SUP

DECEMBER 2019

PROJECT ID: 1198-03-74

WITH:

COUNTY: DOUGLAS

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 = 418

PROJECT LOCATION

29

DESIGN DESIGNATION

A.A.D.T.	2020	= 20,400
A.A.D.T.	2040	= 23,200
D.H.V.		= 6,032
D.D.		= 65/35
T.		= 16.2%
DESIGN SPEED		= 40
ESALS		= 6905800

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1198-03-74	WISC 2019752	1

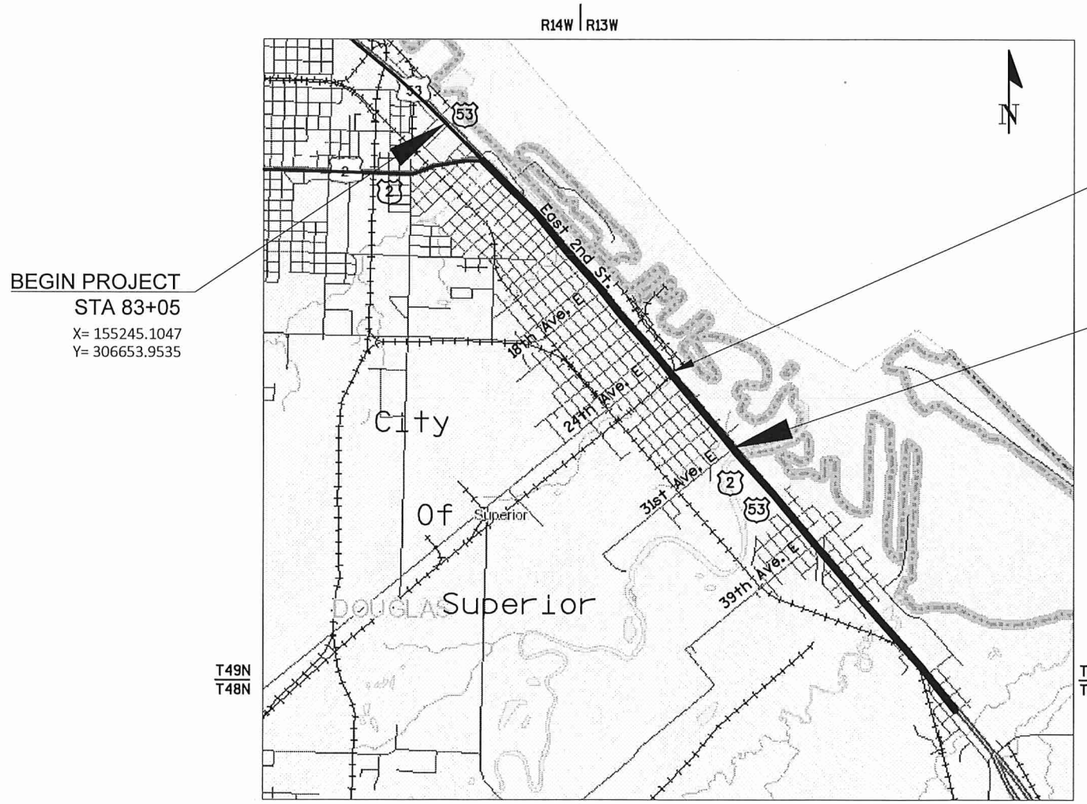
C SUPERIOR, EAST 2ND STREET

2ND AVENUE EAST TO 31ST AVENUE EAST

USH 2

DOUGLAS COUNTY

STATE PROJECT NUMBER
1198-03-74



BEGIN PROJECT
STA 83+05
X= 155245.1047
Y= 306653.9535

STRUCTURE B-16-0068
STA 183+65.03 - STA 186+65.32
BNSF RR OVERPASS

END PROJECT
STA 214+00
X= 164094.0720
Y= 296983.4180

LAYOUT
SCALE 0 2400' 4800'

TOTAL NET LENGTH OF CENTERLINE = 2.42 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DOUGLAS COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR

CITY of SUPERIOR

7/26/19 (Date)

Public Works Dir (Signature & Title of Official)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	STEPHANIE J. KING
Project Manager	BRENDEN D. DIRKES
Regional Examiner	TOU YANG
Regional Supervisor	WILLIAM KURTZ

APPROVED FOR THE DEPARTMENT

DATE: 7/24/19 (Signature)

E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\010101_TI_74.DWG

PLOT DATE : 7/23/2019 4:53 PM

PLOT BY : BUKOVITZ, CAITLIN LEPLOT NAME :

WISDOT/CADDS SHEET 10

STANDARD ABBREVIATIONS

AGG	AGGREGATE	LC	LONG CHORD OF CURVE
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE	MOR	MID POINT OF RADIUS
		NC	NORMAL CROWN
ASPH	ASPHALTIC	N.T.S.	NOT TO SCALE
BM	BENCH MARK	PAVT	PAVEMENT
CE	COMMERCIAL ENTRANCE	PE	PRIVATE ENTRANCE
CL OR C/L OR ℄	CENTER LINE	PVRC	POINT OF VERTICAL REVERSE CURVE
Δ	CENTRAL ANGLE OR DELTA	QOR	QUARTER POINT OF RADIUS
CONC	CONCRETE	R	RADIUS
CPRC	CULVERT PIPE REINFORCED CONCRETE	RES	RESIDENCE OR RESIDENTIAL
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	R/W	RIGHT-OF-WAY
		RDWY	ROADWAY
DISCH	DISCHARGE	R/L OR ℝ	REFERENCE LINE
DWY	DRIVEWAY	SAN	SANITARY SEWER
EOR	END POINT OF RADIUS	SS	STORM SEWER
ENT	ENTRANCE	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
FE	FIELD ENTRANCE	SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
FO	FIBER OPTIC		
CWT	HUNDREDWEIGHT	SE	SUPERELEVATION RATE
HDPE	HIGH DENSITY POLYTHENE PIPE	TYP	TYPICAL
HYD	HYDRANT	VAR	VARIABLE
INV	INVERT	VC	VERTICAL CURVE
IP	IRON PIPE ON PIN		
L	LENGTH OF CURVE		

ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL - SEE STORM & SANITARY SEWER
STORM & SANITARY SEWER
LIGHTING PLAN
TRAFFIC SIGNAL REMOVAL
TRAFFIC SIGNAL TEMPORARY
TRAFFIC SIGNAL PLAN
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
DETOURS
ALIGNMENT

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

LEGEND

- CONCRETE PAVEMENT
- BASE COURSE
- GRASS
- ASPHALT

UTILITY CONTACTS

CHARTER COMMUNICATIONS - COMMUNICATION LINE
NICK WALTERS
640 GARFIELD AVE
DULUTH, MN 55802
TELEPHONE: 218-529-8025
EMAIL: NICK.WALTERS@CHARTER.COM

PACKERLAND BROADBAND - COMMUNICATION LINE
ANDREW HEIGL
105 KENT ST
PO BOX 190
IRON MOUNTAIN, MI 49801
TELEPHONE: 906-282-3768
EMAIL: ANDY.GEIGL@PACKERBROADBAND.COM

MERIT NTWRK INC - COMMUNICATION LINE
NICK ANDRUS
1000 OAKBROOK DR SUITE 200
ANN ARBOR, MI 48104
TELEPHONE: 734-527-5767
TELEPHONE SECONDARY: 734-476-3873
EMAIL: OSP@MERIT.EDU

CENTURYLINK - COMMUNICATION LINE
20 S WILSON AVE
RICE LAKE, WISCONSIN 54868
TELEPHONE: 715-234-5528
ATTENTION: MONTY PARKER
EMAIL: MONTY.PARKER@CENTURYLINK.COM

SUPERIOR WATER, LIGHT & POWER CO.
2915 HILL AVENUE
P.O. BOX 519
SUPERIOR, WISCONSIN 54880
TELEPHONE: 715-395-6315
ATTENTION: JAMISON MEHLE
EMAIL: JMEHLE@SWLP.COM

GAS/PETROLEUM & ELECTRIC & WATER
TELEPHONE: 715-395-6288
: 218-393-6391
ATTENTION: JAMISON MEHLE
EMAIL: JMEHLE@SWLP.COM

ENBRIDGE ENERGY - GAS/PETROLEUM
119 NORTH 25TH STREET E
SUPERIOR, WI 54880
TELEPHONE: 715-395-3813
: 715-817-4103
ATTENTION: TODD OCHSNER
EMAIL:TODD.OCHSNER@ENBRIDGE.COM

CITY OF SUPERIOR PUBLIC WORKS
1316 N 14TH STREET
SUPERIOR, WISCONSIN 54880
TELEPHONE: 715-395-7334
ATTENTION: TODD JANIGO
EMAIL: JANIGOT@CI.SUPERIOR.WI.US

RAILROAD CONTACTS

BNSF - RAILS
80 44TH AVE NE, MINNEAPOLIS, MN 55421
TELEPHONE: 763-782-3495
ATTENTION: DANIEL PELTIER
EMAIL: DANIEL.PELTIER@BNSF.COM
BNSF COMMUNICATIONS NETWORK CENTER
TELEPHONE: 1-800-533-2891

GENERAL NOTES

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

ACCESS TO ALL RESIDENCES AND BUSINESSES SHALL BE MAINTAINED DURING CONSTRUCTION.

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

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

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

LIMIT STAGING/STOCKPILING TO PAVED, GRAVEL OR MOWED AREAS. IF STAGING CANNOT BE LIMITED, THEN SURVEYS FOR THREATENED AND ENDANGERED SPECIES ARE REQUIRED.

CURB RAMP TYPES ARE SHOWN ON THE INTERSECTION DETAIL SHEETS. ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH TOPSOILED, FERTILIZED, SEEDED, AND EROSION MATTED AS SHOWN IN THE PLANS. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

REMOVAL OF EROSION MAT AFTER VEGETATION HAS BEEN ESTABLISHED, OR AT THE COMPLETION OF PROJECT, WILL BE REQUIRED AND IS INCIDENTAL TO THE COST OF INSTALLATION.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS REFER TO THE NORMAL GUTTER FLOWLINE.

ALL STORM SEWER INVERTS, ELEVATIONS, PIPE LENGTHS, GRADES ARE COMPUTED CENTER-TO-CENTER OF STRUCTURES.

ONE CROSSWALK ACROSS USH 2/USH 53 MUST BE PROVIDED AT ALL TIMES AT THE INTERSECTIONS OF 2ND AVENUE EAST, USH 2/BELKNAP STREET, 9TH AVENUE EAST/MARINA DRIVE, 22ND AVENUE EAST AND 27TH AVENUE EAST.

EMERALD ASH BORER - ASH TREES MAY BE PRESENT. REFER TO DATCP WEBSITE: HTTP://DATCPSERVICES.WISCONSIN.GOV/EAB/ARTICLE.JSP?TOPICID=20

DNR CONTACT

STATE OF WISCONSIN
NORTHWEST DISTRICT
HWY 70 WEST
P.O. BOX 309
SPOONER, WI 54801
TELEPHONE: 715.635.4229
ATTENTION: AMY CRONK
EMAIL: AMY.CRONK@WISCONSIN.GOV

DESIGN CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
STEPHANIE J. KING - PROJECT LEADER
1701 N.4TH STREET
SUPERIOR, WI 54880
TELEPHONE: 715.392.7874
EMAIL: STEPHANIE.KING@DOT.WI.GOV

2

BEGIN PROJECT
STA 83+05
X= 155245.1047
Y= 306653.9535

SHORELINE

MARINA DRIVE

USH 53
EAST 2ND STREET

2ND AVE E

USH 2 / BELKNAP ST

7TH AVE E

8TH AVE E

9TH AVE E

11TH AVE E

14TH AVE E

USH 2 / USH 53
EAST 2ND STREET

18TH AVE E

SHORELINE

SHORELINE

USH 2 / USH 53
EAST 2ND STREET

18TH AVE E

21ST AVE E

22ND AVE E

23RD AVE E

BNSF

27TH AVE E

28TH AVE E

29TH AVE E

30TH AVE E

31ST AVE E

NEMADJI RIVER

STRUCTURE B-16-68
STA 183+63.49 – 186+67.17
BNSF RR OVERPASS

END PROJECT
STA 214+00
X= 164094.0720
Y= 296983.4180

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\020201_PO_74.DWG
LAYOUT NAME - Plan Dbl 1 IN 50 FT
PLOT DATE : 7/23/2019 5:04 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

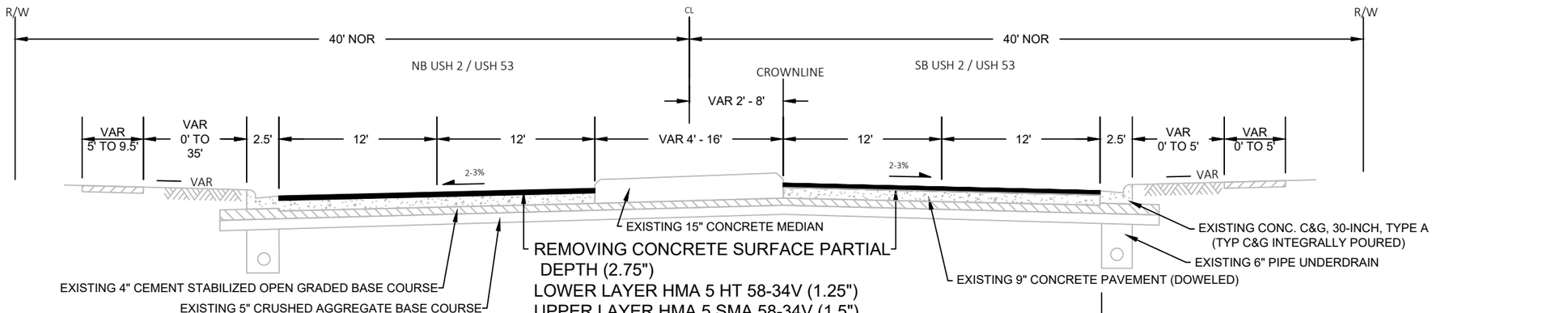
BEGIN STATION	END STATION	TYPICAL
83+05	85+85	A
85+85	89+54	B
89+54	97+50	C
97+50	107+88	B
107+88	113+84	C
113+84	119+50	B
119+50	146+50	A
146+50	150+24	B
150+24	153+53	C
153+53	175+80	D
175+80	178+00	C
178+00	180+32	B
180+32	183+33.65	A
186+80.57	192+30	B
192+30	194+85	C
194+85	214+00	D

NOTE:
AREAS OF CONCRETE PAVEMENT WILL REQUIRE EITHER CONCRETE PAVEMENT 9" OR CONCRETE REPAIR OR REPLACEMENT; EXACT LOCATIONS TO BE DETERMINED BY FIELD ENGINEER.

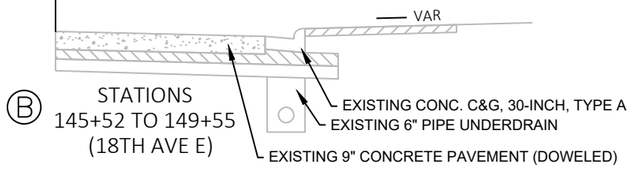
NOTE:
OUTSIDE CURB AND GUTTER FLAGLINE DEFINES EDGE OF REMOVING CONCRETE SURFACE PARTIAL DEPTH AND ASPHALT OVERLAY

TYPICAL FINISHED SECTIONS

USH 2 / USH 53
EAST 2ND STREET



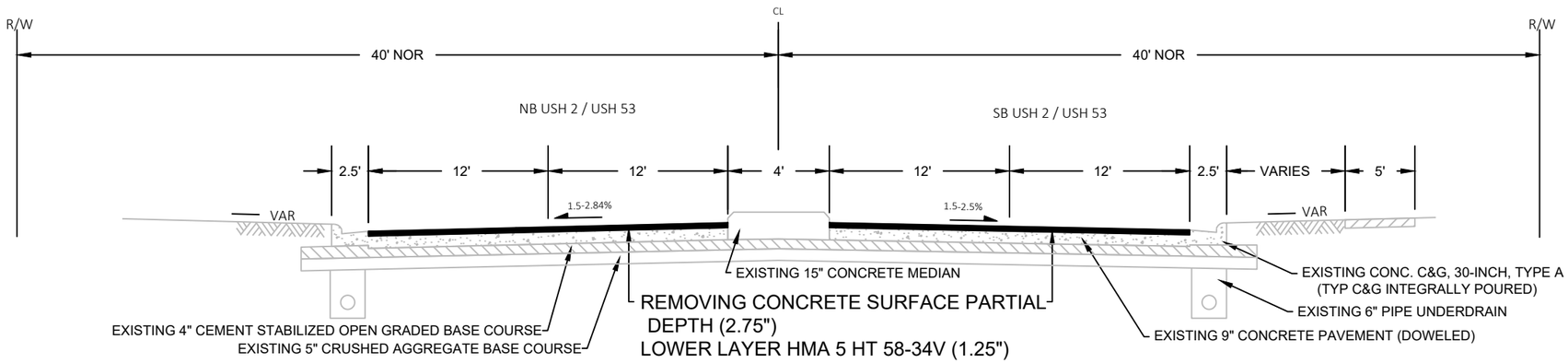
Ⓑ STATIONS 85+85 TO 89+54
STATIONS 97+50 TO 107+88
STATIONS 113+84 TO 119+50
STATIONS 146+50 TO 150+24
STATIONS 178+00 TO 180+32
STATIONS 186+80.57 TO 192+30



Ⓑ STATIONS 145+52 TO 149+55 (18TH AVE E)

TYPICAL FINISHED SECTIONS

USH 2 / USH 53
EAST 2ND STREET



Ⓐ STATIONS 83+05 TO 85+85
STATIONS 119+50 TO 146+50
STATIONS 180+32 TO 183+33.65

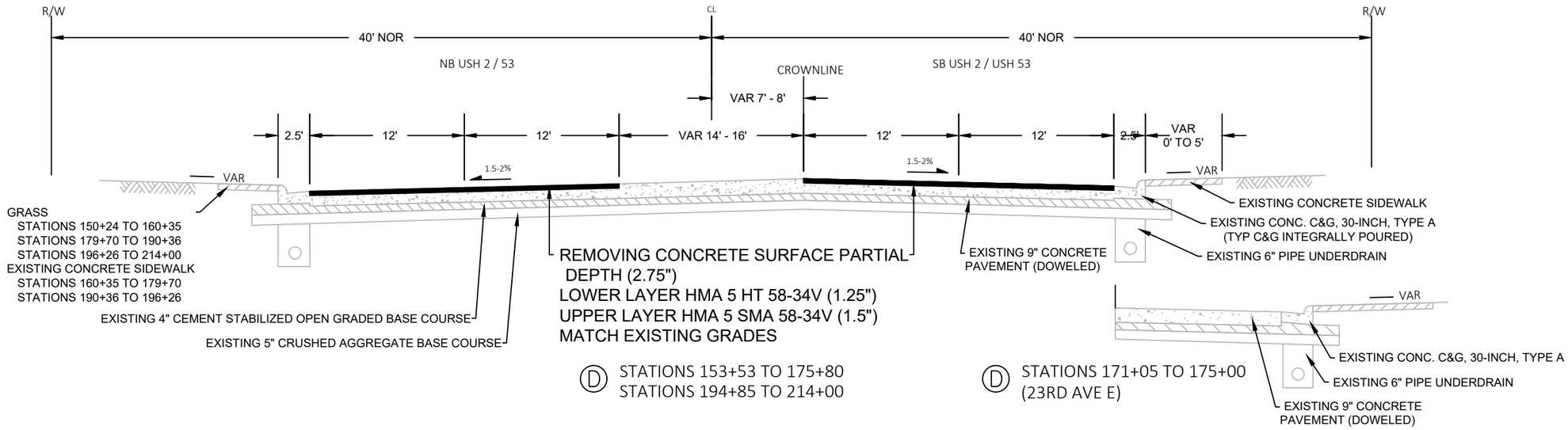
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN: TYPCIAL SECTIONS	SHEET 4	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\020301_TS_74.DWG
LAYOUT NAME - A&B
PLOT DATE : 9/10/2019 8:38 AM
PLOT BY : KING, STEPHANIE J
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

2

TYPICAL FINISHED SECTIONS

USH 2 / USH 53
EAST 2ND STREET

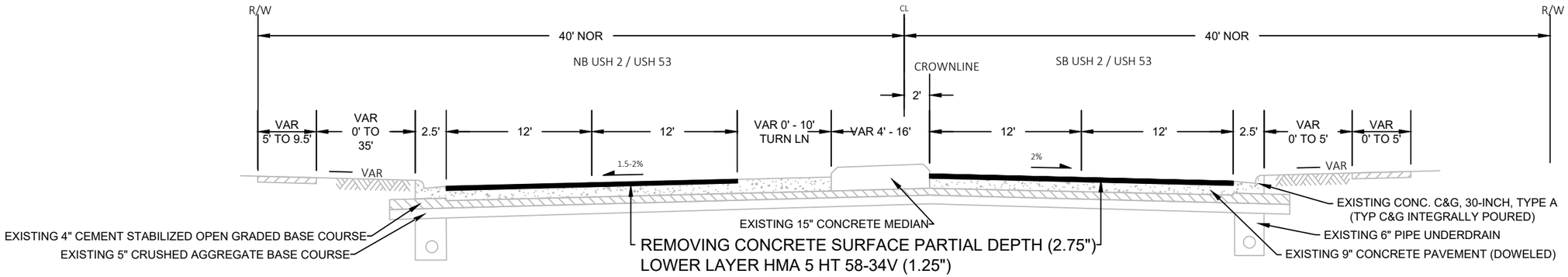


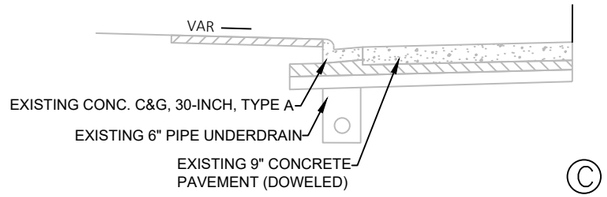
Ⓓ STATIONS 153+53 TO 175+80
STATIONS 194+85 TO 214+00

Ⓓ STATIONS 171+05 TO 175+00
(23RD AVE E)

TYPICAL FINISHED SECTIONS

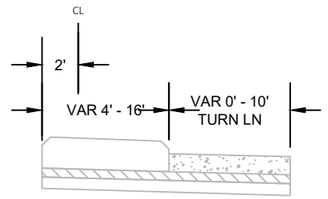
USH 2 / USH 53
EAST 2ND STREET





Ⓒ STATIONS 111+11 TO 114+35
(SOUTH MARINA DRIVE)

Ⓒ STATIONS 92+32 TO 97+50
STATIONS 111+11 TO 113+84
STATIONS 150+24 TO 153+53
STATIONS 175+80 TO 178+00



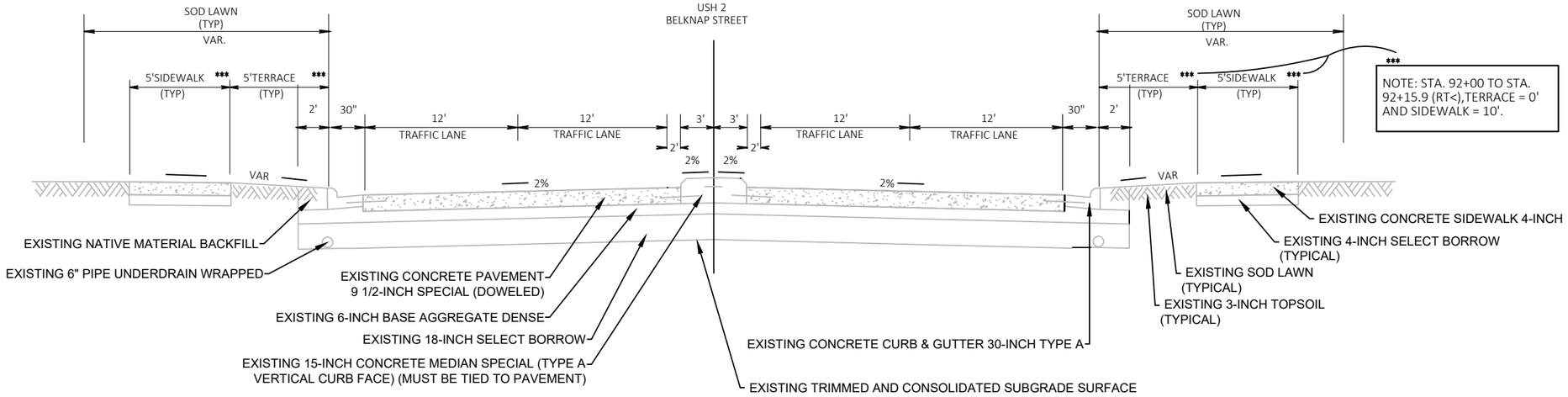
Ⓒ STATIONS 89+54 TO 92+32 (BELKNAP)
STATIONS 107+88 TO 111+11 (SOUTH MARINA DRIVE)
STATIONS 192+30 TO 194+85 (27TH AVE E)

BEGIN STATION	END STATION	TYPICAL
83+05	85+85	A
85+85	89+54	B
89+54	97+50	C
97+50	107+88	B
107+88	113+84	C
113+84	119+50	B
119+50	146+50	A
146+50	150+24	B
150+24	153+53	C
153+53	175+80	D
175+80	178+00	C
178+00	180+32	B
180+32	183+33.65	A
186+80.57	192+30	B
192+30	194+85	C
194+85	214+00	D

NOTE:
AREAS OF CONCRETE PAVEMENT WILL REQUIRE EITHER CONCRETE PAVEMENT 9" OR CONCRETE REPAIR OR REPLACEMENT; EXACT LOCATIONS TO BE DETERMINED BY FIELD ENGINEER.

NOTE:
OUTSIDE CURB AND GUTTER FLAGLINE DEFINES EDGE OF REMOVING CONCRETE SURFACE PARTIAL DEPTH AND ASPHALT OVERLAY

TYPICAL FINISHED SECTIONS

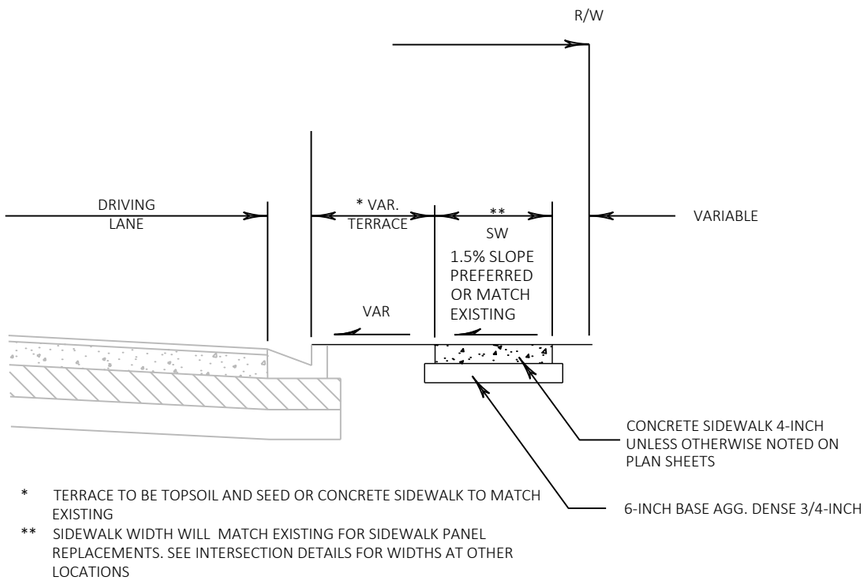


BELKNAP TYPICAL SECTION

BEGIN STATION	END STATION	TYPICAL
83+05	85+85	A
85+85	89+54	B
89+54	97+50	C
97+50	107+88	B
107+88	113+84	C
113+84	119+50	B
119+50	146+50	A
146+50	150+24	B
150+24	153+53	C
153+53	175+80	D
175+80	178+00	C
178+00	180+32	B
180+32	183+33.65	A
186+80.57	192+30	B
192+30	194+85	C
194+85	214+00	D

NOTE:
AREAS OF CONCRETE PAVEMENT WILL REQUIRE EITHER CONCRETE PAVEMENT 9" OR CONCRETE REPAIR OR REPLACEMENT; EXACT LOCATIONS TO BE DETERMINED BY FIELD ENGINEER.

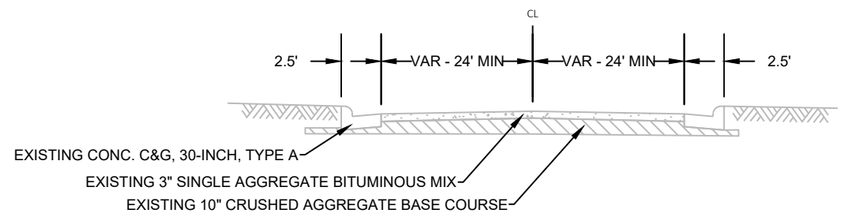
NOTE:
OUTSIDE CURB AND GUTTER FLAGLINE DEFINES EDGE OF REMOVING CONCRETE SURFACE PARTIAL DEPTH AND ASPHALT OVERLAY



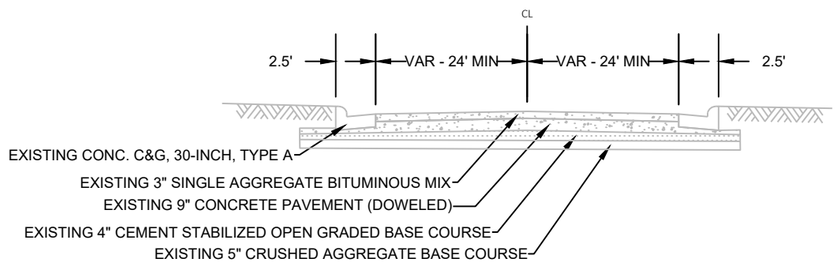
* TERRACE TO BE TOPSOIL AND SEED OR CONCRETE SIDEWALK TO MATCH EXISTING

** SIDEWALK WIDTH WILL MATCH EXISTING FOR SIDEWALK PANEL REPLACEMENTS. SEE INTERSECTION DETAILS FOR WIDTHS AT OTHER LOCATIONS

TYPICAL SIDEWALK PANEL REPLACEMENT SECTION

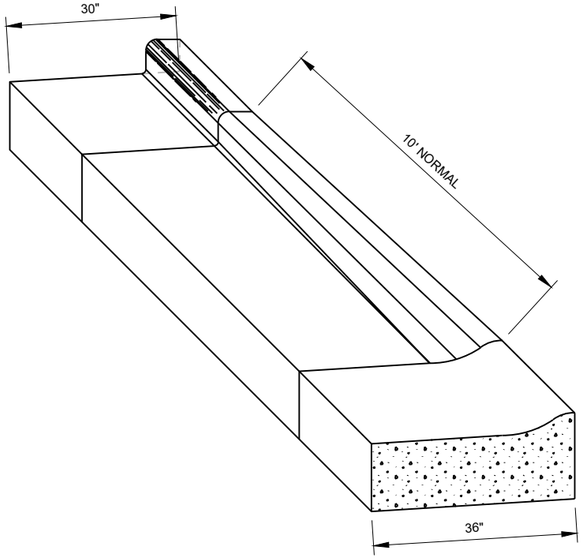


NORTH MARINA DRIVE
STATION 93+35 TO 93+51

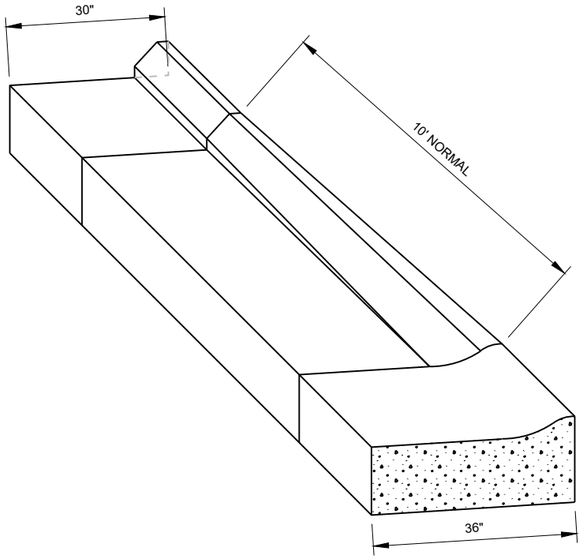


NORTH MARINA DRIVE
STATION 93+09 TO 93+35

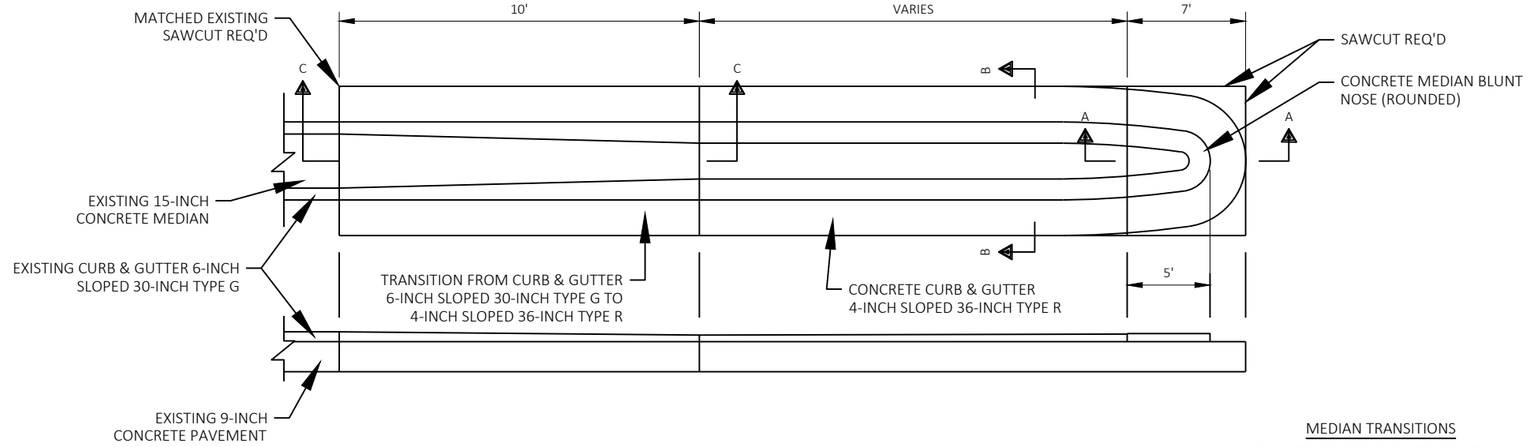
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN: TYPCIAL SECTIONS	SHEET 6	E



CURB & GUTTER TRANSITION TYPE A TO TYPE R

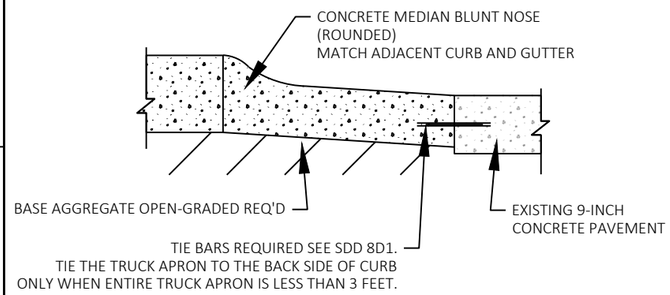


CURB & GUTTER TRANSITION FROM EXISTING TYPE G TO TYPE R

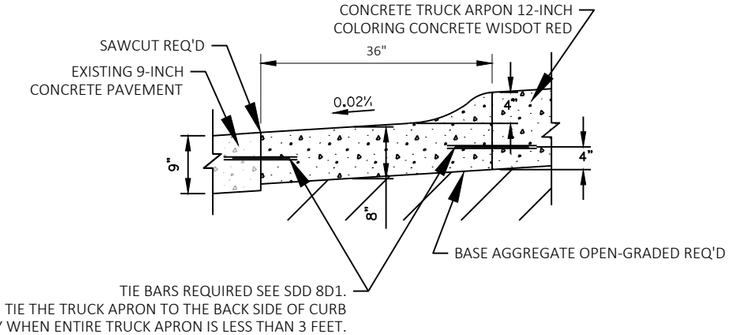


MEDIAN TRANSITIONS

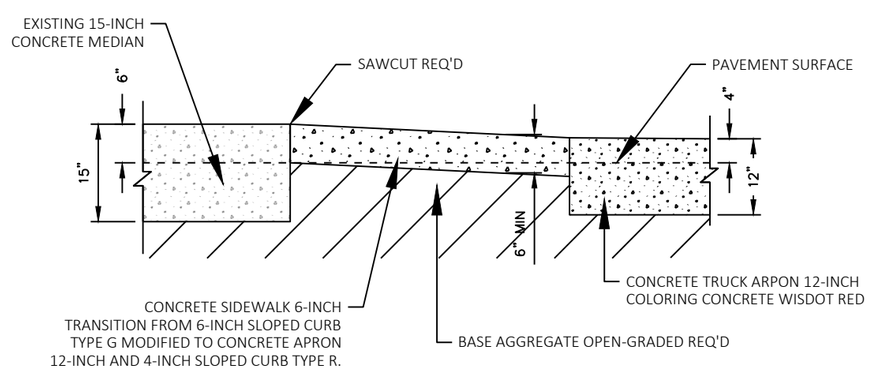
STATION 91+60 - STATION 91+70
STATION 95+42 - STATION 95+52



SECTION A - A

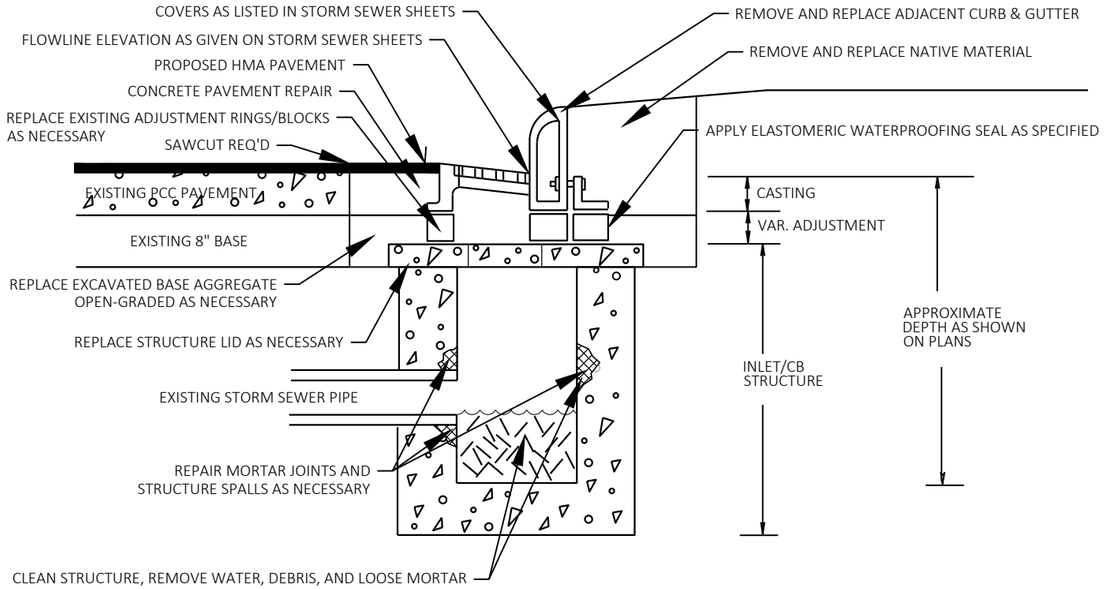


SECTION B - B



SECTION C - C

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN: CONSTRUCTION DETAILS	SHEET 7	E



RECONSTRUCT MANHOLE /INLET /CATCH BASIN DETAIL

SEE PLANS AND QUANTITIES FOR LOCATIONS

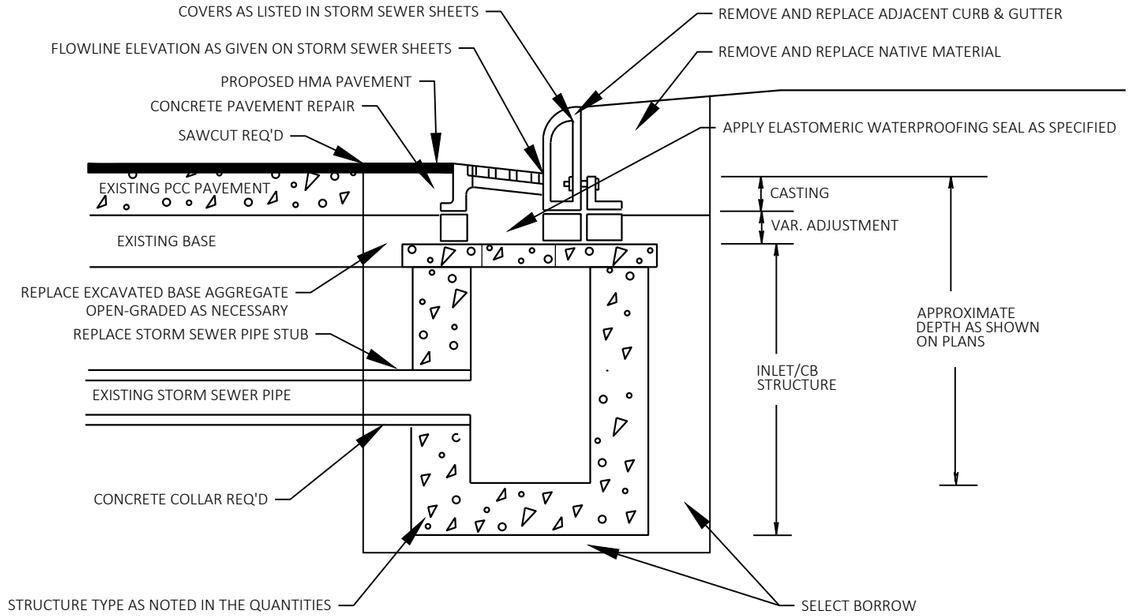
INCIDENTAL WORK, NO SEPARATE MEASUREMENT & PAYMENT

ADJUSTMENT RINGS OR BLOCKS
REMOVE AND REPLACE STRUCTURE LID
STRUCTURE JOINT AND SPALL REPAIR
REMOVE AND REPLACE NATIVE MATERIAL
CLEAN STRUCTURE
CASTING REMOVAL

WORK MEASURED & PAID SEPARATELY

INLET/ MANHOLE COVER (CASTING)
CONCRETE PAV'T REPAIR (REMOVAL INCIDENTAL)
REMOVE AND REPLACE CURB & GUTTER
BASE AGGREGATE OPEN-GRADED
SAWING PAVEMENT
ELASTOMERIC WATERPROOFING SEAL

STATION	OFFSET	NAME	STATION	OFFSET	NAME
85+71	-1	ST020256	85+51	-19	MH020032
85+94	-29	CB020259	89+15	-19	MH3A0301
89+28	-37	CB020263	96+29	-19	MH3A302A
91+80	-40	CB3A0222	100+16	-19	MH3A0303
104+24	-39	CB3A0203	107+30	54	CB3A0377
111+96	-51	CB3A0216	107+45	-20	MH3A0305
118+97	-28	CB3A0237	118+63	57	CB3A0242
122+35	-27	CB3A0243	141+76	-20	MH3A0313
126+11	-27	CB3A0246	149+61	-20	MH040001
134+83	-27	CB3A0281	155+59	-20	MH040003
151+35	-28	ST040325	165+08	-19	MH040006
160+72	-32	CB04017B	165+20	-19	MH04006A
167+55	-27	ST040189	165+37	-19	MH04006B
170+75	-33	CB040029	165+53	-19	MH040007
175+30	-20	ST040195			
204+89	-32	CB040218			
92+48	124	CB3A0225			
99+68	27	CB3A0196			
102+99	27	CB3A0199			
111+26	28	ST3A0210			
111+56	29	CB3A0211			
118+92	30	CB3A0240			
122+35	27	CB3A0244			
126+36	27	CB3A248A			
140+58	29	CB3A010A			
145+55	29	CB3A011B			
160+73	34	CB04017A			
165+07	43	CB040184			
195+15	60	CB040209			
214+81	34	CB040229			



CATCH BASIN/MANHOLE REPLACEMENT

SEE PLANS AND QUANTITIES FOR LOCATIONS

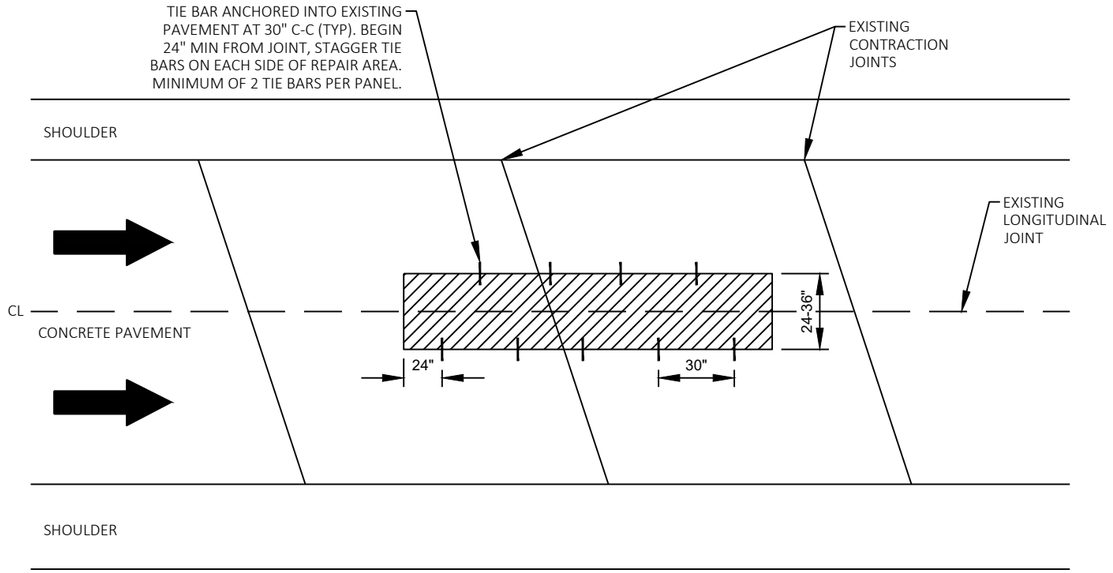
INCIDENTAL WORK, NO SEPARATE MEASUREMENT & PAYMENT

ADJUSTMENT RINGS OR BLOCKS
STORM SEWER PIPE STUB
SELECT BORROW BACKFILL
REMOVE AND REPLACE NATIVE MATERIAL
CASTING AND OLD STRUCTURE REMOVAL

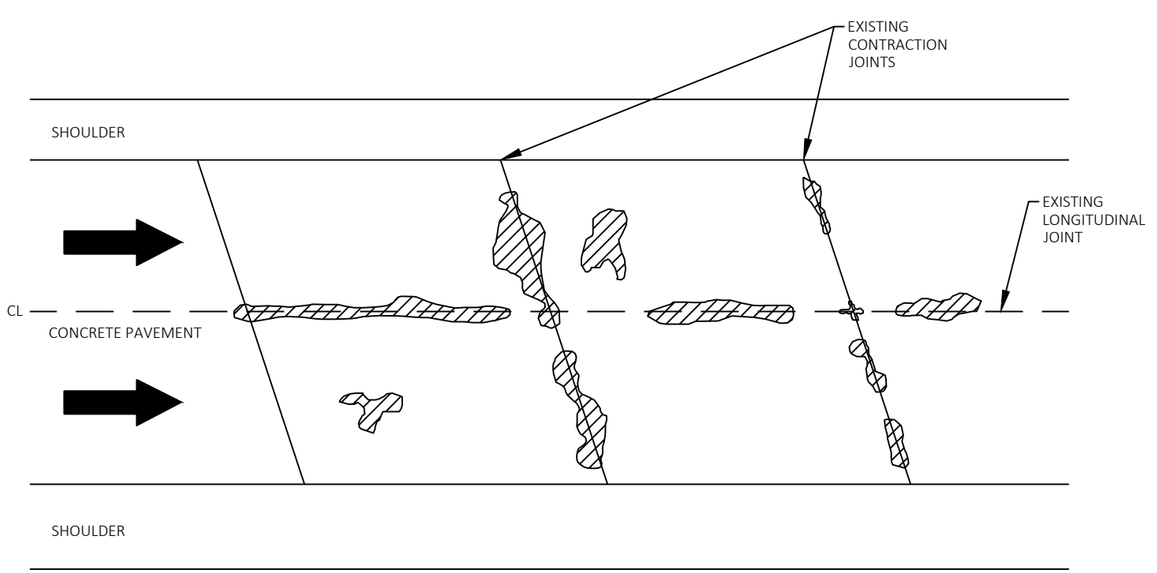
WORK MEASURED & PAID SEPARATELY

INLET/ MANHOLE COVER (CASTING)
CONCRETE PAV'T REPAIR (REMOVAL INCIDENTAL)
REMOVE AND REPLACE CURB & GUTTER
BASE AGGREGATE OPEN-GRADED
NEW STRUCTURE
SAWING PAVEMENT
CONCRETE COLLAR
ELASTOMERIC WATERPROOFING SEAL

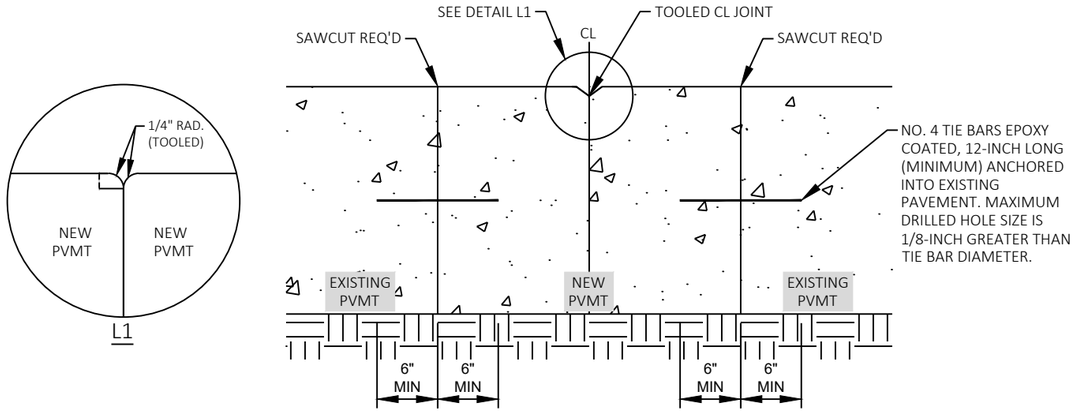
2



PLAN VIEW



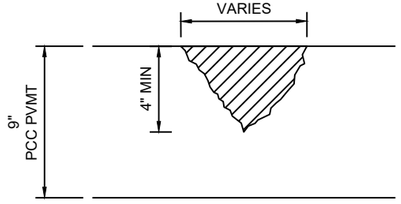
PLAN VIEW



L1

SECTION VIEW

CONCRETE PAVEMENT CENTERLINE JOINT REPAIR



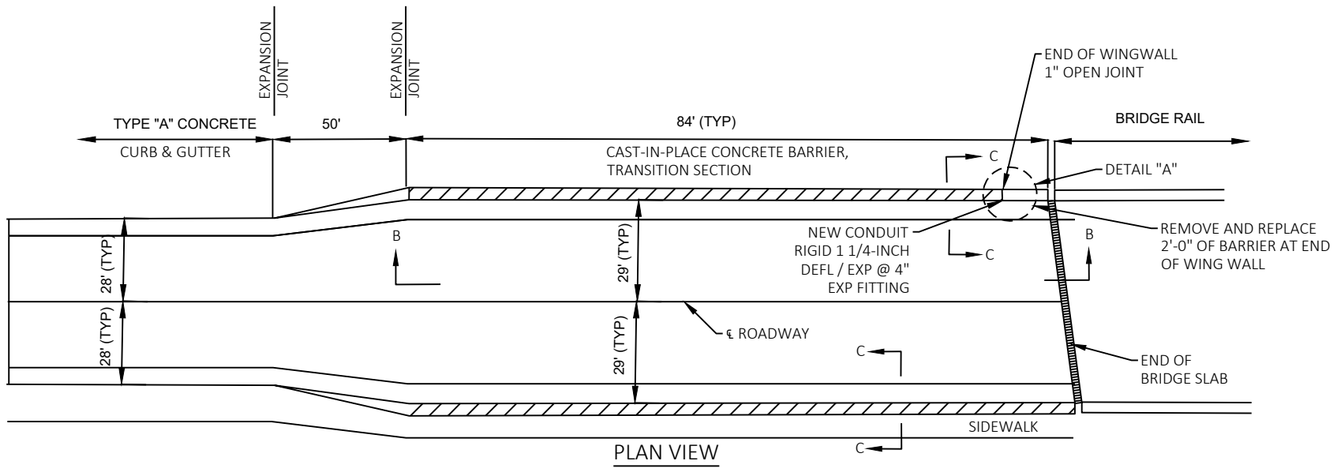
REPAIR AREAS

NOTES

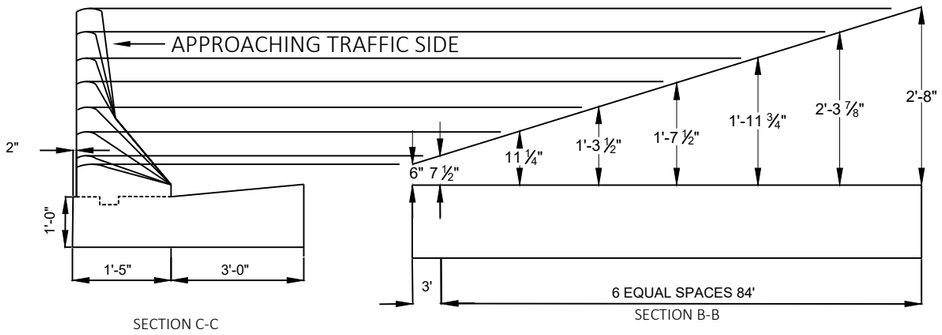
1. REMOVE ALL CONCRETE, ASPHALT, AND ANY UNSOUND MATERIAL FROM TRANSVERSE AND LONGITUDINAL AND RANDOM CRACKS. LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. ASPHALTIC SURFACE PATCHING SHALL BE PLACED IN THE JOINT REPAIR AREA. PATCHING SHALL BE COMPACTED IN LIFTS (2 LIFTS MINIMUM) UNTIL FLUSH WITH THE SURFACE OF THE CONCRETE. ASPHALTIC SURFACE PATCHING PAID SEPARATELY FROM THIS ITEM.
3. DEPTH VARIES FROM A MINIMUM DEPTH OF 4 INCHES TO A FULL DEPTH JOINT AS CONDITIONS DICTATE.

PREPARE FOUNDATION FOR ASPHALTIC PAVING

CLEANING AND REPAIRING DISTRESSED PCC AREAS



PLAN VIEW



SECTION C-C

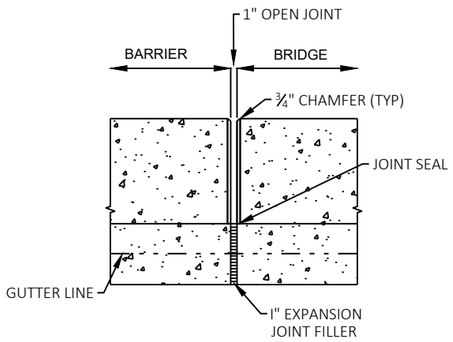
SECTION B-B

BARRIER TRANSITION DETAIL

LOCATION	REPLACEMENT LENGTH	HEIGHT AT REPLACEMENT	HEIGHT AT STRUCTURE
1 (RT)	36.0'	17.0"	32.0"
2 (LT)	31.0'	18.5"	34.0"
3 (LT)	12.0'	23.5"	34.0"
4 (RT)	28.0'	21.0"	32.0"

LENGTH MEASURED AS SHOWN ON PLAN SHEET.
VERIFY LENGTH OF REPLACEMENT WITH THE ENGINEER BEFORE REMOVAL AND REPLACEMENT.

LENGTH OF CONDUIT IS REPLACEMENT LENGTH OF BARRIER TRANSITION PLUS 2 FT AT THE 4 CONNECTION TO THE STRUCTURE POINTS. THE EXPANSION FITTING IS INCIDENTAL TO THE CONDUIT RIGID METALLIC (RMC) 1-1/4".



EXPANSION JOINT @ BRIDGE ABUTMENT

DETAIL "A"

CONCRETE BARRIER TRANSITION

NOTES FOR CONCRETE BARRIER:

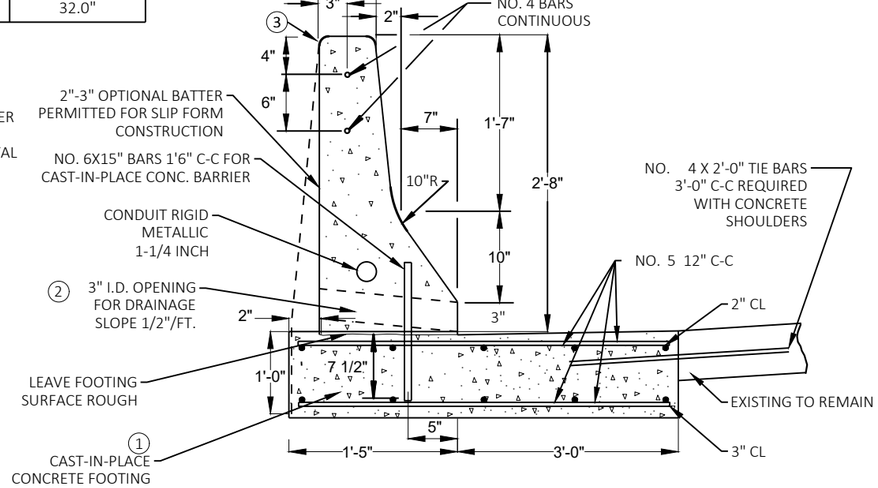
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATE DESIGNS FOR CONCRETE BARRIERS MAY BE USED UPON WRITTEN PERMISSION OF THE ENGINEER.

SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP, AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINT AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.

TIE BARS AND BARRIER ANCHORAGE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTIONS 505.2.4 OF THE STANDARD SPECIFICATIONS.

FOR ADDITIONAL INFORMATION SEE S.D.D. FOR CONCRETE BARRIER SINGLE FACED (WITH ANCHORAGE)



1. BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.
2. OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.
3. 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).

TYPICAL SECTION VIEW

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN: CONSTRUCTION DETAILS	SHEET 10	E

NOTES:

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

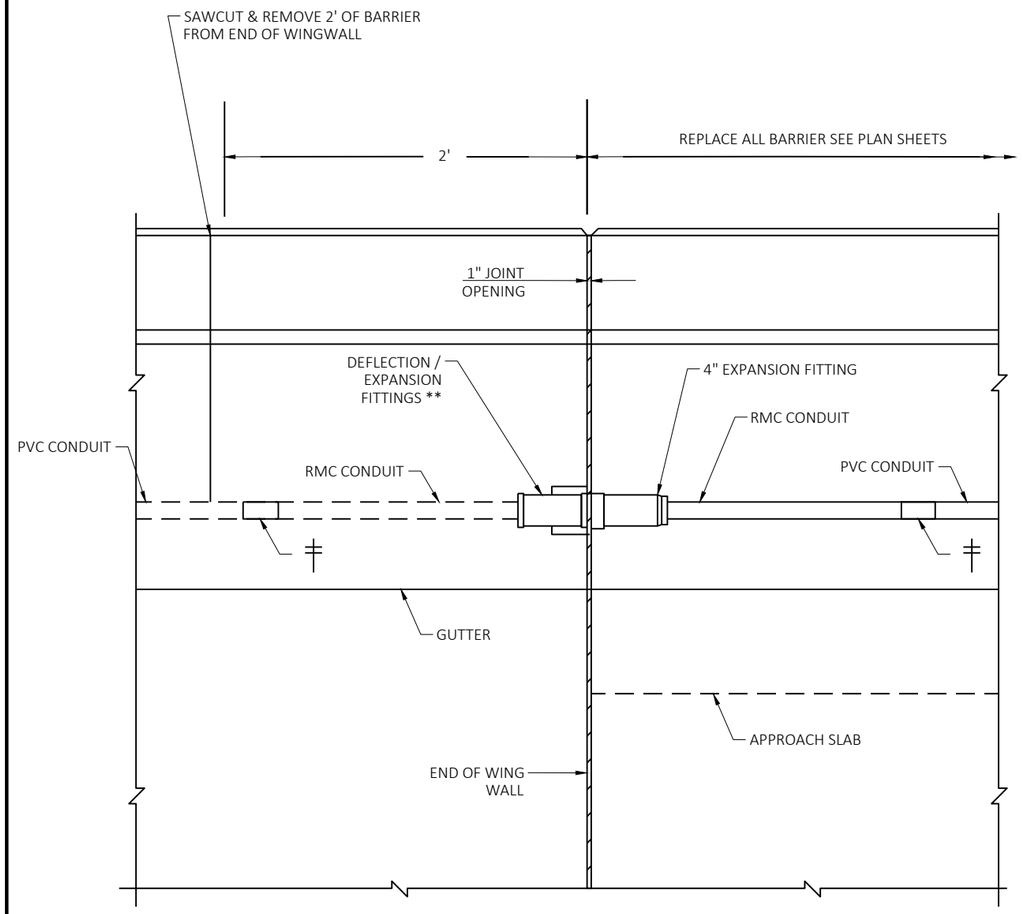
USE 1-1/4" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDIUT RIGID METALLIC (RCM) 1-1/4" WORK,

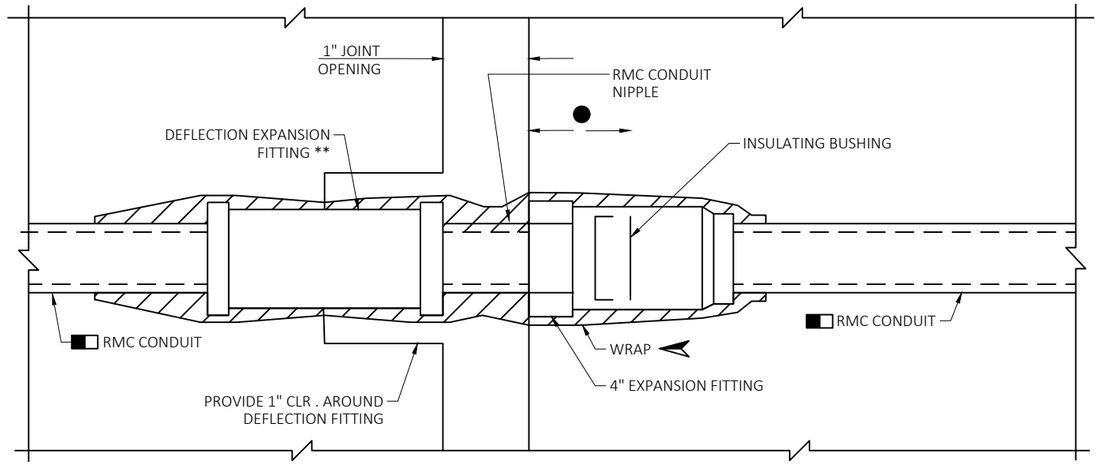
CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

2'-0" MIN. CONDUIT COVER UNDER ROADWAYS, 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.



OUTSIDE ELEVATION OF PARAPET AT JOINT



DEFLECTION / EXPANSION AND 4" EXPANSION FITTING (4 LOCATIONS)

THIS DETAIL ACCOMMODATES A MAXIMUM OF 4" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY

LEGEND:

USE CONDUIT RIGID METALLIC (RCM) 1-1/4" AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

SPONGE RUBBER WRAP TO BE ASSHTO M153, TYPE 1 OR EQUIVALENT - 1/4" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 1-1/4-INCH".

POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING. SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION / CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

** DEFLECTION/EXPANSON FITTING REQUIREMENTS (IF USED):

UP TO 3/4" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER.

2

TLE POINT LOCATIONS			
TLE LOCATION	STATION	OFFSET	SIDE ROAD
C1 - 500	85+83.58	60.35' LT	2ND AVE E
C1 - 501	86+33.58	60.29' LT	2ND AVE E
C1 - 502	85+83.53	55.35' LT	2ND AVE E
C1 - 503	86+33.53	55.30' LT	2ND AVE E
C2 - 504	87+00.09	60.03' LT	MIDBLOCK
C2 - 505	87+25.09	60.01' LT	MIDBLOCK
C2 - 506	87+00.08	55.03' LT	MIDBLOCK
C2 - 507	87+25.08	55.01' LT	MIDBLOCK
C3 - 508	89+84.29	60.00' LT	MIDBLOCK
C3 - 509	90+00.00	60.00' LT	MIDBLOCK
C3 - 510	89+84.12	55.00' LT	MIDBLOCK
C3 - 511	90+00.00	55.04' LT	MIDBLOCK
C4 - 512	91+13.57	39.86' RT	BELKNAP ST
C4 - 513	91+58.25	40.00' RT	BELKNAP ST
C4 - 514	91+58.13	85.00' RT	BELKNAP ST
C5 - 515	91+86.82	75.00' LT	BELKNAP ST
C5 - 516	91+99.82	75.00' LT	BELKNAP ST
C5 - 517	91+86.69	55.00' LT	BELKNAP ST
C5 - 518	91+99.69	55.00' LT	BELKNAP ST
C6 - 519	92+58.22	74.92' LT	BELKNAP ST
C6 - 520	92+95.80	75.74' LT	BELKNAP ST
C6 - 521	92+97.36	40.76' LT	BELKNAP ST
C7 - 522	110+12.96	83.95' LT	S MARINA DR
C7 - 523	110+55.96	84.00' LT	S MARINA DR
C7 - 524	110+12.96	59.95' LT	S MARINA DR
C7 - 525	110+55.96	60.00' LT	S MARINA DR
C8 - 526	111+16.91	100.00' LT	S MARINA DR
C8 - 527	111+76.91	100.00' LT	S MARINA DR
C8 - 528	111+16.91	60.00' LT	S MARINA DR
C8 - 529	111+76.91	60.00' LT	S MARINA DR
C10 - 530	113+74.99	40.00' RT	MIDBLOCK
C10 - 531	114+05.99	40.00' RT	MIDBLOCK
C10 - 532	113+74.97	42.50' RT	MIDBLOCK
C10 - 533	114+05.97	42.50' RT	MIDBLOCK
PN1 - TLE99	103+46.18	40.00' RT	7TH AVE E
PN1 - TLE100	103+29.68	40.00' RT	7TH AVE E
PN1 - TLE102	103+29.69	46.00' RT	7TH AVE E

TLE POINT LOCATIONS			
TLE LOCATION	STATION	OFFSET	SIDE ROAD
PN1 - TLE103	103+46.19	46.00' RT	7TH AVE E
PN2 - TLE101	104+12.18	40.00' RT	7TH AVE E
PN2 - TLE104	104+12.19	47.00' RT	7TH AVE E
PN2 - TLE105	104+33.19	47.00' RT	7TH AVE E
PN2 - TLE106	104+33.18	40.00' RT	7TH AVE E
PN3 - TLE107	106+95.65	40.00' RT	8TH AVE E
PN3 - TLE108	107+12.15	40.00' RT	8TH AVE E
PN3 - TLE109	106+95.66	59.50' RT	8TH AVE E
PN3 - TLE110	107+12.16	59.50' RT	8TH AVE E
PN4 - TLE111	107+78.15	48.50' RT	8TH AVE E
PN4 - TLE112	107+78.15	40.00' RT	8TH AVE E
PN4 - TLE113	107+97.15	48.50' RT	8TH AVE E
PN4 - TLE114	107+97.15	40.00' RT	8TH AVE E
PN5 - TLE116	110+78.15	40.00' RT	9TH AVE E
PN5 - TLE117	110+53.15	40.00' RT	9TH AVE E
PN5 - TLE118	110+53.15	51.50' RT	9TH AVE E
PN5 - TLE119	110+78.15	51.50' RT	9TH AVE E
PN6 - TLE120	111+44.15	46.00' RT	9TH AVE E
PN6 - TLE121	111+44.15	40.00' RT	9TH AVE E
PN6 - TLE122	111+81.65	46.00' RT	9TH AVE E
PN6 - TLE123	111+81.65	40.00' RT	9TH AVE E
PN9 - 210	85+17.62	65.00' LT	2ND AVE E
PN9 - 211	85+06.62	65.00' LT	2ND AVE E
PN9 - 212	85+06.50	52.00' LT	2ND AVE E
PN9 - 213	85+17.50	52.00' LT	2ND AVE E
PN10 - 200	85+16.87	59.84' RT	2ND AVE E
PN10 - 201	85+02.37	59.84' RT	2ND AVE E
PN10 - 202	85+02.40	46.84' RT	2ND AVE E
PN10 - 203	84+89.40	46.84' RT	2ND AVE E
PN10 - 204	84+89.42	39.84' RT	2ND AVE E
PN10 - 205	85+16.92	39.84' RT	2ND AVE E
PN11 - 206	85+89.85	71.84' RT	2ND AVE E
PN11 - 207	85+82.85	71.84' RT	2ND AVE E
PN11 - 208	85+82.92	39.84' RT	2ND AVE E
PN11 - 209	85+89.92	39.84' RT	2ND AVE E
PN12 - 214	93+32.20	51.00' RT	BELKNAP ST
PN12 - 215	93+54.31	40.00' RT	BELKNAP ST

TLE POINT LOCATIONS			
TLE LOCATION	STATION	OFFSET	SIDE ROAD
PN12 - 216	94+05.40	40.00' RT	BELKNAP ST
PN12 - 217	94+05.49	51.00' RT	BELKNAP ST
PN13 - 218	118+10.15	45.50' RT	11TH AVE E
PN13 - 219	117+96.65	45.50' RT	11TH AVE E
PN13 - 220	117+96.65	40.00' RT	11TH AVE E
PN13 - 221	118+10.15	40.00' RT	11TH AVE E
PN14 - 222	118+76.15	40.00' RT	11TH AVE E
PN14 - 223	118+95.65	40.00' RT	11TH AVE E
PN14 - 224	118+95.65	48.00' RT	11TH AVE E
PN14 - 225	118+76.15	48.00' RT	11TH AVE E
PN15 - 226	129+77.50	47.00' RT	14TH AVE E
PN15 - 227	129+56.00	47.00' RT	14TH AVE E
PN15 - 228	129+56.00	40.00' RT	14TH AVE E
PN15 - 229	129+77.50	40.00' RT	14TH AVE E
PN16 - 230	130+37.50	40.00' RT	14TH AVE E
PN16 - 231	130+65.50	40.00' RT	14TH AVE E
PN16 - 232	130+65.51	65.00' RT	14TH AVE E
PN16 - 233	130+37.51	65.00' RT	14TH AVE E
PN17 - 234	164+79.94	48.00' RT	21ST AVE E
PN17 - 235	164+73.44	47.98' RT	21ST AVE E
PN17 - 236	164+73.44	39.98' RT	21ST AVE E
PN17 - 237	164+79.94	40.00' RT	21ST AVE E
PN18 - 238	165+79.94	40.00' RT	21ST AVE E
PN18 - 239	165+83.44	40.00' RT	21ST AVE E
PN18 - 240	165+83.44	45.00' RT	21ST AVE E
PN18 - 241	165+79.94	45.00' RT	21ST AVE E
PN19 - 298	165+79.94	40.00' LT	21ST AVE E
PN19 - 299	165+79.94	48.00' LT	21ST AVE E
PN19 - 300	165+84.94	48.00' LT	21ST AVE E
PN19 - 301	165+84.94	40.00' LT	21ST AVE E
PN21 - 242	174+71.82	40.01' LT	23RD AVE E
PN21 - 243	174+71.82	44.51' LT	23RD AVE E
PN21 - 244	174+81.32	44.50' LT	23RD AVE E
PN21 - 245	174+81.32	40.00' LT	23RD AVE E
PN22 - 246	176+20.59	40.04' LT	23RD AVE E
PN22 - 247	176+20.55	45.50' LT	23RD AVE E
PN22 - 248	176+33.55	45.50' LT	23RD AVE E

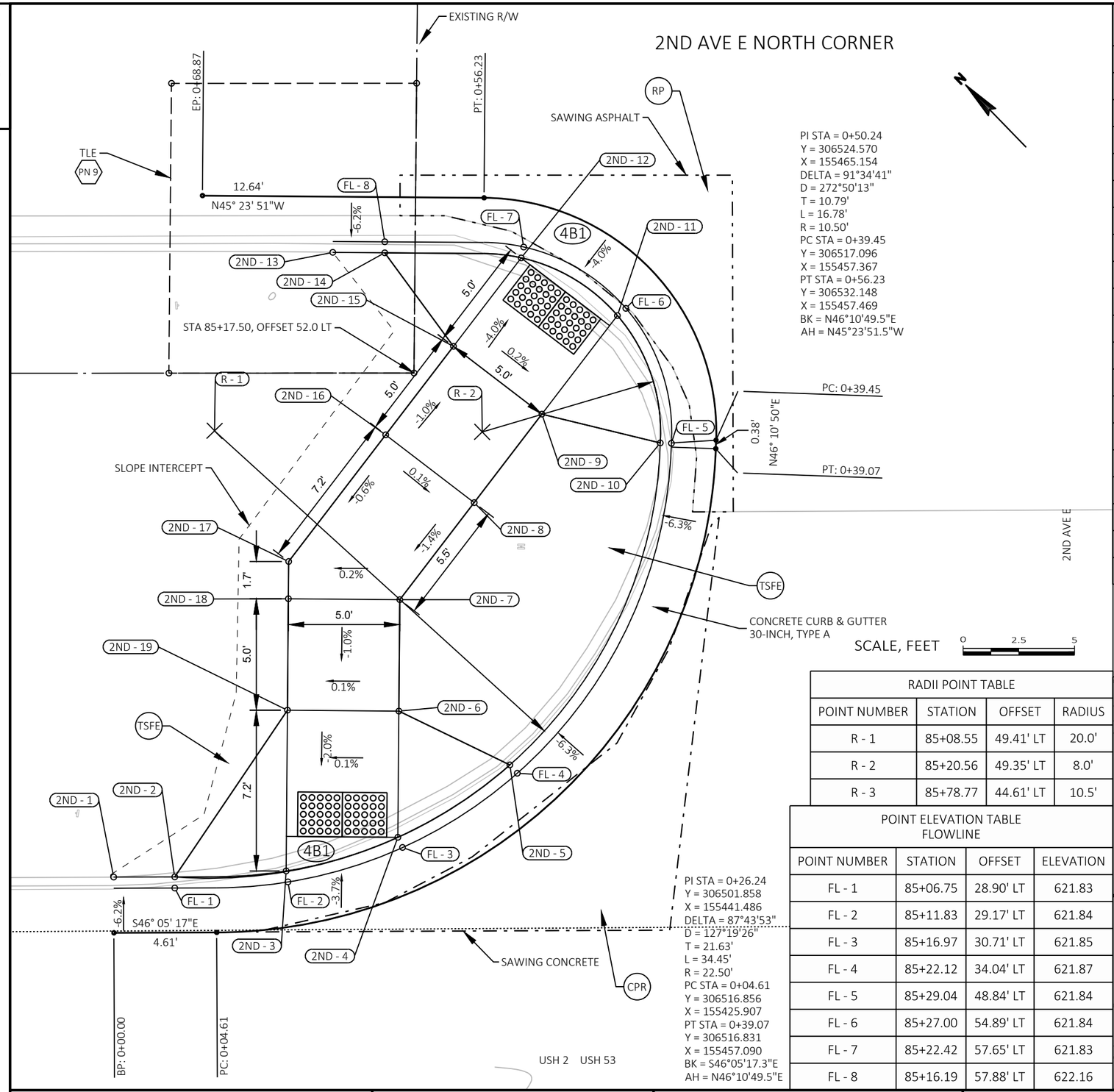
TLE POINT LOCATIONS			
TLE LOCATION	STATION	OFFSET	SIDE ROAD
PN22 - 249	176+33.56	40.00' LT	23RD AVE E
PN23 - 250	175+84.84	61.00' RT	23RD AVE E
PN23 - 251	175+80.85	65.00' RT	23RD AVE E
PN23 - 252	175+80.88	83.63' RT	23RD AVE E
PN23 - 253	175+84.87	83.49' RT	23RD AVE E
PN24 - 258	194+69.73	40.00' LT	27TH AVE E
PN24 - 259	194+69.73	50.50' LT	27TH AVE E
PN24 - 260	194+82.73	50.50' LT	27TH AVE E
PN24 - 261	194+82.73	40.00' LT	27TH AVE E
PN25 - 262	195+82.56	40.00' LT	27TH AVE E
PN25 - 263	195+82.54	43.50' LT	27TH AVE E
PN25 - 264	195+89.54	43.50' LT	27TH AVE E
PN25 - 265	195+89.56	40.00' LT	27TH AVE E
PN26 - 266	194+82.65	61.00' RT	27TH AVE E
PN26 - 267	194+76.65	61.00' RT	27TH AVE E
PN26 - 268	194+76.67	40.00' RT	27TH AVE E
PN26 - 269	194+82.67	40.00' RT	27TH AVE E
PN26 - 270	195+82.65	40.00' RT	27TH AVE E
PN26 - 271	195+91.65	40.00' RT	27TH AVE E
PN26 - 272	195+91.64	47.00' RT	27TH AVE E
PN26 - 273	195+82.64	47.00' RT	27TH AVE E
PN28 - 274	199+81.82	55.00' RT	28TH AVE E
PN28 - 275	199+68.32	55.00' RT	28TH AVE E
PN28 - 276	199+68.32	40.00' RT	28TH AVE E
PN28 - 277	199+81.82	40.00' RT	28TH AVE E
PN29 - 278	200+81.87	40.00' RT	28TH AVE E
PN29 - 279	200+89.87	40.00' RT	28TH AVE E
PN29 - 280	200+89.87	47.00' RT	28TH AVE E
PN29 - 281	200+81.87	47.00' RT	28TH AVE E
PN30 - 282	204+81.83	47.50' RT	29TH AVE E
PN30 - 283	204+74.83	47.50' RT	29TH AVE E
PN30 - 284	204+74.83	40.00' RT	29TH AVE E
PN30 - 285	204+81.83	40.00' RT	29TH AVE E
PN31 - 286	205+81.80	40.00' RT	29TH AVE E
PN31 - 287	205+87.80	40.00' RT	29TH AVE E
PN31 - 288	205+87.80	45.25' RT	29TH AVE E
PN31 - 289	205+81.80	45.25' RT	29TH AVE E

TLE POINT LOCATIONS			
TLE LOCATION	STATION	OFFSET	SIDE ROAD
PN33 - 290	214+81.75	46.00' RT	31ST AVE E
PN33 - 291	214+70.25	46.00' RT	31ST AVE E
PN33 - 292	214+70.25	40.00' RT	31ST AVE E
PN33 - 293	214+81.75	40.00' RT	31ST AVE E

STATIONS & OFFSETS REFERENCE US 2 / US 53

2

2ND AVE E NORTH CORNER



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L = 16.78'
R = 10.50'
PC STA = 0+39.45
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X = 155457.367
PT STA = 0+56.23
Y = 306532.148
X = 155457.469
BK = N46°10'49.5"E
AH = N45°23'51.5"W

PI STA = 0+26.24
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D = 127°19'26"
T = 21.63'
L = 34.45'
R = 22.50'
PC STA = 0+04.61
Y = 306516.856
X = 155425.907
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Y = 306516.831
X = 155457.090
BK = S46°05'17.3"E
AH = N46°10'49.5"E

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
2ND - 1	85+04.01	29.39' LT	622.28
2ND - 2	85+06.75	29.40' LT	621.92
2ND - 3	85+11.75	29.66' LT	621.84
2ND - 4	85+16.76	31.17' LT	621.85
2ND - 5	85+21.79	34.41' LT	621.92
2ND - 6	85+16.81	36.83' LT	621.97
2ND - 7	85+16.85	41.83' LT	622.02
2ND - 8	85+20.19	46.18' LT	622.09
2ND - 9	85+23.24	50.15' LT	622.04
2ND - 10	85+28.54	48.86' LT	622.34
2ND - 11	85+26.63	54.57' LT	621.84
2ND - 12	85+22.31	57.16' LT	621.83
2ND - 13	85+13.86	57.41' LT	622.23
2ND - 14	85+16.19	57.39' LT	622.33
2ND - 15	85+19.27	53.19' LT	622.03
2ND - 16	85+16.23	49.22' LT	622.08
2ND - 17	85+11.87	43.54' LT	622.04
2ND - 18	85+11.86	41.87' LT	622.02
2ND - 19	85+11.81	36.87' LT	621.97

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 1	85+08.55	49.41' LT	20.0'
R - 2	85+20.56	49.35' LT	8.0'
R - 3	85+78.77	44.61' LT	10.5'

POINT ELEVATION TABLE
FLOWLINE

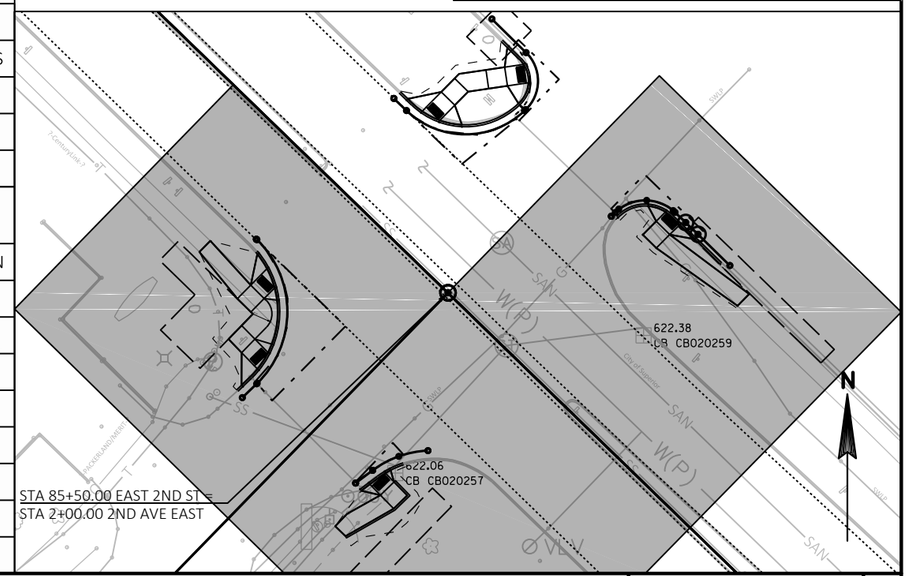
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	85+06.75	28.90' LT	621.83
FL - 2	85+11.83	29.17' LT	621.84
FL - 3	85+16.97	30.71' LT	621.85
FL - 4	85+22.12	34.04' LT	621.87
FL - 5	85+29.04	48.84' LT	621.84
FL - 6	85+27.00	54.89' LT	621.84
FL - 7	85+22.42	57.65' LT	621.83
FL - 8	85+16.19	57.88' LT	622.16

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 2ND AVE E NORTH CORNER	SHEET 13	E

2

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK

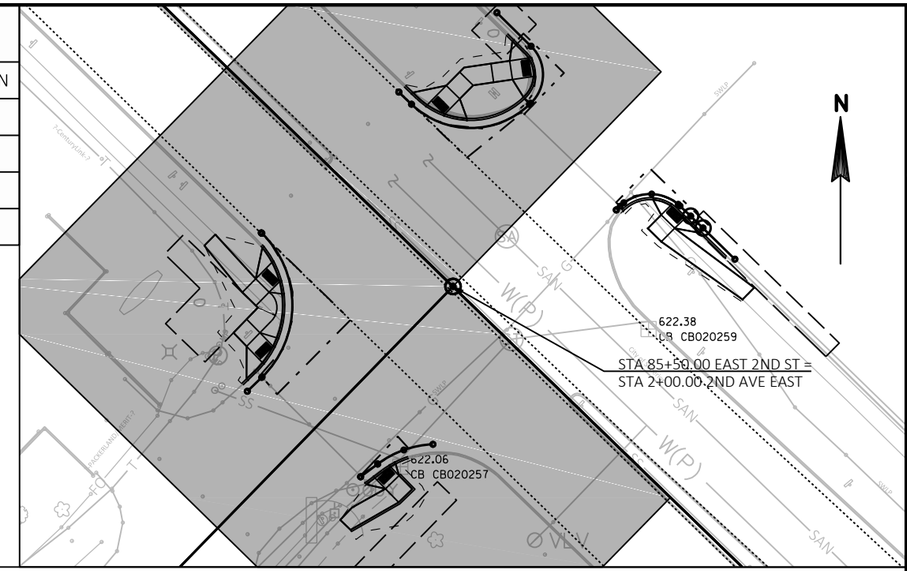
POINT NUMBER	STATION	OFFSET	ELEVATION
2ND - 20	85+68.40	45.47' LT	622.87
2ND - 21	85+76.29	51.83' LT	622.77
2ND - 22	85+76.25	46.83' LT	622.85
2ND - 23	85+81.25	46.79' LT	622.87
2ND - 24	85+81.29	51.79' LT	622.80
2ND - 25	85+96.34	55.49' LT	623.08
2ND - 26	85+86.92	55.54' LT	623.07
2ND - 27	85+81.42	55.50' LT	622.56
2ND - 28	85+76.33	55.28' LT	622.53
2ND - 29	85+71.98	53.21' LT	623.00
2ND - 30	86+07.27	50.76' LT	623.22
2ND - 31	86+07.27	55.12' LT	623.02

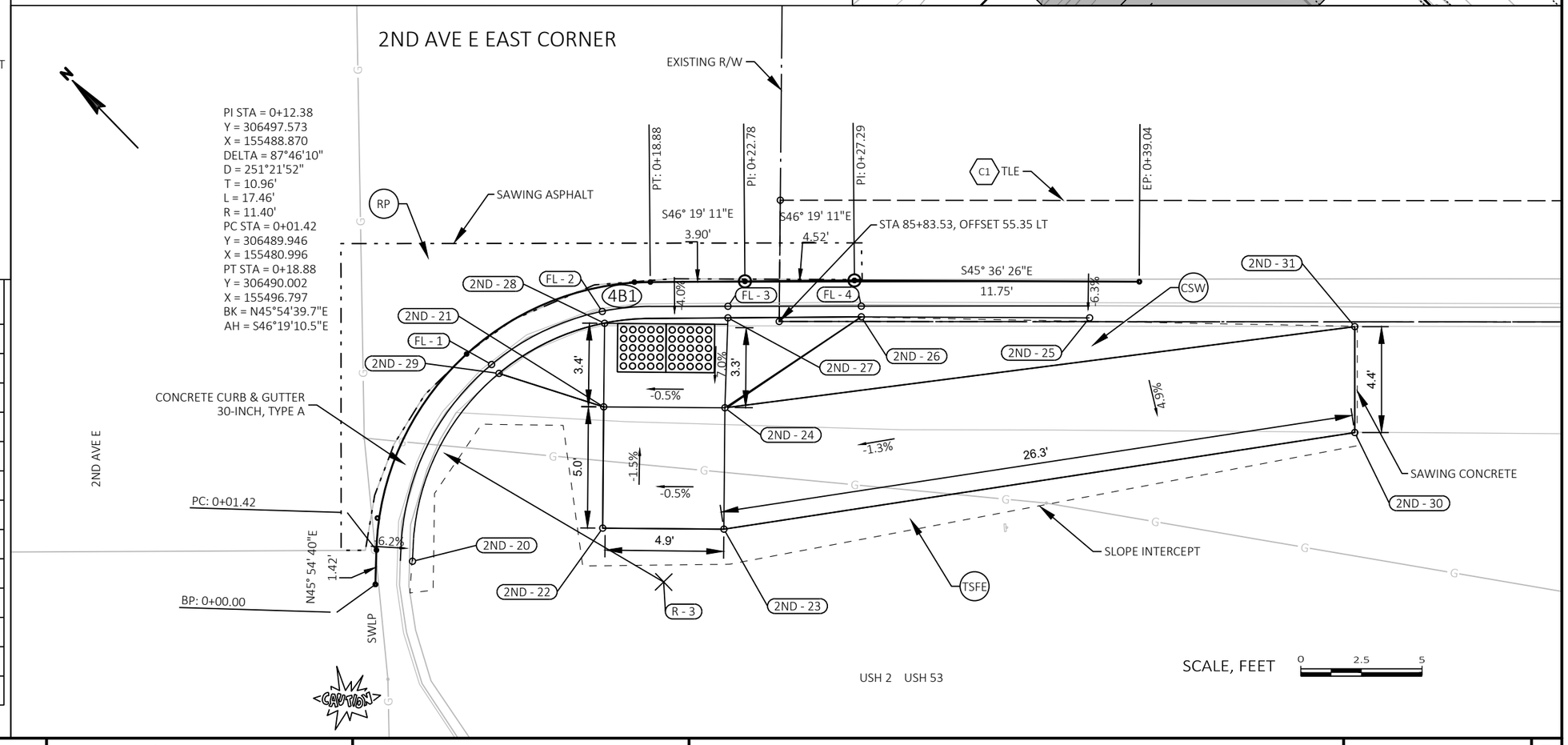
RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 1	85+08.55	49.41' LT	20.0'
R - 2	85+20.56	49.35' LT	8.0'
R - 3	85+78.77	44.61' LT	10.5'

POINT ELEVATION TABLE FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	85+71.67	53.58' LT	622.50
FL - 2	85+76.23	55.76' LT	622.52
FL - 3	85+81.42	55.97' LT	622.55
FL - 4	85+86.92	55.98' LT	623.07





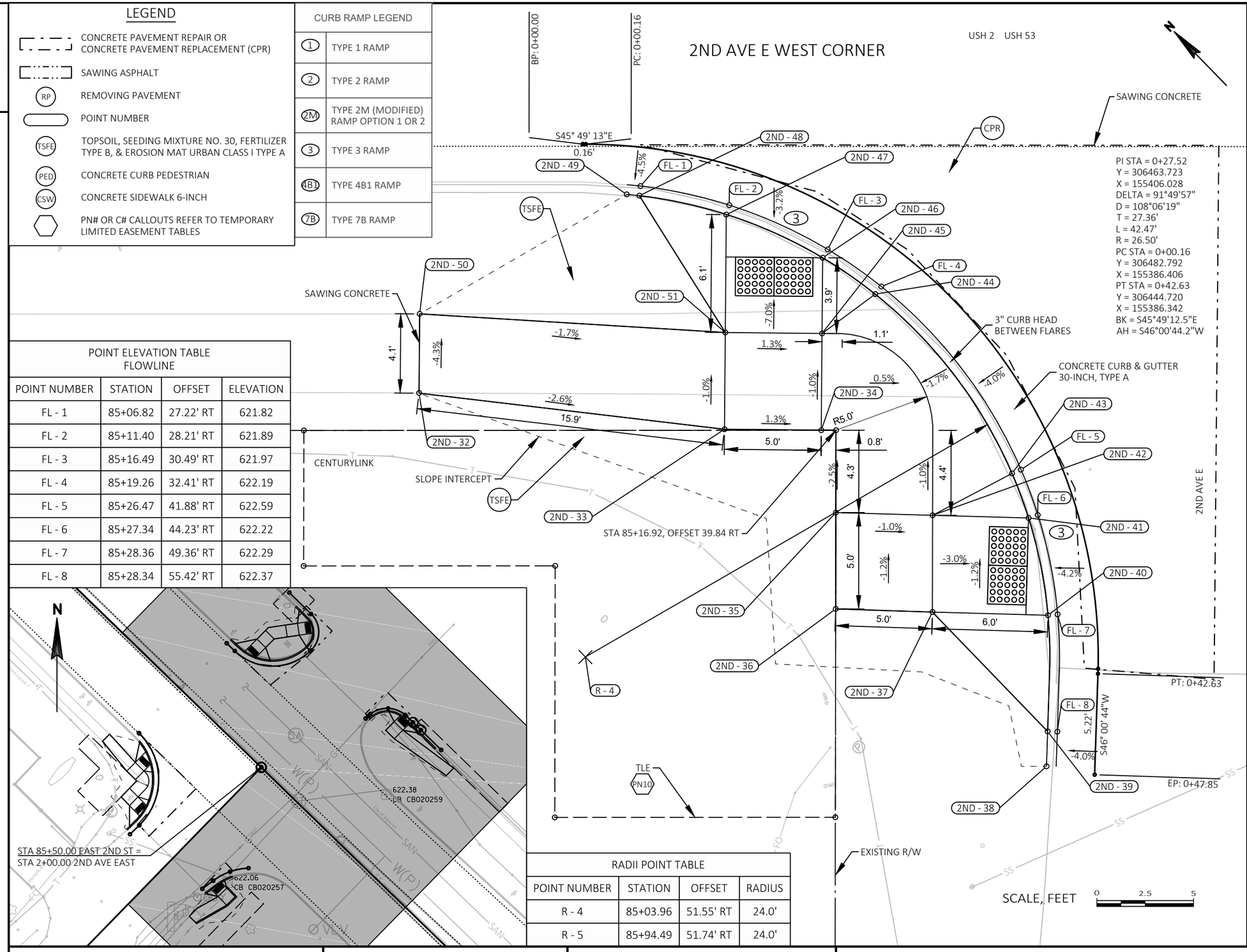
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 2ND AVE E EAST CORNER	SHEET 14	E

2ND AVE E WEST CORNER

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

CURB RAMP LEGEND	
(1)	TYPE 1 RAMP
(2)	TYPE 2 RAMP
(2M)	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
(3)	TYPE 3 RAMP
(4B1)	TYPE 4B1 RAMP
(7B)	TYPE 7B RAMP



POINT ELEVATION TABLE FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	85+06.82	27.22' RT	621.82
FL - 2	85+11.40	28.21' RT	621.89
FL - 3	85+16.49	30.49' RT	621.97
FL - 4	85+19.26	32.41' RT	622.19
FL - 5	85+26.47	41.88' RT	622.59
FL - 6	85+27.34	44.23' RT	622.22
FL - 7	85+28.36	49.36' RT	622.29
FL - 8	85+28.34	55.42' RT	622.37

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 4	85+03.96	51.55' RT	24.0'
R - 5	85+94.49	51.74' RT	24.0'

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
2ND - 32	84+95.37	37.90' RT	622.65
2ND - 33	85+11.15	39.78' RT	622.24
2ND - 34	85+16.15	39.84' RT	622.30
2ND - 35	85+16.91	44.09' RT	622.43
2ND - 36	85+16.90	49.07' RT	622.49
2ND - 37	85+21.90	49.24' RT	622.44
2ND - 38	85+27.79	57.21' RT	622.90
2ND - 39	85+27.84	55.41' RT	622.47
2ND - 40	85+27.86	49.40' RT	622.30
2ND - 41	85+26.86	44.37' RT	622.23
2ND - 42	85+21.91	44.23' RT	622.38
2ND - 43	85+26.01	42.08' RT	622.59
2ND - 44	85+18.95	32.80' RT	622.27
2ND - 45	85+16.20	34.84' RT	622.25
2ND - 46	85+16.23	30.92' RT	621.97
2ND - 47	85+11.25	28.69' RT	621.90
2ND - 48	85+06.76	27.71' RT	622.28
2ND - 49	85+06.11	27.65' RT	622.30
2ND - 50	84+95.40	33.82' RT	622.48
2ND - 51	85+11.20	34.78' RT	622.19

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

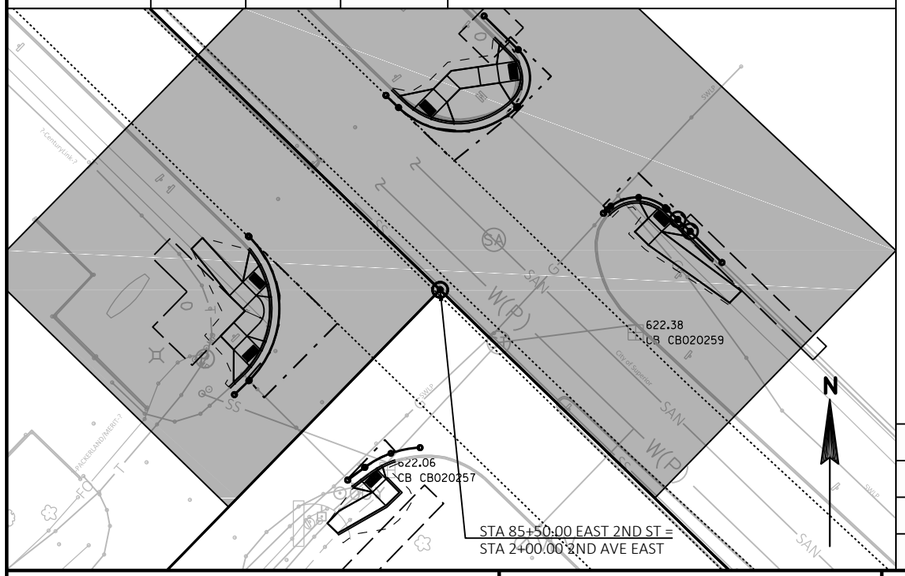
2

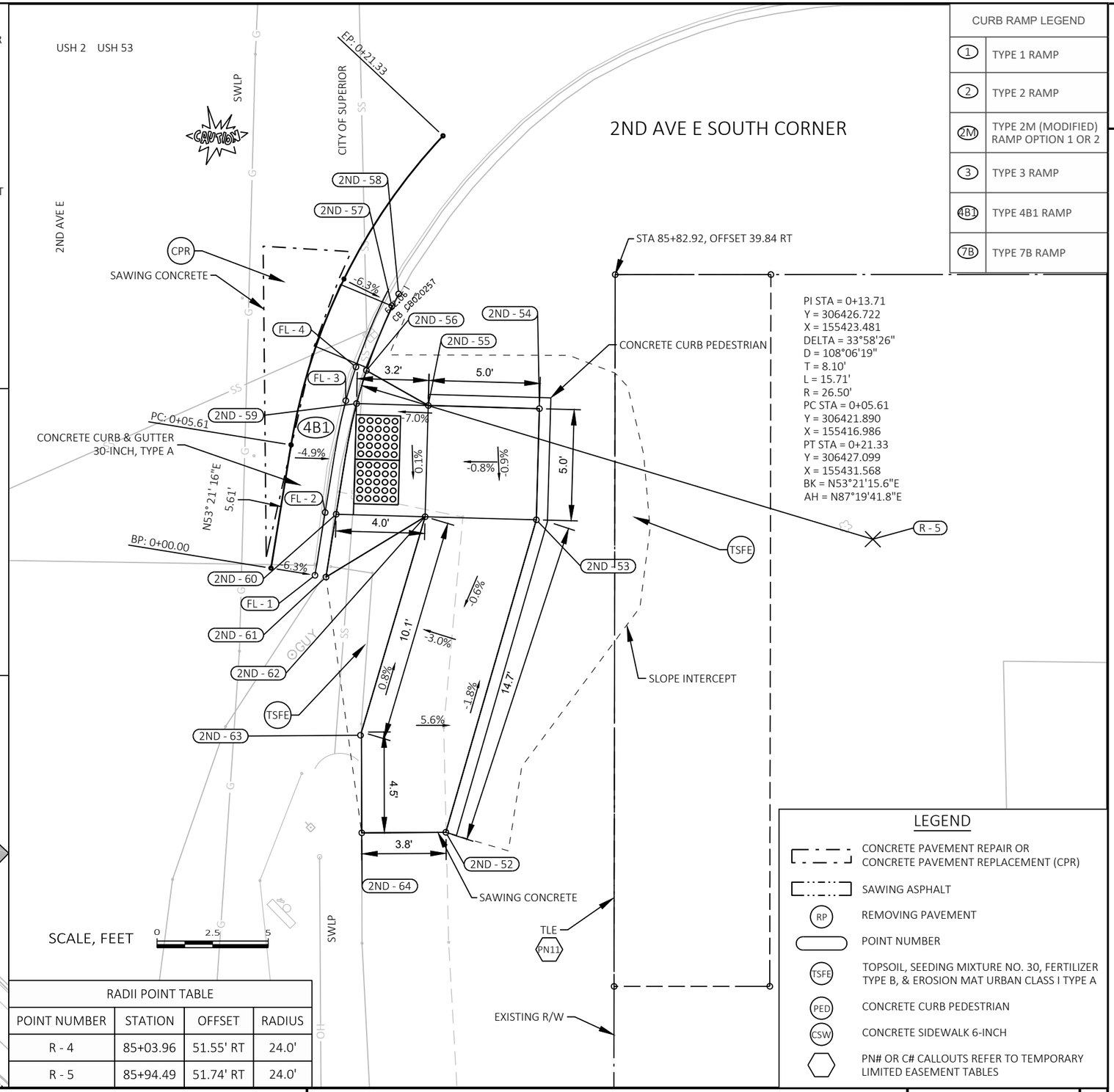
POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
2ND - 52	85+75.29	64.91' RT	622.73
2ND - 53	85+79.36	50.86' RT	622.47
2ND - 54	85+79.51	45.86' RT	622.52
2ND - 55	85+74.51	45.72' RT	622.46
2ND - 56	85+71.73	44.14' RT	622.74
2ND - 57	85+72.87	41.24' RT	622.69
2ND - 58	85+73.18	40.70' RT	622.69
2ND - 59	85+71.28	45.63' RT	622.24
2ND - 60	85+70.36	50.60' RT	622.21
2ND - 61	85+69.90	53.43' RT	622.69
2ND - 62	85+74.37	50.72' RT	622.45
2ND - 63	85+71.45	60.54' RT	622.36
2ND - 64	85+71.51	64.93' RT	622.47

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	85+69.41	53.35' RT	622.19
FL - 2	85+69.87	50.52' RT	622.20
FL - 3	85+70.80	45.50' RT	622.23
FL - 4	85+71.25	43.98' RT	622.24

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.



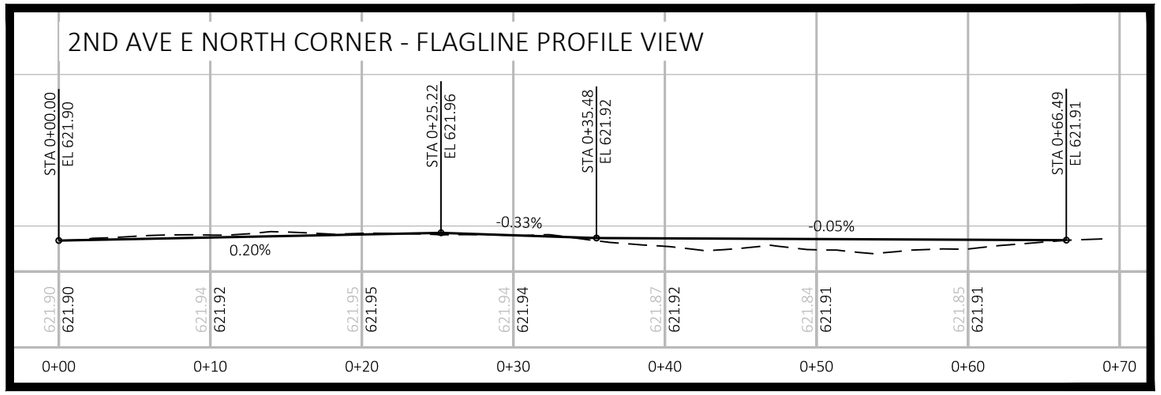


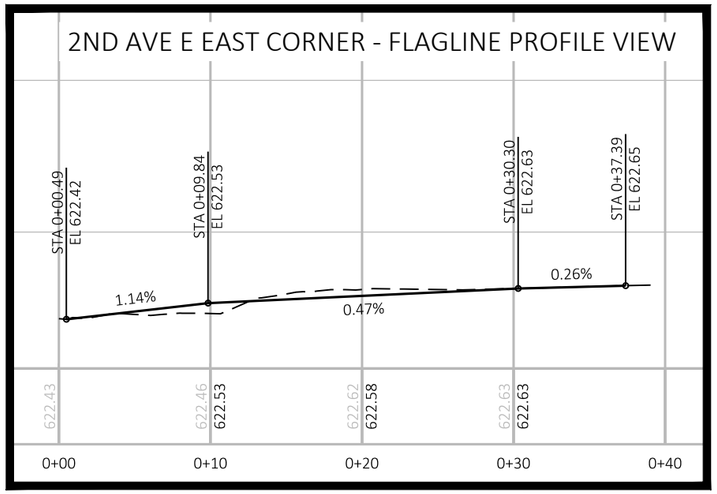
CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

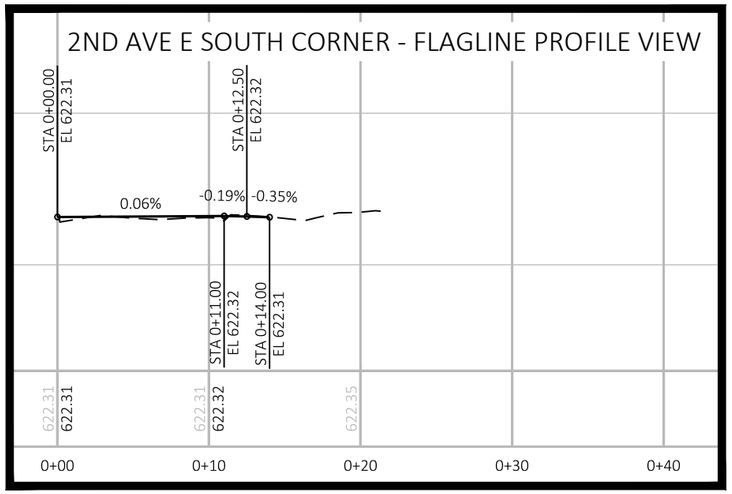
LEGEND

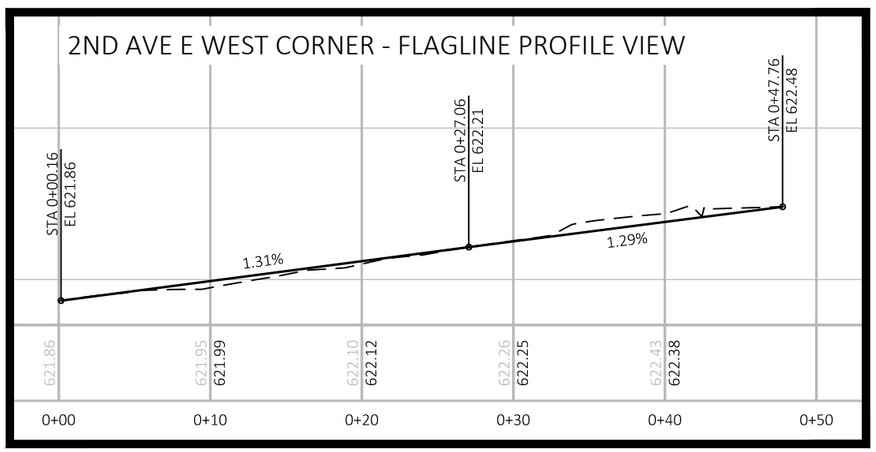
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 4	85+03.96	51.55' RT	24.0'
R - 5	85+94.49	51.74' RT	24.0'









NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
NM - 1	91+39.18	40.85' LT	624.89
NM - 2	91+44.18	40.88' LT	624.43
NM - 3	91+49.18	40.90' LT	624.41
NM - 4	91+54.18	40.92' LT	624.84
NM - 5	91+36.66	50.92' LT	625.02
NM - 6	91+39.24	50.43' LT	625.01
NM - 7	91+44.23	49.46' LT	625.00
NM - 8	91+49.23	49.42' LT	624.99
NM - 9	91+54.24	50.43' LT	624.98
NM - 10	91+36.65	55.41' LT	625.08
NM - 11	91+44.28	55.42' LT	625.10
NM - 12	91+49.28	55.42' LT	625.08

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
NM - 13	92+04.99	82.89' LT	624.02
NM - 14	92+04.90	66.05' LT	624.35
NM - 15	92+04.30	60.46' LT	624.51
NM - 16	91+99.55	50.45' LT	624.11
NM - 17	91+95.74	46.56' LT	625.08
NM - 18	91+91.15	43.56' LT	624.66
NM - 19	92+02.61	55.45' LT	624.06
NM - 20	91+95.74	50.45' LT	624.26
NM - 21	91+95.74	55.45' LT	624.21
NM - 22	91+94.56	65.91' LT	624.29
NM - 23	91+94.19	58.80' LT	624.29
NM - 24	91+90.74	55.45' LT	625.08
NM - 25	91+90.74	50.45' LT	624.34

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	91+39.18	40.35' LT	624.39
FL - 2	91+44.18	40.38' LT	624.42
FL - 3	91+49.18	40.40' LT	624.40
FL - 4	91+54.18	40.43' LT	624.51

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 5	91+96.06	46.18' LT	0.00
FL - 6	91+99.94	50.15' LT	0.00
FL - 7	92+03.05	55.25' LT	625.08
FL - 8	92+04.78	60.35' LT	624.51

LEGEND

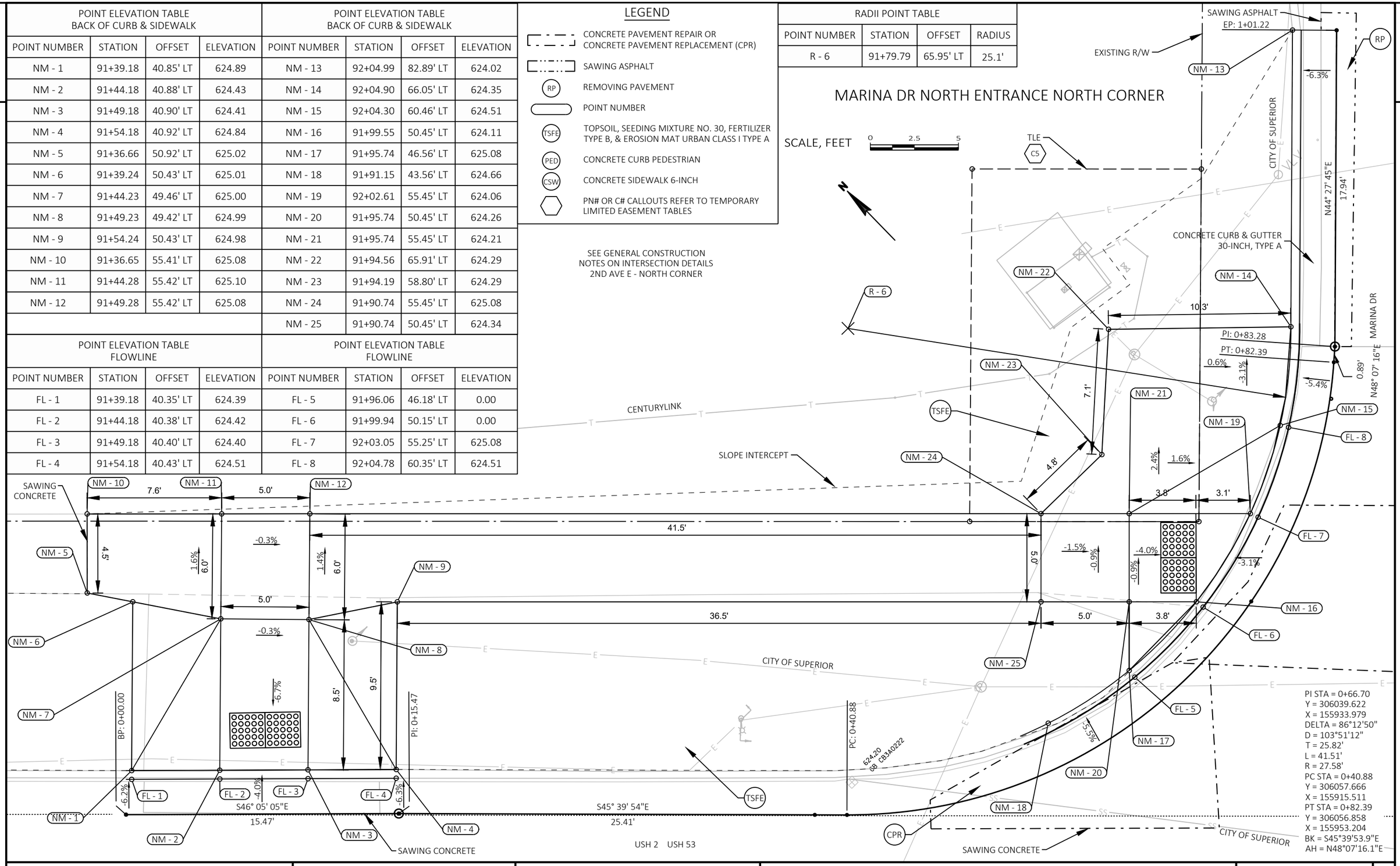
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

SEE GENERAL CONSTRUCTION NOTES ON INTERSECTION DETAILS 2ND AVE E - NORTH CORNER

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 6	91+79.79	65.95' LT	25.1'

MARINA DR NORTH ENTRANCE NORTH CORNER

SCALE, FEET 0 2.5 5



PI STA = 0+66.70
Y = 306039.622
X = 155933.979
DELTA = 86°12'50"
D = 103°51'12"
T = 25.82'
L = 41.51'
R = 27.58'
PC STA = 0+40.88
Y = 306057.666
X = 155915.511
PT STA = 0+82.39
Y = 306056.858
X = 155953.204
BK = S45°39'53.9"E
AH = N48°07'16.1"E

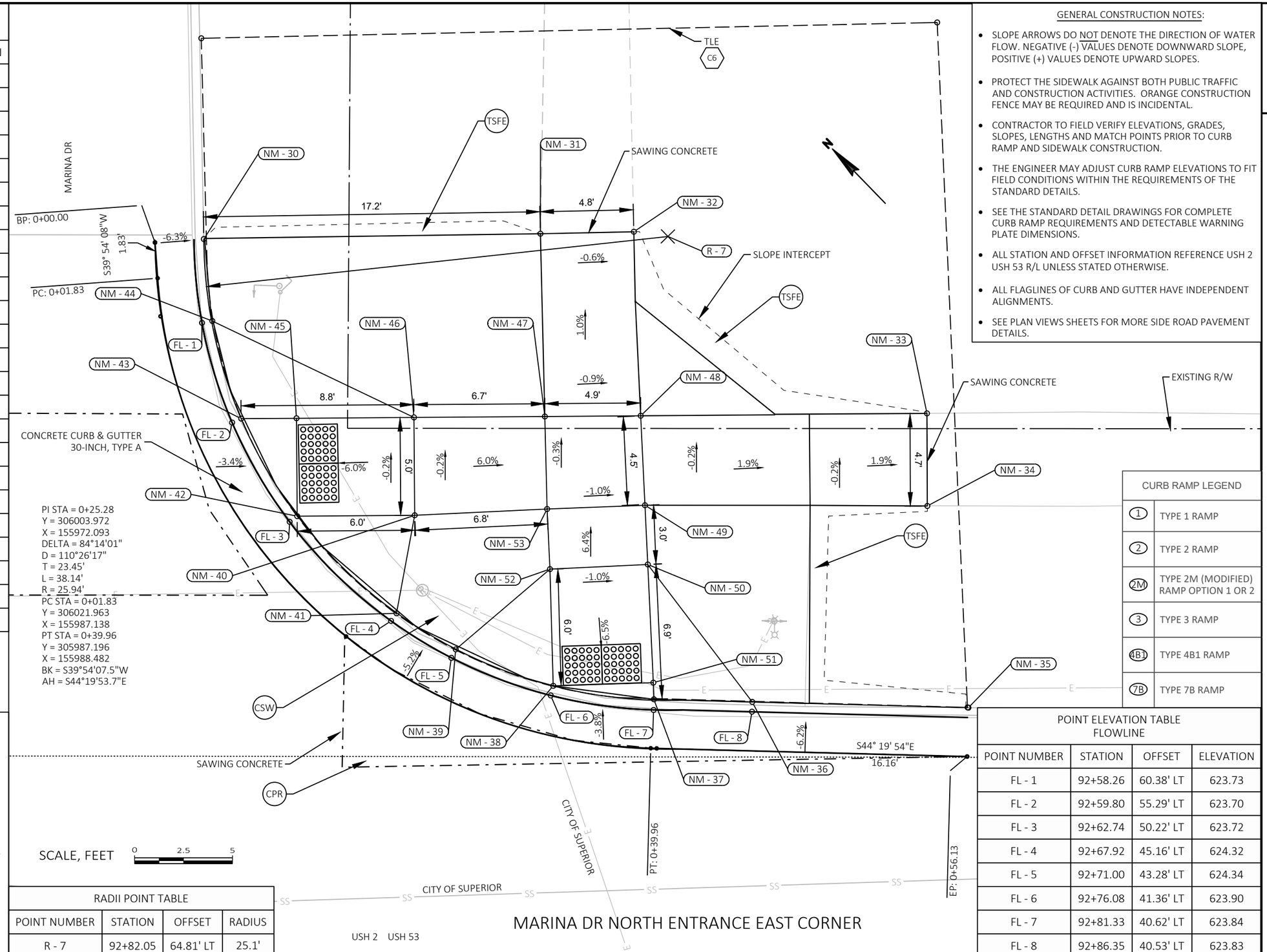
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - MARINA DR - NORTH ENTRANCE NORTH CORNER	SHEET 18	E

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
NM - 30	92+58.35	64.66' LT	624.16
NM - 31	92+75.54	64.94' LT	624.58
NM - 32	92+80.31	65.05' LT	624.55
NM - 33	92+95.29	55.77' LT	624.70
NM - 34	92+95.30	51.04' LT	624.72
NM - 35	92+97.41	40.74' LT	623.87
NM - 36	92+86.37	41.03' LT	624.33
NM - 37	92+81.34	41.16' LT	623.84
NM - 38	92+76.20	41.85' LT	623.91
NM - 39	92+71.22	43.71' LT	624.30
NM - 40	92+69.12	50.56' LT	624.09
NM - 41	92+68.20	45.55' LT	623.73
NM - 42	92+63.13	50.51' LT	623.73
NM - 43	92+60.26	55.49' LT	623.71
NM - 44	92+58.79	60.48' LT	624.23
NM - 45	92+63.09	55.51' LT	623.72
NM - 46	92+69.09	55.56' LT	624.08
NM - 47	92+75.77	55.61' LT	624.48
NM - 48	92+80.67	55.65' LT	624.43
NM - 49	92+80.88	51.08' LT	624.44
NM - 50	92+81.03	48.05' LT	624.24
NM - 51	92+81.32	42.02' LT	623.85
NM - 52	92+76.03	47.81' LT	624.29
NM - 53	92+75.89	50.88' LT	624.49

STATIONS & OFFSET REFERENCE US 2 / US 53 ALIGNMENT

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES



GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 7	92+82.05	64.81' LT	25.1'

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	92+58.26	60.38' LT	623.73
FL - 2	92+59.80	55.29' LT	623.70
FL - 3	92+62.74	50.22' LT	623.72
FL - 4	92+67.92	45.16' LT	624.32
FL - 5	92+71.00	43.28' LT	624.34
FL - 6	92+76.08	41.36' LT	623.90
FL - 7	92+81.33	40.62' LT	623.84
FL - 8	92+86.35	40.53' LT	623.83

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - MARINA DR - NORTH ENTRANCE EAST CORNER	SHEET 19 E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 7_NMarinaDr_E
PLOT DATE : 9/13/2019 11:10 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
B - 1	91+33.42	28.34' RT	625.25
B - 2	91+33.26	31.73' RT	625.29
B - 3	91+33.01	36.74' RT	625.34
B - 4	91+39.14	32.83' RT	625.18
B - 5	91+38.71	37.87' RT	625.22
B - 6	91+39.01	28.72' RT	625.05
B - 7	91+44.00	29.45' RT	624.79
B - 8	91+43.99	30.56' RT	624.86
B - 9	91+43.93	34.19' RT	625.10
B - 10	91+43.85	39.46' RT	625.11
B - 11	91+49.00	30.64' RT	624.78
B - 12	91+54.00	32.32' RT	625.33
B - 13	91+48.99	34.27' RT	625.02
B - 14	91+48.99	36.14' RT	625.03
B - 15	91+48.97	41.64' RT	625.06
B - 16	91+58.50	34.30' RT	625.23
B - 17	91+55.84	39.70' RT	625.25
B - 18	91+53.25	43.97' RT	625.26
B - 19	91+64.27	37.56' RT	625.15
B - 20	91+60.27	42.66' RT	625.17
B - 21	91+57.30	46.68' RT	625.18
B - 22	91+71.00	42.62' RT	624.45
B - 23	91+75.72	47.26' RT	624.53
B - 24	91+70.36	47.68' RT	624.80
B - 25	91+66.51	47.99' RT	624.85
B - 26	91+59.68	48.55' RT	625.95

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK

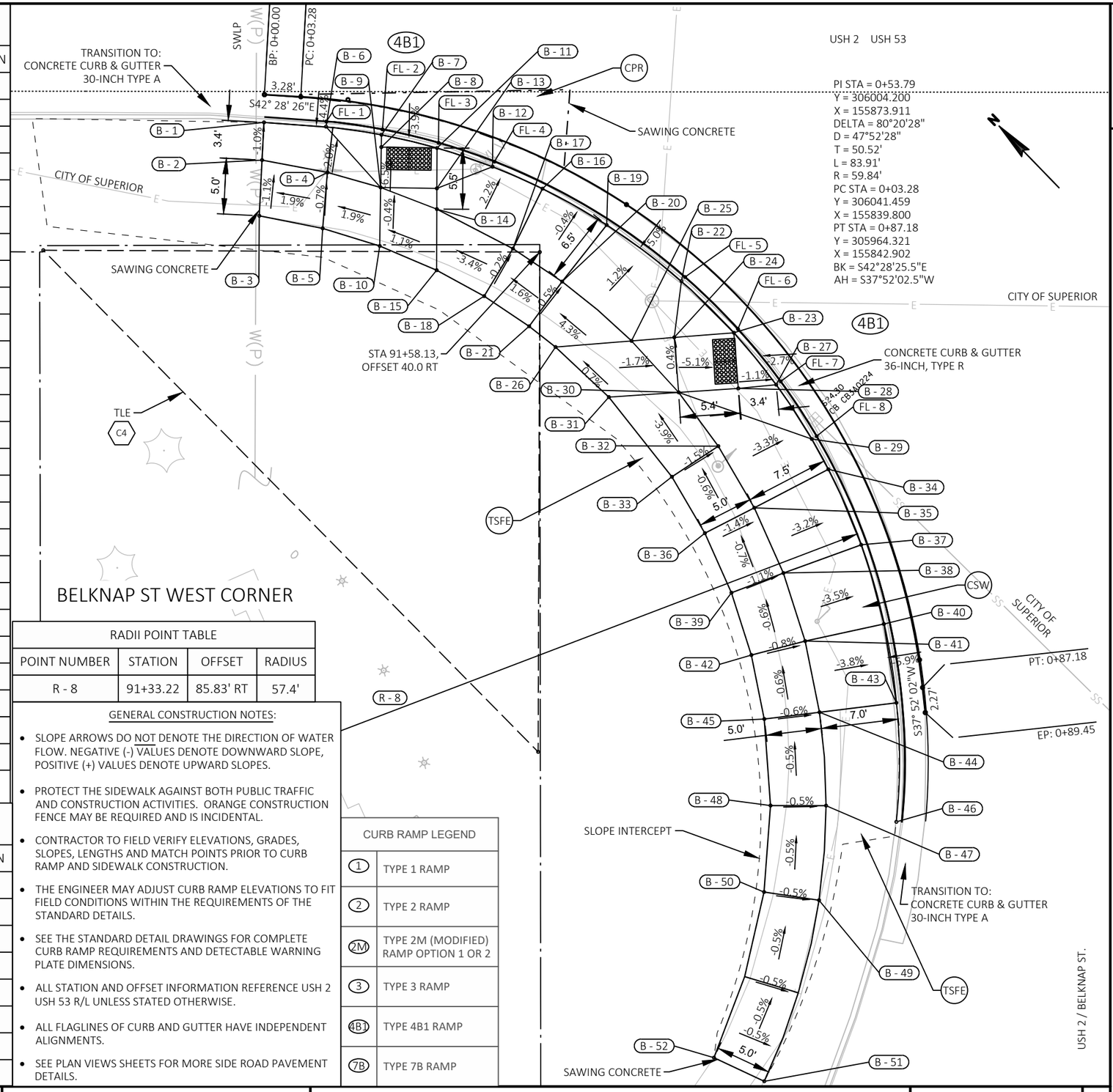
POINT NUMBER	STATION	OFFSET	ELEVATION
B - 27	91+79.53	51.93' RT	624.47
B - 28	91+76.13	52.26' RT	624.51
B - 29	91+82.74	56.83' RT	624.53
B - 30	91+70.76	52.63' RT	624.77
B - 31	91+64.48	53.06' RT	624.90
B - 32	91+74.33	57.47' RT	625.09
B - 33	91+70.16	60.23' RT	625.17
B - 34	91+84.23	59.55' RT	624.88
B - 35	91+77.57	63.02' RT	625.12
B - 36	91+73.12	65.30' RT	625.19
B - 37	91+87.19	66.34' RT	624.92
B - 38	91+80.19	68.89' RT	625.17
B - 39	91+75.52	70.67' RT	625.22
B - 40	91+89.24	73.47' RT	624.94
B - 41	91+82.15	75.01' RT	625.21
B - 42	91+77.31	76.27' RT	625.25
B - 43	91+90.36	80.57' RT	624.89
B - 44	91+83.44	81.42' RT	625.25
B - 45	91+78.48	82.03' RT	625.28
B - 46	91+90.36	91.29' RT	624.77
B - 47	91+84.04	89.83' RT	625.30
B - 48	91+79.04	89.82' RT	625.32
B - 49	91+83.41	98.34' RT	625.34
B - 50	91+78.46	97.61' RT	625.36
B - 51	91+78.49	114.65' RT	625.41
B - 52	91+73.96	112.53' RT	625.44

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	91+39.05	28.25' RT	625.37
FL - 2	91+44.10	28.96' RT	624.87
FL - 3	91+49.13	30.16' RT	624.86
FL - 4	91+54.17	31.86' RT	625.28
FL - 5	91+71.33	42.24' RT	624.89
FL - 6	91+76.09	46.92' RT	624.55
FL - 7	91+79.94	51.63' RT	624.47
FL - 8	91+83.18	56.57' RT	624.44



BELKNAP ST WEST CORNER

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 8	91+33.22	85.83' RT	57.4'

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

CURB RAMP LEGEND	
(1)	TYPE 1 RAMP
(2)	TYPE 2 RAMP
(2M)	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
(3)	TYPE 3 RAMP
(4B1)	TYPE 4B1 RAMP
(7B)	TYPE 7B RAMP

NOTE: TIE THE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.

PI STA = 0+66.30
Y = 305942.158
X = 155940.833
DELTA = 69°57'02"
D = 36°43'41"
T = 54.57'
L = 95.23'
R = 78.00'
PC STA = 0+11.73
Y = 305917.286
X = 155892.265
PT STA = 1+06.96
Y = 305905.060
X = 155980.848
BK = N62°52'57.5"E
AH = S47°10'00.1"E

USH 2 USH 53

UNLOCATED UTILITY:
PACKERLAND/MERIT
CROSSING USH 2 / USH 53

SAWING CONCRETE
CONCRETE CURB & GUTTER
36-INCH, TYPE R
CPR
PT: 1+06.96
CITY OF SUPERIOR
PI: 1+28.25
SWLP
PI: 1+48.25
PI: 1+68.25
PI: 1+88.25
PI: 1+95.70
EP: 2+04.72
S47° 10' 00"E
21.29'
S45° 41' 38"E
20.00'
S45° 33' 45"E
20.00'
S45° 40' 48"E
19.99'
7.45'
S42° 38' 18"E
S45° 48' 59"E
9.02'
B - 53 B - 54 B - 55 B - 56 B - 57 B - 58 B - 59 B - 60 B - 61 B - 62 B - 63 B - 64 B - 65 B - 66 B - 67 B - 68 B - 69 B - 70 B - 71 B - 72 B - 73 B - 74 B - 75 B - 76 B - 77 B - 78 B - 79 B - 80 B - 81 B - 82 B - 83 B - 84 B - 85 B - 86 B - 87 B - 88 B - 89
15.1'
14.8'
13.5'
9.9'
5.4'
10.2'
5.0'
8.8'
-0.2%
-0.3%
-1.0%
-1.2%
-0.5%
-0.1%
-0.4%
-2.6%
-6.3%
-1.4%
-0.8%
-5.2%
-1.7%
N56° 23' 30"E
8.82'
N56° 23' 30"E
2.91'
PC: 0+11.73
PI: 0+02.91
BP: 0+00.00
R - 9
SAWING CONCRETE
EXISTING R/W
TRANSITION TO:
CONCRETE CURB & GUTTER
30-INCH TYPE A
STA 93+54.31, OFFSET 40.0 RT
MATCH PED. CURB TO EXISTING
TLE
PN12
SAWING CONCRETE
TRANSITION TO:
CONCRETE CURB & GUTTER
30-INCH TYPE A
PACKERLAND/MERIT VAULT BOX
MUST BE MOVED PRIOR TO OR
DURING CONSTRUCTION.
STA 93+32.20,
OFFSET 51.0 RT
PED. CURB REACHES
FULL HEIGHT OF 6 IN.
BEGIN PEDESTRIAN CURB TAPER
SLOPE INTERCEPT
TSFE
USH 2 / BELKNAP ST.
CITY OF SUPERIOR
SCALE, FEET 0 7.5 15

SCALE, FEET 0 2.5 5

FL - 1 FL - 2 FL - 3 FL - 4 FL - 5 FL - 6 FL - 7 FL - 8
B - 56 B - 60 B - 70
13.9'
5.1'
3.1'
5.0'
4.3'
4.9'
4.2'
5.6'
5.1'
16.0'
-5.0%
-3.6%
-4.0%
-1.4%
-0.8%
-1.0%
-1.5%
-1.3%
-2.9%
-6.3%

SEE GENERAL CONSTRUCTION
NOTES ON INTERSECTION DETAILS
2ND AVE E - NORTH CORNER

BELKNAP ST SOUTH CORNER

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 9	93+34.78	103.54' RT	75.0'

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	92+71.71	60.99' RT	624.72
FL - 2	92+72.70	59.56' RT	624.71
FL - 3	92+76.34	54.82' RT	624.69
FL - 4	92+77.53	53.42' RT	624.69
FL - 5	92+78.93	51.87' RT	624.68
FL - 6	92+80.38	50.35' RT	624.68
FL - 7	92+85.22	45.81' RT	624.66
FL - 8	92+86.68	44.59' RT	624.65

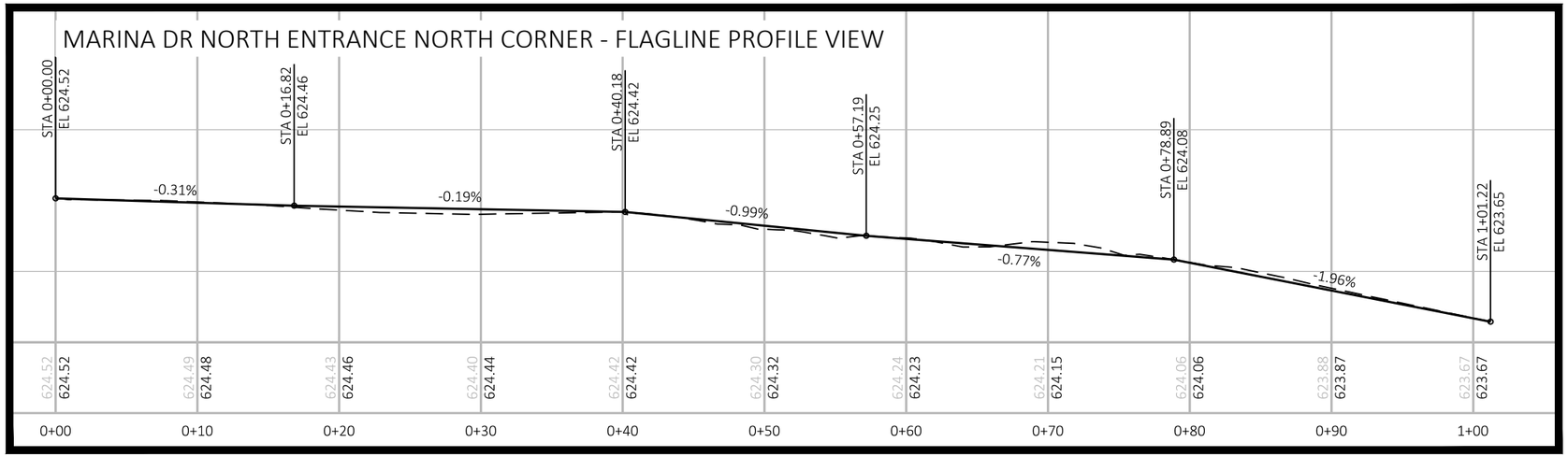
LEGEND

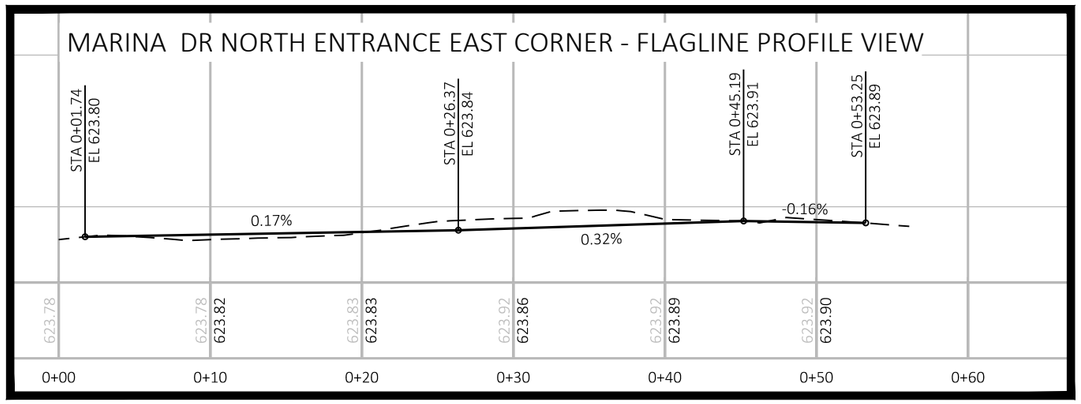
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

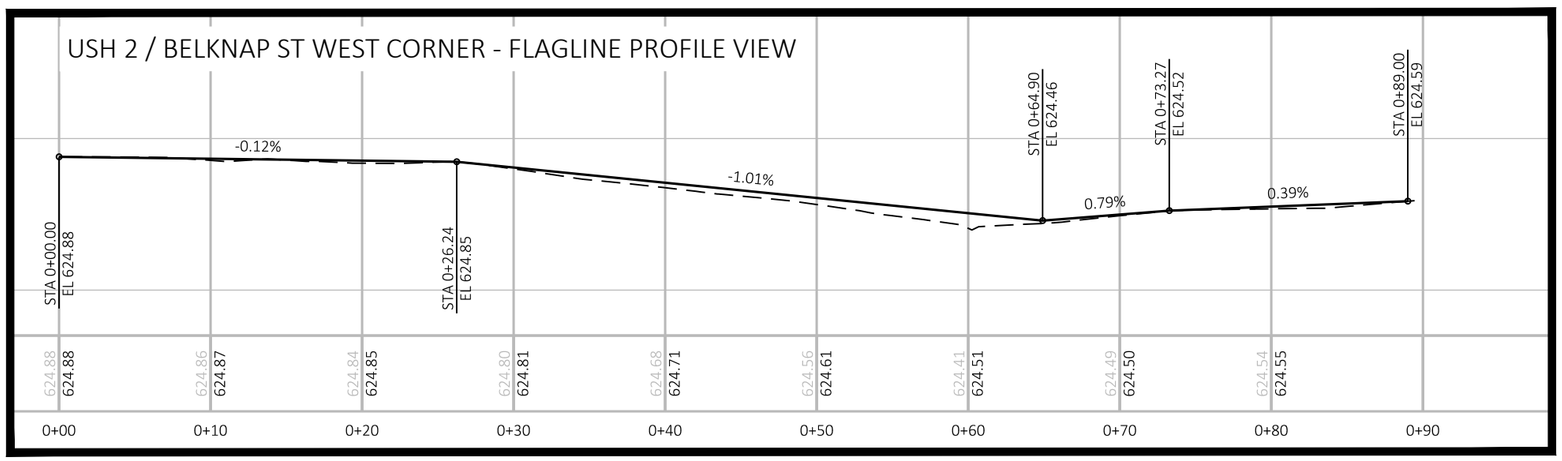
POINT NUMBER	STATION	OFFSET	ELEVATION
B - 53	92+65.89	91.43' RT	625.40
B - 54	92+70.63	92.29' RT	625.48
B - 55	92+63.82	79.24' RT	625.09
B - 56	92+72.61	61.59' RT	625.05
B - 57	92+73.58	60.19' RT	624.72
B - 58	92+76.66	60.50' RT	624.75
B - 59	92+81.67	61.01' RT	624.80
B - 60	92+86.70	61.52' RT	624.85
B - 61	92+77.16	55.52' RT	624.70
B - 62	92+78.35	54.14' RT	625.02
B - 63	92+81.41	55.95' RT	624.74
B - 64	92+79.73	52.60' RT	625.02
B - 65	92+86.44	56.47' RT	624.77
B - 66	92+95.56	58.03' RT	624.70
B - 67	92+81.15	51.11' RT	624.68
B - 68	92+86.15	50.85' RT	624.70
B - 69	92+85.93	46.63' RT	624.66
B - 70	92+87.37	45.43' RT	624.82
B - 71	93+04.95	51.63' RT	624.64
B - 72	92+96.58	38.99' RT	624.84
B - 73	93+02.97	47.02' RT	624.58
B - 74	93+02.57	35.75' RT	624.75
B - 75	93+14.08	31.42' RT	624.63
B - 76	93+22.86	40.92' RT	624.52
B - 77	93+26.31	28.86' RT	624.40
B - 78	93+31.48	38.81' RT	624.50
B - 79	93+42.52	28.34' RT	624.34
B - 80	93+45.52	28.26' RT	624.31
B - 81	93+46.04	35.83' RT	624.46
B - 82	93+60.40	33.36' RT	624.42
B - 83	93+60.84	38.35' RT	624.49
B - 84	93+74.23	28.11' RT	624.15
B - 85	94+04.68	28.19' RT	623.93
B - 86	94+04.73	38.01' RT	624.18
B - 87	94+21.68	28.25' RT	623.81
B - 88	94+30.94	33.02' RT	624.03
B - 89	94+31.27	38.01' RT	624.18

2



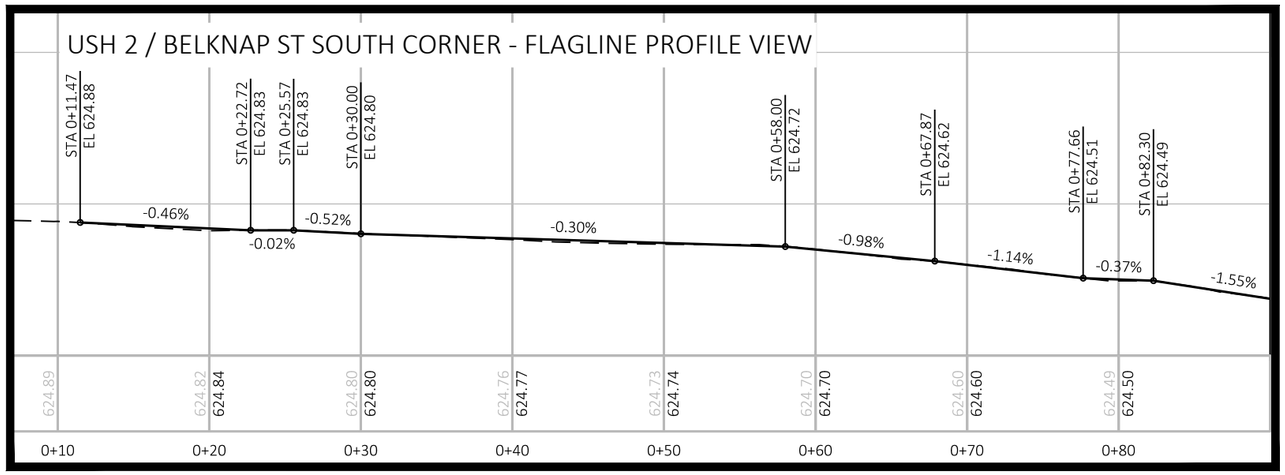


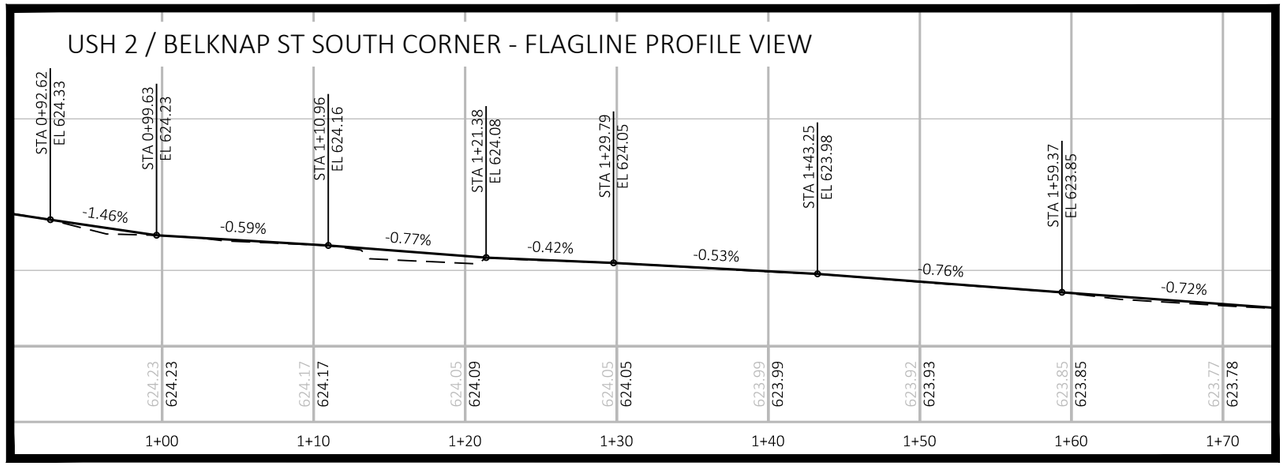
NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

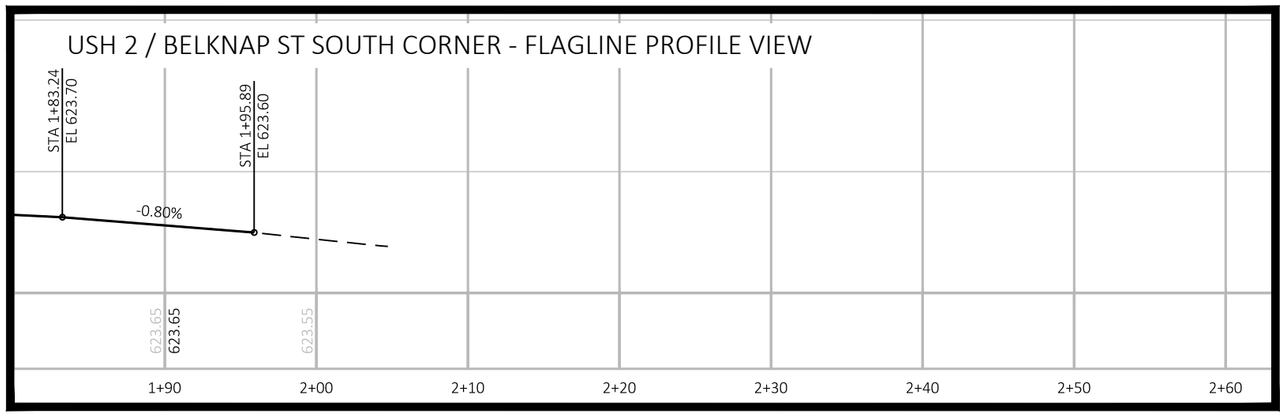


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - MARINA DR N ENT. & USH 2/BELKNAP ST FLAGLINE PROFILES	SHEET 22	E

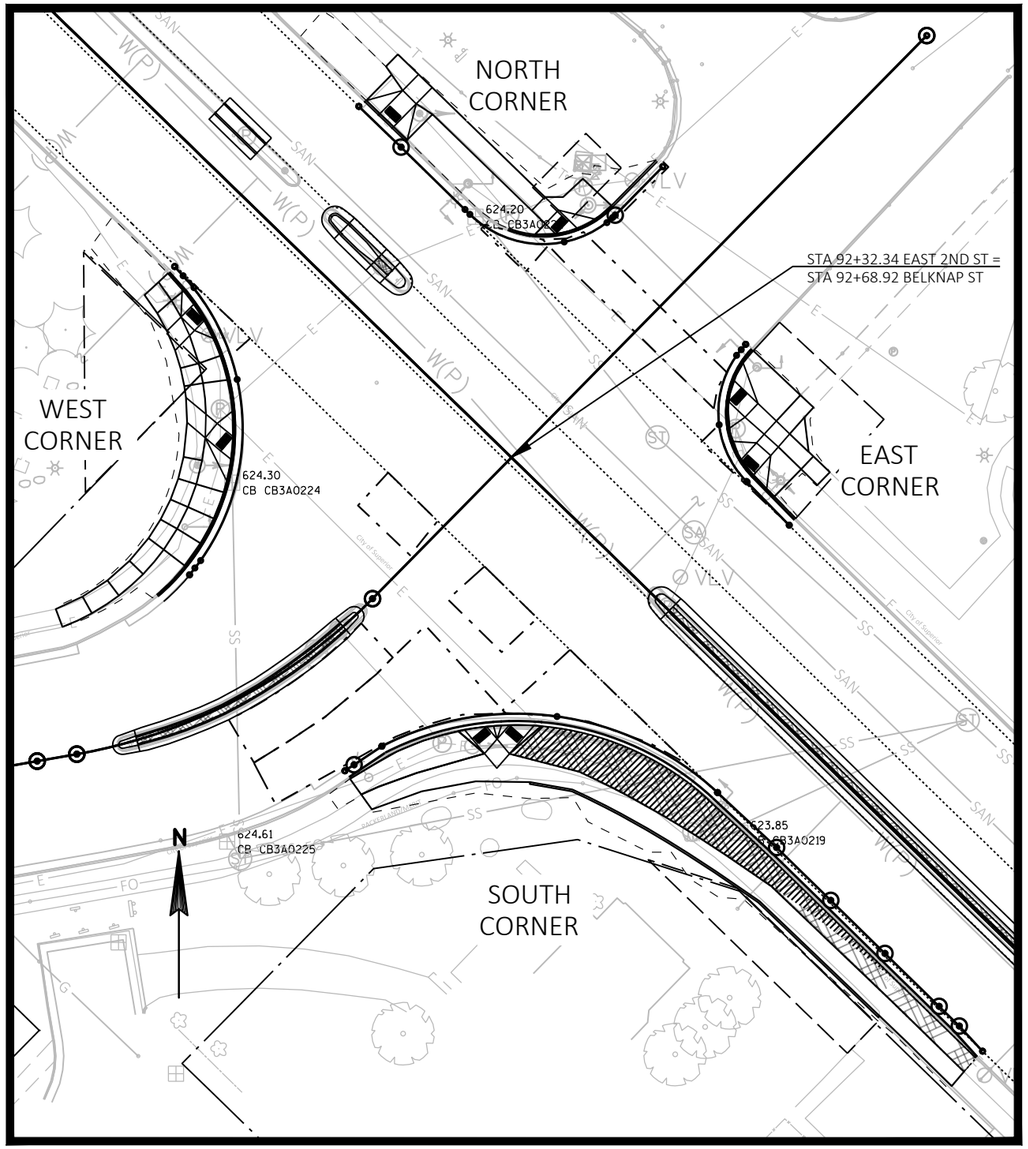
FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 10_Belknap_PROF1
PLOT DATE : 9/13/2019 11:12 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42







INTERSECTION OF USH 2 / USH 53 AND USH 2 / BELKNAP ST



NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

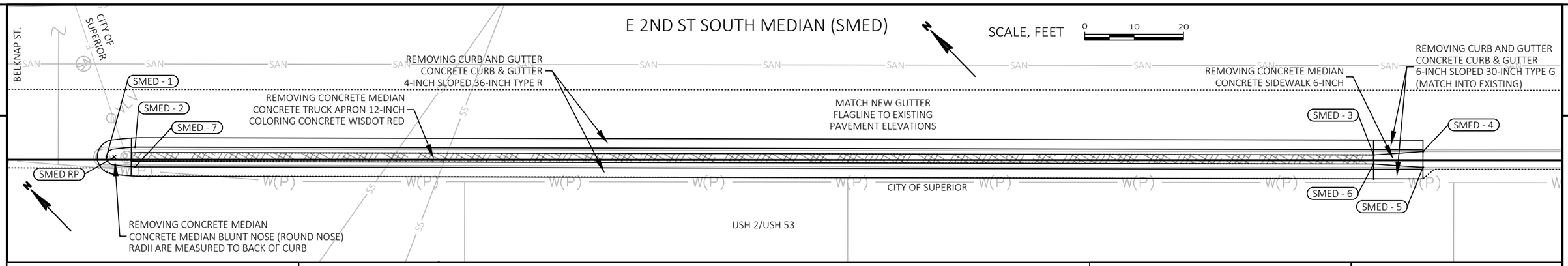
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - USH 2 / BELKNAP ST FLAGLINE PROFILES	SHEET 23	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 11_Belknap_PROF2

PLOT DATE : 9/13/2019 11:13 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

E 2ND ST SOUTH MEDIAN (SMED)

SCALE, FEET 0 10 20



LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

NOTE 1: BASE AGGREGATE OPEN-GRADED REQUIRED AS NEEDED TO MATCH INTO EXISTING MEDIANS AND PAVEMENTS.
NOTE 2: TIE THE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.
NOTE 3: SEE CONSTRUCTION DETAILS FOR MEDIAN AND CURB AND GUTTER DETAILS
NOTE 4: ALL ITEMS TO HAVE APPROPRIATE CURE AND SEAL TREATMENT APPLIED:

- CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER
- CURE AND SEAL TREATMENT, CONCRETE TRUCK APRON
- CURE AND SEAL TREATEMENT, CONCRETE SIDEWALK
- CURE AND SEAL TREATMENT, CONCRETE MEDIAN

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
SMED RP	92+86.95	0.57' LT	1.6'

POINT ELEVATION TABLE		
POINT NUMBER	STATION	OFFSET
SMED - 1	92+85.35	0.57' LT
SMED - 2	92+91.14	2.56' LT
SMED - 3	95+41.97	1.09' LT
SMED - 4	95+51.97	1.77' LT
SMED - 5	95+51.96	1.43' RT
SMED - 6	95+41.96	0.74' RT
SMED - 7	92+91.13	1.44' RT

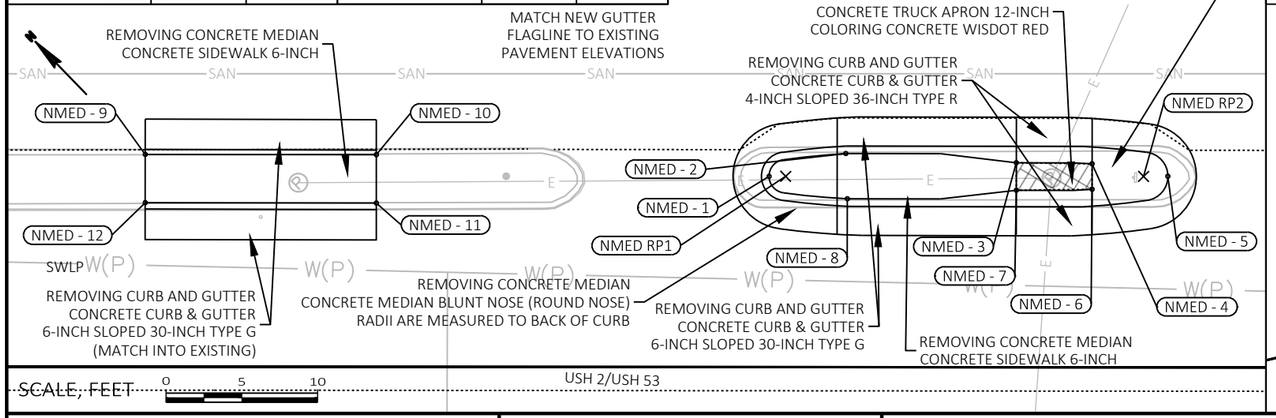
STATIONS & OFFSETS REFERENCE US 2 / US 53

POINT ELEVATION TABLE		
POINT NUMBER	STATION	OFFSET
NMED - 1	91+54.04	12.58' LT
NMED - 2	91+59.10	14.09' LT
NMED - 3	91+70.36	13.49' LT
NMED - 4	91+75.36	13.42' LT
NMED - 5	91+80.36	12.60' LT
NMED - 6	91+75.35	11.74' LT

POINT ELEVATION TABLE		
POINT NUMBER	STATION	OFFSET
NMED - 7	91+70.35	11.67' LT
NMED - 8	91+59.21	11.11' LT
NMED - 9	91+12.87	14.01' LT
NMED - 10	91+28.13	13.99' LT
NMED - 11	91+28.13	10.81' LT
NMED - 12	91+12.87	10.82' LT

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
NMED RP1	91+55.14	12.58' LT	1.1'
NMED RP2	91+78.76	12.59' LT	1.6'

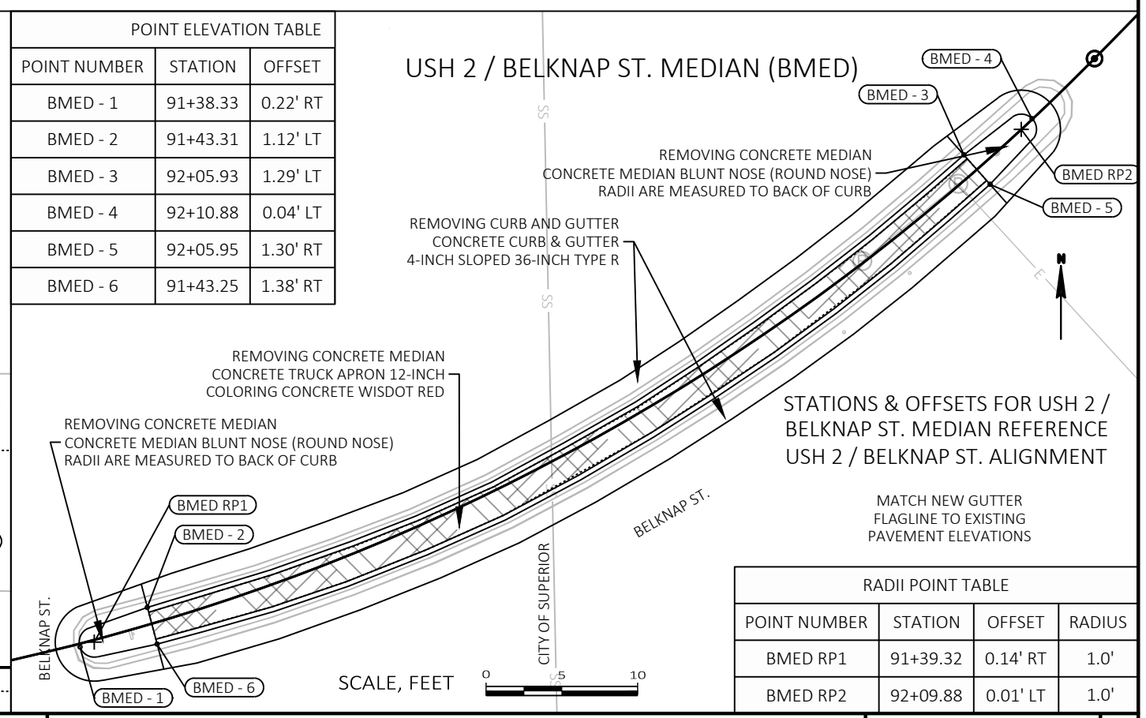
E 2ND ST NORTH MEDIAN (NMED)



SCALE, FEET 0 5 10

POINT ELEVATION TABLE		
POINT NUMBER	STATION	OFFSET
BMED - 1	91+38.33	0.22' RT
BMED - 2	91+43.31	1.12' LT
BMED - 3	92+05.93	1.29' LT
BMED - 4	92+10.88	0.04' LT
BMED - 5	92+05.95	1.30' RT
BMED - 6	91+43.25	1.38' RT

USH 2 / BELKNAP ST. MEDIAN (BMED)



STATIONS & OFFSETS FOR USH 2 / BELKNAP ST. MEDIAN REFERENCE USH 2 / BELKNAP ST. ALIGNMENT

MATCH NEW GUTTER
FLAGLINE TO EXISTING
PAVEMENT ELEVATIONS

SCALE, FEET 0 5 10

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
BMED RP1	91+39.32	0.14' RT	1.0'
BMED RP2	92+09.88	0.01' LT	1.0'

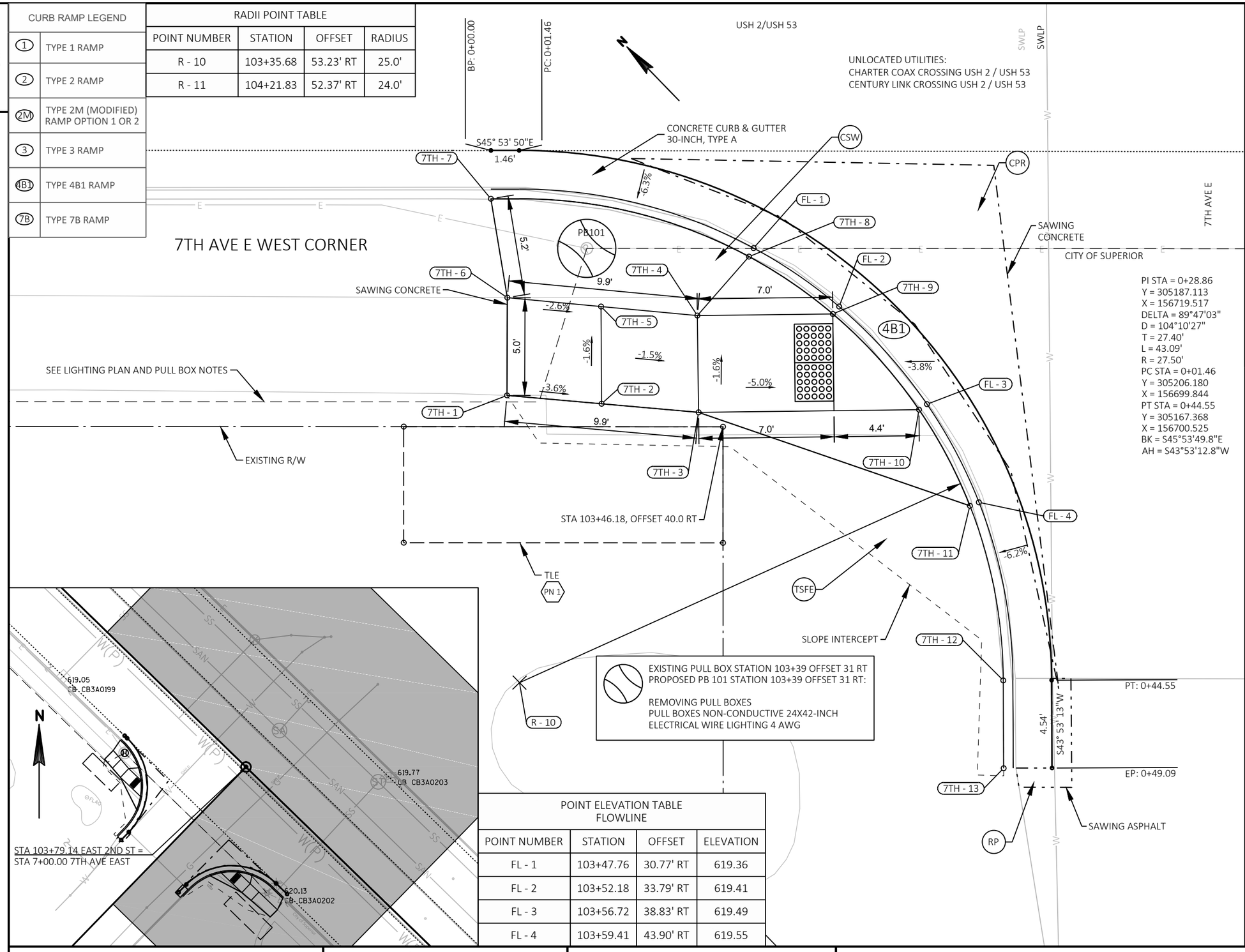
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - MEDIAN DETAILS	SHEET 24 E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 12_MEDIANS
PLOT DATE : 9/13/2019 11:15 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 10	103+35.68	53.23' RT	25.0'
R - 11	104+21.83	52.37' RT	24.0'



POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	103+47.76	30.77' RT	619.36
FL - 2	103+52.18	33.79' RT	619.41
FL - 3	103+56.72	38.83' RT	619.49
FL - 4	103+59.41	43.90' RT	619.55

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
7TH - 1	103+35.02	38.38' RT	620.17
7TH - 2	103+39.91	38.81' RT	619.99
7TH - 3	103+44.92	39.26' RT	619.91
7TH - 4	103+44.86	34.26' RT	619.84
7TH - 5	103+39.88	33.79' RT	619.91
7TH - 6	103+35.03	33.34' RT	620.04
7TH - 7	103+34.18	28.23' RT	619.72
7TH - 8	103+47.52	31.21' RT	619.85
7TH - 9	103+51.86	34.17' RT	619.42
7TH - 10	103+56.31	39.11' RT	619.50
7TH - 11	103+58.94	44.08' RT	619.97
7TH - 12	103+60.68	53.10' RT	620.21
7TH - 13	103+60.70	57.64' RT	620.28

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

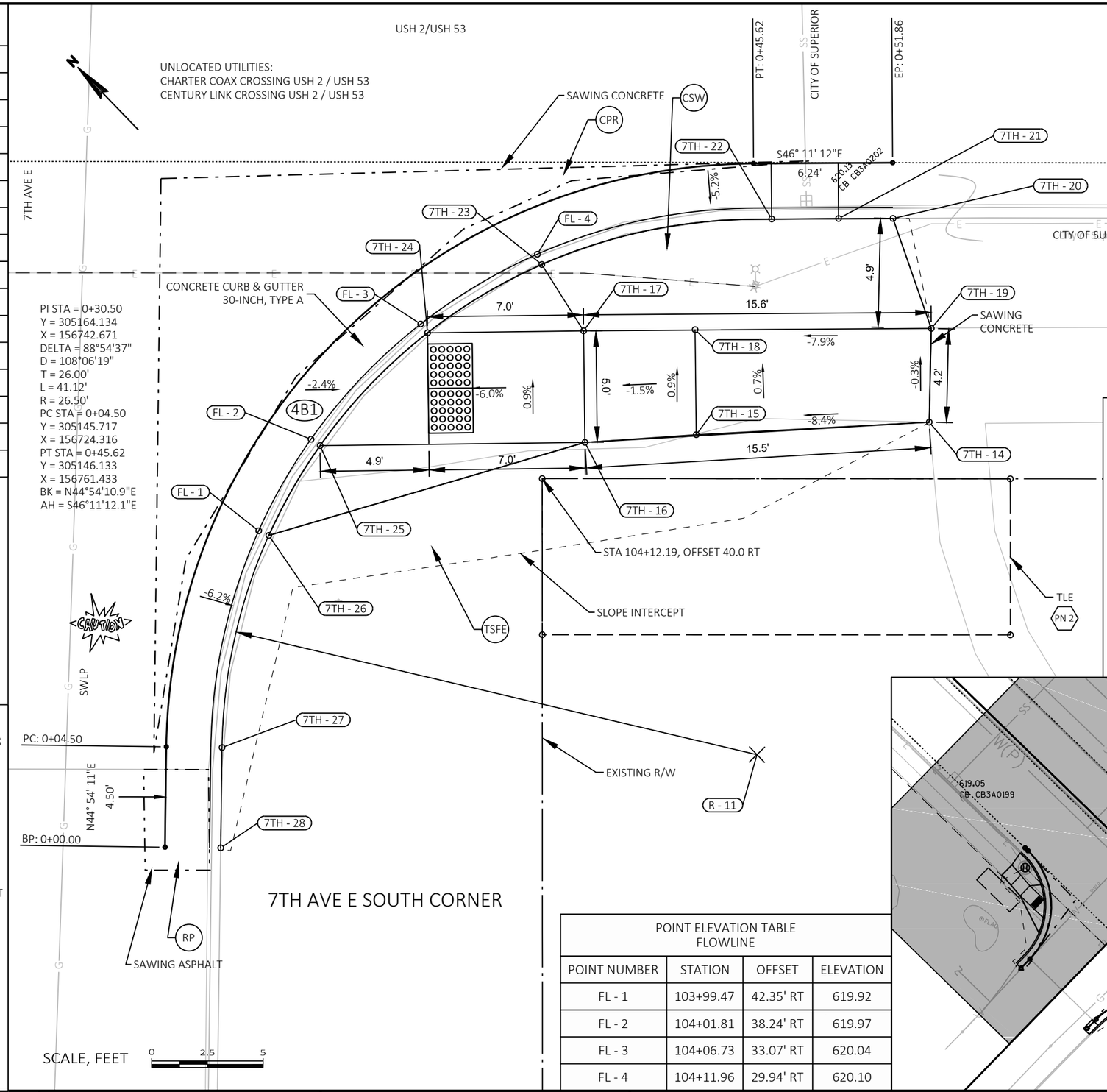
GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
7TH - 14	104+29.54	37.46' RT	621.37
7TH - 15	104+19.10	38.03' RT	620.50
7TH - 16	104+14.10	38.38' RT	620.42
7TH - 17	104+14.04	33.38' RT	620.46
7TH - 18	104+19.04	33.32' RT	620.54
7TH - 19	104+29.63	33.26' RT	621.37
7TH - 20	104+27.91	28.33' RT	620.79
7TH - 21	104+25.47	28.33' RT	620.74
7TH - 22	104+22.47	28.36' RT	620.71
7TH - 23	104+12.16	30.40' RT	620.59
7TH - 24	104+07.04	33.47' RT	620.04
7TH - 25	104+02.22	38.53' RT	619.97
7TH - 26	103+99.92	42.56' RT	620.42
7TH - 27	103+97.83	52.07' RT	620.29
7TH - 28	103+97.77	56.57' RT	620.26



RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 10	103+35.68	53.23' RT	25.0'
R - 11	104+21.83	52.37' RT	24.0'

CURB RAMP LEGEND

1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

LEGEND

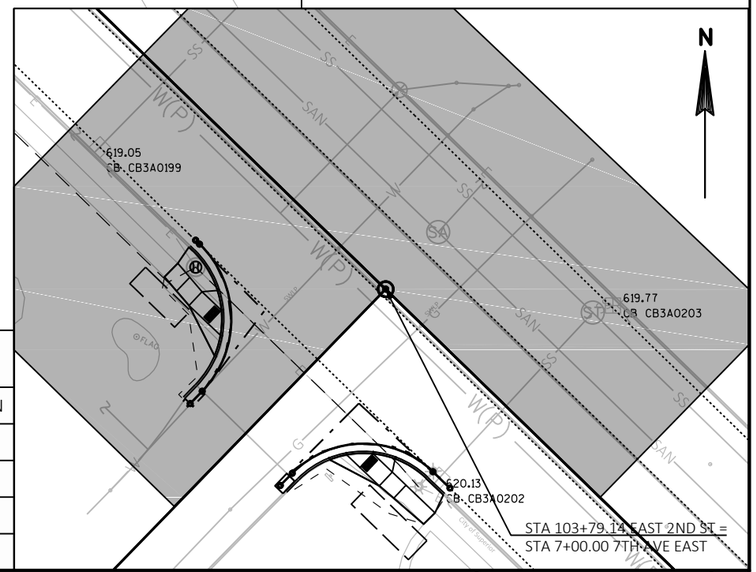
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
FLOWLINE

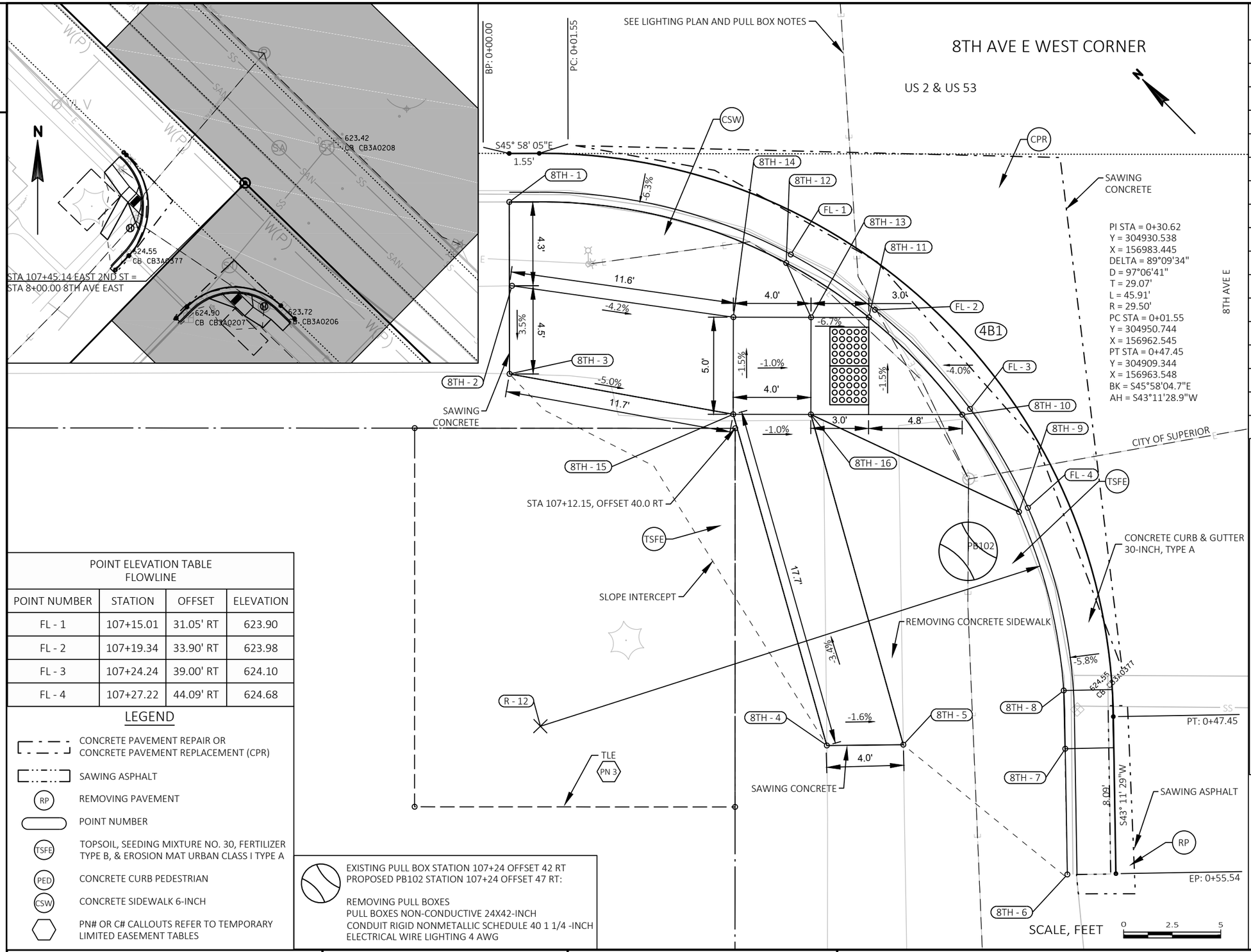
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	103+99.47	42.35' RT	619.92
FL - 2	104+01.81	38.24' RT	619.97
FL - 3	104+06.73	33.07' RT	620.04
FL - 4	104+11.96	29.94' RT	620.10



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 7TH AVE E SOUTH CORNER	SHEET 26	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 14_7th_S
PLOT DATE : 9/13/2019 11:17 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########

WISDOT/CADDS SHEET 42



POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
8TH - 1	107+00.51	28.35' RT	624.17
8TH - 2	107+00.66	32.67' RT	624.72
8TH - 3	107+00.53	37.21' RT	624.89
8TH - 4	107+16.88	56.33' RT	624.94
8TH - 5	107+20.82	56.29' RT	624.88
8TH - 6	107+29.27	62.97' RT	625.24
8TH - 7	107+29.15	56.49' RT	625.15
8TH - 8	107+29.07	53.49' RT	625.10
8TH - 9	107+26.76	44.29' RT	624.68
8TH - 10	107+23.84	39.29' RT	624.10
8TH - 11	107+19.03	34.29' RT	623.99
8TH - 12	107+14.77	31.49' RT	624.43
8TH - 13	107+16.05	34.28' RT	624.19
8TH - 14	107+12.05	34.28' RT	624.23
8TH - 15	107+12.05	39.28' RT	624.30
8TH - 16	107+16.05	39.28' RT	624.26

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 12	107+02.13	55.35' RT	27.0'
R - 13	107+91.10	53.48' RT	25.0'

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	107+15.01	31.05' RT	623.90
FL - 2	107+19.34	33.90' RT	623.98
FL - 3	107+24.24	39.00' RT	624.10
FL - 4	107+27.22	44.09' RT	624.68

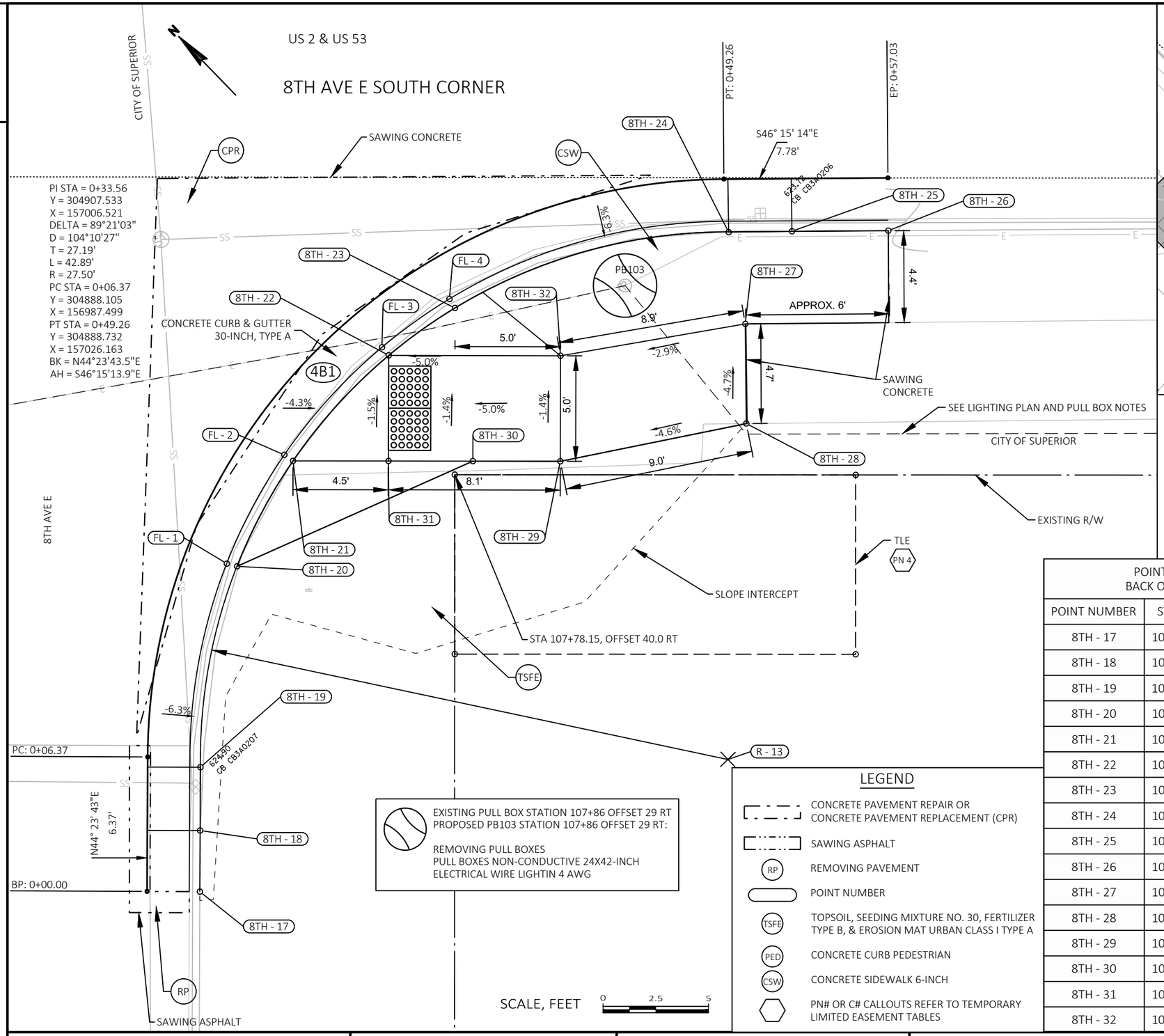
LEGEND

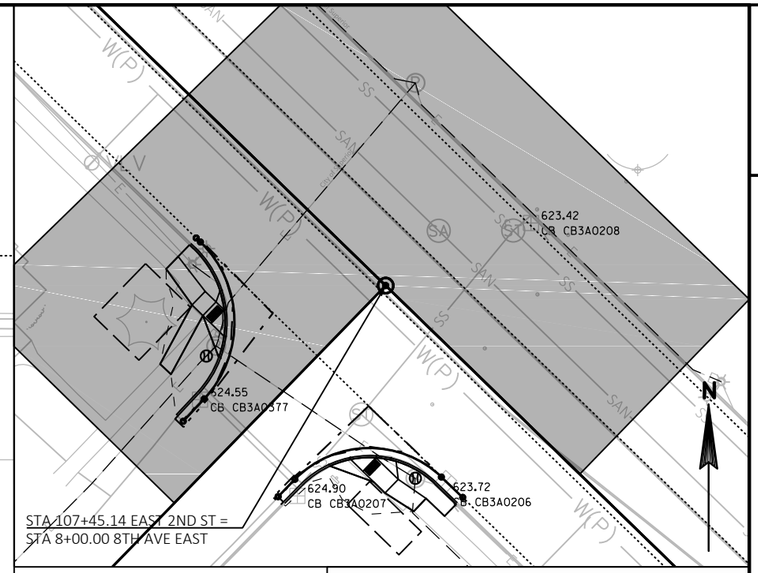
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

EXISTING PULL BOX STATION 107+24 OFFSET 42 RT
PROPOSED PB102 STATION 107+24 OFFSET 47 RT:

REMOVING PULL BOXES
PULL BOXES NON-CONDUCTIVE 24X42-INCH
CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4 -INCH
ELECTRICAL WIRE LIGHTING 4 AWG

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 8TH AVE E WEST CORNER	SHEET 27	E





RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 12	107+02.13	55.35' RT	27.0'
R - 13	107+91.10	53.48' RT	25.0'

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
8TH - 17	107+66.08	59.76' RT	625.70
8TH - 18	107+66.09	56.87' RT	625.65
8TH - 19	107+66.10	53.87' RT	625.60
8TH - 20	107+67.83	44.34' RT	625.03
8TH - 21	107+70.49	39.35' RT	624.48
8TH - 22	107+75.02	34.35' RT	624.35
8TH - 23	107+78.15	32.10' RT	624.63
8TH - 24	107+91.13	28.50' RT	624.39
8TH - 25	107+94.12	28.46' RT	624.38
8TH - 26	107+98.69	28.43' RT	624.45
8TH - 27	107+91.91	32.85' RT	625.03
8TH - 28	107+91.97	37.57' RT	625.26
8TH - 29	107+83.15	39.36' RT	624.84
8TH - 30	107+79.01	39.36' RT	624.63
8TH - 31	107+75.01	39.35' RT	624.43
8TH - 32	107+83.16	34.36' RT	624.76

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	107+67.35	44.22' RT	624.72
FL - 2	107+70.07	39.06' RT	624.46
FL - 3	107+74.70	33.96' RT	624.30
FL - 4	107+77.89	31.67' RT	624.22

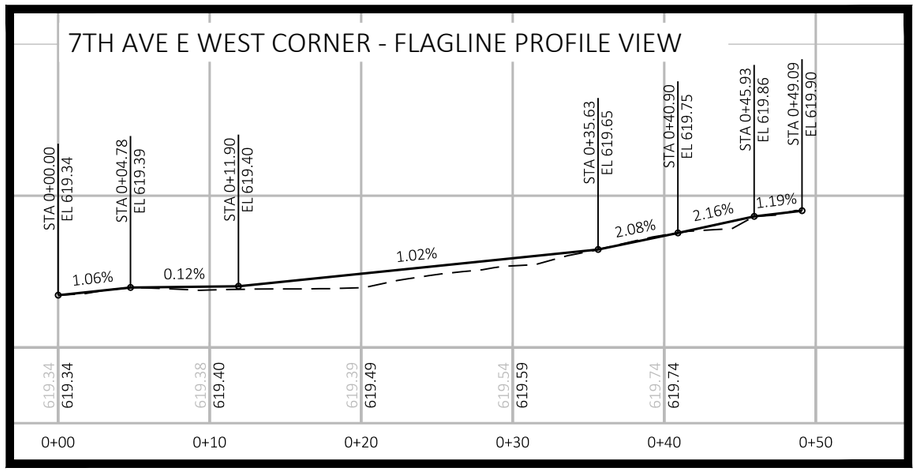
LEGEND

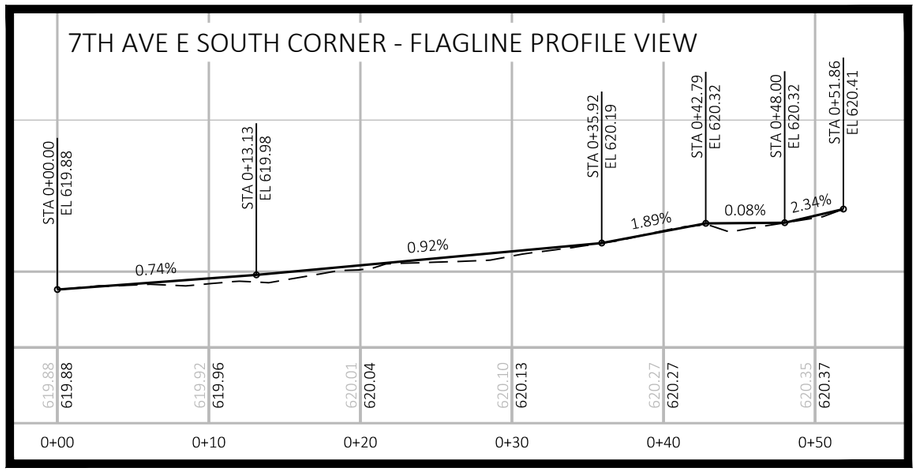
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

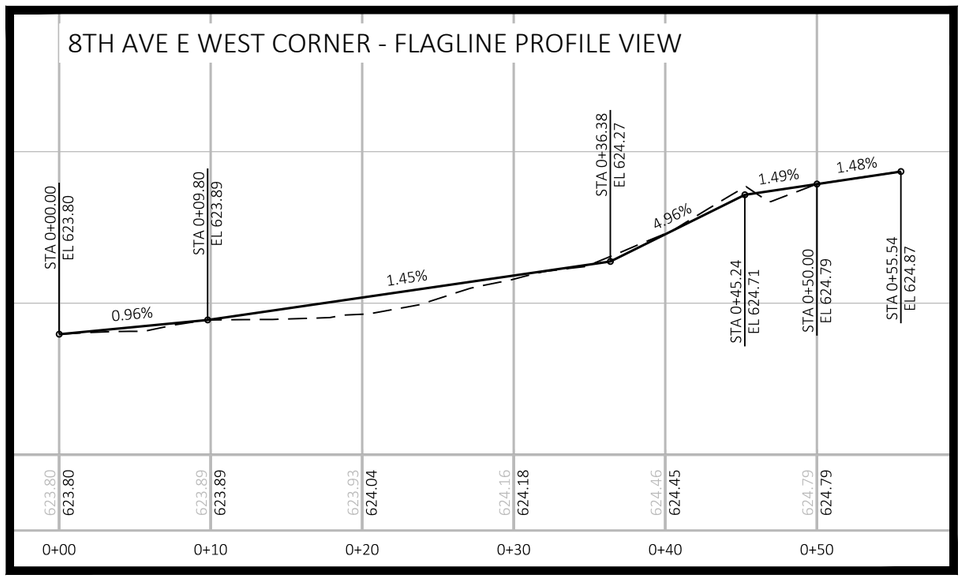
GENERAL CONSTRUCTION NOTES:

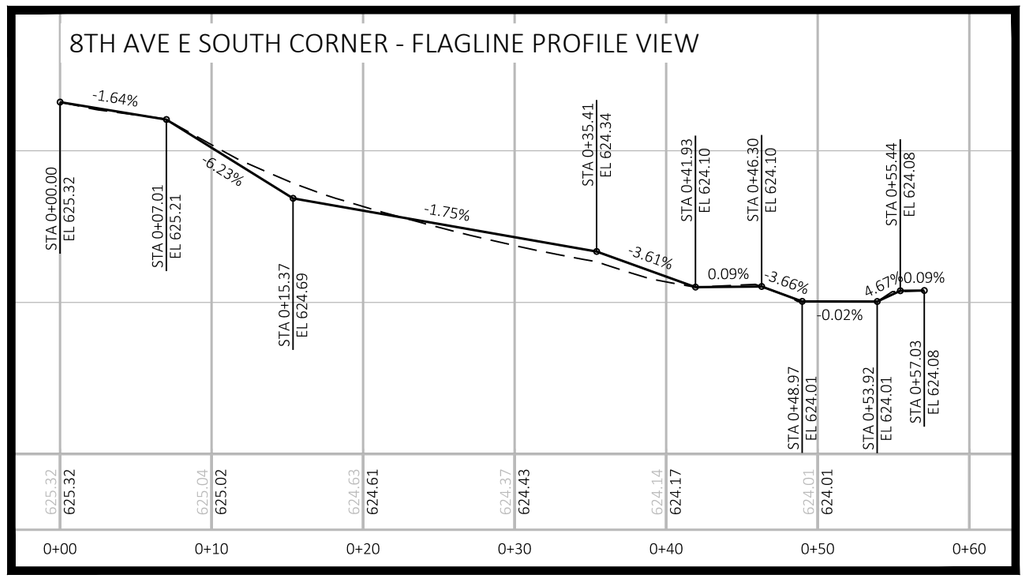
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 8TH AVE E SOUTH CORNER	SHEET 28	E

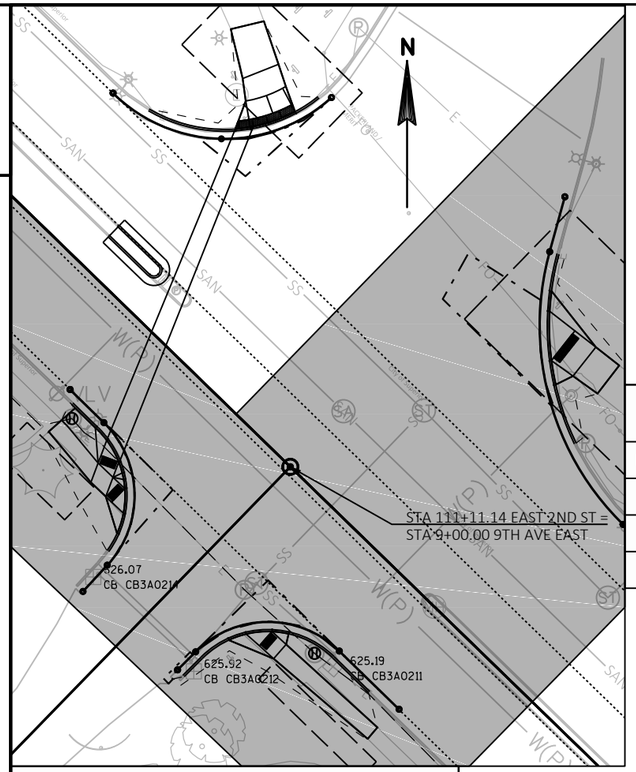








NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.



LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	110+38.97	53.50' LT	624.18
FL - 2	110+41.48	56.62' LT	624.10
FL - 3	110+47.20	67.95' LT	623.77

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

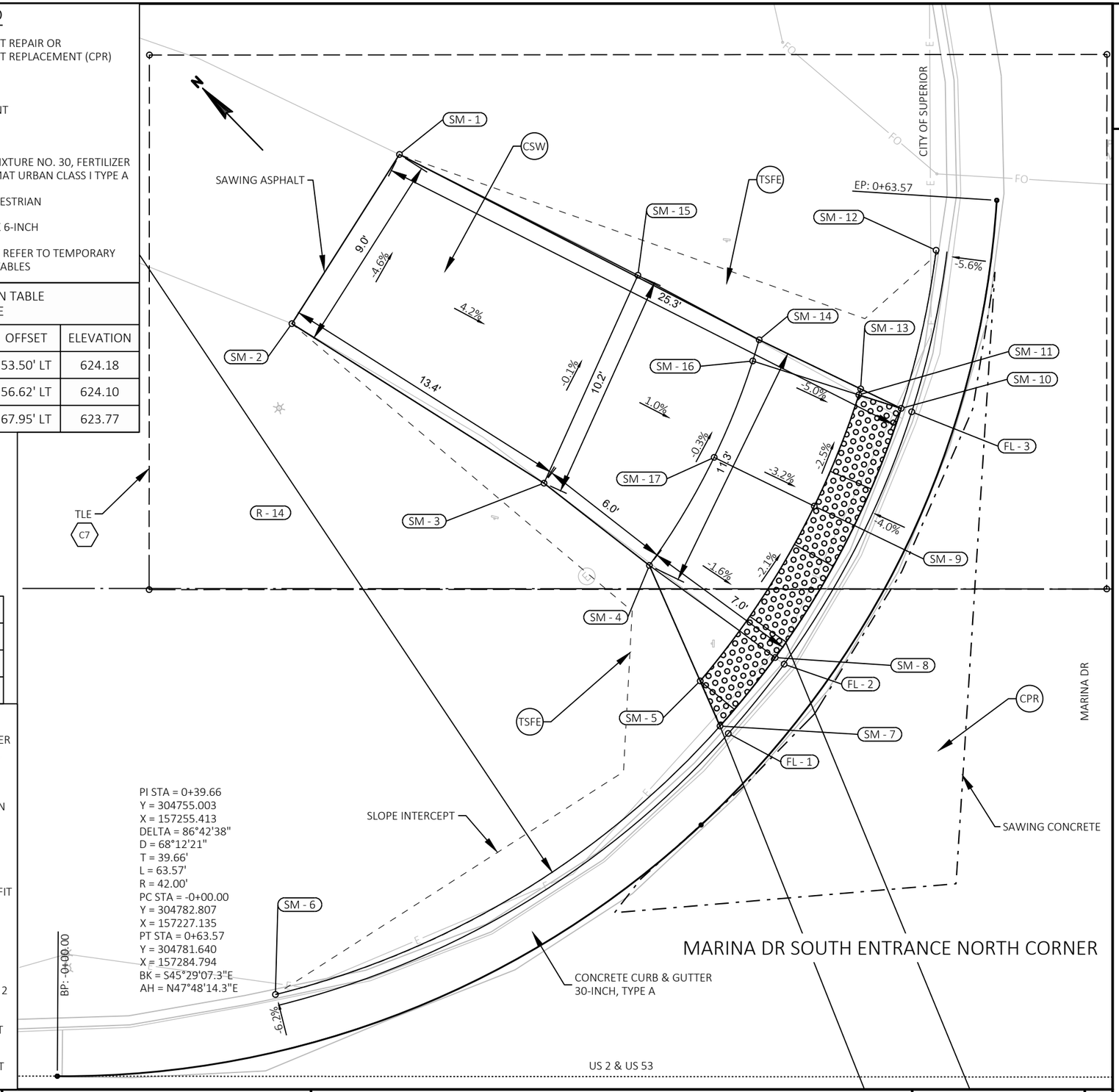
POINT NUMBER	STATION	OFFSET	ELEVATION
SM - 1	110+24.19	79.49' LT	623.19
SM - 2	110+19.36	71.89' LT	623.57
SM - 3	110+30.69	64.74' LT	624.12
SM - 4	110+35.42	61.05' LT	624.20
SM - 5	110+37.71	55.86' LT	624.16
SM - 6	110+18.64	41.77' LT	624.98
SM - 7	110+38.60	53.84' LT	624.20
SM - 8	110+41.07	56.91' LT	624.10
SM - 9	110+42.83	63.71' LT	624.01
SM - 10	110+46.73	68.10' LT	624.20
SM - 11	110+44.82	68.71' LT	624.20
SM - 12	110+48.29	75.20' LT	624.01
SM - 13	110+44.91	68.98' LT	624.56
SM - 14	110+40.35	71.18' LT	624.15
SM - 15	110+34.90	74.07' LT	624.09
SM - 16	110+40.06	70.23' LT	624.15
SM - 17	110+38.33	65.90' LT	624.18

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 14	110+09.10	80.10' LT	39.5'
R - 15	111+85.10	123.79' LT	71.0'

GENERAL CONSTRUCTION NOTES:

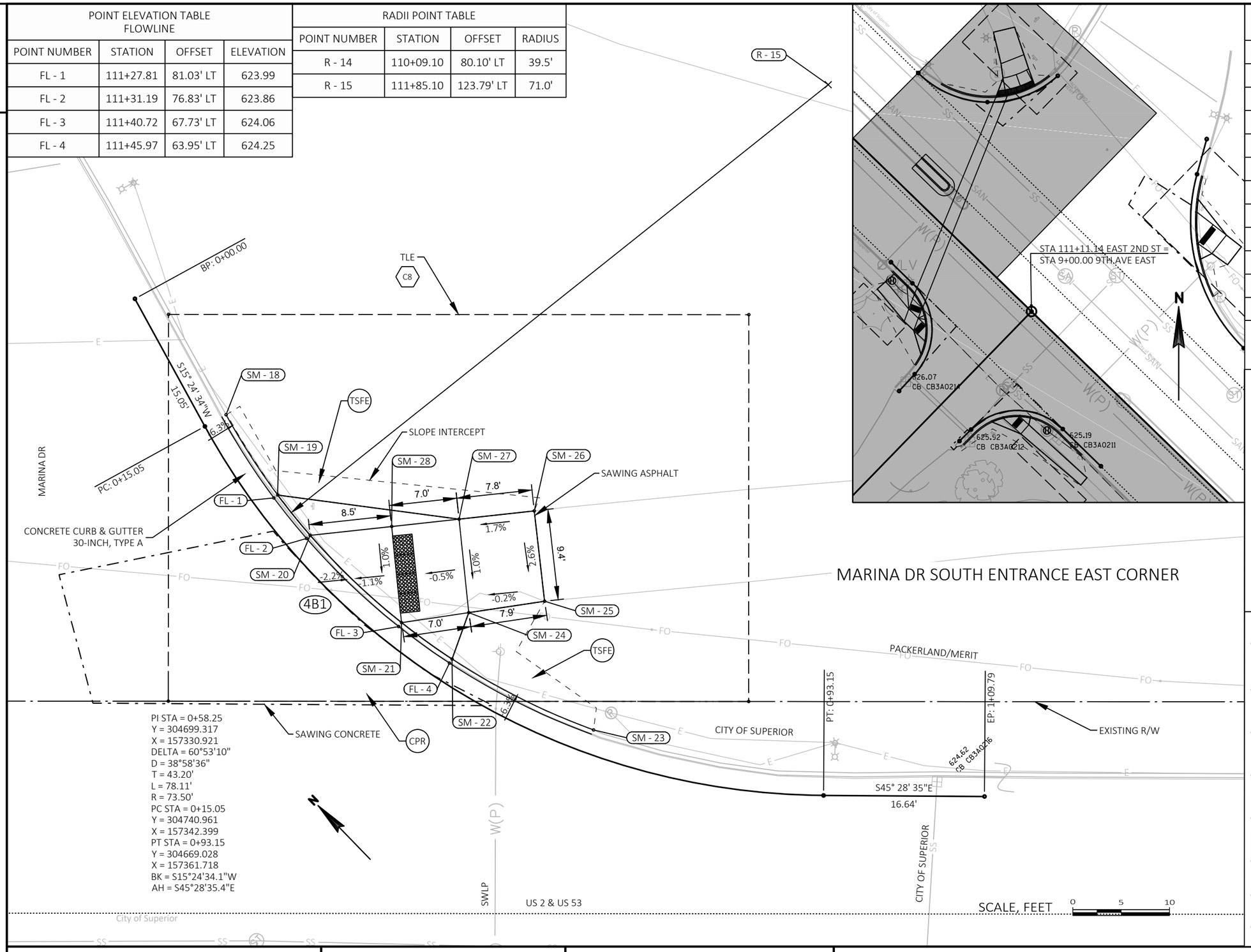
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.



2

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	111+27.81	81.03' LT	623.99
FL - 2	111+31.19	76.83' LT	623.86
FL - 3	111+40.72	67.73' LT	624.06
FL - 4	111+45.97	63.95' LT	624.25

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 14	110+09.10	80.10' LT	39.5'
R - 15	111+85.10	123.79' LT	71.0'



MARINA DR SOUTH ENTRANCE EAST CORNER

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
SM - 18	111+22.87	89.62' LT	623.98
SM - 19	111+28.20	81.32' LT	624.29
SM - 20	111+31.56	77.16' LT	623.87
SM - 21	111+41.02	68.13' LT	624.06
SM - 22	111+46.24	64.37' LT	624.66
SM - 23	111+60.87	57.05' LT	624.83
SM - 24	111+47.97	69.18' LT	624.10
SM - 25	111+55.81	70.36' LT	624.11
SM - 26	111+54.74	79.70' LT	623.87
SM - 27	111+46.96	78.85' LT	624.00
SM - 28	111+39.99	78.08' LT	0.00

2

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

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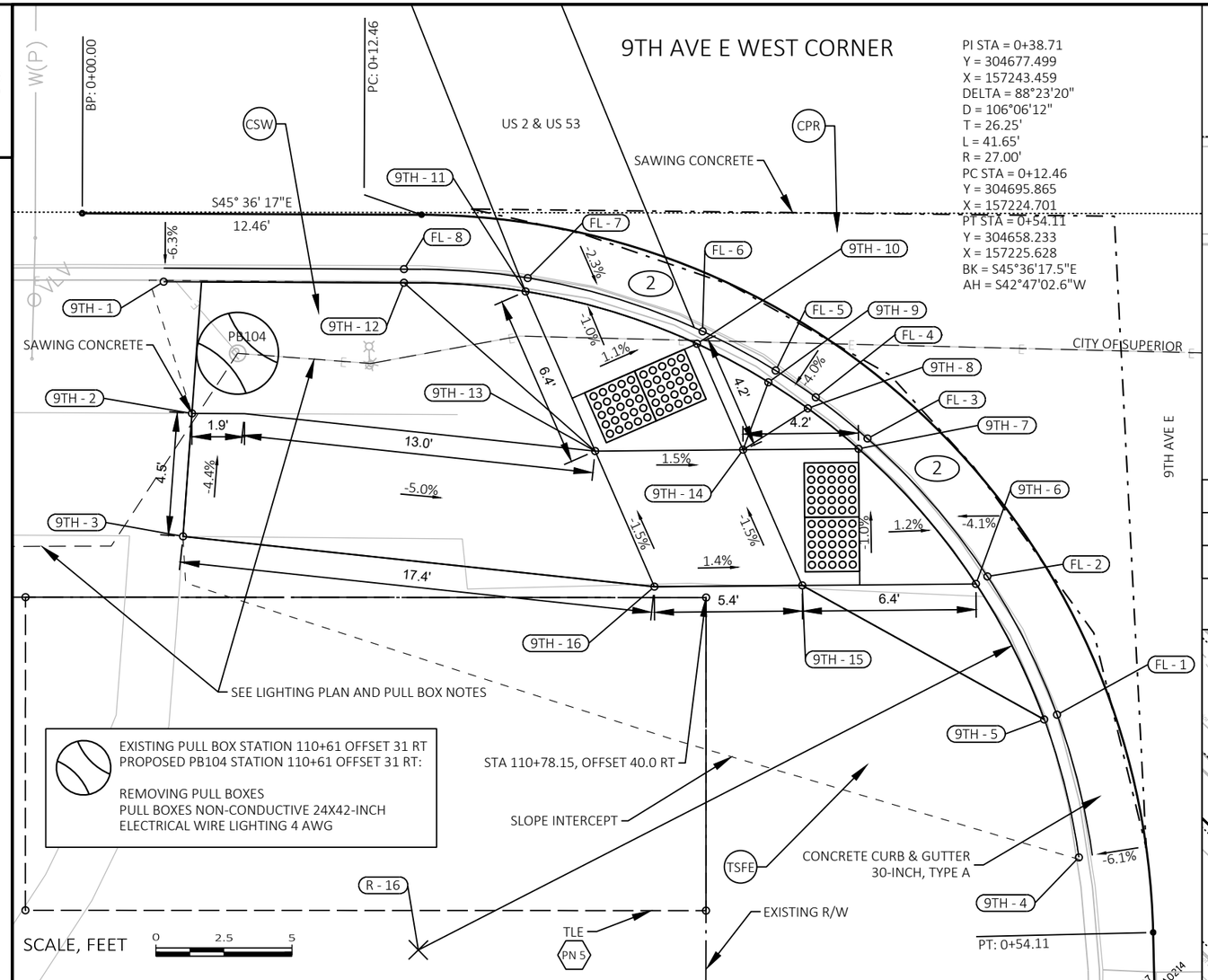
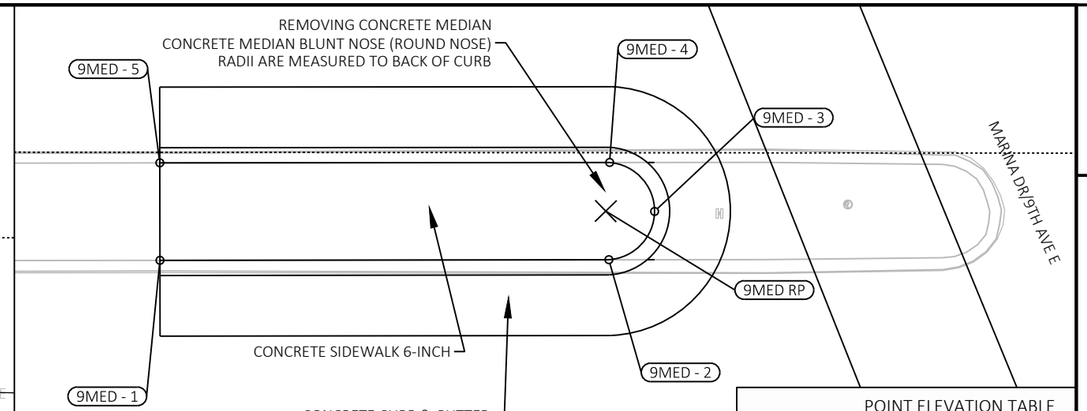
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

9TH AVE E WEST CORNER

PI STA = 0+38.71
Y = 304677.499
X = 157243.459
DELTA = 88°23'20"
D = 106°06'12"
T = 26.25'
L = 41.65'
R = 27.00'
PC STA = 0+12.46
Y = 304695.865
X = 157224.701
PT STA = 0+54.11
Y = 304658.233
X = 157225.628
BK = S45°36'17.5"E
AH = S42°47'02.6"W





RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
9MED RP	110+49.12	12.17' LT	1.6'

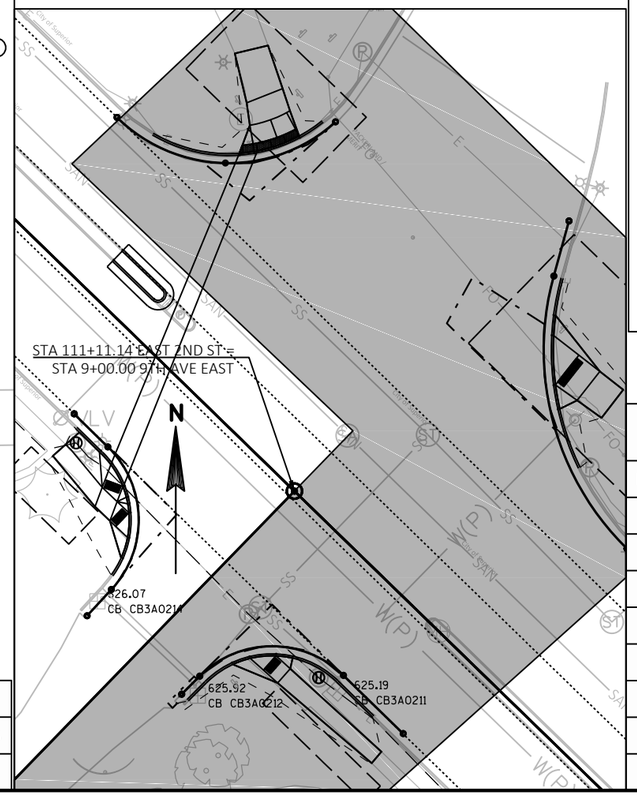
US 2 & US 53

MATCH NEW GUTTER FLAGLINE TO EXISTING PAVEMENT ELEVATIONS

POINT ELEVATION TABLE		
POINT NUMBER	STATION	OFFSET
9MED - 1	110+34.41	10.53' LT
9MED - 2	110+49.22	10.56' LT
9MED - 3	110+50.72	12.16' LT
9MED - 4	110+49.24	13.77' LT
9MED - 5	110+34.40	13.75' LT

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES



SEE GENERAL CONSTRUCTION NOTES ON INTERSECTION DETAILS 2ND AVE E - NORTH CORNER

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK				POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION	POINT NUMBER	STATION	OFFSET	ELEVATION
9TH - 1	110+58.22	28.41' RT	625.39	9TH - 9	110+80.44	32.10' RT	625.75
9TH - 2	110+59.26	33.25' RT	625.89	9TH - 10	110+77.81	30.68' RT	625.22
9TH - 3	110+58.94	37.76' RT	626.13	9TH - 11	110+71.51	28.76' RT	625.13
9TH - 4	110+91.85	49.54' RT	626.34	9TH - 12	110+67.05	28.45' RT	625.54
9TH - 5	110+90.58	44.47' RT	626.10	9TH - 13	110+74.07	34.62' RT	625.19
9TH - 6	110+88.06	39.49' RT	625.44	9TH - 14	110+79.51	34.57' RT	625.28
9TH - 7	110+83.75	34.53' RT	625.33	9TH - 15	110+81.69	39.55' RT	625.35
9TH - 8	110+81.88	33.05' RT	625.54	9TH - 16	110+76.25	39.60' RT	625.28

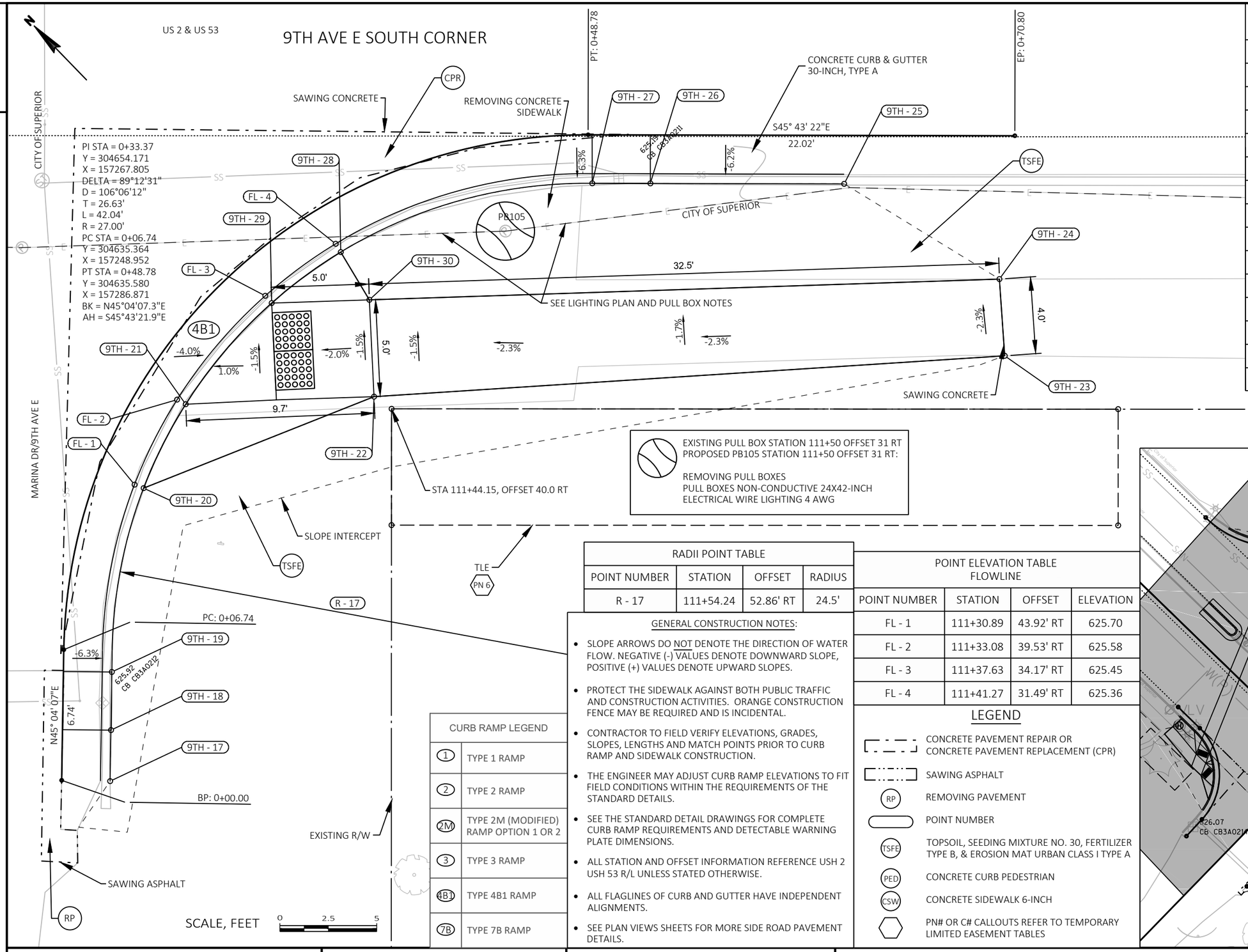
RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 16	110+67.59	52.95' RT	24.5'

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	110+91.04	44.30' RT	625.60
FL - 2	110+88.48	39.22' RT	625.43
FL - 3	110+84.08	34.16' RT	625.33
FL - 4	110+82.18	32.65' RT	625.29
FL - 5	110+80.70	31.66' RT	625.75
FL - 6	110+78.02	30.23' RT	625.22
FL - 7	110+71.59	28.27' RT	625.13
FL - 8	110+67.05	27.95' RT	625.05

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 9TH AVE E WEST CORNER	SHEET 32	E

9TH AVE E SOUTH CORNER

US 2 & US 53



EXISTING PULL BOX STATION 111+50 OFFSET 31 RT
PROPOSED PB105 STATION 111+50 OFFSET 31 RT:

REMOVING PULL BOXES
PULL BOXES NON-CONDUCTIVE 24X42-INCH
ELECTRICAL WIRE LIGHTING 4 AWG

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
9TH - 17	111+29.64	59.22' RT	626.53
9TH - 18	111+29.68	56.59' RT	626.50
9TH - 19	111+29.72	53.59' RT	626.49
9TH - 20	111+31.36	44.10' RT	626.11
9TH - 21	111+33.53	39.77' RT	625.59
9TH - 22	111+43.25	39.37' RT	625.63
9TH - 23	111+75.79	37.25' RT	626.35
9TH - 24	111+75.52	33.29' RT	626.26
9TH - 25	111+67.50	28.38' RT	625.73
9TH - 26	111+57.50	28.36' RT	625.69
9TH - 27	111+54.50	28.36' RT	625.76
9TH - 28	111+41.53	31.92' RT	625.86
9TH - 29	111+37.96	34.55' RT	625.45
9TH - 30	111+43.00	34.38' RT	625.56

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 17	111+54.24	52.86' RT	24.5'

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	111+30.89	43.92' RT	625.70
FL - 2	111+33.08	39.53' RT	625.58
FL - 3	111+37.63	34.17' RT	625.45
FL - 4	111+41.27	31.49' RT	625.36

CURB RAMP LEGEND

1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

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LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
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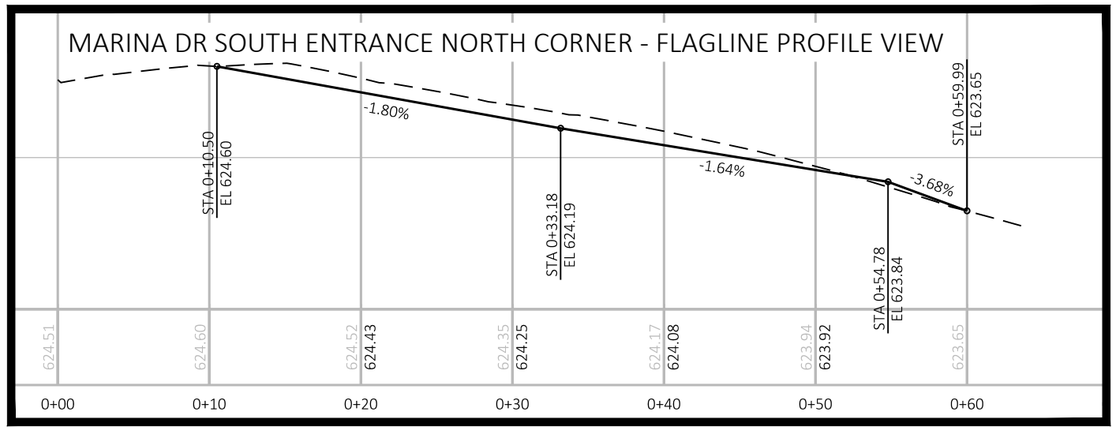
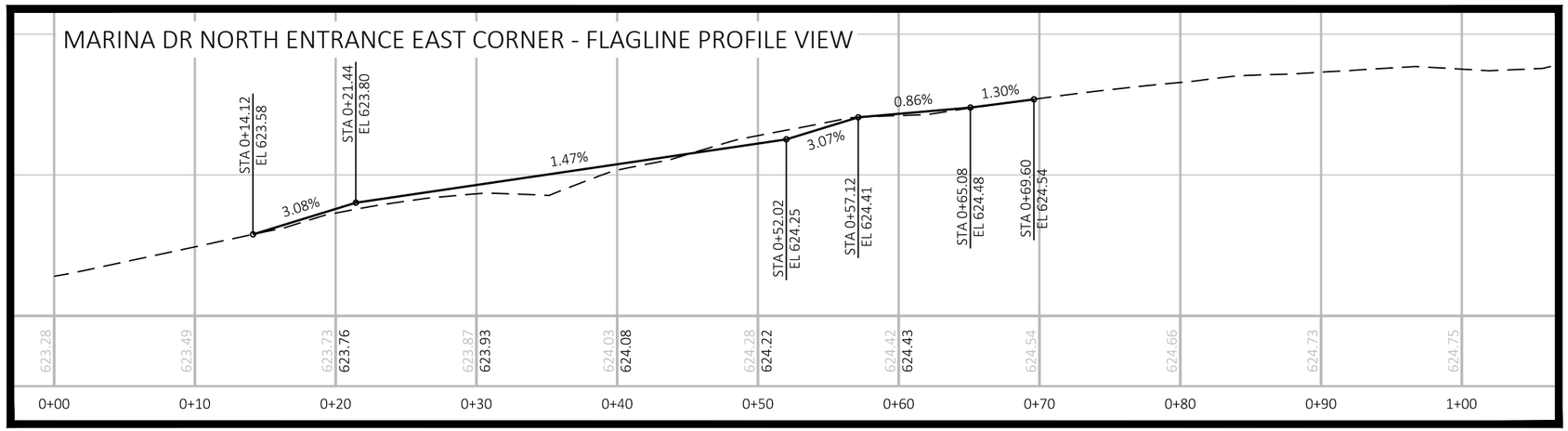
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

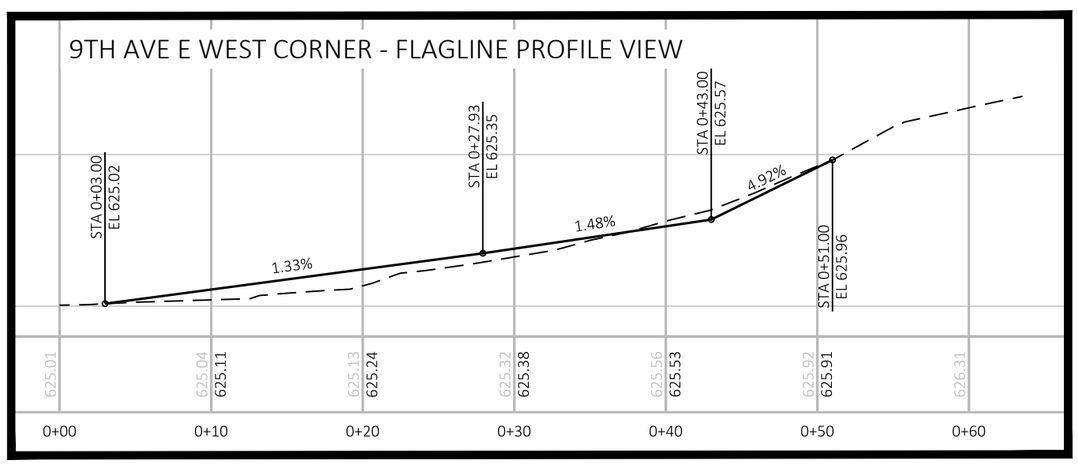
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 9TH AVE E SOUTH CORNER	SHEET 33	E

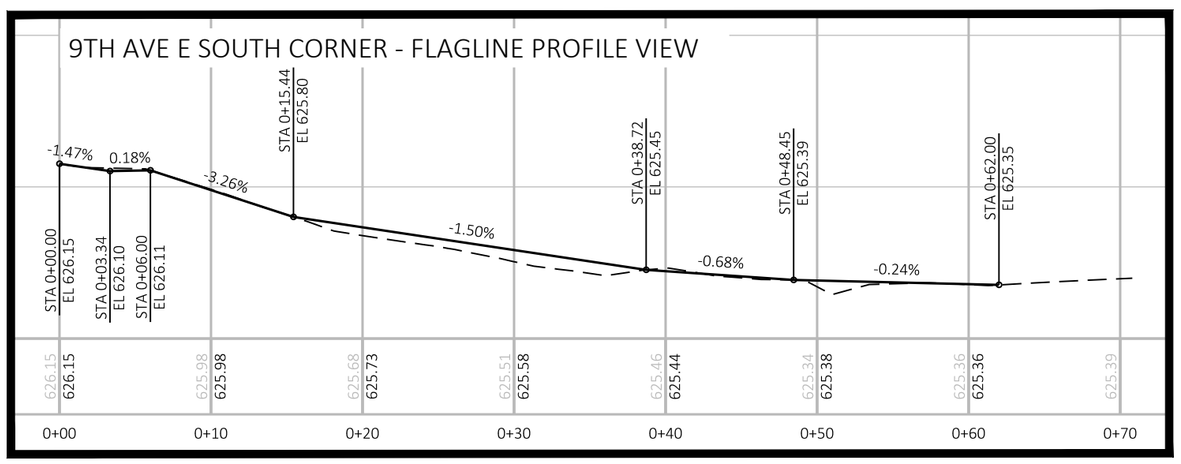
FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 21_9th_S
PLOT DATE : 9/13/2019 11:25 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42



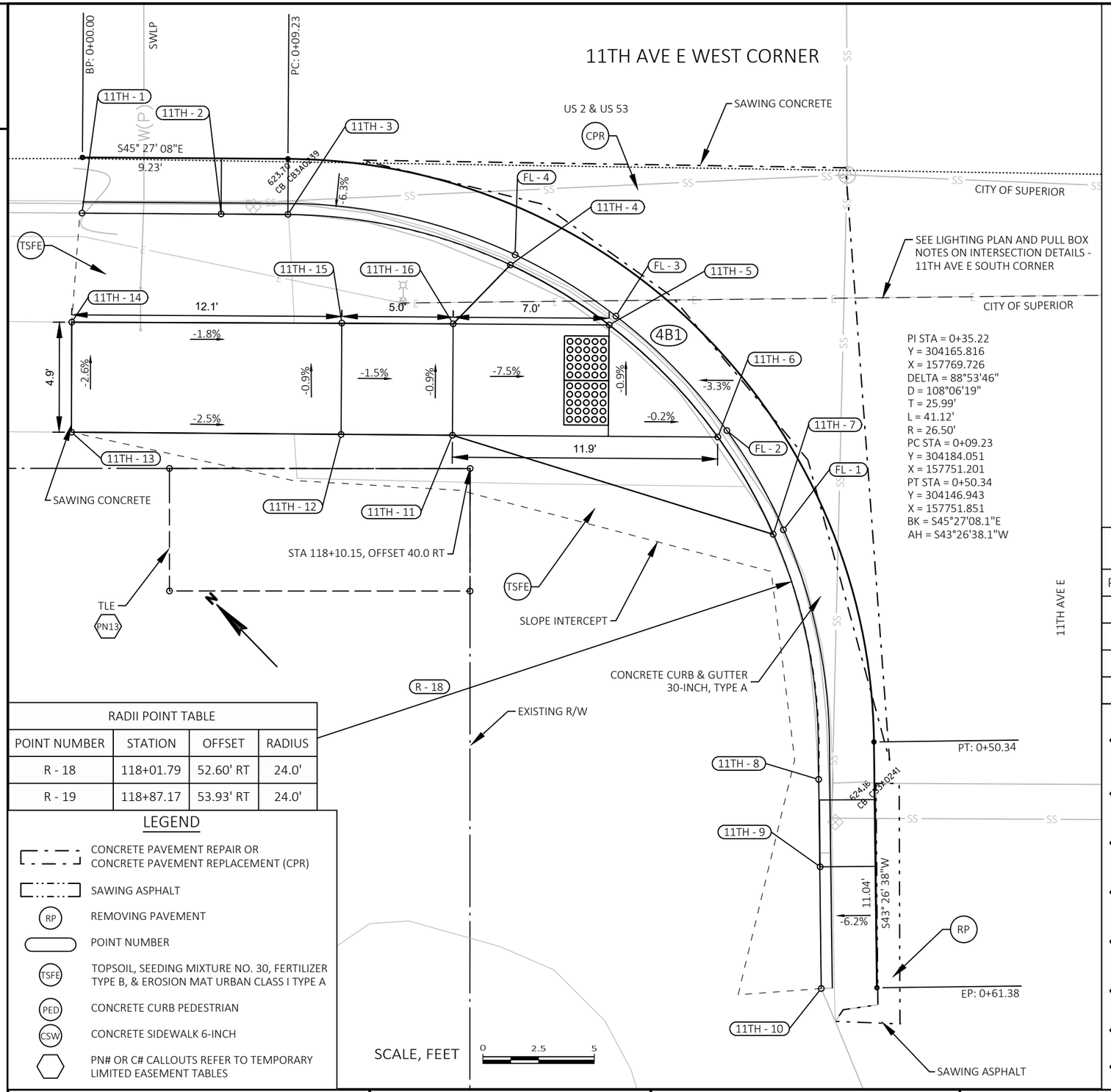
NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.



