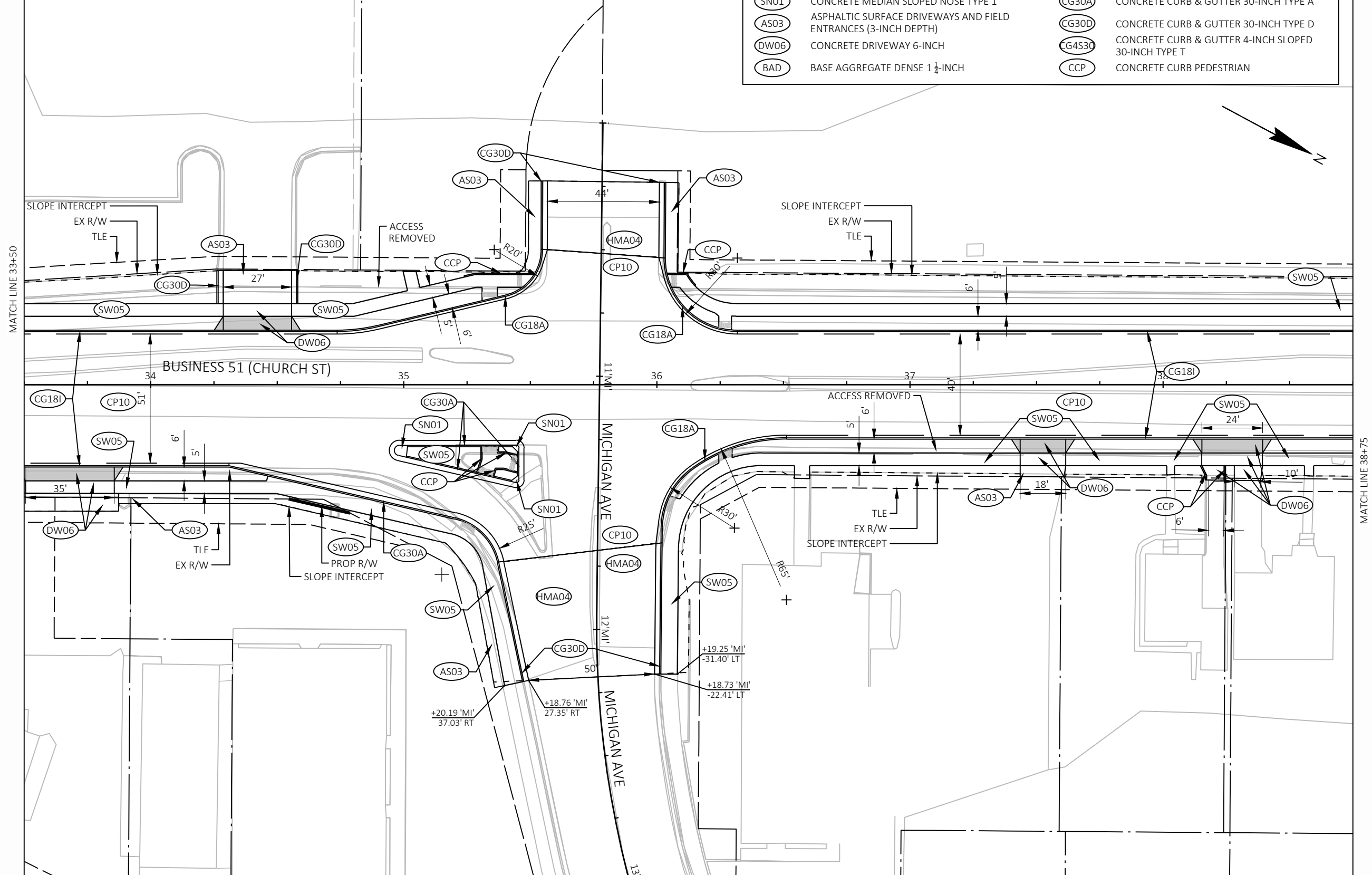
2

NOTES

* REFER TO INTERSECTION DETAILS FOR ADDITIONAL INTERSECTION INFORMATION

Legend

CP10	CONCRETE PAVEMENT 10-INCH	CG18A	CONCRETE CURB & GUTTER 18-INCH TYPE A
HMA04	HMA PAVEMENT 4 LT 58-28 S (1.75-INCH UPPER LIFT) HMA PAVEMENT 3 LT 58-28 S (2.25-INCH LOWER LIFT)	CG18D	CONCRETE CURB & GUTTER 18-INCH TYPE D
SW05	CONCRETE SIDEWALK 5-INCH	CG18I	CONCRETE CURB & GUTTER INTEGRAL 18-INCH
SN01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	CG30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
AS03	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (3-INCH DEPTH)	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
DW06	CONCRETE DRIVEWAY 6-INCH	CG4S30	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE T
BAD	BASE AGGREGATE DENSE 1 1/4-INCH	CCP	CONCRETE CURB PEDESTRIAN



2 |

PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

PLAN DETAILS

SHEET

74

11

FILE NAME : C:\USERS\KHALAYEHM\ONEDRIVE - AECOM\GENERAL - 60730625 BUS51 SOUTH SEGMENT\900_CAD_GIS\910_CAD\60730625\SHEETS\PLAN\021201-PD.DWG
LAYOUT NAME - 021201-05

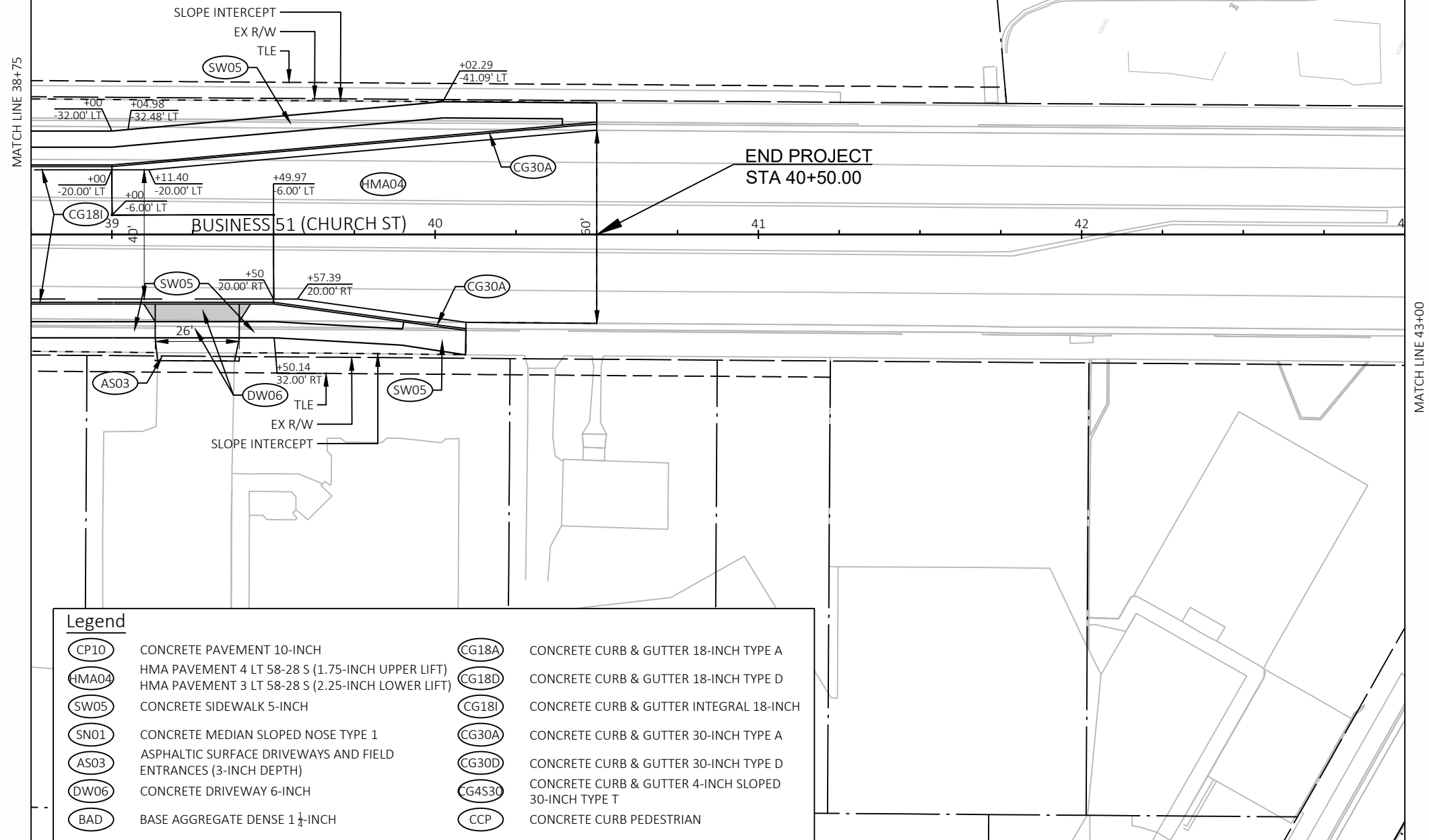
PLOT DATE : 11/2/2025 2:31 PM

PLOT BY : KHALAYLEH, MUSALLAM

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



2

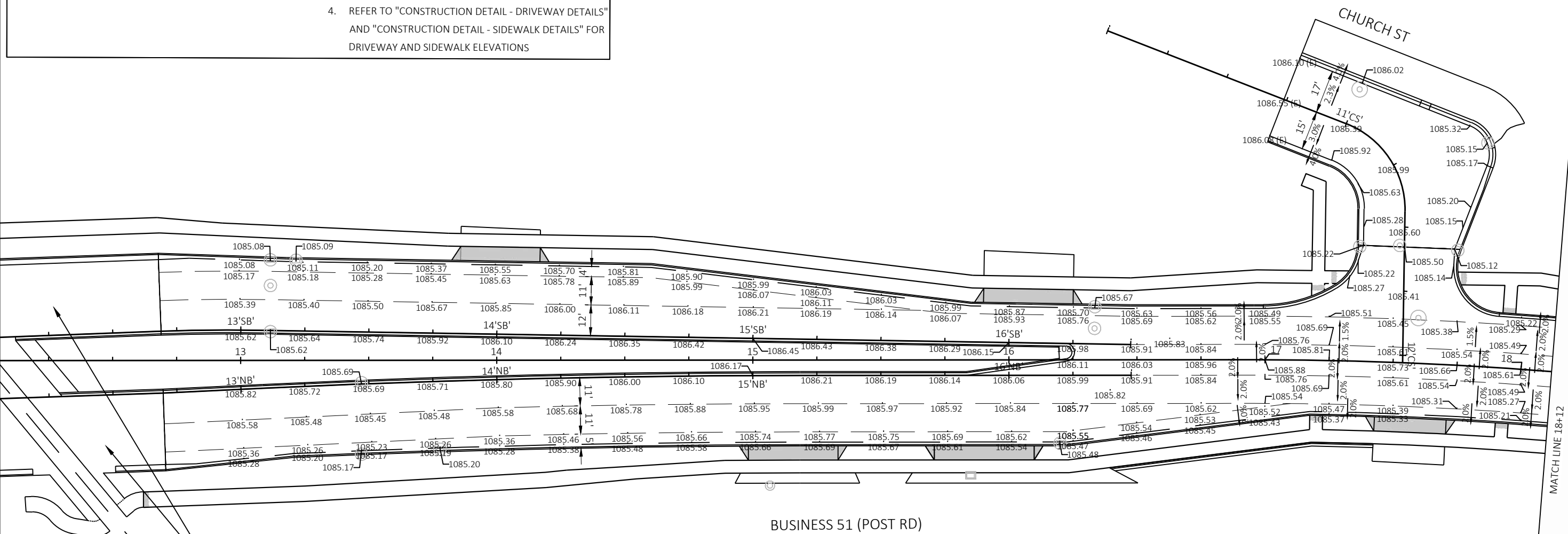
LEGEND

XXXX.XX ELEVATION GIVEN ALONG JOINT/LANE LINE
XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

1111



REFER TO "CONSTRUCTION DETAIL - RR
CROSSING PAVING GRADES" FOR DETAILS

BUS 51 SB THROUGH LANE CROSS SLOPE TRANSITION			
STATION	SLOPE	ELEVATION	OFFSET
16+95.67	-2.0%	1085.77	-6.00 LT
		1085.56	-17.00 LT
17+27.88	-1.5%	1085.68	-6.00 LT
		1085.51	-17.00 LT
17+82.71	-1.5%	1085.52	-6.00 LT
		1085.35	-17.00 LT
18+04.40	-2.0%	1085.48	-6.00 LT
		1085.27	-17.00 LT

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

PAVING GRADES

SHEET

76

E

2

2

LEGEND

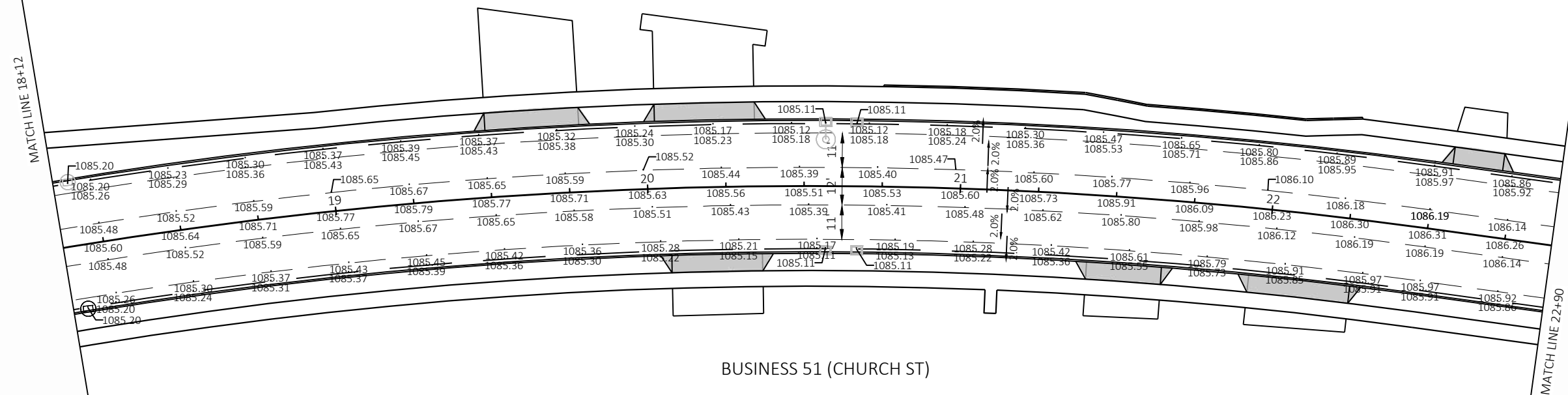
XXXX.XX	ELEVATION GIVEN ALONG JOINT/LANE LINE
XXXX.XX(E)	EXISTING ELEVATION

XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS



BUSINESS 51 (CHURCH ST)

PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

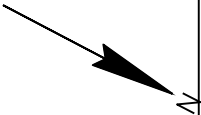
PAVING GRADES

SHEET 77

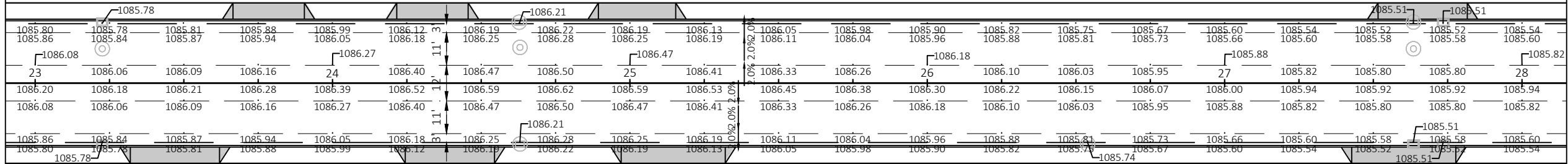
E

2

2



MATCH LINE 22+90



BUSINESS 51 (CHURCH ST)

MATCH LINE 28+15

LEGEND

XXXX.XX ELEVATION GIVEN ALONG JOINT/LANE LINE

XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

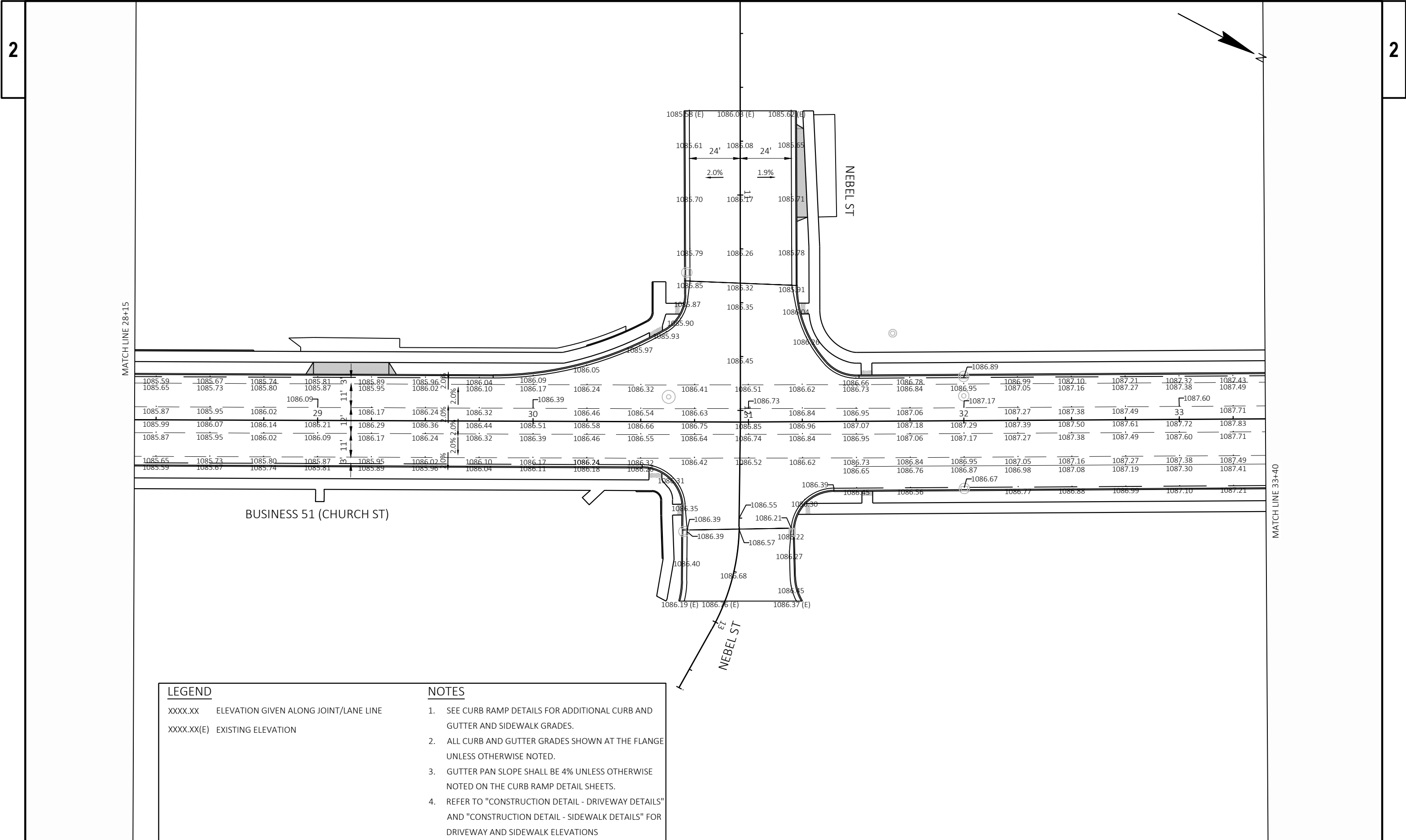
COUNTY: PORTAGE

PAVING GRADES

SHEET

78

E



LEGEND

XXXX.XX ELEVATION GIVEN ALONG JOINT/LANE LINE
XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

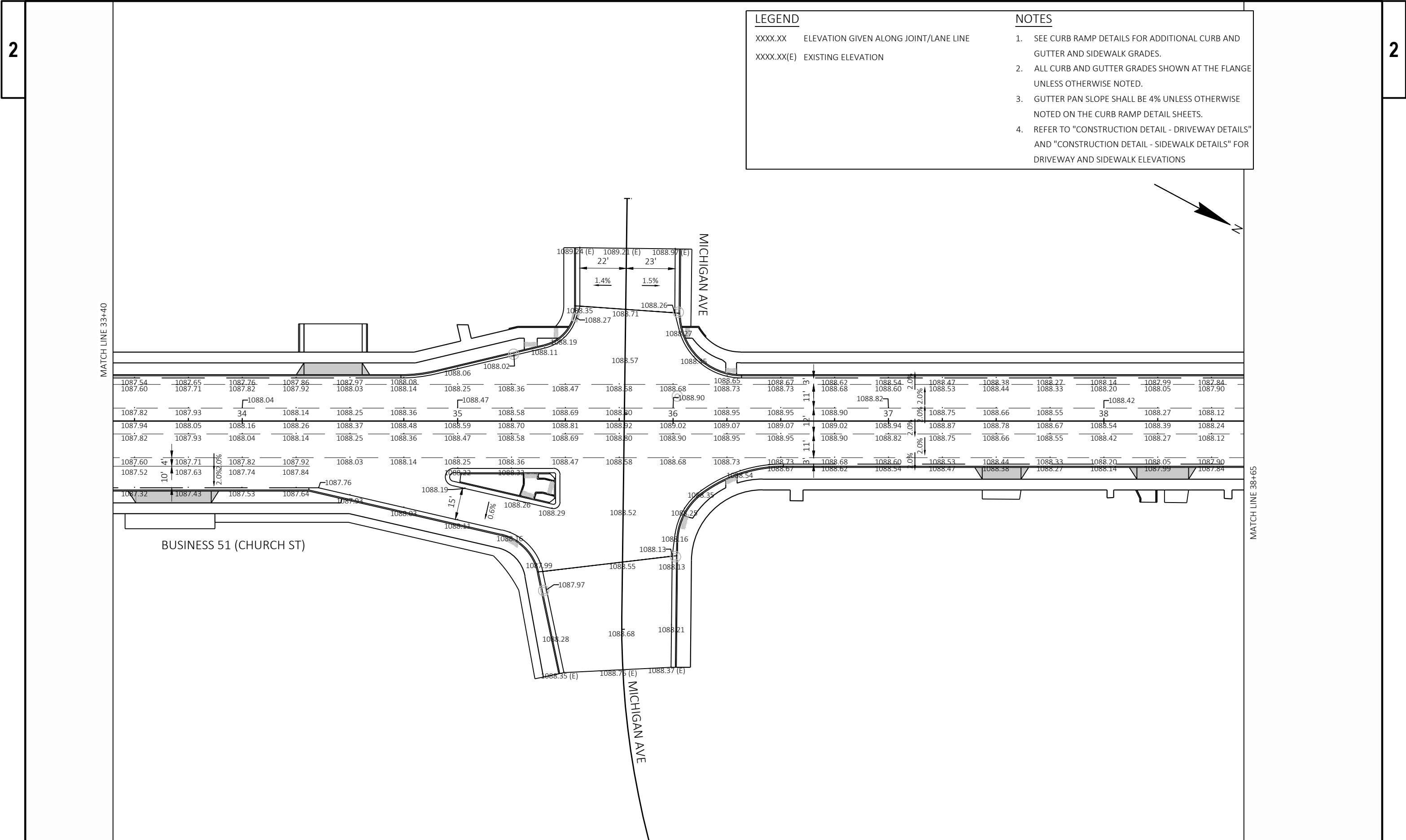
COUNTY: PORTAGE

PAVING GRADES

SHEET

79

E



LEGEND

XXXX.XX ELEVATION GIVEN ALONG JOINT/LANE LINE

XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.

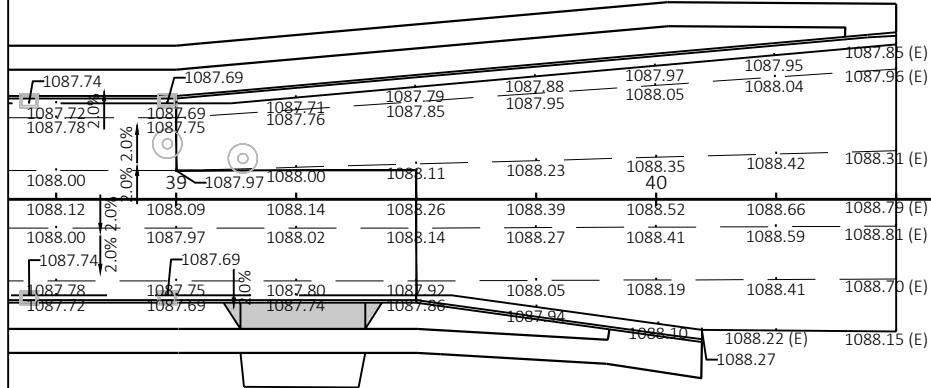
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.

3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.

4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

2

2



LEGEND

XXXX.XX ELEVATION GIVEN ALONG JOINT/LANE LINE

XXXX.XX(E) EXISTING ELEVATION

NOTES

1. SEE CURB RAMP DETAILS FOR ADDITIONAL CURB AND GUTTER AND SIDEWALK GRADES.
2. ALL CURB AND GUTTER GRADES SHOWN AT THE FLANGE UNLESS OTHERWISE NOTED.
3. GUTTER PAN SLOPE SHALL BE 4% UNLESS OTHERWISE NOTED ON THE CURB RAMP DETAIL SHEETS.
4. REFER TO "CONSTRUCTION DETAIL - DRIVEWAY DETAILS" AND "CONSTRUCTION DETAIL - SIDEWALK DETAILS" FOR DRIVEWAY AND SIDEWALK ELEVATIONS

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

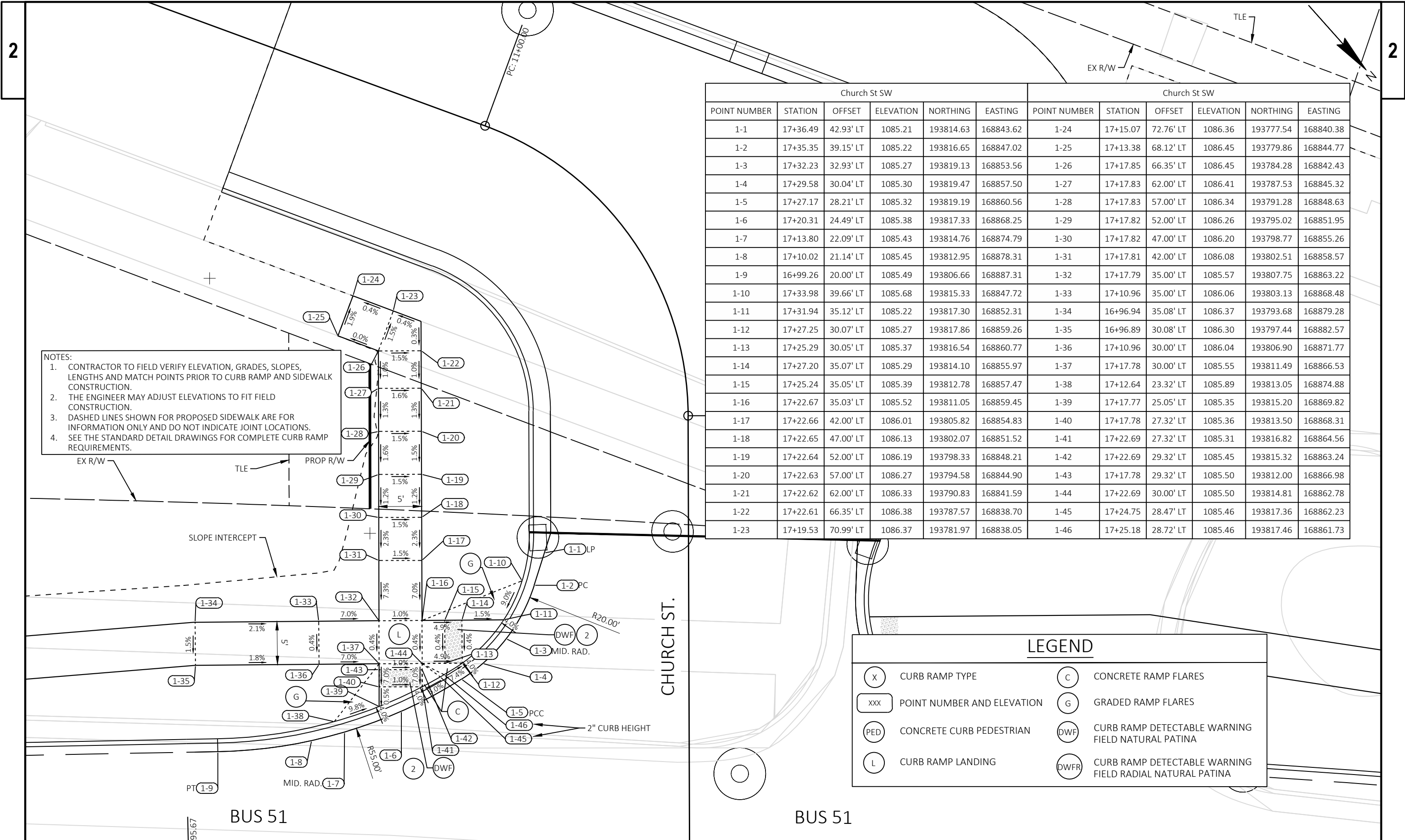
COUNTY: PORTAGE

PAVING GRADES

SHEET

81

E



- NOTES:
- 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

Church St SW						Church St SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING	POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-1	17+36.49	42.93' LT	1085.21	193814.63	168843.62	1-24	17+15.07	72.76' LT	1086.36	193777.54	168840.38
1-2	17+35.35	39.15' LT	1085.22	193816.65	168847.02	1-25	17+13.38	68.12' LT	1086.45	193779.86	168844.77
1-3	17+32.23	32.93' LT	1085.27	193819.13	168853.56	1-26	17+17.85	66.35' LT	1086.45	193784.28	168842.43
1-4	17+29.58	30.04' LT	1085.30	193819.47	168857.50	1-27	17+17.83	62.00' LT	1086.41	193787.53	168845.32
1-5	17+27.17	28.21' LT	1085.32	193819.19	168860.56	1-28	17+17.83	57.00' LT	1086.34	193791.28	168848.63
1-6	17+20.31	24.49' LT	1085.38	193817.33	168868.25	1-29	17+17.82	52.00' LT	1086.26	193795.02	168851.95
1-7	17+13.80	22.09' LT	1085.43	193814.76	168874.79	1-30	17+17.82	47.00' LT	1086.20	193798.77	168855.26
1-8	17+10.02	21.14' LT	1085.45	193812.95	168878.31	1-31	17+17.81	42.00' LT	1086.08	193802.51	168858.57
1-9	16+99.26	20.00' LT	1085.49	193806.66	168887.31	1-32	17+17.79	35.00' LT	1085.57	193807.75	168863.22
1-10	17+33.98	39.66' LT	1085.68	193815.33	168847.72	1-33	17+10.96	35.00' LT	1086.06	193803.13	168868.48
1-11	17+31.94	35.12' LT	1085.22	193817.30	168852.31	1-34	16+96.94	35.08' LT	1086.37	193793.68	168879.28
1-12	17+27.25	30.07' LT	1085.27	193817.86	168859.26	1-35	16+96.89	30.08' LT	1086.30	193797.44	168882.57
1-13	17+25.29	30.05' LT	1085.37	193816.54	168860.77	1-36	17+10.96	30.00' LT	1086.04	193806.90	168871.77
1-14	17+27.20	35.07' LT	1085.29	193814.10	168855.97	1-37	17+17.78	30.00' LT	1085.55	193811.49	168866.53
1-15	17+25.24	35.05' LT	1085.39	193812.78	168857.47	1-38	17+12.64	23.32' LT	1085.89	193813.05	168874.88
1-16	17+22.67	35.03' LT	1085.52	193811.05	168859.45	1-39	17+17.77	25.05' LT	1085.35	193815.20	168869.82
1-17	17+22.66	42.00' LT	1086.01	193805.82	168854.83	1-40	17+17.78	27.32' LT	1085.36	193813.50	168868.31
1-18	17+22.65	47.00' LT	1086.13	193802.07	168851.52	1-41	17+22.69	27.32' LT	1085.31	193816.82	168864.56
1-19	17+22.64	52.00' LT	1086.19	193798.33	168848.21	1-42	17+22.69	29.32' LT	1085.45	193815.32	168863.24
1-20	17+22.63	57.00' LT	1086.27	193794.58	168844.90	1-43	17+17.78	29.32' LT	1085.50	193812.00	168866.98
1-21	17+22.62	62.00' LT	1086.33	193790.83	168841.59	1-44	17+22.69	30.00' LT	1085.50	193814.81	168862.78
1-22	17+22.61	66.35' LT	1086.38	193787.57	168838.70	1-45	17+24.75	28.47' LT	1085.46	193817.36	168862.23
1-23	17+19.53	70.99' LT	1086.37	193781.97	168838.05	1-46	17+25.18	28.72' LT	1085.46	193817.46	168861.73

LEGEND

X

CURB RAMP TYPE

C

CONCRETE RAMP FLARES

xxx

POINT NUMBER AND ELEVATION

G

GRADED RAMP FLARES

PED

CONCRETE CURB PEDESTRIAN

DWF

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

L

CURB RAMP LANDING

DWFR

CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

2

2

Church St NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-1	17+96.49	20.00' LT	1085.23	193873.38	168814.77
2-2	17+91.56	20.00' LT	1085.24	193869.88	168818.34
2-3	17+90.24	20.00' LT	1085.24	193868.94	168819.30
2-4	17+88.57	20.08' LT	1085.24	193867.71	168820.45
2-5	17+87.70	20.18' LT	1085.24	193867.02	168821.02
2-6	17+83.12	21.44' LT	1085.24	193862.87	168823.47
2-7	17+77.10	25.55' LT	1085.21	193855.68	168825.03
2-8	17+75.83	27.00' LT	1085.20	193853.74	168824.96
2-9	17+73.12	31.69' LT	1085.17	193848.43	168823.73
2-10	17+71.73	38.92' LT	1085.14	193842.22	168819.77
2-11	17+71.82	45.38' LT	1085.12	193837.59	168815.26
2-12	18+01.45	21.50' LT	1085.68	193875.84	168810.13
2-13	17+96.53	21.50' LT	1085.19	193872.33	168813.69
2-14	17+91.59	21.50' LT	1085.20	193868.83	168817.26
2-15	17+86.19	21.99' LT	1085.70	193864.65	168820.85
2-16	17+91.59	32.19' LT	1085.95	193861.18	168809.80

Church St NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-17	17+96.52	32.18' LT	1085.94	193864.72	168806.20
2-18	17+96.81	32.49' LT	1085.94	193864.70	168805.78
2-19	18+03.36	32.90' LT	1086.13	193869.11	168800.73
2-20	18+03.05	37.88' LT	1086.20	193865.36	168797.44
2-21	17+96.52	37.48' LT	1086.01	193860.94	168802.49
2-22	17+91.33	37.18' LT	1086.02	193857.42	168806.50
2-23	17+86.35	36.91' LT	1085.97	193854.05	168810.35
2-24	17+73.35	41.27' LT	1085.58	193841.66	168816.95
2-25	17+76.61	36.44' LT	1085.27	193847.47	168817.87
2-26	17+74.66	36.35' LT	1085.13	193846.15	168819.37
2-27	17+73.38	36.29' LT	1085.11	193845.29	168820.36
2-28	17+74.87	31.35' LT	1085.14	193849.91	168822.67
2-29	17+77.94	26.83' LT	1085.67	193855.34	168823.53
2-30	17+76.82	31.44' LT	1085.28	193851.23	168821.16
2-31	17+86.60	31.92' LT	1085.98	193857.82	168813.64

NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

EX R/W — TLE — PROP R/W —

SLOPE INTERCEPT —

LEGEND

- | | | | |
|---|----------------------------|--|--|
|  | CURB RAMP TYPE |  | CONCRETE RAMP FLARES |
|  | POINT NUMBER AND ELEVATION |  | GRADED RAMP FLARES |
|  | CONCRETE CURB PEDESTRIAN |  | CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA |
|  | CURB RAMP LANDING |  | CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA |

CHURCH ST.

BUS 51

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

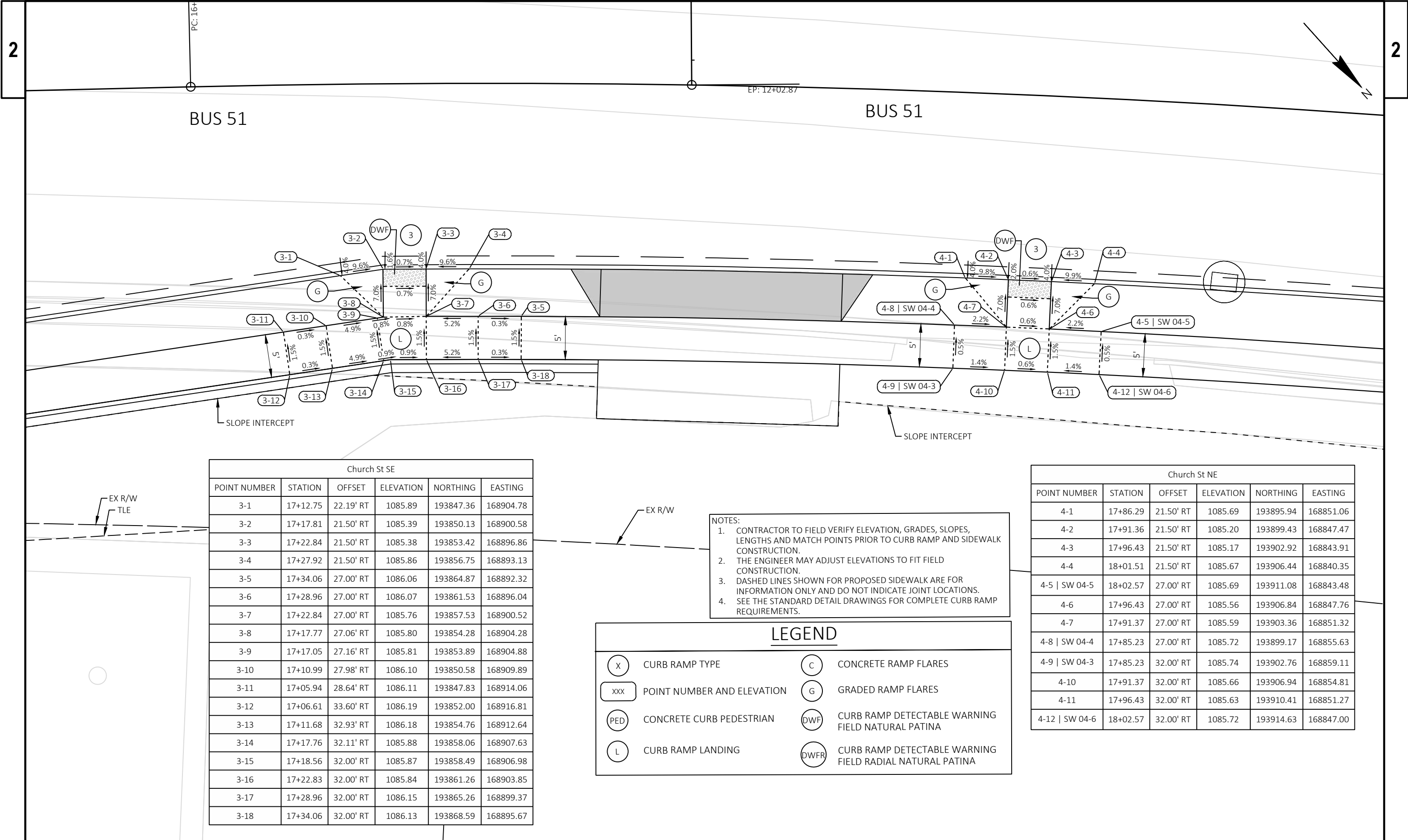
COUNTY: PORTAGE

CURB RAMP DETAILS

SHEET

3

■



Church St SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-1	17+12.75	22.19' RT	1085.89	193847.36	168904.78
3-2	17+17.81	21.50' RT	1085.39	193850.13	168900.58
3-3	17+22.84	21.50' RT	1085.38	193853.42	168896.86
3-4	17+27.92	21.50' RT	1085.86	193856.75	168893.13
3-5	17+34.06	27.00' RT	1086.06	193864.87	168892.32
3-6	17+28.96	27.00' RT	1086.07	193861.53	168896.04
3-7	17+22.84	27.00' RT	1085.76	193857.53	168900.52
3-8	17+17.77	27.06' RT	1085.80	193854.28	168904.28
3-9	17+17.05	27.16' RT	1085.81	193853.89	168904.88
3-10	17+10.99	27.98' RT	1086.10	193850.58	168909.89
3-11	17+05.94	28.64' RT	1086.11	193847.83	168914.06
3-12	17+06.61	33.60' RT	1086.19	193852.00	168916.81
3-13	17+11.68	32.93' RT	1086.18	193854.76	168912.64
3-14	17+17.76	32.11' RT	1085.88	193858.06	168907.63
3-15	17+18.56	32.00' RT	1085.87	193858.49	168906.98
3-16	17+22.83	32.00' RT	1085.84	193861.26	168903.85
3-17	17+28.96	32.00' RT	1086.15	193865.26	168899.37
3-18	17+34.06	32.00' RT	1086.13	193868.59	168895.67

Church St NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-1	17+86.29	21.50' RT	1085.69	193895.94	168851.06
4-2	17+91.36	21.50' RT	1085.20	193899.43	168847.47
4-3	17+96.43	21.50' RT	1085.17	193902.92	168843.91
4-4	18+01.51	21.50' RT	1085.67	193906.44	168840.35
4-5 SW 04-5	18+02.57	27.00' RT	1085.69	193911.08	168843.48
4-6	17+96.43	27.00' RT	1085.56	193906.84	168847.76
4-7	17+91.37	27.00' RT	1085.59	193903.36	168851.32
4-8 SW 04-4	17+85.23	27.00' RT	1085.72	193899.17	168855.63
4-9 SW 04-3	17+85.23	32.00' RT	1085.74	193902.76	168859.11
4-10	17+91.37	32.00' RT	1085.66	193906.94	168854.81
4-11	17+96.43	32.00' RT	1085.63	193910.41	168851.27
4-12 SW 04-6	18+02.57	32.00' RT	1085.72	193914.63	168847.00

- NOTES:
- 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND

X

CURB RAMP TYPE

xxx

POINT NUMBER AND ELEVATION

PED

CONCRETE CURB PEDESTRIAN

L

CURB RAMP LANDING

C

CONCRETE RAMP FLARES

G

GRADED RAMP FLARES

DWF

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

DWFR

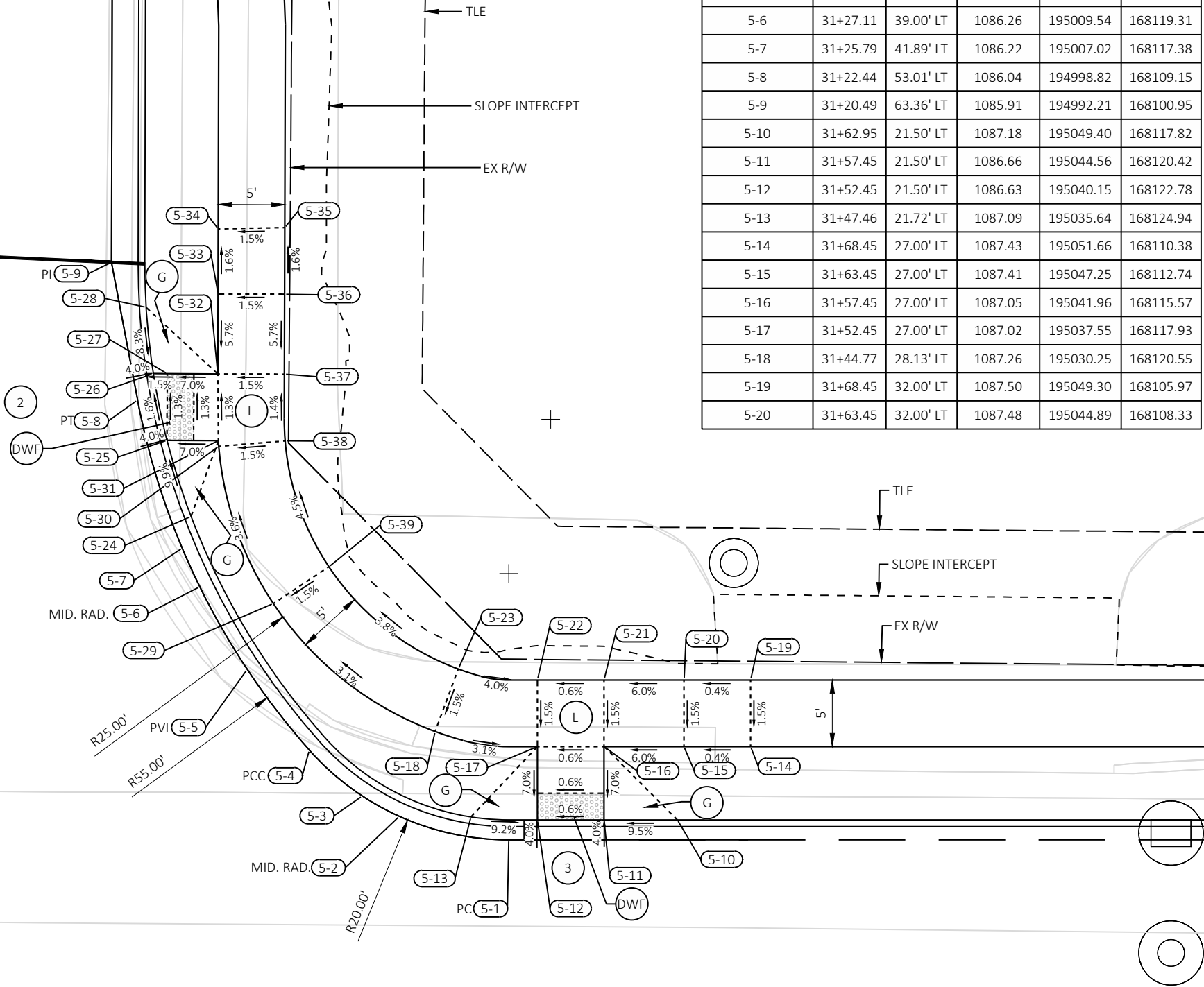
CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

- NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

Nebel St NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-1	31+50.30	20.00' LT	1086.66	195038.95	168125.12
5-2	31+42.09	21.76' LT	1086.58	195030.88	168127.44
5-3	31+39.31	23.29' LT	1086.55	195027.71	168127.40
5-4	31+35.33	26.73' LT	1086.48	195022.58	168126.24
5-5	31+30.67	32.80' LT	1086.37	195015.61	168123.10
5-6	31+27.11	39.00' LT	1086.26	195009.54	168119.31
5-7	31+25.79	41.89' LT	1086.22	195007.02	168117.38
5-8	31+22.44	53.01' LT	1086.04	194998.82	168109.15
5-9	31+20.49	63.36' LT	1085.91	194992.21	168100.95
5-10	31+62.95	21.50' LT	1087.18	195049.40	168117.82
5-11	31+57.45	21.50' LT	1086.66	195044.56	168120.42
5-12	31+52.45	21.50' LT	1086.63	195040.15	168122.78
5-13	31+47.46	21.72' LT	1087.09	195035.64	168124.94
5-14	31+68.45	27.00' LT	1087.43	195051.66	168110.38
5-15	31+63.45	27.00' LT	1087.41	195047.25	168112.74
5-16	31+57.45	27.00' LT	1087.05	195041.96	168115.57
5-17	31+52.45	27.00' LT	1087.02	195037.55	168117.93
5-18	31+44.77	28.13' LT	1087.26	195030.25	168120.55
5-19	31+68.45	32.00' LT	1087.50	195049.30	168105.97
5-20	31+63.45	32.00' LT	1087.48	195044.89	168108.33

Nebel St NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-21	31+57.45	32.00' LT	1087.12	195039.60	168111.16
5-22	31+52.45	32.00' LT	1087.09	195035.19	168113.52
5-23	31+46.51	32.82' LT	1087.33	195029.57	168115.60
5-24	31+26.45	44.27' LT	1086.65	195006.48	168114.96
5-25	31+24.65	50.00' LT	1086.05	195002.19	168110.77
5-26	31+23.62	55.00' LT	1085.98	194998.92	168106.84
5-27	31+24.67	55.00' LT	1085.99	194999.85	168106.35
5-28	31+23.09	59.97' LT	1086.39	194996.10	168102.71
5-29	31+32.64	37.73' LT	1086.78	195015.02	168117.81
5-30	31+28.54	49.54' LT	1086.33	195005.83	168109.33
5-31	31+28.51	49.98' LT	1086.32	195005.60	168108.97
5-32	31+28.47	54.98' LT	1086.26	195003.20	168104.58
5-33	31+28.48	60.98' LT	1086.60	195000.39	168099.28
5-34	31+28.50	65.87' LT	1086.52	194998.09	168094.96
5-35	31+33.50	65.96' LT	1086.59	195002.45	168092.52
5-36	31+33.48	60.96' LT	1086.67	195004.80	168096.93
5-37	31+33.47	54.96' LT	1086.33	195007.62	168102.23
5-38	31+33.53	49.95' LT	1086.40	195010.03	168106.62
5-39	31+36.80	40.50' LT	1086.86	195017.38	168113.41

NEBEL ST. (W)



LEGEND			
(X)	CURB RAMP TYPE	(C)	CONCRETE RAMP FLARES
(xxx)	POINT NUMBER AND ELEVATION	(G)	GRADED RAMP FLARES
(PED)	CONCRETE CURB PEDESTRIAN	(DWF)	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
(L)	CURB RAMP LANDING	(DWFR)	CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

Nebel St SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-1	30+72.53	71.67' LT	1085.82	194946.53	168115.70
6-2	30+71.47	56.44' LT	1085.87	194952.64	168129.69
6-3	30+68.31	47.88' LT	1085.90	194953.80	168138.75
6-4	30+61.66	41.61' LT	1085.93	194950.81	168147.38
6-5	30+55.35	38.13' LT	1085.95	194946.82	168153.39
6-6	30+31.77	28.15' LT	1086.03	194930.54	168173.16
6-7	30+22.94	25.50' LT	1086.05	194923.95	168179.59
6-8	30+02.57	21.41' LT	1086.09	194907.78	168192.64
6-9	30+02.49	21.40' LT	1086.09	194907.72	168192.69
6-10	29+81.36	20.00' LT	1086.05	194889.64	168203.71
6-11	30+70.12	60.00' LT	1086.31	194949.79	168127.16
6-12	30+69.71	55.02' LT	1085.84	194951.74	168131.77
6-13	30+67.85	50.01' LT	1085.85	194952.40	168137.07
6-14	30+64.87	45.99' LT	1086.05	194951.63	168142.01
6-15	30+64.03	45.18' LT	1086.08	194951.25	168143.12
6-16	30+67.82	55.01' LT	1085.87	194950.07	168132.65
6-17	30+65.82	55.00' LT	1085.92	194948.30	168133.59
6-18	30+65.85	50.00' LT	1085.91	194950.63	168138.01
6-19	30+61.48	49.98' LT	1086.02	194946.78	168140.05
6-20	30+61.46	54.98' LT	1086.03	194944.44	168135.62

- NOTES:
- CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (FT)	LANDING LENGTH 'XR'	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (FT)
SOUTHWEST	158.50'	2.25'	13.68 SF	6.83'

Nebel St SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6-21	30+61.41	64.99' LT	1086.59	194939.77	168126.78
6-22	30+61.40	70.00' LT	1086.66	194937.43	168122.34
6-23	30+55.44	69.97' LT	1086.75	194932.17	168125.13
6-24	30+55.46	64.97' LT	1086.68	194934.50	168129.55
6-25	30+55.52	54.95' LT	1086.09	194939.19	168138.40
6-26	30+55.54	50.88' LT	1086.08	194941.09	168142.00
6-27	30+59.91	42.33' LT	1085.91	194948.92	168147.56
6-28	30+53.91	39.08' LT	1085.94	194945.11	168153.22
6-29	30+49.40	36.86' LT	1086.42	194942.14	168157.27
6-30	30+59.91	44.64' LT	1085.95	194947.85	168145.51
6-31	30+53.91	41.33' LT	1085.97	194944.07	168151.22
6-32	30+41.76	35.62' LT	1086.53	194935.94	168161.91
6-33	30+37.05	33.74' LT	1086.54	194932.64	168165.75
6-34	30+35.18	38.38' LT	1086.62	194928.83	168162.50
6-35	30+39.83	40.23' LT	1086.60	194932.09	168158.71
6-36	30+51.59	45.76' LT	1086.05	194939.96	168148.37
6-37	30+52.90	46.45' LT	1086.04	194940.80	168147.15
6-38	30+24.77	34.85' LT	1086.65	194921.24	168170.45

LEGEND

X

CURB RAMP TYPE

xxx

POINT NUMBER AND ELEVATION

PED

CONCRETE CURB PEDESTRIAN

L

CURB RAMP LANDING

C

CONCRETE RAMP FLARES

G

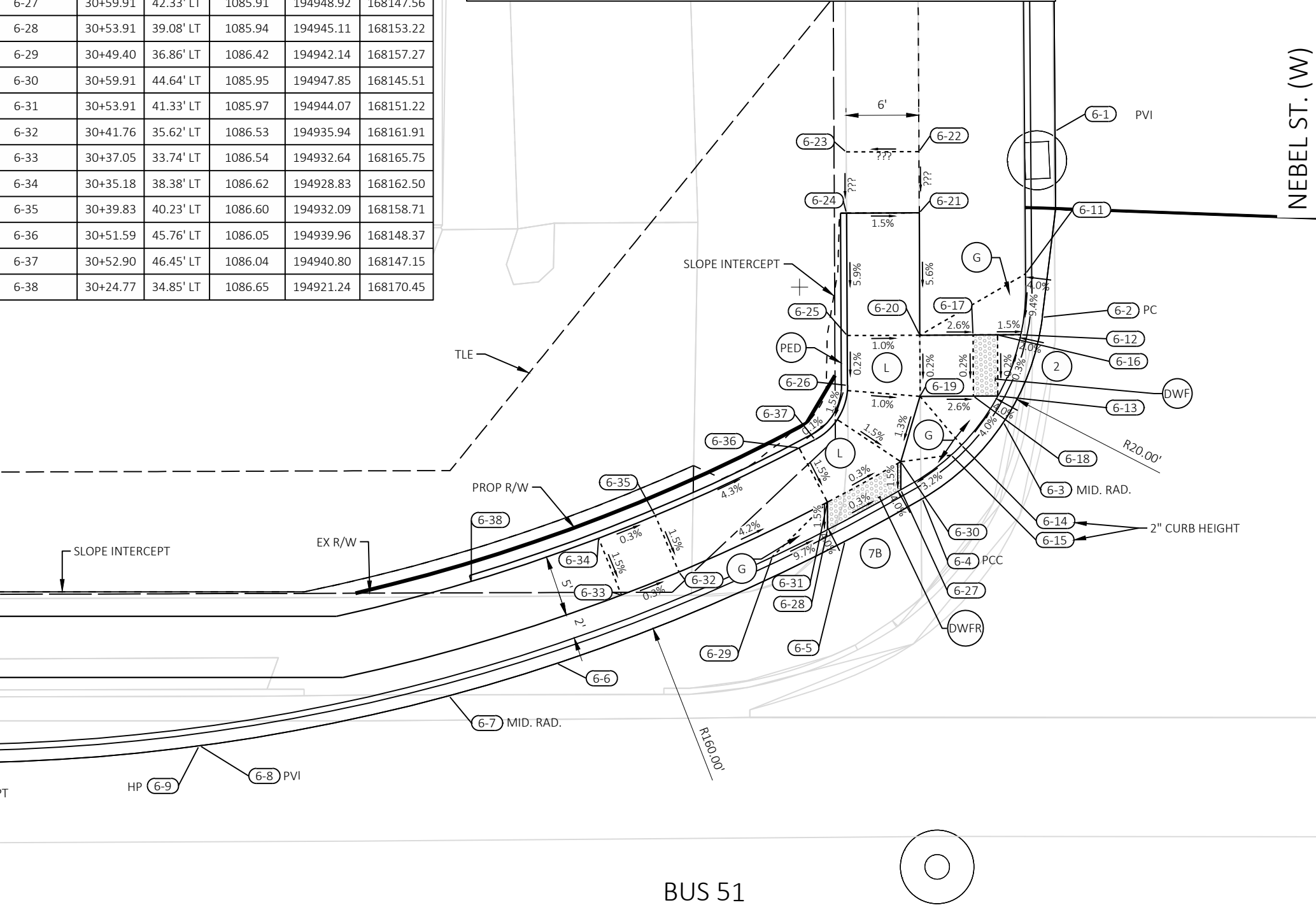
GRADED RAMP FLARES

DWF

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

DWFR

CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

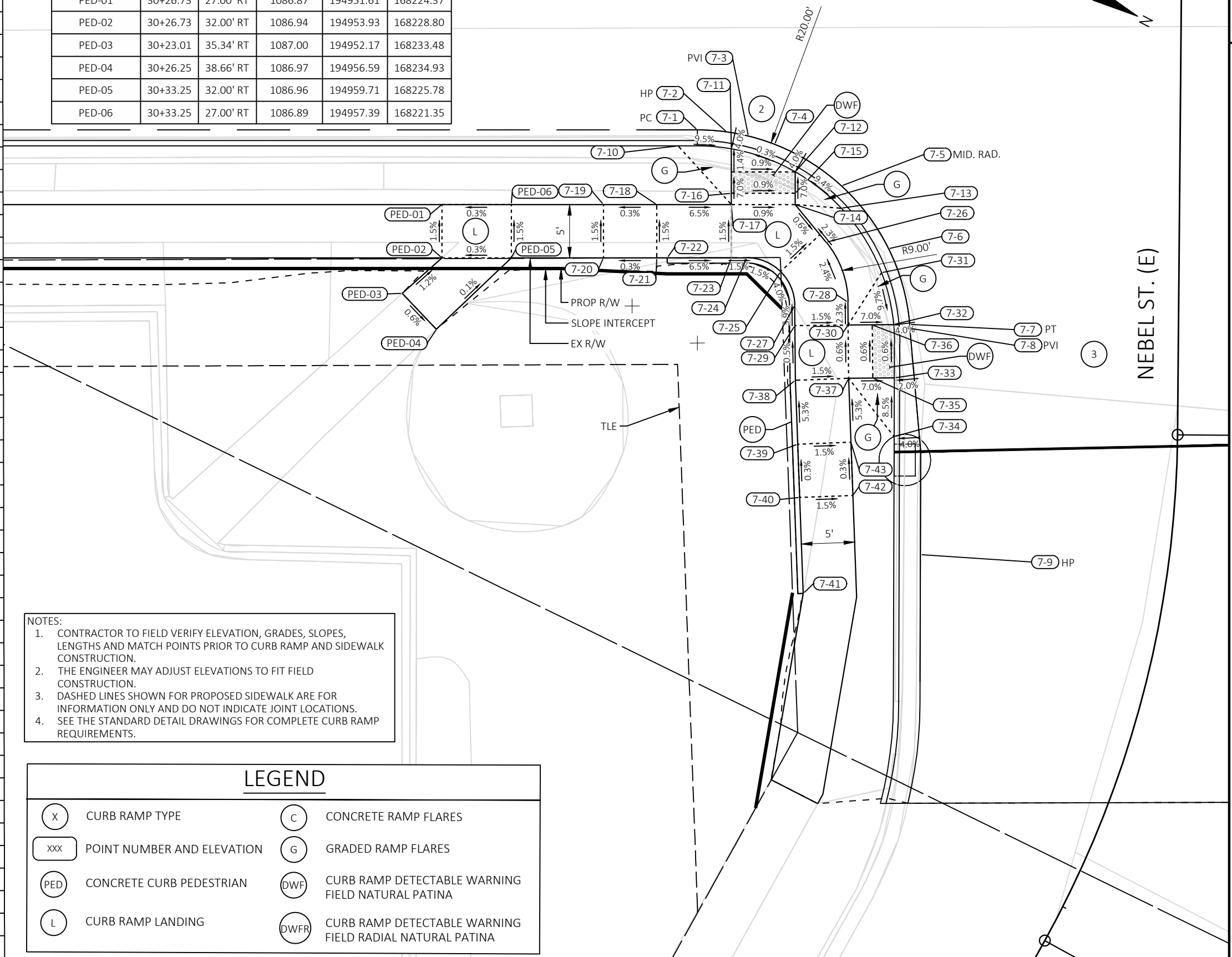


2

Nebel St SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
7-1	30+50.72	20.00' RT	1086.26	194969.63	168207.06
7-2	30+53.48	20.19' RT	1086.27	194972.17	168205.95
7-3	30+55.52	20.58' RT	1086.28	194974.16	168205.35
7-4	30+57.97	21.36' RT	1086.29	194976.69	168204.91
7-5	30+64.23	25.25' RT	1086.31	194984.04	168205.46
7-6	30+68.66	31.15' RT	1086.33	194990.69	168208.6
7-7	30+70.64	38.25' RT	1086.35	194995.74	168214.01
7-8	30+70.68	38.62' RT	1086.36	194995.95	168214.33
7-9	30+71.66	59.86' RT	1086.40	195006.65	168232.69
7-10	30+48.92	21.50' RT	1086.72	194968.73	168209.22
7-11	30+53.91	21.78' RT	1086.23	194973.28	168207.16
7-12	30+59.91	23.94' RT	1086.26	194979.60	168206.30
7-13	30+64.22	27.35' RT	1086.77	194985.00	168207.32
7-14	30+59.91	27.00' RT	1086.42	194981.02	168209.01
7-15	30+59.91	25.94' RT	1086.35	194980.53	168208.07
7-16	30+53.91	25.94' RT	1086.40	194975.21	168210.85
7-17	30+53.91	27.00' RT	1086.48	194975.70	168211.79
7-18	30+46.91	27.01' RT	1086.93	194969.50	168215.04
7-19	30+41.91	27.00' RT	1086.92	194965.06	168217.34
7-20	30+41.91	32.00' RT	1086.99	194967.38	168221.77
7-21	30+46.91	32.00' RT	1087.01	194971.81	168219.46
7-22	30+47.89	32.00' RT	1086.94	194972.68	168219.00
7-23	30+53.91	32.00' RT	1086.55	194978.02	168216.22
7-24	30+55.35	32.00' RT	1086.53	194979.30	168215.55
7-25	30+58.52	33.30' RT	1086.48	194982.71	168215.24
7-26	30+62.81	30.55' RT	1086.42	194985.23	168210.81
7-27	30+59.85	36.46' RT	1086.61	194985.35	168217.42
7-28	30+64.85	36.16' RT	1086.56	194989.64	168214.84
7-29	30+59.87	38.36' RT	1086.69	194986.25	168219.10
7-30	30+64.87	38.31' RT	1086.61	194990.66	168216.74
7-31	30+68.00	33.40' RT	1086.80	194991.16	168210.93
7-32	30+69.14	38.27' RT	1086.31	194994.42	168214.72
7-33	30+69.21	43.27' RT	1086.34	194996.80	168219.12
7-34	30+69.19	48.79' RT	1086.81	194999.34	168224.02
7-35	30+67.19	43.29' RT	1086.48	194995.01	168220.08
7-36	30+67.14	38.29' RT	1086.45	194992.66	168215.67
7-37	30+64.92	43.31' RT	1086.64	194993.01	168221.15
7-38	30+59.92	43.50' RT	1087.20	194988.67	168223.62
7-39	30+60.14	49.50' RT	1087.03	194991.64	168228.84
7-40	30+60.33	54.49' RT	1087.05	194994.12	168233.18
7-41	30+60.66	63.51' RT	1087.04	194998.58	168241.02
7-42	30+65.32	54.31' RT	1086.97	194998.46	168230.71
7-43	30+65.14	49.31' RT	1086.96	194995.98	168226.36

PED - Nebel St SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
PED-01	30+26.73	27.00' RT	1086.87	194951.61	168224.37
PED-02	30+26.73	32.00' RT	1086.94	194953.93	168228.80
PED-03	30+23.01	35.34' RT	1087.00	194952.17	168233.48
PED-04	30+26.25	38.66' RT	1086.97	194956.59	168234.93
PED-05	30+33.25	32.00' RT	1086.96	194959.71	168225.78
PED-06	30+33.25	27.00' RT	1086.89	194957.39	168221.35

BUS 51



NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND

(X)	CURB RAMP TYPE	(C)	CONCRETE RAMP FLARES
xxx	POINT NUMBER AND ELEVATION	(G)	GRADED RAMP FLARES
(PED)	CONCRETE CURB PEDESTRIAN	(DWF)	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
(L)	CURB RAMP LANDING	(DWF _R)	CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

BUS 51

- NOTES:
- 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

LEGEND

- X

CURB RAMP TYPE
- xxx

POINT NUMBER AND ELEVATION
- PED

CONCRETE CURB PEDESTRIAN
- L

CURB RAMP LANDING
- C

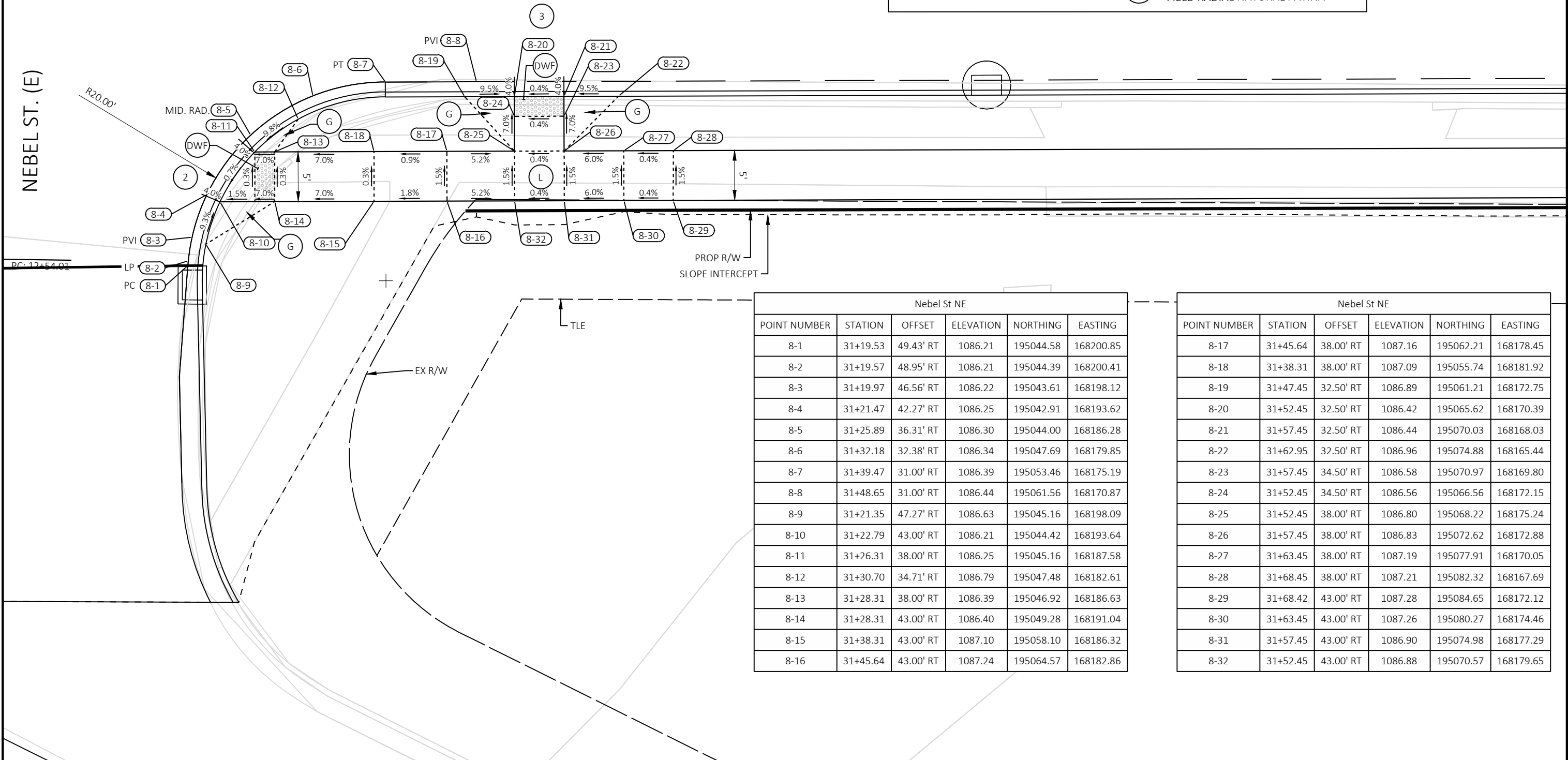
CONCRETE RAMP FLARES
- G

GRADED RAMP FLARES
- DWF

CURB RAMP DETECTABLE WARNING
FIELD NATURAL PATINA
- DWFR

CURB RAMP DETECTABLE WARNING
FIELD RADIAL NATURAL PATINA

NEBEL ST. (E)



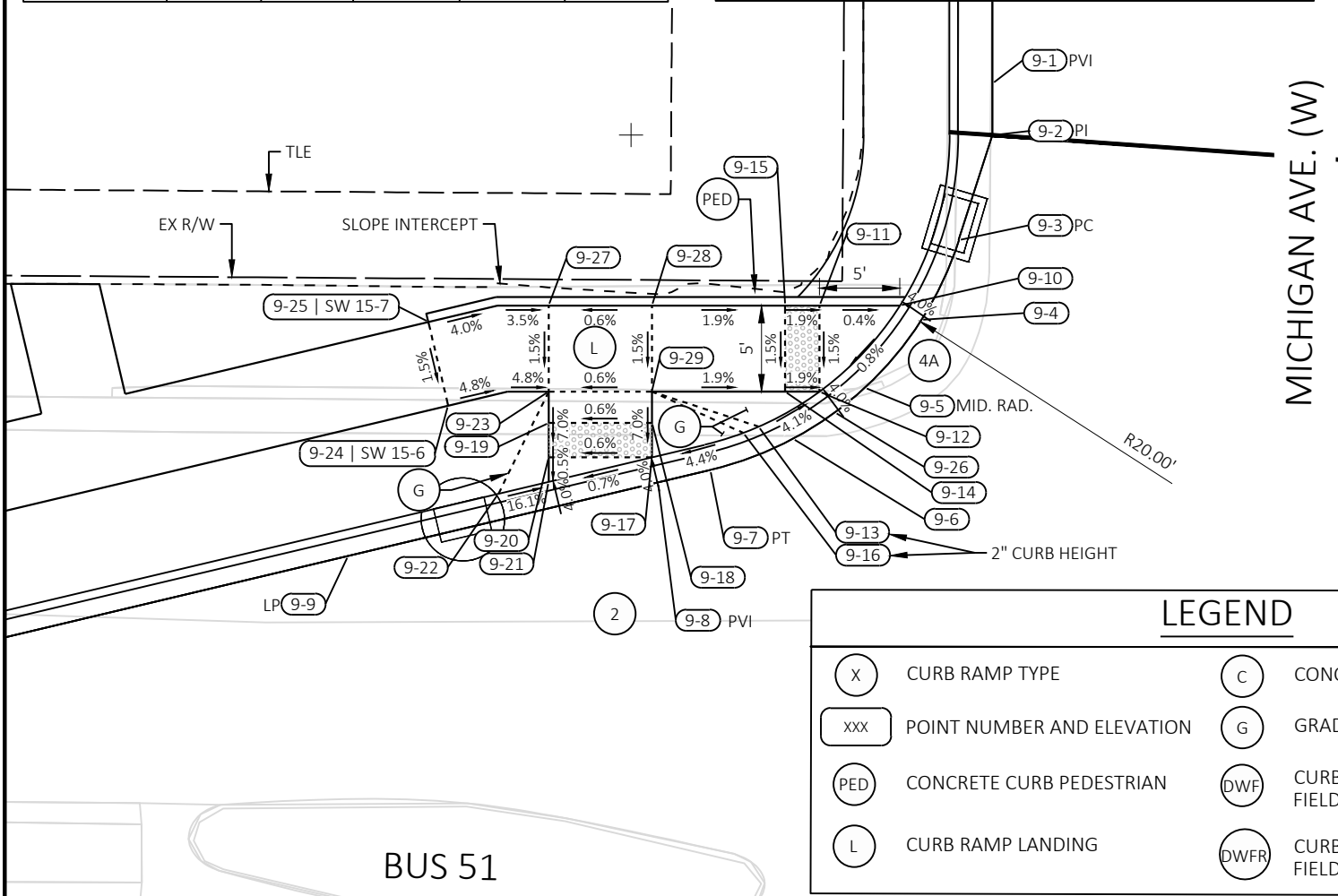
Nebel St NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
8-1	31+19.53	49.43' RT	1086.21	195044.58	168200.85
8-2	31+19.57	48.95' RT	1086.21	195044.39	168200.41
8-3	31+19.97	46.56' RT	1086.22	195043.61	168198.12
8-4	31+21.47	42.27' RT	1086.25	195042.91	168193.62
8-5	31+25.89	36.31' RT	1086.30	195044.00	168186.28
8-6	31+32.18	32.38' RT	1086.34	195047.69	168179.85
8-7	31+39.47	31.00' RT	1086.39	195053.46	168175.19
8-8	31+48.65	31.00' RT	1086.44	195061.56	168170.87
8-9	31+21.35	47.27' RT	1086.63	195045.16	168198.09
8-10	31+22.79	43.00' RT	1086.21	195044.42	168193.64
8-11	31+26.31	38.00' RT	1086.25	195045.16	168187.58
8-12	31+30.70	34.71' RT	1086.79	195047.48	168182.61
8-13	31+28.31	38.00' RT	1086.39	195046.92	168186.63
8-14	31+28.31	43.00' RT	1086.40	195049.28	168191.04
8-15	31+38.31	43.00' RT	1087.10	195058.10	168186.32
8-16	31+45.64	43.00' RT	1087.24	195064.57	168182.86

Nebel St NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
8-17	31+45.64	38.00' RT	1087.16	195062.21	168178.45
8-18	31+38.31	38.00' RT	1087.09	195055.74	168181.92
8-19	31+47.45	32.50' RT	1086.89	195061.21	168172.75
8-20	31+52.45	32.50' RT	1086.42	195065.62	168170.39
8-21	31+57.45	32.50' RT	1086.44	195070.03	168168.03
8-22	31+62.95	32.50' RT	1086.96	195074.88	168165.44
8-23	31+57.45	34.50' RT	1086.58	195070.97	168169.80
8-24	31+52.45	34.50' RT	1086.56	195066.56	168172.15
8-25	31+52.45	38.00' RT	1086.80	195068.22	168175.24
8-26	31+57.45	38.00' RT	1086.83	195072.62	168172.88
8-27	31+63.45	38.00' RT	1087.19	195077.91	168170.05
8-28	31+68.45	38.00' RT	1087.21	195082.32	168167.69
8-29	31+68.42	43.00' RT	1087.28	195084.65	168172.12
8-30	31+63.45	43.00' RT	1087.26	195080.27	168174.46
8-31	31+57.45	43.00' RT	1086.90	195074.98	168177.29
8-32	31+52.45	43.00' RT	1086.88	195070.57	168179.65

Michigan Ave SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
9-1	35+56.74	56.33' LT	1088.41	195380.18	167901.34
9-2	35+56.74	53.34' LT	1088.35	195381.60	167903.99
9-3	35+54.79	47.24' LT	1088.27	195382.75	167910.28
9-4	35+52.61	42.60' LT	1088.23	195383.02	167915.40
9-5	35+49.33	38.66' LT	1088.19	195381.98	167920.42
9-6	35+45.15	35.69' LT	1088.15	195379.70	167925.01
9-7	35+40.35	33.88' LT	1088.11	195376.33	167928.87
9-8	35+37.31	33.15' LT	1088.09	195373.98	167930.95
9-9	35+19.30	28.88' LT	1088.00	195360.12	167943.21
9-10	35+51.36	43.43' LT	1088.19	195381.53	167915.26
9-11	35+46.70	43.43' LT	1088.21	195377.42	167917.46
9-12	35+46.70	38.43' LT	1088.13	195379.77	167921.87
9-13	35+43.16	36.40' LT	1088.30	195377.62	167925.33
9-14	35+44.70	38.43' LT	1088.17	195378.01	167922.81
9-15	35+44.70	43.43' LT	1088.25	195375.65	167918.40
9-16	35+42.27	36.03' LT	1088.29	195377.00	167926.07
9-17	35+36.96	34.61' LT	1088.05	195372.99	167929.83
9-18	35+36.96	36.61' LT	1088.19	195372.05	167928.06

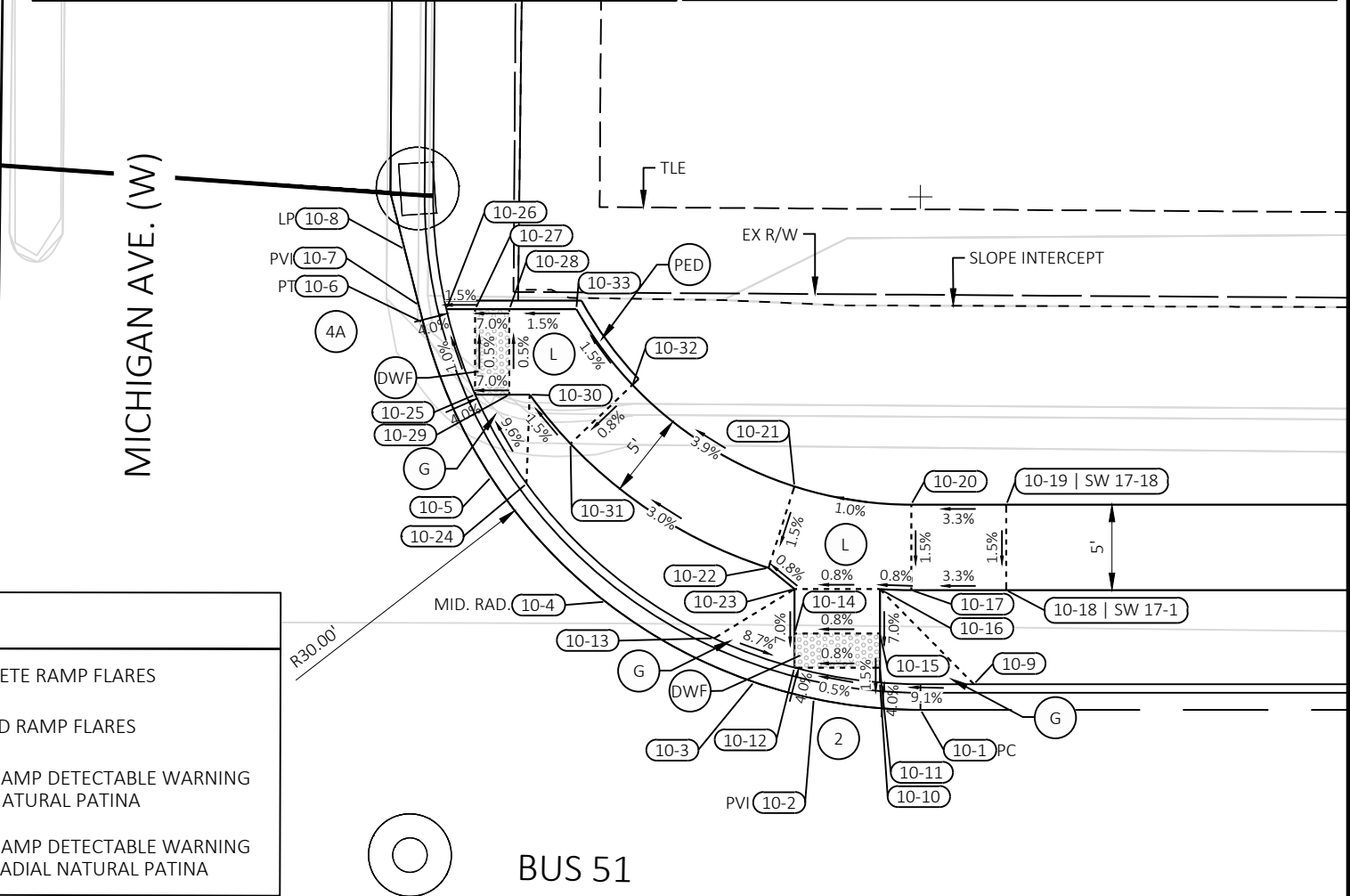
Michigan Ave SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
9-19	35+30.98	36.62' LT	1088.15	195366.77	167930.88
9-20	35+30.96	34.61' LT	1088.01	195367.70	167932.66
9-21	35+30.96	33.19' LT	1088.00	195368.37	167933.91
9-22	35+28.04	32.50' LT	1088.49	195366.12	167935.90
9-23	35+30.96	38.43' LT	1088.28	195365.90	167929.29
9-24 SW 15-6	35+25.12	37.62' LT	1088.56	195361.13	167932.76
9-25 SW 15-7	35+23.97	42.48' LT	1088.64	195357.82	167929.02
9-26	35+47.58	37.22' LT	1088.17	195381.13	167922.51
9-27	35+30.96	43.43' LT	1088.35	195363.54	167924.88
9-28	35+36.96	43.43' LT	1088.39	195368.83	167922.05
9-29	35+36.96	38.43' LT	1088.32	195371.19	167926.46

- NOTES:
- CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



Michigan Ave NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
10-1	36+31.81	20.00' LT	1088.67	195463.52	167897.96
10-2	36+25.57	20.66' LT	1088.66	195457.71	167900.33
10-3	36+22.07	21.63' LT	1088.63	195454.16	167901.13
10-4	36+13.38	26.33' LT	1088.51	195444.29	167901.08
10-5	36+06.70	33.60' LT	1088.39	195434.96	167897.82
10-6	36+02.73	42.64' LT	1088.27	195427.19	167891.72
10-7	36+02.48	43.65' LT	1088.26	195426.49	167890.95
10-8	36+01.64	46.94' LT	1088.25	195424.21	167888.44
10-9	36+34.94	21.50' LT	1089.13	195465.57	167895.17
10-10	36+29.44	21.60' LT	1088.63	195460.67	167897.67
10-11	36+29.44	22.47' LT	1088.65	195460.26	167896.90
10-12	36+24.44	22.47' LT	1088.61	195455.85	167899.26
10-13	36+19.74	24.19' LT	1089.04	195450.90	167899.97
10-14	36+24.44	24.47' LT	1088.75	195454.91	167897.50
10-15	36+29.44	24.47' LT	1088.79	195459.32	167895.14
10-16	36+29.44	27.06' LT	1088.97	195458.09	167892.86
10-17	36+31.27	27.00' LT	1088.98	195459.74	167892.05
10-18 SW 17-1	36+36.82	27.00' LT	1089.16	195464.64	167889.43

Michigan Ave NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
10-19 SW 17-18	36+36.82	32.00' LT	1089.24	195462.28	167885.02
10-20	36+31.27	32.00' LT	1089.06	195457.38	167887.64
10-21	36+24.44	33.06' LT	1088.99	195450.86	167889.92
10-22	36+22.92	28.30' LT	1088.91	195451.76	167894.84
10-23	36+24.44	27.06' LT	1088.93	195453.69	167895.22
10-24	36+08.77	33.23' LT	1088.87	195436.96	167897.17
10-25	36+05.77	38.43' LT	1088.29	195431.86	167894.00
10-26	36+04.08	43.43' LT	1088.24	195428.01	167890.39
10-27	36+05.77	43.43' LT	1088.26	195429.50	167889.59
10-28	36+07.77	43.43' LT	1088.40	195431.26	167888.65
10-29	36+07.77	38.43' LT	1088.43	195433.62	167893.06
10-30	36+08.95	38.43' LT	1088.45	195434.67	167892.50
10-31	36+11.34	35.56' LT	1088.50	195438.13	167893.91
10-32	36+14.96	39.00' LT	1088.55	195439.70	167889.16
10-33	36+11.68	43.43' LT	1088.46	195434.72	167886.80



RADIAL WARNING FIELD PANEL LAYOUT TABLE

QUADRANT	BACK OF CURB RADIUS (FT)	LANDING LENGTH 'XR'	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (FT)
SOUTHEAST	22.50'	3.19'	12.25 SF	6.10'

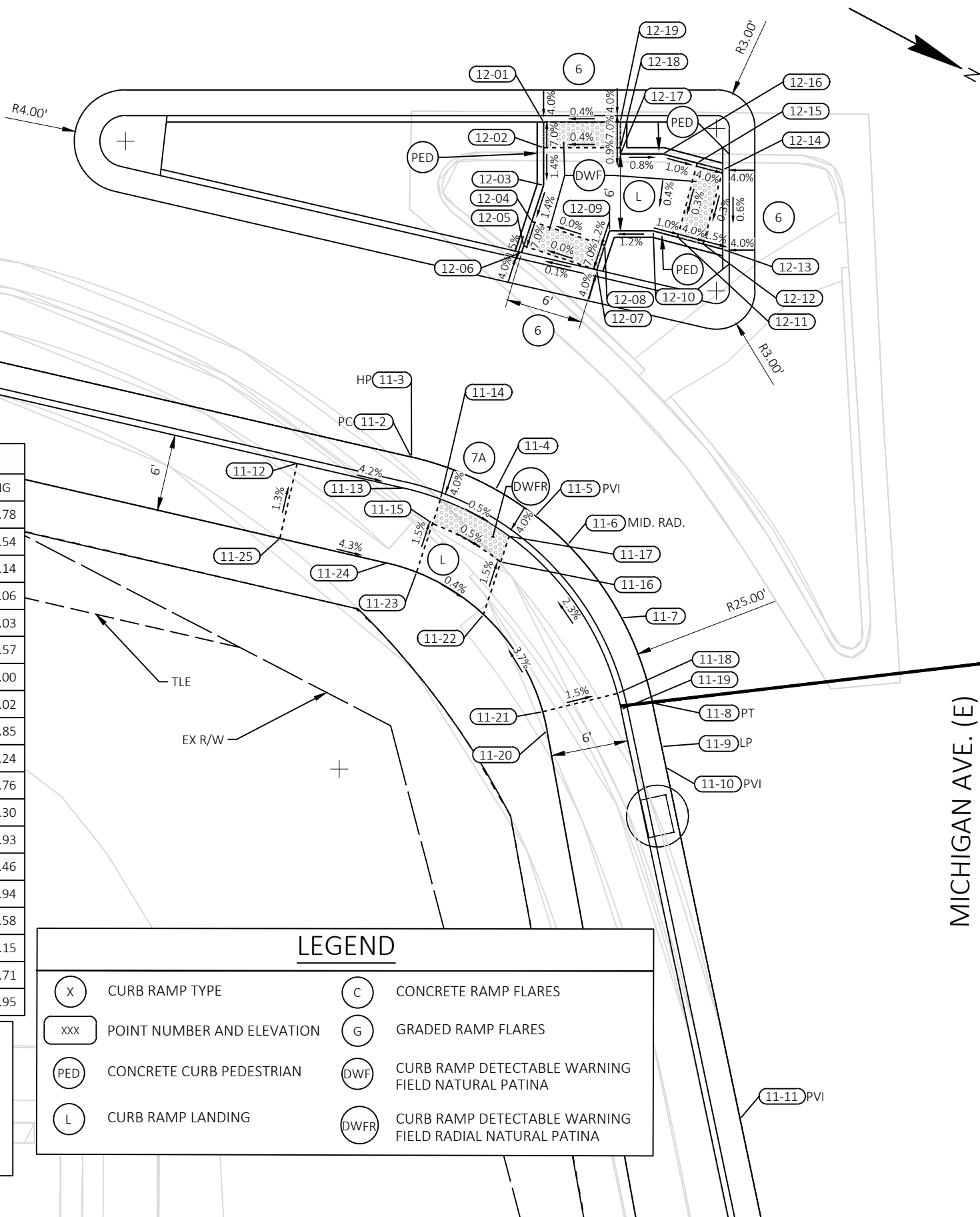
BUS 51

Michigan Ave SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
11-1	34+45.99	33.43' RT	1087.89	195324.88	168032.73
11-2	35+20.62	50.66' RT	1088.16	195398.81	168012.72
11-3	35+20.65	50.66' RT	1088.16	195398.84	168012.71
11-4	35+27.22	53.21' RT	1088.15	195405.83	168011.85
11-5	35+30.32	55.26' RT	1088.12	195409.53	168012.20
11-6	35+32.84	57.51' RT	1088.09	195412.82	168012.99
11-7	35+37.03	63.21' RT	1088.01	195419.20	168016.04
11-8	35+39.46	69.86' RT	1087.96	195424.48	168020.76
11-9	35+40.18	73.27' RT	1087.95	195426.72	168023.43
11-10	35+40.52	74.89' RT	1087.96	195427.79	168024.70
11-11	35+46.31	102.33' RT	1088.31	195445.83	168046.16
11-12	35+11.70	51.16' RT	1088.56	195391.18	168017.37
11-13	35+20.06	53.09' RT	1088.22	195399.46	168015.13
11-14	35+22.90	53.95' RT	1088.08	195402.38	168014.55
11-15	35+22.28	55.85' RT	1088.11	195402.72	168016.52
11-16	35+27.61	58.85' RT	1088.08	195408.84	168016.65
11-17	35+28.27	56.85' RT	1088.05	195408.47	168014.57
11-18	35+36.70	69.12' RT	1088.38	195421.70	168021.41
11-19	35+37.01	70.37' RT	1088.38	195422.56	168022.37
11-20	35+31.22	72.03' RT	1088.47	195418.24	168026.57
11-21	35+30.88	70.55' RT	1088.48	195417.24	168025.42
11-22	35+26.26	62.96' RT	1088.14	195409.59	168020.90
11-23	35+21.03	59.66' RT	1088.17	195403.42	168020.46
11-24	35+18.71	58.94' RT	1088.27	195401.03	168020.92
11-25	35+10.35	57.01' RT	1088.64	195392.75	168023.16

Michigan Ave SE (Island)					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
12-01	35+30.96	24.50' RT	1088.28	195395.58	167984.78
12-02	35+30.96	26.50' RT	1088.42	195396.53	167986.54
12-03	35+30.96	29.45' RT	1088.38	195397.92	167989.14
12-04	35+30.03	32.26' RT	1088.33	195398.43	167992.06
12-05	35+29.41	34.17' RT	1088.19	195398.78	167994.03
12-06	35+29.24	34.68' RT	1088.19	195398.87	167994.57
12-07	35+35.11	36.04' RT	1088.19	195404.69	167993.00
12-08	35+35.73	34.13' RT	1088.33	195404.34	167991.02
12-09	35+36.11	33.00' RT	1088.35	195404.13	167989.85
12-10	35+39.51	33.00' RT	1088.39	195407.14	167988.24
12-11	35+41.43	33.49' RT	1088.37	195409.06	167987.76
12-12	35+43.43	34.03' RT	1088.29	195411.08	167987.30
12-13	35+44.96	34.43' RT	1088.26	195412.61	167986.93
12-14	35+44.96	28.23' RT	1088.30	195409.69	167981.46
12-15	35+42.96	27.70' RT	1088.38	195407.67	167981.94
12-16	35+40.29	27.00' RT	1088.41	195404.99	167982.58
12-17	35+36.96	27.00' RT	1088.44	195402.05	167984.15
12-18	35+36.96	26.50' RT	1088.44	195401.82	167983.71
12-19	35+36.96	24.50' RT	1088.30	195400.88	167981.95

NOTES:

- CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
- DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



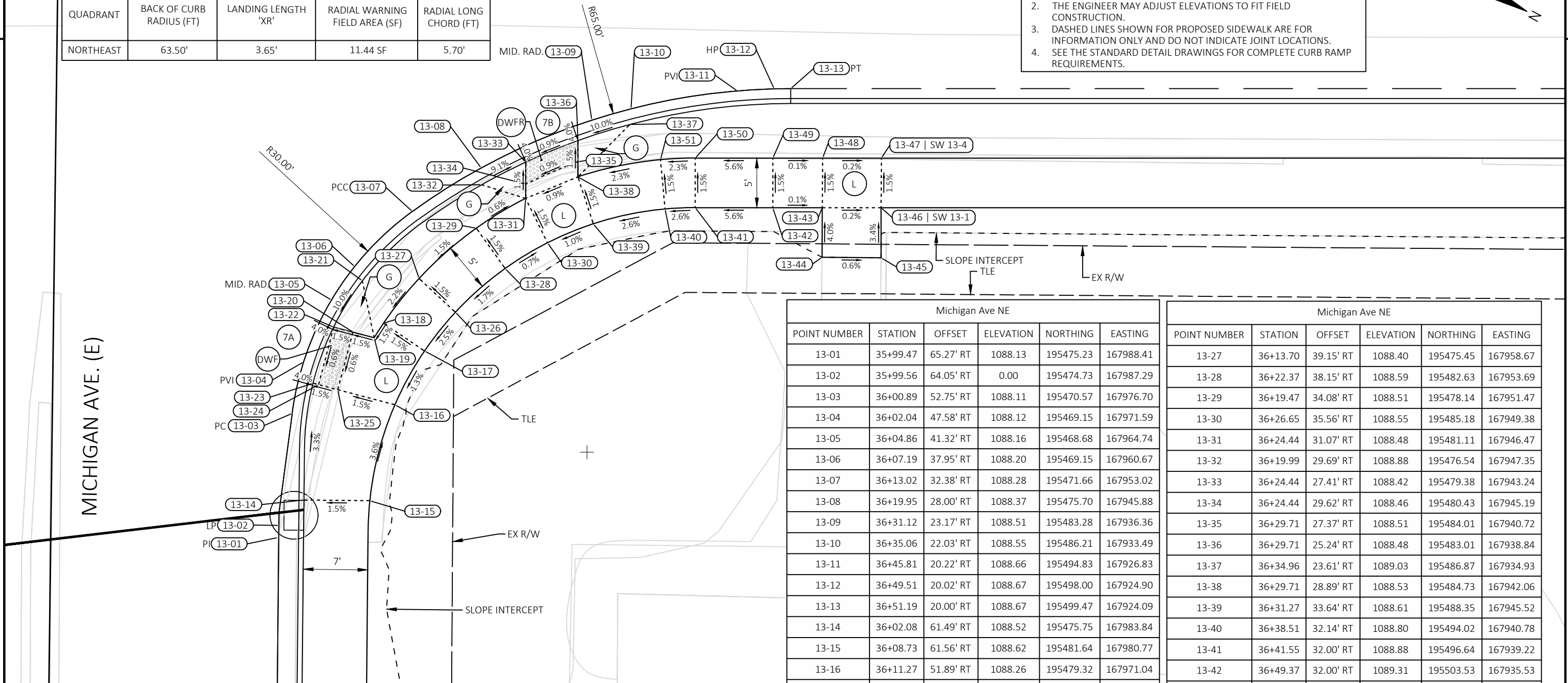
LEGEND

(X)	CURB RAMP TYPE	(C)	CONCRETE RAMP FLARES
(xxx)	POINT NUMBER AND ELEVATION	(G)	GRADED RAMP FLARES
(PED)	CONCRETE CURB PEDESTRIAN	(DWF)	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
(L)	CURB RAMP LANDING	(DWFR)	CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

BUS 51

- NOTES:
- 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 - 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 - 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 - 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (FT)	LANDING LENGTH 'XR'	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (FT)
NORTHEAST	63.50'	3.65'	11.44 SF	5.70'



LEGEND			
(X)	CURB RAMP TYPE	(C)	CONCRETE RAMP FLARES
(xxx)	POINT NUMBER AND ELEVATION	(G)	GRADED RAMP FLARES
(PED)	CONCRETE CURB PEDESTRIAN	(DWF)	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
(L)	CURB RAMP LANDING	(DWFR)	CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA

Michigan Ave NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
13-01	35+99.47	65.27' RT	1088.13	195475.23	167988.41
13-02	35+99.56	64.05' RT	0.00	195474.73	167987.29
13-03	36+00.89	52.75' RT	1088.11	195470.57	167976.70
13-04	36+02.04	47.58' RT	1088.12	195469.15	167971.59
13-05	36+04.86	41.32' RT	1088.16	195468.68	167964.74
13-06	36+07.19	37.95' RT	1088.20	195469.15	167960.67
13-07	36+13.02	32.38' RT	1088.28	195471.66	167953.02
13-08	36+19.95	28.00' RT	1088.37	195475.70	167945.88
13-09	36+31.12	23.17' RT	1088.51	195483.28	167936.36
13-10	36+35.06	22.03' RT	1088.55	195486.21	167933.49
13-11	36+45.81	20.22' RT	1088.66	195494.83	167926.83
13-12	36+49.51	20.02' RT	1088.67	195498.00	167924.90
13-13	36+51.19	20.00' RT	1088.67	195499.47	167924.09
13-14	36+02.08	61.49' RT	1088.52	195475.75	167983.84
13-15	36+08.73	61.56' RT	1088.62	195481.64	167980.77
13-16	36+11.27	51.89' RT	1088.26	195479.32	167971.04
13-17	36+14.25	46.47' RT	1088.35	195479.39	167964.86
13-18	36+10.11	43.66' RT	1088.27	195474.41	167964.33
13-19	36+09.16	45.13' RT	1088.25	195474.27	167966.07
13-20	36+07.06	44.57' RT	1088.21	195472.15	167966.58
13-21	36+07.97	39.39' RT	1088.73	195470.51	167961.57
13-22	36+05.08	44.05' RT	1088.18	195470.16	167967.05
13-23	36+03.00	49.71' RT	1088.14	195471.00	167973.02
13-24	36+03.55	49.86' RT	1088.14	195471.55	167972.89
13-25	36+05.49	50.36' RT	1088.17	195473.50	167972.43
13-26	36+17.36	42.55' RT	1088.47	195480.29	167959.94

Michigan Ave NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
13-27	36+13.70	39.15' RT	1088.40	195475.45	167958.67
13-28	36+22.37	38.15' RT	1088.59	195482.63	167953.69
13-29	36+19.47	34.08' RT	1088.51	195478.14	167951.47
13-30	36+26.65	35.56' RT	1088.55	195485.18	167949.38
13-31	36+24.44	31.07' RT	1088.48	195481.11	167946.47
13-32	36+19.99	29.69' RT	1088.88	195476.54	167947.35
13-33	36+24.44	27.41' RT	1088.42	195479.38	167943.24
13-34	36+24.44	29.62' RT	1088.46	195480.43	167945.19
13-35	36+29.71	27.37' RT	1088.51	195484.01	167940.72
13-36	36+29.71	25.24' RT	1088.48	195483.01	167938.84
13-37	36+34.96	23.61' RT	1089.03	195486.87	167934.93
13-38	36+29.71	28.89' RT	1088.53	195484.73	167942.06
13-39	36+31.27	33.64' RT	1088.61	195488.35	167945.52
13-40	36+38.51	32.14' RT	1088.80	195494.02	167940.78
13-41	36+41.55	32.00' RT	1088.88	195496.64	167939.22
13-42	36+49.37	32.00' RT	1089.31	195503.53	167935.53
13-43	36+54.37	32.00' RT	1089.31	195507.94	167933.17
13-44	36+54.34	37.00' RT	1089.51	195510.27	167937.59
13-45	36+60.30	37.06' RT	1089.47	195515.56	167934.84
13-46 SW 13-1	36+60.30	32.00' RT	1089.30	195513.17	167930.38
13-47 SW 13-4	36+60.33	27.00' RT	1089.22	195510.84	167925.95
13-48	36+54.40	27.00' RT	1089.23	195505.61	167928.75
13-49	36+49.37	27.00' RT	1089.24	195501.18	167931.12
13-50	36+41.55	27.00' RT	1088.80	195494.28	167934.81
13-51	36+38.04	27.16' RT	1088.72	195491.26	167936.61

2

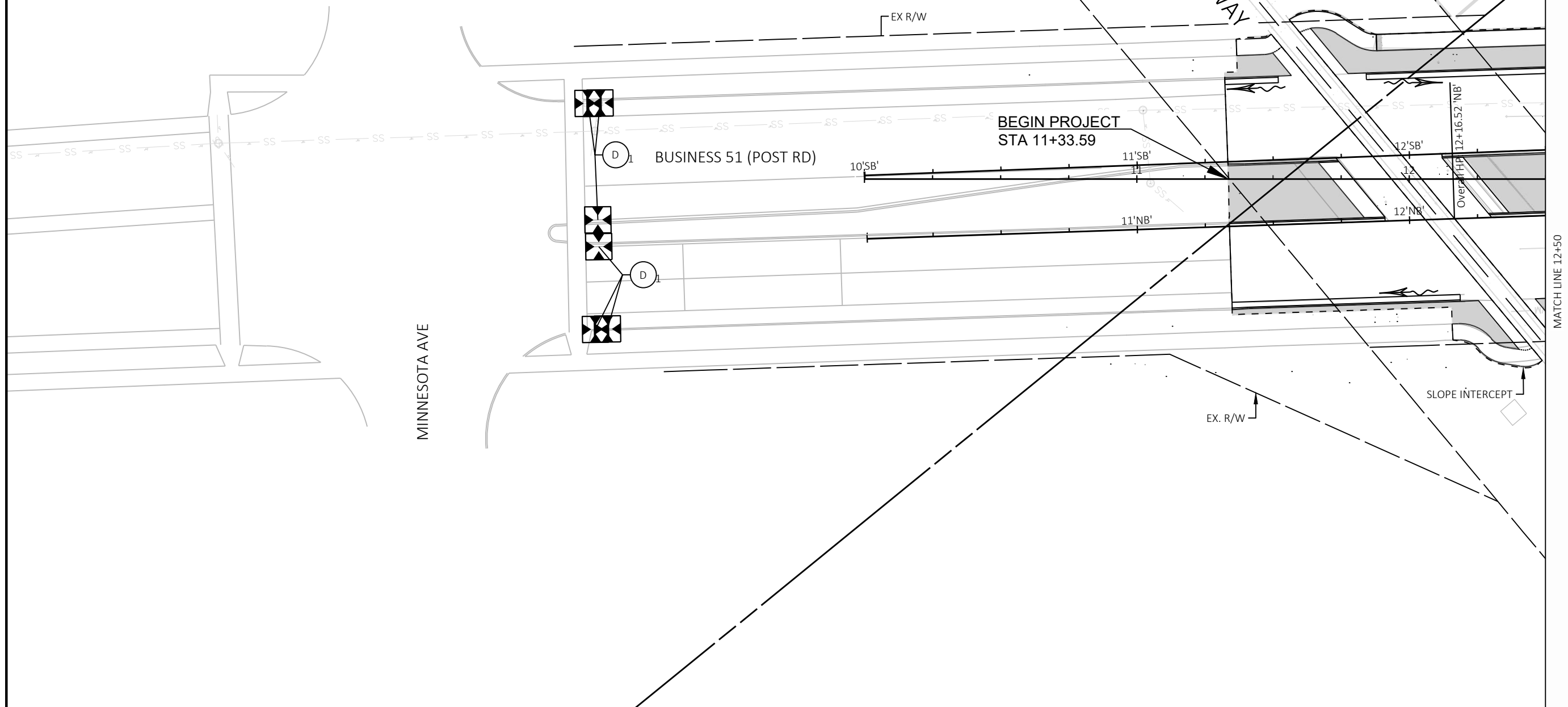
2

LEGEND			
	(A)	INLET PROTECTION TYPE A	SURFACE WATER FLOW
	(B)	INLET PROTECTION TYPE B	SLOPE INTERCEPT
	(C)	INLET PROTECTION TYPE C	REFER TO LANDSCAPE PLANS
	(D)	INLET PROTECTION TYPE D	WORK COMPLETED IN PREVIOUS STAGES

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO. 1 INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:

1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION

INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.



PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

EROSION CONTROL - STAGE 1

SHEET	92	E
-------	----	---

FILE NAME : C:\USERS\KHALAYLEHM\ONEDRIVE - AECOM\GENERAL - 60730625 BUS51 SOUTH SEGMENT\900_CAD_GIS\910_CAD\60730625\SHEETS\PLAN\022001-EC-S1.DWG
LAYOUT NAME - 022001-00

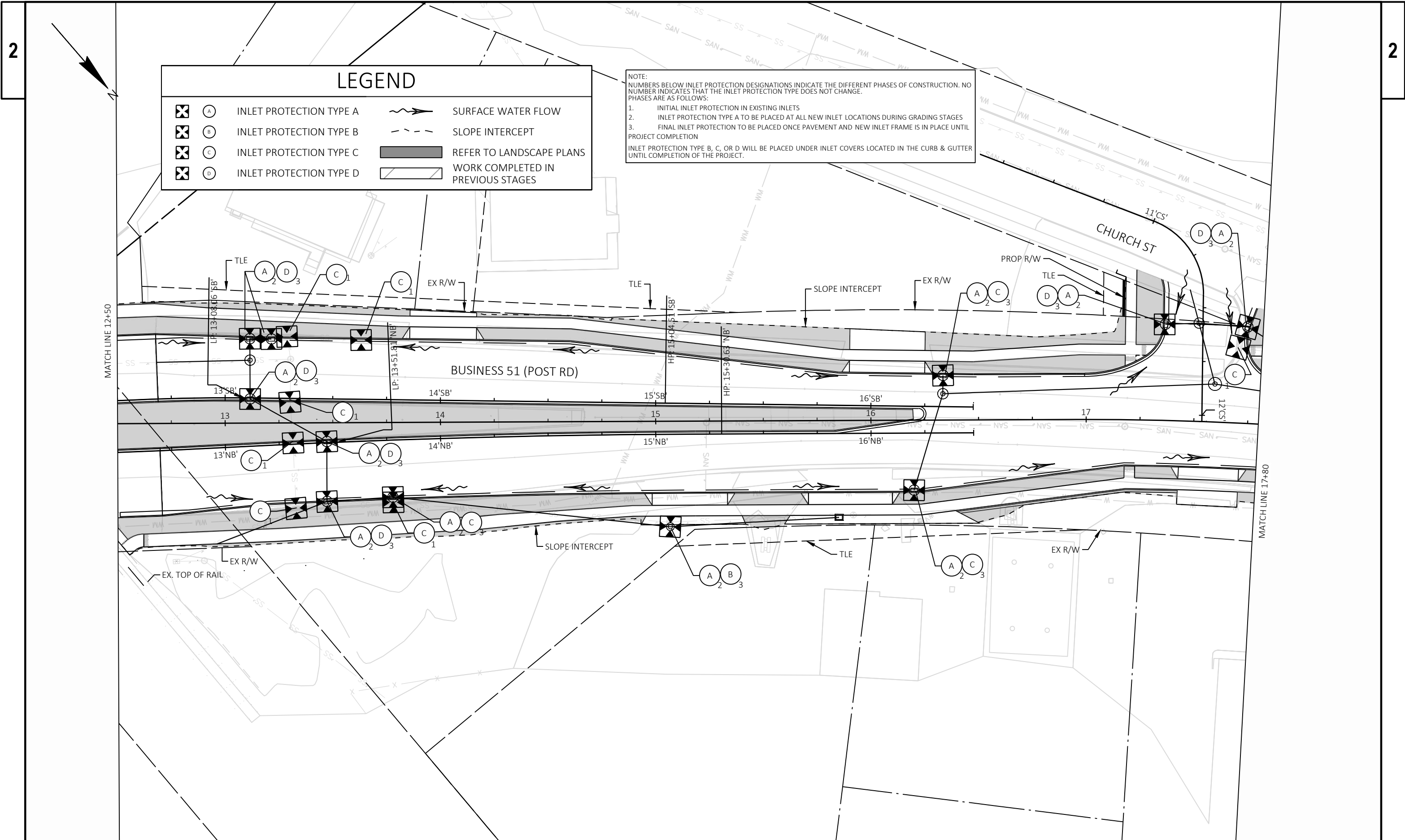
PLOT DATE : 11/2/2025 2:36 PM

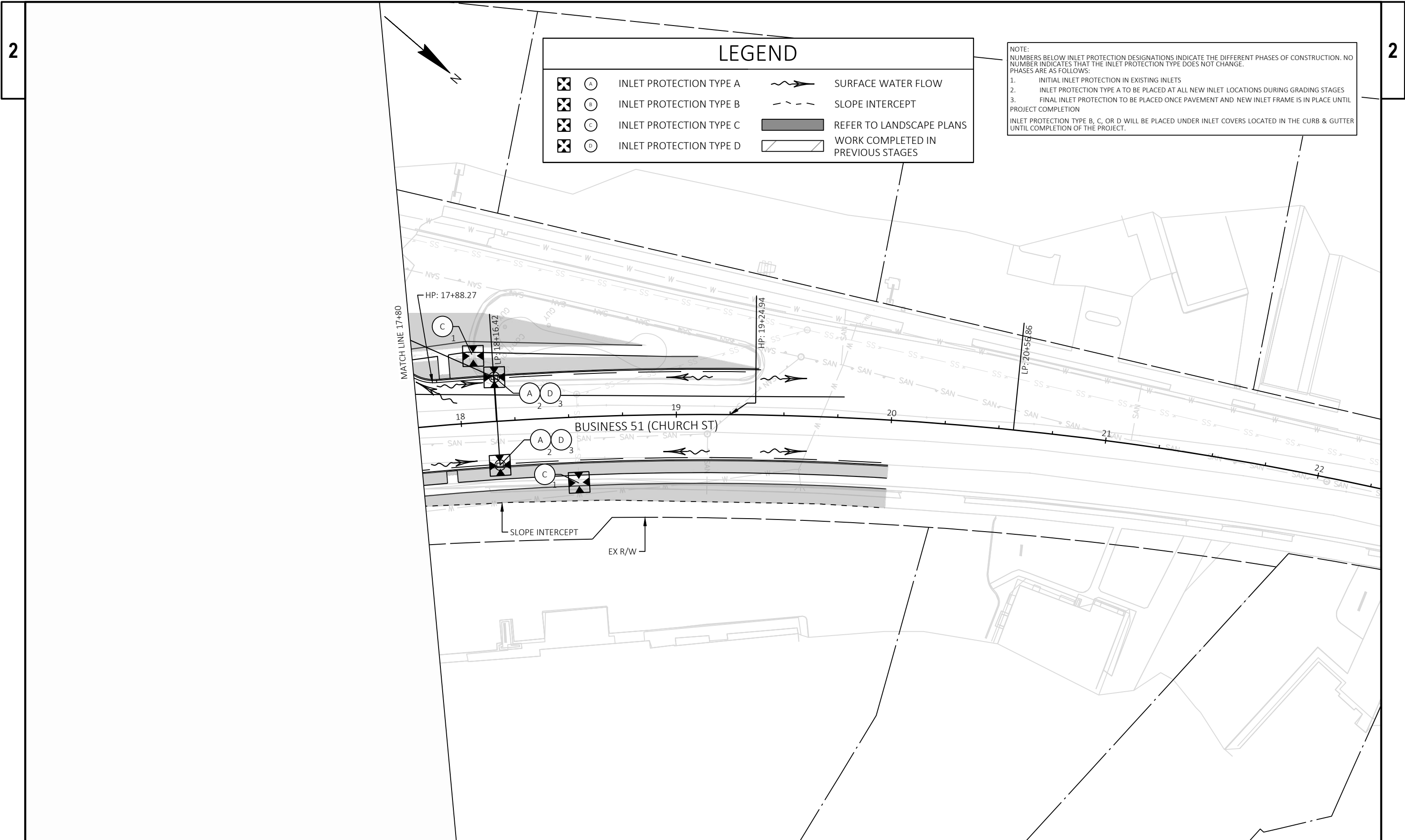
PLOT BY : KHALAYLEH, MUSALLAM

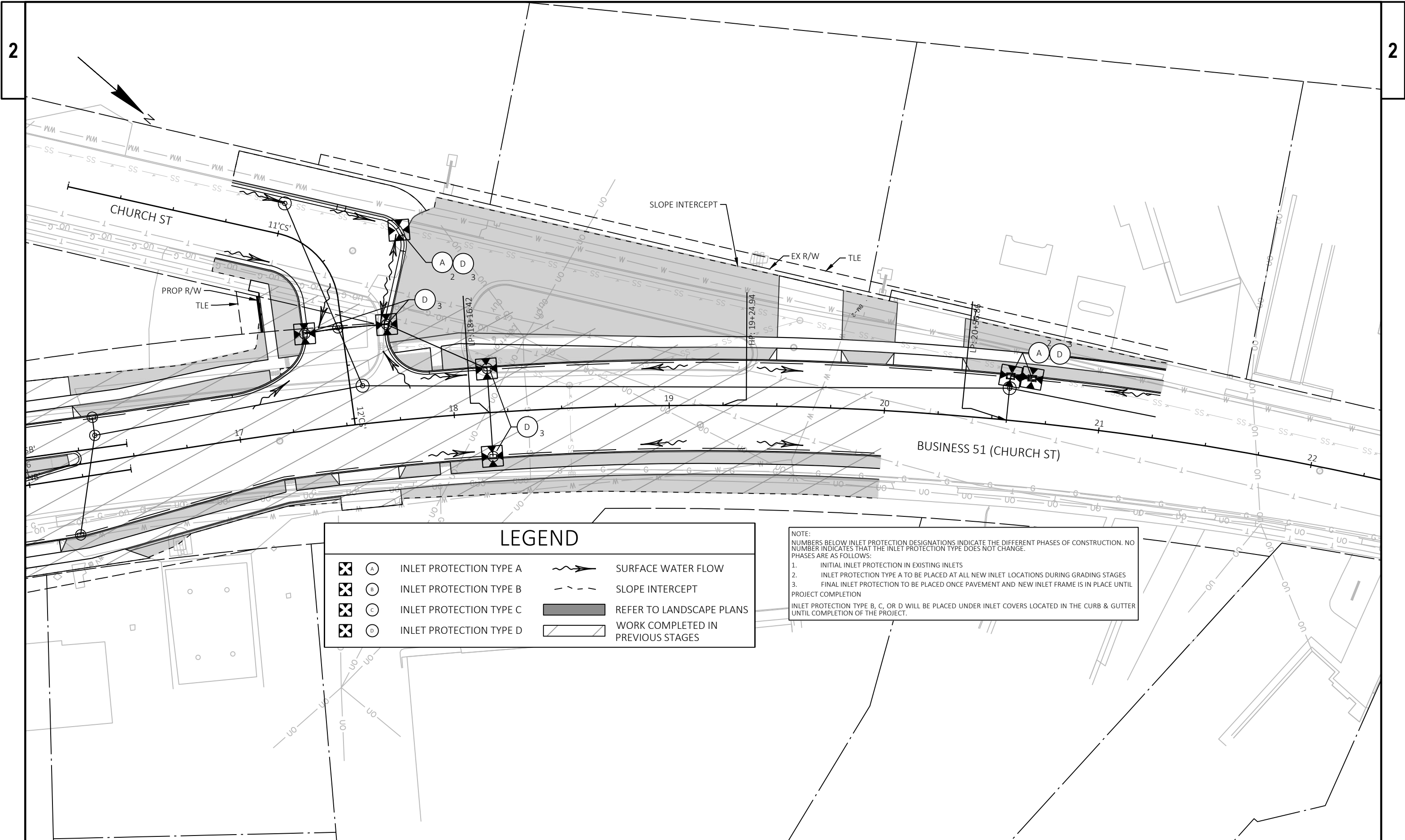
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



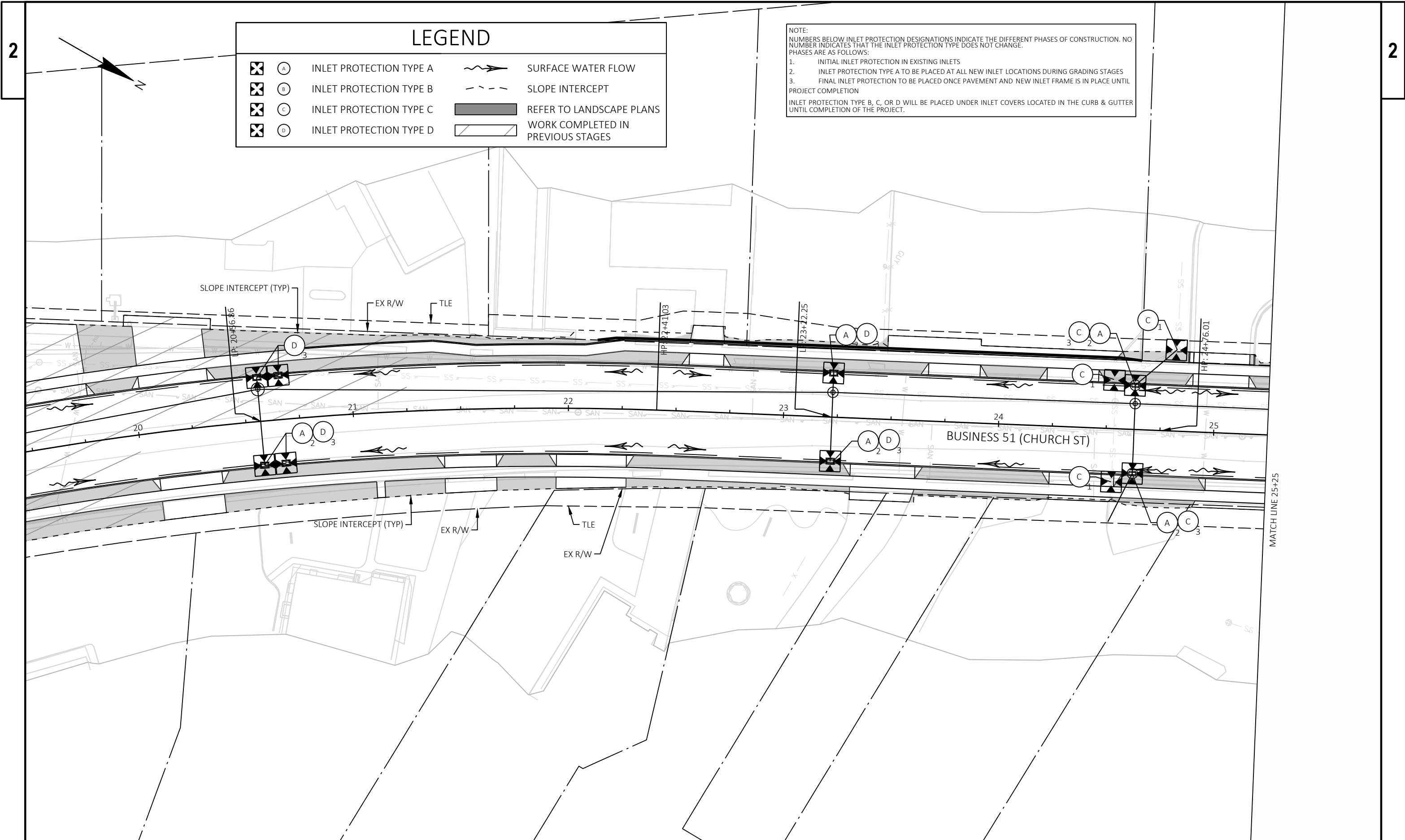


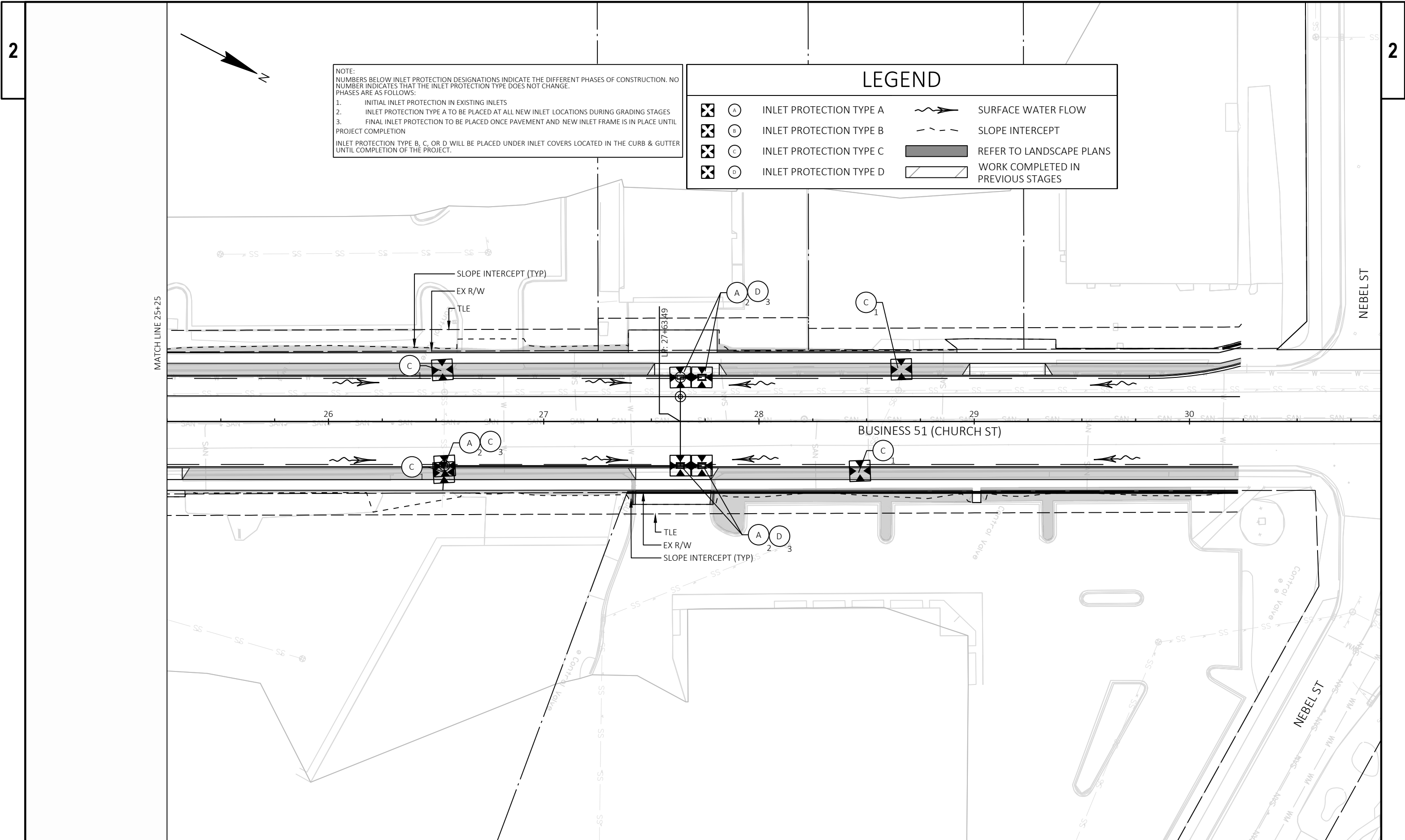


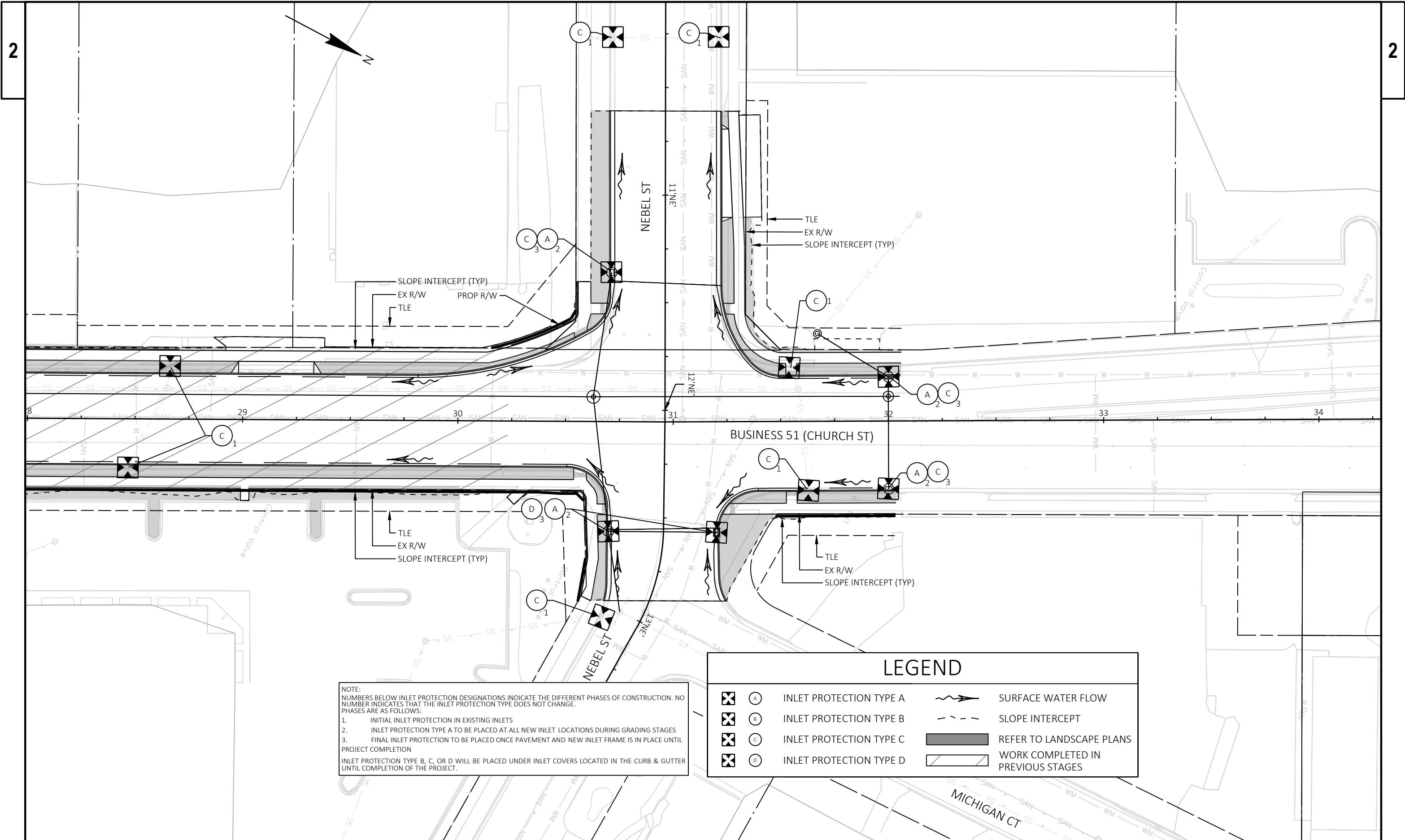
LEGEND

	INLET PROTECTION TYPE A		SURFACE WATER FLOW
	INLET PROTECTION TYPE B		SLOPE INTERCEPT
	INLET PROTECTION TYPE C		REFER TO LANDSCAPE PLANS
	INLET PROTECTION TYPE D		WORK COMPLETED IN PREVIOUS STAGES

NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:
1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL PROJECT COMPLETION
INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER UNTIL COMPLETION OF THE PROJECT.



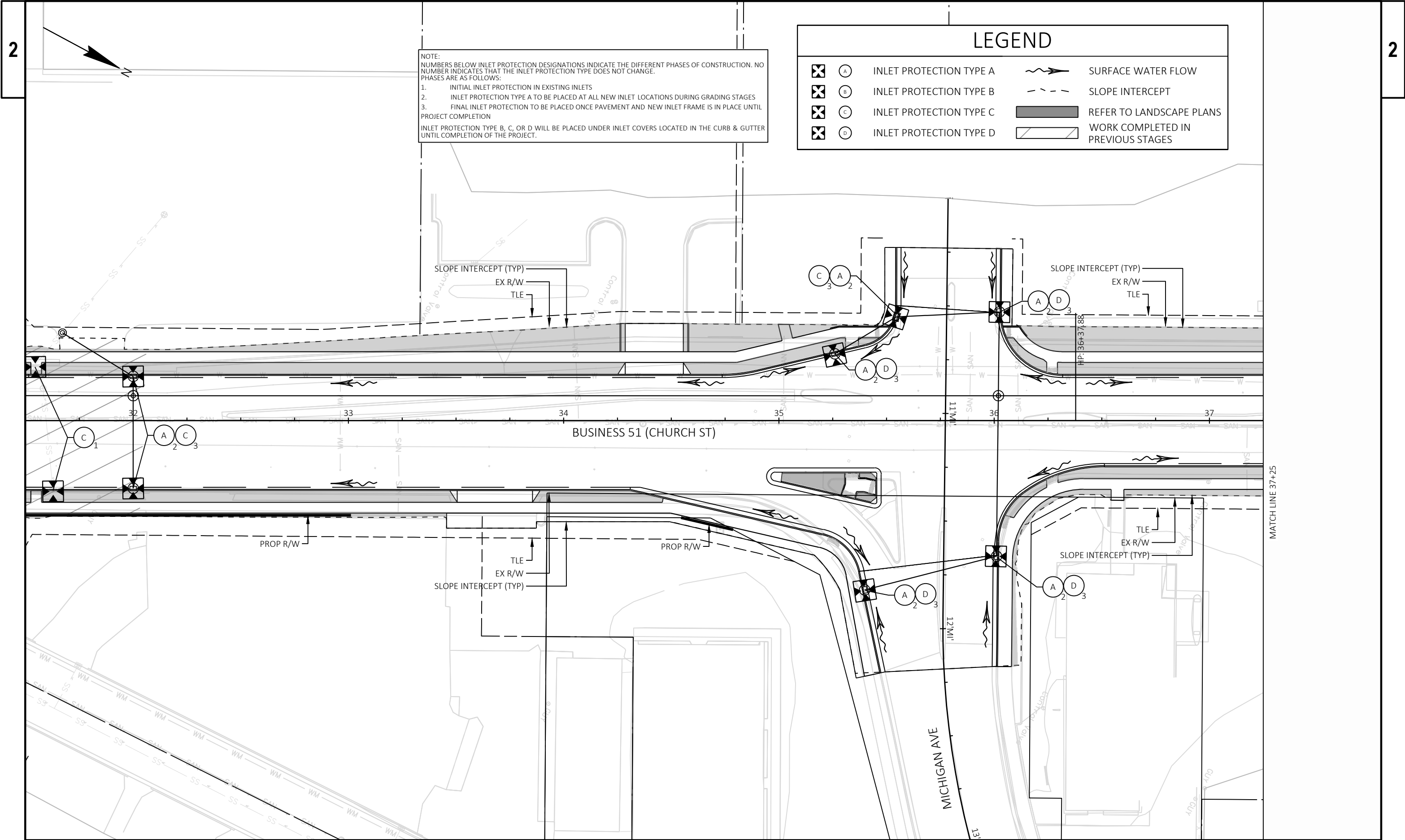


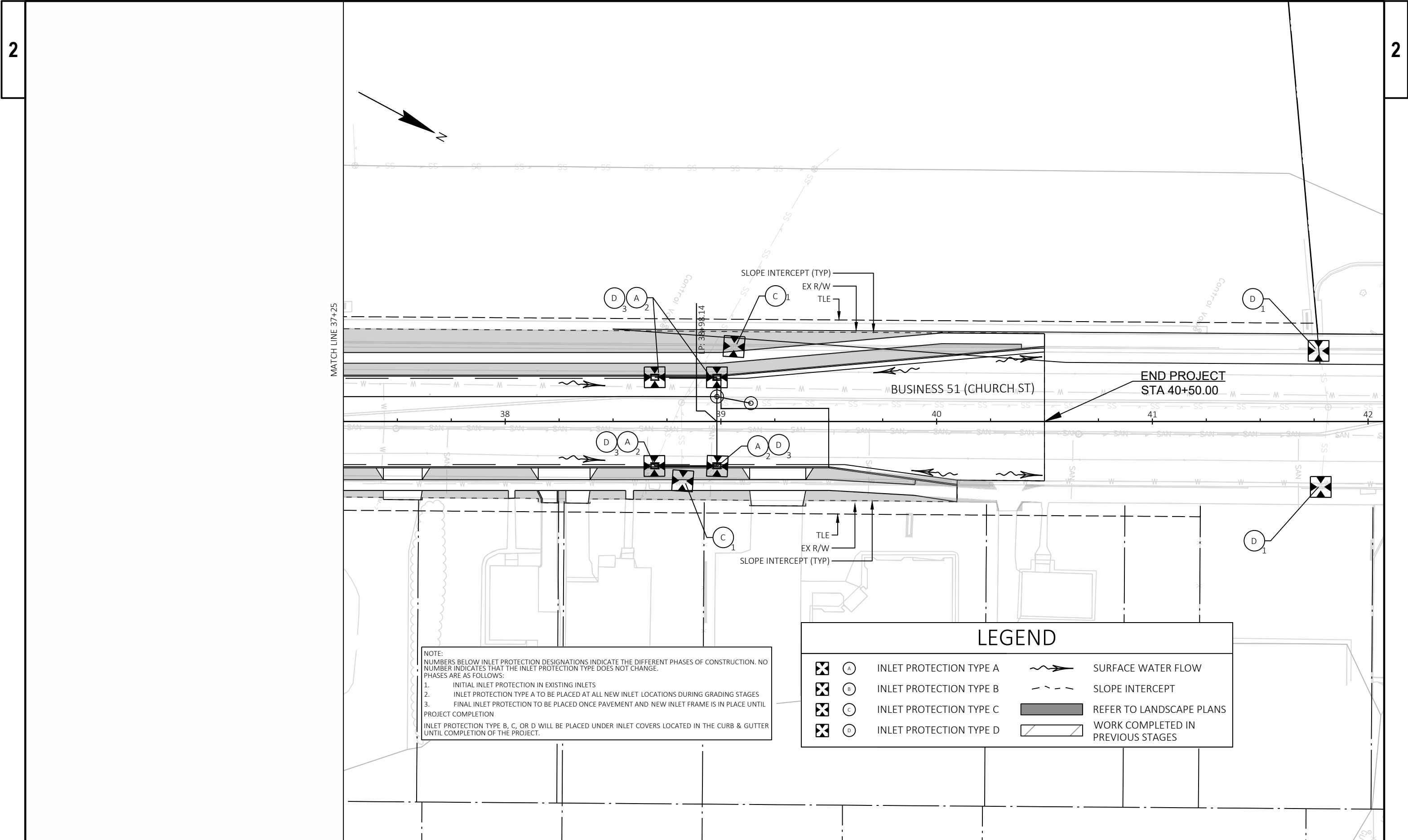


NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO
NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:
1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL
PROJECT COMPLETION
INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER
UNTIL COMPLETION OF THE PROJECT.

LEGEND

	(A)	INLET PROTECTION TYPE A		SURFACE WATER FLOW
	(B)	INLET PROTECTION TYPE B		SLOPE INTERCEPT
	(C)	INLET PROTECTION TYPE C		REFER TO LANDSCAPE PLANS
	(D)	INLET PROTECTION TYPE D		WORK COMPLETED IN PREVIOUS STAGES

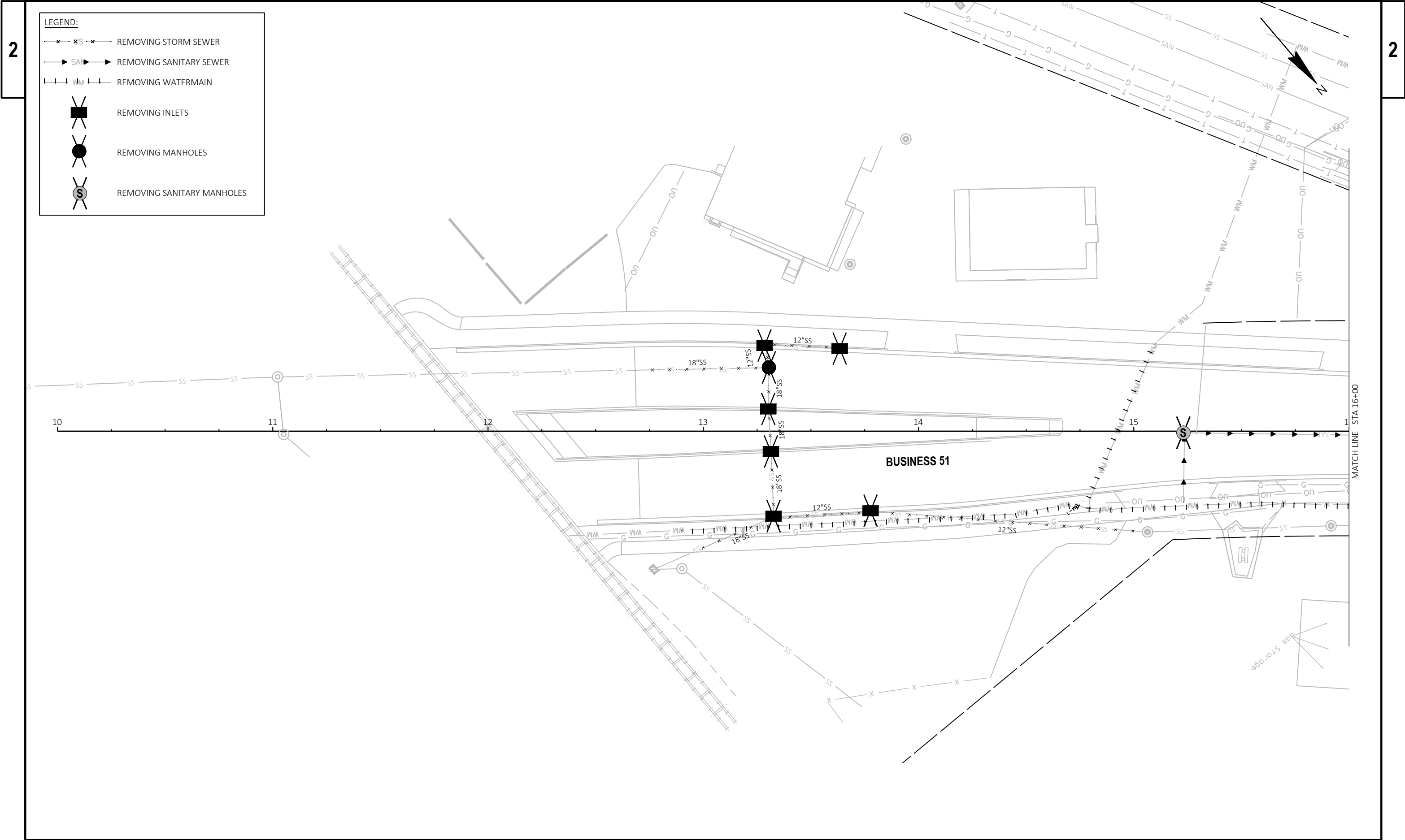




NOTE:
NUMBERS BELOW INLET PROTECTION DESIGNATIONS INDICATE THE DIFFERENT PHASES OF CONSTRUCTION. NO
NUMBER INDICATES THAT THE INLET PROTECTION TYPE DOES NOT CHANGE.
PHASES ARE AS FOLLOWS:
1. INITIAL INLET PROTECTION IN EXISTING INLETS
2. INLET PROTECTION TYPE A TO BE PLACED AT ALL NEW INLET LOCATIONS DURING GRADING STAGES
3. FINAL INLET PROTECTION TO BE PLACED ONCE PAVEMENT AND NEW INLET FRAME IS IN PLACE UNTIL
PROJECT COMPLETION
INLET PROTECTION TYPE B, C, OR D WILL BE PLACED UNDER INLET COVERS LOCATED IN THE CURB & GUTTER
UNTIL COMPLETION OF THE PROJECT.

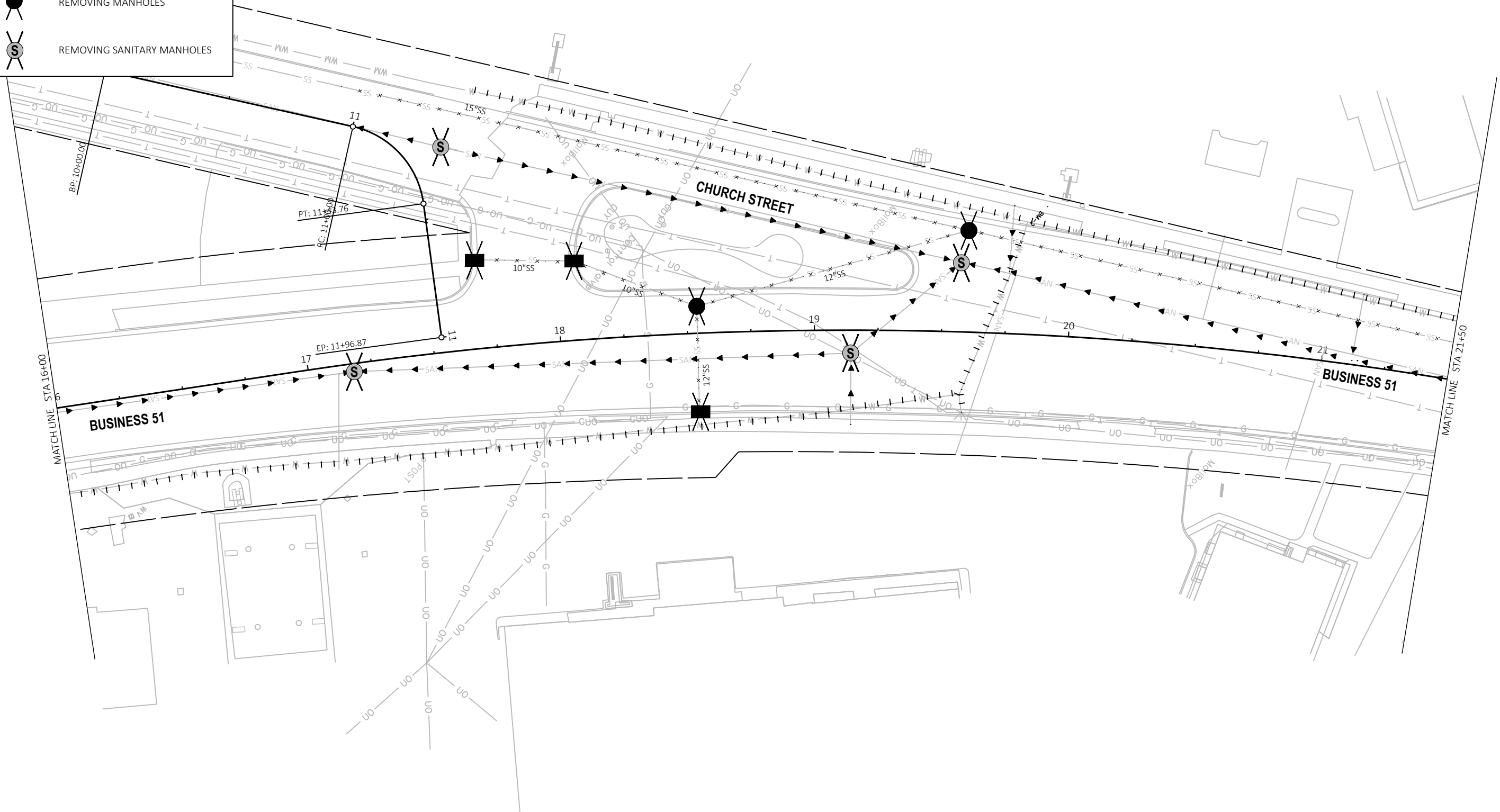
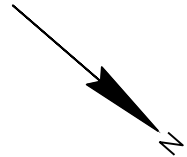
LEGEND

	A	INLET PROTECTION TYPE A		SURFACE WATER FLOW
	B	INLET PROTECTION TYPE B		SLOPE INTERCEPT
	C	INLET PROTECTION TYPE C		REFER TO LANDSCAPE PLANS
	D	INLET PROTECTION TYPE D		WORK COMPLETED IN PREVIOUS STAGES



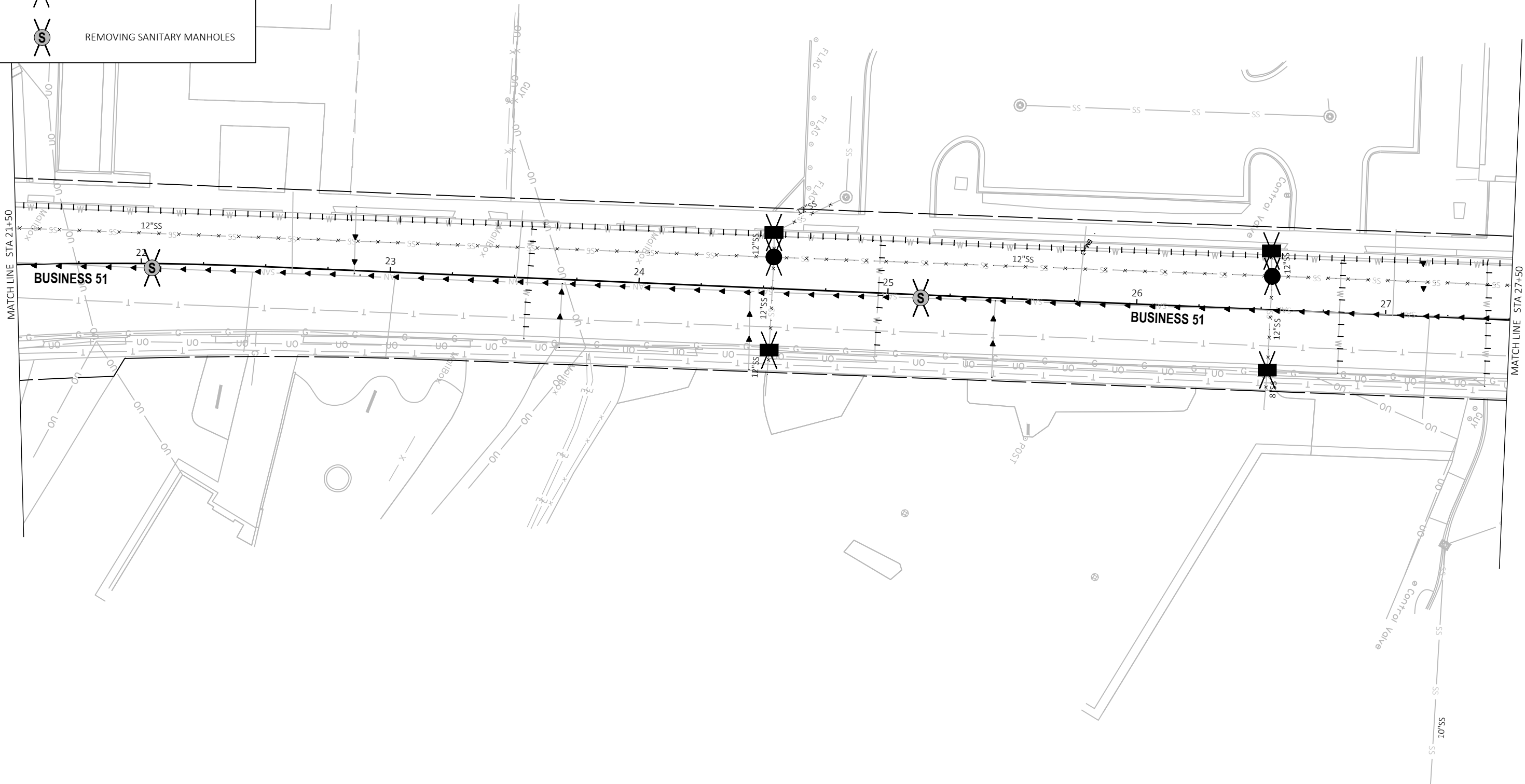
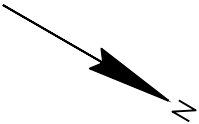
LEGEND:

- x—x—x— REMOVING STORM SEWER
- ▶ SAN —▶ REMOVING SANITARY SEWER
- |—|—|— REMOVING WATERMAIN
- REMOVING INLETS
- REMOVING MANHOLES
- ⊙ REMOVING SANITARY MANHOLES



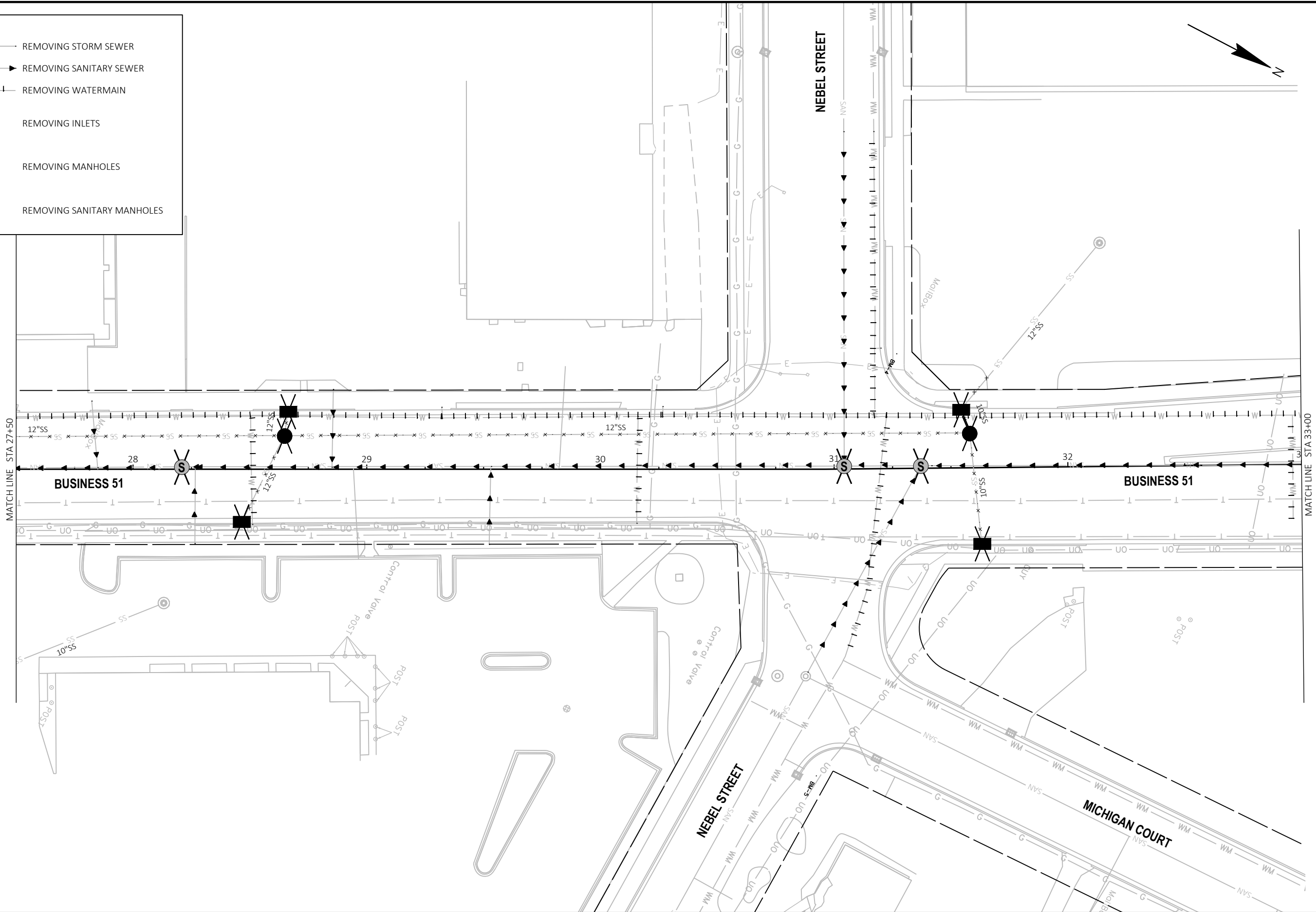
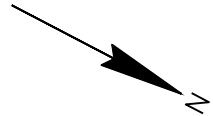
LEGEND:

- x—x—x— REMOVING STORM SEWER
- ▶—▶—▶— REMOVING SANITARY SEWER
- |—|—|— REMOVING WATERMAIN
- REMOVING INLETS
- REMOVING MANHOLES
- ⊙ REMOVING SANITARY MANHOLES



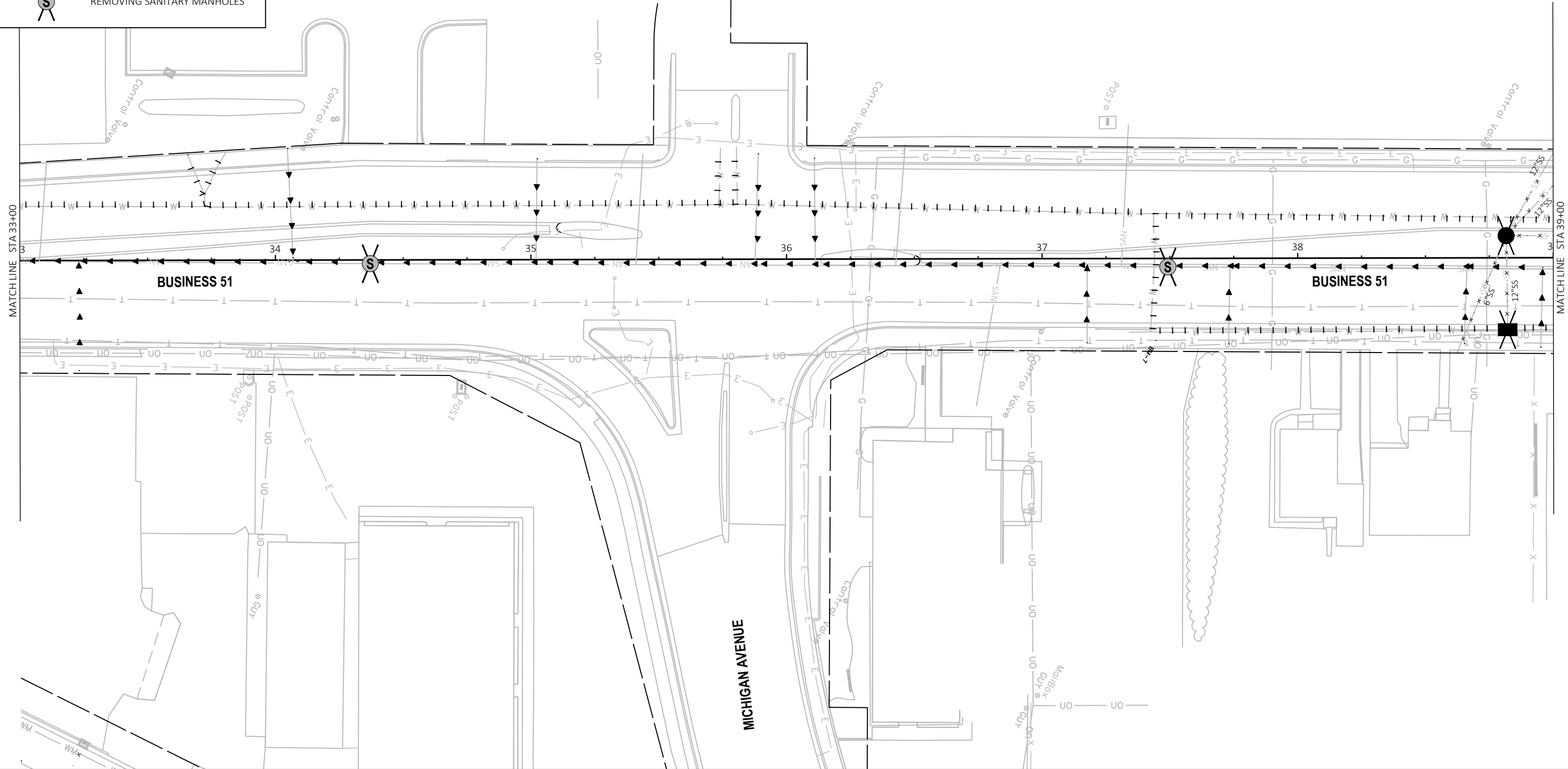
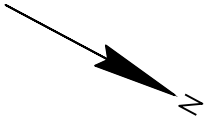
LEGEND:

- x—x—x— REMOVING STORM SEWER
- > SAN —> REMOVING SANITARY SEWER
- |—|—|— WM —|—|—|— REMOVING WATERMAIN
- REMOVING INLETS
- REMOVING MANHOLES
- ⊙ REMOVING SANITARY MANHOLES



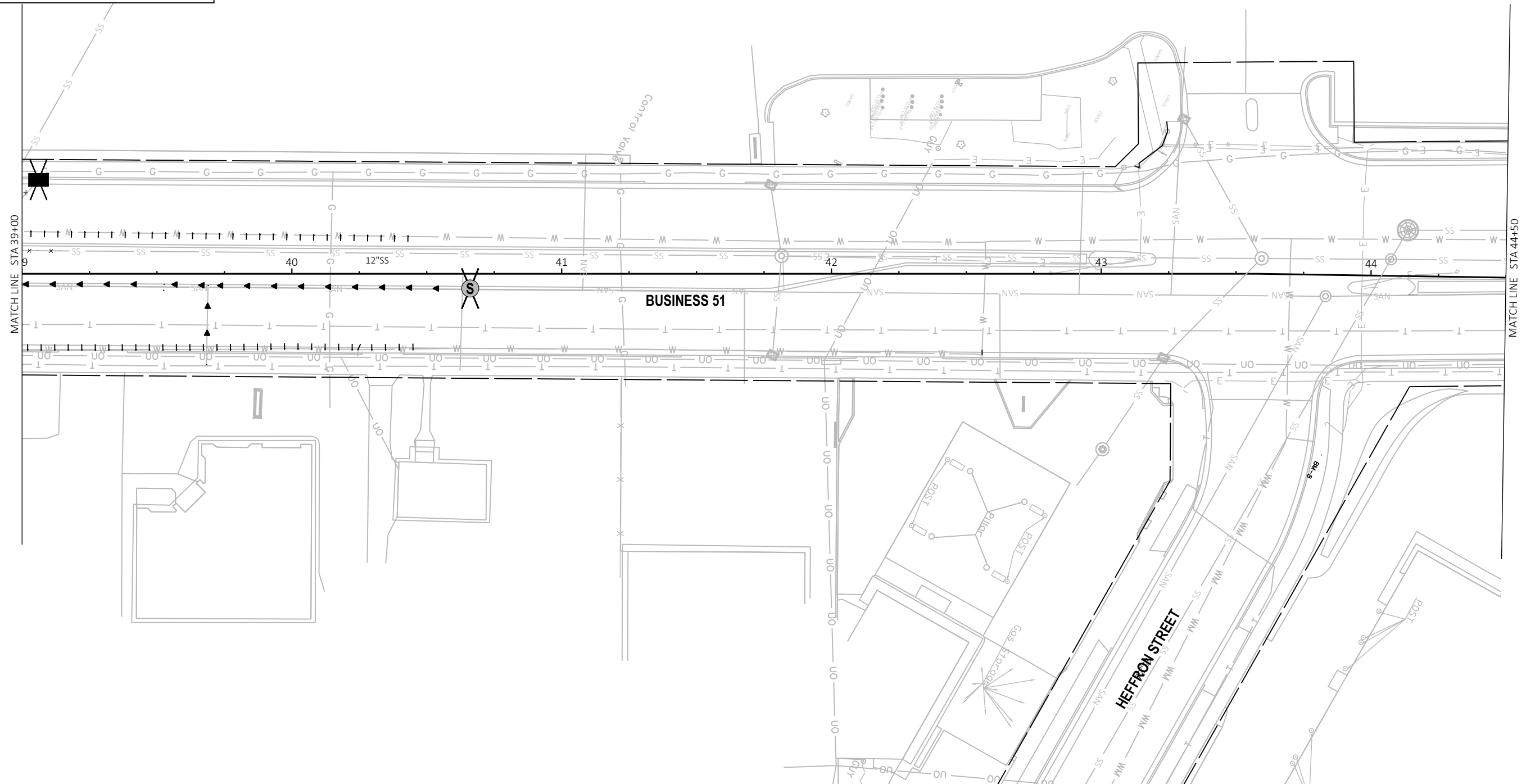
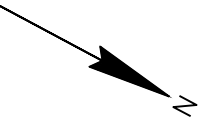
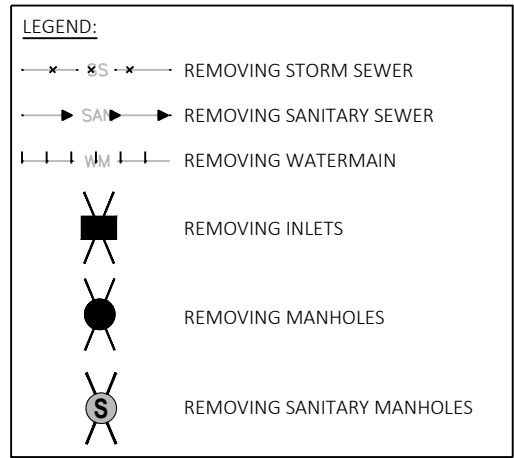
LEGEND:

- ✕ S ✕ REMOVING STORM SEWER
- SAN ➤ REMOVING SANITARY SEWER
- || WM || REMOVING WATERMAIN
- REMOVING INLETS
- REMOVING MANHOLES
- ⊙ S ⊙ REMOVING SANITARY MANHOLES

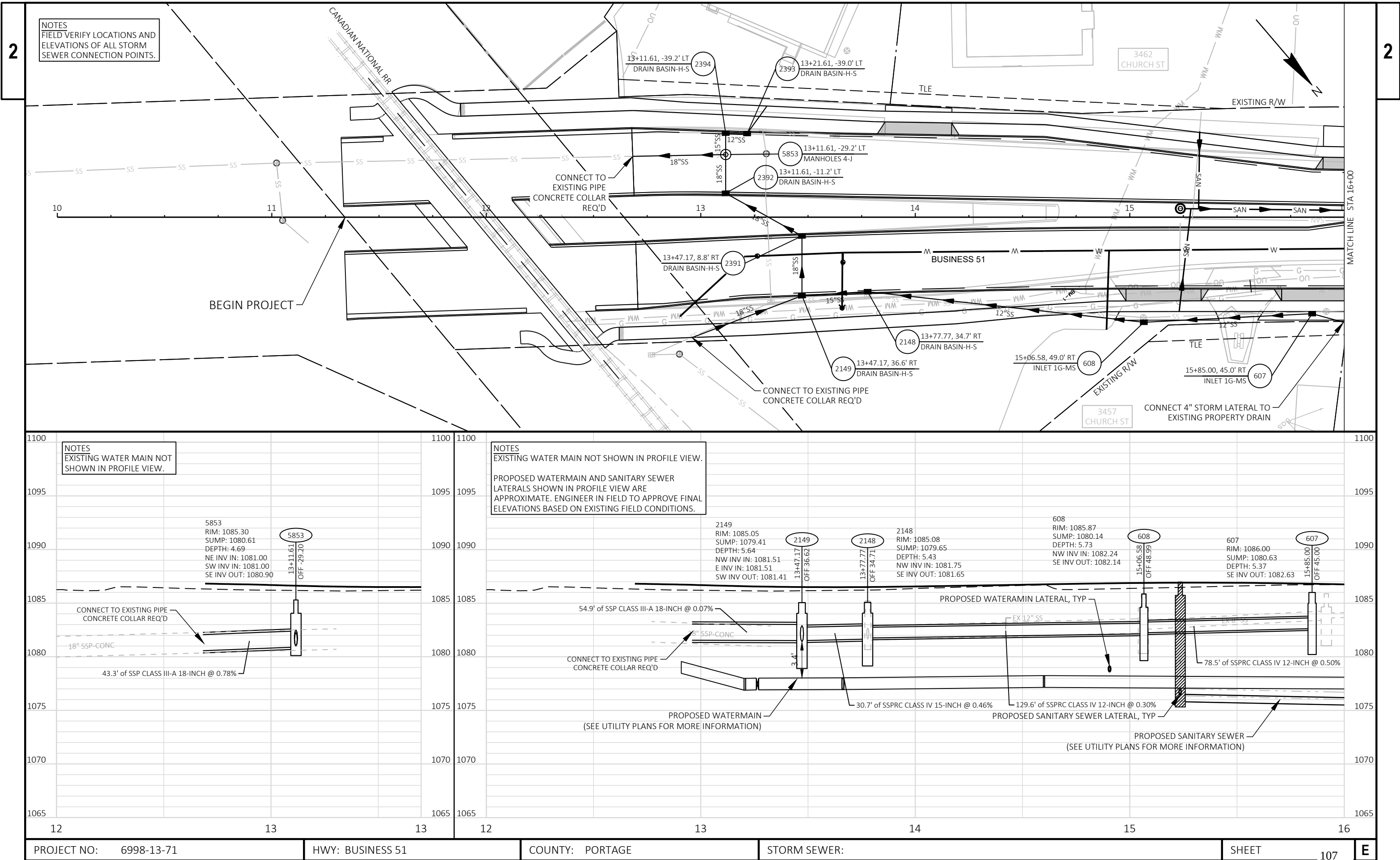


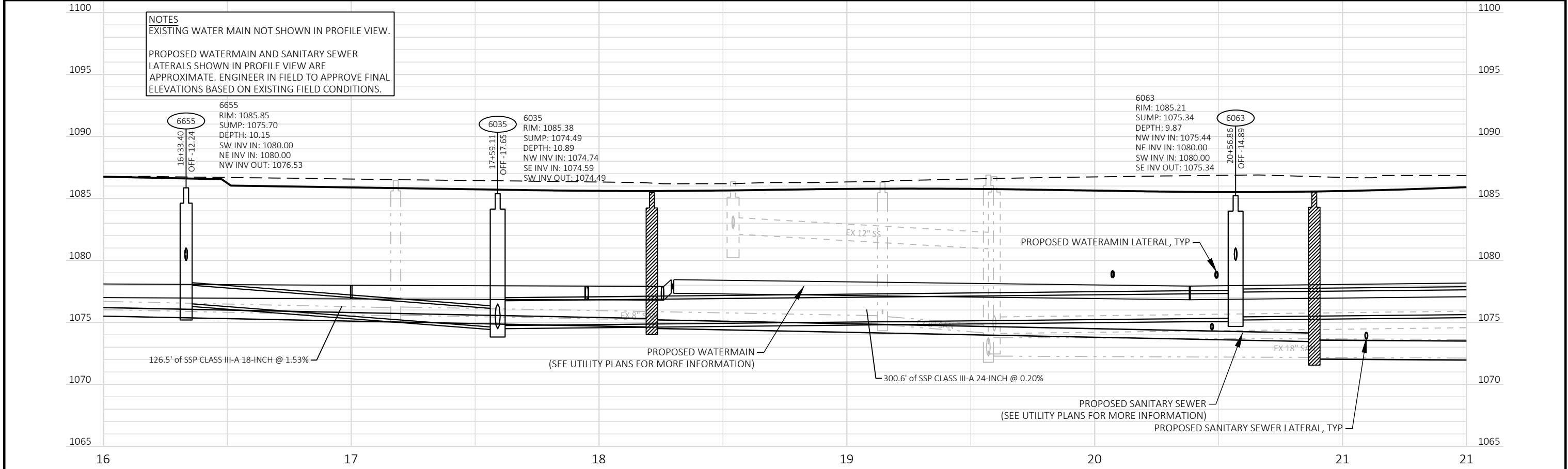
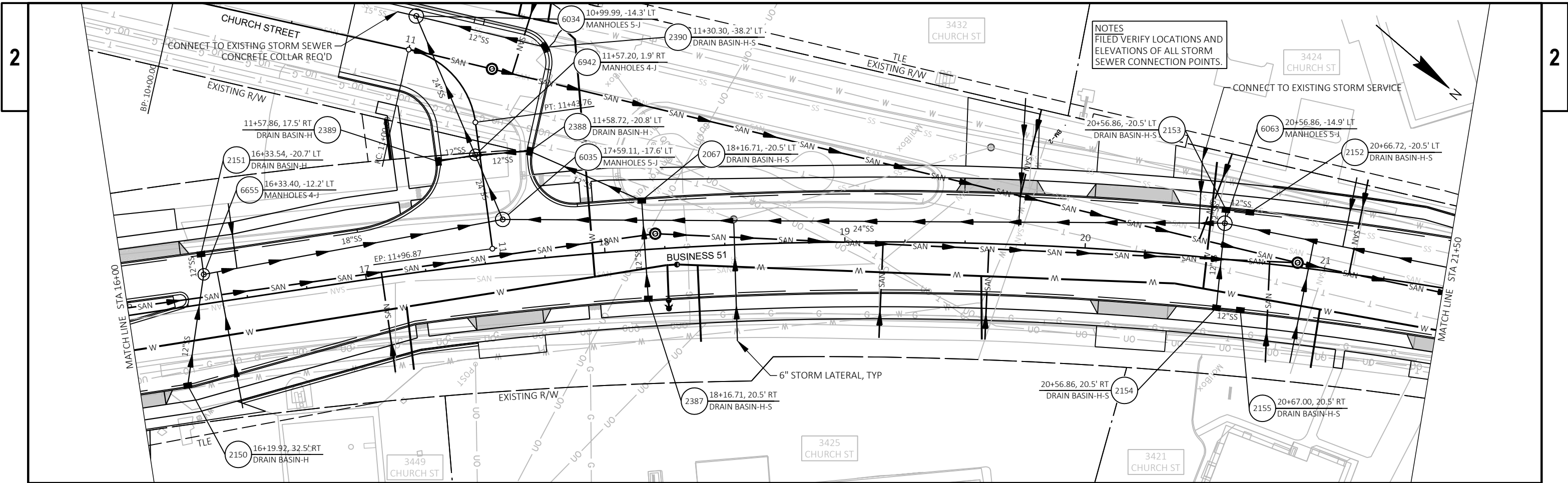
2

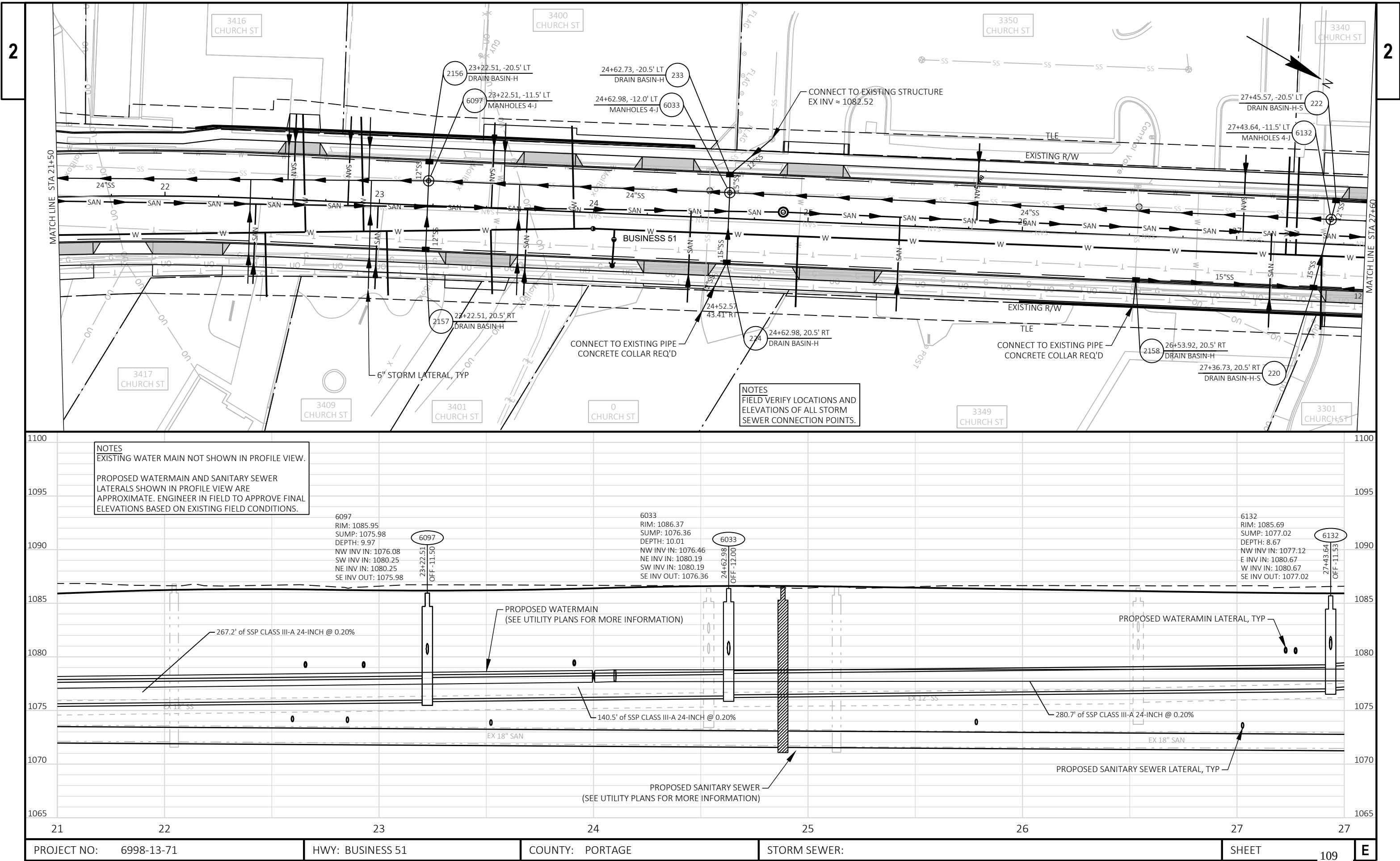
2



PROJECT NO: 6998-13-71		HWY: BUSINESS 51		COUNTY: PORTAGE		STORM SEWER:				SHEET 106		E
FILE NAME : P:\PROJECTS_CURRENT\PORTAGE\STEVENS POINT, CITY OF\BUS 51\ACAD\SHEETSP\LAN\022501_UP\022501_SS-REMOVAL.DWG				PLOT DATE : 10/28/2025 1:18 PM		PLOT BY : JARED HALBUR		PLOT NAME :		PLOT SCALE : #####		WISDOT/CADD SHEET 44
LAYOUT NAME - 06												

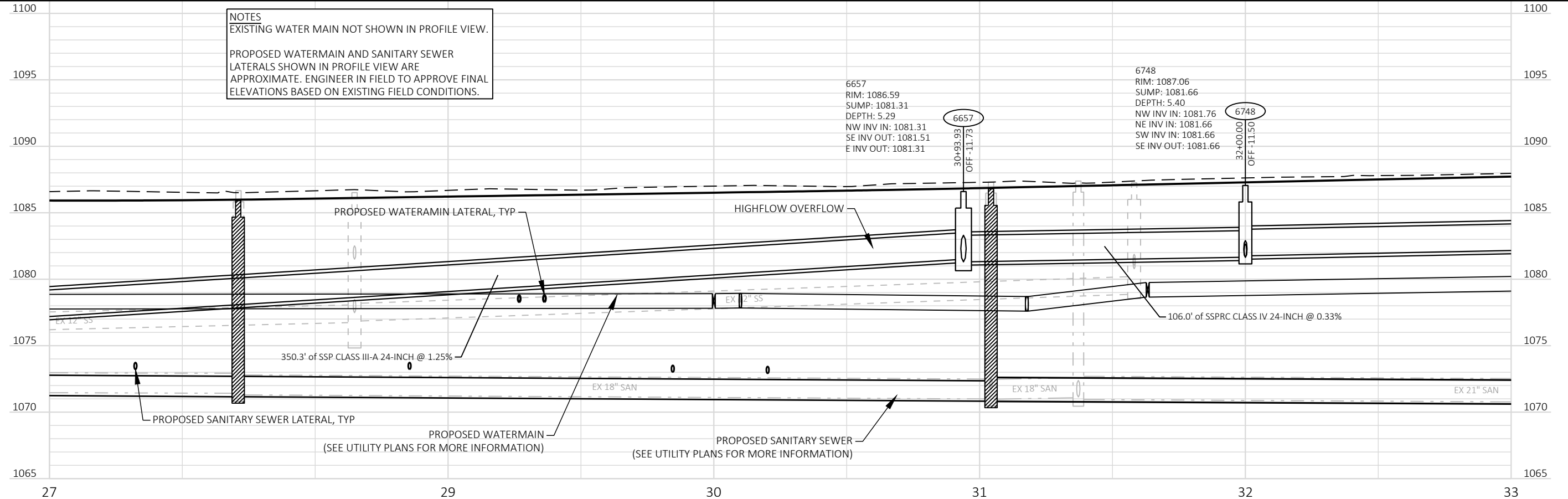
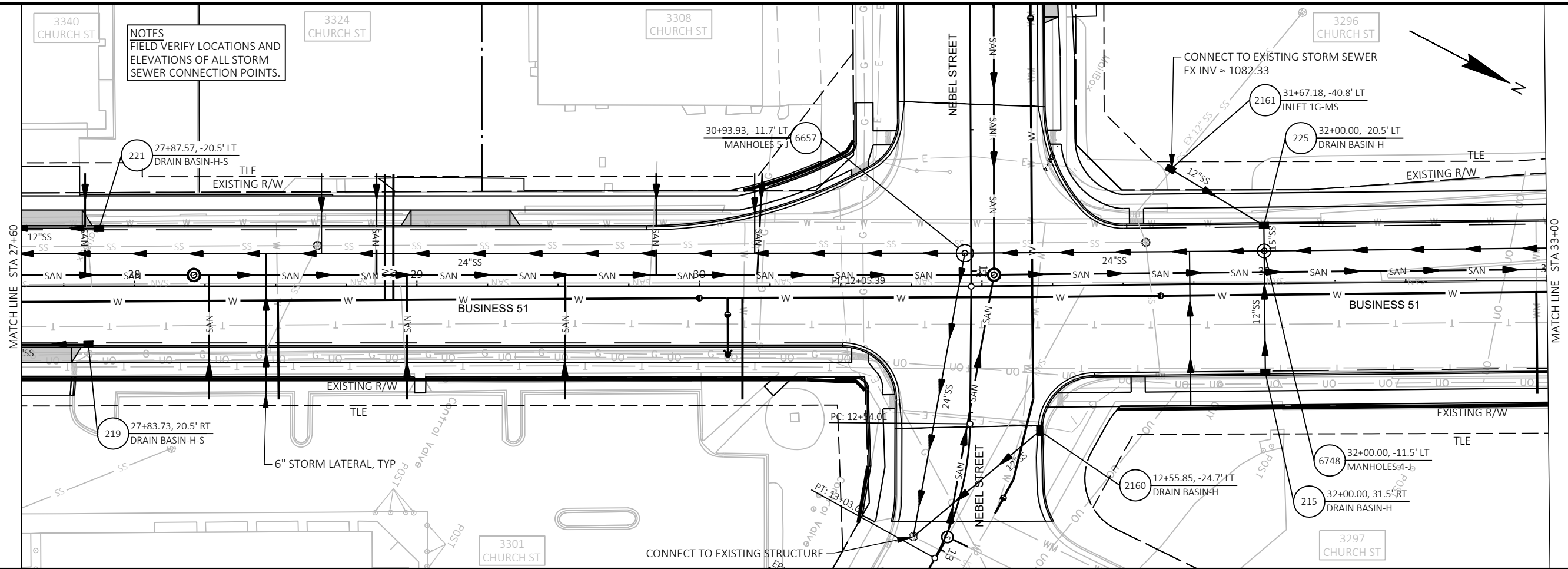






2

2 |



PROJECT NO:	6998-13-71
-------------	------------

HWY: BUSINESS 51

COUNTY: PORTAGE

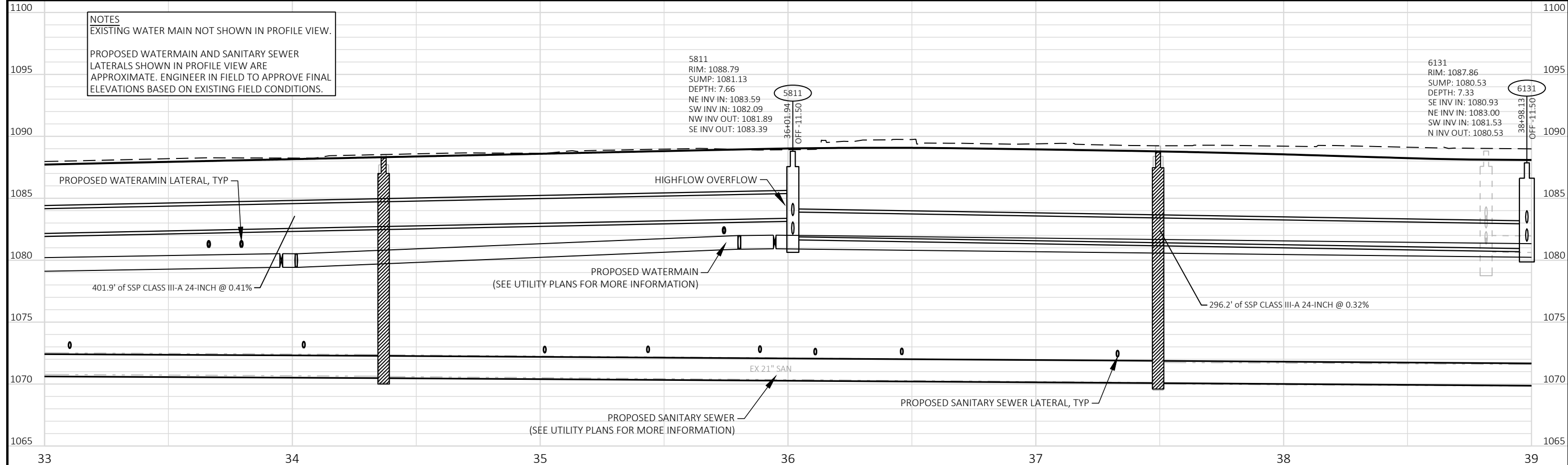
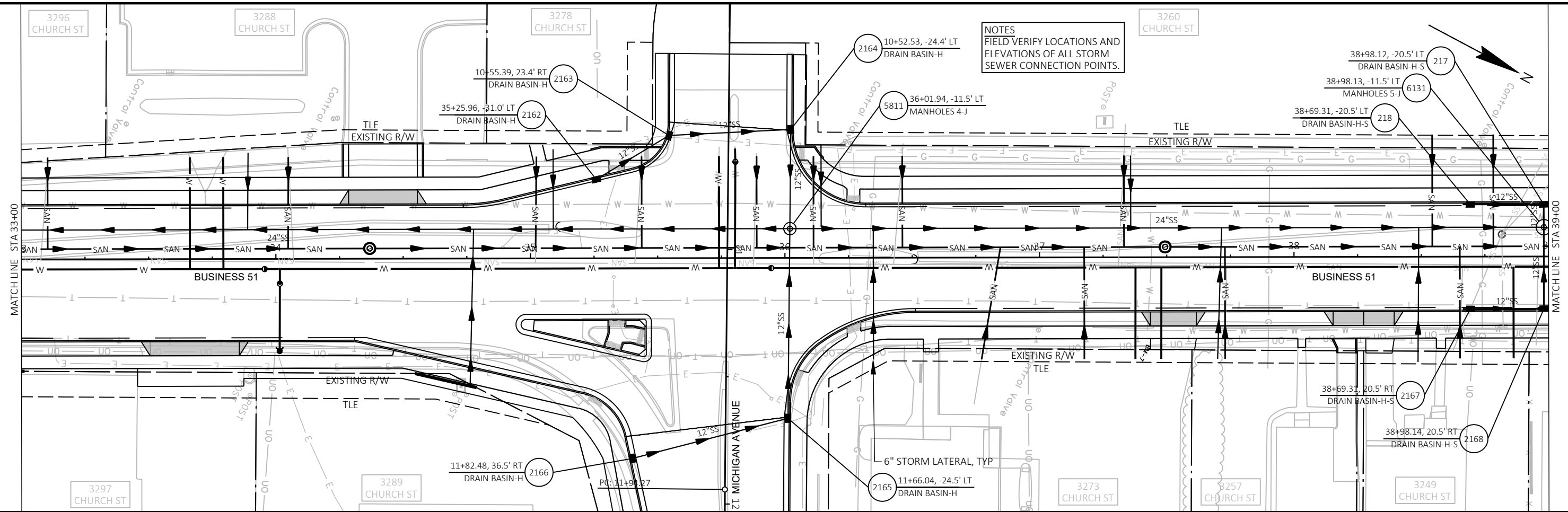
STORM SEWER:

SHEET

10

■

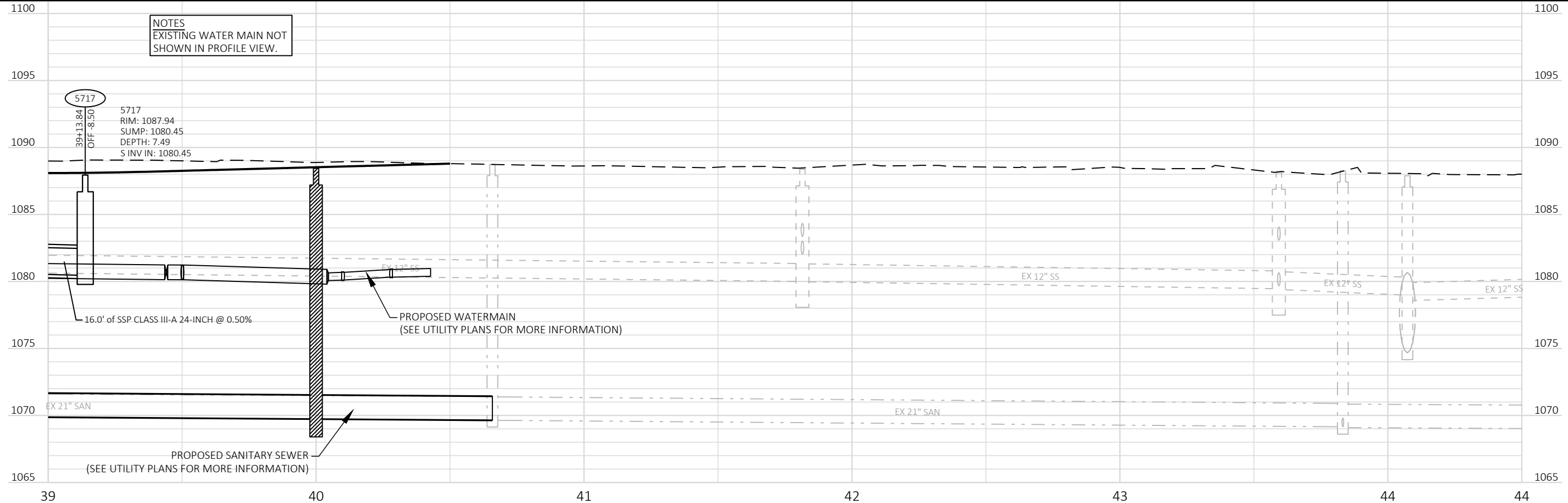
2



111

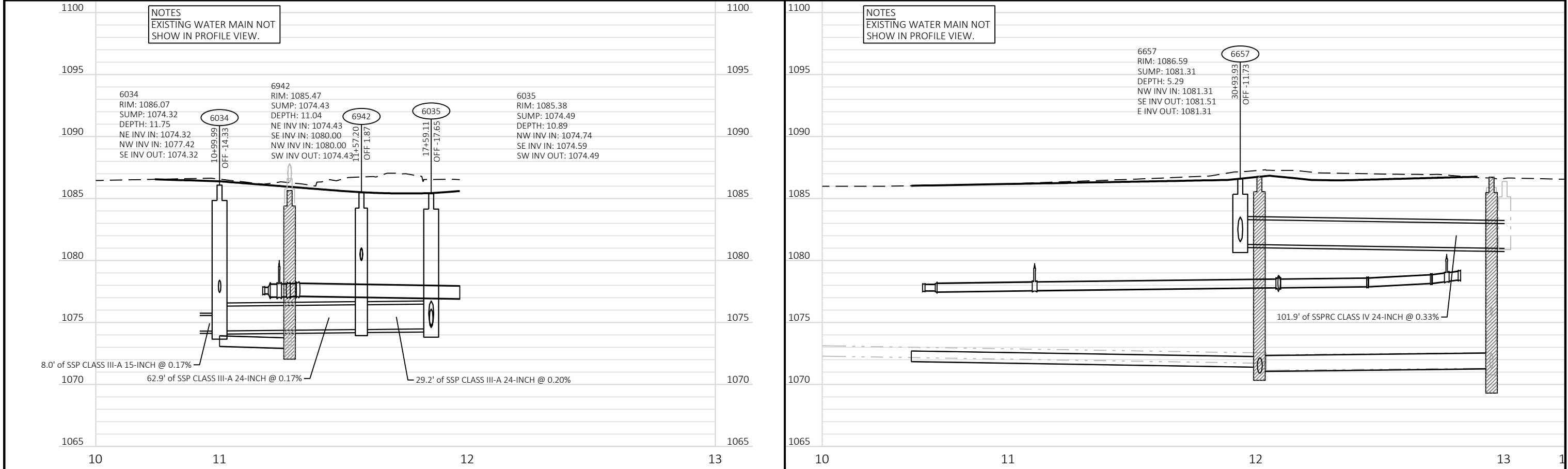
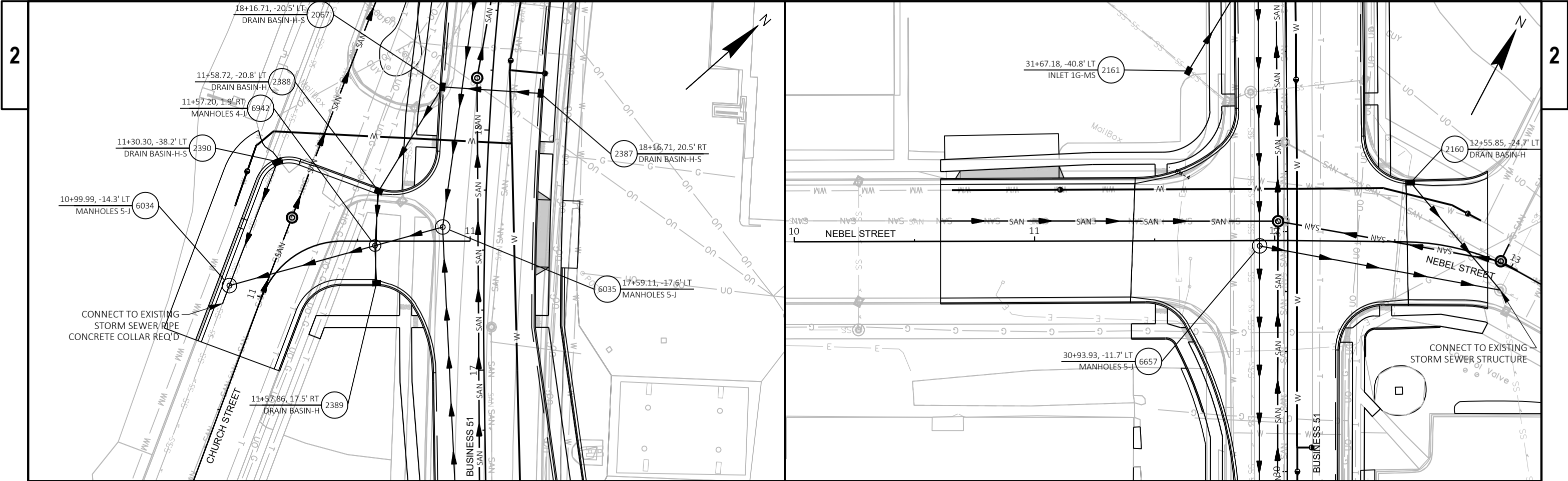
WISDOT/CADDS SHEET 44

2

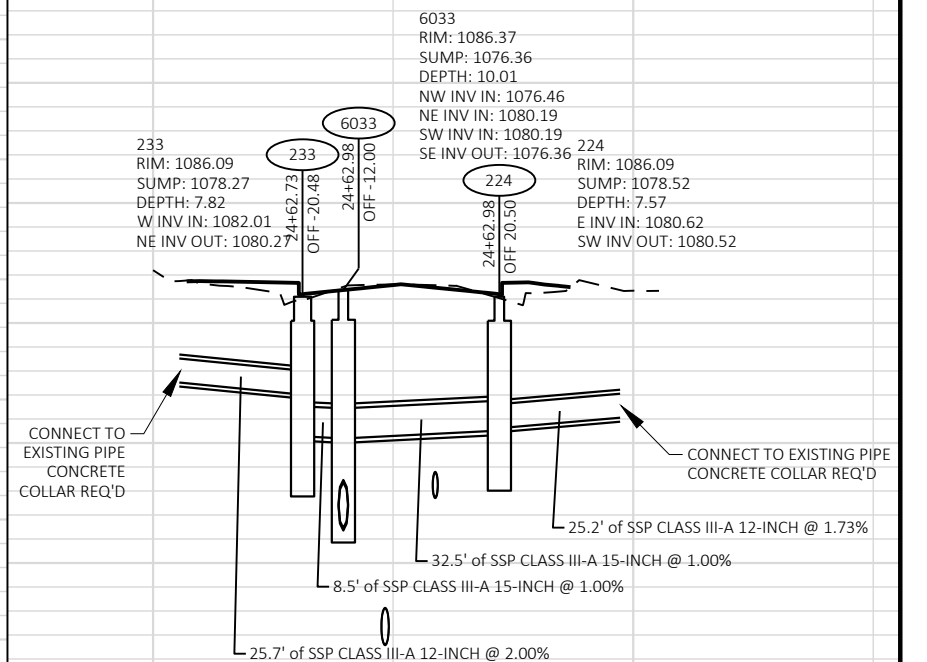
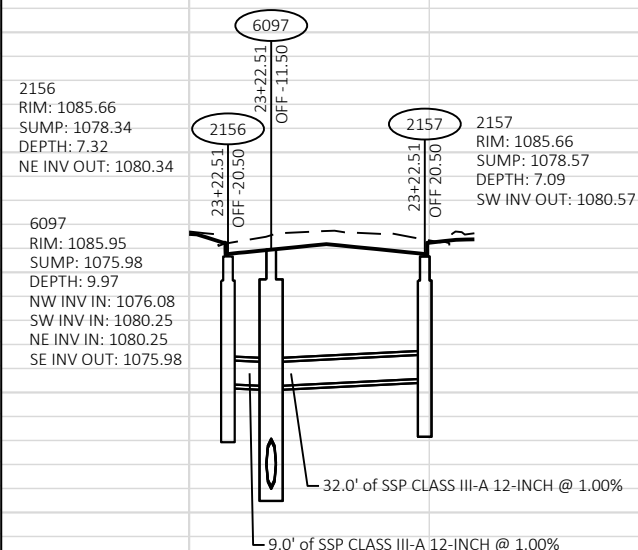
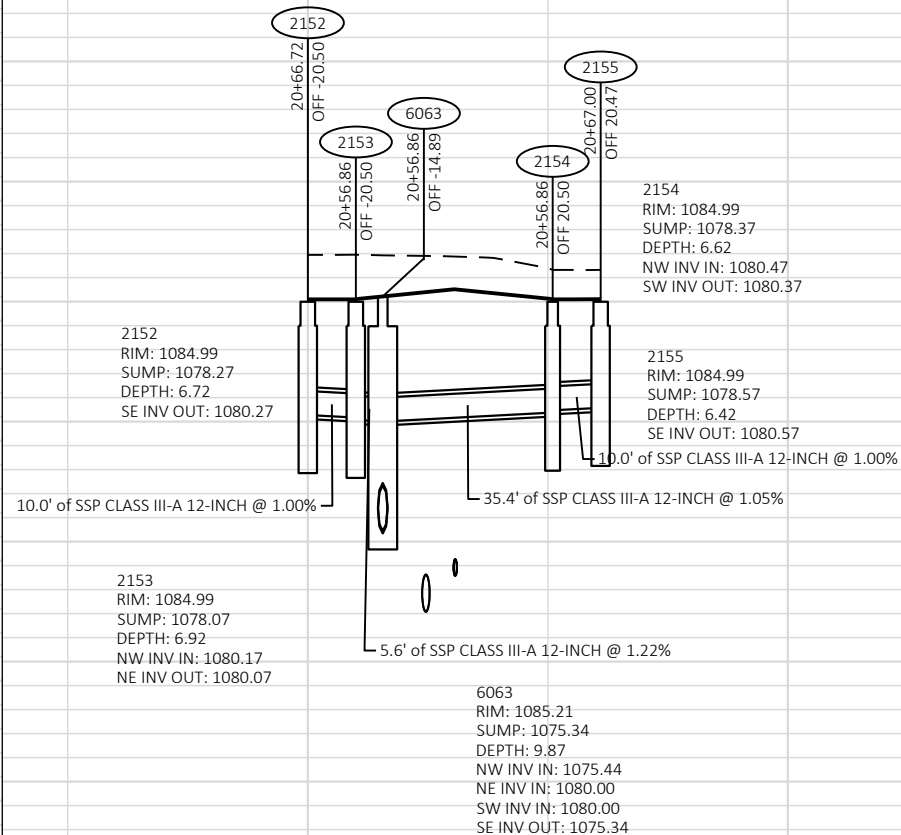
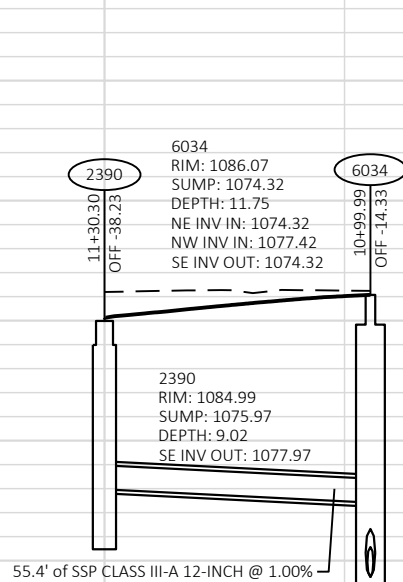
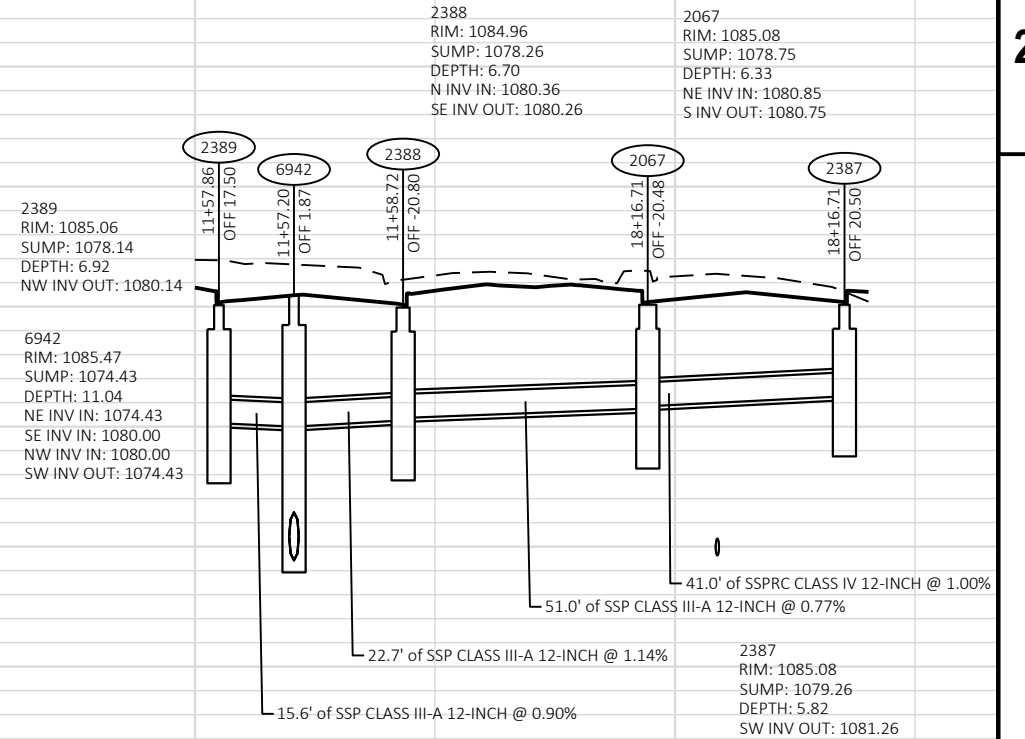
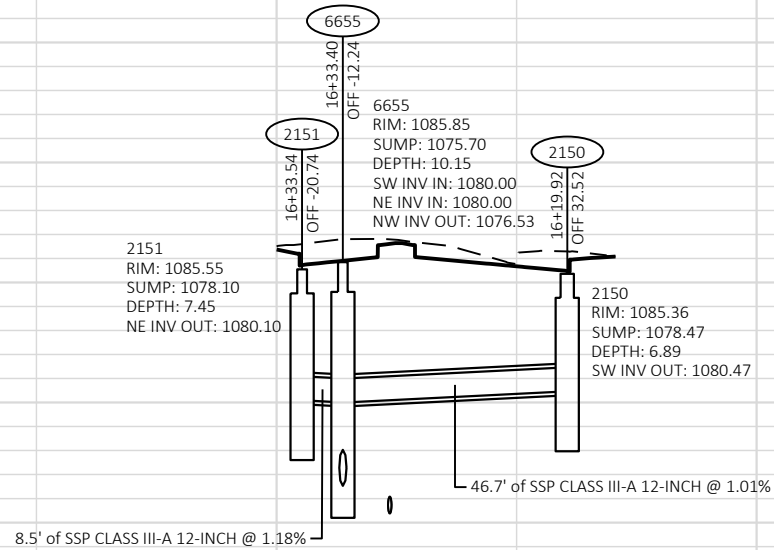
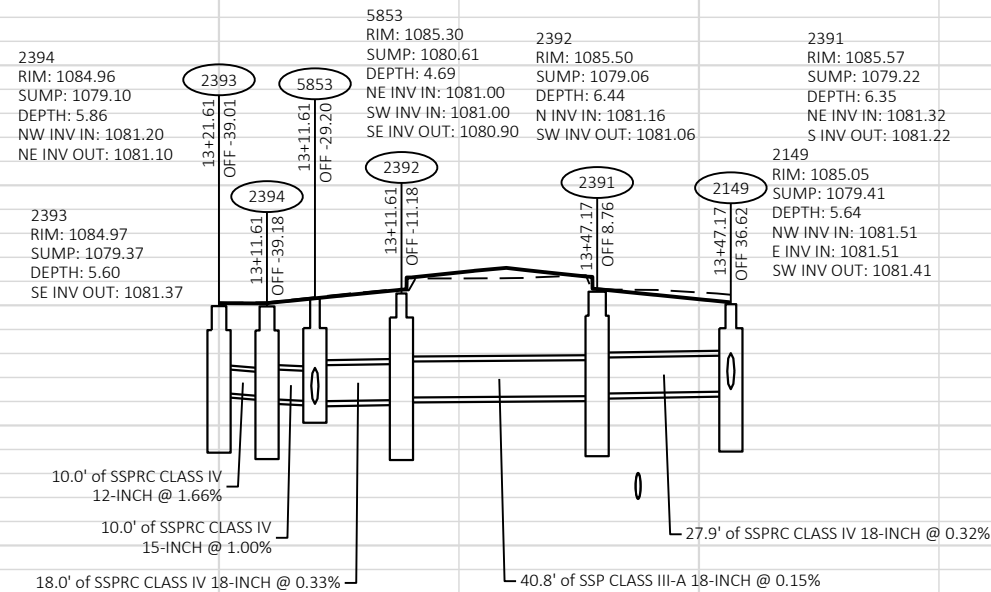