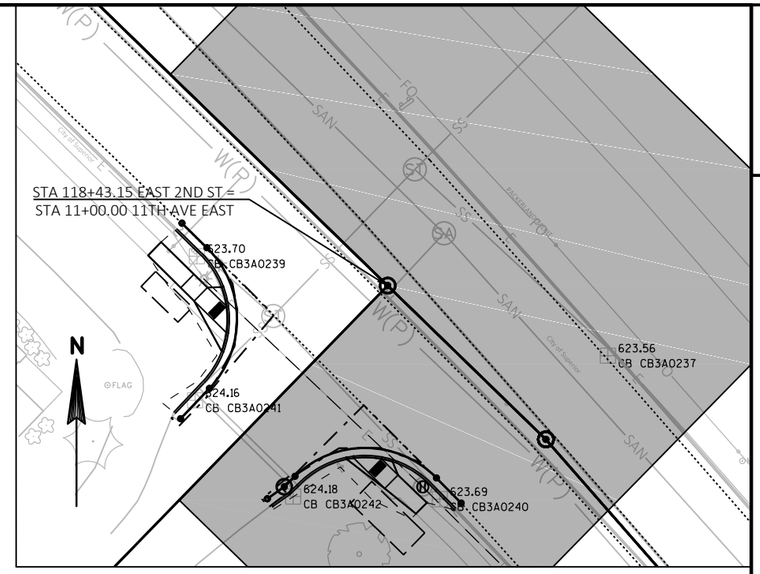




11TH AVE E WEST CORNER



PI STA = 0+35.22
Y = 304165.816
X = 157769.726
DELTA = 88°53'46"
D = 108°06'19"
T = 25.99'
L = 41.12'
R = 26.50'
PC STA = 0+09.23
Y = 304184.051
X = 157751.201
PT STA = 0+50.34
Y = 304146.943
X = 157751.851
BK = S45°27'08.1"E
AH = S43°26'38.1"W



POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	118+24.22	42.74' RT	624.13
FL - 2	118+21.68	38.29' RT	624.11
FL - 3	118+16.69	33.15' RT	624.07
FL - 4	118+12.17	30.41' RT	624.05

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
11TH - 1	117+92.72	28.54' RT	624.66
11TH - 2	117+98.96	28.58' RT	624.58
11TH - 3	118+01.96	28.59' RT	624.55
11TH - 4	118+11.95	30.86' RT	624.55
11TH - 5	118+16.39	33.55' RT	624.08
11TH - 6	118+21.27	38.58' RT	624.11
11TH - 7	118+23.76	42.94' RT	624.63
11TH - 8	118+25.81	53.95' RT	624.75
11TH - 9	118+25.88	57.87' RT	624.73
11TH - 10	118+25.93	63.33' RT	624.69
11TH - 11	118+09.36	38.50' RT	624.65
11TH - 12	118+04.36	38.47' RT	624.72
11TH - 13	117+92.25	38.38' RT	625.03
11TH - 14	117+92.26	33.44' RT	624.90
11TH - 15	118+04.39	33.47' RT	624.68
11TH - 16	118+09.39	33.50' RT	624.60

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 18	118+01.79	52.60' RT	24.0'
R - 19	118+87.17	53.93' RT	24.0'

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
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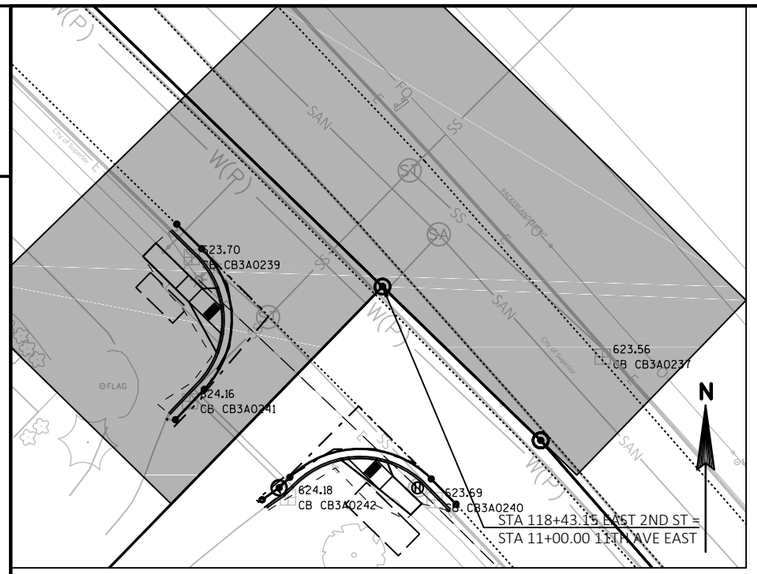

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- (RP) REMOVING PAVEMENT
- POINT NUMBER
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- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
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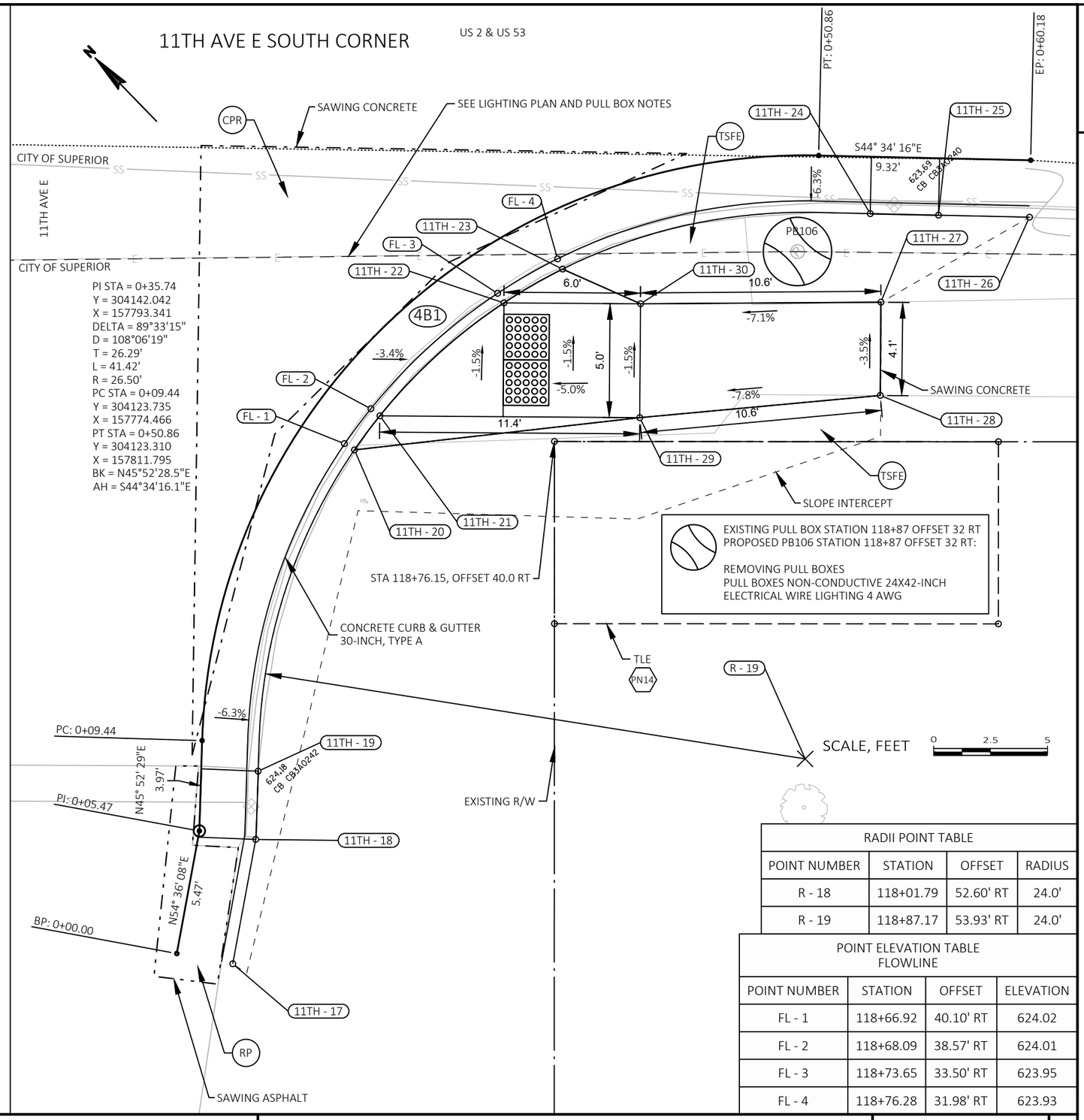
POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
11TH - 17	118+62.03	62.95' RT	624.47
11TH - 18	118+63.04	57.48' RT	624.81
11TH - 19	118+63.14	54.49' RT	624.75
11TH - 20	118+67.37	40.37' RT	624.52
11TH - 21	118+68.48	38.88' RT	624.02
11TH - 22	118+73.93	33.91' RT	623.96
11TH - 23	118+76.50	32.43' RT	624.43
11TH - 24	118+90.01	29.99' RT	624.23
11TH - 25	118+93.01	30.05' RT	624.23
11TH - 26	118+97.01	30.14' RT	624.36
11TH - 27	118+90.49	33.87' RT	624.38
11TH - 28	118+90.46	37.97' RT	624.38
11TH - 29	118+79.90	38.95' RT	0.00
11TH - 30	118+79.93	33.95' RT	624.43

11TH AVE E SOUTH CORNER

US 2 & US 53



RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 18	118+01.79	52.60' RT	24.0'
R - 19	118+87.17	53.93' RT	24.0'

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	118+66.92	40.10' RT	624.02
FL - 2	118+68.09	38.57' RT	624.01
FL - 3	118+73.65	33.50' RT	623.95
FL - 4	118+76.28	31.98' RT	623.93

2

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- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
14TH - 1	129+57.03	28.29' RT	624.56
14TH - 2	129+62.28	28.41' RT	624.64
14TH - 3	129+65.28	28.42' RT	624.70
14TH - 4	129+77.61	32.17' RT	625.07
14TH - 5	129+80.42	34.27' RT	624.67
14TH - 6	129+84.95	39.53' RT	624.86
14TH - 7	129+86.97	43.47' RT	625.40
14TH - 8	129+88.51	49.41' RT	625.77
14TH - 9	129+89.63	58.40' RT	626.12
14TH - 10	129+75.09	38.98' RT	624.93
14TH - 11	129+61.00	37.74' RT	625.42
14TH - 12	129+61.06	33.17' RT	625.21
14TH - 13	129+75.43	33.99' RT	624.80

14TH AVE E WEST CORNER

US 2 & US 53

MERIT/PACKERLAND

BP: 0+00.00
PC: 0+08.01
S40° 21' 42"E
8.01'
6.2%
624.10
CB CB3A001A

14TH - 1 14TH - 2 14TH - 3 TSFE CPR SAWING CONCRETE

CONCRETE CURB & GUTTER
30-INCH, TYPE A

PI STA = 0+31.06
Y = 303298.260
X = 158536.455
DELTA = 82°02'11"
D = 108°06'19"
T = 23.05'
L = 37.94'
R = 26.50'
PC STA = 0+08.01
Y = 303315.824
X = 158521.527
PT STA = 0+45.95
Y = 303281.043
X = 158521.128
BK = S40°21'41.9"E
AH = S41°40'29.2"W

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 2 / USH 53

14TH AVE E

CAUTION

SWLP

14TH - 12 14TH - 13 14TH - 4 14TH - 5 14TH - 6 14TH - 7 14TH - 8 14TH - 9 14TH - 10 14TH - 11

FL - 4 FL - 3 FL - 2 FL - 1

4B1

14.4' -2.7% 5.0' -4.0% -2.6% -2.5% -4.8%
4.6' -4.6%
5.0' -2.5%
-3.4% 14.1' 9.9'

SAWING CONCRETE

SCALE, FEET 0 2.5 5

STA 129+77.50, OFFSET 40.0 RT

TLE
PN15

R - 20

EXISTING R/W

TSFE

-4.0%

PT: 0+45.95

CITY OF SUPERIOR

SLOPE INTERCEPT

9.05'
S41° 40' 29"W

-6.1%

EP: 0+55.00

RP

SAWING ASPHALT

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 20	129+64.69	52.40' RT	24.0'
R - 21	130+50.08	52.27' RT	24.0'

N

STA 130+07.48 EAST 2ND ST =
STA 14+00.00 14TH AVE EAST

624.10
CB CB3A001A

624.97
CB CB3A0253

625.10
CB CB3A0254

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	129+87.43	43.28' RT	624.98
FL - 2	129+85.38	39.26' RT	624.86
FL - 3	129+80.75	33.89' RT	624.67
FL - 4	129+77.88	31.75' RT	624.57

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 14TH AVE E WEST CORNER	SHEET 37	E

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

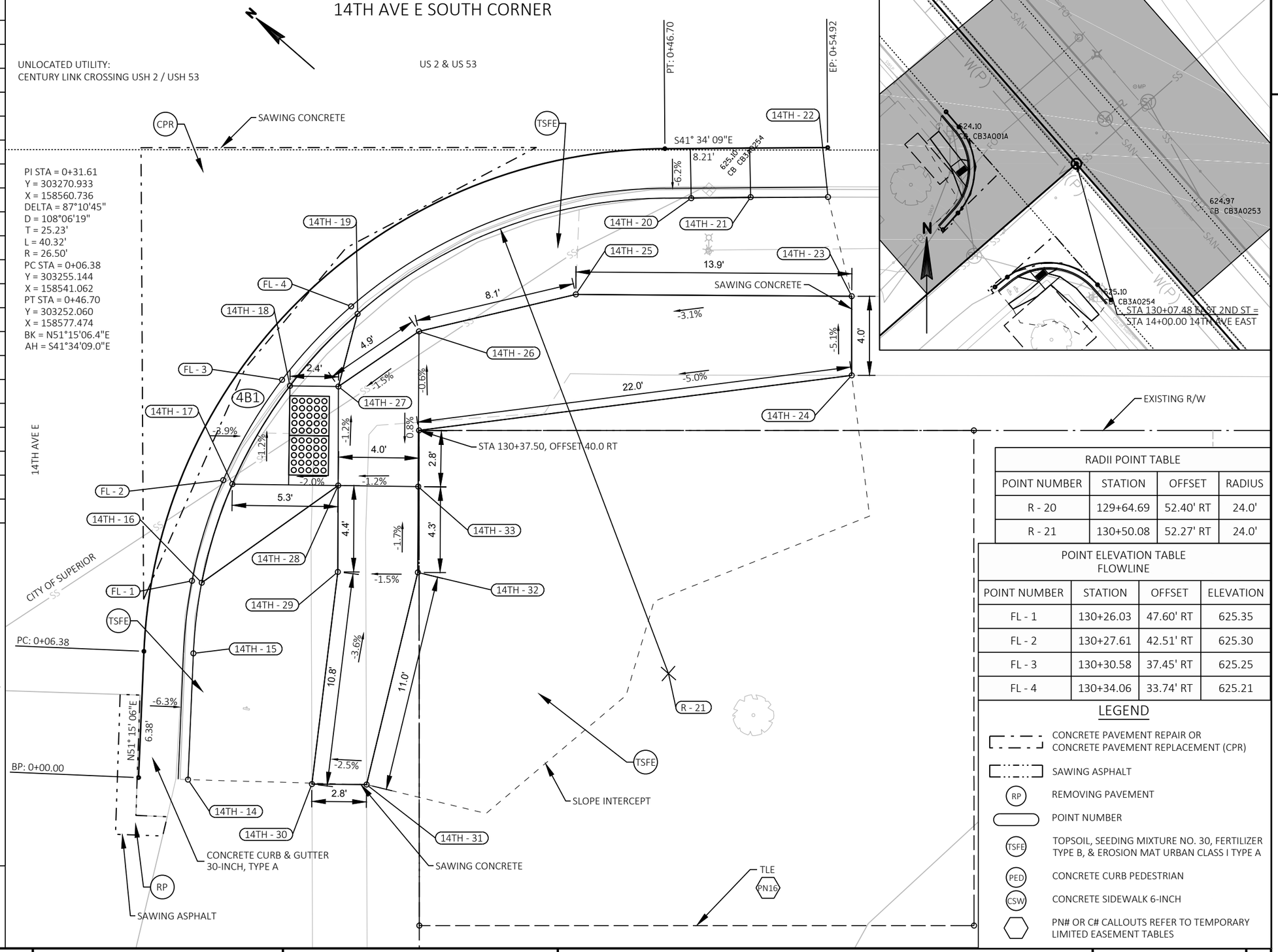
POINT NUMBER	STATION	OFFSET	ELEVATION
14TH - 14	130+25.83	57.63' RT	626.04
14TH - 15	130+26.10	51.26' RT	625.89
14TH - 16	130+26.52	47.69' RT	625.76
14TH - 17	130+28.07	42.71' RT	625.31
14TH - 18	130+30.98	37.75' RT	625.26
14TH - 19	130+34.39	34.11' RT	625.72
14TH - 20	130+51.23	28.28' RT	625.62
14TH - 21	130+54.23	28.22' RT	625.64
14TH - 22	130+58.13	28.22' RT	625.69
14TH - 23	130+59.33	33.23' RT	626.32
14TH - 24	130+59.33	37.22' RT	626.52
14TH - 25	130+45.41	33.13' RT	625.79
14TH - 26	130+37.49	35.00' RT	625.39
14TH - 27	130+33.42	37.78' RT	625.31
14TH - 28	130+33.41	42.78' RT	625.38
14TH - 29	130+33.40	47.14' RT	625.44
14TH - 30	130+32.09	57.86' RT	625.82
14TH - 31	130+34.84	57.88' RT	625.89
14TH - 32	130+37.43	47.17' RT	625.50
14TH - 33	130+37.45	42.84' RT	625.43

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

SCALE, FEET 0 2.5 5

14TH AVE E SOUTH CORNER



RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 20	129+64.69	52.40' RT	24.0'
R - 21	130+50.08	52.27' RT	24.0'

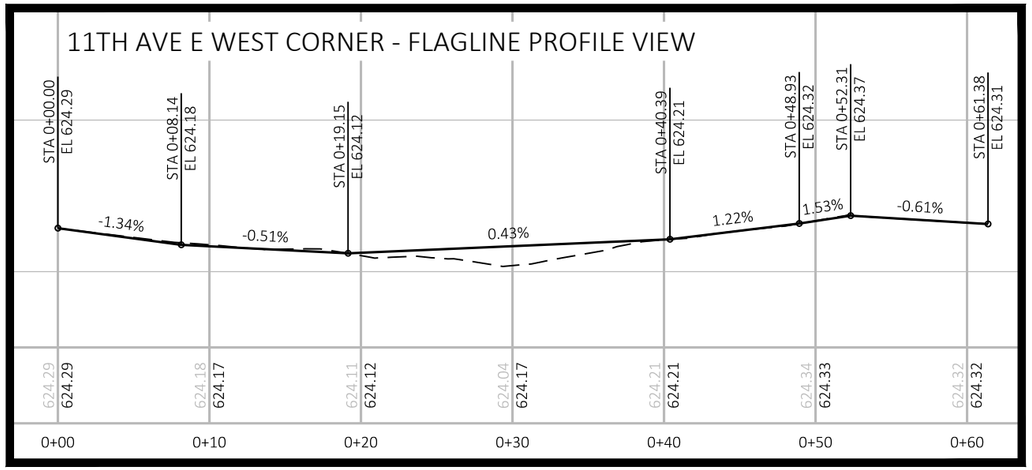
POINT ELEVATION TABLE
FLOWLINE

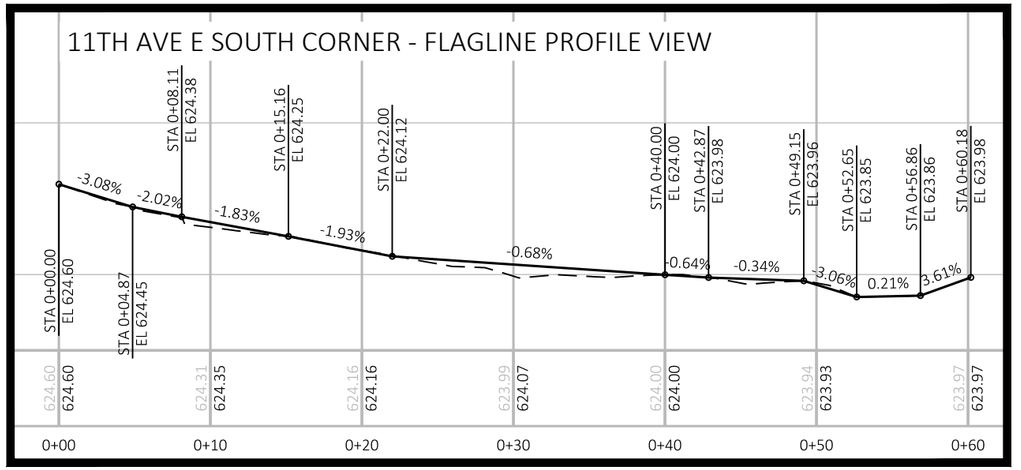
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	130+26.03	47.60' RT	625.35
FL - 2	130+27.61	42.51' RT	625.30
FL - 3	130+30.58	37.45' RT	625.25
FL - 4	130+34.06	33.74' RT	625.21

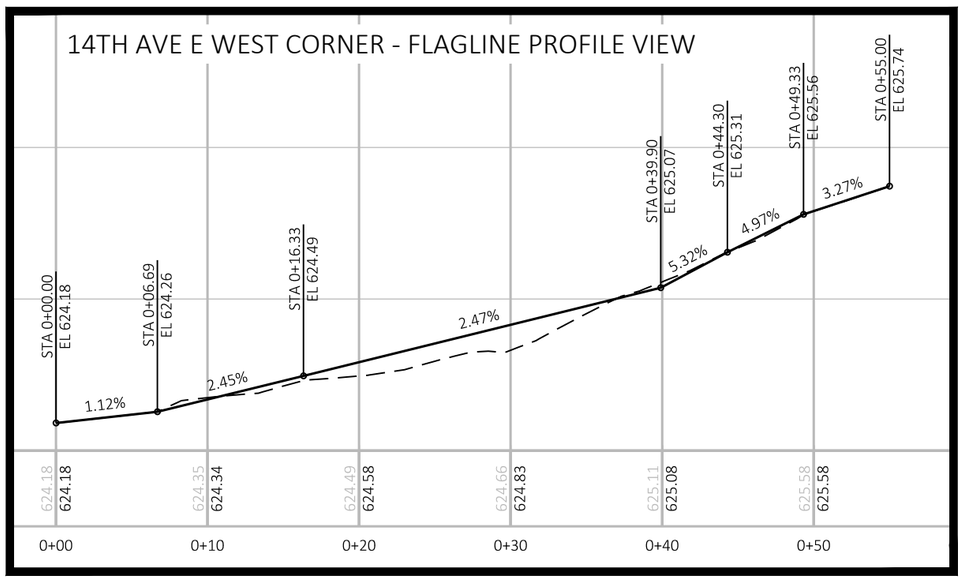
LEGEND

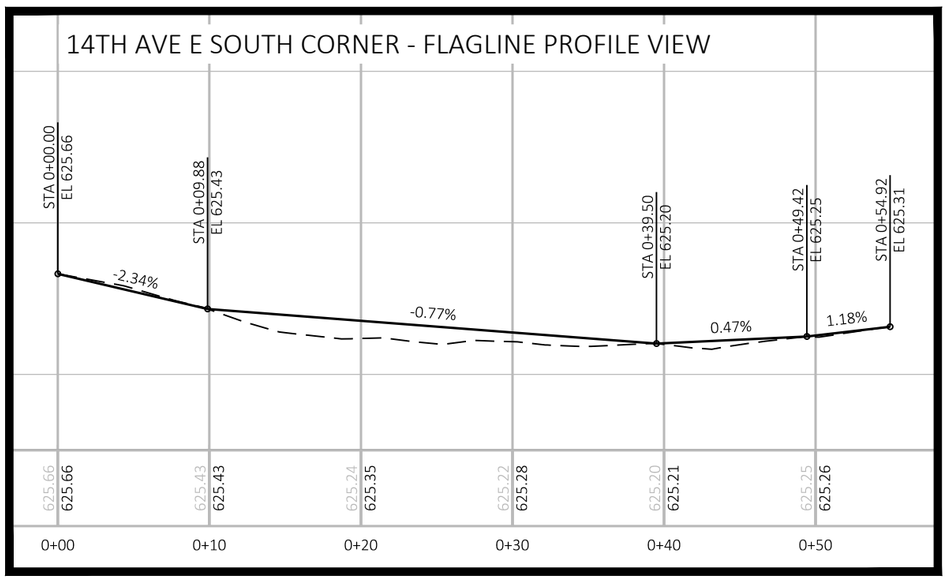
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 14TH AVE E SOUTH CORNER	SHEET 38	E







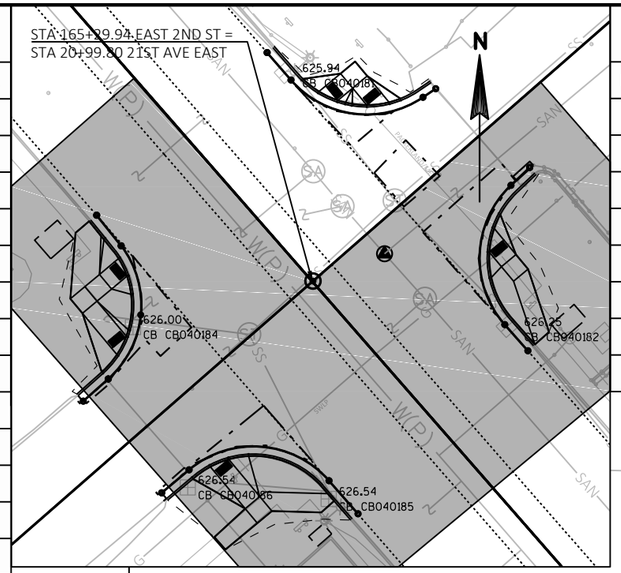


NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
21ST - 1	164+76.61	33.28' LT	626.54
21ST - 2	164+82.12	33.26' LT	626.47
21ST - 3	164+85.12	33.26' LT	626.47
21ST - 4	164+88.04	33.33' LT	626.43
21ST - 5	164+93.33	34.33' LT	625.89
21ST - 6	164+98.39	36.56' LT	625.81
21ST - 7	165+00.13	37.69' LT	626.03
21ST - 8	165+01.54	38.79' LT	625.99
21ST - 9	164+98.51	41.61' LT	625.89
21ST - 10	165+04.32	41.47' LT	625.65
21ST - 11	165+07.65	46.40' LT	625.52
21ST - 12	165+08.88	49.28' LT	625.77
21ST - 13	165+10.06	54.27' LT	625.24
21ST - 14	165+10.57	58.30' LT	624.53
21ST - 15	164+98.63	46.61' LT	625.80
21ST - 16	164+93.63	46.73' LT	625.88
21ST - 17	164+93.51	41.73' LT	625.96



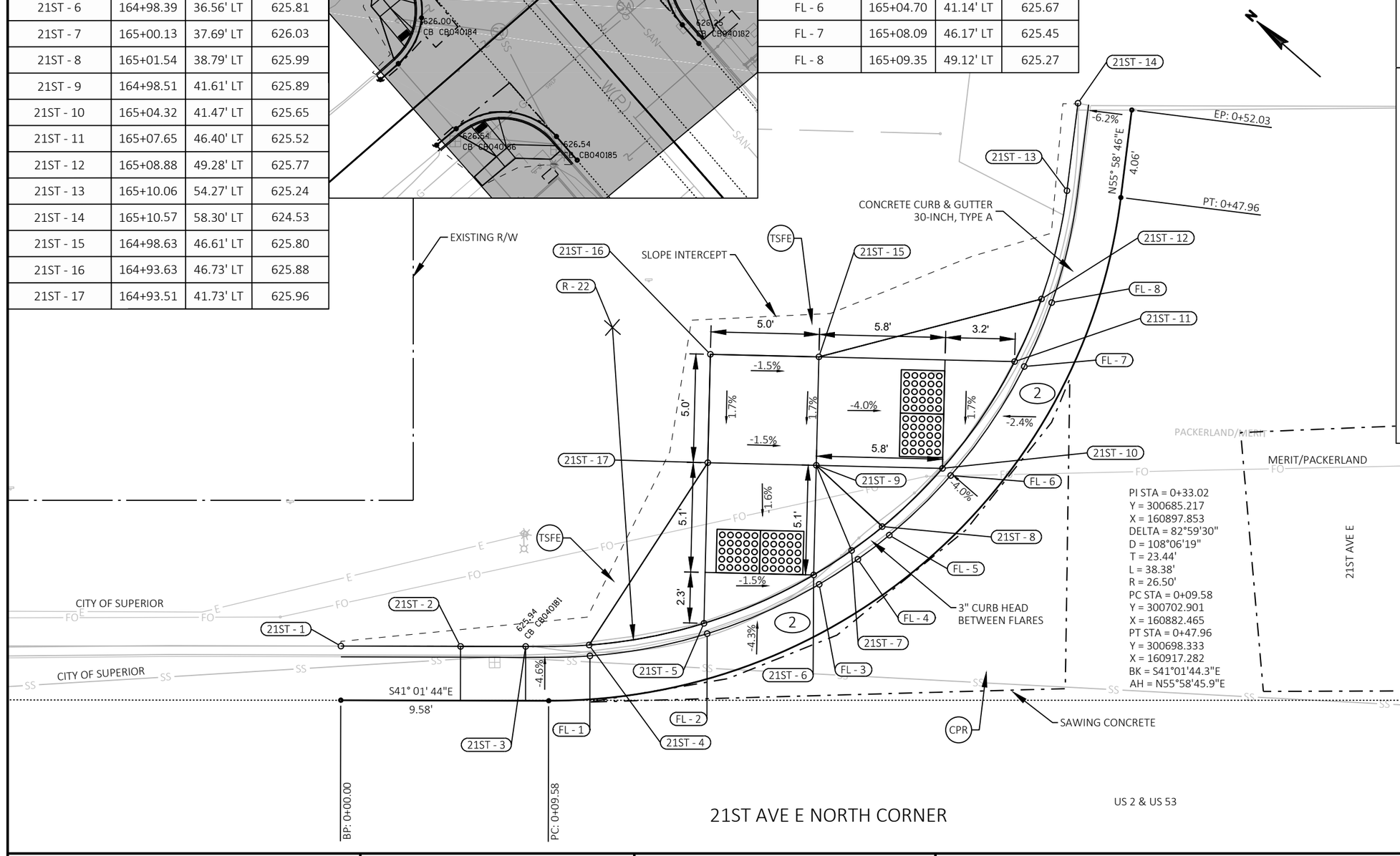
POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	164+88.08	32.83' LT	625.97
FL - 2	164+93.48	33.85' LT	625.92
FL - 3	164+98.64	36.13' LT	625.87
FL - 4	165+00.42	37.28' LT	0.00
FL - 5	165+01.87	38.39' LT	625.84
FL - 6	165+04.70	41.14' LT	625.67
FL - 7	165+08.09	46.17' LT	625.45
FL - 8	165+09.35	49.12' LT	625.27

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 22	164+89.12	47.97' LT	24.0'
R - 23	165+71.79	57.24' LT	24.0'

SCALE, FEET 0 2.5 5



LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

CURB RAMP LEGEND

(1)	TYPE 1 RAMP
(2)	TYPE 2 RAMP
(2M)	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
(3)	TYPE 3 RAMP
(4B1)	TYPE 4B1 RAMP
(7B)	TYPE 7B RAMP

2

2

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
21ST - 17	165+81.10	33.28' LT	626.99
21ST - 18	165+74.14	33.24' LT	626.82
21ST - 19	165+71.14	33.24' LT	626.75
21ST - 20	165+60.22	36.21' LT	626.54
21ST - 21	165+54.83	40.26' LT	625.89
21ST - 22	165+50.94	45.36' LT	625.75
21ST - 23	165+49.25	49.00' LT	626.16
21ST - 24	165+47.81	56.26' LT	625.51
21ST - 25	165+47.54	63.08' LT	624.79
21ST - 26	165+59.95	45.14' LT	626.09
21ST - 27	165+64.95	45.02' LT	626.17
21ST - 28	165+81.06	38.25' LT	627.08
21ST - 29	165+64.83	40.02' LT	626.24
21ST - 30	165+59.83	40.14' LT	626.17

POINT ELEVATION TABLE
FLOWLINE

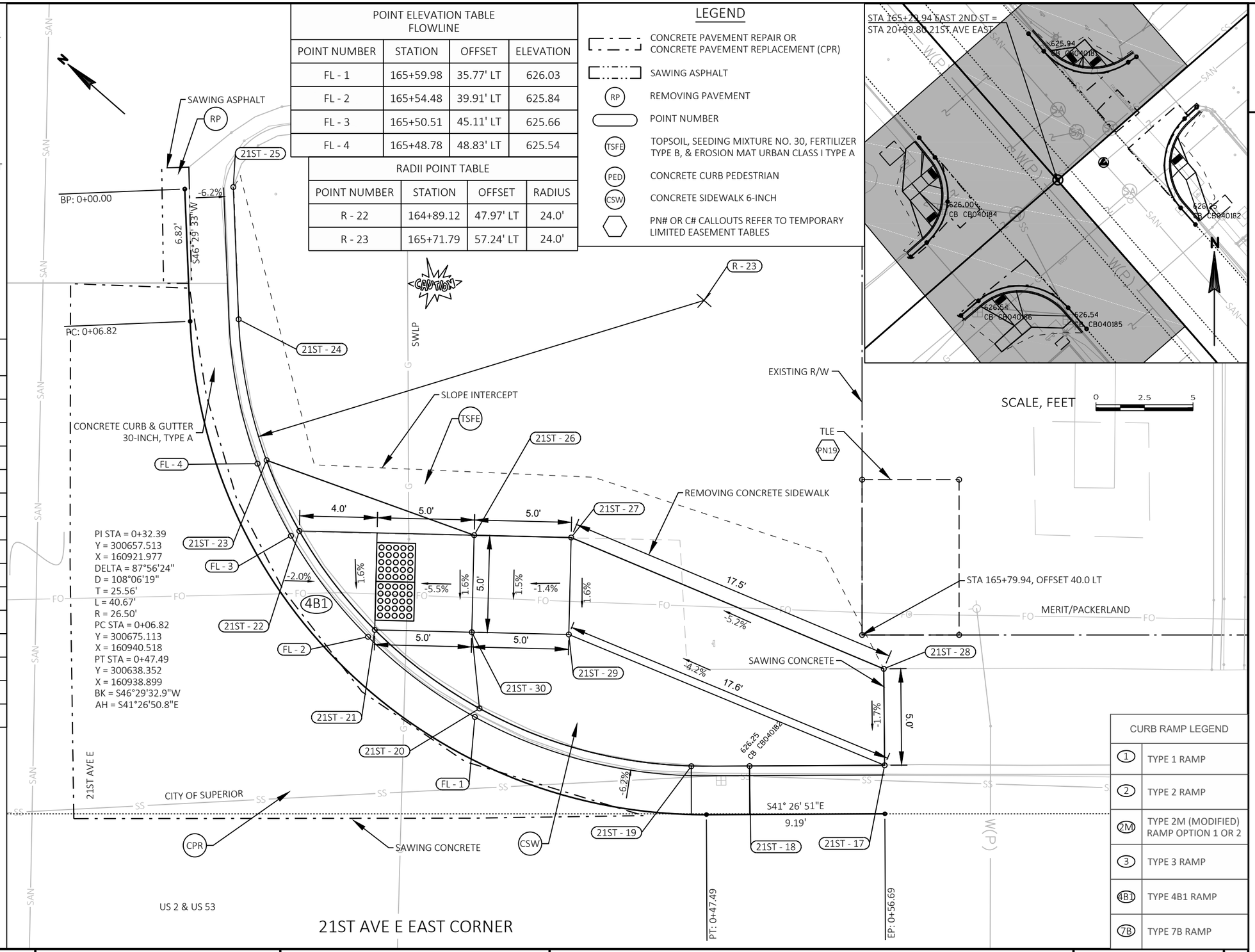
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	165+59.98	35.77' LT	626.03
FL - 2	165+54.48	39.91' LT	625.84
FL - 3	165+50.51	45.11' LT	625.66
FL - 4	165+48.78	48.83' LT	625.54

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 22	164+89.12	47.97' LT	24.0'
R - 23	165+71.79	57.24' LT	24.0'

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES



CURB RAMP LEGEND

1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

2

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 21ST AVE E EAST CORNER	SHEET 41	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_2ND-21ST.DWG
LAYOUT NAME - 29_21st_E
PLOT DATE : 9/13/2019 11:33 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : #########
WISDOT/CADDS SHEET 42

2

GENERAL CONSTRUCTION NOTES:

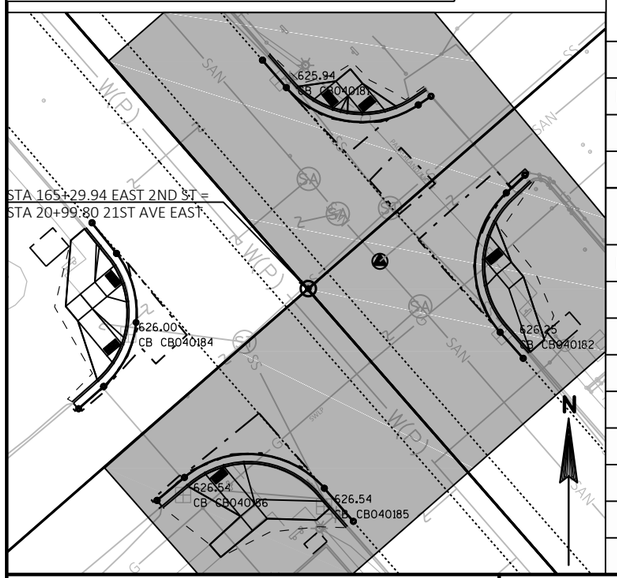
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
21ST - 31	164+79.19	33.86' RT	626.82
21ST - 32	164+84.15	34.05' RT	626.76
21ST - 33	164+85.33	34.10' RT	626.79
21ST - 34	164+91.68	34.53' RT	626.21
21ST - 35	164+96.65	35.94' RT	626.14
21ST - 36	165+00.95	38.24' RT	626.64
21ST - 37	164+96.52	41.18' RT	626.35
21ST - 38	165+05.50	42.26' RT	626.43
21ST - 39	165+07.34	44.63' RT	626.53
21ST - 40	165+07.53	44.95' RT	626.58
21ST - 41	165+08.43	46.47' RT	626.12
21ST - 42	165+10.46	51.52' RT	626.24
21ST - 43	165+11.30	57.55' RT	0.00
21ST - 44	165+11.37	66.33' RT	626.85
21ST - 45	164+96.28	51.18' RT	626.50
21ST - 46	164+91.28	51.06' RT	626.55
21ST - 47	164+96.40	46.18' RT	626.43
21ST - 48	164+91.40	46.06' RT	626.49
21ST - 49	164+91.52	41.06' RT	626.43
21ST - 50	164+79.09	38.60' RT	626.84



STA 165+29.94 EAST 2ND ST =
STA 20+99.80 21ST AVE EAST

RADII POINT TABLE

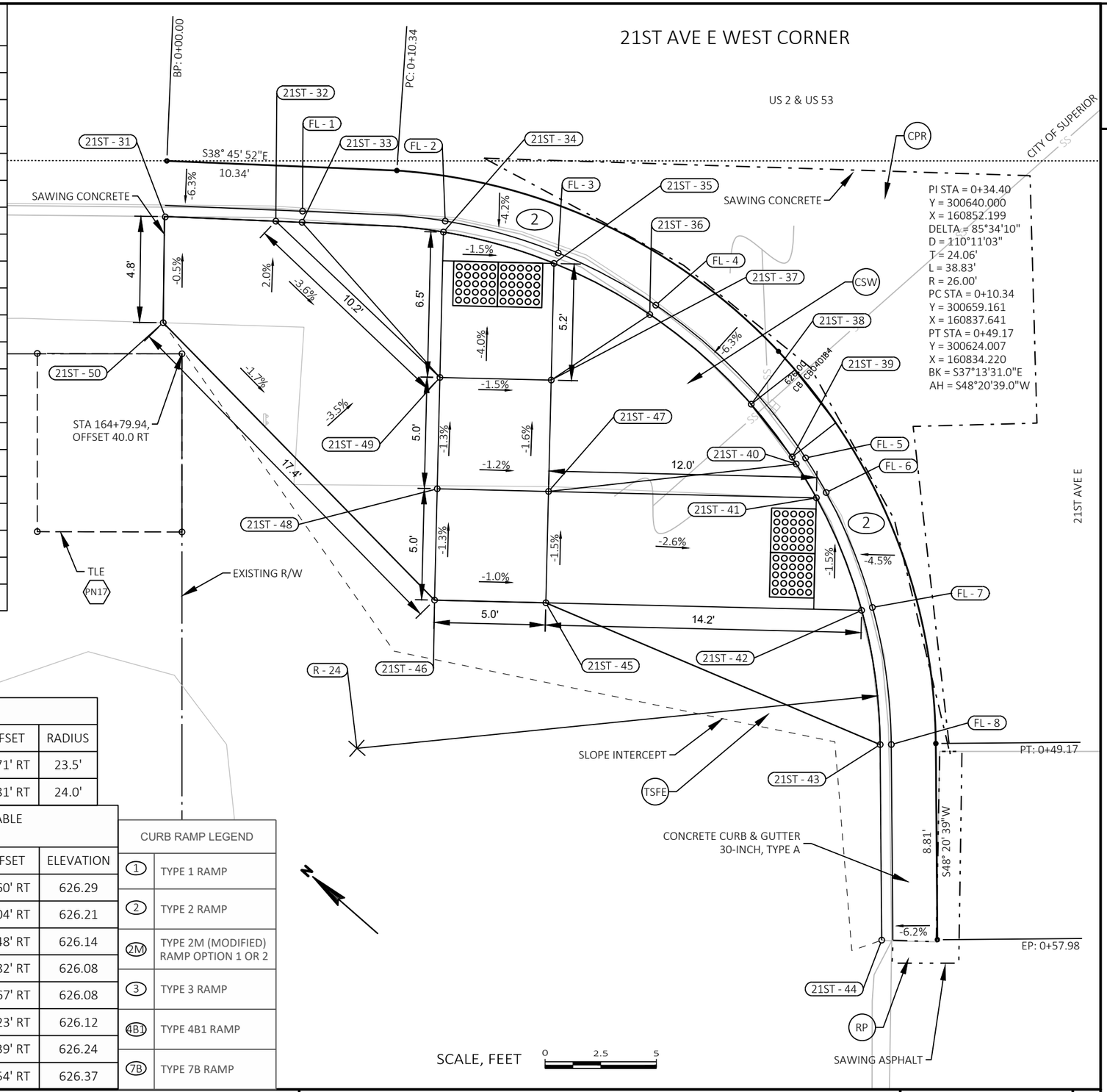
POINT NUMBER	STATION	OFFSET	RADIUS
R - 24	164+87.80	57.71' RT	23.5'
R - 25	165+72.39	57.81' RT	24.0'

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	164+85.35	33.60' RT	626.29
FL - 2	164+91.76	34.04' RT	626.21
FL - 3	164+96.84	35.48' RT	626.14
FL - 4	165+01.22	37.82' RT	626.08
FL - 5	165+07.95	44.67' RT	626.08
FL - 6	165+08.87	46.23' RT	626.12
FL - 7	165+10.95	51.39' RT	626.24
FL - 8	165+11.80	57.54' RT	626.37

CURB RAMP LEGEND

(1)	TYPE 1 RAMP
(2)	TYPE 2 RAMP
(2M)	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
(3)	TYPE 3 RAMP
(4B1)	TYPE 4B1 RAMP
(7B)	TYPE 7B RAMP



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 21ST AVE E WEST CORNER	SHEET 42	E

21ST AVE E SOUTH CORNER

US 2 & US 53

CITY OF SUPERIOR

21ST AVE E

SAWING CONCRETE

CPR

CSW

PI STA = 0+35.34
Y = 300616.641
X = 160875.428
DELTA = 88°41'51"
D = 108°06'19"
T = 25.90'
L = 41.02'
R = 26.50'
PC STA = 0+09.43
Y = 300600.022
X = 160855.557
PT STA = 0+50.46
Y = 300597.152
X = 160892.494
BK = N50°05'40.5"E
AH = S41°12'28.3"E

PT: 0+50.46

EP: 0+62.08

S41° 12' 28"E 11.62'

626.54 CB CB040185

21ST - 58
21ST - 59
21ST - 60
21ST - 61
21ST - 62
21ST - 63
21ST - 64
21ST - 65
21ST - 66
21ST - 67
21ST - 68
21ST - 51
21ST - 52
21ST - 53
21ST - 54
21ST - 55
21ST - 56
21ST - 57

FL - 1
FL - 2
FL - 3
FL - 4

-6.2%
-0.6%
4.5'
16.5'
-1.0%
13.0'
12.8'
1.9'
-1.1%
5.0'
-4.1%
-0.9%
-3.4%
-1.0%
14.4'
1.0%
0.5%
10.9'
-2.3%
4.4'
-6.3%
9.43'
N50° 05' 40"E

4B1

PC: 0+09.43

BP: 0+00.00

626.54 CB CB040186

CAUTION

SWLP

G(P)

CONCRETE CURB & GUTTER 30-INCH, TYPE A

SLOPE INTERCEPT

SAWING CONCRETE

SAWING ASPHALT

TSFE

RP

R - 25

STA 165+79.94, OFFSET 40.0 RT

TLE

PN18

EXISTING R/W

SCALE, FEET 0 2.5 5

RADII POINT TABLE

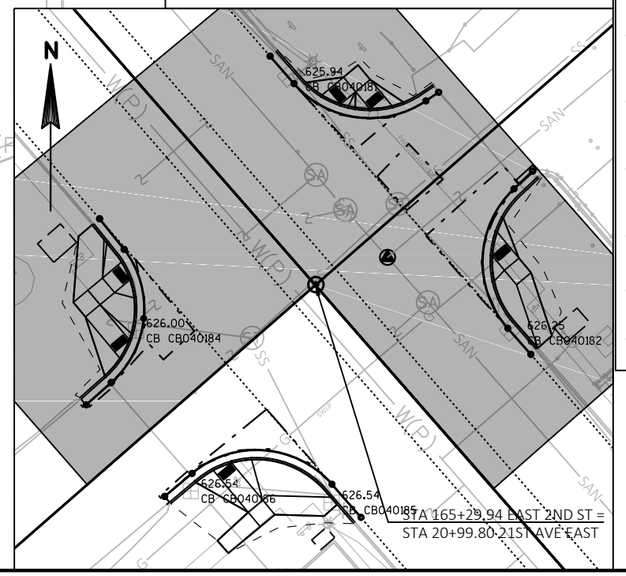
POINT NUMBER	STATION	OFFSET	RADIUS
R - 24	164+87.80	57.71' RT	23.5'
R - 25	165+72.39	57.81' RT	24.0'

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	165+47.88	57.99' RT	626.63
FL - 2	165+48.51	52.33' RT	626.59
FL - 3	165+50.27	47.27' RT	626.54
FL - 4	165+53.13	42.67' RT	626.50

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

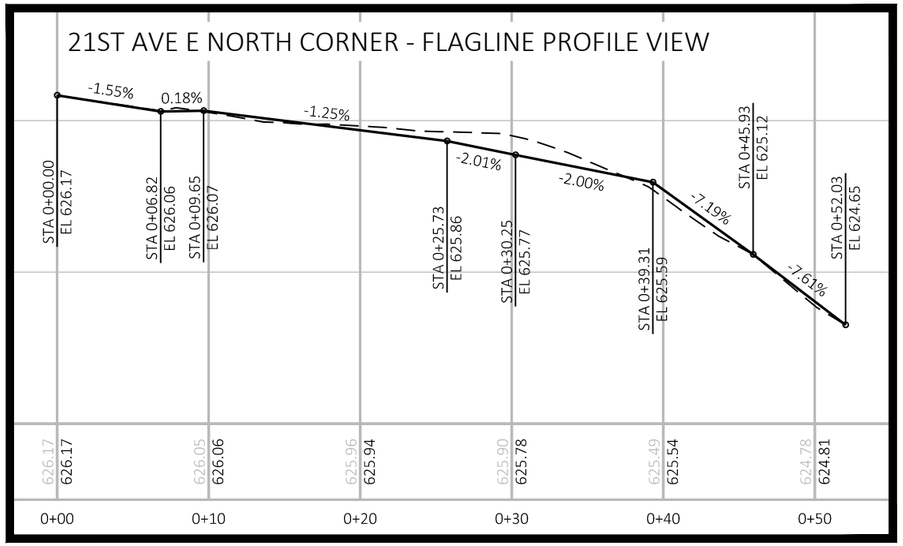


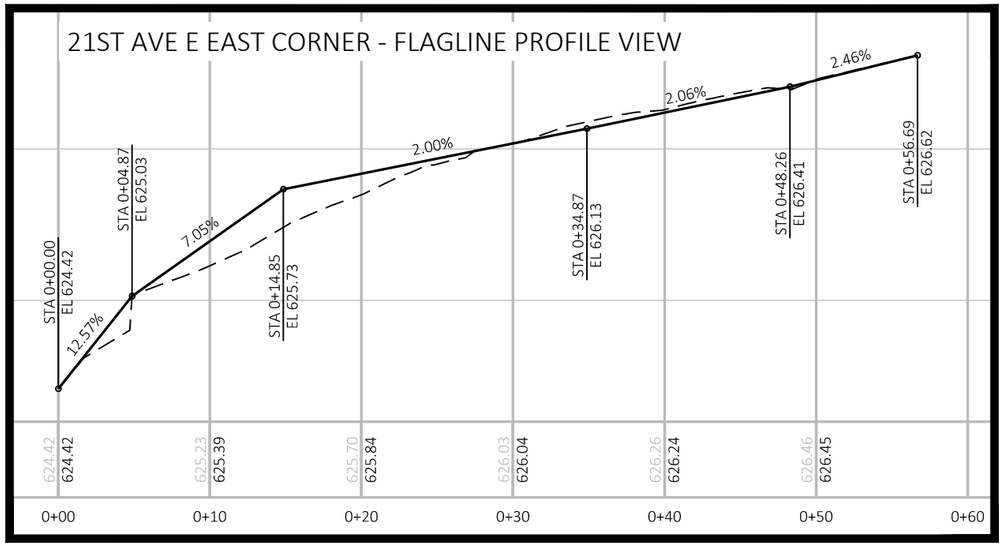
POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

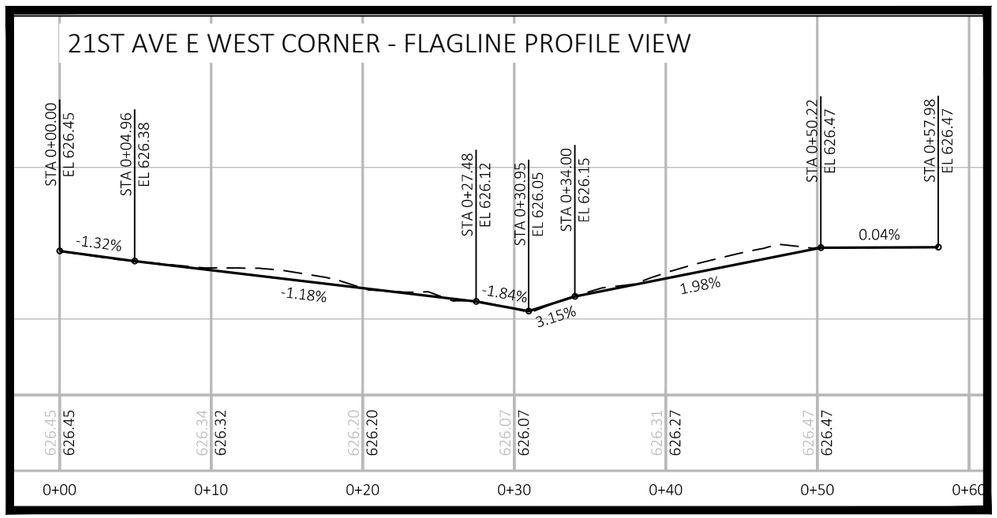
POINT NUMBER	STATION	OFFSET	ELEVATION
21ST - 51	165+48.19	66.71' RT	627.26
21ST - 52	165+48.29	61.35' RT	627.17
21ST - 53	165+48.36	58.35' RT	627.13
21ST - 54	165+48.38	58.00' RT	627.09
21ST - 55	165+49.00	52.44' RT	626.59
21ST - 56	165+50.73	47.48' RT	626.55
21ST - 57	165+53.52	42.98' RT	627.00
21ST - 58	165+73.65	33.81' RT	627.10
21ST - 59	165+76.65	33.81' RT	627.14
21ST - 60	165+77.29	33.81' RT	627.16
21ST - 61	165+83.99	33.81' RT	627.33
21ST - 62	165+77.32	38.35' RT	627.18
21ST - 63	165+68.49	47.91' RT	627.03
21ST - 64	165+68.37	52.91' RT	627.08
21ST - 65	165+68.04	63.83' RT	627.02
21ST - 66	165+63.66	63.84' RT	626.92
21ST - 67	165+63.37	52.79' RT	627.03
21ST - 68	165+63.49	47.79' RT	626.98

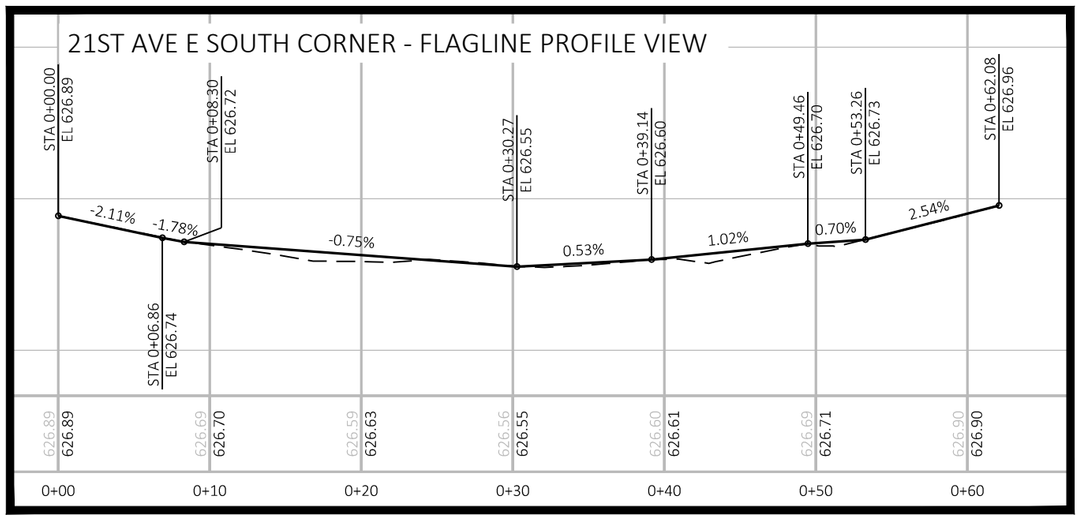
GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.









NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

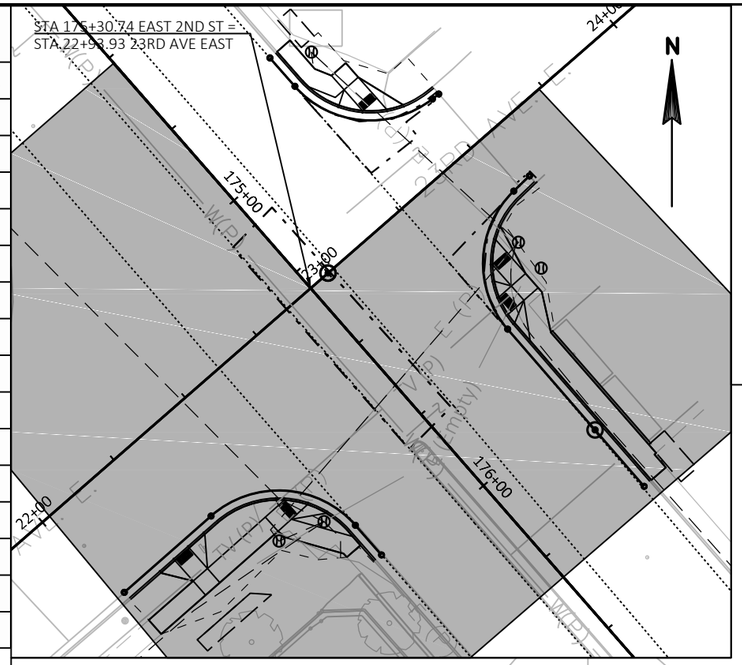
POINT NUMBER	STATION	OFFSET	ELEVATION
23RD - 1	174+77.91	34.41' LT	628.88
23RD - 2	174+85.80	34.42' LT	628.72
23RD - 3	174+88.80	34.42' LT	628.70
23RD - 4	174+97.16	38.03' LT	628.53
23RD - 5	174+97.14	41.11' LT	628.47
23RD - 6	174+99.37	37.38' LT	628.55
23RD - 7	175+04.51	41.15' LT	627.96
23RD - 8	175+08.48	46.17' LT	627.85
23RD - 9	175+10.41	50.22' LT	628.29
23RD - 10	175+11.93	59.28' LT	627.83
23RD - 11	174+97.12	46.11' LT	628.41
23RD - 12	174+92.12	46.09' LT	628.49
23RD - 13	174+92.14	41.09' LT	628.55
23RD - 14	174+87.90	38.93' LT	628.69
23RD - 15	174+77.90	38.95' LT	629.02

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	174+99.61	36.94' LT	628.09
FL - 2	175+04.85	40.79' LT	627.96
FL - 3	175+08.91	45.91' LT	627.85
FL - 4	175+10.88	50.05' LT	627.72

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.



EXISTING PULL BOX STATION 174+84 OFFSET 41 LT
PROPOSED PB107 STATION 174+84 OFFSET 41 LT:

REMOVING PULL BOXES
PULL BOXES NON-CONDUCTIVE 24X42-INCH
ELECTRICAL WIRE LIGHTING 4 AWG

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

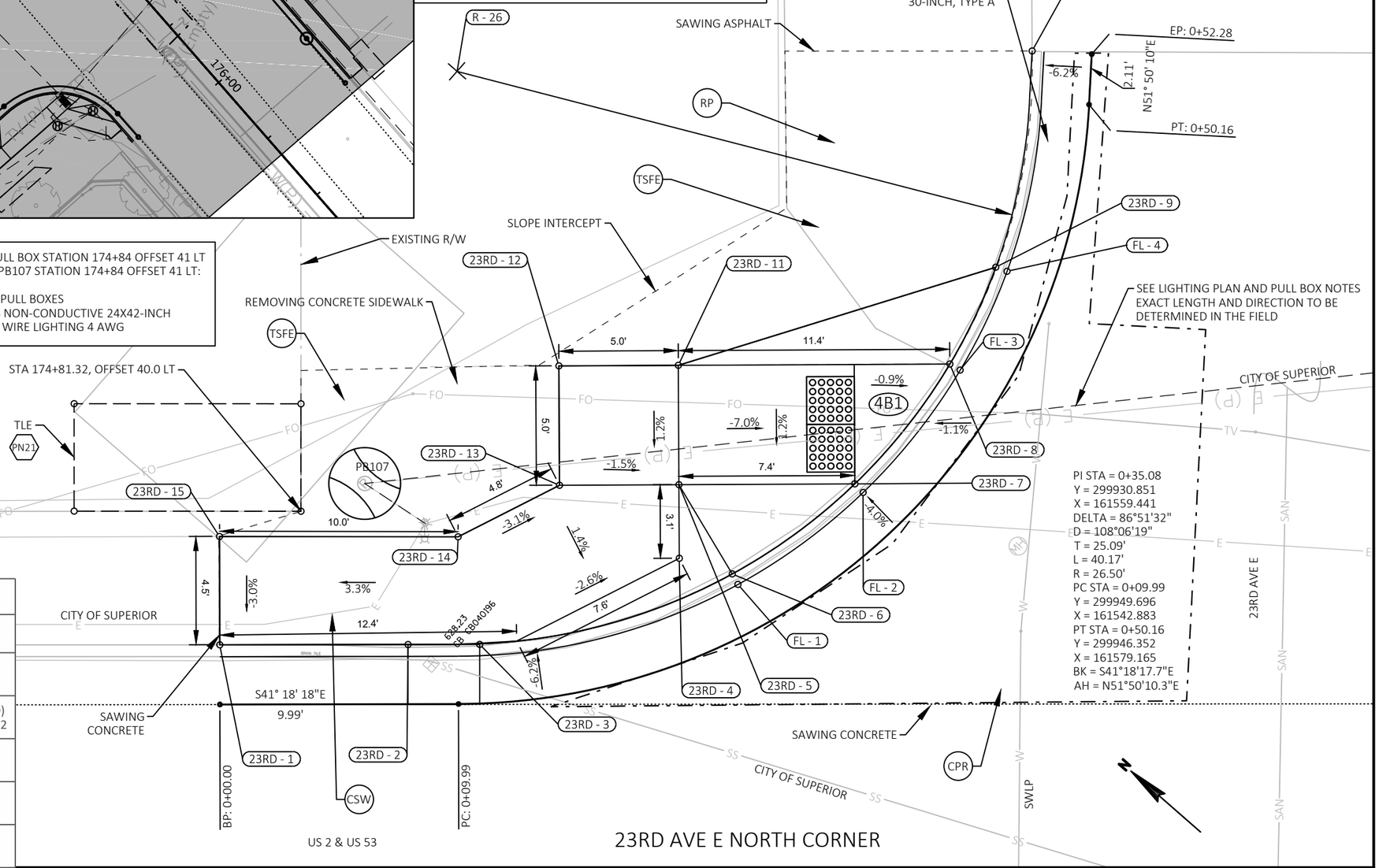
RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 26	174+87.85	58.43' LT	24.0'

SCALE, FEET 0 2.5 5

CURB RAMP LEGEND

1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP



US 2 & US 53

23RD AVE E NORTH CORNER

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 23RD AVE E NORTH CORNER	SHEET 45	E

2

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 27	175+73.22	58.50' LT	24.0'

EXISTING PULL BOX STATION 175+58 OFFSET 48 LT
PROPOSED PB108 STATION 175+58 OFFSET 50 LT
EXISTING PULL BOX STATION 175+67 OFFSET 42 LT
PROPOSED PB109 STATION 175+67 OFFSET 50 LT:

REMOVING PULL BOXES
PULL BOXES NON-CONDUCTIVE 24X42-INCH
CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4 -INCH
ELECTRICAL WIRE LIGHTING 4 AWG

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

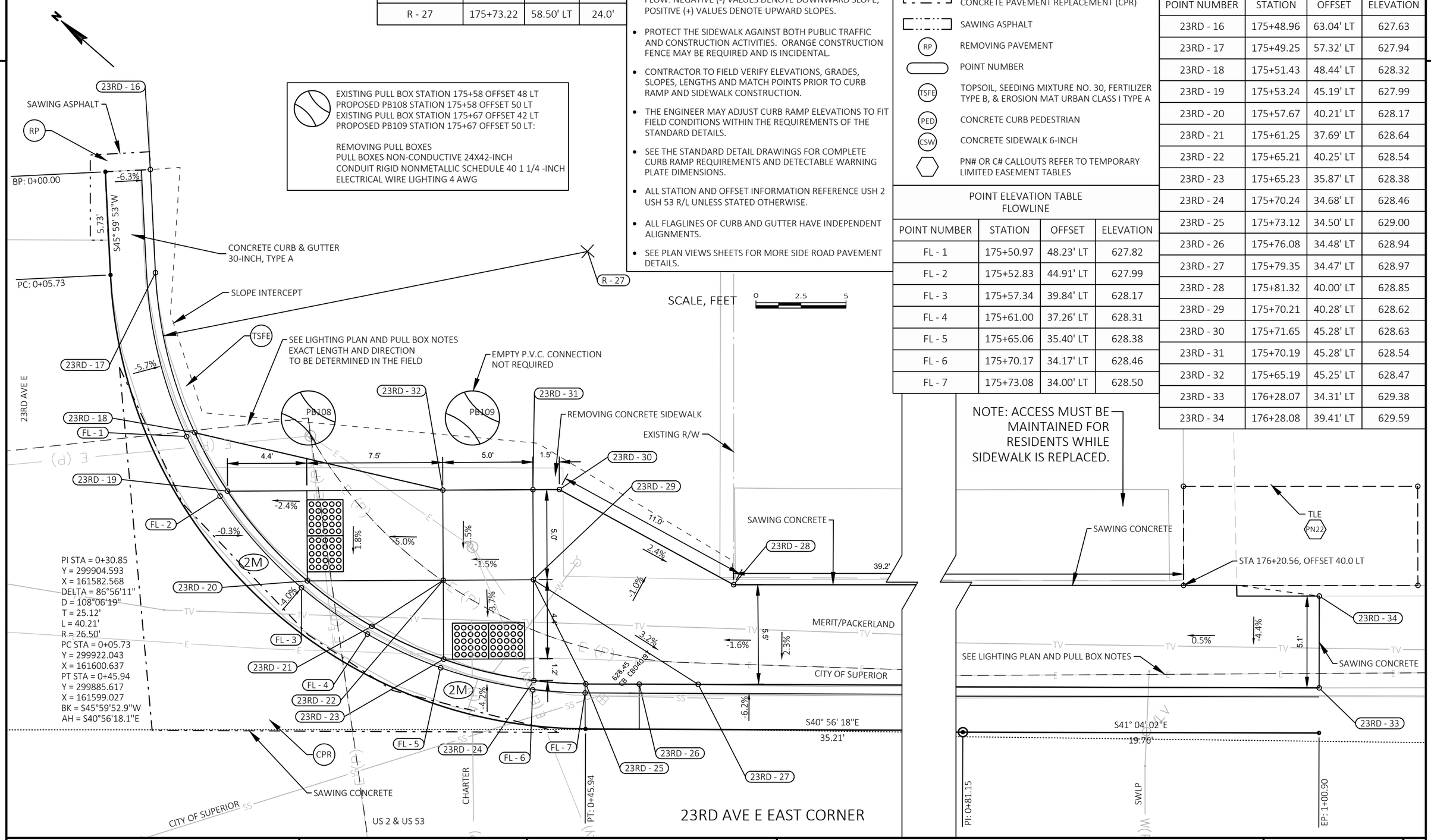
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	175+50.97	48.23' LT	627.82
FL - 2	175+52.83	44.91' LT	627.99
FL - 3	175+57.34	39.84' LT	628.17
FL - 4	175+61.00	37.26' LT	628.31
FL - 5	175+65.06	35.40' LT	628.38
FL - 6	175+70.17	34.17' LT	628.46
FL - 7	175+73.08	34.00' LT	628.50

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
23RD - 16	175+48.96	63.04' LT	627.63
23RD - 17	175+49.25	57.32' LT	627.94
23RD - 18	175+51.43	48.44' LT	628.32
23RD - 19	175+53.24	45.19' LT	627.99
23RD - 20	175+57.67	40.21' LT	628.17
23RD - 21	175+61.25	37.69' LT	628.64
23RD - 22	175+65.21	40.25' LT	628.54
23RD - 23	175+65.23	35.87' LT	628.38
23RD - 24	175+70.24	34.68' LT	628.46
23RD - 25	175+73.12	34.50' LT	629.00
23RD - 26	175+76.08	34.48' LT	628.94
23RD - 27	175+79.35	34.47' LT	628.97
23RD - 28	175+81.32	40.00' LT	628.85
23RD - 29	175+70.21	40.28' LT	628.62
23RD - 30	175+71.65	45.28' LT	628.63
23RD - 31	175+70.19	45.28' LT	628.54
23RD - 32	175+65.19	45.25' LT	628.47
23RD - 33	176+28.07	34.31' LT	629.38
23RD - 34	176+28.08	39.41' LT	629.59

SCALE, FEET 0 2.5 5

NOTE: ACCESS MUST BE MAINTAINED FOR RESIDENTS WHILE SIDEWALK IS REPLACED.



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 23RD AVE E EAST CORNER	SHEET 46	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 34_23rd_E
PLOT DATE : 9/13/2019 11:38 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : #########

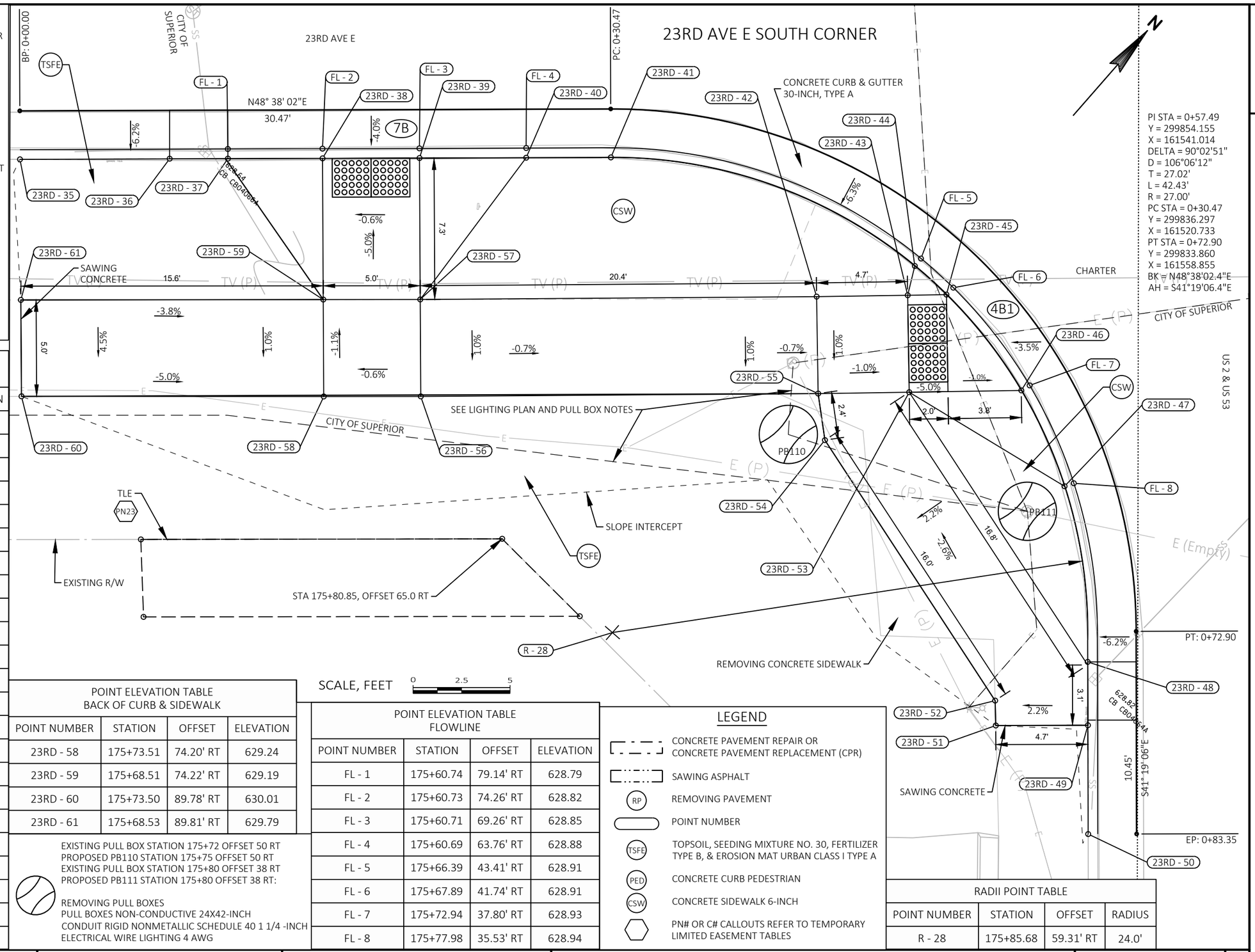
2

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
23RD - 35	175+61.28	89.86' RT	629.40
23RD - 36	175+61.24	82.14' RT	629.29
23RD - 37	175+61.24	79.14' RT	629.28
23RD - 38	175+61.23	74.26' RT	628.82
23RD - 39	175+61.21	69.26' RT	628.85
23RD - 40	175+61.19	63.76' RT	629.36
23RD - 41	175+61.18	59.39' RT	629.33
23RD - 42	175+68.36	48.79' RT	629.07
23RD - 43	175+68.28	44.09' RT	629.02
23RD - 44	175+66.78	43.73' RT	629.41
23RD - 45	175+68.25	42.10' RT	628.92
23RD - 46	175+73.19	38.24' RT	628.93
23RD - 47	175+78.13	36.00' RT	629.44
23RD - 48	175+87.19	34.81' RT	629.44
23RD - 49	175+90.46	34.80' RT	629.46
23RD - 50	175+96.07	34.79' RT	629.50
23RD - 51	175+90.47	39.55' RT	629.58
23RD - 52	175+89.19	39.58' RT	629.56
23RD - 53	175+73.28	44.01' RT	629.07
23RD - 54	175+75.76	48.36' RT	629.16
23RD - 55	175+73.36	48.71' RT	629.12
23RD - 56	175+73.50	69.20' RT	629.27
23RD - 57	175+68.50	69.22' RT	629.22



POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
23RD - 58	175+73.51	74.20' RT	629.24
23RD - 59	175+68.51	74.22' RT	629.19
23RD - 60	175+73.50	89.78' RT	630.01
23RD - 61	175+68.53	89.81' RT	629.79

EXISTING PULL BOX STATION 175+72 OFFSET 50 RT
PROPOSED PB110 STATION 175+75 OFFSET 50 RT
EXISTING PULL BOX STATION 175+80 OFFSET 38 RT
PROPOSED PB111 STATION 175+80 OFFSET 38 RT:

REMOVING PULL BOXES
PULL BOXES NON-CONDUCTIVE 24X42-INCH
CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4 -INCH
ELECTRICAL WIRE LIGHTING 4 AWG

SCALE, FEET 0 2.5 5

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	175+60.74	79.14' RT	628.79
FL - 2	175+60.73	74.26' RT	628.82
FL - 3	175+60.71	69.26' RT	628.85
FL - 4	175+60.69	63.76' RT	628.88
FL - 5	175+66.39	43.41' RT	628.91
FL - 6	175+67.89	41.74' RT	628.91
FL - 7	175+72.94	37.80' RT	628.93
FL - 8	175+77.98	35.53' RT	628.94

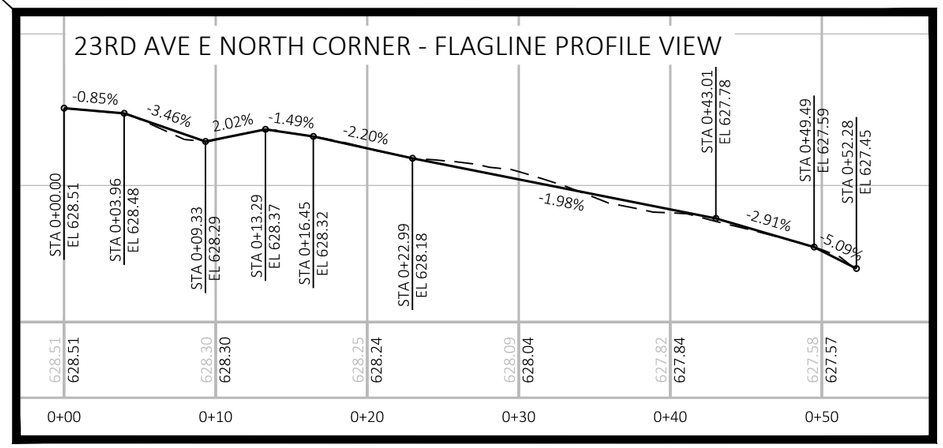
LEGEND

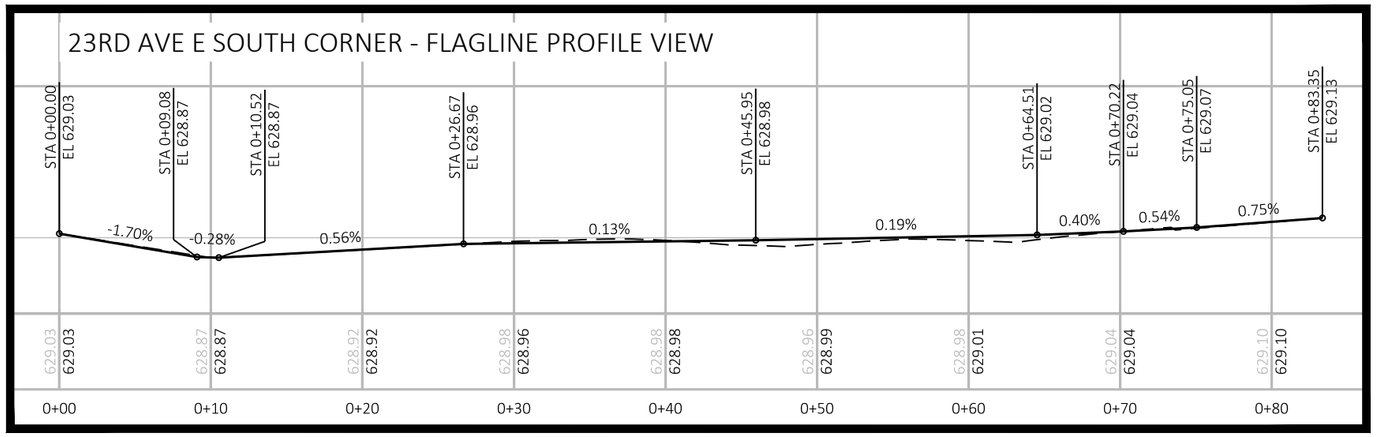
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

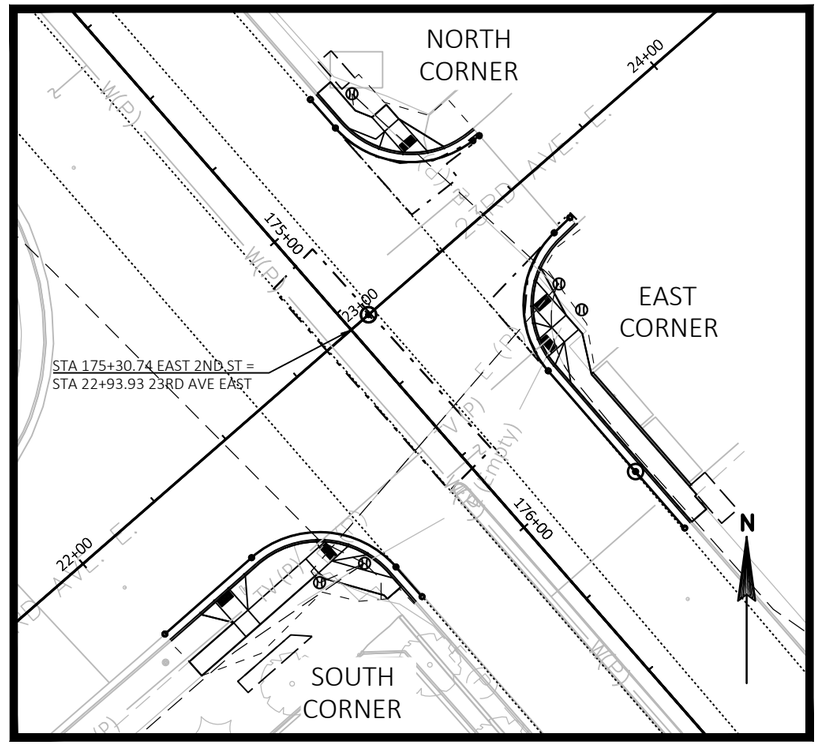
RADII POINT TABLE

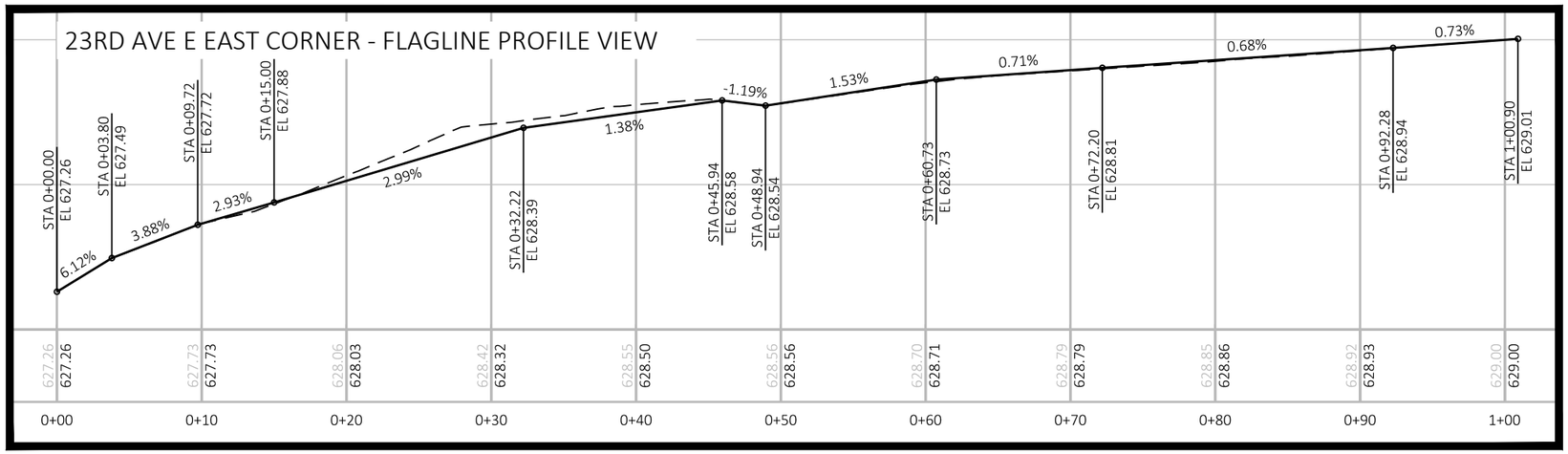
POINT NUMBER	STATION	OFFSET	RADIUS
R - 28	175+85.68	59.31' RT	24.0'

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 23RD AVE E SOUTH CORNER	SHEET 47	E









NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 23RD AVE E FLAGLINE PROFILES	SHEET 48	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 36_23rd_PROF
PLOT DATE : 9/13/2019 11:40 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

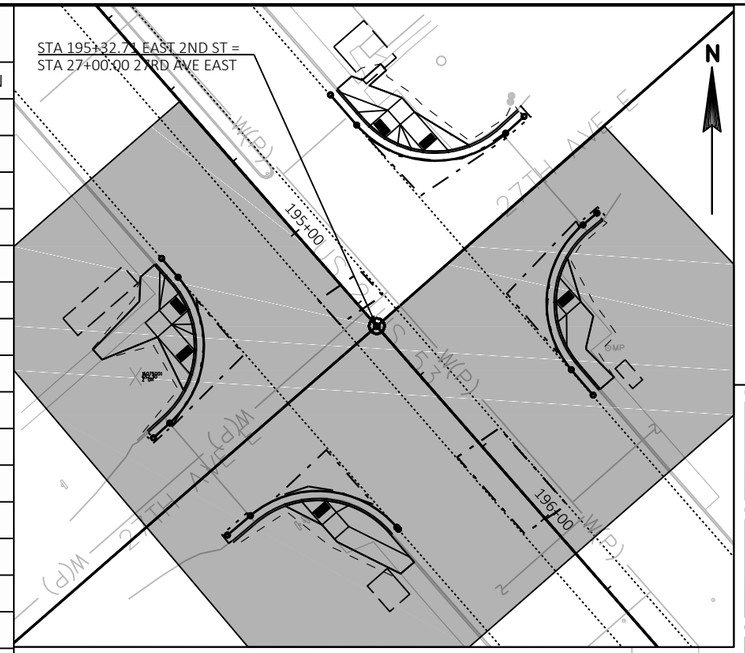
POINT NUMBER	STATION	OFFSET	ELEVATION
27TH - 1	194+78.70	33.44' LT	632.71
27TH - 2	194+80.05	33.44' LT	632.71
27TH - 3	194+86.92	33.44' LT	632.76
27TH - 4	194+91.69	39.70' LT	632.67
27TH - 5	194+90.20	33.46' LT	632.80
27TH - 6	194+91.70	33.56' LT	632.30
27TH - 7	194+96.69	34.57' LT	632.34
27TH - 8	195+00.09	35.90' LT	632.69
27TH - 9	194+96.69	39.71' LT	632.70
27TH - 10	195+03.33	37.77' LT	632.90
27TH - 11	195+05.84	39.72' LT	632.43
27TH - 12	195+10.17	44.72' LT	632.50
27TH - 13	195+12.71	49.75' LT	633.01
27TH - 14	195+14.11	65.61' LT	633.32
27TH - 15	195+14.27	59.03' LT	633.21
27TH - 16	194+96.68	44.71' LT	632.77
27TH - 17	194+91.68	44.70' LT	632.75
27TH - 18	194+83.59	40.33' LT	632.75
27TH - 19	194+83.52	46.33' LT	633.68
27TH - 20	194+81.26	46.33' LT	633.66
27TH - 21	194+81.30	39.86' LT	632.88
27TH - 22	194+78.70	38.43' LT	632.94

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	194+86.92	32.94' LT	632.26
FL - 2	194+91.74	33.06' LT	632.29
FL - 3	194+96.84	34.09' LT	632.33
FL - 4	195+00.30	35.45' LT	632.36
FL - 5	195+03.61	37.35' LT	632.39
FL - 6	195+06.17	39.34' LT	632.42
FL - 7	195+10.59	44.45' LT	632.50
FL - 8	195+13.18	49.57' LT	632.56

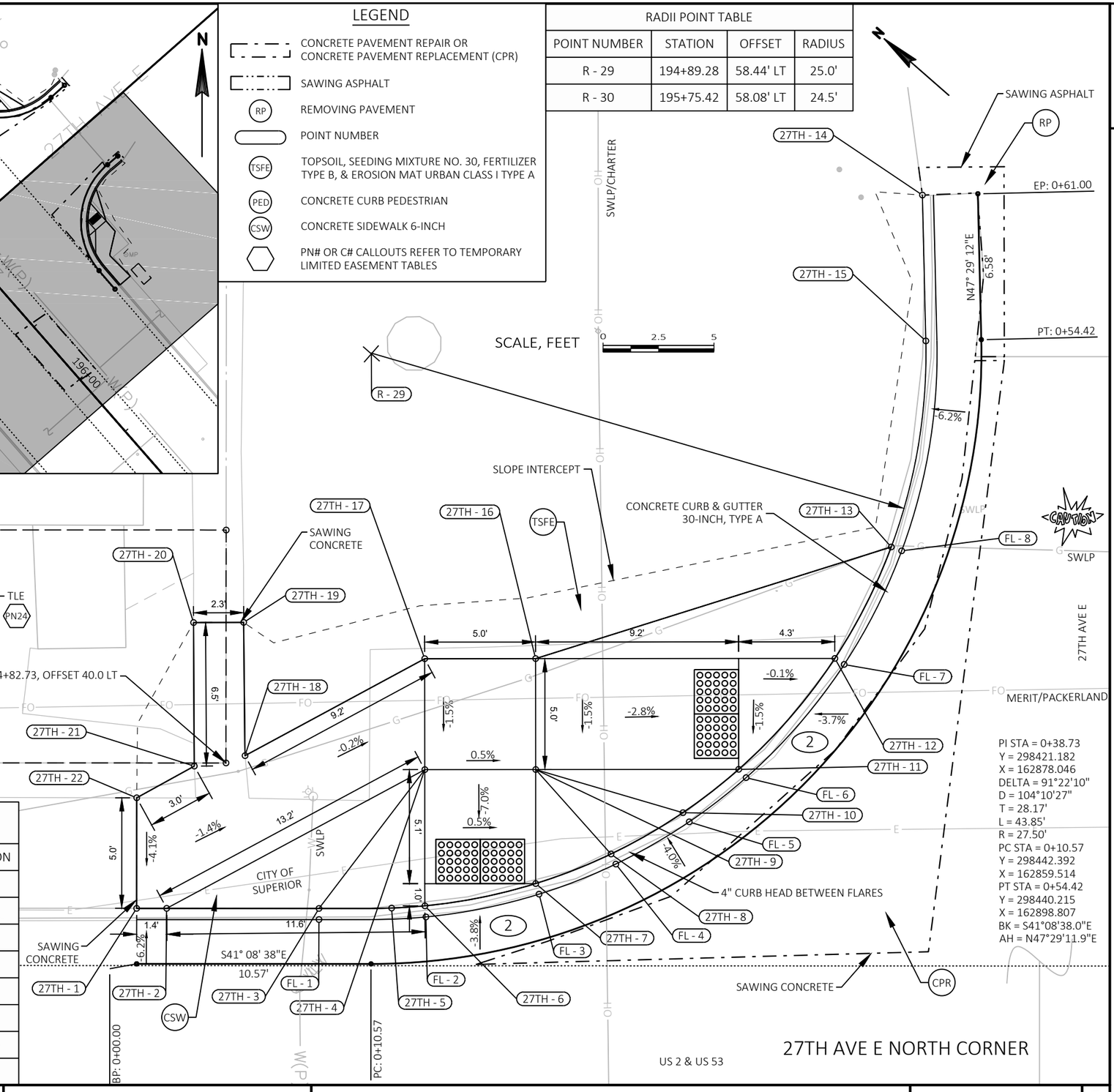


LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 29	194+89.28	58.44' LT	25.0'
R - 30	195+75.42	58.08' LT	24.5'



27TH AVE E NORTH CORNER

US 2 & US 53

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 27TH AVE E NORTH CORNER	SHEET 49	E

2

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	195+51.94	49.49' LT	632.61
FL - 2	195+54.44	44.49' LT	632.56
FL - 3	195+58.82	39.38' LT	632.50
FL - 4	195+63.09	36.33' LT	632.46

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

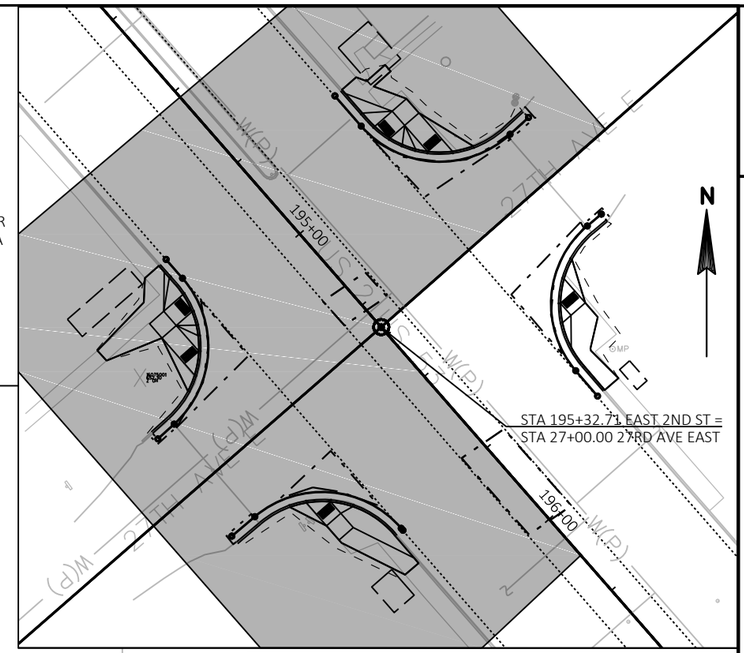
POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
27TH - 23	195+84.03	33.49' LT	632.94
27TH - 24	195+75.17	33.58' LT	632.92
27TH - 25	195+69.76	34.24' LT	632.90
27TH - 26	195+63.34	36.76' LT	633.13
27TH - 27	195+63.34	39.76' LT	632.68
27TH - 28	195+59.15	39.76' LT	632.51
27TH - 29	195+54.86	44.76' LT	632.57
27TH - 30	195+52.41	49.66' LT	633.13
27TH - 31	195+51.01	63.34' LT	632.88
27TH - 32	195+50.93	58.49' LT	633.21
27TH - 33	195+63.34	44.76' LT	632.75
27TH - 34	195+68.34	44.76' LT	632.82
27TH - 35	195+73.31	37.86' LT	632.90
27TH - 36	195+84.08	38.26' LT	633.02

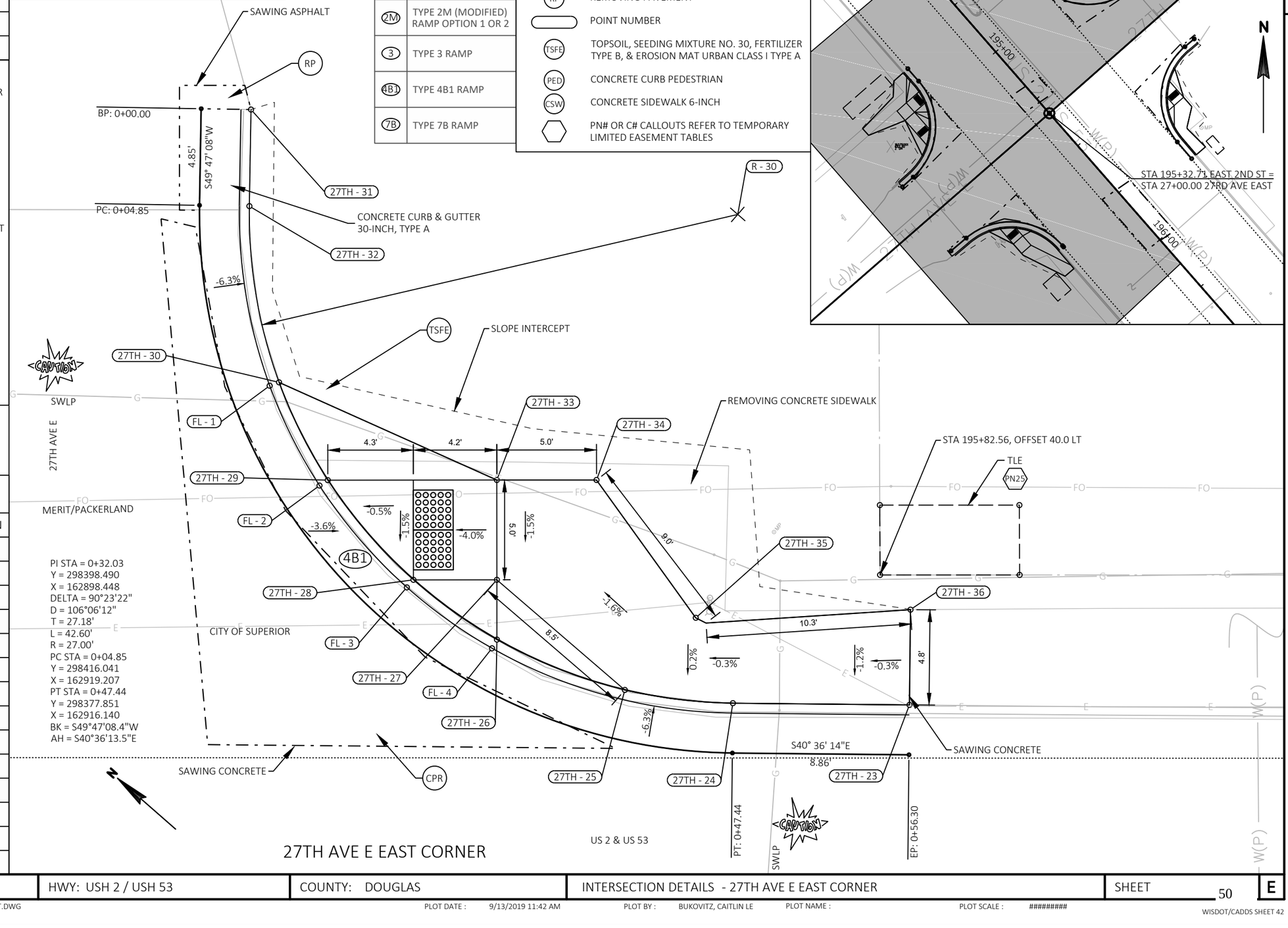
RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 29	194+89.28	58.44' LT	25.0'
R - 30	195+75.42	58.08' LT	24.5'

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES





27TH AVE E EAST CORNER

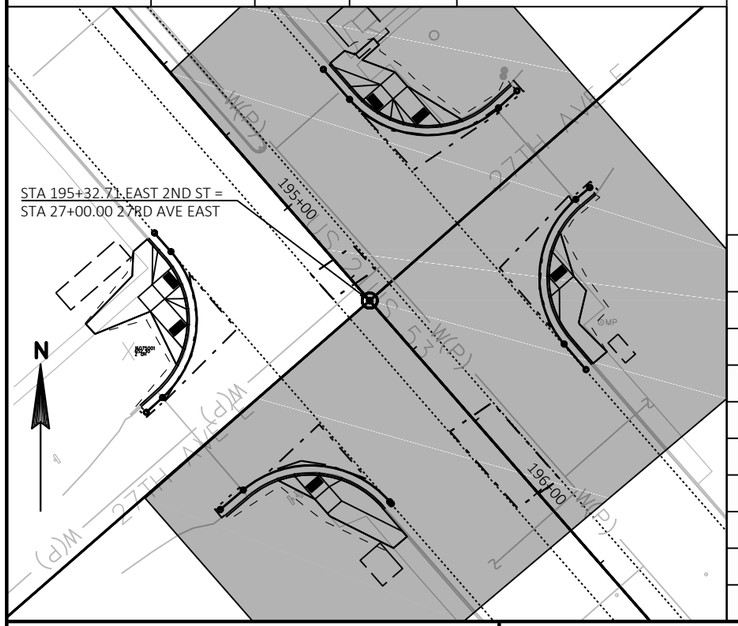
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 27TH AVE E EAST CORNER	SHEET 50	E

FILE NAME : N:\PDS\C3D\111980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 38_27th_E
PLOT DATE : 9/13/2019 11:42 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : #########
WISDOT/CADDS SHEET 42

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
27TH - 37	194+81.88	33.51' RT	633.04
27TH - 38	194+84.02	33.51' RT	633.05
27TH - 39	194+86.08	33.50' RT	633.11
27TH - 40	194+91.76	33.71' RT	632.58
27TH - 41	194+96.77	34.94' RT	632.55
27TH - 42	195+00.19	36.40' RT	633.07
27TH - 43	194+96.77	40.42' RT	632.92
27TH - 44	195+02.59	37.85' RT	632.97
27TH - 45	195+05.75	40.41' RT	632.42
27TH - 46	195+09.79	45.40' RT	632.32
27TH - 47	195+11.83	49.51' RT	632.73
27TH - 48	195+13.60	63.84' RT	632.62
27TH - 49	195+13.56	61.93' RT	632.60
27TH - 50	195+13.52	58.93' RT	632.57
27TH - 51	194+96.78	45.42' RT	632.87
27TH - 52	194+91.78	45.42' RT	632.92
27TH - 53	194+91.63	60.37' RT	633.32
27TH - 54	194+88.07	60.45' RT	633.23
27TH - 55	194+91.77	40.42' RT	632.97
27TH - 56	194+86.56	42.88' RT	632.96
27TH - 57	194+81.89	38.40' RT	632.73



GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 31	194+88.50	58.50' RT	25.0'
R - 32	195+75.87	58.49' RT	25.0'

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	195+12.29	49.33' RT	632.23
FL - 2	195+10.22	45.14' RT	632.31
FL - 3	195+06.10	40.05' RT	632.42
FL - 4	195+02.87	37.44' RT	632.48
FL - 5	195+00.42	35.96' RT	632.52
FL - 6	194+96.94	34.44' RT	632.54
FL - 7	194+91.79	33.21' RT	632.57
FL - 8	194+86.08	33.00' RT	632.60

27TH AVE E WEST CORNER

PI STA = 0+33.63
Y = 298381.900
X = 162830.174
DELTA = 89°02'48"
D = 104°10'27"
T = 27.05'
L = 42.74'
R = 27.50'
PC STA = 0+06.58
Y = 298402.237
X = 162812.344
PT STA = 0+49.32
Y = 298363.734
X = 162810.137
BK = S41°14'31.0"E
AH = S47°48'17.3"W

BP: 0+00.00
PC: 0+06.58
PT: 0+49.32
EP: 0+55.12
S41° 14' 31"E
6.58'
S47° 48' 17"W
5.80'
6.32.11
C8 250.00 28.09
US 2 & US 53
CITY OF SUPERIOR
27TH AVE E
SWLP/CHARTER
SAWING CONCRETE
SAWING ASPHALT
4" CURB HEAD BETWEEN FLARES
CONCRETE CURB & GUTTER 30-INCH, TYPE A
EXISTING R/W
STA 194+82.67, OFFSET 40.0 RT
TLE PN26
SLOPE INTERCEPT
CPR
RP
TSFE
R - 31
FL - 1 FL - 2 FL - 3 FL - 4 FL - 5 FL - 6 FL - 7 FL - 8
27TH - 37 27TH - 38 27TH - 39 27TH - 40 27TH - 41 27TH - 42 27TH - 43 27TH - 44 27TH - 45 27TH - 46 27TH - 47 27TH - 48 27TH - 49 27TH - 50 27TH - 51 27TH - 52 27TH - 53 27TH - 54 27TH - 55 27TH - 56 27TH - 57
-6.2% 2.1' 4.9' -1.9% 10.4' 6.5' -0.8% 1.2' 5.5' 5.0' -6.7% -1.0% -4.0% -5.5% -2.3% -1.4% 1.0% 5.0' 9.0' 4.0' 17.6' -2.1% 15.8' 2.7% 3.6' -6.2%
2 2 2

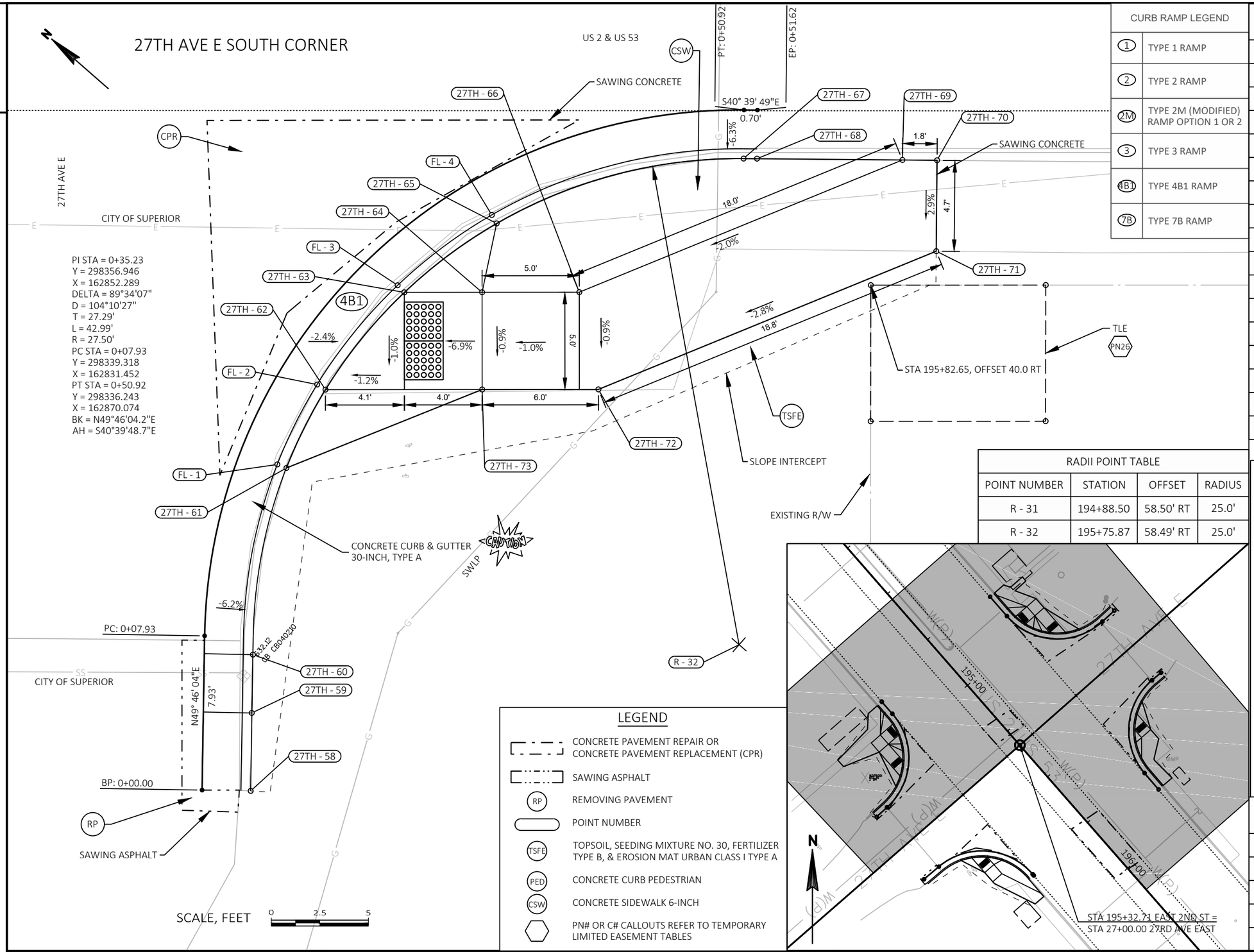
LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

SCALE, FEET 0 2.5 5

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 27TH AVE E WEST CORNER	SHEET 51	E

27TH AVE E SOUTH CORNER



PI STA = 0+35.23
Y = 298356.946
X = 162852.289
DELTA = 89°34'07"
D = 104°10'27"
T = 27.29'
L = 42.99'
R = 27.50'
PC STA = 0+07.93
Y = 298339.318
X = 162831.452
PT STA = 0+50.92
Y = 298336.243
X = 162870.074
BK = N49°46'04.2"E
AH = S40°39'48.7"E

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
27TH - 58	195+50.74	66.01' RT	632.67
27TH - 59	195+50.80	62.00' RT	632.61
27TH - 60	195+50.86	59.00' RT	632.61
27TH - 61	195+52.58	49.40' RT	633.16
27TH - 62	195+54.59	45.37' RT	632.35
27TH - 63	195+58.65	40.37' RT	632.45
27TH - 64	195+62.65	40.36' RT	632.73
27TH - 65	195+63.40	36.82' RT	633.04
27TH - 66	195+67.65	40.36' RT	632.78
27TH - 67	195+76.10	33.49' RT	633.13
27TH - 68	195+76.80	33.50' RT	633.14
27TH - 69	195+84.27	33.57' RT	633.13
27TH - 70	195+86.06	33.58' RT	633.14
27TH - 71	195+86.01	38.26' RT	633.28
27TH - 72	195+68.63	45.36' RT	632.75
27TH - 73	195+62.65	45.36' RT	632.68

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 31	194+88.50	58.50' RT	25.0'
R - 32	195+75.87	58.49' RT	25.0'

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
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- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

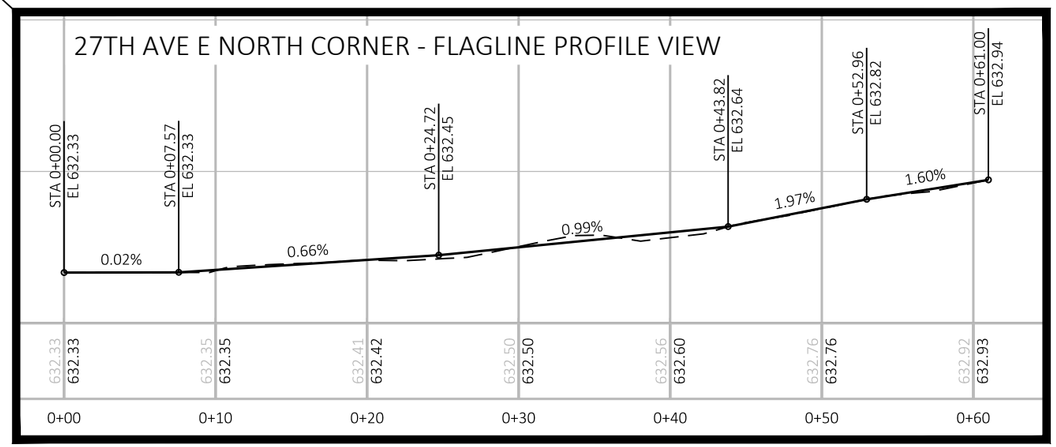
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

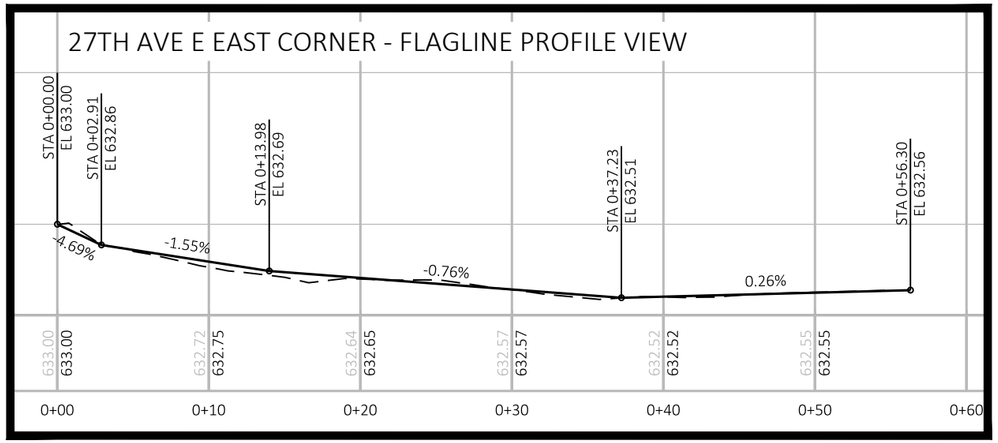
POINT ELEVATION TABLE
FLOWLINE

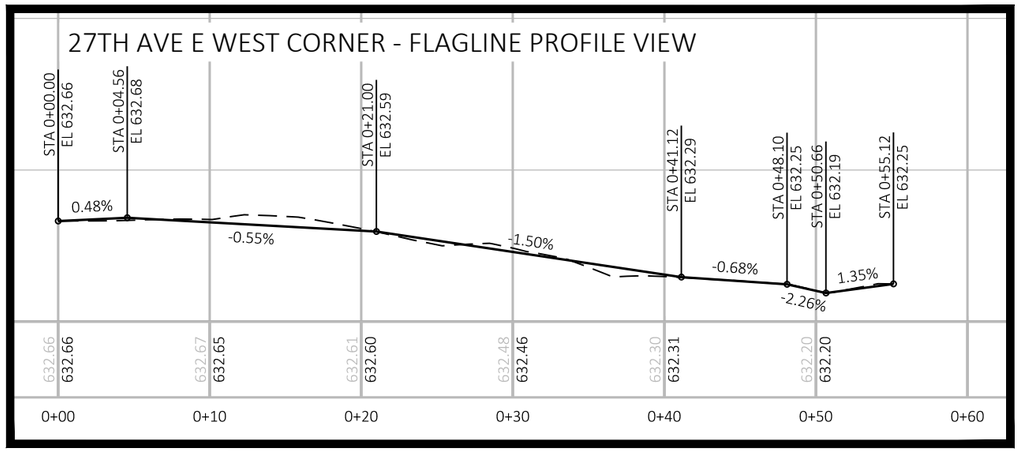
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	195+52.12	49.22' RT	632.28
FL - 2	195+54.17	45.11' RT	632.35
FL - 3	195+58.31	40.00' RT	632.45
FL - 4	195+63.15	36.39' RT	632.54

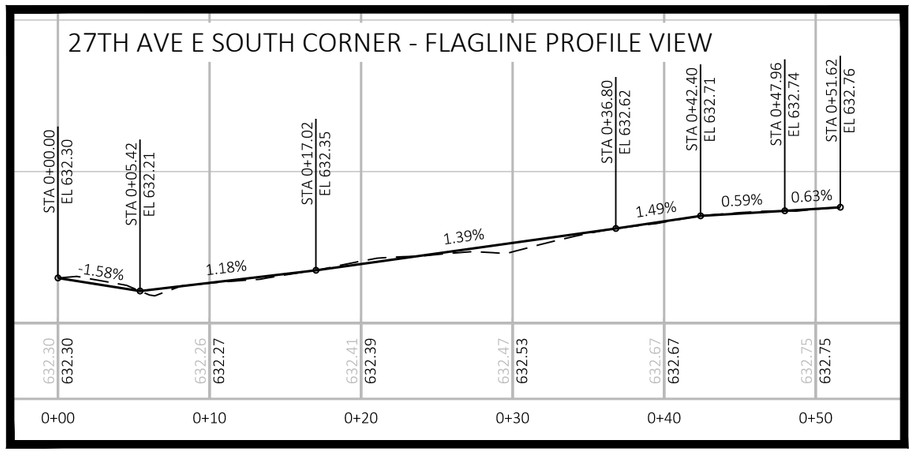
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 27TH AVE E SOUTH CORNER	SHEET 52	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 40_27th_S
PLOT DATE : 9/13/2019 11:45 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : #########
WISDOT/CADDS SHEET 42









NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
28TH - 1	199+78.23	33.78' RT	632.08
28TH - 2	199+80.33	33.79' RT	632.07
28TH - 3	199+84.45	35.58' RT	632.09
28TH - 4	199+88.74	33.87' RT	632.05
28TH - 5	199+89.70	39.69' RT	631.93
28TH - 6	199+93.87	40.21' RT	631.85
28TH - 7	199+98.87	40.25' RT	631.79
28TH - 8	200+00.45	37.04' RT	632.06
28TH - 9	200+04.87	40.29' RT	631.49
28TH - 10	200+08.99	45.32' RT	631.44
28TH - 11	200+11.30	50.29' RT	631.90
28TH - 12	200+12.37	55.16' RT	631.83
28TH - 13	200+12.83	59.17' RT	631.81
28TH - 14	200+13.17	62.15' RT	631.84
28TH - 15	200+13.22	62.63' RT	631.84
28TH - 16	199+98.83	45.25' RT	631.78
28TH - 17	199+93.83	45.21' RT	631.84
28TH - 18	199+87.02	43.94' RT	631.99
28TH - 19	199+80.65	39.40' RT	632.17
28TH - 20	199+78.18	38.35' RT	632.20

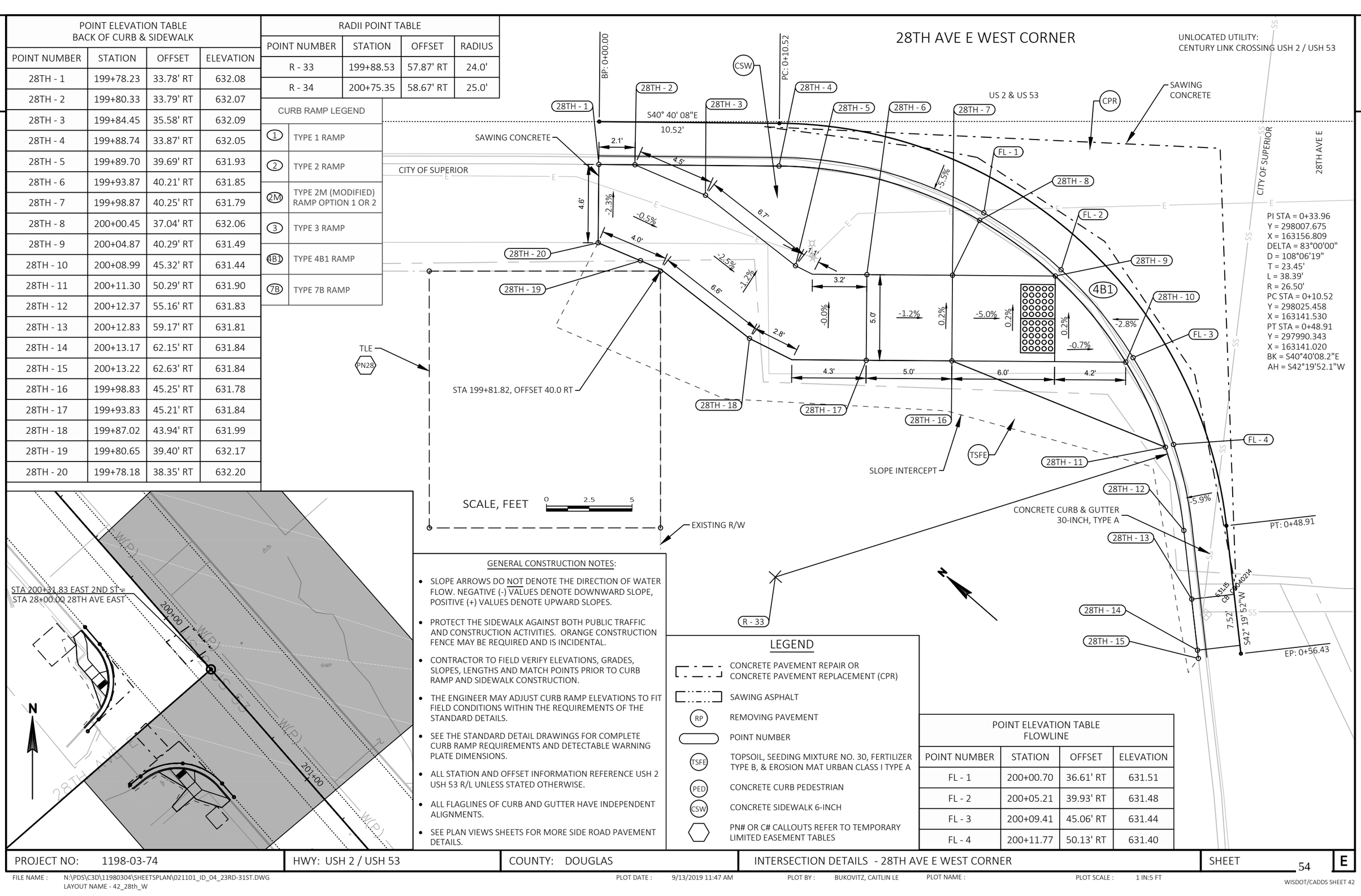
RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 33	199+88.53	57.87' RT	24.0'
R - 34	200+75.35	58.67' RT	25.0'

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

28TH AVE E WEST CORNER

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 2 / USH 53



GENERAL CONSTRUCTION NOTES:

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- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
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- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	200+00.70	36.61' RT	631.51
FL - 2	200+05.21	39.93' RT	631.48
FL - 3	200+09.41	45.06' RT	631.44
FL - 4	200+11.77	50.13' RT	631.40

2

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 28TH AVE E WEST CORNER	SHEET 54	E

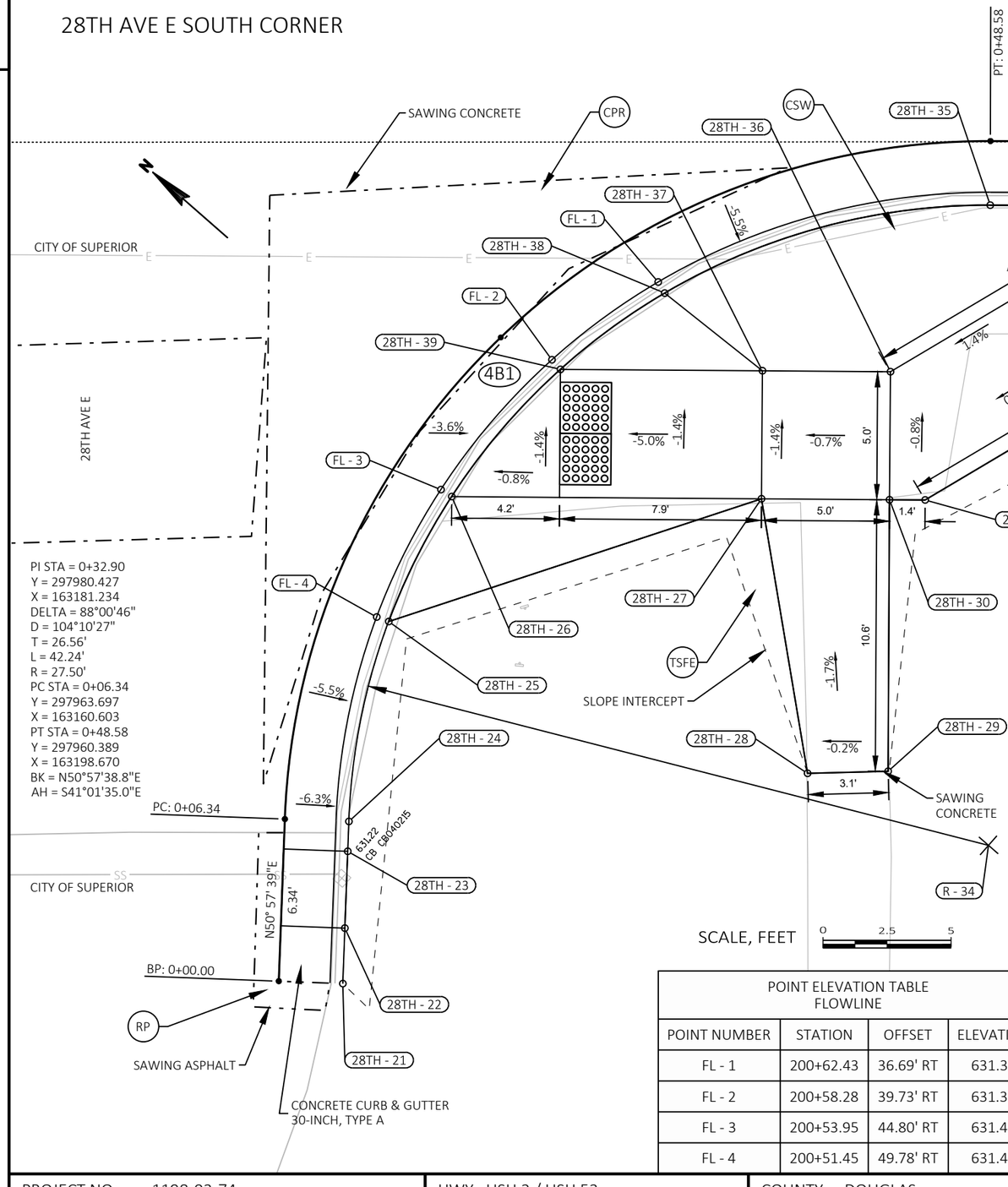
FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 42_28th_W
PLOT DATE : 9/13/2019 11:47 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

2

28TH AVE E SOUTH CORNER

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 2 / USH 53

US 2 & US 53



PI STA = 0+32.90
Y = 297980.427
X = 163181.234
DELTA = 88°00'46"
D = 104°10'27"
T = 26.56'
L = 42.24'
R = 27.50'
PC STA = 0+06.34
Y = 297963.697
X = 163160.603
PT STA = 0+48.58
Y = 297960.389
X = 163198.670
BK = N50°57'38.8"E
AH = S41°01'35.0"E

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

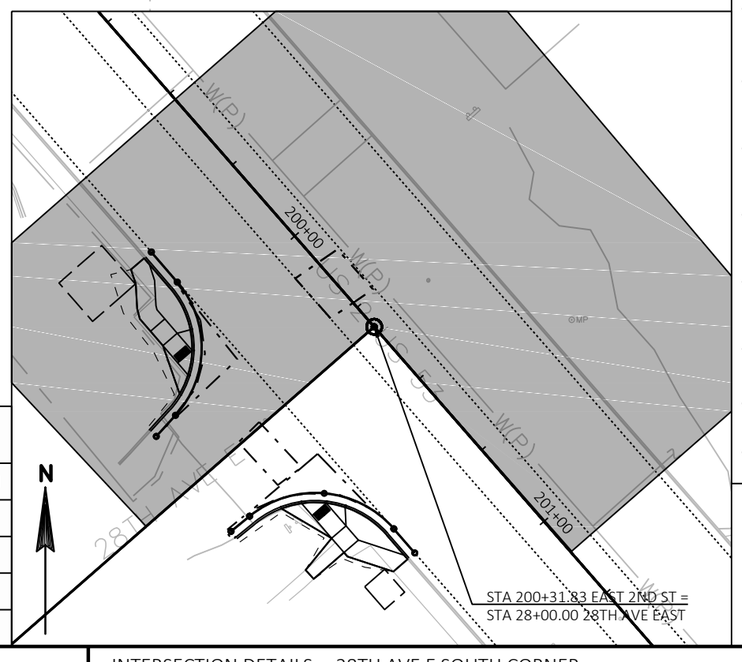
CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
28TH - 21	200+50.13	64.09' RT	631.90
28TH - 22	200+50.21	61.93' RT	631.86
28TH - 23	200+50.32	58.93' RT	631.87
28TH - 24	200+50.37	57.76' RT	631.87
28TH - 25	200+51.92	49.95' RT	631.91
28TH - 26	200+54.37	45.07' RT	631.41
28TH - 27	200+66.47	45.15' RT	631.84
28TH - 28	200+68.28	55.87' RT	632.02
28TH - 29	200+71.42	55.79' RT	632.03
28TH - 30	200+71.47	45.18' RT	631.85
28TH - 31	200+72.86	45.19' RT	631.87
28TH - 32	200+83.82	38.68' RT	631.86
28TH - 33	200+83.82	33.69' RT	631.64
28TH - 34	200+82.43	33.69' RT	631.65
28TH - 35	200+75.39	33.67' RT	631.70
28TH - 36	200+71.50	40.18' RT	631.82
28TH - 37	200+66.50	40.15' RT	631.77
28TH - 38	200+62.68	37.12' RT	631.83
28TH - 39	200+58.61	40.10' RT	631.37

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	200+62.43	36.69' RT	631.33
FL - 2	200+58.28	39.73' RT	631.37
FL - 3	200+53.95	44.80' RT	631.41
FL - 4	200+51.45	49.78' RT	631.43



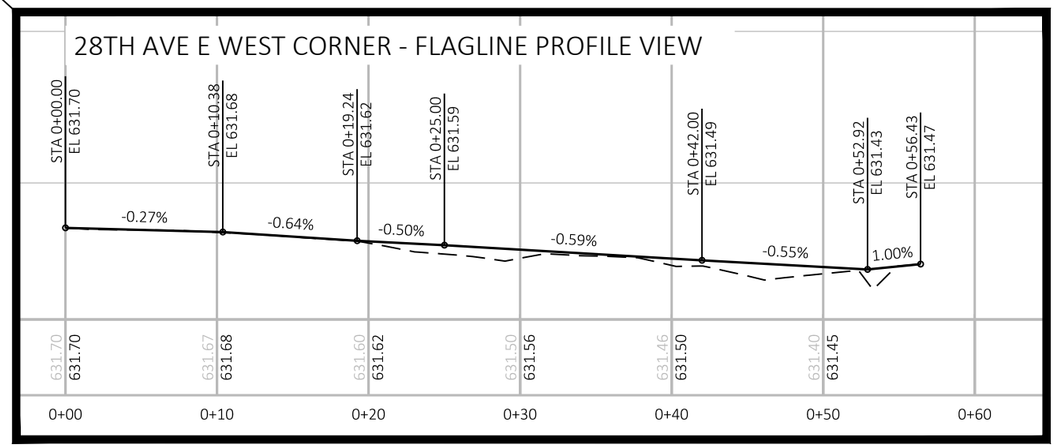
GENERAL CONSTRUCTION NOTES:

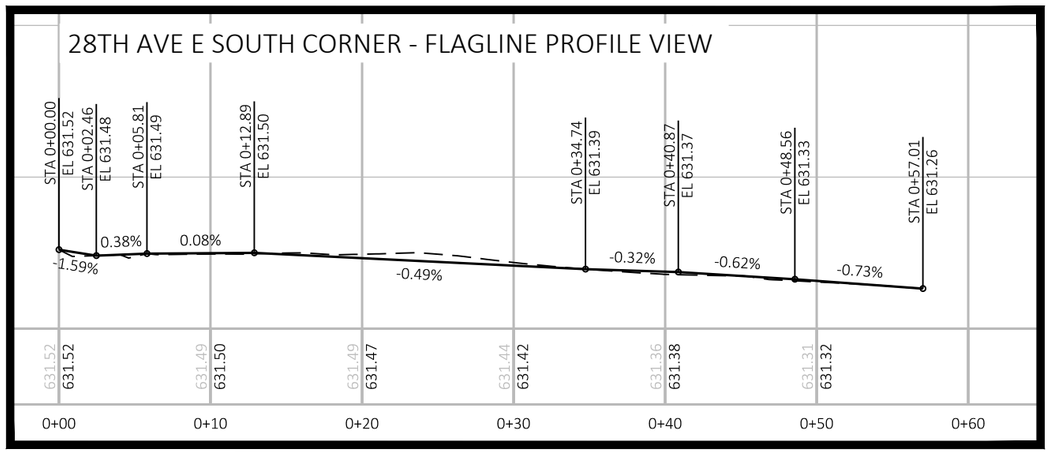
- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 33	199+88.53	57.87' RT	24.0'
R - 34	200+75.35	58.67' RT	25.0'

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 28TH AVE E SOUTH CORNER	SHEET 55	E





NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

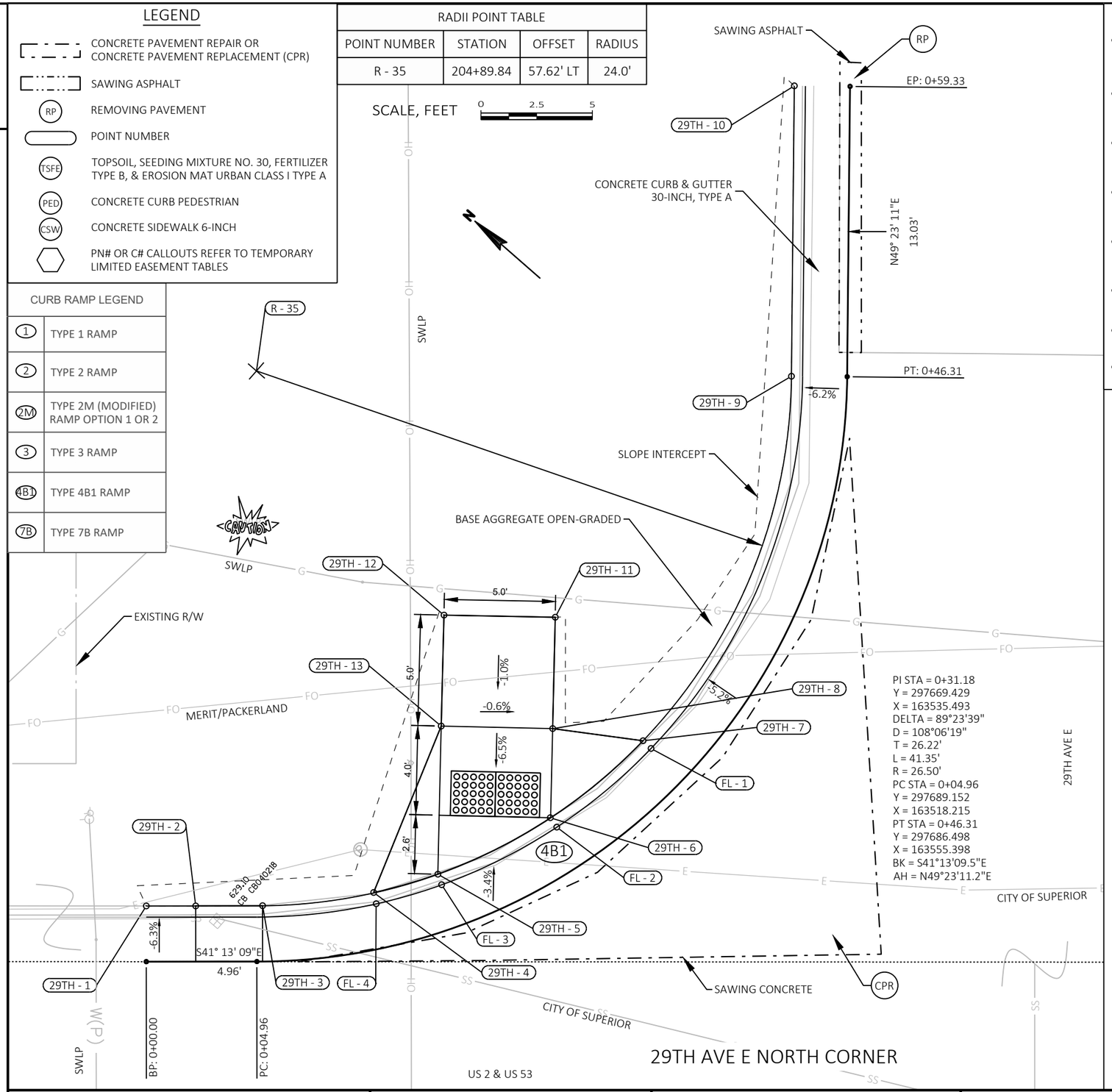
LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

RADII POINT TABLE			
POINT NUMBER	STATION	OFFSET	RADIUS
R - 35	204+89.84	57.62' LT	24.0'

SCALE, FEET 0 2.5 5



PI STA = 0+31.18
Y = 297669.429
X = 163535.493
DELTA = 89°23'39"
D = 108°06'19"
T = 26.22'
L = 41.35'
R = 26.50'
PC STA = 0+04.96
Y = 297689.152
X = 163518.215
PT STA = 0+46.31
Y = 297686.498
X = 163555.398
BK = S41°13'09.5"E
AH = N49°23'11.2"E

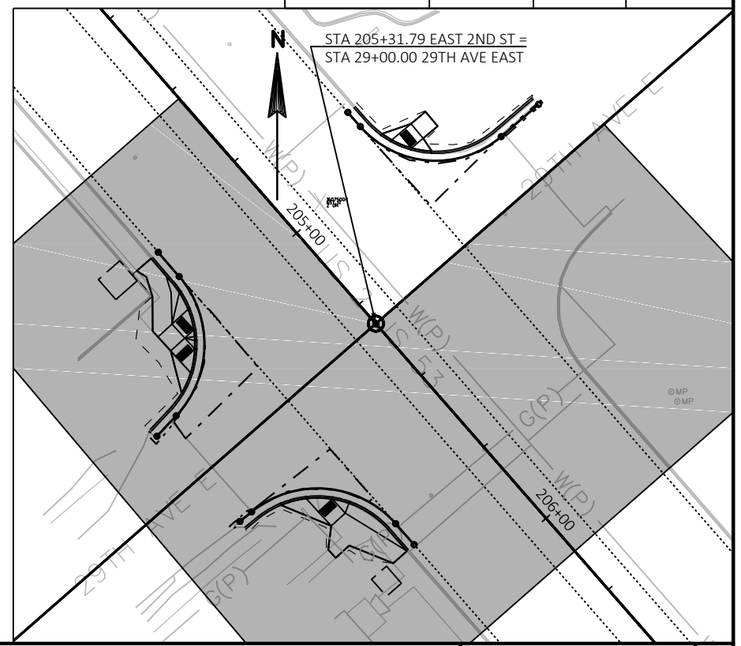
29TH AVE E NORTH CORNER

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE BACK OF CURB & SIDEWALK			
POINT NUMBER	STATION	OFFSET	ELEVATION
29TH - 1	204+84.91	33.62' LT	629.68
29TH - 2	204+87.13	33.62' LT	629.67
29TH - 3	204+90.13	33.64' LT	629.65
29TH - 4	204+95.12	34.23' LT	629.71
29TH - 5	204+98.00	35.05' LT	629.23
29TH - 6	205+03.04	37.59' LT	629.25
29TH - 7	205+07.19	41.05' LT	629.83
29TH - 8	205+03.14	41.59' LT	629.51
29TH - 9	205+13.84	57.41' LT	629.88
29TH - 10	205+13.95	70.43' LT	629.87
29TH - 11	205+03.25	46.59' LT	629.56
29TH - 12	204+98.26	46.68' LT	629.59
29TH - 13	204+98.14	41.70' LT	629.54

POINT ELEVATION TABLE FLOWLINE			
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	205+07.55	40.70' LT	629.27
FL - 2	205+03.33	37.17' LT	629.25
FL - 3	204+98.17	34.58' LT	629.22
FL - 4	204+95.23	33.73' LT	629.21



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 29TH AVE E NORTH CORNER	SHEET 57	E

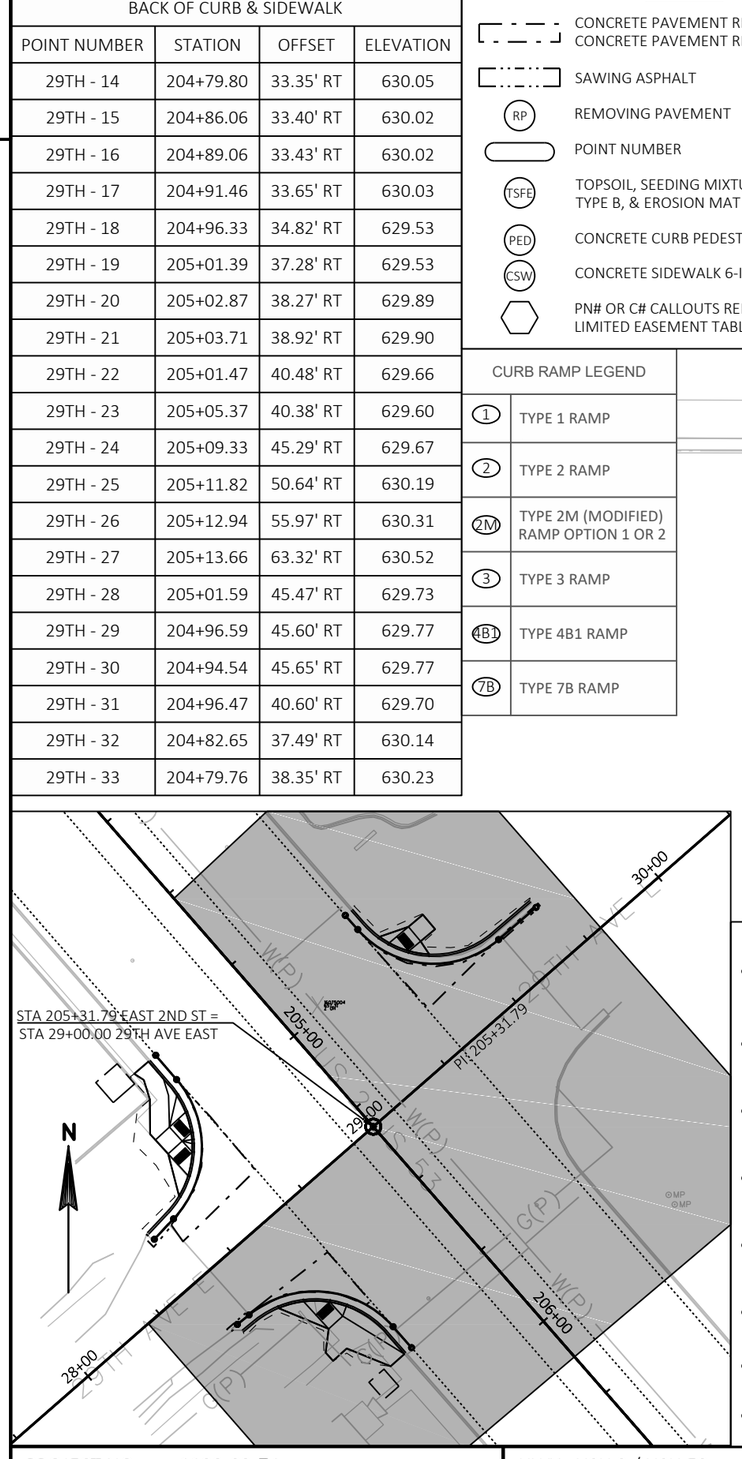
POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

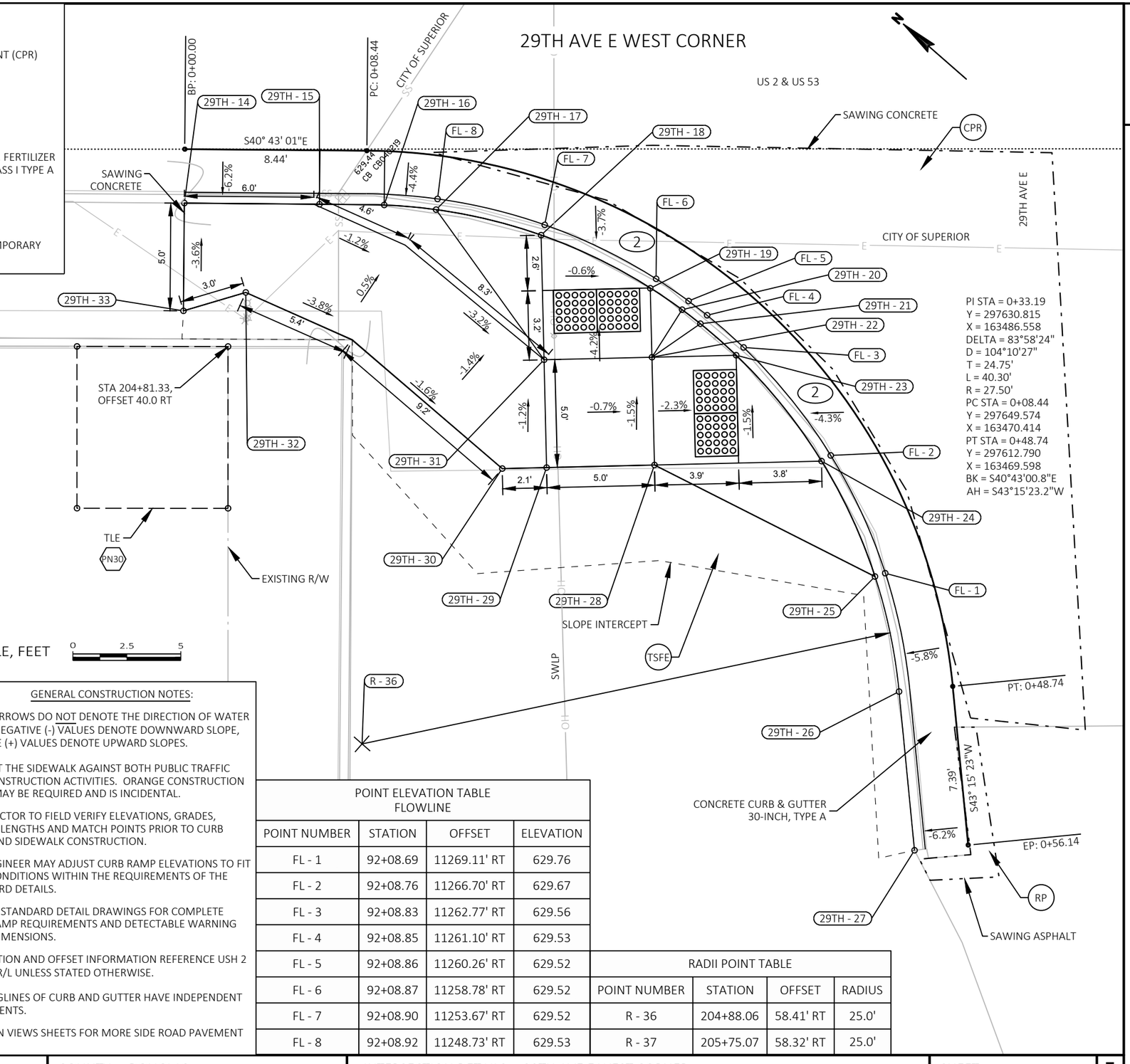
POINT NUMBER	STATION	OFFSET	ELEVATION
29TH - 14	204+79.80	33.35' RT	630.05
29TH - 15	204+86.06	33.40' RT	630.02
29TH - 16	204+89.06	33.43' RT	630.02
29TH - 17	204+91.46	33.65' RT	630.03
29TH - 18	204+96.33	34.82' RT	629.53
29TH - 19	205+01.39	37.28' RT	629.53
29TH - 20	205+02.87	38.27' RT	629.89
29TH - 21	205+03.71	38.92' RT	629.90
29TH - 22	205+01.47	40.48' RT	629.66
29TH - 23	205+05.37	40.38' RT	629.60
29TH - 24	205+09.33	45.29' RT	629.67
29TH - 25	205+11.82	50.64' RT	630.19
29TH - 26	205+12.94	55.97' RT	630.31
29TH - 27	205+13.66	63.32' RT	630.52
29TH - 28	205+01.59	45.47' RT	629.73
29TH - 29	204+96.59	45.60' RT	629.77
29TH - 30	204+94.54	45.65' RT	629.77
29TH - 31	204+96.47	40.60' RT	629.70
29TH - 32	204+82.65	37.49' RT	630.14
29TH - 33	204+79.76	38.35' RT	630.23

LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- (RP) REMOVING PAVEMENT
- POINT NUMBER
- (TSFE) TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- (PED) CONCRETE CURB PEDESTRIAN
- (CSW) CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

CURB RAMP LEGEND	
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP





SCALE, FEET 0 2.5 5

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	92+08.69	11269.11' RT	629.76
FL - 2	92+08.76	11266.70' RT	629.67
FL - 3	92+08.83	11262.77' RT	629.56
FL - 4	92+08.85	11261.10' RT	629.53
FL - 5	92+08.86	11260.26' RT	629.52
FL - 6	92+08.87	11258.78' RT	629.52
FL - 7	92+08.90	11253.67' RT	629.52
FL - 8	92+08.92	11248.73' RT	629.53

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 36	204+88.06	58.41' RT	25.0'
R - 37	205+75.07	58.32' RT	25.0'

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 29TH AVE E WEST CORNER	SHEET 58	E

29TH AVE E SOUTH CORNER

US 2 & US 53

CITY OF SUPERIOR

29TH AVE E

PI STA = 0+30.45
Y = 297604.190
X = 163510.028
DELTA = 87°49'50"
D = 104°10'27"
T = 26.48'
L = 42.16'
R = 27.50'
PC STA = 0+03.97
Y = 297587.435
X = 163489.525
PT STA = 0+46.13
Y = 297584.336
X = 163527.546
BK = N50°44'43.5"E
AH = S41°25'26.5"E

PC: 0+03.97
N50° 44' 43"E
3.97'
-6.3%
BP: 0+00.00
RP
SAWING ASPHALT

SAWING CONCRETE
CPR
CSW
29TH - 40
29TH - 41
29TH - 42
29TH - 43
29TH - 44
29TH - 45
29TH - 46
29TH - 47
29TH - 48
29TH - 39
29TH - 38
29TH - 37
29TH - 36
29TH - 35
29TH - 34
FL - 1
FL - 2
FL - 3
FL - 4
PT: 0+46.13
EP: 0+53.53
S41° 25' 27"E
7.40'
628.91
CB CB0°42'20
-6.3%
-5.6%
19.1'
2.2%
-3.2%
4.9'
4B1
-4.4%
-1.7%
-6.0%
-1.7%
5.0'
-2.0%
1.4%
4.8'
5.0'
6.3'
-0.7%
4.9'
0.9%
3.0'
1.6%
12.5'
STA 205+81.83, OFFSET 40.0 RT
TSFE
SLOPE INTERCEPT
TLE
PN31
EXISTING R/W
CONCRETE CURB & GUTTER
30-INCH, TYPE A
R - 37
CAUTION
SWLP
G(P)
W(P)
OVHV
SS
E

GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
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- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
29TH - 34	205+49.95	61.46' RT	630.53
29TH - 35	205+50.08	57.48' RT	630.41
29TH - 36	205+51.38	50.33' RT	629.83
29TH - 37	205+54.44	44.20' RT	629.55
29TH - 38	205+59.09	39.09' RT	629.40
29TH - 39	205+62.80	36.54' RT	629.83
29TH - 40	205+64.09	38.97' RT	629.70
29TH - 41	205+74.78	33.32' RT	629.50
29TH - 42	205+77.78	33.31' RT	629.47
29TH - 43	205+82.36	33.29' RT	629.44
29TH - 44	205+82.38	38.16' RT	629.60
29TH - 45	205+71.23	43.80' RT	629.80
29TH - 46	205+71.32	48.65' RT	629.85
29TH - 47	205+68.37	48.70' RT	629.83
29TH - 48	205+64.21	43.97' RT	629.79

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 36	204+88.06	58.41' RT	25.0'
R - 37	205+75.07	58.32' RT	25.0'

POINT ELEVATION TABLE
FLOWLINE

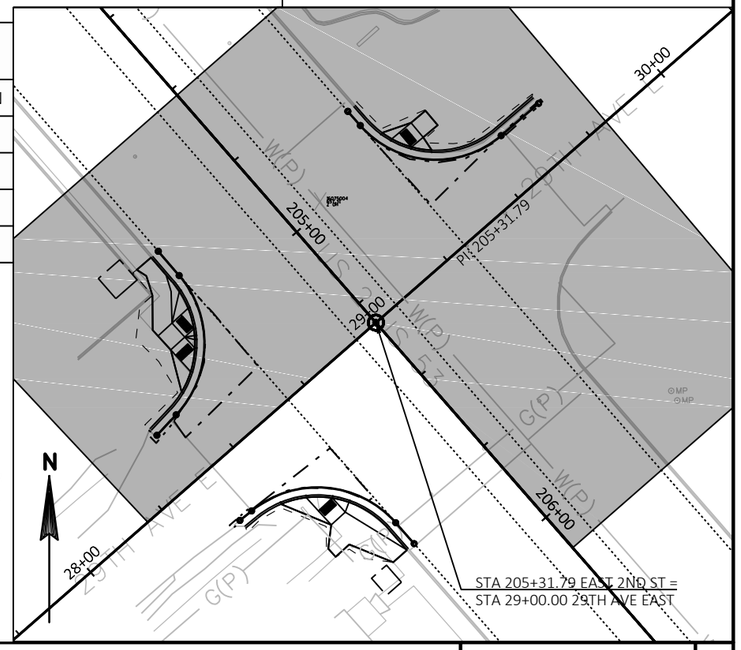
POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	205+07.55	40.70' LT	629.27
FL - 2	205+03.33	37.17' LT	629.25
FL - 3	204+98.17	34.58' LT	629.22
FL - 4	204+95.23	33.73' LT	629.21

CURB RAMP LEGEND

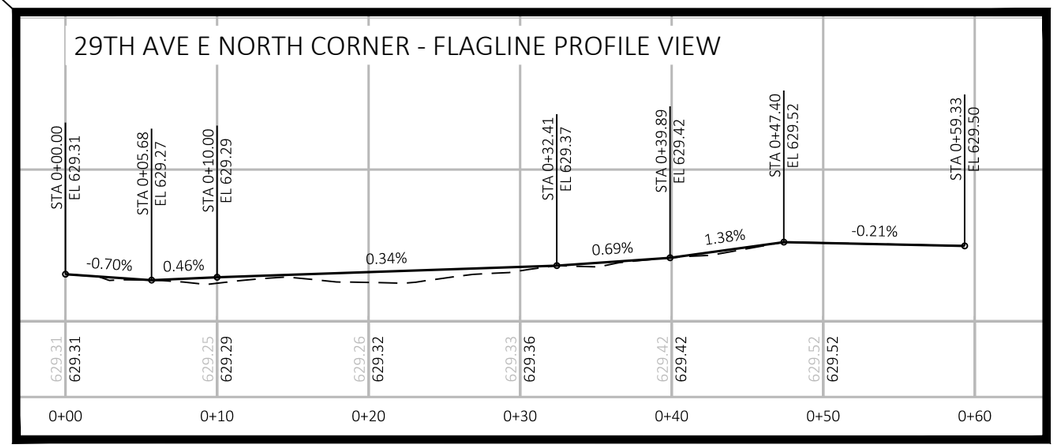
1	TYPE 1 RAMP
2	TYPE 2 RAMP
2M	TYPE 2M (MODIFIED) RAMP OPTION 1 OR 2
3	TYPE 3 RAMP
4B1	TYPE 4B1 RAMP
7B	TYPE 7B RAMP

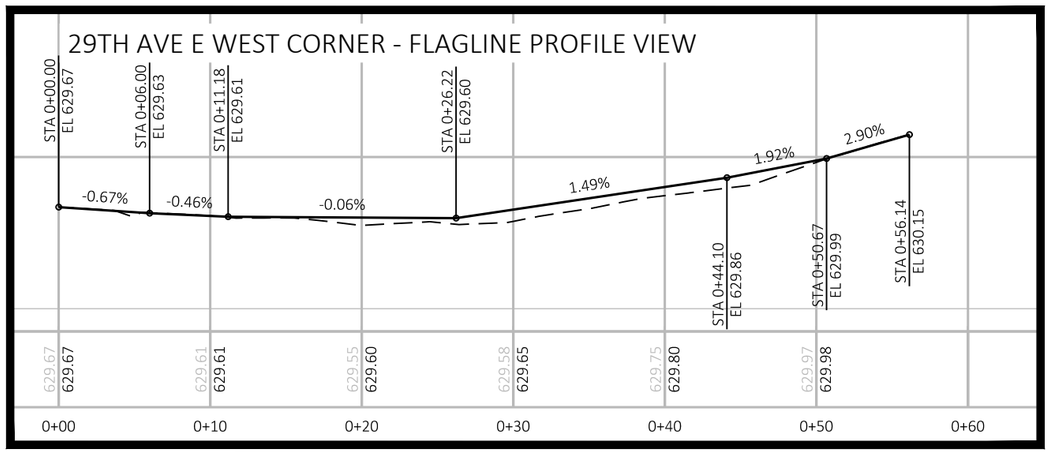
LEGEND

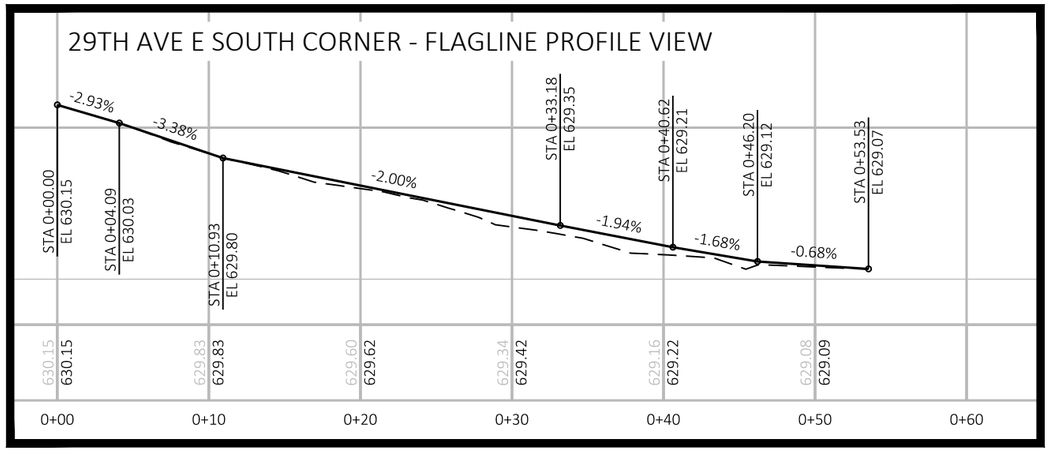
- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 29TH AVE E SOUTH CORNER	SHEET 59	E



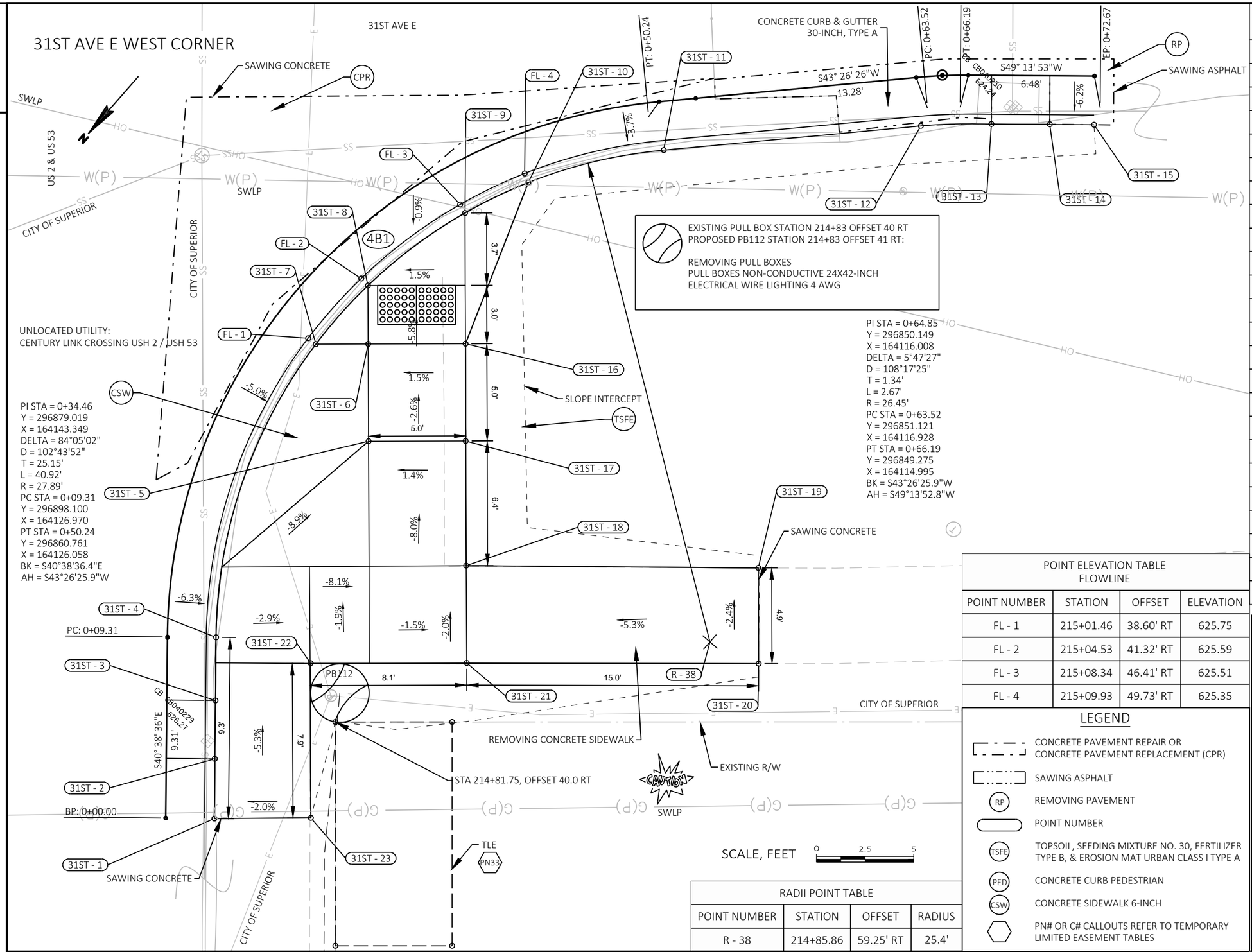




NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.

2

31ST AVE E WEST CORNER



POINT ELEVATION TABLE
BACK OF CURB & SIDEWALK

POINT NUMBER	STATION	OFFSET	ELEVATION
31ST - 1	214+76.78	33.78' RT	627.03
31ST - 2	214+79.85	33.80' RT	626.96
31ST - 3	214+82.85	33.83' RT	626.89
31ST - 4	214+86.09	33.87' RT	626.82
31ST - 5	214+96.17	41.70' RT	625.85
31ST - 6	215+01.17	41.68' RT	625.77
31ST - 7	215+01.16	39.00' RT	626.25
31ST - 8	215+04.17	41.67' RT	625.60
31ST - 9	215+07.90	46.66' RT	625.52
31ST - 10	215+09.46	49.91' RT	625.48
31ST - 11	215+11.13	56.87' RT	625.47
31ST - 12	215+12.38	70.09' RT	625.04
31ST - 13	215+12.48	73.71' RT	624.92
31ST - 14	215+12.47	76.71' RT	624.85
31ST - 15	215+12.44	78.99' RT	624.80
31ST - 16	215+01.19	46.69' RT	625.69
31ST - 17	214+96.19	46.69' RT	625.77
31ST - 18	214+89.78	46.72' RT	626.28
31ST - 19	214+89.66	61.73' RT	627.08
31ST - 20	214+84.74	61.75' RT	627.20
31ST - 21	214+84.78	46.75' RT	626.38
31ST - 22	214+84.76	38.73' RT	626.89
31ST - 23	214+76.82	38.74' RT	627.13

POINT ELEVATION TABLE
FLOWLINE

POINT NUMBER	STATION	OFFSET	ELEVATION
FL - 1	215+01.46	38.60' RT	625.75
FL - 2	215+04.53	41.32' RT	625.59
FL - 3	215+08.34	46.41' RT	625.51
FL - 4	215+09.93	49.73' RT	625.35

RADII POINT TABLE

POINT NUMBER	STATION	OFFSET	RADIUS
R - 38	214+85.86	59.25' RT	25.4'

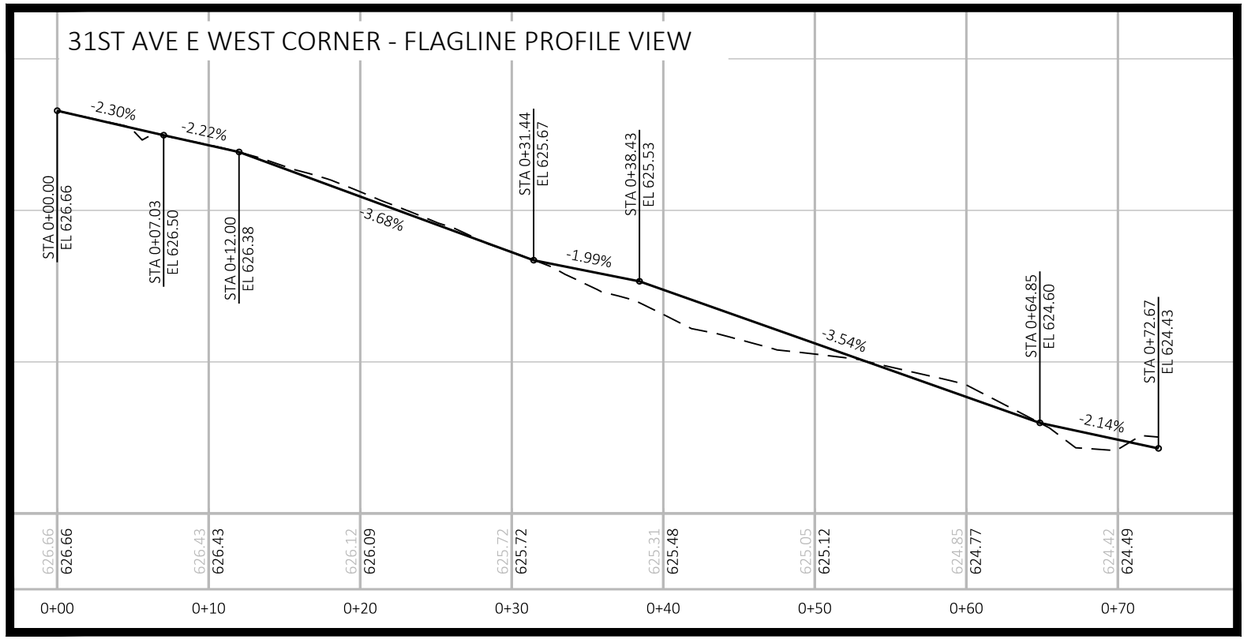
LEGEND

- CONCRETE PAVEMENT REPAIR OR CONCRETE PAVEMENT REPLACEMENT (CPR)
- SAWING ASPHALT
- RP — REMOVING PAVEMENT
- POINT NUMBER
- TSFE — TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, & EROSION MAT URBAN CLASS I TYPE A
- PED — CONCRETE CURB PEDESTRIAN
- CSW — CONCRETE SIDEWALK 6-INCH
- PN# OR C# CALLOUTS REFER TO TEMPORARY LIMITED EASEMENT TABLES

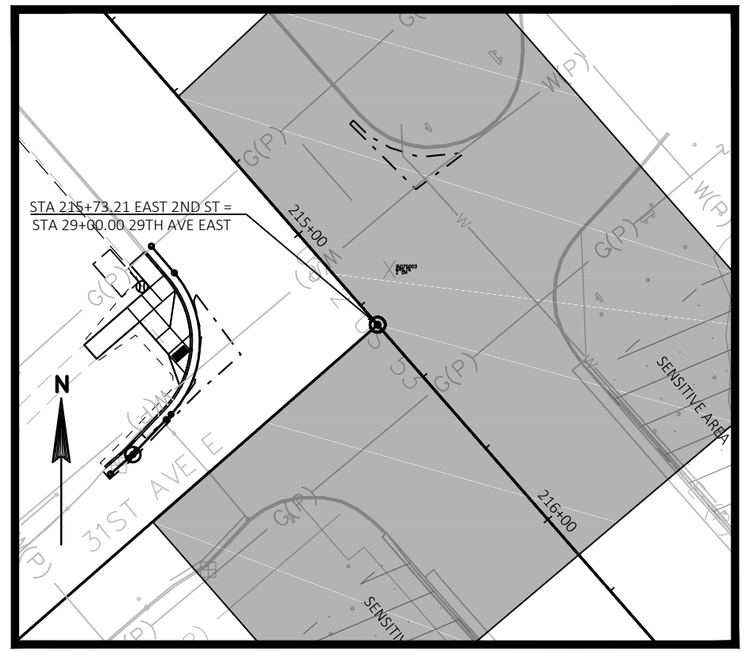
GENERAL CONSTRUCTION NOTES:

- SLOPE ARROWS DO NOT DENOTE THE DIRECTION OF WATER FLOW. NEGATIVE (-) VALUES DENOTE DOWNWARD SLOPE, POSITIVE (+) VALUES DENOTE UPWARD SLOPES.
- PROTECT THE SIDEWALK AGAINST BOTH PUBLIC TRAFFIC AND CONSTRUCTION ACTIVITIES. ORANGE CONSTRUCTION FENCE MAY BE REQUIRED AND IS INCIDENTAL.
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
- THE ENGINEER MAY ADJUST CURB RAMP ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE REQUIREMENTS OF THE STANDARD DETAILS.
- SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS AND DETECTABLE WARNING PLATE DIMENSIONS.
- ALL STATION AND OFFSET INFORMATION REFERENCE USH 2 USH 53 R/L UNLESS STATED OTHERWISE.
- ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.
- SEE PLAN VIEWS SHEETS FOR MORE SIDE ROAD PAVEMENT DETAILS.

2



NOTE: ALL FLAGLINES OF CURB AND GUTTER HAVE INDEPENDENT ALIGNMENTS.



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	INTERSECTION DETAILS - 31ST AVE E FLAGLINE PROFILES	SHEET 62	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\021101_ID_04_23RD-31ST.DWG
LAYOUT NAME - 50_31st_PROF

PLOT DATE : 9/13/2019 11:54 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : #########

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

MH 020032
85+51 19' LT
MORTAR MISSING/CONCRETE MISSING
RECONSTRUCTING MANHOLES

BEGIN PROJECT 1198-03-74
STA 83+05

CB 020259
85+94 29' LT
FRAME BROKEN/MORTAR
MISSING/CONCRETE MISSING
RECONSTRUCTION CATCH BASIN
INLET COVER TYPE H REQ'D

1607061029
88+82 12' LT
ADJUSTING MANHOLE COVERS

EP: 2+00.00

ST 020256
85+71 1' LT
MORTAR MISSING
RECONSTRUCTING MANHOLES

USH 53

2ND AVE E

CB 020257
85+72 42' RT
SALVAGE INLET COVER

CB 020263
89+28 37' LT
MORTAR MISSING/CONCRETE CHIPPED
RECONSTRUCTING CATCH BASINS

PI: 89+15.72

MH 3A0301
89+15 19' LT
MORTAR MISSING
RECONSTRUCTING MANHOLES

ST 020260
89+28 1' LT
REMAIN AS IS

CB 020261
89+29 28' RT
REMAIN AS IS

CB 3A0222
91+80 40' LT
FRAME IS BROKEN, CHIMNEY INTERIOR HAS DISPLACED
MISSING MORTAR WITH SOIL VISIBLE
RECONSTRUCTING CATCH BASINS
INLET COVERS TYPE H

MARINA DRIVE

PT: 92+16.60

PC: 91+27.00

PI: 91+16.39

USH 2

CB 3A0224
91+83 55' RT
INLET COVERS TYPE T

MH 3A0302
92+81 19' LT
ADJUSTING MANHOLE COVERS

ST 3A0189
93+67 34' LT
ADJUSTING MANHOLE COVERS

ST 3A0220
92+56 31' LT
ADJUSTING MANHOLE COVERS

USH 2 USH 53

CB 3A0219
93+44 28' RT
INLET COVER TYPE T

CB 3A0225
92+48 124' RT
BROKEN COVER/CHIMNEY CRACKS
RECONSTRUCTING CATCH BASINS
INLET COVERS TYPE A

ST 3A0223
92+55 126' RT
REMAIN AS IS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 63	E

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

CB 3A0217
96+23 39' LT
REMAIN AS IS

ST 3A0243
96+11 37' LT
ADJUSTING MANHOLE COVERS

ST 3A0062
96+42 28' LT
ADJUSTING MANHOLE COVERS

DC 3A0001
96+54 22' LT
ADJUSTING MANHOLE COVERS

MH 3A302A
96+29 19' LT
CHIMNEY INTERIOR MORTAR MISSING
RECONSTRUCTING MANHOLES

CB 3A0218
96+13 28' RT
REMAIN AS IS

ST 3A0195
99+66 33' LT
ADJUSTING MANHOLE COVERS

CB 3A0197
99+66 39' LT
REMAIN AS IS

MH 3A0303
100+16 19' LT
MISSING CHIMNEY CONCRETE, EXPOSED REBAR,
INFILTRATION WEEPER AT CHIMNEY INTERIOR JOINT
RECONSTRUCTING MANHOLES

1607061043
99+81 12' LT
REMAIN AS IS

CB 3A0196
99+68 27' RT
CHIMNEY INTERIOR HAS REBAR EXPOSED, SOIL
VISIBLE, CONCRETE DEBRIS IN CHANNEL/BENCH
RECONSTRUCTING CATCH BASIN

1053
100+47 12' LT
REMAIN AS IS

USH 2 USH 53

96 97 98 99 100 101 102 103

MH 3A0304
103+79 20' LT
ADJUSTING MANHOLE COVERS

CB 3A0200
102+99 39' LT
REMAIN AS IS

ST 3A0198
102+99 33' LT
ADJUSTING MANHOLE COVERS

CB 3A0203
104+24 39' LT
CHIMNEY RING MORTAR MISSING,
CONCRETE DEBRIS IN PIPE INVERT
RECONSTRUCTING CATCH BASINS

ST 3A0201
104+23 34' LT
ADJUSTING MANHOLE COVERS

MH 3A0305
107+45 20' LT
CONCRETE CHIPPED AWAY, MORTAR
MISSING AROUND CHIMNEY INTERIOR
RECONSTRUCTING MANHOLES

CB 3A0208
107+60 39' LT
REMAIN AS IS

ST 3A0204
107+59 34' LT
ADJUSTING MANHOLE COVERS

EP: 7+00.00

EP: 8+00.00

USH 2 USH 53

102 103 104 105 106 107 108 109

CB 3A0199
102+99 27' RT
CHIMNEY INTERIOR RING WITH HOLE, SOIL VISIBLE
AND REBAR EXPOSED, CONCRETE DEBRIS ON BENCH
RECONSTRUCTING CATCH BASINS

CB 3A0202
104+24 27' RT
SALVAGE INLET COVERS

CB 3A0377
107+30 54' RT
HOLE W/ SOIL VISIBLE AND REBAR EXPOSED
RECONSTRUCTING CATCH BASINS

ST 3A0206
107+93 27' RT
SALVAGE INLET COVERS

ST 3A0205
107+64 29' RT
ADJUSTING MANHOLE COVERS

CB 3A0207
107+66 55' RT
SALVAGE INLET COVERS

7TH AVE E

8TH AVE E

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 64	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 2 - 7TH - 8TH

PLOT DATE : 7/30/2019 2:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 41

NOTE: ALL INLETS SHALL RECEIVE
INLET PROTECTION TYPE C

MARINA DRIVE

CB 3A0216
111+96 51' LT
CHIMNEY BROKEN/HOLE VISIBLE
RECONSTRUCTING CATCH BASINS

MH 3A306A
111+11 20' LT
ADJUSTING MANHOLE COVERS

ST 3A0209
111+26 35' LT
ADJUSTING MANHOLE COVERS

ST 3A0215
111+95 34' LT
ADJUSTING MANHOLE COVERS

MH 3A0610
114+40 22' LT
ADJUSTING MANHOLE COVERS

MH 3A0609
114+77 20' LT
ADJUSTING MANHOLE COVERS

USH 2 USH 53

EP: 9+00.00

1607071012
111+64 0' RT
REMAIN AS IS

CB 3A0214
110+93 56' RT
REMAIN AS IS

9TH AVE E

CB 3A0211
111+56 29' RT
ROOTS AND SOIL VISIBLE AROUND CHIMNEY INTERIOR
RECONSTRUCTING CATCH BASINS

ST 3A0210
111+26 28' RT
HOLE W/ SOIL VISIBLE AND REBAR EXPOSED
RECONSTRUCTING MANHOLES

CB 3A0212
111+30 56' RT
SALVAGED INLET COVERS

CB 3A0237
118+97 28' LT
BROKEN CONCRETE INTERIOR, CONTAINS DEBRIS
RECONSTRUCTING CATCH BASINS

PI: 119+01.38

ST 3A0236
118+27 27' LT
ADJUSTING MANHOLE COVERS

MH 3A0308
118+44 20' LT
ADJUSTING MANHOLE COVERS

MH 3A0228
122+11 20' LT
ADJUSTING MANHOLE COVERS

CB 3A0243
122+35 27' LT
MISSING MORTAR/CONCRETE W/ REBAR EXPOSED
RECONSTRUCTING CATCH BASINS

EP: 11+00.00

USH 2 USH 53

CB 3A0239
118+01 29' RT
SALVAGED INLET COVERS

CB 3A0240
118+92 30' RT
CHIMNEY RING MORTAR MISSING W/ REBAR EXPOSED
RECONSTRUCTING CATCH BASINS

MH 3A0229
122+14 46' RT
REMAIN AS IS

11TH AVE E

ST 3A0238
118+27 27' RT
ADJUSTING MANHOLE COVERS

CB 3A0241
118+27 56' RT
SALVAGED INLET COVERS

CB 3A0242
118+63 57' RT
MISSING MORTAR/CONCRETE, INFILTRATION STAINS
RECONSTRUCTING CATCH BASINS

CB 3A0244
122+35 27' RT
CHIMNEY CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 65	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 3 - 9TH - 11TH

PLOT DATE : 7/30/2019 2:02 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTE: ALL INLETS SHALL RECEIVE
INLET PROTECTION TYPE C

CB 3A0246
126+11 27' LT
MORTAR MISSING, SOIL VISIBLE
RECONSTRUCTING CATCH BASINS

CB 3A0247
126+36 27' LT
REMAIN AS IS

MH 3A0224
128+19 20' LT
ADJUSTING MANHOLE COVERS

MH 3A0310
130+02 21' LT
ADJUSTING MANHOLE COVERS

MH 3A0309A
126+17 20' LT
ADJUSTING MANHOLE COVERS

ST 3A0248
126+12 27' RT
REMAIN AS IS

CB 3A248A
126+36 27' RT
CHIMNEY RING CONCRETE BROKEN
RECONSTRUCTING CATCH BASINS

CB 3A001A
129+64 28' RT
SALVAGED INLET COVERS

ST 3A0001
130+08 56' RT
REMAIN AS IS

USH 2 USH 53

14TH AVE E

ST 3A0001
130+08 38' LT
REMAIN AS IS

CB 3A0253
130+52 27' LT
REMAIN AS IS

MH 3A0311
134+24 21' LT
ADJUSTING MANHOLE COVERS

CB 3A0282
134+63 27' LT
REMAIN AS IS

CB 3A0281
134+83 27' LT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

MH 3A0201
135+05 21' LT
ADJUSTING MANHOLE COVERS

CB 3A0254
130+53 28' RT
SALVAGED INLET COVERS

CB 3A0284
134+64 28' RT
REMAIN AS IS

CB 3A0283
134+84 29' RT
REMAIN AS IS

ST 3A0002
130+08 123' RT
REMAIN AS IS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 66	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 4 - 14TH
PLOT DATE : 7/30/2019 2:02 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

MH 3A0312
137+76 20' LT
ADJUSTING MANHOLE COVERS

CB 3A010C
140+58 27' LT
REMAIN AS IS

MH 3A0313
141+76 20' LT
CHIMNEY CONCRETE/MORTAR MISSING
RECONSTRUCTING MANHOLES

USH 2 USH 53

ST 3A0010
140+57 47' RT
REMAIN AS IS

CB 3A010A
140+58 29' RT
CHIMNEY RINGS IN POOR CONDITION, MORTAR MISSING
RECONSTRUCTING CATCH BASINS

CB 3A011E
145+54 27' LT
REMAIN AS IS

MH 3A0314
145+72 20' LT
ADJUSTING MANHOLE COVERS

MH 3A0159
145+59 39' RT
REMAIN AS IS

ST 3A011A
REMAIN AS IS

CB 3A011B
145+55 29' RT
CHIMNEY RINGS IN POOR CONDITION, MORTAR MISSING
RECONSTRUCTING CATCH BASINS

CB 3A0570
147+27 40' RT
REMAIN AS IS

CB 3A0569
147+33 40' RT
REMAIN AS IS

MH 040001
149+61 20' LT
MORTAR MISSING
RECONSTRUCTING MANHOLES

CB 040315
149+46 37' LT
REMAIN AS IS

CB 040316
149+92 75' LT
REMAIN AS IS

ST 040314
149+88 39' LT
REMAIN AS IS

ST 040175
150+27 27' LT
ADJUSTING MANHOLE COVERS

ST 040177
150+29 35' RT
REMAIN AS IS

CB 040319
150+42 87' RT
REMAIN AS IS

CB 040320
149+86 101' RT
REMAIN AS IS

18TH AVE E

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 67	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 5 - 18TH

PLOT DATE : 7/30/2019 2:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 41

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

ST 040324
152+72 27' LT
ADJUSTING MANHOLE COVERS

MH 040002
153+73 20' LT
ADJUSTING MANHOLE COVERS

ST 040325
151+35 28' LT
CHIMNEY RINGS CONCRETE/MORTAR MISSING
RECONSTRUCTING MANHOLES

ST 040041
155+14 28' LT
ADJUSTING MANHOLE COVERS

CB 04041A
155+13 32' LT
REMAIN AS IS

MH 040003
155+59 20' LT
CHIMNEY MORTAR MISSING
RECONSTRUCTING MANHOLES

MH 040004
157+73 20' LT
ADJUSTING MANHOLE COVERS

ST 040042
155+14 33' RT
REMAIN AS IS

USH 2 USH 53

CB 04017B
160+72 32' LT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

ST 040017
160+80 28' LT
ADJUSTING MANHOLE COVERS

MH 040005
161+64 20' LT
ADJUSTING MANHOLE COVERS

ST 040187
163+05 22' LT
ADJUSTING MANHOLE COVERS

CB 040181
164+84 32' LT
SALVAGED INLET COVERS

MH 04006A
165+20 19' LT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING MANHOLES

ST 040003
165+28 30' LT
ADJUSTING MANHOLE COVERS

MH 040006
165+08 19' LT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING MANHOLES

CB 040188
160+41 51' RT
REMAIN AS IS

CB 04017A
160+73 34' RT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

2004
164+58 59' RT
REMAIN AS IS

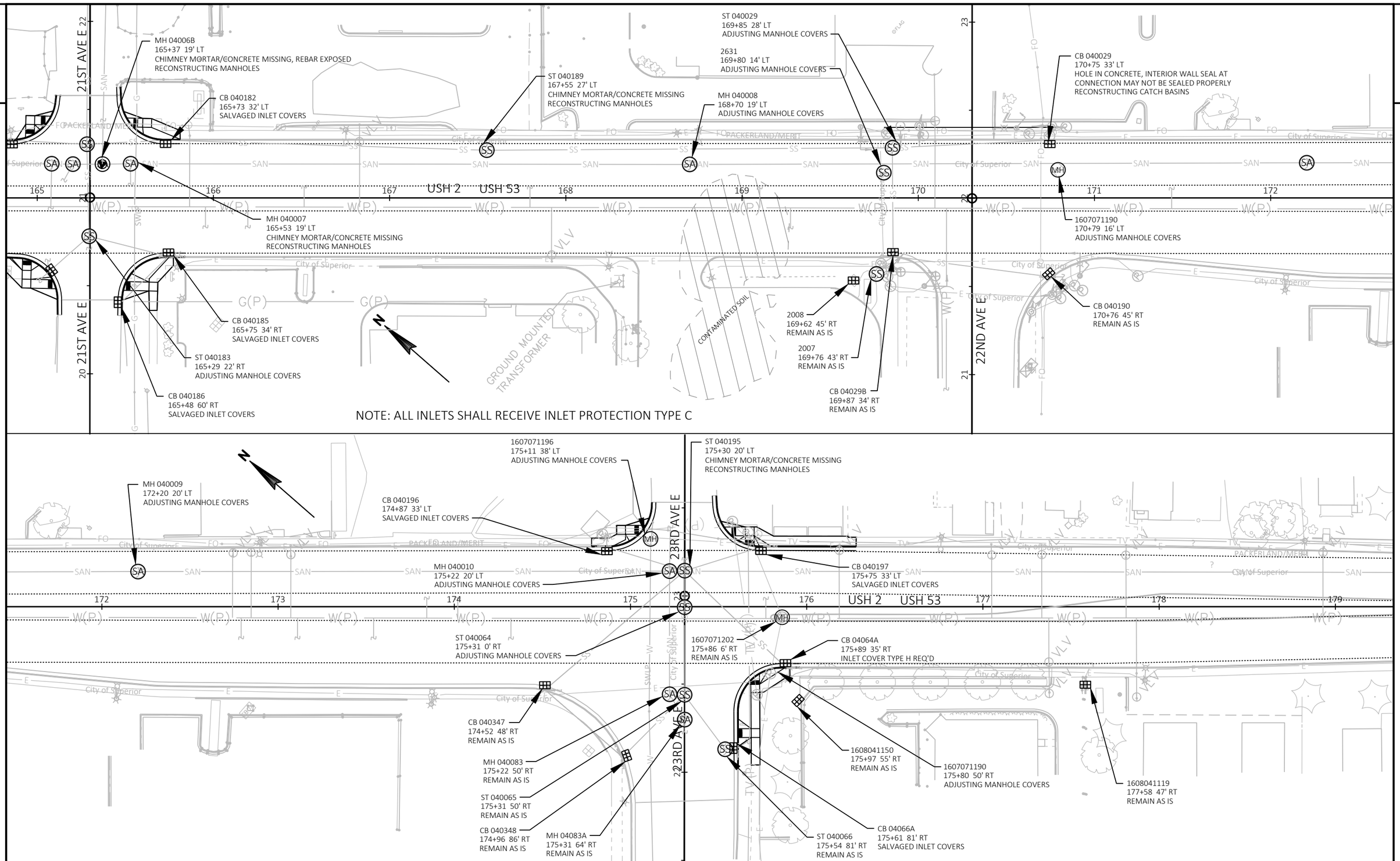
CB 040184
165+07 43' RT
CHIMNEY MORTAR MISSING
RECONSTRUCTING CATCH BASINS

21ST AVE E

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 68	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 6 - 21ST

PLOT DATE : 7/30/2019 2:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 69	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 7 - 21ST - 23RD

PLOT DATE : 7/30/2019 2:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

MH 040011
179+92 19' LT
ADJUSTING MANHOLE COVERS

MH 040302
180+74 60' LT
REMAIN AS IS

CB 040200
180+69 27' LT
REMAIN AS IS

PI: 180+32.12

PI: 185+32.12

USH 2 USH 53

179 180 181 182 183 184 185 186

CB 040201
180+67 28' RT
REMAIN AS IS

STRUCTURE B-16-68
BSNF RR OVERPASS

MH 040109
186+19 89' LT
REMAIN AS IS

STRUCTURE B-16-68
BSNF RR OVERPASS

MH 040110
188+94 90' LT
REMAIN AS IS

ST 040203
190+19 25' LT
ADJUSTING MANHOLE COVERS

PI: 190+32.25

CB 040204
190+95 32' LT
REMAIN AS IS

ST 040312
185+65 48' RT
REMAIN AS IS

186 187 188 189 190 191 192

CB 040205
190+96 34' RT
REMAIN AS IS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 70	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 8 - BRIDGE

PLOT DATE : 7/30/2019 2:04 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 41

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

ST 040208
195+19 24' LT
ADJUSTING MANHOLE COVERS

CB 040209
195+15 60' RT
MORTAR MISSING
RECONSTRUCTING CATCH BASINS

CB 040210
195+51 61' RT
SALVAGED INLET COVERS

ST 040212
200+24 24' LT
ADJUSTING MANHOLE COVERS

CB 040213
199+89 32' LT
REMAIN AS IS

CB 040214
200+14 61' RT
SALVAGED INLET COVERS

CB 040215
200+51 60' RT
SALVAGED INLET COVERS

1608025225
202+98 44' RT
REMAIN AS IS

CB 040218
204+89 32' LT
CHIMNEY MORTAR/CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

ST 040217
205+25 24' LT
ADJUSTING MANHOLE COVERS

CB 040219
204+88 34' RT
SALVAGED INLET COVERS

CB 040220
205+76 33' RT
SALVAGED INLET COVERS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 71	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 9 - 27TH - 29TH
PLOT DATE : 7/30/2019 2:04 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

NOTE: ALL INLETS SHALL RECEIVE INLET PROTECTION TYPE C

CB 040350
210+31 75' LT
REMAIN AS IS

CB 040351
210+78 71' LT
REMAIN AS IS

2003
211+52 64' LT
REMAIN AS IS

CB 040222
209+49 32' LT
REMAIN AS IS

PI: 210+31.76

30TH AVE E

PACKERLAND

206 207 208 209 210 211 212 213

USH 2 USH 53

CB 040223
209+50 33' RT
REMAIN AS IS

SENSITIVE AREA - PROTECTED SPECIES

SENSITIVE AREA

2004
214+55 54' LT
REMAIN AS IS

END PROJECT 1198-03-74
STA 214+00

PI: 215+31.72

213 214 EP: 31+00.00 215 216 217 218 219 220

USH 2 USH 53

CB 040229
214+81 34' RT
CHIMNEY CONCRETE MISSING
RECONSTRUCTING CATCH BASINS

ST 040227
215+11 33' RT
ADJUSTING MANHOLE COVERS

CB 040230
215+14 75' RT
SALVAGED INLET COVERS

31ST AVE E

CB 040232
215+50 76' RT
REMAIN AS IS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	STORM & SANITARY	SHEET 72	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\022501_SS_04.DWG
LAYOUT NAME - 10 - 31ST

PLOT DATE : 7/30/2019 2:04 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 41

LEGEND

- LIGHTING CABINET
- EXISTING CONDUIT
- CONDUIT SPECIAL 2"
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- PULL BOX, 24" X 36", NON-CONDUCTIVE

NOTE: GRAYSHADE REPRESENTS EXISTING

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

N

(2) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

(4) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

MARINA DR

(2) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

USH 2/USH 53 (E. 2ND STREET)

R/W

L-01 L-03 L-05 L-06 L-08 L-10

SAN

LPB1 LPB2

84+00 EP: 2+00.00, 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00

93+00 94+00

USH 53 (E. 2ND STREET)

L-02 L-04 L-07 L-09

LPB4 LPB3

R/W

(2) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

(2) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

92+00

L-11

91+00

(2) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

(4) ELECTRICAL WIRE LIGHTING 4 AWG
(1) ELECTRICAL WIRE LIGHTING 6 AWG GND

90+00

L-12

L-13

89+00

USH 2/BELKNAP ST

CB2
EXPB7

88+00

L-14

EXPB8

87+00

CONSTRUCTION NOTES:

1. GRAYSHADE REPRESENTS EXISTING & PROPOSED ROADWAY AND UTILITIES.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

HIGHWAY LIGHTING
USH 2/ USH 53
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY:
REVISED BY: AECOM

PAGE 1 OF 1

PROJECT NO: 1198-03-74	HWY: USH 2/USH 53	COUNTY: DOUGLAS	LIGHTING PLAN	SCALE, FEET 0 50 100	SHEET 73	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\023601_LP.DWG PLOT DATE : 7/19/2019 8:48 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

2

UNLOCATED UTILITIES:
CHARTER COAX CROSSING USH 2 / USH 53
CENTURY LINK CROSSING USH 2 / USH 53

USH 2 / USH 53

102+00 103+00 104+00 105+00

PB101
STA 103+39, 31' RT

CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

REMOVING CONCRETE SIDEWALK
CONCRETE SIDEWALK 4-INCH

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

CAUTION

7TH AVE E

NOTES:

1. UTILIZE AND CONNECT TO EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH WHERE FEASIBLE. FULL REPLACEMENT NOT REQUIRED IN THESE LOCATIONS. IF CONNECTING TO EXISTING CONDUIT IS NOT FEASIBLE, BORING MAY BE REQUIRED OR AS DIRECTED BY ENGINEER.

2. IF ANY EXISTING SPLICE IS FOUND THAT IS NOT WATERPROOF, THE SPLICE SHALL BE REPLACED WITH A WATERPROOF SPLICE KIT.

3. IF NEW 1 $\frac{1}{4}$" CONDUIT MUST BE PLACED, LOCATE CONDUIT DIRECTLY BEHIND CURB AND GUTTER UNLESS CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER. IF CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER, LOCATE CONDUIT DIRECTLY BEHIND EXISTING CONCRETE SURFACE. MINIMIZE SURFACE DISRUPTION DURING CONDUIT INSTALLATION.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 7TH AVE E	SHEET 74	E

2

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 ¼-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

USH 2 / USH 53

106+00 107+00 108+00 109+00

CONDUIT RIGID NONMETALLIC SCHEDULE 3-INCH
(6) ELECTRICAL WIRE LIGHTING 4 AWG

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 ¼-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

PB102
STA 107+24, 47' RT

PB103
STA 107+86, 29' RT

REMOVING CONCRETE SIDEWALK
CONCRETE SIDEWALK 4-INCH

CONDUIT RIGID NONMETALLIC SCHEDULE 3-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 ¼-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

8TH AVE E

CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
(12) ELECTRICAL WIRE LIGHTING 4 AWG

SERVICE

NOTES:

1. UTILIZE AND CONNECT TO EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH WHERE FEASIBLE. FULL REPLACEMENT NOT REQUIRED IN THESE LOCATIONS. IF CONNECTING TO EXISTING CONDUIT IS NOT FEASIBLE, BORING MAY BE REQUIRED OR AS DIRECTED BY ENGINEER.

2. IF ANY EXISTING SPLICE IS FOUND THAT IS NOT WATERPROOF, THE SPLICE SHALL BE REPLACED WITH A WATERPROOF SPLICE KIT.

3. IF NEW 1 ¼" CONDUIT MUST BE PLACED, LOCATE CONDUIT DIRECTLY BEHIND CURB AND GUTTER UNLESS CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER. IF CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER, LOCATE CONDUIT DIRECTLY BEHIND EXISTING CONCRETE SURFACE. MINIMIZE SURFACE DISRUPTION DURING CONDUIT INSTALLATION.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 8TH AVE E	SHEET 75	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\023601_LP.DWG
LAYOUT NAME - 8th

PLOT DATE : 7/31/2019 3:06 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:25 FT

2

MARINA DR

PACKERLAND / MERIT

City of Superior

USH 2 / USH 53

109+00

110+00

111+00

112+00

W(P)

SS

SAN

E

FO

CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

REMOVING CONCRETE SIDEWALK
CONCRETE SIDEWALK 4-INCH

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 ¼-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

PB104
STA 110+61, 31' RT

PB105
STA 111+50, 31' RT

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 ¼-INCH
(3) ELECTRICAL WIRE LIGHTING 4 AWG

9TH AVE E

N

NOTES:

1. UTILIZE AND CONNECT TO EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH WHERE FEASIBLE. FULL REPLACEMENT NOT REQUIRED IN THESE LOCATIONS. IF CONNECTING TO EXISTING CONDUIT IS NOT FEASIBLE, BORING MAY BE REQUIRED OR AS DIRECTED BY ENGINEER.

2. IF ANY EXISTING SPLICE IS FOUND THAT IS NOT WATERPROOF, THE SPLICE SHALL BE REPLACED WITH A WATERPROOF SPLICE KIT.

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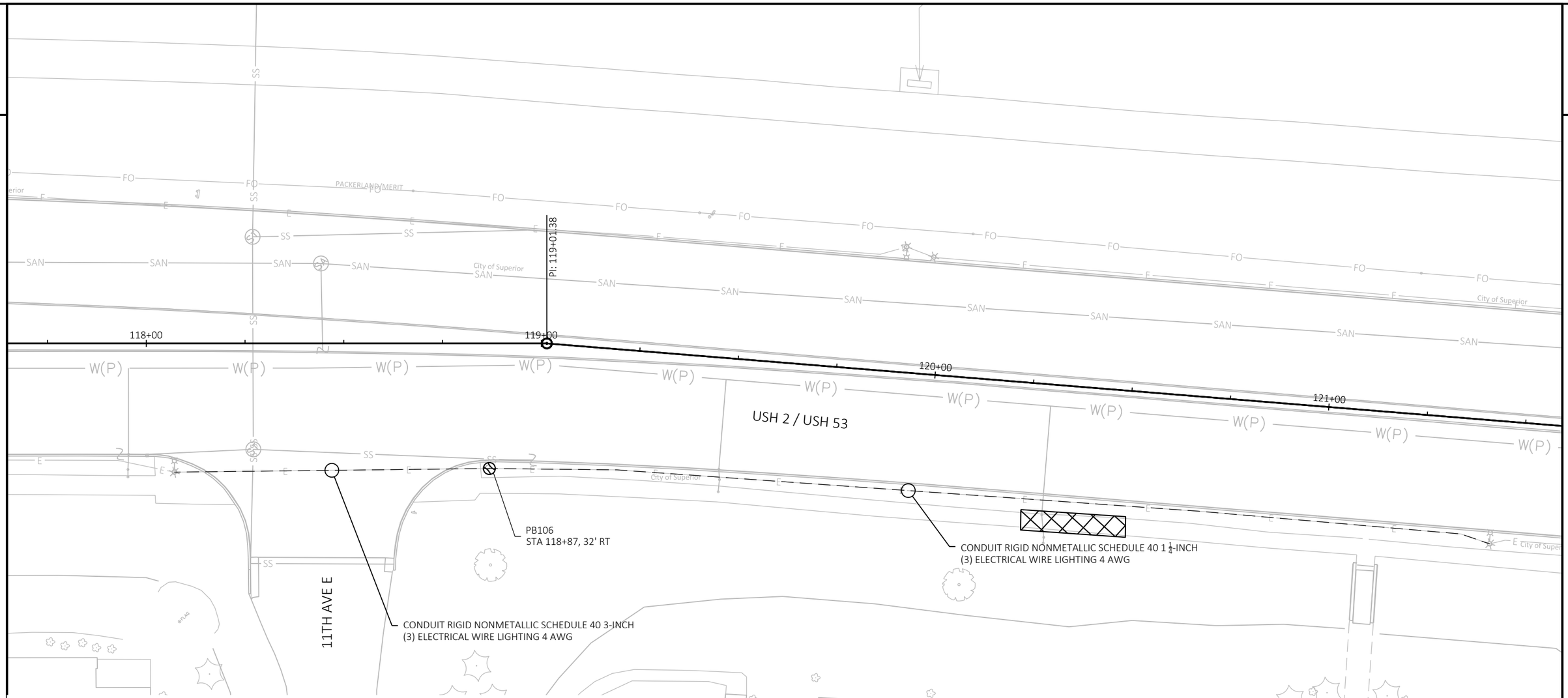
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 9TH AVE E	SHEET 76	E

2



NOTES:

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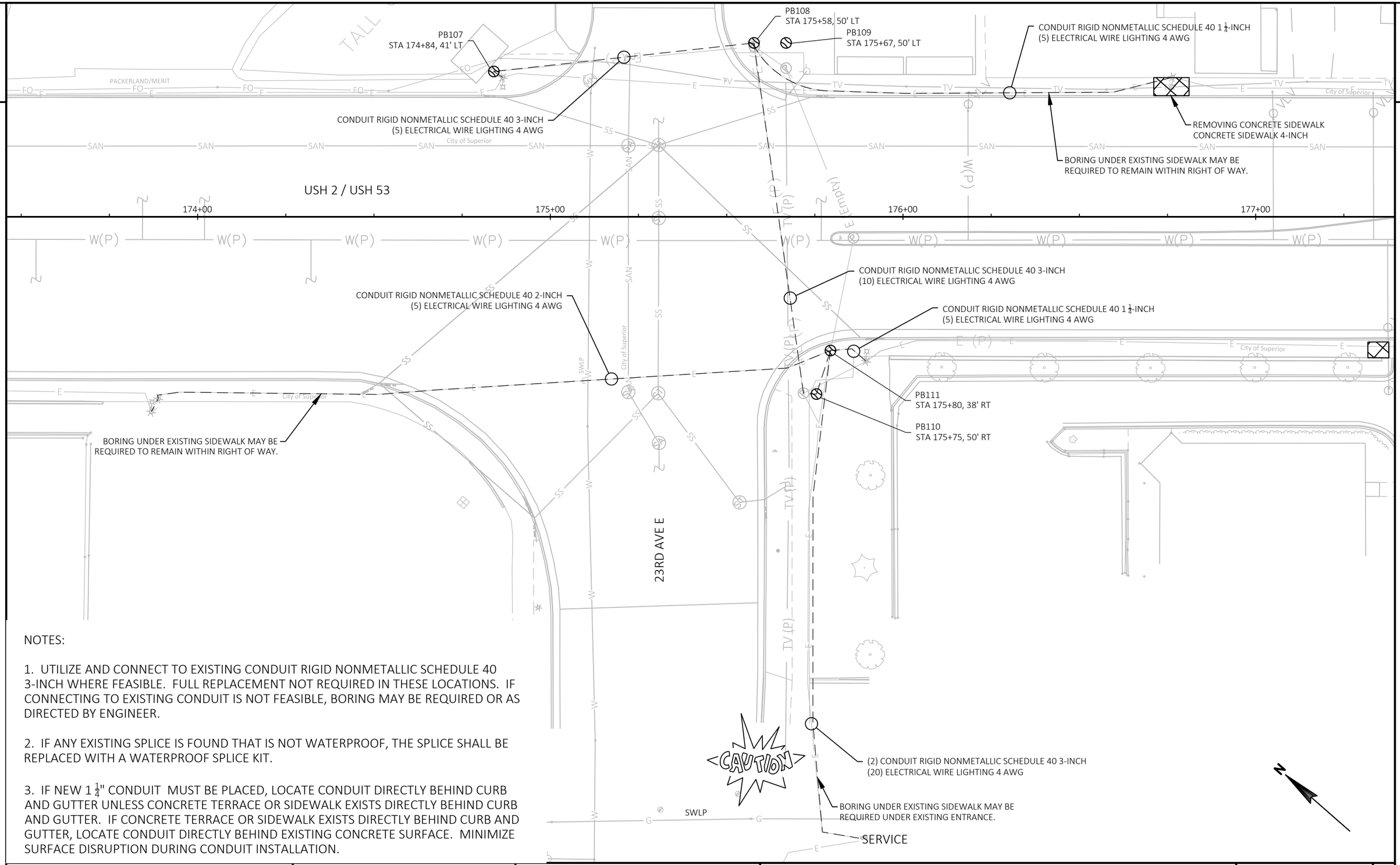
2. IF ANY EXISTING SPLICE IS FOUND THAT IS NOT WATERPROOF, THE SPLICE SHALL BE REPLACED WITH A WATERPROOF SPLICE KIT.

3. IF NEW 1 $\frac{1}{4}$" CONDUIT MUST BE PLACED, LOCATE CONDUIT DIRECTLY BEHIND CURB AND GUTTER UNLESS CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER. IF CONCRETE TERRACE OR SIDEWALK EXISTS DIRECTLY BEHIND CURB AND GUTTER, LOCATE CONDUIT DIRECTLY BEHIND EXISTING CONCRETE SURFACE. MINIMIZE SURFACE DISRUPTION DURING CONDUIT INSTALLATION.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 11TH AVE E	SHEET 77	E



NOTES:

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PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 23RD AVE E	SHEET 78	E

2

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH OUTSIDE CONCRETE BARRIER
(5) ELECTRICAL WIRE LIGHTING 4 AWG
SEE CONSTRUCTION DETAILS FOR ADDITIONAL BID ITEMS AND DETAILS FOR TRANSITION OF LIGHTING CONDUIT

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH OUTSIDE CONCRETE BARRIER
(5) ELECTRICAL WIRE LIGHTING 4 AWG
SEE CONSTRUCTION DETAILS FOR ADDITIONAL BID ITEMS AND DETAILS FOR TRANSITION OF LIGHTING CONDUIT

PI: 185+32.12

31.0'

12.0'

USH 2 / USH 53

182+00 183+00 184+00 185+00 186+00 187+00 188+00 189

PROVIDE EXPANSION DEFLECTION COUPLING AT EACH CORNER OF THE BRIDGE.