112

WISDOT/CADDs SHEET 44



2



PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

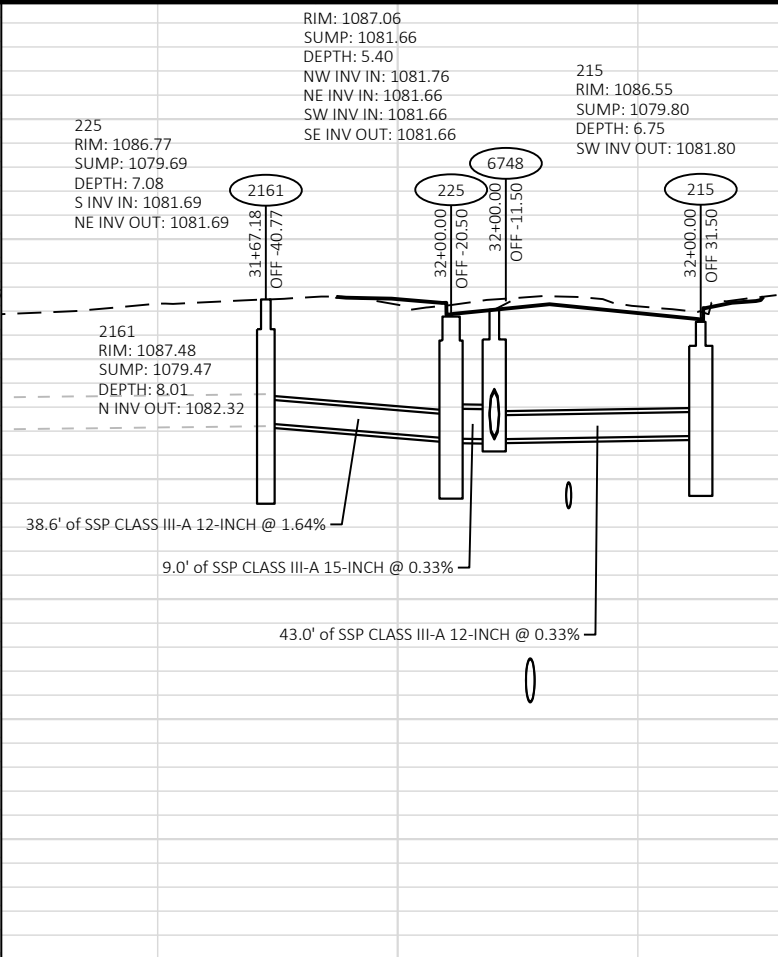
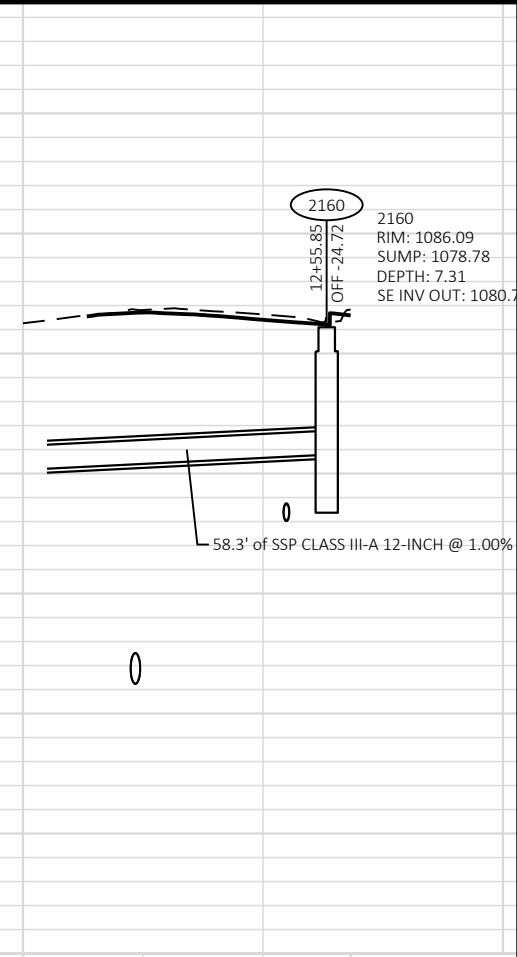
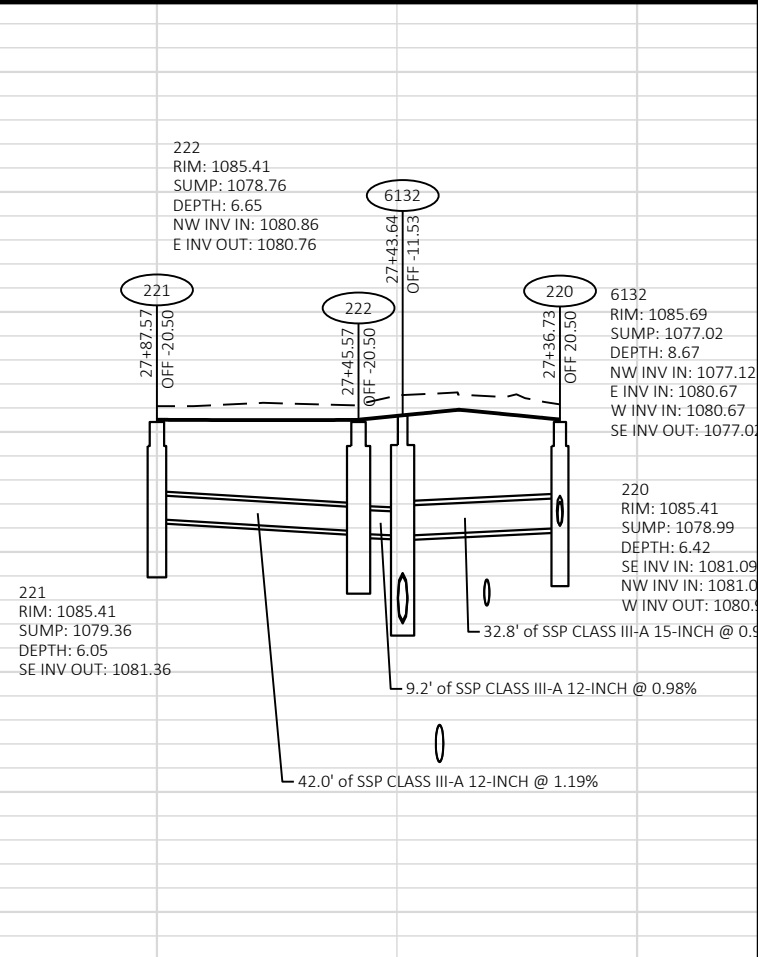
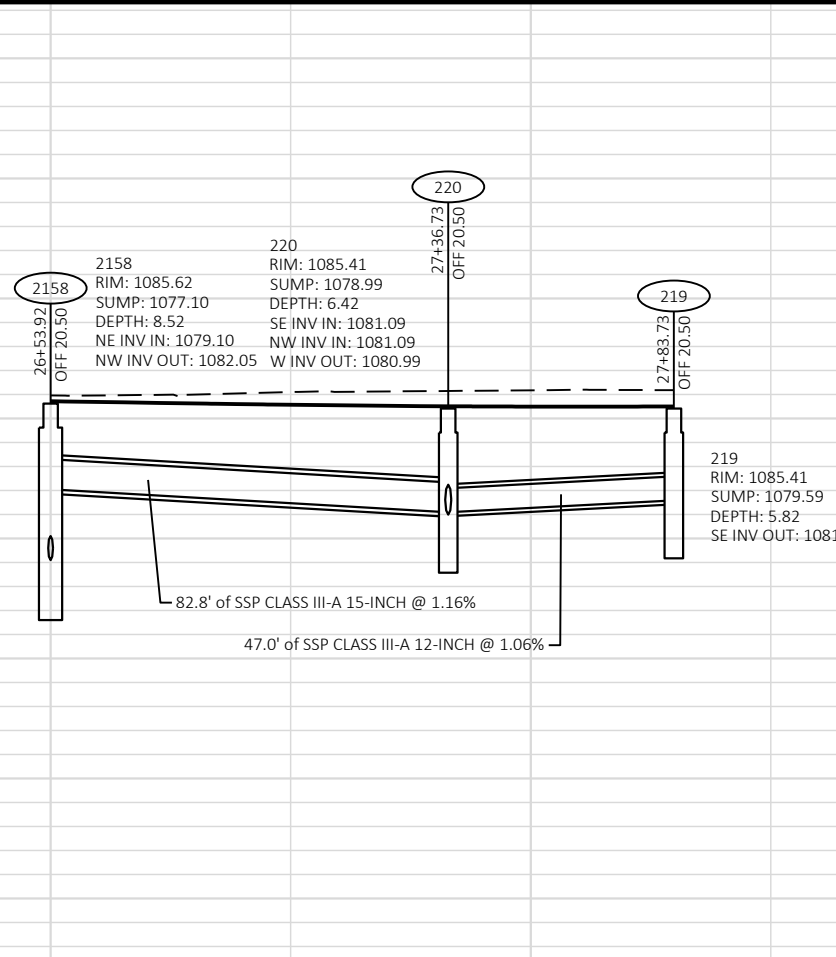
STORM SEWER:

SHEET

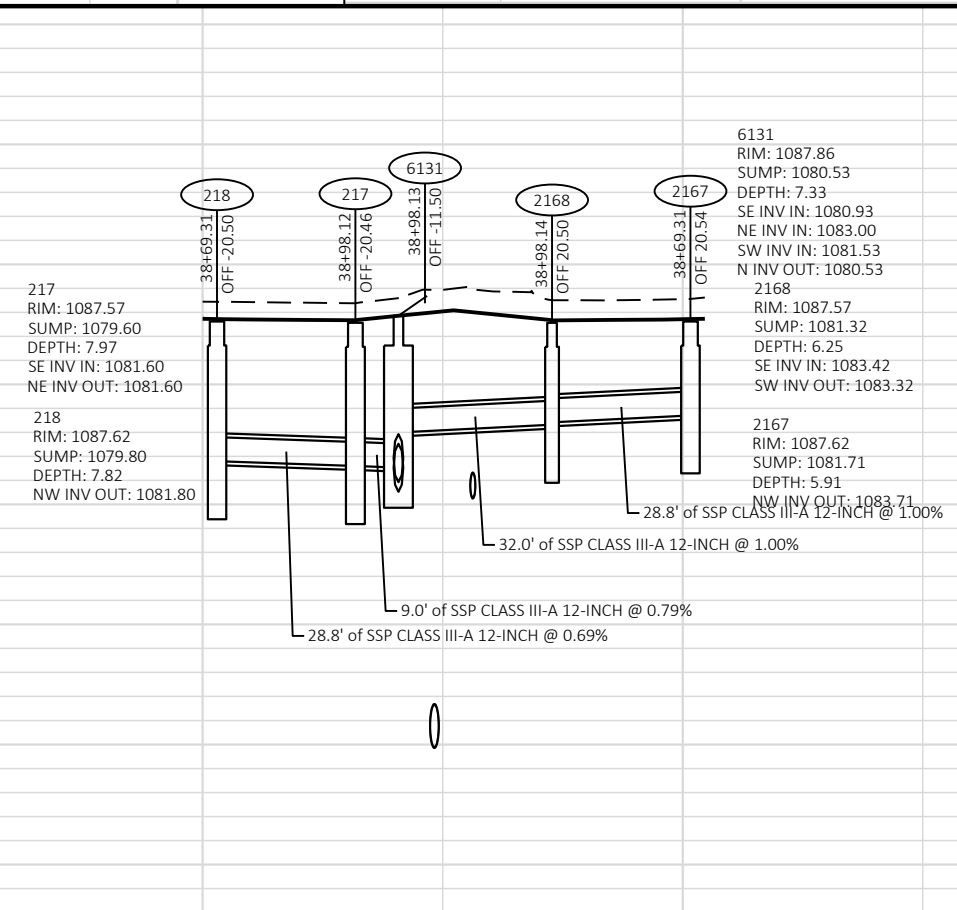
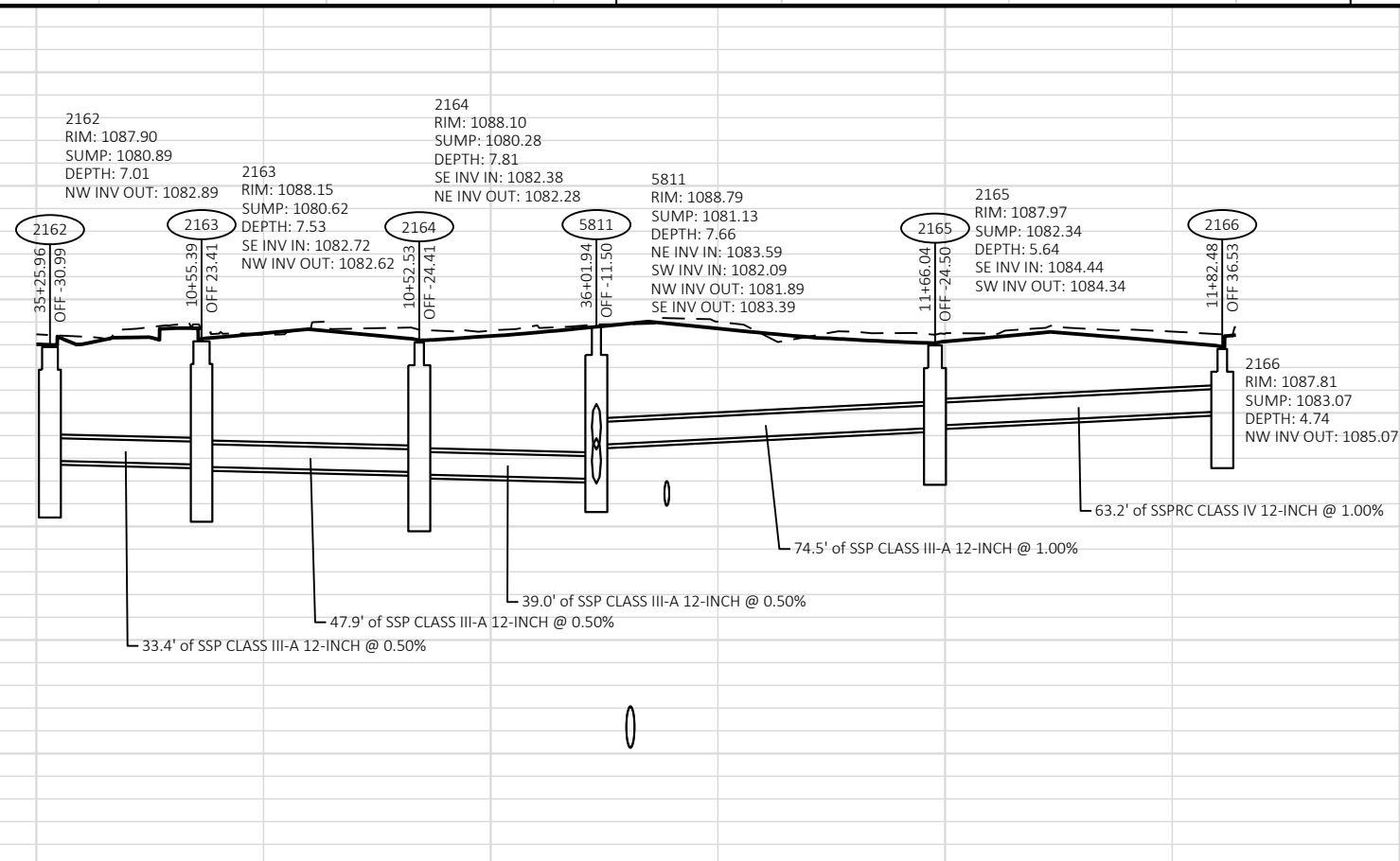
114

E

2



2



PROJECT NO: 6998-13-71	HWY: BUSINESS 51
------------------------	------------------

COUNTY: PORTAGE

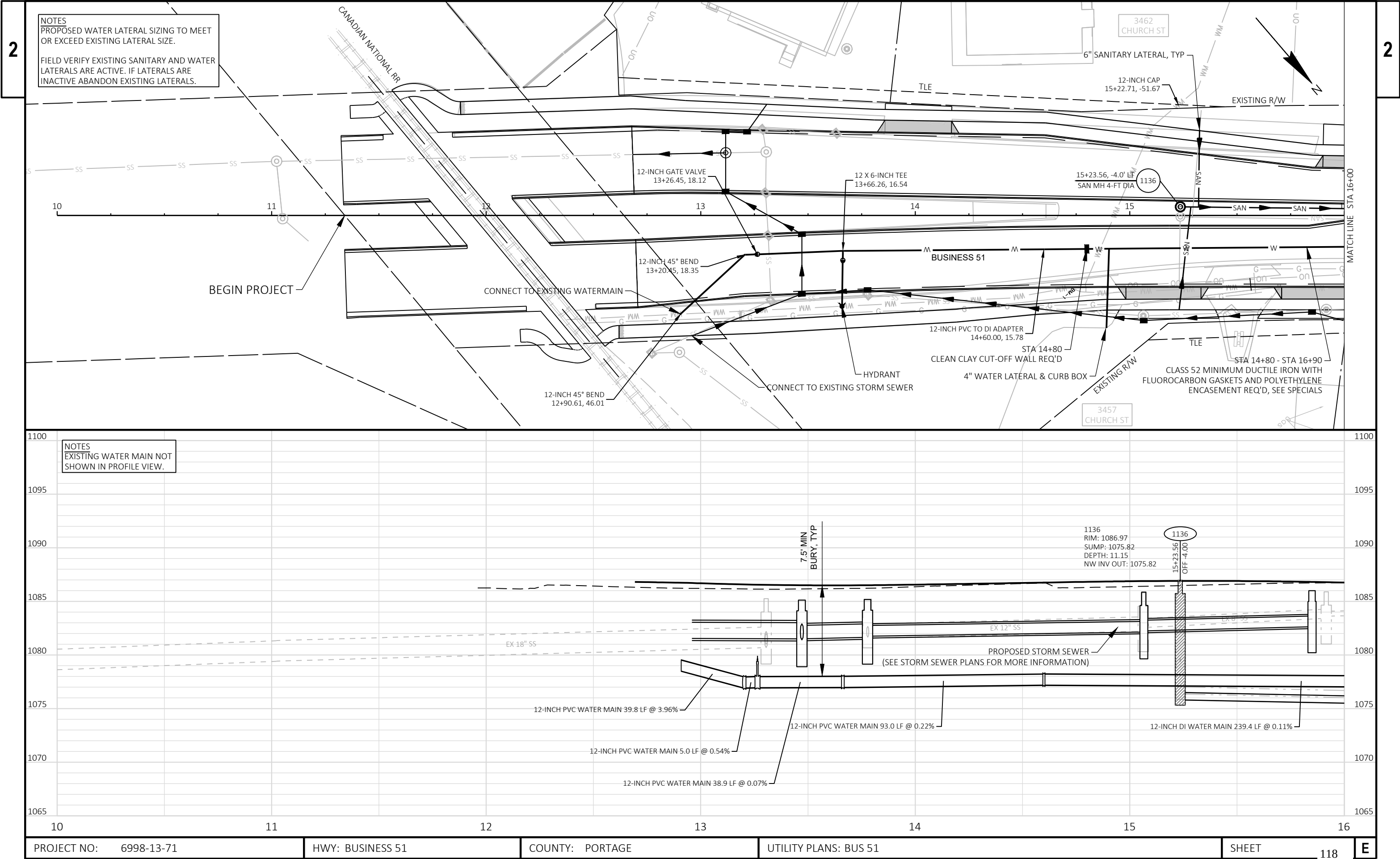
STORM SEWER:

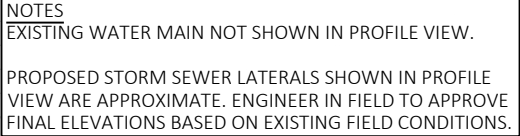
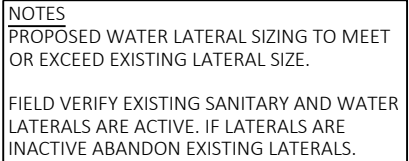
SHEET	115	E
-------	-----	---

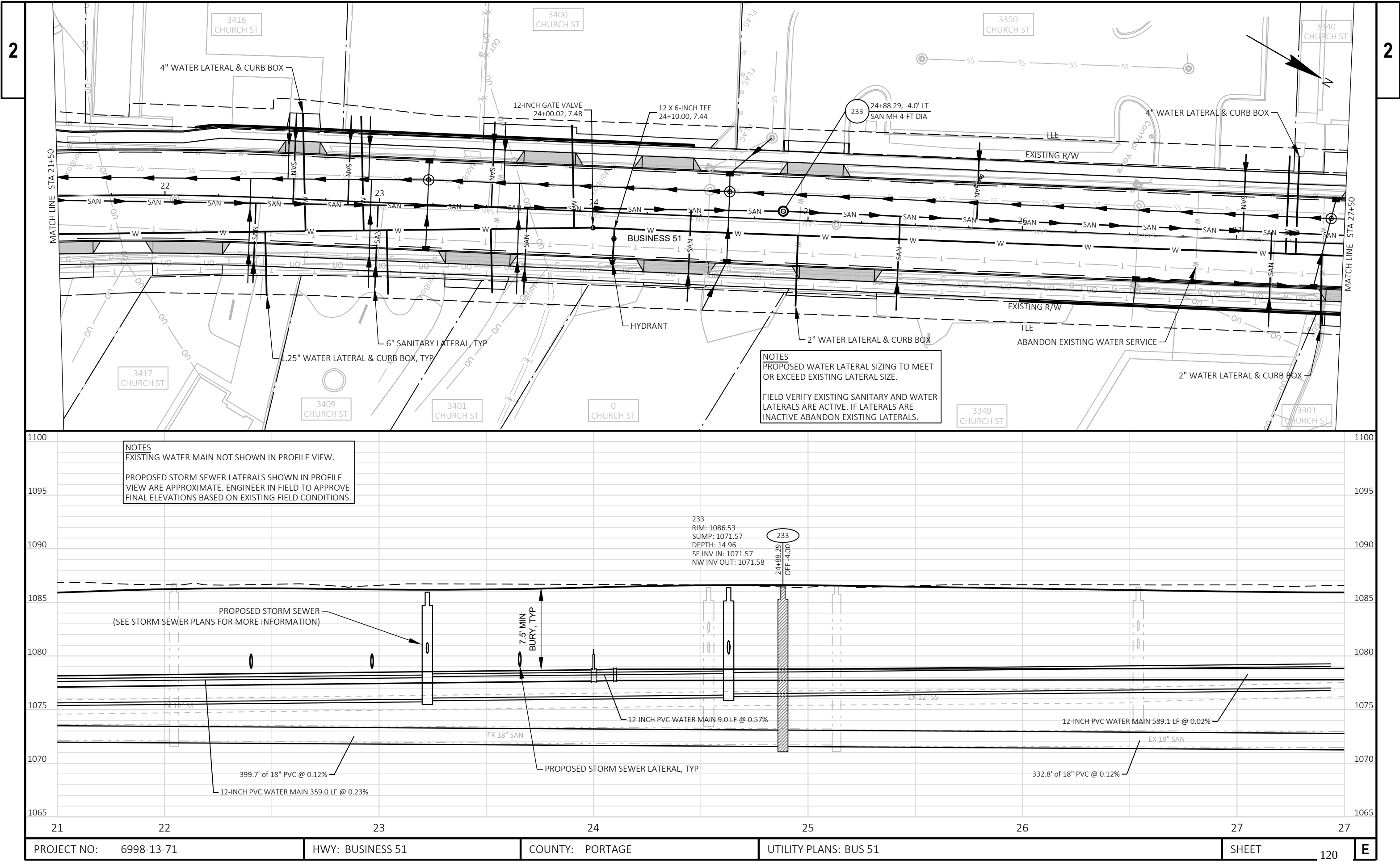
E

STORM SEWER STRUCTURE DATA																	
STRUCTURE NUMBER	ALIGNMENT	STATION	OFFSET	LOCATION	TYPE	RIM/GRATE ELEVATION	STRUCTURE INV ELEV	TOTAL DEPTH	SUMP DEPTH	CONNECTING PIPES	PIPE DIRECTION	PIPE SIZE & TYPE	PIPE INVERT	PIPE ROUTE	PIPE LENGTH	PIPE SLOPE	REMARKS
215	BUS51	32+00.00	31.50	RT	DRAIN BASIN-H	1086.55	1079.80	6.75	2.00	136 OUT	SW	SSP CLASS III-A 12-INCH	1081.80	TO STR: 6748	43.00'	0.33%	
217	BUS51	38+98.12	-20.46	LT	DRAIN BASIN-H-S	1087.57	1079.60	7.97	2.00	462 (39) IN 144 OUT	SE NE	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1081.60 1081.60	FROM STR: 218 TO STR: 6131	-- 8.96'	-- 0.79%	
218	BUS51	38+69.31	-20.50	LT	DRAIN BASIN-H-S	1087.62	1079.80	7.82	2.00	462 (39) OUT	NW	SSP CLASS III-A 12-INCH	1081.80	TO STR: 217	28.82'	0.69%	
219	BUS51	27+83.73	20.50	RT	DRAIN BASIN-H-S	1085.41	1079.59	5.82	2.00	462 (41) OUT	SE	SSP CLASS III-A 12-INCH	1081.59	TO STR: 220	47.00'	1.06%	
220	BUS51	27+36.73	20.50	RT	DRAIN BASIN-H-S	1085.41	1078.99	6.42	2.00	130 IN 462 (41) IN 130 (1) OUT	SE NW W	SSP CLASS III-A 15-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1081.09 1081.09 1080.99	FROM STR: 2158 FROM STR: 219 TO STR: 6132	-- -- 32.77'	-- -- 0.98%	
221	BUS51	27+87.57	-20.50	LT	DRAIN BASIN-H-S	1085.41	1079.36	6.05	2.00	462 (40) OUT	SE	SSP CLASS III-A 12-INCH	1081.36	TO STR: 222	42.00'	1.19%	
222	BUS51	27+45.57	-20.50	LT	DRAIN BASIN-H-S	1085.41	1078.76	6.65	2.00	462 (40) IN 131 OUT	NW E	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1080.86 1080.76	FROM STR: 221 TO STR: 6132	-- 9.17'	-- 0.98%	
224	BUS51	24+62.98	20.50	RT	DRAIN BASIN-H	1086.09	1078.52	7.57	2.00	125 IN 126 OUT	E SW	SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1080.62 1080.52	FROM STR: TO STR: 6033	-- 32.50'	-- 1.00%	
225	BUS51	32+00.00	-20.50	LT	DRAIN BASIN-H	1086.77	1079.69	7.08	2.00	137 IN 138 OUT	S NE	SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1081.69 1081.69	FROM STR: 2161 TO STR: 6748	-- 9.00'	-- 0.33%	
233	BUS51	24+62.73	-20.48	LT	DRAIN BASIN-H	1086.09	1078.27	7.82	2.00	127 IN 128 OUT	W NE	SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1082.01 1080.27	FROM STR: TO STR: 6033	-- 8.49'	-- 1.00%	
607	BUS51	15+85.00	45.00	RT	INLET 1G-MS	1086.00	1080.63	5.37	2.00	462 (42) OUT	SE	SSPRC CLASS IV 12-INCH	1082.63	TO STR: 608	78.52'	0.50%	
608	BUS51	15+06.58	48.99	RT	INLET 1G-MS	1085.87	1080.14	5.73	2.00	462 (42) IN 111 OUT	NW SE	SSPRC CLASS IV 12-INCH SSPRC CLASS IV 12-INCH	1082.24 1082.14	FROM STR: 607 TO STR: 2148	-- 129.60'	-- 0.30%	
2067	BUS51	18+16.71	-20.48	LT	DRAIN BASIN-H-S	1085.08	1078.75	6.33	2.00	124 IN 123 OUT	NE S	SSPRC CLASS IV 12-INCH SSP CLASS III-A 12-INCH	1080.85 1080.75	FROM STR: 2387 TO STR: 2388	-- 50.95'	-- 0.77%	
2148	BUS51	13+77.77	34.71	RT	DRAIN BASIN-H-S	1085.08	1079.65	5.43	2.00	111 IN 112 OUT	NW SE	SSPRC CLASS IV 12-INCH SSPRC CLASS IV 15-INCH	1081.75 1081.65	FROM STR: 608 TO STR: 2149	-- 30.65'	-- 0.46%	
2149	BUS51	13+47.17	36.62	RT	DRAIN BASIN-H-S	1085.05	1079.41	5.64	2.00	112 IN 113 IN 114 OUT	NW E SW	SSPRC CLASS IV 15-INCH SSP CLASS III-A 18-INCH SSPRC CLASS IV 18-INCH	1081.51 1081.51 1081.41	FROM STR: 2148 FROM STR: TO STR: 2391	-- -- 27.86'	-- -- 0.32%	
2150	BUS51	16+19.92	32.52	RT	DRAIN BASIN-H	1085.36	1078.47	6.89	2.00	120 OUT	SW	SSP CLASS III-A 12-INCH	1080.47	TO STR: 6655	46.75'	1.01%	
2151	BUS51	16+33.54	-20.74	LT	DRAIN BASIN-H	1085.55	1078.10	7.45	2.00	119 OUT	NE	SSP CLASS III-A 12-INCH	1080.10	TO STR: 6655	8.50'	1.18%	
2152	BUS51	20+66.72	-20.50	LT	DRAIN BASIN-H-S	1084.99	1078.27	6.72	2.00	462 (47) OUT	SE	SSP CLASS III-A 12-INCH	1080.27	TO STR: 2153	10.00'	1.00%	
2153	BUS51	20+56.86	-20.50	LT	DRAIN BASIN-H-S	1084.99	1078.07	6.92	2.00	462 (47) IN 462 (46) OUT	NW NE	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1080.17 1080.07	FROM STR: 2152 TO STR: 6063	-- 5.61'	-- 1.22%	
2154	BUS51	20+56.86	20.50	RT	DRAIN BASIN-H-S	1084.99	1078.37	6.62	2.00	462 (48) IN 462 (31) OUT	NW SW	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1080.47 1080.37	FROM STR: 2155 TO STR: 6063	-- 35.39'	-- 1.05%	
2155	BUS51	20+67.00	20.47	RT	DRAIN BASIN-H-S	1084.99	1078.57	6.42	2.00	462 (48) OUT	SE	SSP CLASS III-A 12-INCH	1080.57	TO STR: 2154	10.00'	1.00%	
2156	BUS51	23+22.51	-20.50	LT	DRAIN BASIN-H	1085.66	1078.34	7.32	2.00	462 (32) OUT	NE	SSP CLASS III-A 12-INCH	1080.34	TO STR: 6097	9.00'	1.00%	
2157	BUS51	23+22.51	20.50	RT	DRAIN BASIN-H	1085.66	1078.57	7.09	2.00	462 (33) OUT	SW	SSP CLASS III-A 12-INCH	1080.57	TO STR: 6097	32.00'	1.00%	
2158	BUS51	26+53.92	20.50	RT	DRAIN BASIN-H	1085.62	1077.10	8.52	2.00	129 IN 130 OUT	NE NW	SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1079.10 1082.05	FROM STR: TO STR: 220	-- 82.82'	-- 1.16%	
2160	NEBEL ST	12+55.85	-24.72	LT	DRAIN BASIN-H	1086.09	1078.78	7.31	2.00	462 (34) OUT	SE	SSP CLASS III-A 12-INCH	1080.78	TO STR:	58.30'	1.00%	
2161	BUS51	31+67.18	-40.77	LT	INLET 1G-MS	1087.48	1079.47	8.01	2.00	137 OUT	N	SSP CLASS III-A 12-INCH	1082.32	TO STR: 225	38.57'	1.64%	
2162	BUS51	35+25.96	-30.99	LT	DRAIN BASIN-H	1087.90	1080.89	7.01	2.00	140 OUT	NW	SSP CLASS III-A 12-INCH	1082.89	TO STR: 2163	33.37'	0.50%	
2163	MICHIGAN AVE	10+55.39	23.41	RT	DRAIN BASIN-H	1088.15	1080.62	7.53	2.00	140 IN 462 (35) OUT	SE NW	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1082.72 1082.62	FROM STR: 2162 TO STR: 2164	-- 47.90'	-- 0.50%	
2164	MICHIGAN AVE	10+52.53	-24.41	LT	DRAIN BASIN-H	1088.10	1080.28	7.81	2.00	462 (35) IN 142 OUT	SE NE	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1082.38 1082.28	FROM STR: 2163 TO STR: 5811	-- 38.98'	-- 0.50%	
2165	MICHIGAN AVE	11+66.04	-24.50	LT	DRAIN BASIN-H	1087.97	1082.34	5.64	2.00	139 IN 141 OUT	SE SW	SSPRC CLASS IV 12-INCH SSP CLASS III-A 12-INCH	1084.44 1084.34	FROM STR: 2166 TO STR: 5811	-- 74.53'	-- 1.00%	
2166	MICHIGAN AVE	11+82.48	36.53	RT	DRAIN BASIN-H	1087.81	1083.07	4.74	2.00	139 OUT	NW	SSPRC CLASS IV 12-INCH	1085.07	TO STR: 2165	63.20'	1.00%	
2167	BUS51	38+69.31	20.54	RT	DRAIN BASIN-H-S	1087.62	1081.71	5.91	2.00	462 (38) OUT	NW	SSP CLASS III-A 12-INCH	1083.71	TO STR: 2168	28.84'	1.00%	
2168	BUS51	38+98.14	20.50	RT	DRAIN BASIN-H-S	1087.57	1081.32	6.25	2.00	462 (38) IN 143 OUT	SE SW	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1083.42 1083.32	FROM STR: 2167 TO STR: 6131	-- 32.00'	-- 1.00%	

STORM SEWER STRUCTURE DATA																	
STRUCTURE NUMBER	ALIGNMENT	STATION	OFFSET	LOCATION	TYPE	RIM/GRATE ELEVATION	STRUCTURE INV ELEV	TOTAL DEPTH	SUMP DEPTH	CONNECTING PIPES	PIPE DIRECTION	PIPE SIZE & TYPE	PIPE INVERT	PIPE ROUTE	PIPE LENGTH	PIPE SLOPE	REMARKS
2387	BUS51	18+16.71	20.50	RT	DRAIN BASIN-H-S	1085.08	1079.26	5.82	2.00	124 OUT	SW	SSPRC CLASS IV 12-INCH	1081.26	TO STR: 2067	40.98'	1.00%	
2388	CHURCH ST SOUTH	11+58.72	-20.80	LT	DRAIN BASIN-H	1084.96	1078.26	6.70	2.00	123 IN 122 OUT	N SE	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH	1080.36 1080.26	FROM STR: 2067 TO STR: 6942	-- 22.72'	-- 1.14%	
2389	CHURCH ST SOUTH	11+57.86	17.50	RT	DRAIN BASIN-H	1085.06	1078.14	6.92	2.00	121 OUT	NW	SSP CLASS III-A 12-INCH	1080.14	TO STR: 6942	15.64'	0.90%	
2390	CHURCH ST SOUTH	11+30.30	-38.23	LT	DRAIN BASIN-H-S	1084.99	1075.97	9.02	2.00	462 (50) OUT	SE	SSP CLASS III-A 12-INCH	1077.97	TO STR: 6034	55.38'	1.00%	
2391	BUS51	13+47.17	8.76	RT	DRAIN BASIN-H-S	1085.57	1079.22	6.35	2.00	114 IN 115 OUT	NE S	SSPRC CLASS IV 18-INCH SSP CLASS III-A 18-INCH	1081.32 1081.22	FROM STR: 2149 TO STR: 2392	-- 40.77'	-- 0.15%	
2392	BUS51	13+11.61	-11.18	LT	DRAIN BASIN-H-S	1085.50	1079.06	6.44	2.00	115 IN 116 OUT	N SW	SSP CLASS III-A 18-INCH SSPRC CLASS IV 18-INCH	1081.16 1081.06	FROM STR: 2391 TO STR: 5853	-- 18.02'	-- 0.33%	
2393	BUS51	13+21.61	-39.01	LT	DRAIN BASIN-H-S	1084.97	1079.37	5.60	2.00	117 OUT	SE	SSPRC CLASS IV 12-INCH	1081.37	TO STR: 2394	10.00'	1.66%	
2394	BUS51	13+11.61	-39.18	LT	DRAIN BASIN-H-S	1084.96	1079.10	5.86	2.00	117 IN 118 OUT	NW NE	SSPRC CLASS IV 12-INCH SSPRC CLASS IV 15-INCH	1081.20 1081.10	FROM STR: 2393 TO STR: 5853	-- 9.98'	-- 1.00%	
5717	BUS51	39+13.84	-8.50	LT	MANHOLES 5-J	1087.94	1080.45	7.49	0.00	462 (45) IN	S	SSP CLASS III-A 24-INCH	1080.45	FROM STR: 6131	--	--	
5811	BUS51	36+01.94	-11.50	LT	MANHOLES 4-J	1088.79	1081.13	7.66	0.76	141 IN 142 IN 13 OUT 2 OUT	NE SW NW SE	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH SSP CLASS III-A 24-INCH	1083.59 1082.09 1081.89 1083.39	FROM STR: 2165 FROM STR: 2164 TO STR: 6131 TO STR: 6748	-- -- 296.19' 401.94'	-- -- 0.32% 0.41%	
5853	BUS51	13+11.61	-29.20	LT	MANHOLES 4-J	1085.30	1080.61	4.69	0.29	116 IN 118 IN 1 OUT	NE SW SE	SSPRC CLASS IV 18-INCH SSPRC CLASS IV 15-INCH SSP CLASS III-A 18-INCH	1081.00 1081.00 1080.90	FROM STR: 2392 FROM STR: 2394 TO STR:	-- -- 43.34'	-- -- 0.78%	
6033	BUS51	24+62.98	-12.00	LT	MANHOLES 4-J	1086.37	1076.36	10.01	0.00	6 IN 126 IN 128 IN 7 OUT	NW NE SW SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 15-INCH SSP CLASS III-A 15-INCH SSP CLASS III-A 24-INCH	1076.46 1080.19 1080.19 1076.36	FROM STR: 6132 FROM STR: 224 FROM STR: 233 TO STR: 6097	-- -- -- 140.48'	-- -- -- 0.20%	
6034	CHURCH ST SOUTH	10+99.99	-14.33	LT	MANHOLES 5-J	1086.07	1074.32	11.75	0.00	10 (1) (1) IN 462 (50) IN 462 (49) OUT	NE NW SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH	1074.32 1077.42 1074.32	FROM STR: 6942 FROM STR: 2390 TO STR:	-- -- 8.00'	-- -- 0.17%	
6035	BUS51	17+59.11	-17.65	LT	MANHOLES 5-J	1085.38	1074.49	10.89	0.00	8 IN 12 IN 10 (1) OUT	NW SE SW	SSP CLASS III-A 24-INCH SSP CLASS III-A 18-INCH SSP CLASS III-A 24-INCH	1074.74 1074.59 1074.49	FROM STR: 6063 FROM STR: 6655 TO STR: 6942	-- -- 29.21'	-- -- 0.20%	
6063	BUS51	20+56.86	-14.89	LT	MANHOLES 5-J	1085.21	1075.34	9.87	0.00	7 (1) IN 462 (31) IN 462 (46) IN 8 OUT	NW NE SW SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH	1075.44 1080.00 1080.00 1075.34	FROM STR: 6097 FROM STR: 2154 FROM STR: 2153 TO STR: 6035	-- -- -- 300.57'	-- -- -- 0.20%	
6097	BUS51	23+22.51	-11.50	LT	MANHOLES 4-J	1085.95	1075.98	9.97	0.00	7 IN 462 (32) IN 462 (33) IN 7 (1) OUT	NW SW NE SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH	1076.08 1080.25 1080.25 1075.98	FROM STR: 6033 FROM STR: 2156 FROM STR: 2157 TO STR: 6063	-- -- -- 267.22'	-- -- -- 0.20%	
6131	BUS51	38+98.13	-11.50	LT	MANHOLES 5-J	1087.86	1080.53	7.33	0.00	13 IN 143 IN 144 IN 462 (45) OUT	SE NE SW N	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH	1080.93 1083.00 1081.53 1080.53	FROM STR: 5811 FROM STR: 2168 FROM STR: 217 TO STR: 5717	-- -- -- 16.00'	-- -- -- 0.50%	
6132	BUS51	27+43.64	-11.53	LT	MANHOLES 4-J	1085.69	1077.02	8.67	0.00	4 IN 130 (1) IN 131 IN 6 OUT	NW E W SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 15-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH	1077.12 1080.67 1080.67 1077.02	FROM STR: 6657 FROM STR: 220 FROM STR: 222 TO STR: 6033	-- -- -- 280.65'	-- -- -- 0.20%	
6655	BUS51	16+33.40	-12.24	LT	MANHOLES 4-J	1085.85	1075.70	10.15	0.83	119 IN 120 IN 12 OUT	SW NE NW	SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 18-INCH	1080.00 1080.00 1076.53	FROM STR: 2151 FROM STR: 2150 TO STR: 6035	-- -- 126.53'	-- -- 1.53%	
6657	BUS51	30+93.93	-11.73	LT	MANHOLES 5-J	1086.59	1081.31	5.29	0.00	3 IN 4 OUT 462 (44) OUT	NW SE E	SSPRC CLASS IV 24-INCH SSP CLASS III-A 24-INCH SSPRC CLASS IV 24-INCH	1081.31 1081.51 1081.31	FROM STR: 6748 TO STR: 6132 TO STR:	-- 350.29' 101.88'	-- 1.25% 0.33%	
6748	BUS51	32+00.00	-11.50	LT	MANHOLES 4-J	1087.06	1081.66	5.40	0.00	2 IN 136 IN 138 IN 3 OUT	NW NE SW SE	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 15-INCH SSPRC CLASS IV 24-INCH	1081.76 1081.66 1081.66 1081.66	FROM STR: 5811 FROM STR: 215 FROM STR: 225 TO STR: 6657	-- -- -- 105.96'	-- -- -- 0.33%	
6942	CHURCH ST SOUTH	11+57.20	1.87	RT	MANHOLES 4-J	1085.47	1074.43	11.04	0.00	10 (1) IN 121 IN 122 IN 10 (1) (1) OUT	NE SE NW SW	SSP CLASS III-A 24-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 12-INCH SSP CLASS III-A 24-INCH	1074.43 1080.00 1080.00 1074.43	FROM STR: 6035 FROM STR: 2389 FROM STR: 2388 TO STR: 6034	-- -- -- 62.87'	-- -- -- 0.17%	







PROJECT NO: 6998-13-71

HWY: BUSINESS 51

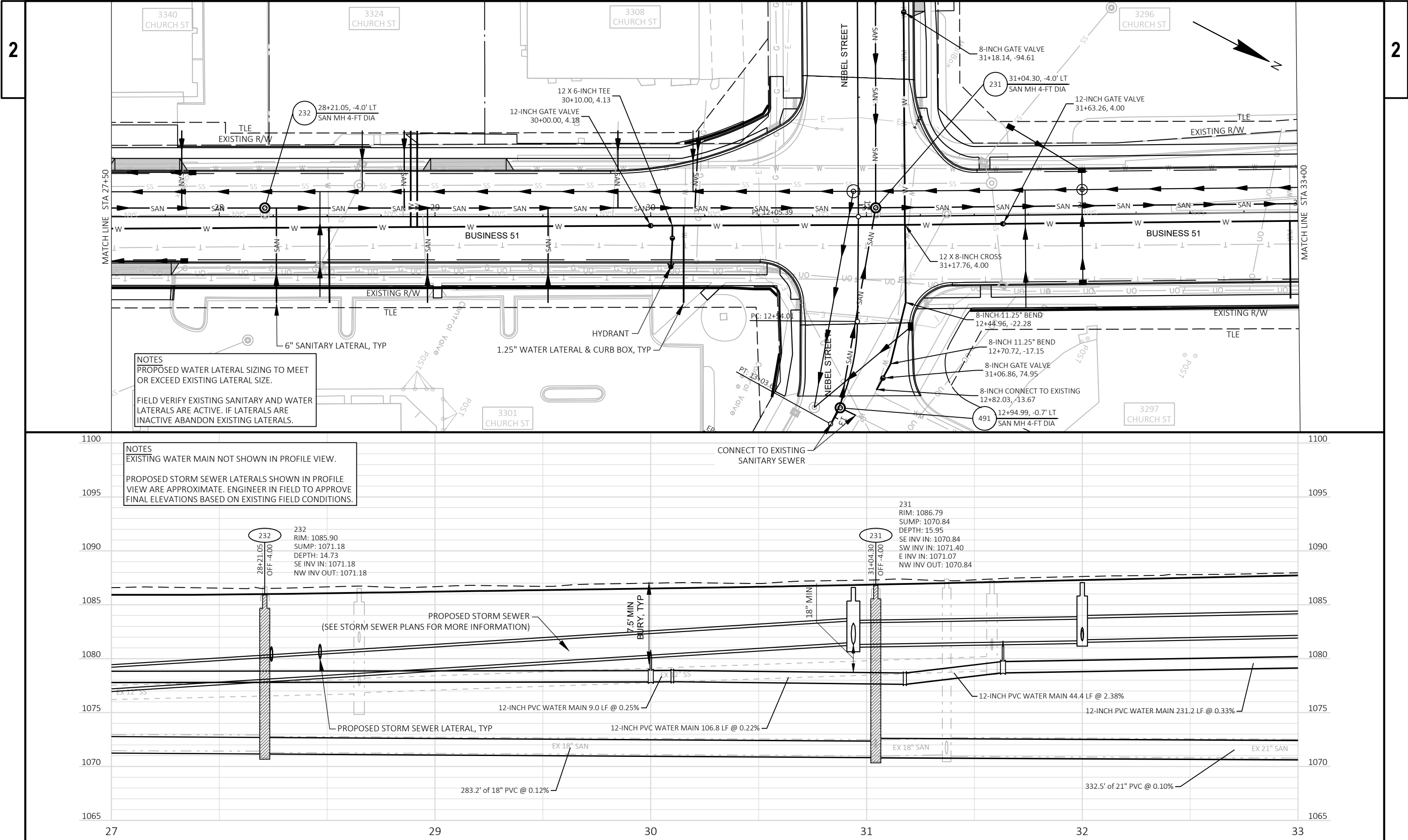
COUNTY: PORTAGE

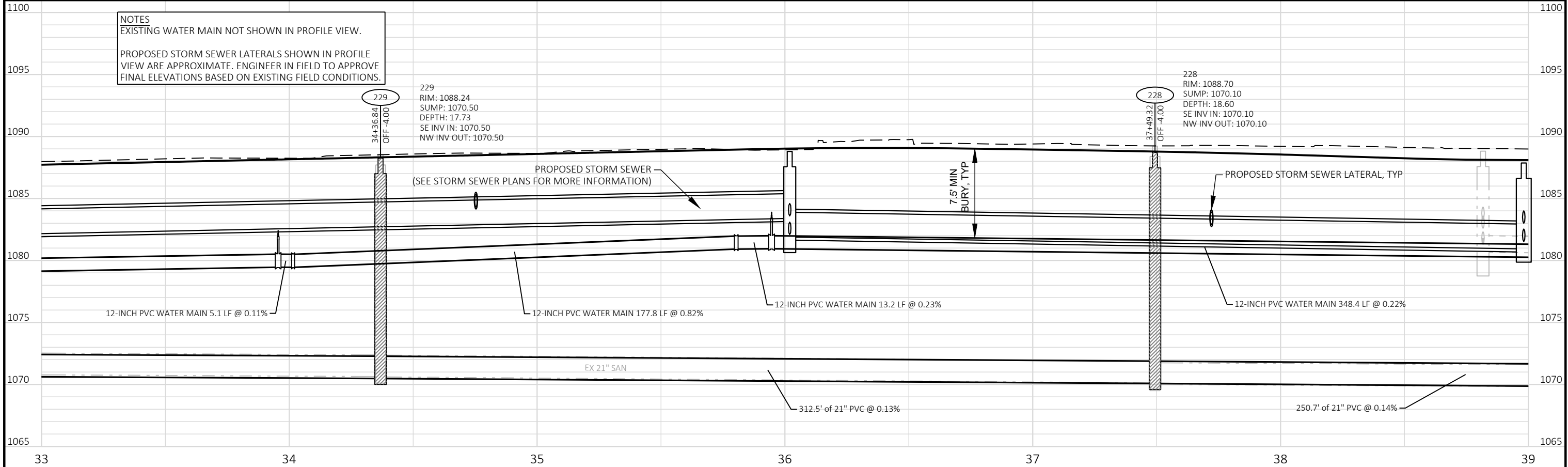
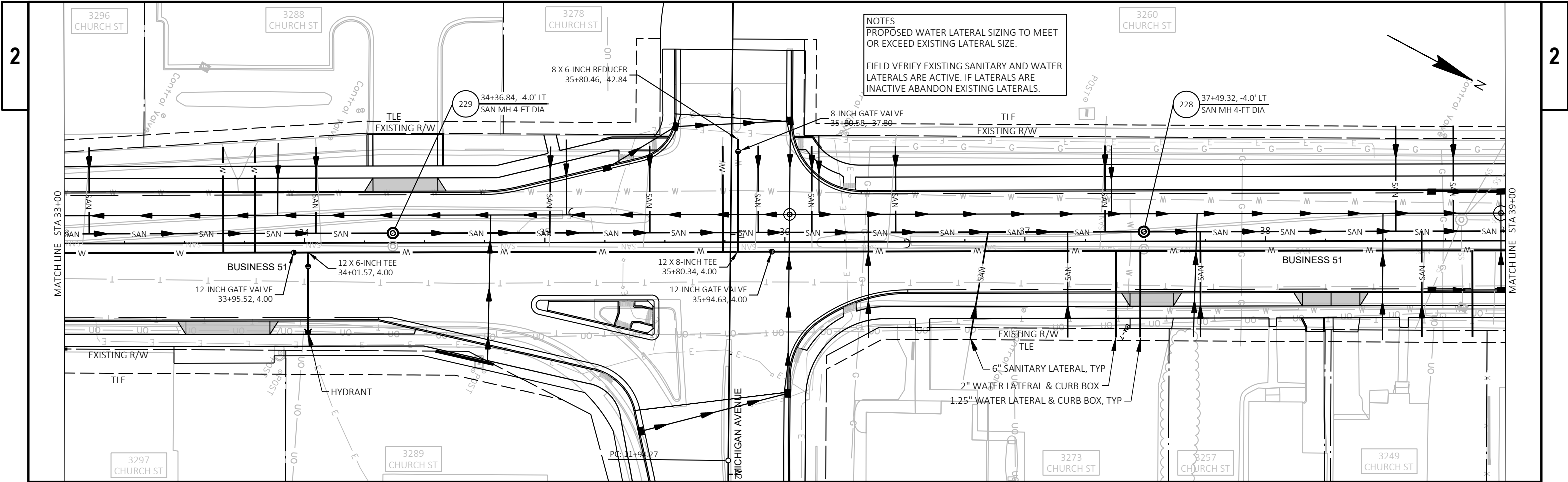
UTILITY PLANS: BUS 51

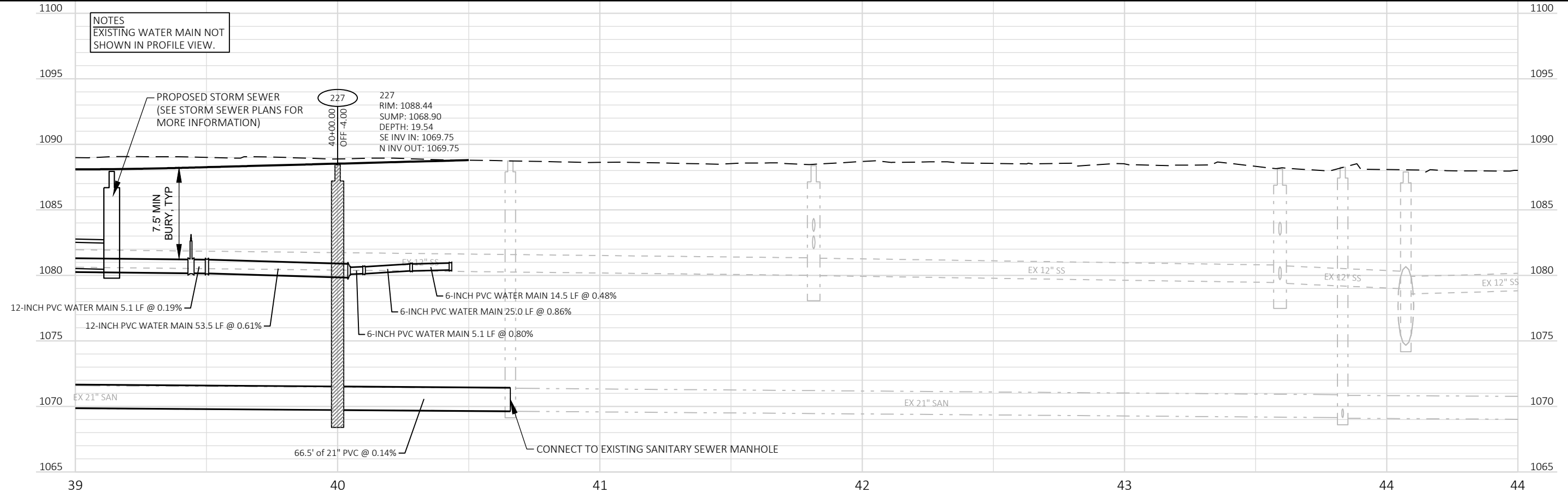
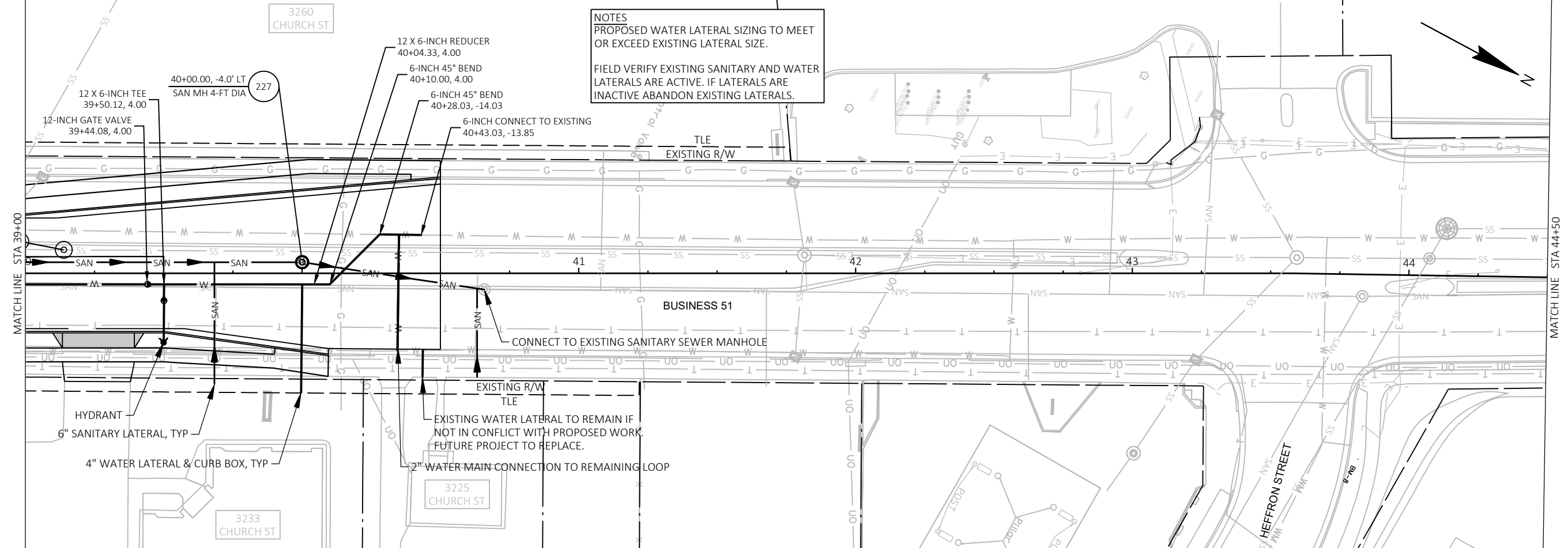
SHEET

120

E







PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

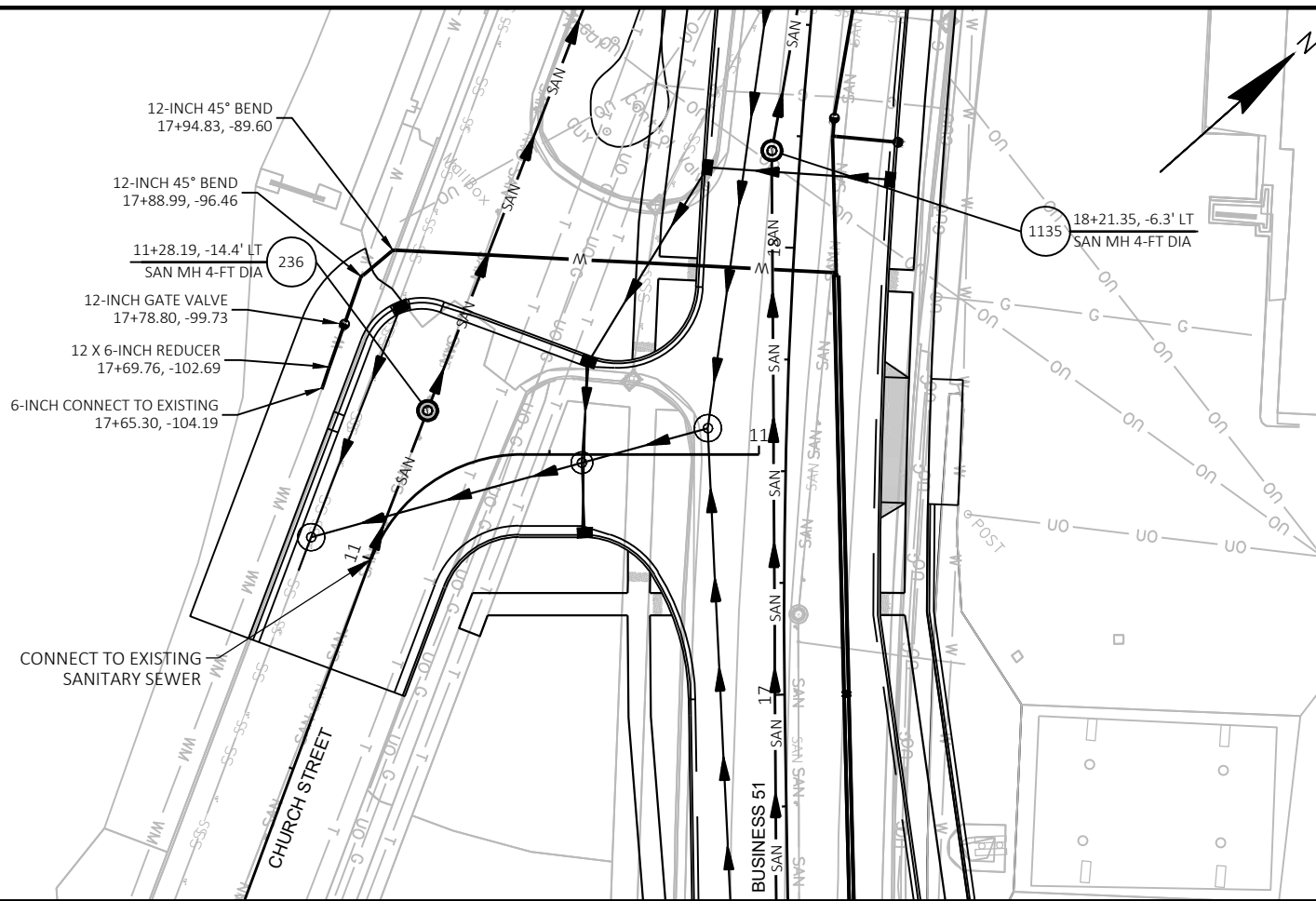
UTILITY PLANS: BUS 51

SHEET

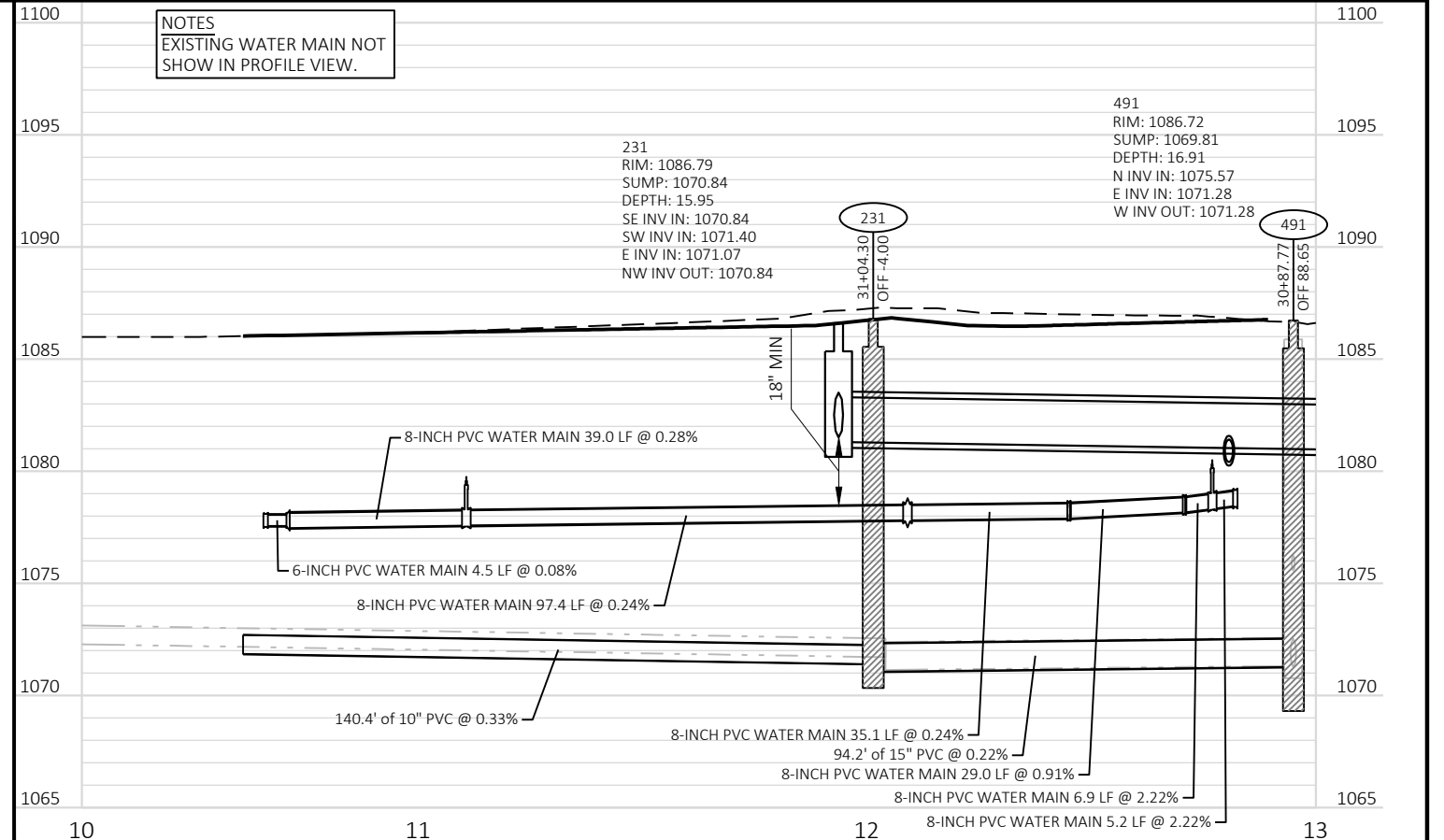
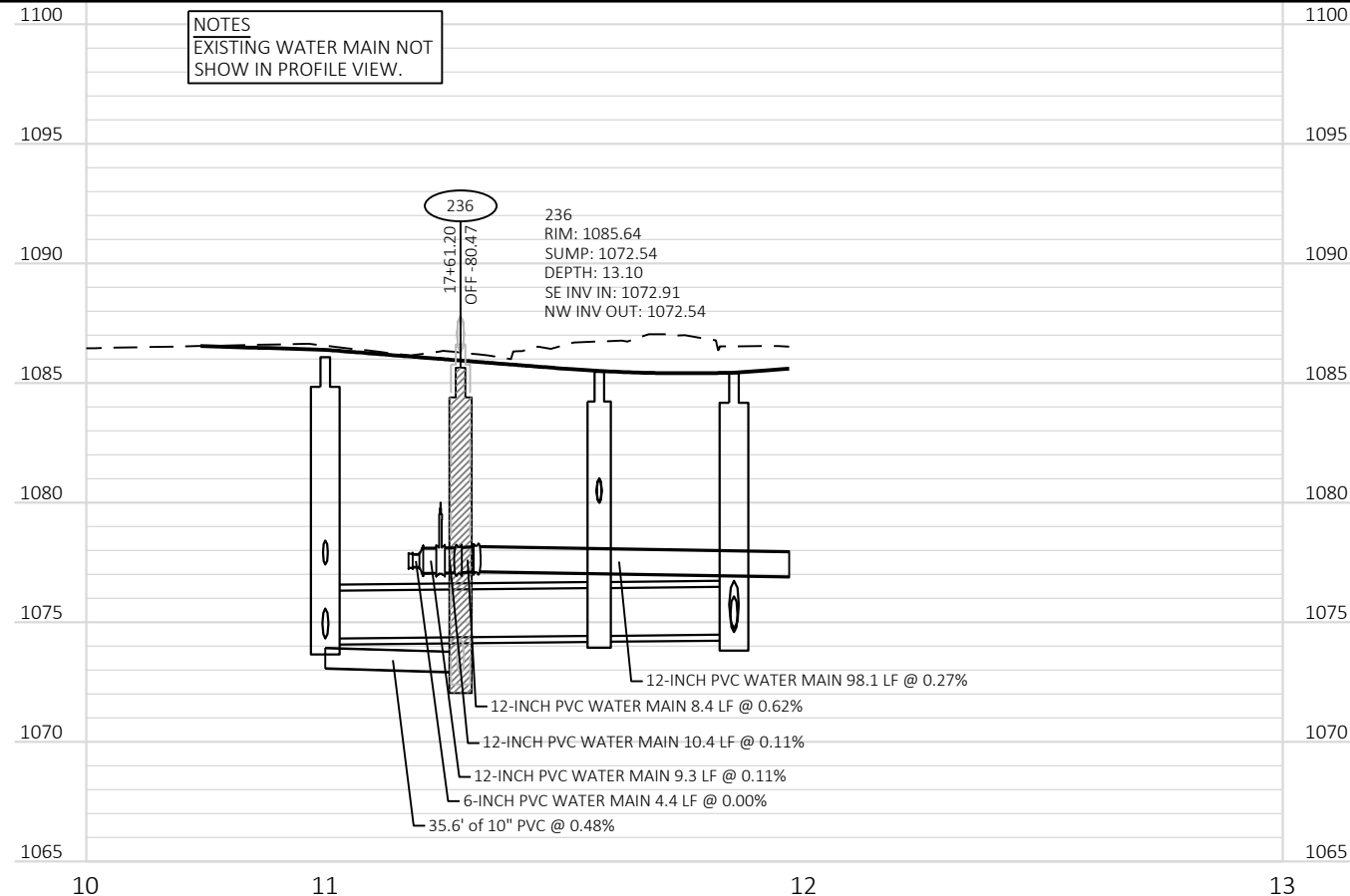
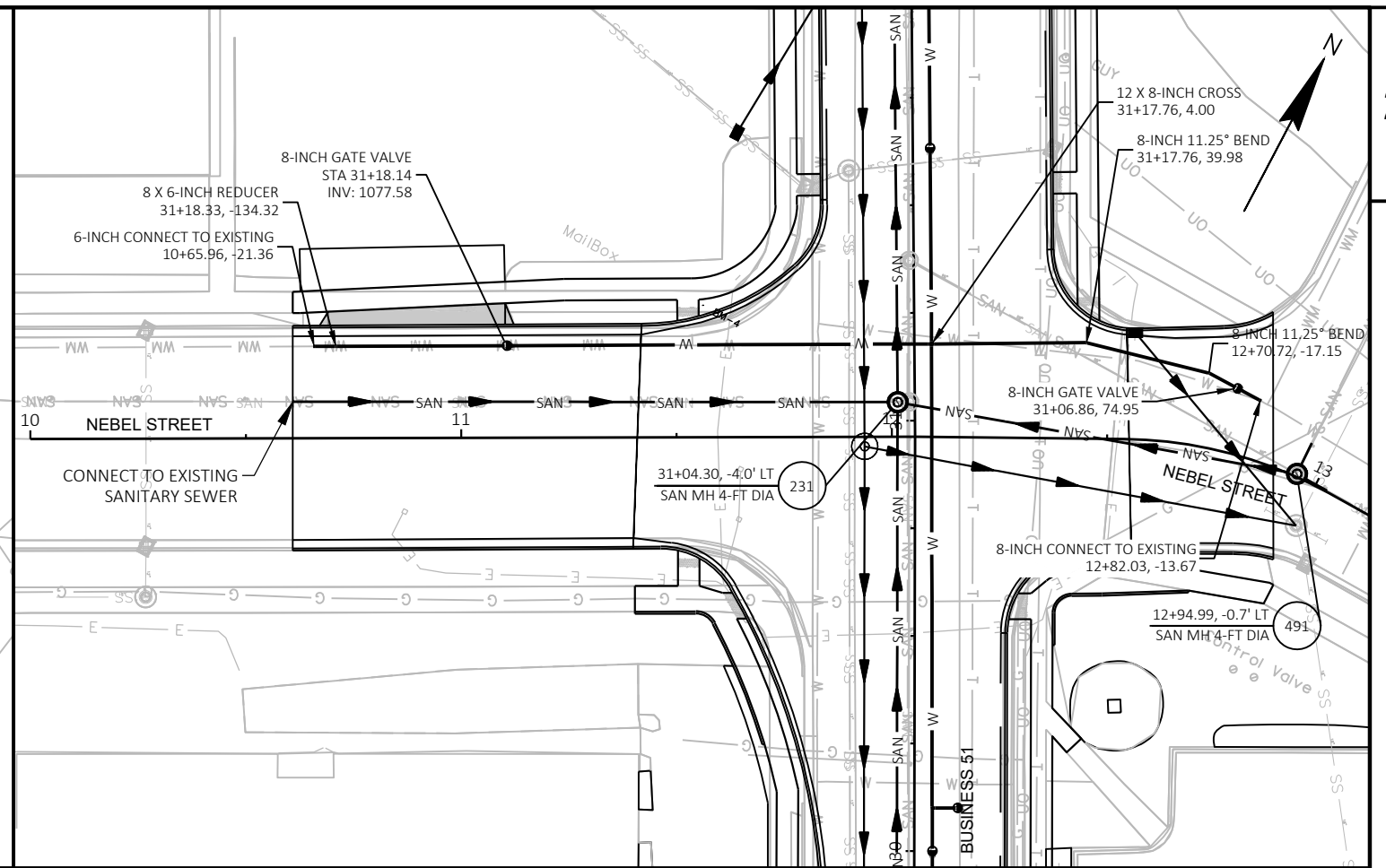
123

E

2



2



PROJECT NO: 6998-13-71

HWY: BUSINESS 51

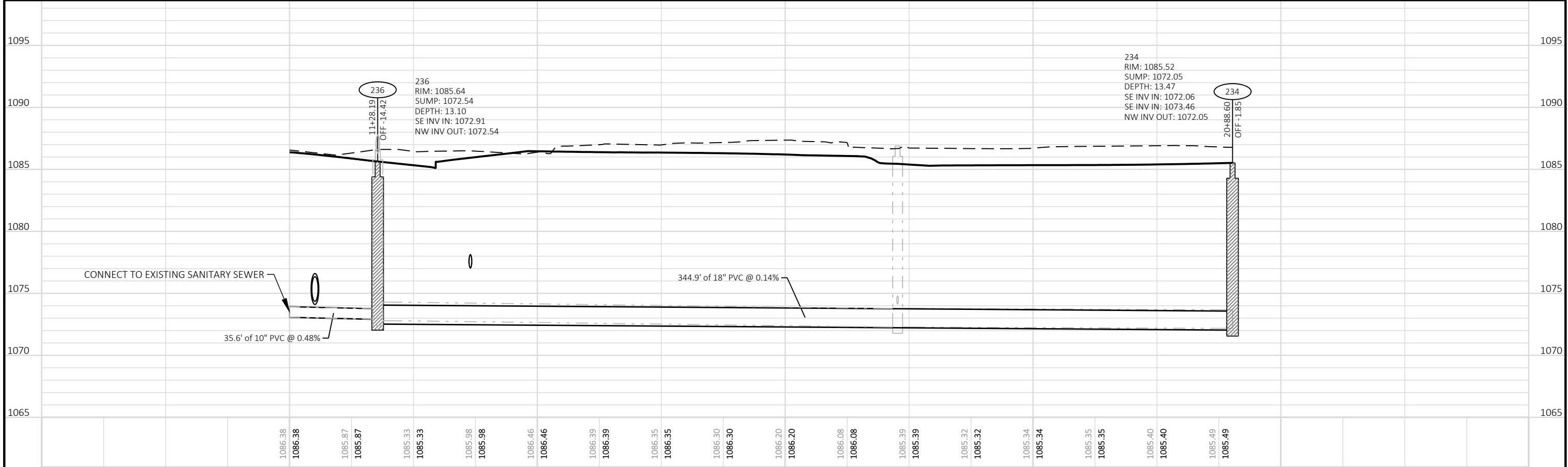
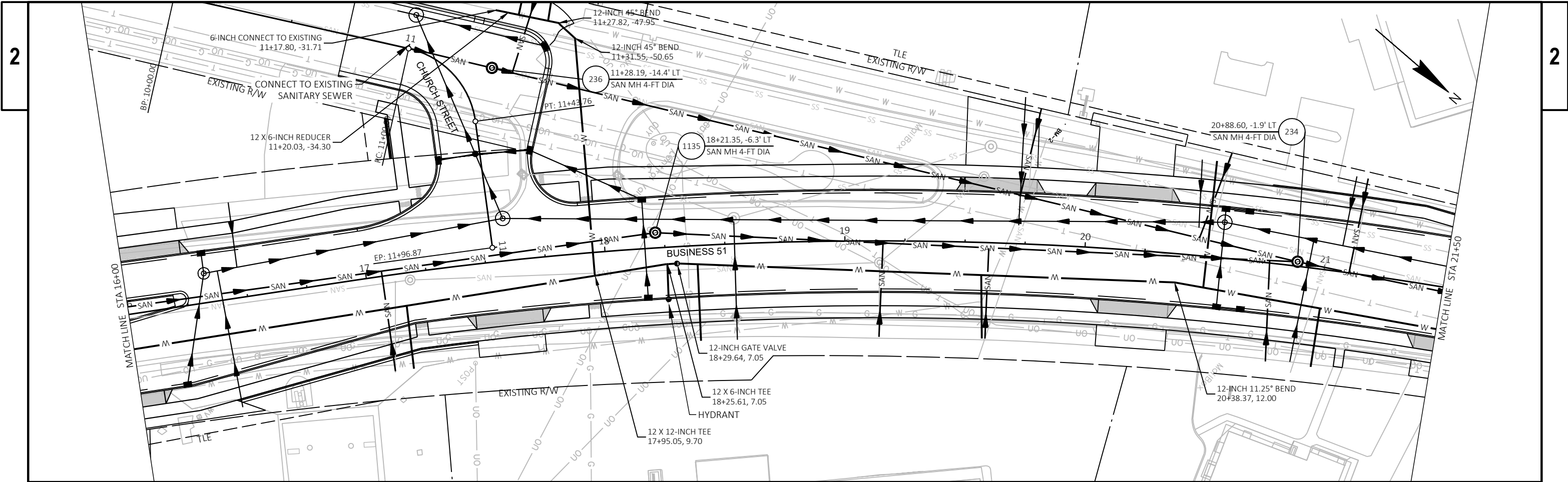
COUNTY: PORTAGE

UTILITY PLANS: BUS 51

SHEET

124

E



PROJECT NO:	6998-13-71	0	HWY: BUSINESS 51	1	COUNTY: PORTAGE	2	UTILITY PLANS: DETAILS	3	4	SHEET	125	E
-------------	------------	---	------------------	---	-----------------	---	------------------------	---	---	-------	-----	---

SANITARY SEWER SCHEDULE																
STRUCTURE NUMBER	ALIGNMENT	STATION	OFFSET	LOCATION	TYPE	RIM/GRATE ELEVATION	STRUCTURE INV ELEV	TOTAL DEPTH	CONNECTING PIPES	PIPE DIRECTION	PIPE SIZE & TYPE	PIPE INVERT	PIPE ROUTE	PIPE LENGTH	PIPE SLOPE	REMARKS
227	BUS51	40+00.00	-4.00	LT	SAN MH 4-FT DIA	1088.44	1068.90	19.54	7 (29) IN 7 (30) OUT	SE N	21" PVC 21" PVC	1069.75 1069.75	FROM STR: 228 TO STR:	-- 66.54'	-- 0.14%	
228	BUS51	37+49.32	-4.00	LT	SAN MH 4-FT DIA	1088.70	1070.10	18.60	7 (28) IN 7 (29) OUT	SE NW	21" PVC 21" PVC	1070.10 1070.10	FROM STR: 229 TO STR: 227	-- 250.68'	-- 0.14%	
229	BUS51	34+36.84	-4.00	LT	SAN MH 4-FT DIA	1088.24	1070.50	17.73	7 (27) IN 7 (28) OUT	SE NW	21" PVC 21" PVC	1070.50 1070.50	FROM STR: 231 TO STR: 228	-- 312.49'	-- 0.13%	
231	BUS51	31+04.30	-4.00	LT	SAN MH 4-FT DIA	1086.79	1070.84	15.95	7 (7) IN 7 (9) IN 7 (264) IN 7 (27) OUT	SE SW E NW	18" PVC 10" PVC 15" PVC 21" PVC	1070.84 1071.40 1071.07 1070.84	FROM STR: 232 FROM STR: FROM STR: 491 TO STR: 229	-- -- -- 332.54'	-- -- -- 0.10%	
232	BUS51	28+21.05	-4.00	LT	SAN MH 4-FT DIA	1085.90	1071.18	14.73	7 (6) IN 7 (7) OUT	SE NW	18" PVC 18" PVC	1071.18 1071.18	FROM STR: 233 TO STR: 231	-- 283.21'	-- 0.12%	
233	BUS51	24+88.29	-4.00	LT	SAN MH 4-FT DIA	1086.53	1071.57	14.96	7 (5) IN 7 (6) OUT	SE NW	18" PVC 18" PVC	1071.57 1071.58	FROM STR: 234 TO STR: 232	-- 332.76'	-- 0.12%	
234	BUS51	20+88.60	-1.85	LT	SAN MH 4-FT DIA	1085.52	1072.05	13.47	7 (4) IN 7 (1) IN 7 (5) OUT	SE SE NW	18" PVC 8" PVC 18" PVC	1072.06 1073.46 1072.05	FROM STR: 236 FROM STR: 1135 TO STR: 233	-- -- 399.72'	-- -- 0.12%	
236	BUS51	17+61.20	-80.47	LT	SAN MH 4-FT DIA	1085.64	1072.54	13.10	7 (2) IN 7 (4) OUT	SE NW	10" PVC 18" PVC	1072.91 1072.54	FROM STR: TO STR: 234	-- 344.94'	-- 0.14%	
491	BUS51	30+87.77	88.65	RT	SAN MH 4-FT DIA	1086.72	1069.81	16.91	7 (265) IN 7 (266) IN 7 (264) OUT	N E W	8" PVC 15" PVC 15" PVC	1075.57 1071.28 1071.28	FROM STR: FROM STR: TO STR: 231	-- -- 94.18'	-- -- 0.22%	
1135	BUS51	18+21.35	-6.34	LT	SAN MH 4-FT DIA	1085.47	1074.53	10.94	5 IN 7 (1) OUT	SE NW	8" PVC 8" PVC	1074.63 1074.53	FROM STR: 1136 TO STR: 234	-- 267.67'	-- 0.40%	
1136	BUS51	15+23.56	-4.00	LT	SAN MH 4-FT DIA	1086.97	1075.82	11.15	5 OUT	NW	8" PVC	1075.82	TO STR: 1135	298.19'	0.40%	

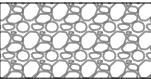
PLANT SCHEDULE SOUTH SEGMENT

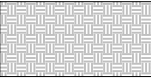
<u>SYMBOL</u>	<u>CODE</u>	<u>BOTANICAL / COMMON NAME</u>	<u>CONT.</u>	<u>QTY</u>
<u>TREE- DECIDUOUS</u>				
	AG	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / 'AUTUMN BRILLIANCE' SERVICEBERRY	1.5" CAL B&B	1
	GP	GINKGO BILOBA 'PNI 2720' / PRINCETON SENTRY® MAIDENHAIR TREE	2.5"-3" CAL	3
	SI	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	1.5" CAL B&B	3
<u>SYMBOL</u>	<u>CODE</u>	<u>BOTANICAL / COMMON NAME</u>	<u>CONT</u>	<u>QTY</u>
<u>DECIDUOUS SHRUBS</u>				
	CA2	CEANOTHUS AMERICANUS / NEW JERSEY TEA	#3 CONT.	10
	RR	ROSA RUGOSA / RUGOSA ROSE	#5 CONT. 2-3 FT HIGH	2
	SG	SPIRAEA X BUMALDA 'GOLDFLAME' / GOLDFLAME SPIREA	#3 CONT. 24" HIGH MIN	20
<u>GROUND COVER</u>				
	EC	EUONYMUS FORTUNEI 'COLORATUS' / PURPLE-LEAF WINTERCREEPER	#1 CONT.	48
<u>ORNAMENTAL GRASSES</u>				
	CK	CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / KARL FOERSTER FEATHER REED GRASS	#1 CONT.	50
	SH	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	#1 CONT.	23
<u>PERENNIALS</u>				
	NW	NEPETA X 'WALKER'S LOW' / WALKER'S LOW CATMINT	#1 CONT.	63
	PA	PEROVSKIA ATRIPLICIFOLIA 'BLUE STEEL' / BLUE STEEL RUSSIAN SAGE	#1 CONT.	10

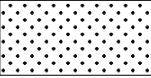
GENERAL NOTES

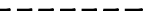
1. ALL PLANTS SHALL BE REVIEWED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. ALL LANDSCAPE PLANTING BEDS AND ISLANDS SHALL CONTAIN SHREDDED HARDWOOD BARK MULCH CONTAINED BY LANDSCAPE EDGING UNLESS OTHERWISE NOTED.
3. ALL TREES IN TURF AREAS SHALL HAVE A 5' DIAMETER CIRCLE OF 4" DEPTH SHREDDED HARDWOOD BARK MULCH CONTAINED BY LANDSCAPE EDGING.
4. CERTAIN LANDSCAPE AREAS SHALL CONTAIN 1.5"-3" MISSISSIPPI RIVER ROCK LANDSCAPE STONE MULCH CONTAINED BY LANDSCAPE EDGING WHERE INDICATED.
5. ALL GENERAL TURF AREAS SHALL BE FINISH GRADED, SEEDED, FERTILIZED, AND CRIMP HAY MULCHED AS PER THE PROJECT MANUAL SPECIFICATIONS.
6. ALL GENERAL LANDSCAPE AND SODDING AREAS SHALL HAVE A MINIMUM 6" COMPACTED DEPTH OF TOPSOIL.
7. SEE THE PROJECT MANUAL FOR SPECIFICATIONS AND REQUIREMENTS FOR PLANTING, STAKING OF TREES, WARRANTY PERIOD, MAINTENANCE , ETC.
8. SEE DETAILS FOR PLANTING INSTALLATION.
9. ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE CITY ZONING ORDINANCE.
10. ALL CONTRACTORS SUBMITTING A BID SHALL VISIT THE SITE AND REVIEW THE EXISTING SITE CONDITIONS PRIOR TO THE BID DATE.

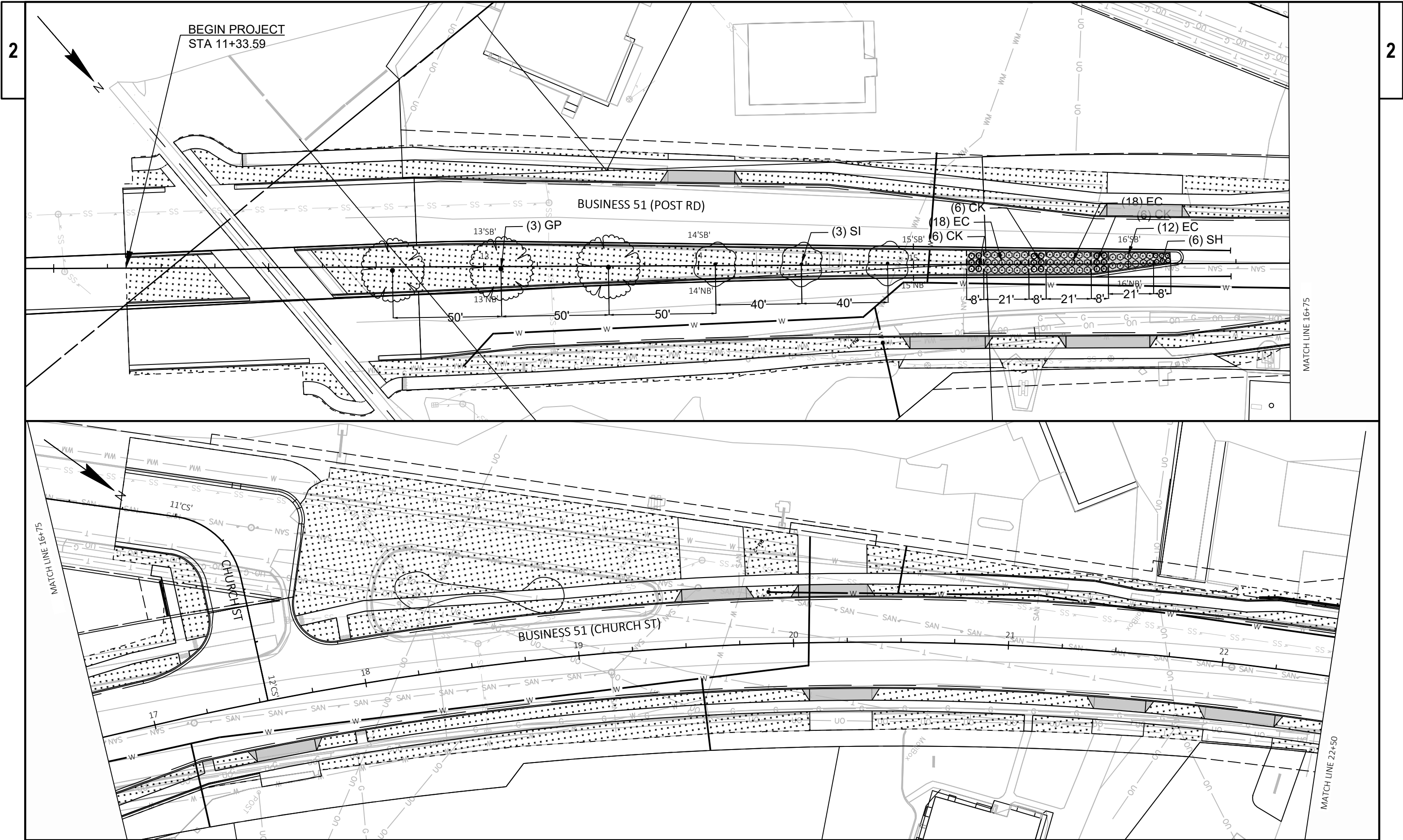
LANDSCAPE LEGEND

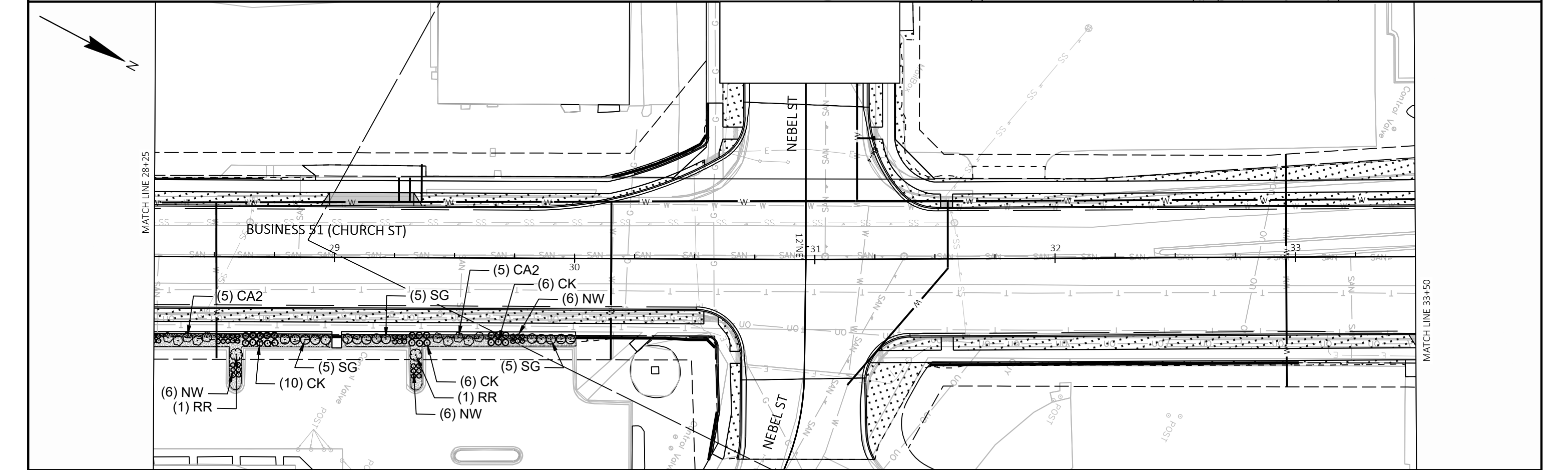
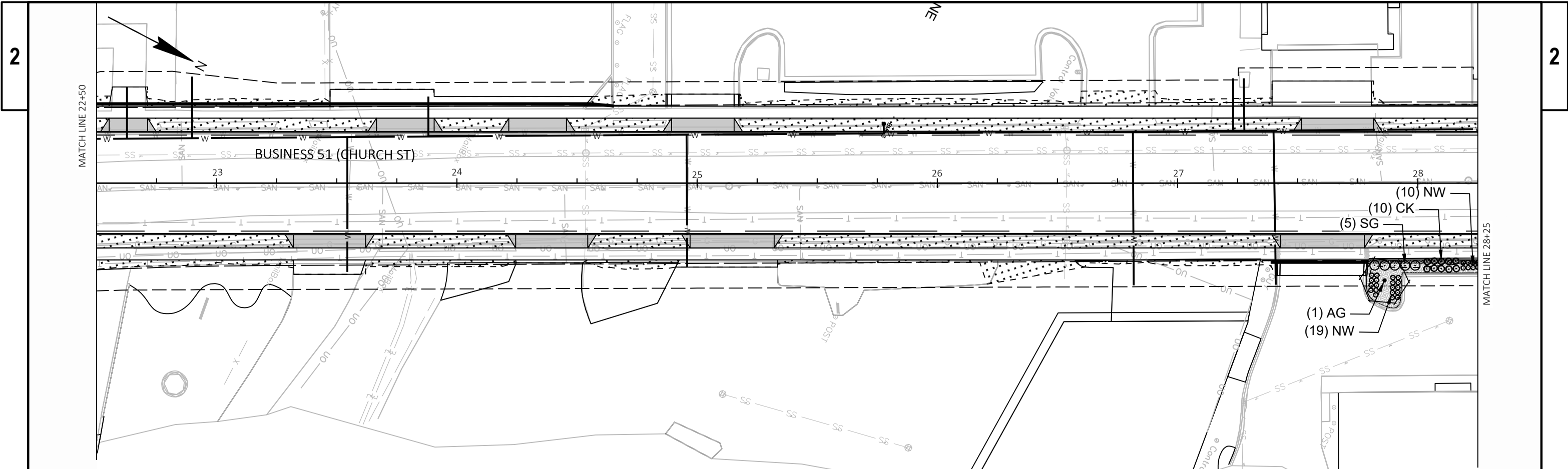
STONE MULCH,
4-INCH DEPTH

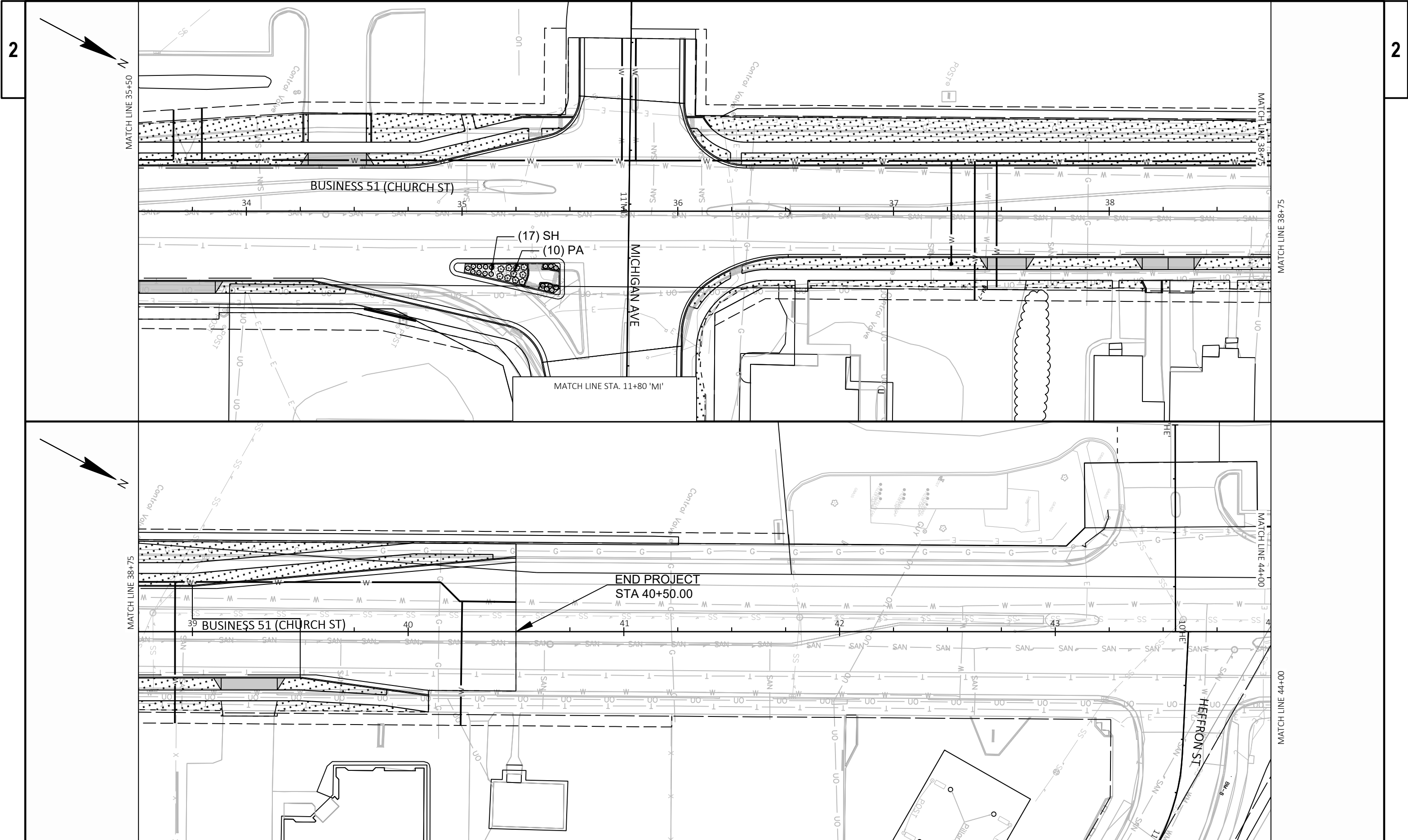
SHREDDED HARDWOOD BARK MULCH,
4-INCH DEPTH

TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN

LANDSCAPE EDGING



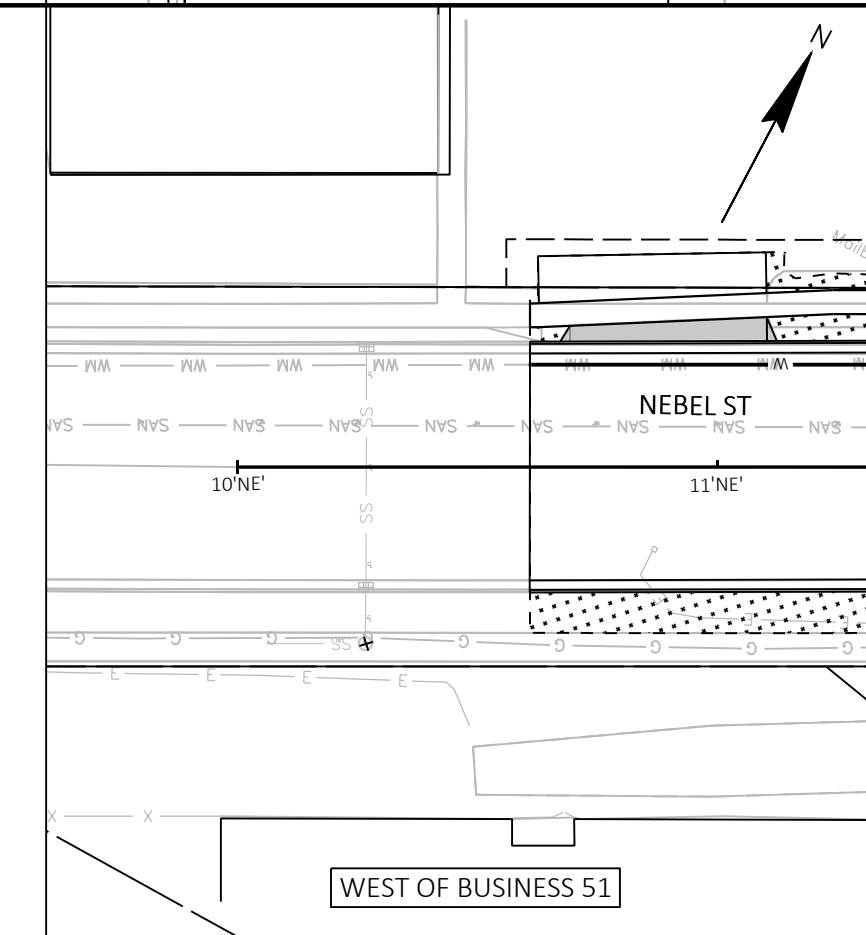
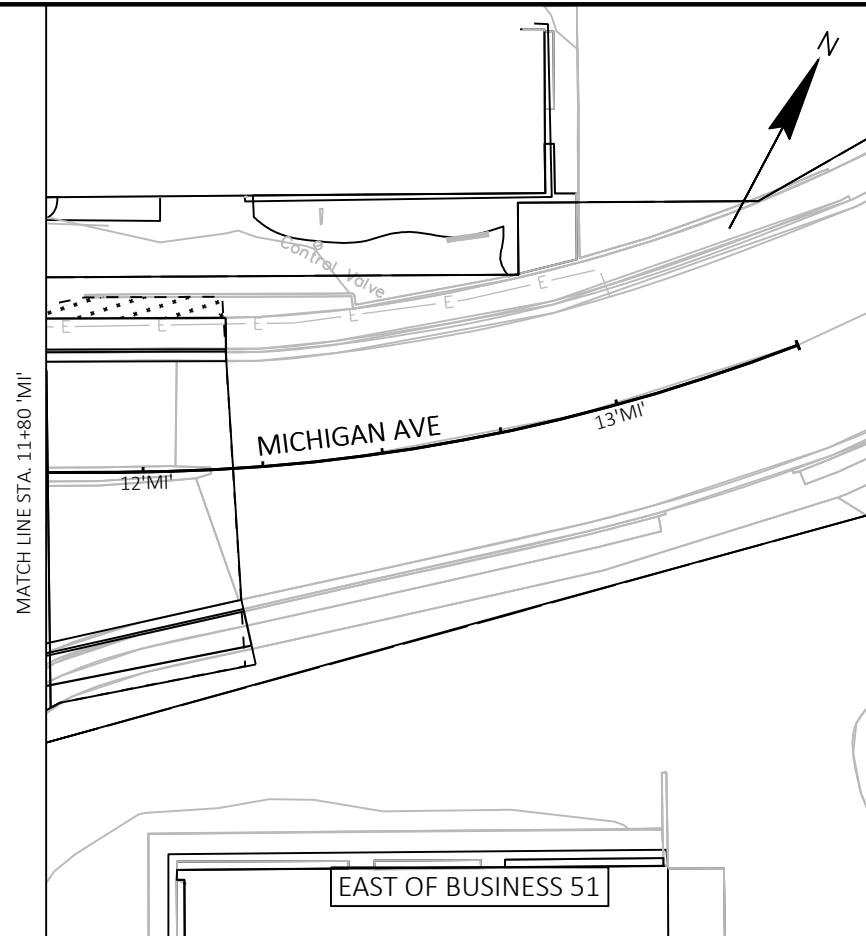




2

2

PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	SITE LANDSCAPE PLAN	130	E
------------------------	------------------	-----------------	---------------------	-----	---



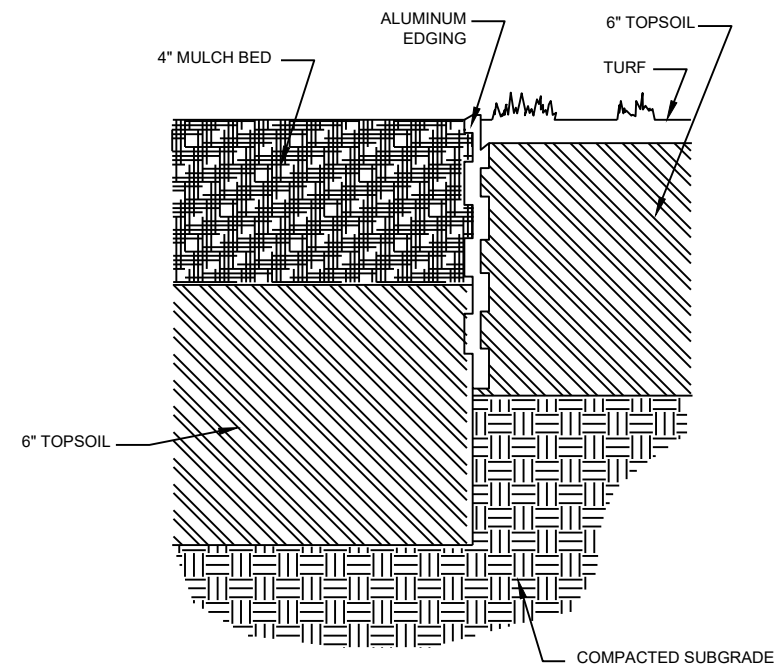
PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

SITE LANDSCAPE PLAN

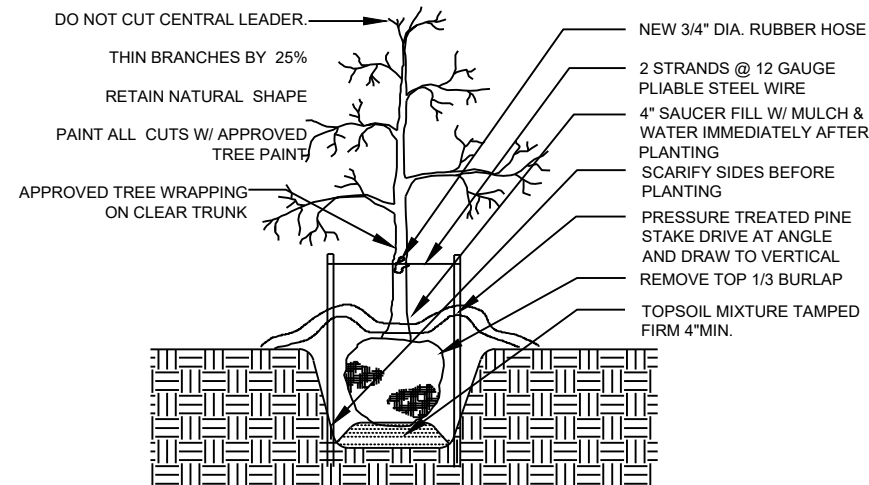
2



- NOTES:
- SEE MANUFACTURER'S SPECIFICATIONS FOR PROPER INSTALLATION

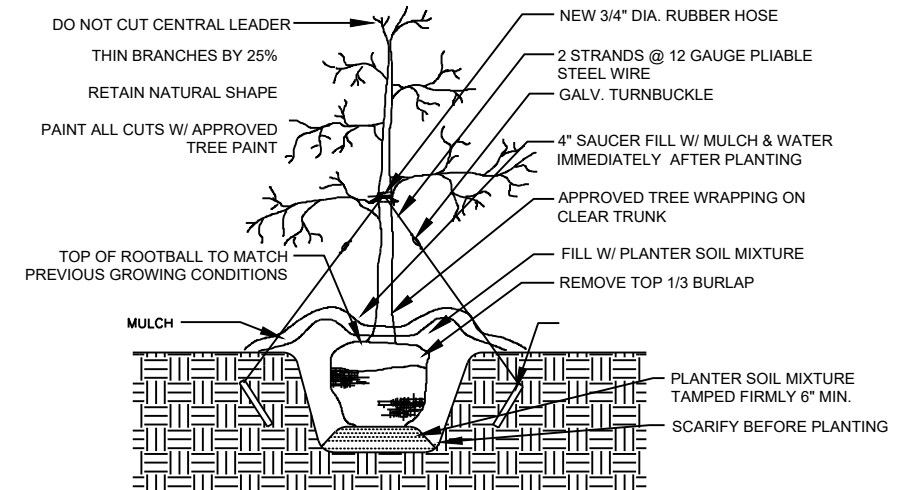
1. LANDSCAPE EDGING

2



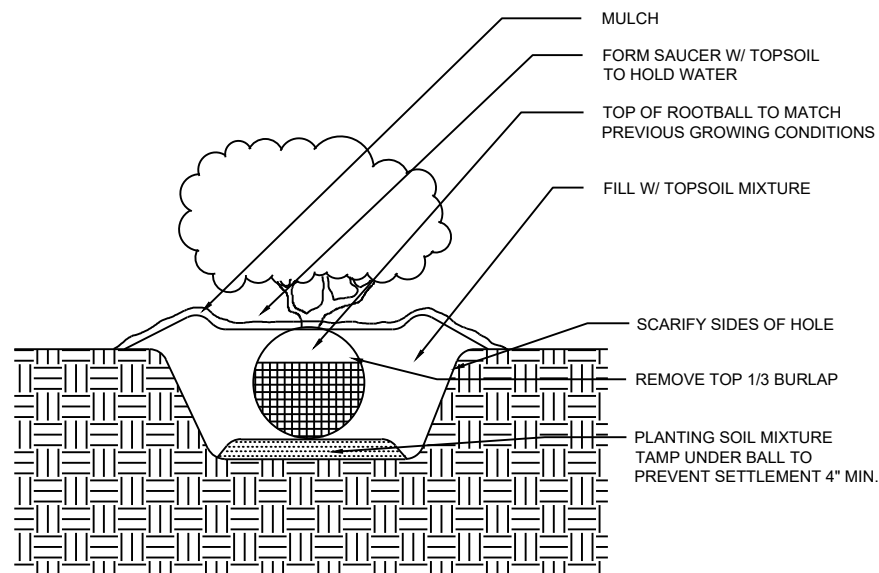
- PLANTING HOLE WIDTH SHALL BE THREE TIMES THE SIZE OF ROOTBALL
- ONLY PRUNE BROKEN OR INJURED BRANCHES
- TREES OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY

2. TREES OVER 2" CALIPER



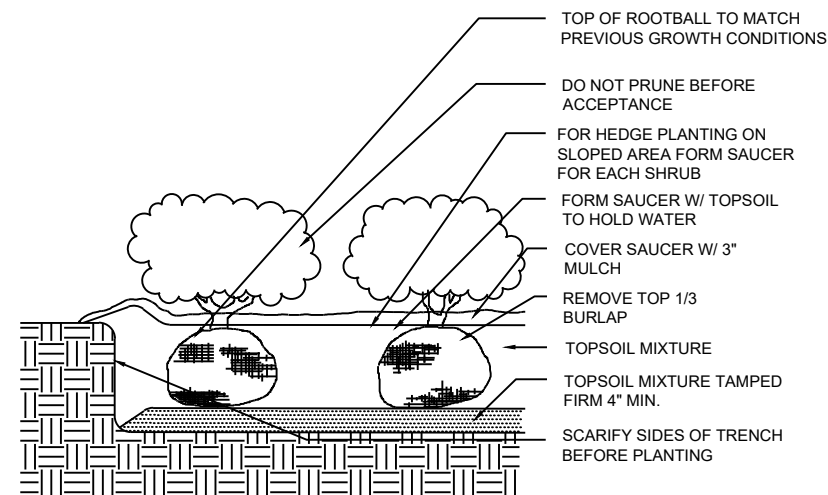
- NOTE:
- TREES OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY
 - PLANTING HOLE WIDTH SHALL BE THREE TIMES THE SIZE OF ROOTBALL.

3. TREES UNDER 2" CALIPER



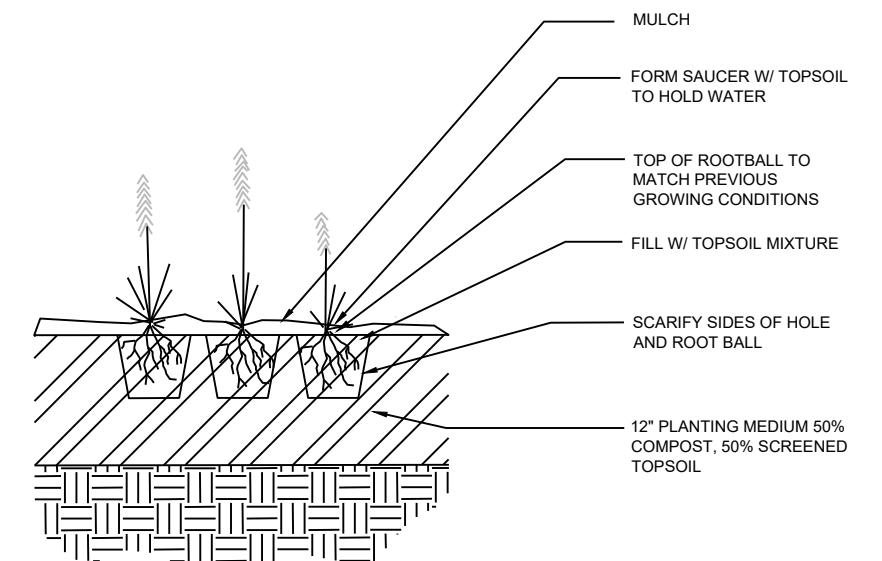
- NOTE:
- SHRUBS OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY.
 - DO NOT PRUNE BEFORE ACCEPTANCE

4. SHRUB PLANTING



- * SHRUBS OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY

5. SHRUB PLANTINGS



- NOTE:
- PERENNIALS OF SAME SPECIES TO BE MATCHED IN GROWTH AND UNIFORMITY.
 - DO NOT PRUNE BEFORE ACCEPTANCE

6. PERENNIAL PLANTINGS

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

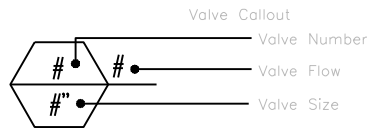
SITE LANDSCAPE PLAN DETAILS

132

E

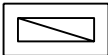
IRRIGATION SCHEDULE SOUTH SEGMENT

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER MP STRIP PROS-06-PRS40-CV SHRUB ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP ON PRS40 BODY.
	HUNTER MP1000 PROS-06-PRS40-CV SHRUB ROTATOR, 6" (15.24 CM) POP-UP WITH CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. M=MAROON ADJ ARC 90 TO 210, L=LIGHT BLUE 210 TO 270 ARC, O=OLIVE 360 ARC ON PRS40 BODY.
	HUNTER MP2000 PROS-06-PRS40-CV SHRUB ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC ON PRS40 BODY.
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER PGV-201 GLOBE 2" PLASTIC ELECTRIC REMOTE CONTROL VALVE, FOR RESIDENTIAL/LIGHT COMMERCIAL USE. FEMALE NPT INLET/OUTLET, WITH FLOW CONTROL. GLOBE CONFIGURATION.
	HUNTER IBV 2" 1", 1-1/2", 2", AND 3" BRASS ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE.
	WATTS 009 2" REDUCED PRESSURE BACKFLOW PREVENTER. INSTALLATION AND PERMITTING BY BUILDING PLUMBING CONTRACTOR.
	HUNTER HCC-800-SS 8 STATION OUTDOOR WI-FI ENABLED, FULL-FUNCTIONING CONTROLLER WITH TOUCHSCREEN, COMMERCIAL USE. STAINLESS STEEL CABINET. MOUNT CONTROLLER TO METAL STRUT INSIDE THE OUTDOOR METAL ENCLOSURE. INCLUDE EZDM TO CONVERT CONTROLLER TO 2-WIRE DECODER SYSTEM.
	HUNTER EZDM EZ DECODER OUTPUT MODULE FOR HCC AND ICC2 CONTROLLERS, UP TO 54 STATIONS
	POINT OF CONNECTION 6" INSTALL 2" TAPPING SLEEVE AND GATE VALVE WITH VALVE BOX. FIELD VERIFY EXISTING WATER MAIN SIZE, PRESSURE, LOCATION, INVERT, AND MATERIAL. COORDINATE INSTALLATION WITH THE CITY OF STEVENS POINT PUBLIC WORKS DEPARTMENT. PROVIDE AND INSTALL WATER METER. COORDINATE WATER METER MODEL AND INSTALLATION WITH THE CITY OF STEVENS POINT. INSTALL BOOSTER PUMP, IF NEEDED, TO ACHIEVE 70 PSI.
	IRRIGATION LATERAL LINE: POLYETHYLENE PIPE SDR-7
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21

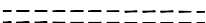


SITE IRRIGATION NOTES

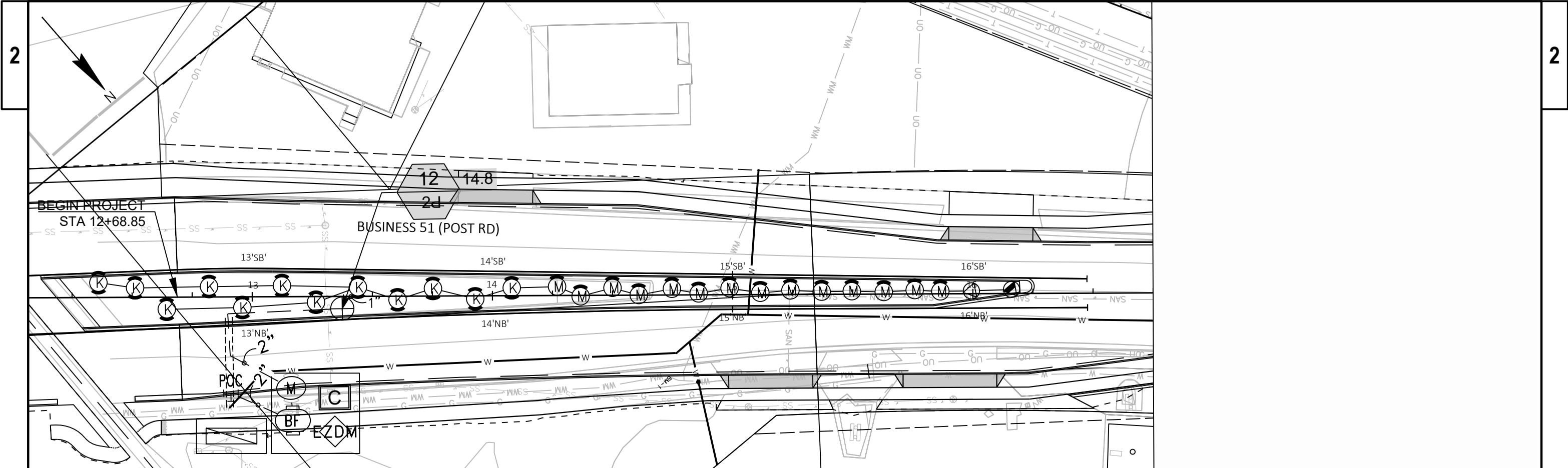
1. MAINTAIN ALL CODES REQUIRED BY LOCAL AND STATE AUTHORITIES.
2. CRITICAL ANALYSIS DEVELOPED PER POINT OF CONNECTION (POC) INFORMATION.
3. IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE AND VOLUME AT POC PRIOR TO IRRIGATION INSTALLATION.
4. IRRIGATION CONTRACTOR SHALL ACHIEVE FULL AND COMPLETE COVERAGE WITHIN MEDIAN AREAS.
5. VALVES, QUICK COUPLERS, AND WIRE SPLICES SHALL BE INSTALLED IN LABELED VALVE BOXES.
6. ADJUSTABLE ARC NOZZLES SHALL ONLY BE USED IN SITUATIONS WHERE FIXED ARC NOZZLES CANNOT PROVIDE FULL AND COMPLETE COVERAGE.
7. ALL TRENCHES SHALL BE WIDE ENOUGH TO ACCOMMODATE A MINIMUM OF 2" BETWEEN PIPE AND TRENCH WALL.
8. INSTALL ALL PIPING AND FITTINGS USING GLUE AND THRUST BLOCKING METHODS CONSISTENT WITH MANUFACTURERS RECOMMENDATIONS.
9. ALL GASKETED PRESSURE PIPE AND FITTINGS SHALL BE THRUST BLOCKED. NO CONCRETE PREFORMED BLOCKS WILL BE ALLOWED.
10. CAP OR PLUG ALL OPENINGS AS SOON AS LINES ARE INSTALLED TO PREVENT DEBRIS IN THE LINE.
11. 24VAC WIRE SPLICING MATERIAL SHALL BE 3M DIRECT BURIAL SPLICE KIT DBY-6 AND DBR-6.
12. IRRIGATION MAINLINE INSTALLED UNDER ALL HARD SURFACES SHALL BE DIRECTIONAL BORED WITH A MINIMUM COVER OF 3.0'.
13. THOROUGHLY FLUSH ALL LINES PRIOR TO THE OPERATION OF SPRINKLER HEADS.
14. UPON COMPLETION OF TEST, COMPLETE ASSEMBLY OF ALL EQUIPMENT AND SPRINKLERS FOR PROPER DISTRIBUTION.
15. CONTRACTOR SHALL SUBMIT ALL IRRIGATION DESIGN CHANGES TO LA/E PRIOR TO INSTALLATION.
16. ALL DESIGN INFORMATION SHOWN IS BASED ON SPECIFICATIONS FROM HUNTER BASED IRRIGATION PRODUCTS. CONTRACTOR MAY SUBSTITUTE EQUALLY APPROVED IRRIGATION PRODUCTS UPON LA/E APPROVAL.
17. COORDINATE ALL IRRIGATION WORK WITH STEVENS POINT PUBLIC UTILITIES DEPARTMENT.
18. DRAWING IS SCHEMATIC. COMPONENTS AND TEXT MAY BE SHOWN OUTSIDE OF INTENDED AREAS FOR EASE OF READING.
19. IRRIGATION CONTRACTOR SHALL COORDINATE AND CONNECT TO EXISTING WATER MAIN PER LOCAL & STATE CODES.
20. IRRIGATION CONTRACTOR SHALL CONTACT ERIC SOUTHWORTH WITH STEVENS POINT PUBLIC UTILITIES AT (715) 342-4846 AT LEAST THREE WORKING DAYS PRIOR TO MAKING CONNECTION TO WATER MAIN.
21. IRRIGATION CONTRACTOR SHALL COORDINATE ELECTRICAL CONNECTIONS WITH LOCAL SERVICE PROVIDER.



GUARDSHACK PUMPHOUSE LOUVERED ENCLOSURE, TO FIT ON MATCHING ENCPAD OR CONCRETE PAD.)



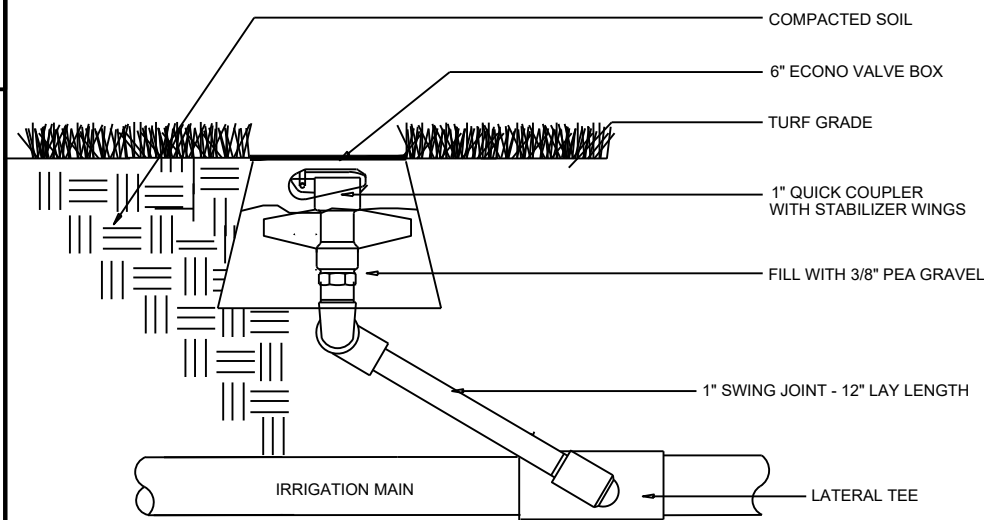
6" PVC SCHEDULE 40 SLEEVING UNDER ROADWAYS AND SIDEWALKS



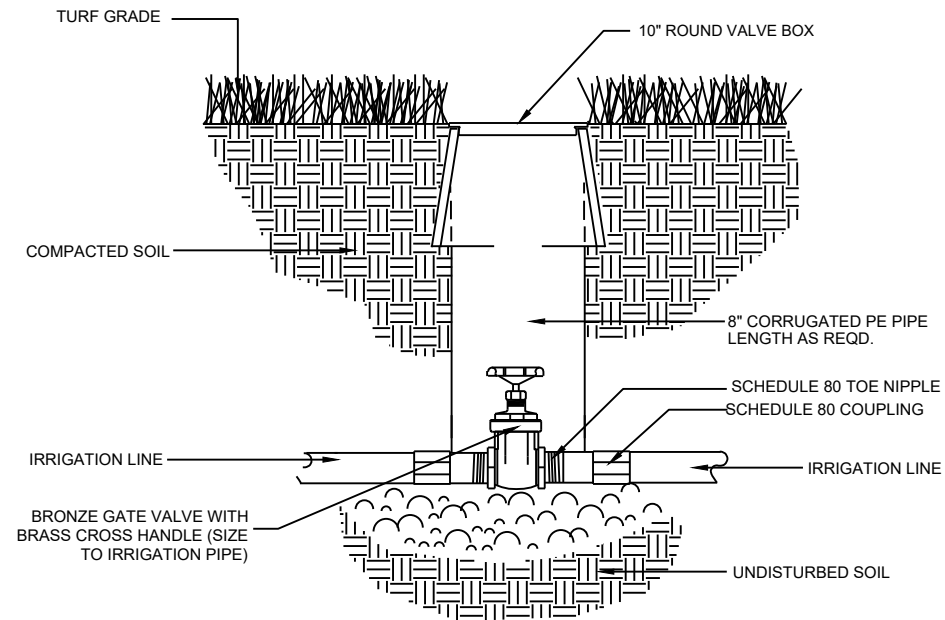
CRITICAL ANALYSIS

.....	2025-10-07 08:38
P.O.C. NUMBER: 04	
Water Source Information:	INSTALL 2" TAPPING SLEEVE AND GATE VALVE WITH VALVE BOX. FIELD VERIFY EXISTING WATER MAIN SIZE, PRESSURE, LOCATION, INVERT, AND MATERIAL. COORDINATE INSTALLATION WITH THE CITY OF STEVENS POINT PUBLIC WORKS DEPARTMENT. PROVIDE AND INSTALL WATER METER. COORDINATE WATER METER MODEL AND INSTALLATION WITH THE CITY OF STEVENS POINT. INSTALL BOOSTER PUMP, IF NEEDED, TO ACHIEVE 70 PSI.
FLOW AVAILABLE	
Point of Connection Size:	6"
Flow Available	651.88 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	70 PSI
Pressure Available:	70 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	14.78 GPM
Flow Available at POC:	651.88 GPM
Residual Flow Available:	637.1 GPM
Critical Station:	12
Design Pressure:	40 PSI
Friction Loss:	2.43 PSI
Fittings Loss:	0.24 PSI
Elevation Loss:	0 PSI
Loss through Valve:	1 PSI
Pressure Req. at Critical Station:	43.7 PSI
Loss for Fittings:	0.02 PSI
Loss for Main Line:	0.21 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	12.7 PSI
Loss for Master Valve:	0.8 PSI
Critical Station Pressure at POC:	57.4 PSI
Pressure Available:	70 PSI
Residual Pressure Available:	12.6 PSI

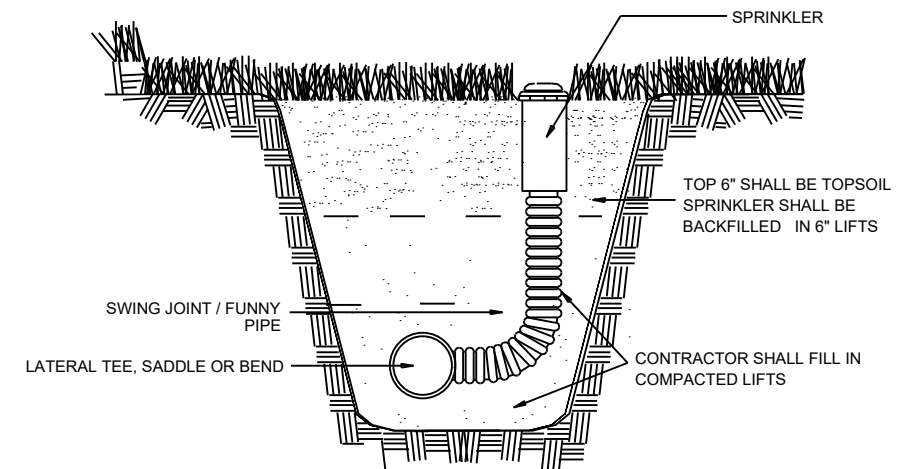
2



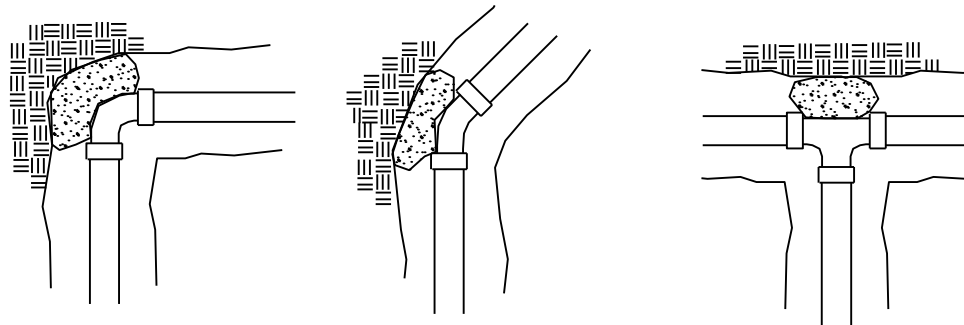
1. QUICK COUPLER



2. ISOLATION VALVE



3. IRRIGATION HEAD



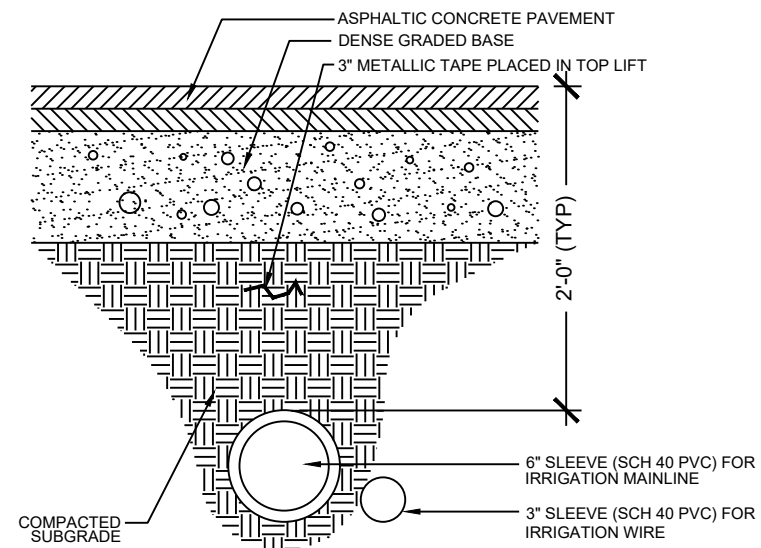
NOTE:

ALL PIPING IS TO BE INSTALLED AND TESTED ACCORDING TO THE MANUFACTURER'S INSTALLATION GUIDELINES.

THRUST BLOCK ALL GASKETED FITTINGS WHERE CHANGE OF DIRECTION OR SOILS REQUIRE BLOCKING.

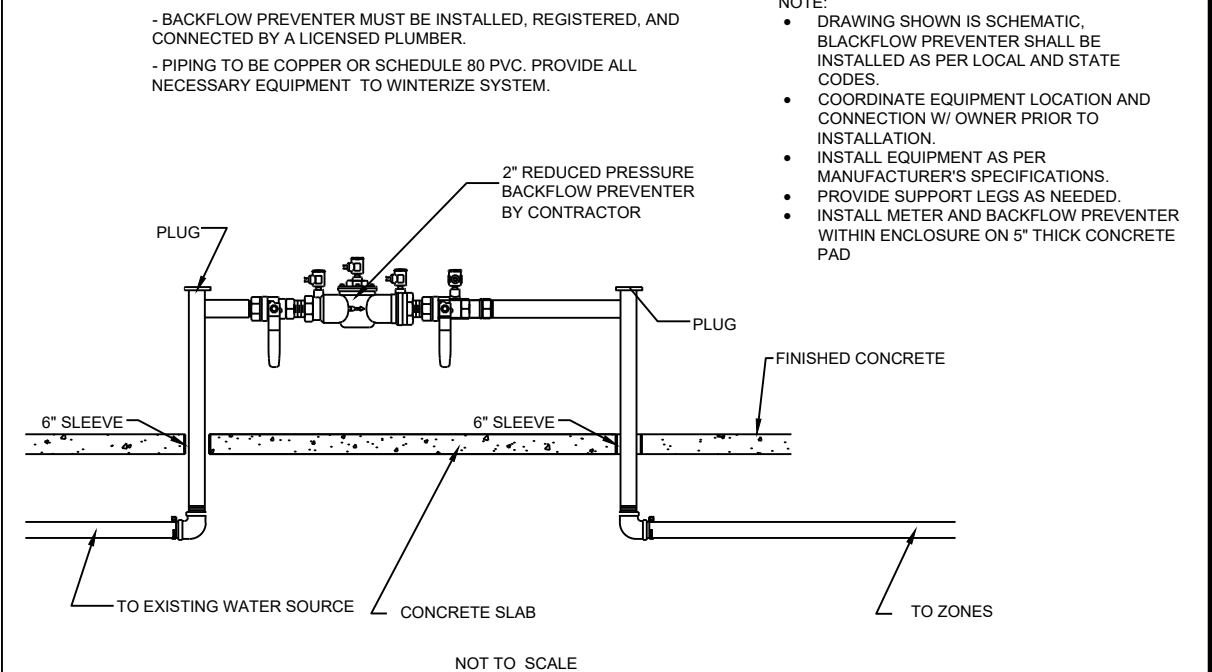
CONCRETE BLOCKS WILL NOT BE ALLOWED. ALL THRUST BLOCKS ARE TO BE POURED IN PLACE WITH CONCRETE TO UNDISTURBED SOILS.

4. IRRIGATION THRUST BLOCKING



NOTE : - EXTEND SLEEVES 2' BEYOND PAVEMENT
- CAP OFF THE ENDS OF THE 6" SLEEVES WITH DUCT TAPE TO PREVENT SUBGRADE FROM FILTERING INTO THE SLEEVE.
- SEE LAYOUT PLAN FOR SLEEVE LOCATIONS

5. IRRIGATION SLEEVING



NOTE:

- DRAWING SHOWN IS SCHEMATIC, BACKFLOW PREVENTER SHALL BE INSTALLED AS PER LOCAL AND STATE CODES.
- COORDINATE EQUIPMENT LOCATION AND CONNECTION W/ OWNER PRIOR TO INSTALLATION.
- INSTALL EQUIPMENT AS PER MANUFACTURER'S SPECIFICATIONS.
- PROVIDE SUPPORT LEGS AS NEEDED.
- INSTALL METER AND BACKFLOW PREVENTER WITHIN ENCLOSURE ON 5" THICK CONCRETE PAD

6. BACKFLOW PREVENTER

PROJECT NO: 6998-13-71

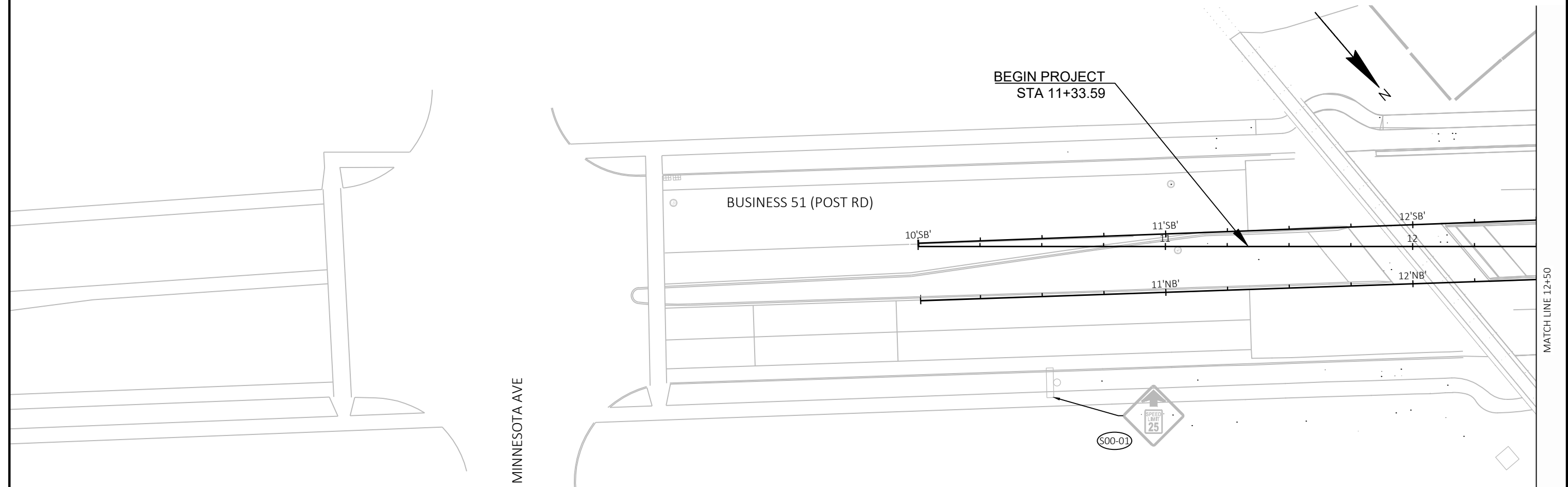
HWY: BUSINESS 51

COUNTY: PORTAGE

SITE IRRIGATION PLAN DETAILS

135

E

**LEGEND**

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN NUMBER (REMOVING SIGNS TYPE II)
- SIGN NUMBER (REMOVE, SALVAGE, AND REINSTALL SIGNS)

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

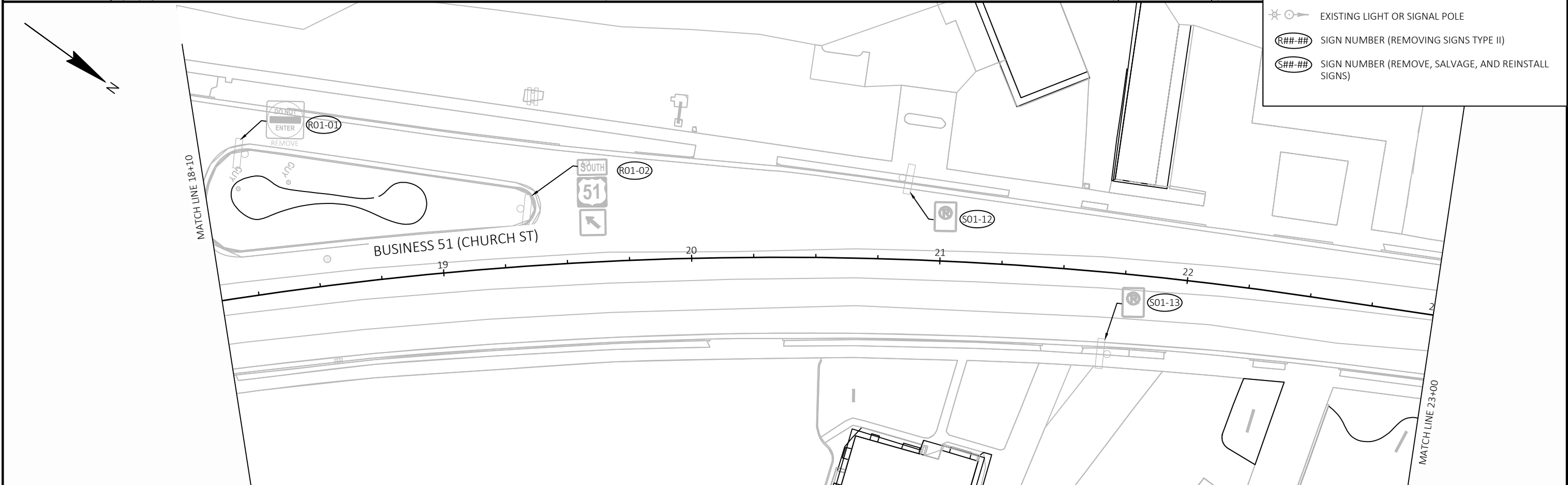
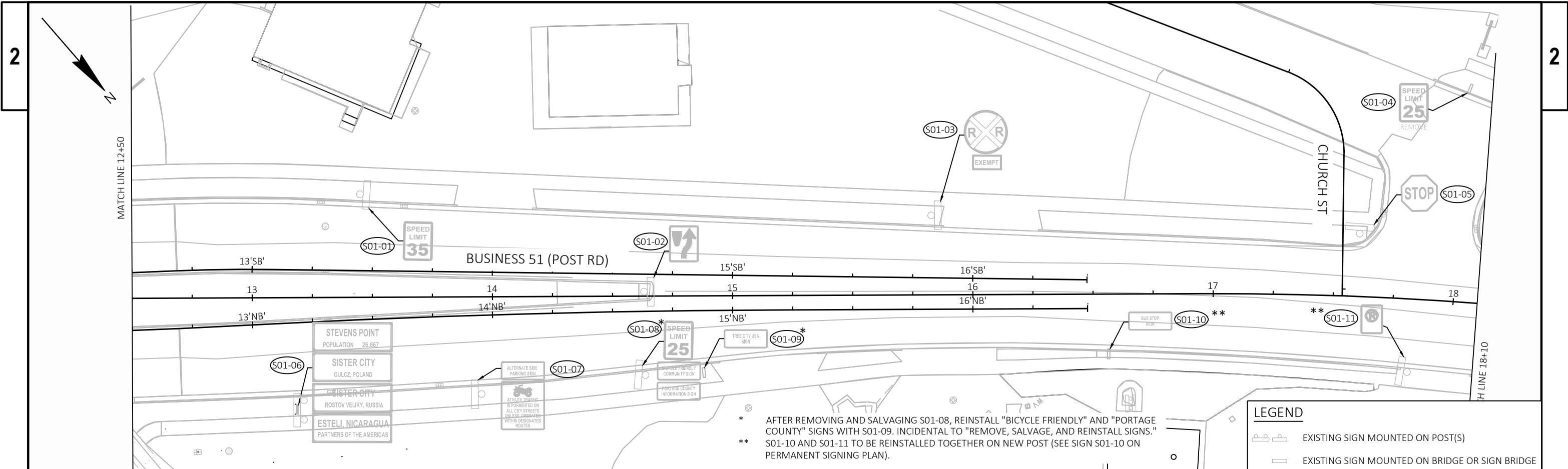
COUNTY: PORTAGE

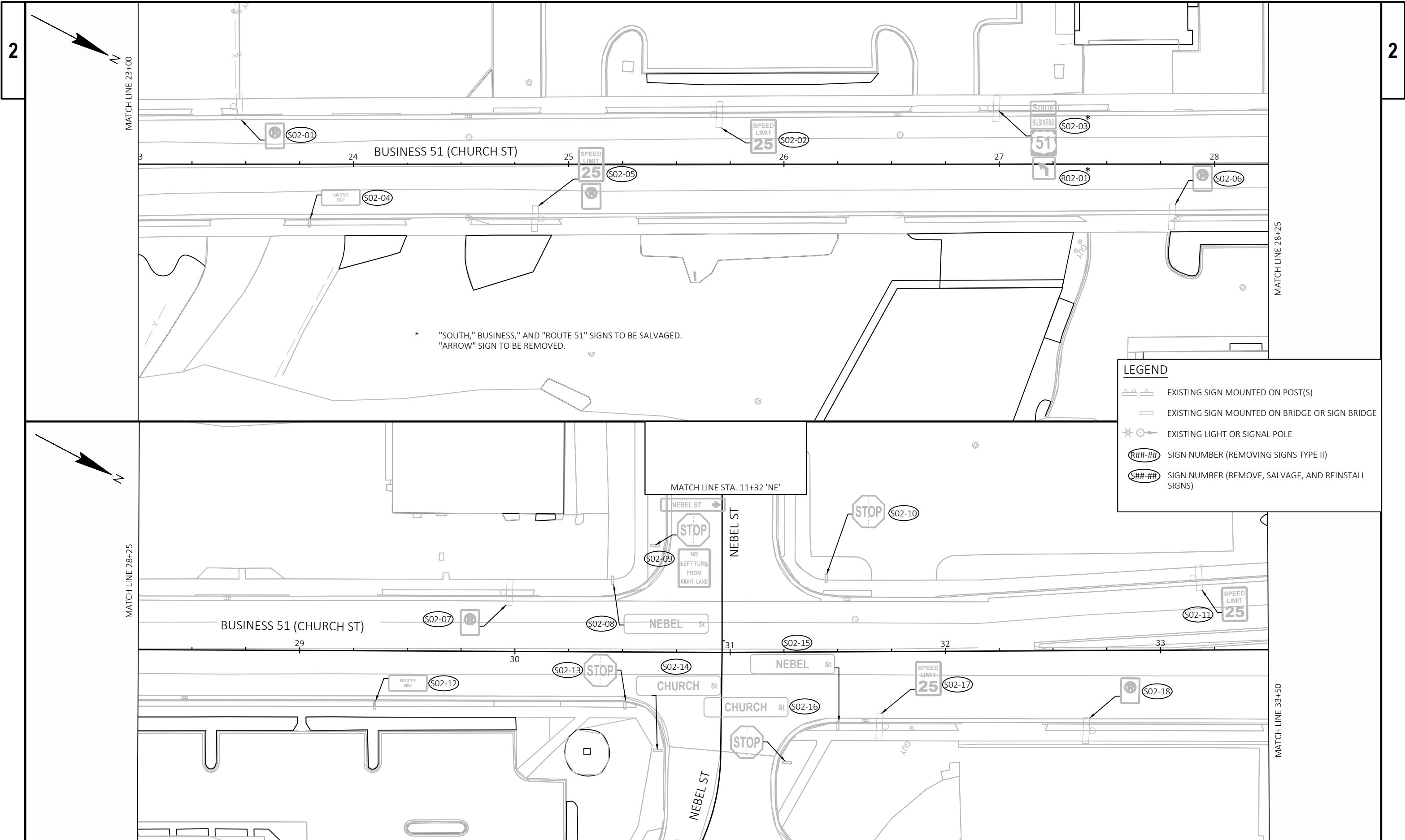
SIGNING REMOVAL PLANS

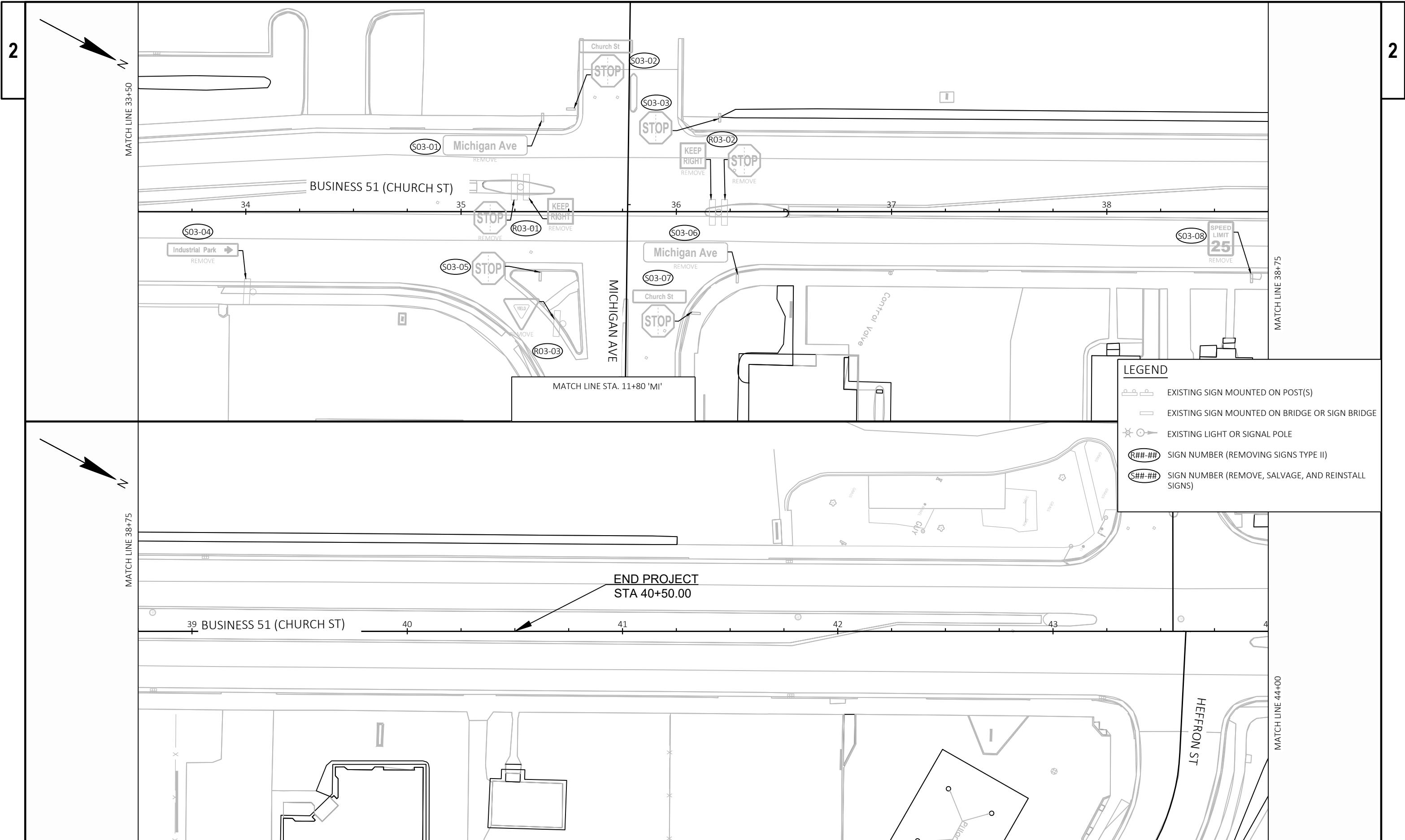
SHEET

136

E







LEGEND

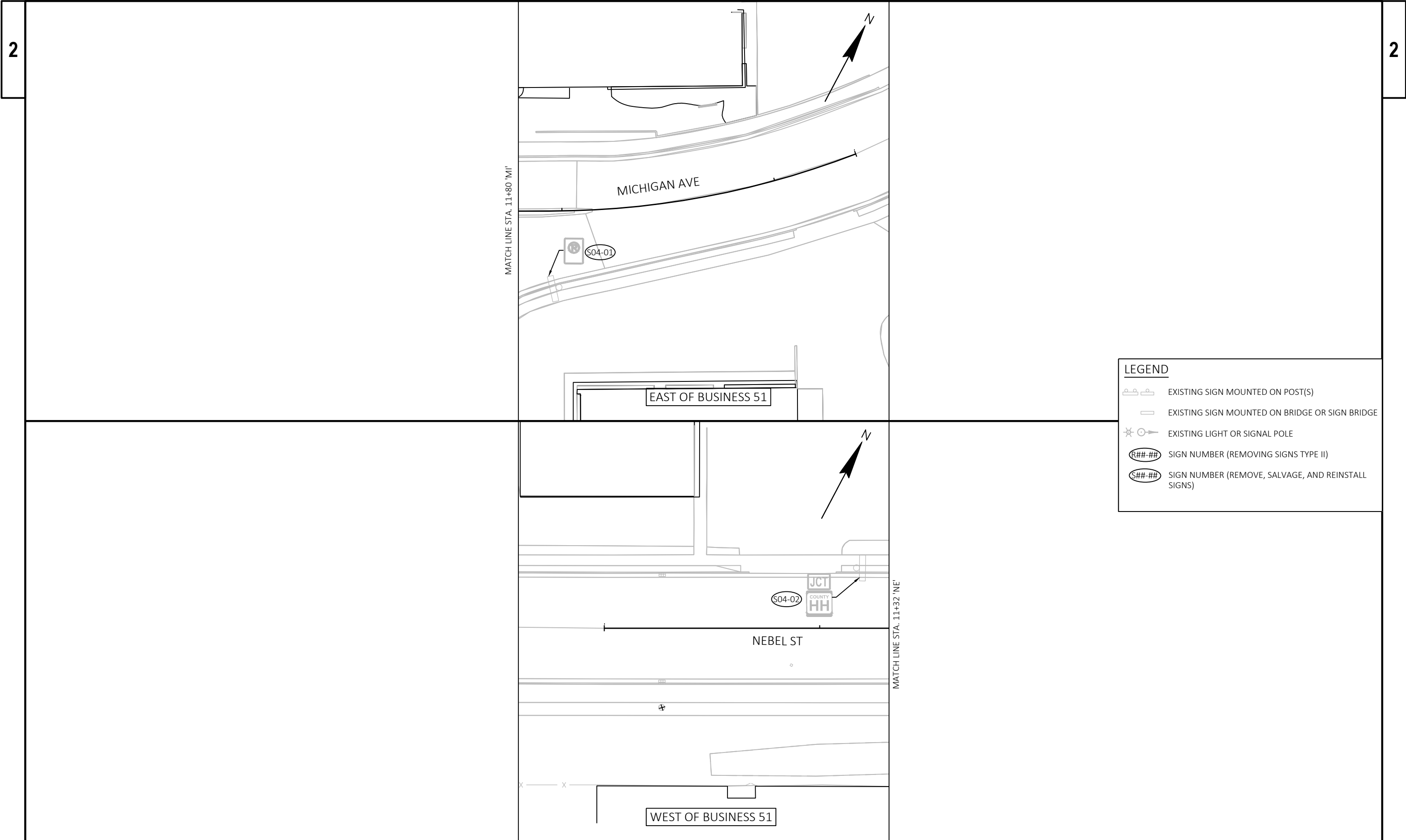
EXISTING SIGN MOUNTED ON POST(S)

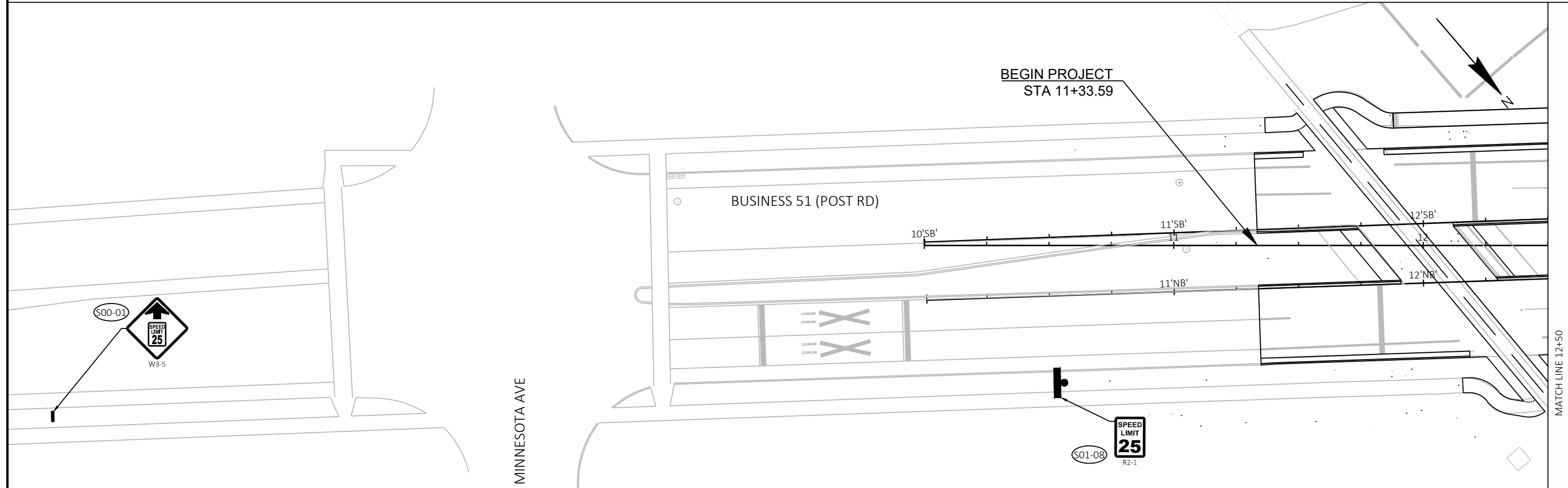
EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

R##-## SIGN NUMBER (REMOVING SIGNS TYPE II)

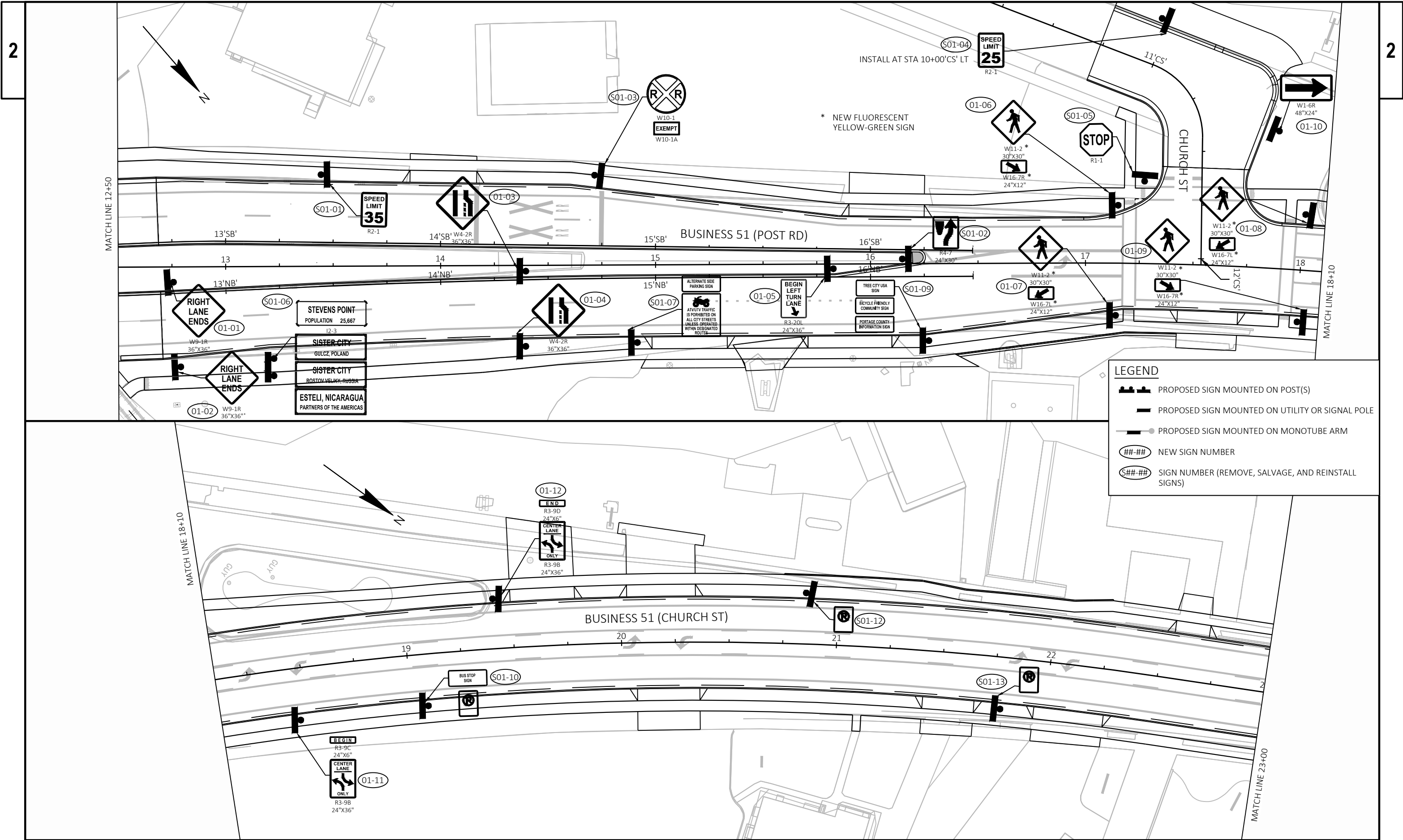
S##-## SIGN NUMBER (REMOVE, SALVAGE, AND REINSTALL SIGNS)

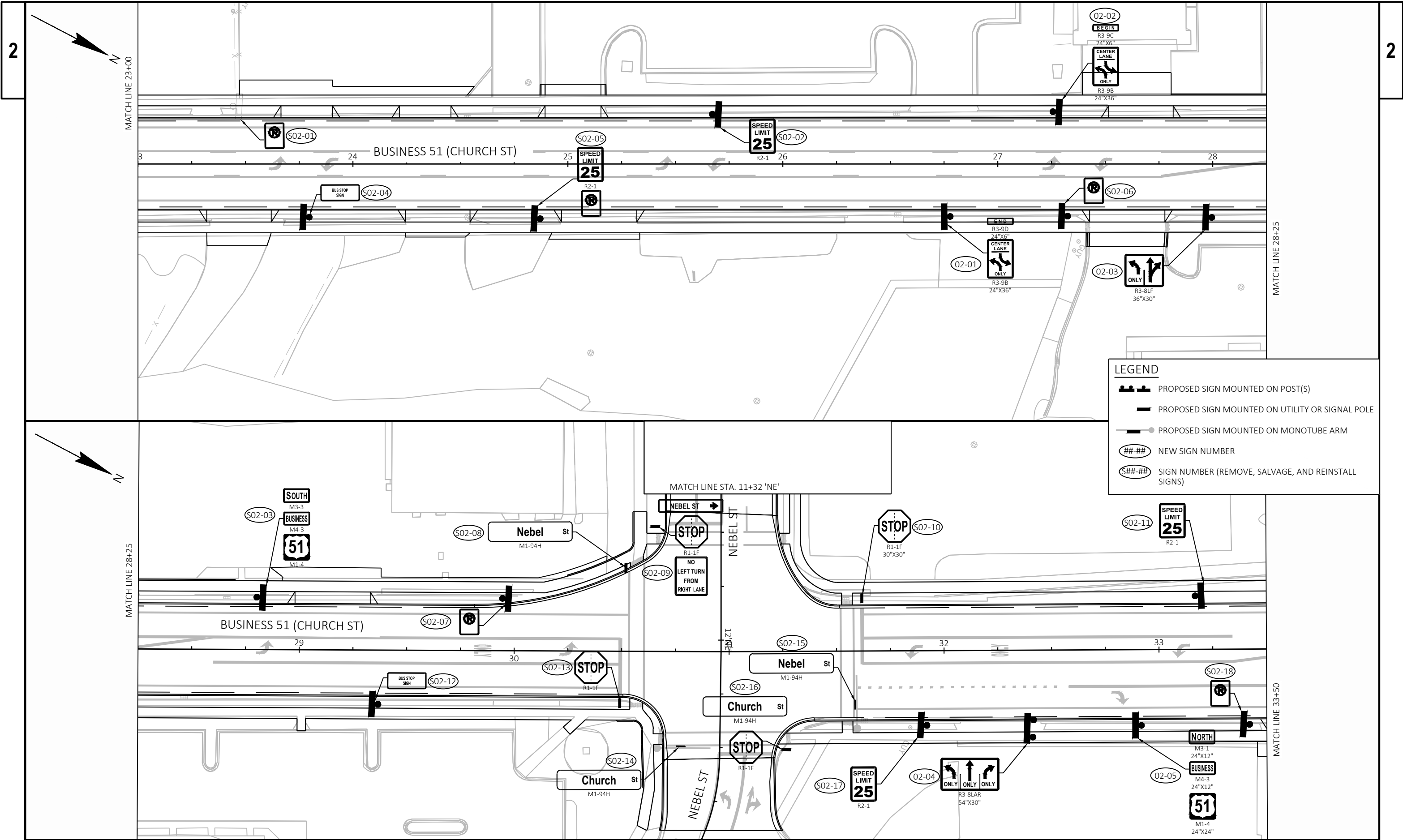


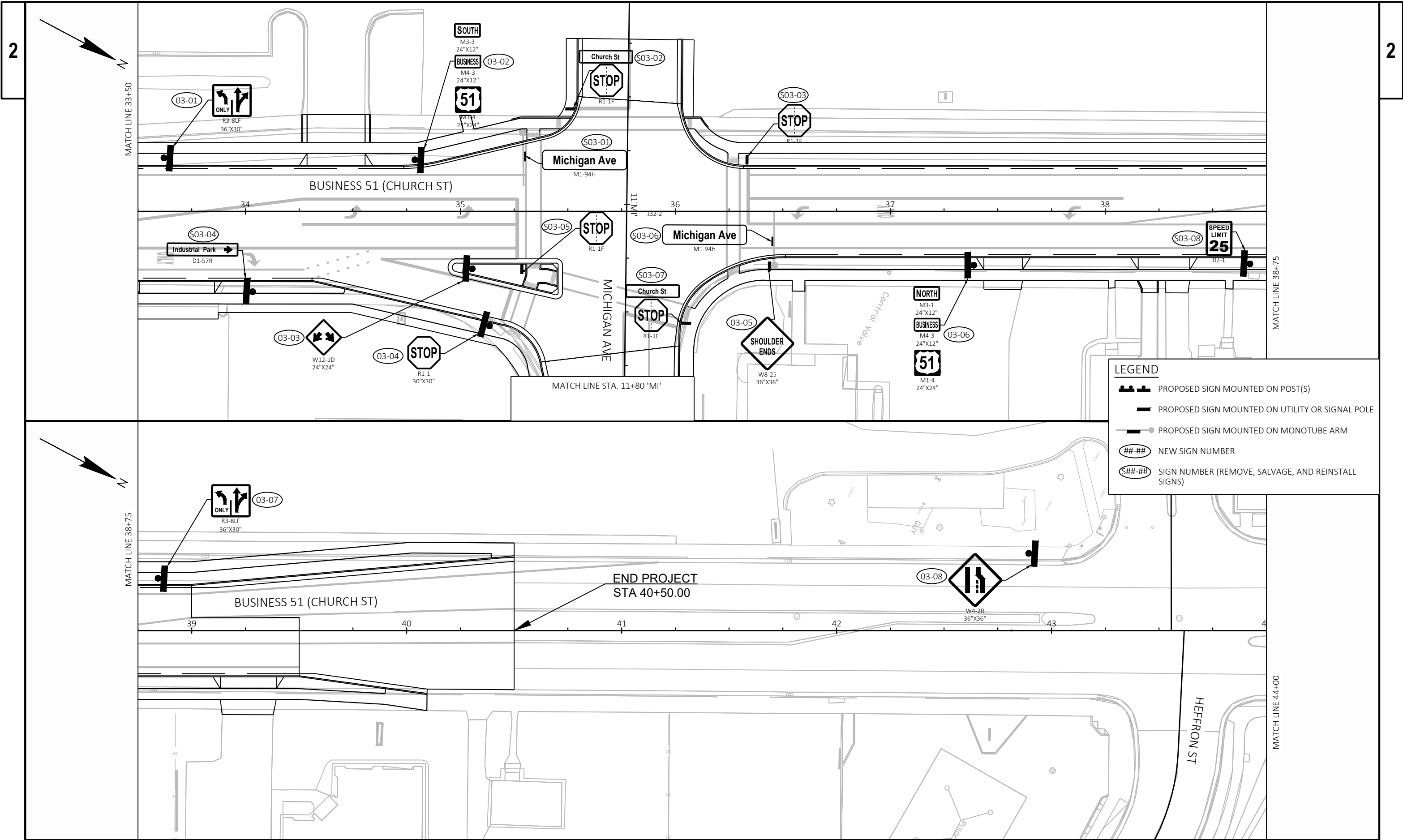


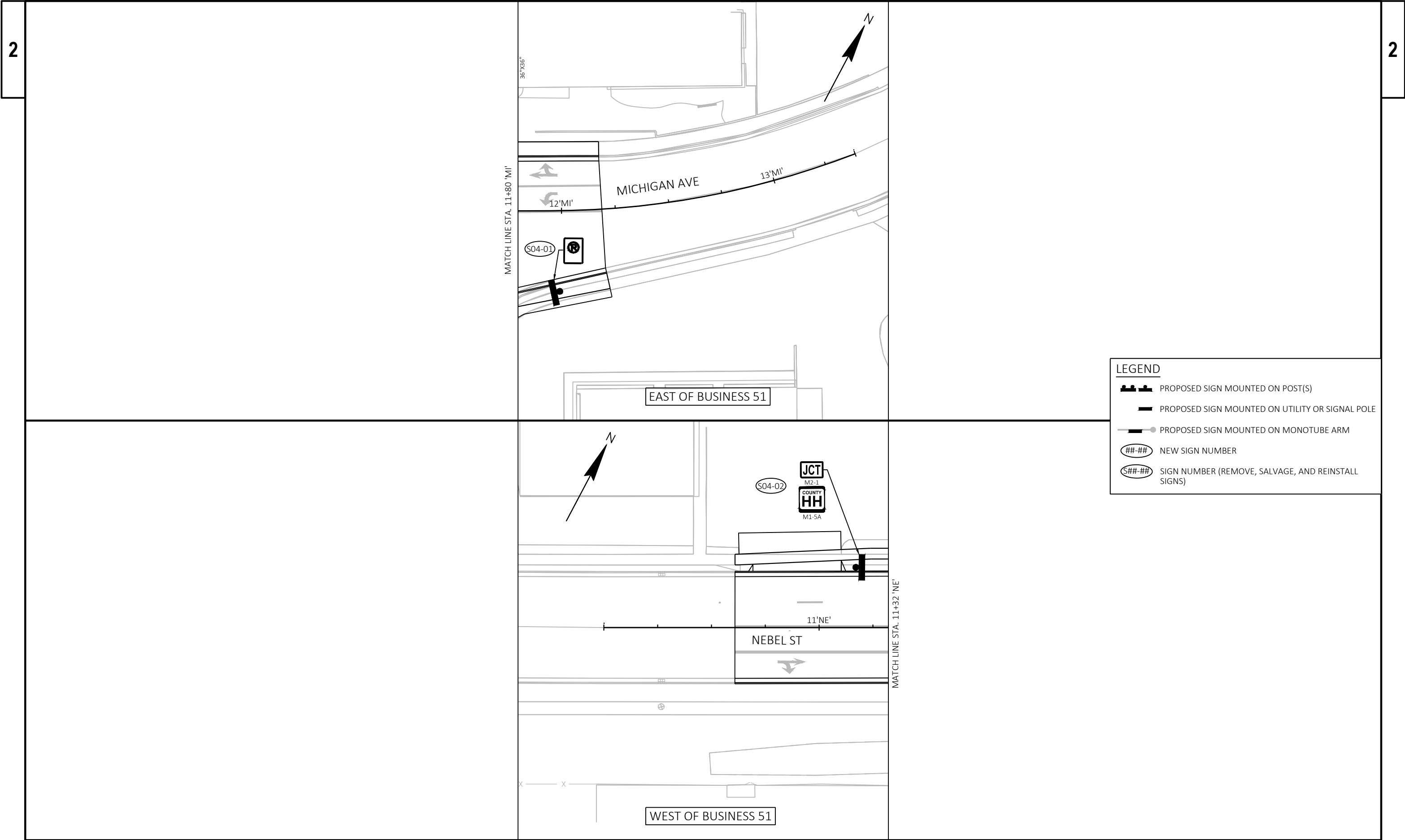
LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON UTILITY OR SIGNAL POLE
- PROPOSED SIGN MOUNTED ON MONOTUBE ARM
- NEW SIGN NUMBER
- SIGN NUMBER (REMOVE, SALVAGE, AND REINSTALL SIGNS)

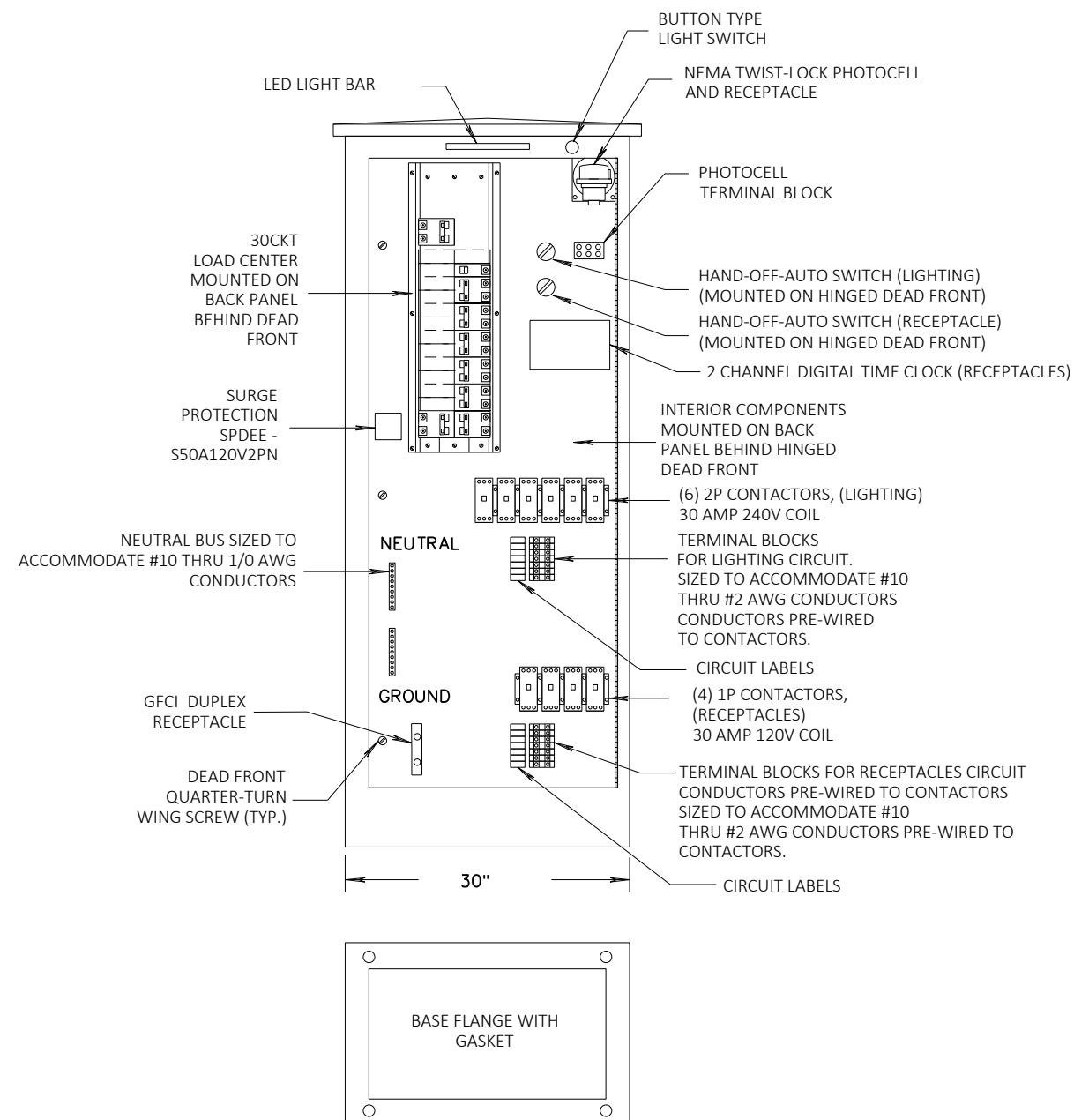




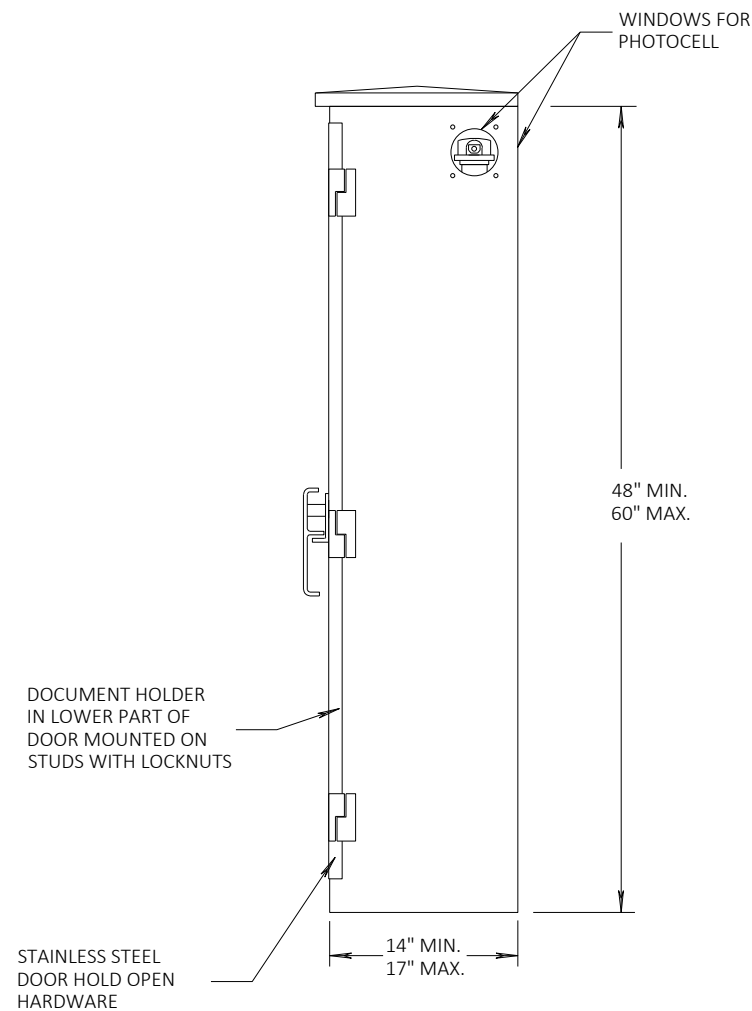




FRONT INTERIOR ELEVATION



SIDE VIEW



GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

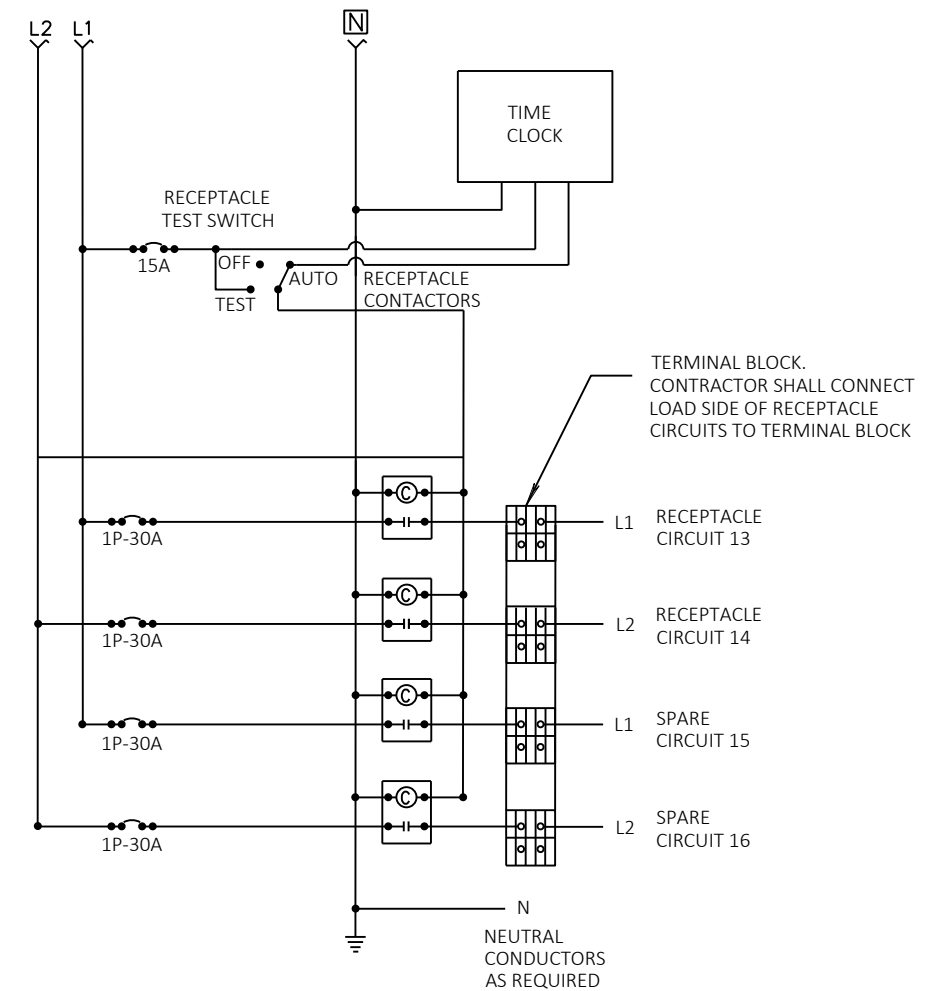
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

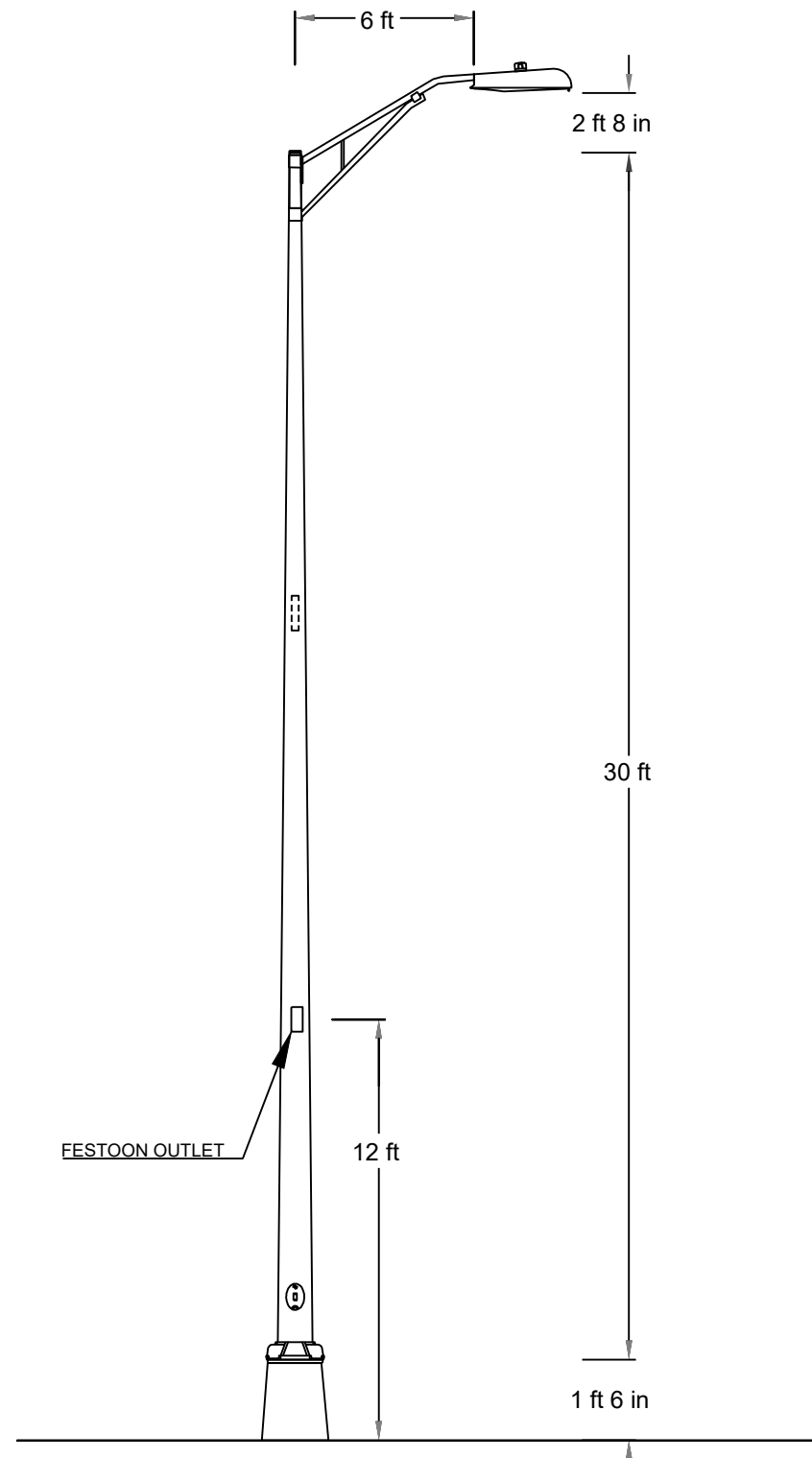
THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET SPECIAL (120/240V) - LAYOUT
NO SCALE SHEET 1 OF 2

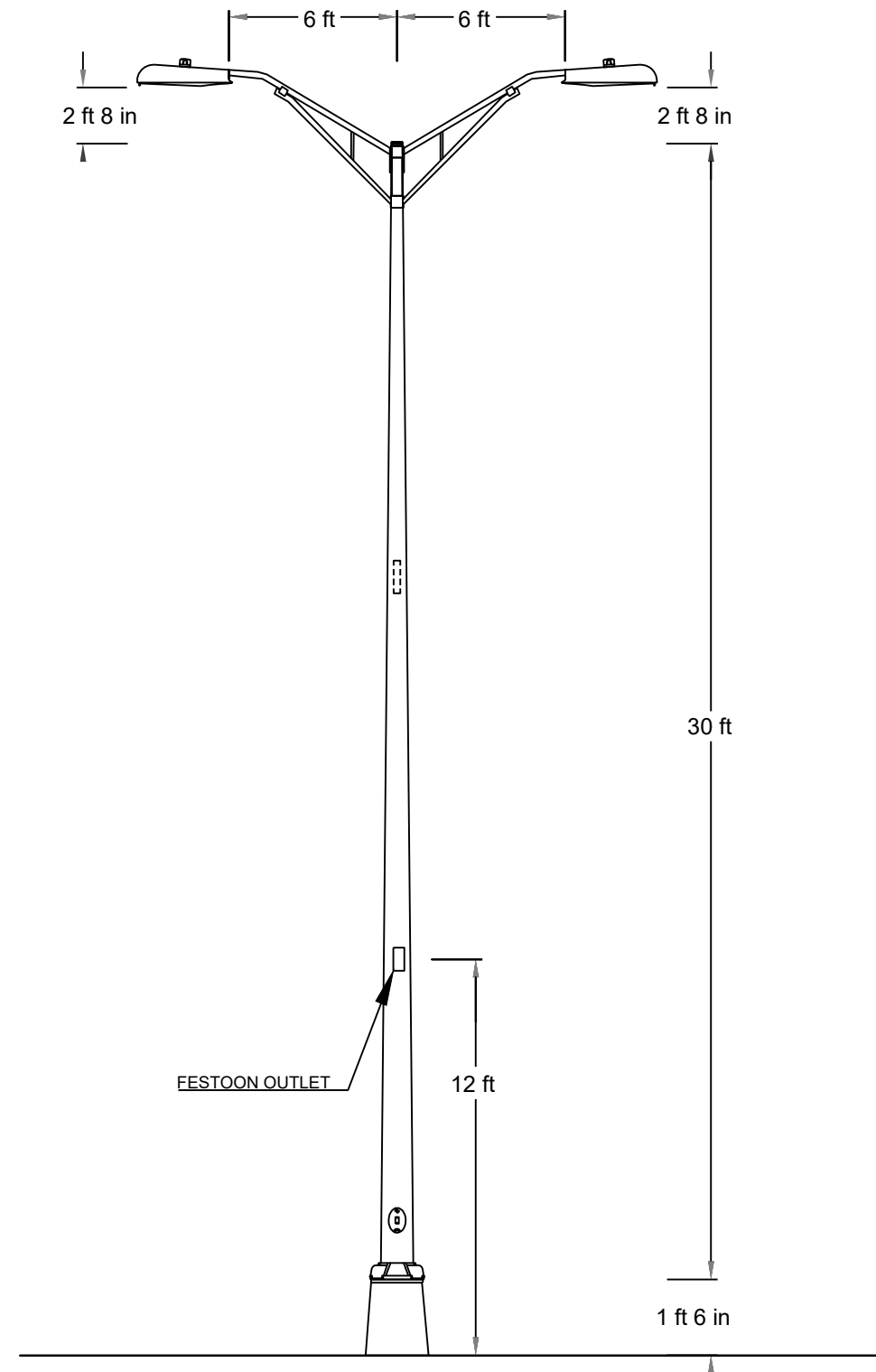


LIGHTING CONTROL CABINET SPECIAL (120/240V) - WIRING
NO SCALE SHEET 2 OF 2



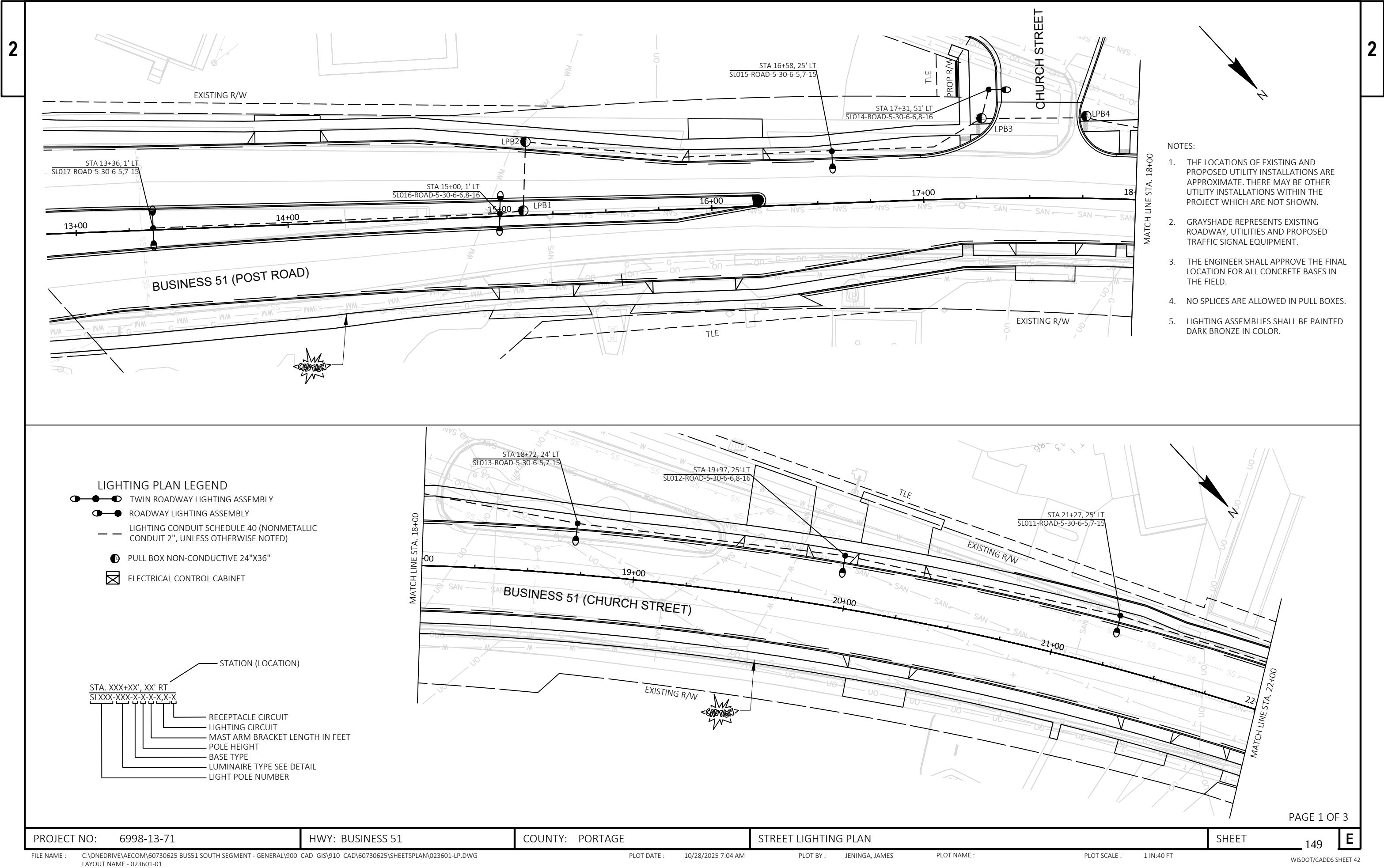
ROADWAY LIGHTING ASSEMBLY

NTS



TWIN ROADWAY LIGHTING ASSEMBLY

NTS



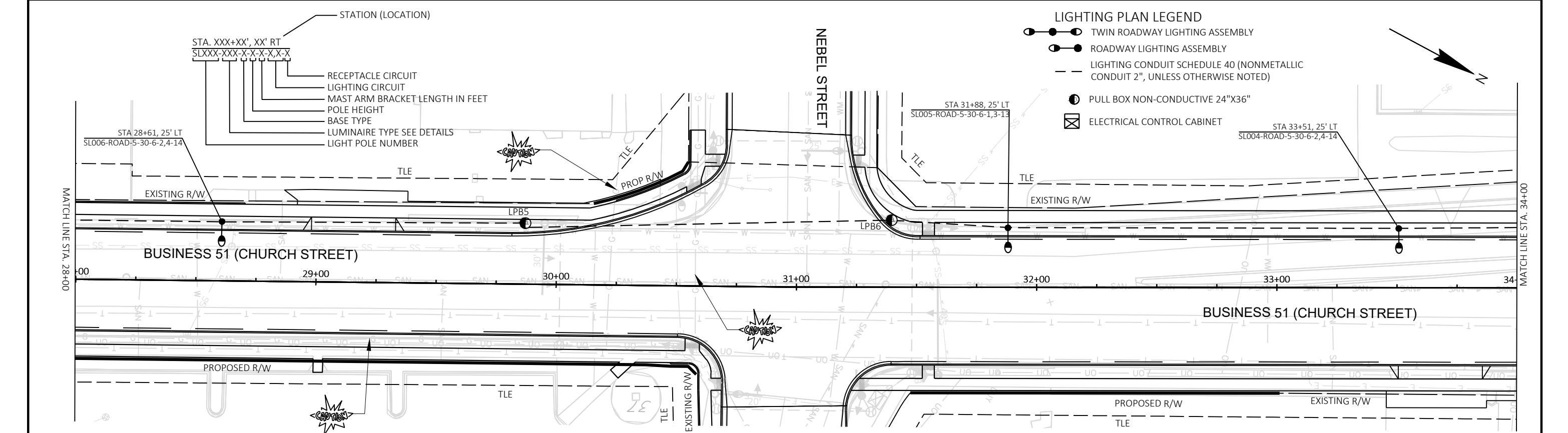
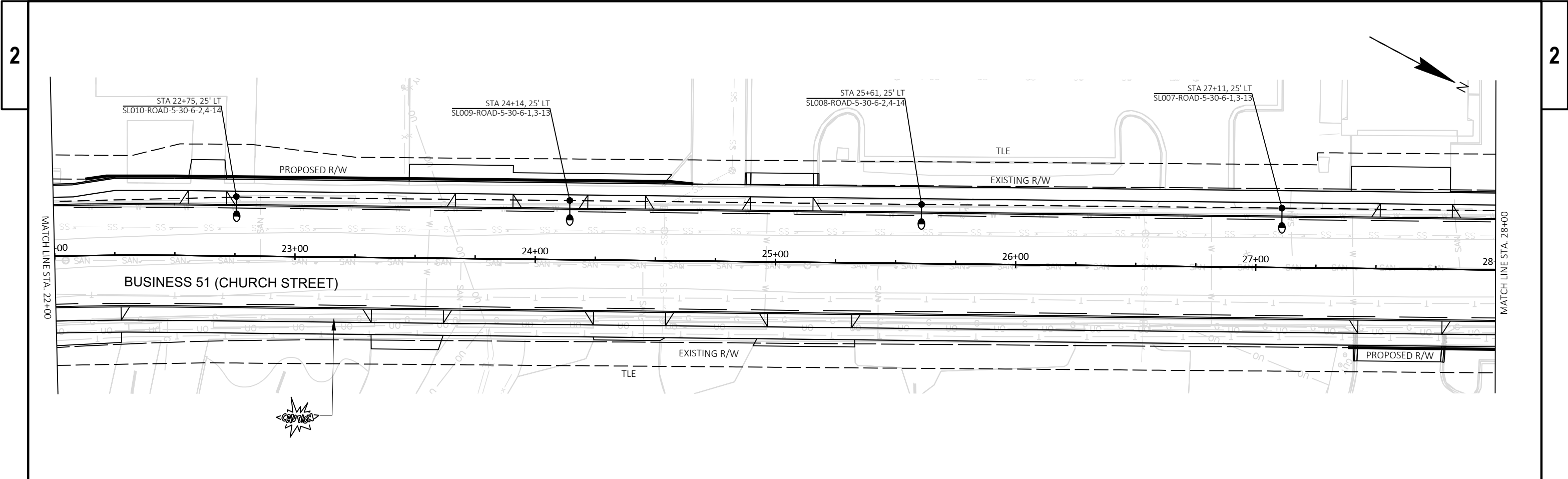
LIGHTING PLAN LEGEND

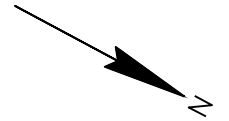
- TWIN ROADWAY LIGHTING ASSEMBLY
- ROADWAY LIGHTING ASSEMBLY
- LIGHTING CONDUIT SCHEDULE 40 (NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED)
- PULL BOX NON-CONDUCTIVE 24"X36"
- ELECTRICAL CONTROL CABINET

STATION (LOCATION)
STA. XXX+XX', XX' RT
SLXXX-XXX-X-X-X-X,X,X-X
RECEPTACLE CIRCUIT
LIGHTING CIRCUIT
MAST ARM BRACKET LENGTH IN FEET
POLE HEIGHT
BASE TYPE
LUMINAIRE TYPE SEE DETAIL
LIGHT POLE NUMBER

NOTES:

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
- GRAYSHADE REPRESENTS EXISTING ROADWAY, UTILITIES AND PROPOSED TRAFFIC SIGNAL EQUIPMENT.
- THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD.
- NO SPLICES ARE ALLOWED IN PULL BOXES.
- LIGHTING ASSEMBLIES SHALL BE PAINTED DARK BRONZE IN COLOR.