36.0'

28.0'

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH OUTSIDE CONCRETE BARRIER
(5) ELECTRICAL WIRE LIGHTING 4 AWG
SEE CONSTRUCTION DETAILS FOR ADDITIONAL BID ITEMS AND DETAILS FOR TRANSITION OF LIGHTING CONDUIT

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH OUTSIDE CONCRETE BARRIER
(5) ELECTRICAL WIRE LIGHTING 4 AWG
SEE CONSTRUCTION DETAILS FOR ADDITIONAL BID ITEMS AND DETAILS FOR TRANSITION OF LIGHTING CONDUIT

NOTES:

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PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - OVERHEAD BRIDGE	SHEET 79	E

2

2

SENSITIVE AREA

SENSITIVE AREA

USH 2 / USH 53

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 2 / USH 53

PI: 215+31.72

213+00

214+00

215+00

216+00

CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 $\frac{1}{4}$-INCH
(5) ELECTRICAL WIRE LIGHTING 4 AWG

REMOVING CONCRETE SIDEWALK
CONCRETE SIDEWALK 4-INCH

PB112
STA 214+83, 41' RT

SPLICE WIRES AS NEEDED FOR
EASTBOUND/SOUTHBOUND WIRES USING A
WATERPROOF SPLICE KIT
20 SPLICES FROM SERVICE
15 SPLICES CROSSING 31ST AVE E

<CAUTION>

SERVICE

31ST AVE E

SENSITIVE AREA

NOTES:

1. UTILIZE AND CONNECT TO EXISTING CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH WHERE FEASIBLE. FULL REPLACEMENT NOT REQUIRED IN THESE LOCATIONS. IF CONNECTING TO EXISTING CONDUIT IS NOT FEASIBLE, BORING MAY BE REQUIRED OR AS DIRECTED BY ENGINEER.

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PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	LIGHTING PLAN - 31ST AVE E	SHEET 80	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\023601_LP.DWG
LAYOUT NAME - 31st

PLOT DATE : 7/31/2019 3:06 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:25 FT

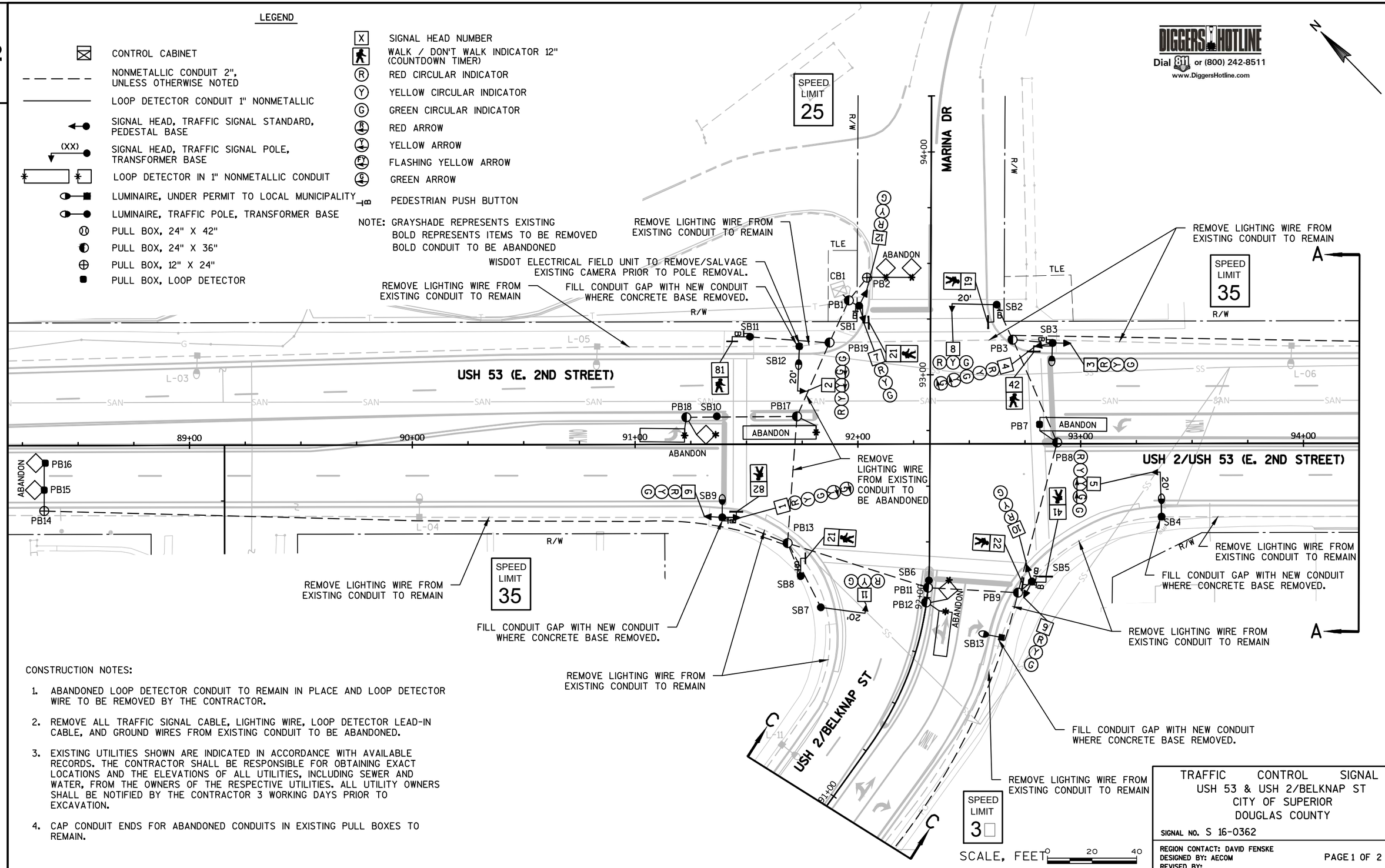
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, LOOP DETECTOR
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 12" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- FYA FLASHING YELLOW ARROW
- GA GREEN ARROW
- PEDESTRIAN PUSH BUTTON

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED
BOLD CONDUIT TO BE ABANDONED

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



CONSTRUCTION NOTES:

1. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE AND LOOP DETECTOR WIRE TO BE REMOVED BY THE CONTRACTOR.
2. REMOVE ALL TRAFFIC SIGNAL CABLE, LIGHTING WIRE, LOOP DETECTOR LEAD-IN CABLE, AND GROUND WIRES FROM EXISTING CONDUIT TO BE ABANDONED.
3. EXISTING UTILITIES SHOWN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND THE ELEVATIONS OF ALL UTILITIES, INCLUDING SEWER AND WATER, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 3 WORKING DAYS PRIOR TO EXCAVATION.
4. CAP CONDUIT ENDS FOR ABANDONED CONDUITS IN EXISTING PULL BOXES TO REMAIN.

SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

SIGNAL NO. S 16-0362

REGION CONTACT: DAVID FENSKE
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

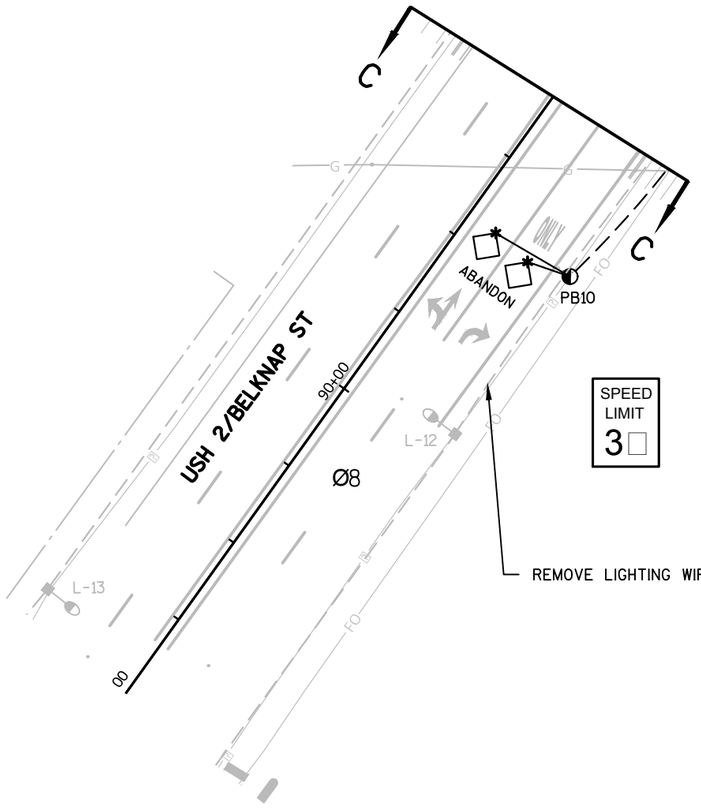
PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	LIGHTING & TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

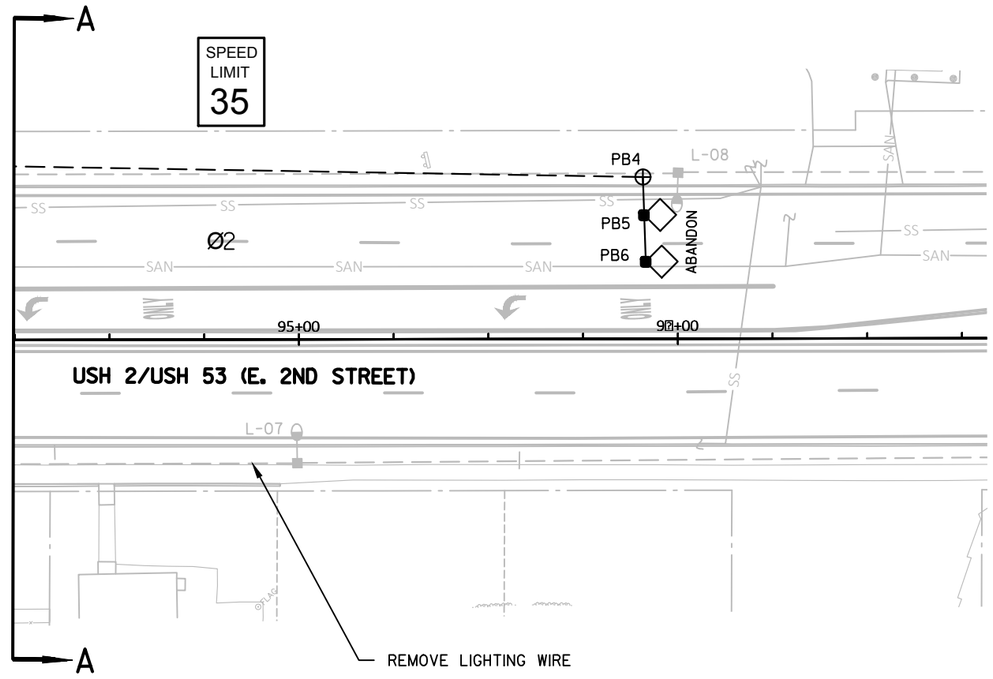
FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024001_SR.DWG PLOT DATE : 7/19/2019 8:56 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

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

N

2





SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

SIGNAL NO. S 16-0362

REGION CONTACT: DAVID FENSKE
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	LIGHTING & TRAFFIC SIGNAL REMOVAL PLAN	SHEET 82	E

2

LEGEND

- SPAN WIRE
- CLASS 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- LUMINAIRE
- X — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y — YELLOW ARROW
- FY — FLASHING YELLOW ARROW
- G — GREEN ARROW

XX R Y G — SIGNAL HEAD TO BE BAGGED

WORK AREA

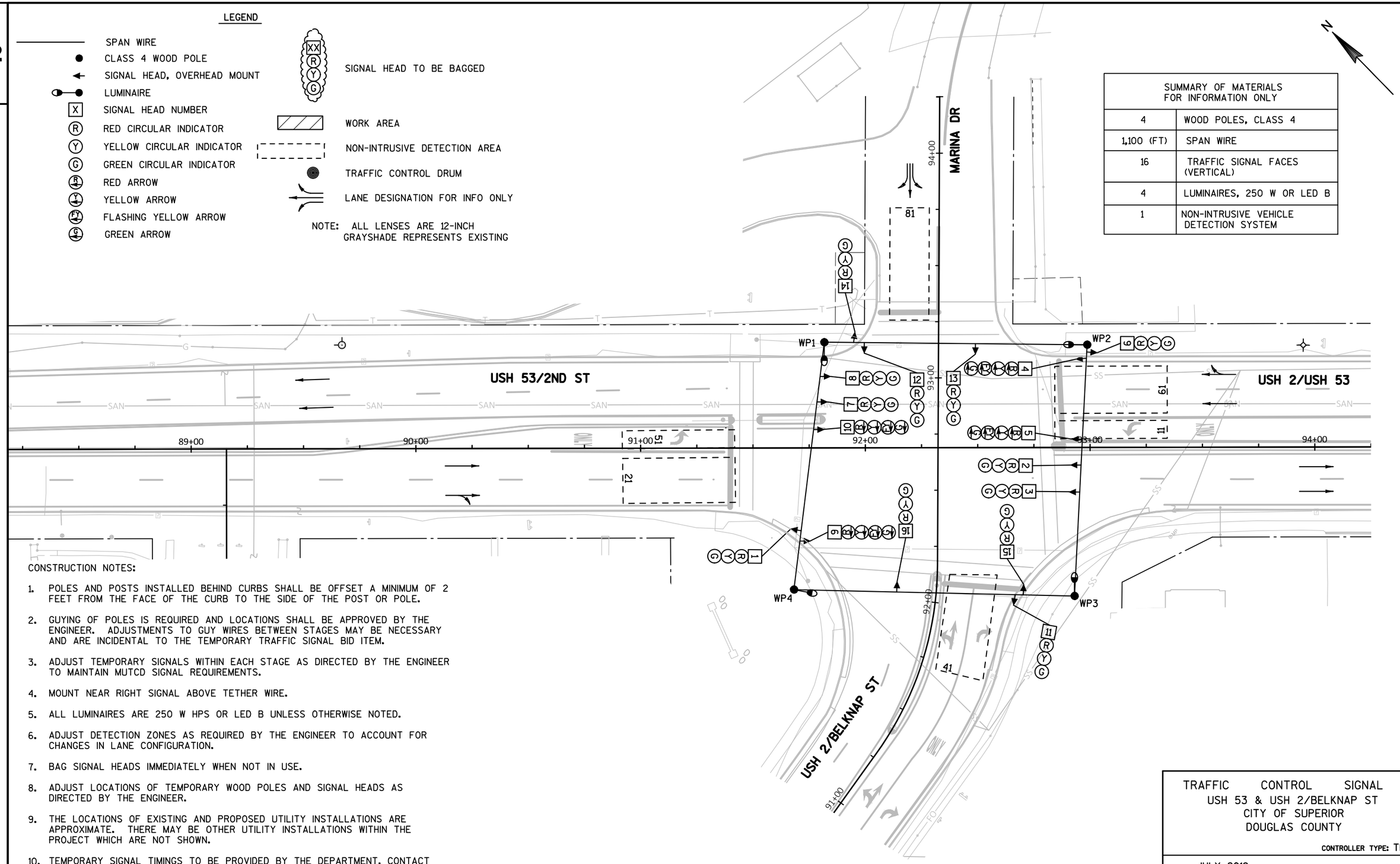
NON-INTRUSIVE DETECTION AREA

TRAFFIC CONTROL DRUM

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
4	WOOD POLES, CLASS 4
1,100 (FT)	SPAN WIRE
16	TRAFFIC SIGNAL FACES (VERTICAL)
4	LUMINAIRES, 250 W OR LED B
1	NON-INTRUSIVE VEHICLE DETECTION SYSTEM



CONSTRUCTION NOTES:

1. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. ADJUSTMENTS TO GUY WIRES BETWEEN STAGES MAY BE NECESSARY AND ARE INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. ADJUST TEMPORARY SIGNALS WITHIN EACH STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
5. ALL LUMINAIRES ARE 250 W HPS OR LED B UNLESS OTHERWISE NOTED.
6. ADJUST DETECTION ZONES AS REQUIRED BY THE ENGINEER TO ACCOUNT FOR CHANGES IN LANE CONFIGURATION.
7. BAG SIGNAL HEADS IMMEDIATELY WHEN NOT IN USE.
8. ADJUST LOCATIONS OF TEMPORARY WOOD POLES AND SIGNAL HEADS AS DIRECTED BY THE ENGINEER.
9. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
10. TEMPORARY SIGNAL TIMINGS TO BE PROVIDED BY THE DEPARTMENT. CONTACT THE DEPARTMENT AT (715) 577-3854 FIVE DAYS PRIOR TO IMPLEMENTATION.

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

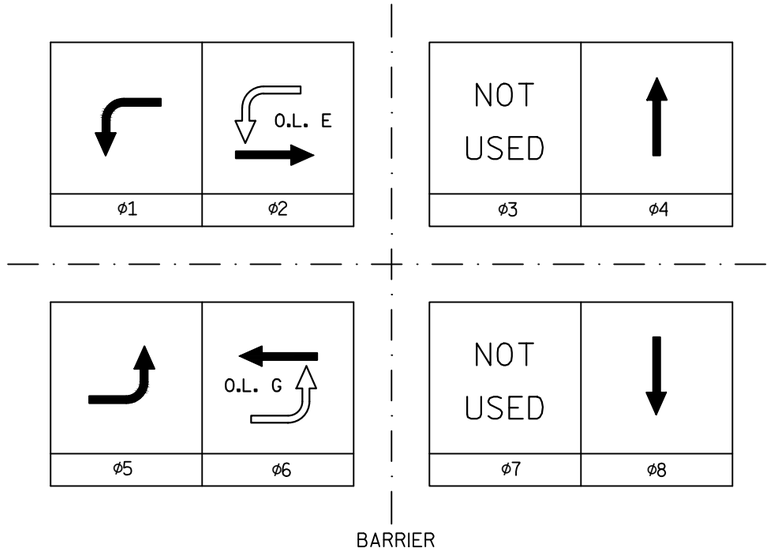
CONTROLLER TYPE: TEMP

JULY 2019

PAGE 1 OF 8

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN-PRECON, STAGES 2A, 2B, 3 & POSTCON	SHEET 83	E

	HEAD NUMBERS	FLASH	
ø1	9,10	R	
ø2	1,2,3	R	
		–	
ø4	11,12,13	R	
ø5	4,5	R	
ø6	6,7,8	R	
		–	
ø8	14,15,16	R	OL ASSIGNMENTS
OLE	9,10	R	1+2
OLG	4,5	R	5+6



CONTROLLER LOGIC

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

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

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
51		X			5	5					
61		X			6	6					
81		X			8	8					

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - PRECON, 2A, 2B, 3, & POSTCON	SHEET 84	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024101_ST.DWG PLOT DATE : 7/19/2019 1:58 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- CLASS 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- LUMINAIRE
- X — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y — YELLOW ARROW
- FY — FLASHING YELLOW ARROW
- G — GREEN ARROW

XX R Y G — SIGNAL HEAD TO BE BAGGED

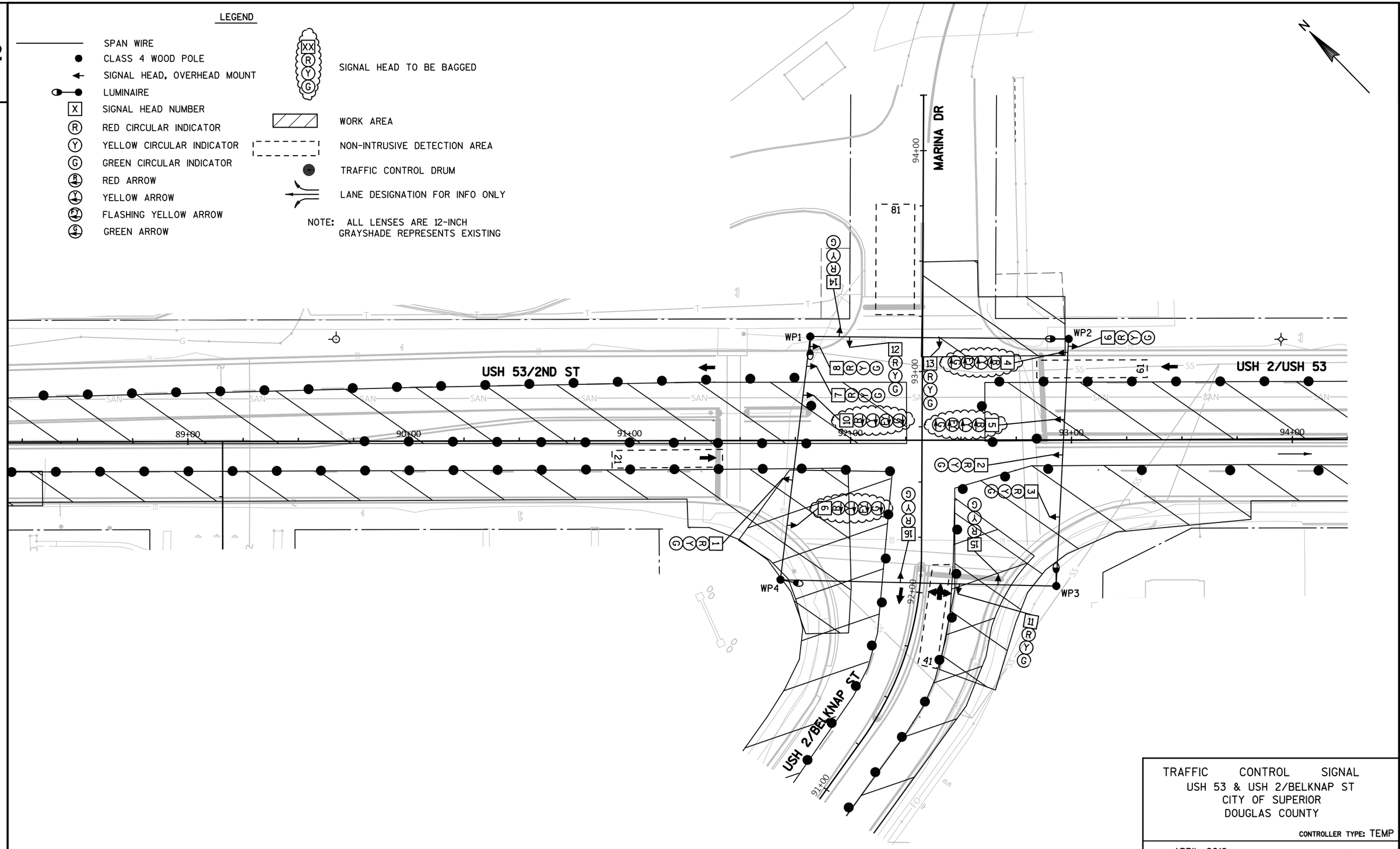
WORK AREA

NON-INTRUSIVE DETECTION AREA

TRAFFIC CONTROL DRUM

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

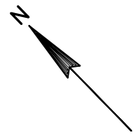
PAGE 3 OF 8

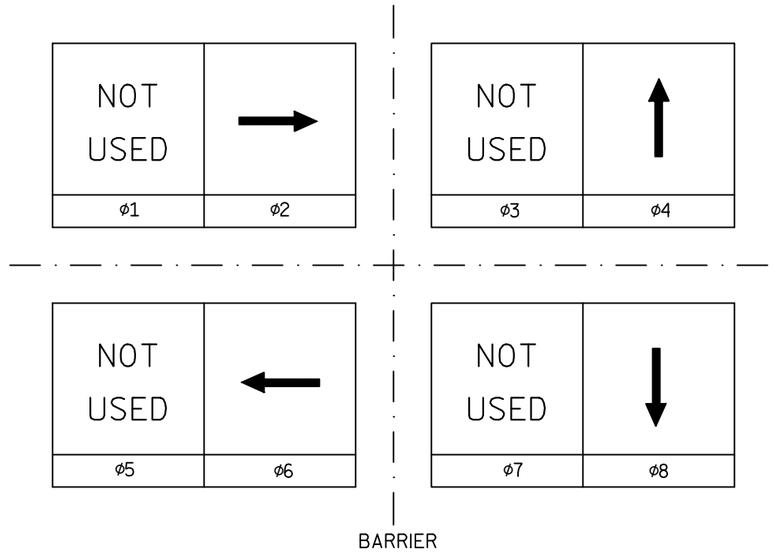
PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024101_ST.DWG PLOT DATE : 7/19/2019 1:59 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
		–
ø2	1,2,3	R
		–
ø4	11,12,13	R
		–
ø6	6,7,8	R
		–
ø8	14,15,16	R





CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
2	X	6	MIN	X
4		8		X
6	X	2	MIN	X
8		4		X

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

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21		X			2	2					
41		X			4	4					
61		X			6	6					
81		X			8	8					

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

PROJECT NO: 1198-03-74 | HWY: USH 53 & USH 2/BELKNAP ST | COUNTY: DOUGLAS | SEQUENCE OF OPERATIONS - STAGE 1A | SHEET 86 E

LEGEND

- SPAN WIRE
- CLASS 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- LUMINAIRE
- X — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y — YELLOW ARROW
- FY — FLASHING YELLOW ARROW
- G — GREEN ARROW

XX R Y G — SIGNAL HEAD TO BE BAGGED

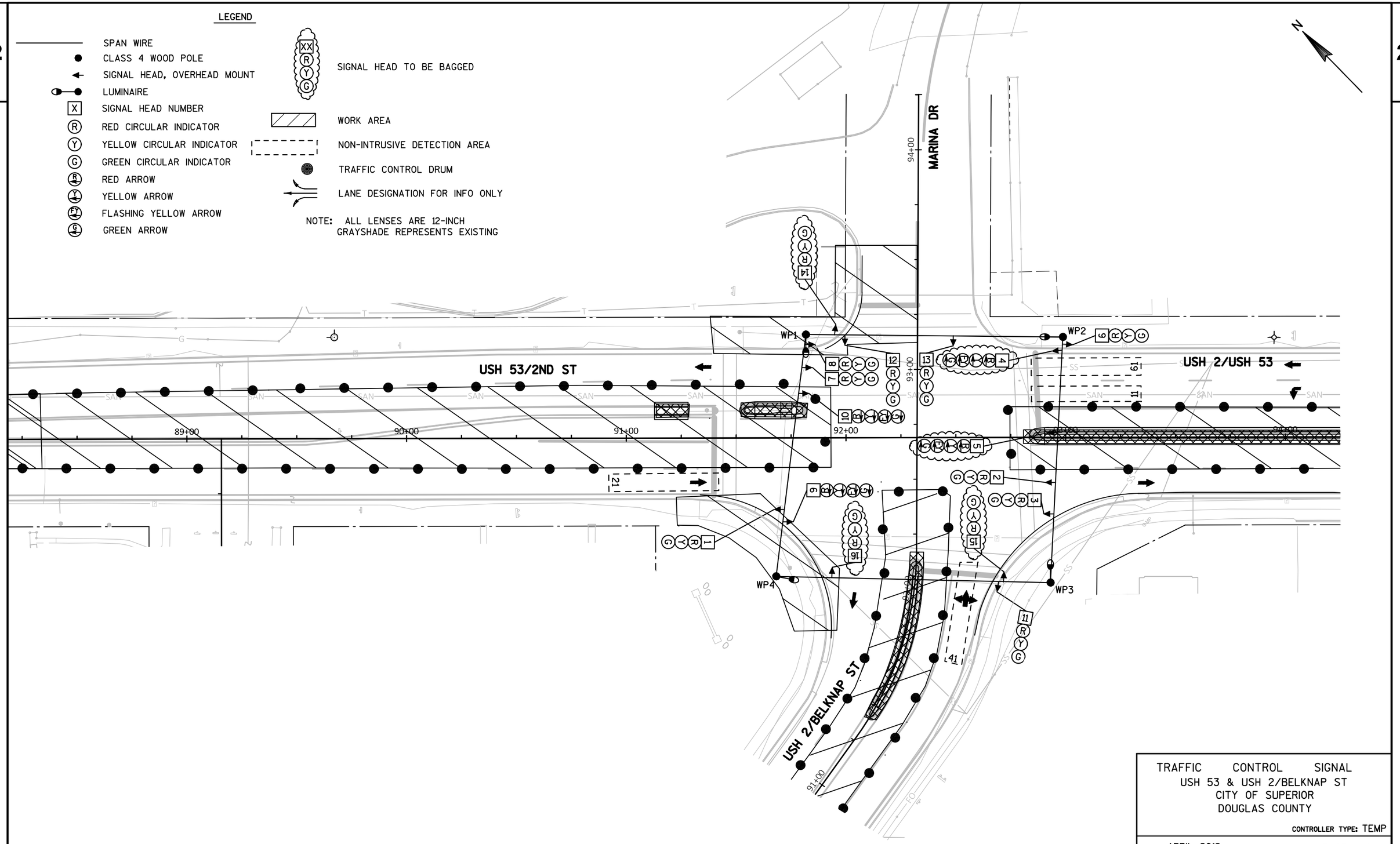
WORK AREA

NON-INTRUSIVE DETECTION AREA

TRAFFIC CONTROL DRUM

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

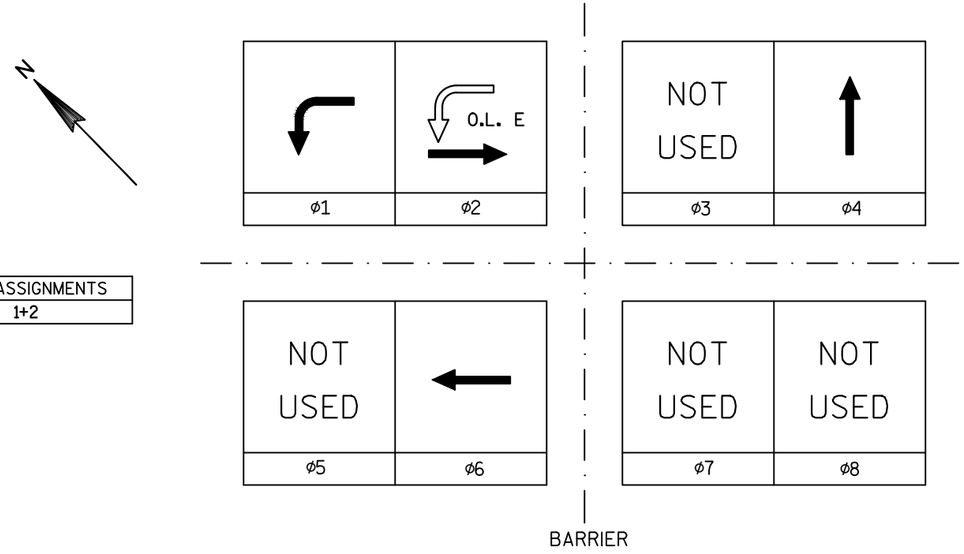
PAGE 5 OF 8

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024101_ST.DWG PLOT DATE : 7/19/2019 1:59 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH	
ø1	9,10	R	
ø2	1,2,3	R	
		–	
ø4	11,12,13	R	
		–	
ø6	6,7,8	R	
		–	
		–	OL ASSIGNMENTS
OLE	9,10	R	1+2



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4				X
6	X	2	MIN	X

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

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"		
O.L. "H"		

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
61		X			6	6					

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024101_ST.DWG PLOT DATE : 7/19/2019 1:59 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- CLASS 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- LUMINAIRE
- X — SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- R — RED ARROW
- Y — YELLOW ARROW
- FY — FLASHING YELLOW ARROW
- G — GREEN ARROW

XX R Y G — SIGNAL HEAD TO BE BAGGED

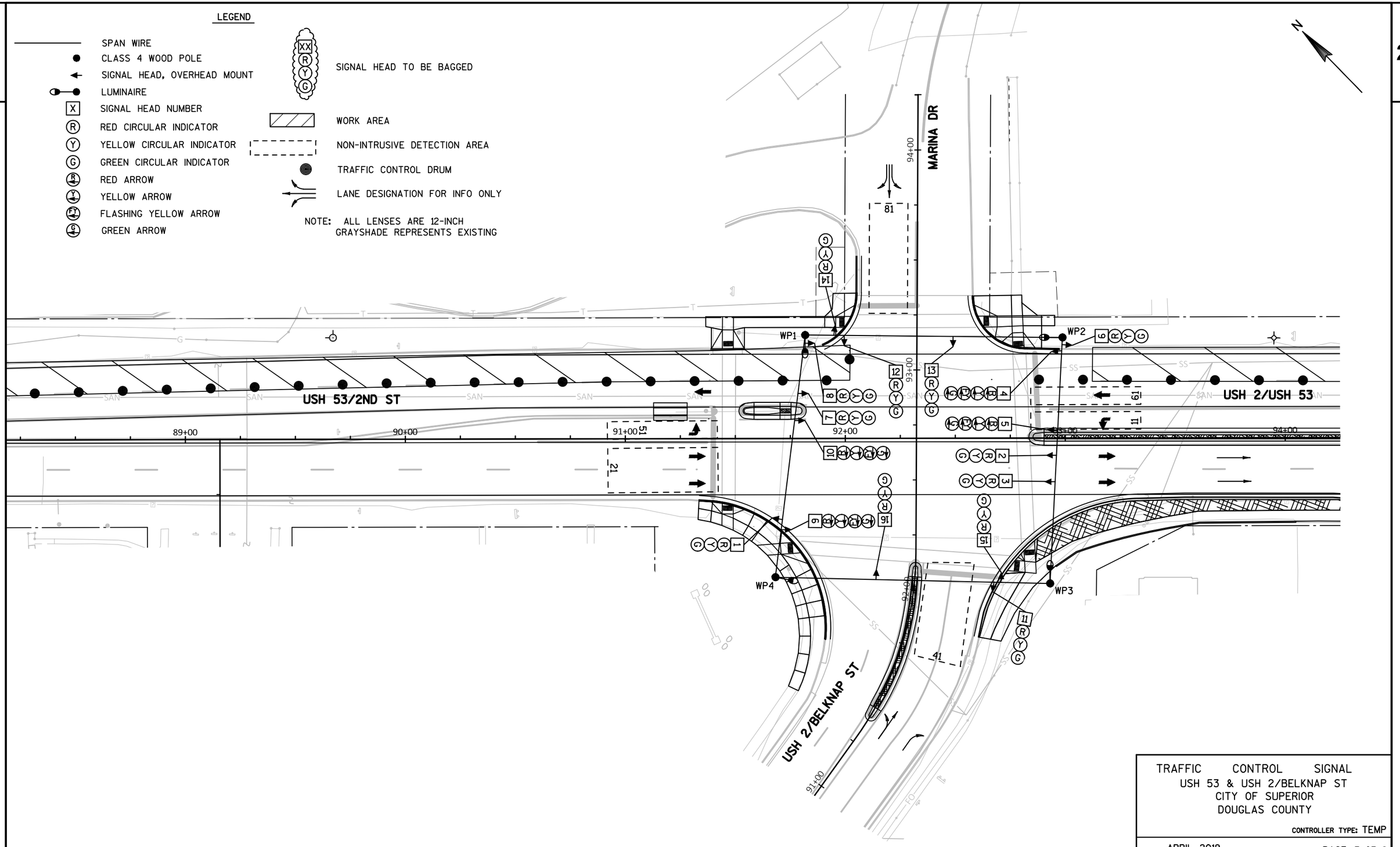
WORK AREA

NON-INTRUSIVE DETECTION AREA

TRAFFIC CONTROL DRUM

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

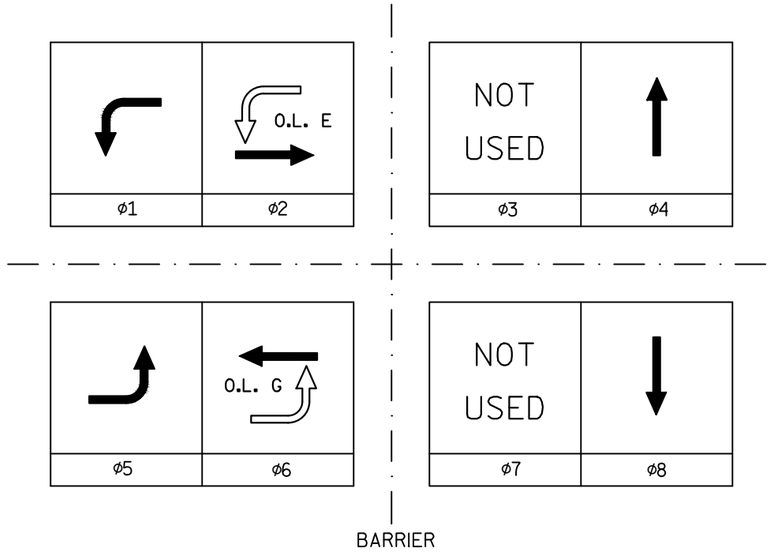
PAGE 7 OF 8

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024101_ST.DWG PLOT DATE : 7/19/2019 1:59 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH	
ø1	9,10	R	
ø2	1,2,3	R	
		–	
ø4	11,12,13	R	
ø5	4,5	R	
ø6	6,7,8	R	
		–	
ø8	14,15,16	R	OL ASSIGNMENTS
OLE	9,10	R	1+2
OLG	4,5	R	5+6



CONTROLLER LOGIC

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

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

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

DETECTOR LOGIC

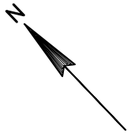
DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
51		X			5	5					
61		X			6	6					
81		X			8	8					

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

CONTROLLER TYPE: TEMP

APRIL 2019

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - STAGE 1C	SHEET 90	E



USH 53 & Belknap St.
Temporary Signal Timing Plan

	Phase							
	1	2	3	4	5	6	7	8
	NBL	SBT	-	EBT	SBL	NBT	-	WBT
			-				-	
Min Green	8	12	-	10	8	12	-	10
Passage	2	4	-	2	2	4	-	2
Max Green	15	45	-	25	15	45	-	25
Yellow Change	3.5	4.0	-	3.5	3.5	4.0	-	3.5
Red Clearance	1.0	3.0	-	3.0	1.0	3.0	-	3.0
Delay?	No	No	-	No	No	No	-	No
Delay Detector Number	-	-	-	-	-	-	-	-
Delay Time (s)	-	-	-	-	-	-	-	-
Extension Stretch?	No	No	-	No	No	No	-	No
Extension Stretch Detector Number	-	-	-	-	-	-	-	-
Extend Time (s)	-	-	-	-	-	-	-	-
Added Initial	-	-	-	-	-	-	-	-
Max Initial	-	-	-	-	-	-	-	-
TBR	-	-	-	-	-	-	-	-
TTR	-	-	-	-	-	-	-	-
Min Gap	-	-	-	-	-	-	-	-
Dynamic Max	-	65	-	-	-	65	-	-
Dynamic Step	-	10	-	-	-	10	-	-
Walk	-	-	-	-	-	-	-	-
Ped Clear	-	-	-	-	-	-	-	-
Flashing Walk	-	-	-	-	-	-	-	-
Extended Ped Clear	-	-	-	-	-	-	-	-
Act Rest-in-walk	-	-	-	-	-	-	-	-
Vehicle Recall	None	Min	-	None	None	Min	-	None
Ped Recall	None	None	-	None	None	None	-	None
Phase Locking	Non-Locking	Locking	-	Non-Locking	Non-Locking	Locking	-	Non-Locking

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

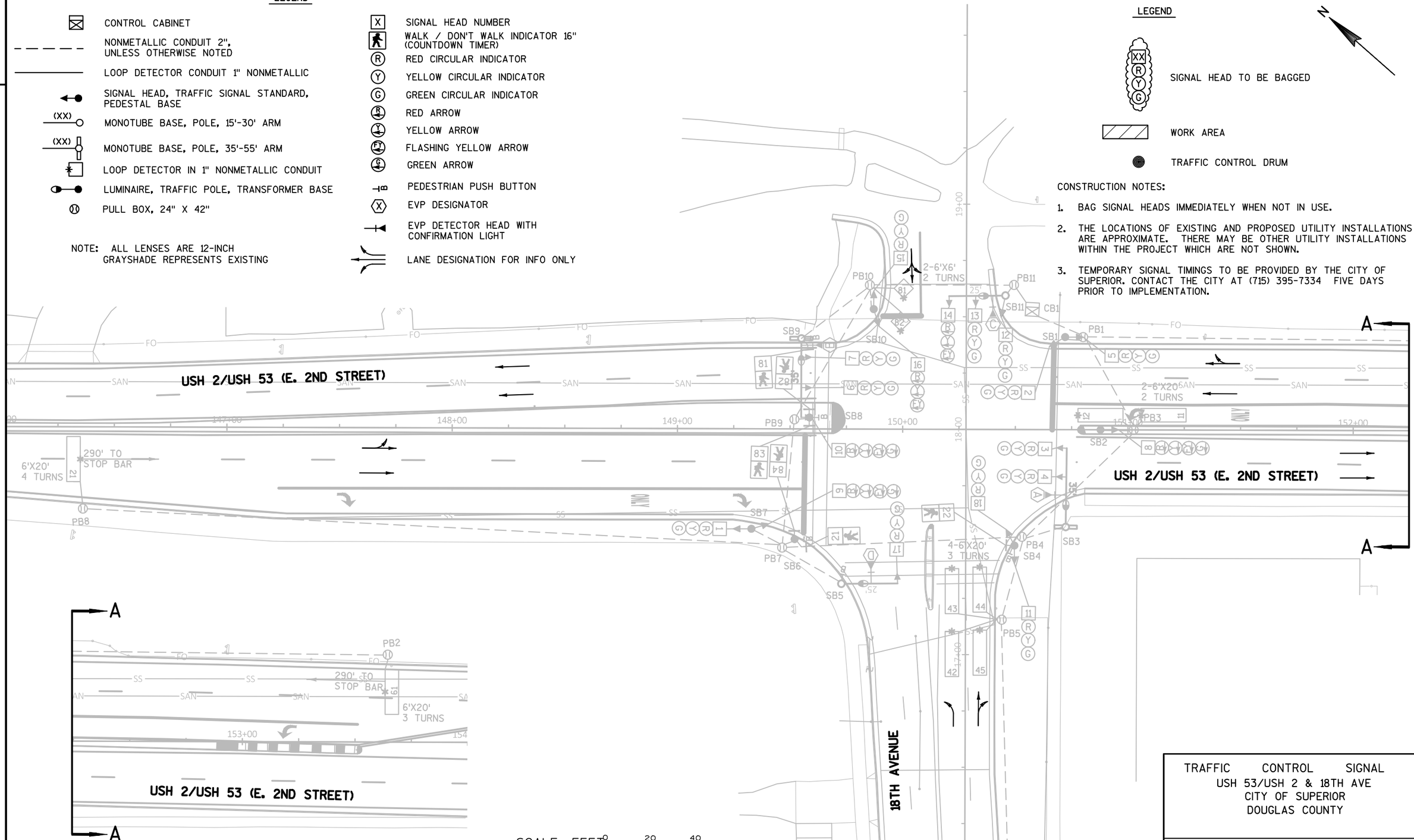
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

CONSTRUCTION NOTES:

1. BAG SIGNAL HEADS IMMEDIATELY WHEN NOT IN USE.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. TEMPORARY SIGNAL TIMINGS TO BE PROVIDED BY THE CITY OF SUPERIOR. CONTACT THE CITY AT (715) 395-7334 FIVE DAYS PRIOR TO IMPLEMENTATION.



TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 1 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN-PRECON, STAGE 1A, 3, & POSTCON	SHEET 92	E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳	Ø2 R/W	Ø2 CLEAR TO ✳✳	Ø3 R/W	Ø3 CLEAR TO ✳✳	Ø4 R/W	Ø4 CLEAR TO ✳✳	FLASH
Ø1	8,9,10	G	- -	-	- -			R	R R	R
Ø2	1,2,3,4	R	R R	G	Y R			R	R R	R
Ø4	11,12,13	R	R R	R	R R			G	Y R	R
Ø6	5,6,7	R	R R	R	R R			R	R R	R
Ø8	15,17,18	R	R R	R	R R			R	R R	R
OLA	8,9,10	-	Y R	FY	Y R			-	- -	-
OLD	14,16	-	- -	-	- -			-	- -	-
Ø2P	21,22	D	D D	✳	D D			D	D D	-
Ø8P	81,82,83,84	D	D D	D	D D			D	D D	-

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳	Ø6 R/W	Ø6 CLEAR TO ✳✳	Ø7 R/W	Ø7 CLEAR TO ✳✳	Ø8 R/W	Ø8 CLEAR TO ✳✳
Ø1	8,9,10			R	R R			R	R R
Ø2	1,2,3,4			R	R R			R	R R
Ø4	11,12,13			R	R R			R	R R
Ø6	5,6,7			G	Y R			R	R R
Ø8	15,17,18			R	R R			G	Y R
OLA	8,9,10			-	- -			-	- -
OLD	14,16			-	- -			FY	Y R
Ø2P	21,22			D	D D			D	D D
Ø8P	81,82,83,84			D	D D			✳	D D

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				EXISTING	EXISTING
12	1	X			1	1				EXISTING	EXISTING
21	2			X		2				EXISTING	EXISTING
41	4	X			4	4				EXISTING	EXISTING
42	4	X			4	4				EXISTING	EXISTING
43	4	X			4	4				EXISTING	EXISTING
44	4	X			4	4		X		EXISTING	EXISTING
45	4	X			4	4				EXISTING	EXISTING
61	6			X		6				EXISTING	EXISTING
81	8	X			8	8				EXISTING	EXISTING
82	8	X			8	8				EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4		8		X
6	X	2	MIN	X
8		4		X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"		
O.L. "D"		8

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,4,8
2	6	1,4,8
4	8	1,2,6
6	1 OR 2	4,8
8	4	1,2,6

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2	1+6	4	8

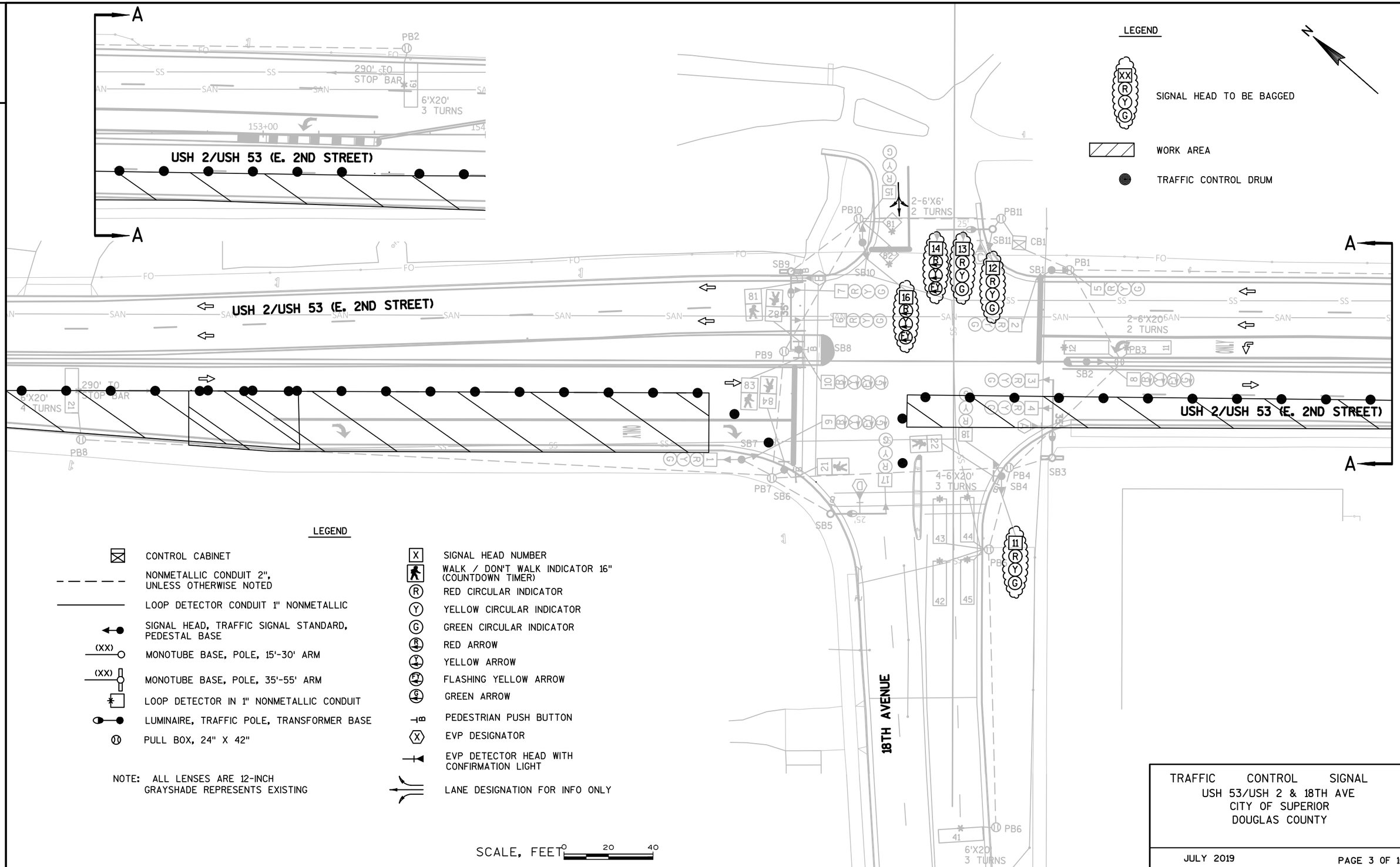
NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS-PRECON, STAGE 1A, 3, & POSTCON	SHEET 93	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG PLOT DATE : 7/31/2019 1:48 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

SCALE, FEET 0 20 40

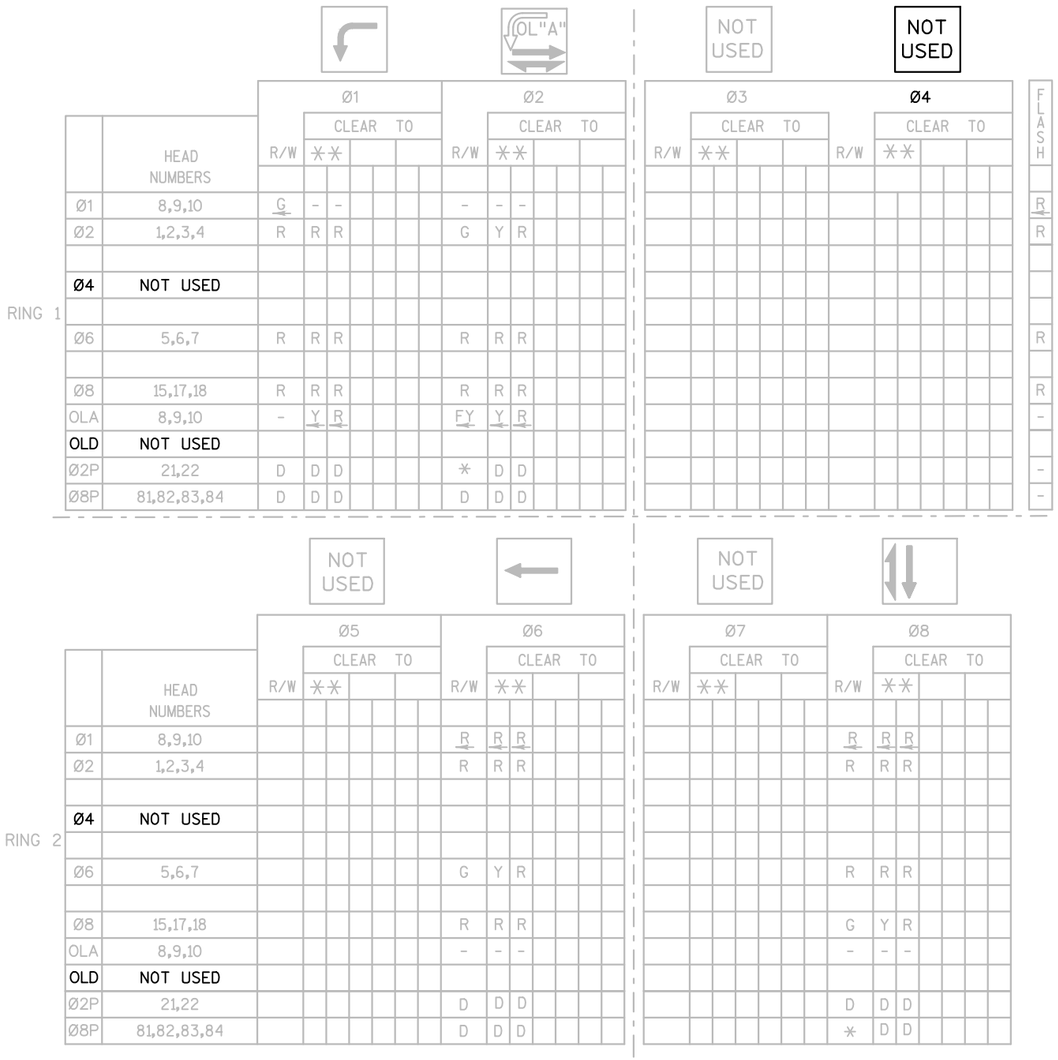
TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG PLOT DATE : 7/31/2019 1:49 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION



* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				EXISTING	EXISTING
12	1	X			1	1				EXISTING	EXISTING
21	2		NOT USED							EXISTING	EXISTING
41	4		NOT USED							EXISTING	EXISTING
42	4		NOT USED							EXISTING	EXISTING
43	4		NOT USED							EXISTING	EXISTING
44	4		NOT USED							EXISTING	EXISTING
45	4		NOT USED							EXISTING	EXISTING
61	6			X		6				EXISTING	EXISTING
81	8	X			8	8				EXISTING	EXISTING
82	8	X			8	8				EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MAX	X
4	NOT USED			
6	X	2	MIN	X
8				X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"		
O.L. "D"	NOT USED	

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
4	NOT USED	NOT USED
6	1 OR 2	8
8		1,2,6

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT			NOT USED	
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - STAGE 1B	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG
PLOT DATE : 7/31/2019 1:49 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"

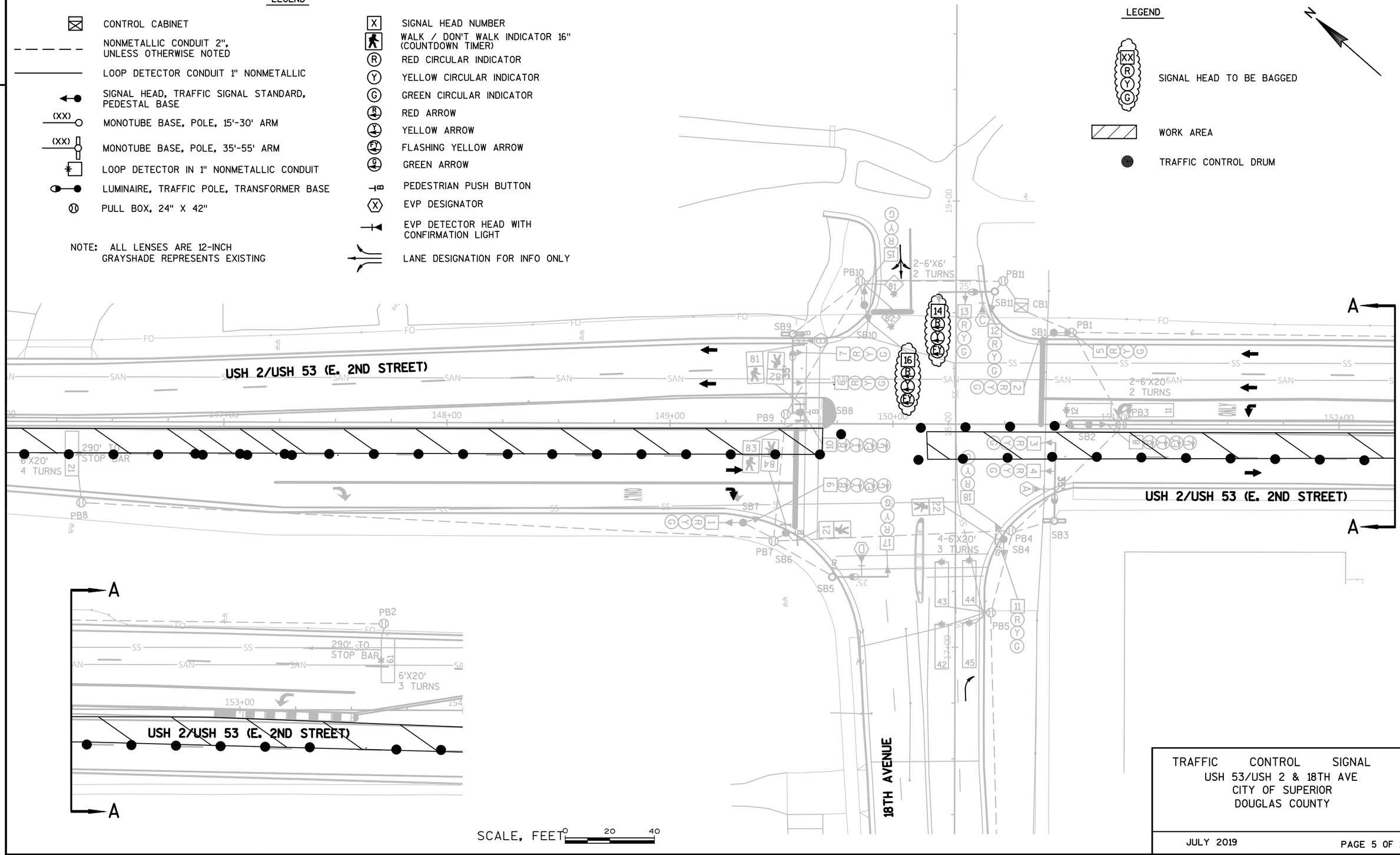
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

N



SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

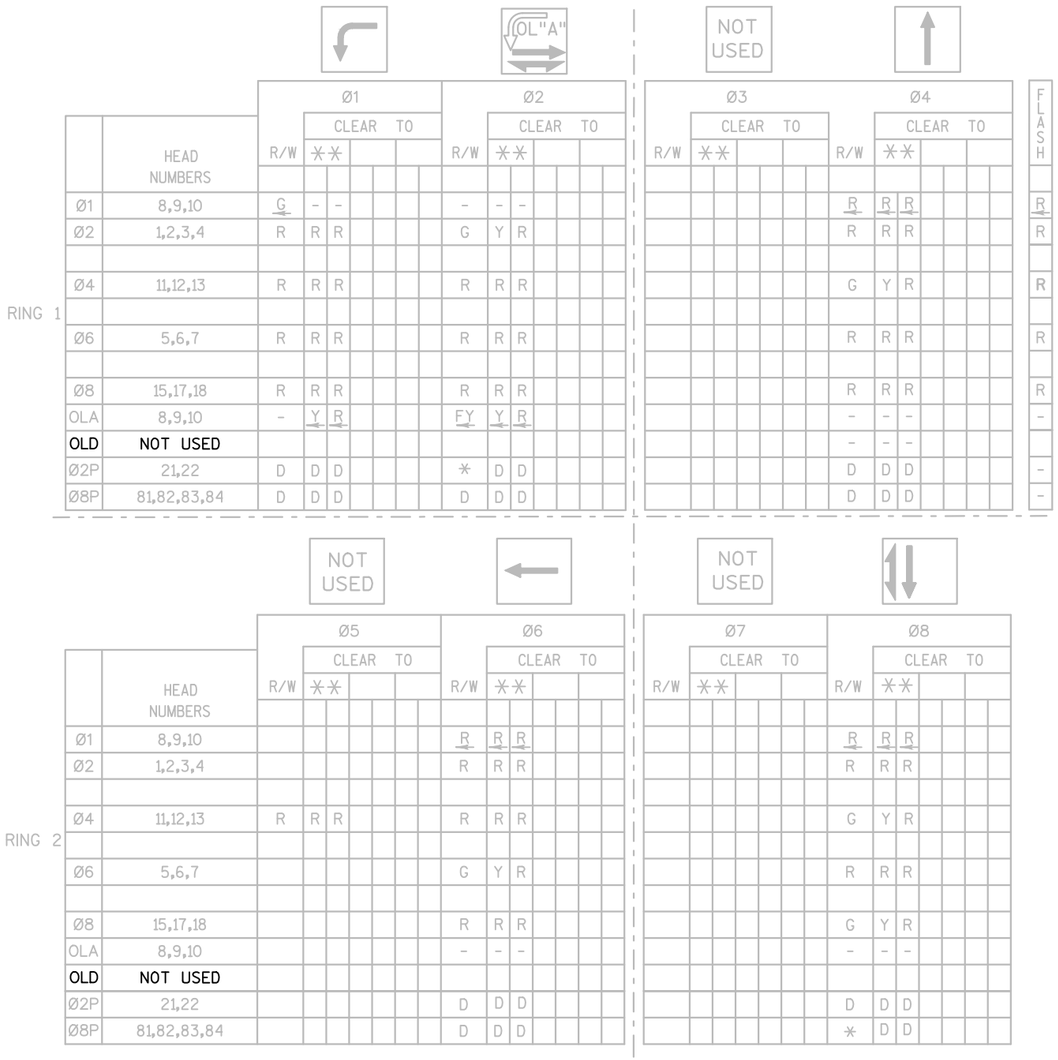
PAGE 5 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C	SHEET E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG PLOT DATE : 7/31/2019 1:49 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION



* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				EXISTING	EXISTING
12	1	X			1	1				EXISTING	EXISTING
21	2		NOT USED							EXISTING	EXISTING
41	4	X			4	4				EXISTING	EXISTING
42	4		NOT USED							EXISTING	EXISTING
43	4		NOT USED							EXISTING	EXISTING
44	4	X			4	4		X		EXISTING	EXISTING
45	4	X			4	4				EXISTING	EXISTING
61	6			X		6				EXISTING	EXISTING
81	8	X			8	8				EXISTING	EXISTING
82	8	X			8	8				EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MAX	X
4		8		X
6	X	2	MIN	X
8		4		X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"		
O.L. "D"		NOT USED

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,4,8
2	6	1,4,8
4	8	1,2,6
6	1 OR 2	4,8
8	4	1,2,6

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - STAGE 1C	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG
PLOT DATE : 7/31/2019 1:49 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"

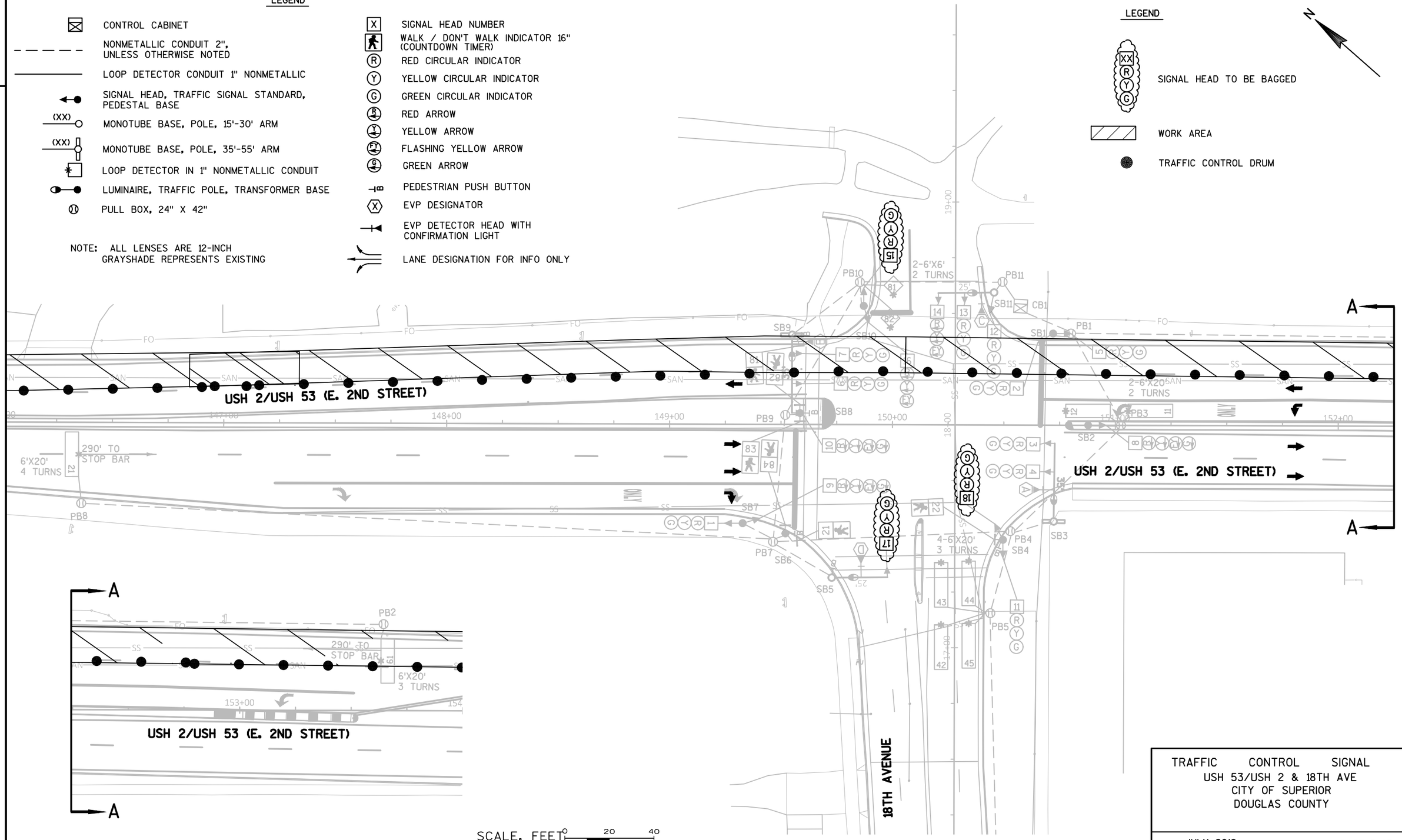
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

N



TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 7 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG PLOT DATE : 7/31/2019 1:50 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳				Ø2 R/W	Ø2 CLEAR TO ✳✳			Ø3 R/W	Ø3 CLEAR TO ✳✳			Ø4 R/W	Ø4 CLEAR TO ✳✳			FLASH
Ø1	8,9,10	G	-	-			-	-	-						R	R	R		R
Ø2	1,2,3,4	R	R	R			G	Y	R						R	R	R		R
Ø4	11,12,13	R	R	R			R	R	R						G	Y	R		R
Ø6	5,6,7	R	R	R			R	R	R						R	R	R		R
Ø8	NOT USED																		
OLA	8,9,10	-	Y	R			FY	Y	R						-	-	-		-
OLD	14,16	-	-	-			=	=	=						FY	Y	R		
Ø2P	21,22	D	D	D			*	D	D						D	D	D		-
Ø8P	81,82,83,84	D	D	D			D	D	D						*	D	D		-

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳				Ø6 R/W	Ø6 CLEAR TO ✳✳			Ø7 R/W	Ø7 CLEAR TO ✳✳			Ø8 R/W	Ø8 CLEAR TO ✳✳		
Ø1	8,9,10						R	R	R									
Ø2	1,2,3,4						R	R	R									
Ø4	11,12,13	R	R	R			R	R	R									
Ø6	5,6,7						G	Y	R									
Ø8	NOT USED																	
OLA	8,9,10						-	-	-									
OLD	14,16						-	-	-									
Ø2P	21,22						D	D	D									
Ø8P	81,82,83,84						D	D	D									

NOT USED

NOT USED

NOT USED

NOT USED

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				EXISTING	EXISTING
12	1	X			1	1				EXISTING	EXISTING
21	2			X		2				EXISTING	EXISTING
41	4	X			4	4				EXISTING	EXISTING
42	4	X			4	4				EXISTING	EXISTING
43	4	X			4	4				EXISTING	EXISTING
44	4	X			4	4		X		EXISTING	EXISTING
45	4	X			4	4				EXISTING	EXISTING
61	6		NOT USED							EXISTING	EXISTING
81	8		NOT USED							EXISTING	EXISTING
82	8		NOT USED							EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4				X
6	X	2	MAX	X
8	NOT USED			

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"		
O.L. "D"		4

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,4
2	6	1,4
4		1,2,6
6	1 OR 2	4
8	NOT USED	NOT USED

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				NOT USED
DIRECTION	SB	NB	EB	WB
PHASES	2	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - STAGE 2A	SHEET 99	E

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"

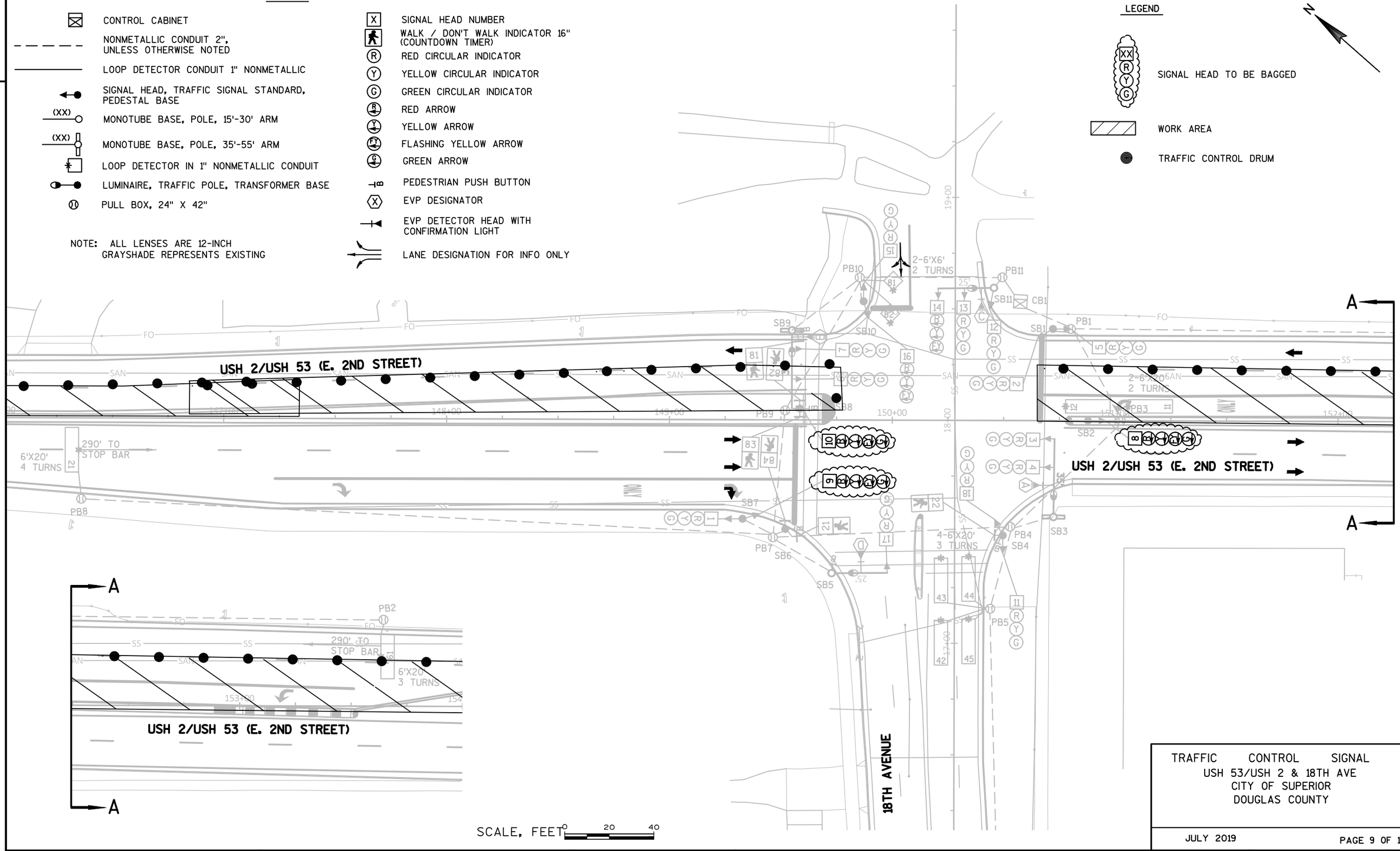
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

- SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

LEGEND

- SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

N



SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PAGE 9 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG PLOT DATE : 7/31/2019 1:50 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 NOT USED	Ø2 R/W	Ø2 CLEAR TO ✳✳	Ø2 CLEAR TO	Ø2 CLEAR TO	Ø3 NOT USED	Ø4 R/W	Ø4 CLEAR TO ✳✳	Ø4 CLEAR TO	Ø4 CLEAR TO	FLASH
Ø1	NOT USED											
Ø2	1,2,3,4		G	Y	R			R	R	R		R
Ø4	11,12,13		R	R	R			G	Y	R		R
Ø6	5,6,7		R	R	R			R	R	R		R
Ø8	15,17,18		R	R	R			R	R	R		R
OLA	NOT USED											
OLD	14,16		-	-	-			-	-	-		-
Ø2P	21,22		✳	D	D			D	D	D		-
Ø8P	81,82,83,84		D	D	D			D	D	D		-

RING 2

	HEAD NUMBERS	Ø5 NOT USED	Ø6 R/W	Ø6 CLEAR TO ✳✳	Ø6 CLEAR TO	Ø6 CLEAR TO	Ø7 NOT USED	Ø8 R/W	Ø8 CLEAR TO ✳✳	Ø8 CLEAR TO	Ø8 CLEAR TO
Ø1	NOT USED										
Ø2	1,2,3,4		R	R	R			R	R	R	
Ø4	11,12,13		R	R	R			R	R	R	
Ø6	5,6,7		G	Y	R			R	R	R	
Ø8	15,17,18		R	R	R			G	Y	R	
OLA	NOT USED										
OLD	14,16		-	-	-			FY	Y	R	
Ø2P	21,22		D	D	D			D	D	D	
Ø8P	81,82,83,84		D	D	D			✳	D	D	

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1		NOT USED							EXISTING	EXISTING
12	1		NOT USED							EXISTING	EXISTING
21	2			X		2				EXISTING	EXISTING
41	4	X			4	4				EXISTING	EXISTING
42	4	X			4	4				EXISTING	EXISTING
43	4	X			4	4				EXISTING	EXISTING
44	4	X			4	4		X		EXISTING	EXISTING
45	4	X			4	4				EXISTING	EXISTING
61			NOT USED							EXISTING	EXISTING
81	8	X			8	8				EXISTING	EXISTING
82	8	X			8	8				EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1	NOT USED			
2	X	6	MIN	X
4		8		X
6	X	2	MIN	X
8		4		X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	NOT USED	NOT USED
O.L. "B"		
O.L. "C"		
O.L. "D"		8

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	NOT USED	NOT USED
2	6	4,8
4	8	2,6
6	2	4,8
8	4	2,6

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2	6	4	8

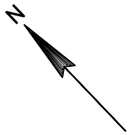
NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	SEQUENCE OF OPERATIONS - STAGE 2B	SHEET 101	E

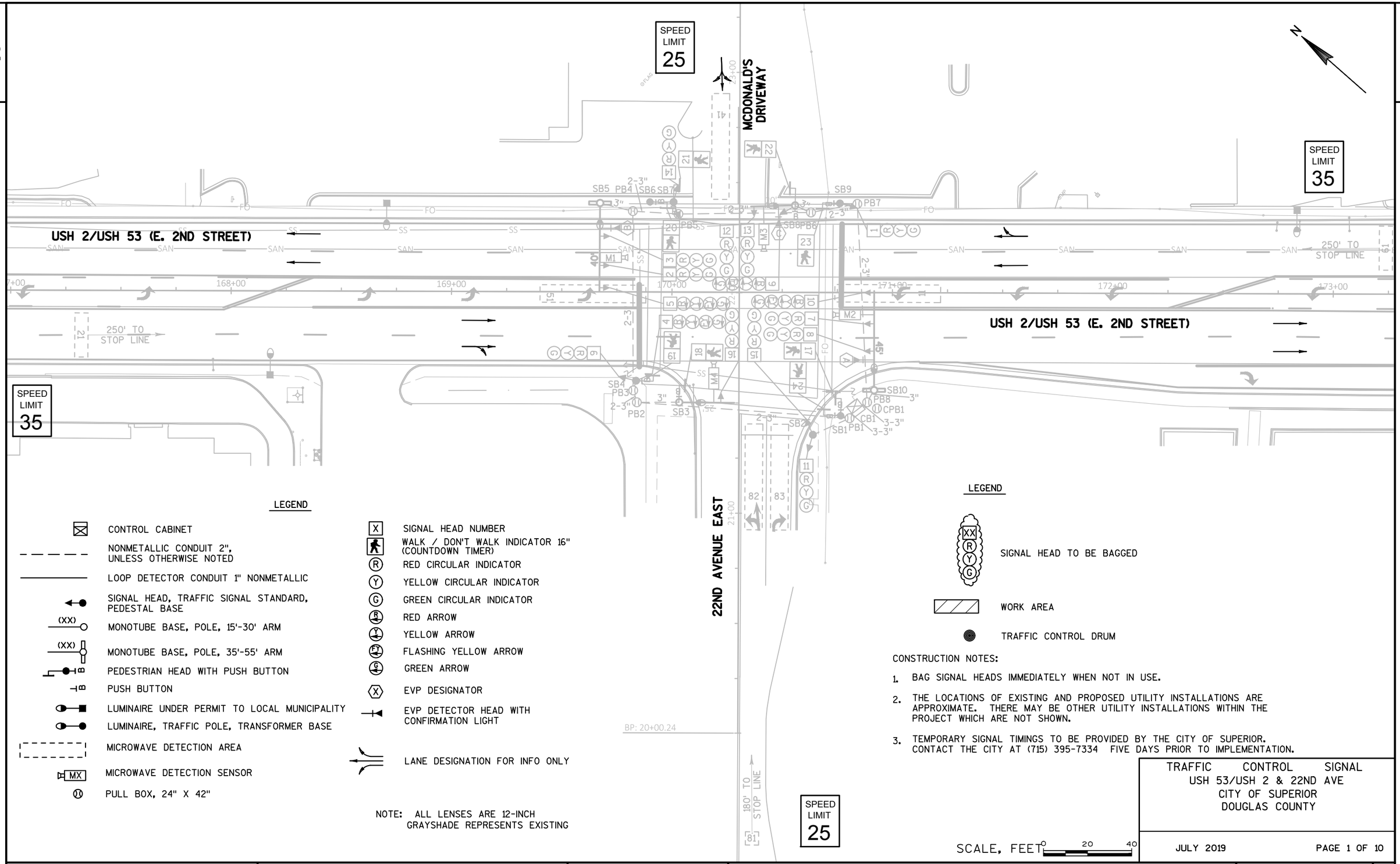
FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024102_ST.DWG
PLOT DATE : 7/31/2019 1:50 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42



USH 53 & 18th Ave.
Temporary Signal Timing Plan

	Phase							
	1	2	3	4	5	6	7	8
	NBL	SBT	-	EBT	-	NBT	-	WBT
			-		-		-	
Min Green	6	12	-	10	-	12	-	10
Passage	2	0	-	2	-	0	-	2
Max Green	15	45	-	35	-	35	-	25
Yellow Change	3.5	4.0	-	3.5	-	4.0	-	3.5
Red Clearance	1.0	3.0	-	3.0	-	3.0	-	3.0
Delay?	No	No	-	No	-	No	-	No
Delay Detector Number	-	-	-	-	-	-	-	-
Delay Time (s)	-	-	-	-	-	-	-	-
Extension Stretch?	No	No	-	No	-	No	-	No
Extension Stretch Detector Number	-	-	-	-	-	-	-	-
Extend Time (s)	-	-	-	-	-	-	-	-
Added Initial	-	-	-	-	-	-	-	-
Max Initial	-	-	-	-	-	-	-	-
TBR	-	-	-	-	-	-	-	-
TTR	-	-	-	-	-	-	-	-
Min Gap	-	-	-	-	-	-	-	-
Dynamic Max	-	75	-	-	-	65	-	-
Dynamic Step	-	10	-	-	-	10	-	-
Walk	-	7	-	7	-	-	-	-
Ped Clear	-	21	-	27	-	-	-	-
Flashing Walk	-	-	-	-	-	-	-	-
Extended Ped Clear	-	-	-	-	-	-	-	-
Act Rest-in-walk	-	-	-	-	-	-	-	-
Vehicle Recall	None	Max	-	None	-	Max	-	None
Ped Recall	None	None	-	None	-	None	-	None
Phase Locking	Non-Locking	Locking	-	Non-Locking	-	Locking	-	Non-Locking

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

CONSTRUCTION NOTES:

1. BAG SIGNAL HEADS IMMEDIATELY WHEN NOT IN USE.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. TEMPORARY SIGNAL TIMINGS TO BE PROVIDED BY THE CITY OF SUPERIOR. CONTACT THE CITY AT (715) 395-7334 FIVE DAYS PRIOR TO IMPLEMENTATION.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

SCALE, FEET 0 20 40

JULY 2019 PAGE 1 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - PRECON, STAGE 1A, 3, & POSTCON	SHEET 103	E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳					Ø2 R/W	Ø2 CLEAR TO ✳✳					Ø3 R/W	Ø3 CLEAR TO ✳✳					Ø4 R/W	Ø4 CLEAR TO ✳✳					FLASH
Ø1	4,5	G	-	-				-	-	-										-	-	-				-
Ø2	6,7,8	R	R	R				G	Y	R				R						R	R	R				R
Ø3																										
Ø4	14,15,16	R	R	R				R	R	R				G						Y	R					R
Ø5	9,10	-	-	-				-	-	-				-						-	-	-				-
Ø6	1,2,3	R	R	R				R	R	R				R						R	R	R				R
Ø7																										
Ø8	11,12,13	R	R	R				R	R	R				R						R	R	R				R
OLA	4.5	-	Y	R				FY	Y	R				R						R	R	R				R
OLC	9,10	R	R	R				R	R	R				R						R	R	R				R
Ø2P	17,18	D	D	D				*	D	D				D						D	D	D				
Ø4P	19,20	D	D	D				D	D	D				*						D	D	D				
Ø6P	21,22	D	D	D				D	D	D				D						D	D	D				
Ø8P	23,24	D	D	D				D	D	D				D						D	D	D				

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳					Ø6 R/W	Ø6 CLEAR TO ✳✳					Ø7 R/W	Ø7 CLEAR TO ✳✳					Ø8 R/W	Ø8 CLEAR TO ✳✳				
Ø1	4,5	-	-	-				-	-	-										-	-	-			
Ø2	6,7,8	R	R	R				R	R	R										R	R	R			
Ø3																									
Ø4	14,15,16	R	R	R				R	R	R										R	R	R			
Ø5	9,10	G	-	-				-	-	-										-	-	-			
Ø6	1,2,3	R	R	R				G	Y	R										R	R	R			
Ø7																									
Ø8	11,12,13	R	R	R				R	R	R										G	Y	R			
OLA	4,5	R	R	R				R	R	R										R	R	R			
OLC	9,10	-	Y	R				FY	Y	R										R	R	R			
Ø2P	17,18	D	D	D				D	D	D										D	D	D			
Ø4P	19,20	D	D	D				D	D	D										D	D	D			
Ø6P	21,22	D	D	D				*	D	D										D	D	D			
Ø8P	23,24	D	D	D				D	D	D										*	D	D			

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21		X			2	2					MICRO
41		X			4	4					MICRO
51		X			5	5					MICRO
61		X			6	6					MICRO
81				X		8			X		MICRO
82		X			8	8					MICRO
83		X			8	8					MICRO

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	5	6
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT			
DIRECTION	SB	NB	EB
PHASES	2+5	1+6	8

CHART 1

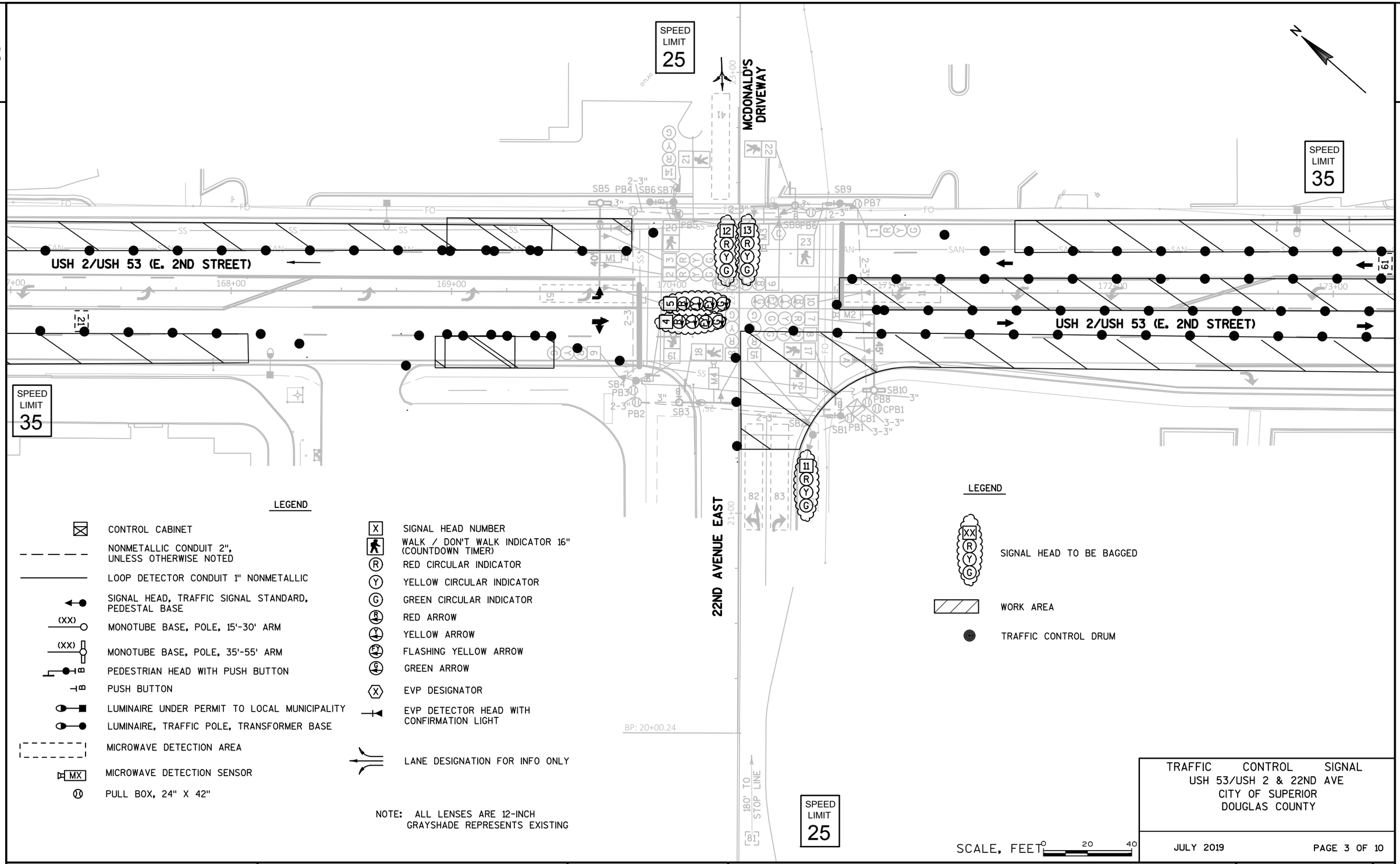
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
3		
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
7		
8	4	1,2,5,6

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 2 OF 10

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
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- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 3 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 105 E

SEQUENCE OF OPERATION

NOT USED | | NOT USED | | NOT USED | NOT USED

RING 1		Ø1						Ø2						Ø3						Ø4						FLASH
			CLEAR TO						CLEAR TO						CLEAR TO						CLEAR TO				
	HEAD NUMBERS	R/W	**					R/W	**					R/W	**					R/W	**					
Ø1	NOT USED																									
Ø2	6,7,8	R	R	R				G	Y	R										R	R	R				R
Ø3																										
Ø4	14,15,16	R	R	R				R	R	R										G	Y	R				R
Ø5	9,10	-	-	-				-	-	-										-	-	-				-
Ø6	1,2,3	R	R	R				R	R	R										R	R	R				R
Ø7																										
Ø8	NOT USED																									
OLA	NOT USED																									
OLC	9,10	R	R	R				R	R	R										R	R	R				R
Ø2P	17,18	D	D	D				*	D	D										D	D	D				
Ø4P	19,20	D	D	D				D	D	D										*	D	D				
Ø6P	21,22	D	D	D				D	D	D										D	D	D				
Ø8P	23,24	D	D	D				D	D	D										*	D	D				

OL"C" | | NOT USED | NOT USED

RING 2		Ø5						Ø6						Ø7						Ø8					
			CLEAR TO						CLEAR TO						CLEAR TO						CLEAR TO				
	HEAD NUMBERS	R/W	**					R/W	**					R/W	**					R/W	**				
Ø1	NOT USED																								
Ø2	6,7,8	R	R	R				R	R	R															
Ø3																									
Ø4	14,15,16	R	R	R				R	R	R															
Ø5	9,10	G	-	-				-	-	-															
Ø6	1,2,3	R	R	R				G	Y	R															
Ø7																									
Ø8	NOT USED																								
OLA	NOT USED																								
OLC	9,10	-	Y	R				FY	Y	R															
Ø2P	17,18	D	D	D				D	D	D															
Ø4P	19,20	D	D	D				D	D	D															
Ø6P	21,22	D	D	D				*	D	D															
Ø8P	23,24	D	D	D				D	D	D															

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11			NOT USED								MICRO
21*		X			2	2					MICRO
41		X			4	4					MICRO
51		X			5	5					MICRO
61*		X			6	6					MICRO
81			NOT USED								MICRO
82			NOT USED								MICRO
83			NOT USED								MICRO

* ADJUST DETECTOR ZONE SIZE PER PLAN.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1	NOT USED			
2	X	6	MIN	X
4				X
5		2		X
6	X	2	MIN	X
8	NOT USED			

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	NOT USED	NOT USED
2	5 OR 6	4
3		
4		2,5,6
5	2	4,6
6	2	4,5
7		
8	NOT USED	NOT USED

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	NOT USED	NOT USED
O.L. "B"		
O.L. "C"	5	6
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT			NOT USED
DIRECTION	SB	NB	EB
PHASES	2+5	6	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

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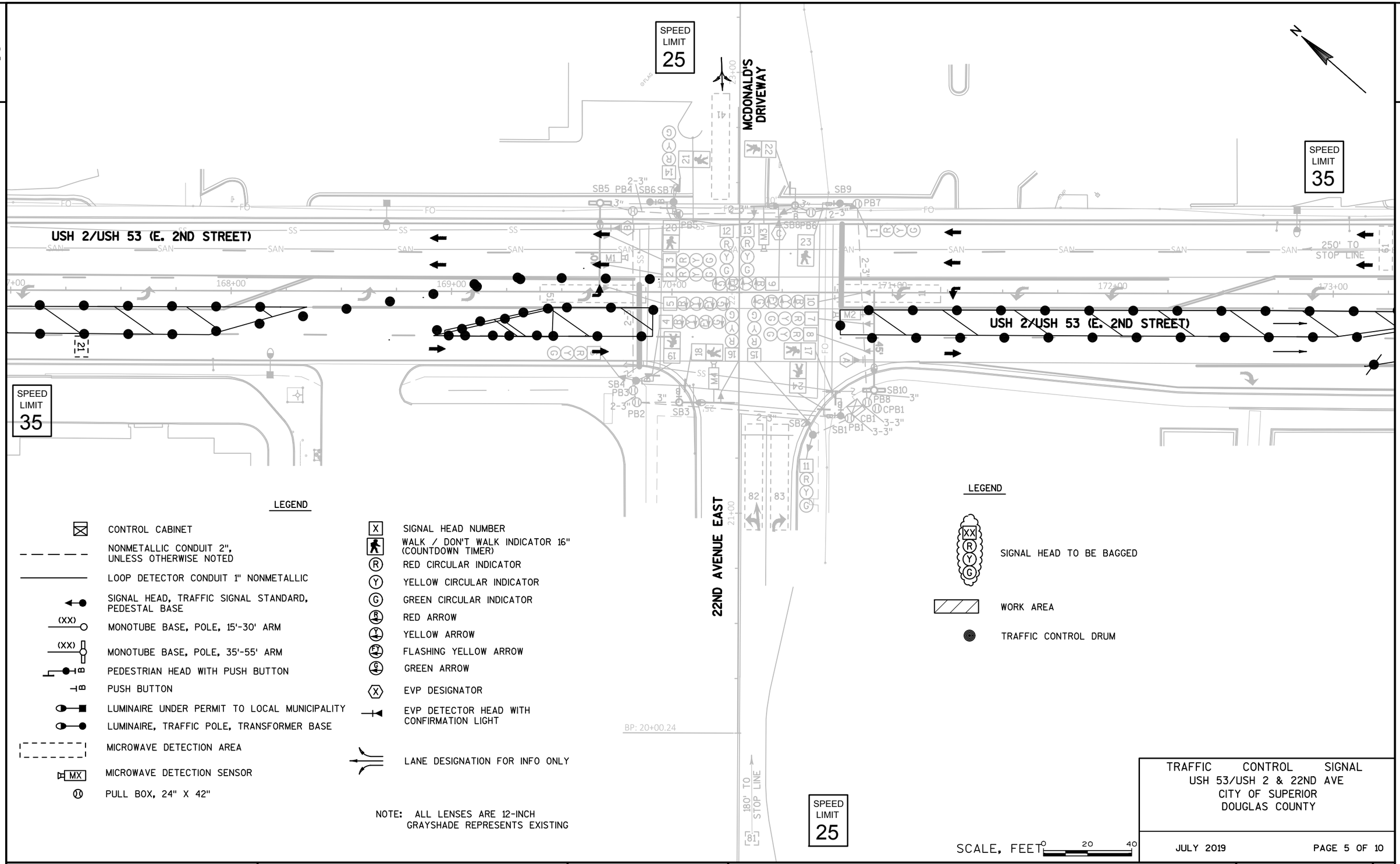
2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 5 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C	SHEET 107 E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø2 R/W	Ø2 CLEAR TO **	Ø3 R/W	Ø3 CLEAR TO **	Ø4 R/W	Ø4 CLEAR TO **	FLASH
Ø1	4,5	G	- -	-	- -			-	- -	-
Ø2	6,7,8	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	14,15,16	R	R R	R	R R			G	Y R	R
Ø5	9,10	-	- -	-	- -			-	- -	-
Ø6	1,2,3	R	R R	R	R R			R	R R	R
Ø7										
Ø8	11,12,13	R	R R	R	R R			R	R R	R
OLA	4.5	-	Y R	FY	Y R			R	R R	R
OLC	9,10	R	R R	R	R R			R	R R	R
Ø2P	17,18	D	D D	*	D D			D	D D	
Ø4P	19,20	D	D D	D	D D			*	D D	
Ø6P	21,22	D	D D	D	D D			D	D D	
Ø8P	23,24	D	D D	D	D D			D	D D	

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **
Ø1	4,5	-	- -	-	- -			-	- -
Ø2	6,7,8	R	R R	R	R R			R	R R
Ø3									
Ø4	14,15,16	R	R R	R	R R			R	R R
Ø5	9,10	G	- -	-	- -			-	- -
Ø6	1,2,3	R	R R	G	Y R			R	R R
Ø7									
Ø8	11,12,13	R	R R	R	R R			G	Y R
OLA	4,5	R	R R	R	R R			R	R R
OLC	9,10	-	Y R	FY	Y R			R	R R
Ø2P	17,18	D	D D	D	D D			D	D D
Ø4P	19,20	D	D D	D	D D			D	D D
Ø6P	21,22	D	D D	*	D D			D	D D
Ø8P	23,24	D	D D	D	D D			*	D D

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21*		X			2	2					MICRO
41		X			4	4					MICRO
51		X			5	5					MICRO
61		X			6	6					MICRO
81				X		8			X		MICRO
82		X			8	8					MICRO
83		X			8	8					MICRO

* ADJUST DETECTOR ZONE SIZE PER PLAN.

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	5	6
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT			
DIRECTION	SB	NB	EB
PHASES	2+5	1+6	8

CHART 1

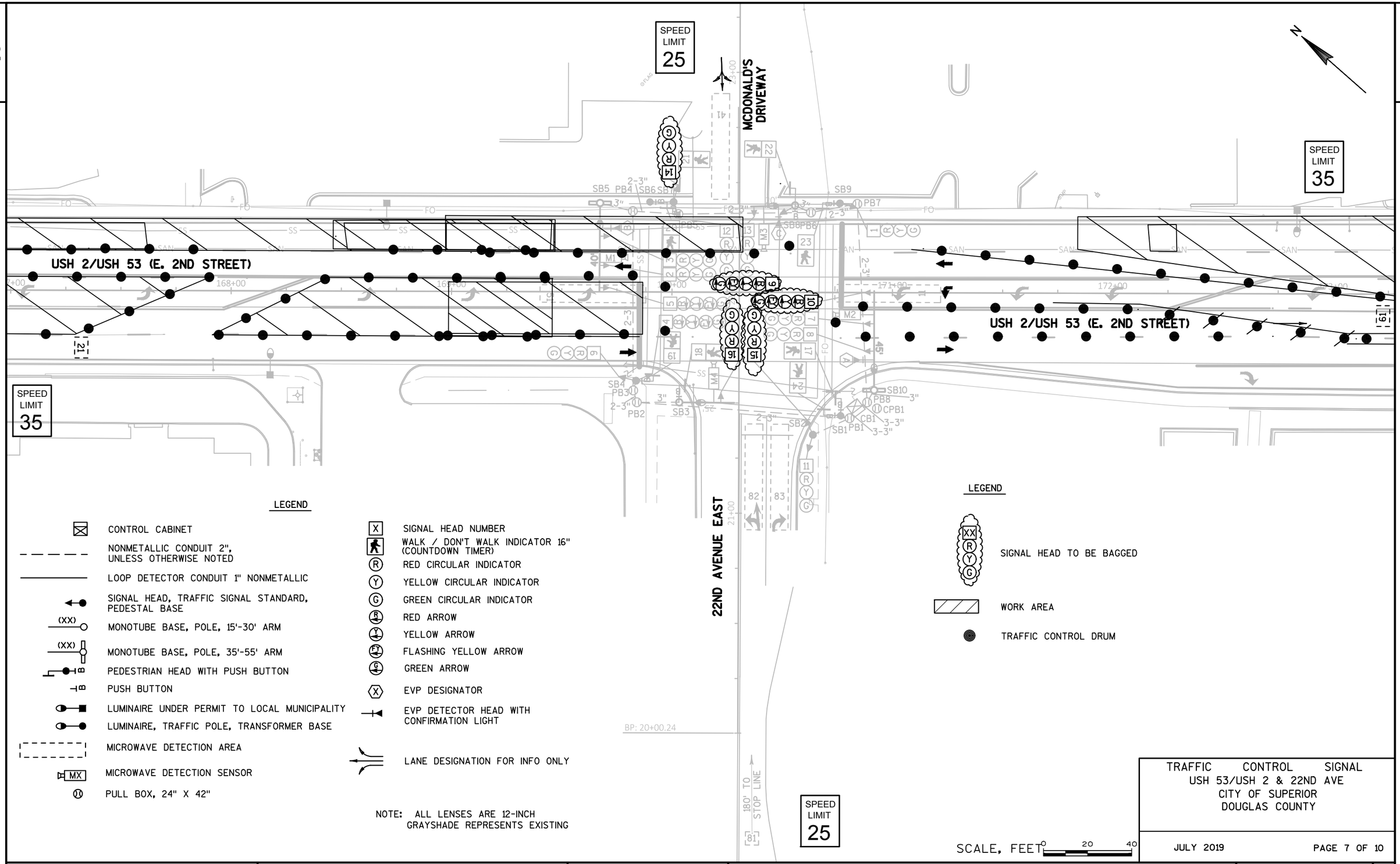
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
3		
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
7		
8	4	1,2,5,6

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 6 OF 10

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- FY FLASHING YELLOW ARROW
- G GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 7 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 109 E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø2 R/W	Ø2 CLEAR TO **	Ø3 R/W	Ø3 CLEAR TO **	Ø4 R/W	Ø4 CLEAR TO **	FLASH
Ø1	4,5	G	- -	-	- -					-
Ø2	6,7,8	R	R R	G	Y R					R
Ø3										
Ø4	NOT USED									
Ø5	NOT USED									
Ø6	1,2,3	R	R R	R	R R					R
Ø7										
Ø8	11,12,13	R	R R	R	R R					R
OLA	4,5	-	Y R	FY	Y R					R
OLC	NOT USED									
Ø2P	17,18	D	D D	*	D D					
Ø4P	19,20	D	D D	D	D D					
Ø6P	21,22	D	D D	D	D D					
Ø8P	23,24	D	D D	D	D D					

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **
Ø1	4,5	-	- -	-	- -			-	- -
Ø2	6,7,8	R	R R	R	R R			R	R R
Ø3									
Ø4	NOT USED								
Ø5	NOT USED								
Ø6	1,2,3	R	R R	G	Y R			R	R R
Ø7									
Ø8	11,12,13	R	R R	R	R R			G	Y R
OLA	4,5	R	R R	R	R R			R	R R
OLC	NOT USED								
Ø2P	17,18	D	D D	D	D D			D	D D
Ø4P	19,20	D	D D	D	D D			*	D D
Ø6P	21,22	D	D D	*	D D			D	D D
Ø8P	23,24	D	D D	D	D D			*	D D

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21*		X			2	2					MICRO
41			NOT USED								MICRO
51			NOT USED								MICRO
61*		X			6	6					MICRO
81				X		8			X		MICRO
82		X			8	8					MICRO
83		X			8	8					MICRO

* ADJUST DETECTOR ZONE SIZE PER PLAN.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4		NOT USED		X
5		NOT USED		
6	X	2	MIN	X
8				X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	NOT USED	NOT USED
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT	→	←	↑
DIRECTION	SB	NB	EB
PHASES	2	1+6	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

CHART 1

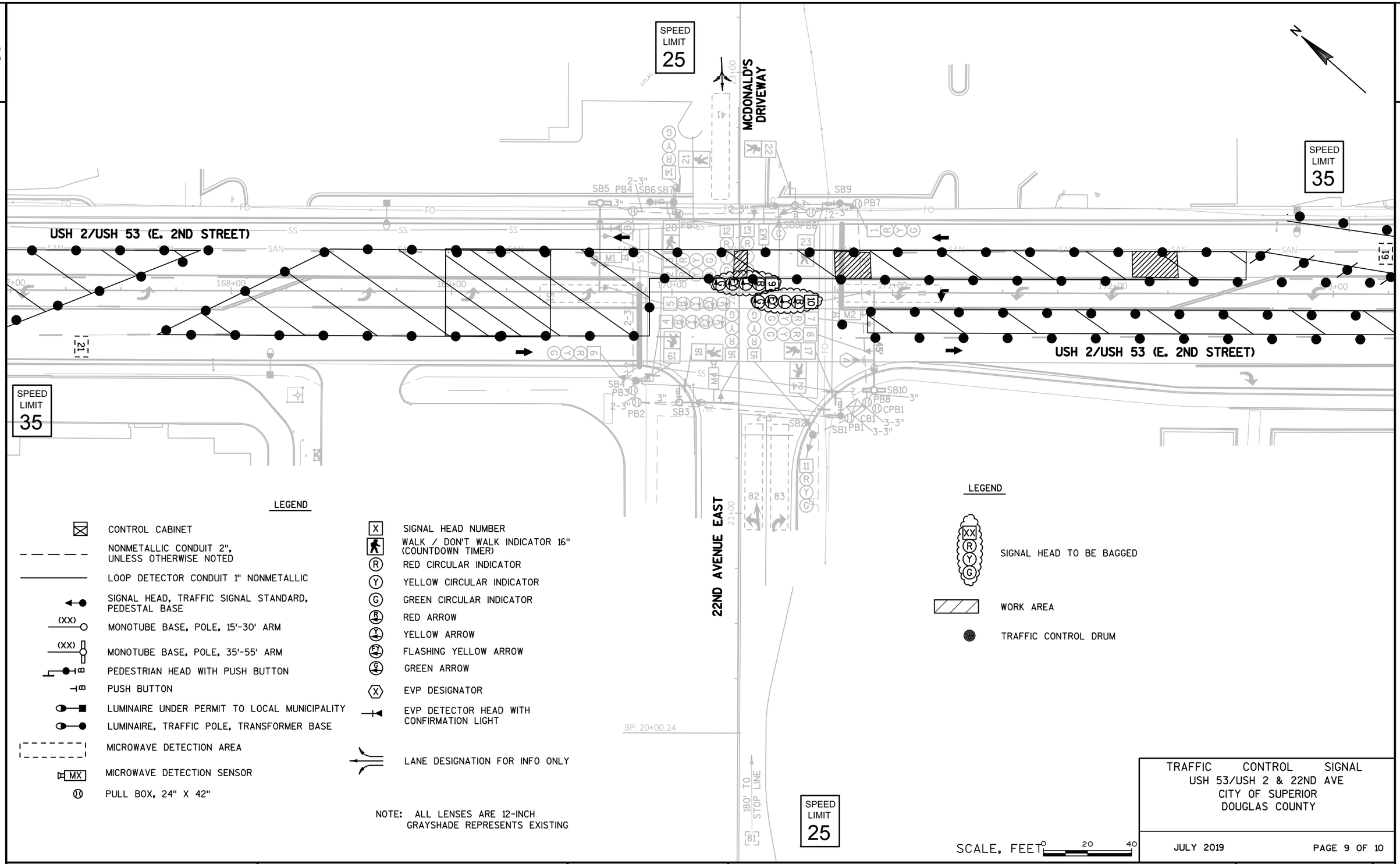
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
3		
4	NOT USED	NOT USED
5	NOT USED	NOT USED
6	1 OR 2	8
7		
8	NONE	1,2,6

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 8 OF 10

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024103_ST.DWG PLOT DATE : 7/31/2019 2:00 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

2



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
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- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- FY FLASHING YELLOW ARROW
- GA GREEN ARROW
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

LEGEND

- XX R Y G SIGNAL HEAD TO BE BAGGED
- WORK AREA
- TRAFFIC CONTROL DRUM

SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 9 OF 10

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 111	E

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳				Ø2 R/W	Ø2 CLEAR TO ✳✳				Ø3 R/W	Ø3 CLEAR TO ✳✳				Ø4 R/W	Ø4 CLEAR TO ✳✳				FLASH
Ø1	4,5	G	-	-			-	-	-								-	-	-			-
Ø2	6,7,8	R	R	R			G	Y	R								R	R	R			R
Ø3																						
Ø4	14,15,16	R	R	R			R	R	R								G	Y	R			R
Ø5	NOT USED																					
Ø6	1,2,3	R	R	R			R	R	R								R	R	R			R
Ø7																						
Ø8	11,12,13	R	R	R			R	R	R								R	R	R			R
OLA	4.5	-	Y	R			FY	Y	R								R	R	R			R
OLC	NOT USED																					
Ø2P	17,18	D	D	D			✳	D	D								D	D	D			
Ø4P	19,20	D	D	D			D	D	D								✳	D	D			
Ø6P	21,22	D	D	D			D	D	D								D	D	D			
Ø8P	23,24	D	D	D			D	D	D								D	D	D			

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳				Ø6 R/W	Ø6 CLEAR TO ✳✳				Ø7 R/W	Ø7 CLEAR TO ✳✳				Ø8 R/W	Ø8 CLEAR TO ✳✳			
Ø1	4,5	-	-	-			-	-	-								-	-	-		
Ø2	6,7,8	R	R	R			R	R	R								R	R	R		
Ø3																					
Ø4	14,15,16	R	R	R			R	R	R								R	R	R		
Ø5	NOT USED																				
Ø6	1,2,3	R	R	R			G	Y	R								R	R	R		
Ø7																					
Ø8	11,12,13	R	R	R			R	R	R								G	Y	R		
OLA	4,5	R	R	R			R	R	R								R	R	R		
OLC	NOT USED																				
Ø2P	17,18	D	D	D			D	D	D								D	D	D		
Ø4P	19,20	D	D	D			D	D	D								D	D	D		
Ø6P	21,22	D	D	D			✳	D	D								D	D	D		
Ø8P	23,24	D	D	D			D	D	D								✳	D	D		

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

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2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21		X			2	2					MICRO
41		X			4	4					MICRO
51			NOT USED								MICRO
61		X			6	6					MICRO
81				X		8			X		MICRO
82		X			8	8					MICRO
83		X			8	8					MICRO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ϕ	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4		8		X
5		NOT USED		
6	X	2	MIN	X
8		4		X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	NOT USED	NOT USED
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT	→	←	↑
DIRECTION	SB	NB	EB
PHASES	2	1+6	4

CHART 1

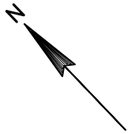
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,4,8
2	6	1,4,8
3		
4	8	1,2,6
5	NOT USED	NOT USED
6	1 OR 2	4,8
7		
8	4	1,2,6

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

JULY 2019 PAGE 10 OF 10

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024103_ST.DWG PLOT DATE : 7/31/2019 2:01 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42



USH 53 & 22nd Ave.
Temporary Signal Timing Plan

	Phase							
	1	2	3	4	5	6	7	8
	NBL	SBT	-	EBT	SBL	NBT	-	WBT
			-				-	
Min Green	8	12	-	10	8	12	-	10
Passage	2	5	-	2	2	5	-	2
Max Green	15	45	-	35	15	35	-	30
Yellow Change	3.5	4.0	-	3.0	3.5	4.0	-	3.0
Red Clearance	1.0	2.5	-	3.0	1.0	2.5	-	3.0
Delay?	No	No	-	No	No	No	-	No
Delay Detector Number	-	-	-	-	-	-	-	-
Delay Time (s)	-	-	-	-	-	-	-	-
Extension Stretch?	No	No	-	No	No	No	-	No
Extension Stretch Detector Number	-	-	-	-	-	-	-	-
Extend Time (s)	-	-	-	-	-	-	-	-
Added Initial	-	-	-	-	-	-	-	-
Max Initial	-	-	-	-	-	-	-	-
TBR	-	-	-	-	-	-	-	-
TTR	-	-	-	-	-	-	-	-
Min Gap	-	-	-	-	-	-	-	-
Dynamic Max	-	75	-	-	-	65	-	-
Dynamic Step	-	10	-	-	-	10	-	-
Walk	-	7	-	7	-	7	-	7
Ped Clear	-	13	-	24	-	16	-	20
Flashing Walk	-	-	-	-	-	-	-	-
Extended Ped Clear	-	-	-	-	-	-	-	-
Act Rest-in-walk	-	-	-	-	-	-	-	-
Vehicle Recall	None	Min	-	None	None	Min	-	None
Ped Recall	None	None	-	None	None	None	-	None
Phase Locking	Non-Locking	Locking	-	Non-Locking	Non-Locking	Locking	-	Non-Locking

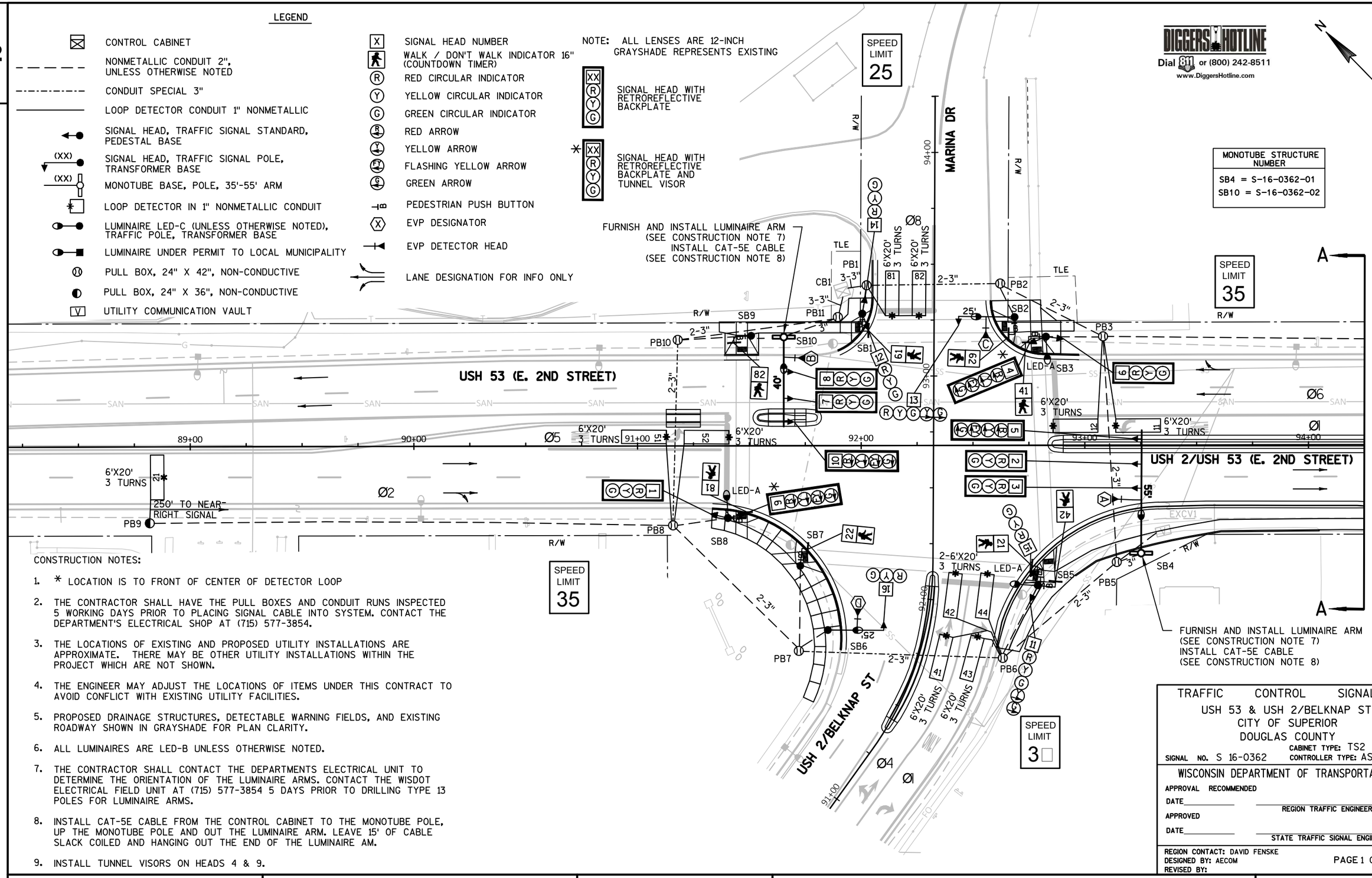
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- CONDUIT SPECIAL 3"
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE LED-C (UNLESS OTHERWISE NOTED), TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- PULL BOX, 24" X 42", NON-CONDUCTIVE
- PULL BOX, 24" X 36", NON-CONDUCTIVE
- V UTILITY COMMUNICATION VAULT
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- FY FLASHING YELLOW ARROW
- GA GREEN ARROW
- PB PEDESTRIAN PUSH BUTTON
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

- XX R Y G SIGNAL HEAD WITH RETROREFLECTIVE BACKPLATE
- * XX R Y G SIGNAL HEAD WITH RETROREFLECTIVE BACKPLATE AND TUNNEL VISOR

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



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE DEPARTMENT'S ELECTRICAL SHOP AT (715) 577-3854.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. PROPOSED DRAINAGE STRUCTURES, DETECTABLE WARNING FIELDS, AND EXISTING ROADWAY SHOWN IN GRAYSHADE FOR PLAN CLARITY.
6. ALL LUMINAIRES ARE LED-B UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR SHALL CONTACT THE DEPARTMENTS ELECTRICAL UNIT TO DETERMINE THE ORIENTATION OF THE LUMINAIRE ARMS. CONTACT THE WISDOT ELECTRICAL FIELD UNIT AT (715) 577-3854 5 DAYS PRIOR TO DRILLING TYPE 13 POLES FOR LUMINAIRE ARMS.
8. INSTALL CAT-5E CABLE FROM THE CONTROL CABINET TO THE MONOTUBE POLE, UP THE MONOTUBE POLE AND OUT THE LUMINAIRE ARM. LEAVE 15' OF CABLE SLACK COILED AND HANGING OUT THE END OF THE LUMINAIRE AM.
9. INSTALL TUNNEL VISORS ON HEADS 4 & 9.

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY
CABINET TYPE: TS2
SIGNAL NO. S 16-0362 CONTROLLER TYPE: ASC/3

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
DATE_____ REGION TRAFFIC ENGINEER
APPROVED
DATE_____ STATE TRAFFIC SIGNAL ENGINEER

REGION CONTACT: DAVID FENSKE
DESIGNED BY: AECOM
REVISED BY:
PAGE 1 OF 3

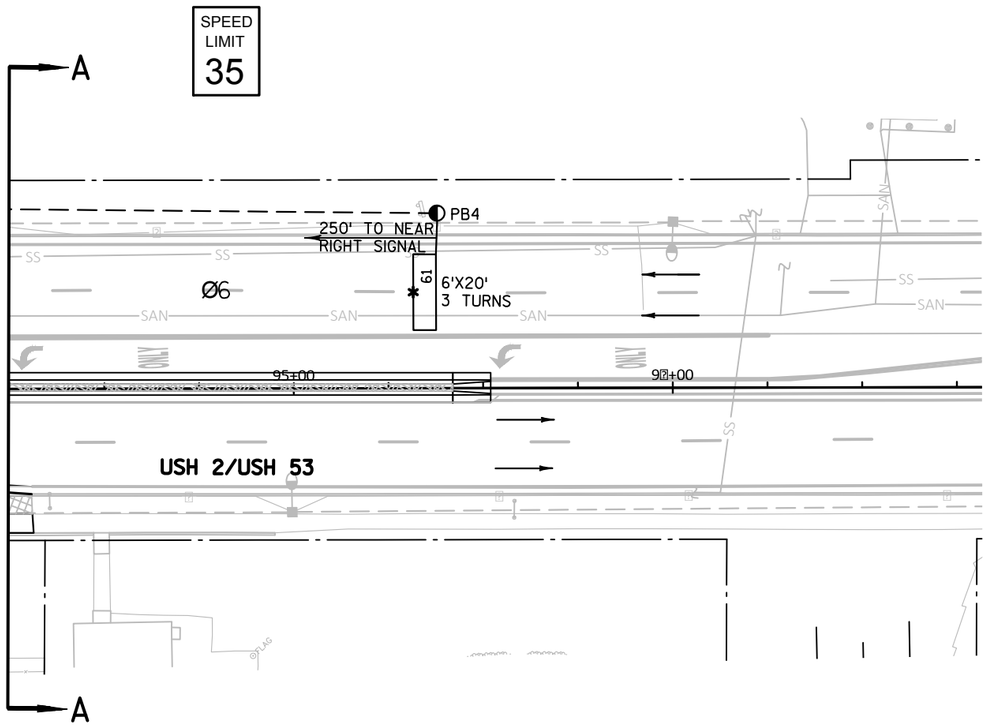
PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TRAFFIC SIGNAL PLAN SCALE, FEET 0 20 40	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024201_SP.DWG PLOT DATE : 7/19/2019 2:37 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

WISDOT/CADDS SHEET 42

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

2



TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

SIGNAL NO. S 16-0362

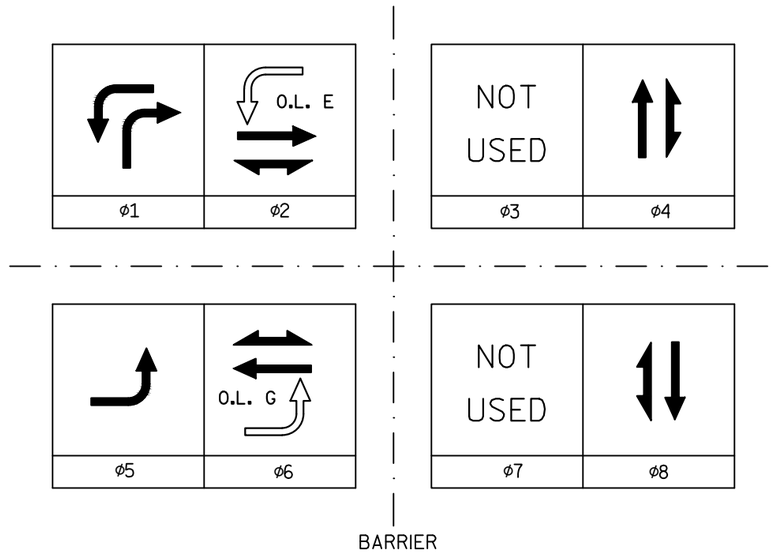
REGION CONTACT: DAVID FENSKE
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/BELKNAP ST	COUNTY: DOUGLAS	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET 115	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024201_SP.DWG PLOT DATE : 7/19/2019 2:37 PM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

	HEAD NUMBERS	FLASH	
ø1	9,10,11,13	R	
ø2	1,2,3	R	
		–	
ø4	11,12,13	R	
ø5	4,5	R	
ø6	6,7,8	R	
		–	
ø8	14,15,16	R	
ø2PED	21,22	–	
ø4PED	41,42	–	
ø6PED	61,62	–	
ø8PED	81,82	–	OL ASSIGNMENTS
OLE	9,10	R	1+2
OLG	4,5	R	5+6



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN.	X
4		8		X
5		2		X
6	X	2	MIN.	X
8		4		X

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

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

OVERLAPS

O.L. "A" = ø1
O.L. "B" =
O.L. "C" =
O.L. "D" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "E"	1	2
O.L. "F"		
O.L. "G"	5	6
O.L. "H"		

GENERAL NOTE:

1. WHEN ø4 AND ø8 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	42	44	52	81		
PHASE CALLED	1	2	4	4	5	8		
PHASE EXTENDED	1	2	4	4	5	8		
DISCONNECT TIME								
CALLING DELAY				X=10"		X=10"		
EXTENSION STRETCH								
LOOP FUNCTION								

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

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)	12	41	43	51	61	82		
PHASE CALLED	1	4	4	5	6	8		
PHASE EXTENDED	1	4	4	5	6	8		
DISCONNECT TIME								
CALLING DELAY			X=10"					
EXTENSION STRETCH								
LOOP FUNCTION								

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

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR
DOUGLAS COUNTY

SIGNAL NO. S 16-0362

REGION CONTACT: DAVID FENSKE
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 3

2

PROJECT ID:	1198-03-78
INTERSECTION:	USH 53 & USH 2/BELKNAP ST

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

DATE: Jul-19

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK	WALK		
SB1	12	12	RED	ORG	GRN								
		14	RED/BLK	ORG/BLK	GRN/BLK								
		61								BLK	BLU		
SB2	9	13	RED	ORG	GRN		ORG/BLK		GRN/BLK				
		62								BLK	BLU		
SB3	12	6	RED	ORG	GRN								
		4				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		41								BLK	BLU		
SB4	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
SB5	15	11	RED	ORG	GRN								
		15	RED/BLK	ORG/BLK	GRN/BLK		BLK/WHT		GRN/WHT				
		21								BLK	BLU		
		42								RED/WHT	BLU/WHT		
SB6	5	16	RED	ORG	GRN								
SB7	5	22								RED	GRN		
SB8	12	1	RED	ORG	GRN								
		9				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				
		81								BLK	BLU		
SB9	5	82								RED	GRN		
SB10	12	7	RED	ORG	GRN								
		8	RED	ORG	GRN								
		10				RED/BLK	ORG/BLK	BLU/BLK	GRN/BLK				

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
CB1	SB10
SB10	SB8
SB8	SB6

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB4
B	CB1	SB10
C	CB1	SB2
D	CB1	SB6

CAT-5E CABLE	
FROM	TO
CB1	SB4
CB1	SB10

LOOP LEAD-IN CABLE TO PEDESTRIAN PUSH BUTTONS	
FROM	TO
CB1	SB1
CB1	SB2
CB1	SB3
CB1	SB5
CB1	SB5
CB1	SB7
CB1	SB8
CB1	SB9

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.

USH 53 & USH 2/BELKNAP ST
CITY OF SUPERIOR

DOUGLAS COUNTY

CONTROLLER TYPE:ASC/3

SIGNAL NO: S 16-0362 CABINET TYPE: TS2

DATE: JULY 2019 PAGE NO. 1 OF 1

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- FY FLASHING YELLOW ARROW
- GA GREEN ARROW
- PEDESTRIAN PUSH BUTTON
- X EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

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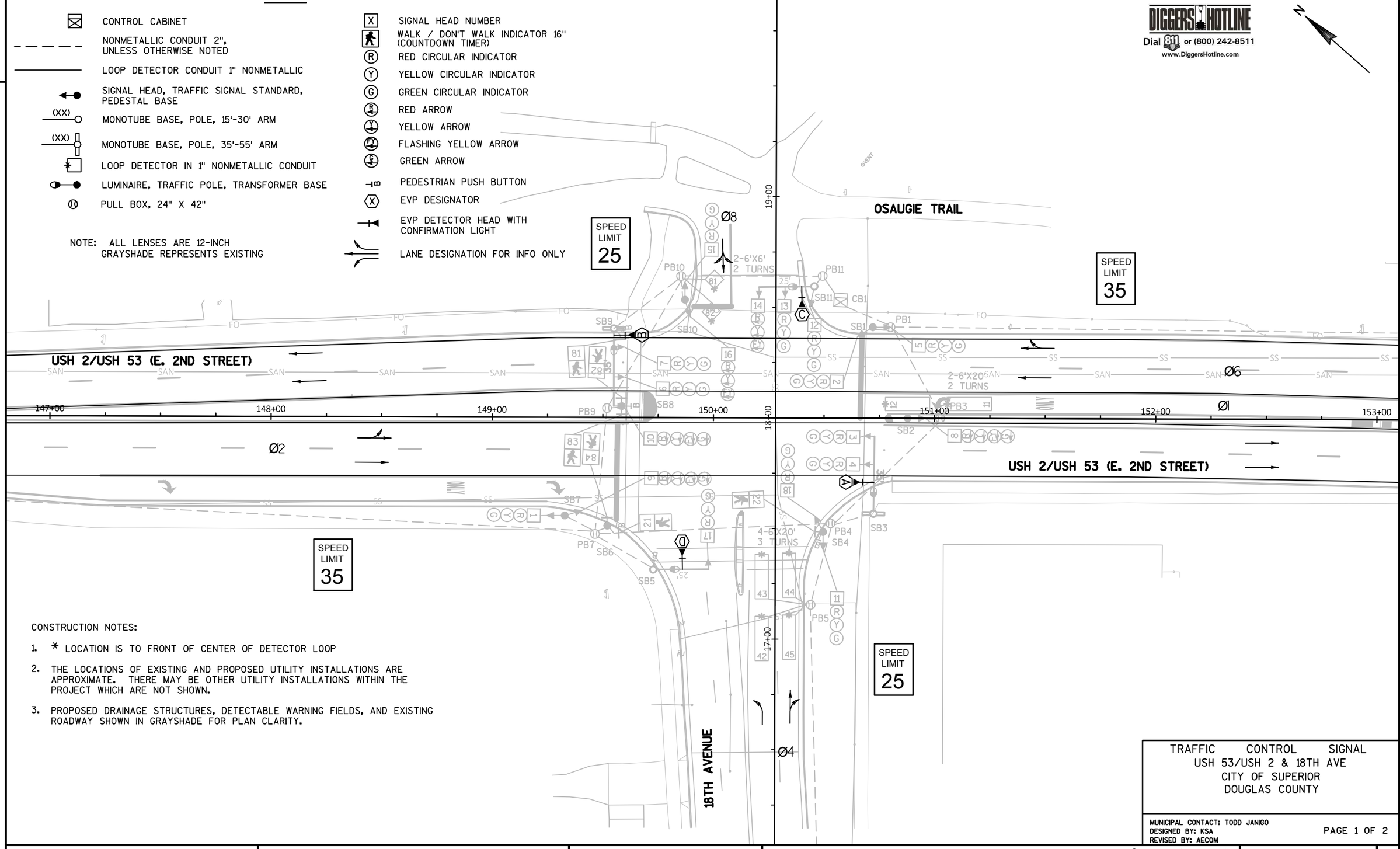


CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF CENTER OF DETECTOR LOOP
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROPOSED DRAINAGE STRUCTURES, DETECTABLE WARNING FIELDS, AND EXISTING ROADWAY SHOWN IN GRAYSHADE FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY: KSA
REVISED BY: AECOM

PAGE 1 OF 2

PROJECT NO: 1198-03-74	HWY: USH 53/USH 2 & 18TH AVE	COUNTY: DOUGLAS	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024202_SP.DWG PLOT DATE : 7/19/2019 9:20 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

SEQUENCE OF OPERATION

NOT USED | OL "A" | NOT USED

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **						Ø2 R/W	Ø2 CLEAR TO **						Ø3 R/W	Ø3 CLEAR TO **						Ø4 R/W	Ø4 CLEAR TO **						FLASH
Ø1	8,9,10	G	-	-					-	-	-													R	R	R				R
Ø2	1,2,3,4	R	R	R					G	Y	R													R	R	R				R
Ø4	11,12,13	R	R	R					R	R	R													G	Y	R				R
Ø6	5,6,7	R	R	R					R	R	R													R	R	R				R
Ø8	15,17,18	R	R	R					R	R	R													R	R	R				R
OLA	8,9,10	-	Y	R					FY	Y	R													-	-	-				-
OLD	14,16	-	-	-					-	-	-													-	-	-				-
Ø2P	21,22	D	D	D					*	D	D													D	D	D				-
Ø8P	81,82,83,84	D	D	D					D	D	D													D	D	D				-

NOT USED | | NOT USED | OL "D"

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **						Ø6 R/W	Ø6 CLEAR TO **						Ø7 R/W	Ø7 CLEAR TO **						Ø8 R/W	Ø8 CLEAR TO **					
Ø1	8,9,10								R	R	R													R	R	R			
Ø2	1,2,3,4								R	R	R													R	R	R			
Ø4	11,12,13								R	R	R													R	R	R			
Ø6	5,6,7								G	Y	R													R	R	R			
Ø8	15,17,18								R	R	R													G	Y	R			
OLA	8,9,10								-	-	-													-	-	-			
OLD	14,16								-	-	-													FY	Y	R			
Ø2P	21,22								D	D	D													D	D	D			
Ø8P	81,82,83,84								D	D	D													*	D	D			

* WHEN CALLED, TIMED STEADY WALK, FOLLOWED BY FLASHING DON'T WALK WITH PED COUNTDOWN TIMER ACTIVATED, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1 AT RIGHT).
3. IF ANY THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER, DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				EXISTING	EXISTING
12	1	X			1	1				EXISTING	EXISTING
21	2			X		2				EXISTING	EXISTING
41	4	X			4	4				EXISTING	EXISTING
42	4	X			4	4				EXISTING	EXISTING
43	4	X			4	4				EXISTING	EXISTING
44	4	X			4	4		X		EXISTING	EXISTING
45	4	X			4	4				EXISTING	EXISTING
61	6			X		6				EXISTING	EXISTING
81	8	X			8	8				EXISTING	EXISTING
82	8	X			8	8				EXISTING	EXISTING

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
4		8		X
6	X	2	MIN	X
8		4		X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM:	SS-

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"		
O.L. "D"		8

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,4,8
2	6	1,4,8
4	8	1,2,6
6	1 OR 2	4,8
8	4	1,2,6

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	SB	NB	EB	WB
PHASES	2+5	1+6	4	8

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

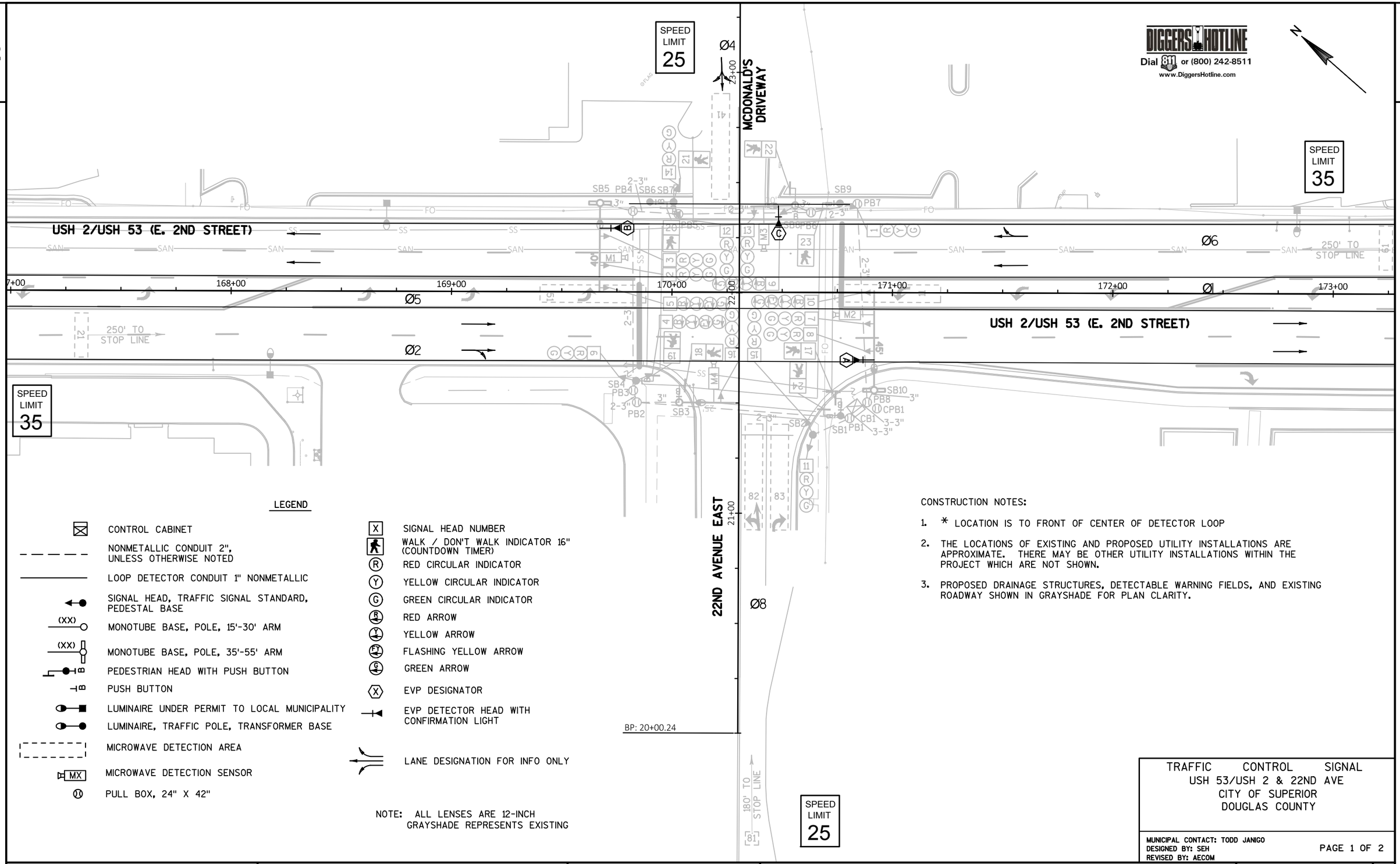
TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 18TH AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY: KSA
REVISED BY: AECOM

PROJECT NO: 1198-03-74 | HWY: USH 53/USH 2 & 18TH AVE | COUNTY: DOUGLAS | SEQUENCE OF OPERATIONS | SHEET | E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024202_SP.DWG PLOT DATE : 7/19/2019 9:20 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :
WISDOT/CADDS SHEET 42

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



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION AREA
- MX MICROWAVE DETECTION SENSOR
- PULL BOX, 24" X 42"
- X SIGNAL HEAD NUMBER
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- FLASHING YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD WITH CONFIRMATION LIGHT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT OF CENTER OF DETECTOR LOOP
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROPOSED DRAINAGE STRUCTURES, DETECTABLE WARNING FIELDS, AND EXISTING ROADWAY SHOWN IN GRAYSHADE FOR PLAN CLARITY.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY: SEH
REVISED BY: AECOM

PROJECT NO: 1198-03-78	HWY: USH 53/USH 2 & 22ND AVE	COUNTY: DOUGLAS	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET 120	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024303_SP.DWG
PLOT DATE : 7/19/2019 9:33 AM
PLOT BY : SALOMONSEN, DEREK
PLOT NAME :
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳						Ø2 R/W	Ø2 CLEAR TO ✳✳						Ø3 R/W	Ø3 CLEAR TO ✳✳						Ø4 R/W	Ø4 CLEAR TO ✳✳						FLASH
Ø1	4,5	G	-	-					-	-	-												-	-	-					-
Ø2	6,7,8	R	R	R					G	Y	R												R	R	R					R
Ø3																														
Ø4	14,15,16	R	R	R					R	R	R												G	Y	R					R
Ø5	9,10	-	-	-					-	-	-												-	-	-					-
Ø6	1,2,3	R	R	R					R	R	R												R	R	R					R
Ø7																														
Ø8	11,12,13	R	R	R					R	R	R												R	R	R					R
OLA	4.5	-	Y	R					FY	Y	R												R	R	R					R
OLC	9,10	R	R	R					R	R	R												R	R	R					R
Ø2P	17,18	D	D	D					*	D	D												D	D	D					
Ø4P	19,20	D	D	D					D	D	D												*	D	D					
Ø6P	21,22	D	D	D					D	D	D												D	D	D					
Ø8P	23,24	D	D	D					D	D	D												D	D	D					

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳						Ø6 R/W	Ø6 CLEAR TO ✳✳						Ø7 R/W	Ø7 CLEAR TO ✳✳						Ø8 R/W	Ø8 CLEAR TO ✳✳					
Ø1	4,5	-	-	-					-	-	-												-	-	-				
Ø2	6,7,8	R	R	R					R	R	R												R	R	R				
Ø3																													
Ø4	14,15,16	R	R	R					R	R	R												R	R	R				
Ø5	9,10	G	-	-					-	-	-												-	-	-				
Ø6	1,2,3	R	R	R					G	Y	R												R	R	R				
Ø7																													
Ø8	11,12,13	R	R	R					R	R	R												G	Y	R				
OLA	4,5	R	R	R					R	R	R												R	R	R				
OLC	9,10	-	Y	R					FY	Y	R												R	R	R				
Ø2P	17,18	D	D	D					D	D	D												D	D	D				
Ø4P	19,20	D	D	D					D	D	D												D	D	D				
Ø6P	21,22	D	D	D					*	D	D												D	D	D				
Ø8P	23,24	D	D	D					D	D	D												*	D	D				

* WHEN CALLED, TIMED STEADY WALK,THEN FLASHING DON'T WALK, THEN GOES STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

GENERAL NOTES:

1. ANY ACTUATED PHASE WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. IF PHASES 2 AND 6 ARE TIMING CONCURRENTLY THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

DETECTOR LOGIC

LOOP NUMBER	DETECTOR NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21		X			2	2					MICRO
41		X			4	4					MICRO
51		X			5	5					MICRO
61		X			6	6					MICRO
81				X		8			X		MICRO
82		X			8	8					MICRO
83		X			8	8					MICRO

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	
INTERSECTION ONLY (CELL MODEM)	
LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM: SS-	

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

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

OVERLAPS

O.L. "E" =
O.L. "F" =
O.L. "G" =
O.L. "H" =

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
O.L. "A"	1	2
O.L. "B"		
O.L. "C"	5	6
O.L. "D"		

EMERGENCY VEHICLE PREEMPTION ASSIGNMENT

EMERGENCY VEHICLE DETECTOR	A	B	C
PREEMPTION CHANNEL	3	4	5
MOVEMENT			
DIRECTION	SB	NB	EB
PHASES	2+5	1+6	4

CHART 1

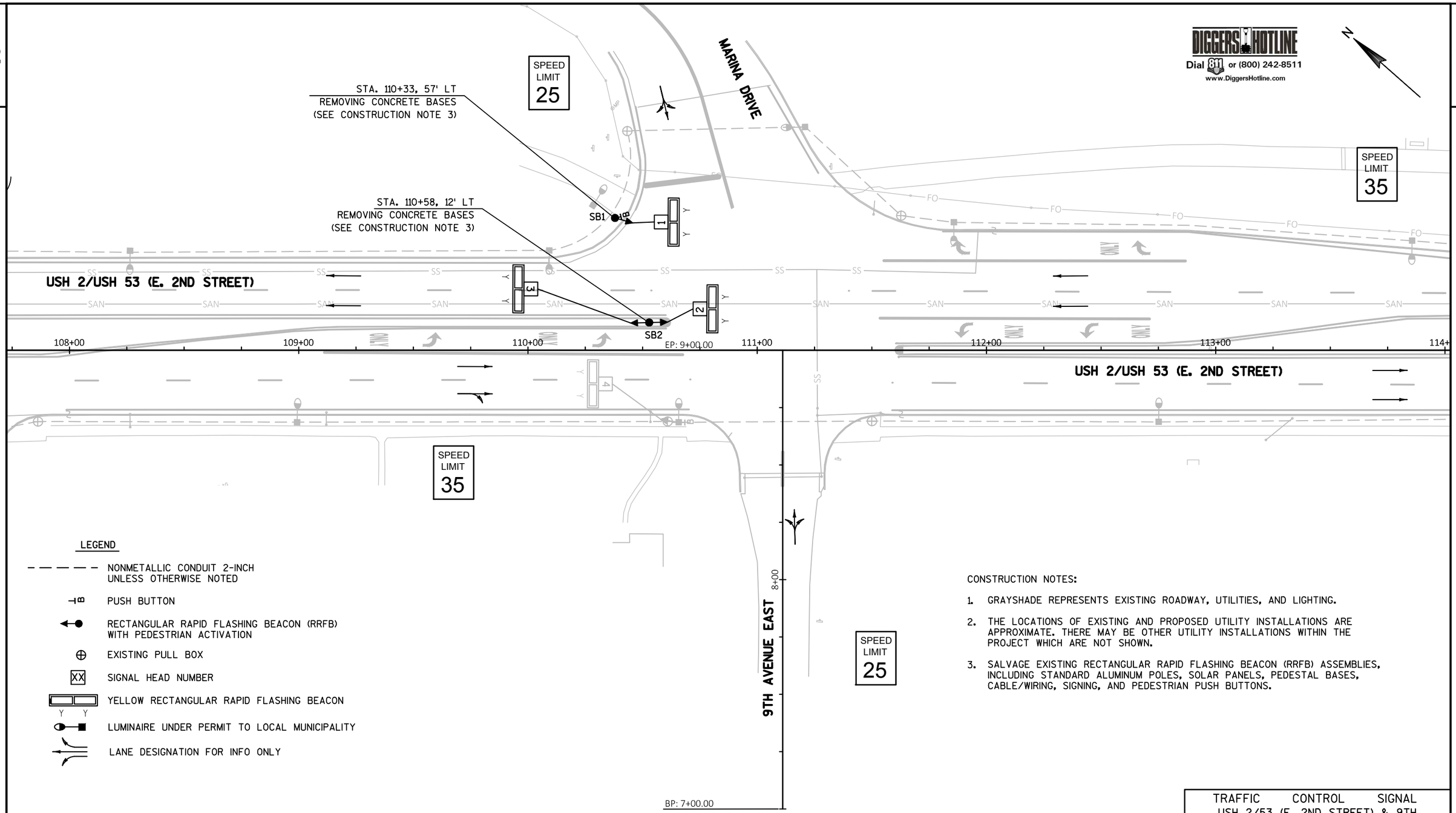
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,8
2	5 OR 6	1,4,8
3		
4	8	1,2,5,6
5	1 OR 2	4,6,8
6	1 OR 2	4,5,8
7		
8	4	1,2,5,6

NOTES:
FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TRAFFIC CONTROL SIGNAL
USH 53/USH 2 & 22ND AVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY: SEH
REVISED BY: AECOM

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



LEGEND

- NONMETALLIC CONDUIT 2-INCH UNLESS OTHERWISE NOTED
- PUSH BUTTON
- RECTANGULAR RAPID FLASHING BEACON (RRFB) WITH PEDESTRIAN ACTIVATION
- EXISTING PULL BOX
- XX SIGNAL HEAD NUMBER
- Y Y YELLOW RECTANGULAR RAPID FLASHING BEACON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LANE DESIGNATION FOR INFO ONLY

CONSTRUCTION NOTES:

1. GRAYSHADE REPRESENTS EXISTING ROADWAY, UTILITIES, AND LIGHTING.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. SALVAGE EXISTING RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLIES, INCLUDING STANDARD ALUMINUM POLES, SOLAR PANELS, PEDESTAL BASES, CABLE/WIRING, SIGNING, AND PEDESTRIAN PUSH BUTTONS.

SCALE, FEET 0 20 40

TRAFFIC CONTROL SIGNAL
USH 2/53 (E. 2ND STREET) & 9TH AVENUE EAST/MARINA DRIVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY:
REVISED BY: AECOM

PAGE 1 OF 1

PROJECT NO: 1198-03-74	HWY: USH 53 & 9TH AVE E.	COUNTY: DOUGLAS	RECTANGULAR RAPID FLASHING BEACON REMOVAL PLAN	SHEET 122	E

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

N

STA. 110+32, 61' LT
CONCRETE BASE TYPE 1
(SEE CONSTRUCTION NOTE 3)

STA. 110+40, 12' LT
CONCRETE BASE TYPE 1
(SEE CONSTRUCTION NOTE 3)

SPEED LIMIT 25

SPEED LIMIT 35

MARINA DRIVE

SB1

SB2

USH 2/USH 53 (E. 2ND STREET)

108+00 109+00 110+00 EP: 9+00.00 111+00 112+00 113+00 114+

USH 2/USH 53 (E. 2ND STREET)

SPEED LIMIT 35

9TH AVENUE EAST

8+00

BP: 7+00.00

SPEED LIMIT 25

LEGEND

- NONMETALLIC CONDUIT 2-INCH UNLESS OTHERWISE NOTED
- PUSH BUTTON
- RECTANGULAR RAPID FLASHING BEACON (RRFB) WITH PEDESTRIAN ACTIVATION
- EXISTING PULL BOX
- XX SIGNAL HEAD NUMBER
- Y Y YELLOW RECTANGULAR RAPID FLASHING BEACON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LANE DESIGNATION FOR INFO ONLY

CONSTRUCTION NOTES:

1. GRAYSHADE REPRESENTS EXISTING ROADWAY, UTILITIES, AND LIGHTING.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. REINSTALL SALVAGED RECTANGULAR RAPID FLASHING BEACON (RRFB) ASSEMBLIES, INCLUDING STANDARD ALUMINUM POLES, SOLAR PANELS, PEDESTAL BASES, CABLE/WIRING, SIGNING, AND PEDESTRIAN PUSH BUTTONS,

TRAFFIC CONTROL SIGNAL
USH 2/53 (E. 2ND STREET) & 9TH AVENUE EAST/MARINA DRIVE
CITY OF SUPERIOR
DOUGLAS COUNTY

MUNICIPAL CONTACT: TODD JANIGO
DESIGNED BY:
REVISED BY: AECOM

PAGE 1 OF 1

PROJECT NO: 1198-03-74	HWY: USH 53 & 9TH AVE E.	COUNTY: DOUGLAS	RECTANGULAR RAPID FLASHING BEACON SCALE, FEET 0 20 40	SHEET 123	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\024305_RRFB.DWG PLOT DATE : 7/19/2019 9:48 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

2

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

N

MARINA DR

USH 53 (E. 2ND STREET)

USH 2/USH 53 (E. 2ND STREET)

USH 2/BELKNAP ST

89+00 90+00 91+00 92+00 93+00 94+00

93+00 94+00 92+00 91+00

1-01

BELKNAP ST (2)
MARINA DR

M1-94-H
90" X 30"
MOUNTED ON TRAFFIC
SIGNAL ARM.

1-02

MARINA DR
(2) BELKNAP ST

M1-94-H
90" X 30"
MOUNTED ON TRAFFIC
SIGNAL ARM.

SYMBOLS LEGEND

- TRAFFIC SIGNAL POLE AND ARM
- PROPOSED SIGN
- XXX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE

PROJECT NO: 1198-03-74	HWY: USH 53 & USH 2/MARINA DRIVE	COUNTY: DOUGLAS	PERMANENT SIGNING	SCALE, FEET 0 20 40	SHEET	E

FILE NAME : P:\60559823\900_WORK\910_CAD\20-SHEETS\023201_PS.DWG PLOT DATE : 7/19/2019 8:35 AM PLOT BY : SALOMONSEN, DEREK PLOT NAME :

ALL SIGNAGE AND SUPPORTS IN ADA CURB RAMP
WORK AREAS ARE TO BE MOVED AS NEEDED.
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

BEGIN PROJECT 1198-03-74
STA 83+05

TRUCKS USE LEFT LANE
R4-5L
24"X30"

USH 53

82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00

LOCAL SIGNAGE TO BE MOVED AS NEEDED
WITH WORK IN ADA CURB RAMP AREA
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

2ND AVE E

MARINA DRIVE

STOP
R1-1F
36"X36"

PI: 89+15.72

USH 53

89+00 90+00 91+00 92+00

USH 2 / USH 53

93+00 94+00 95+00 96+00

CITY OF SUPERIOR SIGN

STOP
R1-1F
36"X36"

R1-1F SIGNAGE TO BE MOVED AS NEEDED WITH
SIGNAL WORK AT BELKNAP INTERSECTION
MOVING SIGNS TYPE II

BELKNAP/USH 2

ALL ARROWS AND WORDS TO BE REMOVED ON BELKNAP / USH 2 PRIOR
TO CLOSING EITHER LANE. PAVEMENT MARKINGS TO BE REPLACED
ACCORDING TO SDD 15c8-c FOR FINAL PAVEMENT MARKING.
MARKING REMOVAL SPECIAL MARKING
MARKING ARROW EPOXY
MARKING WORD EPOXY

PAVEMENT MARKING LEGEND

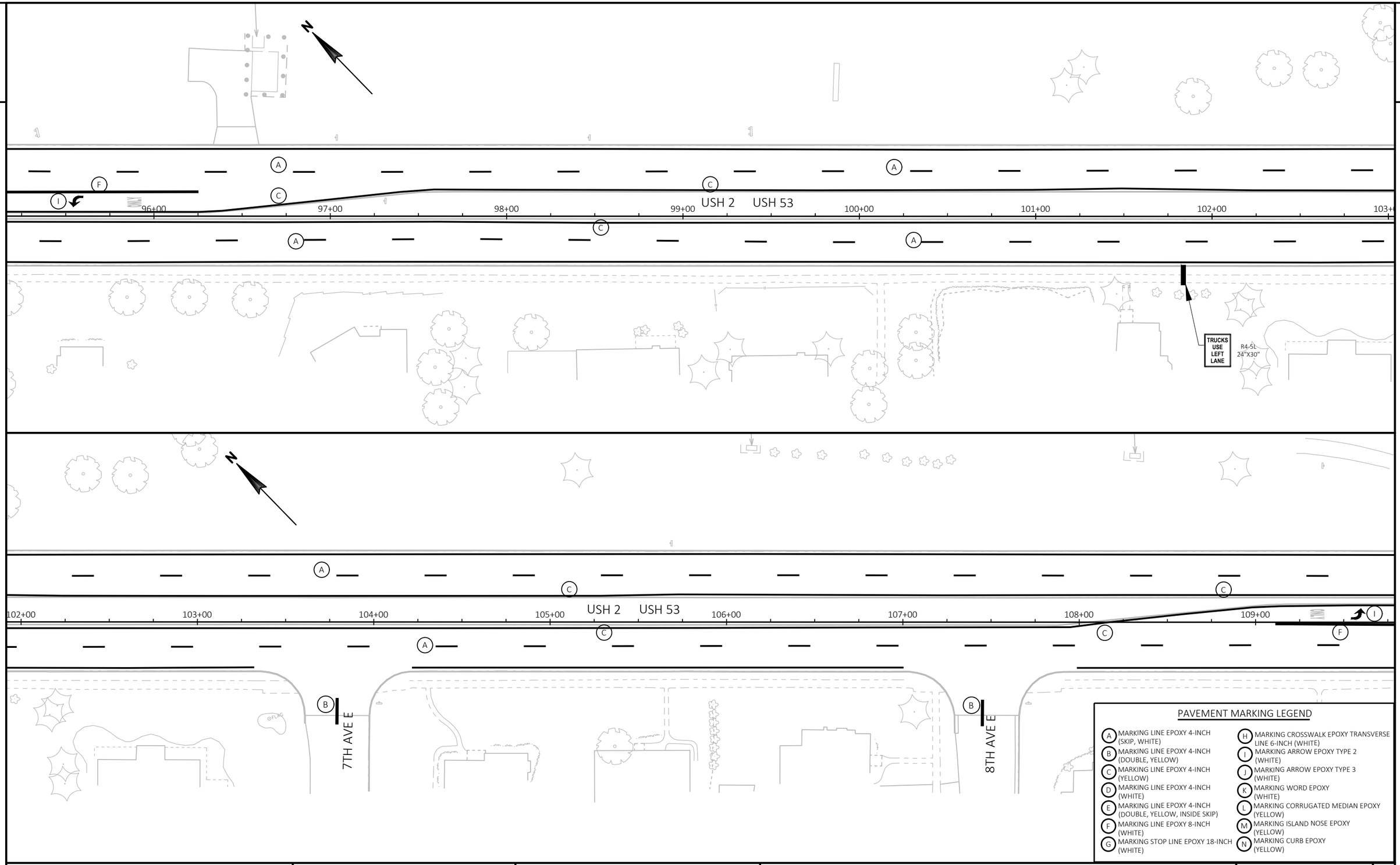
- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 125	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 1 - 2ND - BELKNAP

PLOT DATE : 7/23/2019 11:20 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2



PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 126	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 2 - 7TH - 8TH

PLOT DATE : 7/23/2019 11:20 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

W11-2 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
REMOVING CONCRETE BASES
MOVING SIGNS TYPE II
CONCRETE BASES TYPE 1

W11-2
36"X36"

W16-7L
24"X12"

MARINA DRIVE

9TH AVE E

BENCH

USH 53 USH 2

109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00

PI: 119+01.38

116+00 117+00 118+00 119+00 120+00 121+00 122+00 123+00

USH 2 USH 53

11TH AVE E

R1-1
36"X36"

R6-2R
24"X30"

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 127	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 3 - 9TH - 11TH

PLOT DATE : 7/23/2019 11:20 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

BENCH

USH 2 USH 53

123+00 124+00 125+00 126+00 127+00 128+00 129+00 130+00

14TH AVE E

BENCH

USH 2 USH 53

130+00 131+00 132+00 133+00 134+00 135+00 136+00 137+00

14TH AVE E

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- J MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 128	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 4 - 14TH

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

BENCH

BENCH

USH 2 USH 53

137+00 138+00 139+00 140+00 141+00 142+00 143+00 144+00

GATE

SENSITIVE AREA

SENSITIVE AREA

USH 2 USH 53

145+00 146+00 147+00 148+00 149+00 150+00 151+00

18TH AVE E

2

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 129	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 5 - 18TH

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

USH 2 USH 53

151+00 152+00 153+00 154+00 155+00 156+00 157+00 158+00

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

R1-1
36"X36"
STOP

R4-5L
24"X30"
TRUCKS USE LEFT LANE

21ST AVE E

158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00

USH 2 USH 53

EAST END BUSINESS DISTRICT

21ST AVE E

BUSINESS DISTRICT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 130	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 6 - 21ST

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

W11-2
36"X36"

W16-7L
30"X18"

21ST AVE E

MARKING REMOVAL SPECIAL MARKING

MARKING REMOVAL SPECIAL MARKING

W11-2 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

USH 2 USH 53

165+00 166+00 167+00 168+00 169+00 170+00 171+00 172+00

MARKING REMOVAL SPECIAL MARKING

21ST AVE E

GROUND MOUNTED TRANSFORMER

CONTAMINATED SOIL

22ND AVE E

STOP
R1-1
36"X36"

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

STOP
R1-1
36"X36"

23RD AVE E

TALL GRASS

MARKING REMOVAL SPECIAL MARKING

172+00 173+00 174+00 175+00 176+00 177+00 178+00 179+00

USH 2 USH 53

23RD AVE E

STOP
R1-1
36"X36"

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

TALL GRASS/TREE/

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 131	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 7 - 21ST - 23RD

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

2

N

PI: 180+32.12

PI: 185+32.12

USH 2 USH 53

179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+0

A C A C A C A

N

PI: 185+32.12

PI: 190+32.25

USH 2 USH 53

186+00 187+00 188+00 189+00 190+00 191+00 192+00 19

A C A C A C A

TRUCKS USE LEFT LANE
R4-5L
24"X30"

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 132	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 8 - BRIDGE

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

STOP
R1-1
36"X36"

27TH AVE E

PI: 195+32.71

USH 2 USH 53

192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00

STREET NAME SIGNS TO BE MOVED AS
NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

27TH AVE E

PI: 200+31.83

USH 2 USH 53

200+00 201+00 202+00 203+00 204+00 205+00 206+00 207+00

29TH AVE E

PI: 205+31.79

STOP
R1-1
36"X36"

R1-1 AND ADJACENT SIGNAGE TO BE MOVED
AS NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

28TH AVE E

STREET NAME SIGNS TO BE MOVED AS
NEEDED IN ADA CURB RAMP WORK AREAS
MOVING SIGNS TYPE II
MOVING SMALL SIGN SUPPORTS

29TH AVE E

PAVEMENT MARKING LEGEND

- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 133	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 9 - 27TH - 29TH

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

2

R4-5L
24"X30"

TRUCKS USE LEFT LANE

PI: 210+31.76

30TH AVE E

USH 2 USH 53

206+00 207+00 208+00 209+00 210+00 211+00 212+00 213+00

SENSITIVE AREA

PI: 215+31.72

213+00 214+00 215+00 216+00 217+00 218+00 219+00 220+00

END PROJECT 1198-03-74
STA 214+00

31ST AVE E

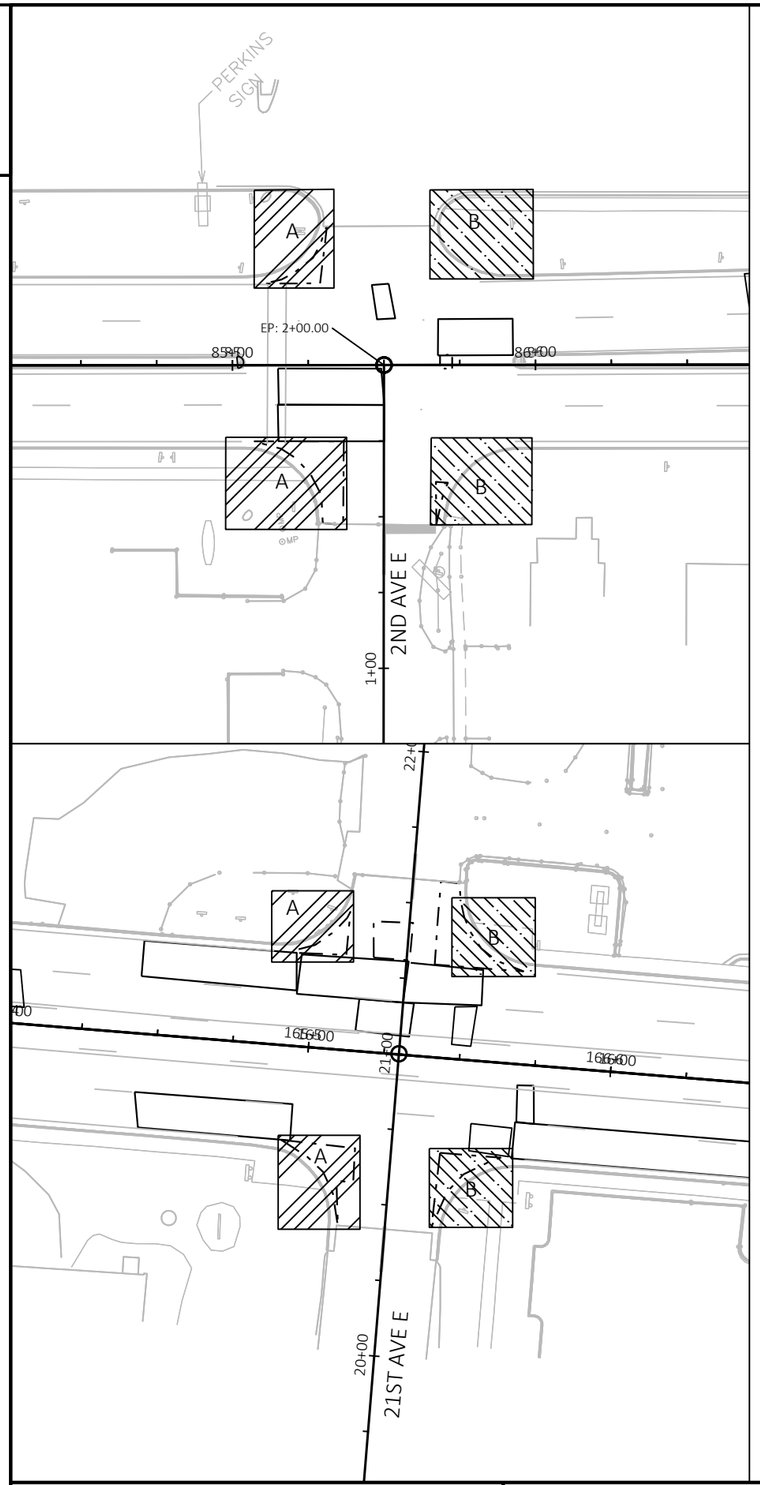
PAVEMENT MARKING LEGEND

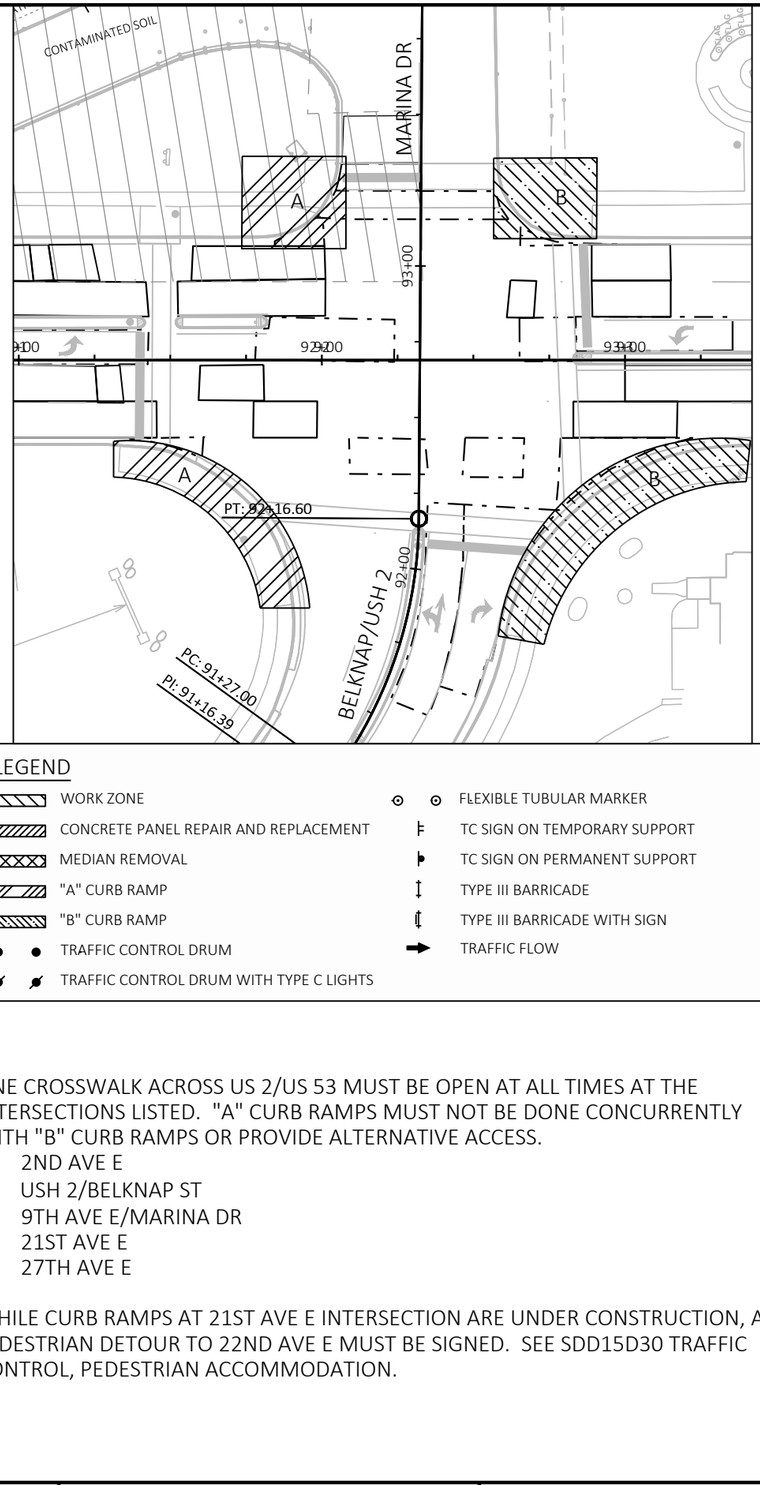
- A MARKING LINE EPOXY 4-INCH (SKIP, WHITE)
- B MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW)
- C MARKING LINE EPOXY 4-INCH (YELLOW)
- D MARKING LINE EPOXY 4-INCH (WHITE)
- E MARKING LINE EPOXY 4-INCH (DOUBLE, YELLOW, INSIDE SKIP)
- F MARKING LINE EPOXY 8-INCH (WHITE)
- G MARKING STOP LINE EPOXY 18-INCH (WHITE)
- H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- I MARKING ARROW EPOXY TYPE 2 (WHITE)
- J MARKING ARROW EPOXY TYPE 3 (WHITE)
- K MARKING WORD EPOXY (WHITE)
- L MARKING CORRUGATED MEDIAN EPOXY (YELLOW)
- M MARKING ISLAND NOSE EPOXY (YELLOW)
- N MARKING CURB EPOXY (YELLOW)

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	MARKING	SHEET 134	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\024501_PM_04.DWG
LAYOUT NAME - 10- 31ST

PLOT DATE : 7/23/2019 11:21 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT





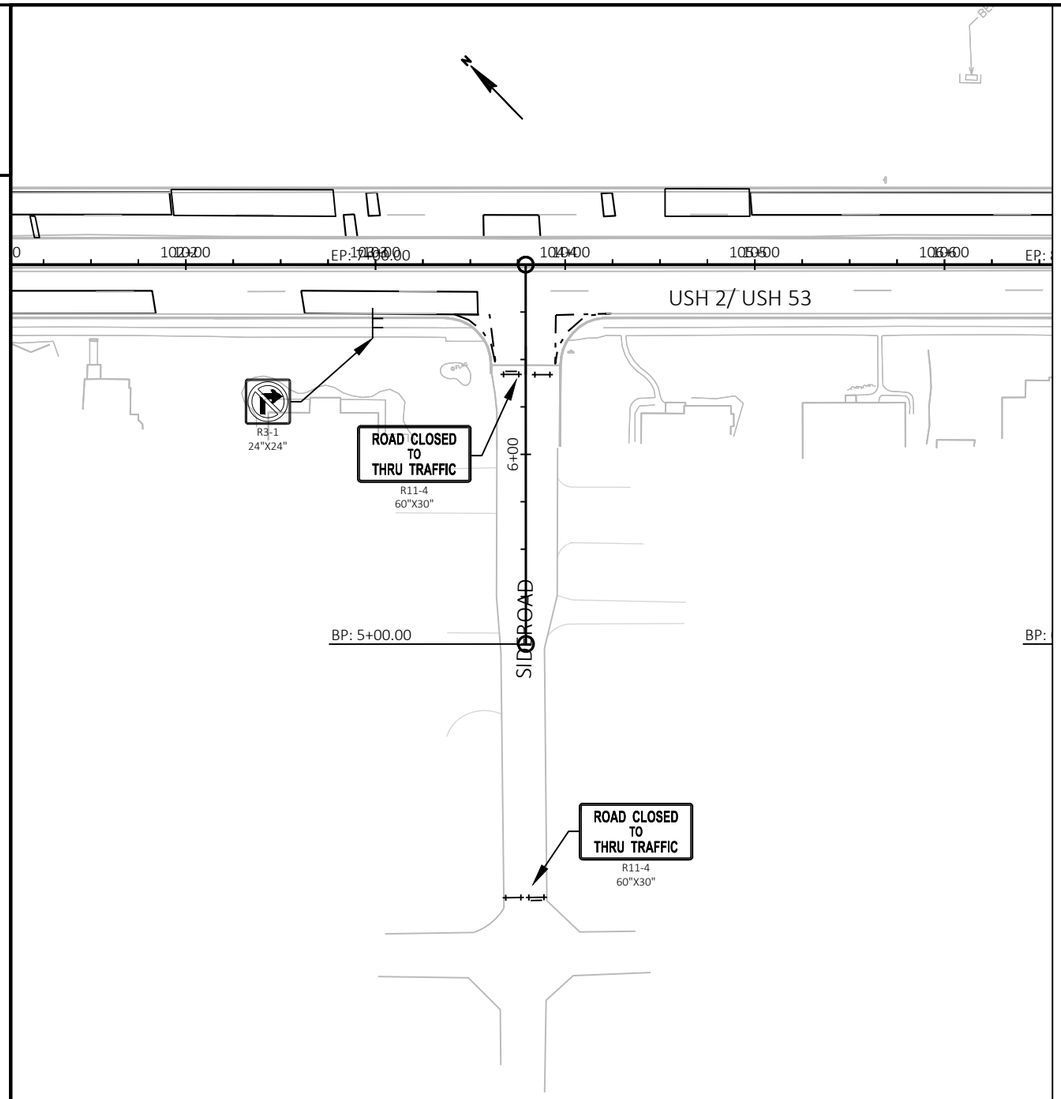
LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- "A" CURB RAMP
- "B" CURB RAMP
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

ONE CROSSWALK ACROSS US 2/US 53 MUST BE OPEN AT ALL TIMES AT THE INTERSECTIONS LISTED. "A" CURB RAMPS MUST NOT BE DONE CONCURRENTLY WITH "B" CURB RAMPS OR PROVIDE ALTERNATIVE ACCESS.

- 2ND AVE E
- USH 2/BELKNAP ST
- 9TH AVE E/MARINA DR
- 21ST AVE E
- 27TH AVE E

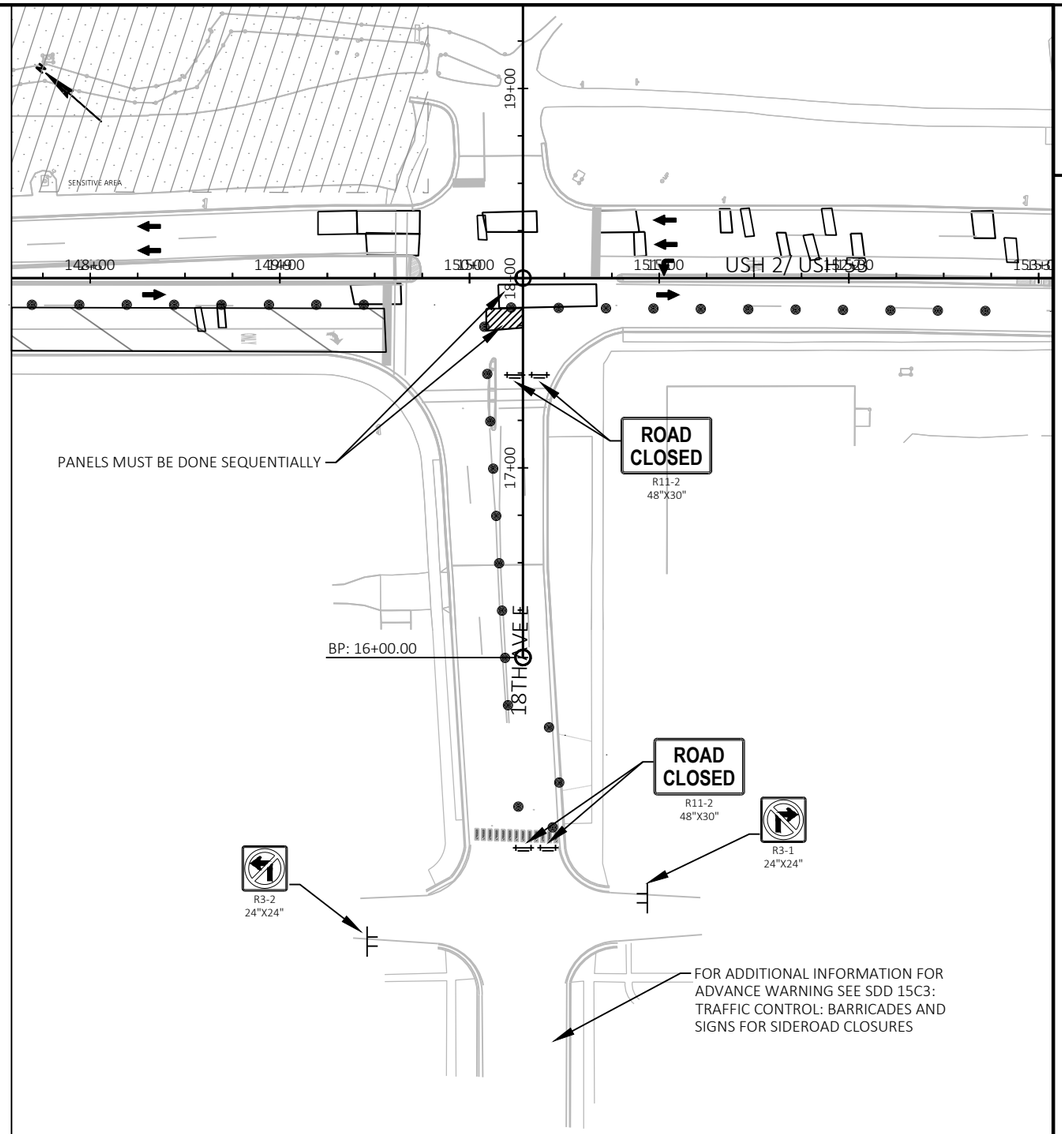
WHILE CURB RAMPS AT 21ST AVE E INTERSECTION ARE UNDER CONSTRUCTION, A PEDESTRIAN DETOUR TO 22ND AVE E MUST BE SIGNED. SEE SDD15D30 TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.



TRAFFIC CONTROL AT CLOSED INTERSECTION

USE INTERSECTION DETAIL AT:

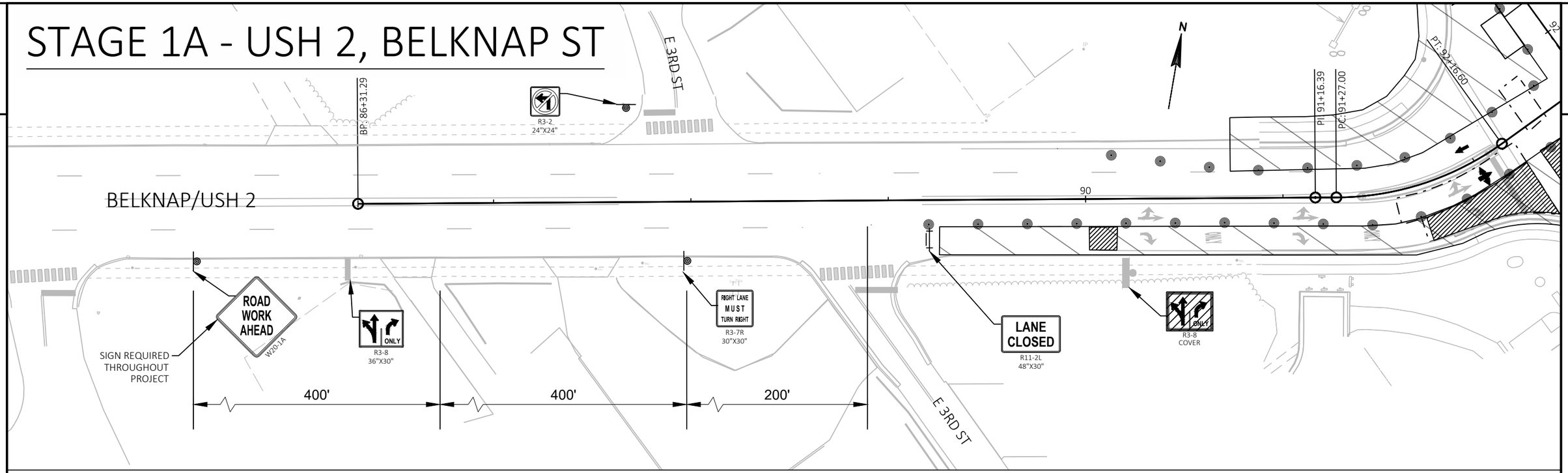
- 7TH AVE E
- 8TH AVE E
- 11TH AVE E
-14TH AVE E
-27TH AVE E
-28TH AVE E



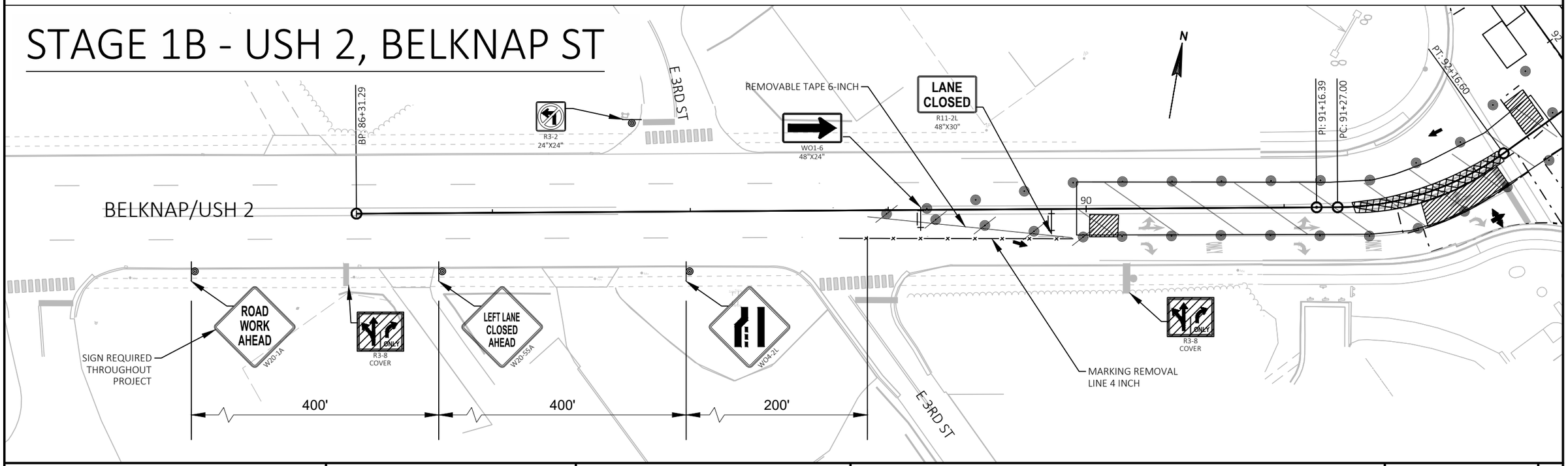
TRAFFIC CONTROL INTERSECTION DETAIL

18TH AVE E STAGE 1B

STAGE 1A - USH 2, BELKNAP ST

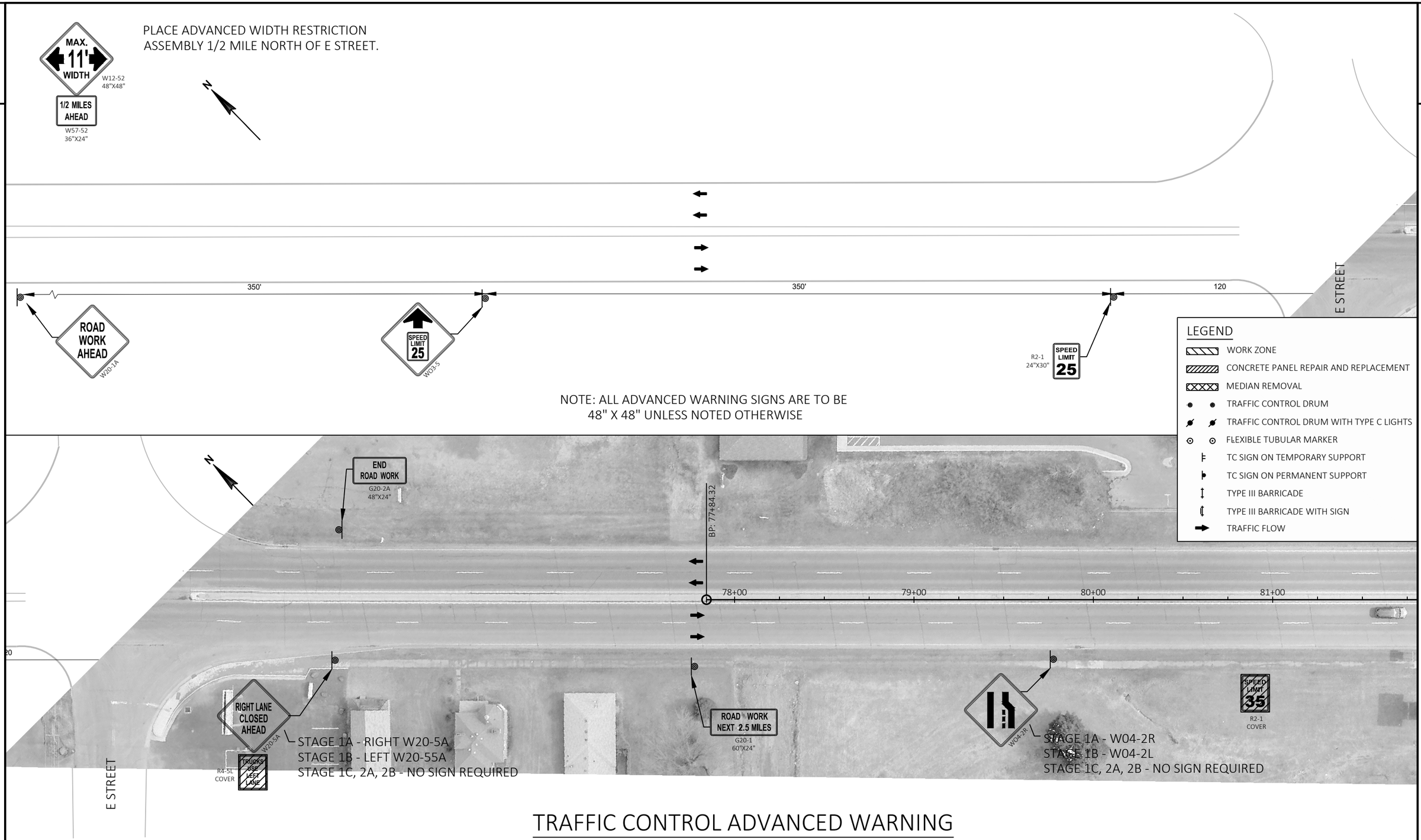


STAGE 1B - USH 2, BELKNAP ST



PROJECT NO: 1198-03-74	HWY: US 2 / US 53	COUNTY: DOUGLAS	TRAFFIC CONTROL - BELKNAP/USH 2	INTERSECTION DETAILS	SHEET 137	E

2



TRAFFIC CONTROL ADVANCED WARNING

BEGIN PROJECT

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	ALL STAGES	SHEET 138	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025001_TC_74.DWG
LAYOUT NAME - TYP-BEGIN

PLOT DATE : 7/31/2019 2:55 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

NOTE: ALL ADVANCED WARNING SIGNS ARE TO BE 48" X 48" UNLESS NOTED OTHERWISE

PI: 215+31.72

EP: 31+00.00

DO NOT BLOCK INTERSECTION R10-7 24"X30"

SENSITIVE AREA

31ST AVE E

USH 2

STAGE 1C BARRELS ONLY

ROAD WORK NEXT 2.5 MILES G20-1 60"X24"

200'

200'

SPEED LIMIT 25 R2-1 24"X30"

END ROAD WORK G20-2A 48"X24"

425'

SPEED LIMIT 25 W03-5

300'

ROAD WORK AHEAD W20-1A

MAX. 11' WIDTH W12-52 48"X48"

1 MILES AHEAD W57-52 36"X24"

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

TRAFFIC CONTROL ADVANCED WARNING

END PROJECT STAGES 1A, 1B, 1C

PLACE ADVANCED WIDTH RESTRICTION ASSEMBLY 1000 FEET SOUTH OF 39TH AVENUE EAST.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1	SHEET 139	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025001_TC_74.DWG
LAYOUT NAME - TYP-END

PLOT DATE : 7/31/2019 2:55 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

STAGE CONSTRUCTION WORK NOTES

STAGE 1

CONCRETE PANEL REPAIR FOR USH 2, BELKNAP STREET INTERSECTION AND EB/SB LANES OF USH 2/ USH 53. USH 2, BELKNAP STREET INTERSECTION CLOSED TO TRUCK TURNING MOVEMENTS, DETOUR IN PLACE.

BRIDGE WORK ZONE ON EB/SB LANES OF STRUCTURE, TRAFFIC COUNTER DIRECTIONAL ON WB/NB LANES

SEE SDD 15D21 FOR BARREL SPACING/WRAPPING NEAR MEDIANS AND SIDE ROADS.

STAGE 1A

USH 2/ USH 53 CONCRETE PANEL REPAIR ON OUTER EB/SB LANES FROM BEGIN PROJECT TO 18TH AVENUE EAST. USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER WB/NB LANES FROM BEGIN PROJECT TO 350 FEET EAST OF BELKNAP STREET.

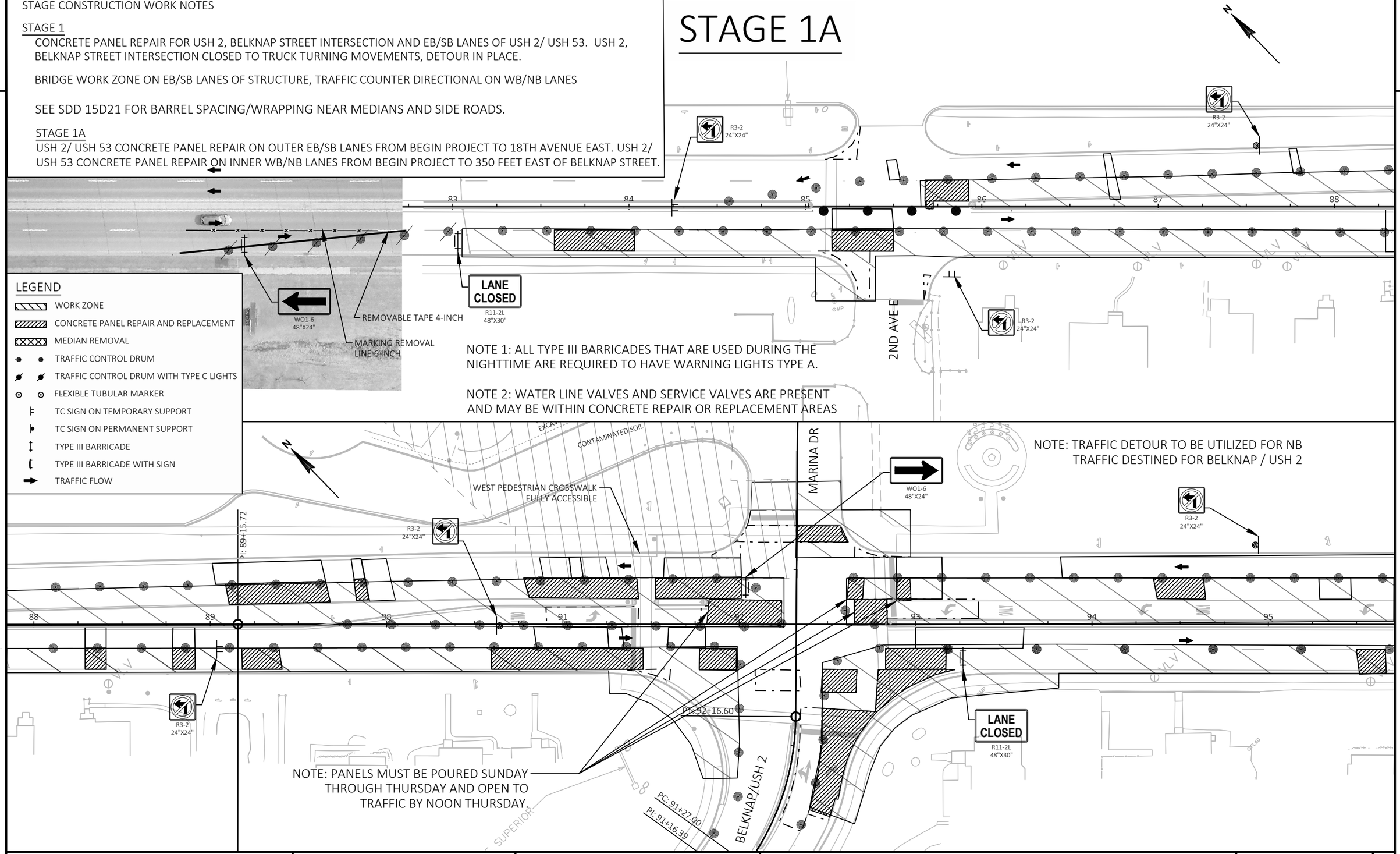
STAGE 1A

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

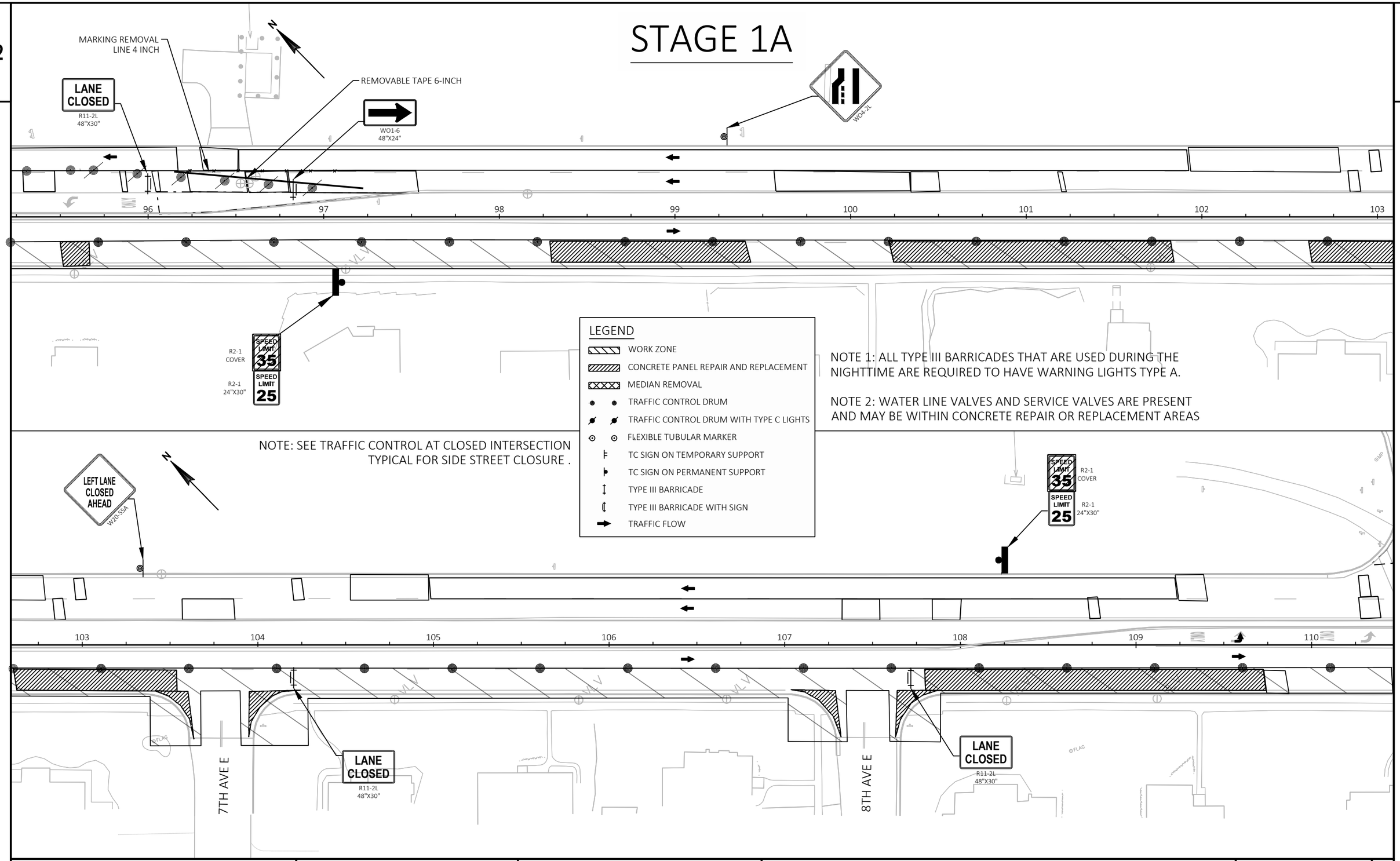
NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 140	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.2A
PLOT DATE : 7/31/2019 2:55 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 1A



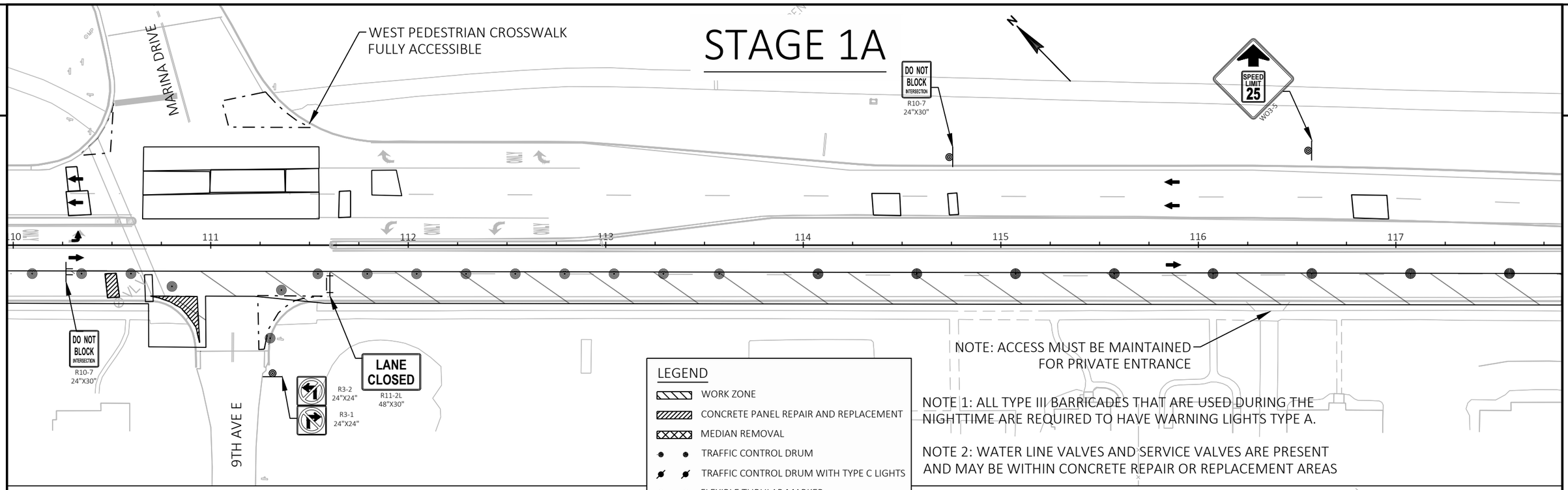
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 141	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.3A

PLOT DATE : 7/31/2019 2:56 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1A



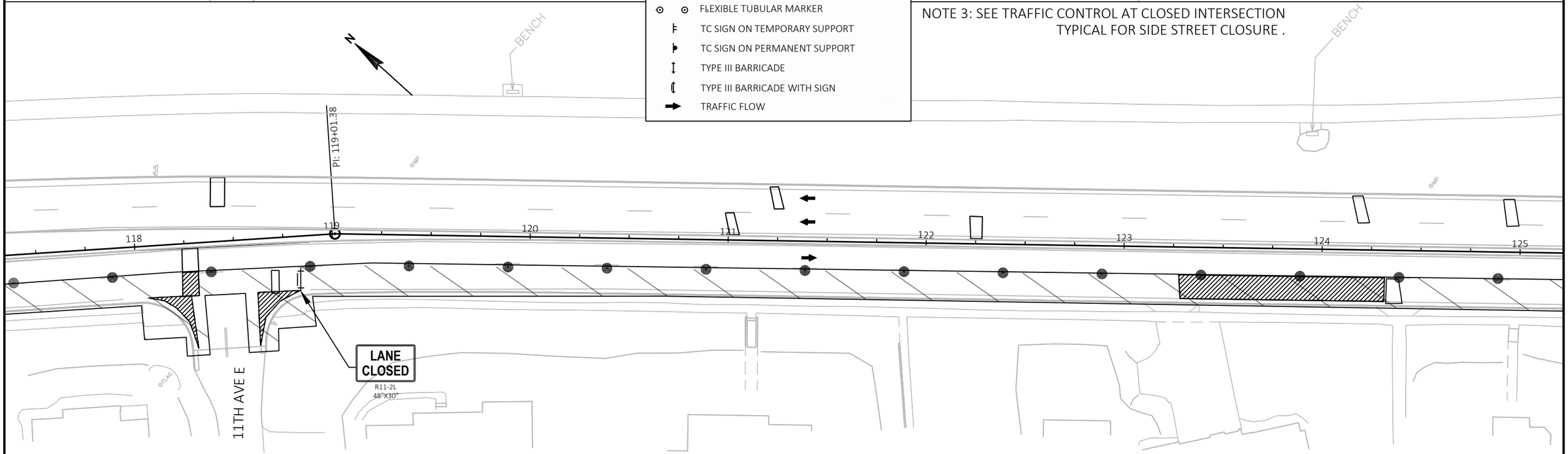
LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

NOTE 3: SEE TRAFFIC CONTROL AT CLOSED INTERSECTION TYPICAL FOR SIDE STREET CLOSURE .



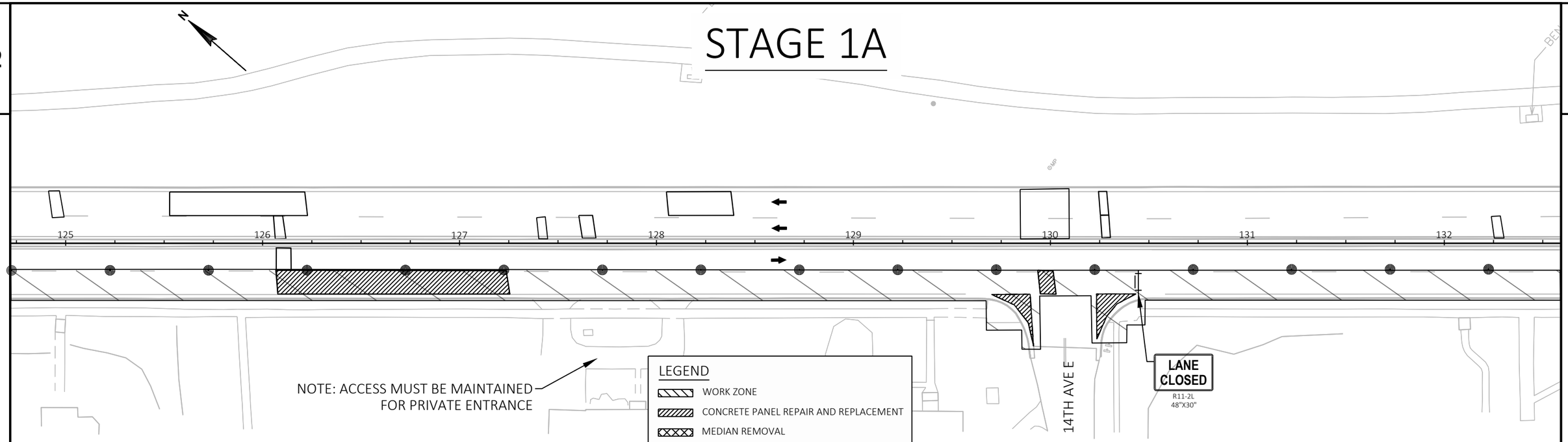
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 142	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.4A

PLOT DATE : 7/31/2019 2:56 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1A



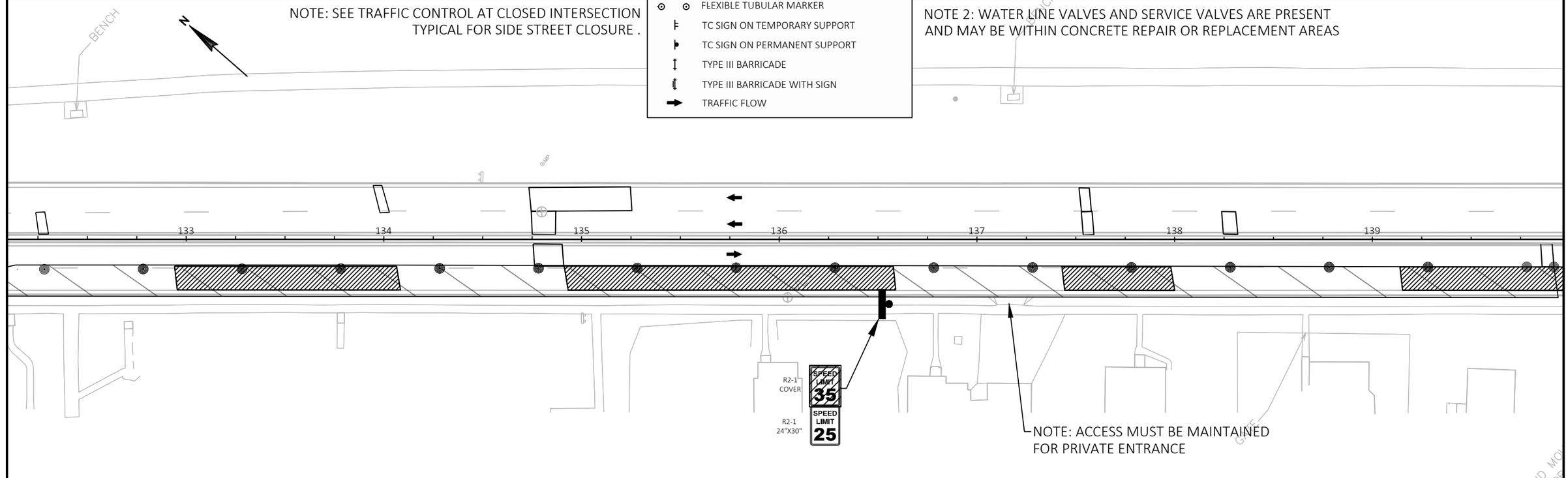
LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE: SEE TRAFFIC CONTROL AT CLOSED INTERSECTION TYPICAL FOR SIDE STREET CLOSURE .

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 143	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.5A

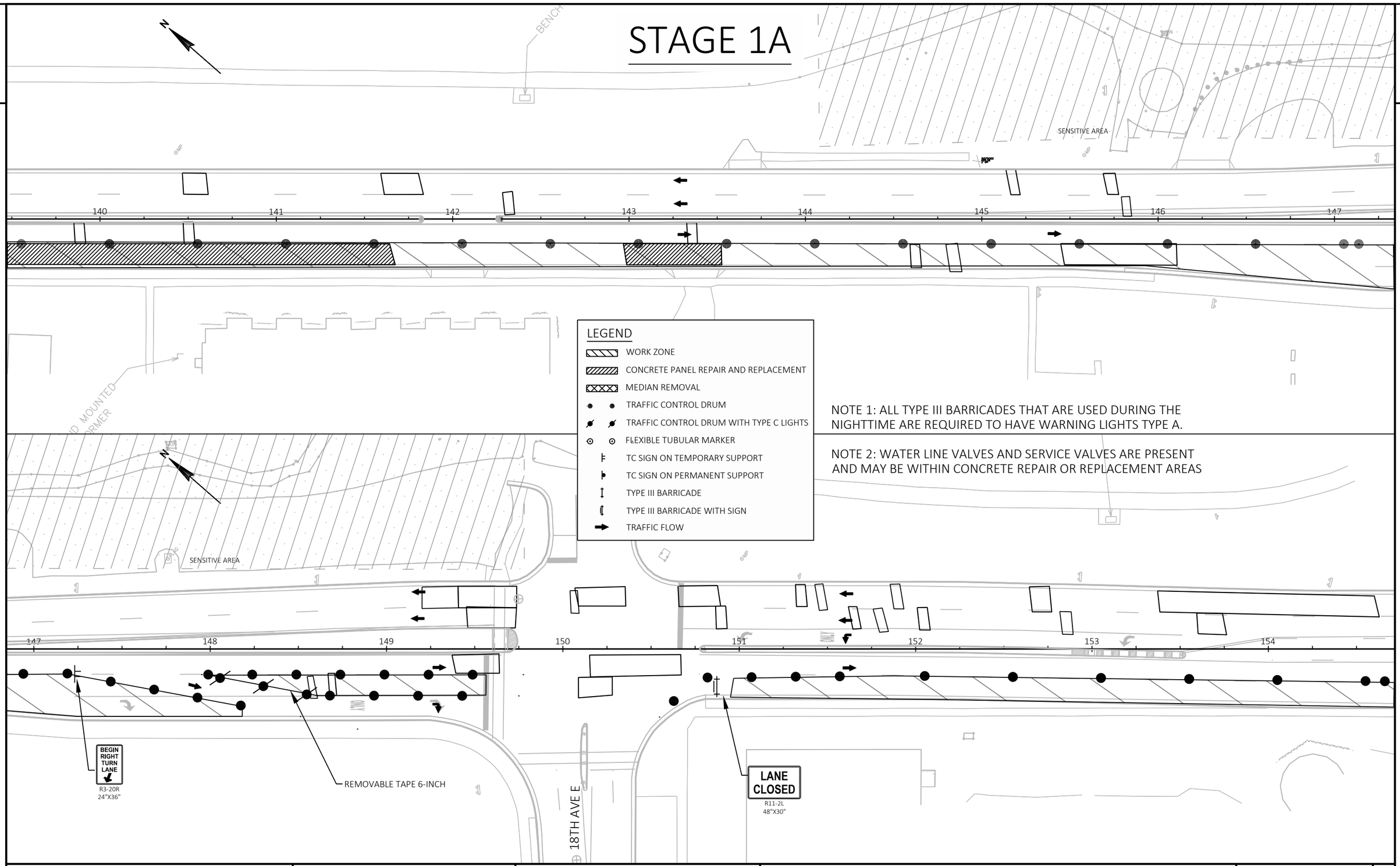
PLOT DATE : 7/31/2019 2:56 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1A

2

2



LEGEND

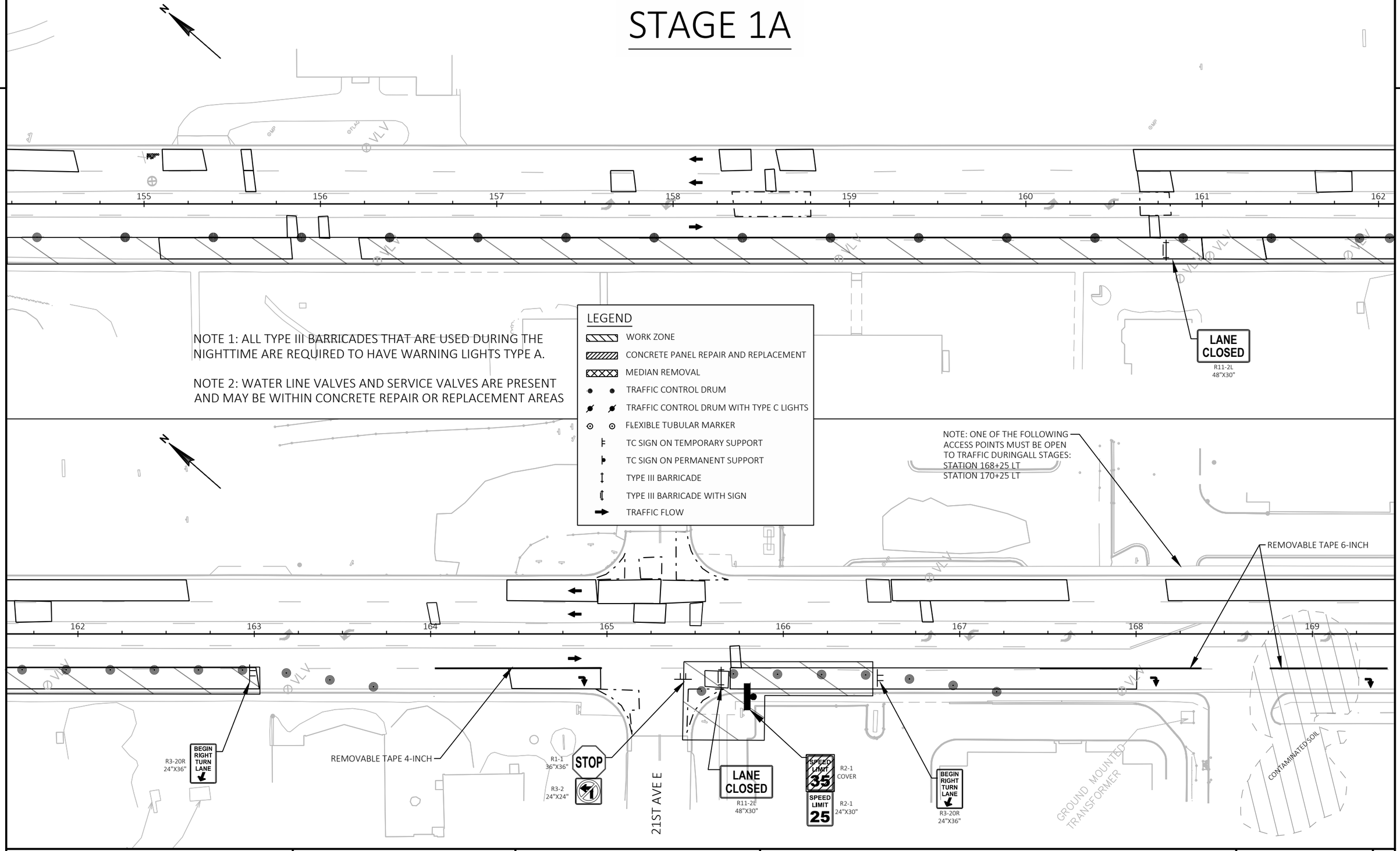
- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 144	E

STAGE 1A



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 145	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.7A

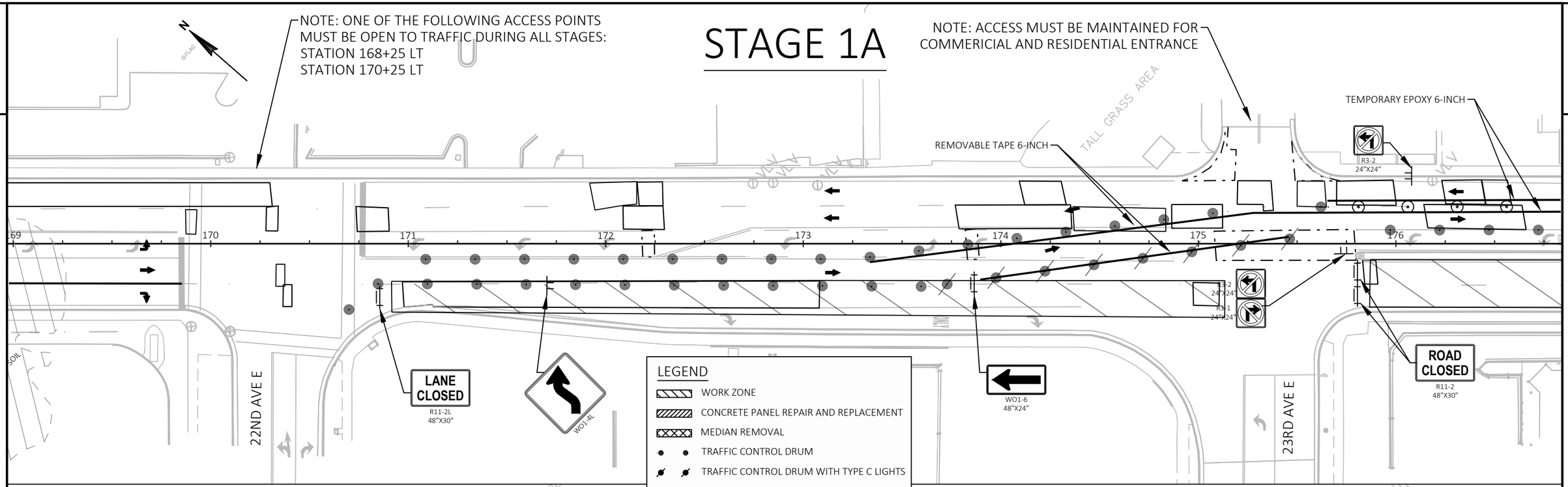
PLOT DATE : 7/31/2019 2:56 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1A

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURING ALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR COMMERICIAL AND RESIDENTIAL ENTRANCE

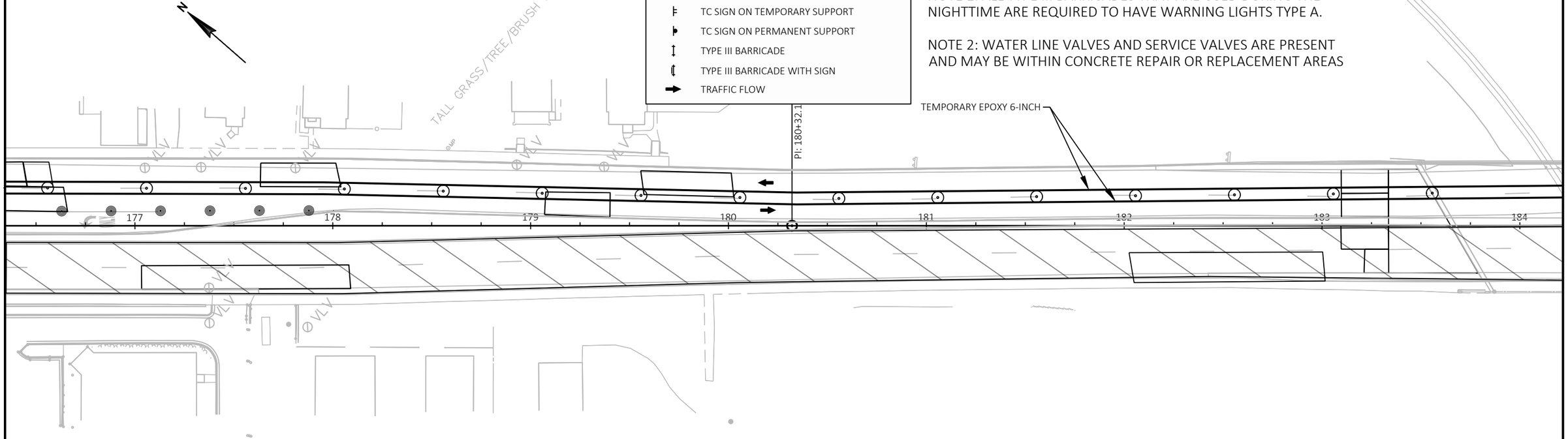


LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 146	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.8A

PLOT DATE : 7/31/2019 2:57 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 1A

2

R3-2
24"X24"

PI: 185+32.12

TEMPORARY EPOXY 6-INCH

POST

VLV

PI: 190+32.25

184 185 186 187 188 189 190 191

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

W01-4R

TEMPORARY EPOXY 6-INCH

NOTE: ACCESS MUST BE MAINTAINED FOR OSAUGIE TRAILHEAD, COMMERICIAL, AND RESIDENTIAL ENTRANCE

STOP
R1-1
36"X36"

REMOVABLE TAPE 6-INCH

WO1-6
48"X24"

R3-2
24"X24"

LANE CLOSED
R11-2L
48"X30"

PI: 195+32.71

192 193 194 195 196 197 198

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

27TH AVE E

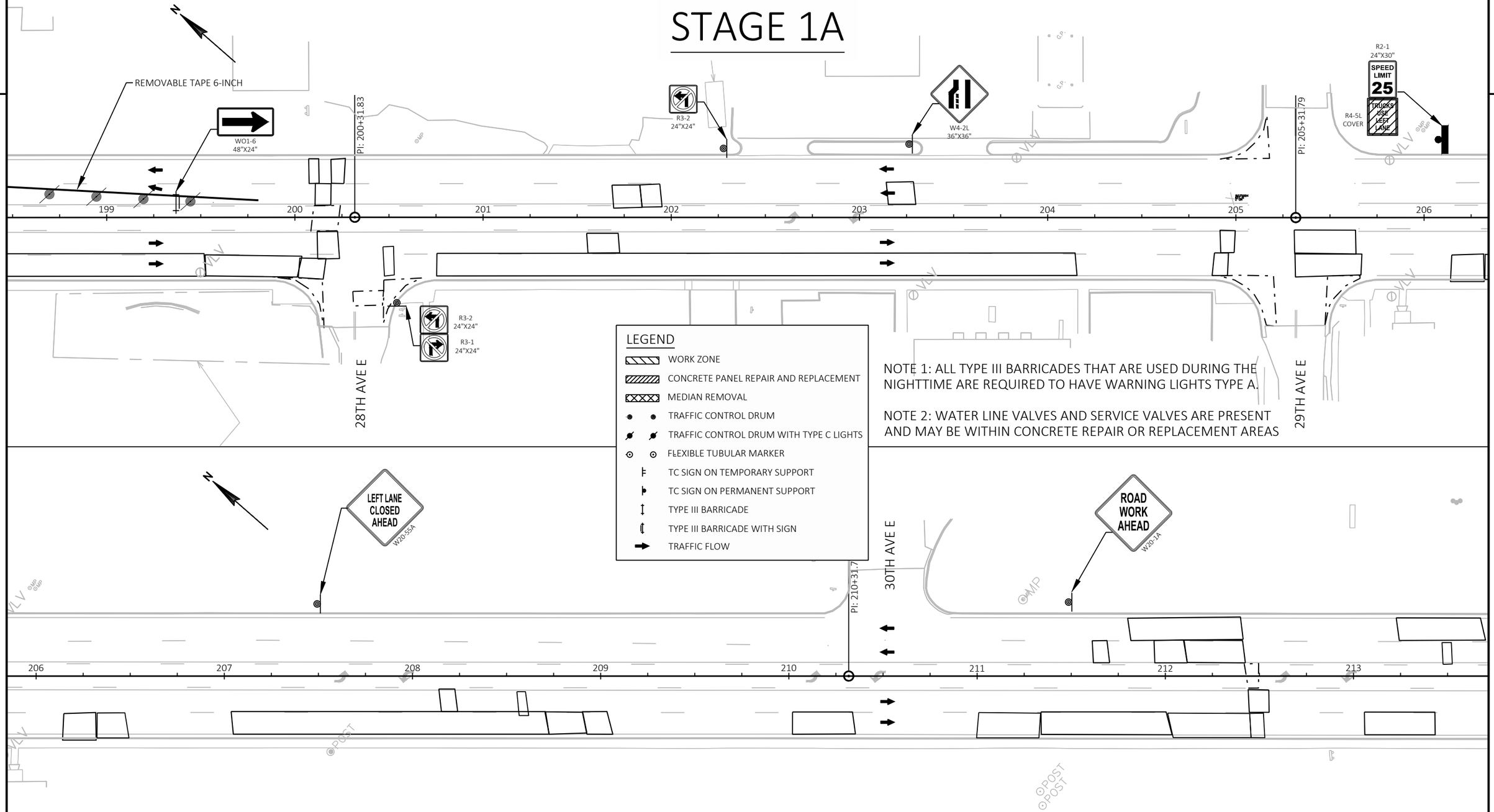
R3-2
24"X24"

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 147	E

STAGE 1A



NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1A	SHEET 148	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.10A

PLOT DATE : 7/31/2019 2:57 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

2

STAGE CONSTRUCTION WORK NOTES

STAGE 1B

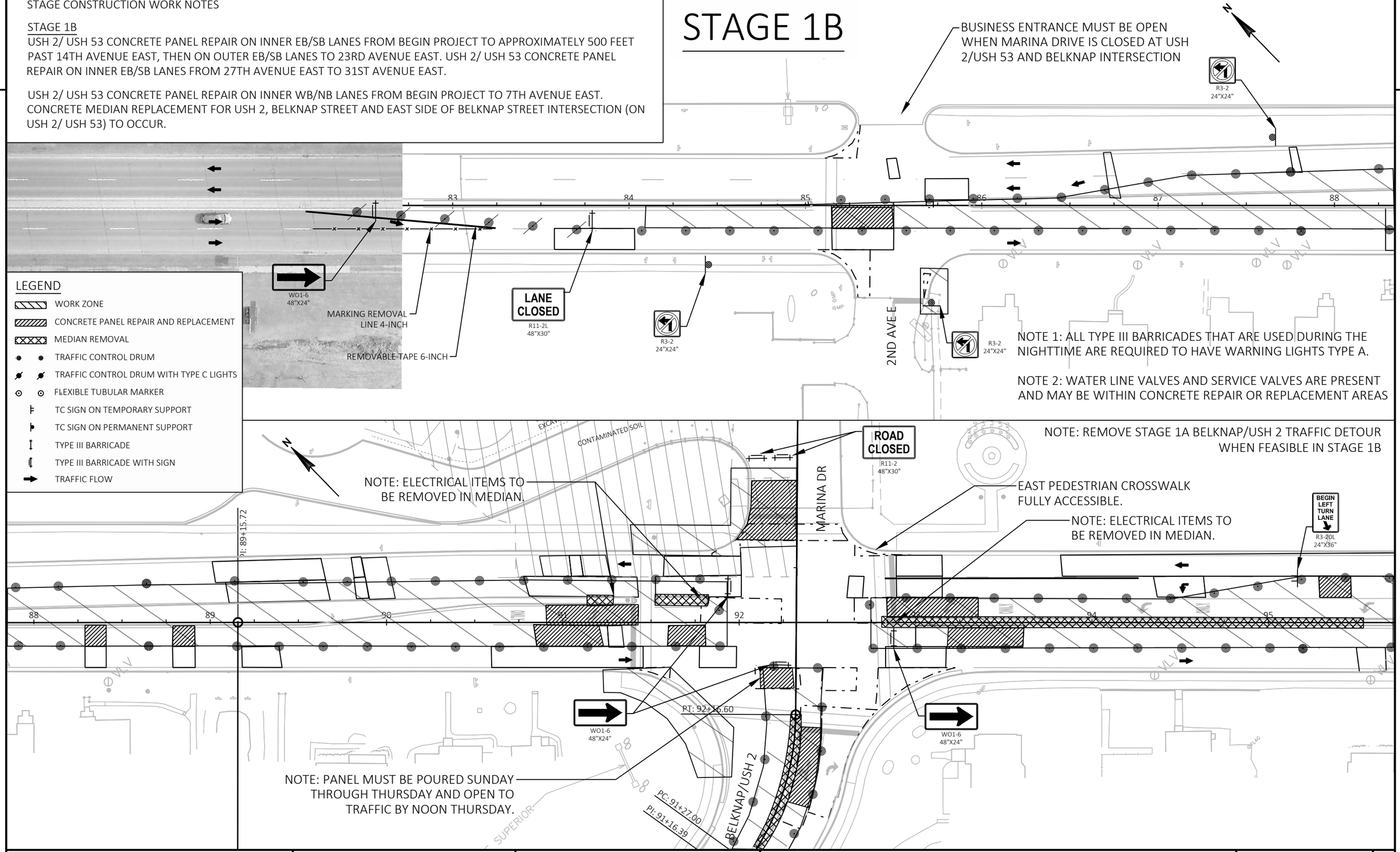
USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER EB/SB LANES FROM BEGIN PROJECT TO APPROXIMATELY 500 FEET PAST 14TH AVENUE EAST, THEN ON OUTER EB/SB LANES TO 23RD AVENUE EAST. USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER EB/SB LANES FROM 27TH AVENUE EAST TO 31ST AVENUE EAST.

USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER WB/NB LANES FROM BEGIN PROJECT TO 7TH AVENUE EAST. CONCRETE MEDIAN REPLACEMENT FOR USH 2, BELKNAP STREET AND EAST SIDE OF BELKNAP STREET INTERSECTION (ON USH 2/ USH 53) TO OCCUR.

STAGE 1B

LEGEND

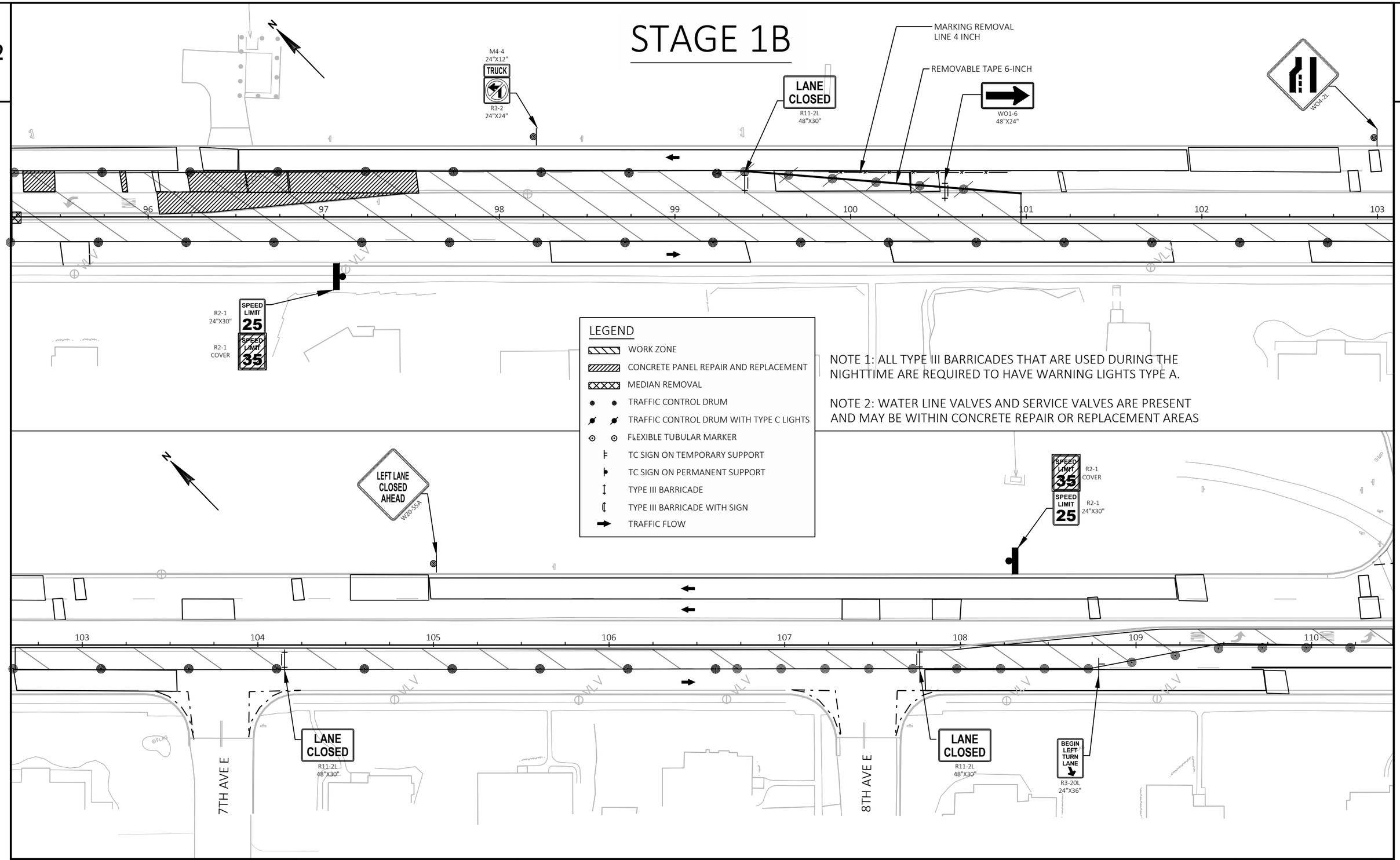
- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 149	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.2B
PLOT DATE : 7/31/2019 2:57 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 1B



NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

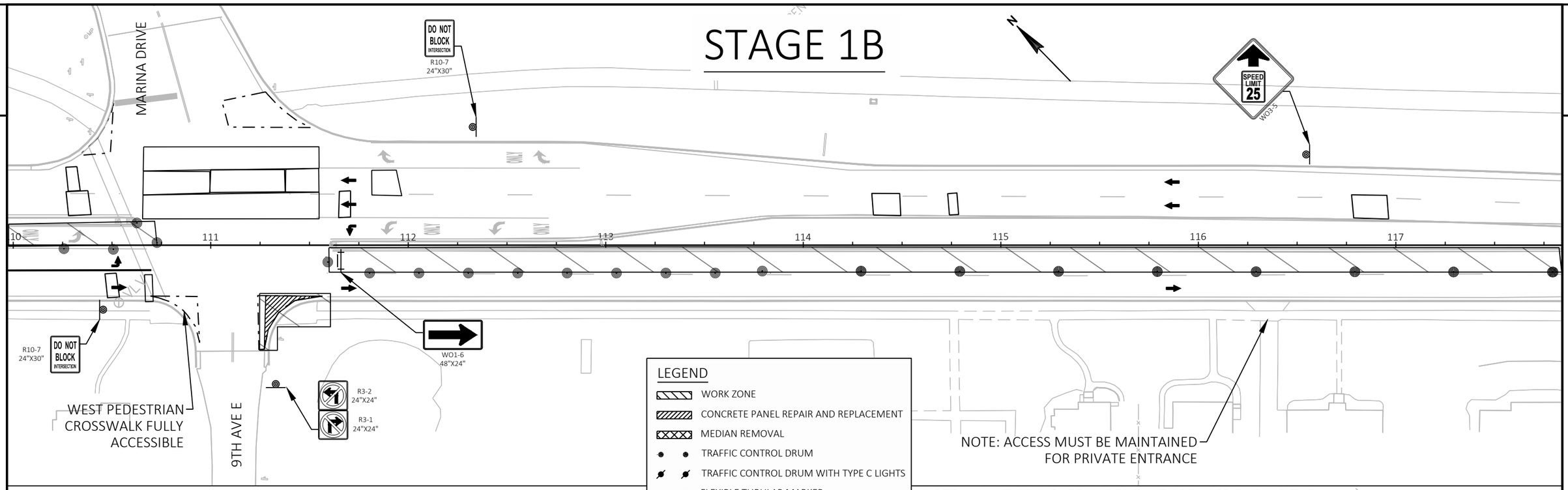
NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 150	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.3B

PLOT DATE : 7/31/2019 2:57 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 1B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

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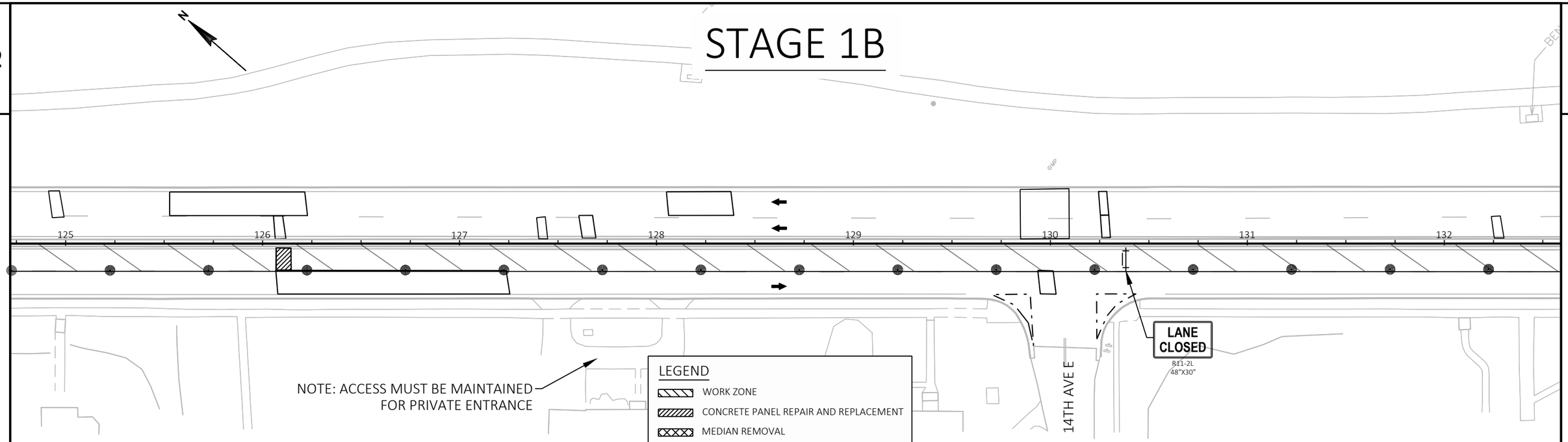
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 151	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.4B

PLOT DATE : 7/31/2019 2:57 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

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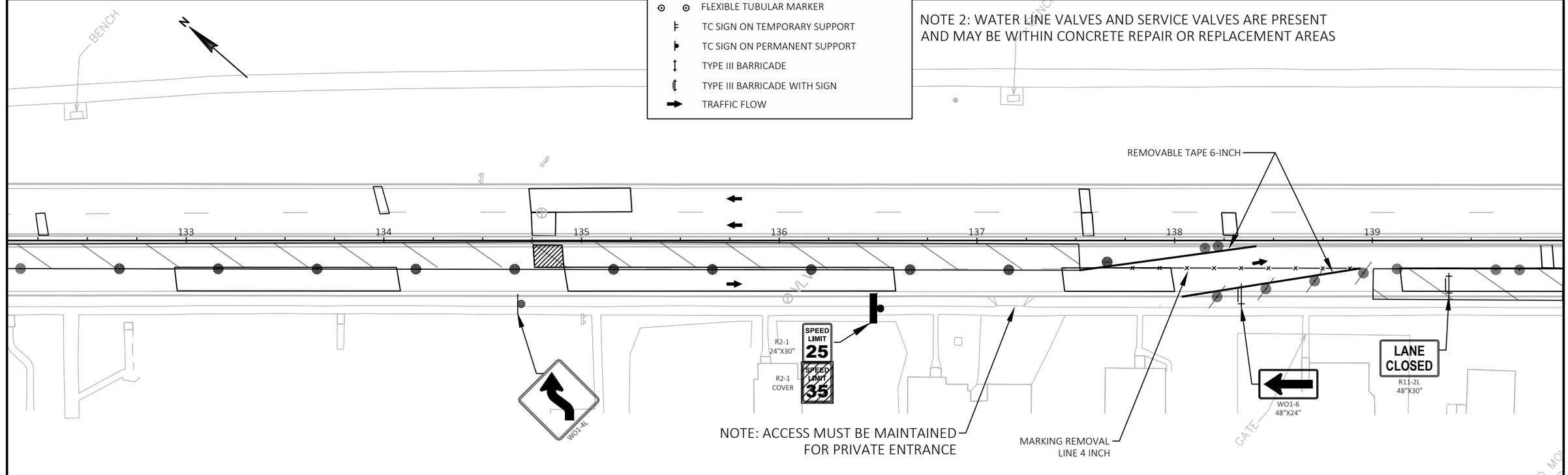


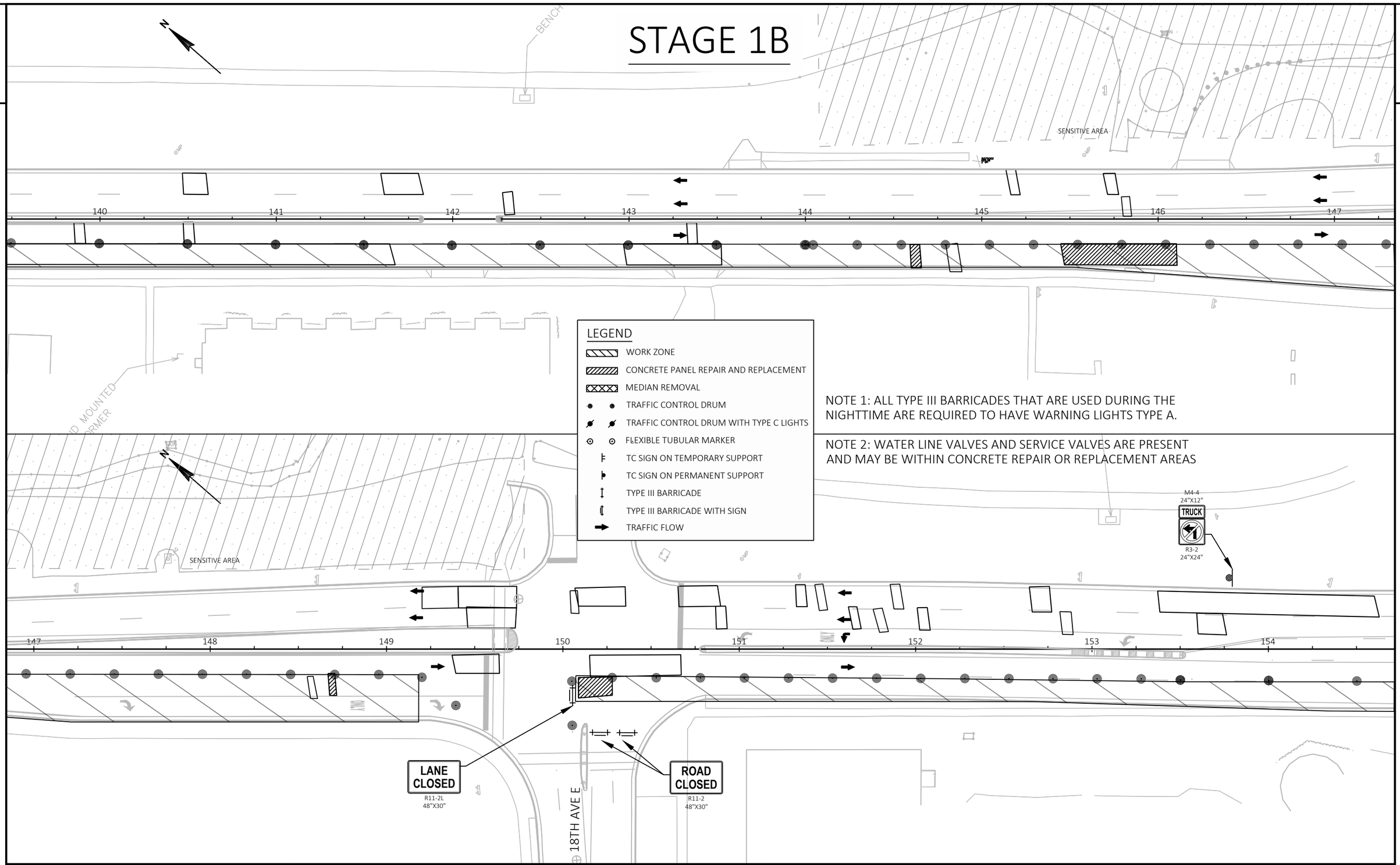
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 152	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.5B

PLOT DATE : 7/31/2019 2:58 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

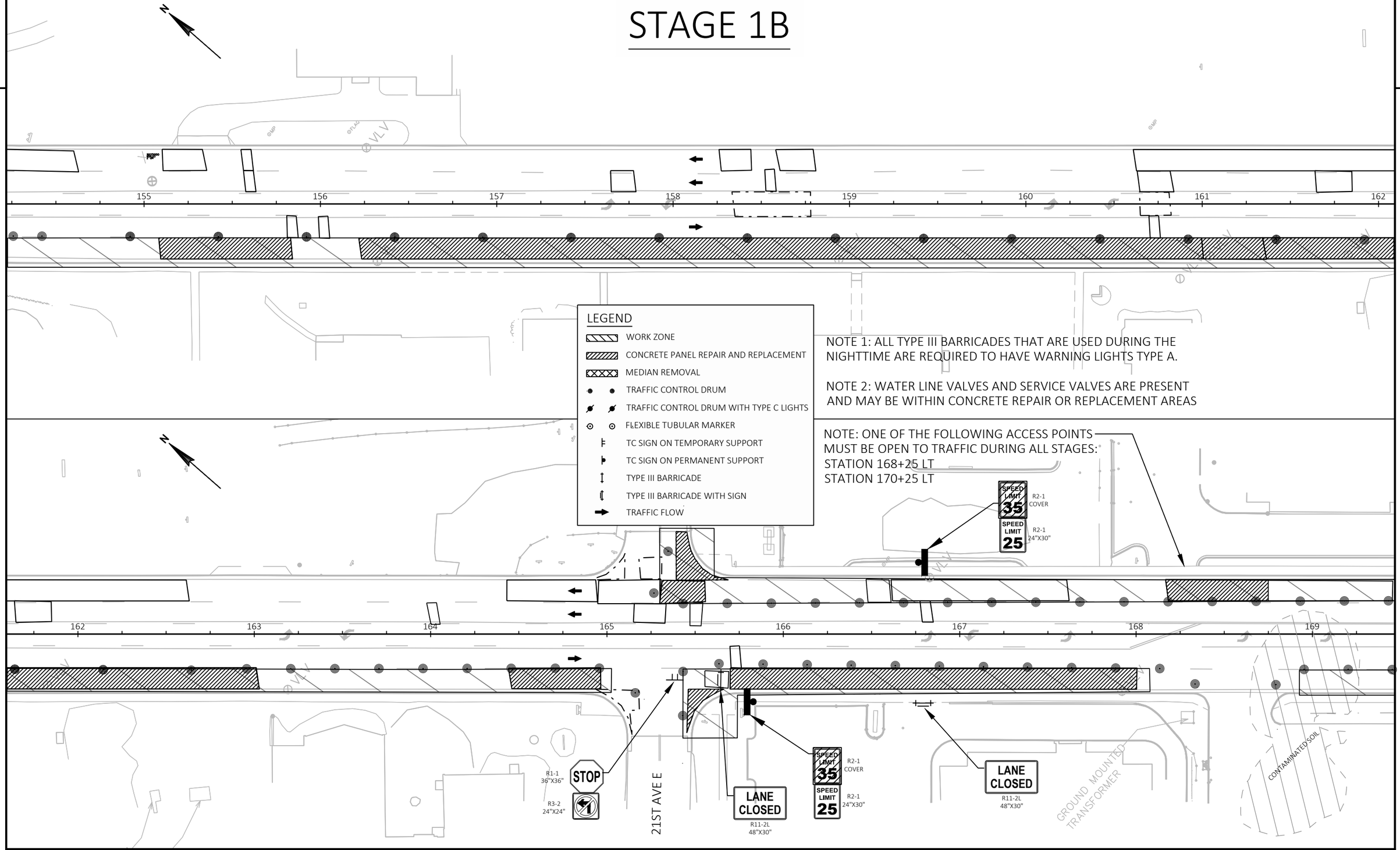
NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 153	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.6B
PLOT DATE : 7/31/2019 2:58 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 1B



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 154	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.7B

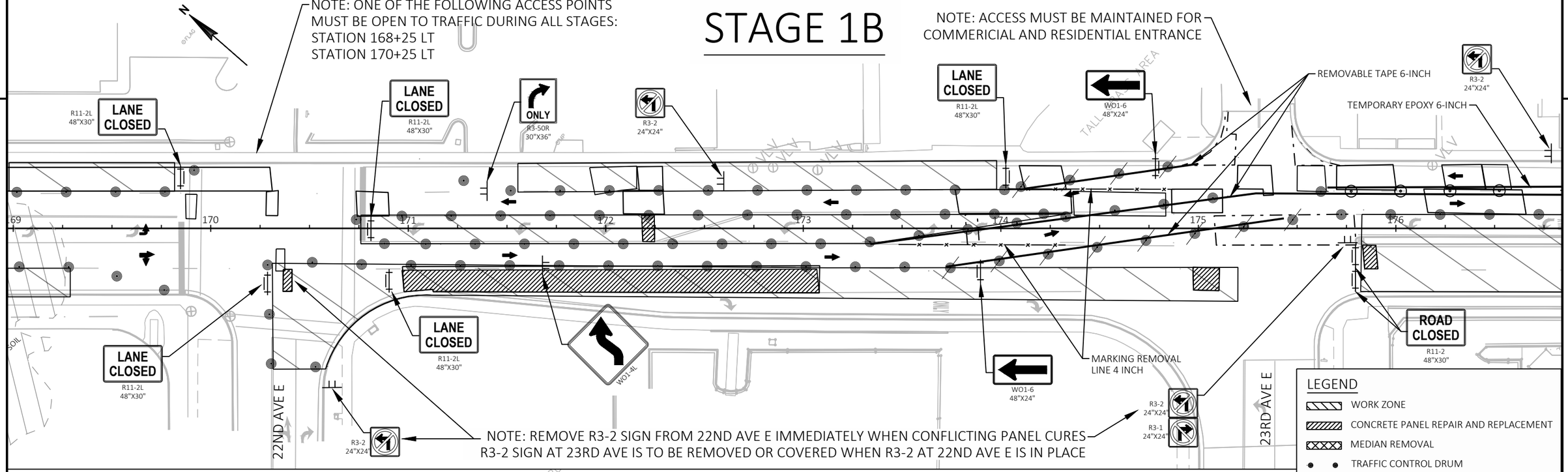
PLOT DATE : 7/31/2019 2:58 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1B

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURING ALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR COMMERICIAL AND RESIDENTIAL ENTRANCE



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

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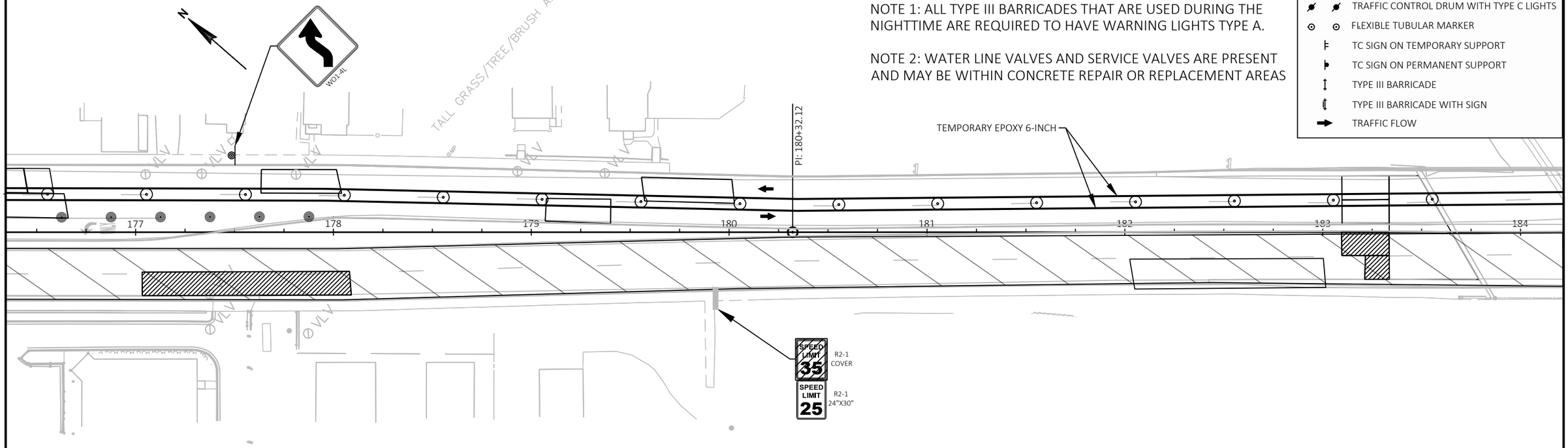
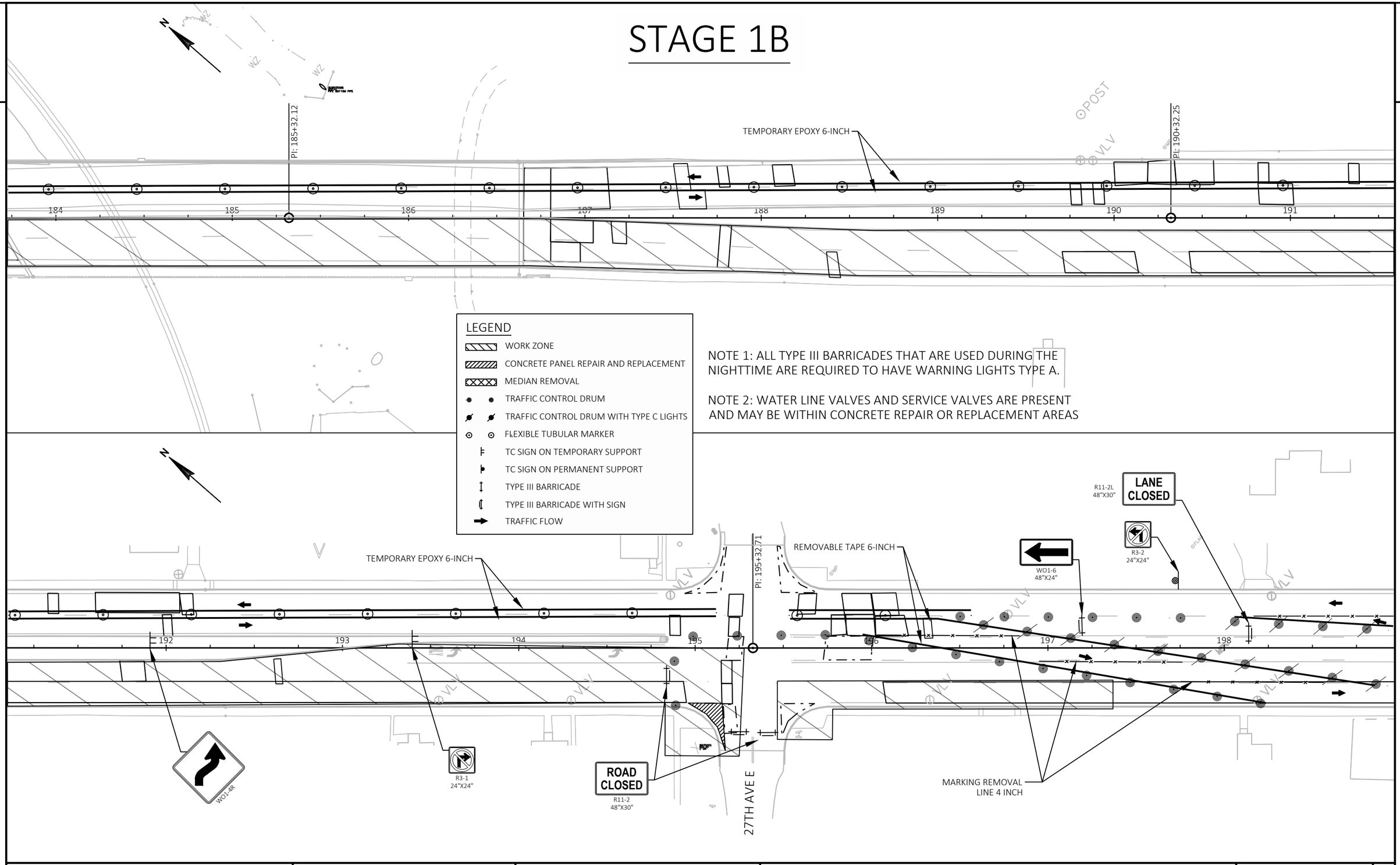


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 155	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.8B
PLOT DATE : 7/31/2019 2:58 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########

STAGE 1B



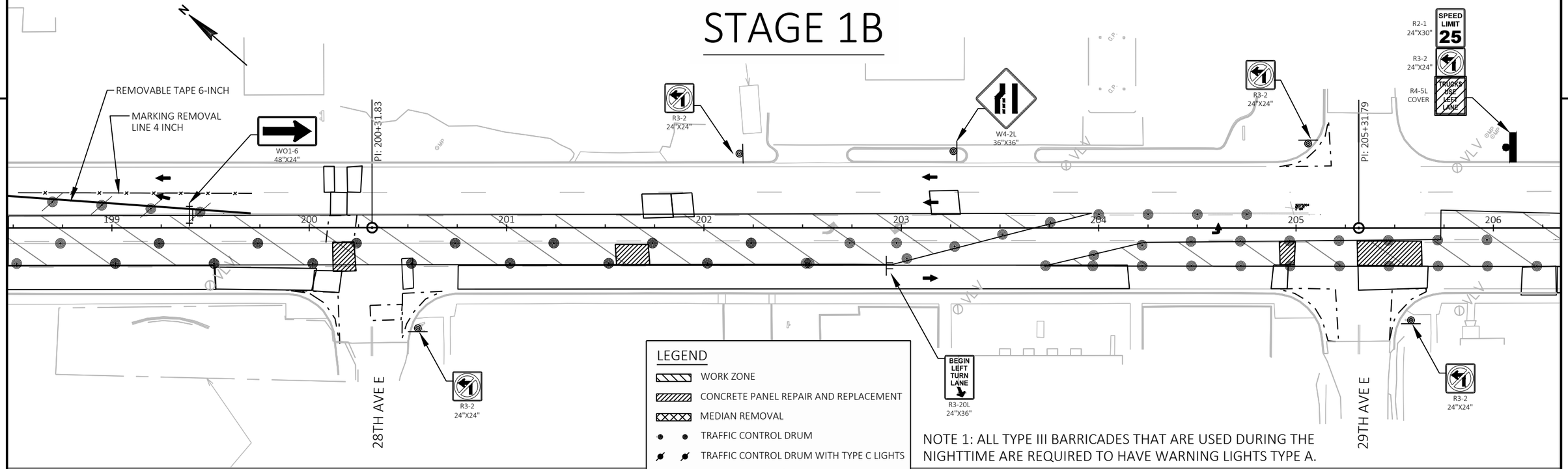
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL STAGE 1B	SHEET 156	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.9B

PLOT DATE : 7/31/2019 2:58 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1B

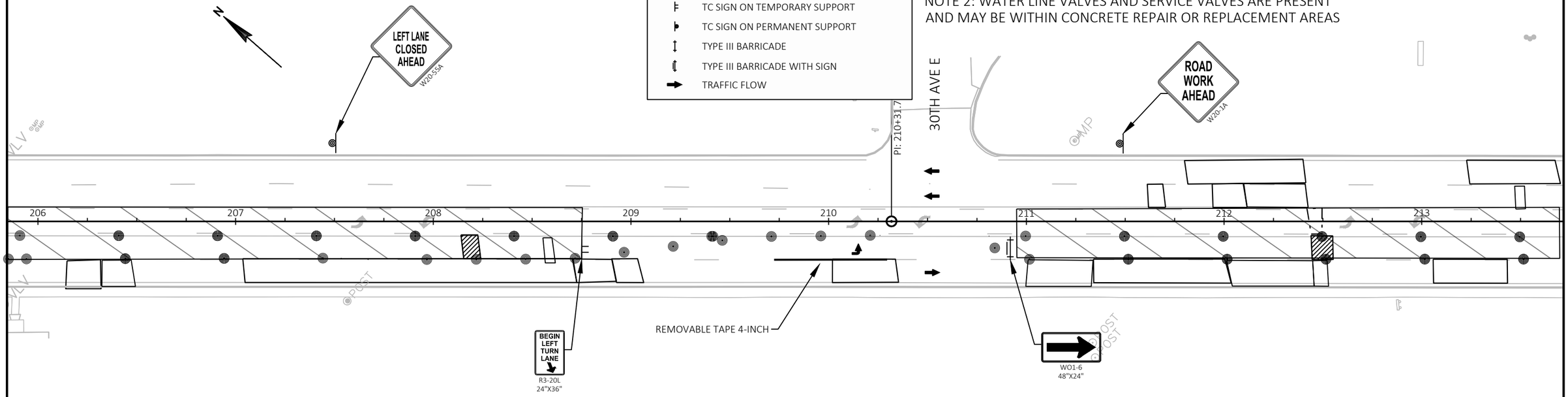


NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1B	SHEET 157	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.10B

PLOT DATE : 7/31/2019 2:58 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

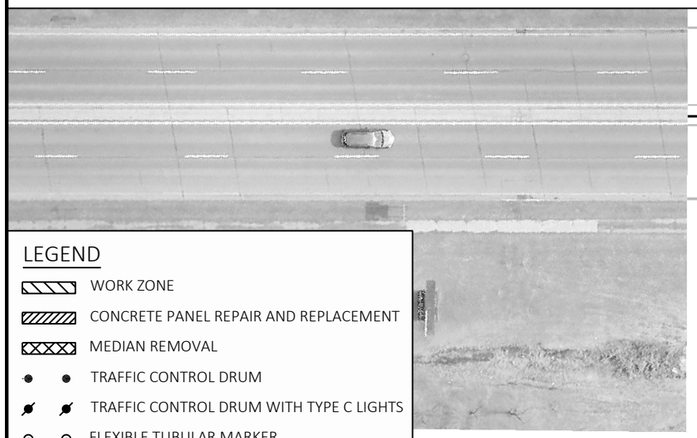
2

STAGE CONSTRUCTION WORK NOTES

STAGE 1C
USH 2, BELKNAP STREET INTERSECTION OPEN TO TRUCK TURNING MOVEMENTS, TRUCK DETOUR REMOVED. AT 18TH AVENUE EAST, ALL LEFT TURNS WILL BE RESTRICTED.

USH 2/ USH 53 CONCRETE PANEL REPAIR ON OUTER WB/NB LANES FROM BEGIN PROJECT TO 350 FEET EAST OF BELKNAP STREET. USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER EB/SB LANES FROM 14TH AVENUE EAST TO 23RD AVENUE EAST AND OUTER EB/SB LANES FROM 27TH AVENUE EAST TO 31ST AVENUE EAST.

STAGE 1C



LEGEND
- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

R3-2
24"X24"

2ND AVE E

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

CONTAMINATED SOIL

R11-2L
48"X30"

LANE CLOSED

MARINA DR

PI: 89+15.72

PT: 92+16.60

PC: 91+27.00

PI: 91+16.39

BELKNAP/USH 2

SUPERIOR

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 158	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.2C

PLOT DATE : 7/31/2019 2:59 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

STAGE 1C

NOTE: ACCESS MUST BE MAINTAINED FOR RESIDENTIAL ENTRANCE

REMOVABLE TAPE 6-INCH

MARKING REMOVAL LINE 4 INCH

R11-2L 48"X30" — LANE CLOSED

WO1-6 48"X24"

W04-2R

RIGHT LANE CLOSED AHEAD W20-5A

96 97 98 99 100 101 102 103

R2-1 COVER — SPEED LIMIT 35

R2-1 24"X30" — SPEED LIMIT 25

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

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NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

R2-1 COVER — SPEED LIMIT 35

R2-1 24"X30" — SPEED LIMIT 25

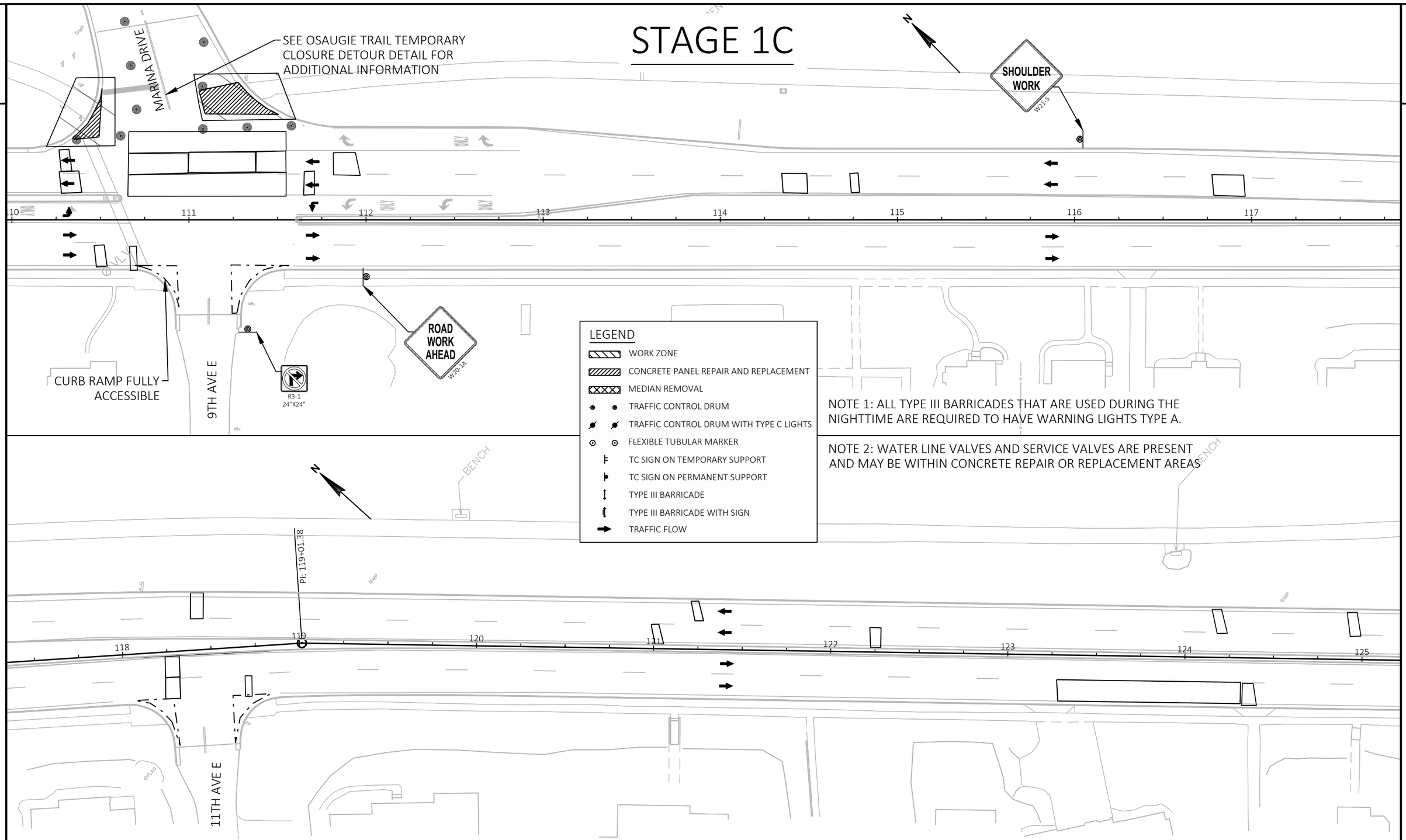
103 104 105 106 107 108 109 110

7TH AVE E

8TH AVE E

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 159	E

STAGE 1C



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
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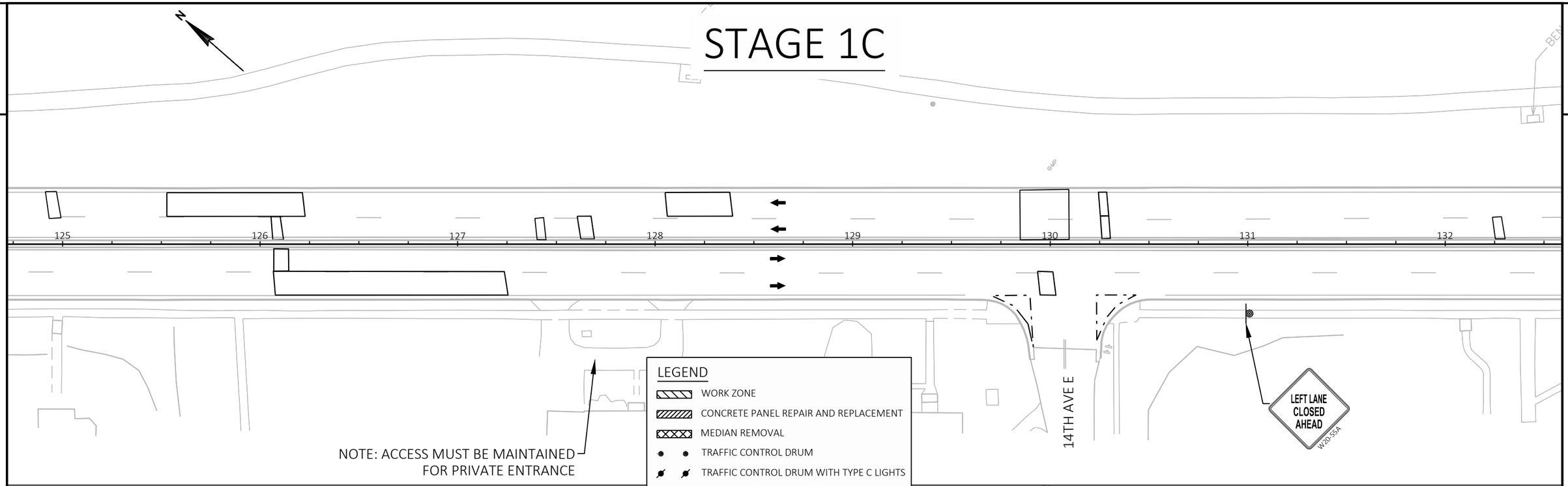
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL STAGE 1C	SHEET 160	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.4C

PLOT DATE : 7/31/2019 2:59 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1C



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

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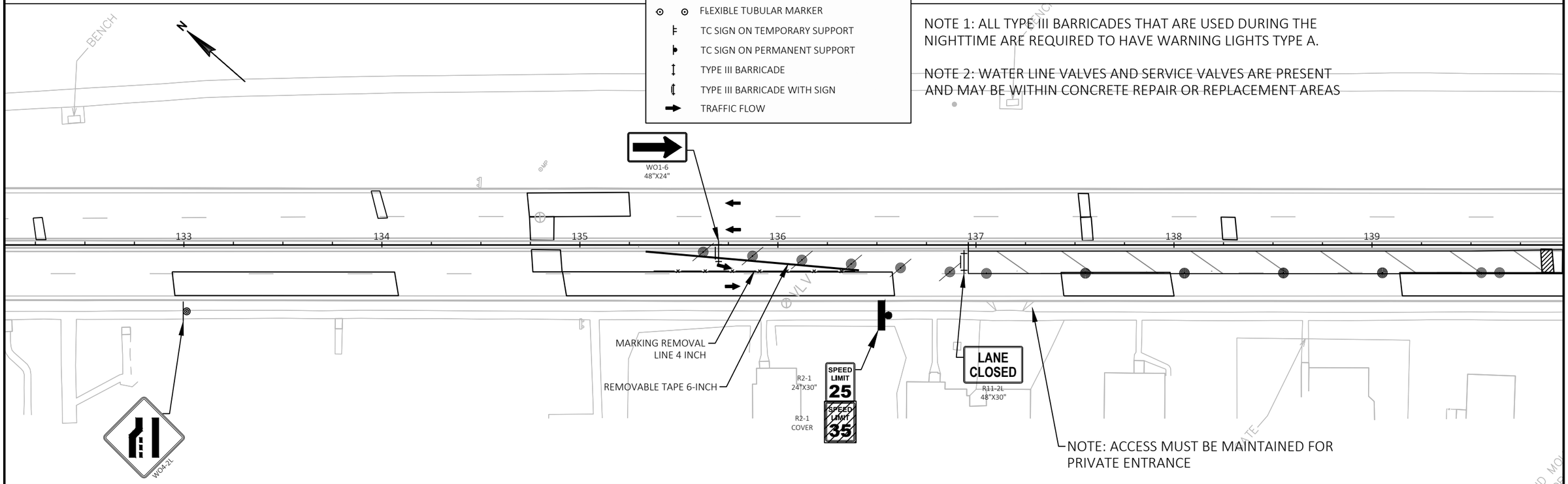
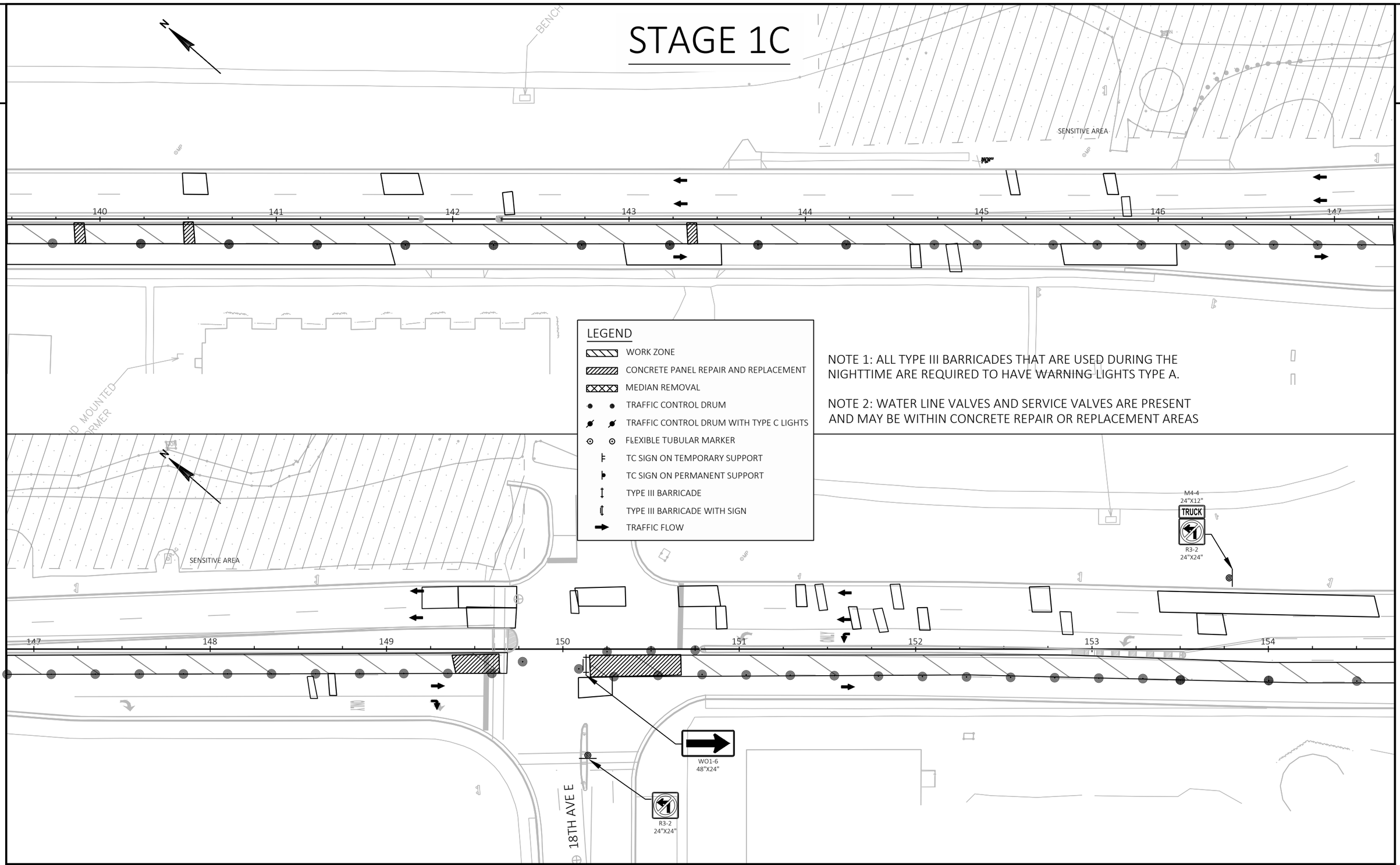


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 161	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.5C
PLOT DATE : 7/31/2019 2:59 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 1C



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 162	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.6C

PLOT DATE : 7/31/2019 2:59 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1C

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NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURING ALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

EAST PEDESTRIAN CROSSWALK FULLY ACCESSIBLE

SPEED LIMIT 35 — R2-1 COVER
SPEED LIMIT 25 — R2-1 24"X30"
LANE CLOSED — R11-2L 48"X30"
BEGIN LEFT TURN LANE — R3-20L 24"X36"
R3-2 24"X24"
WO1-6 48"X24"
21ST AVE E
GROUND MOUNTED TRANSFORMER
CONTAMINATED SOIL

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 163	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.7C
PLOT DATE : 7/31/2019 3:00 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 1C

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURINGALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR COMMERICIAL AND RESIDENTIAL ENTRANCE

TEMPORARY EPOXY 6-INCH

REMOVABLE TAPE 6-INCH

TALL GRASS AREA

R3-2
24"X24"

R3-2
24"X24"

R3-1
24"X24"

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

WO1-4L

WO1-6
48"X24"

22ND AVE E

23RD AVE E

169 170 171 172 173 174 175 176

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

TEMPORARY EPOXY 6-INCH

TALL GRASS/TREE/BRUSH AREA

PI: 180+32.1

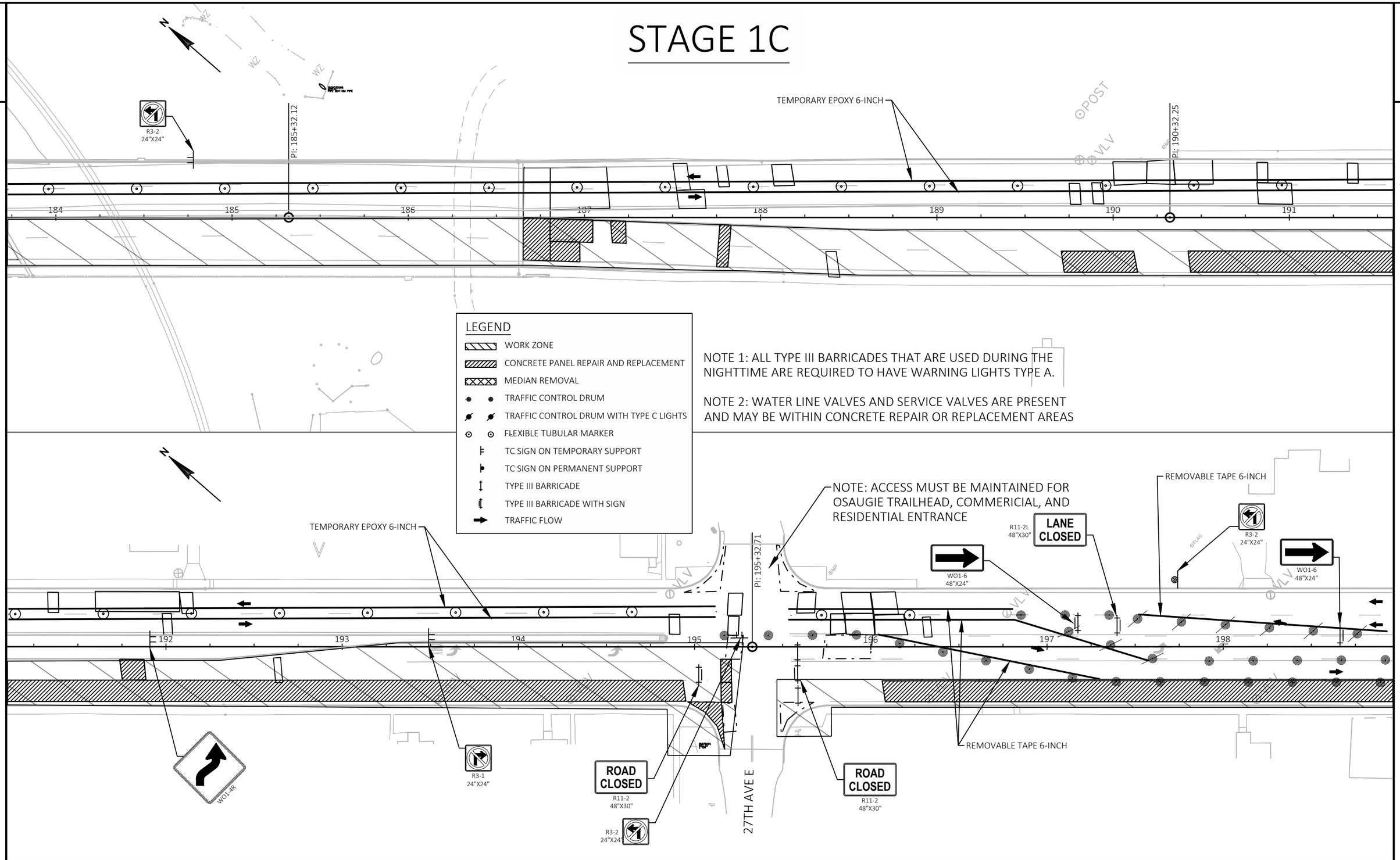
177 178 179 180 181 182 183 184

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 164	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S1.8C

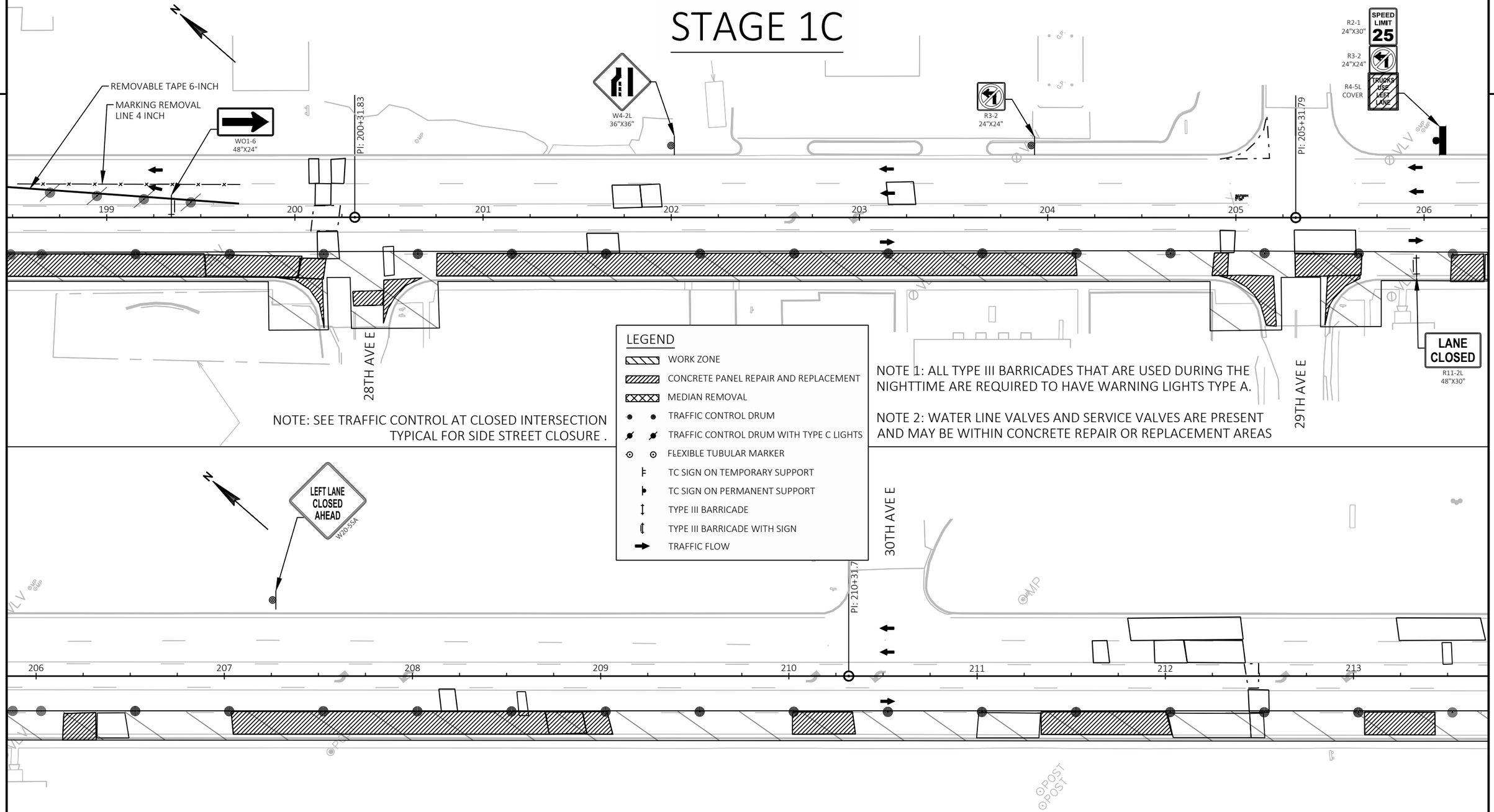
PLOT DATE : 7/31/2019 3:00 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 1C



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 165	E

STAGE 1C



NOTE: SEE TRAFFIC CONTROL AT CLOSED INTERSECTION TYPICAL FOR SIDE STREET CLOSURE .

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 1C	SHEET 166	E

2

STAGE CONSTRUCTION WORK NOTES

STAGE 2

CONCRETE PANEL REPAIR PRIMARILY ON WB/NB LANES OF USH 2/ USH 53 AND SPOT WORK FOR FINISHING USH 2, BELKNAP STREET INTERSECTION BEHIND CURB AND GUTTER.

BRIDGE WORK ZONE ON WB/NB LANES OF STRUCTURE, TRAFFIC COUNTER DIRECTIONAL ON EB/SB LANES

SEE SDD 15D21 FOR BARREL SPACING/WRAPPING NEAR MEDIANS AND SIDE ROADS.

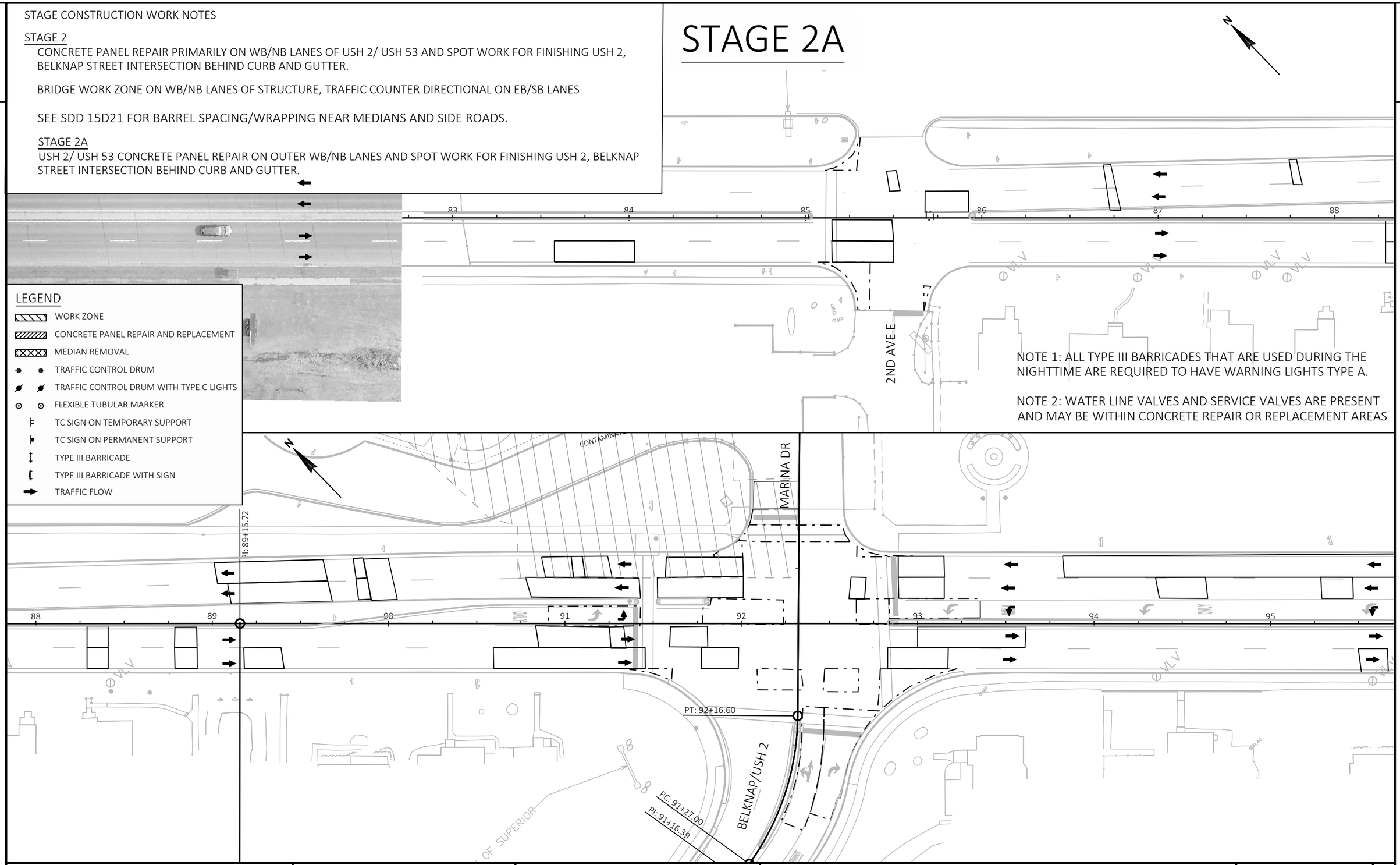
STAGE 2A

USH 2/ USH 53 CONCRETE PANEL REPAIR ON OUTER WB/NB LANES AND SPOT WORK FOR FINISHING USH 2, BELKNAP STREET INTERSECTION BEHIND CURB AND GUTTER.

STAGE 2A

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW



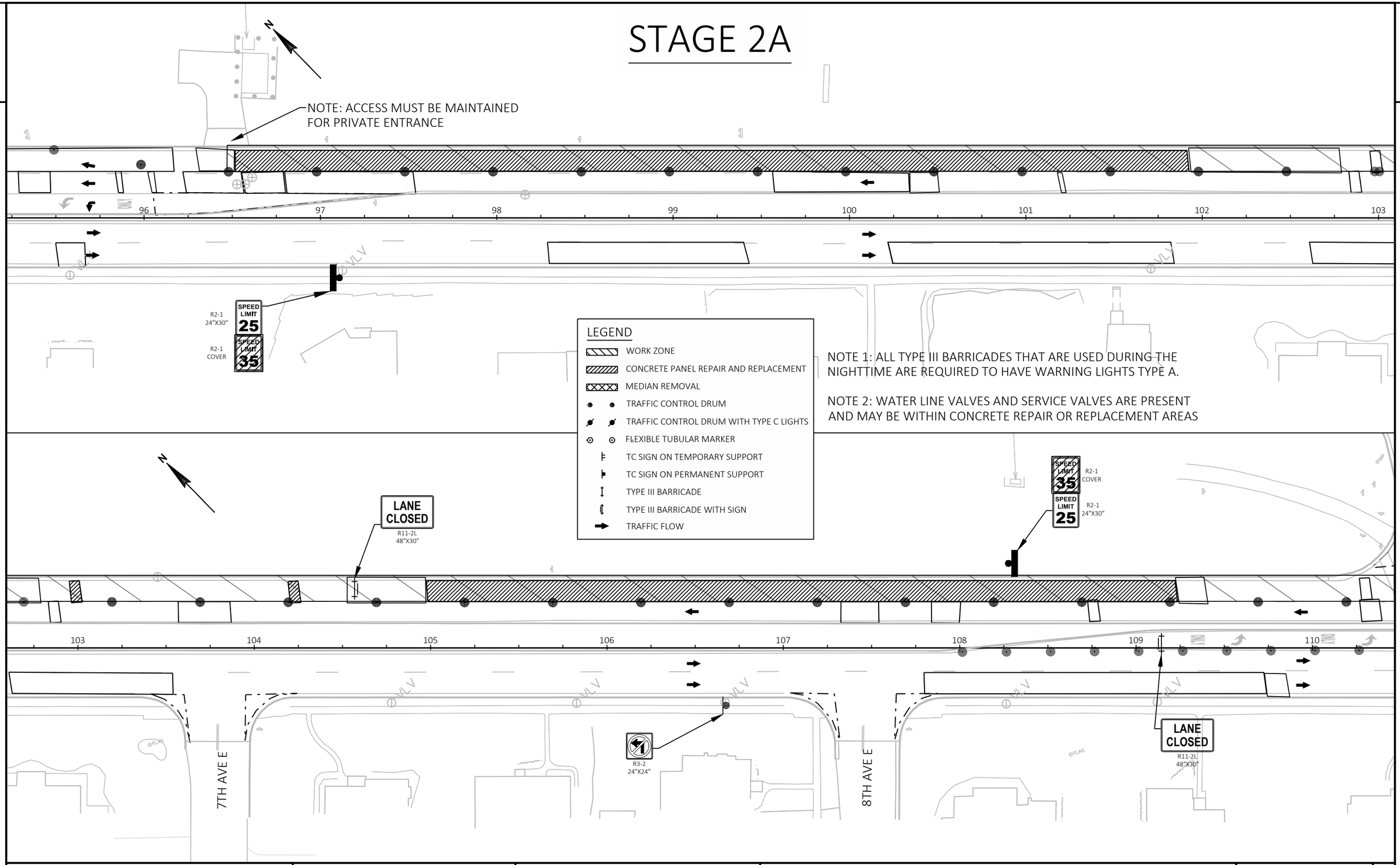
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 167	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.2A

PLOT DATE : 7/31/2019 3:00 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2A



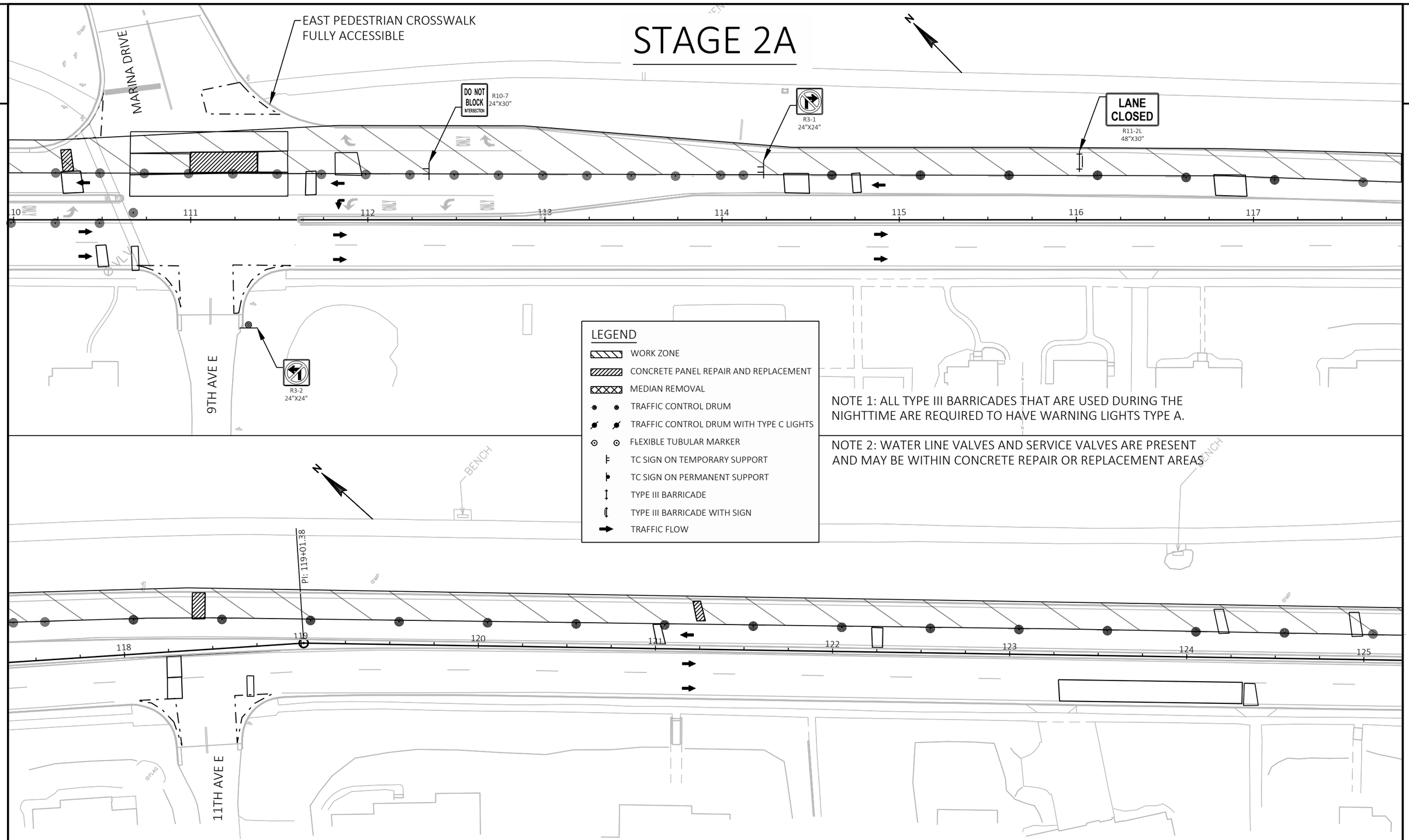
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 168	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.3A

PLOT DATE : 7/31/2019 3:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2A



LEGEND

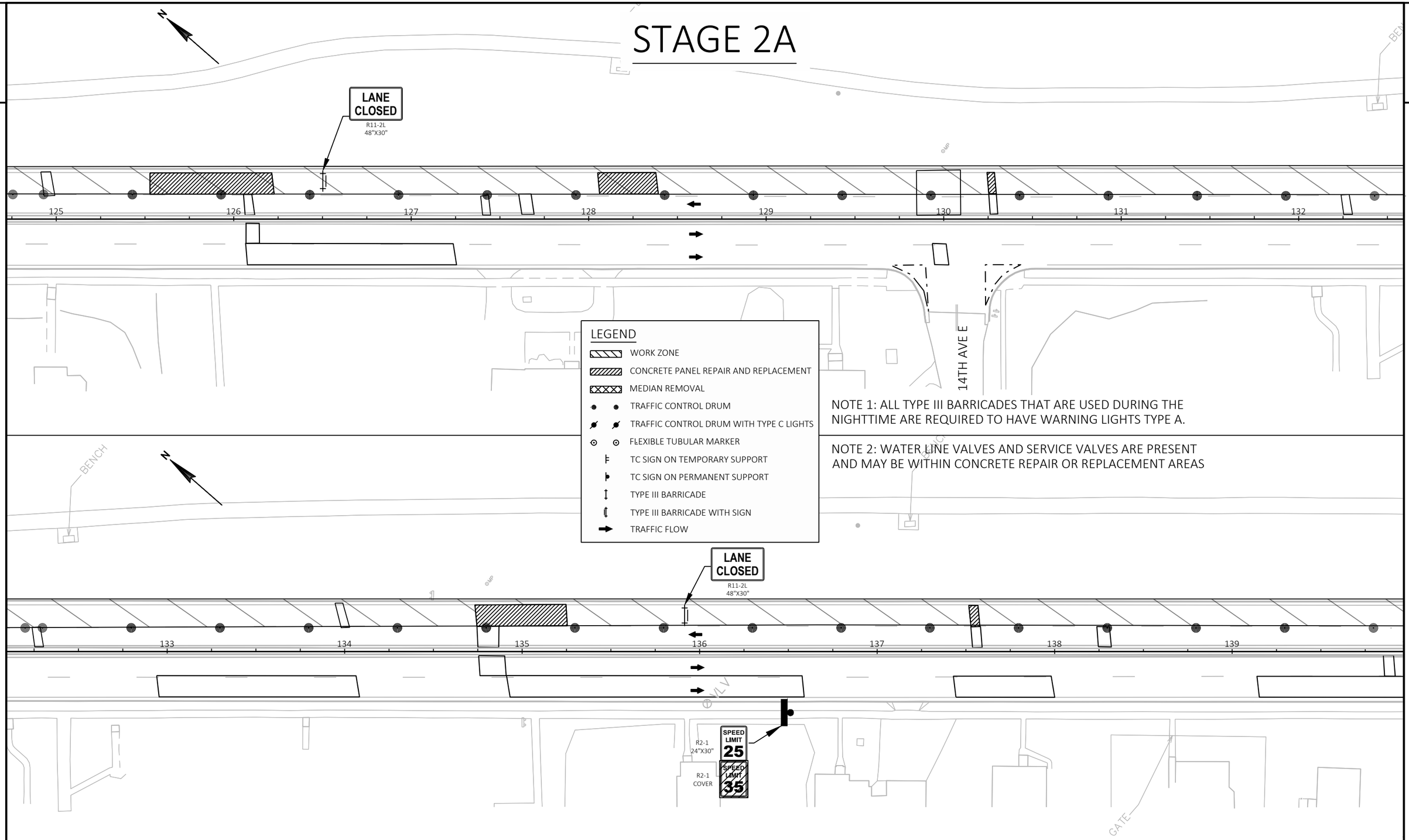
- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 169	E

STAGE 2A



NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

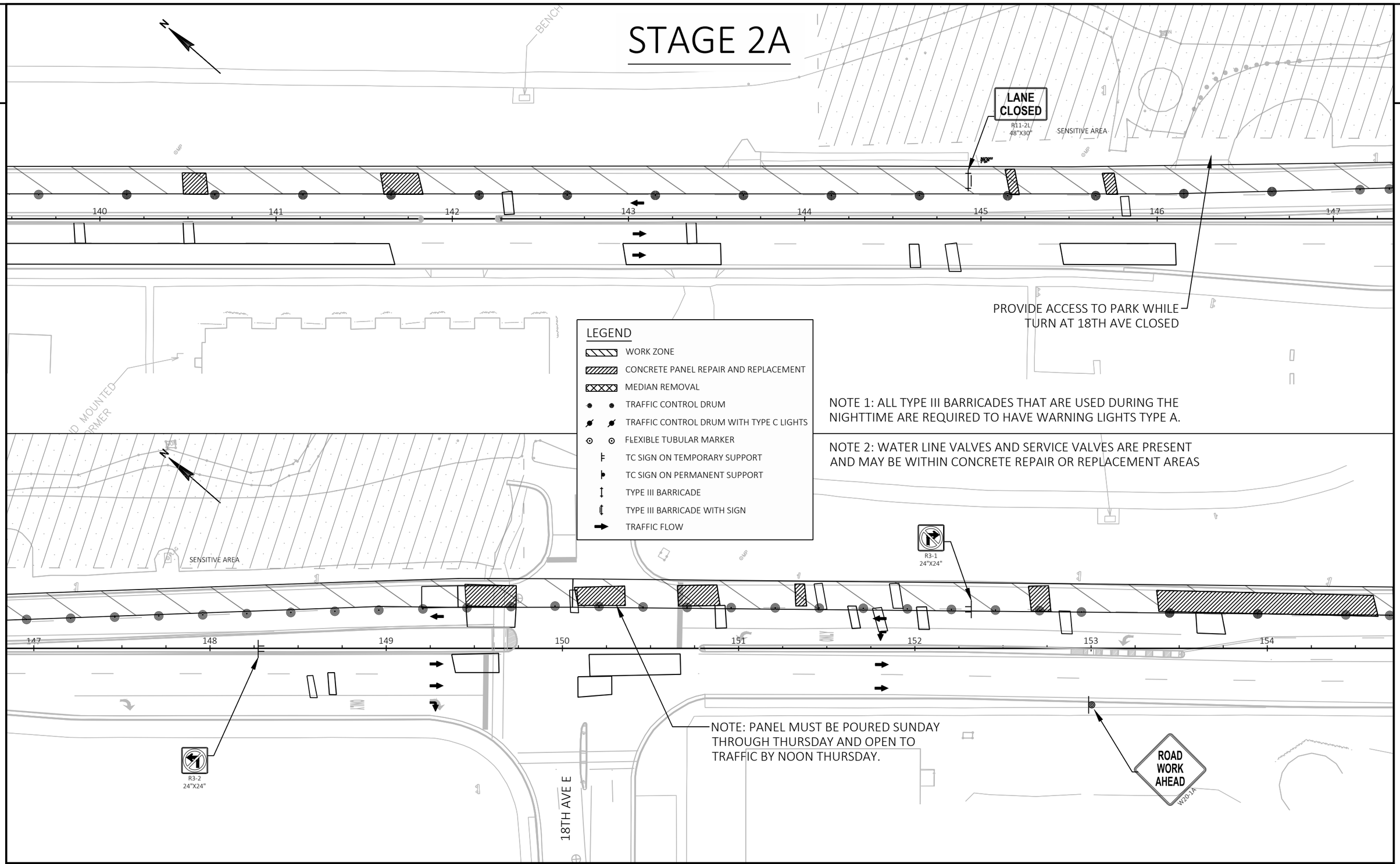
NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 170	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.5A

PLOT DATE : 7/31/2019 3:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 2A



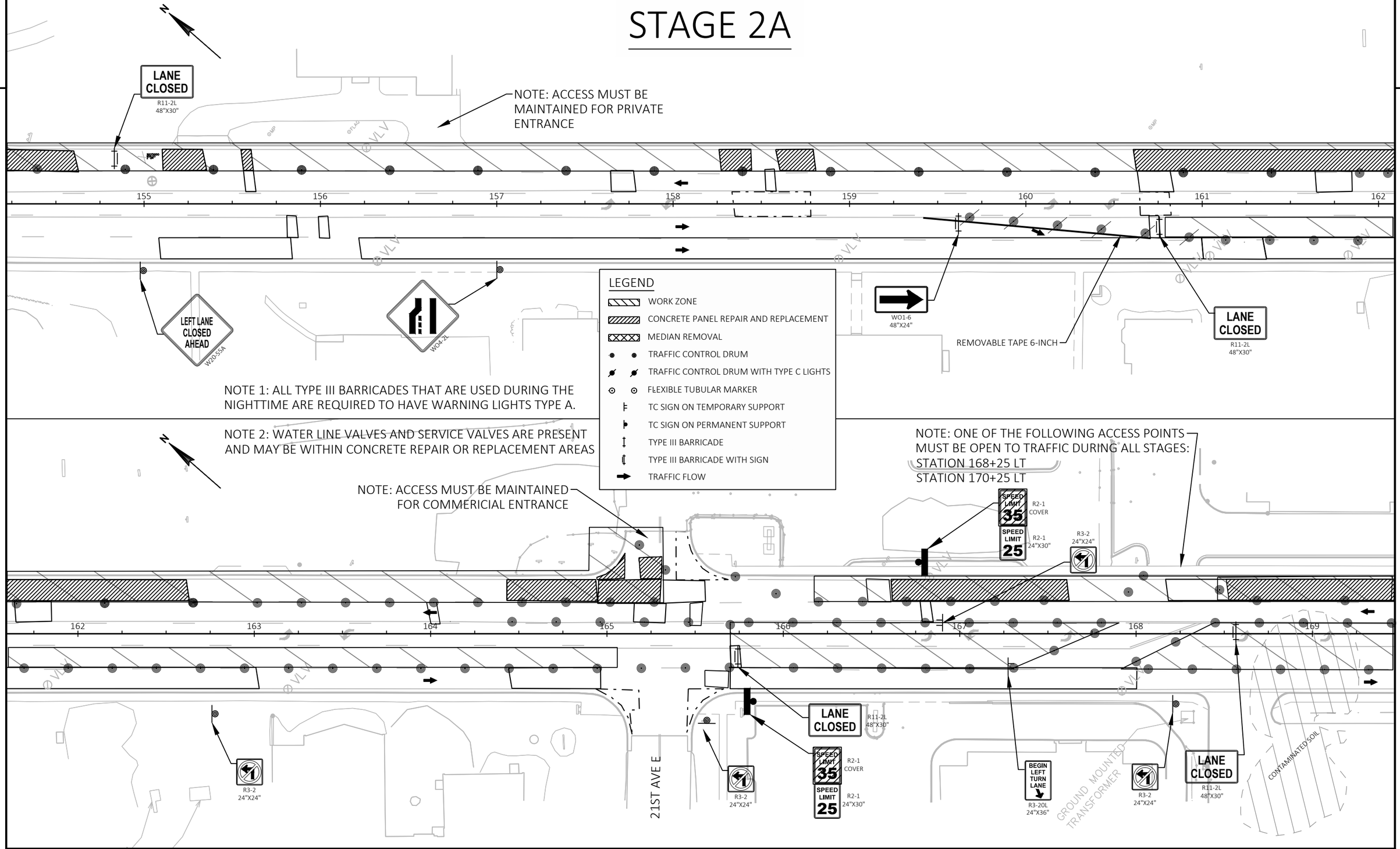
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 171	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.6A

PLOT DATE : 7/31/2019 3:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2A



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 172	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.7A

PLOT DATE : 7/31/2019 3:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2A

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURINGALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR COMMERICIAL AND RESIDENTIAL ENTRANCE

NOTE: ACCESS MUST BE MAINTAINED FOR RESIDENTS WHILE SIDEWALK IS REPLACED.

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED
R11-2
48"X30"

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

R3-2
24"X24"

WO1-6
48"X24"

REMOVABLE TAPE 6-INCH

WO1-4R

R3-2
24"X24"

22ND AVE E

23RD AVE E

TALL GRASS/TREE/BRUSH AREA

ALL GRASS AREA

69 170 171 172 173 174 175 176

177 178 179 180 181 182 183 184

PI: 180+32.12

R3-2
24"X24"

REMOVABLE TAPE 6-INCH

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

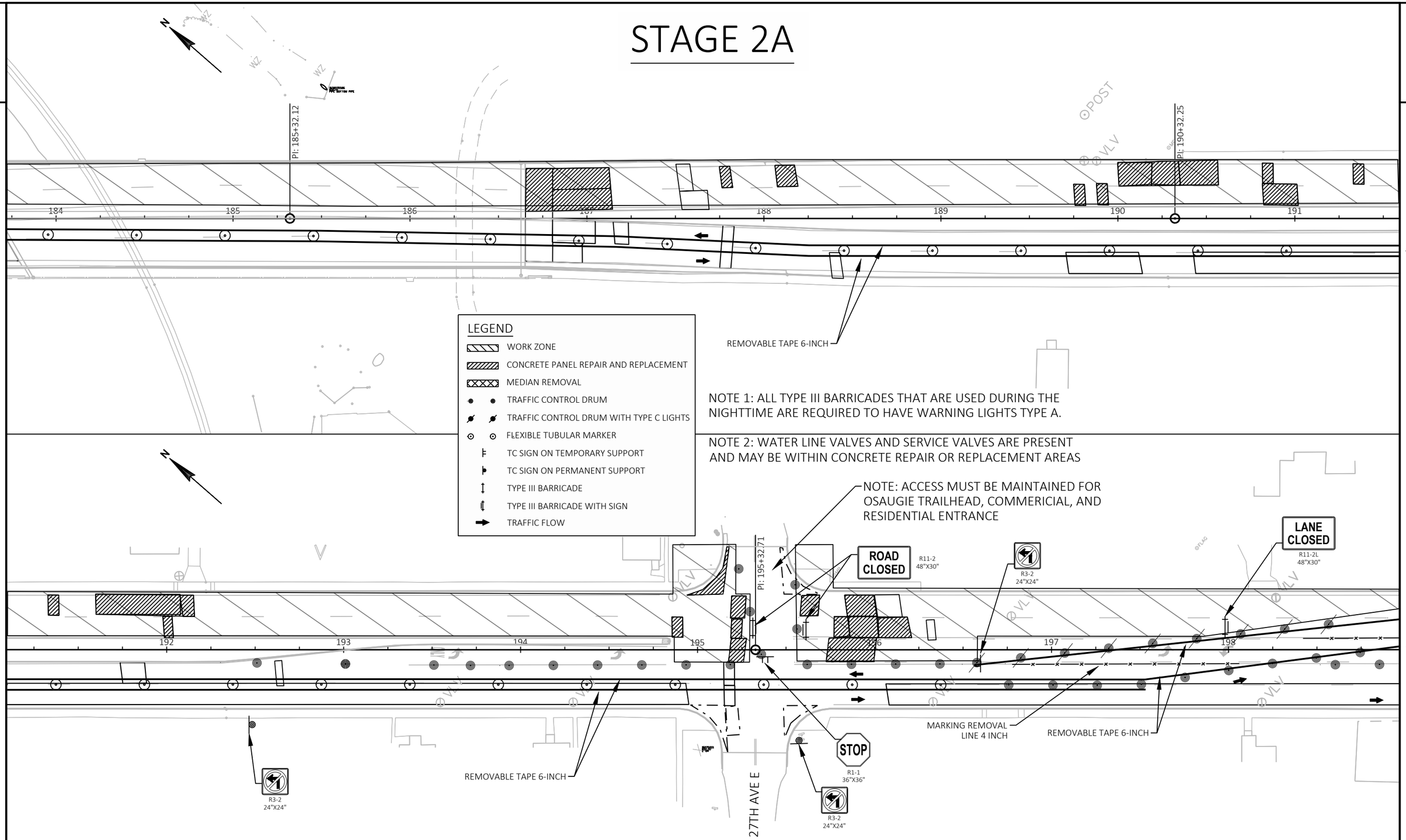
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 173	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.8A

PLOT DATE : 7/31/2019 3:01 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

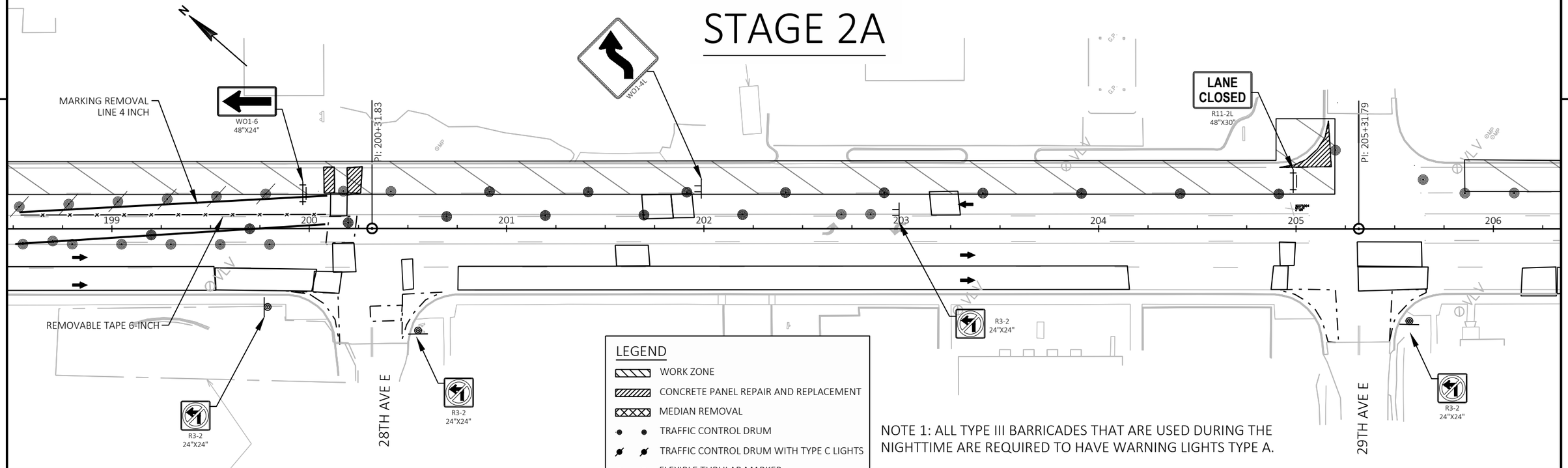
WISDOT/CADDS SHEET 42

STAGE 2A



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 174	E

STAGE 2A



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
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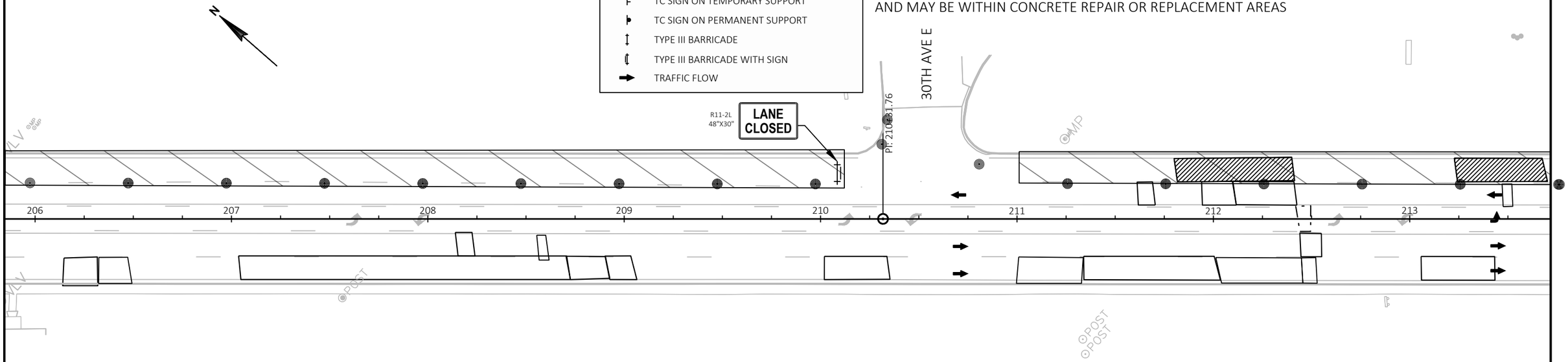


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 175	E

STAGE 2A

NEMADJI RIVER

SENSITIVE AREA

LANE CLOSED
R11-2L
48"X30"

PI: 215+31.72

DO NOT BLOCK INTERSECTION
R10-7
24"X30"

WO1-4L

LANE CLOSED
R11-2L
48"X30"

WO1-6
48"X24"

REMOVABLE TAPE 6-INCH

214 215 216 217 218 USH 2 219 220 221

31ST AVE E

WZ

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

W01-2R

ROAD WORK NEXT 2.5 MILES
G20-1
60"X24"

200' 200' 200'

RIGHT LANE CLOSED AHEAD
W20-5A

SPEED LIMIT 25
R2-1
24"X30"

221 222 223 224 225 226 227 228

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2A	SHEET 176	E

2

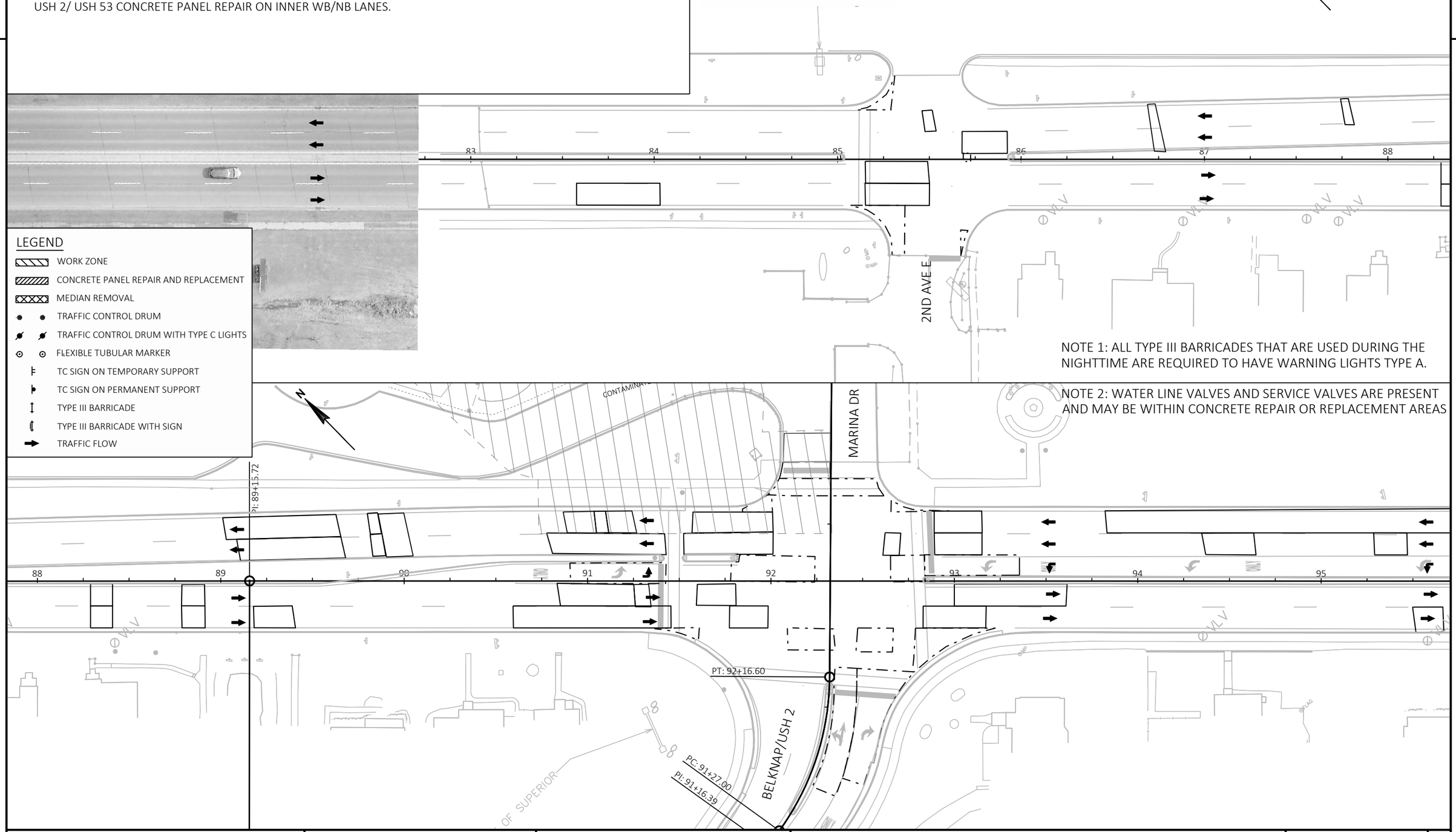
STAGE CONSTRUCTION WORK NOTES

STAGE 2B
USH 2/ USH 53 CONCRETE PANEL REPAIR ON INNER WB/NB LANES.

STAGE 2B

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 177	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.2B
PLOT DATE : 7/31/2019 3:02 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 2B

NOTE: ACCESS MUST BE MAINTAINED FOR PRIVATE ENTRANCE

96 97 98 99 100 101 102 103

R2-1 24"X30" SPEED LIMIT 25

R2-1 COVER SPEED LIMIT 35

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

R2-1 COVER SPEED LIMIT 35

R2-1 24"X30" SPEED LIMIT 25

103 104 105 106 107 108 109 110

7TH AVE E

8TH AVE E

R3-2 24"X24"

LANE CLOSED R11-2L 48"X30"

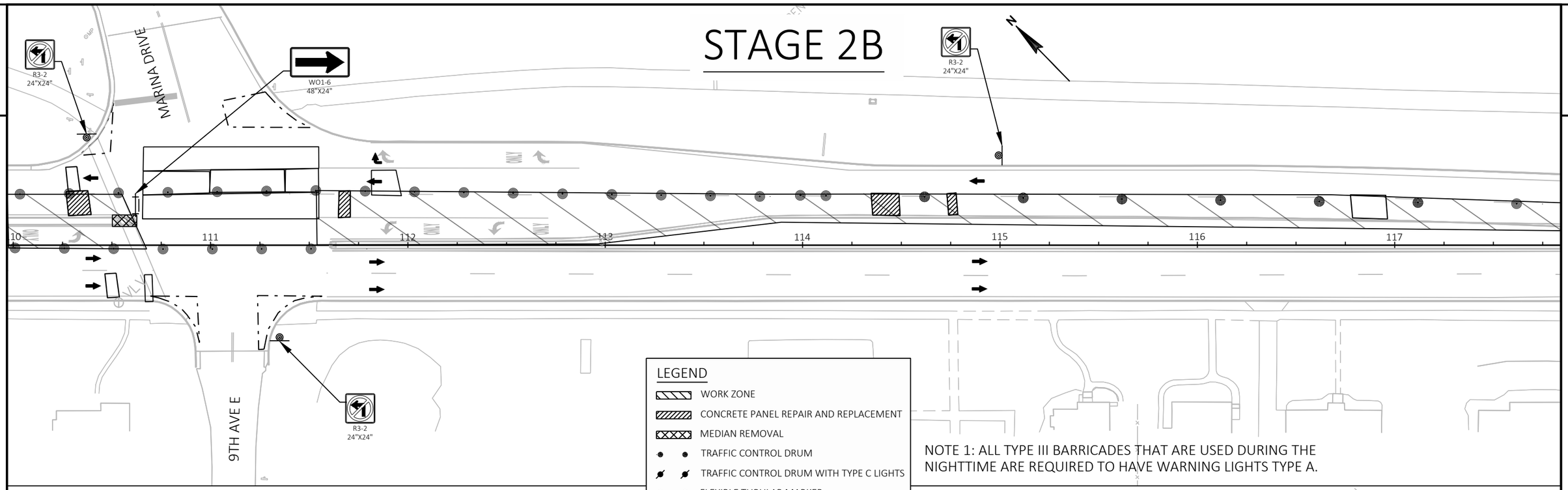
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 178	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.3B

PLOT DATE : 7/31/2019 3:02 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
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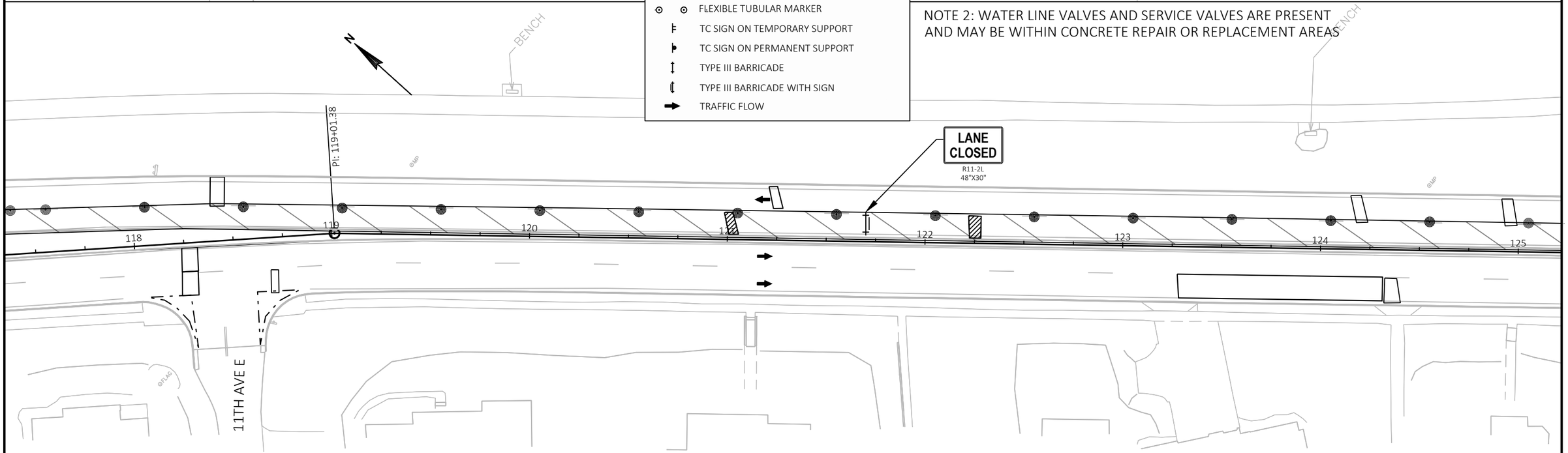


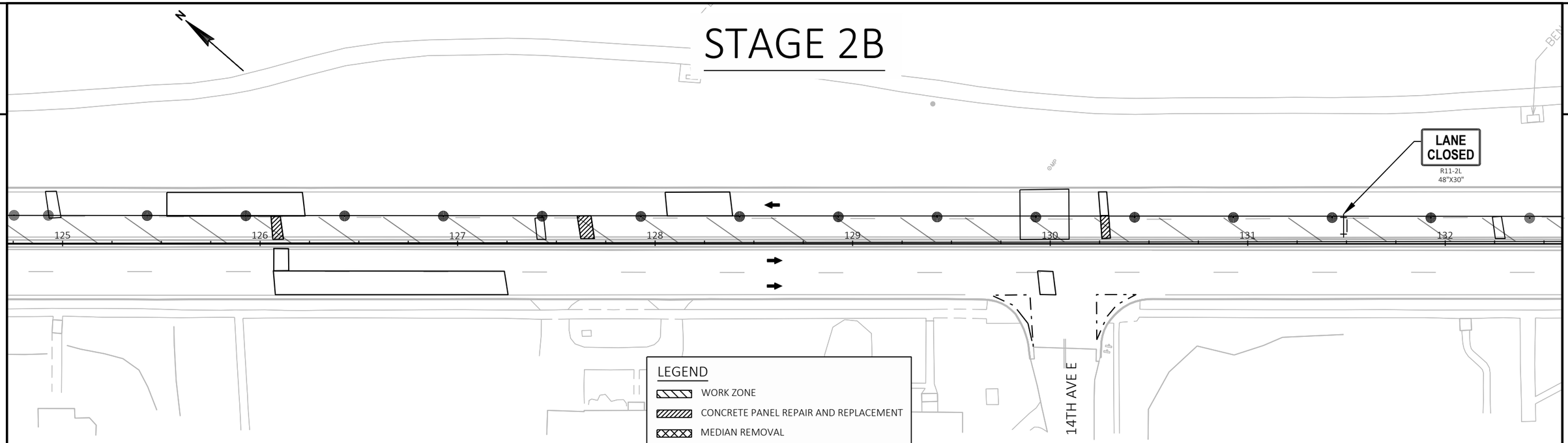
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL STAGE 2B	SHEET 179	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.4B

PLOT DATE : 7/31/2019 3:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 2B

2

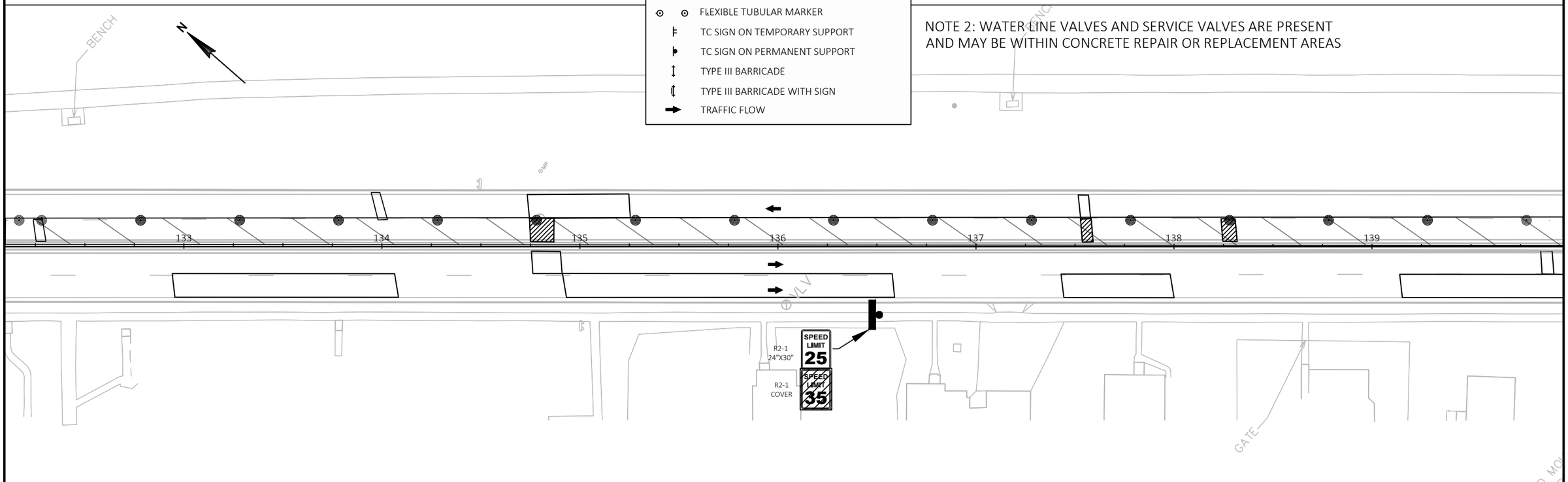


LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

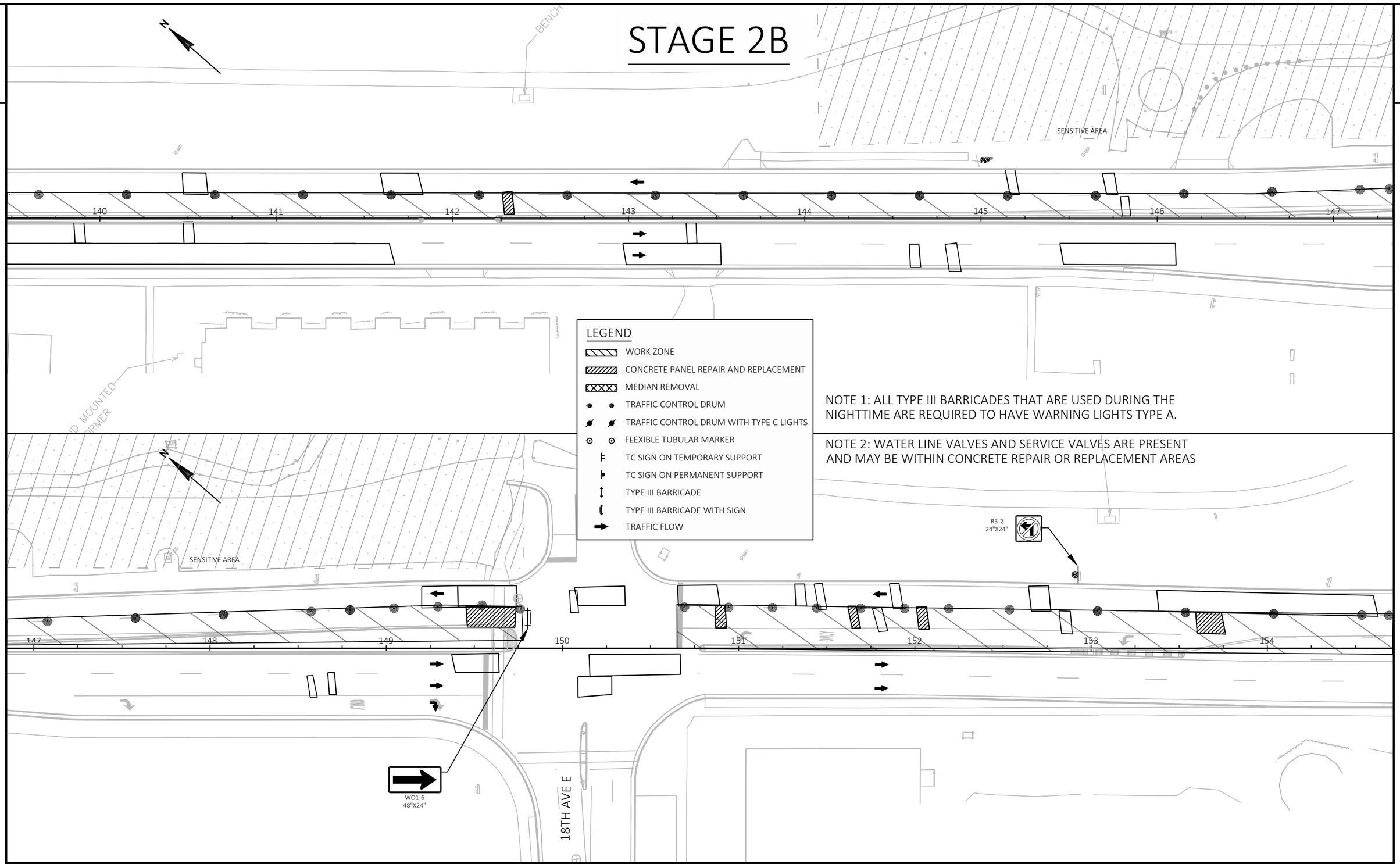


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 180	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.5B

PLOT DATE : 7/31/2019 3:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

STAGE 2B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
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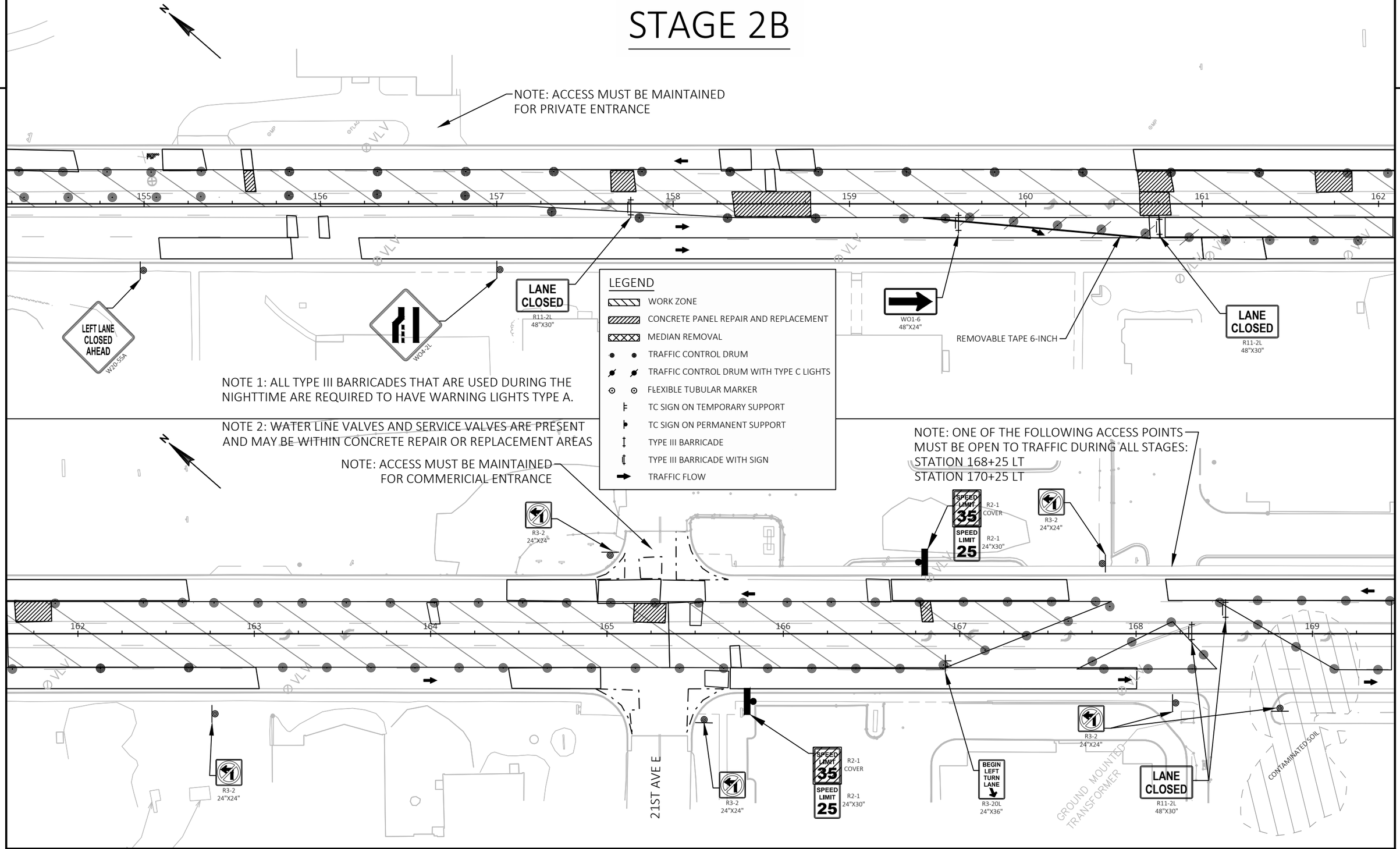
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 181	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.6B
PLOT DATE : 7/31/2019 3:03 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

STAGE 2B



NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 182	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.7B

PLOT DATE : 7/31/2019 3:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2B

NOTE: ONE OF THE FOLLOWING ACCESS POINTS MUST BE OPEN TO TRAFFIC DURING ALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR COMMERICIAL AND RESIDENTIAL ENTRANCE

NOTE: ACCESS MUST BE MAINTAINED FOR RESIDENTS WHILE SIDEWALK IS REPLACED.

R3-2 24"X24"

R3-2 24"X24"

LANE CLOSED R11-2L 48"X30"

BEGIN LEFT TURN LANE R3-20LL 24"X36"

REMOVABLE TAPE 6-INCH

MARKING REMOVAL LINE 4 INCH

TALL GRASS AREA

ROAD CLOSED R11-2 48"X30"

M4-4 24"X12"

TRUCK

R3-2 24"X24"

REMOVABLE TAPE 6-INCH

WO1-6 48"X24"

BEGIN LEFT TURN LANE R3-20L 24"X36"

WO1-6 48"X24"

22ND AVE E

23RD AVE E

169 170 171 172 173 174 175 176

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

TALL GRASS/TREE/BRUSH AREA

R3-2 24"X24"

PI: 180+32.12

177 178 179 180 181 182 183 184

REMOVABLE TAPE 6-INCH

WO1-4R

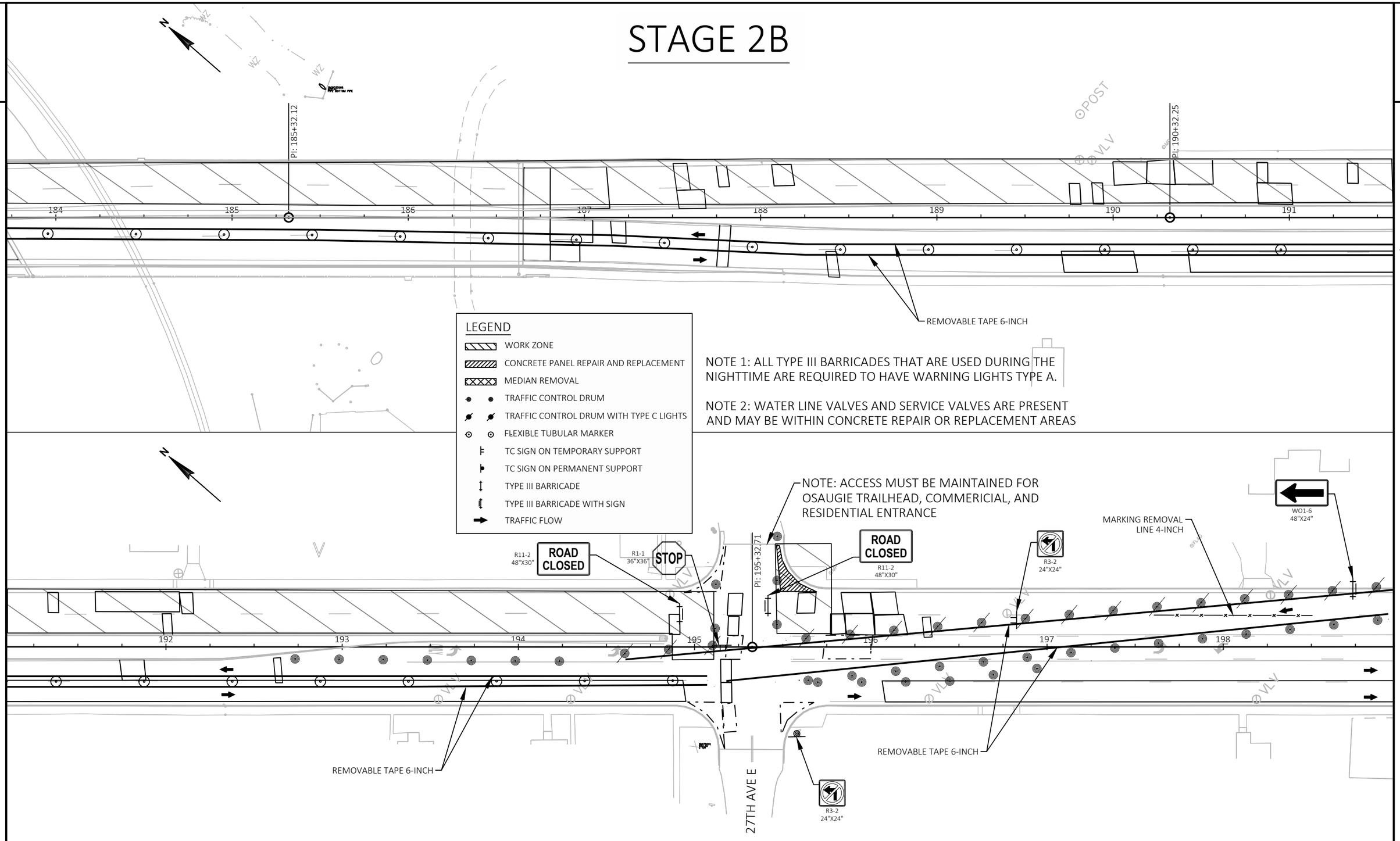
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 183	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.8B

PLOT DATE : 7/31/2019 3:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2B



NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

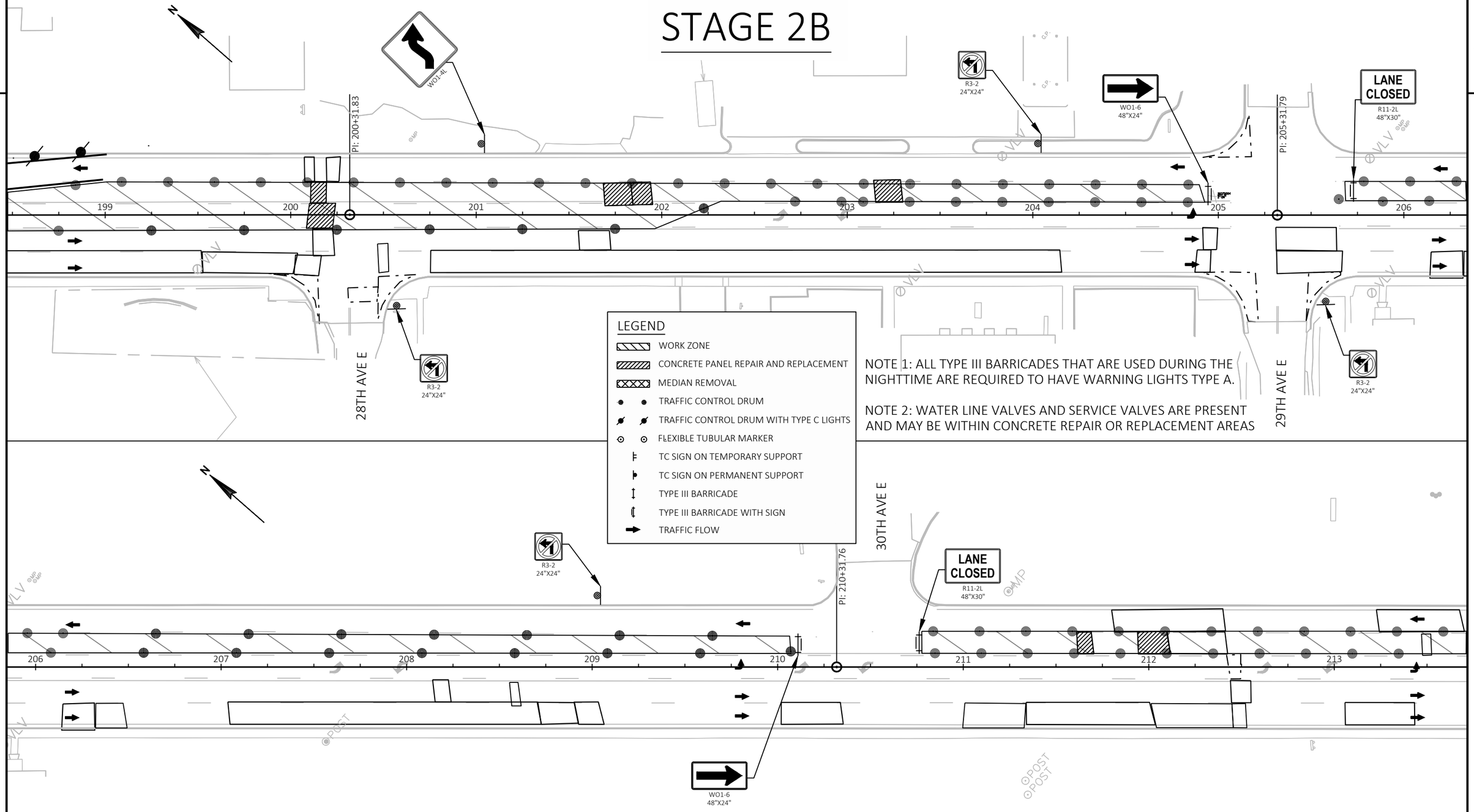
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 184	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.9B

PLOT DATE : 7/31/2019 3:03 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2B



LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 2B	SHEET 185	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.10B

PLOT DATE : 7/31/2019 3:04 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

STAGE 2B

NEMADJI RIVER

SENSITIVE AREA

SENSITIVE AREA

SENSITIVE AREA

31ST AVE E

PI: 215+31.72

WO1-6
48"X24"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

LANE CLOSED
R11-2L
48"X30"

REMOVABLE TAPE 6-INCH

WO1-6
48"X24"

MARKING REMOVAL LINE 4 INCH

USH 2

214 215 216 217 218 219 220 221

LEGEND

- WORK ZONE
- CONCRETE PANEL REPAIR AND REPLACEMENT
- MEDIAN REMOVAL
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHTS
- FLEXIBLE TUBULAR MARKER
- TC SIGN ON TEMPORARY SUPPORT
- TC SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC FLOW

NOTE 1: ALL TYPE III BARRICADES THAT ARE USED DURING THE NIGHTTIME ARE REQUIRED TO HAVE WARNING LIGHTS TYPE A.

NOTE 2: WATER LINE VALVES AND SERVICE VALVES ARE PRESENT AND MAY BE WITHIN CONCRETE REPAIR OR REPLACEMENT AREAS

W04-2L

ROAD WORK NEXT 2.5 MILES
G20-1
60"X24"

LEFT LANE CLOSED AHEAD
W20-5SA

SPEED LIMIT 25
R2-1
24"X30"

200' 200' 200'

221 222 223 224 225 226 227 228

END ROAD WORK
G20-2A
48"X24"

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL STAGE 2B	SHEET 186	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025002_TC_74.DWG
LAYOUT NAME - S2.11B

PLOT DATE : 7/31/2019 3:04 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

STAGE CONSTRUCTION WORK NOTES

STAGE 3

PARTIAL DEPTH CONCRETE REMOVAL, OVERLAY WITH HMA AND SMA. ONE CONTINUOUS LANE IN EACH DIRECTION MUST BE OPEN AT ALL TIMES TO TRAVELING PUBLIC. ONLY CROSS TRAFFIC MAY BE ON MILLED SURFACES. BOTH ASPHALTIC LIFTS REQUIRED BEFORE OPENING TO TRAVELING PUBLIC.

ASPHALTIC WEDGING IS TO BE USED AT ACCESS POINTS WHERE TRAFFIC IS EXPECTED TO CROSS TO OR FROM MILLED SURFACE

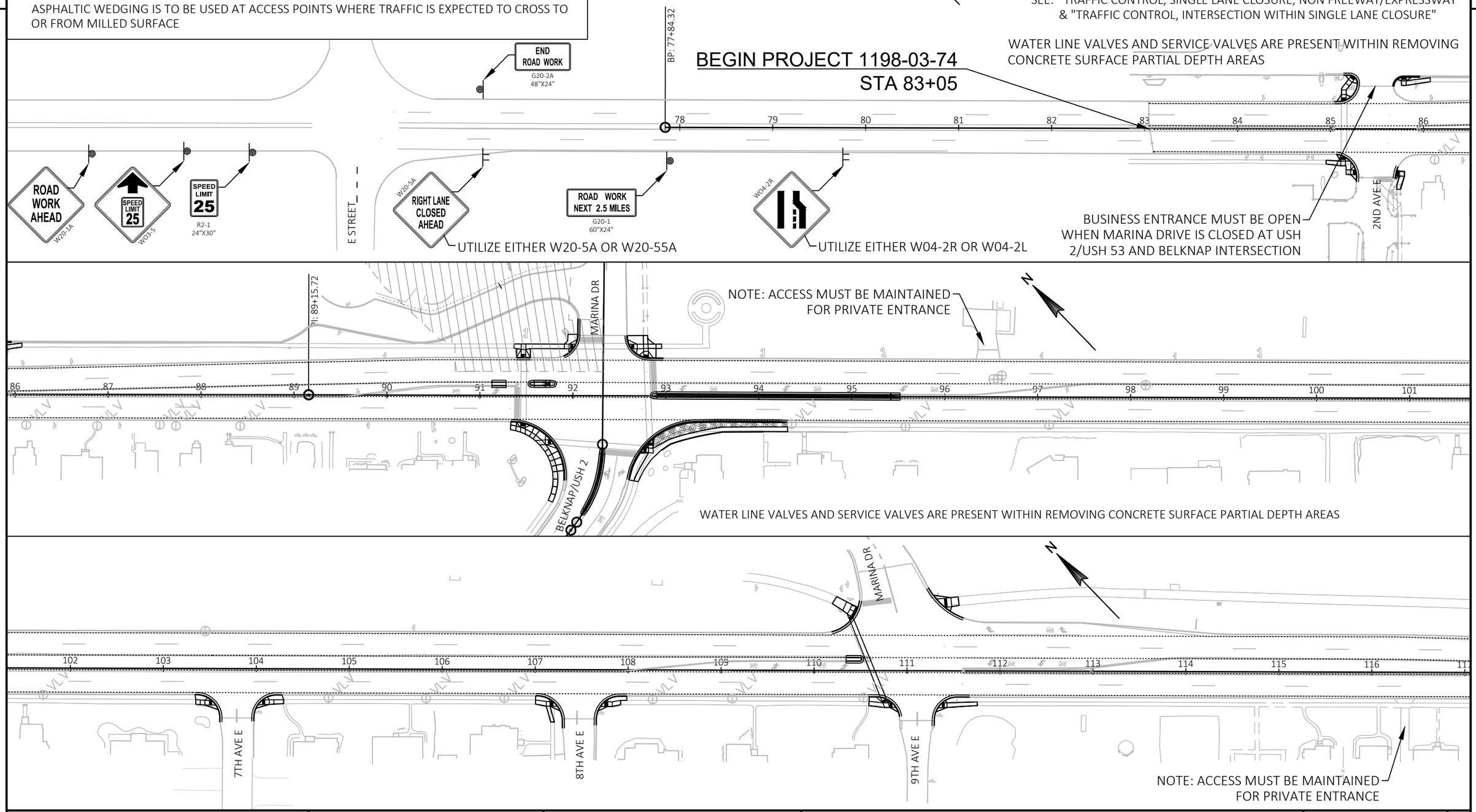
STAGE 3

TURN LANES AND TWO-WAY LEFT-TURN LANES NOT INCLUDED IN 204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH

ASPHALT WEDGE REQUIRED FOR ACCESS AS NECESSARY.

UTILIZE STANDARD DETAIL DRAWINGS AS NECESSARY
SEE: "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY"
& "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

WATER LINE VALVES AND SERVICE VALVES ARE PRESENT WITHIN REMOVING CONCRETE SURFACE PARTIAL DEPTH AREAS



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 3	SHEET 187	E

STAGE 3

2

2

PI: 119+01.38

11TH AVE E

14TH AVE E

NOTE: ACCESS MUST BE MAINTAINED FOR PRIVATE ENTRANCE

NOTE: ACCESS MUST BE MAINTAINED FOR PRIVATE ENTRANCE

NOTE: ACCESS MUST BE MAINTAINED FOR PRIVATE ENTRANCE

WATER LINE VALVES AND SERVICE VALVES ARE PRESENT WITHIN REMOVING CONCRETE SURFACE PARTIAL DEPTH AREAS

NOTE: ACCESS MUST BE MAINTAINED FOR PRIVATE ENTRANCE

18TH AVE E

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 3	SHEET 188	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025003_TC_74.DWG
LAYOUT NAME - S3.02

PLOT DATE : 7/31/2019 4:48 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

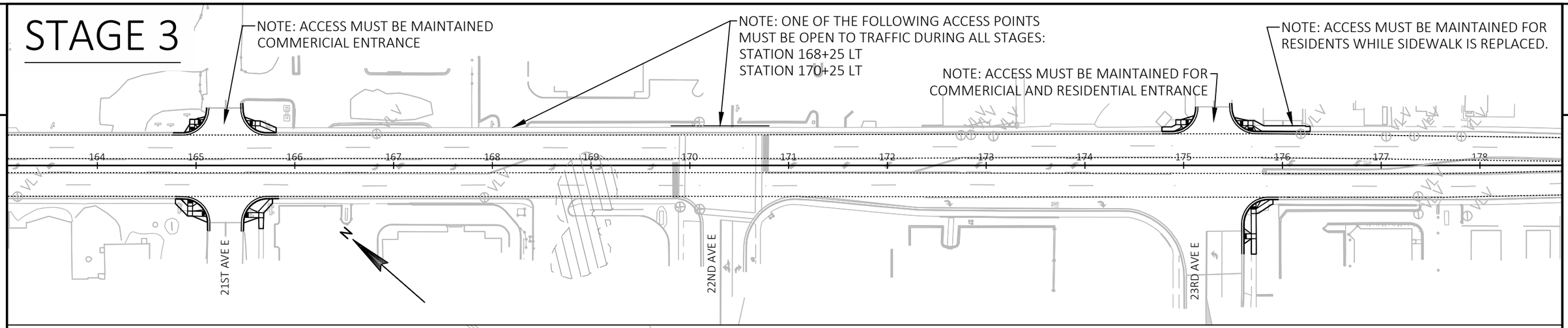
STAGE 3

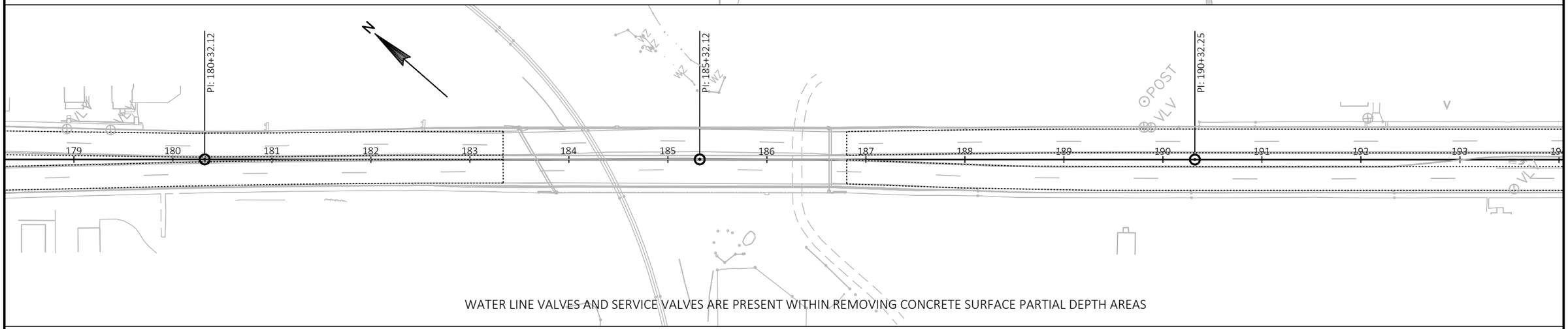
NOTE: ACCESS MUST BE MAINTAINED
COMMERICIAL ENTRANCE

NOTE: ONE OF THE FOLLOWING ACCESS POINTS
MUST BE OPEN TO TRAFFIC DURING ALL STAGES:
STATION 168+25 LT
STATION 170+25 LT

NOTE: ACCESS MUST BE MAINTAINED FOR
COMMERICIAL AND RESIDENTIAL ENTRANCE

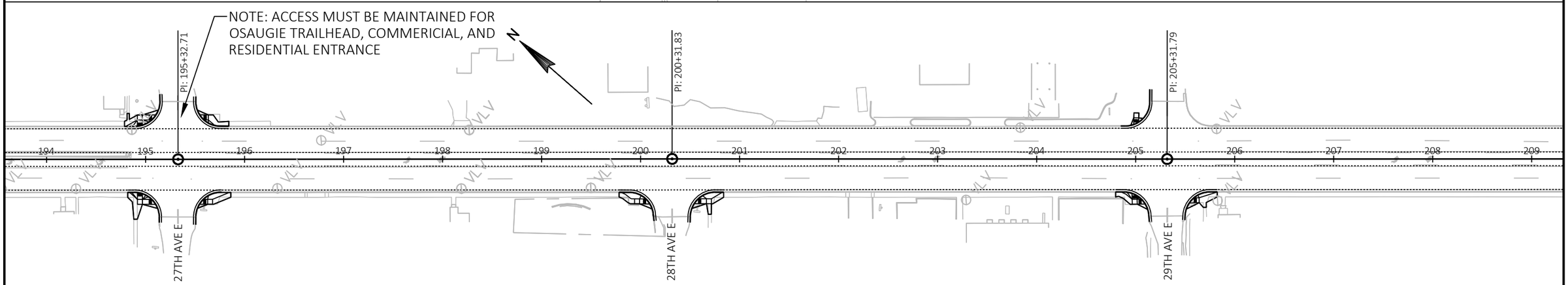
NOTE: ACCESS MUST BE MAINTAINED FOR
RESIDENTS WHILE SIDEWALK IS REPLACED.





WATER LINE VALVES AND SERVICE VALVES ARE PRESENT WITHIN REMOVING CONCRETE SURFACE PARTIAL DEPTH AREAS

NOTE: ACCESS MUST BE MAINTAINED FOR
OSAUGIE TRAILHEAD, COMMERICIAL, AND
RESIDENTIAL ENTRANCE



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL STAGE 3	SHEET 189	E

2

STAGE 3

STAGE CONSTRUCTION WORK NOTES

STAGE 3

PARTIAL DEPTH CONCRETE REMOVAL, OVERLAY WITH HMA AND SMA. ONE CONTINUOUS LANE IN EACH DIRECTION MUST BE OPEN AT ALL TIMES TO TRAVELING PUBLIC. ONLY CROSS TRAFFIC MAY BE ON MILLED SURFACES. BOTH ASPHALTIC LIFTS REQUIRED BEFORE OPENING TO TRAVELING PUBLIC.

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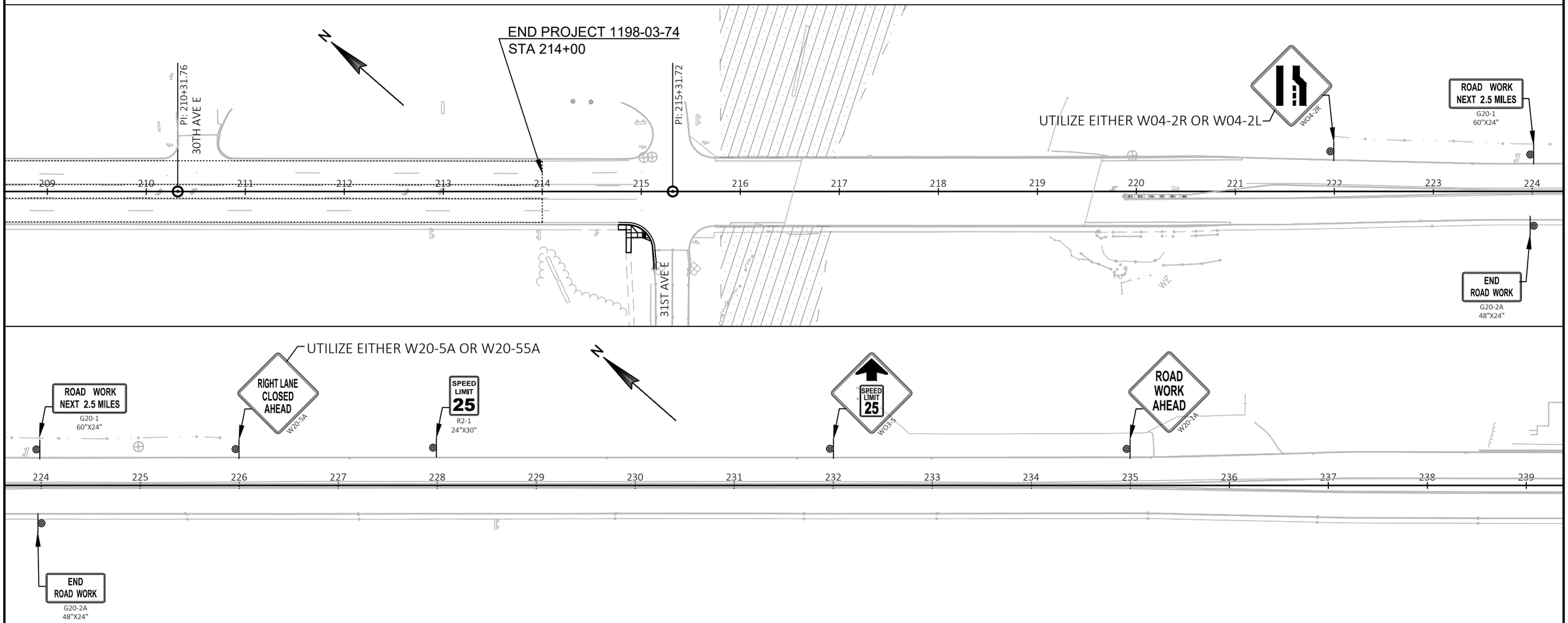
"TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE"

WATER LINE VALVES AND SERVICE VALVES ARE PRESENT WITHIN REMOVING CONCRETE SURFACE PARTIAL DEPTH AREAS



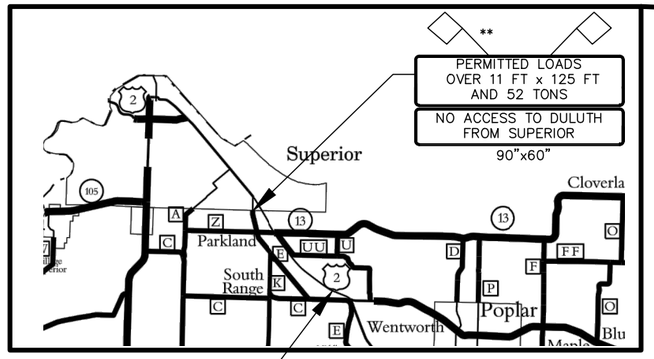
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	TRAFFIC CONTROL	STAGE 3	SHEET 190	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\025003_TC_74.DWG
LAYOUT NAME - S3.04

PLOT DATE : 7/31/2019 4:49 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

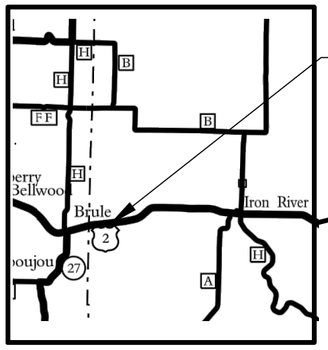
WISDOT/CADDS SHEET 42

**FLAGS ARE INCIDENTAL TO ITEM 643.1000

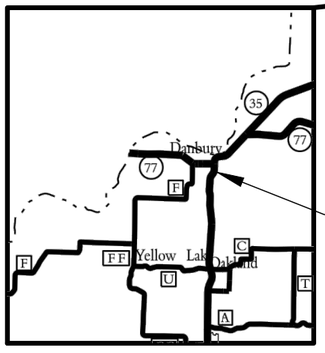


**
PERMITTED LOADS
OVER 11 FT x 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
90"x60"

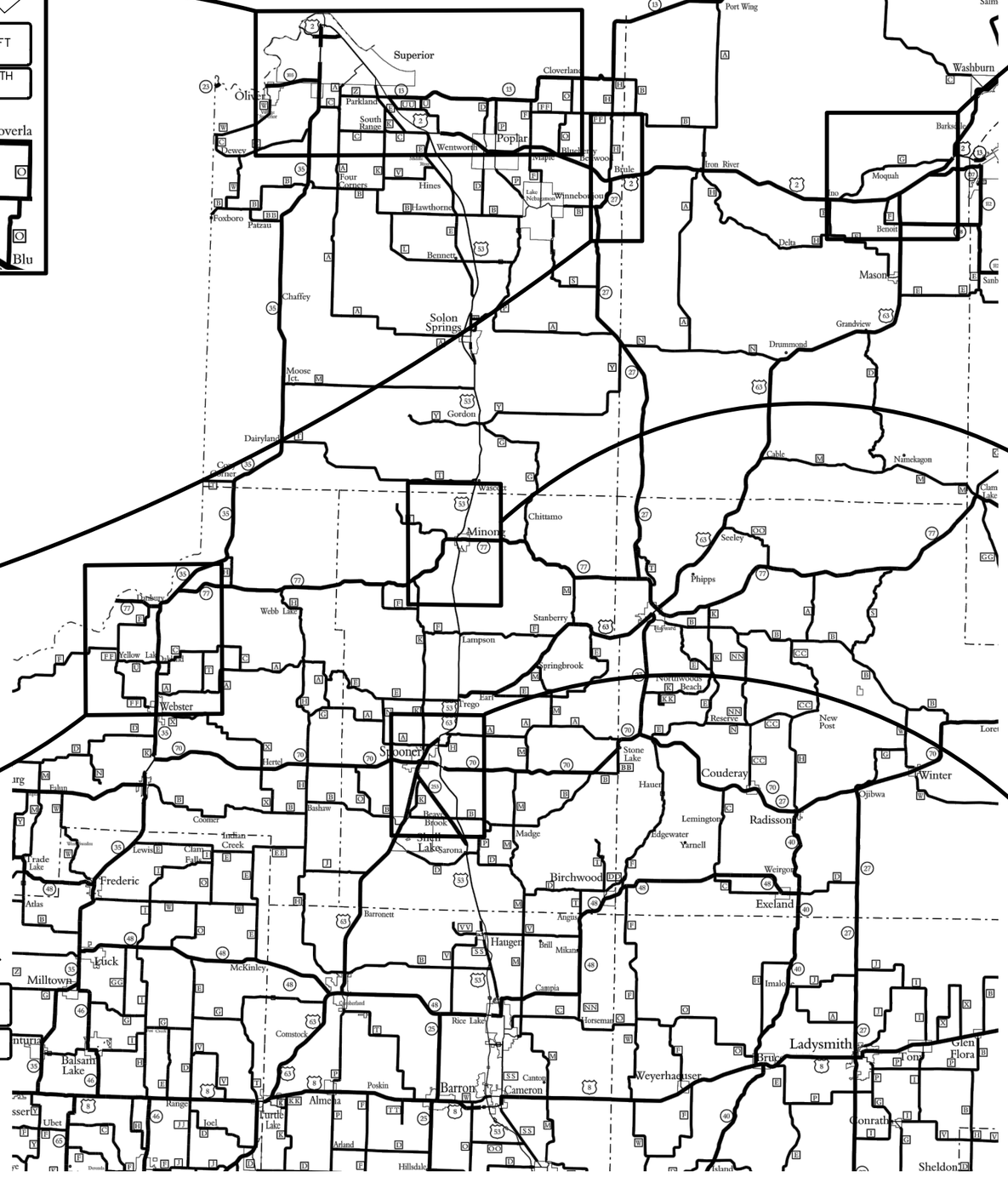
**
PERMITTED LOADS
OVER 11 FT X 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
120"x78"



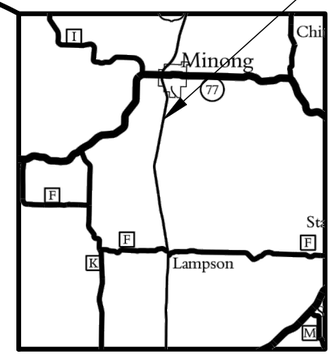
**
PERMITTED LOADS
OVER 11 FT X 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
120"x78"



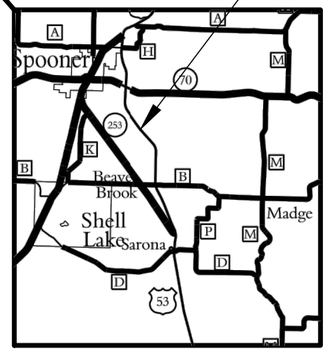
**
PERMITTED LOADS
OVER 11 FT x 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
90"x60"



**
PERMITTED LOADS
OVER 11 FT X 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
120"x78"



**
PERMITTED LOADS
OVER 11 FT X 125 FT
AND 52 TONS
NO ACCESS TO DULUTH
FROM SUPERIOR
120"x78"



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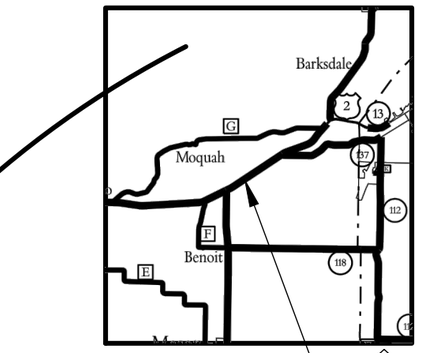
NO ACCESS TO DULUTH
FROM SUPERIOR
120"x78"

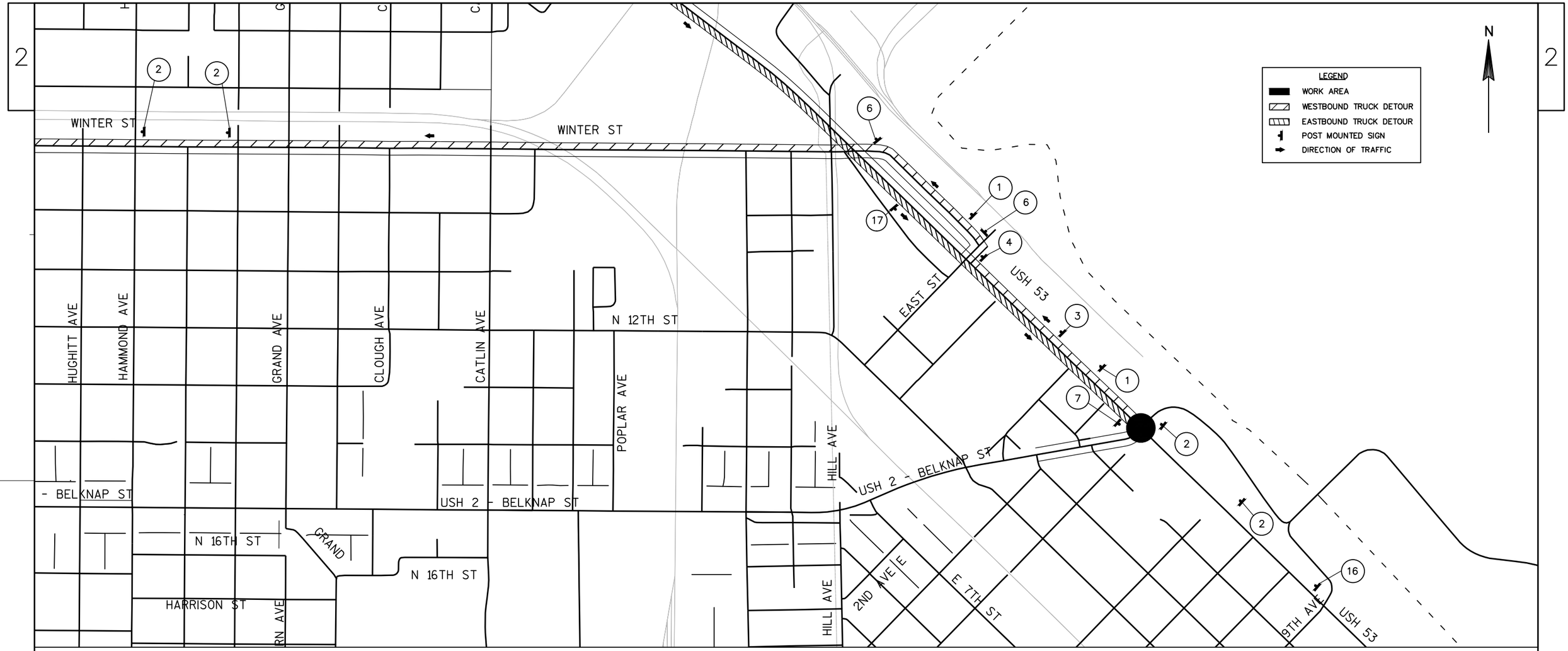


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	DETOURS	SHEET 191 LE

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\027000_DT.DWG
LAYOUT NAME – TRUCK ADVANCED SIGNING

PLOT DATE : 9/10/2019 8:55 AM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : _____ PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42



GENERAL DETOUR NOTES:

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

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

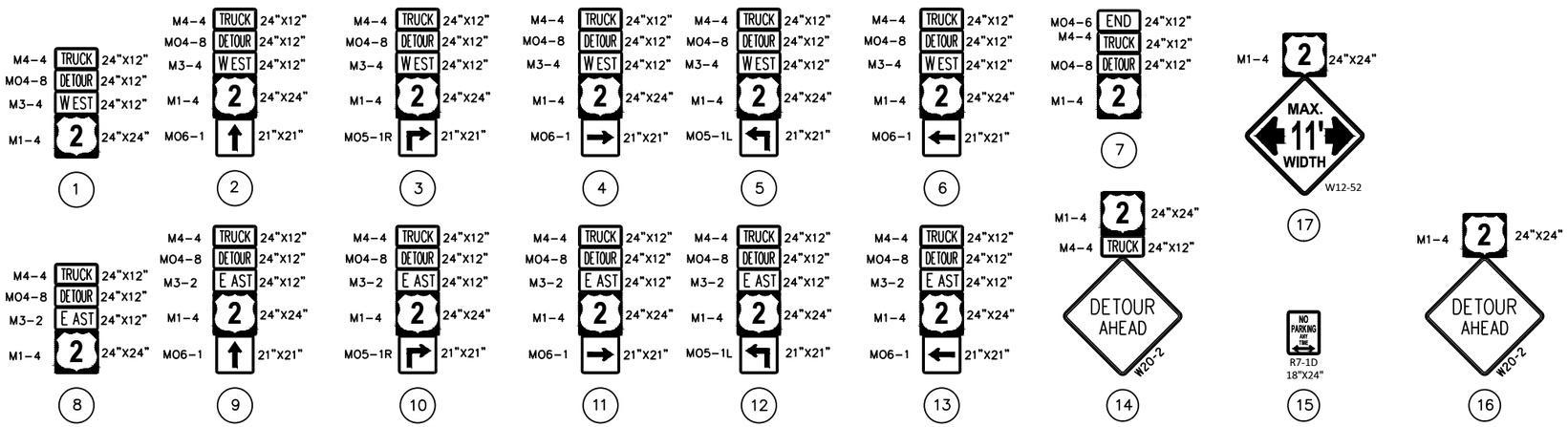
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

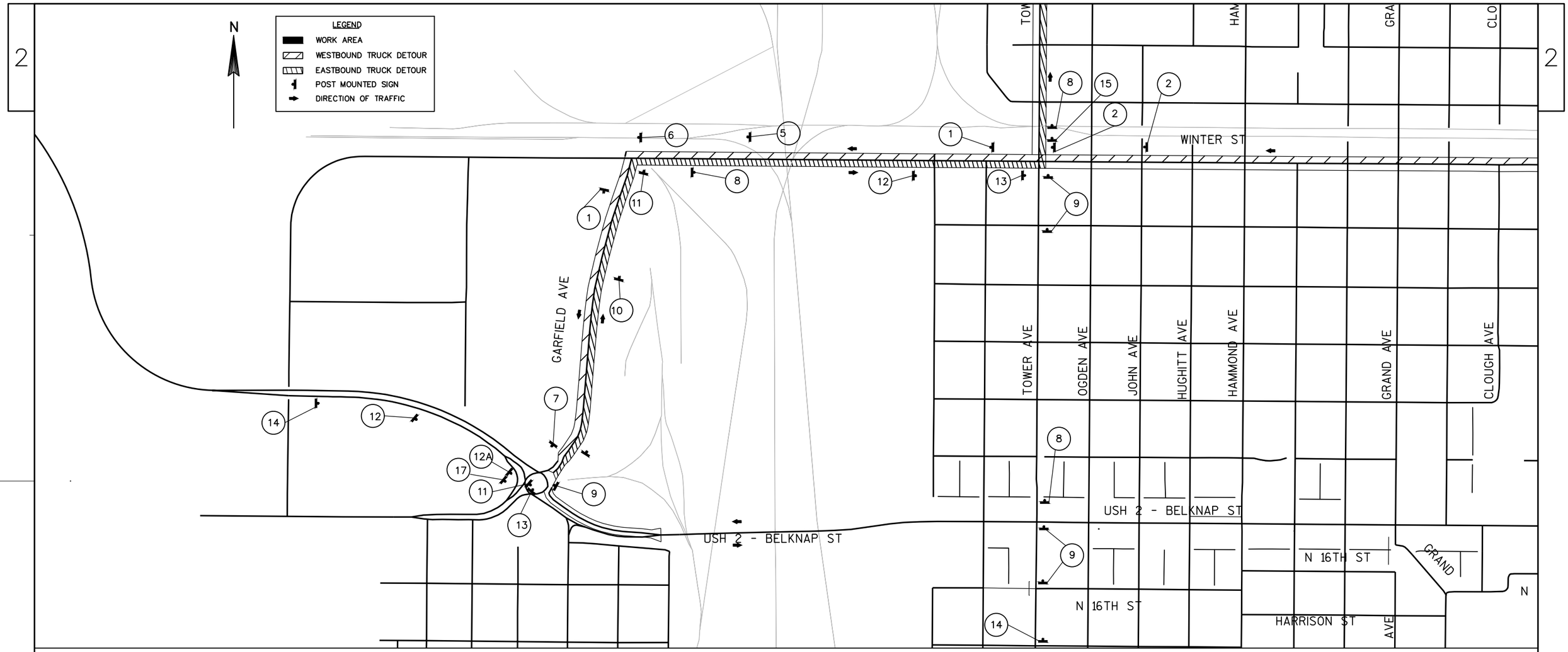
"WO" SIGNS ARE THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

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

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	DETOURS - TRUCK DETOUR	SHEET 192 LE



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1
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"

2
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

3
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"
MO5-1R 21"X21"

4
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

5
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"
MO5-1L 21"X21"

6
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-4 WEST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

7
MO4-6 END 24"X12"
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M1-4 2 24"X24"

8
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"

9
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

10
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
MO5-1R 21"X21"

11
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

12
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
MO5-1L 21"X21"

12A
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
R3-60X 30"X36"

13
M4-4 TRUCK 24"X12"
MO4-8 DETOUR 24"X12"
M3-2 EAST 24"X12"
M1-4 2 24"X24"
MO6-1 21"X21"

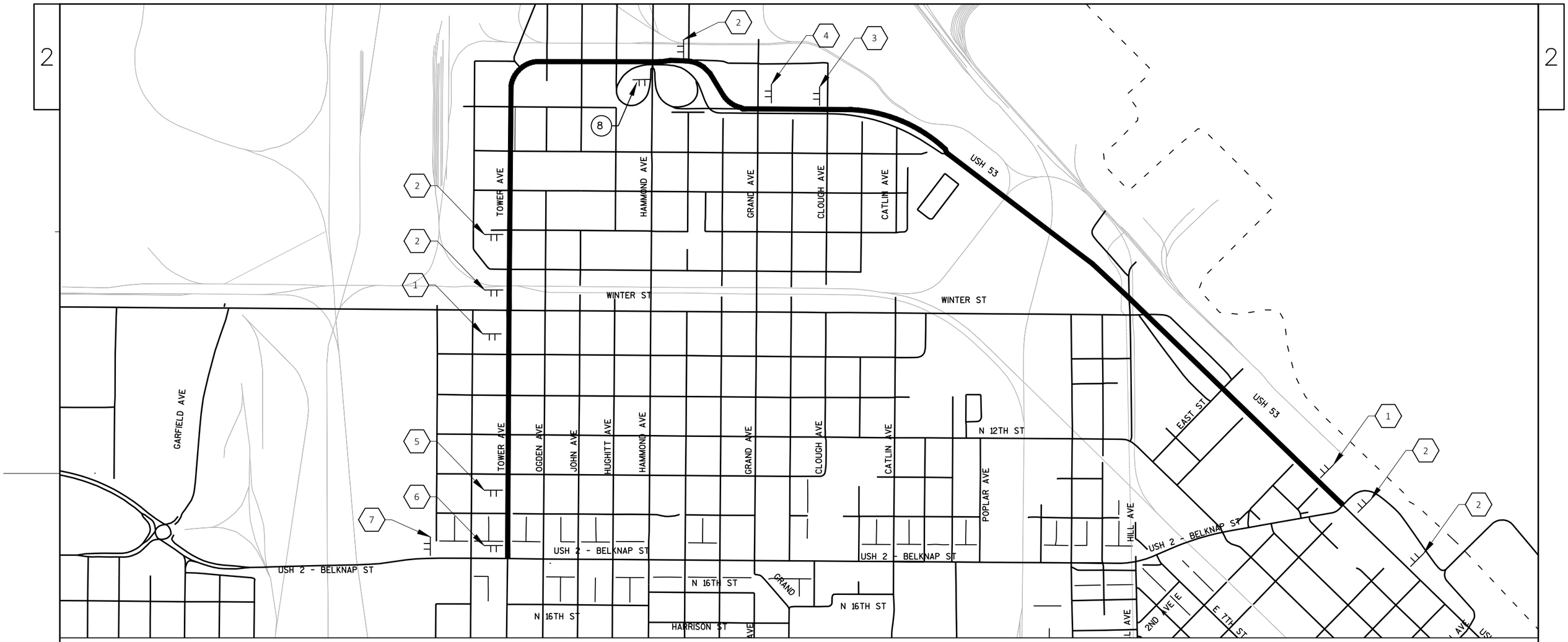
14
M4-4 TRUCK 24"X12"
DETOUR AHEAD
W20-2

15
NO PARKING ANY TIME
R7-1D
18"X24"

16
DETOUR AHEAD
W20-2

17
M1-4 2 24"X24"
MAX. 11' WIDTH
W12-52

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	DETOURS - TRUCK DETOUR	SHEET : 193 LE



GENERAL DETOUR NOTES:

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

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A.

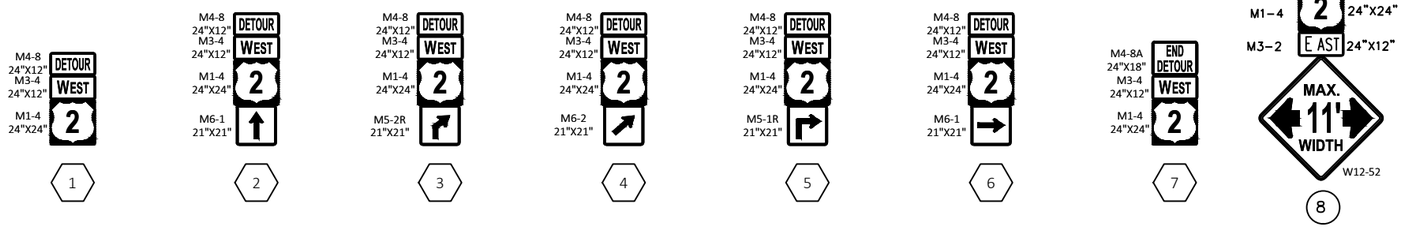
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

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

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

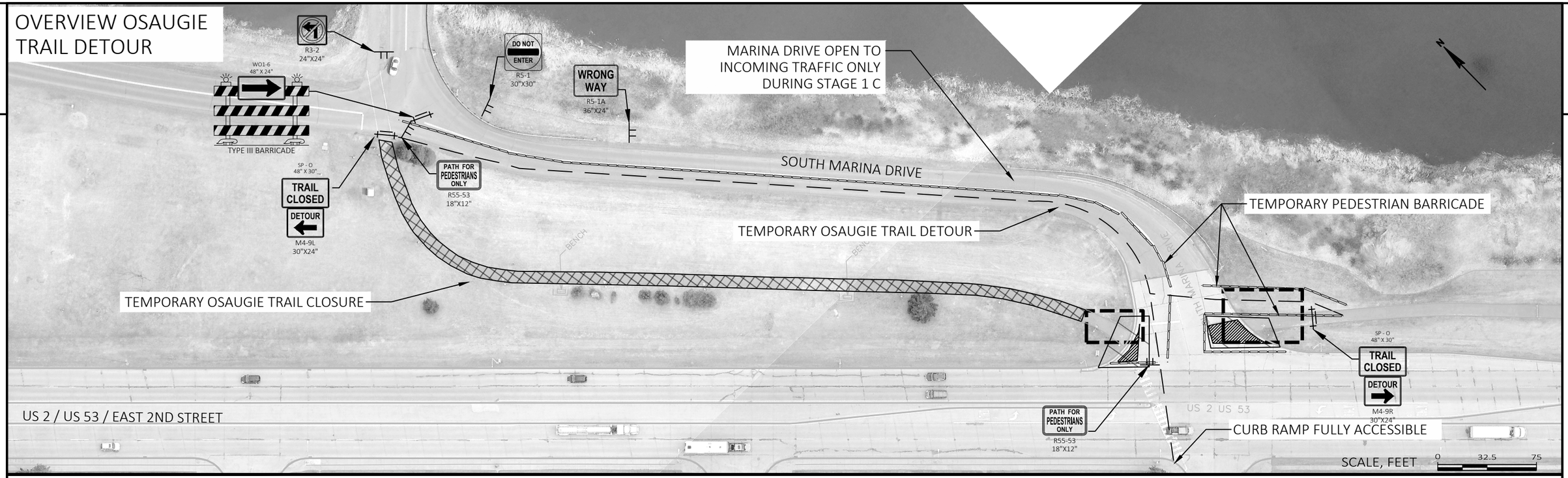
ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	DETOURS - CAR DETOUR	SHEET 194 LE

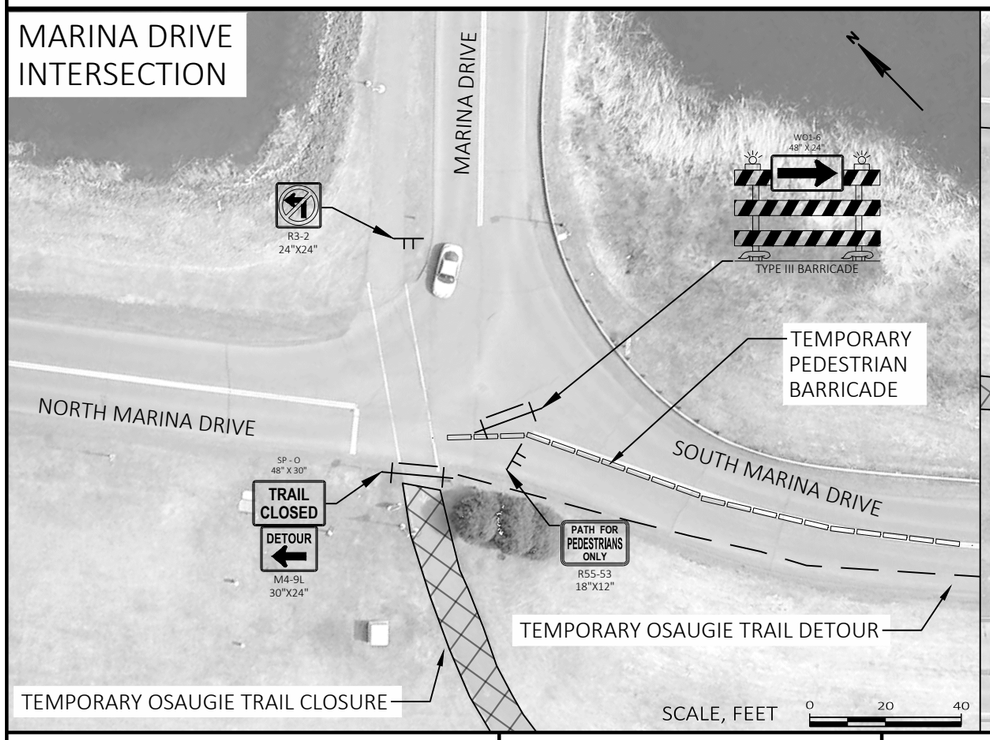
2

OVERVIEW OSAUGIE TRAIL DETOUR

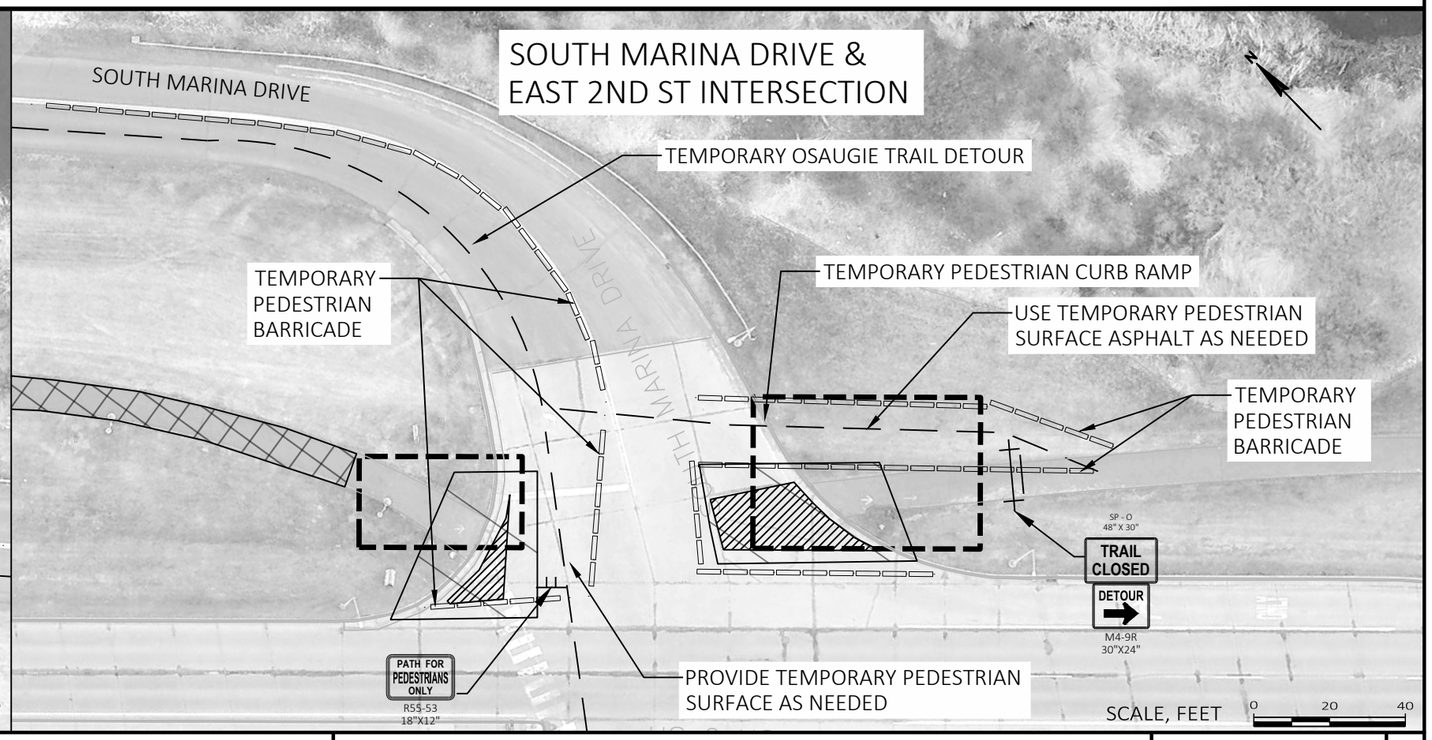


2

MARINA DRIVE INTERSECTION



SOUTH MARINA DRIVE & EAST 2ND ST INTERSECTION



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	OSAUGIE TRAIL TEMPORARY CLOSURE AND DETOUR	SHEET 195	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\027002_DTPED.DWG
LAYOUT NAME - SouthMarinaDrive
PLOT DATE : 9/10/2019 8:56 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : VARIES
WISDOT/CADDS SHEET 42

2

2

OSAUGIE TRAIL

TEMPORARY TRAIL CLOSURE

SP - O
48" X 30"
TRAIL CLOSED

SP - O
24" X 24"
OSAUGIE TRAIL PARKING

SP - O
36" X 36"
OSAUGIE TRAIL ACCESS
MO6-1
21"X21"

27TH AVE E

US 2 / US 53 / EAST 2ND STREET

US 2 US 53

SP - O
48" X 30"
TRAIL CLOSED

TEMPORARY TRAIL CLOSURE

STRUCTURE B-16-68
BNSF RR OVERPASS
REHABILITATION

SP - O
36" X 36"
OSAUGIE TRAIL ACCESS
MO6-1
21"X21"

SP - O
48" X 30"
TRAIL CLOSED

SP - O
24" X 48"
TRAIL ACCESS AT 26TH AVE E & E 1ST ST

*MAP CONTAINER REQUIRED INCIDENTAL TO ITEM 643.5000

26TH AVE E

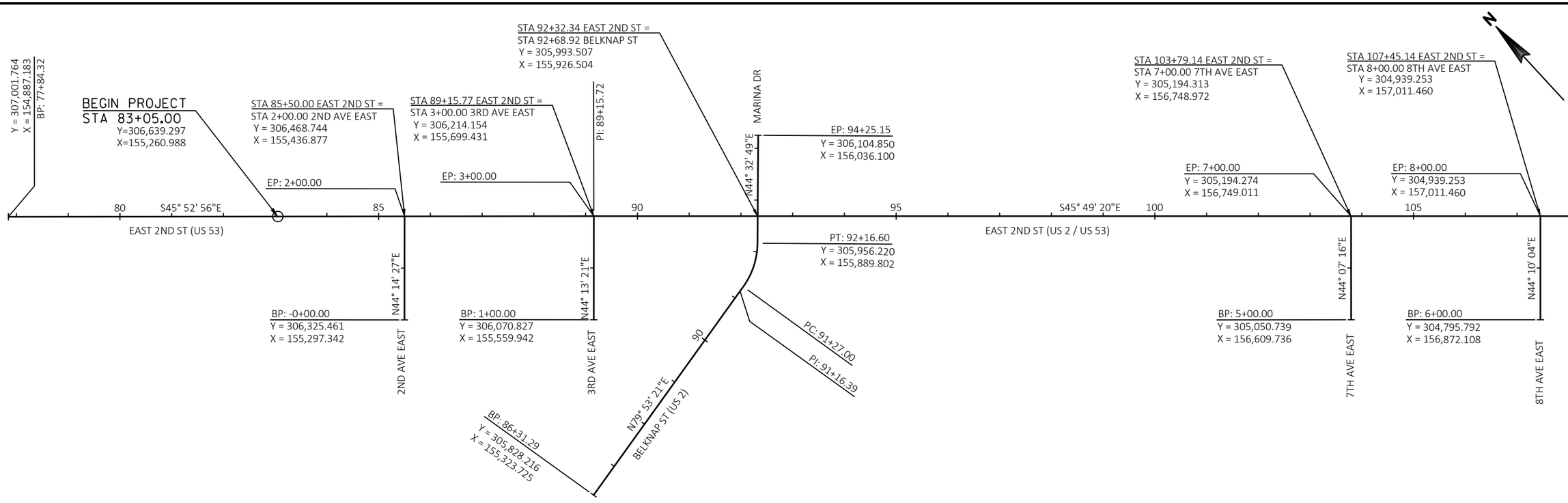
EAST 3RD STREET

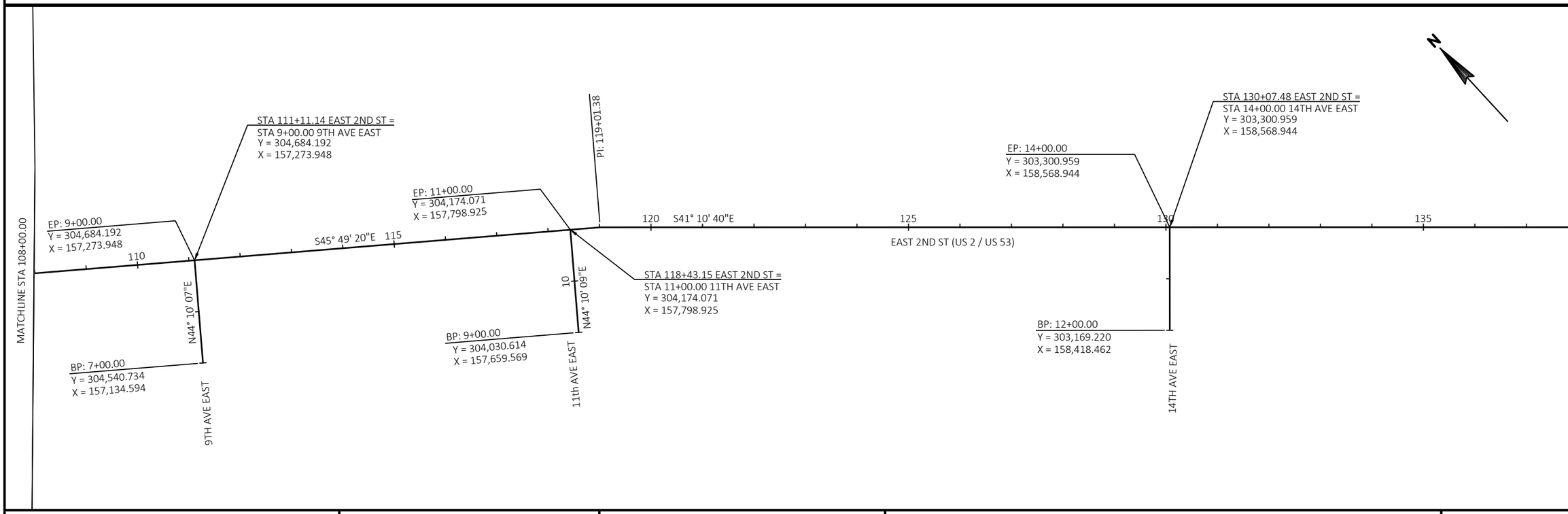
ACCESS/CLOSURE SIGNAGE MUST REMAIN COVERED WHEN TRAIL CLOSURE IS NOT IN USE

EXISTING TRAILHEAD PARKING

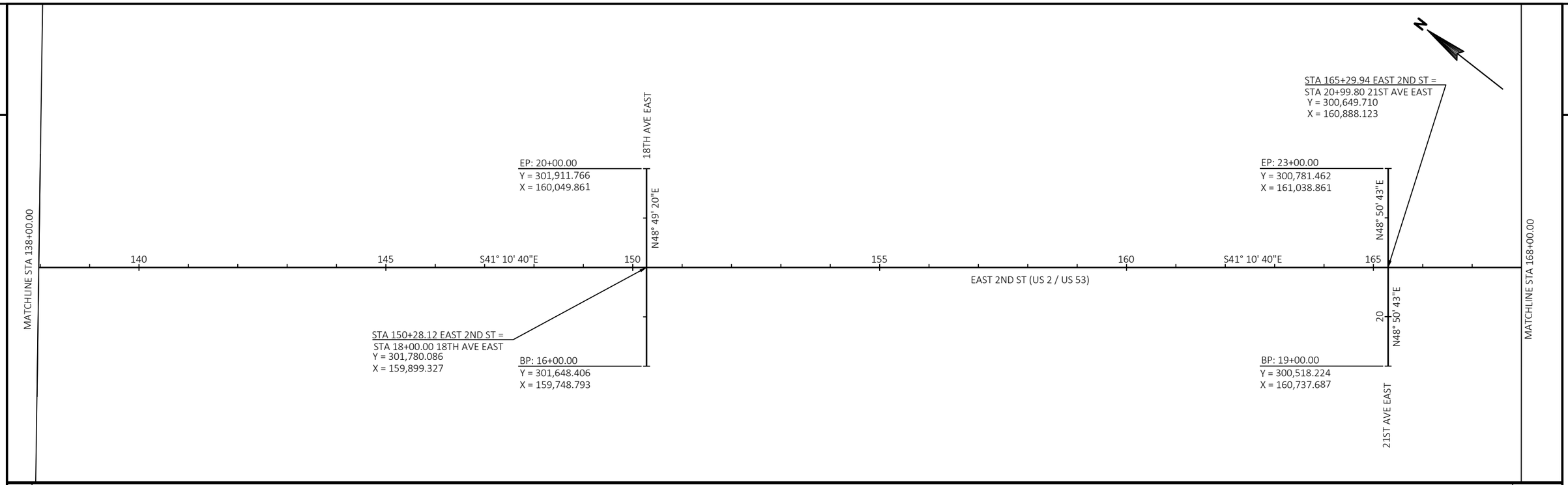
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	OSAUGIE TRAIL TEMPORARY CLOSURE AT STRUCTURE B-16-68	SHEET 196	E

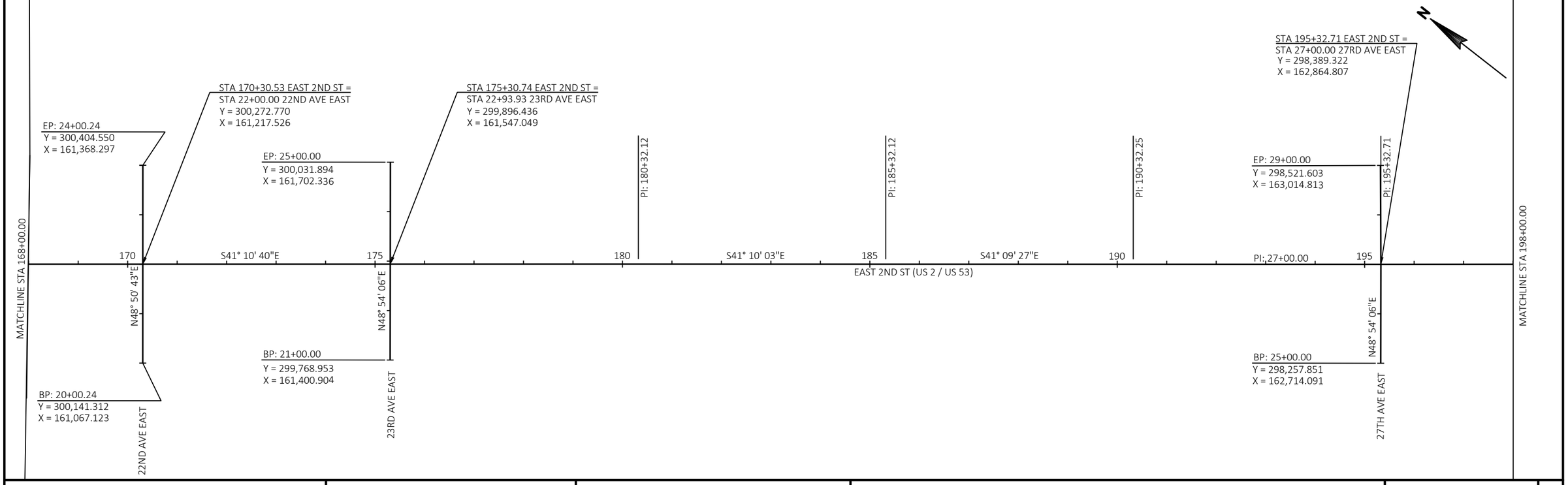
FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\027002_DTPED.DWG
LAYOUT NAME - BridgeStructureWork
PLOT DATE : 9/10/2019 8:56 AM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : Custom
WISDOT/CADDS SHEET 42





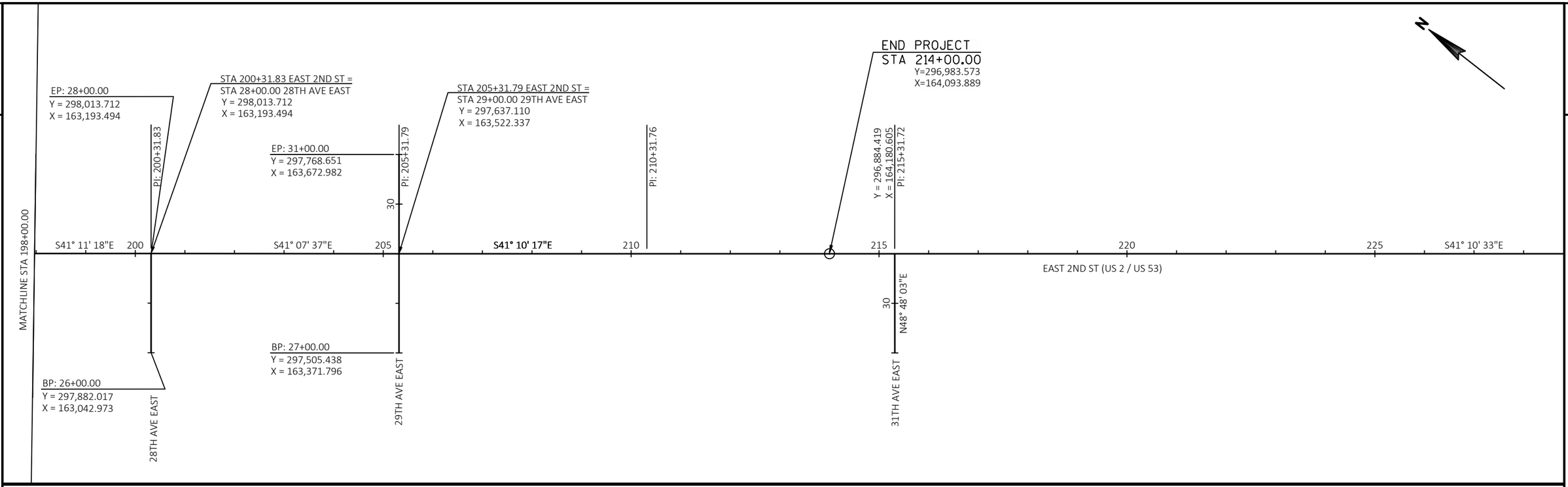
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	ALIGNMENT	SHEET 197	E





PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	ALIGNMENT	SHEET 198	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - 02
PLOT DATE : 7/23/2019 5:09 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



2

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	ALIGNMENT	SHEET 199	E

1198-03-74

Line	Item	Item Description	Unit	Total	Qty
0002	108.3100.S	Incentive/Disincentive for Interim Completion of Work	CD	10.000	10.000
0004	203.0200	Removing Old Structure (station) 01. 185+14.2	LS	1.000	1.000
0006	203.0225.S	Debris Containment (structure) 01. B-16-68	LS	1.000	1.000
0008	204.0100	Removing Pavement	SY	4,290.000	4,290.000
0010	204.0105	Removing Pavement Butt Joints	SY	212.000	212.000
0012	204.0109.S	Removing Concrete Surface Partial Depth	SF	611,960.000	611,960.000
0014	204.0110	Removing Asphaltic Surface	SY	127.000	127.000
0016	204.0150	Removing Curb & Gutter	LF	3,531.000	3,531.000
0018	204.0155	Removing Concrete Sidewalk	SY	2,679.000	2,679.000
0020	204.0157	Removing Concrete Barrier	LF	107.000	107.000
0022	204.0195	Removing Concrete Bases	EACH	15.000	15.000
0024	204.9105.S	Removing (item description) 01. Traffic Signals USH 53 & USH 2/Belknap St	LS	1.000	1.000
0026	204.9180.S	Removing (item description) 01. Concrete Median	SY	170.000	170.000
0028	205.0100	Excavation Common	CY	522.000	522.000
0030	210.1100	Backfill Structure Type A	CY	20.000	20.000
0032	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1198-03-74	LS	1.000	1.000
0034	213.0100	Finishing Roadway (project) 01. 1198-03-74	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	965.000	965.000
0038	310.0110	Base Aggregate Open-Graded	TON	2,710.000	2,710.000
0040	405.0100	Coloring Concrete WisDOT Red	CY	63.000	63.000
0042	415.0090	Concrete Pavement 9-Inch	SY	4,030.000	4,030.000
0044	415.0410	Concrete Pavement Approach Slab	SY	256.000	256.000
0046	416.0512	Concrete Truck Apron 12-Inch	SY	189.000	189.000
0048	416.0610	Drilled Tie Bars	EACH	10,250.000	10,250.000
0050	416.0620	Drilled Dowel Bars	EACH	4,800.000	4,800.000
0052	416.1710	Concrete Pavement Repair	SY	1,650.000	1,650.000
0054	416.1720	Concrete Pavement Replacement	SY	11,020.000	11,020.000
0056	455.0605	Tack Coat	GAL	8,320.000	8,320.000
0058	460.2000	Incentive Density HMA Pavement	DOL	6,710.000	6,710.000
0060	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	25,755.000	25,755.000
0062	460.7645	HMA Pavement 5 HT 58-34 V	TON	4,760.000	4,760.000
0064	460.8645	HMA Pavement 5 SMA 58-34 V	TON	5,720.000	5,720.000
0066	465.0105	Asphaltic Surface	TON	14.000	14.000
0068	465.0110	Asphaltic Surface Patching	TON	594.000	594.000
0070	502.0100	Concrete Masonry Bridges	CY	3.000	3.000
0072	502.3101	Expansion Device (structure) 01. B-16-68	LF	143.000	143.000
0074	502.3200	Protective Surface Treatment	SY	1,990.000	1,990.000
0076	502.3210	Pigmented Surface Sealer	SY	325.000	325.000

1198-03-74

Line	Item	Item Description	Unit	Total	Qty
0078	502.4205	Adhesive Anchors No. 5 Bar	EACH	160.000	160.000
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	4,320.000	4,320.000
0082	506.6000	Bearing Assemblies Expansion (structure) 01. B-16-68	EACH	22.000	22.000
0084	506.7050.S	Removing Bearings (structure) 01. B-16-68	EACH	22.000	22.000
0086	509.0301	Preparation Decks Type 1	SY	460.000	460.000
0088	509.0302	Preparation Decks Type 2	SY	115.000	115.000
0090	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	200.000	200.000
0092	509.0500	Cleaning Decks	SY	1,825.000	1,825.000
0094	509.1000	Joint Repair	SY	64.000	64.000
0096	509.1200	Curb Repair	LF	60.000	60.000
0098	509.1500	Concrete Surface Repair	SF	400.000	400.000
0100	509.2000	Full-Depth Deck Repair	SY	30.000	30.000
0102	509.2100.S	Concrete Masonry Deck Repair	CY	5.000	5.000
0104	509.2500	Concrete Masonry Overlay Decks	CY	143.000	143.000
0106	509.5100.S	Polymer Overlay	SY	182.000	182.000
0108	509.9050.S	Cleaning Parapets	LF	595.000	595.000
0110	517.0900.S	Preparation and Coating of Top Flanges (structure) 01. B-16-68	LS	1.000	1.000
0112	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-16-68	LS	1.000	1.000
0114	517.2000.S	Painting Warranted (structure) 01. B-16-68	LS	1.000	1.000
0116	517.4000.S	Containment and Collection of Waste Materials (structure) 01. B-16-68	LS	1.000	1.000
0118	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-16-68	LS	1.000	1.000
0120	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0122	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	34.000	34.000
0124	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,534.000	2,534.000
0126	601.0413	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	LF	98.000	98.000
0128	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	940.000	940.000
0130	601.0600	Concrete Curb Pedestrian	LF	140.000	140.000
0132	602.0405	Concrete Sidewalk 4-Inch	SF	7,474.000	7,474.000
0134	602.0415	Concrete Sidewalk 6-Inch	SF	17,480.000	17,480.000
0136	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	440.000	440.000
0138	603.0405	Concrete Barrier Transition Section 32-Inch	LF	107.000	107.000
0140	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	15.000	15.000
0142	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	705.000	705.000
0144	611.0410	Reconstructing Catch Basins	EACH	27.000	27.000
0146	611.0420	Reconstructing Manholes	EACH	17.000	17.000
0148	611.0600	Inlet Covers Type A	EACH	1.000	1.000
0150	611.0624	Inlet Covers Type H	EACH	3.000	3.000

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Line	Item	Item Description	Unit	Total	Qty
0152	611.0652	Inlet Covers Type T	EACH	2.000	2.000
0154	611.8110	Adjusting Manhole Covers	EACH	53.000	53.000
0156	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0158	611.8120.S	Cover Plates Temporary	EACH	103.000	103.000
0160	611.9710	Salvaged Inlet Covers	EACH	22.000	22.000
0162	619.1000	Mobilization	EACH	1.000	1.000
0164	620.0200	Concrete Median Blunt Nose	SF	176.000	176.000
0166	624.0100	Water	MGAL	30.000	30.000
0168	625.0100	Topsoil	SY	3,271.000	3,271.000
0170	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0172	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0174	628.2006	Erosion Mat Urban Class I Type A	SY	3,271.000	3,271.000
0176	628.7015	Inlet Protection Type C	EACH	87.000	87.000
0178	629.0210	Fertilizer Type B	CWT	2.800	2.800
0180	630.0130	Seeding Mixture No. 30	LB	65.000	65.000
0182	630.0500	Seed Water	MGAL	30.000	30.000
0184	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	6.000	6.000
0186	637.2210	Signs Type II Reflective H	SF	74.000	74.000
0188	638.2102	Moving Signs Type II	EACH	20.000	20.000
0190	638.4000	Moving Small Sign Supports	EACH	14.000	14.000
0192	642.5001	Field Office Type B	EACH	1.000	1.000
0194	643.0300	Traffic Control Drums	DAY	97,604.000	97,604.000
0196	643.0420	Traffic Control Barricades Type III	DAY	6,718.000	6,718.000
0198	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	94.000	94.000
0200	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	94.000	94.000
0202	643.0705	Traffic Control Warning Lights Type A	DAY	13,410.000	13,410.000
0204	643.0715	Traffic Control Warning Lights Type C	DAY	4,845.000	4,845.000
0206	643.0900	Traffic Control Signs	DAY	24,811.000	24,811.000
0208	643.0920	Traffic Control Covering Signs Type II	EACH	38.000	38.000
0210	643.1000	Traffic Control Signs Fixed Message	SF	526.000	526.000
0212	643.1050	Traffic Control Signs PCMS	DAY	346.000	346.000
0214	643.5000	Traffic Control	EACH	1.000	1.000
0216	644.1410	Temporary Pedestrian Surface Asphalt	SF	450.000	450.000
0218	644.1430	Temporary Pedestrian Surface Plate	SF	1,050.000	1,050.000
0220	644.1601	Temporary Curb Ramp	DAY	272.000	272.000
0222	644.1810	Temporary Pedestrian Barricade	LF	1,030.000	1,030.000
0224	646.1020	Marking Line Epoxy 4-Inch	LF	59,277.000	59,277.000
0226	646.3020	Marking Line Epoxy 8-Inch	LF	2,145.000	2,145.000
0228	646.5020	Marking Arrow Epoxy	EACH	47.000	47.000
0230	646.5120	Marking Word Epoxy	EACH	5.000	5.000

1198-03-74

Line	Item	Item Description	Unit	Total	Qty
0232	646.6120	Marking Stop Line Epoxy 18-Inch	LF	353.000	353.000
0234	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,609.000	1,609.000
0236	646.8020	Marking Corrugated Median Epoxy	SF	115.000	115.000
0238	646.8120	Marking Curb Epoxy	LF	24.000	24.000
0240	646.8220	Marking Island Nose Epoxy	EACH	16.000	16.000
0242	646.9000	Marking Removal Line 4-Inch	LF	1,626.000	1,626.000
0244	646.9300	Marking Removal Special Marking	EACH	13.000	13.000
0246	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,606.000	3,606.000
0248	650.8000	Construction Staking Resurfacing Reference	LF	13,095.000	13,095.000
0250	650.8500	Construction Staking Electrical Installations (project) 01. 1198-03-74	LS	1.000	1.000
0252	650.9000	Construction Staking Curb Ramps	EACH	53.000	53.000
0254	650.9910	Construction Staking Supplemental Control (project) 01. 1198-03-74	LS	1.000	1.000
0256	652.0115	Conduit Rigid Metallic 1 1/4-Inch	LF	24.000	24.000
0258	652.0125	Conduit Rigid Metallic 2-Inch	LF	10.000	10.000
0260	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	1,744.000	1,744.000
0262	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	927.000	927.000
0264	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,867.000	1,867.000
0266	652.0605	Conduit Special 2-Inch	LF	184.000	184.000
0268	652.0615	Conduit Special 3-Inch	LF	468.000	468.000
0270	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000
0272	652.0800	Conduit Loop Detector	LF	1,244.000	1,244.000
0274	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	6.000	6.000
0276	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	21.000	21.000
0278	653.0905	Removing Pull Boxes	EACH	31.000	31.000
0280	654.0101	Concrete Bases Type 1	EACH	5.000	5.000
0282	654.0102	Concrete Bases Type 2	EACH	5.000	5.000
0284	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
0286	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,416.000	1,416.000
0288	655.0240	Cable Traffic Signal 7-14 AWG	LF	187.000	187.000
0290	655.0250	Cable Traffic Signal 9-14 AWG	LF	195.000	195.000
0292	655.0260	Cable Traffic Signal 12-14 AWG	LF	815.000	815.000
0294	655.0270	Cable Traffic Signal 15-14 AWG	LF	414.000	414.000
0296	655.0320	Cable Type UF 2-10 AWG Grounded	LF	1,082.000	1,082.000
0298	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,508.000	1,508.000
0300	655.0610	Electrical Wire Lighting 12 AWG	LF	942.000	942.000
0302	655.0625	Electrical Wire Lighting 6 AWG	LF	1,308.000	1,308.000
0304	655.0630	Electrical Wire Lighting 4 AWG	LF	24,110.000	24,110.000
0306	655.0700	Loop Detector Lead In Cable	LF	4,656.000	4,656.000

1198-03-74

Line	Item	Item Description	Unit	Total	Qty
0308	655.0800	Loop Detector Wire	LF	3,876.000	3,876.000
0310	655.0900	Traffic Signal EVP Detector Cable	LF	2,705.000	2,705.000
0312	657.0100	Pedestal Bases	EACH	3.000	3.000
0314	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	5.000	5.000
0316	657.0310	Poles Type 3	EACH	5.000	5.000
0318	657.0360	Poles Type 13	EACH	2.000	2.000
0320	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
0322	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	2.000	2.000
0324	657.0540	Monotube Arms 40-FT	EACH	1.000	1.000
0326	657.0555	Monotube Arms 55-FT	EACH	1.000	1.000
0328	657.0595	Trombone Arms 25-FT	EACH	2.000	2.000
0330	657.0614	Luminaire Arms Single Member 4-Inch Clamp 8-FT	EACH	3.000	3.000
0332	657.0704	Luminaire Arms Truss Type 4-Inch Clamp 10-FT	EACH	1.000	1.000
0334	657.0714	Luminaire Arms Truss Type 4-Inch Clamp 15-FT	EACH	1.000	1.000
0336	657.0812	Luminaire Arms Steel 12-FT	EACH	1.000	1.000
0338	657.0815	Luminaire Arms Steel 15-FT	EACH	1.000	1.000
0340	658.0173	Traffic Signal Face 3S 12-Inch	EACH	10.000	10.000
0342	658.0174	Traffic Signal Face 4S 12-Inch	EACH	4.000	4.000
0344	658.0175	Traffic Signal Face 5S 12-Inch	EACH	2.000	2.000
0346	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000
0348	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0350	658.5069	Signal Mounting Hardware (location) 01. USH 53 & USH 2/Belknap St	LS	1.000	1.000
0352	659.1115	Luminaires Utility LED A	EACH	3.000	3.000
0354	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
0356	661.0200	Temporary Traffic Signals for Intersections (location) 01. USH 53 & USH 2/Belknap St	LS	1.000	1.000
0358	690.0150	Sawing Asphalt	LF	371.000	371.000
0360	690.0250	Sawing Concrete	LF	54,572.000	54,572.000
0362	715.0415	Incentive Strength Concrete Pavement	DOL	150.000	150.000
0364	715.0502	Incentive Strength Concrete Structures	DOL	906.000	906.000
0366	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0368	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,600.000	1,600.000
0370	SPV.0060	Special 01. Elastomeric Waterproofing Sealer	EACH	44.000	44.000
0372	SPV.0060	Special 03. Luminaire Arms Single Member 15 5/8-Inch Clamp 15-FT	EACH	2.000	2.000
0374	SPV.0090	Special 01. Cure and Seal Treatment, Concrete Curb and Gutter	LF	3,606.000	3,606.000
0376	SPV.0090	Special 02. Install State Supplied CAT-5E Cable	LF	589.000	589.000
0378	SPV.0090	Special 03. Temporary Marking Wet Reflective Epoxy 6-INCH	LF	4,000.000	4,000.000

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Line	Item	Item Description	Unit	Total	Qty
0380	SPV.0090	Special 04. Temporary Marking Wet Reflective Removable Tape 6-INCH	LF	11,465.000	11,465.000
0382	SPV.0105	Special 01. Salvage and Reinstall Rectangular Rapid Flashing Beacon System	LS	1.000	1.000
0384	SPV.0105	Special 02. Install State Furnished EVP Detector Heads USH 53 & USH 2/Belknap St	LS	1.000	1.000
0386	SPV.0105	Special 03. Emergency Vehicle Preemption System USH 53 & 18TH Ave	LS	1.000	1.000
0388	SPV.0105	Special 04. Emergency Vehicle Preemption System USH 53 & 22ND Ave	LS	1.000	1.000
0390	SPV.0105	Special 05. Temporary Traffic Signal Modifications USH 53 & 18TH Ave	LS	1.000	1.000
0392	SPV.0105	Special 06. Temporary Traffic Signal Modifications USH 53 & 22ND Ave	LS	1.000	1.000
0394	SPV.0165	Special 01. Overhead Concrete Surface Repair	SF	160.000	160.000
0396	SPV.0165	Special 02. Cure and Seal Treatment, Concrete Truck Apron	SF	1,695.000	1,695.000
0398	SPV.0165	Special 03. Cure and Seal Treatment, Concrete Sidewalk	SF	24,954.000	24,954.000
0400	SPV.0165	Special 04. Cure and Seal Treatment, Concrete Median	SF	176.000	176.000
0402	SPV.0180	Special 01. Epoxy Sealer	SY	180.000	180.000
0404	SPV.0195	Special 01. Excavation, Hauling, and Disposal of Contaminated Soil	TON	182.000	182.000

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
83+50	-	84+00	RT	OUT	12	50	-	208
2ND AVE EAST								
85+06	-	85+37	RT	SDST	28	30	-	95
85+67	-	85+71	RT	SDST	14	4	-	20
85+10	-	85+29	LT	SDST	19	19	-	50
85+15	-	85+50	RT	OUT	12	35	0	142
85+15	-	85+50	RT	IN	12	35	0	142
85+68	-	85+72	CL	MEDIAN	4	4	0	12
88+30	-	88+42	RT	OUT	12	12	0	60
88+30	-	88+42	RT	IN	12	12	0	60
88+78	-	88+91	RT	OUT	12	13	0	62
88+78	-	88+91	RT	IN	12	13	0	62
89+17	-	89+41	RT	OUT	12	24	0	108
90+59	-	91+46	RT	OUT	12	87	0	342
90+84	-	91+34	RT	IN	12	50	0	208
91+59	-	91+80	RT	IN	12	21	0	90
91+77	-	91+99	RT	OUT	12	22	0	104
90+90	-	91+43	LT	TURN	12	53	0	214
91+78	-	92+24	LT	TURN	12	46	0	188
85+46	-	85+55	LT	OUT	12	9	0	54
85+67	-	85+93	LT	IN	12	26	0	112
86+72	-	86+78	LT	IN	12	6	0	24
86+72	-	86+78	LT	OUT	12	6	0	24
87+74	-	87+82	LT	OUT	12	8	0	52
89+01	-	89+65	LT	OUT	12	64	0	260
89+09	-	89+68	LT	IN	12	59	0	238
89+82	-	90+05	LT	OUT	12	23	0	106
89+82	-	90+05	LT	IN	12	23	0	106
90+77	-	91+42	LT	IN	12	65	0	262
90+86	-	91+24	LT	OUT	12	38	0	160
91+56	-	92+01	LT	OUT	12	45	0	186
91+50	-	92+01	LT	IN	12	51	0	210
US 2 - BELKNAP STREET (SIGNAL LOOP PANELS)								
91+57	-	92+22	RT	IN	12	65	0	262
91+68	-	92+22	RT	OUT	31	54		192
BELKNAP STREET/ MARINA DRIVE NORTH								
				SECTION TOTAL			0	4415