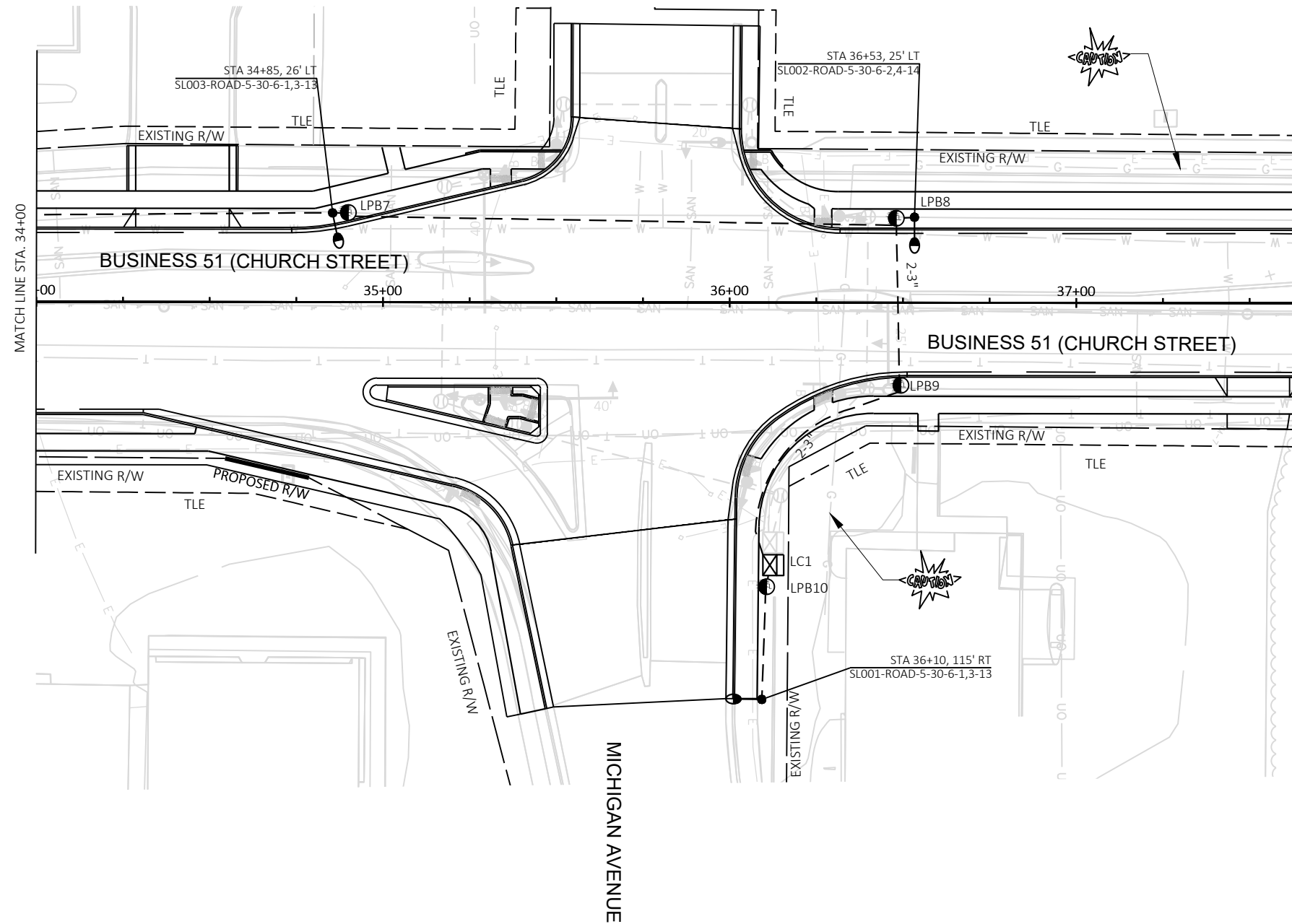
LIGHTING PLAN LEGEND

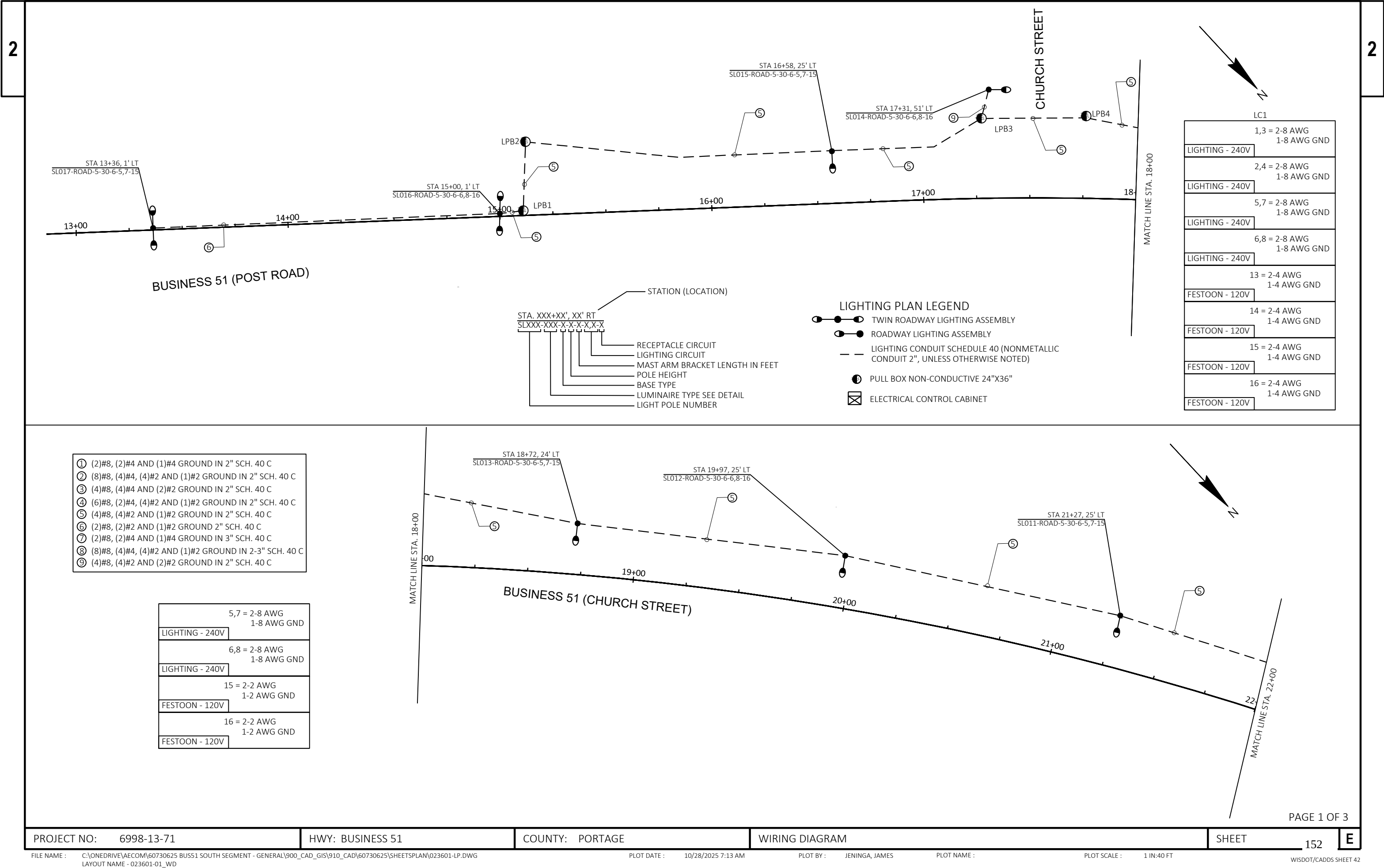
- TWIN ROADWAY LIGHTING ASSEMBLY
- ROADWAY LIGHTING ASSEMBLY
- LIGHTING CONDUIT SCHEDULE 40 (NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED)
- PULL BOX NON-CONDUCTIVE 24"X36"
- ELECTRICAL CONTROL CABINET

STATION (LOCATION)

STA. XXX+XX', XX' RT
SLXXX-XXX-X-X-X-X-X-X

- RECEPTACLE CIRCUIT
- LIGHTING CIRCUIT
- MAST ARM BRACKET LENGTH IN FEET
- POLE HEIGHT
- BASE TYPE
- LUMINAIRE TYPE SEE DETAIL
- LIGHT POLE NUMBER





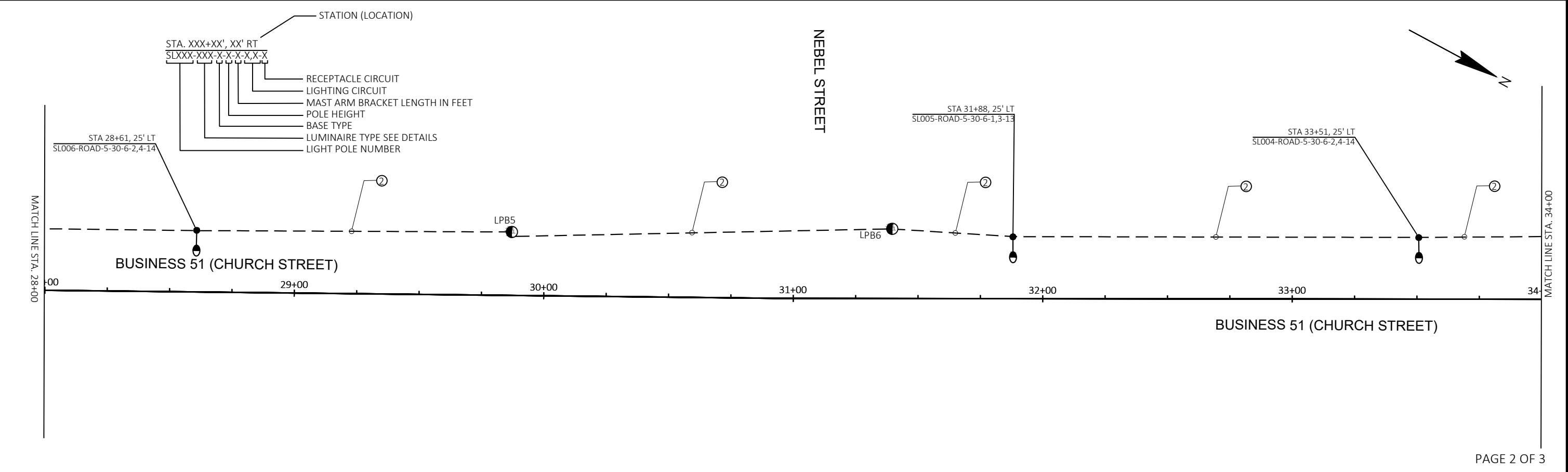
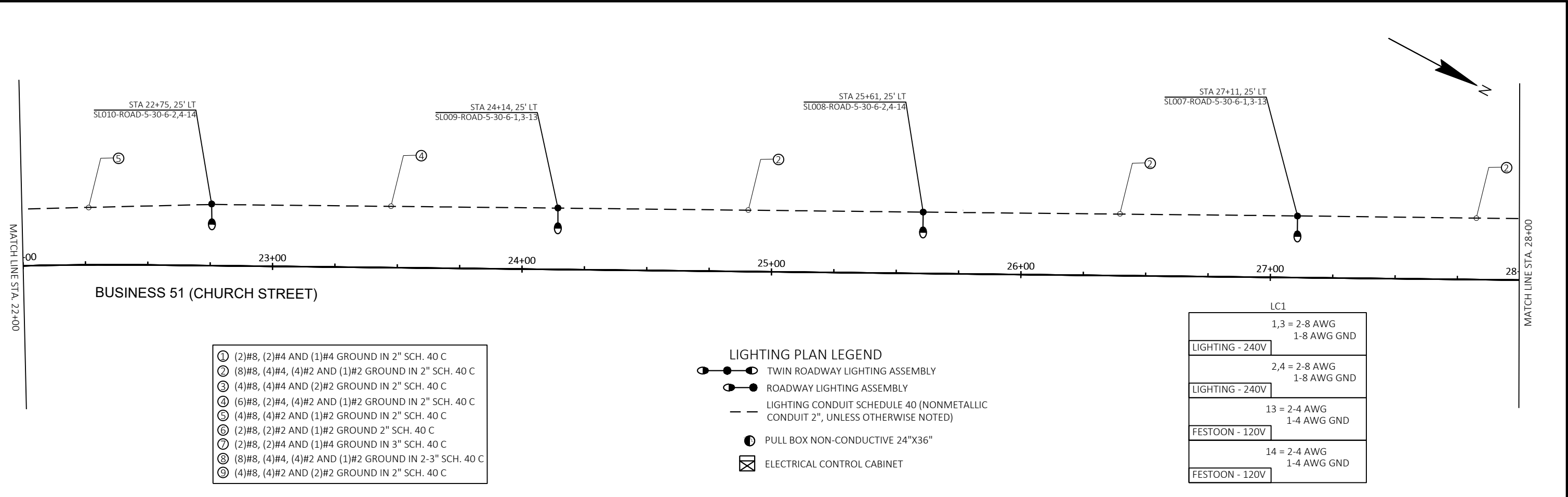
- ① (2)#8, (2)#4 AND (1)#4 GROUND IN 2" SCH. 40 C
- ② (8)#8, (4)#4, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ③ (4)#8, (4)#4 AND (2)#2 GROUND IN 2" SCH. 40 C
- ④ (6)#8, (2)#4, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ⑤ (4)#8, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ⑥ (2)#8, (2)#2 AND (1)#2 GROUND 2" SCH. 40 C
- ⑦ (2)#8, (2)#4 AND (1)#4 GROUND IN 3" SCH. 40 C
- ⑧ (8)#8, (4)#4, (4)#2 AND (1)#2 GROUND IN 2-3" SCH. 40 C
- ⑨ (4)#8, (4)#2 AND (2)#2 GROUND IN 2" SCH. 40 C

5,7 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
6,8 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
15 = 2-2 AWG 1-2 AWG GND
FESTOON - 120V
16 = 2-2 AWG 1-2 AWG GND
FESTOON - 120V

LC1
1,3 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
2,4 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
5,7 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
6,8 = 2-8 AWG 1-8 AWG GND
LIGHTING - 240V
13 = 2-4 AWG 1-4 AWG GND
FESTOON - 120V
14 = 2-4 AWG 1-4 AWG GND
FESTOON - 120V
15 = 2-4 AWG 1-4 AWG GND
FESTOON - 120V
16 = 2-4 AWG 1-4 AWG GND
FESTOON - 120V

2

2



- LIGHTING PLAN LEGEND
- TWIN ROADWAY LIGHTING ASSEMBLY
- ROADWAY LIGHTING ASSEMBLY
- LIGHTING CONDUIT SCHEDULE 40 (NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED)
- PULL BOX NON-CONDUCTIVE 24"X36"
- ELECTRICAL CONTROL CABINET

STATION (LOCATION)

STA. XXX+XX', XX' RT

SLXXX-XXX-X-X-X,X,X,X

RECEPTACLE CIRCUIT

LIGHTING CIRCUIT

MAST ARM BRACKET LENGTH IN FEET

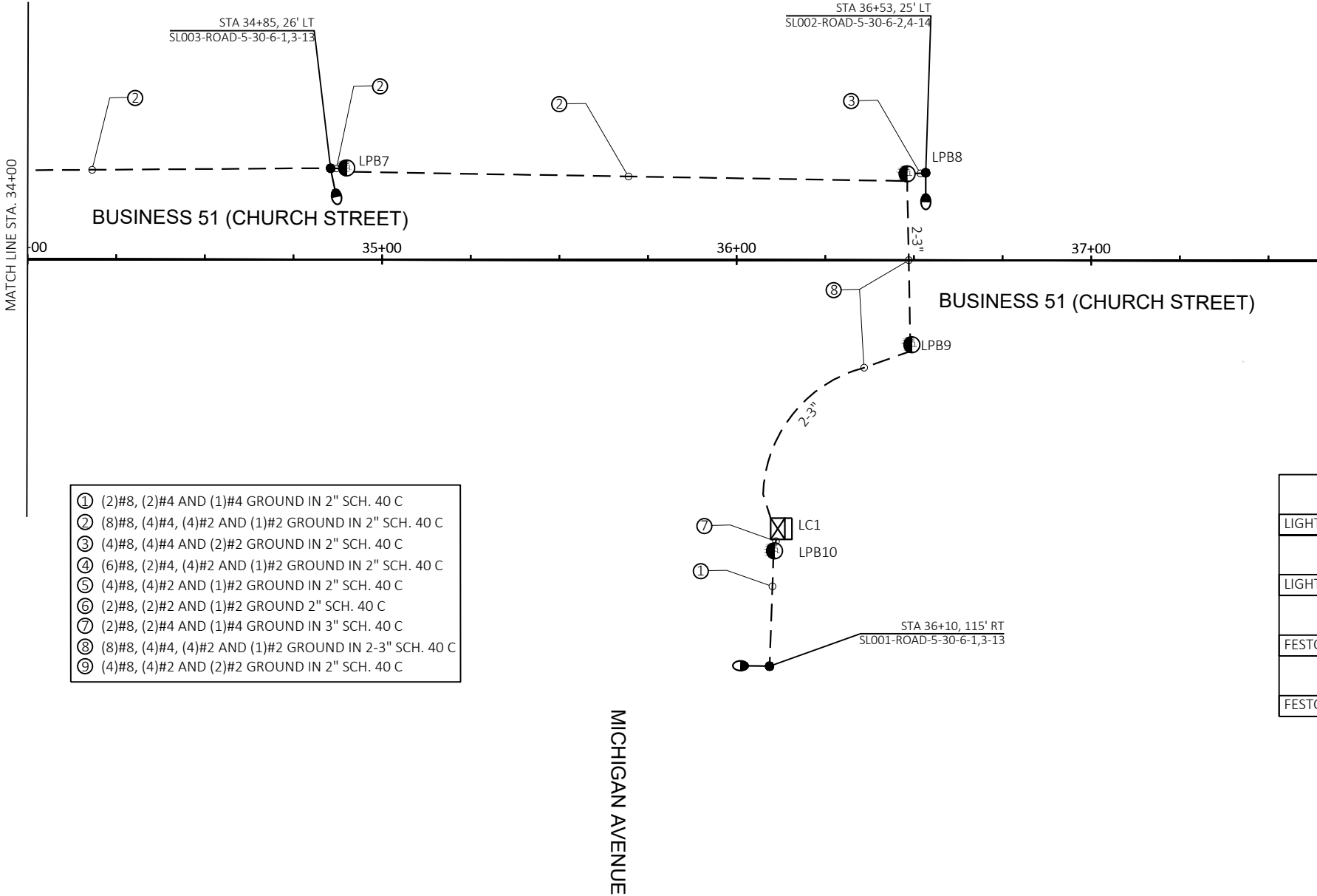
POLE HEIGHT

BASE TYPE

LUMINAIRE TYPE SEE DETAIL

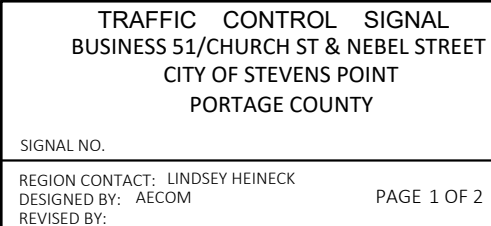
LIGHT POLE NUMBER

- ① (2)#8, (2)#4 AND (1)#4 GROUND IN 2" SCH. 40 C
- ② (8)#8, (4)#4, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ③ (4)#8, (4)#4 AND (2)#2 GROUND IN 2" SCH. 40 C
- ④ (6)#8, (2)#4, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ⑤ (4)#8, (4)#2 AND (1)#2 GROUND IN 2" SCH. 40 C
- ⑥ (2)#8, (2)#2 AND (1)#2 GROUND 2" SCH. 40 C
- ⑦ (2)#8, (2)#4 AND (1)#4 GROUND IN 3" SCH. 40 C
- ⑧ (8)#8, (4)#4, (4)#2 AND (1)#2 GROUND IN 2-3" SCH. 40 C
- ⑨ (4)#8, (4)#2 AND (2)#2 GROUND IN 2" SCH. 40 C

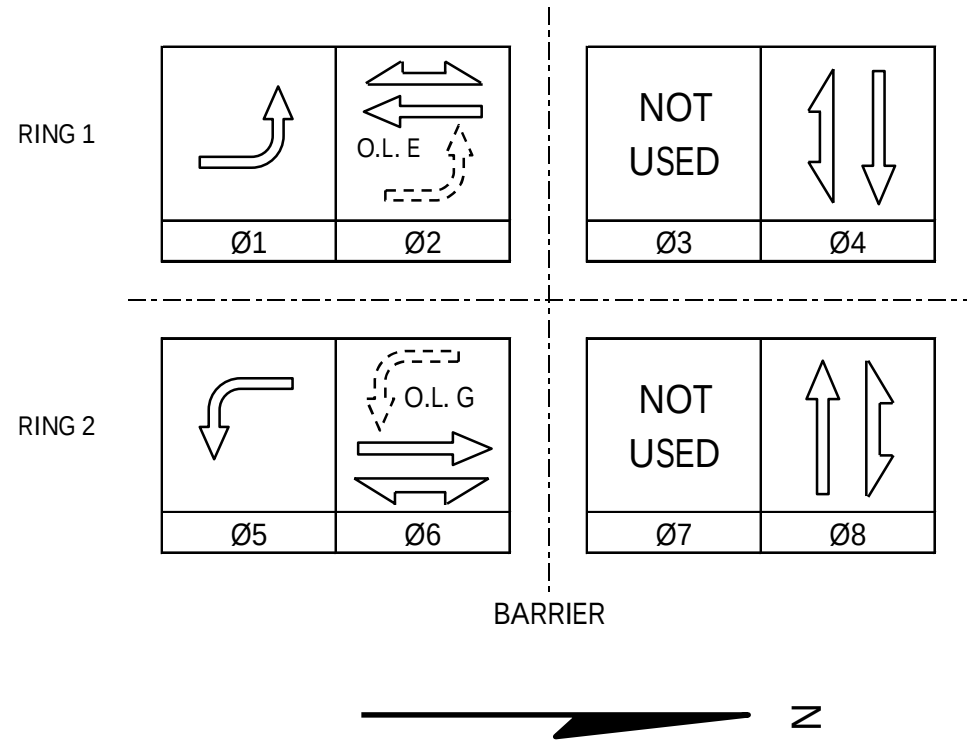


LC1	
1,3 = 2-8 AWG 1-8 AWG GND	
LIGHTING - 240V	
2,4 = 2-8 AWG 1-8 AWG GND	
LIGHTING - 240V	
13 = 2-4 AWG 1-4 AWG GND	
FESTOON - 120V	
14 = 2-4 AWG 1-4 AWG GND	
FESTOON - 120V	

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
3. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE STEVENS POINT PUBLIC WORKS DEPARTMENT TO MAKE ARRANGEMENTS. (715) 346-1561.
4. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. GRAYSHADE REPRESENTS EXISTING ROADWAY, EXISTING UTILITIES, AND PROPOSED STREET LIGHTING.
6. EVP IS HANDLED WITHIN THE CABINET ON A GPS SYSTEM.



	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7		
Ø8	14,15,16	R
Ø2P	21,22	
Ø4P	19,20	
Ø6P	17,18	
Ø8P	23,24	
OLE	4,5	-
OLF		
OLG	9,10	-
OLH		



CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→		
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 6+2.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11V	21V	41V	51V	61V	81V		
PHASE CALLED	1	2	4	5	6	8		
PHASE EXTENDED	X	X	X	X	X	X		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH		X			X			
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)		22V	42V		62V	82V		
PHASE CALLED		2	4		6	8		
PHASE EXTENDED		X	X		X	X		
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29

20	18	24	22	28	26	32	30

- DETECTOR INPUT
DETECTOR #(S)
PHASE CALLED
PHASE EXTENDED
DISCONNECT TIME
CALLING DELAY
EXTENSION STRETCH
LOOP FUNCTION
1.
2.
3.
4.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

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

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

GENERAL NOTES:

BUSINESS 51/CHURCH ST & NEBEL STREET	
CITY OF STEVENS POINT	
PORTAGE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2-
CONTROLLER TYPE: ECONOLITE	
DATE: NOVEMBER 2025	PAGE NUMBER: 2 OF 2

PROJECT ID:	6998-13-71
INTERSECTION:	BUSINESS 51/CHURCH ST & NEBEL STREET

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Nov-25

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR								PED BUTTON	PED BUTTON	
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK			WALK
SB1	12	13	RED	ORG	GRN								
		14	RED/BLK	ORG/BLK	GRN/BLK								
		17								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB2	12	12	RED	ORG	GRN								
		18								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB3	15	1	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		19								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB4	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
SB5	7	20								BLK	BLU		
		PB										WHT/BLK	RED
SB6	12	11	RED	ORG	GRN								
		16	RED/BLK	ORG/BLK	GRN/BLK								
		21								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB7	12	15	RED	ORG	GRN								
		22								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB8	15	5				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		6	RED	ORG	GRN								
		23								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB9	15	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		4				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		24								BLK	BLU		
		PB										WHT/BLK	BLK/WHT

- NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
 2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
 3. RECONNECT THE GROUNDING CONDUCTORS WHEREVER THE CIRCUIT HAS BEEN INTERRUPTED TO ENSURE THE GROUNDING CIRCUIT IS COMPLETE.

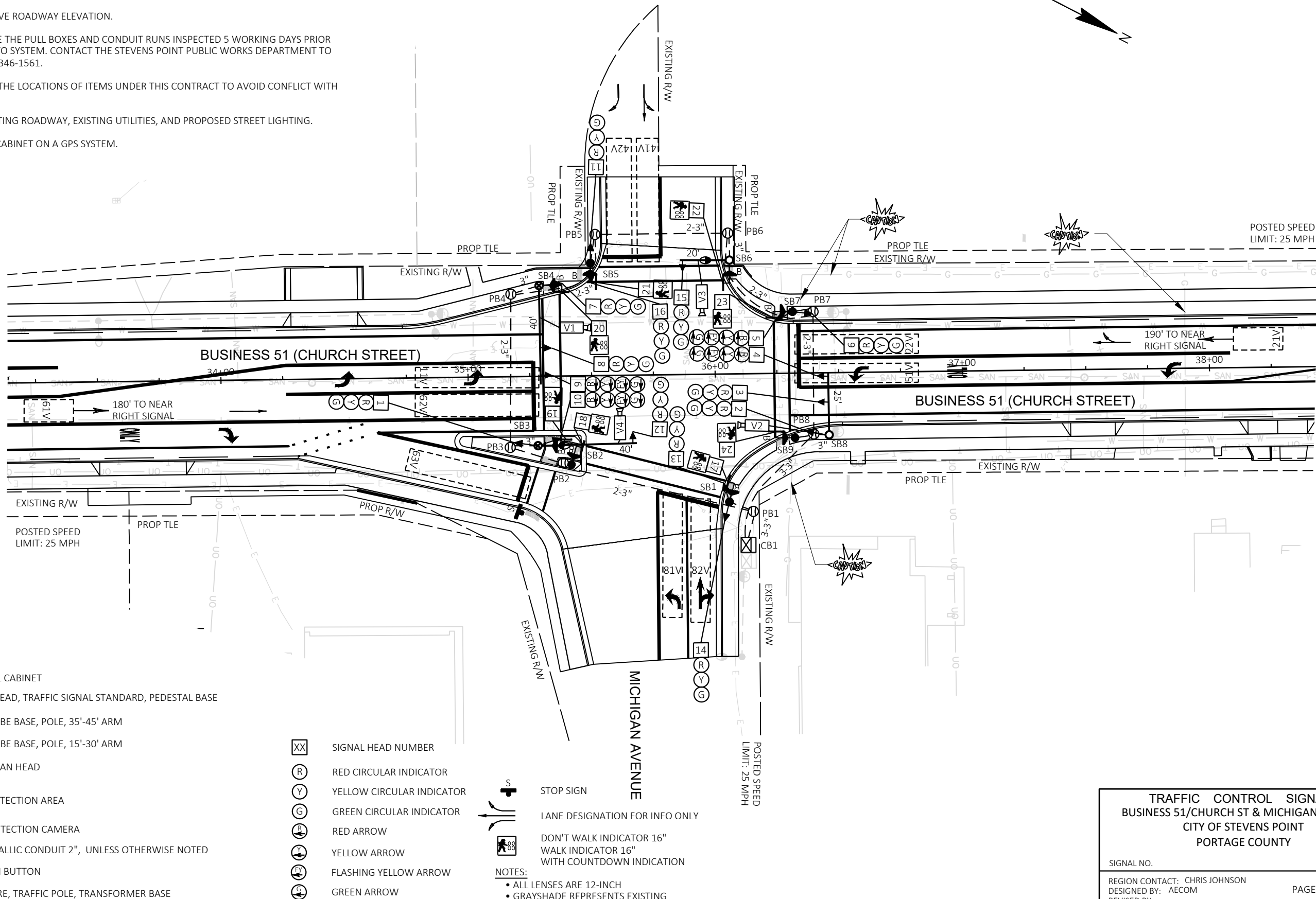
EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB4)
CB1	V2 (SB9)
CB1	V3 (SB7)
CB1	V4 (SB2)

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB5
CB1	SB7

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
3. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE STEVENS POINT PUBLIC WORKS DEPARTMENT TO MAKE ARRANGEMENTS. (715) 346-1561.
4. THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. GRAYSHADE REPRESENTS EXISTING ROADWAY, EXISTING UTILITIES, AND PROPOSED STREET LIGHTING.
6. EVP IS HANDLED WITHIN THE CABINET ON A GPS SYSTEM.



PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

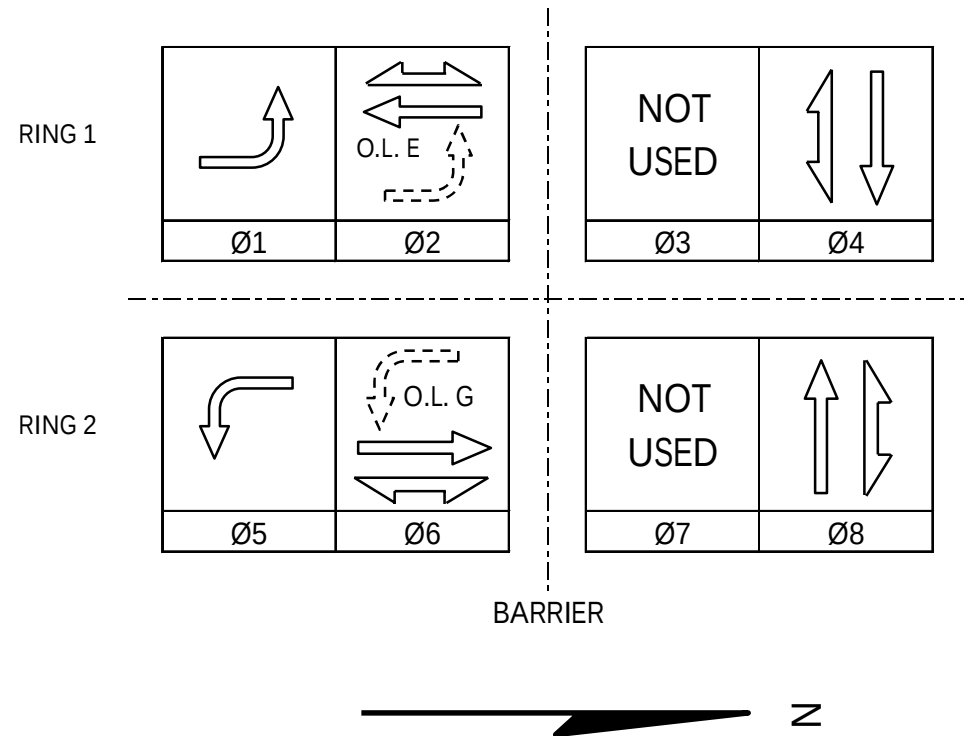
TRAFFIC SIGNAL PLANS

SHEET

158

E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7		
Ø8	14,15,16	R
Ø2P	21,22	
Ø4P	19,20	
Ø6P	17,18	
Ø8P	23,24	
OLE	4,5	-
OLF		
OLG	9,10	-
OLH		



CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	→		
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 6+2.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11V	21V	41V	51V	61V	63V	81V	
PHASE CALLED	1	2	4	5	6		8	
PHASE EXTENDED	X	X	X	X	X		X	
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH		X			X			
LOOP FUNCTION						COUNT		

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)		22V	42V		62V		82V	
PHASE CALLED		2	4		6		8	
PHASE EXTENDED		X	X		X		X	
DISCONNECT TIME								
CALLING DELAY			X					
EXTENSION STRETCH								
LOOP FUNCTION								

	19	17	23	21	27	25	31	29

	20	18	24	22	28	26	32	30

DETECTOR INPUT
DETECTOR #(S)
PHASE CALLED
PHASE EXTENDED
DISCONNECT TIME
CALLING DELAY
EXTENSION STRETCH
LOOP FUNCTION

DETECTOR INPUT
DETECTOR #(S)
PHASE CALLED
PHASE EXTENDED
DISCONNECT TIME
CALLING DELAY
EXTENSION STRETCH
LOOP FUNCTION

1.
2.
3.
4.

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

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

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

GENERAL NOTES:

BUSINESS 51/CHURCH ST & MICHIGAN AVENUE	
CITY OF STEVENS POINT	
PORTAGE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2-
CONTROLLER TYPE: ECONOLITE	
DATE: NOVEMBER 2025	PAGE NUMBER: 2 OF 2

PROJECT ID:	6998-13-71
INTERSECTION:	BUSINESS 51/CHURCH ST & MICHIGAN AVENUE

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Nov-25

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR								PED BUTTON	PED BUTTON	
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK			WALK
SB1	12	13	RED	ORG	GRN								
		14	RED/BLK	ORG/BLK	GRN/BLK								
		17								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB2	7	18								BLK	BLU		
		PB										WHT/BLK	RED
SB3	19	1	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		12	RED/WHT	BLU/WHT	GRN/WHT								
		19								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB4	15	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		20								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB5	15	11	RED	ORG	GRN								
		16				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		21								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB6	12	15	RED	ORG	GRN								
		22								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB7	15	5				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		6	RED	ORG	GRN								
		23								BLK	BLU		
		PB										WHT/BLK	BLK/WHT
SB8	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		4				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
SB9	7	24								BLK	BLU		
		PB										WHT/BLK	RED

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. RECONNECT THE GROUNDING CONDUCTORS WHEREVER THE CIRCUIT HAS BEEN INTERRUPTED TO ENSURE THE GROUNDING CIRCUIT IS COMPLETE.

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB3
CB1	SB6

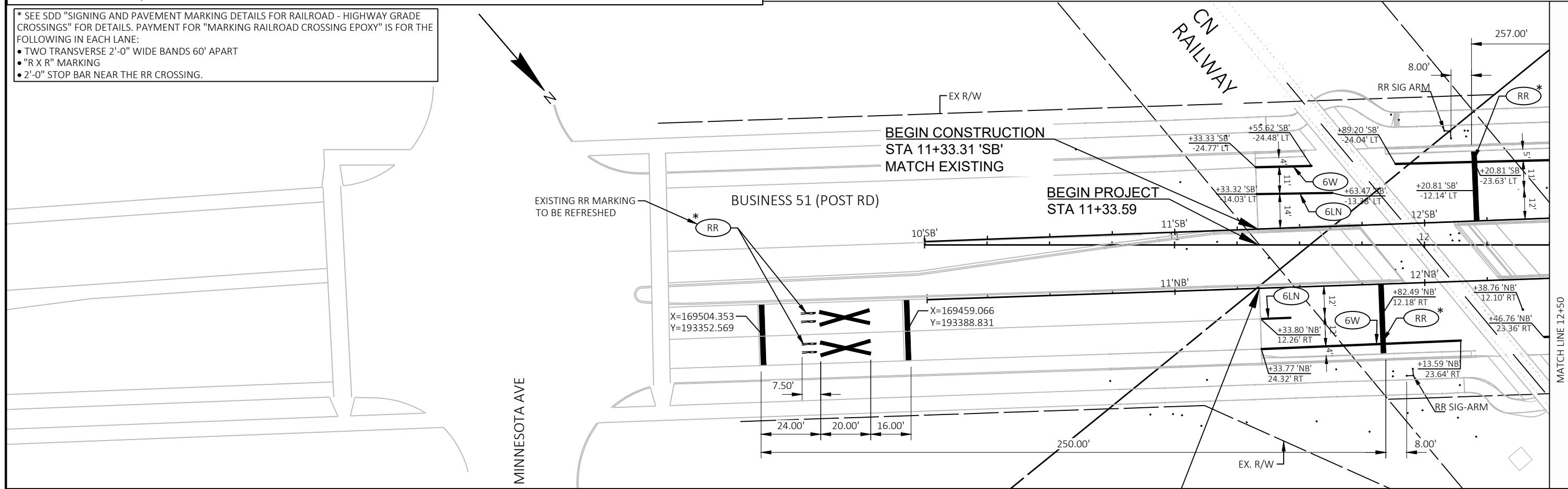
VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB4)
CB1	V2 (SB8)
CB1	V3 (SB6)
CB1	V4 (SB2)

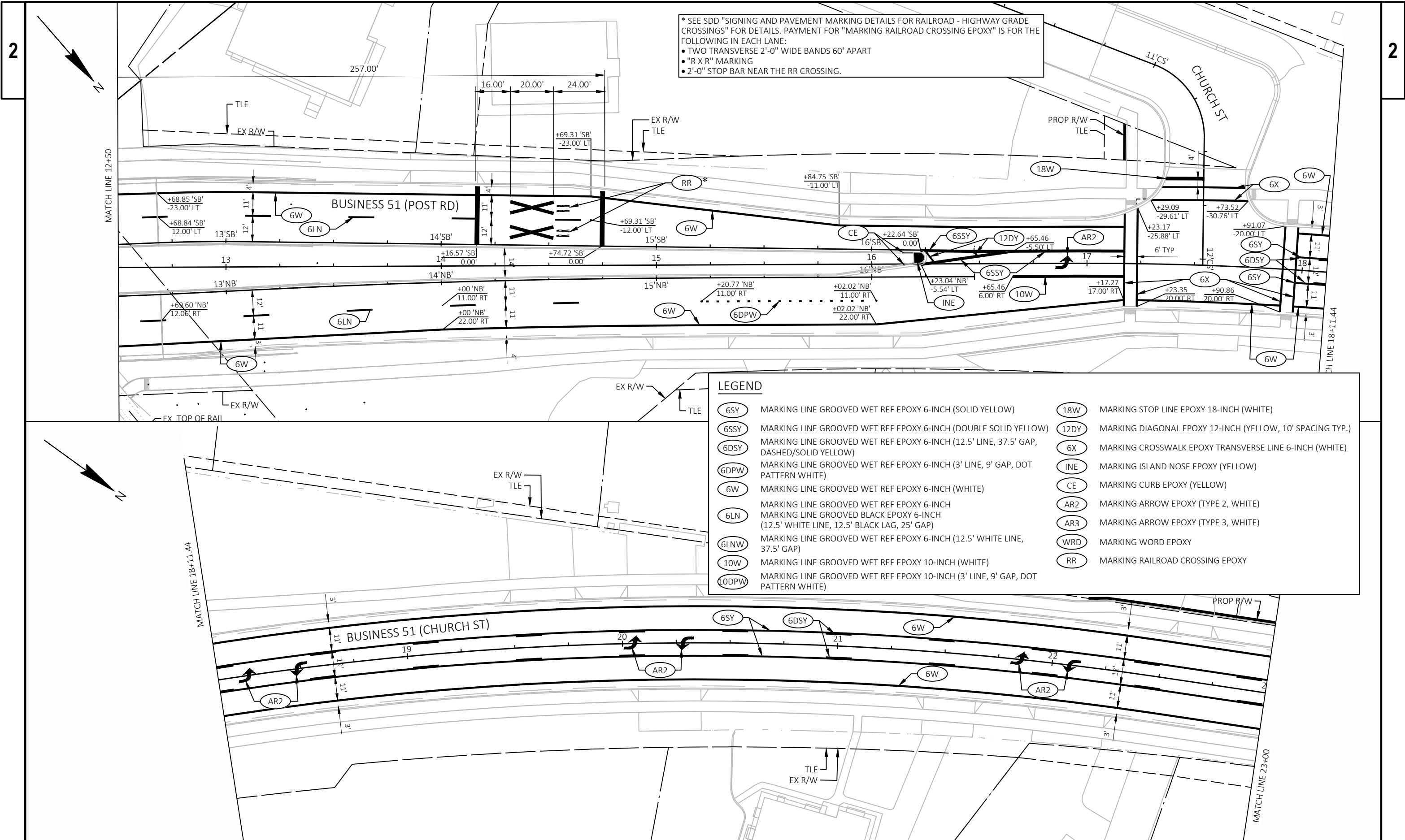
LEGEND

(6SY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (SOLID YELLOW)	(18W)	MARKING STOP LINE EPOXY 18-INCH (WHITE)
(6SSY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE SOLID YELLOW)	(12DY)	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 10' SPACING TYP.)
(6DSY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' LINE, 37.5' GAP, DASHED/SOLID YELLOW)	(6X)	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
(6DPW)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE)	(INE)	MARKING ISLAND NOSE EPOXY (YELLOW)
(6W)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)	(CE)	MARKING CURB EPOXY (YELLOW)
(6LN)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 12.5' BLACK LAG, 25' GAP)	(AR2)	MARKING ARROW EPOXY (TYPE 2, WHITE)
(6LNW)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 37.5' GAP)	(AR3)	MARKING ARROW EPOXY (TYPE 3, WHITE)
(10W)	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)	(WRD)	MARKING WORD EPOXY
(10DPW)	MARKING LINE GROOVED WET REF EPOXY 10-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE)	(RR)	MARKING RAILROAD CROSSING EPOXY

* SEE SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS" FOR DETAILS. PAYMENT FOR "MARKING RAILROAD CROSSING EPOXY" IS FOR THE FOLLOWING IN EACH LANE:

- TWO TRANSVERSE 2'-0" WIDE BANDS 60' APART
- "R X R" MARKING
- 2'-0" STOP BAR NEAR THE RR CROSSING.



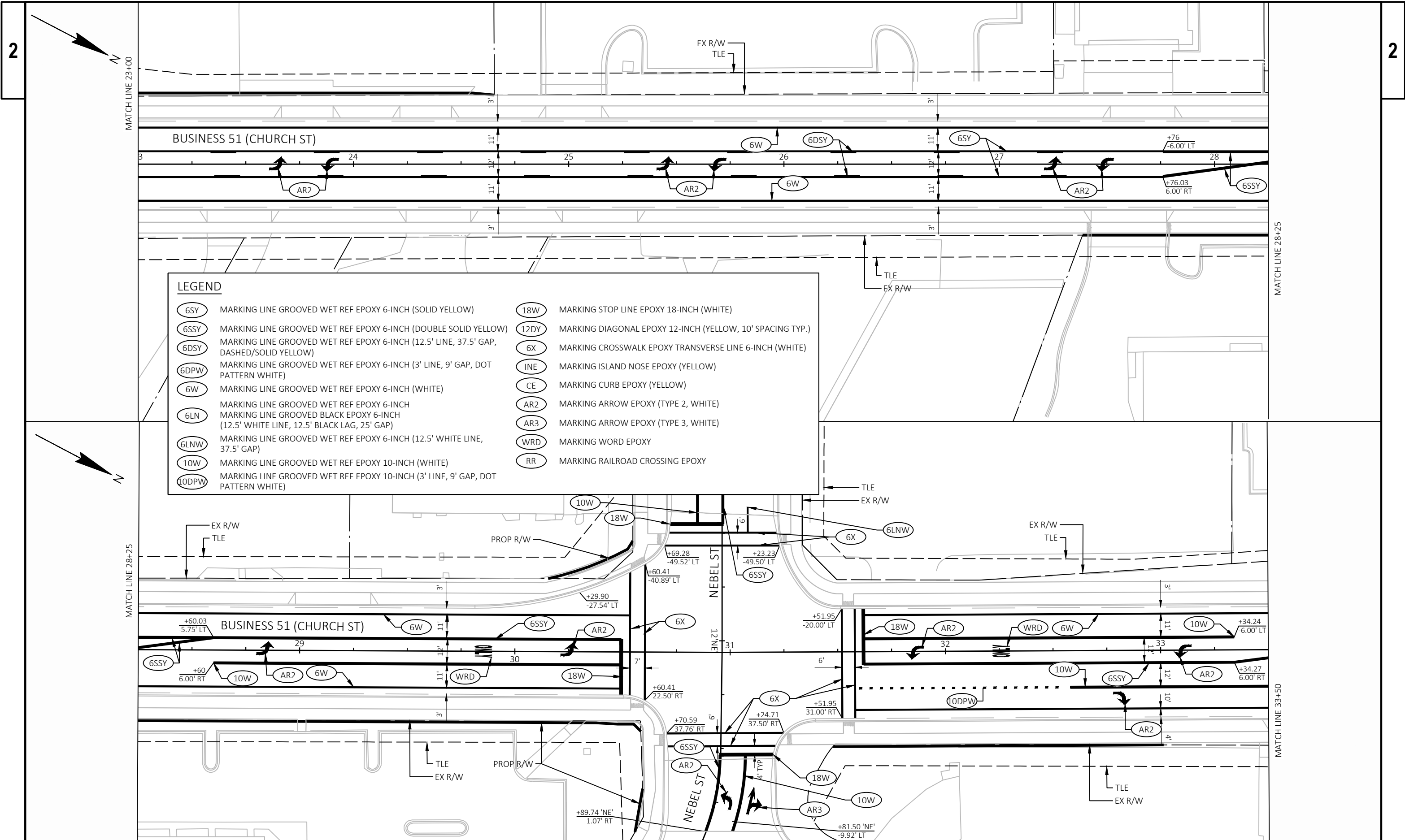


* SEE SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS" FOR DETAILS. PAYMENT FOR "MARKING RAILROAD CROSSING EPOXY" IS FOR THE FOLLOWING IN EACH LANE:

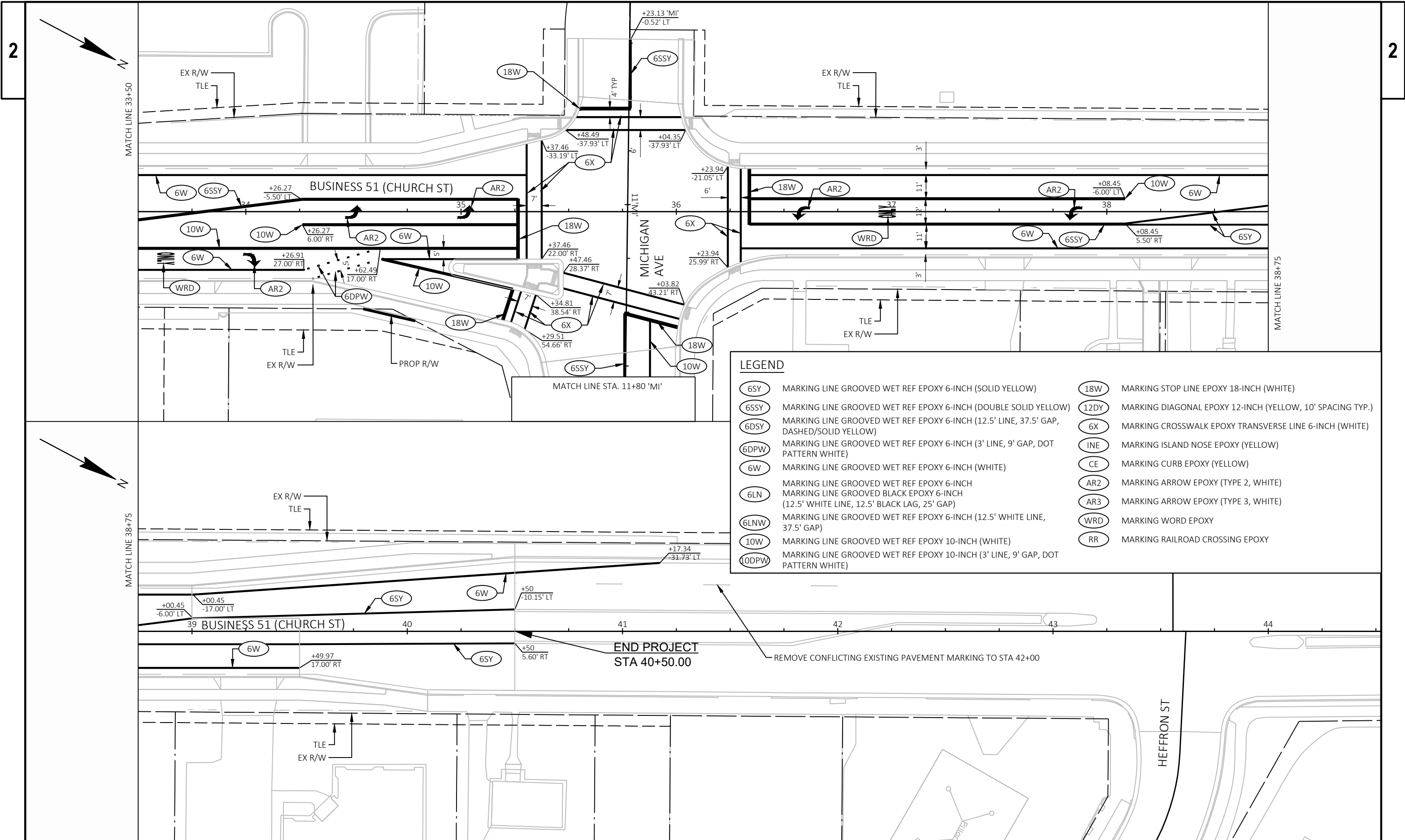
- TWO TRANSVERSE 2'-0" WIDE BANDS 60' APART
- "R X R" MARKING
- 2'-0" STOP BAR NEAR THE RR CROSSING.

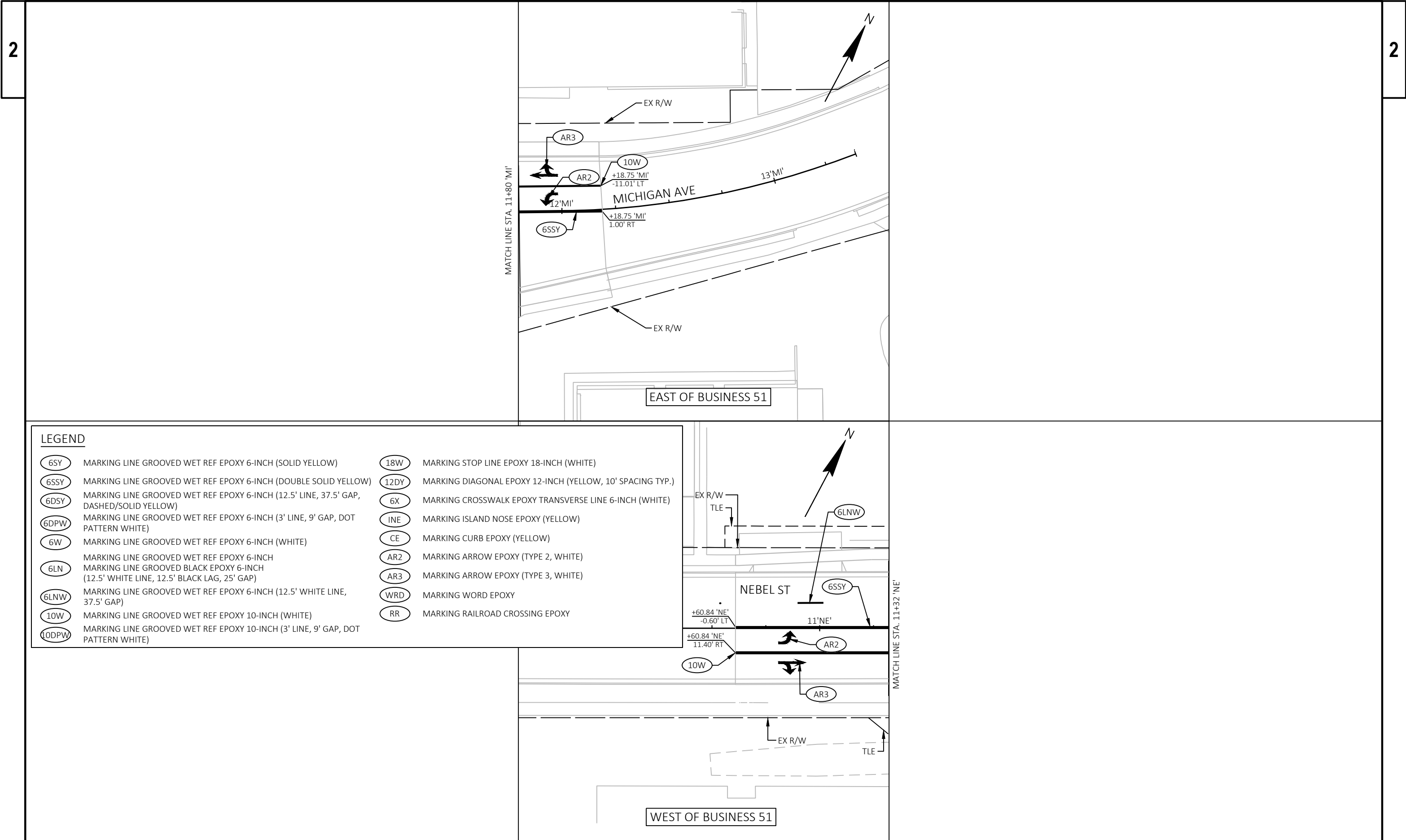
LEGEND

- | | | | |
|---------|--|--------|---|
| (6SY) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (SOLID YELLOW) | (18W) | MARKING STOP LINE EPOXY 18-INCH (WHITE) |
| (6SSY) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE SOLID YELLOW) | (12DY) | MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 10' SPACING TYP.) |
| (6DSY) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' LINE, 37.5' GAP, DASHED/SOLID YELLOW) | (6X) | MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE) |
| (6DPW) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE) | (INE) | MARKING ISLAND NOSE EPOXY (YELLOW) |
| (6W) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) | (CE) | MARKING CURB EPOXY (YELLOW) |
| (6LN) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 12.5' BLACK LAG, 25' GAP) | (AR2) | MARKING ARROW EPOXY (TYPE 2, WHITE) |
| (6LNW) | MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 37.5' GAP) | (AR3) | MARKING ARROW EPOXY (TYPE 3, WHITE) |
| (10W) | MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) | (WRD) | MARKING WORD EPOXY |
| (10DPW) | MARKING LINE GROOVED WET REF EPOXY 10-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE) | (RR) | MARKING RAILROAD CROSSING EPOXY |

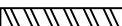
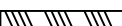
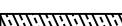


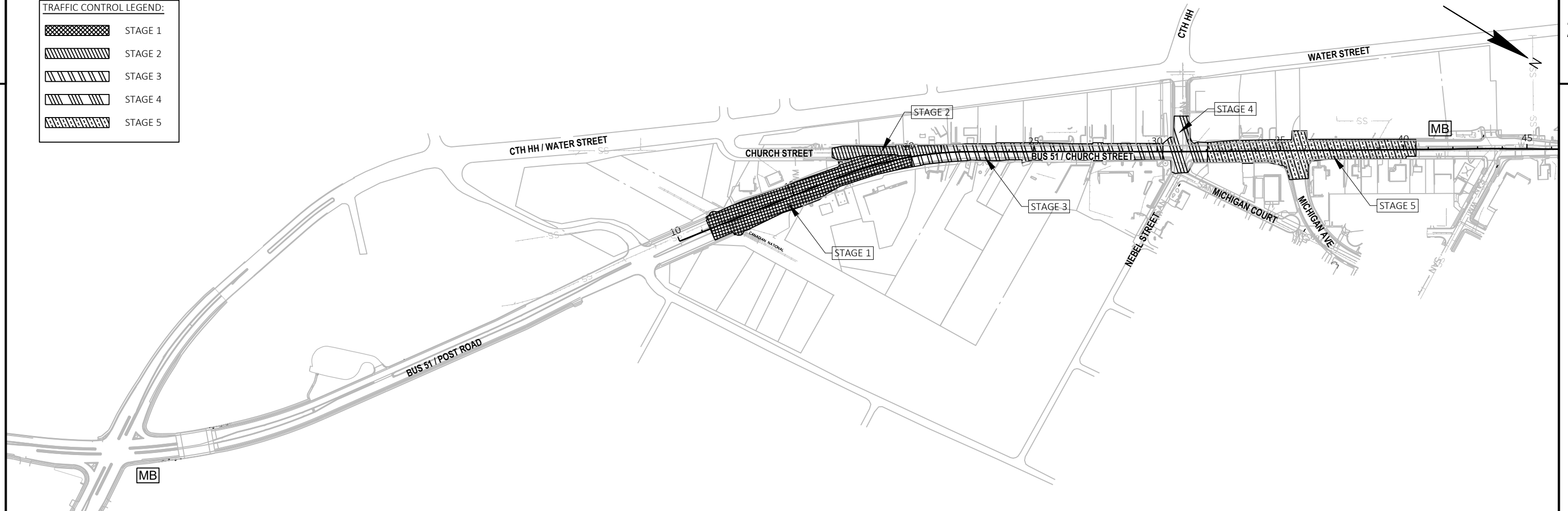
LEGEND			
(6SY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (SOLID YELLOW)	(18W)	MARKING STOP LINE EPOXY 18-INCH (WHITE)
(6SSY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE SOLID YELLOW)	(12DY)	MARKING DIAGONAL EPOXY 12-INCH (YELLOW, 10' SPACING TYP.)
(6DSY)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' LINE, 37.5' GAP, DASHED/SOLID YELLOW)	(6X)	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
(6DPW)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE)	(1NE)	MARKING ISLAND NOSE EPOXY (YELLOW)
(6W)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)	(CE)	MARKING CURB EPOXY (YELLOW)
(6LN)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 12.5' BLACK LAG, 25' GAP)	(AR2)	MARKING ARROW EPOXY (TYPE 2, WHITE)
(6LNW)	MARKING LINE GROOVED WET REF EPOXY 6-INCH (12.5' WHITE LINE, 37.5' GAP)	(AR3)	MARKING ARROW EPOXY (TYPE 3, WHITE)
(10W)	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)	(WRD)	MARKING WORD EPOXY
(10DPW)	MARKING LINE GROOVED WET REF EPOXY 10-INCH (3' LINE, 9' GAP, DOT PATTERN WHITE)	(RR)	MARKING RAILROAD CROSSING EPOXY





TRAFFIC CONTROL LEGEND:

	STAGE 1
	STAGE 2
	STAGE 3
	STAGE 4
	STAGE 5



TRAFFIC CONTROL NOTES:

SEE DETOUR PLAN FOR ADVANCE SIGNING OUTSIDE OF WORKZONE.

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

LAYOUTS ARE DRAWN FOR VISUAL REPRESENTATION. UTILIZE WISDOT STANDARDS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL INFORMATION:

- TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
- TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
- TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC

PCMS: ADJUST TRAFFIC CONTROL PCMS MESSAGE AS NEEDED BASED ON CONSTRUCTION SCHEDULE. CONFIRM MESSAGES WITH THE ENGINEER BEFORE IMPLEMENTING.

ALL PRIOR TO CONSTRUCTION MESSAGES SHALL BE PLACED 7 DAYS PRIOR TO CLOSURE OR BEGIN OF WORK.

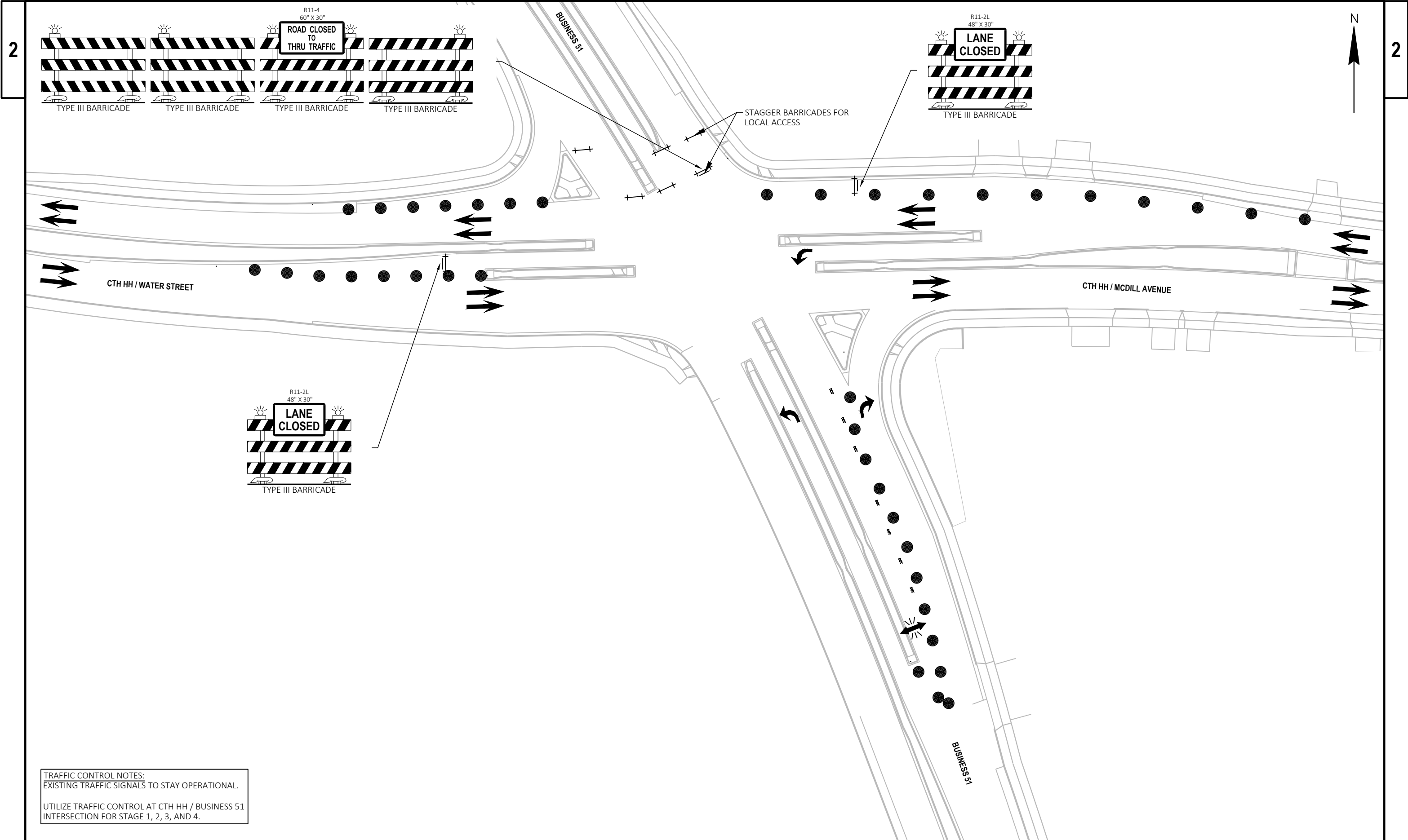
TRAFFIC CONTROL STAGES DESCRIPTIONS:

- STAGE 1
 - o CONSTRUCTION LIMITS
 - BEGIN OF PROJECT TO STA 20+00
 - o TRAFFIC
 - HARD SHUT DOWN OF CTH HH (MCDILL AVE/WATER ST) / BUSINESS 51 (POST ROAD) INTERSECTION. END OF SHUT DOWN AT CHURCH ST.
 - LOCAL NORTHBOUND TRAFFIC TO UTILIZE CHURCH STREET CONNECTION OFF WATER STREET TO ACCESS BUSINESS 51
 - LOCAL SOUTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 UNTIL LANE SHIFT TO CHURCH STREET CONNECTION NEAR STA 20+00 LT
- STAGE 2
 - o CONSTRUCTION LIMITS
 - CHURCH STREET CONNECTION TO BUSINESS 51
 - o TRAFFIC
 - LOCAL NORTHBOUND AND SOUTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 WITH SINGLE LANE CLOSURE AND LANE SHIFT NEAR CHURCH STREET CONNECTION.
- STAGE 3
 - o CONSTRUCTION LIMITS
 - STA 20+00 TO SOUTH SIDE OF NEBEL STREET INTERSECTION
 - o TRAFFIC
 - HARD SHUT DOWN OF CTH HH (MCDILL AVE/WATER ST) / BUSINESS 51 (POST ROAD) INTERSECTION. END OF SHUT DOWN AT NEBEL ST.
 - LOCAL NORTHBOUND TRAFFIC TO UTILIZE NEBEL STREET TO ACCESS BUSINESS 51
 - LOCAL SOUTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 UNTIL NEBEL STREET

- STAGE 4
 - o CONSTRUCTION LIMITS
 - NEBEL STREET INTERSECTION
 - o TRAFFIC
 - HARD SHUT DOWN OF CTH HH (MCDILL AVE/WATER ST) / BUSINESS 51 (POST ROAD) INTERSECTION
 - HARD SHUTDOWN OF NEBEL STREET / BUSINESS 51 (CHURCH STREET) INTERSECTION
 - LOCAL NORTHBOUND TRAFFIC TO UTILIZE CHURCH STREET OR WILLIAMS STREET TO ACCESS BUSINESS 51
 - LOCAL SOUTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 UNTIL MICHIGAN AVE
- STAGE 5
 - o CONSTRUCTION LIMITS
 - STA 32+00 TO END OF PROJECT (MICHIGAN AVENUE INTERSECTION)
 - o TRAFFIC
 - HARD SHUTDOWN OF NEBEL STREET / BUSINESS 51 [NORTHSIDE] INTERSECTION
 - HARD SHUTDOWN OF MICHIGAN AVENUE / BUSINESS 51 INTERSECTION
 - HARD SHUTDOWN OF HEFFRON STREET / BUSINESS 51 [SOUTHSIDE] INTERSECTION
 - LOCAL NORTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 UNTIL NEBEL STREET
 - LOCAL SOUTHBOUND TRAFFIC TO UTILIZE BUSINESS 51 UNTIL HEFFRON STREET

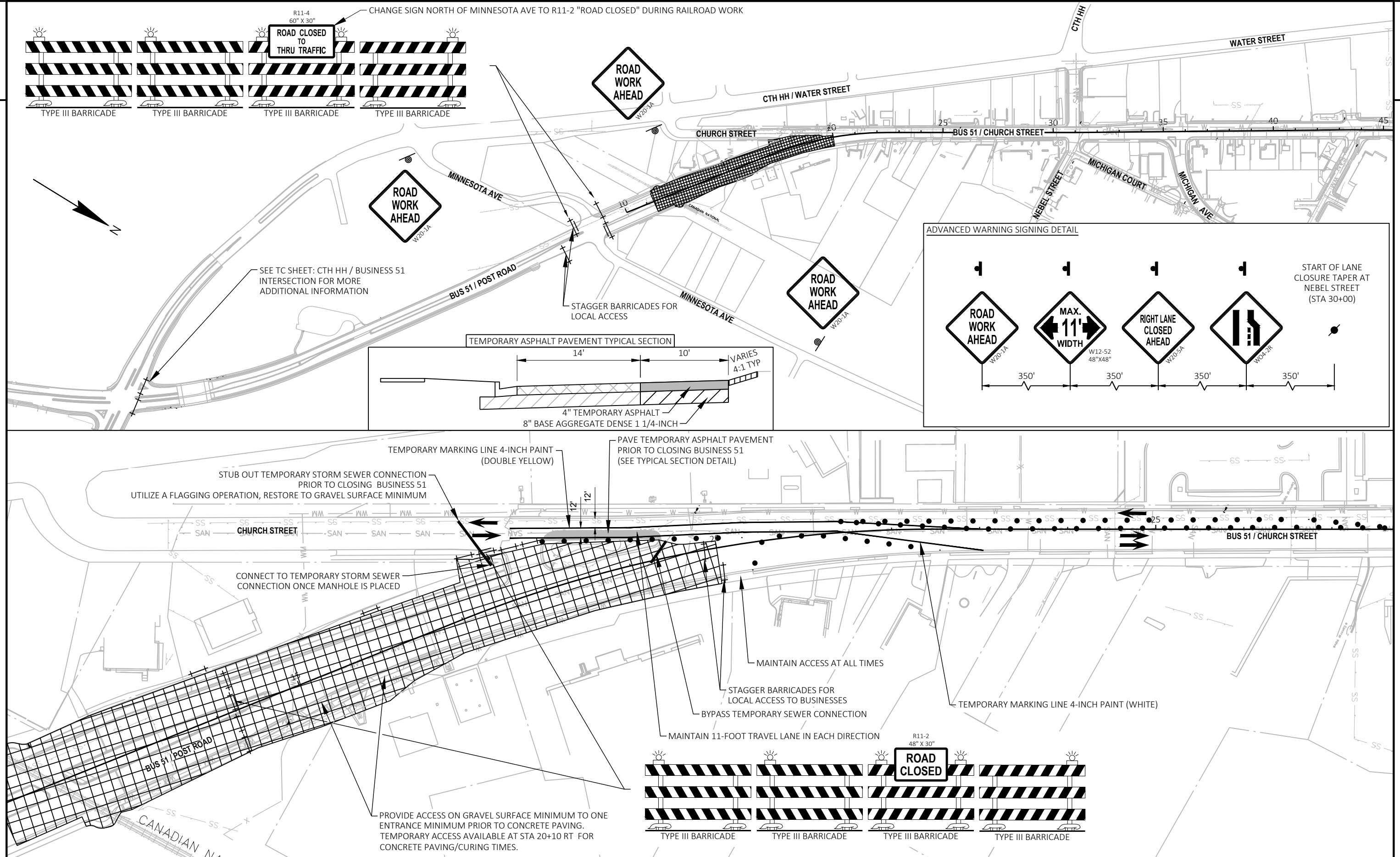
LEGEND

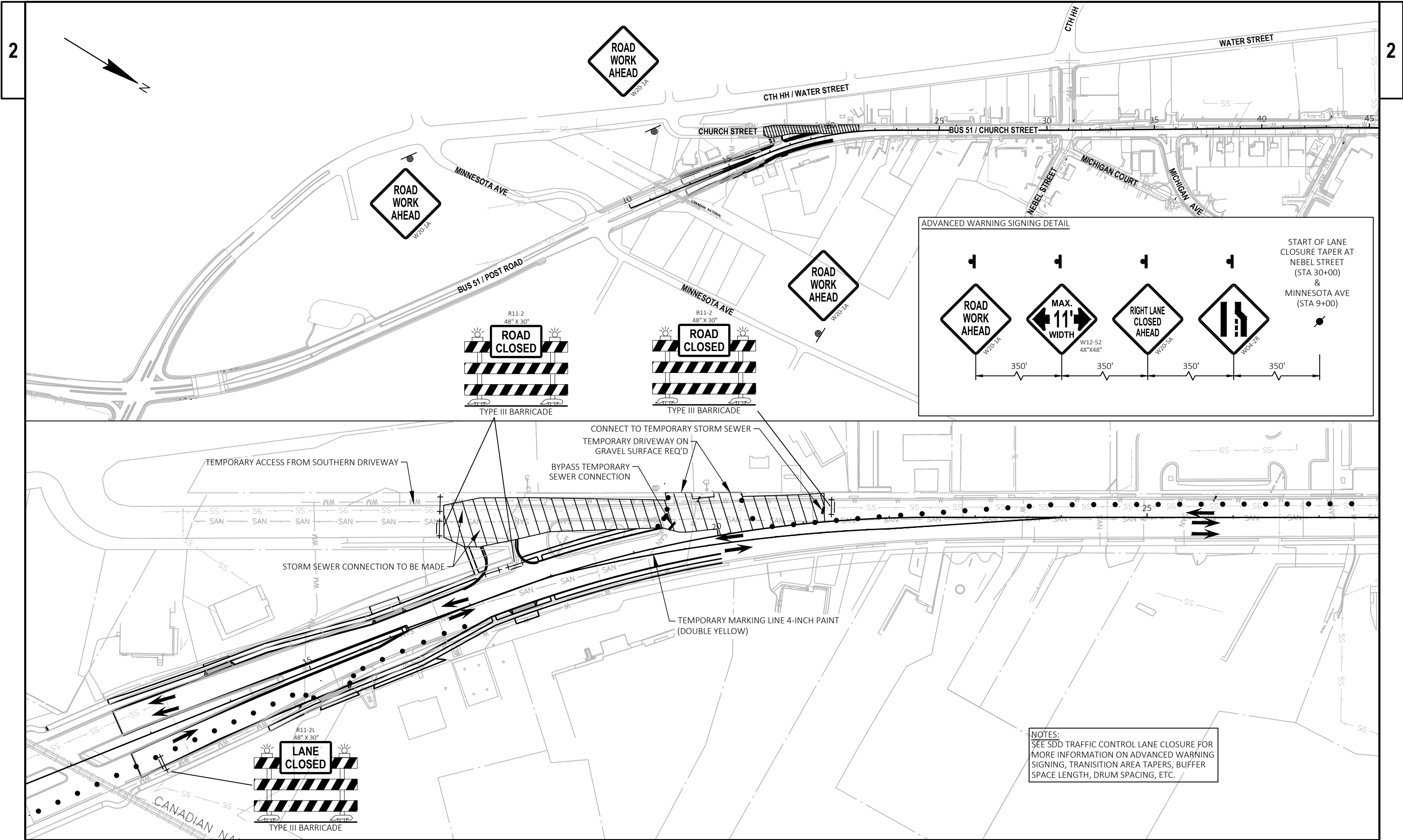
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	CONNECTED ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	TRAFFIC CONTROL 42-INCH CONE
	TYPE A WARNING LIGHT (FLASHING)
	TYPE C WARNING LIGHT (STEADY BURN)
	WORK AREA
	DIRECTION OF TRAFFIC
	PORTABLE CHANGEABLE MESSAGE BOARD

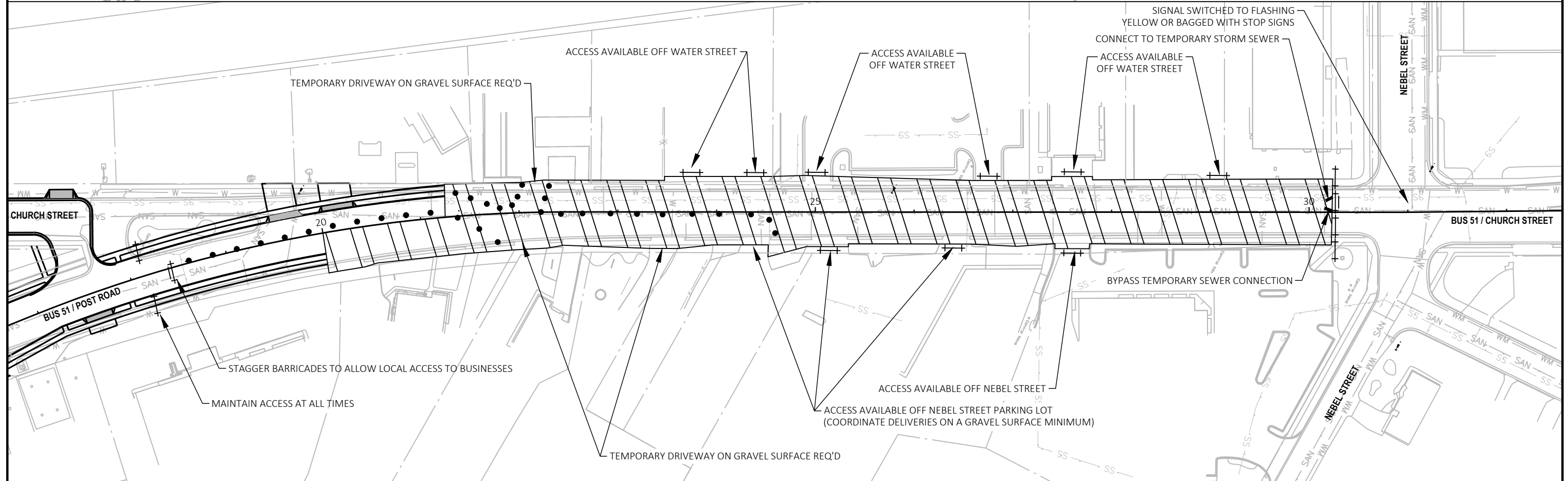
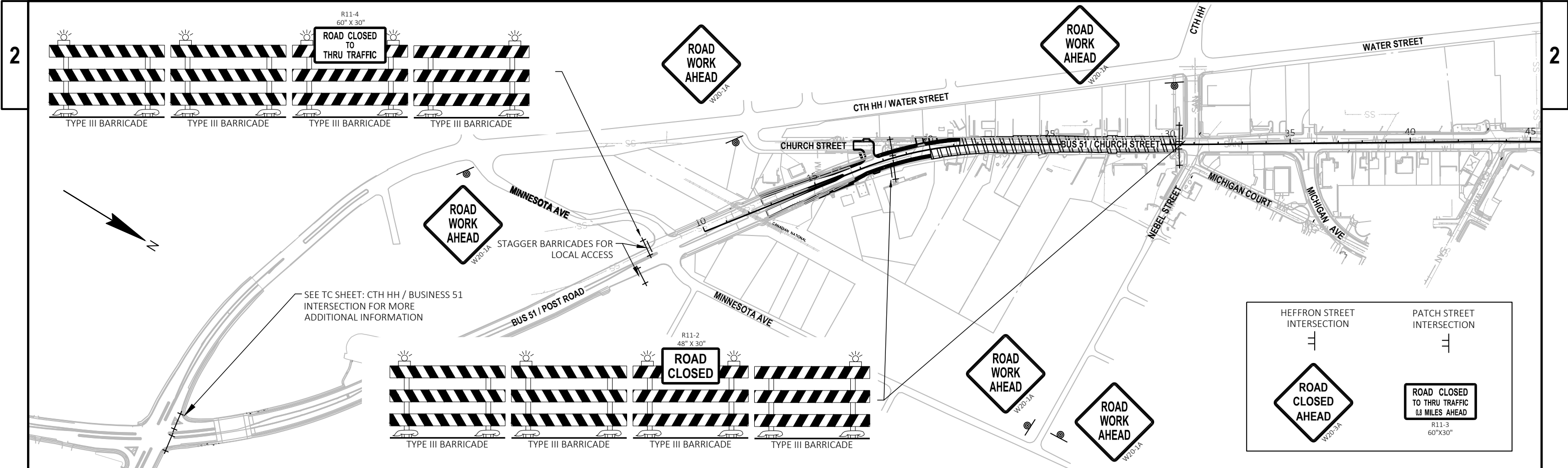


TRAFFIC CONTROL NOTES:
EXISTING TRAFFIC SIGNALS TO STAY OPERATIONAL.

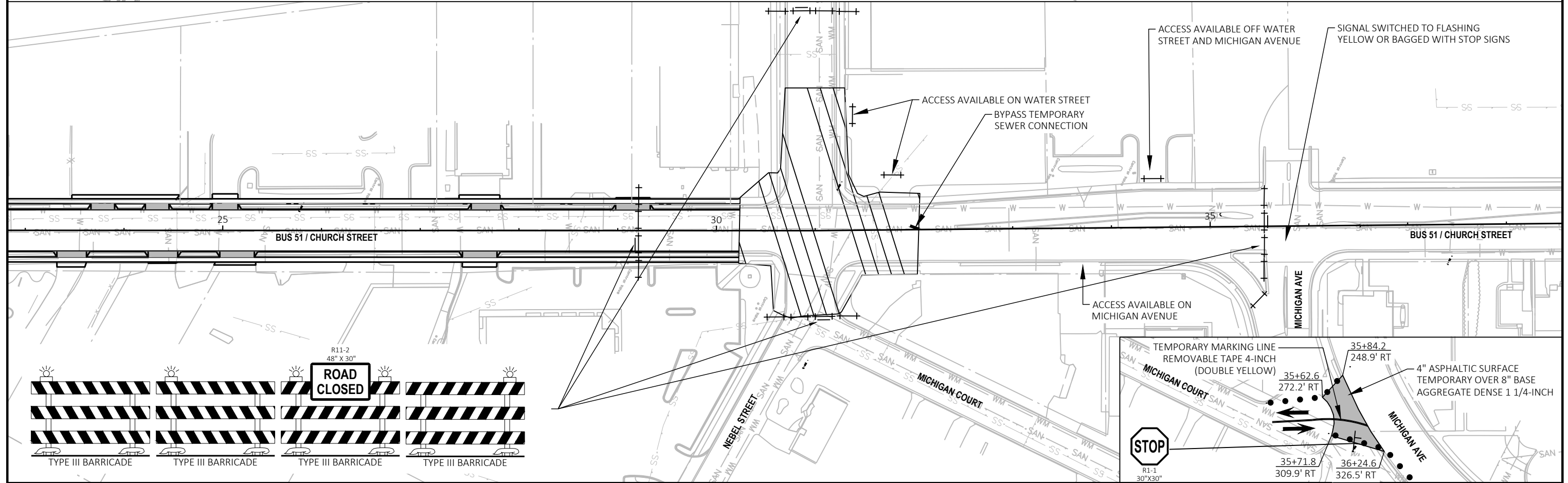
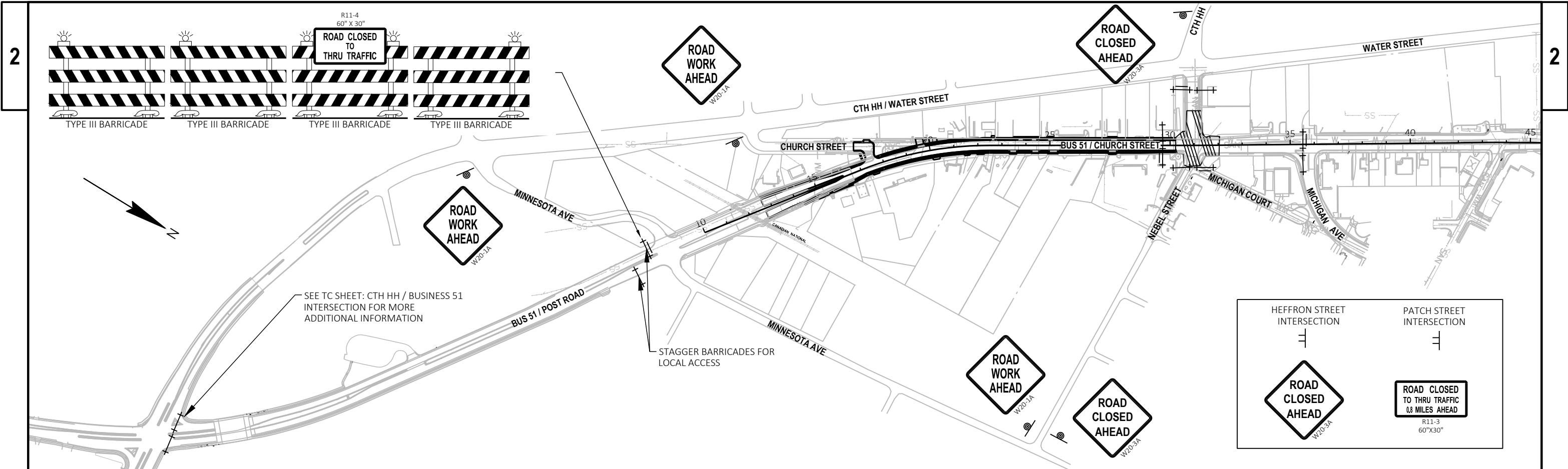
UTILIZE TRAFFIC CONTROL AT CTH HH / BUSINESS 51
INTERSECTION FOR STAGE 1, 2, 3, AND 4.



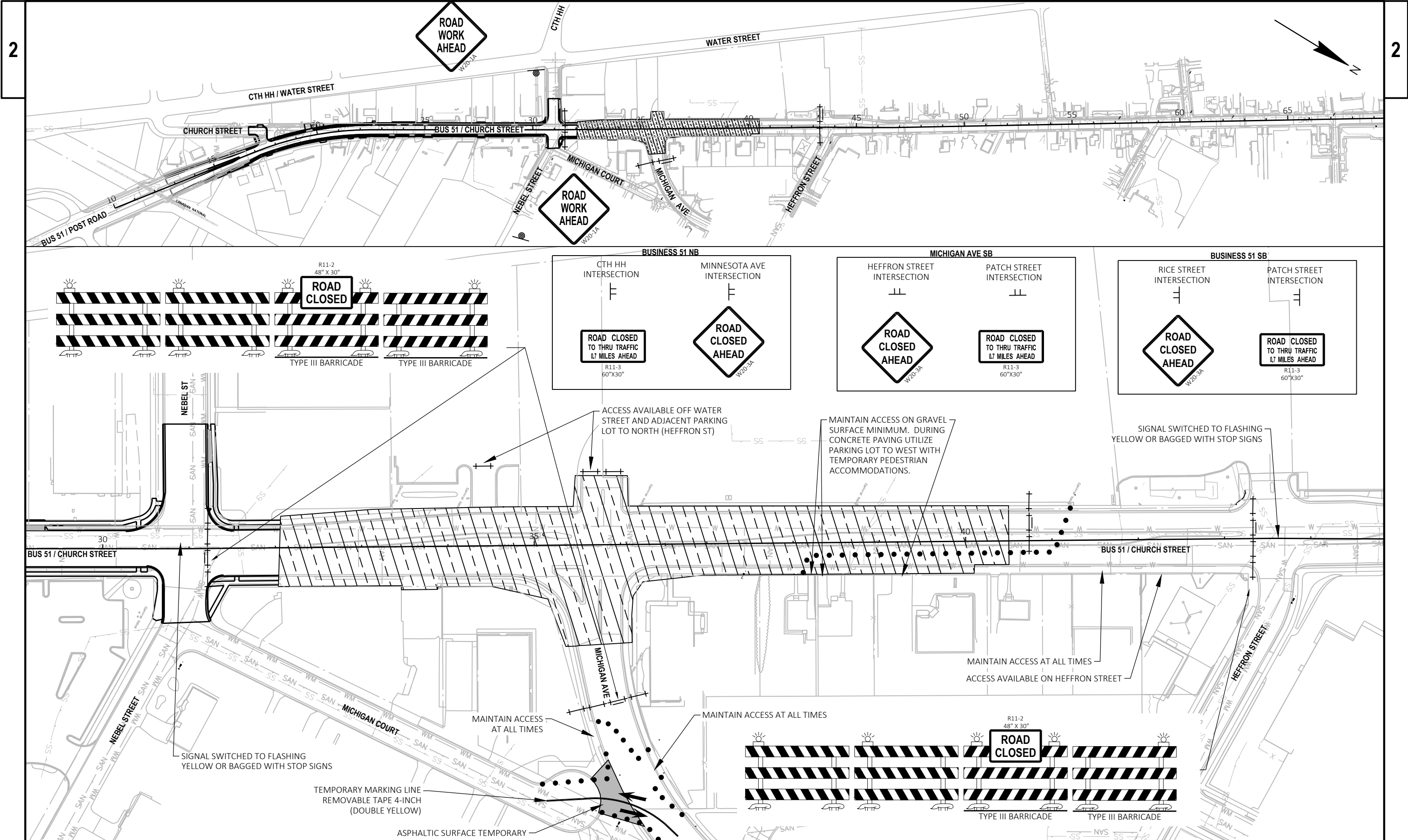


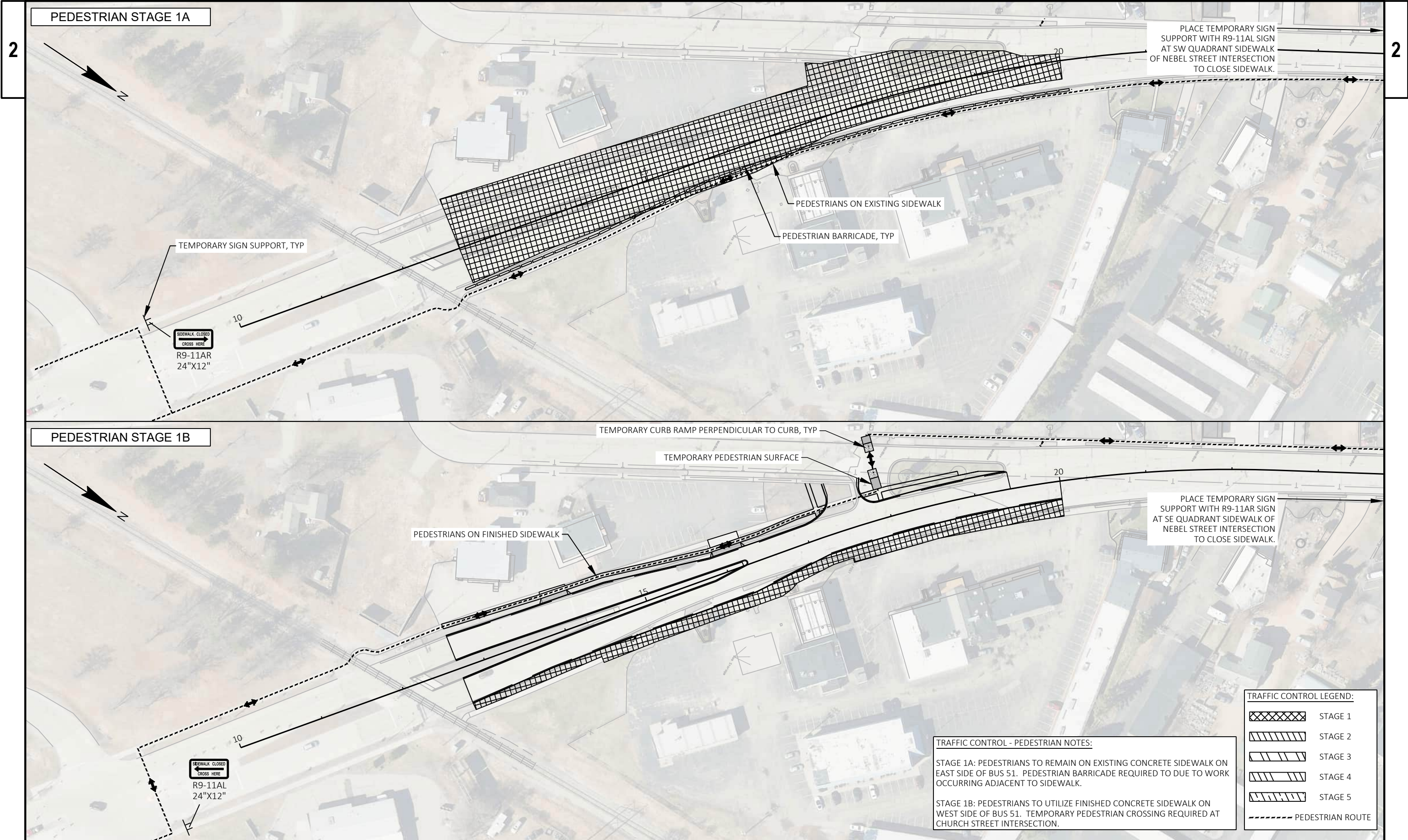


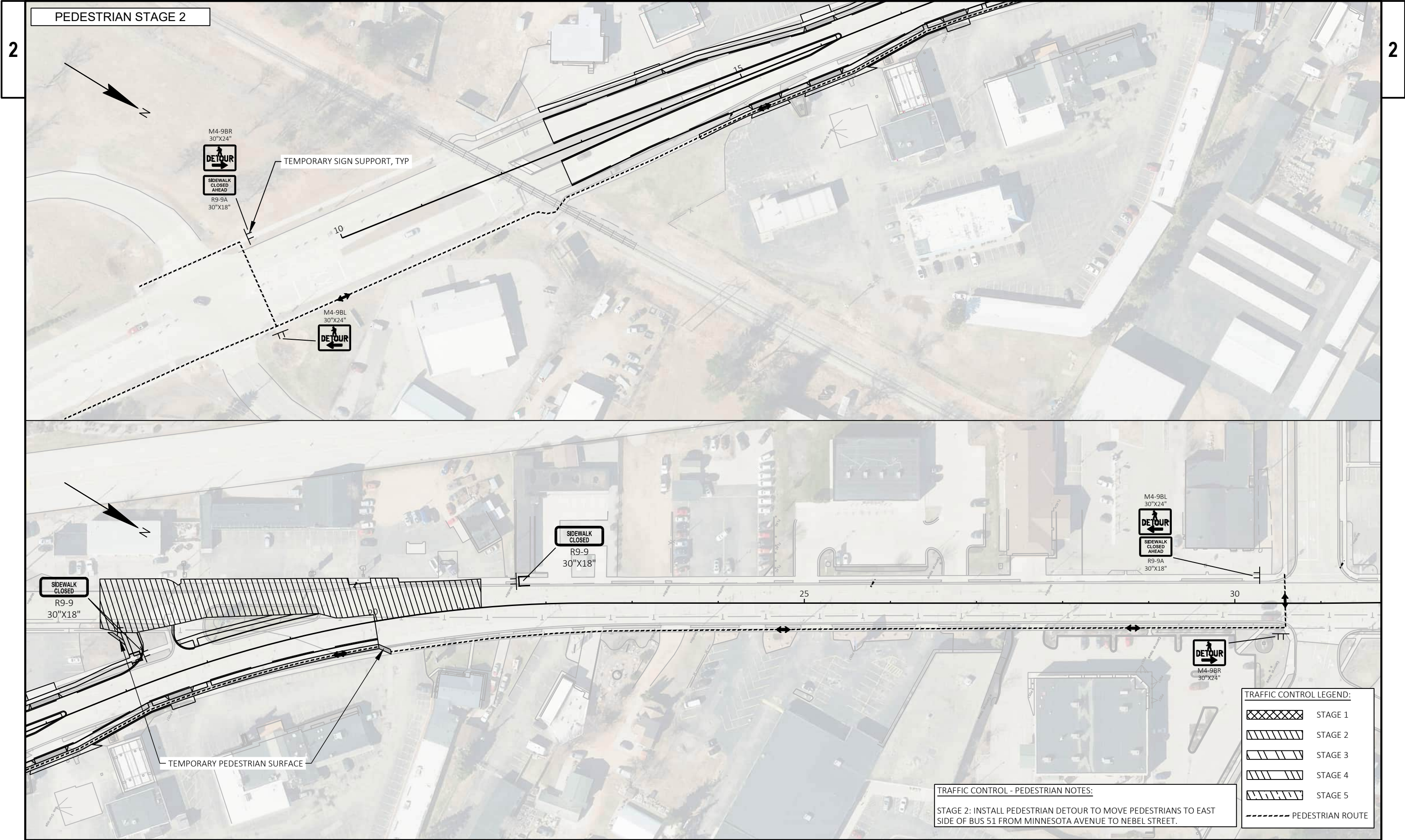
PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	TRAFFIC CONTROL: STAGE 3	SHEET 170	E
------------------------	------------------	-----------------	--------------------------	-----------	---

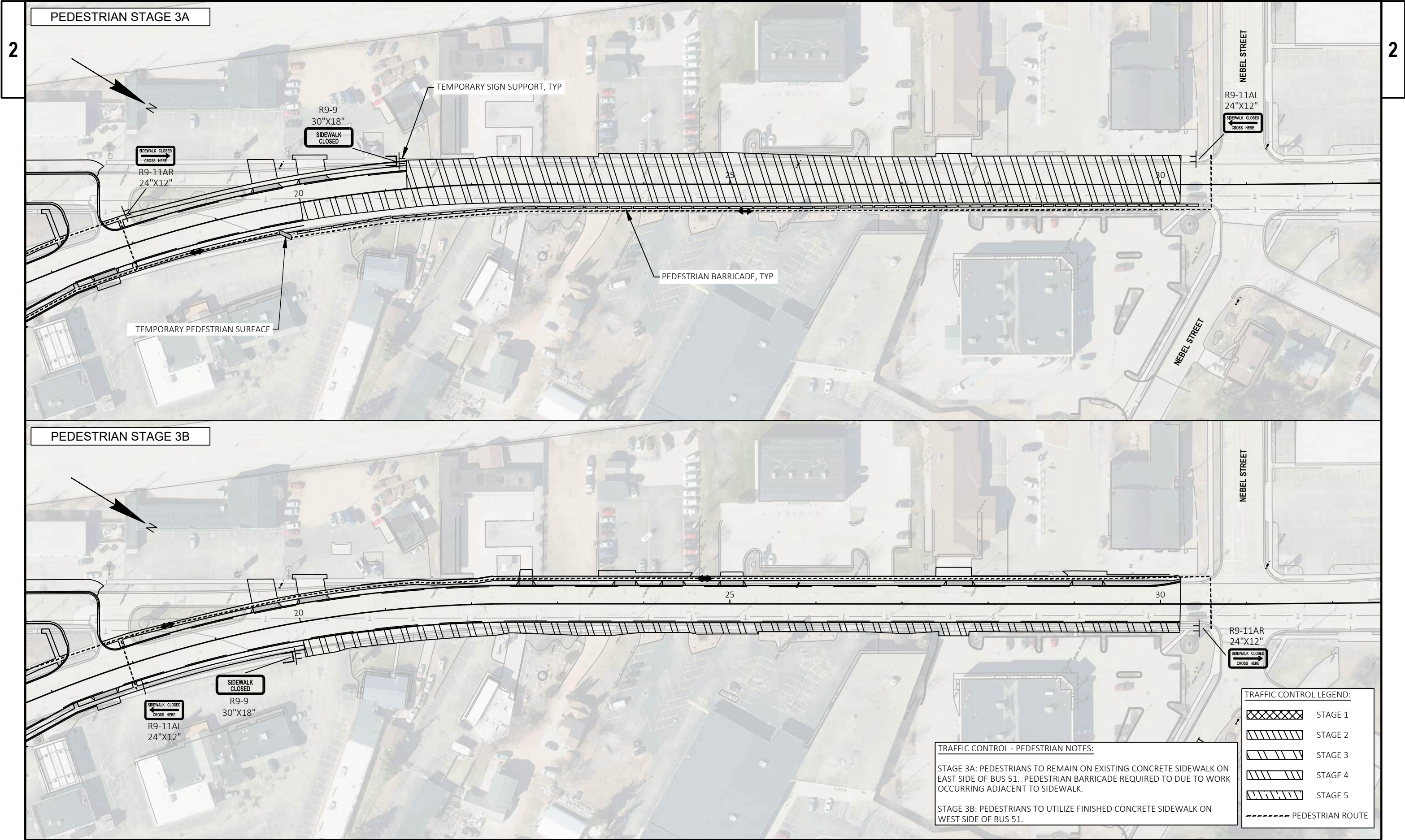


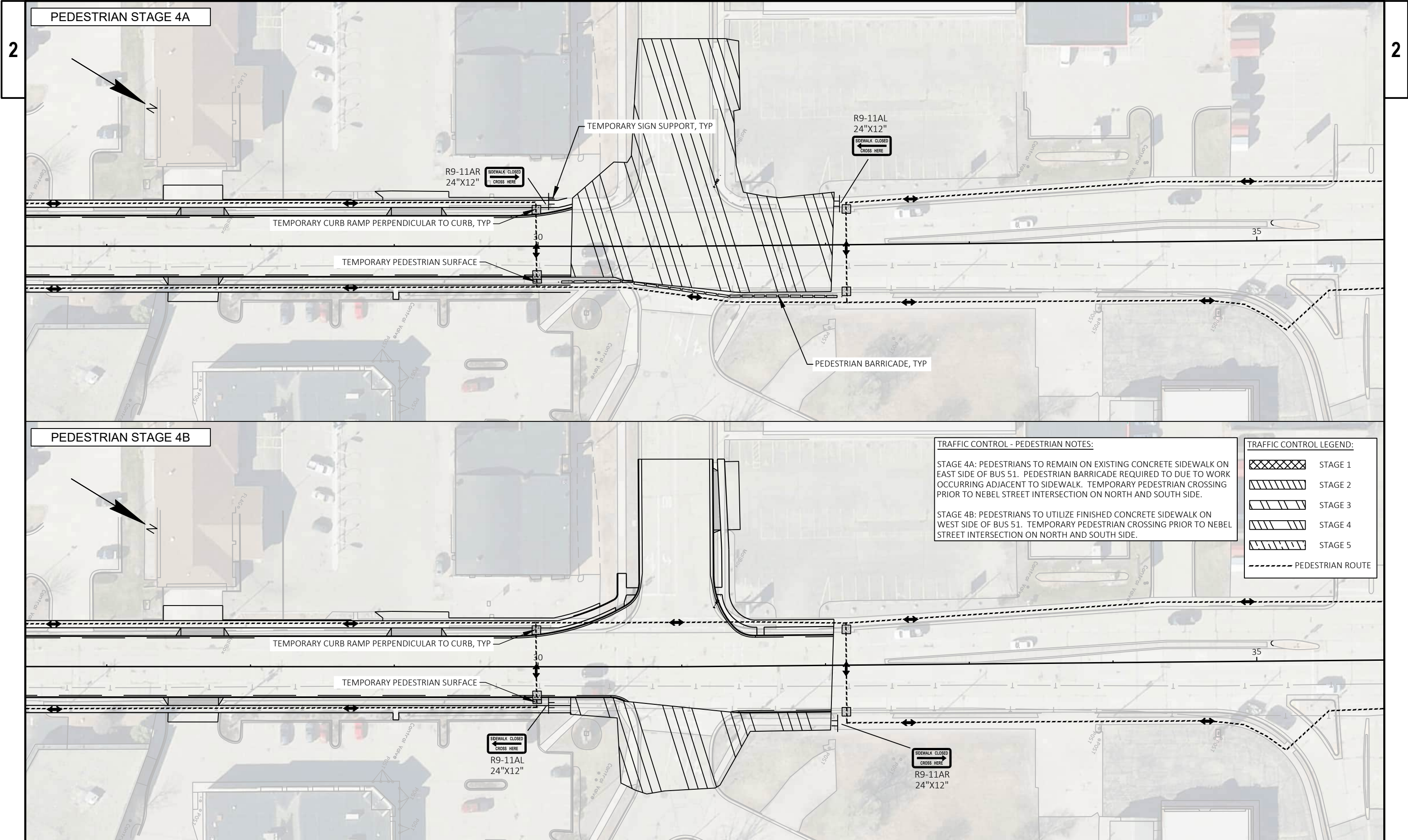
PROJECT NO:	6998-13-71	HWY:	BUSINESS 51	COUNTY:	PORTAGE	TRAFFIC CONTROL:	STAGE 4	SHEET	171	E
-------------	------------	------	-------------	---------	---------	------------------	---------	-------	-----	---











PEDESTRIAN STAGE 4B

PEDESTRIAN STAGE 4A

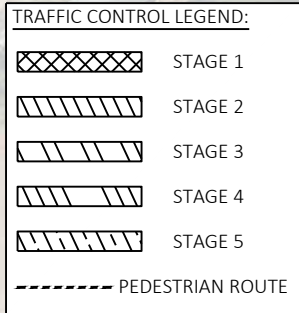
TRAFFIC CONTROL - PEDESTRIAN NOTES:

STAGE 4A: PEDESTRIANS TO REMAIN ON EXISTING CONCRETE SIDEWALK ON EAST SIDE OF BUS 51. PEDESTRIAN BARRICADE REQUIRED TO DUE TO WORK OCCURRING ADJACENT TO SIDEWALK. TEMPORARY PEDESTRIAN CROSSING PRIOR TO NEBEL STREET INTERSECTION ON NORTH AND SOUTH SIDE.

STAGE 4B: PEDESTRIANS TO UTILIZE FINISHED CONCRETE SIDEWALK ON WEST SIDE OF BUS 51. TEMPORARY PEDESTRIAN CROSSING PRIOR TO NEBEL STREET INTERSECTION ON NORTH AND SOUTH SIDE.

TRAFFIC CONTROL LEGEND:

	STAGE 1
	STAGE 2
	STAGE 3
	STAGE 4
	STAGE 5
	PEDESTRIAN ROUTE



LEGEND

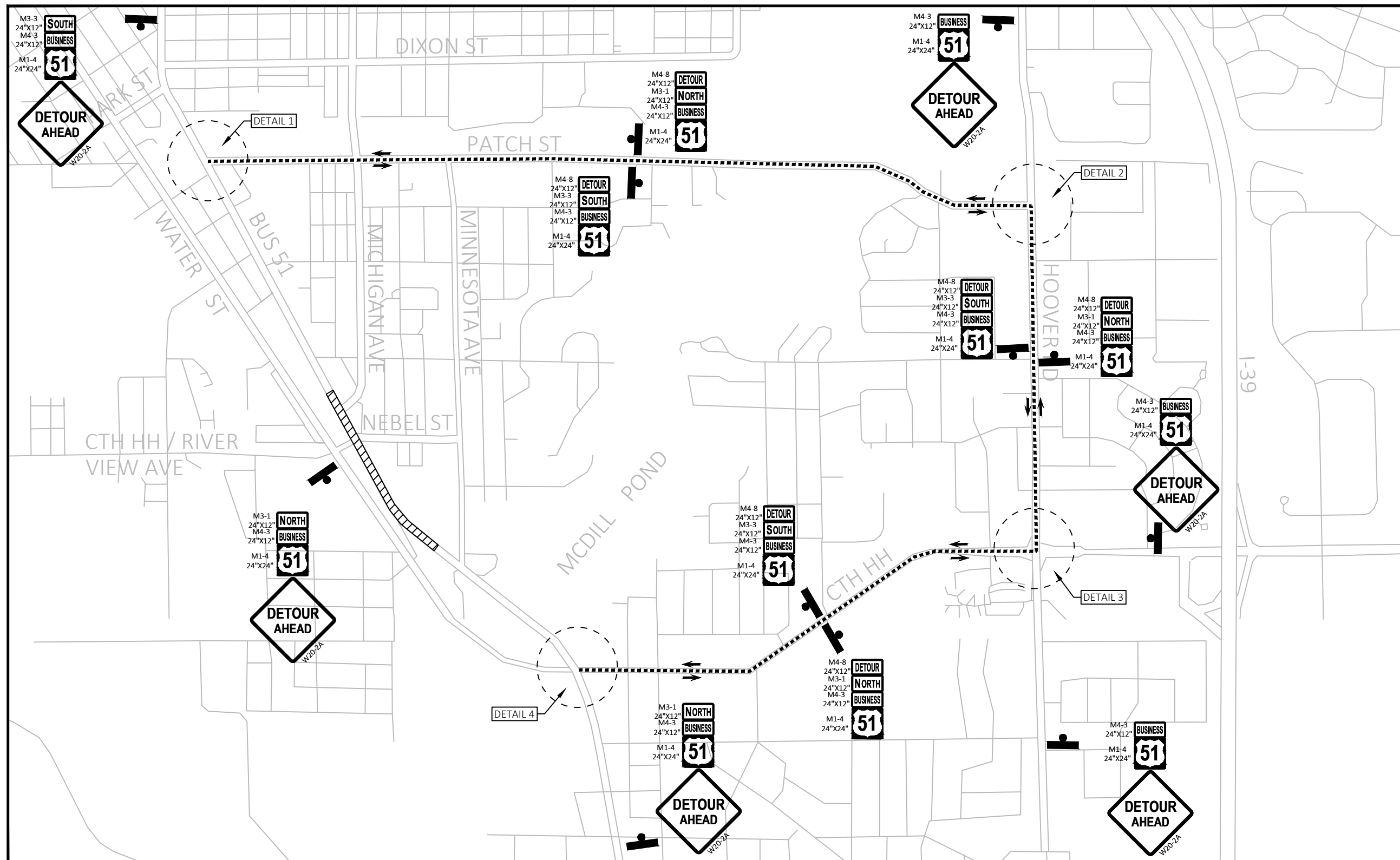
- WORK ZONE (CLOSED TO TRAFFIC)
- DETOUR ROUTE
- DIRECTION OF TRAFFIC

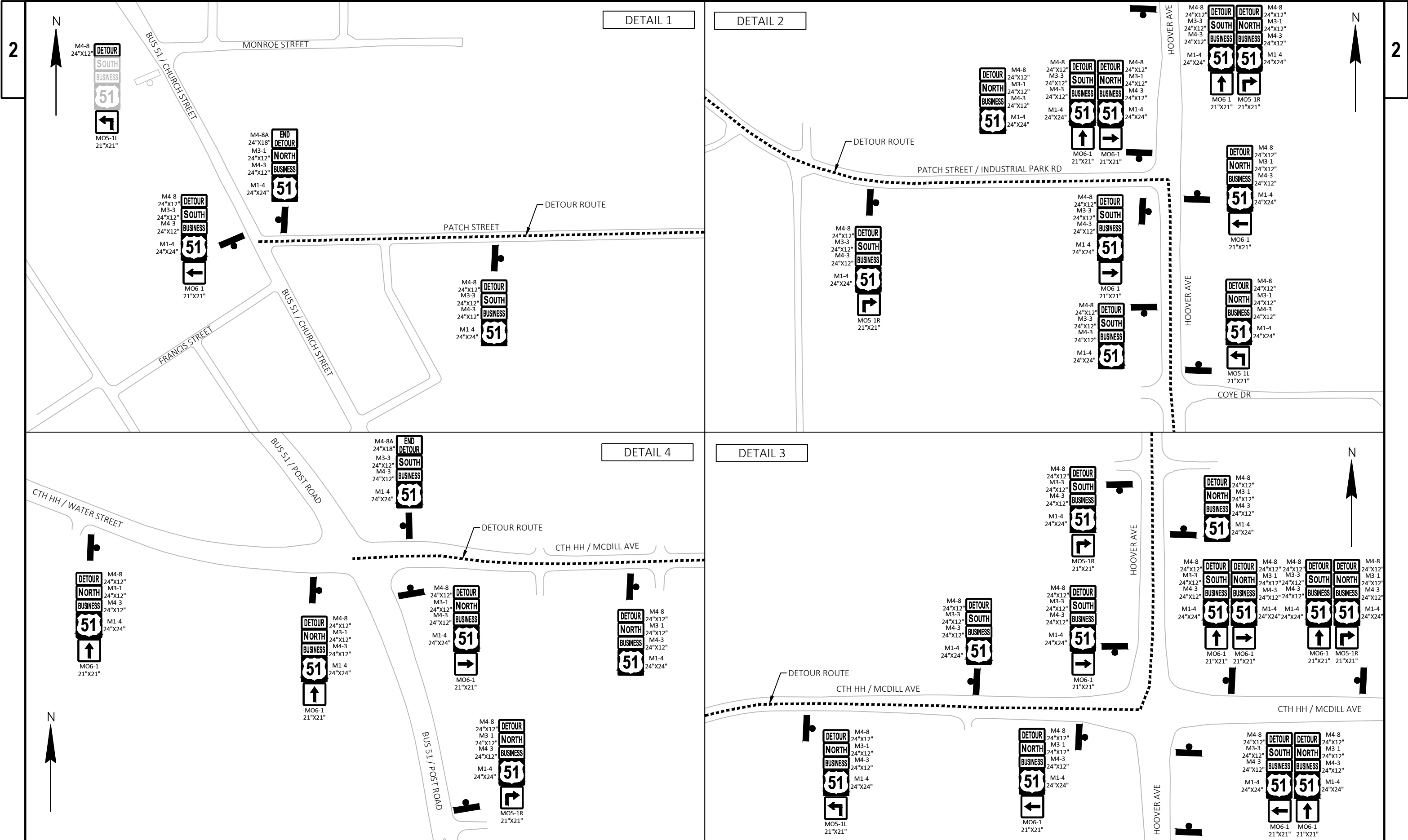
N

GENERAL NOTES:

DETOUR: NB AND SB BUS 51 TRAFFIC WOULD UTILIZE CTH HH, HOOVER RD, AND PATCH ST.

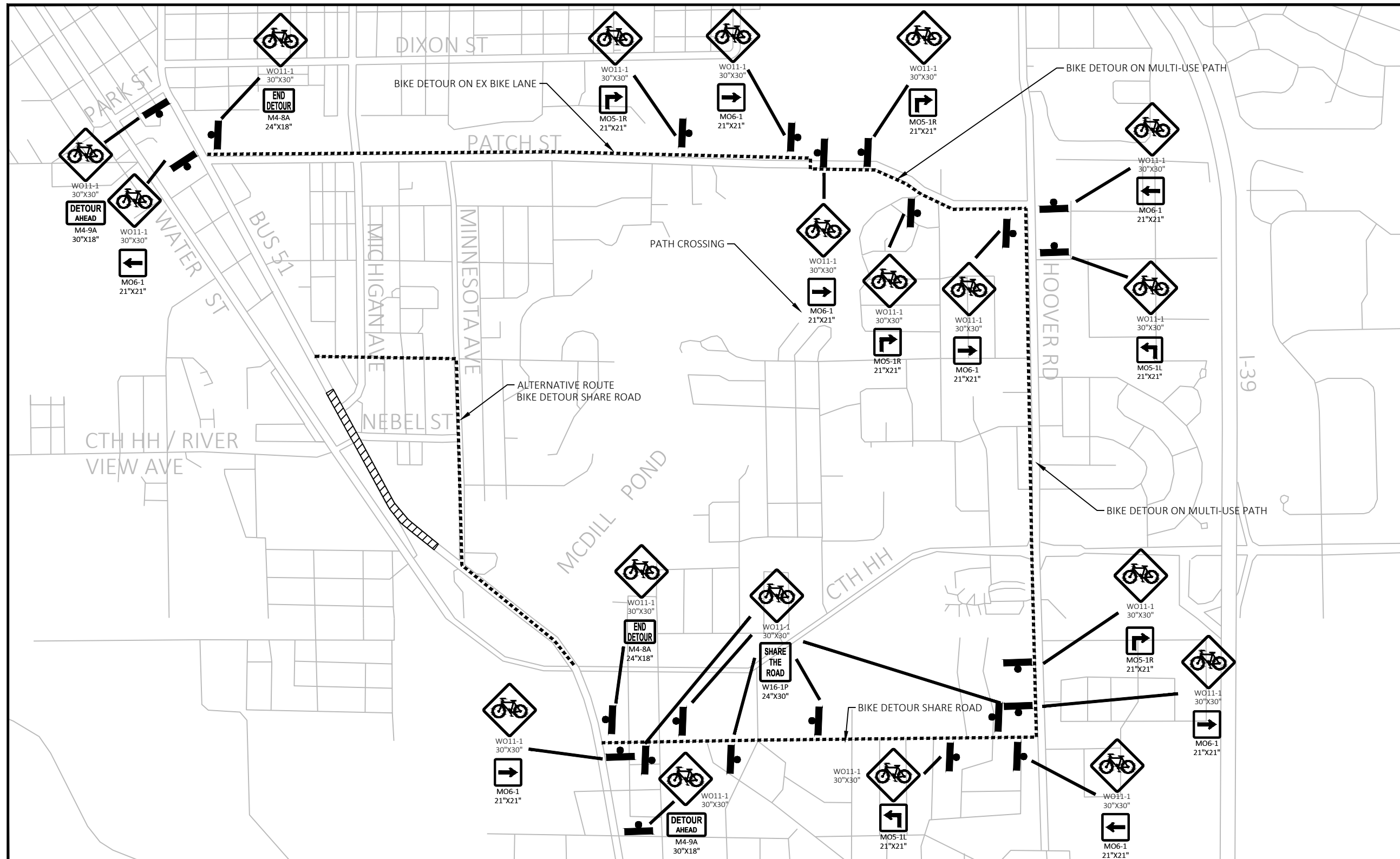
SEE TRAFFIC CONTROL DETAIL SHEETS FOR SIDEROAD INTERSECTIONS MAINTAINED FOR THROUGH TRAFFIC IN WORK ZONE AREA.

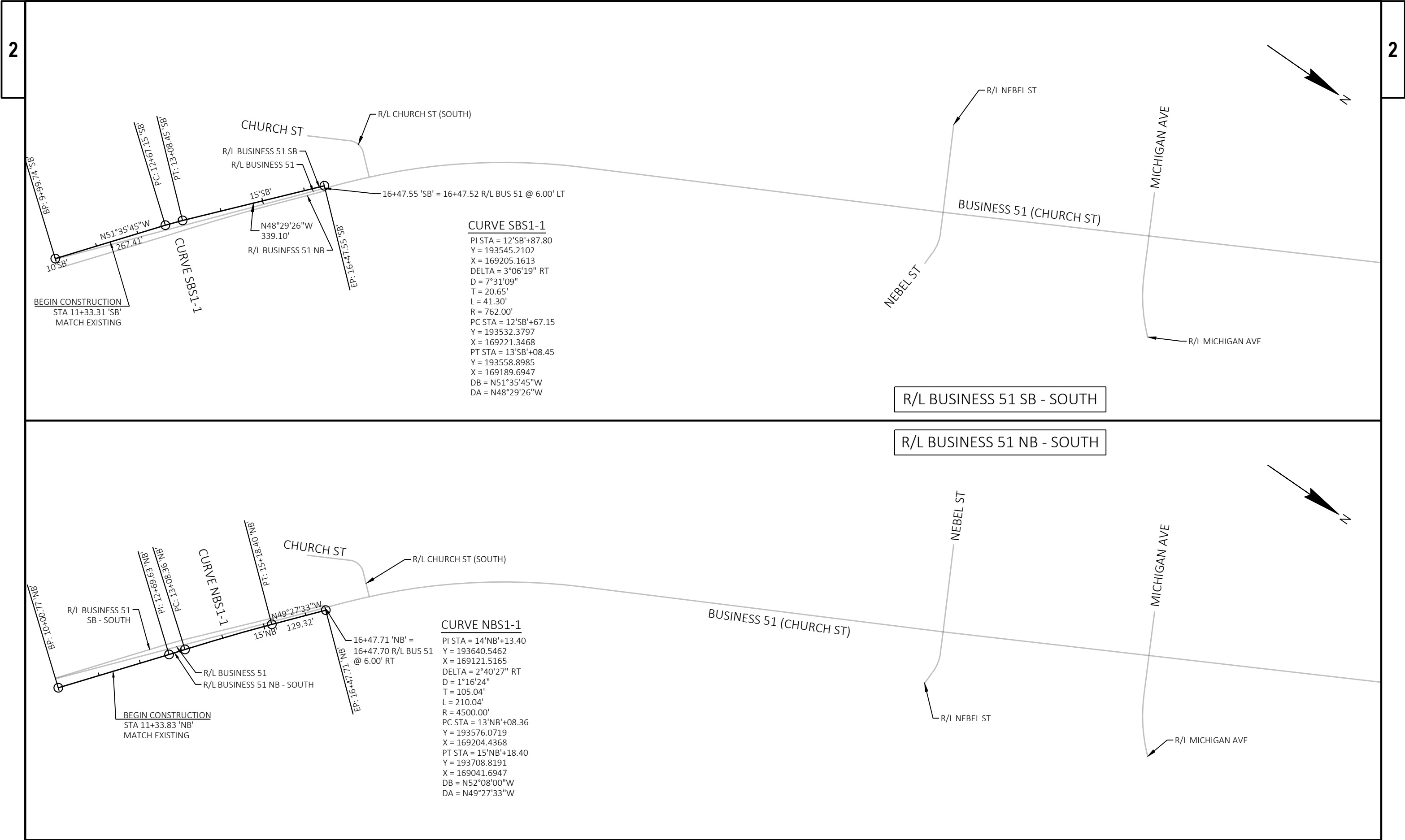


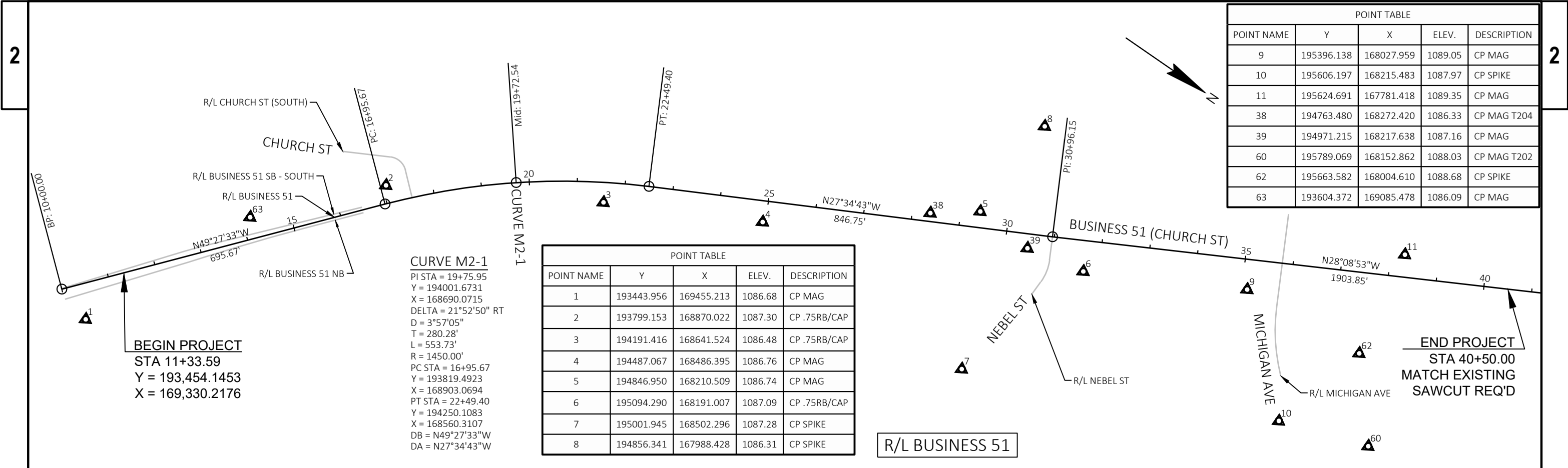


LEGEND

-  WORK ZONE (CLOSED TO TRAFFIC)
-  DETOUR ROUTE
-  DIRECTION OF TRAFFIC







Estimate Of Quantities

6998-13-71					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0120	Clearing	ID	15.000	15.000
0006	201.0205	Grubbing	STA	2.000	2.000
0008	201.0220	Grubbing	ID	15.000	15.000
0010	204.0100	Removing Concrete Pavement	SY	20,000.000	20,000.000
0012	204.0150	Removing Curb & Gutter	LF	1,150.000	1,150.000
0014	204.0155	Removing Concrete Sidewalk	SY	3,180.000	3,180.000
0016	204.0195	Removing Concrete Bases	EACH	21.000	21.000
0018	204.0210	Removing Manholes	EACH	8.000	8.000
0020	204.0220	Removing Inlets	EACH	19.000	19.000
0022	204.0245	Removing Storm Sewer (size) 01. 6-Inch	LF	50.000	50.000
0024	204.0245	Removing Storm Sewer (size) 02. 8-Inch	LF	105.000	105.000
0026	204.0245	Removing Storm Sewer (size) 03. 10-Inch	LF	155.000	155.000
0028	204.0245	Removing Storm Sewer (size) 04. 12-Inch	LF	1,930.000	1,930.000
0030	204.0245	Removing Storm Sewer (size) 05. 15-Inch	LF	150.000	150.000
0032	204.0245	Removing Storm Sewer (size) 06. 18-Inch	LF	175.000	175.000
0034	204.9060.S	Removing (item description) 01. Removing Sanitary Manhole	EACH	13.000	13.000
0036	204.9090.S	Removing (item description) 01. Removing Sanitary Sewer Pipe	LF	3,685.000	3,685.000
0038	204.9090.S	Removing (item description) 02. Removing Water Main Pipe	LF	3,900.000	3,900.000
0040	204.9165.S	Removing (item description) 01. Landscape Rock	SF	130.000	130.000
0042	205.0100	Excavation Common	CY	15,598.000	15,598.000
0044	208.1100	Select Borrow	CY	715.000	715.000
0046	209.2100	Backfill Granular Grade 2	CY	17,300.000	17,300.000
0048	211.0201	Prepare Foundation for Concrete Pavement (project) 01. 6998-13-71	EACH	1.000	1.000
0050	213.0100	Finishing Roadway (project) 01. 6998-13-71	EACH	1.000	1.000
0052	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	11,300.000	11,300.000
0054	415.0100	Concrete Pavement 10-Inch	SY	14,190.000	14,190.000
0056	450.4000	HMA Cold Weather Paving	TON	63.000	63.000
0058	455.0605	Tack Coat	GAL	215.000	215.000
0060	460.2000	Incentive Density HMA Pavement	DOL	520.000	520.000
0062	460.5223	HMA Pavement 3 LT 58-28 S	TON	267.000	267.000
0064	460.5224	HMA Pavement 4 LT 58-28 S	TON	208.000	208.000
0066	460.6223	HMA Pavement 3 MT 58-28 S	TON	188.000	188.000
0068	460.6424	HMA Pavement 4 MT 58-28 H	TON	134.000	134.000
0070	465.0105	Asphaltic Surface	TON	5.000	5.000
0072	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	153.000	153.000
0074	465.0125	Asphaltic Surface Temporary	TON	85.000	85.000
0076	520.8000	Concrete Collars for Pipe	EACH	4.000	4.000
0078	601.0342	Concrete Curb & Gutter Integral 18-Inch	LF	4,590.000	4,590.000
0080	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	1,230.000	1,230.000
0082	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	311.000	311.000
0084	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	420.000	420.000
0086	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	965.000	965.000
0088	601.0583	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type T	LF	93.000	93.000
0090	601.0600	Concrete Curb Pedestrian	LF	421.000	421.000
0092	602.0410	Concrete Sidewalk 5-Inch	SF	26,500.000	26,500.000
0094	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	24.000	24.000
0096	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	242.000	242.000
0098	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	38.000	38.000

Estimate Of Quantities

6998-13-71

Line	Item	Item Description	Unit	Total	Qty
0100	602.0810	Concrete Driveway 6-Inch	SY	1,070.000	1,070.000
0102	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	282.000	282.000
0104	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	31.000	31.000
0106	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	208.000	208.000
0108	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	927.000	927.000
0110	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	184.000	184.000
0112	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	312.000	312.000
0114	608.3024	Storm Sewer Pipe Class III-A 24-Inch	LF	2,145.000	2,145.000
0116	611.0530	Manhole Covers Type J	EACH	14.000	14.000
0118	611.0624	Inlet Covers Type H	EACH	17.000	17.000
0120	611.0639	Inlet Covers Type H-S	EACH	21.000	21.000
0122	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
0124	611.2004	Manholes 4-FT Diameter	EACH	8.000	8.000
0126	611.2005	Manholes 5-FT Diameter	EACH	6.000	6.000
0128	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000
0130	618.0100	Maintenance and Repair of Haul Roads (project) 01. 6998-13-71	EACH	1.000	1.000
0132	619.1000	Mobilization	EACH	1.000	1.000
0134	620.0300	Concrete Median Sloped Nose	SF	60.000	60.000
0136	624.0100	Water	MGAL	180.000	180.000
0138	625.0100	Topsoil	SY	7,740.000	7,740.000
0140	628.1905	Mobilizations Erosion Control	EACH	15.000	15.000
0142	628.1910	Mobilizations Emergency Erosion Control	EACH	7.000	7.000
0144	628.7005	Inlet Protection Type A	EACH	54.000	54.000
0146	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0148	628.7015	Inlet Protection Type C	EACH	49.000	49.000
0150	628.7020	Inlet Protection Type D	EACH	53.000	53.000
0152	629.0210	Fertilizer Type B	CWT	6.000	6.000
0154	631.0300	Sod Water	MGAL	200.000	200.000
0156	631.1000	Sod Lawn	SY	7,430.000	7,430.000
0158	632.0101	Trees (species, root, size) 01. Amelanchier X grandiflora `Autumn Brilliance`, B&B, 1.5" CAL	EACH	1.000	1.000
0160	632.0101	Trees (species, root, size) 02. Ginkgo biloba `PNI 2720` / Princeton Sentry®, B&B, 2.5"-3" CAL	EACH	3.000	3.000
0162	632.0101	Trees (species, root, size) 03. Syringa reticulata `Ivory Silk` Japanese Tree Lilac, B&B, 1.5" CAL	EACH	3.000	3.000
0164	632.0201	Shrubs (species, root, size) 01. Ceanothus americanus, #3 Container	EACH	10.000	10.000
0166	632.0201	Shrubs (species, root, size) 02. Rosa rugosa, #5 Container, 2-3 ft high	EACH	2.000	2.000
0168	632.0201	Shrubs (species, root, size) 03. Spiraea X bumalda 'Goldflame', #3 Container, 24" high min.	EACH	20.000	20.000
0170	632.0201	Shrubs (species, root, size) 04. Euonymus fortunei 'Coloratus', #1 Container	EACH	48.000	48.000
0172	632.0201	Shrubs (species, root, size) 05. Calamagrostis X acutiflora `Karl Foerster`, #1 Container	EACH	50.000	50.000
0174	632.0201	Shrubs (species, root, size) 06. Sporobolus heterolepis, #1 Container	EACH	23.000	23.000
0176	632.0201	Shrubs (species, root, size) 07. Nepeta X 'Walker's Low', #1 Containter	EACH	63.000	63.000
0178	632.0201	Shrubs (species, root, size) 08. Perovskia atriplicifolia `Blue Steel`, #1 Container	EACH	10.000	10.000
0180	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	20.000	20.000
0182	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	17.000	17.000
0184	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	15.000	15.000
0186	637.2210	Signs Type II Reflective H	SF	98.000	98.000
0188	637.2230	Signs Type II Reflective F	SF	99.000	99.000
0190	638.2602	Removing Signs Type II	EACH	10.000	10.000

Estimate Of Quantities

6998-13-71

Line	Item	Item Description	Unit	Total	Qty
0192	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0194	642.5401	Field Office Type D	EACH	1.000	1.000
0196	643.0300	Traffic Control Drums	DAY	14,500.000	14,500.000
0198	643.0420	Traffic Control Barricades Type III	DAY	4,200.000	4,200.000
0200	643.0705	Traffic Control Warning Lights Type A	DAY	4,800.000	4,800.000
0202	643.0715	Traffic Control Warning Lights Type C	DAY	330.000	330.000
0204	643.0810	Traffic Control Connected Arrow Boards	DAY	179.000	179.000
0206	643.0900	Traffic Control Signs	DAY	46,030.000	46,030.000
0208	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0210	643.3105	Temporary Marking Line Paint 4-Inch	LF	3,160.000	3,160.000
0212	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	200.000	200.000
0214	643.3350	Temporary Marking Crosswalk Removable Tape 6-Inch	LF	380.000	380.000
0216	643.5000	Traffic Control	EACH	1.000	1.000
0218	644.1440	Temporary Pedestrian Surface Matting	SF	2,795.000	2,795.000
0220	644.1601	Temporary Pedestrian Curb Ramp	DAY	210.000	210.000
0222	644.1605	Temporary Pedestrian Detectable Warning Field	SF	40.000	40.000
0224	644.1810	Temporary Pedestrian Barricade	LF	2,370.000	2,370.000
0226	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	160.000	160.000
0228	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	10,900.000	10,900.000
0230	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,230.000	1,230.000
0232	646.5020	Marking Arrow Epoxy	EACH	29.000	29.000
0234	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0236	646.5320	Marking Railroad Crossing Epoxy	EACH	4.000	4.000
0238	646.6120	Marking Stop Line Epoxy 18-Inch	LF	240.000	240.000
0240	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	3,670.000	3,670.000
0242	646.6470	Cold Weather Marking Epoxy 10-Inch	LF	850.000	850.000
0244	646.7120	Marking Diagonal Epoxy 12-Inch	LF	10.000	10.000
0246	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,140.000	1,140.000
0248	646.8120	Marking Curb Epoxy	LF	10.000	10.000
0250	646.8220	Marking Island Nose Epoxy	EACH	1.000	1.000
0252	646.9000	Marking Removal Line 4-Inch	LF	50.000	50.000
0254	650.4000	Construction Staking Storm Sewer	EACH	55.000	55.000
0256	650.4500	Construction Staking Subgrade	LF	4,337.000	4,337.000
0258	650.5000	Construction Staking Base	LF	649.000	649.000
0260	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,790.000	1,790.000
0262	650.7000	Construction Staking Concrete Pavement	LF	3,688.000	3,688.000
0264	650.8501	Construction Staking Electrical Installations (project) 01. 6998-13-71	EACH	1.000	1.000
0266	650.9000	Construction Staking Curb Ramps	EACH	24.000	24.000
0268	650.9500	Construction Staking Sidewalk (project) 01. 6998-13-71	EACH	1.000	1.000
0270	650.9911	Construction Staking Supplemental Control (project) 01. 6998-13-71	EACH	1.000	1.000
0272	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,552.000	2,552.000
0274	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,236.000	2,236.000
0276	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	10.000	10.000
0278	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	16.000	16.000
0280	653.0905	Removing Pull Boxes	EACH	28.000	28.000
0282	654.0101	Concrete Bases Type 1	EACH	9.000	9.000
0284	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0286	654.0105	Concrete Bases Type 5	EACH	17.000	17.000
0288	654.0110	Concrete Bases Type 10	EACH	5.000	5.000

Estimate Of Quantities

6998-13-71					
Line	Item	Item Description	Unit	Total	Qty
0290	654.0120	Concrete Bases Type 10-Special	EACH	3.000	3.000
0292	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
0294	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
0296	655.0230	Cable Traffic Signal 5-14 AWG	LF	971.000	971.000
0298	655.0240	Cable Traffic Signal 7-14 AWG	LF	943.000	943.000
0300	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,286.000	1,286.000
0302	655.0270	Cable Traffic Signal 15-14 AWG	LF	938.000	938.000
0304	655.0275	Cable Traffic Signal 19-12 AWG	LF	186.000	186.000
0306	655.0320	Cable Type UF 2-10 AWG Grounded	LF	1,044.000	1,044.000
0308	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,045.000	2,045.000
0310	655.0610	Electrical Wire Lighting 12 AWG	LF	600.000	600.000
0312	655.0615	Electrical Wire Lighting 10 AWG	LF	2,886.000	2,886.000
0314	655.0620	Electrical Wire Lighting 8 AWG	LF	18,408.000	18,408.000
0316	655.0630	Electrical Wire Lighting 4 AWG	LF	6,975.000	6,975.000
0318	655.0635	Electrical Wire Lighting 2 AWG	LF	14,190.000	14,190.000
0320	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. Church Street & Nebel Street	EACH	1.000	1.000
0322	656.0201	Electrical Service Meter Breaker Pedestal (location) 02. Church Street & Michigan Avenue	EACH	1.000	1.000
0324	657.0100	Pedestal Bases	EACH	9.000	9.000
0326	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	18.000	18.000
0328	657.0315	Poles Type 4	EACH	1.000	1.000
0330	657.0345	Poles Type 9	EACH	2.000	2.000
0332	657.0347	Poles Type 9-Special	EACH	2.000	2.000
0334	657.0350	Poles Type 10	EACH	3.000	3.000
0336	657.0352	Poles Type 10-Special	EACH	1.000	1.000
0338	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
0340	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	3.000	3.000
0342	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	2.000	2.000
0344	657.0520	Monotube Arms 20-FT	EACH	2.000	2.000
0346	657.0525	Monotube Arms 25-FT	EACH	2.000	2.000
0348	657.0530	Monotube Arms 30-FT	EACH	1.000	1.000
0350	657.0541	Monotube Arms 40-FT-Special	EACH	3.000	3.000
0352	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	1.000	1.000
0354	657.0806	Luminaire Arms Steel 6-FT	EACH	4.000	4.000
0356	658.0173	Traffic Signal Face 3S 12-Inch	EACH	22.000	22.000
0358	658.0174	Traffic Signal Face 4S 12-Inch	EACH	7.000	7.000
0360	658.0416	Pedestrian Signal Face 16-Inch	EACH	16.000	16.000
0362	658.1133	Programmable Traffic Signal Face 3S 12-Inch	EACH	2.000	2.000
0364	658.1134	Programmable Traffic Signal Face 4S 12-Inch	EACH	1.000	1.000
0366	658.5070	Signal Mounting Hardware (location) 01. Church Street & Nebel Street	EACH	1.000	1.000
0368	658.5070	Signal Mounting Hardware (location) 02. Church Street & Michigan Avenue	EACH	1.000	1.000
0370	690.0150	Sawing Asphalt	LF	1,600.000	1,600.000
0372	690.0250	Sawing Concrete	LF	880.000	880.000
0374	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	4,260.000	4,260.000
0376	740.0440	Incentive IRI Ride	DOL	2,600.000	2,600.000
0378	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0380	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,980.000	1,980.000
0382	SPV.0060	Special 01. Lighting Control Cabinets Special	EACH	1.000	1.000
0384	SPV.0060	Special 02. Roadway Lighting Luminaire and Arm	EACH	19.000	19.000

Estimate Of Quantities

6998-13-71

Line	Item	Item Description	Unit	Total	Qty
0386	SPV.0060	Special 03. Poles Type 5-Aluminum Special	EACH	17.000	17.000
0388	SPV.0060	Special 04. Painting of Lighting Equipment	EACH	1.000	1.000
0390	SPV.0060	Special 05. Vehicular Video Detection System, Church Street & Nebel Street	EACH	1.000	1.000
0392	SPV.0060	Special 06. Vehicular Video Detection System, Church Street & Michigan Avenue	EACH	1.000	1.000
0394	SPV.0060	Special 07. Traffic Signal Cabinet and Controller, Church Street & Nebel Street	EACH	1.000	1.000
0396	SPV.0060	Special 08. Traffic Signal Cabinet and Controller, Church Street & Michigan Avenue	EACH	1.000	1.000
0398	SPV.0060	Special 09. APS System, Church Street & Nebel Street	EACH	1.000	1.000
0400	SPV.0060	Special 10. APS System, Church Street & Michigan Avenue	EACH	1.000	1.000
0402	SPV.0060	Special 11. Dual Cellular And Radio Preemption And Priority Sys, Church St & Nebel St	EACH	1.000	1.000
0404	SPV.0060	Special 12. Dual Cellular And Radio Preemption And Priority Sys, Church St & Michigan Av	EACH	1.000	1.000
0406	SPV.0060	Special 13. Removing Electrical Service Meter Breaker Pedestal, Church St & Nebel St	EACH	1.000	1.000
0408	SPV.0060	Special 14. Removing Electrical Service Meter Breaker Pedestal, Church St & Michigan Ave	EACH	1.000	1.000
0410	SPV.0060	Special 15. Salvaging Traffic Signal Equipment, Church St & Nebel St	EACH	1.000	1.000
0412	SPV.0060	Special 16. Salvaging Traffic Signal Equipment, Church St & Michigan Ave	EACH	1.000	1.000
0414	SPV.0060	Special 17. Roadway Lighting Luminaire	EACH	5.000	5.000
0416	SPV.0060	Special 18. Remove, Salvage, and Reinstall Signs	EACH	42.000	42.000
0418	SPV.0060	Special 19. Drain Basin 24-Inch	EACH	38.000	38.000
0420	SPV.0060	Special 20. Temporary Water Service	EACH	1.000	1.000
0422	SPV.0060	Special 21. Standard Hydrant	EACH	6.000	6.000
0424	SPV.0060	Special 22. Construction Staking Water Main	EACH	1.000	1.000
0426	SPV.0060	Special 23. Bypass Temporary Sewer	EACH	4.000	4.000
0428	SPV.0060	Special 24. 48-Inch Diameter Sanitary Sewer Manhole	EACH	11.000	11.000
0430	SPV.0060	Special 25. Construction Staking Sanitary Sewer Structures	EACH	11.000	11.000
0432	SPV.0060	Special 26. Irrigation System	EACH	1.000	1.000
0434	SPV.0060	Special 27. Temporary Storm Sewer Connection	EACH	3.000	3.000
0436	SPV.0090	Special 01. Storm Sewer Lateral 4-Inch	LF	15.000	15.000
0438	SPV.0090	Special 02. Storm Sewer Lateral 6-Inch	LF	900.000	900.000
0440	SPV.0090	Special 03. Water Main 6-Inch PVC	LF	59.000	59.000
0442	SPV.0090	Special 04. Water Main 8-Inch PVC	LF	253.000	253.000
0444	SPV.0090	Special 05. Water Main 12-Inch PVC	LF	2,589.000	2,589.000
0446	SPV.0090	Special 06. Water Lateral 1.25-Inch	LF	725.000	725.000
0448	SPV.0090	Special 07. Water Lateral 2-Inch	LF	190.000	190.000
0450	SPV.0090	Special 08. Water Lateral 4-Inch	LF	200.000	200.000
0452	SPV.0090	Special 09. Sanitary Sewer Main 8-Inch	LF	566.000	566.000
0454	SPV.0090	Special 10. Sanitary Sewer Main 10-Inch	LF	176.000	176.000
0456	SPV.0090	Special 11. Sanitary Sewer Main 15-Inch	LF	94.000	94.000
0458	SPV.0090	Special 12. Sanitary Sewer Main 18-Inch	LF	1,361.000	1,361.000
0460	SPV.0090	Special 13. Sanitary Sewer Main 21-Inch	LF	964.000	964.000
0462	SPV.0090	Special 14. Sanitary Sewer Lateral 6-Inch	LF	1,600.000	1,600.000
0464	SPV.0090	Special 15. Class B Bedding	LF	6,300.000	6,300.000
0466	SPV.0090	Special 16. Encased Ductile Iron Water Main with Fluorocarbon Gaskets 12-inch	LF	240.000	240.000
0468	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Contaminated Soil	TON	89.000	89.000

3

CLEARING AND GRUBBING							
			201.0105	201.0120	201.0205	201.0220	
			CLEARING	CLEARING	GRUBBING	GRUBBING	
STATION	-	STATION	SIDE	STA	ID	STA	ID
18+30			LT	--	15	--	15
28+00	-	30+00	RT	2	--	2	--
PROJECT 6998-13-71 TOTAL				2	15	2	15

BASE AGGREGATE DENSE				
			*	*
			305.0120	624.0100
			1 1/4-INCH	WATER
STATION - STATION	LOCATION	TON	MGAL	
11+34 - 12+69	BUS 51 - STAGE 1 (RR APPROACH)	843	13	
12+69 - 20+00	BUS 51 - STAGE 1 & 2	2085	32	
20+00 - 30+23	BUS 51 - STAGE 3	2379	37	
30+23 - 32+05	BUS 51 - STAGE 4	703	11	
32+05 - 39+25	BUS 51 - STAGE 5 (CONCRETE)	2200	33	
39+25 - 40+60	BUS 51 - STAGE 5 (ASPHALT)	517	8	
10+74'CS' - 11+58'CS'	CHURCH ST - STAGE 1 & 2	324	5	
10+61'NE' - 12+89'NE'	NEBEL ST - STAGE 4	476	8	
10+23'MI' - 12+19'MI'	MICHIGAN AVE - STAGE 5	348	6	
11+34 - 12+69	SIDEWALK - STAGE 1 (RR APPROACH)	14	1	
12+69 - 20+00	SIDEWALK - STAGE 1 & 2	163	3	
20+00 - 30+23	SIDEWALK - STAGE 3	205	4	
30+23 - 32+05	SIDEWALK - STAGE 4	51	1	
32+05 - 40+60	SIDEWALK - STAGE 5	205	4	
12+69 - 20+00	DRIVEWAYS - STAGE 1 & 2	153	3	
20+00 - 30+23	DRIVEWAYS - STAGE 3	299	5	
30+23 - 32+05	DRIVEWAYS - STAGE 4	32	1	
32+05 - 40+60	DRIVEWAYS - STAGE 5	123	2	
PROJECT 6998-13-71 TOTAL		11,120	177	
* ADDITIONAL QUANTITIES LISTED ELSEWHERE				

REMOVALS									
				*	*	*	*		
				204.0100	204.0150	204.0155	204.9165.S.01	690.0150	690.0250
				REMOVING	REMOVING	REMOVING	REMOVING	SAWING	SAWING
				CONCRETE	CURB &	CONCRETE	LANDSCAPE	ASPHALT	CONCRETE
				PAVEMENT	GUTTER	SIDEWALK	ROCK		
STA	-	STA	STAGE	SY	LF	SY	SF	LF	LF
11+34	-	12+69	1	-	400	138	-	-	-
12+69	-	20+00	1 & 2	5,480	158	845	130	354	340
20+00	-	30+23	3	6,520	22	873	-	414	215
30+23	-	32+05	4	1,300	332	239	-	197	105
32+05	-	40+60	5	6,700	38	1,040	-	410	200
PROJECT 6998-13-71 TOTAL				20,000	950	3,135	130	1,375	860
* ADDITIONAL QUANTITIES LISTED ELSEWHERE									

PAVING ITEMS							
				*			
				415.0100	602.0410	602.0810	620.0300
				CONCRETE	CONCRETE	CONCRETE	CONCRETE
				PAVEMENT 10-	SIDEWALK	DRIVEWAY 6-	MEDIAN
				INCH	5-INCH	INCH	SLOPED NOSE
STA	-	STA	STAGE	SY	SF	SY	SF
11+34	-	12+69	1	-	855	-	-
12+69	-	20+00	1 & 2	3,844	6,600	244	16
20+00	-	30+23	3	4,560	8,280	576	-
30+23	-	32+05	4	1,451	2,060	43	-
32+05	-	40+60	5	4,335	8,300	207	44
PROJECT 2703-09-72 TOTAL				14,190	26,095	1,070	60
* ADDITIONAL QUANTITIES LISTED ELSEWHERE							

ASPHALTIC ITEMS									
			450.4000	455.0605	460.5223	460.5224	460.6223	460.6424	465.0120
			HMA COLD	TACK	HMA	HMA	HMA	HMA	ASPHALTIC SURFACE
			WEATHER	COAT	PAVEMENT	PAVEMENT	PAVEMENT	PAVEMENT	DRIVEWAYS AND
			PAVING		3 LT 58-28 S	4 LT 58-28 S	3 MT 58-28 S	4 MT 58-28 H	FIELD ENTRANCES
STATION	-	STATION	STAGE	TON	GAL	TON	TON	TON	TON
11+34	-	12+69	1	---	67	---	---	188	134
12+69	-	20+00	1 & 2	---	28	50	39	---	59
20+00	-	30+23	3	---	0	---	---	---	51
30+23	-	32+05	4	---	42	76	59	---	9
32+05	-	40+60	5	63	78	141	110	---	34
PROJECT 6998-13-71 TOTAL				63	215	267	208	188	134

EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL			
SPV.0195.01			
EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL			
STATION	-	STATION	LOCATION
31+20	-	32+40	BUS 51 NB
PROJECT 6998-13-71 TOTAL			89
ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.			

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	208.1100 SELECT BORROW (EXPANDED EBS BACKFILL) (11)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)
			CUT (2)	EBS EXCAVATION			FACTOR 1.30		FACTOR 1.25		
DIVISION 1 - BUSINESS 51 STAGE 1											
	11+34 to 12+69	BUS 51 (RR CROSSING APPROACHES)	687	--	195	491	--	10	13	478	--
	12+70'NB' to 16+48'NB'	BUS 51 NORTHBOUND 'NB'	880	--	364	516	--	17	21	495	--
	12+69'SB' to 16+48'SB'	BUS 51 SOUTHBOUND 'SB'	733	--	375	358	--	23	28	330	--
	16+51 to 20+00	BUS 51	1,702	--	622	1,080	--	23	29	1,051	--
DIVISION 1 SUBTOTAL			4,001	0	1,556	2,445	0	73	91	2,354	2,354
DIVISION 2 - BUSINESS 51 STAGE 2											
	17+75 to 21+25	BUS 51	800	--	312	487	--	10	12	475	--
	10+74'CS' to 11+57'CS'	CHURCH ST (SOUTH) 'CS'	368	--	39	329	--	0	1	328	--
DIVISION 2 SUBTOTAL			1,168	0	352	816	0	10	13	804	804
DIVISION 3 - BUSINESS 51 STAGE 3											
	20+00 to 30+00	BUS 51	3,830	--	1,667	2,163	--	25	31	2,132	--
DIVISION 3 SUBTOTAL			3,830	0	1,667	2,163	0	25	31	2,132	2,132
DIVISION 4 - BUSINESS 51 STAGE 4											
	30+00 to 32+00	BUS 51	1,080	--	381	699	--	1	2	697	--
	10+61'NE' to 11+39'NE'	NEBEL ST (WEST) 'NE'	309	--	6	302	--	1	1	302	--
	12+54'NE' to 12+78'NE'	NEBEL ST (EAST) 'NE'	95	--	4	91	--	0	0	91	--
	TEMP CONNECTION - MICHIGAN CT AND MICHIGAN AVE		150	--	0	150	--	0	0	150	--
DIVISION 4 SUBTOTAL			1,635	0	392	1,243	0	2	3	1,240	1,240
DIVISION 5 - BUSINESS 51 STAGE 5											
	32+00 to 40+50	BUS 51	4,027	--	1,859	2,168	--	73	91	2,077	--
	10+23'MI' to 10+53'MI'	MICHIGAN AVE (WEST) 'MI'	95	--	25	70	--	0	0	70	--
	11+74'MI' to 12+19'MI'	MICHIGAN AVE (EAST) 'MI'	192	--	78	113	--	2	2	111	--
	REMOVAL OF TEMP CONNECTION - MICHIGAN CT AND MICHIGAN AVE		100	--	0	100	--	0	0	100	--
DIVISION 5 SUBTOTAL			4,414	0	1,962	2,452	0	75	93	2,358	2,358
UNDISTRIBUTED EBS EXCAVATION	5% of Roadway Base Course Area at 18" Depth		--	550	--	--	715	--	--	--	--
CATEGORY 0010 TOTAL			15,048	550	1,556	9,119	715	184	230	8,889	8,889
CATEGORY 0010 TOTAL COMMON EXCAVATION			15,598								
GRAND TOTAL			15,048	550	1,556	9,119	715	184	230	8,889	8,889
TOTAL COMMON EXCAVATION			15,598								

NOTES:
(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
(11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = 1.30. ITEM NUMBER 208.1100
(13) EXPANDED FILL FACTOR = 1.25
(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

3

CONCRETE CURB & GUTTER

				601.0342		601.0405		601.0407		601.0409		601.0411		601.0583		601.0600	
				CONCRETE CURB & GUTTER INTEGRAL 18-INCH		CONCRETE CURB & GUTTER 18-INCH TYPE A		CONCRETE CURB & GUTTER 18-INCH TYPE D		CONCRETE CURB & GUTTER 30-INCH TYPE A		CONCRETE CURB & GUTTER 30-INCH TYPE D		CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE T		CONCRETE CURB PEDESTRIAN	
STATION	-	STATION	STAGE	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
11+34	-	12+69	1	-	-	-	195	-	-	-	207	-	-	-	-	-	-
12+69	-	20+00	1 & 2	1371	784	103	-	-	-	97	93	-	-	-	-	-	-
20+00	-	30+23	3	2010	42	13	10	-	-	-	-	-	-	-	-	243	-
30+23	-	32+05	4	147	191	-	-	-	-	227	-	-	-	-	-	92	-
32+05	-	40+60	5	1062	213	-	210	434	-	-	-	-	-	-	-	86	-
PROJECT 6998-13-71 TOTAL				4590	1230	311	220	965	93	421							
* ADDITIONAL QUANTITIES LISTED ELSEWHERE																	

3

DETECTABLE WARNING FIELDS

		602.0505		602.0515		602.0615	
		CURB RAMP DETECTABLE WARNING FIELD YELLOW		CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA		CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA	
LOCATION	STAGE	SF	SF	SF	SF	SF	SF
RR CROSSING APPROACH	1	24	-	-	-	-	-
CHURCH ST	1	-	60	-	-	-	-
WALGREENS DRIVEWAY	3	-	20	-	-	-	-
NEBEL ST	4	-	72	14	-	-	-
MICHIGAN AVE	5	-	90	24	-	-	-
PROJECT 6998-13-71 TOTAL		24	242	38			

EROSION CONTROL MOBILIZATION

		628.1905		628.1910	
		MOBILIZATIONS EROSION CONTROL EACH		MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	
PROJECT	6998-13-71	15	7		
PROJECT 6998-13-71 TOTAL		15	7		

EROSION CONTROL

	628.7005	628.7010	628.7015	628.7020
	INLET PROTECTION	INLET PROTECTION	INLET PROTECTION	INLET PROTECTION
	TYPE A	TYPE B	TYPE C	TYPE D
STAGE	EACH	EACH	EACH	EACH
1	13	1	12	15
2	3	--	--	7
3	11	--	10	10
4	5	--	10	2
5	11	--	7	8
UNDISTRIBUTED	11	1	10	11
PROJECT 6998-13-71 TOTAL	54	2	49	53

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

3

PLANTING

	632.0101.01 TREES Amelanchier X grandiflora `Autumn Brilliance`, B&B, 1.5" CAL	632.0101.02 TREES Ginkgo biloba `PNI 2720` / Princeton Sentry®, B&B, 2.5"-3" CAL	632.0101.03 TREES Syringa reticulata `Ivory Silk` Japanese Tree Lilac, B&B, 1.5" CAL	632.0201.01 SHRUBS Ceanothus americanus, #3 Container	632.0201.02 SHRUBS Rosa rugosa, #5 Container, 2-3 ft high	632.0201.03 SHRUBS Spiraea X bumalda `Goldflame`, #3 Container, 24" high min.	632.0201.04 SHRUBS Euonymus fortunei `Coloratus`, #1 Container	632.0201.05 SHRUBS Calamagrostis X acutiflora `Karl Foerster`, #1 Container	632.0201.06 SHRUBS Sporobolus heterolepis, #1 Container	632.0201.07 SHRUBS Nepeta X `Walker's Low`, #1 Containter	632.0201.08 SHRUBS Perovskia atriplicifolia `Blue Steel`, #1 Container
LOCATION	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
BUS 51	1	3	3	10	2	20	48	50	23	63	10
PROJECT 6998	1	3	3	10	2	20	48	50	23	63	10

3

LANDSCAPING

	* 625.0100 TOPSOIL SY	* 629.0210 FERTILIZER TYPE B CWT	* 631.1000 SOD LAWN SY	* 631.0300 SOD WATER MGAL
LOCATION				
BUS 51	6,774	4.5	6,487	150.0
UNDISTRIBUTED	706	1.3	683	43.5
PROJECT 6998-13-71 TOTAL	7,480	5.8	7,170	193.5
* ADDITIONAL QUANTITIES LISTED ELSEWHERE				

LANDSCAPING PLANTING SURVEILLANCE AND CARE CYCLES

	632.9101 LANDSCAPING PLANTING SURVEILLANCE AND CARE CYCLES EACH
LOCATION	
BUS 51	20
PROJECT 6998-13-71 TOTAL	20

IRRIGATION SYSTEM

	SPV.0060.26 IRRIGATION SYSTEM EACH
PROJECT	
6998-13-71	1
PROJECT 6998-13-71 TOTAL	1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

3

REMOVING SIGNS

		638.2602	638.3000	SPV.0060.18		
		REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS	REMOVE, SALVAGE, AND REINSTALL SIGNS		
SIGN NUMBER	SIGN CODE	SIGN MESSAGE	EACH	EACH	EACH	NOTES
S00-01	W3-5	SPEED LIMIT 25 AHEAD	-	-	1	SALVAGED SIGN TO BE MOUNTED ON EXISTING UTILITY POLE
S01-01	R2-1	SPEED LIMIT 35	-	-	1	
S01-02	R4-7	KEEP RIGHT SYMBOL	-	-	1	
S01-03	W10-1 & W10-1A	RAILROAD CROSSING & EXEMPT	-	-	1	
S01-04	R2-1	SPEED LIMIT 25	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST
S01-05	R1-1	STOP	-	-	1	
S01-06	I2-3	STEVENS POINT POPULATION 26,2667, 2 SISTER CITY SIGNS & PARTNERS OF AMERICAS SIGNS	-	-	1	
S01-07	R7-66	PARKING AND ATV/UTV SIGNS	-	-	1	
S01-08	R2-1	SPEED LIMIT 25, COMMUNITY AND INFORMATION SIGNS	-	-	1	SALVAGED COMMUNITY AND INFORMATION SIGNS TO BE REINSTALLED ON A NEW POST WITH TREE CITY USA SIGN FROM S01-09
S01-09		TREE CITY USA SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST WITH COMMUNITY AND INFORMATION SIGNS FROM S01-08
S01-10		STEVENS POINT CITY BUS - BUS STOP	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST WITH NO PARKING SIGN FROM S01-11
S01-11	R8-3	NO PARKING SYMBOL	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST WITH BUS STOP SIGN FROM S01-10
R01-01	R5-1	DO NOT ENTER	1	1	-	
R01-02	J3-1	SOUTH 51 WITH ARROW	3	1	-	
S01-12	R8-3	NO PARKING SYMBOL	-	-	1	
S01-13	R8-3	NO PARKING SYMBOL	-	-	1	
S02-01	R8-3	NO PARKING SYMBOL	-	-	1	
S02-02	R2-1	SPEED LIMIT 25	-	-	1	
S02-03	J3-1	SOUTH BUSINESS 51	-	-	1	
R02-01	M5-2L	ADVANCE LEFT TURN ARROW	1	-	-	
S02-04		BUS STOP	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST
S02-05	R2-1 & R8-3	SPEED LIMIT 25 & NO PARKING SYMBOL	-	-	1	
S02-06	R8-3	NO PARKING SYMBOL	-	-	1	
S02-07	R8-3	NO PARKING SYMBOL	-	-	1	
S02-08	M1-94H	NEBEL ST	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S02-09	D1-1 , R1-1F	NEBEL ST WITH ARROW, FOLDING STOP SIGN & NO LEFT TURN FROM RIGHT LANE	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S02-10	R1-1F	FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S02-11	R2-1	SPEED LIMIT 25	-	-	1	
S02-12		STEVENS POINT CITY BUS - BUS STOP	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST
S02-13	R1-1F	FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S02-14	M1-94H	CHURCH ST	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL MAST ARM
S02-15	M1-94H	NEBEL ST	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL MAST ARM
S02-16	D1-1 & R1-1F	CHURCH ST & FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S02-17	R2-1	SPEED LIMIT 25	-	-	1	
S02-18	R8-3	NO PARKING SYMBOL	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST
S03-01	M1-94H	MICHIGAN AV	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL MAST ARM
S03-02	D1-1, R1-1F	CHURCH ST, FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S03-03	R1-1F	FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
R03-01	R1-1F, R4-52R	FOLDING STOP SIGN, KEEP RIGHT	2	-	-	
S03-04	D1-57R	INDUSTRIAL PARK	-	-	1	
S03-05	R1-1F	FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
R03-02	R1-1F, R4-52R	FOLDING STOP SIGN, KEEP RIGHT	2	-	-	
S03-06	M1-94H	MICHIGAN AV	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL MAST ARM
R03-03	R1-2	YIELD	1	1	-	
S03-07	D1-1 & R1-1F	CHURCH ST & FOLDING STOP SIGN	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON NEW SIGNAL POLE
S03-08	R2-1	SPEED LIMIT 25	-	-	1	SALVAGED SIGN TO BE REINSTALLED ON A NEW POST
S04-01	R8-3	NO PARKING SYMBOL	-	-	1	
S04-02	J1-1	JCT COUNTY HH	-	-	1	
PROJECT 6998-13-71 TOTAL			10	3	42	

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

MISCELLANEOUS QUANTITIES

SHEET 192

E

3

3

PERMANENT SIGNING

						637.2230	637.2210	634.0614	634.0616		
						SIGNS TYPE II REFLECTIVE F	SIGNS TYPE II REFLECTIVE H	POSTS WOOD 4X6- INCH 14-FT	POSTS WOOD 4X6- INCH 16-FT		
SIGN #	CODE	MESSAGE	W	H	# POSTS	SF	SF	EACH	EACH	REMARKS / SIGN LOCATION	
01-01	W9-1R	RIGHT LANE ENDS	36	36	1	9.00	-	-	1		
01-02	W9-1R	RIGHT LANE ENDS	36	36	1	9.00	-	-	1		
01-03	W4-2R	RIGHT LANE ENDS SYMBOL	36	36	1	9.00	-	-	1		
01-04	W4-2R	RIGHT LANE ENDS SYMBOL	36	36	1	9.00	-	-	1		
01-05	R3-20L	BEGIN LEFT TURN LANE	24	36	1	-	6.00	-	1		
S01-09	TREE CITY USA		-	-		-	-				
	BICYCLE FRIENDLY COMMUNITY SIGN		-	-	1	-	-	-	1	SALVAGED SIGNS TO BE ON A NEW POST	
	PORTAGE COUNTY SIGN		-	-		-	-				
01-06	W11-2	PEDESTRIAN CROSSING SYMBOL	30	30	1	6.25	-	-	1	FLUORESCENT YELLOW-GREEN	
	W16-7R	DIAGONAL DOWNWARD POINTING ARROW	24	12		2.00	-			FLUORESCENT YELLOW-GREEN	
01-07	W11-2	PEDESTRIAN CROSSING SYMBOL	30	30	1	6.25	-	-	1	FLUORESCENT YELLOW-GREEN	
	W16-7L	DIAGONAL DOWNWARD POINTING ARROW	24	12		2.00	-			FLUORESCENT YELLOW-GREEN	
01-08	W11-2	PEDESTRIAN CROSSING SYMBOL	30	30	1	6.25	-	-	1	FLUORESCENT YELLOW-GREEN	
	W16-7L	DIAGONAL DOWNWARD POINTING ARROW	24	12		2.00	-			FLUORESCENT YELLOW-GREEN	
01-09	W11-2	PEDESTRIAN CROSSING SYMBOL	30	30	1	6.25	-	-	1	FLUORESCENT YELLOW-GREEN	
	W16-7R	DIAGONAL DOWNWARD POINTING ARROW	24	12		2.00	-			FLUORESCENT YELLOW-GREEN	
S01-04	R2-1	SPEED LIMIT 25	24	36	1	-	-	-	1	SALVAGED SIGN TO BE ON A NEW POST	
01-10	W1-6R	NIGHT ARROW (SINGLE)	48	24	1	8.00	-	1	-		
01-11	R3-9C	BEGIN	24	6	1	-	1.00	1	-		
	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL	24	36		-	6.00				
01-12	R3-9D	END	24	6	1	-	1.00	1	-		
	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL	24	36		-	6.00				
S01-10	BUS STOP				1	-	-	1	-	SALVAGED SIGNS TO BE ON A NEW POST	
	NO PARKING					-	-				
S02-04	BUS STOP				1	-	-	1	-	SALVAGED SIGN TO BE ON A NEW POST	
02-01	R3-9D	END	24	6	1	-	1.00	1	-		
	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL	24	36		-	6.00				
02-02	R3-9C	BEGIN	24	6	1	-	1.00	1	-		
	R3-9B	CENTER LANE LEFT TURN ONLY SYMBOL	24	36		-	6.00				
02-03	R3-8LF	LANE CONTROL	36	30	1	-	7.50	1			
S02-12	BUS STOP				1	-	-	1	-	SALVAGED SIGN TO BE ON A NEW POST	
02-04	R3-8LAR	LANE CONTROL	54	30	2	-	11.25	2	-		
02-05	M3-1	NORTH	24	12	1	-	2.00	-	1		
	M4-3	BUSINESS	24	12		-	2.00				
	M1-4	51	24	24		-	4.00				
S02-18	NO PARKING				1	-	-	1	-	SALVAGED SIGN TO BE ON A NEW POST	
03-01	R3-8LF	LANE CONTROL	36	30	1	-	7.50	1	-		
03-02	M3-1	SOUTH	24	12	1	-	2.00	-	1		
	M4-3	BUSINESS	24	12		-	2.00				
	M1-4	51	24	24		-	4.00				
03-03	W12-1D	DOUBLE DOWN ARROWS	24	24	1	4.00	-	1	-		
03-04	R1-1	STOP SIGN	30	30	1	-	6.25	1	-		
03-05	W8-25	SHOULDER ENDS	36	36	-	9.00	-	-	-	SIGN TO BE MOUNTED ON SIGNAL POLE	
03-06	M3-1	NORTH	24	12	1	-	2.00	-	1		
	M4-3	BUSINESS	24	12		-	2.00				
	M1-4	51	24	24		-	4.00				
S03-08	R2-1	SPEED LIMIT 25			1	-	-	1	-	SALVAGED SIGN TO BE ON A NEW POST	
03-07	R3-8LF	LANE CONTROL	36	30	1	-	7.50	1	-		
03-08	W4-2R	RIGHT LANE ENDS SYMBOL	36	36	1	9.00	-	-	1		
PROJECT 6998-13-71 TOTAL						99.00	98.00	17.00	15.00		

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PROJECT NO: 6998-13-71

HWY: BUSINESS 51

COUNTY: PORTAGE

MISCELLANEOUS QUANTITIES

SHEET 193

E

PAVEMENT MARKING

LOCATION	646.2025	646.2040						646.4040	
	MARKING LINE	MARKING LINE GROOVED WET REF EPOXY						MARKING LINE GROOVED WET REF EPOXY	
	GROOVED BLACK								
	EPOXY								
	6-INCH	6-INCH						10-INCH	
	12.5' BLACK LAG, 25' GAP	12.5' WHITE LINE, 25' GAP	WHITE	DOUBLE SOLID YELLOW	SOLID YELLOW	12.5' LINE, 37.5' GAP DASHED YELLOW	3' LINE, 9' GAP DOT PATTERN WHITE	3' LINE, 9' GAP DOT PATTERN WHITE	WHITE
	LF	LF	LF	LF	LF	LF	LF	LF	LF
BUS 51	160	180	5,200	2,520	2,470	490	40	25	1,205
SUBTOTAL	160	180	5,200	2,520	2,470	490	40	25	1,205
PROJECT 2703-09-72 TOTAL	160	10,900						1,230	

PAVEMENT MARKING (CONTINUED)

LOCATION	646.5020		646.5120	646.5320	646.6120	646.7120	646.7420	646.8120	646.8220	646.6466	646.6470	646.9000
	MARKING ARROW EPOXY		MARKING	MARKING	MARKING STOP	MARKING DIAGONAL	MARKING	MARKING CURB	MARKING ISLAND	COLD WEATHER	COLD WEATHER	MARKING
	TYPE 2		WORD EPOXY	RAILROAD	LINE EPOXY	EPOXY	CROSSWALK EPOXY	EPOXY	NOSE EPOXY	MARKING	MARKING	REMOVAL LINE
	TYPE 3			CROSSING	18-INCH	12-INCH	TRANSVERSE LINE			EPOXY	EPOXY	4-INCH
	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW	WHITE	YELLOW	YELLOW			
	EACH	EACH	EACH	EACH	LF	LF	LF	LF	EACH	LF	LF	LF
BUS 51	26	3	4	4	240	10	1,140	10	1	3,670	850	50
SUBTOTAL	26	3	4	4	240	10	1,140	10	1	3,670	850	50
PROJECT 2703-09-72 TOTAL	29		4	4	240	10	1,140	10	1	3,670	850	50

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

CONSTRUCTION STAKING

				650.4500 CONSTRUCTION STAKING SUBGRADE	650.5000 CONSTRUCTION STAKING BASE	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	650.8501.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 6998-13-71	650.9000 CONSTRUCTION STAKING CURB RAMPS	650.9500.01 CONSTRUCTION STAKING SIDEWALK 6998-13-71	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 6998-13-71	
STATION	-	STATION	LOCATION	STAGE	LF	LF	LF	LF	EACH	EACH	EACH	EACH
11+34	-	12+70	BUS 51 NB	1	136	136	---	---	---	---	---	---
11+33	-	12+69	BUS 51 SB	1	136	136	---	---	---	---	---	---
12+70	-	16+26	BUS 51 NB	1	356	---	---	356	---	---	---	---
12+69	-	16+26	BUS 51 SB	1	357	---	---	357	---	---	---	---
16+26	-	20+00	BUS 51	1	374	---	---	374	---	---	---	---
17+50	-	21+25	BUS 51	2	375	---	---	375	---	---	---	---
10+74	-	12+03	CHURCH ST	2	129	84	---	45	---	---	---	---
20+00	-	30+23	BUS 51	3	1,023	---	---	1,023	---	---	---	---
30+23	-	32+05	BUS 51	4	182	---	---	182	---	---	---	---
10+61	-	12+89	NEBEL ST	4	228	114	---	114	---	---	---	---
32+05	-	40+50	BUS 51	5	845	100	---	745	---	---	---	---
10+23	-	12+19	MICHIGAN AVE	5	196	79	---	117	---	---	---	---
PROJECT					---	---	1,790	---	1	24	1	1
PROJECT 6998-13-71 TOTAL					4,337	649	1,790	3,688	1	24	1	1

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

UTILITY REMOVALS											
LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245 REMOVING STORM SEWER 6-INCH LF	204.0245 REMOVING STORM SEWER 8-INCH LF	204.0245 REMOVING STORM SEWER 10-INCH LF	204.0245 REMOVING STORM SEWER 12-INCH LF	204.0245 REMOVING STORM SEWER 15-INCH LF	204.0245 REMOVING STORM SEWER 18-INCH LF	204.9060.S.01 REMOVING SANITARY MANHOLE EACH	204.9090.S.01 REMOVING SANITARY SEWER PIPE LF	209.9090.S.02 REMOVING WATER MAIN PIPE LF
CATEGORY CODE 0010											
PROJECT	8	19	50	105	155	1,930	150	175	--	--	--
CATEGORY 0010 SUBTOTALS	8	19	50	105	155	1,930	150	175	--	--	--
CATEGORY CODE 0020											
PROJECT	--	--	--	--	--	--	--	--	13	3,685	3,900
CATEGORY 0020 SUBTOTALS	--	--	--	--	--	--	--	--	13	3,685	3,900
TOTALS	8	19	50	105	155	1,930	150	175	13	3,685	3,900

3

STORM SEWER STRUCTURES														
STRUCTURE	STATION	ALIGNMENT	OFFSET	SPV.0060.19	520.8000	611.2004	611.2005	611.3901	611.0530	611.0624	611.0639	611.0642	650.4000	
				DRAIN BASIN	CONCRETE	MANHOLES	MANHOLES	INLETS MEDIAN 1	MH COVERS	INLET COVERS	INLET COVERS	INLET COVERS	CONSTRUCTION	CONSTRUCTION
				24-INCH	FOR PIPE	4-FT DIA	5-FT DIA	GRATE	TYPE J	TYPE H	TYPE H-S	TYPE M S	STAKING	STORM SEWER
EACH														
CATEGORY CODE 0010														
--	12+38.28	BUS 51	28.4 LT	--	1	--	--	--	--	--	--	--	--	--
--	12+95.92	BUS 51	56.2 RT	--	1	--	--	--	--	--	--	--	--	--
MH 5853	13+11.61	BUS 51	29.2 LT	--	--	1	--	--	1	--	--	--	1	1
INL 2394	13+11.61	BUS 51	39.2 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2393	13+21.61	BUS 51	39.0 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2392	13+11.61	BUS 51	11.2 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2391	13+47.17	BUS 51	8.8 RT	1	--	--	--	--	--	--	1	--	1	1
INL 2149	13+47.17	BUS 51	36.6 RT	1	--	--	--	--	--	--	1	--	1	1
INL 2148	13+77.77	BUS 51	34.7 RT	1	--	--	--	--	--	--	1	--	1	1
INL 608	15+06.58	BUS 51	49.0 RT	--	--	--	--	1	--	--	--	1	1	1
INL 607	15+85.00	BUS 51	45.0 RT	--	--	--	--	1	--	--	--	1	1	1
MH 6655	16+33.40	BUS 51	12.2 LT	--	--	1	--	--	1	--	--	--	1	1
INL 2151	16+33.54	BUS 51	20.7 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2150	16+19.92	BUS 51	32.5 RT	1	--	--	--	--	--	1	--	--	1	1
MH 6035	17+59.11	BUS 51	17.6 LT	--	--	--	1	--	1	--	--	--	1	1
--	10+91.99	CHURCH	14.4 LT	--	1	--	--	--	--	--	--	--	--	--
MH 6034	10+99.99	CHURCH	14.3 LT	--	--	--	1	--	1	--	--	--	1	1
INL 2390	11+30.30	CHURCH	38.2 LT	1	--	--	--	--	--	--	1	--	1	1
MH 6942	11+57.20	CHURCH	1.9 RT	--	--	1	--	--	1	--	--	--	1	1
INL 2389	11+57.86	CHURCH	17.5 RT	1	--	--	--	--	--	1	--	--	1	1
INL 2388	11+58.72	CHURCH	20.8 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2067	18+16.71	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2387	18+16.71	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
MH 6063	20+56.86	BUS 51	14.9 LT	--	--	--	1	--	1	--	--	--	1	1
INL 2153	20+56.86	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2152	20+56.86	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
INL 2154	20+66.72	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2155	20+67.00	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
MH 6097	23+22.51	BUS 51	11.5 LT	--	--	1	--	--	1	--	--	--	1	1
INL 2156	23+22.51	BUS 51	20.5 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2157	23+22.51	BUS 51	20.5 RT	1	--	--	--	--	--	1	--	--	1	1
--	24+52.57	BUS 51	43.4 RT	--	1	--	--	--	--	--	--	--	--	--
MH 6033	24+62.98	BUS 51	12.0 LT	--	--	1	--	--	1	--	--	--	1	1
INL 233	24+62.73	BUS 51	20.5 LT	1	--	--	--	--	--	1	--	--	1	1
INL 224	24+62.98	BUS 51	20.5 RT	1	--	--	--	--	--	1	--	--	1	1
INL 2158	26+53.92	BUS 51	20.5 RT	1	--	--	--	--	--	1	--	--	1	1
MH 6132	27+43.64	BUS 51	11.5 LT	--	--	1	--	--	1	--	--	--	1	1
INL 222	27+45.57	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 220	27+36.73	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
INL 221	27+87.57	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 219	27+83.73	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
MH 6657	30+93.93	BUS 51	17.7 LT	--	--	--	1	--	1	--	--	--	1	1
INL 2160	12+55.85	NEBEL	24.7 LT	1	--	--	--	--	--	1	--	--	1	1
MH 6748	32+00.00	BUS 51	11.5 LT	--	--	1	--	--	1	--	--	--	1	1
INL 225	32+00.00	BUS 51	20.5 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2161	31+67.18	BUS 51	40.8 LT	--	--	--	--	1	--	--	--	1	1	1
INL 215	32+00.00	BUS 51	31.5 RT	1	--	--	--	--	--	1	--	--	1	1
MH 5811	36+01.94	BUS 51	11.5 LT	--	--	1	--	--	1	--	--	--	1	1
INL 2164	10+52.53	MICHIGAN	24.4 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2163	10+55.39	MICHIGAN	23.4 RT	1	--	--	--	--	--	1	--	--	1	1
INL 2162	35+25.96	BUS 51	31.0 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2165	11+66.04	MICHIGAN	24.5 LT	1	--	--	--	--	--	1	--	--	1	1
INL 2166	11+82.48	MICHIGAN	36.5 RT	1	--	--	--	--	--	1	--	--	1	1
MH 6131	38+98.13	BUS 51	11.5 LT	--	--	--	1	--	1	--	--	--	1	1
INL 217	38+98.12	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 218	38+69.31	BUS 51	20.5 LT	1	--	--	--	--	--	--	1	--	1	1
INL 2168	38+98.14	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
INL 2167	38+69.31	BUS 51	20.5 RT	1	--	--	--	--	--	--	1	--	1	1
MH 5717	39+13.84	BUS 51	8.5 LT	--	--	--	1	--	1	--	--	--	1	1
TOTALS				38	4	8	6	3	14	17	21	3	55	

3

3

STORM SEWER PIPES									
	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	608.3015 STORM SEWER PIPE CLASS III-A 15-INCH LF	608.3018 STORM SEWER PIPE CLASS III-A 18-INCH LF	608.3024 STORM SEWER PIPE CLASS III-A 24-INCH LF	SPV.0090.01 STORM SEWER LATERAL 4-INCH LF	SPV.0090.02 STORM SEWER LATERAL 6-INCH LF
LOCATION									
CATEGORY CODE 0010									
OUTLET - MH 5853	--	--	--	--	--	43	--	--	--
MH 5853 - INL 2394	--	--	--	--	10	--	--	--	--
INL 2394 - INL 2393	10	--	--	--	--	--	--	--	--
MH 5853 - INL 2392	--	--	--	--	--	18	--	--	--
INL 2392 - INL 2391	--	--	--	--	--	41	--	--	--
INL 2391 - INL 2149	--	--	--	--	--	28	--	--	--
INL 2149 - EXISTING	--	--	--	--	--	55	--	--	--
INL 2149 - INL 2148	--	31	--	--	--	--	--	--	--
INL 2148 - INL 608	130	--	--	--	--	--	--	--	--
INL 608 - INL 609	79	--	--	--	--	--	--	--	--
MH 6655 - INL 2151	--	--	--	9	--	--	--	--	--
MH 6655 - INL 2150	--	--	--	47	--	--	--	--	--
MH 6655 - MH 6035	--	--	--	--	--	127	--	--	--
MH 6035 - MH 6942	--	--	--	--	--	--	29	--	--
MH 6942 - INL 2389	--	--	--	16	--	--	--	--	--
MH 6942 - INL 2388	--	--	--	23	--	--	--	--	--
INL 2388 - INL 2067	--	--	--	51	--	--	--	--	--
INL 2067 - INL 2387	--	--	--	41	--	--	--	--	--
MH 6942 - MH 6034	--	--	--	--	--	--	63	--	--
MH 6034 - EXISTING	--	--	--	--	8	--	--	--	--
MH 6034 - INL 2390	--	--	--	55	--	--	--	--	--
MH 6035 - MH 6063	--	--	--	--	--	--	301	--	--
MH 6063 - INL 2153	--	--	--	6	--	--	--	--	--
INL 2153 - INL 2152	--	--	--	10	--	--	--	--	--
MH 6063 - INL 2154	--	--	--	35	--	--	--	--	--
INL 2154 - INL 2155	--	--	--	10	--	--	--	--	--
MH 6063 - MH 6097	--	--	--	--	--	--	267	--	--
MH 6097 - INL 2156	--	--	--	9	--	--	--	--	--
MH 6097 - INL 2157	--	--	--	32	--	--	--	--	--
MH 6097 - MH 6033	--	--	--	--	--	--	140	--	--
MH 6033 - INL 233	--	--	--	--	8	--	--	--	--
MH 6033 - INL 224	--	--	--	--	33	--	--	--	--
INL 233 - EXISTING	--	--	--	26	--	--	--	--	--
INL 224 - EXISTING	--	--	--	25	--	--	--	--	--
MH 6033 - MH 6132	--	--	--	--	--	--	281	--	--
MH 6132 - INL 222	--	--	--	9	--	--	--	--	--
INL 222 - INL 221	--	--	--	42	--	--	--	--	--
MH 6132 - INL 220	--	--	--	--	33	--	--	--	--
INL 220 - INL 219	--	--	--	47	--	--	--	--	--
INL 220 - INL 2158	--	--	--	--	83	--	--	--	--
MH 6132 - MH 6657	--	--	--	--	--	--	350	--	--
MH 6657 - EXISTING	--	--	102	--	--	--	--	--	--
INL 2160 - EXISTING	--	--	--	58	--	--	--	--	--
MH 6657 - MH 6748	--	--	106	--	--	--	--	--	--
MH 6748 - INL 225	--	--	--	--	9	--	--	--	--
INL 225 - INL 2161	--	--	--	39	--	--	--	--	--
MH 6748 - INL 215	--	--	--	43	--	--	--	--	--
MH 6748 - MH 5811	--	--	--	--	--	--	402	--	--
MH 5811 - INL 2164	--	--	--	39	--	--	--	--	--
INL 2164 - INL 2163	--	--	--	48	--	--	--	--	--
INL 2163 - INL 2162	--	--	--	33	--	--	--	--	--
MH 5811 - INL 2165	--	--	--	75	--	--	--	--	--
INL 2165 - INL 2166	63	--	--	--	--	--	--	--	--
MH 5811 - MH 6131	--	--	--	--	--	--	296	--	--
MH 6131 - INL 217	--	--	--	9	--	--	--	--	--
INL 217 - INL 218	--	--	--	29	--	--	--	--	--
MH 6131 - INL 2168	--	--	--	32	--	--	--	--	--
INL 2168 - INL 2167	--	--	--	29	--	--	--	--	--
MH 6131 - MH 5717	--	--	--	--	--	--	16	--	--
PROJECT	--	--	--	--	--	--	--	15	900
TOTALS	282	31	208	927	184	312	2,145	15	900

3

3

SANITARY SEWER STRUCTURES						
				SPV.0060.24 48-INCH DIAMETER SANITARY SEWER MANHOLE EACH	SPV.0060.25 CONSTRUCTION STAKING SANITARY SEWER STRUCTURES EACH	
STRUCTURE	STATION	ALIGNMENT	OFFSET			
CATEGORY CODE 0020						
MH 1136	15+23.56	BUS 51	4.0 LT	1	1	
MH 236	11+28.19	CHURCH	14.4 LT	1	1	
MH 1135	18+21.35	BUS 51	6.3 LT	1	1	
MH 234	20+88.60	BUS 51	1.9 LT	1	1	
MH 233	24+88.29	BUS 51	4.0 LT	1	1	
MH 232	28+21.05	BUS 51	4.0 LT	1	1	
MH 231	31+04.30	BUS 51	4.0 LT	1	1	
MH 491	12+94.99	NEBEL	0.7 LT	1	1	
MH 229	34+36.84	BUS 51	4.0 LT	1	1	
MH 228	37+49.32	BUS 51	4.0 LT	1	1	
MH 227	40+00.00	BUS 51	4.0 LT	1	1	
TOTALS				11	11	

SANITARY SEWER PIPE						
	SPV.0090.09 SANITARY SEWER MAIN 8-INCH	SPV.0090.10 SANITARY SEWER MAIN 10-INCH	SPV.0090.11 SANITARY SEWER MAIN 15-INCH	SPV.0090.12 SANITARY SEWER MAIN 18-INCH	SPV.0090.13 SANITARY SEWER MAIN 21-INCH	SPV.0090.14 SANITARY SEWER LATERAL 6-INCH
LOCATION	LF	LF	LF	LF	LF	LF
CATEGORY CODE 0020						
MH 1136 - MH 1135	298	--	--	--	--	--
EXISTING - MH 236	--	36	--	--	--	--
MH 236 - MH 234	--	--	--	345	--	--
MH 1135 - MH 234	268	--	--	--	--	--
MH 234 - MH 233	--	--	--	400	--	--
MH 233 - MH 232	--	--	--	333	--	--
MH 232 - MH 231	--	--	--	283	--	--
EXISTING - MH 231	--	140	--	--	--	--
MH 231 - MH 491	--	--	94	--	--	--
MH 231 - MH 229	--	--	--	--	333	--
MH 229 - MH 228	--	--	--	--	313	--
MH 228 - MH 227	--	--	--	--	251	--
MH 227 - EXISTING	--	--	--	--	67	--
PROJECT	--	--	--	--	--	1,600
TOTALS	566	176	94	1,361	964	1,600

3

WATERMAIN PIPES								
	SPV.0090.03 WATERMAIN 6-INCH PVC	SPV.0090.04 WATERMAIN 8-INCH PVC	SPV.0090.05 WATERMAIN 12-INCH PVC	SPV.0090.06 WATER LATERAL 1.25-INCH	SPV.0090.07 WATER LATERAL 2-INCH	SPV.0090.08 WATER LATERAL 4-INCH	SPV.0090.16 ENCASED DUCTILE IRON WATER MAIN WITH FLUOROCARBON GASKETS 12-INCH	SPV.0060.22 CONSTRUCTION STAKING WATERMAIN
LOCATION	LF	LF	LF	LF	LF	LF	LF	EA
CATEGORY CODE 0020								
BEGIN - CHURCH	5	--	399	--	--	--	240	--
CHURCH - NEBEL	--	--	1,312	--	--	--	--	--
NEBEL	5	212	--	--	--	--	--	--
NEBEL - MICHIGAN	--	--	458	--	--	--	--	--
MICHIGAN	4	41	--	--	--	--	--	--
MICHIGAN - END	45	--	420	--	--	--	--	--
PROJECT	--	--	--	725	190	200	--	1
TOTALS	59	253	2,589	725	190	200	240	1

WATERMAIN FITTINGS AND APPURTENANCES													SPV.0060.21		REDUCER		REDUCER		CONNECT TO		CONNECT TO	
STATION	ALIGNMENT	OFFSET	45 BEND 6-INCH EACH	11.25 BEND 8-INCH EACH	11.25 BEND 12-INCH EACH	45 BEND 12-INCH EACH	GATE VALVE 12-INCH EACH	GATE VALVE 8-INCH EACH	12 X 6 INCH TEE EACH	12 X 8 INCH TEE EACH	12 X 12 INCH TEE EACH	12 X 8 INCH CROSS EACH	STANDARD HYDRANT EACH	12-INCH CAP EACH	8 X 6-INCH EACH	12 X 6-INCH EACH	EXISTING 6-INCH EACH	EXISTING 8-INCH EACH				
CATEGORY CODE 0020																						
12+90.61	BUS 51	46.0 RT	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--				
13+20.45	BUS 51	18.4 RT	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--				
13+26.45	BUS 51	12.1 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
13+66.10	BUS 51	12.5 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
13+66.10	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
15+22.71	BUS 51	51.67 LT	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--				
17+95.05	BUS 51	9.7 RT	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--				
11+31.55	CHURCH	50.7 LT	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--				
11+27.82	CHURCH	48.0 LT	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--				
11+20.03	CHURCH	34.3 LT	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--				
11+17.80	CHURCH	31.7 LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--				
18+29.64	BUS 51	7.0 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
18+25.61	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
18+29.64	BUS 51	7.1 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
20+38.37	BUS 51	12.0 RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--				
24+00.02	BUS 51	7.5 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
24+10.00	BUS 51	7.5 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
24+10.00	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
30+00.00	BUS 51	4.2 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
30+10.00	BUS 51	4.0 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
30+10.00	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
31+17.76	BUS 51	4.0 RT	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--				
11+10.67	NEBEL	21.4 LT	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--				
10+70.96	NEBEL	21.4 LT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--				
10+65.96	NEBEL	21.4 LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--				
12+44.96	NEBEL	22.3 LT	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
12+70.72	NEBEL	17.2 LT	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
12+76.92	NEBEL	15.0 LT	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--				
12+82.03	NEBEL	13.7 LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1				
31+63.26	BUS 51	4.0 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
33+95.52	BUS 51	4.0 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
34+01.57	BUS 51	4.0 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
34+01.57	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
35+80.34	BUS 51	4.0 RT	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--				
35+80.58	BUS 51	37.0 LT	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--				
35+80.46	BUS 51	42.8 LT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--				
35+94.63	BUS 51	4.0 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
39+44.08	BUS 51	4.0 RT	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--				
39+50.12	BUS 51	4.0 RT	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--				
39+50.12	BUS 51	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--				
40+04.33	BUS 51	4.0 RT	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--				
40+10.00	BUS 51	4.0 RT	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
40+28.03	BUS 51	14.0 LT	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
40+43.03	BUS 51	13.9 LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--				
TOTALS			2	2	1	4	8	3	6	1	1	1	6	1	2	2	3	1				

* WATERMAIN FITTINGS AND APPURTENANCES ARE GIVE FOR INFORMATIONAL PURPOSES ONLY. SEE PLANS AND SPECIALS FOR MORE INFORMATION

3

3

BYPASS TEMPORARY SEWER							TEMPORARY STORM SEWER CONNECTION							TEMPORARY WATER SERVICE						
SPV.0060.23 BYPASS TEMPORARY SEWER							SPV.0060.27 TEMPORARY STORM SEWER CONNECTION							SPV.0060.20 TEMPORARY WATER SERVICE						
STATION	LOCATION	EACH					STATION	LOCATION	EACH					STATION	LOCATION	EACH				
CATEGORY CODE 0020							CATEGORY CODE 0010							CATEGORY CODE 0020						
19+30	LT	1					17+41	LT	1					PROJECT	LT/RT/CL	1				
30+15	LT	2					21+25	LT	1											
32+00	LT	1					32+00	LT	1											
TOTAL							TOTAL							TOTAL						
4							3							1						

TRAFFIC CONTROL ITEMS																
LOCATION	STAGE	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0810 CONNECTED ARROW BOARDS DAY	643.0900 SIGNS DAY	643.1050 SIGNS PCMS DAY	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	643.3350 TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH LF	
CATEGORY CODE 0010																
PROJECT	CTH HH	5,000	1,000	1,100	--	125	370	14	--	--	--	--	--	--	--	--
PROJECT	DETOUR	--	--	--	--	--	34,000	--	--	--	--	--	--	--	--	--
PROJECT	BIKE DETOUR	--	--	--	--	--	8,000	--	--	--	--	--	--	--	--	--
PROJECT	STAGE 1	2,600	420	390	160	26	300	--	1,610	--	200	10	10	145	40	
PROJECT	STAGE 2	900	100	160	170	28	330	--	1,550	--	70	--	--	45	--	
PROJECT	STAGE 3	2,100	1,250	1,420	--	--	960	--	--	--	--	--	--	1,100	--	
PROJECT	STAGE 4	400	530	630	--	--	420	--	--	200	25	100	20	330	300	
PROJECT	STAGE 5	3,500	900	1,100	--	--	1,650	--	--	--	2,500	100	10	750	40	
TOTALS		14,500	4,200	4,800	330	179	46,030	14	3,160	200	2,795	210	40	2,370	380	

TRAFFIC CONTROL ITEMS																
LOCATION	STAGE	204.0150* REMOVING CURB & GUTTER LF	204.0155* REMOVING CONCRETE SIDEWALK SY	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	465.0105 ASPHALTIC SURAFCE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	601.0409* CONCRETE CURB & GUTTER 30-INCH TYPE A LF	602.0410* CONCRETE SIDEWALK 5-INCH SF	624.0100* WATER MGAL	625.0100* TOPSOIL SY	629.0210* FERTILIZER TYPE B CWT	631.1000* SOD LAWN SY	631.0300* SOD WATER MGAL	690.0150* SAWING ASPHALT LF	690.0250* SAWING CONCRETE LF	COMMENTS
CATEGORY CODE 0010																
PROJECT	STAGE 1	--	--	70	--	35	--	--	1	--	--	--	--	--	--	TEMP WIDENING ON CHURCH STREET
PROJECT	STAGE 4	200	45	100	--	50	--	--	2	--	--	--	--	225	20	TEMP CONNECTION - MICHIGAN CT AND MICHIGAN AVE
PROJECT	STAGE 5	--	--	10	5	--	200	405	--	260	.2	260	6.5	--	--	REMOVAL AND RESTORATION OF TEMP CONNECTION
		200	45	180	5	85	200	405	3	260	.2	260	6.5	225	20	
* ADDITIONAL QUANTITIES LISTED ELSEWHERE																

PROJECT NO: 6998-13-71	HWY: BUS 51	COUNTY: PORTAGE	MISCELLANEOUS QUANTITIES	SHEET: 201	E
------------------------	-------------	-----------------	--------------------------	------------	---

3

3

PULL BOXES

653.0154 PULL BOXES NON-CONDUCTIVE 24x36-INCH		
PULL BOX NO.	** LOCATION	EACH
LPB1	15+11, 2' LT	1
LPB2	15+13, 65' LT	1
LPB3	17+2, 38' LT	1
LPB4	17+76, 39' LT	1
LPB5	29+87, 25' LT	1
LPB6	31+40, 25' LT	1
LPB7	34+90, 26' LT	1
LPB8	36+48, 24' LT	1
LPB9	36+49, 24' RT	1
LPB10	36+11, 82' RT	1
TOTAL		10

CONCRETE BASES

LIGHTING BASE NO.	** LOCATION	654.0105 CONCRETE BASES TYPE 5	654.0224 CONCRETE CONTROL CABINET BASE TYPE L24
		EACH	EACH
LC1	36+12, 76' RT		1
SL001	36+10, 115' RT	1	
SL002	36+53, 25' LT	1	
SL003	34+85, 26' LT	1	
SL004	33+51, 25' LT	1	
SL005	31+88, 25' LT	1	
SL006	28+61, 25' LT	1	
SL007	27+11, 25' LT	1	
SL008	25+61, 25' LT	1	
SL009	24+14, 25' LT	1	
SL010	22+75, 25' LT	1	
SL011	21+27, 25' LT	1	
SL012	19+97, 25' LT	1	
SL013	18+72, 24' LT	1	
SL014	17+31, 51' LT	1	
SL015	16+58, 25' LT	1	
SL016	15+00, 1' LT	1	
SL017	13+36, 1' LT	1	
TOTAL		17	1

STREET LIGHTING EQUIPMENT

LTG. BASE NO.	* 657.0255 TRANSFORMER BASE BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	SPV.0060.02 ROADWAY LIGHTING LUMINAIRE AND ARM EACH	SPV.0060.03 POLES TYPE 5 -ALUMINUM SPECIAL EACH
SL001	1	1	1
SL002	1	1	1
SL003	1	1	1
SL004	1	1	1
SL005	1	1	1
SL006	1	1	1
SL007	1	1	1
SL008	1	1	1
SL009	1	1	1
SL010	1	1	1
SL011	1	1	1
SL012	1	1	1
SL013	1	1	1
SL014	1	1	1
SL015	1	1	1
SL016	1	2	1
SL017	1	2	1
TOTAL		17	17

LIGHTING CONTROL CABINET

SPV.0060.01 LIGHTING CONTROL CABINETS SPECIAL EACH		
LIGHTING BASE NO.	** LOCATION	EACH
LC1	36+12, 76' RT	1
TOTAL		1

LIGHTING EQUIPMENT PAINTING

** LOCATION	SPV.0060.04 PAINTING OF LIGHTING EQUIPMENT EACH
BUS 51	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
** FINAL LOCATION TO BE DETERMINED BY THE
ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.
BUS 51 SOUTH STREET LIGHTING QUANTITIES
PAGE 1 OF 2

LIGHTING CONDUIT & ELECTRICAL WIRE

LOC.	TO	LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40	IN CONDUIT RUN			IN LIGHT POLE			655.0615 ELECTRICAL WIRE LIGHTING	655.0620 ELECTRICAL WIRE LIGHTING	655.0630 ELECTRICAL WIRE LIGHTING	655.0635 ELECTRICAL WIRE LIGHTING
					2-INCH L.F.	3-INCH L.F.	WIRE SLACK LF	NUMBER OF WIRES (INCLUDING GROUND WIRE)	LENGTH OF WIRE IN POLE	NUMBER OF WIRES (INCLUDING GROUND WIRE)	NUMBER OF FESTOON RECEPTACLE WIRES (INCLUDING GROUND WIRE)	10 AWG L.F.	8 AWG L.F.	4 AWG L.F.	2 AWG L.F.	
LC1		PB10	7	1	-	7	23	5				-	60	90	-	
PB10		SL001	33	1	33	-	18	5	39	3	3	156	102	153	-	
LC1		LPB9	75	2	-	150	23	12				-	784	392	294	
LPB9		LPB8	48	2	-	96	6	12				-	432	216	162	
LPB8		SL002	5	1	5	-	18	6	39	3	3	156	92	46	46	
LPB8		LPB7	158	1	158	-	18	12				-	1408	704	880	
LPB7		SL003	5	1	5	-	18	12	39	3	3	156	184	92	115	
SL003		SL004	135	1	135	-	30	12	39	3	3	156	1320	660	825	
SL004		SL005	163	1	163	-	30	12	39	3	3	156	1544	772	965	
SL005		LPB6	49	1	49	-	18	12				-	536	268	335	
LPB6		LPB5	153	1	153	-	6	12				-	1272	636	795	
LPB5		SL006	127	1	127	-	18	12	39	3	3	156	1160	580	725	
SL006		SL007	150	1	150	-	30	12	39	3	3	156	1440	720	900	
SL007		SL008	150	1	150	-	30	12	39	3	3	156	1440	720	900	
SL008		SL009	147	1	147	-	6	12	39	3	3	156	1224	612	765	
SL009		SL010	139	1	139	-	18	8	39	3	3	156	942	314	785	
SL010		SL011	150	1	150	-	30	4	39	3	3	156	720	-	900	
SL011		SL012	133	1	133	-	30	4	39	3	3	156	652	-	815	
SL012		SL013	127	1	127	-	30	4	39	3	3	156	628	-	785	
SL013		LPB4	99	1	99	-	30	4				-	516	-	645	
LPB4		LPB3	50	1	50	-	36	4				-	344	-	430	
LPB3		SL014	16	1	16	-	6	4	39	3	3	156	88	-	132	
LPB3		SL015	75	1	75	-	6	4	39	3	3	156	324	-	405	
SL015		LPB2	145	1	145	-	6	4				-	604	-	755	
LPB2		LPB1	33	1	33	-	6	4				-	156	-	195	
LPB1		SL016	12	1	12	-	6	4	39	6	3	273	72	-	90	
SL016		SL017	164	1	164	-	18	2	39	6	3	273	364	-	546	
TOTAL					2418	253						2886	18408	6975	14190	

LEGEND

* ADDITIONAL ITEMS FOR QUANTITITES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

BUS 51 SOUTH STREET LIGHTING QUANTITIES

PAGE 2 OF 2

3

CONDUIT				
LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1			18
PB1	SB1		8	
PB1	PB2			129
PB2	SB2			13
PB2	PB3			160
PB3	SB3		51	
PB3	PB4			102
PB4	SB4			7
PB4	PB5			152
PB5	SB5		15	
PB5	SB6		5	
PB5	PB6			116
PB6	SB7			5
PB6	PB7			86
PB7	SB8		11	
PB7	PB8			122
PB8	SB9			11
CB1	PB8			56
TOTAL			90	977

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE									
			* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	* 655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	* 655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	* 655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
LOC.	TO	LOC.							
CB1		SB1			42			42	
CB1		SB2			120		120		
CB1		SB3							
CB1		SB4			280				
CB1		SB5		373					
CB1		SB6			257				
CB1		SB7			184		184		
CB1		SB8				133			
CB1		SB9				57		57	
SB1		SB2						118	
SB2		SB3						177	
SB3		SB4						148	
SB4		SB5						147	
SB5		SB6						54	
SB6		SB7						107	
SB7		SB8						98	
SB8		SB9						123	
SB2		SB5					308		
SB1		HEAD 13	19						
SB1		HEAD 14	19						
SB1		HEAD 17	15						
SB2		HEAD 12	44						
SB2		HEAD 18	15						
SB2		LUMINAIRE							120
SB3		HEAD 1	21						
SB3		HEAD 10		22					
SB3		HEAD 19	15						
SB4		HEAD 7	26						
SB4		HEAD 8	41						
SB4		HEAD 9		53					
SB5		HEAD 20	15						
SB5		LUMINAIRE							120
SB6		HEAD 11	19						
SB6		HEAD 16	19						
SB6		HEAD 21	15						
SB7		HEAD 15	49						
SB7		HEAD 22	15						
SB7		LUMINAIRE							120
SB8		HEAD 5		22					
SB8		HEAD 6	21						
SB8		HEAD 23	15						
SB9		HEAD 2	26						
SB9		HEAD 3	52						
SB9		HEAD 4		64					
SB9		HEAD 24	15						
TOTAL			476	534	883	190	612	1071	360

TRAFFIC SIGNAL FACES						
SIG. HEAD NO.	SIG. BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* 658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.1133 PROGRAMMABLE TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.1134 PROGRAMMABLE TRAFFIC SIGNAL FACE 4S 12-INCH EACH
1	SB3	1				
2	SB9	1				
3	SB9	1				
4	SB9		1			
5	SB8		1			
6	SB8	1				
7	SB4				1	
8	SB4				1	
9	SB4					1
10	SB3		1			
11	SB6	1				
12	SB2	1				
13	SB1	1				
14	SB1	1				
15	SB7	1				
16	SB6	1				
17	SB1			1		
18	SB2			1		
19	SB3			1		
20	SB5			1		
21	SB6			1		
22	SB7			1		
23	SB8			1		
24	SB9			1		
TOTAL		10	3	8	2	1

CONCRETE BASES						
SIGNAL BASE NO.	** LOCATION	* 654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	* 654.0110 CONCRETE BASES TYPE 10 EACH	* 654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH	* 654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
CB1	31+33, 46' RT					1
SB1	31+27, 45' RT	1				
SB2	30+67, 45' RT			1		
SB3	30+52, 25' RT	1				
SB4	29+95, 26' LT			1		
SB5	30+52, 42' LT		1			
SB6	30+65, 57' LT	1				
SB7	31+27, 57' LT			1		
SB8	31+59, 25' LT	1				
SB9	31+59, 37' RT				1	
TOTAL		4	1	3	1	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BUSINESS 51/CHURCH ST & NEBEL STREET TRAFFIC SIGNAL
PAGE 1 OF 3

3

3

3

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASE BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0345 POLES TYPE 9 EACH	657.0347 POLES TYPE 9 SPECIAL EACH	657.0350 POLES TYPE 10 EACH	657.0420 STANDARDS ALUMINUM 13-FT EACH	657.0425 STANDARDS ALUMINUM 15-FT EACH	657.0520 MONOTUBE ARMS 20-FT EACH	657.0525 MONOTUBE ARMS 25-FT EACH	657.0530 MONOTUBE ARMS 30-FT EACH	657.0541 MONOTUBE ARMS 40-FT-SPECIAL EACH	657.0609 LUMINAIRE ARMS SINGLE MEMBER 4 -INCH CLAMP 6-FT EACH	657.0806 LUMINAIRE ARMS STEEL 6-FT EACH	SPV.0060.17 ROADWAY LIGHTING LUMINAIRE EACH	FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH
SB1	1						1									1
SB2						1			1					1	1	1
SB3	1							1								1
SB4				1							1					
SB5		1	1										1		1	1
SB6	1						1									1
SB7						1				1				1	1	1
SB8	1							1								1
SB9					1							1				1
TOTAL	4	1	1	1	1	2	2	2	1	1	1	1	1	2	3	8

PULL BOXES

PULL BOX NO.	** LOCATION	* 653.0164 PULL BOXES NON-CONDUCTIVE 24"x42" EACH
PB1	31+31, 52' RT	1
PB2	30+67, 51' RT	1
PB3	30+01, 26' RT	1
PB4	30+02, 25' LT	1
PB5	30+67, 61' LT	1
PB6	31+25, 61' LT	1
PB7	31+48, 25' LT	1
PB8	31+48, 36' RT	1

TOTAL 8

REMOVING CONCRETE BASES

SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
CB1	1

TOTAL 9

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5070.01 SIGNAL MOUNTING HARDWARE EACH
CHURCH STREET & NEBEL STREET	1
TOTAL	1

REMOVING PULL BOXES

PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1

TOTAL 7

TRAFFIC SIGNAL CABINET AND CONTROLLER

** LOCATION	SPV.0060.07 TRAFFIC SIGNAL CABINET AND CONTROLLER EACH
CHURCH STREET & NEBEL STREET	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITITES LISTED ELSEWHERE
** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BUSINESS 51/CHURCH ST & NEBEL STREET TRAFFIC SIGNAL
PAGE 2 OF 3

3

REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL	
	SPV.0060.13
	REMOVING ELECTRICAL
	SERVICE METER
	BREAKER PEDESTAL
	EACH
**	
LOCATION	
CHURCH STREET & NEBEL STREET	1
TOTAL	
	1

DUAL CELLULAR AND RADIO PREEMPTION AND PRIORITY SYSTEM	
	SPV.0060.11
	DUAL CELLULAR AND
	RADIO PREEMPTION
	AND PRIORITY SYSTEM
	EACH
**	
LOCATION	
CHURCH STREET & NEBEL STREET	1
TOTAL	
	1

VEHICULAR VIDEO DETECTION SYSTEM	
	SPV.0060.05
	VEHICULAR
	VIDEO DETECTION
	SYSTEM
	EACH
**	
LOCATION	
CHURCH STREET & NEBEL STREET	1
TOTAL	
	1

3

SALVAGING TRAFFIC SIGNAL EQUIPMENT	
	SPV.0060.15
	SALVAGING
	TRAFFIC SIGNAL
	EQUIPMENT
	EACH
**	
LOCATION	
CHURCH STREET & NEBEL STREET	1
TOTAL	
	1

APS SYSTEM	
	SPV.0060.09
	APS SYSTEM
	EACH
**	
LOCATION	
CHURCH STREET & NEBEL STREET	1
TOTAL	
	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BUSINESS 51/CHURCH ST & NEBEL STREET TRAFFIC SIGNAL

PAGE 3 OF 3

3

CONDUIT				
LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1		PB1		42
PB1		SB1	11	
PB1		PB2		159
PB2		SB2	4	
PB2		PB3		45
PB3		SB3		12
PB3		PB4		125
PB4		SB4		12
PB4		PB5		101
PB5		SB5	12	
PB5		PB6		108
PB6		SB6		11
PB6		PB7		118
PB7		SB7	9	
PB7		PB8		100
PB8		SB8		7
PB8		SB9	8	
CB1		PB8		166
TOTAL			44	1006

PULL BOXES		
PULL BOX NO.	** LOCATION	* 653.0164 PULL BOXES NON-CONDUCTIVE 24"x42" EACH
PB1	36+15, 56' RT	1
PB2	35+38, 35' RT	1
PB3	35+17, 29' RT	1
PB4	35+18, 33' LT	1
PB5	35+52, 57' LT	1
PB6	36+06, 57' LT	1
PB7	36+40, 25' LT	1
PB8	36+40, 25' RT	1
TOTAL		8

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE										
LOC.	TO	LOC.	* 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	* 655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	* 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	* 655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0275 CABLE TRAFFIC SIGNAL 19-12 AWG L.F.	* 655.0320 CABLE TYPE UF 2-10 AWG GROUNDED L.F.	* 655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	* 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
CB1		SB1			52				52	
CB1		SB2		140						
CB1		SB3					186	186		
CB1		SB4				264				
CB1		SB5				315				
CB1		SB6			246			246		
CB1		SB7				169				
CB1		SB8			105					
CB1		SB9		106					106	
SB1		SB2							135	
SB2		SB3							119	
SB3		SB4							125	
SB4		SB5							115	
SB5		SB6							116	
SB6		SB7							117	
SB8		SB9							89	
SB1		HEAD 13	19							
SB1		HEAD 14	19							
SB1		HEAD 17	15							
SB2		HEAD 18	15							
SB3		HEAD 1	26							
SB3		HEAD 12	65							
SB3		HEAD 10		27						
SB3		HEAD 19	15							
SB3		LUMINAIRE							120	
SB4		HEAD 7	26							
SB4		HEAD 8	51							
SB4		HEAD 9		63						
SB4		HEAD 20	15							
SB5		HEAD 11	19							
SB5		HEAD 16	19							
SB5		HEAD 21	15							
SB6		HEAD 15	45							
SB6		HEAD 22	15							
SB6		LUMINAIRE							120	
SB7		HEAD 5		22						
SB7		HEAD 6	21							
SB7		HEAD 23	15							
SB8		HEAD 2	26							
SB8		HEAD 3	39							
SB8		HEAD 4		51						
SB9		HEAD 24	15							
TOTAL			495	409	403	748	186	432	974	240

TRAFFIC SIGNAL FACES					
SIG. HEAD NO.	SIG. BASE NO.	* 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	* 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	* 658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	
1	SB3	1			
2	SB8	1			
3	SB8	1			
4	SB8		1		
5	SB7		1		
6	SB7	1			
7	SB4	1			
8	SB4	1			
9	SB4		1		
10	SB3		1		
11	SB5	1			
12	SB3	1			
13	SB1	1			
14	SB1	1			
15	SB6	1			
16	SB5	1			
17	SB2			1	
18	SB2			1	
19	SB3			1	
20	SB4			1	
21	SB5			1	
22	SB6			1	
23	SB7			1	
24	SB9			1	
TOTAL		12	4	8	

LEGEND

* ADDITIONAL ITEMS FOR QUANTITITES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BUSINESS 51/CHURCH ST & MICHIGAN AVE TRAFFIC SIGNAL

PAGE 1 OF 3

3

3

3

TRAFFIC SIGNAL EQUIPMENT														
SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0345 POLES TYPE 9 EACH	* 657.0347 POLES TYPE 9 SPECIAL EACH	* 657.0350 POLES TYPE 10 EACH	657.0352 POLES TYPE 10 SPECIAL EACH	* 657.0420 STANDARDS ALUMINUM 13-FT EACH	* 657.0425 STANDARDS ALUMINUM 15-FT EACH	657.0430 STANDARDS ALUMINUM 10-FT EACH	* 657.0520 MONOTUBE ARMS 20-FT EACH	* 657.0525 MONOTUBE ARMS 25-FT EACH	* 657.0541 MONOTUBE ARMS 40-FT-SPECIAL EACH	* 657.0806 LUMINAIRE ARMS STEEL 6-FT EACH	* SPV.0060.17 ROADWAY LIGHTING LUMINAIRE EACH	* FOR INFORMATIONAL PURPOSE ONLY APS PUSH BUTTON EACH
SB1	1					1								1
SB2	1							1						1
SB3					1						1	1	1	1
SB4			1								1			1
SB5	1					1								1
SB6				1					1			1	1	1
SB7	1						1							1
SB8		1								1				
SB9	1							1						1
TOTAL	5	1	1	1	1	2	1	2	1	1	2	2	2	8

CONCRETE BASES					
SIGNAL BASE NO.	** LOCATION	* 654.0101 CONCRETE BASES TYPE 1 EACH	* 654.0110 CONCRETE BASES TYPE 10 EACH	* 654.0120 CONCRETE BASES TYPE 10-SPECIAL EACH	* 654.0217 CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL EACH
CB1	36+12, 69' RT				1
SB1	36+05, 51' RT	1			
SB2	35+41, 36' RT	1			
SB3	35+28, 28' RT			1	
SB4	35+29, 37' LT			1	
SB5	35+50, 46' LT	1			
SB6	36+06, 46' LT		1		
SB7	36+32, 25' LT	1			
SB8	36+46, 25' RT		1		
SB9	36+05, 52' RT	1			
TOTAL		5	2	2	1

ELECTRICAL SERVICE METER BREAKER PEDESTAL		
CABINET NO.	** LOCATION	656.0201.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	CHURCH STREET & MICHIGAN AVENUE	1
TOTAL		1

REMOVING CONCRETE BASES	
SIGNAL BASE NO.	* 204.0195 REMOVING CONCRETE BASES EACH
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
SB9	1
SB10	1
SB11	1
CB1	1
TOTAL	12

REMOVING PULL BOXES	
PULL BOX NO.	* 653.0905 REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1
PB11	1
PB12	1
PB13	1
PB14	1
PB15	1
PB16	1
PB17	1
PB18	1
PB19	1
PB20	1
PB21	1
TOTAL	21

SIGNAL MOUNTING HARDWARE	
** LOCATION	658.5070.02 SIGNAL MOUNTING HARDWARE EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

LEGEND	
* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE	
** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD	
ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED	
BUSINESS 51/CHURCH ST & MICHIGAN AVE TRAFFIC SIGNAL	
PAGE 2 OF 3	

PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	MISCELLANEOUS QUANTITIES	SHEET NO: 208	E
------------------------	------------------	-----------------	--------------------------	---------------	---

3

TRAFFIC SIGNAL CABINET AND CONTROLLER	
** LOCATION	SPV.0060.08 TRAFFIC SIGNAL CABINET AND CONTROLLER EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

SALVAGING TRAFFIC SIGNAL EQUIPMENT	
** LOCATION	SPV.0060.016 SALVAGING TRAFFIC SIGNAL EQUIPMENT EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

VEHICULAR VIDEO DETECTION SYSTEM	
** LOCATION	SPV.0060.06 VEHICULAR VIDEO DETECTION SYSTEM EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

3

APS SYSTEM	
** LOCATION	SPV.0060.10 APS SYSTEM EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

DUAL CELLULAR AND RADIO PREEMPTION AND PRIORITY SYSTEM	
** LOCATION	SPV.0060.12 DUAL CELLULAR AND RADIO PREEMPTION AND PRIORITY SYSTEM EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1

REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL	
** LOCATION	SPV.0060.14 REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CHURCH STREET & MICHIGAN AVENUE	1
TOTAL	1
LEGEND * ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE ** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED BUSINESS 51/CHURCH ST & MICHIGAN AVE TRAFFIC SIGNAL PAGE 3 OF 3	

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	
SIXTEENTH LINE		GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE		SIXTEENTH CORNER MONUMENT			
NEW R/W LINE		SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE					
PROPERTY LINE					
LOT, TIE & OTHER MINOR LINES					
SLOPE INTERCEPT					
CORPORATE LIMITS		ELECTRIC POLE		<u>COMPENSABLE</u>	<u>NON-COMPENSABLE</u>
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		TELEPHONE POLE			
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
TEMPORARY LIMITED EASEMENT AREA		ACCESS RESTRICTED BY ACQUISITION			
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)			
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
BUILDING		NO ACCESS (NEW HIGHWAY)			
TO BE REMOVED		PARCEL NUMBER		UTILITY NUMBER	
BRIDGE		PARALLEL OFFSETS			
CULVERT					

WATER	_____ W _____
GAS	_____ G _____
TELEPHONE	_____ T _____
OVERHEAD TRANSMISSION LINES	_____ OH _____ _____ LO _____
ELECTRIC	_____ E _____
CABLE TELEVISION	_____ TV _____
FIBER OPTIC	_____ FO _____
SANITARY SEWER	_____ SAN _____
STORM SEWER	_____ SS _____
ELECTRIC TOWER	☒ _____

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED	TLE
GRID NORTH	GN	EASEMENT	
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V

NATIONAL GEODETIC SURVEY	NGS	LONG CHORD	LCH
NUMBER	NO	LONG CHORD BEARING	LCB
OUTLOT	OL	RADIUS	R
PAGE	P	DEGREE OF CURVE	D
POINT OF TANGENCY	PT	CENTRAL ANGLE	Δ / DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
		TANGENT	T
POINT OF BEGINNING	POB	DIRECTION AHEAD	DA
POINT OF CURVATURE	PC	DIRECTION BACK	DB

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM COORDINATES (WCCS), PORTAGE COUNTY, NAD83 (1997) IN US SURVEY FEET, AND IS ALSO THE CITY OF STEVENS POINT COORDINATE SYSTEM. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY $\frac{3}{4}$ " X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

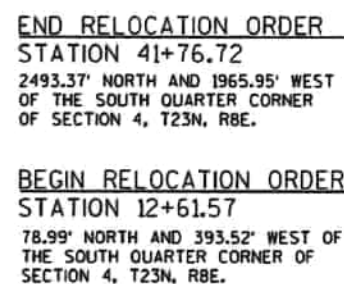
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE CITY OF STEVENS POINT.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE
DETAIL PAGES.