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
91+37	-	91+61	RT	SDST	7	24	-	31
92+11	-	92+32	RT	SDST	12	21	0	90
92+46	-	92+66	RT	SDST	12	20	0	88
92+79	-	93+22	RT	SDST	24	44	-	105
91+84	-	92+01	LT	SDST	9	16	-	27
91+98	-	92+62	LT	SDST	9	20	-	227
92+65	-	92+97	LT	SDST	7	31	-	38
92+83	-	93+18	RT	OUT	12	35	0	142
93+00	-	93+62	RT	IN	12	62	0	244
95+49	-	95+67	RT	OUT	12	18	0	84
98+28	-	99+43	RT	OUT	12	115	0	446
100+21	-	101+84	RT	OUT	12	163	0	626
102+60	-	103+54	RT	OUT	12	94	0	368
92+61	-	92+71	LT	IN	12	10	0	56
92+65	-	92+83	LT	TURN	16	18	0	100
92+83	-	93+36	LT	TURN	12	53	0	214
92+89	-	93+15	LT	IN	12	26	0	112
92+89	-	93+15	LT	OUT	12	26	0	112
93+82	-	96+17	LT	OUT	12	235	0	890
94+35	-	94+65	LT	IN	12	30	0	132
95+29	-	95+47	LT	IN	12	18	0	84
95+83	-	95+89	LT	IN	12	6	0	24
96+02	-	96+08	LT	IN	12	6	0	24
96+05	-	97+48	LT	TURN	12	143	0	550
96+21	-	97+54	LT	IN	12	133	0	506
96+29	-	102+79	LT	OUT	12	650	867	2428
99+56	-	100+51	LT	IN	12	95	0	370
101+18	-	101+24	LT	IN	12	6	0	24
102+83	-	102+90	LT	IN	12	7	0	38
102+95	-	103+03	LT	OUT	12	8	0	52
103+57	-	103+87	LT	IN	12	30	0	132
7TH AVE EAST								
103+41	-	103+63	RT	SDST	27	19	-	66
103+95	-	104+24	RT	SDST	26	26	-	77
104+19	-	104+26	LT	OUT	12	7	0	38
104+52	-	109+41	LT	OUT	12	489	652	1830
107+32	-	107+54	LT	IN	12	22	0	104
				SECTION TOTAL			1519	10479

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
8TH AVE EAST								
107+04	-	107+31	RT	SDST	27	25	-	77
107+63	-	107+87	RT	SDST	26	23	-	71
107+80	-	109+88	RT	OUT	12	208	0	788
110+46	-	110+54	RT	OUT	12	8	0	52
110+64		110+70	RT	OUT	12	6	0	24
107+84	-	108+00	LT	IN	12	16	0	80
108+72	-	108+80	LT	IN	12	8	0	52
110+26	-	110+39	LT	IN	12	13	0	62
110+27	-	110+34	LT	OUT	12	7	0	38
110+66	-	111+55	LT	TURN	12	89	0	346
110+66	-	111+55	LT	IN	12	89	0	346
110+66	-	111+55	LT	OUT	12	89	0	346
9TH AVE EAST								
110+69	-	110+93	RT	SDST	23	24	-	67
111+27	-	111+57	RT	SDST	27	28	-	83
110+34	-	110+51	LT	SDST	27	16	-	60
111+05	-	111+50	LT	SDST	14	40	-	97
118+23	-	118+32	RT	IN	12	9	0	54
118+23	-	118+32	RT	OUT	12	9	0	54
111+64	-	111+71	LT	IN	12	7	0	38
111+81	-	111+94	LT	OUT	12	13	0	62
114+34	-	114+49	LT	IN	12	15	0	78
114+73	-	114+79	LT	IN	12	6	0	24
116+77	-	116+96	LT	IN	12	19	0	86
118+39	-	118+47	LT	OUT	12	8	0	52
11TH AVE EAST								
118+05	-	118+28	RT	SDST	27	23	-	73
118+60	-	118+82	RT	SDST	27	22	-	71
118+68	-	118+74	RT	OUT	12	6	0	24
123+27	-	124+41	RT	OUT	12	114	0	444
126+06	-	126+15	RT	IN	12	9	0	54
126+06	-	127+26	RT	OUT	12	120	0	468
129+93	-	130+02	RT	OUT	12	9	0	54
				SECTION TOTAL			0	4225

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
120+98	-	121+06	LT	IN	12	8	0	52
121+21	-	121+28	LT	OUT	12	7	0	38
122+22	-	122+29	LT	IN	12	7	0	38
124+16	-	124+22	LT	OUT	12	6	0	24
124+92	-	124+98	LT	OUT	12	6	0	24
125+59	-	126+23	LT	OUT	12	64	0	260
126+06	-	126+12	LT	IN	12	6	0	24
127+39	-	127+45	LT	IN	12	6	0	24
127+61	-	127+69	LT	IN	12	8	0	52
128+05	-	128+40	LT	OUT	12	35	0	142
129+84	-	130+09	LT	IN	12	25	0	110
129+84	-	130+09	LT	OUT	12	25	0	110
14TH AVE EAST								
129+70	-	129+91	RT	SDST	27	20	-	67
130+23	-	130+44	RT	SDST	27	20	-	67
132+94	-	134+08	RT	OUT	12	114	0	444
134+75	-	134+91	RT	IN	12	16	0	80
134+91	-	136+59	RT	OUT	12	168	0	636
137+43	-	138+00	RT	OUT	12	57	0	234
139+14	-	141+67	RT	OUT	12	253	0	962
139+85	-	139+92	RT	IN	12	7	0	38
140+47	-	140+54	RT	IN	12	7	0	38
142+96	-	143+52	RT	OUT	12	56	0	220
143+33	-	143+39	RT	IN	12	6	0	24
144+59	-	144+66	RT	OUT	12	7	0	38
144+80	-	144+89	RT	OUT	12	9	0	54
145+44	-	146+11	RT	OUT	12	67	0	266
148+54	-	148+60	RT	OUT	12	6	0	24
148+66	-	148+73	RT	OUT	12	7	0	38
149+37	-	149+64	RT	IN	12	27	0	114
130+24	-	130+30	LT	IN	12	6	0	24
130+24	-	130+30	LT	OUT	12	6	0	24
132+24	-	132+30	LT	IN	12	6	0	24
133+96	-	134+02	LT	OUT	13	6	0	25
134+73	-	134+87	LT	IN	12	14	0	64
134+73	-	135+26	LT	OUT	12	53	0	214
137+52	-	137+58	LT	IN	12	6	0	24
137+52	-	137+58	LT	OUT	12	6	0	24
138+24	-	138+32	LT	IN	12	8	0	52
140+46	-	140+61	LT	OUT	12	15	0	78
141+59	-	141+83	LT	OUT	12	24	0	108
142+28	-	142+35	LT	IN	12	7	0	38
145+13	-	145+22	LT	OUT	12	9	0	54
145+68	-	145+77	LT	OUT	12	9	0	54
145+79	-	145+85	LT	IN	12	6	0	24
149+20	-	149+74	LT	OUT	12	54	0	216
149+45	-	149+74	LT	IN	12	29	0	130
				SECTION TOTAL			0	5419

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
18TH AVE EAST								
150+08	-	150+28	RT	OUT	12	20	0	88
150+15	-	150+68	RT	IN	12	53	0	214
155+08	-	155+84	RT	OUT	12	76	0	296
155+81	-	155+87	RT	IN	12	6	0	24
155+98	-	156+06	RT	IN	12	8	0	52
156+22	-	163+03	RT	OUT	12	681	908	2550
160+69	-	160+77	RT	IN	12	8	0	52
164+44	-	164+97	RT	OUT	12	53	0	214
158+34	-	158+79	RT/LT	MEDIAN	14	45	0	202
160+64	-	160+81	RT/LT	MEDIAN	14	17	0	90
150+04	-	150+36	LT	OUT	12	32	0	136
150+65	-	150+89	LT	OUT	12	24	0	108
150+86	-	150+93	LT	IN	12	7	0	38
151+32	-	151+38	LT	OUT	12	6	0	24
151+44	-	151+50	LT	OUT	12	6	0	24
151+61	-	151+69	LT	IN	12	8	0	52
151+76	-	151+82	LT	IN	12	6	0	24
151+86	-	151+92	LT	OUT	12	6	0	24
152+00	-	152+08	LT	IN	12	8	0	52
152+64	-	152+77	LT	OUT	12	13	0	62
152+81	-	152+89	LT	IN	12	8	0	52
153+37	-	154+63	LT	OUT	12	126	0	480
153+59	-	153+77	LT	IN	12	18	0	84
155+10	-	155+36	LT	OUT	12	26	0	112
155+56	-	155+64	LT	IN	12	8	0	52
155+56	-	155+64	LT	OUT	12	8	0	52
157+64	-	157+79	LT	IN	12	15	0	78
158+26	-	158+45	LT	OUT	12	19	0	86
158+52	-	158+59	LT	IN	12	7	0	38
158+59	-	158+81	LT	OUT	12	22	0	104
160+63	-	162+63	LT	OUT	12	200	0	760
160+63	-	160+85	LT	IN	12	22	0	104
161+64	-	161+85	LT	IN	12	21	0	90
164+00	-	164+06	LT	IN	12	6	0	24
164+43	-	165+56	LT	OUT	12	113	0	442
165+14	-	165+33	LT	IN	12	19	0	86
21ST AVE EAST								
164+93	-	165+18	RT	SDST	26	25	-	81
165+45	-	165+66	RT	SDST	26	20	-	65
164+93	-	165+10	LT	SDST	15	19	-	42
165+18	-	165+31	LT	SDST	13	14	-	62
165+39	-	165+69	LT	SDST	28	30	-	94
				SECTION TOTAL			908	7314

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
165+55	-	168+00	RT	OUT	12	245	0	922
165+69	-	165+76	RT	IN	12	7	0	38
170+32	-	170+39	RT	IN	10	7	0	34
170+36	-	170+42	RT	OUT	12	6	0	24
165+47	-	165+55	LT	IN	12	8	0	52
166+47	-	167+62	LT	OUT	12	115	0	446
166+77	-	166+85	LT	IN	12	8	0	52
168+16	-	170+32	LT	OUT	12	216	0	816
169+87	-	169+93	LT	IN	12	6	0	24
170+27	-	170+34	LT	IN	12	7	0	38
22ND AVE EAST								
170+96	-	173+09	RT	OUT	12	213	0	810
174+97	-	175+11	RT	OUT	12	14	0	64
172+18	-	172+25	RT/LT	MEDIAN	14	7	0	42
173+82	-	173+89	RT/LT	MEDIAN	16	7	0	46
175+08	-	175+80	RT/LT	MEDIAN	16	72	0	336
170+73	-	170+91	LT	IN	12	18	0	84
171+92	-	172+29	LT	OUT	12	37	0	158
172+08	-	172+29	LT	IN	12	21	0	90
173+76	-	175+13	LT	IN	12	137	0	526
174+09	-	174+33	LT	OUT	12	24	0	108
175+19	-	175+38	LT	OUT	12	19	0	86
23RD AVE EAST								
174+91	-	175+19	LT	SDST	16	27	-	64
175+47	-	175+71	LT	SDST	22	23	-	69
175+83	-	175+91	RT	IN	12	8	0	52
177+03	-	178+09	RT	OUT	12	106	0	416
182+02	-	183+01	RT	OUT	12	99	0	390
183+09	-	183+33	RT	IN	12	24	0	108
183+21	-	183+33	RT	OUT	12	12	0	60
175+47	-	175+64	LT	OUT	12	17	0	82
175+70	-	176+00	LT	OUT	12	30	0	132
176+14	-	176+66	LT	IN	12	52	0	212
176+23	-	176+57	LT	OUT	12	34	0	140
177+63	-	178+04	LT	OUT	12	41	0	166
179+07	-	179+40	LT	IN	12	33	0	138
179+56	-	180+03	LT	OUT	12	47	0	190
183+09	-	183+33	LT	IN	12	24	0	108
183+09	-	183+33	LT	OUT	12	24	0	108
				SECTION TOTAL			0	7231

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
183+33	-	183+79	RT	APPROACH	24	-	102	284
183+33	-	183+62	LT	APPROACH	24	-	74	202
BNSF RR OVERPASS STRUCTURE								
186+65	-	186+80	RT	APPROACH	24	15	40	126
186+65	-	186+80	LT	APPROACH	24	15	40	126
186+80	-	186+97	RT	OUT	12	17	0	82
186+80	-	187+05	RT	IN	12	25	0	110
187+14	-	187+24	RT	IN	12	10	0	56
187+75	-	187+83	RT	OUT	12	8	0	52
187+75	-	187+83	RT	IN	12	8	0	52
188+38		188+44	RT	OUT	12	6	0	24
189+70	-	190+14	RT	OUT	12	44	0	184
190+42	-	194+95	RT	OUT	12	453	604	1698
191+73	-	191+89	RT	IN	12	16	0	80
192+60		192+66	RT	IN/TURN	12	6	0	24
186+80	-	187+14	LT	IN	12	34	0	140
186+80	-	187+14	LT	OUT	12	34	0	140
187+51		187+59	LT	OUT	12	8	0	52
187+51		187+68	LT	IN	12	17	0	82
187+77	-	187+83	LT	OUT	12	6	0	24
188+06	-	188+19	LT	OUT	12	13	0	62
189+75	-	189+82	LT	IN	12	7	0	38
189+88	-	189+95	LT	IN	12	7	0	38
190+00	-	190+57	LT	OUT	12	57	0	234
190+81	-	190+88	LT	IN	12	7	0	38
190+81	-	191+02	LT	OUT	12	21	0	90
191+33	-	191+39	LT	OUT	12	6	0	24
191+60	-	192+16	LT	OUT	12	56	0	220
191+98	-	192+04	LT	IN	12	6	0	24
194+85	-	194+92	LT	IN	12	7	0	38
27TH AVE EAST								
194+96	-	195+16	RT	SDST	26	20	0	71
195+15	-	195+21	RT	SDST	12	6	0	24
195+48	-	195+68	RT	SDST	18	19	0	54
194+94	-	195+18	LT	SDST	27	21	0	75
195+46	-	195+69	LT	SDST	27	21	0	76
195+15	-	195+21	RT	IN	12	6	0	24
195+15	-	195+21	RT	OUT	12	6	0	24
196+06	-	200+17	RT	OUT	12	411	548	1542
200+11	-	200+24	RT	IN	12	13	0	62
195+18	-	195+27	RT/LT	MEDIAN	14	9	0	60
195+73	-	196+00	RT/LT	MEDIAN	14	27	0	124
200+09	-	200+24	RT/LT	MEDIAN	14	15	0	86
				SECTION TOTAL			1408	6566

CONCRETE PAVEMENT REMOVALS

LOCATION STATION	TO	STATION	RT/LT	LANE	WIDTH	LENGTH	REMOVING PAVEMENT 204.0100 SY	⚠ SAWING CONCRETE 690.0250 LF
195+18	-	195+27	LT	IN	12	9	0	54
195+18	-	195+27	LT	OUT	12	9	0	54
195+58	-	195+69	LT	OUT	12	11	0	58
195+77	-	196+21	LT	IN	12	44	0	184
195+83	-	196+16	LT	OUT	12	33	0	138
196+29		196+35	LT	IN	12	6	0	24
200+07	-	200+13	LT	OUT	12	6	0	24
200+10	-	200+19	LT	IN	12	9	0	54
200+19	-	200+27	LT	OUT	12	8	0	52
28TH AVE EAST								
199+88	-	200+15	RT	SDST	25	26	0	81
200+30	-	200+47	RT	SDST	8	17	0	33
200+47	-	200+68	RT	SDST	25	20	0	69
200+48	-	200+54	RT	OUT	12	6	0	24
200+75	-	204+16	RT	OUT	12	341	455	1282
201+55	-	201+73	RT	IN	12	18	0	84
204+87	-	204+96	RT	OUT	12	9	0	54
204+91	-	205+00	RT	IN	12	9	0	54
201+68	-	201+95	LT	IN	12	27	0	114
202+95	-	203+30	LT				0	35
203+14	-	203+30	LT	IN	12	16	0	80
29TH AVE EAST								
204+91	-	205+22	RT	SDST	27	29	0	95
205+47	-	205+66	RT	SDST	26	18	0	68
204+91	-	205+18	LT	SDST	23	26	0	76
205+31	-	205+64	RT	IN	12	33	0	138
205+31	-	205+66	RT	OUT	12	35	0	142
206+14	-	206+49	RT	OUT	12	35	0	142
207+03	-	209+07	RT	OUT	12	204	0	780
208+14	-	208+24	RT	IN	12	10	0	56
208+56		208+62	RT	IN	12	6	0	24
210+01	-	210+35	RT	OUT	12	34	0	140
211+00		212+50	RT	OUT	12	150	0	576
212+44	-	212+50	RT/LT	MEDIAN	14	6	0	26
212+44	-	212+55	RT	IN	12	11	0	58
213+06	-	213+44	RT	OUT	12	38	0	160
211+62	-	211+71	LT	IN	12	9	0	54
211+80	-	212+43	LT	OUT	12	63	0	246
211+94	-	212+43	LT	IN	12	49	0	194
213+23	-	213+70	LT	OUT	12	47	0	190
213+47		213+53	LT	IN	12	6	0	24
214+94	-	215+15	RT	SDST	21	27	0	85
				CATEGORY TOTAL 0010			4290	51480

REMOVING PAVEMENT BUTT JOINTS

STATION	TO	STATION	LOCATION	204.0105 SY
83+05	-	83+15	BEGIN PROJECT	53
183+23	-	183+33	BRIDGE APPROACH	53
186+80	-	186+90	BRIDGE APPROACH	53
213+90	-	214+00	END PROJECT	53
			CATEGORY TOTAL 0010	212

REMOVING CONCRETE SURFACE PARTIAL DEPTH

STATION	TO	STATION	LOCATION	204.0109.S SF
83+05	-	183+34	EB/SB LANES	240700
186+80	-	214+00	EB/SB LANES	65280
83+05	-	183+34	WB/NB LANES	240700
186+80	-	214+00	WB/NB LANES	65280
			CATEGORY TOTAL 0010	611960

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
			CATEGORY 0010						
84+95	-	85+30	ML RT	0.0	38	12.6	5.0	0	19
85+04	-	85+30	ML LT	9.1	53	0.0	6.1	32	30
		2ND AVE EAST							0
85+67	-	85+80	ML RT	0.0	14	6.9	2.2	0	9
85+65	-	86+07	ML LT	8.4	25	16.2	0.4	36	17
91+33	-	91+93	ML RT	0.0	97	100.0	19.3	0	47
91+36	-	92+07	ML LT	2.3	54	61.0	10.4	21	43
		BELKNAP ST/N MARINA DR							
92+60	-	94+31	ML RT	0.0	203	210.7	35.1	0	199
92+56	-	92+98	ML LT	0.0	54	64.3	10.7	0	32
101+85	-	101+95	ML RT	0.0	0	5.0	0.8	0	10
103+34	-	103+63	ML RT	0.9	46	21.4	3.6	9	36
		7TH AVE EAST							
103+95	-	104+28	ML RT	1.4	49	22.2	3.7	8	33
107+00	-	107+32	ML RT	1.4	53	27.4	4.6	13	33
		8TH AVE EAST							
107+63	-	107+99	ML RT	1.1	54	22.6	3.8	11	50
108+94	-	109+04	ML RT	0.0	0	5.0	0.8	0	8
109+33	-	109+39	ML RT	0.0	0	0.8	0.1	0	10
110+58	-	110+94	ML RT	0.0	46	26.8	4.5	0	42
110+27	-	110+50	ML LT	30.3	48	0.0	10.7	9	20
		9TH AVE E/S MARINA DR							
111+27	-	111+76	ML RT	1.3	59	28.7	4.8	12	39
111+25	-	111+56	ML LT	19.7	26	0.0	7.7	9	17
117+92	-	118+28	ML RT	1.4	59	18.9	3.1	14	41
		11TH AVE EAST							
118+59	-	118+93	ML RT	2.4	58	14.9	2.5	12	43
129+57	-	129+92	ML RT	1.0	53	19.1	3.2	10	40
		14TH AVE EAST							
130+23	-	130+60	ML RT	1.0	52	23.3	4.0	10	42
164+79	-	165+14	ML RT	1.3	55	26.3	6.8	13	40
164+76	-	165+13	ML LT	0.0	50	0.0	4.6	0	32
		21ST AVE EAST							
165+45	-	165+84	ML RT	1.3	59	30.7	7.4	13	49
165+45	-	165+82	ML LT	1.0	54	23.3	4.1	8	41
175+68	-	175+99	ML LT	11.6	50	29.2	4.9	11	39
		23RD AVE EAST							
175+59	-	175+96	ML RT	0.0	81	47.3	11.1	0	42
174+77	-	175+15	ML LT	0.8	98	53.6	8.9	8	136
176+71	-	176+81	ML LT	0.0	0	5.7	0.9	0	10
194+81	-	195+16	ML RT	1.0	52	30.8	6.4	10	44
194+78	-	195+17	ML LT	1.4	58	28.1	4.9	13	46
		27TH AVE EAST							
		SECTION TOTAL		100	1698	983	207	282	1333

CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
195+48	-	195+87	ML RT	1.3	49	24.0	4.5	12	32
195+48	-	195+85	ML LT	1.1	54	24.2	4.0	10	40
199+78	-	200+15	ML RT	0.0	54	25.4	4.6	0	37
		28TH AVE EAST							
200+47	-	200+84	ML RT	1.0	54	27.4	5.3	10	45
204+79	-	205+16	ML RT	1.1	54	24.6	4.1	11	37
204+84	-	205+18	ML LT	1.4	57	0.0	2.3	14	32
		29TH AVE EAST							
205+47	-	205+83	ML RT	0.8	51	20.8	4.3	8	45
213+15	-	213+25	RT	0.0	0	5.0	1.7	0	10
214+74	-	215+13	ML RT	5.1	70	34.6	5.8	24	53
		31ST AVE EAST							
		CATEGORY TOTAL 0010		112	2141	1169	244	371	1664

CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
			CATEGORY 0040						
75+92		84+95	RT			502	84		
		2ND AVE E - BELKNAP							
86+07	-	86+33	LT			14	2		
87+00	-	87+25	LT			14	2		
89+86	-	89+92	LT			3	1		
90+61	-	90+67	RT		6				5
		BELKNAP - 7TH AVE EAST							
92+97	-	93+19	LT		22				13
93+70	-	93+80	LT		10				8
94+40	-	94+51	RT			6	1		
97+59	-	97+70	RT			6	1		
99+55	-	99+66	LT		11				8
101+72	-	102+22	RT		50	28	5		23
		7TH - 8TH AVE EAST							
104+75	-	104+85	LT		10				8
105+38	-	105+92	RT			30	5		
105+62	-	106+10	LT		48				20
106+81	-	107+00	RT			11	2		
		SECTION TOTAL		0	157	614	102	0	83

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
8TH - 9TH AVE EAST									
107+45	-	107+70	LT		25				13
107+92	-	107+98	RT			3	1		
110+10	-	110+35	LT		25				13
110+24	-	110+59	RT			19	3		
9TH AVE - 11TH AVE E									
113+75	-	114+06	RT			17	3		
114+35	-	114+40	LT		5				5
115+51	-	115+58	LT		7				5
116+10	-	116+26	RT			9	2		
116+32	-	116+45	RT			7	1		
11TH AVE - 14TH AVE E									
120+25	-	120+51	RT			14	2		
124+94	-	125+56	RT			34	6		
125+99	-	126+70	RT			39	7		
129+28	-	129+61	RT			18	3		
14TH AVE - 18TH AVE E									
134+50	-	135+00	RT		50				23
137+39	-	137+76	RT			21	4		
139+13	-	139+61	RT			27	5		
141+30	-	141+54	RT			13	2		
142+12	-	142+25	RT			7	1		
141+84	-	142+20	RT		36	17	2		18
143+13	-	143+25	RT			7	1		
143+50	-	143+80	RT			17	3		
143+55	-	144+93	LT	14	20	70	11		10
144+91	-	145+31	RT			22	4		
145+45	-	145+55	LT		10				8
149+77	-	149+83	LT		6				5
18TH AVE - 21ST AVE E									
151+87	-	151+93	RT			3	1		
152+00	-	152+10	RT			6	1		
152+75	-	153+25	LT		50				23
152+78	-	153+13	RT			19	3		
153+93	-	154+05	RT			7	1		
154+42	-	154+49	RT			4	1		
155+01	-	155+31	RT			17	3		
157+10	-	157+26	RT			9	2		
158+90	-	159+16	RT			14	2		
159+26	-	159+56	RT			17	3		
160+43	-	160+49	RT			3	1		
160+61	-	160+87	RT			14	2		
161+77	-	162+07	LT		30		3		15
162+74	-	163+21	LT		47	26	4		20
164+13	-	164+50	LT		37		4		18
21ST AVE - 22ND AVE E									
SECTION TOTAL				14	348	500	88	0	173

CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
166+41	-	166+52	RT			6	1		
166+90	-	167+72	RT			46	8		
168+35	-	168+50	LT		15				10
168+19	-	168+31	RT			7	1		
170+05	-	170+11	LT		6				5
22ND AVE - 23RD AVE E									
23RD AVE - 27TH AVE E									
177+32	-	177+38	RT			3	1		
177+64	-	177+87	RT			13	2		
178+50	-	178+57	LT			4	1		
178+54	-	178+72	RT			10	2		
178+77	-	178+84	LT			4	1		
179+67	-	179+73	RT			3	1		
180+40	-	180+60	LT		20				10
180+86	-	180+92	RT			3	1		
188+26	-	188+33	RT			4	1		
188+67	-	188+73	RT			3	1		
189+00	-	189+10	RT			6	1		
189+27	-	189+33	RT			3	1		
190+37	-	190+43	RT			3	1		5
190+52	-	190+58	LT			3	1		
190+67	-	190+73	RT			3	1		
191+27	-	191+34	LT			4	1		
191+50	-	191+65	LT			8	1		
191+70	-	192+28	LT			32	5		
192+87	-	192+94	LT			4	1		
193+13	-	193+28	RT		15				10
193+29	-	193+39	LT		10				8
193+17	-	193+23	LT			3	1		
193+27	-	193+33	LT			3	1		
193+85	-	193+96	LT			6	1		
194+71	-	194+82	RT			6	1		
27TH AVE - 28TH AVE E									
196+69	-	196+90	RT		21	12	2		10
198+15	-	198+40	RT			14	2		
199+52	-	199+58	LT			3	1		
199+52	-	199+78	RT			14	2		
28TH AVE - 29TH AVE E									
201+96	-	202+13	RT			9	2		
202+05	-	202+10	RT		5				5
202+30	-	202+44	RT			8	1		
202+30	-	202+35	RT		5				5
202+95	-	203+30	LT		35				15
SECTION TOTAL				0	132	250	42	0	83

⚠ ITEM USED IN ADDITIONAL SHEETS

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CONCRETE SIDEWALK REMOVAL

STATION	TO	STATION	LOCATION	REMOVING ASPHALTIC SURFACE 204.0110 SY	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	⚠ EXCAVATION COMMON 205.0100 CY	SAWING ASPHALT 690.0150 LF	⚠ SAWING CONCRETE 690.0250 LF
203+10	-	203+64	RT			30	5		
203+74	-	203+85	RT			6	1		
204+00	-	204+55	RT			31	5		
29TH AVE - 30TH AVE E									
207+55	-	207+65	RT			6	1		
207+77	-	207+83	RT			3	1		
209+06	-	209+12	RT			3	1		
209+37	-	210+07	RT			39	7		
30TH AVE - 31ST AVE E									
211+50	-	211+75	RT			14	2		
213+03	-	213+08	LT		5				
213+10	-	213+15	RT			3	1		
213+25	-	213+31	RT			3	1		
213+66	-	213+73	RT			4	1		
214+67	-	214+76	RT			5	1		
CATEGORY TOTAL 0040				15	642	1510	258	0	338

MEDIAN REMOVAL

STATION	TO	STATION	LOCATION	⚠ REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE MEDIAN 204.9180.S.01 SY	⚠ SAWING CONCRETE 690.0250 LF	REMARKS
91+13	-	91+28	ML CL	30	6	47	ASSUME STND CURB HEAD WIDTHS
91+52	-	91+82	ML CL	40	16	77	ASSUME STND CURB HEAD WIDTHS
91+38	-	92+11	BELKNAP CL	126	33	210	ASSUME STND CURB HEAD WIDTHS
92+83	-	95+52	ML CL	528	110	560	ASSUME STND CURB HEAD WIDTHS
110+34	-	110+53	ML CL	24	5	55	ASSUME STND CURB HEAD WIDTHS
CATEGORY TOTAL 0010				748	170	949	

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PREPARE FOUNDATION FOR ASPHALTIC PAVING (1198-03-74)

STATION	TO	STATION	LOCATION	211.0100 LS
8305	-	21400	PROJECT	1
CATEGORY TOTAL 0010				1

FINISHING ROADWAY (1198-03-74)

STATION	TO	STATION	LOCATION	213.0100 EACH
83+05	-	214+00	PROJECT	1
CATEGORY TOTAL 0010				1

⚠ ITEM USED IN ADDITIONAL SHEETS

3

CONCRETE BARRIER TRANSITION

STATION	TO	STATION	LOCATION	REMOVING CONCRETE BARRIER 204.0157 LF	⚠ EXCAVATION COMMON 205.0100 CY	BACKFILL STRUCTURE TYPE A 210.1100 CY	CONCRETE BARRIER TRANSITION SECTION 32-INCH 603.0405 LF	⚠ SAWING CONCRETE 690.0250 LF	REMARKS
183+14	-	183+45	LT	31	6	6	31	39.5	TRANSITION HEIGHTS 34.0" - 18.5"
183+45	-	183+81	RT	36	7	7	36	44.5	TRANSITION HEIGHTS 32.0" - 17.0"
186+65	-	186+92	RT	28	5	5	28	36.5	TRANSITION HEIGHTS 32.0" - 21.0"
186+75	-	186+87	LT	12	2	2	12	20.5	TRANSITION HEIGHTS 34.0" - 23.5"
CATEGORY TOTAL 0010				107	20	20	107	141	

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CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	ASPHALTIC SURFACE 465.0105 TON	CONCRETE CURB & GUTTER 18-INCH TYPE A 601.0405 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 4-INCH 602.0405 SF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF
CATEGORY 0010															
84+95	-	85+30	ML RT	11	0		38			293	16	38	2	38	293
85+04	-	85+30	ML LT	8	2		55			210	8	55	1	55	210
2ND AVE EAST															
85+67	-	85+80	ML RT	5	0		14	26		120	16	14	2	14	120
85+65	-	86+07	ML LT	7	2	34				184	8	34	1	34	184
91+33	-	91+93	ML RT	41	0		20			1042	16	20	2	20	1042
91+36	-	92+07	ML LT	23	1		62			582	16	62	2	62	582
BELKNAP ST/N MARINA DR															
92+60	-	94+31	ML RT	51	0		20	114		1305	16	20	2	20	1305
92+56	-	92+98	ML LT	23	0		54			579	16	54	2	54	579
101+85	-	101+95	ML RT	2	0				45						45
103+34	-	103+63	ML RT	8	0		46			194		46		46	194
7TH AVE EAST															
103+95	-	104+28	ML RT	9	0		49			229	8	49	1	49	229
107+00	-	107+32	ML RT	10	0		53			260	8	53	1	53	260
8TH AVE EAST															
SECTION TOTAL				196	6	34	411	140	45	4998	128	445	16	445	5043

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	ASPHALTIC SURFACE 465.0105 TON	CONCRETE CURB & GUTTER 18-INCH TYPE A 601.0405 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 4-INCH 602.0405 SF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF
107+63	-	107+99	ML RT	8	0		54			209	8	54	1	54	209
108+94	-	109+04	ML RT	2	0				45						45
109+33	-	109+39	ML RT	0.3	0				8						8
110+58	-	110+94	ML RT	10	0		46			255	16	46	2	46	255
110+27	-	110+50	ML LT	11	0		48			288	32	48	2	48	288
	9TH AVE E/S MARINA DR														
111+27	-	111+76	ML RT	8	1		59			212	8	59	1	59	212
111+25	-	111+56	ML LT	9	0		52			241	16	52	2	52	241
117+92	-	118+28	ML RT	7	0		59			170	8	59	1	59	170
	11TH AVE EAST														
118+59	-	118+93	ML RT	4	0		58			105	8	58	1	58	105
129+57	-	129+92	ML RT	5	0		53			131	8	53	1	53	131
	14TH AVE EAST														
130+23	-	130+60	ML RT	9	0		52			231	8	52	1	52	231
164+79	-	165+14	ML RT	16	0		55			400	16	55	2	55	400
164+76	-	165+13	ML LT	6	0		50			145	16	50	2	50	145
	21ST AVE EAST														
165+45	-	165+84	ML RT	17	0		59			431	8	59	1	59	431
165+45	-	165+82	ML LT	10	0		54			246	8	54	1	54	246
175+68	-	175+99	ML LT	8	0		50			213	8	50	1	50	213
	23RD AVE EAST														
175+59	-	175+96	ML RT	24	0		81			610	16	81	2	81	610
174+77	-	175+15	ML LT	19	0		98			493	16	98	2	98	493
176+71	-	176+81	ML LT	2	0		0		51						51
194+81	-	195+16	ML RT	14	0		52			364	16	52	2	52	364
194+78	-	195+17	ML LT	11	0		58			291	16	58	2	58	291
	27TH AVE EAST														
195+48	-	195+87	ML RT	10	0		49			254	8	49	1	49	254
195+48	-	195+85	ML LT	7	0		54			190	8	54	1	54	190
199+78	-	200+15	ML RT	10	0		54			267	8	54	1	54	267
	28TH AVE EAST														
200+47	-	200+84	ML RT	12	0		54			306	8	54	1	54	306
204+79	-	205+16	ML RT	9	0		54			229	16	54	2	54	229
204+84	-	205+18	ML LT	3	0		57			71	8	57	1	57	71
	29TH AVE EAST														
205+47	-	205+83	ML RT	10	0		51			253	16	51	2	51	253
213+15	-	213+25	ML RT	2					45						45
214+74	-	215+13	ML RT	13	1		70			340	8	70	1	70	340
	31ST AVE EAST														
CATEGORY 0010 TOTAL				472	14	34	1892	140	194	11943	440	1926	53	1926	12137

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	ASPHALTIC SURFACE 465.0105 TON	CONCRETE CURB & GUTTER 18-INCH TYPE A 601.0405 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 4-INCH 602.0405 SF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF
CATEGORY 0040															
75+92		84+95	RT	176						4515					4515
2ND AVE E - BELKNAP															
86+07	-	86+33	LT	5						130					130
87+00	-	87+25	LT	5					125						125
89+86	-	89+92	LT	1					30						30
90+61	-	90+67	RT				6					6		6	
BELKNAP - 7TH AVE EAST															
92+97	-	93+19	LT				22					22		22	
93+70	-	93+80	LT				10					10		10	
94+40	-	94+51	RT	2						55					55
97+59	-	97+70	RT	2					55						55
99+55	-	99+66	LT				11					11		11	
101+72	-	102+22	RT	10			50		250			50		50	250
7TH - 8TH AVE EAST															
104+75	-	104+85	LT				10					10		10	
105+38	-	105+92	RT	11					270						270
105+62	-	106+10	RT				48					48		48	
106+81	-	107+00	RT	4						95					95
8TH - 9TH AVE EAST															
107+45	-	107+70	LT				25					25		25	
107+92	-	107+98	RT	1						30					30
110+10	-	110+35	LT				25					25		25	
110+24	-	110+59	RT	7						175					175
9TH AVE - 11TH AVE E															
113+75	-	114+06	RT	6					155						155
114+35	-	114+40	LT				5					5		5	
115+51	-	115+58	LT				7					7		7	
116+10	-	116+26	RT	3					80						80
116+32	-	116+45	RT	3					65						65
11TH AVE - 14TH AVE E															
120+25	-	120+51	RT	5					130						130
124+94	-	125+56	RT	12					310						310
125+99	-	126+70	RT	14					355						355
129+28	-	129+61	RT	6						165					165
14TH AVE - 18TH AVE E															
134+50	-	135+00	RT				50					50		50	
137+39	-	137+76	RT	7					185						185
139+13	-	139+61	RT	9					240						240
141+30	-	141+54	RT	5					120						120
141+84	-	142+20	RT				36					36		36	
142+12	-	142+25	RT	3					65						65
SECTION TOTAL				296	0	0	305	0	2435	5165	0	305	0	305	7600

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	ASPHALTIC SURFACE 465.0105 TON	CONCRETE CURB & GUTTER 18-INCH TYPE A 601.0405 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 4-INCH 602.0405 SF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF
143+13	-	143+25	RT	2					60						60
143+50	-	143+80	RT	6					150						150
143+55	-	143+75	LT				20					20		20	
144+91	-	145+31	RT	8					200						200
145+45	-	145+55	LT				10					10		10	
149+77	-	149+83	LT				6					6		6	
18TH AVE - 21ST AVE E															
151+87	-	151+93	RT	1					30						30
152+00	-	152+10	RT	2					50						50
152+75	-	153+25	LT				50					50		50	
152+78	-	153+13	RT	7					175						175
153+93	-	154+05	RT	2					60						60
154+42	-	154+49	RT	1					35						35
155+01	-	155+31	RT	6					150						150
157+10	-	157+26	RT	3					80						80
158+90	-	159+16	RT	5					130						130
159+26	-	159+56	RT	6					150						150
160+43	-	160+49	RT	1					30						30
160+61	-	160+87	RT	5					130						130
161+77	-	162+07	LT				30					30		30	
162+74	-	163+21	LT				47					47		47	
164+13	-	164+50	LT				37					37		37	
21ST AVE - 22ND AVE E															
166+41	-	166+52	RT	2					55						55
166+90	-	167+72	RT	16					410						410
168+19	-	168+31	RT	2					60						60
168+35	-	168+50	LT				15					15		15	
170+05	-	170+11	LT				6					6		6	
22ND AVE - 23RD AVE E															
23RD AVE - 27TH AVE E															
177+32	-	177+38	RT	1					30						30
177+64	-	177+87	RT	4					115						115
178+50	-	178+57	LT	1					35						35
178+54	-	178+72	RT	4					90						90
178+77	-	178+84	LT	1					35						35
SECTION TOTAL				88	0	0	221	0	2260	0	0	221	0	221	2260

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	ASPHALTIC SURFACE 465.0105 TON	CONCRETE CURB & GUTTER 18-INCH TYPE A 601.0405 LF	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 4-INCH 602.0405 SF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF
179+67	-	179+73	RT	1					30						30
180+40	-	180+60	LT				20					20		20	
180+86	-	180+92	RT	1					30						30
188+26	-	188+33	RT	1					35						35
188+67	-	188+73	RT	1					30						30
189+00	-	189+10	RT	2					50						50
189+27	-	189+33	RT	1					30						30
190+37	-	190+43	RT	1					30						30
190+52	-	190+58	LT	1					30						30
190+67	-	190+73	RT	1					30						30
191+27	-	191+34	LT	1					35						35
191+50	-	191+65	LT	3					75						75
191+70	-	192+28	LT	11					290						290
192+87	-	192+94	LT	1					35						35
193+13	-	193+28	RT				15					15		15	
193+17	-	193+23	LT	1					30						30
193+27	-	193+33	LT	1					30						30
193+29	-	193+39	LT				10					10		10	
193+85	-	193+96	LT	2					55						55
194+71	-	194+82	RT	2						55					55
27TH AVE - 28TH AVE E															
196+69	-	196+90	RT	4			21		105			21		21	105
198+15	-	198+40	RT	5					125						125
199+52	-	199+58	LT	1					30						30
199+52	-	199+78	RT	5						130					130
28TH AVE - 29TH AVE E															
201+96	-	202+13	RT	3			5		85			5		5	85
202+30	-	202+44	RT	3			5		70			5		5	70
203+10	-	203+64	RT	11					270						270
202+95	-	203+30	LT				35					35		35	
203+74	-	203+85	RT	2					55						55
204+00	-	204+55	RT	11					275						275
29TH AVE - 30TH AVE E															
207+55	-	207+65	RT	2					50						50
207+77	-	207+83	RT	1					30						30
209+06	-	209+12	RT	1					30						30
209+37	-	210+07	RT	14					350						350
30TH AVE - 31ST AVE E															
211+50	-	211+75	RT	5					125						125
213+03	-	213+08	LT				5					5		5	
213+10	-	213+31	RT	4					105						105
213+66	-	213+73	RT	1					35						35
214+67	-	214+76	RT	2						45					45
CATEGORY 0040 TOTAL				493	0	0	642		7280	5395		642		642	12675

⚠ ITEM USED IN ADDITIONAL SHEETS

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
83+50	-	84+00	RT	OUT	12	50	67		11	0		40	18	0	67
2ND AVE EAST															
85+06	-	85+37	RT	SDST	28	30	35	38	6			27		0	35
85+67	-	85+71	RT	SDST	14	4	3	14	1			9		3	0
85+10	-	85+29	LT	SDST	19	19	10	55	2			34		10	0
85+15	-	85+50	RT	OUT	12	35	47		7	0		14	18	0	47
85+15	-	85+50	RT	IN	12	35	47		7	0		28	18	0	47
85+68	-	85+72	CL	MEDIAN	4	4	2		0	0			6	2	0
88+30	-	88+42	RT	OUT	12	12	16		3	0			18	16	0
88+30	-	88+42	RT	IN	12	12	16		3	0			18	16	0
88+78	-	88+91	RT	OUT	12	13	17		3	0			18	17	0
88+78	-	88+91	RT	IN	12	13	17		3	0			18	17	0
89+17	-	89+41	RT	OUT	12	24	32		5	0		18	18	0	32
90+59	-	91+46	RT	OUT	12	87	116	6	18	0		68	18	0	116
90+84	-	91+34	RT	IN	12	50	67		11	0		20	18	0	67
91+59	-	91+80	RT	IN	12	21	28		5	0		16	18	0	28
91+77	-	91+99	RT	OUT	12	22	29		5	0		16	18	0	29
90+90	-	91+43	LT	TURN	12	53	71		11	0		22	18	0	71
91+13	-	91+28	CL	MEDIAN			0	30		0		12	0	0	0
91+54	-	91+80	CL	MEDIAN			0	34		0		13	0	0	0
91+78	-	92+24	LT	TURN	12	46	61		10	0		36	18	0	61
85+46	-	85+55	LT	OUT	12	9	12		2	0			18	12	0
85+67	-	85+93	LT	IN	12	26	35		6	0		20	18	0	35
86+72	-	86+78	LT	IN	12	6	8		1	0			18	8	0
86+72	-	86+78	LT	OUT	12	6	8		1	0			18	8	0
87+74	-	87+82	LT	OUT	12	8	11		2	0			18	11	0
89+01	-	89+65	LT	OUT	12	64	85		14	0		50	18	0	85
89+09	-	89+68	LT	IN	12	59	79		13	0		23	18	0	79
89+82	-	90+05	LT	OUT	12	23	31		5	0		18	18	0	31
89+82	-	90+05	LT	IN	12	23	31		5	0		9	18	0	31
90+77	-	91+42	LT	IN	12	65	87		14	0		52	18	0	87
90+86	-	91+24	LT	OUT	12	38	51		8	0		15	18	0	51
91+56	-	92+01	LT	OUT	12	45	60		10	0		18	18	0	60
91+50	-	92+01	LT	IN	12	51	68		11	0		40	18	0	68
US 2 - BELKNAP STREET SIGNAL PANELS															
91+38	-	92+11	CL	MEDIAN			0	126				100		0	0
91+57	-	92+22	RT	IN	12	65	87		14	0		26	18	0	87
91+68	-	92+22	RT	OUT	31	54	186		30			42		0	186
SECTION TOTAL									242	0	0	786	510	120	1125

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
BELKNAP STREET/ MARINA DRIVE NORTH															
91+37	-	91+61	RT	SDST	7	24	8	117	1			99		8	0
92+11	-	92+32	RT	SDST	12	21	28		5			21		0	28
92+46	-	92+66	RT	SDST	12	20	27		4			20		0	27
92+79	-	93+22	RT	SDST	24	44	46	223	7			188		0	46
91+84	-	92+01	LT	SDST	9	16	11	62	2			25		11	0
91+98	-	92+62	LT	SDST	9	20	64		10			8		0	64
92+65	-	92+97	LT	SDST	7	31	6	54	1			33		6	0
92+83	-	93+18	RT	OUT	12	35	47		7	0		21	18	0	47
93+00	-	93+62	RT	IN	12	62	83		13	0		24	18	0	83
95+49	-	95+67	RT	OUT	12	18	24		4	0		14	18	0	24
98+28	-	99+43	RT	OUT	12	115	153		24	0		92	18	0	153
100+21	-	101+84	RT	OUT	12	163	217		35	0		130	18	0	217
102+60	-	103+54	RT	OUT	12	94	125		20	0		74	18	0	125
92+61	-	92+71	LT	IN	12	10	13		2	0			18	13	0
92+65	-	92+83	LT	TURN	16	18	32		5	0		14	24	0	32
92+83	-	93+36	LT	TURN	12	53	71		11	0		21	18	0	71
92+86	-	95+52	CL	MEDIAN			0	524				419		0	0
92+97	-	93+19	LT			22		22				8			
92+89	-	93+15	LT	IN	12	26	35		6	0		10	18	0	35
92+89	-	93+15	LT	OUT	12	26	35		6	0		20	18	0	35
93+70	-	93+80	LT			10		10				4			
93+82	-	96+17	LT	OUT	12	235	313		50	0		188	18	0	313
94+35	-	94+65	LT	IN	12	30	40		6	0		12	18	0	40
95+29	-	95+47	LT	IN	12	18	24		4	0		7	18	0	24
95+83	-	95+89	LT	IN	12	6	8		1	0			18	8	0
96+02	-	96+08	LT	IN	12	6	8		1	0			18	8	0
96+05	-	97+48	LT	TURN	12	143	191		30	0		114	18	0	191
96+21	-	97+54	LT	IN	12	133	177		28	0		57	18	0	177
96+29	-	102+79	LT	OUT	12	650	867	11	137	867		449	18	0	0
99+56	-	100+51	LT	IN	12	95	127		20	0		76	18	0	127
101+18	-	101+24	LT	IN	12	6	8		1	0			18	8	0
101+72	-	102+22	RT					50				20			
102+83	-	102+90	LT	IN	12	7	9		2	0			18	9	0
102+95	-	103+03	LT	OUT	12	8	11		2	0			18	11	0
103+57	-	103+87	LT	IN	12	30	40		6	0		24	18	0	40
7TH AVE EAST															
103+41	-	103+63	RT	SDST	27	19	13	46	2			28		13	0
103+95	-	104+24	RT	SDST	26	26	16	49	3			37		16	0
SECTION TOTAL									457	867	0	2257	438	230	3295

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
105+62	-	106+10	RT					48				19			
104+19	-	104+26	LT	OUT	12	7	9		2	0			18	9	0
104+75	-	104+85	LT					10				4			
104+52	-	109+41	LT	OUT	12	489	652		103	652		376	18	0	0
107+32	-	107+54	LT	IN	12	22	29		5	0		8	18	0	29
8TH AVE EAST															
107+04	-	107+31	RT	SDST	27	25	18	53	3			39		18	0
107+63	-	107+87	RT	SDST	26	23	18	54	3			38		18	0
107+80	-	109+88	RT	OUT	12	208	277		44	0		166	18	0	277
110+46	-	110+54	RT	OUT	12	8	11		2	0			18	11	0
110+64	-	110+70	RT	OUT	12	6	8		1	0			18	8	0
107+45	-	107+70	LT					25				10			
107+84	-	108+00	LT	IN	12	16	21		3	0		6	18	0	21
108+72	-	108+80	LT	IN	12	8	11		2	0			18	11	0
110+10	-	110+35	LT					25				10			
110+26	-	110+39	LT	IN	12	13	17		3	0			18	17	0
110+27	-	110+34	LT	OUT	12	7	9		2	0			18	9	0
110+34	-	110+53	CL	MEDIAN			0	24		0		9	0	0	0
110+66	-	111+55	LT	TURN	12	89	119		19	0		70	18	0	119
110+66	-	111+55	LT	IN	12	89	119		19	0		35	18	0	119
110+66	-	111+55	LT	OUT	12	89	119		19	0		35	18	0	119
9TH AVE EAST															
110+69	-	110+93	RT	SDST	23	24	15	46	3			34		15	0
111+27	-	111+57	RT	SDST	27	28	18	59	3			42		18	0
110+27	-	110+50	LT	SDST	30	36	35	48	6			42		0	35
111+05	-	111+50	LT	SDST	30	50	107	52	17			49	15	0	107
118+23	-	118+32	RT	IN	12	9	12		2	0			18	12	0
118+23	-	118+32	RT	OUT	12	9	12		2	0			18	12	0
111+64	-	111+71	LT	IN	12	7	9		2	0			18	9	0
111+81	-	111+94	LT	OUT	12	13	17		3	0			18	17	0
114+35	-	114+40	LT			5		5		0		2			
114+34	-	114+49	LT	IN	12	15	20		3	0		12	18	0	0
114+73	-	114+79	LT	IN	12	6	8		1	0			18	8	0
115+51	-	115+58	LT			7		7				2			
116+77	-	116+96	LT	IN	12	19	25		4	0		14	18	0	25
118+39	-	118+47	LT	OUT	12	8	11		2	0			18	11	0
				SECTION TOTAL					274	652	0	1022	393	492	4313

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
11TH AVE EAST															
118+05	-	118+28	RT	SDST	27	23	15	59	2			40		15	0
118+60	-	118+82	RT	SDST	27	22	18	58	3			39		18	0
118+68	-	118+74	RT	OUT	12	6	8		1	0			18	8	0
123+27	-	124+41	RT	OUT	12	114	152		24	0		90	18	0	152
126+06	-	126+15	RT	IN	12	9	12		2	0			18	12	0
126+06	-	127+26	RT	OUT	12	120	160		25	0		96	18	0	160
129+93	-	130+02	RT	OUT	12	9	12		2	0			18	12	0
120+98	-	121+06	LT	IN	12	8	11		2	0			18	11	0
121+21	-	121+28	LT	OUT	12	7	9		2	0			18	9	0
122+22	-	122+29	LT	IN	12	7	9		2	0			18	9	0
124+16	-	124+22	LT	OUT	12	6	8		1	0			18	8	0
124+92	-	124+98	LT	OUT	12	6	8		1	0			18	8	0
125+59	-	126+23	LT	OUT	12	64	85		14	0		50	18	0	85
126+06	-	126+12	LT	IN	12	6	8		1	0			18	8	0
127+39	-	127+45	LT	IN	12	6	8		1	0			18	8	0
127+61	-	127+69	LT	IN	12	8	11		2	0			18	11	0
128+05	-	128+40	LT	OUT	12	35	47		7	0		28	18	0	47
129+84	-	130+09	LT	IN	12	25	33		5	0		10	18	0	33
129+84	-	130+09	LT	OUT	12	25	33		5	0		20	18	0	33
14TH AVE EAST															
129+70	-	129+91	RT	SDST	27	20	15	53	2			37		15	0
130+23	-	130+44	RT	SDST	27	20	17	52	3			36		17	0
132+94	-	134+08	RT	OUT	12	114	152		24	0		90	18	0	152
134+50	-	135+00	RT					50				20			
134+75	-	134+91	RT	IN	12	16	21		3	0		12	18	0	21
134+91	-	136+59	RT	OUT	12	168	224		36	0		134	18	0	224
137+43	-	138+00	RT	OUT	12	57	76		12	0		44	18	0	76
139+14	-	141+67	RT	OUT	12	253	337		54	0		202	18	0	337
139+85	-	139+92	RT	IN	12	7	9		2	0			18	9	0
140+47	-	140+54	RT	IN	12	7	9		2	0			18	9	0
141+84	-	142+20	RT					36				14			
142+96	-	143+52	RT	OUT	12	56	75		12	0		44	18	0	75
143+33	-	143+39	RT	IN	12	6	8		1	0			18	8	0
144+59	-	144+66	RT	OUT	12	7	9		2	0			18	9	0
144+80	-	144+89	RT	OUT	12	9	12		2	0			18	12	0
145+44	-	146+11	RT	OUT	12	67	89		14	0		52	18	0	89
148+54	-	148+60	RT	OUT	12	6	8		1	0			18	8	0
148+66	-	148+73	RT	OUT	12	7	9		2	0			18	9	0
149+37	-	149+64	RT	IN	12	27	36		6	0		20	18	0	36
SECTION TOTAL									279	0	0	1078	576	813	6001

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
130+24	-	130+30	LT	IN	12	6	8		1	0			18	8	0
130+24	-	130+30	LT	OUT	12	6	8		1	0			18	8	0
132+24	-	132+30	LT	IN	12	6	8		1	0			18	8	0
133+96	-	134+02	LT	OUT	12	6	8		1	0			18	8	0
134+73	-	134+87	LT	IN	12	14	19		3	0			18	19	0
134+73	-	135+26	LT	OUT	12	53	71		11	0		42	18	0	71
137+52	-	137+58	LT	IN	12	6	8		1	0			18	8	0
137+52	-	137+58	LT	OUT	12	6	8		1	0			18	8	0
138+24	-	138+32	LT	IN	12	8	11		2	0			18	11	0
140+46	-	140+61	LT	OUT	12	15	20		3	0		12	18	0	0
141+59	-	141+83	LT	OUT	12	24	32		5	0		18	18	0	32
142+28	-	142+35	LT	IN	12	7	9		2	0			18	9	0
143+55	-	143+75	LT					20				8			
145+13	-	145+22	LT	OUT	12	9	12		2	0			18	12	0
145+45	-	145+55	LT					10				4			
145+68	-	145+77	LT	OUT	12	9	12		2	0			18	12	0
145+79	-	145+85	LT	IN	12	6	8		1	0			18	8	0
149+20	-	149+74	LT	OUT	12	54	72		11	0		42	18	0	72
149+45	-	149+74	LT	IN	12	29	39		6	0		11	18	0	39
149+77	-	149+84	LT					6				2			
18TH AVE EAST															
150+08	-	150+28	RT	OUT	12	20	27		4	0		16	18	0	27
150+15	-	150+68	RT	IN	12	53	71		11	0		38	18	0	71
155+08	-	155+84	RT	OUT	12	76	101		16	0		60	18	0	101
155+81	-	155+87	RT	IN	12	6	8		1	0			18	8	0
155+98	-	156+06	RT	IN	12	8	11		2	0			18	11	0
156+22	-	163+03	RT	OUT	12	681	908		144	908		544	18	0	0
160+69	-	160+77	RT	IN	12	8	11		2	0			18	11	0
164+44	-	164+97	RT	OUT	12	53	71		11	0		42	18	0	71
158+34	-	158+79	RT/LT	MEDIAN	14	45	70		11	0		36	22	0	70
160+64	-	160+81	RT/LT	MEDIAN	14	17	26		4	0		6	22	0	26
150+04	-	150+36	LT	OUT	12	32	43		7	0		24	18	0	43
150+65	-	150+89	LT	OUT	12	24	32		5	0		18	18	0	32
150+86	-	150+93	LT	IN	12	7	9		2	0			18	9	0
151+32	-	151+38	LT	OUT	12	6	8		1	0			18	8	0
151+44	-	151+50	LT	OUT	12	6	8		1	0			18	8	0
151+61	-	151+69	LT	IN	12	8	11		2	0			18	11	0
151+76	-	151+82	LT	IN	12	6	8		1	0			18	8	0
151+86	-	151+92	LT	OUT	12	6	8		1	0			18	8	0
152+00	-	152+08	LT	IN	12	8	11		2	0			18	11	0
152+64	-	152+77	LT	OUT	12	13	17		3	0			18	17	0
152+75	-	153+25	LT					50				20			
SECTION TOTAL									288	908	0	943	674	1138	7665

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
152+81	-	152+89	LT	IN	12	8	11		2	0			18	11	0
153+37	-	154+63	LT	OUT	12	126	168		27	0		100	18	0	168
153+59	-	153+77	LT	IN	12	18	24		4	0		7	18	0	24
155+10	-	155+36	LT	OUT	12	26	35		6	0		20	18	0	35
155+56	-	155+64	LT	IN	12	8	11		2	0			18	11	0
155+56	-	155+64	LT	OUT	12	8	11		2	0			18	11	0
157+64	-	157+79	LT	IN	12	15	20		3	0		12	18	0	0
158+26	-	158+45	LT	OUT	12	19	25		4	0		14	18	0	25
158+52	-	158+59	LT	IN	12	7	9		2	0			18	9	0
158+59	-	158+81	LT	OUT	12	22	29		5	0		16	18	0	29
160+63	-	162+63	LT	OUT	12	200	267		42	0		148	18	0	267
160+63	-	160+85	LT	IN	12	22	29		5	0		8	18	0	29
161+64	-	161+85	LT	IN	12	21	28		5	0		8	18	0	28
161+77	-	162+07	LT					30				12			
162+74	-	163+21	LT					47				18			
164+00	-	164+06	LT	IN	12	6	8		1	0			18	8	0
164+13	-	164+50	LT					37				14			
164+43	-	165+56	LT	OUT	12	113	151		24	0		90	18	0	151
165+14	-	165+33	LT	IN	12	19	25		4	0		7	18	0	25
21ST AVE EAST															
164+93	-	165+18	RT	SDST	26	25	21	55	3			39		0	21
165+45	-	165+66	RT	SDST	26	20	17	59	3			34		17	0
164+93	-	165+10	LT	SDST	15	19	10	50	2			26		10	0
165+18	-	165+31	LT	SDST	13	14	20		3			7		0	0
165+39	-	165+69	LT	SDST	28	30	36	54	6			30		0	36
165+55	-	168+00	RT	OUT	12	245	327		52	0		196	18	0	327
165+69	-	165+76	RT	IN	12	7	9		2	0			18	9	0
170+32	-	170+39	RT	IN	12	7	9		2	0			18	9	0
170+36	-	170+42	RT	OUT	12	6	8		1	0			18	8	0
165+47	-	165+55	LT	IN	12	8	11		2	0			18	11	0
166+47	-	167+62	LT	OUT	12	115	153		24	0		92	18	0	153
166+77	-	166+85	LT	IN	12	8	11		2	0			18	11	0
168+16	-	170+32	LT	OUT	12	216	288	21	46	0		172	18	0	288
169+87	-	169+93	LT	IN	12	6	8		1	0			18	8	0
170+27	-	170+34	LT	IN	12	7	9		2	0			18	9	0
22ND AVE EAST															
170+96	-	173+09	RT	OUT	12	213	284		45	0		170	18	0	284
174+97	-	175+11	RT	OUT	12	14	19		3	0			18	19	0
SECTION TOTAL									332	0	0	1240	504	1407	9996

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
172+18	-	172+25	RT/LT	MEDIAN	14	7	11		2	0			22	11	0
173+82	-	173+89	RT/LT	MEDIAN	16	7	12		2	0			24	12	0
175+08	-	175+80	RT/LT	MEDIAN	16	72	128		20	0		56	24	0	128
170+73	-	170+91	LT	IN	12	18	24		4	0		14	18	0	24
171+92	-	172+29	LT	OUT	12	37	49		8	0		28	18	0	49
172+08	-	172+29	LT	IN	12	21	28		5	0		8	18	0	28
173+76	-	175+13	LT	IN	12	137	183		29	0		108	18	0	183
174+09	-	174+33	LT	OUT	12	24	32		5	0		9	18	0	32
175+19	-	175+38	LT	OUT	12	19	25		4	0		14	18	0	25
23RD AVE EAST															
174+91	-	175+19	LT	SDST	16	27	25	50	4			34		0	25
175+47	-	175+71	LT	SDST	22	23	14	98	2			34		14	0
175+59	-	175+96	RT	SDST				81				29			
175+83	-	175+91	RT	IN	12	8	11		2	0			18	11	0
177+03	-	178+09	RT	OUT	12	106	141		22	0		84	18	0	141
182+02	-	183+01	RT	OUT	12	99	132		21	0		78	18	0	132
183+09	-	183+33	RT	IN	12	24	32		5	0		18	18	0	32
183+21	-	183+33	RT	OUT	12	12	16		3	0			18	16	0
175+47	-	175+64	LT	OUT	12	17	23		4	0		12	18	0	23
175+70	-	176+00	LT	OUT	12	30	40		6	0		24	18	0	40
176+14	-	176+66	LT	IN	12	52	69		11	0		40	18	0	69
176+23	-	176+57	LT	OUT	12	34	45		7	0		26	18	0	45
177+63	-	178+04	LT	OUT	12	41	55		9	0		32	18	0	55
179+07	-	179+40	LT	IN	12	33	44		7	0		26	18	0	44
179+56	-	180+03	LT	OUT	12	47	63		10	0		36	18	0	63
180+40	-	180+60	LT					20				8			
183+09	-	183+33	LT	IN	12	24	32		5	0		18	18	0	32
183+09	-	183+33	LT	OUT	12	24	32		5	0		9	18	0	32
183+33	-	183+79	RT	APPROACH	24		102		16		102		22		
183+33	-	183+62	LT	APPROACH	24		74		12		74		22		
BNSF RR OVERPASS STRUCTURE															
186+65	-	186+80	RT	APPROACH	24		40		6		40		22		
186+65	-	186+80	LT	APPROACH	24		40		6		40		22		
186+80	-	186+97	RT	OUT	12	17	23		4	0		6	18	0	23
186+80	-	187+05	RT	IN	12	25	33		5	0		20	18	0	33
187+14	-	187+24	RT	IN	12	10	13		2	0			18	13	0
187+75	-	187+83	RT	OUT	12	8	11		2	0			18	11	0
187+75	-	187+83	RT	IN	12	8	11		2	0			18	11	0
SECTION TOTAL									257	0	256	771	608	1617	12540

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
188+38	-	188+44	RT	OUT	12	6	8		1	0			18	8	0
189+70	-	190+14	RT	OUT	12	44	59		9	0		34	18	0	59
190+42	-	194+95	RT	OUT	12	453	604		96	604		356	18	0	0
191+73	-	191+89	RT	IN	12	16	21		3	0		6	18	0	21
192+60	-	192+66	RT	IN	12	6	8		1	0			18	8	0
193+13	-	193+28	RT					15				6			
186+80	-	187+14	LT	IN	12	34	45		7	0		26	18	0	45
186+80	-	187+14	LT	OUT	12	34	45		7	0		13	18	0	45
187+51	-	187+59	LT	OUT	12	8	11		2	0			18	11	0
187+51	-	187+68	LT	IN	12	17	23		4	0		12	18	0	23
187+77	-	187+83	LT	OUT	12	6	8		1	0			18	8	0
188+06	-	188+19	LT	OUT	12	13	17		3	0			18	17	0
189+75	-	189+82	LT	IN	12	7	9		2	0			18	9	0
189+88	-	189+95	LT	IN	12	7	9		2	0			18	9	0
190+00	-	190+57	LT	OUT	12	57	76		12	0		44	18	0	76
190+81	-	190+88	LT	OUT	12	7	9		2	0			18	9	0
190+81	-	191+02	LT	IN	12	21	28		5	0		16	18	0	28
191+33	-	191+39	LT	OUT	12	6	8		1	0			18	8	0
191+60	-	192+16	LT	OUT	12	56	75		12	0		44	18	0	75
191+98	-	192+04	LT	IN	12	6	8		1	0			18	8	0
193+29	-	193+39	LT					10				4			
194+85	-	194+92	LT	IN	12	7	9		2	0			18	9	0
27th AVE EAST															
194+96	-	195+16	RT	SDST	26	20	18	52	3			36		18	0
195+15	-	195+21	RT	SDST	12	6	8		1	0		4	18	8	0
195+48	-	195+68	RT	SDST	18	19	14	49	2			31		14	0
194+94	-	195+18	LT	SDST	27	21	15	58	3			39		15	0
195+46	-	195+69	LT	SDST	27	21	19	54	3			37		19	0
195+15	-	195+21	RT	IN	12	6	8		1	0			18	8	0
195+15	-	195+21	RT	OUT	12	6	8		1	0			18	8	0
196+06	-	200+17	RT	OUT	12	411	548		87	548		320	18	0	0
196+69	-	196+90	RT					21				8			
200+11	-	200+24	RT	IN	12	13	17		3	0			18	17	0
195+18	-	195+27	RT/LT	MEDIAN	14	9	14		2	0			22	14	0
195+73	-	196+00	RT/LT	MEDIAN	14	27	42		7	0		10	22	0	42
200+09	-	200+24	RT/LT	MEDIAN	14	15	23		4	0		12	22	0	0
195+18	-	195+27	LT	IN	12	9	12		2	0			18	12	0
195+18	-	195+27	LT	OUT	12	9	12		2	0			18	12	0
195+58	-	195+69	LT	OUT	12	11	15		2	0			18	15	0
195+77	-	196+21	LT	IN	12	44	59		9	0		34	18	0	59
195+82	-	196+14	LT	OUT	12	32	43		7	0		12	18	0	43
SECTION TOTAL									311	1152	0	1104	606	1958	13845

CONCRETE PAVEMENT & REPAIR

STATION	TO	STATION	LOCATION RT/LT	LANE	WIDTH	LENGTH	SY	C&G LENGTH	BASE AGGREGATE OPEN-GRADED 310.0110 TON	CONCRETE PAVEMENT 9-INCH 415.0090 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	CONCRETE PAVEMENT REPAIR 416.1710 SY	CONCRETE PAVEMENT REPLACEMENT 416.1720 SY
196+29	-	196+35	LT	IN	12	6	8		1	0			18	8	0
200+07	-	200+13	LT	OUT	12	6	8		1	0			18	8	0
200+10	-	200+19	LT	IN	12	9	12		2	0			18	12	0
200+19	-	200+27	LT	OUT	12	8	11		2	0			18	11	0
28TH AVE EAST															
199+88	-	200+15	RT	SDST	25	26	13	54	2			29		13	0
200+30	-	200+47	RT	SDST	8	17	15		2			7		15	0
200+47	-	200+68	RT	SDST	25	20	16	54	3			36		16	0
200+48	-	200+54	RT	OUT	12	6	8		1	0			18	8	0
200+75	-	204+16	RT	OUT	12	341	455	10	72	455		272	18	0	0
201+55	-	201+73	RT	IN	12	18	24		4	0		7	18	0	24
204+87	-	204+96	RT	OUT	12	9	12		2	0			18	12	0
204+91	-	205+00	RT	IN	12	9	12		2	0			18	12	0
201+68	-	201+95	LT	IN	12	27	36		6	0		20	18	0	36
202+95	-	203+30	LT					35				14			
203+14	-	203+30	LT	IN	12	16	21		3	0		12	18	0	21
29TH AVE EAST															
204+91	-	205+22	RT	SDST	27	29	33	54	5			41		0	33
205+47	-	205+66	RT	SDST	26	18	16	51	3			28		16	0
204+91	-	205+18	LT	SDST	23	26	17	57	3			39		17	0
205+31	-	205+64	RT	IN	12	33	44		7	0		13	18	0	44
205+31	-	205+66	RT	OUT	12	35	47		7	0		28	18	0	47
206+14	-	206+49	RT	OUT	12	35	47		7	0		28	18	0	47
207+03	-	209+07	RT	OUT	12	204	272		43	0		162	18	0	272
208+14	-	208+24	RT	IN	12	10	13		2	0			18	13	0
208+56	-	208+62	RT	IN	12	6	8		1	0			18	8	0
210+01	-	210+35	RT	OUT	12	34	45		7	0		26	18	0	45
211+00	-	212+50	RT	OUT	12	150	200		32	0		120	18	0	200
212+44	-	212+50	RT/LT	MEDIAN	14	6	9		2	0			22	9	0
212+44	-	212+55	RT	IN	12	11	15		2	0			18	15	0
213+06	-	213+44	RT	OUT	12	38	51		8	0		30	18	0	51
211+62	-	211+71	LT	IN	12	9	12		2	0			18	12	0
211+80	-	212+43	LT	OUT	12	63	84		13	0		50	18	0	84
211+94	-	212+43	LT	IN	12	49	65		10	0		19	18	0	65
213+03	-	213+08	LT					5				2			
213+23	-	213+70	LT	OUT	12	47	63		10	0		36	18	0	63
213+47	-	213+53	LT	IN	12	6	8		1	0			18	8	0
214+74	-	215+13	RT	SDST			18	70	3	0		25	0	18	0
								CATEGORY 0010 TOTAL	2710	4030	256	10250	4800	1650	11020

3

MEDIANS AND TRUCKING

STATION	TO	STATION	LOCATION	COLORING CONCRETE WISDOT RED 405.0100 CY	CONCRETE TRUCK APRON 12-INCH 416.0512 SY	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G 601.0413 LF	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R 601.0580 LF	⚠ CONCRETE SIDEWALK 6-INCH 602.0415 SF	CONCRETE MEDIAN BLUNT NOSE 620.0200 SF	⚠ CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF	⚠ SPECIAL 01. CURE AND SEAL TREATMENT, CONCRETE CURB AND GUTTER SPV.0090.01 LF	SPECIAL 02. CURE AND SEAL TREATMENT, CONCRETE TRUCK APRON SPV.0165.02 SF	⚠ SPECIAL 03. CURE AND SEAL TREATMENT, CONCRETE SIDEWALK SPV.0165.03 SF	⚠ SPECIAL 04. CURE AND SEAL TREATMENT, CONCRETE MEDIAN SPV.0165.04 SF	REMARKS
91+13	-	91+28	ML CL			30		48		30	30		48		
91+54	-	91+80	ML CL	0.3	1	24	10	26	77	34	34	9	26	77	TRANSITION FROM TYPE G TO TYPE R CURB AND GUTTER
91+33	-	91+93	ML RT				97			97	97				SEE CONCRETE SIDEWALK MISC QUANTITIES FOR ADDITIONAL PAY ITEMS
91+38	-	92+11	BELKNAP CL	6	17		126		60	126	126	157		60	BELKNAP ST. STATIONING
92+86	-	95+52	ML CL	17	50	20	504	25	38	524	524	452	25	38	TRANSITION FROM TYPE G TO TYPE R CURB AND GUTTER
92+60	-	94+31	ML RT	40	120		203			203	203	1077			SEE CONCRETE SIDEWALK MISC QUANTITIES FOR ADDITIONAL PAY ITEMS
110+34	-	110+53	ML CL			24		42		24	24		42		SEE CONCRETE SIDEWALK MISC QUANTITIES FOR ADDITIONAL PAY ITEMS
CATEGORY 0010 TOTAL				63	189	98	940	142	176	1038	1038	1695	142	176	

⚠ ITEM USED IN ADDITIONAL SHEETS

HMA

STATION	TO	STATION	LOCATION	TACK COAT 455.0605 GAL	INCENTIVE DENSITY HMA PAVEMENT 460.2000 DOL	REHEATING HMA PAVEMENT LONGITUDINAL JOINTS 460.4110.S LF	HMA PAVEMENT 5 HT 58-34 V 460.7645 TON	HMA PAVEMENT 5 SMA 58-34 V 460.8645 TON	ASPHALTIC SURFACE PATCHING 465.0110 TON
83+05	-	183+34	EB/SB LANES	3210	2640	10030	1870	2250	210
186+80	-	214+00	EB/SB LANES	870	715	2720	508	609	60
83+05	-	183+34	WB/NB LANES	3210	2640	10030	1870	2250	210
186+80	-	214+00	WB/NB LANES	870	715	2720	508	609	60
			UNDISTRIBUTED	160		255			54
			CATEGORY 0010 TOTAL	8320	6710	25755	4760	5720	594

CATCH BASINS

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING CATCH BASINS 611.0410 EACH	INLET COVERS TYPE A 611.0600 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE T 611.0652 EACH	ADJUSTING INLET COVERS 611.8115 EACH	SALVAGED INLET COVERS 611.9710 EACH	INLET PROTECTION TYPE C 628.7015 EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
2ND AVE EAST												
85+72	42	CB020257	SS						1	1		
85+94	-29	CB020259	SS	1		1				1	1	FRAME BROKEN/CONCRETE MISSING/MORTAR MISSING
89+28	-37	CB020263	SS	1						1	1	MORTAR MISSING/CONCRETE CHIPPED
89+28	28	CB020261	SS							1		
91+80	-40	CB3A0222	SS	1		1				1	1	FRAME IS BROKEN, CHIMNEY INTERIOR HAS DISPLACED MISSING MORTAR WITH SOIL VISIBLE
91+83	55	CB3A0224	SS				1	1		1		
USH 2/BELKNAP STREET												
92+48	124	CB3A0225	SS	1	1					1	1	BROKEN COVER/CHIMNEY CRACKS
93+44	28	CB3A0219	SS				1	1		1		
96+13	28	CB3A0218	SS							1		
96+23	-39	CB3A0217	SS							1		
99+66	-39	CB3A0197	SS							1		
99+68	27	CB3A0196	SS	1						1	1	CHIMNEY INTERIOR HAS REBAR EXPOSED, SOIL VISIBLE, CONCRETE DEBRIS IN CHANNEL/BENCH
102+99	27	CB3A0199	SS	1						1	1	CHIMNEY INTERIOR RING WITH HOLE, SOIL VISIBLE AND REBAR EXPOSED, CONCRETE DEBRIS ON BENCH
102+99	-39	CB3A0200	SS							1		
7TH AVE EAST												
			SECTION TOTAL	6	1	2	2	2	1	14	6	

CATCH BASINS

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING CATCH BASINS 611.0410 EACH	INLET COVERS TYPE A 611.0600 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE T 611.0652 EACH	ADJUSTING INLET COVERS 611.8115 EACH	SALVAGED INLET COVERS 611.9710 EACH	INLET PROTECTION TYPE C 628.7015 EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
104+24	-39	CB3A0203	SS	1						1	1	CHIMNEY RING MORTAR MISSING, CONCRETE DEBRIS IN PIPE INVERT
104+24	27	CB3A0202	SS						1	1		
8TH AVE EAST												
107+60	-39	CB3A0208	SS							1		
107+66	55	CB3A0207	SS						1	1		
107+93	27	ST3A0206	SS						1	1		
110+93	56	CB3A0214	SS							1		
9TH AVE EAST												
111+30	56	CB3A0212	SS						1	1		
111+56	29	CB3A0211	SS	1						1	1	ROOTS AND SOIL VISIBLE AROUND CHIMNEY INTERIOR
111+96	-51	CB3A0216	SS	1						1	1	CHIMNEY BROKEN/HOLE VISIBLE
11TH AVE EAST												
118+97	-28	CB3A0237	SS	1						1	1	BROKEN CONCRETE INTERIOR, CONTAINS DEBRIS
122+35	-27	CB3A0243	SS	1						1	1	MISSING MORTAR/CONCRETE W/ REBAR EXPOSED
126+11	-27	CB3A0246	SS	1						1	1	MORTAR MISSING, SOIL VISIBLE
126+36	-27	CB3A0247	SS							1		
118+01	29	CB3A0239	SS						1	1		
118+27	56	CB3A0241	SS						1	1		
118+92	30	CB3A0240	SS	1						1	1	CHIMNEY RING MORTAR MISSING W/ REBAR EXPOSED
122+35	27	CB3A0244	SS	1						1	1	CHIMNEY CONCRETE MISSING
126+12	27	ST3A0248	SS							1		
126+36	27	CB3A248A	SS	1						1	1	RECONSTRUCTING CATCH BASINS
129+64	28	CB3A001A	SS						1	1		
14TH AVE EAST												
130+52	-27	CB3A0253	SS							1		
134+63	-27	CB3A0282	SS							1		
134+83	-27	CB3A0281	SS	1						1	1	CHIMNEY MORTAR/CONCRETE MISSING
140+58	-27	CB3A010C	SS							1		
145+54	-27	CB3A011E	SS							1		
149+46	-37	CB040315	SS							1		
149+92	-75	CB040316	SS							1		
130+53	28	CB3A0254	SS						1	1		
134+64	28	CB3A0284	SS							1		
134+84	29	CB3A0283	SS							1		
140+58	29	CB3A010A	SS	1						1	1	CHIMNEY RINGS IN POOR CONDITION, MORTAR MISSING
145+55	29	CB3A011B	SS	1						1	1	CHIMNEY RINGS IN POOR CONDITION, MORTAR MISSING
147+27	40	CB3A0570	SS							1		
147+33	40	CB3A0569	SS							1		
149+86	101	CB040320	SS							1		
149+86	104	CB040321	SS							1		
		SECTION TOTAL		12	0	0	0	0	8	36	12	

CATCH BASINS

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING CATCH BASINS 611.0410 EACH	INLET COVERS TYPE A 611.0600 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE T 611.0652 EACH	ADJUSTING INLET COVERS 611.8115 EACH	SALVAGED INLET COVERS 611.9710 EACH	INLET PROTECTION TYPE C 628.7015 EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
18TH AVE EAST												
150+42	87	CB040319	SS							1		
155+13	-32	CB04041A	SS							1		
155+14	33	ST040042	SS							1		
160+72	-32	CB04017B	SS	1						1	1	CHIMNEY MORTAR/CONCRETE MISSING
160+73	34	CB04017A	SS	1						1	1	CHIMNEY MORTAR/CONCRETE MISSING
164+84	-32	CB040181	SS						1	1		
165+07	43	CB040184	SS	1						1	1	CHIMNEY MORTAR MISSING
21ST AVE EAST												
165+73	-32	CB040182	SS						1	1		
165+48	60	CB040186	SS						1	1		
165+75	34	CB040185	SS						1	1		
169+87	34	CB04029B	SS							1		
170+75	-33	CB040029	SS	1						1	1	
174+87	-33	CB040196	SS						1	1		
170+76	45	CB040190	SS							1		
174+52	48	CB040347	SS							1		
174+96	86	CB040348	SS							1		
23RD AVE EAST												
175+61	81	CB04066A	SS						1	1		
175+75	-33	CB040197	SS						1	1		
175+89	35	CB04064A	SS			1				1		FRAME BROKEN
195+15	60	CB040209	SS	1						1	1	MORTAR MISSING
180+69	-27	CB040200	SS							1		
190+95	-32	CB040204	SS							1		
180+67	28	CB040201	SS							1		
190+96	34	CB040205	SS							1		
27TH AVE EAST												
195+51	61	CB040210	SS						1	1		
199+89	-32	CB040213	SS							1		
200+14	61	CB040214	SS						1	1		
28TH AVE EAST												
200+51	60	CB040215	SS						1	1		
204+88	34	CB040219	SS						1	1		
204+89	-32	CB040218	SS	1						1	1	CHIMNEY MORTAR/CONCRETE MISSING
		SECTION TOTAL		6	0	1	0	0	11	30	6	

CATCH BASINS

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING CATCH BASINS 611.0410 EACH	INLET COVERS TYPE A 611.0600 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE T 611.0652 EACH	ADJUSTING INLET COVERS 611.8115 EACH	SALVAGED INLET COVERS 611.9710 EACH	INLET PROTECTION TYPE C 628.7015 EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
29TH AVE EAST												
209+49	-32	CB040222	SS							1		
205+76	33	CB040220	SS						1	1		
209+50	33	CB040223	SS							1		
30TH AVE EAST												
214+81	34	CB040229	SS	1						1	1	CHIMNEY CONCRETE MISSING
215+14	75	CB040230	SS						1	1		
31ST AVE EAST												
215+50	76	CB040232	SS									
		CATEGORY 0010 TOTAL		25	1	3	2	2	22	85	25	

CATCH BASINS

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING CATCH BASINS 611.0410 EACH	INLET COVERS TYPE A 611.0600 EACH	INLET COVERS TYPE H 611.0624 EACH	INLET COVERS TYPE T 611.0652 EACH	ADJUSTING INLET COVERS 611.8115 EACH	SALVAGED INLET COVERS 611.9710 EACH	INLET PROTECTION TYPE C 628.7015 EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
107+30	54	CB3A0377	SS	1						1	1	HOLE W/ SOIL VISIBLE AND REBAR EXPOSED
118+63	57	CB3A0242	SS	1						1	1	MISSING MORTAR/CONCRETE, INFILTRATION STAINS
		CATEGORY 0050 TOTAL		2	0	0	0	0	0	2	2	

MANHOLES

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING MANHOLES 611.0420 EACH	ADJUSTING MANHOLE COVERS 611.8110 EACH	⚠ COVER PLATES TEMPORARY 611.8120.S EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
2ND AVE EAST								
85+71	-1	ST020256	SS	1		1	1	MORTAR MISSING
88+82	-12	1607061029	SS		1	1		
USH 2/BELKNAP STREET								
92+56	-31	ST3A0220	SS		1	1		
93+67	-34	ST3A0189	SS		1	1		
96+11	-37	ST3A0243	SS		1	1		
96+42	-28	ST3A0062	SS		1	1		
99+66	-33	ST3A0195	SS		1	1		
7TH AVE EAST								
102+99	-33	ST3A0198	SS		1	1		
104+23	-34	ST 3A0201	SS		1	1		
8TH AVE EAST								
107+59	-34	ST3A0204	SS		1	1		
107+64	29	ST3A0205	SS		1	1		
9TH AVE EAST								
111+26	-35	ST3A0209	SS		1	1		
111+26	28	ST3A0210	SS	1		1	1	HOLE W/ SOIL VISIBLE AND REBAR EXPOSED
111+95	-34	ST3A0215	SS		1	1		
118+27	-27	ST3A0236	SS		1	1		
118+27	27	ST3A0238	SS		1	1		
14TH AVE EAST								
149+88	-39	ST040314	SS			1		
150+27	-27	ST040175	SS		1	1		
150+29	35	ST040177	SS			1		
SECTION TOTAL				2	15	19	2	

⚠ ITEM USED IN ADDITIONAL SHEETS

MANHOLES

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING MANHOLES 611.0420 EACH	ADJUSTING MANHOLE COVERS 611.8110 EACH	⚠ COVER PLATES TEMPORARY 611.8120.S EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
18TH AVE EAST								
151+35	-28	ST040325	SS	1		1	1	CHIMNEY RING CONCRETE/MORTAR MISSING
152+72	-27	ST040324	SS		1	1		
155+14	-28	ST040041	SS		1	1		
160+80	-28	ST040017	SS		1	1		
163+05	-22	ST040187	SS		1	1		
165+28	-30	ST040003	SS		1	1		
165+29	22	ST040183	SS		1	1		
21ST AVE EAST								
167+55	-27	ST040189	SS	1		1	1	CHIMNEY RING CONCRETE/MORTAR MISSING
169+85	-28	ST040029	SS		1	1		
175+30	-20	ST040195	SS	1		1	1	CHIMNEY RING CONCRETE/MORTAR MISSING
175+31	0	ST040064	SS		1	1		
175+31	50	ST040065	SS			1		
23RD AVE EAST								
175+54	81	ST040066	SS			1		
190+19	-25	ST040203	SS		1	1		
195+19	-24	ST040208	SS		1	1		
27TH AVE EAST								
200+24	-24	ST040212	SS		1	1		
29TH AVE EAST								
205+25	-24	ST040217	SS		1	1		
29TH AVE EAST								
30TH AVE EAST								
215+11	33	ST040227	SS		1	1		
31ST AVE EAST								
CATEGORY 0010 TOTAL				5	28	37	5	

MANHOLES

STATION	OFFSET	NAME	TYPE	RECONSTRUCTING MANHOLES 611.0420 EACH	ADJUSTING MANHOLE COVERS 611.8110 EACH	⚠ COVER PLATES TEMPORARY 611.8120.S EACH	⚠ SPECIAL 01. ELASTOMERIC WATERPROOFING SEALER SPV.0060.01 EACH	REMARKS
85+51	-19	MH020032	SAN	1		1	1	MORTAR MISSING/CONCRETE MISSING
89+15	-19	MH3A0301	SAN	1		1	1	MORTAR MISSING
92+81	-19	MH3A0302	SAN		1	1		
96+29	-19	MH3A302A	SAN	1		1	1	CHIMNEY INTERIOR MORTAR MISSING
96+54	-22	DC3A0001	SAN		1	1		
100+16	-19	MH3A0303	SAN	1		1	1	CONCRETE CHIPPED AWAY AND MISSING AROUND CHIMNEY INTERIOR WITH EXPOSED REBAR, INFILTRATION WEEPER COMING FROM CHIMNEY INTERIOR JOINT
103+79	-20	MH3A0304	SAN		1	1		
107+45	-20	MH3A0305	SAN	1		1	1	CONCRETE CHIPPED AWAY, MORTAR MISSING AROUND CHIMNEY INTERIOR
111+11	-20	MH3A306A	SAN		1	1		
114+40	-22	MH3A0610	SAN		1	1		
114+77	-20	MH3A0609	SAN		1	1		
118+44	-20	MH3A0308	SAN		1	1		
122+11	-20	MH3A0228	SAN		1	1		
126+17	-20	MH3A309A	SAN		1	1		
128+19	-20	MH3A0224	SAN		1	1		
130+02	-21	MH3A0310	SAN		1	1		
134+24	-21	MH3A0311	SAN		1	1		
135+05	-21	MH3A0201	SAN		1	1		
137+76	-20	MH3A0312	SAN		1	1		
141+76	-20	MH3A0313	SAN	1		1	1	CHIMNEY CONCRETE/MORTAR MISSING
145+72	-20	MH3A0314	SAN		1	1		
149+61	-20	MH040001	SAN	1		1	1	CHIMNEY MORTAR MISSING
153+73	-20	MH040002	SAN		1	1		
155+59	-20	MH040003	SAN	1		1	1	CHIMNEY MORTAR MISSING
157+73	-20	MH040004	SAN		1	1		
161+64	-20	MH040005	SAN		1	1		
165+08	-19	MH040006	SAN	1		1	1	CHIMNEY MORTAR/CONCRETE MISSING
165+20	-19	MH04006A	SAN	1		1	1	CHIMNEY MORTAR/CONCRETE MISSING
165+37	-19	MH04006B	SAN	1		1	1	CHIMNEY MORTAR/CONCRETE MISSING, REBAR EXPOSED
165+53	-19	MH040007	SAN	1		1	1	CHIMNEY MORTAR/CONCRETE MISSING
168+70	-19	MH040008	SAN		1	1		
169+80	-14	2631	WATER		1	1		
170+79	-16	1607071190	WATER		1	1		
172+20	-20	MH040009	SAN		1	1		
175+11	-38	1607071196	MH		1	1		
175+22	-20	MH040010	SAN		1	1		
175+22	50	MH040083	SAN			1		
175+31	64	MH04083A	SAN			1		
179+92	-19	MH040011	SAN		1	1		
		CATEGORY 0050 TOTAL		12	25	39	12	

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FINISHING

STATION	TO	STATION	LOCATION	TOPSOIL 625.0100 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
			CATEOGRY 0010				
84+95	-	85+30	ML RT	43	43	0.03	0.8
85+04	-	85+30	ML LT	39	39	0.03	0.8
2ND AVE EAST							
85+67	-	85+80	ML RT	24	24	0.02	0.5
85+65	-	86+07	ML LT	25	25	0.02	0.5
91+33	-	91+93	ML RT	270	270	0.18	4.9
91+36	-	92+07	ML LT	123	123	0.08	2.3
BELKNAP ST/N MARINA DR							
92+60	-	94+31	ML RT	298	298	0.19	5.4
92+56	-	92+98	ML LT	60	60	0.04	1.1
103+34	-	103+63	ML RT	31	31	0.02	0.6
7TH AVE EAST							
103+95	-	104+28	ML RT	31	31	0.02	0.6
107+00	-	107+32	ML RT	44	44	0.03	0.8
8TH AVE EAST							
107+63	-	107+99	ML RT	23	23	0.02	0.5
110+58	-	110+94	ML RT	32	32	0.03	0.6
110+27	-	110+50	ML LT	25	25	0.02	0.5
9TH AVE E/S MARINA DR							
111+27	-	111+76	ML RT	45	45	0.03	0.9
111+25	-	111+56	ML LT	25	25	0.02	0.5
117+92	-	118+28	ML RT	24	24	0.02	0.5
11TH AVE EAST							
118+59	-	118+93	ML RT	23	23	0.02	0.5
129+57	-	129+92	ML RT	32	32	0.03	0.6
14TH AVE EAST							
130+23	-	130+60	ML RT	72	72	0.05	1.3
164+79	-	165+14	ML RT	35	35	0.03	0.7
164+76	-	165+13	ML LT	20	20	0.02	0.4
21ST AVE EAST							
SECTION TOTAL				1344	1344	1.0	25.3

FINISHING

STATION	TO	STATION	LOCATION	TOPSOIL 625.0100 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
165+45	-	165+84	ML RT	51	51	0.04	1.0
165+45	-	165+82	ML LT	30	30	0.02	0.6
175+68	-	175+99	ML LT	36	36	0.03	0.7
23RD AVE EAST							
175+59	-	175+96	ML RT	75	75	0.05	1.4
174+77	-	175+15	ML LT	43	43	0.03	0.8
194+81	-	195+16	ML RT	44	44	0.03	0.8
194+78	-	195+17	ML LT	32	32	0.03	0.6
27TH AVE EAST							
195+48	-	195+87	ML RT	26	26	0.02	0.5
195+48	-	195+85	ML LT	25	25	0.02	0.5
199+78	-	200+15	ML RT	43	43	0.03	0.8
28TH AVE EAST							
200+47	-	200+84	ML RT	27	27	0.02	0.5
204+79	-	205+16	ML RT	33	33	0.03	0.6
204+84	-	205+18	ML LT	14	14	0.01	0.3
29TH AVE EAST							
205+47	-	205+83	ML RT	23	23	0.02	0.5
214+74	-	215+13	ML RT	39	39	0.03	0.8
31ST AVE EAST							
CATEGORY 0010 TOTAL				1885	1885	1.4	35.7

FINISHING

STATION	TO	STATION	LOCATION	TOPSOIL 625.0100 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
CATEGORY 0040							
75+92	-	84+95	RT	401	401	0.26	7.3
2ND AVE E - BELKNAP							
86+07	-	86+33	LT	12	12	0.01	0.3
87+00	-	87+25	LT	11	11	0.01	0.2
89+86	-	89+92	LT	3	3	0.01	0.1
90+61	-	90+67	RT	3	3	0.01	0.1
BELKNAP - 7TH AVE EAST							
92+97	-	93+19	LT	10	10	0.01	0.2
93+70	-	93+80	LT	5	5	0.01	0.1
94+40	-	94+51	RT	5	5	0.01	0.1
97+59	-	97+70	RT	5	5	0.01	0.1
99+55	-	99+66	LT	5	5	0.01	0.1
7TH - 8TH AVE EAST							
104+75	-	104+85	LT	5	5	0.01	0.1
105+38	-	105+92	RT	24	24	0.02	0.5
106+81	-	107+00	RT	8	8	0.01	0.2
8TH - 9TH AVE EAST							
107+45	-	107+70	LT	12	12	0.01	0.3
107+92	-	107+98	RT	3	3	0.01	0.1
110+10	-	110+35	LT	12	12	0.01	0.3
110+24	-	110+59	RT	16	16	0.01	0.3
9TH AVE - 11TH AVE EAST							
113+75	-	114+06	RT	14	14	0.01	0.3
114+35	-	114+40	LT	3	3	0.01	0.1
115+51	-	115+58	LT	4	4	0.01	0.1
116+10	-	116+26	RT	7	7	0.01	0.2
116+32	-	116+45	RT	6	6	0.01	0.2
11TH AVE - 14TH AVE EAST							
120+25	-	120+51	RT	12	12	0.01	0.3
124+94	-	125+56	RT	28	28	0.02	0.5
125+99	-	126+70	RT	32	32	0.02	0.6
129+28	-	129+61	RT	15	15	0.01	0.3
14TH AVE - 18TH AVE EAST							
SECTION TOTAL				658	658	0.5	13.0

FINISHING

STATION	TO	STATION	LOCATION	TOPSOIL 625.0100 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
134+50	-	135+00	RT	23	23	0.02	0.5
137+39	-	137+76	RT	16	16	0.02	0.3
139+13	-	139+61	RT	21	21	0.02	0.4
141+30	-	141+54	RT	11	11	0.01	0.2
141+84	-	142+20	RT	20	20	0.02	0.4
142+12	-	142+25	RT	6	6	0.01	0.2
143+13	-	143+25	RT	5	5	0.01	0.1
143+50	-	143+80	RT	13	13	0.01	0.3
143+55	-	143+75	LT	26	26	0.02	0.5
143+74	-	144+93	LT	58	58	0.04	1.1
144+91	-	145+31	RT	18	18	0.02	0.4
145+45	-	145+55	LT	5	5	0.01	0.1
149+77	-	149+83	LT	3	3	0.01	0.1
18TH AVE - 21ST AVE EAST							
151+87	-	151+93	RT	3	3	0.01	0.1
152+00	-	152+10	RT	4	4	0.01	0.1
152+75	-	153+25	LT	23	23	0.02	0.5
152+78	-	153+13	RT	16	16	0.01	0.3
153+93	-	154+05	RT	5	5	0.00	0.1
154+42	-	154+49	RT	3	3	0.01	0.1
155+01	-	155+31	RT	13	13	0.01	0.3
157+10	-	157+26	RT	7	7	0.01	0.2
158+90	-	159+16	RT	12	12	0.01	0.3
159+26	-	159+56	RT	13	13	0.01	0.3
160+43	-	160+49	RT	3	3	0.01	0.1
160+61	-	160+87	RT	12	12	0.01	0.3
161+77	-	162+07	LT	14	14	0.01	0.3
162+74	-	163+21	LT	21	21	0.02	0.4
164+13	-	164+50	LT	17	17	0.02	0.4
21ST AVE - 22ND AVE EAST							
166+41	-	166+52	RT	5	5	0.01	0.1
166+90	-	167+72	RT	36	36	0.03	0.7
168+19	-	168+31	RT	5	5	0.01	0.1
22ND AVE - 23RD AVE EAST 23RD AVE - 27TH AVE EAST							
177+32	-	177+38	RT	3	3	0.01	0.1
177+64	-	177+87	RT	10	10	0.01	0.2
178+50	-	178+57	LT	3	3	0.01	0.1
178+54	-	178+72	RT	8	8	0.01	0.2
178+77	-	178+84	LT	3	3	0.01	0.1
179+67	-	179+73	RT	3	3	0.01	0.1
180+40	-	180+60	LT	9	9	0.01	0.2
SECTION TOTAL				476	477	0.5	10.3

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FINISHING

STATION	TO	STATION	LOCATION	TOPSOIL 625.0100 SY	EROSION MAT URBAN CLASS I TYPE A 628.2006 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB
180+86	-	180+92	RT	3	3	0.01	0.1
188+26	-	188+33	RT	3	3	0.01	0.1
188+67	-	188+73	RT	3	3	0.01	0.1
189+00	-	189+10	RT	4	4	0.01	0.1
189+27	-	189+33	RT	3	3	0.01	0.1
190+37	-	190+43	RT	3	3	0.01	0.1
190+52	-	190+58	LT	3	3	0.01	0.1
190+67	-	190+73	RT	3	3	0.01	0.1
191+27	-	191+34	LT	3	3	0.01	0.1
191+50	-	191+65	LT	7	7	0.01	0.2
191+70	-	192+28	LT	26	26	0.02	0.5
192+87	-	192+94	LT	3	3	0.01	0.1
193+17	-	193+23	LT	3	3	0.01	0.1
193+27	-	193+33	LT	3	3	0.01	0.1
193+85	-	193+96	LT	5	5	0.01	0.1
194+71	-	194+82	RT	5	5	0.01	0.1
27TH AVE - 28TH AVE EAST							
196+69	-	196+90	RT	9	9	0.01	0.2
198+15	-	198+40	RT	11	11	0.01	0.2
199+52	-	199+58	LT	3	3	0.01	0.1
199+52	-	199+78	RT	12	12	0.01	0.3
28TH AVE - 29TH AVE EAST							
201+96	-	202+13	RT	8	8	0.01	0.2
202+30	-	202+44	RT	6	6	0.01	0.2
203+10	-	203+64	RT	24	24	0.02	0.5
202+95	-	203+30	LT	0	0	0.00	0.0
203+74	-	203+85	RT	5	5	0.01	0.1
204+00	-	204+55	RT	24	24	0.02	0.5
29TH AVE - 30TH AVE EAST							
207+55	-	207+65	RT	4	4	0.01	0.1
207+77	-	207+83	RT	3	3	0.01	0.0
209+06	-	209+12	RT	3	3	0.01	0.1
209+37	-	210+07	RT	31	31	0.02	0.6
30TH AVE - 31ST AVE EAST							
211+50	-	211+75	RT	11	11	0.01	0.2
213+03	-	213+08	LT	3	3	0.01	0.1
213+10	-	213+31	RT	9	9	0.01	0.0
213+66	-	213+73	RT	3	3	0.01	0.1
214+67	-	214+76	RT	4	4	0.01	0.1
CATEGORY 0040 TOTAL				1386	1386	1.4	29.0

MOBILIZATION

STATION	TO	STATION	LOCATION	619.1000 EACH
83+05	-	214+00	PROJECT	1
CATEGORY TOTAL 0010				1

WATER

STATION	TO	STATION	LOCATION	624.0100 MGAL	REMARKS
83+05	-	214+00	PROJECT	30	DUST CONTROL FOR REMOVING CONCRETE SURFACE PARTIAL DEPTH
CATEGORY TOTAL 0010				30	

SEED WATER

STATION	TO	STATION	LOCATION	630.0500 MGAL
83+05	-	214+00	PROJECT	30
CATEGORY TOTAL 0010				30

MOB EROSION CONTROL

STATION	TO	STATION	LOCATION	MOBILIZATIONS EROSION CONTROL 628.1905 EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL 628.1910 EACH
83+05	-	214+00	PROJECT STAGE 1	1	1
83+05	-	214+00	PROJECT STAGE 2	1	1
83+05	-	214+00	PROJECT STAGE 3	1	-
CATEGORY 0010 TOTAL				3	2

PERMANENT SIGNING

STATION	LOCATION	SIGN CODE	SIZE	POSTS WOOD 4X6-INCH X 16-FT 634.0616 EACH	SIGNS TYPE II REFLECTIVE H 637.2210 SF	MOVING SIGNS TYPE II 638.2102 EACH	MOVING SMALL SIGN SUPPORTS 638.4000 EACH	REMARKS
85+19	2ND AVE E INTERSECTION	--	--	0	0	1	1	STREET SIGN & NO TRUCK SIGN
88+10	2ND AVE E - BELKNAP	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
92+30	BELKNAP INTERSECTION	R1-1F	36"X36"	0	0	4	0	FOLDABLE STOP SIGNAL MOUNTED
101+90	BELKNAP - 7TH AVE E	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
110+35	SOUTH MARINA DR	W16-7L	24"X12"	0	0	1	1	ARROW SIGN
110+35	SOUTH MARINA DR	W11-2	36"X36"	0	0	1	0	PED XING SIGN
118+75	11TH AVE E	R1-1	36"X36"	0	0	1	1	STOP SIGN
118+75	11TH AVE E	R6-2R	24"X30"	0	0	1	0	ONE WAY
157+00	18TH AVE - 21ST AVE	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
164+80	21ST AVE E - N	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
164+80	21ST AVE E - W	CUST	--	0	0	1	2	"EAST END BUSINESS DISTRICT"
165+05	21ST AVE E - N	R1-1	36"X36"	0	0	1	1	STOP SIGN
165+75	21ST AVE E - E	W16-7L	24"X12"	0	0	1	1	ARROW SIGN
165+75	21ST AVE E - E	W11-2	36"X36"	0	0	1	0	PED XING SIGN
165+50	21ST AVE E - S	R1-1	36"X36"	0	0	1	1	STOP SIGN
175+00	23RD AVE E - N	R1-1	36"X36"	0	0	1	1	STOP SIGN
175+65	23RD AVE E - S	R1-1	36"X36"	0	0	1	1	STOP SIGN
186+00	STRUCTURE B-16-68	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
195+05	27TH AVE E - N	R1-1	36"X36"	0	0	1	1	STOP SIGN
195+05	27TH AVE E - S	--	--	0	0	1	1	STREET SIGNS
200+65	28TH AVE E - S	--	--	0	0	1	1	STREET SIGNS
205+55	29TH AVE E - S	R1-1	36"X36"	0	0	1	1	STOP SIGN
207+25	29TH AVE - 30TH AVE E	R4-5L	24"X30"	1	6	0	0	TRUCKS USE LEFT LANE
CATEGORY 0010 TOTAL				6	36	20	14	

FIELD OFFICE TYPE B

STATION	TO	STATION	LOCATION	642.5001 EACH
83+05	-	215+00		1
CATEGORY TOTAL 0010				1

TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	643.5000 EACH
83+05	-	214+00	PROJECT	1
CATEGORY TOTAL 0010				1

TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	TRAFFIC CONTROL DRUMS 643.0300 DAY	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE 643.1000 SF	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY	REMARKS
82+00	-	92+30	SB APPROACH - BELKNAP							10	BEFORE WORK BEGINS
215+25	-	235+00	31ST AVE - NB APPROACH							10	BEFORE WORK BEGINS
											Stage 1A
82+00	-	92+30	SB APPROACH - BELKNAP	3740	136	272	204	748		34	PCMS TO BE LOCATED 1.5 MI BEFORE PROJECT
92+30	-	103+75	BELKNAP - 7TH AVE	1890	102	204	170	238			
103+75	-	111+00	7TH AVE - 9TH AVE	544	68	136	0	136			
111+00	-	118+50	9TH AVE - 11TH AVE	884	34	68	0	136			
118+50	-	130+00	11TH AVE - 14TH AVE	782	34	68	0	68			
130+00	-	150+00	14TH AVE - 18TH AVE	1215	34	68	102	102			
150+00	-	165+25	18TH AVE - 21ST AVE	952	68	136	204	204			
165+25	-	175+40	21ST AVE - 23RD AVE	1870	102	204	272	272			
175+40	-	195+30	23RD AVE - 27TH AVE	850	102	204	0	306			
195+30	-	205+25	27TH AVE - 29TH AVE	1054	204	408	442	408			
205+25	-	215+25	29TH AVE - 31ST AVE	0	0	0	0	102			
215+25	-	235+00	31ST AVE - NB APPROACH	0	0	0	0	204		34	PCMS TO BE LOCATED 1.5 MI BEFORE PROJECT
											STAGE 1B
82+00	-	92+30	SB APPROACH - BELKNAP	2484	184	368	253	506		23	
92+30	-	103+75	BELKNAP - 7TH AVE	1610	46	92	138	161			
103+75	-	111+00	7TH AVE - 9TH AVE	667	138	276	0	230			INCLUDES TC FOR SIDEROAD
111+00	-	118+50	9TH AVE - 11TH AVE	552	23	46	0	115			
118+50	-	130+00	11TH AVE - 14TH AVE	644	138	276	0	92			INCLUDES TC FOR SIDEROAD
130+00	-	150+00	14TH AVE - 18TH AVE	1173	161	322	92	161			
150+00	-	165+25	18TH AVE - 21ST AVE	1127	115	230	0	207			INCLUDES TC FOR SIDEROAD
165+25	-	175+40	21ST AVE - 23RD AVE	3289	161	322	299	437			
175+40	-	195+30	23RD AVE - 27TH AVE	345	276	552	0	207			INCLUDES TC FOR SIDEROAD
195+30	-	205+25	27TH AVE - 29TH AVE	1380	161	322	368	322			INCLUDES TC FOR SIDEROAD
205+25	-	215+25	29TH AVE - 31ST AVE	1196	23	46	0	138			
215+25	-	235+00	31ST AVE - NB APPROACH	0	0	0	0	138		23	
											STAGE 1C
82+00	-	92+30	SB APPROACH - BELKNAP	629	17	34	0	136		17	
92+30	-	103+75	BELKNAP - 7TH AVE	544	34	68	102	102			
103+75	-	111+00	7TH AVE - 9TH AVE	170	0	0	0	17			
111+00	-	118+50	9TH AVE - 11TH AVE	68	0	0	0	51			
118+50	-	130+00	11TH AVE - 14TH AVE	0	0	0	0	0			
130+00	-	150+00	14TH AVE - 18TH AVE	782	34	68	102	85			
150+00	-	165+25	18TH AVE - 21ST AVE	1445	34	68	0	102			
165+25	-	175+40	21ST AVE - 23RD AVE	1530	119	238	170	170			INCLUDES TC FOR SIDEROAD
175+40	-	195+30	23RD AVE - 27TH AVE	221	51	102	0	153			
195+30	-	205+25	27TH AVE - 29TH AVE	952	187	374	170	204			INCLUDES TC FOR SIDEROAD
205+25	-	215+25	29TH AVE - 31ST AVE	408	85	170	0	85			
215+25	-	235+00	31ST AVE - NB APPROACH	153	0	0	0	102		17	
			SECTION TOTAL	35150	2871	5742	3088	6845	0	168	

TRAFFIC CONTROL

STATION	TO	STATION	LOCATION	TRAFFIC CONTROL DRUMS 643.0300 DAY	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE 643.1000 SF	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY	REMARKS
82+00	-	92+30	SB APPROACH - BELKNAP	0	0	0	0	130		26	STAGE 2A
92+30	-	103+75	BELKNAP - 7TH AVE	442	0	0	0	26			
103+75	-	111+00	7TH AVE - 9TH AVE	962	52	104	0	104			
111+00	-	118+50	9TH AVE - 11TH AVE	520	26	52	0	104			
118+50	-	130+00	11TH AVE - 14TH AVE	624	26	52	0	26			
130+00	-	150+00	14TH AVE - 18TH AVE	1144	52	104	0	104			
150+00	-	165+25	18TH AVE - 21ST AVE	1820	78	156	156	208			
165+25	-	175+40	21ST AVE - 23RD AVE	2938	234	468	104	390			
175+40	-	195+30	23RD AVE - 27TH AVE	572	130	260	0	208			INCLUDES TC FOR SIDEROAD
195+30	-	205+25	27TH AVE - 29TH AVE	1690	104	208	260	260			
205+25	-	215+25	29TH AVE - 31ST AVE	910	52	104	0	104			
215+25	-	235+00	31ST AVE - NB APPROACH	728	52	104	182	234		26	
											STAGE 2B
82+00	-	92+30	SB APPROACH - BELKNAP	0	0	0	0	65		13	
92+30	-	103+75	BELKNAP - 7TH AVE	260	0	0	0	26			
103+75	-	111+00	7TH AVE - 9TH AVE	234	13	26	0	52			
111+00	-	118+50	9TH AVE - 11TH AVE	351	0	0	0	26			
118+50	-	130+00	11TH AVE - 14TH AVE	312	13	26	0	13			
130+00	-	150+00	14TH AVE - 18TH AVE	533	26	52	0	39			
150+00	-	165+25	18TH AVE - 21ST AVE	1079	39	78	78	91			
165+25	-	175+40	21ST AVE - 23RD AVE	1779	78	156	104	221			
175+40	-	195+30	23RD AVE - 27TH AVE	182	52	104	0	104			
195+30	-	205+25	27TH AVE - 29TH AVE	1001	39	78	182	104			
205+25	-	215+25	29TH AVE - 31ST AVE	702	52	78	0	78			
215+25	-	235+00	31ST AVE - NB APPROACH	325	26	52	91	104		13	
											STAGE 3
82+00	-	92+30	SB APPROACH - BELKNAP	5500	300	600	300	850		50	
92+30	-	103+75	BELKNAP - 7TH AVE	2050	400	800	0	400			
103+75	-	111+00	7TH AVE - 9TH AVE	3150	100	200	0	250			
111+00	-	118+50	9TH AVE - 11TH AVE	1100	200	400	0	200			
118+50	-	130+00	11TH AVE - 14TH AVE	2400	200	400	0	200			
130+00	-	150+00	14TH AVE - 18TH AVE	5750	100	200	0	200			
150+00	-	165+25	18TH AVE - 21ST AVE	4550	100	200	0	250			
165+25	-	175+40	21ST AVE - 23RD AVE	4500	200	400	0	500			
175+40	-	195+30	23RD AVE - 27TH AVE	5450	100	200	0	250			
195+30	-	205+25	27TH AVE - 29TH AVE	3500	300	600	0	450			
205+25	-	215+25	29TH AVE - 31ST AVE	4200	100	200	0	175			
215+25	-	235+00	31ST AVE - NB APPROACH	550	100	200	300	350		50	
											PEDESTRIAN DETOURS
			SOUTH MARINA DR - OSAUGIE	646	51	102		136	20		OSAUGIE TRAIL TEMPORARY CLOSURE & DETOUR
			BNSF RR OVERPASS - OSAUGIE	0	452	904		678	106		OSAUGIE TRAIL TEMPORARY CLOSURE & DETOUR
			SECTION TOTAL	62454	3847	7668	1757	7710	126	178	

TRAFFIC CONTROL

LOCATION	TRAFFIC CONTROL DRUMS 643.0300 DAY	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	TRAFFIC CONTROL SIGNS FIXED MESSAGE 643.1000 SF	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY	REMARKS
						400		TRUCK ADVANCED SIGNING
USH 2 WB/USH 53 NB					226			ADVANCED WIDTH RESTRICTION ASSEMBLY
USH 2 WB/USH 53 NB					57			ADVANCED WARNING ASSEMBLY
USH 2 WB/USH 53 NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
USH 2 WB/USH 53 NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
USH 2 WB/USH 53 NB					228			DETOUR STRAIGHT ASSEMBLY
USH 2 WB/USH 53 NB					228			DETOUR STRAIGHT ASSEMBLY
USH 53 NB					171			DETOUR ASSEMBLY
USH 53 NB					228			TRUCK DETOUR ASSEMBLY
USH 53 NB					285			TRUCK DETOUR RIGHT TURN ASSEMBLY
USH 53 NB					285			TRUCK DETOUR RIGHT ARROW ASSEMBLY
USH 53 NB					228			DETOUR RIGHT BENT ARROW ASSEMBLY
USH 53 NB					228			DETOUR TILT RIGHT ARROW ASSEMBLY
N 3RD ST					171			DETOUR ASSEMBLY
E 1ST ST NB					228			TRUCK DETOUR ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
WINTER ST WB					228			TRUCK DETOUR ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
WINTER ST WB					228			TRUCK DETOUR ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR LEFT TURN ASSEMBLY
WINTER ST WB					285			TRUCK DETOUR LEFT ARROW ASSEMBLY
GARFIELD AVE SB					228			TRUCK DETOUR ASSEMBLY
GARFIELD AVE SB					228			TRUCK DETOUR END ASSEMBLY
USH 2 EB					114			ADVANCED WARNING ASSEMBLY
USH 2 EB					285			TRUCK DETOUR LEFT TURN ASSEMBLY
USH 2 EB					285			TRUCK DETOUR LEFT ARROW ASSEMBLY
GARFIELD AVE NB					228			TRUCK DETOUR ASSEMBLY
GARFIELD AVE NB					285			TRUCK DETOUR RIGHT TURN ASSEMBLY
GARFIELD AVE NB					285			TRUCK DETOUR RIGHT ARROW ASSEMBLY
WINTER ST EB					228			TRUCK DETOUR ASSEMBLY
WINTER ST EB					285			TRUCK DETOUR LEFT TURN ASSEMBLY
WINTER ST EB					285			TRUCK DETOUR LEFT ARROW ASSEMBLY
TOWER AVE NB					114			ADVANCED TRUCK WARNING ASSEMBLY
TOWER AVE NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
TOWER AVE NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
TOWER AVE NB					228			TRUCK DETOUR ASSEMBLY
TOWER AVE NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
TOWER AVE NB					285			TRUCK DETOUR STRAIGHT ASSEMBLY
TOWER AVE NB					57			NO PARKING
TOWER AVE NB					228			TRUCK DETOUR ASSEMBLY
TOWER AVE SB					228			DETOUR END ASSEMBLY
USH 53 SB					228			TRUCK DETOUR END ASSEMBLY
USH 53 SB					226			ADVANCED WIDTH RESTRICTION ASSEMBLY
CATEGORY 0010 TOTAL	97604	6718	13410	4845	24811	526	346	

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TRAFFIC CONTROL COVERING SIGNS TYPE II

643.0920

STATION	TO	STATION	LOCATION	SIGN CODE	EACH	# OF SIGNS	COVER/UNCOVER CYCLES	PHASE(S) COVERED
76+00	-	80+60	BEGIN PROJECT	R4-5L	1	1	1	ALL
76+00	-	80+60	BEGIN PROJECT	R2-1	1	1	1	ALL
86+00	-	92+00	BELKNAP / USH 2	R3-8	1	1	1	1A
86+00	-	92+00	BELKNAP / USH 2	R3-8	1	1	1	1A & 1B
97+00	-	108+25	BELKNAP - S MARINA DR	R2-1	2	2	1	ALL
130+00	-	150+10	14TH AVE E - 18TH AVE E	R2-1	1	1	1	ALL
165+50	-	167+00	21ST AVE E - 22ND AVE E	R2-1	2	2	1	ALL
175+50	-	195+00	23RD AVE E - 27TH AVE E	R2-1	1	1	1	ALL
205+25	-	210+50	29TH AVE E - 30TH AVE E	R4-5L	1	1	1	ALL
			OSAUGIE TRAIL CLOSURE	SP	27	9	3	1 CYCLE PER 1A-1C, 2A-2B, & 3
			CATEGORY TOTAL 0010		38			

CONSTRUCTION STAKING RESURFACING REFERENCE

650.8000

STATION	TO	STATION	LOCATION	LF
8305	-	21400	SB/EB & NB/WB LANES	13095
			CATEGORY TOTAL 0010	13095

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TUBULAR MARKERS

STATION	TO	STATION	LOCATION	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS 643.0500 EACH	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES 643.0600 EACH	REMARKS
						STAGE 1 A-C
175+40	-	195+30	23RD AVE - 27TH AVE	39	39	
195+30	-	205+25	27TH AVE - 29TH AVE	2	2	
						STAGE 2 A & B
165+25	-	175+40	21ST AVE - 23RD AVE	6	6	
175+40	-	195+30	23RD AVE - 27TH AVE	45	45	
195+30	-	205+25	27TH AVE - 29TH AVE	2	2	
			CATEGORY 0010 TOTAL	94	94	

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT)

650.8500

STATION	TO	STATION	LOCATION	LS
88+35	-	96+00	BELKNAP INTERSECTION	1
			CATEGORY TOTAL 0030	1

TEMPORARY PEDESTRIAN ACCESS

STATION	TO	STATION	LOCATION	TEMPORARY PEDESTRIAN SURFACE ASPHALT 644.1410 SF	TEMPORARY PEDESTRIAN SURFACE PLATE 644.1430 SF	TEMPORARY CURB RAMP 644.1601 DAY	TEMPORARY PEDESTRIAN BARRICADE 644.1810 LF
85+00	-	86+10	2nd Ave E		200	34	
91+30	-	94+35	Belknap St/USH 2		250	68	
110+25	-	111+80	9th Ave E/Marina Dr	450	200	34	1030
164+70	-	165+85	21st Ave E		200	68	
194+75	-	195+90	27th Ave E		200	68	
			CATEGORY 0010 TOTAL	450	1050	272	1030

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT)

650.9910

STATION	TO	STATION	LOCATION	LS
83+05	-	214+00	USH 2/USH 53	1
			CATEGORY TOTAL 0010	1

⚠ ITEM USED IN ADDITIONAL SHEETS

TRAFFIC CONTROL MARKING

STATION	TO	STATION	LOCATION	MARKING REMOVAL LINE 4-INCH 646.9000 LF	MARKING REMOVAL SPECIAL MARKING 646.9300 EACH	SPECIAL 03. TEMPORARY MARKING WET REFLECTIVE EPOXY 6-INCH SPV.0090.03 LF	SPECIAL 04. TEMPORARY MARKING WET REFLECTIVE REMOVABLE TAPE 6-INCH SPV.0090.04 LF	REMARKS
								Stage 1A
81+50	-	82+75	NW 2ND AVE E	31			125	SB APPROACH TAPER
89+00	-	90+00	BELKNAP AVE SE OF E 2ND	33	7		100	EB TAPER & CL REMOVAL IN TAPER & BELKNAP MARKING REMOVAL
96+15	-	97+25	BELKNAP - 7TH AVE E (MID BLOCK)	28			110	NB TAPER & CL REMOVAL IN TAPER
159+50	-	160+75	18TH AVE E - 21ST AVE E (MID BLOCK)	31			250	SB LANE SHIFT (**STAGE 1A, 2AB**)
164+00	-	165+00	NW 1/2 21ST AVE E				100	SB TEMP RIGHT TURN
167+50	-	168+35	21ST AVE E - 22ND AVE E (MID BLOCK)				85	SB TEMP RIGHT TURN
168+75	-	169+80	21ST AVE E - 22ND AVE E (MID BLOCK)				105	SB TEMP RIGHT TURN
173+30	-	175+50	22ND AVE E - 23RD AVE E (MID BLOCK)	250			440	SB LANE SHIFT (**STAGE 1AB**)
175+50	-	196+25	23RD AVE E - 27TH AVE E			4000		OPPOSING TRAFFIC SEPERATION (**STAGE 1ABC**)
196+00	-	199+75	27TH AVE E - 28TH AVE E	258			500	NB TAPER & SB SHIFT & CL REMOVAL IN TAPER/SHIFT (**STAGE 1AB**)
								STAGE 1B
82+25	-	83+25	SB APPROACH	100			100	CL REMOVAL IN APPROACH TAPER & TAPER LINE
92+90	-	94+25	SE 1/2 BELKNAP AVE				135	NB TEMP LEFT TURN
92+90	-	94+25	BELKNAP AVE - 7TH AVE E (MID BLOCK)				135	NB TEMP LEFT TURN
99+30	-	101+00	BELKNAP AVE - 7TH AVE E (MID BLOCK)	43			170	NB LANE SHIFT & CL REMOVAL IN SHIFT
109+60	-	110+75	NW 1/2 9TH AVE E				115	SB TEMP LEFT TURN
159+50	-	160+75	18TH AVE E - 21ST AVE E (MID BLOCK)	31			125	NB TAPER & CL REMOVAL IN TAPER
137+50	-	139+00	14TH AVE E - 18TH AVE E (MID BLOCK)	50			150	SB LANE SHIFT & CL REMOVAL IN SHIFT
174+00	-	175+00	NW 1/2 23RD AVE E	25			100	NB LANE SHIFT & CL REMOVAL IN SHIFT
209+75	-	210+40	NW 1/2 30TH AVE E				65	SB TEMP LEFT TURN LANE
								STAGE 1C
97+40	-	98+50	BELKNAP AVE - 7TH AVE E (MID BLOCK)	28			110	NB TAPER & CL REMOVAL IN TAPER
135+30	-	136+50	14TH AVE E - 18TH AVE E (MID BLOCK)	30			120	SB TAPER & CL REMOVAL IN TAPER
173+15	-	175+50	22ND AVE E - 23RD AVE E (MID BLOCK)	25			470	NB LANE SHIFT & CL REMOVAL IN SHIFT
								STAGE 2A
159+40	-	160+70	18TH AVE E - 21ST AVE E (MID BLOCK)	33			130	SB TAPER & CL REMOVAL IN TAPER (**STAGE 2AB**)
168+00	-	168+50	21ST AVE E - 22ND AVE E (MID BLOCK)		2		50	SB TEMP LEFT TURN LANE (**STAGE 2AB**)
171+00	-	173+00	22ND AVE E - 23RD AVE E (MID BLOCK)	200	2		750	NB LANE SHIFT & OPPOSING TRAFFIC SEPERATION
175+00	-	197+50	23RD AVE E - 27TH AVE E				4500	OPPOSING TRAFFIC SEPERATION (**STAGE 2AB**)
196+50	-	200+00	27TH AVE E - 28TH AVE E (MID BLOCK)	200	2		700	NB LANE SHIFT & CL REMOVAL IN SHIFT
218+50	-	219+75	NEMADJI BRIDGE	31			125	NB LANE TAPER & CL REMOVAL IN SHIFT
								STAGE 2B
172+50	-	175+50	22ND AVE E - 23RD AVE E (MID BLOCK)	100			600	NB LANE SHIFT & CL REMOVAL IN SHIFT
195+00	-	199+00	SE 1/2 27TH AVE E	100			800	NB LANE SHIFT & CL REMOVAL IN SHIFT
218+00	-	220+00	NEMADJI BRIDGE				200	NB LANE TAPER & CL REMOVAL IN SHIFT
								STAGE 3
			CATEGORY 0010 TOTAL	1626	13	4000	11465	

MARKING

STATION	TO	STATION	LOCATION	MARKING LINE EPOXY 4-INCH 646.1020 LF	MARKING LINE EPOXY 8-INCH 646.3020 LF	MARKING ARROW EPOXY 646.5020 EACH	MARKING WORD EPOXY 646.5120 EACH	MARKING STOP LINE EPOXY 18-INCH 646.6120 LF	CROSSWALK EPOXY TRANSVERSE LINE 6-INCH 646.7420 LF	MARKING CORRUGATED MEDIAN EPOXY 646.8020 SF	MARKING CURB EPOXY 646.8120 LF	MARKING ISLAND NOSE EPOXY 646.8220 EACH
82+00	-	85+00	BEGIN PROJECT - 2ND AVE E	1350					105			1
86+00	-	91+75	2ND AVE E - BELKNAP	2618	77	1		17	132		24	1
91+25	-	92+95	BELKNAP INTERSECTION	660	192	4	1	129	606			6
92+95	-	110+50	BELKNAP - SOUTH MARINA DR	7958	332	4	1					
110+50	-	111+75	SOUTH MARINA DR INTERSECTION	130				32	176			2
111+75	-	149+50	SOUTH MARINA - 18TH AVE E	17048	478	6	1					2
149+50	-	150+75	18TH AVE E INTERSECTION	72				99	172			2
150+75	-	169+75	18TH AVE E - 22ND AVE E	9438	435	12	1			115		
169+75	-	170+80	22ND AVE E INTERSECTION					76	282			
170+80	-	175+00	22ND AVE E - 23RD AVE E	2128	353	6	1		136			
175+80	-	194+75	23RD AVE E - 27TH AVE E	8528	278	4						2
195+50	-	215+00	27TH AVE E - 31ST AVE E	9350		10						
			CATEGORY 0010 TOTAL	59277	2145	47	5	353	1609	115	24	16

STREET LIGHTING

STATION	TO	STATION	LOCATION	CONDUIT RIGID METALLIC 1 1/4-INCH 652.0115 LF	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH 652.0215 LF	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH 652.0225 LF	⚠ CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH 652.0235 LF	⚠ PULL BOXES NON-CONDUCTIVE 24X42-INCH 653.0164 EACH	⚠ REMOVING PULL BOXES 653.0905 EACH	⚠ ELECTRICAL WIRE LIGHTING 4 AWG 655.0630 LF	REMARKS
103+39			31' RT					1	1		TERRACE - PB101
101+90	-	104+22			162					516	LB - PB101
101+90	-	104+22					85			285	PB101 - LB
7TH AVE EAST											
105+66	-	107+13			150					480	LB NORTH - PB
107+04	-	107+86			30					120	LB WEST CORNER - PB102
107+04	-	107+86					67			231	PB102 - PB103
107+13	-	108+26			115					375	PB - LB SOUTH
107+13	-	107+24					92			612	PB - ACROSS USH 2/USH 53
107+24			42' RT						1		GRASS BOULEVARD
107+24			47' RT					1			RELOCATED - PB102
107+24	-	107+24	SIDE ROAD				130			1680	SERVICE - PB102
8TH AVE EAST											
			SECTION TOTAL	0	457	0	374	2	2	4299	

STREET LIGHTING

STATION	TO	STATION	LOCATION	CONDUIT RIGID METALLIC 1 1/4-INCH 652.0115 LF	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH 652.0215 LF	⚠ CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH 652.0225 LF	⚠ CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH 652.0235 LF	⚠ PULL BOXES NON-CONDUCTIVE 24X42-INCH 653.0164 EACH	⚠ REMOVING PULL BOXES 653.0905 EACH	⚠ ELECTRICAL WIRE LIGHTING 4 AWG 655.0630 LF	REMARKS
107+86			29' RT					1	1		TERRACE - PB103
107+86	-	108+99			123					399	PB103 - LB
109+00	-	110+61			172					546	LB - PB104
110+61			31' RT					1	1		TERRACE - PB104
110+61	-	110+66			5					45	PB104 - LB
110+66	-	111+50					85			285	LB - PB105
9TH AVE EAST											
111+50			31' RT					1	1		GRASS BOULEVARD - PB105
111+50	-	112+75			126					408	PB105 - LB
118+07	-	111+87					80			270	LB - PB106
11TH AVE EAST											
118+87			32' RT					1	1		GRASS BOULEVARD - PB106
118+87	-	121+43			255					795	PB106 - LB
22ND AVE EAST											
173+87	-	175+80				198				1040	PB111 - LB NORTH
174+84			41' LT					1	1		SIDEWALK - PB107
174+84	-	174+90			3					65	LB - PB107
174+84	-	175+58					75			425	PB107 - PB108
23RD AVE EAST											
175+58			48' LT						1		SIDEWALK
175+58			50' LT					1			RELOCATED - PB108
175+67			42' LT						1		SIDEWALK
175+67			50' LT		15			1			RELOCATED - PB109
175+58	-	176+77			125					675	PB108 - LB SOUTH
175+58	-	175+75					104			1140	PB110 - PB108
175+72			50' RT						1		SIDEWALK
175+75			50' RT		20			1			RELOCATED - PB110
175+75	-	175+80			13					230	PB111 - PB110
175+78	-	175+78					296			3160	SERVICE - PB111
175+80			38' RT					1	1		SIDEWALK - PB111
175+80	-	175+90			12					110	PB111 - LB SOUTH
181+50	-	188+75	LT & RT	24	253					6235	SERVICE ROAD BRIDGE
30TH AVE EAST											
213+20	-	214+83			165					875	LB - PB112
214+83			40' RT						1		SIDEWALK
214+83			41' RT					1			RELOCATED - PB112
CATEGORY TOTAL 0010				24	1744	198	1014	12	12	21002	

⚠ ITEM USED IN ADDITIONAL SHEETS

UTILITY ADJUSTMENTS

STATION	OFFSET	NAME	TYPE	⚠ COVER PLATES TEMPORARY 611.8120.S EACH
2ND AVE EAST				
95+92	-20	VALVE	E	1
96+53	-19	VALVE	WATER	1
96+57	-19	VALVE	WATER	1
96+61	-23	VALVE	WATER	1
14TH AVE EAST				
134+80	-14	VALVE	WATER	1
149+75	-28	VALVE	WATER	1
18TH AVE EAST				
155+05	-13	VALVE	WATER	1
158+94	32	VALVE	WATER	1
161+04	30	VALVE	WATER	1
161+83	29	VALVE	WATER	1
163+19	32	VALVE	WATER	1
22ND AVE EAST				
172+74	-31	VALVE	WATER	1
172+85	-31	VALVE	WATER	1
173+07	-30	VALVE	WATER	1
23RD AVE EAST				
176+19	-32	VALVE	WATER	1
177+05	-29	VALVE	WATER	1
177+33	-30	VALVE	WATER	1
177+37	31	VALVE	WATER	1
177+81	-29	VALVE	WATER	1
193+55	30	VALVE	WATER	1
194+30	30	VALVE	WATER	1
194+86	-30	VALVE	WATER	1
27TH AVE EAST				
196+33	29	VALVE	WATER	1
198+19	30	VALVE	WATER	1
198+27	-29	VALVE	WATER	1
199+50	29	VALVE	WATER	1
28TH AVE EAST				
29TH AVE EAST				
205+82	-31	VALVE	WATER	1
30TH AVE EAST				
CATEGORY 0010 TOTAL				27

SPECIAL 01. EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL

STATION TO	STATION	LOCATION	PROPOSED ITEM	SPV.0195.01 TON	REMARKS
91+36 -	92+07	ML LT	SIDEWALK	19	
CATEGORY TOTAL 0010				19	

SPECIAL 01. EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL

STATION TO	STATION	LOCATION	PROPOSED ITEM	SPV.0195.01 TON	REMARKS
92+03		72' LT	PULL BOX	4	PB1
91+18		47' LT	PULL BOX	4	PB14
91+90		58' LT	PULL BOX	4	PB15
92+01		59' LT	CONCRETE BASE TYPE 2	4	SB1
91+51		49' LT	CONCRETE BASE TYPE 2	4	SB9
91+65		49' LT	CONCRETE BASE TYPE 13	56	SB10
91+18 -	91+51	LT	2" CONDUIT	10	PB14 TO SB9
91+18 -	91+90	LT	3" CONDUIT	44	PB14 TO PB15
91+65 -	91+90	LT	3" CONDUIT	8	SB10 TO PB15
91+90 -	91+94	LT	3" CONDUIT	10	PB15 TO CB1
91+94 -	92+03	LT	3" CONDUIT	11	CB1 TO PB1
92+01 -	92+03	LT	2" CONDUIT	4	SB1 TO PB1
CATEGORY TOTAL 0030				163	

⚠ ITEM USED IN ADDITIONAL SHEETS

PULL BOXES

PULL BOX NO.	** LOCATION	653.0154 PULL BOXES NON-CONDUCTIVE 24"x36" EACH	* 653.0164 PULL BOXES NON-CONDUCTIVE 24"x42" EACH
PB1	92+03, 72' LT		1
PB2	92+62, 72' LT		1
PB3	93+08, 49' LT		1
PB4	95+38, 46' LT	1	
PB5	93+14, 53' RT		1
PB6	92+63, 95' RT		1
PB7	91+72, 92' RT		1
PB8	91+16, 36' RT		1
PB9	88+82, 34' RT	1	
PB10	91+18, 47' LT		1
PB11	91+90, 58' LT		1
LPB1	91+87, 46' LT	1	
LPB2	92+70, 47' LT	1	
LPB3	92+72, 67' RT	1	
LPB4	91+68, 44' RT	1	
	TOTAL	6	9

CONCRETE BASES

	SIGNAL BASE NO.	LOCATION	654.0101 CONCRETE BASE TYPE 1 EACH	654.0102 CONCRETE BASE TYPE 2 EACH	654.0113 CONCRETE BASES TYPE 13 EACH
TRAFFIC SIGNAL USH 53 & USH 2/BELKNAP ST	SB1	92+01, 59' LT	1		
	SB2	92+68, 57' LT		1	
	SB3	92+82, 49' LT		1	
	SB4	93+25, 48' RT			1
	SB5	92+79, 63' RT		1	
	SB6	91+85, 82' RT		1	
	SB7	91+73, 54' RT	1		
	SB8	91+41, 32' RT		1	
	SB9	91+51, 49' LT	1		
	SB10	91+65, 49' LT			1
RRFB USH 53 & 9TH AVE	SB1	110+32, 61' LT	1		
	SB2	110+40, 12' LT	1		
		TOTAL	5	5	2

REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB1	91+96, 64' LT	1
PB2	92+04, 75' LT	1
PB3	92+70, 47' LT	1
PB4	95+91, 43' LT	1
PB5	95+91, 33' LT	1
PB6	95+92, 20' LT	1
PB7	92+82, 09' LT	1
PB8	92+89, 01' LT	1
PB9	92+72, 67' RT	1
PB10	90+59 'US 2', 31' RT	1
PB11	92+31, 65' RT	1
PB12	92+30, 71' RT	1
PB13	91+68, 44' RT	1
PB14	88+35, 29' RT	1
PB15	88+35, 20' RT	1
PB16	88+35, 8' RT	1
PB17	91+73, 12' LT	1
PB18	91+23, 12' LT	1
PB19	91+87, 46' LT	1
	TOTAL	19

REMOVING CONCRETE BASES

	SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
TRAFFIC SIGNAL USH 53 & USH 2/BELKNAP ST	SB1	92+00, 62' LT	1
	SB2	92+62, 62' LT	1
	SB3	92+87, 45' LT	1
	SB4	93+36, 33' RT	1
	SB5	92+78, 62' RT	1
	SB6	92+32, 61' RT	1
	SB7	91+83, 73' RT	1
	SB8	91+74, 59' RT	1
	SB9	91+39, 33' RT	1
	SB10	91+37, 13' LT	1
	SB11	91+52, 48' LT	1
	SB12	91+74, 44' LT	1
	SB13	92+64, 87' RT	1
RRFB USH 53 & 9TH AVE	SB1	110+33, 57' LT	1
	SB2	110+58, 12' LT	1
		TOTAL	15

REMOVING TRAFFIC SIGNALS

** LOCATION	204.9105.S REMOVING TRAFFIC SIGNALS L.S.
USH 53 & USH 2/BELKNAP ST	1
TOTAL	1

INSTALL CONDUIT INTO EXISTING ITEM

PULL BOX NO.	LOCATION	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
EXCV1	93+35, 39' RT	1
	TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES ELSEWHERE

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

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

TRAFFIC SIGNALS & LIGHTING

PAGE 1 OF 6

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	** LOCATION	SIZE (FT)	X	SIZE (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	* 655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB3	93+14, 09' LT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	131	390
12	PB3	92+86, 09' LT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	131	390
21	PB9	88+88, 14' RT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	408	234
41	PB6	92+38, 85' RT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	330	348
42	PB6	92+42, 57' RT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	122	330	378
43	PB6	92+52' 86' RT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	298	246
44	PB6	92+56, 58' RT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	298	276
51	PB8	91+13, 04' LT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	175	390
52	PB8	91+41, 04' LT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	175	390
61	PB4	95+32, 25' LT	6	X	20	3	CONCRETE/ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	360	234
81	PB1	92+14, 58' LT	6	X	20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	19	264
82	PB1	92+26, 58' LT	6	X	20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	108	19	336
								TOTAL	1244	2674	3876

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.05 TEMPORARY TRAFFIC SIGNAL MODIFICATIONS L.S.	SPV.0105.06 TEMPORARY TRAFFIC SIGNAL MODIFICATIONS L.S.
USH 53 & USH 2/BELKNAP ST	1		
USH 53 & 18TH AVE		1	
USH 53 & 22ND AVE			1
TOTAL	1	1	1

RRFB SYSTEM

** LOCATION	SPV.0105.01 SALVAGE AND REINSTALL RECTANGULAR RAPID FLASHING BEACON SYSTEM LS
USH 53 & 9TH AVE	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES ELSEWHERE

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

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

TRAFFIC SIGNALS & LIGHTING

PAGE 2 OF 6

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0360 POLES TYPE 13 EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0540 MONOTUBE ARMS 40-FT EACH	657.0555 MONOTUBE ARMS 55-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH	657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH	657.0704 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 10-FT EACH	657.0714 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP 15-FT EACH	657.0812 LUMINAIRE ARMS STEEL 12-FT EACH	657.0815 LUMINAIRE ARMS STEEL 15-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH
SB1	1				1										1
SB2		1	1						1			1			1
SB3		1	1							1					1
SB4				1				1						1	
SB5		1	1							1					2
SB6		1	1						1		1				
SB7	1					1									1
SB8		1	1							1					1
SB9	1					1									1
SB10				1			1						1		
TOTAL	3	5	5	2	1	2	1	1	2	3	1	1	1	1	8

PERMANENT SIGNING

SIGN ID	SIGN PLATE	637.2210 SIGNS TYPE II REFLECTIVE H S.F.
1-01	M1-94-H	18.75
1-02	M1-94-H	18.75
TOTAL		38

TRAFFIC SIGNAL EQUIPMENT (CONTINUED)

SIG. BASE NO.	659.1115 LUMINAIRES UTILITY LED-A EACH	659.1125 LUMINAIRES UTILITY LED-C EACH	V.0060.03 LUMINAIRE ARMS SINGLE MEMBER 15 5/8-INCH CLAMP 15-FT (FOR CAMERAS) EACH
SB1			
SB2		1	
SB3	1		
SB4		1	1
SB5	1		
SB6		1	
SB7			
SB8	1		
SB9			
SB10		1	1
TOTAL	3	4	2

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE L.S.
USH 53 & USH 2/BELKNAP ST	1
TOTAL	1

LEGEND

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

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

TRAFFIC SIGNALS & LIGHTING

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.	655.0250 CABLE TRAFFIC SIGNAL 9-14 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.	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG L.F.	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.02 INSTALL STATE SUPPLIED CAT-5E CABLE L.F.
TRAFFIC SIGNAL USH 53 & USH 2 / BELKNAP ST	CB1		SB1				52			52				52		
	CB1		SB2			130			130					130	178	
	CB1		SB3				206							206		
	CB1		SB4				308								386	419
	CB1		SB5					414						828		
	CB1		SB6	335											383	
	CB1		SB7	357										357		
	CB1		SB8				249							249		
	CB1		SB9	160										160		
	CB1		SB10			65			65	65					128	170
	SB1		SB2							129						
	SB2		SB3						134	134						
	SB3		SB4						178	178						
	SB4		SB5						154	154						
	SB5		SB6							183						
	SB6		SB7							79						
	SB7		SB8							182						
	SB8		SB9							181						
	SB9		SB10							171						
	SB10		SB8						261							
	SB8		SB6						160							
	SB1		HEAD 12	19												
	SB1		HEAD 14	19												
	SB1		HEAD 61	15												
	SB2		HEAD 13	53												
	SB2		HEAD 62	15												
	SB2		LUMINAIRE								147					
	SB3		HEAD 4		22											
	SB3		HEAD 6	21												
	SB3		HEAD 41	15												
	SB3		LUMINAIRE								126					
	SB4		HEAD 2	67												
	SB4		HEAD 3	55												
	SB4		HEAD 5		78											
	SB4		LUMINAIRE								147					
	SB5		HEAD 11	23												
	SB5		HEAD 15	21												
	SB5		HEAD 21	15												
	SB5		HEAD 42	15												

(CONTINUED ON NEXT PAGE)

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

* ADDITIONAL ITEMS FOR QUANTITIES ELSEWHERE

TRAFFIC SIGNALS & LIGHTING

TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED) *

	LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0250 CABLE TRAFFIC SIGNAL 9-14 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.	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG L.F.	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.02 INSTALL STATE SUPPLIED CAT-5E CABLE L.F.
TRAFFIC SIGNAL USH 53 & USH 2 / BELKNAP ST	SB5		LUMINAIRE								126					
	SB6		HEAD 16	51												
	SB6		LUMINAIRE								132					
	SB7		HEAD 22	15												
	SB8		HEAD 1	21												
	SB8		HEAD 9		22											
	SB8		HEAD 81	15												
	SB8		LUMINAIRE								126					
	SB9		HEAD 82	15												
	SB10		HEAD 7	53												
	SB10		HEAD 8	41												
	SB10		HEAD 10		65											
	SB10		LUMINAIRE								138					
LIGHTING USH 53 & USH 2 / BELKNAP ST	L-04		LPB4									189	378			
	LPB4		L-11									121	484			
	LPB4		LPB1									122	244			
	LPB1		L-05									125	500			
	LPB1		LPB2									112	224			
	LPB2		L-06									144	288			
	L-12		LPB3									239	478			
	LPB3		L-07									256	512			
TRAFFIC SIGNAL USH 53 & 18TH AVENUE	CB1		SB3												277	
	CB1		SB9												221	
	CB1		SB11												316	
	CB1		SB5												141	
TRAFFIC SIGNAL USH 53 & 22ND	CB1		SB10												108	
	CB1		SB5												341	
	CB1		SB8												226	
			TOTAL	1416	187	195	815	414	1082	1508	942	1308	3108	1982	2705	589

EMERGENCY VEHICLE PREEMPTION

** LOCATION	SPV.0105.02 INSTALL STATE FURNISHED EVP DETECTOR HEADS LS	SPV.0105.03 EMERGENCY VEHICLE PREEMPTION SYSTEM LS	SPV.0105.04 EMERGENCY VEHICLE PREEMPTION SYSTEM LS
USH 53 & USH 2/BELKNAP ST	1		
USH 53 & 18TH AVE		1	
USH 53 & 22ND AVE			1
TOTAL	1	1	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES ELSEWHERE

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

TRAFFIC SIGNALS & LIGHTING

PAGE 5 OF 6

3

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	658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB8	**1			
2	SB4	**1			
3	SB4	**1			
*4	SB3		**1		
5	SB4		**1		
6	SB3	**1			
7	SB10	**1			
8	SB10	**1			
*9	SB8		**1		
10	SB10		**1		
11	SB5			1	
12	SB1	1			
13	SB2			1	
14	SB1	1			
15	SB5	1			
16	SB6	1			
21	SB5				1
22	SB7				1
41	SB3				1
42	SB5				1
61	SB1				1
62	SB2				1
81	SB8				1
82	SB9				1
TOTAL		10	4	2	8

*TUNNEL VISORS REQUIRED

** RETROREFLECTIVE BACKPLATE REQUIRED

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.	652.0605 CONDUIT SPECIAL 2-INCH L.F.	652.0615 CONDUIT SPECIAL 3-INCH L.F.
CB1		PB1		36		
PB1		SB1	13			
PB1		PB2				120
PB2		SB2	16			
PB2		PB3		104		
PB3		SB3	25			
PB3		PB4	230			
PB3		PB5		202		
PB5		SB4		12		
PB5		EXCV1	24			
PB5		PB6		134		
PB6		SB5	36			
PB6		PB7				182
PB7		SB6	16			
PB7		SB7	38			
PB7		PB8		160		
PB8		SB8	24			
PB8		PB9	234			
PB8		PB10				166
PB10		SB9	33			
PB10		PB11		146		
PB11		SB10		26		
PB11		CB1		33		
LPB1		LPB4			184	
LPB3		L-07	10			
L-04		LPB4	10			
L-05		LPB1	10			
L-12		LPB3	10			
		TOTAL	729	853	184	468

3

ALL ITEMS ON THIS SHEET ARE CATEGORY 0030

TRAFFIC SIGNALS & LIGHTING

PAGE 6 OF 6

TRANSPORTATION PROJECT PLAT NO: 1198-03-24 - 4.01

PART OF LOT 1, BLOCK 28, LOT 1 AND LOT 5, BLOCK 29, LOT 1 AND LOT 5, BLOCK 30, AND LOT 1, LOT 2, AND LOT 5, BLOCK 31 OF SUPERIOR CITY SUBDIVISION LOCATED IN THE NE FRACTIONAL 1/4 OF SECTION 24, TOWN 49 NORTH, RANGE 14 WEST, CITY OF SUPERIOR, DOUGLAS COUNTY, WISCONSIN.

RELOCATION ORDER USH 2 / USH 53, DOUGLAS COUNTY (2ND AVENUE EAST TO 31ST AVENUE EAST)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

Accepted For Recording And Filing In The Office Of The Register Of Deeds In Douglas County, Wisconsin At 10:20 a.m. on August 21, 2018
As Document #898306 And Filed In T.P. Vol. 2 Pg. 32

Pat Van Halem, Deputy

Signature of Register Of Deeds

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1198-03-24-4.01
SHEET 1 OF 1

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRE(S) REQUIRED NEW	EXISTING	TOTAL	T.L.E. AREA
1	Bruce and Lois Hagen	TLE				0.002
2	Anthony P. Gozanski	TLE				0.003
3	Wm Lindstrom and Carol Linstrom, LE, Cathy J. Olsen and Lynn A.	TLE				0.007
4	Jeanne E. Johnson, Life Estate Joel Johnson	TLE				0.004
5	John W. White and James S. White	TLE				0.007
6	City of Superior	TLE				0.007

*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

GN

0 25 50 100
SCALE, FEET

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DOUGLAS COUNTY, NAD83 (1991), IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON ROD), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

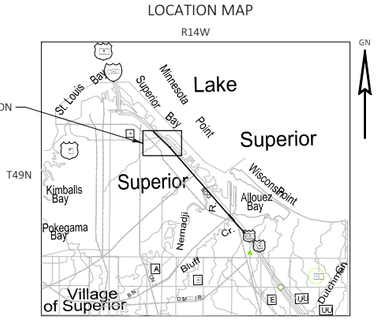
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

BASIS OF EXISTING RIGHT OF WAY

PLAT OF SUPERIOR CITY / CITY MONUMENTS
1987 SEH RIGHT OF WAY PLAT. PROJECT I.D. 1190-07-21
EXISTING SURVEYS OR RECORD

LOCATION MAP



NOT TO SCALE

TOTAL NET LENGTH OF CENTERLINE = 0.780 MI.

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	⊕	CORPORATE LIMITS	
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RW870	QUARTER LINE	
PARCEL NUMBER	102	SIXTEENTH LINE	
UTILITY INTEREST	40	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE	
BUILDING		PARALLEL OFFSET	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

POINT	STATION	OFFSET	Y	X
TLE100	103+29.68	40.00	305200.094	156685.624
TLE102	103+29.69	46.00	305195.787	156681.447
TLE103	103+46.19	46.00	305184.288	156693.280
TLE104	104+12.19	47.00	305137.576	156739.918
TLE106	104+33.18	40.00	305127.966	156759.852
TLE105	104+33.19	47.00	305122.941	156754.979
TLE107	106+95.65	40.00	304945.056	156948.089
TLE109	106+95.66	59.50	304931.069	156934.502
TLE110	107+12.16	59.50	304919.570	156946.336
TLE111	107+78.15	48.50	304881.466	157001.334
TLE113	107+97.15	48.50	304868.225	157014.960
TLE114	107+97.15	40.00	304874.322	157020.883
TLE117	110+53.15	40.00	304695.920	157204.481
TLE118	110+53.15	51.50	304687.671	157196.468
TLE119	110+78.15	51.50	304670.249	157214.397
TLE120	111+44.15	46.00	304628.199	157265.564
TLE122	111+81.65	46.00	304602.066	157292.458
TLE123	111+81.65	40.00	304606.370	157296.638
TLE125	113+74.97	42.50	304469.854	157433.542
TLE124	113+74.99	40.00	304471.635	157435.297
TLE126	114+05.97	42.50	304448.251	157455.775
TLE127	114+05.99	40.00	304450.031	157457.530

SURVEY NAIL
Y 308023.384
X 153695.475

3" MAG SPIKE
Y 305373.108
X 153723.263

1" NAIL
Y 302727.417
X 153775.585

SECTION MON.
Y 300066.359
X 159071.491
LOCATED BY TIES

SANDSTONE MON.
CHISLED "X"
Y 302704.118
X 159050.026

CITY MON. DISK

CITY MON. DISK AT 12TH AVE. E. & E. 3RD ST.

BEGIN RELOCATION ORDER
STA. 77+84.32

END RELOCATION ORDER
STA. 119+01.38

103+79.14 USH 2=
7+00.00 7TH AV. E.
Y 305194.313
X 156748.972

107+45.14 USH 2=
8+00.00' 8TH AV. E.
Y 304939.253
X 157011.460

111+12.14 USH 2=
9+20.00' 9TH AV. E.
Y 304684.192
X 157273.948

BP: 7+00.00
Y 304540.734
X 157134.594

PI: 80+15.72
Y 306214.154
X 154687.431

PI: 119+01.38
N 304133.487
E 157840.690

BP: 77+84.32
Y 307001.764
X 154887.183

BP: 77+84.32
Y 307001.764
X 154887.183

BP: 7+00.00
Y 305001.739
X 156609.736

BP: 7+00.00
Y 304759.192
X 156871.108

NE FRAC. 1/4

SUPERIOR

CITY

OF

7TH AVE. E.
8TH AVE. E.
9TH AVE. E.
10TH AVE. E.
E. 3RD STREET
EAST 2nd STREET (USH 2 / STH 53)
EAST 2nd STREET USH 2 STH 53
MARINA DRIVE

TLE FOR GRADING
TLE - GRADING 0.005 AC.
TLE - GRADING 0.002 AC.

SLOPE INTERCEPTS

S89°44'49"E 5274.49' S/L

S1°07'59"E 2646.21' S/L

S0°03'03"E 2650.42'

S0°21'58"E 2631.85'

N89° 23' 57"E 1180.93'

N0° 27' 58"W 47.32'

S41°10'40"E 1836.20'

S45° 48' 57"E 365.70'

S45° 48' 57"E 365.99'

S45° 48' 57"E 1098.13'

S45°49'20"E 332.99'

S45°49'20"E

N44°10'04"E

N44°10'07"E

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.351.6668

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

I, GARY D. SCHNEIDER PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN GARY D. SCHNEIDER S-1297 West Bend Wisconsin LAND SURVEYOR

SIGNATURE: _____ DATE: 8/14/2018
PRINT NAME: GARY D. SCHNEIDER, P.L.S. S-1297
REGISTRATION NUMBER: S-1297

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NW REGION - EAU CLAIRE
SIGNATURE: _____ DATE: 8/14/2018
PRINT NAME: Michael Piller

FILE NAME : S:\DOT\DOT_NW\160276USH 2_STH 53\SURVEY\DWG\160276_RW-TPP.DWG
PLOT DATE : 9/11/2018 8:53 AM PLOT BY : RAISA KHAYTINA PLOT NAME : PLOT SCALE : 1 IN:50 FT
APPRAISAL PLAT DATE : _____

CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT 9-INCH,
CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT WITH
MILL AND OVERLAY

CONTAMINATED SOIL AREA

SENSITIVE AREA

EXISTING R/W

USH 53

EXISTING R/W

83+00

5

5

EXISTING R/W

TLE

PERKINS SIGN

52'

BEGIN PROJECT 1198-03-74
STA 83+05

STA 85+50.00 EAST 2ND ST =
STA 2+00.00 2ND AVE EAST

83+00

84+00

85+00

S45° 52' 56"E

CONCRETE SIDEWALK 6-IN

40'

REMOVING CONCRETE SURFACE PARTIAL DEPTH
PAVEMENT OVERLAY:
HMA PAVEMENT 5 HT 58-34 V
HMA PAVEMENT 5 SMA 58-34 V
24' WIDTH (FLAG OF CURB TO FACE OF MEDIAN)

REMOVING PAVEMENT
BUTT JOINTS - 10' WIDTH

TLE

2ND AVE E

1+00

TLE

CONCRETE SIDEWALK 6-IN
REPLACE TO MATCH EXISTING

TLE

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

USH 53

86+00

87+00

88+00

EXISTING R/W

TLE

55'

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 53

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

TLE

PI: 89+15.72

89+00

90+00

S45° 49' 20"E

6'X20'
3 TURNS

250' TO NEAR
RIGHT SIGNAL

PB9

40'

SEE TRAFFIC SIGNAL PLAN

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 53

2+00

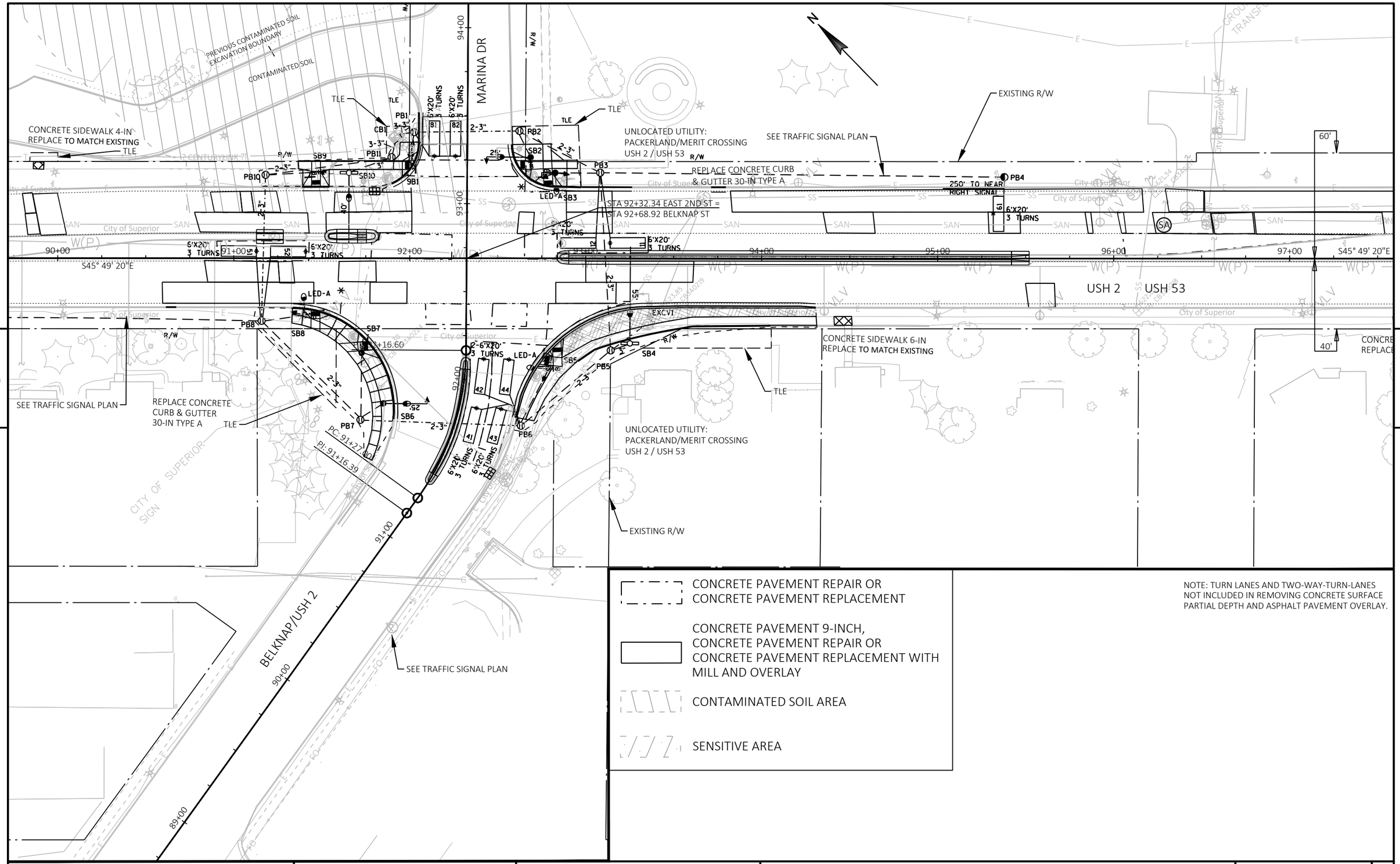
NOTE: TURN LANES AND TWO-WAY-TURN-LANES
NOT INCLUDED IN REMOVING CONCRETE SURFACE
PARTIAL DEPTH AND ASPHALT PAVEMENT OVERLAY.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 253	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - E-ST-2ND AVE E

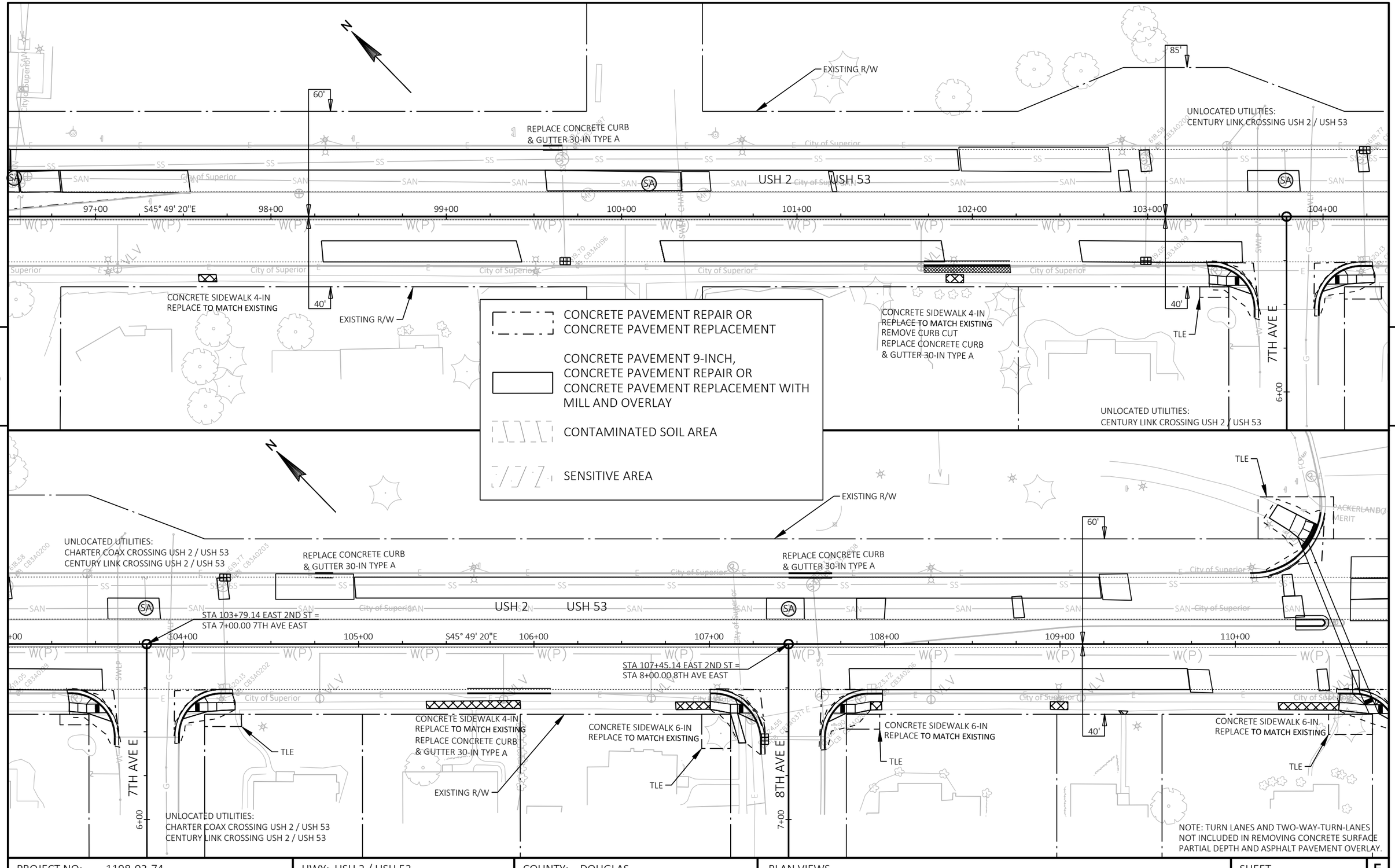
PLOT DATE : 7/31/2019 4:53 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 254	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - BELKNAP
PLOT DATE : 7/31/2019 4:53 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

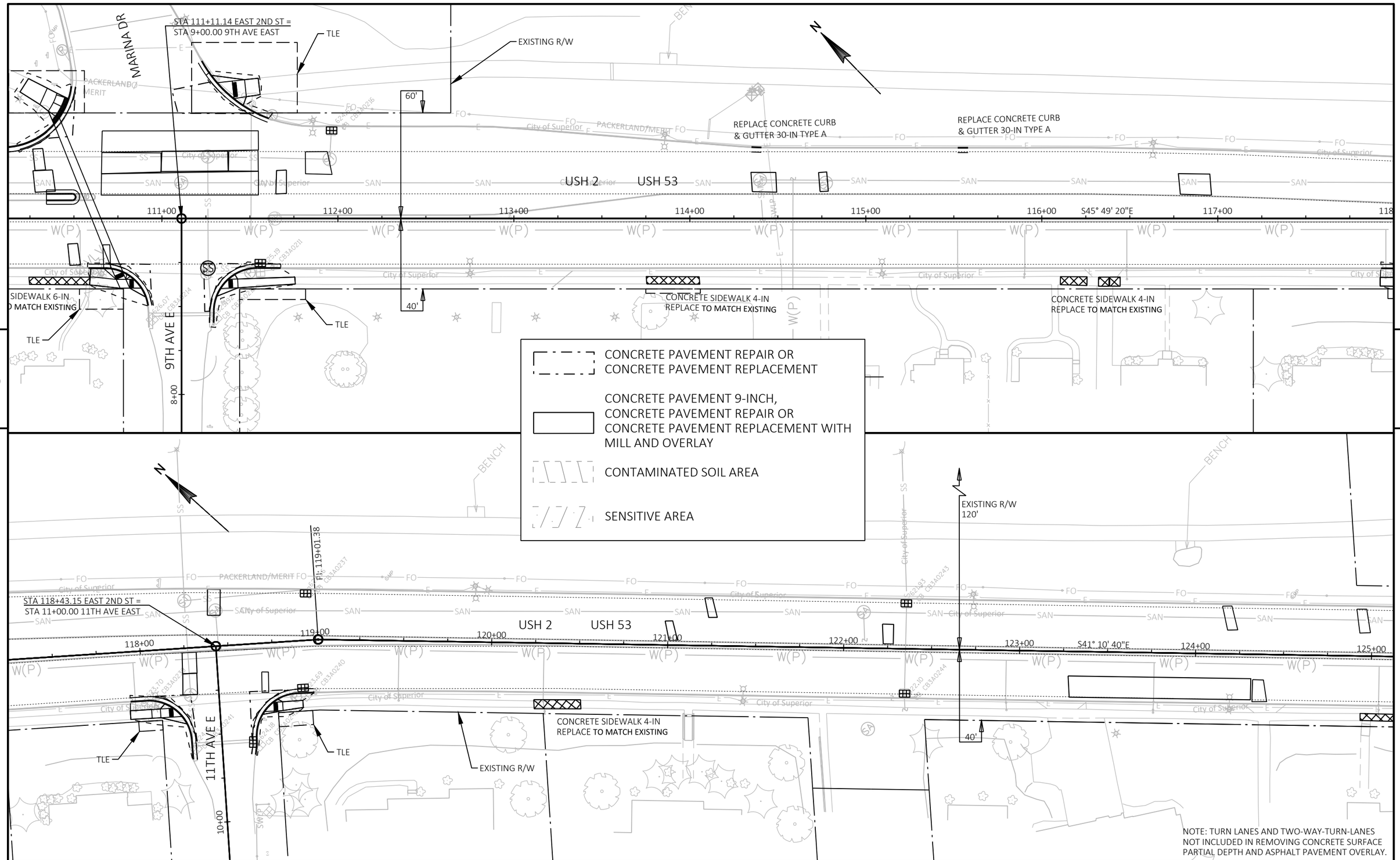


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 255	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 7TH - 8TH

PLOT DATE : 7/31/2019 4:53 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

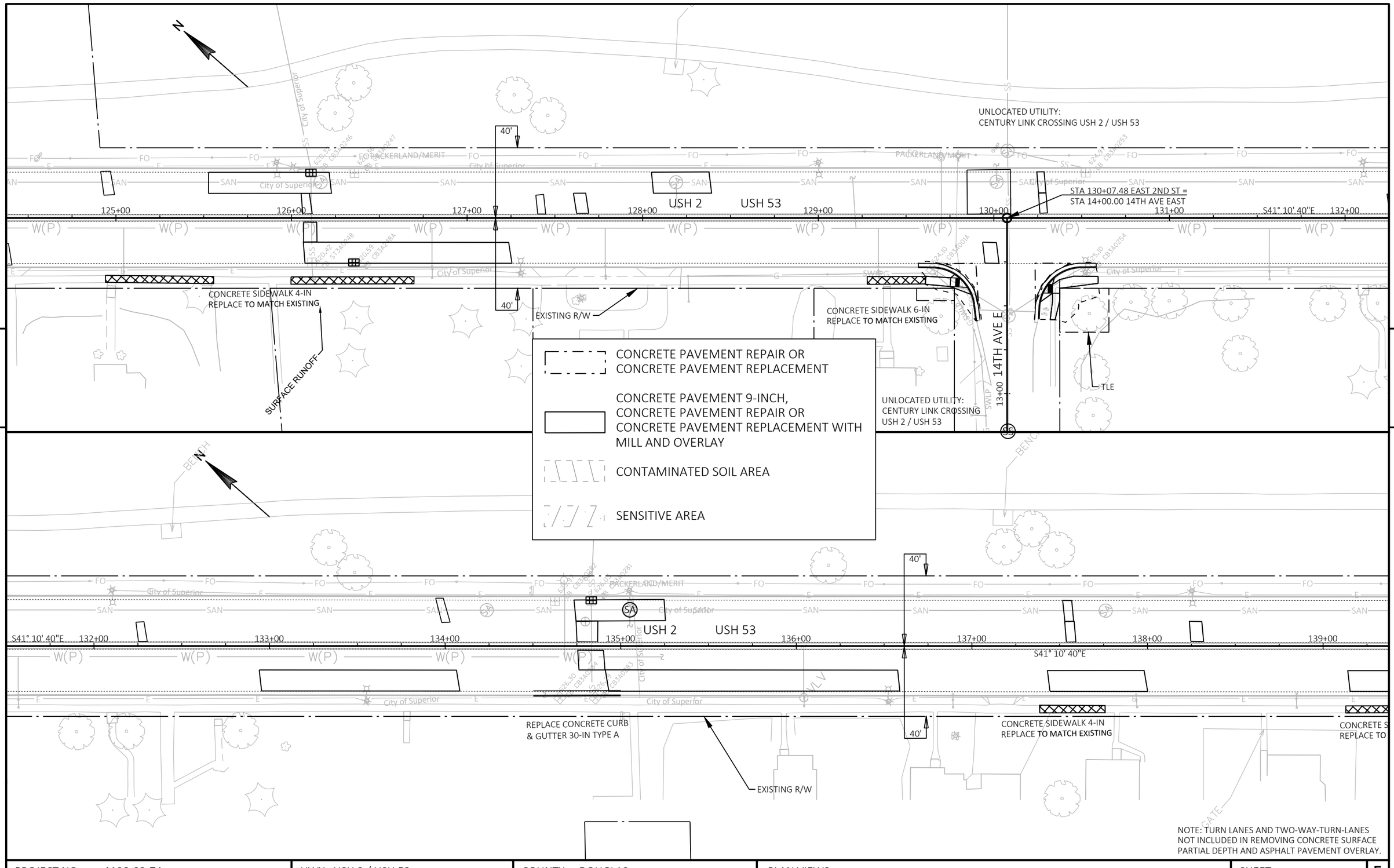


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 256	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 9TH - 11TH

PLOT DATE : 7/31/2019 4:54 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

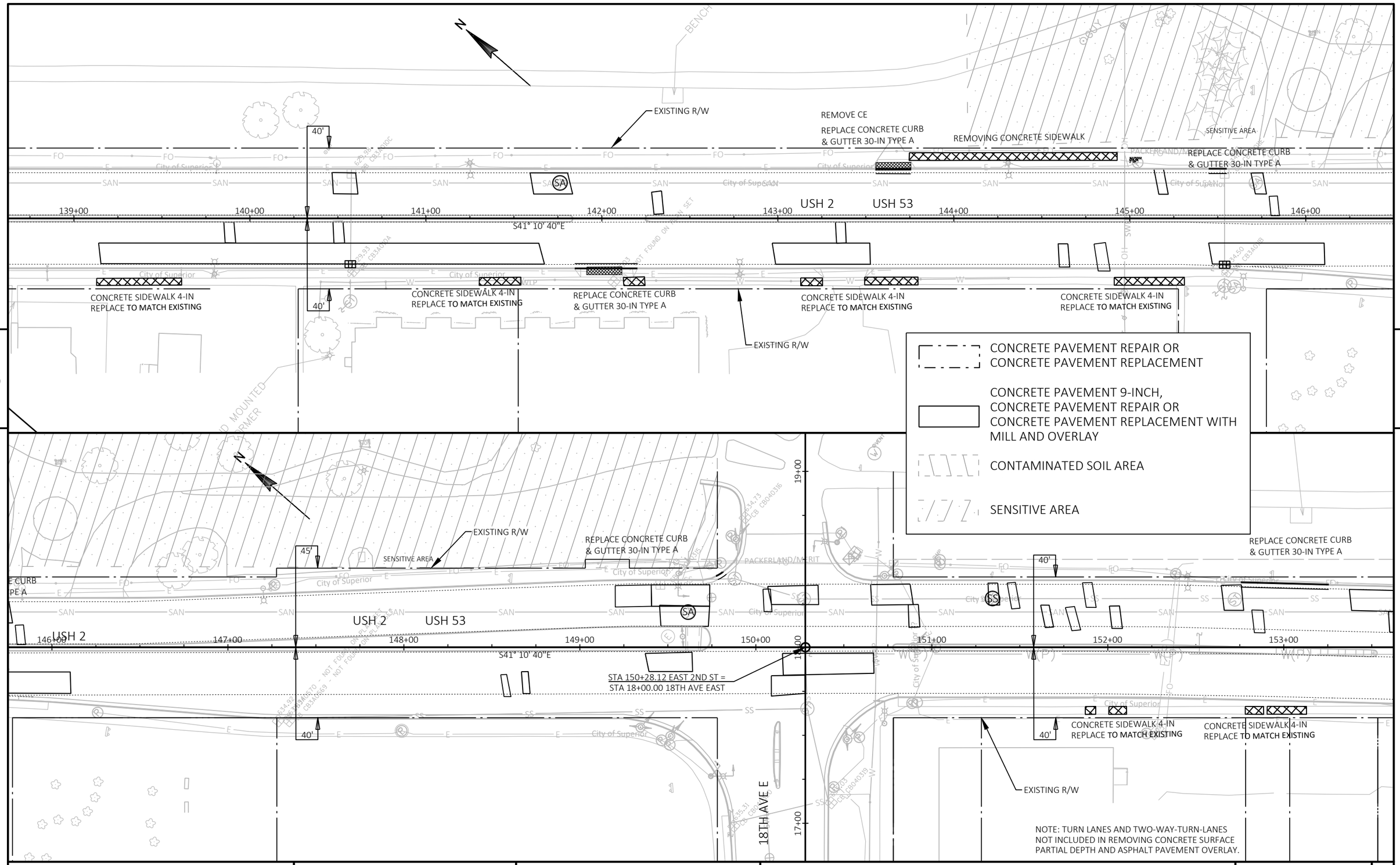


PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 257	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 14TH

PLOT DATE : 7/31/2019 4:54 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 258	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 18TH
PLOT DATE : 7/31/2019 4:54 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

PLACE CONCRETE CURB
GUTTER 30-IN TYPE A

EXISTING R/W

40'

153+00 154+00 155+00 156+00 157+00 158+00 S41° 10' 40"E 159+00 160+00

USH 2 USH 53

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

CONCRETE SIDE
REPLACE TO MA

EXISTING R/W

40'

CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT 9-INCH,
CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT WITH
MILL AND OVERLAY

CONTAMINATED SOIL AREA

SENSITIVE AREA

REPLACE CONCRETE CURB
& GUTTER 30-IN TYPE A

REPLACE CONCRETE CURB
& GUTTER 30-IN TYPE A
DRIVEWAY TO
BE REMOVED

EXISTING R/W

REPLACE CONCRETE CURB
& GUTTER 30-IN TYPE A
DRIVEWAY TO
BE REMOVED

22+00

TLE

40'

161+00 162+00 S41° 10' 40"E 163+00 164+00 165+00 166+00 167+00

USH 2 USH 53

STA 165+29.94 EAST 2ND ST =
STA 20+99.80 21ST AVE EAST

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

TLE

EXISTING R/W

TLE

21ST AVE E

20+00

40'

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

CONCRETE
REPLACE T

TLE

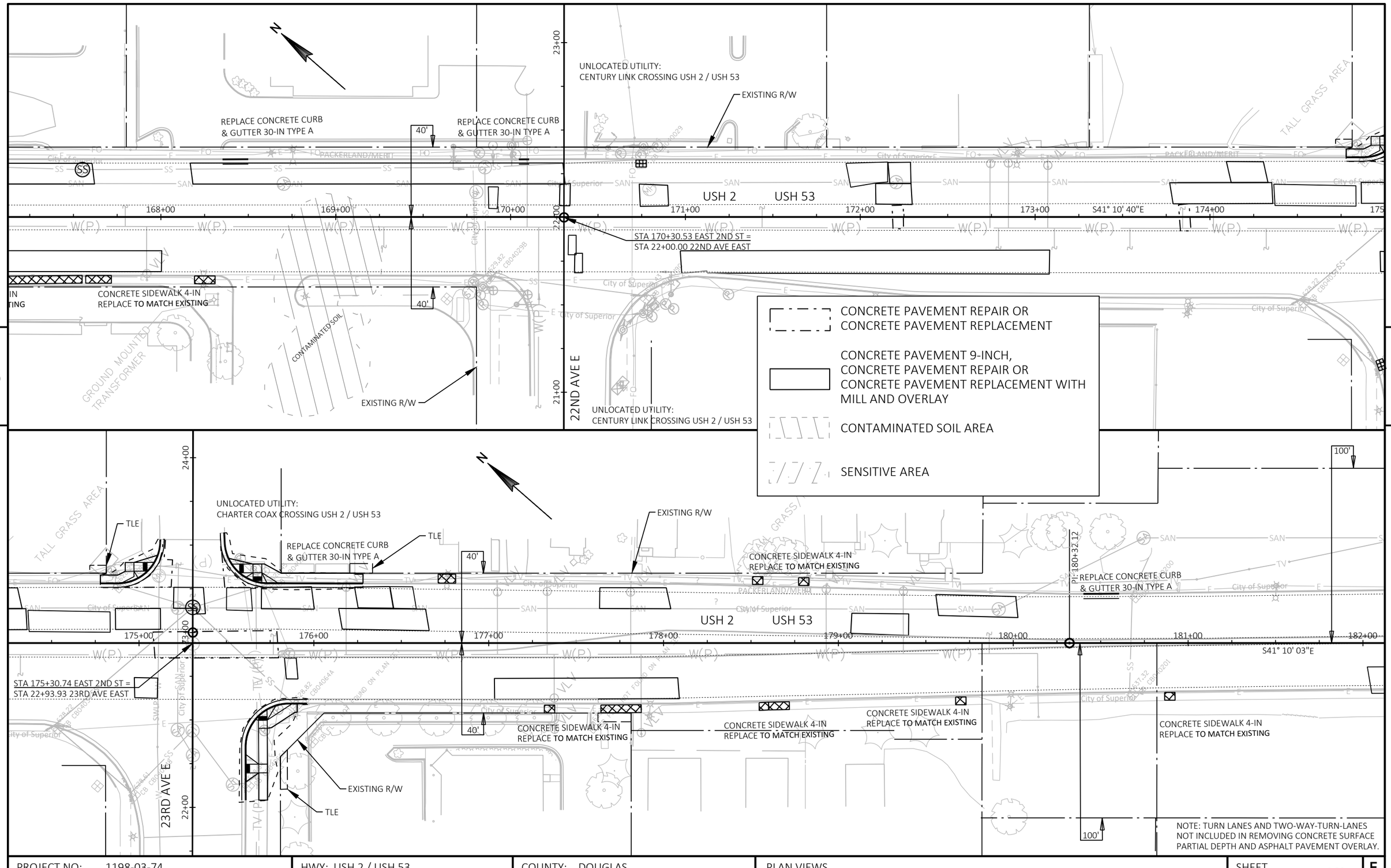
NOTE: TURN LANES AND TWO-WAY-TURN-LANES
NOT INCLUDED IN REMOVING CONCRETE SURFACE
PARTIAL DEPTH AND ASPHALT PAVEMENT OVERLAY.

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 259	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 21ST

PLOT DATE : 7/31/2019 4:54 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

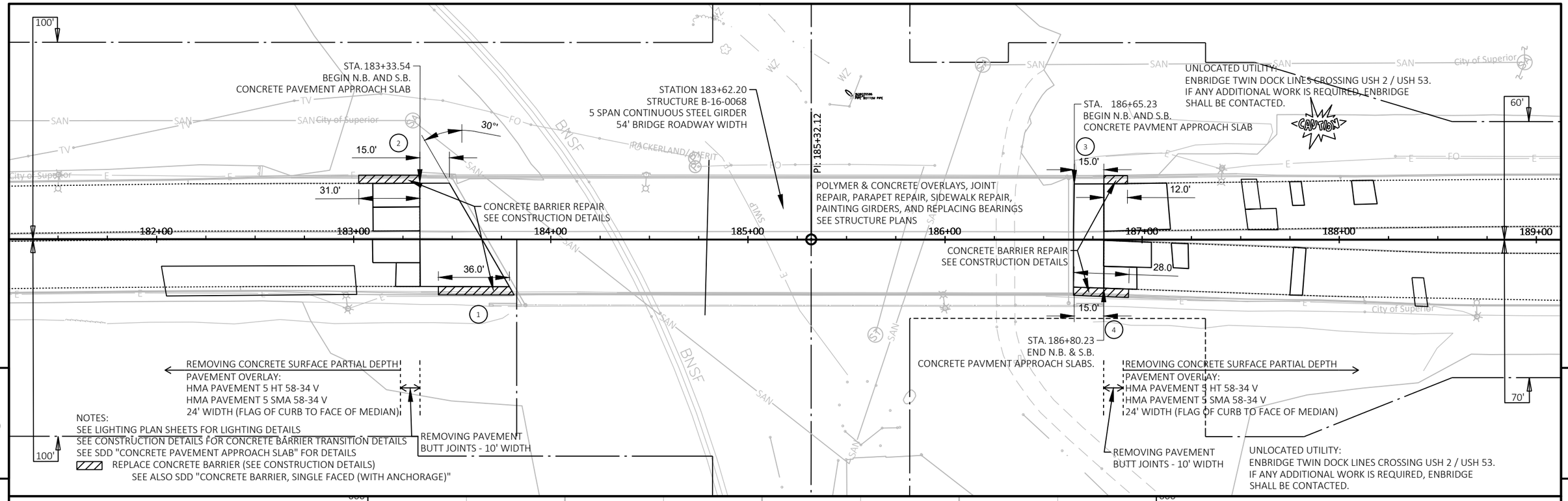


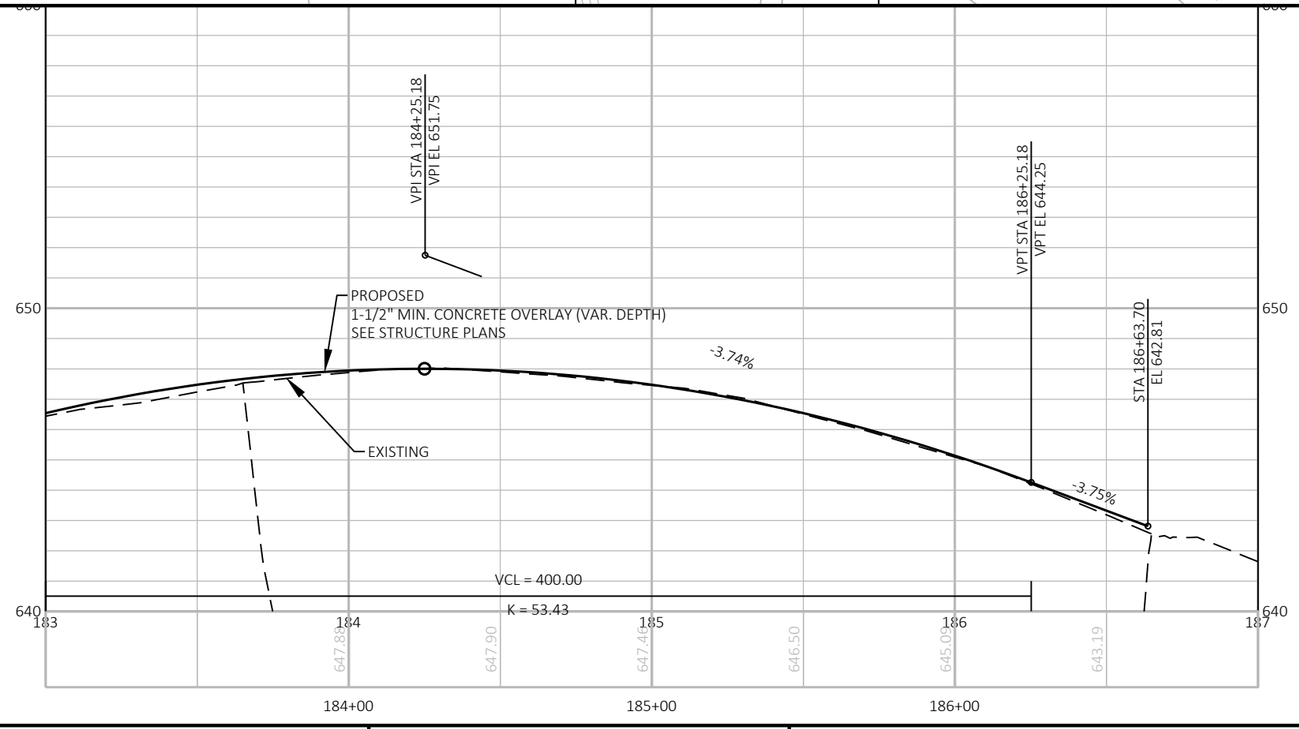
PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 260 E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 22ND - 23RD

PLOT DATE : 7/31/2019 4:54 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

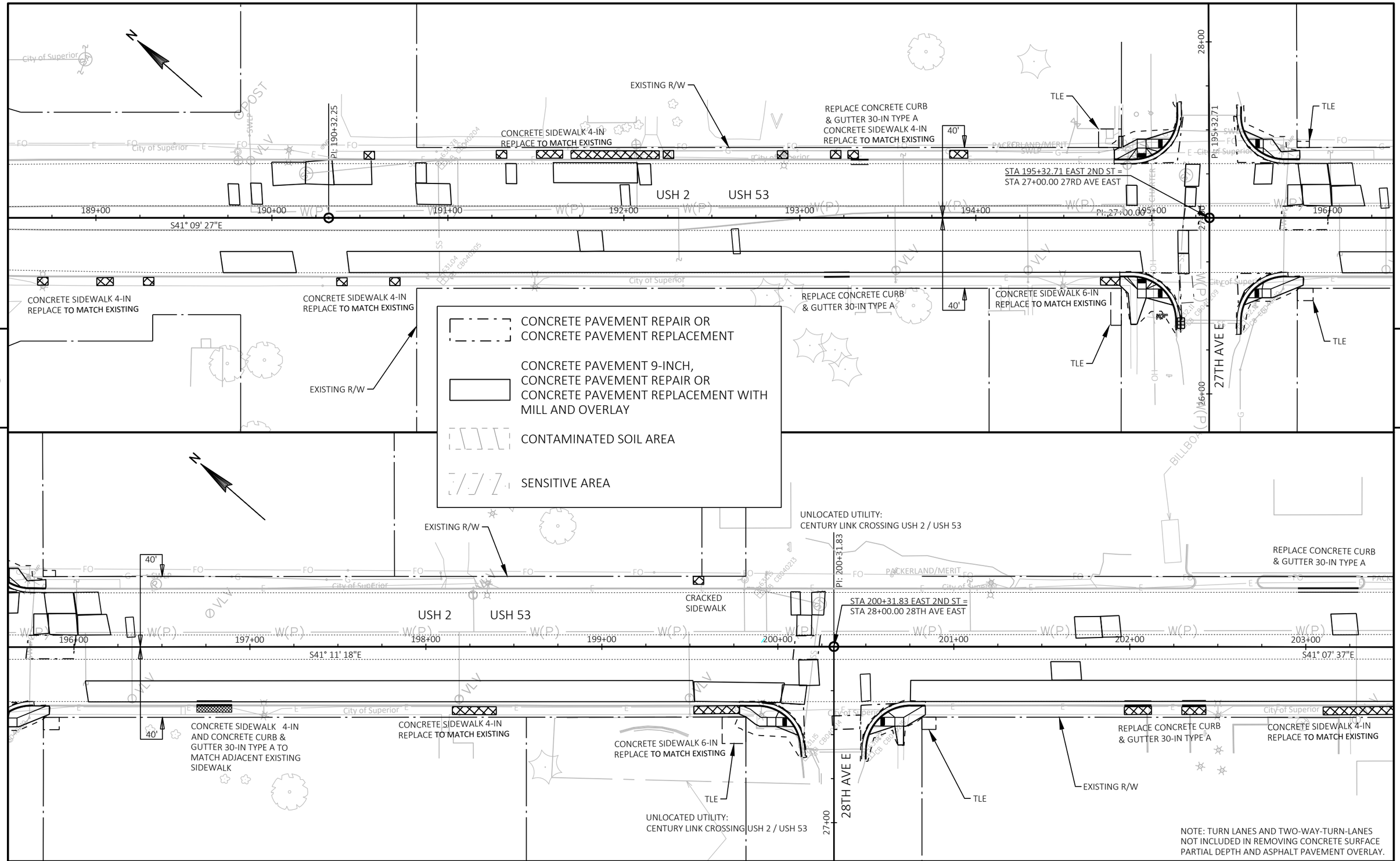
WISDOT/CADDS SHEET 44





PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN AND PROFILE: OVERHEAD BRIDGE	SHEET 261	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PP_74.DWG
LAYOUT NAME - Overhead
PLOT DATE : 7/31/2019 4:55 PM
PLOT BY : BUKOVITZ, CAITLIN LE
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 262	E

CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT 9-INCH,
CONCRETE PAVEMENT REPAIR OR
CONCRETE PAVEMENT REPLACEMENT WITH
MILL AND OVERLAY

CONTAMINATED SOIL AREA

SENSITIVE AREA

REPLACE CONCRETE CURB
& GUTTER 30-IN TYPE A

STA 205+31.79 EAST 2ND ST =
STA 29+00.00 29TH AVE EAST

PI: 205+31.79

EXISTING R/W

40'

USH 2 USH 53

CONCRETE SIDEWALK 4-IN
REPLACE TO MATCH EXISTING

TLE

29TH AVE E

PI: 210+31.76

ADD CONCRETE SIDEWALK
4-IN AROUND LIGHTPOLE

203+00 204+00 205+00 206+00 207+00 208+00 209+00 210+00

S41° 07' 37"E

S41° 10' 17"E

30+00 29+00 28+00

END PROJECT 1198-03-74
STA 214+00

UNLOCATED UTILITY:
CENTURY LINK CROSSING USH 2 / USH 53
AND COMMERICAL DRIVEWAY

SENSITIVE AREA

PI: 215+31.72

STA 215+73.21 EAST 2ND ST =
STA 29+00.00 29TH AVE EAST

30TH AVE E

31ST AVE E

CONCRETE SIDEWALK 6-IN
REPLACE TO MATCH EXISTING

END REMOVING CONCRETE SURFACE PARTIAL DEPTH
PAVEMENT OVERLAY:
HMA PAVEMENT 5 HT 58-34 V
HMA PAVEMENT 5 SMA 58-34 V
24' WIDTH (MEASURED FROM FLAG OF CURB)

NOTE: TURN LANES AND TWO-WAY-TURN-LANES
NOT INCLUDED IN REMOVING CONCRETE SURFACE
PARTIAL DEPTH AND ASPHALT PAVEMENT OVERLAY.

REMOVING PAVEMENT
BUTT JOINTS - 10' WIDTH

UNLOCATED UTILITY:
DISCONTINUED CHARTER
CATV CROSSING 31ST
AVE E & RUNNING
PARALLEL TO USH 2 EB /
USH 53 SB

210+00 211+00 212+00 213+00 214+00 215+00 216+00 217+00

PROJECT NO: 1198-03-74	HWY: USH 2 / USH 53	COUNTY: DOUGLAS	PLAN VIEWS	SHEET 263	E

FILE NAME : N:\PDS\C3D\11980304\SHEETSPLAN\050201_PN_74.DWG
LAYOUT NAME - 29TH - 31ST

PLOT DATE : 7/31/2019 4:56 PM PLOT BY : BUKOVITZ, CAITLIN LE PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

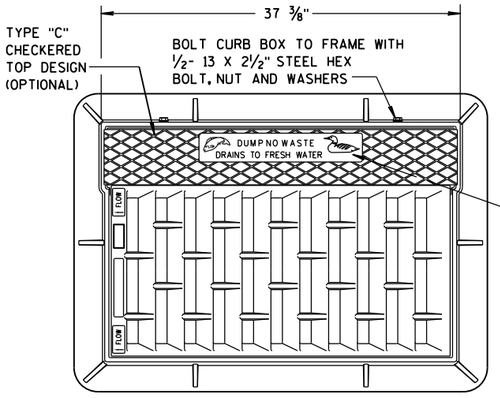
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08D01-20A	CONCRETE CURB & GUTTER
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-08	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C12-09B	CONCRETE BASE TYPE 13
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
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
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
14B22-06A	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-05A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-05B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

6

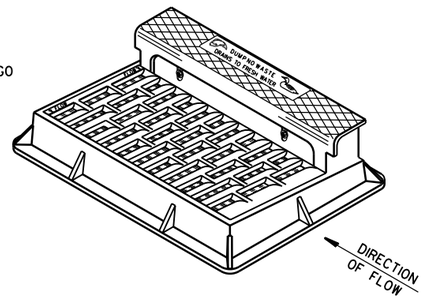
Standard Detail Drawing List

15D30-05C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD

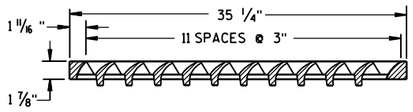
6

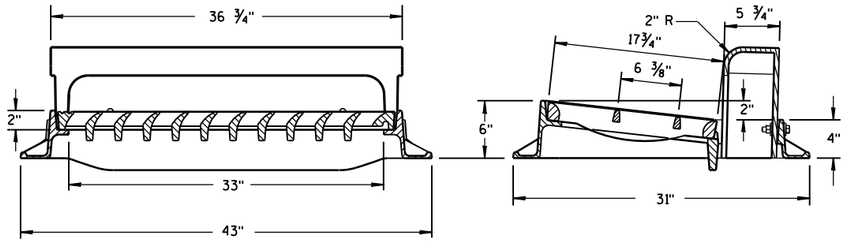


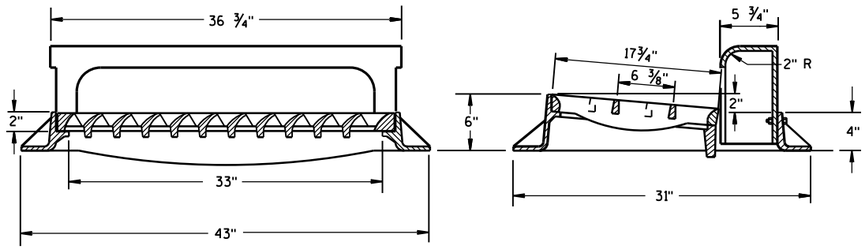
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

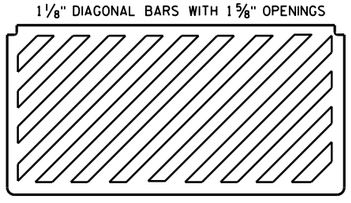






TYPE "H"

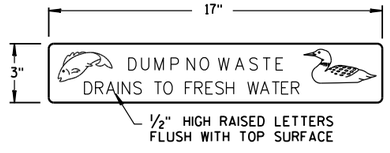
NOTE: EITHER CASTING IS ACCEPTABLE



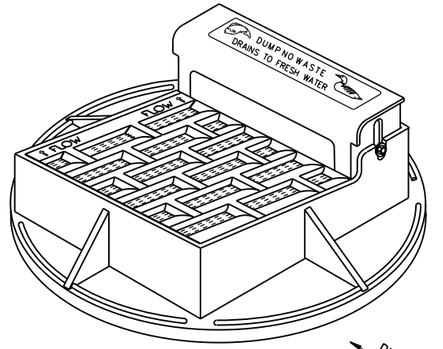
SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

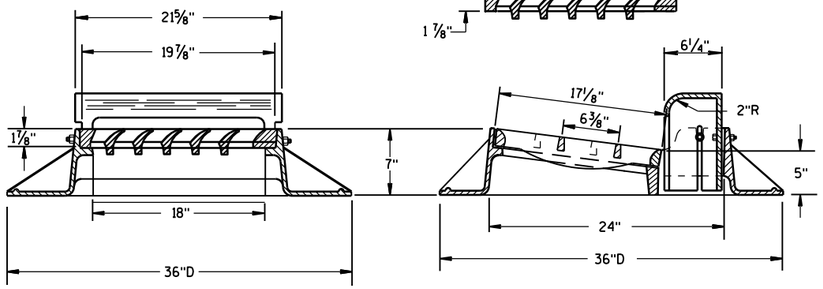


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



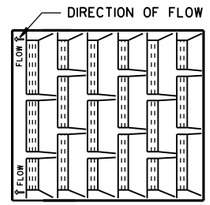
TYPE "A"

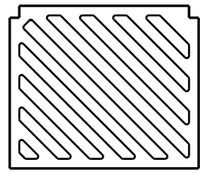
GENERAL NOTES

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

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

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

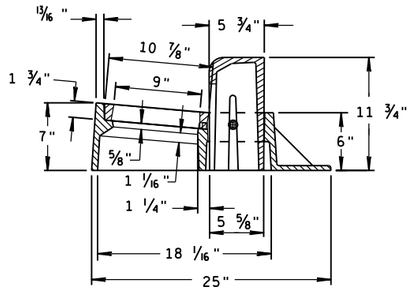


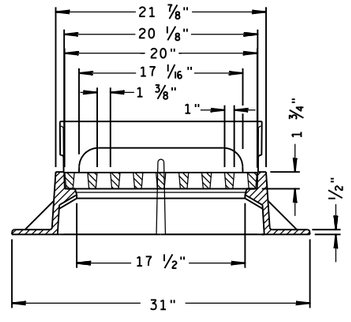


SPECIAL GRATE FOR TYPE "A" COVER

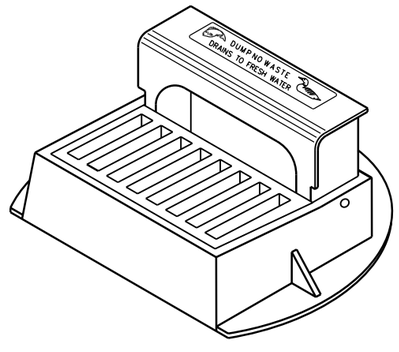
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



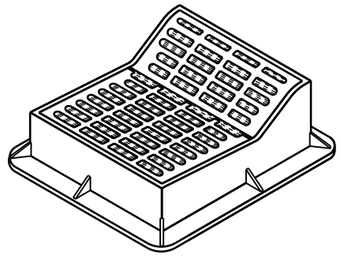
INLET COVERS TYPE A, H, A-S, H-S & Z

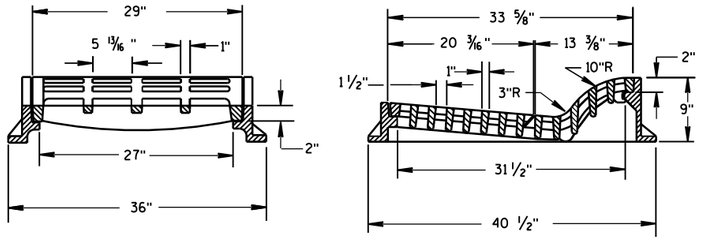
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

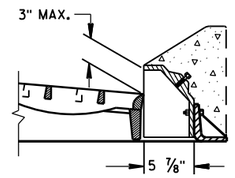
S.D.D. 8 A 5-19a





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

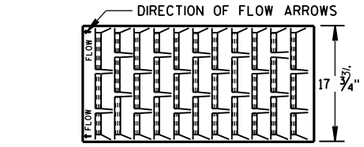
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

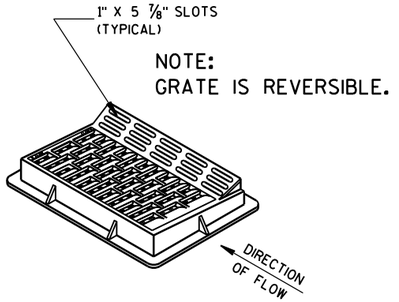
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

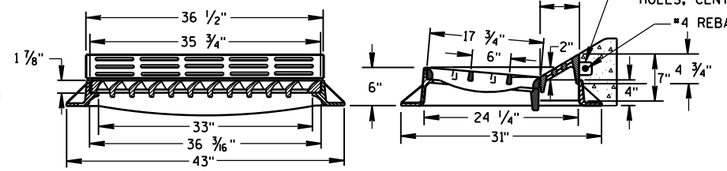
GENERAL NOTES

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

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



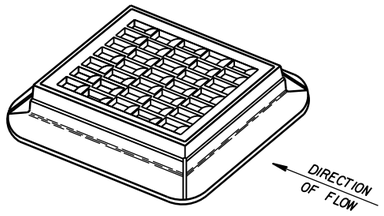


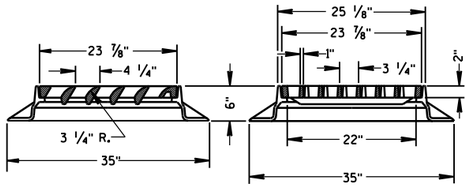


TYPE "HM"

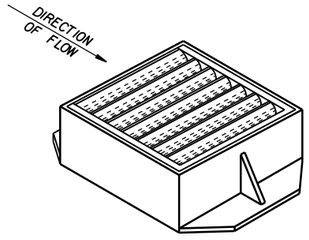
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

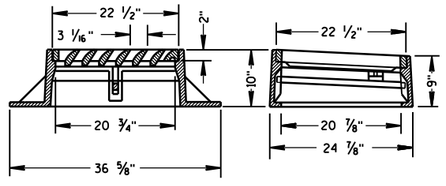
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



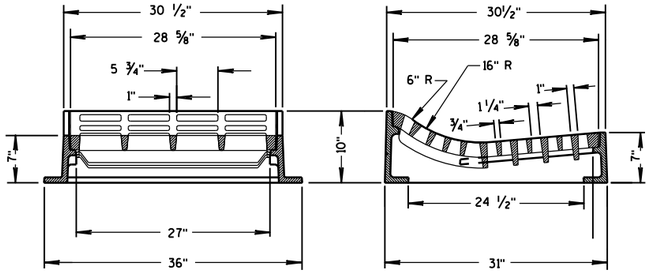


TYPE "S"



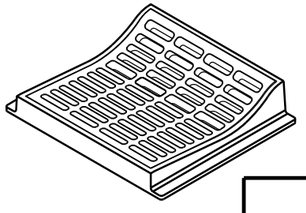


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

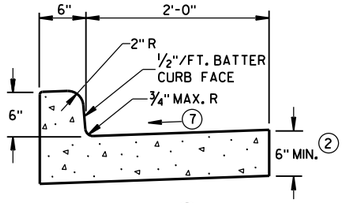
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

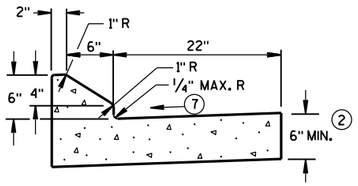
FHWA

6

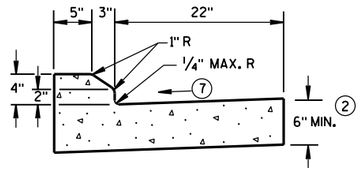
S.D.D. 8 A 5-19c



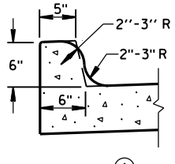
TYPES A (1) & D



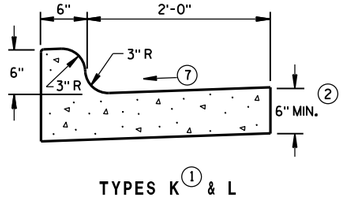
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

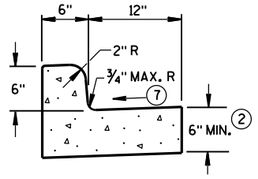


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



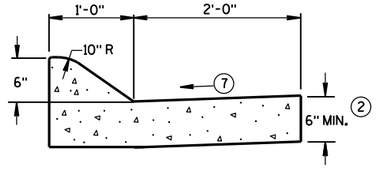
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

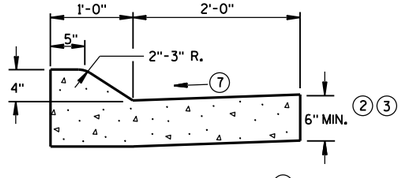


TYPES A (1) & D

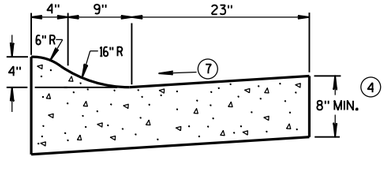
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

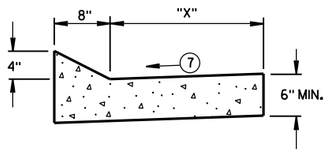


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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 GUTTER 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) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

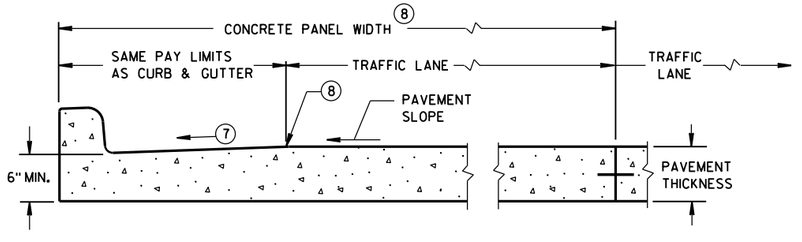
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(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.

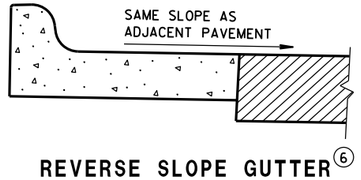
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



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

CONCRETE CURB & GUTTER

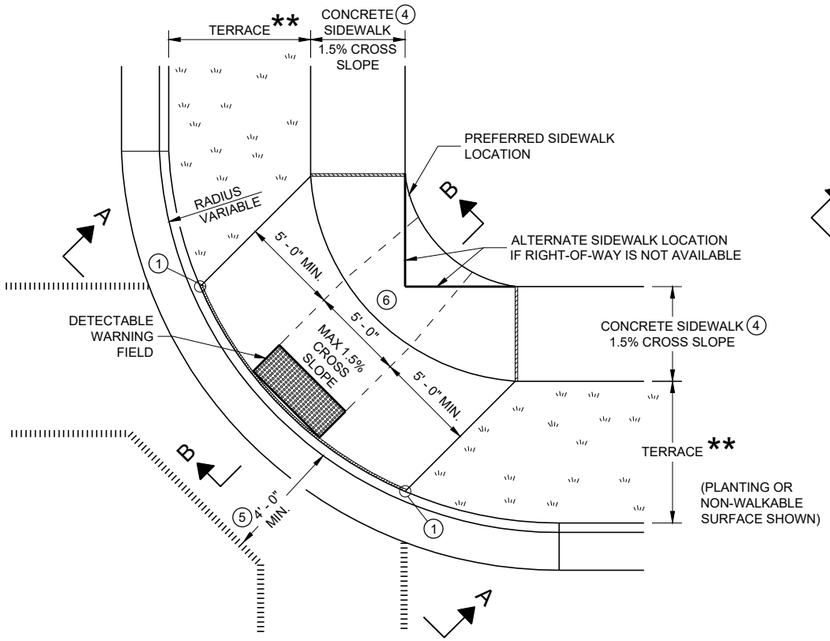
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 1-20a

6

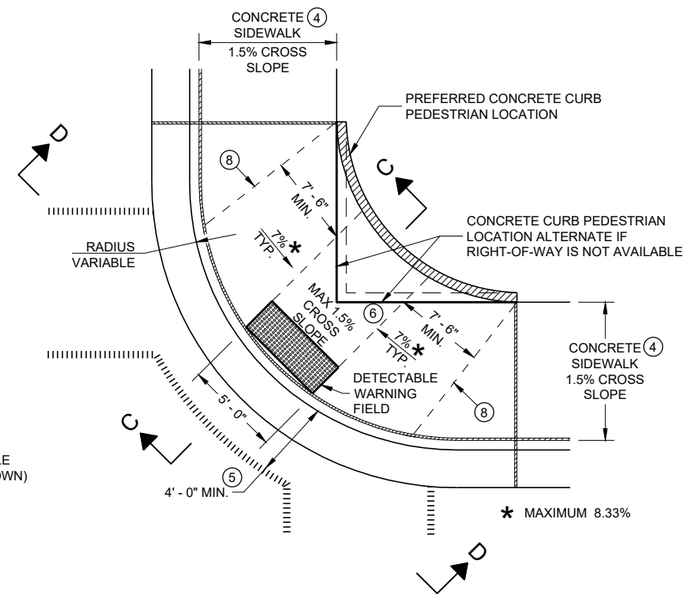
S.D.D. 8 D 1-20a



PLAN VIEW

CURB RAMP TYPE 1

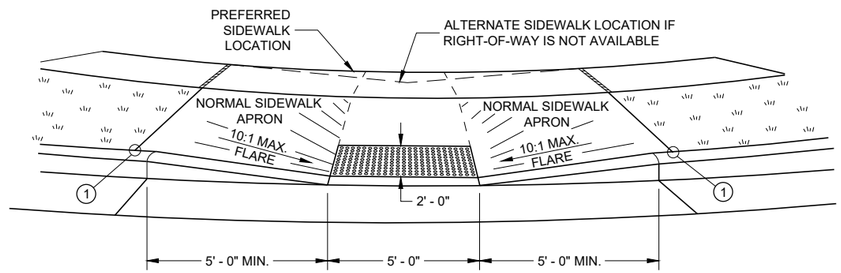
(CENTER OF CORNER RADIUS)



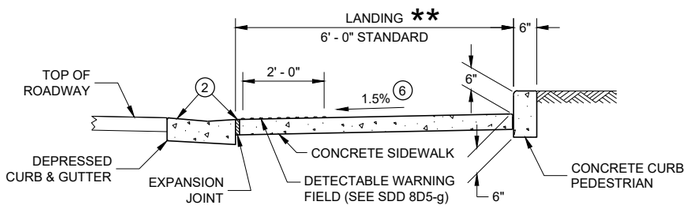
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

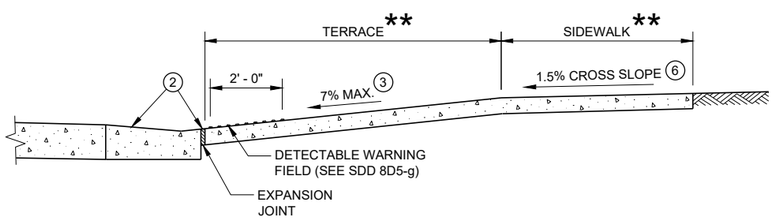


VIEW A - A FOR TYPE 1

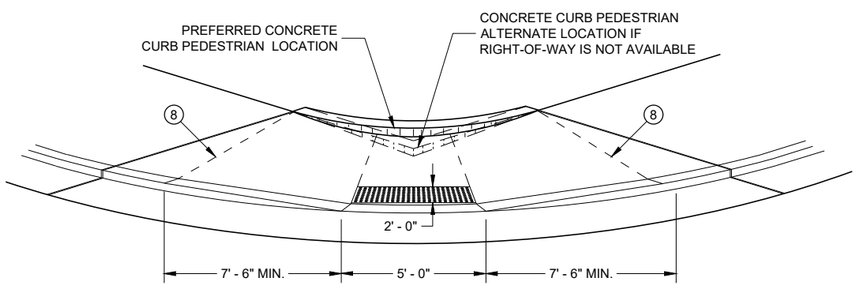


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

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

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

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

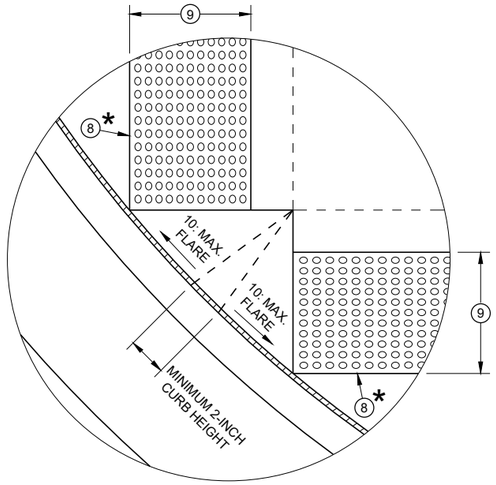
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

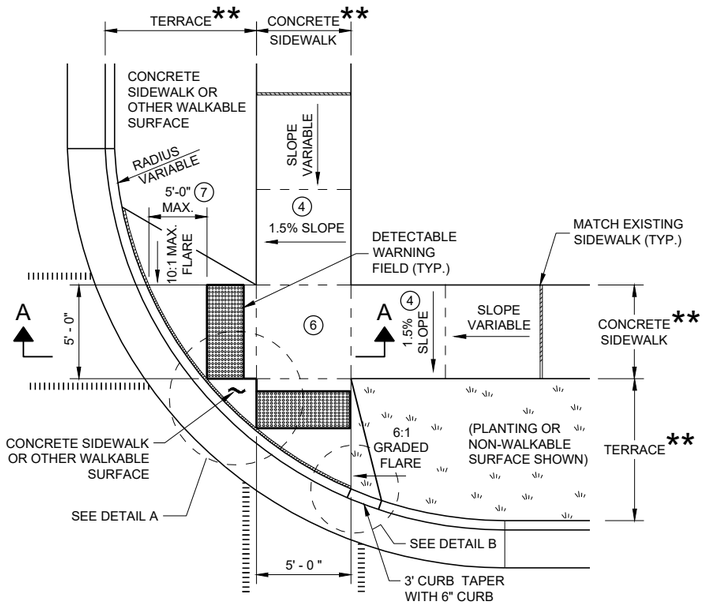
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20a
SDD 08D05 - 20a



DETAIL A



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

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

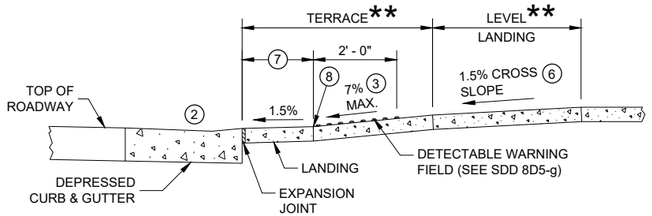
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

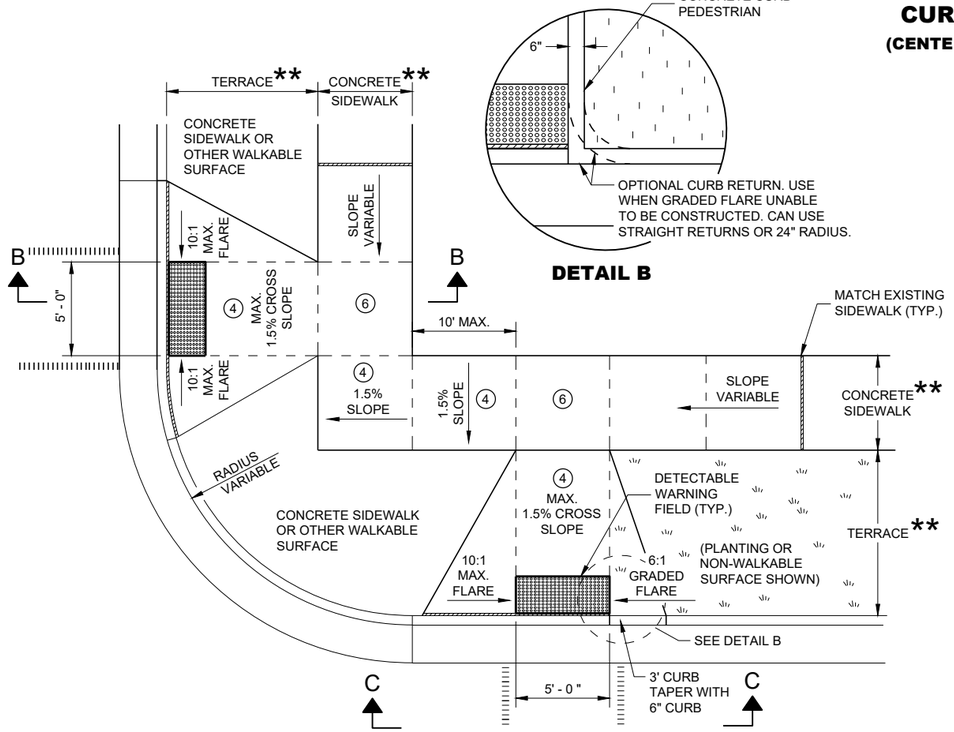
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2

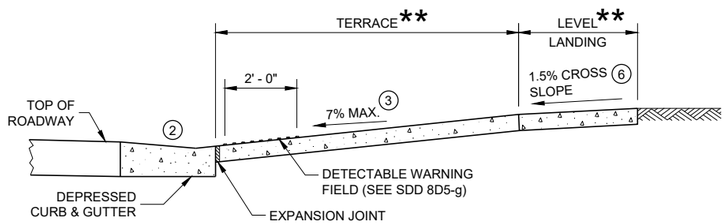
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

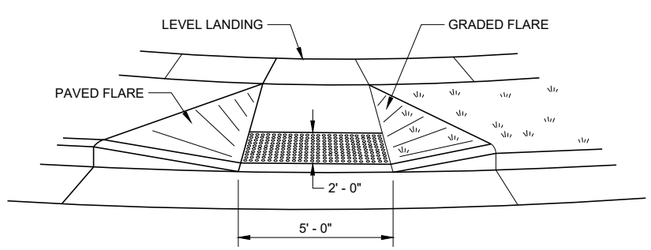


DETAIL B

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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

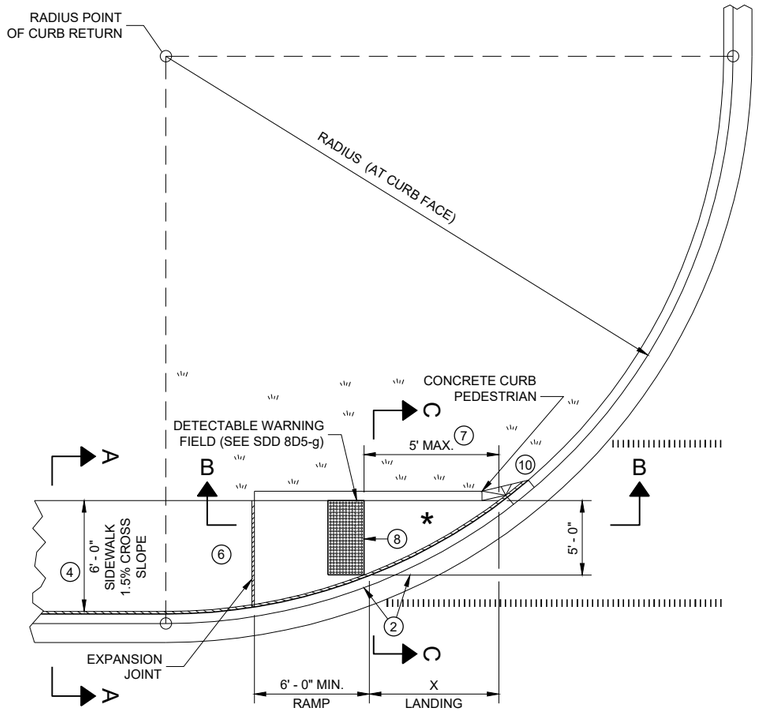
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

6

SDD 08D05 - 20b

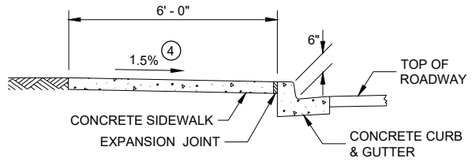


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

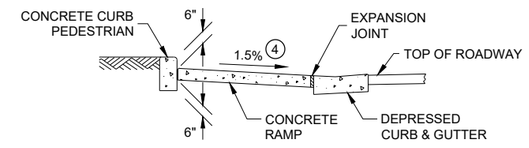
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

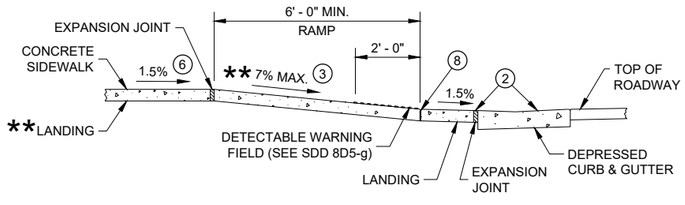
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



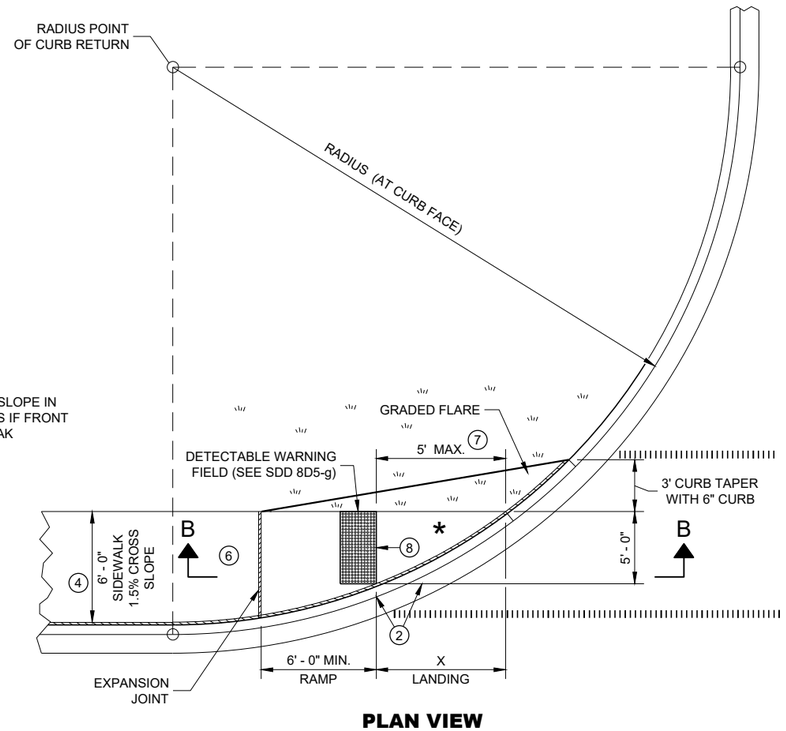
SECTION C - C FOR TYPE 4A



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

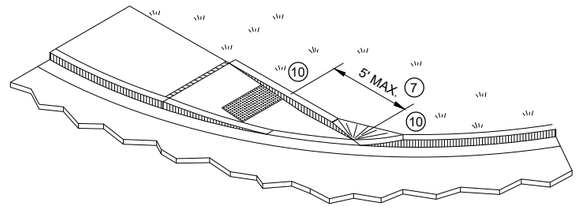
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

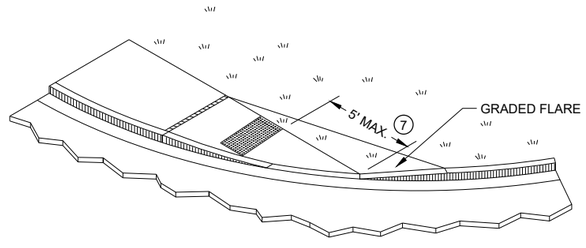


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



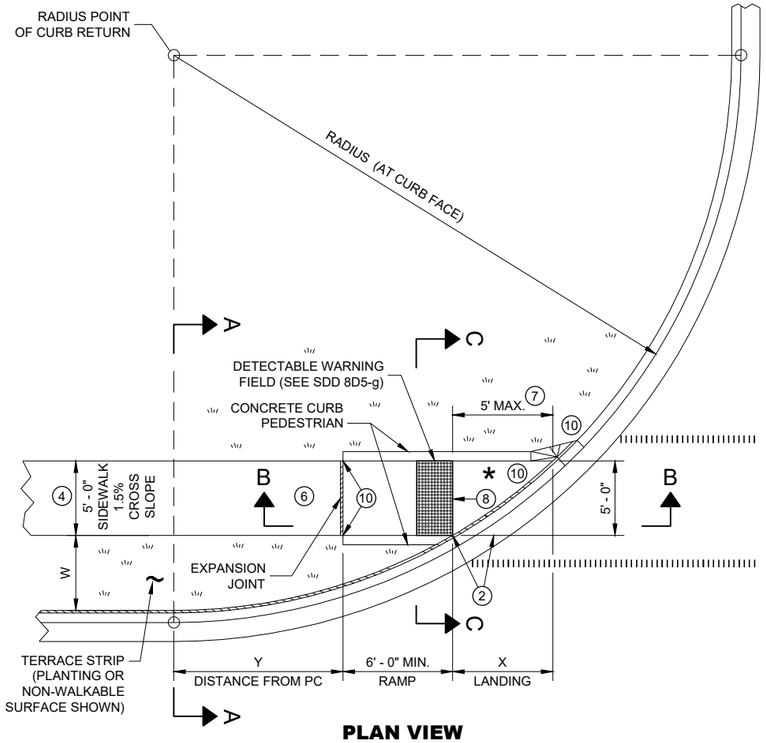
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

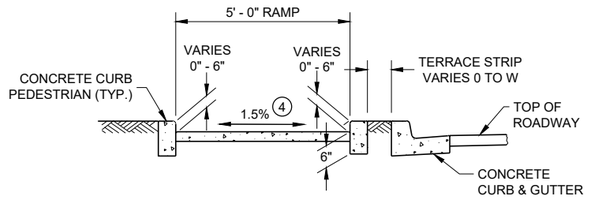


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	23' - 2"

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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

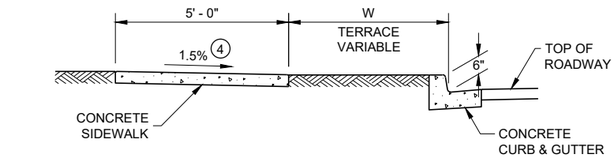
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

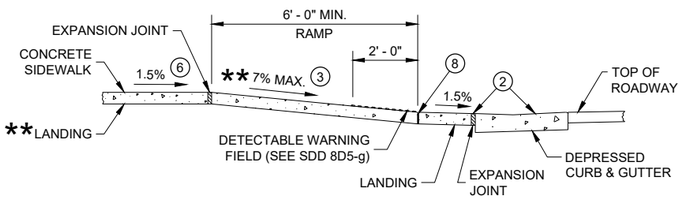
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



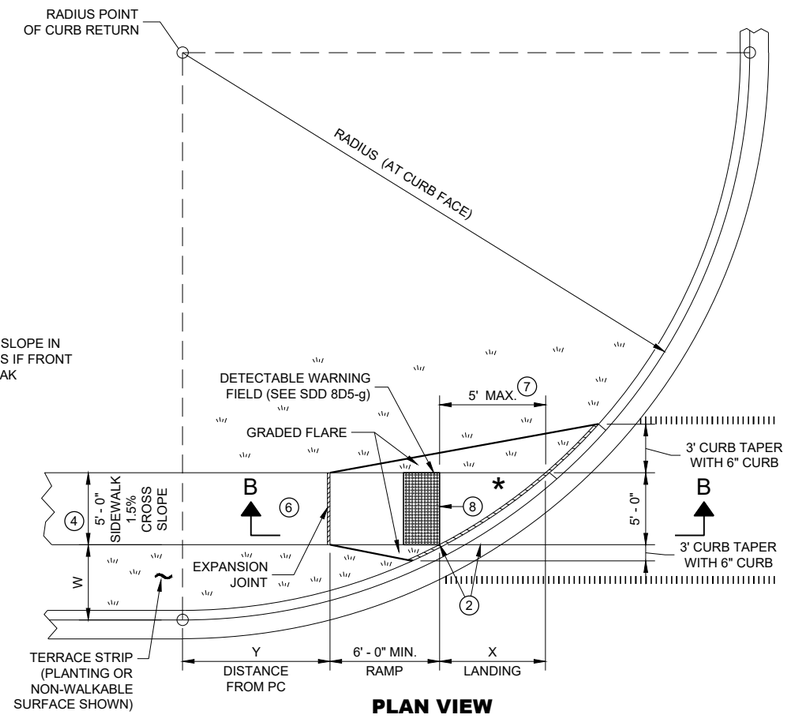
SECTION A - A FOR TYPE 4B



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

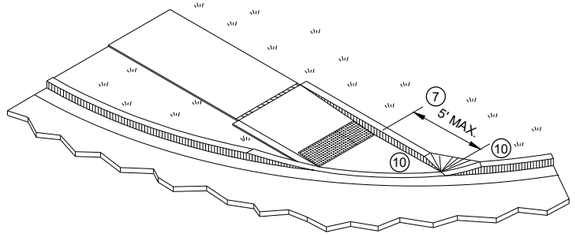
SECTION B - B FOR TYPE 4B AND TYPE 4B1

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

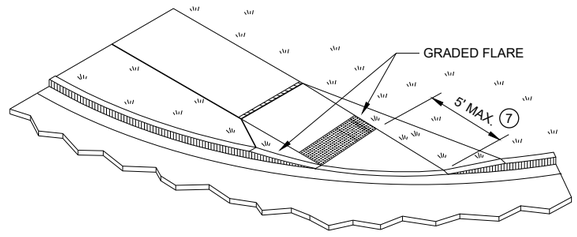


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



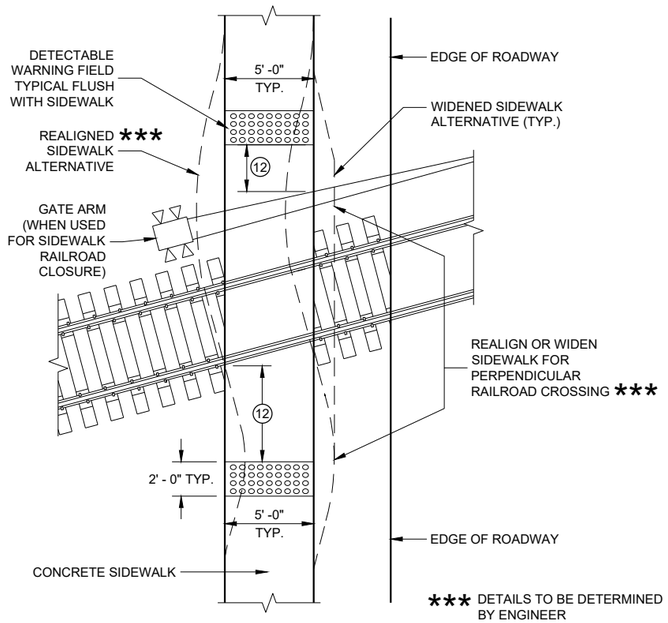
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

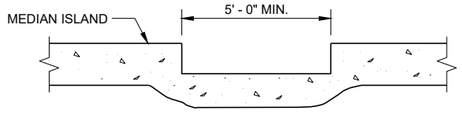
6

SDD 08D05 - 20d

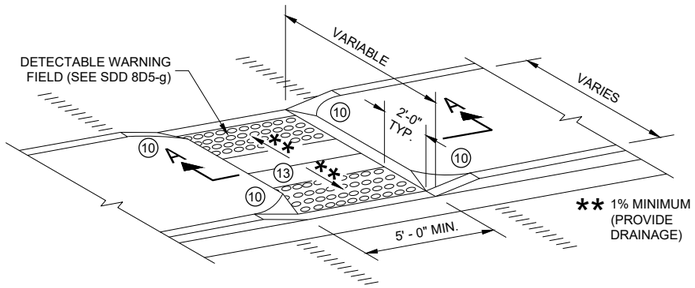


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

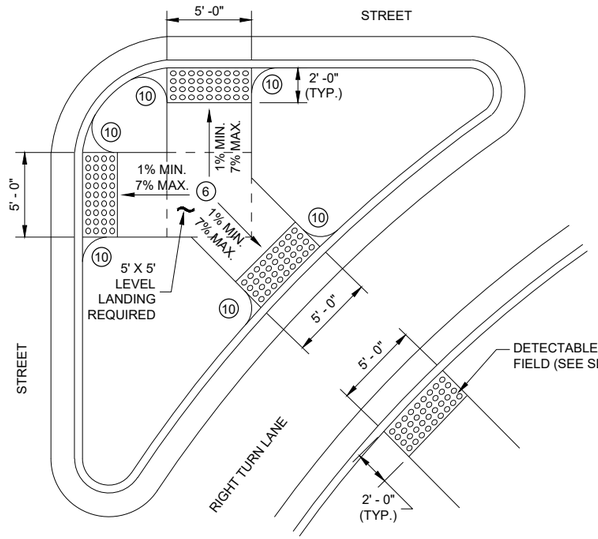
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

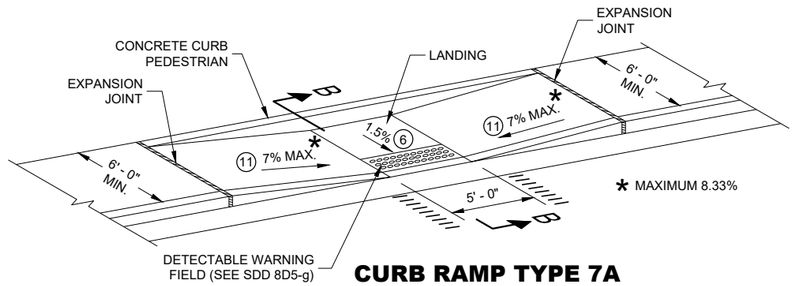
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

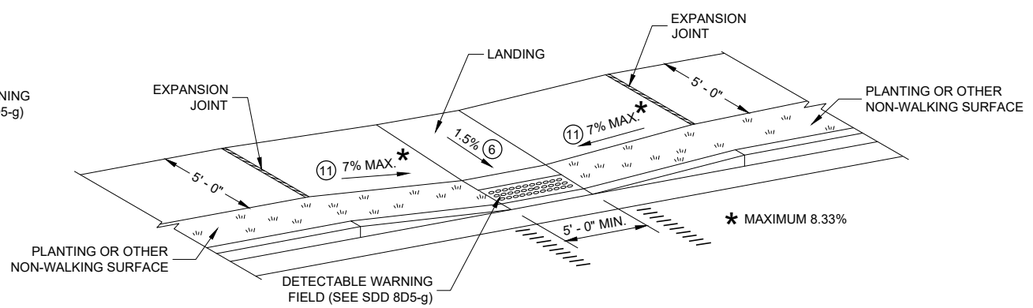
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

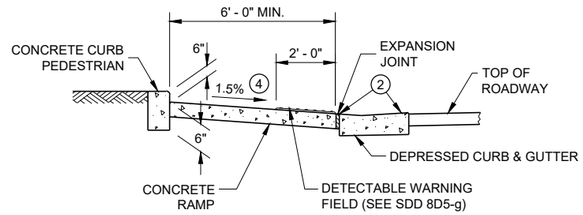
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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



SECTION B - B FOR TYPE 7A

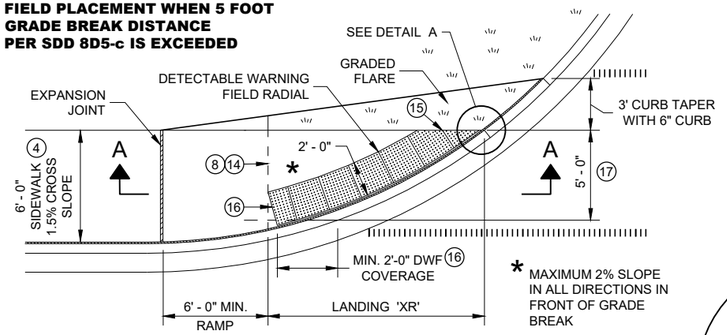
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

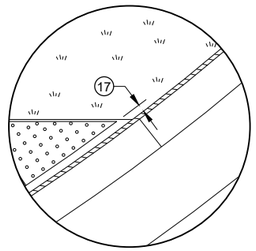
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



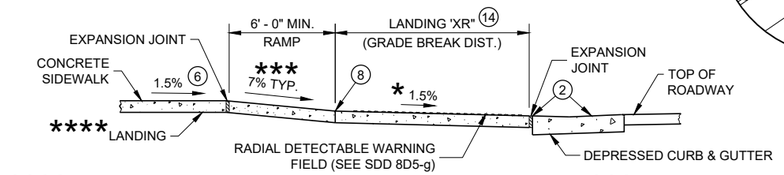
PLAN VIEW

CURB RAMP TYPE 4A1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

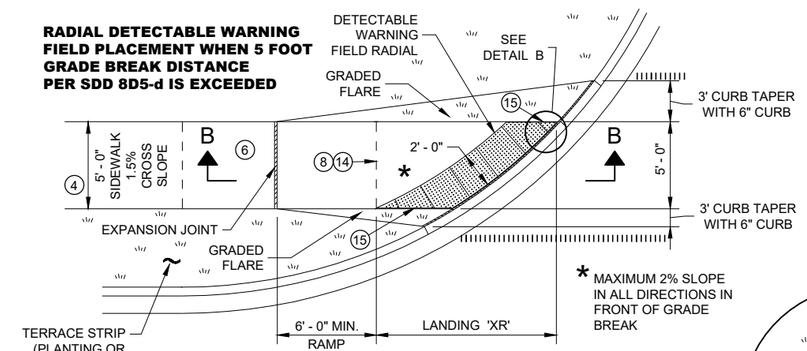


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

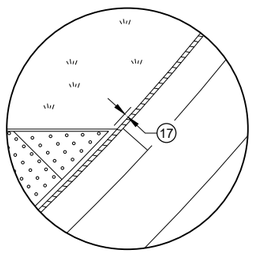
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



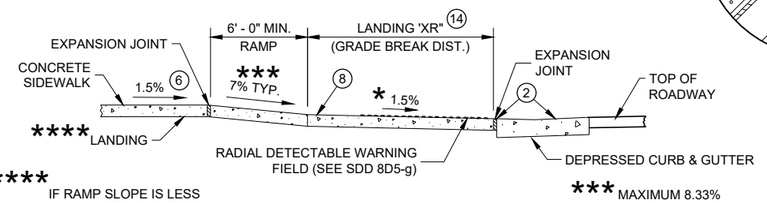
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B



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

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

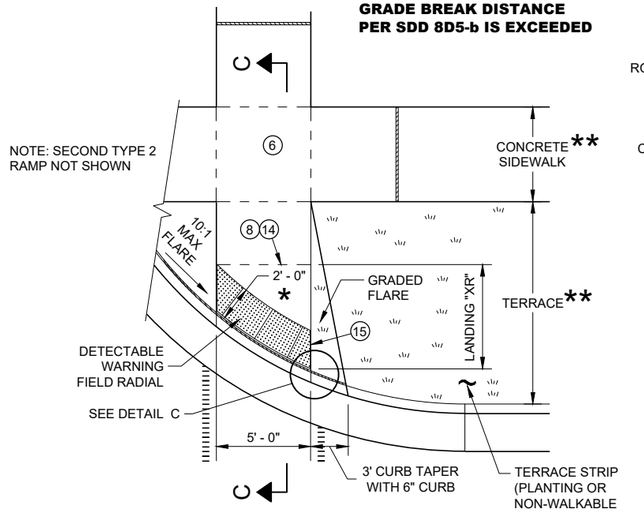
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

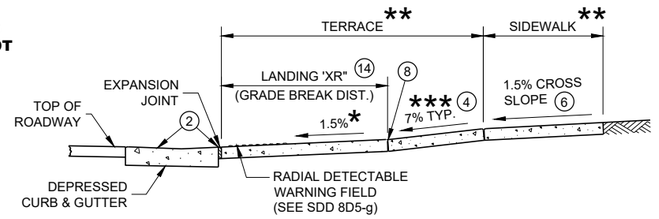


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

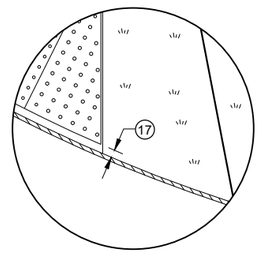


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

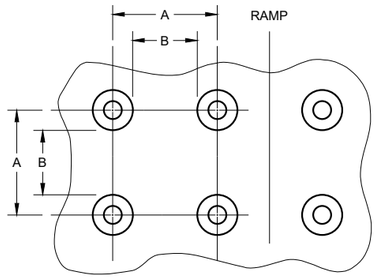
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20f

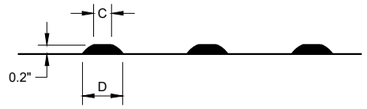
SDD 08D05 - 20f

	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.

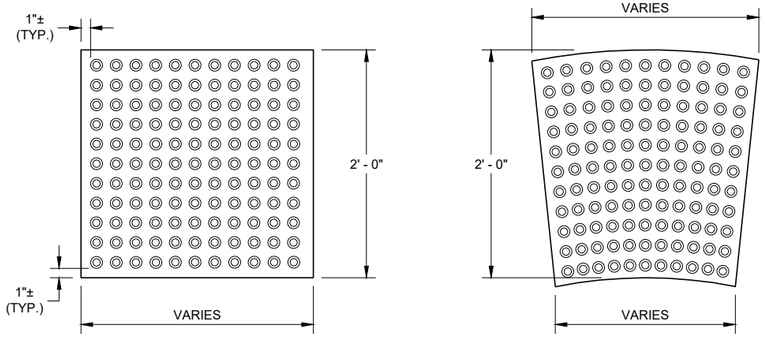


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

GENERAL NOTES

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

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

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

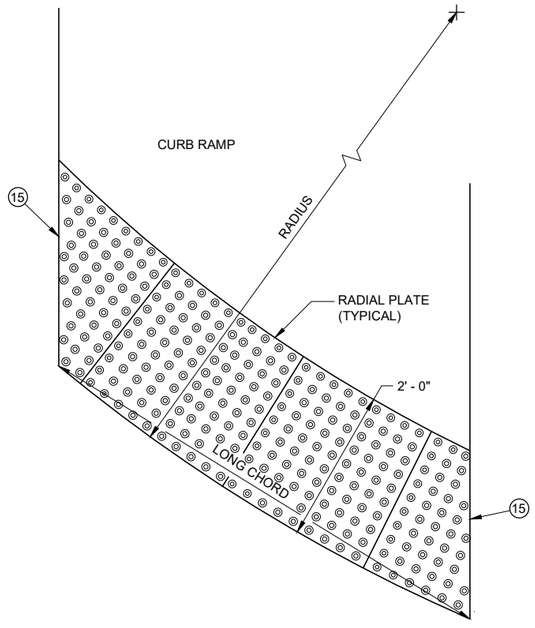
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

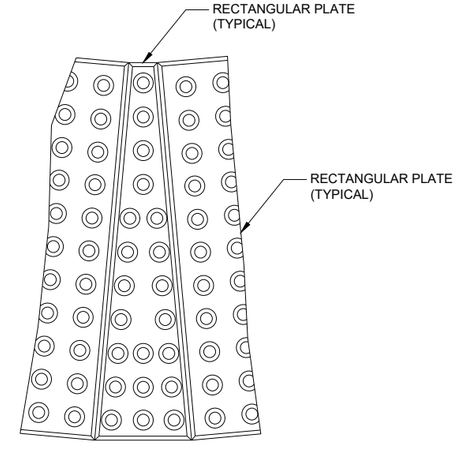
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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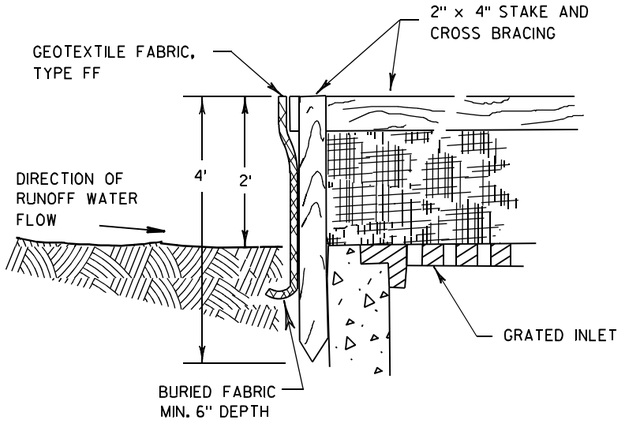
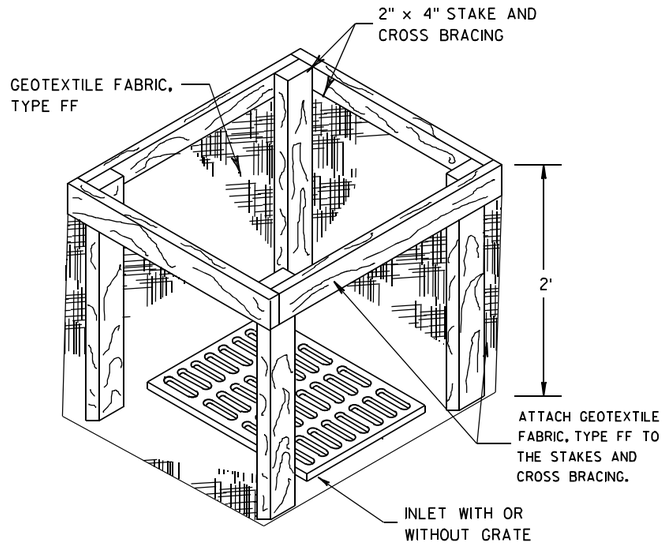
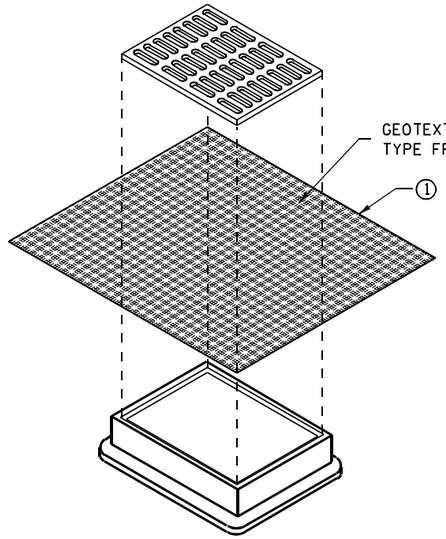
SDD 08D05 - 20g



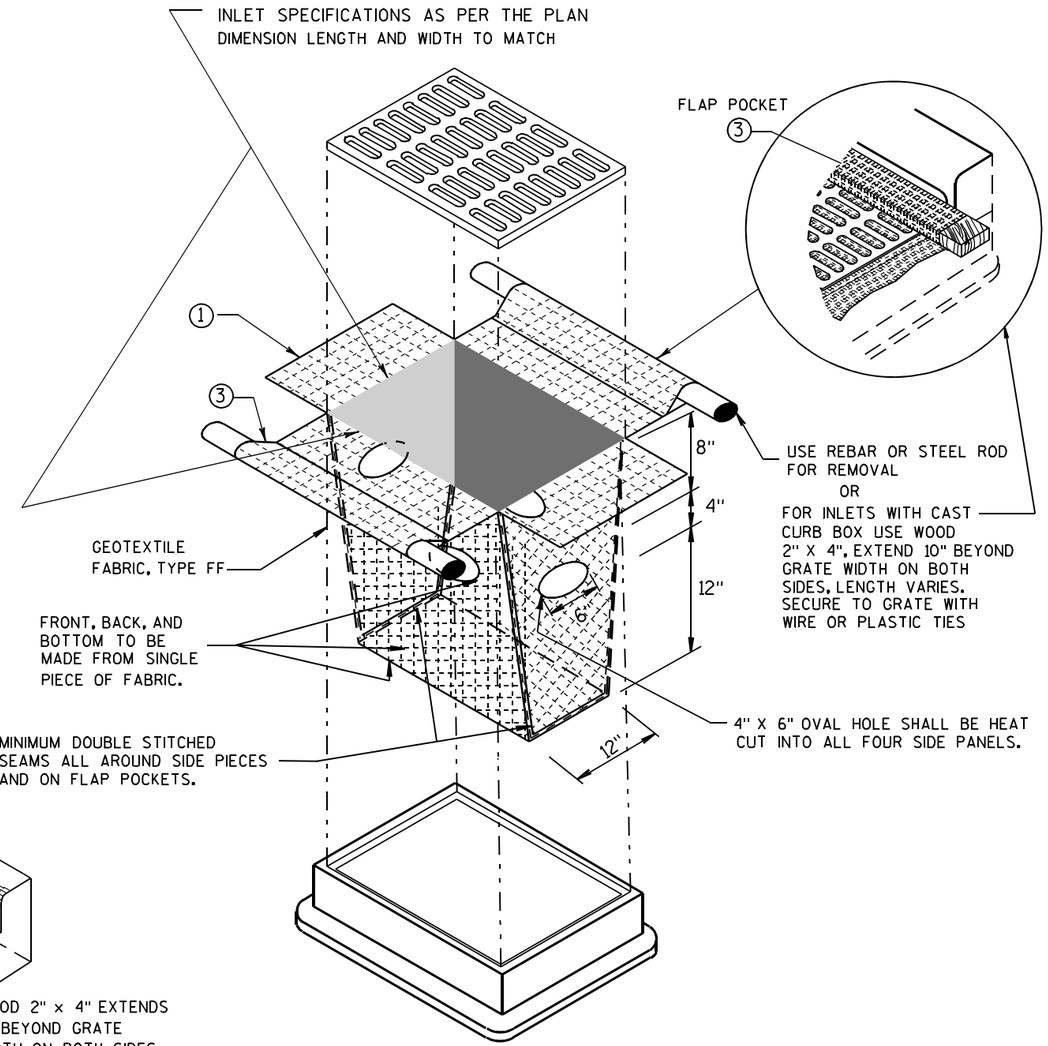


INLET PROTECTION, TYPE A



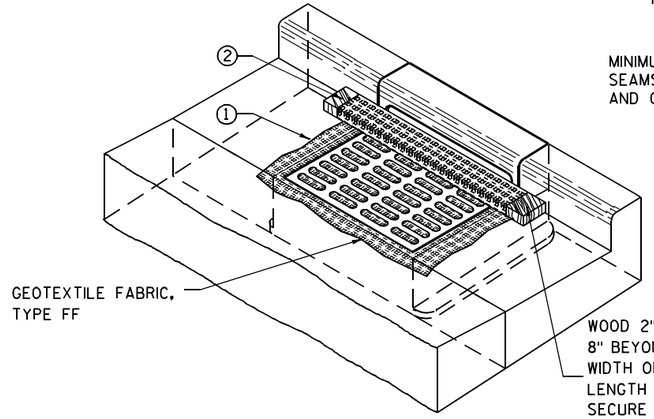
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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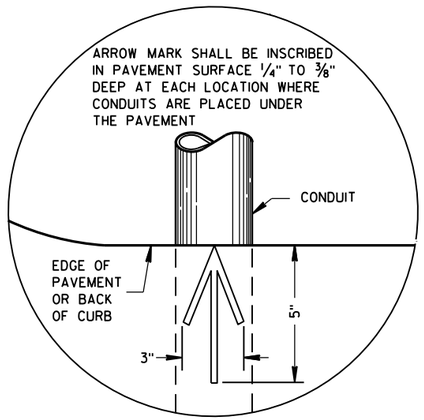
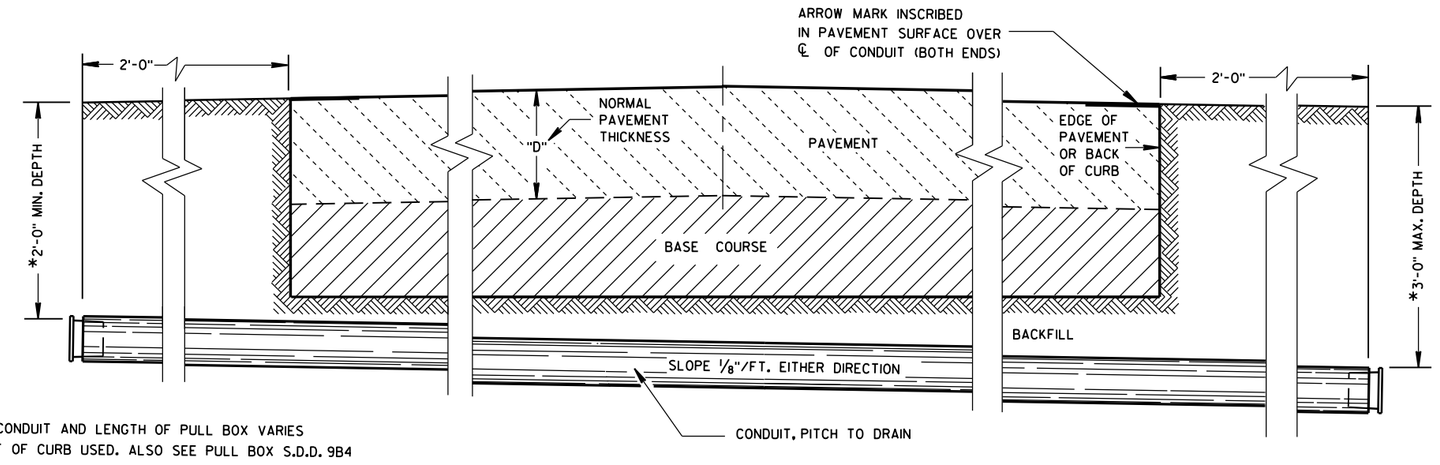
S.D.D. 8 E 10-2
S.D.D. 8 E 10-2



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 277
FHWA

6

S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

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

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

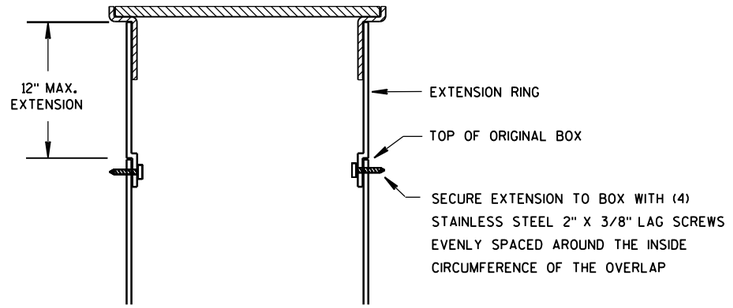
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

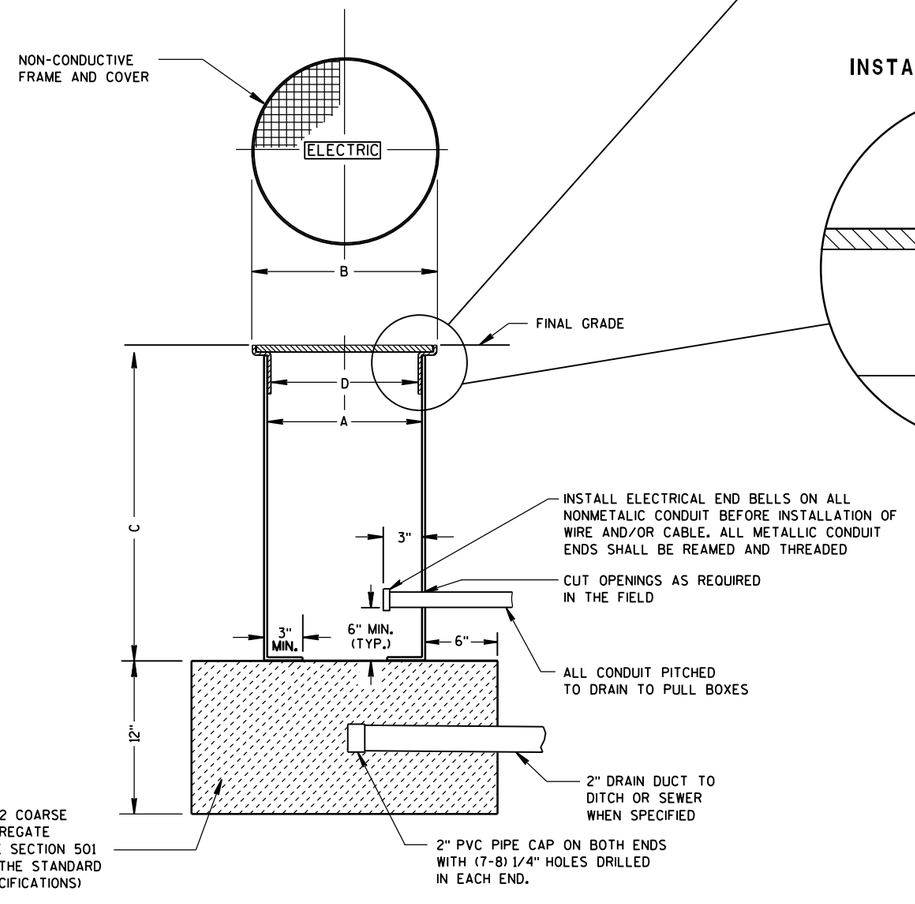
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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

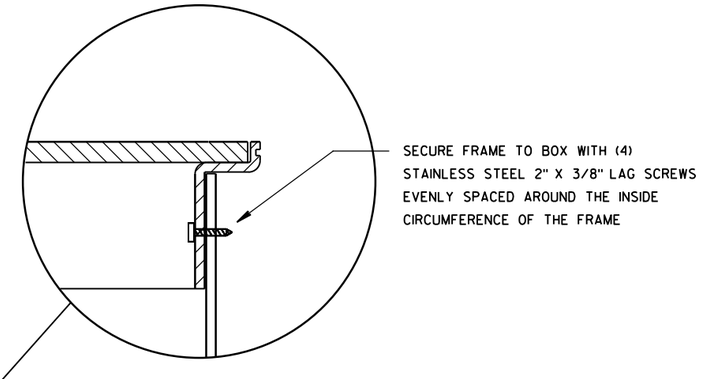


BOX EXTENSION

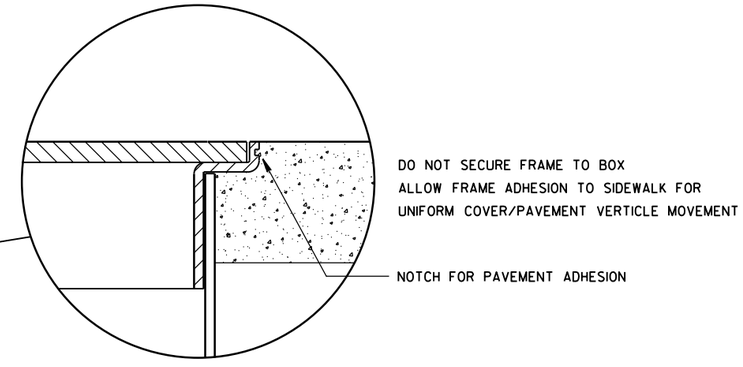


NON-CONDUCTIVE PULL BOX

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



PULL BOX NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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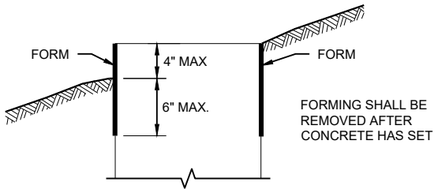
FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5 AND TYPE 6 BASES.

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

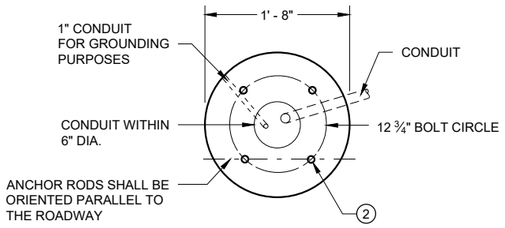
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

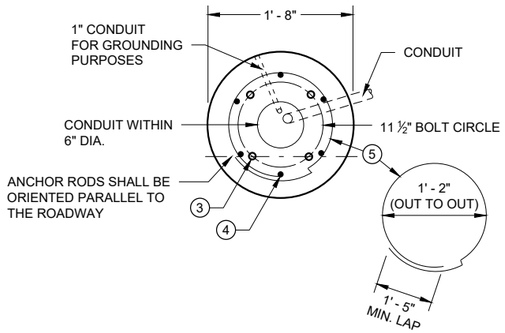
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

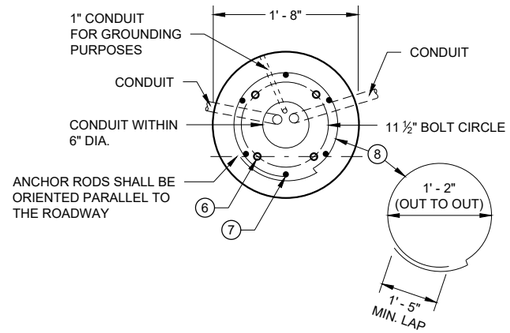
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

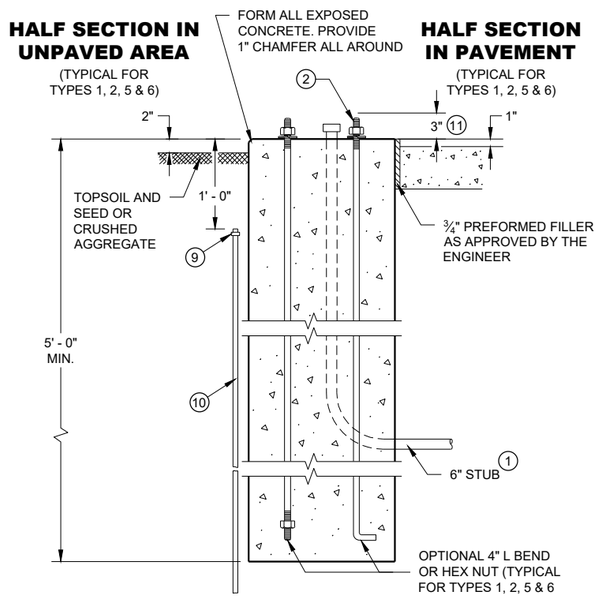
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

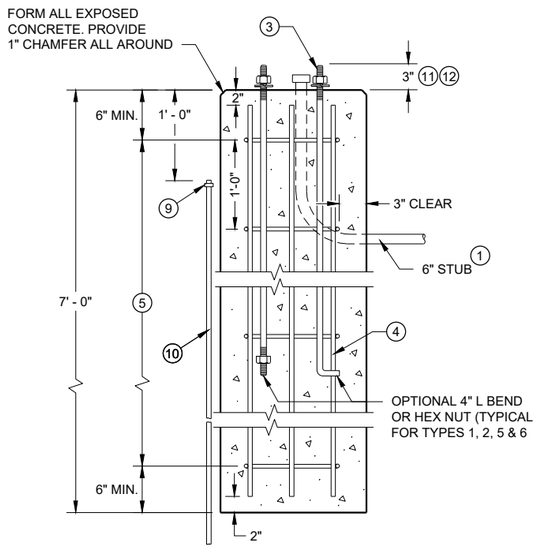




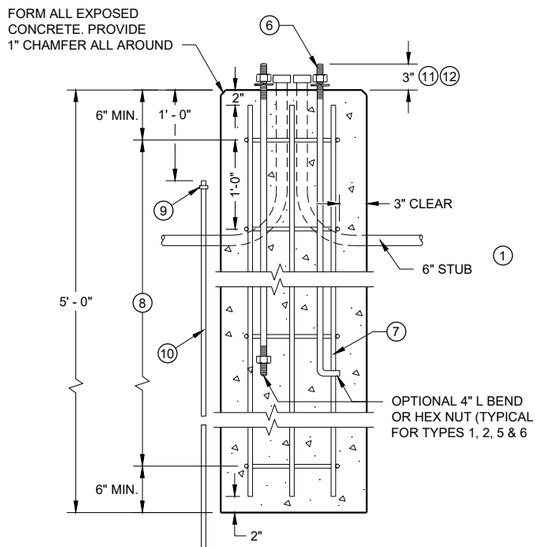




TYPE 1



TYPE 2



TYPE 5 & 6

1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI
279
FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

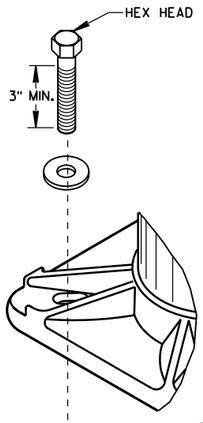
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

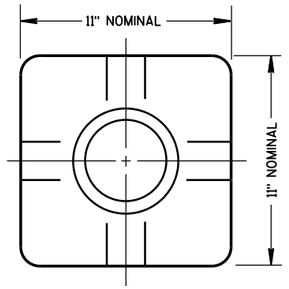
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

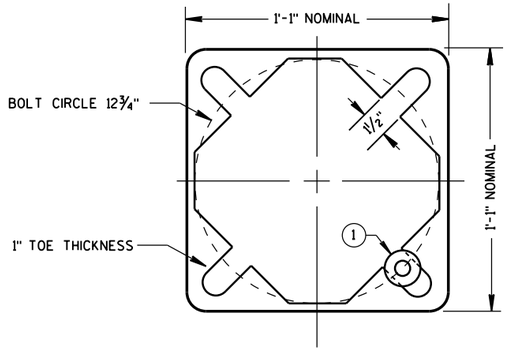
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

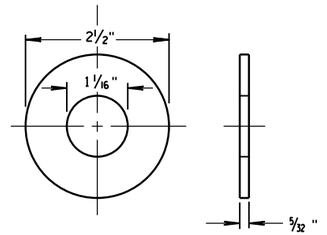




TOP VIEW
(PEDESTAL BASE)

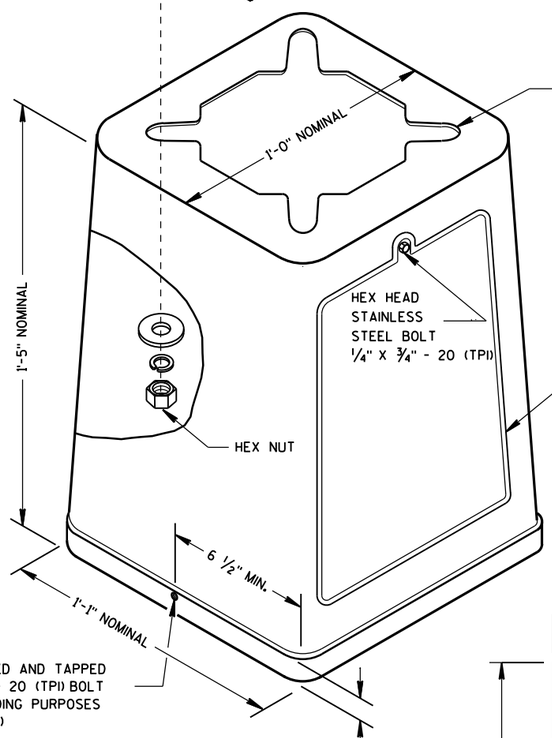


BOTTOM VIEW
(PEDESTAL BASE)

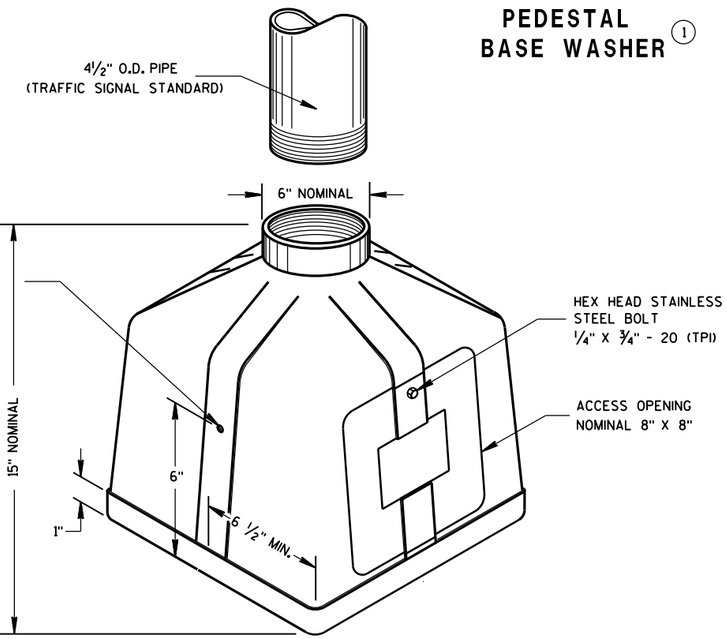


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

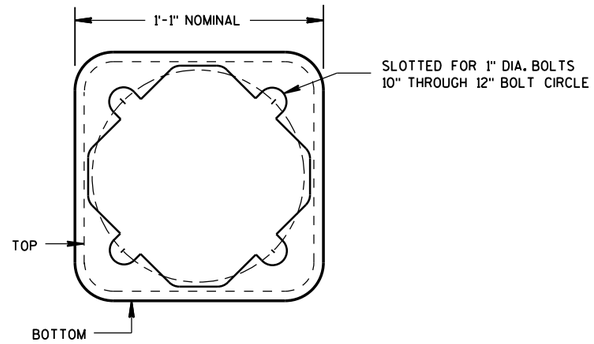


ISOMETRIC VIEW

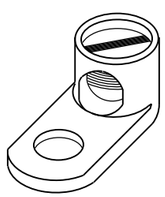


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

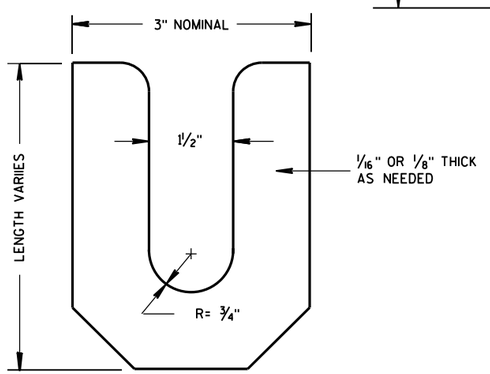


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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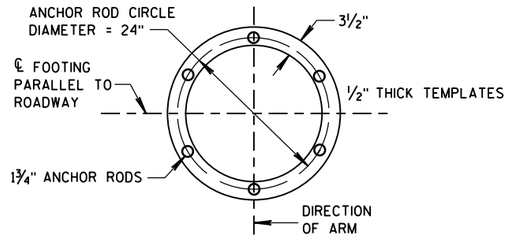
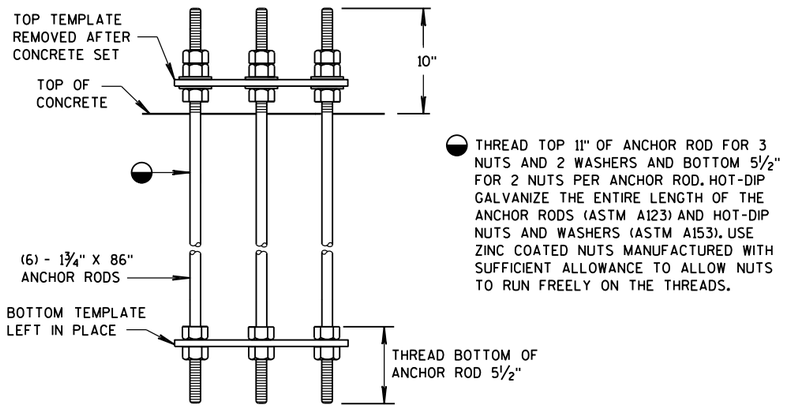
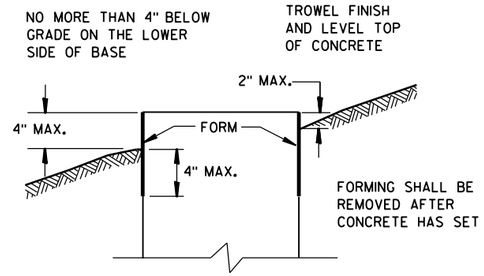


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 12-9b

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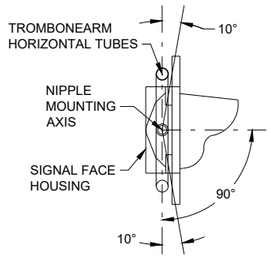
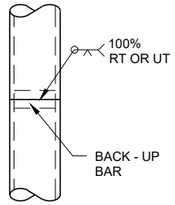


SECTION A-A

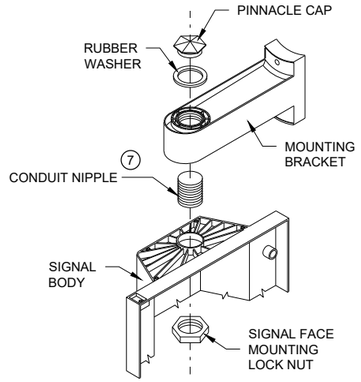
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

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.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

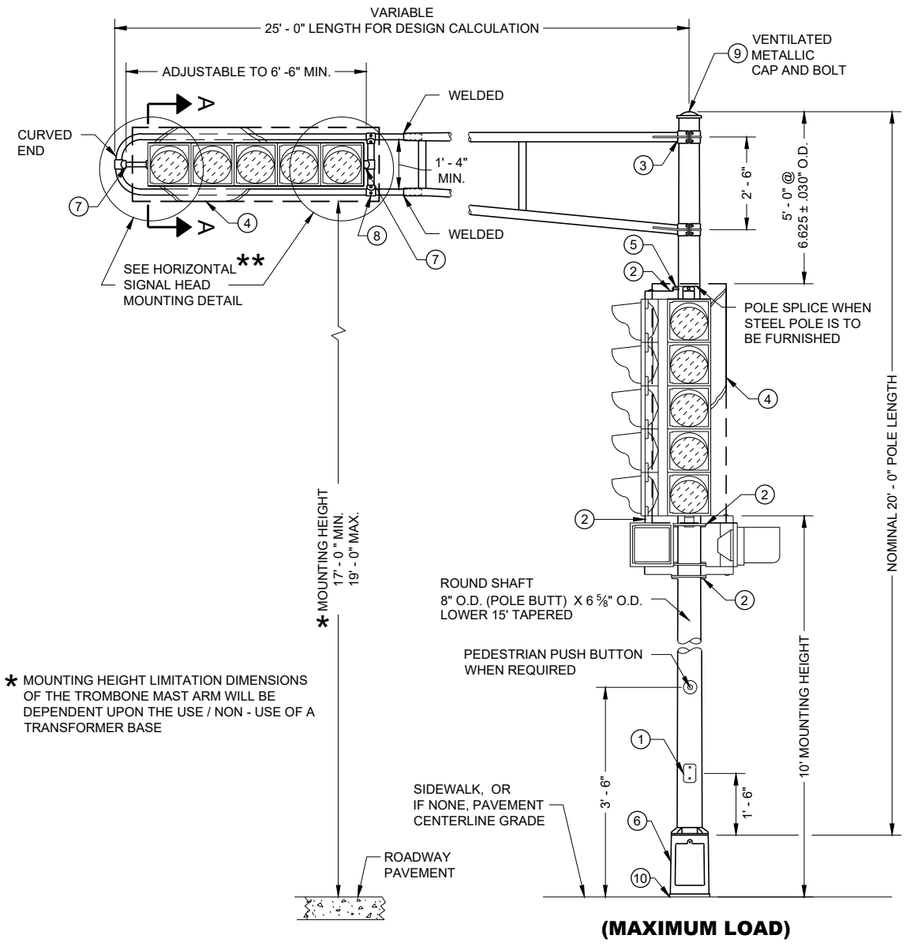
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

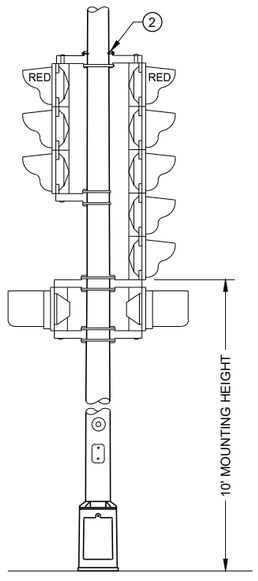
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

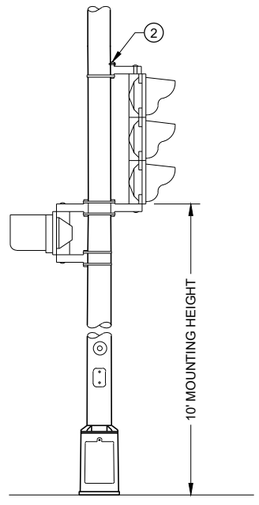


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

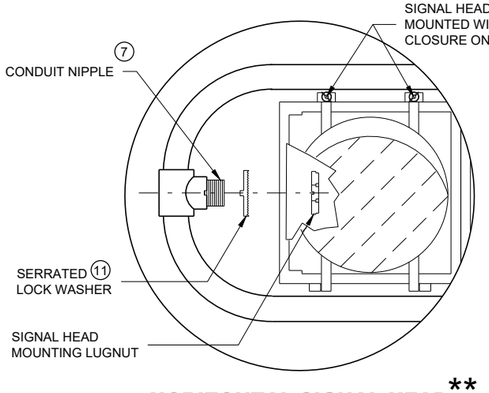
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
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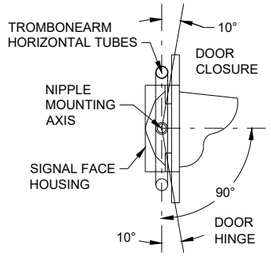
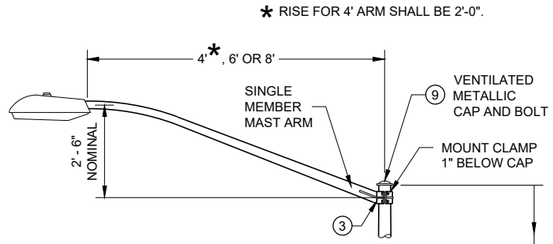
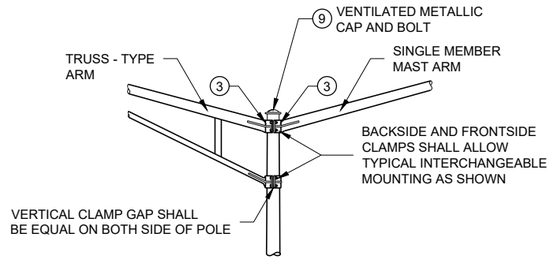
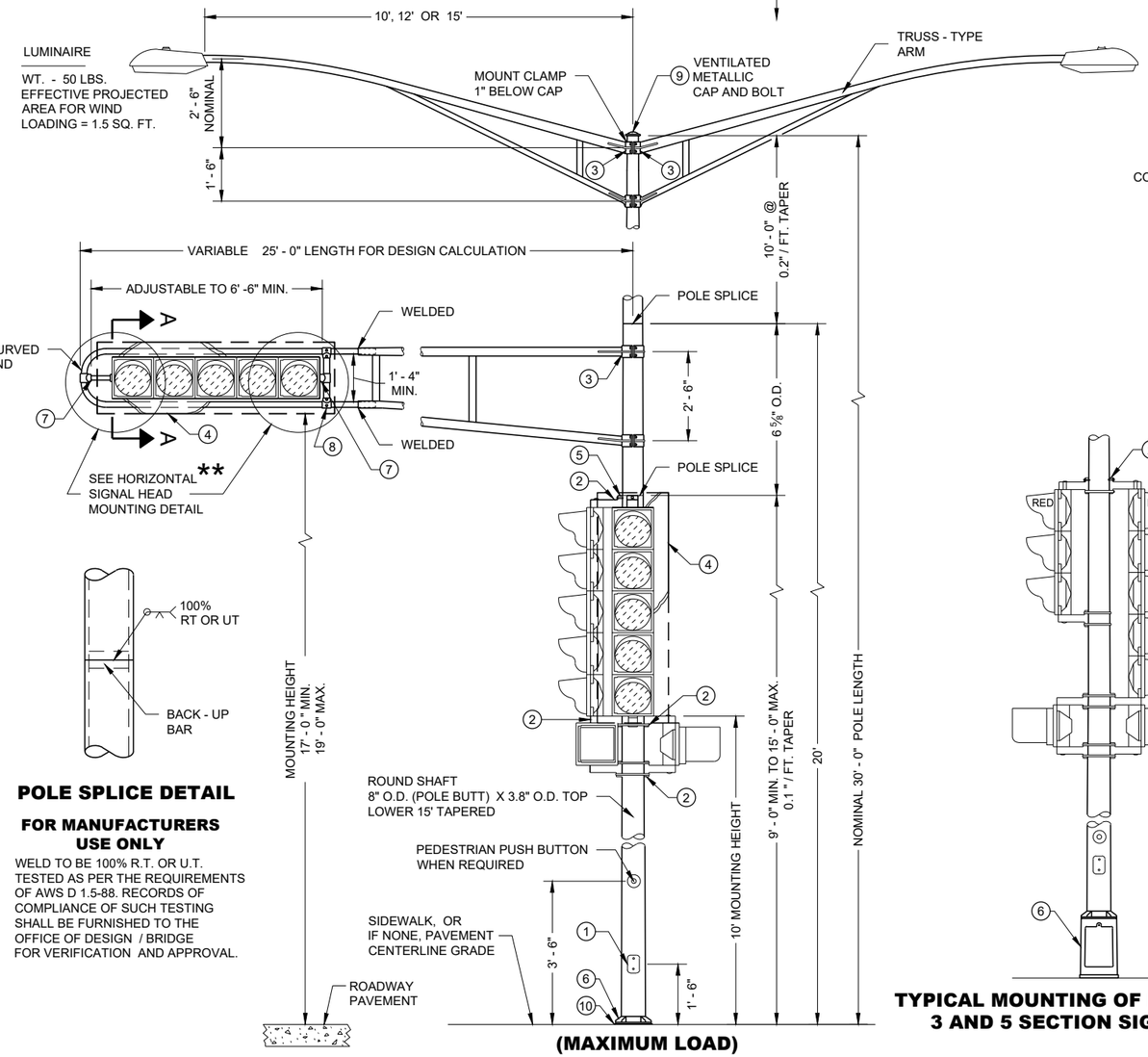


SECTION A-A

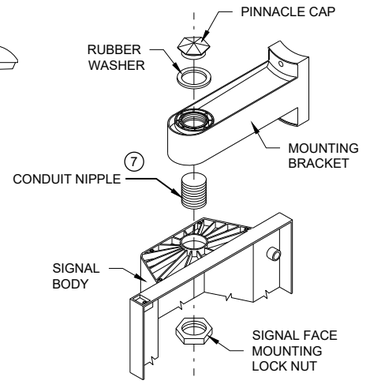




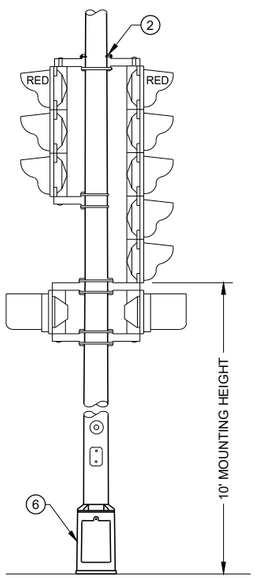
INTERCHANGEABLE MOUNTING DETAIL



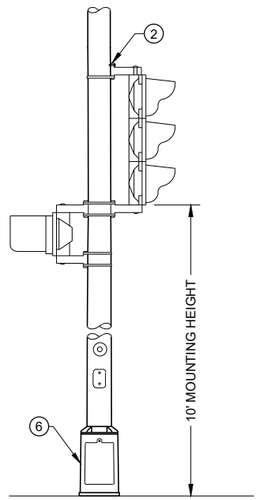
(MAXIMUM LOAD)



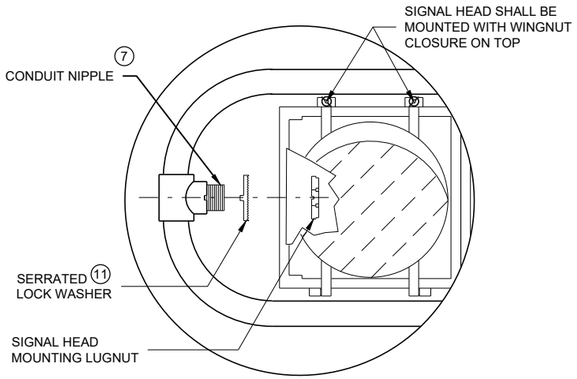
SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

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 3/8 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) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 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. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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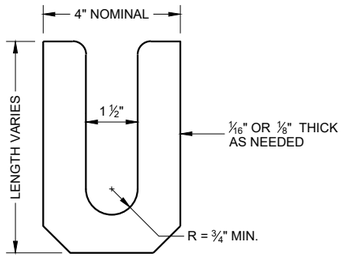
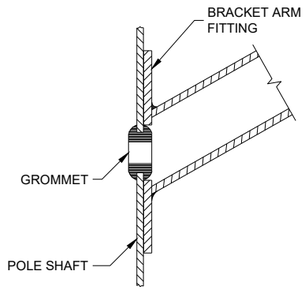
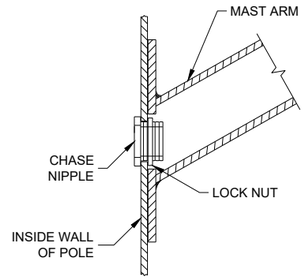


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

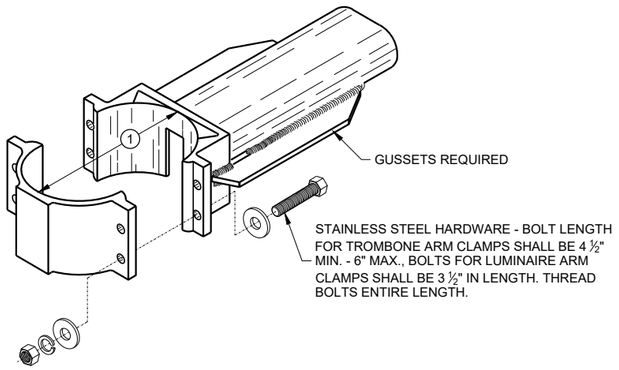
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

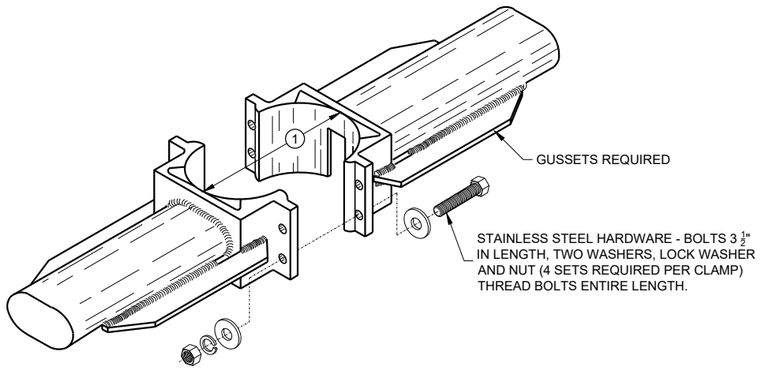
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

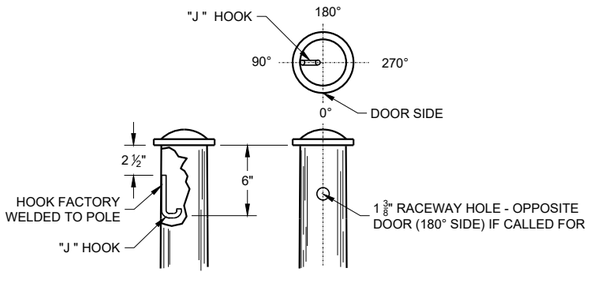
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



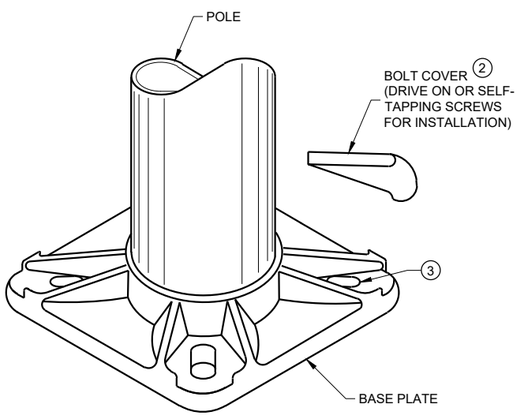
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



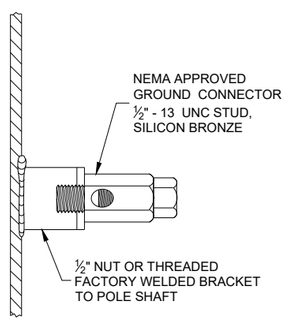
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

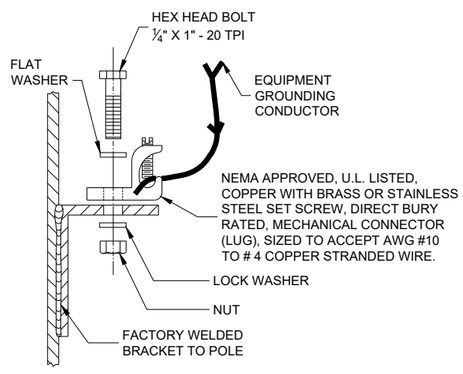


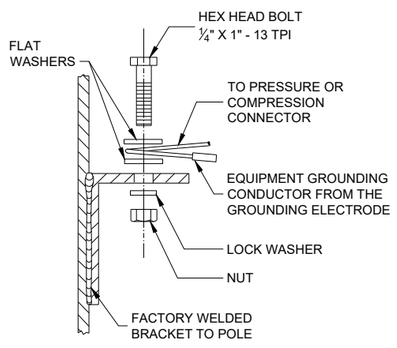
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 284

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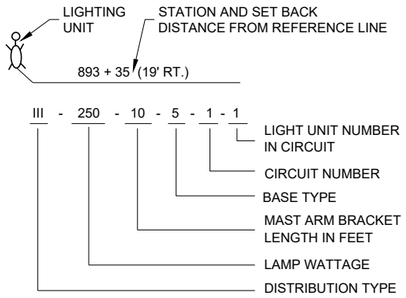
GENERAL NOTES

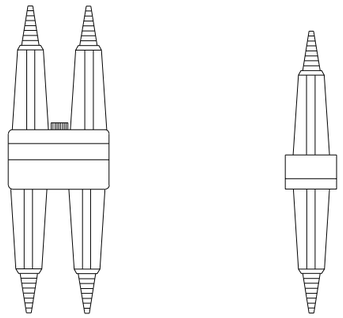
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

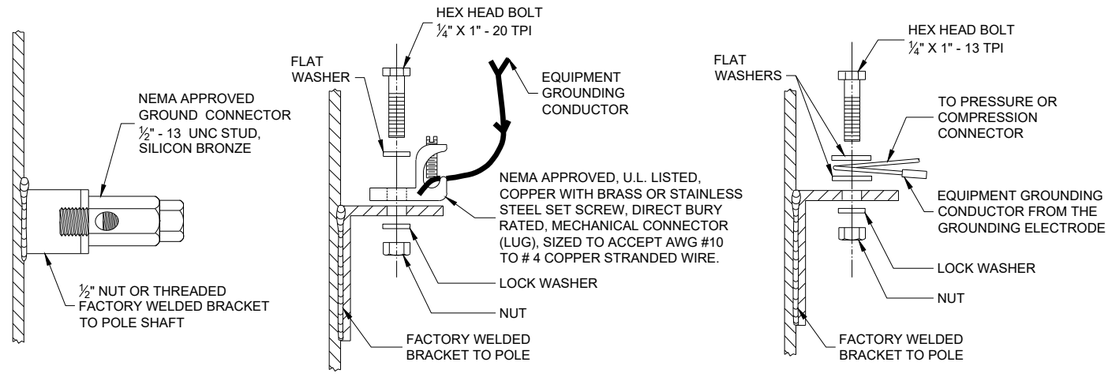


LIGHTING UNIT CODE
(TYPICAL)

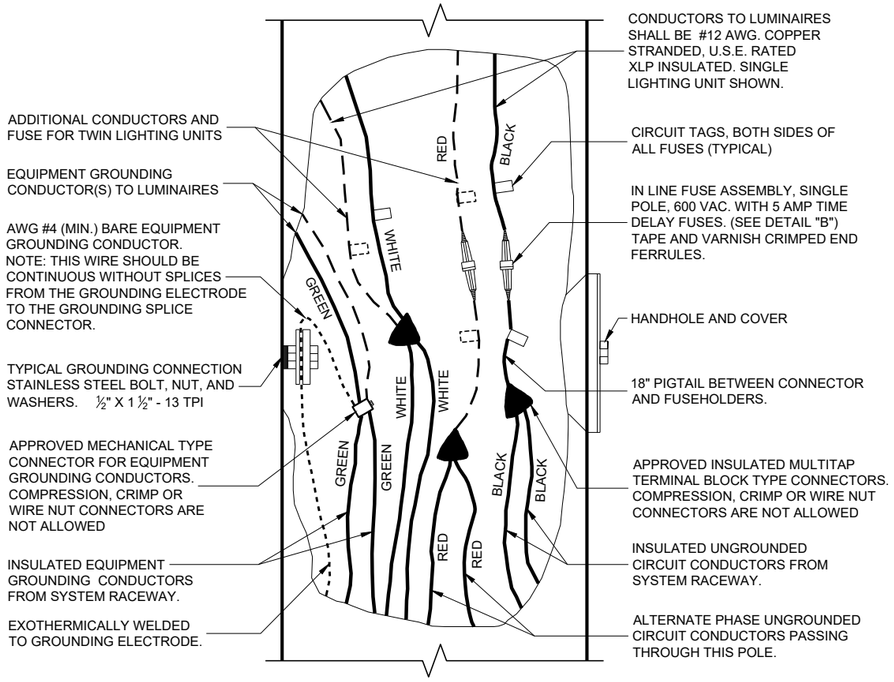


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

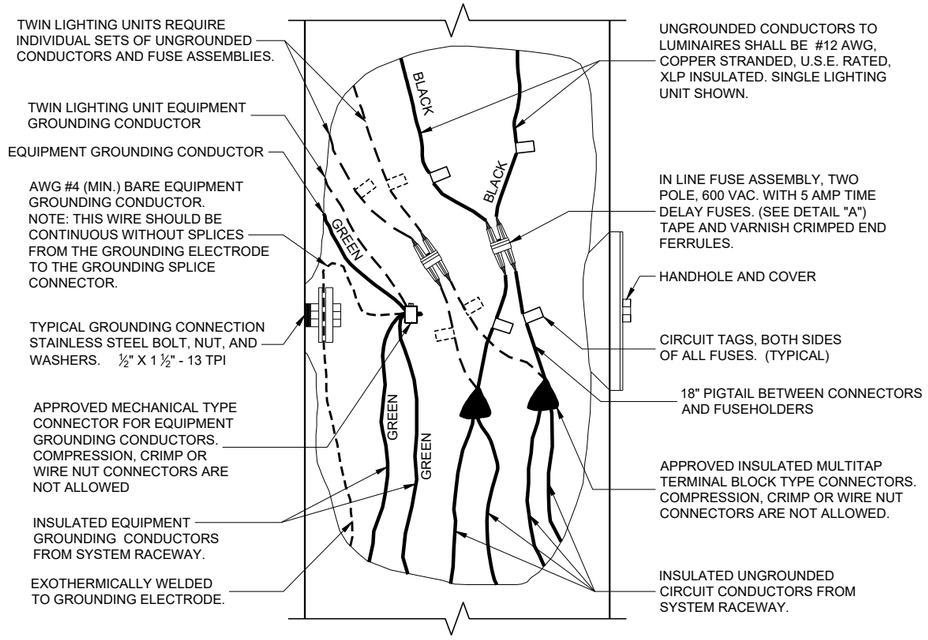
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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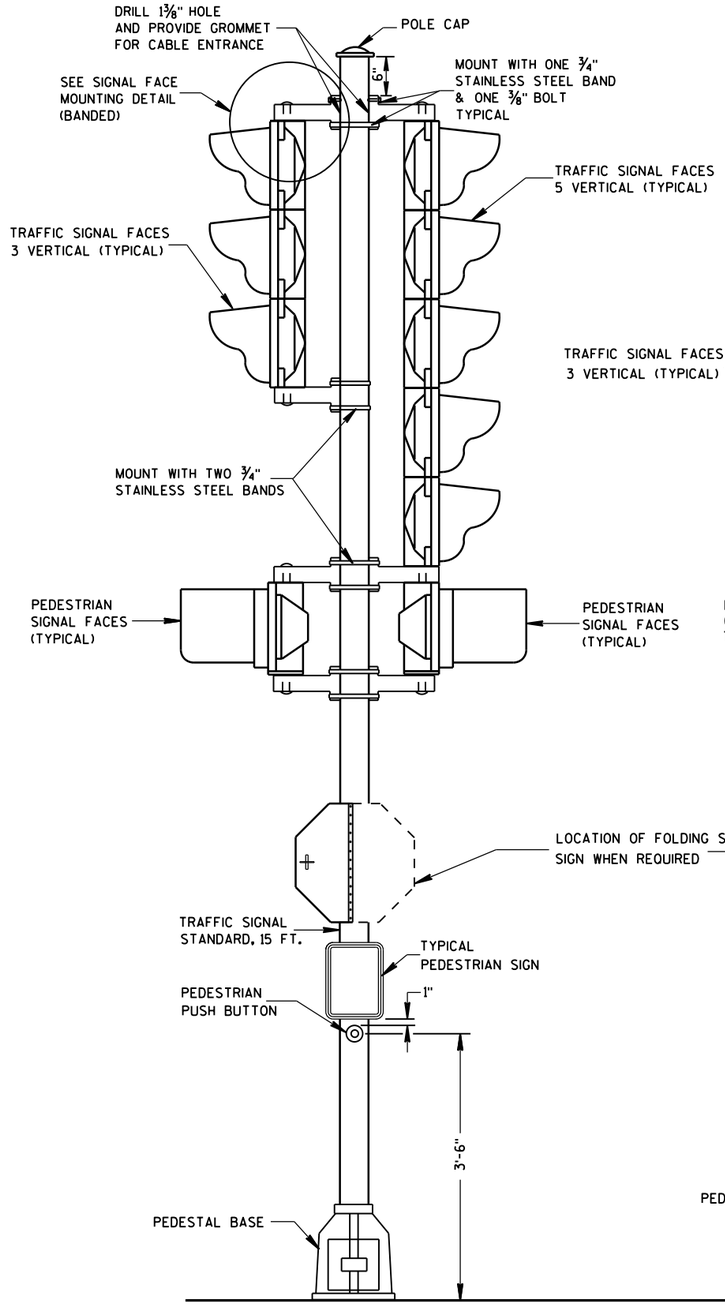
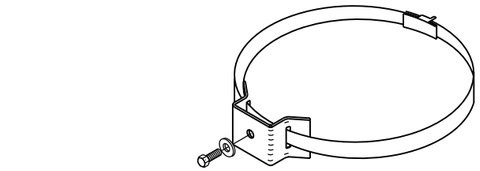
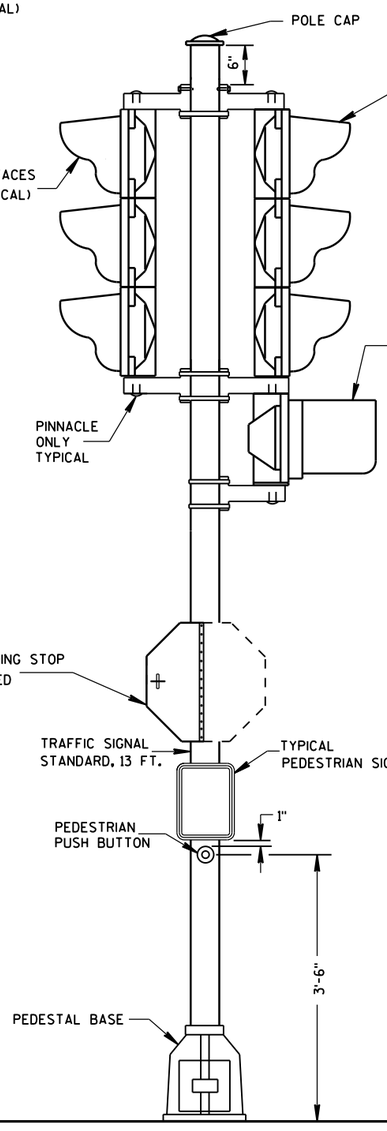


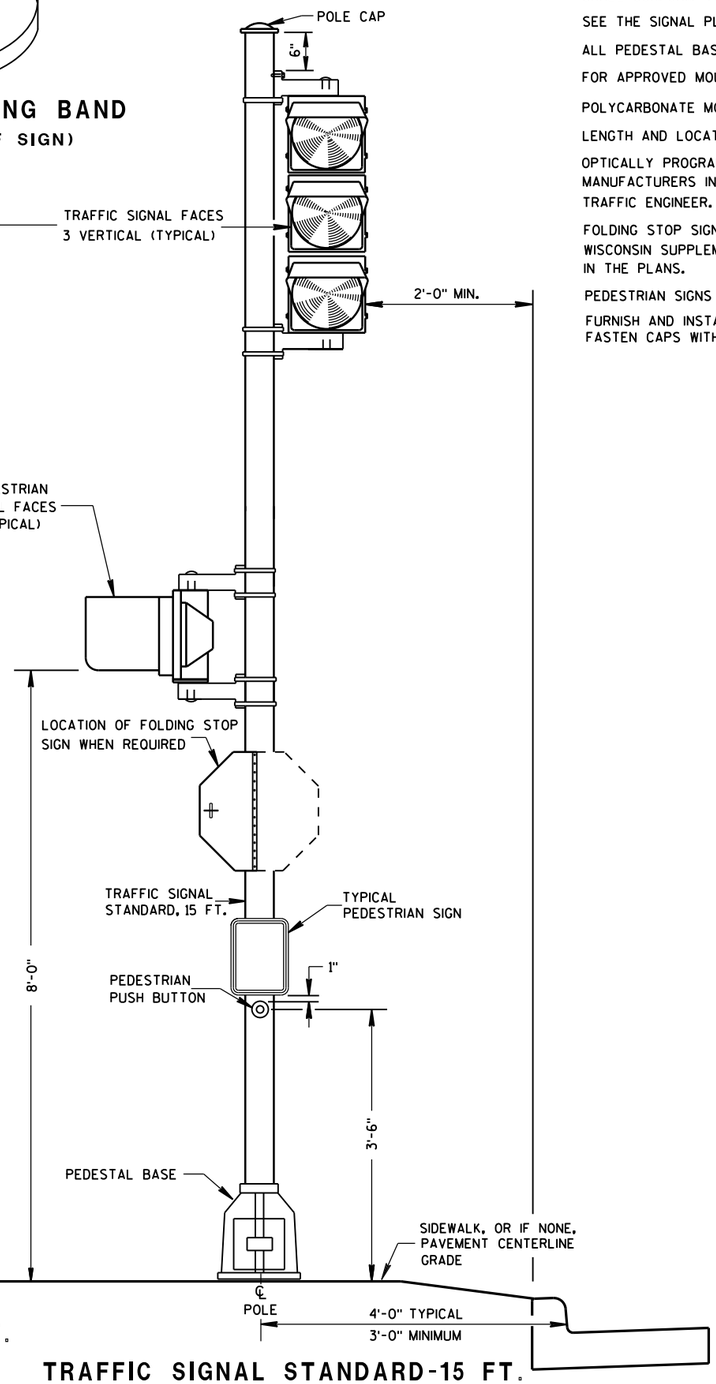
TRAFFIC SIGNAL STANDARD-15 FT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

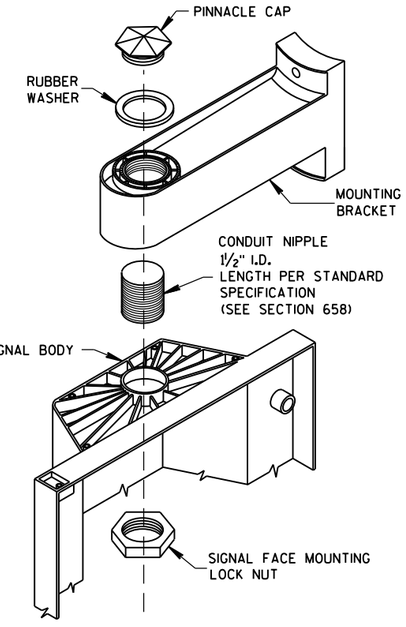
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



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 Demirbilek
STATE ELECTRICAL

FHWA

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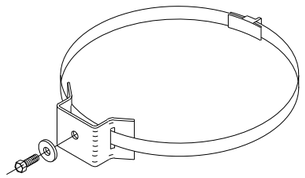
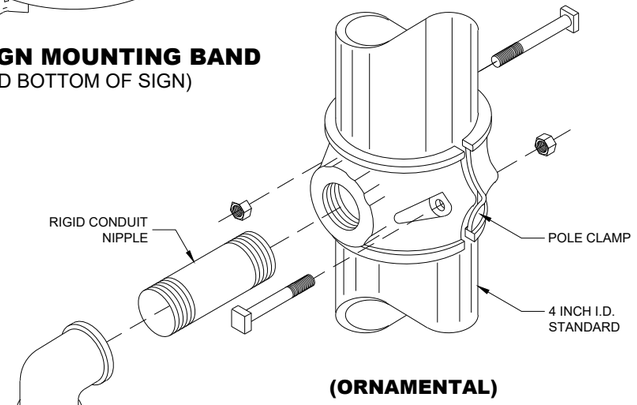
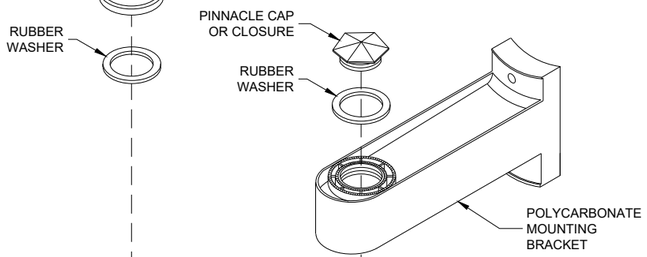


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



(ORNAMENTAL)



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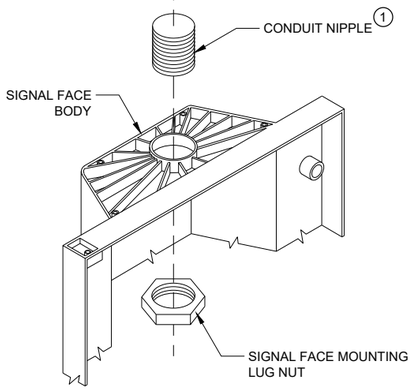
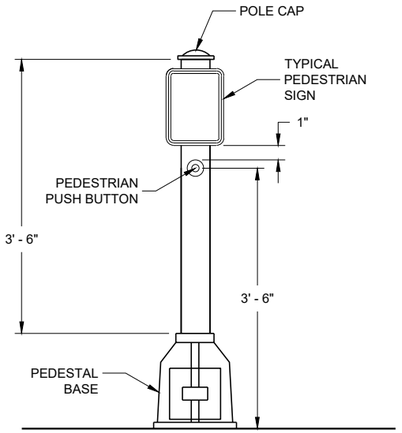
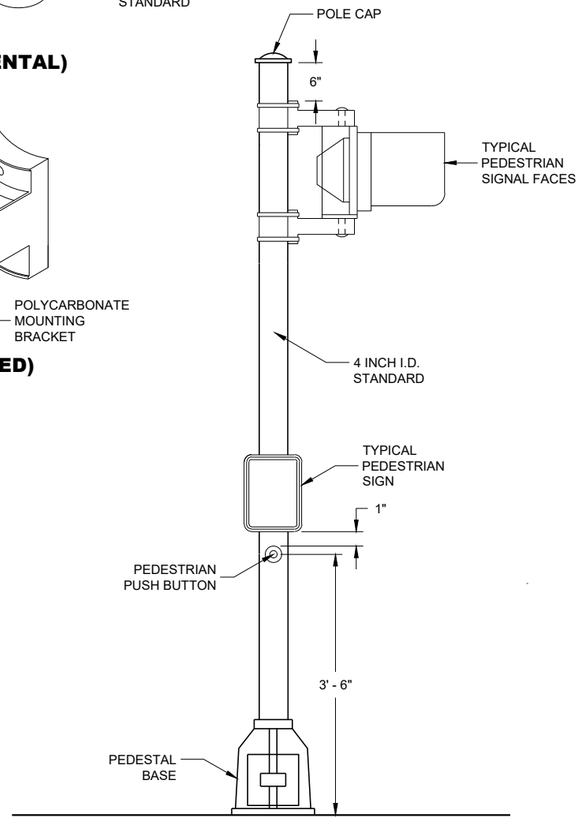


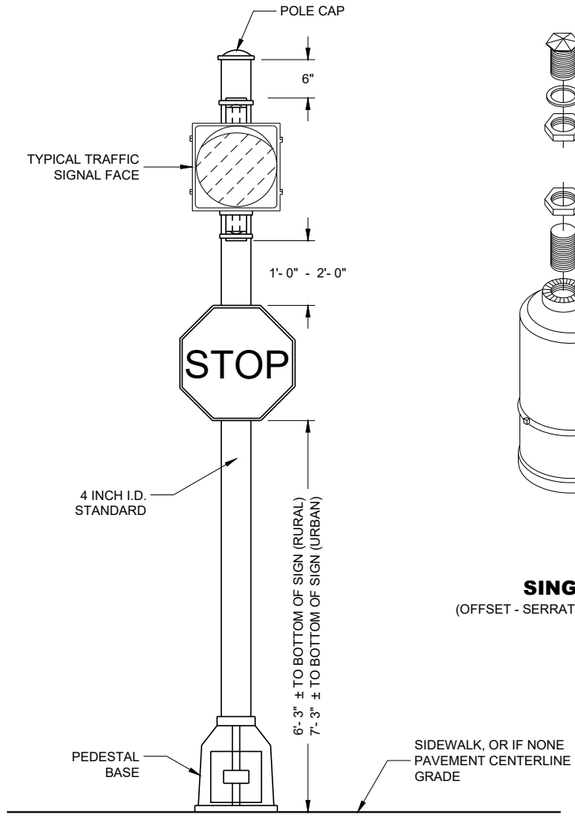
SIGNAL FACE MOUNTING DETAILS



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.

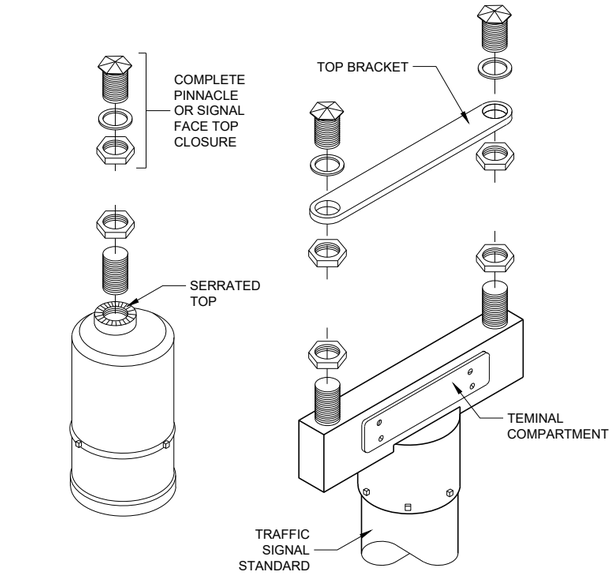
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 287

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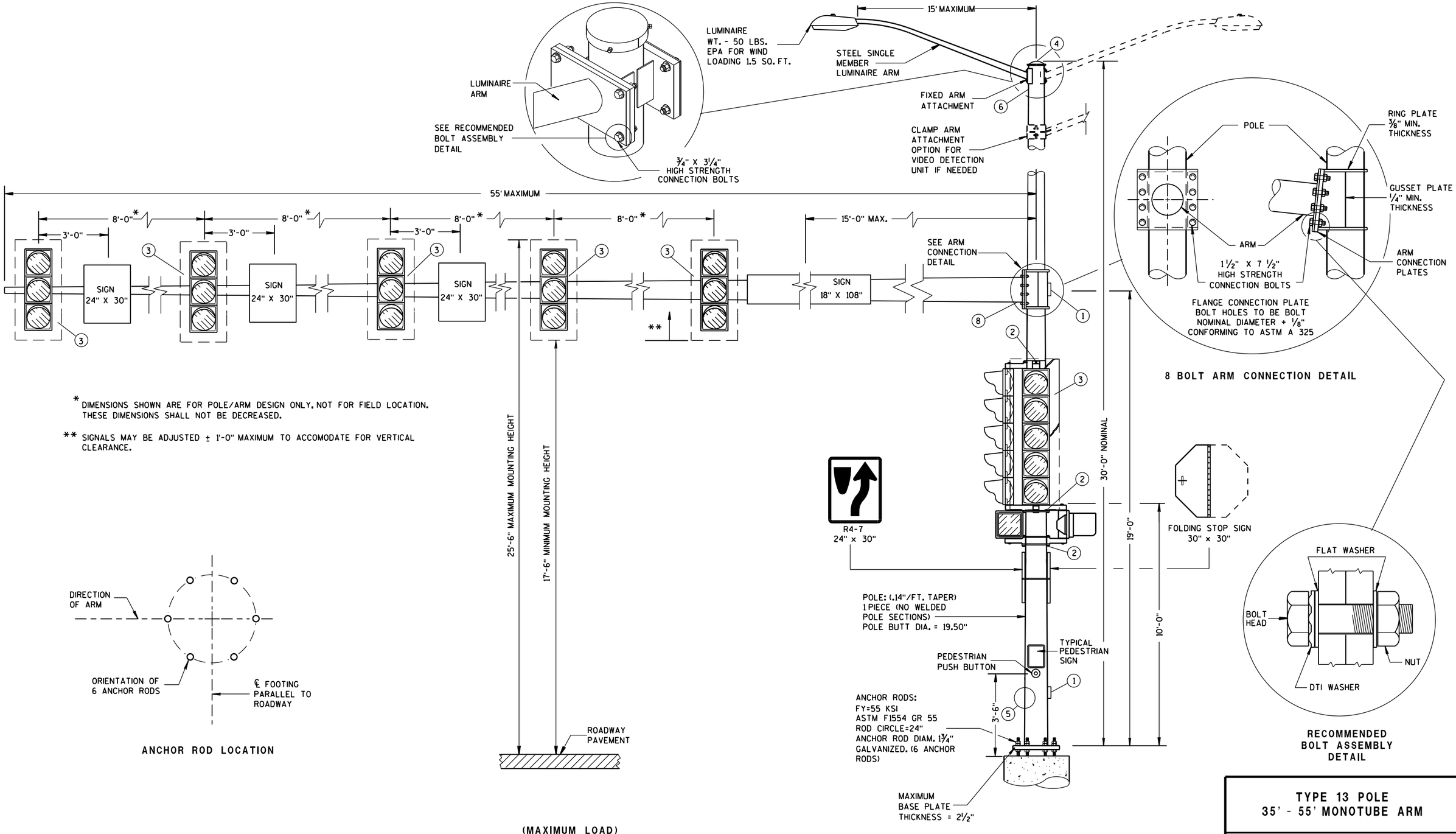

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 288
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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

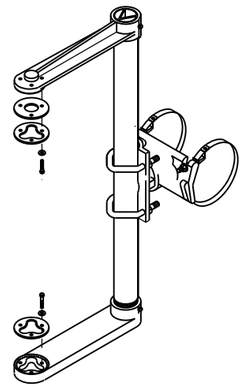
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

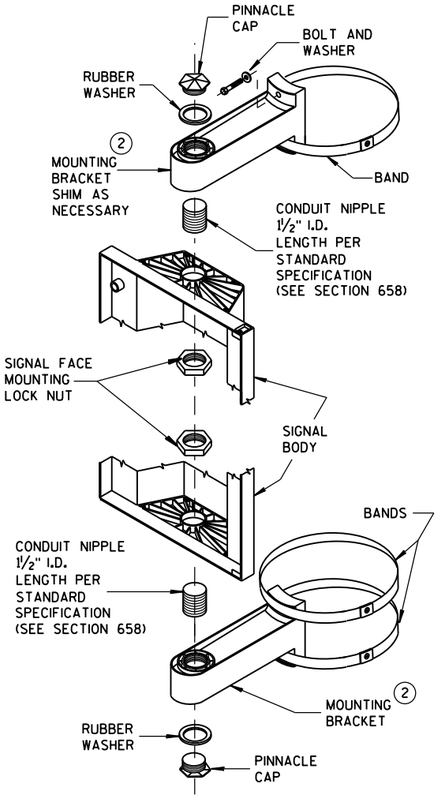
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

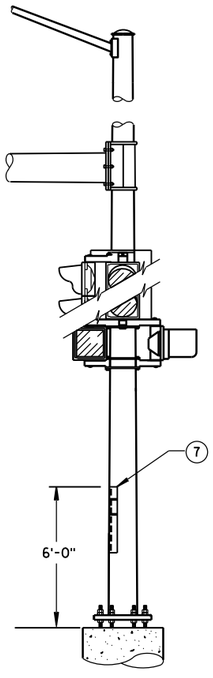


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

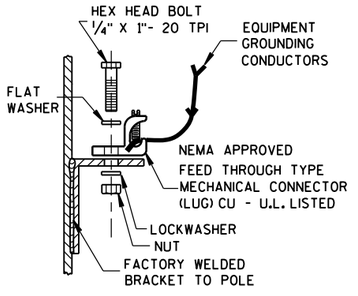
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

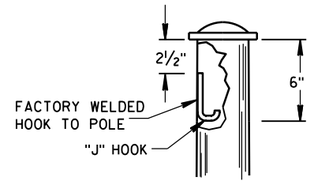


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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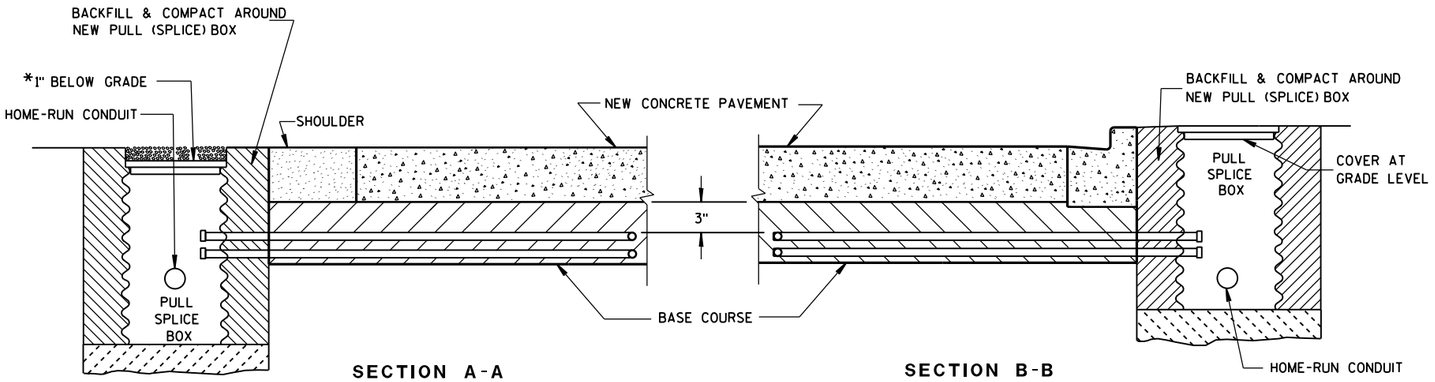


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

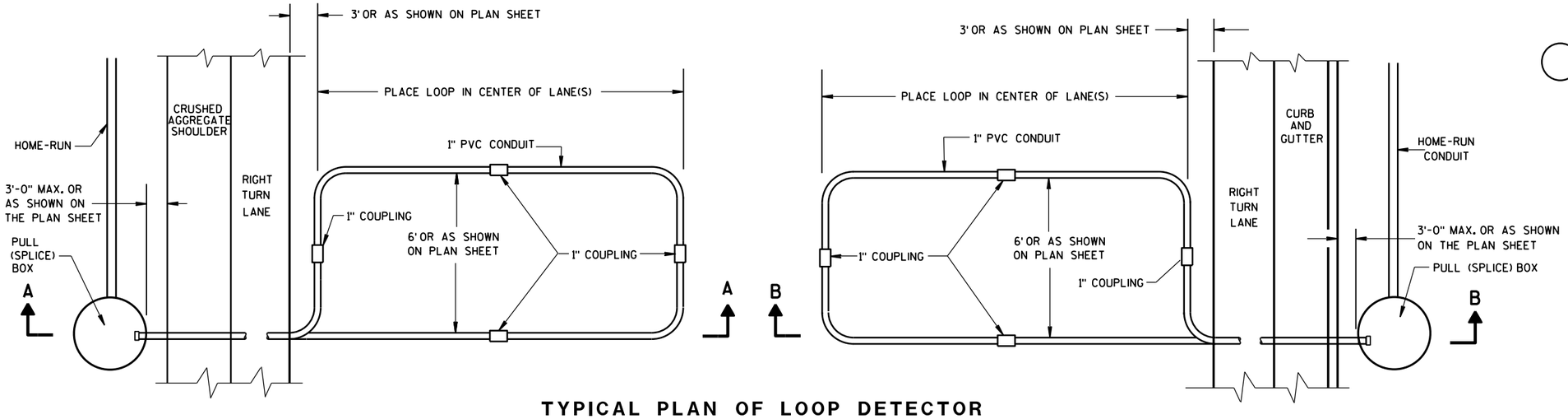
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

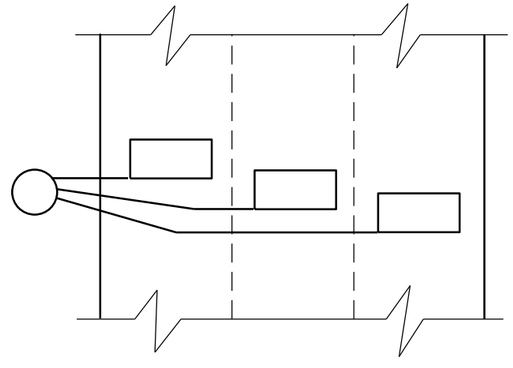
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

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S.D.D. 9 F 15-4b

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S.D.D. 9 F 15-4b

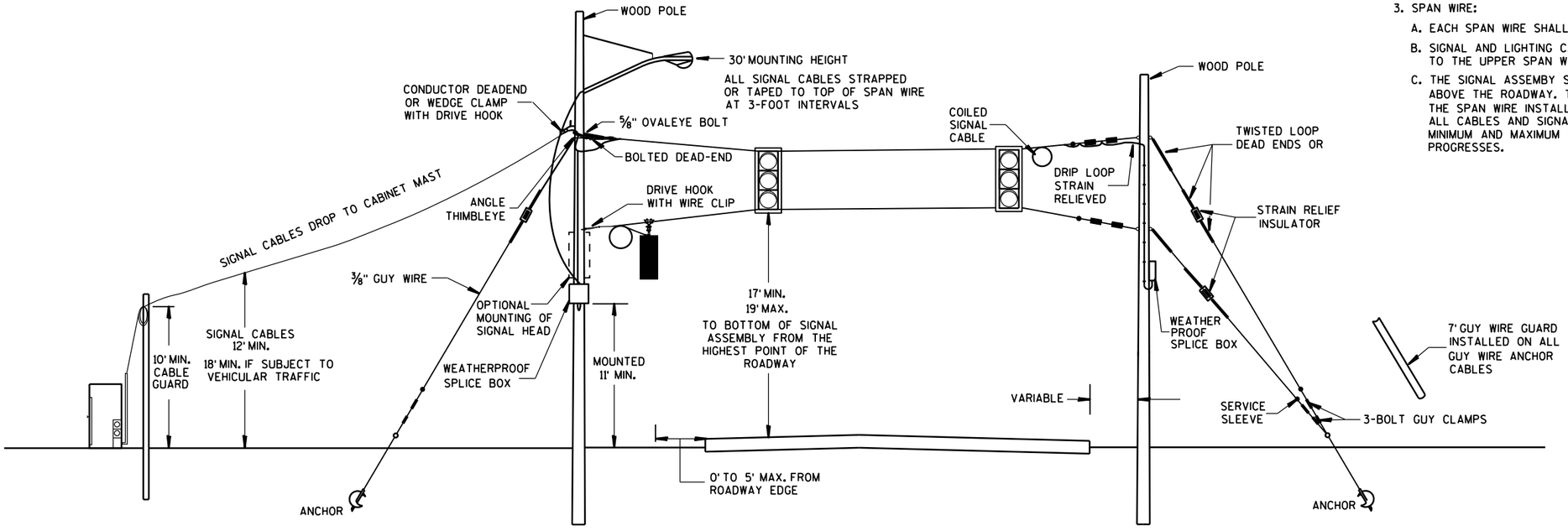
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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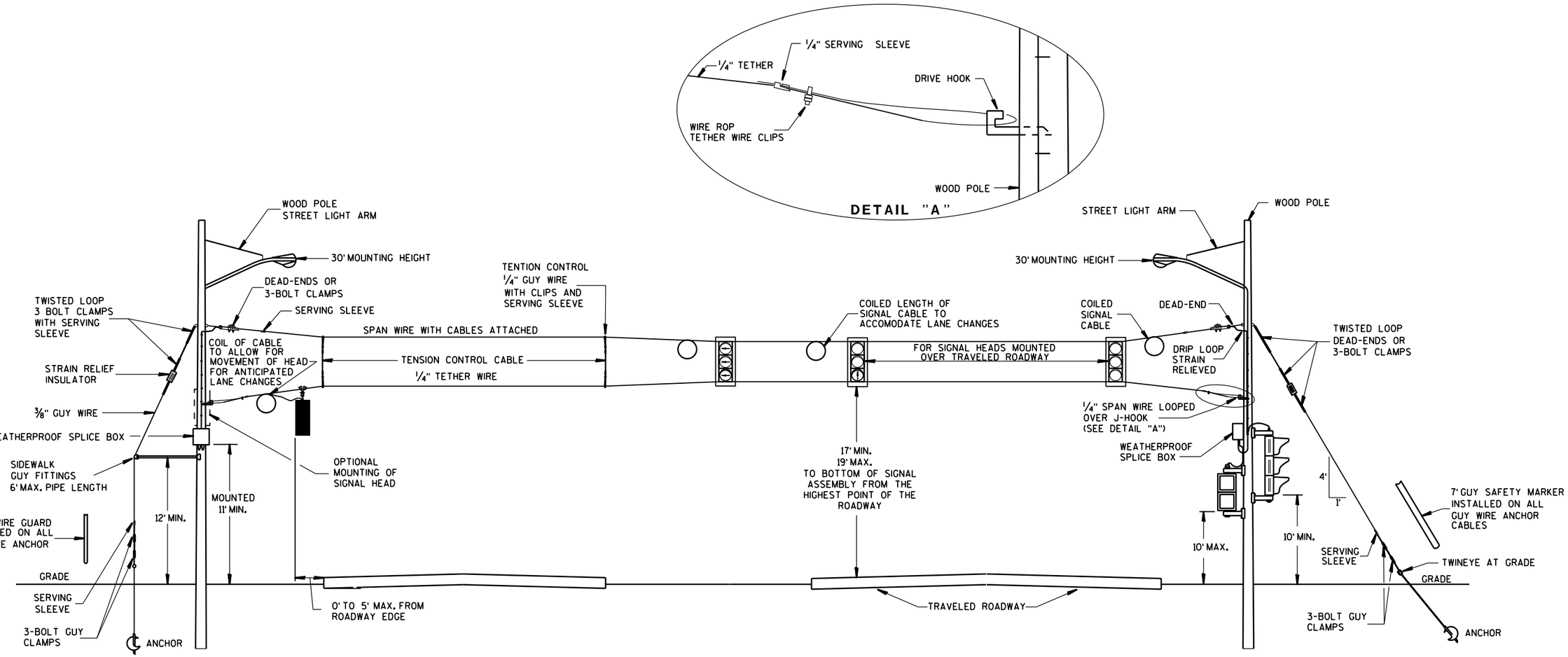

GENERAL NOTES

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
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   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
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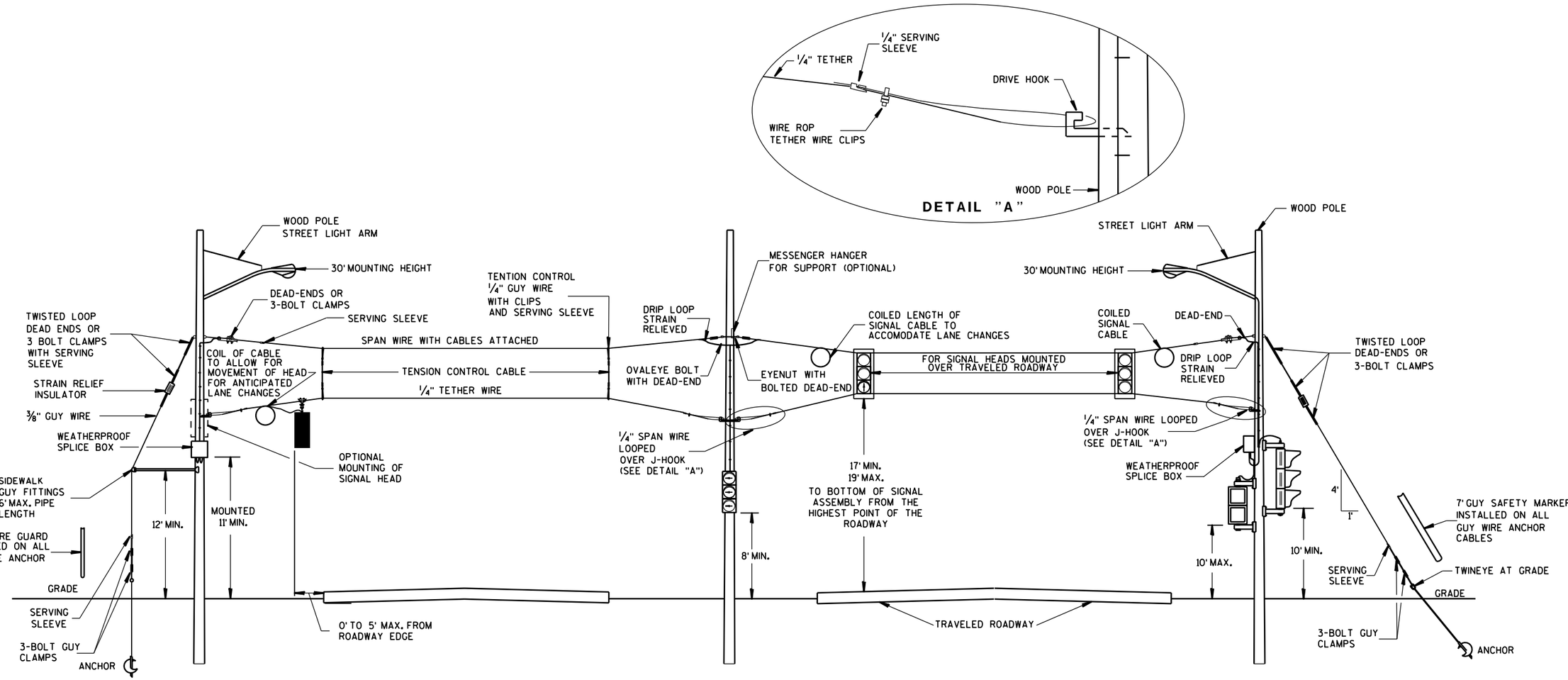

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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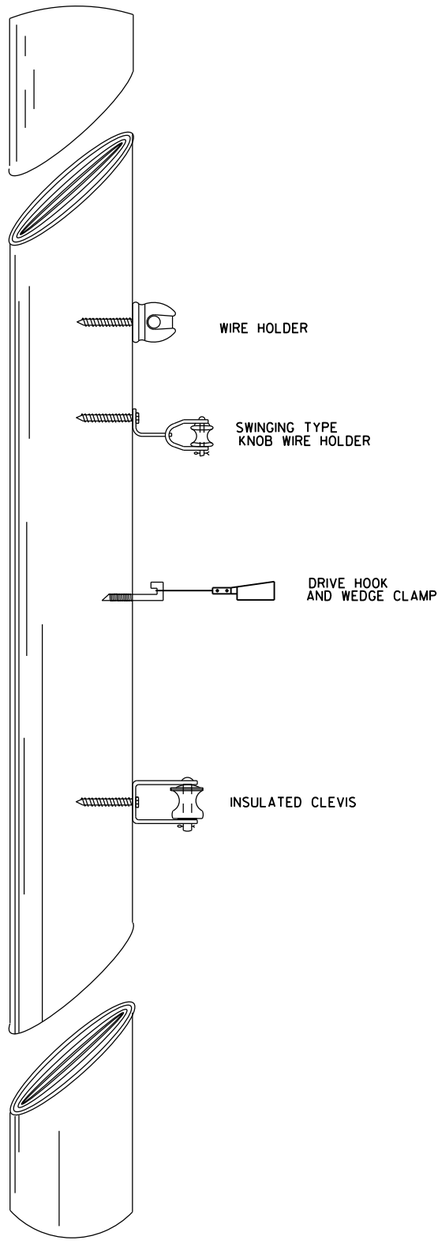
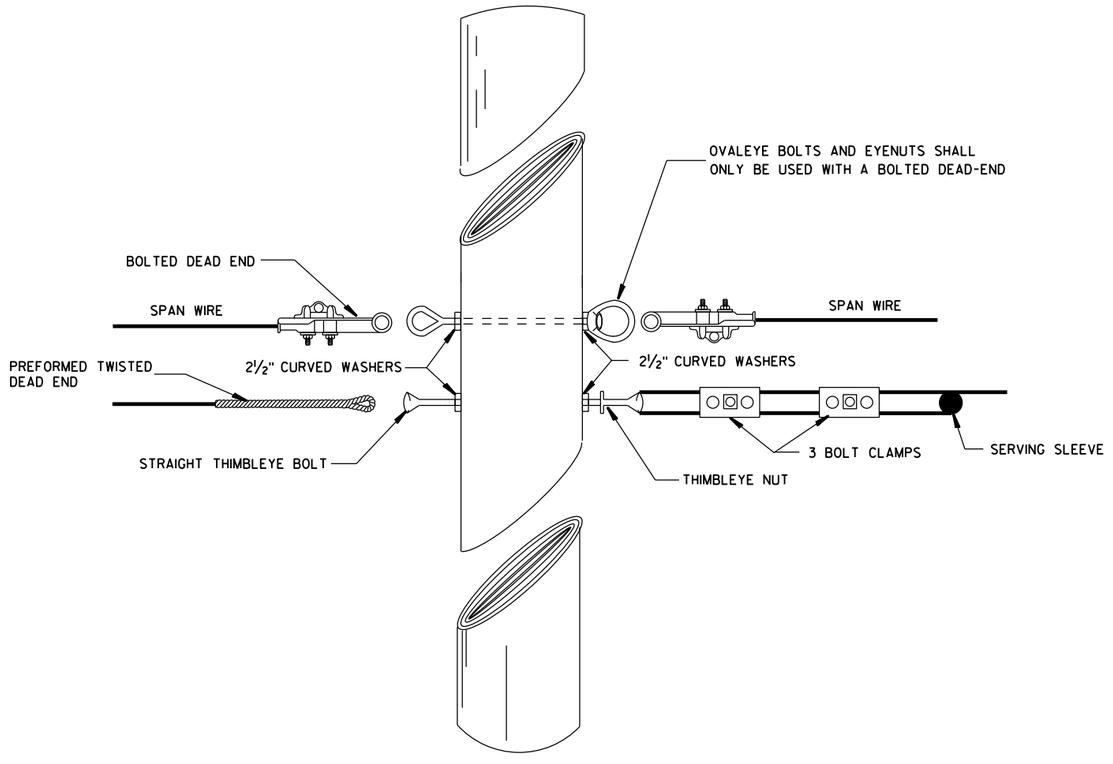


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
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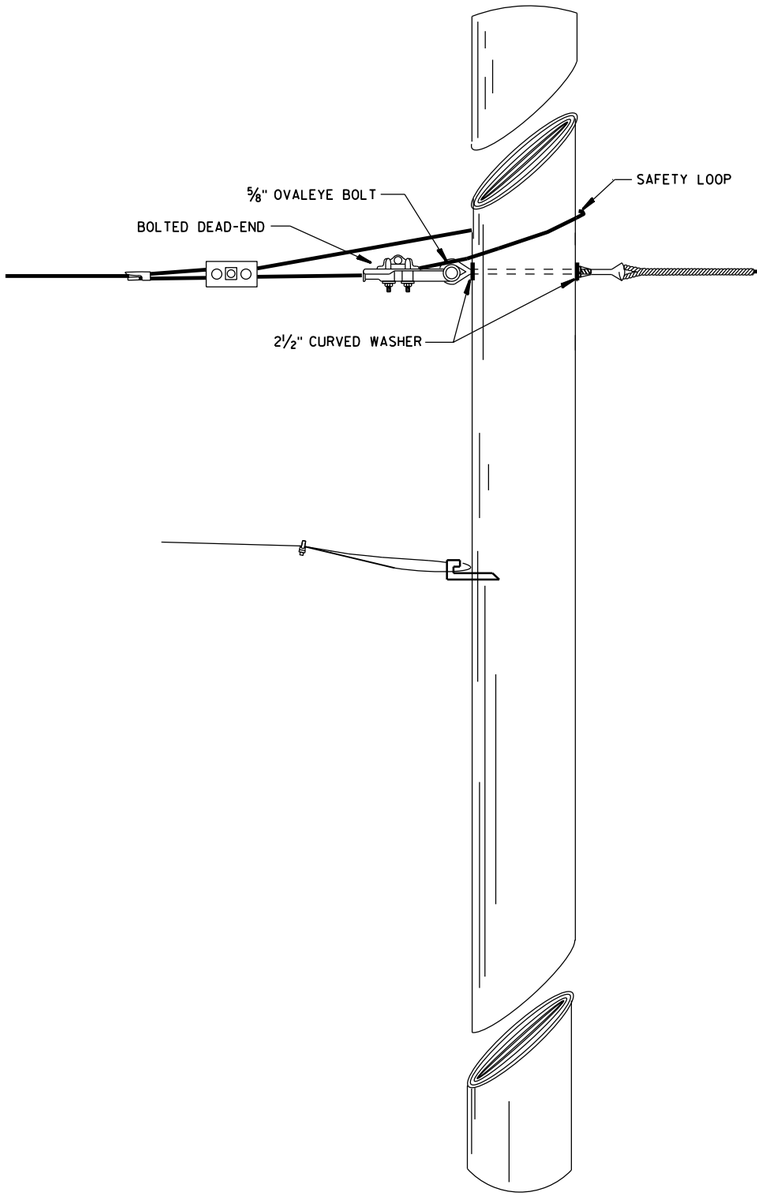
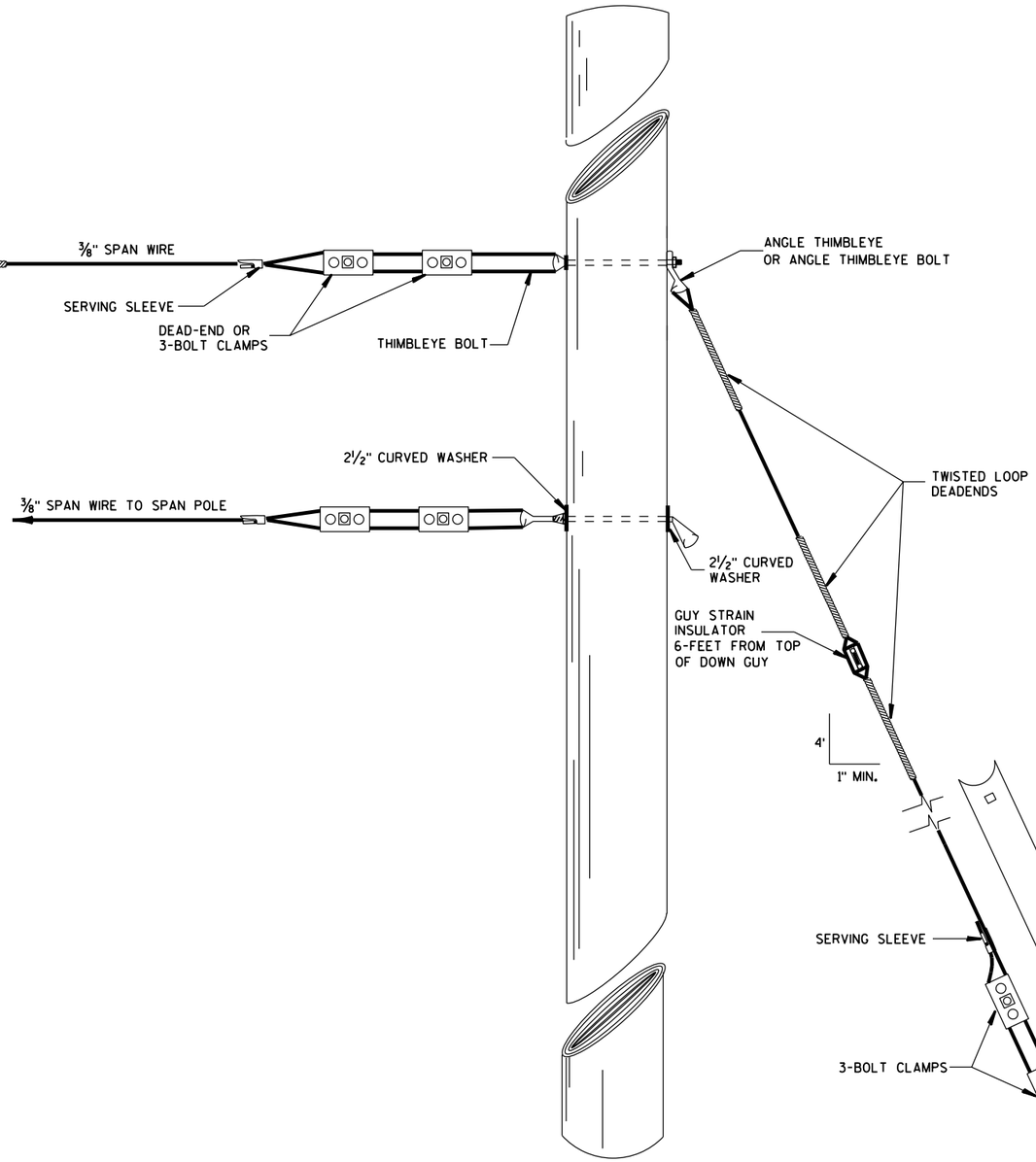
S.D.D. 9 G 1-4d

GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June. 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

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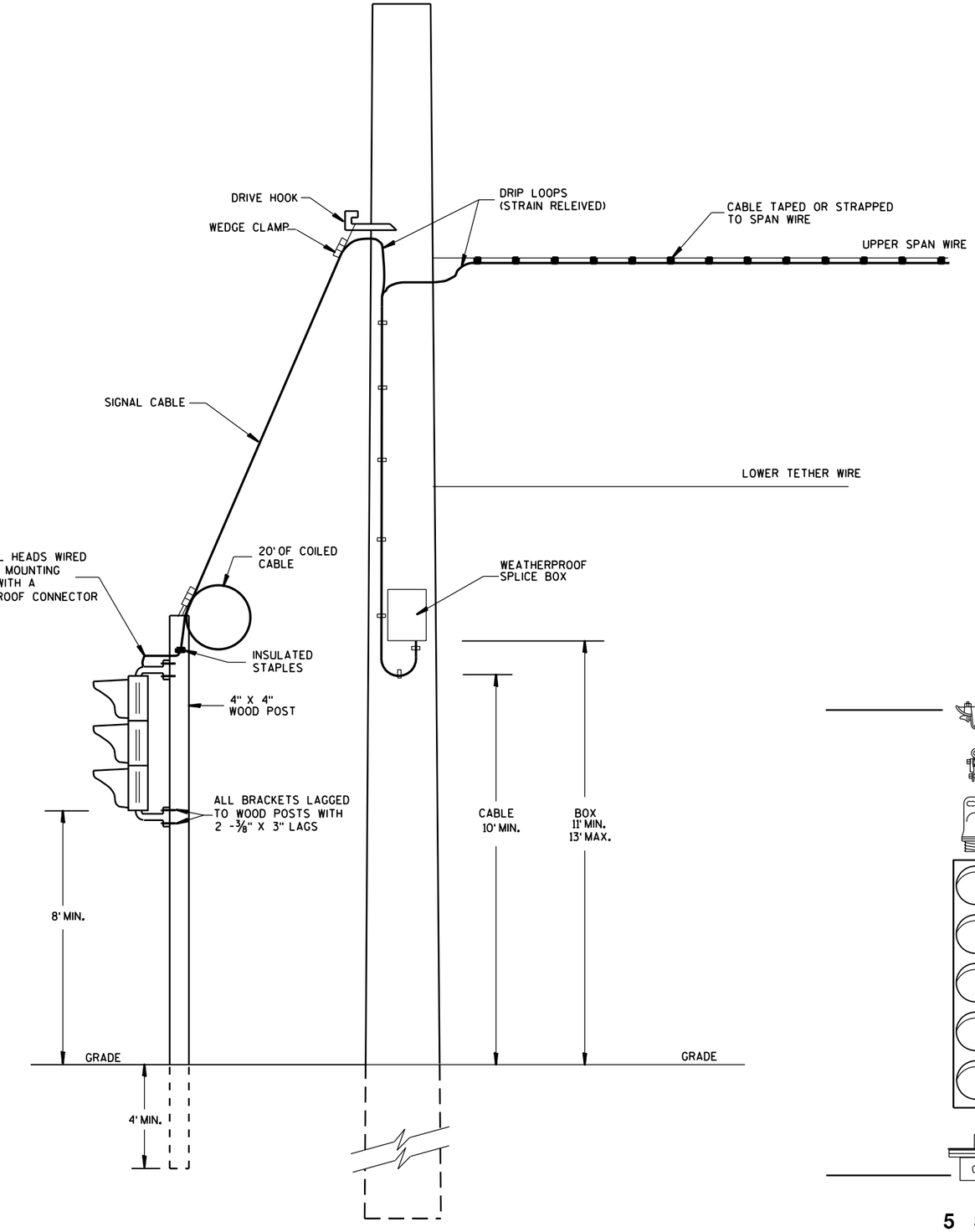
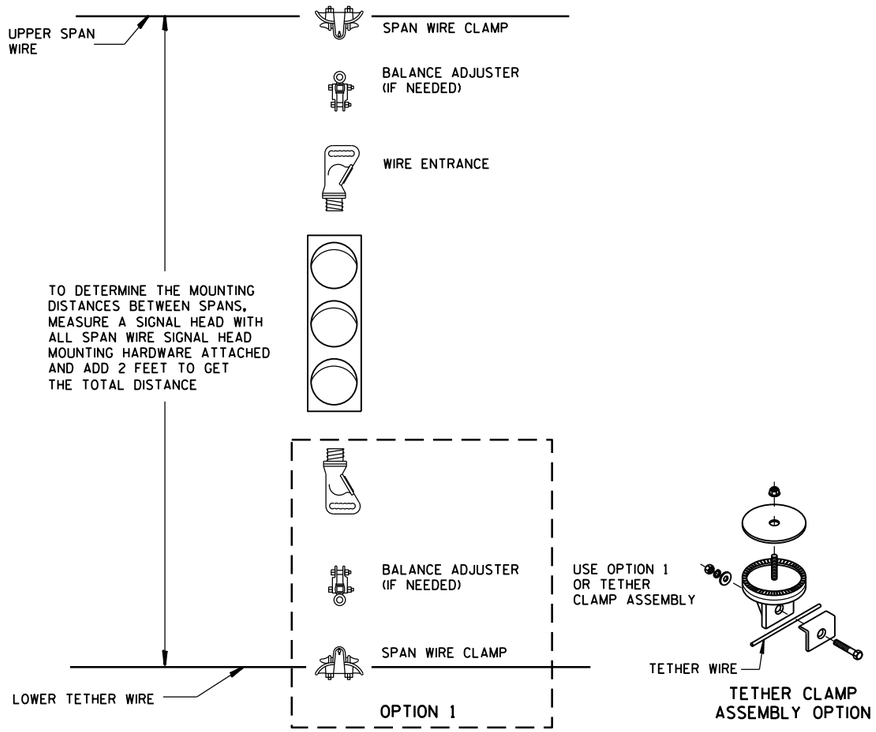
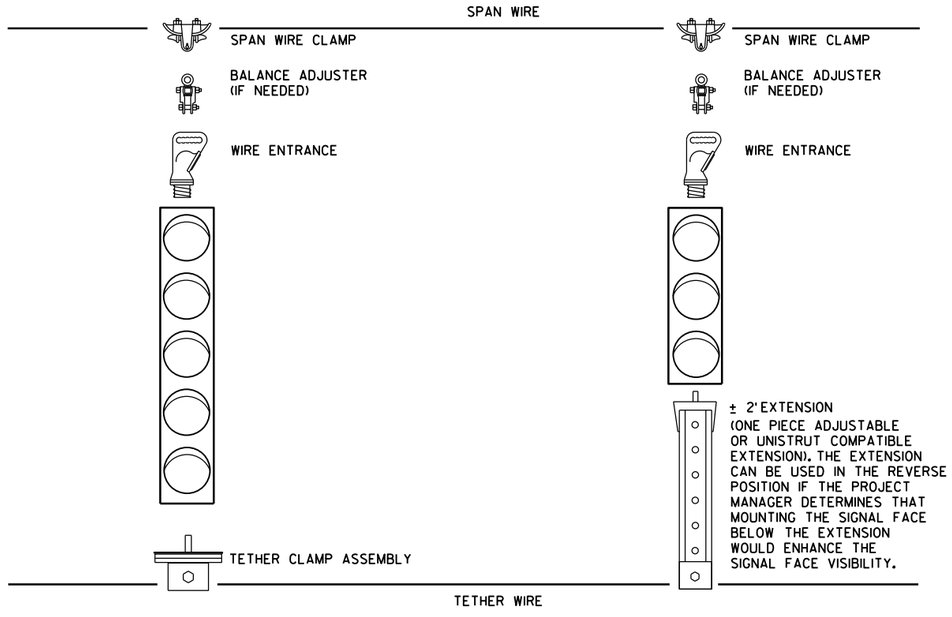


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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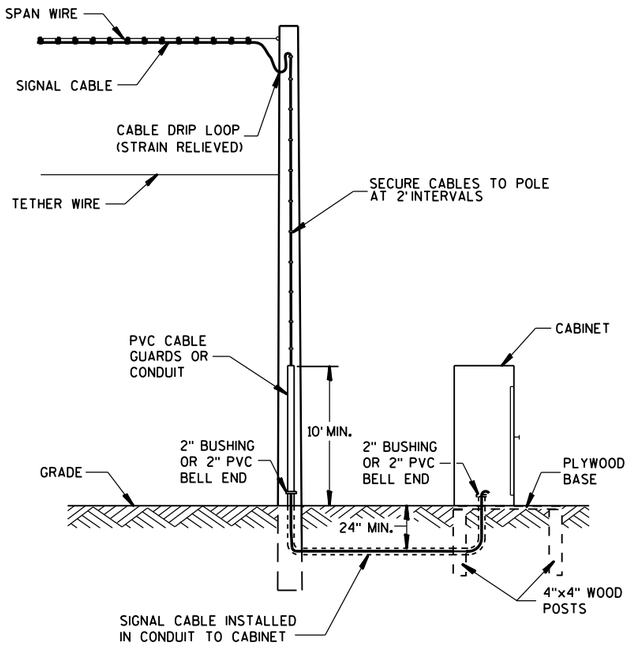
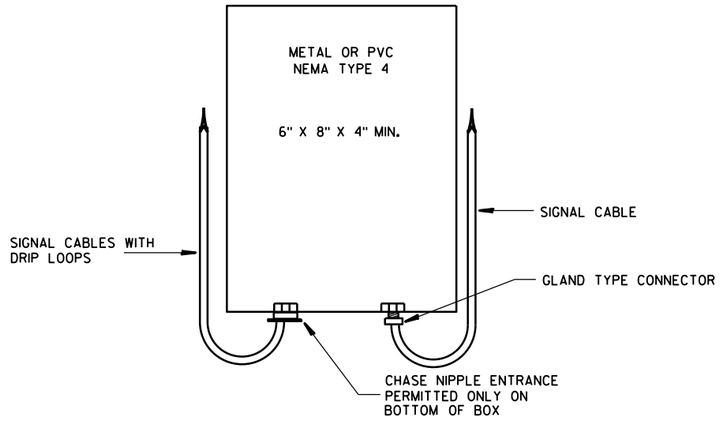
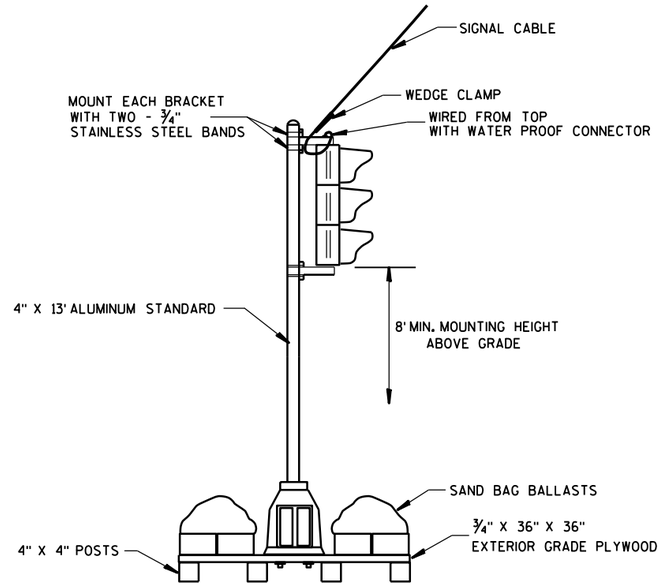
S.D.D. 9 G 1-4f

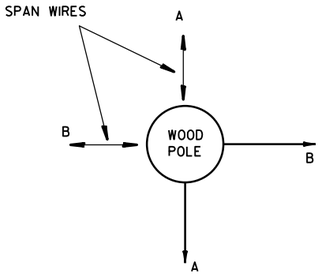




SPLICE BOX

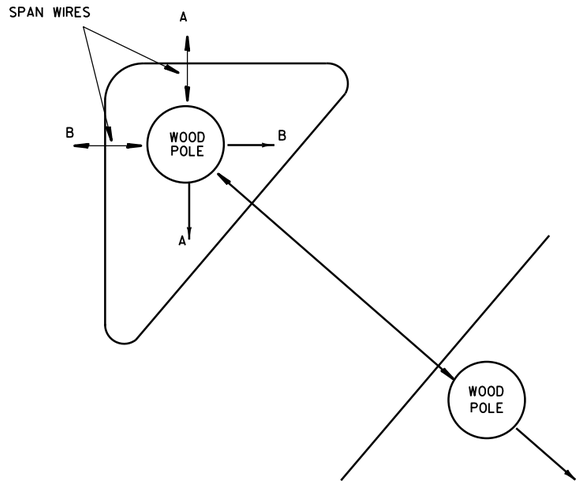


TYPICAL SKID TYPE TEMPORARY

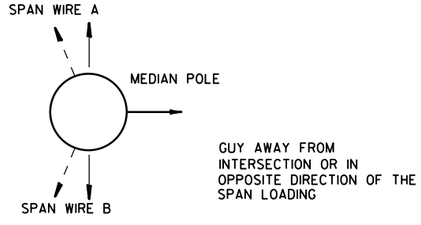


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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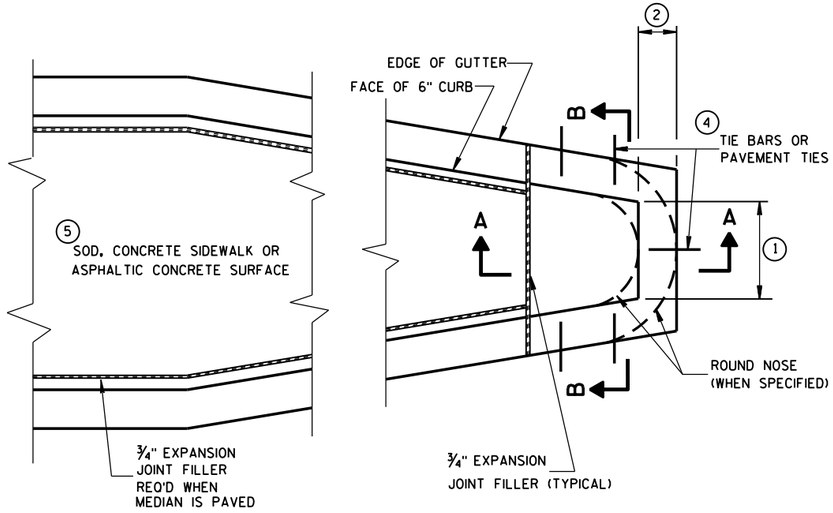
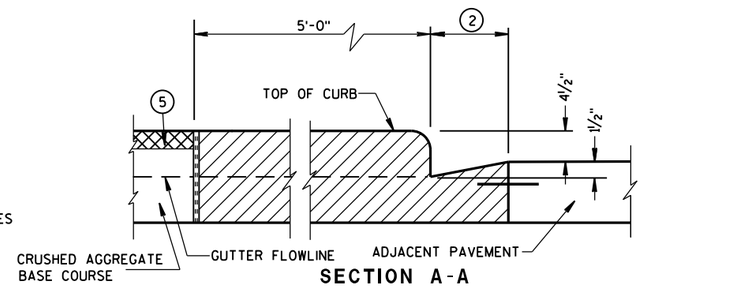
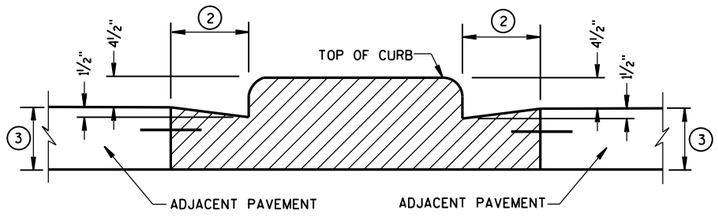
S.D.D. 9 G 1-4g







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

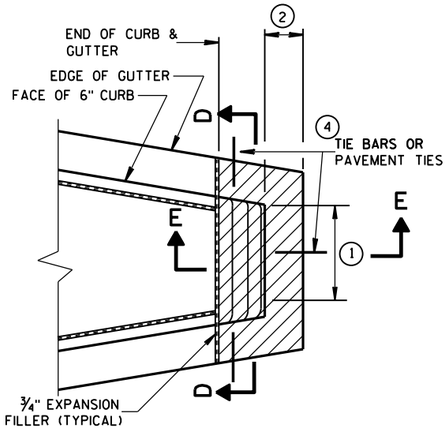
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

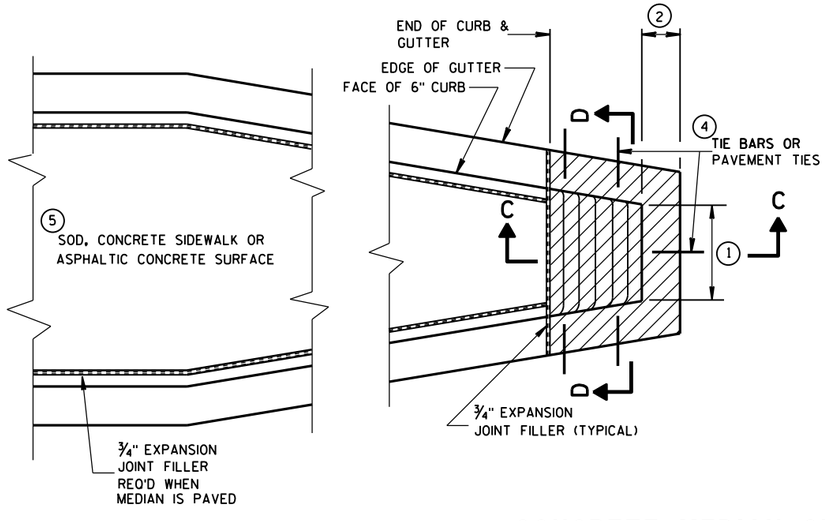
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

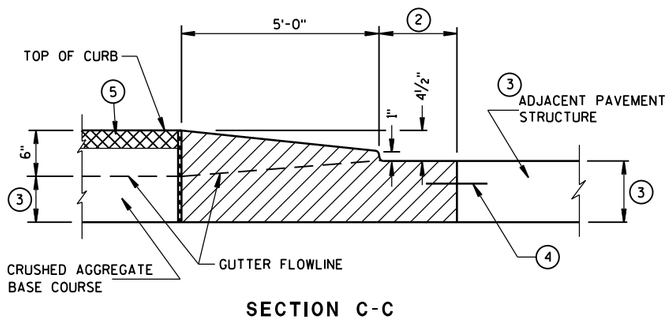
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

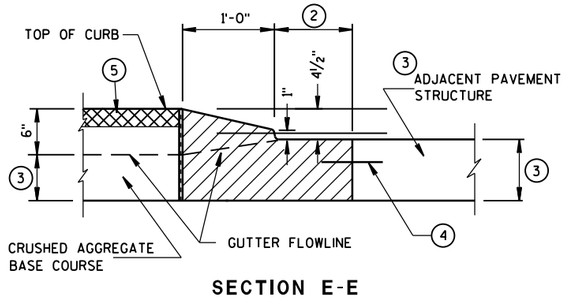
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



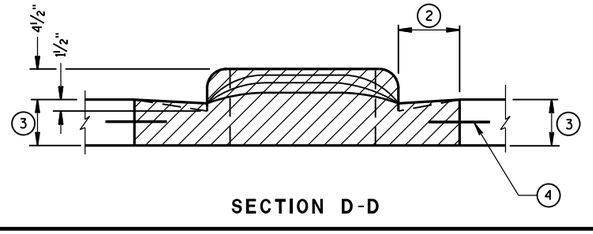






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER

FHWA

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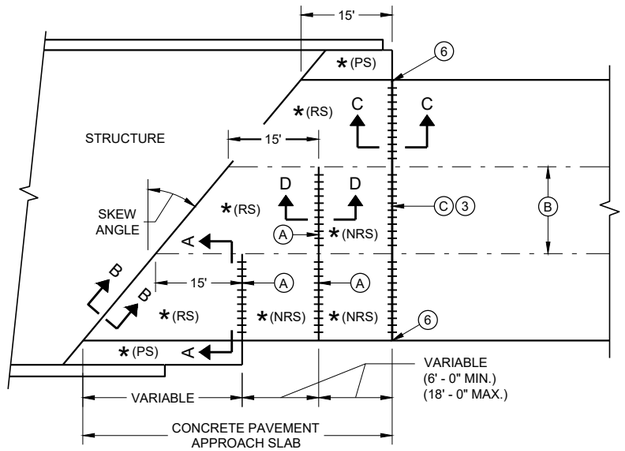
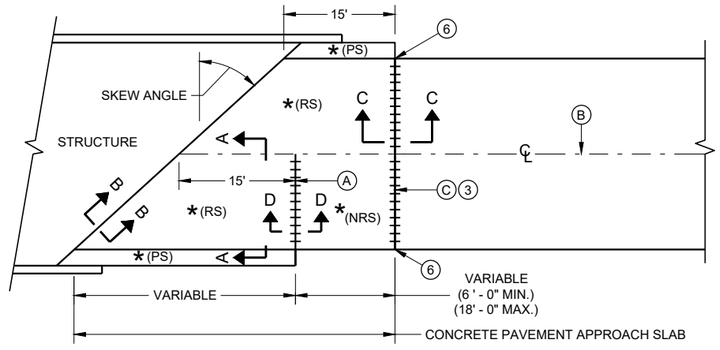
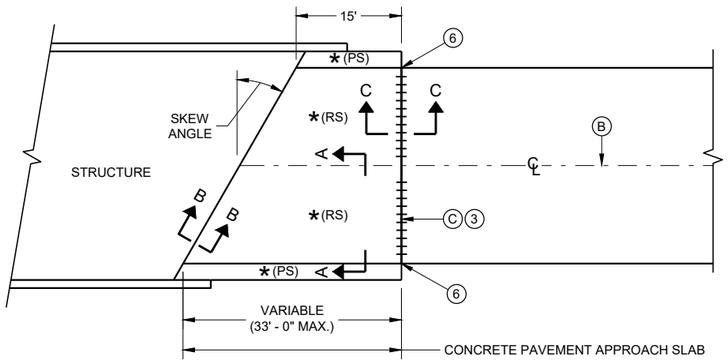
S.D.D. 11 B 2-2



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

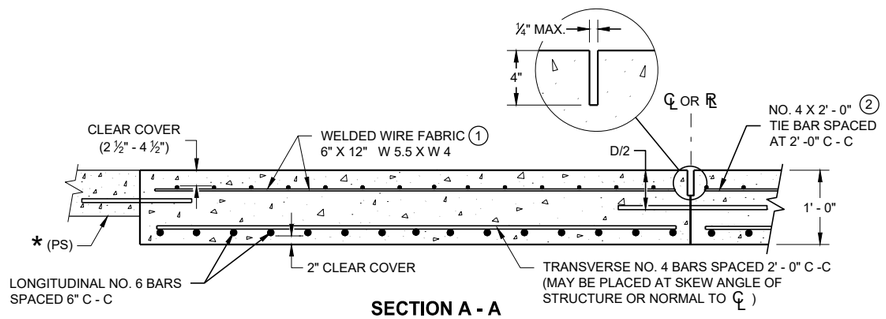
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

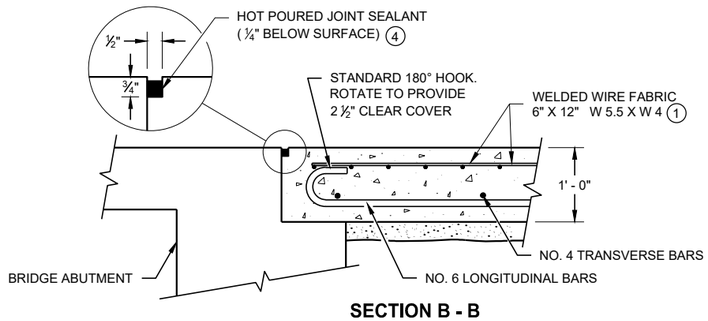
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

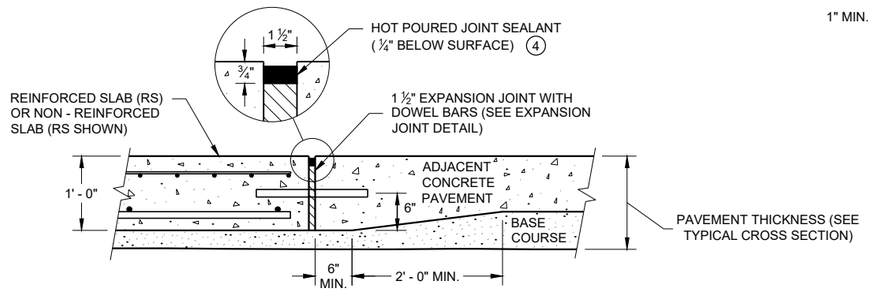
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

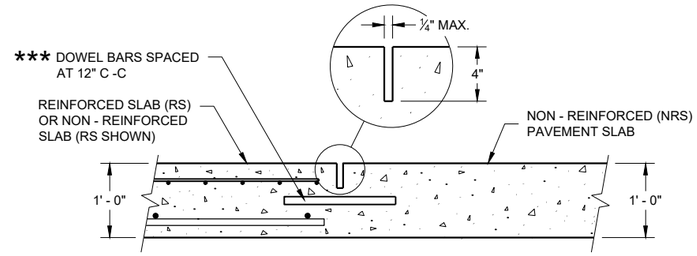
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

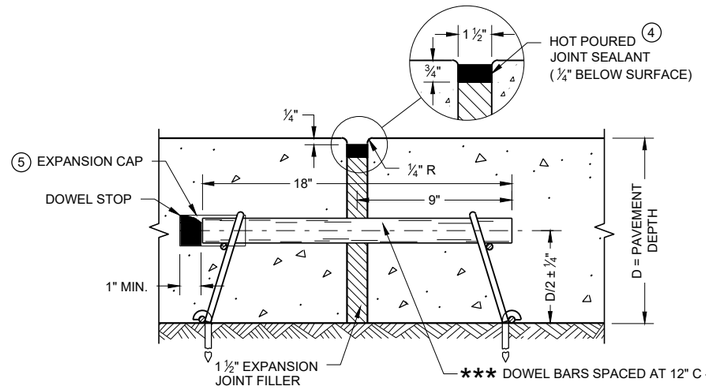
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

FHWA

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SDD 13B02 - 09a

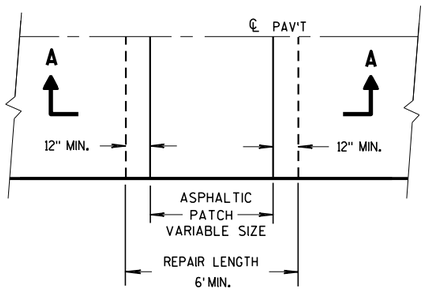
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

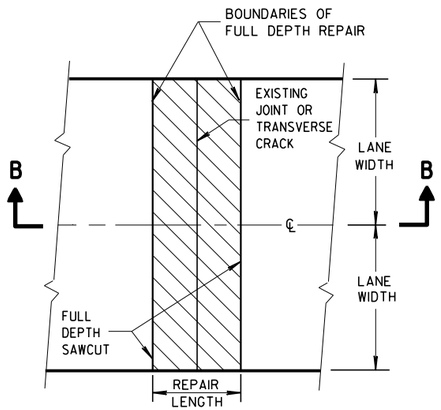
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

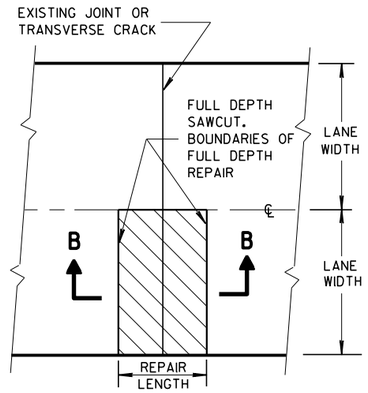
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

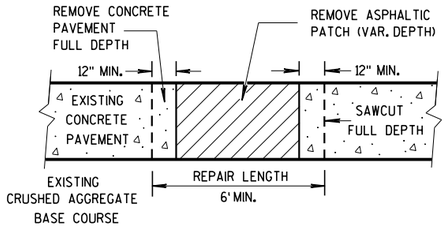


PLAN VIEW
(DOUBLE LANE REPAIR)



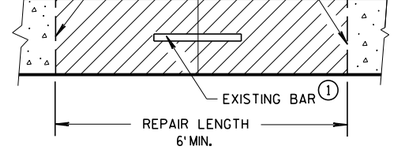
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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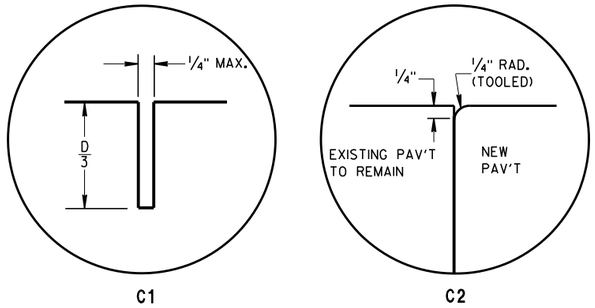


C1 C2

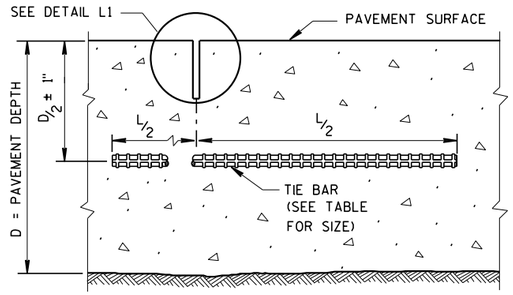
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

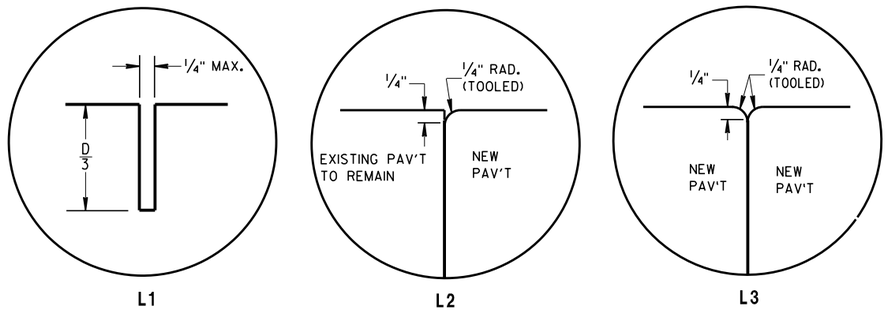
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

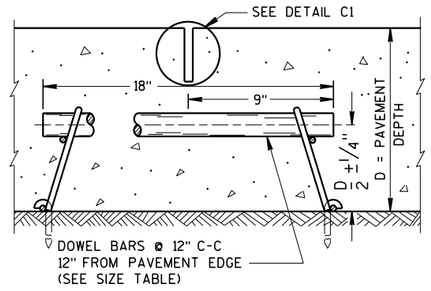
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



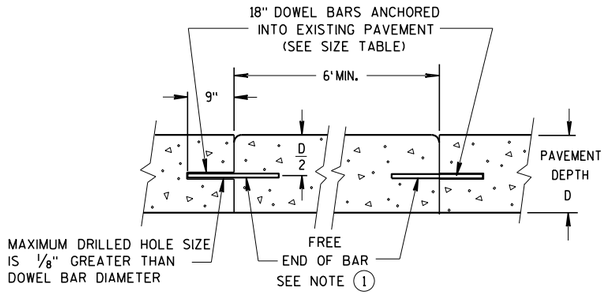
L1 L2 L3

LONGITUDINAL JOINTS

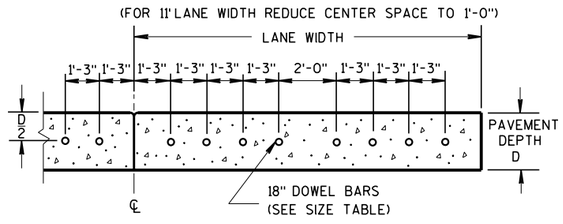


SECTION F-F

CONTRACTION JOINT



SECTION D-D

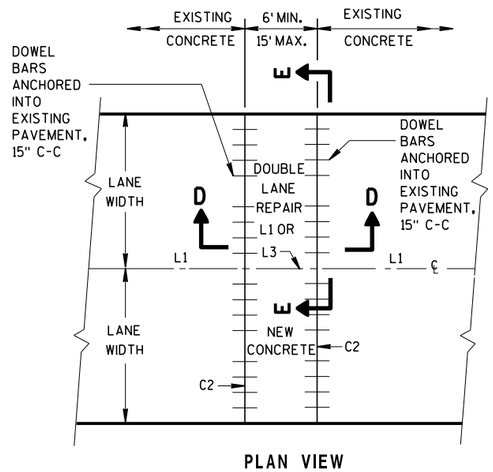


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

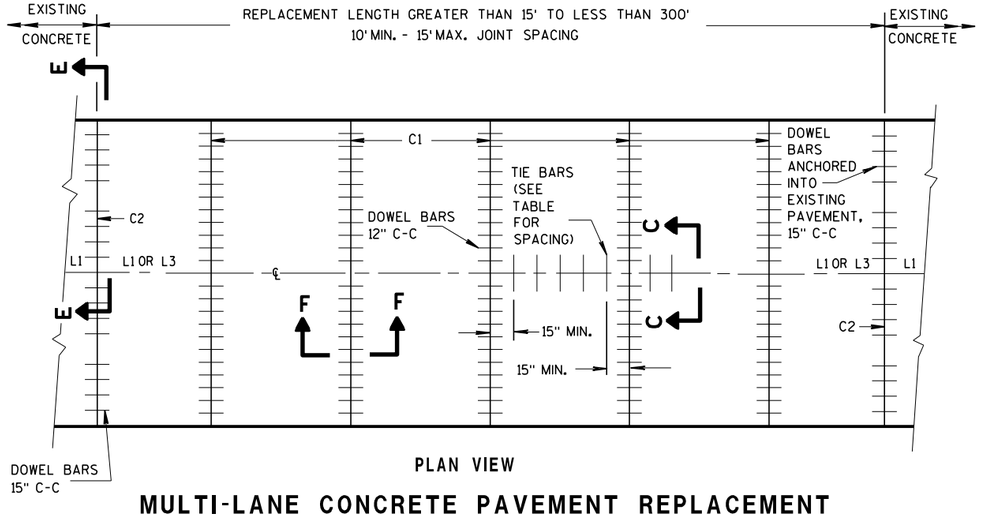
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

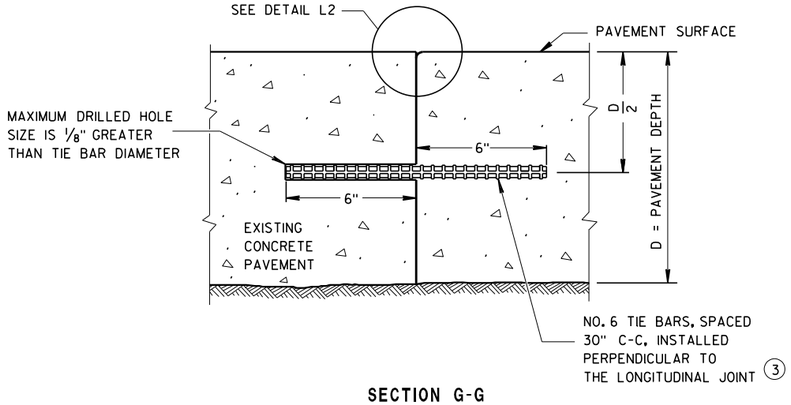
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT



SECTION G-G

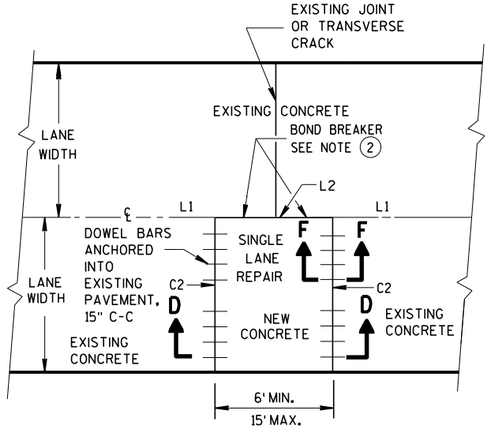
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

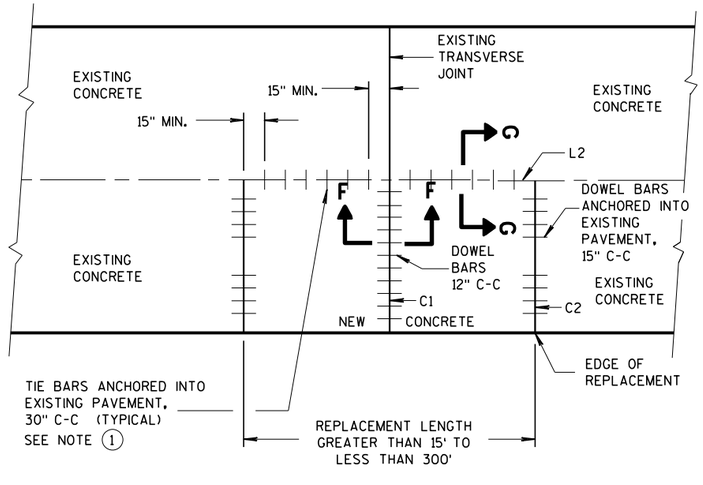
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Ken... P.E. — PAVEMENT SUPE...
FHWA

S.D.D. 13 C 9-15c

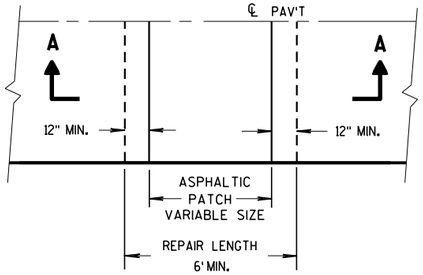
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

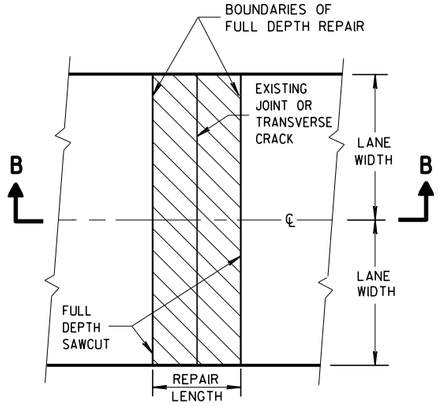
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

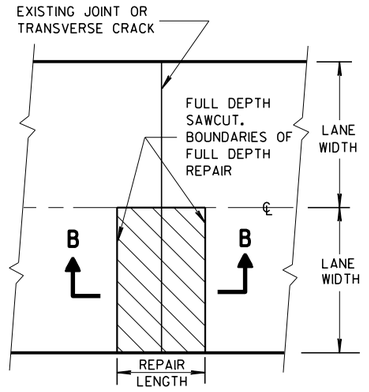
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

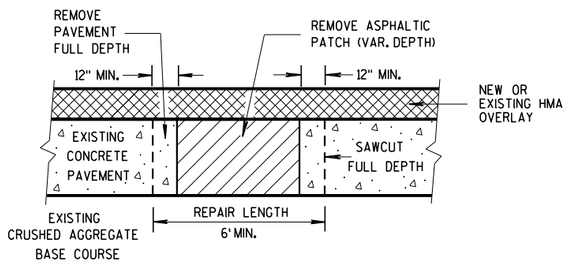


PLAN VIEW
(DOUBLE LANE REPAIR)



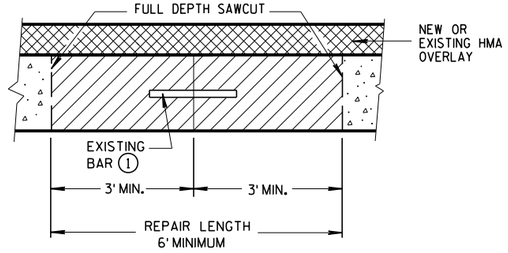
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

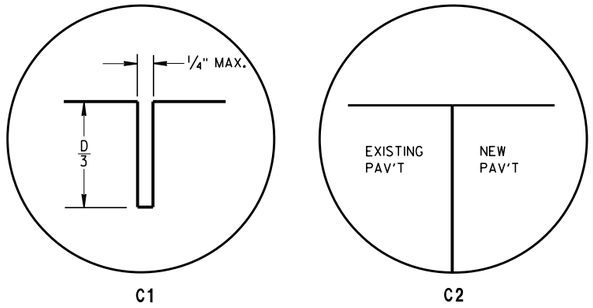
6

6

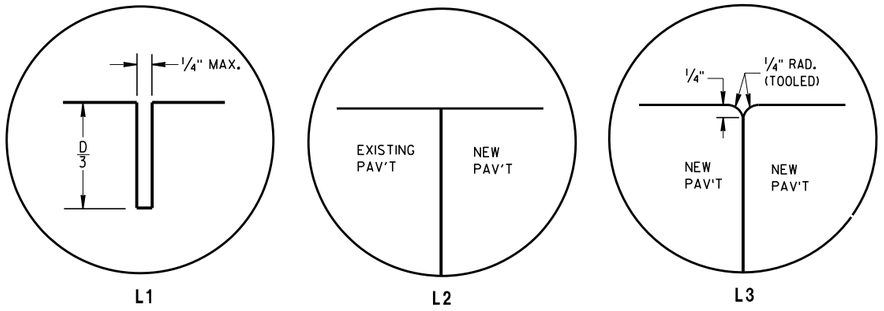
S.D.D. 13 C 14-7a

S.D.D. 13 C 14-7a

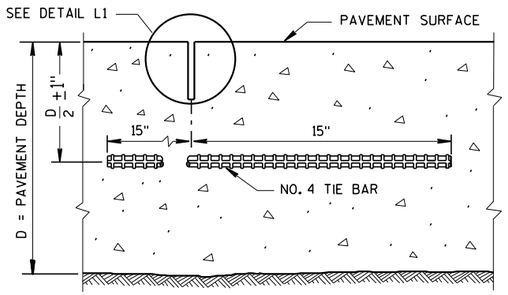
BASE PATCHING CONCRETE



TRANSVERSE JOINTS

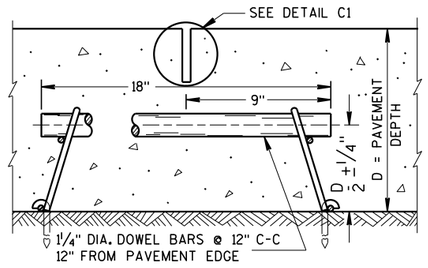


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

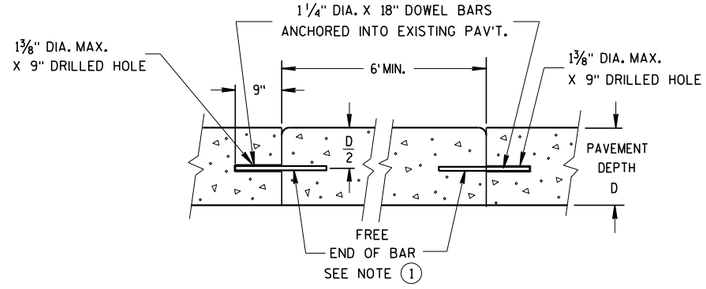
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

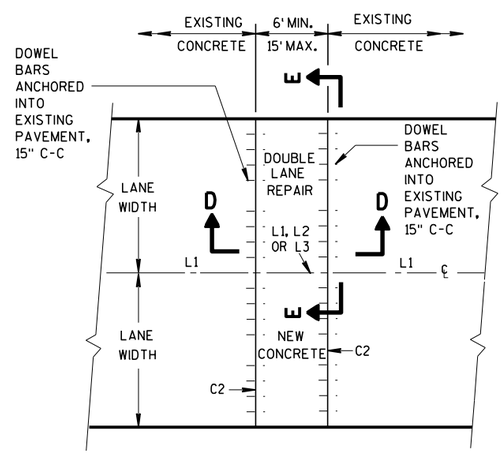
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

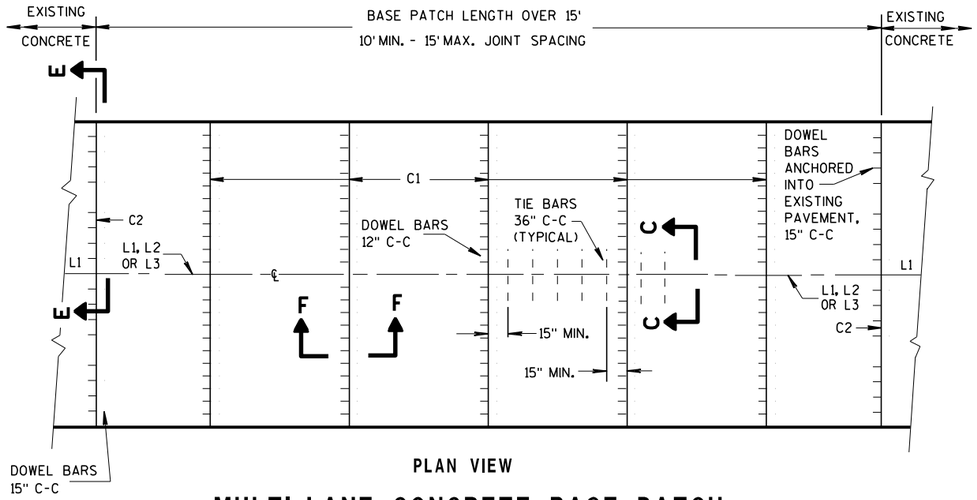


SECTION D-D



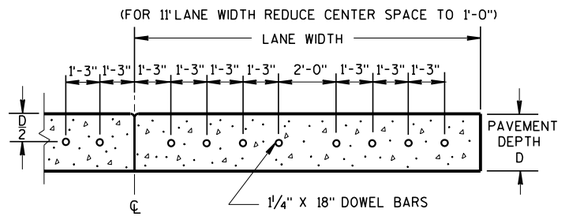
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

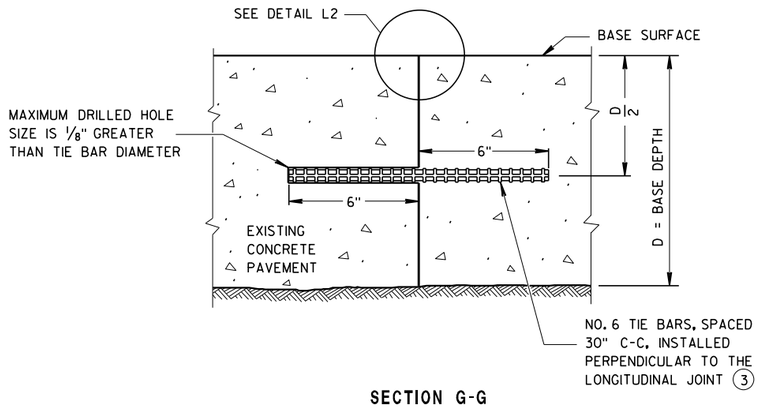


SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

6
S.D.D. 13 C 14-7b



SECTION G-G

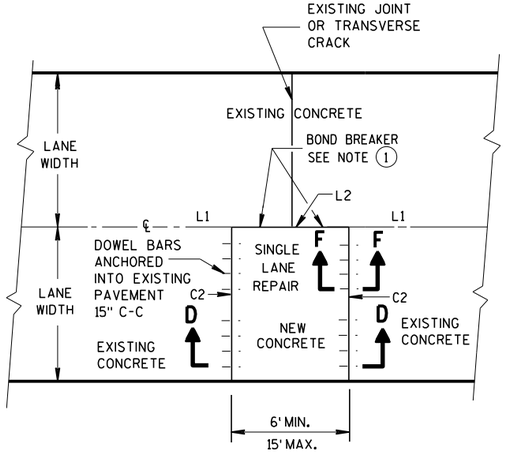
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

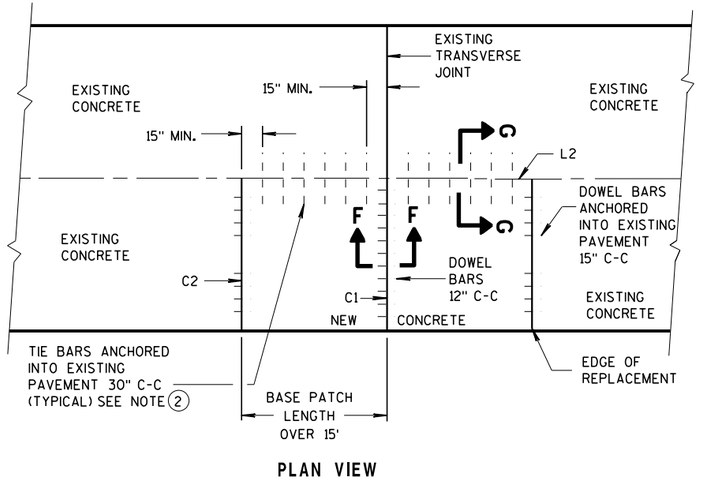
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

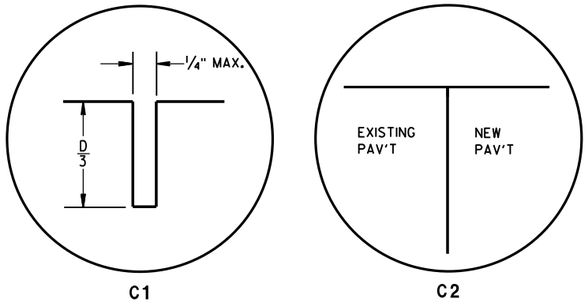
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

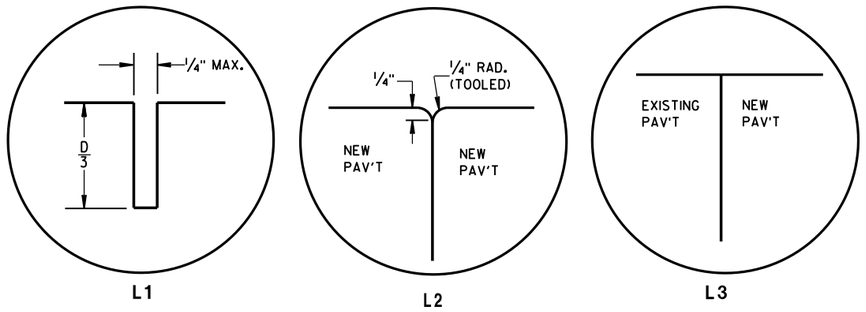
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

6

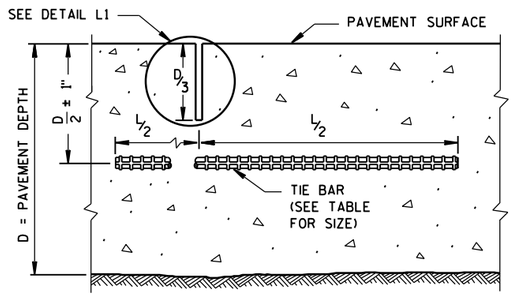
S.D.D. 13 C 14-7c



TRANSVERSE JOINTS

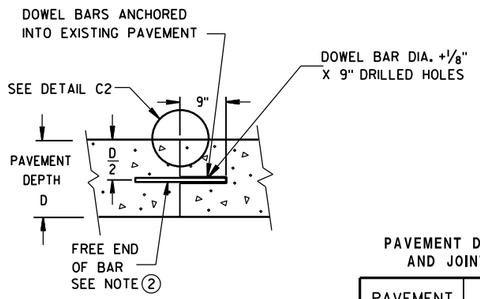


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

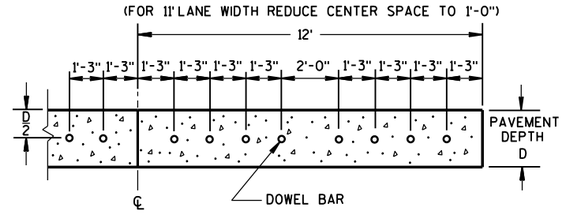
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

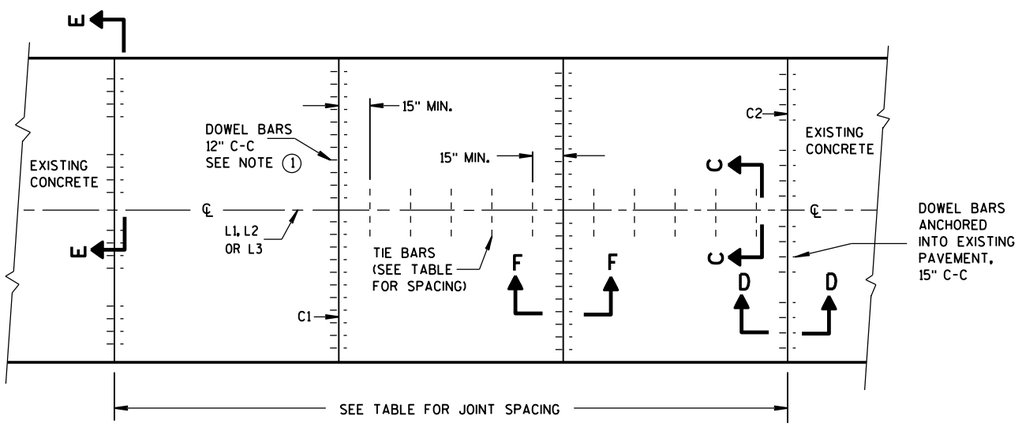
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

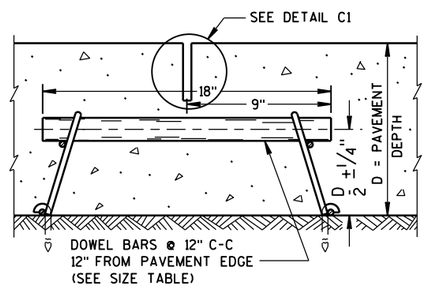
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

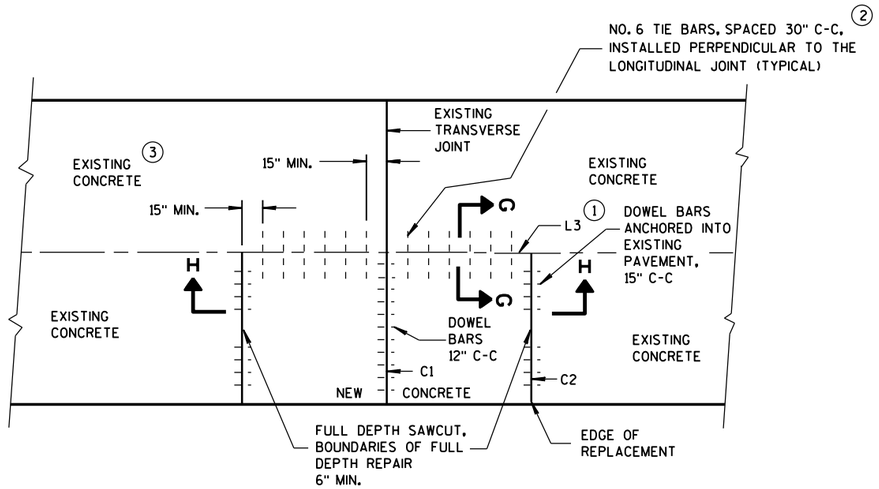
6
S.D.D. 13 C 15-6a

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

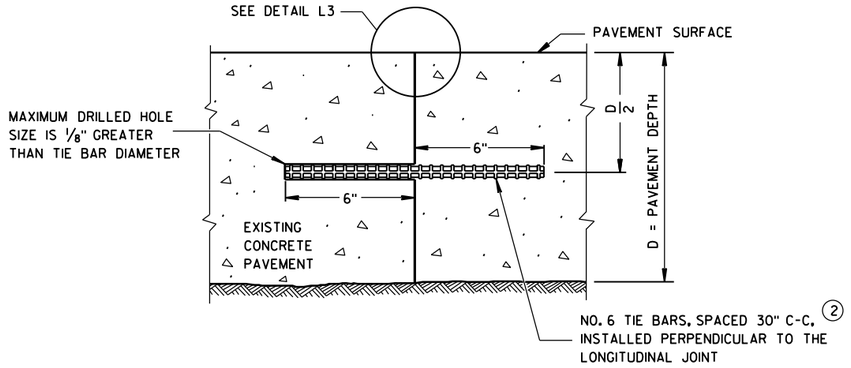
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



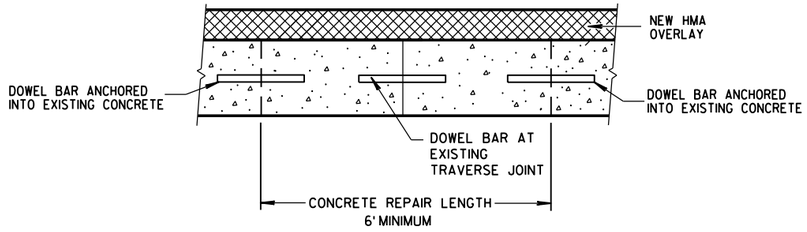
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



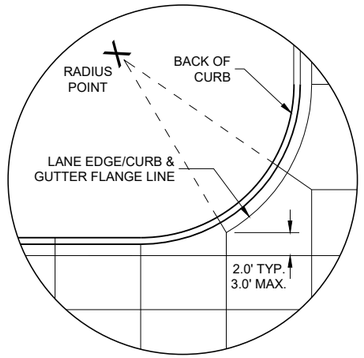
SECTION H-H

CONCRETE BASE

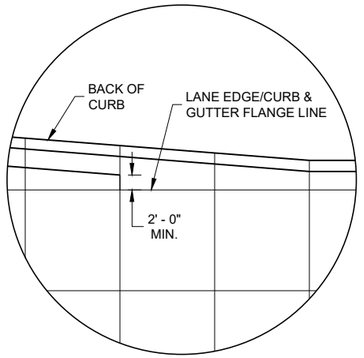
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEI
FHWA

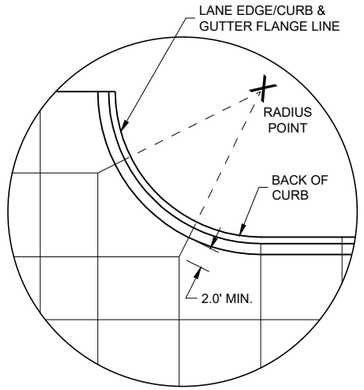
6
S.D.D. 13 C 15-6b



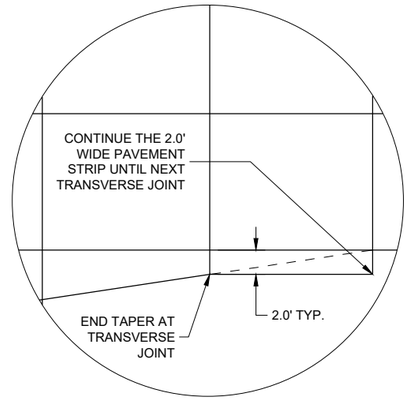
DETAIL "A"



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.

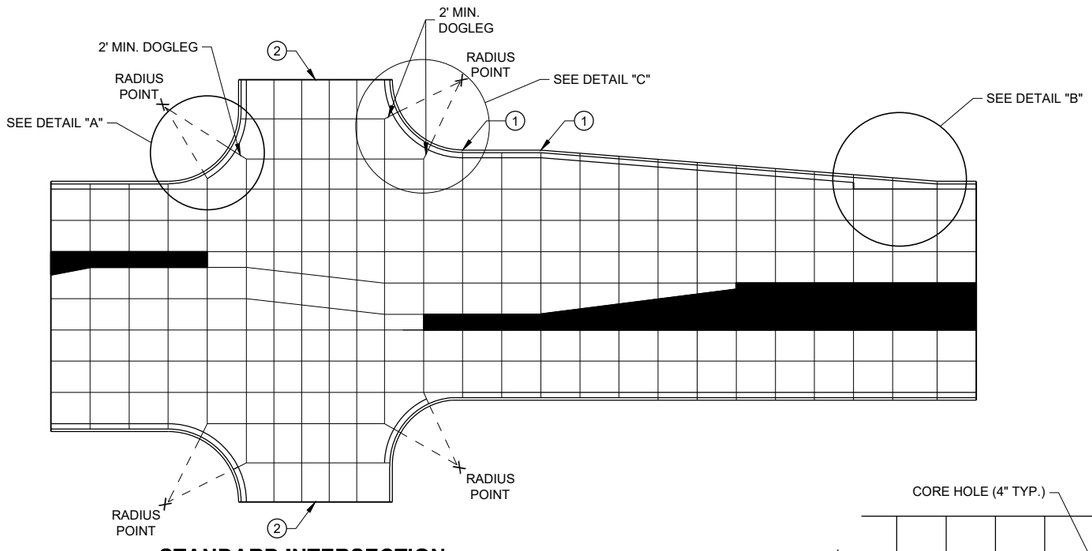
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

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 WITHEDGE OF RADIUS.

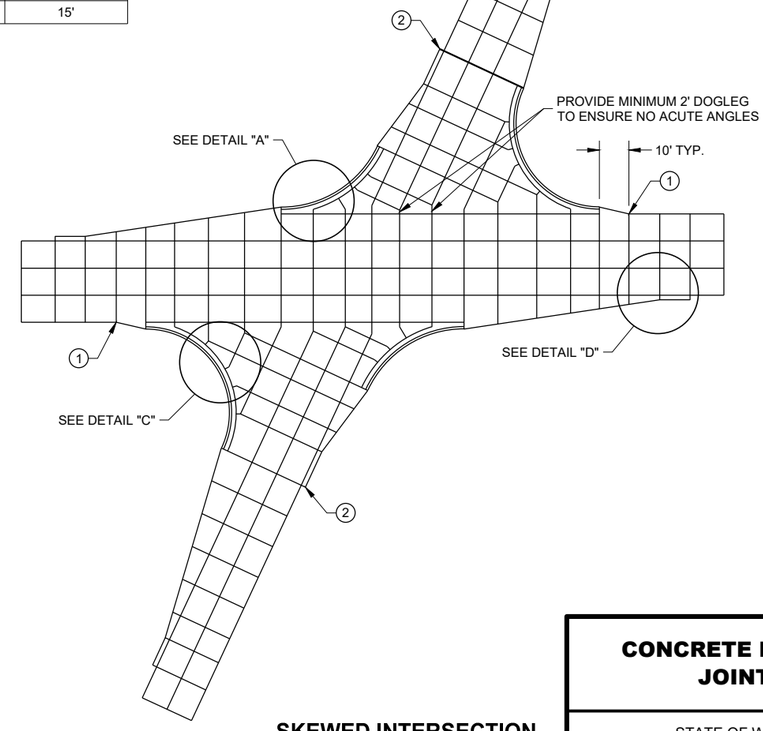
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



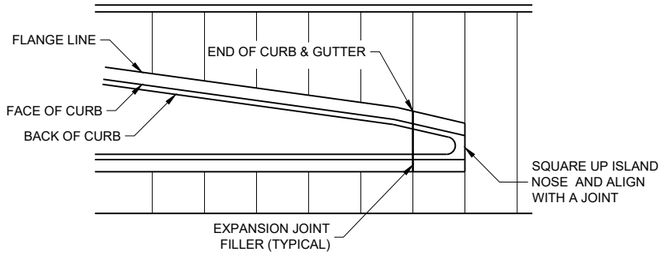
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

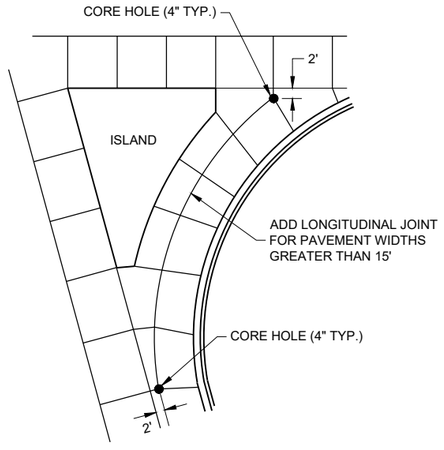
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

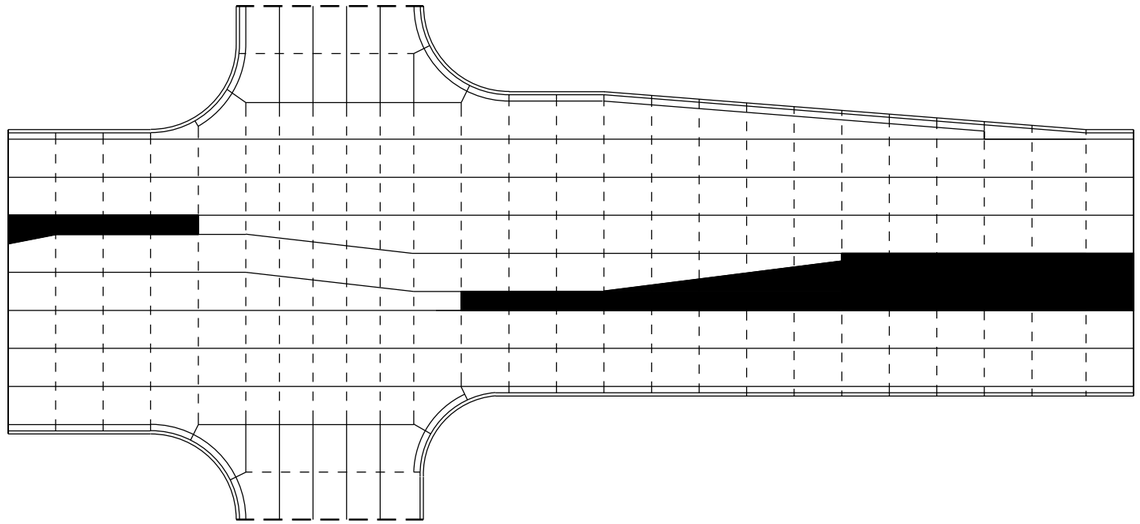
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

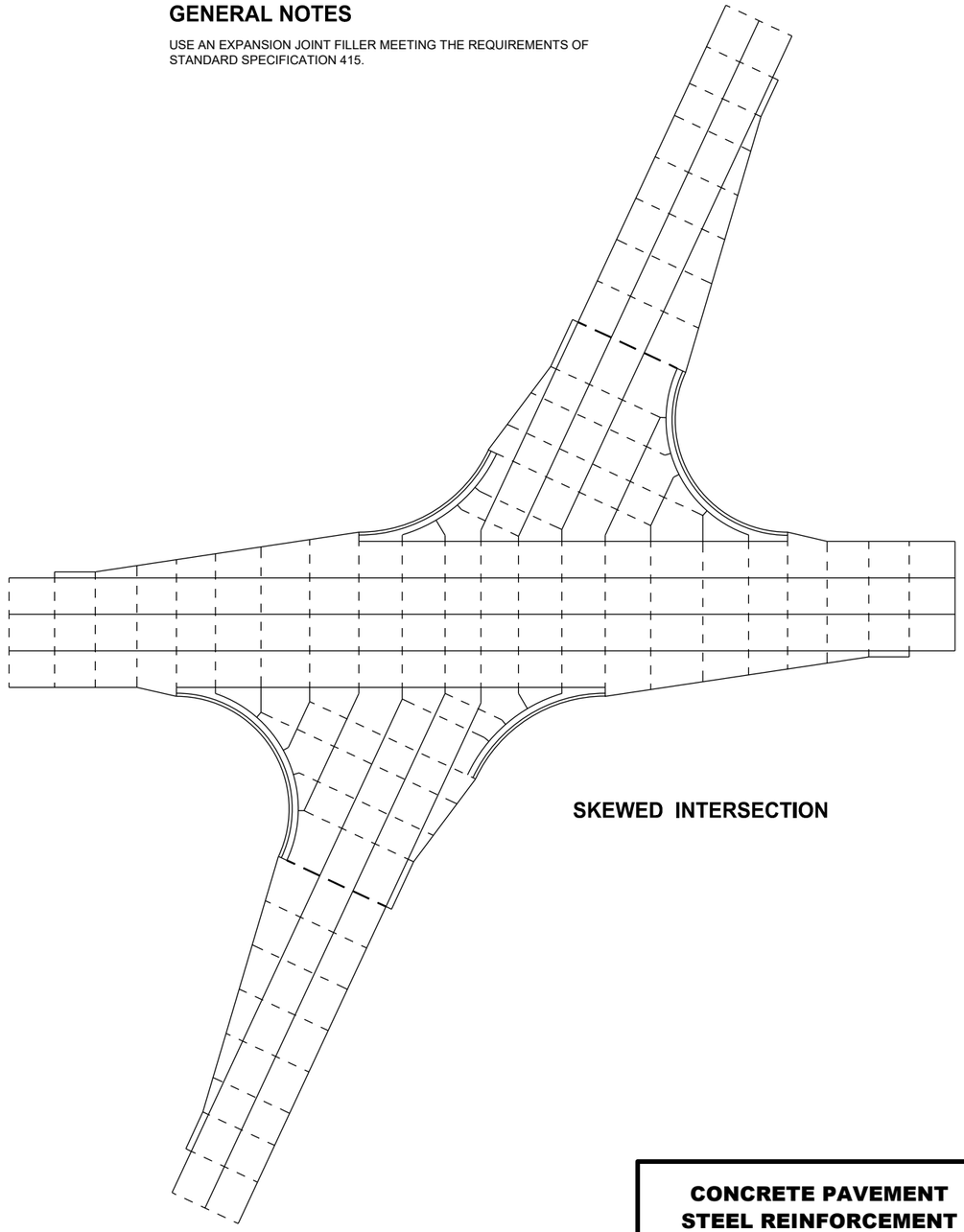
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

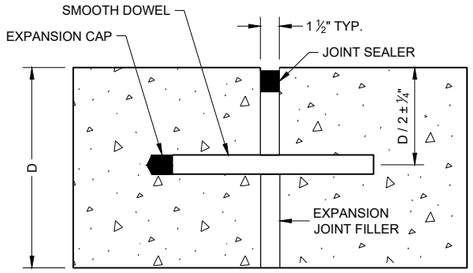
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

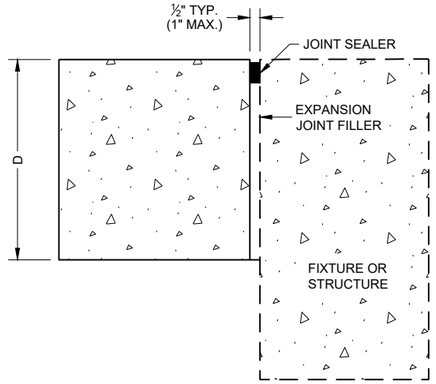
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

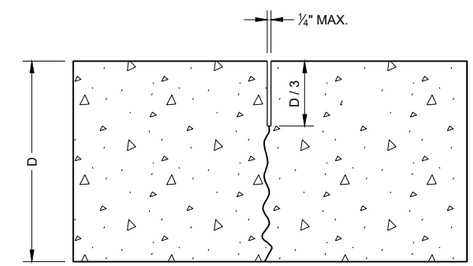
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

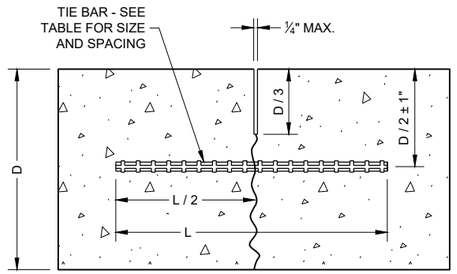
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

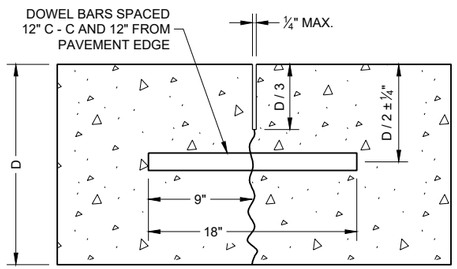
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

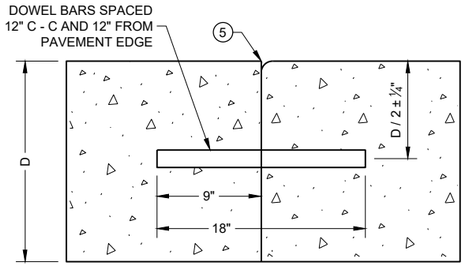


TIED LONGITUDINAL

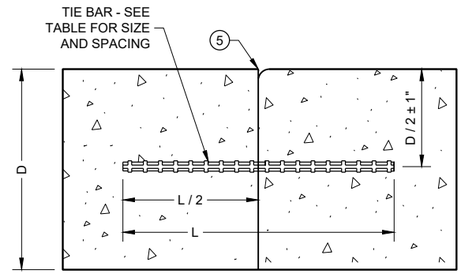


DOWELED TRANSVERSE

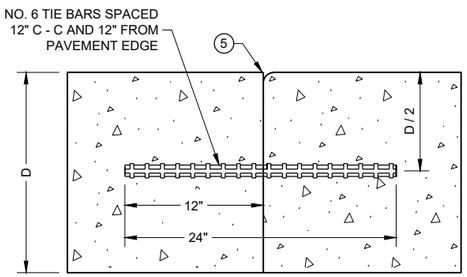
CONTRACTION JOINTS (2)



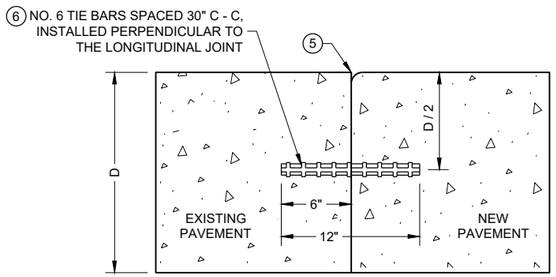
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



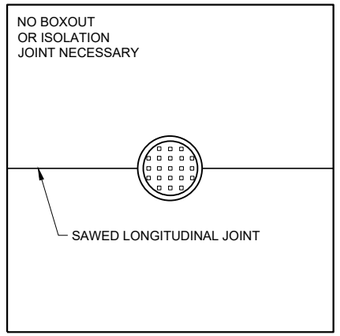
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

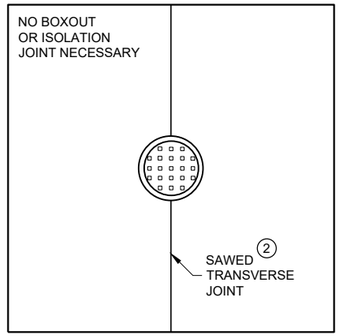
CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

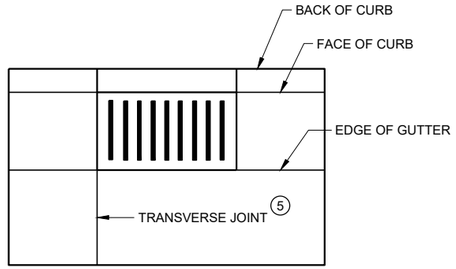
6
SDD 13C18 - 07c



MANHOLE WITH LONGITUDINAL JOINT



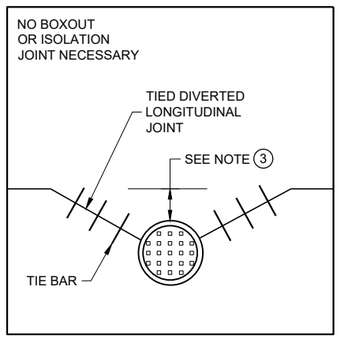
MANHOLE WITH TRANSVERSE JOINT



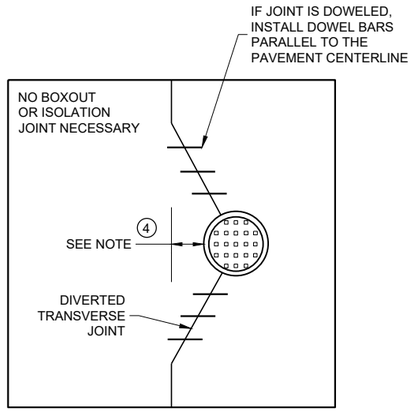
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

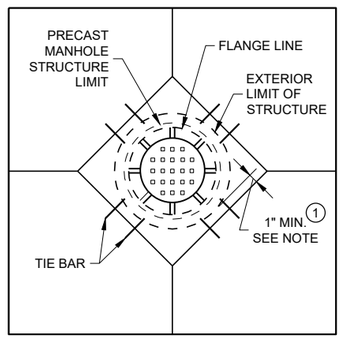
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF 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
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

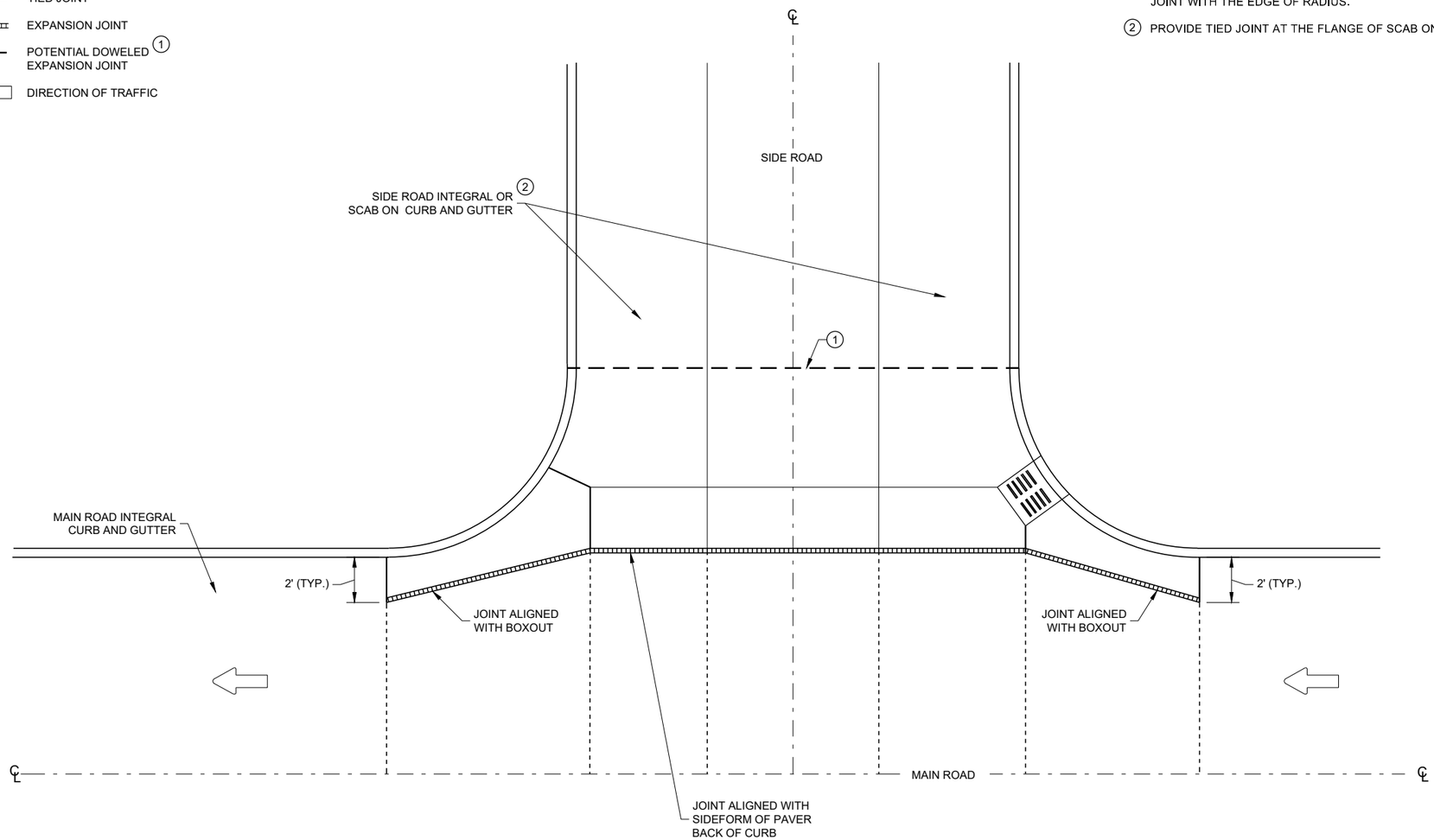
FHWA

6

SDD 13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(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.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 13C18 - 07f

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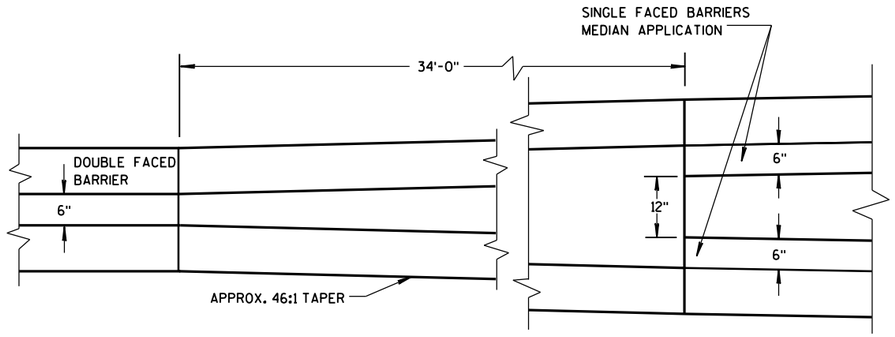
SDD 13C18 - 07f



PLAN VIEW

TRANSITION DETAILS OF DOUBLE FACED TO SINGLE FACED CONCRETE MEDIAN BARRIER

(FOOTINGS ARE NOT SHOWN)

GENERAL NOTES

SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH BARS LAPPED AT LEAST 18-INCHES AND FIRMLY TIED OR FASTENED TOGETHER.

ALL BAR STEEL REINFORCEMENT SHALL CONFORM TO REQUIREMENTS OF AASHTO M31, GRADE 60.

(1) BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.

(2) OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.

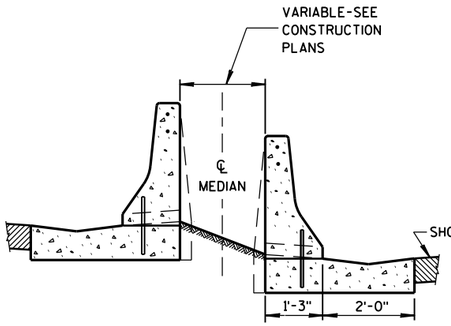
(3) 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).

(4) NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.

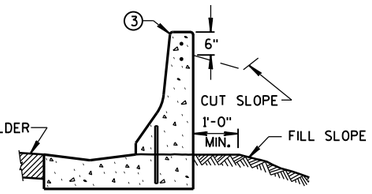
(5) EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.

(6) SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINTS AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.

HIGH SIDE
CONCRETE BARRIER DETAIL

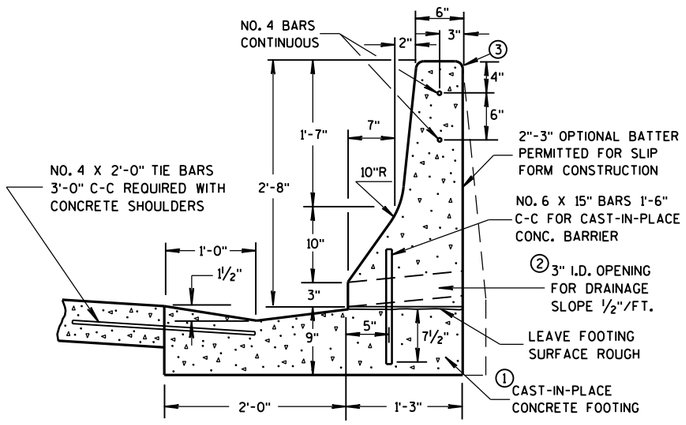


MEDIAN

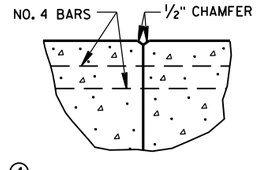


SHOULDER

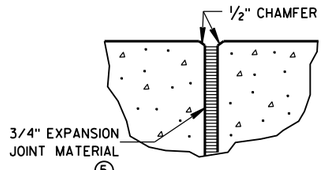
TYPICAL APPLICATIONS



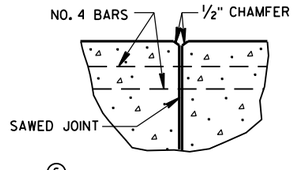
SECTION VIEW



4 CONSTRUCTION JOINT



5 EXPANSION JOINT



6 CONTRACTION JOINT

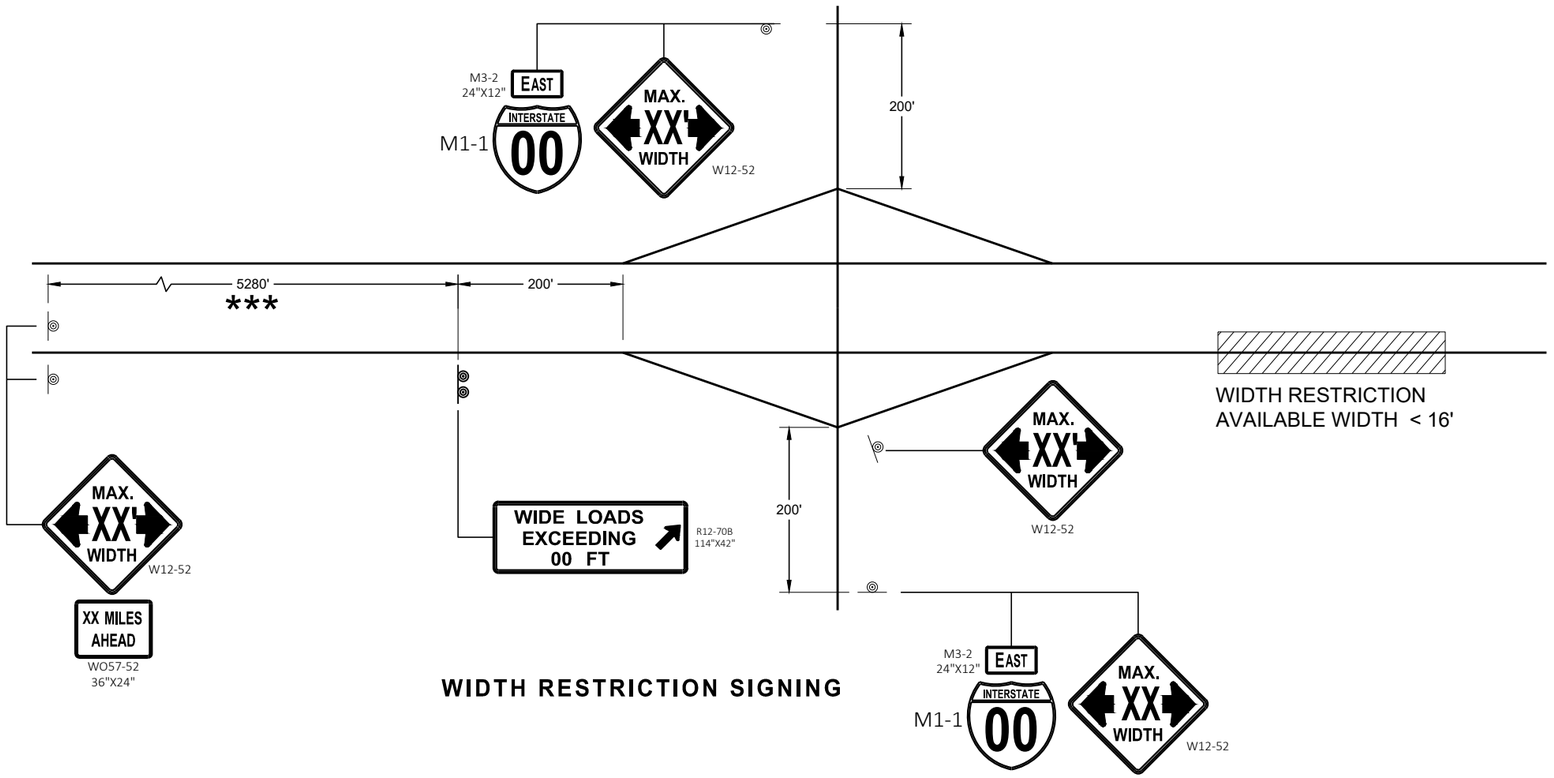
JOINT DETAILS

CONCRETE BARRIER,
SINGLE-FACED
(WITH ANCHORAGE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 22-6a



WIDTH RESTRICTION SIGNING

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.