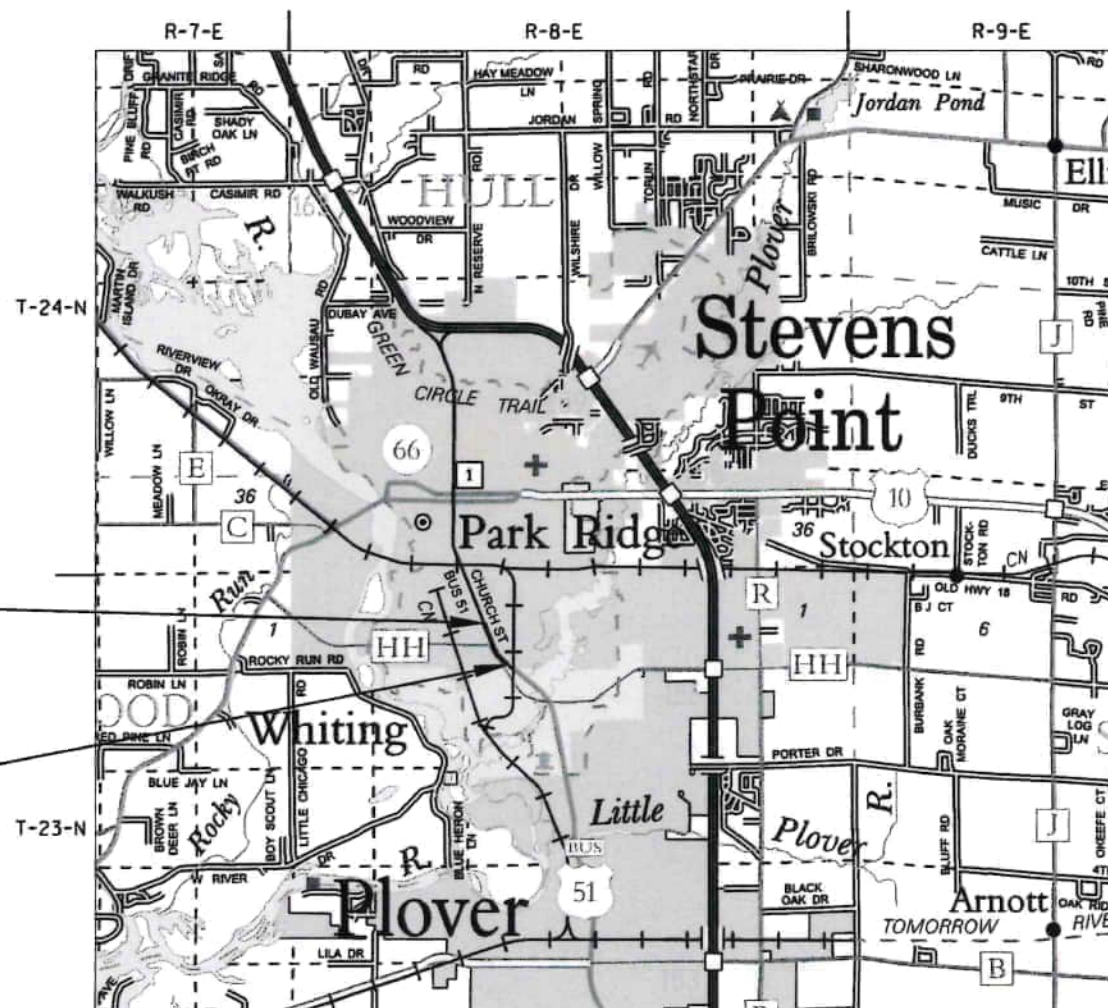
INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.



LAYOUT

SCALE 0 2 M

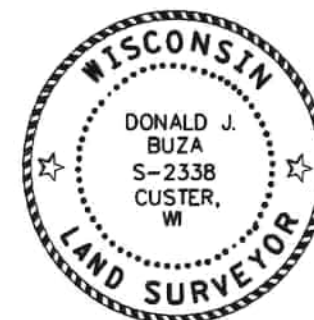
TOTAL NET LENGTH OF CENTERLINE = 0.552 MI



R/W PROJECT NUMBER 6998-13-01	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	1	9
PLAT OF RIGHT OF WAY REQUIRED FOR BUSINESS 51 URBAN RECONSTRUCTION SOUTH CITY LIMITS - MICHIGAN AVENUE		
BUSINESS 51 / CHURCH STREET	PORTAGE	
CONSTRUCTION PROJECT NUMBER		

RECEIVED AND FILED
JUL 28 2025
PORTAGE COUNTY
COUNTY CLERK

ORIGINAL PLAT PREPARED BY



SIGNATURE: Donald J. Buza
DONALD J. BUZA, PLS-2338

DATE: 2/10/2025

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR
REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO
DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

REVISION DATE 6/25/2025

CITY OF STEVENS POINT

APPROVED FOR THE THE CITY OF STEVENS POINT

DATE: 4/22/25 [Signature]
Mike Wira, Mayor

4

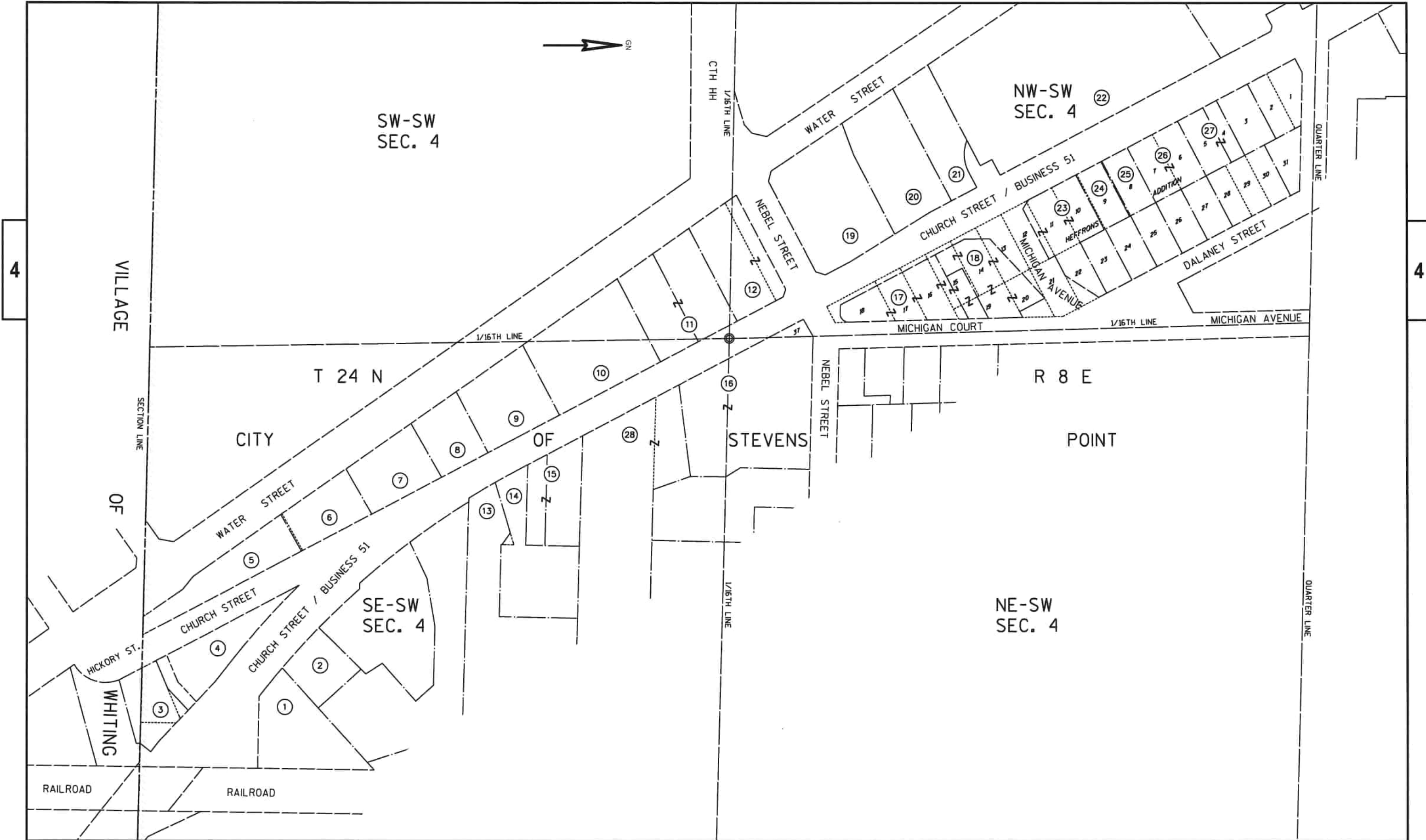
PARCEL NUMBER	SHEET NUMBER	OWNER (S)	INTEREST REQUIRED	R/W SO.FT. REQUIRED			TLE SO.FT.
				NEW	EXISTING	TOTAL	
1	4.04	JASON J. DAVIS AND KRISTI L. DAVIS AS JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP	TLE	----	----	----	624
2	4.04, 4.05	BLUE TOP ENTERPRISES, LLC	TLE	----	----	----	347
3	4.04	NANETTE A. GRAWLEY	TLE	----	----	----	678
4	4.04, 4.05	GABRIEL PEREZ & SILVIA-PATINO PEREZ, HUSBAND AND WIFE AS SURVIVORSHIP MARITAL PROPERTY	FEE, TLE	433	----	433	771
5	4.05	ONPOINT REAL ESTATE HOLDINGS, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	----	----	----	409
6	4.05	MRM OF PORTAGE COUNTY, LLC	TLE	----	----	----	903
7	4.05, 4.06	STEVEN S. PETERSON AND JANELLE R. PETERSON, HUSBAND AND WIFE	TLE	----	----	----	899
8	4.06	RUSSELL J. DANIELSON, A SINGLE PERSON	FEE, TLE	98	----	98	1304
9	4.06	FLATOFF PROPERTIES, LLC, A WISCONSIN LIMITED LIABILITY COMPNAY	FEE, TLE	212	----	212	1735
10	4.06	AUTOZONE, INC., A NEVADA CORPORATION	TLE	----	----	----	2599
11	4.07	CAPITOL BANK	TLE	----	----	----	2466
12	4.07	THE ROBERT L. LABLANC AND SHARON A. LABLANC REVOCABLE LIVING TRUST	FEE, TLE	174	----	174	1666
13	4.05, 4.06	LAUREL M. SNYDER	TLE	----	----	----	590
14	4.06	NORBERT L. TEPP	TLE	----	----	----	803
15	4.06	REALTY INVESTMENTS, L.L.C., A WISCONSIN LIMITED LIABILITY COMPANY	TLE	----	----	----	1411
16	4.07	CF WAG PORTFOLIO DST, A DELAWARE STATUTORY TRUST	FEE, TLE	205	----	205	3444
17	4.07, 4.08	STEVENS POINT 3297 CHURCH WL, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE, TLE	88	----	88	2604
18	4.08	EVELYN KLUCK	FEE, TLE	37	----	37	947
19	4.07, 4.08	OPIPOZ, LLC	TLE	----	----	----	2567
20	4.08	MCBETH ENTERPRISES LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	----	----	----	749
21	4.08	KEN MUNDEE AND LYNN MUNDEE AS TRUSTEE OF THE KENN AND LYNN MUNDEE FAMILY TRUST	TLE	----	----	----	676
22	4.08, 4.09	SAYACO PARTNERSHIP, A CALIFORNIA PARTNERSHIP	TLE	----	----	----	3017
23	4.08	RALPH OLSEN	TLE	----	----	----	729
24	4.08, 4.09	SOMERSET ESTATES, LLC	TLE	----	----	----	325
25	4.08, 4.09	CRISTINE A. HOFFMAN	TLE	----	----	----	325
26	4.09	JABE INVESTMENTS, LLC	TLE	----	----	----	654
27	4.09	JUSTIN TUBBS	TLE	----	----	----	496
28	4.06	JOSEPH V. FONTI, WILLIAM P. FONTI, AND VINCENT W. FONTI, JR., EACH AN UNDIVIDED ONE-THIRD (1/3) INTEREST, AS TENANTS IN COMMON	TLE	----	----	----	2492

SCHEDULE OF LANDS & INTERESTS REQUIRED

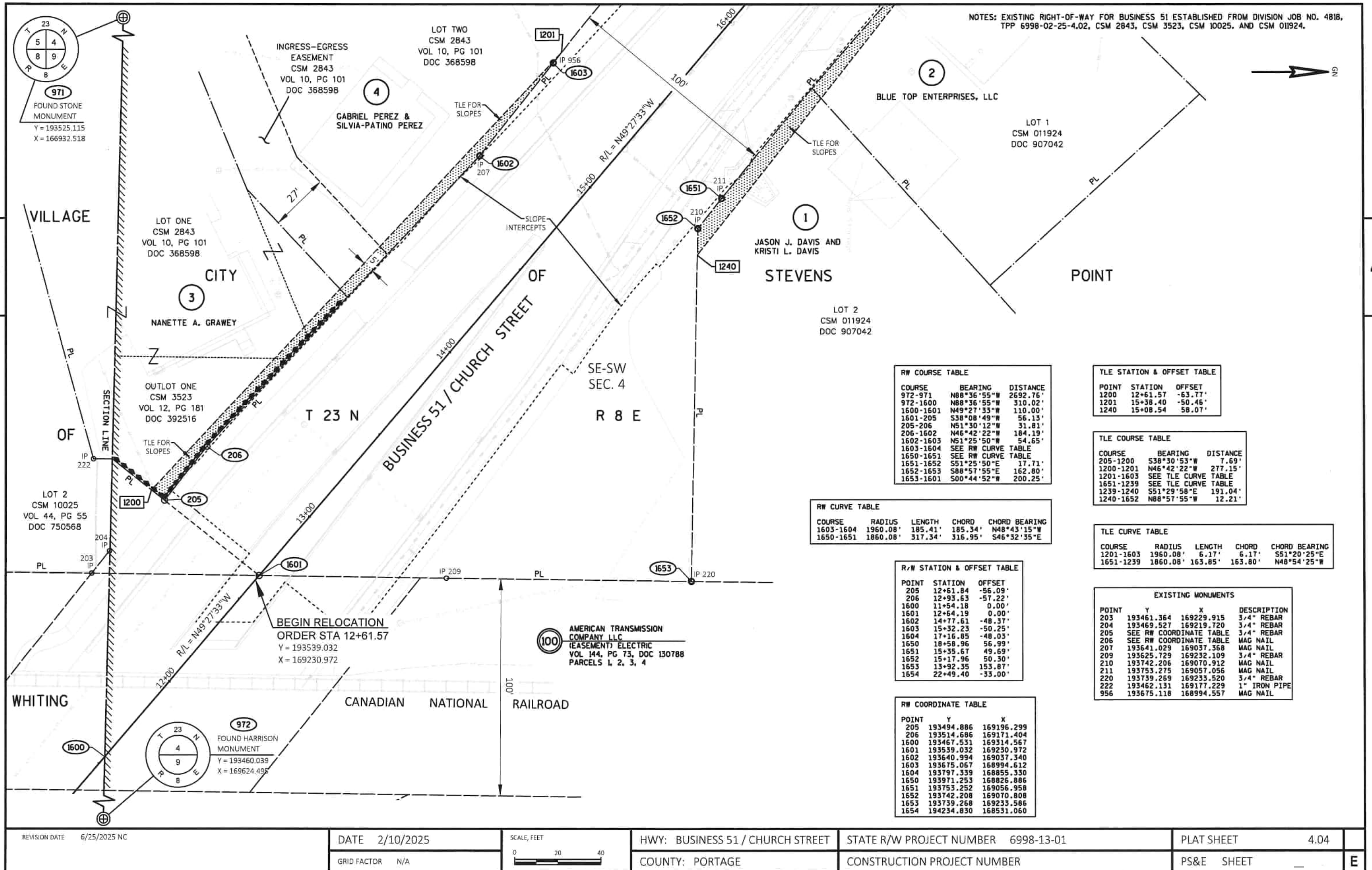
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF STEVENS POINT.

UTILITY INTERESTS REQUIRED			
PARCEL NUMBER	SHEET NUMBER (S)	OWNER (S)	INTEREST REQUIRED
100	4.04, 4.05 4.06	AMERICAN TRANSMISSION COMPANY LLC	RELEASE OF RIGHTS
101	4.08	WISCONSIN TELEPHONE COMPANY	RELEASE OF RIGHTS
102	4.07, 4.08	WISCONSIN PUBLIC SERVICE CORP.	RELEASE OF RIGHTS
103	4.08	CITY OF STEVENS POINT	RELEASE OF RIGHTS

4



REVISION DATE 6/25/2025	DATE 2/10/2025	SCALE, FEET	HWY: BUSINESS 51 / CHURCH STREET	STATE R/W PROJECT NUMBER 6998-13-01	PLAT SHEET 4.03
	GRID FACTOR N/A		COUNTY: PORTAGE	CONSTRUCTION PROJECT NUMBER	PS&E SHEET



→ **GN**

LOT 1
CSM 6113
VOL 22, PG 186
DOC 503986

STEVEN S. PETERSON AND
JANELLE R. PETERSON

MRM OF PORTAGE COUNTY, LLC

OUTLOT 1
CSM 8377
VOL 33, PG 57
DOC 648271

LOT ONE
CSM 3753
VOL 13, PG 111
DOC 401955

ONPOINT REAL ESTATE
HOLDINGS, LLC

SE-SW
SEC. 4

LOT 2
CSM 9898
VOL 43, PG 78
DOC 740922

LOT ONE
CSM 443
VOL 2, PG 103
DOC 290238

LAUREL M. SNYDER

A close-up photograph of a white road sign with black text. The sign reads "BUSINESS 51 / CHURCH STREET" in large, bold, sans-serif capital letters. Above this text, in a smaller font, is the number "21400". The sign is mounted on a post, and the background shows a road with lane markings and some greenery.

PI STA = 19+75.95
Y = 194001.673
X = 168690.072
DELTA = 21°52'50" RT
D = 3°57'05"
T = 280.28'
L = 553.73'
R = 1450.00'
PC STA = 16+95.67
PT STA = 22+49.40

RW COURSE TABLE

COURSE	BEARING	DISTANCE
1603-1604	SEE RW CURVE	TABLE
1604-1606	S41°31'45"W	16.85'
1606-1607	S74°09'36"W	67.43'
1607-1608	N27°39'43"W	42.40'
1608-1609	N27°45'12"W	450.69'
1648-1630	S88°29'10"E	8.38'
204-1649	SEE RW CURVE	TABLE
1649-1650	S89°04'05"E	13.55'
1650-1651	SEE RW CURVE	TABLE

RW CURVE TABLE

COURSE	RADIUS	LENGTH	CHORD	CHORD BEARING
1603-1604	1960.08'	185.41'	185.34'	N48°43'15"W
230-1649	1870.08'	309.85'	309.50'	S36°37'41"E
1650-1651	1860.08'	317.34'	316.95'	S46°32'35"W

R/W STATION & OFFSET TABLE	
STATION	OFFSET
100+00	0.00
100+10	10.00
100+20	20.00
100+30	30.00
100+40	40.00
100+50	50.00
100+60	60.00
100+70	70.00
100+80	80.00
100+90	90.00
100+100	100.00

POINT	STATION	OFFSET
230	21+89.03	45.38'
1603	15+32.23	-50.25'
1604	17+16.85	-48.03'
1606	17+16.89	-64.88'
1607	17+50.57	-121.99'
1608	17+87.73	-108.26'
1648	21+93.52	38.23'
1649	18+68.68	47.20'
1650	18+58.96	56.99'
1651	15+35.67	49.69'

RW COORDINATE TABLE

POINT	Y	X
230	194219.855	168628.683
1603	193675.067	168994.612
1604	193797.339	168855.330
1606	193784.722	168844.156
1607	193766.317	168779.287
1608	193803.870	168759.603
1648	194220.076	168620.308
1649	193971.473	168613.336
1650	193971.253	168826.886
1651	193753.252	169056.958

AMERICAN TRANSMISSION
COMPANY LLC
(EASEMENT) ELECTRIC
VOL 144, PG 73, DOC 130788
PARCELS 2, 4
VOL 144, PG 74, DOC 130789
PARCELS 5, 6, 7

TLE COURSE TABLE

COURSE	BEARING	DISTANCE
1202-1203	S41°31'45"W	20.05'
1203-1606	N27°39'43"W	10.06'
1604-1202	SEE T/LR CURVE	TABLE
1607-1204	S62°20'17"W	5.00'
1204-1205	N27°39'43"W	42.40'
1205-1206	N27°45'12"W	399.76'
1651-1239	SEE T/LR CURVE	TABLE
1239-1240	S51°29'58"E	191.04'

TLE CURVE TABLE

COURSE	RADIUS	LENGTH	CHORD	CHORD BEARING
1604-1202	1960.08'	9.41'	9.41'	S46°08'54"E
1651-1239	1860.08'	163.85'	163.80'	N48°54'25"W

TLE STATION & OFFSET TABLE	
Station	Offset
1	0
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	10
12	11
13	12
14	13
15	14
16	15
17	16
18	17
19	18
20	19
21	20
22	21
23	22
24	23
25	24
26	25
27	26
28	27
29	28
30	29
31	30
32	31
33	32
34	33
35	34
36	35
37	36
38	37
39	38
40	39
41	40
42	41
43	42
44	43
45	44
46	45
47	46
48	47
49	48
50	49
51	50
52	51
53	52
54	53
55	54
56	55
57	56
58	57
59	58
60	59
61	60
62	61
63	62
64	63
65	64
66	65
67	66
68	67
69	68
70	69
71	70
72	71
73	72
74	73
75	74
76	75
77	76
78	77
79	78
80	79
81	80
82	81
83	82
84	83
85	84
86	85
87	86
88	87
89	88
90	89
91	90
92	91
93	92
94	93
95	94
96	95
97	96
98	97
99	98
100	99

POINT	STATION	OFFSET
1202	17+07.75	-48.46'
1203	17+07.92	-68.51'
1204	17+52.11	-126.71'
1205	17+89.18	-113.02'
1239	16+99.59	51.26'

EXISTING MONUMENTS			
POINT	Y	X	DESCRIPTION
212	193878.660	168914.875	RR SPIKE
213	193971.232	168826.837	PK NAIL
214	193971.391	168813.310	PK NAIL
215	194085.679	168720.462	MAG NAIL
223	193999.115	168655.924	1.25" IRON PIPE
229	194219.905	168620.334	3/4" REBAR
230	SEE RW	COORDINATE TABLE	PK NAIL
958	193834.511	168818.059	CHISELED X

BLUE TOP ENTERPRISES, LLC

LOT 1
CSM 011924
DOC 907042

REVISION DATE 6/25/2025

DATE 2/10/2025

GRID FACTOR	N/A
-------------	-----

SCALE: FEET



HWY: BUSINESS 51 / CHURCH STREET

COUNTY: PORTAGE

STATE R/W PROJECT NUMBER 6998-13-01

CONSTRUCTION PROJECT NUMBER

PLAT SHEET	4.05
------------	------

PS&E SHEET

FILE NAME: 69981301-RP(REV1).DWG
LAYOUT NAME - 4.05

PLOT DATE: 6/25/2025 11:21 AM

PLOT BY: BUZA, DONALD

PLOT NAME :

PLOT SCALE :

214
WISDOT/CADDSS SHEET 75

NOTES: EXISTING RIGHT-OF-WAY FOR BUSINESS 51 ESTABLISHED FROM DIVISION JOB NO. 4818, CSM 443, CSM 3364, CSM 3538, CSM 6113, CSM 9898, AND CSM 011411.



EXISTING MONUMENTS			
POINT	Y	X	DESCRIPTION
224	194158.099	168573.876	1-1/4" IRON PIPE
225	194321.194	168487.365	2" IRON PIPE
226	194426.885	168432.071	3/4" REBAR
227	194479.448	168478.532	1-1/4" IRON PIPE
228	194280.254	168583.891	3/4" REBAR
229	194219.905	168620.334	3/4" REBAR
230	SEE RW COORDINATE TABLE		
231	194646.113	168390.044	3/4" REBAR
232	194699.026	168362.366	1" IRON PIPE

AMERICAN TRANSMISSION
COMPANY LLC
(EASEMENT) ELECTRIC
VOL 144, PG 74, DOC 130789
PARCELS 7, 8

PI STA = 19+75.95
Y = 194001.673
X = 168690.072
DELTA = 21°52'50" RT
D = 3°57'05"
T = 280.28'
L = 553.73'
R = 1450.00'
PC STA = 16+95.67
PT STA = 22+49.40

LOT 1
CSM 011411
DOC 866868

9 OF
FLATOFF PROPERTIES, LLC

10
AUTOZONE, INC.,
A NEVADA CORPORATION

LOT 1
CSM 3364
VOL 12, PG 22
DOC 385964

28
JOSEPH V. FONTI, WILLIAM P. FONTI,
AND VINCENT W. FONTI, JR., EACH AN
UNDIVIDED ONE-THIRD (1/3) INTEREST,
AS TENANTS IN COMMON

LOT 1
CSM 6113
VOL 22, PG 186
DOC 503986

7
STEVEN S. PETERSON AND
JANELLE R. PETERSON

8
RUSSELL J. DANIELSON

15
REALTY INVESTMENTS, L.L.C.

14
NORBERT L. TEPP

LOT ONE
CSM 443
VOL 2, PG 103
DOC 290238

13
LAUREL M. SNYDER

LOT 1
CSM 3538
VOL 12, PG 196
DOC 393123

RW COURSE TABLE		
COURSE	BEARING	DISTANCE
1608-1609	N27°45'12"W	450.69'
1609-1610	N36°42'01"W	8.89'
1610-1654	SEE RW CURVE TABLE	
1654-1611	N27°34'43"W	206.06'
1611-1612	N22°31'37"W	10.04'
1612-1614	N27°45'48"W	549.83'
1612-1656	N27°45'48"W	438.02'
1646-1647	S27°45'48"E	413.53'
1647-1648	SEE RW CURVE TABLE	
1648-230	S88°29'10"E	8.38'

RW CURVE TABLE				
COURSE	RADIUS	LENGTH	CHORD	CHORD BEARING
1610-1654	1483.00'	28.33'	28.33'	N28°07'33"W
1647-1648	1877.08'	130.31'	130.28'	S29°45'07"E

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
1205-1206	N27°45'12"W	399.76'
1206-1207	S60°08'26"W	5.00'
1207-1208	N27°45'12"W	70.42'
1208-1209	N41°47'23"W	20.62'
1209-1210	N27°45'12"W	29.98'
1210-1211	N21°10'56"W	43.69'
1211-1212	N27°45'48"W	400.35'
1212-1213	S62°15'50"W	5.00'
1237-1238	S27°45'48"E	785.51'
1238-230	S29°12'34"E	72.45'
230-1648	N88°29'10"W	8.38'

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
230	21+89.03	45.38'
1608	17+87.73	-108.26'
1609	22+13.09	-31.78'
1610	22+21.70	-33.00'
1611	24+55.46	-33.00'
1612	24+65.46	-32.12'
1614	30+15.29	-33.89'
1646	27+38.72	33.00'
1647	23+25.19	34.34'
1648	21+93.52	38.23'
1654	22+49.40	-33.00'

RW COORDINATE TABLE		
POINT	Y	X
230	194219.855	168628.683
1608	193803.870	168759.603
1609	194202.716	168549.730
1610	194209.846	168544.415
1611	194417.477	168435.662
1612	194426.750	168431.816
1614	194913.284	168175.694
1646	194699.109	168363.027
1647	194333.182	168555.658
1648	194220.076	168620.308
1654	194234.830	168531.060

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
1206	21+63.59	-38.77'
1207	21+63.68	-43.77'
1208	22+32.06	-41.49'
1209	22+51.55	-46.44'
1210	22+81.53	-46.53'
1211	23+24.95	-41.66'
1212	27+25.29	-42.95'
1213	27+25.28	-47.95'
1237	30+48.86	42.00'
1238	22+63.36	44.54'

REVISION DATE 6/25/2025

DATE 2/10/2025

SCALE, FEET

HWY: BUSINESS 51 / CHURCH STREET

STATE R/W PROJECT NUMBER 6998-13-01

PLAT SHEET 4.06

GRID FACTOR N/A

COUNTY: PORTAGE

CONSTRUCTION PROJECT NUMBER

PS&E SHEET

NOTES: EXISTING RIGHT-OF-WAY FOR BUSINESS 51 ESTABLISHED FROM DIVISION JOB NO. 6998-01-08, CSM 101, CSM 3282, CSM 8295, CSM 9247, AND HEFFRONS ADDITION. EXISTING RIGHT-OF-WAY FOR NEBEL STREET ESTABLISHED FROM STATE R/W PROJECT NO. 6998-01-21, AND CSM 8295, CSM 9247, AND HEFFRONS ADDITION.

RW COORDINATE TABLE

POINT	Y	X
237	195010.329	168106.645
241	195090.672	168082.723
1614	194913.284	168175.694
1615	194939.560	168146.304
1616	194939.817	168141.738
1619	195032.067	168113.410
1633	195066.676	168182.869
1634	195065.787	168189.867
1635	195065.525	168200.121
1636	195086.053	168220.624
1638	195003.953	168260.946
1639	194997.665	168241.428
1640	195004.160	168252.826
1641	194984.462	168218.258
1642	194979.990	168216.879
1643	194973.375	168220.334
1644	194964.280	168224.520
1646	194699.109	168363.027
1655	193492.577	168278.507
1656	194814.345	168227.778

RW COURSE TABLE

COURSE	BEARING	DISTANCE
972-971	N88°36'55"W	2692.76'
972-1655	N88°36'55"W	1346.38'
1655-233	N00°53'33"W	1321.32'
233-1656	N88°50'11"W	30.15'
233-1640	N01°31'58"W	190.49'
1612-1614	N27°45'48"W	549.83'
1612-1656	N27°45'48"W	438.02'
1656-1614	N27°45'48"W	111.81'
1614-1615	SEE RW CURVE TABLE	
1615-1616	N86°46'35"W	4.57'
1616-237	N26°27'32"E	78.76'
237-1619	N17°17'13"E	22.77'
1619-241	N27°38'17"W	66.15'
241-270	N31°36'31"W	210.26'
1632-1633	S28°08'53"E	153.71'
1633-1634	SEE RW CURVE TABLE	
1634-1635	S88°32'16"E	10.26'
1635-1636	SEE RW CURVE TABLE	
1636-1638	S26°09'25"E	91.47'
1638-1639	S72°08'36"W	20.51'
1639-1641	S60°19'29"W	26.67'
1641-1642	S17°08'12"W	4.68'
1642-1643	S27°34'43"E	7.46'
1643-1644	S24°42'58"E	10.01'
1644-1646	S27°34'46"E	299.17'
1640-1638	S88°32'16"E	8.12'
1640-1639	S60°19'29"W	13.12'

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
237	31+33.77	-49.79'
241	32+15.90	-32.98'
1614	30+15.29	-33.89'
1615	30+52.19	-47.77'
1616	30+54.53	-51.70'
1619	31+49.75	-33.57'
1633	31+47.50	44.00'
1634	31+43.41	49.75'
1635	31+38.35	58.67'
1636	31+46.77	86.43'
1638	30+56.19	83.65'
1639	30+59.65	63.44'
1640	30+60.13	76.55'
1641	30+58.68	36.79'
1642	30+55.35	33.50'
1643	30+47.89	33.50'
1644	30+37.89	33.00'
1646	27+38.72	33.00'
1656	29+03.48	33.53'

RW CURVE TABLE

COURSE	RADIUS	LENGTH	CHORD	CHORD BEARING
1614-1615	150.00'	39.54'	39.42'	N48°12'09"W
1633-1634	35.00'	7.07'	7.05'	S82°45'15"E
1635-1636	20.00'	32.46'	29.01'	N44°57'53"E

102 WISCONSIN PUBLIC SERVICE CORP.
ELECTRIC (NO RECORD EASEMENT)
PARCEL 19

LOT 1
CSM 101
VOL 1, PG 101
DOC 273483

THE ROBERT L. LABLANC
AND SHARON A. LABLANC
REVOCABLE LIVING TRUST

LOT 2
CSM 101
VOL 1, PG 101
DOC 273483

LOT 1
CSM 3282
VOL 11, PG 240
DOC 383297

11
CAPITOL BANK

FOUND BRASS CAP
Y = 194813.733
X = 168257.922

CF WAG PORTFOLIO DST.
A DELAWARE STATUTORY TRUST

LOT 1
CSM 9247
VOL 39, PG 27
DOC 698097

LOT 3
CSM 8295
VOL 32, PG 125
DOC 640751

OPIPOZ, LLC

17 ADDITION
STEVENS POINT 3297
CHURCH WI, LLC

971
FOUND STONE
MONUMENT
Y = 193525.115
X = 166932.518

972
FOUND HARRISON
MONUMENT
Y = 193460.039
X = 169624.495

COURSE	BEARING	DISTANCE
1212-1213	S62°15'50"W	5.00'
1213-1214	N27°45'48"W	97.76'
1214-1215	N62°27'27"E	5.00'
1215-1216	N27°45'48"W	200.01'
1216-1217	N78°34'24"W	49.80'
1217-1616	N62°09'18"E	30.91'
237-1218	S62°17'13"W	99.42'
1218-1219	N27°42'47"W	10.00'
1219-1220	N62°17'13"E	95.28'
1220-1221	N17°17'13"E	14.49'
1221-1222	N27°38'17"W	133.88'
1233-1234	S27°43'03"E	309.44'
1234-1235	S88°32'16"E	29.65'
1638-1236	S88°32'16"E	11.22'
1236-1237	S60°19'29"W	51.49'
1237-1238	S27°45'48"E	785.51'

POINT	STATION	OFFSET
1212	27+25.29	-42.95'
1213	27+25.28	-47.95'
1214	28+23.04	-48.27'
1215	28+23.04	-43.27'
1216	30+23.04	-43.91'
1217	30+54.39	-82.61'
1218	31+34.53	-149.21'
1219	31+44.53	-149.13'
1220	31+43.81	-53.86'
1221	31+53.97	-43.53'
1222	32+87.85	-42.34'
1234	31+53.13	52.89'
1235	31+38.48	78.67'
1236	30+50.74	93.46'
1237	30+48.86	42.00'

COURSE	RADIUS	LENGTH	CHORD	CHORD BEARING
1636-1235	20.00'	11.52'	11.36'	S14°57'53"W
1235-1635	20.00'	20.94'	20.00'	S61°27'44"W

POINT	Y	X	DESCRIPTION
232	194699.026	168362.366	1" IRON PIPE
234	194743.258	168265.388	1" IRON BAR
235	194656.570	168310.532	1" IRON PIPE
236	194941.940	168146.140	3/4" REBAR BENT
237	SEE RW COORDINATE TABLE		3/4" REBAR
241	SEE RW COORDINATE TABLE		3/4" REBAR
243	195063.448	168281.476	1-1/4" IRON PIPE

REVISION DATE 6/25/2025 NC

DATE 2/10/2025

SCALE, FEET

HWY: BUSINESS 51 / CHURCH STREET

STATE R/W PROJECT NUMBER 6998-13-01

PLAT SHEET 4.07

GRID FACTOR N/A

COUNTY: PORTAGE

CONSTRUCTION PROJECT NUMBER

PS&E SHEET

FILE NAME: 69981301-RP(REV1).DWG
LAYOUT NAME: 4.07

PLOT DATE: 6/25/2025 11:27 AM

PLOT BY: BUZA, DONALD

PLOT NAME:

PLOT SCALE:

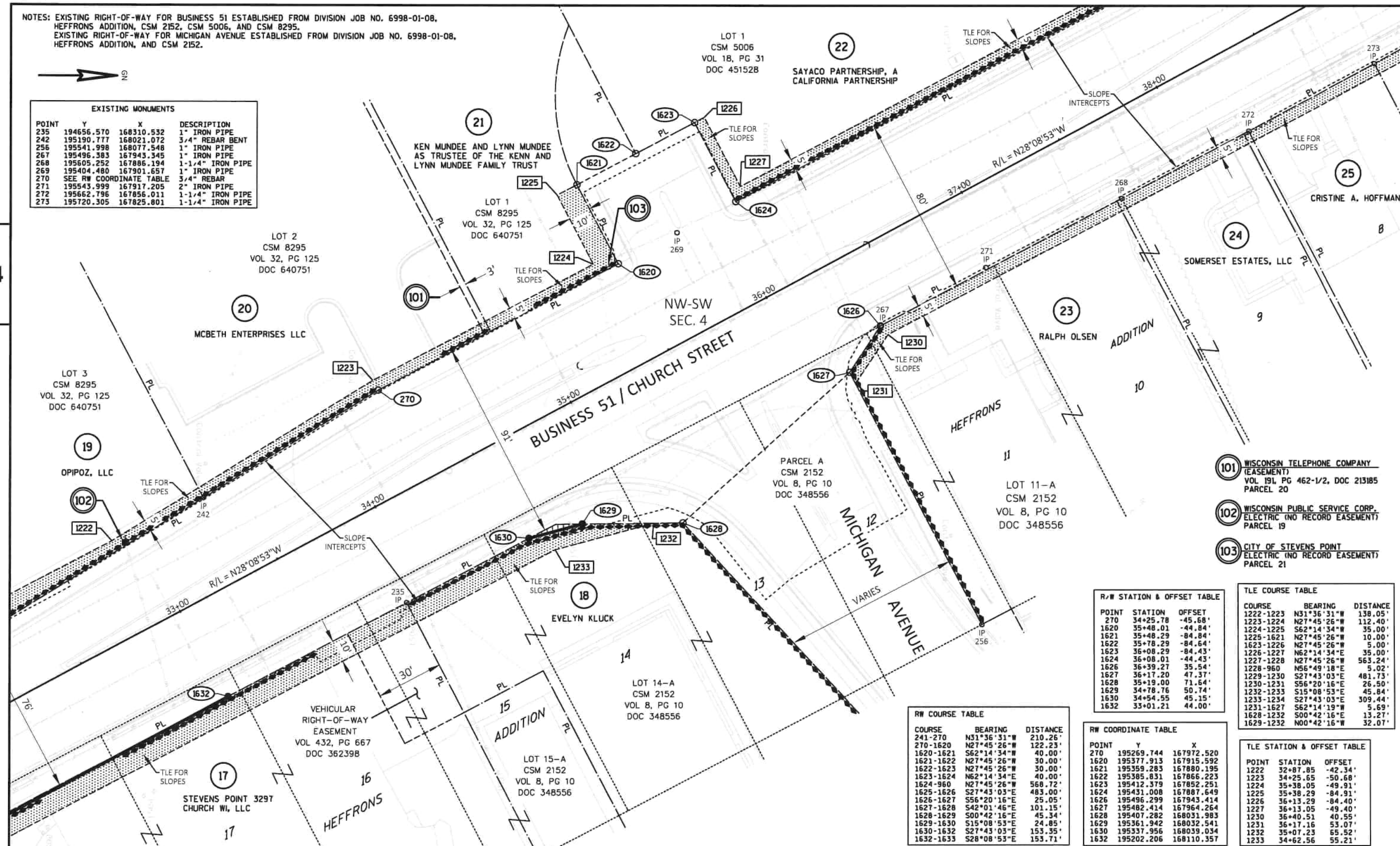
216

WISCONSIN SHEET 75

NOTES: EXISTING RIGHT-OF-WAY FOR BUSINESS 51 ESTABLISHED FROM DIVISION JOB NO. 6998-01-08, HEFFRONS ADDITION, CSM 2152, CSM 5006, AND CSM 8295.
EXISTING RIGHT-OF-WAY FOR MICHIGAN AVENUE ESTABLISHED FROM DIVISION JOB NO. 6998-01-08, HEFFRONS ADDITION, AND CSM 2152.

EXISTING MONUMENTS			
POINT	Y	X	DESCRIPTION
235	194656.570	168310.532	1" IRON PIPE
242	195190.777	168021.072	3/4" REBAR BENT
256	195541.998	168077.548	1" IRON PIPE
267	195496.383	167943.345	1" IRON PIPE
268	195605.252	167886.194	1-1/4" IRON PIPE
269	195404.480	167901.657	1" IRON PIPE
270	SEE RW COORDINATE TABLE		3/4" REBAR
271	195543.999	167917.205	2" IRON PIPE
272	195662.796	167856.011	1-1/4" IRON PIPE
273	195720.305	167825.801	1-1/4" IRON PIPE

4



- 101 WISCONSIN TELEPHONE COMPANY (EASEMENT) VOL 191, PG 462-1/2, DOC 213185 PARCEL 20
- 102 WISCONSIN PUBLIC SERVICE CORP. ELECTRIC (NO RECORD EASEMENT) PARCEL 19
- 103 CITY OF STEVENS POINT ELECTRIC (NO RECORD EASEMENT) PARCEL 21

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
270	34+25.78	-45.68'
1620	35+48.01	-44.84'
1621	35+48.29	-84.84'
1622	35+78.29	-84.64'
1623	36+08.29	-84.43'
1624	36+08.01	-44.43'
1626	36+39.27	35.54'
1627	36+17.20	47.37'
1628	35+19.00	71.64'
1629	34+78.76	50.74'
1630	34+54.55	45.15'
1632	33+01.21	44.00'

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
1222-1223	N31°36'31\"W	138.05'
1223-1224	N27°45'26\"W	112.40'
1224-1225	S62°14'34\"E	35.00'
1225-1621	N27°45'26\"W	10.00'
1225-1621	N27°45'26\"W	5.00'
1226-1227	N62°14'34\"E	35.00'
1227-1228	N27°45'26\"W	563.24'
1228-960	N56°49'18\"E	5.02'
1229-1230	S27°43'03\"E	481.73'
1230-1231	S56°20'16\"E	26.50'
1232-1233	S15°08'53\"E	45.84'
1233-1234	S27°43'03\"E	309.44'
1231-1627	S62°14'19\"W	5.69'
1628-1232	S00°42'16\"E	13.27'
1629-1232	N00°42'16\"W	32.07'

RW COURSE TABLE		
COURSE	BEARING	DISTANCE
241-270	N31°36'31\"W	210.26'
270-1620	N27°45'26\"W	122.23'
1620-1621	S62°14'34\"E	40.00'
1621-1622	N27°45'26\"W	30.00'
1622-1623	N27°45'26\"W	30.00'
1623-1624	N62°14'34\"E	40.00'
1624-960	N27°45'26\"W	568.72'
1625-1626	S27°43'03\"E	483.00'
1626-1627	S56°20'16\"E	25.05'
1627-1628	S42°01'46\"E	101.15'
1628-1629	S00°42'16\"E	45.34'
1629-1630	S15°08'53\"E	24.85'
1630-1632	S27°43'03\"E	153.35'
1632-1633	S28°08'53\"E	153.71'

RW COORDINATE TABLE		
POINT	Y	X
270	195269.744	167972.520
1620	195377.913	167915.592
1621	195359.283	167880.195
1622	195385.831	167866.223
1623	195412.379	167852.251
1624	195431.008	167887.649
1626	195496.299	167943.414
1627	195482.414	167964.264
1628	195407.282	168031.983
1629	195361.942	168032.541
1630	195337.956	168039.034
1632	195202.206	168110.357

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
1222	32+87.85	-42.34'
1223	34+25.65	-50.68'
1224	35+38.05	-49.91'
1225	35+38.29	-84.40'
1226	36+13.29	-84.40'
1227	36+40.51	40.55'
1230	36+17.16	53.07'
1232	35+07.23	65.52'
1233	34+62.56	55.21'

REVISION DATE 6/25/2025 NC

DATE 2/10/2025

SCALE, FEET

HWY: BUSINESS 51 / CHURCH STREET

STATE R/W PROJECT NUMBER 6998-13-01

PLAT SHEET 4.08

GRID FACTOR N/A

COUNTY: PORTAGE

CONSTRUCTION PROJECT NUMBER

PS&E SHEET

FILE NAME: 69981301-RP(REV1).DWG
LAYOUT NAME - 4.08

PLOT DATE: 6/25/2025 11:30 AM

PLOT BY: BUZA, DONALD

PLOT NAME:

PLOT SCALE:

NOTES: EXISTING RIGHT-OF-WAY FOR BUSINESS 51 ESTABLISHED FROM DIVISION JOB NO. 6998-01-08, HEFFRONS ADDITION, CSM 5006, AND CSM 10621.



4

4

LOT 1
CSM 5006
VOL 18, PG 31
DOC 451528

LOT 2
CSM 10621
VOL 48, PG 51
DOC 803664

22
SAYACO PARTNERSHIP, A
CALIFORNIA PARTNERSHIP

NW-SW
SEC. 4

BUSINESS 51 / CHURCH STREET

END RELOCATION
ORDER STA 41+76.72
Y = 195953.412
X = 167658.541

HEFFRON STREET

JUSTIN TUBBS

26
JABE INVESTMENTS, LLC

25
CRISTINE A. HOFFMAN

24
SOMERSET ESTATES, LLC

RW COURSE TABLE		
COURSE	BEARING	DISTANCE
1624-960	N27°45'26"W	568.72'
960-1625	S83°48'52"E	96.54'
1625-1626	S27°43'03"E	483.00'

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
960	41+76.72	-40.55'
1625	41+22.26	39.17'

RW COORDINATE TABLE		
POINT	Y	X
960	195934.281	167622.782
1625	195923.879	167718.763

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
1228	41+76.27	-45.56'
1229	41+22.23	44.17'

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
1227-1228	N27°45'26"W	563.24'
1228-960	N56°49'18"E	5.02'

EXISTING MONUMENTS			
POINT	Y	X	DESCRIPTION
268	195605.252	167886.194	1-1/4" IRON PIPE
272	195662.796	167856.011	1-1/4" IRON PIPE
273	195720.305	167825.801	1-1/4" IRON PIPE
274	195835.239	167765.284	1-1/4" IRON PIPE
275	195892.895	167735.042	1-1/4" IRON PIPE
276	196047.961	167562.761	3/4" REBAR
960	195934.281	167622.782	DRILL/HOLE

REVISION DATE 6/25/2025 NC

DATE 2/10/2025

SCALE, FEET



HWY: BUSINESS 51 / CHURCH STREET

STATE R/W PROJECT NUMBER 6998-13-01

PLAT SHEET 4.09

GRID FACTOR N/A

COUNTY: PORTAGE

CONSTRUCTION PROJECT NUMBER

PS&E SHEET

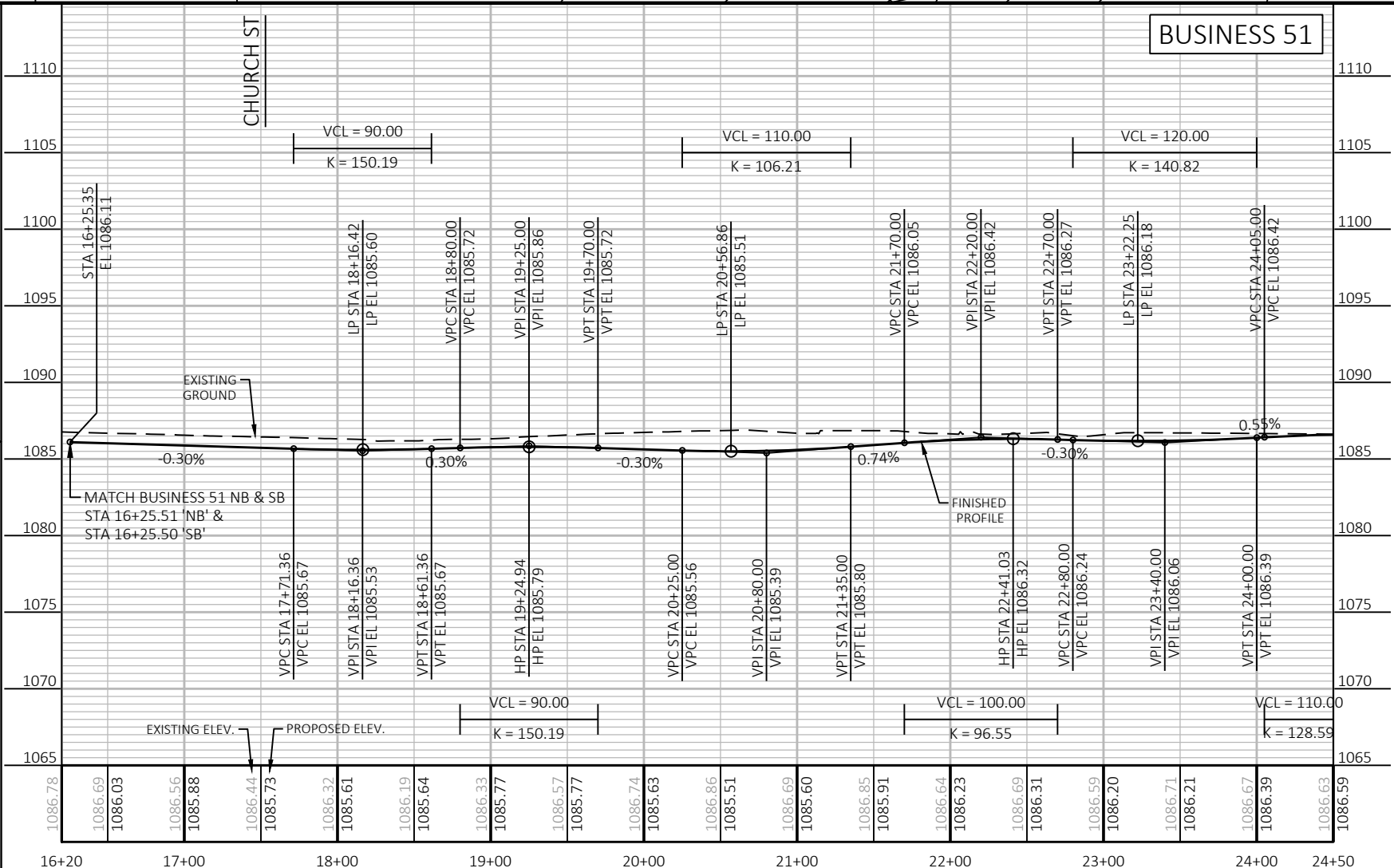
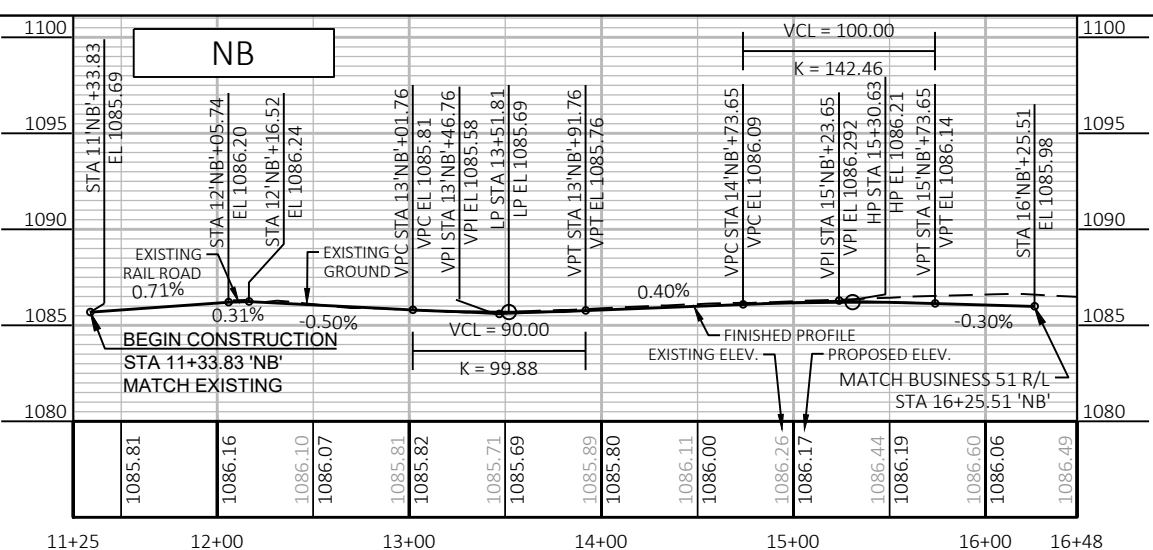
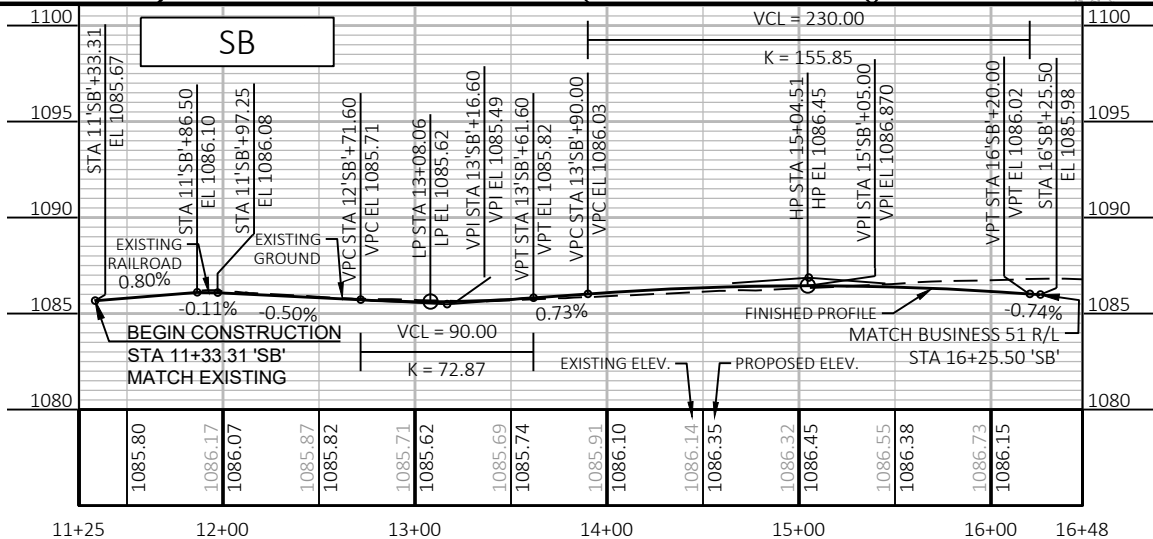
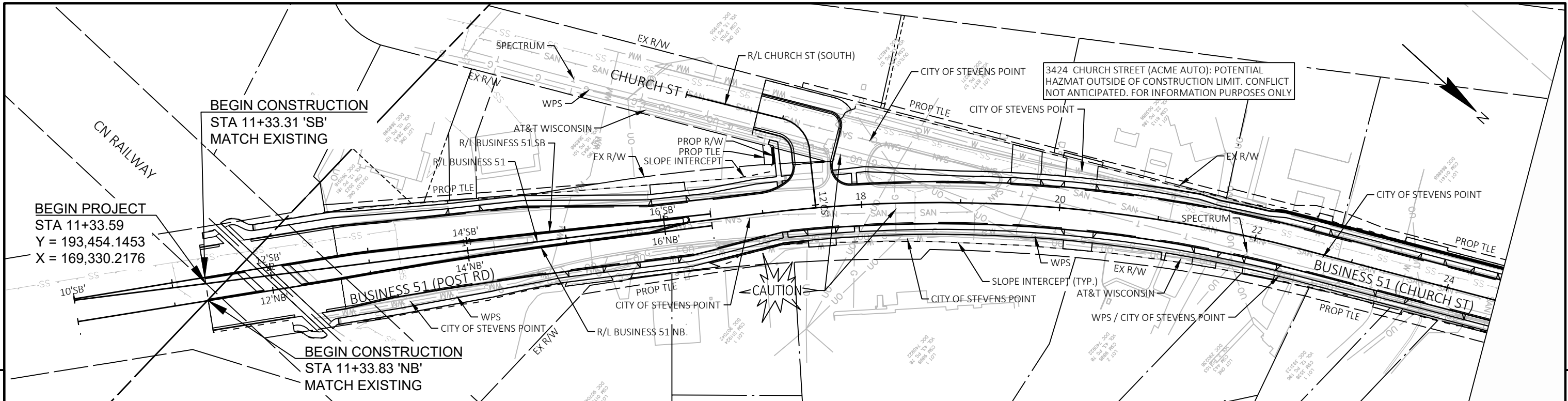
FILE NAME: 69981301-RP(REV1).DWG
LAYOUT NAME - 4.09

PLOT DATE: 6/25/2025 11:31 AM

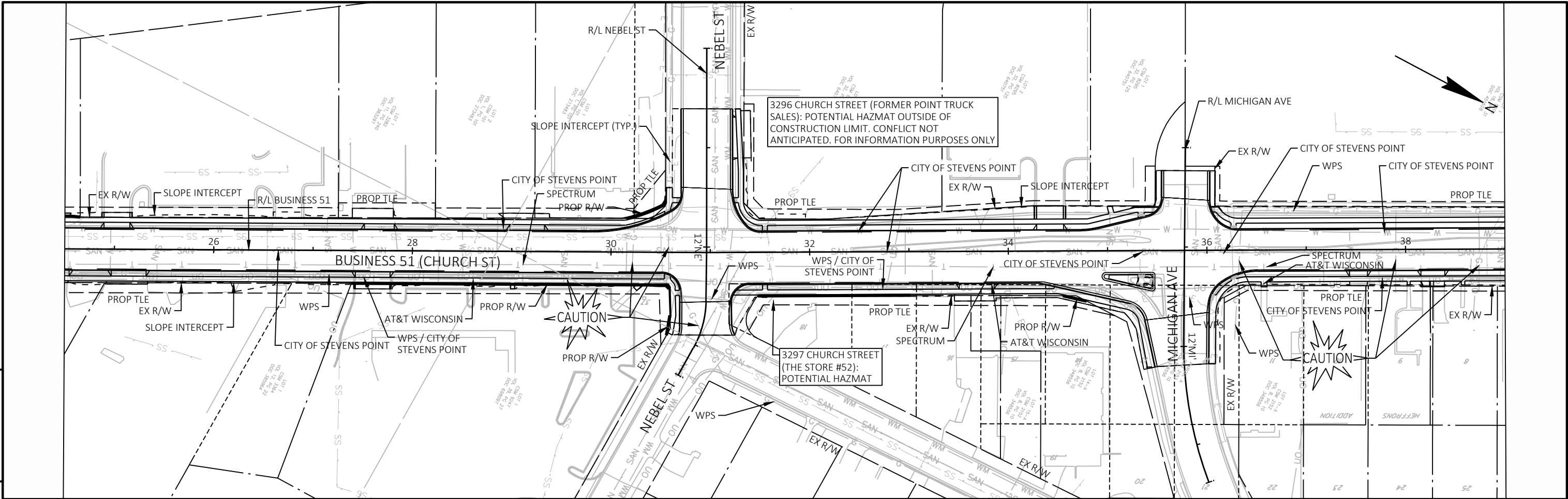
PLOT BY: BUZA, DONALD

PLOT NAME:

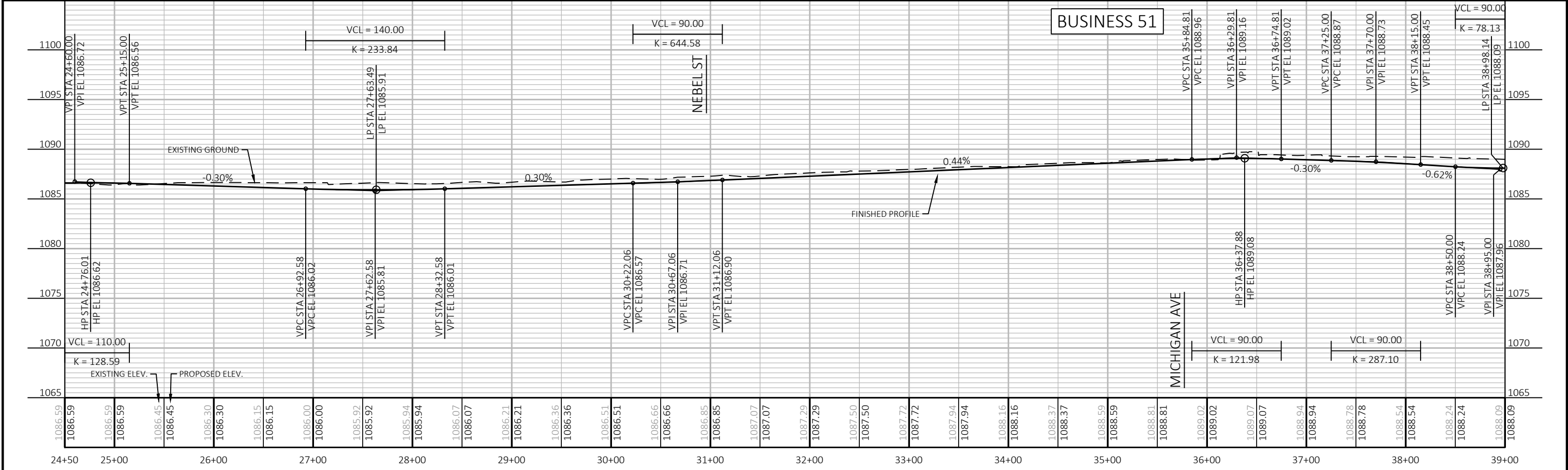
PLOT SCALE:



5

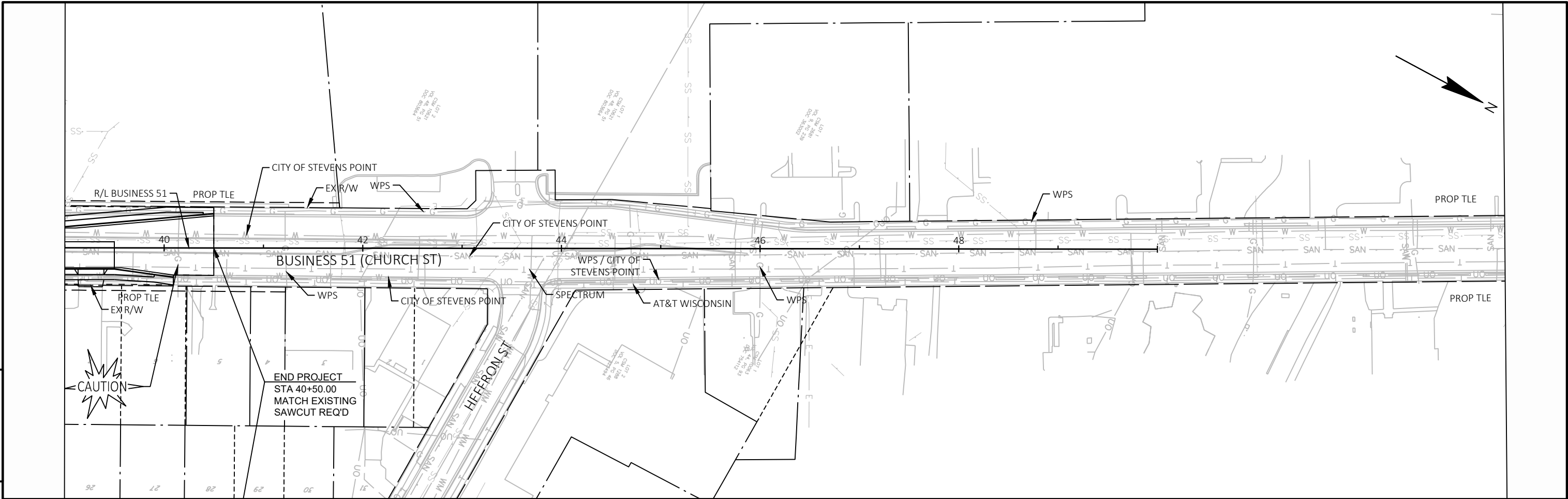


5

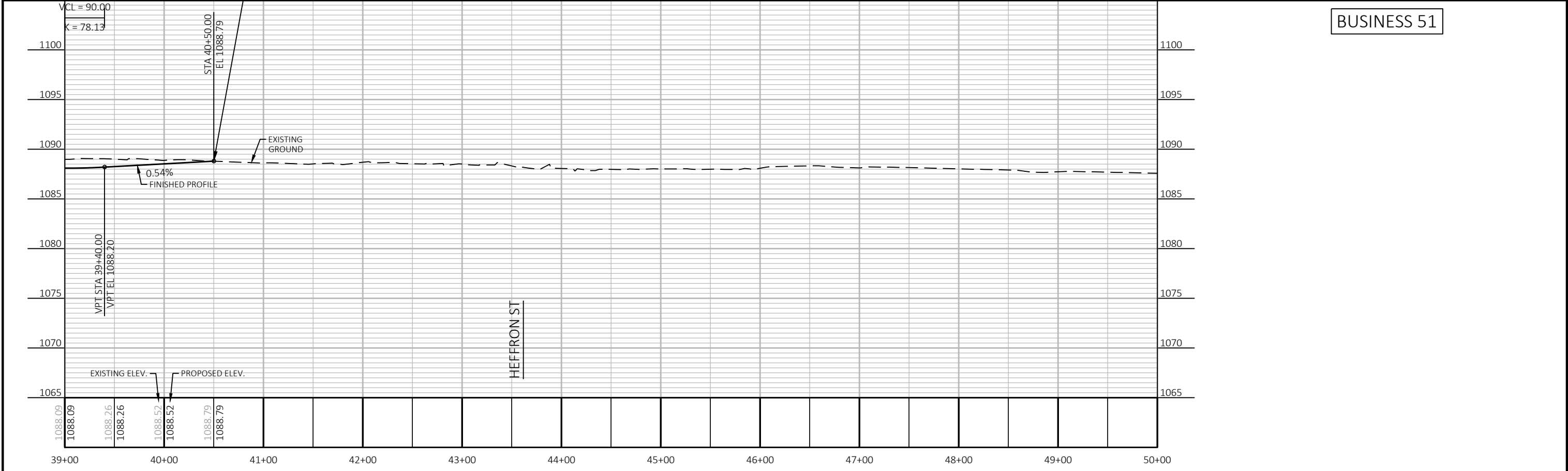


PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	PLAN AND PROFILE: BUSINESS 51	SHEET 220
------------------------	------------------	-----------------	-------------------------------	-----------

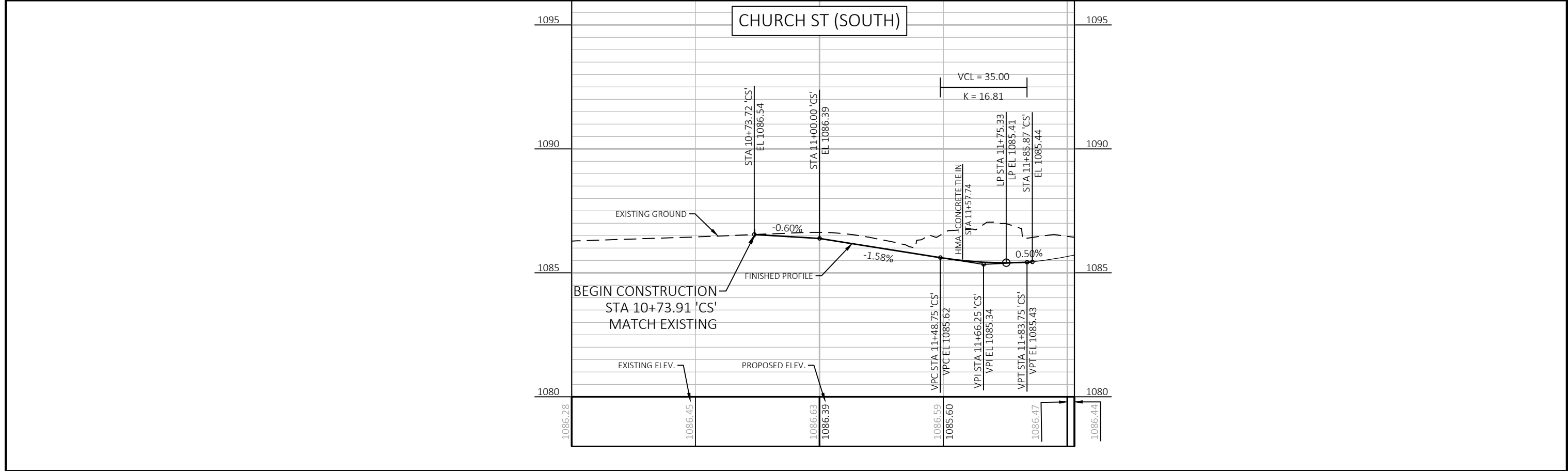
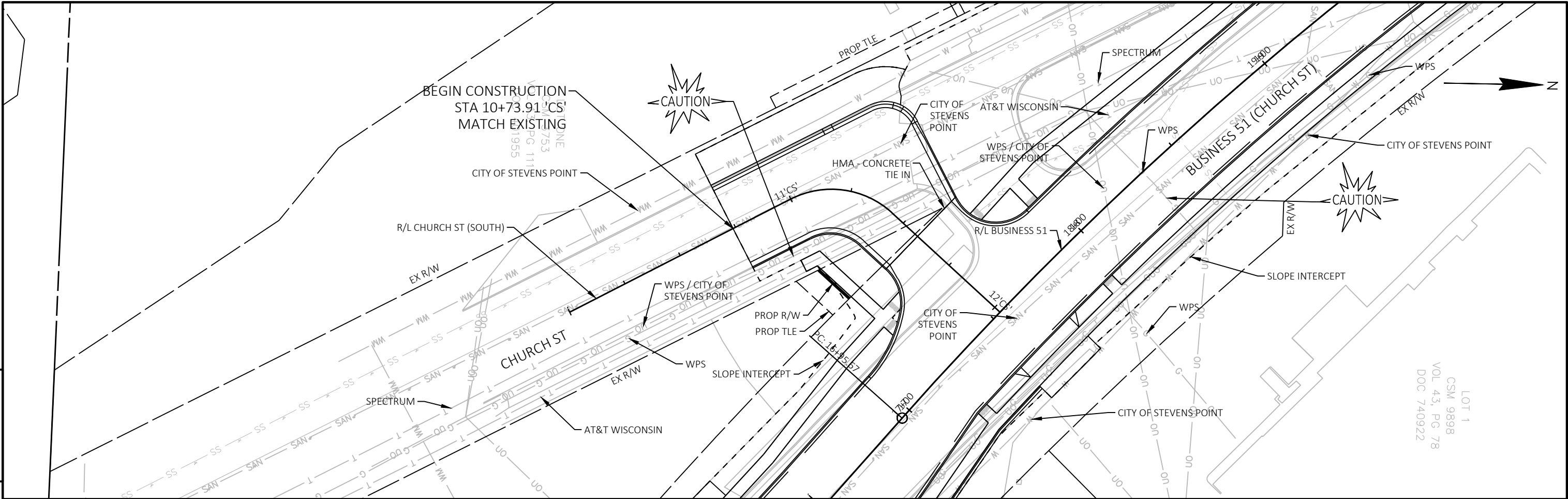
5

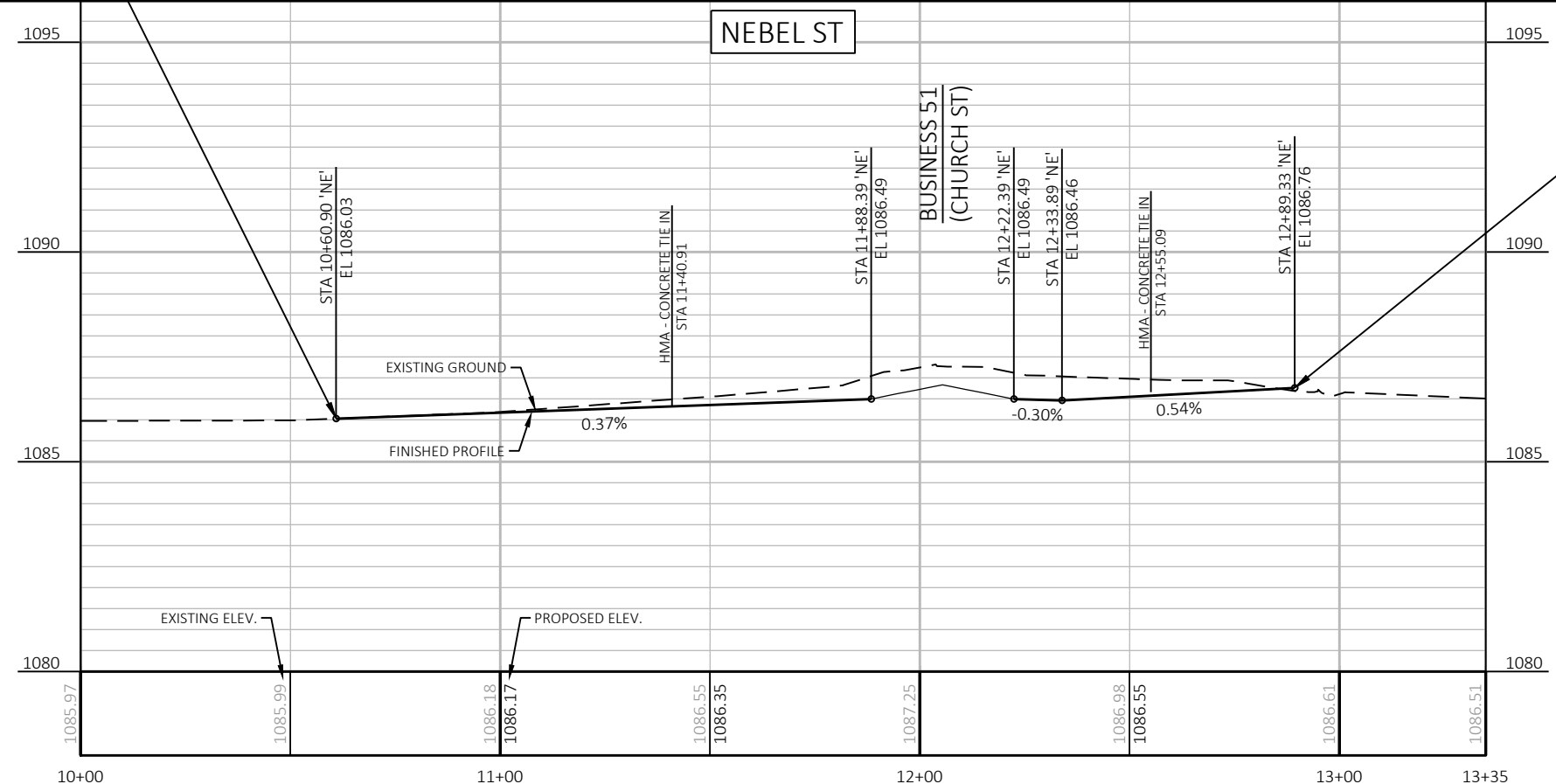
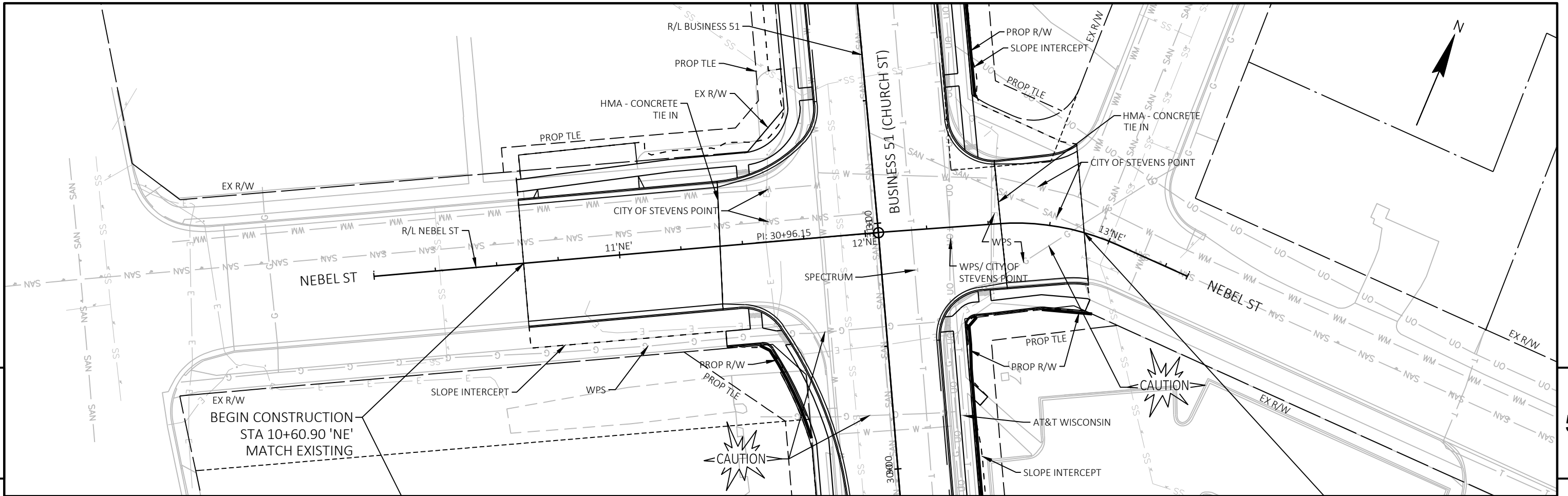


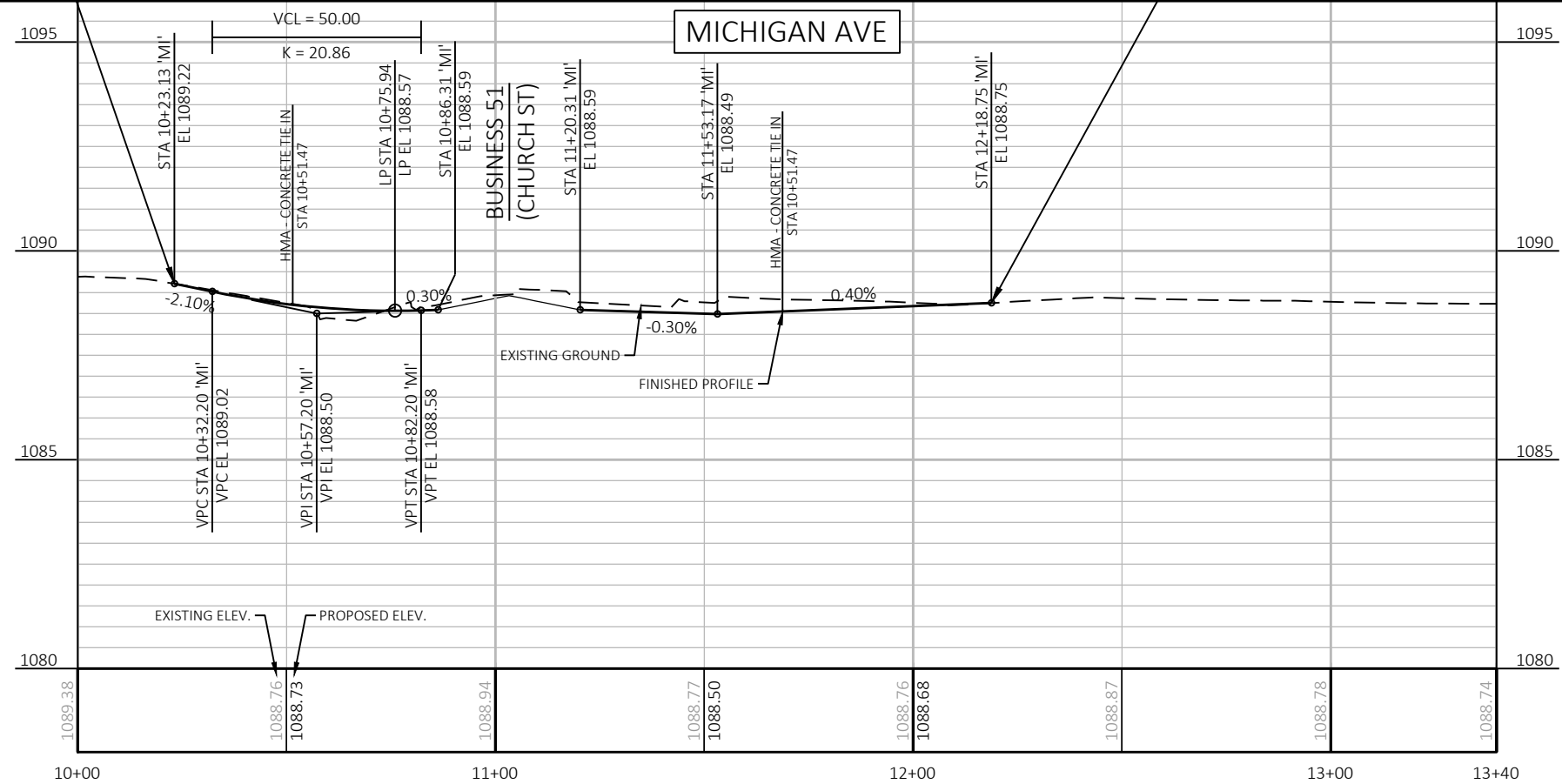
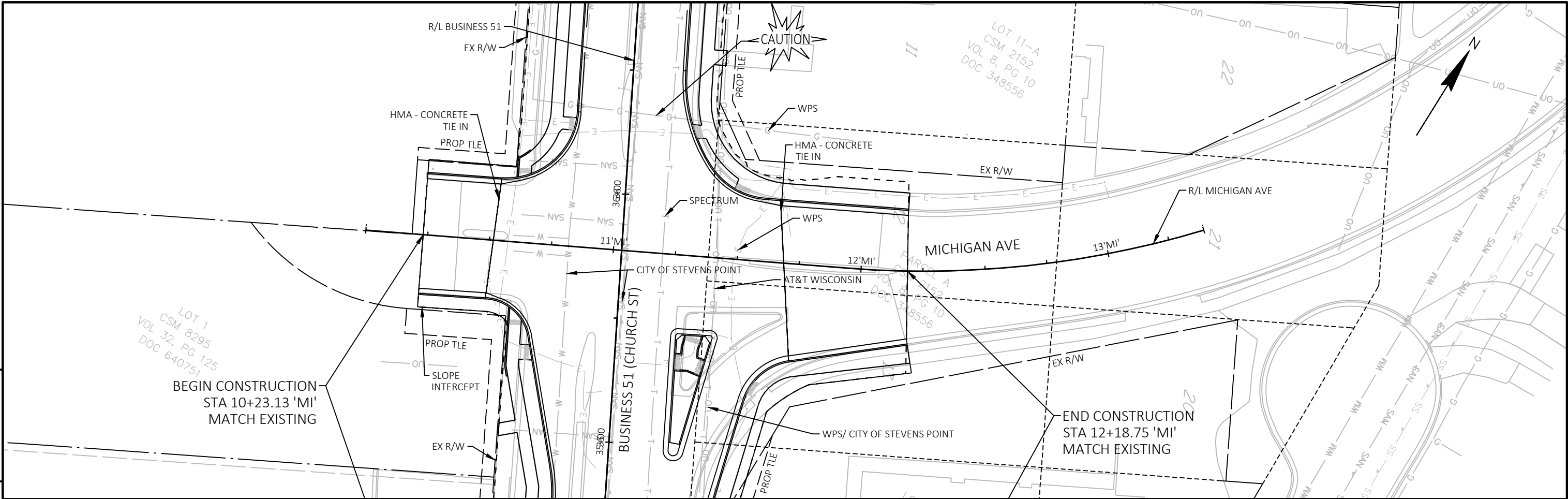
5



PROJECT NO: 6998-13-71	HWY: BUSINESS 51	COUNTY: PORTAGE	PLAN AND PROFILE: BUSINESS 51	SHEET 221	E
------------------------	------------------	-----------------	-------------------------------	-----------	---





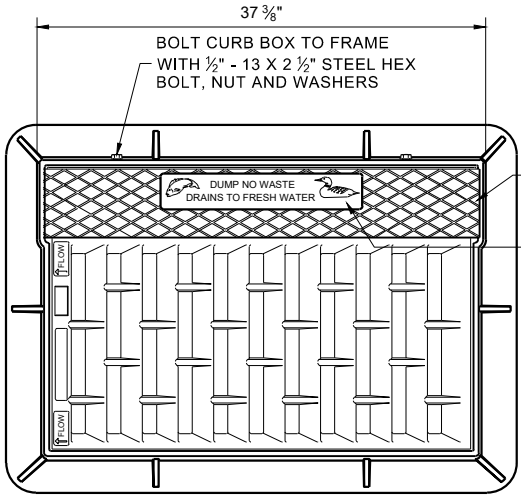


Standard Detail Drawing List

08A05-22A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-22B	INLET COVERS TYPE B, B-A, C, MS, MS-A, DW & WM
08A05-22E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-03	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09C15-02	CONCRETE BASE TYPE 10 SPECIAL
09C16-01	CONCRETE BASE TYPE 10 SPECIAL EXTENSION
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-09C	TYPE 9 SPECIAL POLE 40' MONOTUBE ARM
09E08-09E	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09K	GENERAL NOTES, HARDWARE DETAILS FOR TYPE 9, 10, 9/10 SPECIAL,12 & 13 POLES W/ MONOTUBE ARMS
11B02-02	CONCRETE MEDIAN NOSE
13A03-07	CONCRETE PAVEMENT SHOULDERS
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-24C	PAVEMENT MARKING (TURN LANES)
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

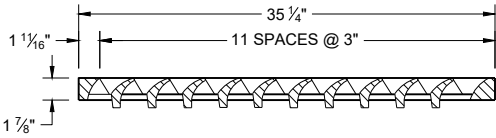
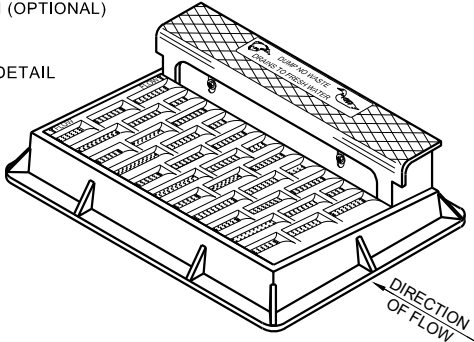
Standard Detail Drawing List

15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-09C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C21-11	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

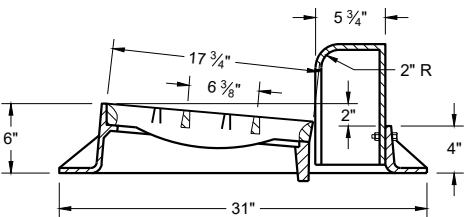
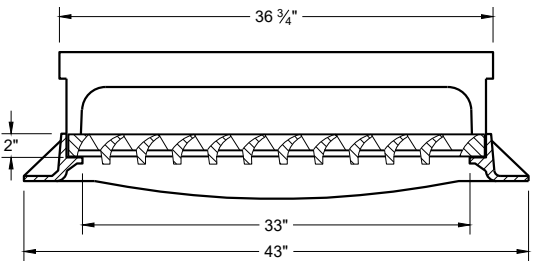
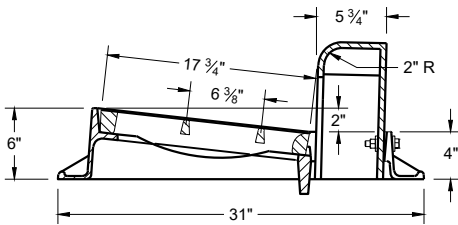
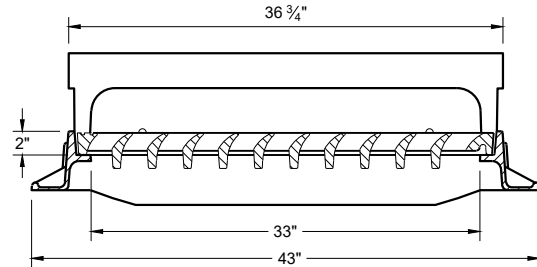


NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)
SEE LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

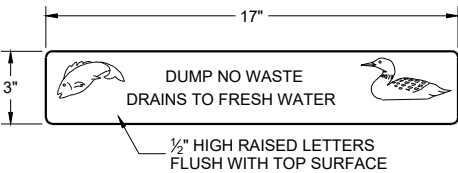


TYPE "H"

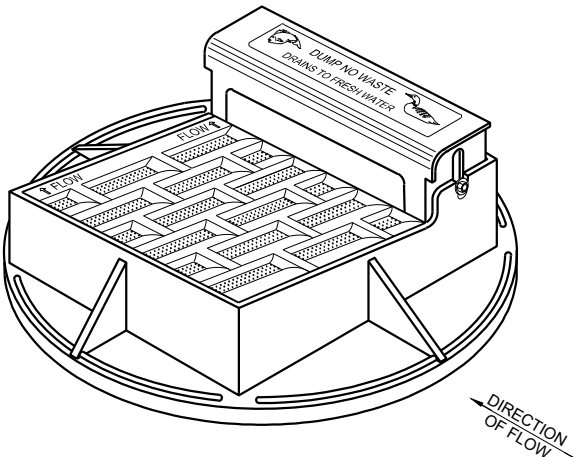
NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

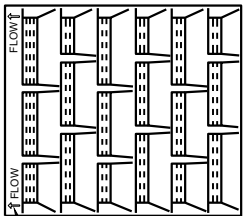


LOGO DETAIL

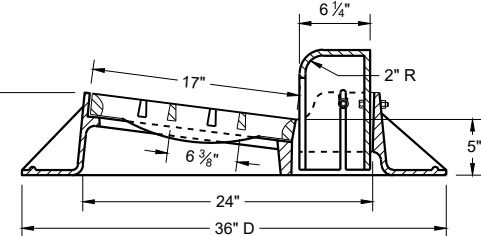
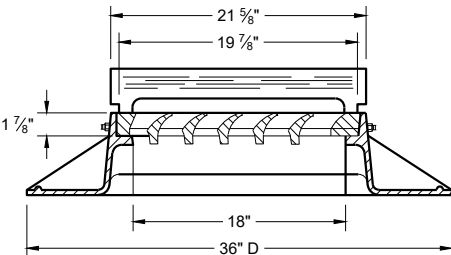
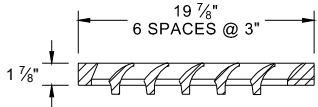


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

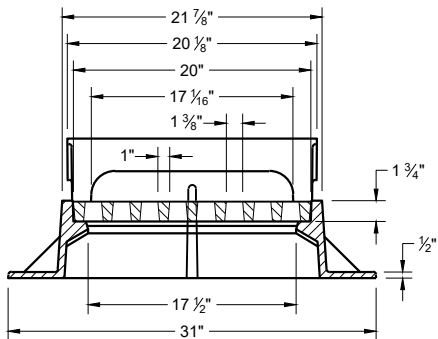
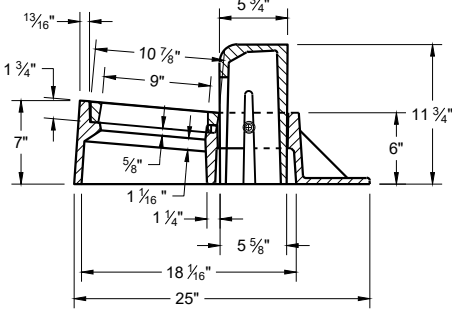
NOTE: EITHER CASTING IS ACCEPTABLE



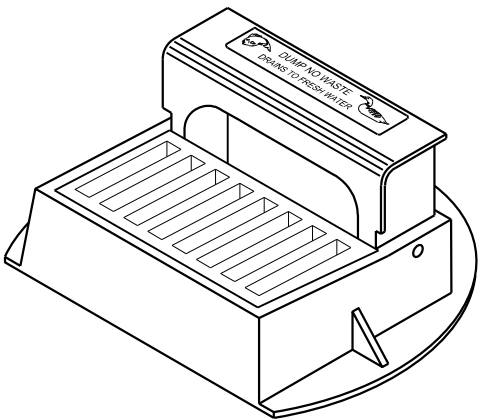
DIRECTION OF FLOW ARROWS



TYPE "A"



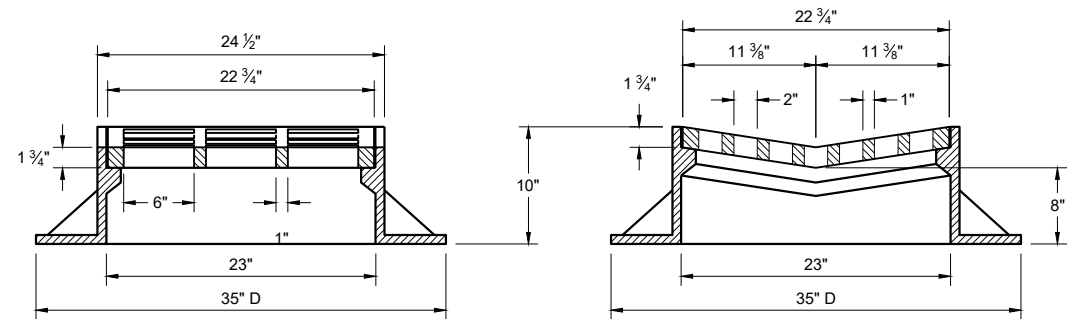
TYPE "Z"



**INLET COVERS
TYPES A, H, A-S, H-S AND Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

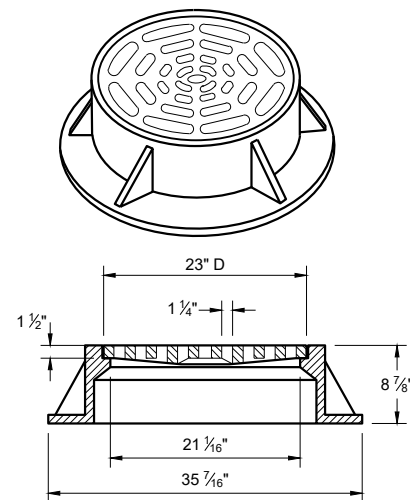
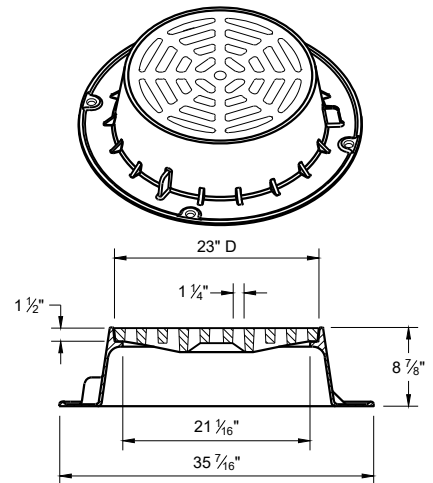
APPROVED
February 2025 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



TYPE "B"

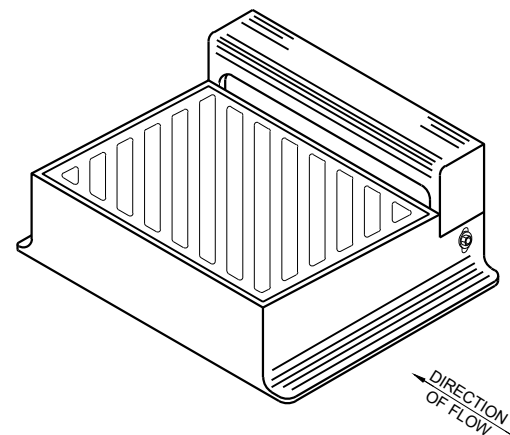
**ALTERNATIVE GRATE FOR
TYPE "B" COVER**

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE
NOTED AS TYPE B - A ON THE DRAINAGE TABLE

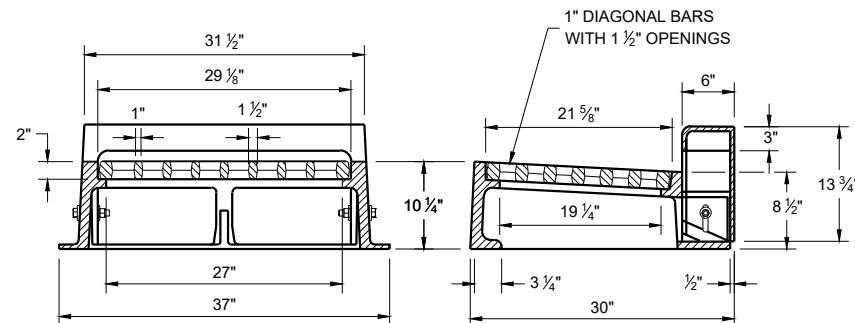


TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



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



TYPE "WM"

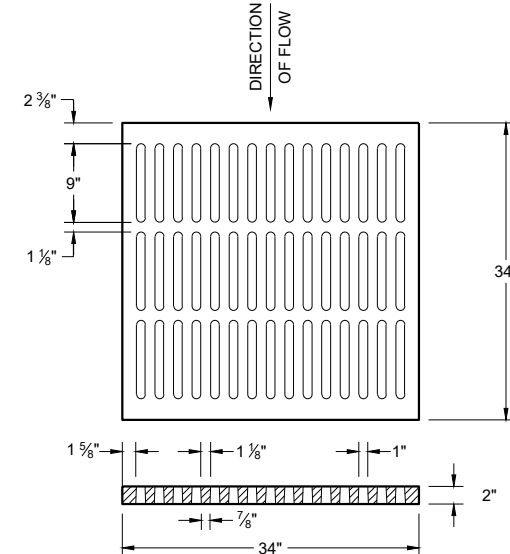
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

GENERAL NOTES

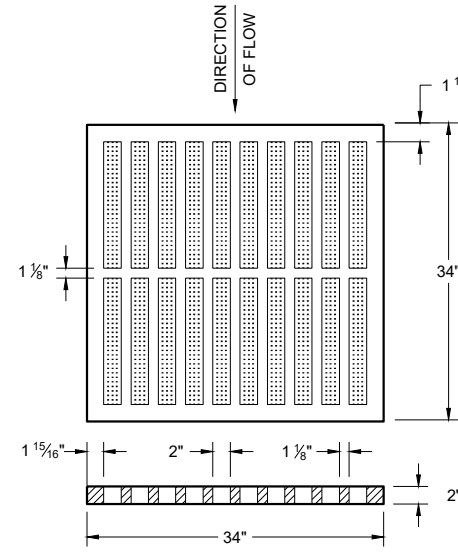
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

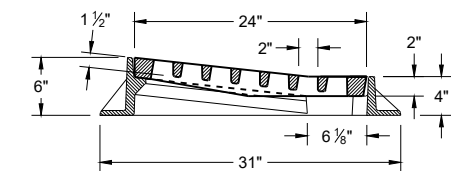
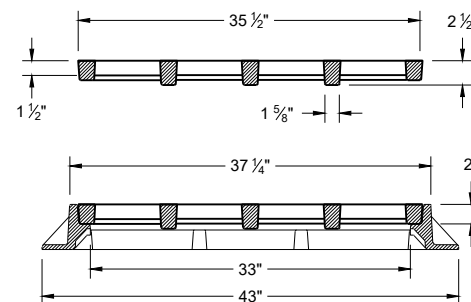
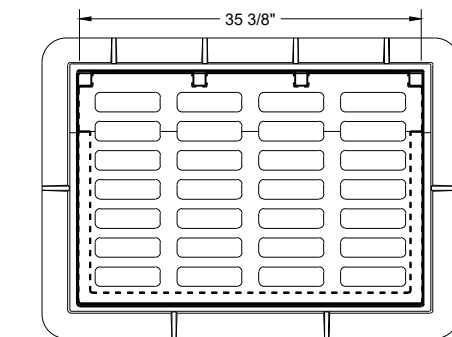
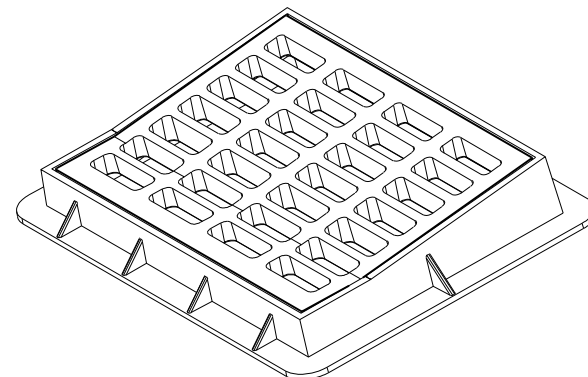
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"
USE WHERE PEDESTRIAN OF BICYCLE
TRAFFIC IS PERMITTED
**NOTED AS TYPE MS-A ON THE
DRAINAGE TABLE**



TYPE "MS"
USE ON FREEWAYS AND EXPRESSWAYS
**NOTED AS TYPE MS ON THE
DRAINAGE TABLE**



TYPE "DW"

NOTES: FOR USE IN A SUMP CONDITION. THIS OPTION IS
ONLY TO BE USED IF NO OTHER INLETS ARE APPLICABLE.

**INLET COVERS
TYPES B, B-A, C,
MS, MS-A ,DW AND WM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

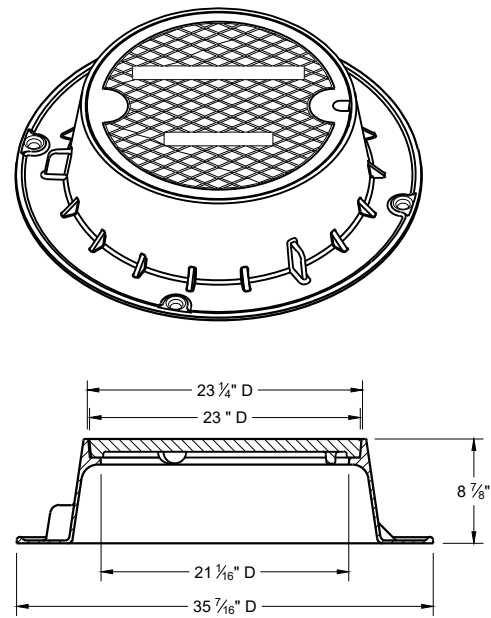
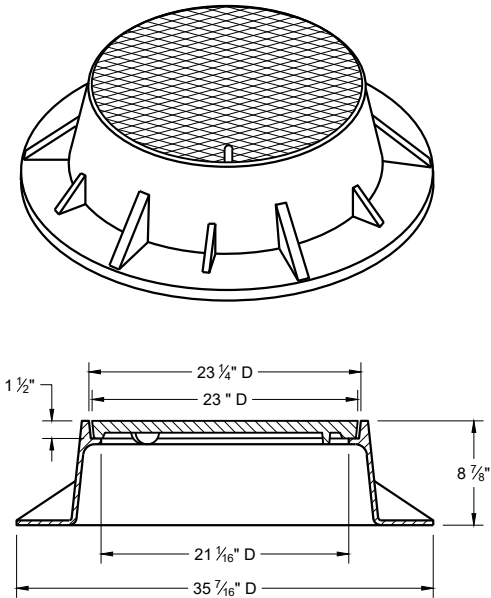
APPROVED
February 2025
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA

GENERAL NOTES

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

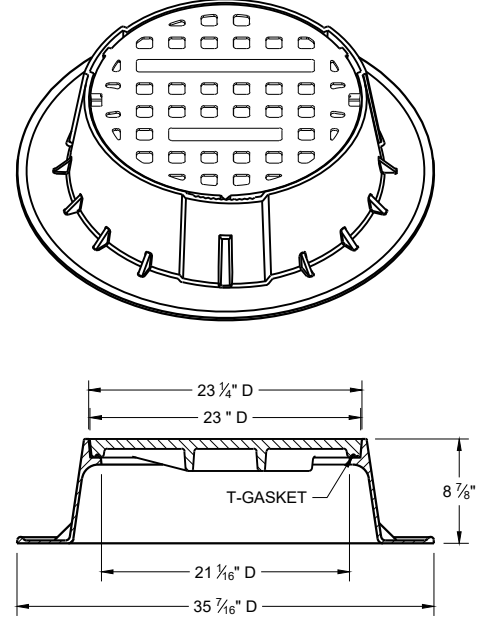
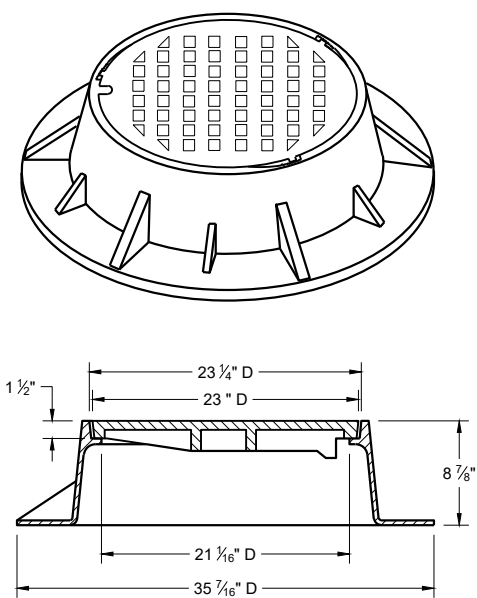
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



TYPE "J"

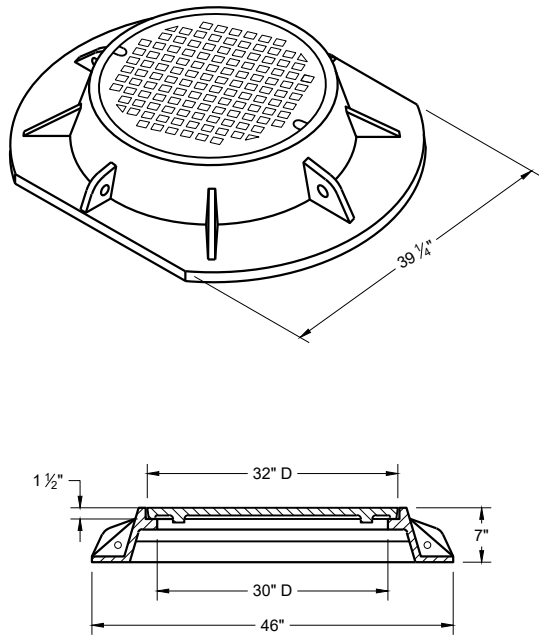
NOTE: EITHER CASTING IS ACCEPTABLE



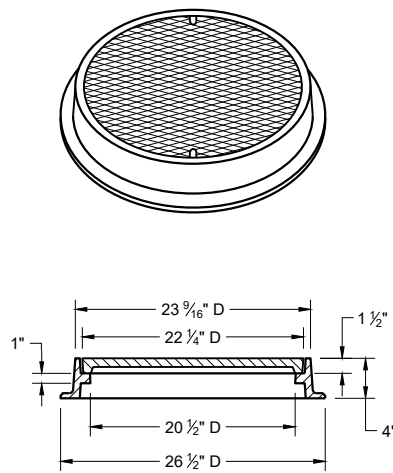
TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID (NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

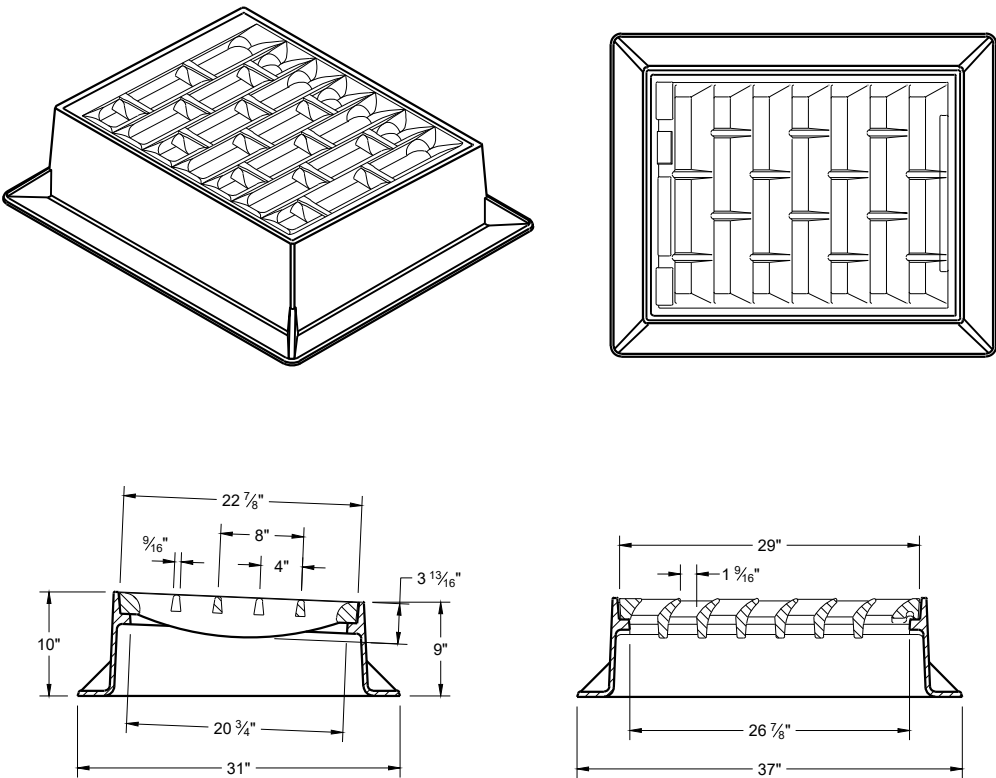
NOTE: EITHER CASTING IS ACCEPTABLE



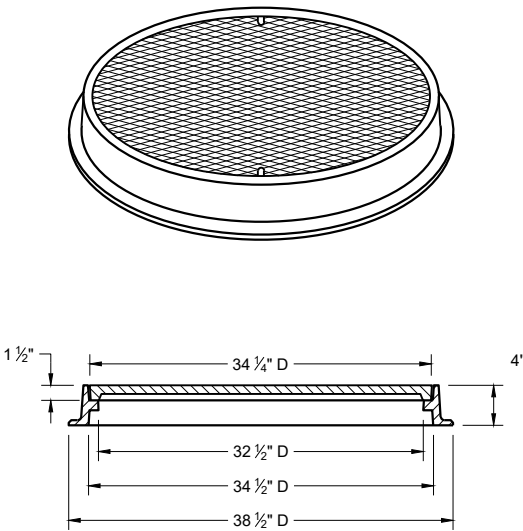
TYPE "K"



TYPE "L"



INLET COVER TYPE "BW"

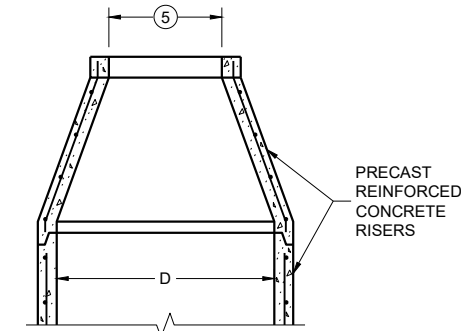
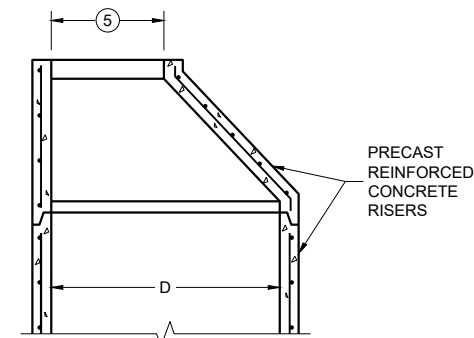
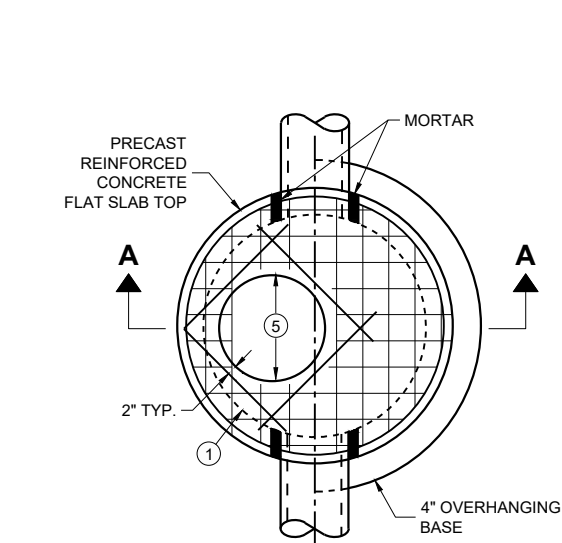


TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K,
J, J-S, L, AND M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



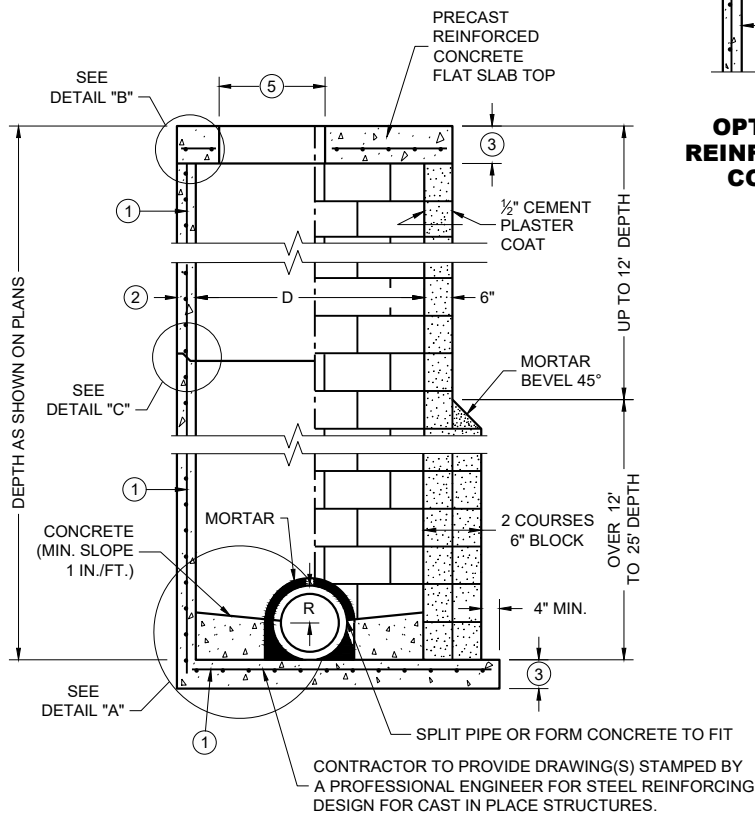
MANHOLE COVER OPENING MATRIX

MANHOLE COVER OPENING SIZE (FT.)	MANHOLE COVER TYPE	C	ALL JS	K	L	M
2 DIA.	5	X	X		X	
3 DIA.				X		X

PIPE MATRIX

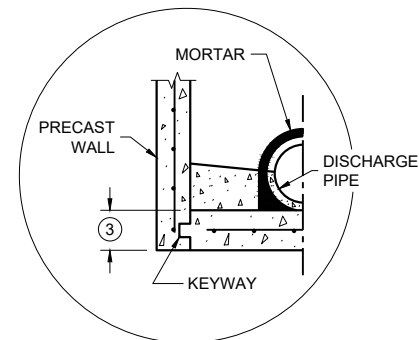
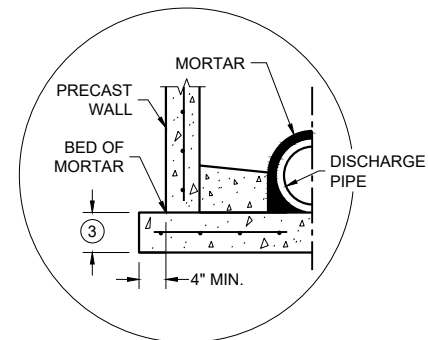
MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

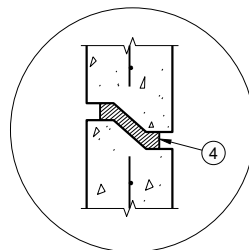
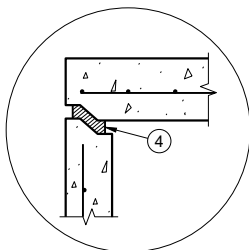
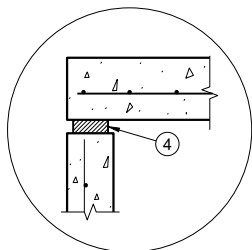


PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

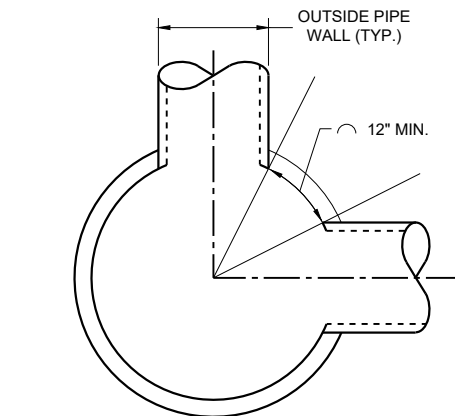


DETAIL "A"



DETAIL "B"

DETAIL "C"



DETAIL "D"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 3/8 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

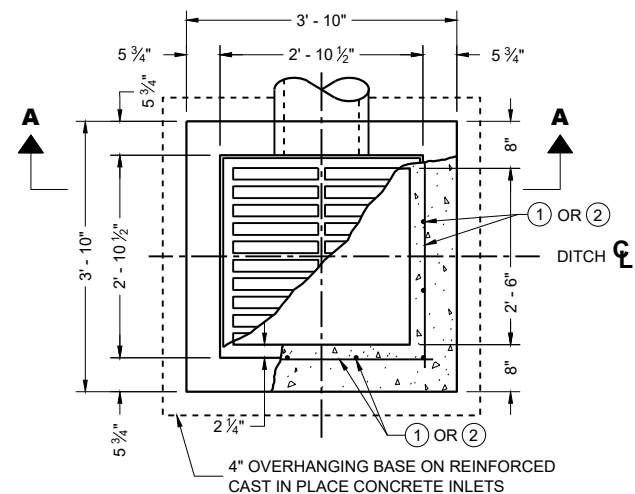
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

- 1 FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- 2 SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES
- 3 SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.
- 4 JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.
- 5 SEE MANHOLE COVER OPENING MATRIX.

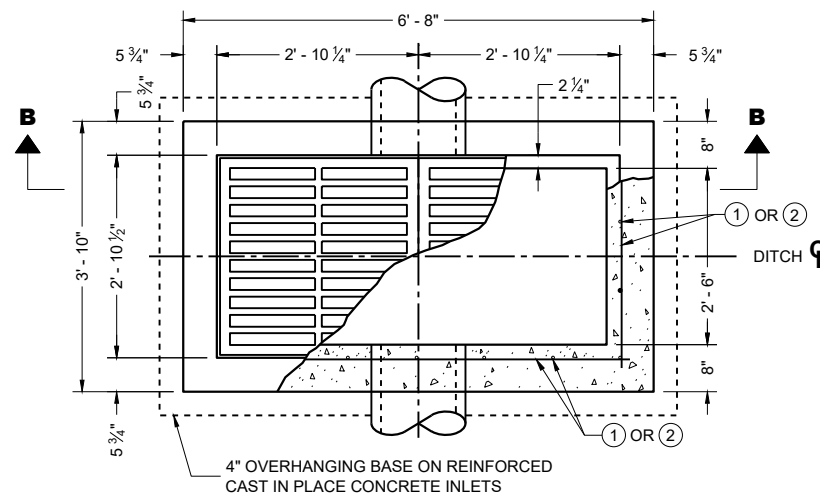
MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

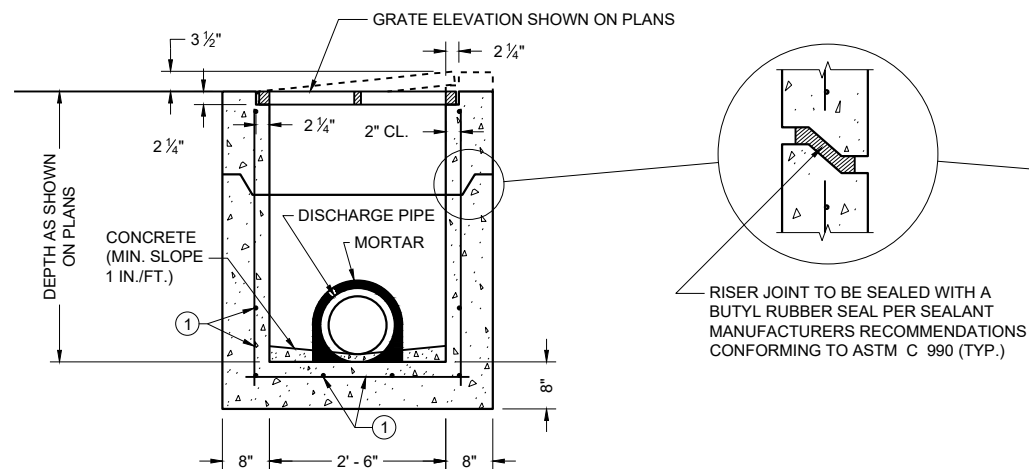
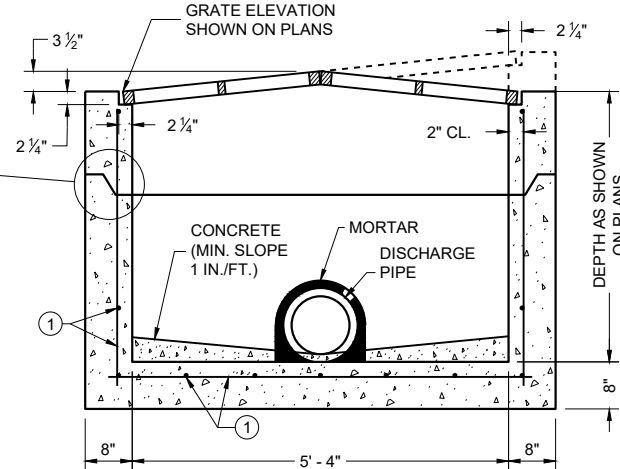
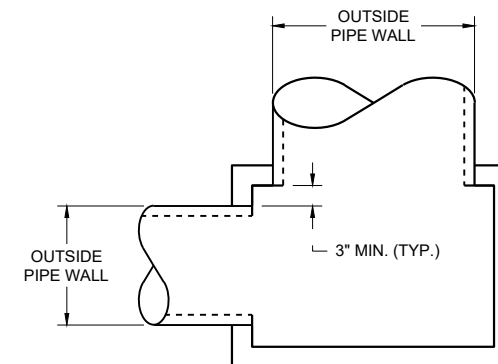
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



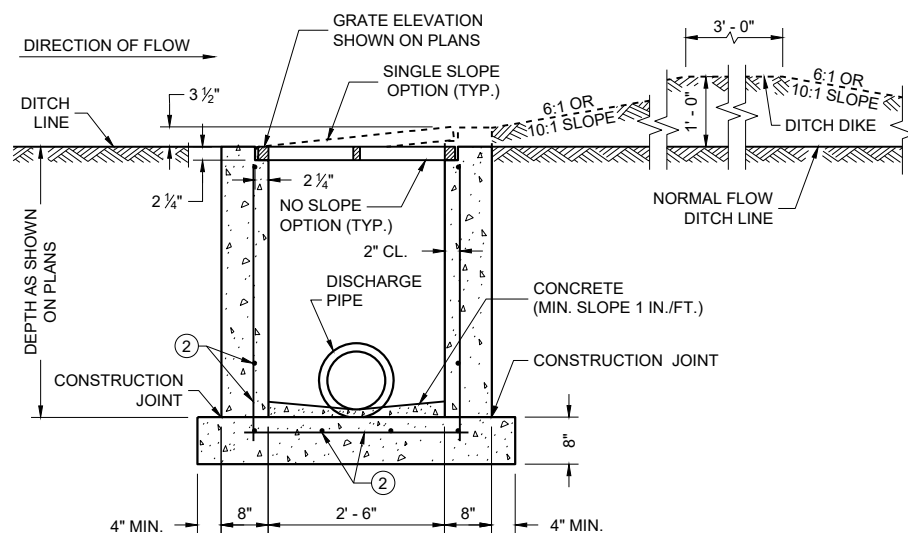
PLAN VIEW



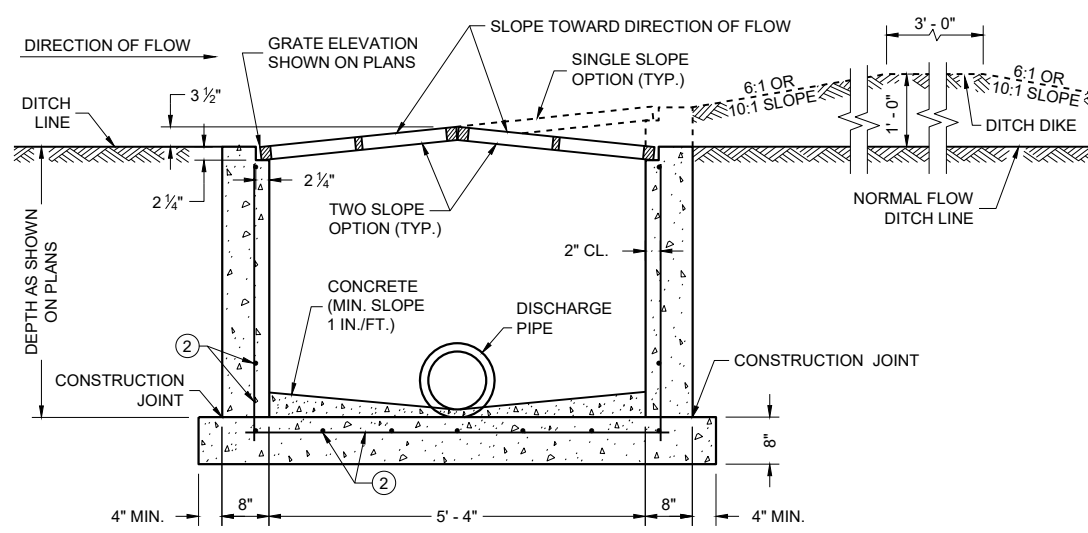
PLAN VIEW

PRECAST REINFORCED CONCRETE
SECTION A - APRECAST REINFORCED CONCRETE
SECTION B - B

DETAIL "A"

REINFORCED CAST IN PLACE CONCRETE
SECTION A - A

INLETS MEDIAN 1 GRATE

REINFORCED CAST IN PLACE CONCRETE
SECTION B - B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

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

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

- ① FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

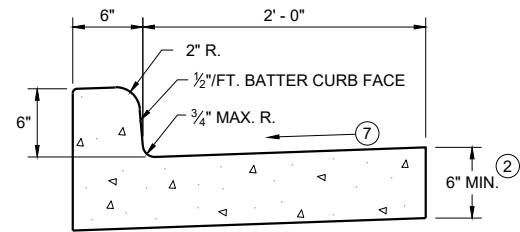
PIPE MATRIX

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

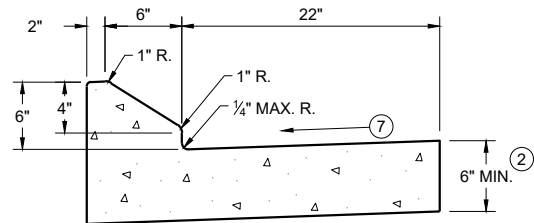
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

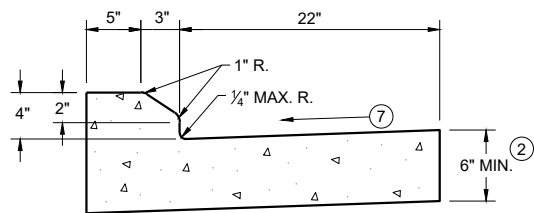
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



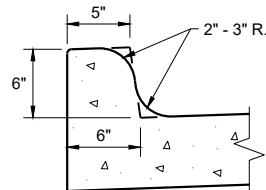
TYPES A^① & D



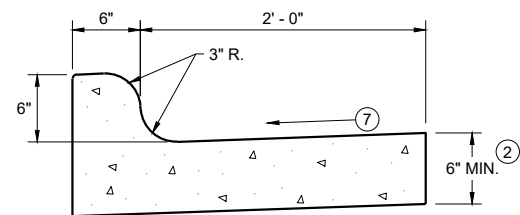
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

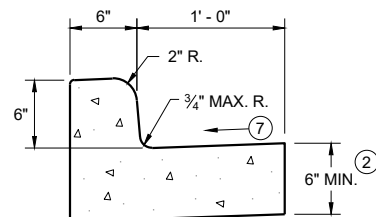


TYPES K^① & L
(OPTIONAL CURB SHAPE)



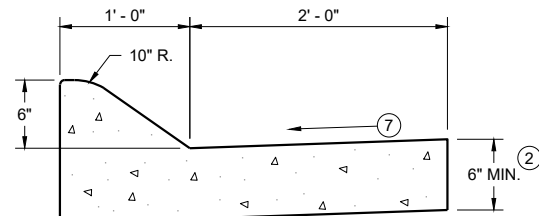
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

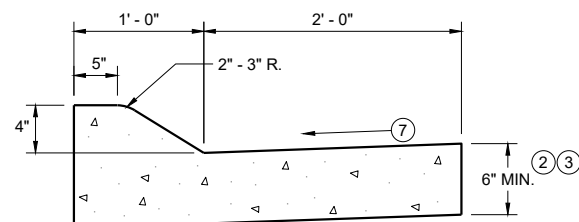


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

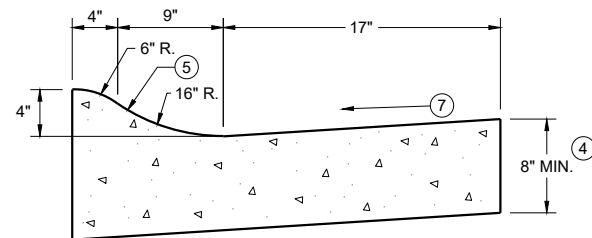


6" SLOPED CURB TYPES A^① & D



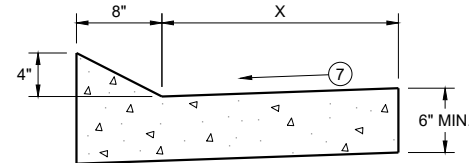
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

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

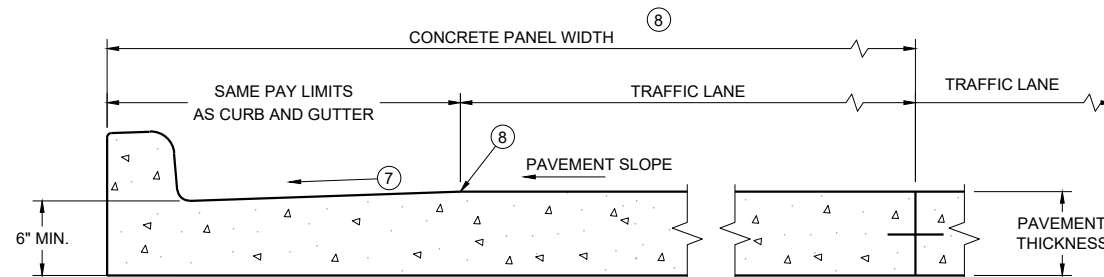


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

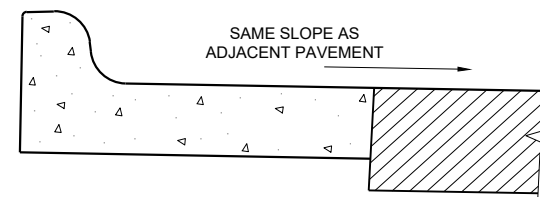
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

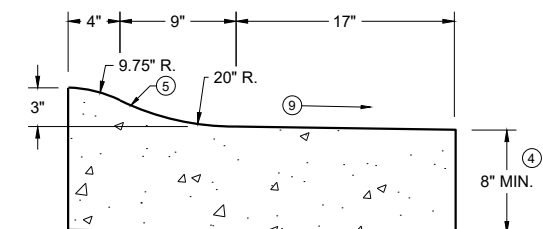


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

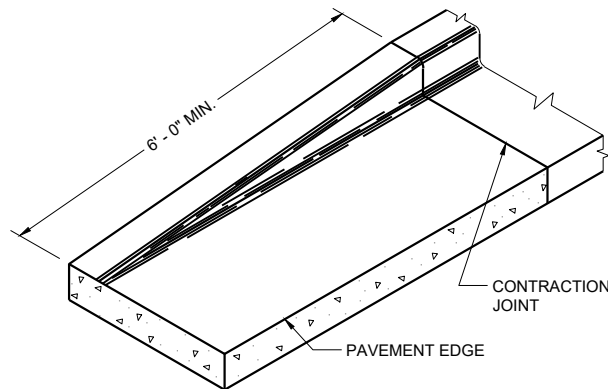
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

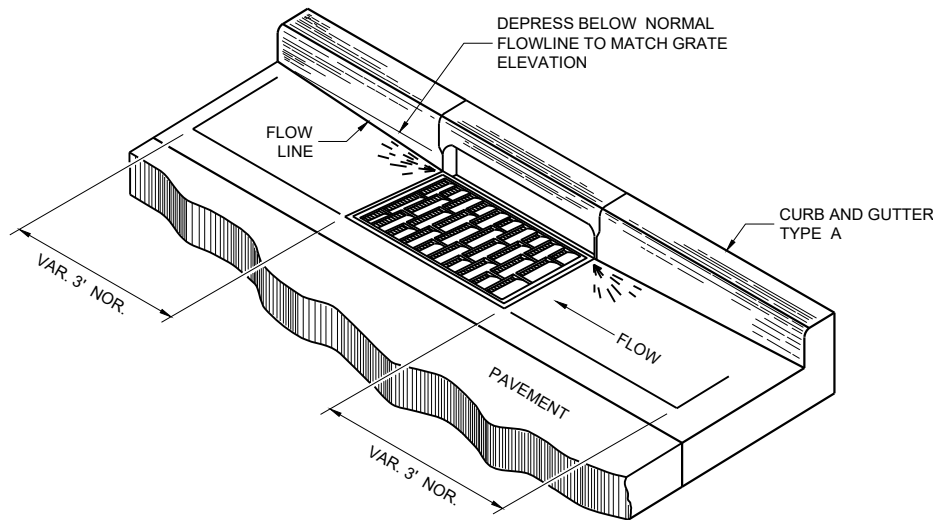
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY

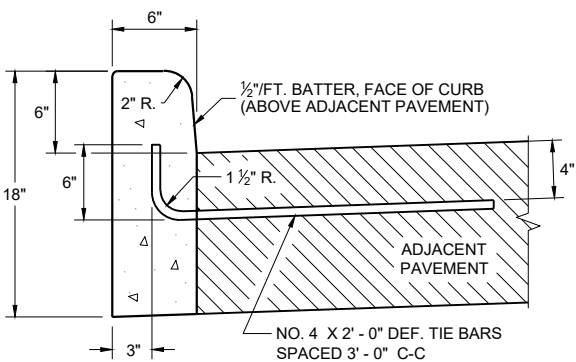


END SECTION CURB AND GUTTER

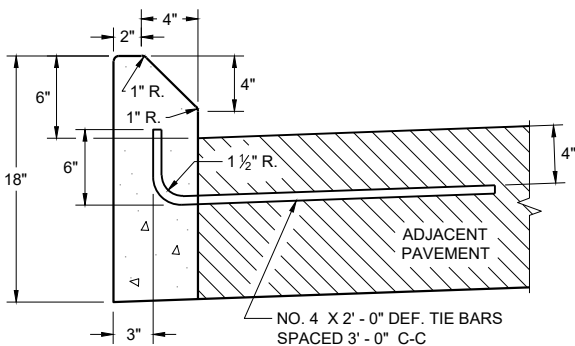


DETAIL OF CURB AND GUTTER AT INLETS

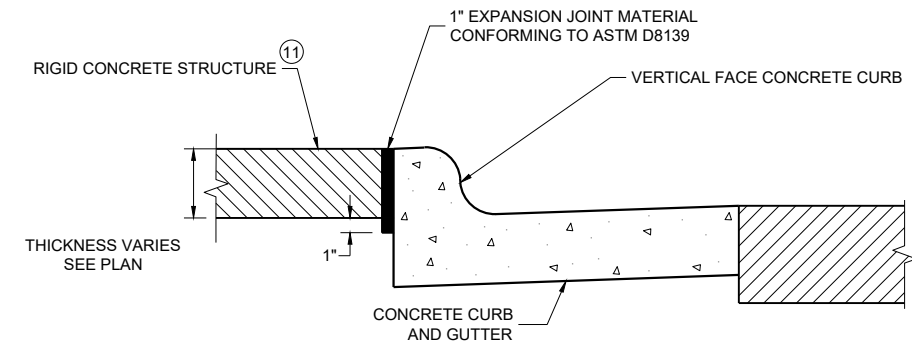
(TYPICAL H INLET COVER SHOWN)



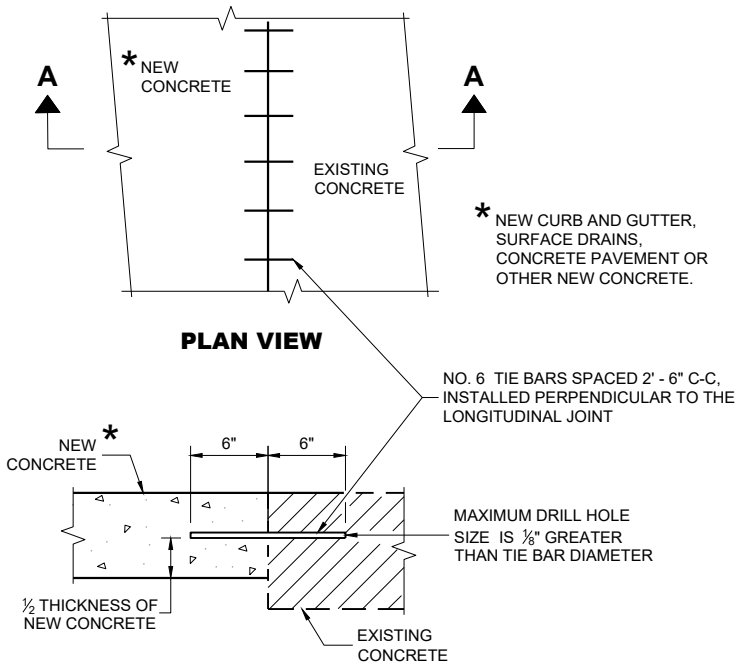
TYPES A^① & D



TYPES G^① & J
CONCRETE CURB



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



SECTION A - A
TIE BARS DRILLED INTO EXISTING PAVEMENT

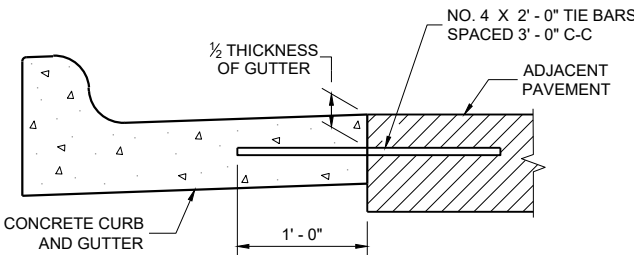
GENERAL NOTES

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

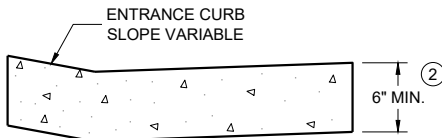
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.



TYPICAL TIE BAR LOCATION^①



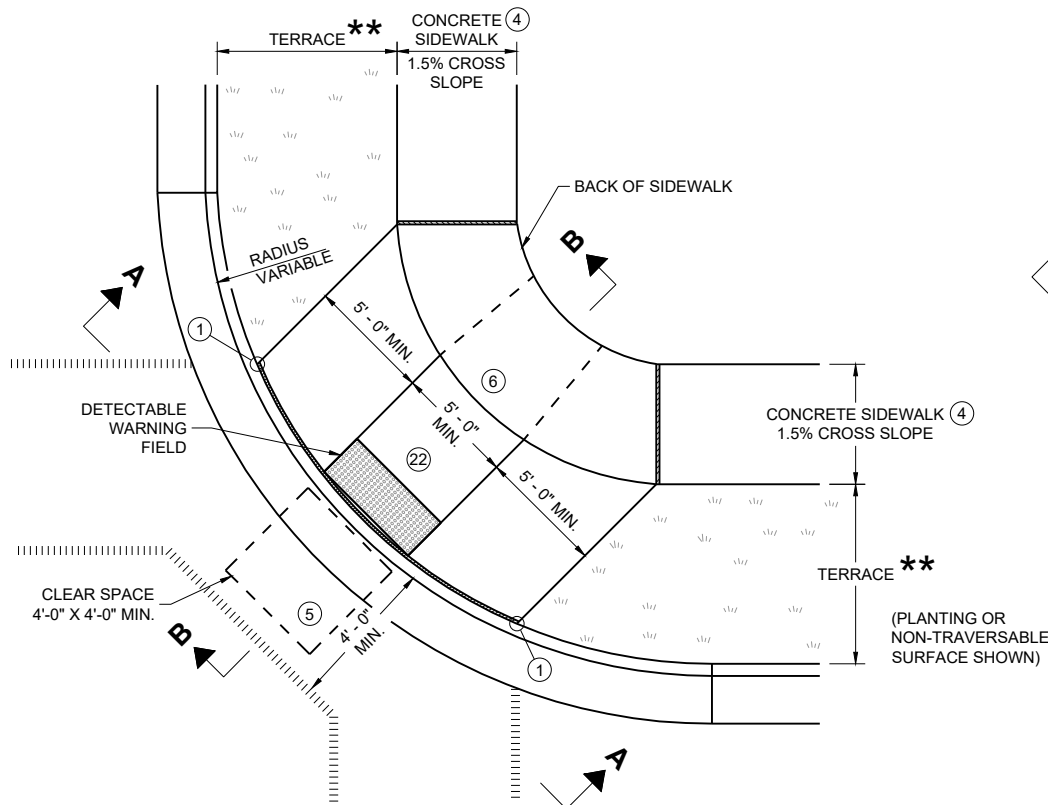
DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

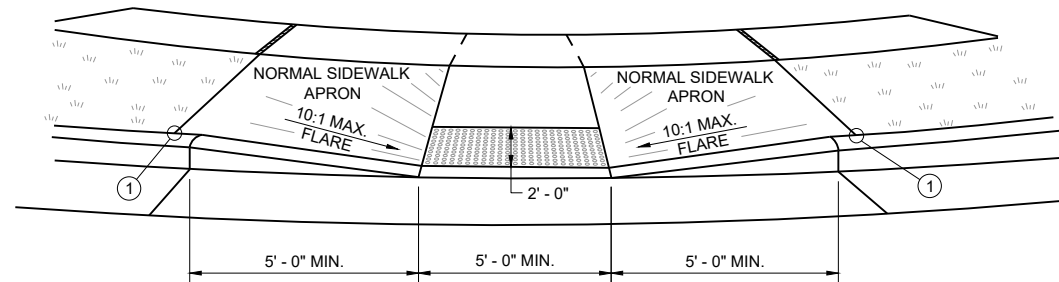
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

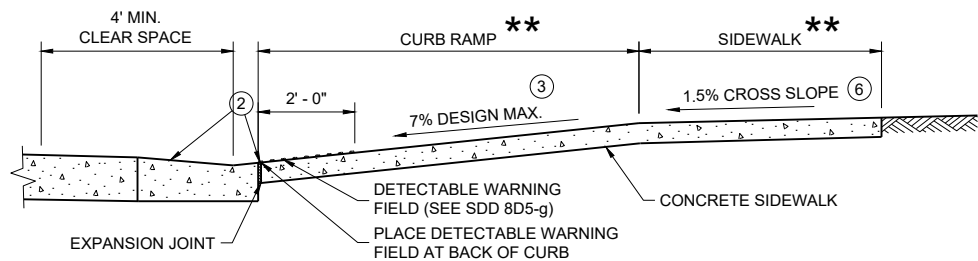
FHWA



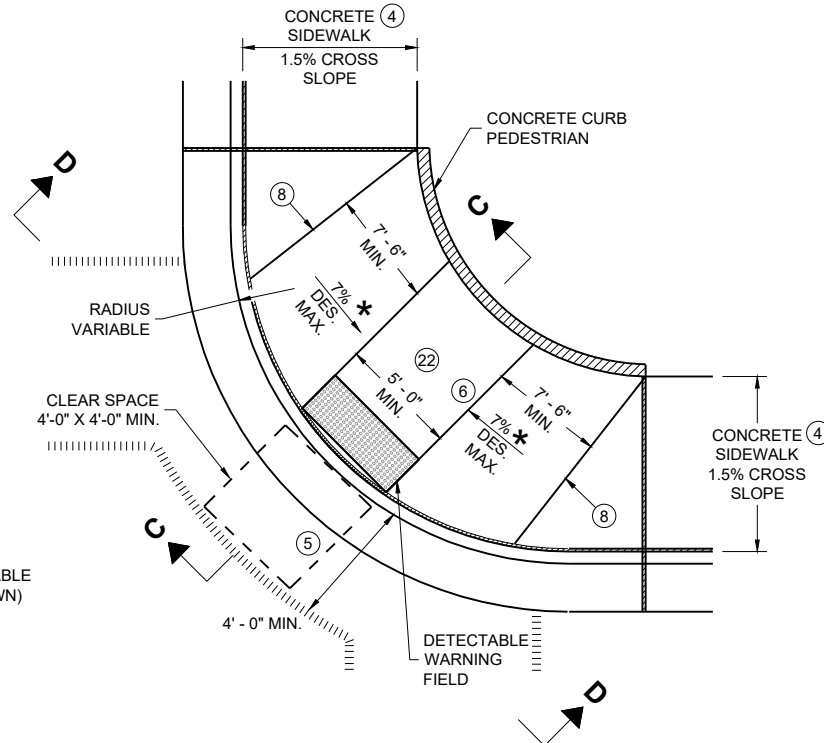
PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)



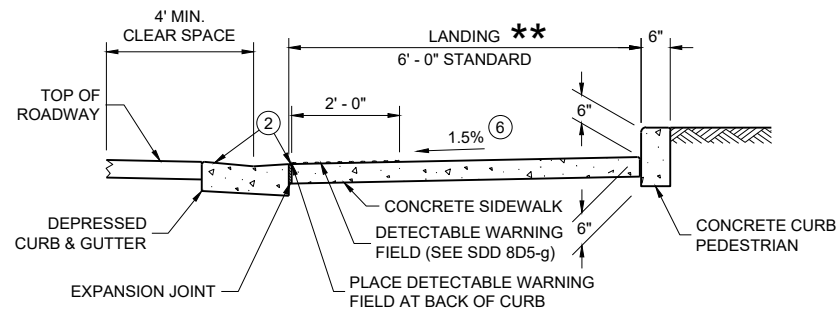
VIEW A - A FOR TYPE 1



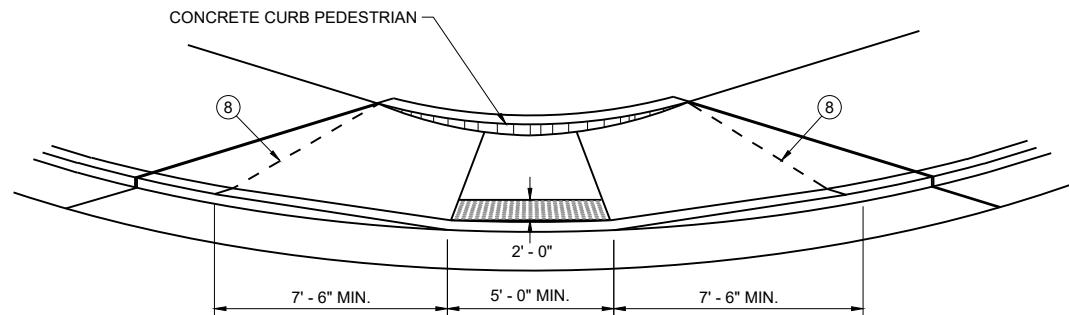
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE CURB RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

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

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE CURB RAMP.

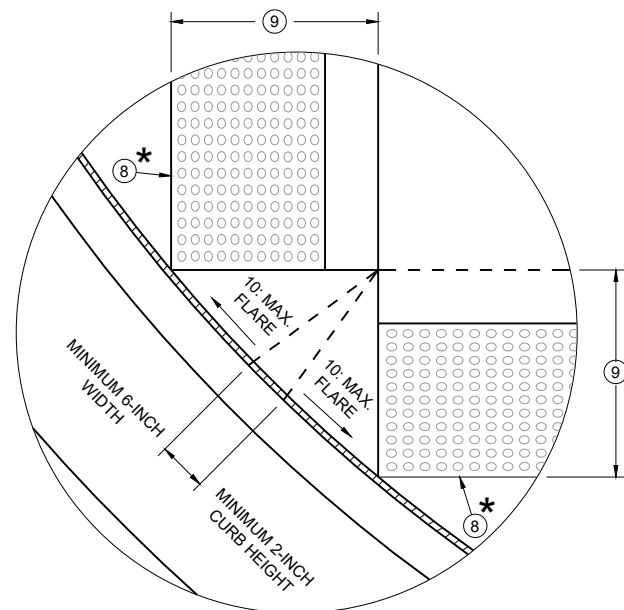
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

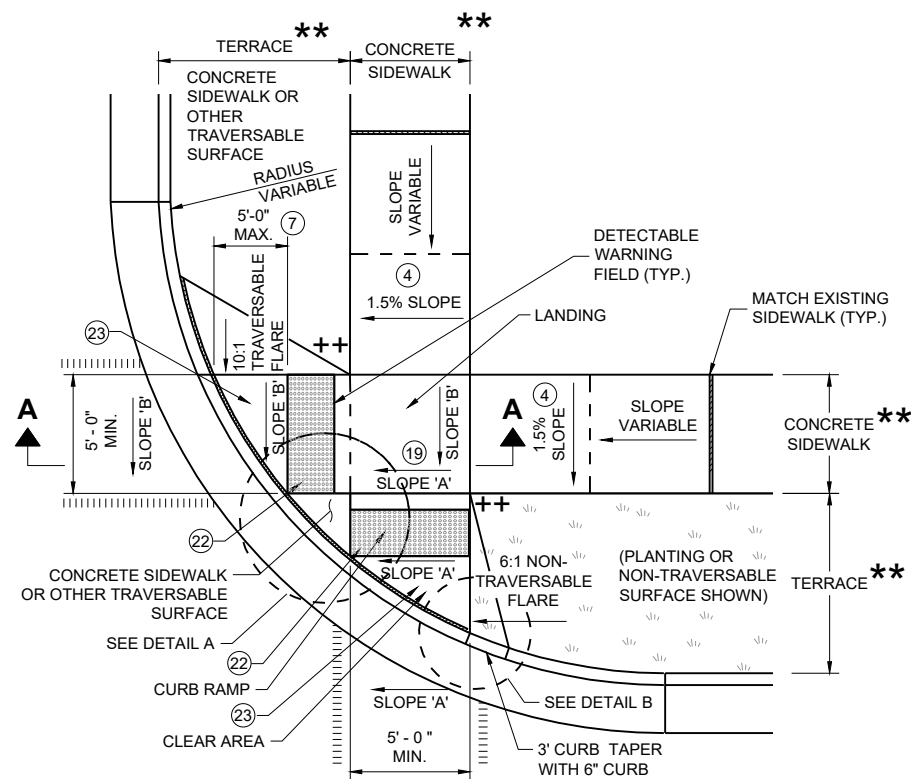
- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

CURB RAMPS
TYPE 1 AND 1-A

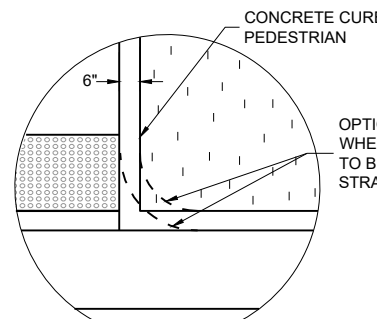
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



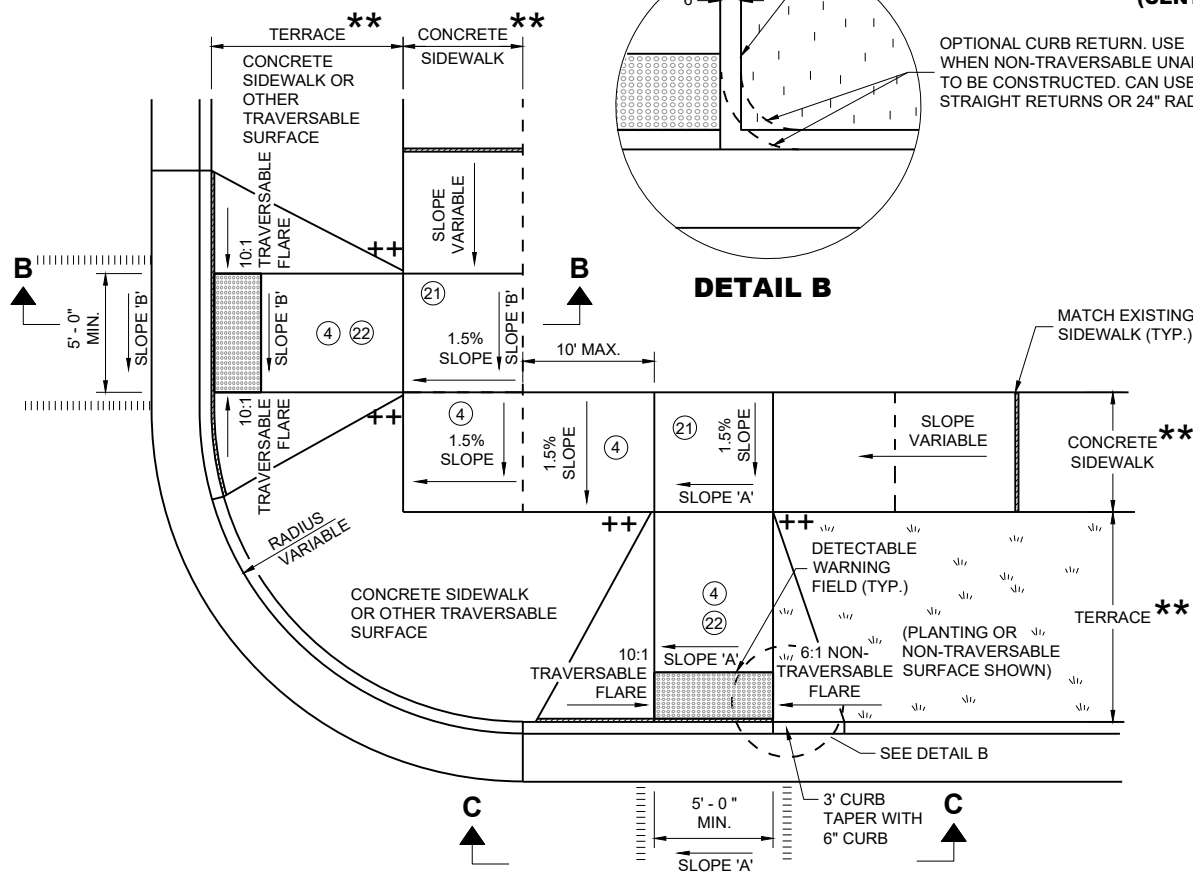
DETAIL A



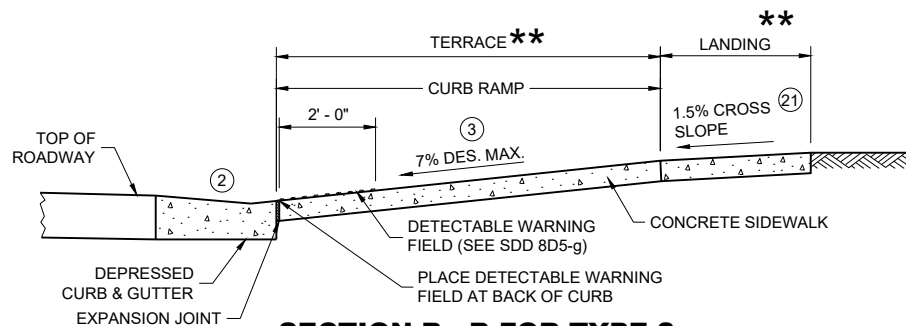
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



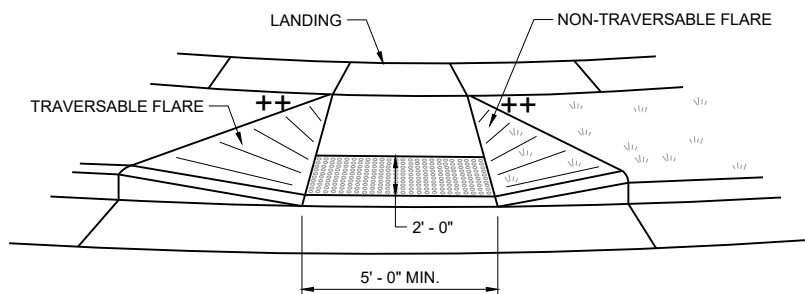
DETAIL B



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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

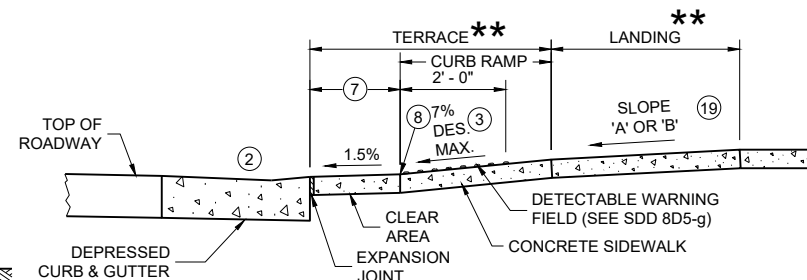
GENERAL NOTES

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

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

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

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- ⑬ PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑭ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- ⑮ THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



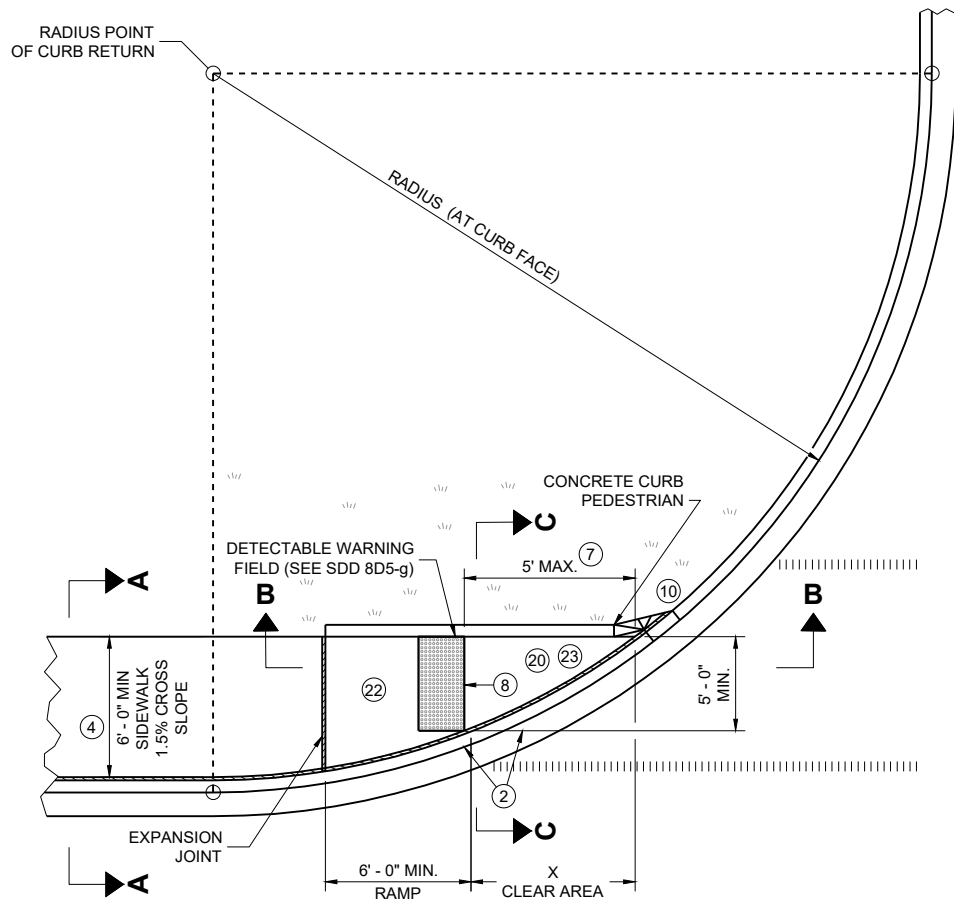
SECTION A - A FOR TYPE 2

LEGEND

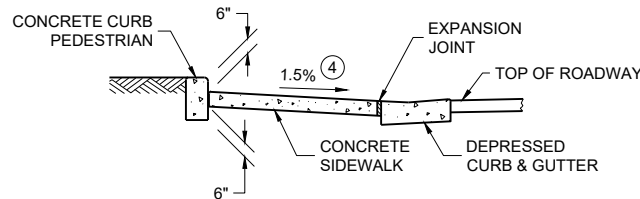
- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

**CURB RAMPS
TYPE 2 AND 3**

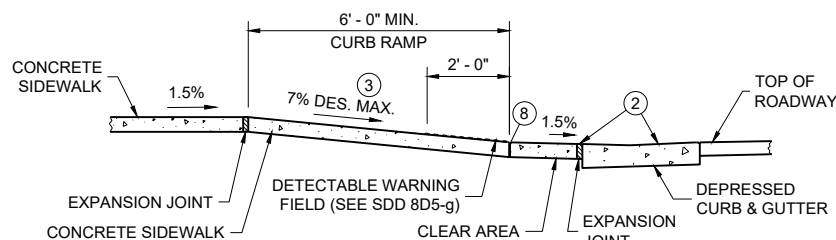
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A



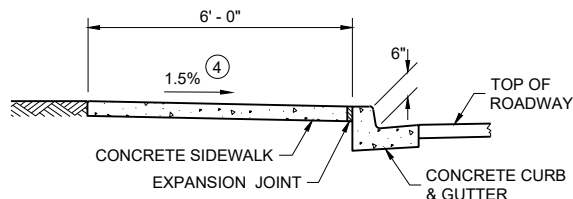
SECTION B - B FOR
TYPE 4A AND TYPE 4A1

LEGEND

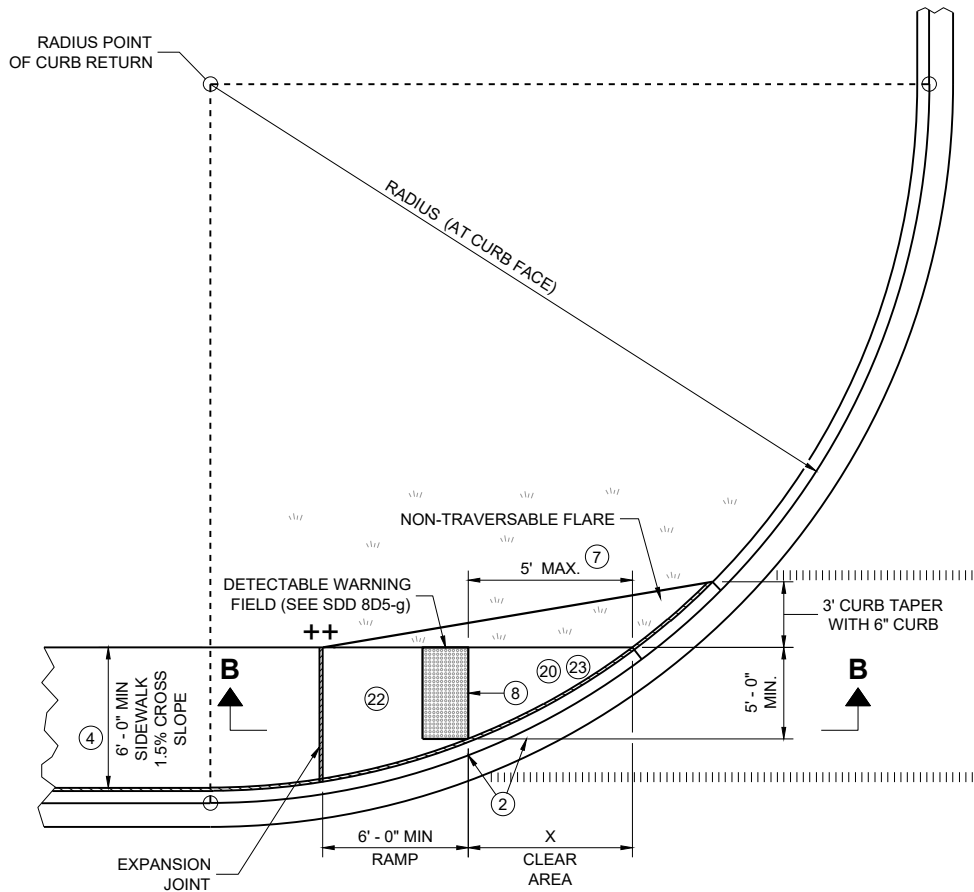
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



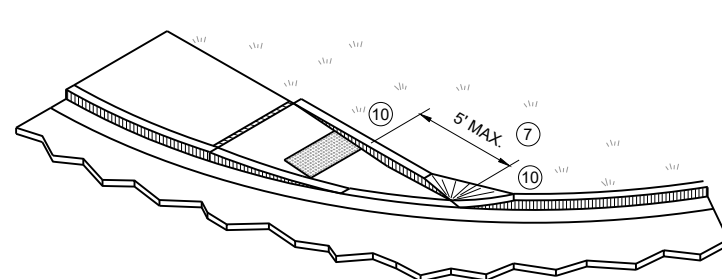
SECTION A - A FOR TYPE 4A



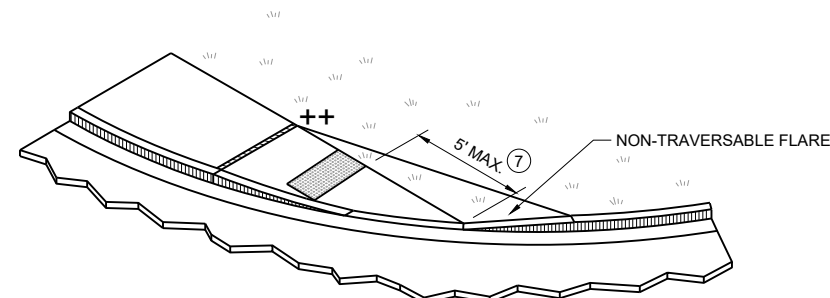
PLAN VIEW
CURB RAMP TYPE 4A1

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



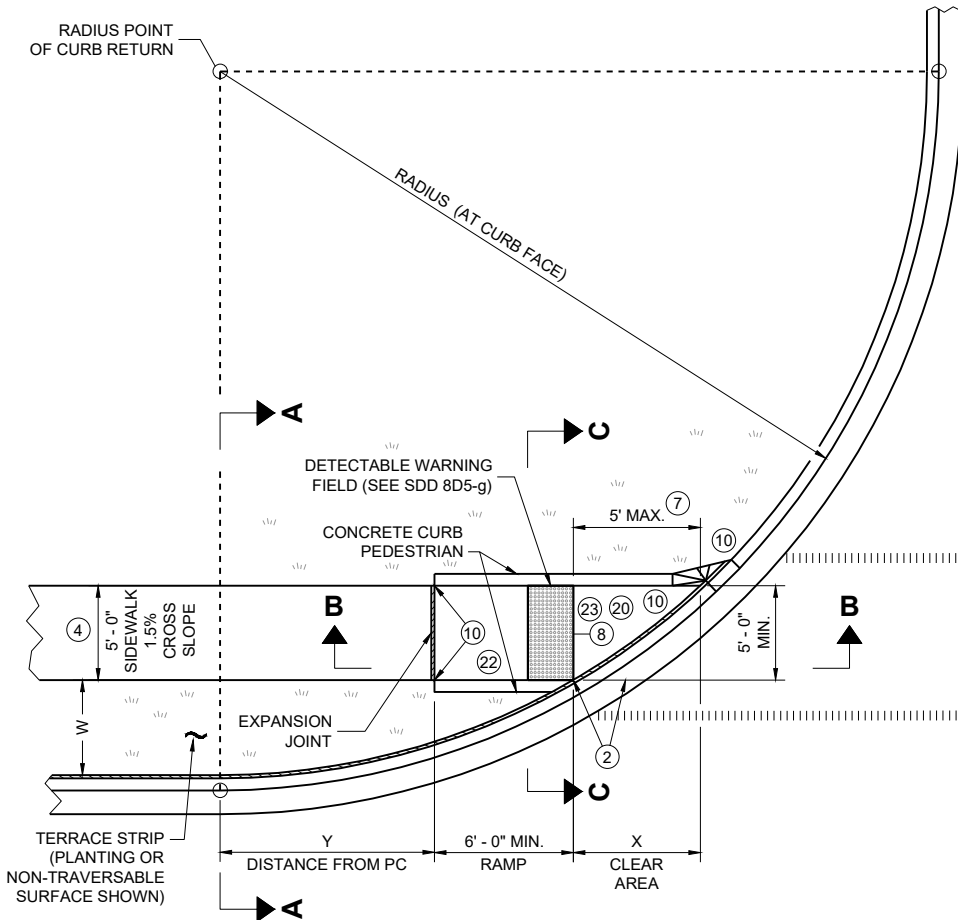
ISOMETRIC VIEW FOR TYPE 4A



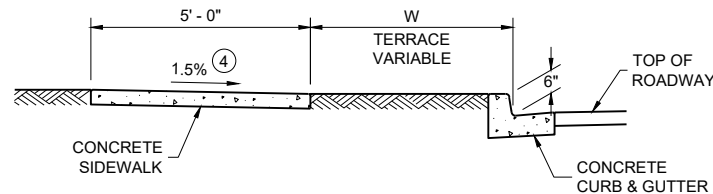
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

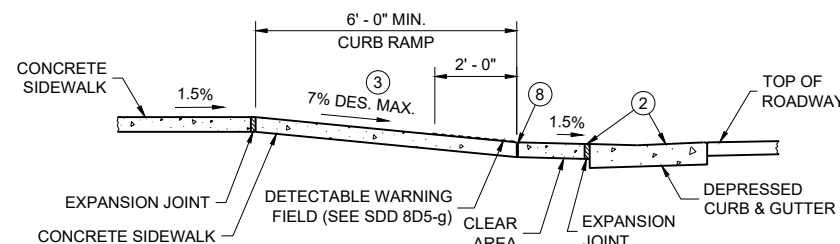
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4B



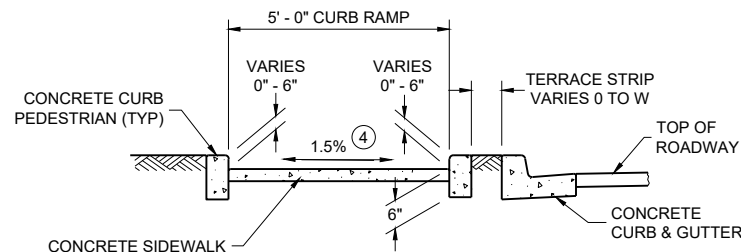
SECTION A - A FOR TYPE 4B



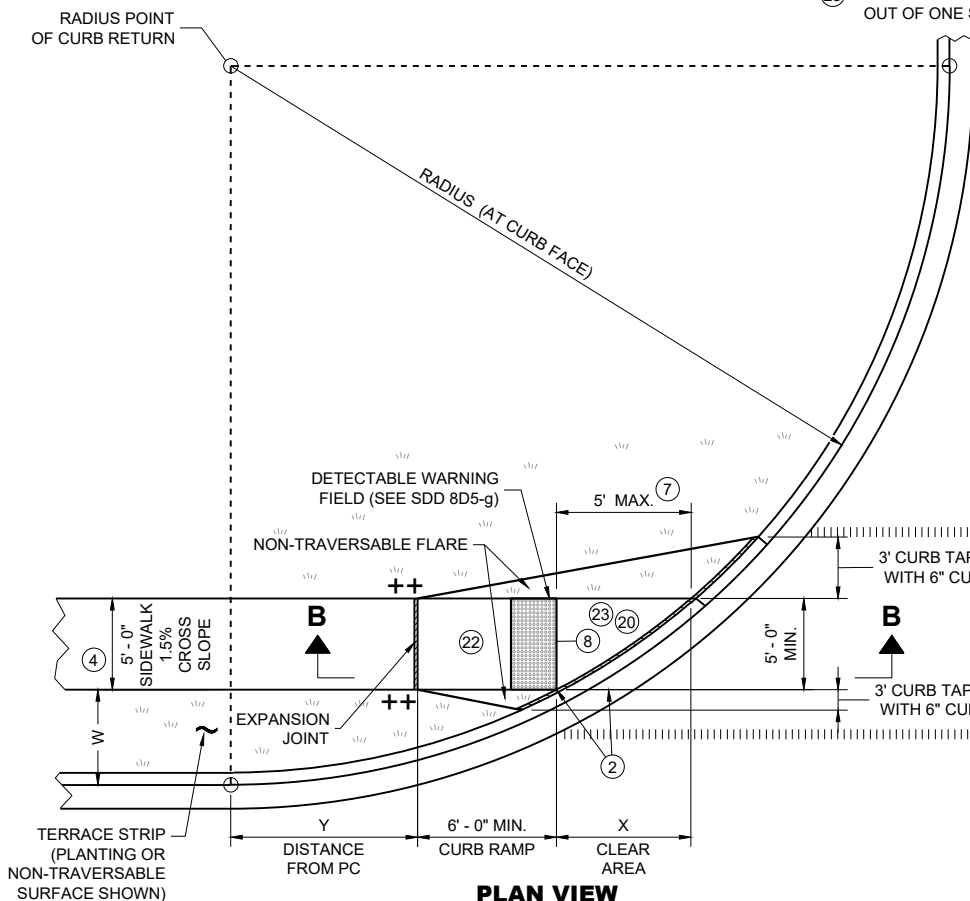
SECTION B - B FOR
TYPE 4B AND TYPE 4B1

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

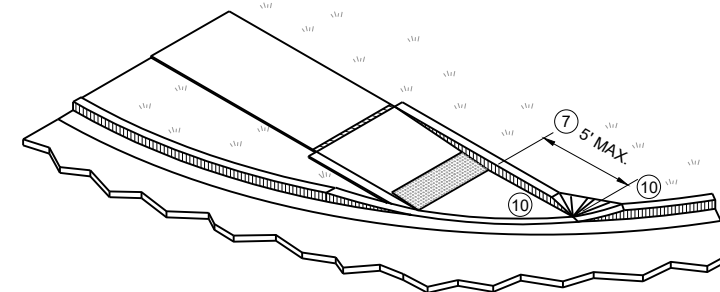
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



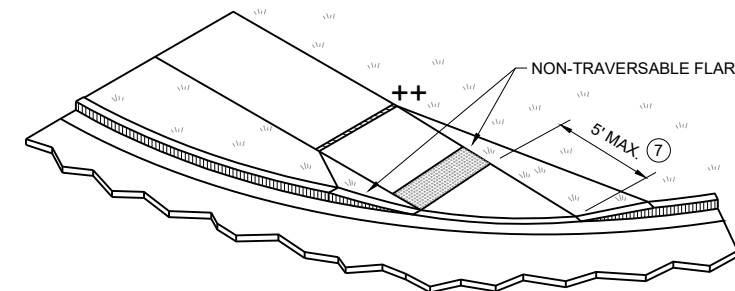
SECTION C - C FOR TYPE 4B



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

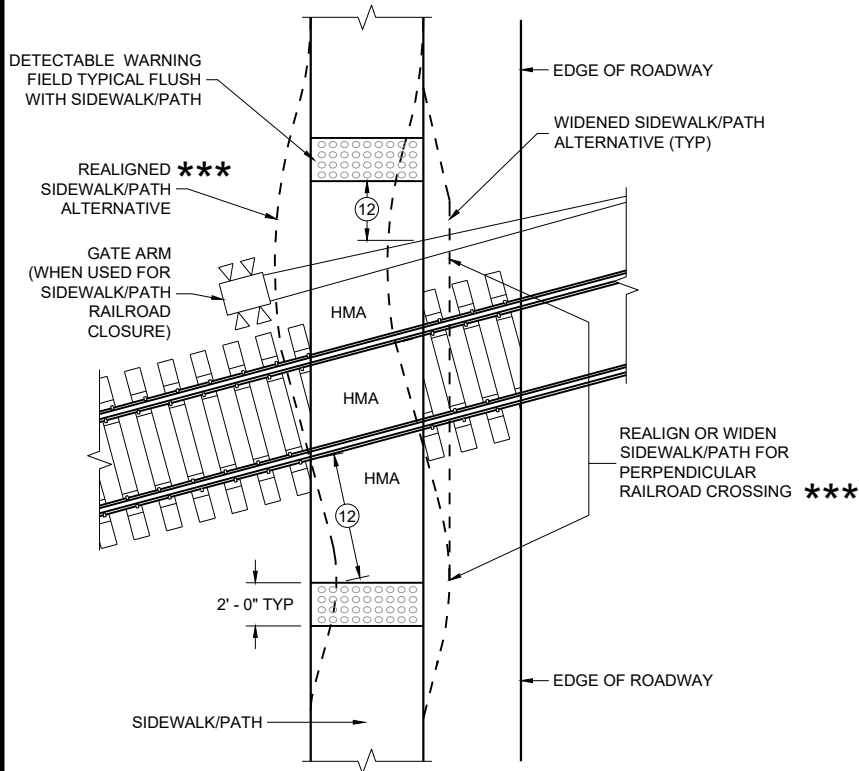
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

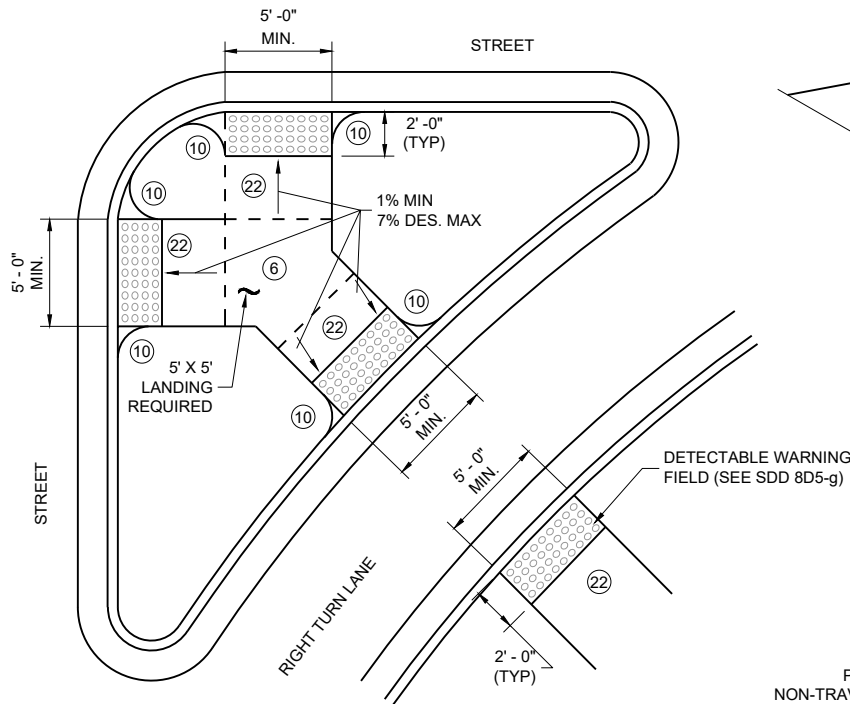
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

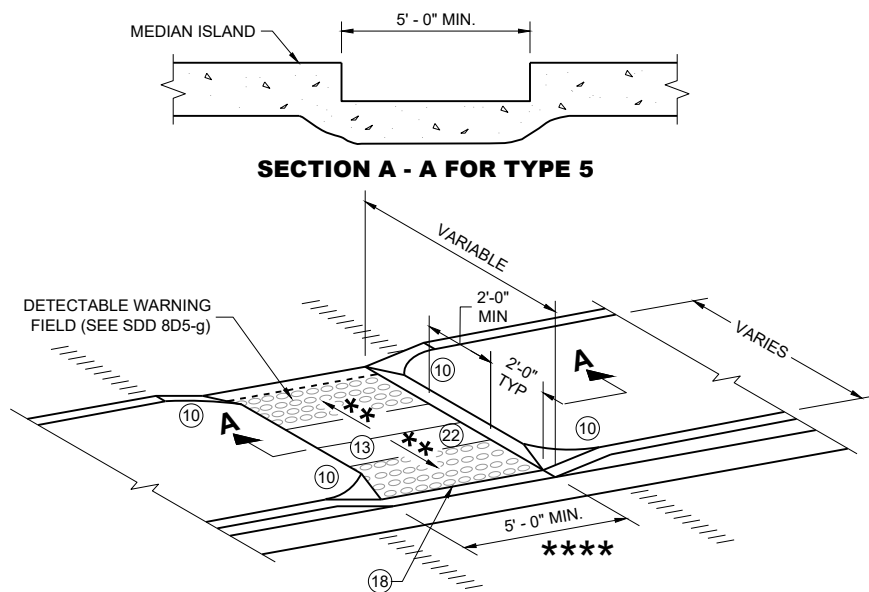


CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS

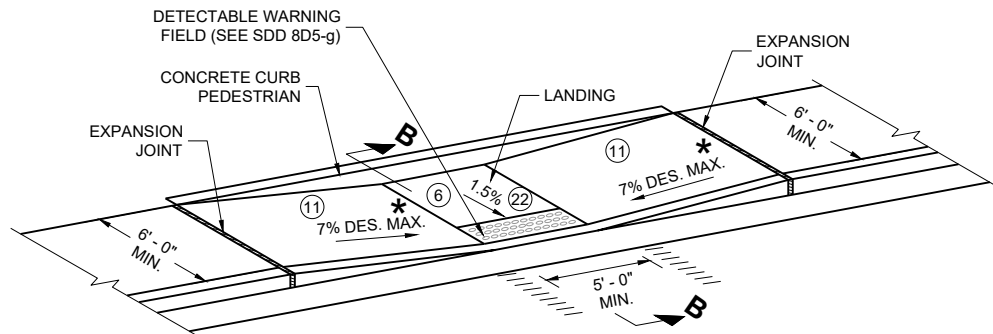


CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

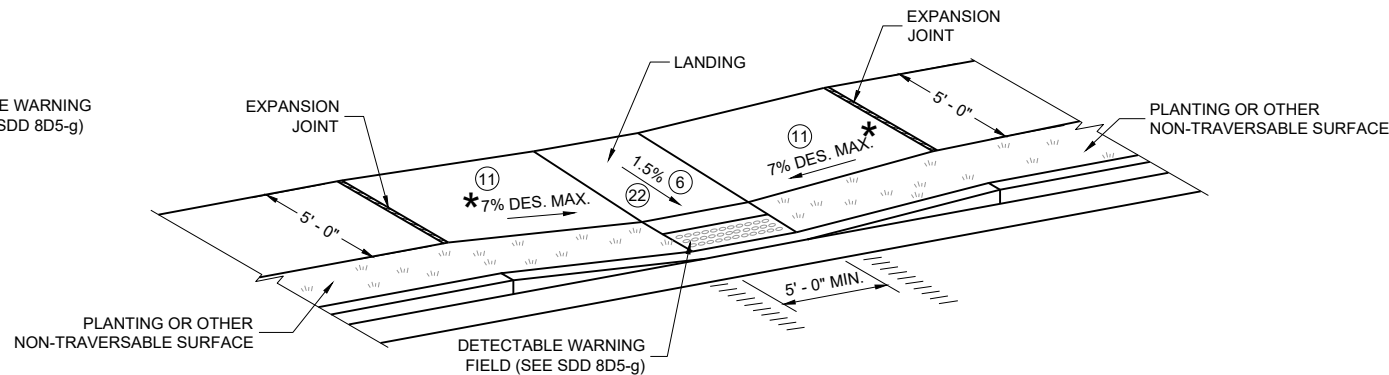
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 7B
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS

GENERAL NOTES

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

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

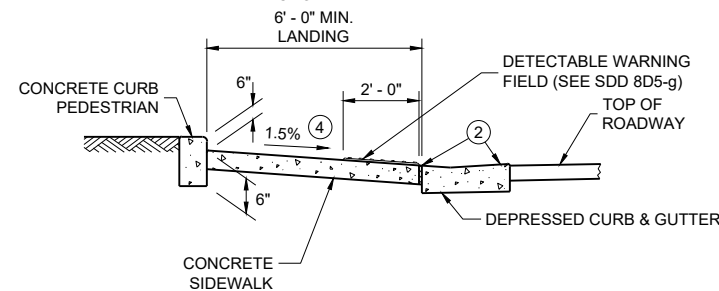
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

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

- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑱ WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.
- ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** 1% MINIMUM (PROVIDE DRAINAGE)
- *** DETAILS TO BE DETERMINED BY ENGINEER
- **** FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK

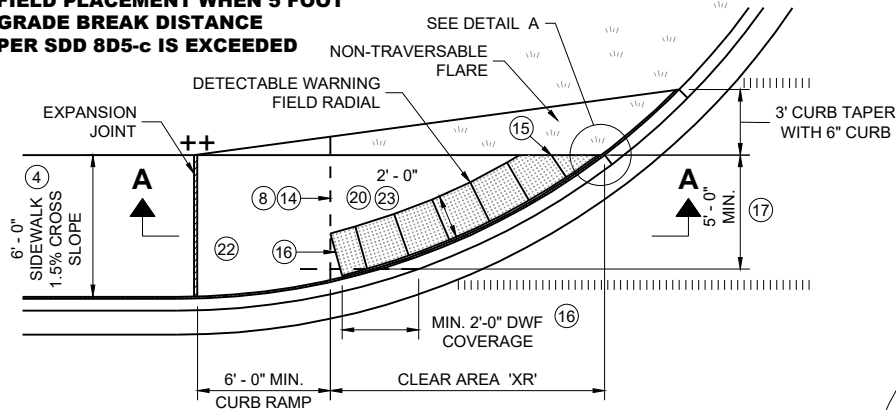


SECTION B - B FOR TYPE 7A

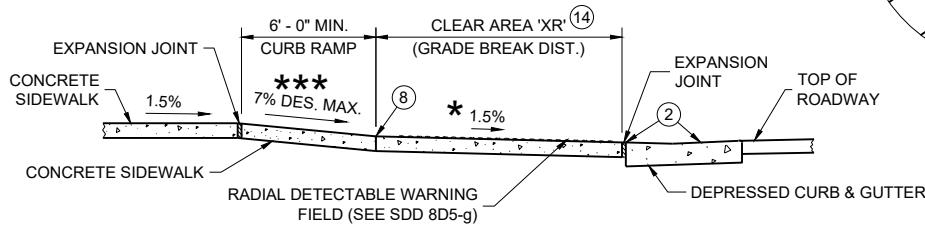
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

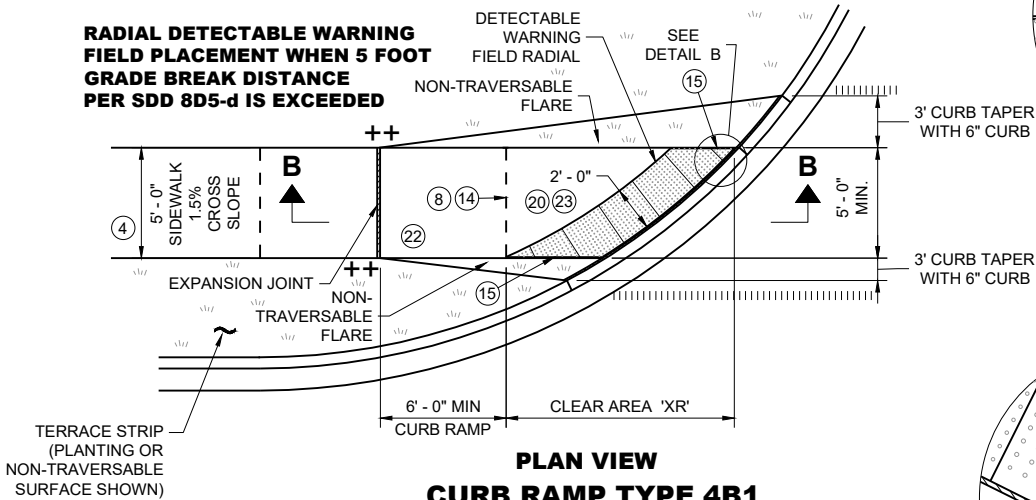


**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

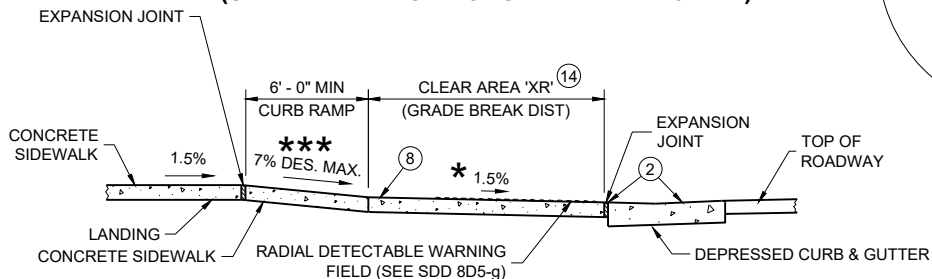


SECTION A - A FOR TYPE 4A1

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

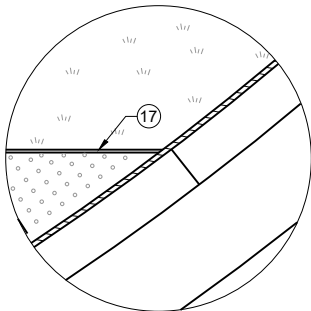


**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

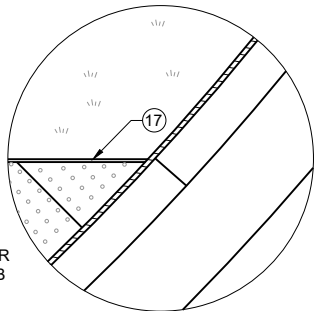


SECTION B - B FOR TYPE 4B1

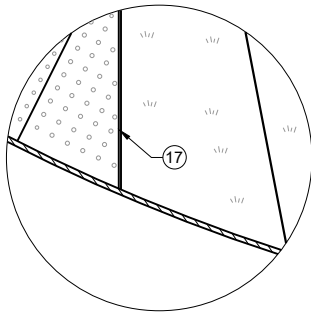
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - ** WIDTH SHOWN ELSEWHERE IN THE PLANS
 - *** MAXIMUM 8.3%
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



DETAIL A



DETAIL B



DETAIL C

GENERAL NOTES

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

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

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

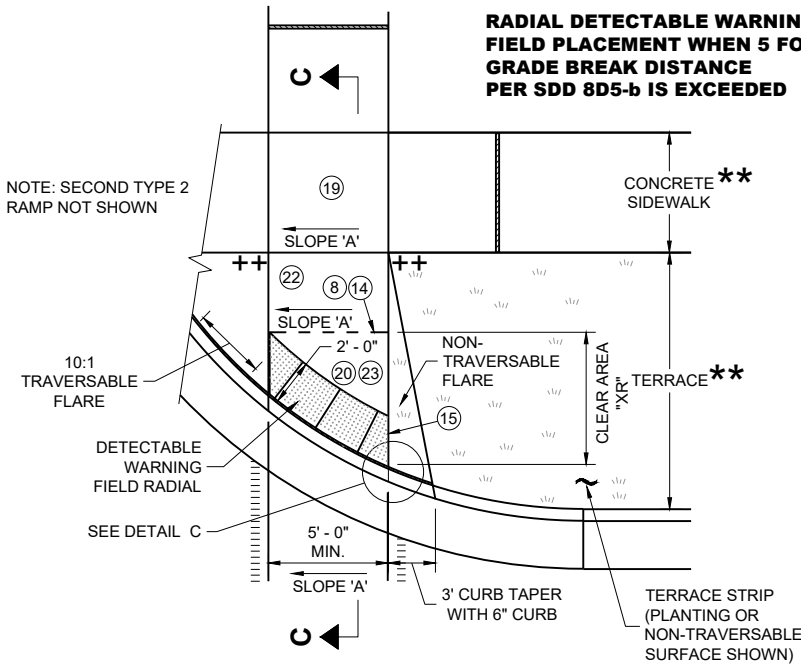
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

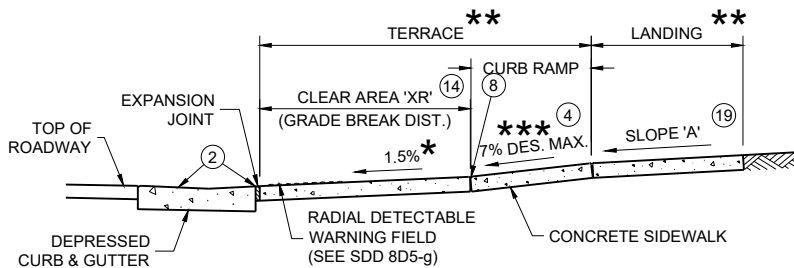
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- 2 GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- 19 WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- 20 MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- 22 THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- 23 THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

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



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



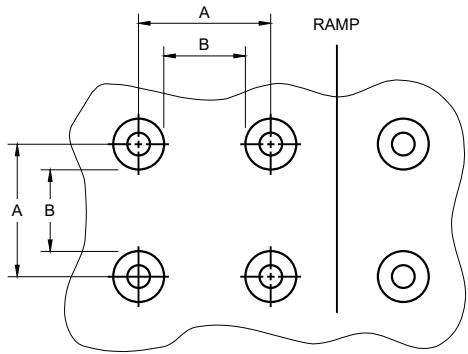
SECTION C - C FOR TYPE 2

**CURB RAMPS
RADIAL DETECTABLE WARNING**

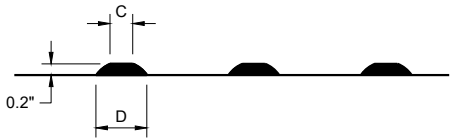
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

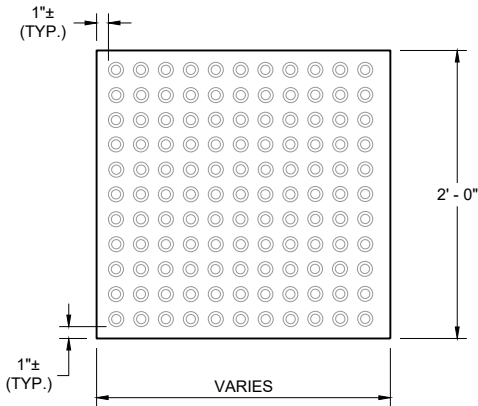


PLAN VIEW

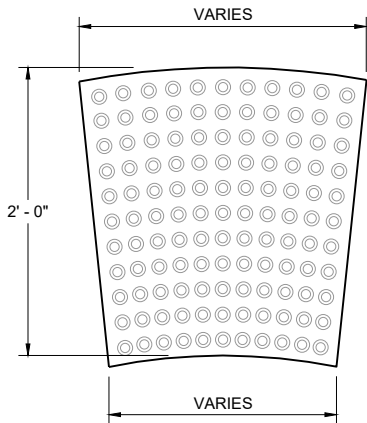


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

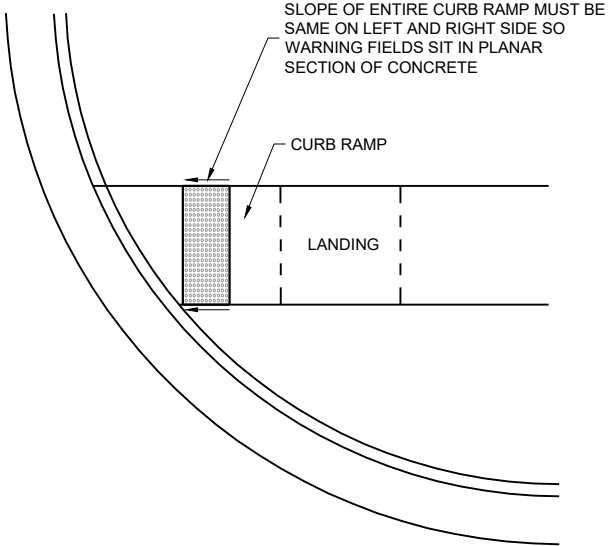


RECTANGULAR
PLATES

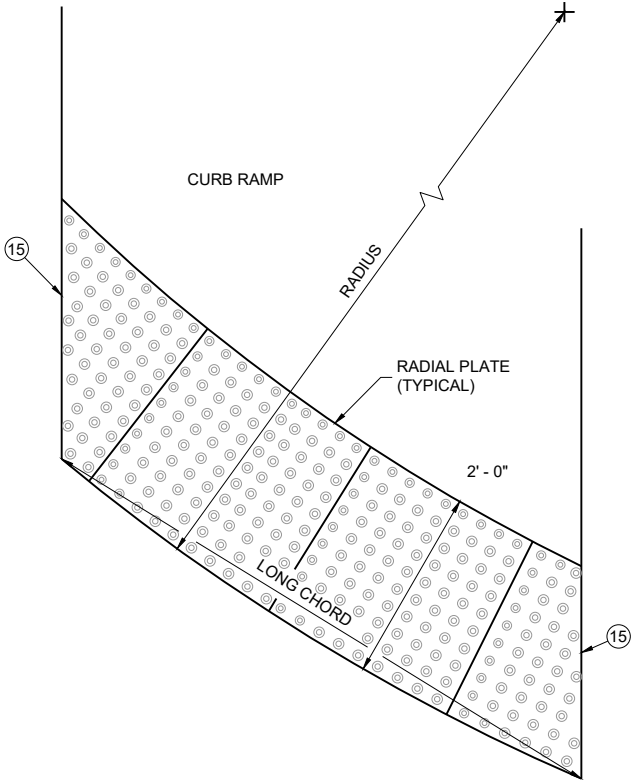


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

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

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

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

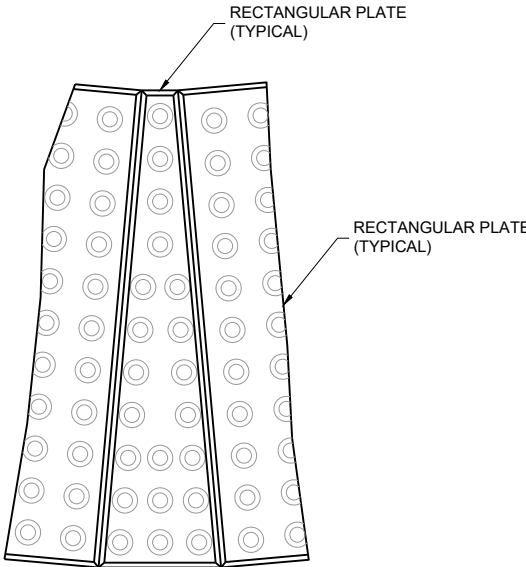
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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



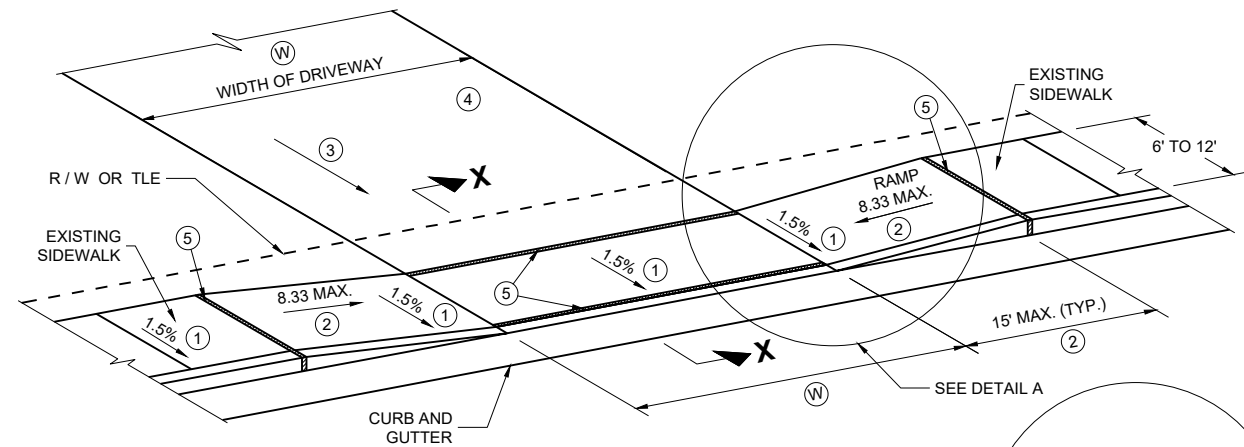
PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

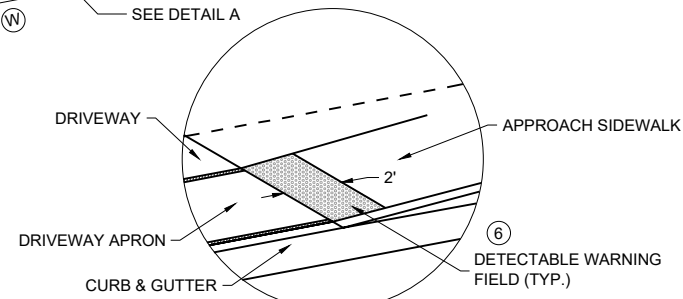
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE <position>

FHWA

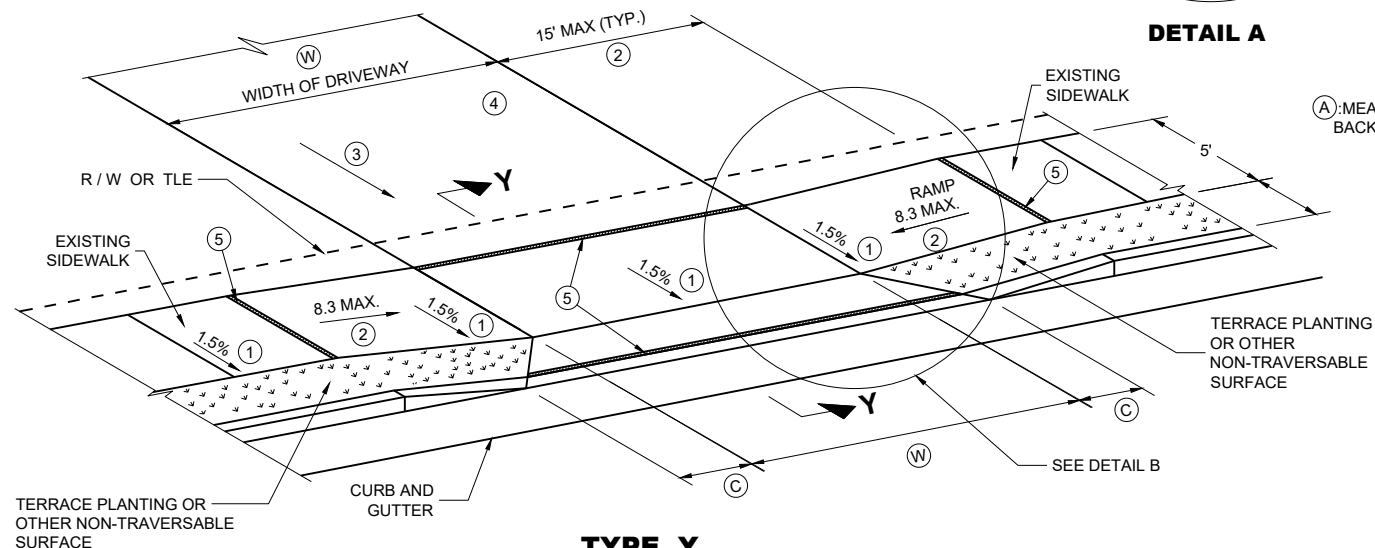


TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



DETAIL A

(A): MEASURE FROM
BACK OF CURB



TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

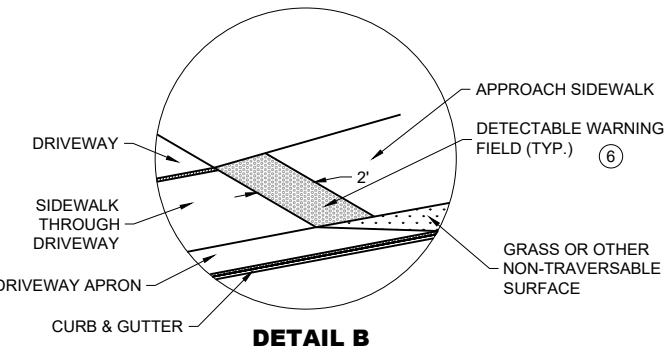
② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

③ **DRIVEWAY SLOPES: DESIRABLE MAXIMUM**
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

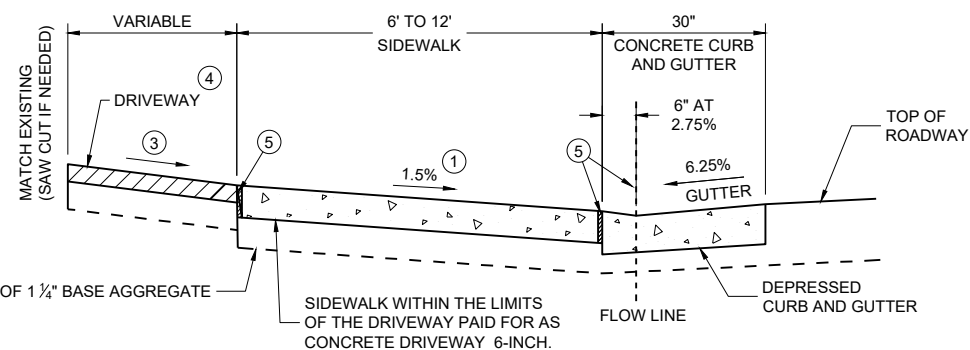
④ **DRIVEWAY TYPES**
* 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
* 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
* 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

⑤ 1/2" EXPANSION JOINT FILLER

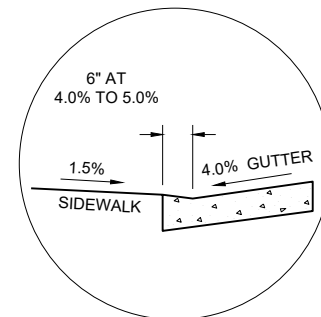
⑥ DETECTABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECTABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



DETAIL B



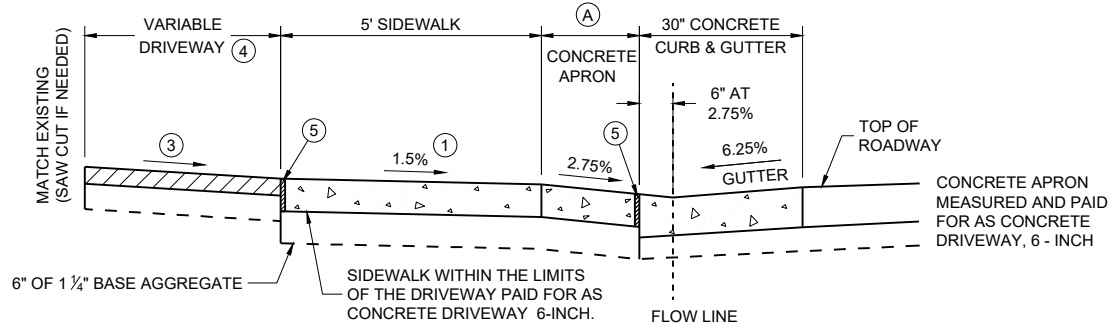
SECTION X - X



SECTION X - X
4% GUTTER SLOPE

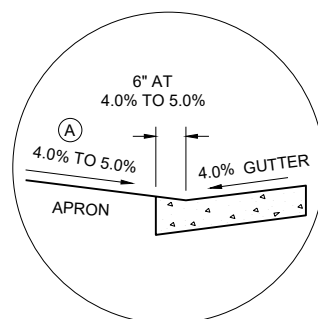
TABLE Y

(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y
DRIVEWAY DETAIL WITH CONCRETE
CURB AND GUTTER
(URBAN AND SUBURBAN)



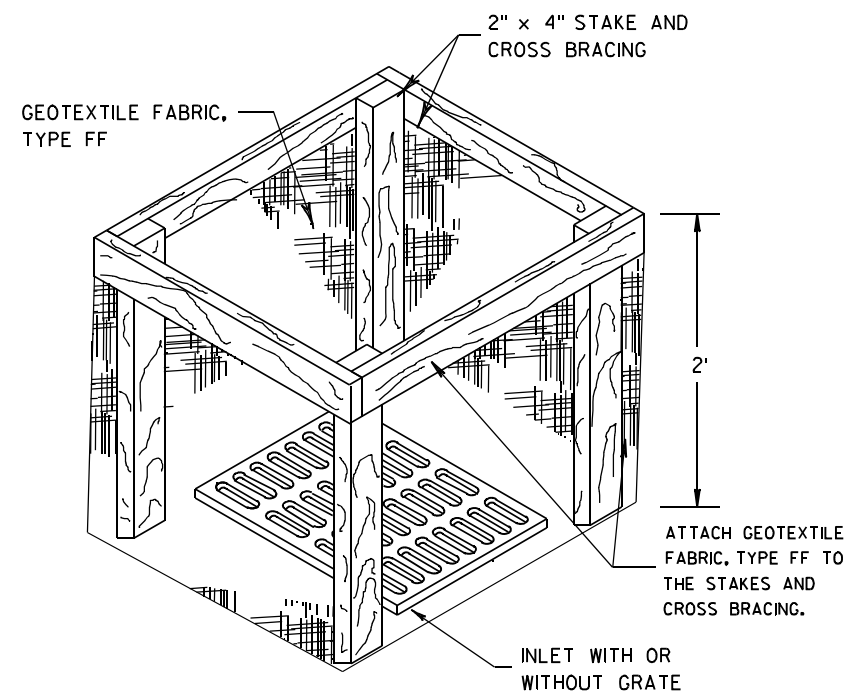
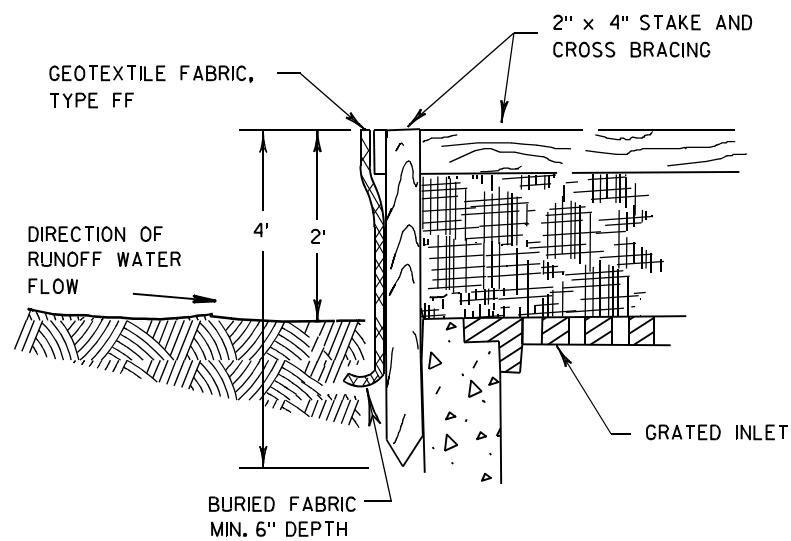
SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY AND SIDEWALK RAMPS TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE

FHWA



INLET PROTECTION, TYPE A

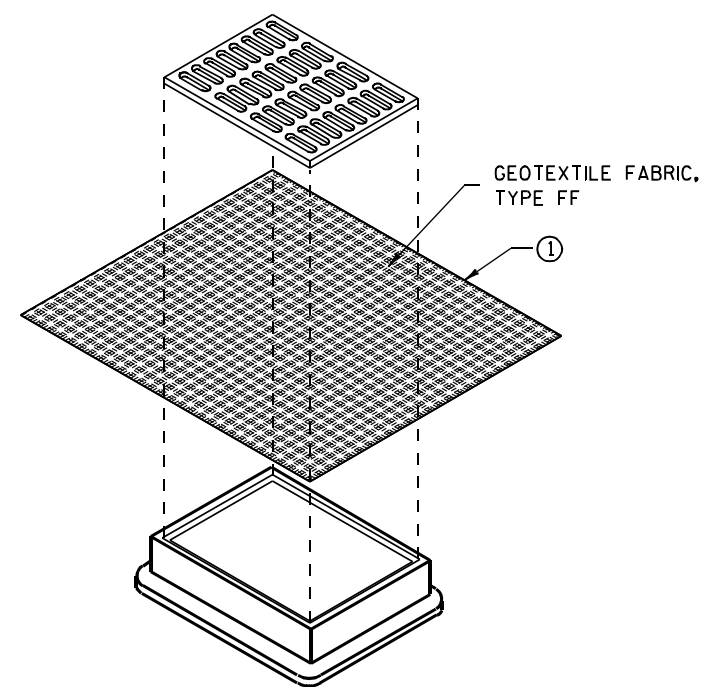
GENERAL NOTES

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.

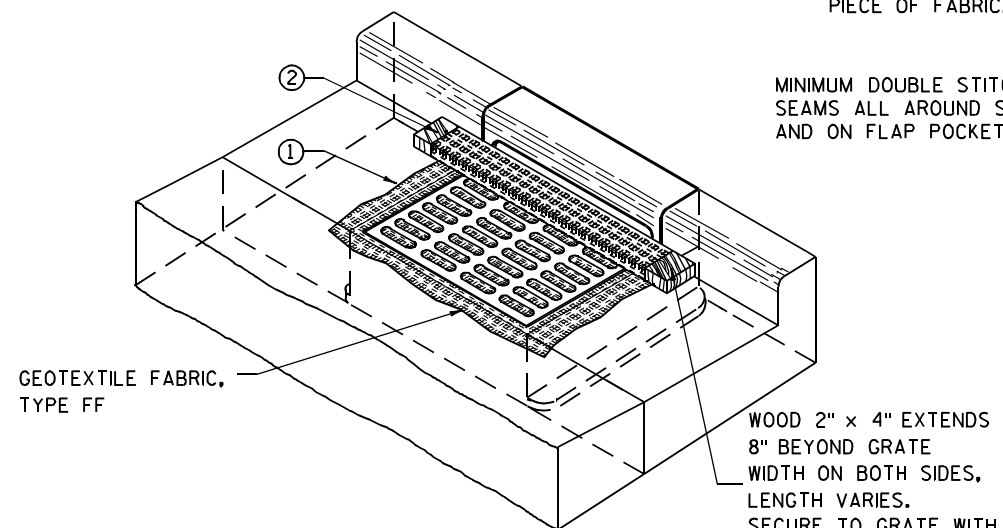
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

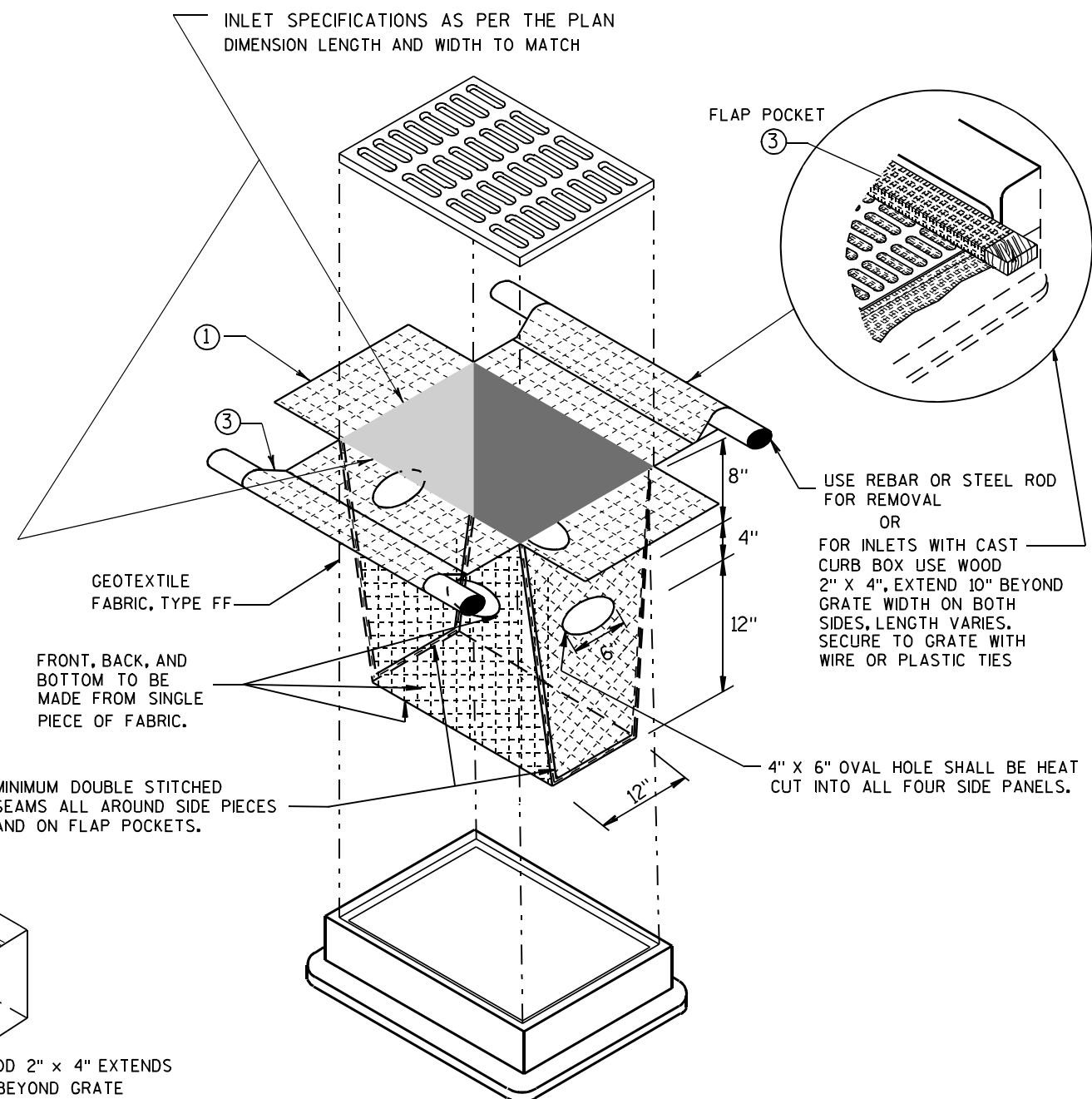
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



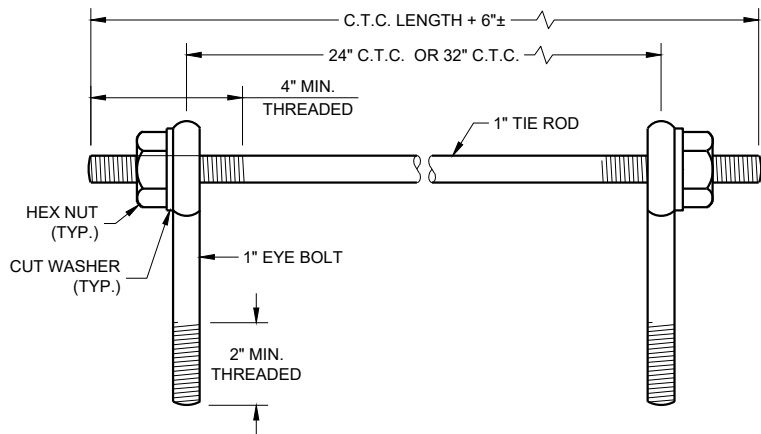
INLET PROTECTION, TYPE D

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

**INLET PROTECTION
TYPE A, B, C, AND D**

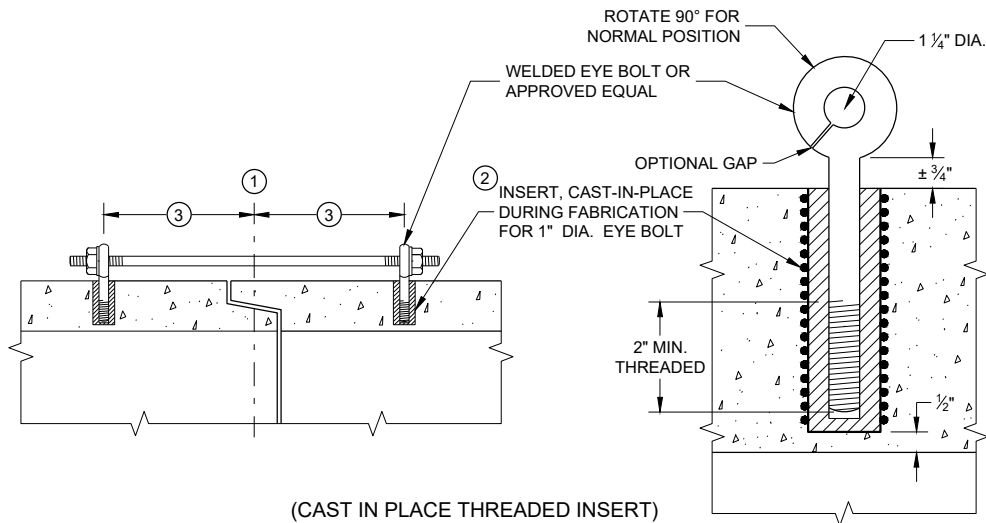
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
10/16/02 /S/ Beth Connolly
DATE 242
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

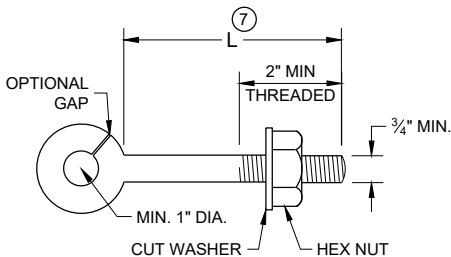
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

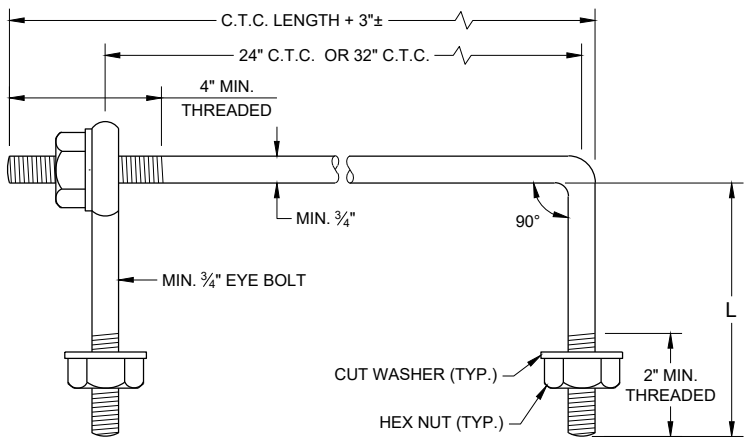
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

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

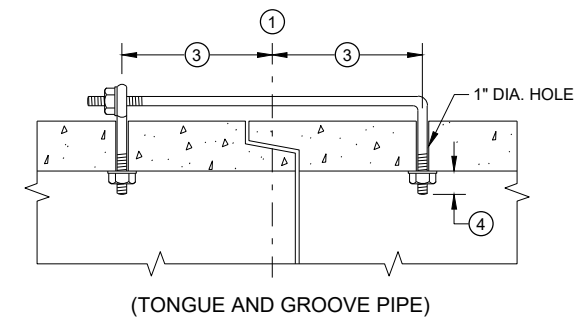


EYE BOLT 7

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



EYE BOLT AND TIE ROD

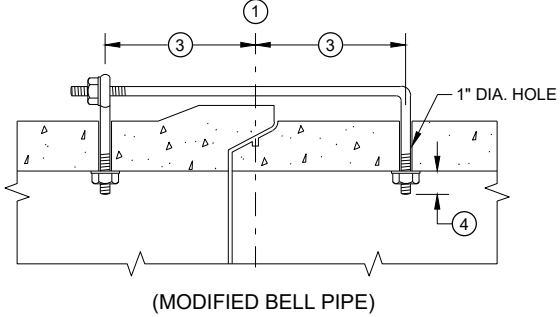


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

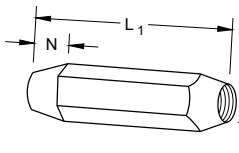


(MODIFIED BELL PIPE)

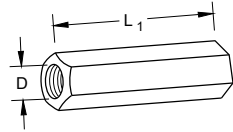
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES

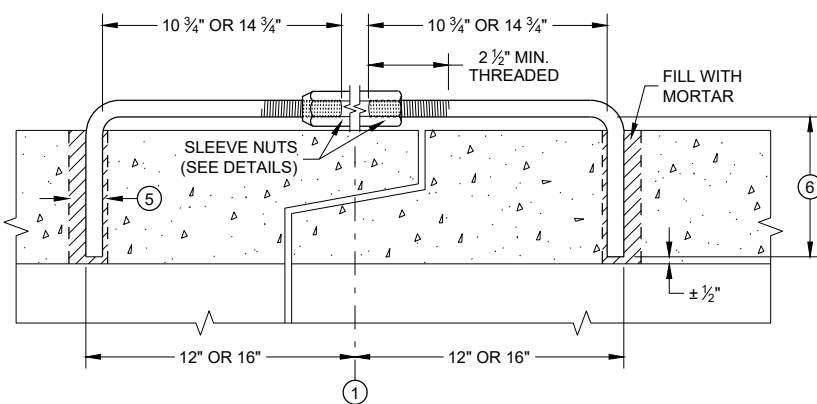


TAPERED



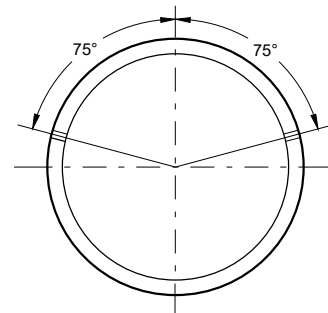
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



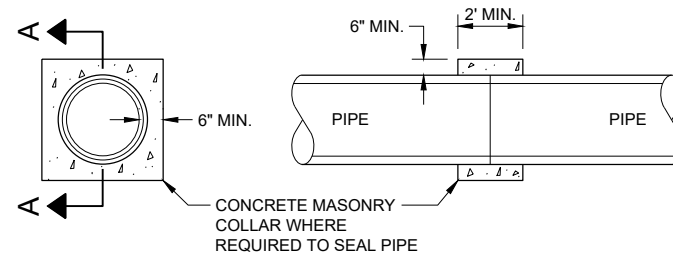
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



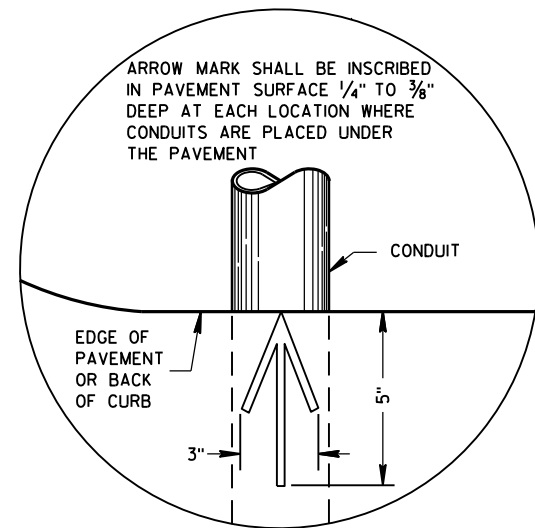
SECTION A - A

CONCRETE COLLAR DETAIL

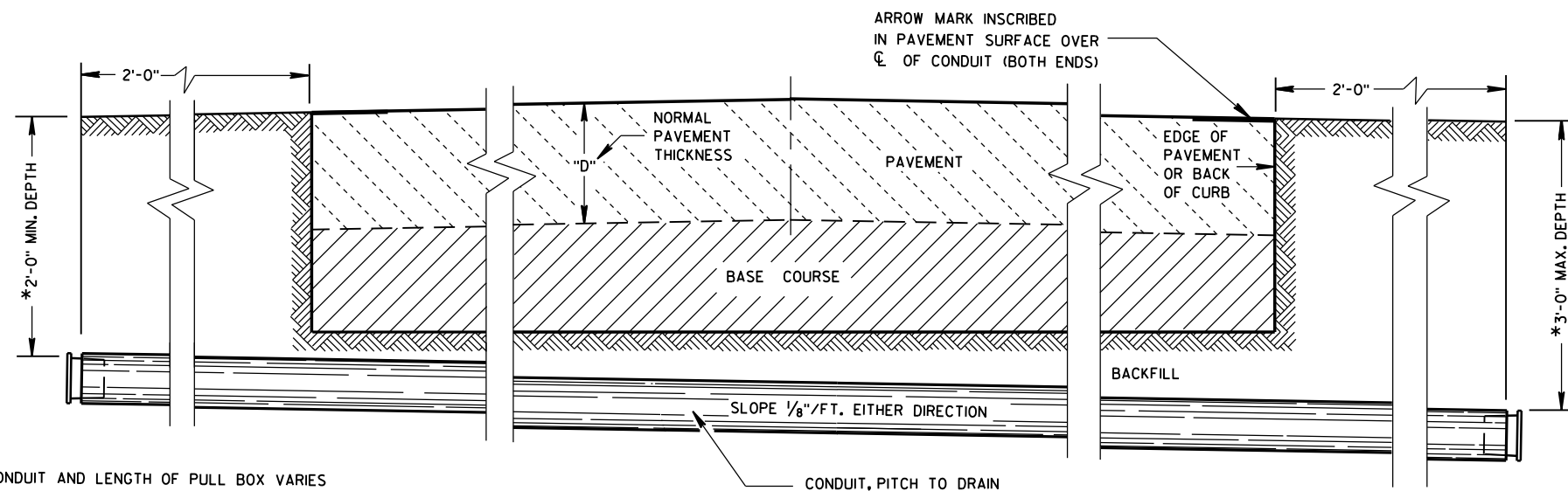
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 243
FHWA



PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES
WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

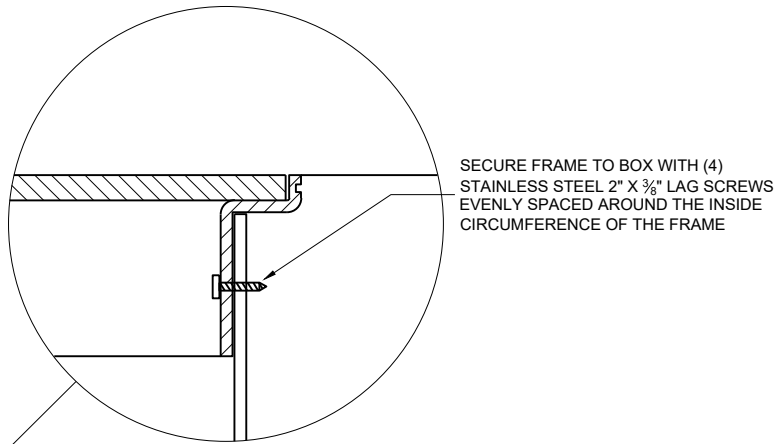
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 244
FHWA

DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

DIAMETER VARIES FROM TOP TO BOTTOM WITH THE
DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST
HEAVE.



NOTCH FOR PAVEMENT ADHESION

DO NOT SECURE FRAME TO BOX.
ALLOW FRAME ADHESION TO SIDEWALK
FOR UNIFORM COVER/PAVEMENT
VERTICAL MOVEMENT.

12" MAX. EXTENSION

EXTENSION RING

TOP OF ORIGINAL BOX

SECURE EXTENSION TO BOX WITH (4) STAINLESS STEEL 2" X $\frac{3}{8}$ " LAG SCREWS EVENLY SPACED AROUND THE INSIDE CIRCUMFERENCE OF THE OVERLAP

NON-CONDUCTIVE FRAME AND COVER

ELECTRIC

B

FINAL GRADE

D

A

3"

6" MIN. (TYP.)

6"

2" PVC PIPE CAP ON BOTH ENDS WITH 7 OR 8 1/4" HOLES DRILLED IN EACH END. INSTALL BELOW ALL OTHER PIPES.

INSTALL ELECTRICAL END BELLS ON ALL NON-METALLIC CONDUIT BEFORE INSTALLATION OF WIRE AND/OR CABLE. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CUT OPENINGS AS REQUIRED IN THE FIELD

ALL CONDUIT PITCHED TO DRAIN TO PULL BOXES

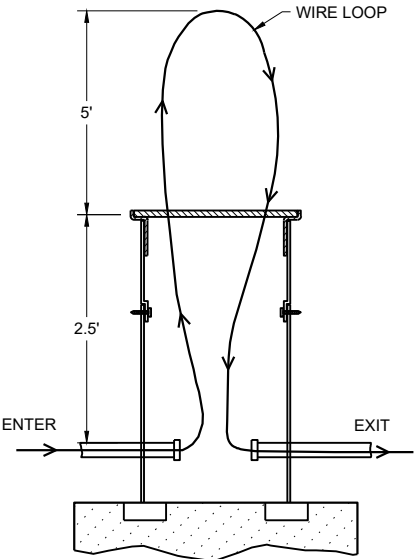
12"

2" DRAIN DUCT TO DITCH OR SEWER WHEN SPECIFIED

NO. 2 COARSE AGGREGATE (SEE SECTION 501 OF THE STANDARD SPECIFICATIONS)

NO. 2 COARSE AGGREGATE
(SEE SECTION 501 OF THE
STANDARD SPECIFICATIONS)

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS,
"WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



PULL BOXES NON-CONDUCTIVE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>November 2024</u> DATE	<u>/S/ Ahmet Demirbilek</u> STATE ELECTRICAL ENGINEER

FORM

4" MAX

6" MAX.

FORM

FORMING SHALL BE REMOVED AFTER CONCRETE HAS SET

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

SDD 09C02 - 09

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

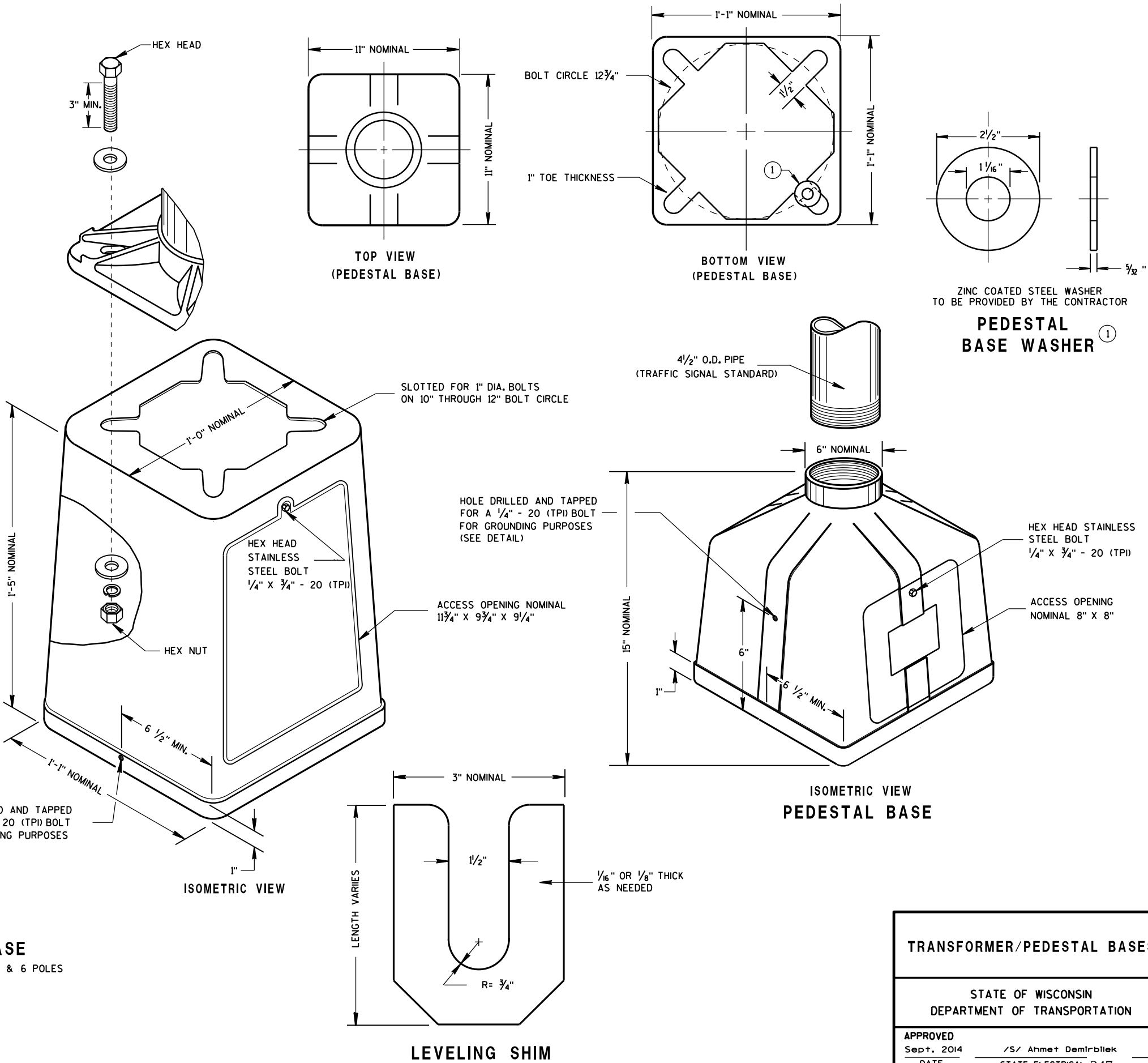
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

ISOMETRIC VIEW
PEDESTAL BASE

LEVELING SHIM

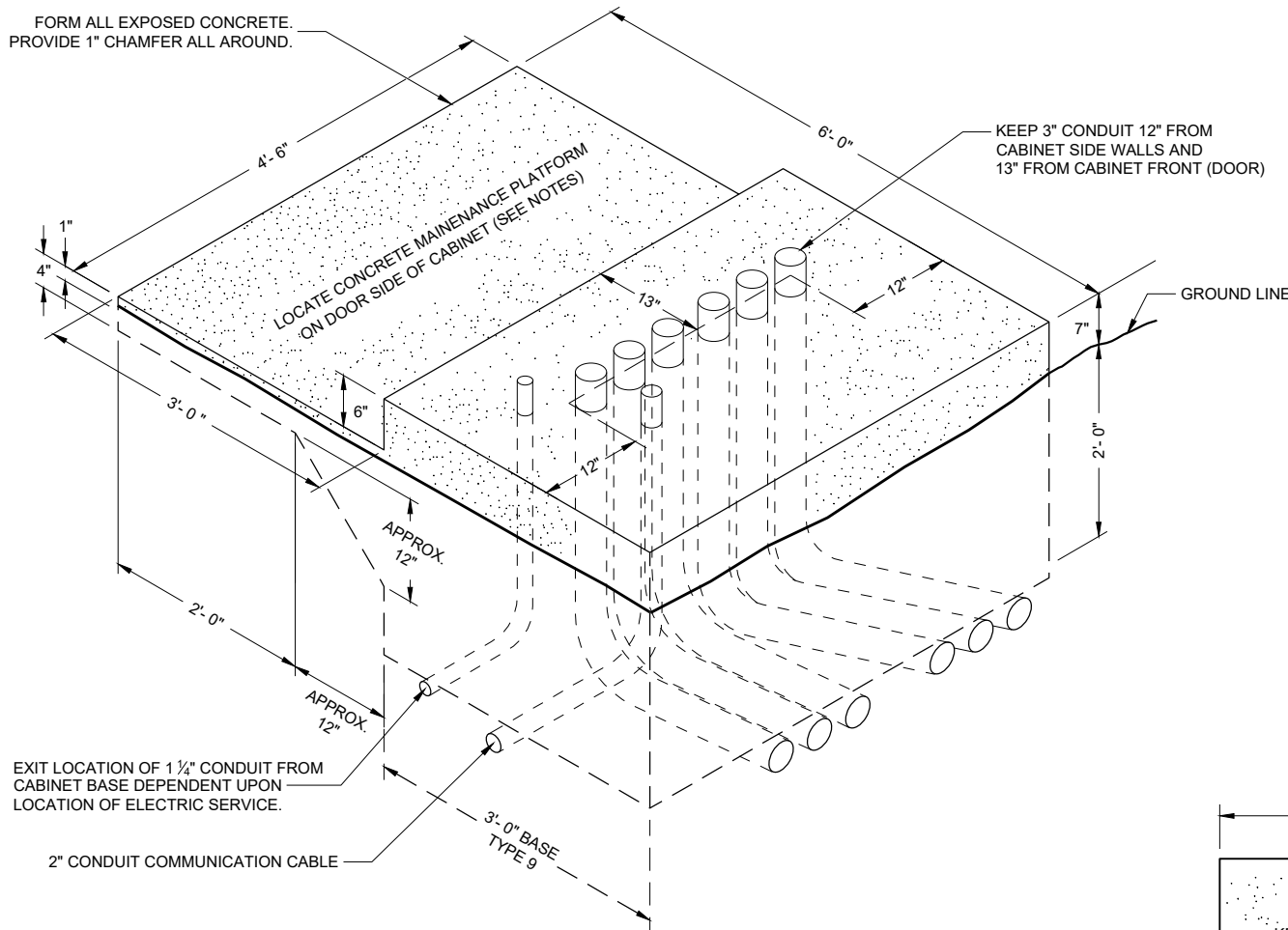
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 247
FHWA

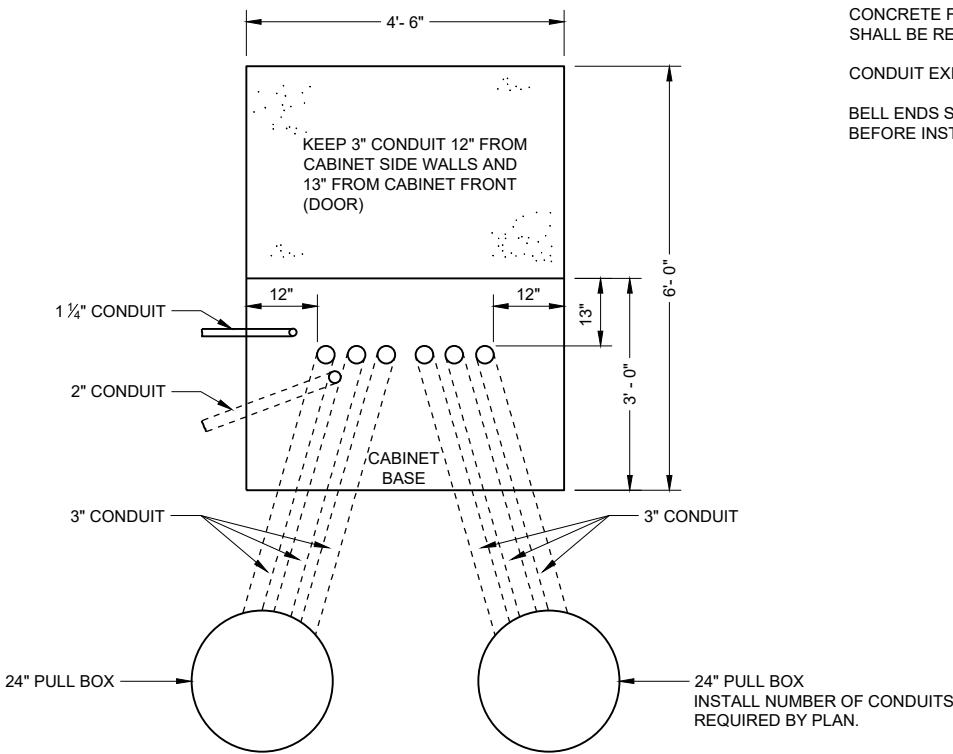


SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI 248
FHWA

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

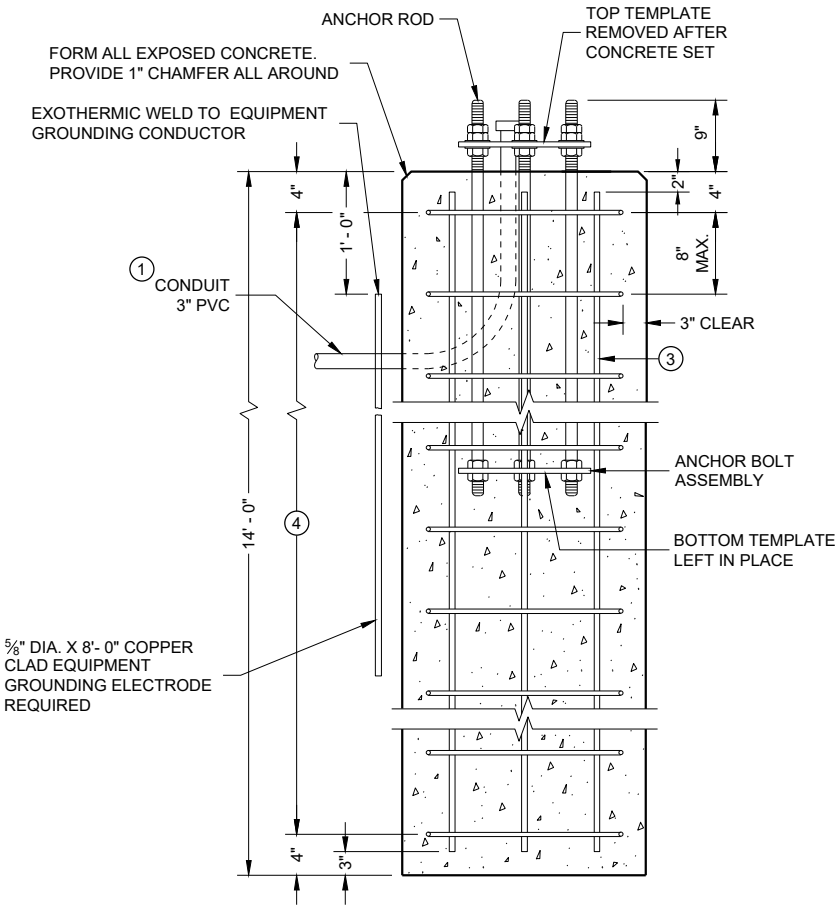
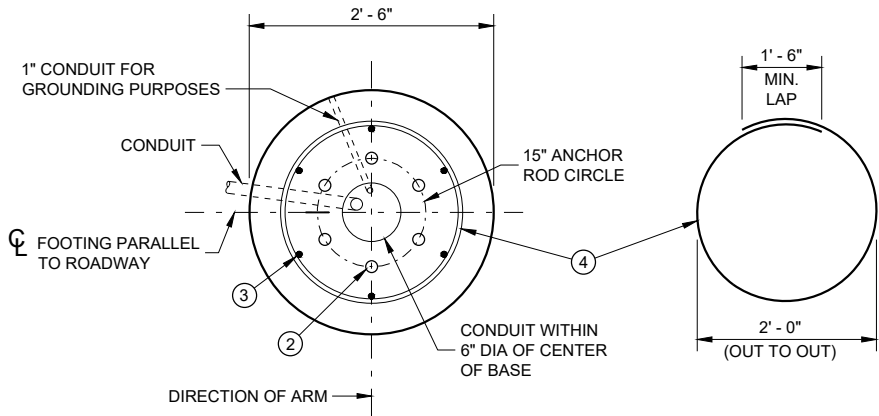
THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

- 1
- THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2
- (6) 1 1/2 DIA. X 4' - 4" ANCHOR RODS
- 3
- (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.
- 4
- (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

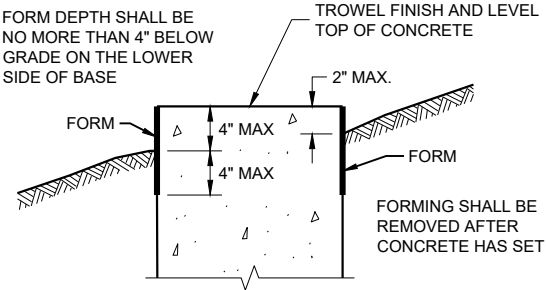
CONCRETE MASONRY.....	fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....	fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)	fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....	fy = 36,000 p.s.i.

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122

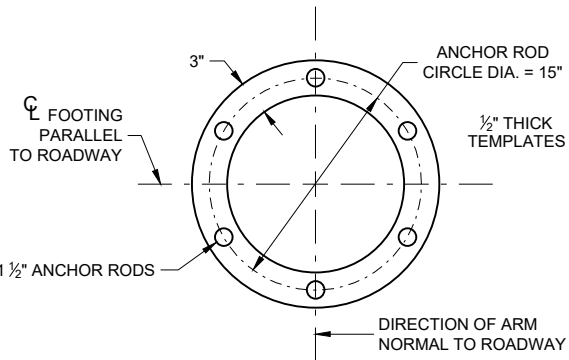


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

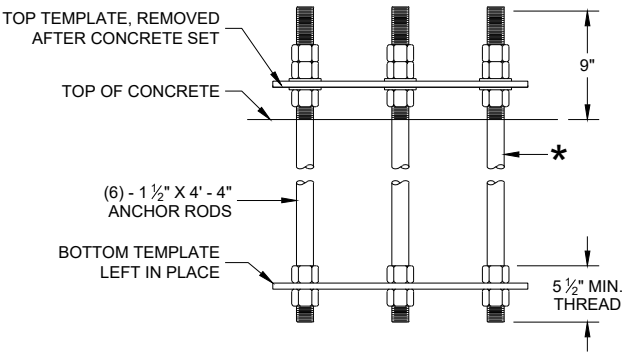
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



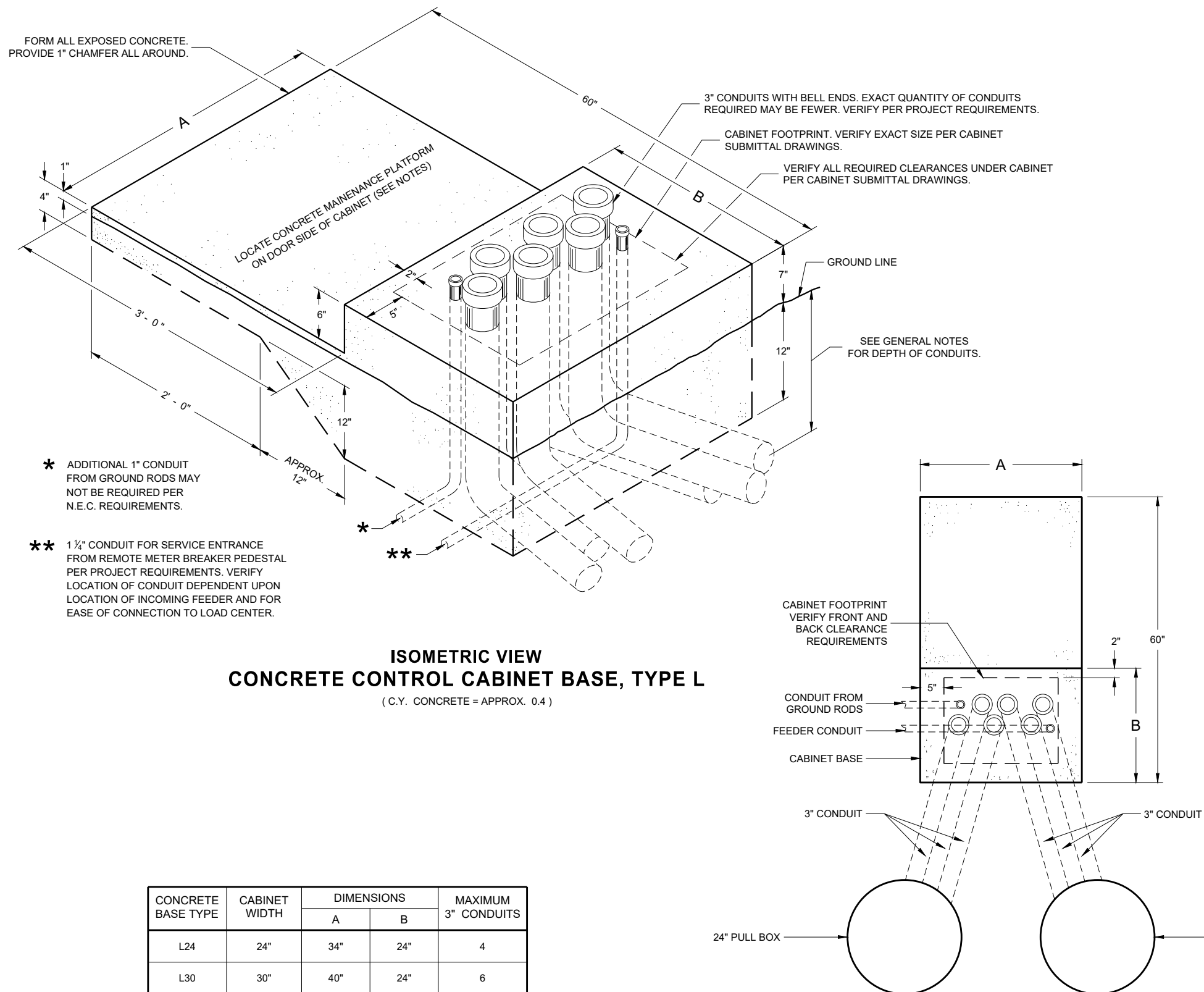
ANCHOR ROD
ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 1/2" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE
TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 DATE /S/ Ahmet Demerbilek
WIND LOADED STRUCTL PROGRAM LEADER
FHWA



PLAN VIEW
CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 250
FHWA

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 1/2" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

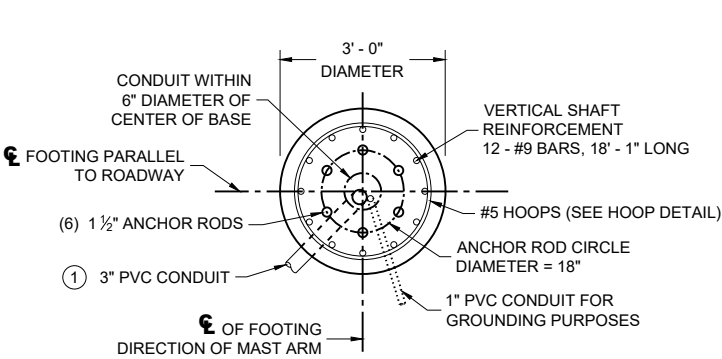
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

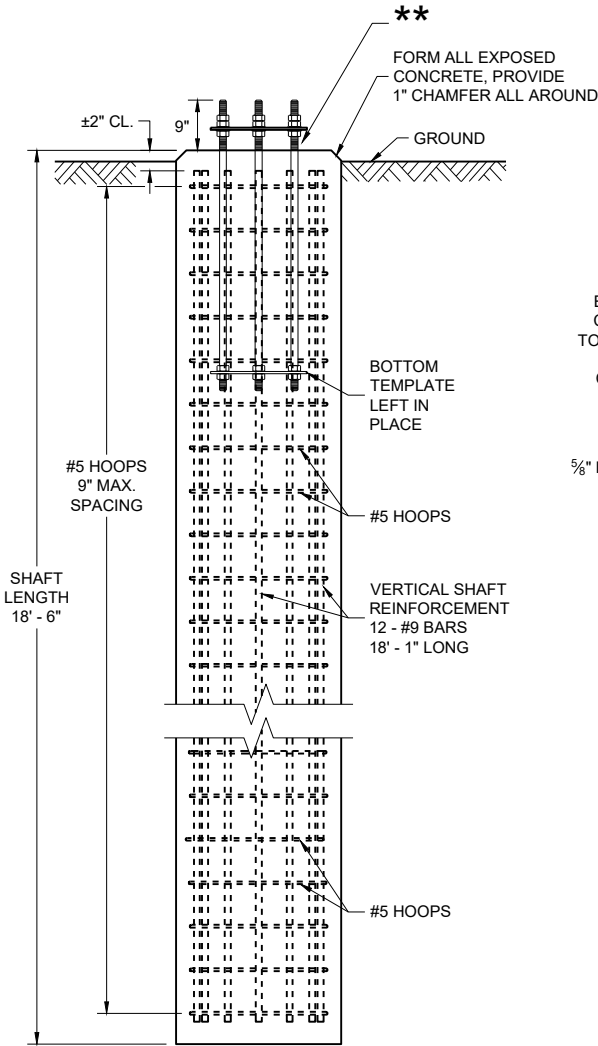
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55.....fy = 55,000 p.s.i.
(IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

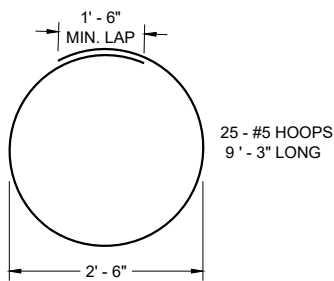


PLAN VIEW

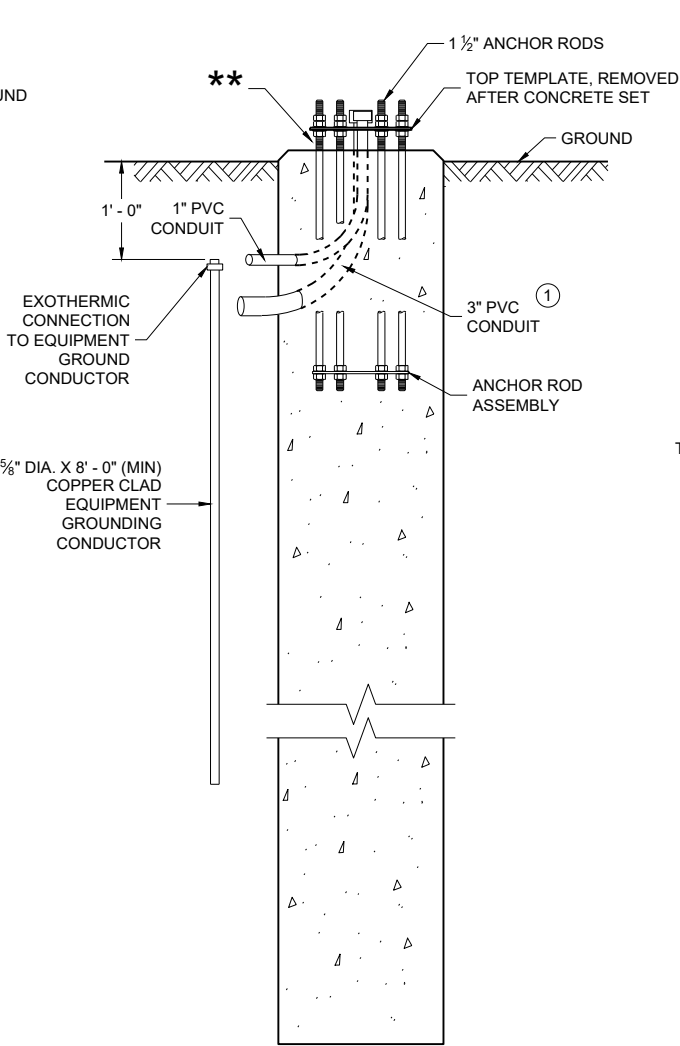


ELEVATION VIEW

(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)

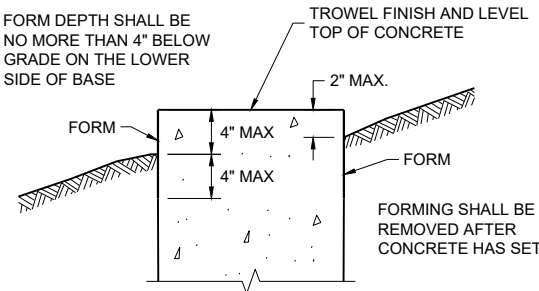


HOOP DETAIL

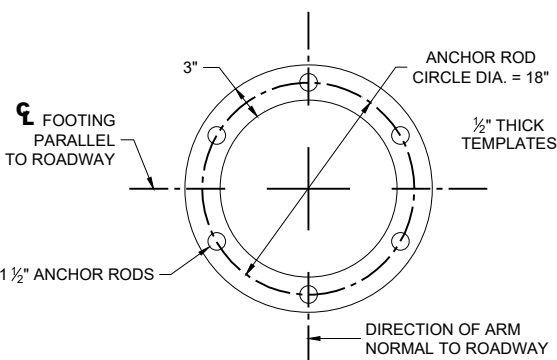


SIDE VIEW

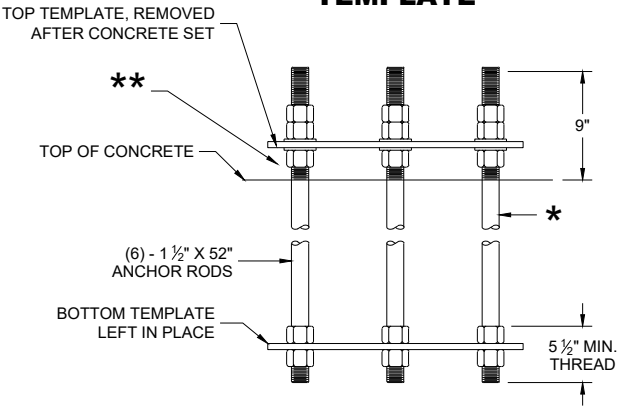
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 1/2" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

** RODENT PROTECTION REQUIRED

CONCRETE BASE
TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 /S/ Alex Crabtree
DATE WIND LOADED STRUCTURES PROGRAM LEADER
FHWA

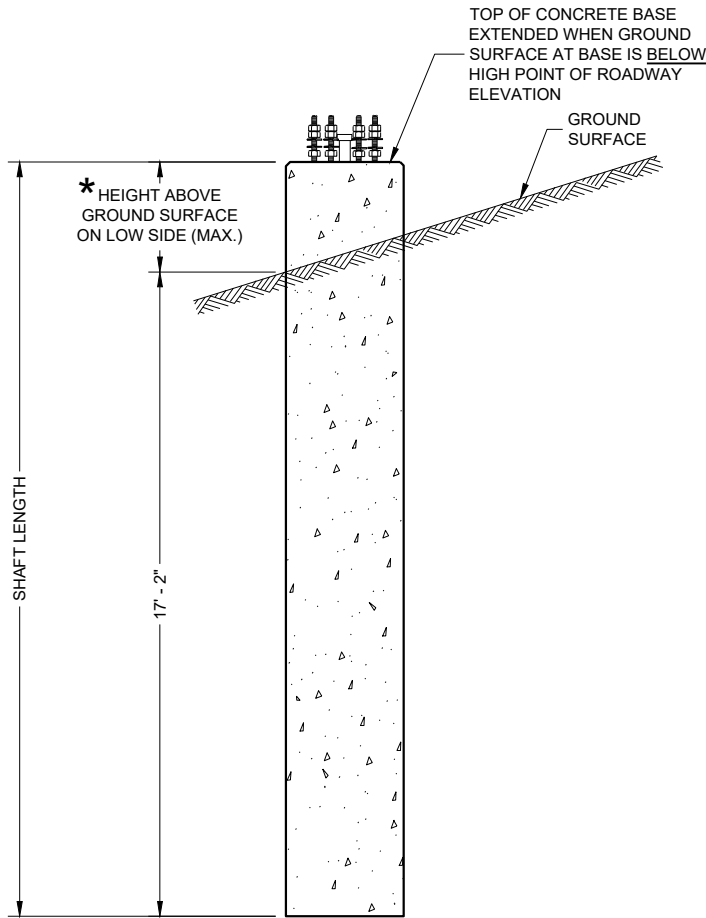
CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES AND OVER HEIGHT (OH) POLES)

CONCRETE = 4.8 CUBIC YARD
H.S. REINFORCEMENT = 979 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 SPECIAL CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAX.)	SHAFT LENGTH	LENGTH OF #8 VERTICAL REINF.	NO. OF #5 HOOPS	CU. YD. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL STEEL
>0" TO 6"	10"	18' - 0"	17' - 7"	25	4.7	241	563
>6" TO 1' - 0"	1' - 4"	18' - 6"	18' - 1"	25	4.8	241	579
>1' - 0" TO 1' - 6"	1' - 10"	19' - 0"	18' - 7"	26	5.0	251	595
>1' - 6" TO 2 - 0"	2' - 4"	19' - 6"	19' - 1"	27	5.1	260	611



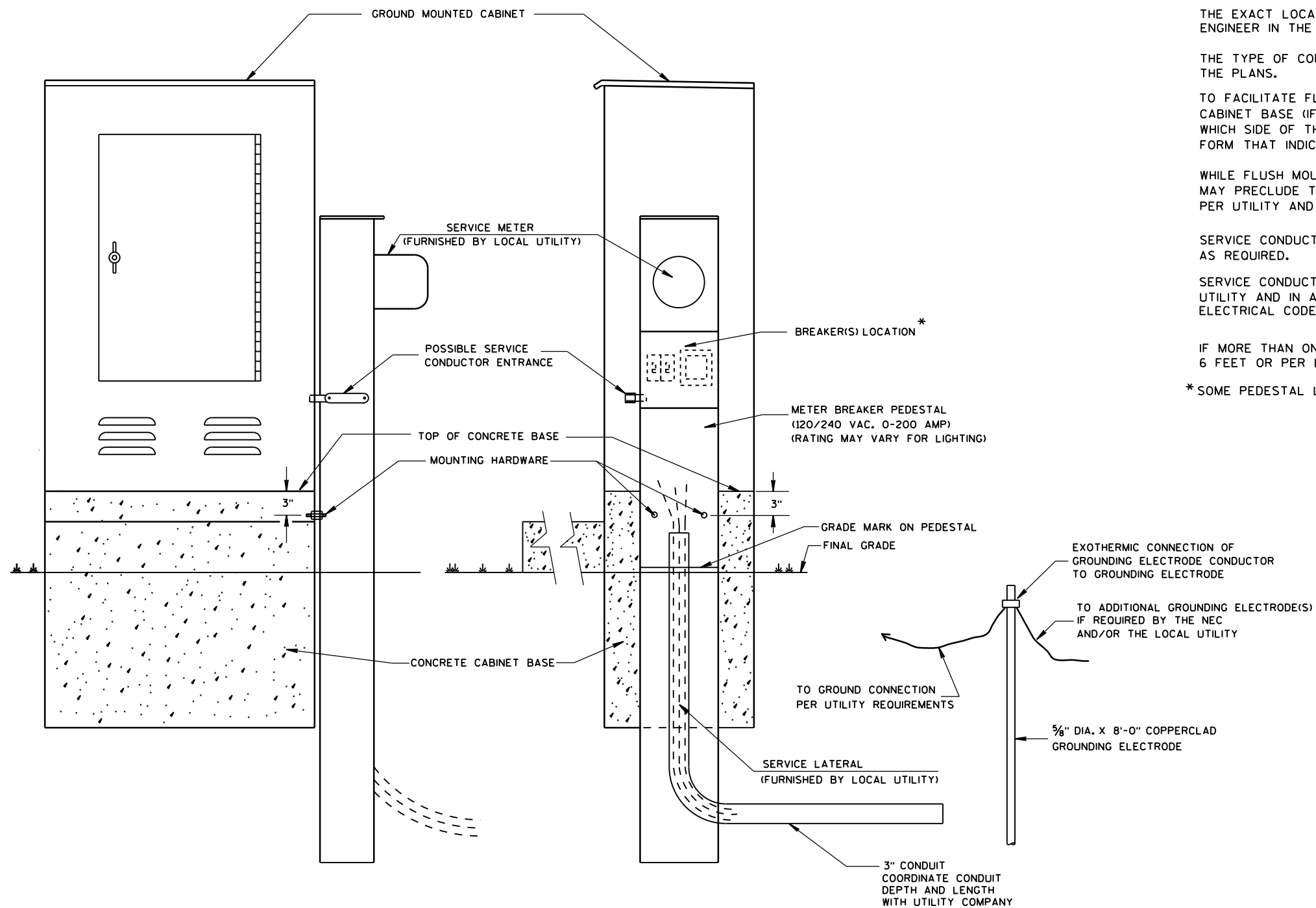
CONCRETE BASE TYPE 10 SPECIAL (EXTENDED)

CONCRETE BASE TYPE 10
SPECIAL EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 252

FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

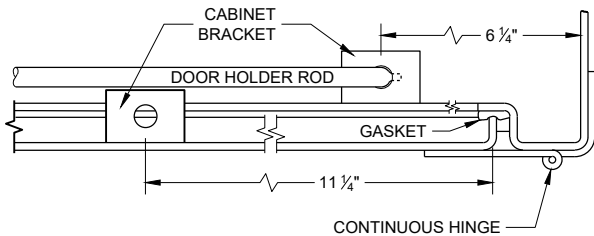
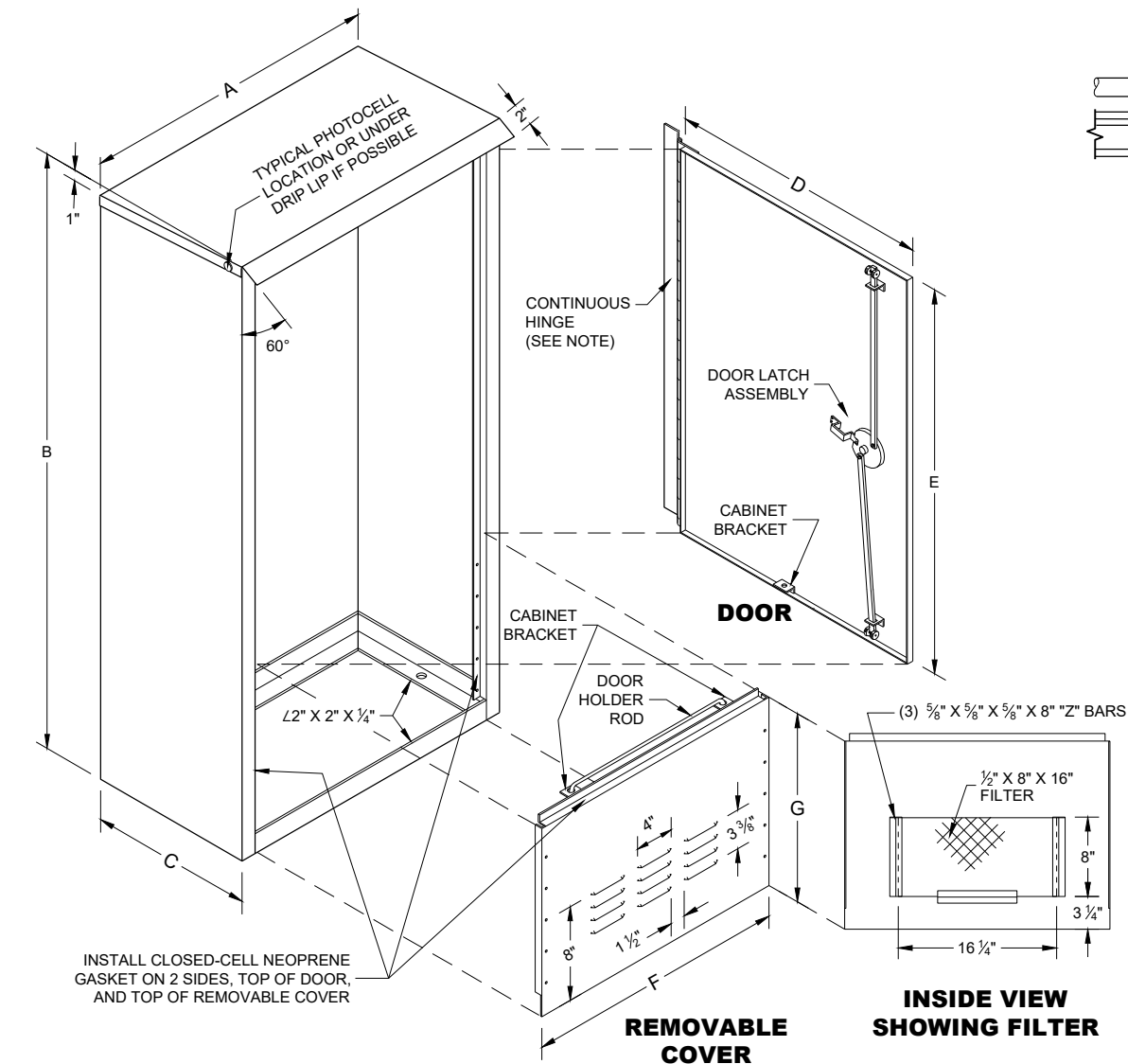
Sept. 2014

DATE

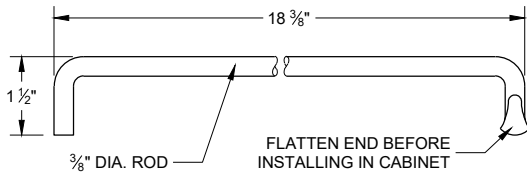
FHWA

/S/ Ahmet Demirbilek

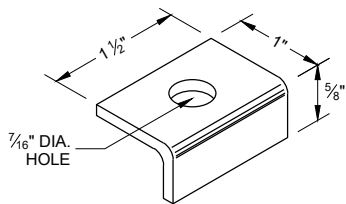
STATE ELECTRICAL 253



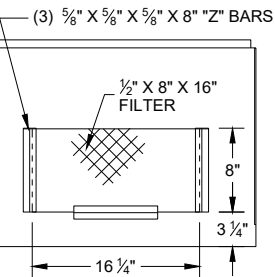
HINGE AND DOOR HOLDER



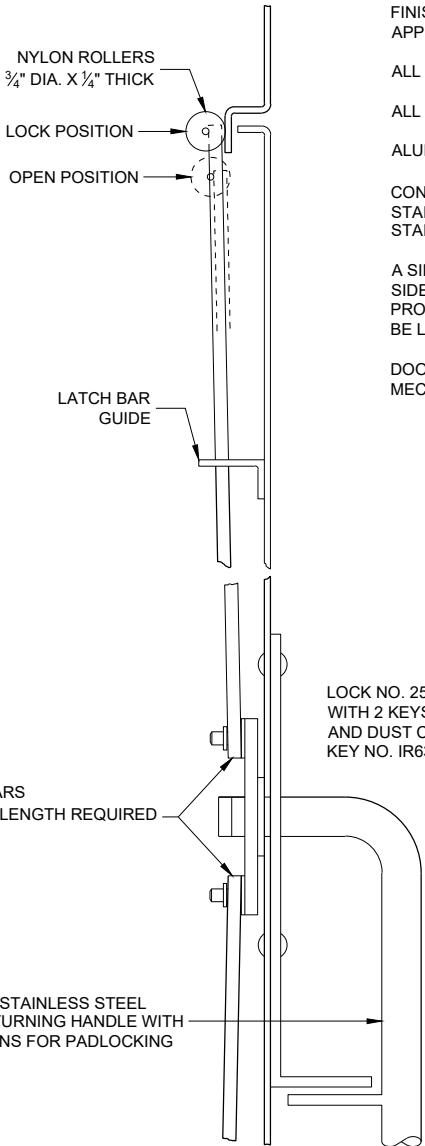
HOLDER ROD



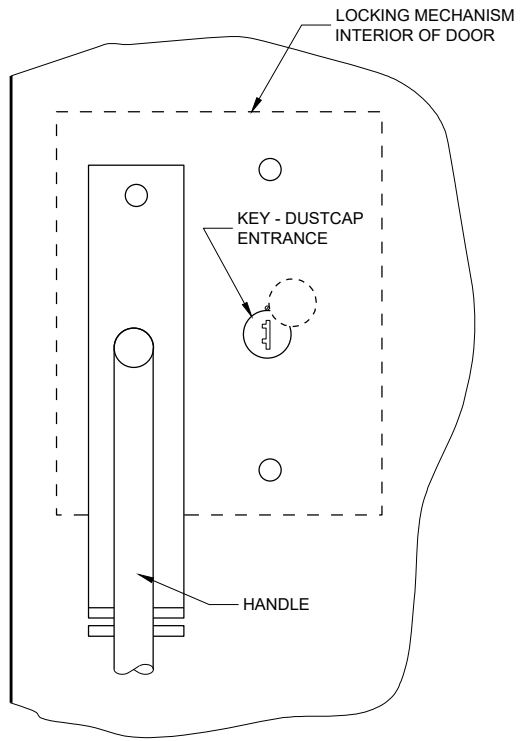
CABINET BRACKET



INSIDE VIEW
SHOWING FILTER

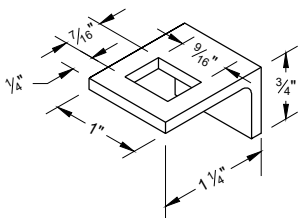


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 3/4	8 3/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/2" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

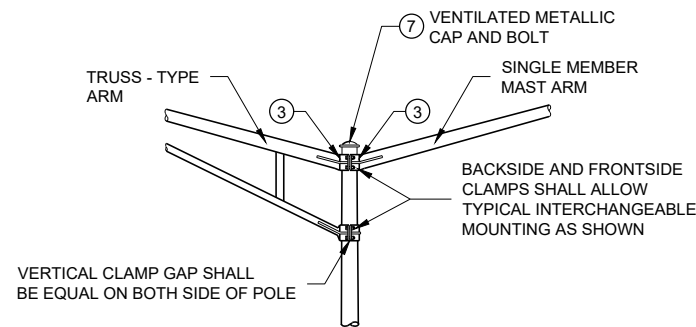
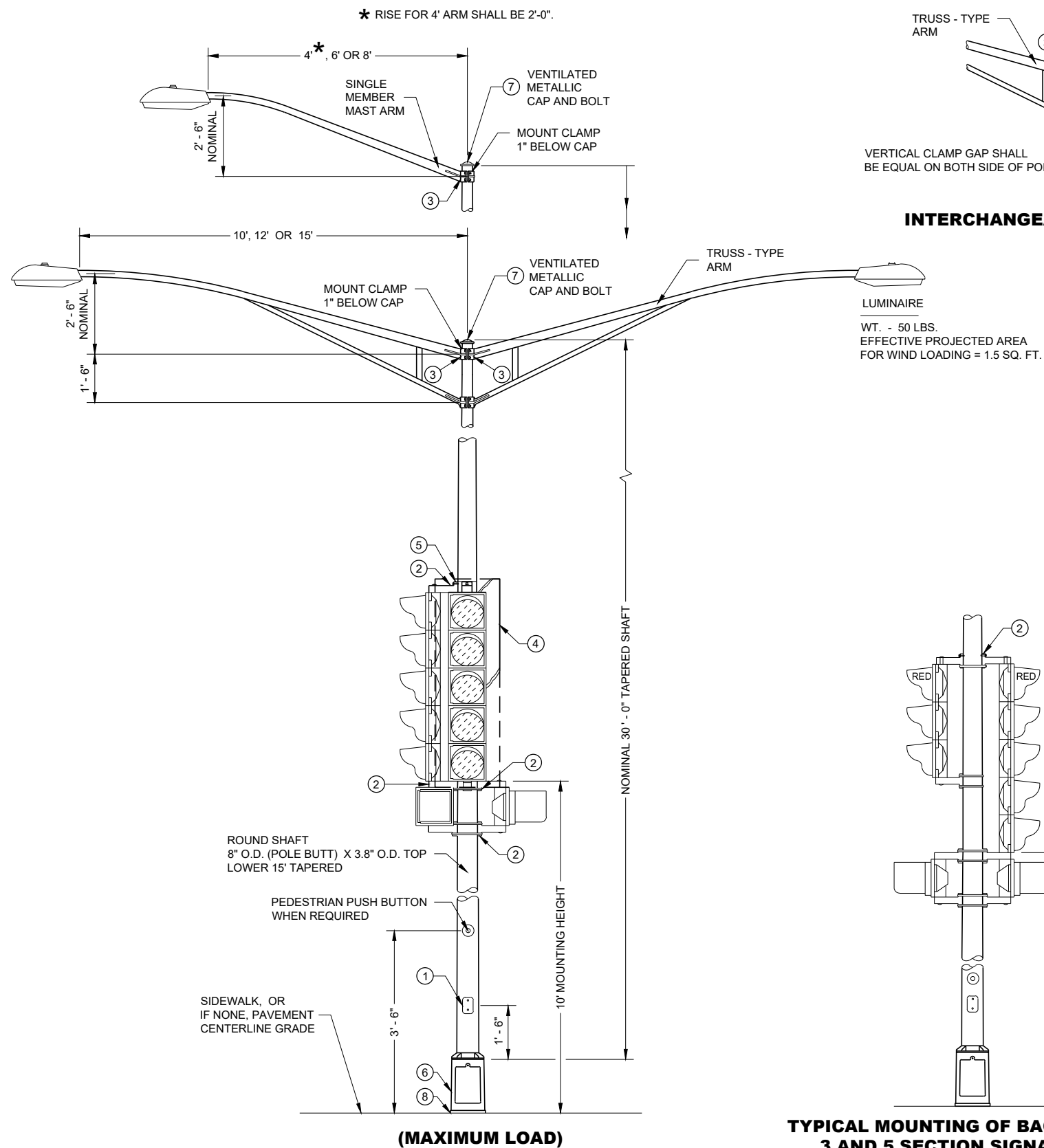
A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI 254
FHWA

**INTERCHANGEABLE MOUNTING DETAIL****GENERAL NOTES**

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

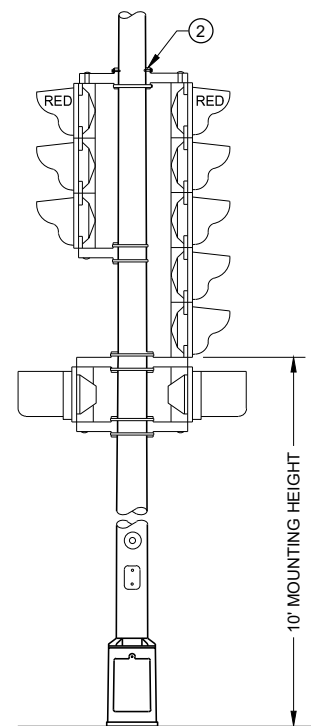
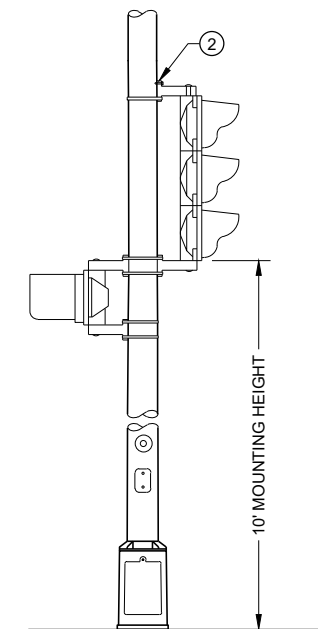
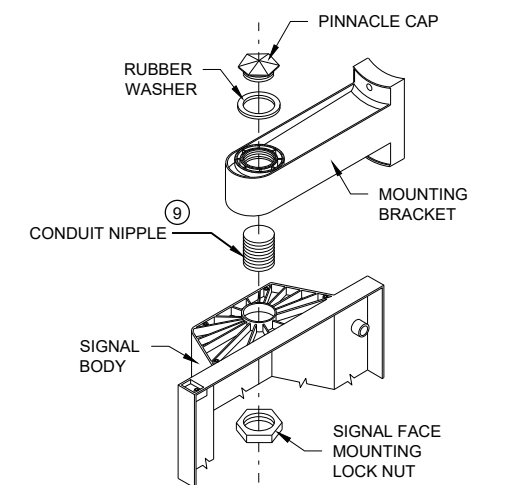
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/4 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

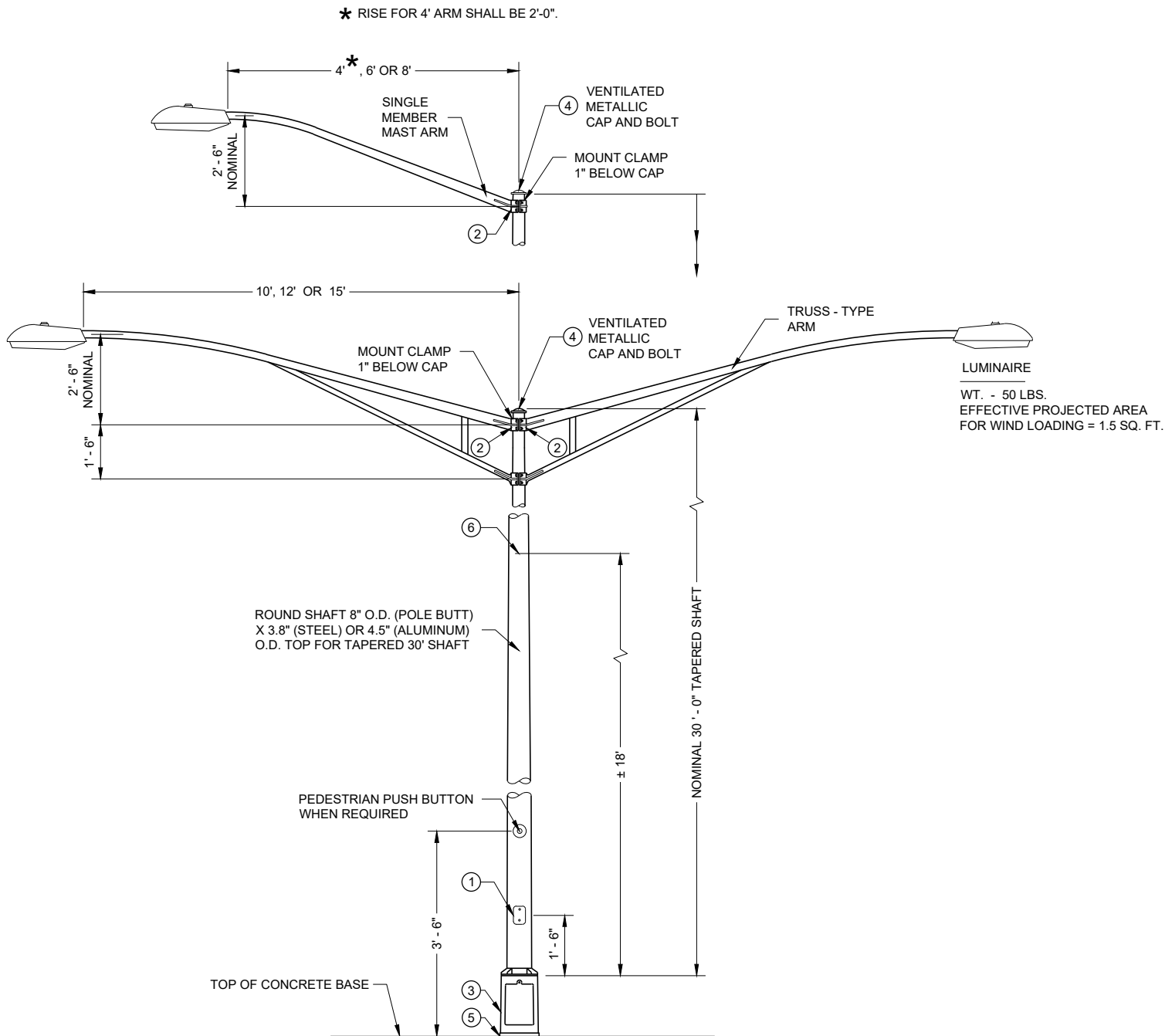
WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/2" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑧ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑨ USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.

**TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES****TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE****SIGNAL FACE MOUNTING DETAIL
(BANDED)**

**POLE MOUNTINGS FOR
TRAFFIC SIGNALS AND
LIGHTING UNITS, TYPE 4**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY**

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVEING INSIDE THE POLE IS NOT ACCEPTABLE.

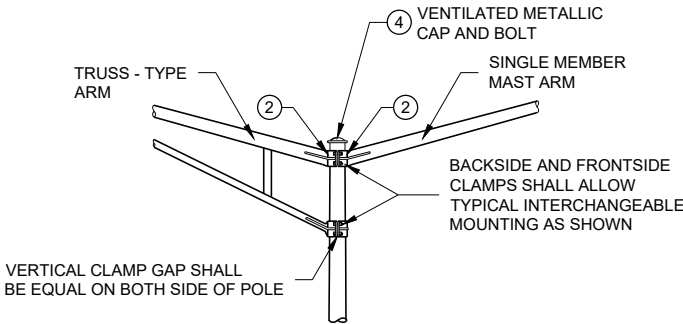
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

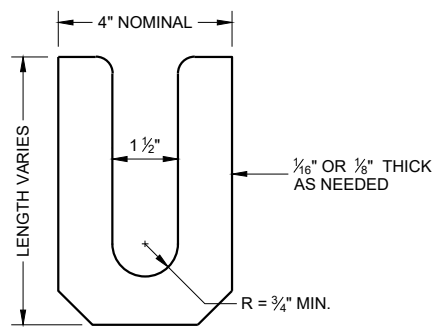
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 3/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 3/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑥ INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



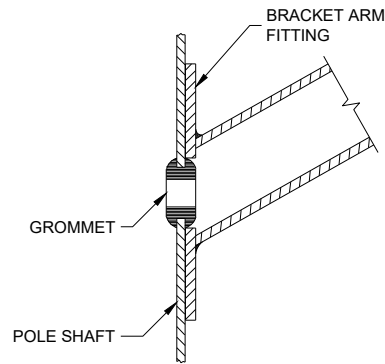
INTERCHANGEABLE MOUNTING DETAIL

**POLE MOUNTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)**

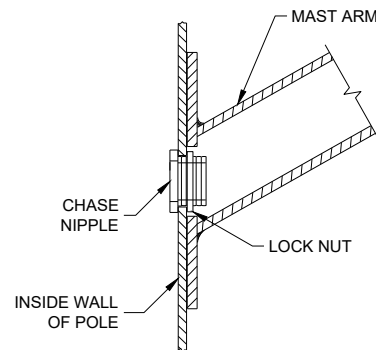
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 256



LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



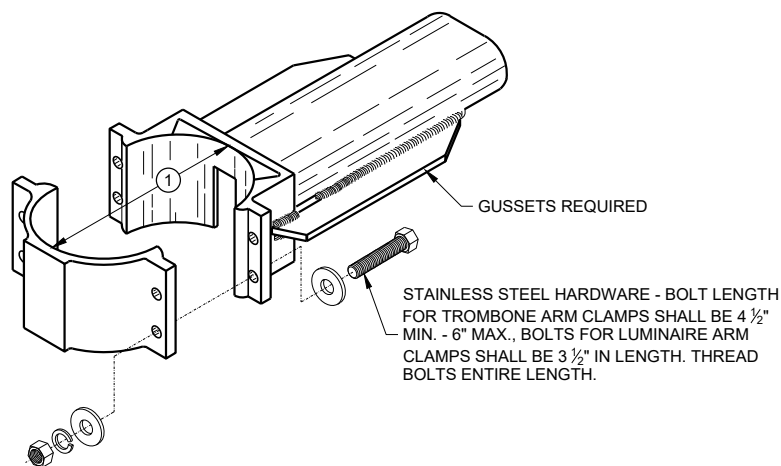
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

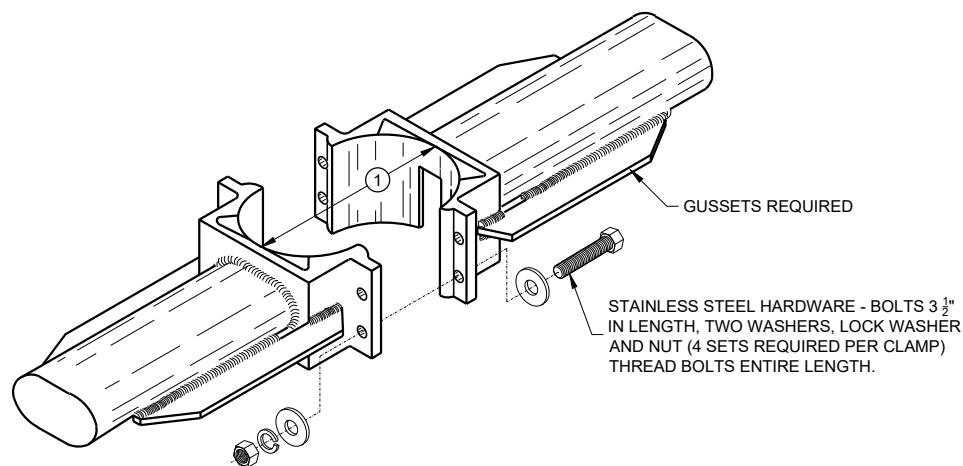
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- ① 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- ② INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- ③ BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- ④ LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

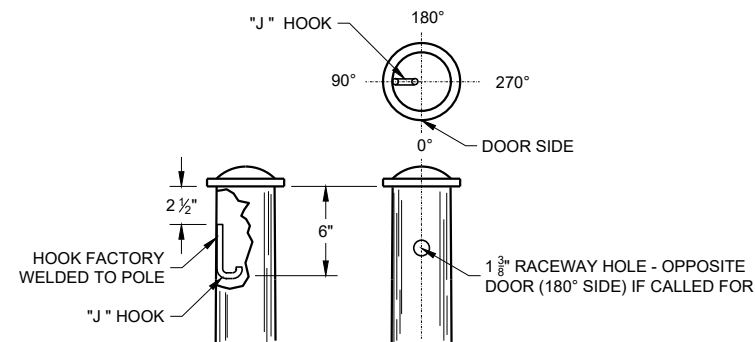
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



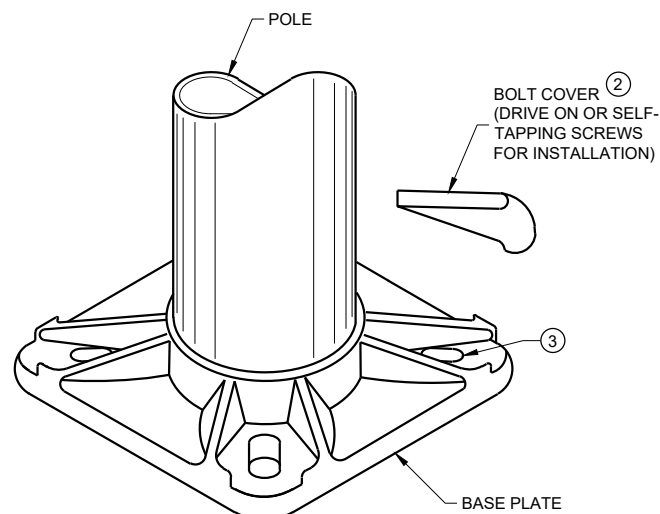
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



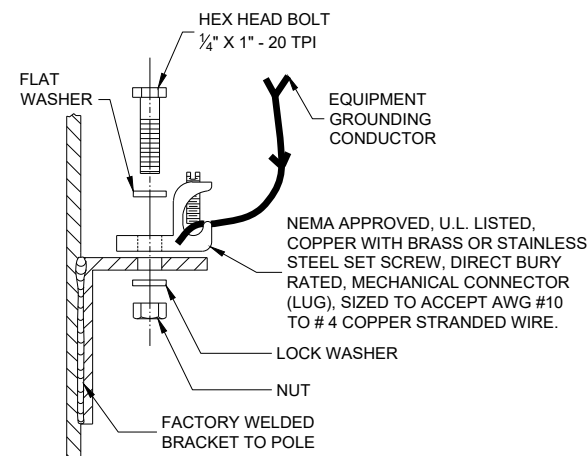
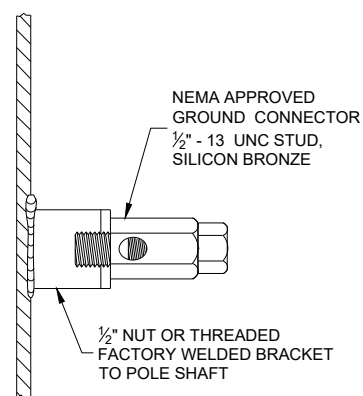
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



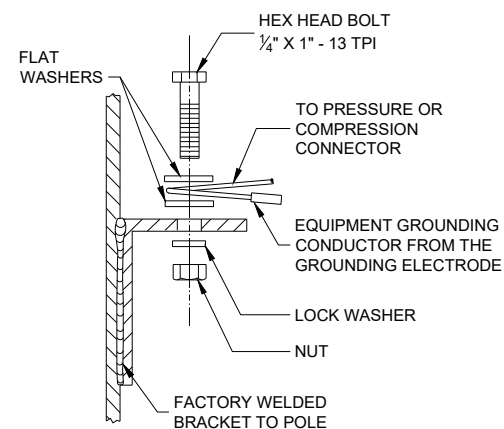
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

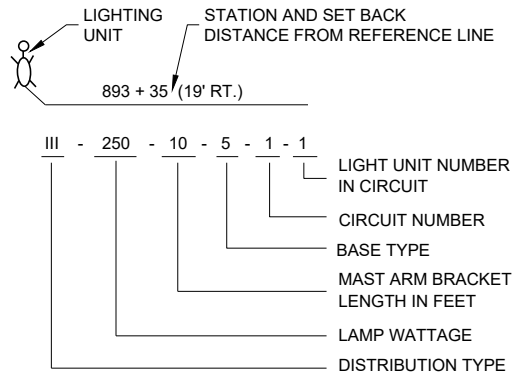
APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 257
FHWA

GENERAL NOTES

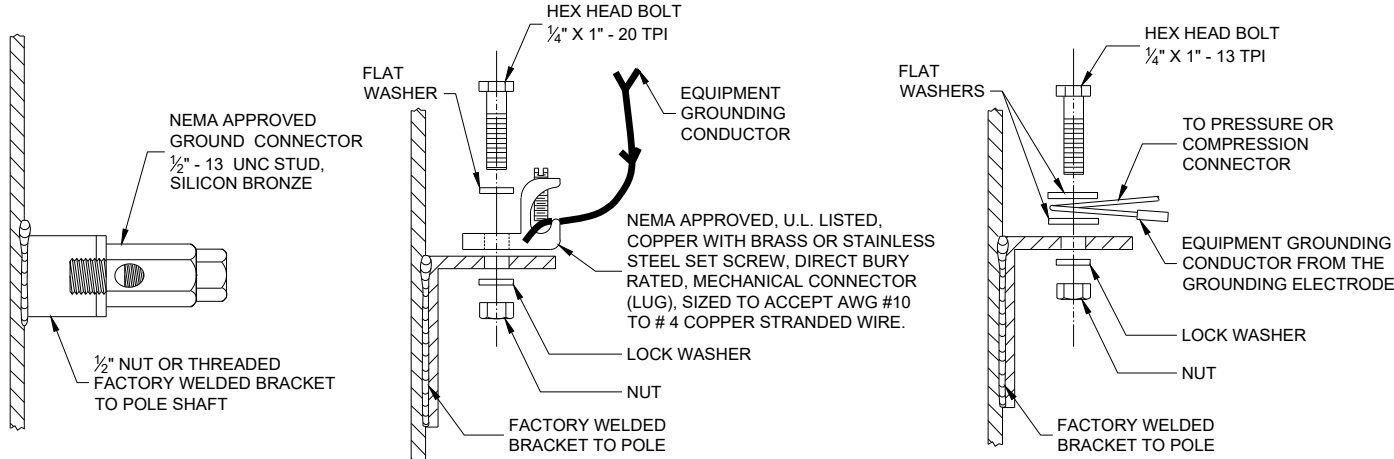
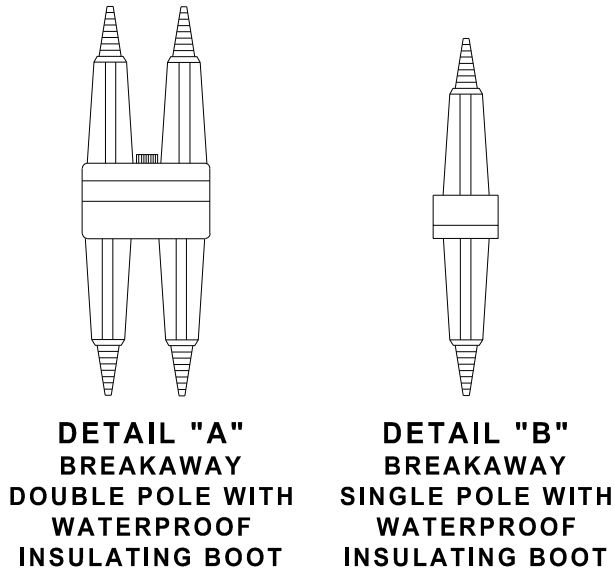
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

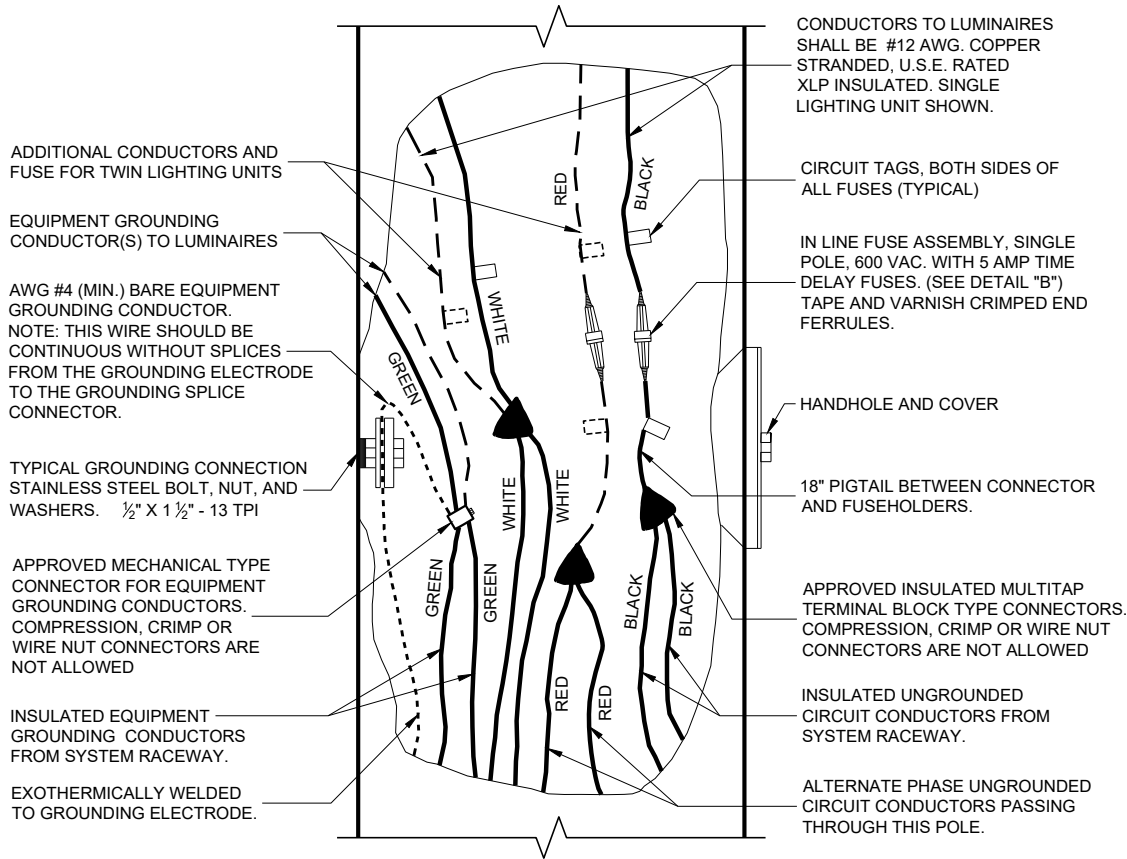


LIGHTING UNIT CODE (TYPICAL)



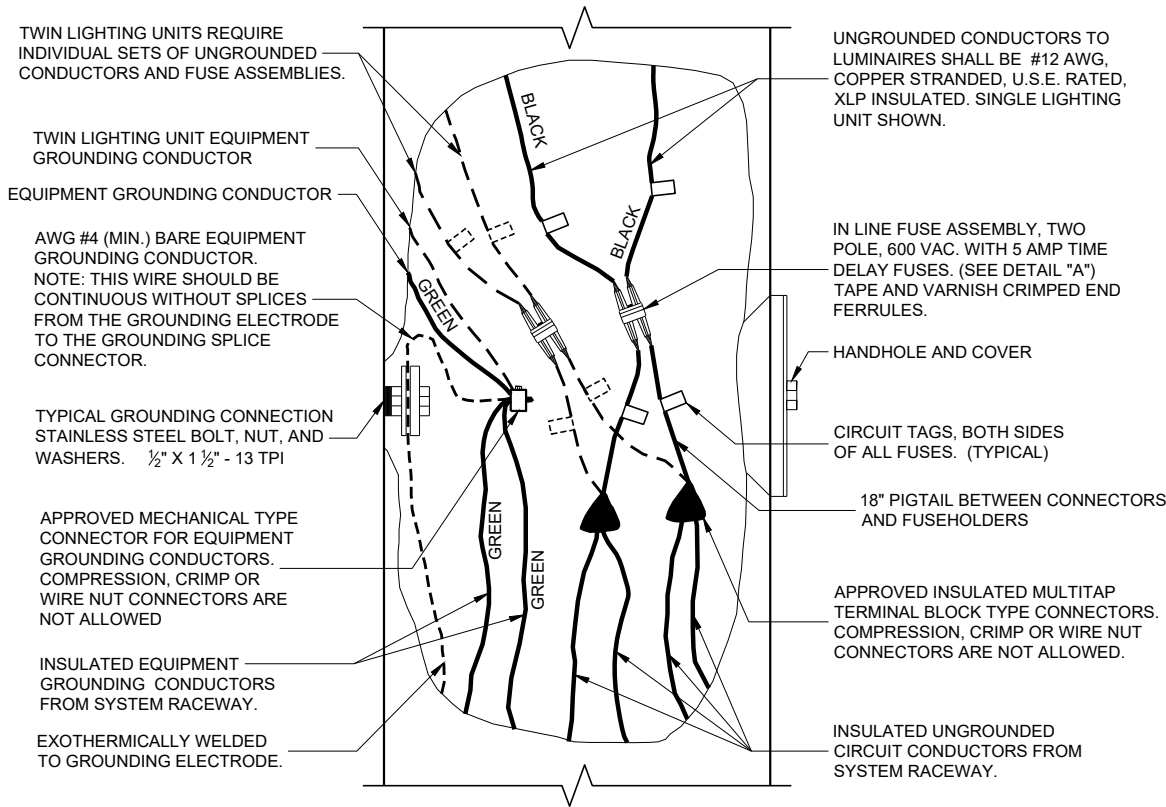
TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

6



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR

6



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

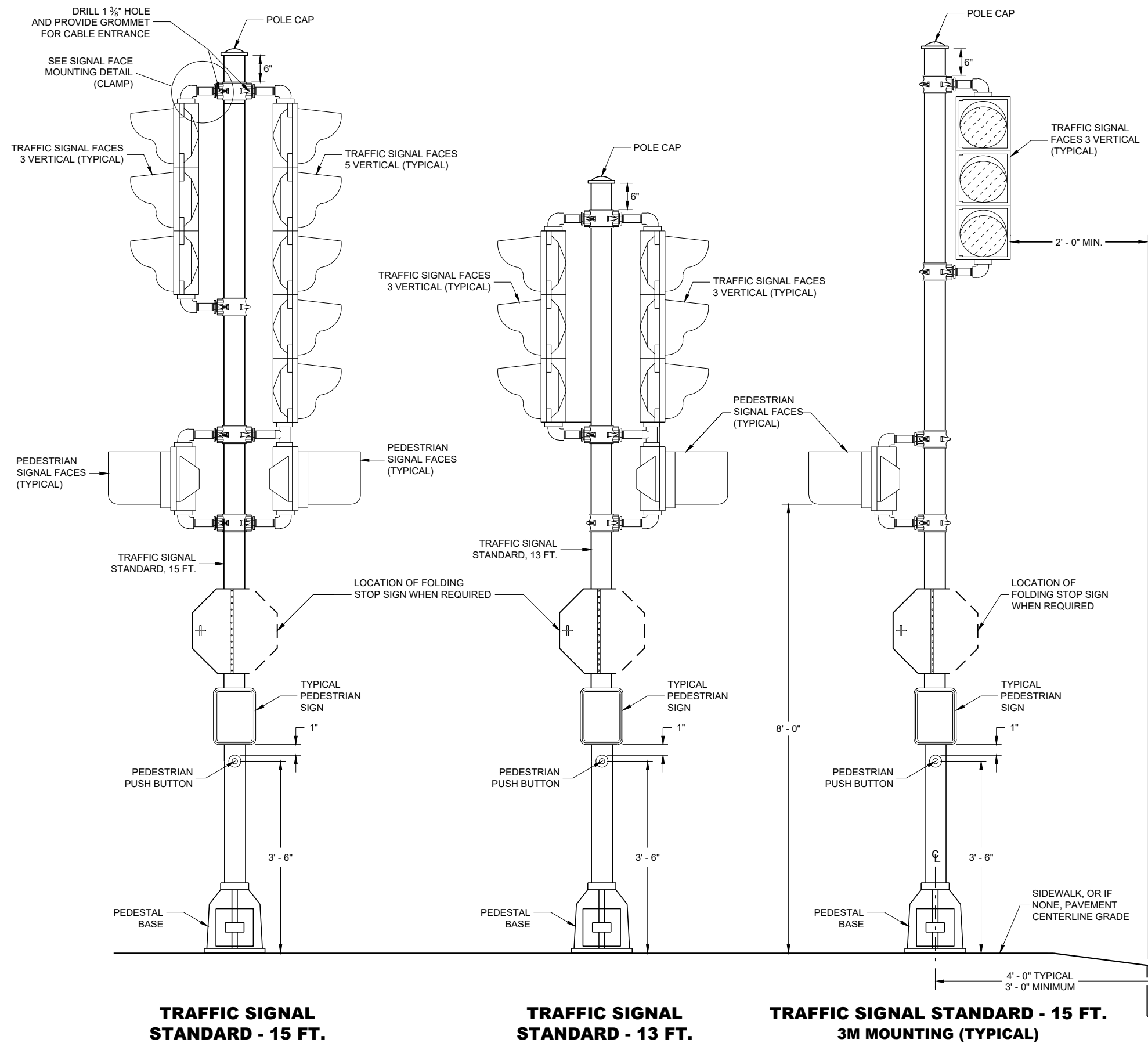
NON - FREEWAY LIGHTING UNIT
POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 258
FHWA

SDD 09E03 - 06

SDD 09E03 - 06



GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

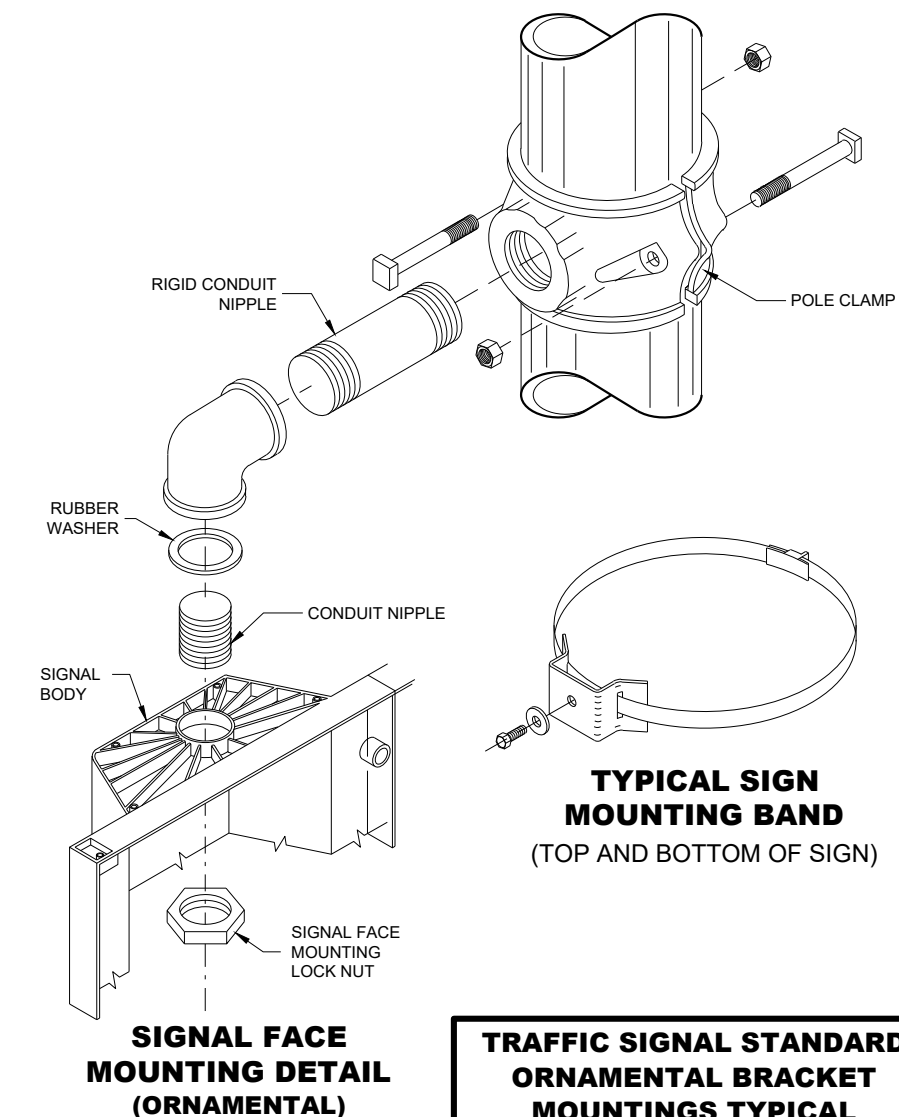
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

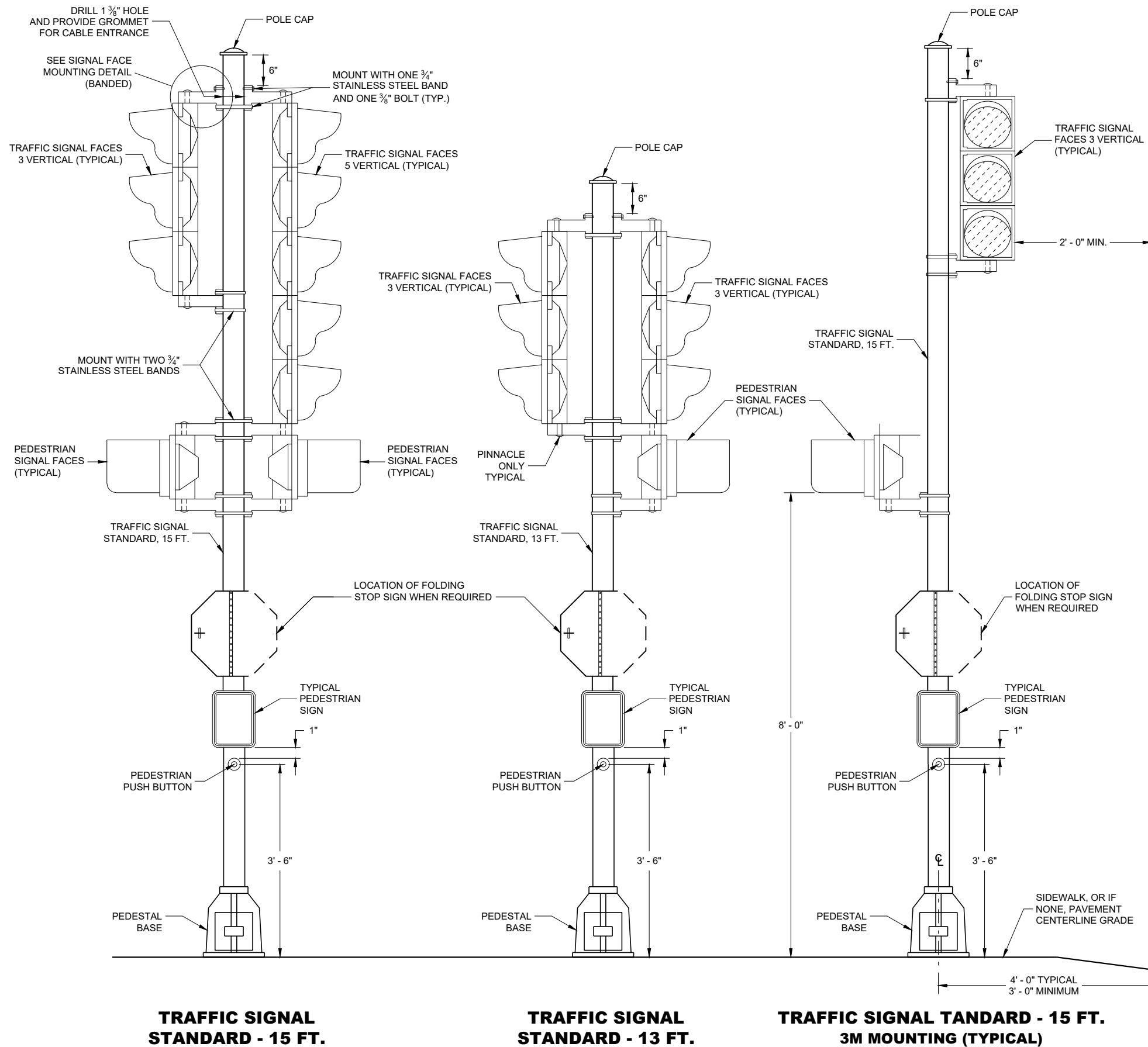
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE
/S/ Ahmet Demirebilek
STATE ELECTRICAL ENGI 259
FHWA



GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

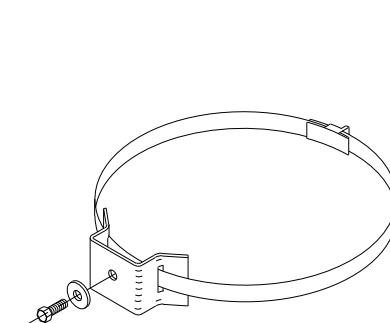
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

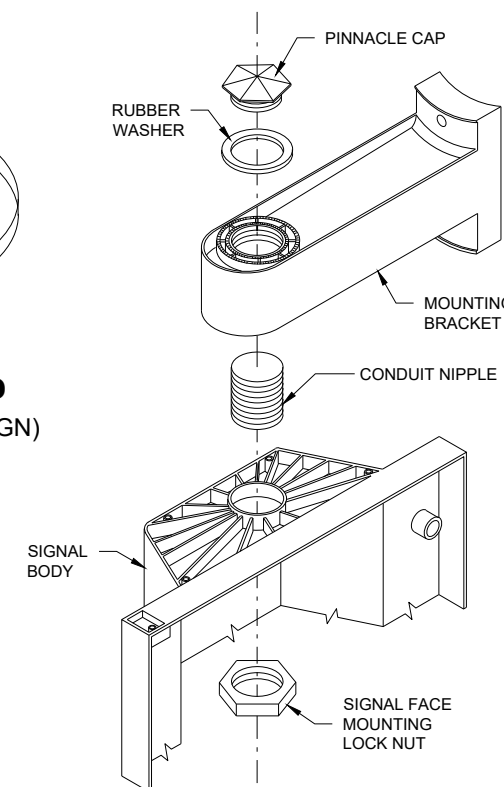
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

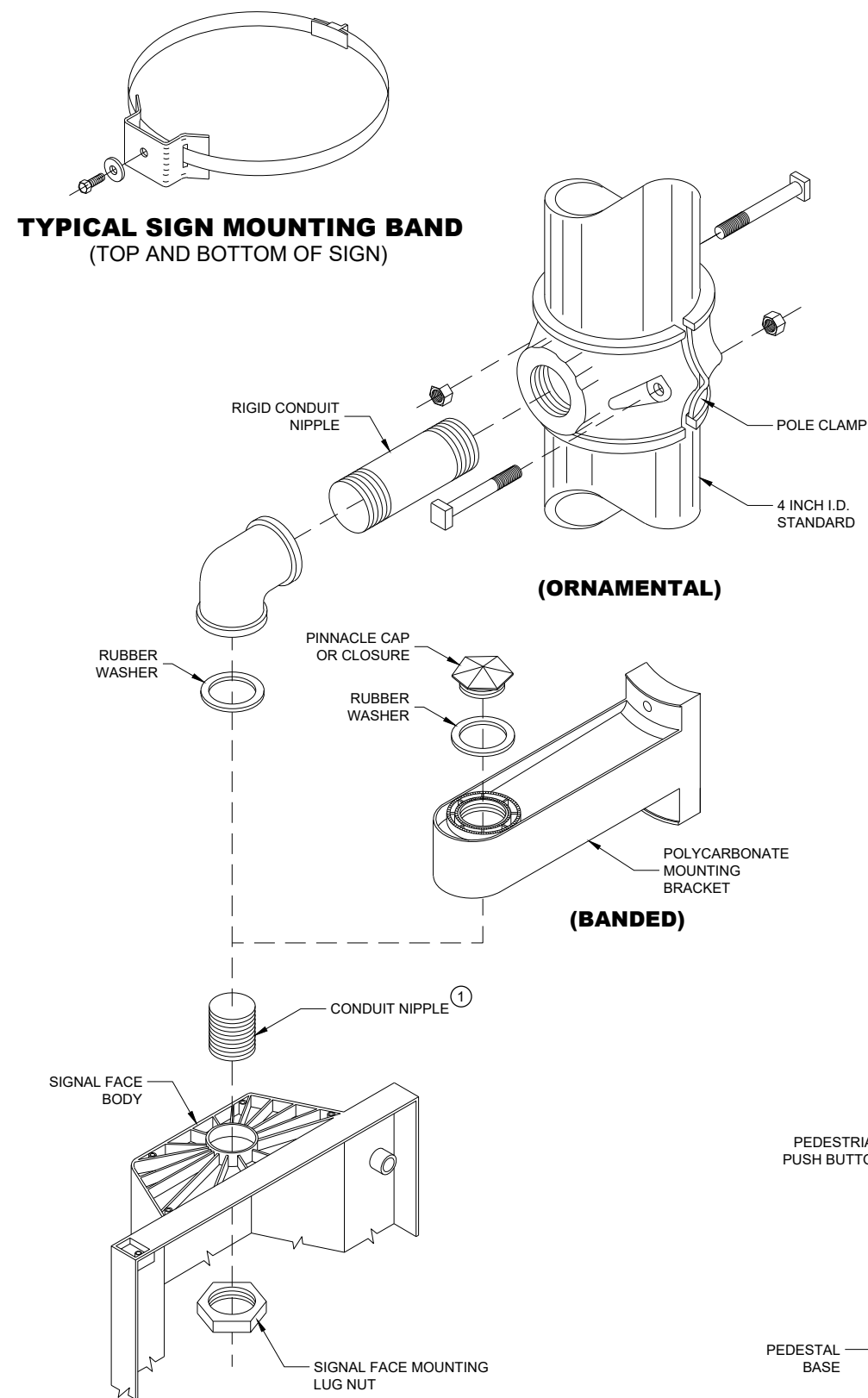
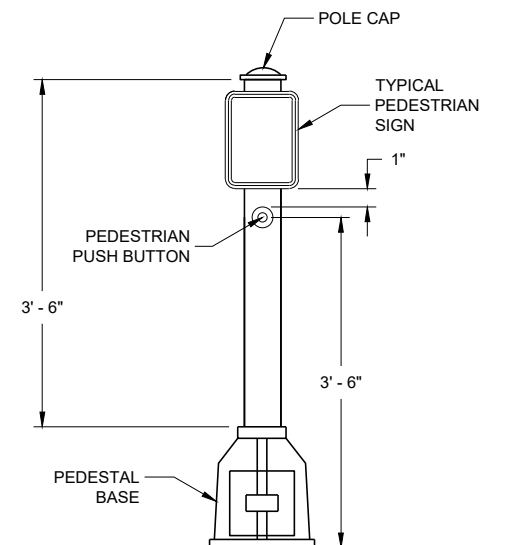
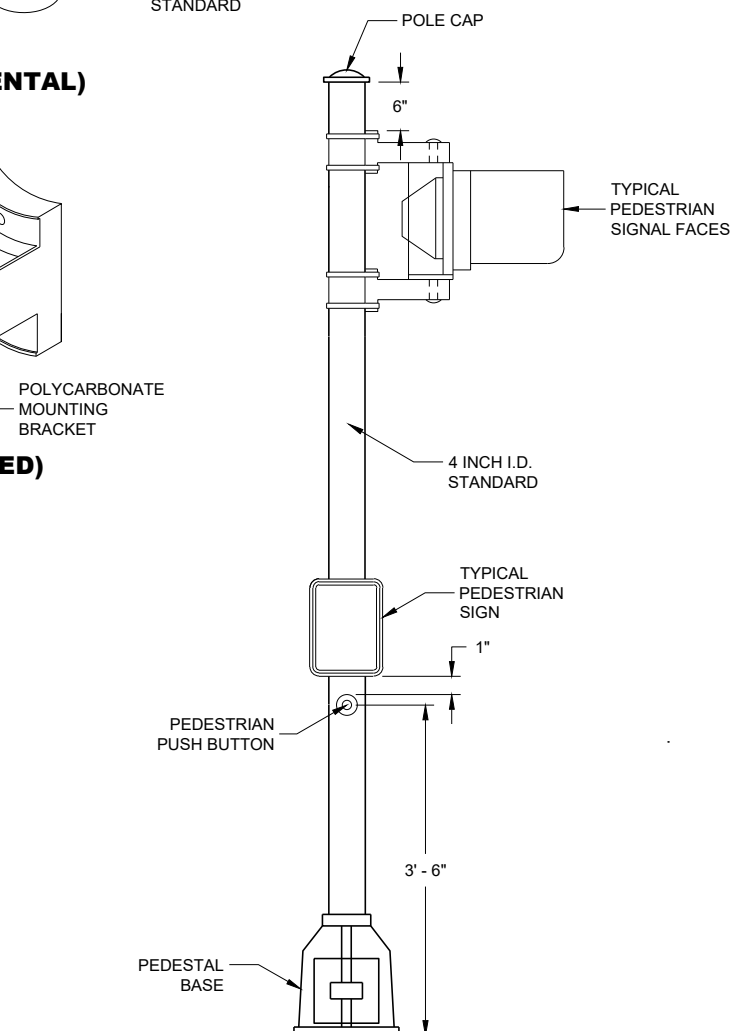
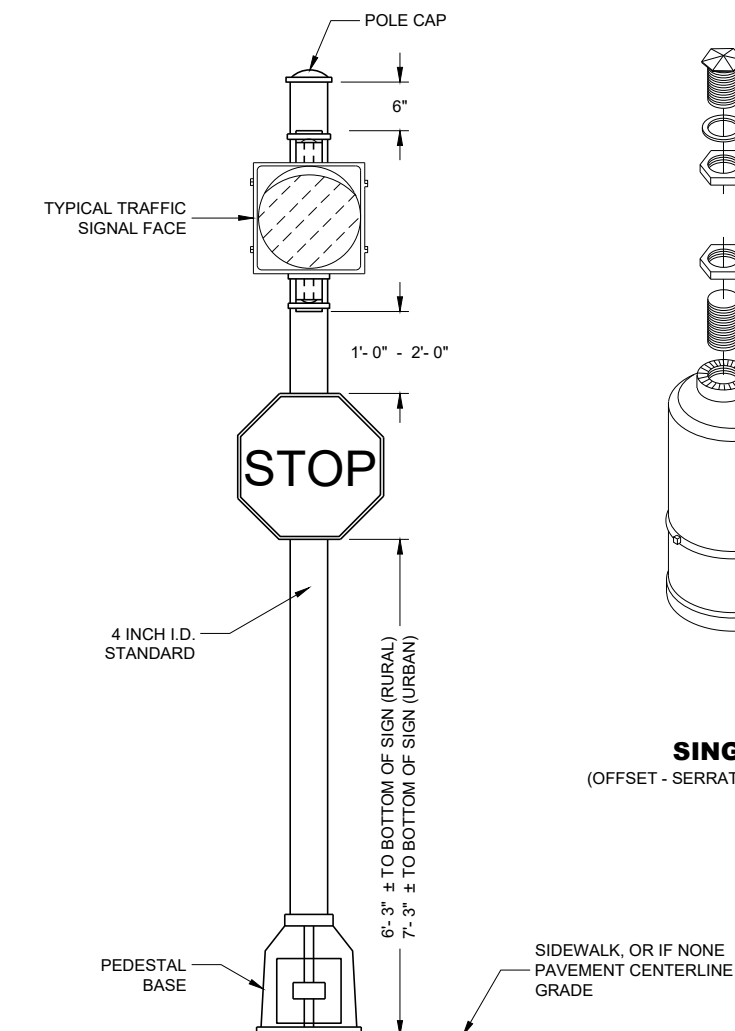


SIGNAL FACE MOUNTING DETAIL
(BANDED)

**TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 DATE /S/ Ahmet Demirebilek
STATE ELECTRICAL ENGI 260
FHWA

**SIGNAL FACE MOUNTING DETAILS****PEDESTRIAN PUSH BUTTON
TYPICAL MOUNTING****PEDESTRIAN FACE STANDARD - 10 FT.**
(WALK - DON'T WALK)**STANDARD FLASHER**
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED**GENERAL NOTES**

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

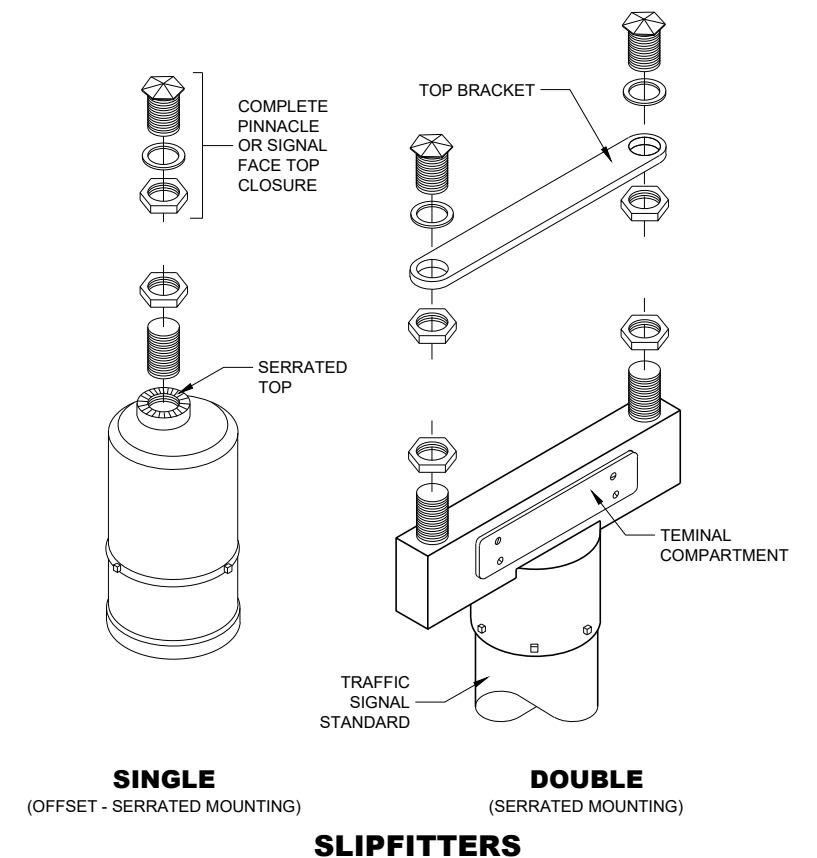
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

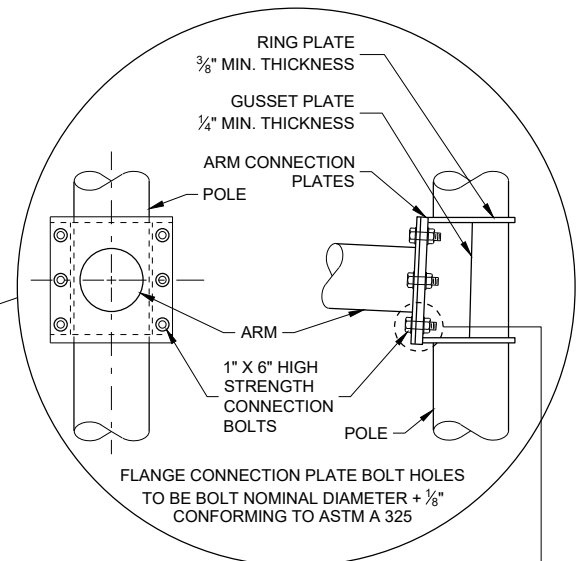
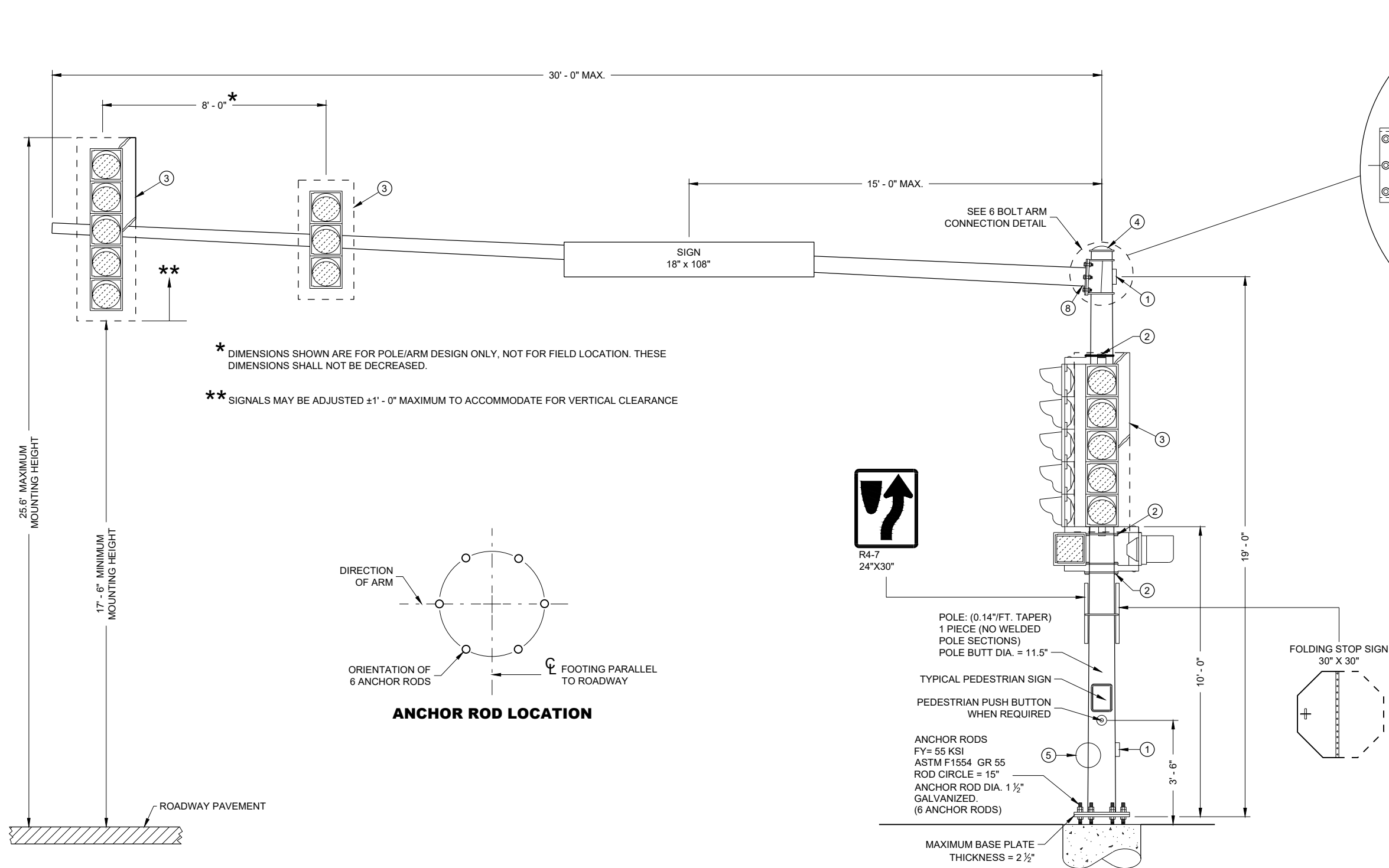
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

- ① USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.

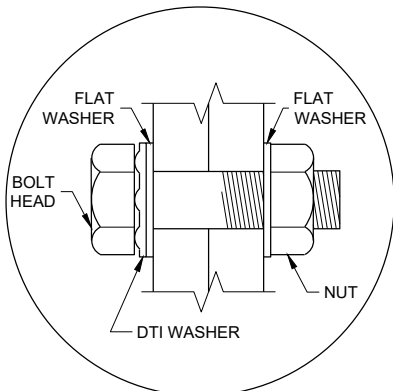
**TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

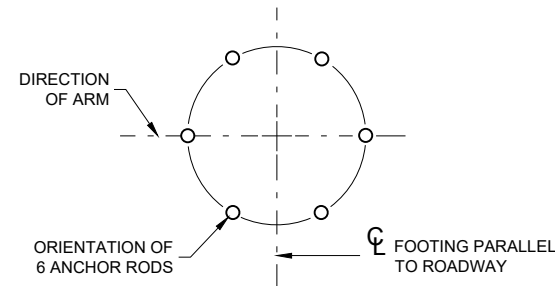
APPROVED
November 2018 /S/ Ahmet Demirebilek
DATE STATE ELECTRICAL ENGI 261
FHWA



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

**TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)**

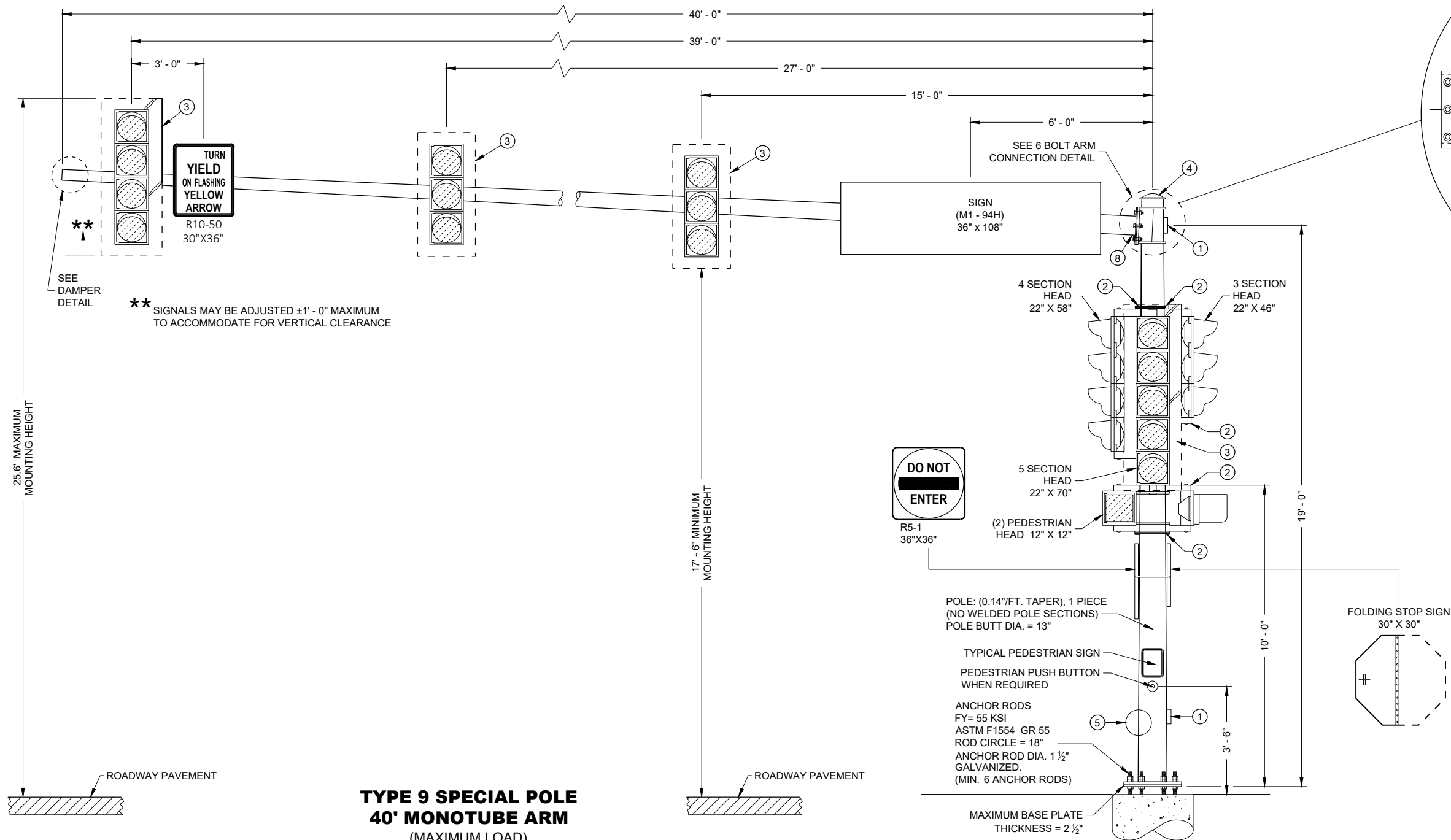
TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGI 262
FHWA	

DUMBBELL VIBRATION DAMPER

FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

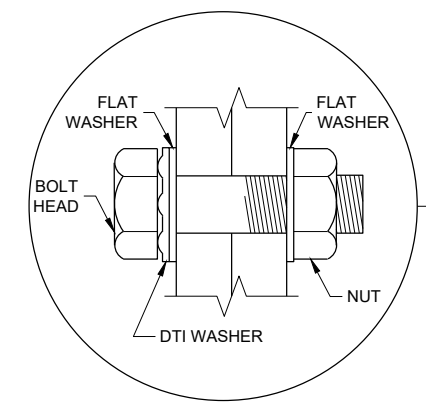
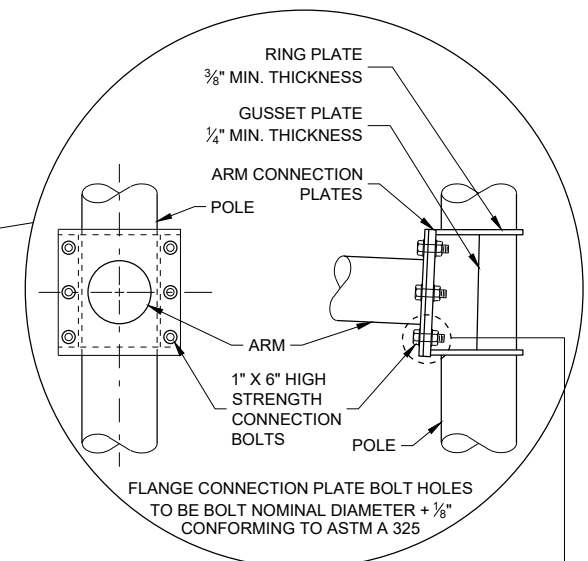
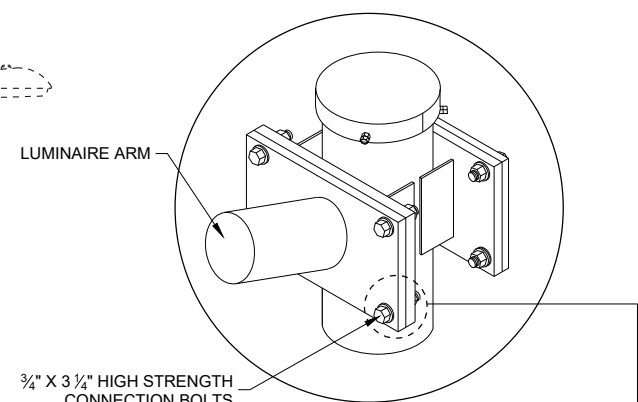
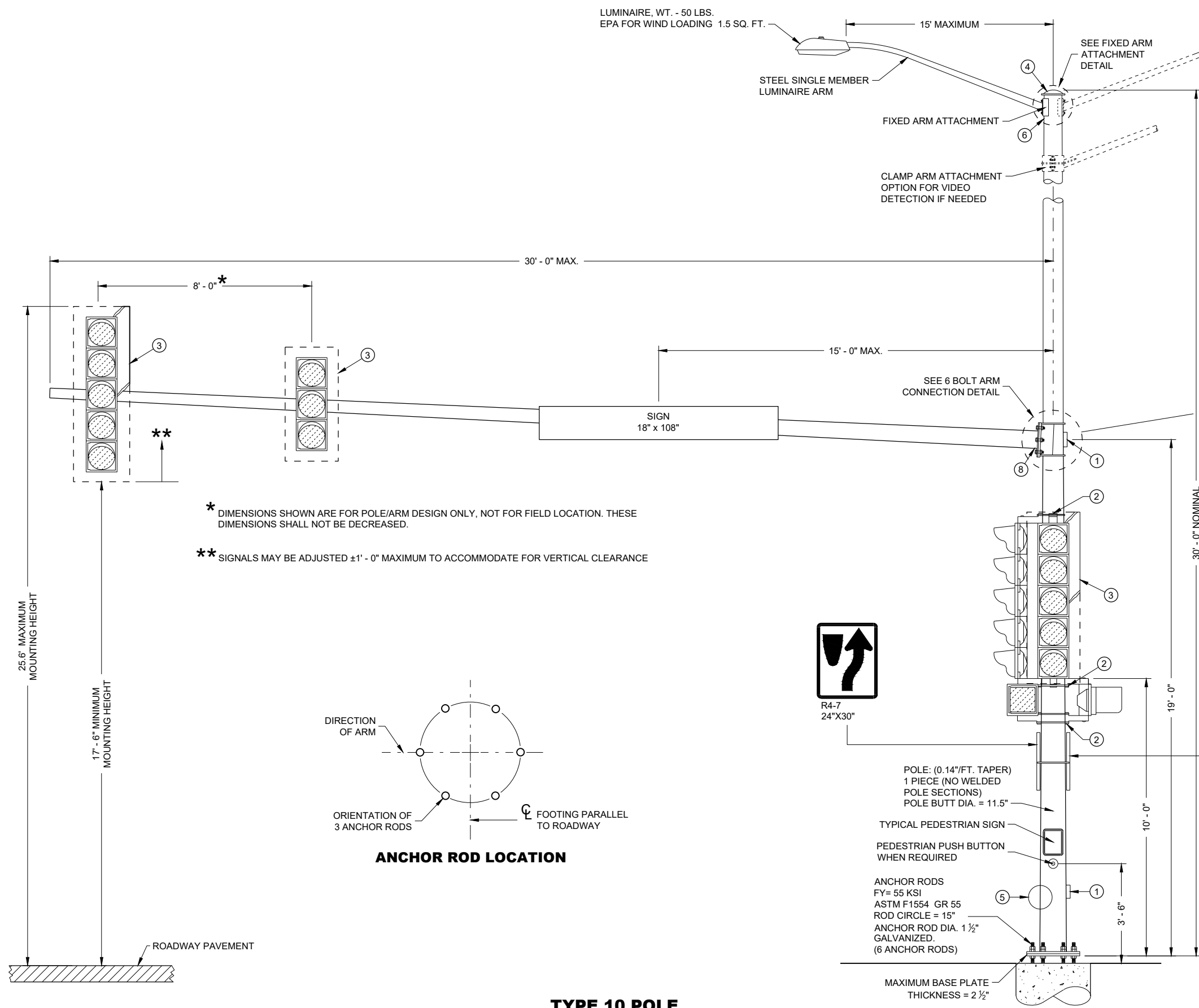
TYPE 9 SPECIAL POLE 40' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

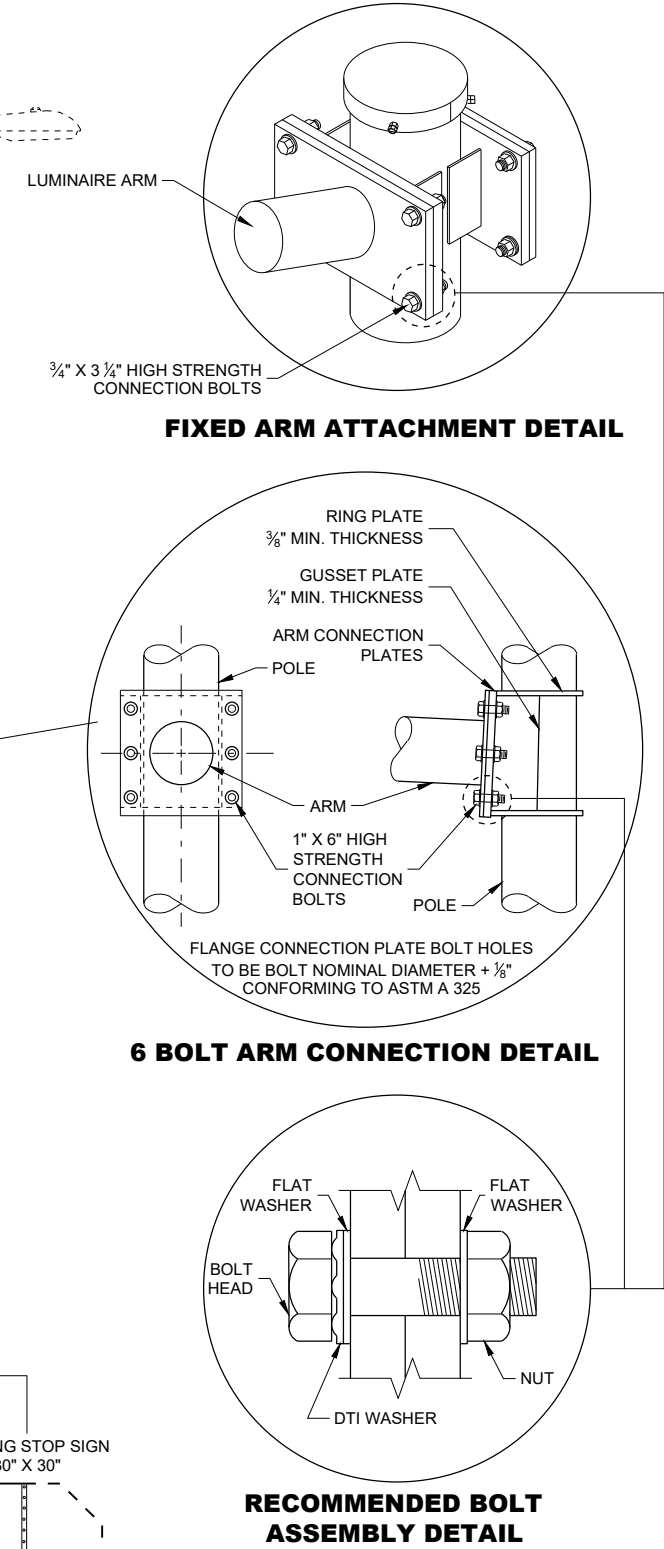
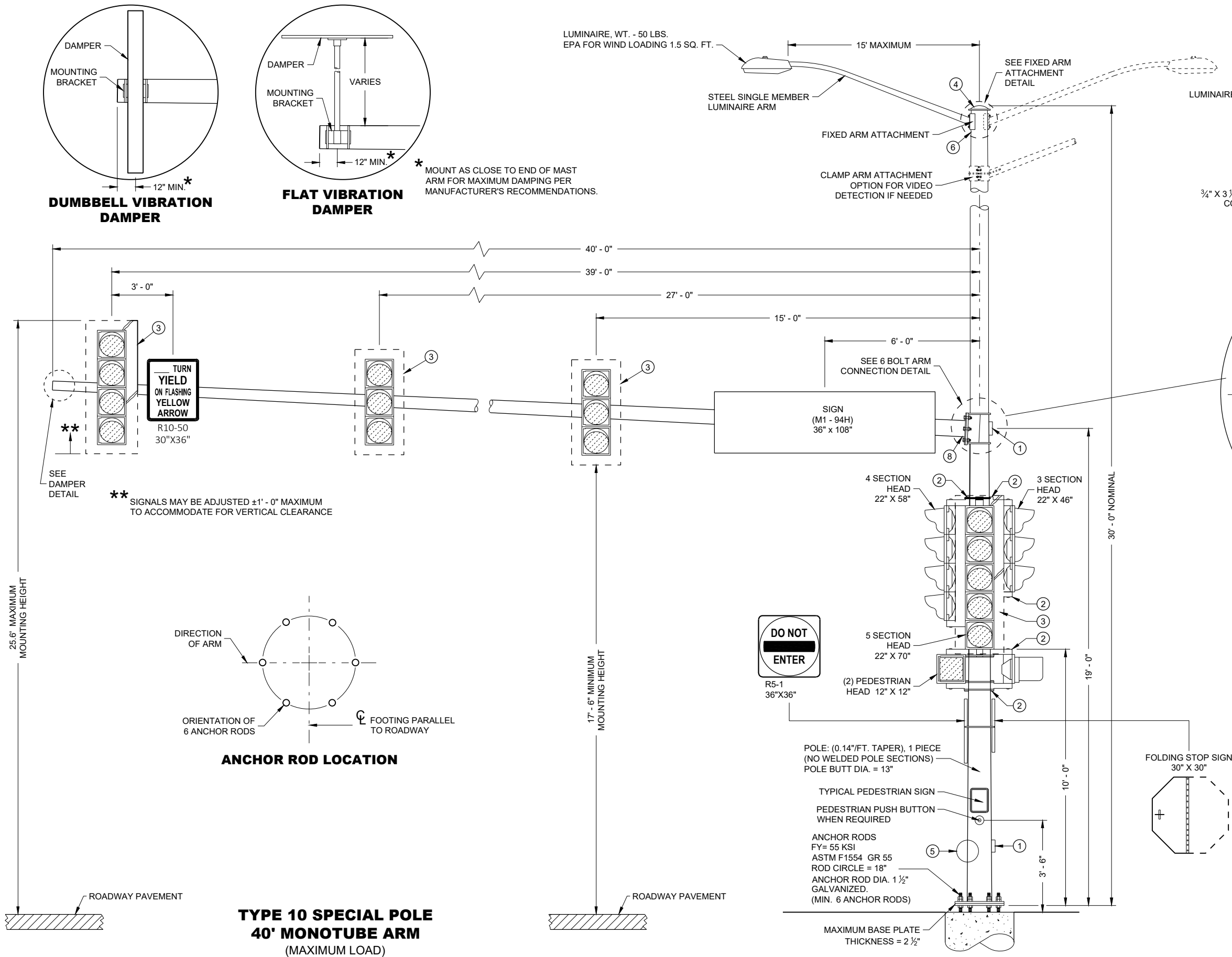
APPROVED
August 2020
DATE

/s/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 263

FHWA



TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Ahmet Demirelek STATE ELECTRICAL ENGI 264
FHWA	



TYPE 10 SPECIAL POLE 40' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGI 265
FHWA	

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

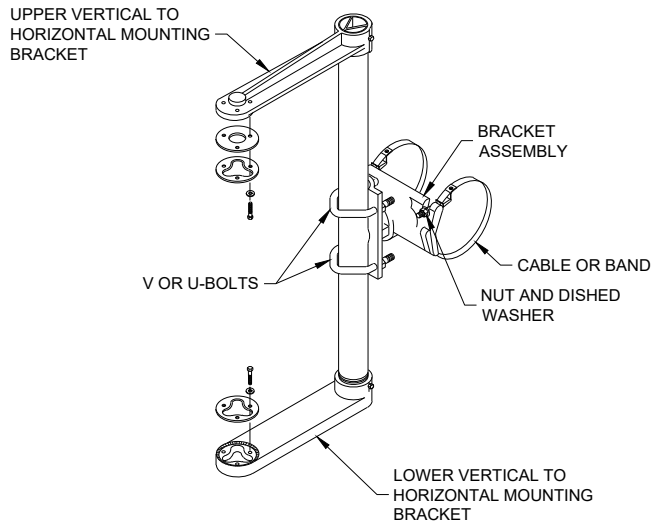
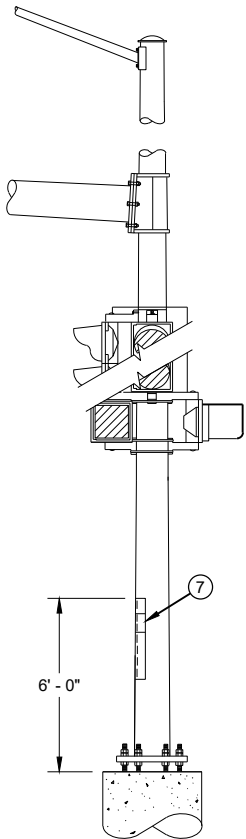
- ① DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- ② SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
- ③ SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.
- ④ THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
- ⑤ FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- ⑥ FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.
- ⑦ INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

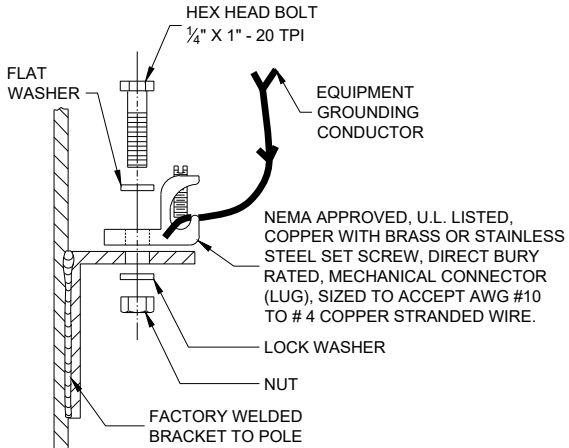
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

- ⑧ FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT

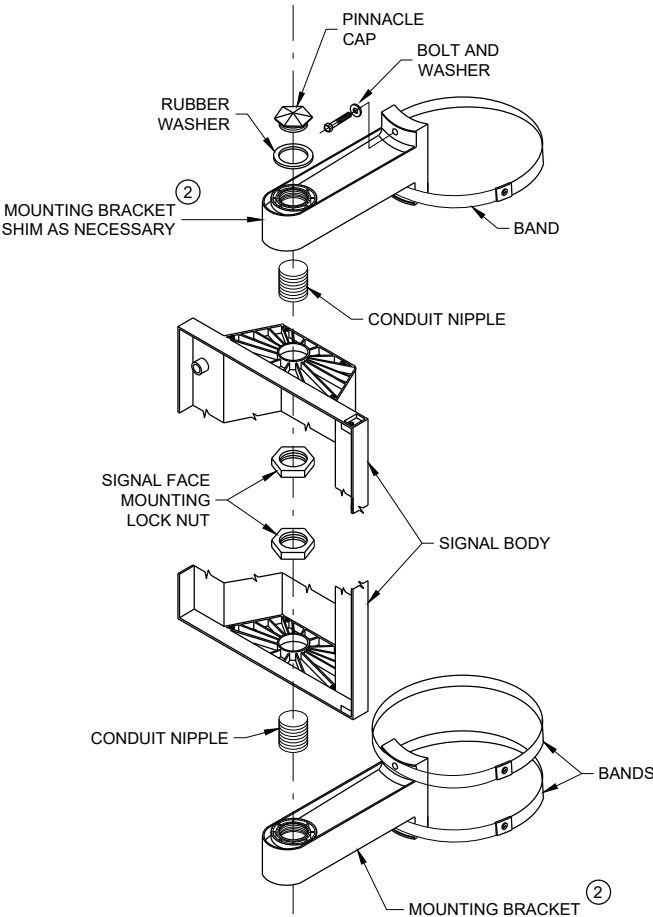


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM
(MOUNT PER MANUFACTURER'S RECOMMENDATION)

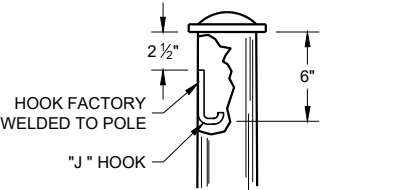


TYPICAL GROUNDING
CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

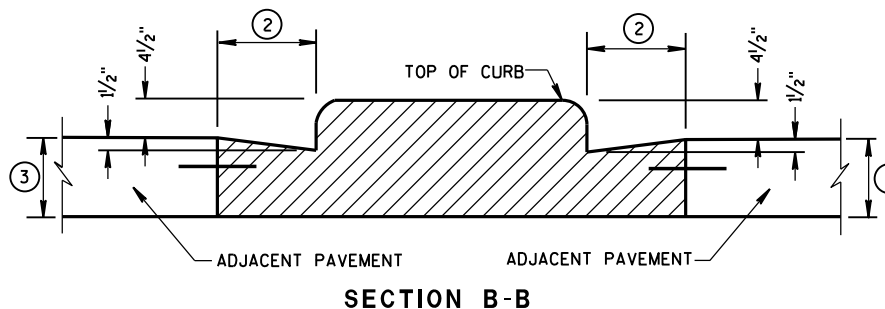
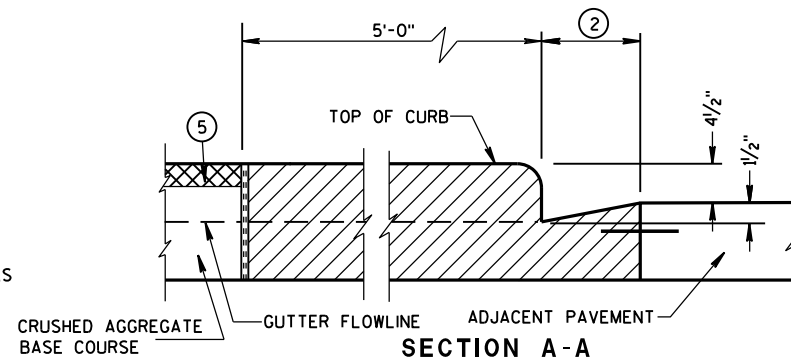
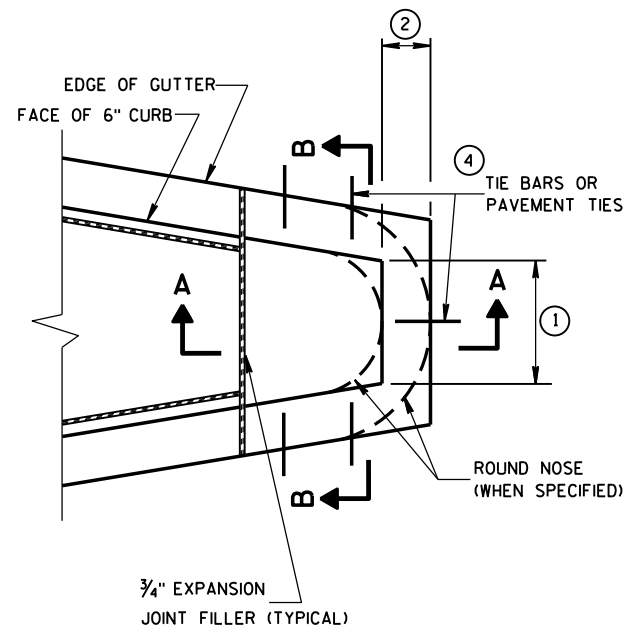
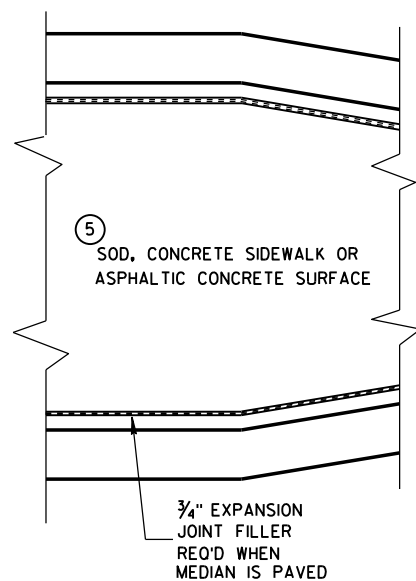


SIGNAL FACE VERTICAL
MOUNTING DETAIL

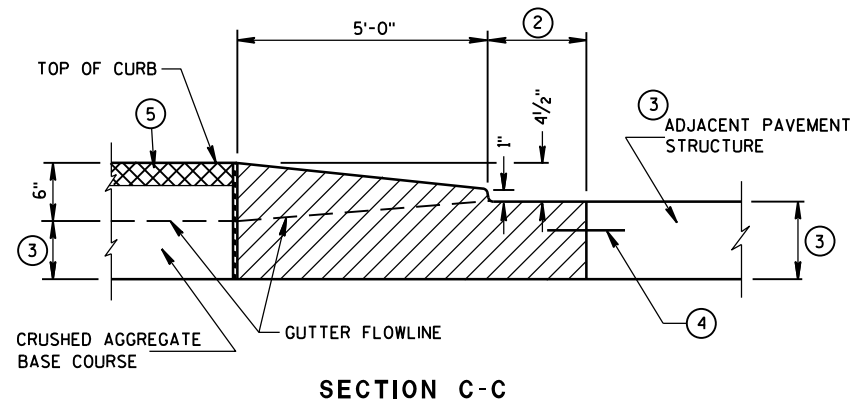
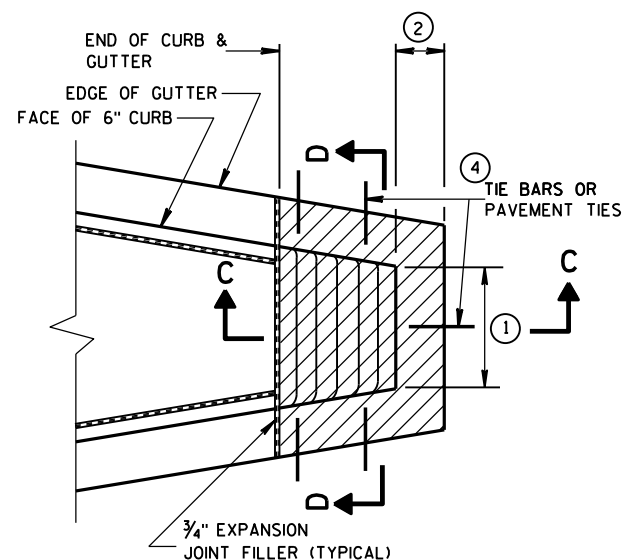
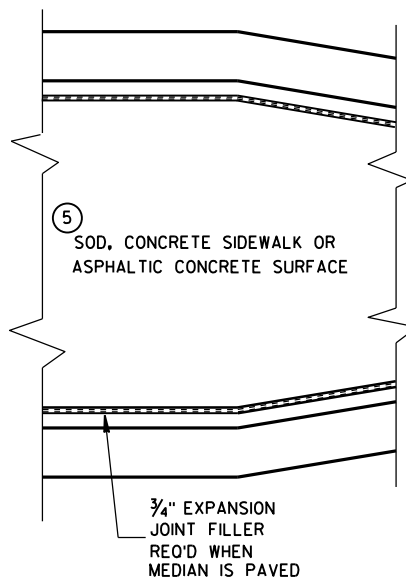


TYPICAL "J" HOOK
WIRE SUPPORT

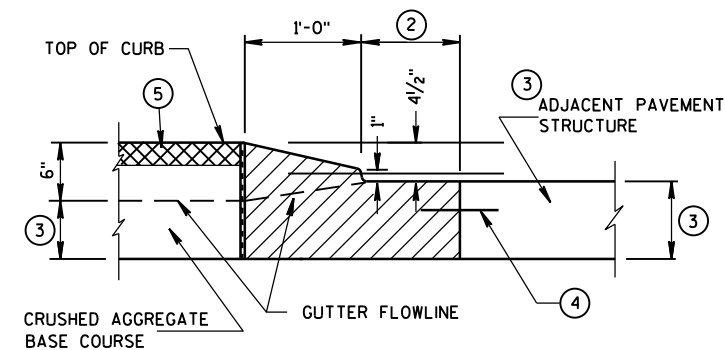
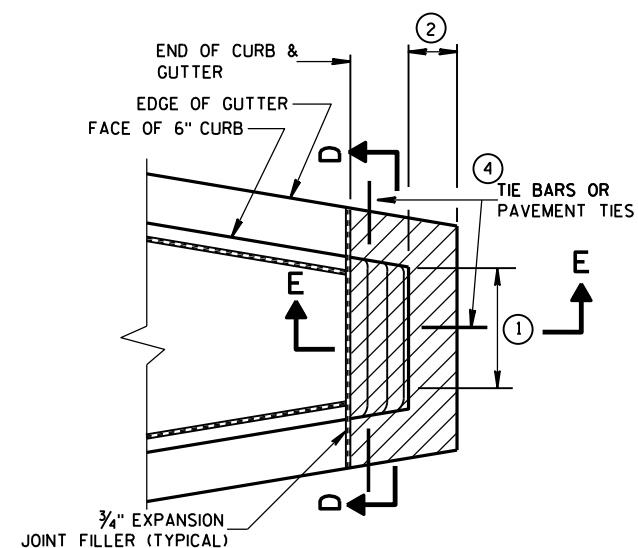
GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED August 2020 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER	266
FHWA		



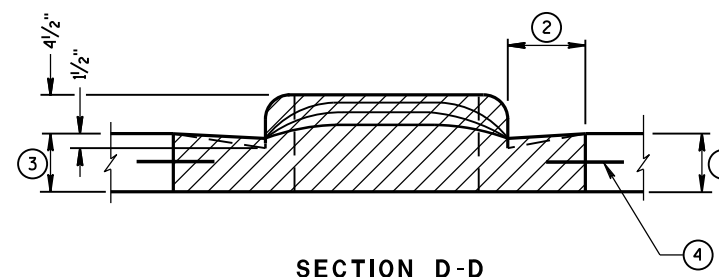
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

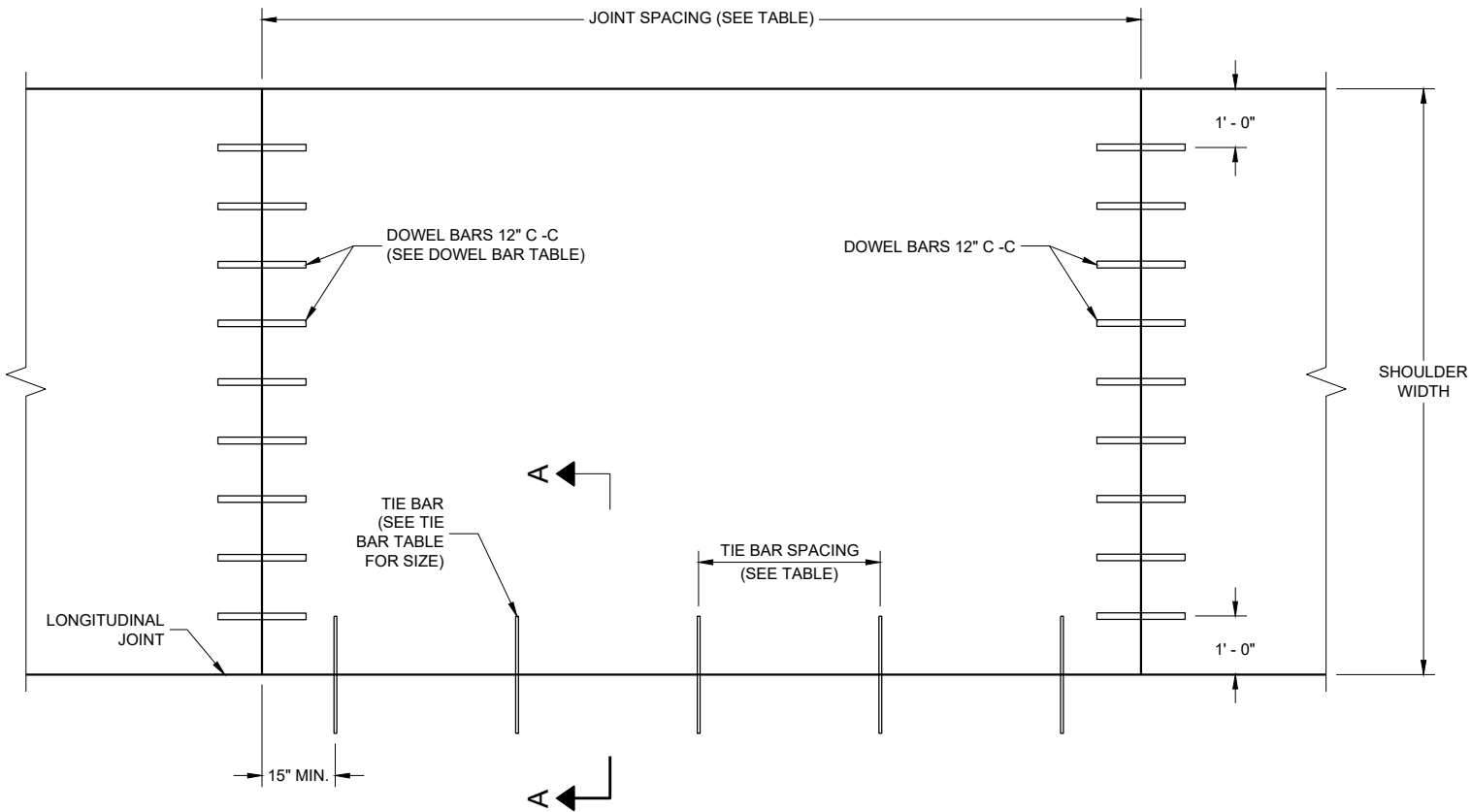
6/8/2006

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS D 267
ENGINEER

4T



PLAN VIEW
CONCRETE PAVEMENT SHOULDER

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
<10 ½"	NO. 4	30"	36"
>10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BATS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES).

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER ***	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12"
7", 7 ½"	1"	14"
8" & ABOVE	1 ¼"	15"

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FRO THE AVERAGE THICKNESS OF THE CROSS SECTION.