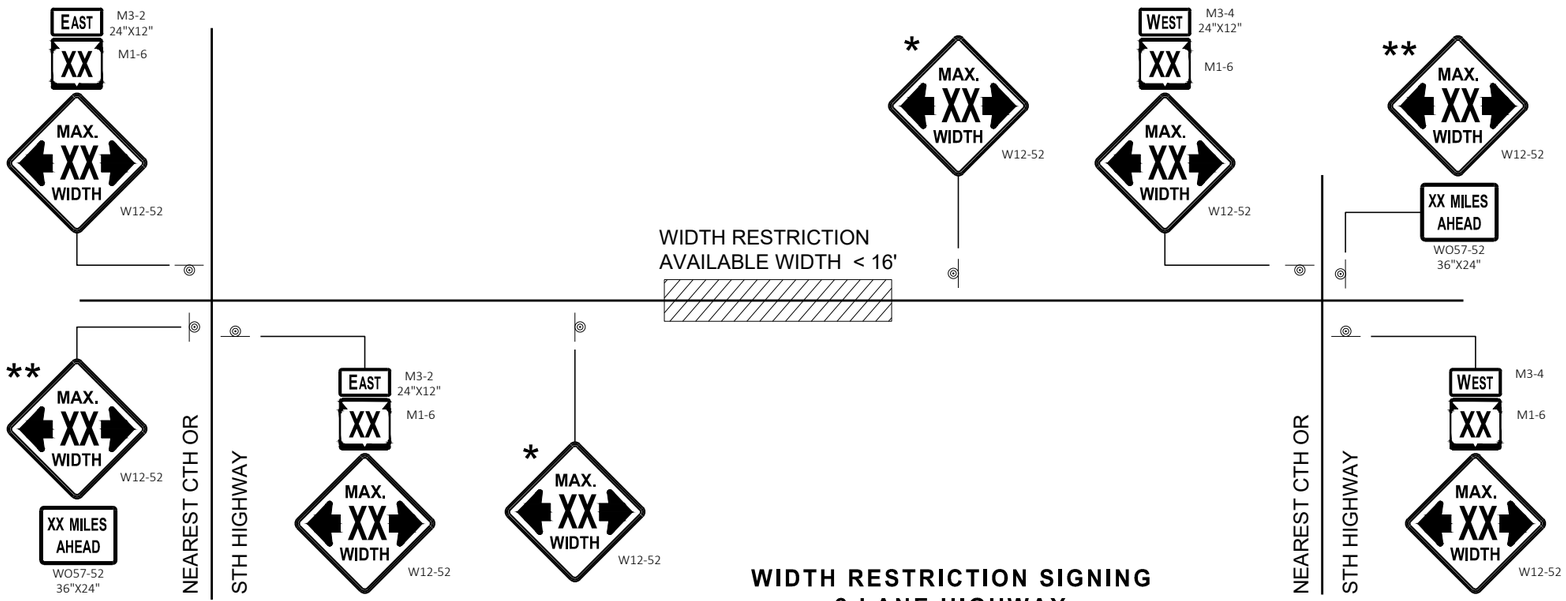
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

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

** SIGN SHALL BE VISIBLE FROM ROADWAY.

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

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



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

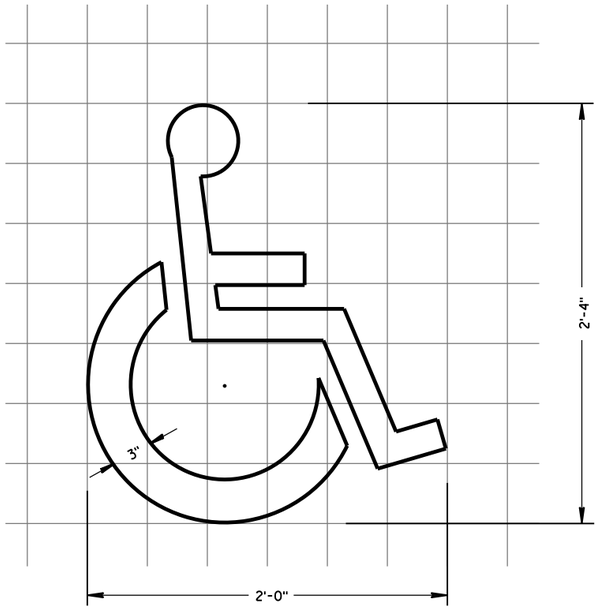
6

SDD 15C02 - 07f

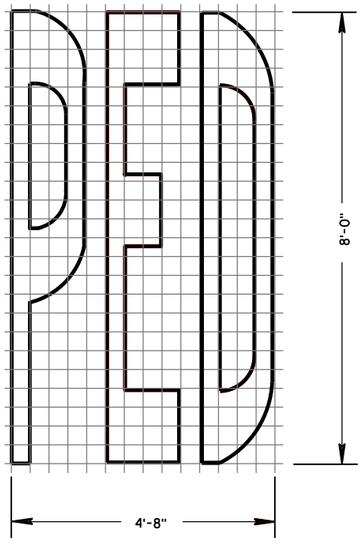
SDD 15C02 - 07f

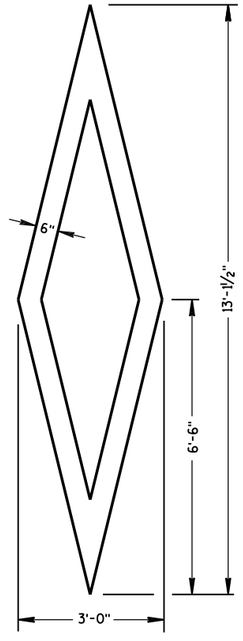
GENERAL NOTES

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



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

6

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

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

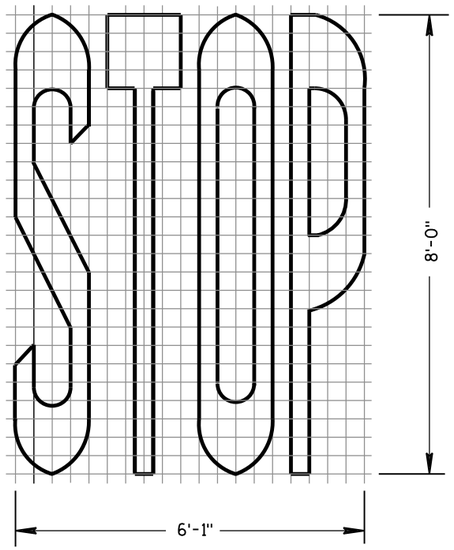
June 2017 — DATE

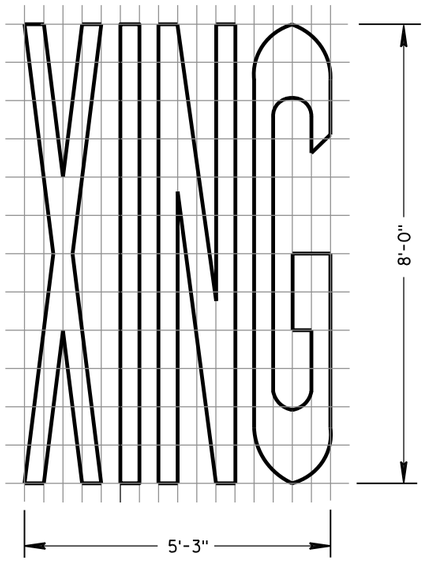
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

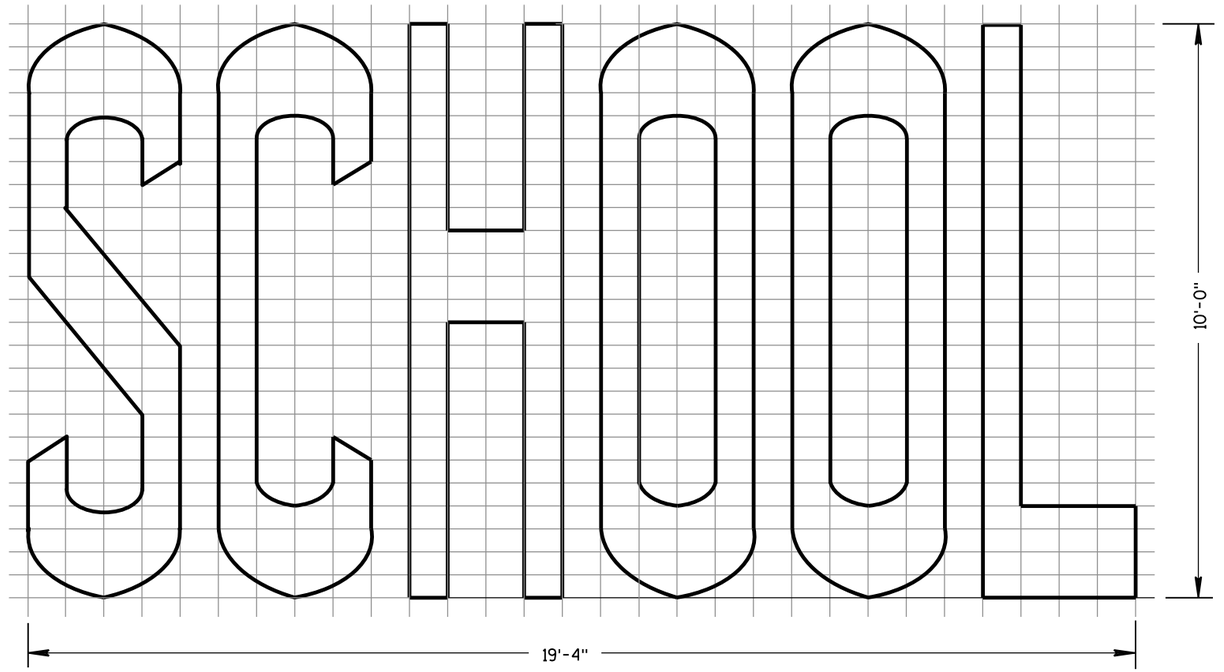
FHWA

GENERAL NOTES

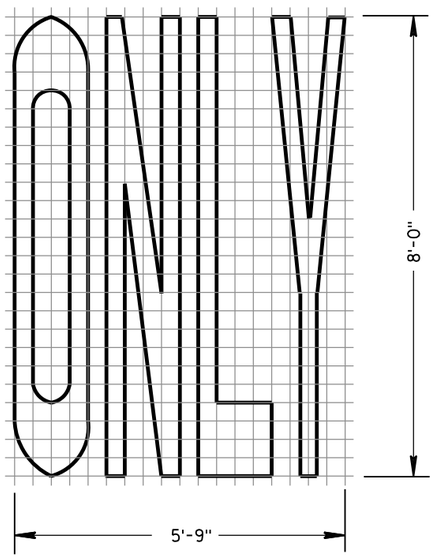
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

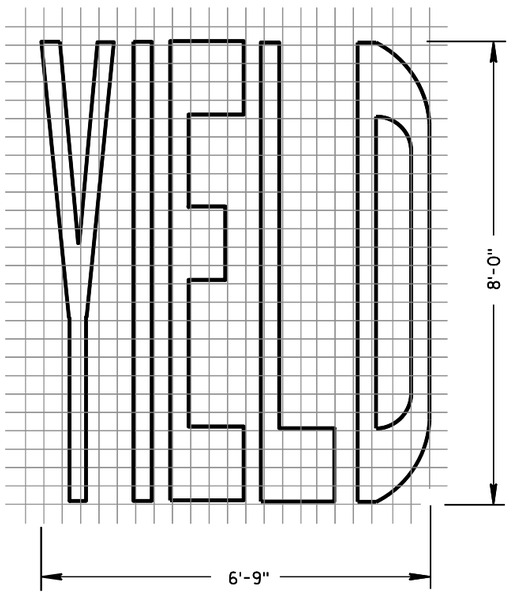


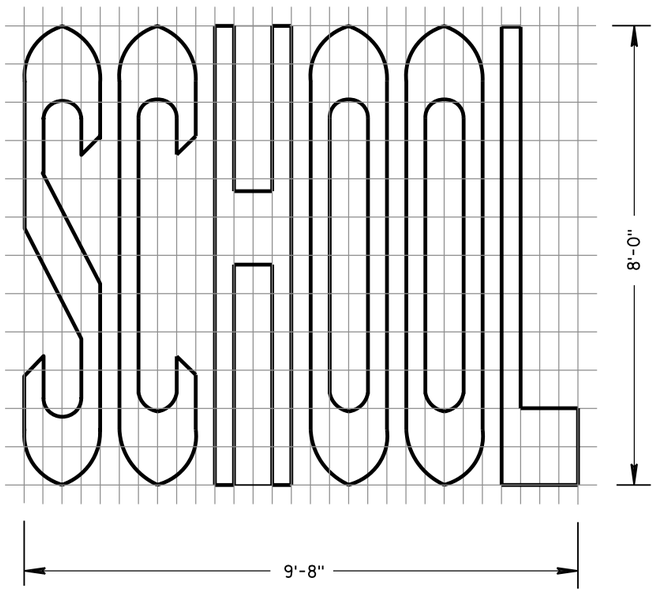




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June 2017 — DATE
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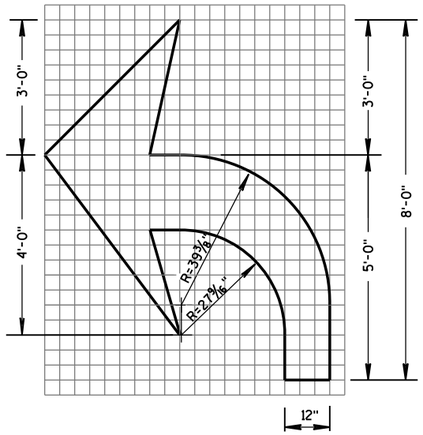
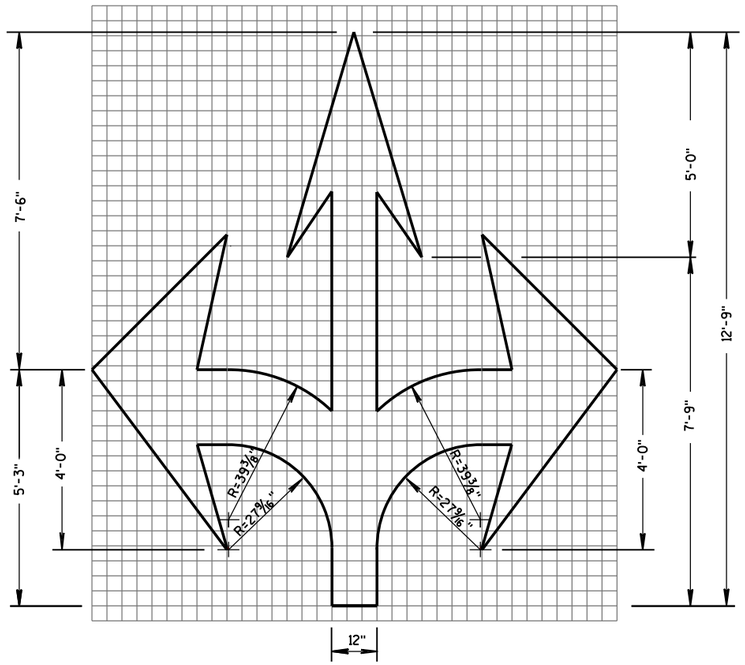
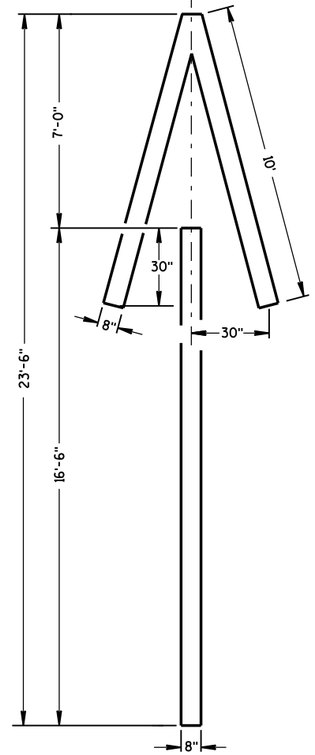


TYPE 2



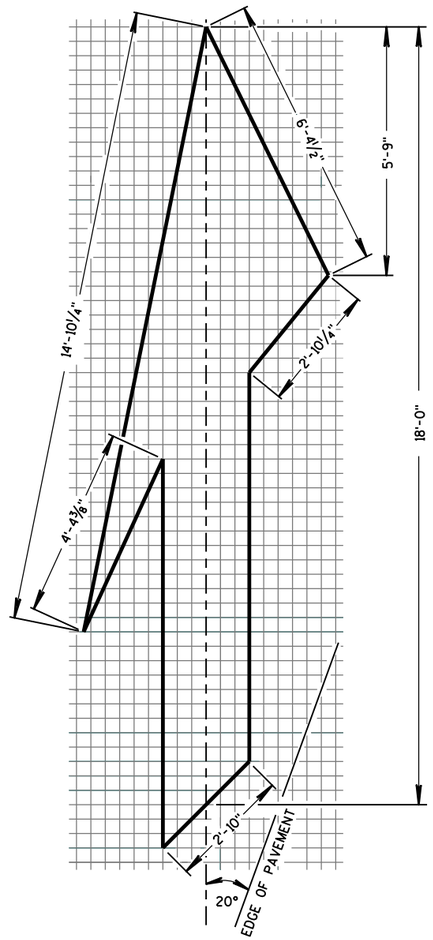
TYPE 6



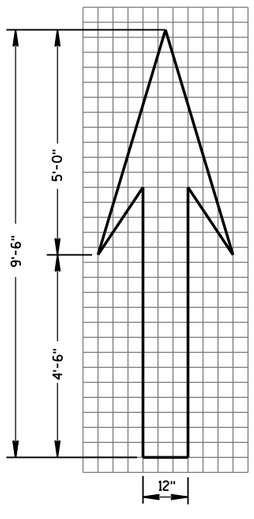
TYPE 4

GENERAL NOTES

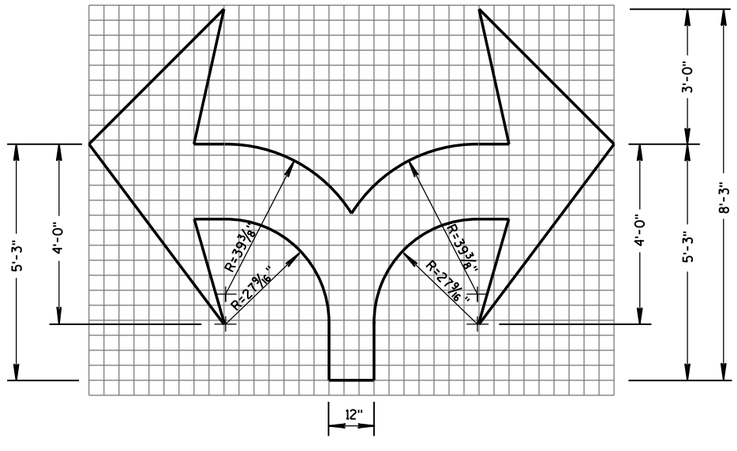
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



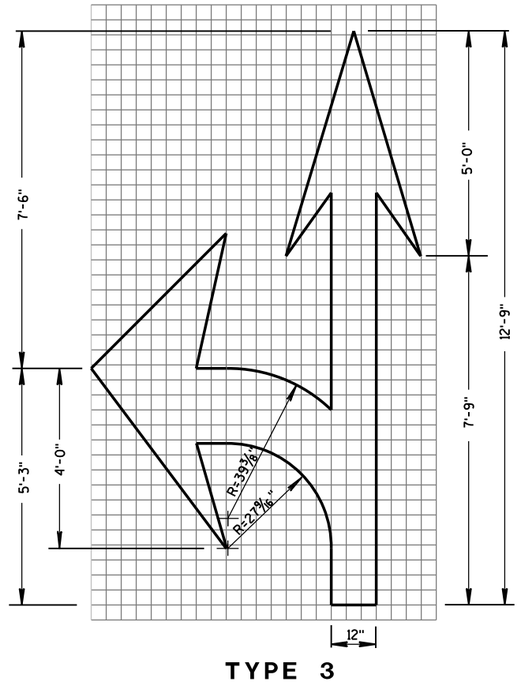
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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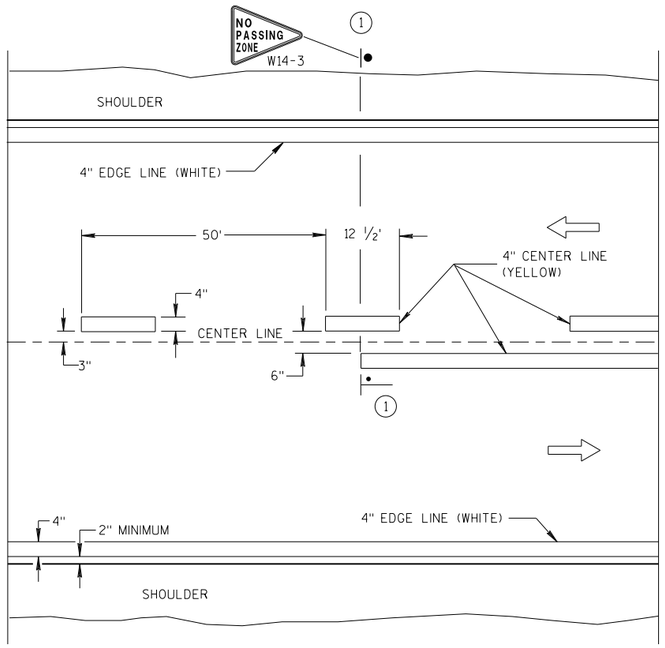
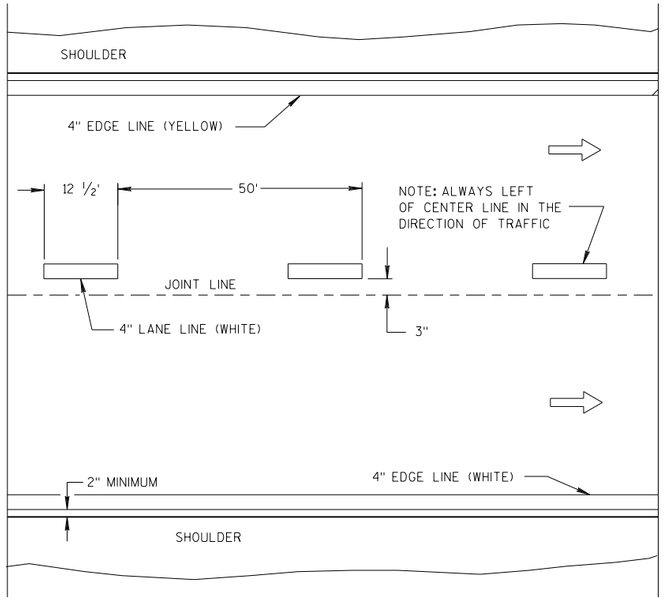


TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

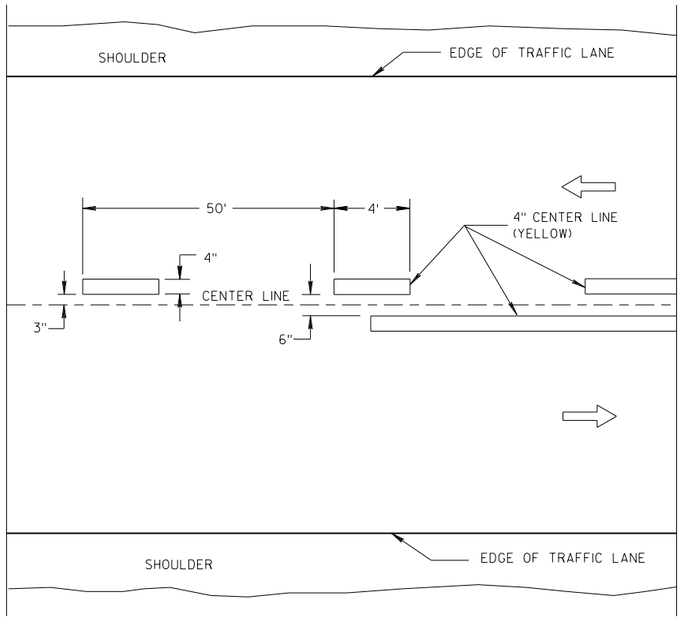
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

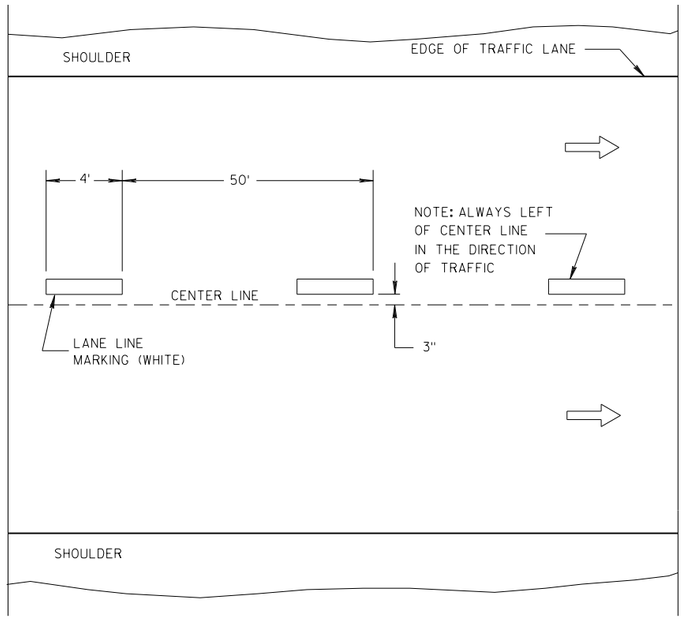
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

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S.D.D. 15 C 8-19a

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S.D.D. 15 C 8-19a

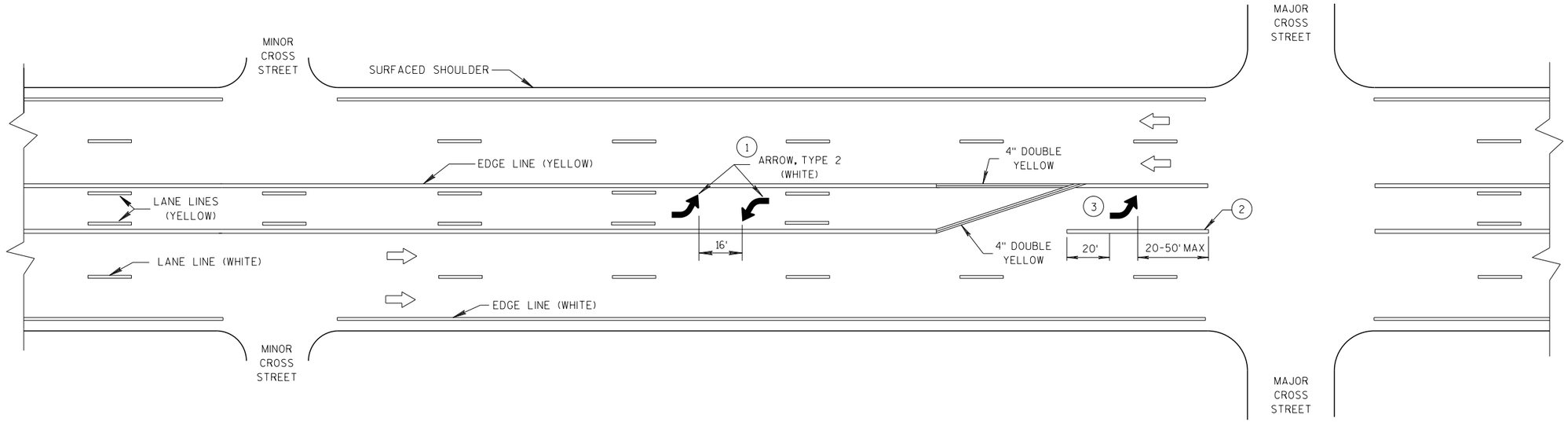
GENERAL NOTES

(1) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(2) 8" WHITE

(3) TURN BAY LENGTH OF LESS THAN 48'DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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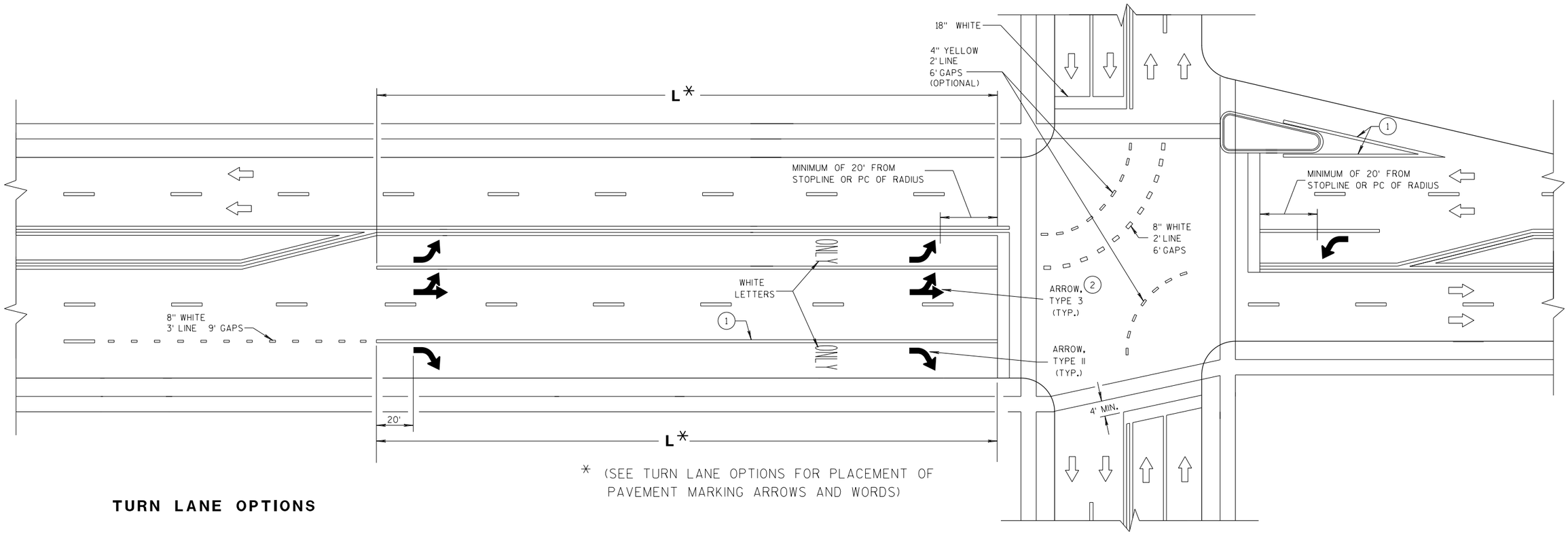
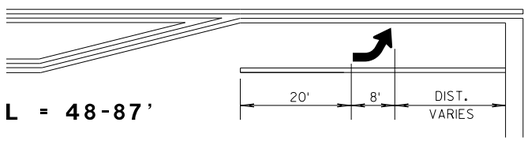


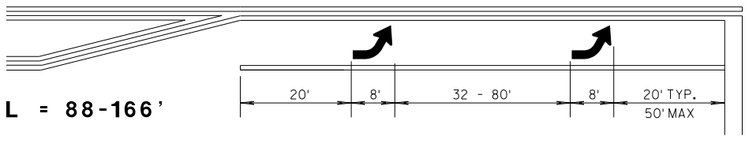
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

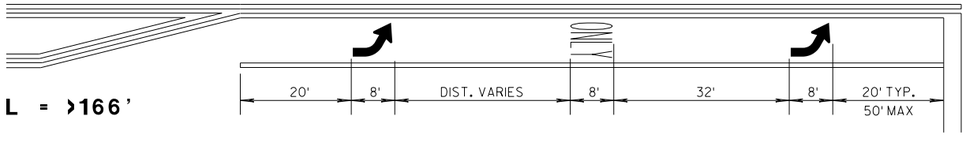
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

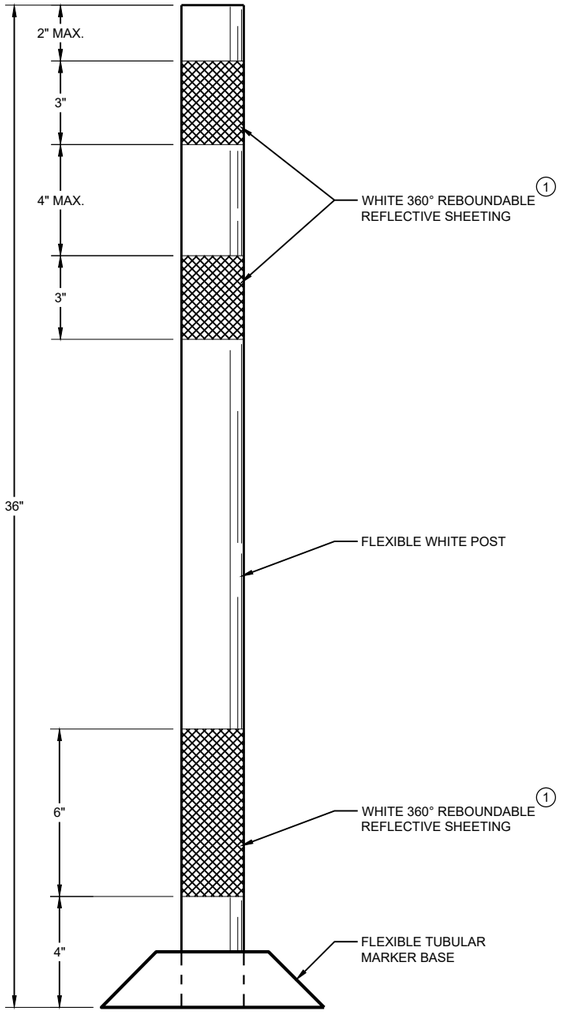
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

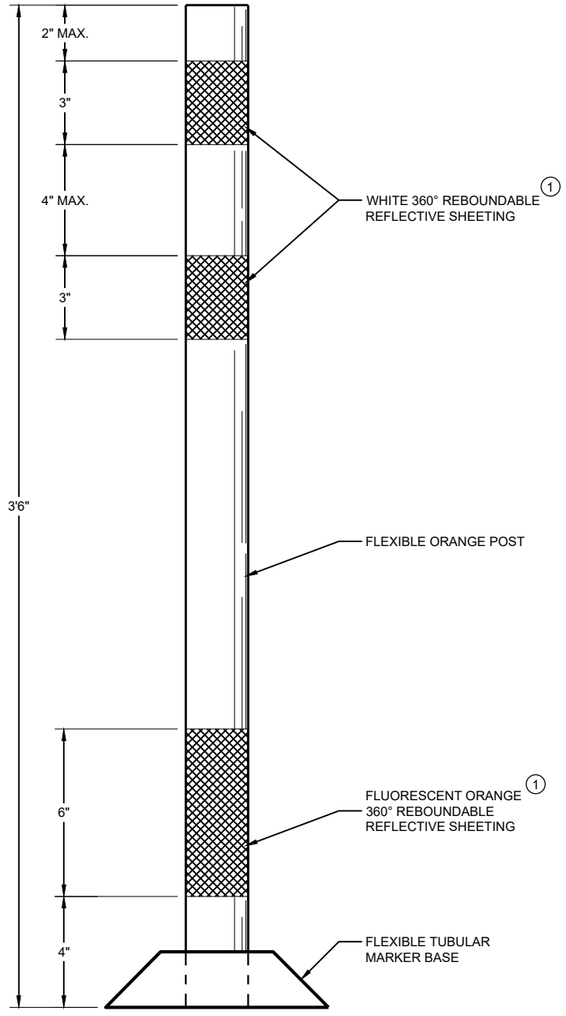
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

6

S.D.D. 15 C 8-19c



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

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CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

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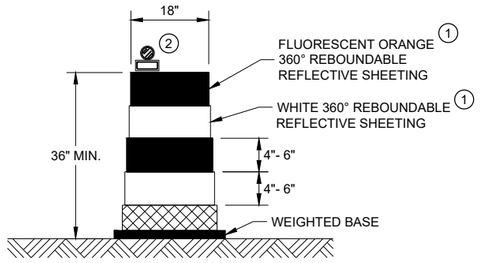
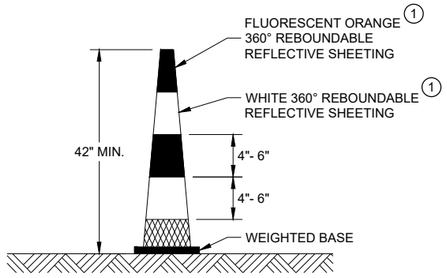
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

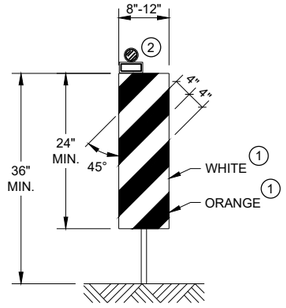


DRUM



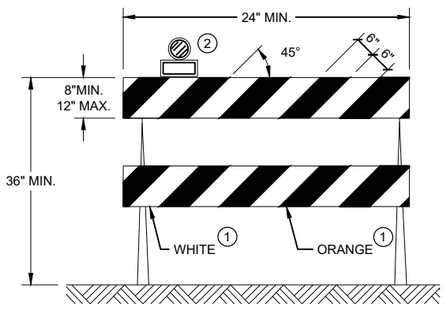
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



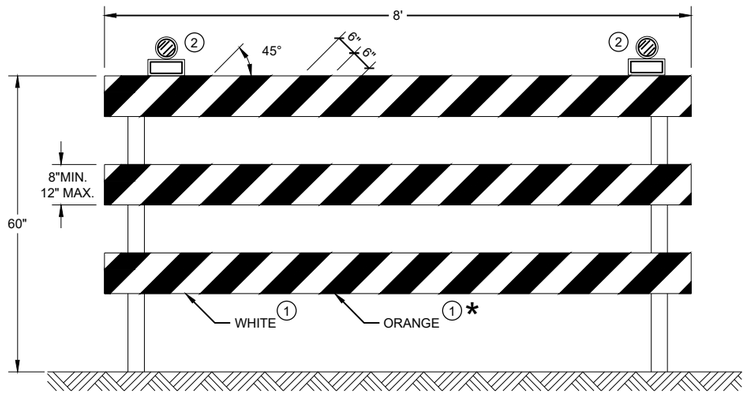
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
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LEGEND

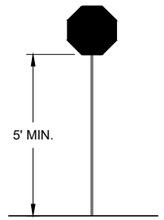
SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

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

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

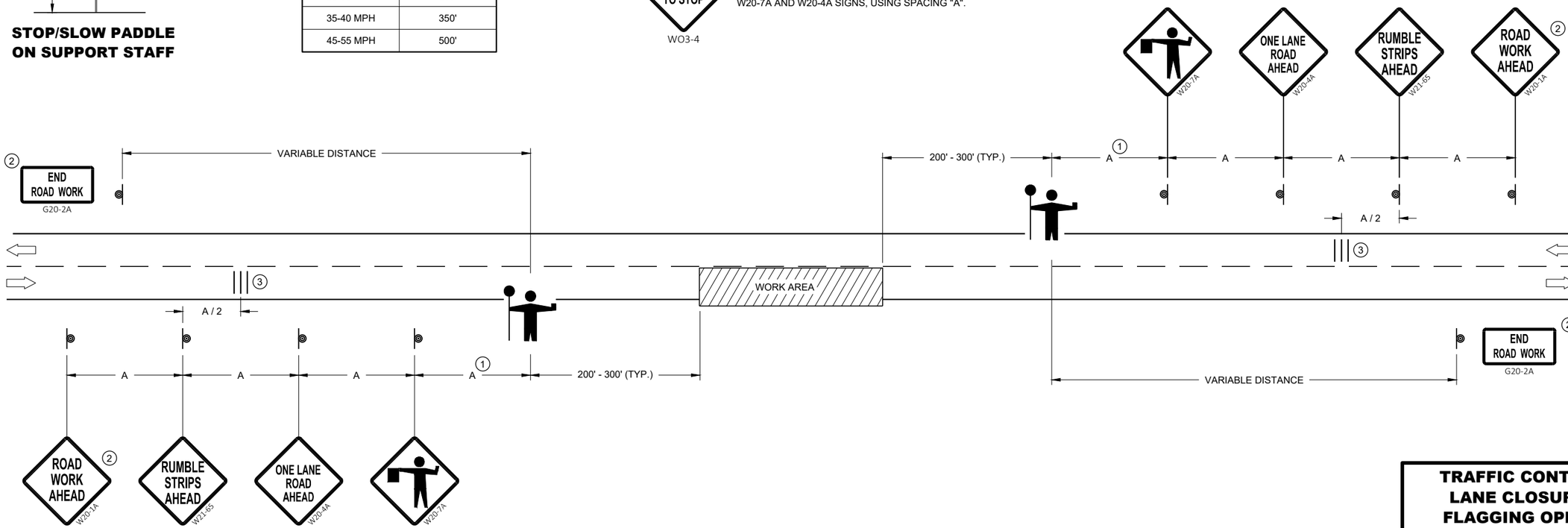
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

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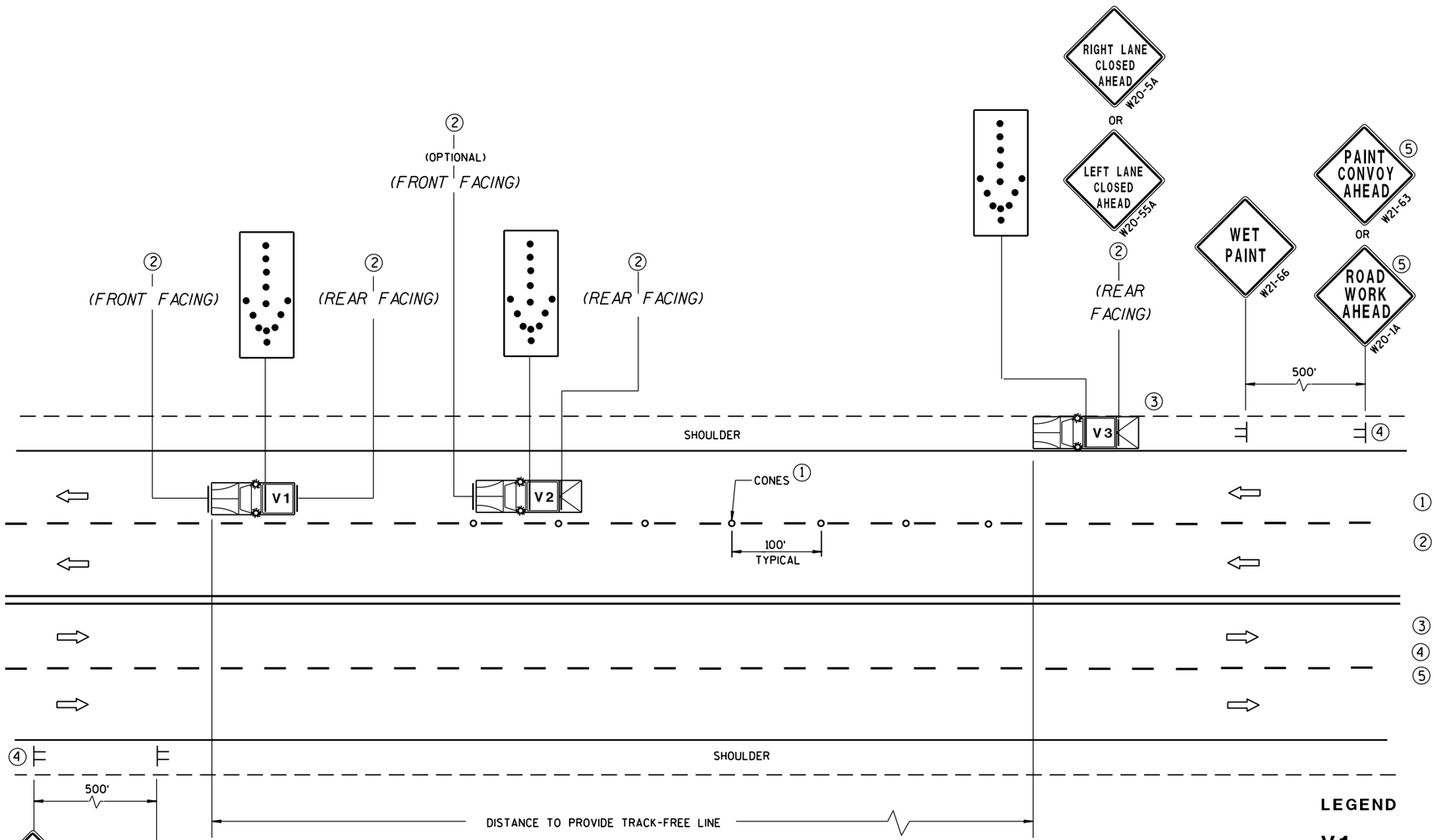

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

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

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

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

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

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

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

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

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

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

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGIN
FHWA

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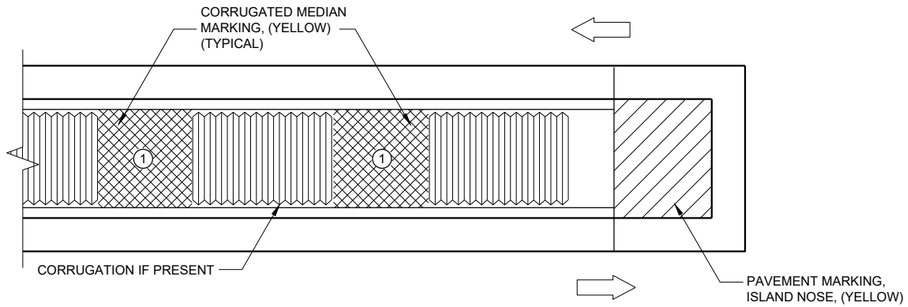
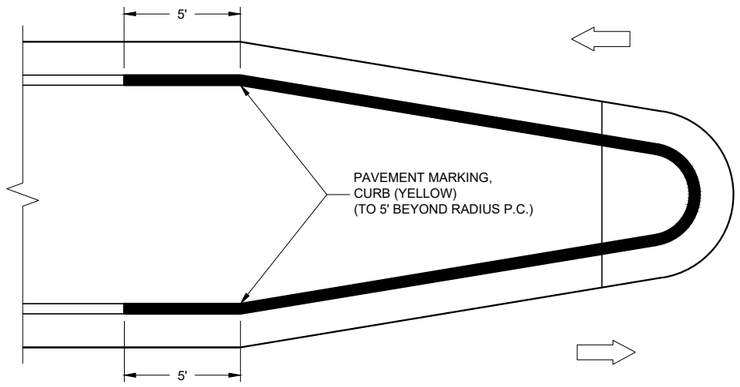
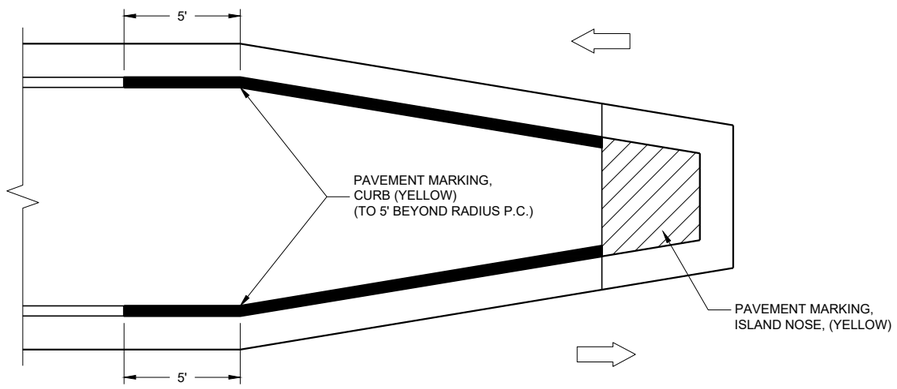


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAF
ENGINEER

FHWA

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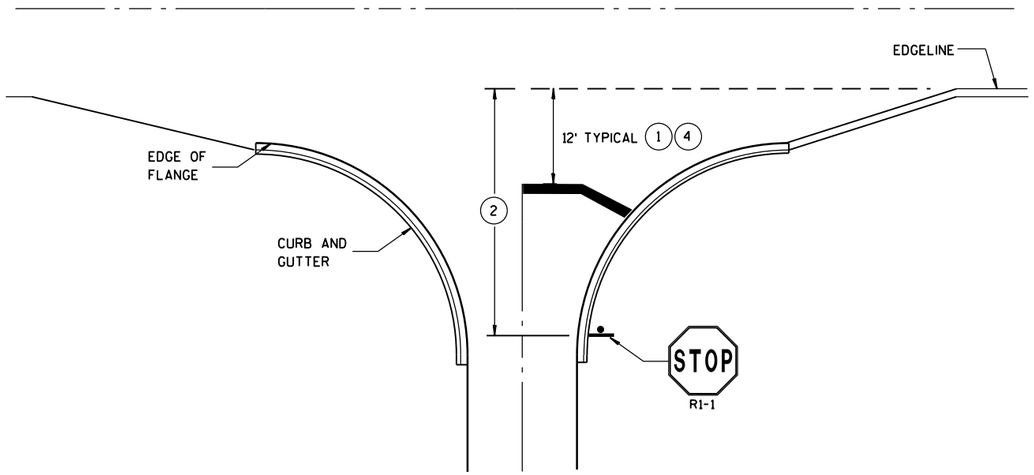
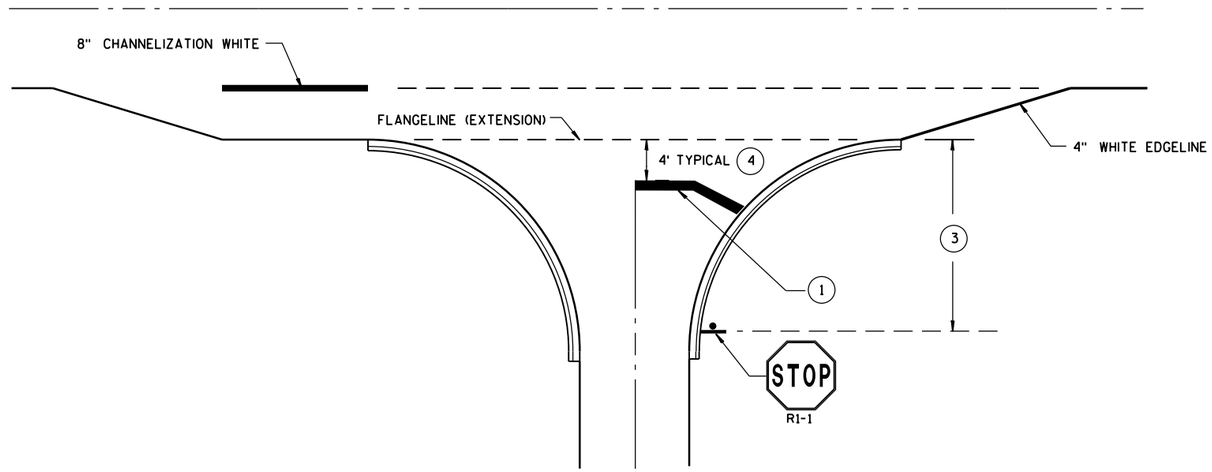
SDD 15C27 - 03b

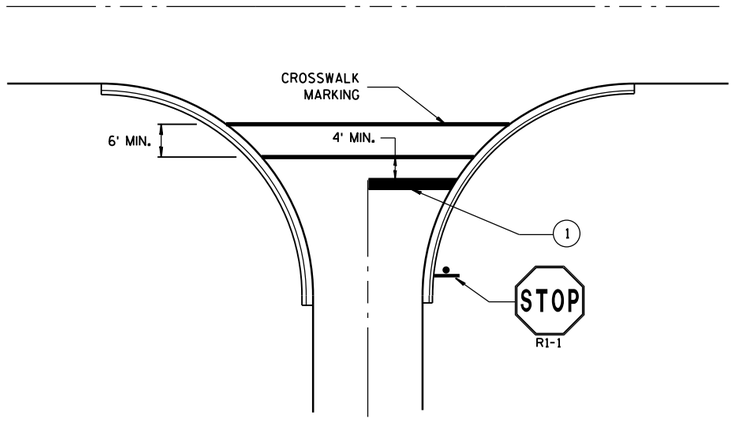
SDD15C27 - 03b



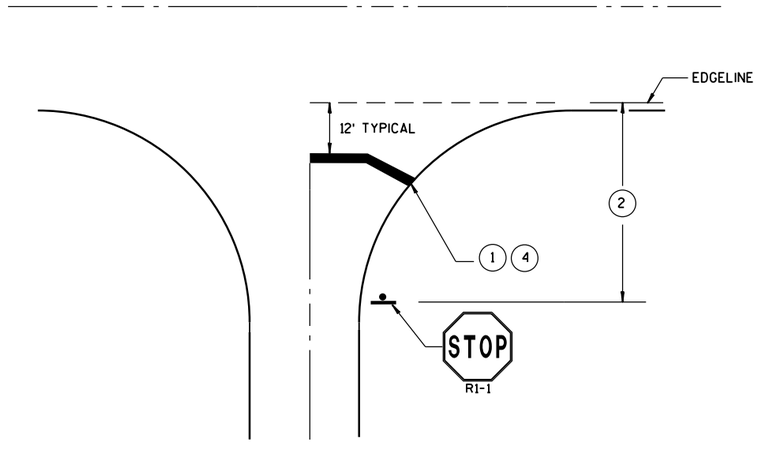
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT 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 PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

FHWA

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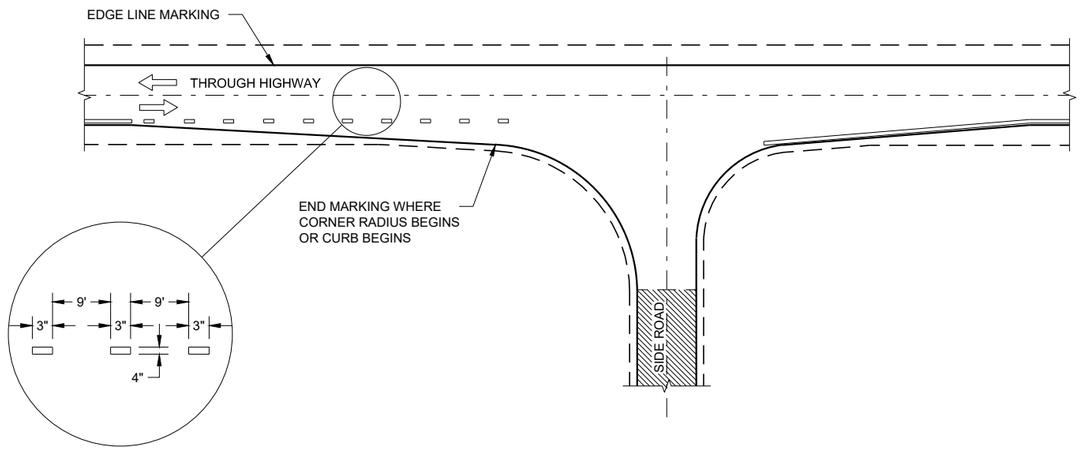
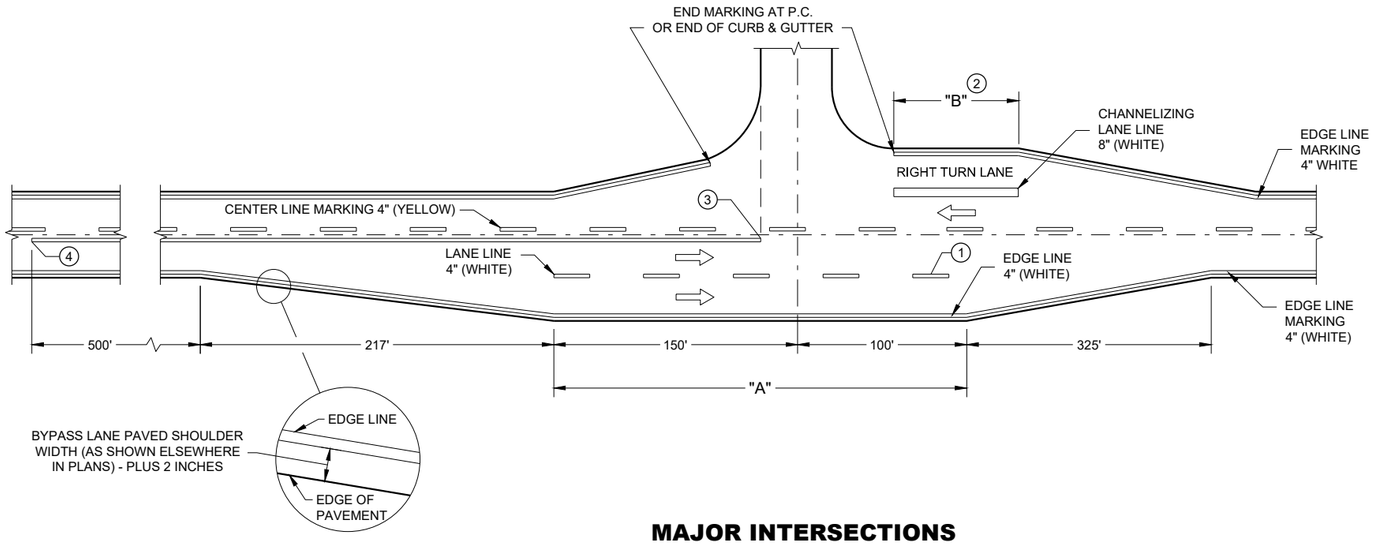
S.D.D. 15 C 33-3



MINOR INTERSECTION



MAJOR INTERSECTIONS

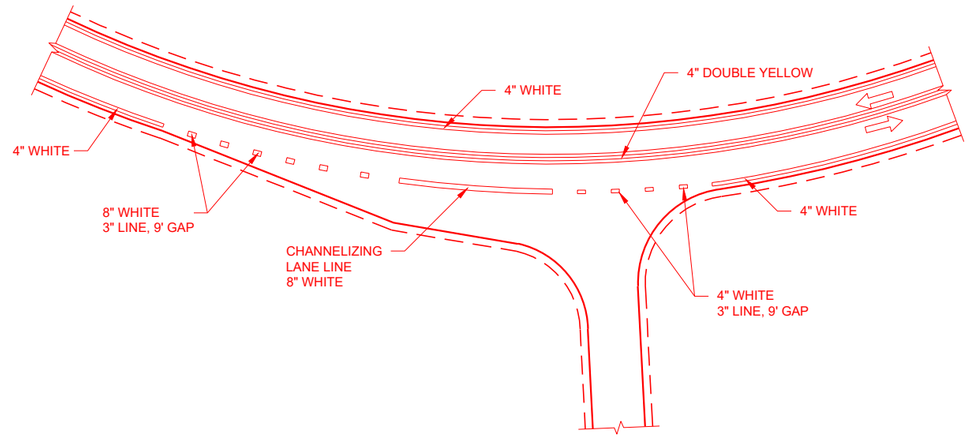
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

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

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15C35 - 03a

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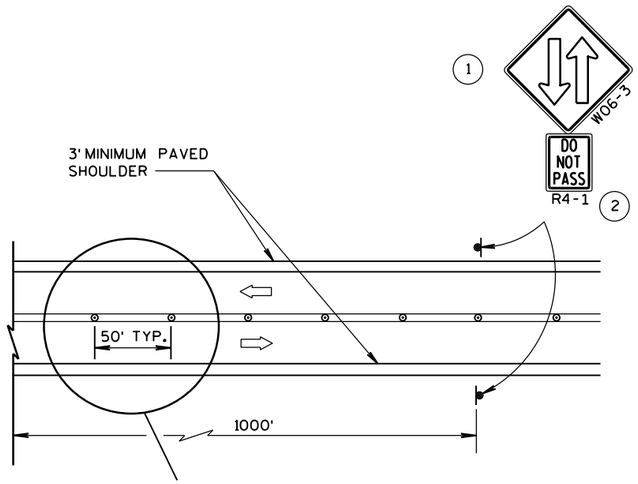
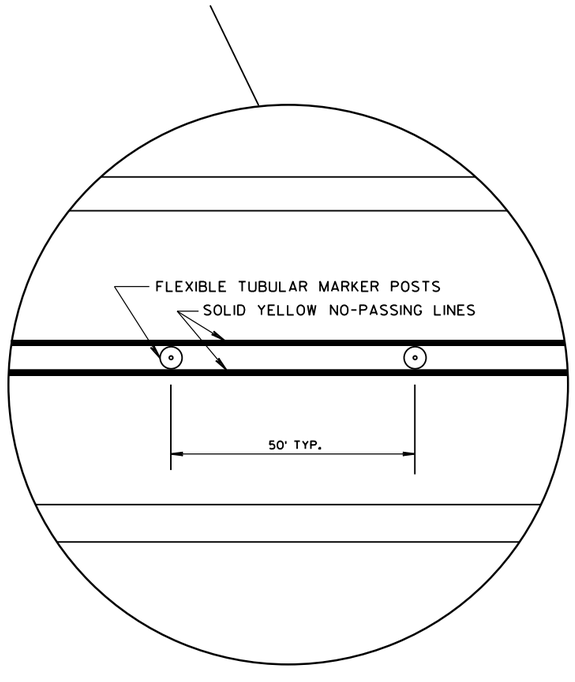
SDD 15C35 - 03a



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

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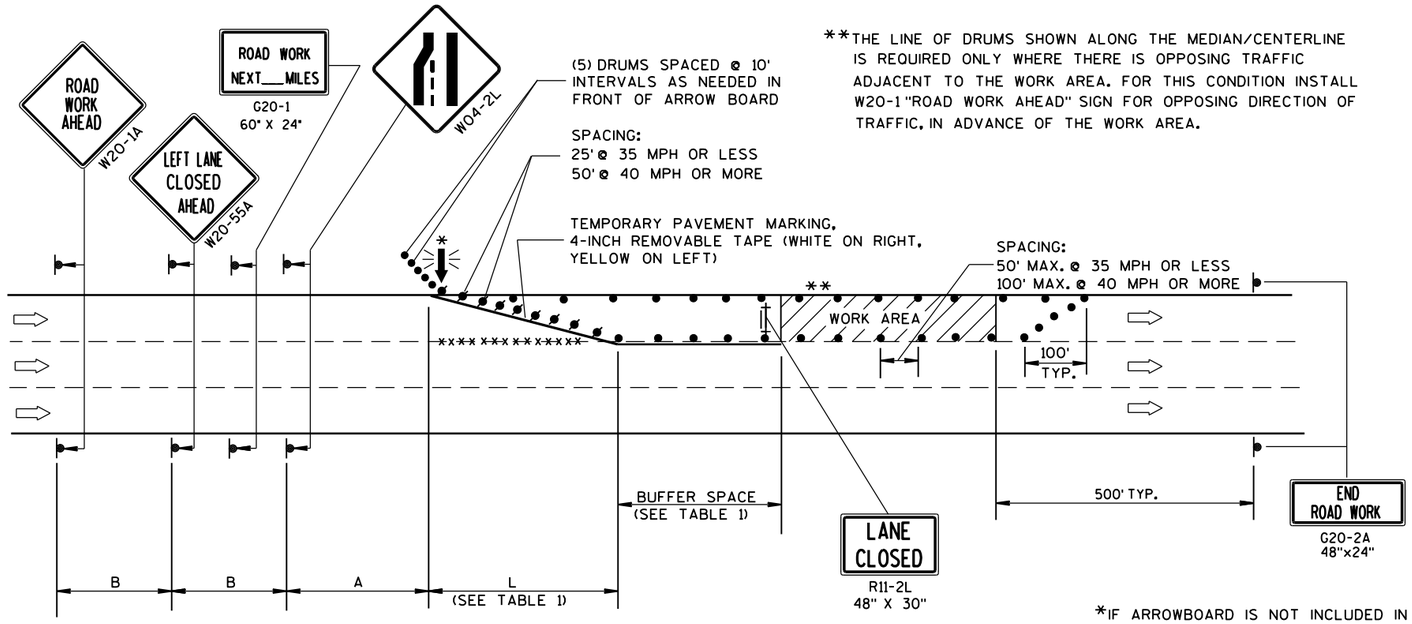
S.D.D. 15 D 6-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

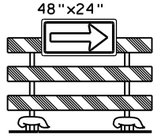


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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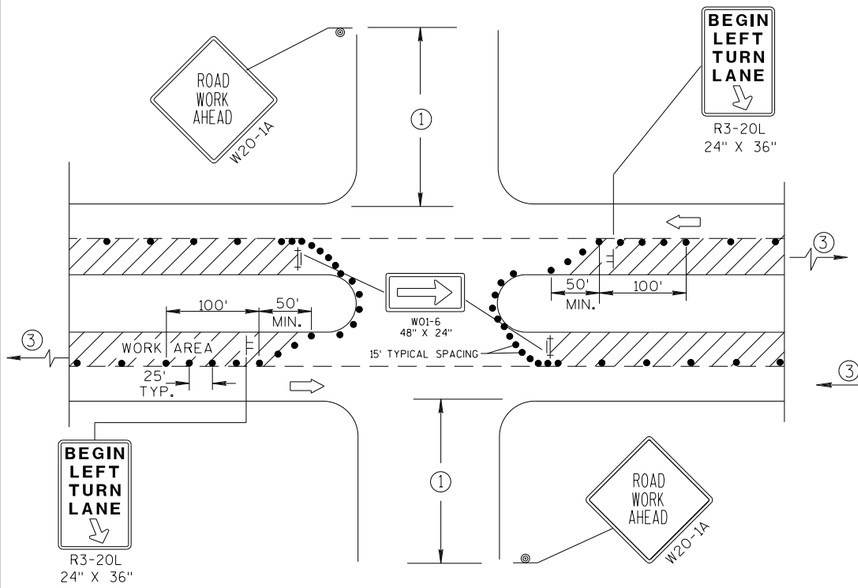
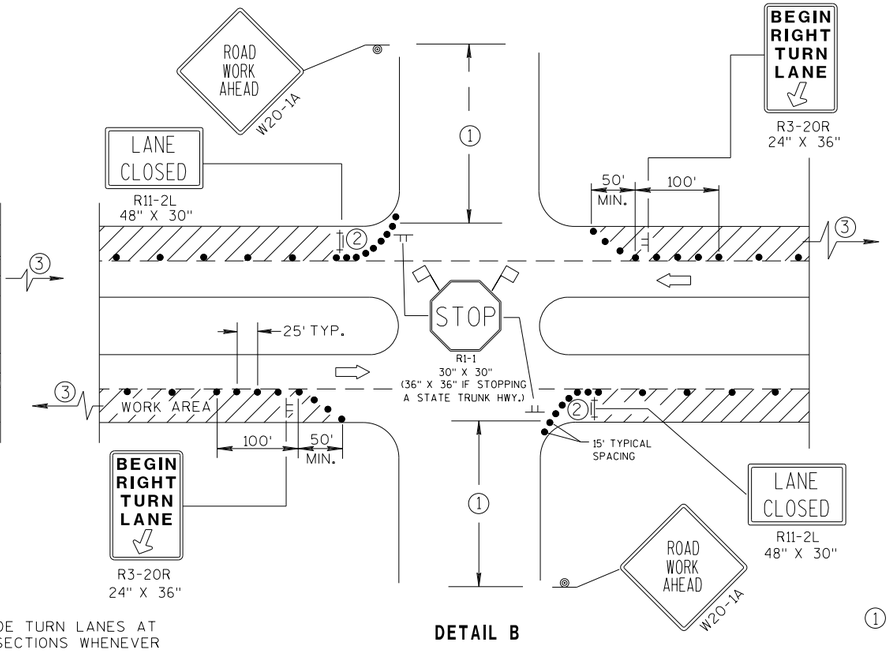


DETAIL A

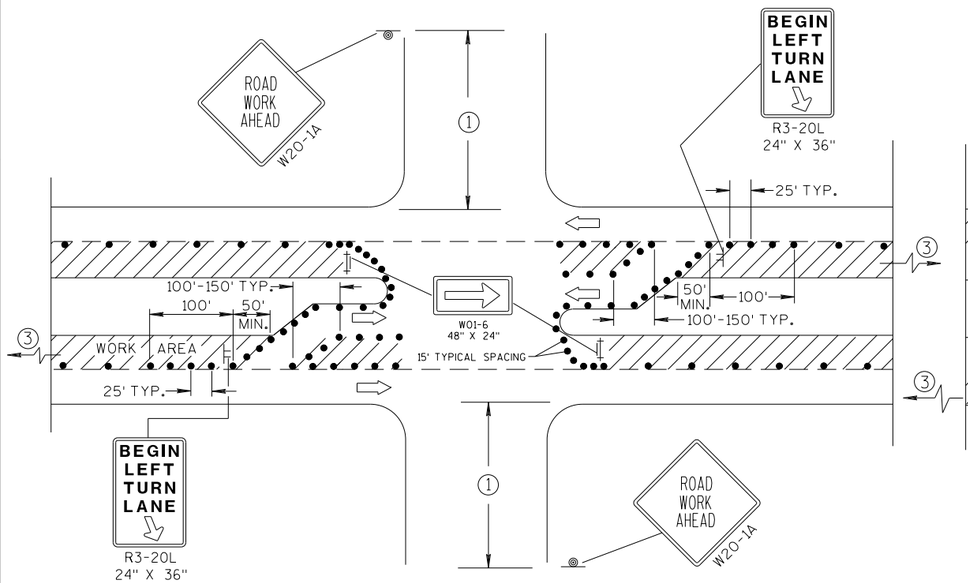
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



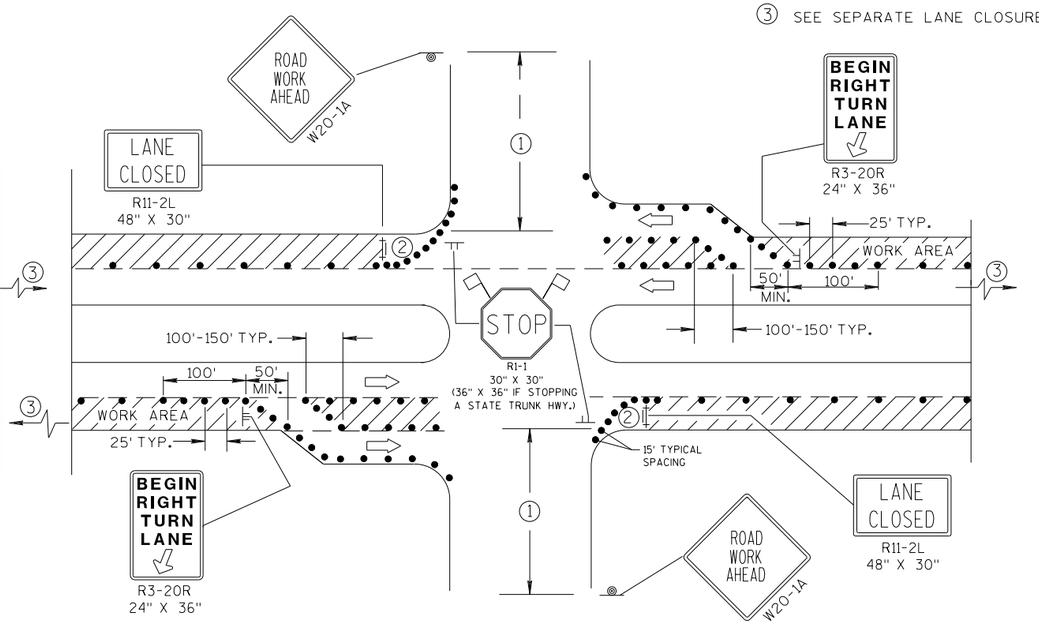
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

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

BARRICADES IN A CLOSED LANE 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.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

(2) ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

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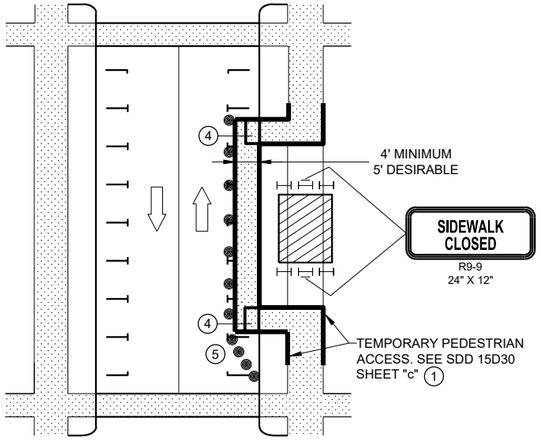
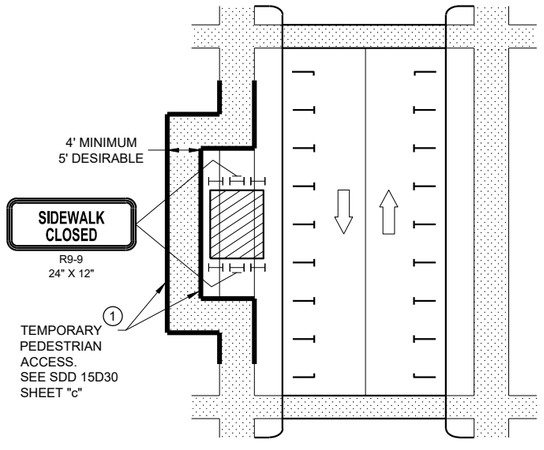
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

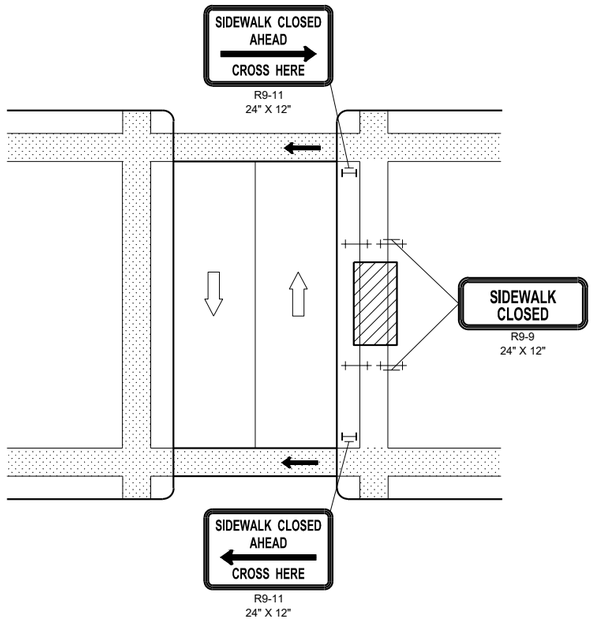


MID-BLOCK SIDEWALK SIDEWALK CLOSURE IN PARKING LANE

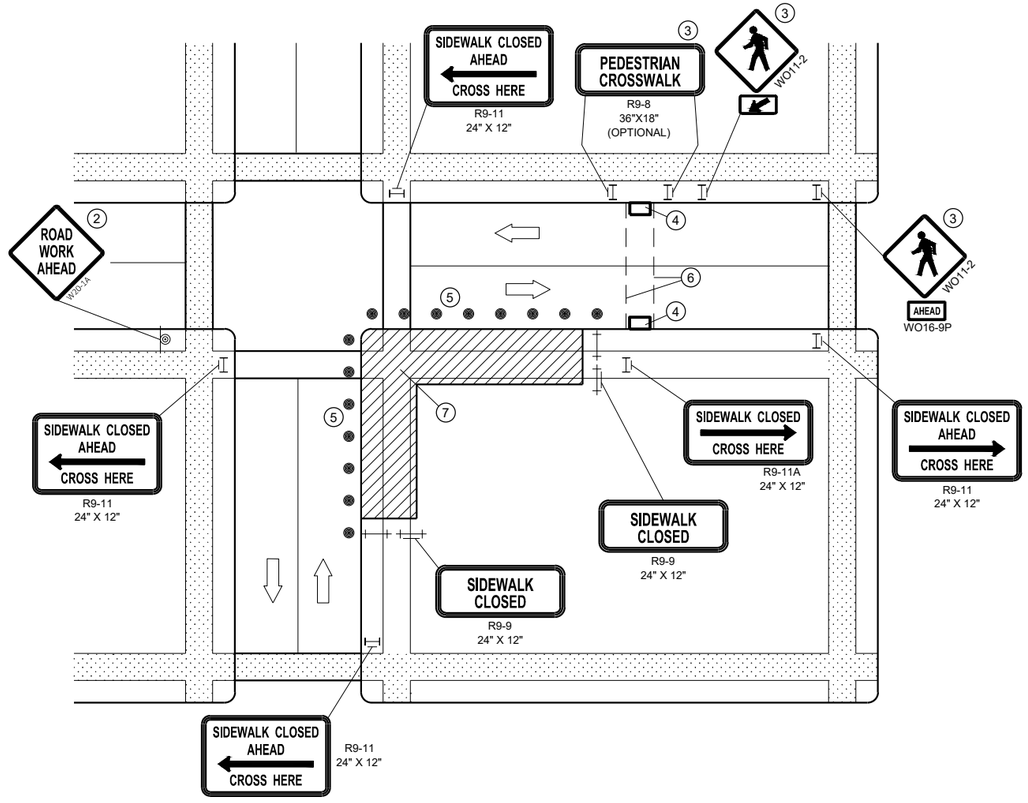
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

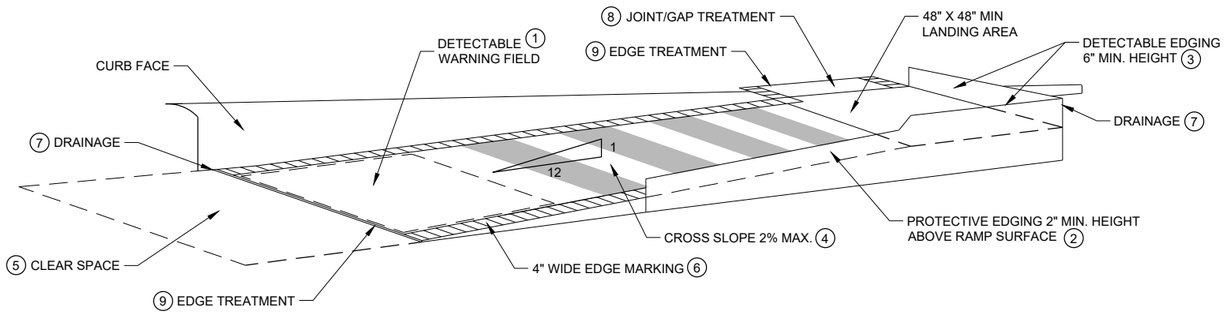
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

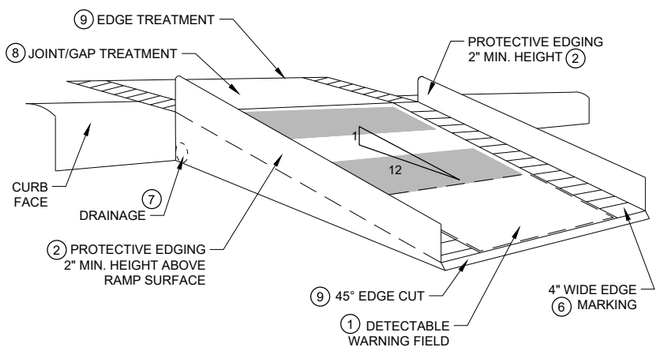
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

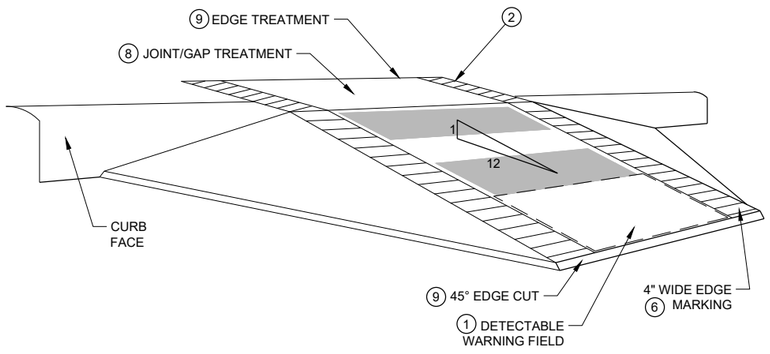
SDD15D30 - 05a



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

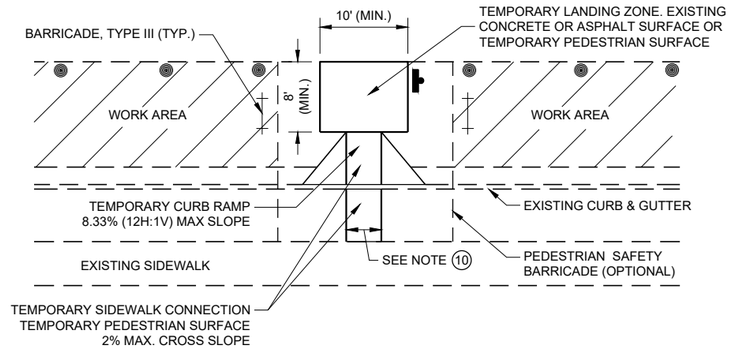
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- WORK AREA

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

1. CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
5. CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
6. THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
7. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
8. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
9. CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES SHALL BE VERTICAL UP TO ¼" HIGH AND BEVELED AT 1:2 BETWEEN ¼" AND ½".
10. 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



TEMPORARY BUS STOP PAD

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D30 - 05b

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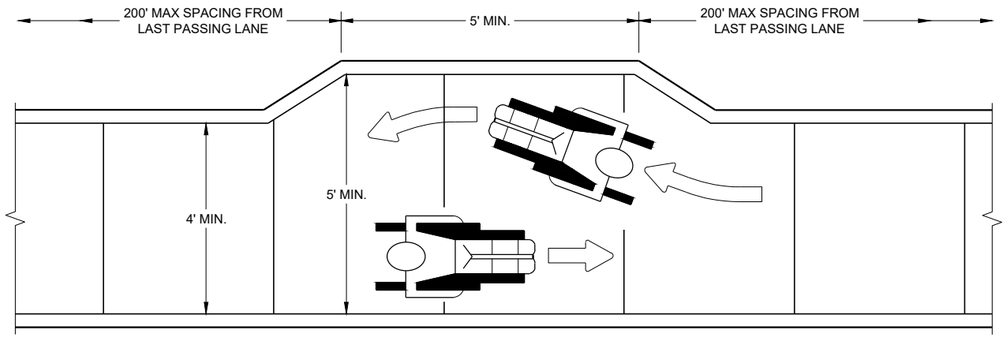
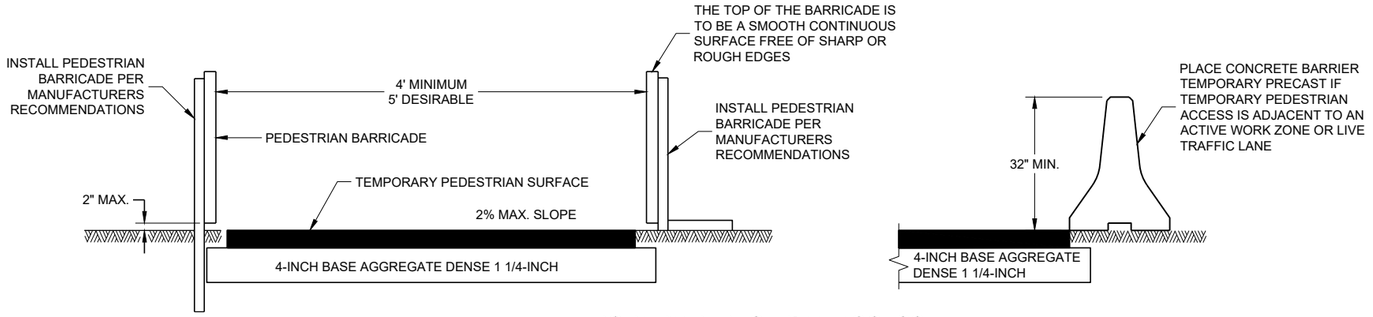
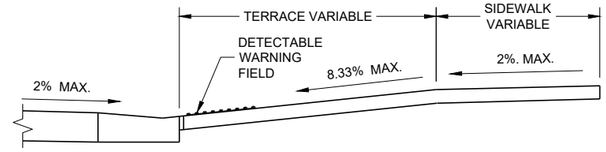
SDD 15D30 - 05b



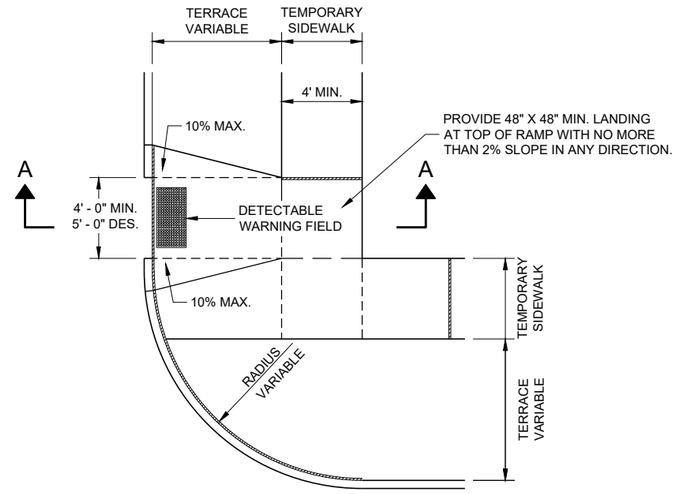
NARROW SIDEWALK PASSING DETAIL



TEMPORARY PEDESTRIAN ACCESS



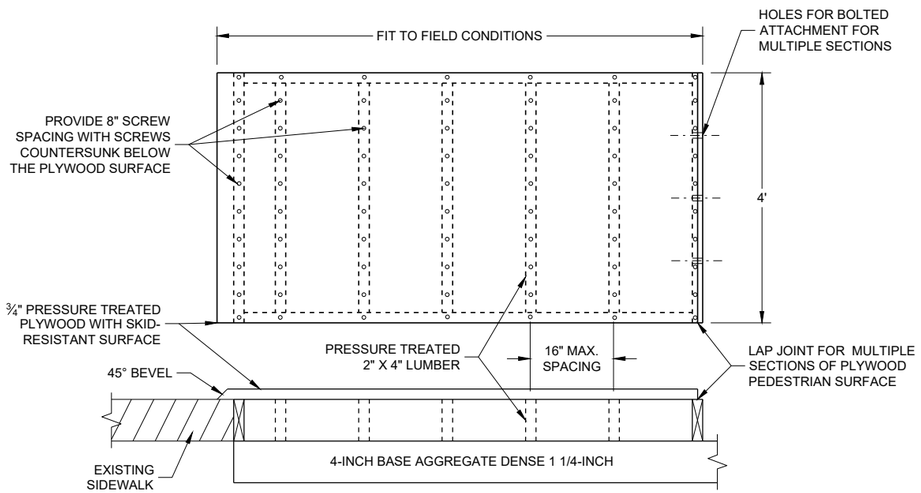
SECTION A - A



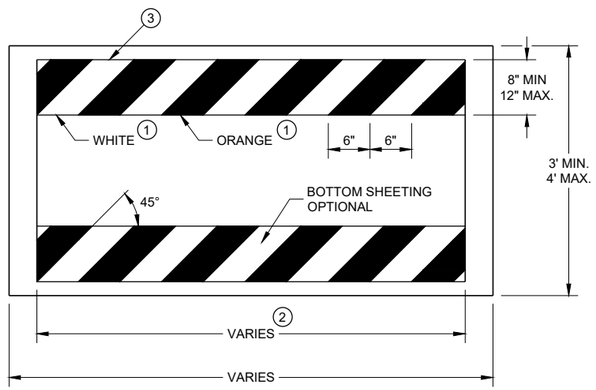
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D30 - 05c

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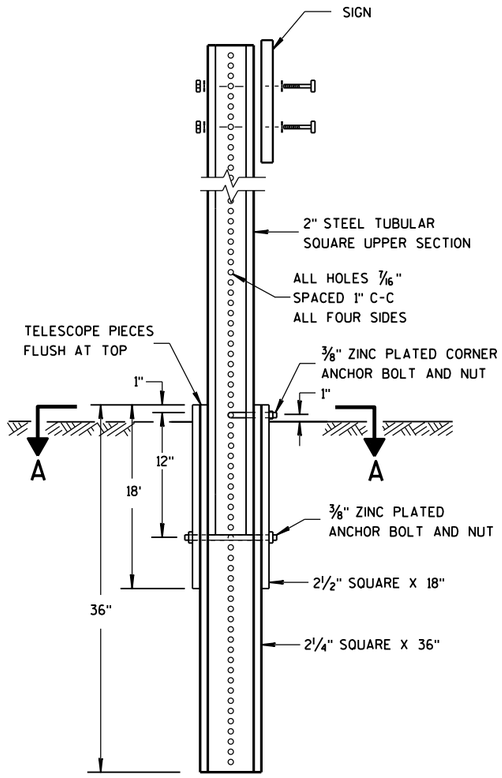
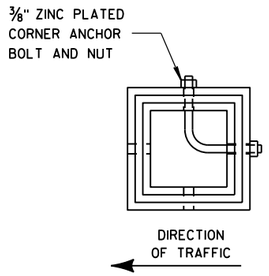
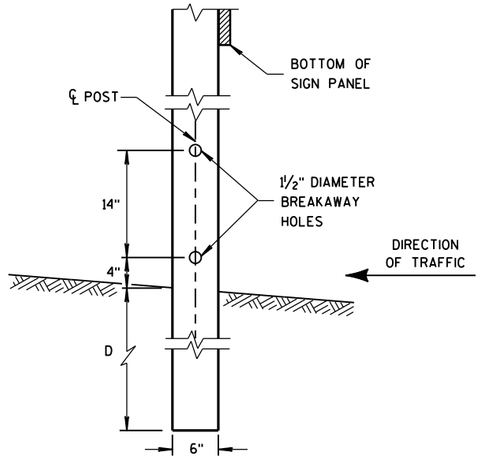
SDD 15D30 - 05c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



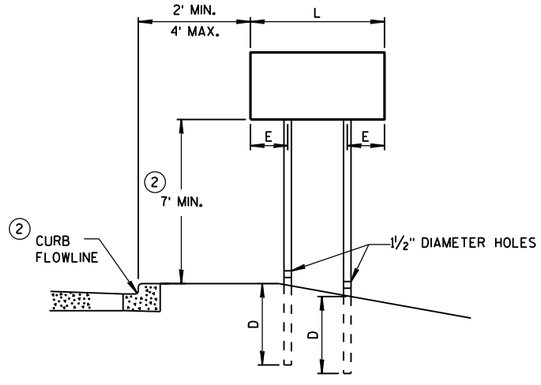
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

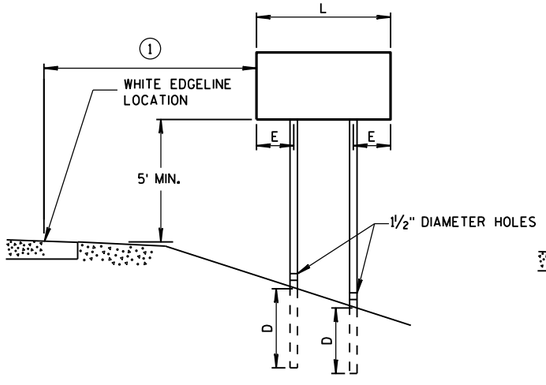
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

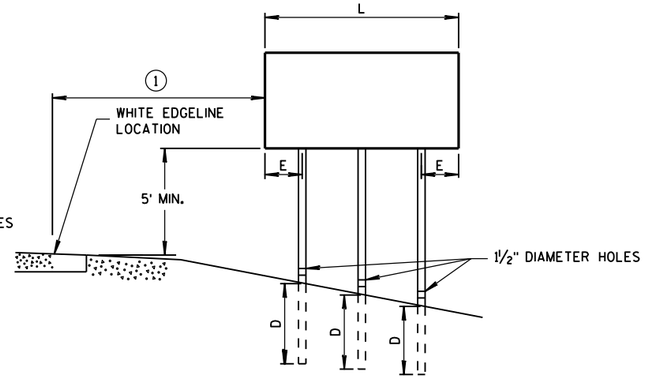
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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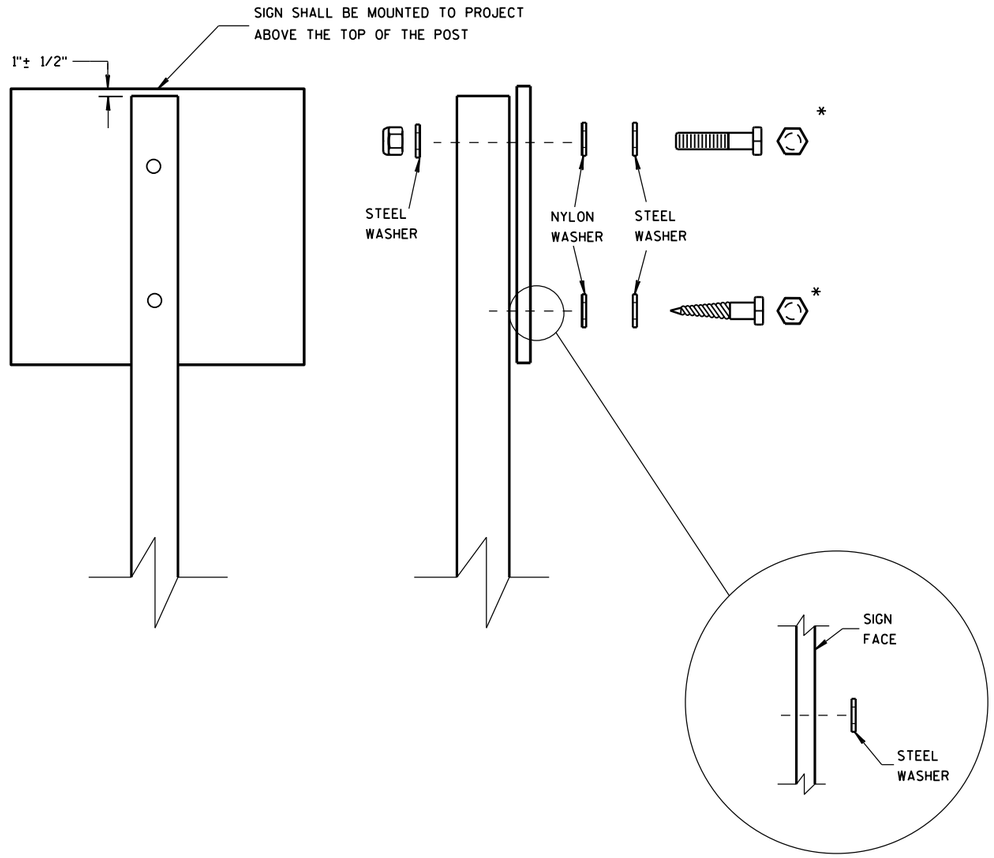
S.D.D. 15 D 38-2a
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

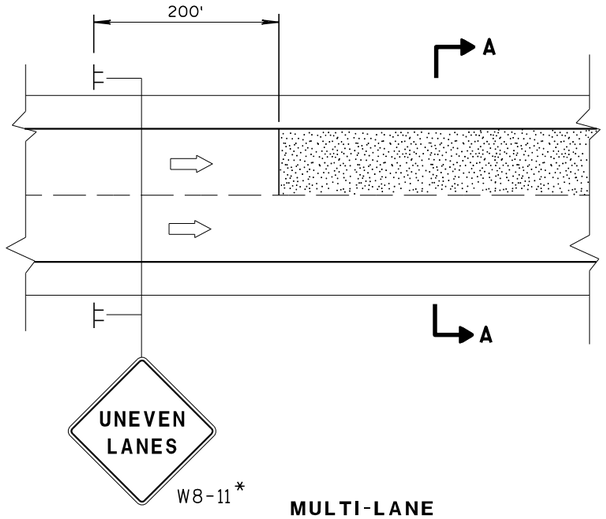
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

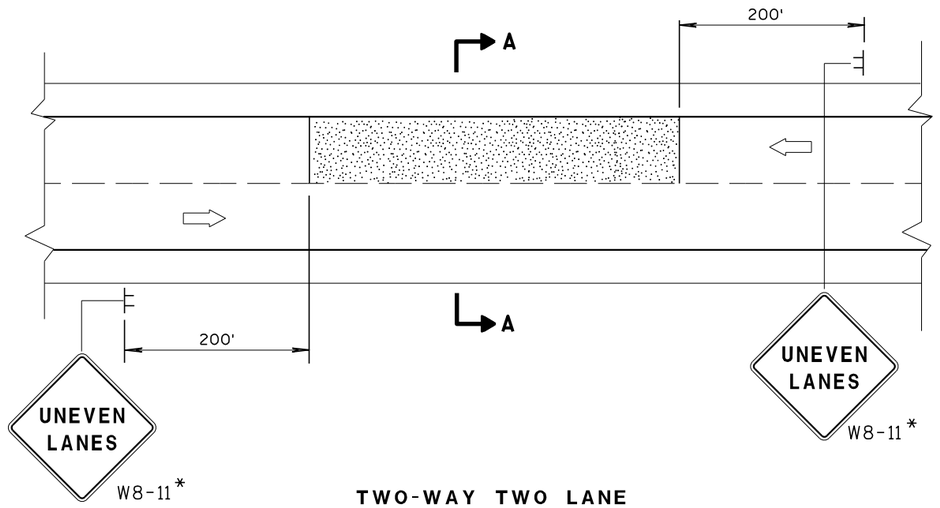
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

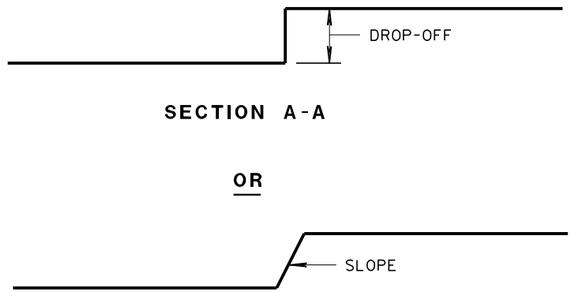
FHWA



MULTI-LANE



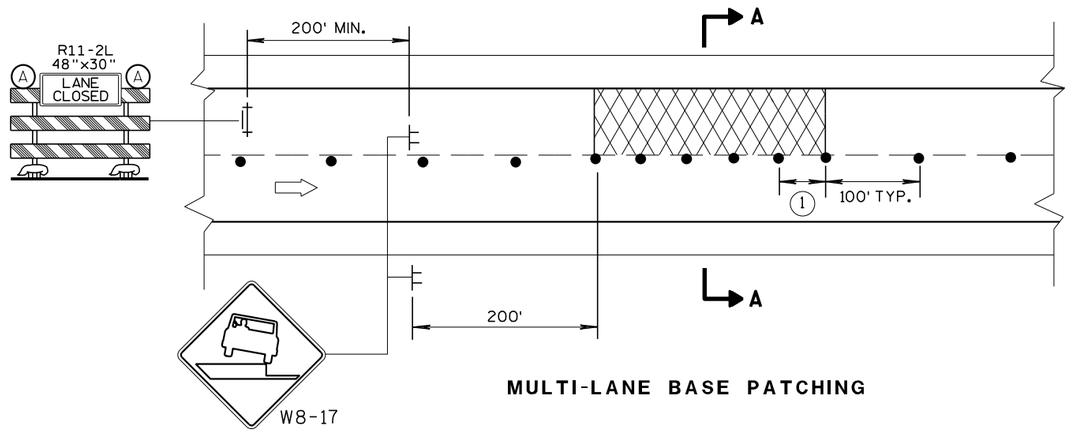
TWO-WAY TWO LANE



SECTION A-A

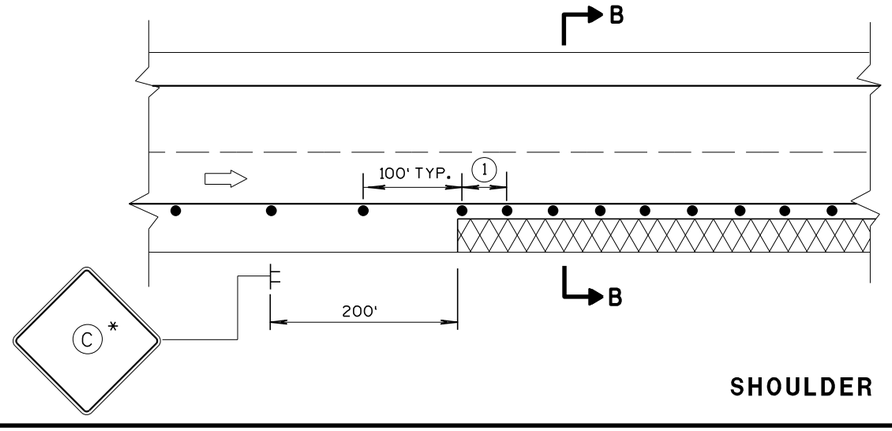
OR

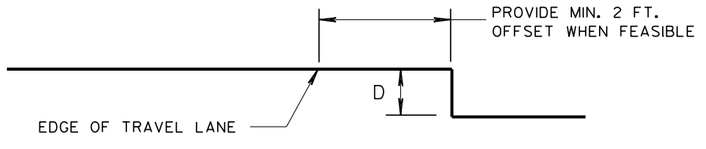
SECTION A-A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

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

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

LEGEND

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

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew H
WORK ZONE EN
FHWA

6

S.D.D. 15 D 39-2

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S.D.D. 15 D 39-2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

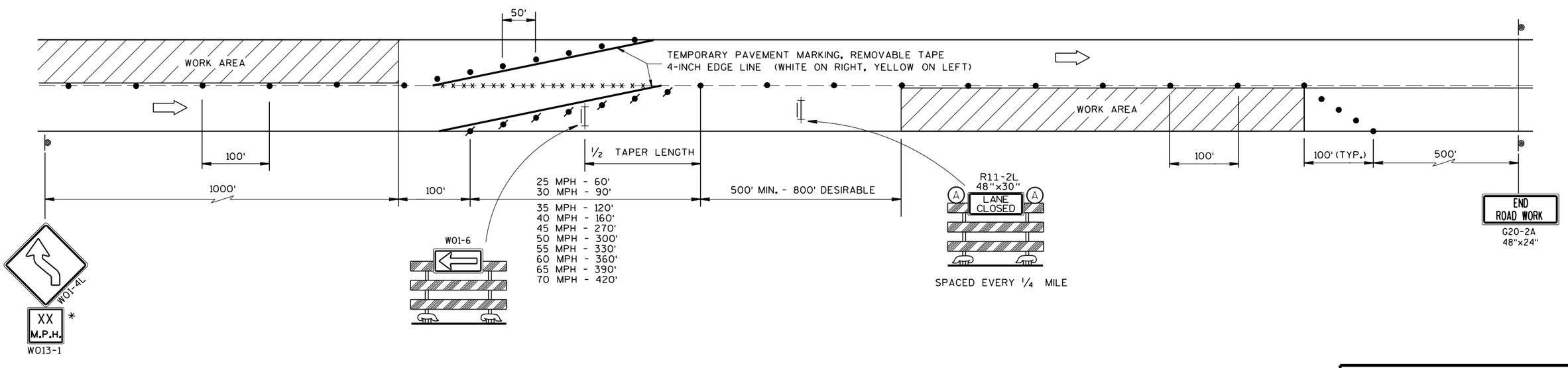
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew I
WORK ZONE E

FHWA

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S.D.D. 15 D 40-1

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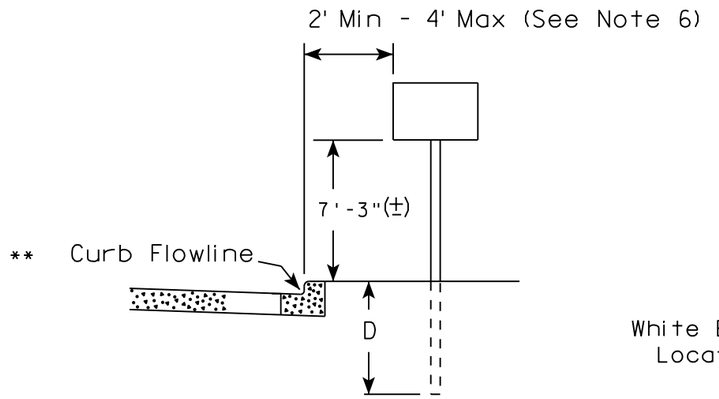
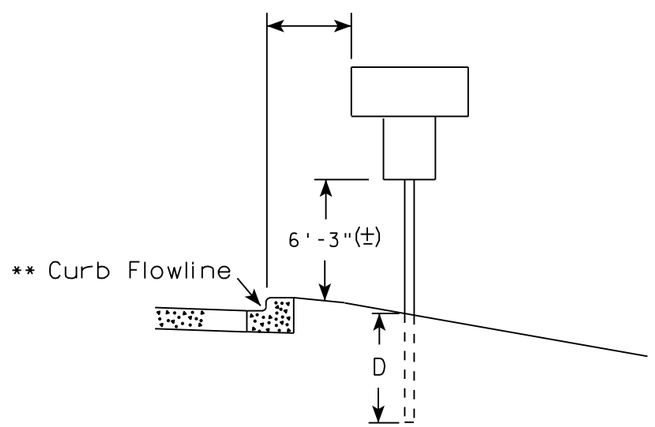
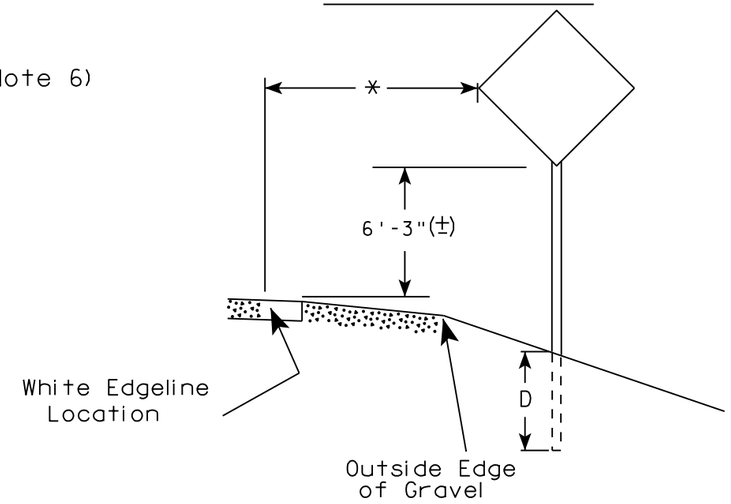
S.D.D. 15 D 40-1

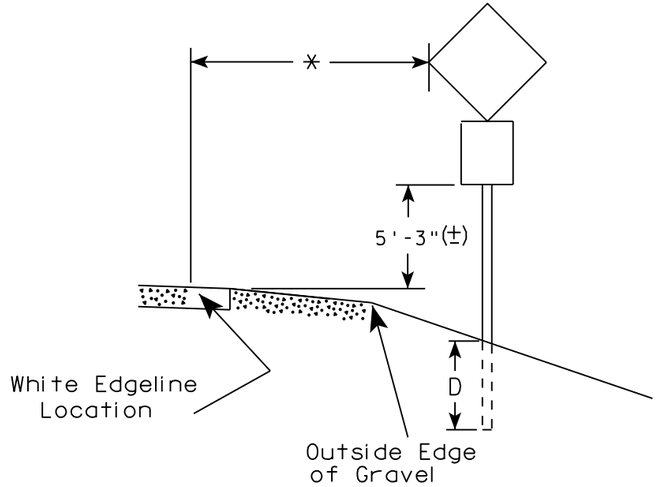
URBAN AREA





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 barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), 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" (±).

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

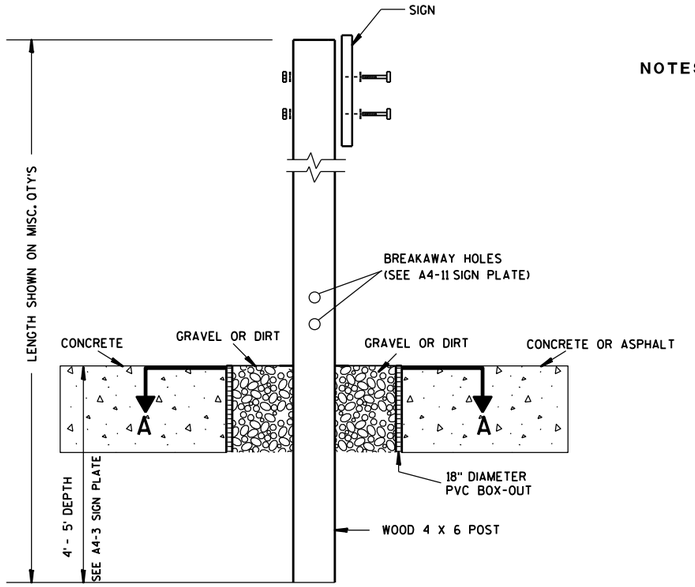
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

7

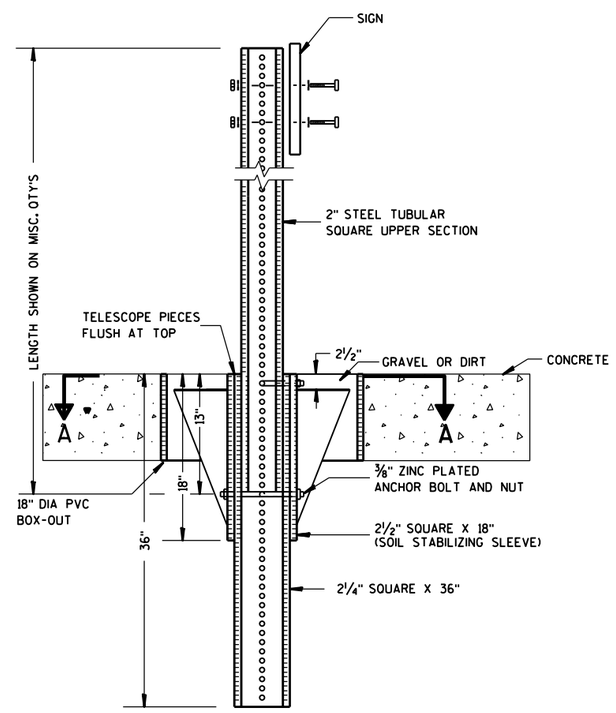
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 338	E



ELEVATION VIEW

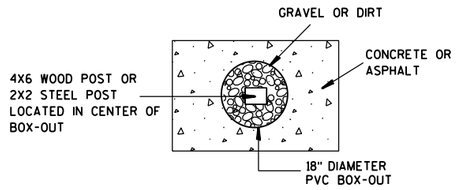
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

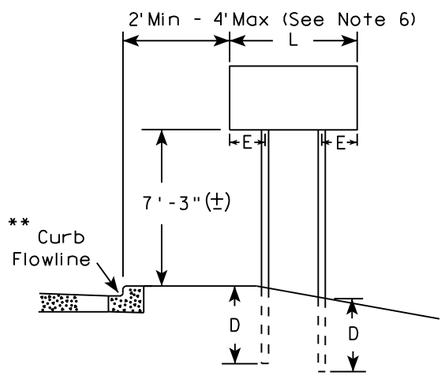
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

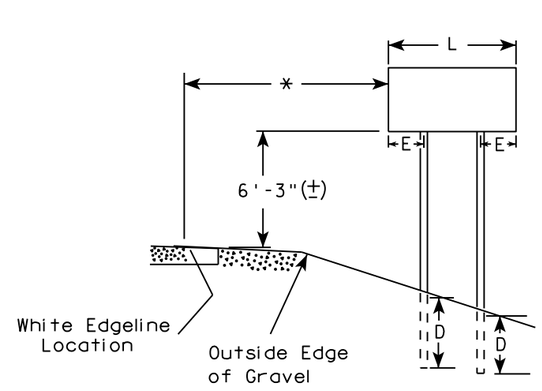
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

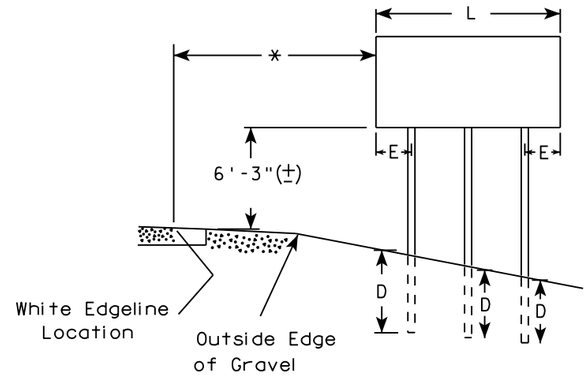
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

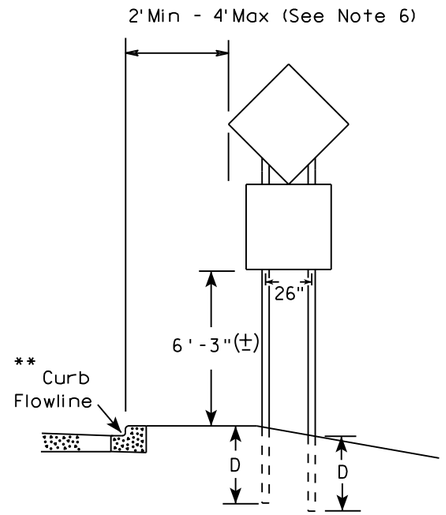
URBAN AREA



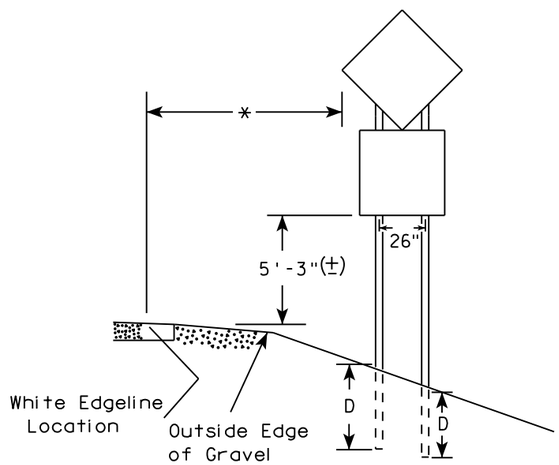
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

***

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

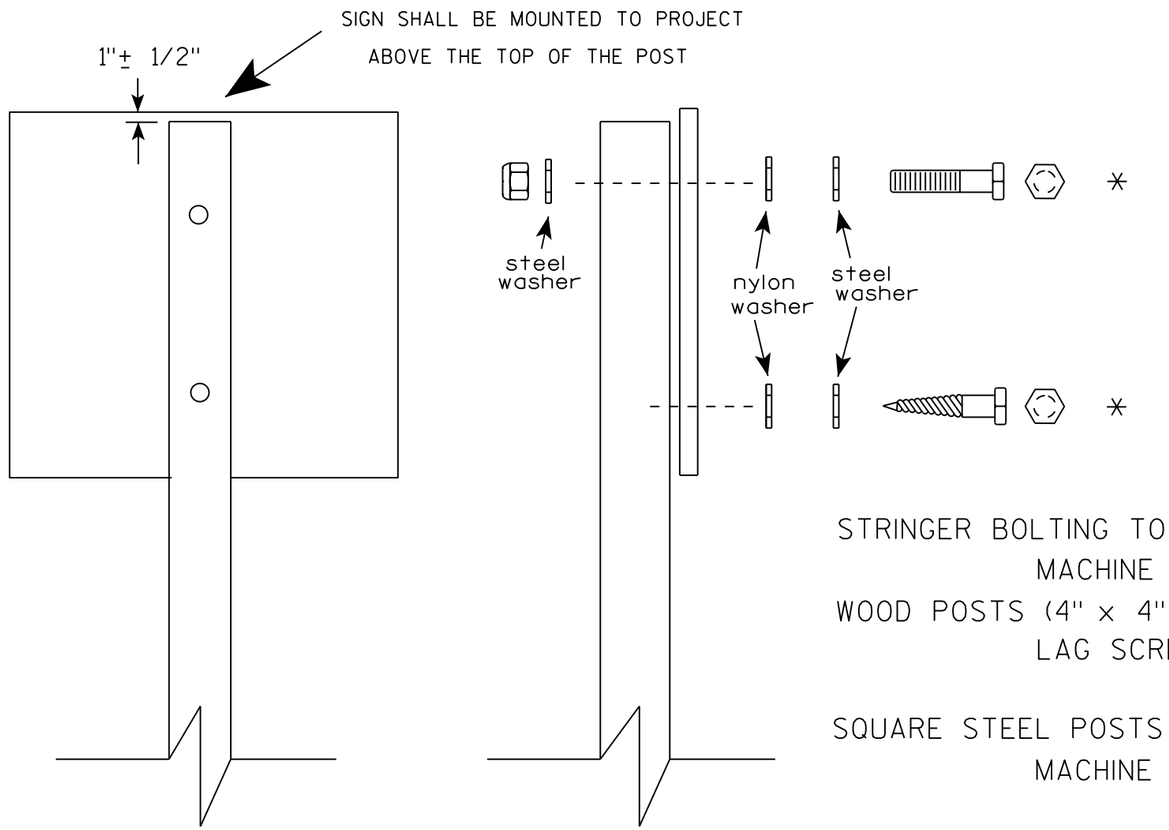
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 340	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

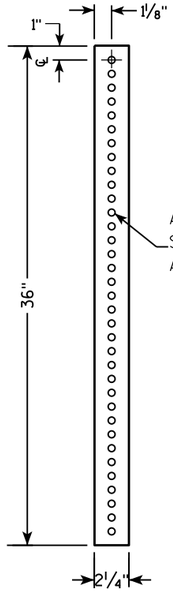
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

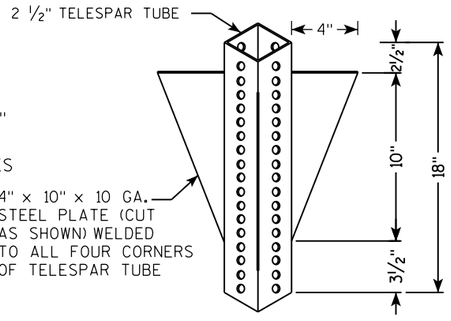
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

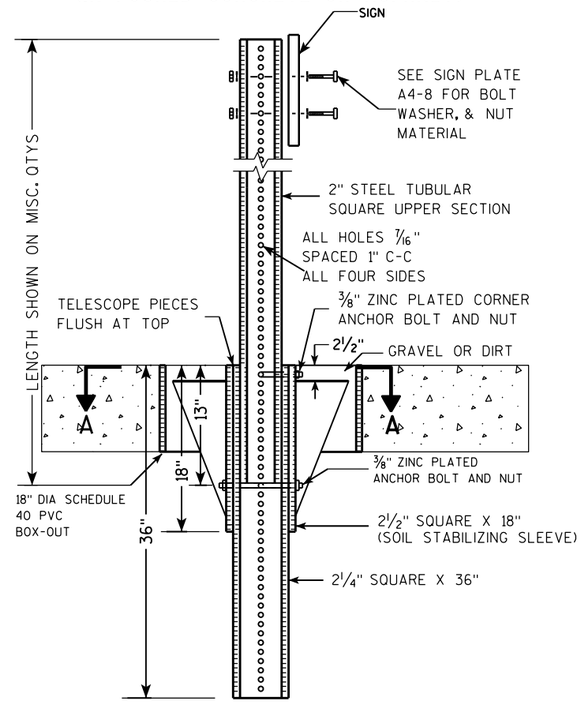
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



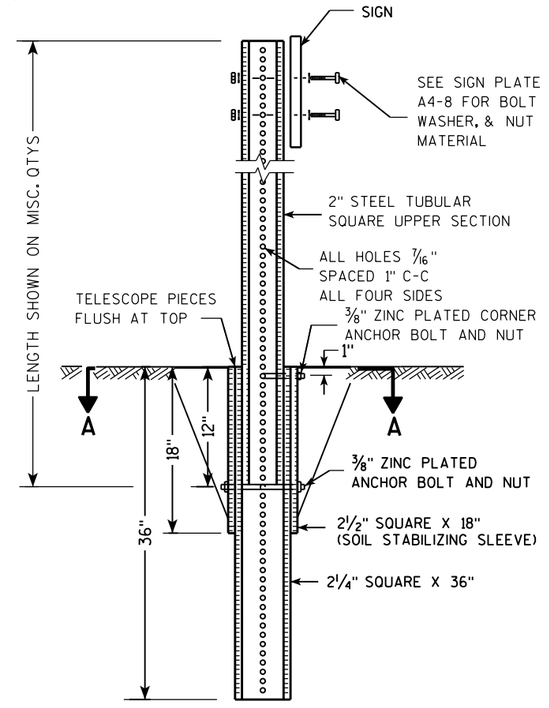
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

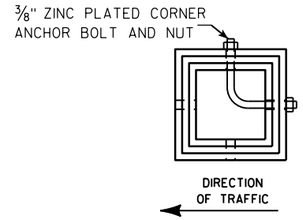


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

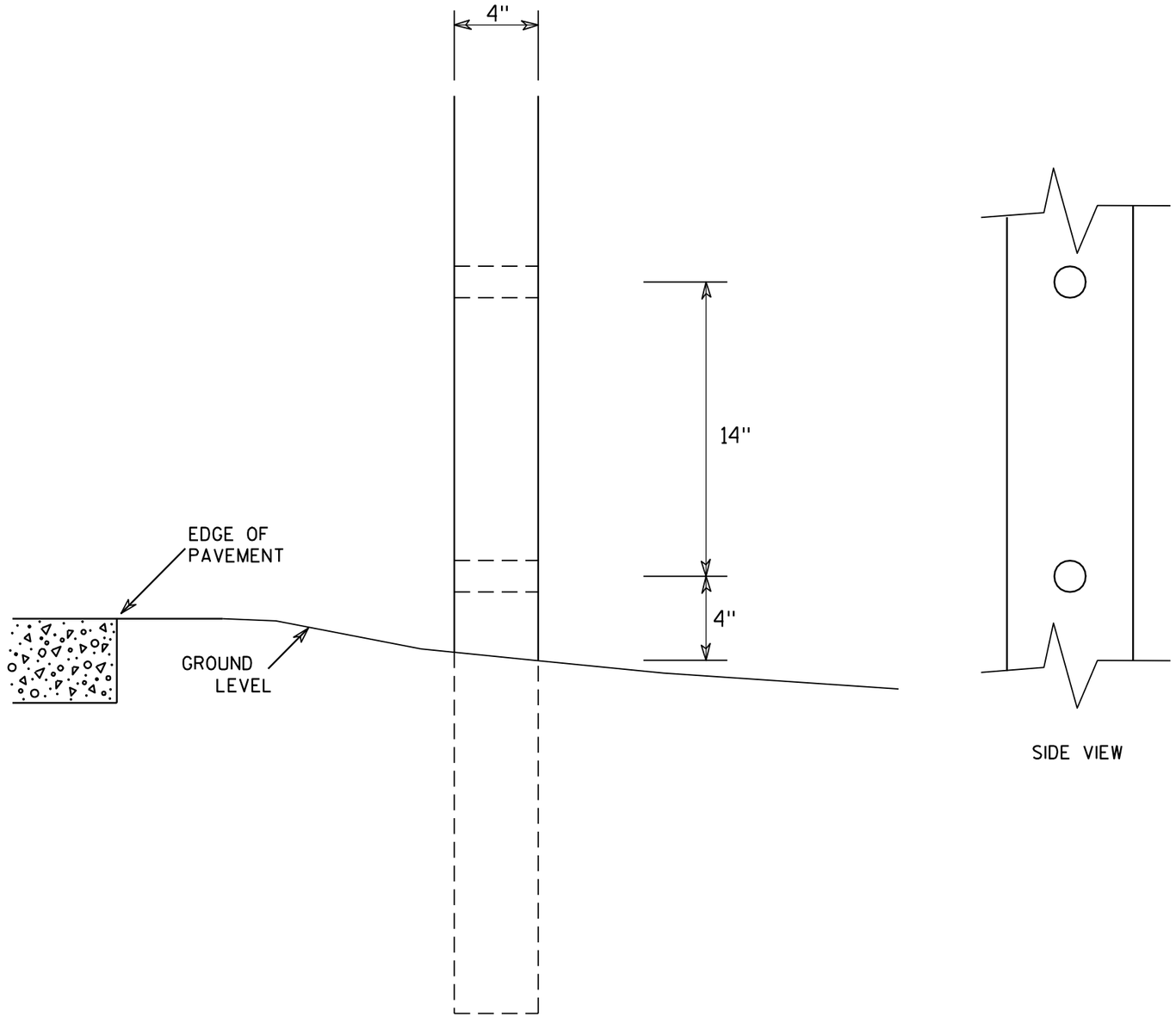
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 342 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

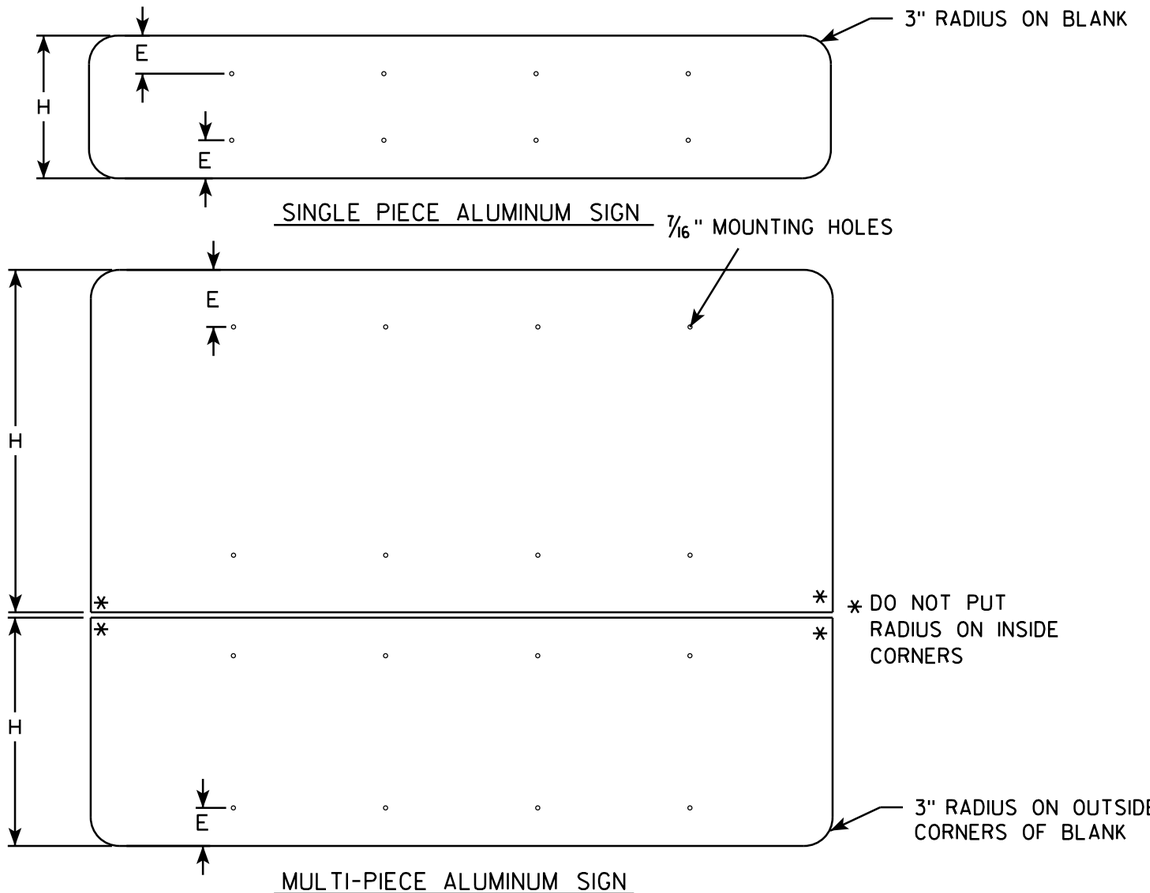
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

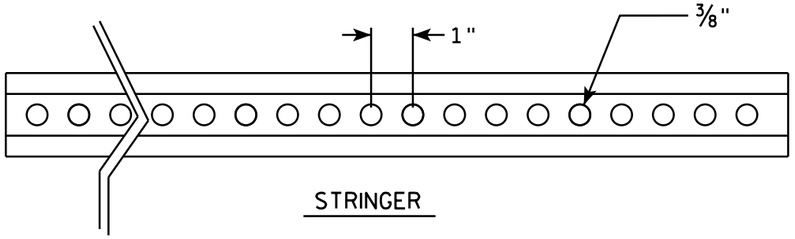
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E



GENERAL NOTES

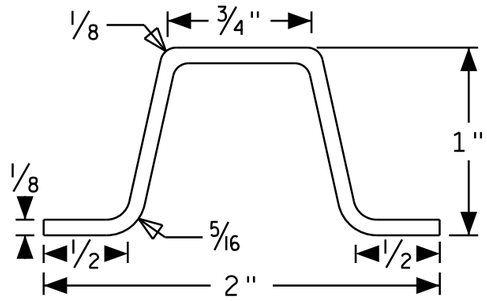
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

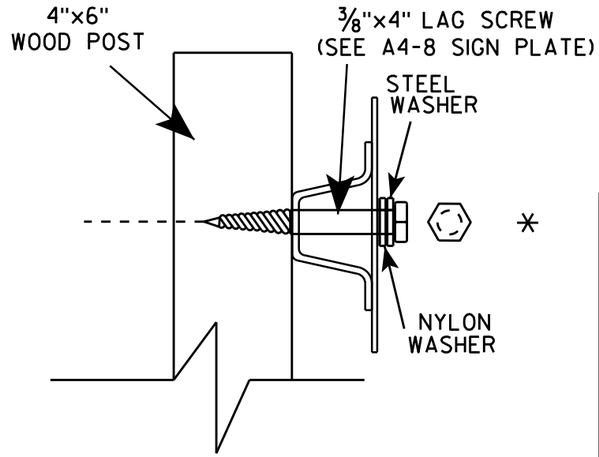


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

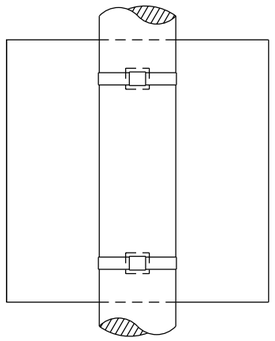
DATE 4/26/16 PLATE NO A4-18.1

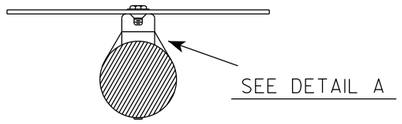
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

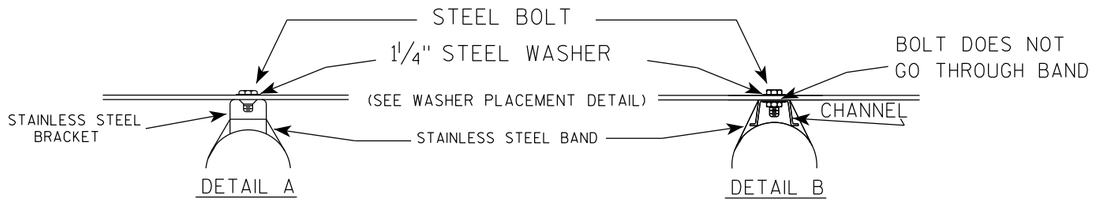
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

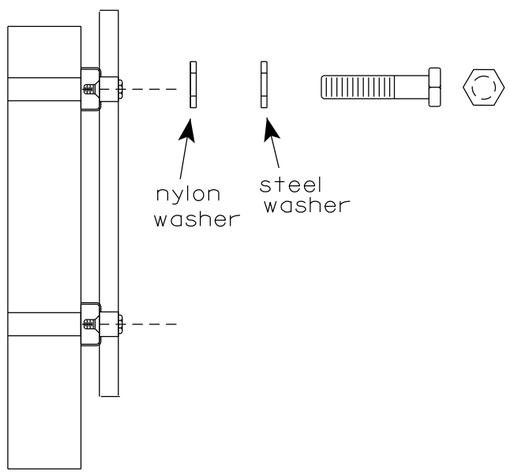
SINGLE SIGN







WASHER PLACEMENT

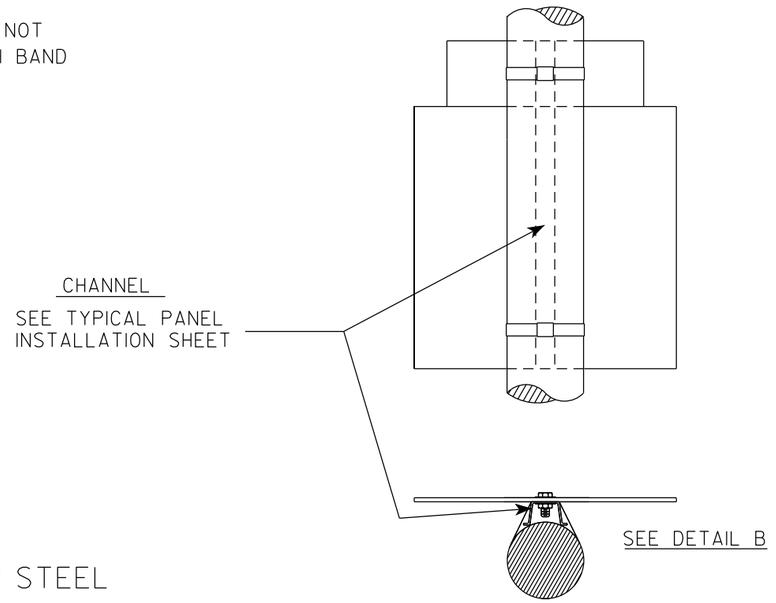


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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 ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

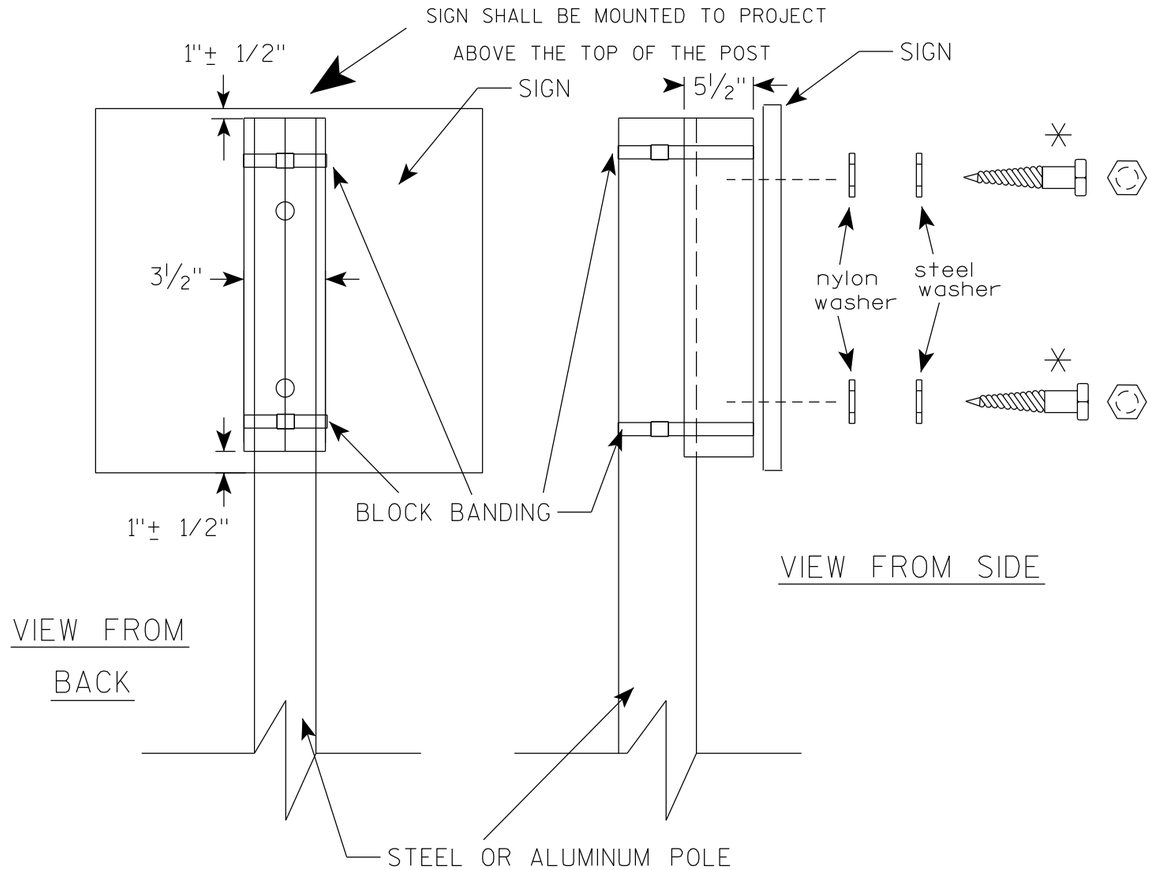
DATE 6/10/19 PLATE NO. A5-9.4

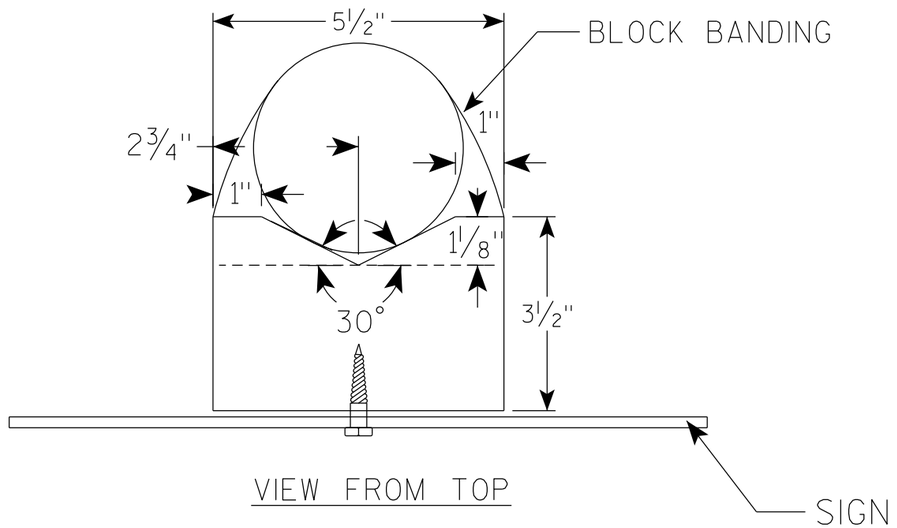
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

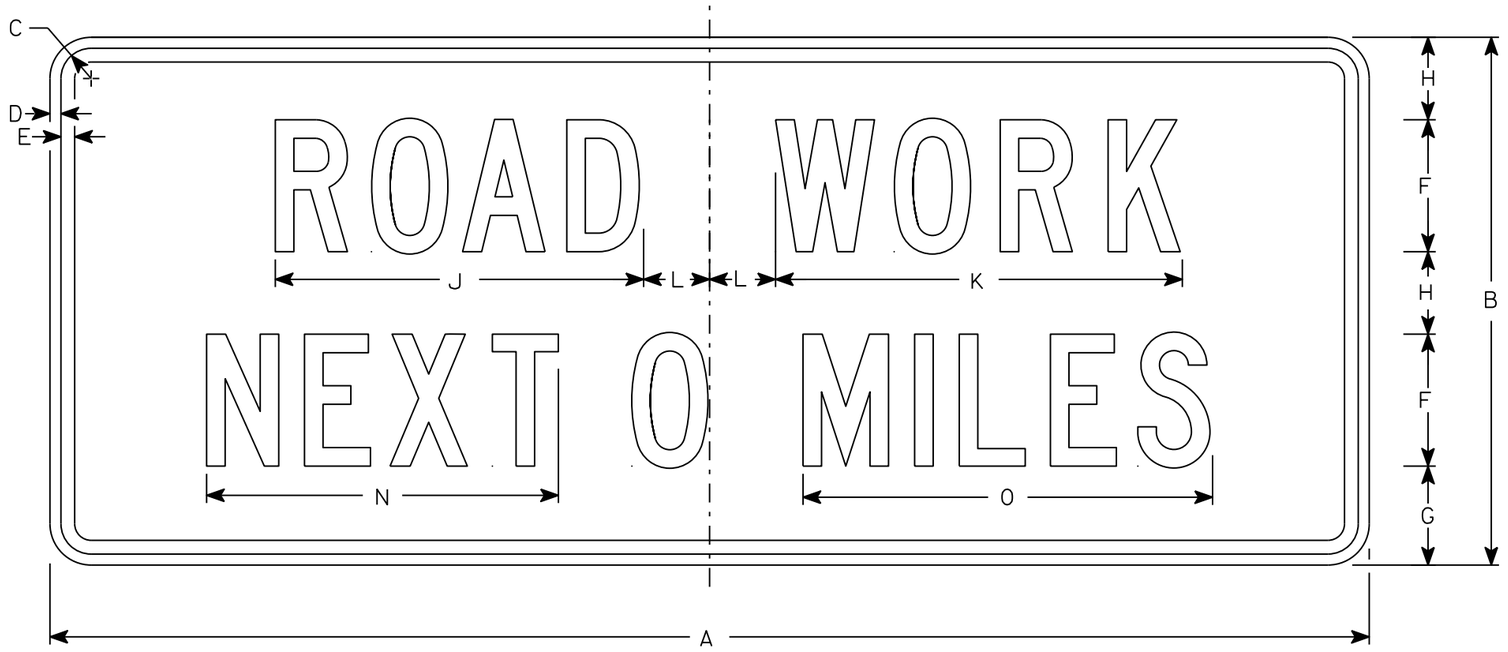
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:

SHEET NO: 346 E



G20-1

NOTES

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

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	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10
5																											

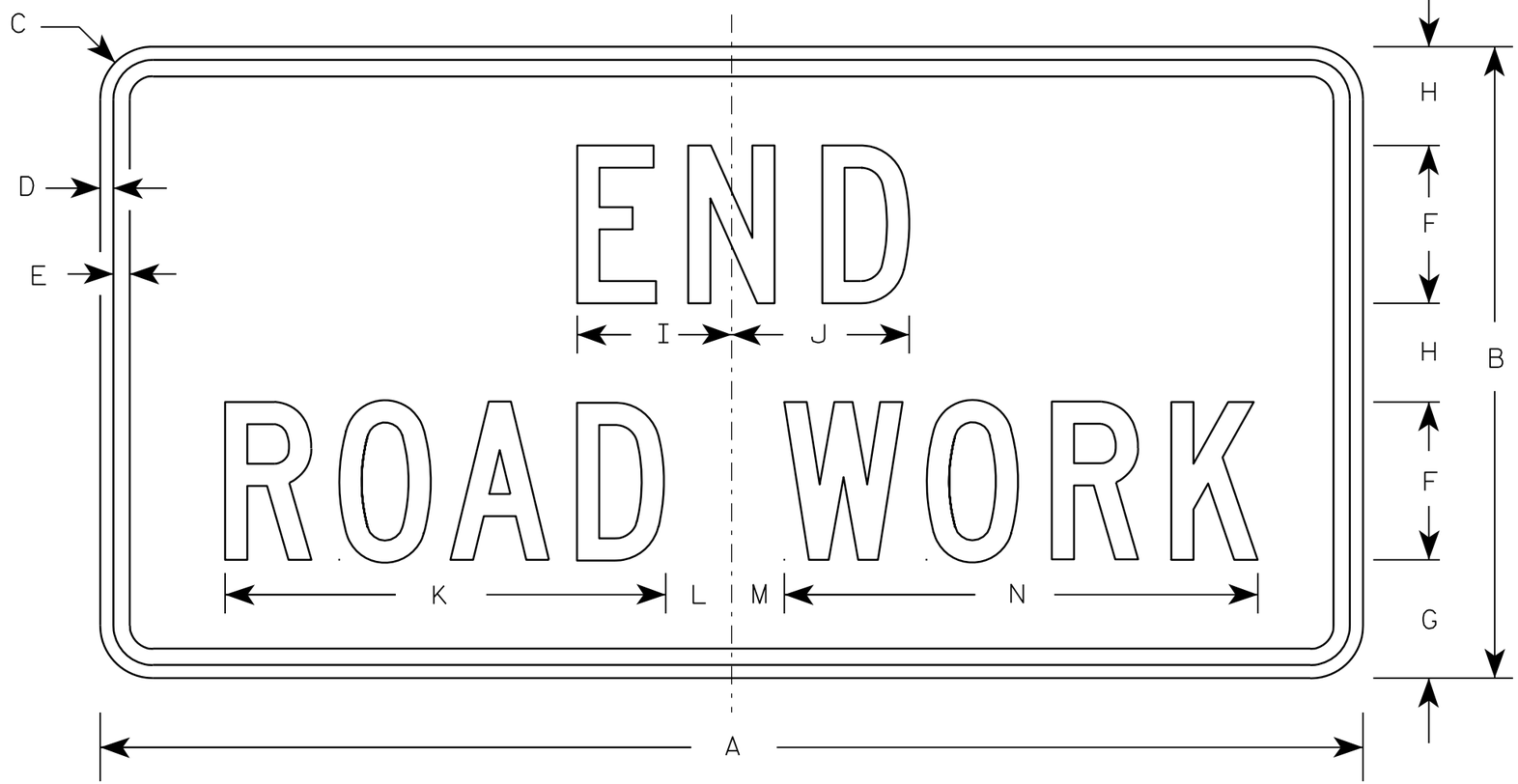
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 347 | E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

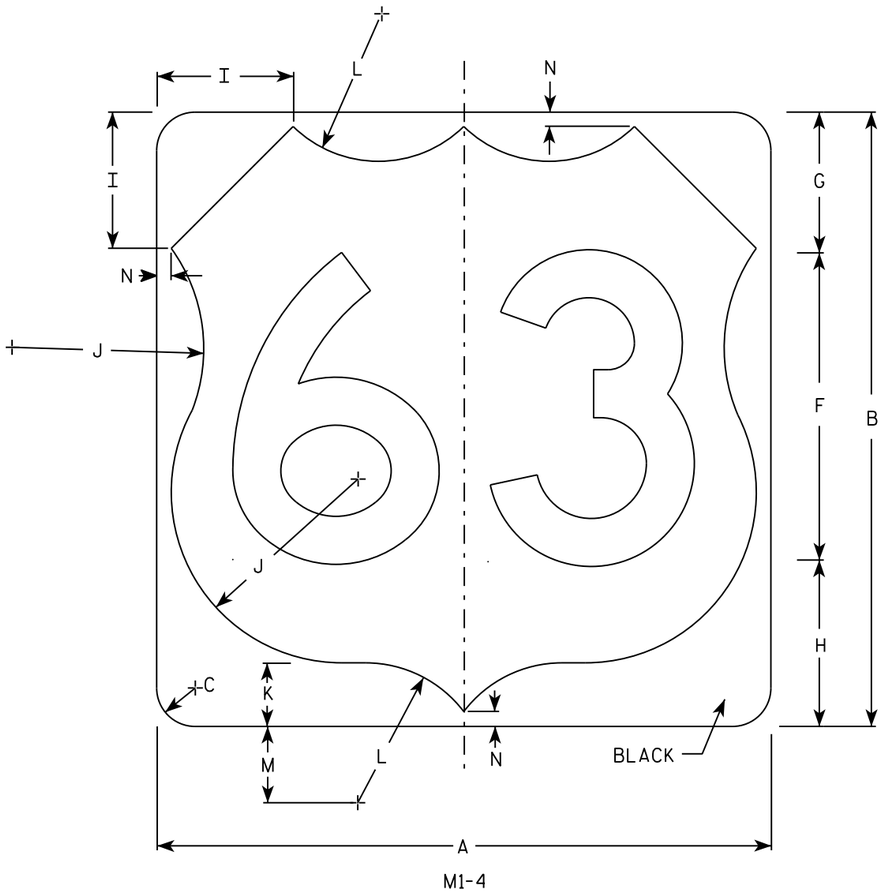
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

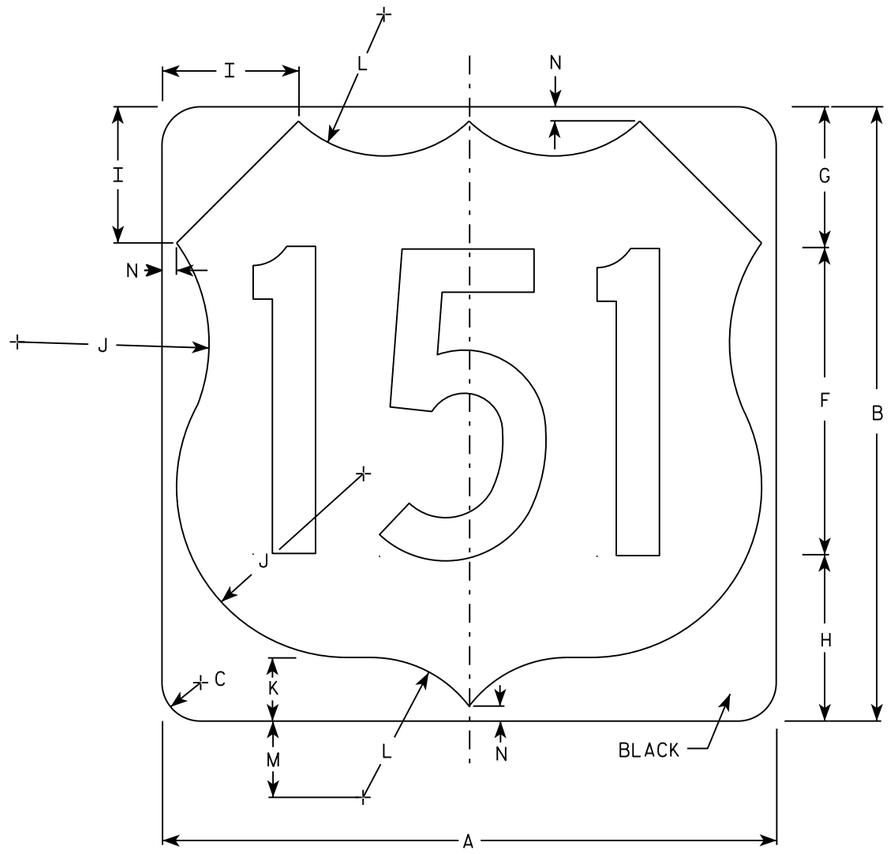
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 348	E

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
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.



M1-4



M1-4

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																											
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
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

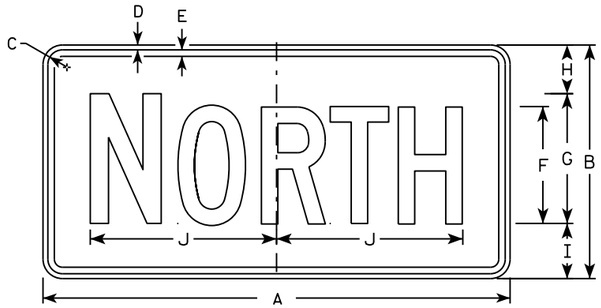
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

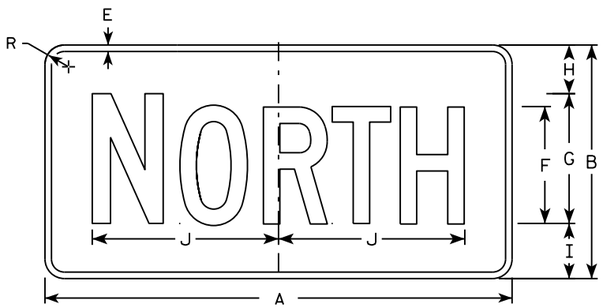
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 349 | E



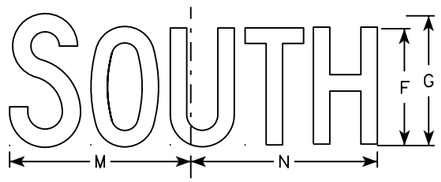
M3-1
MM3-1
MP3-1



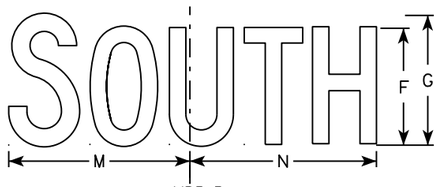
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

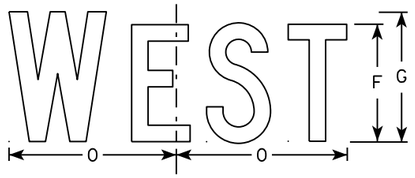
MB3-2
MK3-2
MN3-2



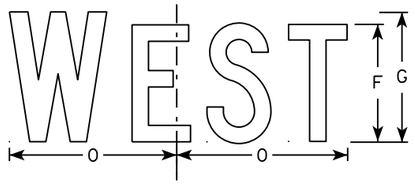
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

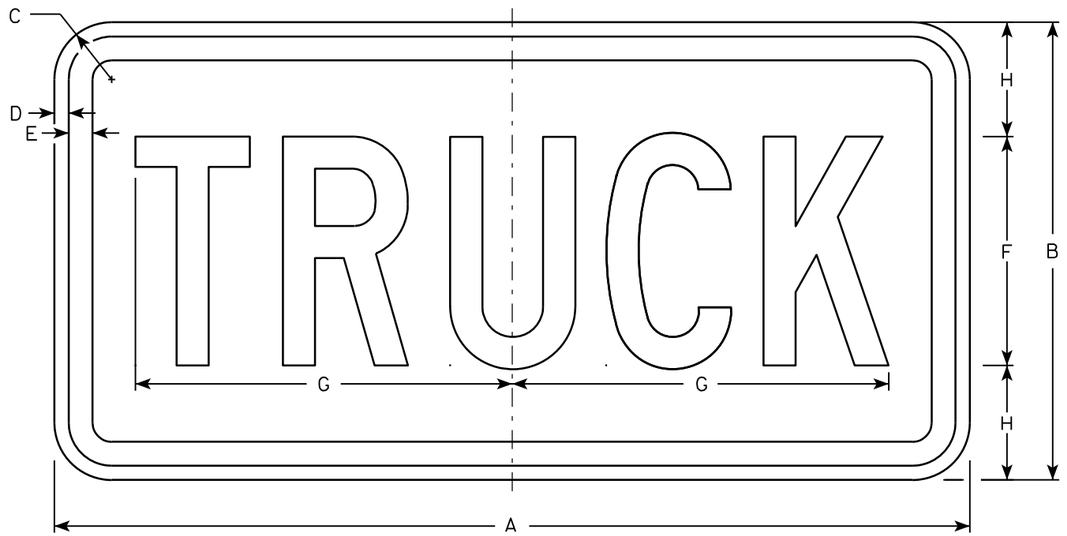
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

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



M4-4

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   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. Permanent Signs
   Background - Type H Reflective
   Temporary or other temporary Signs
   Background - Reflective

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	9 7/8	3																			2.0
3	36	18	1 1/2	3/8	1/2	9	15 5/8	4 1/2																			4.5
4																											
5																											

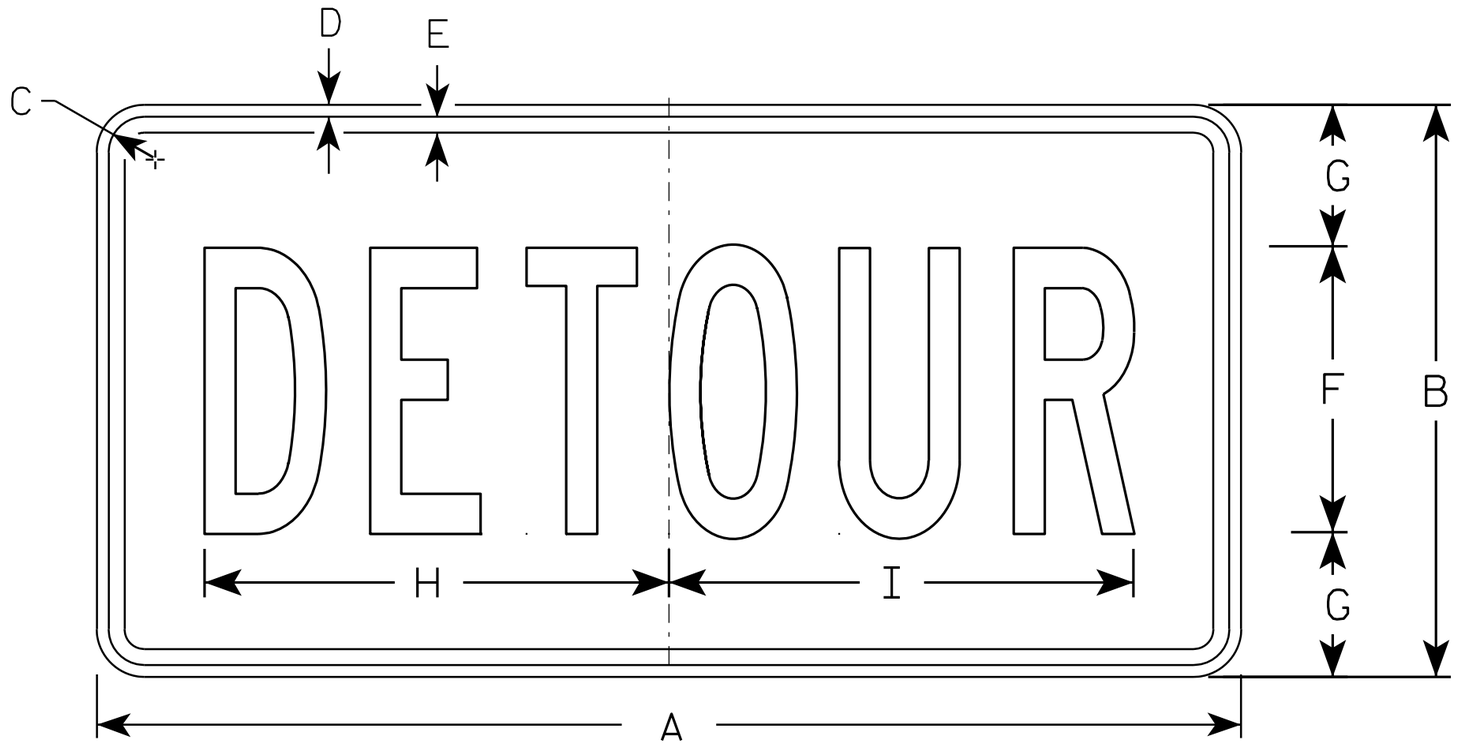
STANDARD SIGN
M4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 351 | E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

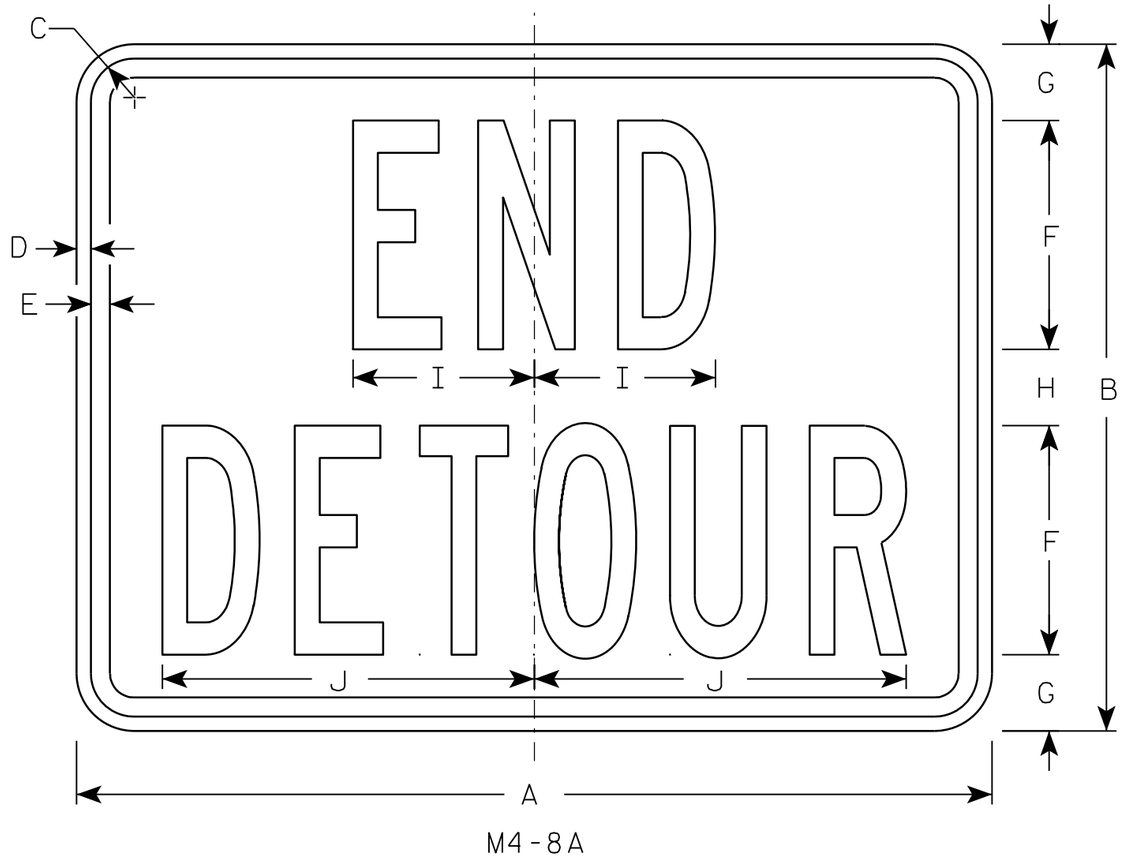
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 352	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

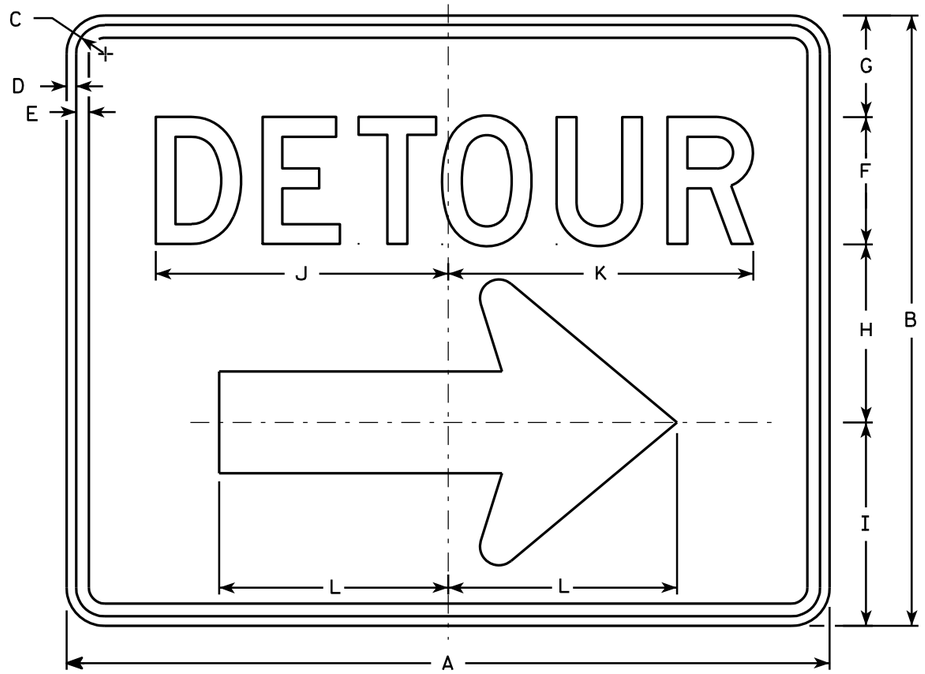
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

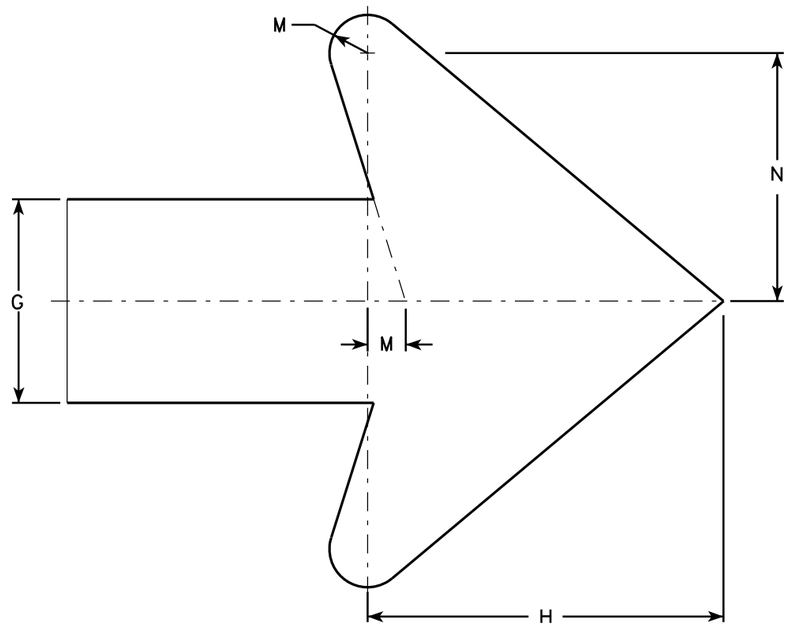
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 353	E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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. M4-9L 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 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	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 3/8	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

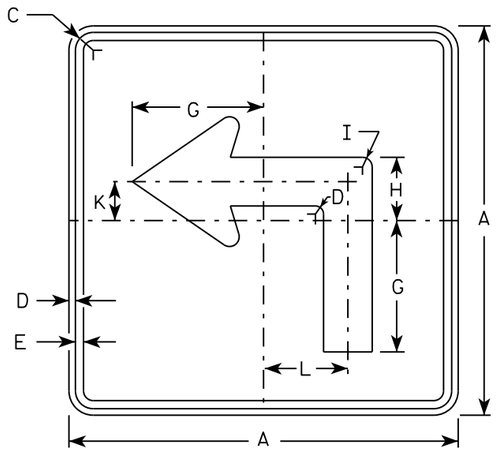
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

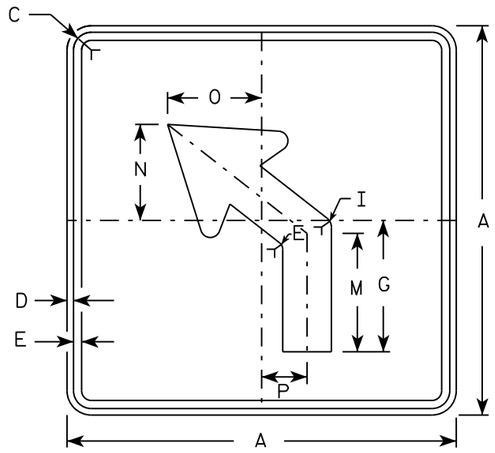
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

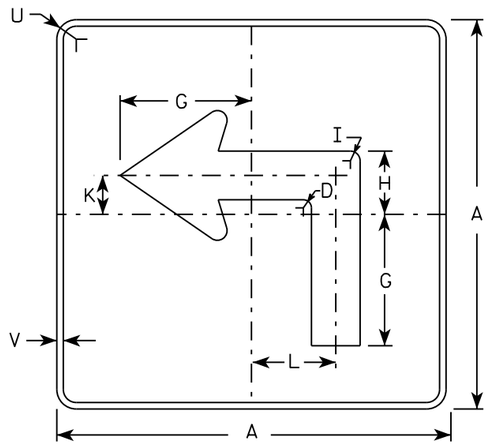
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 354 | E



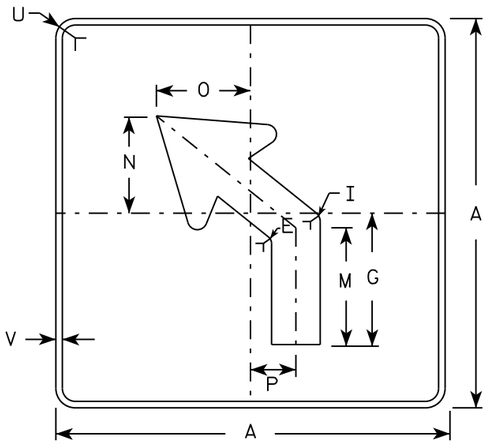
M5-1L
MM5-1L
MO5-1L
MP5-1L



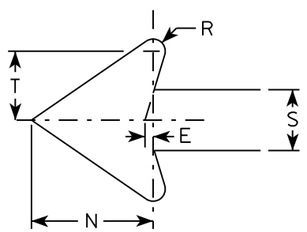
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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	21		1 1/8	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 1/2	1/2					3.06
3	30		1 3/8	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 7/8	1/2					6.25
4	30		1 3/8	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 7/8	1/2					6.25
5	30		1 3/8	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 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

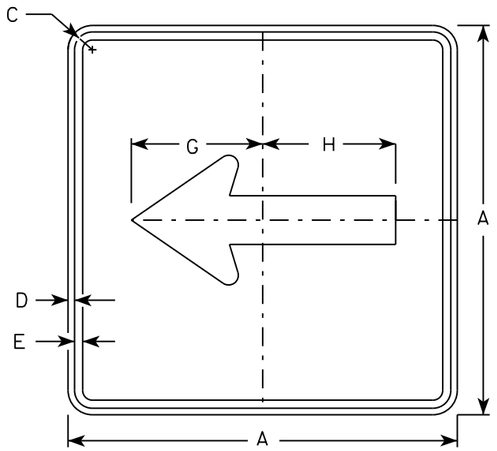
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

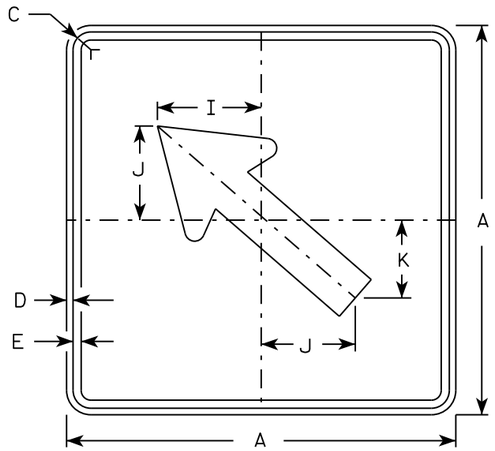
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



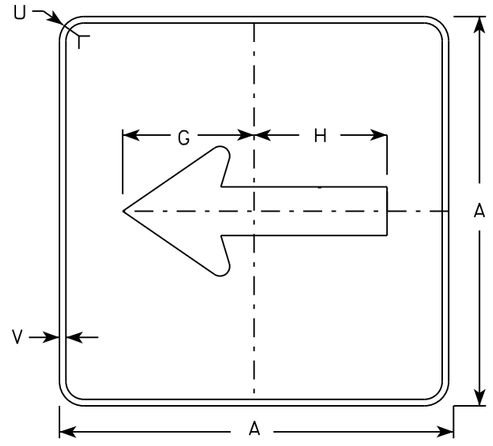
M6-1
MM6-1
MO6-1
MP6-1



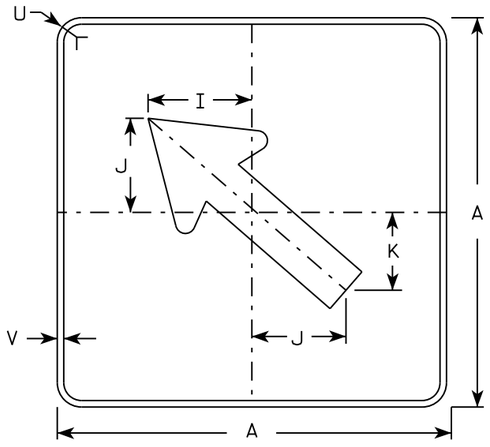
M6-2
MM6-2
MO6-2
MP6-2

NOTES

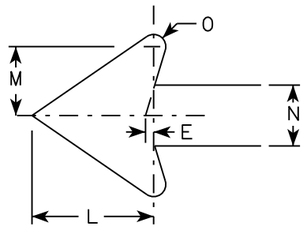
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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
   MO6-1 and MO6-2 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



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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	21		1 1/8	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 1/2	1/2						3.06
3	30		1 3/8	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 7/8	1/2						6.25
4	30		1 3/8	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 7/8	1/2						6.25
5	30		1 3/8	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 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

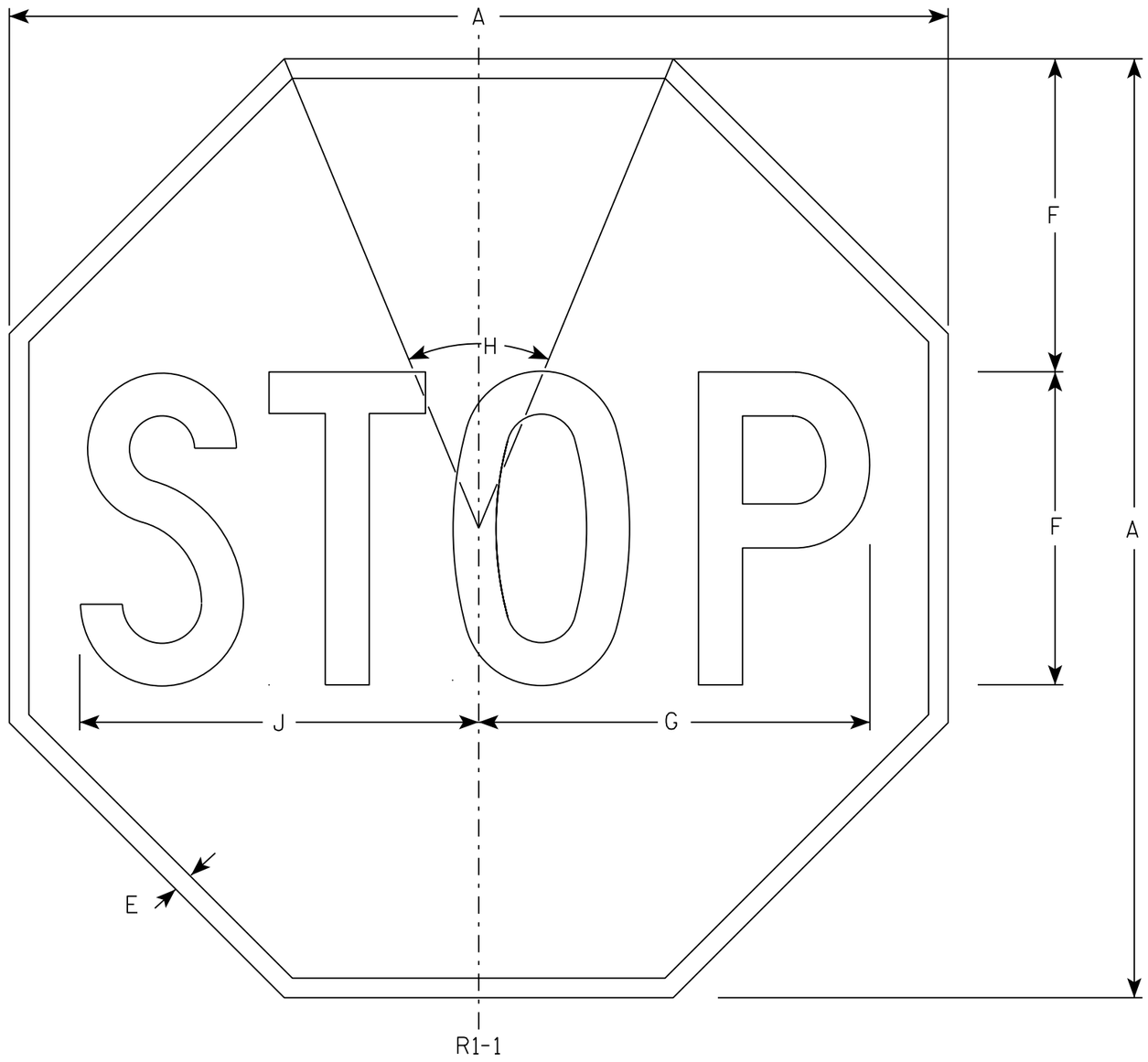
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 356 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

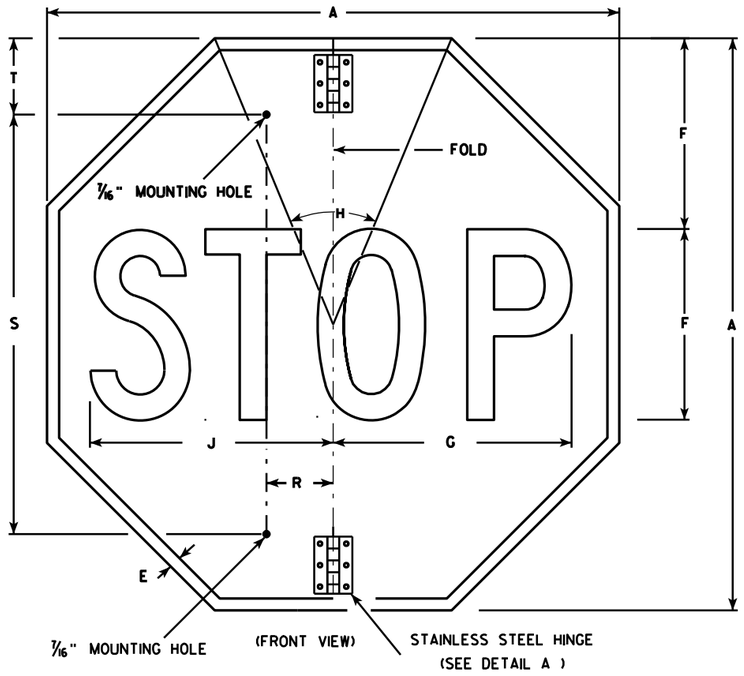
STANDARD SIGN
R1-1

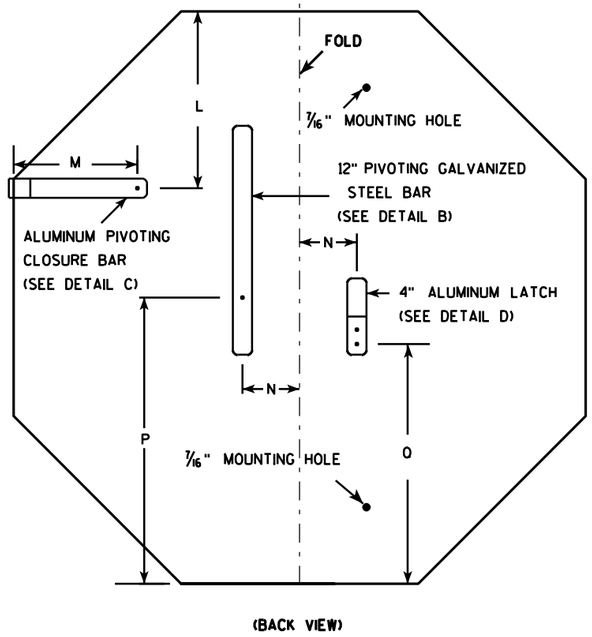
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

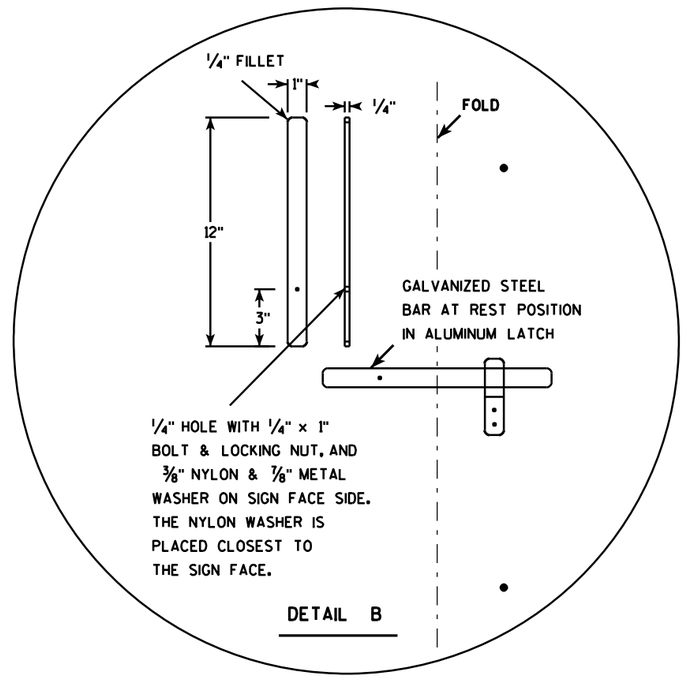
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 357	E

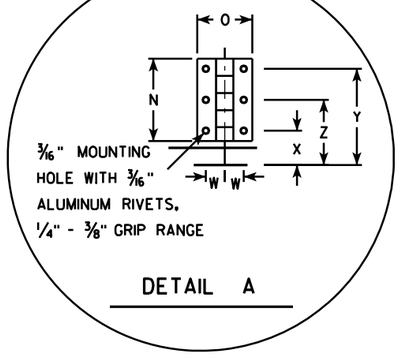


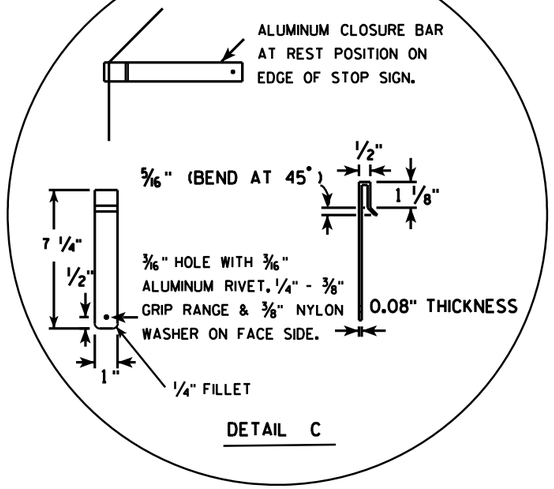


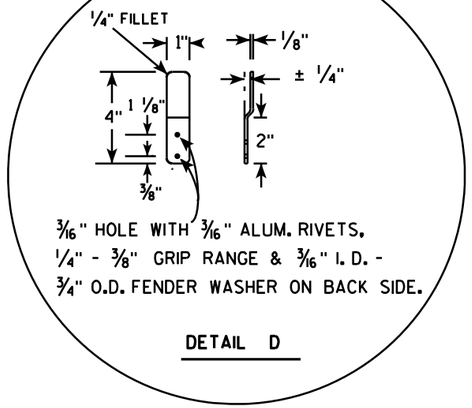
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

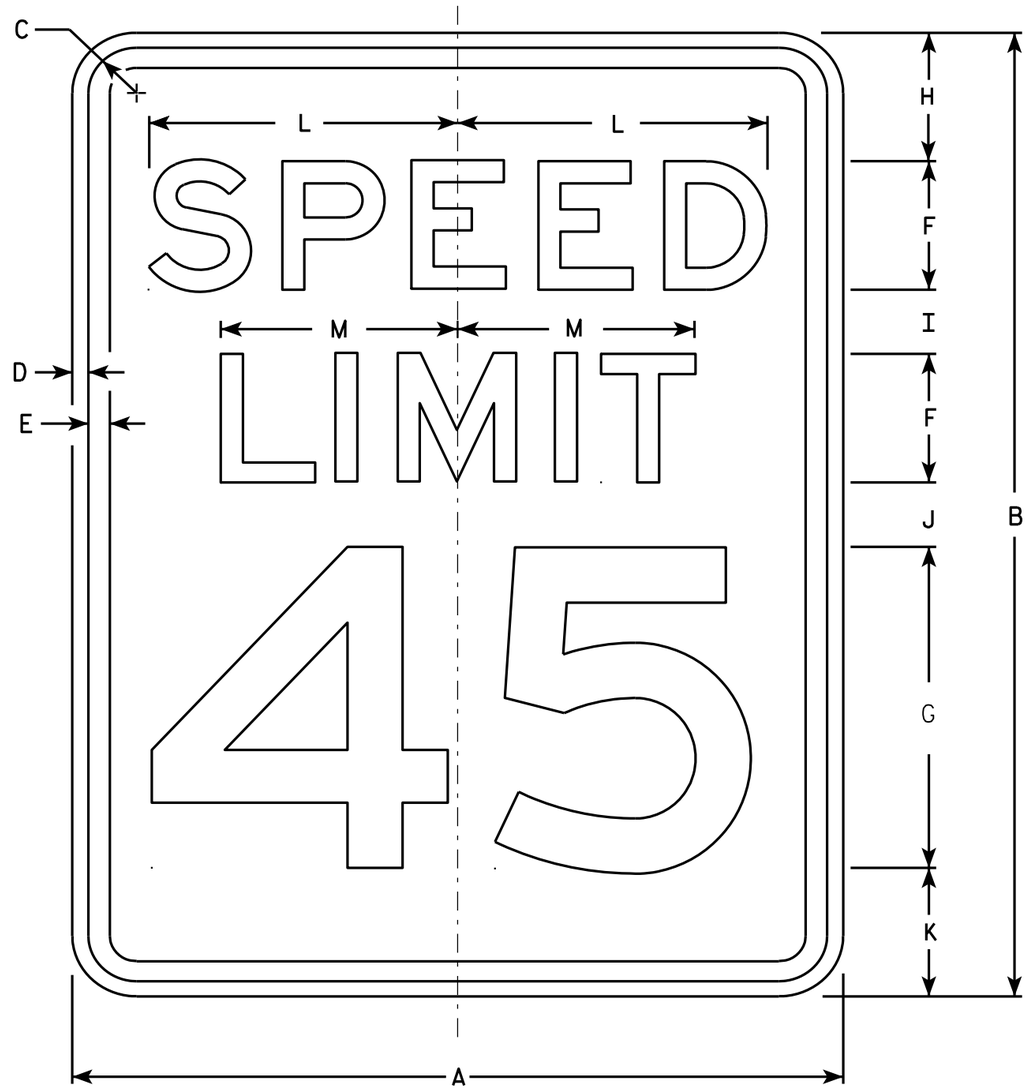
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 358	E



R2-1

NOTES

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

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 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	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 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	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

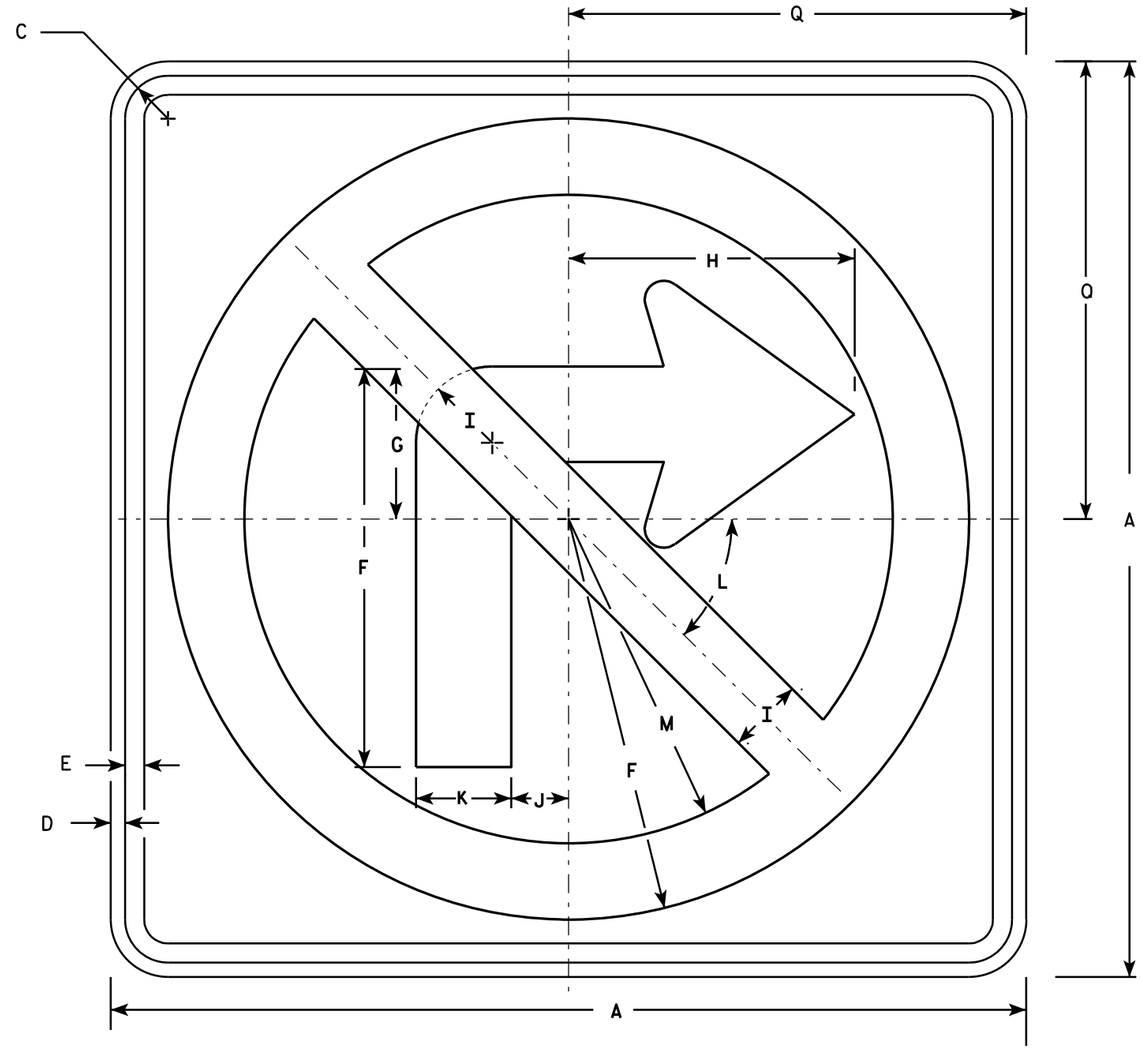
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 359 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

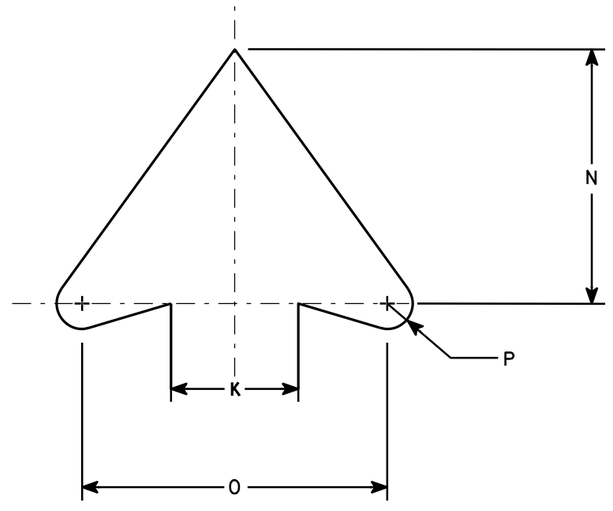
WISDOT/CADDS SHEET 42



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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

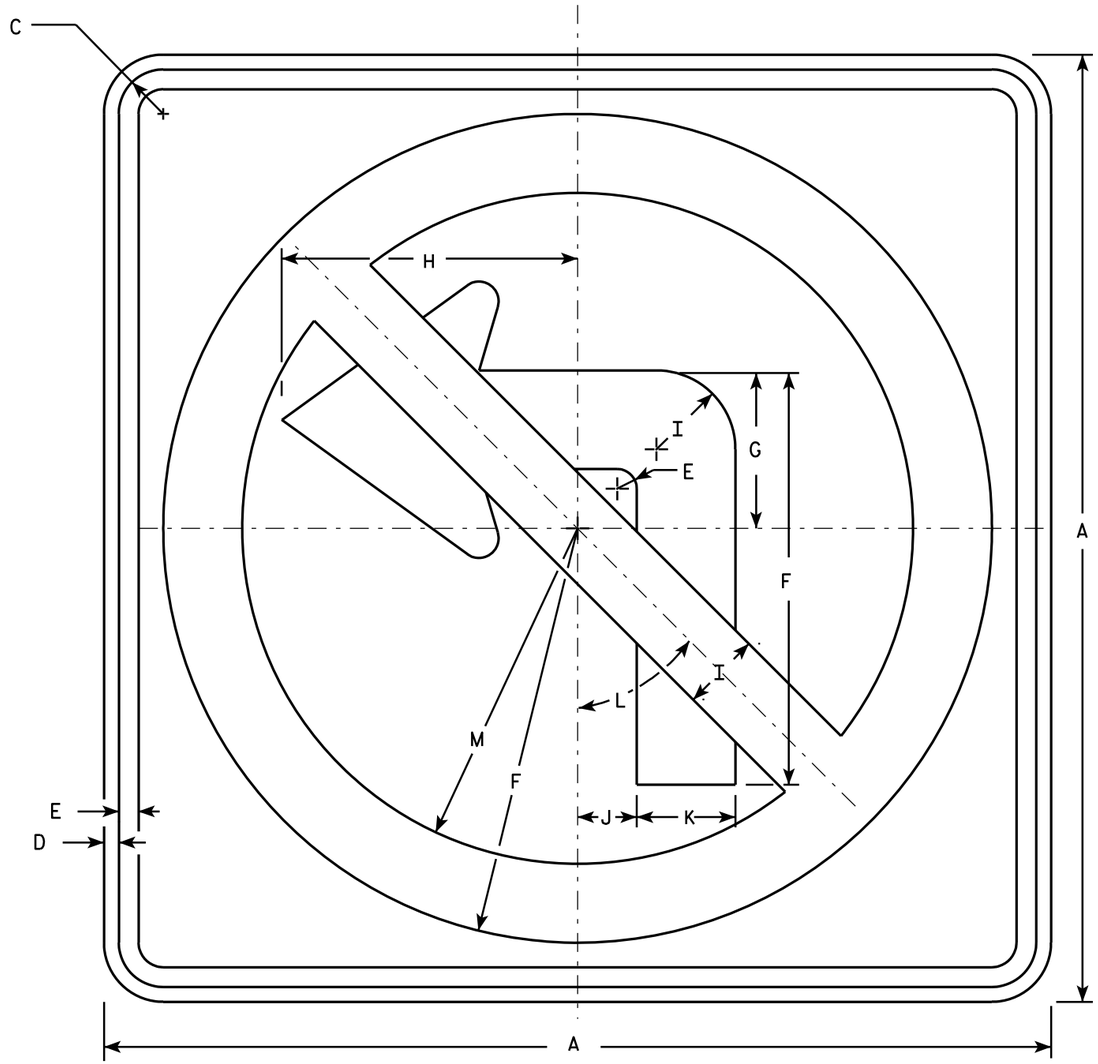
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

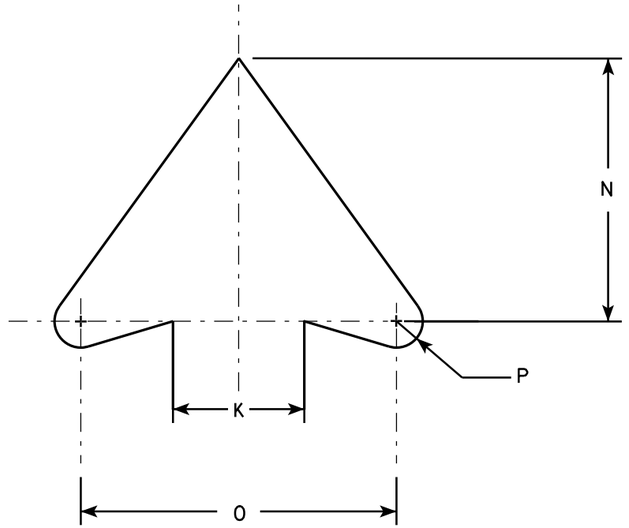
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 360	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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

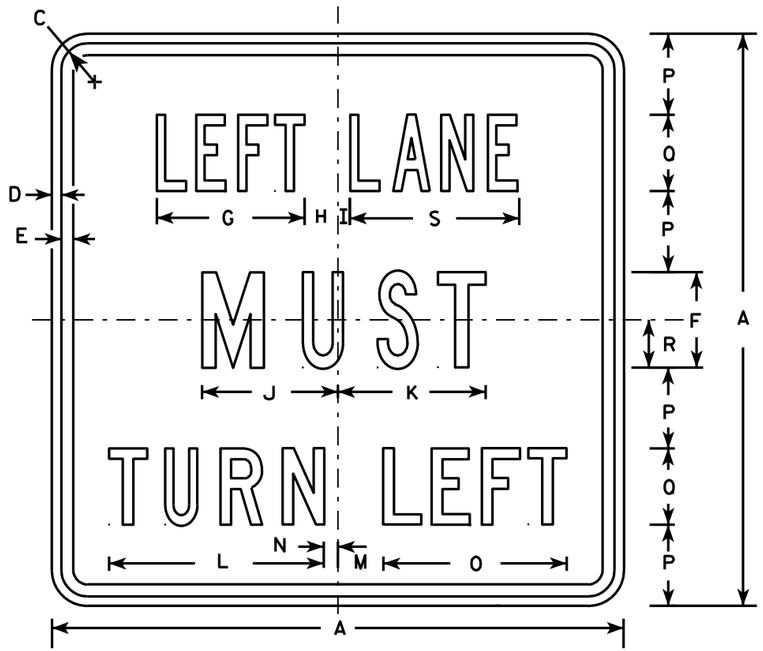
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

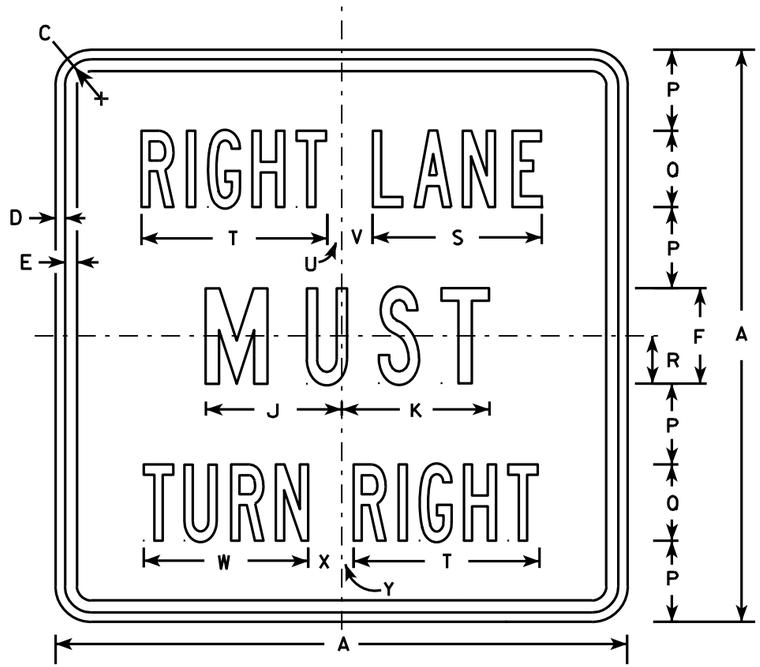
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 361	E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

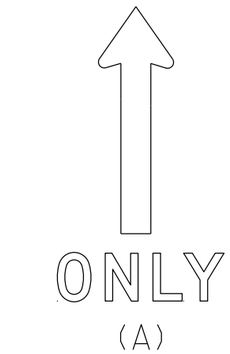
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

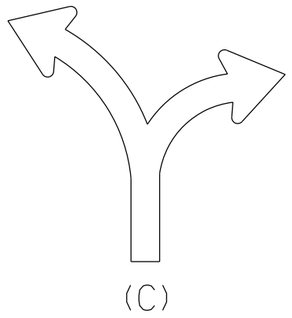
DATE 3/18/2011 PLATE NO. R3-7.3

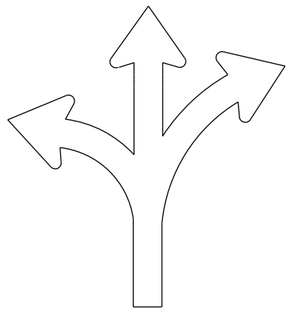
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 362 | E

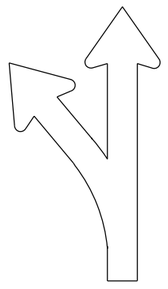


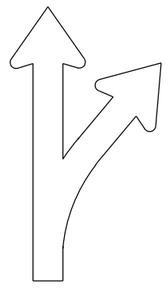
(A)

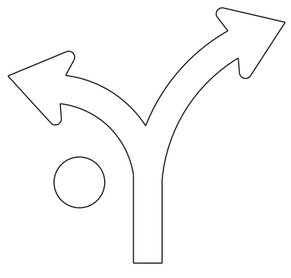
(B)

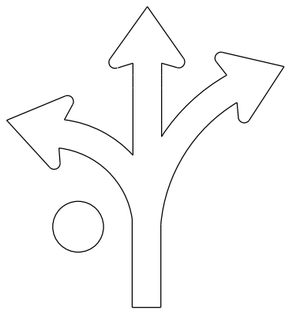

(C)

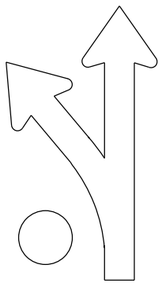

(D)

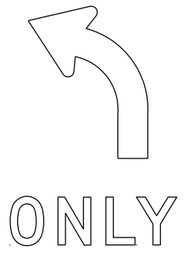

(E)


(F)

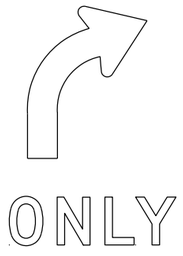

(G)


(H)

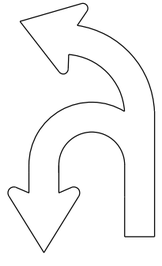

(I)



(L)



(R)


(U)

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,H 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

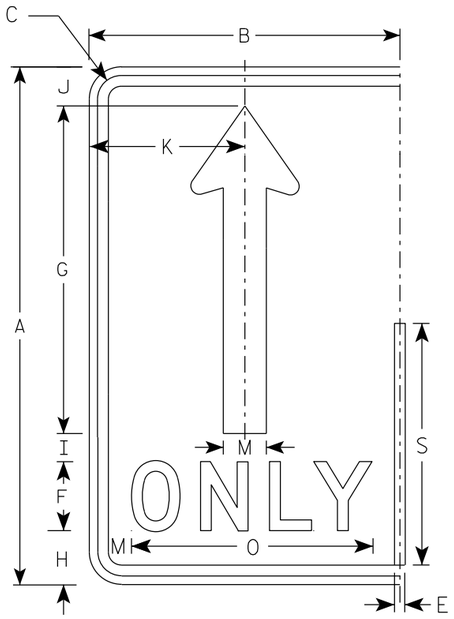
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

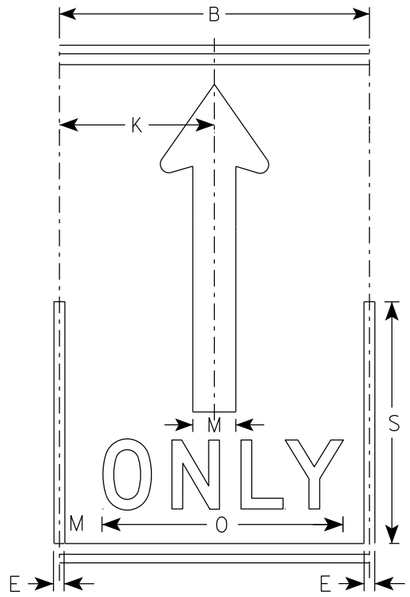
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

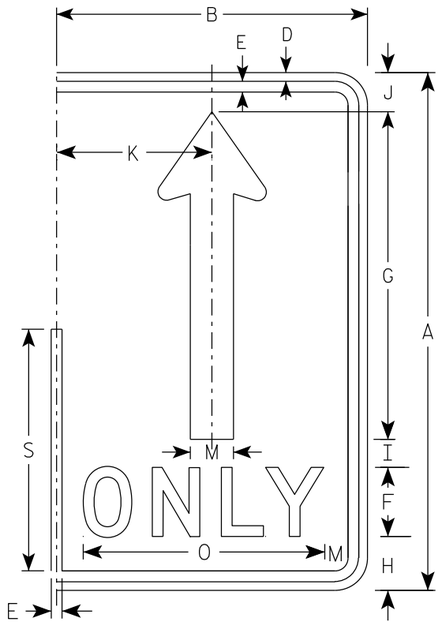
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



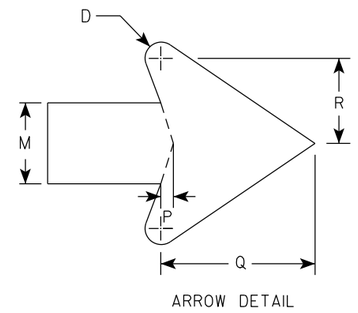
(A)



(A)



(A)



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	30	18	1 3/8	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 3/8	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 3/8	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

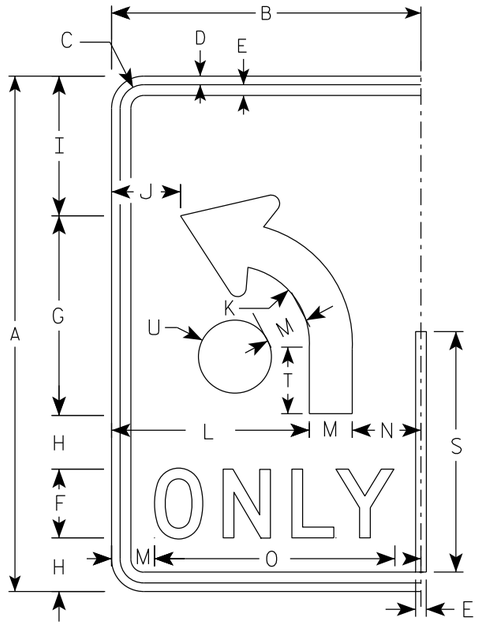
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

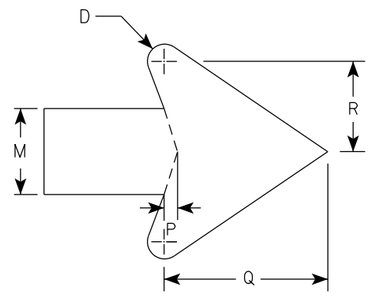
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 364 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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	30	18	1 3/8	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 3/8	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 3/8	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

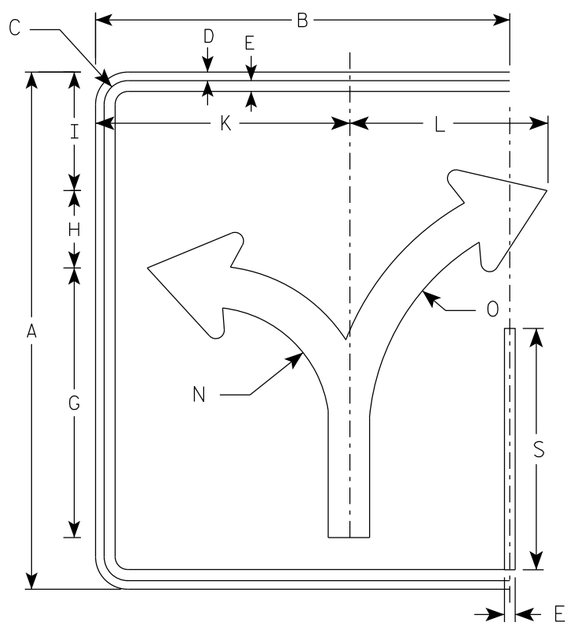
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

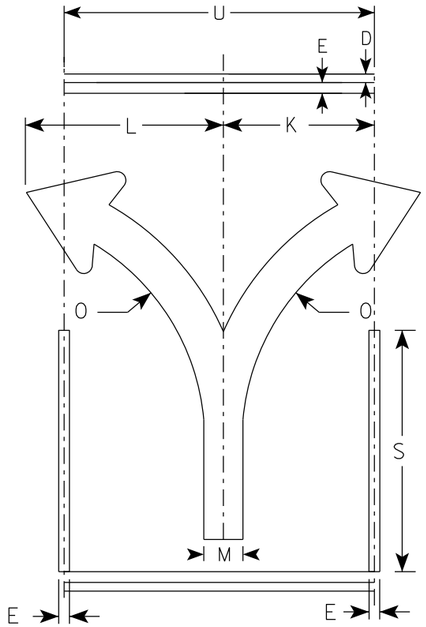
SHEET NO: 365 E

NOTES

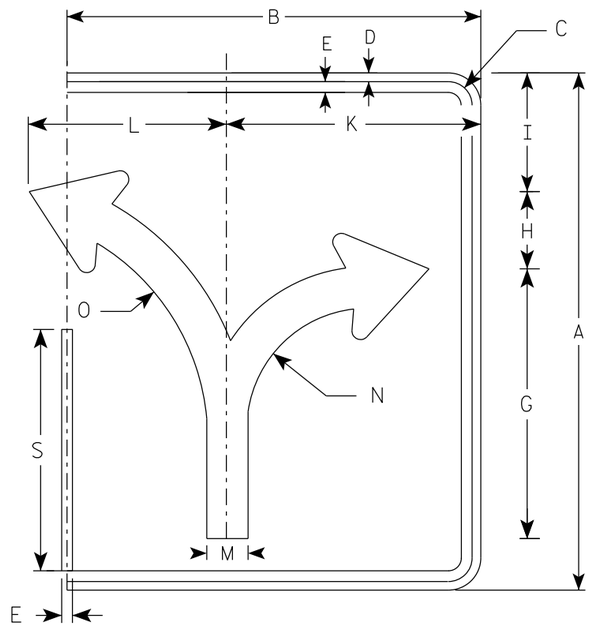
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



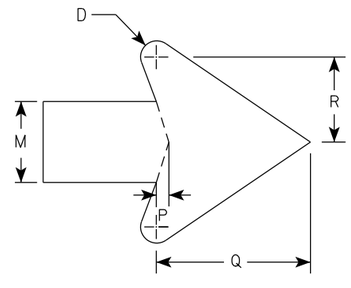
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	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 3/8	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 3/8	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

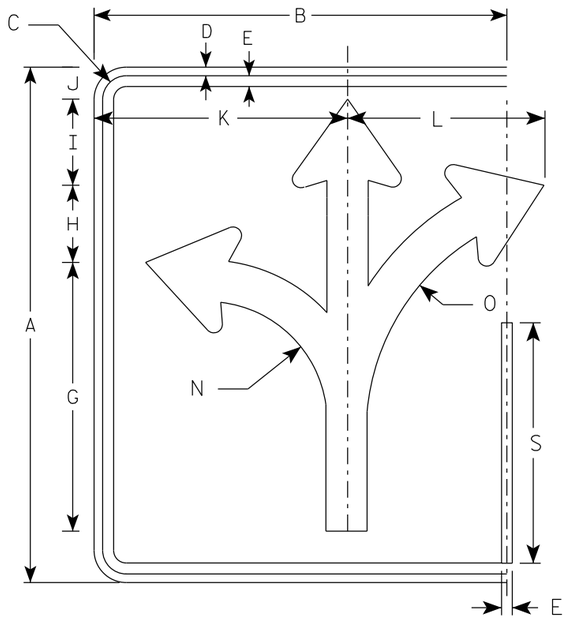
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

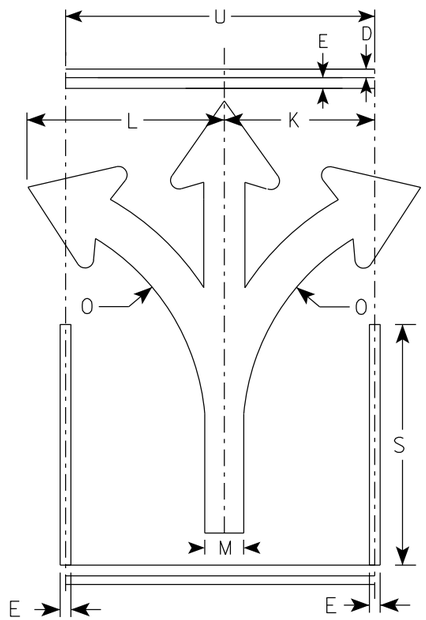
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 366 | E