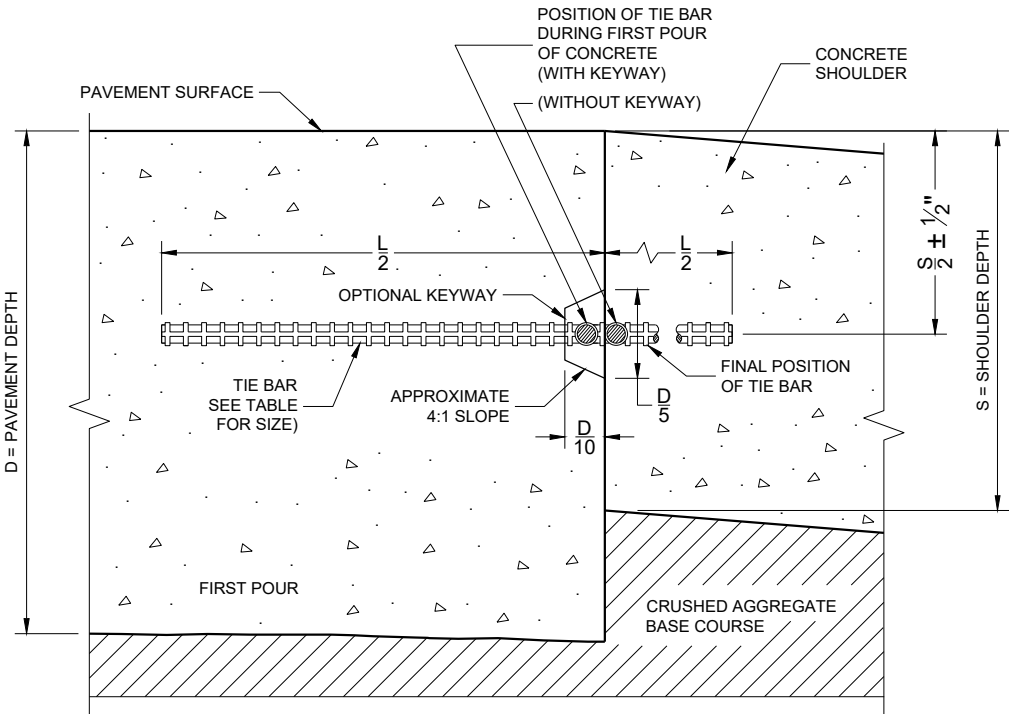
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

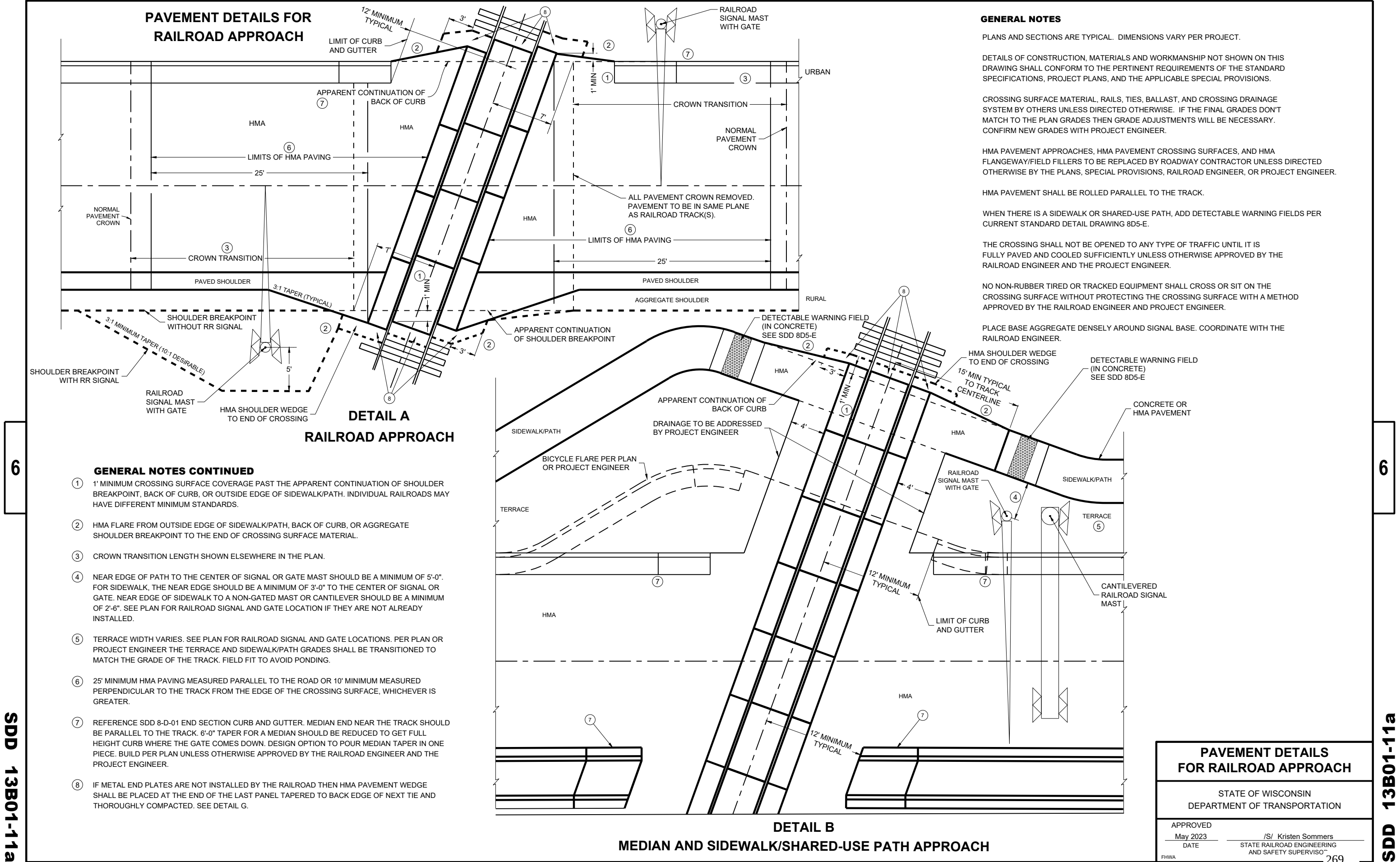


SECTION A - A
LONGITUDINAL CONSTRUCTION JOINT

CONCRETE PAVEMENT
SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Peter Kemp
DATE PAVEMENT SUPERVISOR 268
FHWA



6

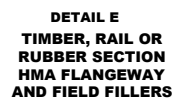
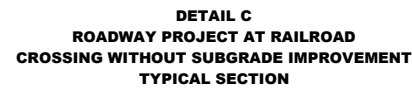
SDD 13B01-11a

6

SDD 13B01-11a

PAVEMENT DETAILS FOR RAILROAD APPROACH	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Kristen Sommers STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR
FHWA 269	

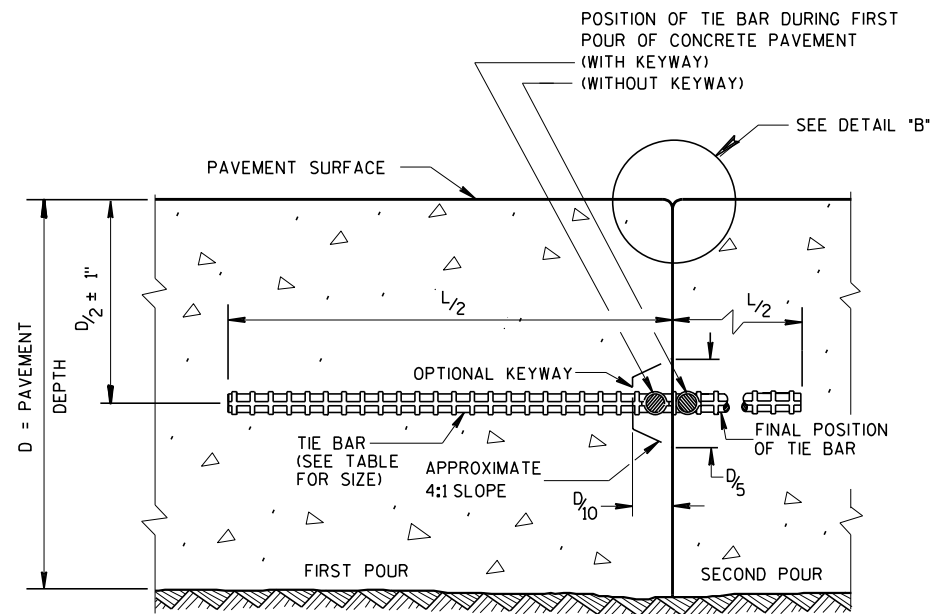
6



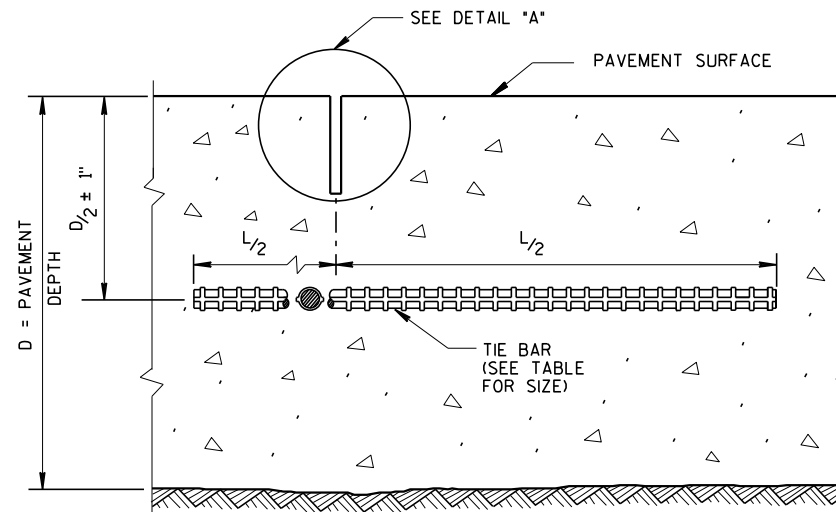
- 6

APPROVED
May 2023
DATE

/s/ Kristen Sommers
STATE RAILROAD ENGINEERING
AND SAFETY SUPERVISOR



CONSTRUCTION JOINT



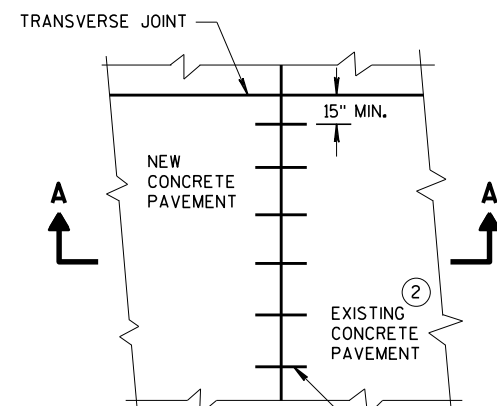
SAWED JOINT

GENERAL NOTES

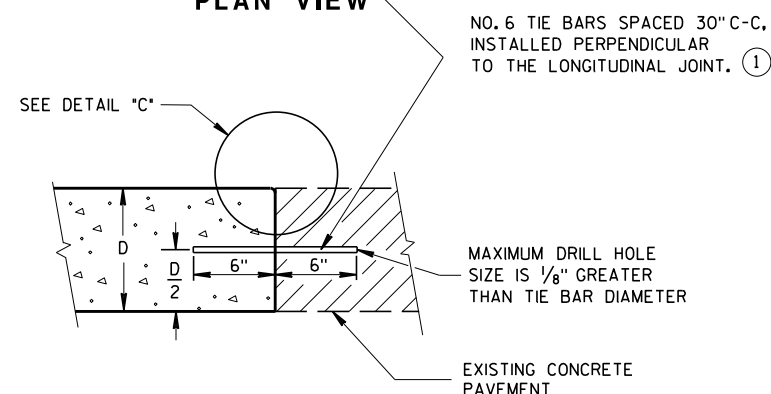
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

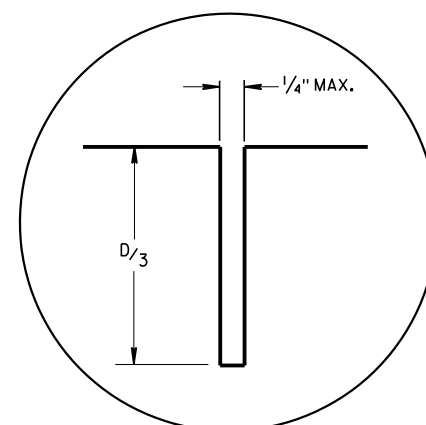
- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



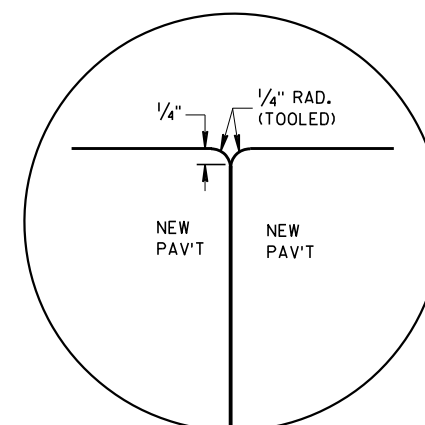
PLAN VIEW



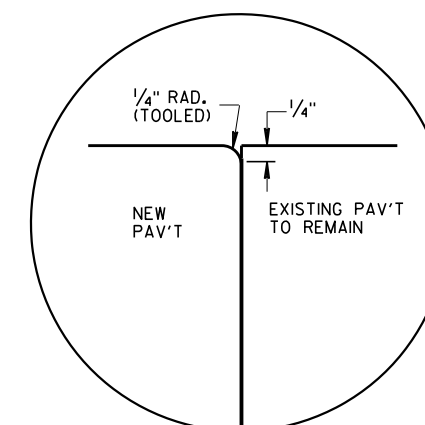
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



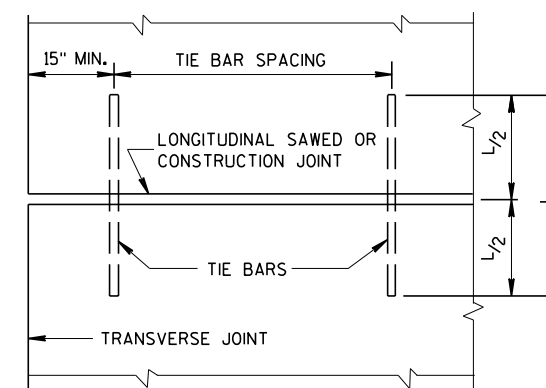
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

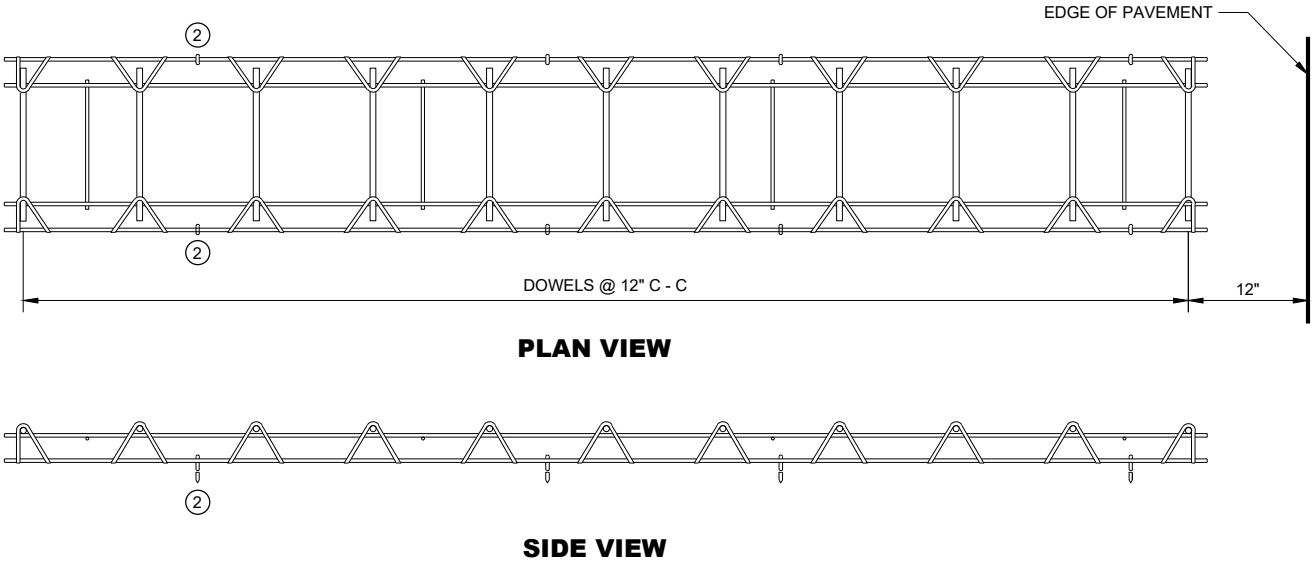


PLAN VIEW
SHOWING LOCATION OF TIE BARS

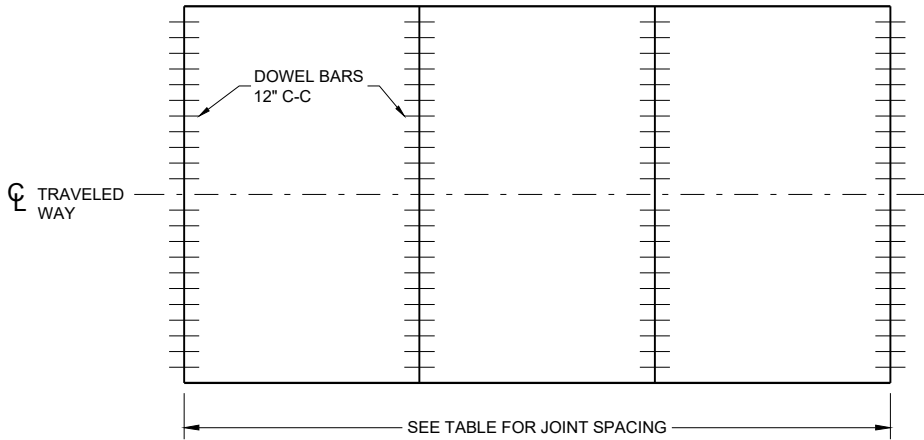
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

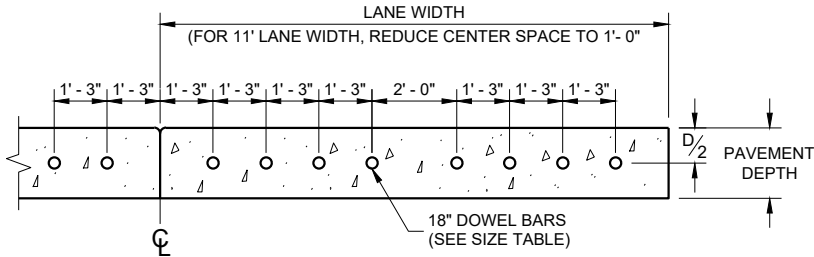
APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 271
FHWA



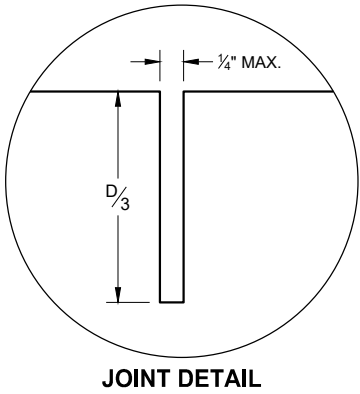
CONTRACTION JOINT DOWEL ASSEMBLY ①



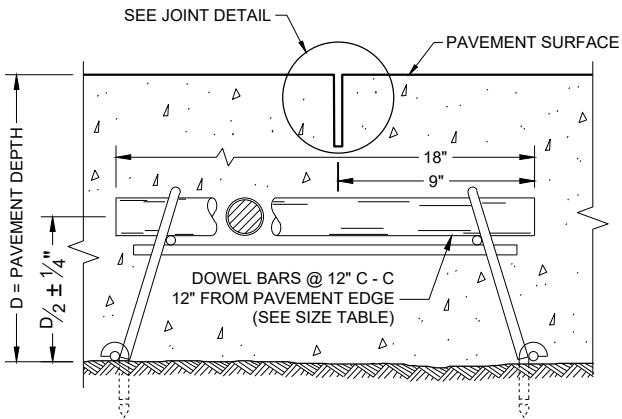
CONTRACTION JOINT LOCATIONS



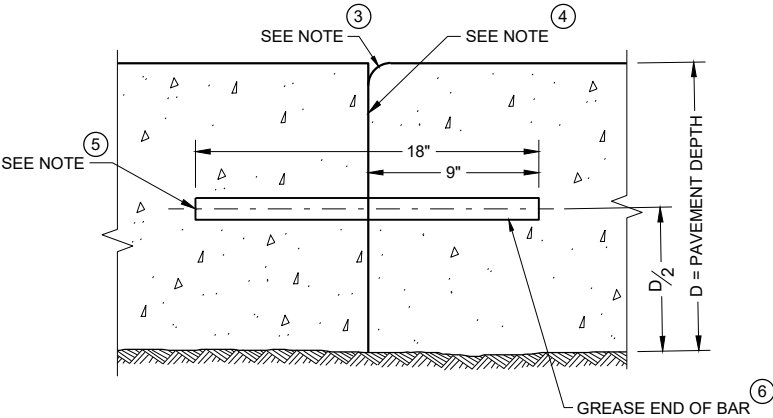
DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4" RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

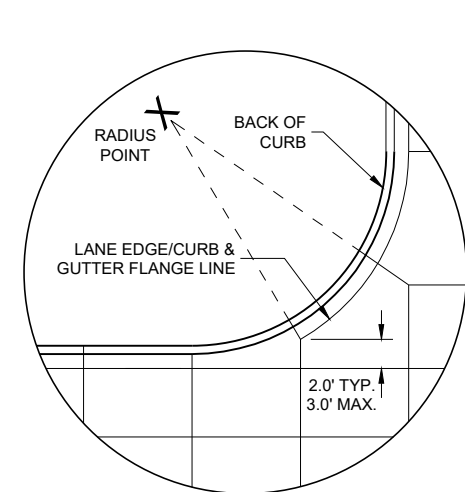
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8" & ABOVE	1 1/4"	15'

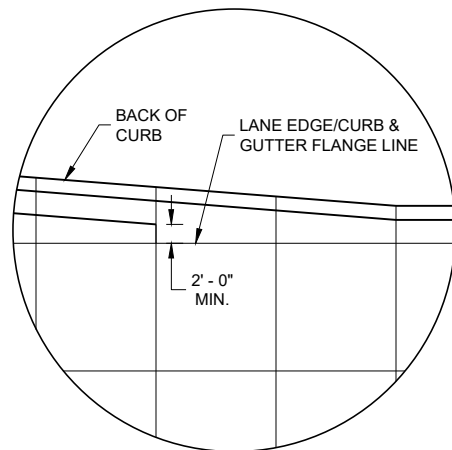
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

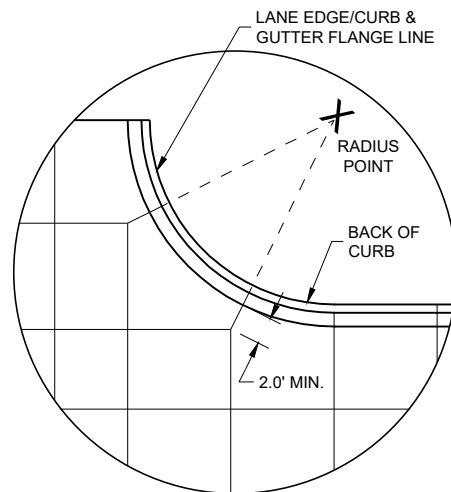
APPROVED
November 2022 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR 272
FHWA



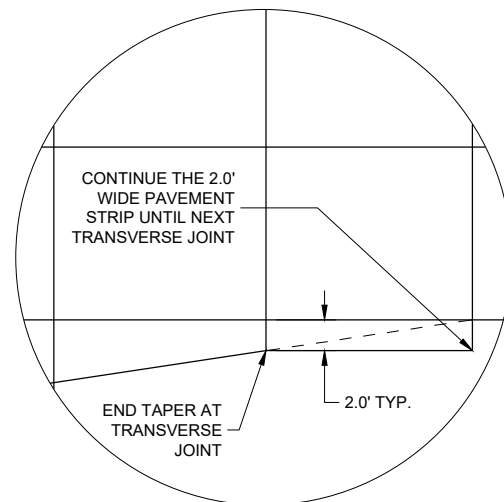
DETAIL "A"



DETAIL "B"



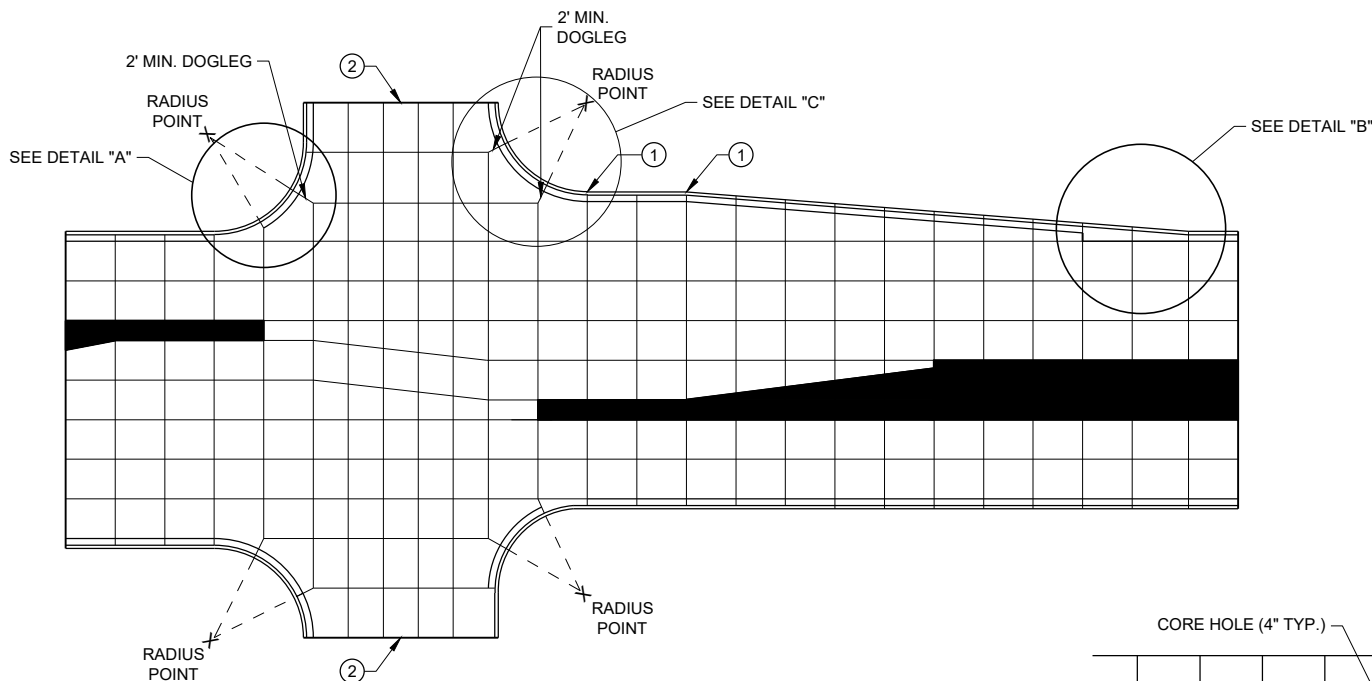
DETAIL "C"



DETAIL "D"

GENERAL NOTES

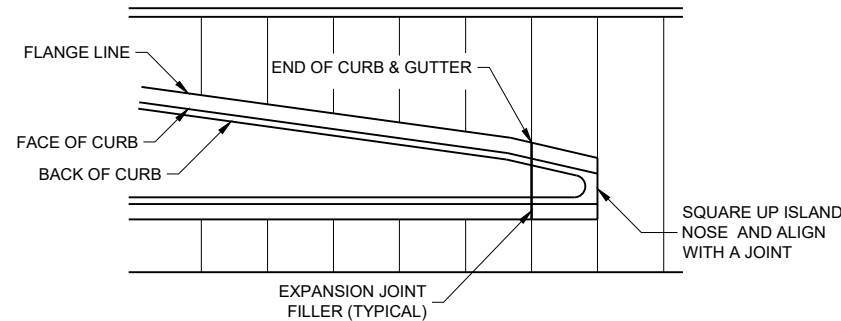
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- 1 PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
 - 2 CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
 - 3 THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



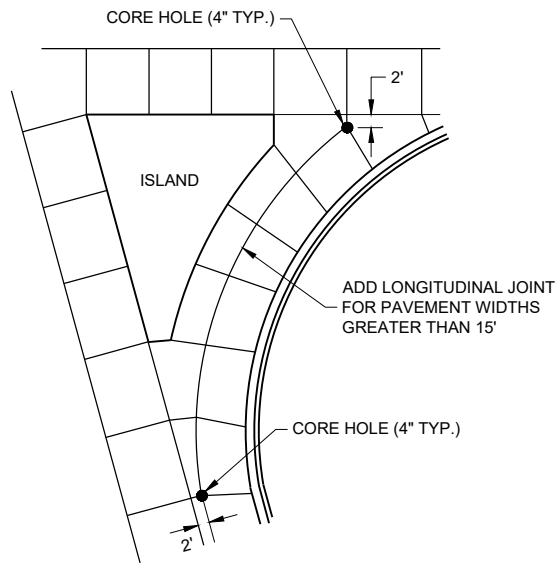
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

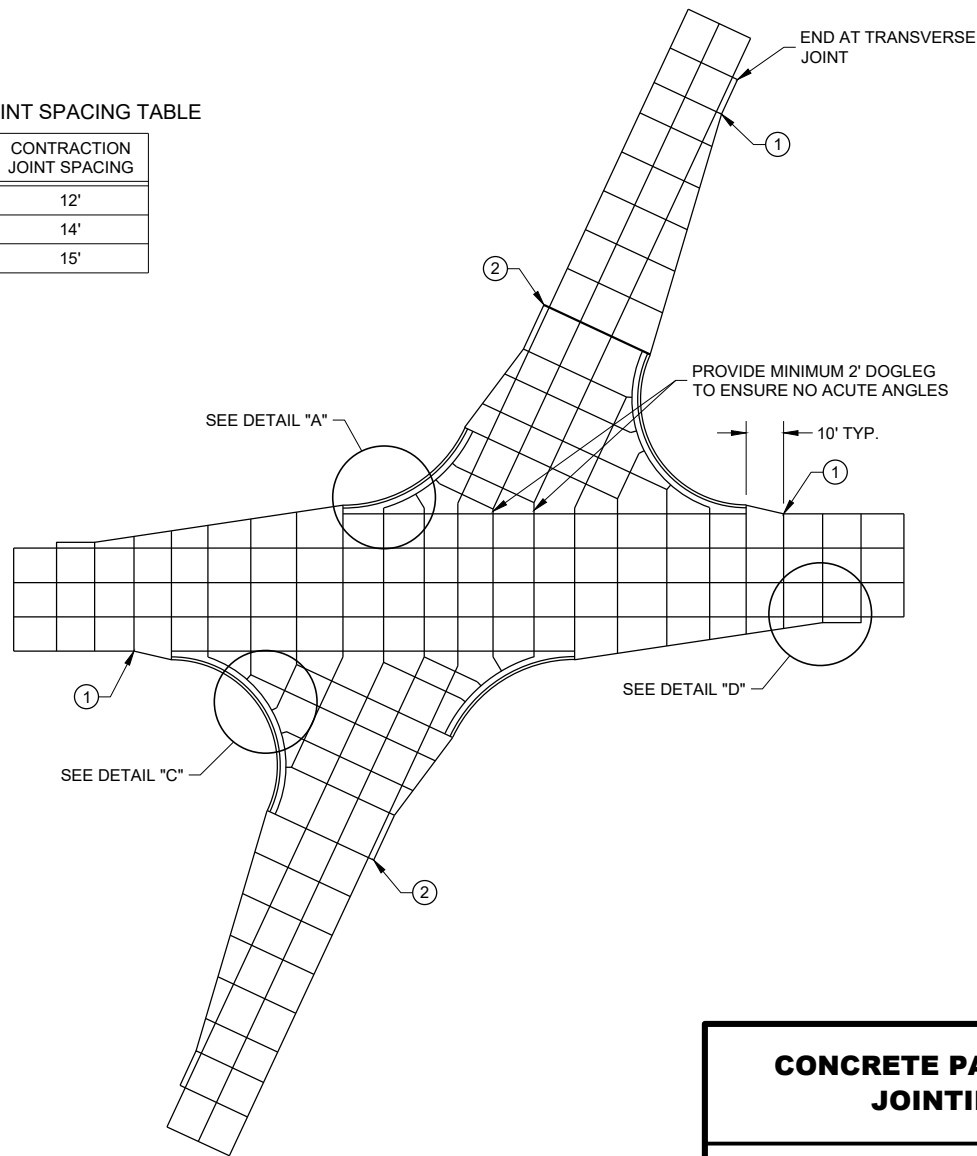
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



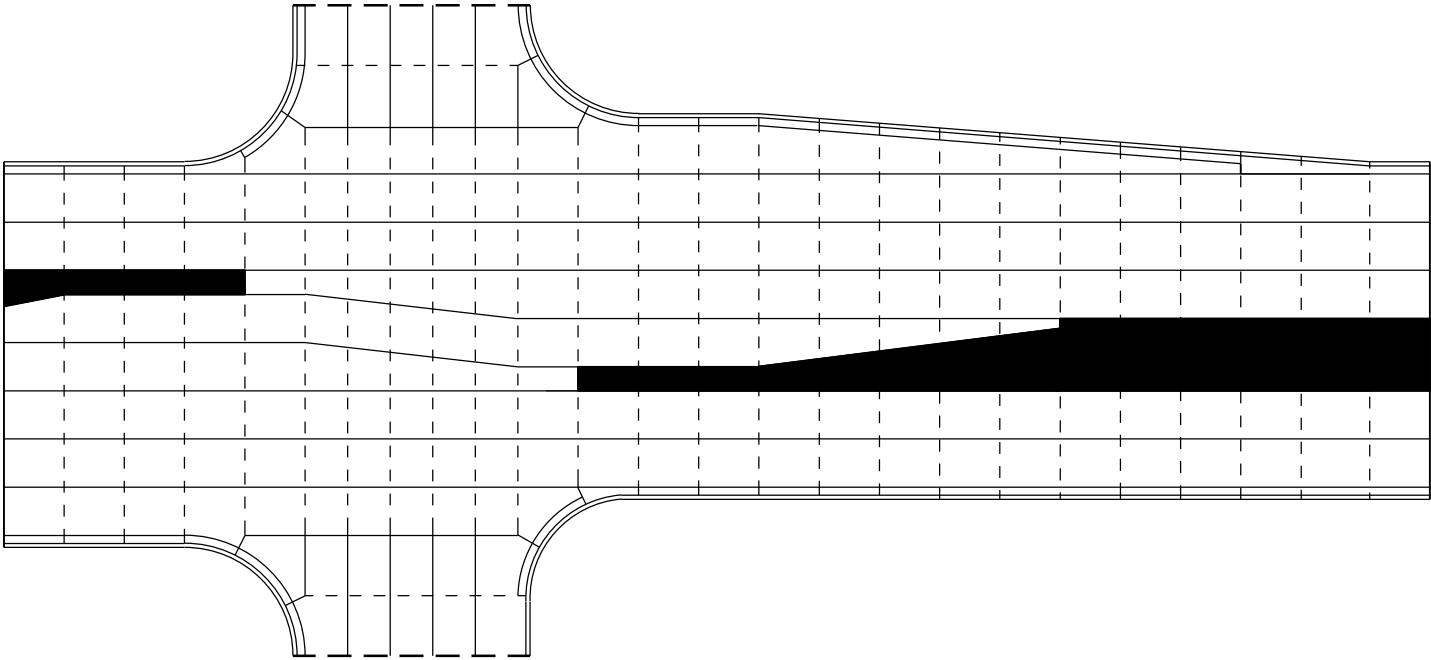
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

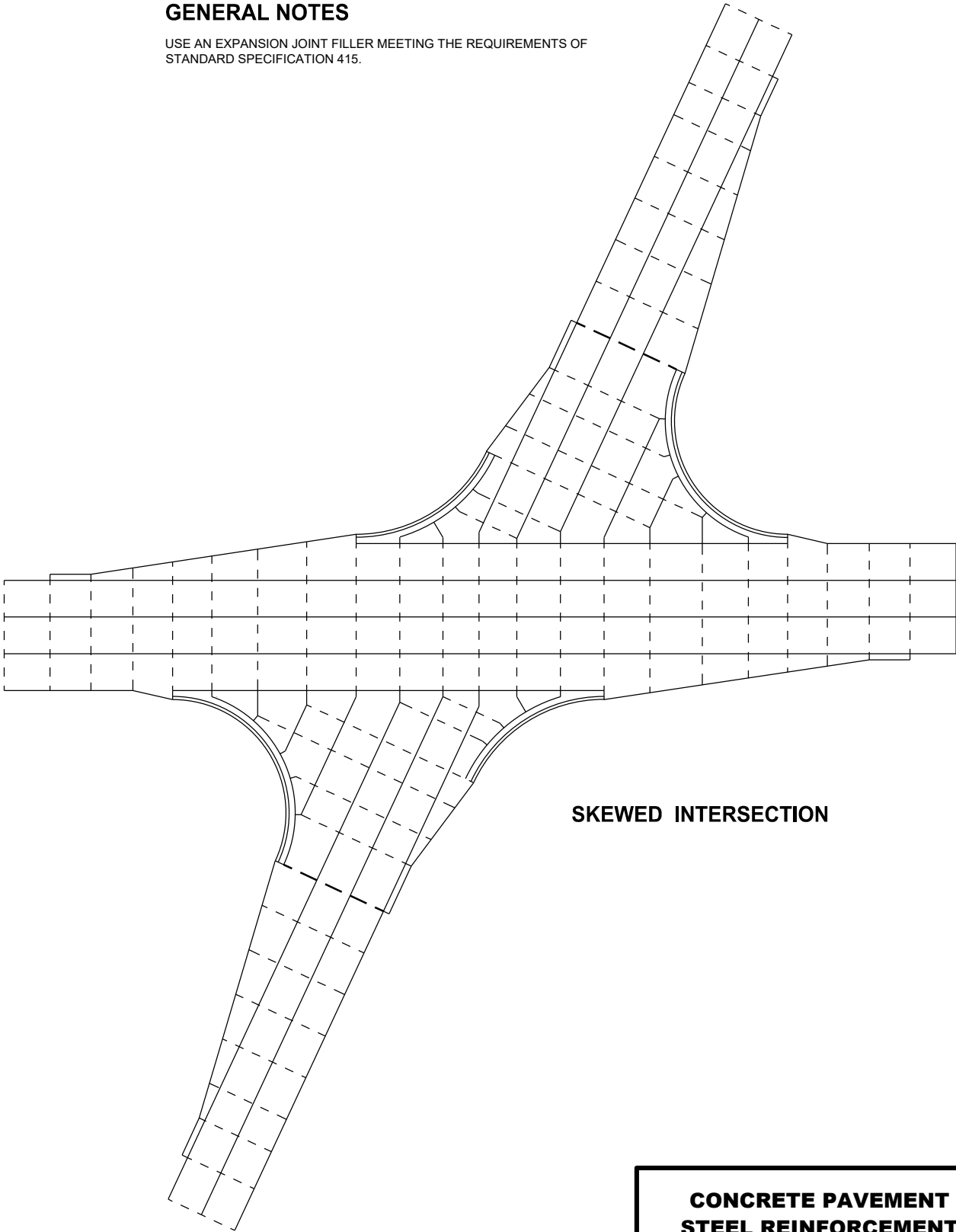
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

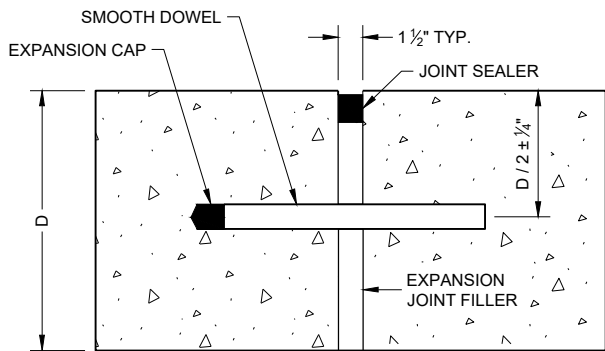
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



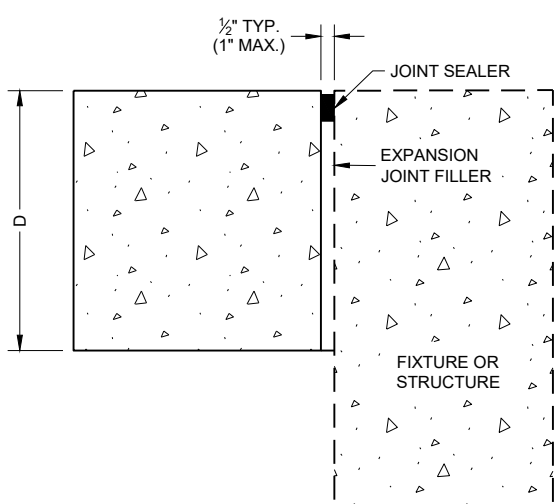
SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 274

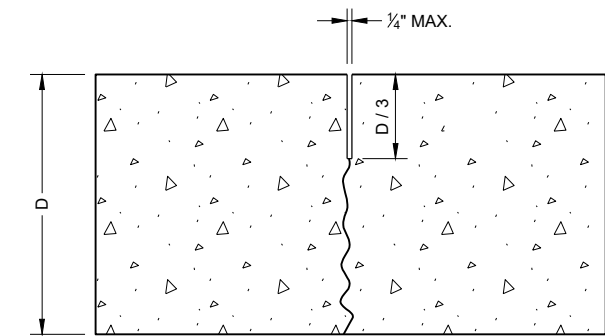


DOWELED TRANSVERSE ①

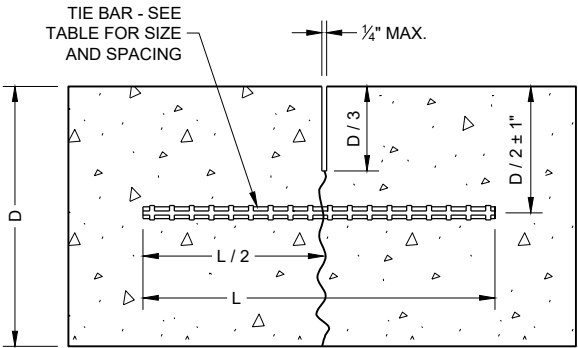


UNTIED - LONGITUDINAL

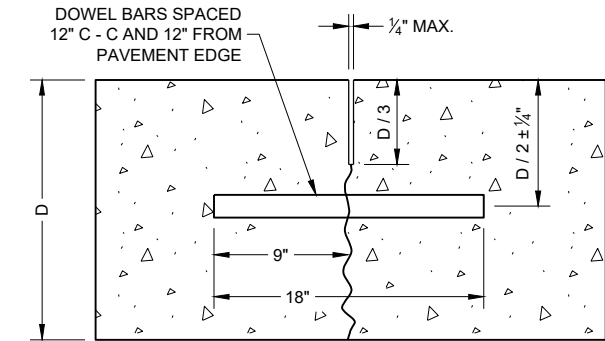
EXPANSION JOINTS



UNDOWELED TRANSVERSE



TIED LONGITUDINAL



DOWELED TRANSVERSE

CONTRACTION JOINTS ②

TIE BAR TABLE

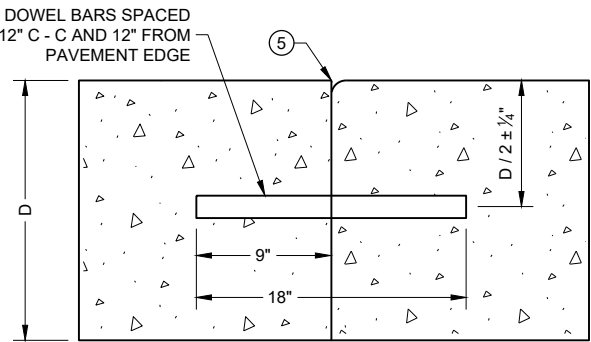
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

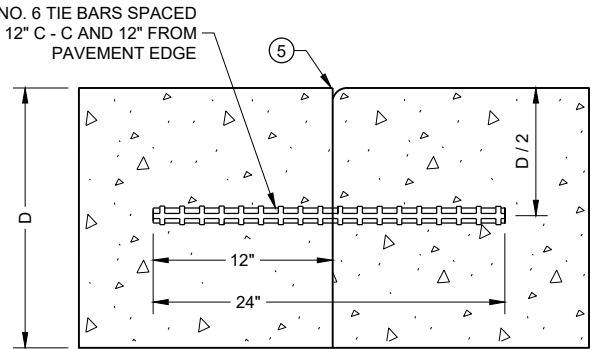
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

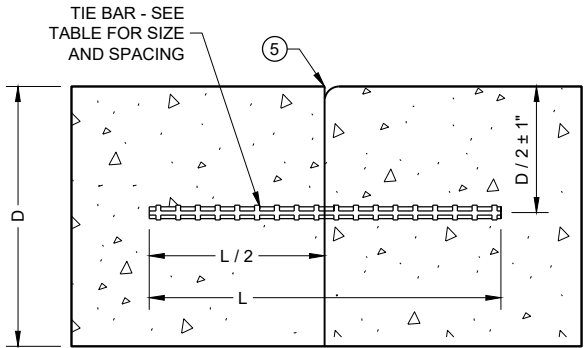
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- ④ CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- ⑤ IF JOINT IS FORMED, PROVIDE A 1/4" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



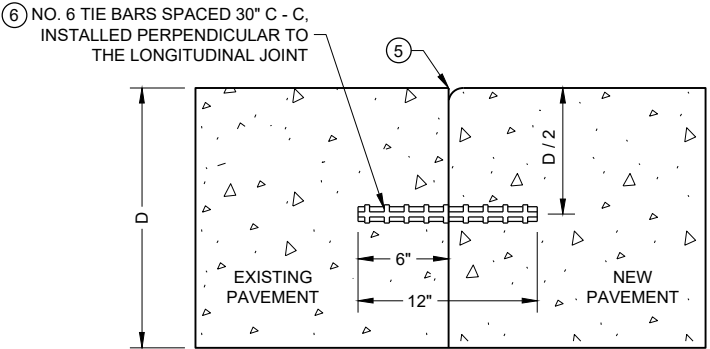
DOWELED TRANSVERSE ③



TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL

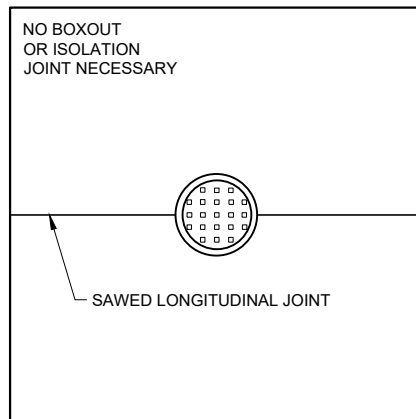


TIED LONGITUDINAL TO EXISTING

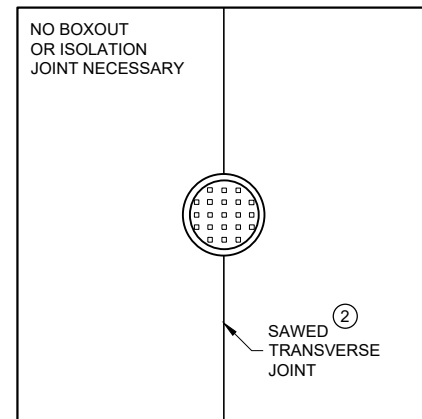
CONSTRUCTION JOINTS ④

**CONCRETE PAVEMENT
JOINT TYPES**

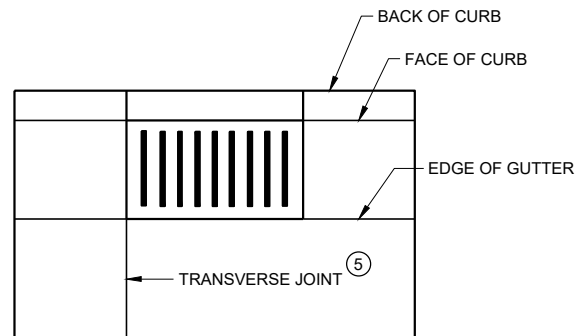
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 275



**MANHOLE WITH
LONGITUDINAL JOINT**



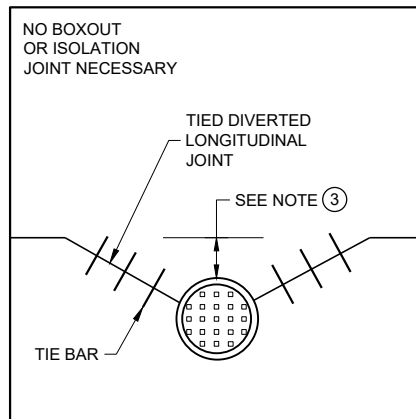
**MANHOLE WITH
TRANSVERSE JOINT**



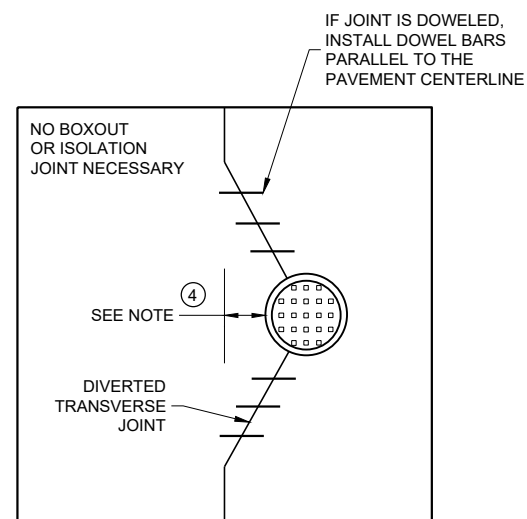
**INLET WITH
TRANSVERSE JOINT**

GENERAL NOTES

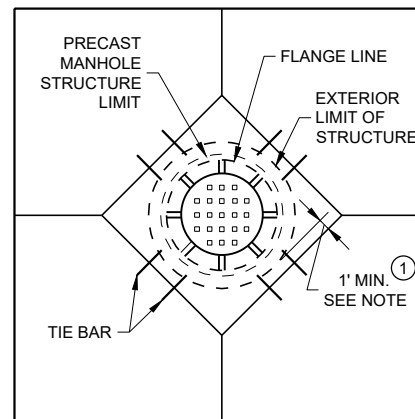
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**



**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**

**CONCRETE PAVEMENT
JOINTING AT UTILITY
FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR 276

FHWA

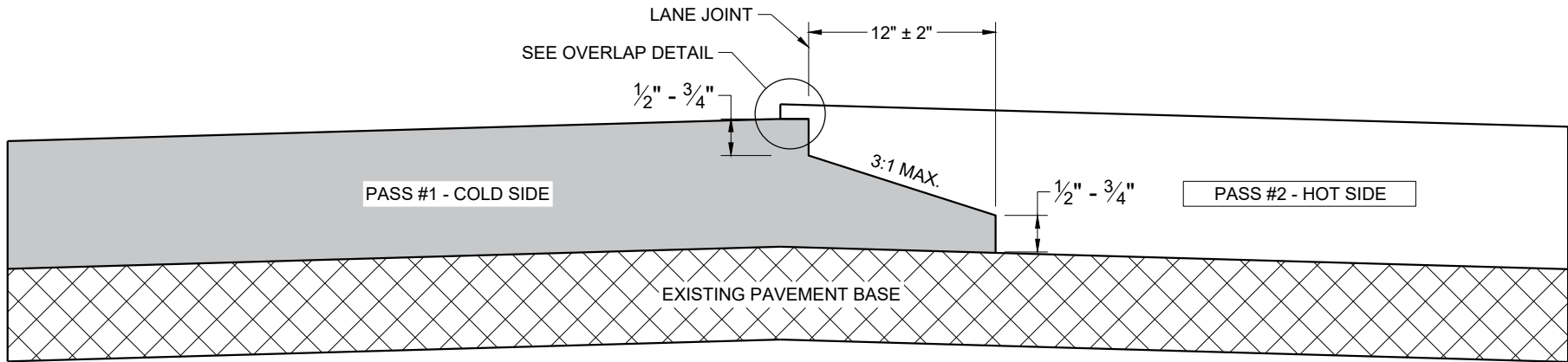
	DOWELED JOINT
	TIED JOINT
	EXPANSION JOINT
	POTENTIAL DOWELED EXPANSION JOINT
	DIRECTION OF TRAFFIC

- ① CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

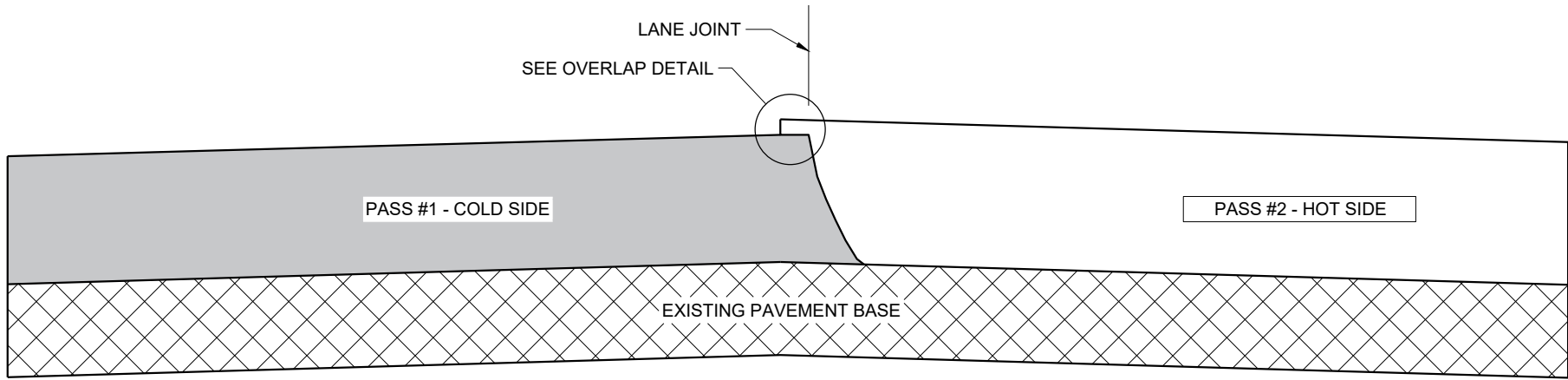


APPROVED
May 2023 /S/ Peter Kemp P.E.
 DATE PAVEMENT SUPERVISOR 277

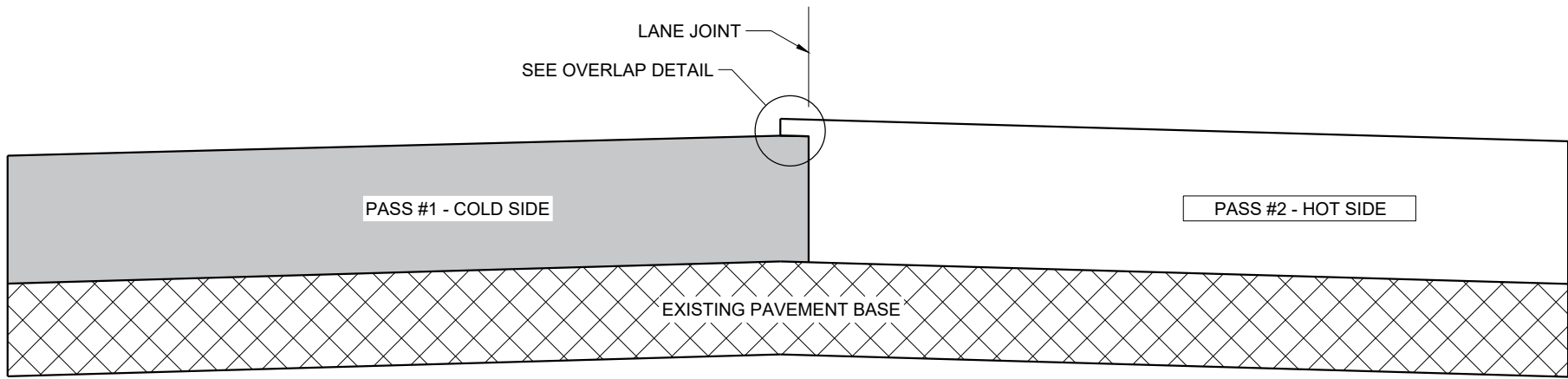
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

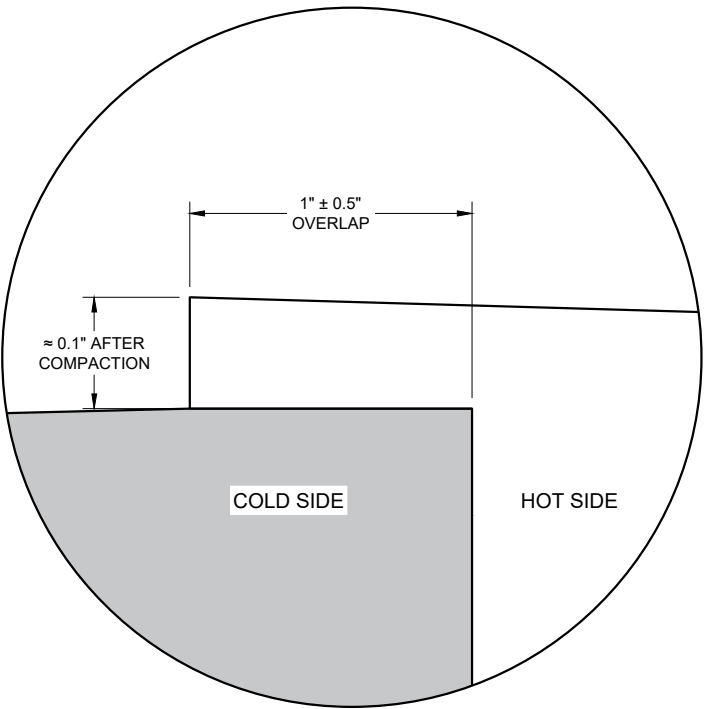
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



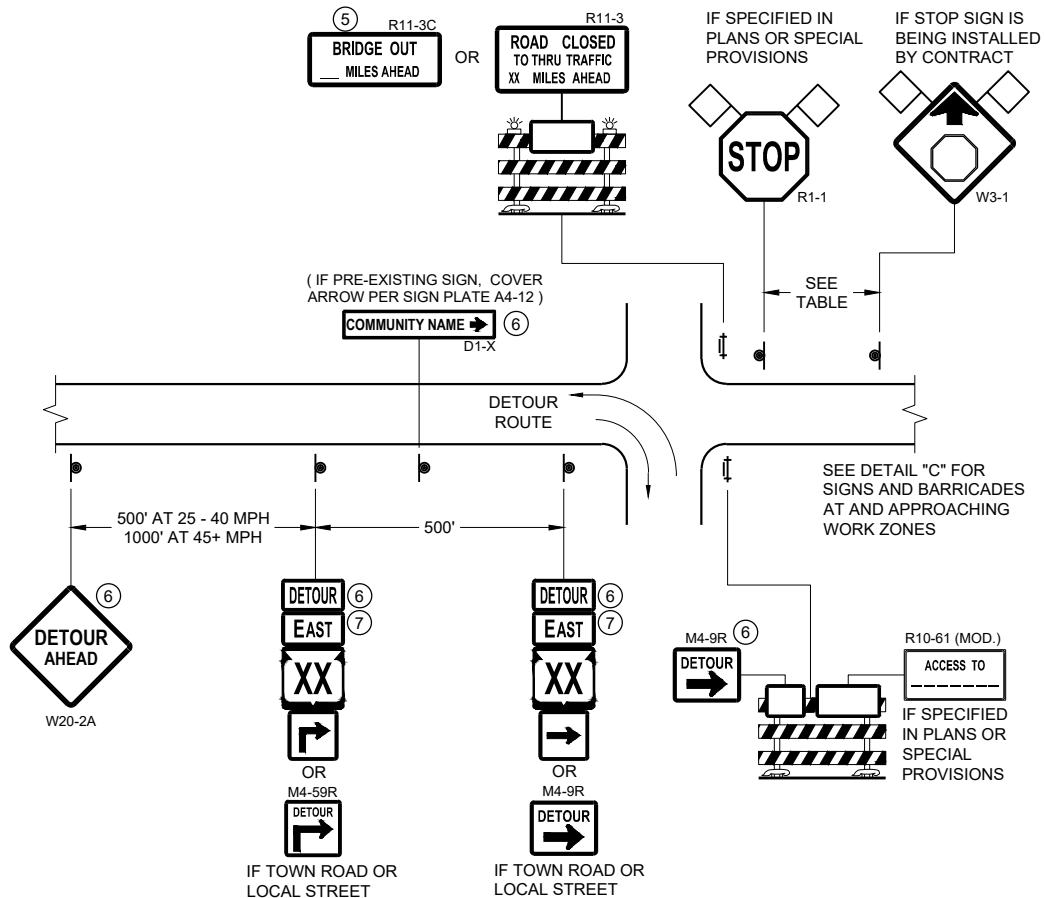
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

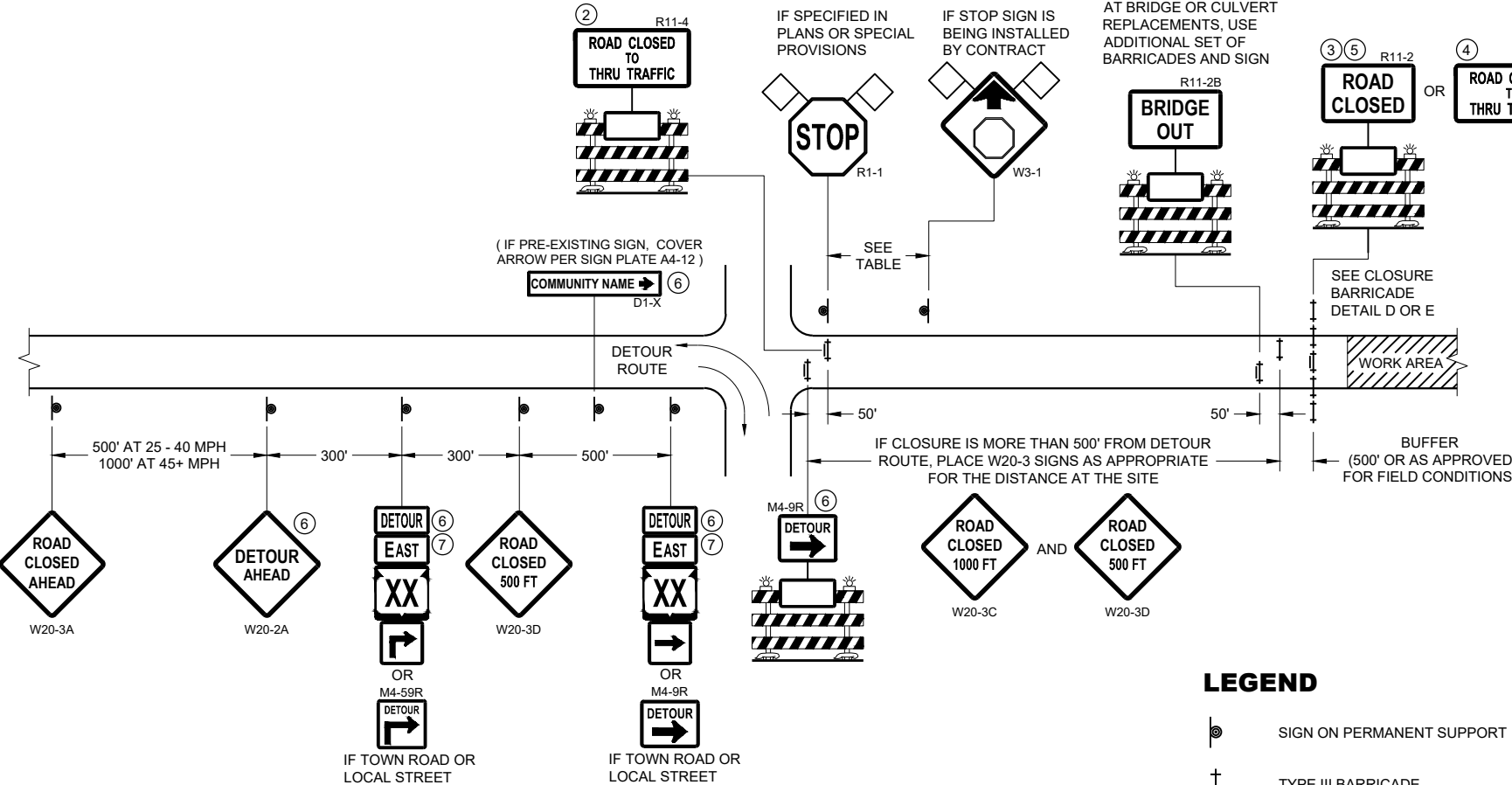
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 278

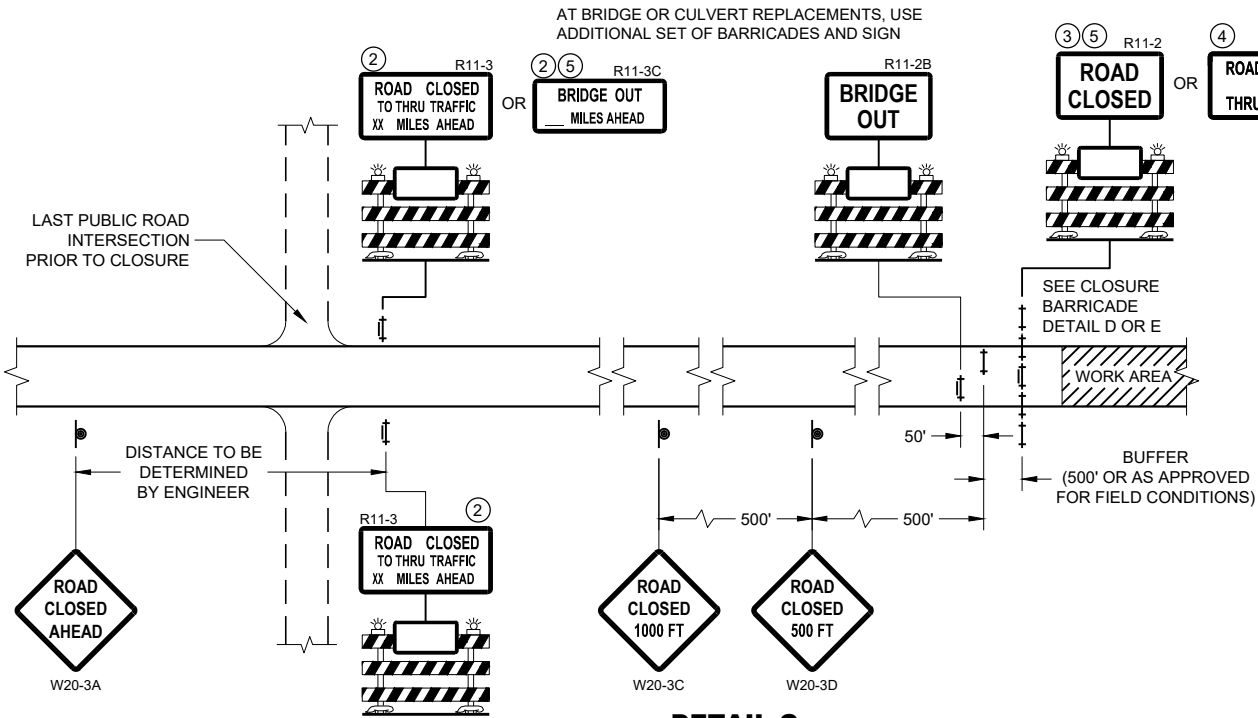
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

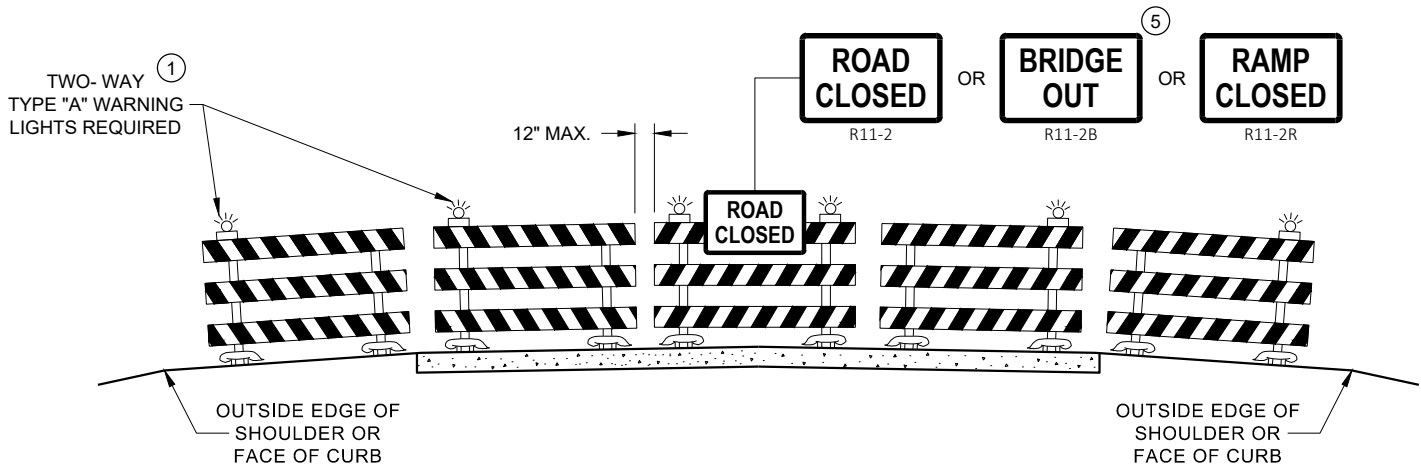
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

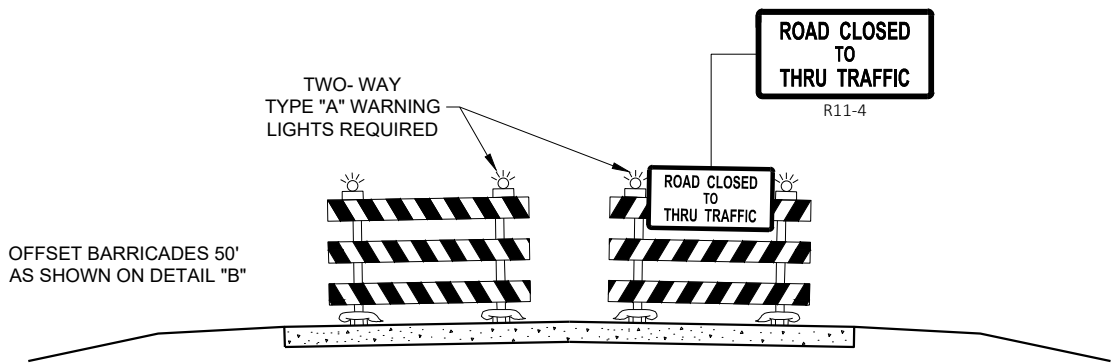
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 279
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

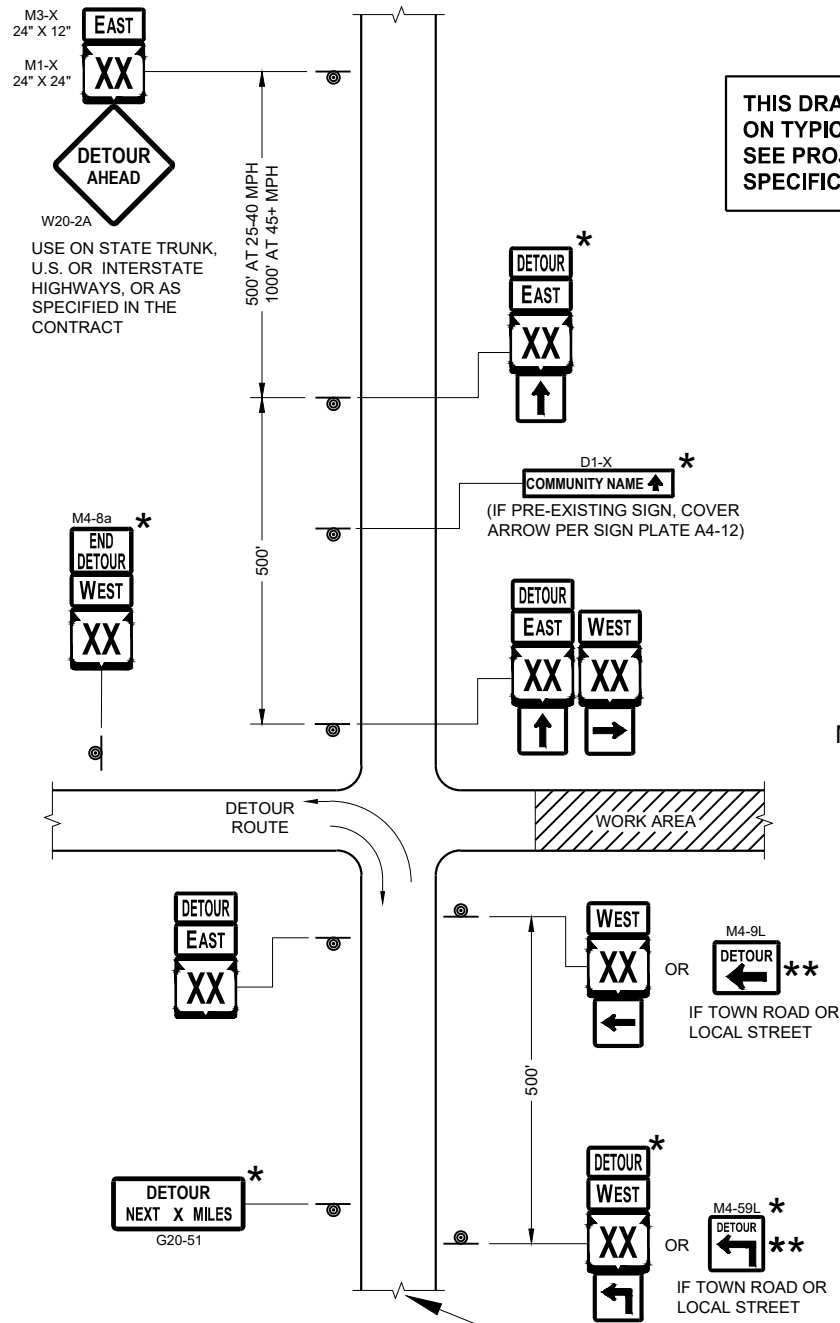
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 280

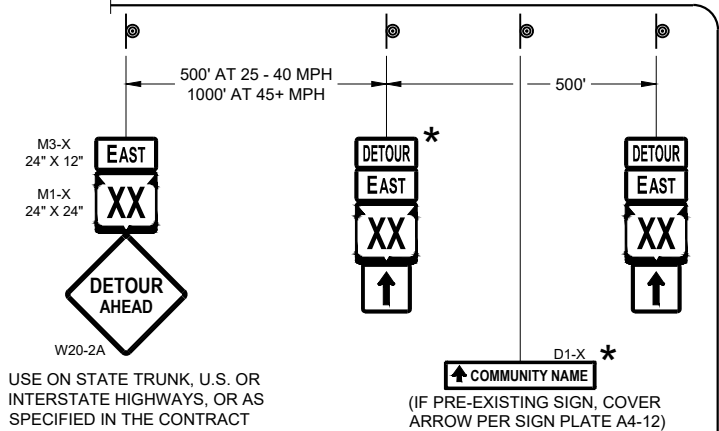
FHWA



SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST M4 - 8
- DETOUR WEST M3 - X
- DETOUR AHEAD M1 - 4 OR M1 - 6 OR M1 - 5A
- DETOUR NEXT X MILES M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

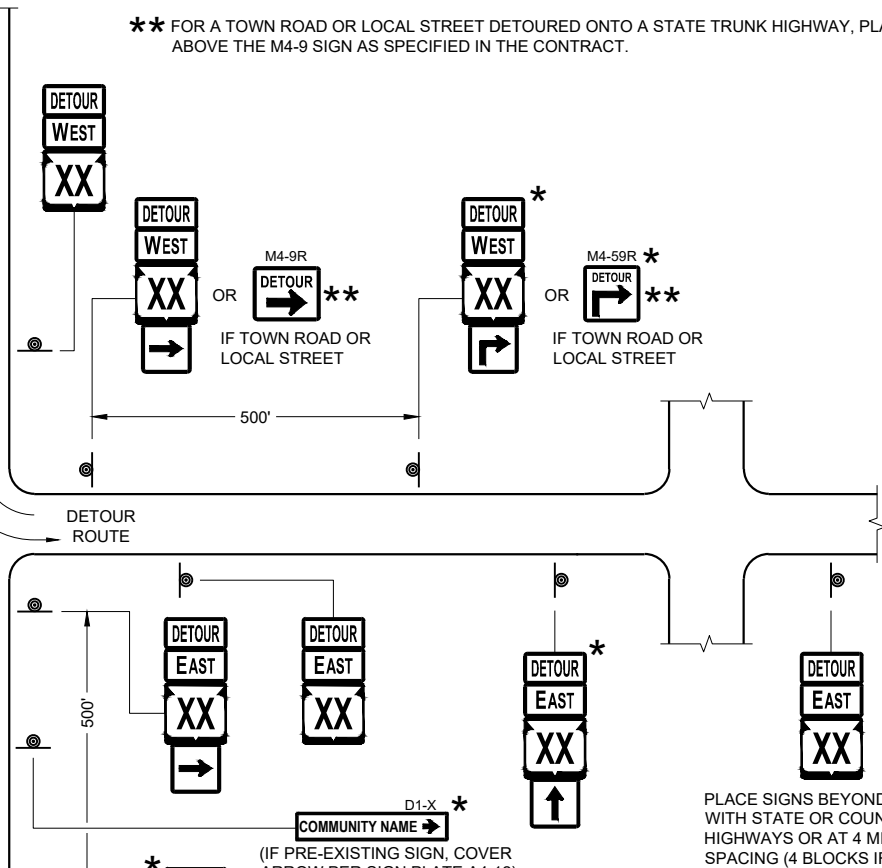
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-9R SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



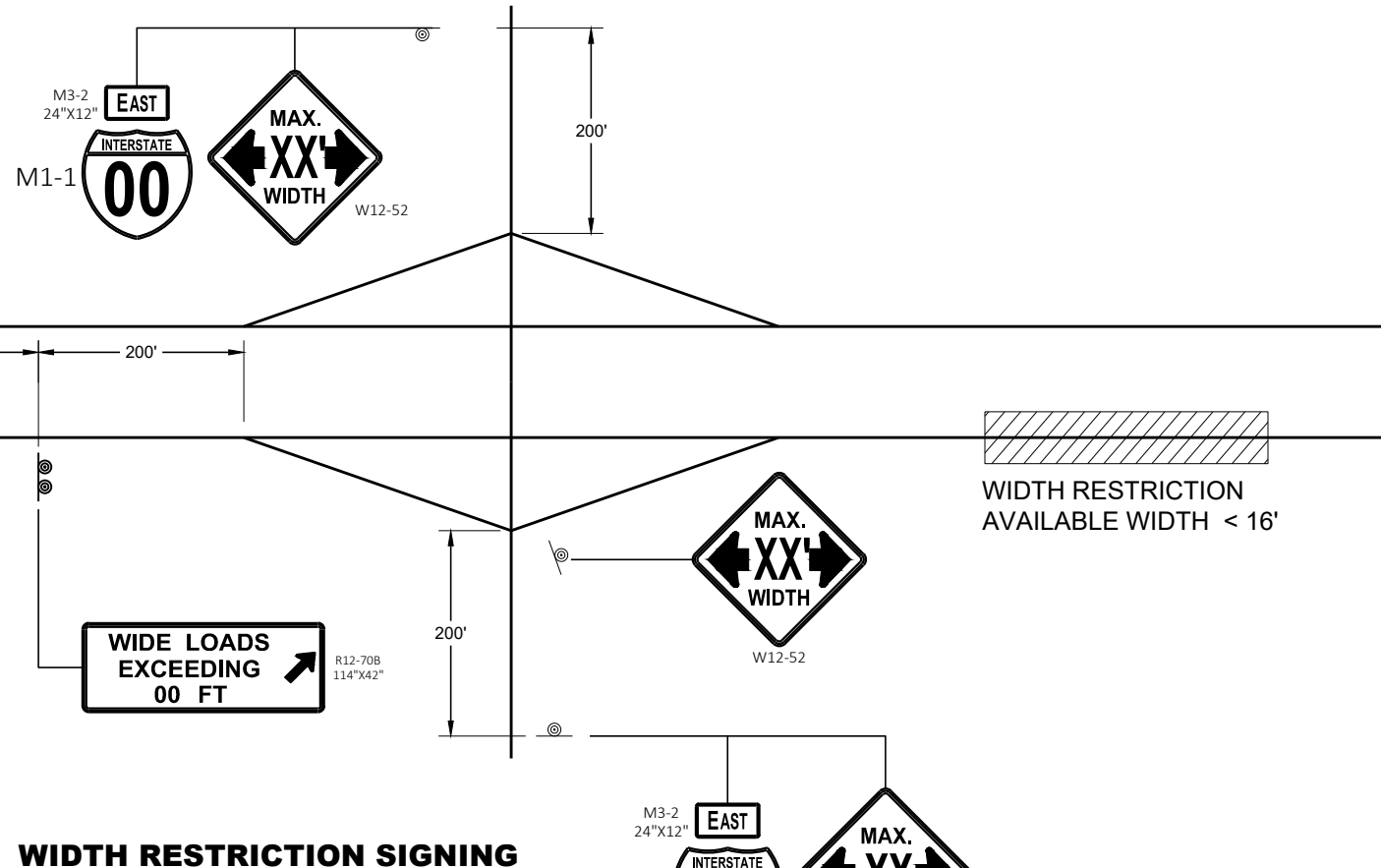
PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING
FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 281

FHWA



LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

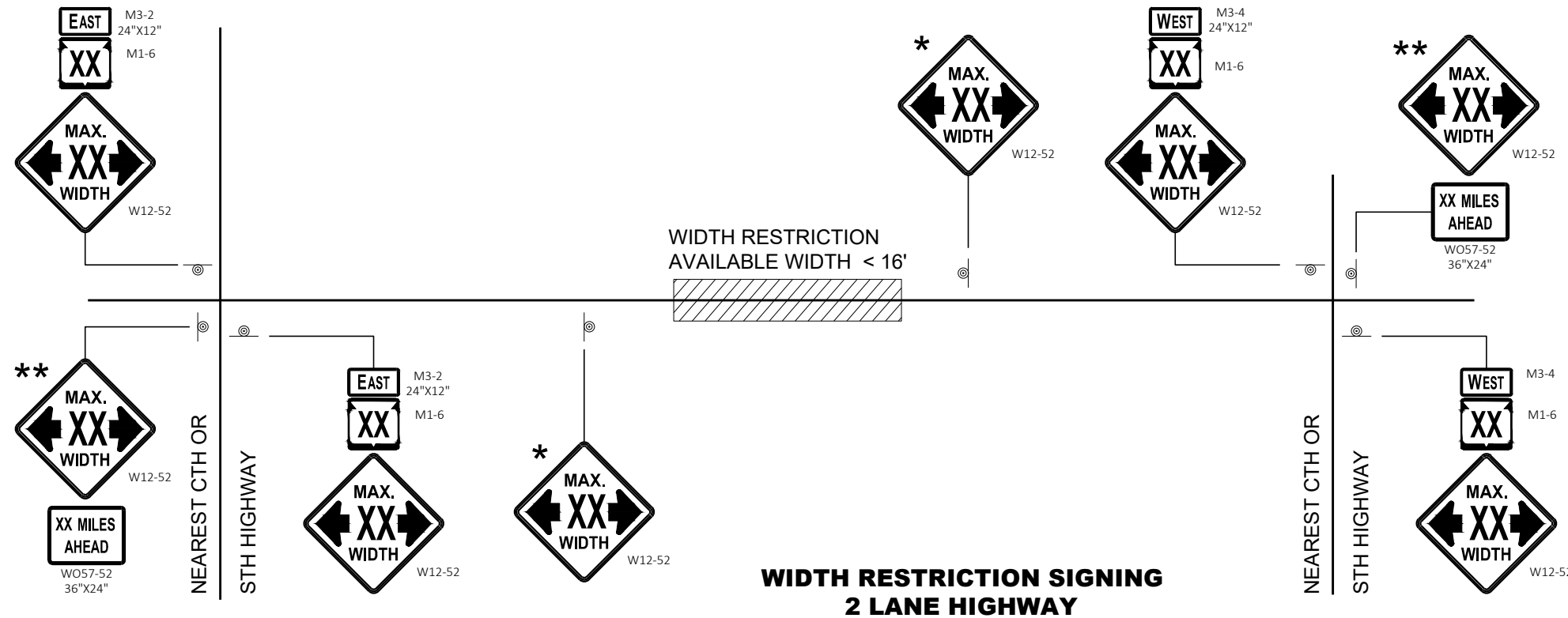
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

- * PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- ** SIGN SHALL BE VISIBLE FROM ROADWAY.
- *** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

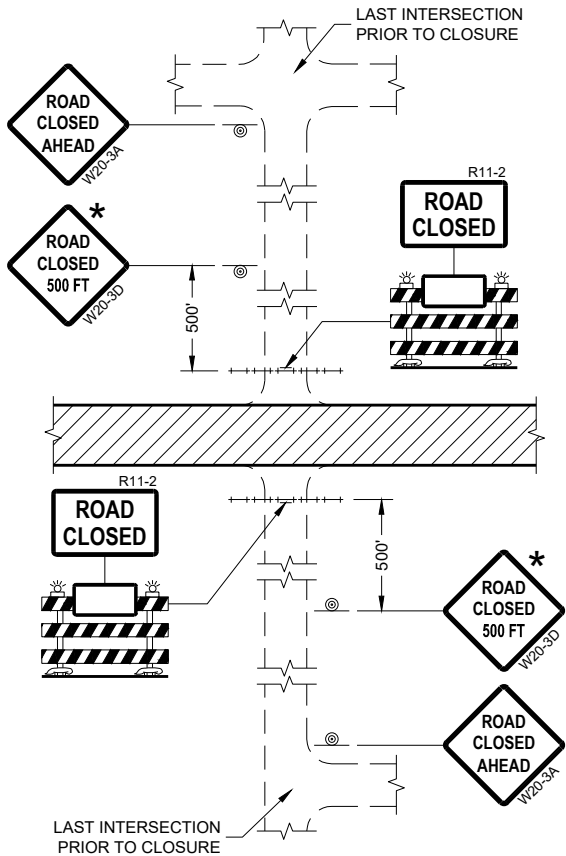


WIDTH RESTRICTION SIGNING 2 LANE HIGHWAY

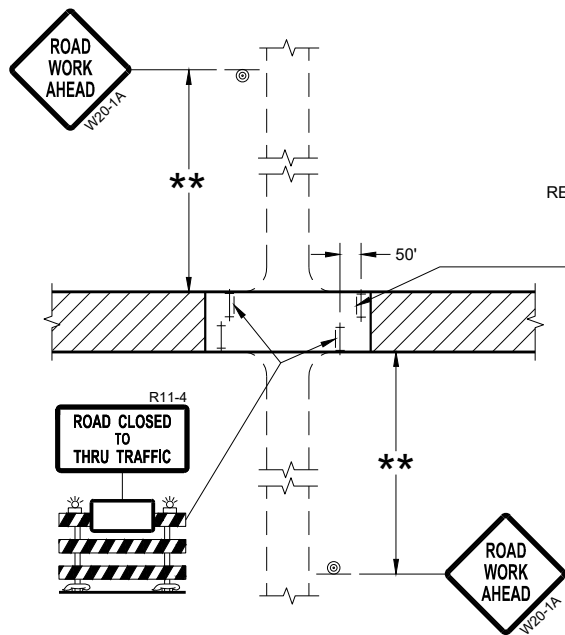
ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

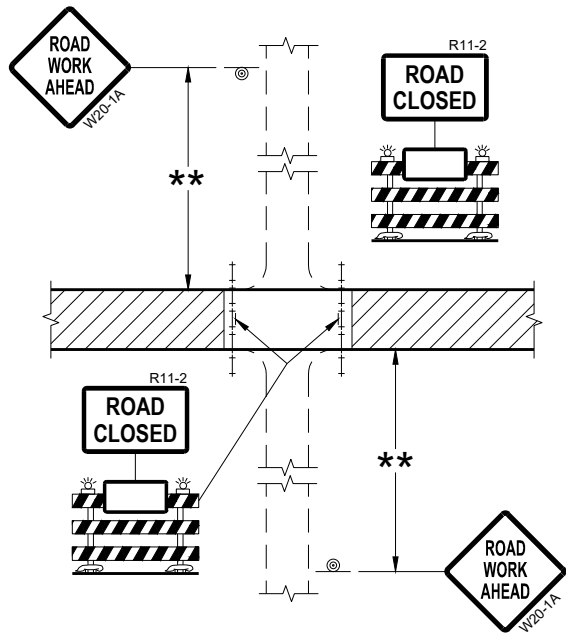
APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 282
FHWA



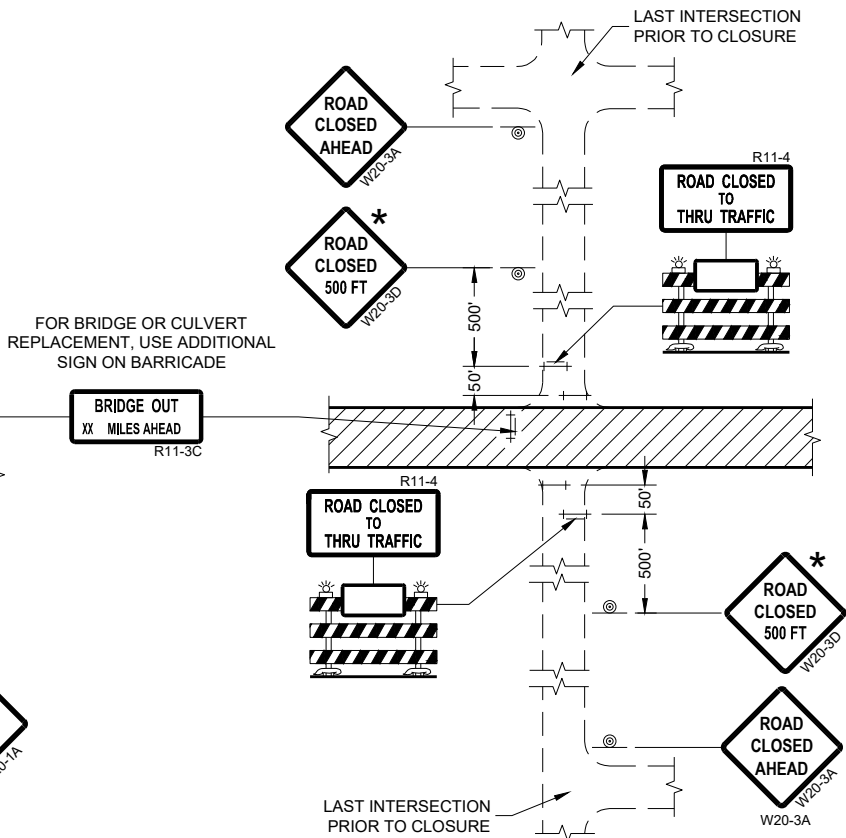
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

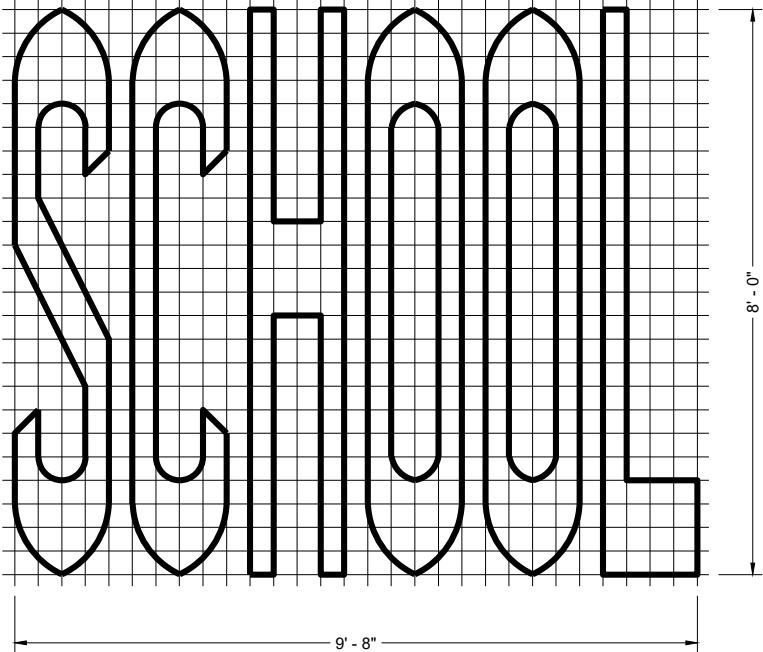
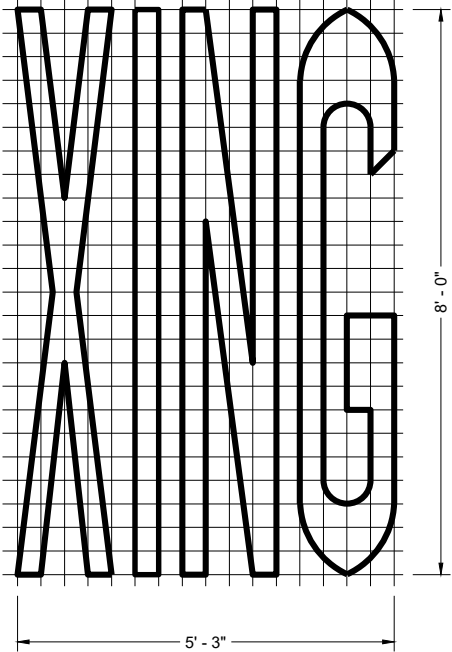
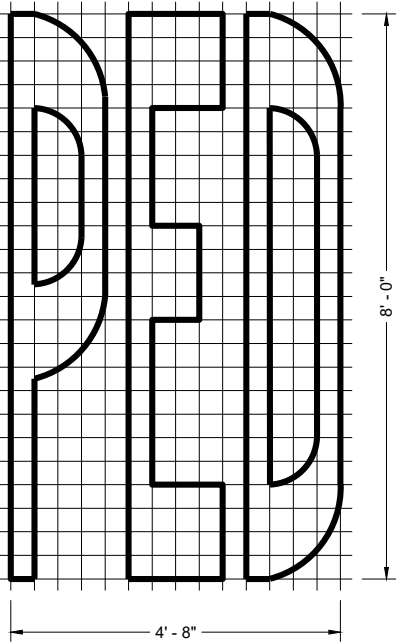
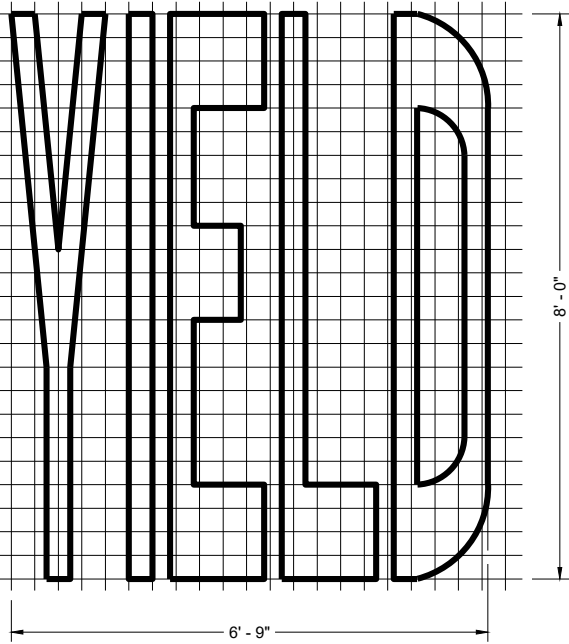
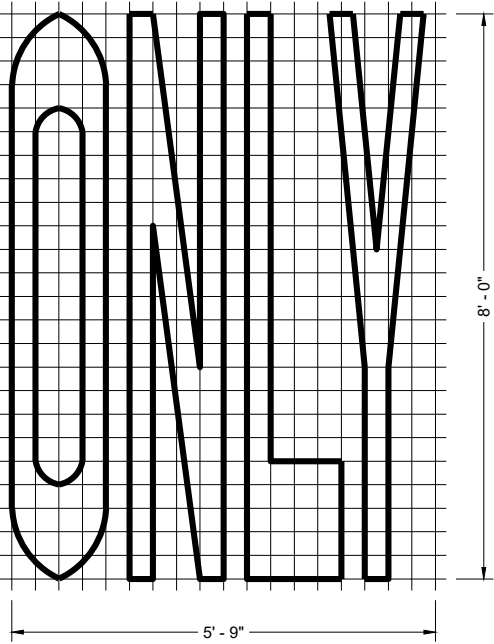
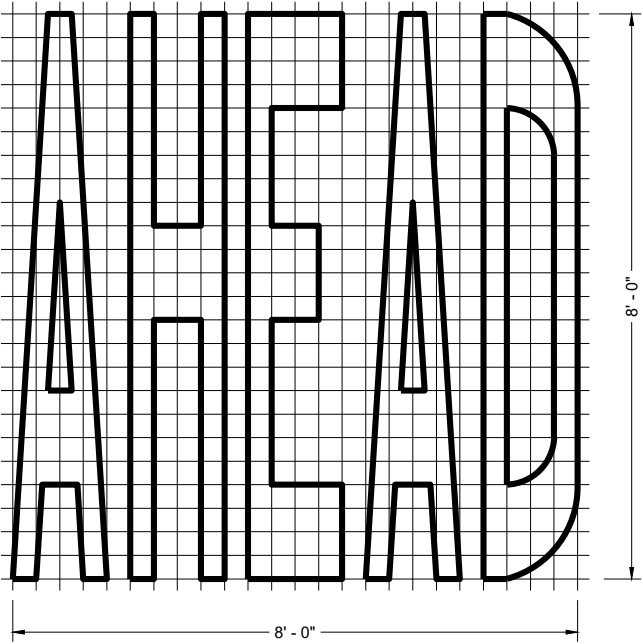
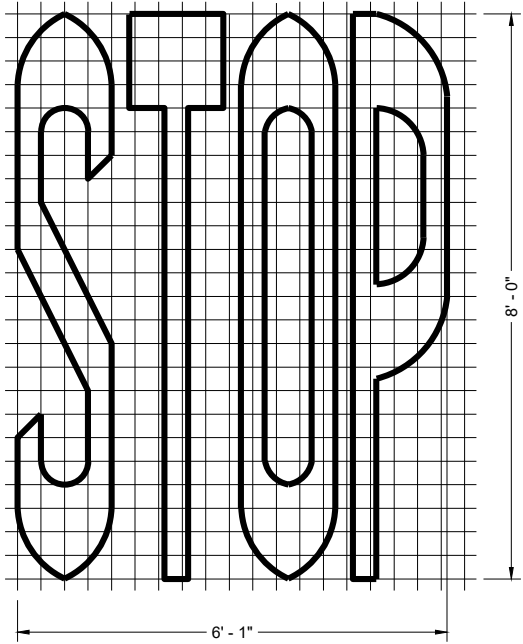
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

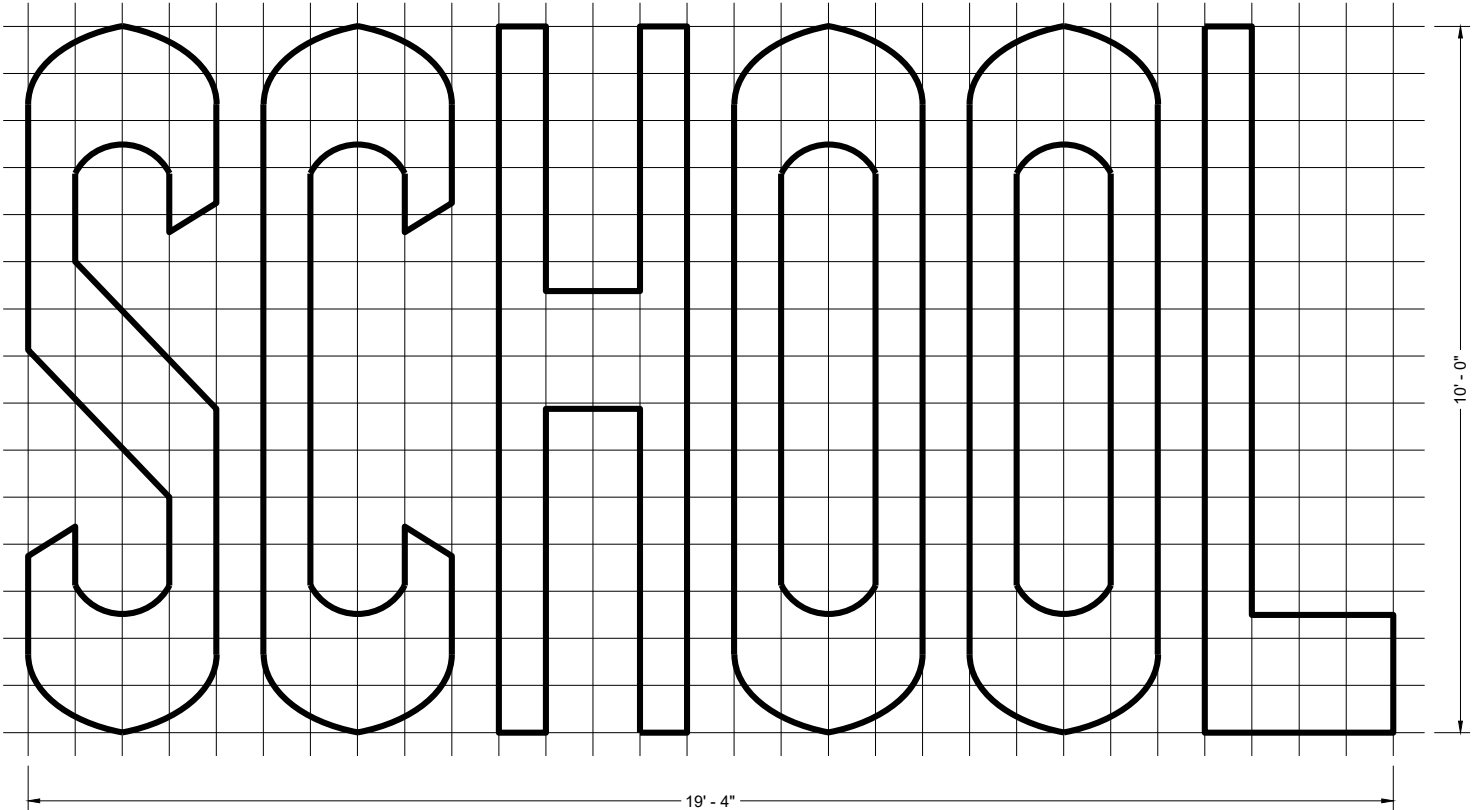
**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 283
FHWA



SINGLE LANE



TWO - LANE

GENERAL NOTES

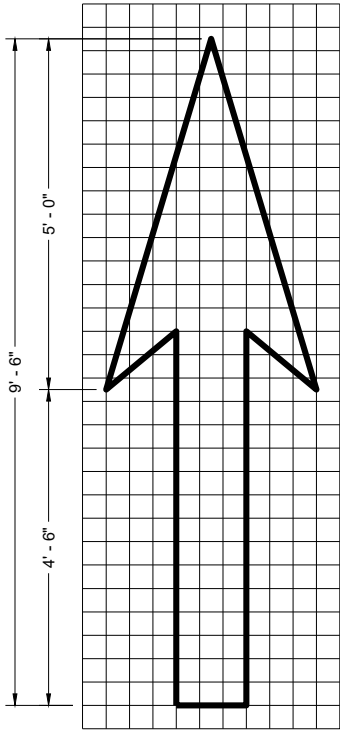
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

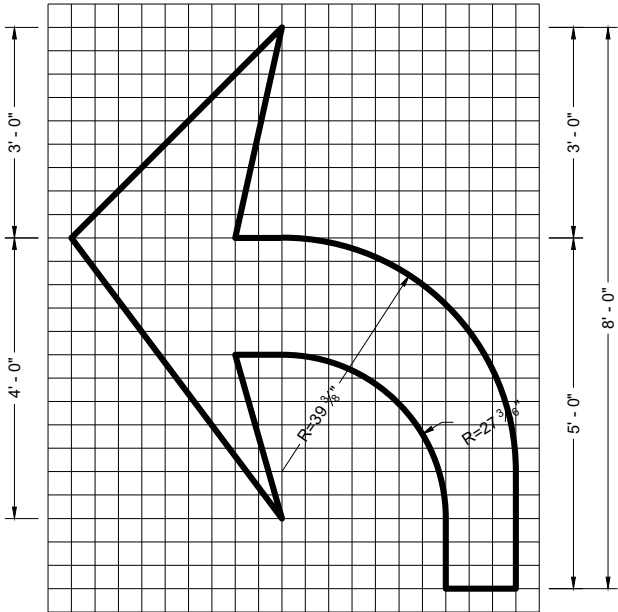
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

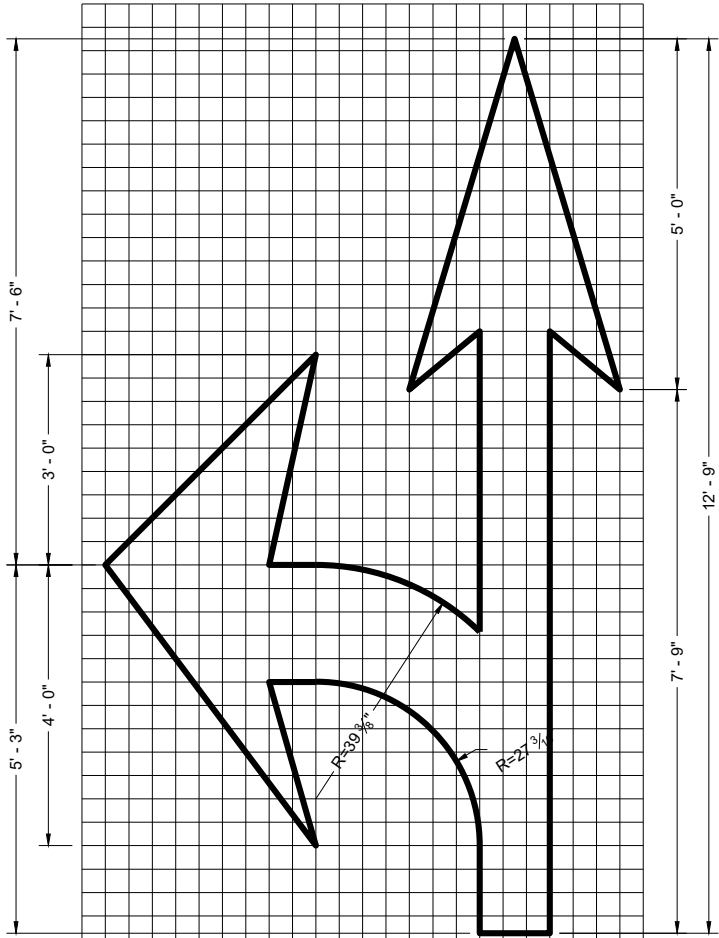
FHWA



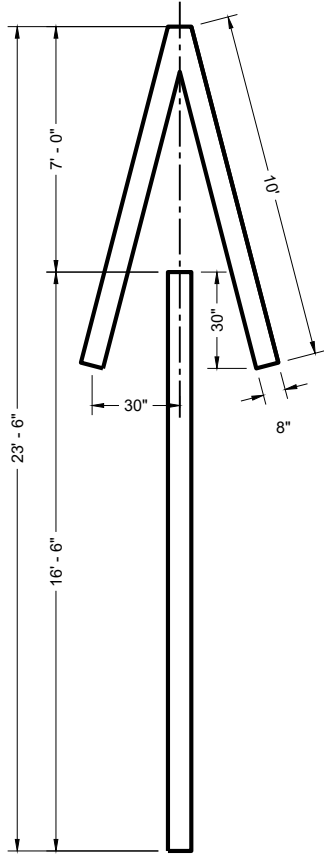
TYPE 1



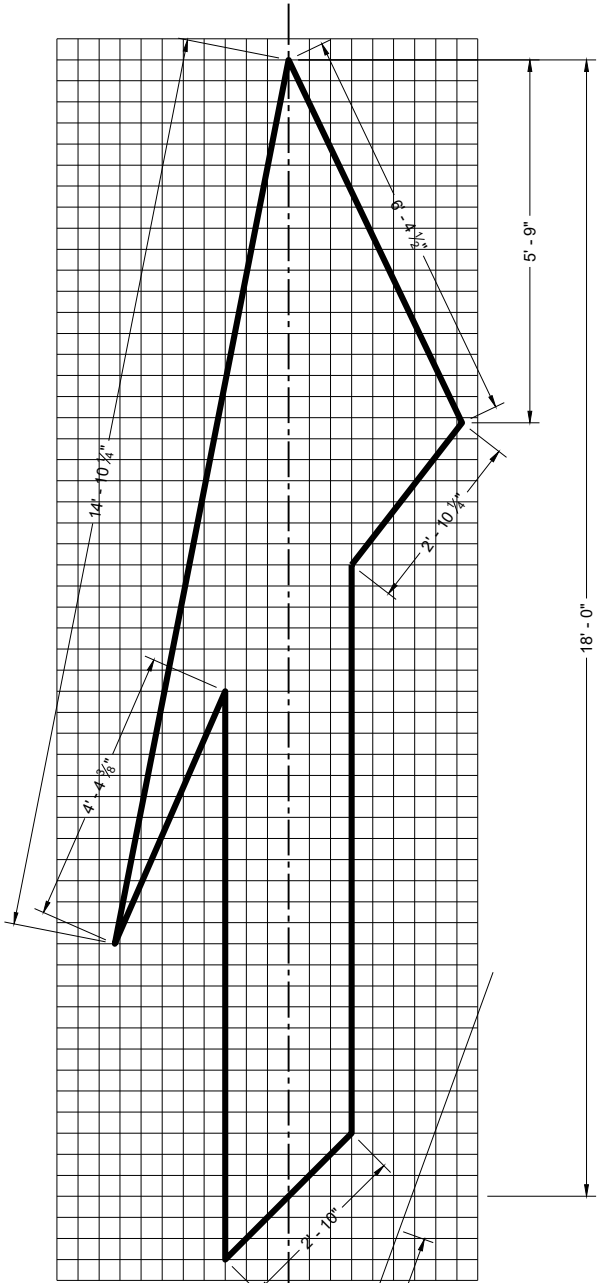
TYPE 2



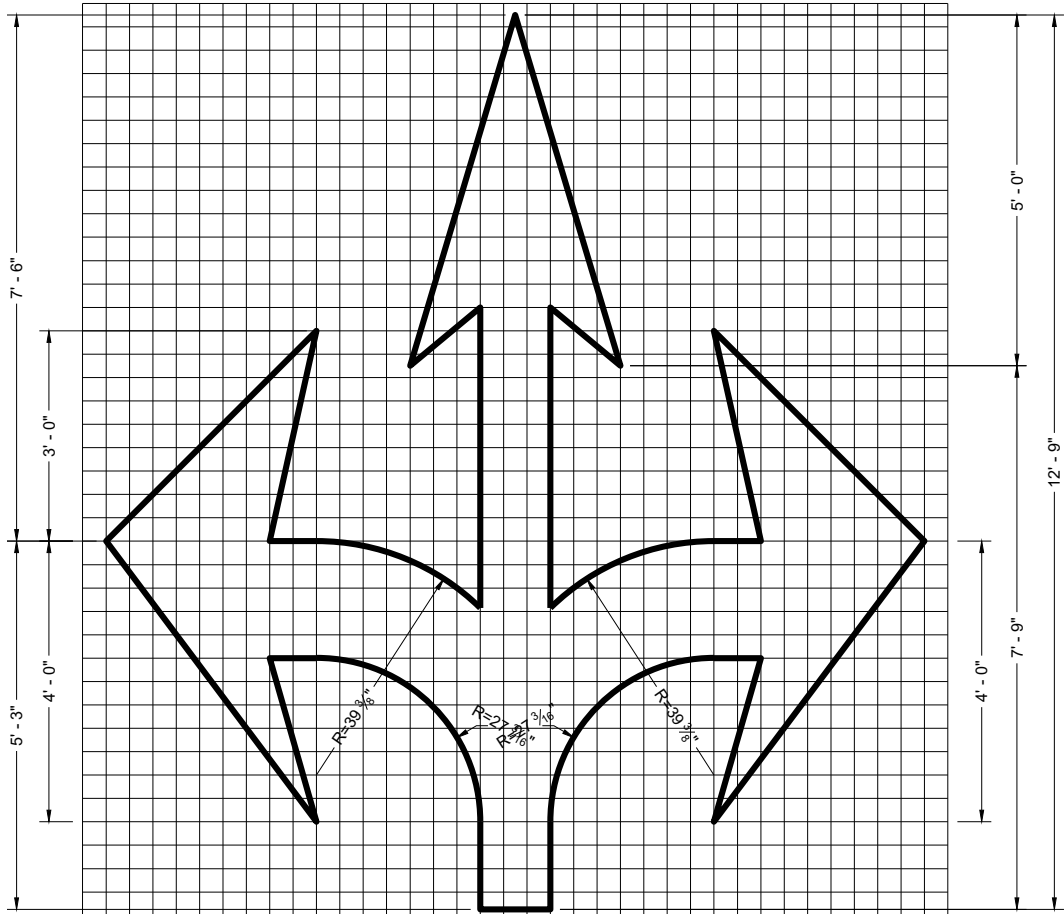
TYPE 3



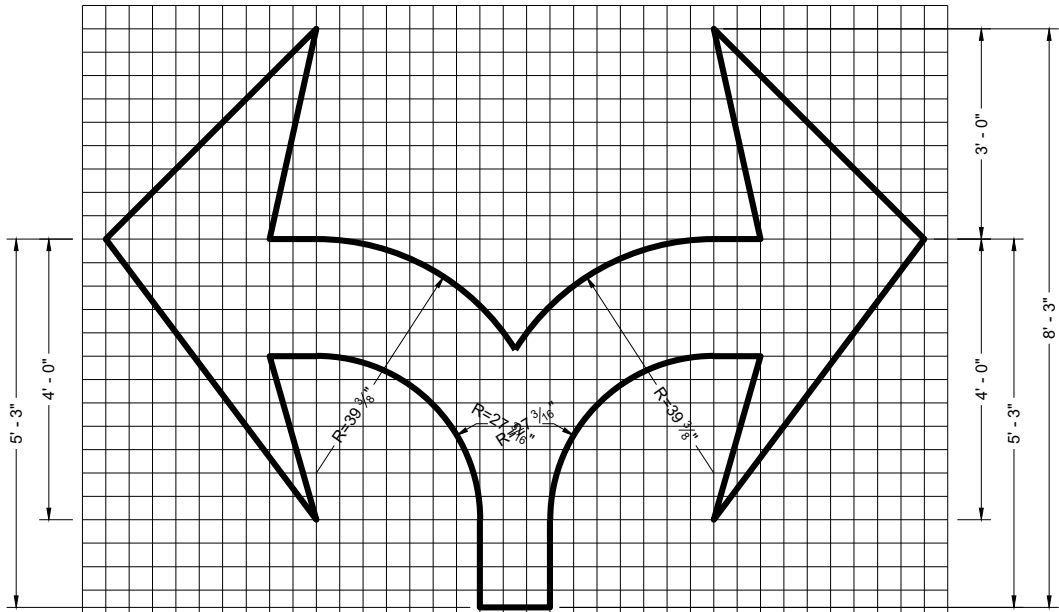
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

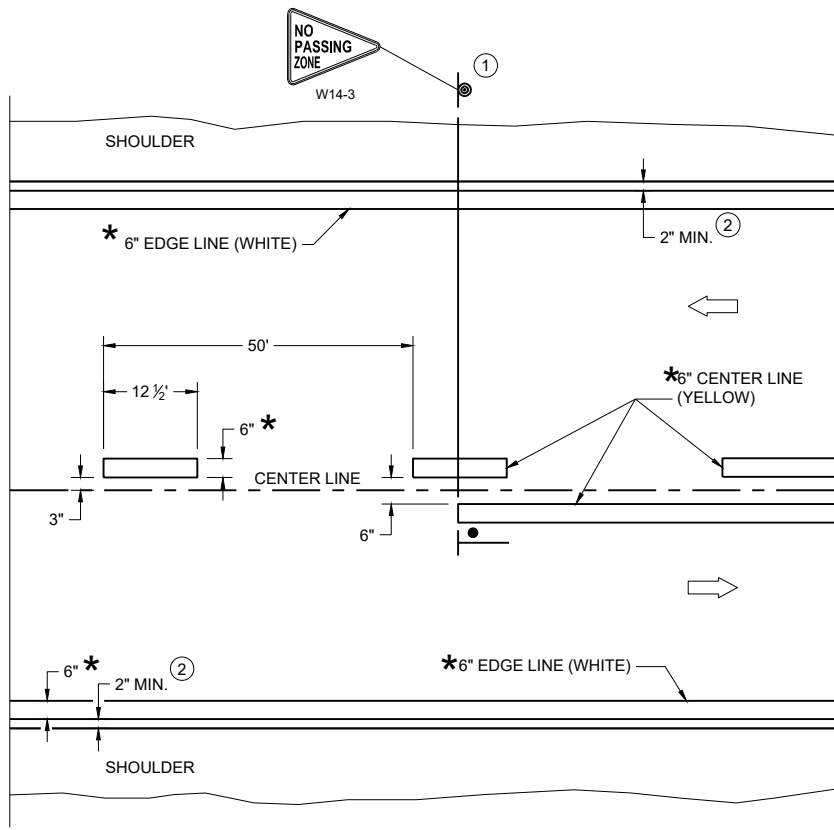
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING ARROWS

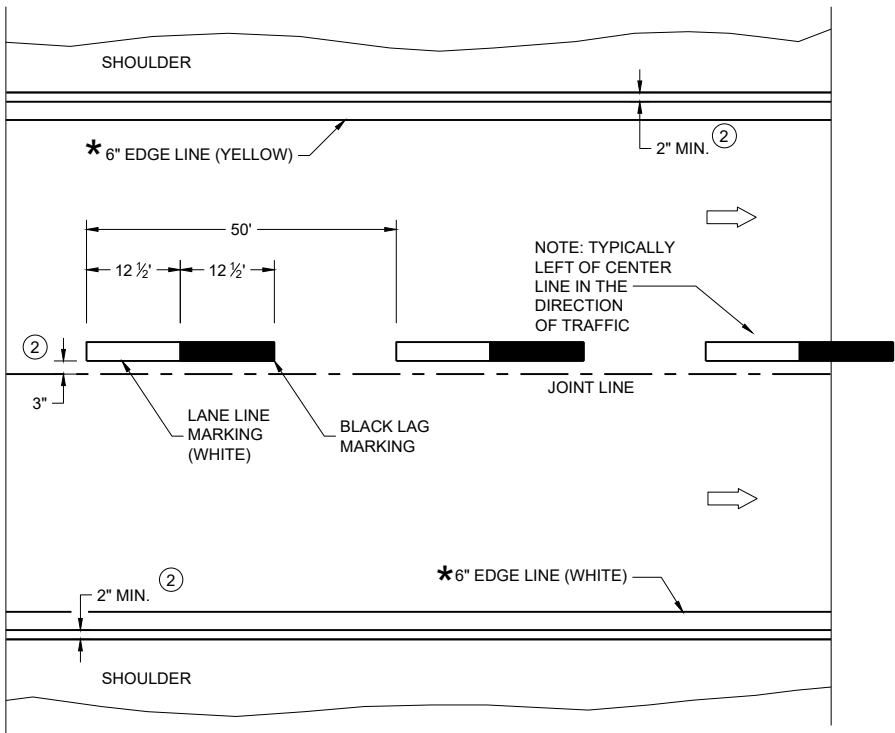
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

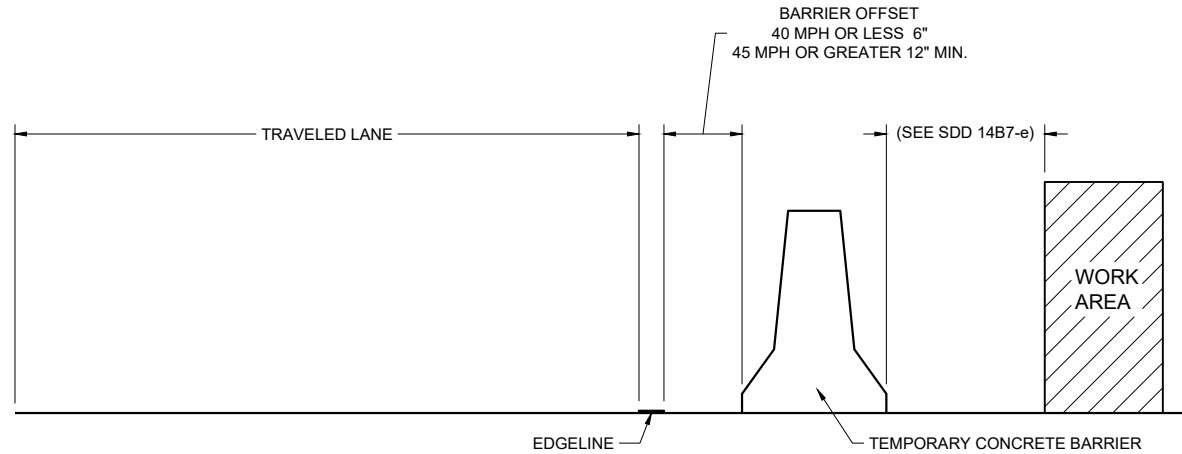
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 286	



TEMPORARY BARRIER OFFSET FROM EDGE LINE

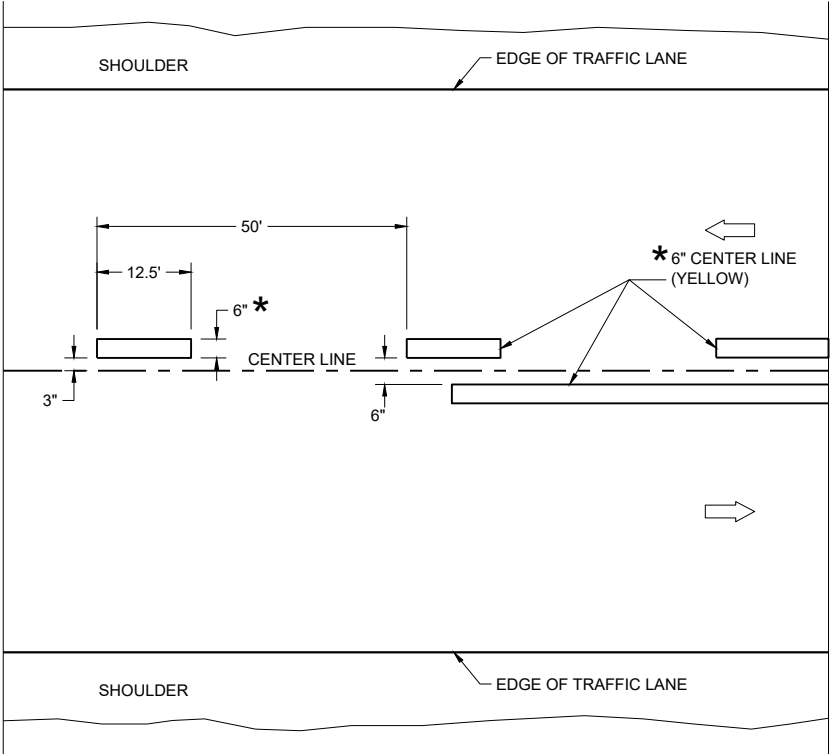
GENERAL NOTES

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

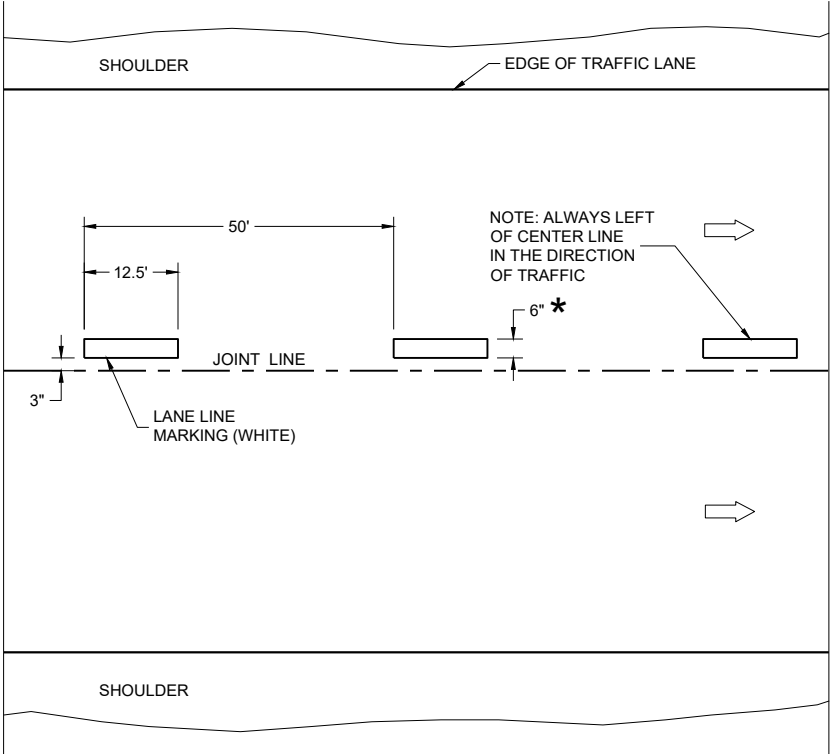
LEGEND

DIRECTION OF TRAFFIC

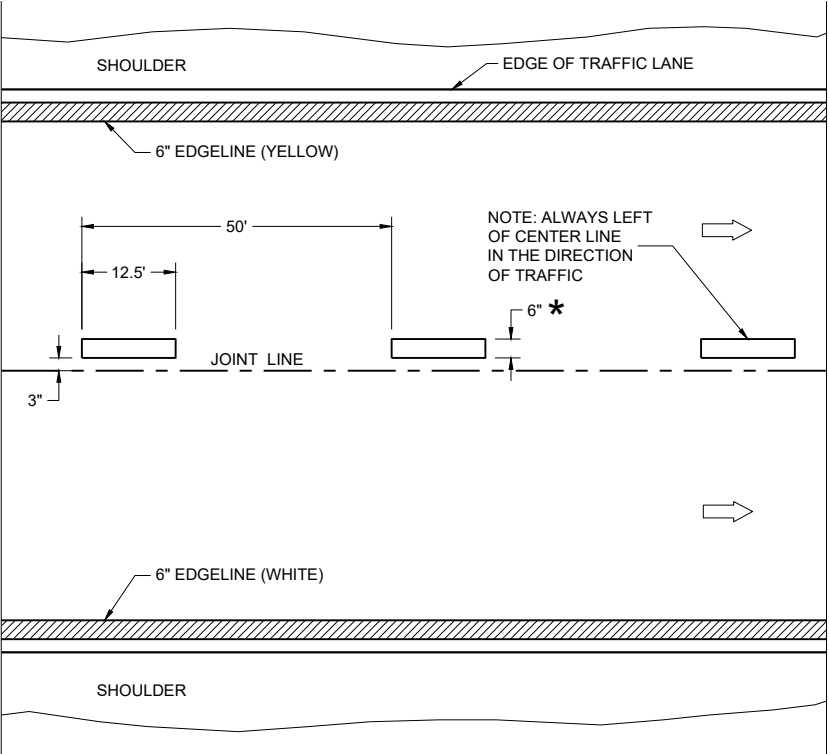
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



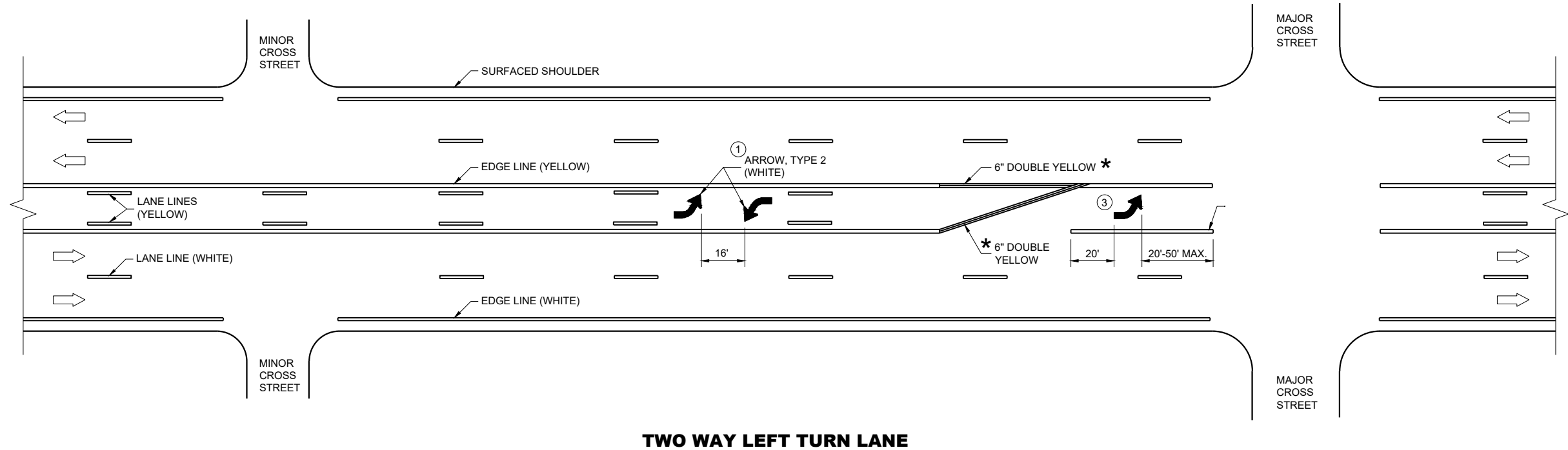
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	287



GENERAL NOTES

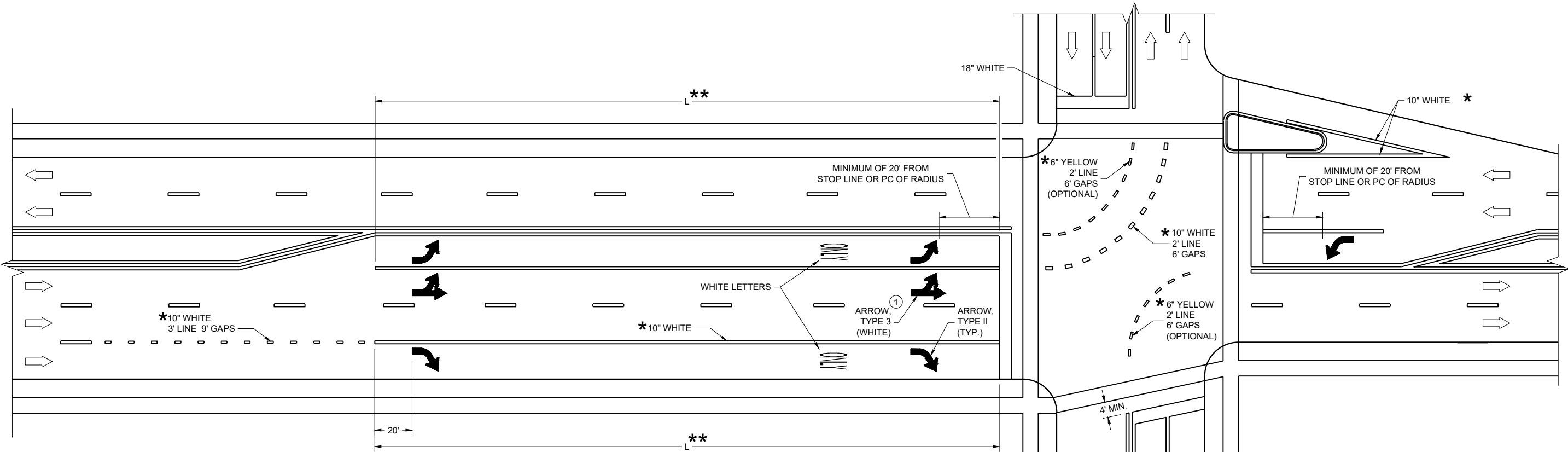
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING
(TURN LANES)**

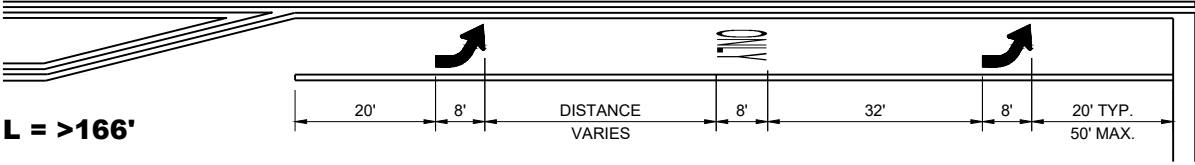
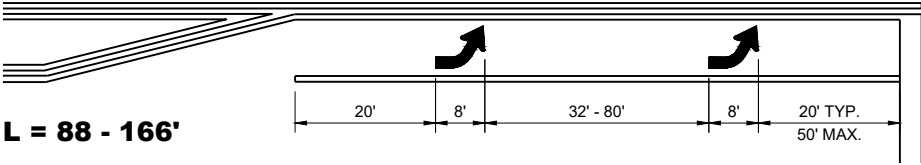
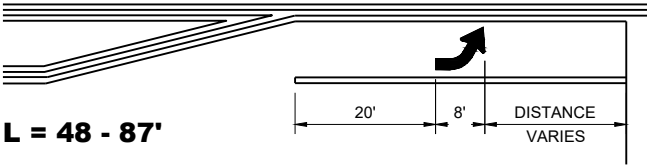
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



GENERAL NOTES

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

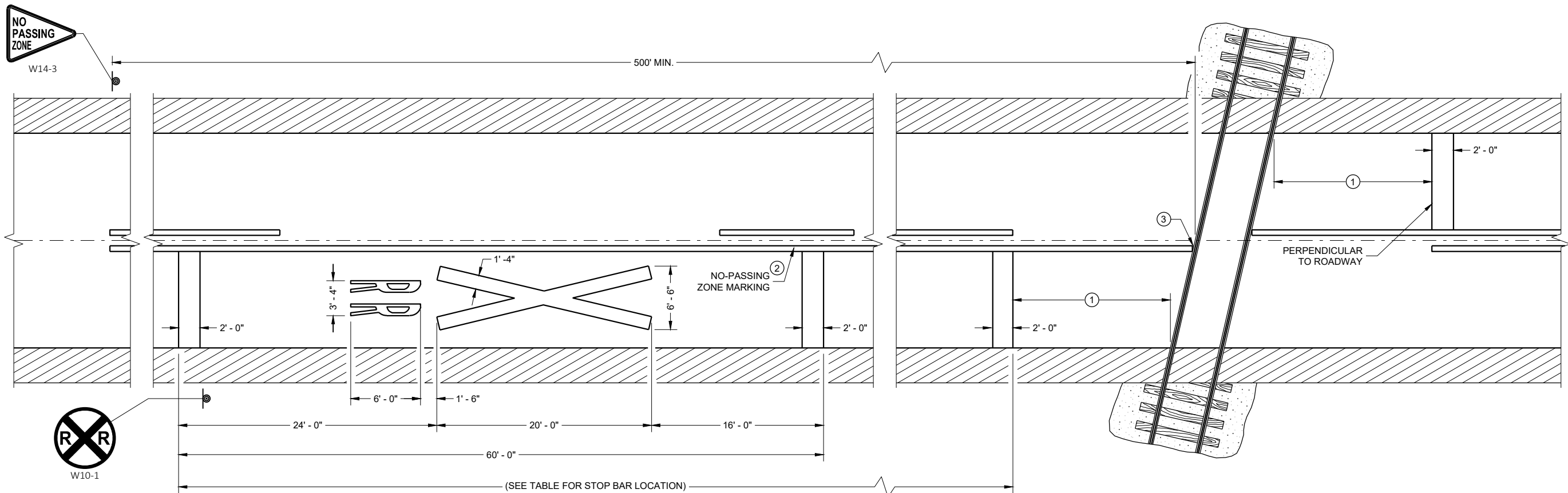
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PAVEMENT MARKING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
- CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.
- TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

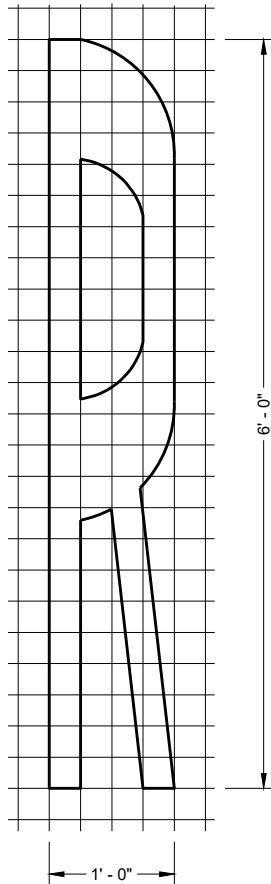
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

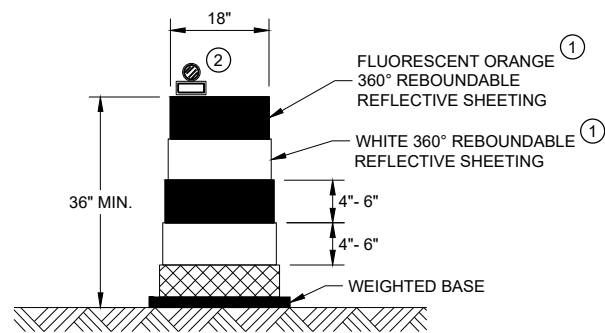
* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



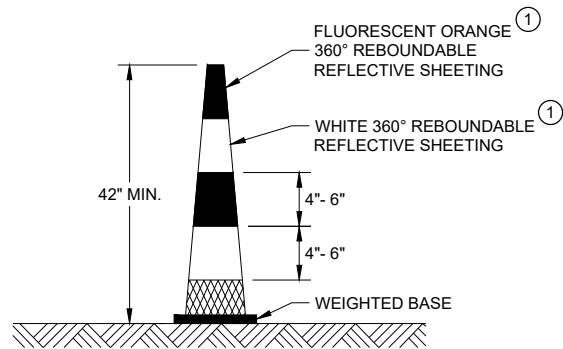
SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

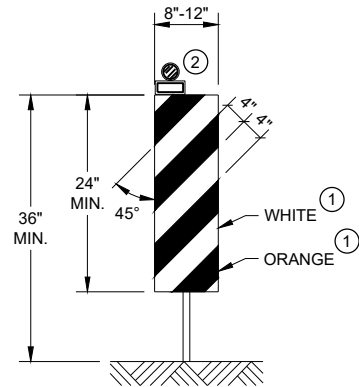
APPROVED
May 2023
DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAP ENGINEER
290
FHWA



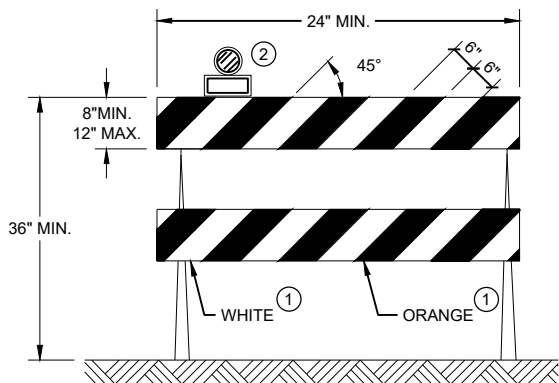
DRUM
BALLAST WIDTHS
RANGE FROM 24"-36"



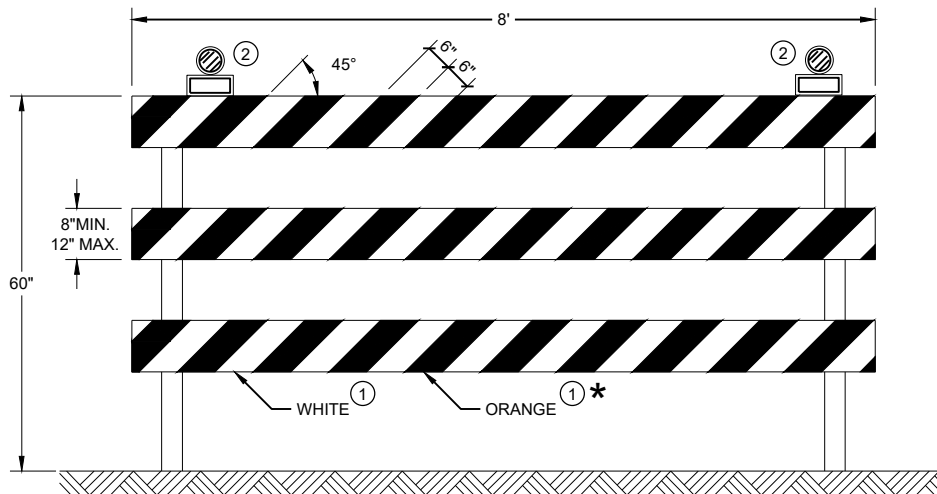
42" CONE
DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



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



TYPE II BARRICADE
FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 291
FHWA	

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

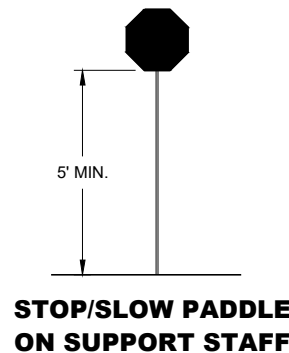
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

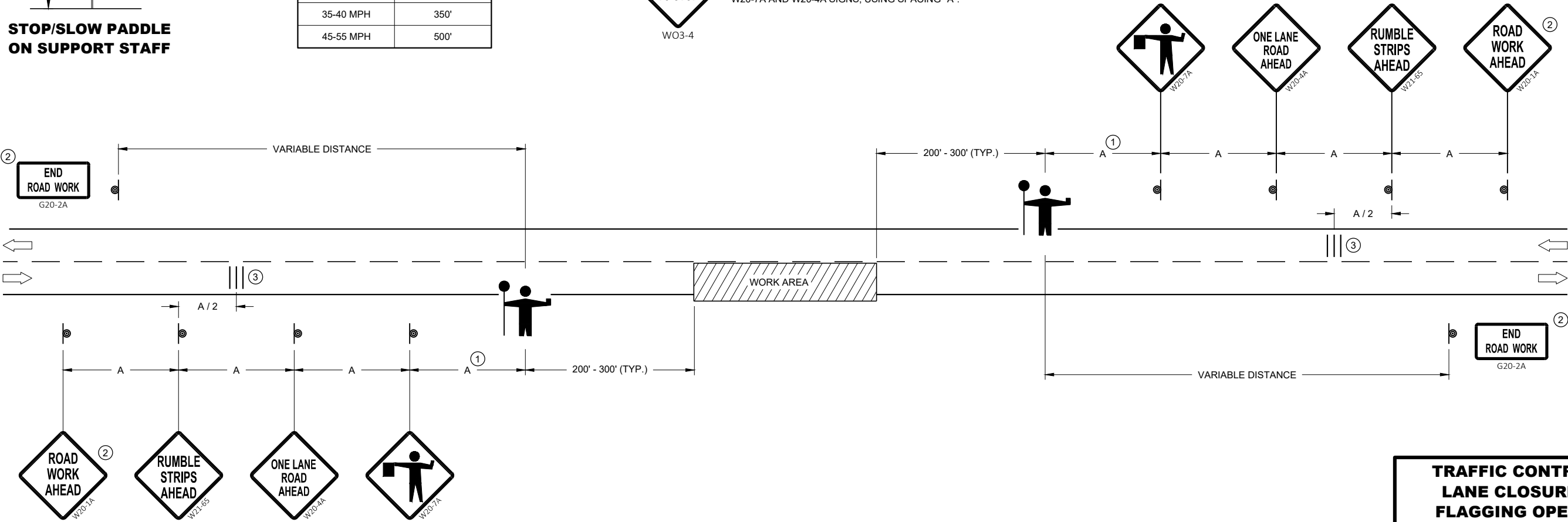


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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

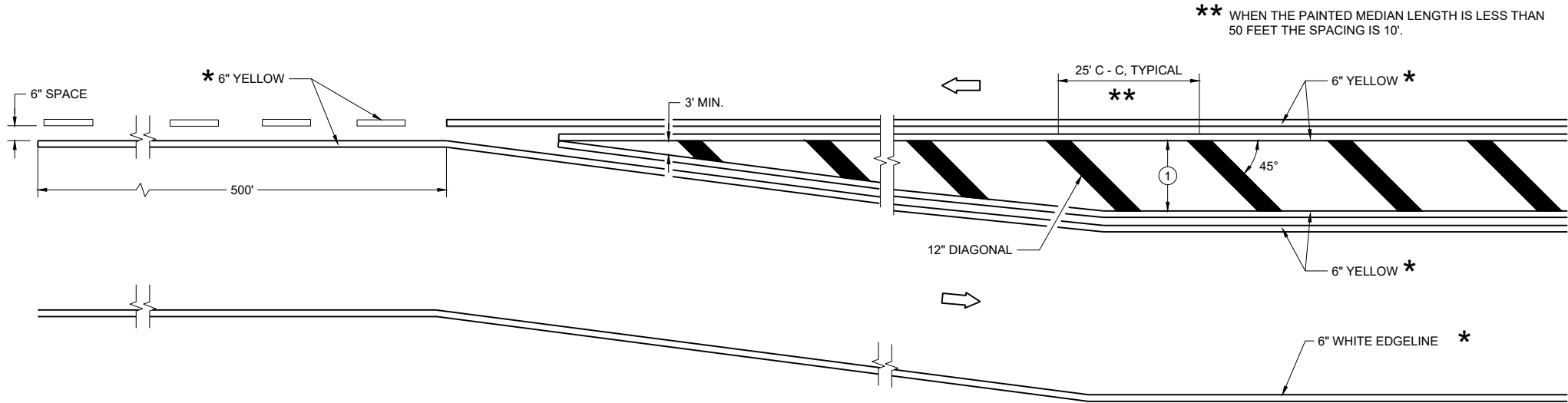


TRAFFIC CONTROL FOR
LANE CLOSURE WITH
FLAGGING OPERATION

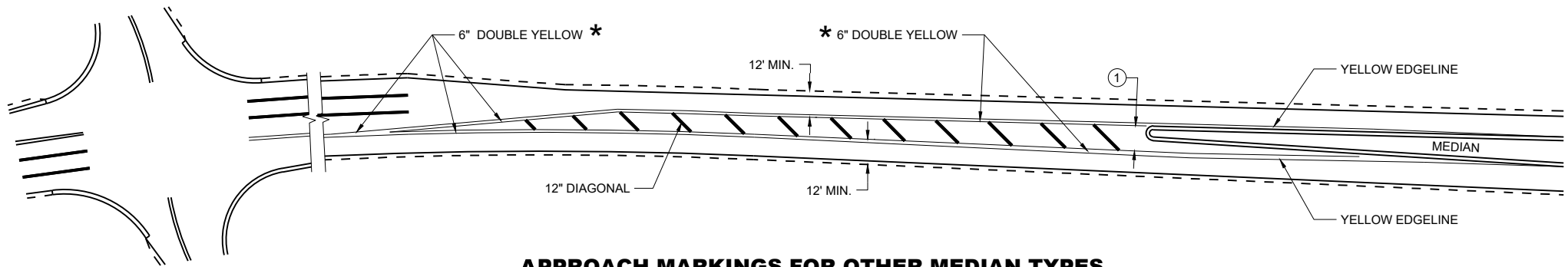
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 292

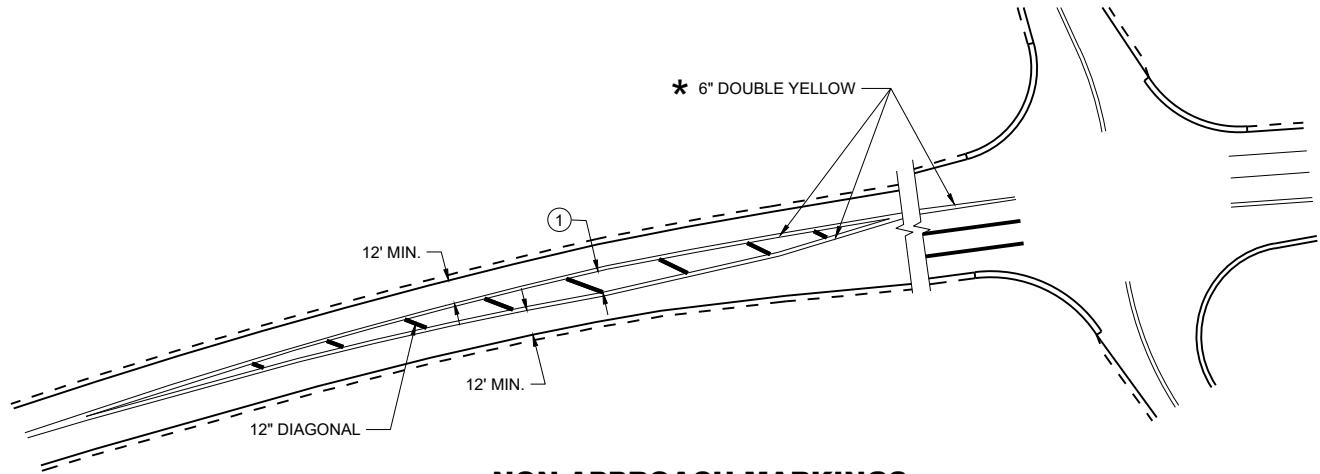
FHWA



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

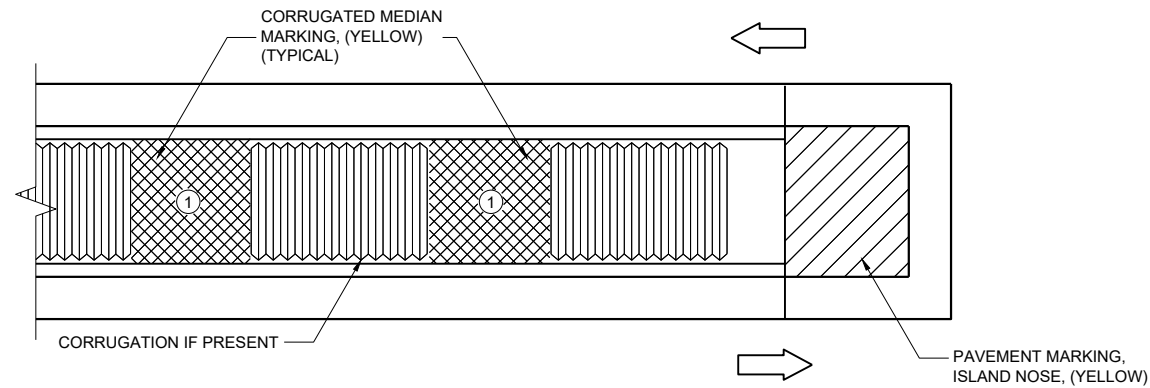
➡ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

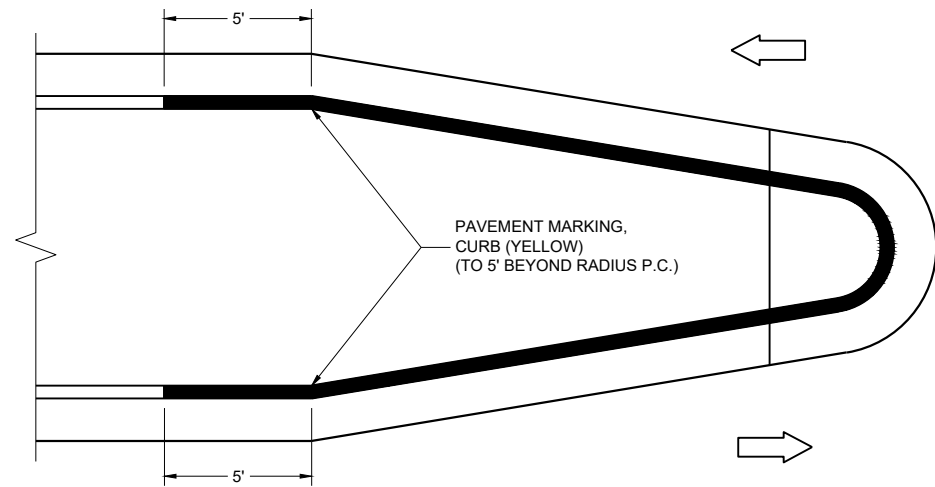
MEDIAN ISLAND
PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

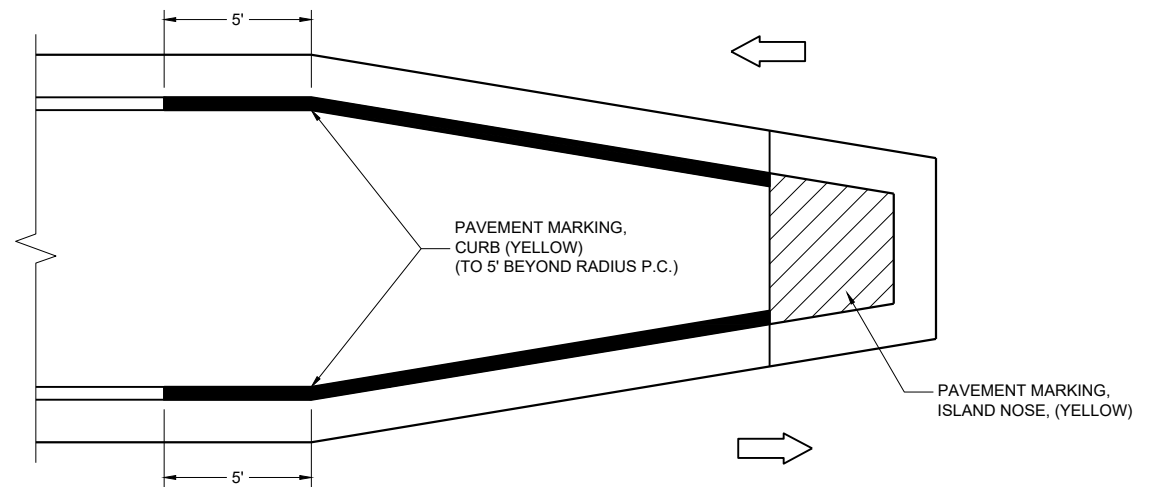
APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

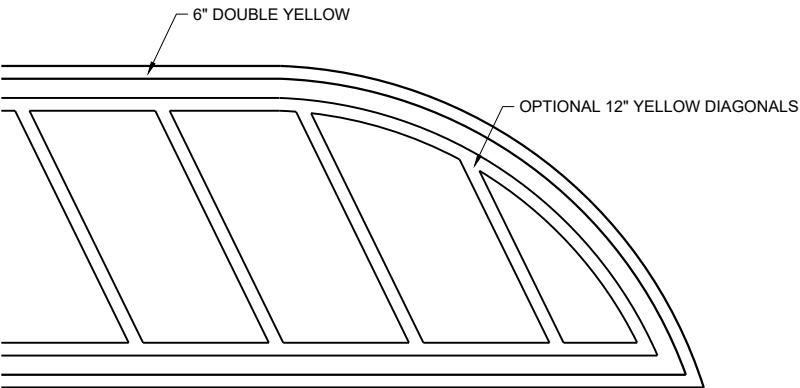
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	294

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED

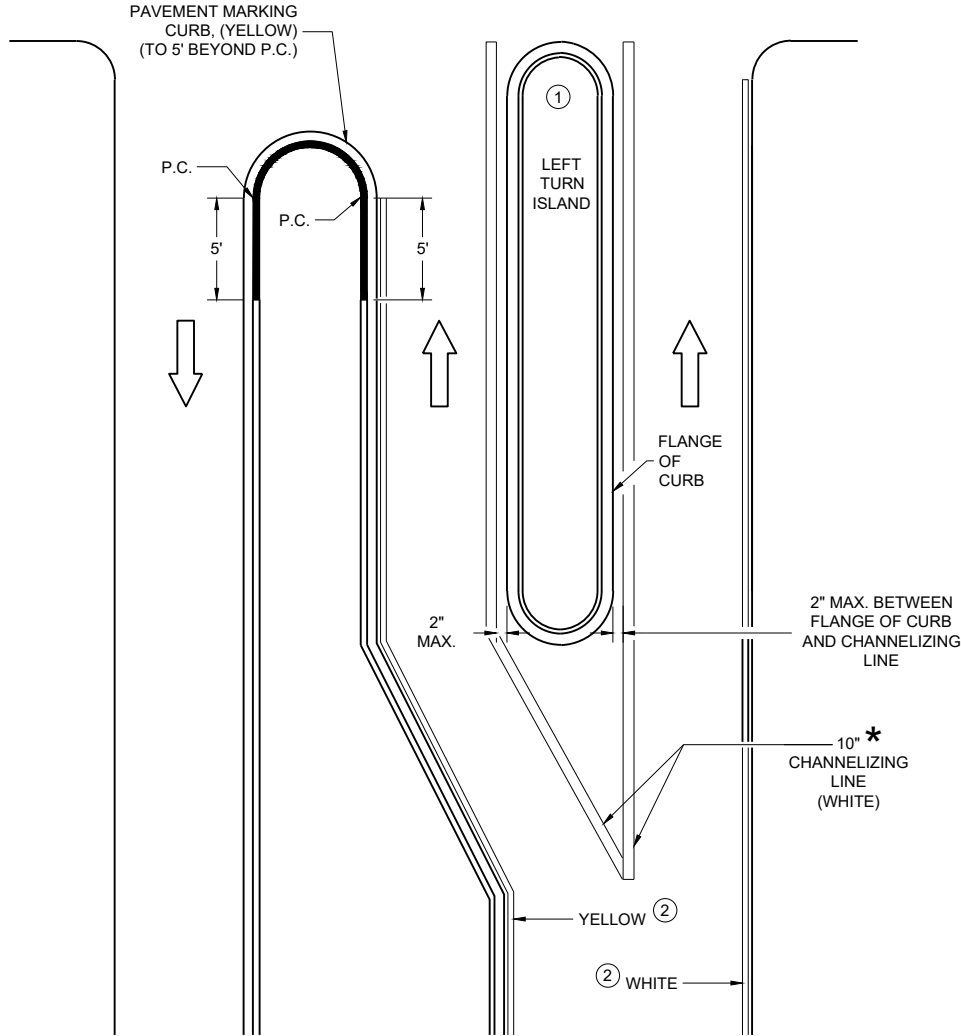
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

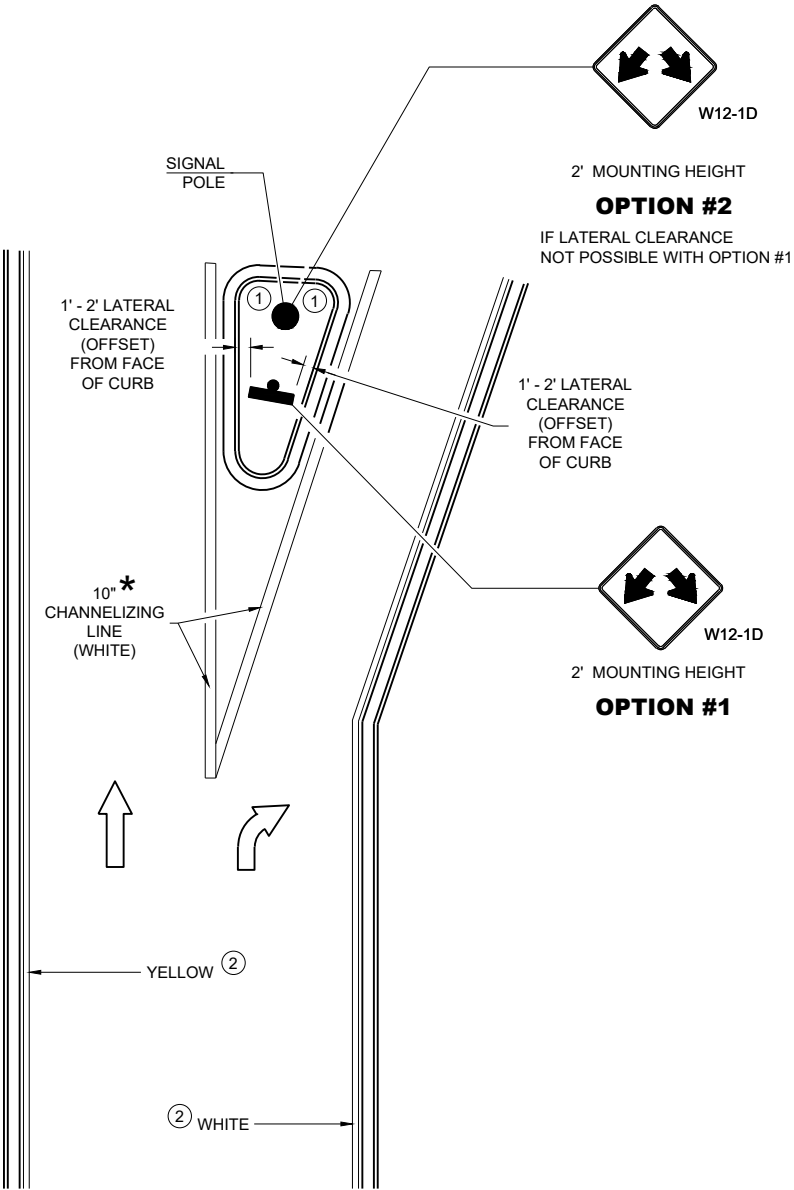
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

- ① MARK CURB NOSES YELLOW.
- ② MARK ACCORDING TO TABLE.
- ③ CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

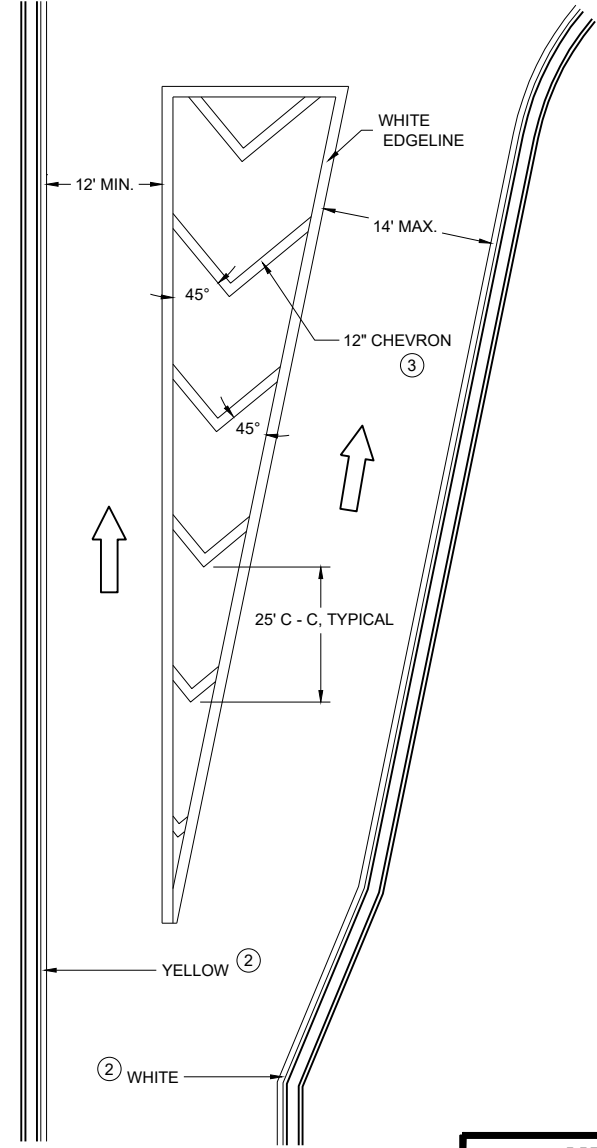
➡ DIRECTION OF TRAVEL



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



TURN LANE DETAIL

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

FHWA 295

GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

① USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

** SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT PLACEMENT.

*** IF POSTED SPEED IS 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN).

LEGEND

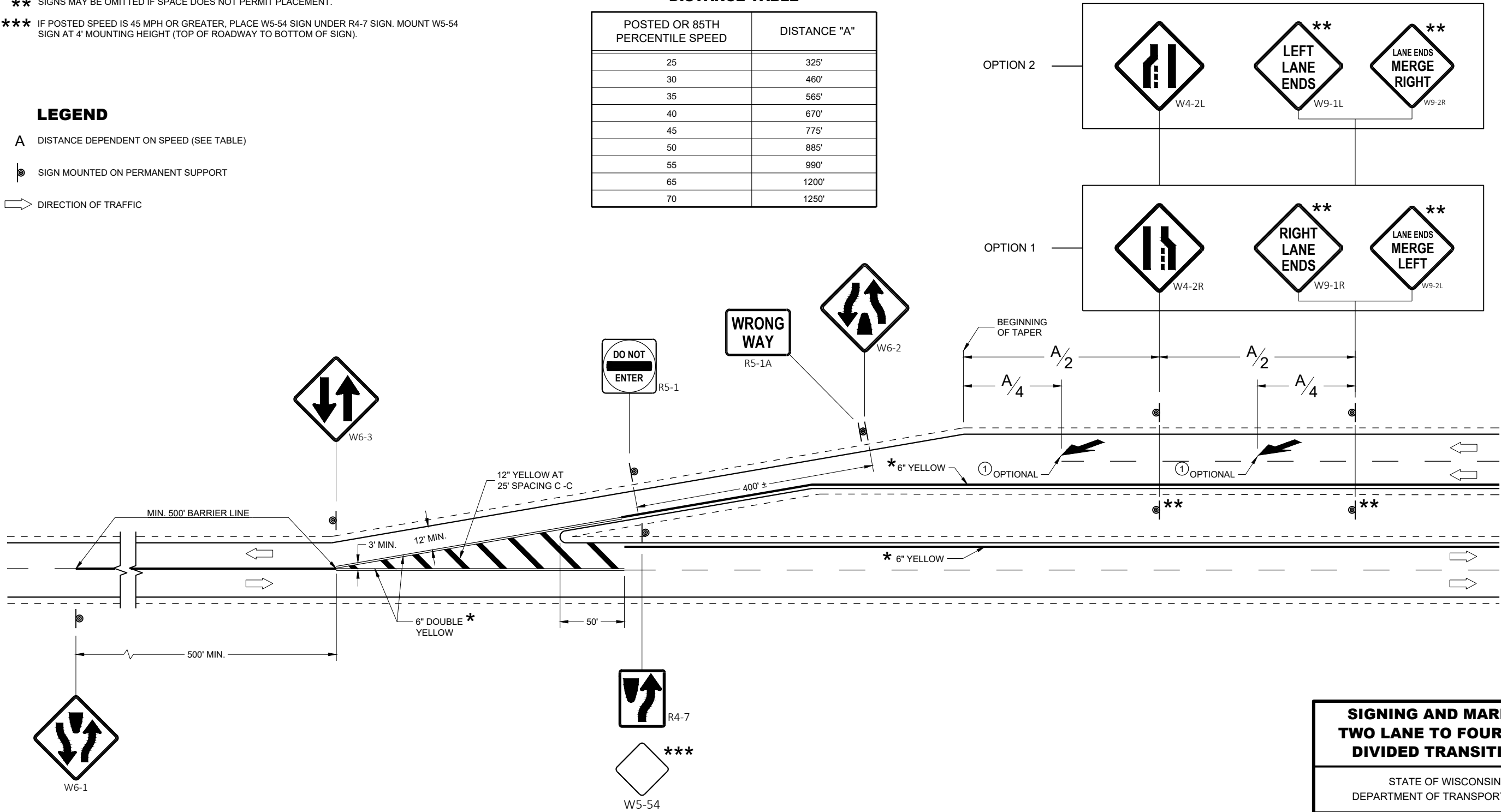
A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

⦿ SIGN MOUNTED ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	325'
30	460'
35	565'
40	670'
45	775'
50	885'
55	990'
65	1200'
70	1250'



SIGNING AND MARKING
TWO LANE TO FOUR LANE
DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

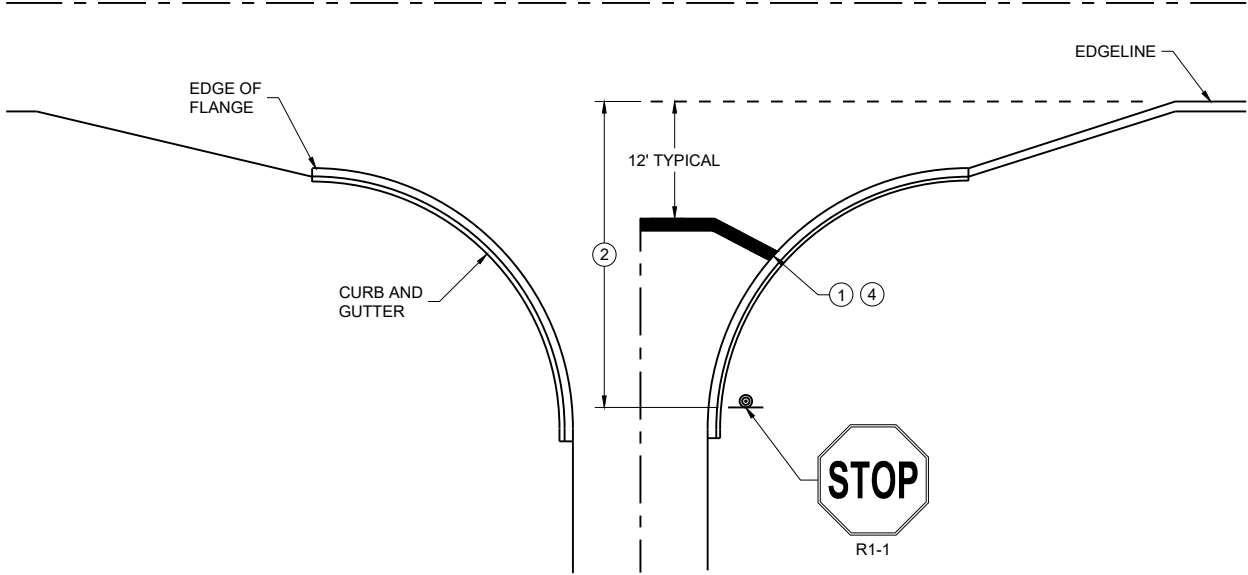
May 2023

DATE

FHWA

/S/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

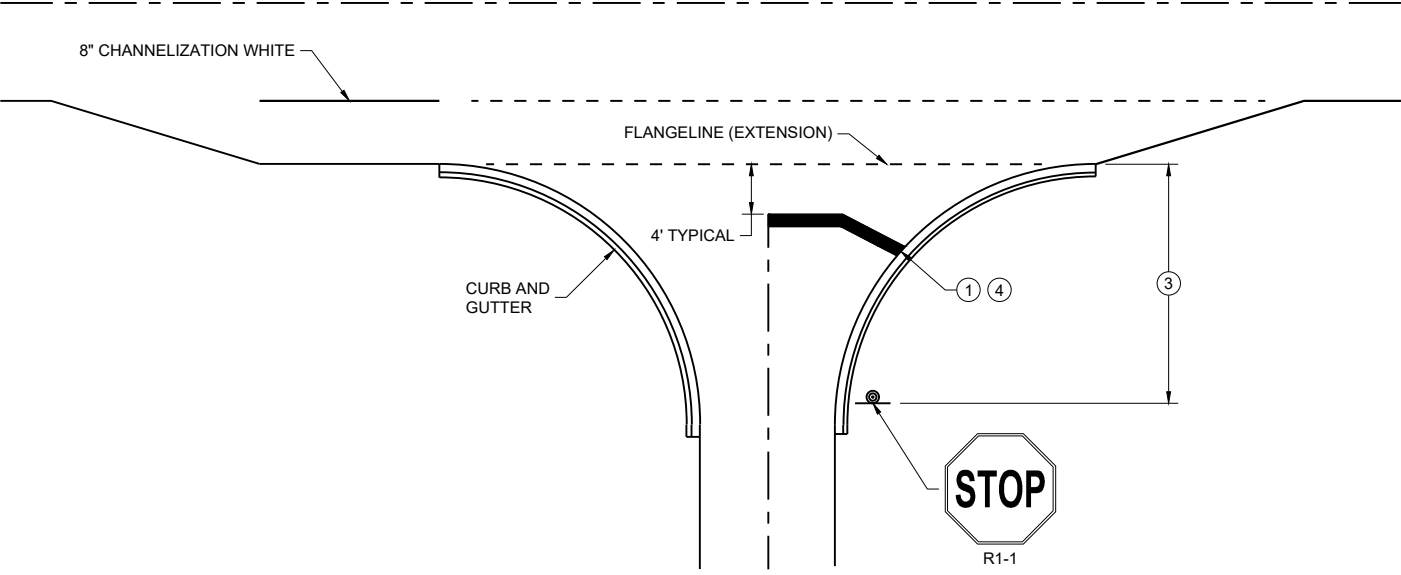
296



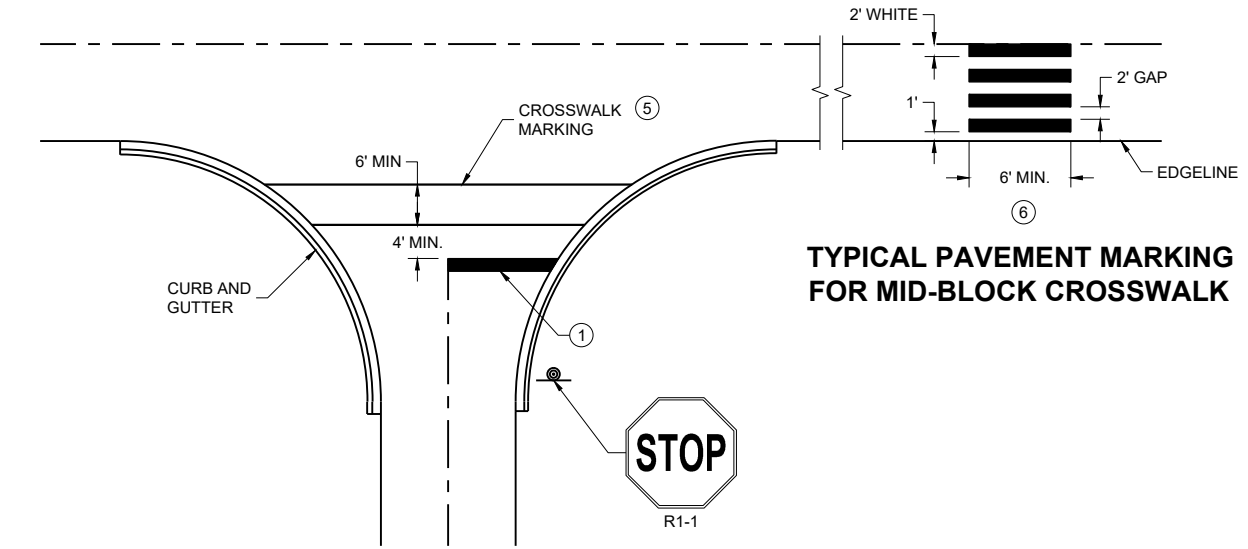
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER

GENERAL NOTES

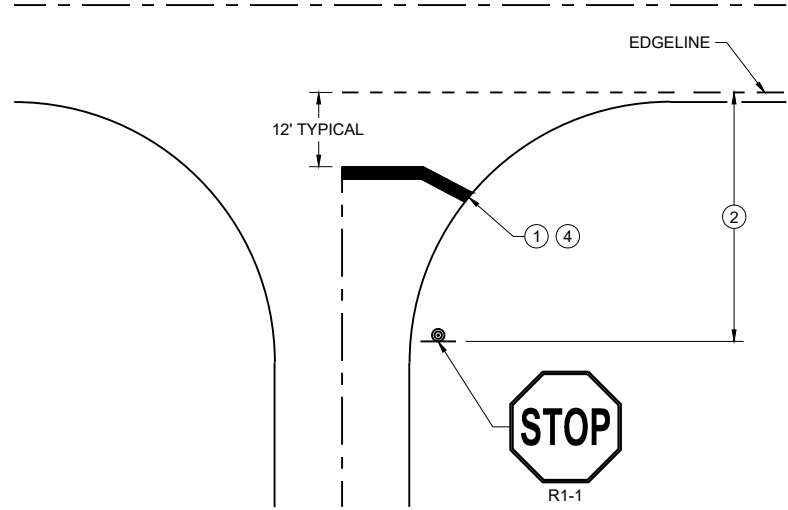
- STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
 - ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
 - ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
 - ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
 - ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
 - ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH RIGHT TURN LANE



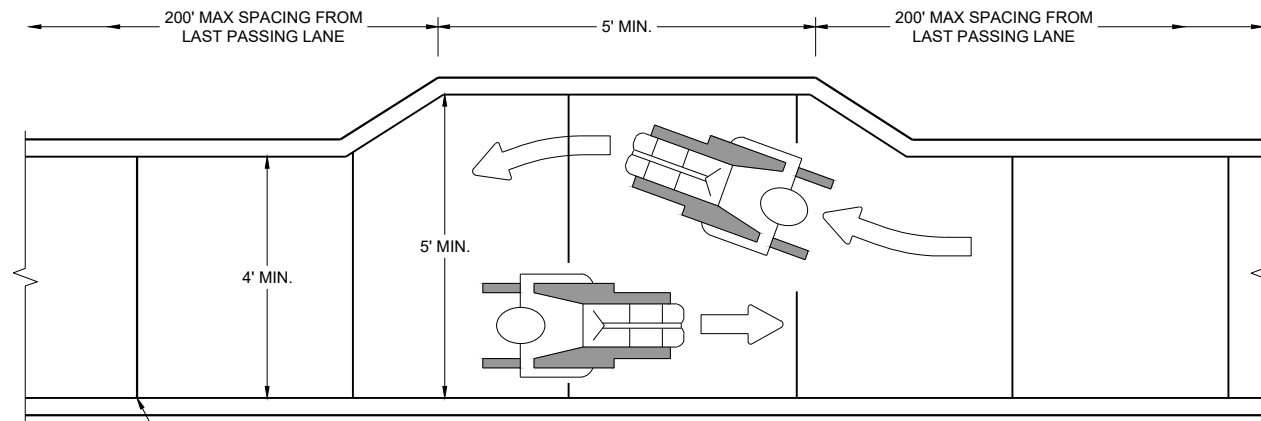
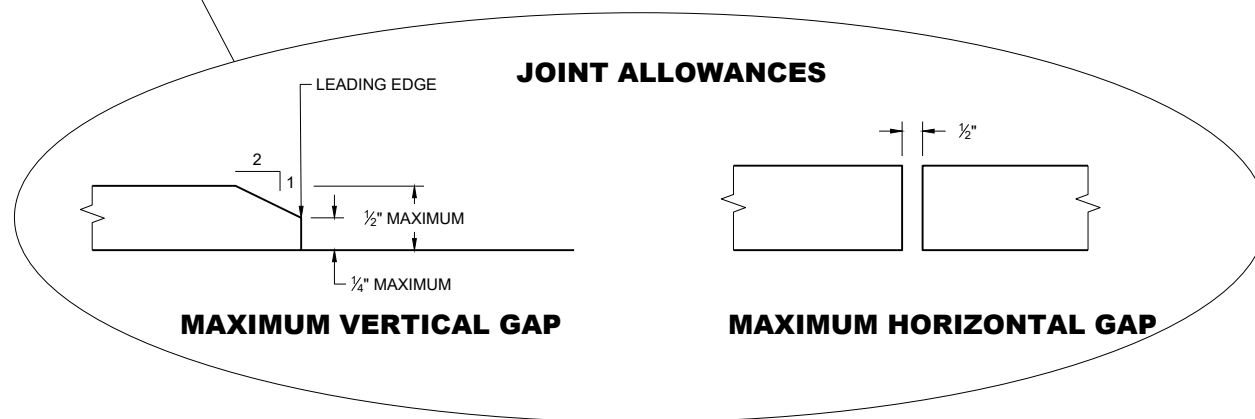
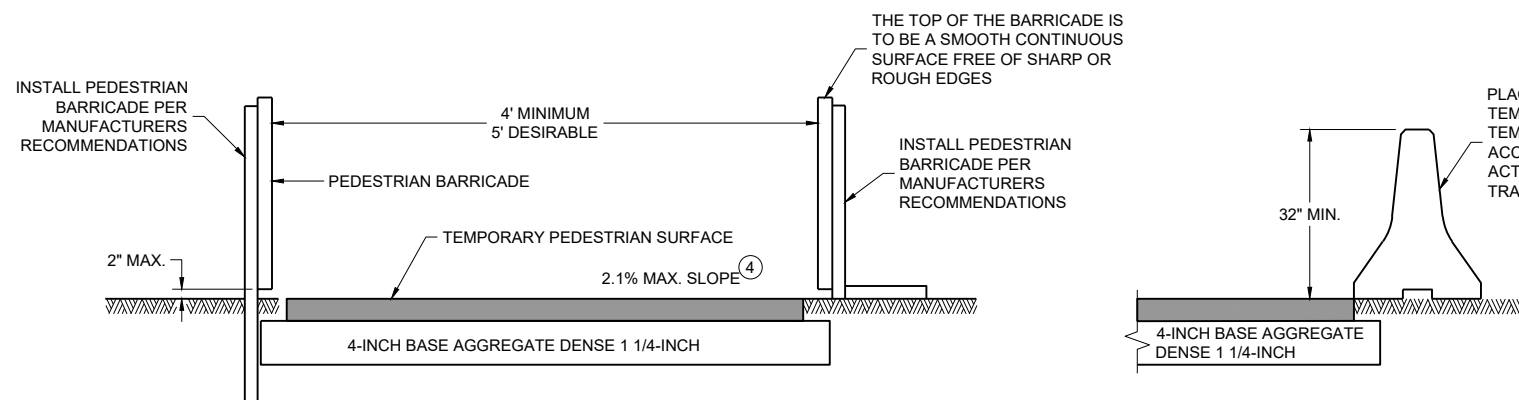
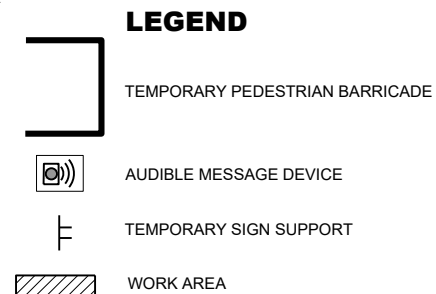
TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

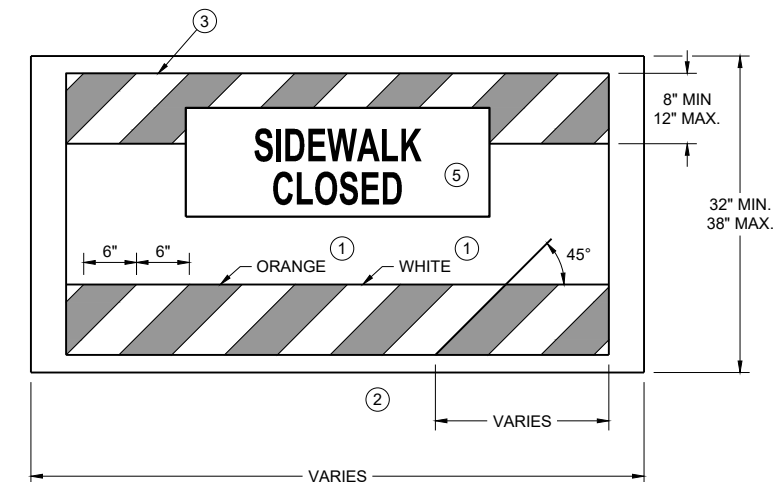
STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2024 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER

FHWA 297

**NARROW SIDEWALK PASSING DETAIL****MAXIMUM VERTICAL GAP****MAXIMUM HORIZONTAL GAP****TEMPORARY PEDESTRIAN ACCESS****GENERAL NOTES**

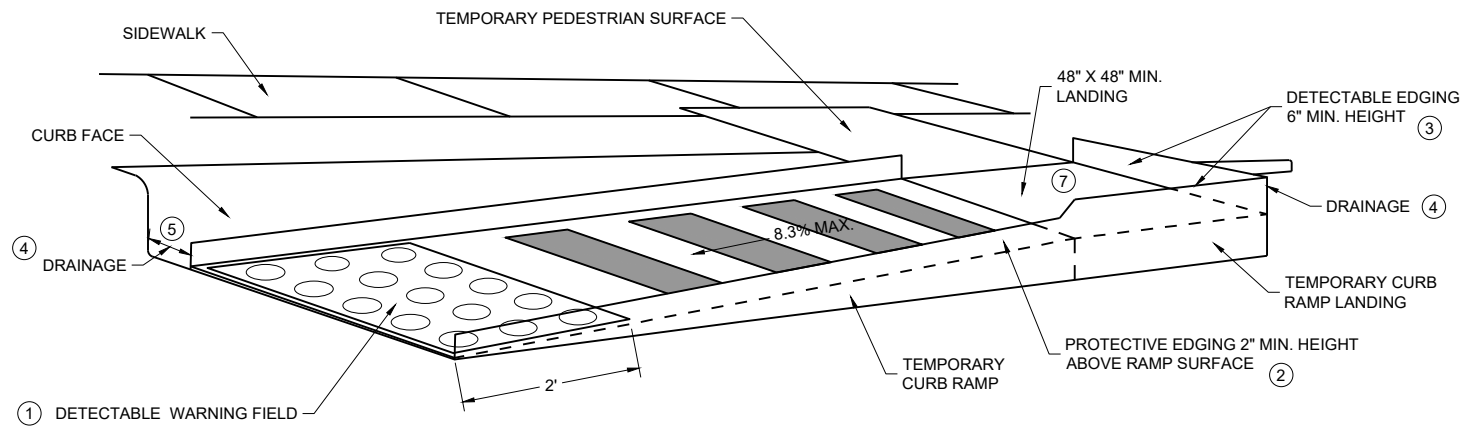
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
- ④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ⑤ WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.

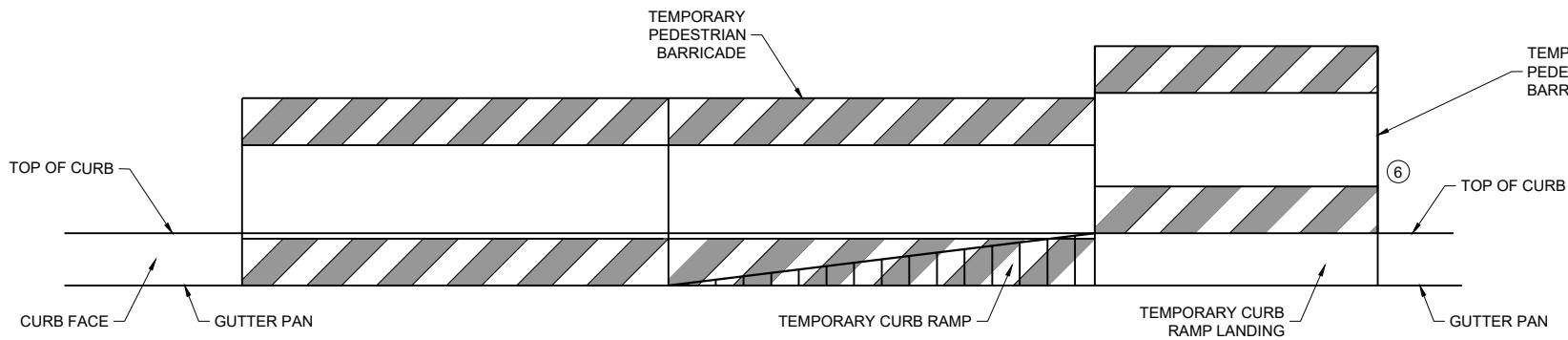
**TEMPORARY PEDESTRIAN BARRICADE *****TEMPORARY PEDESTRIAN FLAGGING**

**TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

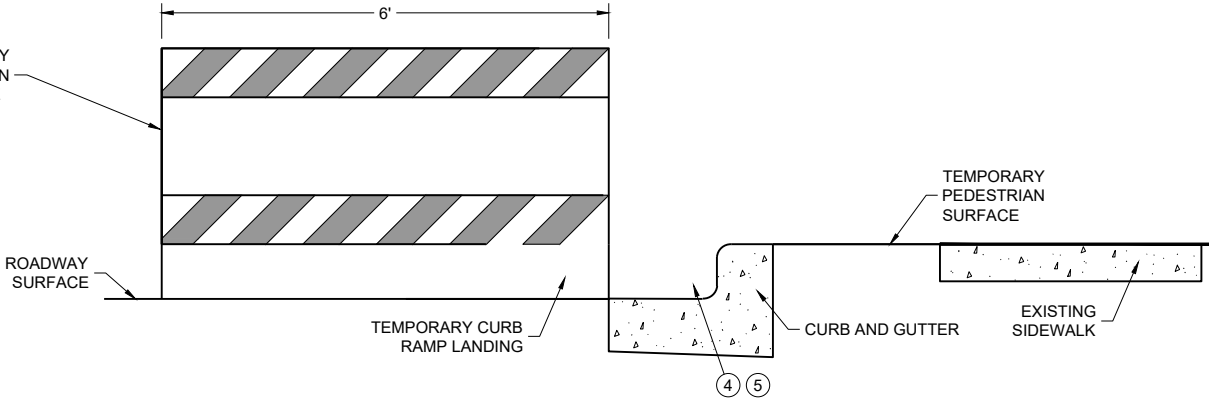


PERSPECTIVE VIEW



FRONT VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB



SIDE VIEW

GENERAL NOTES

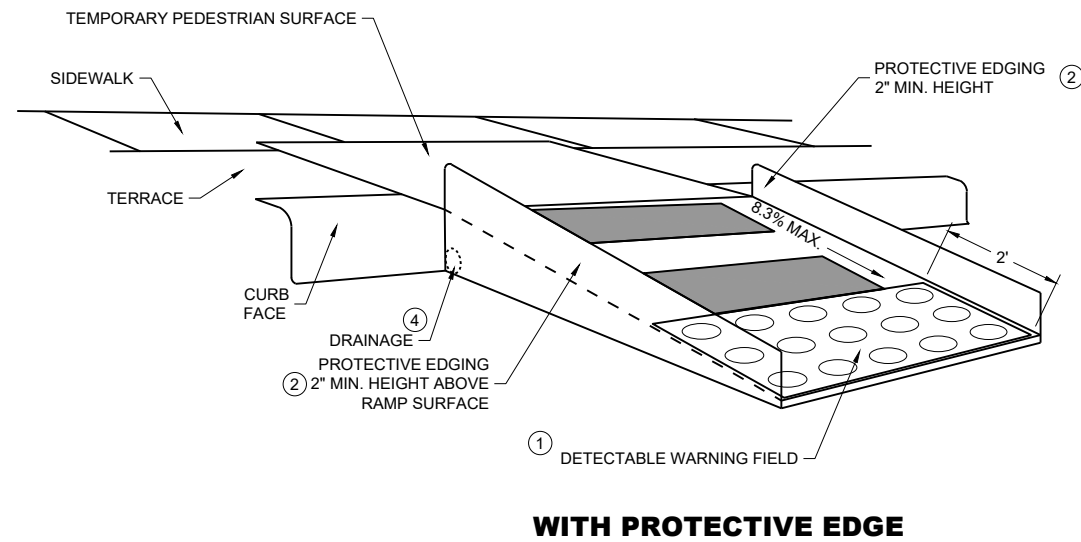
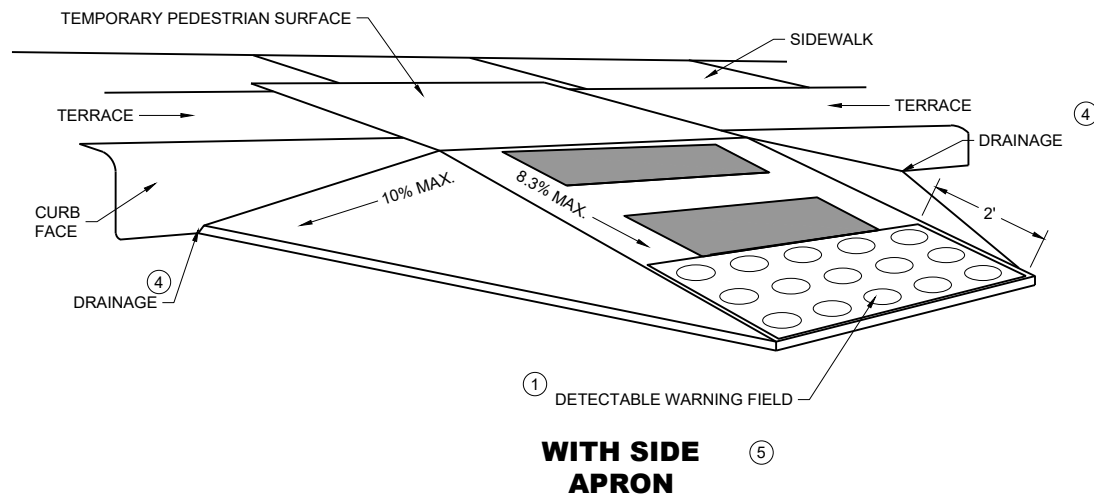
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
- ⑦ LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

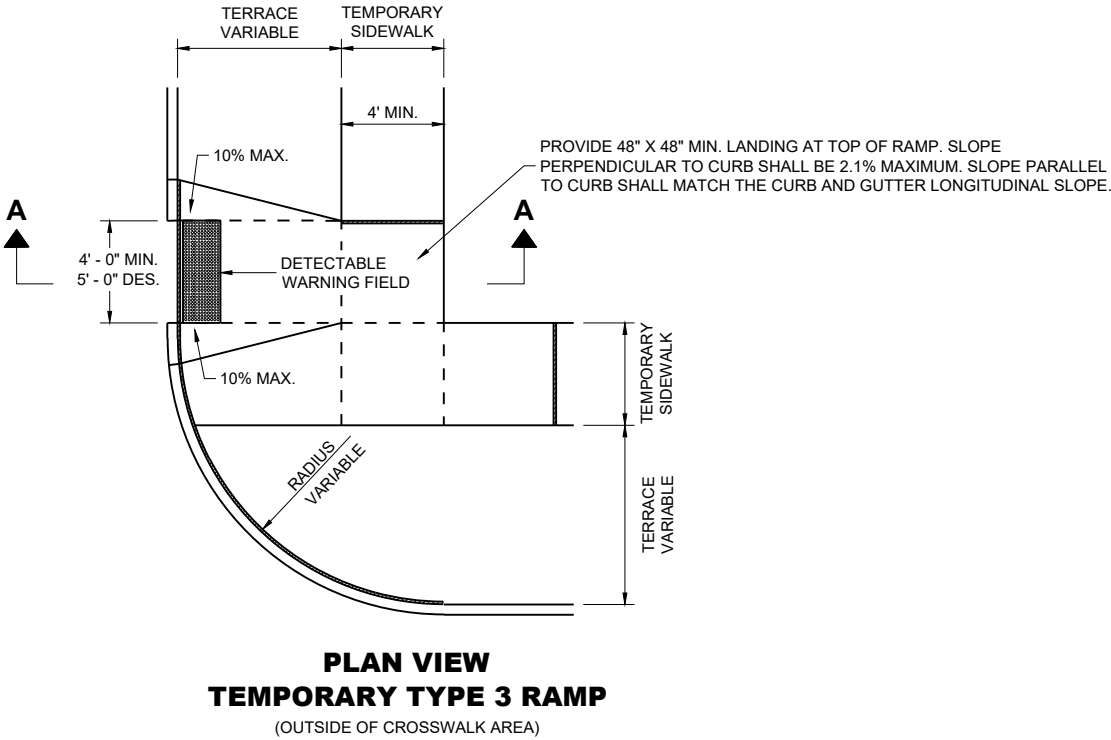
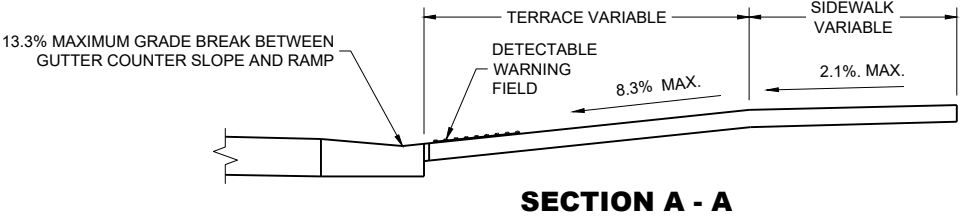
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

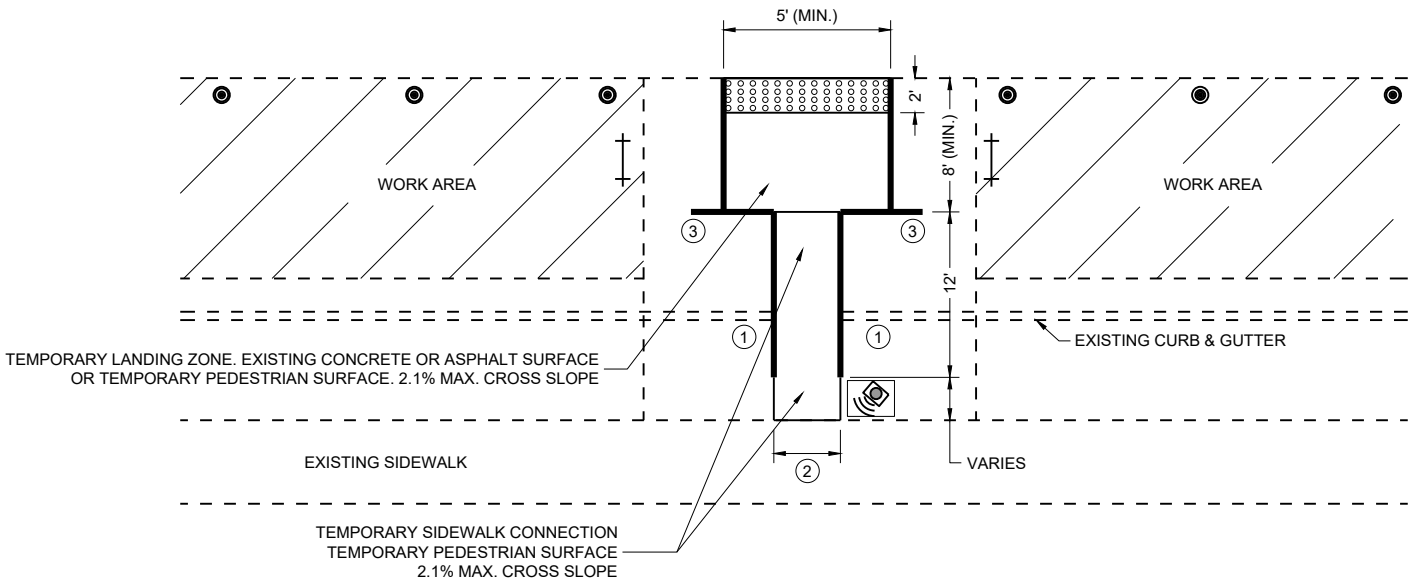
- (1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- (2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- (3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- (4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- (5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES

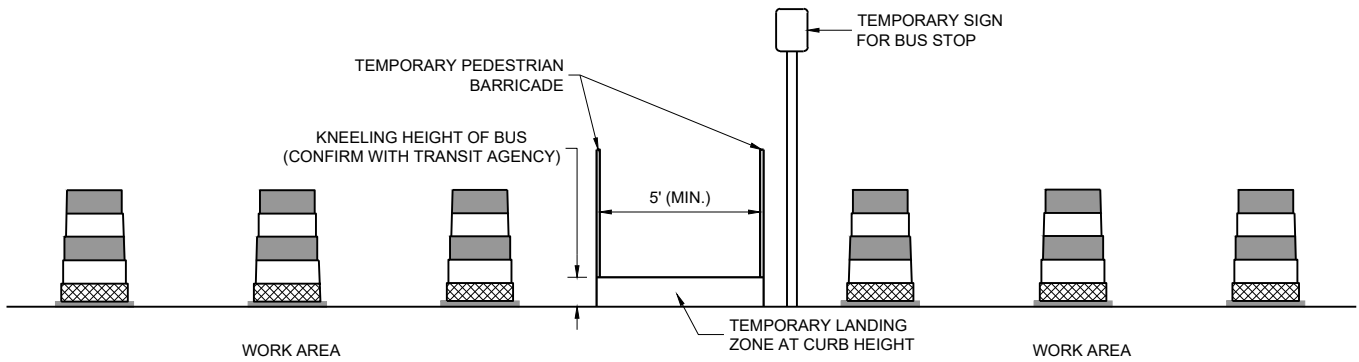


TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ◻ TEMPORARY DETECTABLE WARNING FIELD
- ◻ WORK AREA
- ◻ TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

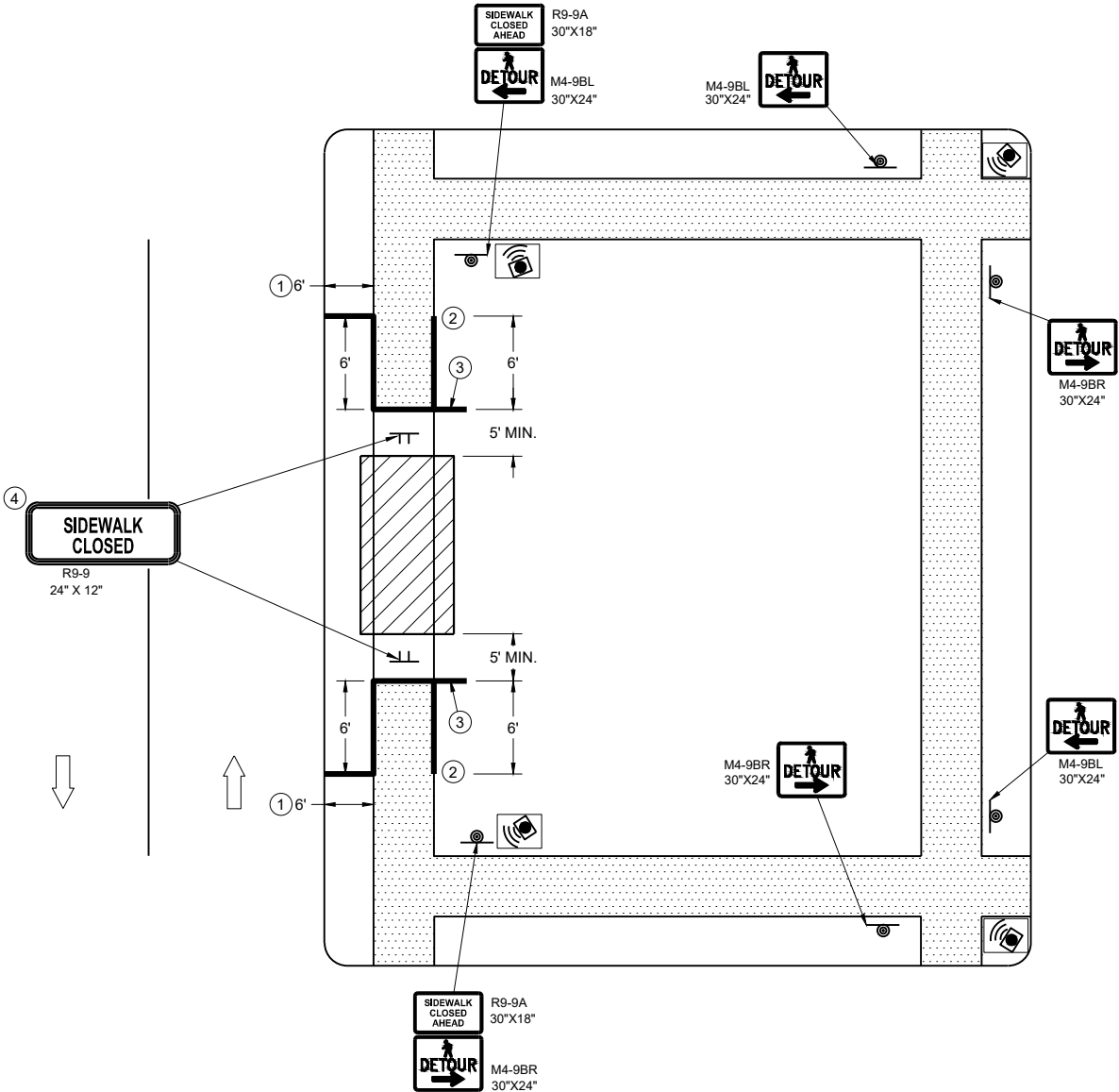
GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

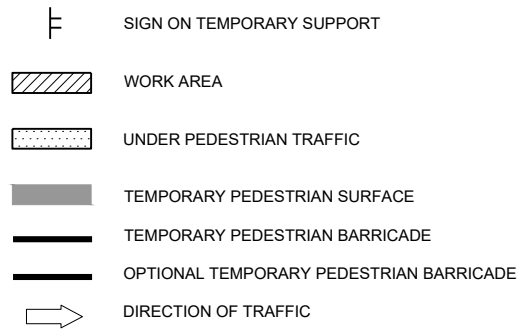
PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- 1 IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- 2 PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- 3 IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- 4 MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

LEGEND



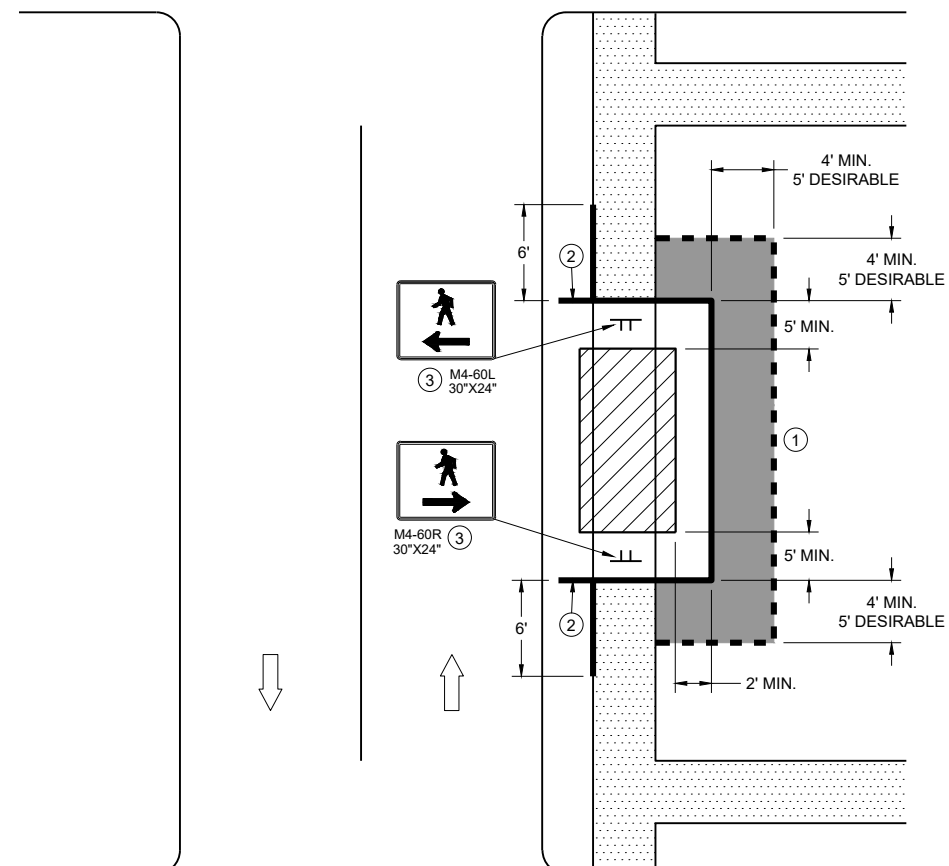
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS SINGLE SIDE

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

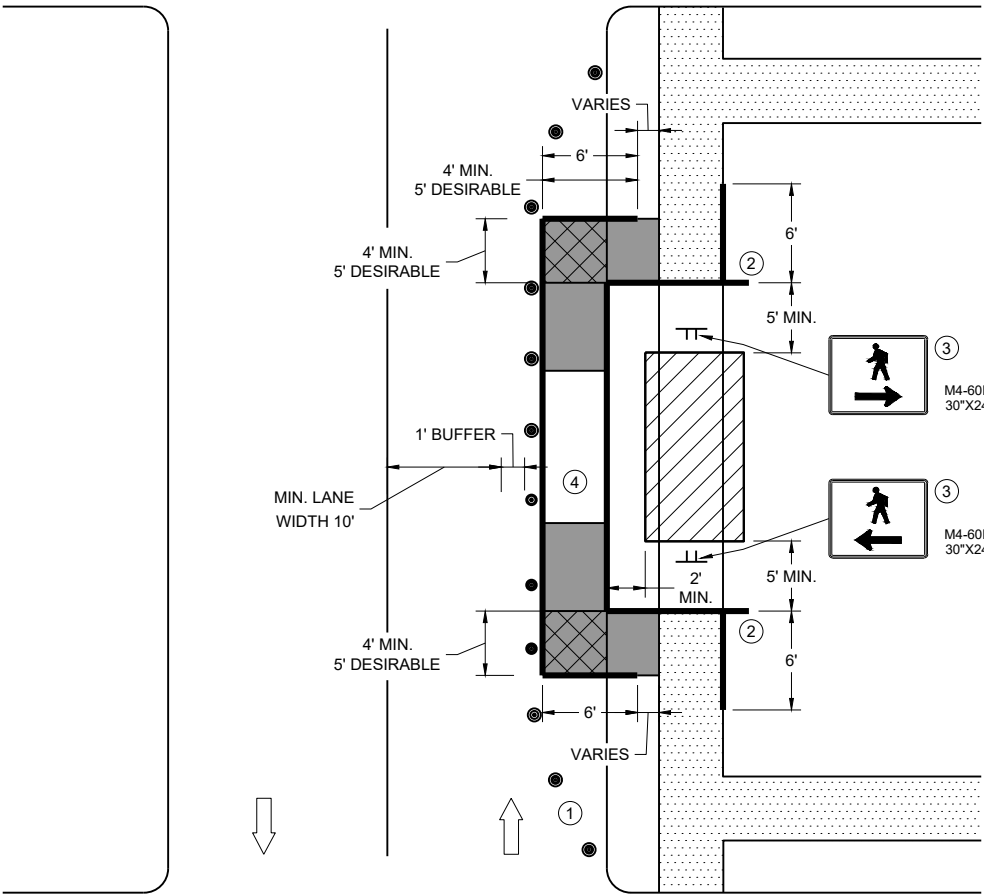
- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ①

SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
- ②

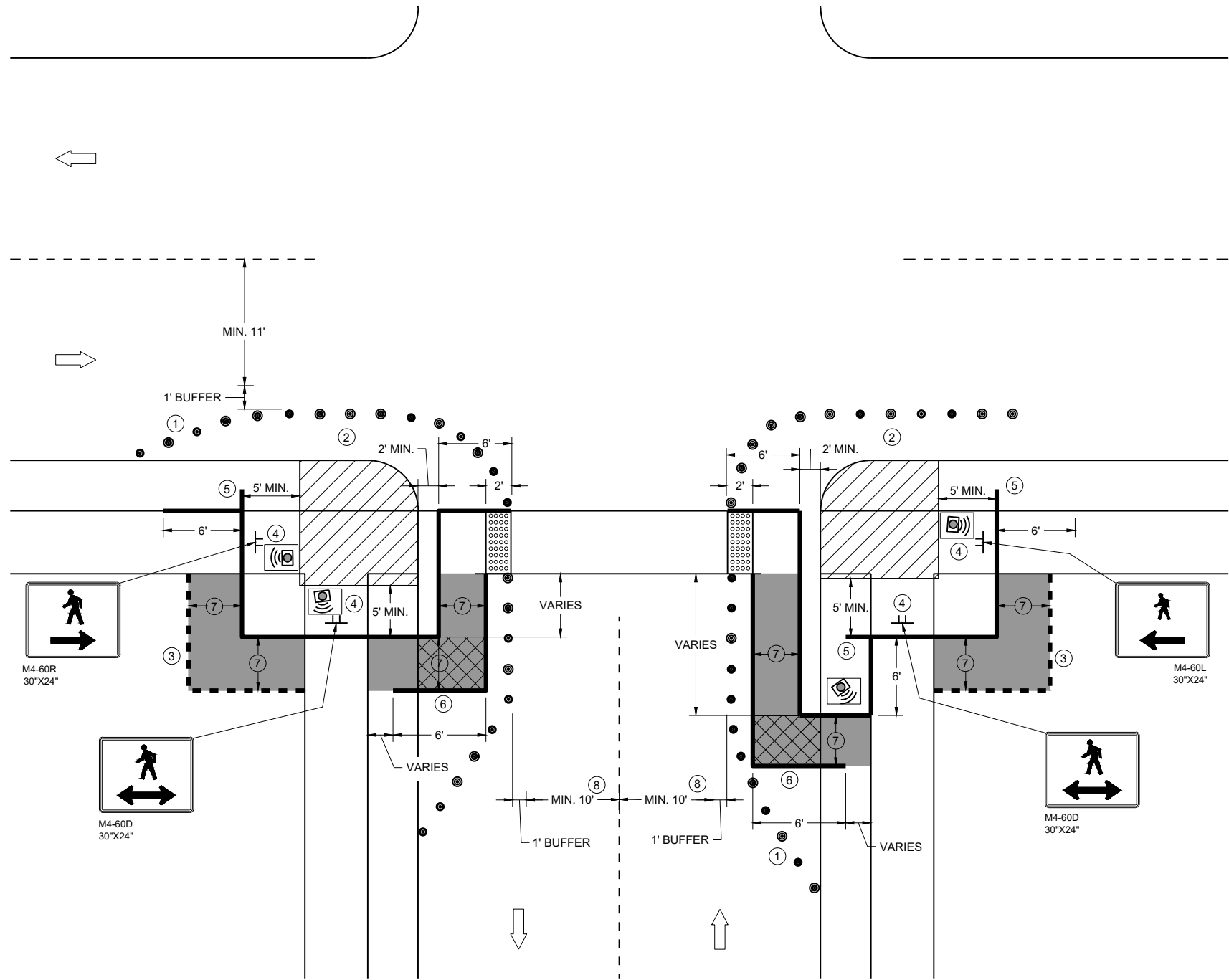
PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
- ③

MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
- ④

USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE



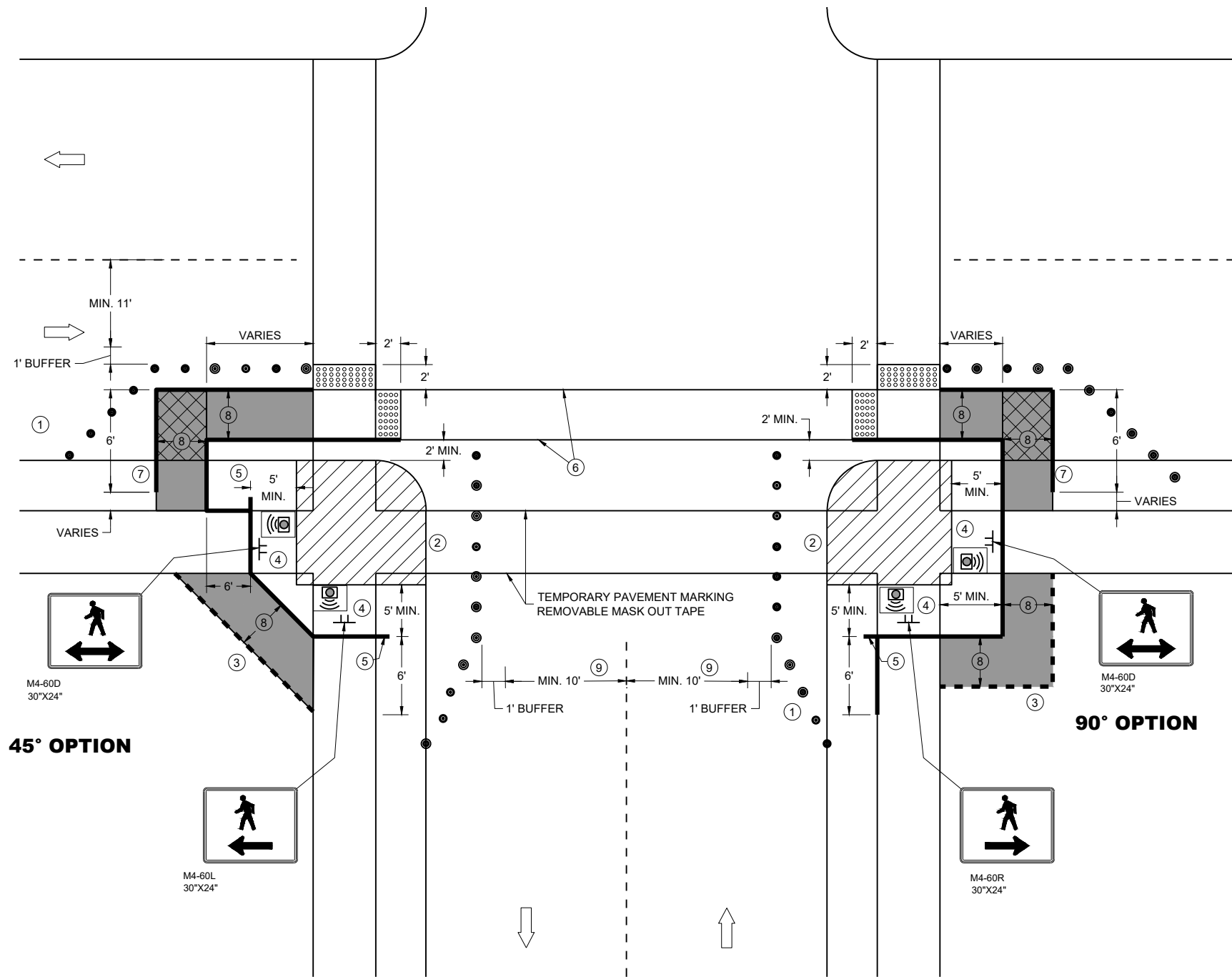
CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

- IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.
- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG
- WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
 - ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
 - ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
 - ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
 - ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
 - ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
 - ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
 - ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

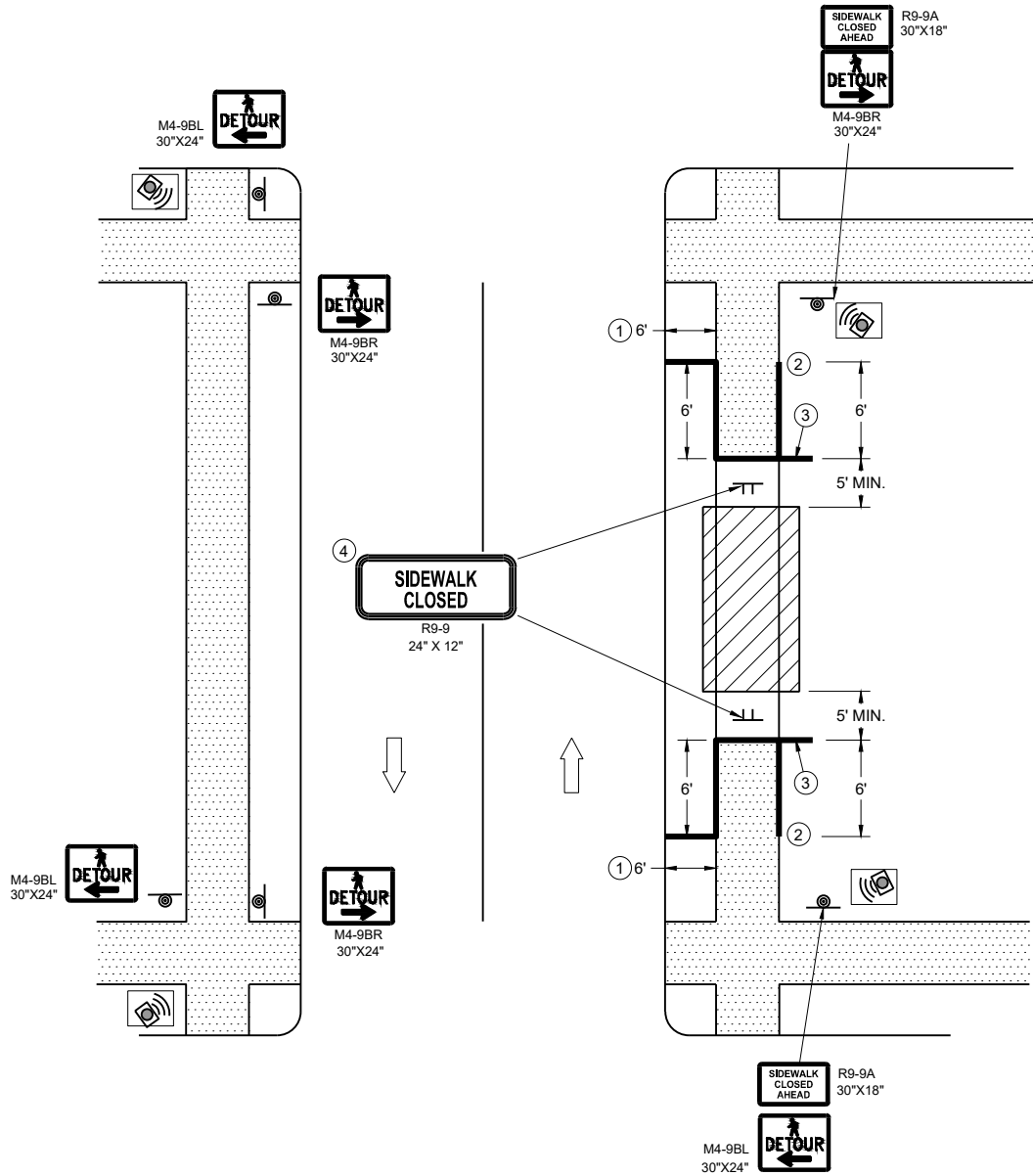
- 1 SHOULDERS OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- 3 USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- 4 MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- 5 PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- 6 WHITE 6" TEMPORARY PAVEMENT MARKING
- 7 IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- 8 4 FEET MINIMUM, 5 FEET DESIRABLE
- 9 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

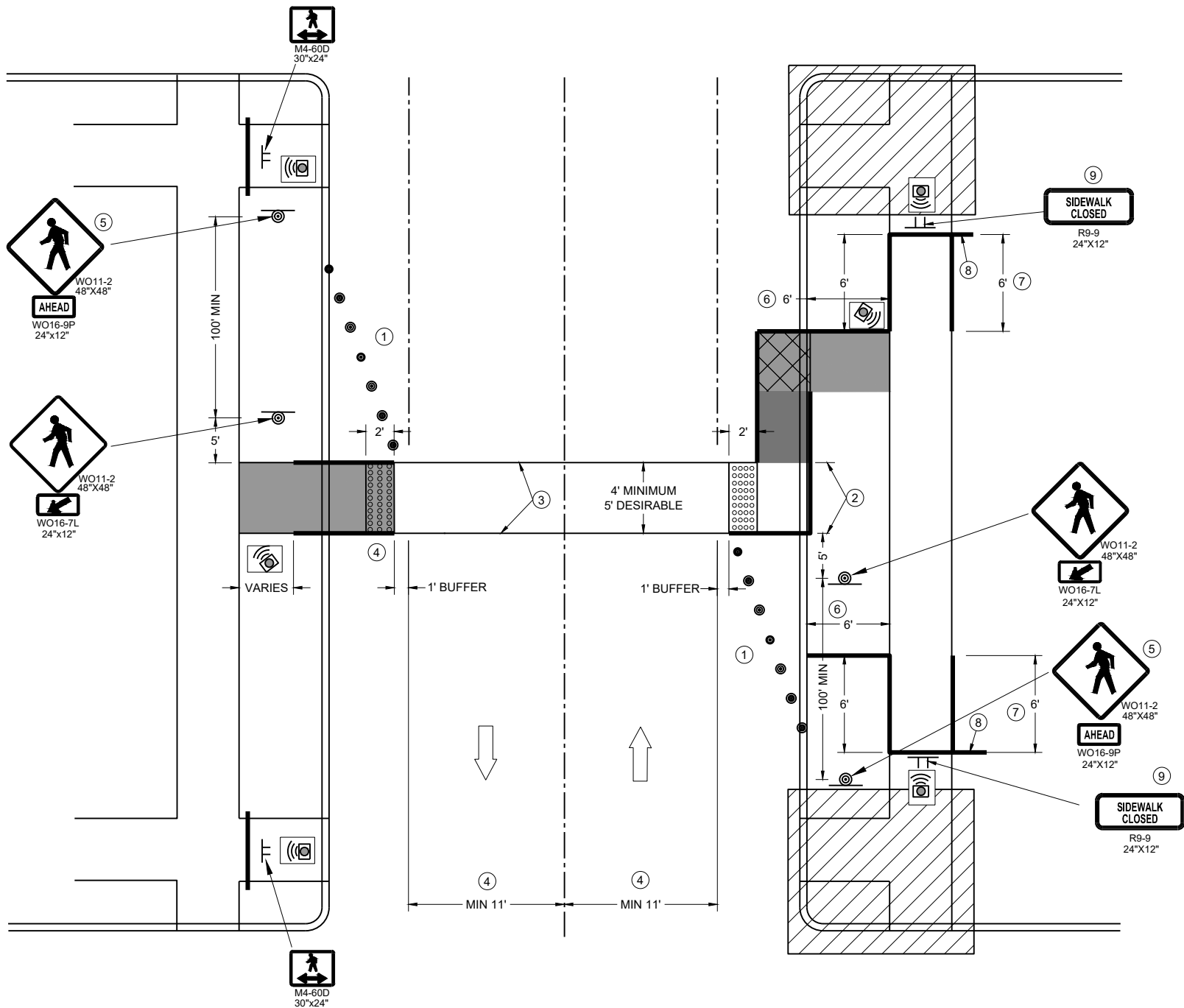
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
 - PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
 - IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
 - MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- ① SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② 4 FEET MINIMUM, 5 FEET DESIRABLE.
- ③ WHITE 6" TEMPORARY PAVEMENT MARKING.
- ④ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
- ⑤ IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- ⑥ IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ⑦ PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ⑧ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ⑨ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON TEMPORARY SUPPORT
- ▬ TEMPORARY CURB RAMP
- ▬ TEMPORARY DETECTABLE WARNING FIELD
- ▬ TEMPORARY PEDESTRIAN SURFACE "A"
- ▬ TEMPORARY PEDESTRIAN SURFACE "B"
- ▬ WORK AREA
- ▬ TEMPORARY PEDESTRIAN BARRICADE
- ➡ DIRECTION OF TRAFFIC
- 🔊 TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

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.

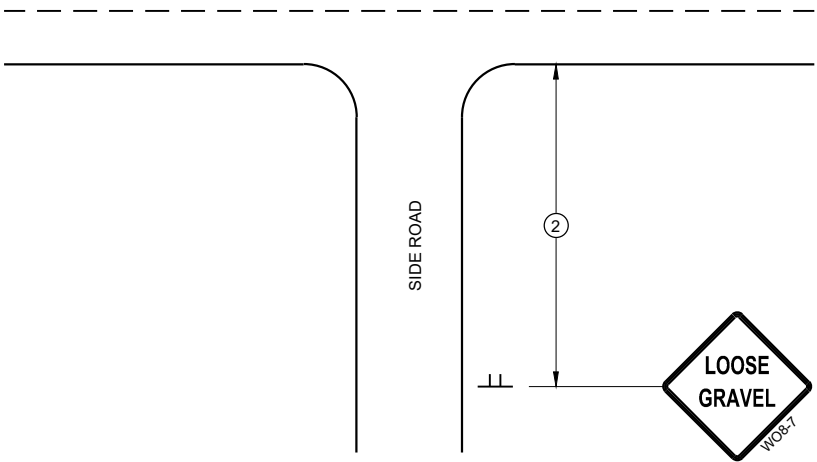
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

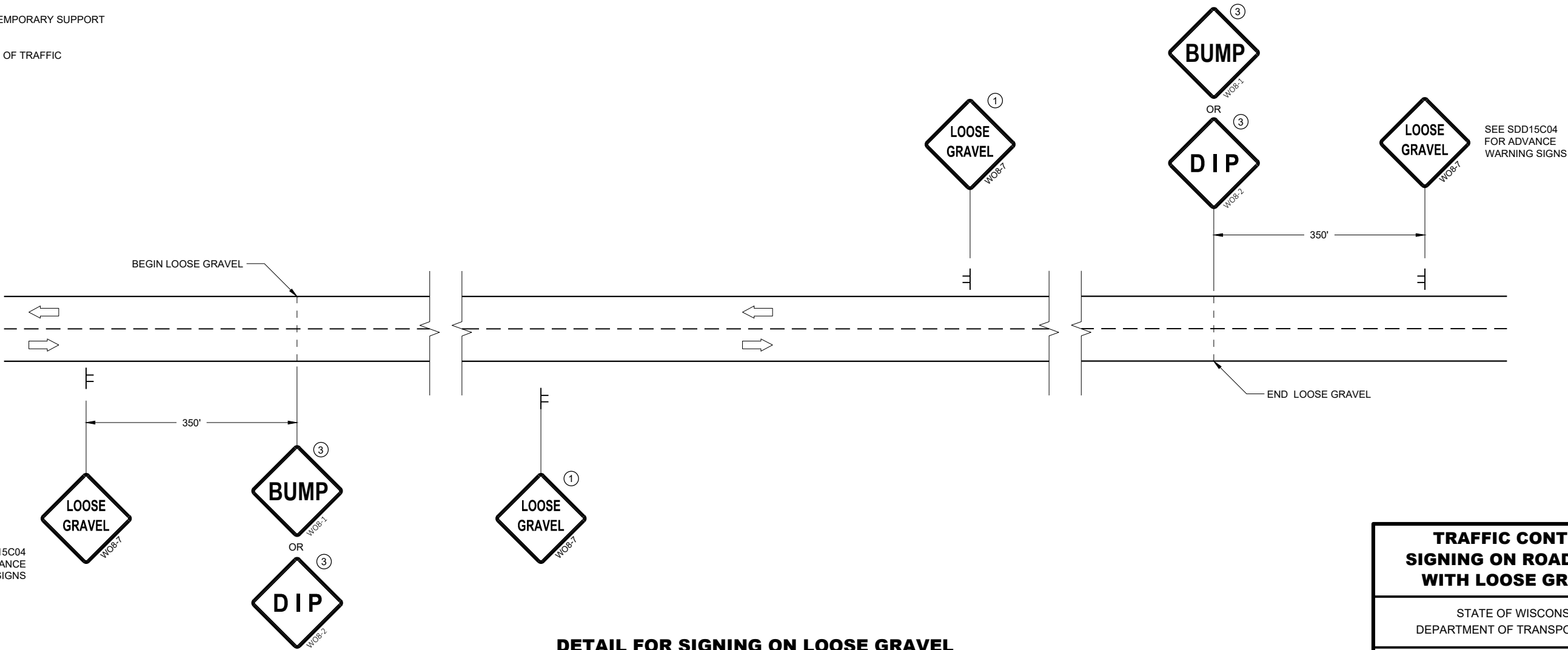
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



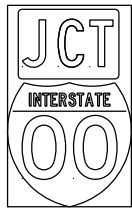
DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

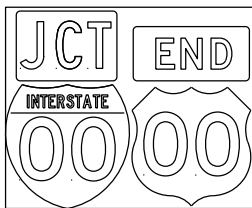
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 310
FHWA

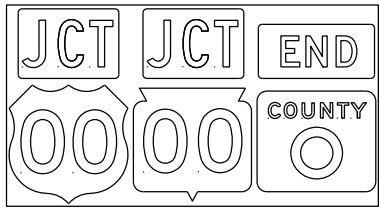
TYPICAL ASSEMBLIES



J1-1



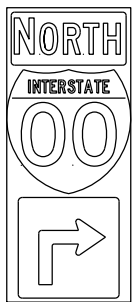
J1-2



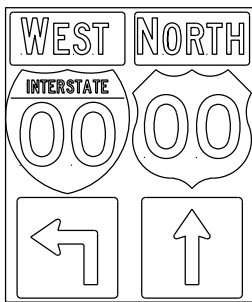
J1-3



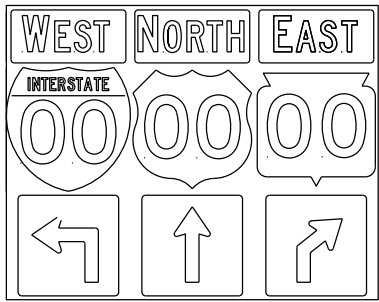
JR1-1



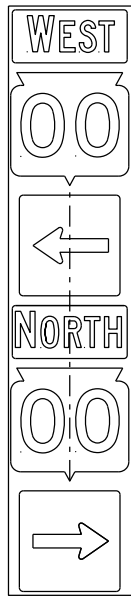
J2-1



J2-2

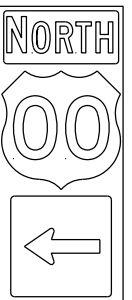


J2-3

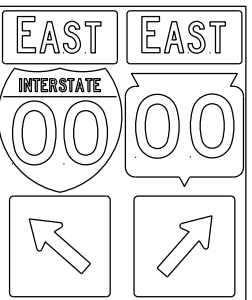


JV

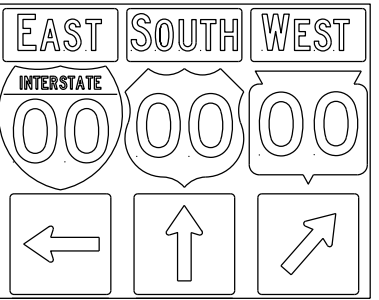
(Typical Vertical J-Assembly
See Note 10 and 11)



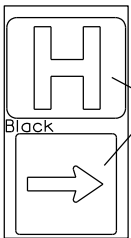
J3-1



J3-2



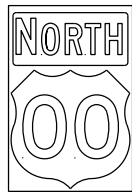
J3-3



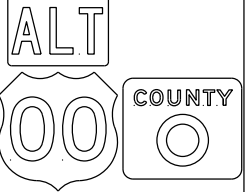
JH-1

Blue Background

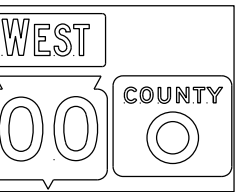
Black



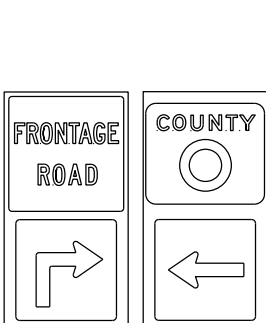
J4-1



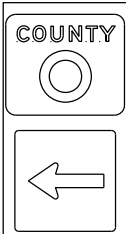
J4-2



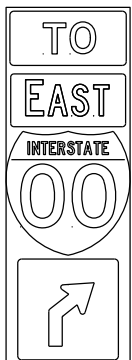
J4-2



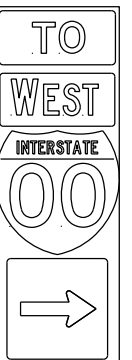
J12-1



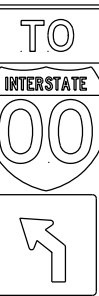
J13-1



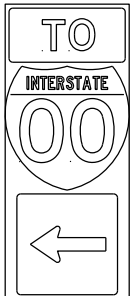
J32-1



J33-1



J22-1



J23-1



JR13-1

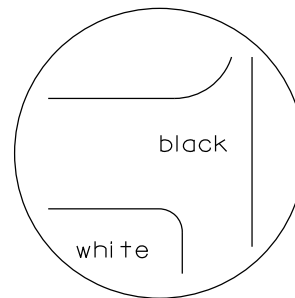
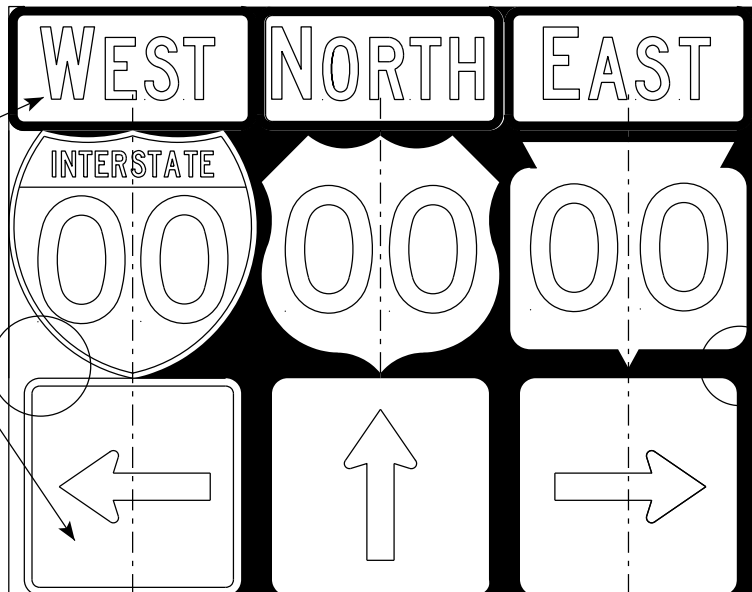
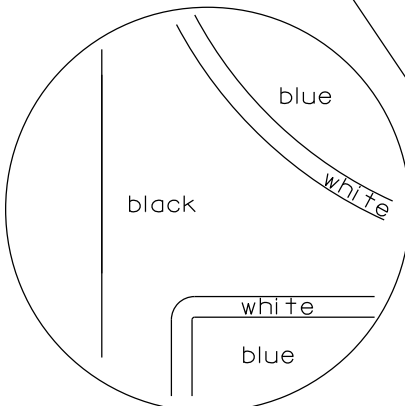


JR23-1



JR99-1

blue background
with interstate



black background

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

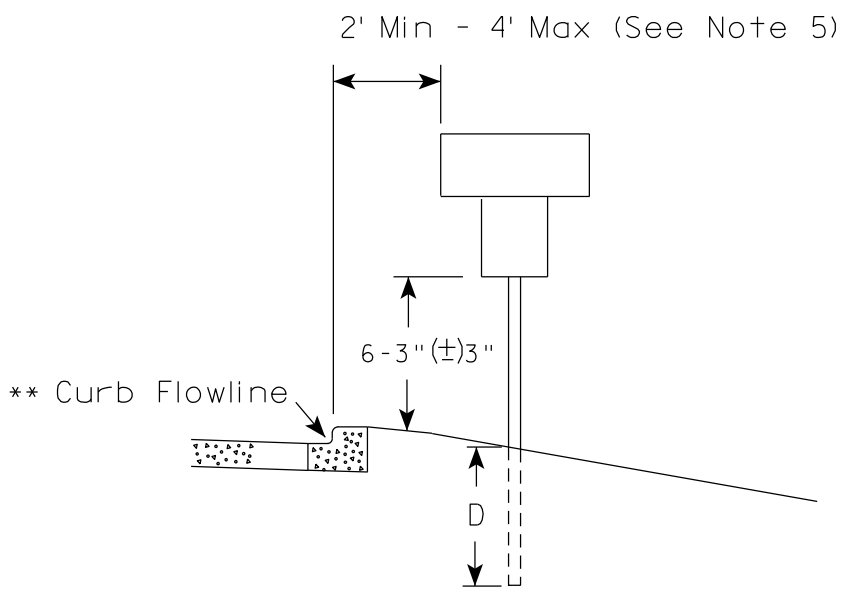
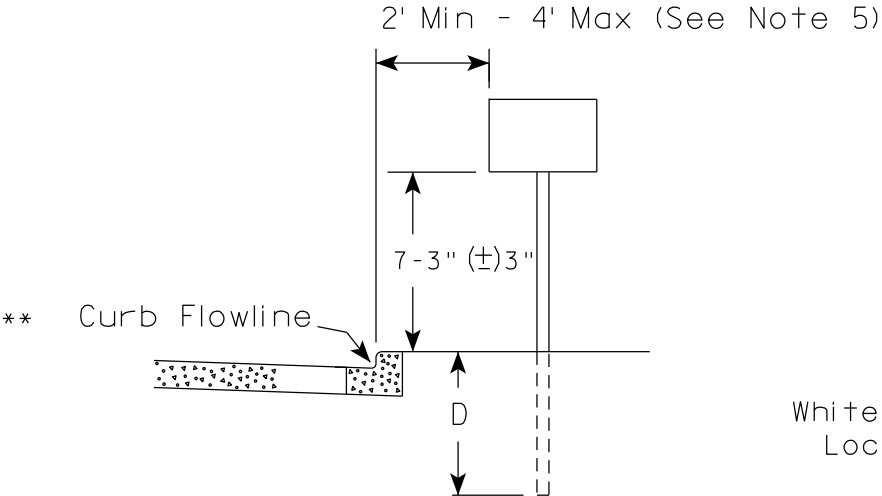
DATE 6/7/23 PLATE NO. A2-1S.10

PROJECT NO:

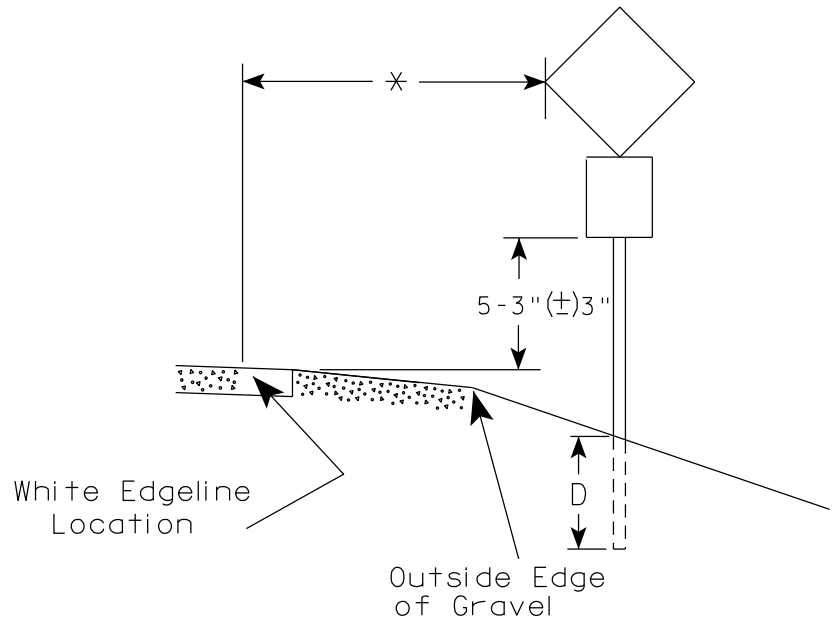
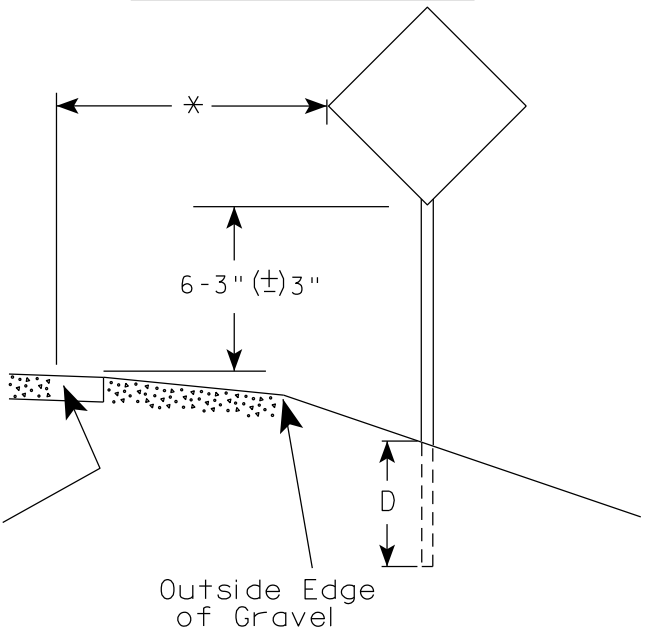
SHEET NO: 311

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

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

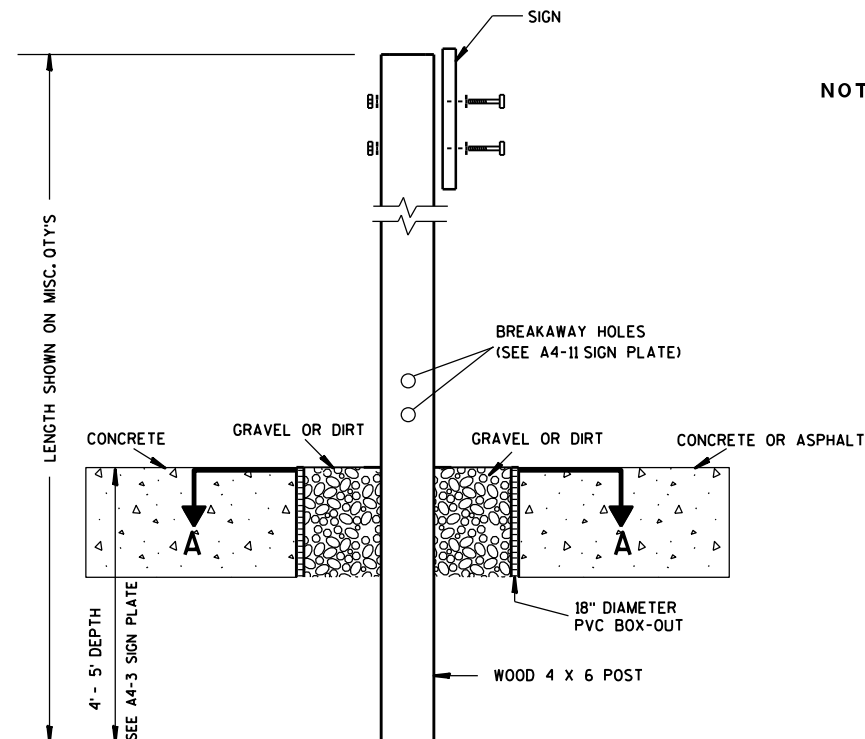
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

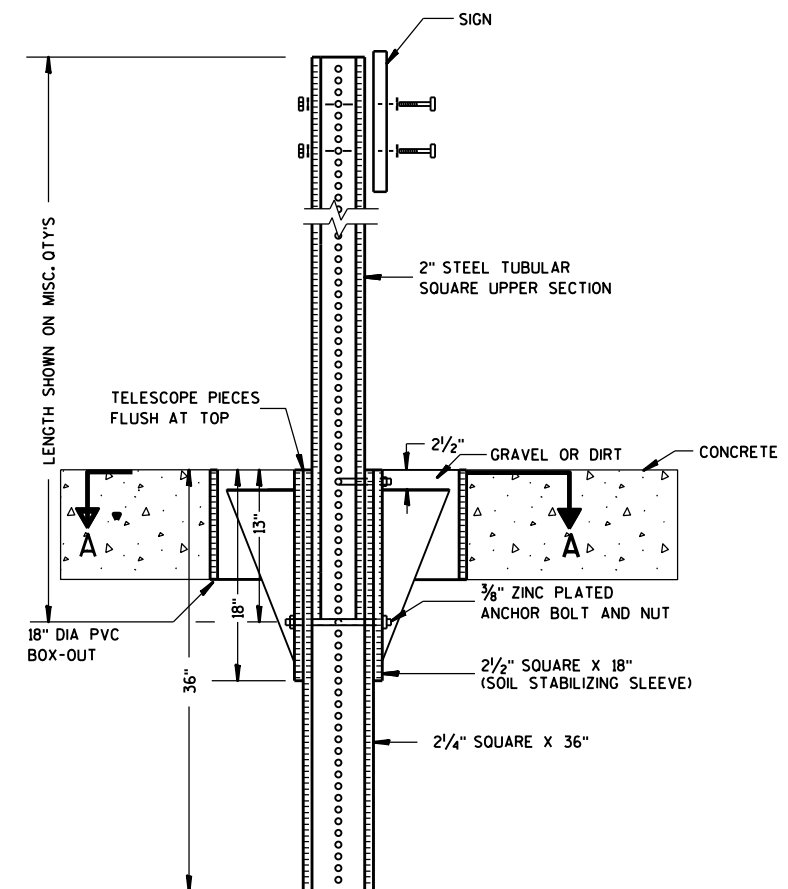
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

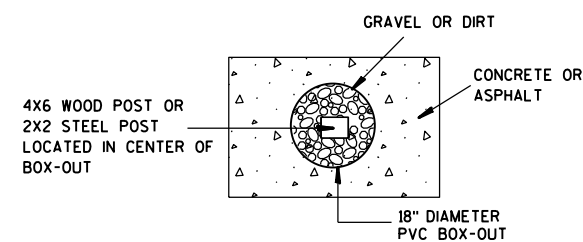
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 313 A4-3B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

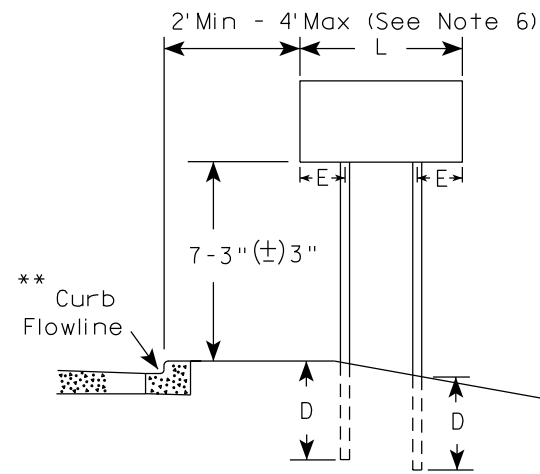
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3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

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

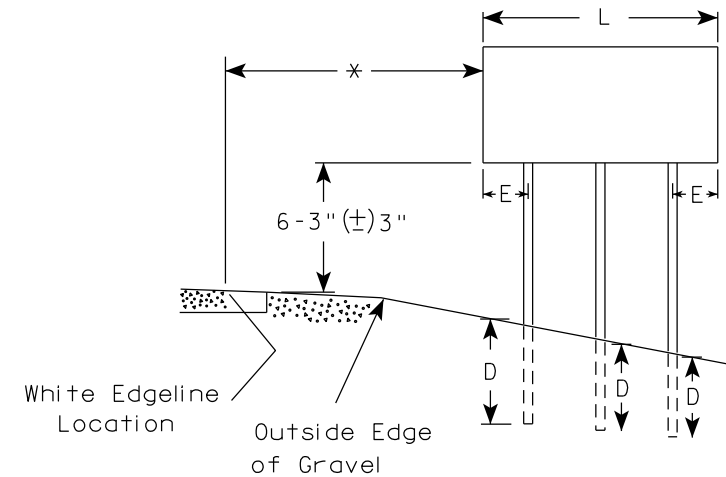
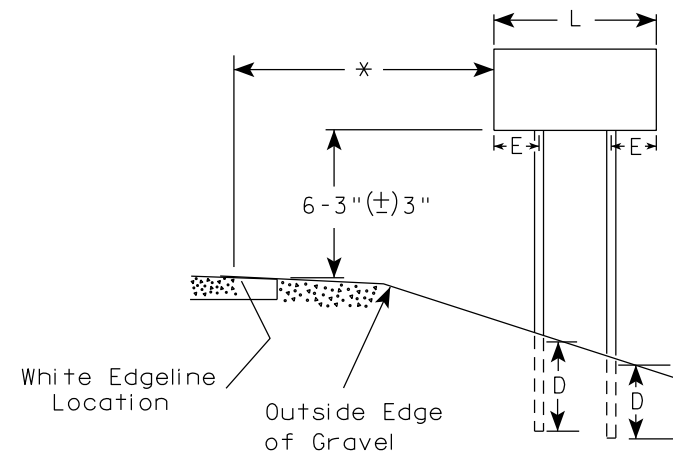
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

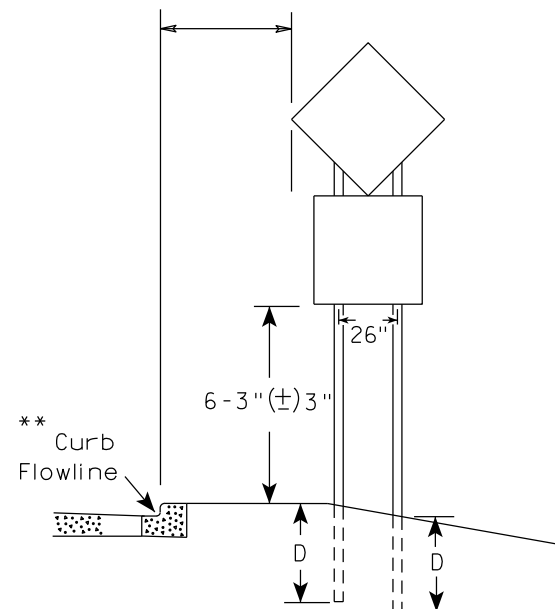
URBAN AREA



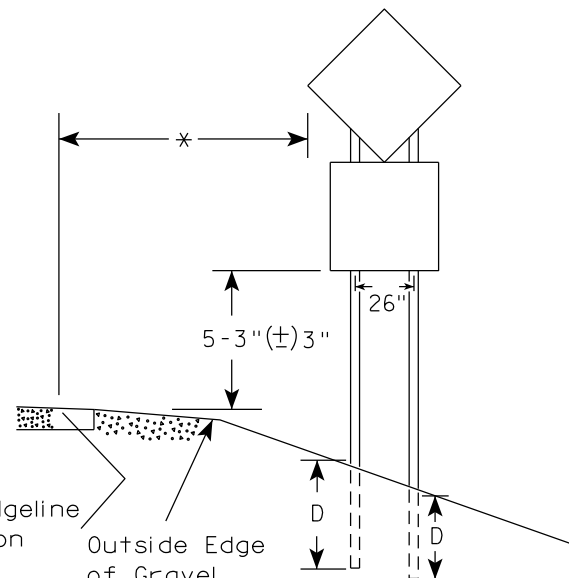
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

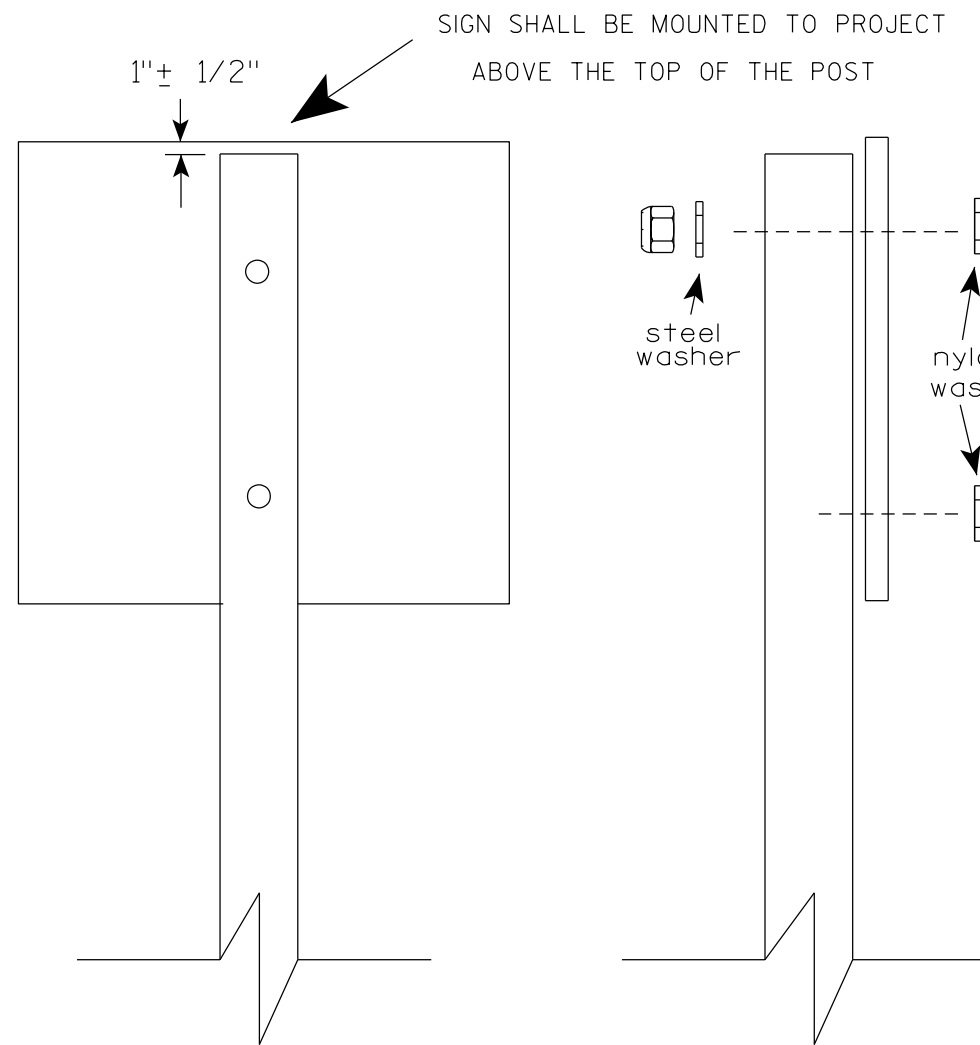
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

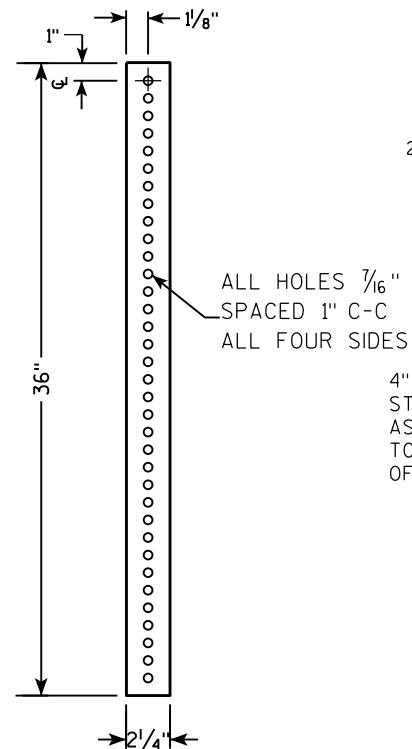
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

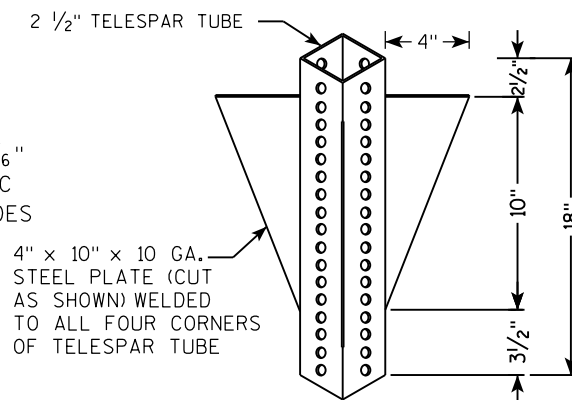
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



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



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

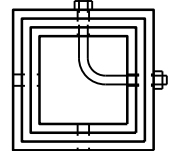
2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

SIGN

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 316 14-9.9

SHEET NO: E

PROJECT NO:	HWY:	COUNTY:	SHEET NO:
-------------	------	---------	-----------

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN

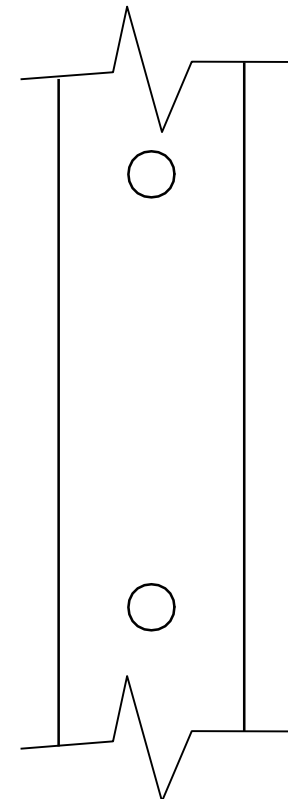
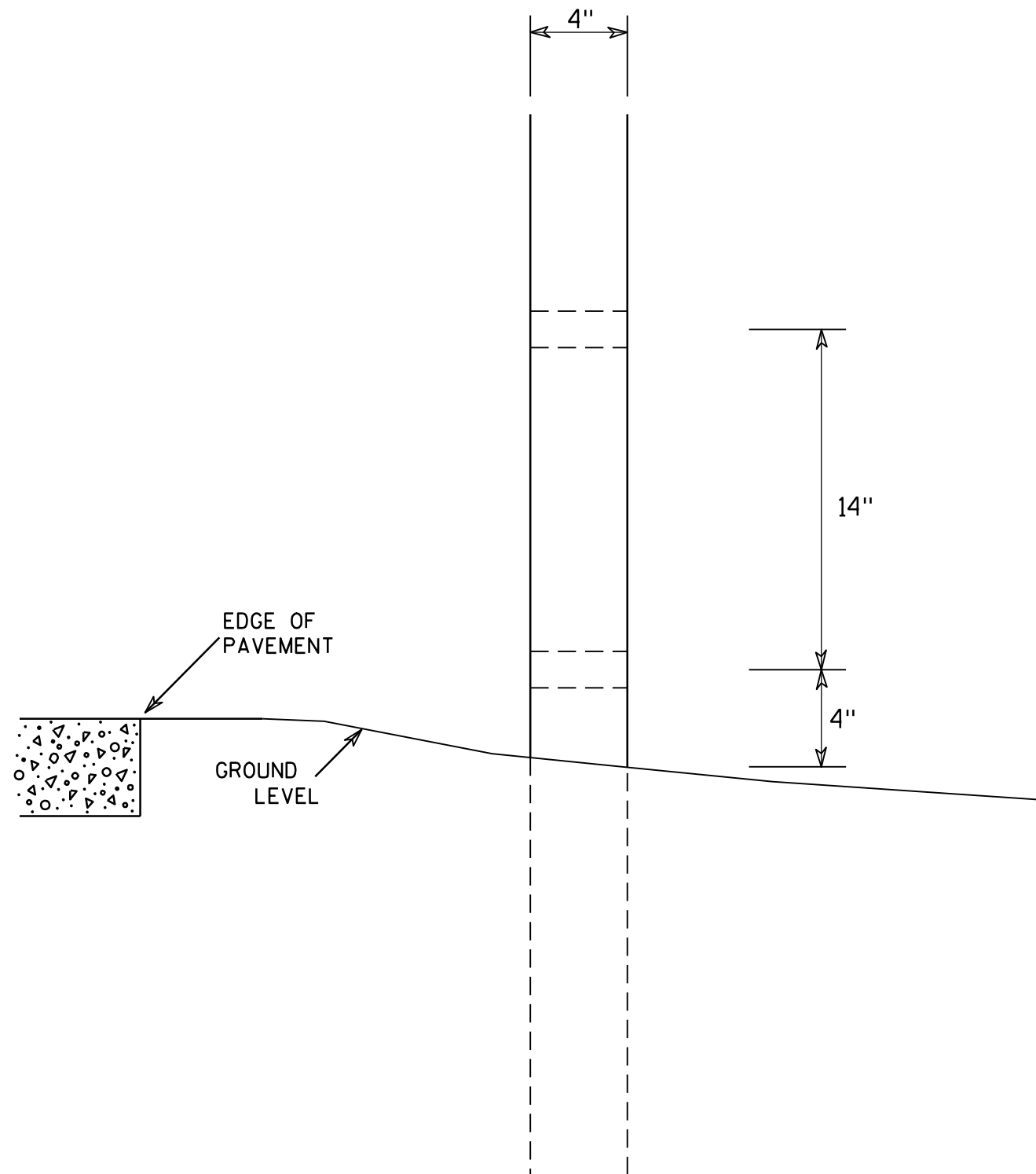
PLOT DATE : 05-FEB-2015 17:09

PLOT BY : mscs_ja

PLOT NAME :

PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

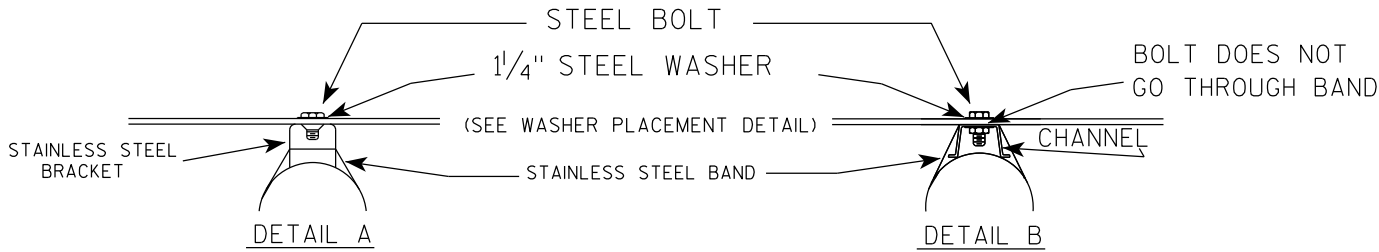
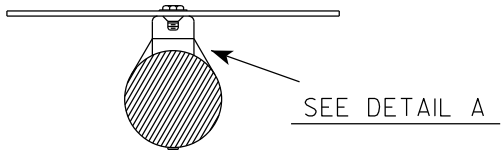
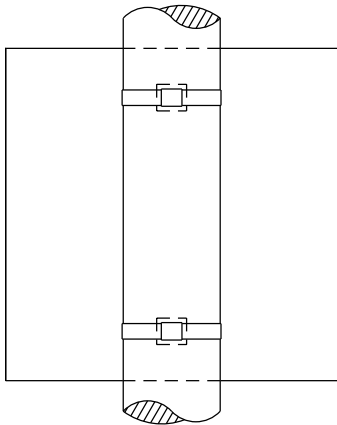
COUNTY:

SHEET NO: 317

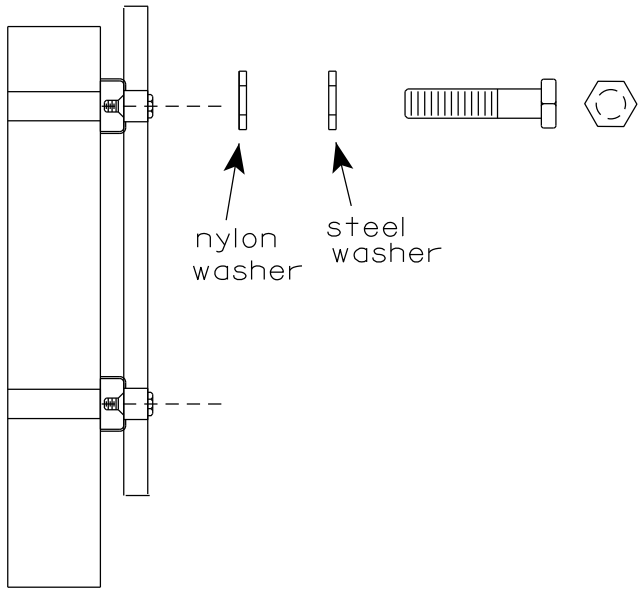
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

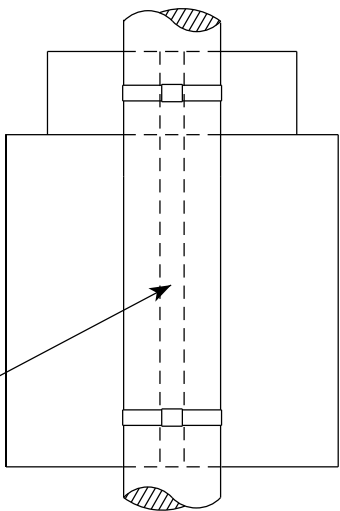


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

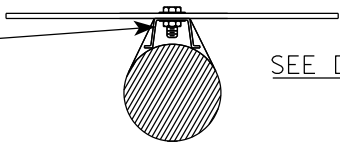
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



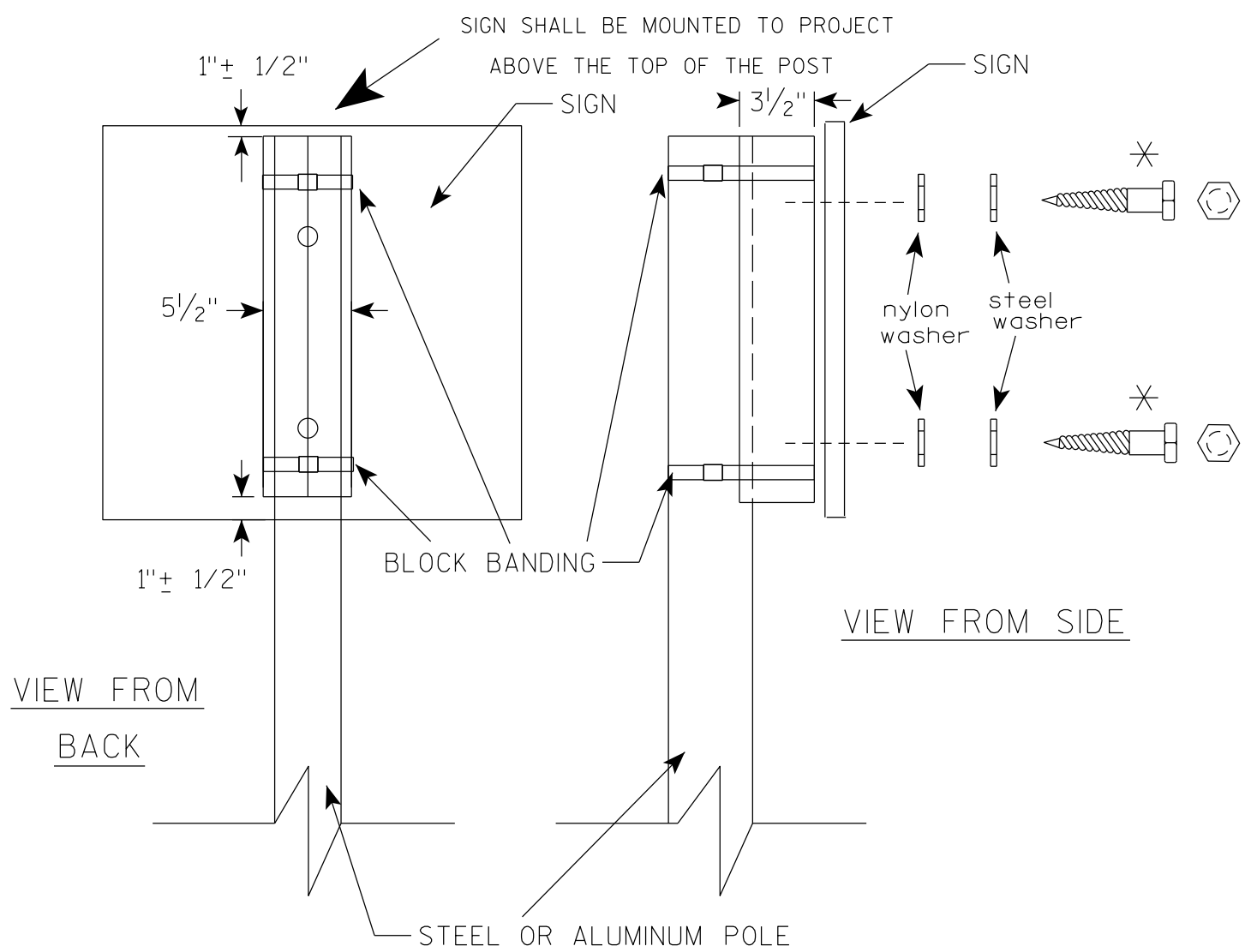
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

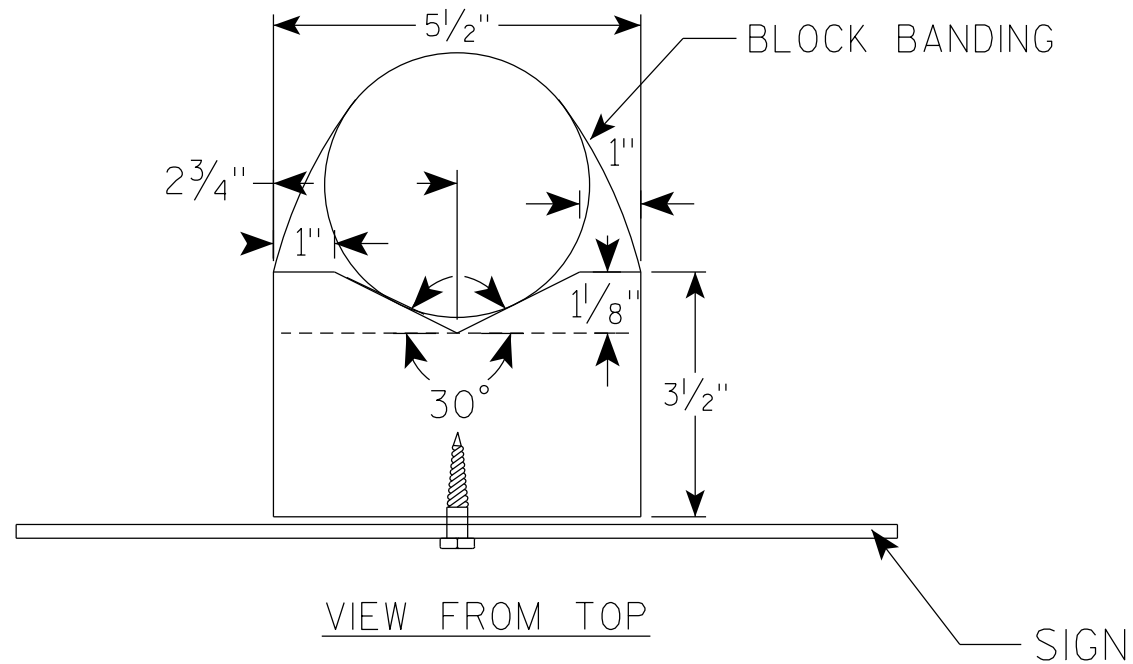
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

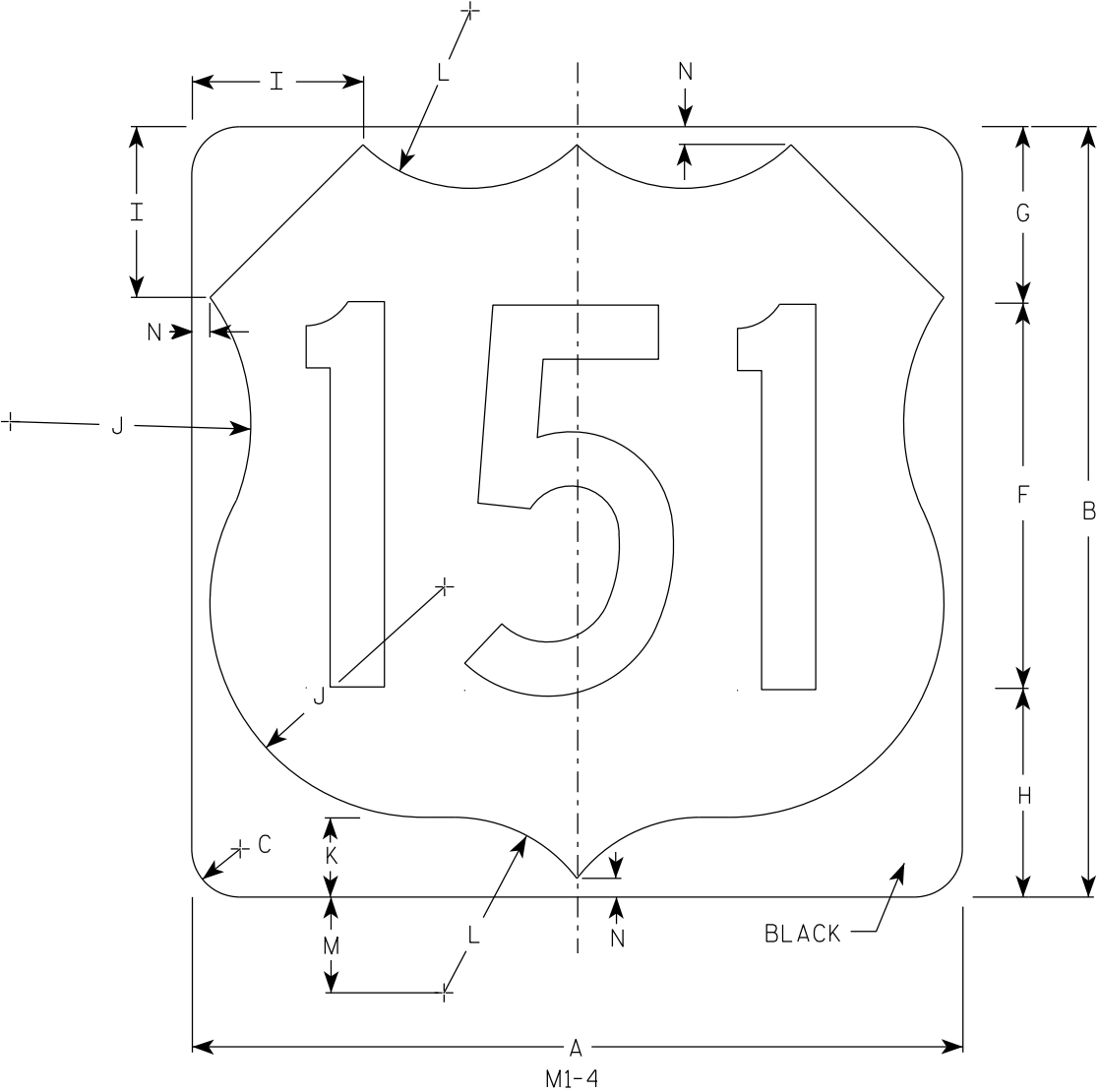
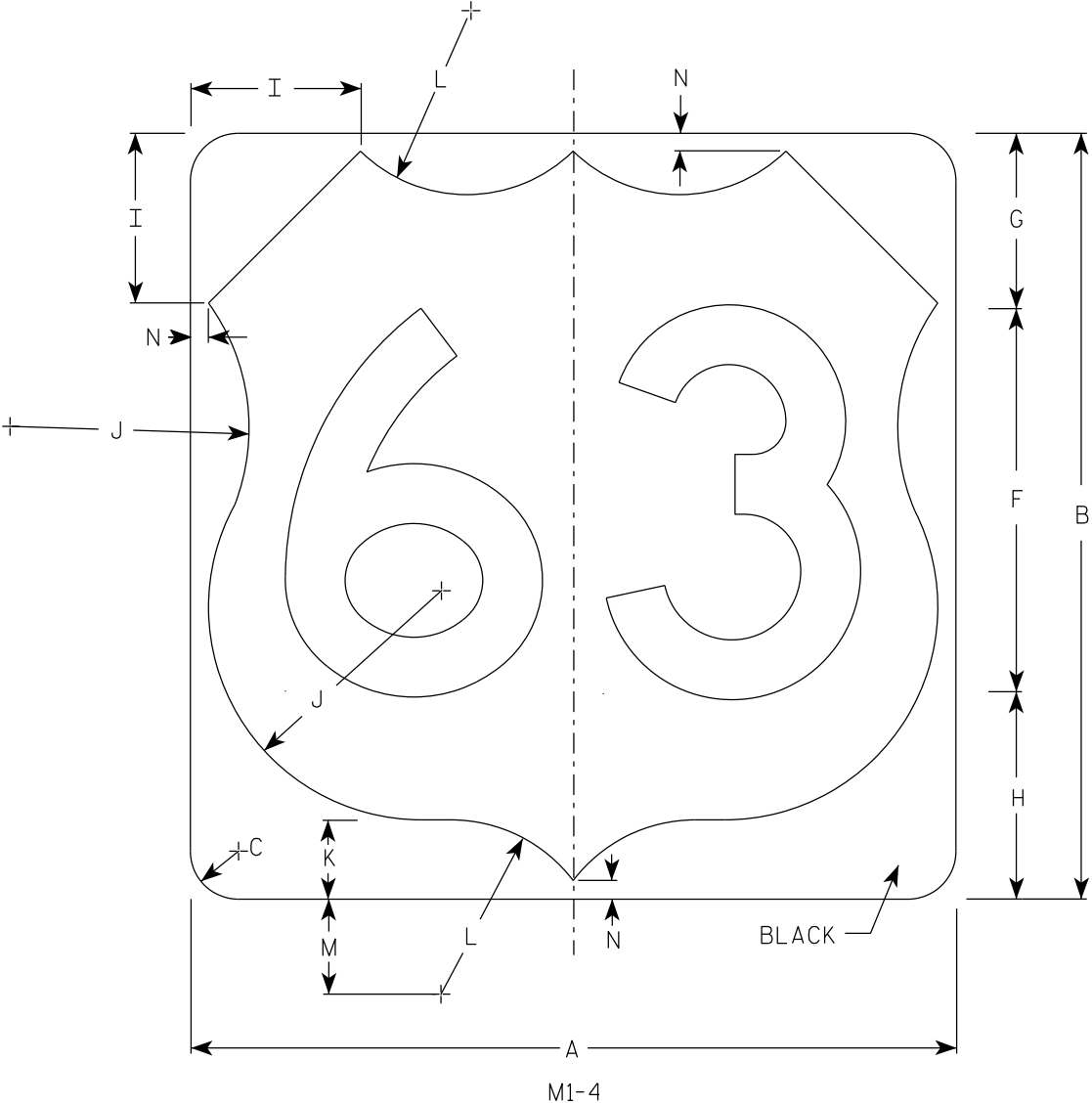
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 319

E



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D except 3 number signs Series C

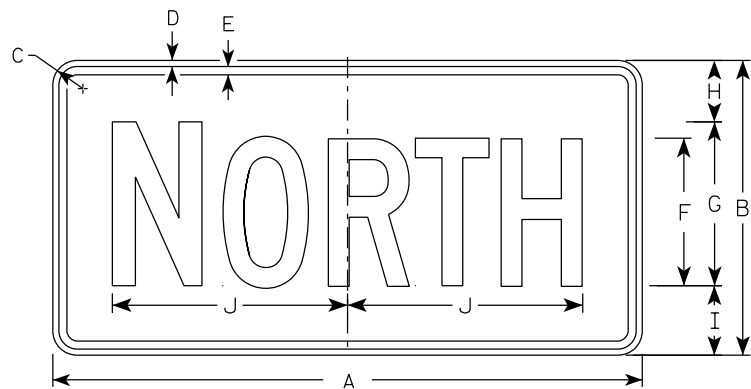
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
2M	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4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

USH MARKER
M1-4 FOR ASSEMBLIES

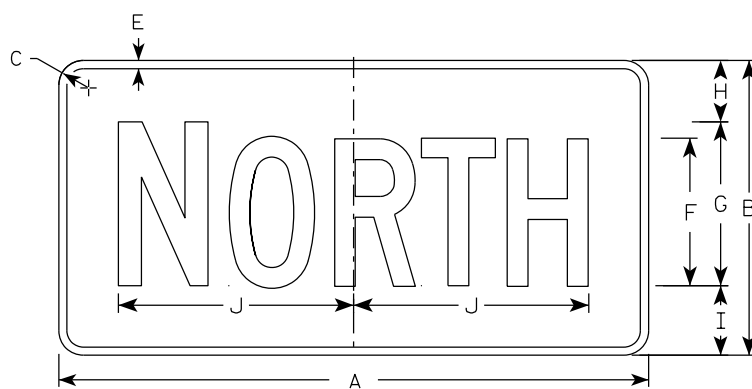
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

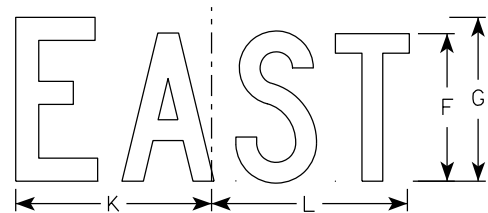
DATE 12/20/22 PLATE NO. M1-4.11



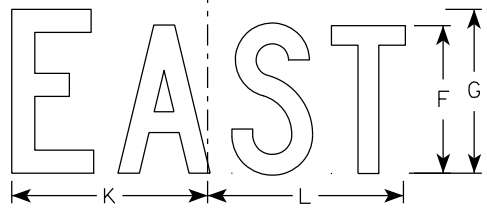
M3-1
MM3-1
MP3-1



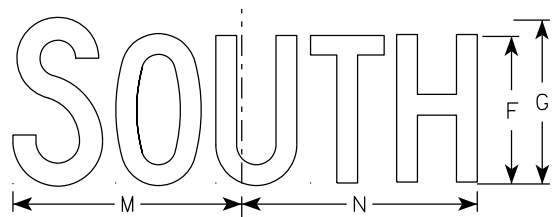
MB3-1
MK3-1
MN3-1



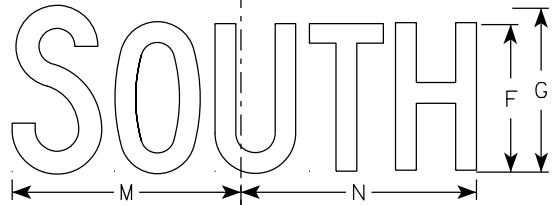
M3-2
MM3-2
MP3-2



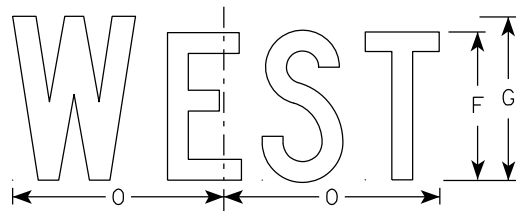
MB3-2
MK3-2
MN3-2



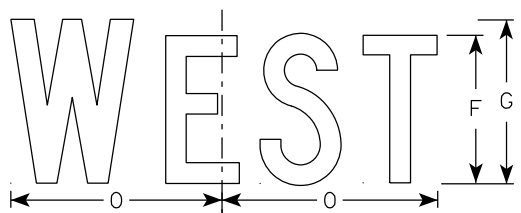
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS M3-1 THRU M3-4 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 2/8/2023

PLATE NO. M3-1.15

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 321

E

NOTES

1. Sign is Type II - Type H Reflective except as Shown
2. Color:

Background - See Note 5

Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1

Background - White

Message - Black

MB4-1

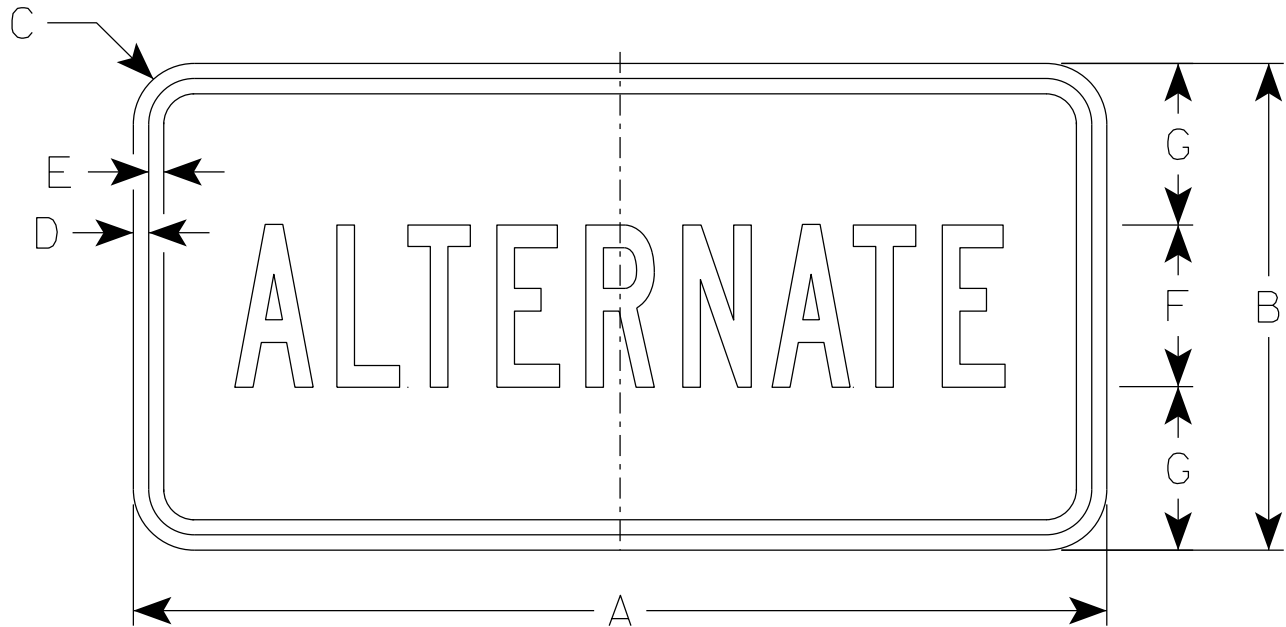
Background - Blue

Message - White

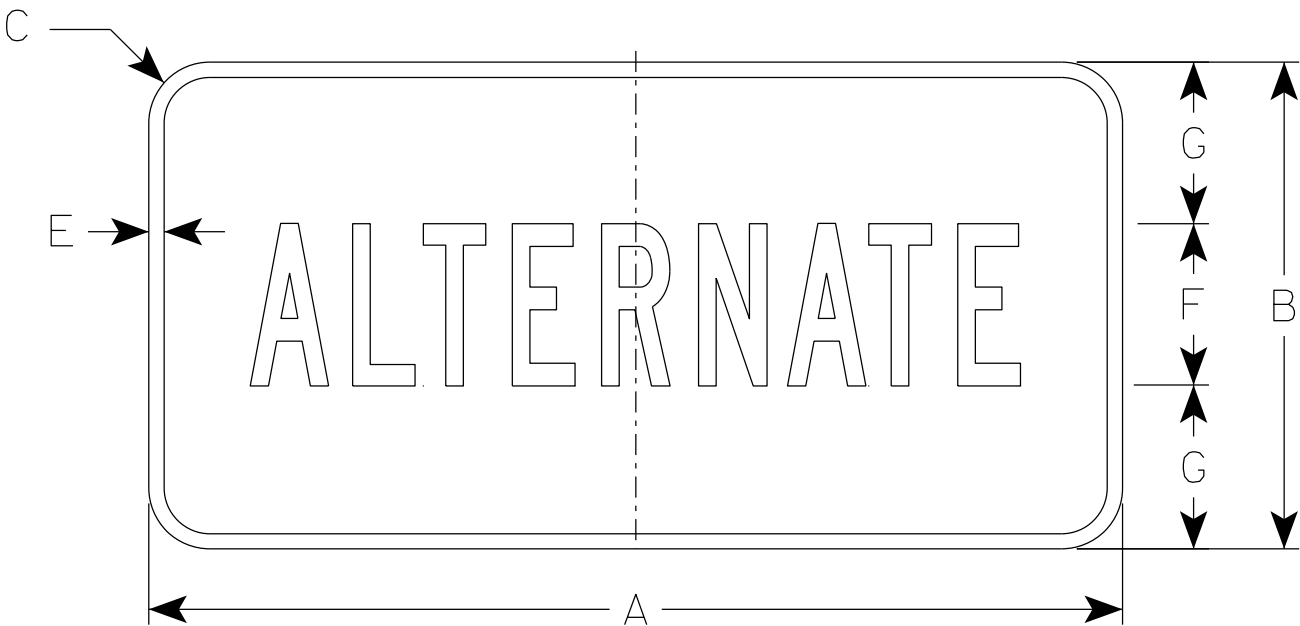
M04-1

Background - Orange - Type F Reflective

Message - Black



M4 - 1
M04 - 1



MB4 - 1

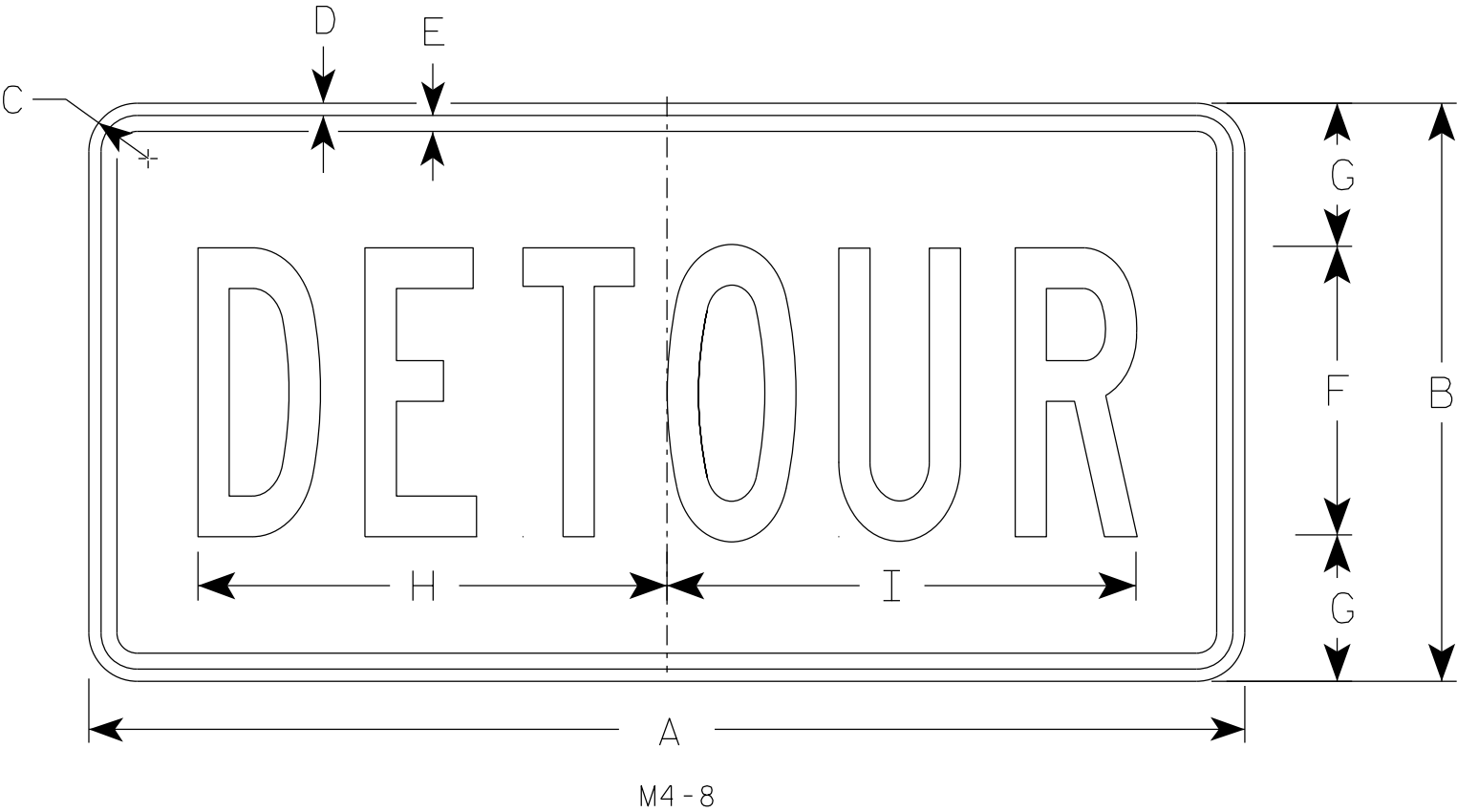
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	4	4	9 3/4	9 1/2																		2.00
2M	24	12	1 1/2	3/8	3/8	4	4	9 3/4	9 1/2																		2.00
3	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	7	5 1/2	16 3/8	16 1/2																		4.5

7

7

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN

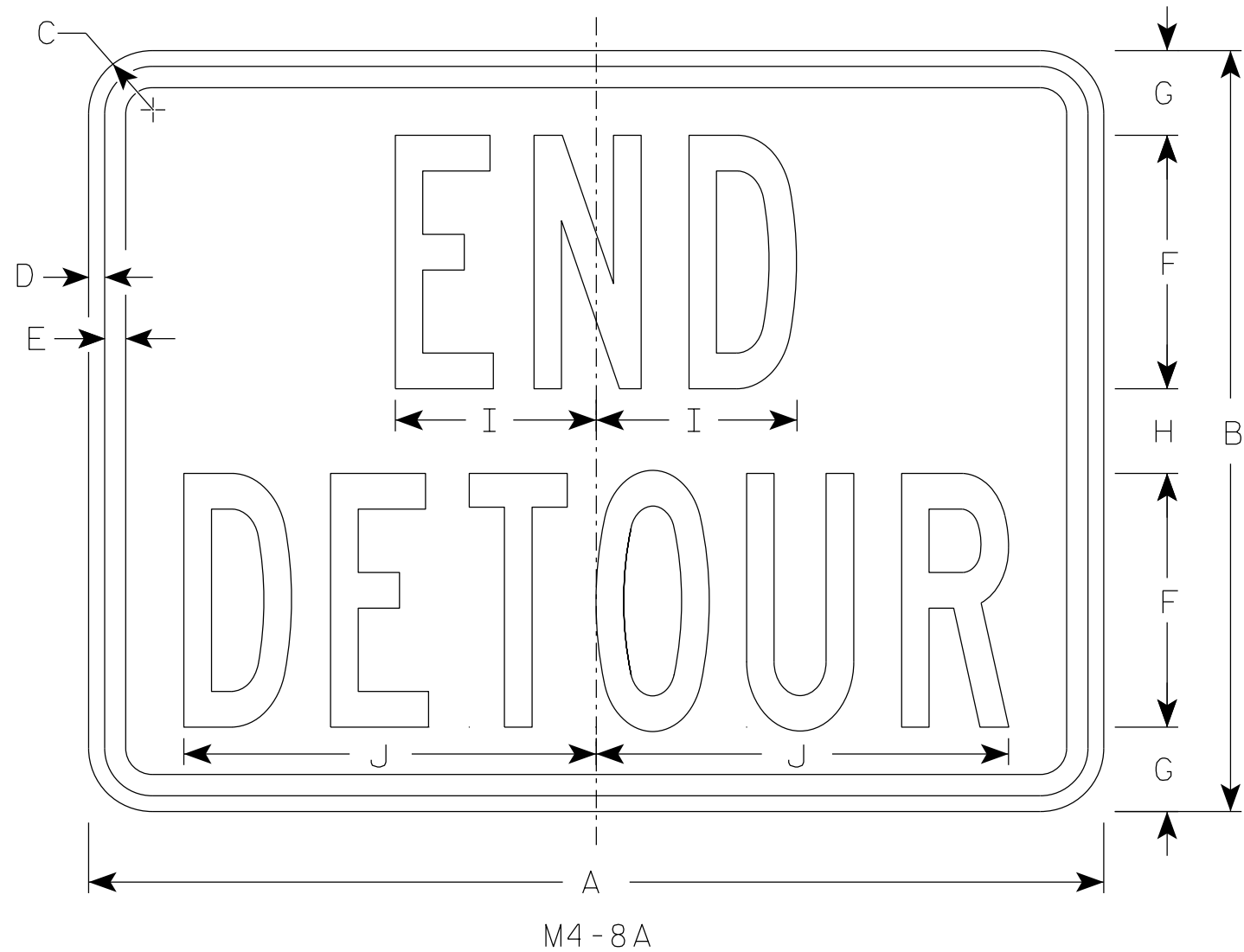
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

STANDARD SIGN

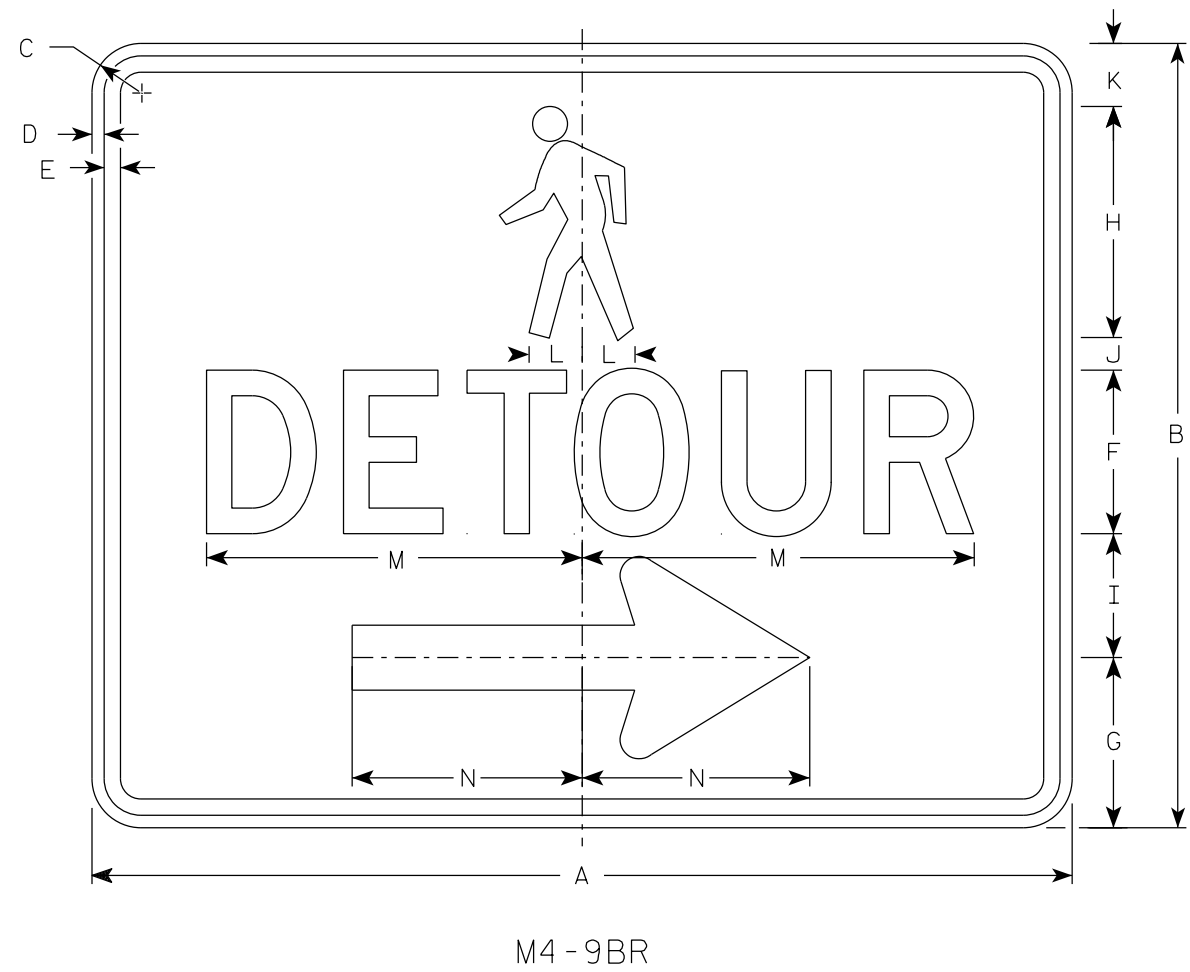
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

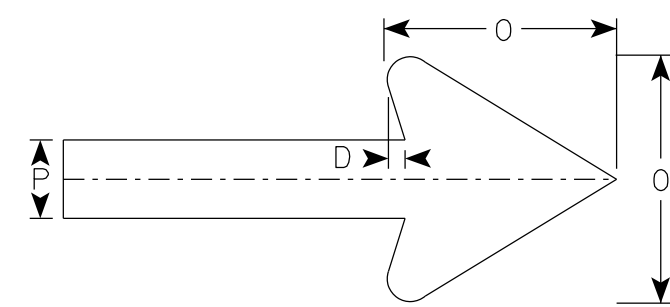
DATE 2/9/2023 PLATE NO. M4-8A.4

7



NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

7

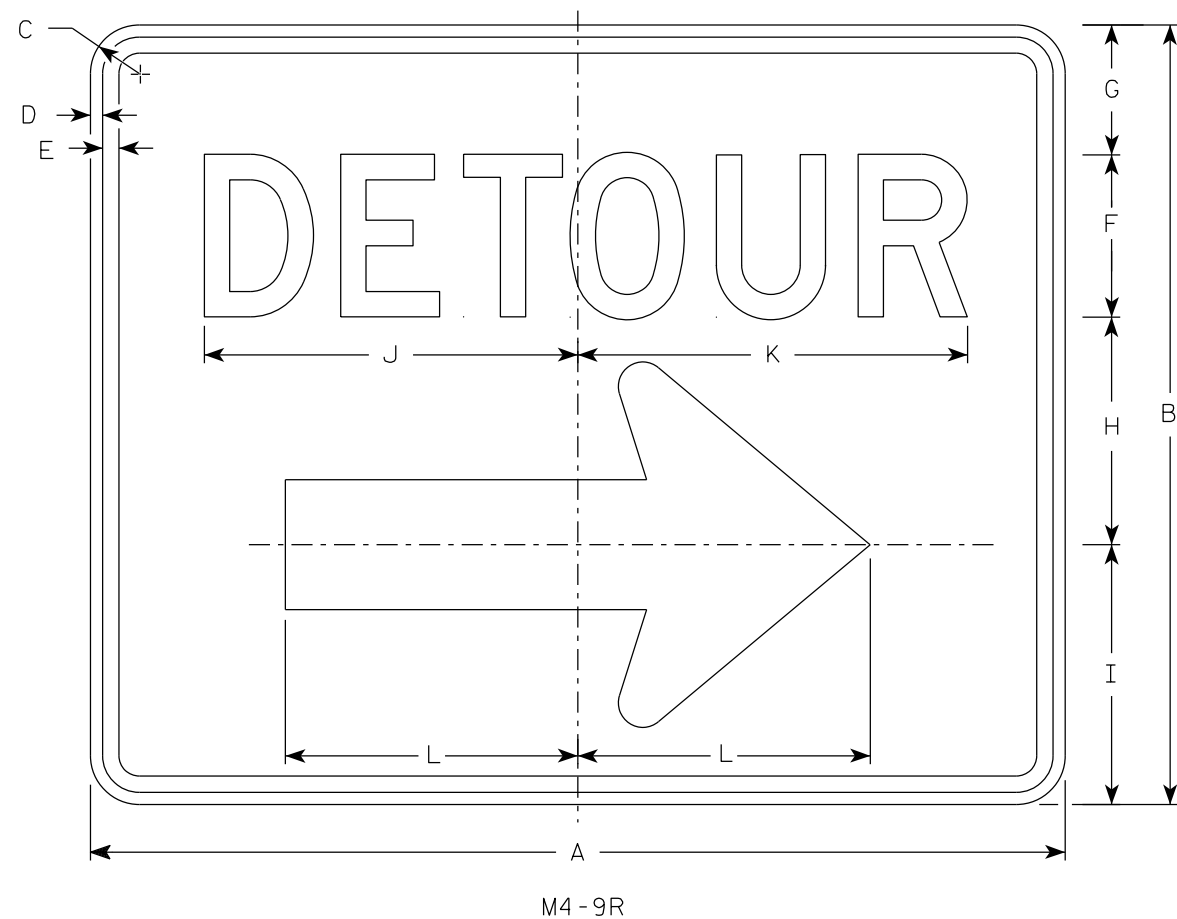
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

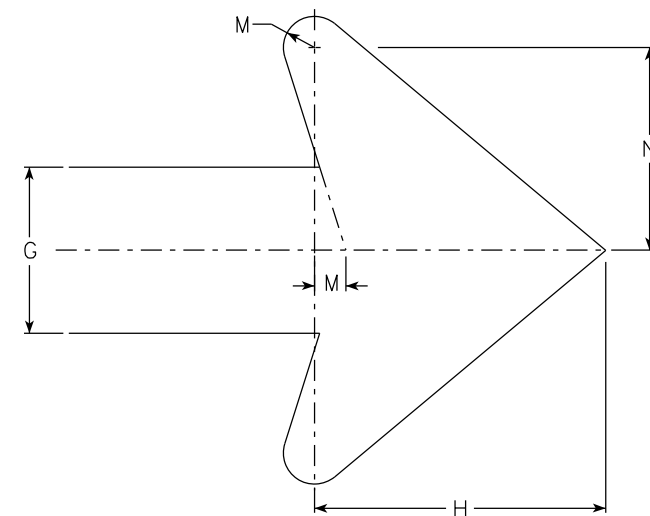
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9B.4



- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
2M	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/2	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 7/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

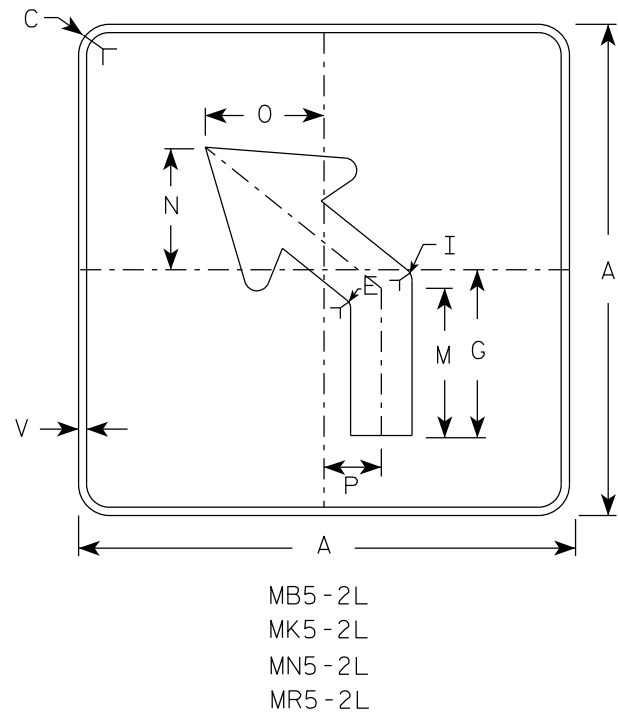
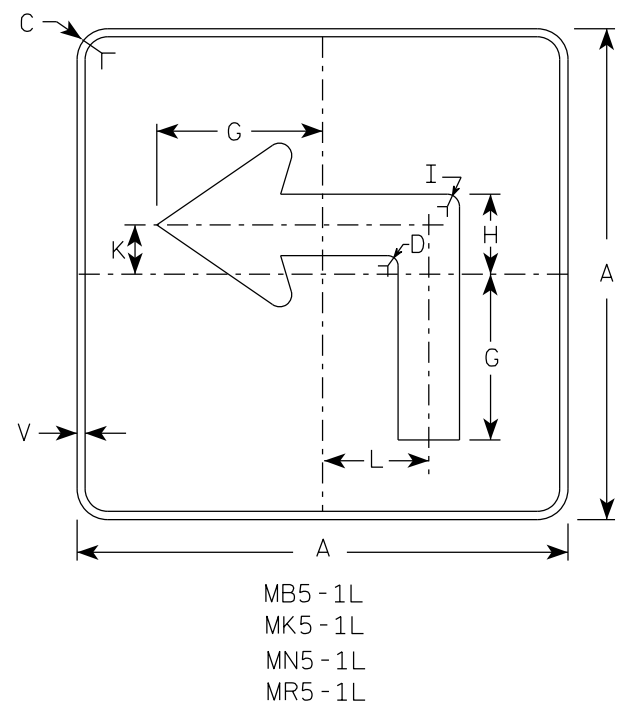
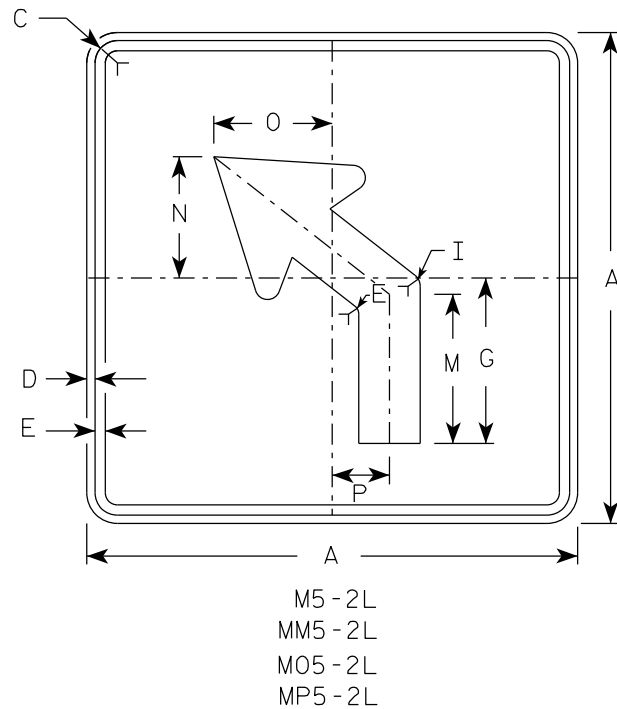
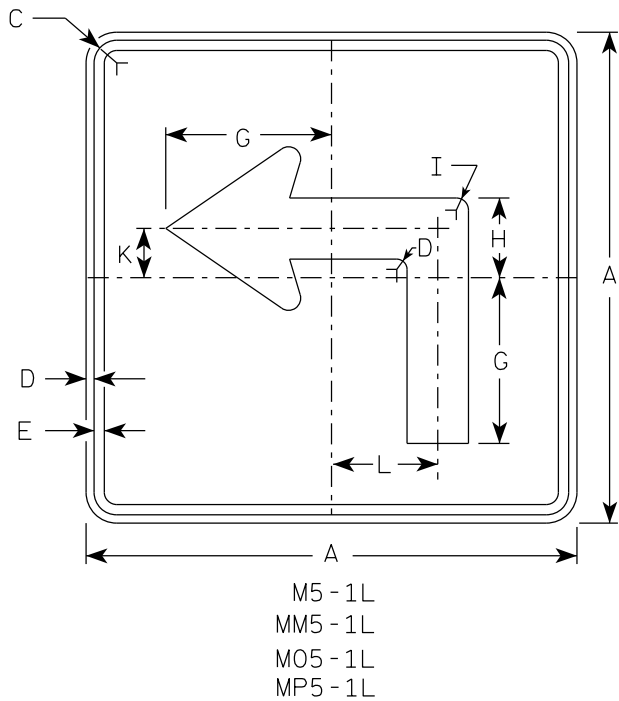
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-9R.6

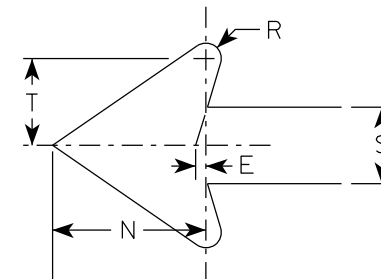
PROJECT NO: HWY: COUNTY: SHEET NO: 326 **E**



NOTES

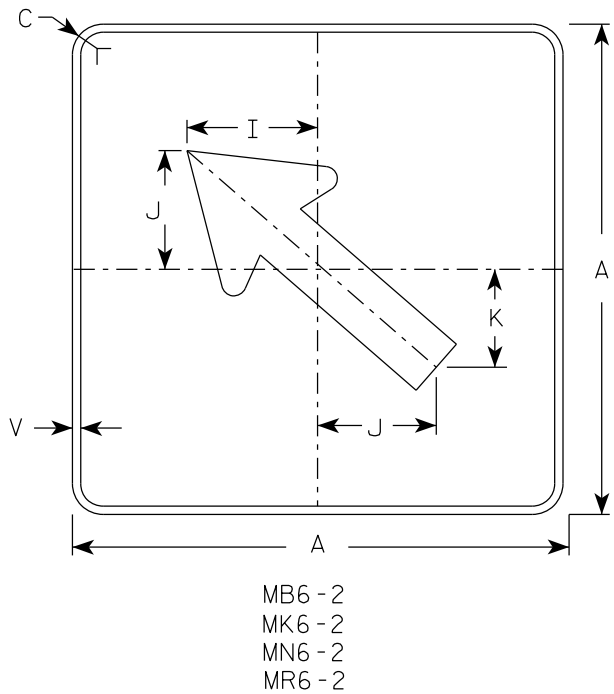
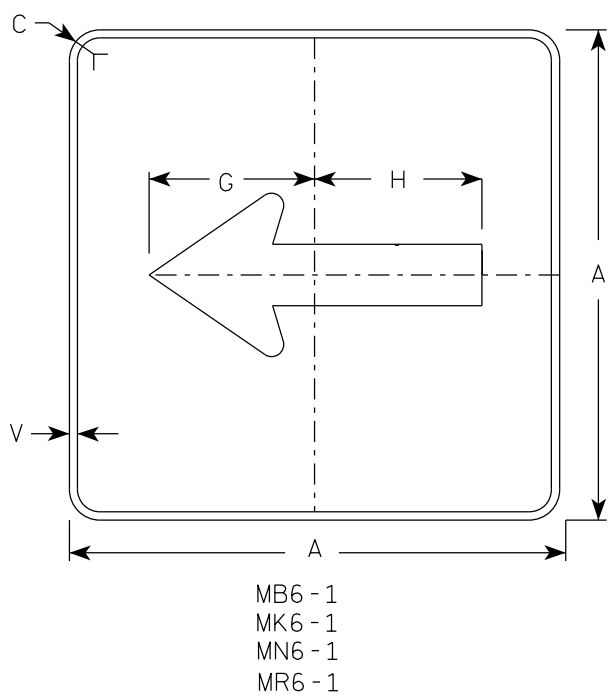
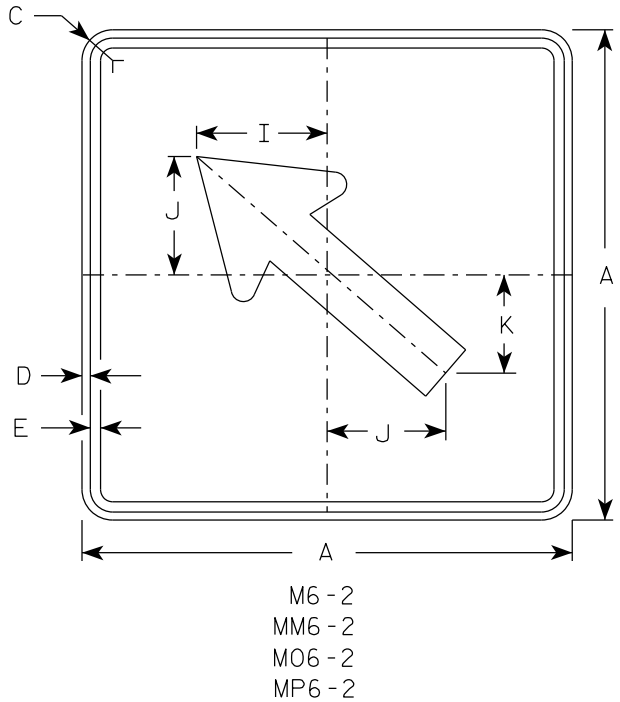
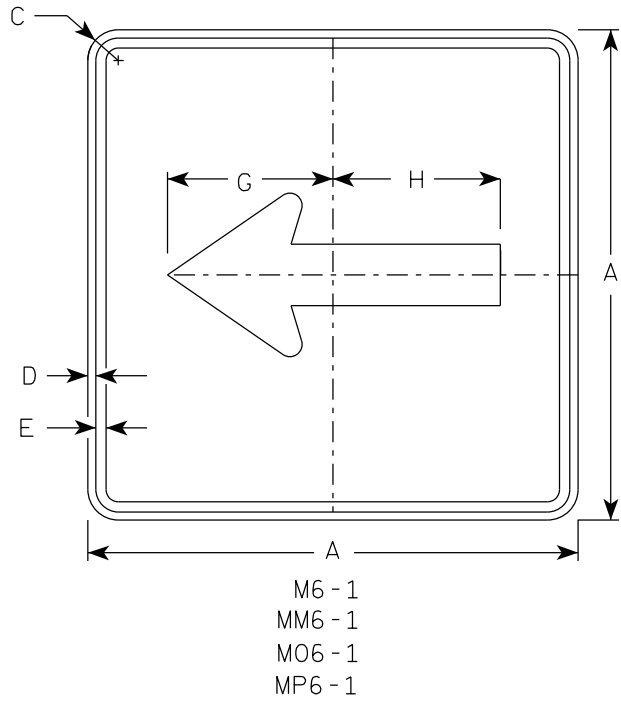
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| M5-1 and | M5-2 | Background - White |
| | | Message - Black |
| MB5-1 and | MB5-2 | Background - Blue |
| | | Message - White |
| MK5-1 and | MK5-2 | Background - Green |
| | | Message - White |
| MM5-1 and | MM5-2 | Background - White |
| | | Message - Green |
| MN5-1 and | MN5-2 | Background - Brown |
| | | Message - White |
| M05-1 and | M05-2 | Background - Orange - Type F Reflective |
| | | Message - Black |
| MP5-1 and | MP5-2 | Background - White |
| | | Message - Blue |
| MR5-1 and | MR5-2 | Background - Brown |
| | | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL

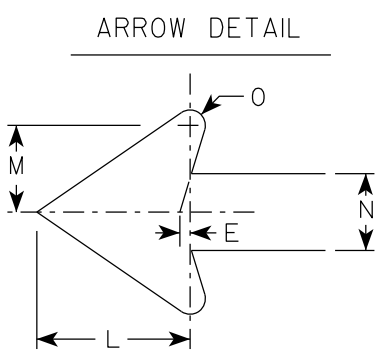


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 327	E
-------------	------	---------	---------------	---

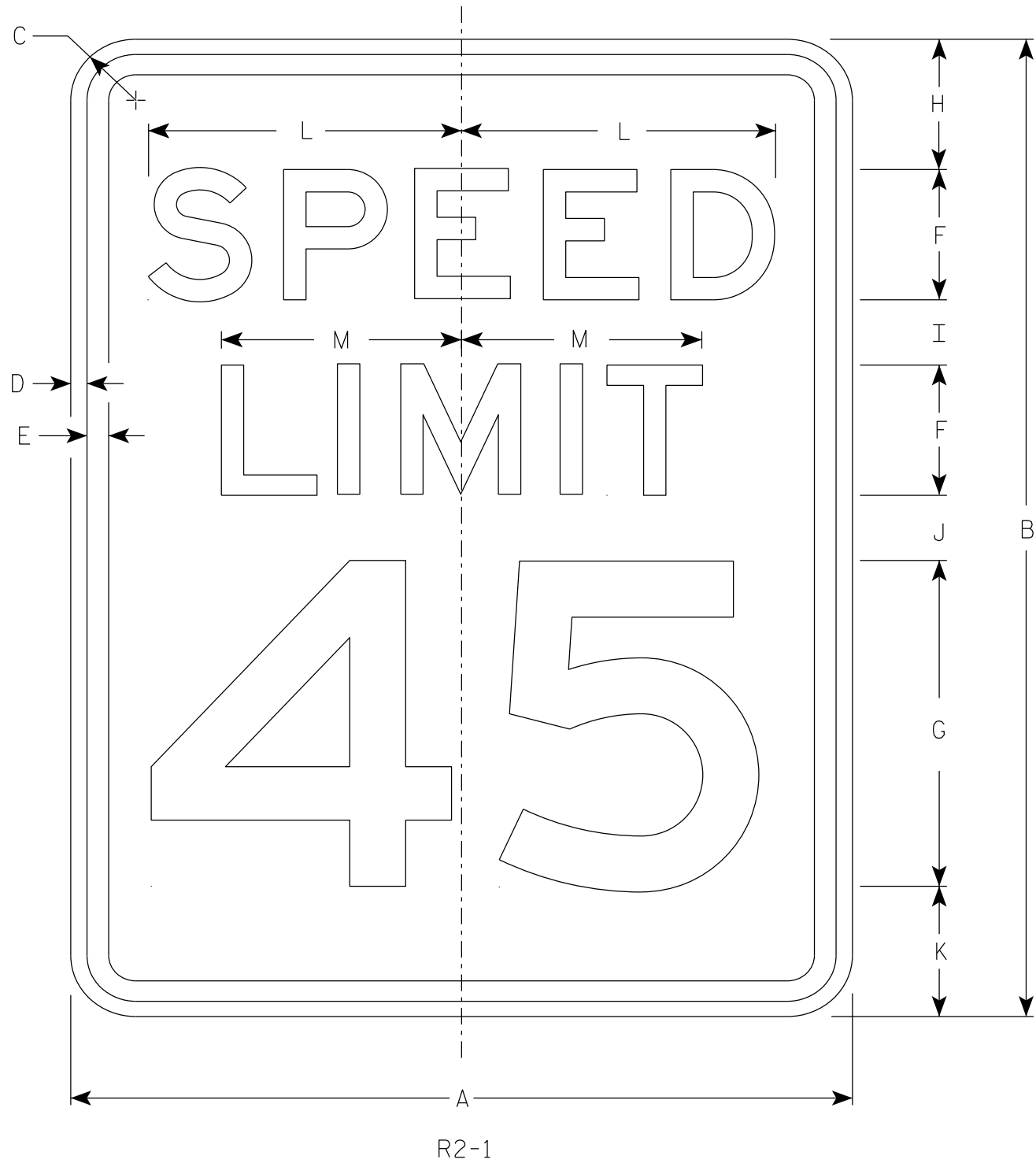


- NOTES
- Signs are Type II - Type H Reflective except as Shown
 - Color:
Background - See note 4
Message - See note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

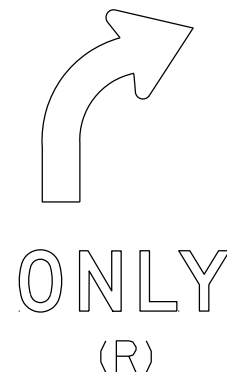
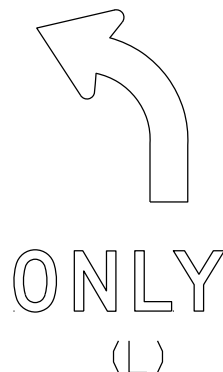
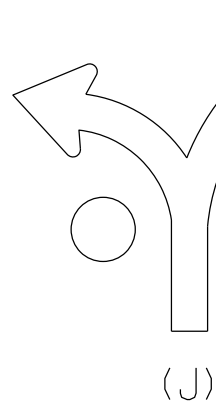
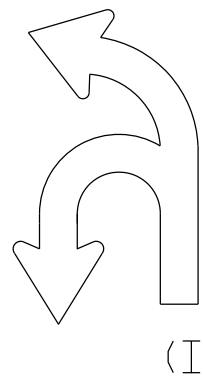
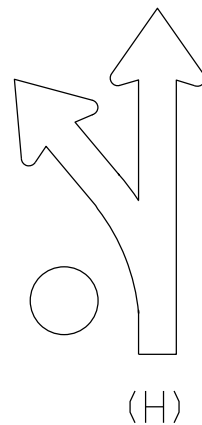
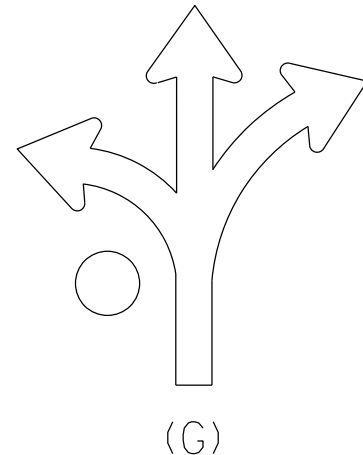
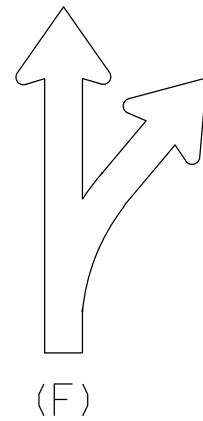
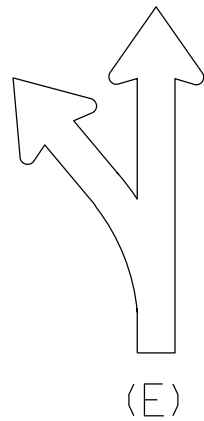
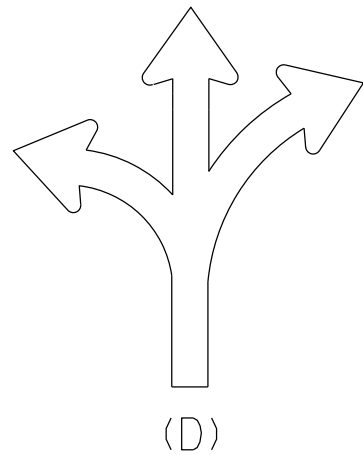
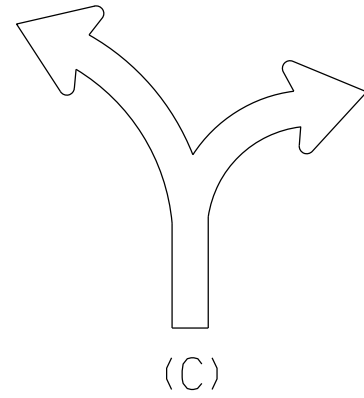
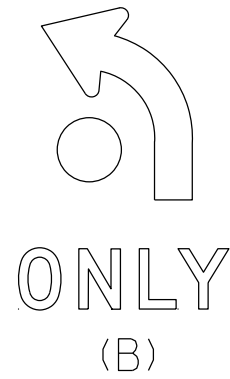
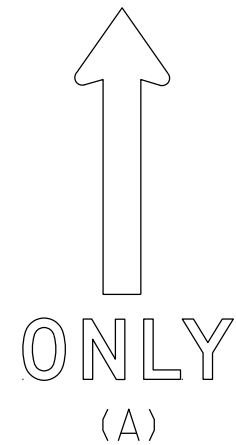
STANDARD SIGN

R2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14



NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter = 3.75 sq ft for Size 2

6.0 sq ft for Size 3

10.0 sq ft for Size 4 or 5

2 Letters = 7.5 sq ft for Size 2

12.0 sq ft for Size 3

20.0 sq ft for Size 4 or 5

3 Letters = 11.25 sq ft for Size 2

18.0 sq ft for Size 3

30.0 sq ft for Size 4 or 5

4 Letters = 15.0 sq ft for Size 2

24.0 sq ft for Size 3

40.0 sq ft for Size 4 or 5

5 Letters = 18.75 sq ft for Size 2

30.0 sq ft for Size 3

50.0 sq ft for Size 4 or 5

6 Letters = 22.5 sq ft for Size 2

36.0 sq ft for Size 3

60.0 sq ft for Size 4 or 5

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq.Ft. changes.

Add the amounts when these letters are used:

1.25 sq ft for Size 2

1.5 sq ft for Size 3

2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn

PLOT DATE : 14-FEB 2023 3:01

PLOT BY : mscj9h

PLOT NAME :

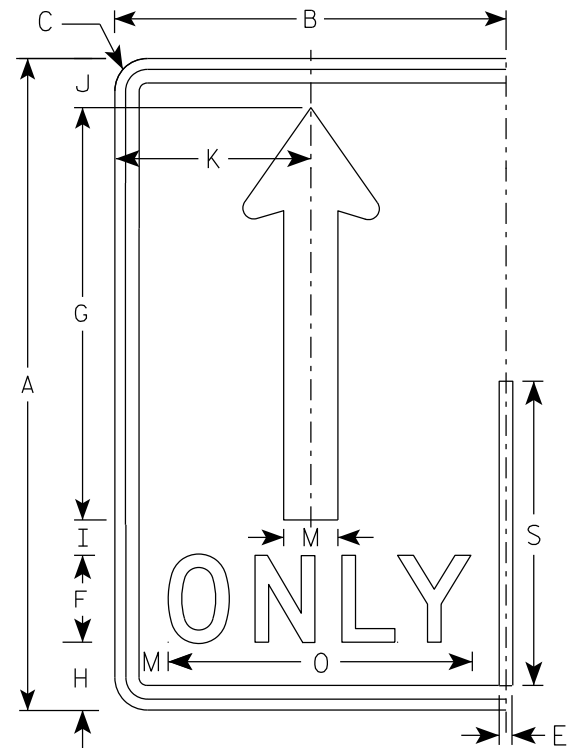
SHEET NO: 330

E

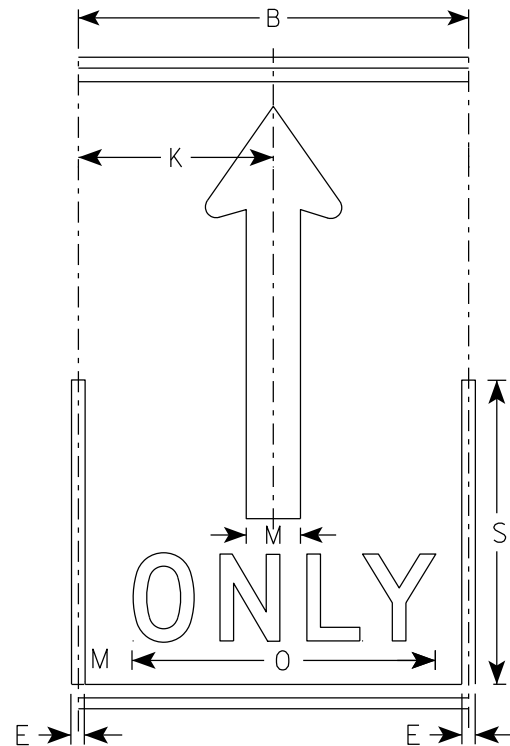
WISDOT/CADDs SHEET 42

NOTES

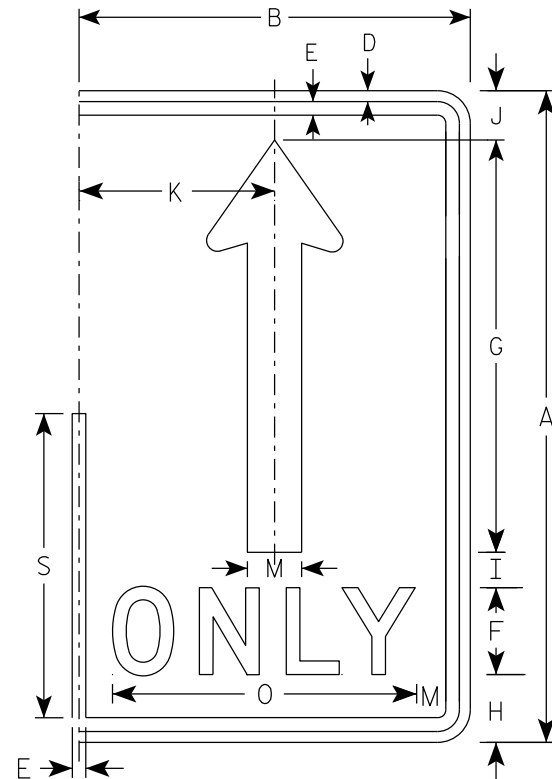
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



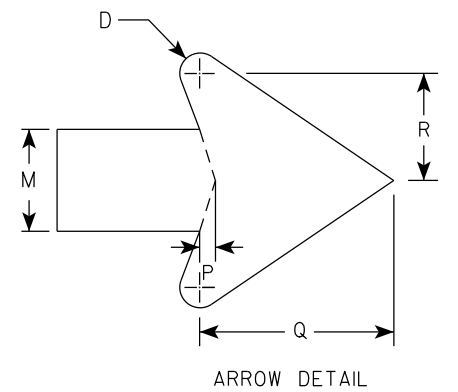
(A)



(A)



(A)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

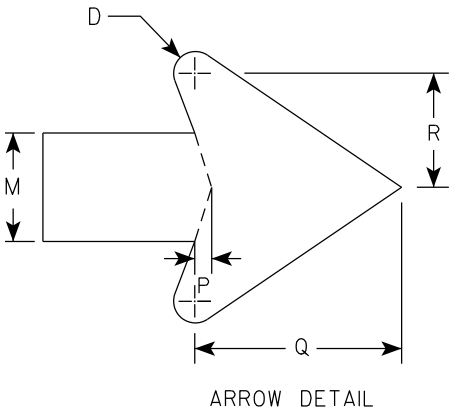
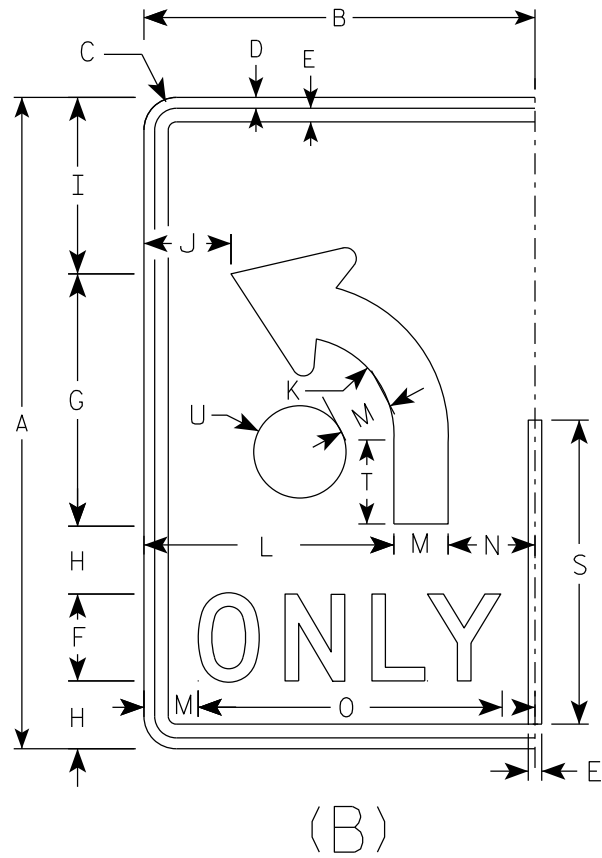
NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black

Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

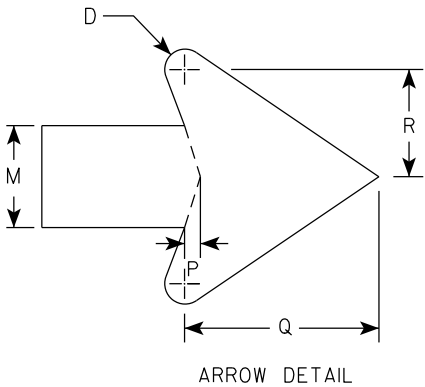
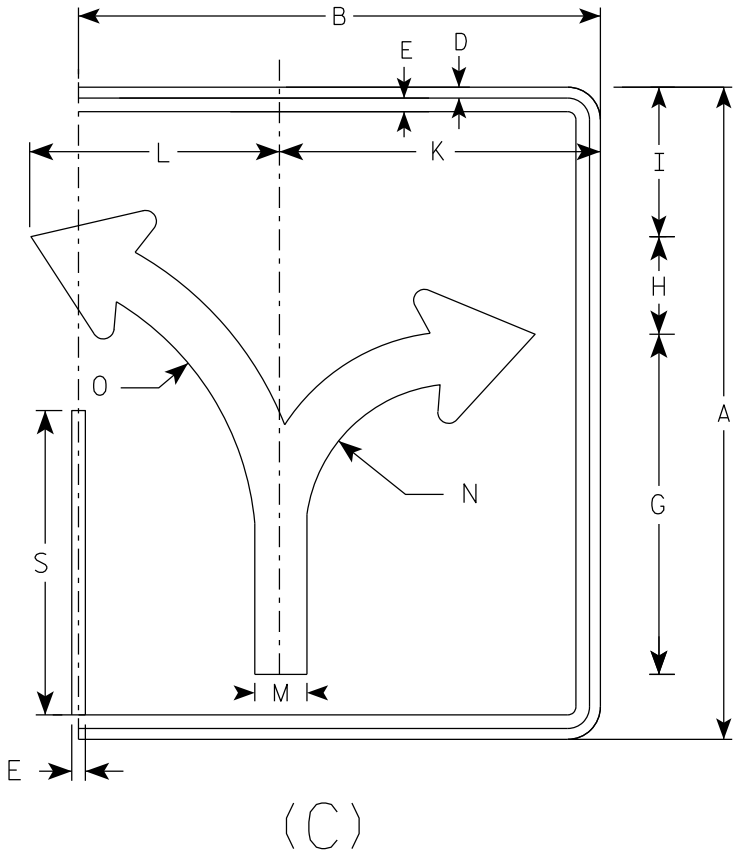
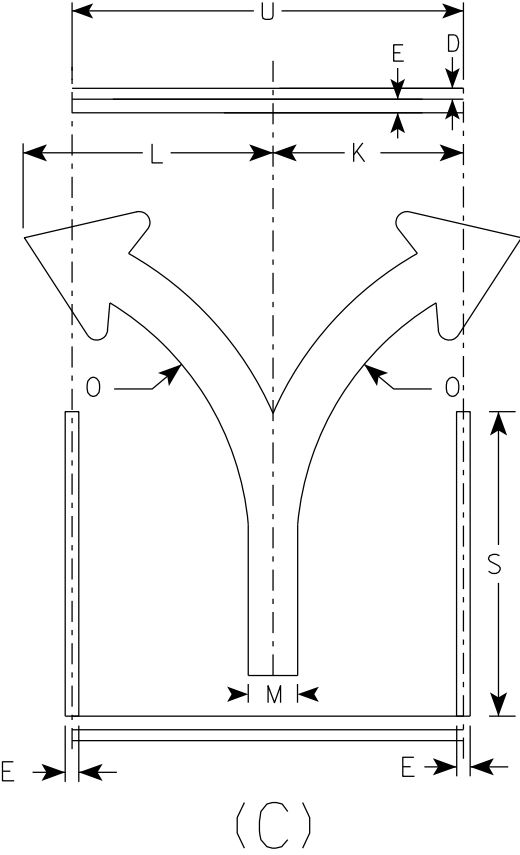
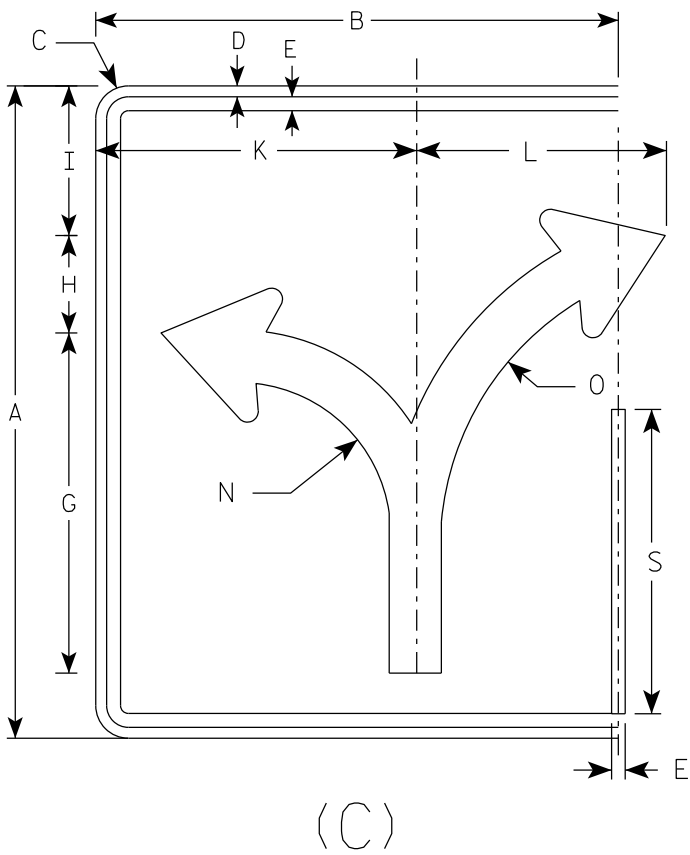
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



7

																											ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

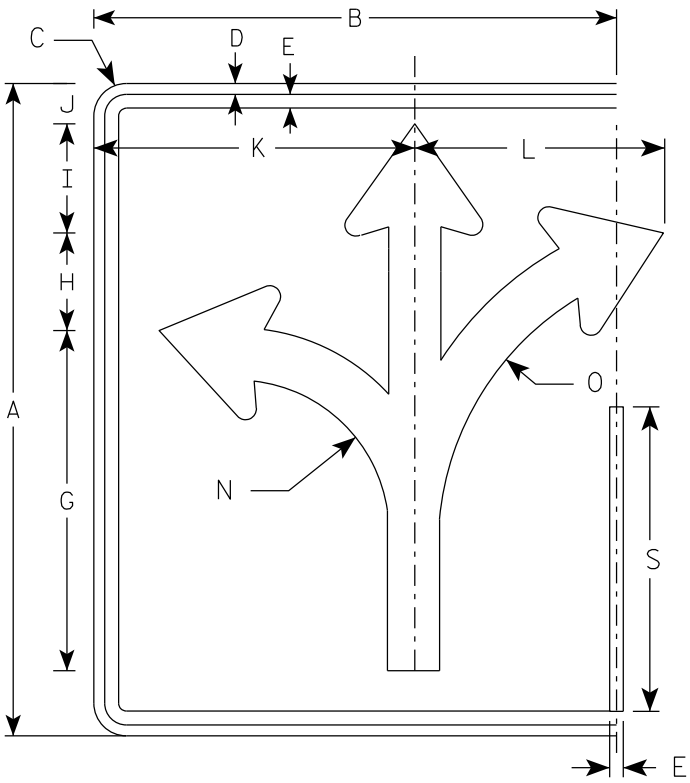
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

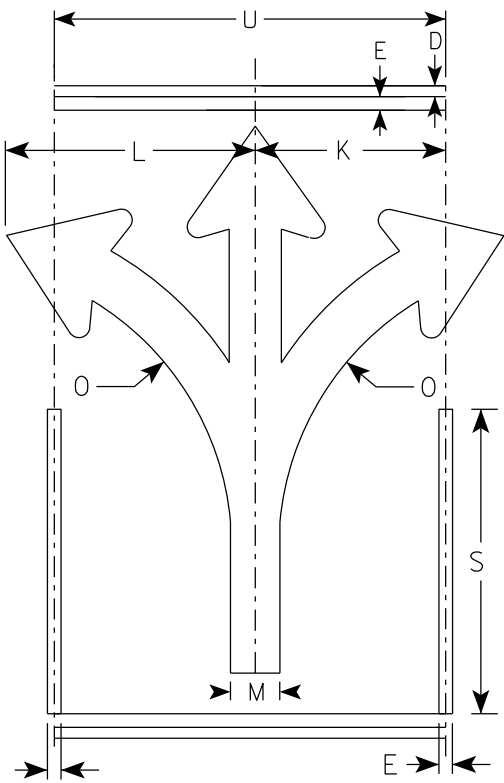
1. Sign is Type II - Type H Reflective
2. Color:

Background - White

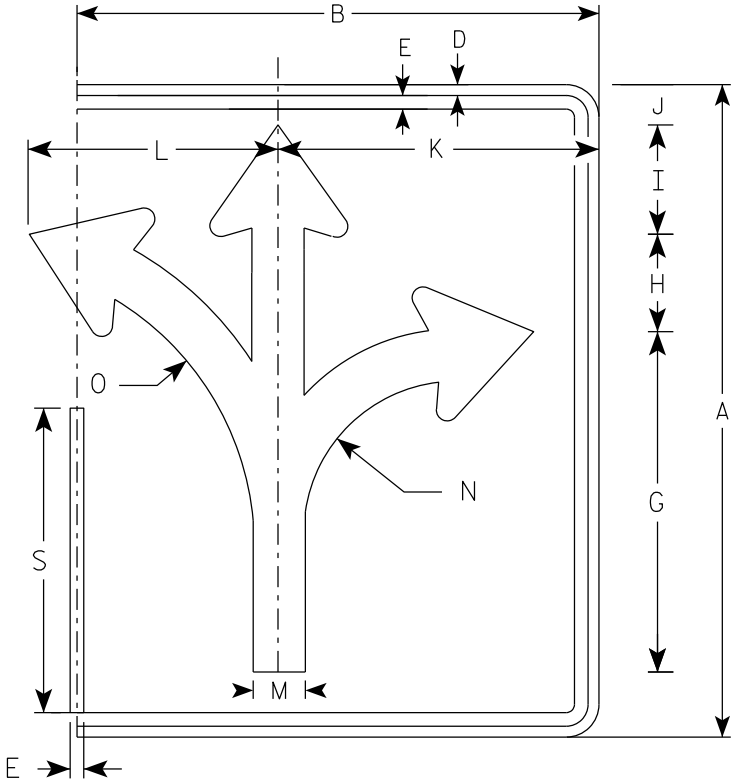
Message - Black
3. Message Series - None



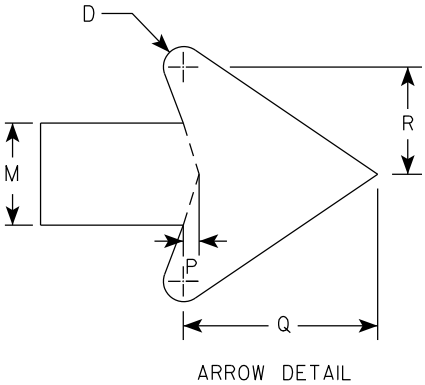
(D)



(D)



(D)



																												ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.	
1																													
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75	
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0	

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 334

E

STANDARD SIGN

R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

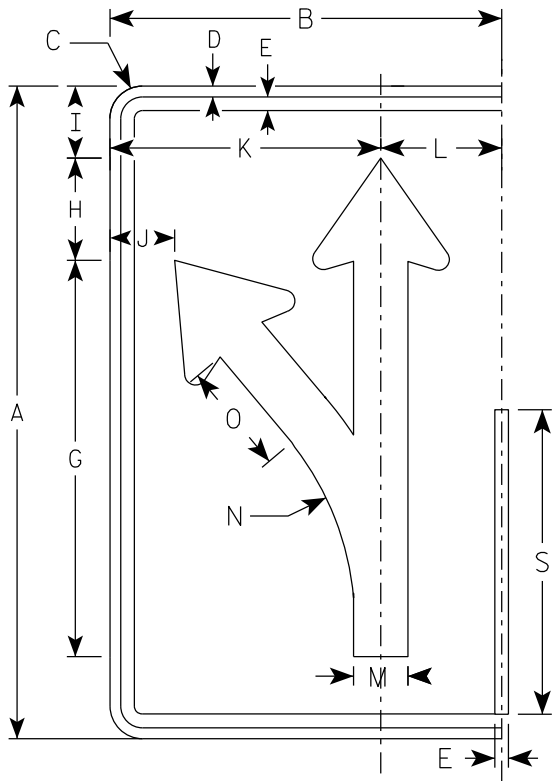
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

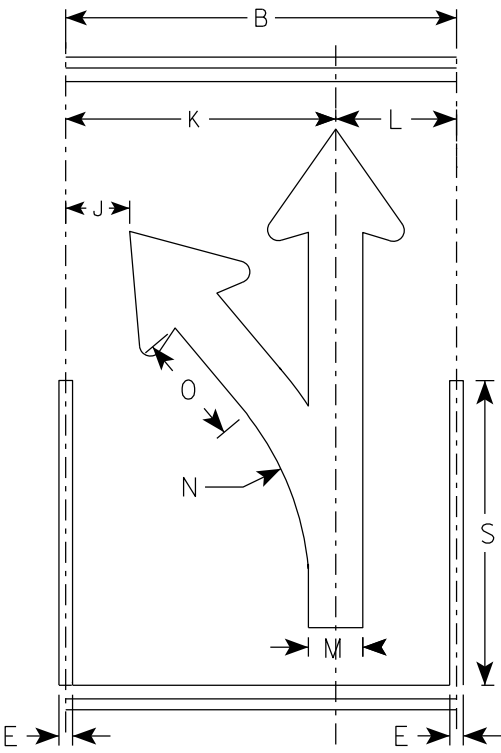
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

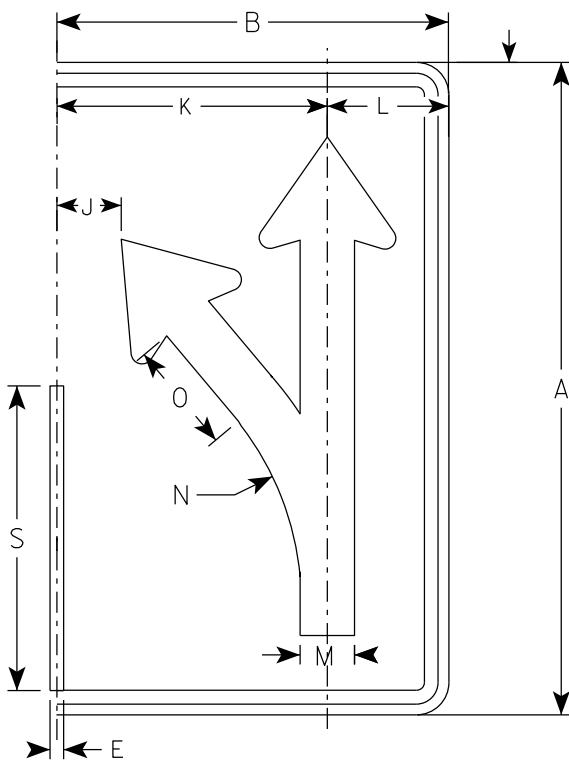
- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



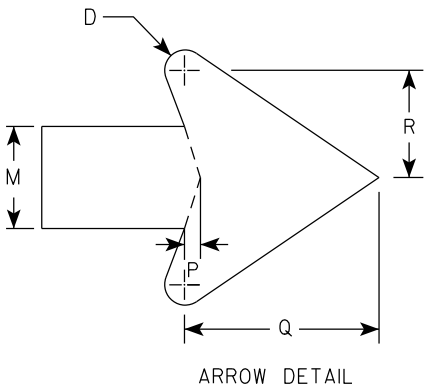
(E)



(E)



(E)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 335

E

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

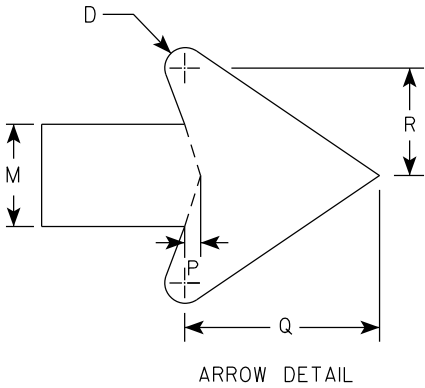
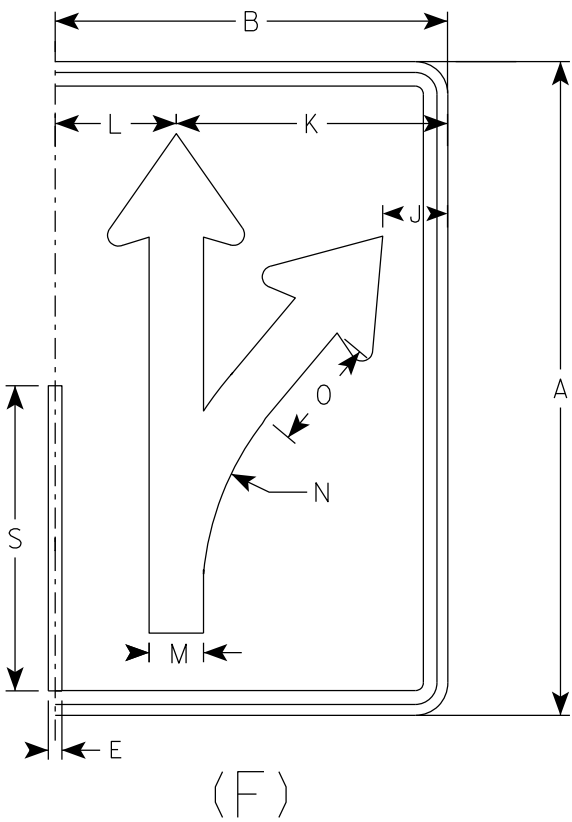
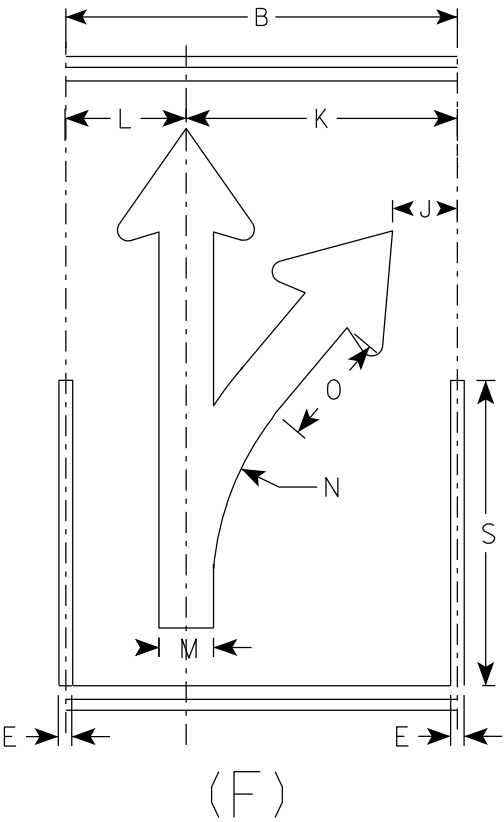
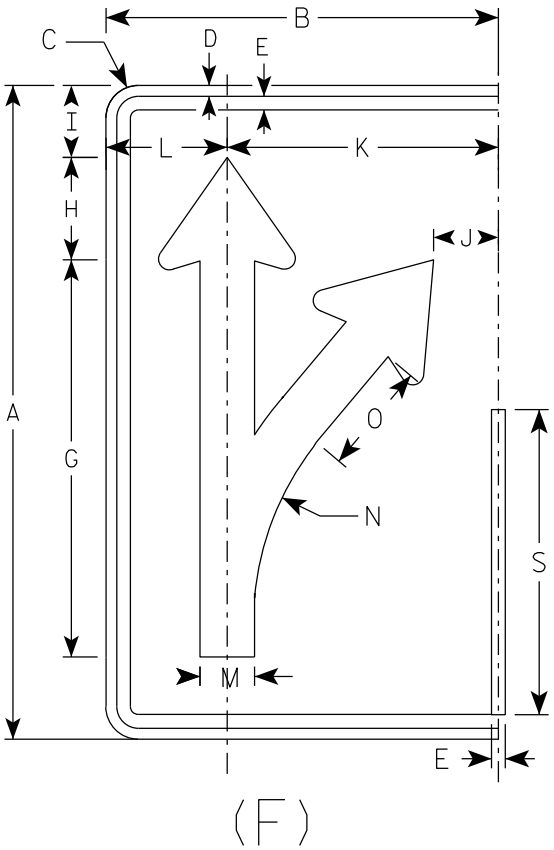
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 336

E

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

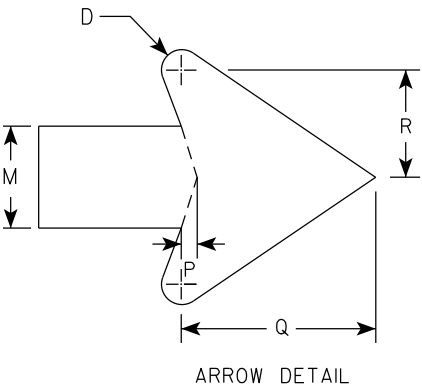
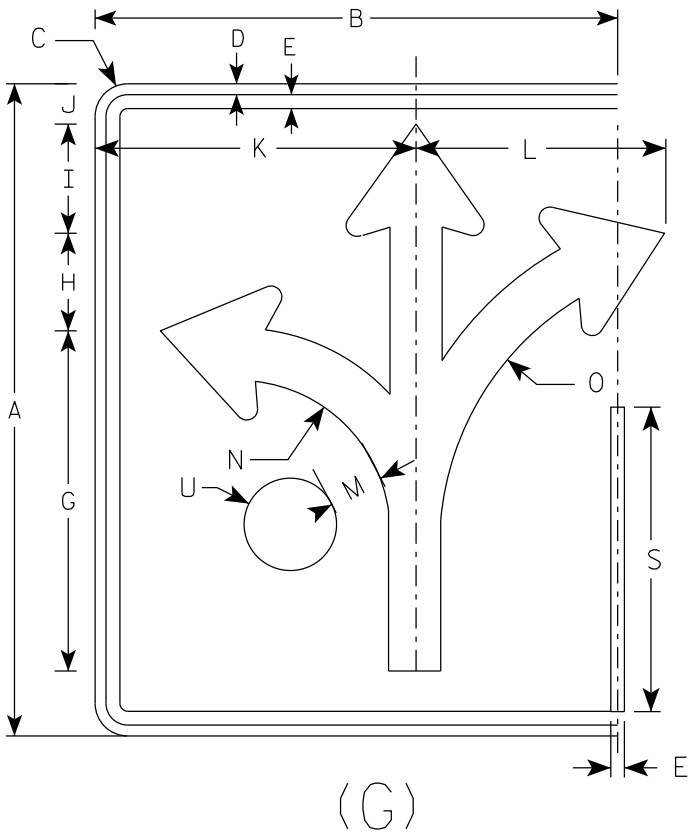
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 337

E

STANDARD SIGN

R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

7

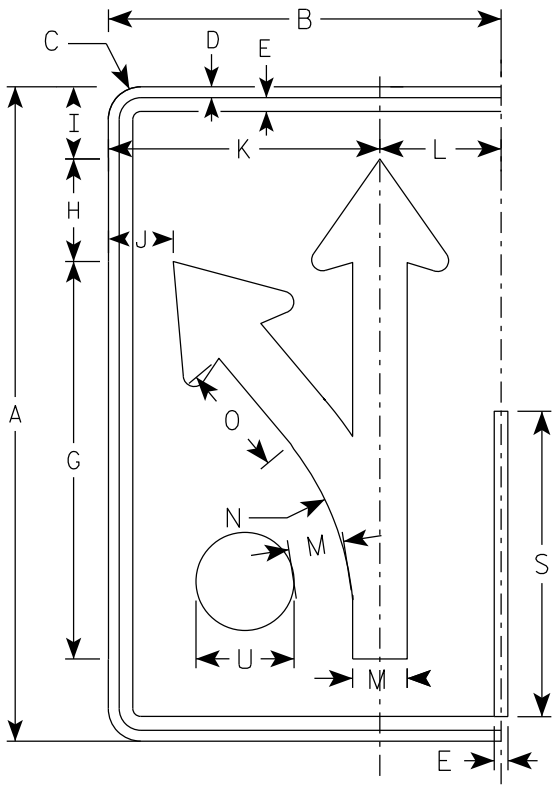
7

NOTES

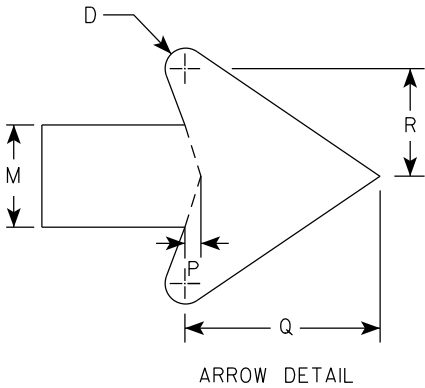
1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



(H)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 338

E

STANDARD SIGN

R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

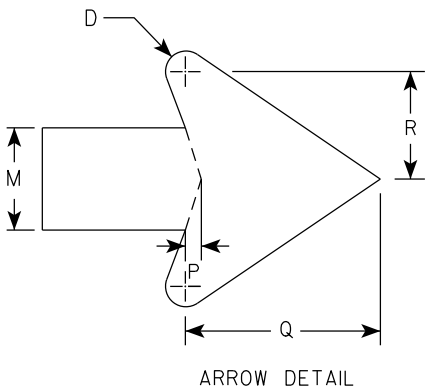
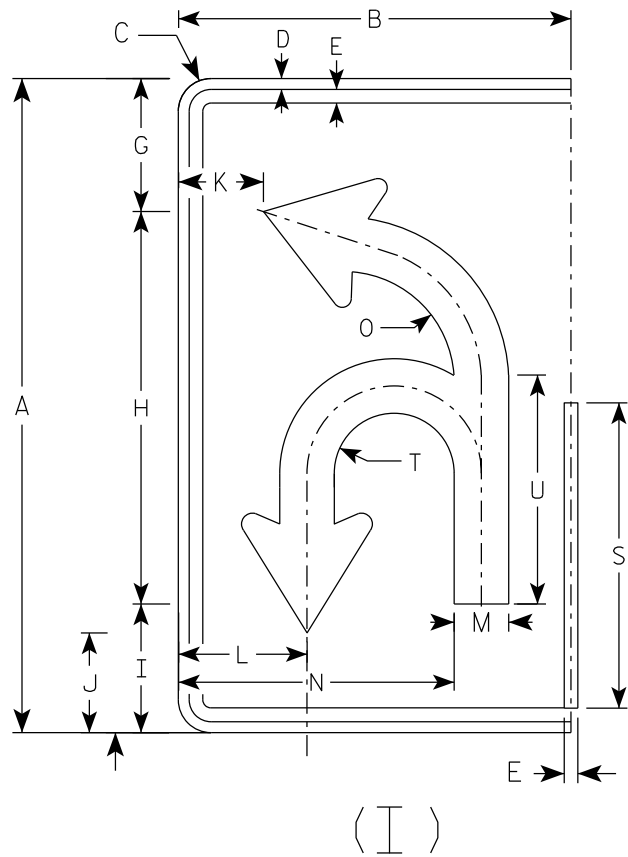
DATE 2/14/23 PLATE NO. R3-8.2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 339

E

STANDARD SIGN

R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

PLATE NO. R3-8.2

7

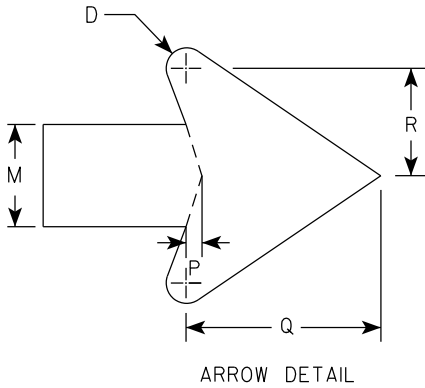
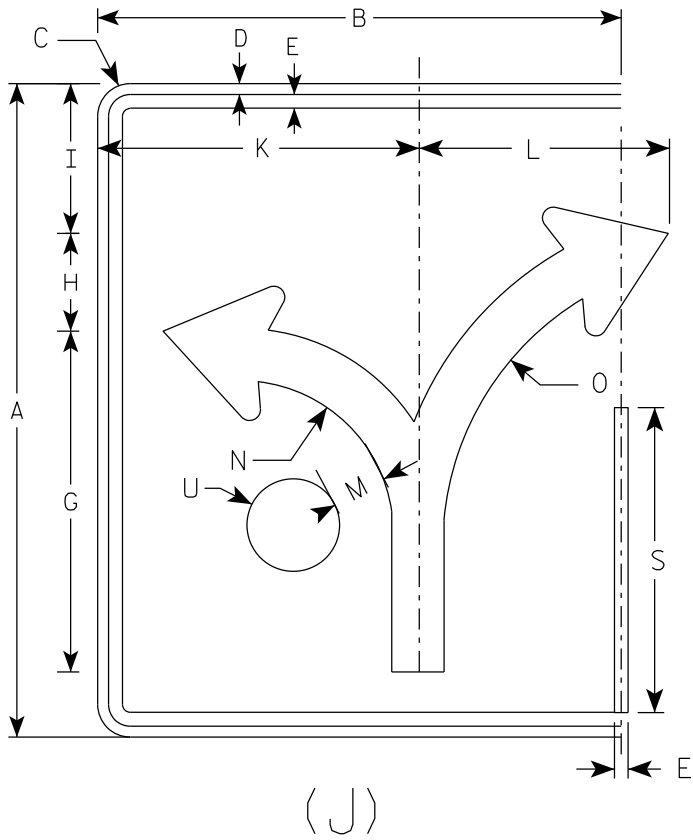
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 340

E

STANDARD SIGN

R3-8 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

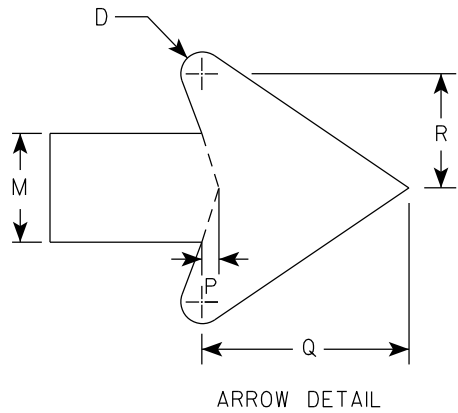
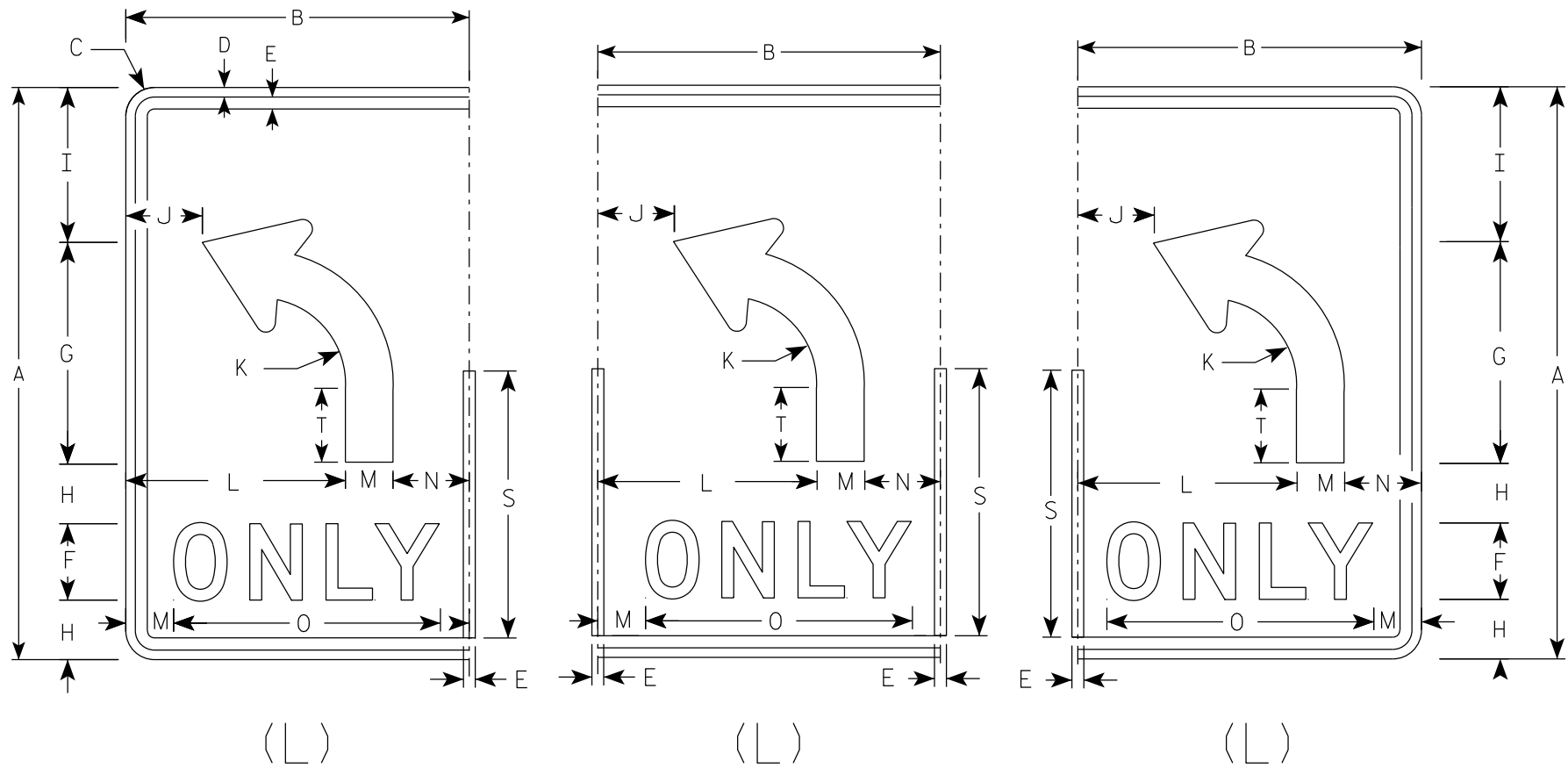
PLATE NO. R3-8.2

7

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

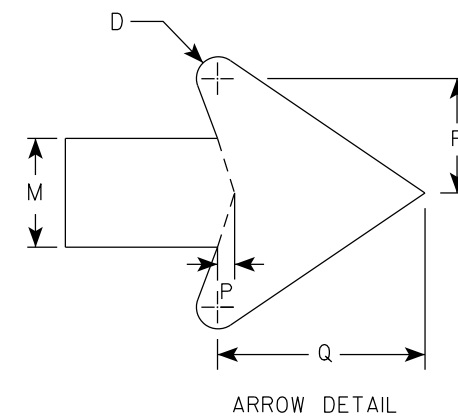
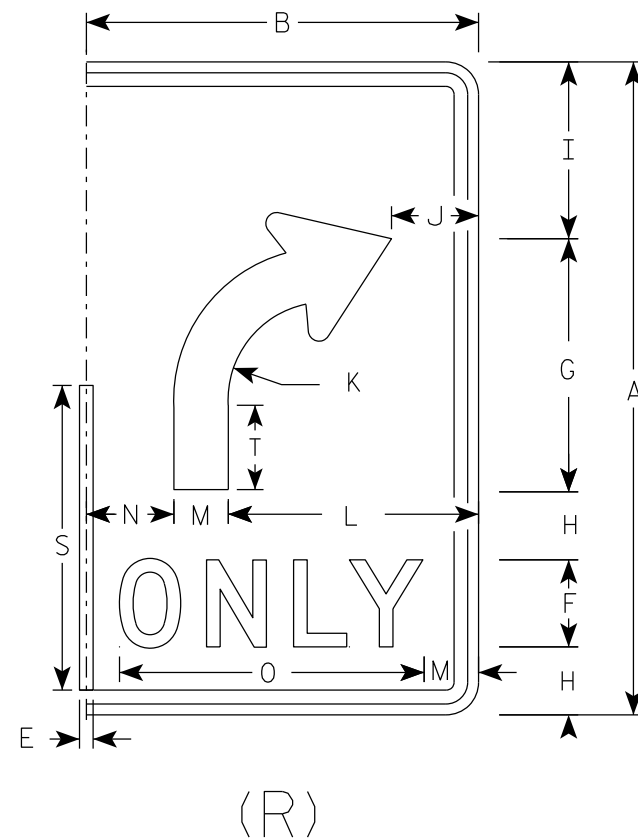
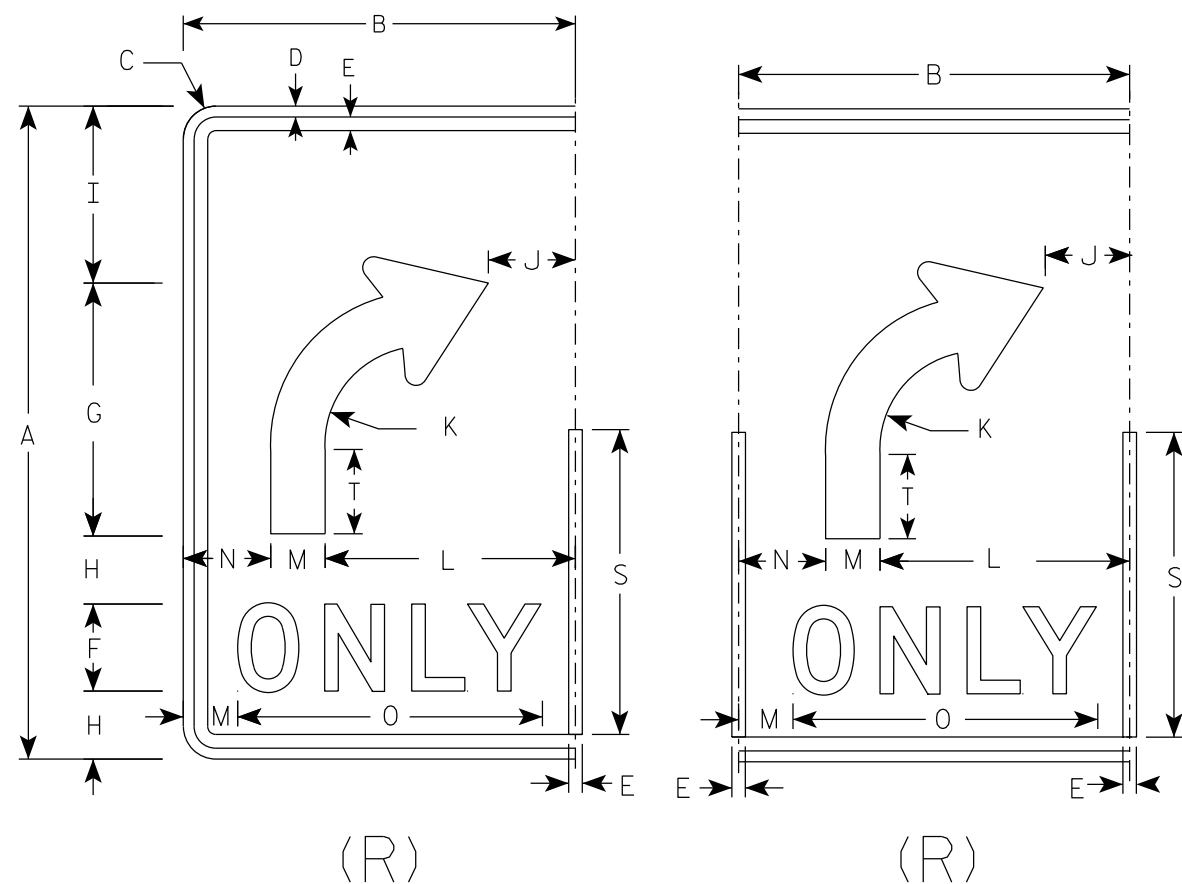
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

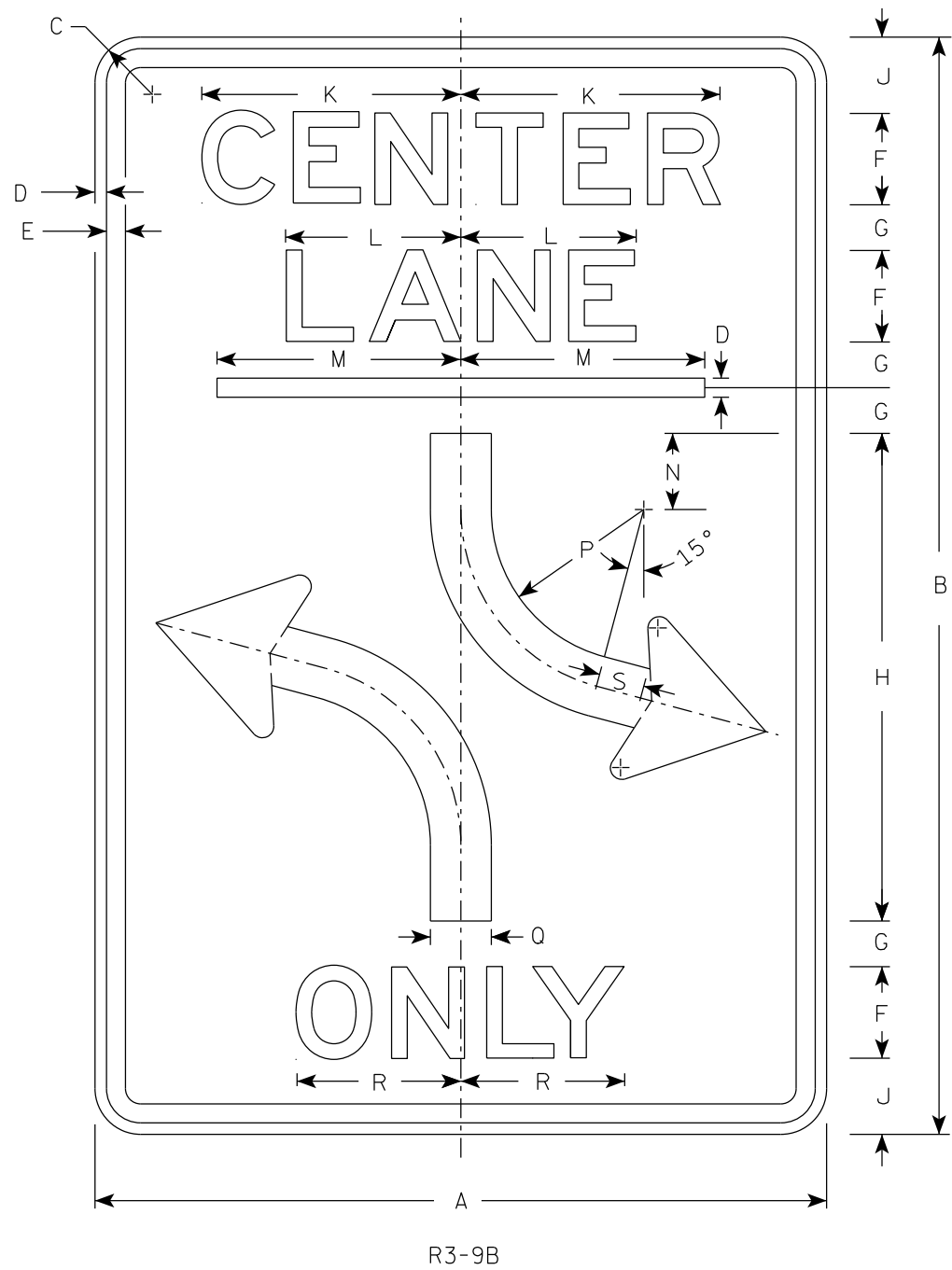
APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 2/14/23

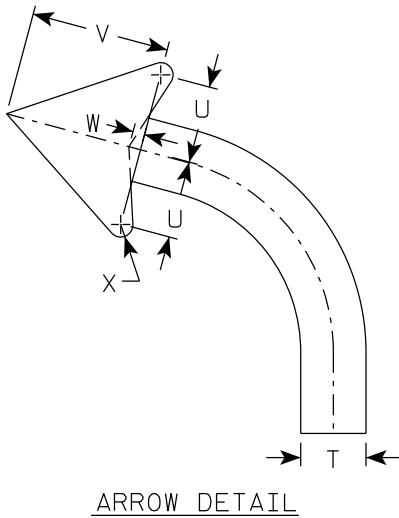
PLATE NO. R3-8.2

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	3	1 1/2	16		2 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	1 1/2	3/8	1/2	3	1 1/2	16		2 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	1 7/8	5/8	7/8	5	1 1/2	20		3 1/2	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

PROJECT NO:

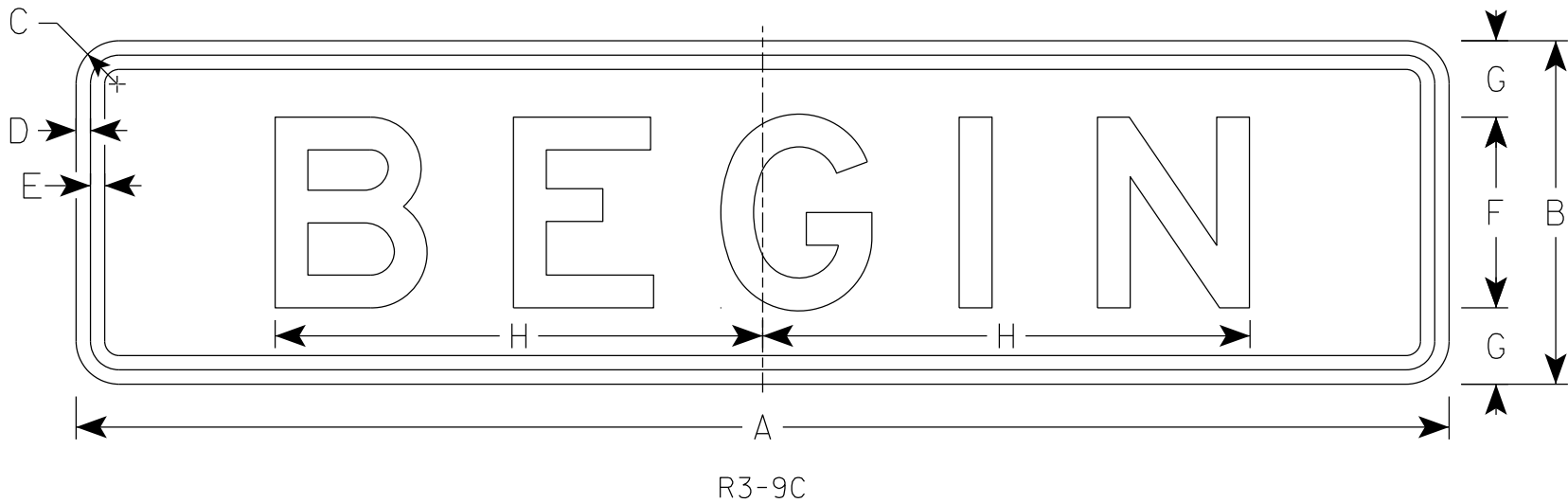
HWY:

COUNTY:

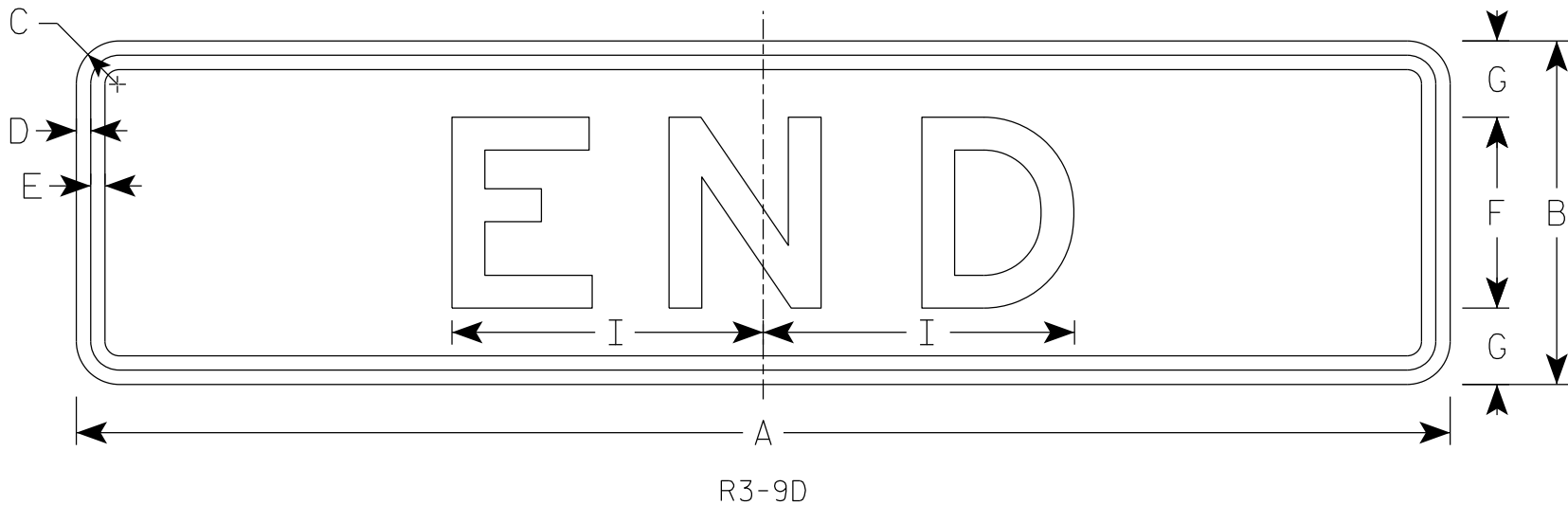
SHEET NO: 343

E

7



- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - E



7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	6	1 1/2	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
2M	24	6	1 1/2	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
3	36	9	1 1/2	3/8	3/8	5	2	12 3/4	8 1/8																		2.25
4																											
5																											

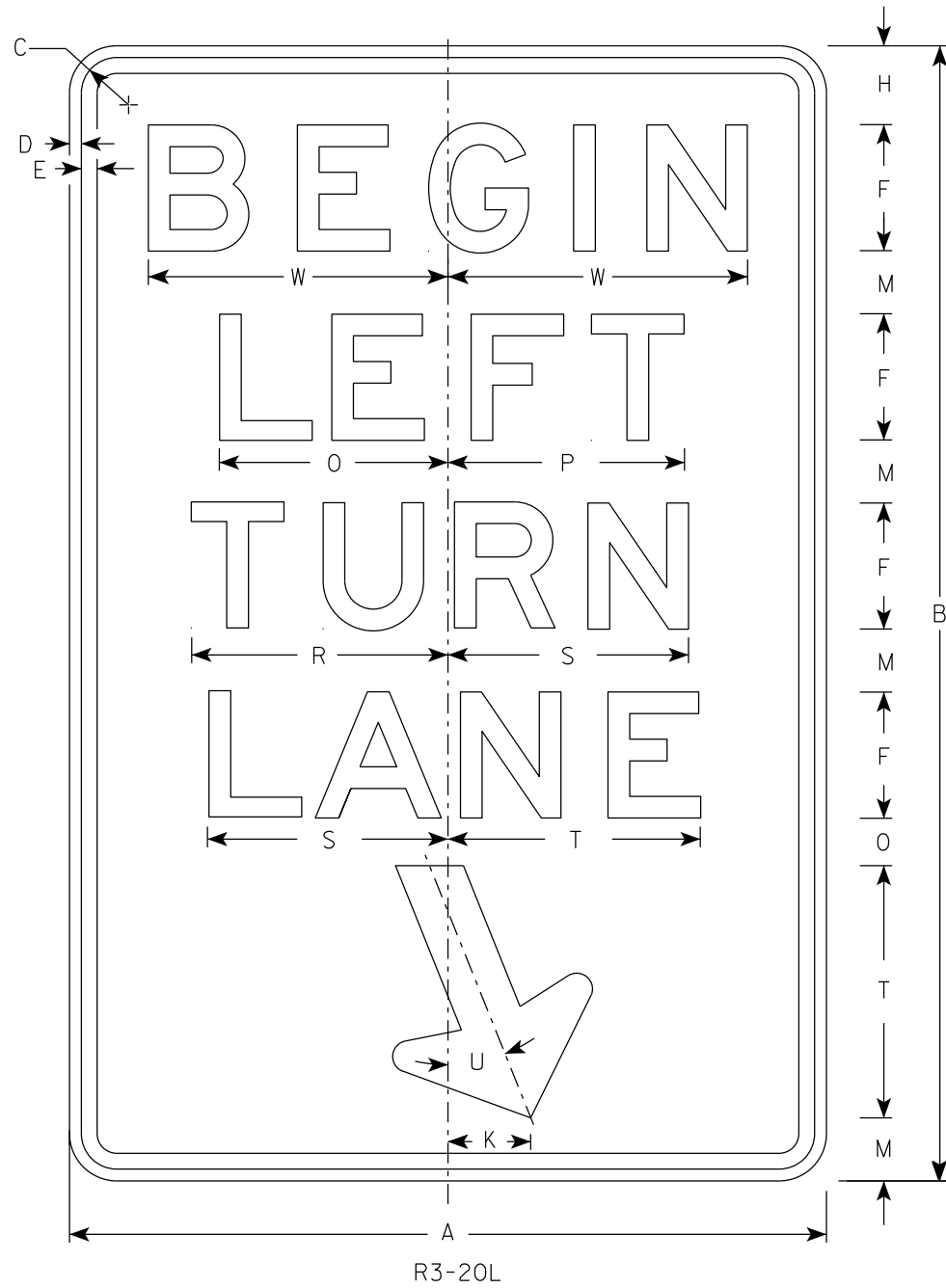
STANDARD SIGN
R3-9C & R3-9D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-9C.4

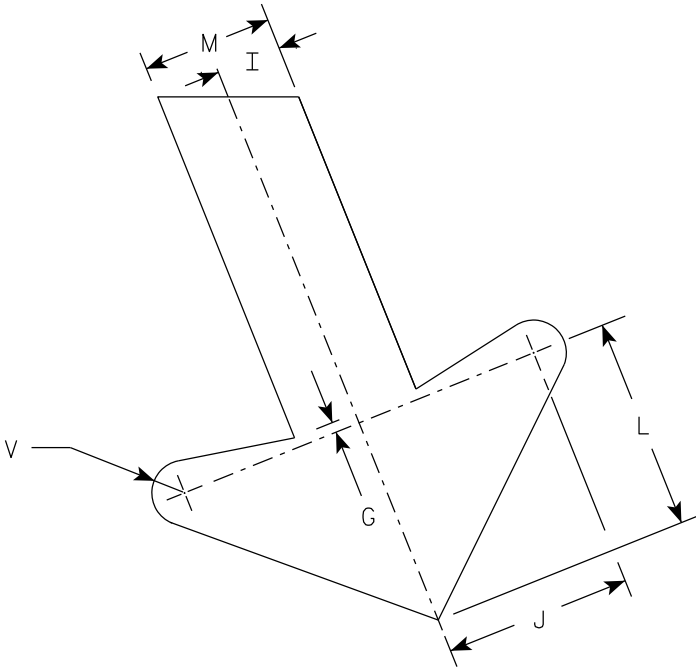
7



R3-20L

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - E



ARROW DETAIL

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

PROJECT NO:

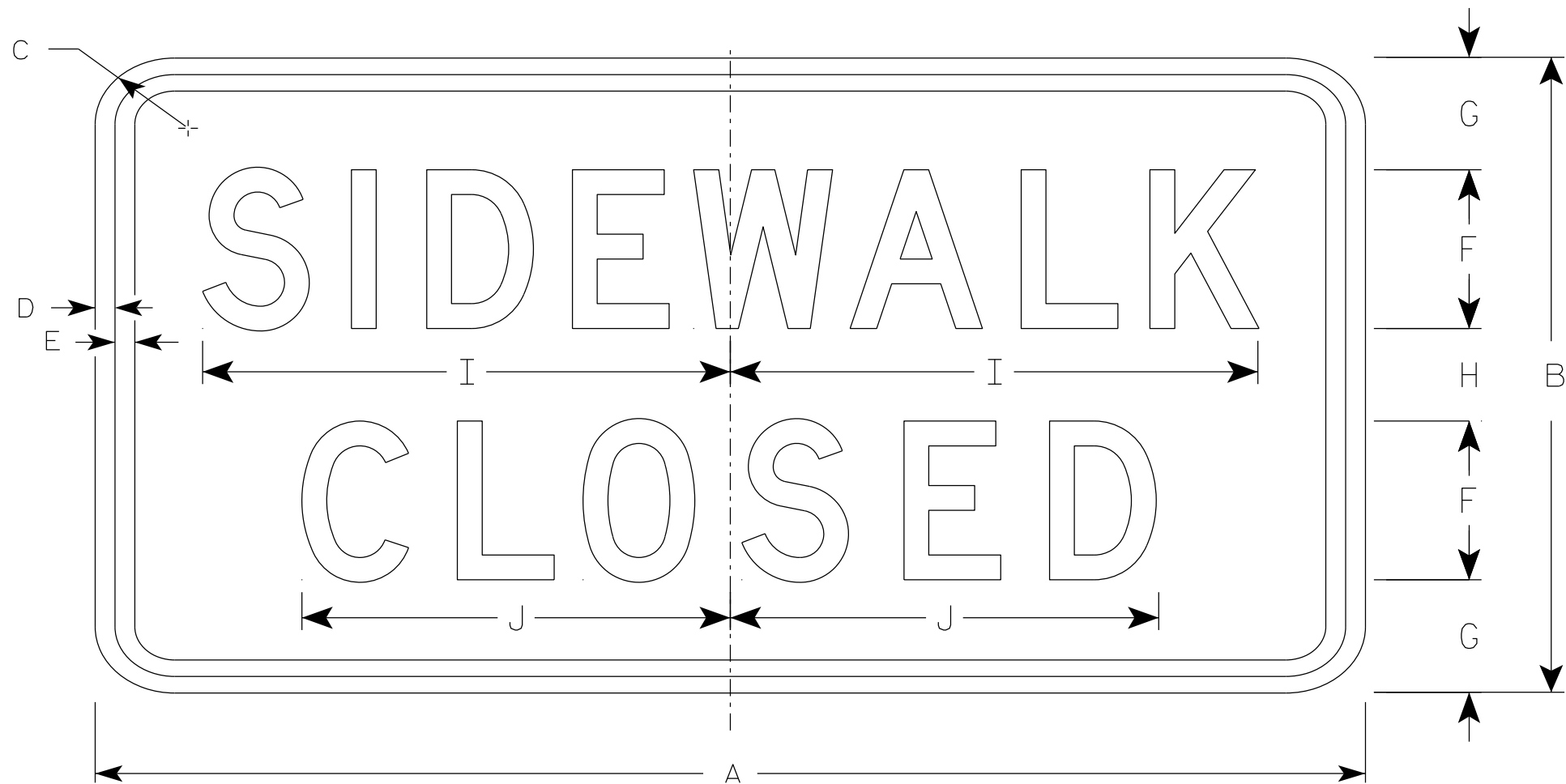
HWY:

COUNTY:

SHEET NO: 345

E

7



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

PROJECT NO:

HWY:

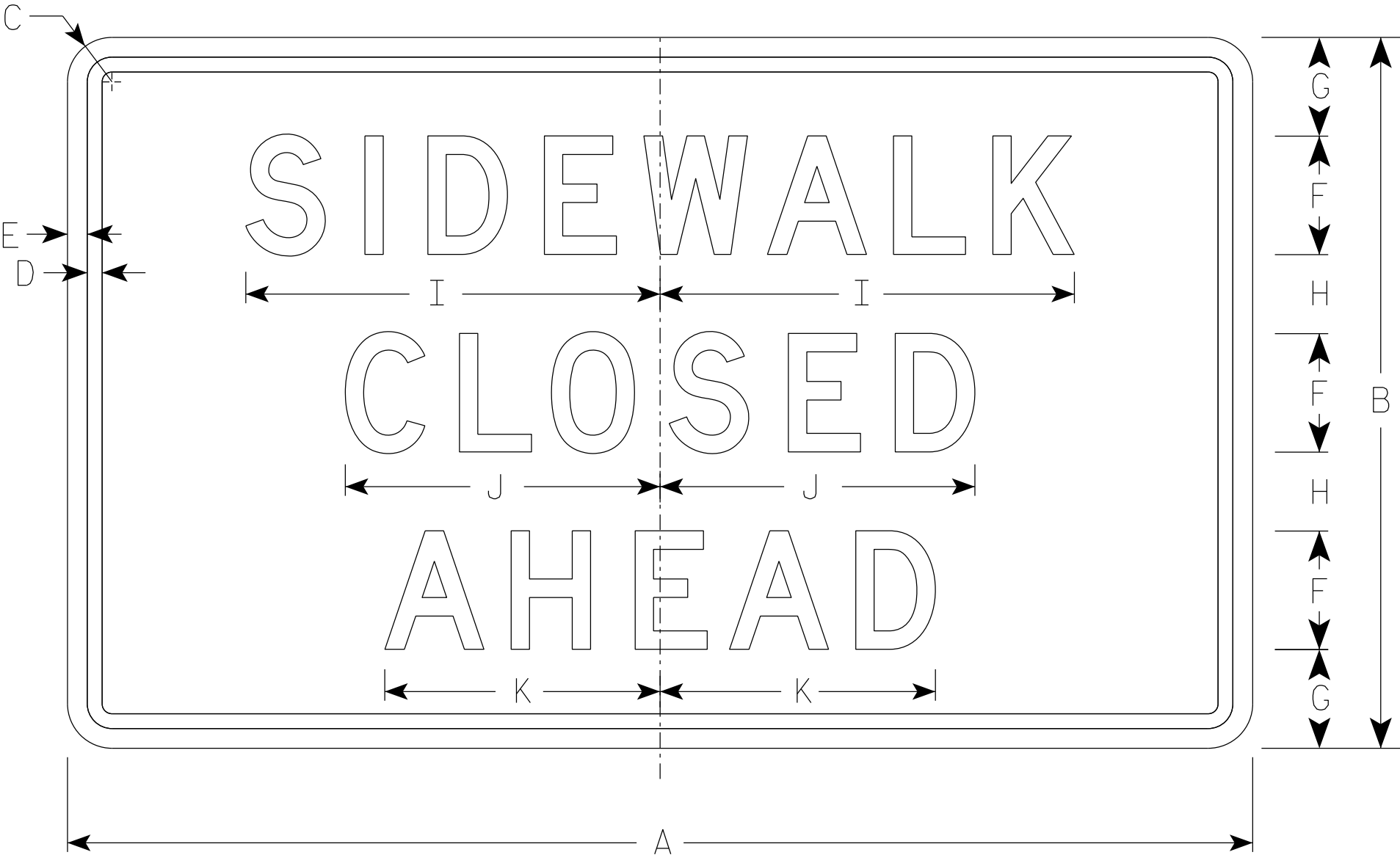
COUNTY:

SHEET NO: 346

E

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

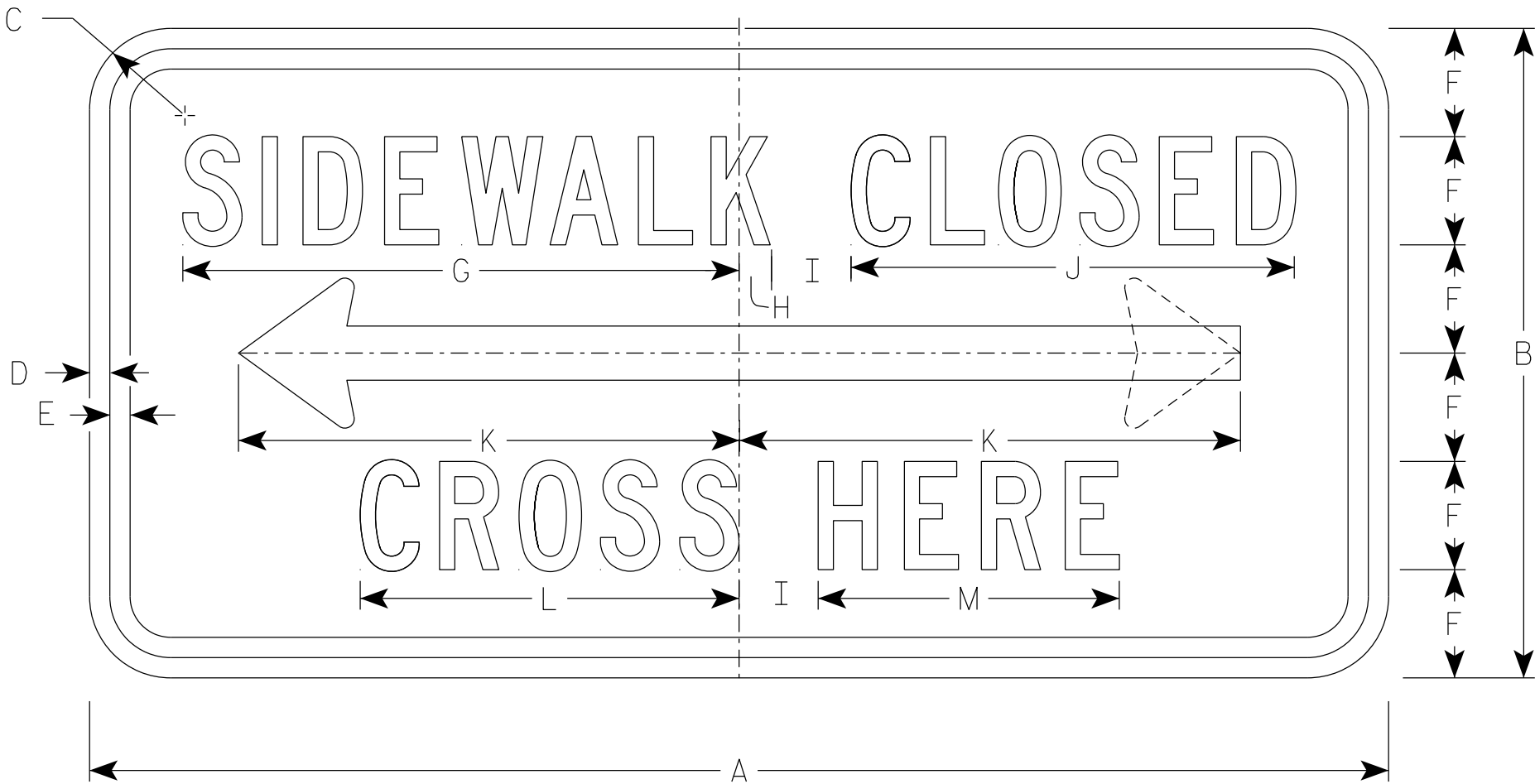
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

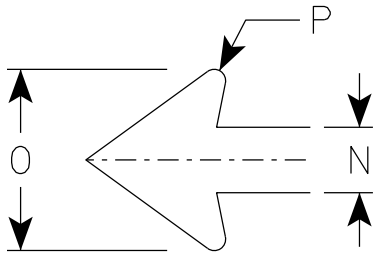
7



R9-11A

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for paths and Trails.
- 5. R9-11AD (double arrow)
R9-11AL (left arrow)
R9-11AR (right arrow)



ARROW DETAIL

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
2M	24	12	1 1/2	3/8	3/8	2	10 1/4	5/8	1 1/2	8 1/4	9 1/4	7	5 5/8	1	2 3/4	1/8											2.0
3	30	15	1 1/2	3/8	1/2	2 1/2	12 3/4	1/2	2	10 1/4	12 3/8	8 5/8	6 3/4	1 1/4	3 5/8	1/4											3.125
4																											
5																											

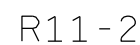
PROJECT NO:

HWY:

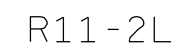
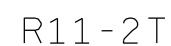
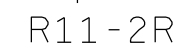
COUNTY:

SHEET NO: 348

E

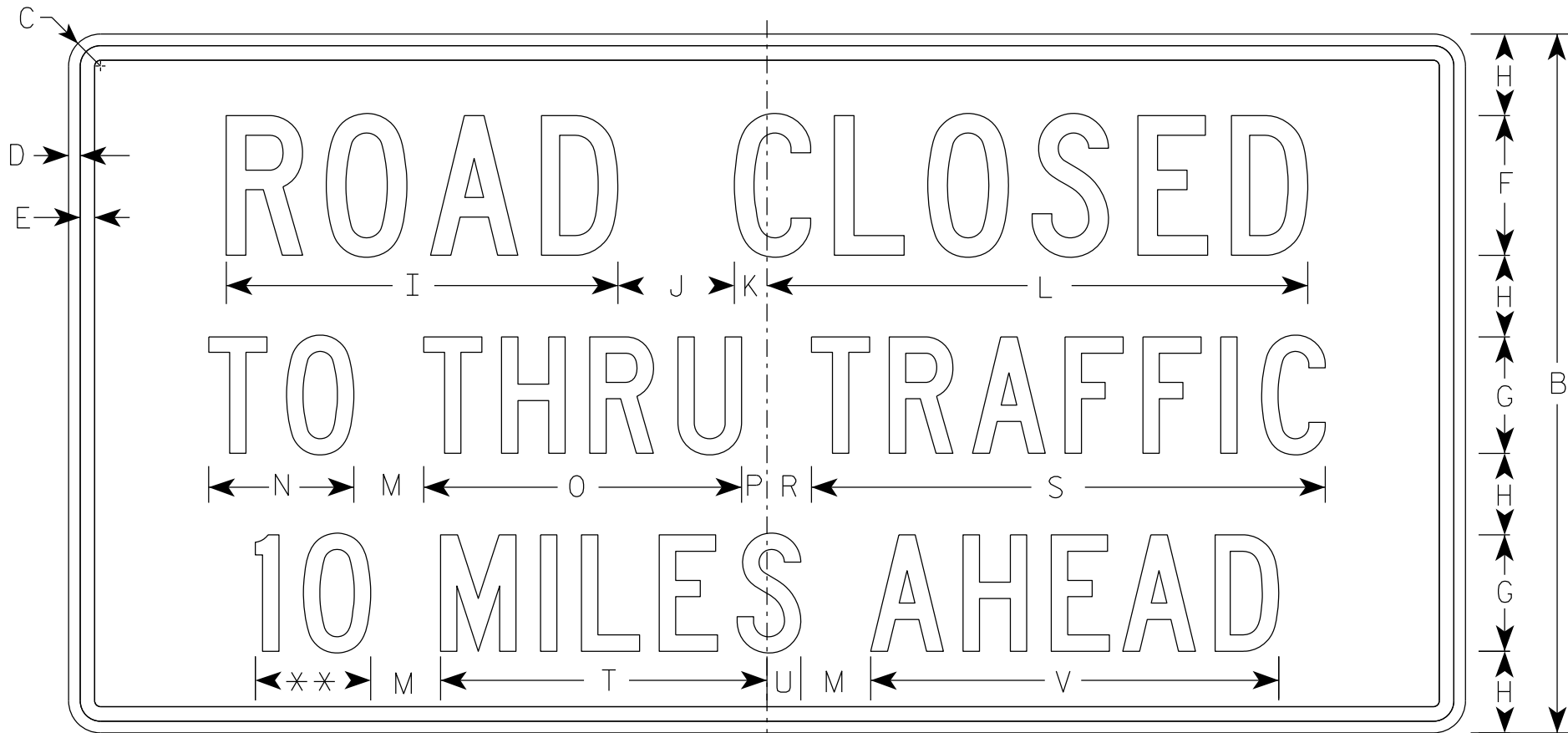


1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



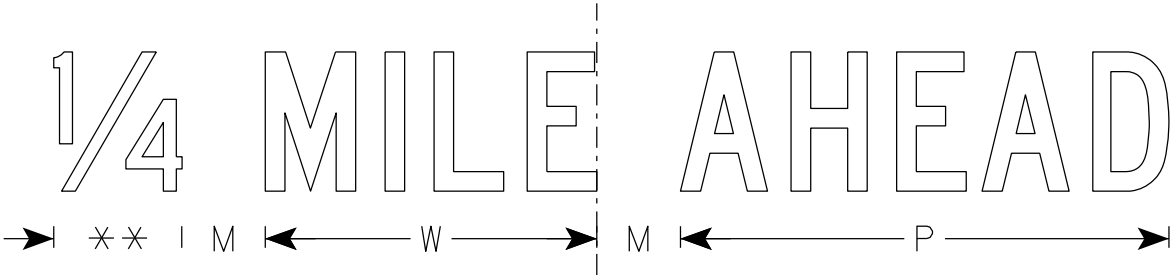
STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew P Rauch</u> for State Traffic Engineer
DATE <u>2/5/24</u>	PLATE NO. <u>R11-2.12</u>

7



R11-3

** See Note 5



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

PROJECT NO:

HWY:

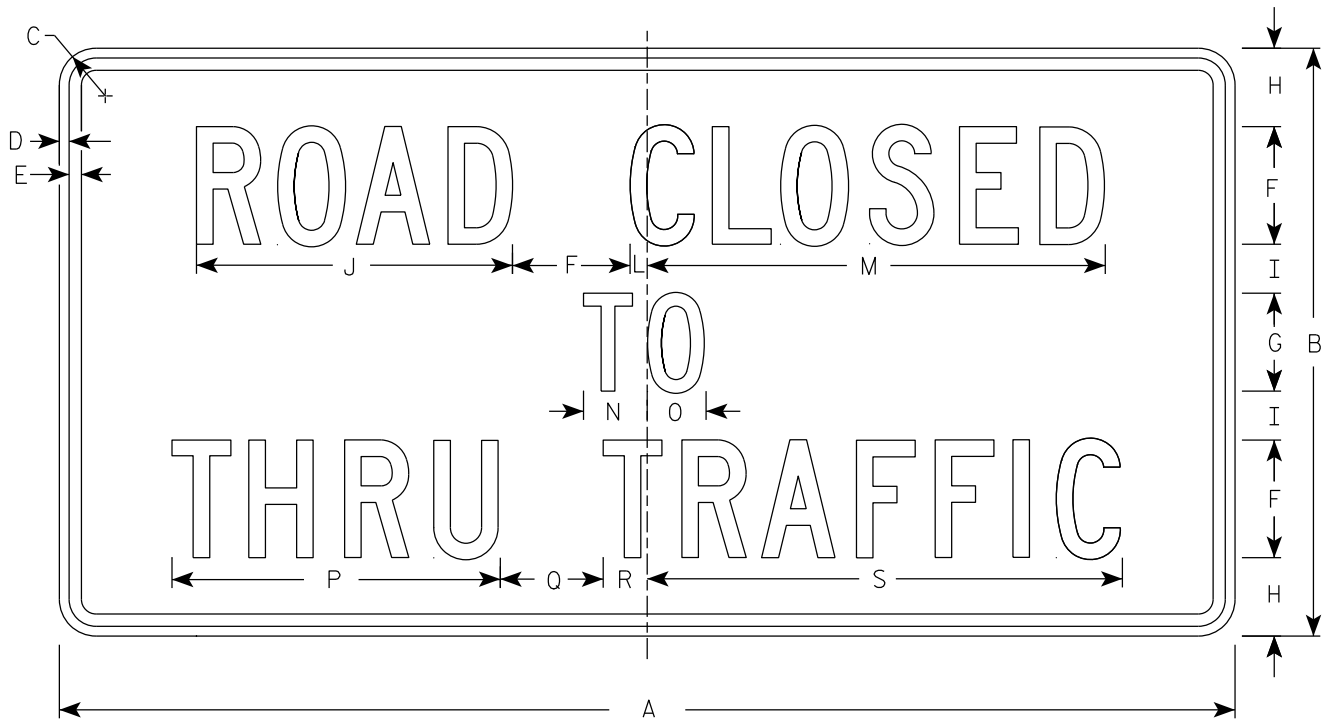
COUNTY:

SHEET NO: 350

E

NOTES

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



R11-4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 7⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
2M	60	30	1 7⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
3																											
4																											
5																											

STANDARD SIGN

R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED 
for State Traffic Engineer

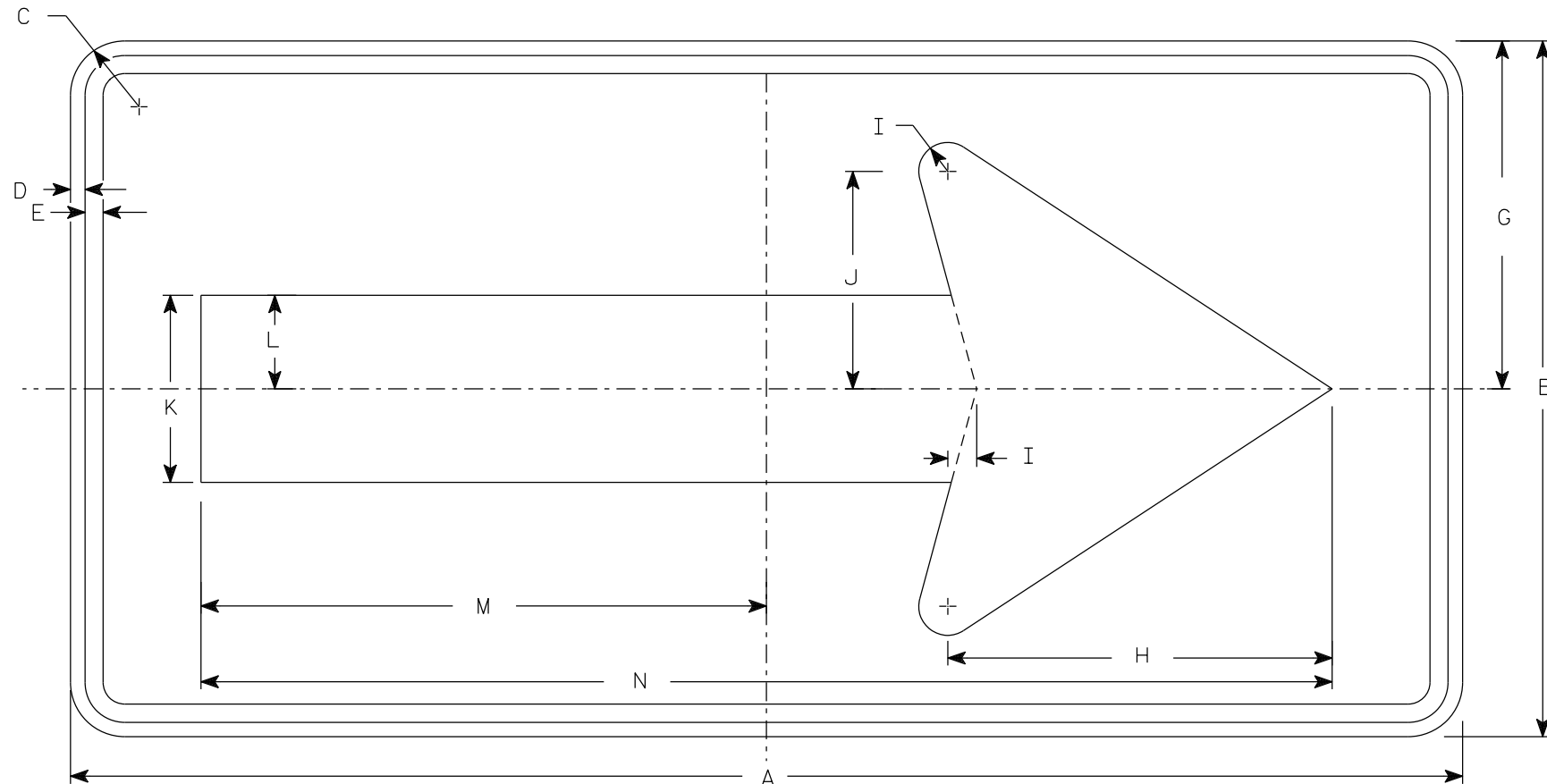
DATE 2/5/24 PLATE NO. R11-4.4

7

7

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black



W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	3	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN

W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/13/2023 PLATE NO. W1-6.9

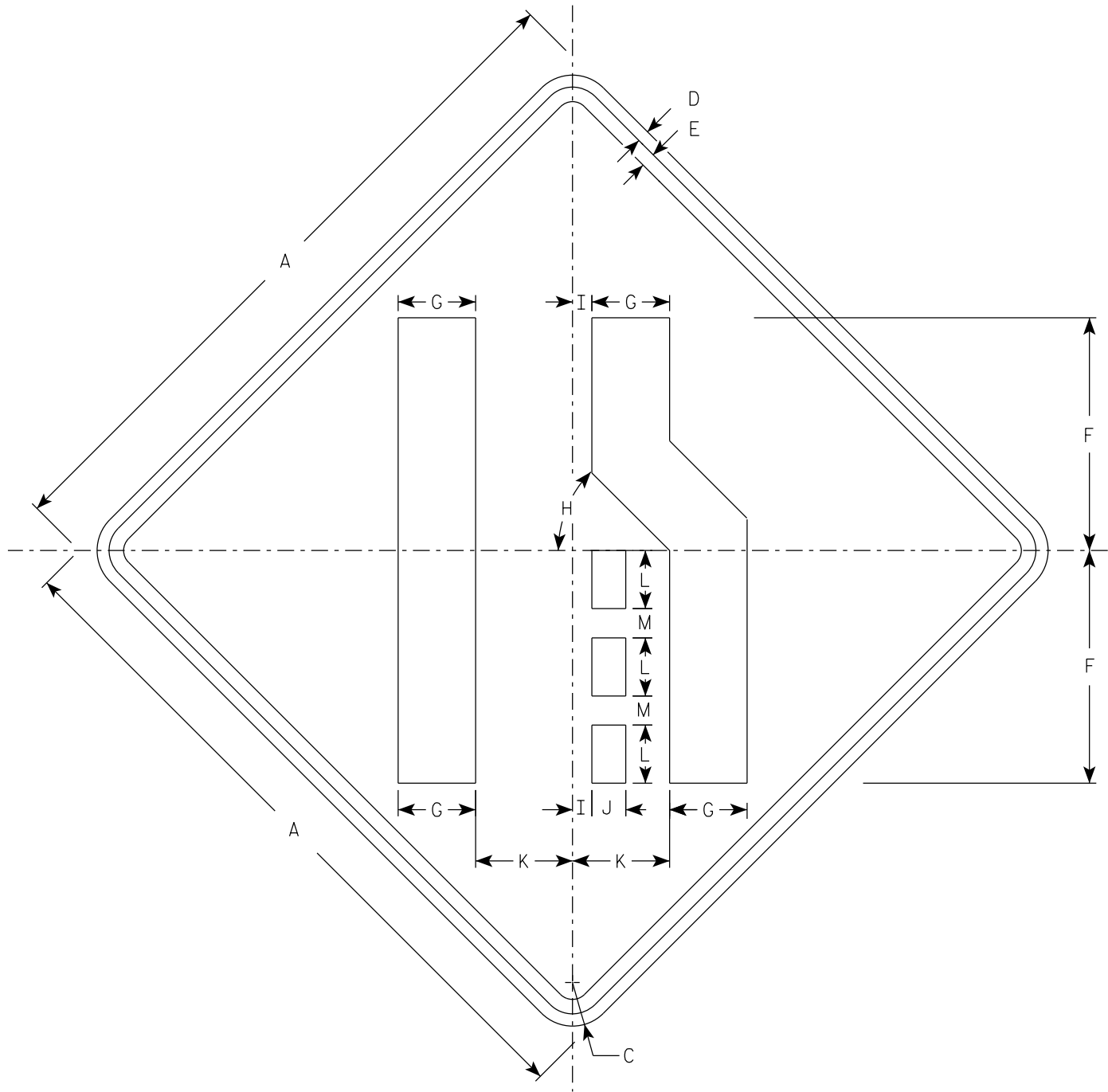
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 352

E

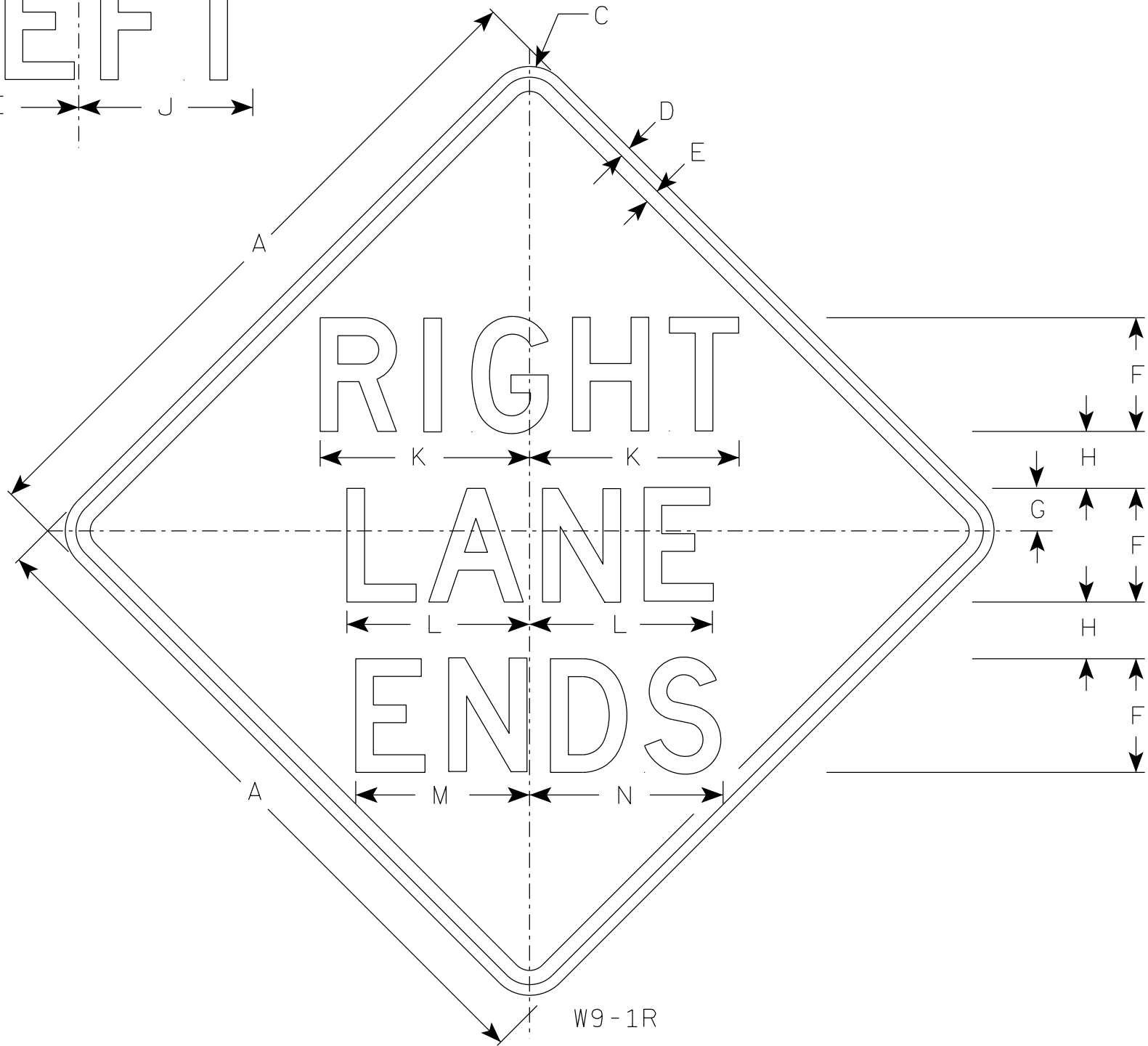
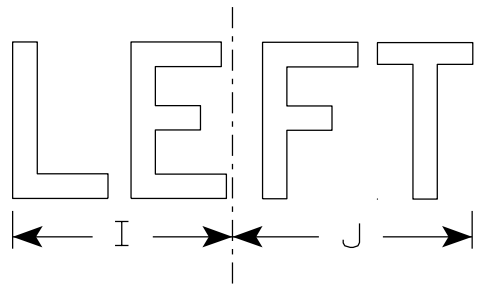


W4-2R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7⁄8	1⁄2	5⁄8	10	3 3⁄8	45°	7⁄8	1 1⁄2	4 1⁄4	2 1⁄2	1 1⁄4														6.25
2S	36		2 1⁄4	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
2M	36		2 1⁄4	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
3	36		2 1⁄4	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
4	48		3	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0
5	48		3	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0



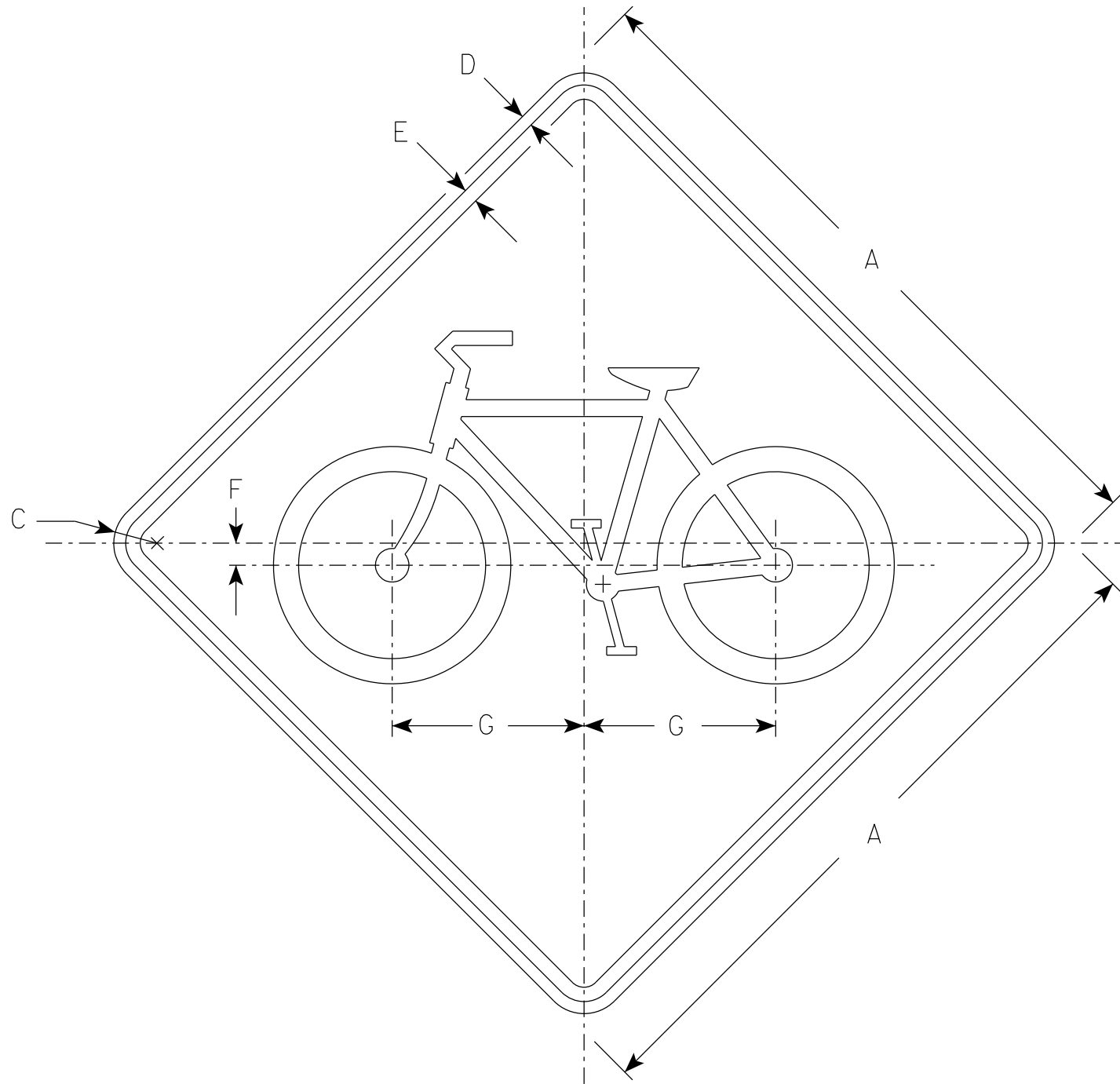
NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Message Series - D
- 4. W9-1L same as W9-1R except the word Left replaces Right.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		3	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0



W11-1

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 7/8	1/2	5/8	1	8 1/2																				6.25
2M	36		2 1/4	5/8	3/4	1 1/4	10																				9.0
3	36		2 1/4	5/8	3/4	1 1/4	10																				9.0
4	48		3	3/4	1	1 5/8	13 3/8																				16.0
5	48		3	3/4	1	1 5/8	13 3/8																				16.0

STANDARD SIGN

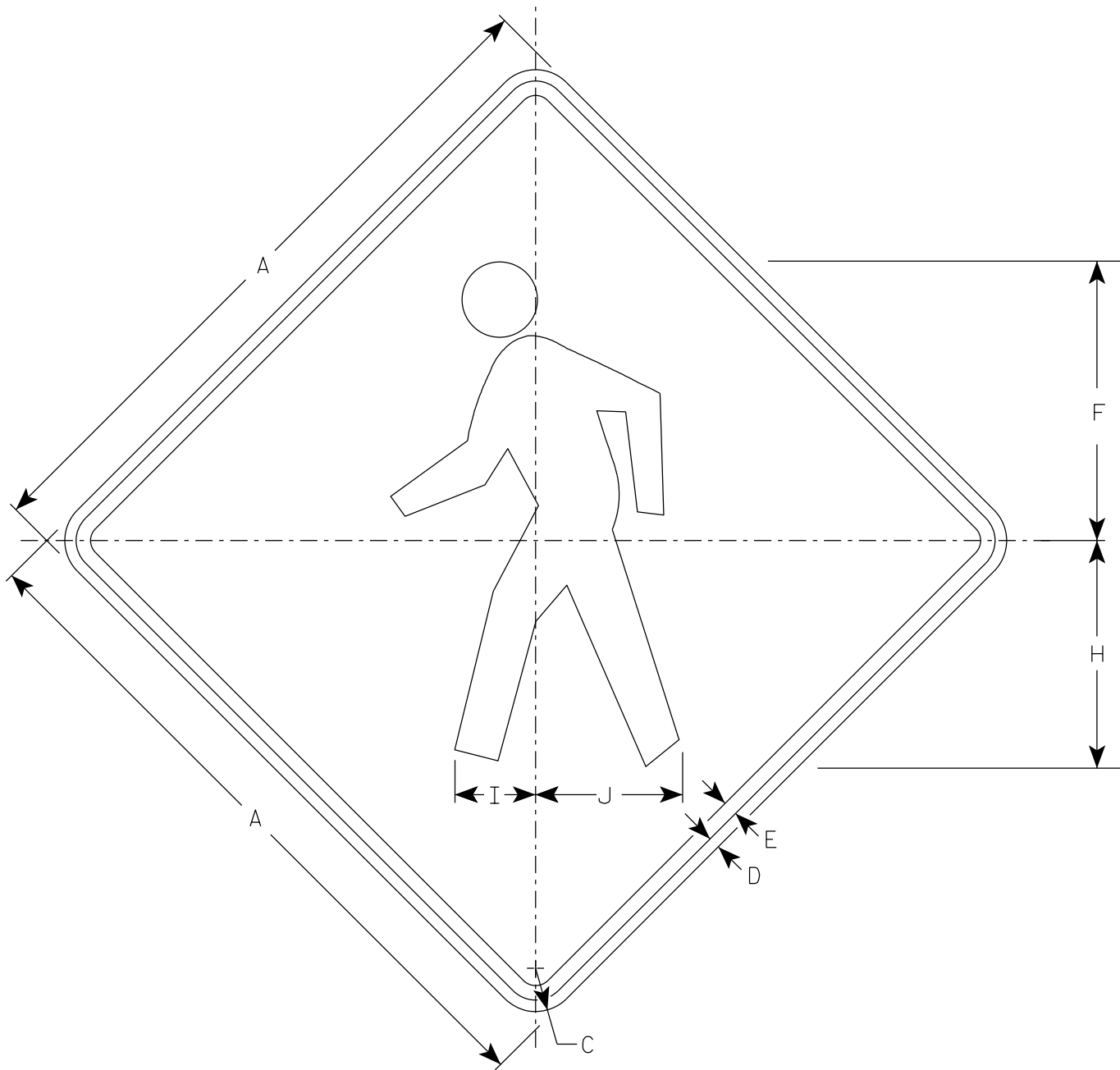
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-1.10

7



W11-2

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black

7

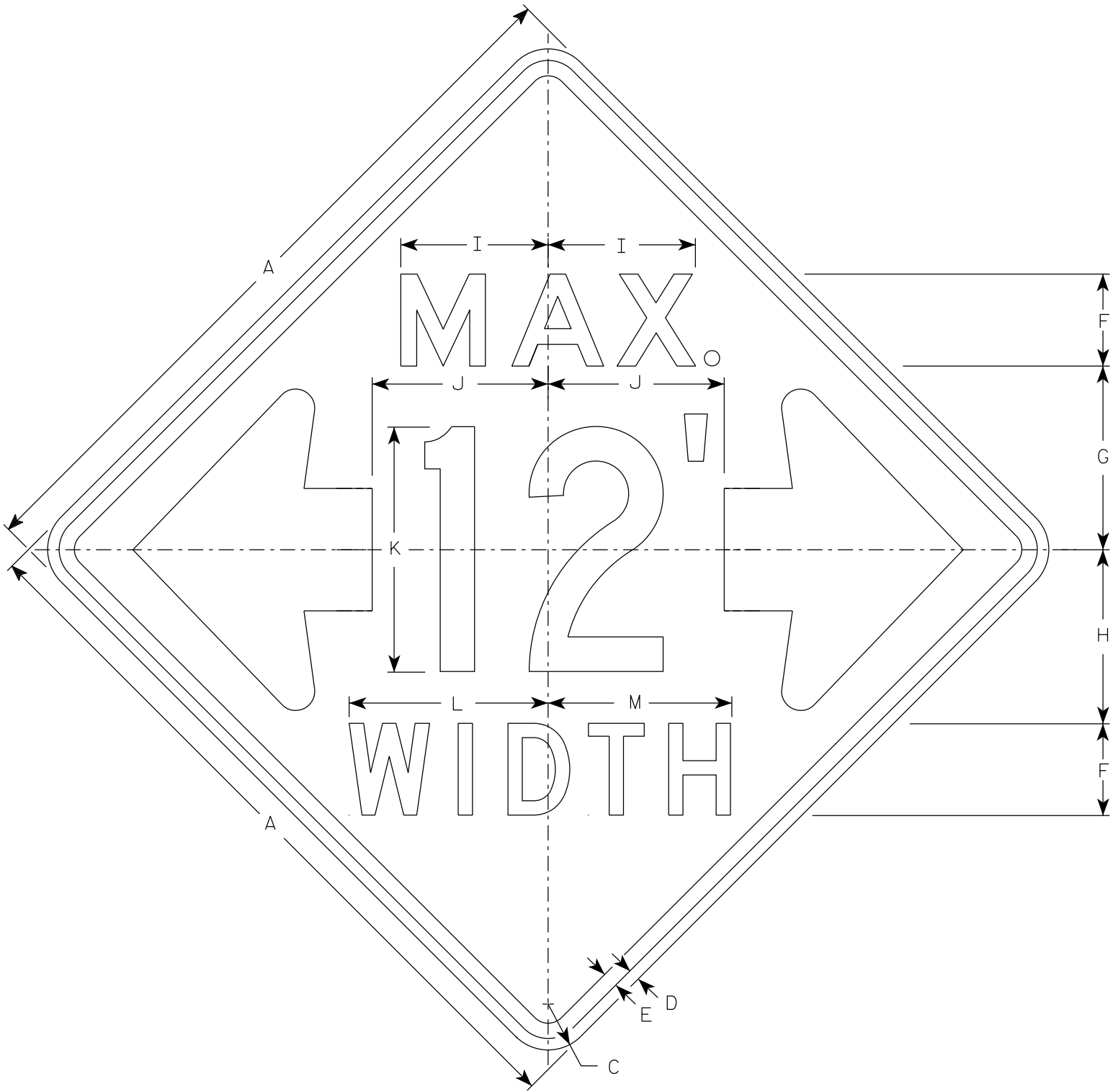
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

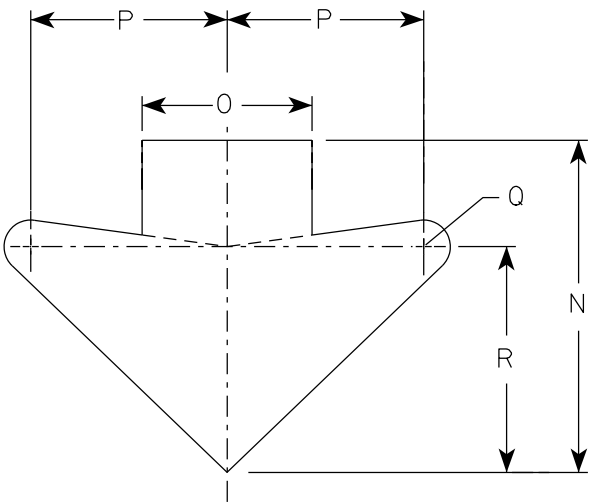
DATE 6/15/2023 PLATE NO. W11-2.9



W12-52

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. The top line is series E, the numerals are series C, and the bottom line is series D.
5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
2M	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
3																											
4																											
5																											

STANDARD SIGN

W12-52

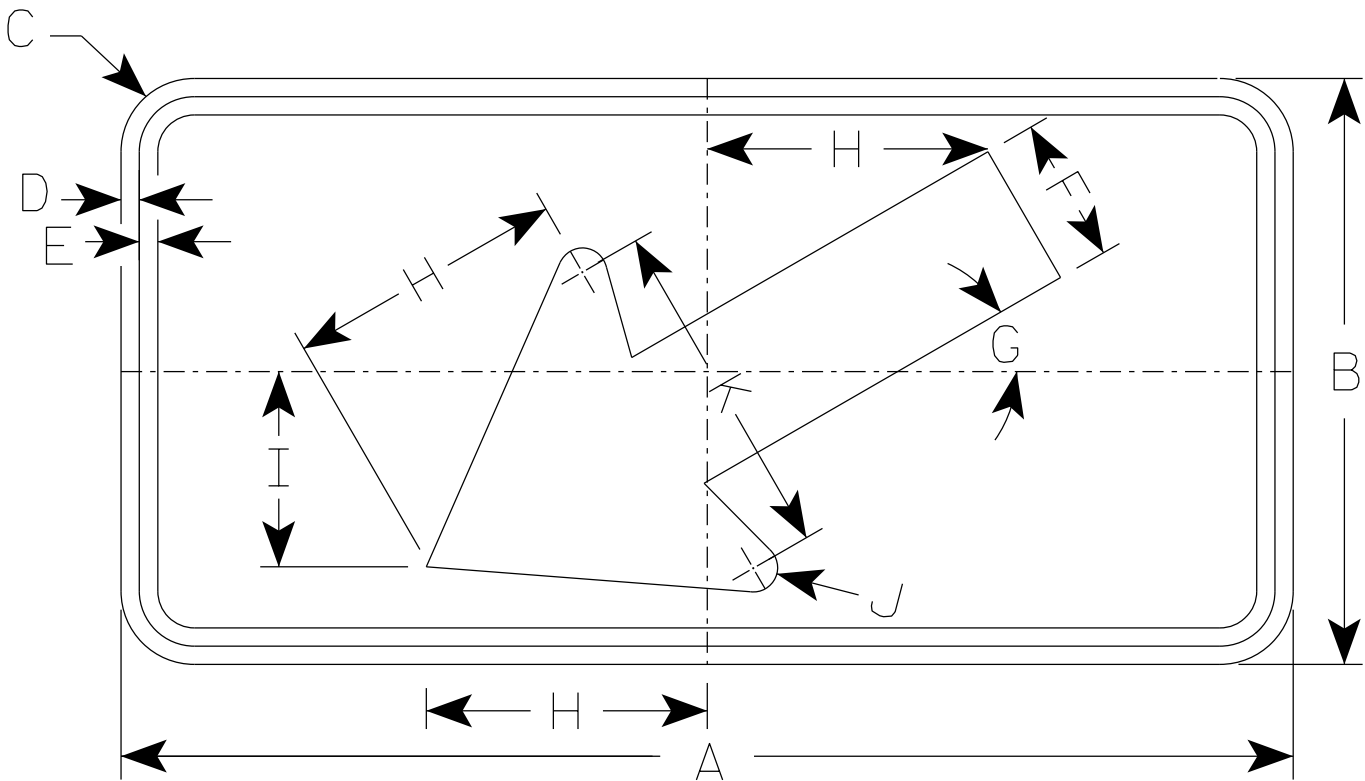
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W16-7R is the same as W16-7L
except the arrow is reversed along
the vertical centerline.



W16-7L

- * For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
- * For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	1 1/2	3/8	1/2	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1 7/8	1/2	5/8	6	30°	11 1/2	8	1	14																8.0
5																											

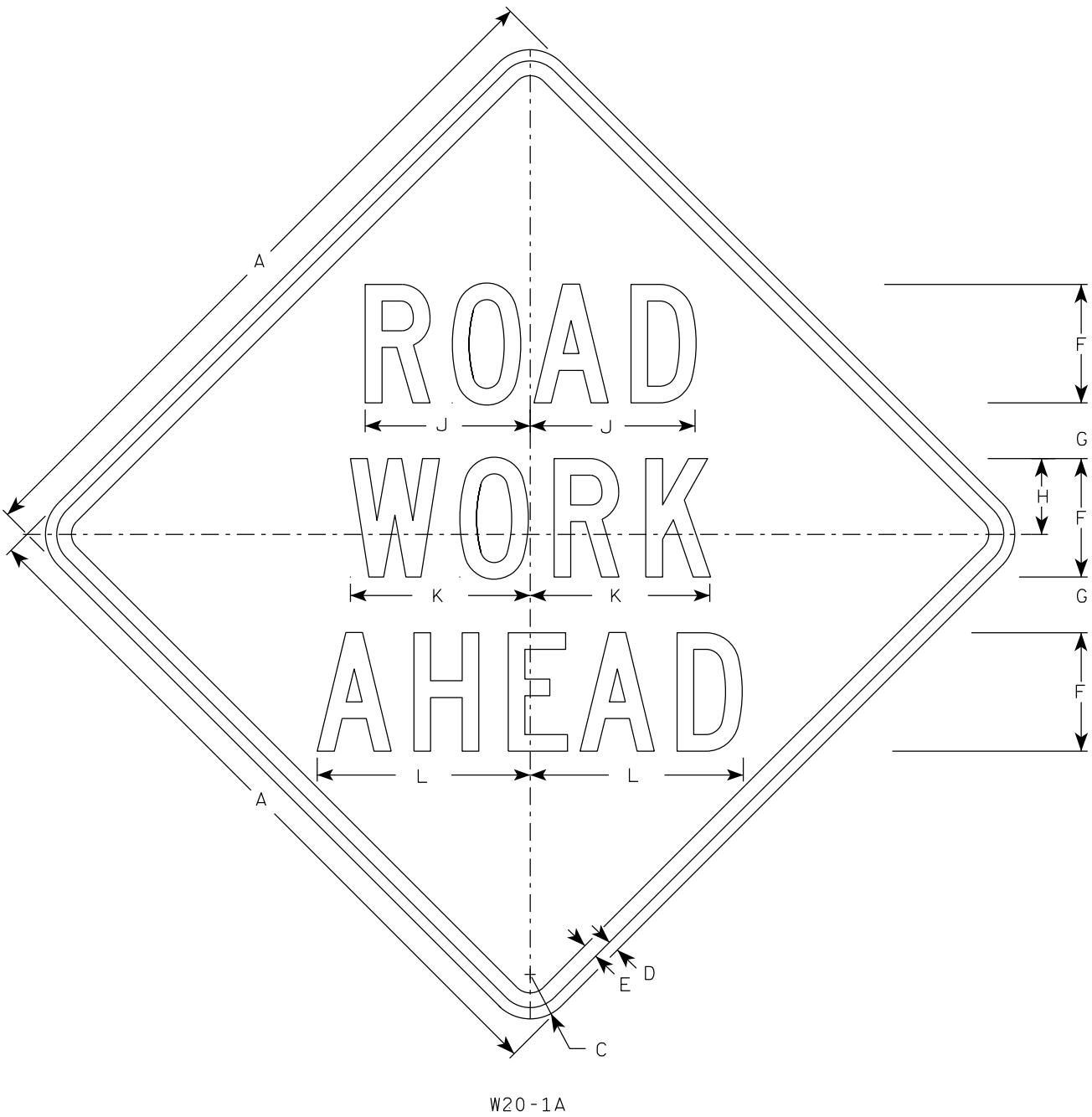
STANDARD SIGN

W16-7

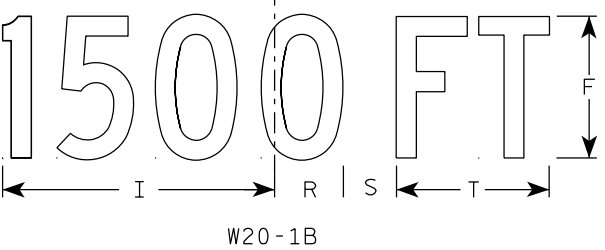
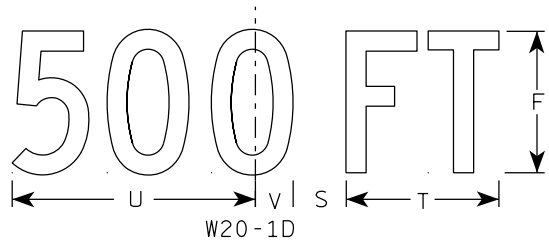
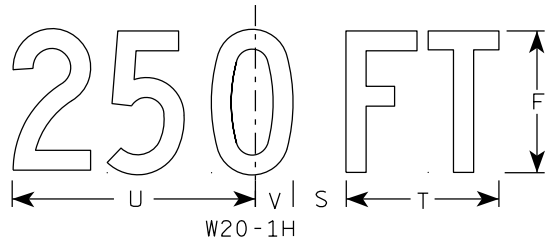
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-7.9

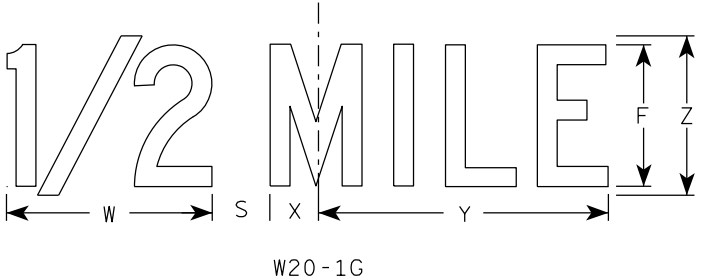


W20-1A

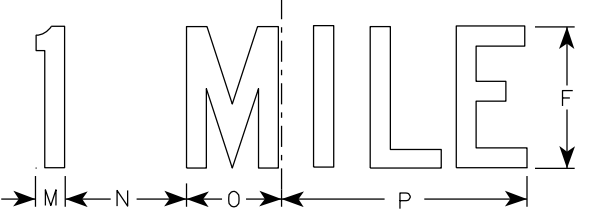


W20-1B

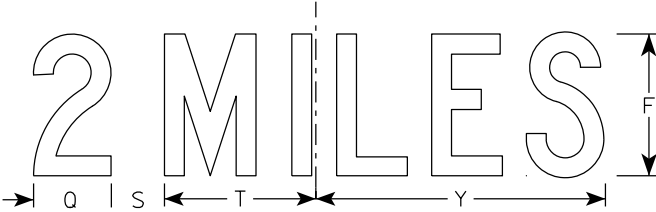
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G

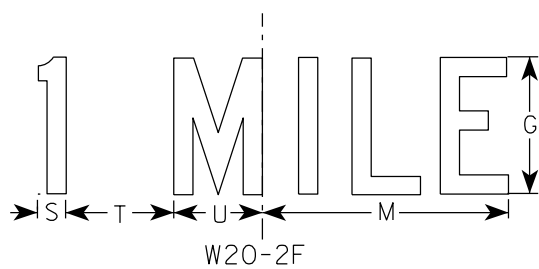
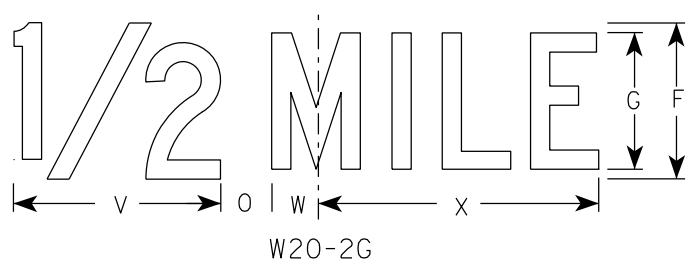
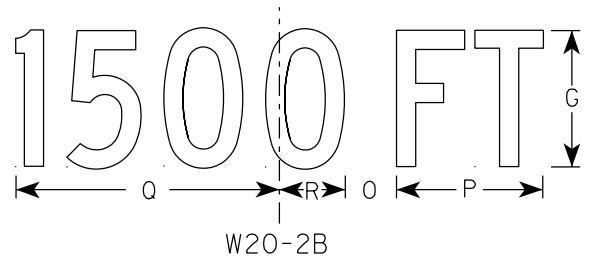
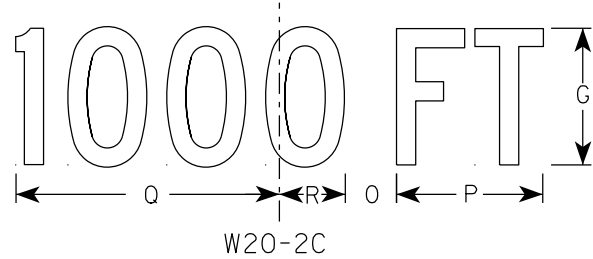
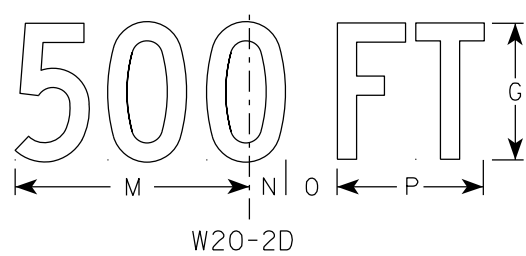
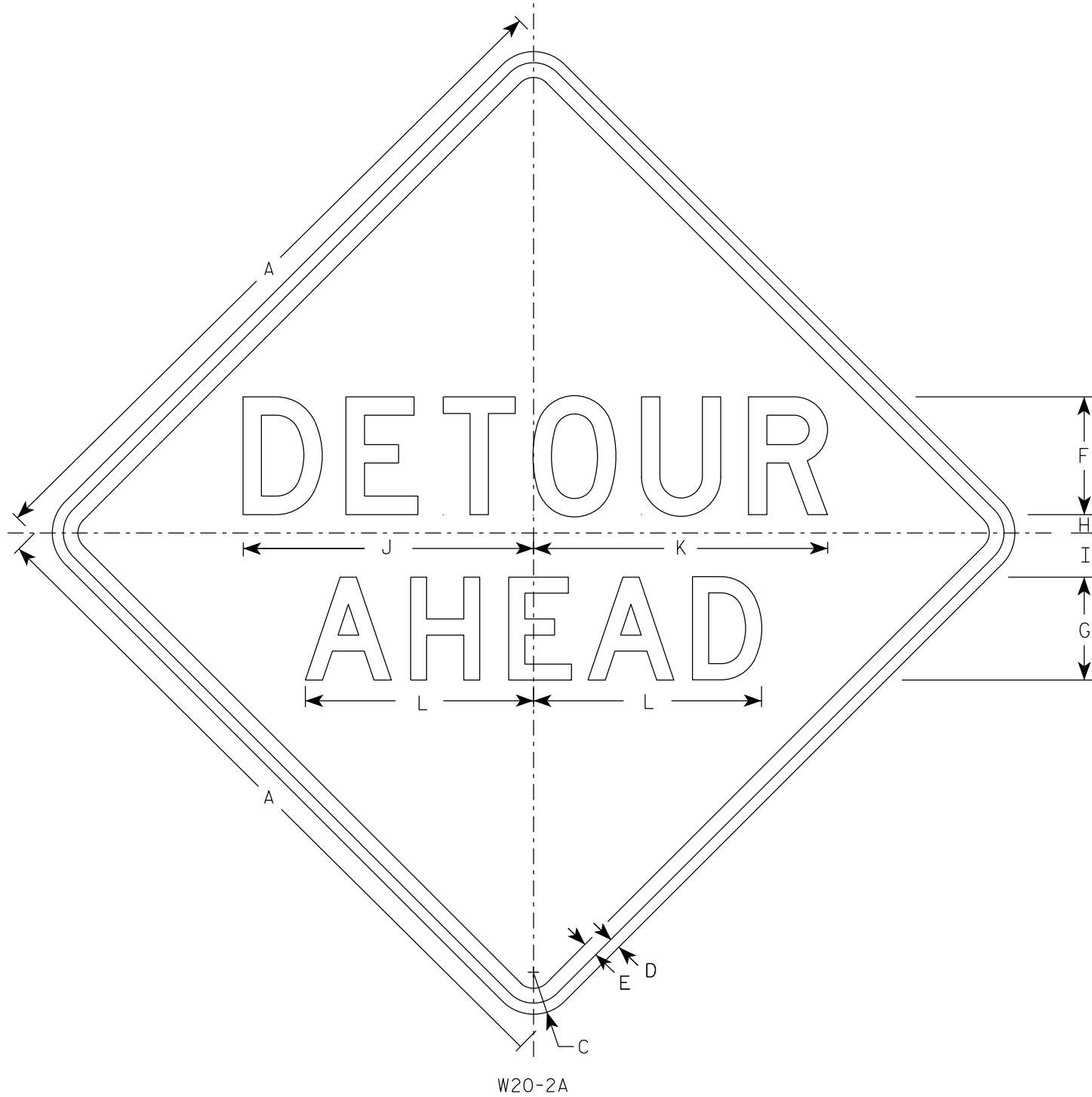


W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

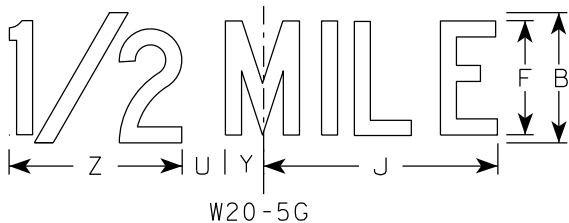
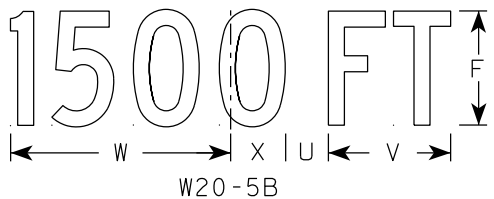
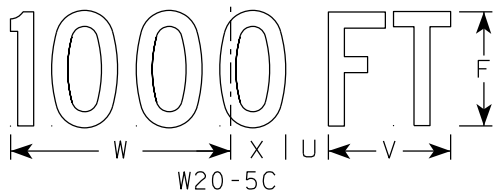
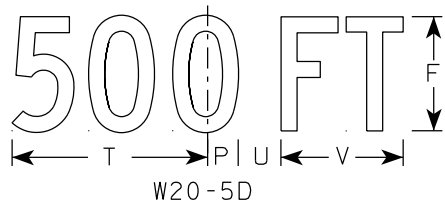
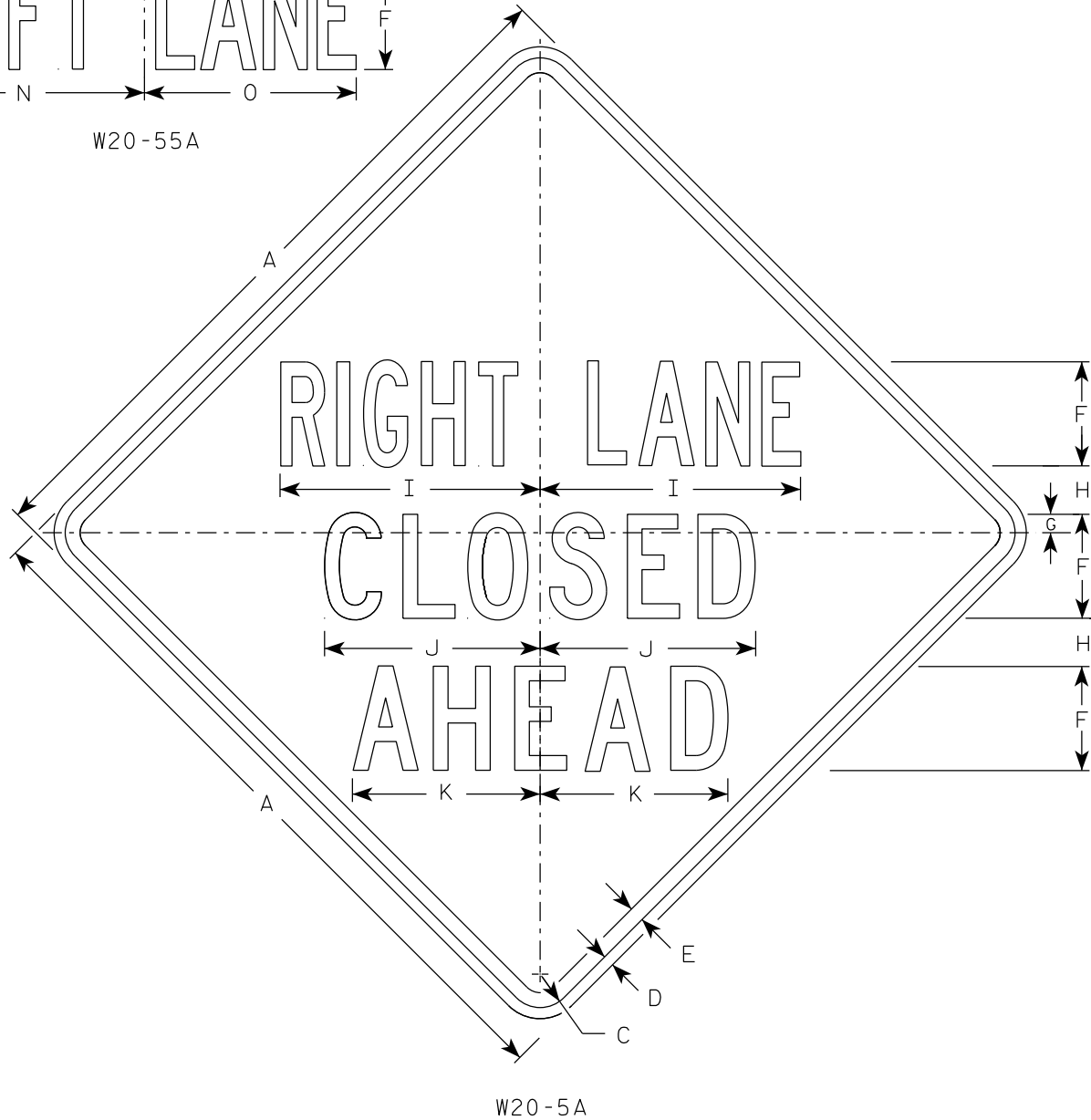
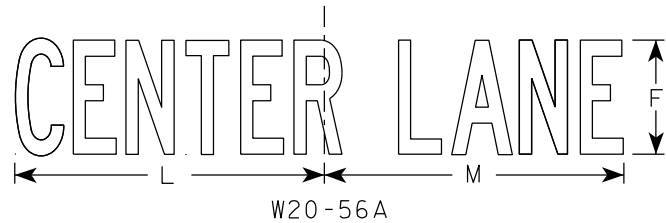


NOTES

- Sign is Type II - Type F Reflective
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	w	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		3	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 1/10/2024	PLATE NO. W20-2.7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - See Note 5
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. " _____ LANE" is Series B.
All other copy is Series C.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

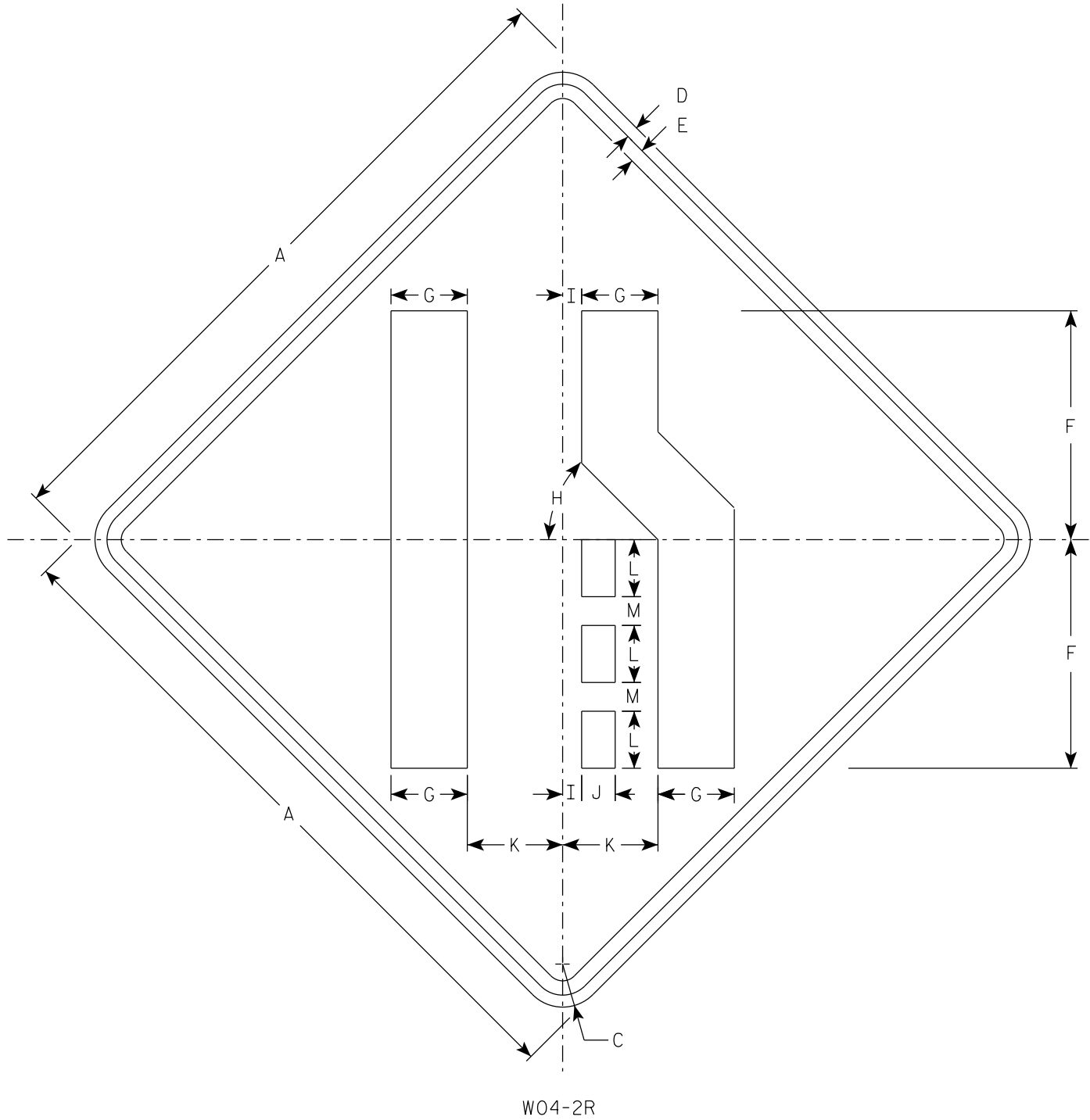
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 361

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STAGE 1 - BUS 51 NORTHBOUND 'NB'

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDNATE NOTE 8
12+69.701		69.96	29.10	2.01	0	0	0	0	0	0
13+00.000	30	70.97	29.33	1.67	79	33	2	79	3	44
13+08.363	8	68.62	29.44	1.52	22	9	0	101	3	56
13+50.000	42	61.91	29.45	1.25	101	45	2	201	6	108
14+00.000	50	58.63	29.41	1.31	112	55	2	313	9	162
14+13.381	13	58.22	29.43	1.38	29	15	1	342	10	176
14+50.000	37	57.59	27.99	1.35	79	39	2	420	12	213
15+00.000	50	66.85	29.43	2.13	115	53	3	536	16	271
15+18.398	18	68.76	27.98	1.88	46	20	1	582	18	296
15+50.000	32	68.30	22.66	1.12	80	30	2	662	20	344
16+00.000	50	83.08	24.70	0.00	140	44	1	802	21	440
16+25.509	26	80.63	22.43	0.03	77	22	0	880	21	495
					880	364	17			

STAGE 1 - BUS 51 SOUTHBOUND 'SB'

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDNATE NOTE 8
12+68.861		67.02	28.46	1.99	0	0	0	0	0	0
12+87.798	19	62.92	28.51	1.87	46	20	1	46	2	24
13+00.000	12	61.04	28.44	1.65	28	13	1	74	3	38
13+08.447	8	59.55	28.40	1.54	19	9	0	92	3	47
13+50.000	42	55.35	28.35	1.77	88	44	3	181	6	89
14+00.000	50	57.32	31.09	2.24	104	55	4	285	11	134
14+50.000	50	50.61	27.11	1.77	100	54	4	385	16	175
15+00.000	50	46.18	28.99	2.79	90	52	4	475	21	207
15+50.000	50	46.78	27.21	1.69	86	52	4	561	26	236
16+00.000	50	69.12	28.05	0.00	107	51	2	668	28	290
16+07.321	7	71.24	27.39	0.00	19	8	0	687	28	302
16+25.499	18	65.51	26.81	0.00	46	18	0	733	28	330
					733	375	23			

NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDNATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 1 - BUS 51

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDNATE NOTE 8
16+25.501		147.12	49.55	0.03	0	0	0	0	0	0
16+50.000	24	135.14	45.64	1.27	128	43	1	128	1	84
17+00.000	50	132.29	45.42	1.07	248	84	2	376	3	245
17+25.000	25	160.03	45.62	1.58	135	42	1	511	5	336
17+50.000	25	182.81	45.53	0.00	159	42	1	670	6	452
17+57.575	8	182.02	46.90	0.00	51	13	0	721	6	490
17+75.000	17	170.34	63.92	2.18	114	36	1	835	7	567
18+00.000	25	117.20	57.46	2.50	133	56	2	968	9	641
18+25.000	25	121.03	43.32	2.31	110	47	2	1078	12	702
18+50.000	25	107.15	43.22	2.44	106	40	2	1184	15	765
18+75.000	25	106.19	43.24	2.54	99	40	2	1282	18	821
19+00.000	25	106.65	43.44	2.47	99	40	2	1381	21	877
19+25.000	25	111.49	43.51	1.90	101	40	2	1482	23	935
19+50.000	25	67.61	34.76	1.94	83	36	2	1565	26	979
19+64.172	14	71.69	34.72	1.48	37	18	1	1601	27	996
19+75.000	11	74.52	34.68	1.15	29	14	1	1631	27	1011
20+00.000	25	79.43	29.70	0.91	71	30	1	1702	29	1051
					1702	622	23			

NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDNATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 2 - BUS 51

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
17+75.000		0.00	1.32	0.00	0	0	0	0	0	0
18+00.000	25	4.26	10.56	0.00	2	6	0	2	0	-4
18+25.000	25	18.65	13.71	2.58	11	11	1	13	1	-6
18+50.000	25	35.30	16.33	3.18	25	14	3	38	5	2
18+75.000	25	30.18	16.82	2.18	30	15	2	68	8	14
19+00.000	25	26.16	18.42	1.41	26	16	2	94	10	22
19+25.000	25	20.43	18.73	0.99	22	17	1	116	11	25
19+50.000	25	103.00	37.13	0.00	57	26	0	173	12	55
19+64.172	14	101.63	35.22	0.00	54	19	0	226	12	90
19+75.000	11	98.85	33.85	0.00	40	14	0	267	12	116
20+00.000	25	86.24	36.09	0.00	86	32	0	352	12	170
20+18.617	19	125.20	36.09	0.00	73	25	0	425	12	218
20+25.000	6	125.84	35.42	0.00	30	8	0	455	12	239
20+50.000	25	93.99	31.39	0.00	102	31	0	557	12	310
20+75.000	25	90.95	28.90	0.00	86	28	0	642	12	367
21+00.000	25	84.58	26.73	0.00	81	26	0	723	12	423
21+25.000	25	80.04	25.00	0.00	76	24	0	800	12	475
					800	312	10			

STAGE 2 - CHURCH ST (SOUTH) 'CS'

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+73.910		63.68	0.00	0.00	0	0	0	0	0	0
11+00.000	26	92.13	2.06	0.00	75	1	0	75	0	74
11+15.000	15	111.14	2.24	0.00	56	1	0	132	0	130
11+25.000	10	148.24	2.66	0.02	48	1	0	180	0	177
11+50.000	25	163.26	49.75	0.78	144	24	0	324	0	296
11+57.115	7	171.91	39.60	0.09	44	12	0	368	1	328
					368	39	0			

NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 3 - BUS 51

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
20+00.000		63.71	29.70	0.91	0	0	0	0	0	0
20+18.617	19	82.81	30.94	0.00	51	21	0	51	0	29
20+25.000	6	83.94	30.94	0.00	20	7	0	70	0	42
20+50.000	25	70.42	29.70	0.98	71	28	0	142	1	84
20+75.000	25	70.06	29.15	0.19	65	27	1	207	2	122
21+00.000	25	68.03	28.88	0.07	64	27	0	271	2	158
21+25.000	25	64.93	28.55	0.12	62	27	0	332	2	193
21+50.000	25	148.11	53.70	0.00	99	38	0	431	2	254
21+53.931	4	145.74	53.42	0.00	21	8	0	452	2	267
21+75.000	21	122.33	50.51	0.86	105	41	0	557	2	331
22+00.000	25	123.34	50.31	0.00	114	47	0	671	3	398
22+11.023	11	120.21	52.22	0.00	50	21	0	720	3	426
22+25.000	14	115.14	51.67	0.00	61	27	0	781	3	460
22+50.000	25	99.67	48.39	1.95	99	46	1	881	4	512
22+64.407	14	122.88	52.09	1.11	59	27	1	940	5	544
23+00.000	36	104.14	44.98	0.37	150	64	1	1090	6	628
23+47.198	47	117.90	47.13	0.00	194	81	0	1284	7	742
23+50.000	3	117.09	47.15	0.00	12	5	0	1296	7	749
23+75.000	25	109.71	46.12	1.48	105	43	1	1401	8	810
24+00.000	25	87.65	46.09	2.65	91	43	2	1492	10	856
24+35.000	35	90.54	47.28	0.00	115	61	2	1608	12	909
24+50.000	15	77.92	47.24	1.74	47	26	0	1655	13	929
25+00.000	50	89.57	49.72	0.00	155	90	2	1810	15	992
25+14.506	15	96.41	49.62	0.00	50	27	0	1860	15	1015
25+50.000	35	87.01	45.03	1.28	121	62	1	1980	16	1073
26+00.000	50	95.56	45.03	0.97	169	83	2	2149	18	1156
26+50.000	50	99.12	46.38	2.28	180	85	3	2329	22	1248
27+00.000	50	110.79	45.13	0.50	194	85	3	2524	25	1354
27+50.000	50	138.70	50.36	0.00	231	88	0	2755	26	1496
27+63.495	13	156.13	51.36	0.00	74	25	0	2829	26	1544
28+00.000	37	114.41	46.19	0.34	183	66	0	3011	26	1661
28+50.000	50	106.91	46.17	0.66	205	86	1	3216	27	1779
29+00.000	50	122.51	48.70	0.36	212	88	1	3429	29	1903
29+15.981	16	118.89	46.14	0.00	71	28	0	3500	29	1946
29+50.000	34	99.57	45.09	1.01	138	57	1	3638	29	2025
30+00.000	50	108.00	45.05	0.35	192	83	1	3830	31	2132
					3830	1667	25			

NOTES:

- 1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
- 2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
- 3 - UNEXPANDED FILL VOLUME
- 8 - THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 4 - BUS 51

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
30+00.000		108.00	45.05	0.35	0	0	0	0	0	0
30+50.000	50	145.09	44.13	0.00	234	83	0	234	0	151
31+00.000	50	203.93	58.38	0.00	323	95	0	558	0	380
31+50.000	50	121.82	53.52	0.24	302	104	0	859	1	577
32+00.000	50	117.24	54.74	0.66	221	100	1	1080	2	697
					1080	381	1			

STAGE 4 - NEBEL ST (WEST) 'NE'

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+60.905		89.88	0.00	0.91	0	0	0	0	0	0
11+00.000	39	112.30	3.29	0.00	146	2	1	146	1	143
11+38.970	39	112.68	2.05	0.00	162	4	0	309	1	302
					309	6	1			

STAGE 4 - NEBEL ST (EAST) 'NE'

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
12+54.305		113.61	5.01	0.00	0	0	0	0	0	0
12+78.023	24	103.69	4.19	0.01	95	4	0	95	0	91
					95	4	0			

NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 5 - BUS 51

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
32+00.000		117.24	54.74	0.66	0	0	0	0	0	0
32+50.000	50	118.75	56.27	1.16	219	103	2	219	2	114
33+00.000	50	115.34	56.28	0.62	217	104	2	435	4	224
33+50.000	50	118.57	62.20	1.78	217	110	2	652	7	328
33+67.692	18	127.45	63.31	2.93	81	41	2	732	9	366
34+00.000	32	109.92	61.47	3.56	142	75	4	874	14	428
34+43.772	44	131.58	63.38	0.00	196	101	3	1070	17	519
34+50.000	6	133.13	63.43	0.00	31	15	0	1101	17	535
35+00.000	50	147.09	68.88	4.14	259	123	4	1360	22	667
35+50.000	50	223.54	68.14	0.00	343	127	4	1703	27	879
36+00.000	50	202.15	100.71	0.00	394	156	0	2098	27	1117
36+50.000	50	86.93	59.45	8.29	268	148	8	2365	37	1226
37+00.000	50	95.78	56.15	4.90	169	107	12	2534	52	1273
37+50.000	50	107.76	54.09	3.78	188	102	8	2723	62	1350
38+00.000	50	106.88	51.20	3.58	199	97	7	2922	70	1442
38+27.932	28	125.89	49.58	2.95	120	52	3	3042	75	1506
38+50.000	22	115.69	48.27	2.88	99	40	2	3141	78	1562
39+00.000	50	118.71	48.04	2.21	217	89	5	3358	83	1684
39+26.613	27	137.93	48.07	0.86	126	47	2	3484	85	1761
39+50.000	23	117.67	48.12	0.91	111	42	1	3595	86	1829
40+00.000	50	117.06	48.23	1.94	217	89	3	3812	90	1954
40+33.693	34	116.97	49.89	0.14	146	61	1	3958	91	2037
40+50.000	16	111.26	48.20	0.13	69	30	0	4027	91	2077
					4027	1859	73			

NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

STAGE 5 - MICHIGAN AVE (WEST) 'MI'

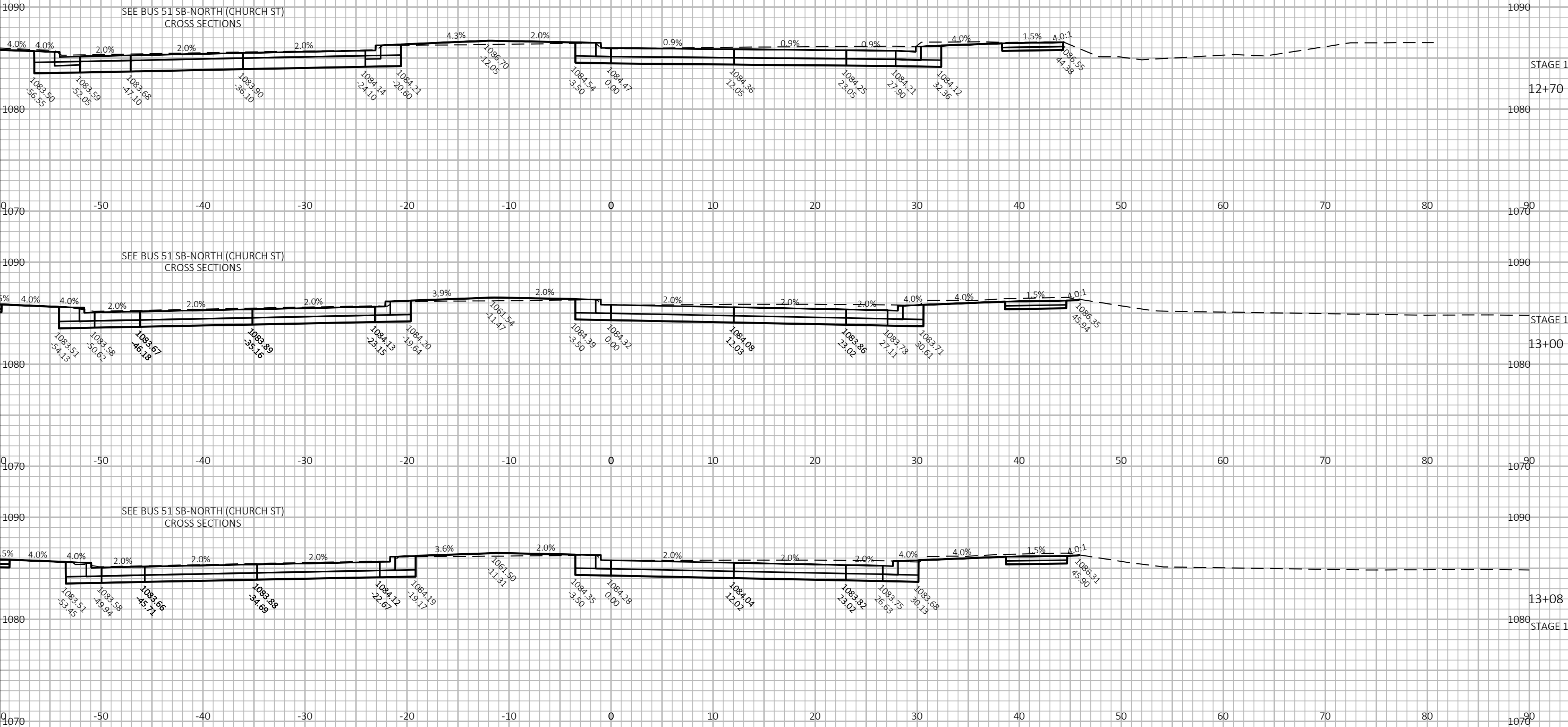
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
10+23.129		80.09	0.00	0.05	0	0	0	0	0	0
10+50.000	27	91.77	40.84	0.00	86	20	0	86	0	65
10+52.791	3	92.48	40.82	0.00	10	4	0	95	0	70
					95	25	0			

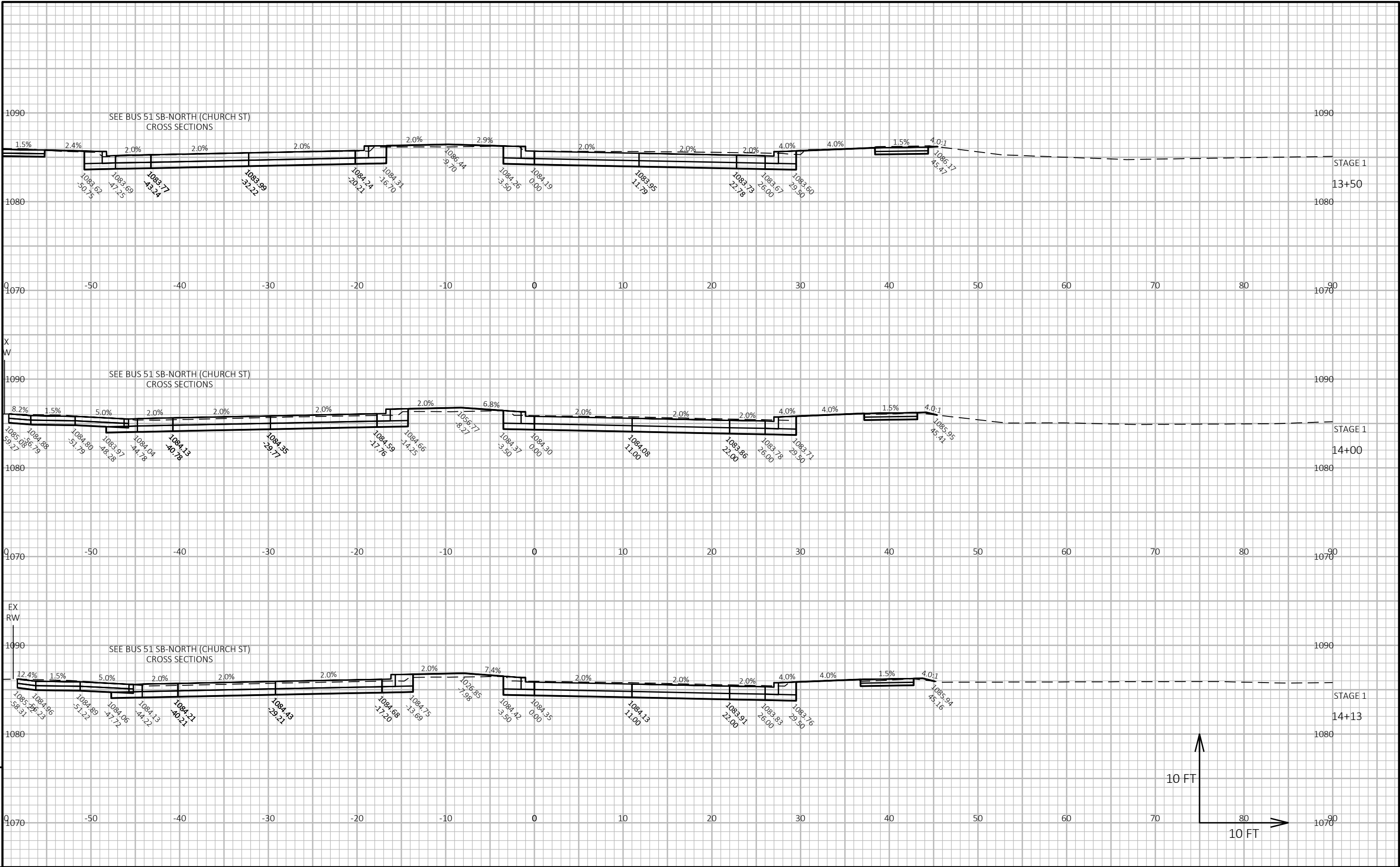
STAGE 5 - MICHIGAN AVE (EAST) 'MI'

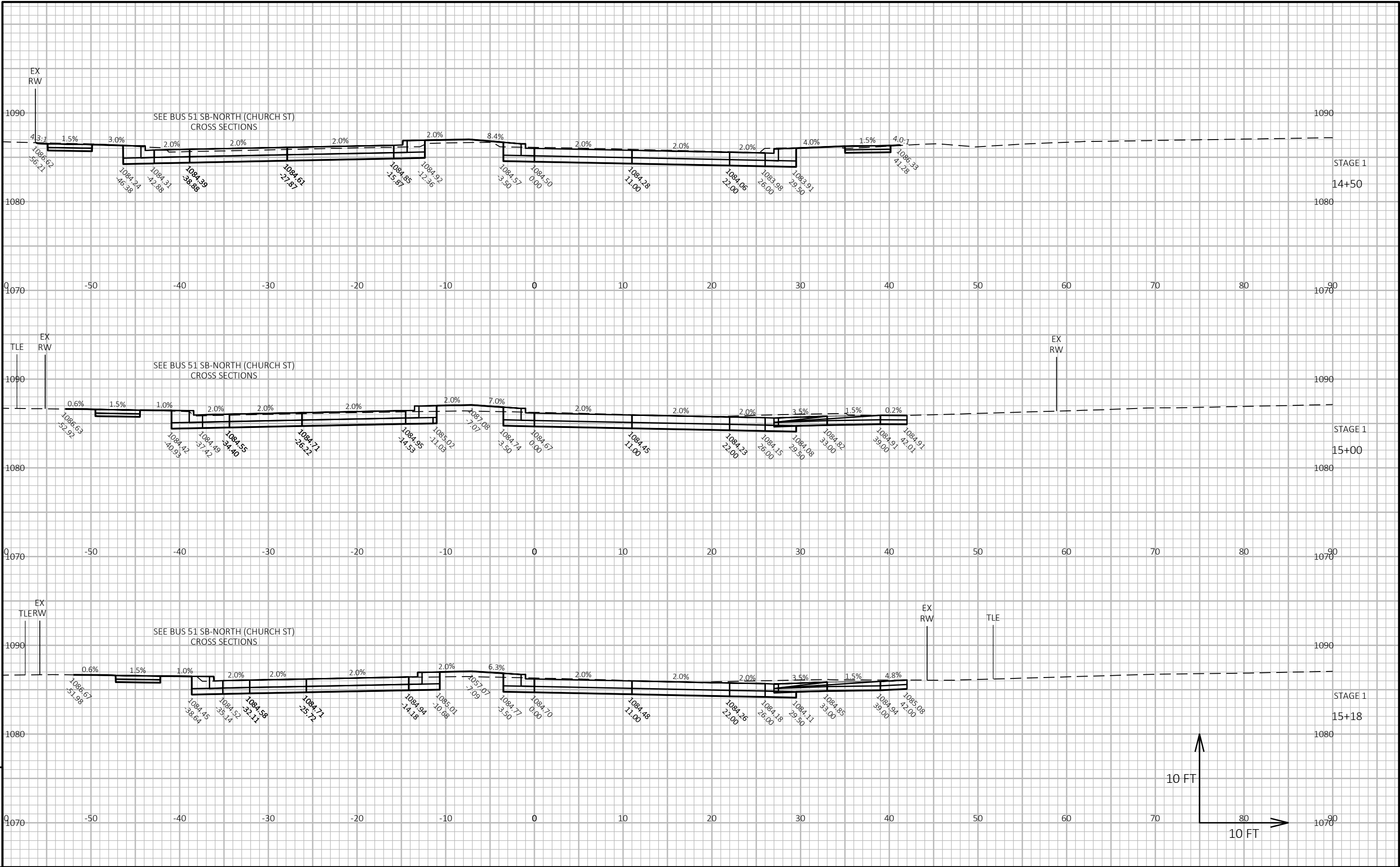
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/ UNUSABLE PAVEMENT MATERIAL	FILL	CUT NOTE 1	SALVAGED/UNUSABLE PAVEMENT MATERIAL NOTE 2	FILL NOTE 3	CUT 1.00 NOTE 1	EXPANDED FILL 1.25	MASS ORDINATE NOTE 8
11+73.636		136.50	63.17	0.05	0	0	0	0	0	0
12+00.000	26	110.60	54.22	1.03	121	57	1	121	1	63
12+18.727	19	93.80	5.83	2.07	71	21	1	192	2	111
					192	78	2			

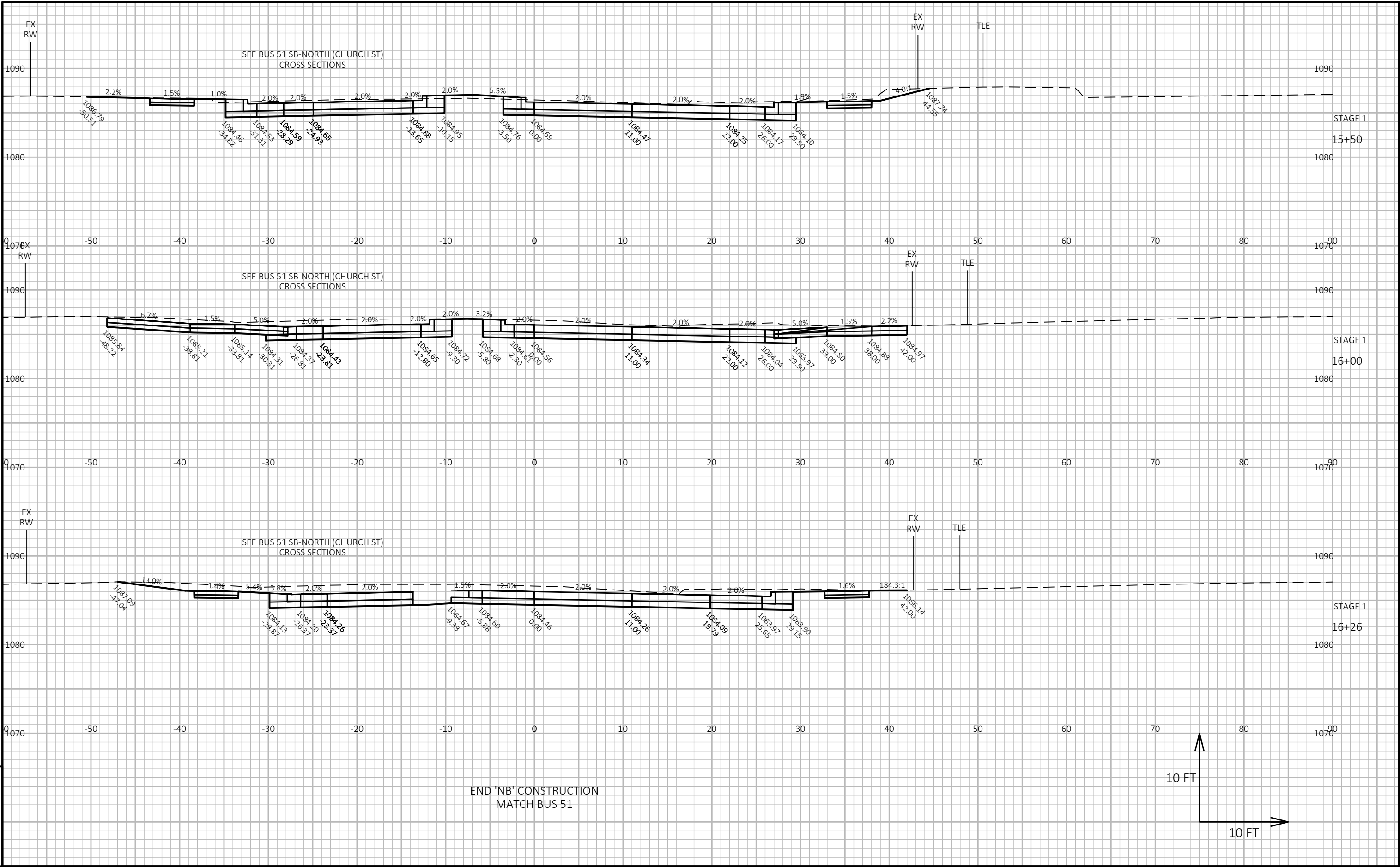
NOTES:
1 - CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL DOES NOT SHOW UP IN CROSS SECTIONS
3 - UNEXPANDED FILL VOLUME
8 - THE MASS ORDINATE + OR - QTY CALCULATED BETWEEN STATIONS. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.

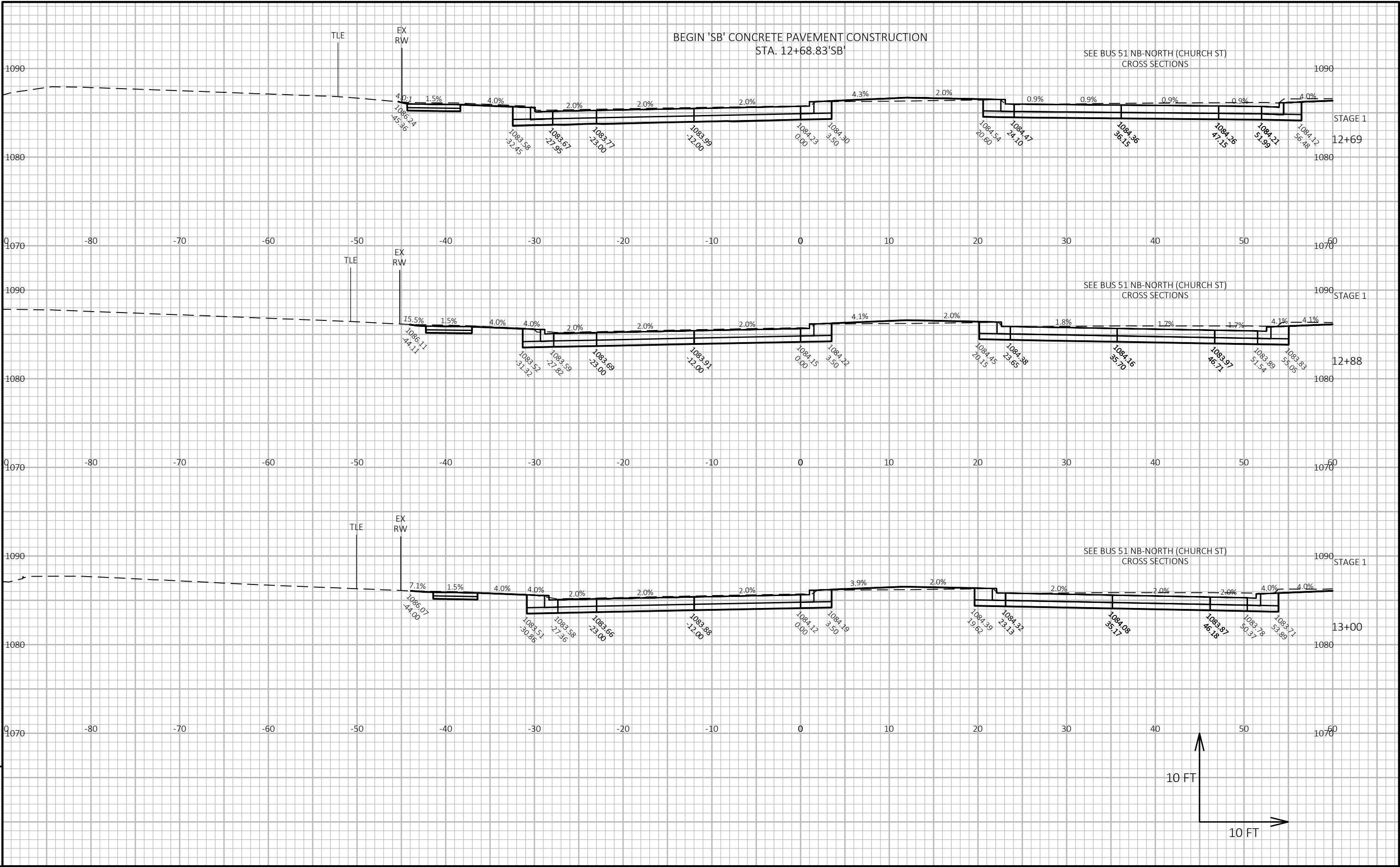
BEGIN 'NB' CONCRETE PAVEMENT CONSTRUCTION
STA. 12+69.62'NB'

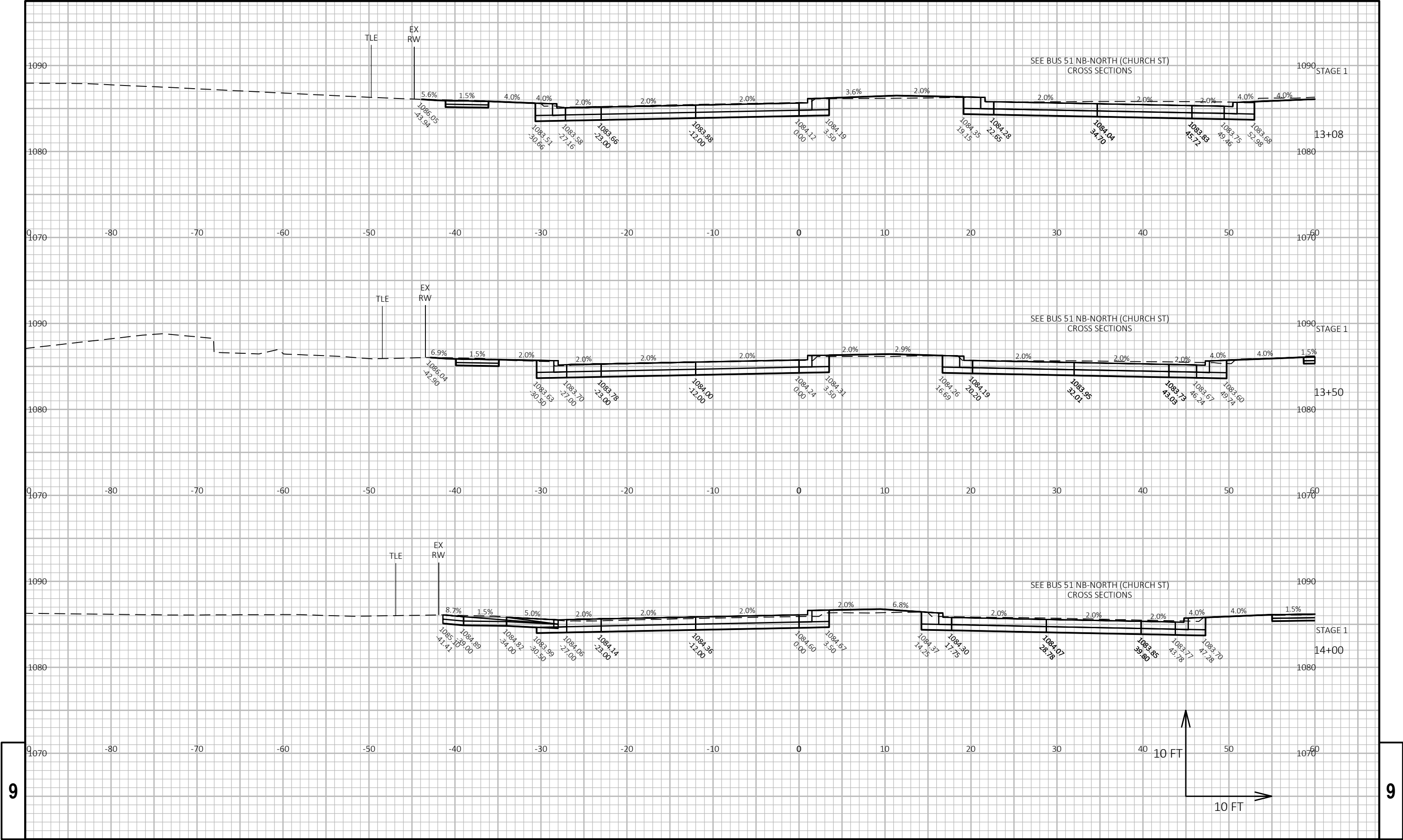


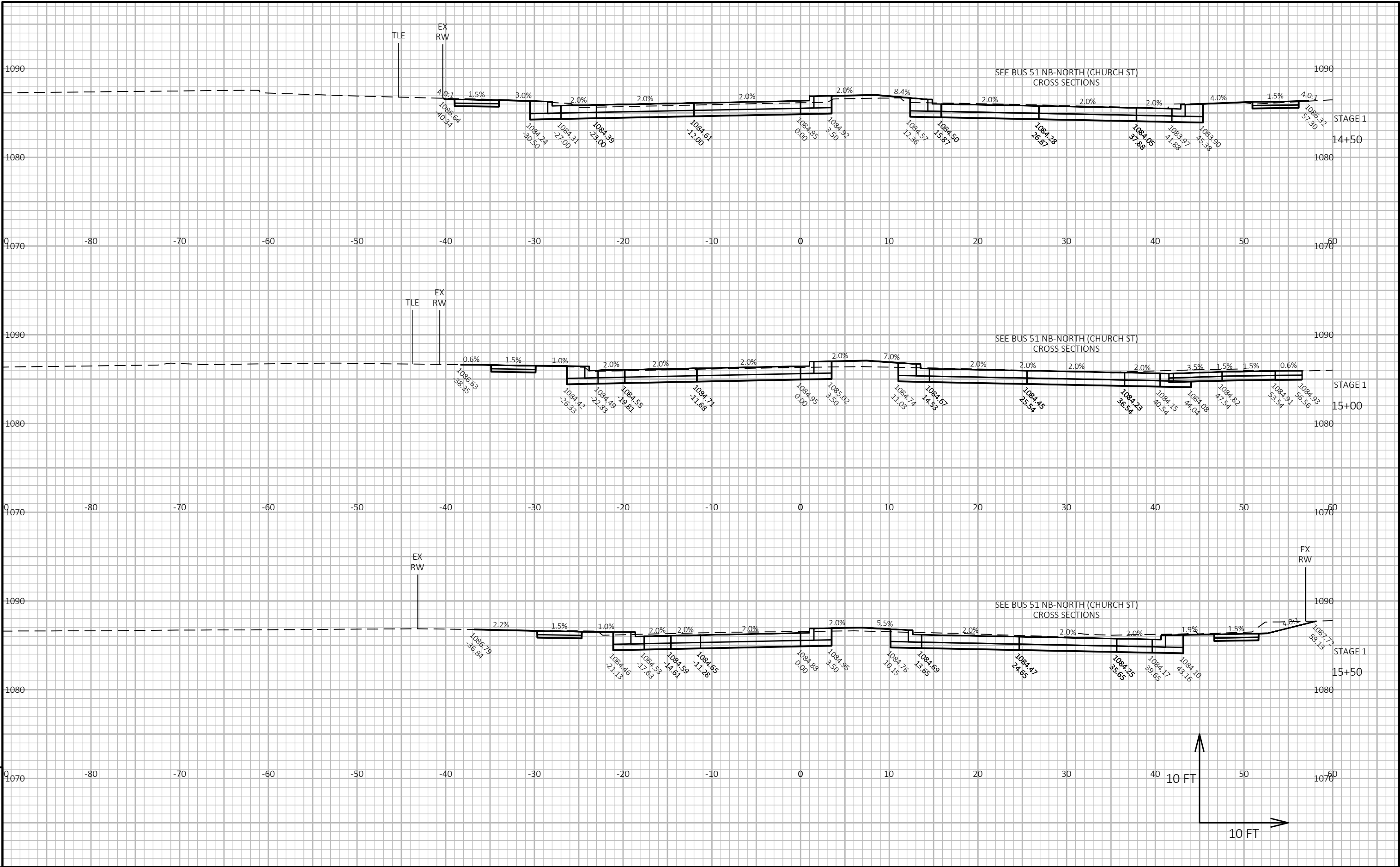


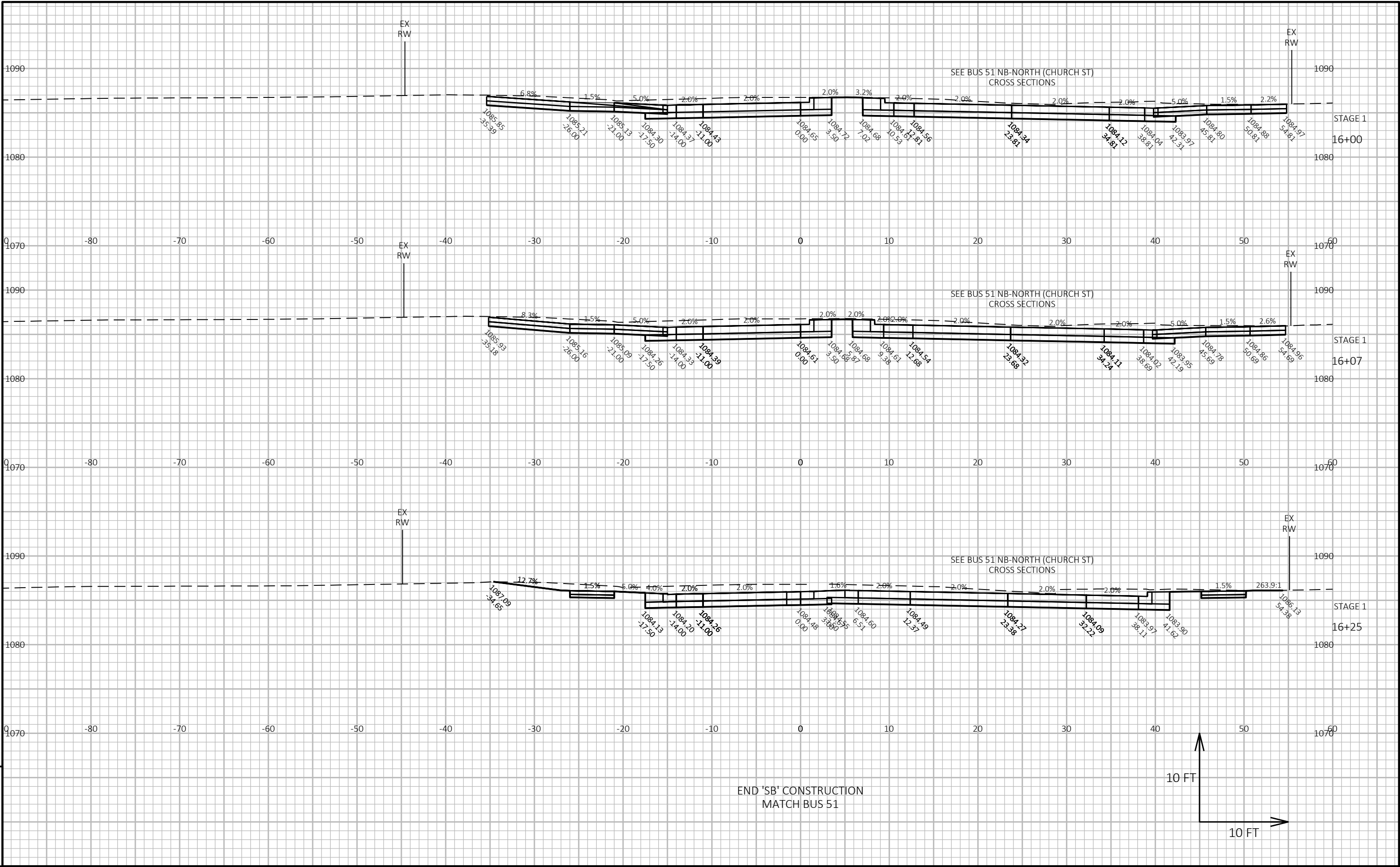


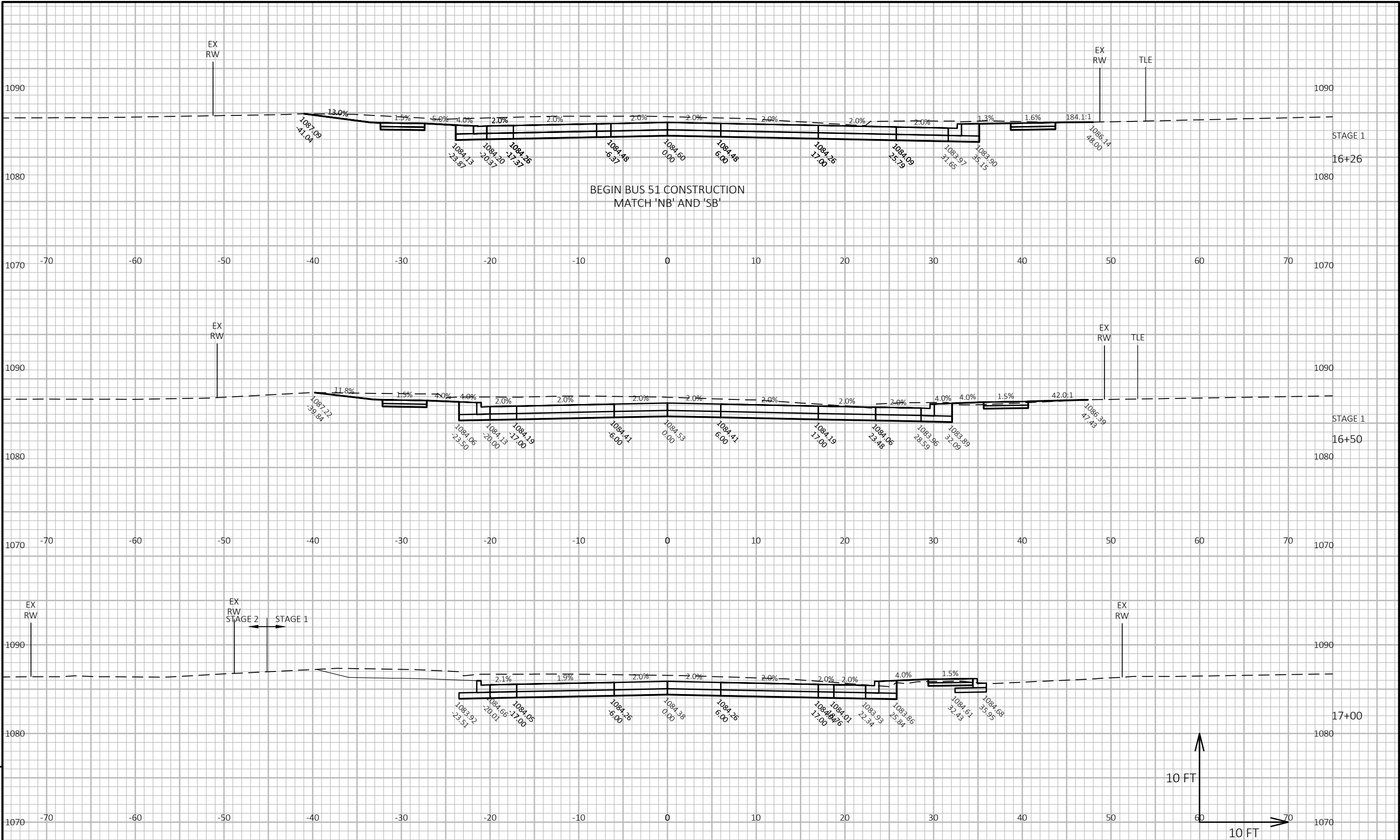


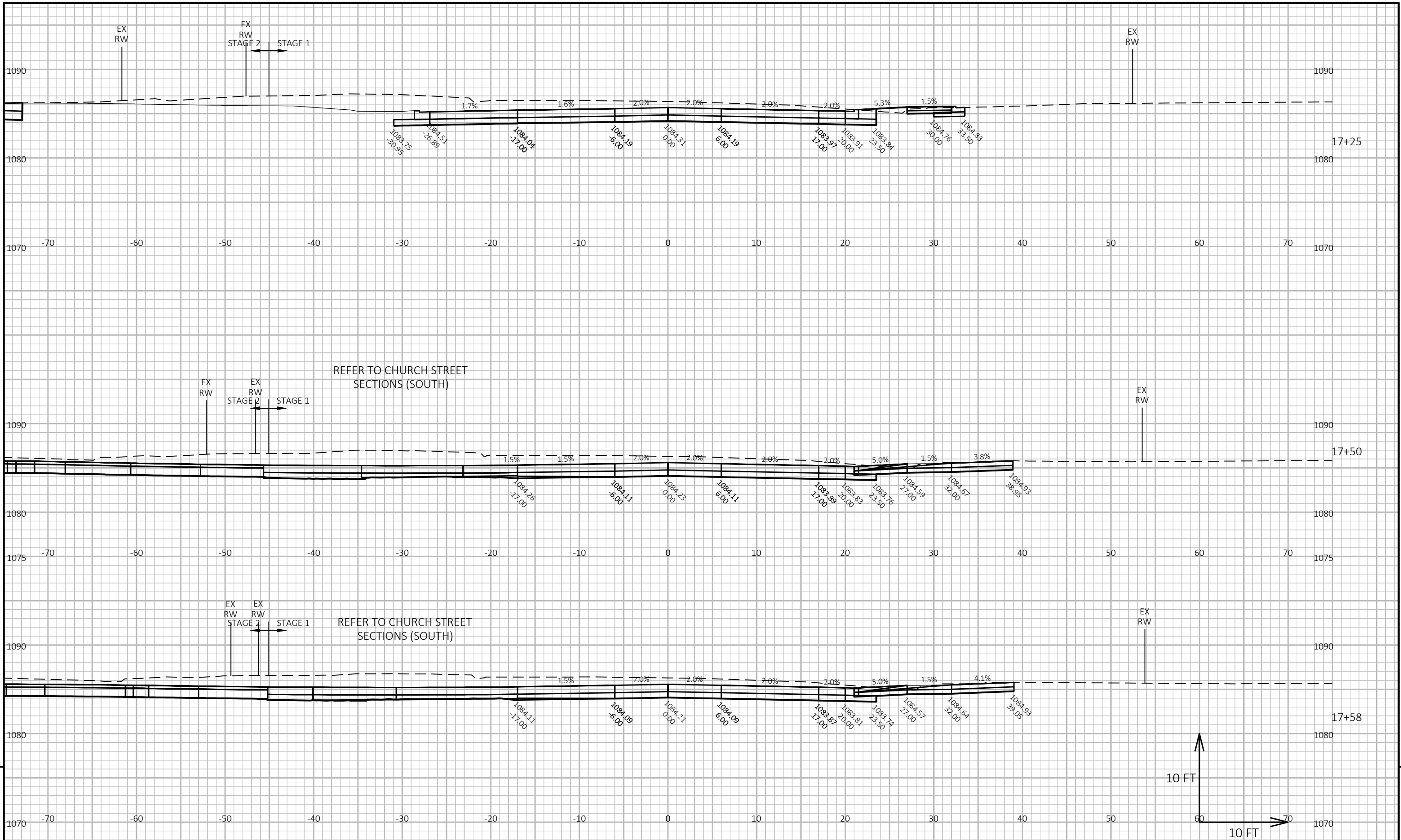


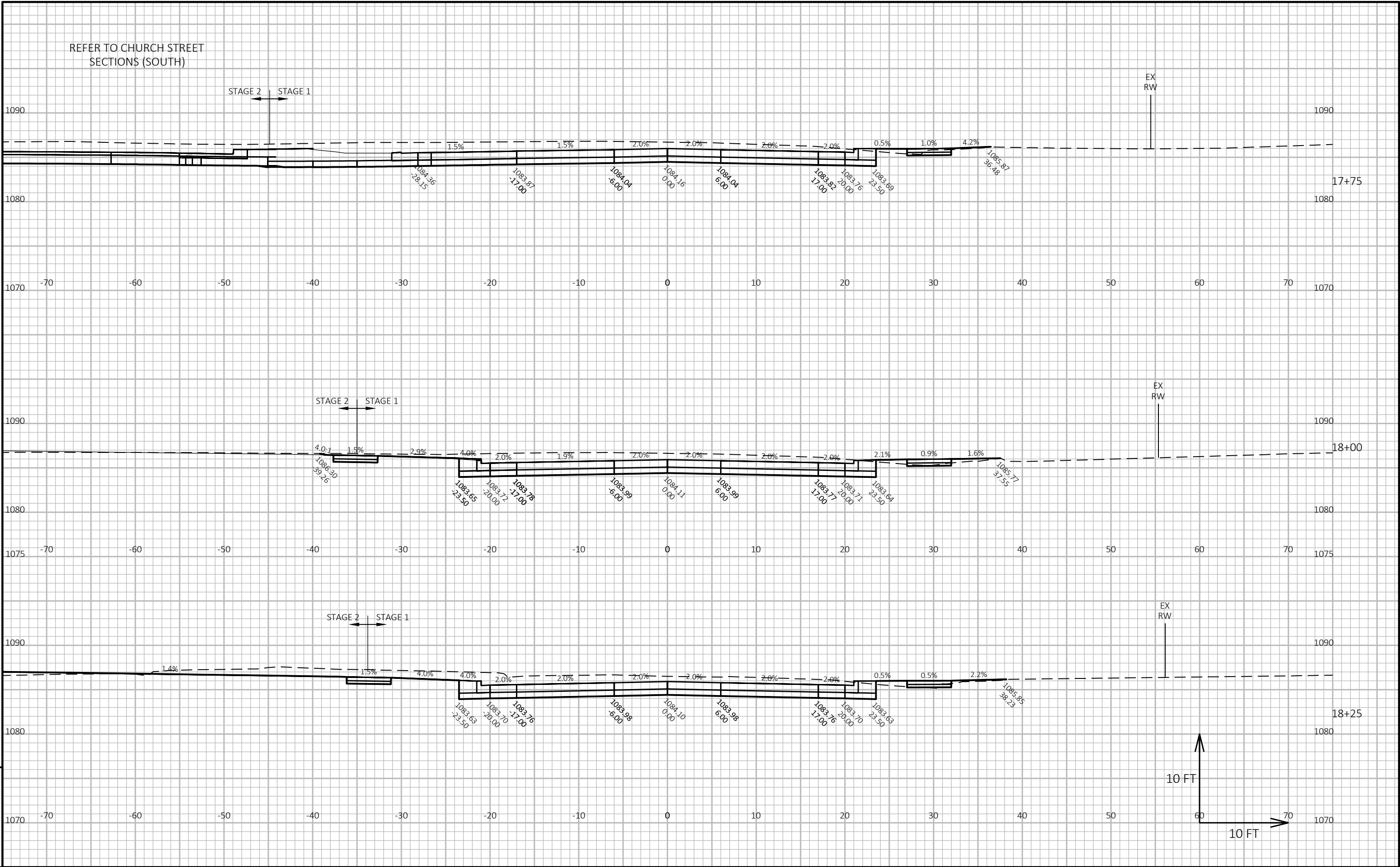


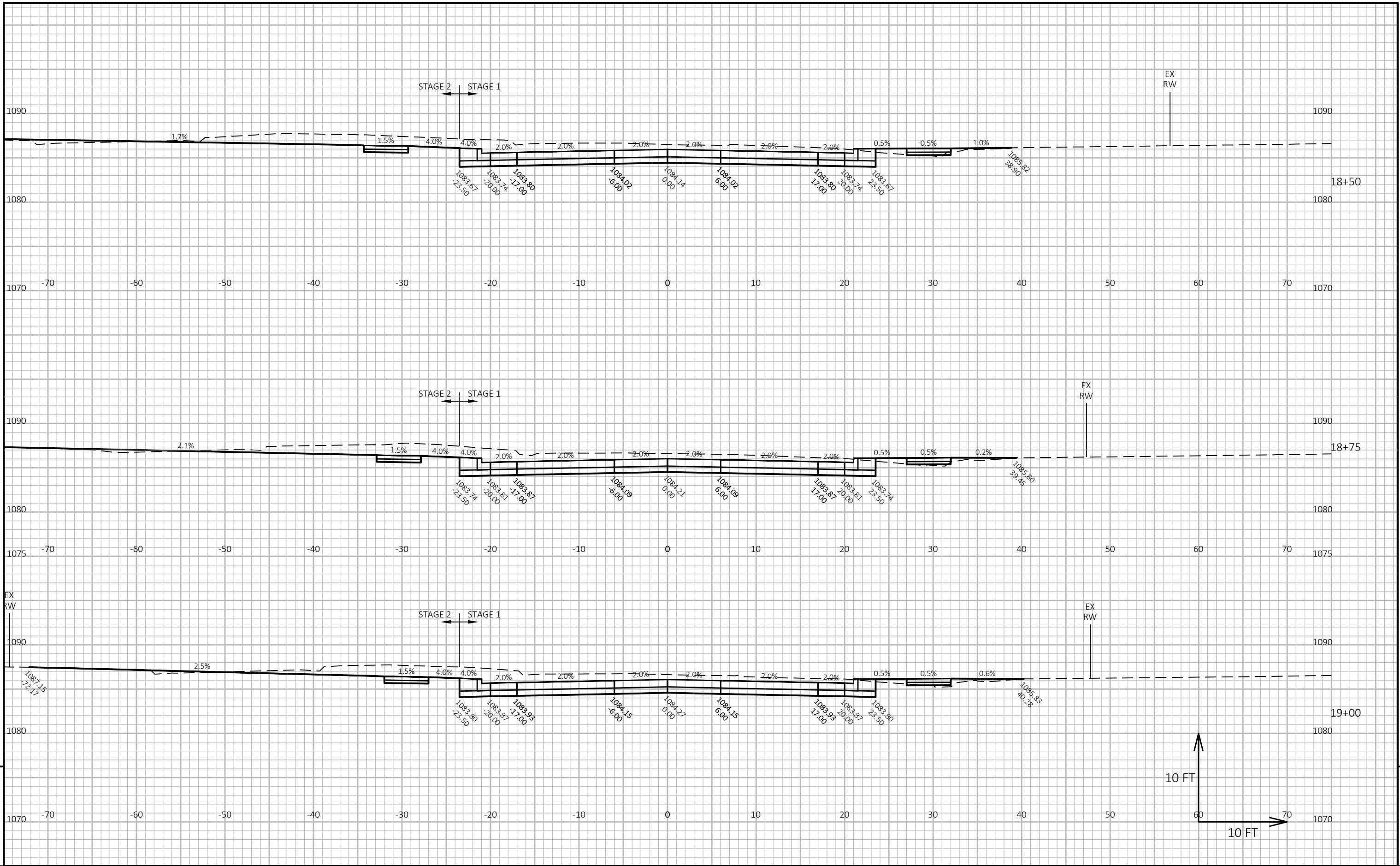


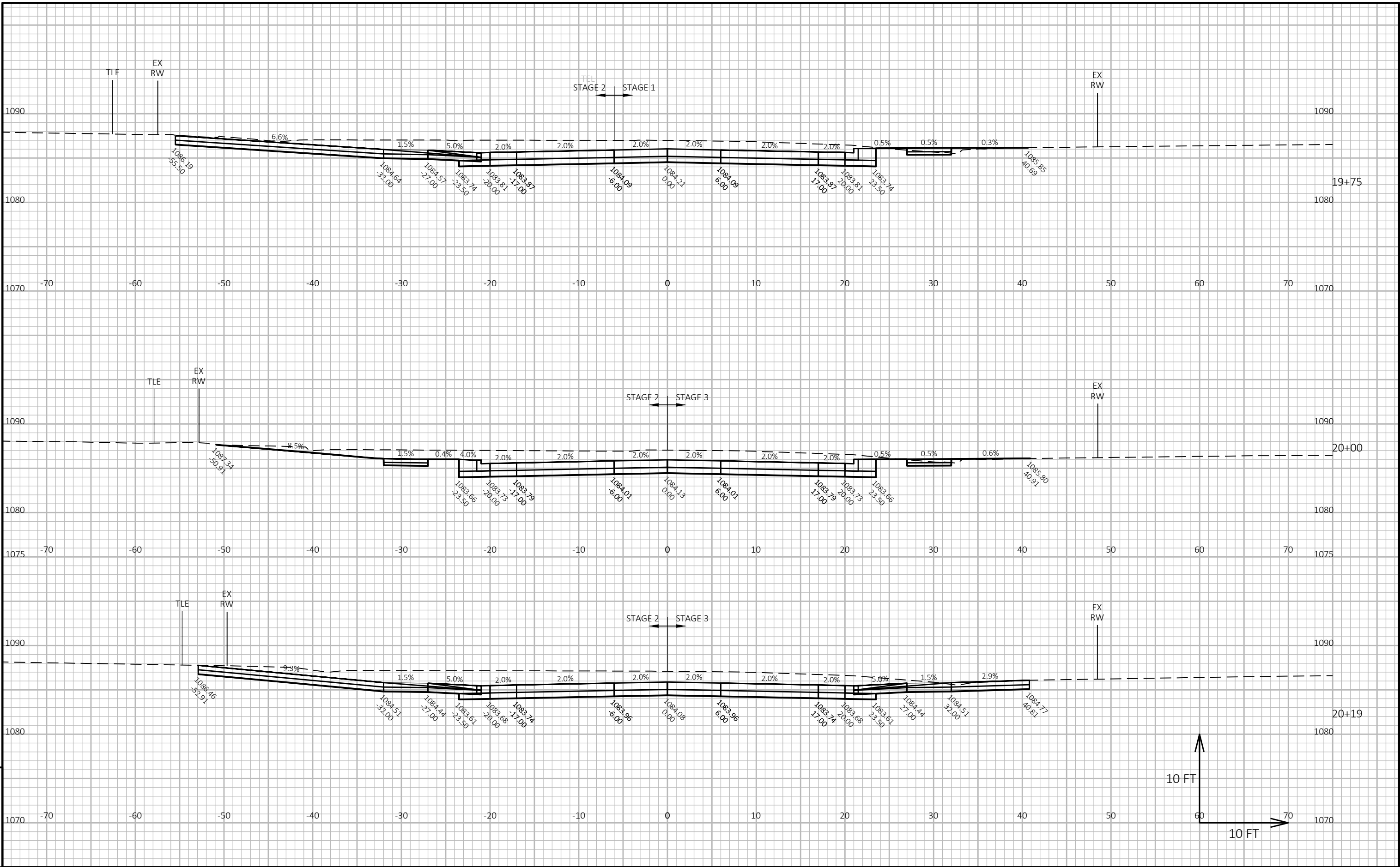


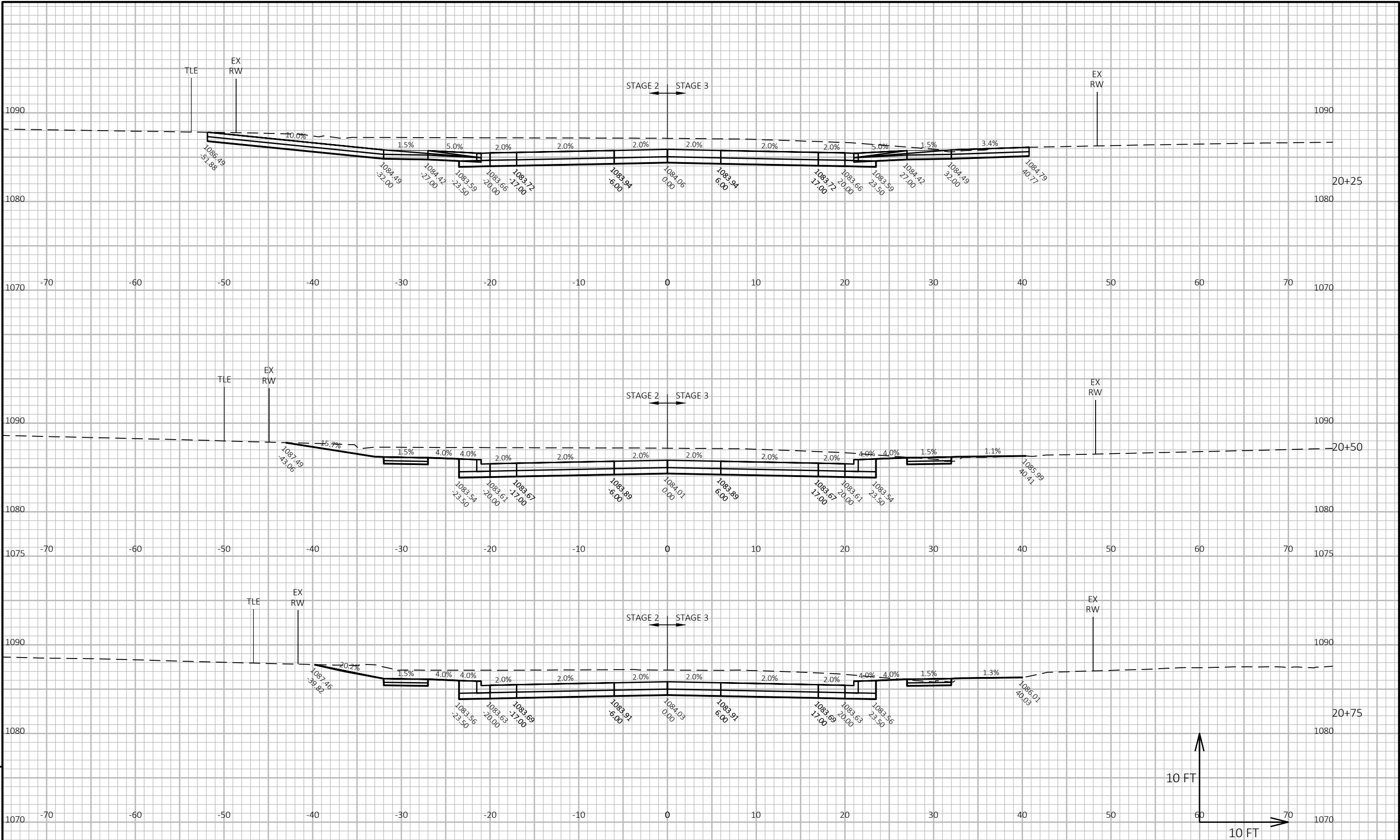


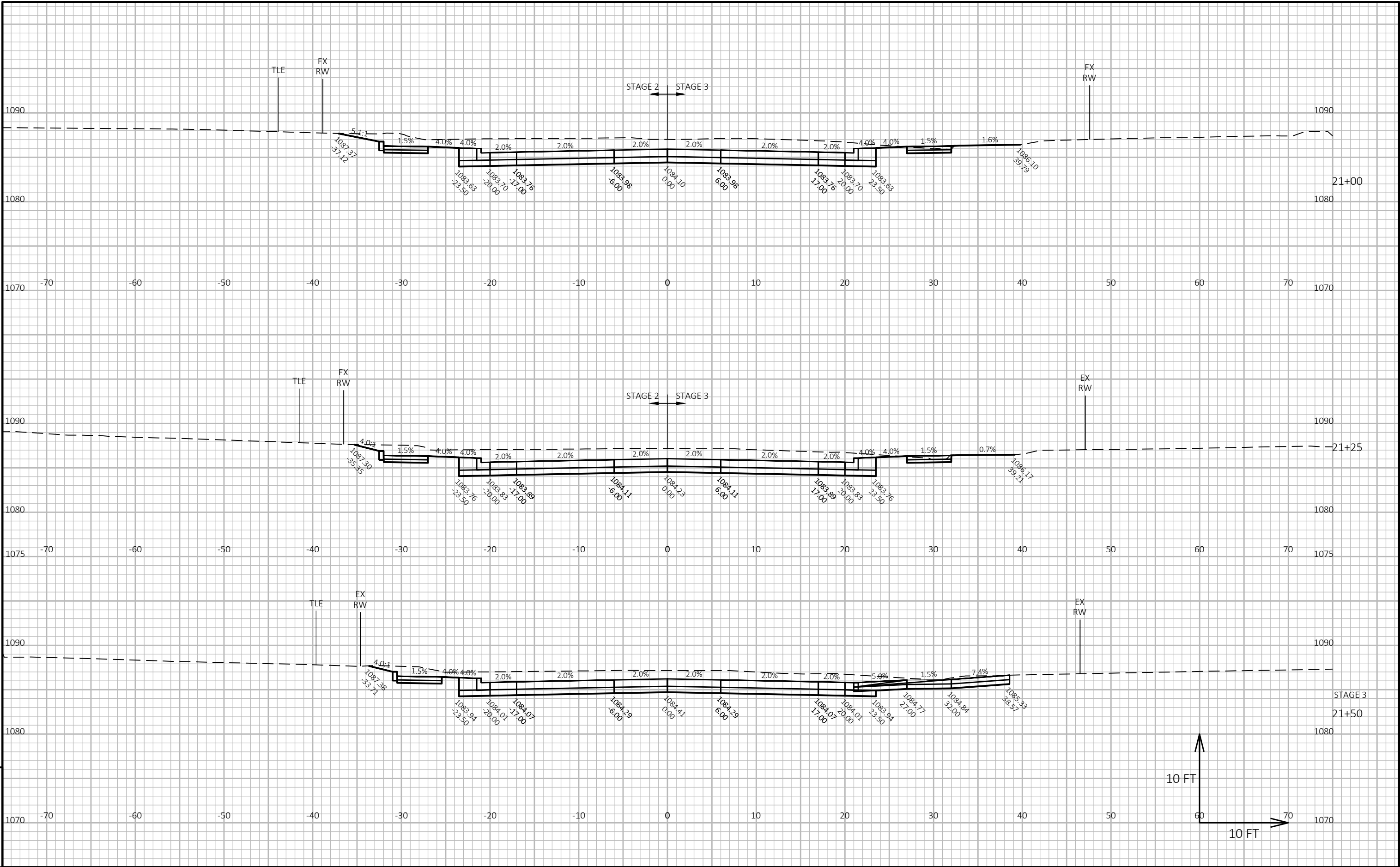


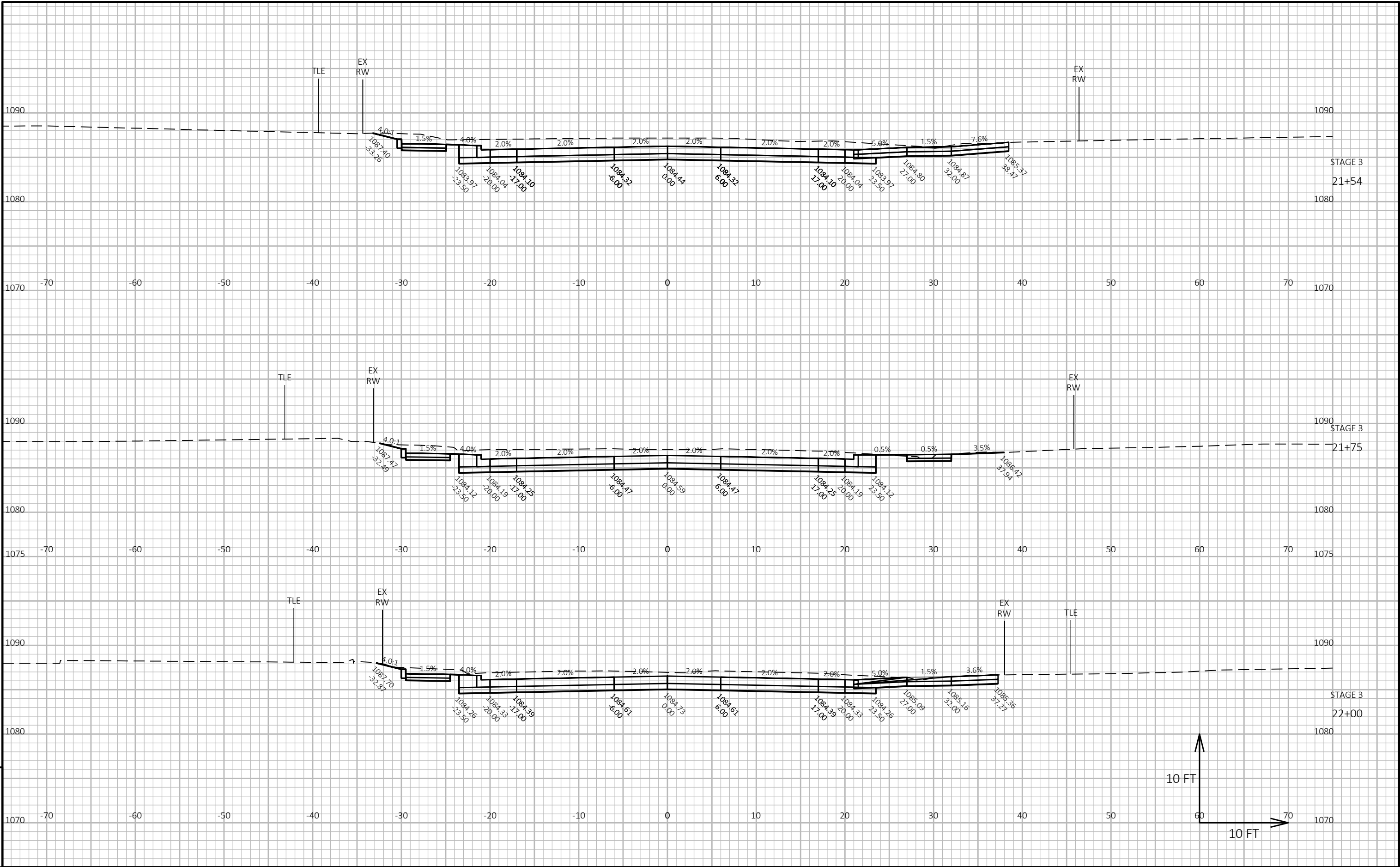


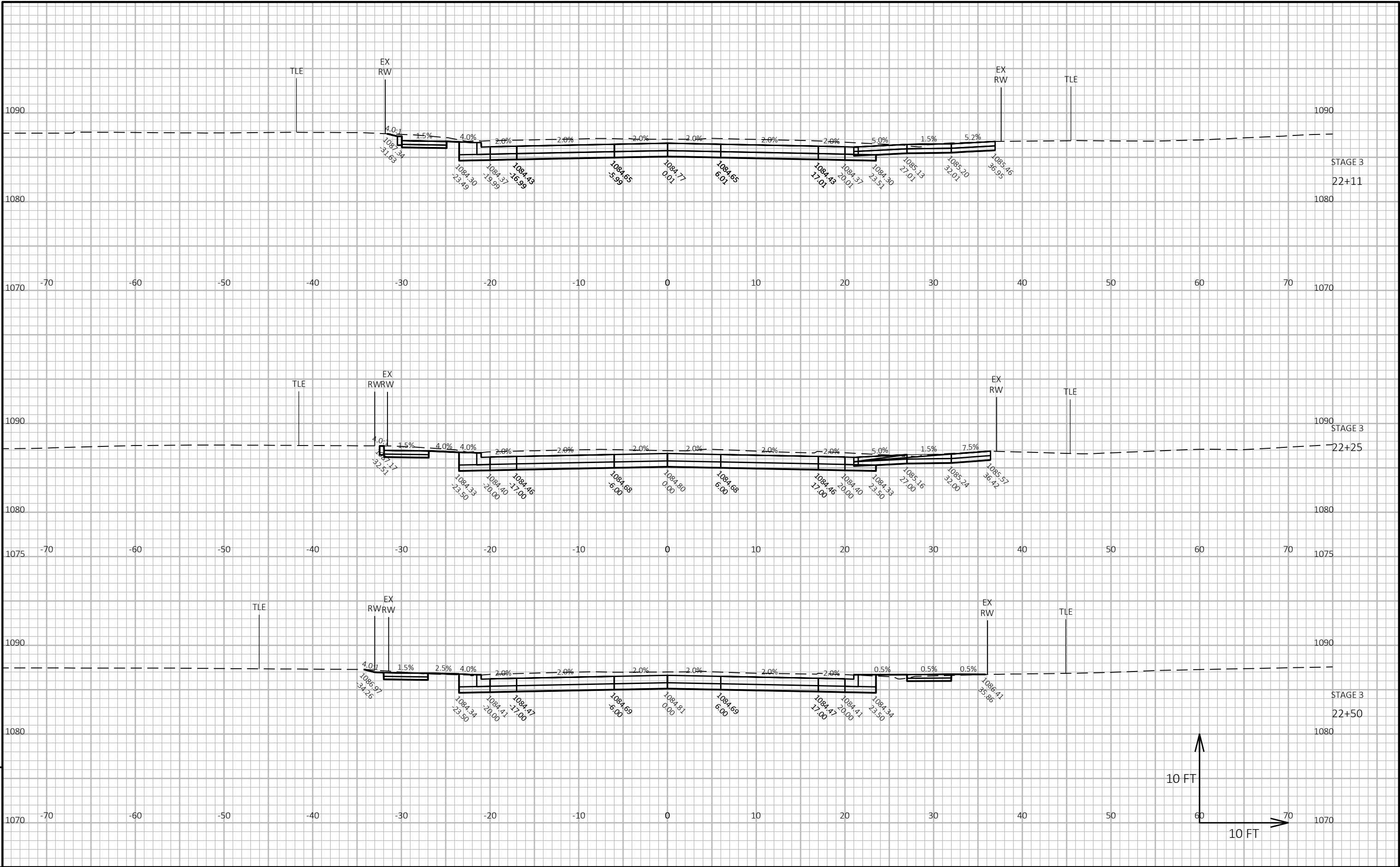


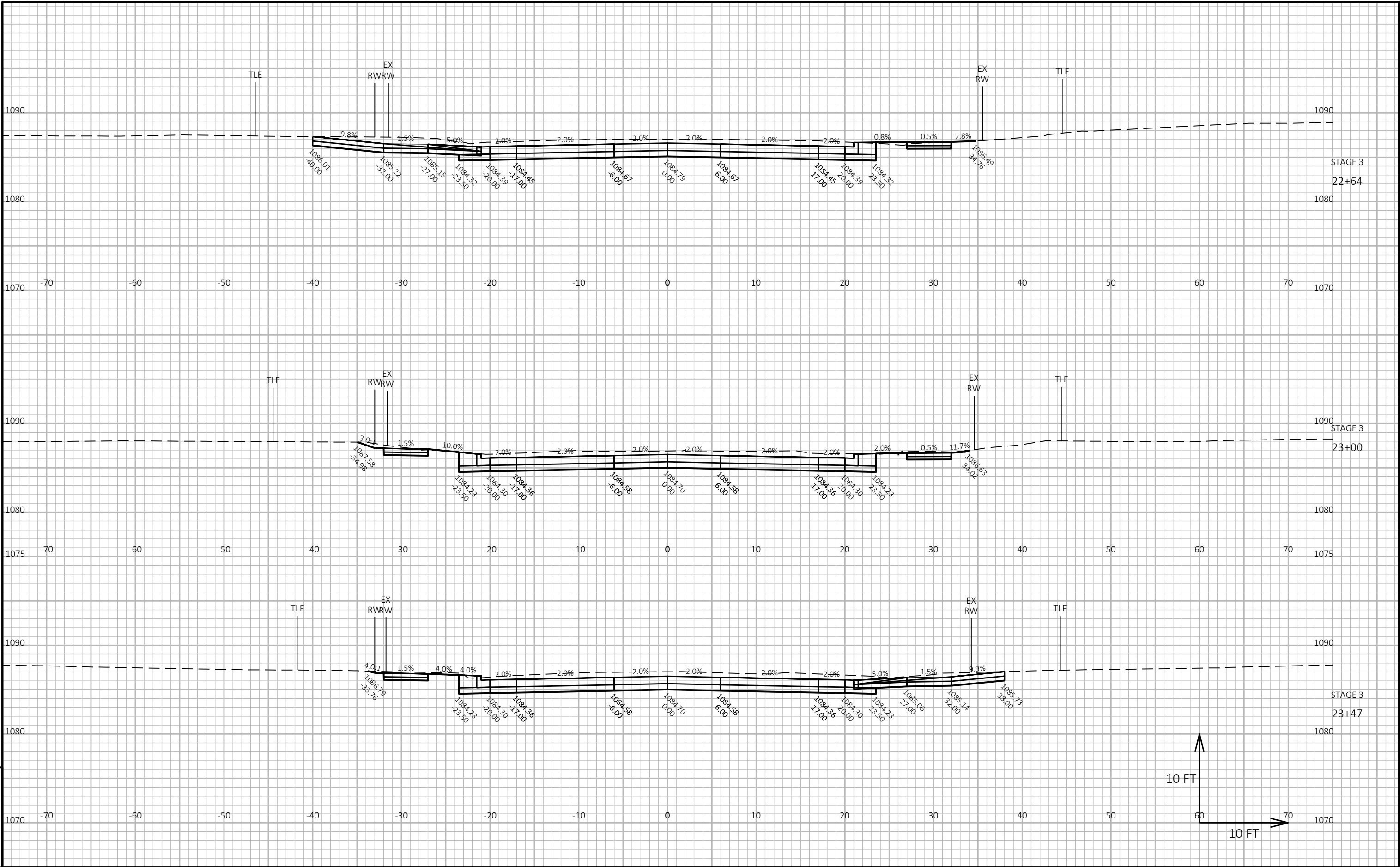


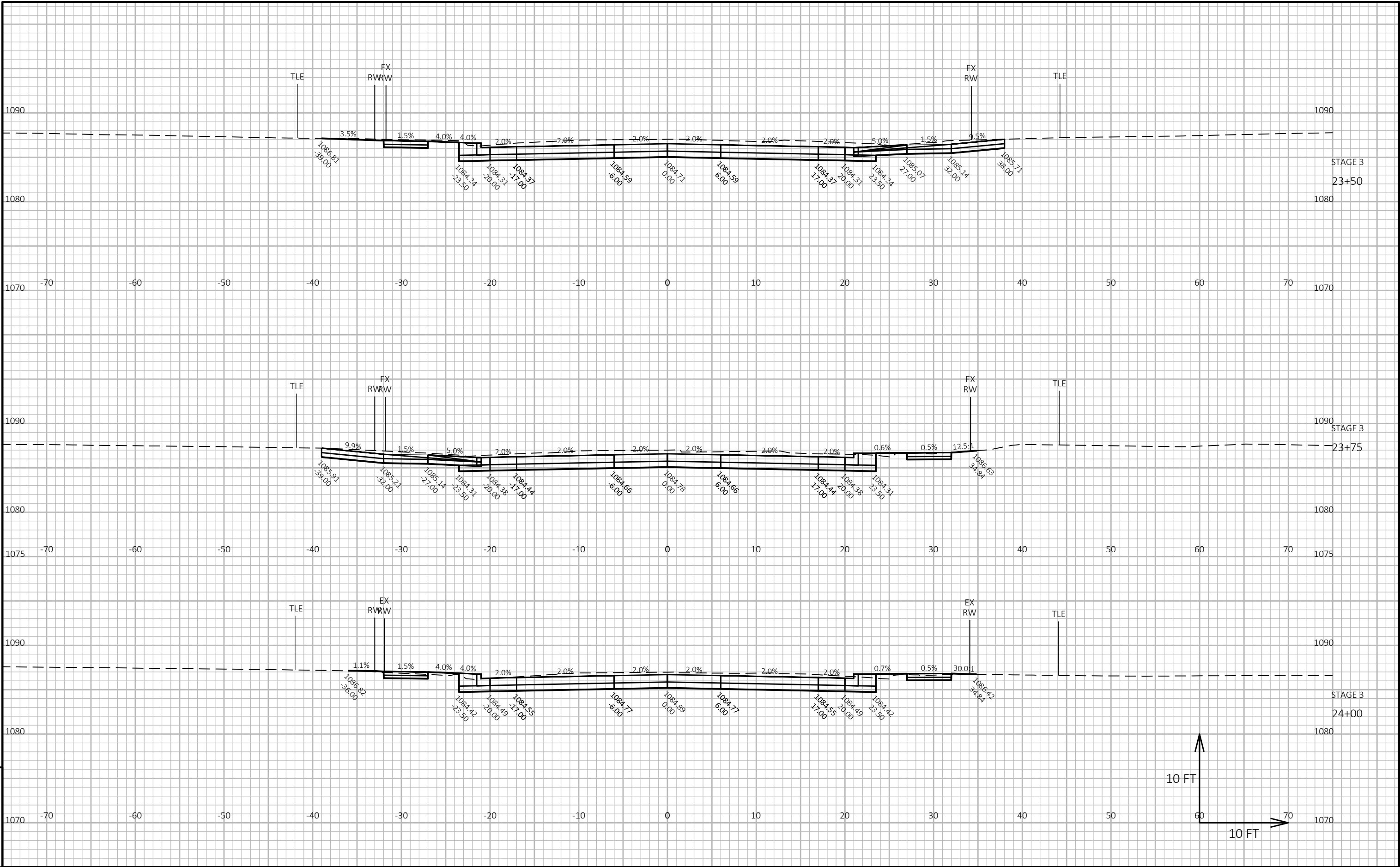


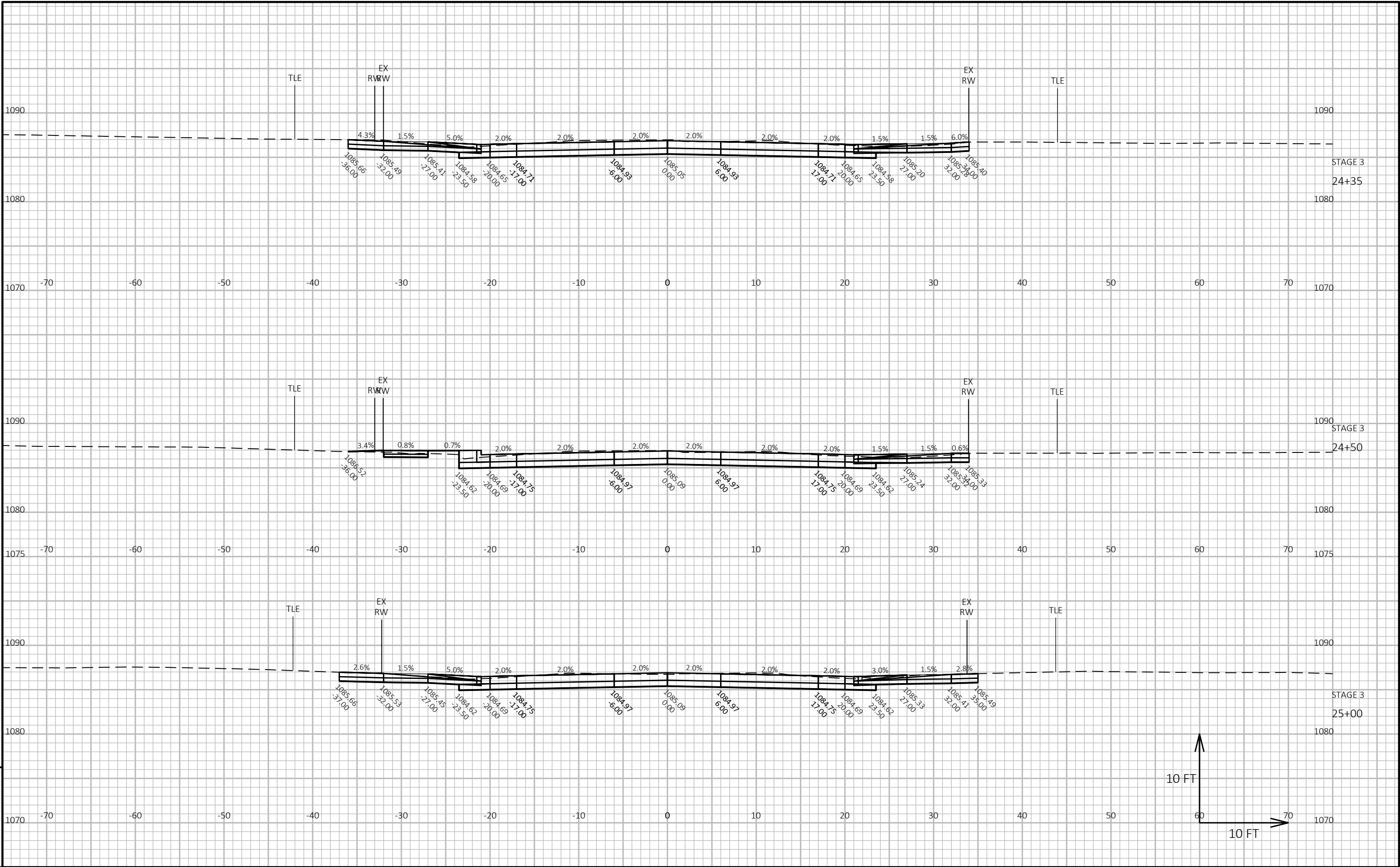


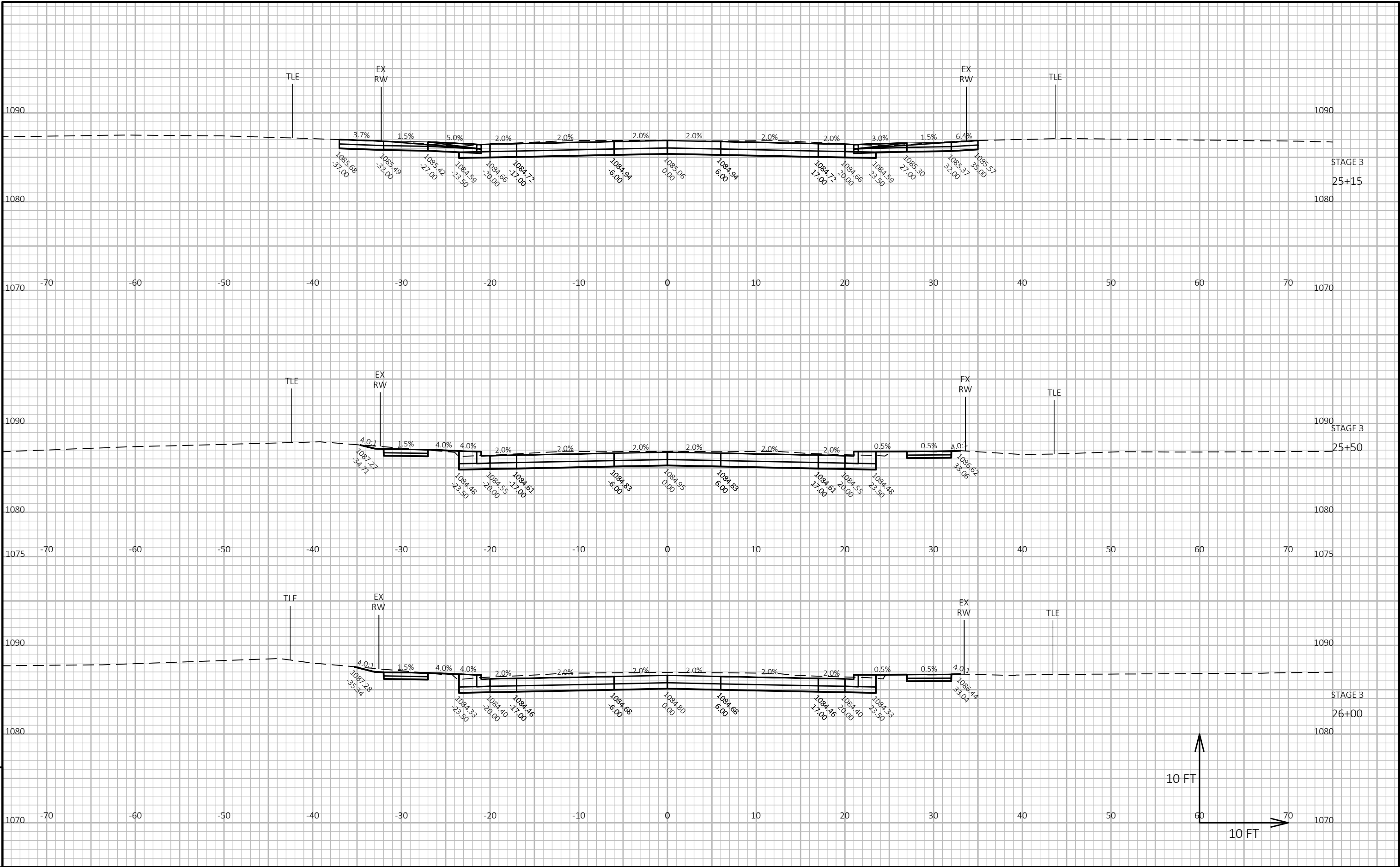


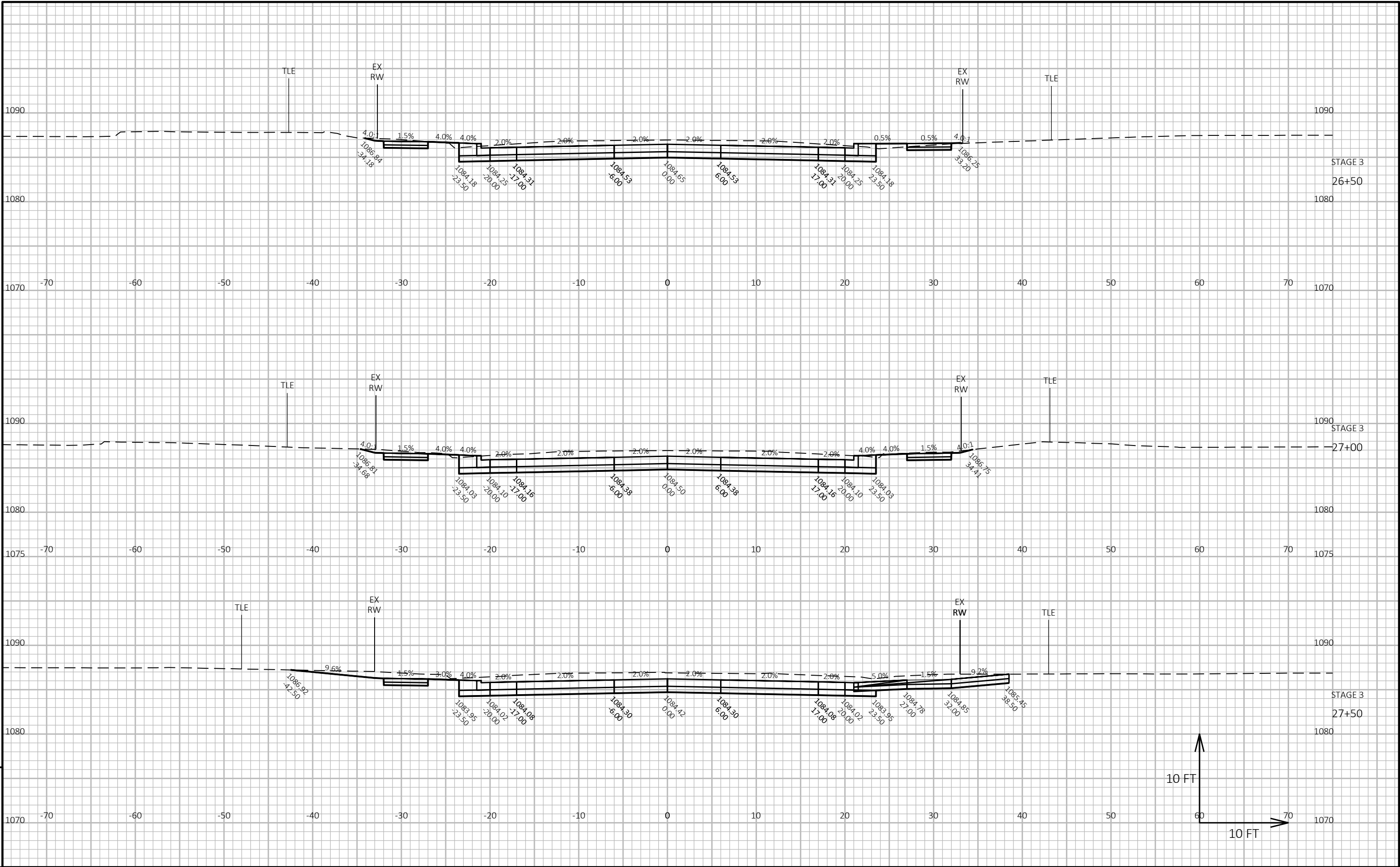


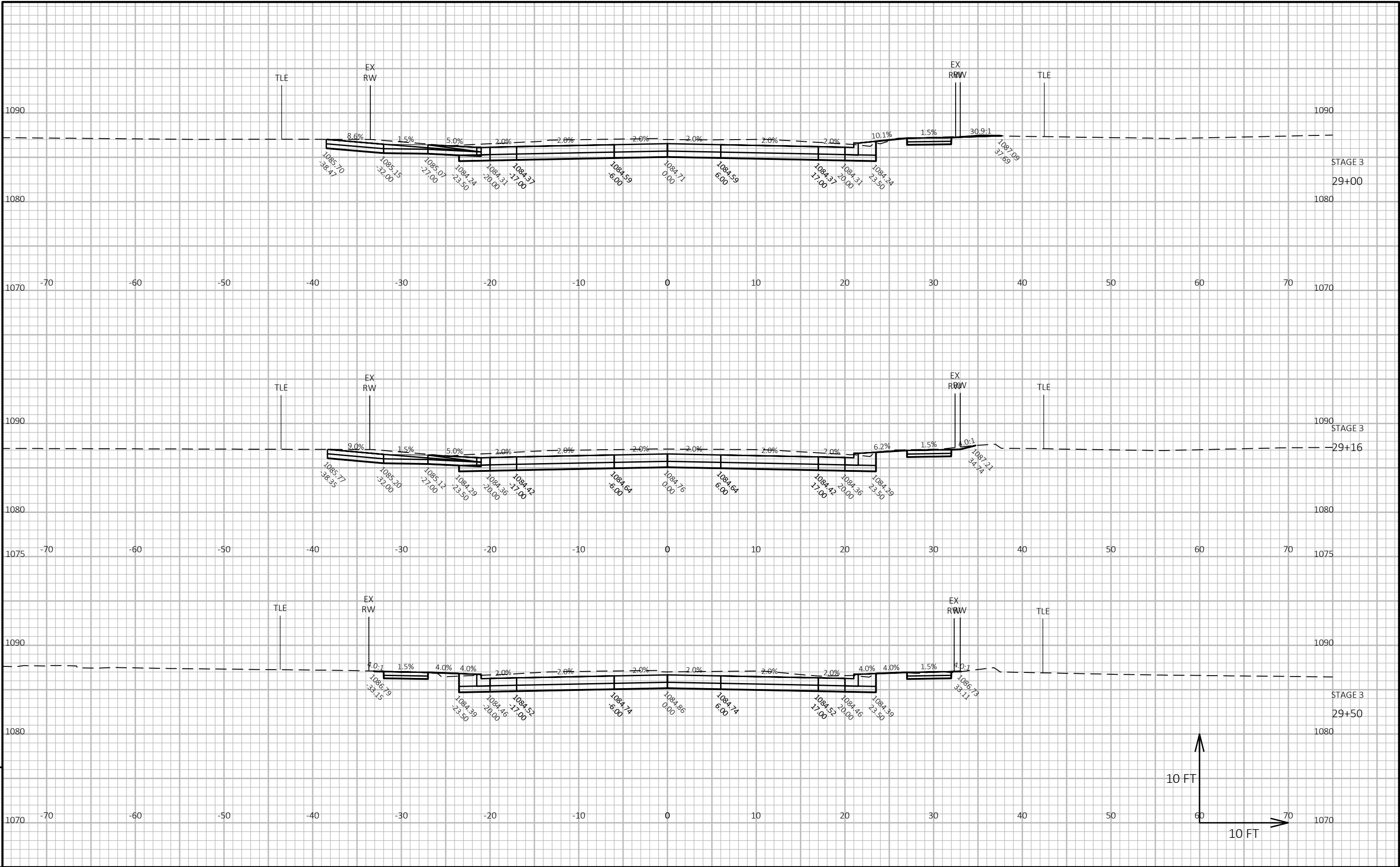


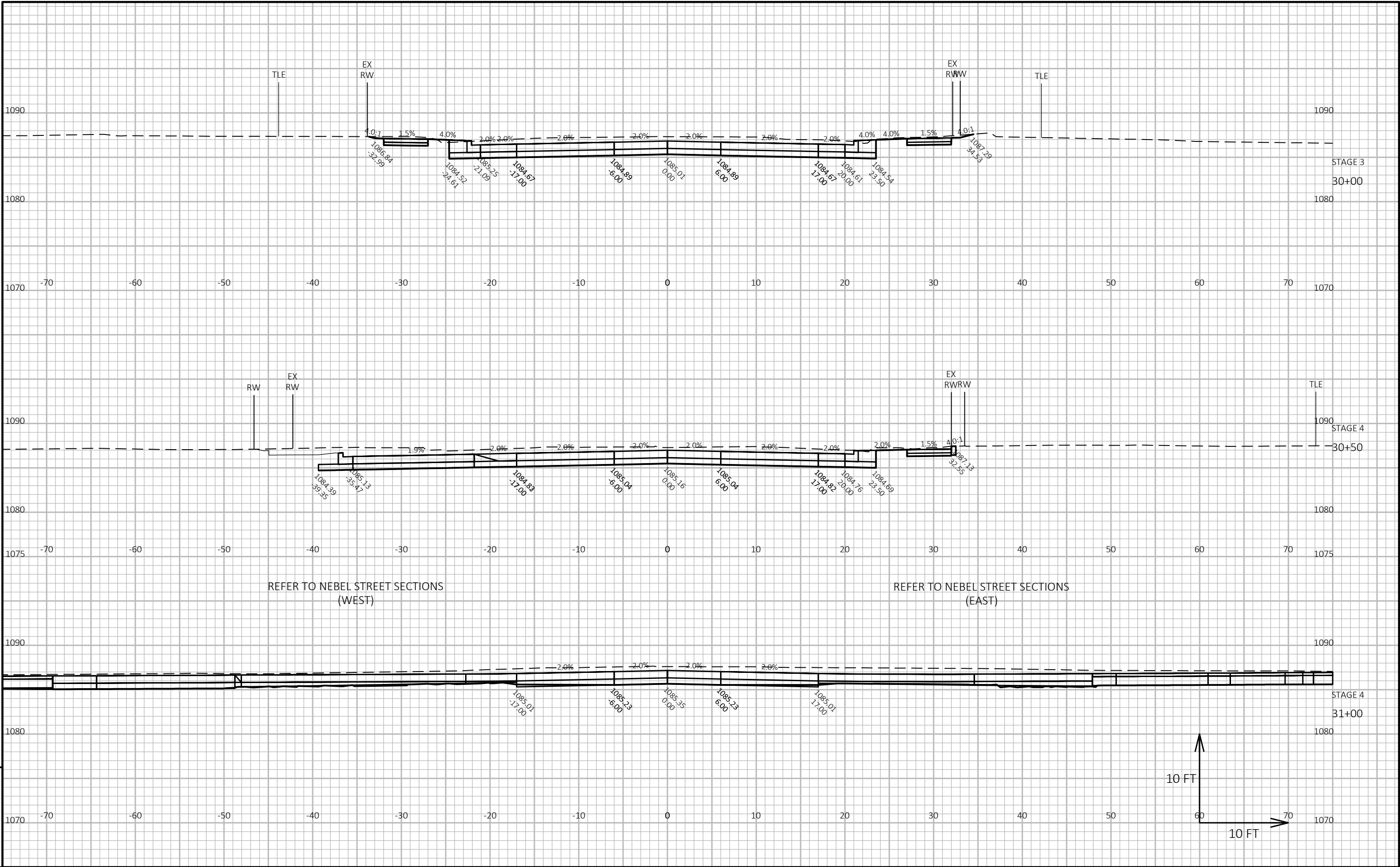


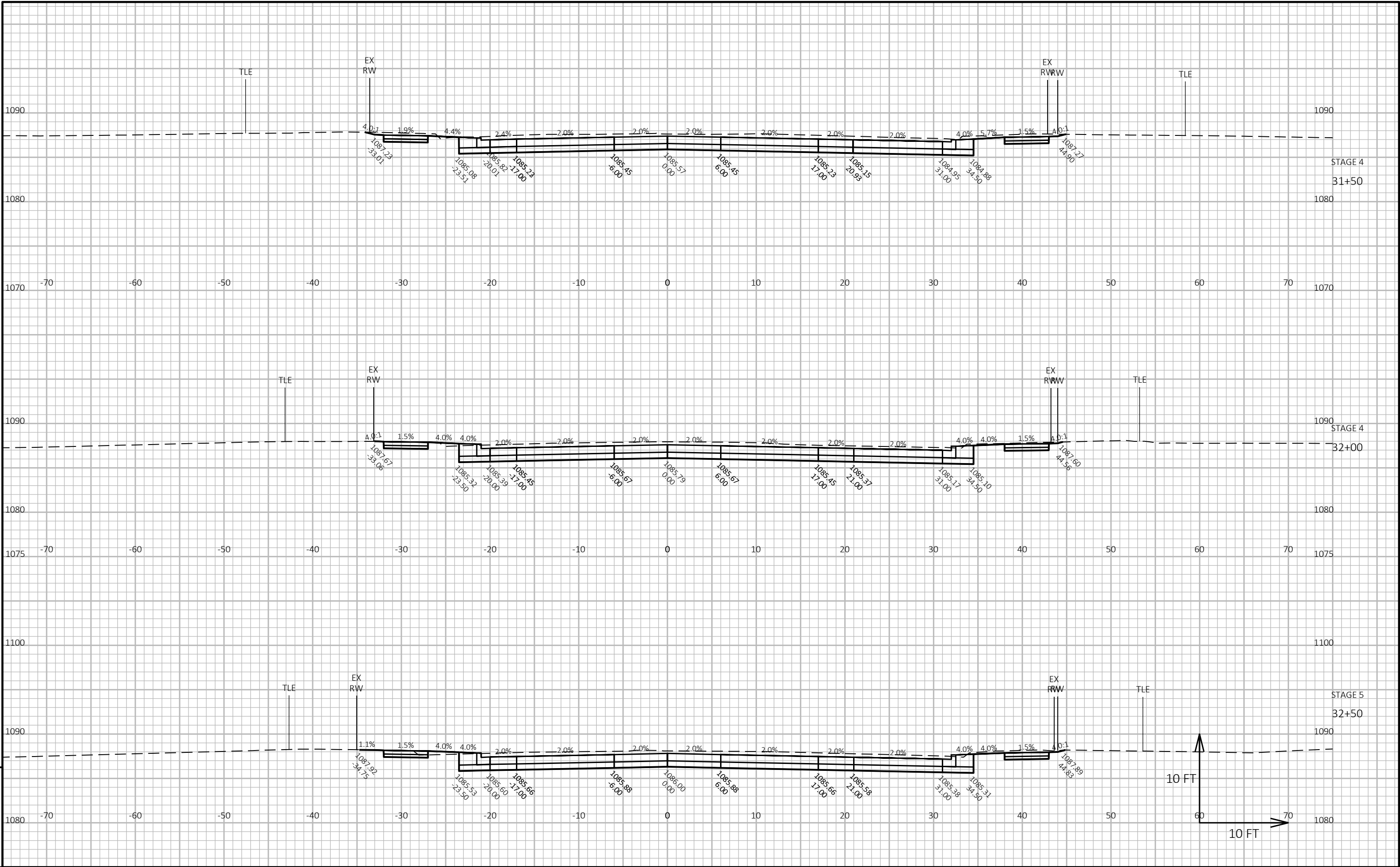


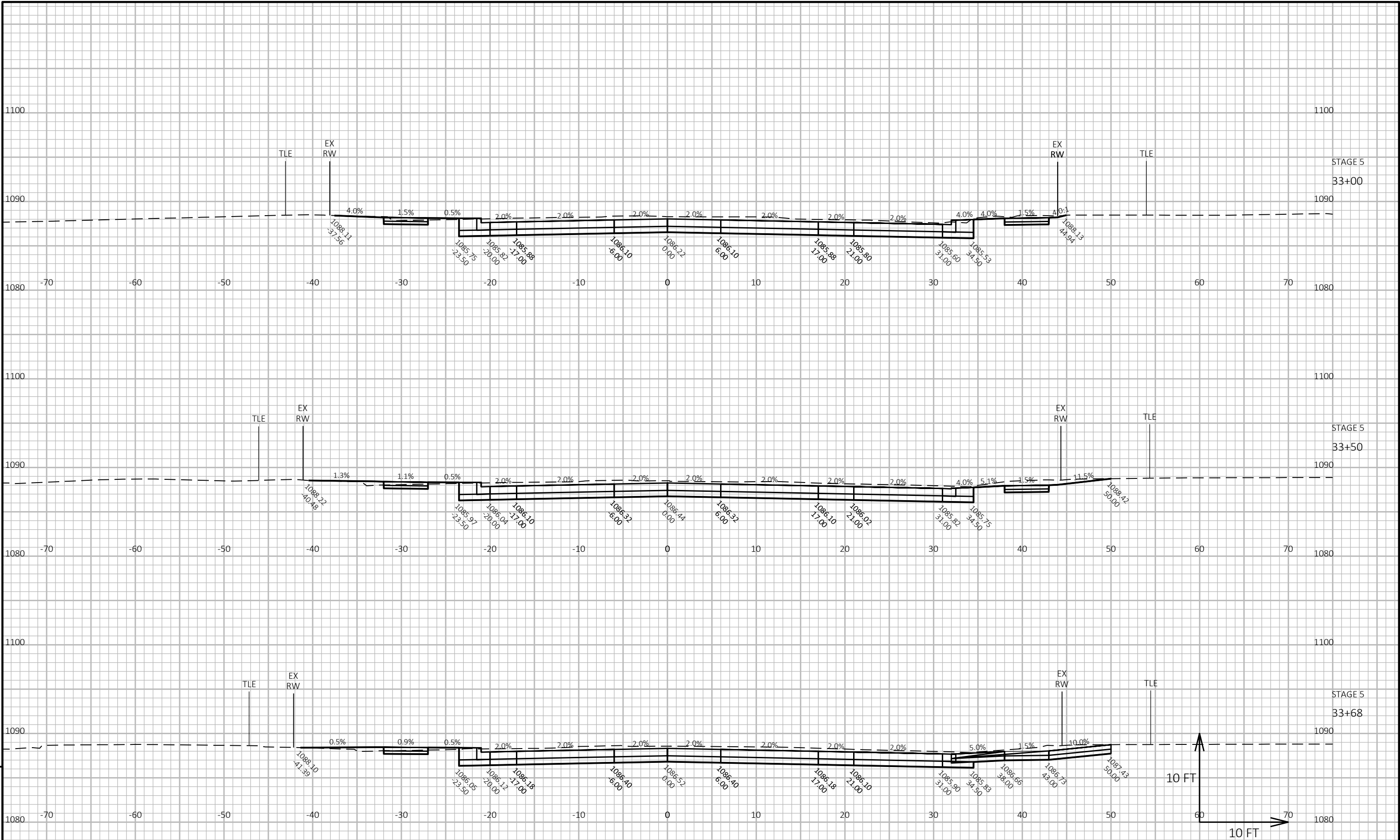


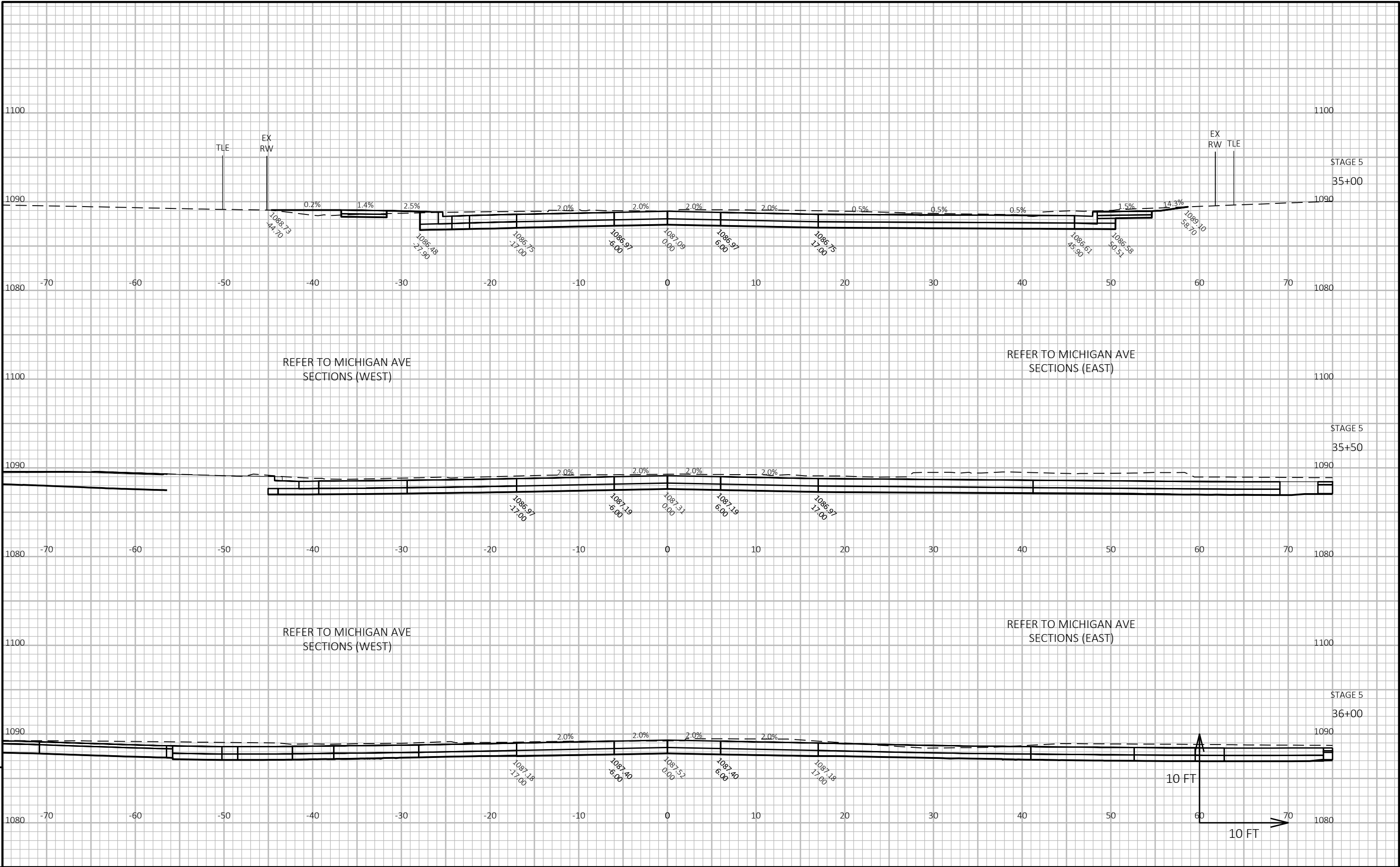


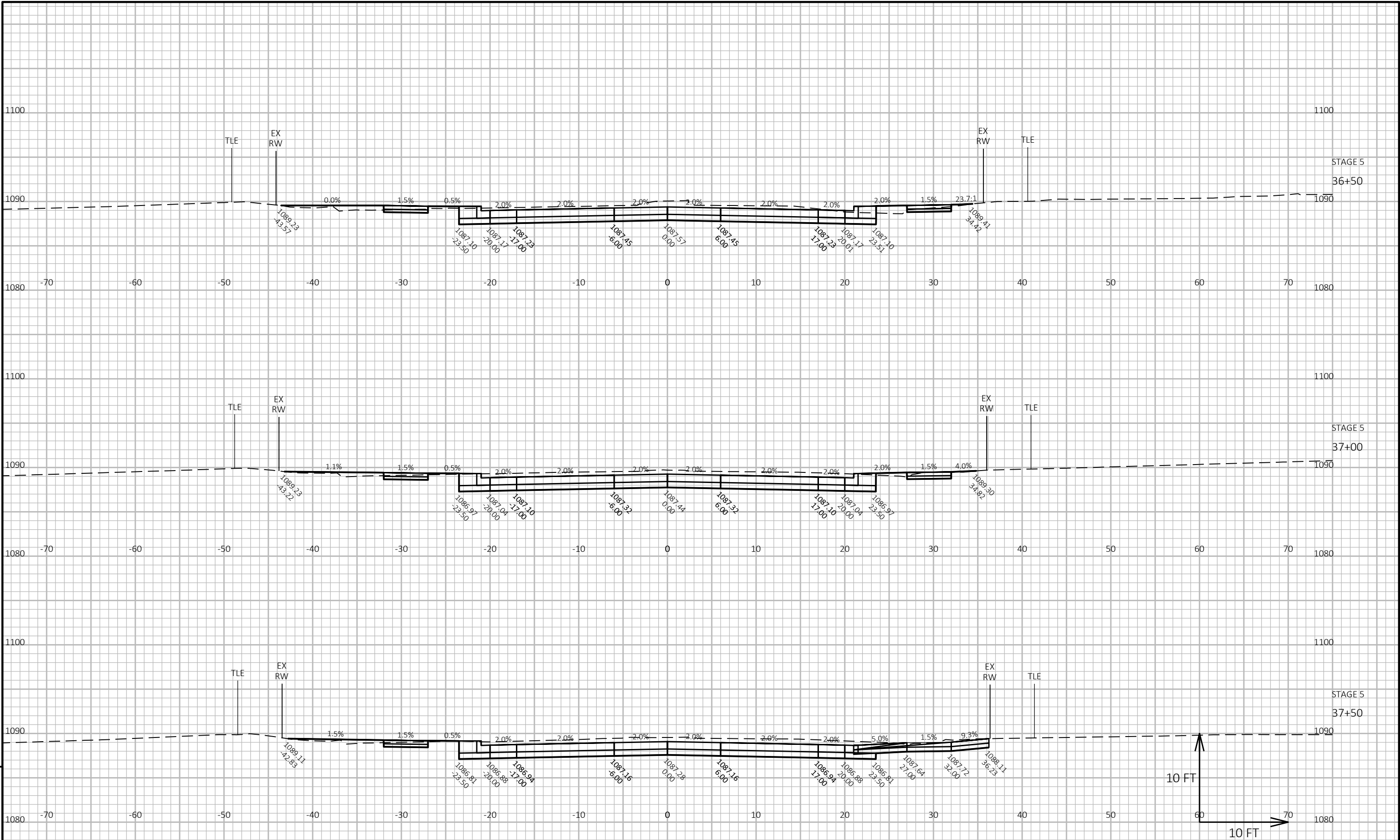


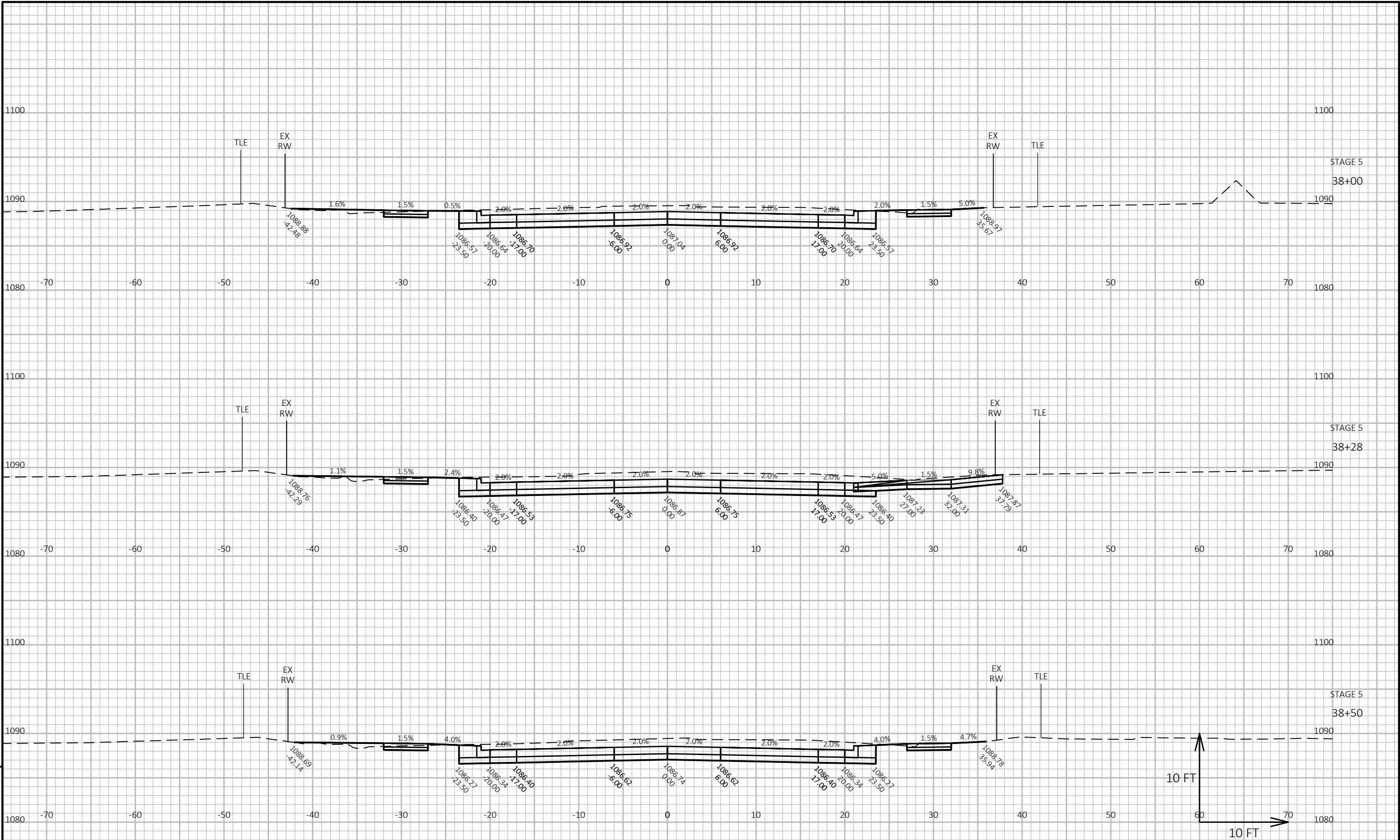


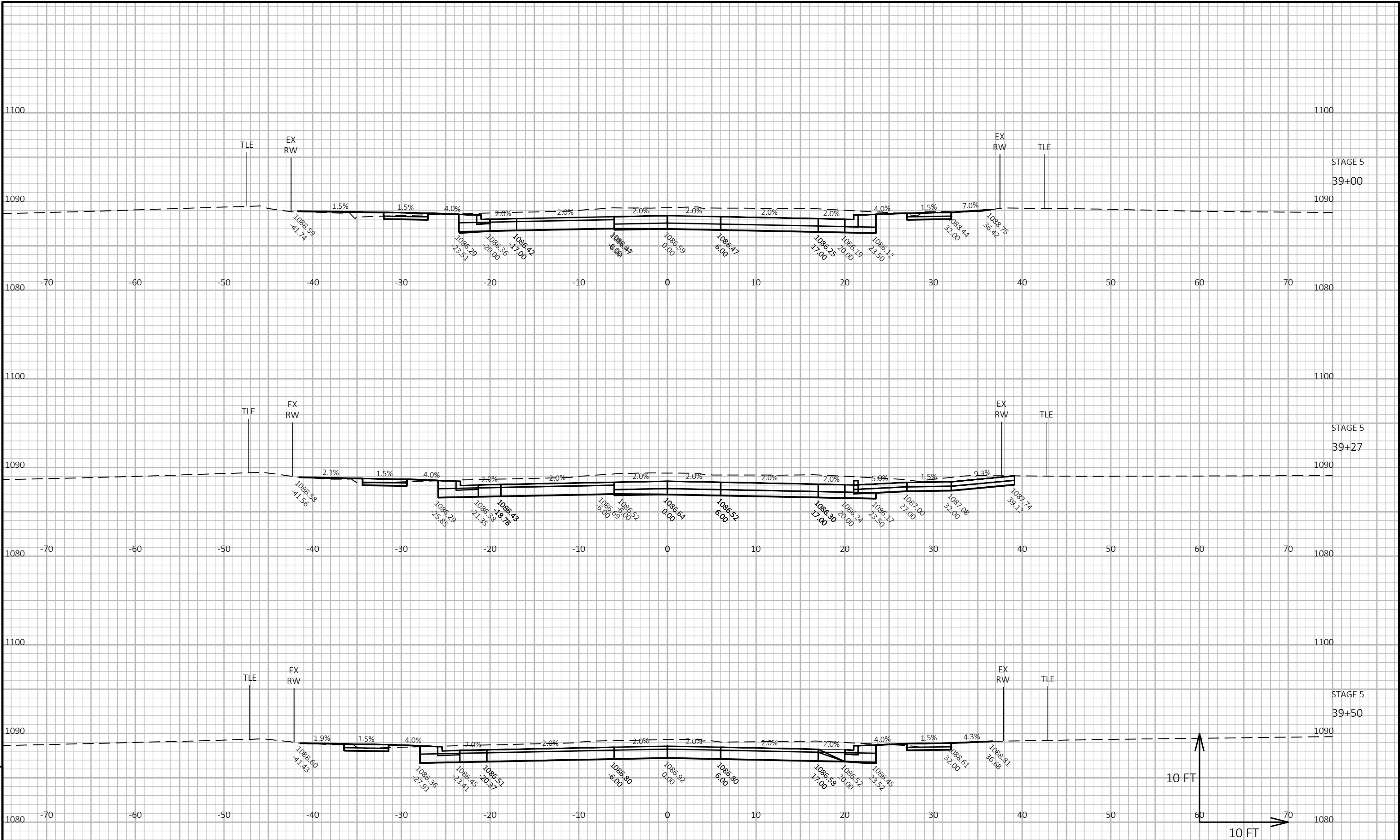


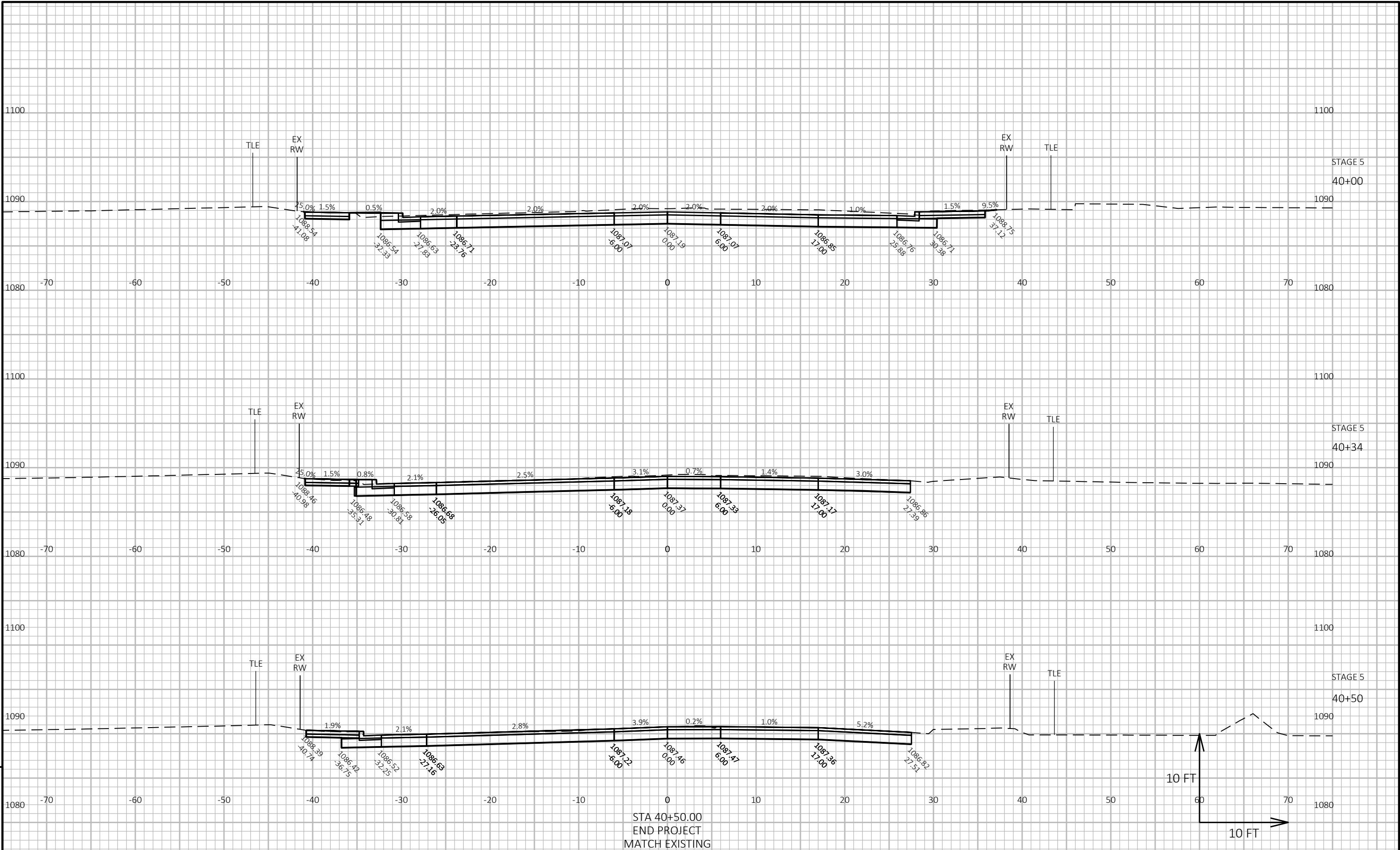


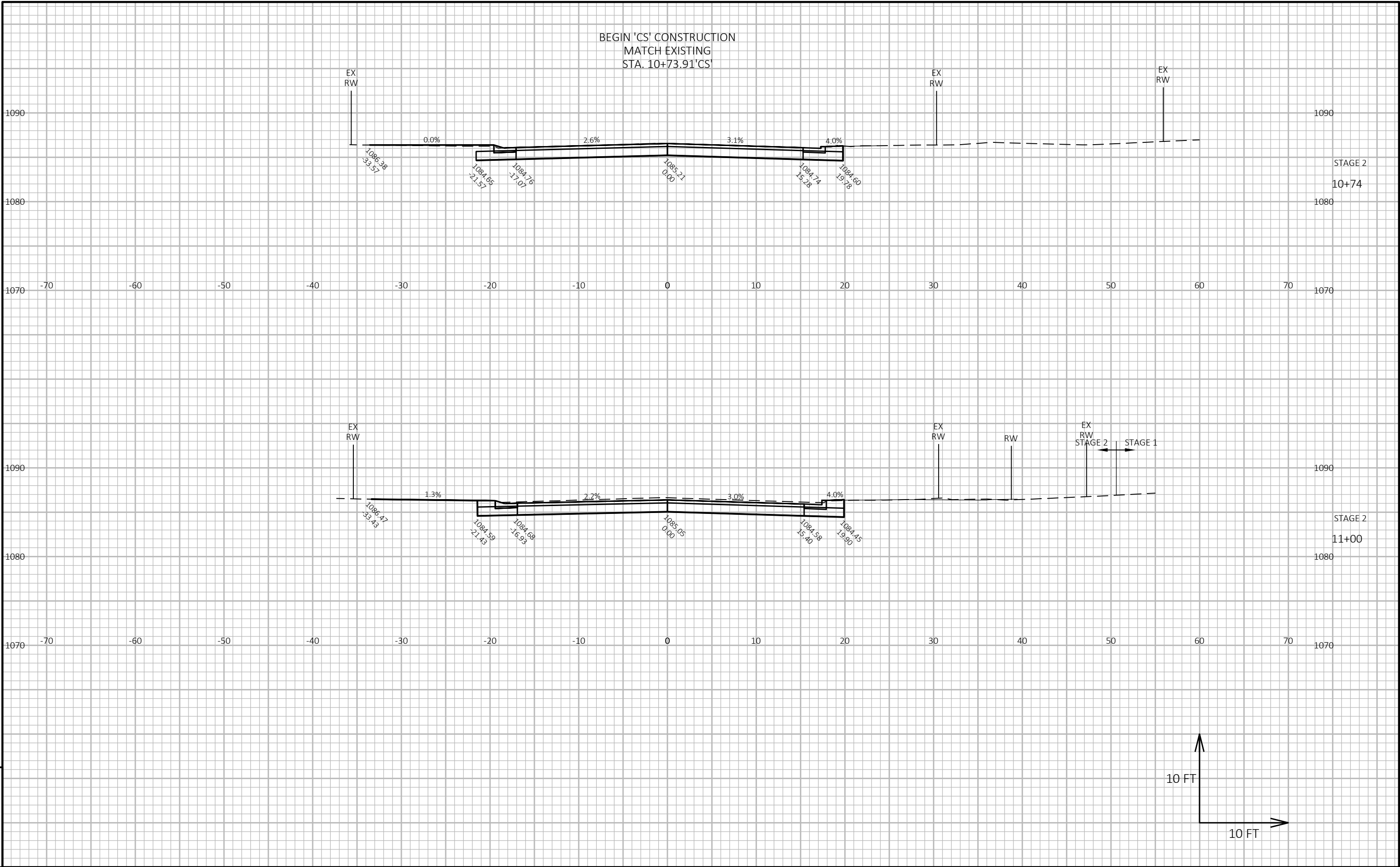


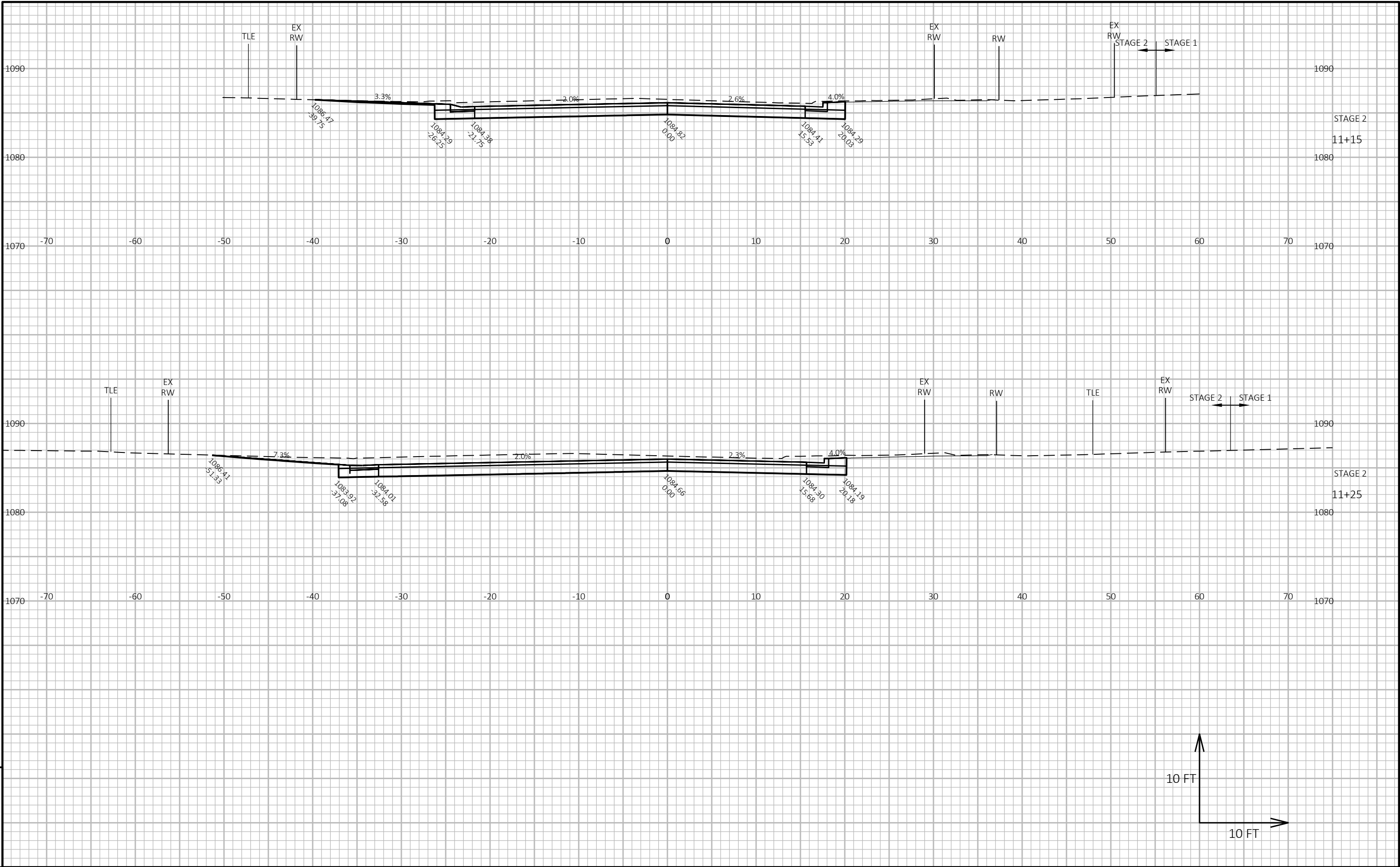






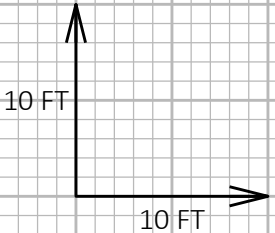
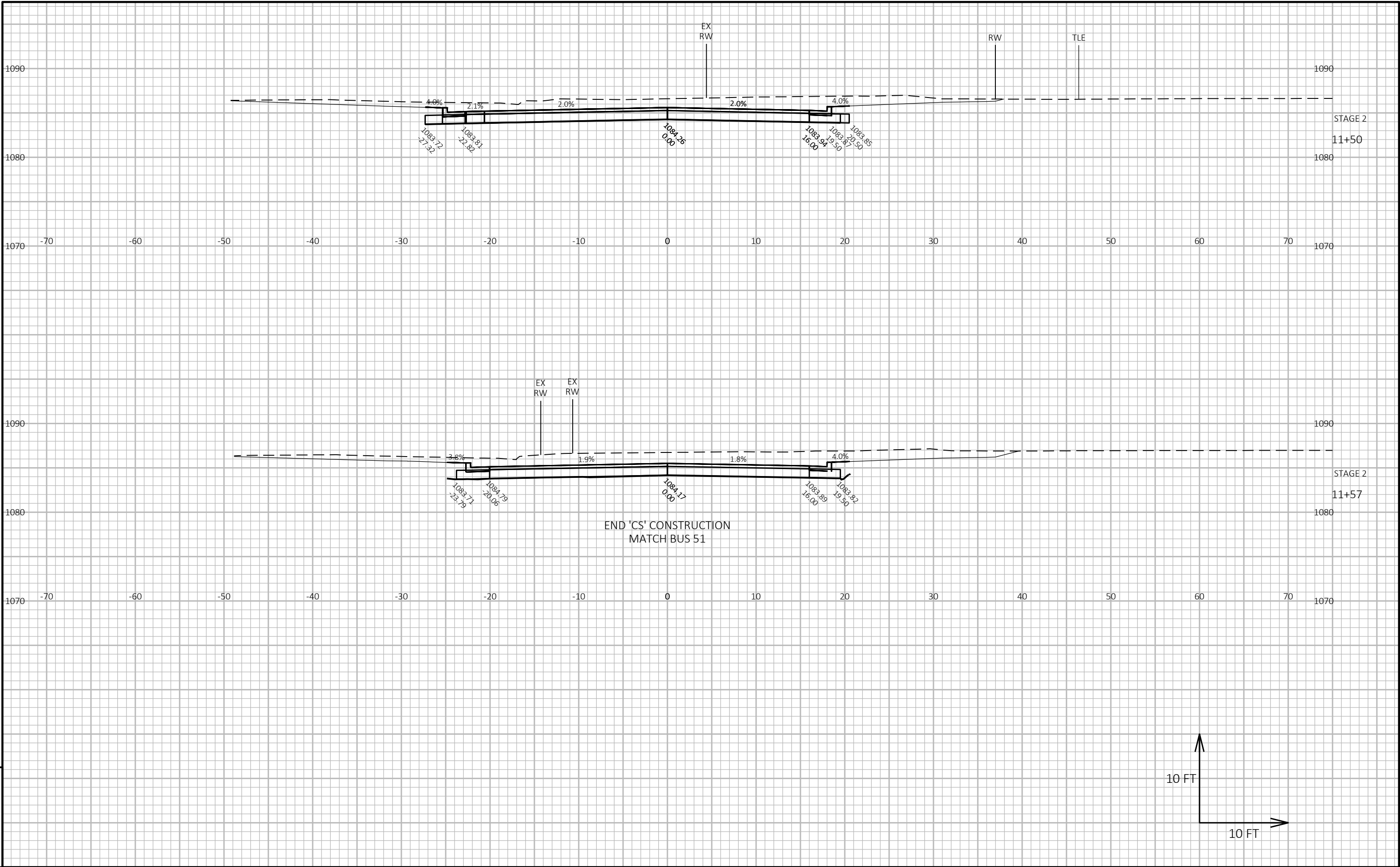


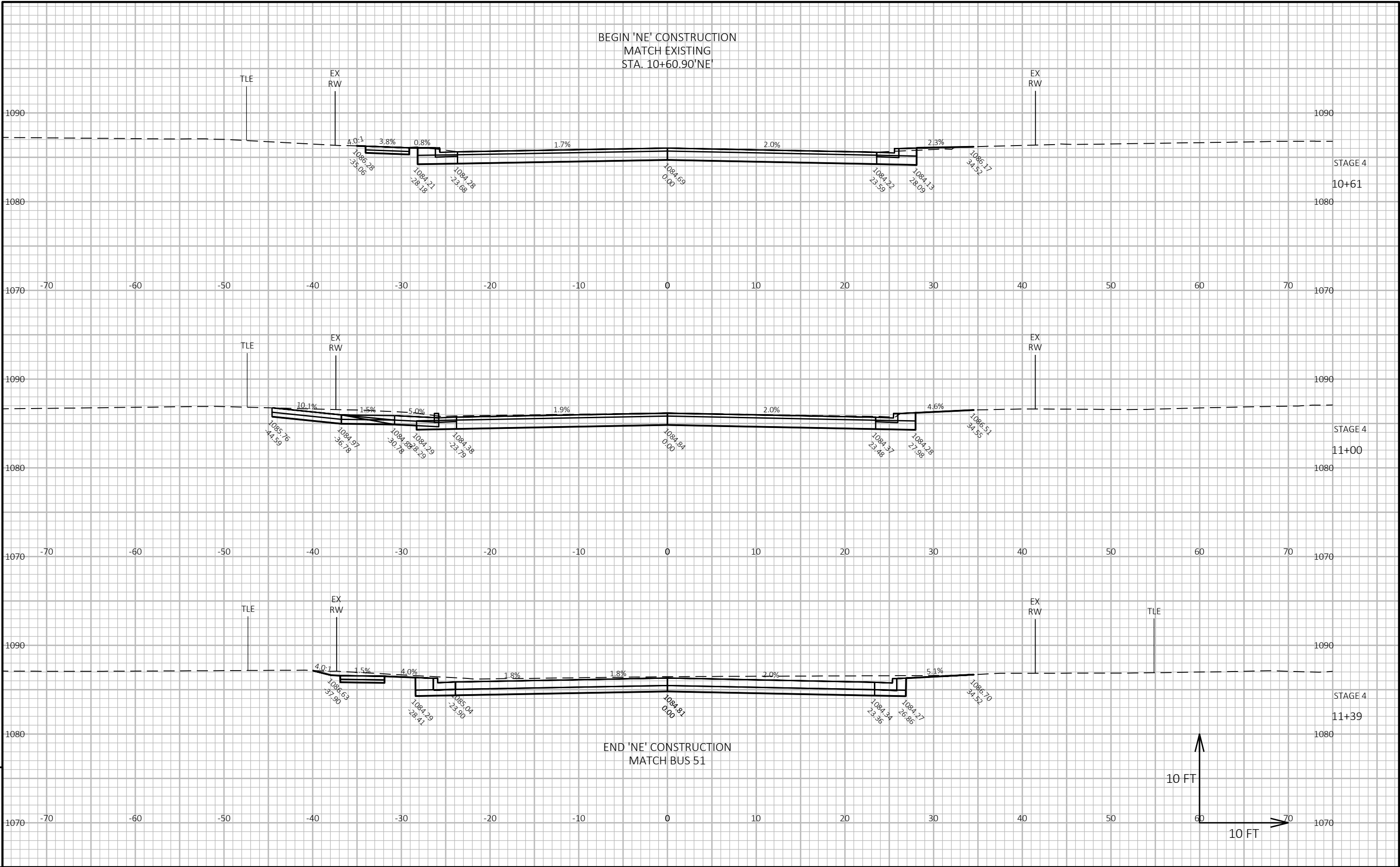


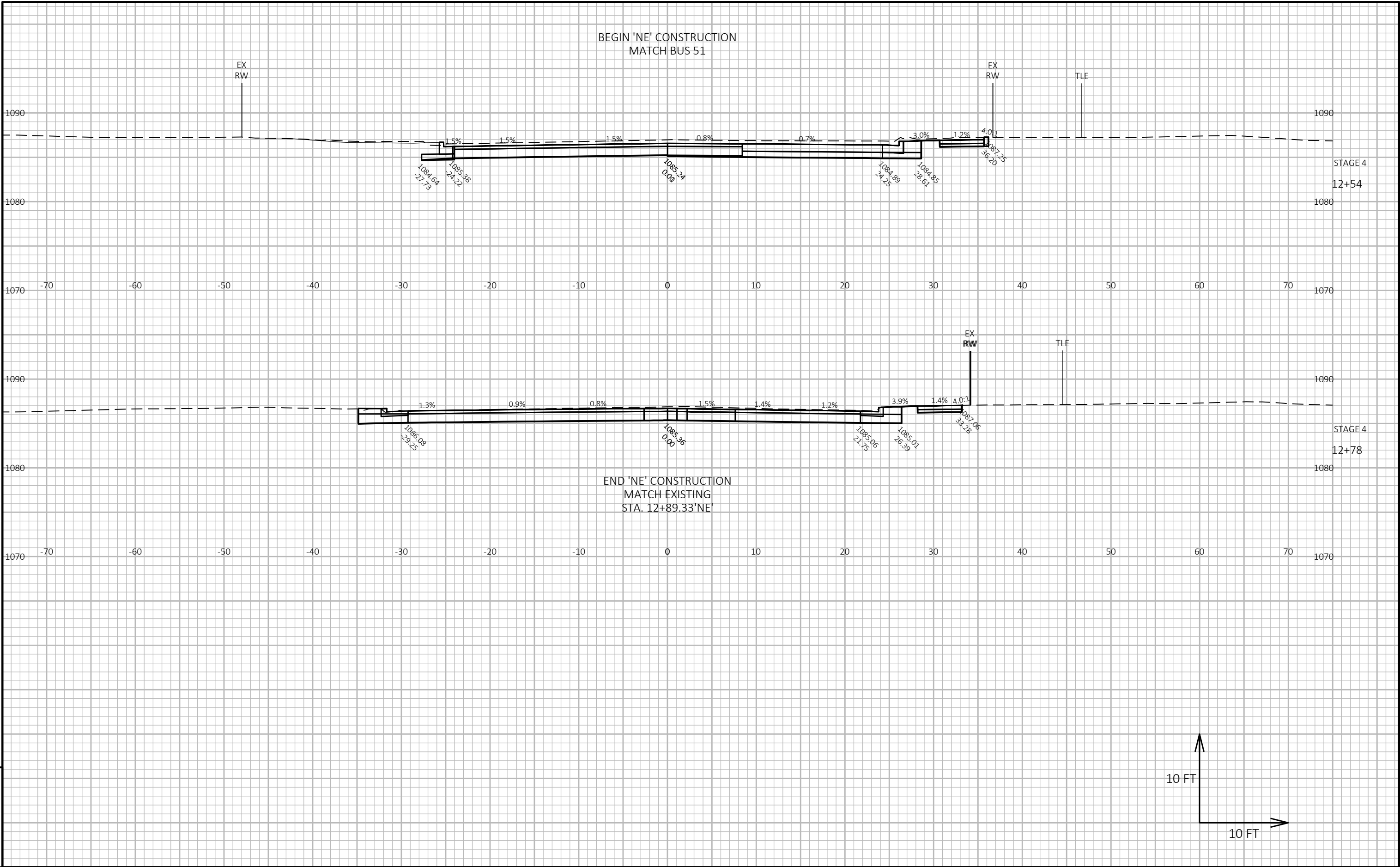


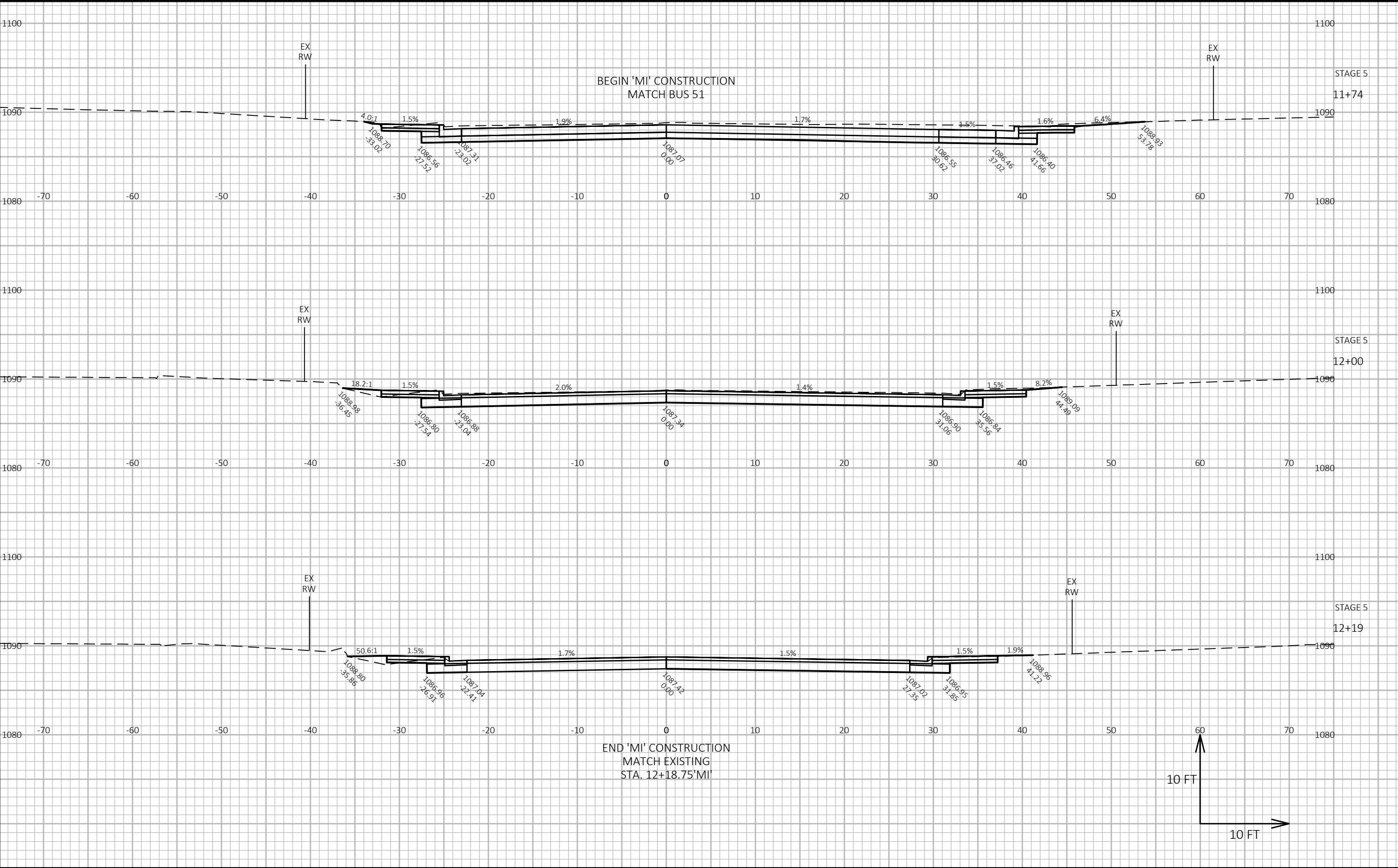
9

9

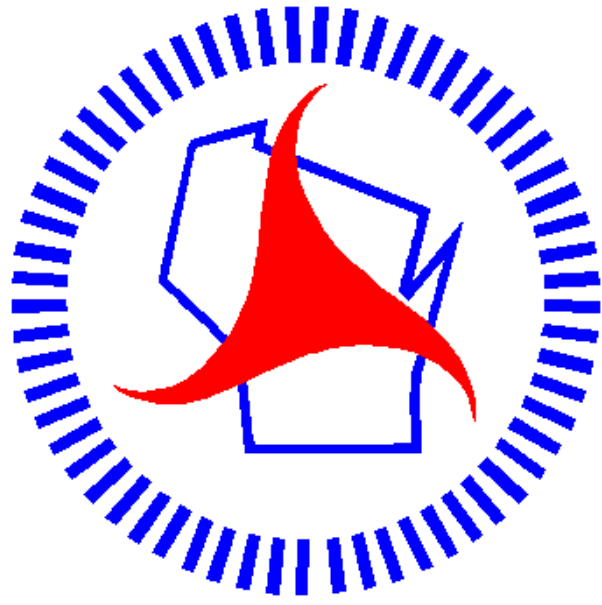








Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>