NOTES

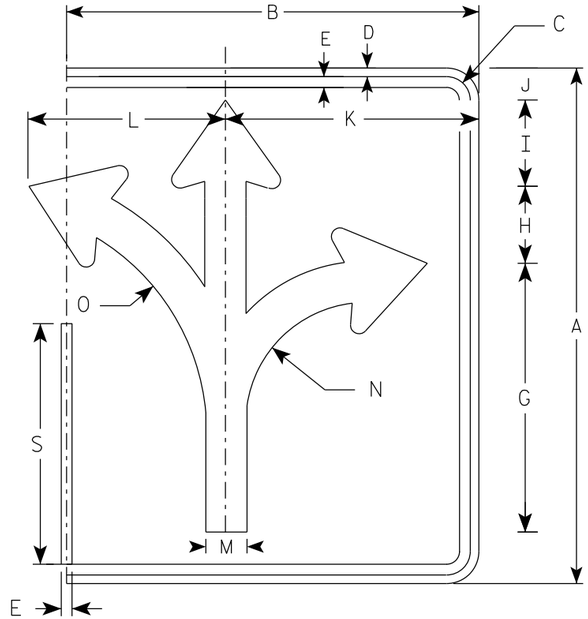
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



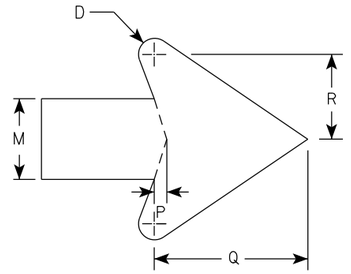
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

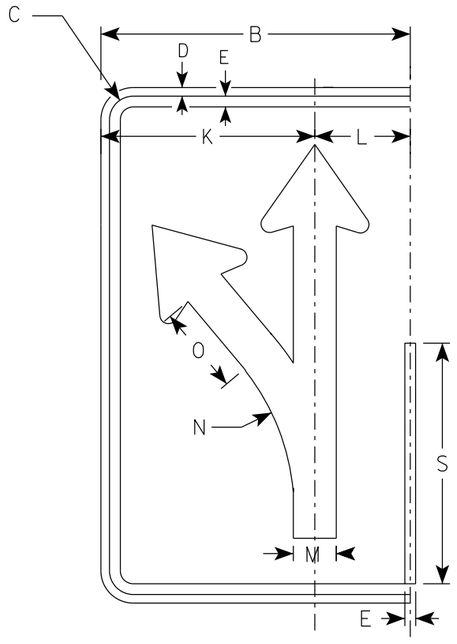
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

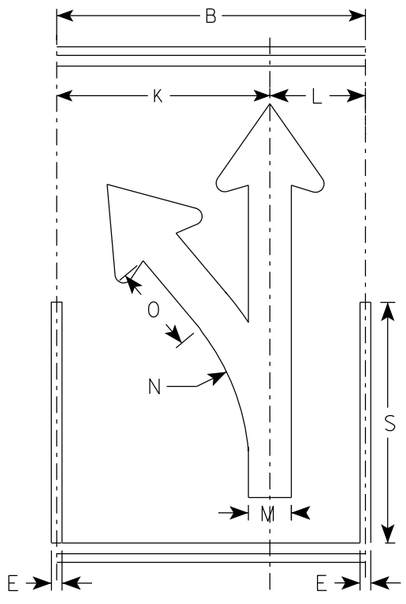
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 367 | E

NOTES

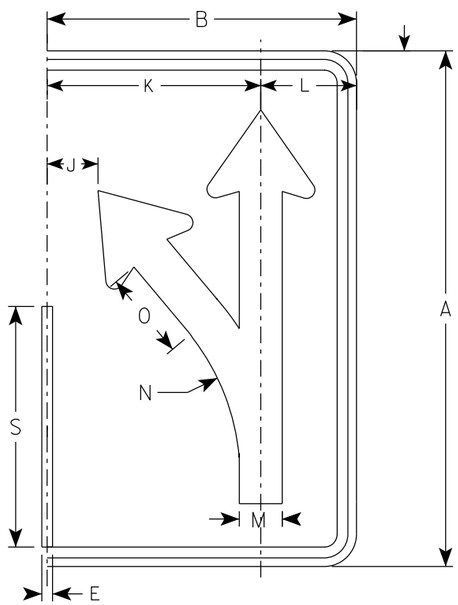
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



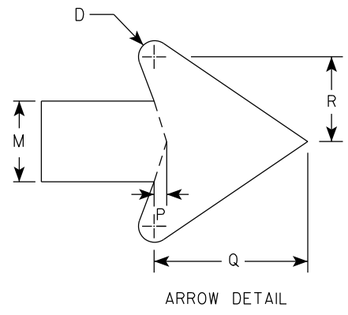
(E)



(E)



(E)



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	30	18	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

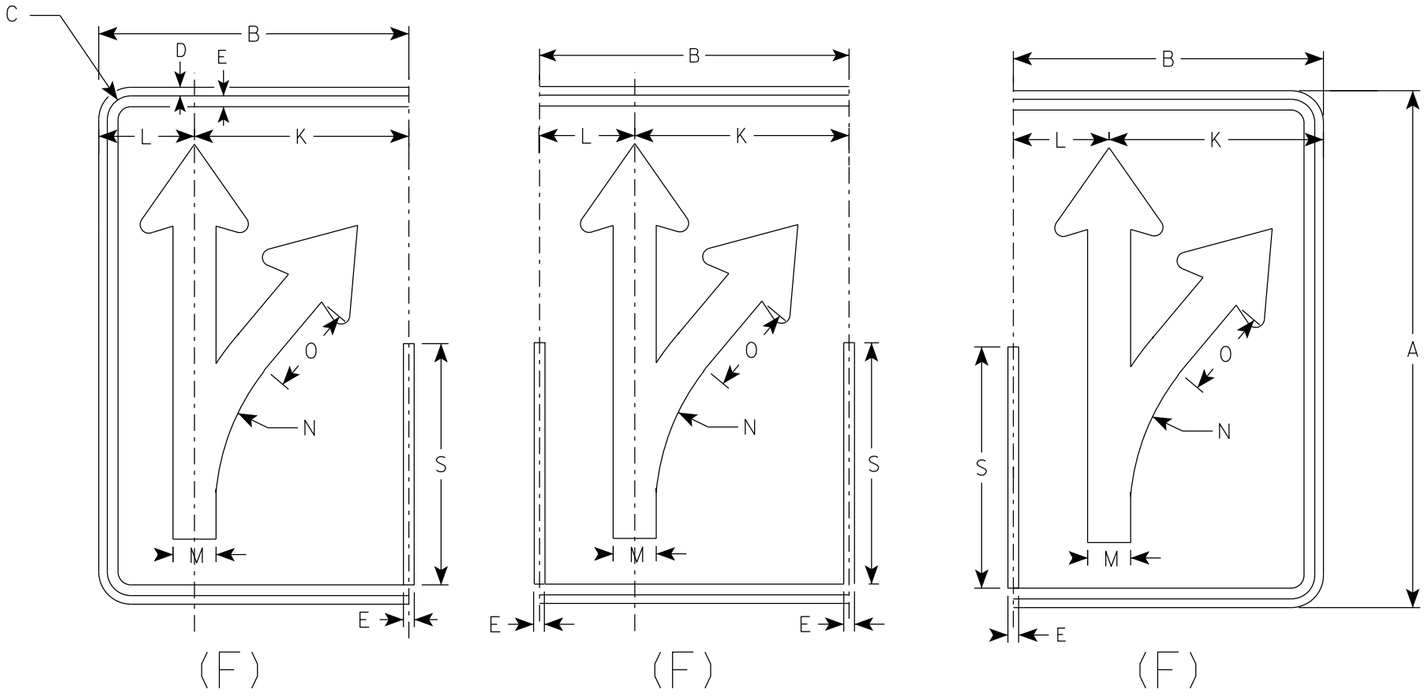
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

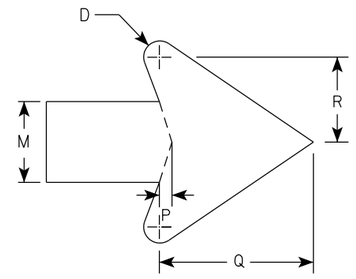
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 368 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(F) (F) (F)



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	30	18	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

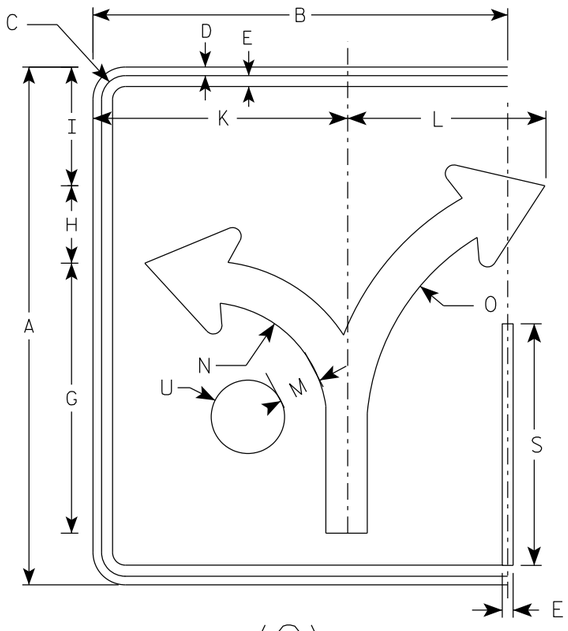
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

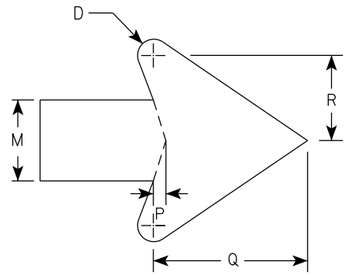
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 369 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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	30	24	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

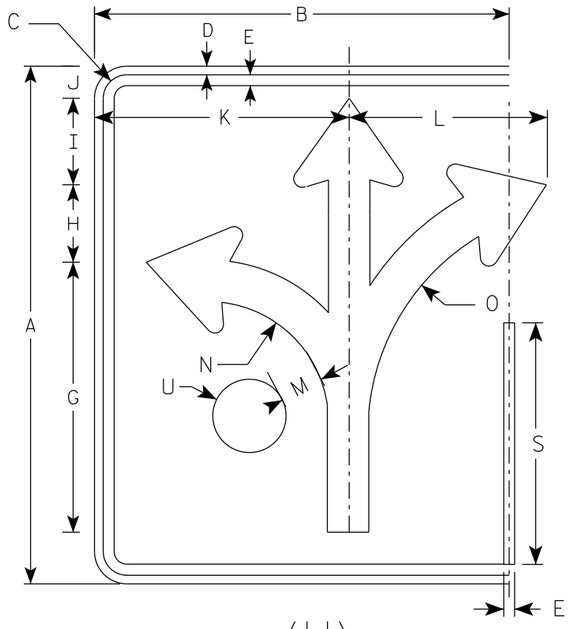
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 370	E

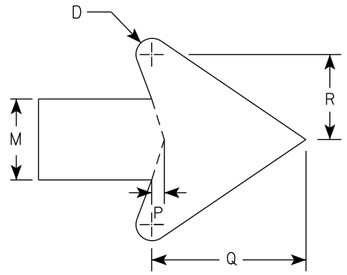
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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	30	24	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

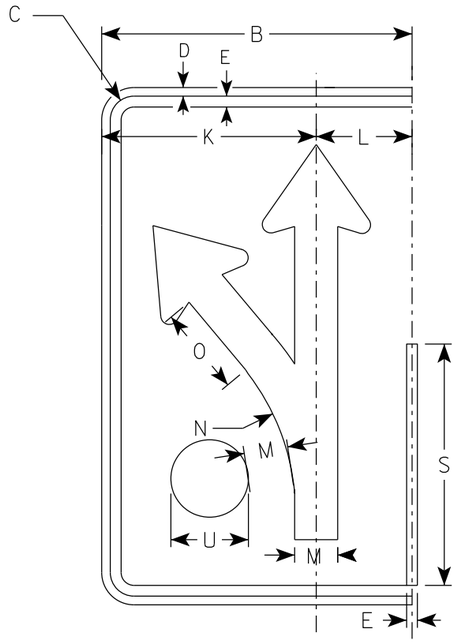
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

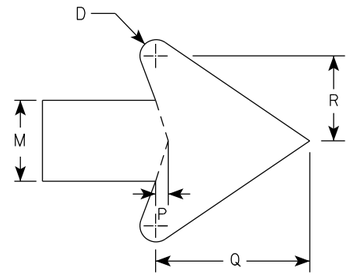
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 371	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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	30	18	1 3/8	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 3/8	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 3/8	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

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

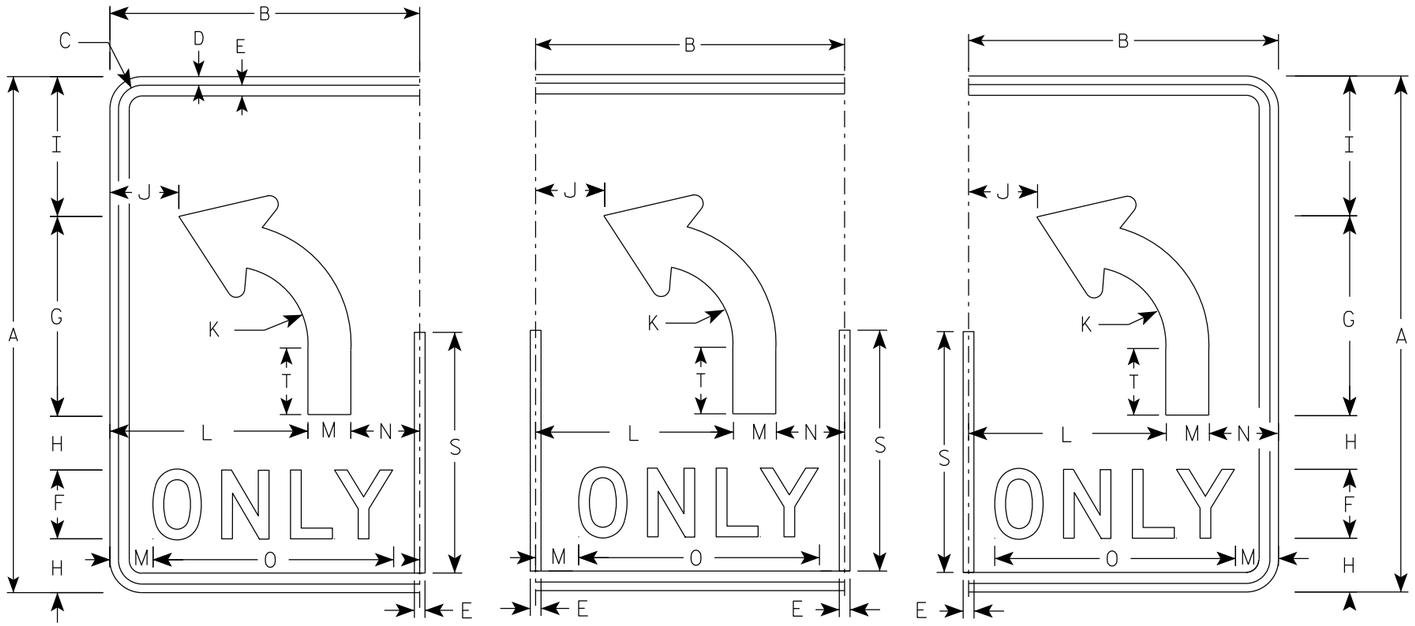
APPROVED Matthew R Rauch
For State Traffic Engineer

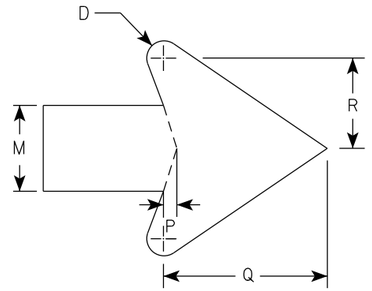
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 372 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D





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	30	18	1 3/8	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 3/8	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 3/8	1/2	5/8	5	14	3 1/2	9 3/4		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

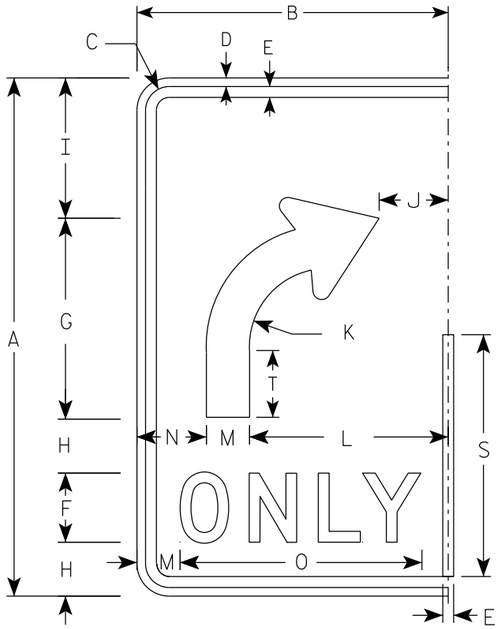
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

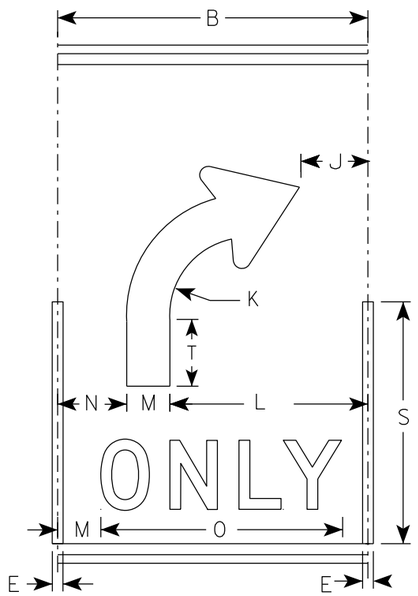
SHEET NO: 373 E

NOTES

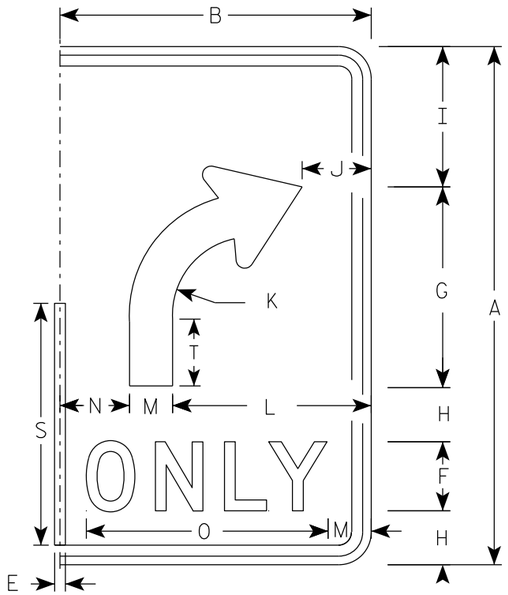
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



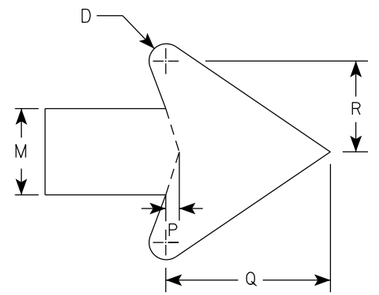
(R)



(R)



(R)



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	30	18	1 3/8	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 3/8	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 3/8	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

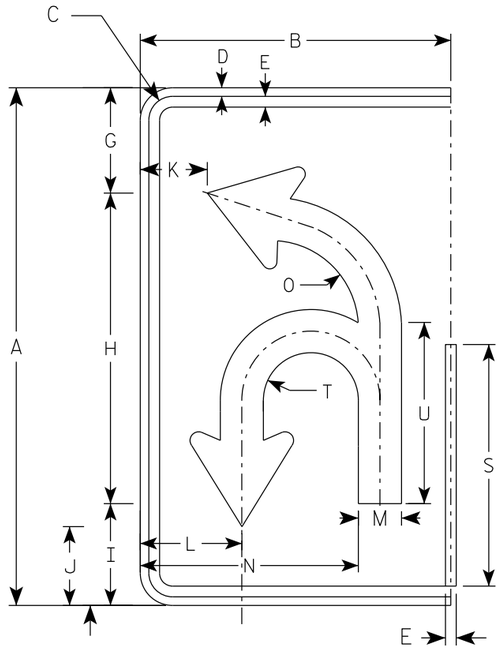
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

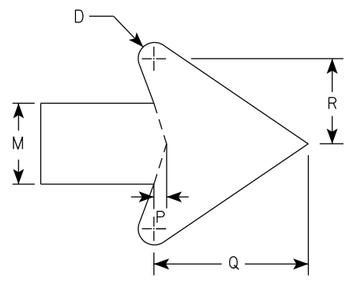
SHEET NO: 374 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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	30	18	1 3/8	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 3/8	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 3/8	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

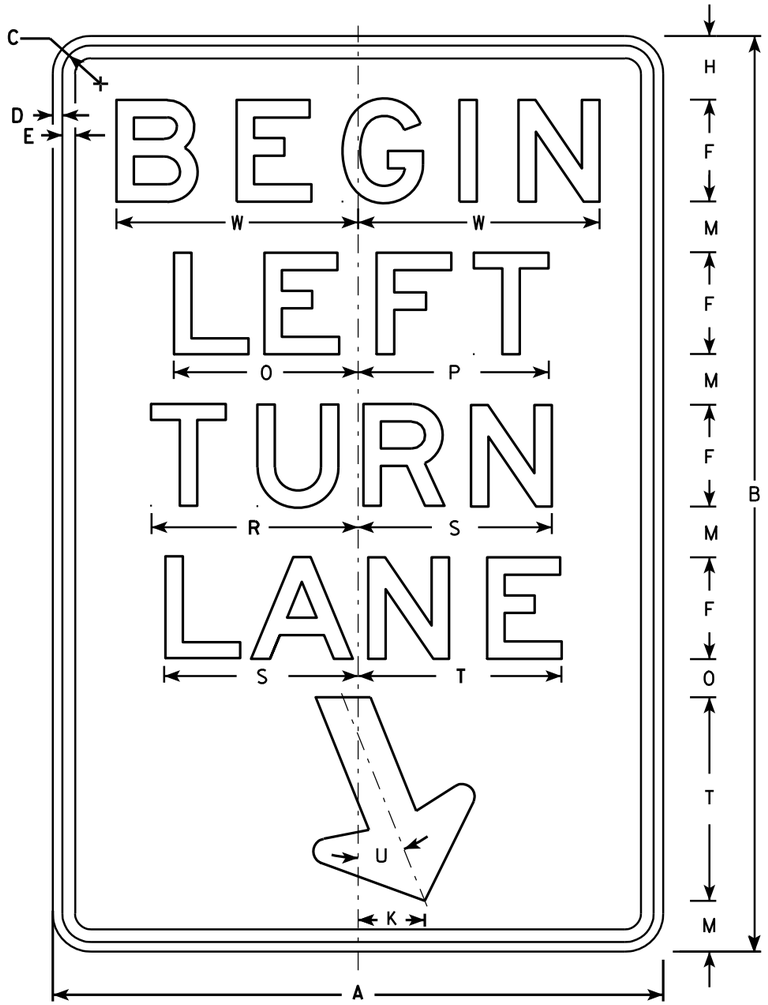
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

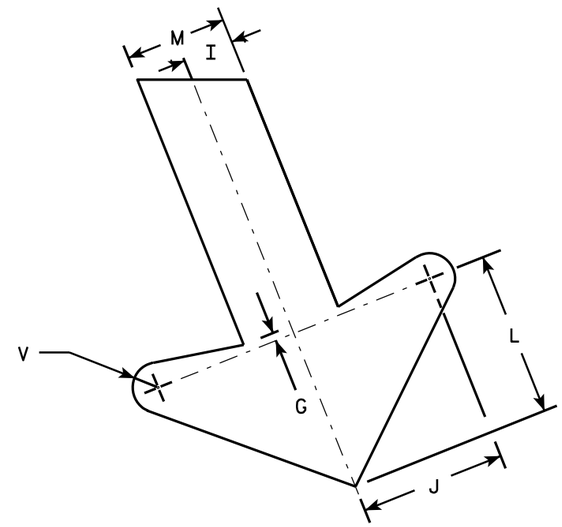
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 375 | E



R3-20L

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	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 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	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 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

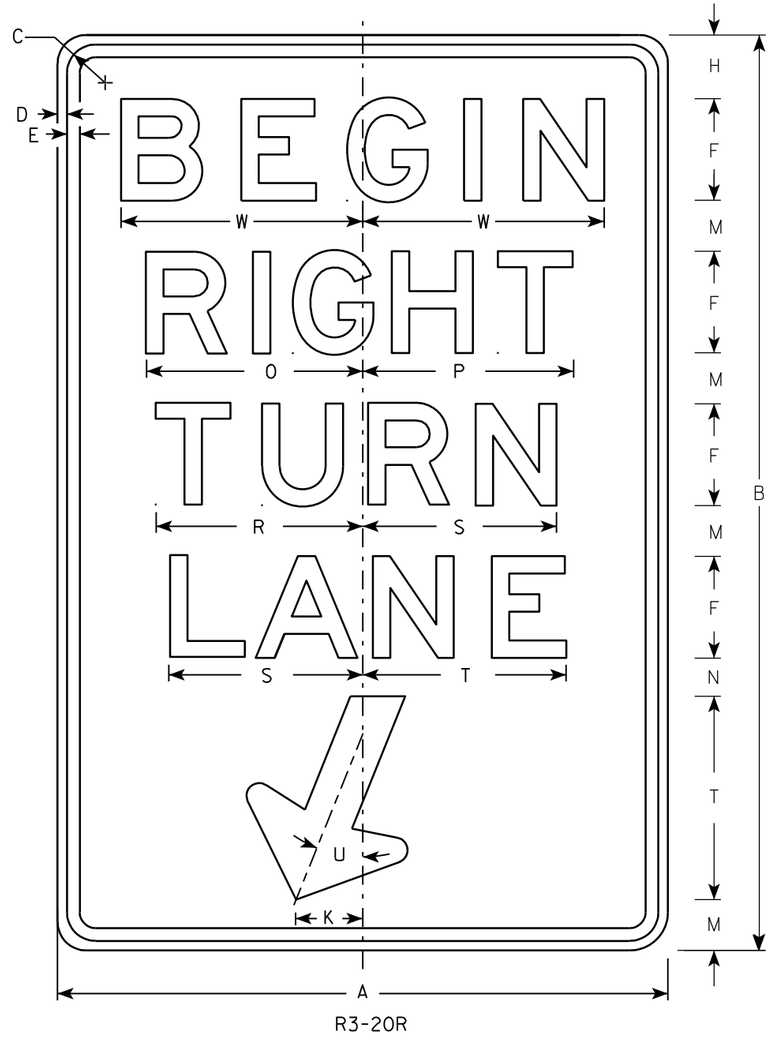
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

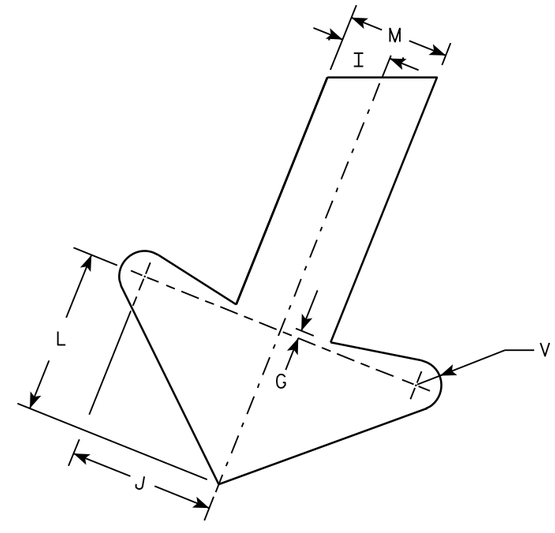
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 376 | E



R3-20R

NOTES

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



ARROW DETAIL

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

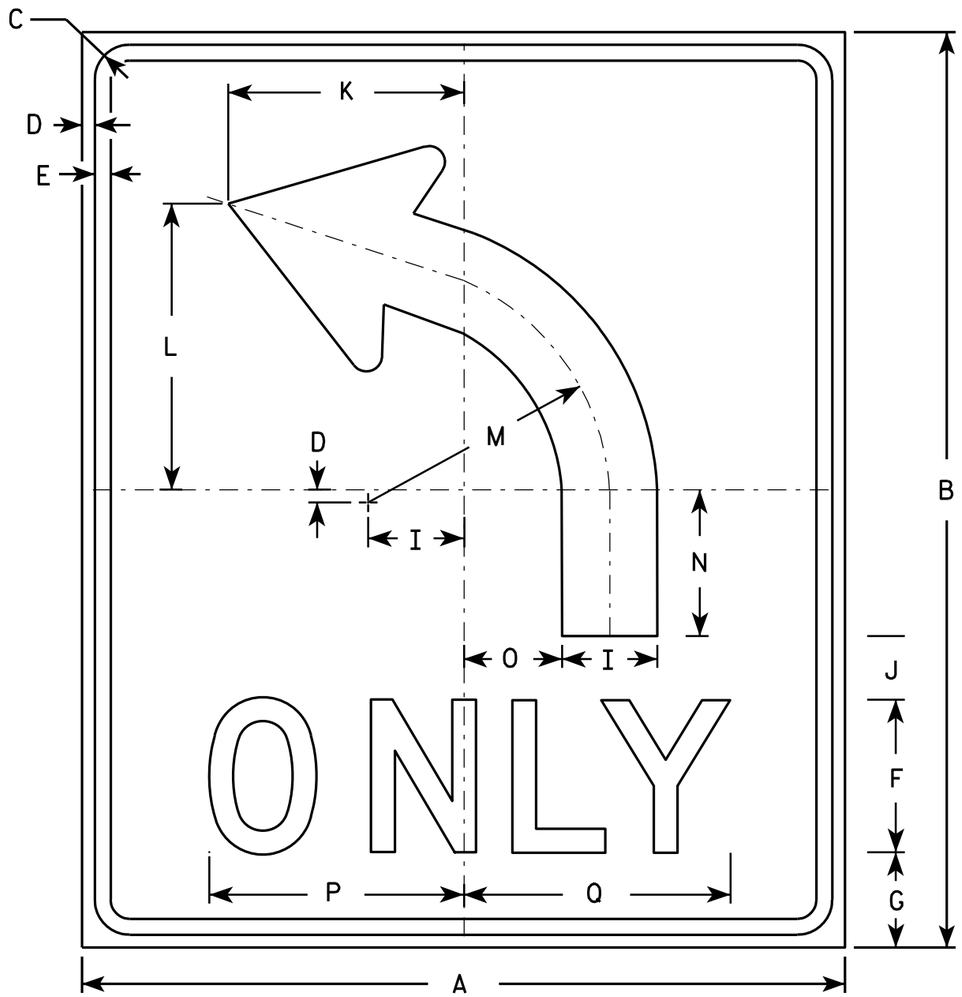
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

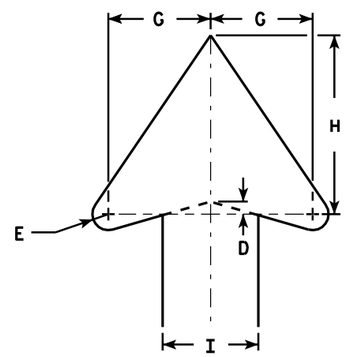
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 377 | E



R3-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-50R is the same as R3-50L except curved portion of arrow points 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	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

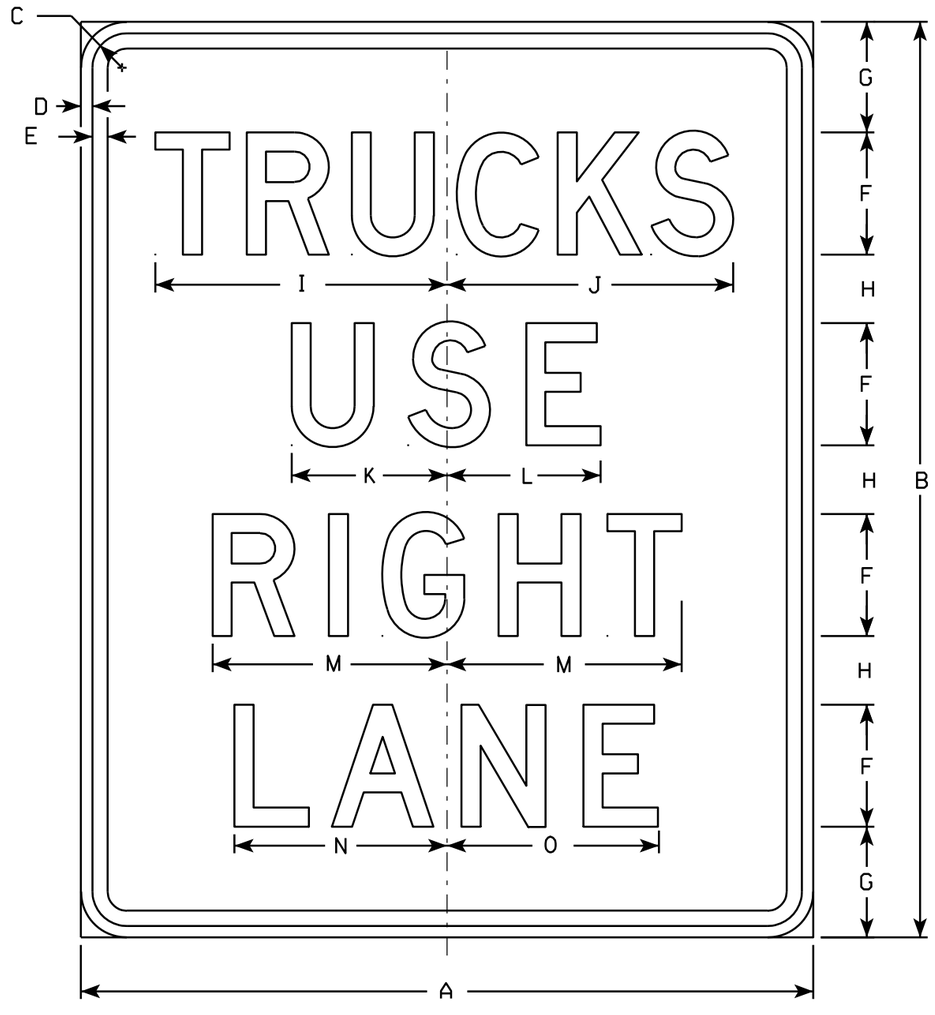
STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 378 | E

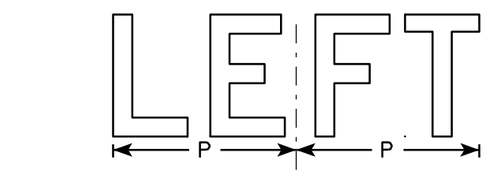


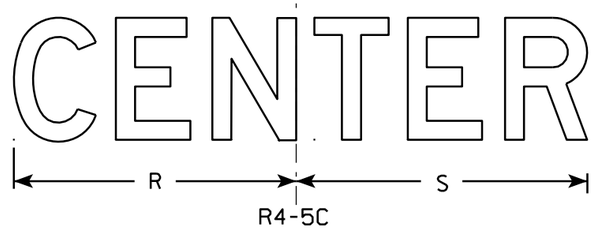
R4-5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R4-5L & R4-5C are the same as R4-5 except LEFT or CENTER replaces RIGHT as order by code.

R4-5L





R4-5C

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	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 5/8	9 3/8	5 1/8	5 1/8	7 3/4	7 1/4	7	6		9 1/4	9 1/2								5.0
3																											
4	36	48	2 1/4	5/8	3/4	6	6	4	14 3/8	14 1/8	7 7/8	7 7/8	12 1/4	10 3/4	10 1/2	9 5/8		13 7/8	14 1/4								12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/8	18 3/4	10 1/4	10 1/8	15 3/8	14	13 7/8	12		18 1/2	19 1/8								20.0

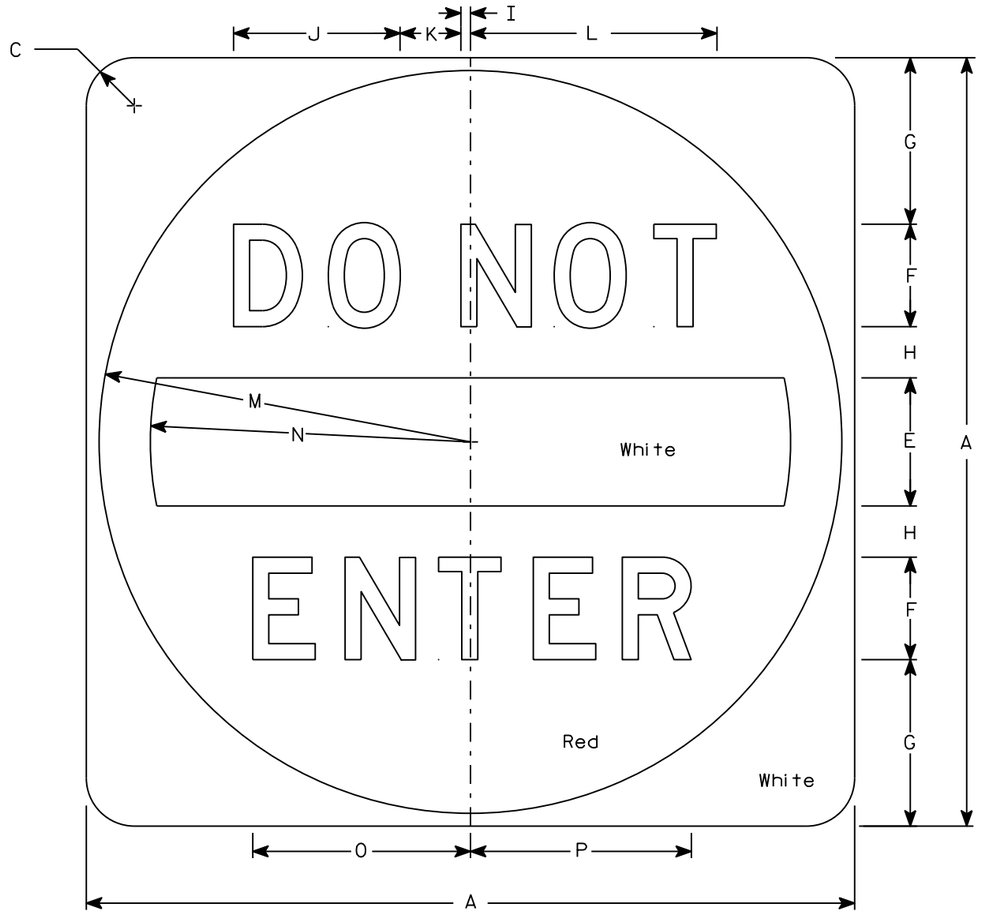
STANDARD SIGN
R4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-5.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 379	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
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		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

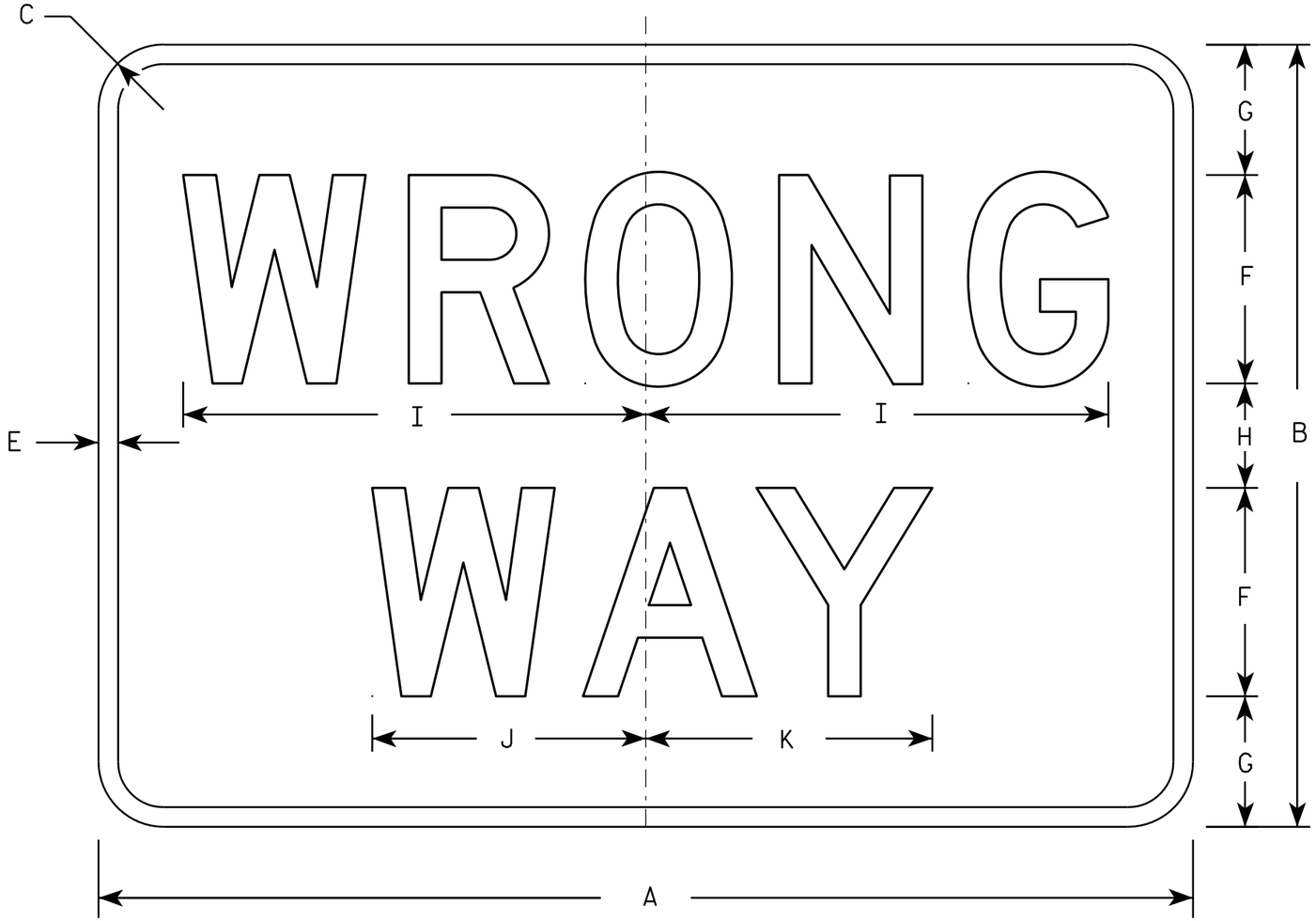
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 380 | E



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

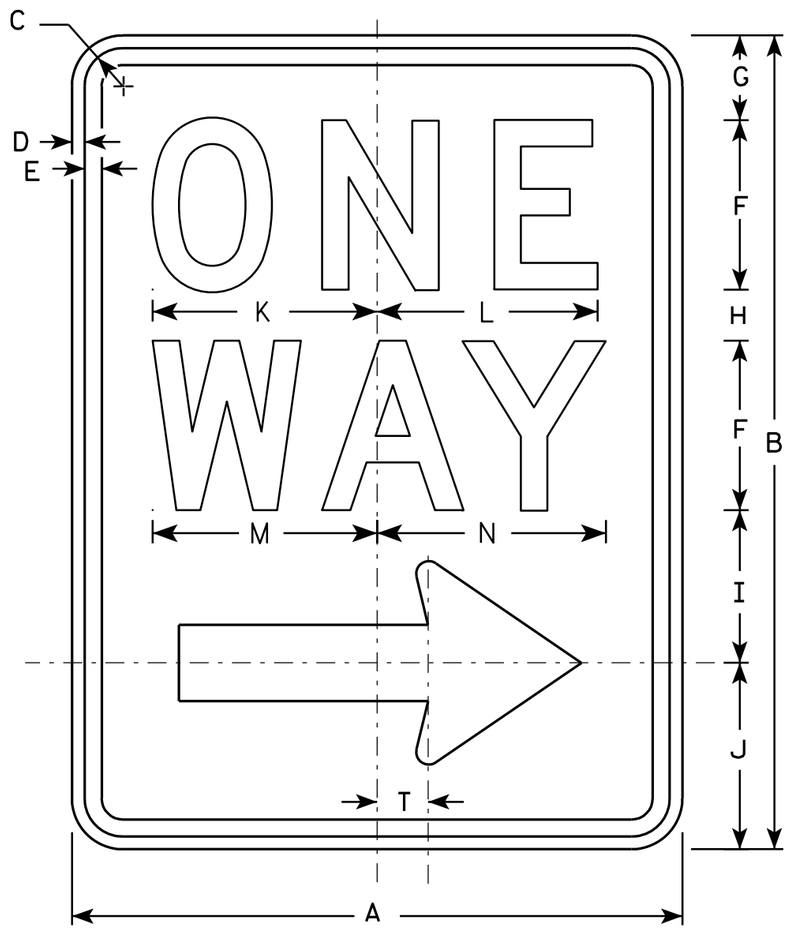
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

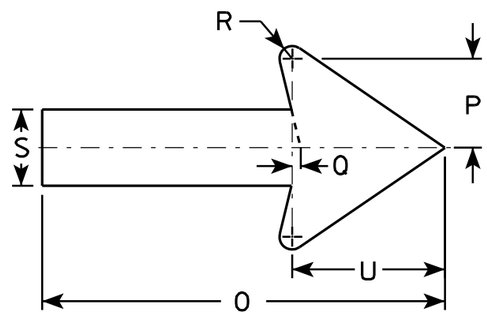
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 381 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

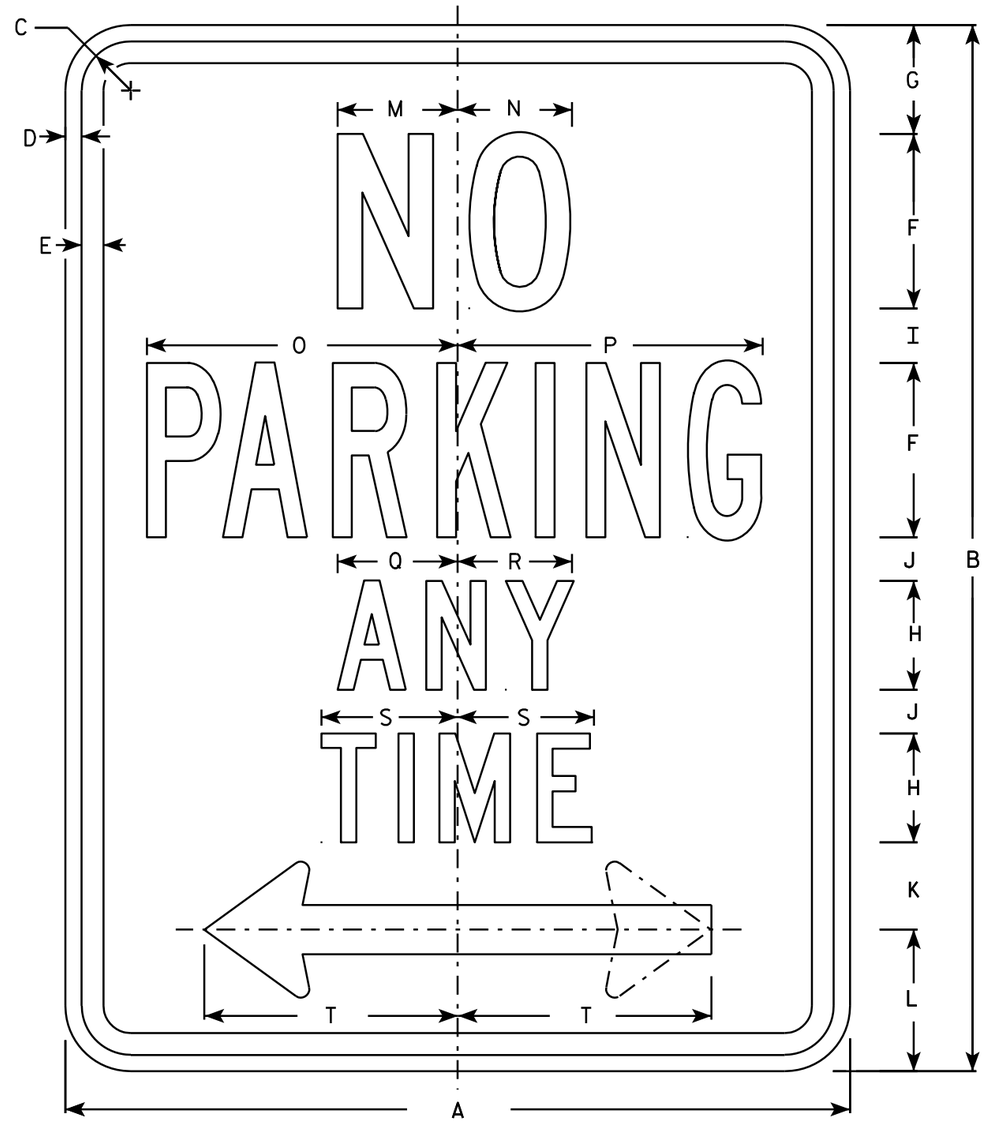
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

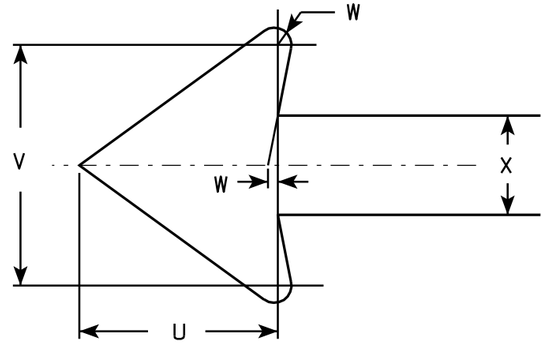
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 382	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
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. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

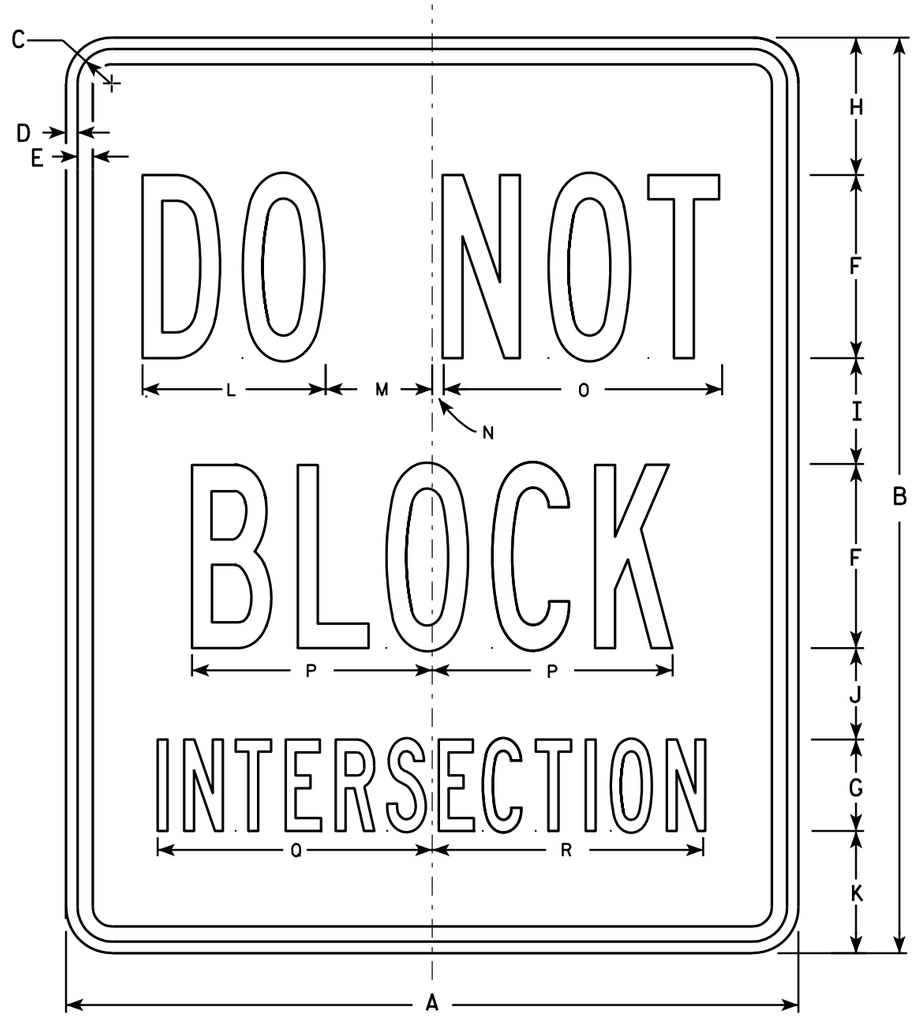
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 383	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

WISDOT/CADDS SHEET 42



R10-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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																											
2S	24	30	1 1/8	3/8	1/2	6	3	4 1/2	3 1/2	3	4	6	3 1/2	3/8	9 1/8	7 7/8	9	8 7/8									5.0
2M	24	30	1 1/8	3/8	1/2	6	3	4 1/2	3 1/2	3	4	6	3 1/2	3/8	9 1/8	7 7/8	9	8 7/8									5.0
3	36	48	1 3/8	1/2	5/8	10	5	7	5 1/4	4 1/2	6 1/4	10	5 5/8	1/2	15 1/8	13 1/8	15	14 7/8									12.0
4																											
5																											

STANDARD SIGN
R10-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-7.5

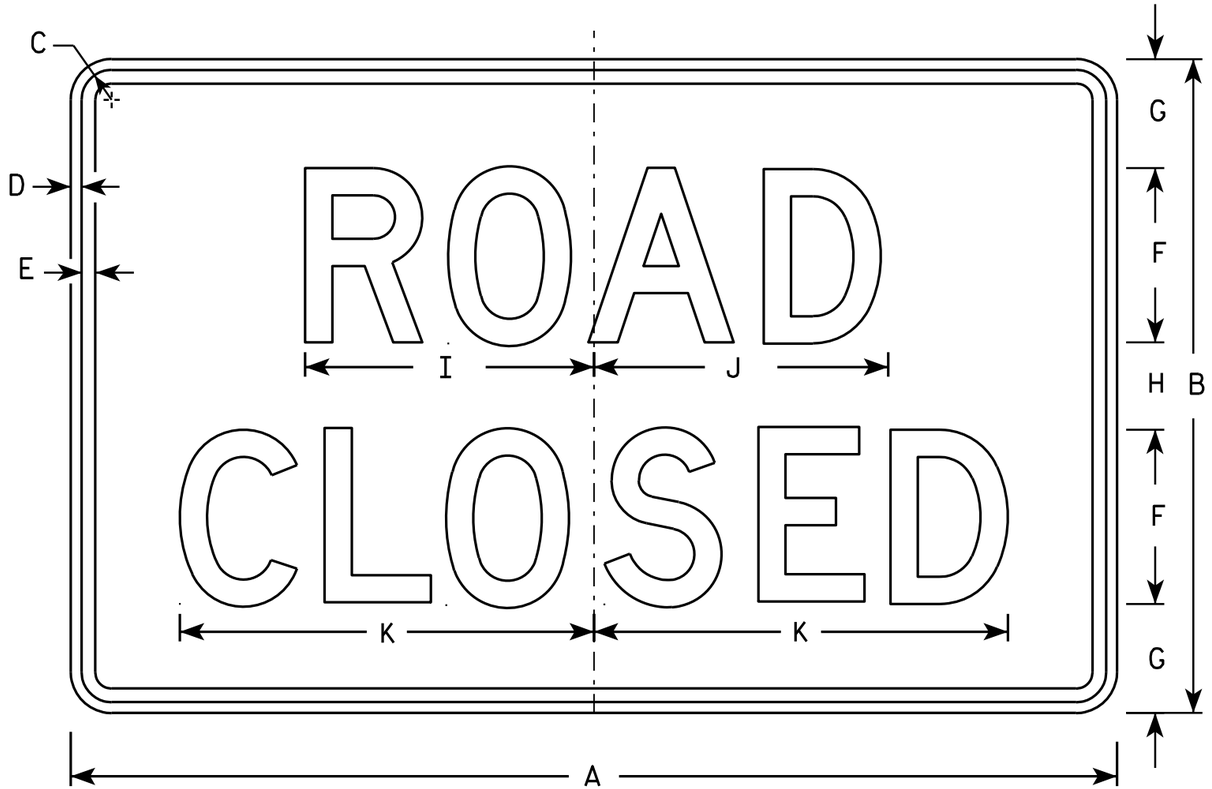
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 384 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R107.DGN PLOT DATE : 05-APR-2011 09:44 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.965868:1.000000

WISDOT/CADDS SHEET 42

7

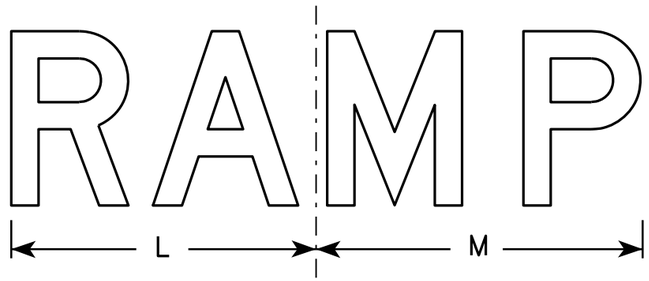
7



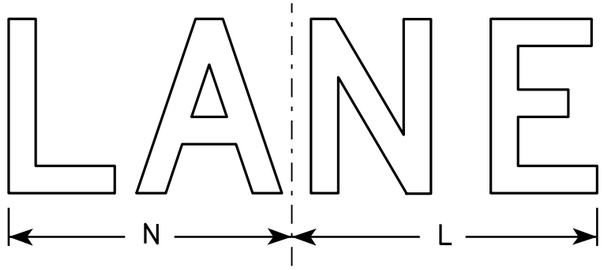
R11-2

NOTES

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



R11-2R



R11-2L

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

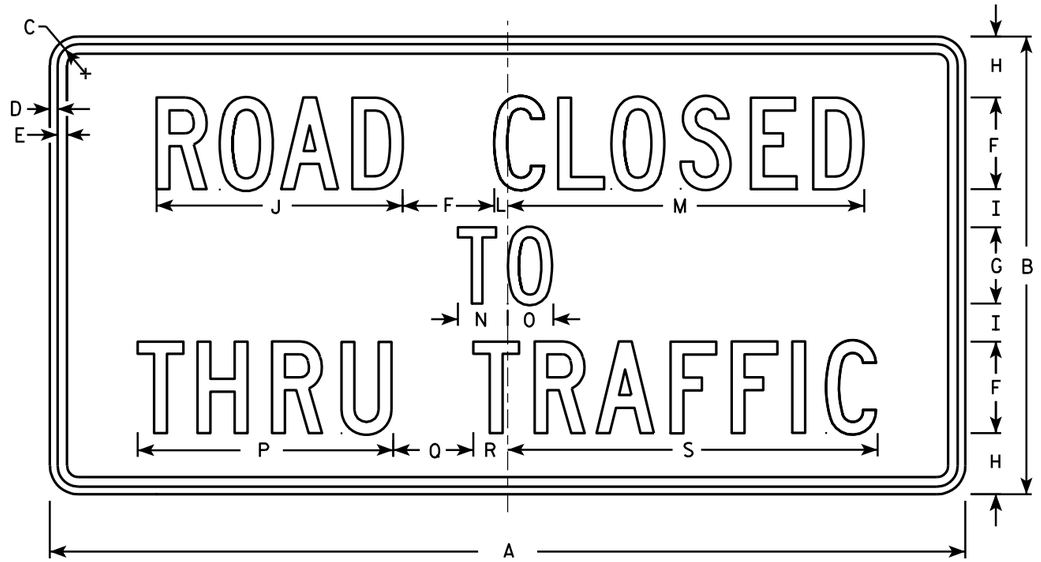
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 385	E



R11-4

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	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 3/8	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																											

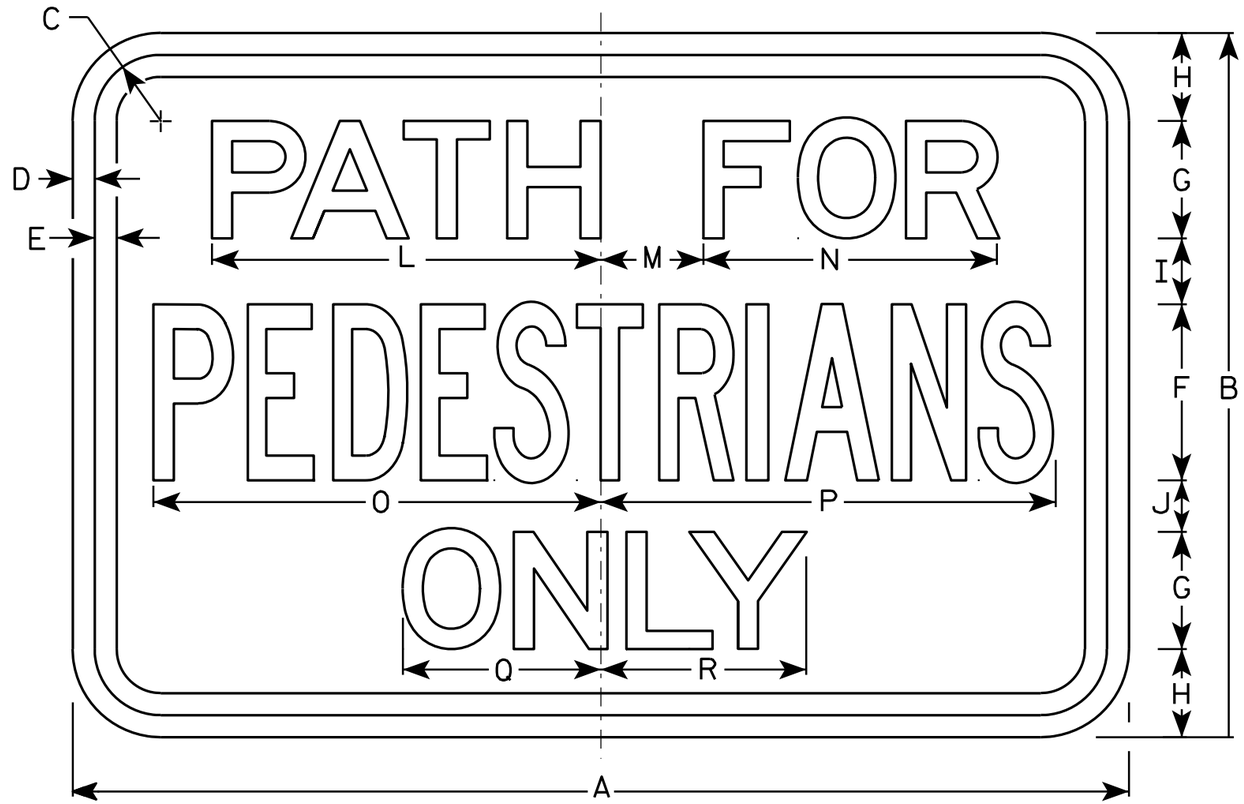
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 386	E



R55-53

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - 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. Lines 1 & 3 are Series E.
   Line 2 is Series B.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	12	1 1/8	3/8	3/8	3	2	1 1/2	1 1/8	7/8		6 5/8	1 3/4	5	7 5/8	7 3/4	3 3/8	3 1/2									1.50
2M	18	12	1 1/8	3/8	3/8	3	2	1 1/2	1 1/8	7/8		6 5/8	1 3/4	5	7 5/8	7 3/4	3 3/8	3 1/2									1.50
3																											
4																											
5																											

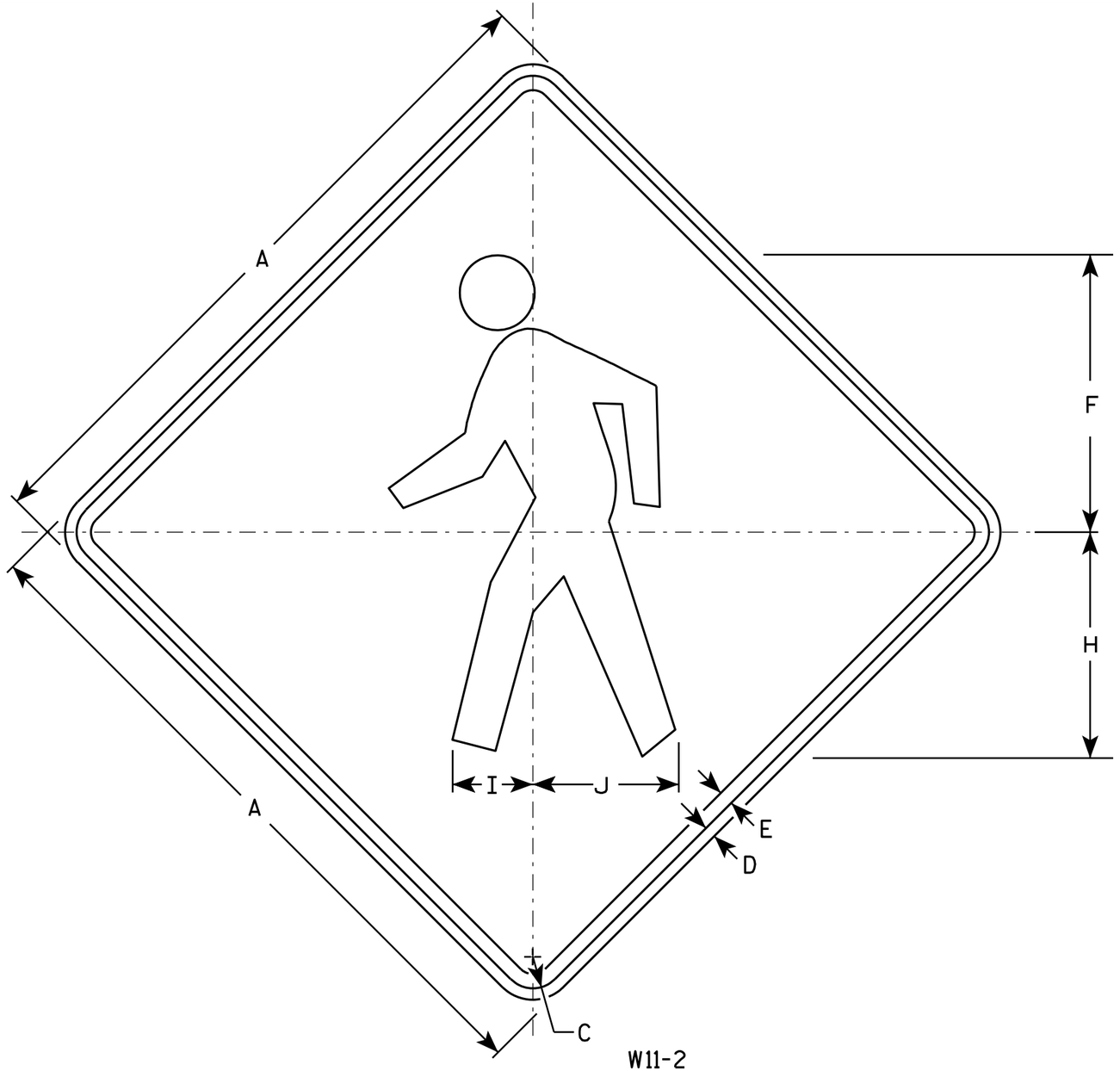
STANDARD SIGN
R55-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R55-53.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 387	E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

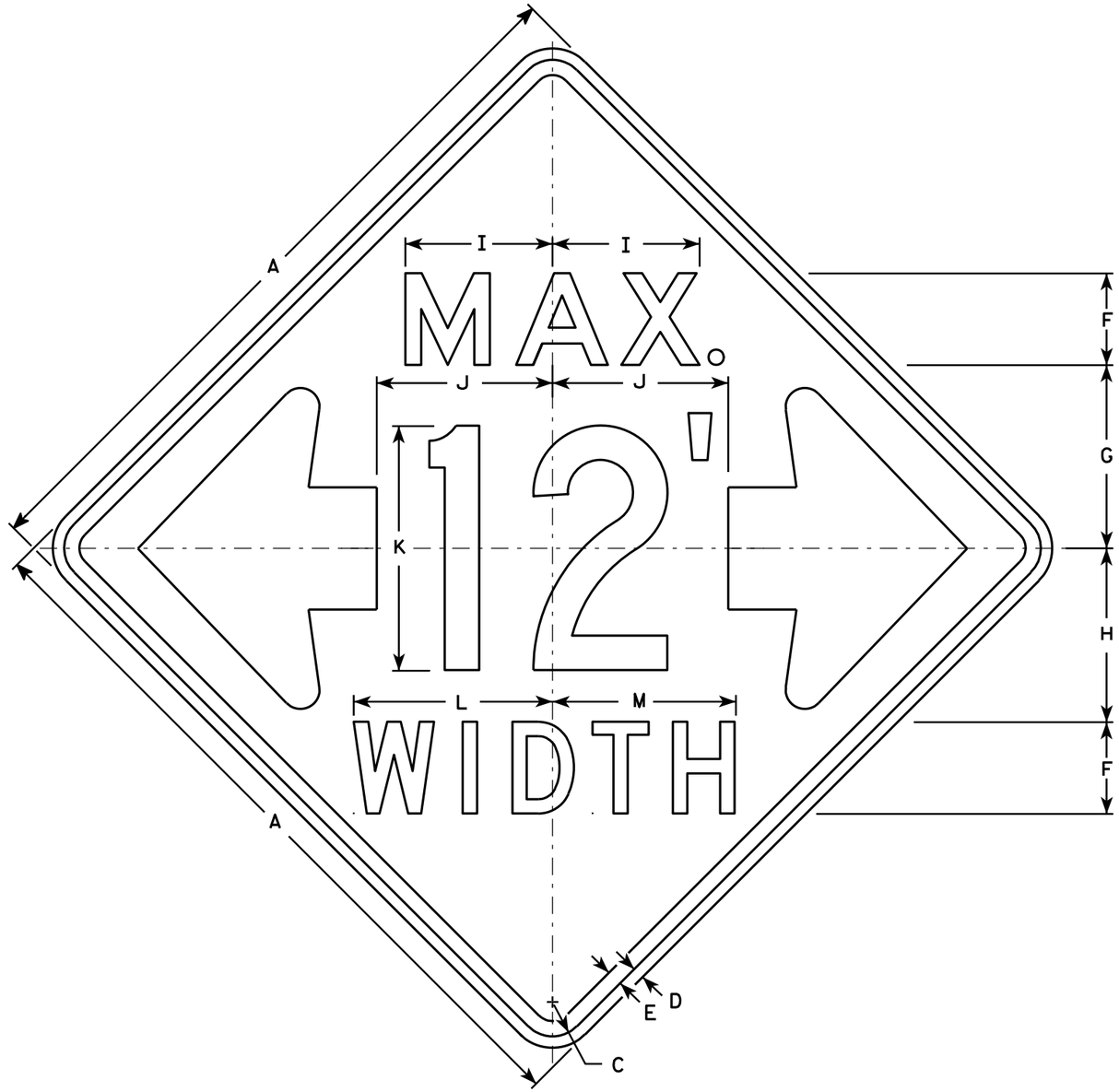
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

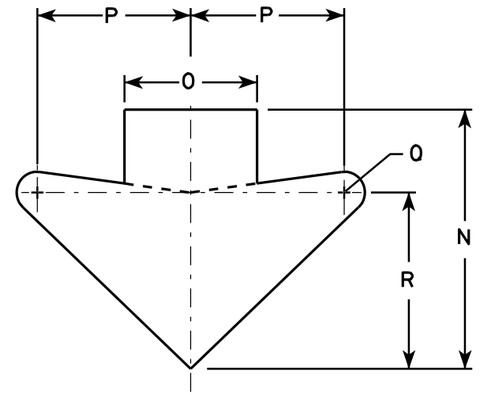
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 388	E



W12-52

NOTES

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



ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

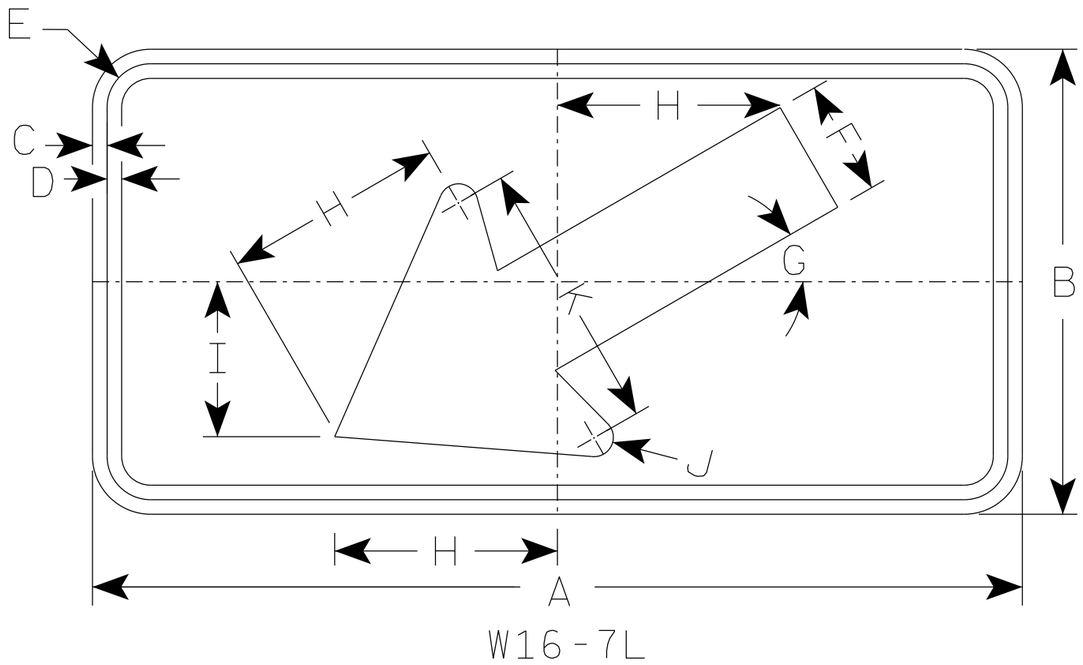
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 389	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



W16-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-L
   except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

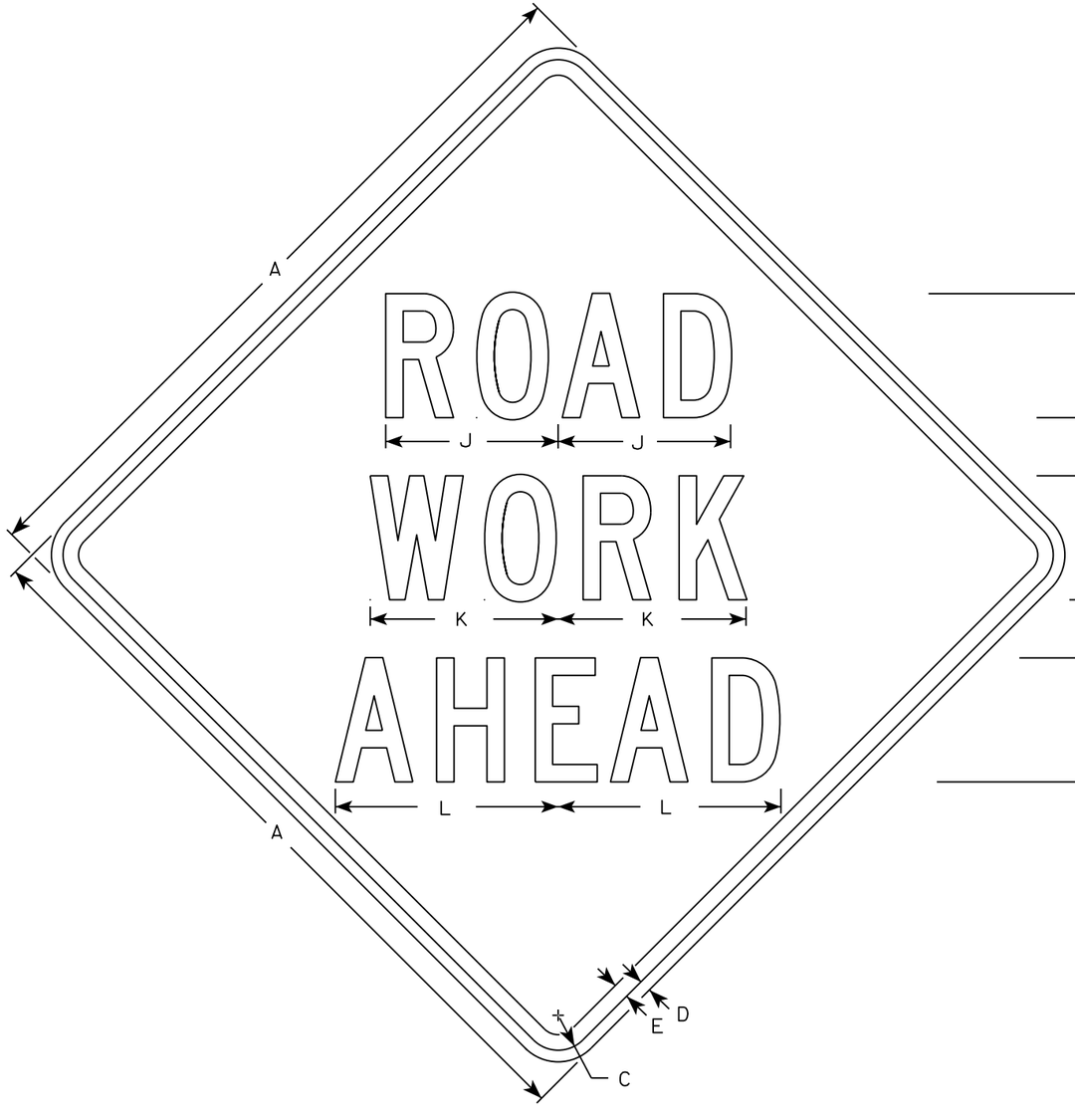
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

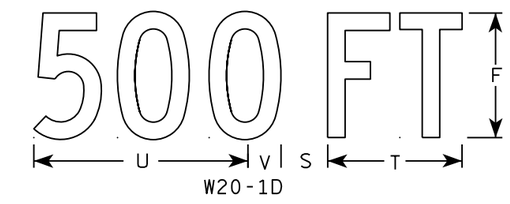
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 7/11/18 PLATE NO. W16-7.6

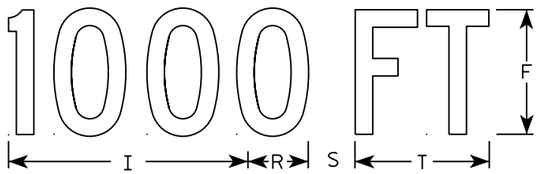
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 390 | E



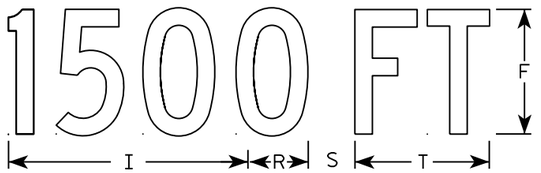
W20-1A



W20-1D

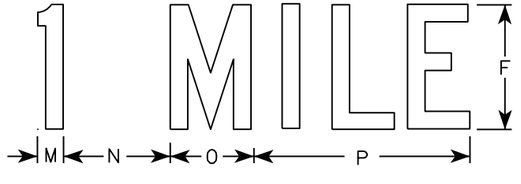


W20-1C

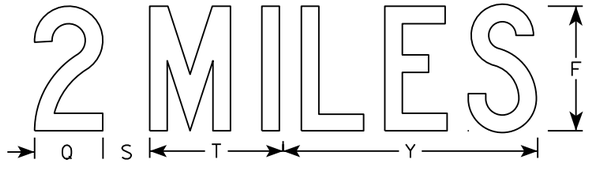


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	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		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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

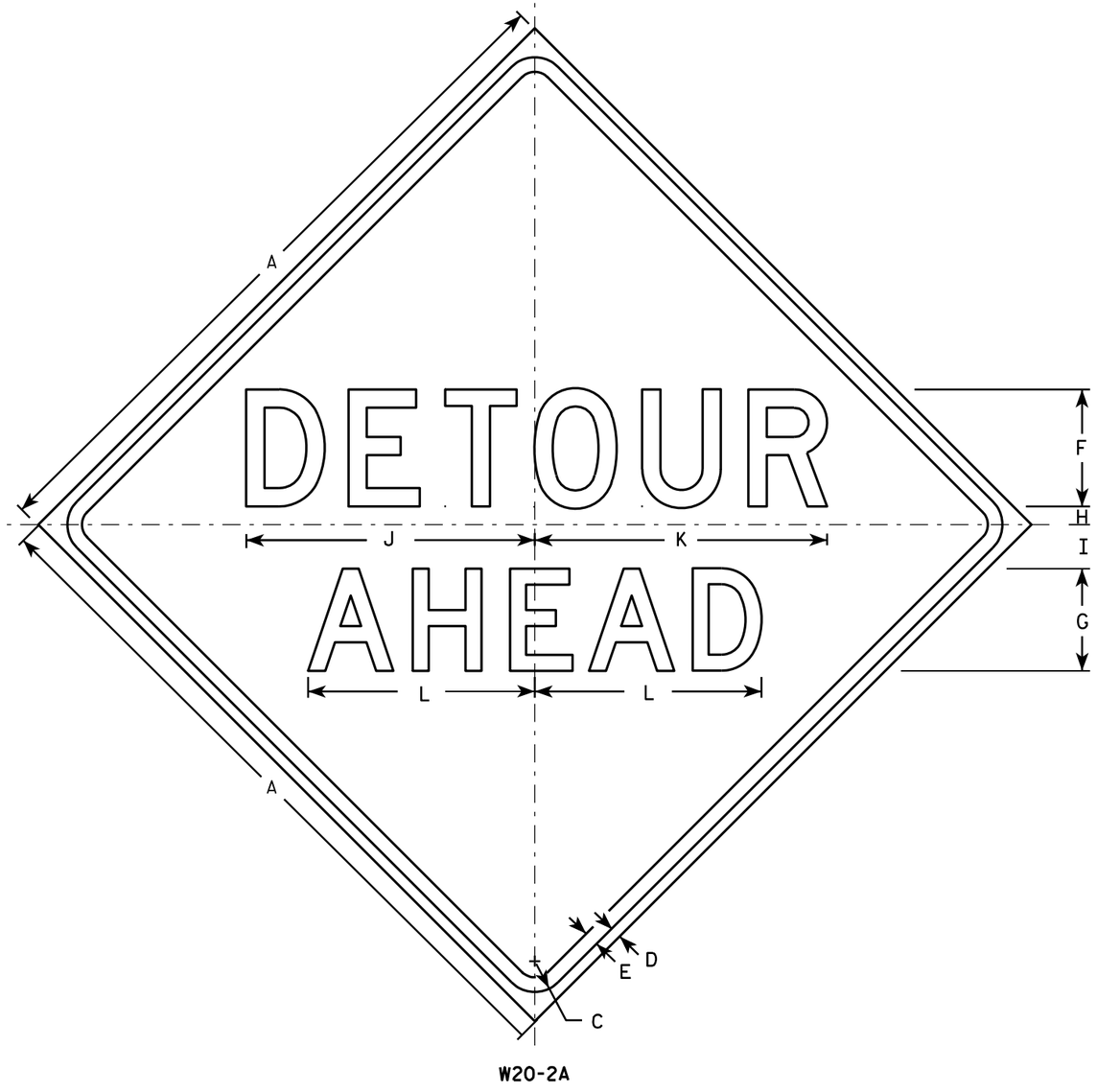
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

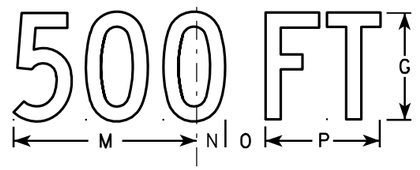
PROJECT NO:

SHEET NO: E

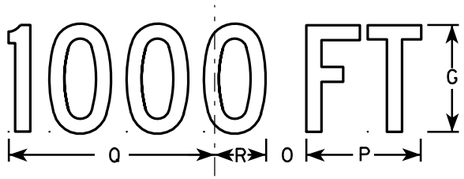
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



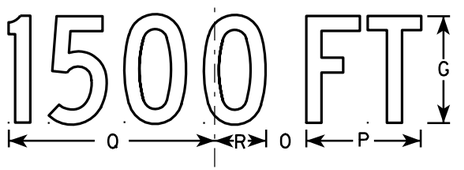
W20-2A



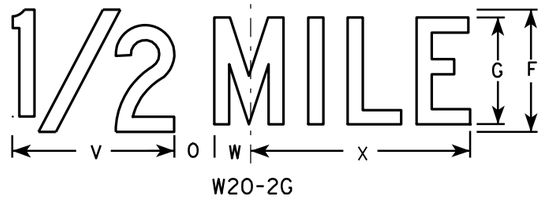
W20-2D



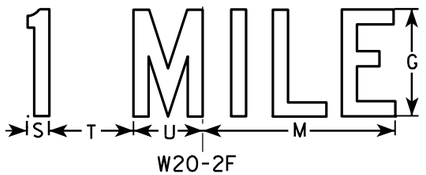
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. 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		1 5/8	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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		2 1/4	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

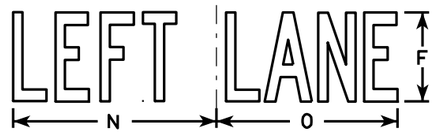
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

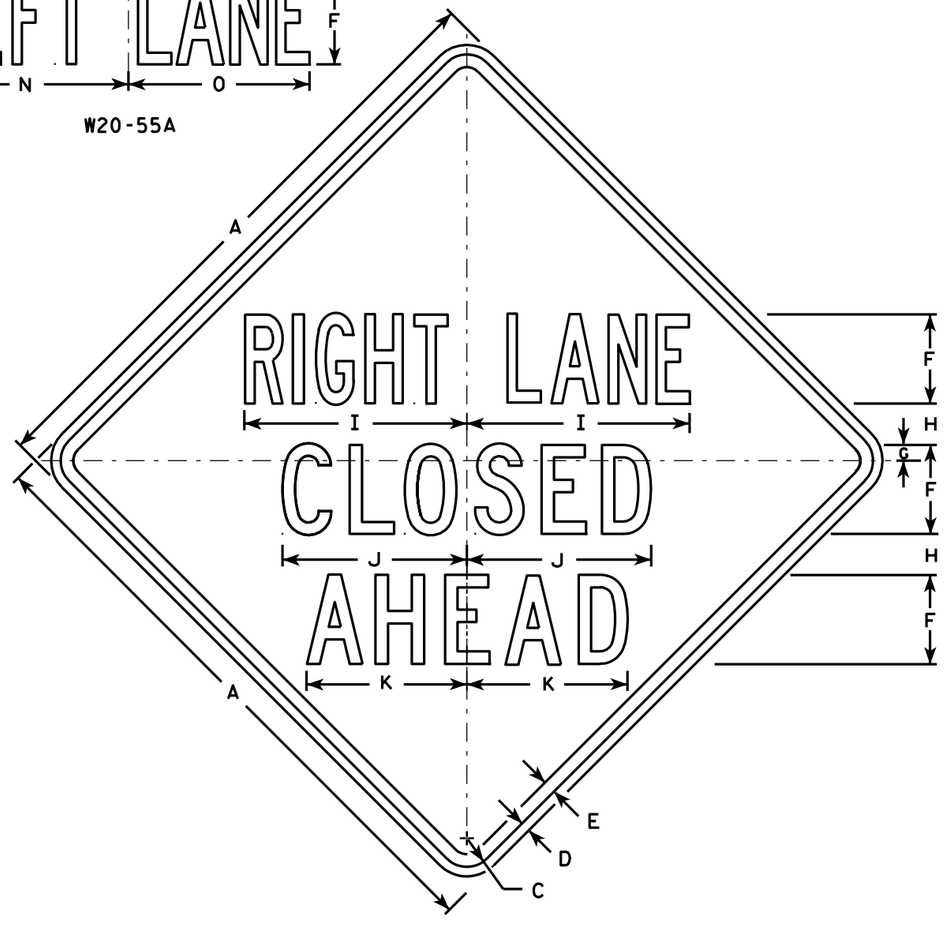
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 392	E

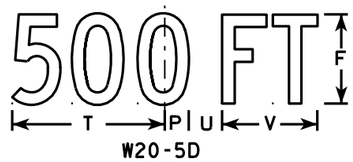
W20-56A



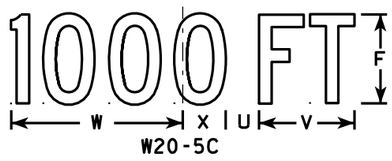
W20-55A



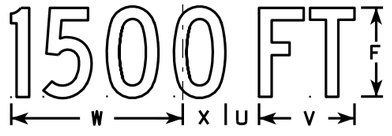
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	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 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	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	2 1/4	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	2 1/4	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	2 1/4	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	2 1/4	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

STANDARD SIGN
W20-5A, B, C, D, F & G

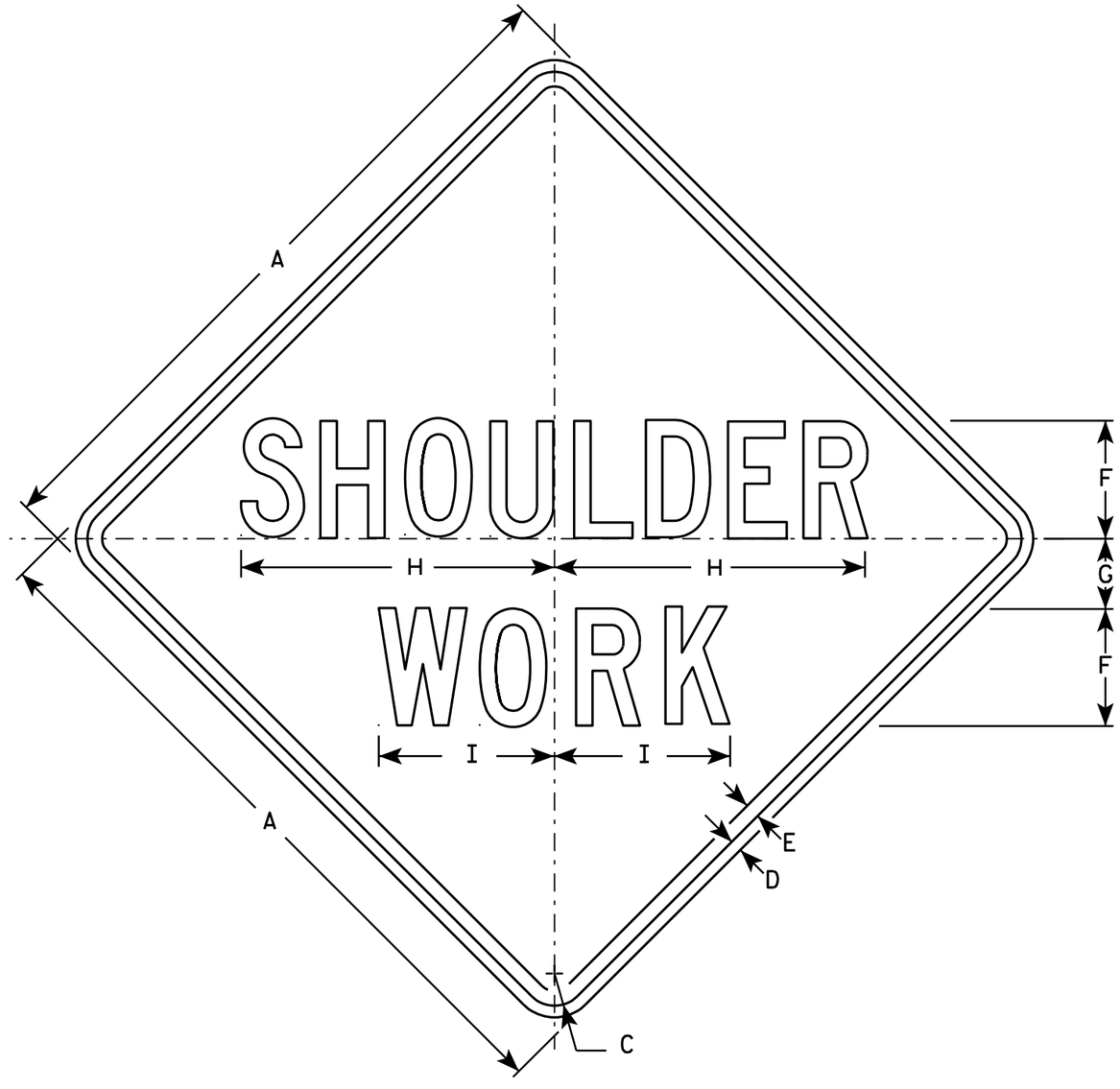
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 393	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-5

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	2 1/2	10 3/4	6																		4.0
2S	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	3	13 3/8	7 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

STANDARD SIGN
W21-5

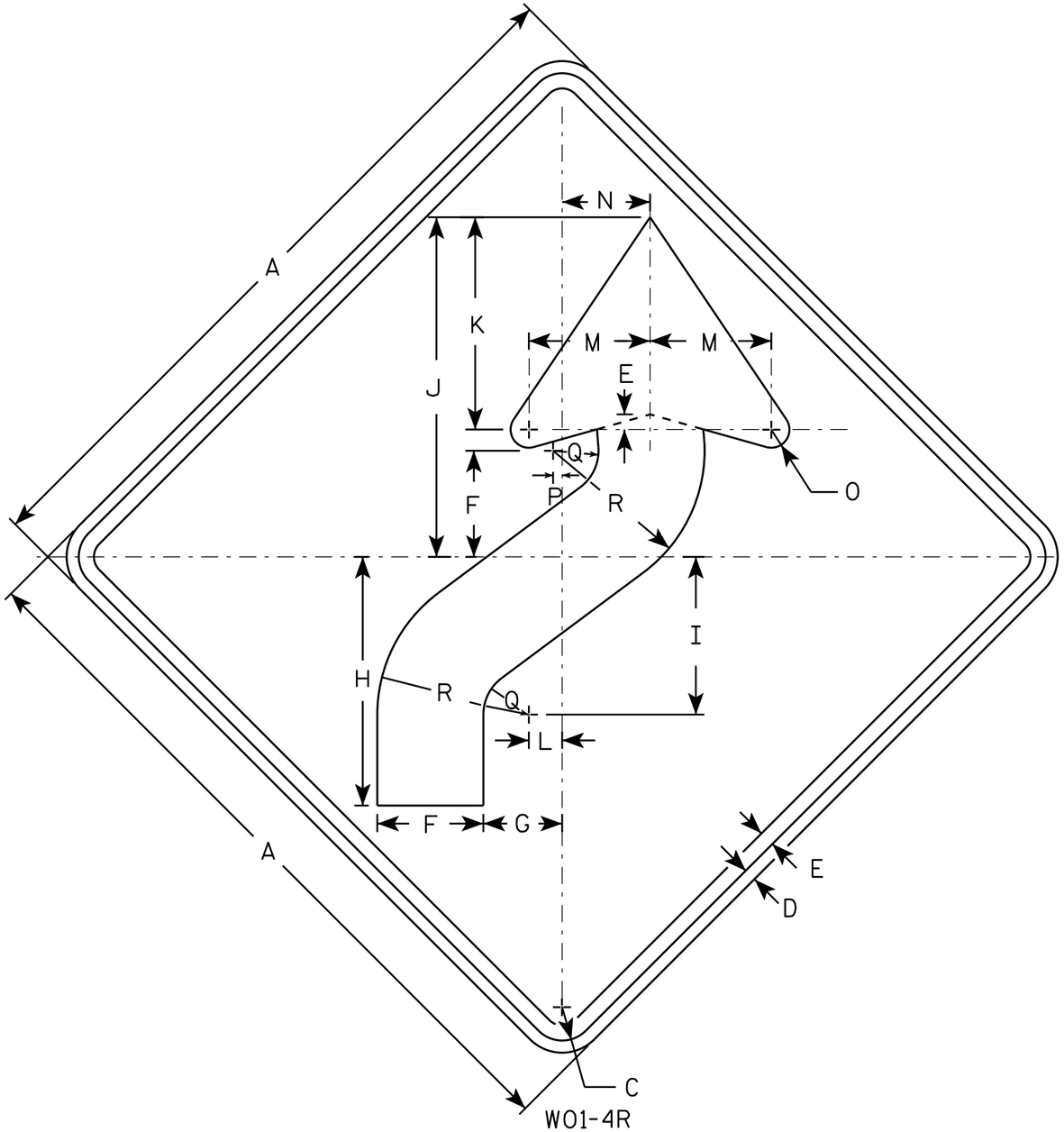
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 394 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W215.DGN PLOT DATE : 21-MAR-2011 08:01 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.207338:1.000000
WISDOT/CADDS SHEET 42



WO1-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. WO1-4L is the same as WO1-4R except the arrow is reversed along the vertical centerline.

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

STANDARD SIGN
WO1-4

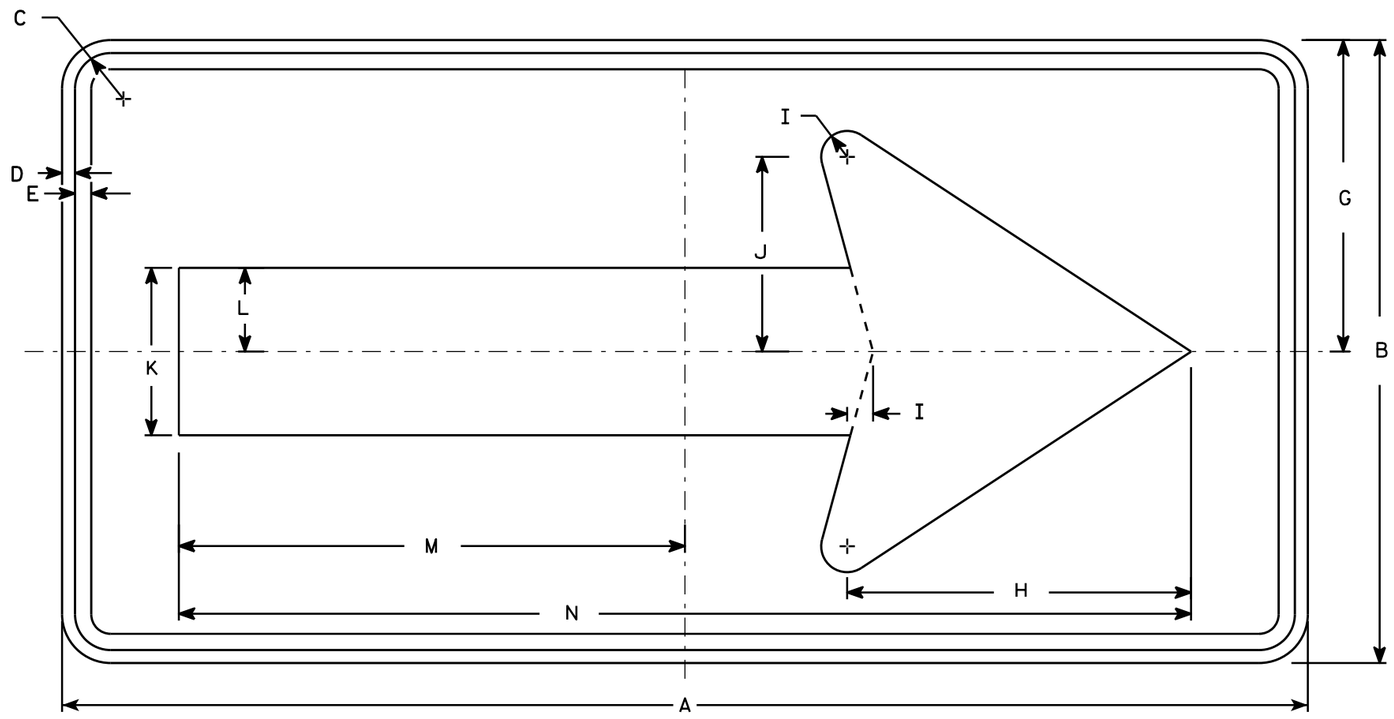
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO WO1-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO14.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

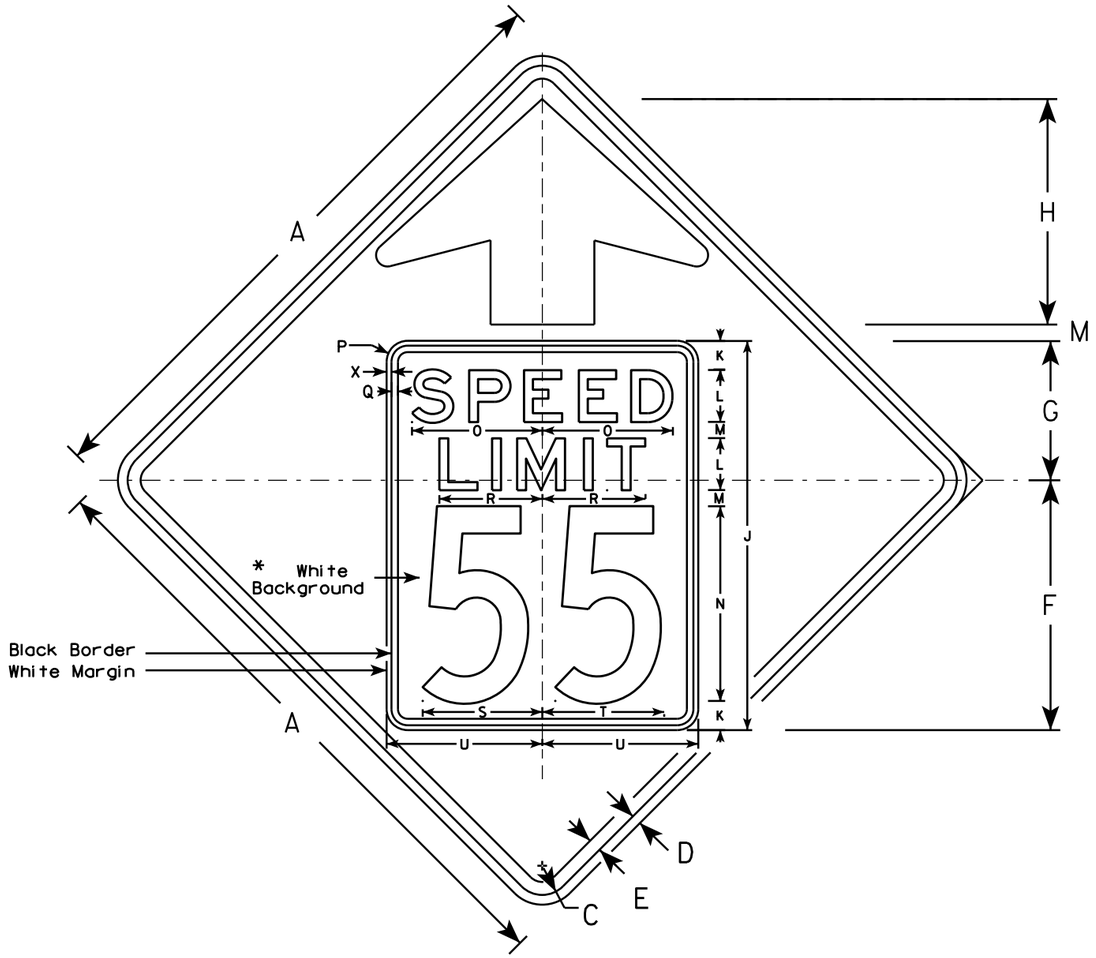
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42

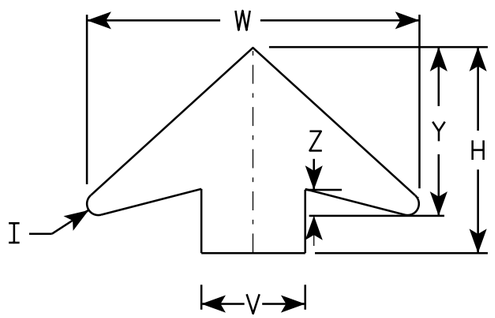


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

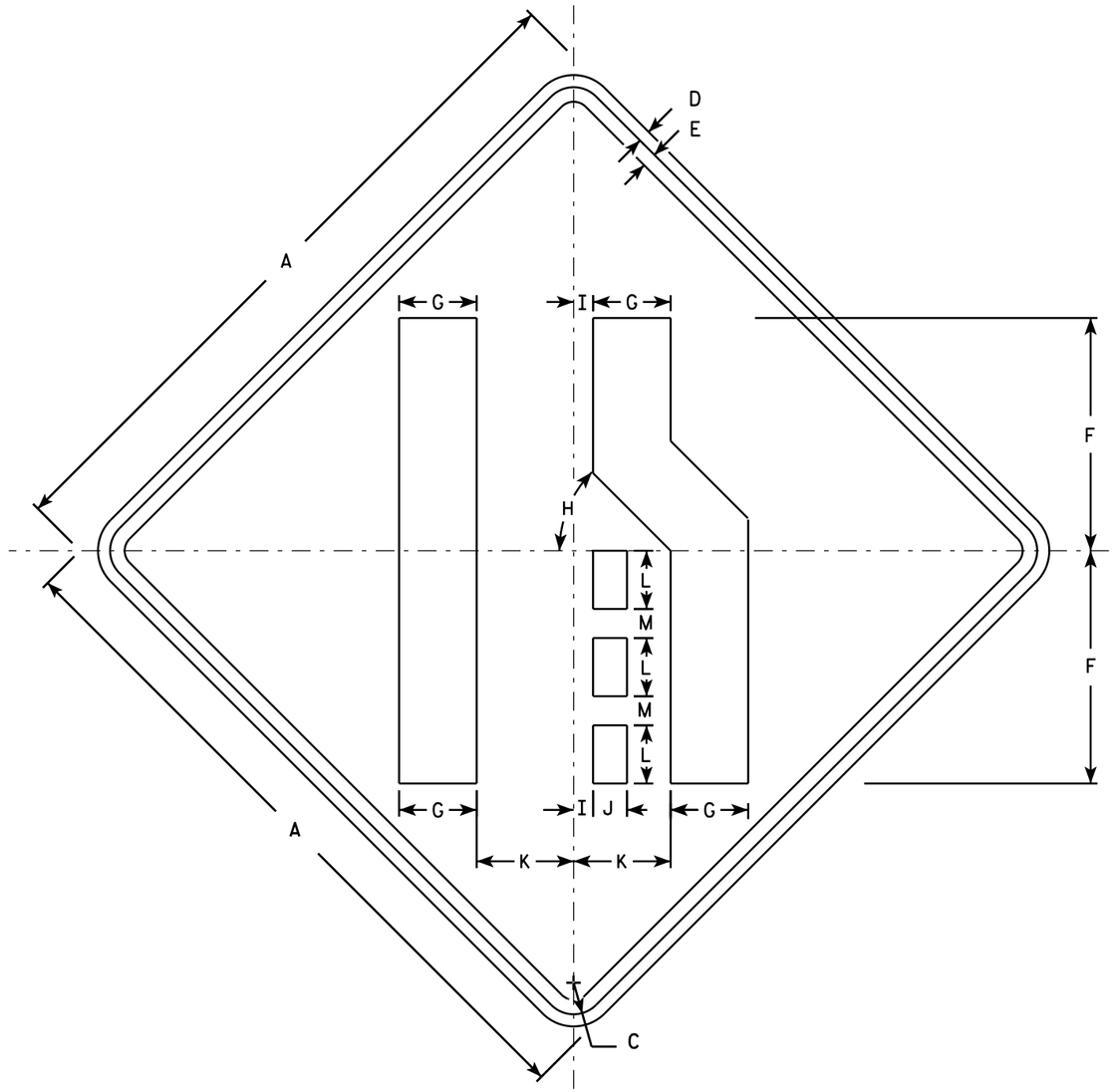
DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7 7



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

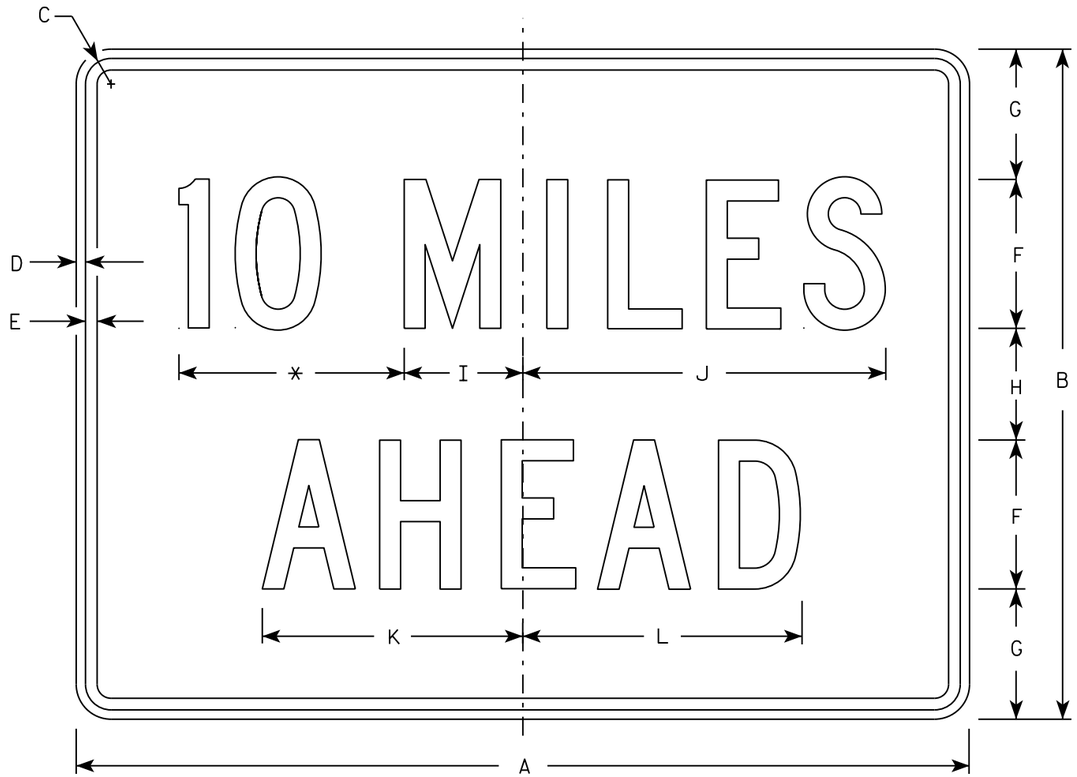
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 398 W04-2.1

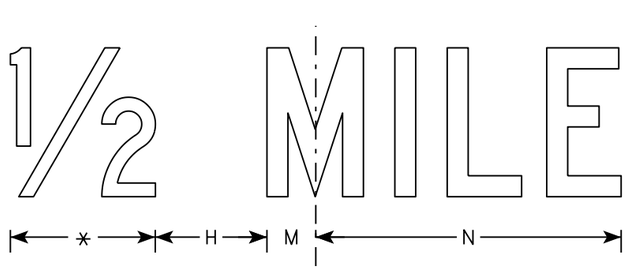
PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W042.DGN PLOT DATE : 20-NOV-2013 11:43 PLOT BY : mscsja



W057-52



NOTES

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

* See note 5

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

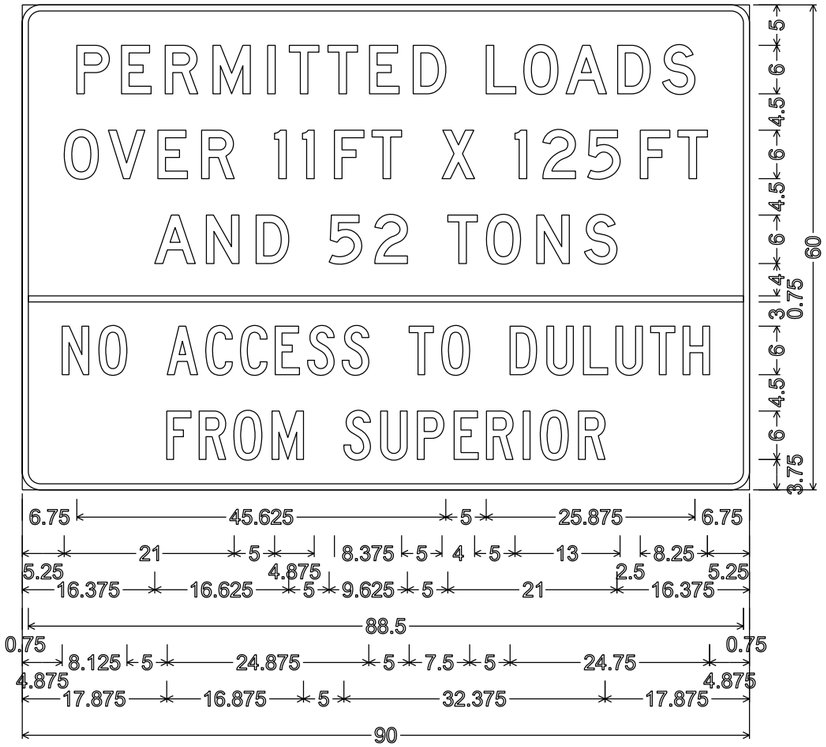
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

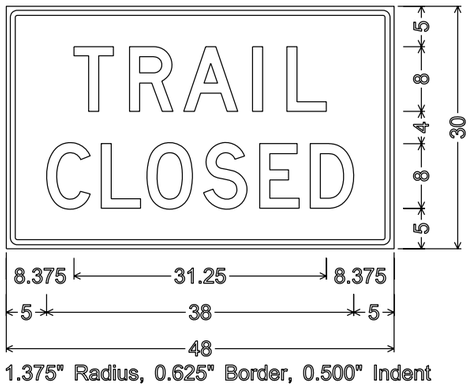
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 399	E



2.250" Radius, 0.750" Border,
"PERMITTED" D; "LOADS" D; "OVER" D; "11" D; "FT" D; "X" D;
"125 FT" D; "AND" D; "52" D; "TONS" D; "NO" C; "ACCESS" C; "TO" C;
"DULUTH" C; "FROM" C; "SUPERIOR" C



1.375" Radius, 0.625" Border, 0.500" Indent

NOTES

1. Sign are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except as noted

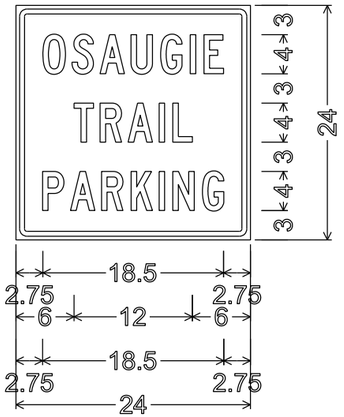
3.000" Radius, 1.000" Border,
"PERMITTED" D; "LOADS" D; "OVER" D; "11" D; "FT" D; "X" D; "125 FT" D; "AND" D; "52" D;
"TONS" D; "NO" C; "ACCESS" C; "TO" C; "DULUTH" C; "FROM" C; "SUPERIOR" C

7

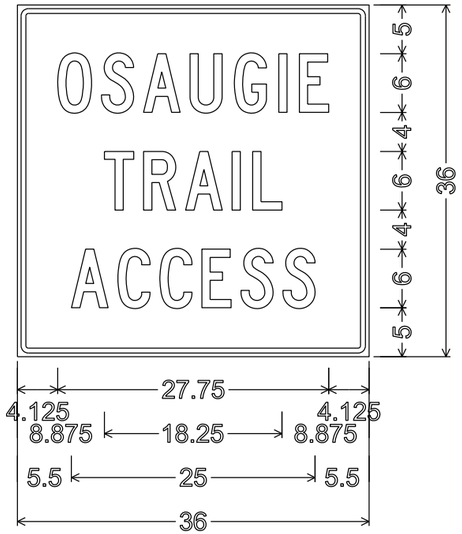
7

NOTES

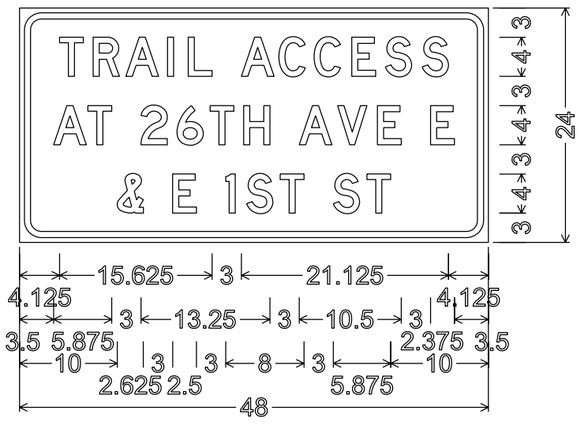
1. Sign are Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C except as noted



1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent



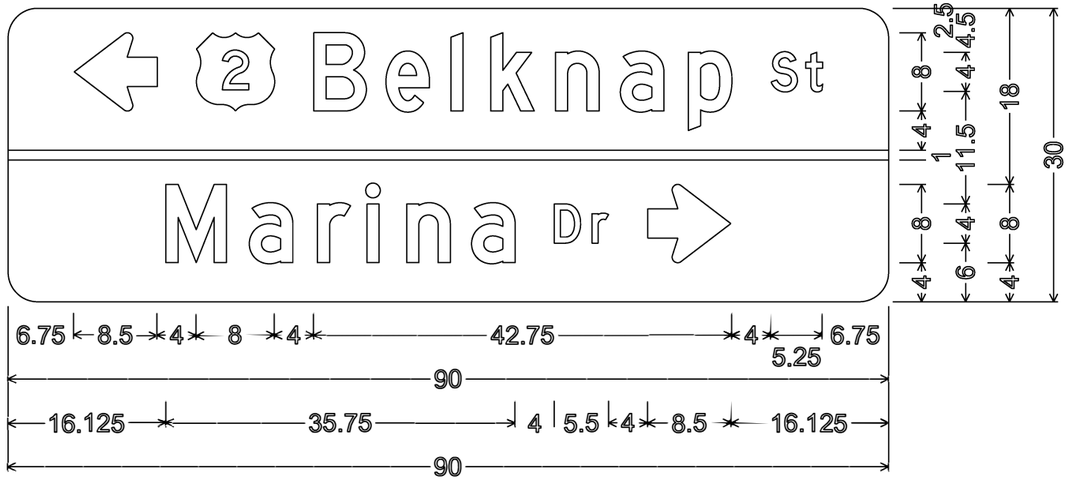
2.250" Radius, 0.625" Border, 0.500" Indent,
"TRAIL" D; "ACCESS" D; "AT" D;
"26TH" D; "AVE" D; "E" D; "&" D;
"E" D; "1ST" D; "ST" D;

7

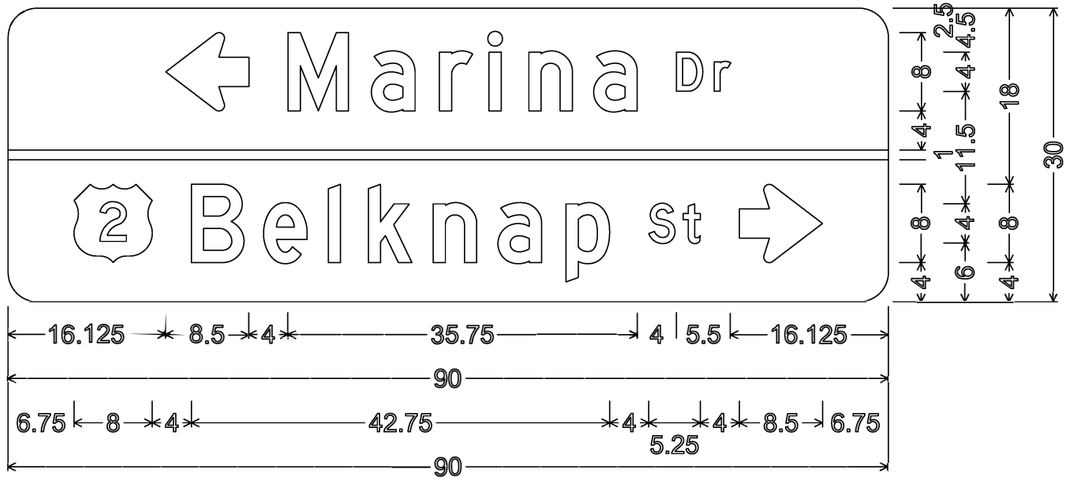
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - D



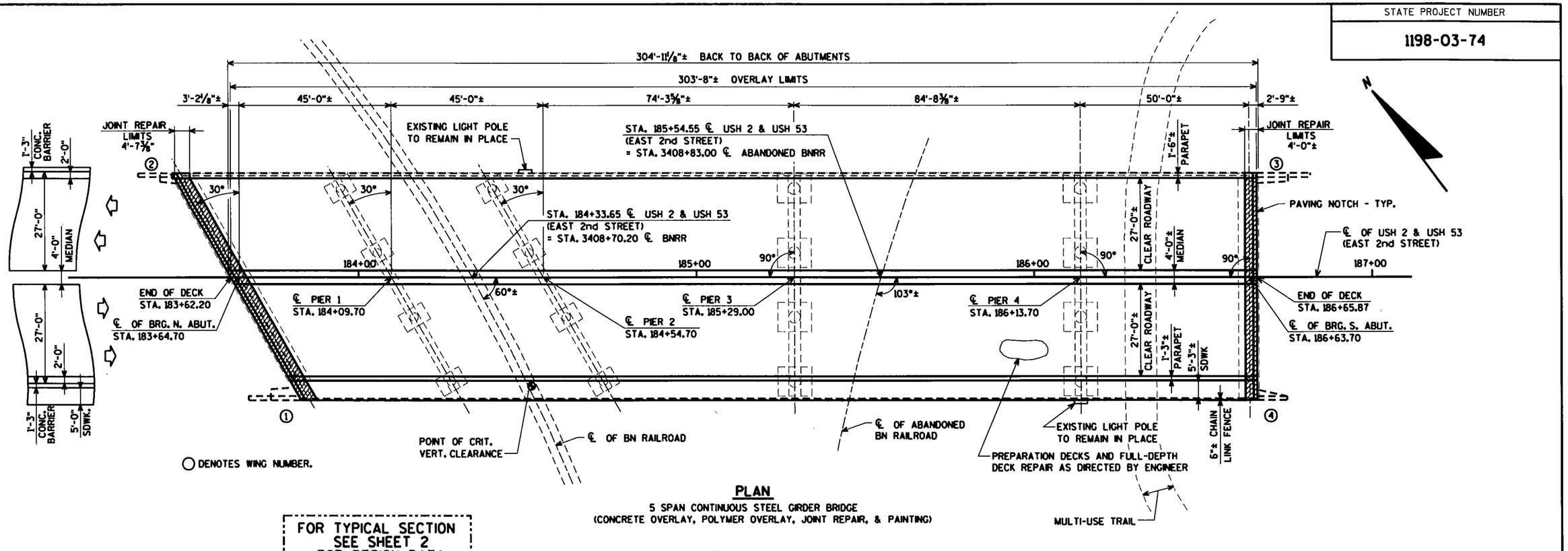
M1-94S; 3.000" Radius, No border



M1-94S; 3.000" Radius, No border

STATE PROJECT NUMBER

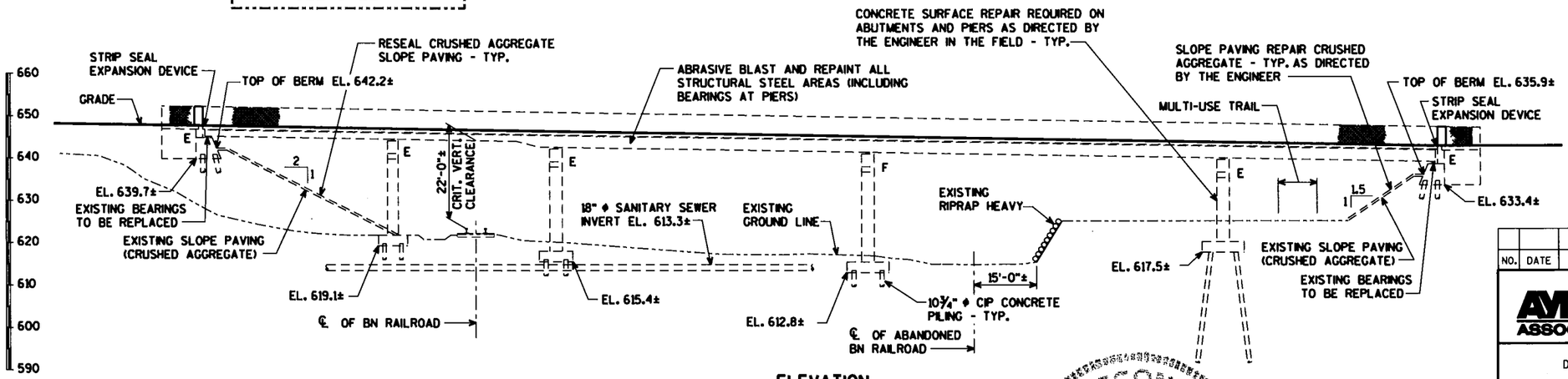
1198-03-74



PLAN

5 SPAN CONTINUOUS STEEL GIRDER BRIDGE
(CONCRETE OVERLAY, POLYMER OVERLAY, JOINT REPAIR, & PAINTING)

FOR TYPICAL SECTION SEE SHEET 2
FOR DESIGN DATA SEE SHEET 3



ELEVATION

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION
3. DESIGN DATA, QUANTITIES AND NOTES
4. GIRDER DEFLECTIONS
5. EXPANSION BEARING DETAILS
6. NORTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS
7. SOUTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS
8. STRIP SEAL EXPANSION JOINT DETAILS
9. STRIP SEAL SIDEWALK PARAPET DETAILS
10. MEDIAN DETAILS
11. OUTSIDE PARAPET DETAILS
12. SIDEWALK PARAPET DETAILS
13. WING PARAPET DETAILS
14. PARAPET DETAILS AND BILL OF BARS

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE
WI
PROFESSIONAL ENGINEER
6/5/19

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/20/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-16-68

USH 2 & USH 53 OVER BNRR & NEWTON CREEK

COUNTY	DOUGLAS	~~TOWN~~/CITY/~~VILLAGE~~	SUPERIOR
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY AEB	DESIGN CK'D. CJM	DRAWN BY CLS	PLANS CK'D. CBM

GENERAL PLAN

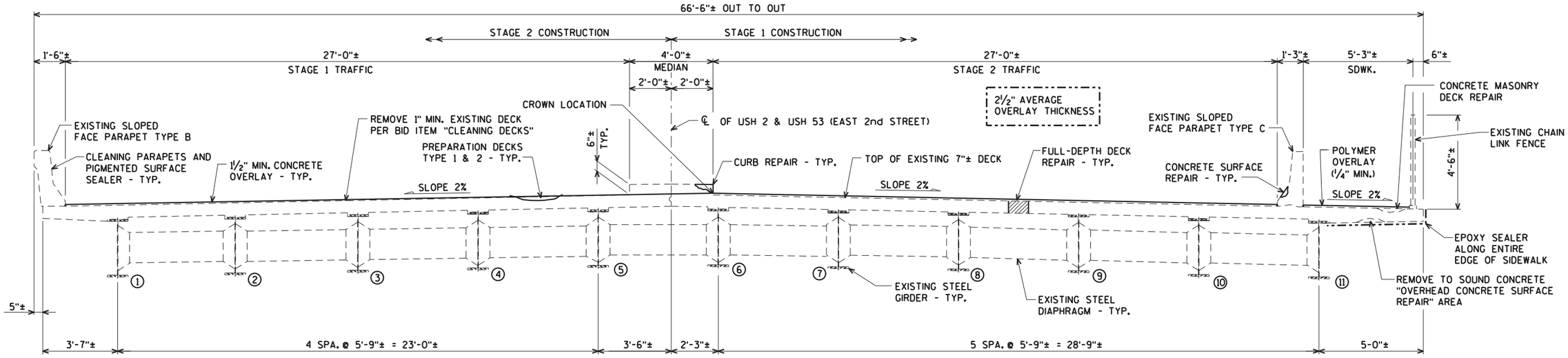
SHEET 403

DATE:
DATE:
DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

$PRFNAME$
V:\Structures-EC\42-1112.00 - USH 2 & USH 53 Rehabilitation\Structures\421112 gp.dgn

6/5/2019 PENTABLE:BReau shd util.tbl LD DATE:

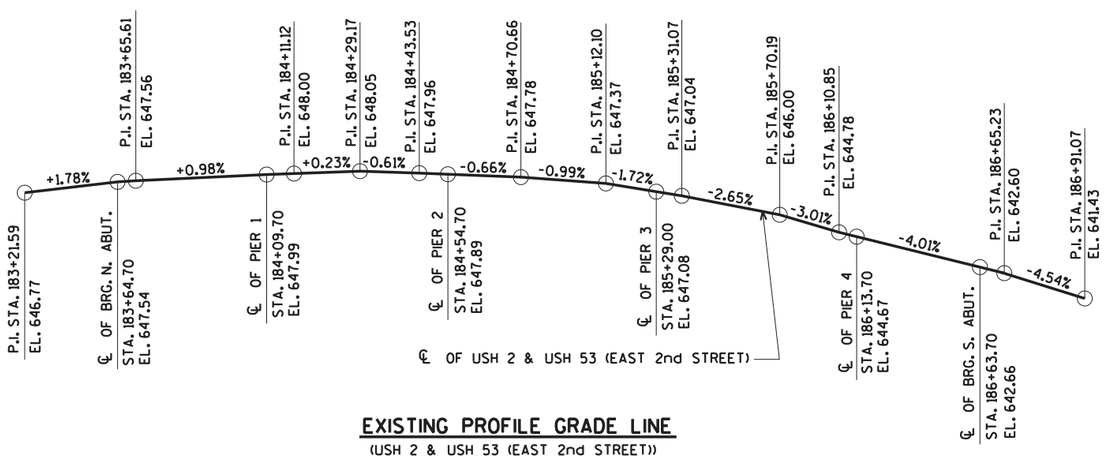
STATE PROJECT NUMBER
1198-03-74



CROSS SECTION THRU ROADWAY

(LOOKING SOUTH)

NOTE: THE CONCRETE OVERLAY WILL BE VARIABLE THICKNESS (1½" MIN.) TO IMPROVE THE "RIDE" OF THE EXISTING BRIDGE DECK. SEE GIRDER DEFLECTIONS ON SHEET 4.



EXISTING PROFILE GRADE LINE

(USH 2 & USH 53 (EAST 2nd STREET))
(FOR INFORMATION ONLY)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

TYPICAL SECTION

SHEET 2 OF 14
404

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

8

$PRFNAME$
V:±Structures-EC±42-1112.00 - USH 2 & USH 53 Rehabilitation±Structures±421112 gp.dgn

STATE PROJECT NUMBER

1198-03-74

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
	203.0200	REMOVING OLD STRUCTURE STATION 185+14.20	LS	1
	203.0225.S	DEBRIS CONTAINMENT B-16-68	LS	1
	502.0100	CONCRETE MASONRY BRIDGES	CY	3
	502.3101	EXPANSION DEVICE B-16-68	LF	143
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,990
	502.3210	PIGMENTED SURFACE SEALER	SY	325
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	160
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,320
	506.6000	BEARING ASSEMBLIES EXPANSION B-16-68	EACH	22
	506.7050.S	REMOVING BEARINGS B-16-68	EACH	22
	509.0301	PREPARATION DECKS TYPE 1	SY	460
	509.0302	PREPARATION DECKS TYPE 2	SY	115
●	509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	200
	509.0500	CLEANING DECKS	SY	1,825
	509.1000	JOINT REPAIR	SY	64
	509.1200	CURB REPAIR	LF	60
◨	509.1500	CONCRETE SURFACE REPAIR	SF	400
	509.2000	FULL-DEPTH DECK REPAIR	SY	30
●	509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	5
⚠	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	143
	509.5100.S	POLYMER OVERLAY	SY	182
	509.9050.S	CLEANING PARAPETS	LF	595
	517.0900.S	PREPARATION AND COATING OF TOP FLANGES B-16-68	LS	1
	517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-16-68	LS	1
	517.2000.S	PAINTING WARRENTED B-16-68	LS	1
X	517.4000.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-16-68	LS	1
XX	517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-16-68	LS	1
	517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
☆	604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	15
	604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	705
	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	10
⊕	SPV.0165.01	OVERHEAD CONCRETE SURFACE REPAIR	SF	160
	SPV.0180.01	EPOXY SEALER	SY	180
		NON-BID ITEMS		
		BRIDGE SEAT PROTECTION		
		FILLER	SIZE	½"

◨ UNDISTRIBUTED FOR PARAPETS & SUBSTRUCTURE UNITS AS DIRECTED IN THE FIELD BY THE ENGINEER.

⊕ SIDEWALK OVERHANG

⚠ BID ITEM ALSO INCLUDES CONCRETE FOR "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2", "FULL DEPTH REPAIR", AND "JOINT REPAIR" ON ROADWAY.

● UNDISTRIBUTED IN AREAS UNDER THE POLYMER OVERLAY ON SIDEWALK.

☆ UNDISTRIBUTED AT ABUTMENTS AS DIRECTED IN THE FIELD BY THE ENGINEER

X FOR SPAN 2

XX FOR SPAN 1 AND SPANS 3 THRU 5

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS-20
INVENTORY RATING: HS-24
OPERATING RATING: HS-40
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY { DECK PATCHING & OVERLAY ——— f'_c = 4,000 p.s.i.
ALL OTHER ——— f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— f_y = 60,000 p.s.i.

TRAFFIC DATA:

A.A.D.T. = 20,400 (2020)
A.A.D.T. = 23,200 (2040)
R.D.S. = 40 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR, AND FULL-DEPTH DECK REPAIR AREAS UNDER THE CONCRETE OVERLAY ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS."

THE CONCRETE APPROACH SLABS WILL NEED TO BE A MINIMUM OF 1'-0½" THICK AT THE ABUTMENTS.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

ALL CONCRETE REMOVAL NOT COVERED BY A CONCRETE OVERLAY SHALL BE DEFINED BY A 1" DEEP SAW CUT.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF THE CONCRETE OVERLAY AND THE TOPS AND SIDES OF THE MEDIAN PER MANUFACTURERS RECOMMENDATIONS.

PIGMENTED PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE INSIDE FACES AND TOPS OF THE PARAPETS PER MANUFACTURERS RECOMMENDATIONS. THE COLOR OF THE PIGMENTED PROTECTIVE SURFACE TREATMENT SHALL BE WHITE.

ALL PREVIOUS PATCHES SHALL BE REMOVED UNDER THE BID ITEM "PREPARATION DECKS".

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM, "CLEANING DECKS", BUT LESS THAN 1½" MAXIMUM.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR PAVING BLOCKS AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

THE COLOR OF THE POLYMER OVERLAY SHALL BE BROWN.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR THE GIRDERS AND CONNECTING STRUCTURAL STEEL SHALL BE REDDISH-BROWN (RED BRICK TONE) (FEDERAL STANDARD COLOR NO. 20152).

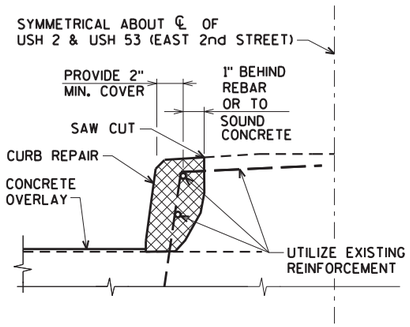
ORIGINAL CONSTRUCTION YEAR IS 1989.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1½" AT THE CENTERLINE AND AT THE FACE OF PARAPETS PLACED ABOVE THE DECK SURFACE AFTER "CLEANING DECKS". EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

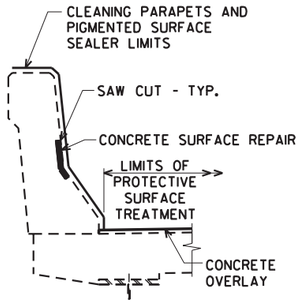
EPOXY SEAL ABUTMENT BEAM SEATS.

STRIP SEAL EXPANSION JOINT ASSEMBLIES, INCLUDING ANCHOR STUDS AND HARDWARE, SHALL BE PAID FOR UNDER THE BIT ITEM "EXPANSION DEVICE B-16-68"

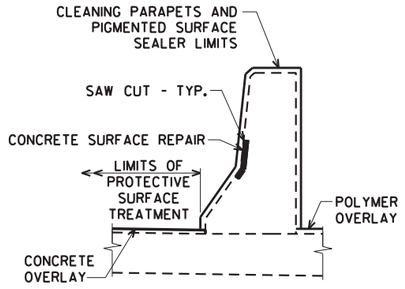


CURB REPAIR DETAIL

NOTE:
LIMITS OF REPAIR FOR CURB SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. VERTICAL AND HORIZONTAL LIMITS OF CURB REPAIR SHALL BE DEFINED BY A ½" DEEP SAW CUT.



SLOPED FACE PARAPET TYPE B REPAIR DETAIL



SLOPED FACE PARAPET TYPE C REPAIR DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

DESIGN DATA, QUANTITIES AND NOTES

SHEET 3 OF 14
405

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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$PRFNAME$
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6/5/2019

PENTABLE:BReau_shd_util.tbl

GIRDER DEFLECTIONS

	N. Abut.	0.1 Pt	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	Pier 1	0.1 Pt	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	Pier 2	0.1 Pt	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	Pier 3
Girder 1	0.00	0.03	0.05	0.07	0.08	0.08	0.07	0.06	0.04	0.02	0.00	-0.01	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.03	-0.02	0.00	0.05	0.09	0.13	0.15	0.16	0.14	0.11	0.06	0.02	0.00
Girder 2	0.00	0.03	0.05	0.07	0.08	0.08	0.07	0.06	0.04	0.02	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	0.00	0.04	0.09	0.12	0.14	0.14	0.13	0.09	0.06	0.02	0.00
Girder 3	0.00	0.03	0.05	0.07	0.08	0.08	0.07	0.06	0.04	0.02	0.00	-0.01	-0.01	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	0.00	0.03	0.07	0.10	0.12	0.12	0.10	0.08	0.04	0.02	0.00
Girder 4	0.00	0.03	0.05	0.07	0.08	0.08	0.07	0.06	0.04	0.02	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.02	-0.02	-0.01	0.00	0.03	0.06	0.08	0.09	0.09	0.08	0.06	0.03	0.01	0.00
Girder 5	0.00	0.03	0.05	0.07	0.08	0.08	0.07	0.05	0.03	0.02	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.02	0.04	0.06	0.07	0.07	0.06	0.04	0.02	0.01	0.00
Girder 6	0.00	0.03	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	-0.01	-0.01	0.00	0.02	0.05	0.06	0.07	0.07	0.06	0.04	0.02	0.01	0.00
Girder 7	0.00	0.03	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	-0.01	0.00	0.02	0.03	0.05	0.05	0.05	0.04	0.03	0.01	0.00	0.00
Girder 8	0.00	0.03	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	-0.01	0.00	0.01	0.02	0.03	0.04	0.04	0.03	0.02	0.01	0.00	0.00
Girder 9	0.00	0.03	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00
Girder 10	0.00	0.03	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00	-0.01	0.00
Girder 11	0.00	0.02	0.05	0.06	0.07	0.07	0.06	0.05	0.03	0.01	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	-0.01	-0.01	-0.01	0.00

	Pier 3	0.1 Pt	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	Pier 4	0.1 Pt	0.2 PT	0.3 PT	0.4 PT	0.5 PT	0.6 PT	0.7 PT	0.8 PT	0.9 PT	S. Abut.
Girder 1	0.00	0.00	0.02	0.04	0.06	0.07	0.07	0.06	0.04	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Girder 2	0.00	0.00	0.02	0.04	0.06	0.07	0.07	0.06	0.04	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.00	0.00
Girder 3	0.00	0.01	0.03	0.05	0.07	0.08	0.08	0.06	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Girder 4	0.00	0.01	0.03	0.06	0.07	0.08	0.08	0.07	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Girder 5	0.00	0.01	0.04	0.06	0.08	0.09	0.09	0.07	0.05	0.02	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Girder 6	0.00	0.01	0.04	0.07	0.09	0.10	0.10	0.08	0.05	0.02	0.00	-0.01	-0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
Girder 7	0.00	0.02	0.05	0.08	0.10	0.11	0.10	0.08	0.05	0.02	0.00	-0.01	-0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00
Girder 8	0.00	0.02	0.05	0.08	0.10	0.11	0.11	0.09	0.06	0.02	0.00	-0.01	-0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
Girder 9	0.00	0.02	0.05	0.09	0.11	0.12	0.11	0.09	0.06	0.02	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Girder 10	0.00	0.02	0.06	0.09	0.11	0.12	0.11	0.09	0.06	0.03	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Girder 11	0.00	0.03	0.06	0.09	0.12	0.12	0.12	0.09	0.06	0.03	0.00	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DEFLECTIONS BASED ON 1½" CONCRETE OVERLAY.
DEFLECTIONS ARE GIVEN IN FEET.
NEGATIVE DEFLECTION VALUE DENOTES UPWARD DEFLECTION.
DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.

6/5/2019
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY ZSS | PLANS CK'D. AEB/CBM

GIRDER DEFLECTIONS

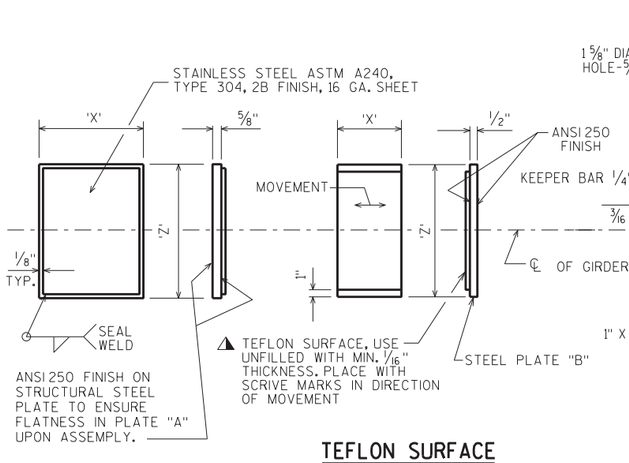
SHEET 4 OF 14
406

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

V:\Structures-EC\42-1112.00 - USH 2 & USH 53 Rehabilitation\Structures\421112 deflections.DGN

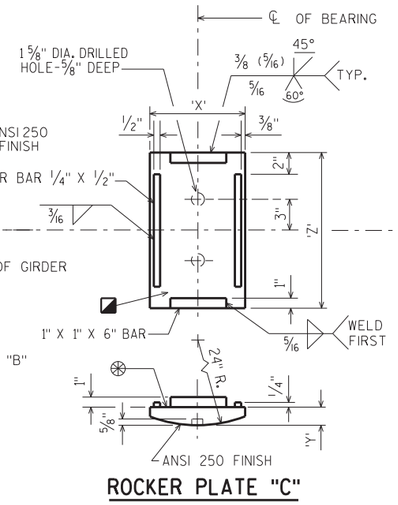
STATE PROJECT NUMBER

1198-03-74

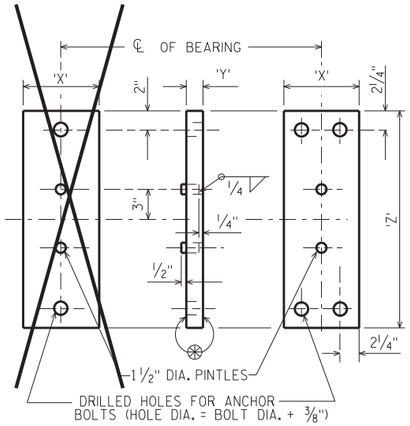


TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

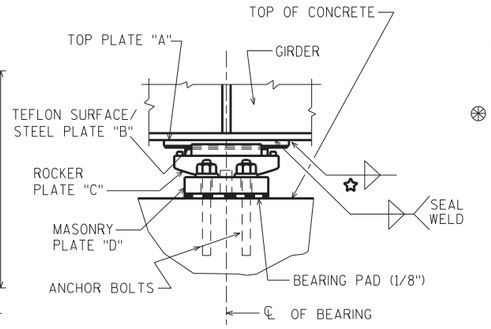


ROCKER PLATE "C"



TYPE I TYPE II

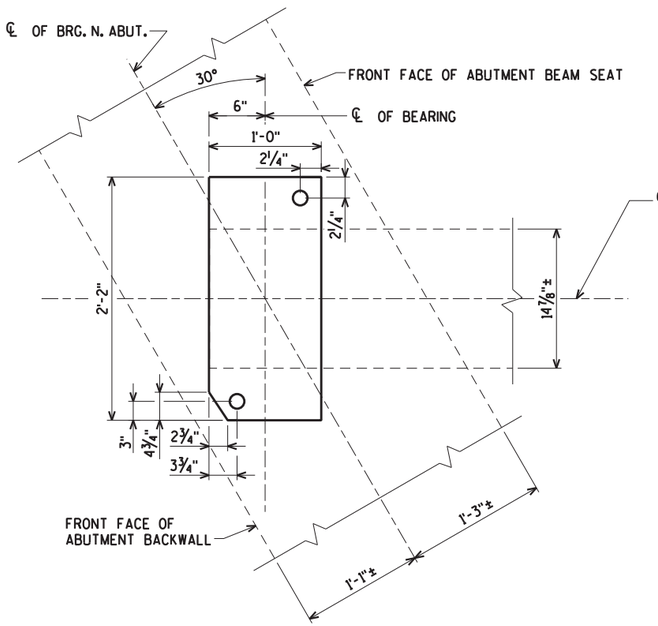
MASONRY PLATE "D"



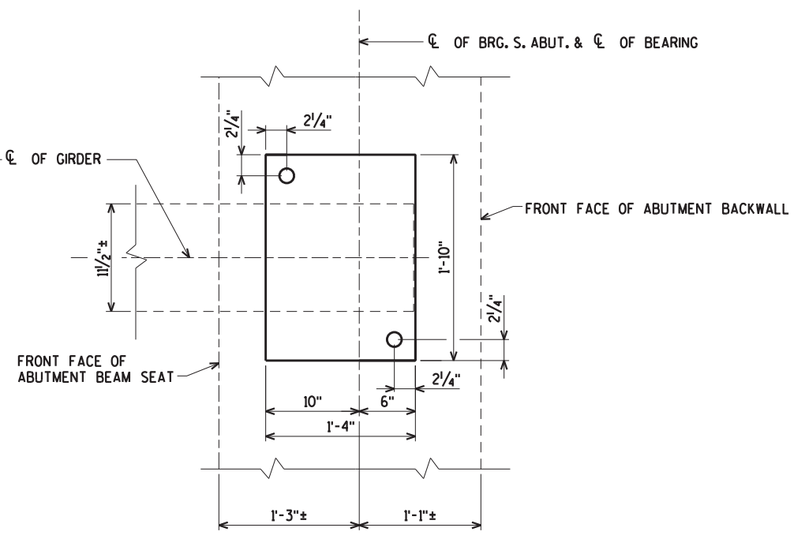
EXPANSION BEARING ASSEMBLY

EXPANSION BEARING

	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			PLATE "D" TYPE	ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'				
EXPANSION BEARING	11"	1'-4"	7"	1'-4"	9"	1 3/16"	1'-6 1/4"	1'-0"	1 1/2"	2'-2"	II	1 1/4"ϕ	11	N. ABUT.
	9"	1'-0"	5"	1'-0"	7"	1 3/16"	1'-2 1/4"	1'-4"	1 1/2"	1'-10"	II	1 1/4"ϕ	11	S. ABUT.



MASONRY PLATE 'D' PLAN NORTH ABUTMENT



MASONRY PLATE 'D' PLAN SOUTH ABUTMENT

BEARING NOTES

ALL BEARINGS ARE SYMMETRICAL ABOUT ℄ OF GIRDER AND ℄ OF BEARING.

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-16-68", EACH.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-5 FOR 1 1/4" ϕ BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

EXPANSION BEARINGS:
ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

⚠ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

☆ TABLE OF FILLET WELD SIZES

MATERIAL THICKNESS OF THICKER PART JOINED.	∔ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2"	△ 3/8"

∔ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY ZSS | PLANS CK'D. CBM

EXPANSION BEARING DETAILS

SHEET 5 OF 14
407

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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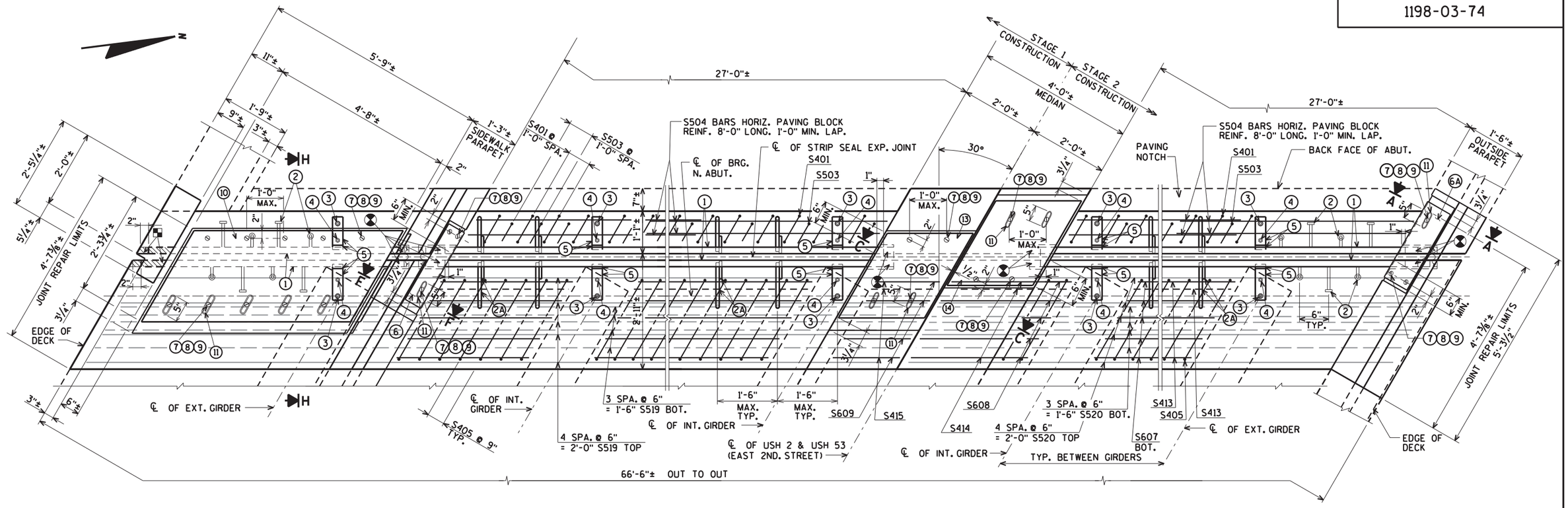
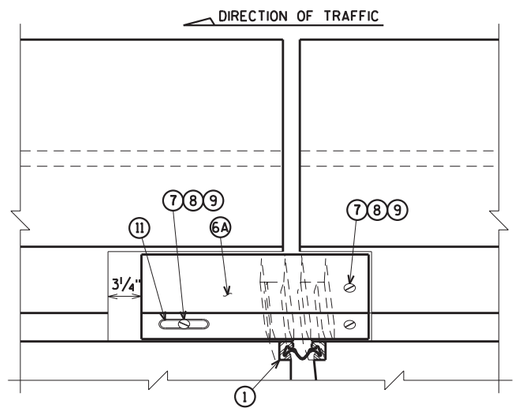
www.AyresAssociates.com

STATE PROJECT NUMBER

1198-03-74

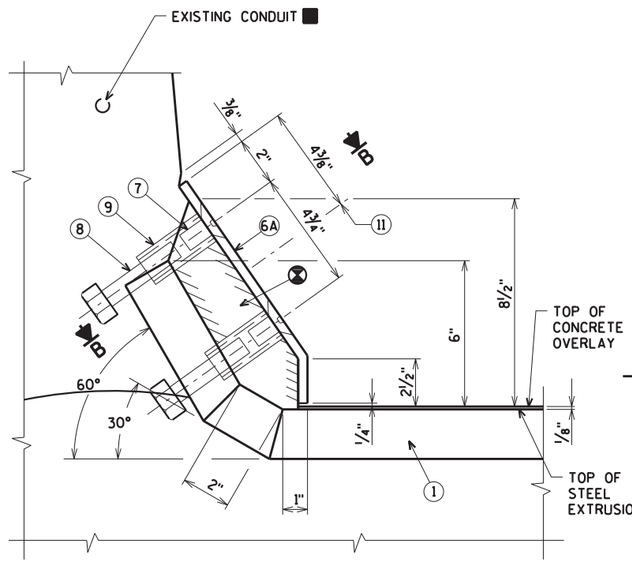


PART PLAN



VIEW OF PARAPET PLATE FROM ROADWAY

OUTSIDE PARAPET



SECTION A

OUTSIDE PARAPET

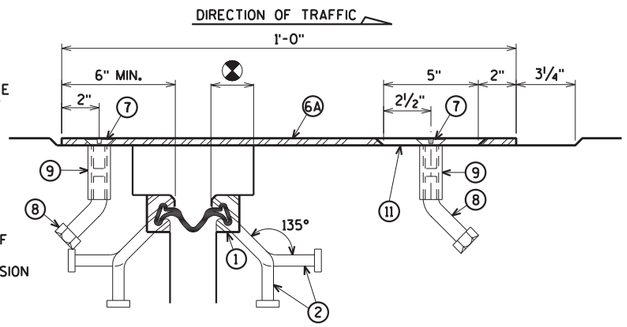
FOR SECTION C SEE SHEET 10

FOR SECTIONS F & H SEE SHEET 9

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

▪ BLOCK OUT CONCRETE ABOVE AND AT ENDS OF EXTRUSIONS.

■ WIRING IN PARAPET NEEDS TO BE TEMPORARILY CONNECTED DURING CONSTRUCTION.



SECTION B

WORK THIS SHEET WITH SHEETS 8-14.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

NORTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS

SHEET 6 OF 14
408

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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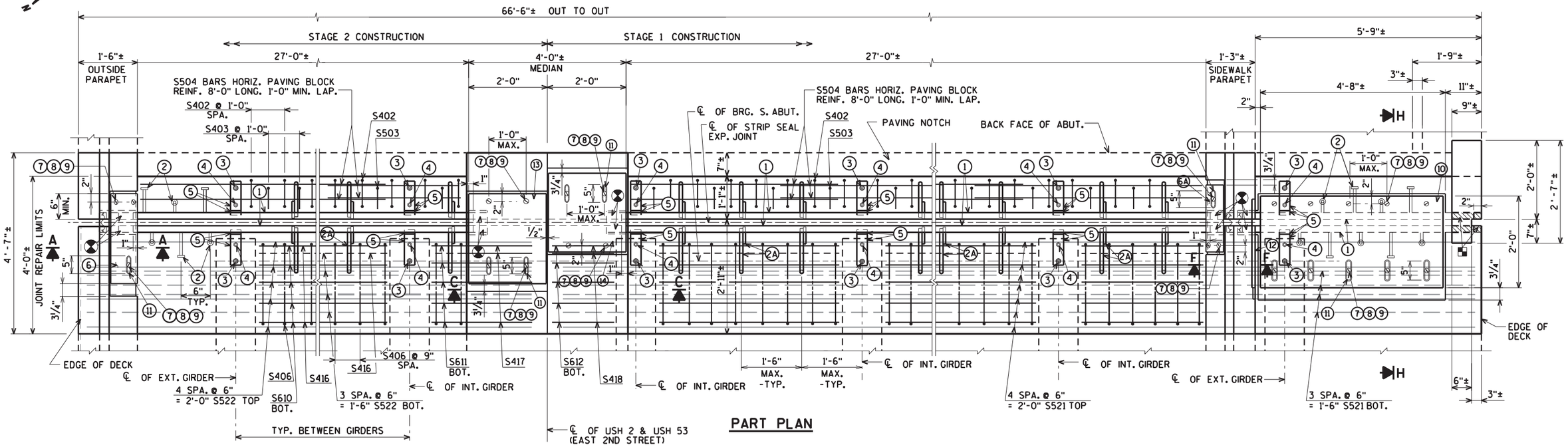
STATE PROJECT NUMBER

1198-03-74



PART PLAN

FOR SECTION C SEE SHEET 10

FOR SECTIONS F & H SEE SHEET 9

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

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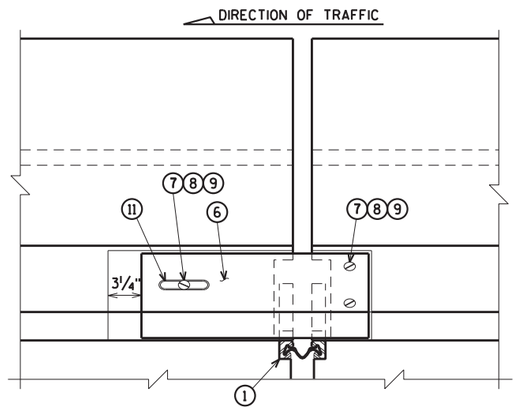
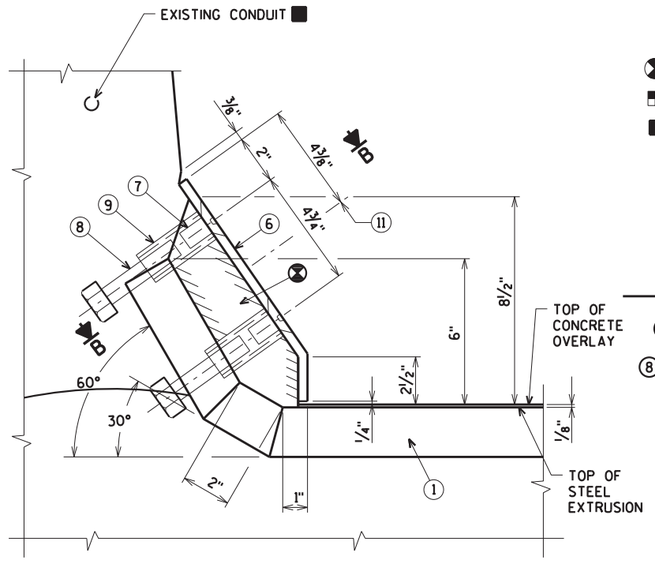


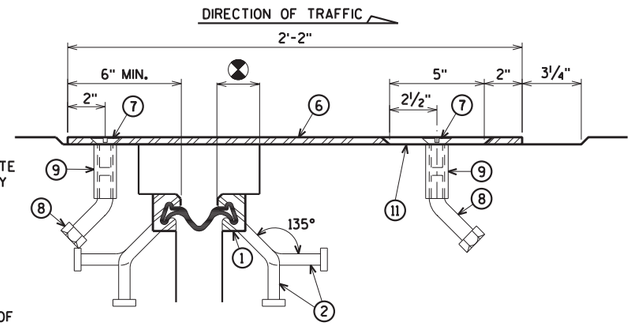
VIEW OF PARAPET PLATE FROM ROADWAY

OUTSIDE PARAPET



SECTION A

OUTSIDE PARAPET



SECTION B

WORK THIS SHEET WITH SHEETS 8-14.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

SOUTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS

SHEET 7 OF 14

409

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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6/5/2019
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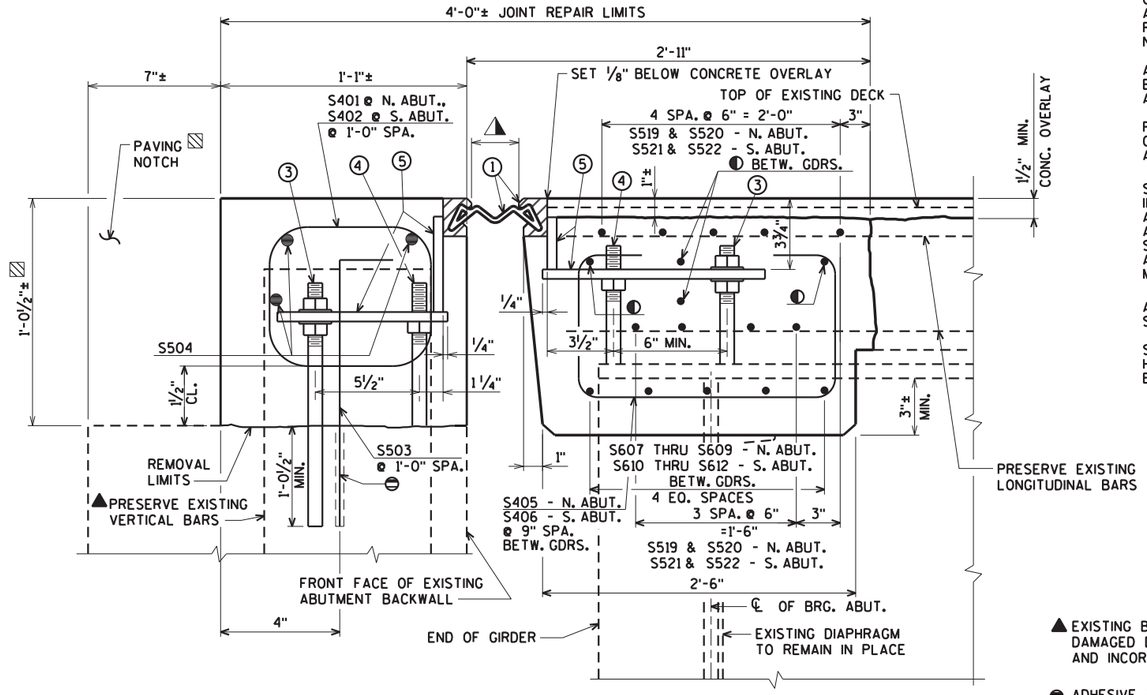


TYPICAL SECTION THRU JOINT

DIMENSIONS ARE NORMAL TO ℄ OF SUBSTRUCTURE UNIT

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING, OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE. PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR UNDER THE BID ITEM "EXPANSION DEVICE B-16-68".

▲ EXISTING BARS LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

⊖ ADHESIVE ANCHORS NO. 5 BAR. EMBED A MINIMUM OF 1'-0 1/2" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

▨ THE CONCRETE APPROACH SLAB WILL NEED TO BE 1'-0 1/2"± THICK AT THE PAVING NOTCH.

◐ S413 THRU S415 - N. ABUT.
S416 THRU S418 - S. ABUT.

LEGEND

▲① NEOPRENE STRIP SEAL (4 - INCH) AND STEEL EXTRUSIONS. JOINT OPENINGS GIVEN NORMAL TO JOINT.

② STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

②A 1/2" THICK ANCHOR PLATE WITH 5/8"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

③ 3/4" Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

④ 3/4"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

⑤ FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" Φ HOLE FOR NO. 3 AND 1" Φ HOLE FOR NO. 4.

⑥ GALVANIZED PLATE 3/8" X 10 1/2" X 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.

⑥A GALVANIZED PLATE 3/8" X 10 1/2" X 1'-10" LONG. WITH HOLES FOR NO. 7. BEND AS SHOWN.

⑦ 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

⑧ 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

⑨ 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

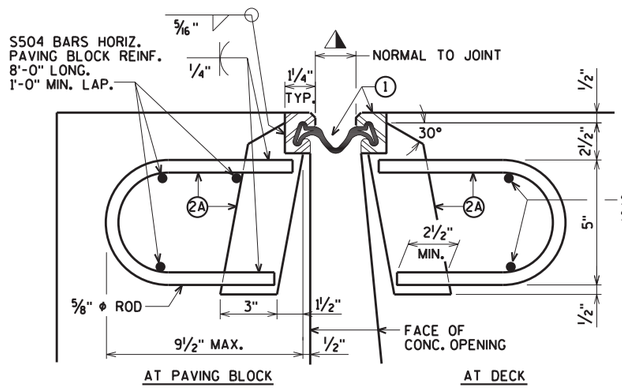
⑩ SIDEWALK COVER PLATE 3/8" X 2'-0" WIDE X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

⑪ 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

⑫ GALVANIZED PLATE 3/8" X 9" X 2'-0" LONG WITH HOLES FOR NO. 7.

⑬ MEDIAN COVER PLATE 3/8" X 2'-0" WIDE X LIMITS SHOWN. BEND DOWN FACE OF MEDIAN WITH HOLES FOR NO. 7.

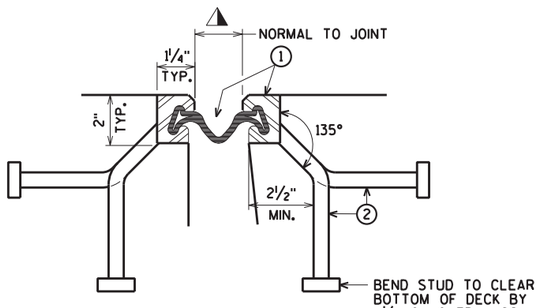
⑭ MEDIAN COVER PLATE 3/8" X 1'-10" WIDE X LIMITS SHOWN. BEND DOWN FACE OF MEDIAN WITH HOLES FOR NO. 7.



SECTION THRU JOINT

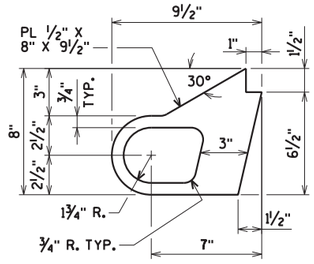
ROADWAY TRAFFIC AREA BETWEEN GIRDERS.

SYM. ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED



SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS



ALTERNATE STRIP SEAL ANCHOR

▲ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	1 3/4"
75°	1 7/8"
65°	2"
55°	2 1/8"
45°	2 1/4"
35°	2 3/8"
25°	2 1/2"
15°	2 5/8"
5°	2 3/4"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

WORK THIS SHEET WITH SHEETS 6-7 & 9-10.

NO.	DATE	REVISION	BY

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STRUCTURE B-16-68

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STRIP SEAL EXPANSION JOINT DETAILS

SHEET 8 OF 14
410

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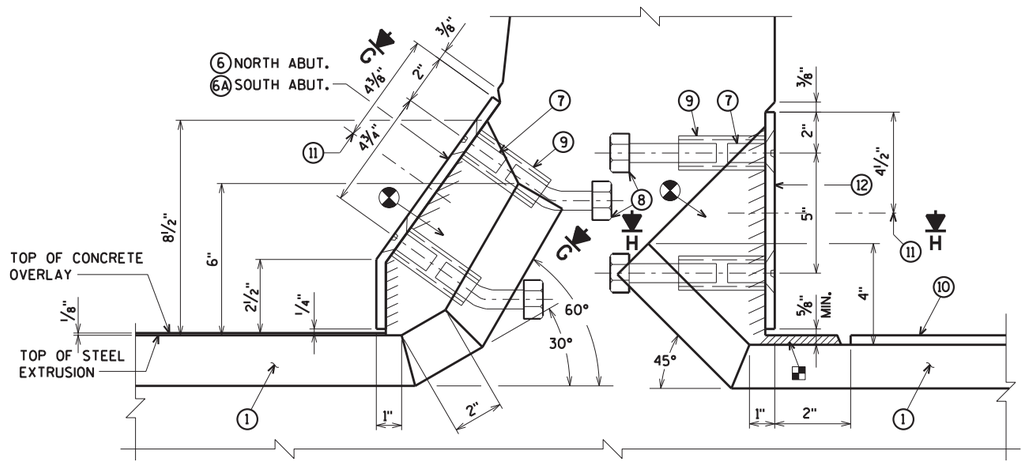
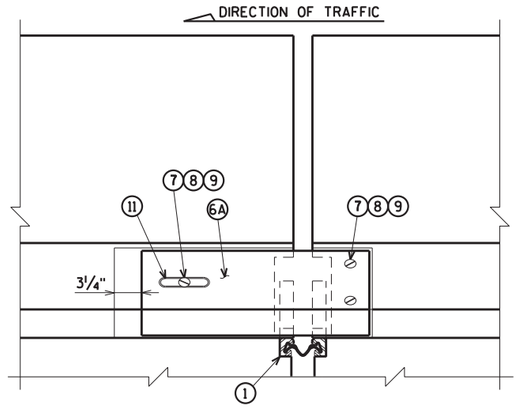


SECTION F

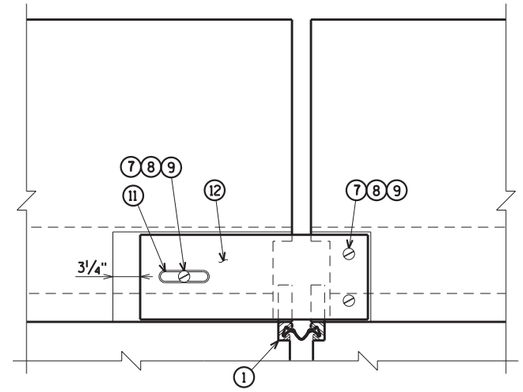
SIDEWALK PARAPET
(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

FOR LOCATION OF SECTIONS F & H SEE SHEETS 6 & 7



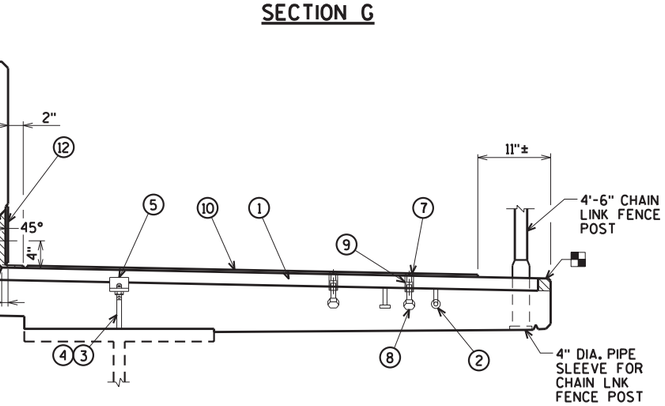
VIEW OF PARAPET PLATE FROM ROADWAY

SIDEWALK PARAPET
(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)



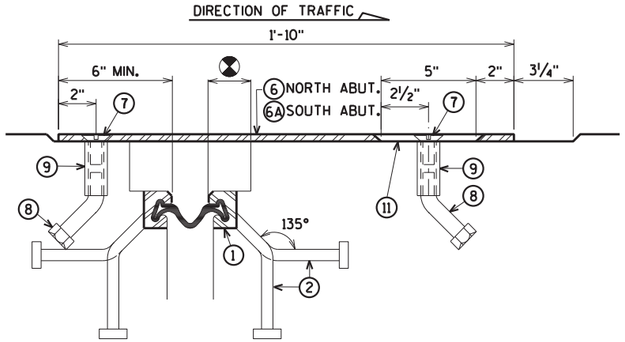
VIEW OF PARAPET PLATE FROM SIDEWALK

SIDEWALK PARAPET
(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

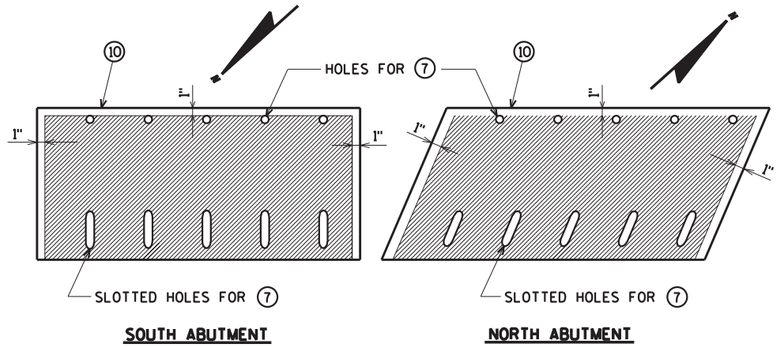


SECTION AT SIDEWALK

(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)

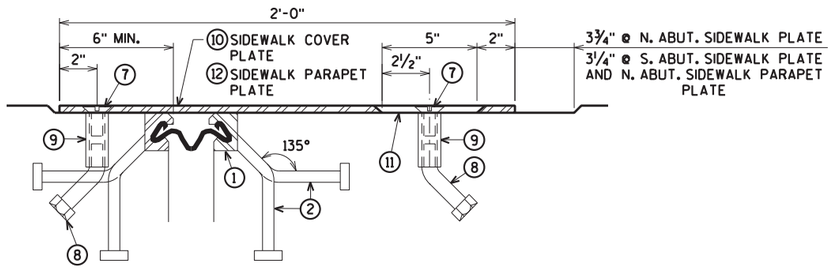


SECTION G



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.



SECTION H

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

BLOCK OUT CONCRETE ABOVE AND AT END OF EXTRUSIONS.

NOTE: REMOVE AND REINSTALL EXISTING CHAINLINK FENCE, INCLUDING POSTS AND PIPE SLEEVES, AS REQUIRED TO CONSTRUCT NEW JOINT. COST FOR REMOVING AND REINSTALLING PORTIONS OF THE CHAIN LINK FENCE IS INCIDENTAL TO THE BID ITEM "JOINT REPAIR".

WORK THIS SHEET WITH SHEETS 6-8 & 10.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

STRIP SEAL SIDEWALK PARAPET DETAILS

SHEET 9 OF 14
411

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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V:\Structures-EC\42-1112.00 - USH 2 & USH 53 Rehabilitation\Structures\421112 exp JT.dgn

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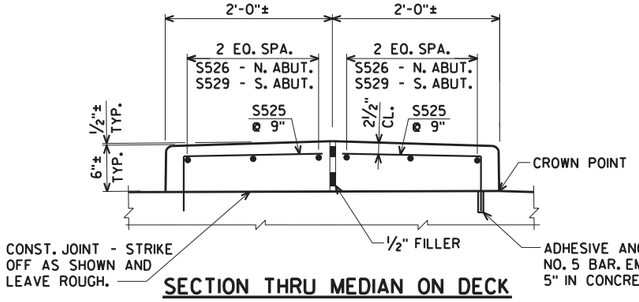
STATE PROJECT NUMBER

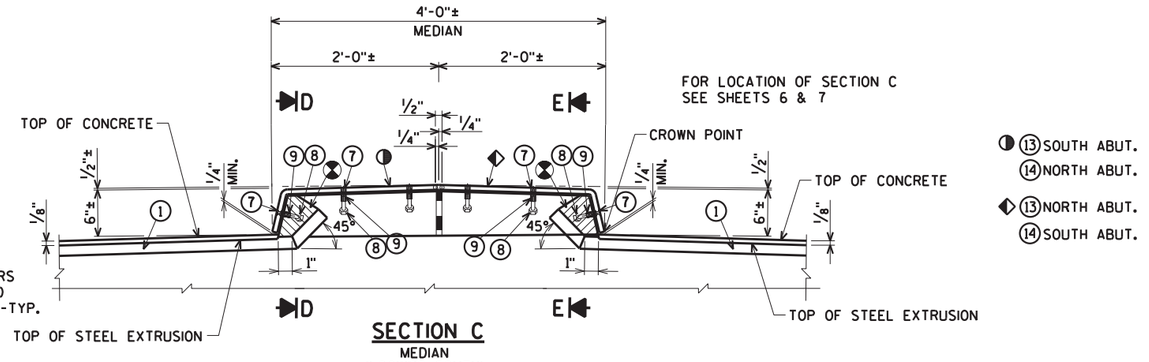
1198-03-74



SECTION THRU MEDIAN ON DECK

(LOOKING SOUTH)

NOTE: SEAL ALL EXPOSED HORIZONTAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

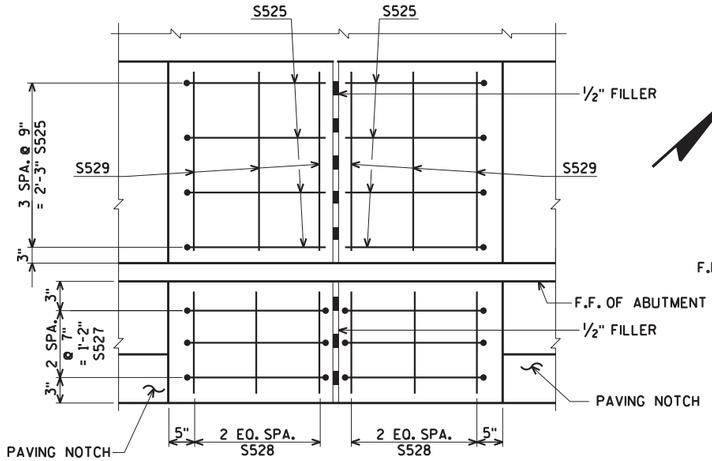


SECTION C

MEDIAN

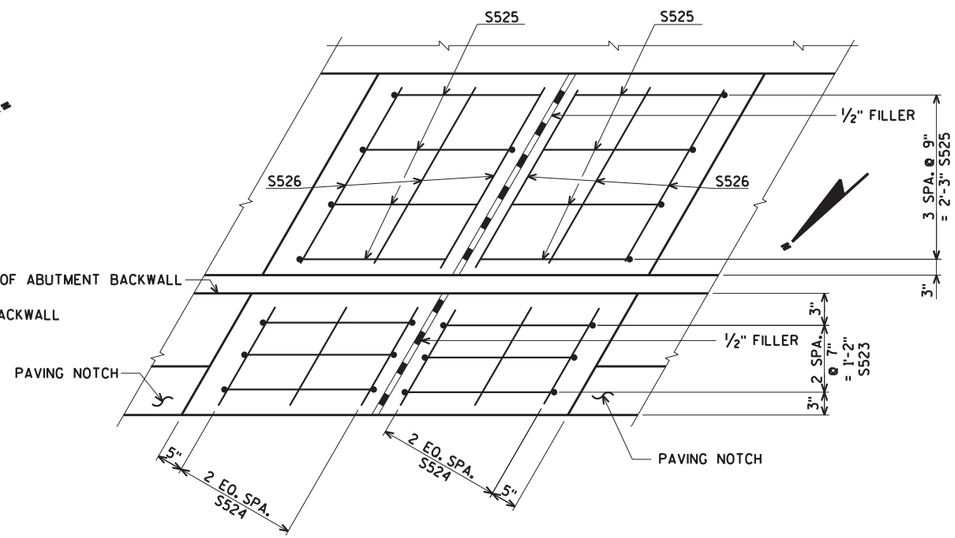
(LOOKING SOUTH)

(SOUTH ABUTMENT SHOWN, NORTH ABUTMENT SIMILAR)



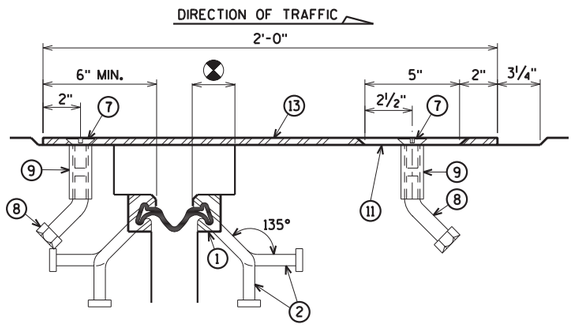
PLAN VIEW OF MEDIAN ON DECK

(SOUTH ABUT.)

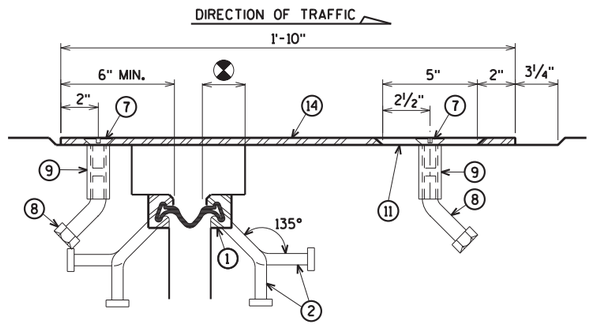


PLAN VIEW OF MEDIAN ON DECK

(NORTH ABUT.)



SECTION D



SECTION E

NOTE: PRESERVE AND INCORPORATE AS MUCH LONGITUDINAL MEDIAN REBAR AS PRACTICAL AND INCORPORATE IT INTO THE NEW WORK.

F.F. DENOTES FRONT FACE.

WORK THIS SHEET WITH SHEETS 6-9.

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

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MEDIAN DETAILS

SHEET 10 OF 14
412

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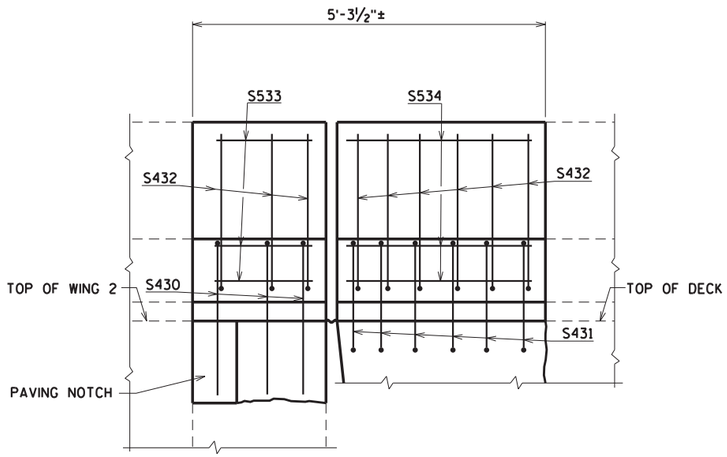
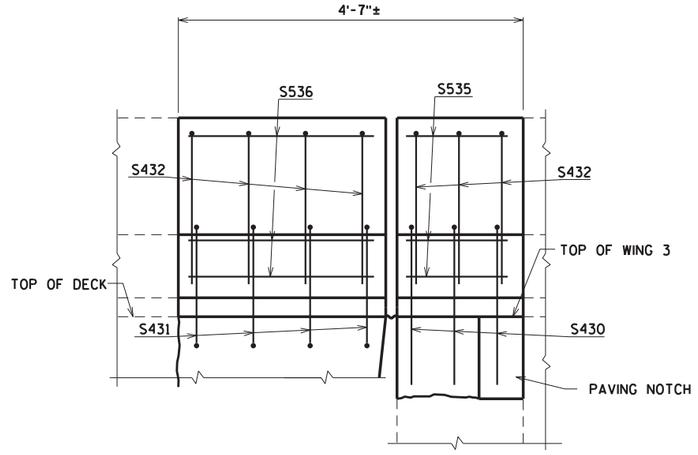
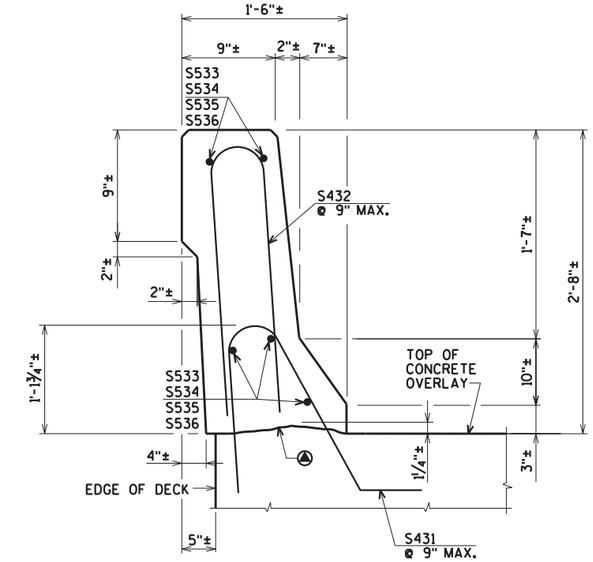


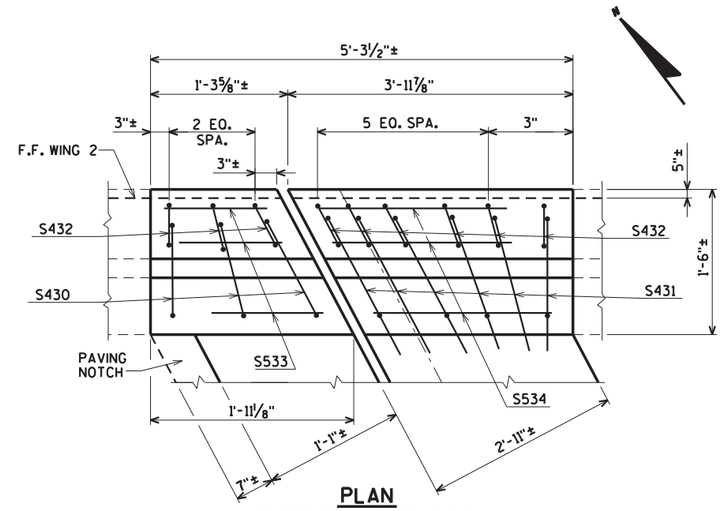
INSIDE ELEVATION
OUTSIDE PARAPET AT WING 2



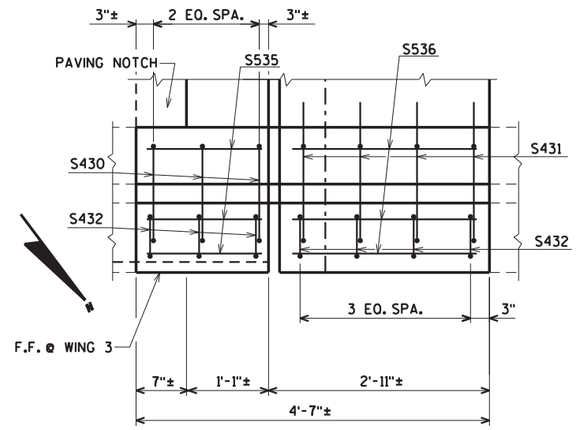
INSIDE ELEVATION
OUTSIDE PARAPET AT WING 3



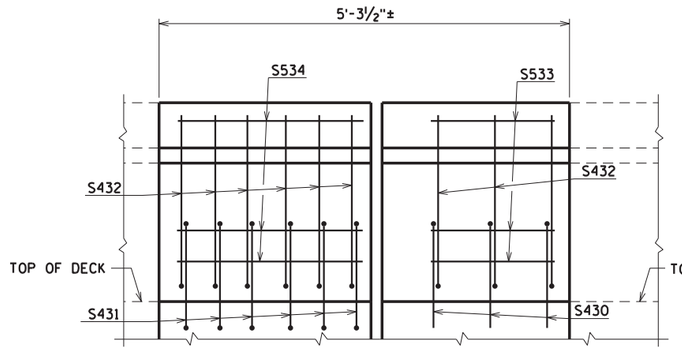
TYPICAL OUTSIDE PARAPET ON DECK
(LOOKING SOUTH)



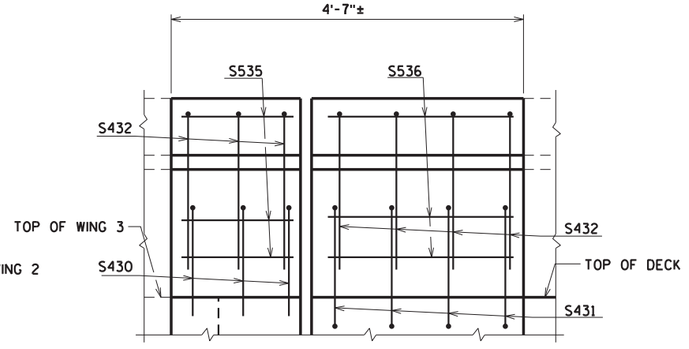
PLAN
OUTSIDE PARAPET AT WING 2



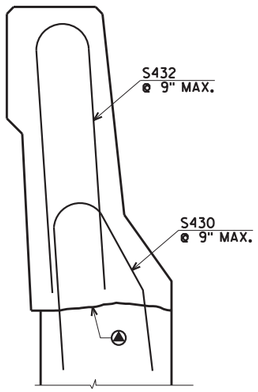
PLAN
OUTSIDE PARAPET AT WING 3



OUTSIDE ELEVATION
OUTSIDE PARAPET AT WING 2



OUTSIDE ELEVATION
OUTSIDE PARAPET AT WING 3



TYPICAL OUTSIDE PARAPET ON WING
(LOOKING SOUTH)

▲ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

F.F. DENOTES FRONT FACE

NOTE:

PRESERVE AND INCORPORATE AS MUCH EXISTING LONGITUDINAL PARAPET REBAR AS PRACTICAL AND INCORPORATE IT INTO THE NEW WORK.

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OUTSIDE PARAPET DETAILS

SHEET 11 OF 14
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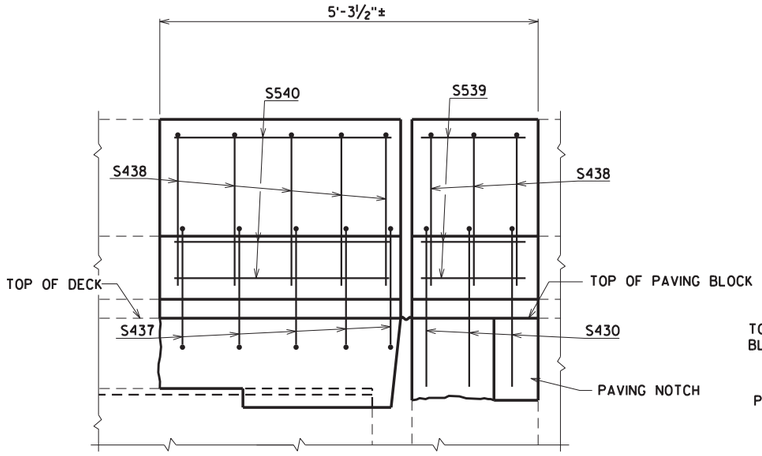
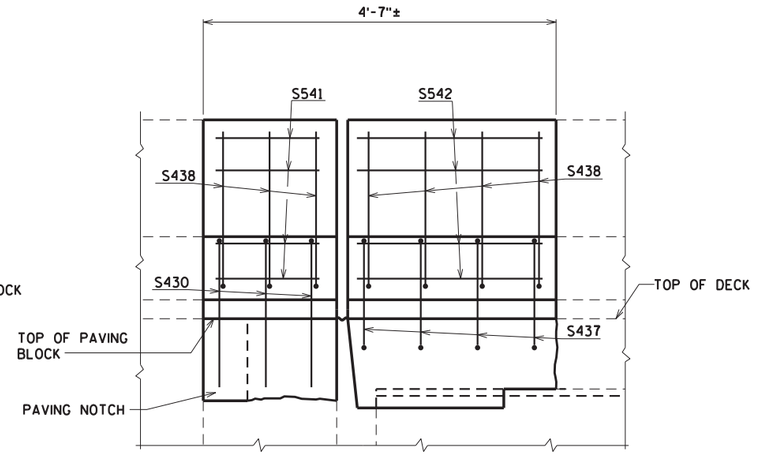


INSIDE ELEVATION
SIDEWALK PARAPET



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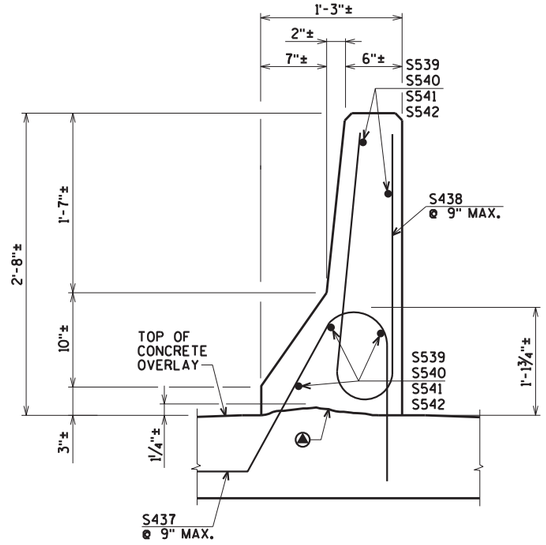
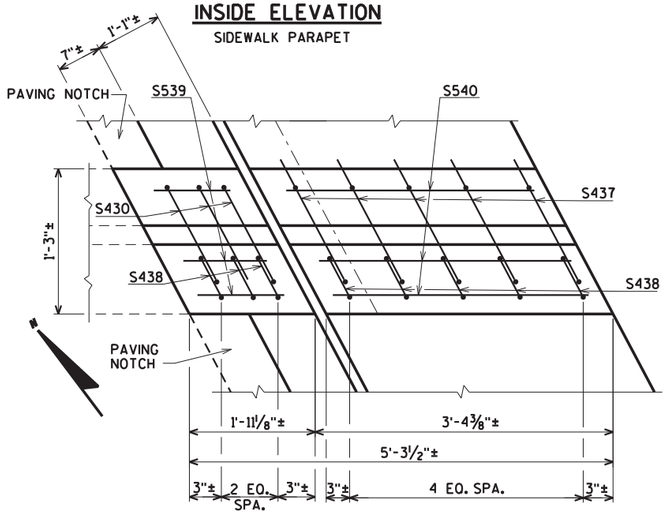
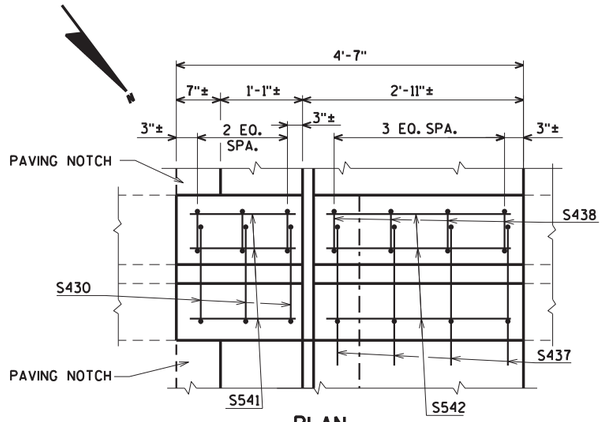
SIDEWALK PARAPET



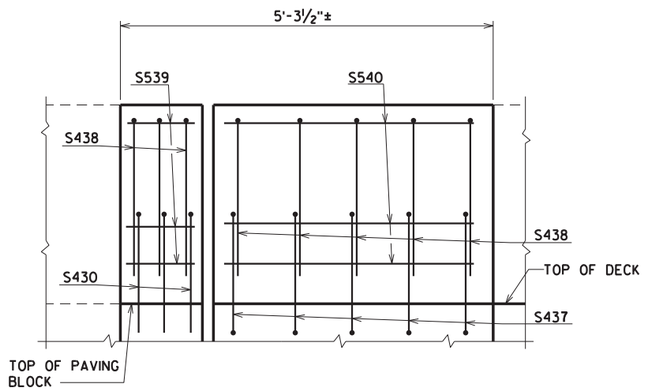
TYPICAL SIDEWALK PARAPET ON DECK
(LOOKING SOUTH)



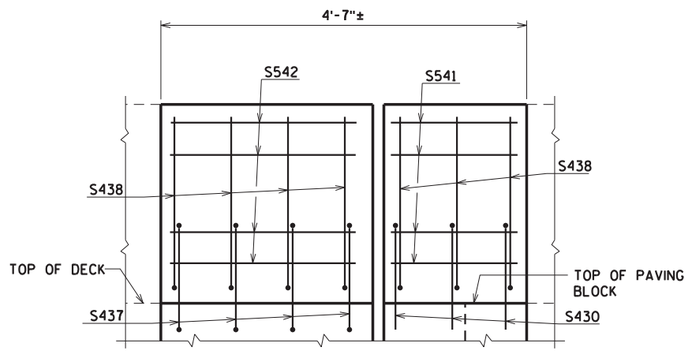
PLAN
SIDEWALK PARAPET



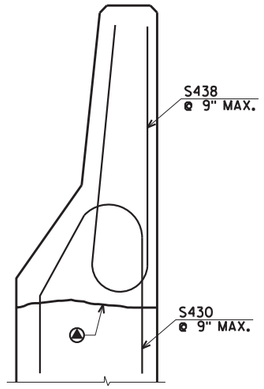
PLAN
SIDEWALK PARAPET



OUTSIDE ELEVATION
SIDEWALK PARAPET



OUTSIDE ELEVATION
SIDEWALK PARAPET



TYPICAL SIDEWALK PARAPET ON BACKWALL
(LOOKING SOUTH)

NOTE:
PRESERVE AND INCORPORATE AS MUCH EXISTING LONGITUDINAL PARAPET REBAR AS PRACTICAL AND INCORPORATE IT INTO THE NEW WORK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

SIDEWALK PARAPET DETAILS

SHEET 12 OF 14
414

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

6/5/2019
PENTABLE:BReau_shd_util.tbl

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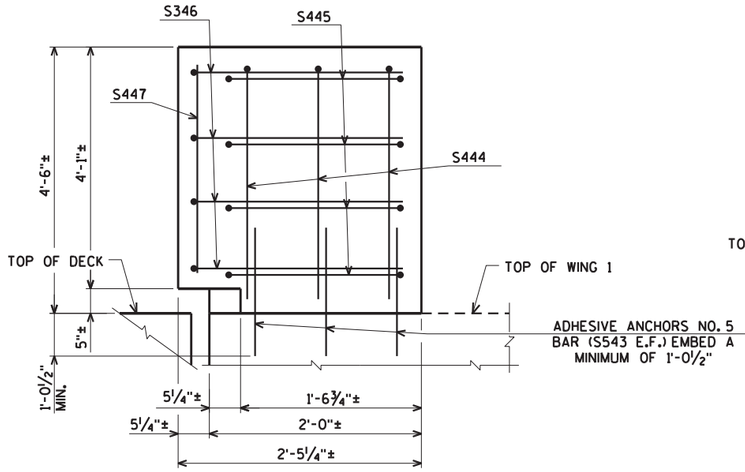
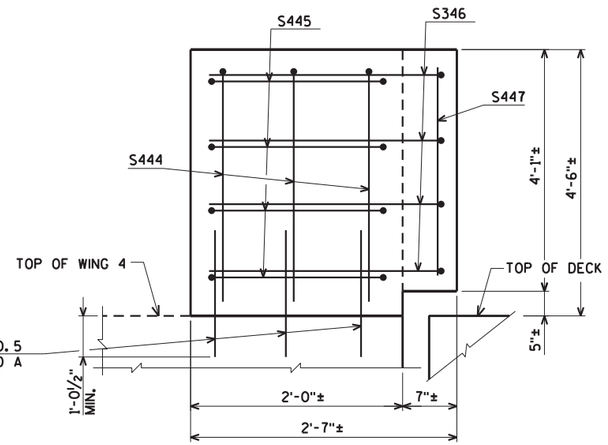
V:±Structures-EC±42-1112.00 - USH 2 & USH 53 Rehabilitation±Structures±421112 exp JT.dgn

STATE PROJECT NUMBER

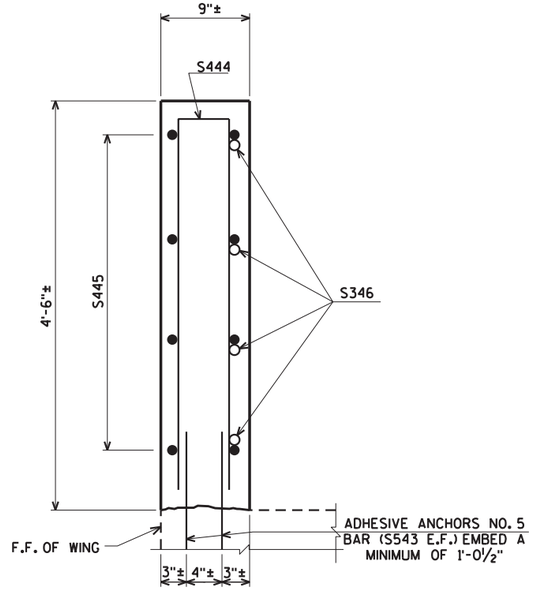
1198-03-74



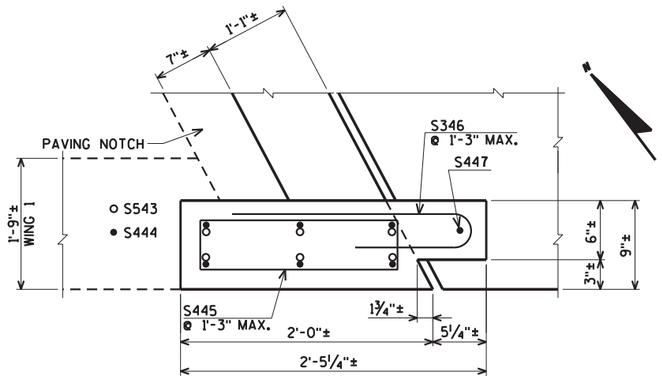
INSIDE ELEVATION
PARAPET AT WING 1



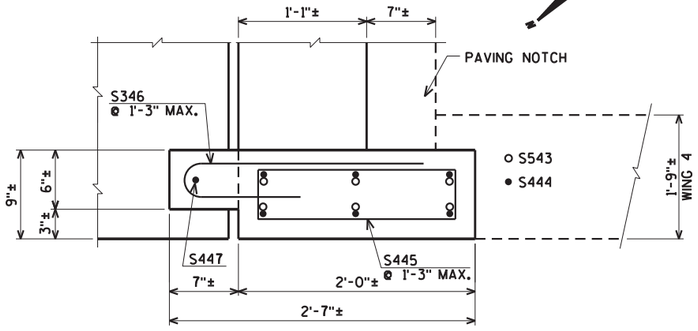
INSIDE ELEVATION
PARAPET AT WING 4



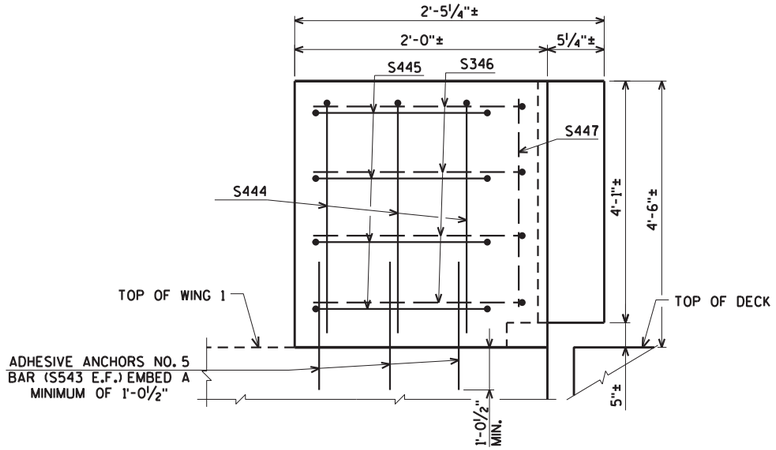
TYPICAL PARAPET AT WINGS 1 & 4



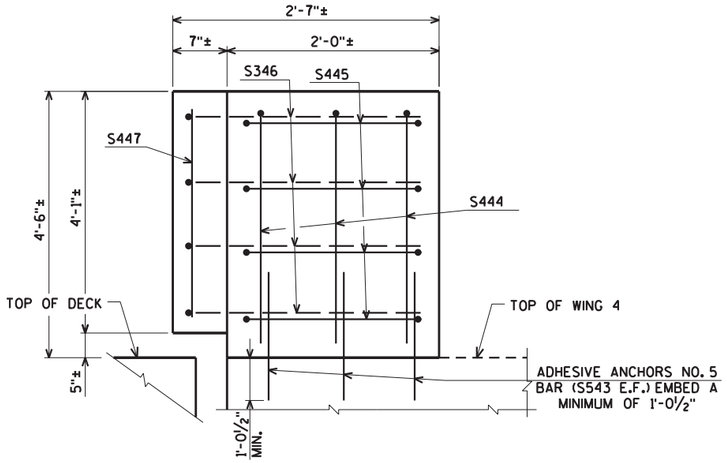
PLAN
PARAPET AT WING 1



PLAN
PARAPET AT WING 4



OUTSIDE ELEVATION
PARAPET AT WING 1



OUTSIDE ELEVATION
PARAPET AT WING 4

NOTE:
PRESERVE AND INCORPORATE AS MUCH EXISTING LONGITUDINAL PARAPET REBAR AS PRACTICAL AND INCORPORATE IT INTO THE NEW WORK.

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

WING
PARAPET DETAILS

SHEET 13 OF 14
415

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STATE PROJECT NUMBER

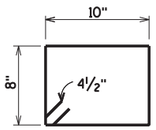
1198-03-74

BILL OF BARS

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	4,320# COATED LOCATION
S401	X	66	3-6	X		N. ABUT. PAVING BLOCK VERT.
S402	X	66	3-4	X		S. ABUT. PAVING BLOCK VERT.
◆ S503	X	132	2-7	X		ABUT. PAVING BLOCKS VERT.
S504	X	63	8-0			ABUT. PAVING BLOCKS HORIZ.
S405	X	60	4-6	X		N. ABUT. DIAPH. VERT.
S406	X	60	4-2	X		S. ABUT. DIAPH. VERT.
S607	X	45	5-1			N. ABUT. DIAPH. BOT. HORIZ.
S608	X	5	3-0			N. ABUT. DIAPH. BOT. HORIZ. BTWN. GDR'S 5 & 6
S609	X	5	1-7			N. ABUT. DIAPH. BOT. HORIZ. BTWN. GDR'S 5 & 6
S610	X	45	4-5			S. ABUT. DIAPH. BOT. HORIZ.
S611	X	5	2-8			S. ABUT. DIAPH. BOT. HORIZ. BTWN. GDR'S 5 & 6
S612	X	5	1-5			S. ABUT. DIAPH. BOT. HORIZ. BTWN. GDR'S 5 & 6
S413	X	36	5-1			N. ABUT. DIAPH. TOP HORIZ.
S414	X	4	3-0			N. ABUT. DIAPH. TOP HORIZ. BTWN. GDR'S 5 & 6
S415	X	4	1-7			N. ABUT. DIAPH. TOP HORIZ. BTWN. GDR'S 5 & 6
S416	X	36	4-5			S. ABUT. DIAPH. TOP HORIZ.
S417	X	4	2-8			S. ABUT. DIAPH. TOP HORIZ. BTWN. GDR'S 5 & 6
S418	X	4	1-5			S. ABUT. DIAPH. TOP HORIZ. BTWN. GDR'S 5 & 6
S519	X	9	41-2			N. ABUT. DECK TRANS. TOP & BOT. STAGE 1
S520	X	9	34-4			N. ABUT. DECK TRANS. TOP & BOT. STAGE 2
S521	X	9	35-8			S. ABUT. DECK TRANS. TOP & BOT. STAGE 1
S522	X	9	29-9			S. ABUT. DECK TRANS. TOP & BOT. STAGE 2
S523	X	6	3-6	X		N. ABUT. MEDIAN VERT. @ BACKFILL
◆ S524	X	6	1-6			N. ABUT. MEDIAN LONG. @ BACKFILL
◆ S525	X	16	2-3	X		MEDIAN TRANS. @ DECK
S526	X	6	2-8			N. ABUT. MEDIAN LONG. @ DECK
S527	X	6	3-3	X		S. ABUT. MEDIAN VERT. @ BACKWALL
S528	X	6	1-4			S. ABUT. MEDIAN LONG. @ BACKWALL
S529	X	6	2-4			S. ABUT. MEDIAN LONG. @ DECK
S430	X	12	4-3	X		OUTSIDE & SIDEWALK PARAPET @ WING & PAVING BLOCK
S431	X	10	4-3	X		OUTSIDE PARAPET VERT. @ DECK
S432	X	16	4-10	X		OUTSIDE PARAPET VERT.
S533	X	5	1-0			OUTSIDE PARAPET HORIZ. @ N. ABUT. WING
S534	X	5	3-1			OUTSIDE PARAPET HORIZ. @ N. ABUT. DECK
S535	X	5	1-4			OUTSIDE PARAPET @ S. ABUT. WING
S536	X	5	2-5			OUTSIDE PPARAPET @ S. ABUT. DECK
S437	X	9	4-0	X		SIDEWALK PARAPET VERT. @ DECK
S438	X	15	5-0	X		SIDEWALK PARAPET VERT.
S539	X	5	1-10			SIDEWALK PARAPET HORIZ. @ N. ABUT. PAVING BLOCK
S540	X	5	2-5			SIDEWALK PARAPET HORIZ. @ N. ABUT. DECK
S541	X	5	1-4			SIDEWALK PARAPET @ S. ABUT. PAVING BLOCK
S542	X	5	2-5			SIDEWALK PARAPET @ S. ABUT. DECK
◆ S543	X	12	3-0			PARAPET @ WING DOWELS
S444	X	6	8-4	X		PARAPET @ WING VERT.
S445	X	8	4-4	X		PARAPET @ WING HORIZ.
S346	X	8	2-3	X		PARAPET @ WING HORIZ. @ NOTCH
S447	X	2	3-9			PARAPET @ WING VERT. @ NOTCH

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

◆ ADHESIVE ANCHORS NO. 5 BAR



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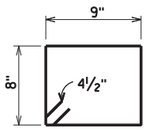

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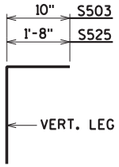

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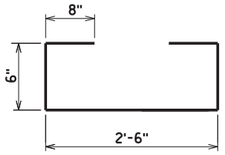

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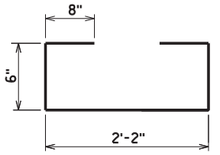

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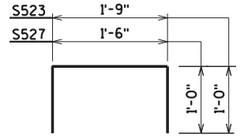

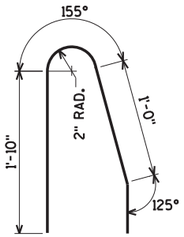

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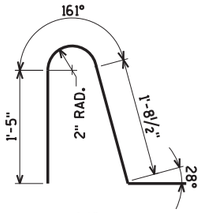

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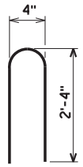

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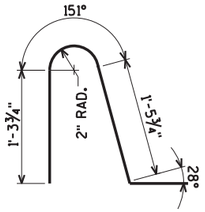

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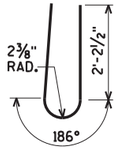

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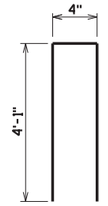

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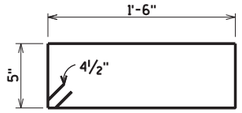

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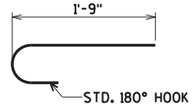

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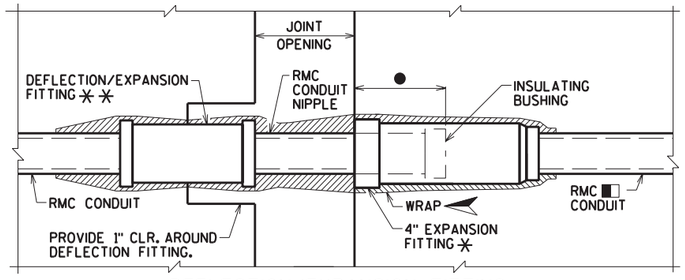
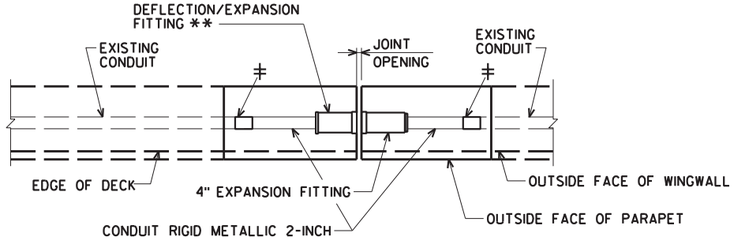


DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF 4" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY



PLAN OF PARAPET AT EXP. JOINT

(S. ABUT. SHOWN, N. ABUT. SIMILAR)

LEGEND

‡ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTOR FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED)

◧ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

● POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.

◅ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH"

* EXPANSION FITTING REQUIREMENTS (IF USED):
- 4" TOTAL CONDUIT MOVEMENT WITH BONDING JUMPER

** DEFLECTION/EXPANSION FITTING REQUIREMENTS (IF USED):
- UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

WIRING IN PARAPET NEEDS TO BE TEMPORARILY CONNECTED DURING CONSTRUCTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-16-68

DRAWN BY CLS | PLANS CK'D. CBM

PARAPET DETAILS & BILL OF BARS

SHEET 14 OF 14

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Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov