

RHI
PROJECT ID: 1175-21-70
WITH:
COUNTY: IRON

APRIL 2025

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.	0	Cross Sections

TOTAL SHEETS = 182



DESIGN DESIGNATION 1175-21-00

A.A.D.T.	2016	=	4,600
A.A.D.T.	2036	=	5,600
D.H.V.		=	627
D.D.		=	54/48
T.		=	6.3%
DESIGN SPEED		=	25-45
ESALS		=	2,016,664

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

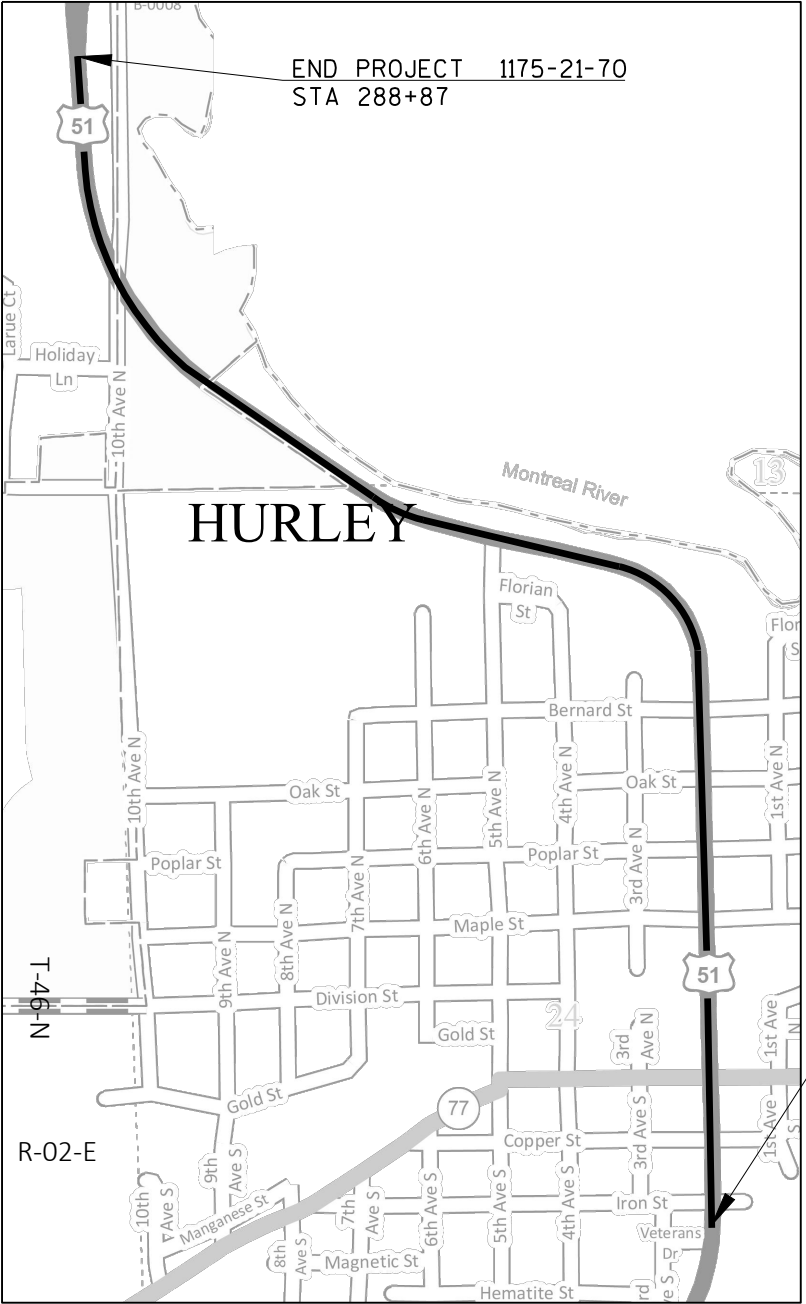
MANITOWISH - HURLEY

IRON STREET TO USH 2

USH 51
IRON

STATE PROJECT NUMBER
1175-21-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1175-21-70		



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, IRON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2011).

BEGIN PROJECT 1175-21-70
STA 211+15
X= 743,607.566
Y= 369,974.462

END PROJECT 1175-21-70
STA 288+87

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	COLEMAN ENGINEERING
Designer	ADAM HOLQUIST
Project Manager	MICHELLE GUOIN
Regional Examiner	FRED SCHUNKE
Regional Supervisor	DANIEL ERVA
APPROVED FOR THE DEPARTMENT	
DATE: 10/29/2024	
(Signature)	

E

GENERAL NOTES

- 1. THE LOCATIONS OF PROPOSED AND EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- 2. NO TREES OR SHUBS SHOULD BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

ORDER OF SECTION 2 DETAIL SHEETS

- 1. GENERAL NOTES
- 2. PLAN OVERVIEW
- 3. TYPICAL SECTIONS
- 4. CONSTRUCTION DETAILS
- 5. PLAN DETAILS - CURB AND GUTTER
- 6. CURB RAMP DETAILS
- 7. EROSION CONTROL
- 8. STAGING
- 9. PEDESTRIAN DETOURS

AS-BUILT PLANS

PROJECT 1170-13-70 STH 77 - USH 2 USH 51 2004 CONSTRUCTION
PROJECT 1175-09-70 TACONITE ST TO BERNARD ST USH 51 1992 CONSTRUCTION

UTILITIES

Brightspeed N Ctrl W Communication lines
Ben Baker
7155670725
ben.baker@brightspeed.com

City of Hurley Sewer Sewer
Dave Mullen
7153600086
hrlydpw@hurleywi.org

City of Hurley Water Water
Dave Mullen
7153600086
hrlydpw@hurleywi.org

Spectrum Communication line
Jeffery Gregg
9062359623
jeffery.gregg@charter.com

Xcel Energy Electricity
Sarah McDowell
7156826911
sarah.mcdowell@xcelenergy.com

Xcel Energy Gas/Petroleum
Cheri Marchello
9067675125
cheri.j.marchello@xcelenergy.com

RUNOFF COEFFICIENT TABLE

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

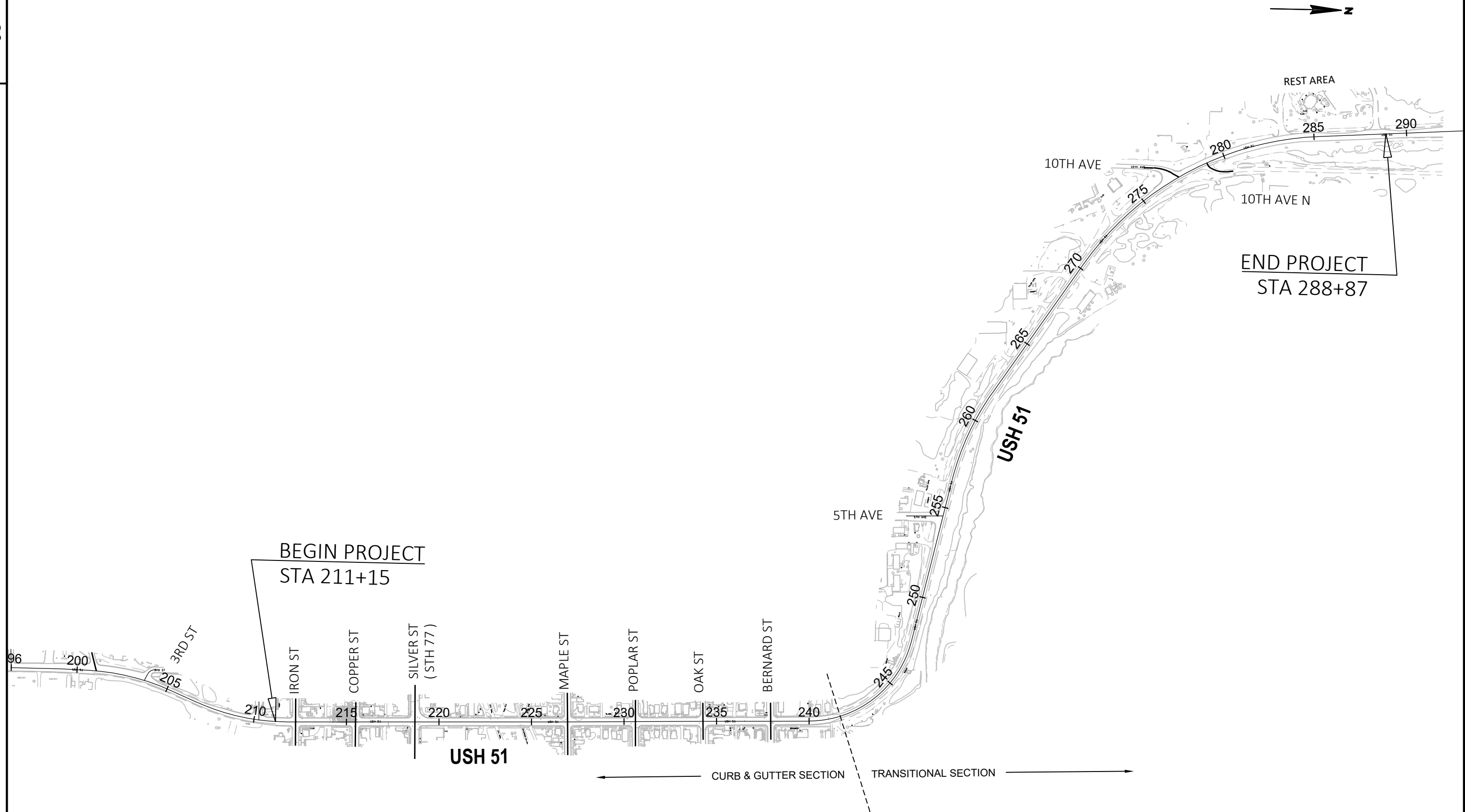
TOTAL PROJECT AREA = _ 8.9 _ ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = __.46__ ACRES

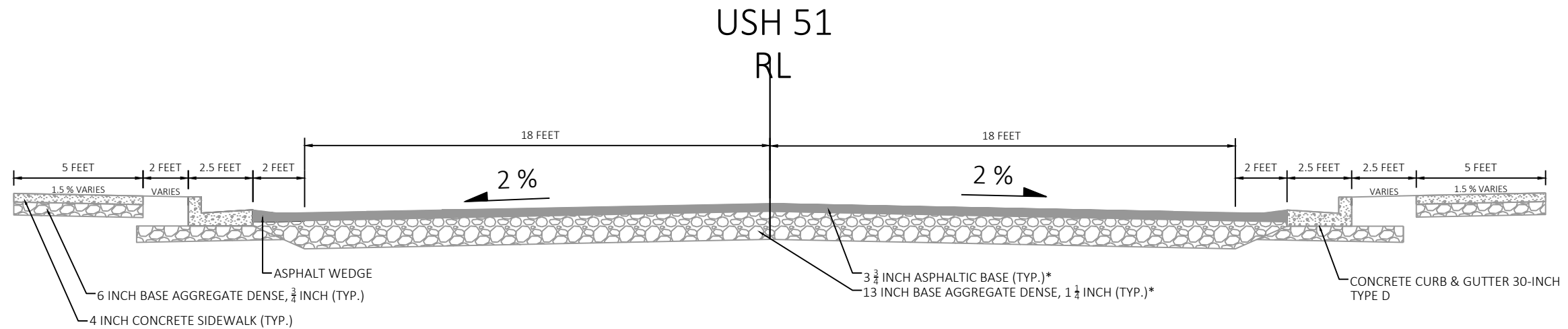
DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

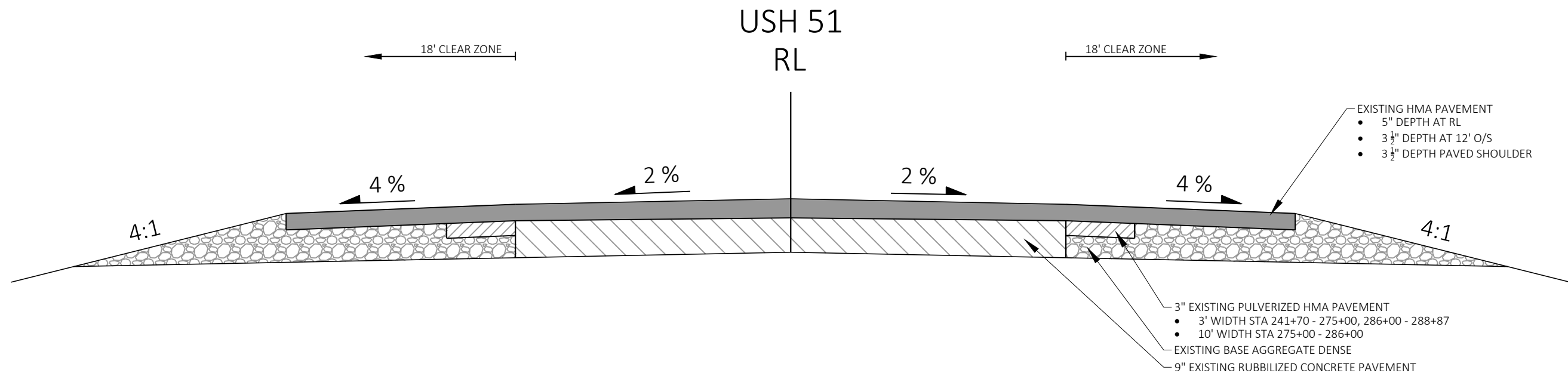
WISCONSIN DNR
JON SIMONSEN
107 SUTLIFF AVE
RHINELANDER, WI 54501
(715) 367- 1936 (MOBILE)
JONATHAN.SIMONSEN@WISCONSIN.GOV



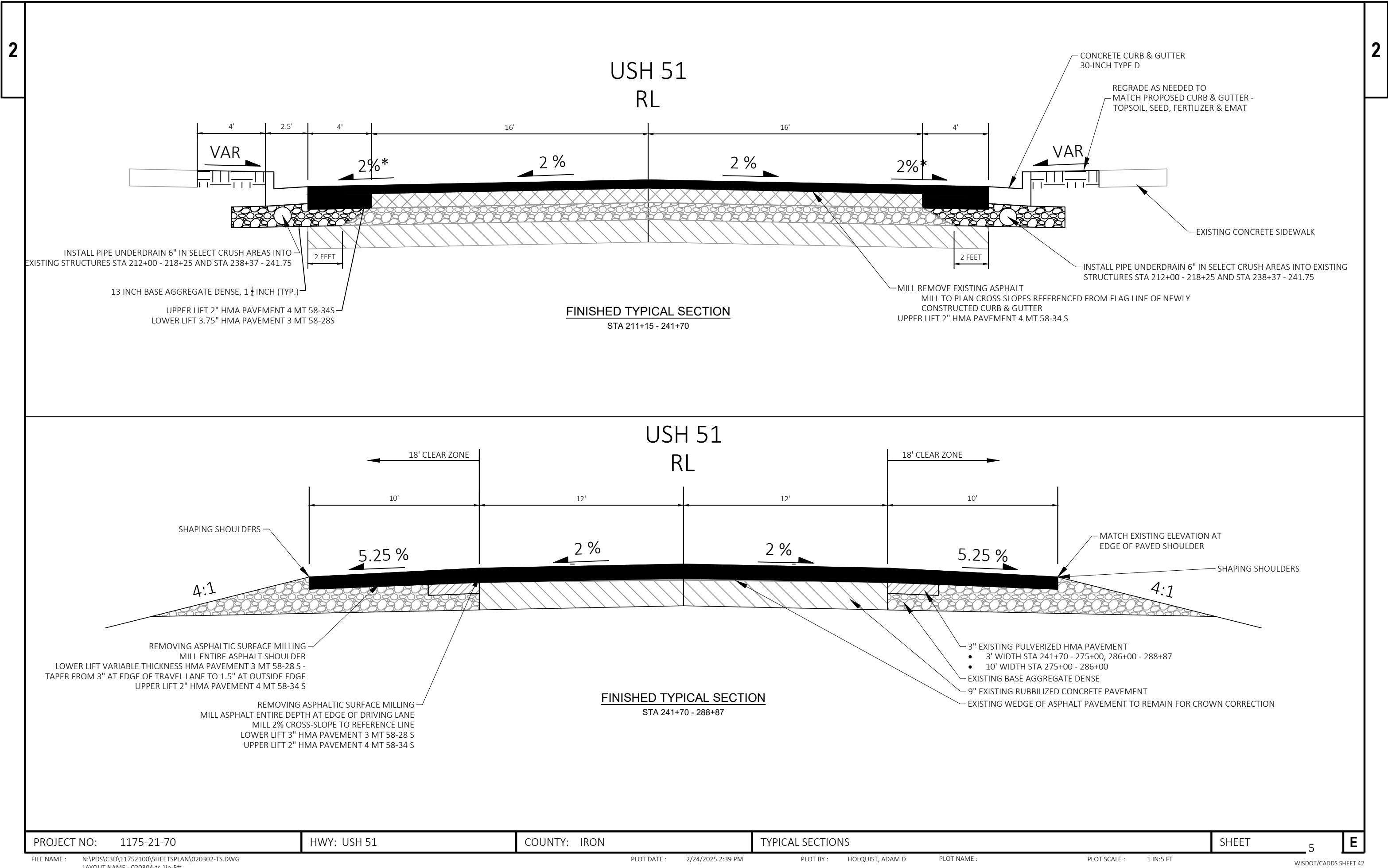


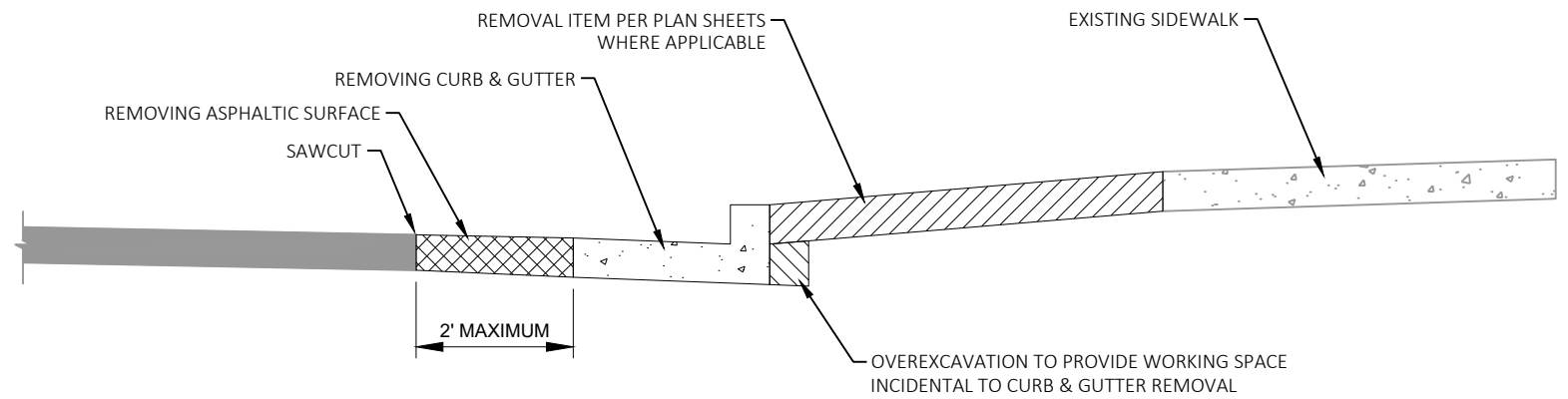
EXISTING SECTION USH 51
STA 211+15 - 241+70

* PLACED IN 2024 UNDER CITY OF HURLEY
UTILITY PROJECT

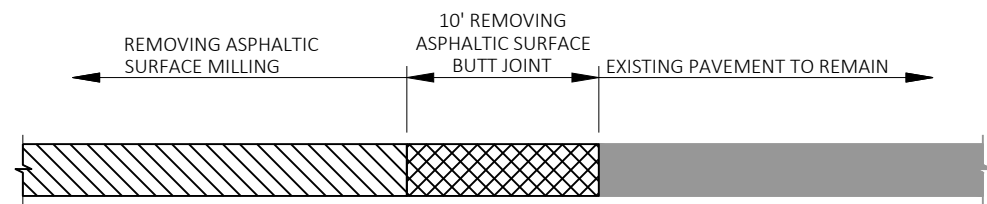


EXISTING SECTION USH 51
STA 241+70 - 288+87

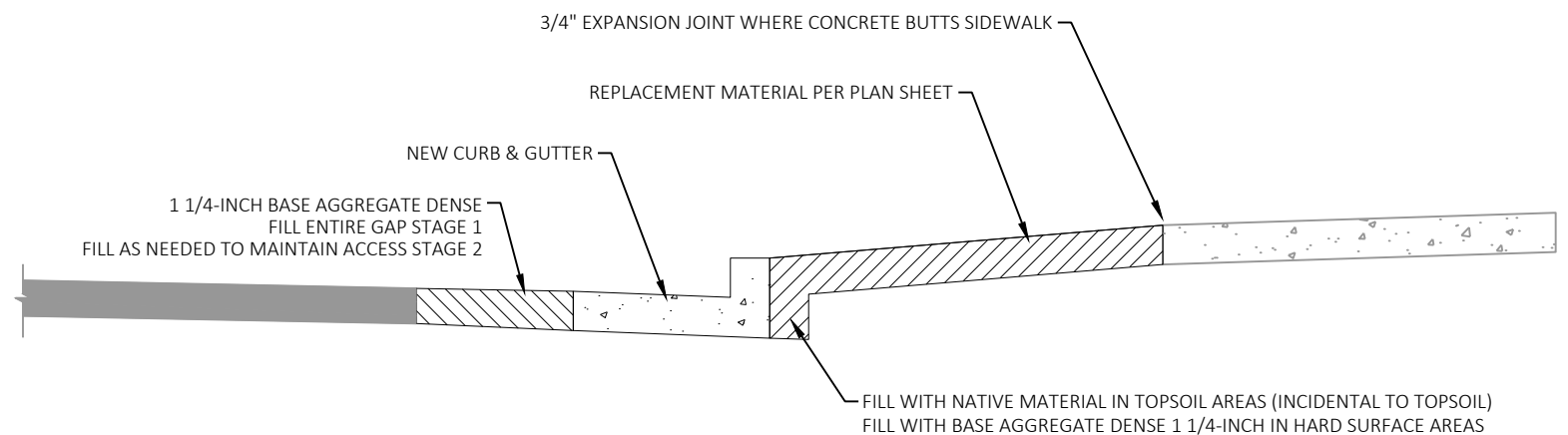




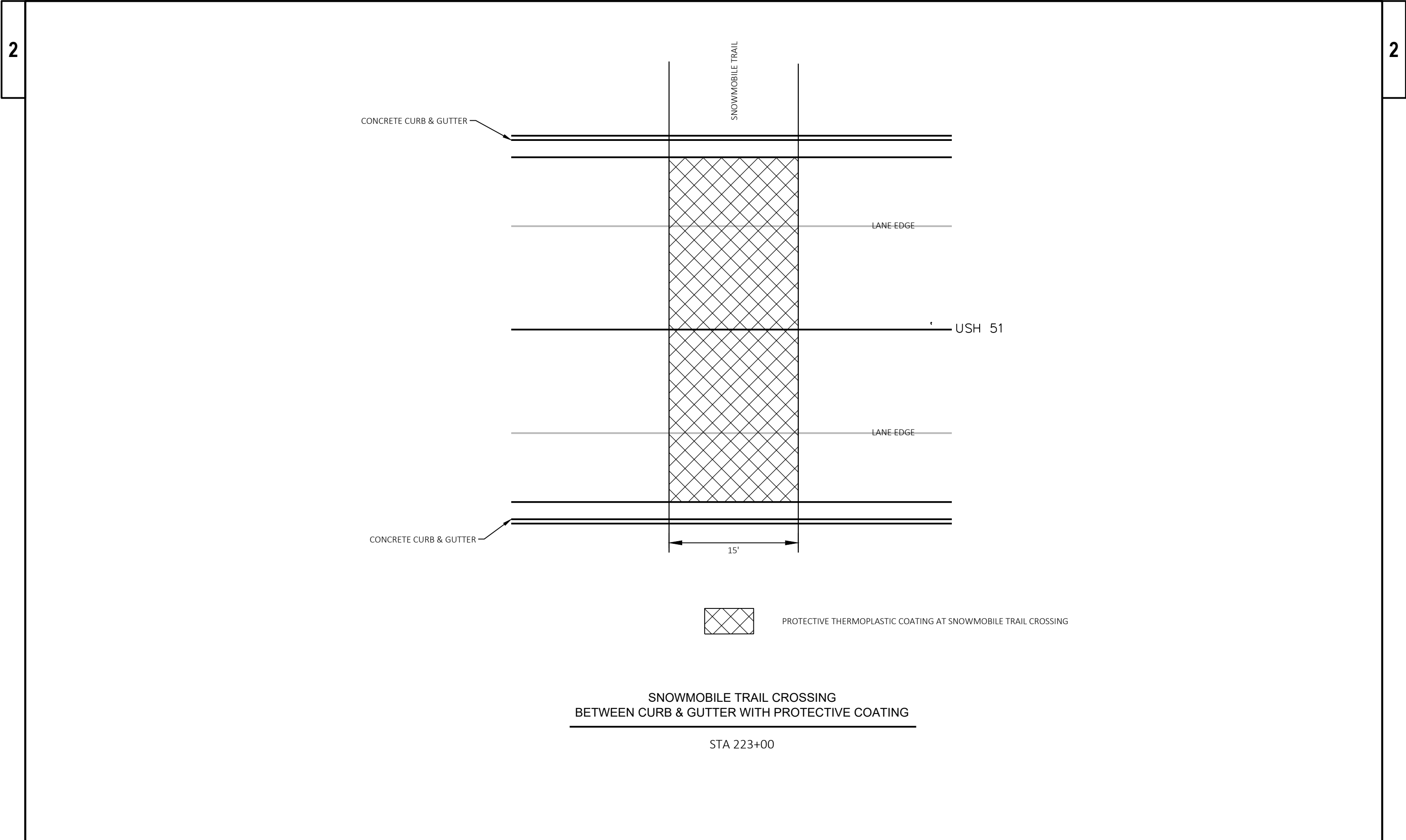
CURB & GUTTER REMOVAL DETAIL
NOT TO SCALE

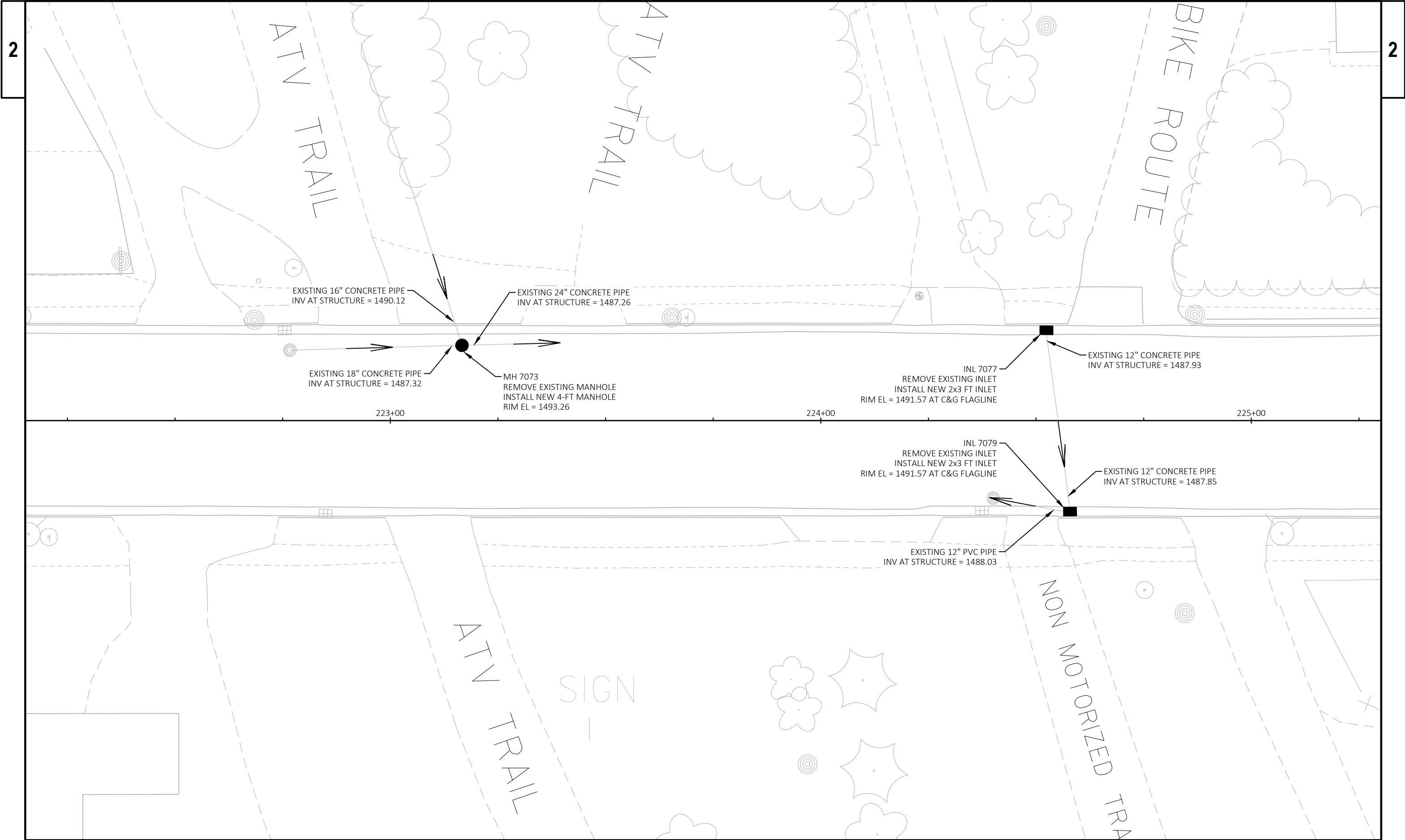


BUTT JOINT DETAIL



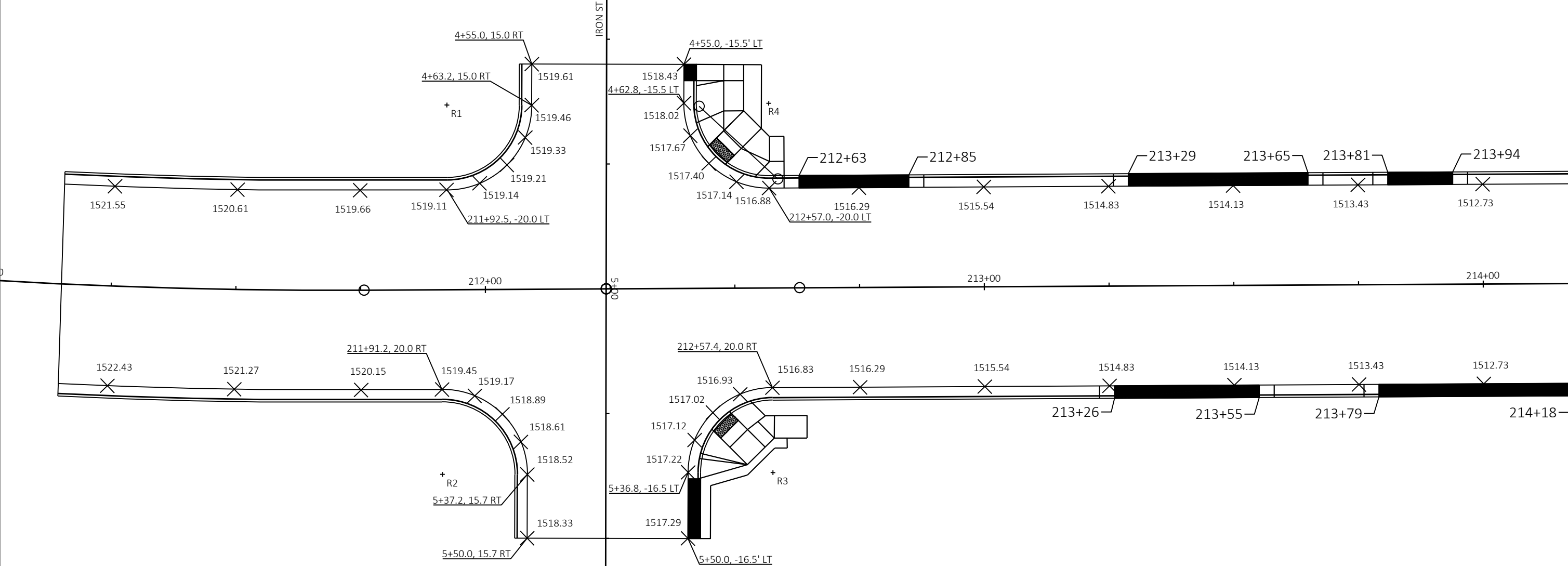
CURB & GUTTER REPLACEMENT DETAIL
NOT TO SCALE

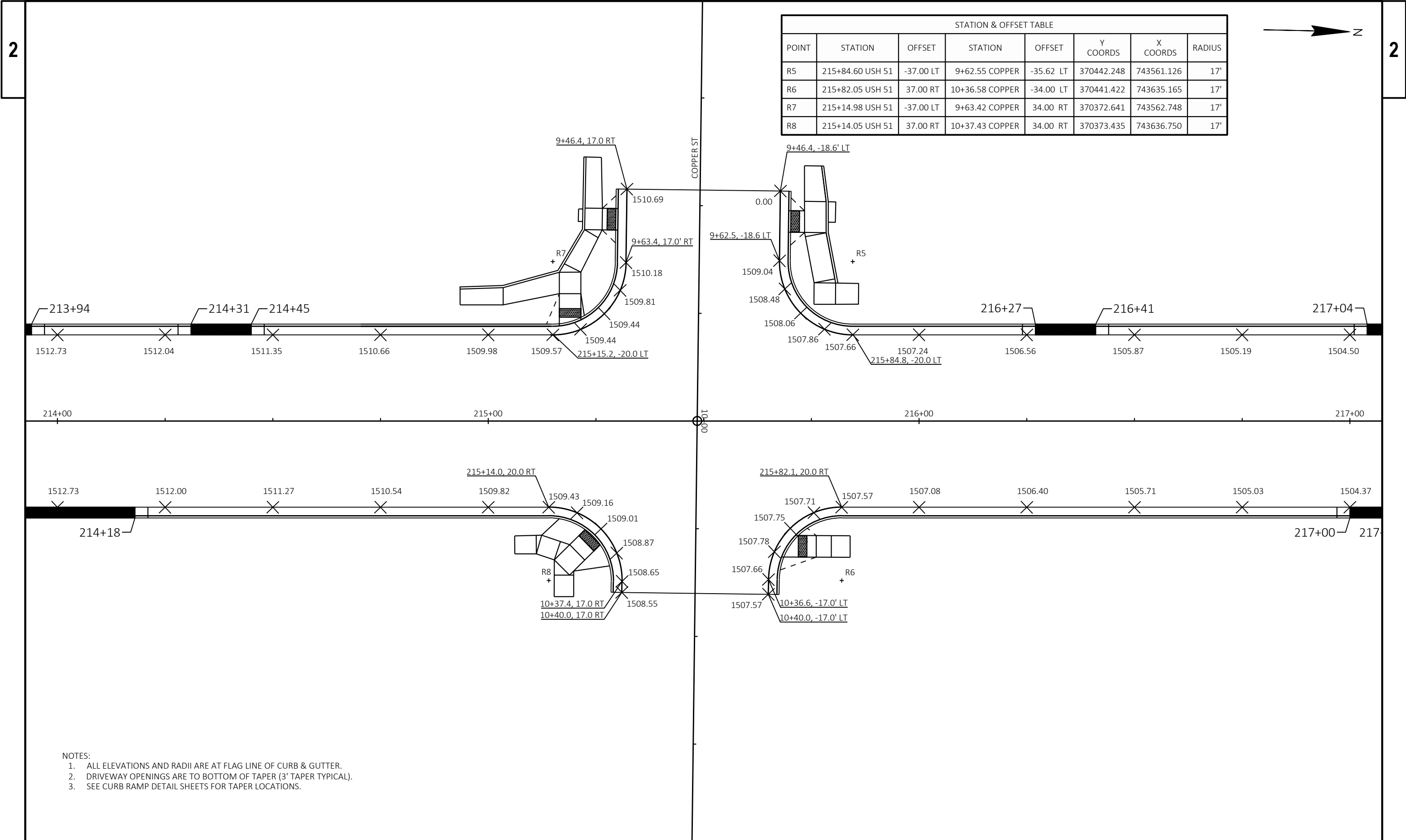




- NOTES:
- 1. ALL ELEVATIONS AND RADII ARE AT FLAG LINE OF CURB & GUTTER.
 - 2. DRIVEWAY OPENINGS ARE TO BOTTOM OF TAPER (3' TAPER TYPICAL).
 - 3. SEE CURB RAMP DETAIL SHEETS FOR TAPER LOCATIONS.

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R1	211+92.49 USH 51	-37.00 LT	4+63.24 IRON	32.00 RT	370050.243	743570.263	17'
R2	211+91.20 USH 51	37.00 RT	5+37.24 IRON	32.74 RT	370050.680	743644.273	17'
R3	212+57.44 USH 51	37.00 RT	5+36.75 IRON	-33.49 LT	370116.898	743642.729	17'
R4	212+56.99 USH 51	-37.00 LT	4+62.76 IRON	-32.50 LT	370114.727	743568.760	17'





STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R5	215+84.60 USH 51	-37.00 LT	9+62.55 COPPER	-35.62 LT	370442.248	743561.126	17'
R6	215+82.05 USH 51	37.00 RT	10+36.58 COPPER	-34.00 LT	370441.422	743635.165	17'
R7	215+14.98 USH 51	-37.00 LT	9+63.42 COPPER	34.00 RT	370372.641	743562.748	17'
R8	215+14.05 USH 51	37.00 RT	10+37.43 COPPER	34.00 RT	370373.435	743636.750	17'

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PROJECT NO: 1175-21-70

HWY: USH 51

COUNTY: IRON

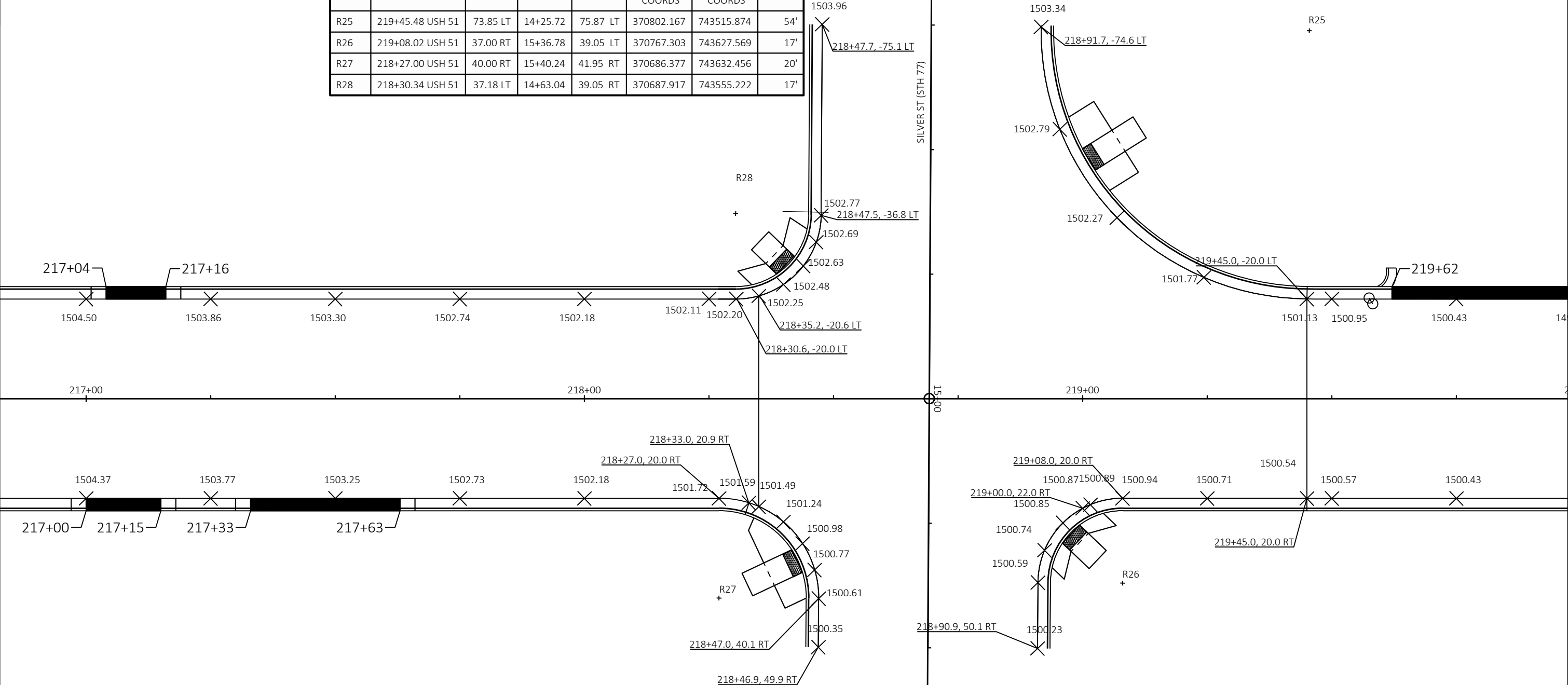
PLAN DETAILS - CURB & GUTTER

SHEET

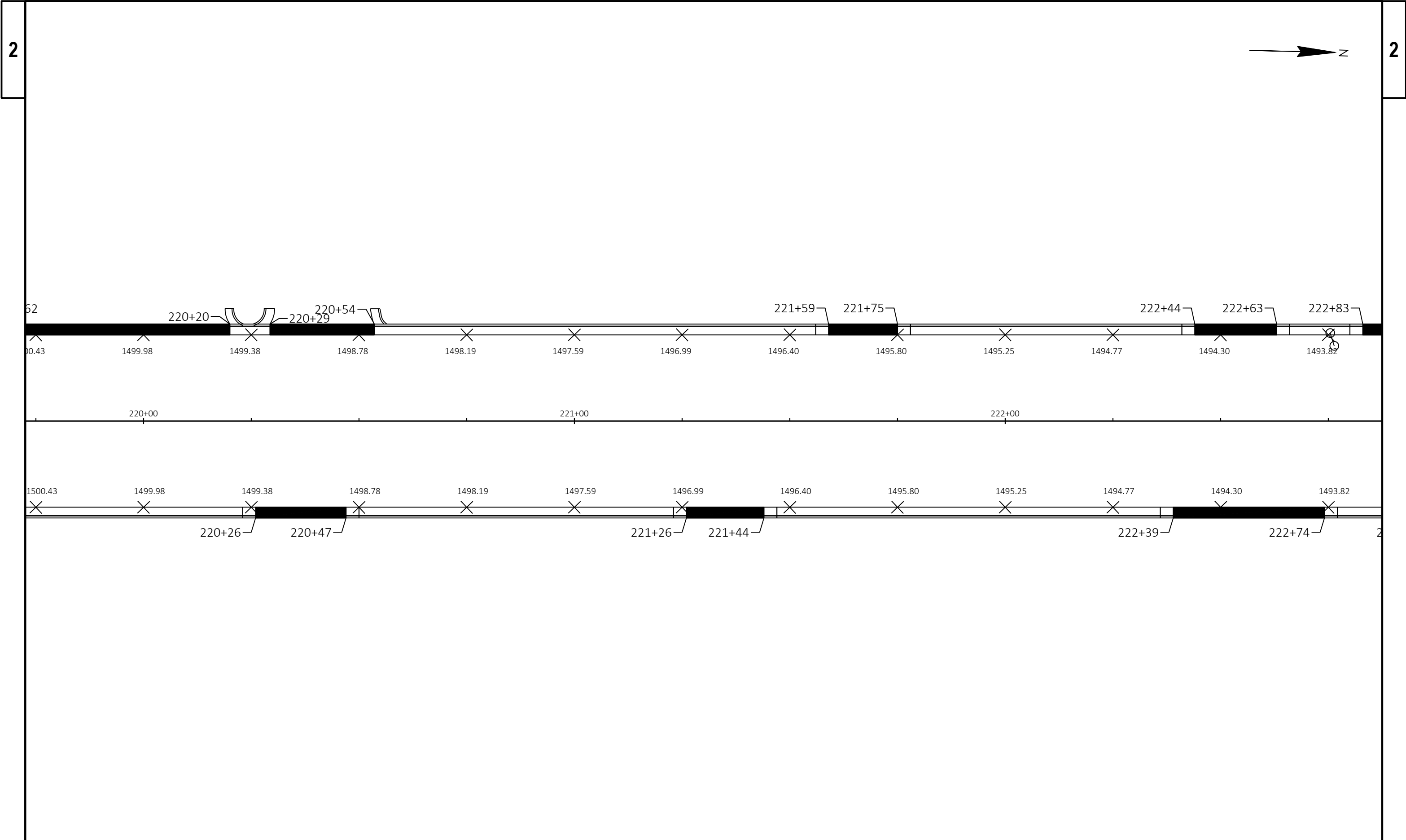
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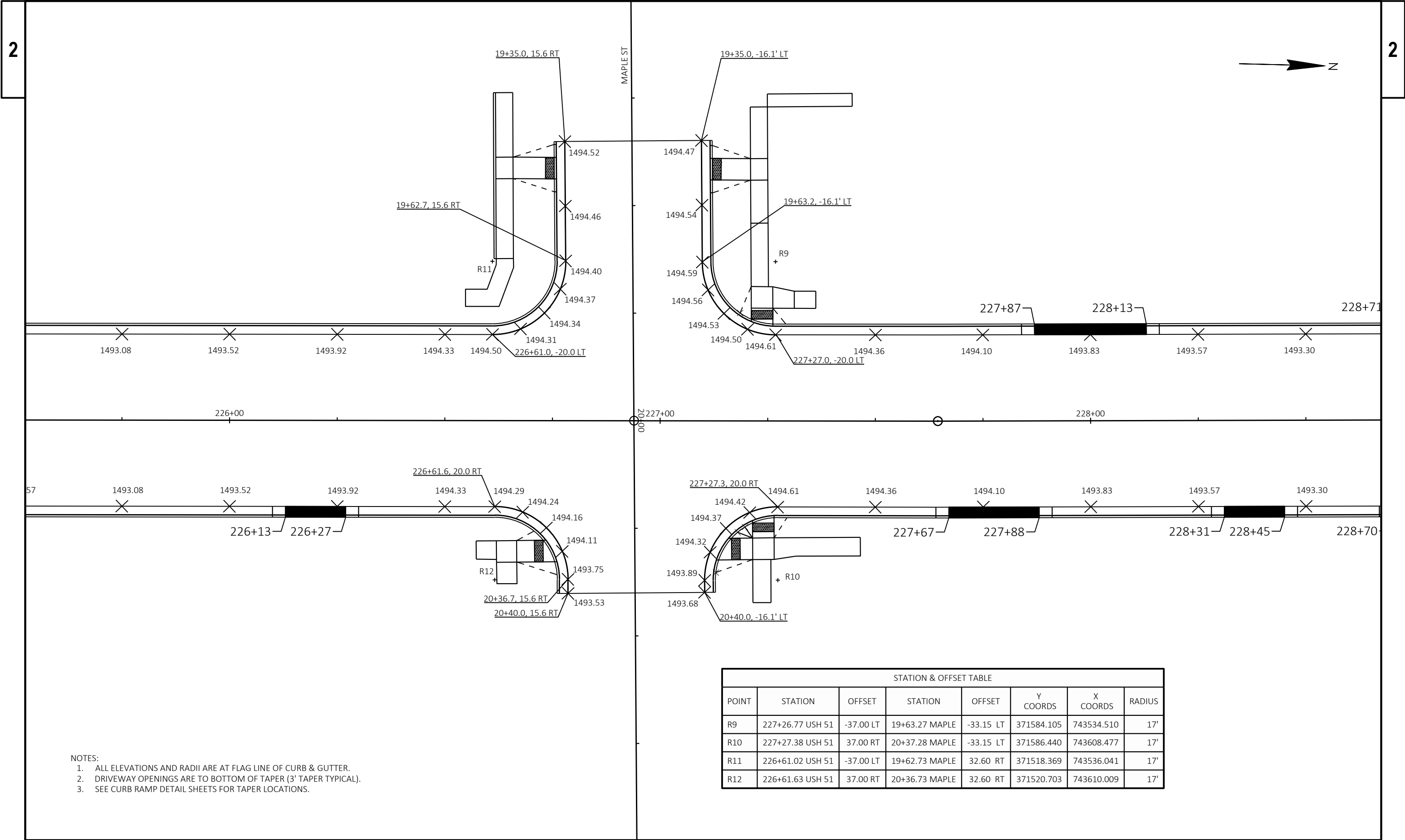
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STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R25	219+45.48 USH 51	73.85 LT	14+25.72	75.87 LT	370802.167	743515.874	54'
R26	219+08.02 USH 51	37.00 RT	15+36.78	39.05 LT	370767.303	743627.569	17'
R27	218+27.00 USH 51	40.00 RT	15+40.24	41.95 RT	370686.377	743632.456	20'
R28	218+30.34 USH 51	37.18 LT	14+63.04	39.05 RT	370687.917	743555.222	17'



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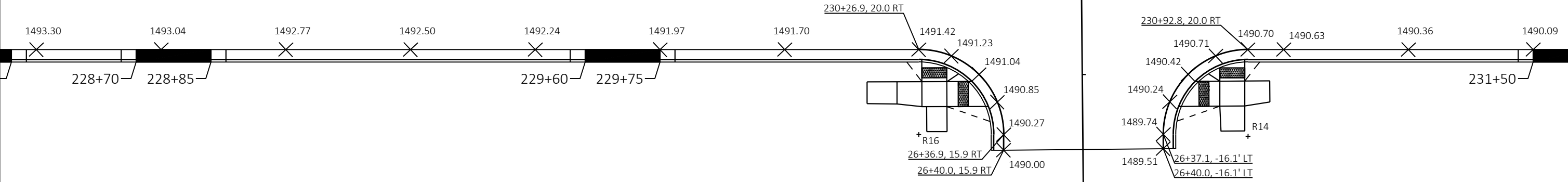
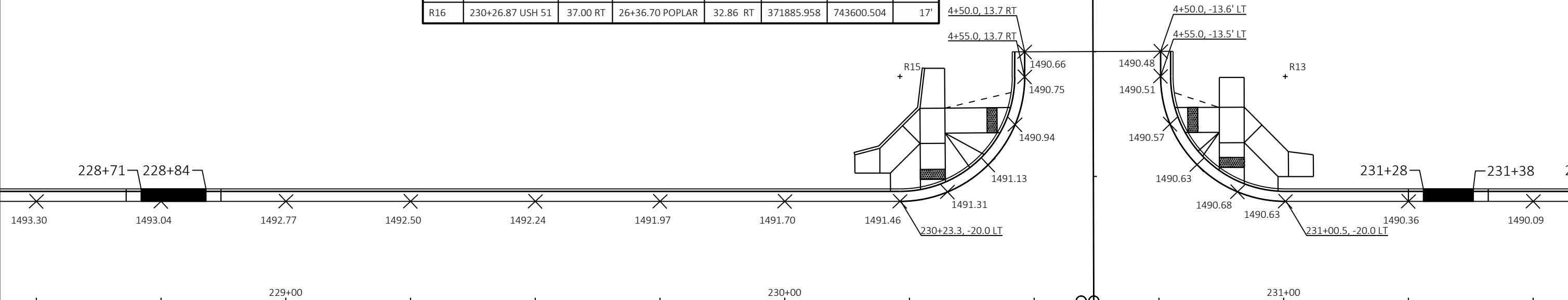
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STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R9	227+26.77 USH 51	-37.00 LT	19+63.27 MAPLE	-33.15 LT	371584.105	743534.510	17'
R10	227+27.38 USH 51	37.00 RT	20+37.28 MAPLE	-33.15 LT	371586.440	743608.477	17'
R11	226+61.02 USH 51	-37.00 LT	19+62.73 MAPLE	32.60 RT	371518.369	743536.041	17'
R12	226+61.63 USH 51	37.00 RT	20+36.73 MAPLE	32.60 RT	371520.703	743610.009	17'

2

2

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R13	231+00.33 USH 51	-45.00 LT	4+55.12 POPLAR	-38.53 LT	371957.173	743516.546	25'
R14	230+92.86 USH 51	37.37 RT	26+37.68 POPLAR	-33.12 LT	371951.934	743599.085	17'
R15	230+23.08 USH 51	-45.00 LT	4+54.88 POPLAR	38.72 RT	371879.951	743518.637	25'
R16	230+26.87 USH 51	37.00 RT	26+36.70 POPLAR	32.86 RT	371885.958	743600.504	17'



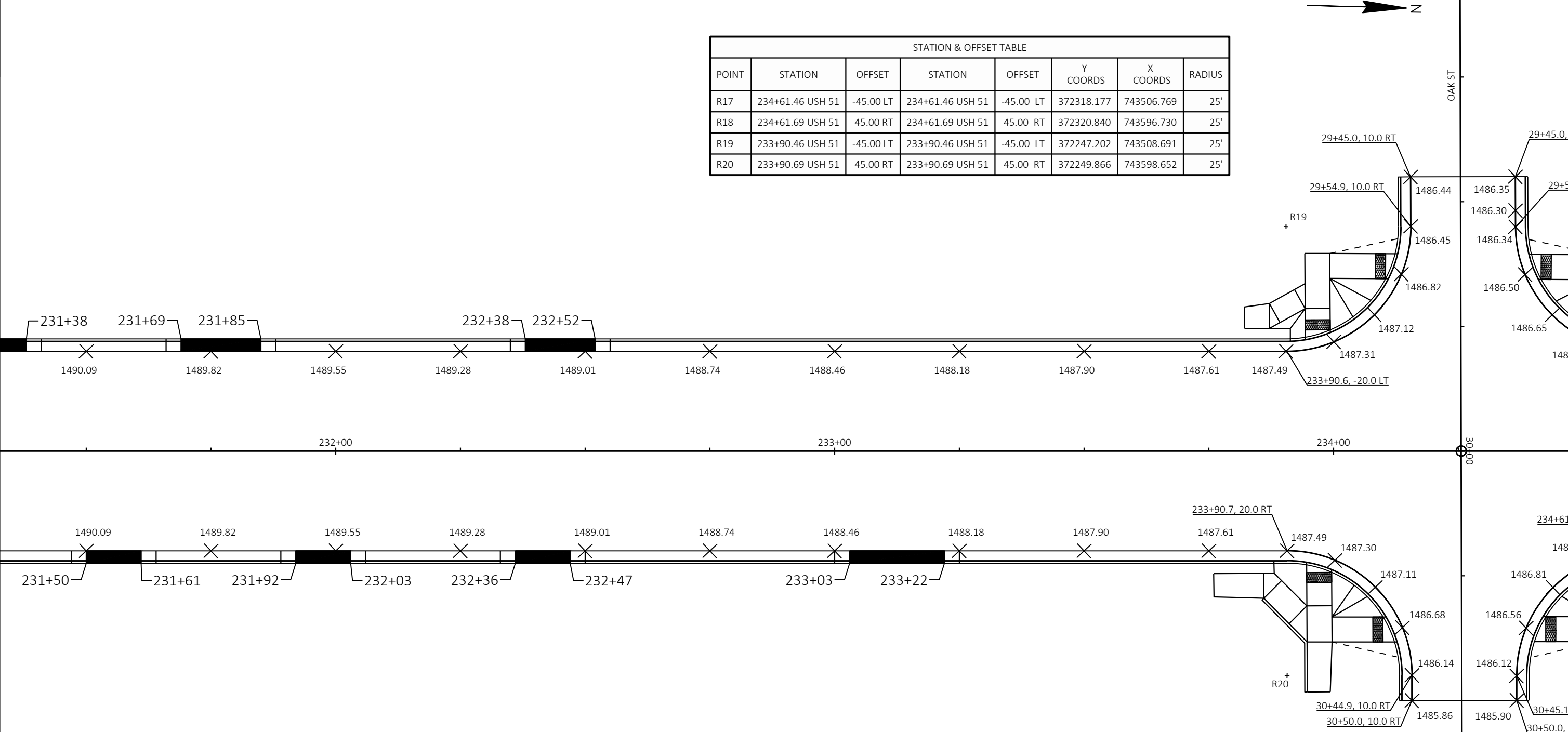
NOTES:

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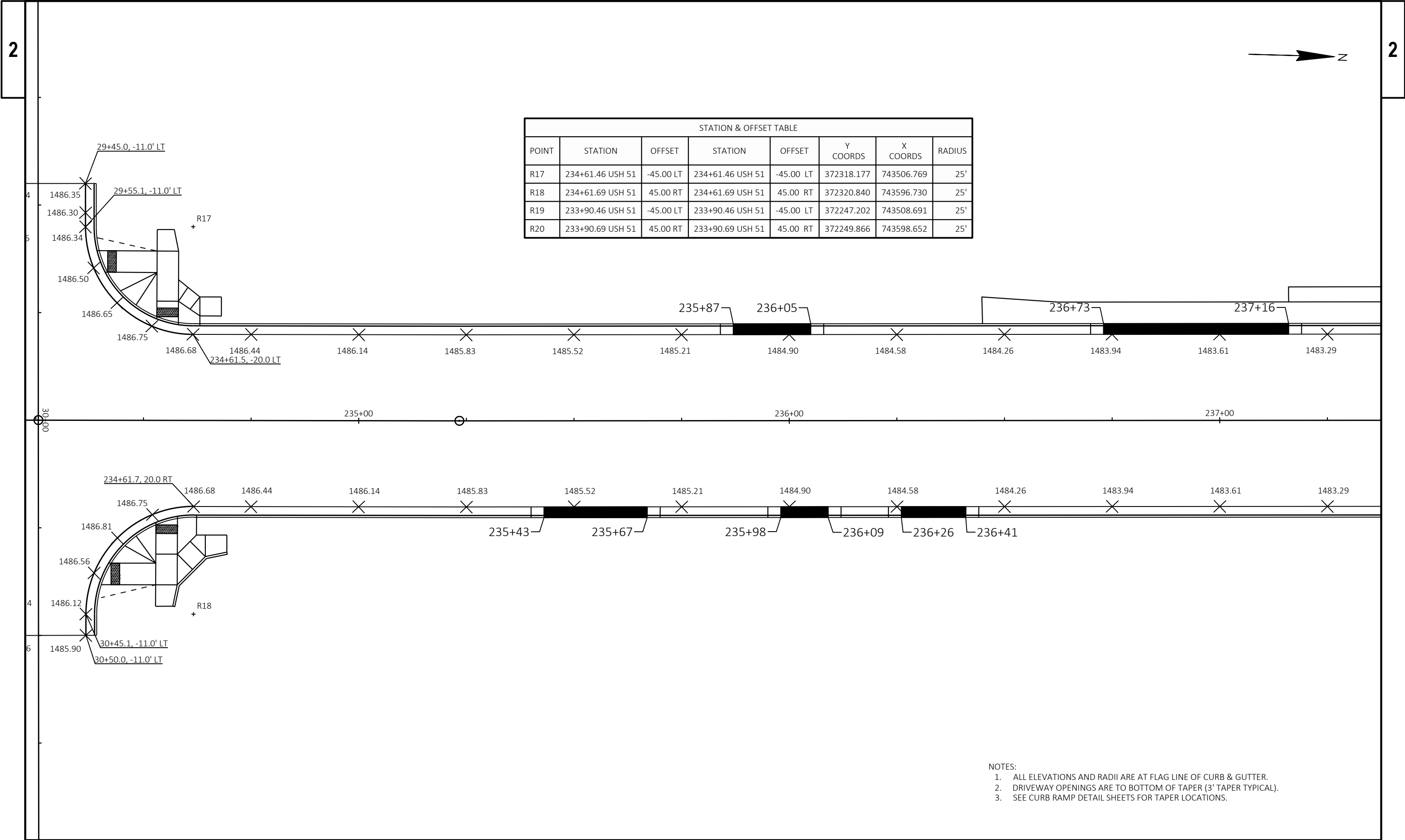
2

2

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
R17	234+61.46 USH 51	-45.00 LT	234+61.46 USH 51	-45.00 LT	372318.177	743506.769	25'
R18	234+61.69 USH 51	45.00 RT	234+61.69 USH 51	45.00 RT	372320.840	743596.730	25'
R19	233+90.46 USH 51	-45.00 LT	233+90.46 USH 51	-45.00 LT	372247.202	743508.691	25'
R20	233+90.69 USH 51	45.00 RT	233+90.69 USH 51	45.00 RT	372249.866	743598.652	25'

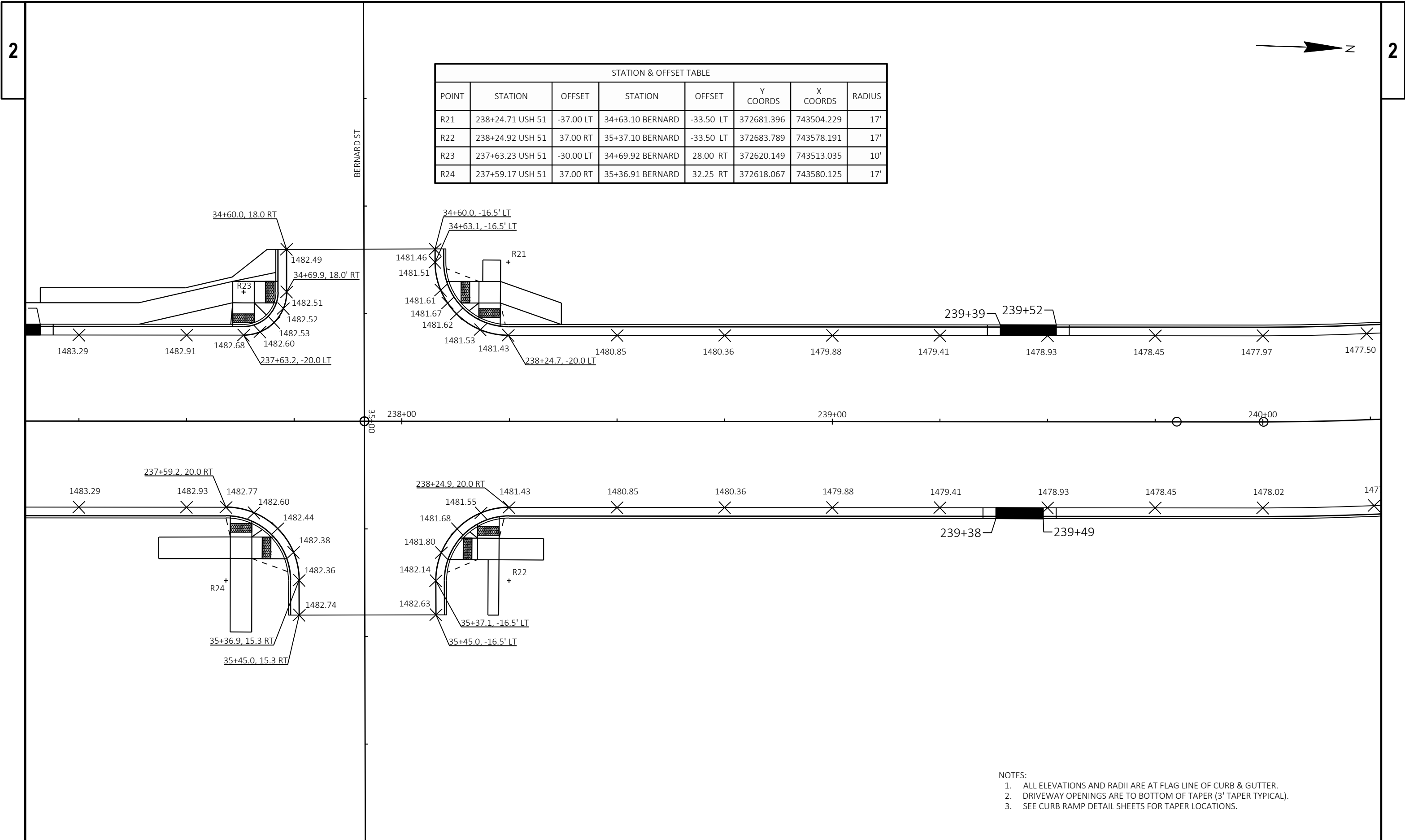


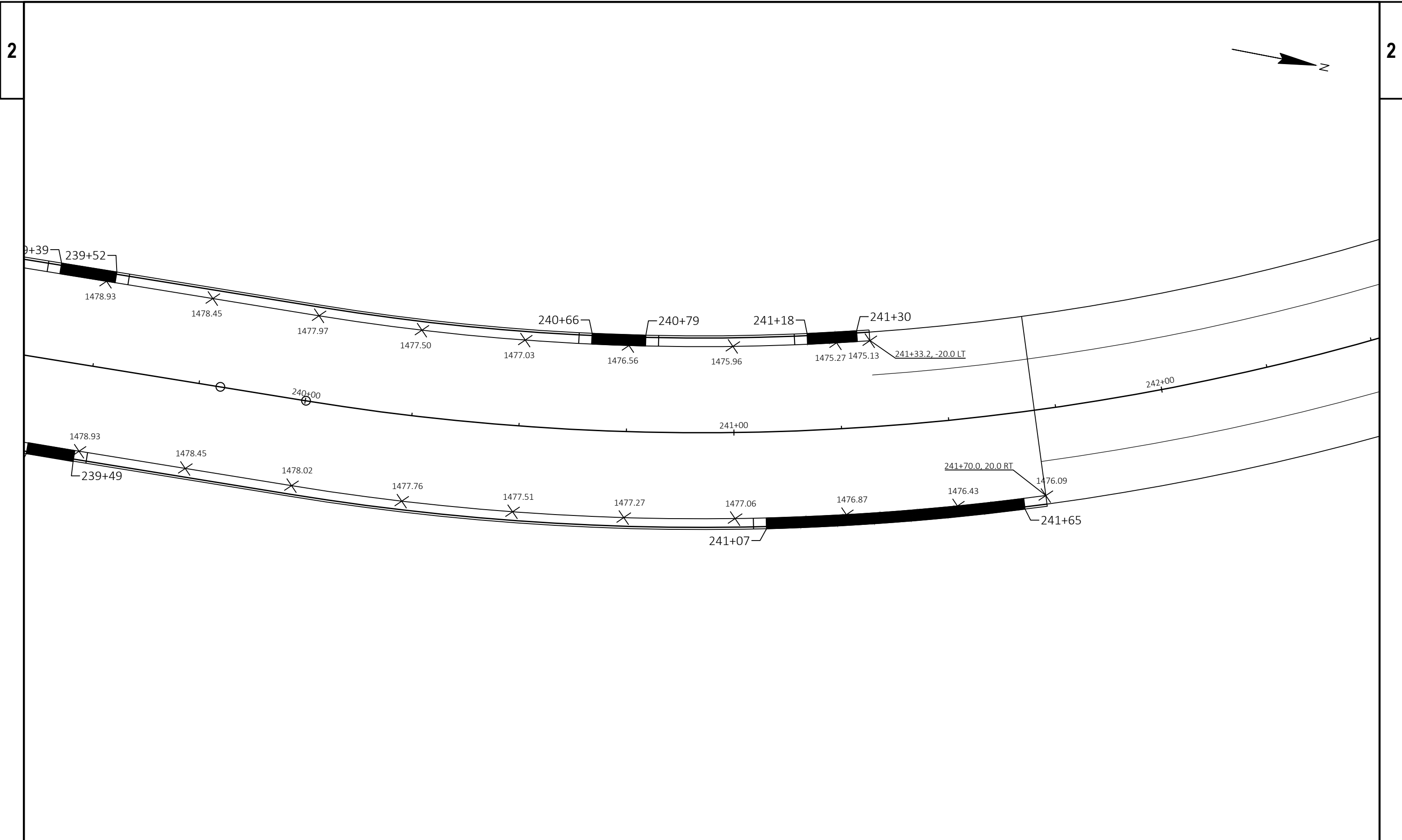
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STATION & OFFSET TABLE							
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R18	234+61.69 USH 51	45.00 RT	234+61.69 USH 51	45.00 RT	372320.840	743596.730	25'
R19	233+90.46 USH 51	-45.00 LT	233+90.46 USH 51	-45.00 LT	372247.202	743508.691	25'
R20	233+90.69 USH 51	45.00 RT	233+90.69 USH 51	45.00 RT	372249.866	743598.652	25'

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Iron NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 1001	212+42.55	44.87' LT	1518.85	370100.10	743561.23
CR 1002	212+42.53	41.61' LT	1518.18	370100.16	743564.49
CR 1003	212+42.52	40.61' LT	1518.62	370100.17	743565.49
CR 1004	212+42.90	33.58' LT	1518.22	370100.72	743572.51
CR 1005	212+45.10	28.71' LT	1517.44	370103.03	743577.32
CR 1006	212+48.62	25.16' LT	1517.21	370106.63	743580.79
CR 1007	212+54.58	22.70' LT	1517.41	370112.65	743583.11
CR 1008	212+47.93	31.53' LT	1517.48	370105.80	743574.44
CR 1009	212+51.46	27.98' LT	1517.41	370109.40	743577.91
CR 1010	212+57.12	25.34' LT	1517.14	370115.12	743580.42
CR 1011	212+60.00	25.34' LT	1517.02	370118.00	743580.35
CR 1012	212+48.03	44.82' LT	1518.30	370105.59	743561.16
CR 1013	212+48.01	41.57' LT	1518.01	370105.64	743564.40
CR 1014	212+47.96	35.53' LT	1517.46	370105.73	743570.44
CR 1015	212+52.03	44.78' LT	1517.96	370109.58	743561.10
CR 1016	212+52.00	35.53' LT	1517.40	370109.77	743570.35
CR 1017	212+55.49	31.98' LT	1517.32	370113.34	743573.81
CR 1018	212+57.11	30.34' LT	1517.20	370115.00	743575.42
CR 1019	212+55.58	44.75' LT	1517.67	370113.13	743561.05
CR 1020	212+59.99	30.34' LT	1517.10	370117.88	743575.35



LEGEND

X

CURB RAMP TYPE

- NOTES:
1.

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADE, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
2.

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
3.

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
4.

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
5.

ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

2

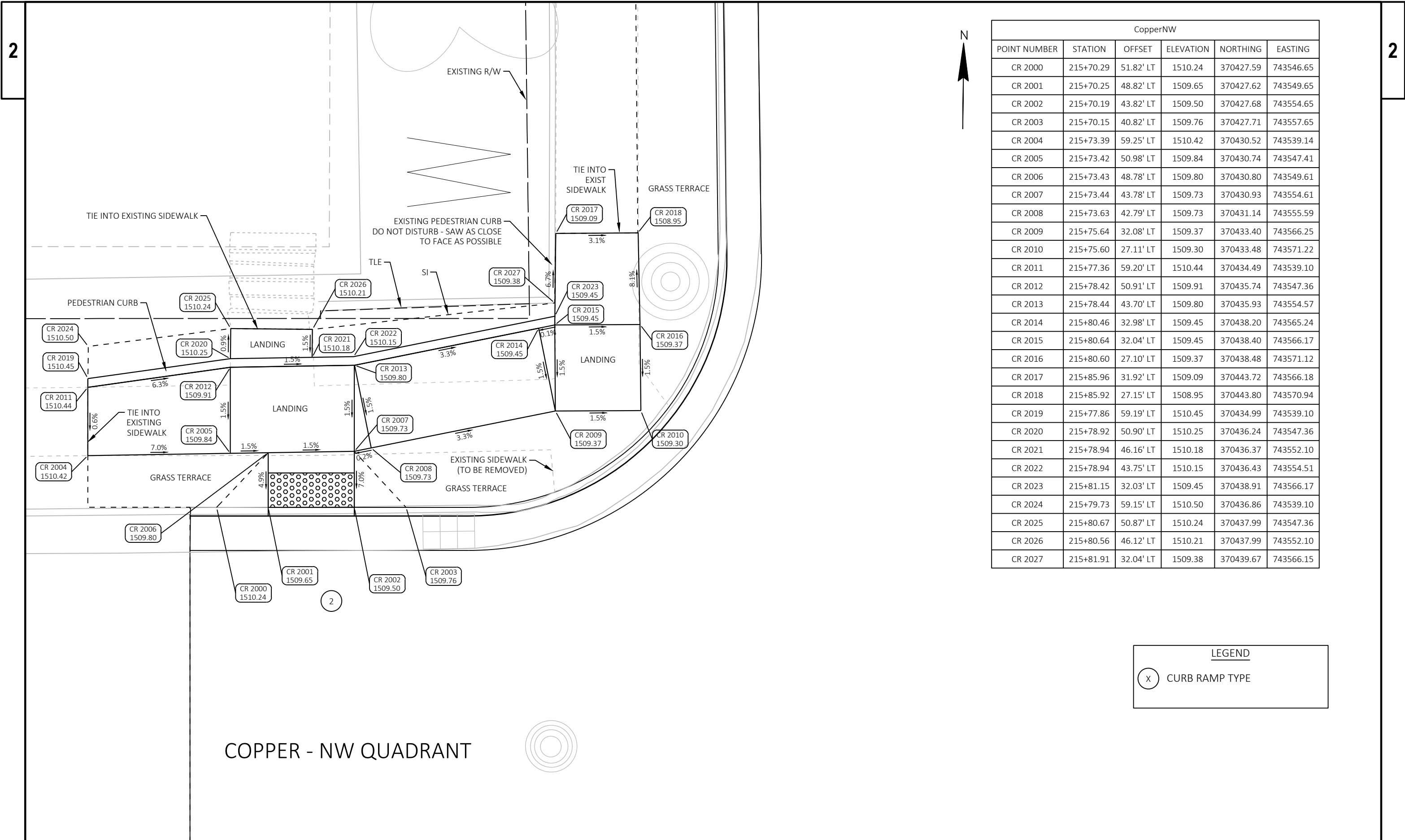
LEGEND

(X) CURB RAMP TYPE

NOTES: 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADE, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS 5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L



IRON - NE QUADRANT



CopperNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2000	215+70.29	51.82' LT	1510.24	370427.59	743546.65
CR 2001	215+70.25	48.82' LT	1509.65	370427.62	743549.65
CR 2002	215+70.19	43.82' LT	1509.50	370427.68	743554.65
CR 2003	215+70.15	40.82' LT	1509.76	370427.71	743557.65
CR 2004	215+73.39	59.25' LT	1510.42	370430.52	743539.14
CR 2005	215+73.42	50.98' LT	1509.84	370430.74	743547.41
CR 2006	215+73.43	48.78' LT	1509.80	370430.80	743549.61
CR 2007	215+73.44	43.78' LT	1509.73	370430.93	743554.61
CR 2008	215+73.63	42.79' LT	1509.73	370431.14	743555.59
CR 2009	215+75.64	32.08' LT	1509.37	370433.40	743566.25
CR 2010	215+75.60	27.11' LT	1509.30	370433.48	743571.22
CR 2011	215+77.36	59.20' LT	1510.44	370434.49	743539.10
CR 2012	215+78.42	50.91' LT	1509.91	370435.74	743547.36
CR 2013	215+78.44	43.70' LT	1509.80	370435.93	743554.57
CR 2014	215+80.46	32.98' LT	1509.45	370438.20	743565.24
CR 2015	215+80.64	32.04' LT	1509.45	370438.40	743566.17
CR 2016	215+80.60	27.10' LT	1509.37	370438.48	743571.12
CR 2017	215+85.96	31.92' LT	1509.09	370443.72	743566.18
CR 2018	215+85.92	27.15' LT	1508.95	370443.80	743570.94
CR 2019	215+77.86	59.19' LT	1510.45	370434.99	743539.10
CR 2020	215+78.92	50.90' LT	1510.25	370436.24	743547.36
CR 2021	215+78.94	46.16' LT	1510.18	370436.37	743552.10
CR 2022	215+78.94	43.75' LT	1510.15	370436.43	743554.51
CR 2023	215+81.15	32.03' LT	1509.45	370438.91	743566.17
CR 2024	215+79.73	59.15' LT	1510.50	370436.86	743539.10
CR 2025	215+80.67	50.87' LT	1510.24	370437.99	743547.36
CR 2026	215+80.56	46.12' LT	1510.21	370437.99	743552.10
CR 2027	215+81.91	32.04' LT	1509.38	370439.67	743566.15

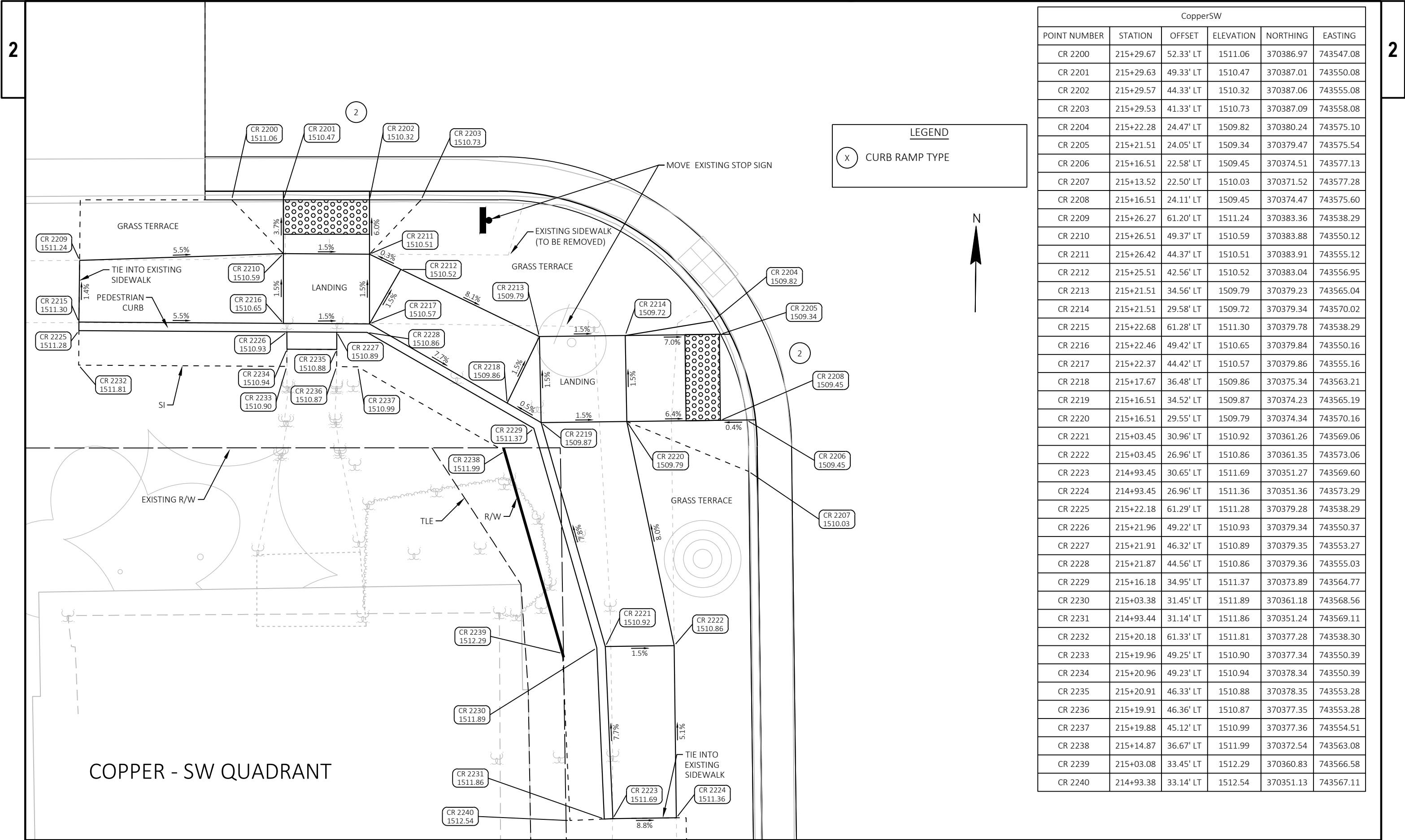
2



CopperNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2112	215+69.58	37.09' RT	1508.16	370428.96	743635.55
CR 2113	215+83.97	33.12' RT	1507.79	370443.24	743631.24
CR 2114	215+80.18	33.11' RT	1507.99	370439.46	743631.32

LEGEND

(X) CURB RAMP TYPE



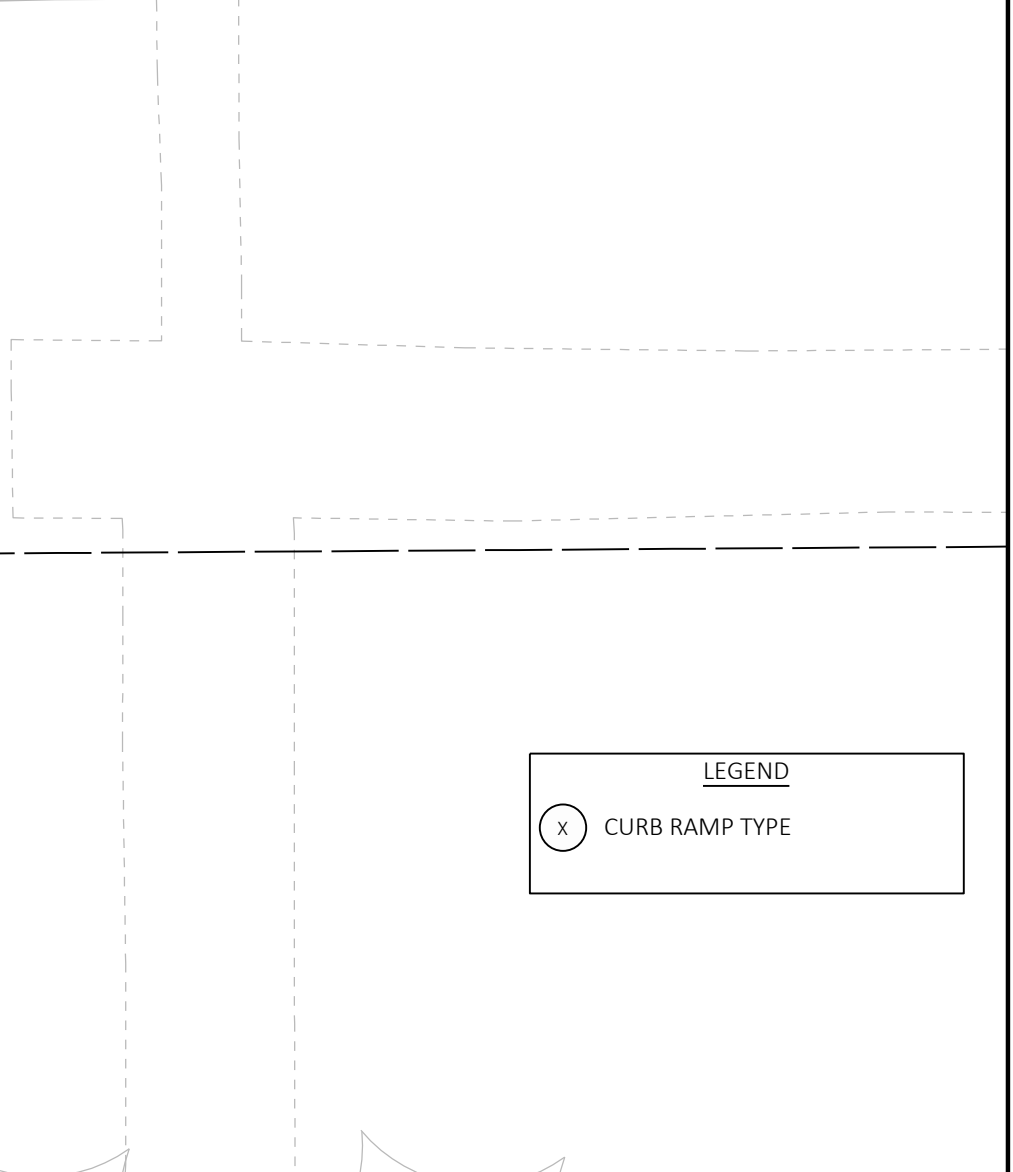
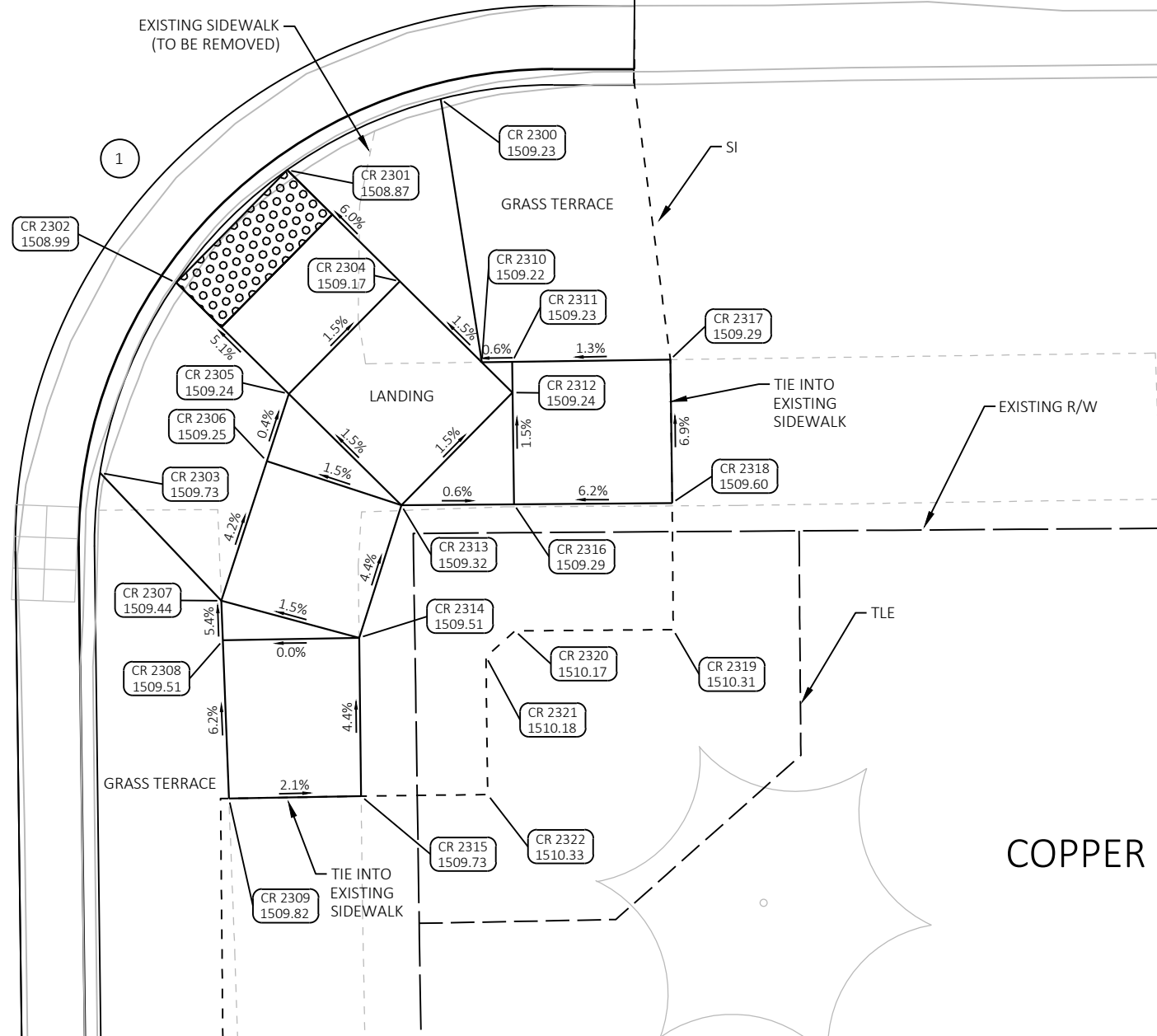
CopperSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2200	215+29.67	52.33' LT	1511.06	370386.97	743547.08
CR 2201	215+29.63	49.33' LT	1510.47	370387.01	743550.08
CR 2202	215+29.57	44.33' LT	1510.32	370387.06	743555.08
CR 2203	215+29.53	41.33' LT	1510.73	370387.09	743558.08
CR 2204	215+22.28	24.47' LT	1509.82	370380.24	743575.10
CR 2205	215+21.51	24.05' LT	1509.34	370379.47	743575.54
CR 2206	215+16.51	22.58' LT	1509.45	370374.51	743577.13
CR 2207	215+13.52	22.50' LT	1510.03	370371.52	743577.28
CR 2208	215+16.51	24.11' LT	1509.45	370374.47	743575.60
CR 2209	215+26.27	61.20' LT	1511.24	370383.36	743538.29
CR 2210	215+26.51	49.37' LT	1510.59	370383.88	743550.12
CR 2211	215+26.42	44.37' LT	1510.51	370383.91	743555.12
CR 2212	215+25.51	42.56' LT	1510.52	370383.04	743556.95
CR 2213	215+21.51	34.56' LT	1509.79	370379.23	743565.04
CR 2214	215+21.51	29.58' LT	1509.72	370379.34	743570.02
CR 2215	215+22.68	61.28' LT	1511.30	370379.78	743538.29
CR 2216	215+22.46	49.42' LT	1510.65	370379.84	743550.16
CR 2217	215+22.37	44.42' LT	1510.57	370379.86	743555.16
CR 2218	215+17.67	36.48' LT	1509.86	370375.34	743563.21
CR 2219	215+16.51	34.52' LT	1509.87	370374.23	743565.19
CR 2220	215+16.51	29.55' LT	1509.79	370374.34	743570.16
CR 2221	215+03.45	30.96' LT	1510.92	370361.26	743569.06
CR 2222	215+03.45	26.96' LT	1510.86	370361.35	743573.06
CR 2223	214+93.45	30.65' LT	1511.69	370351.27	743569.60
CR 2224	214+93.45	26.96' LT	1511.36	370351.36	743573.29
CR 2225	215+22.18	61.29' LT	1511.28	370379.28	743538.29
CR 2226	215+21.96	49.22' LT	1510.93	370379.34	743550.37
CR 2227	215+21.91	46.32' LT	1510.89	370379.35	743553.27
CR 2228	215+21.87	44.56' LT	1510.86	370379.36	743555.03
CR 2229	215+16.18	34.95' LT	1511.37	370373.89	743564.77
CR 2230	215+03.38	31.45' LT	1511.89	370361.18	743568.56
CR 2231	214+93.44	31.14' LT	1511.86	370351.24	743569.11
CR 2232	215+20.18	61.33' LT	1511.81	370377.28	743538.30
CR 2233	215+19.96	49.25' LT	1510.90	370377.34	743550.39
CR 2234	215+20.96	49.23' LT	1510.94	370378.34	743550.39
CR 2235	215+20.91	46.33' LT	1510.88	370378.35	743553.28
CR 2236	215+19.91	46.36' LT	1510.87	370377.35	743553.28
CR 2237	215+19.88	45.12' LT	1510.99	370377.36	743554.51
CR 2238	215+14.87	36.67' LT	1511.99	370372.54	743563.08
CR 2239	215+03.08	33.45' LT	1512.29	370360.83	743566.58
CR 2240	214+93.38	33.14' LT	1512.54	370351.13	743567.11

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CopperSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2300	215+28.15	33.62' RT	1509.23	370387.45	743633.04
CR 2301	215+25.97	28.74' RT	1508.87	370385.16	743628.22
CR 2302	215+22.45	25.19' RT	1508.99	370381.56	743624.74
CR 2303	215+16.48	22.70' RT	1509.73	370375.53	743622.40
CR 2304	215+22.41	32.26' RT	1509.17	370381.68	743631.81
CR 2305	215+18.90	28.70' RT	1509.24	370378.09	743628.34
CR 2306	215+16.78	27.98' RT	1509.25	370375.95	743627.67
CR 2307	215+12.39	26.49' RT	1509.44	370371.53	743626.28
CR 2308	215+11.14	26.52' RT	1509.51	370370.28	743626.34
CR 2309	215+06.14	26.65' RT	1509.82	370365.29	743626.58
CR 2310	215+19.82	34.81' RT	1509.22	370379.16	743634.43
CR 2311	215+19.82	35.77' RT	1509.23	370379.18	743635.38

CopperSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2312	215+18.85	35.77' RT	1509.24	370378.21	743635.41
CR 2313	215+15.34	32.21' RT	1509.32	370374.61	743631.93
CR 2314	215+11.16	30.82' RT	1509.51	370370.41	743630.64
CR 2315	215+06.16	30.83' RT	1509.73	370365.41	743630.76
CR 2316	215+15.32	35.77' RT	1509.29	370374.68	743635.49
CR 2317	215+19.83	40.77' RT	1509.29	370379.30	743640.38
CR 2318	215+15.30	40.77' RT	1509.60	370374.77	743640.49
CR 2319	215+11.30	40.75' RT	1510.31	370370.77	743640.57
CR 2320	215+11.32	35.75' RT	1510.17	370370.68	743635.57
CR 2321	215+10.51	34.83' RT	1510.18	370369.85	743634.66
CR 2322	215+06.16	34.83' RT	1510.33	370365.50	743634.76

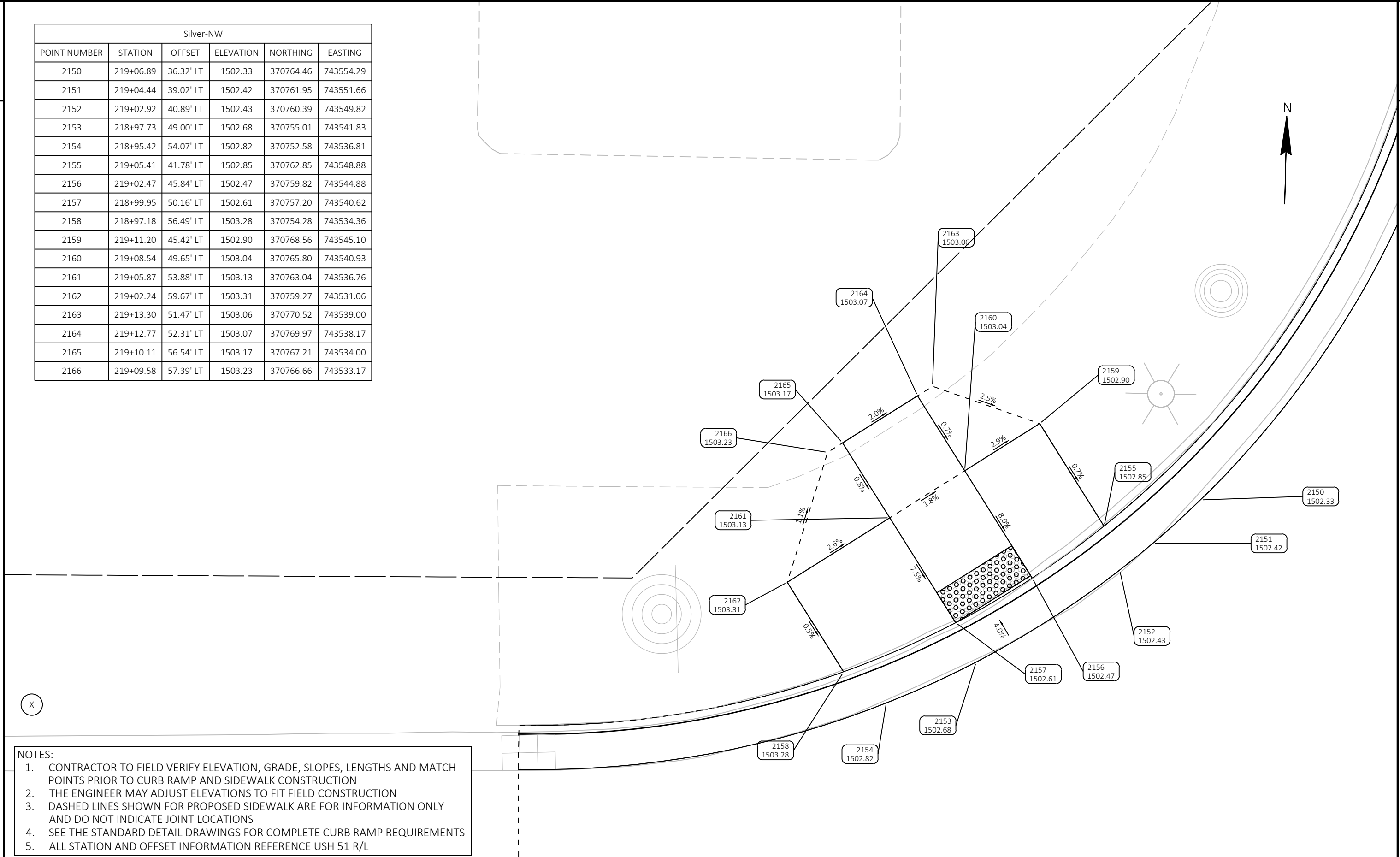


LEGEND

 CURB RAMP TYPE

COPPER - SE QUADRANT

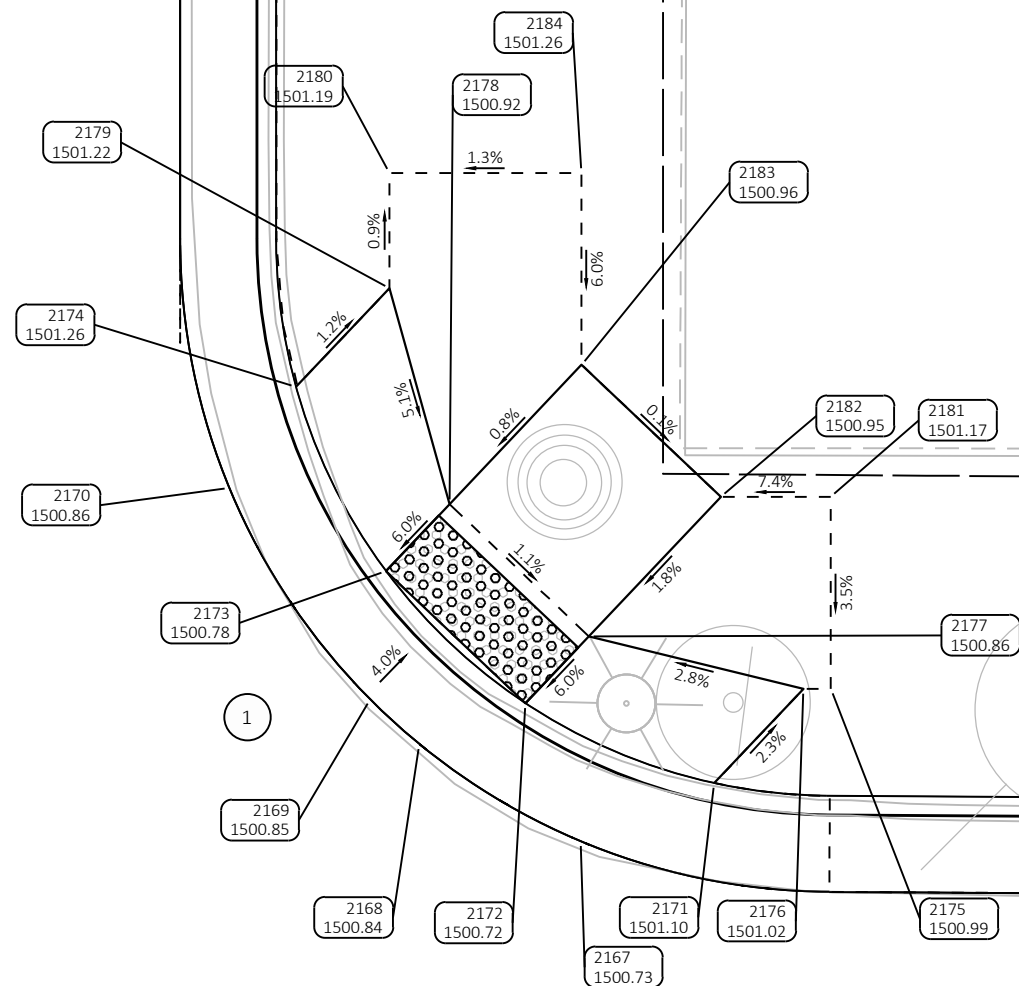
Silver-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2150	219+06.89	36.32' LT	1502.33	370764.46	743554.29
2151	219+04.44	39.02' LT	1502.42	370761.95	743551.66
2152	219+02.92	40.89' LT	1502.43	370760.39	743549.82
2153	218+97.73	49.00' LT	1502.68	370755.01	743541.83
2154	218+95.42	54.07' LT	1502.82	370752.58	743536.81
2155	219+05.41	41.78' LT	1502.85	370762.85	743548.88
2156	219+02.47	45.84' LT	1502.47	370759.82	743544.88
2157	218+99.95	50.16' LT	1502.61	370757.20	743540.62
2158	218+97.18	56.49' LT	1503.28	370754.28	743534.36
2159	219+11.20	45.42' LT	1502.90	370768.56	743545.10
2160	219+08.54	49.65' LT	1503.04	370765.80	743540.93
2161	219+05.87	53.88' LT	1503.13	370763.04	743536.76
2162	219+02.24	59.67' LT	1503.31	370759.27	743531.06
2163	219+13.30	51.47' LT	1503.06	370770.52	743539.00
2164	219+12.77	52.31' LT	1503.07	370769.97	743538.17
2165	219+10.11	56.54' LT	1503.17	370767.21	743534.00
2166	219+09.58	57.39' LT	1503.23	370766.66	743533.17



X

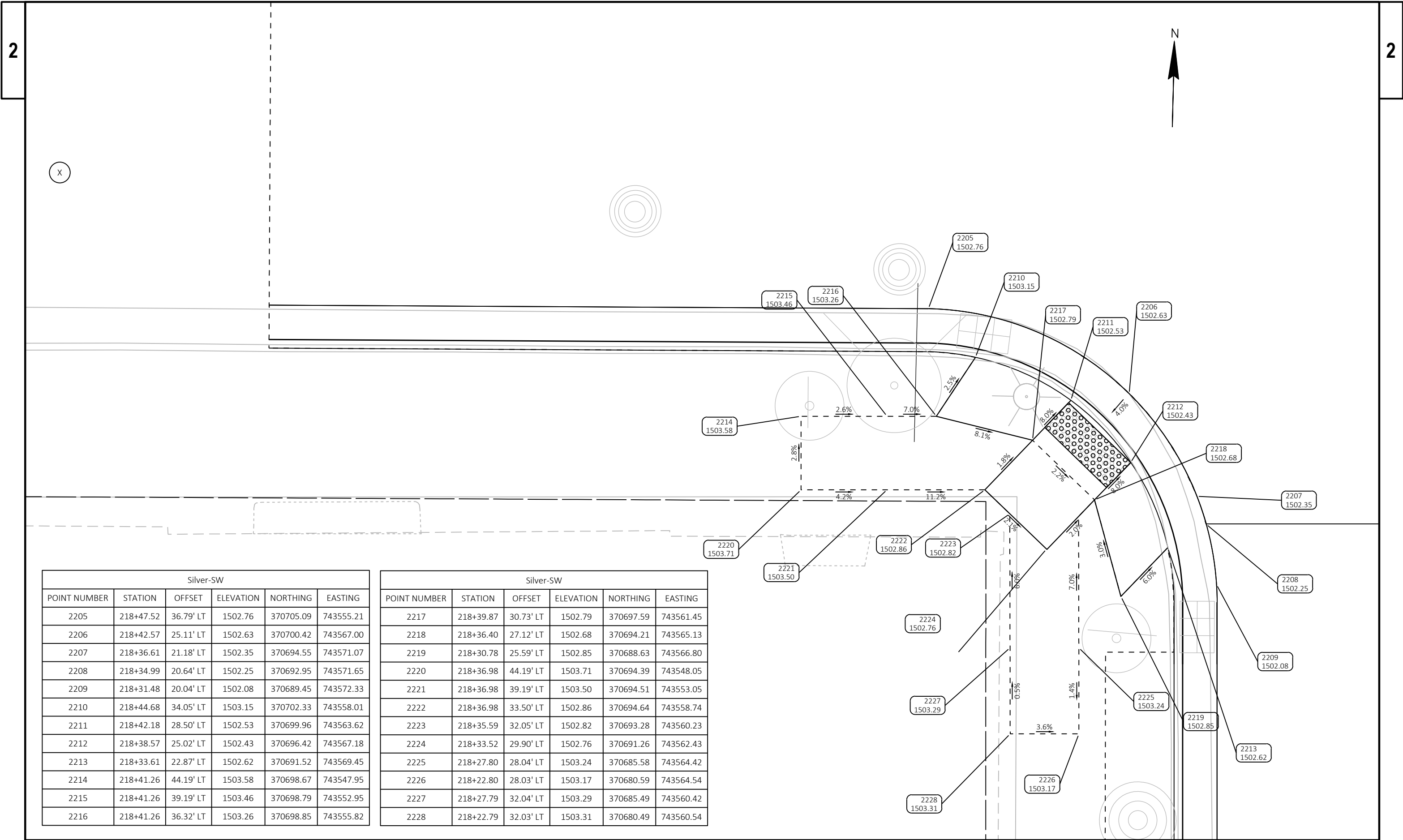
- NOTES:
- 1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADE, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION
 - 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION
 - 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS
 - 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS
 - 5. ALL STATION AND OFFSET INFORMATION REFERENCE USH 51 R/L

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Silver-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2167	218+92.34	30.43' RT	1500.73	370751.48	743621.36
2168	218+94.87	26.23' RT	1500.84	370753.90	743617.11
2169	218+96.04	24.95' RT	1500.85	370755.04	743615.80
2170	219+01.54	21.28' RT	1500.86	370760.46	743612.01
2171	218+93.86	33.91' RT	1501.10	370753.07	743624.81
2172	218+95.94	28.99' RT	1500.72	370755.03	743619.84
2173	218+99.38	25.36' RT	1500.78	370758.39	743616.13
2174	219+04.17	23.02' RT	1501.26	370763.13	743613.68
2175	218+96.31	36.94' RT	1500.99	370755.59	743627.78
2176	218+96.31	36.23' RT	1501.02	370755.57	743627.07
2177	218+97.68	30.64' RT	1500.86	370756.82	743621.45
2178	219+01.12	27.01' RT	1500.92	370760.17	743617.75
2179	219+06.74	25.45' RT	1501.22	370765.75	743616.05
2180	219+09.74	25.45' RT	1501.19	370768.75	743615.98
2181	219+01.31	36.94' RT	1501.17	370760.59	743627.67
2182	219+01.31	34.08' RT	1500.95	370760.52	743624.81
2183	219+04.75	30.45' RT	1500.96	370763.88	743621.10
2184	219+09.74	30.45' RT	1501.26	370768.87	743620.98

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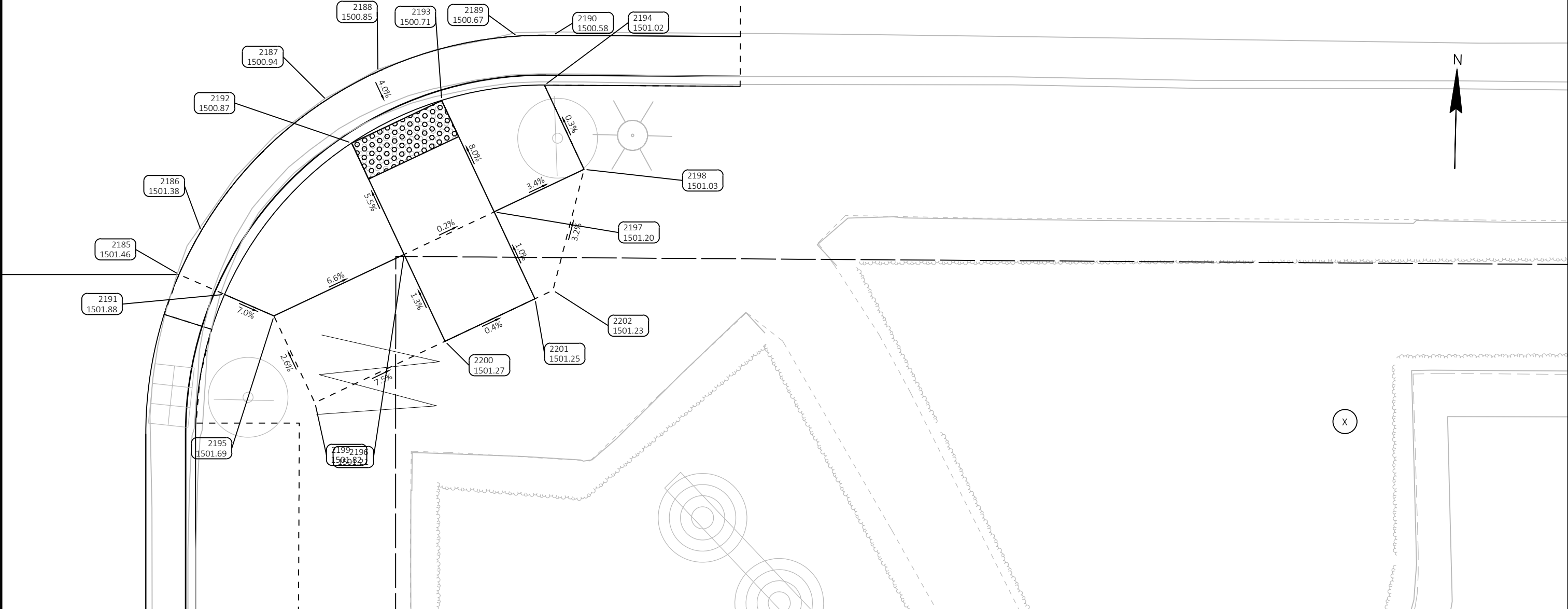


Silver-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2205	218+47.52	36.79' LT	1502.76	370705.09	743555.21
2206	218+42.57	25.11' LT	1502.63	370700.42	743567.00
2207	218+36.61	21.18' LT	1502.35	370694.55	743571.07
2208	218+34.99	20.64' LT	1502.25	370692.95	743571.65
2209	218+31.48	20.04' LT	1502.08	370689.45	743572.33
2210	218+44.68	34.05' LT	1503.15	370702.33	743558.01
2211	218+42.18	28.50' LT	1502.53	370699.96	743563.62
2212	218+38.57	25.02' LT	1502.43	370696.42	743567.18
2213	218+33.61	22.87' LT	1502.62	370691.52	743569.45
2214	218+41.26	44.19' LT	1503.58	370698.67	743547.95
2215	218+41.26	39.19' LT	1503.46	370698.79	743552.95
2216	218+41.26	36.32' LT	1503.26	370698.85	743555.82

Silver-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2217	218+39.87	30.73' LT	1502.79	370697.59	743561.45
2218	218+36.40	27.12' LT	1502.68	370694.21	743565.13
2219	218+30.78	25.59' LT	1502.85	370688.63	743566.80
2220	218+36.98	44.19' LT	1503.71	370694.39	743548.05
2221	218+36.98	39.19' LT	1503.50	370694.51	743553.05
2222	218+36.98	33.50' LT	1502.86	370694.64	743558.74
2223	218+35.59	32.05' LT	1502.82	370693.28	743560.23
2224	218+33.52	29.90' LT	1502.76	370691.26	743562.43
2225	218+27.80	28.04' LT	1503.24	370685.58	743564.42
2226	218+22.80	28.03' LT	1503.17	370680.59	743564.54
2227	218+27.79	32.04' LT	1503.29	370685.49	743560.42
2228	218+22.79	32.03' LT	1503.31	370680.49	743560.54

Silver-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2185	218+35.00	21.67' RT	1501.46	370693.94	743613.94
2186	218+37.18	22.78' RT	1501.38	370696.15	743615.01
2187	218+43.76	29.08' RT	1500.94	370702.87	743621.15
2188	218+45.18	31.66' RT	1500.85	370704.35	743623.69
2189	218+46.96	38.67' RT	1500.67	370706.30	743630.66
2190	218+47.00	40.45' RT	1500.58	370706.38	743632.44
2191	218+34.00	23.96' RT	1501.88	370693.00	743616.26
2192	218+41.60	30.34' RT	1500.87	370700.74	743622.46
2193	218+43.73	34.87' RT	1500.71	370702.98	743626.93

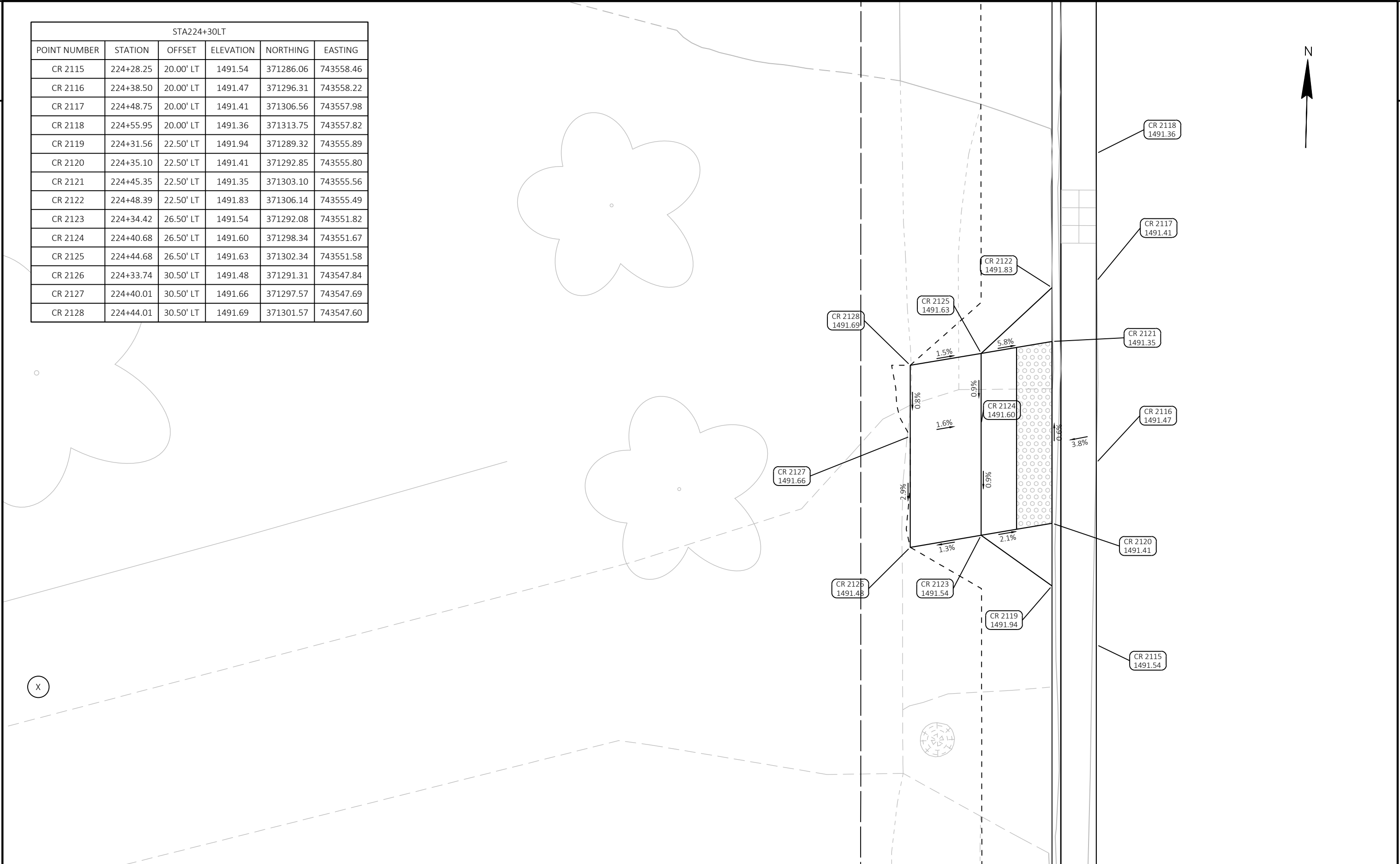
Silver-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2194	218+44.50	40.03' RT	1501.02	370703.87	743632.08
2195	218+32.92	26.44' RT	1501.69	370691.98	743618.76
2196	218+36.01	32.98' RT	1501.21	370695.22	743625.23
2197	218+38.14	37.50' RT	1501.20	370697.45	743629.70
2198	218+40.28	42.02' RT	1501.03	370699.69	743634.17
2199	218+28.56	28.49' RT	1501.82	370687.67	743620.92
2200	218+31.65	35.03' RT	1501.27	370690.90	743627.38
2201	218+33.78	39.55' RT	1501.25	370693.14	743631.85
2202	218+34.21	40.46' RT	1501.23	370693.59	743632.74

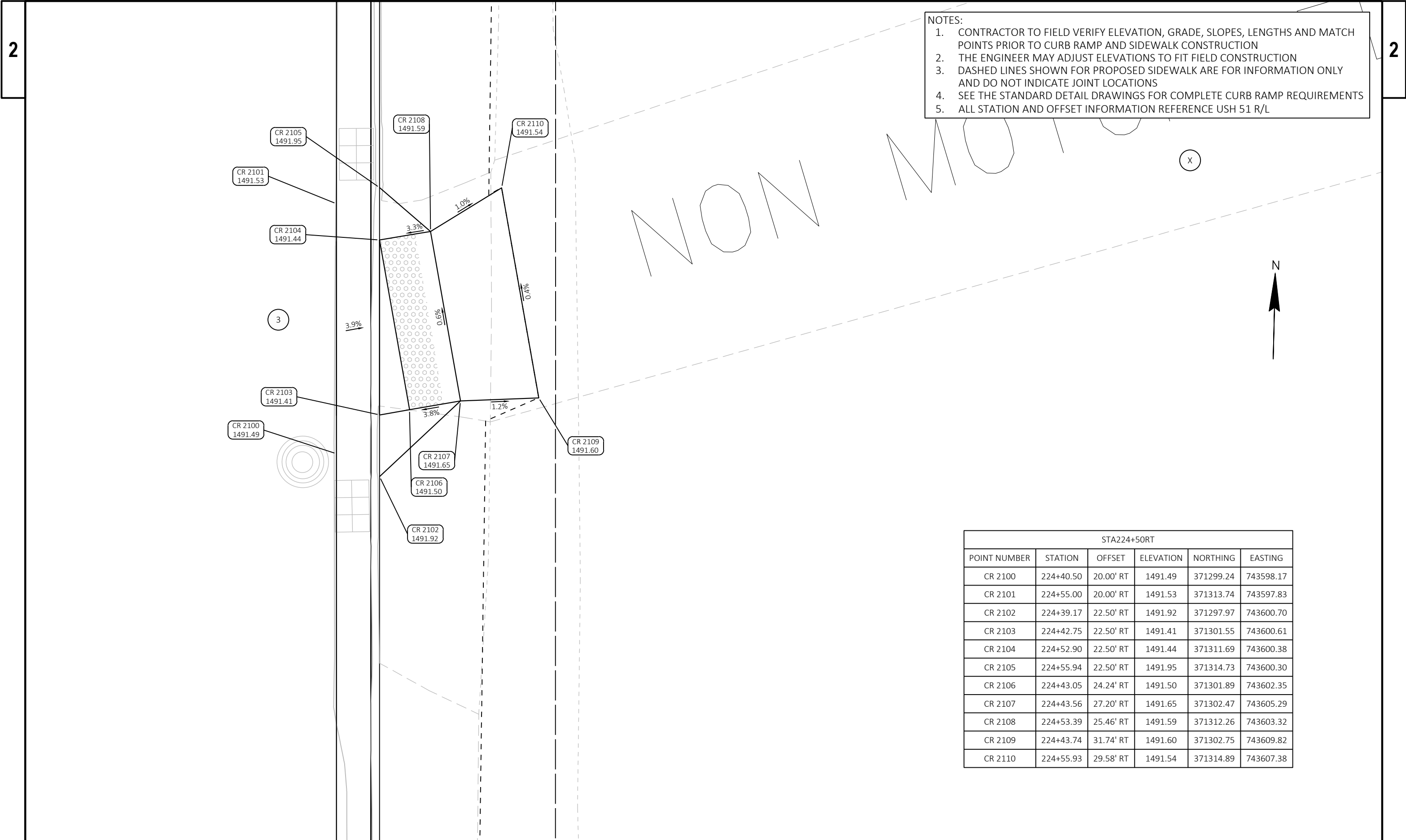


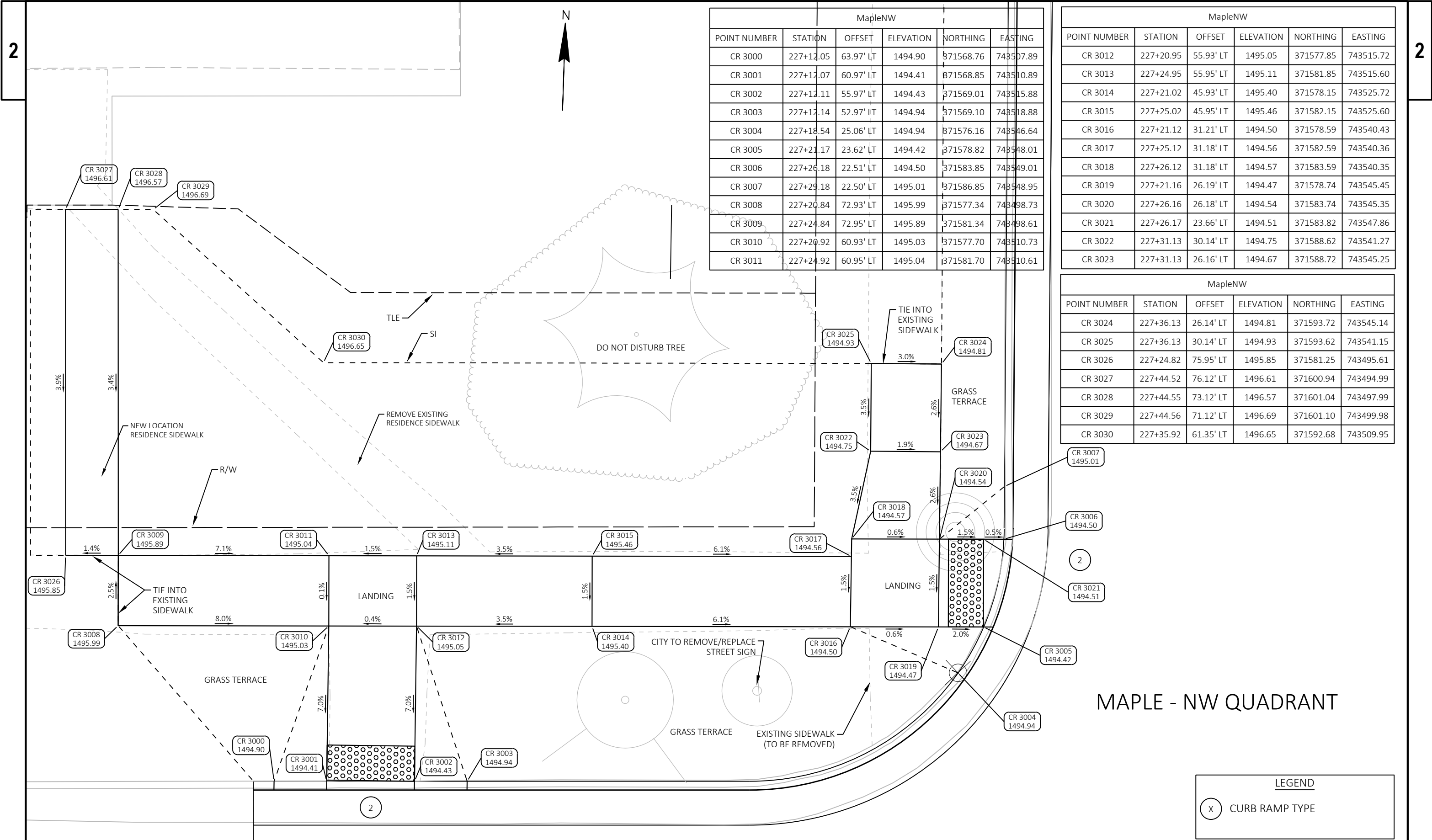
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STA224+30LT					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 2115	224+28.25	20.00' LT	1491.54	371286.06	743558.46
CR 2116	224+38.50	20.00' LT	1491.47	371296.31	743558.22
CR 2117	224+48.75	20.00' LT	1491.41	371306.56	743557.98
CR 2118	224+55.95	20.00' LT	1491.36	371313.75	743557.82
CR 2119	224+31.56	22.50' LT	1491.94	371289.32	743555.89
CR 2120	224+35.10	22.50' LT	1491.41	371292.85	743555.80
CR 2121	224+45.35	22.50' LT	1491.35	371303.10	743555.56
CR 2122	224+48.39	22.50' LT	1491.83	371306.14	743555.49
CR 2123	224+34.42	26.50' LT	1491.54	371292.08	743551.82
CR 2124	224+40.68	26.50' LT	1491.60	371298.34	743551.67
CR 2125	224+44.68	26.50' LT	1491.63	371302.34	743551.58
CR 2126	224+33.74	30.50' LT	1491.48	371291.31	743547.84
CR 2127	224+40.01	30.50' LT	1491.66	371297.57	743547.69
CR 2128	224+44.01	30.50' LT	1491.69	371301.57	743547.60

2







MapleNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 3000	227+12.05	63.97' LT	1494.90	371568.76	743507.89
CR 3001	227+12.07	60.97' LT	1494.41	371568.85	743510.89
CR 3002	227+12.11	55.97' LT	1494.43	371569.01	743515.88
CR 3003	227+12.14	52.97' LT	1494.94	371569.10	743518.88
CR 3004	227+18.54	25.06' LT	1494.94	371576.16	743546.64
CR 3005	227+21.17	23.62' LT	1494.42	371578.82	743548.01
CR 3006	227+26.18	22.51' LT	1494.50	371583.85	743549.01
CR 3007	227+29.18	22.50' LT	1495.01	371586.85	743548.95
CR 3008	227+20.84	72.93' LT	1495.99	371577.34	743498.73
CR 3009	227+24.84	72.95' LT	1495.89	371581.34	743498.61
CR 3010	227+20.92	60.93' LT	1495.03	371577.70	743510.73
CR 3011	227+24.92	60.95' LT	1495.04	371581.70	743510.61

MapleNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 3012	227+20.95	55.93' LT	1495.05	371577.85	743515.72
CR 3013	227+24.95	55.95' LT	1495.11	371581.85	743515.60
CR 3014	227+21.02	45.93' LT	1495.40	371578.15	743525.72
CR 3015	227+25.02	45.95' LT	1495.46	371582.15	743525.60
CR 3016	227+21.12	31.21' LT	1494.50	371578.59	743540.43
CR 3017	227+25.12	31.18' LT	1494.56	371582.59	743540.36
CR 3018	227+26.12	31.18' LT	1494.57	371583.59	743540.35
CR 3019	227+21.16	26.19' LT	1494.47	371578.74	743545.45
CR 3020	227+26.16	26.18' LT	1494.54	371583.74	743545.35
CR 3021	227+26.17	23.66' LT	1494.51	371583.82	743547.86
CR 3022	227+31.13	30.14' LT	1494.75	371588.62	743541.27
CR 3023	227+31.13	26.16' LT	1494.67	371588.72	743545.25

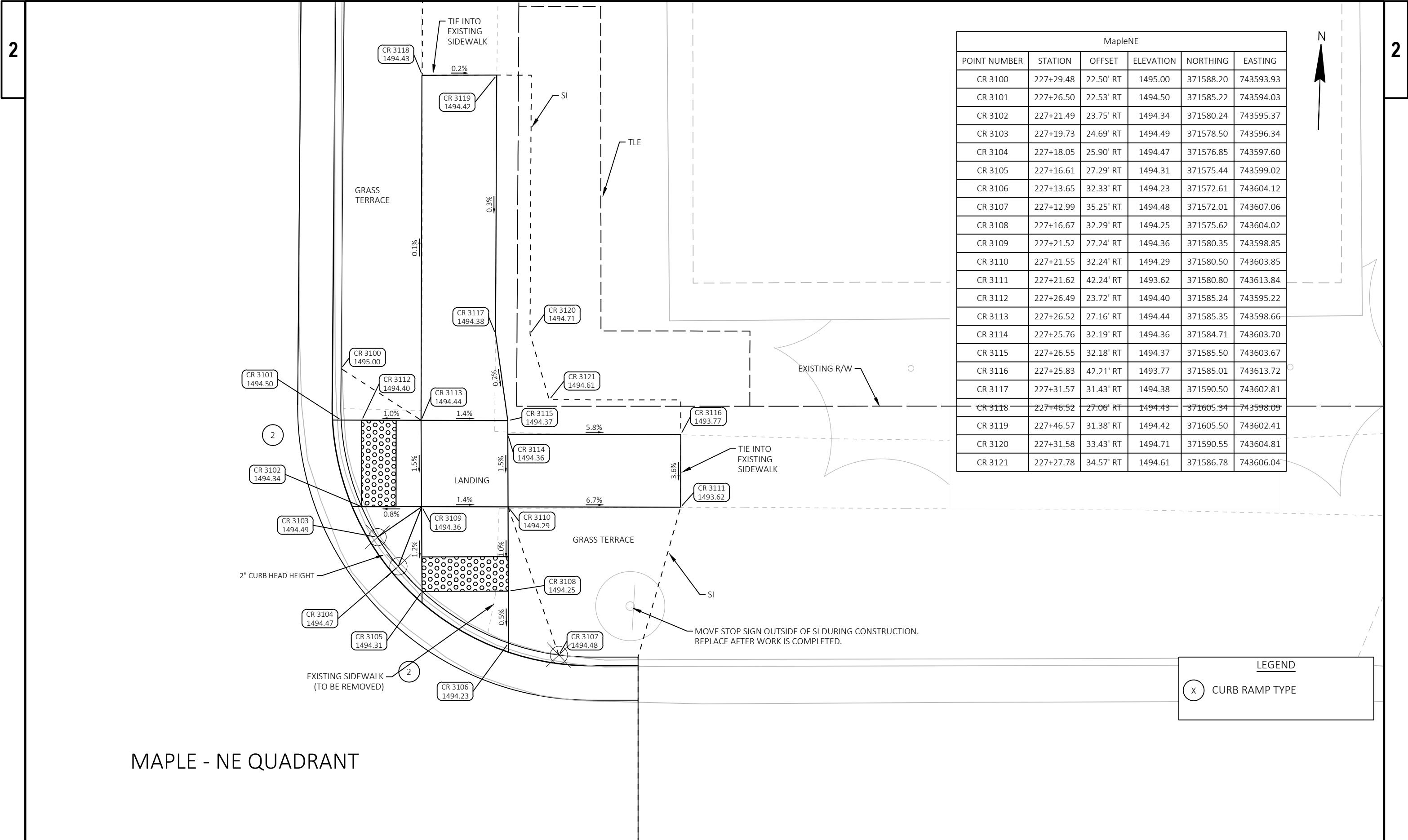
MapleNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 3024	227+36.13	26.14' LT	1494.81	371593.72	743545.14
CR 3025	227+36.13	30.14' LT	1494.93	371593.62	743541.15
CR 3026	227+24.82	75.95' LT	1495.85	371581.25	743495.61
CR 3027	227+44.52	76.12' LT	1496.61	371600.94	743494.99
CR 3028	227+44.55	73.12' LT	1496.57	371601.04	743497.99
CR 3029	227+44.56	71.12' LT	1496.69	371601.10	743499.98
CR 3030	227+35.92	61.35' LT	1496.65	371592.68	743509.95

MAPLE - NW QUADRANT

LEGEND

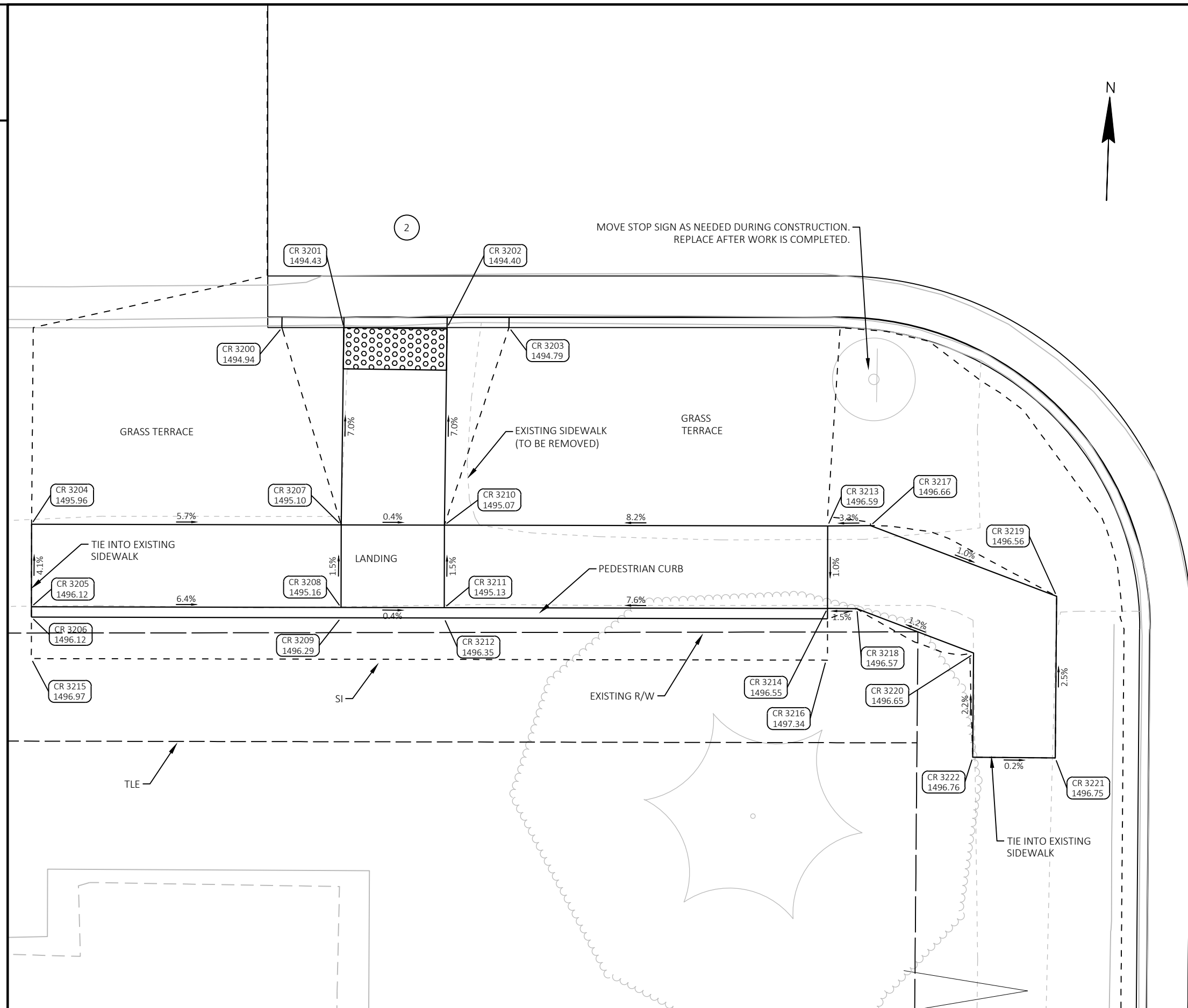
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CURB RAMP TYPE



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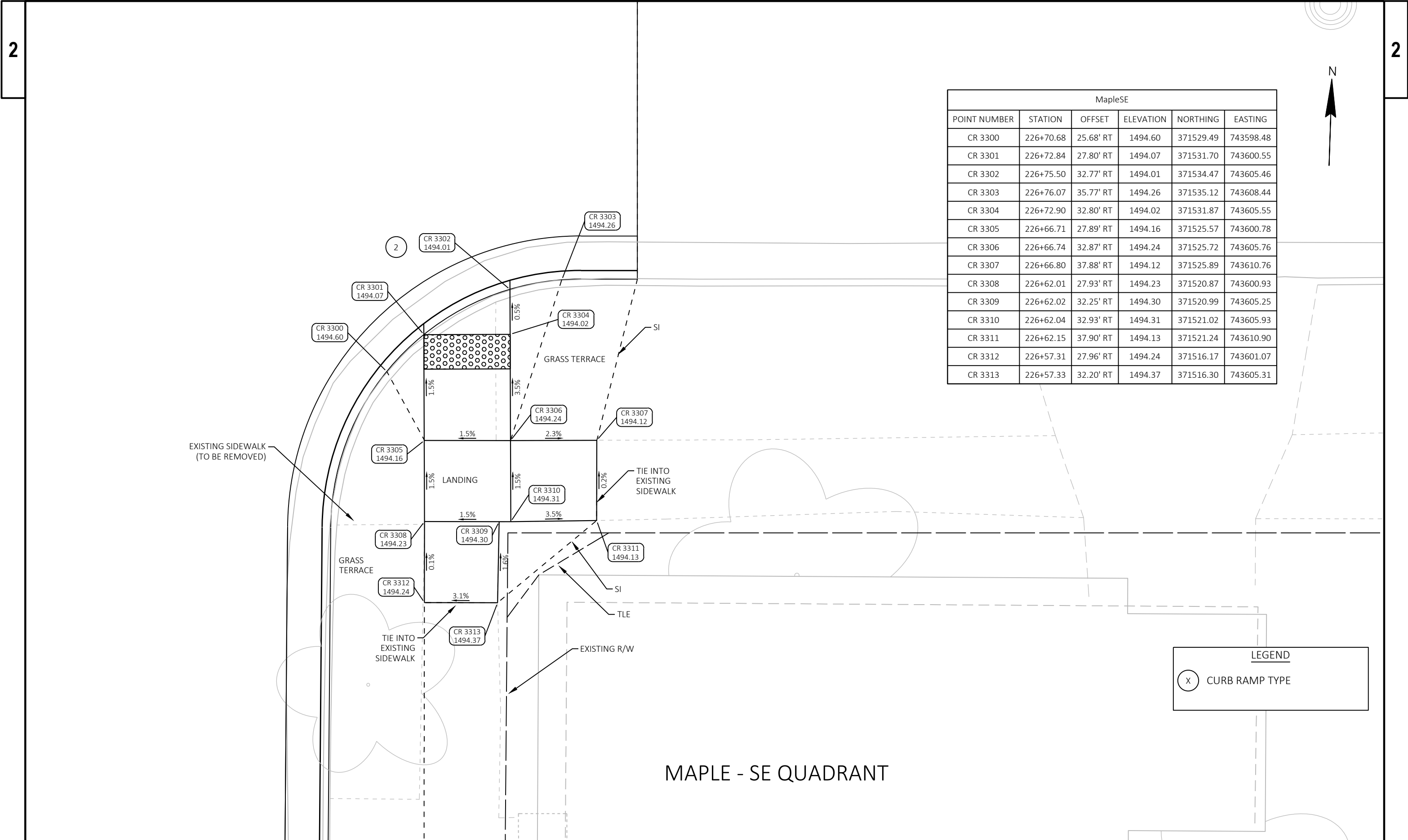


MapleSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 3200	226+75.29	64.16' LT	1494.94	371532.01	743508.55
CR 3201	226+75.32	61.16' LT	1494.43	371532.10	743511.55
CR 3202	226+75.36	56.16' LT	1494.40	371532.26	743516.55
CR 3203	226+75.39	53.16' LT	1494.79	371532.36	743519.55
CR 3204	226+65.67	76.21' LT	1495.96	371522.10	743496.73
CR 3205	226+61.67	76.19' LT	1496.12	371518.10	743496.85
CR 3206	226+61.17	76.18' LT	1496.12	371517.60	743496.86
CR 3207	226+65.76	61.21' LT	1495.10	371522.54	743511.73
CR 3208	226+61.76	61.19' LT	1495.16	371518.55	743511.84
CR 3209	226+61.26	61.19' LT	1496.29	371518.05	743511.85
CR 3210	226+65.79	56.21' LT	1495.07	371522.69	743516.72
CR 3211	226+61.79	56.19' LT	1495.13	371518.69	743516.84
CR 3212	226+61.29	56.19' LT	1496.35	371518.19	743516.85
CR 3213	226+65.90	37.65' LT	1496.59	371523.24	743535.28
CR 3214	226+61.90	37.62' LT	1496.55	371519.24	743535.40
CR 3215	226+59.16	76.17' LT	1496.97	371515.60	743496.92
CR 3216	226+59.40	37.66' LT	1497.34	371516.74	743535.42
CR 3217	226+65.93	35.57' LT	1496.66	371523.32	743537.35
CR 3218	226+61.90	36.20' LT	1496.57	371519.27	743536.82
CR 3219	226+62.58	26.53' LT	1496.56	371520.18	743546.47
CR 3220	226+59.75	30.53' LT	1496.65	371517.26	743542.54
CR 3221	226+54.75	26.53' LT	1496.75	371512.35	743546.66
CR 3222	226+54.75	30.53' LT	1496.76	371512.26	743542.66

MAPLE - SW QUADRANT

LEGEND

(X) CURB RAMP TYPE



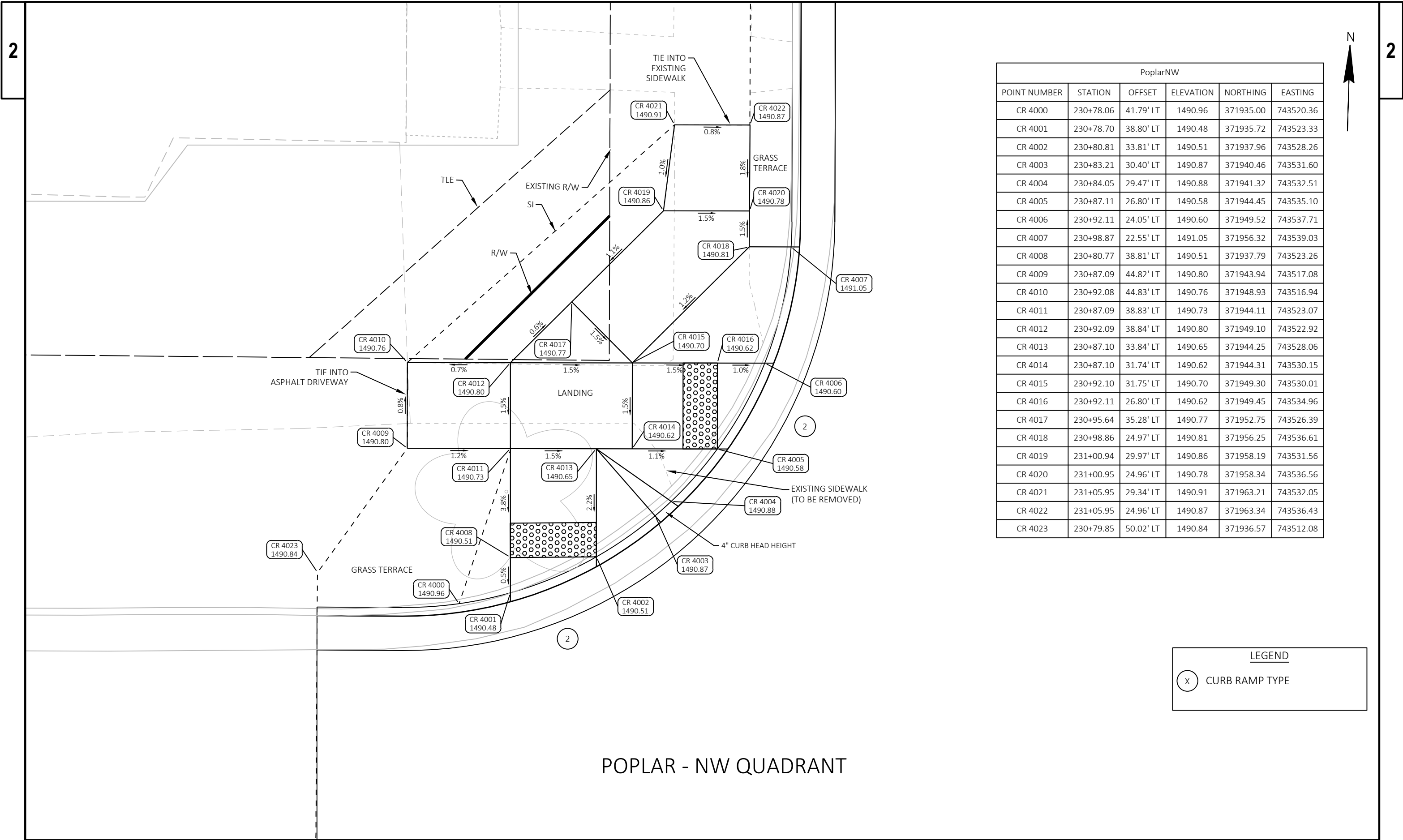
MapleSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 3300	226+70.68	25.68' RT	1494.60	371529.49	743598.48
CR 3301	226+72.84	27.80' RT	1494.07	371531.70	743600.55
CR 3302	226+75.50	32.77' RT	1494.01	371534.47	743605.46
CR 3303	226+76.07	35.77' RT	1494.26	371535.12	743608.44
CR 3304	226+72.90	32.80' RT	1494.02	371531.87	743605.55
CR 3305	226+66.71	27.89' RT	1494.16	371525.57	743600.78
CR 3306	226+66.74	32.87' RT	1494.24	371525.72	743605.76
CR 3307	226+66.80	37.88' RT	1494.12	371525.89	743610.76
CR 3308	226+62.01	27.93' RT	1494.23	371520.87	743600.93
CR 3309	226+62.02	32.25' RT	1494.30	371520.99	743605.25
CR 3310	226+62.04	32.93' RT	1494.31	371521.02	743605.93
CR 3311	226+62.15	37.90' RT	1494.13	371521.24	743610.90
CR 3312	226+57.31	27.96' RT	1494.24	371516.17	743601.07
CR 3313	226+57.33	32.20' RT	1494.37	371516.30	743605.31

LEGEND

X

CURB RAMP TYPE

MAPLE - SE QUADRANT



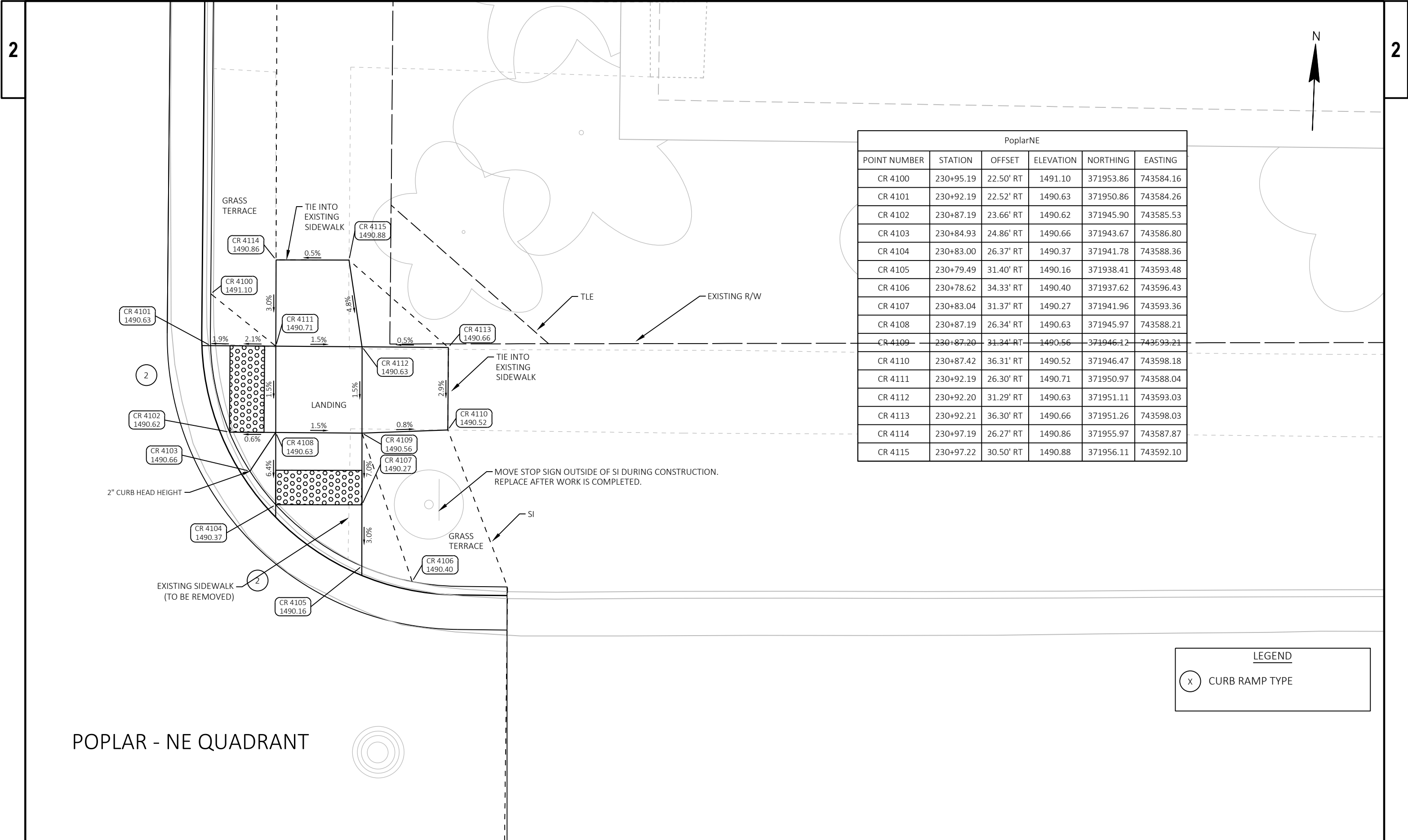
PoplarNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 4000	230+78.06	41.79' LT	1490.96	371935.00	743520.36
CR 4001	230+78.70	38.80' LT	1490.48	371935.72	743523.33
CR 4002	230+80.81	33.81' LT	1490.51	371937.96	743528.26
CR 4003	230+83.21	30.40' LT	1490.87	371940.46	743531.60
CR 4004	230+84.05	29.47' LT	1490.88	371941.32	743532.51
CR 4005	230+87.11	26.80' LT	1490.58	371944.45	743535.10
CR 4006	230+92.11	24.05' LT	1490.60	371949.52	743537.71
CR 4007	230+98.87	22.55' LT	1491.05	371956.32	743539.03
CR 4008	230+80.77	38.81' LT	1490.51	371937.79	743523.26
CR 4009	230+87.09	44.82' LT	1490.80	371943.94	743517.08
CR 4010	230+92.08	44.83' LT	1490.76	371948.93	743516.94
CR 4011	230+87.09	38.83' LT	1490.73	371944.11	743523.07
CR 4012	230+92.09	38.84' LT	1490.80	371949.10	743522.92
CR 4013	230+87.10	33.84' LT	1490.65	371944.25	743528.06
CR 4014	230+87.10	31.74' LT	1490.62	371944.31	743530.15
CR 4015	230+92.10	31.75' LT	1490.70	371949.30	743530.01
CR 4016	230+92.11	26.80' LT	1490.62	371949.45	743534.96
CR 4017	230+95.64	35.28' LT	1490.77	371952.75	743526.39
CR 4018	230+98.86	24.97' LT	1490.81	371956.25	743536.61
CR 4019	231+00.94	29.97' LT	1490.86	371958.19	743531.56
CR 4020	231+00.95	24.96' LT	1490.78	371958.34	743536.56
CR 4021	231+05.95	29.34' LT	1490.91	371963.21	743532.05
CR 4022	231+05.95	24.96' LT	1490.87	371963.34	743536.43
CR 4023	230+79.85	50.02' LT	1490.84	371936.57	743512.08

LEGEND

x

CURB RAMP TYPE

POPLAR - NW QUADRANT



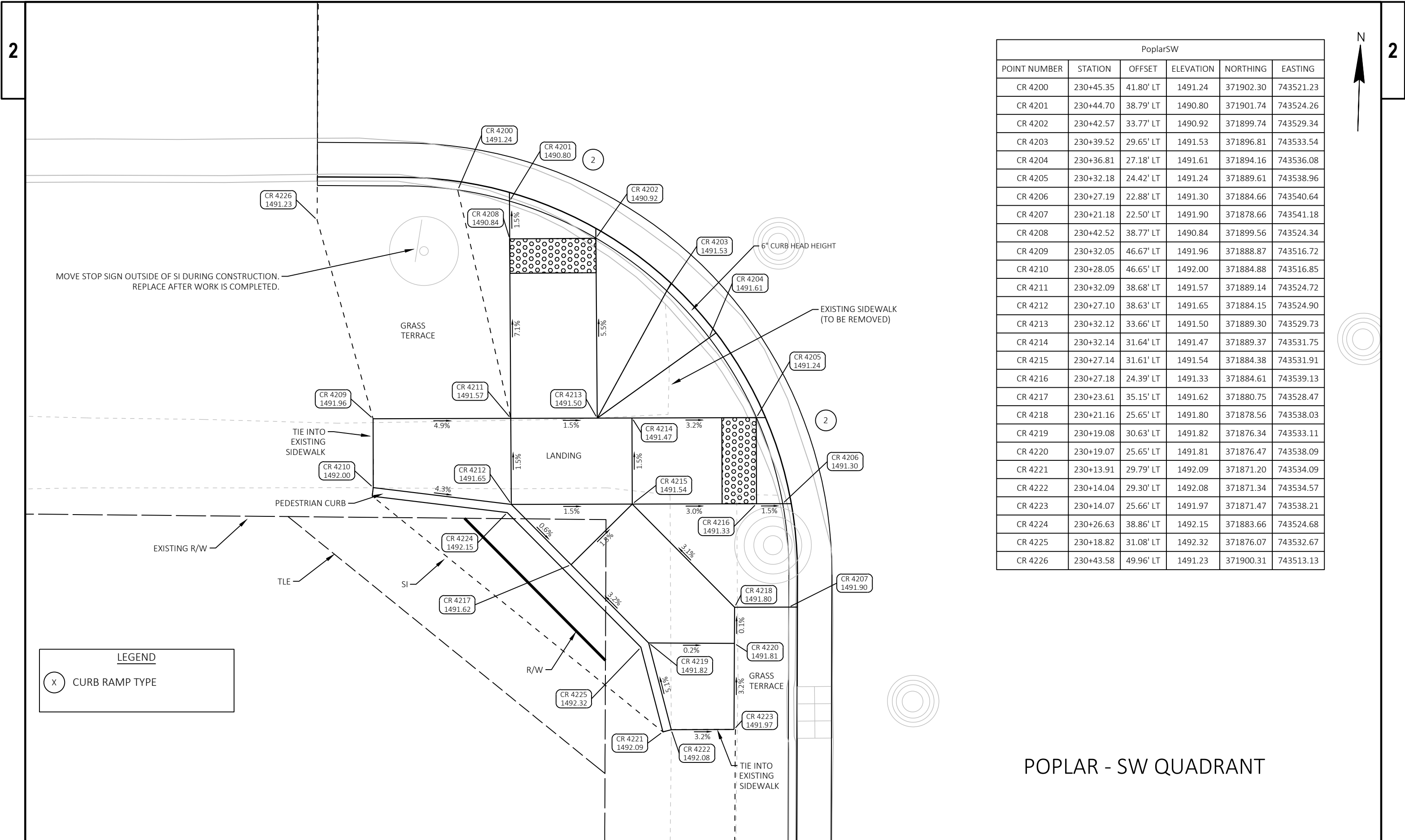
PoplarNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 4100	230+95.19	22.50' RT	1491.10	371953.86	743584.16
CR 4101	230+92.19	22.52' RT	1490.63	371950.86	743584.26
CR 4102	230+87.19	23.66' RT	1490.62	371945.90	743585.53
CR 4103	230+84.93	24.86' RT	1490.66	371943.67	743586.80
CR 4104	230+83.00	26.37' RT	1490.37	371941.78	743588.36
CR 4105	230+79.49	31.40' RT	1490.16	371938.41	743593.48
CR 4106	230+78.62	34.33' RT	1490.40	371937.62	743596.43
CR 4107	230+83.04	31.37' RT	1490.27	371941.96	743593.36
CR 4108	230+87.19	26.34' RT	1490.63	371945.97	743588.21
CR 4109	230+87.20	31.34' RT	1490.56	371946.12	743593.21
CR 4110	230+87.42	36.31' RT	1490.52	371946.47	743598.18
CR 4111	230+92.19	26.30' RT	1490.71	371950.97	743588.04
CR 4112	230+92.20	31.29' RT	1490.63	371951.11	743593.03
CR 4113	230+92.21	36.30' RT	1490.66	371951.26	743598.03
CR 4114	230+97.19	26.27' RT	1490.86	371955.97	743587.87
CR 4115	230+97.22	30.50' RT	1490.88	371956.11	743592.10

POPLAR - NE QUADRANT

LEGEND

x

CURB RAMP TYPE

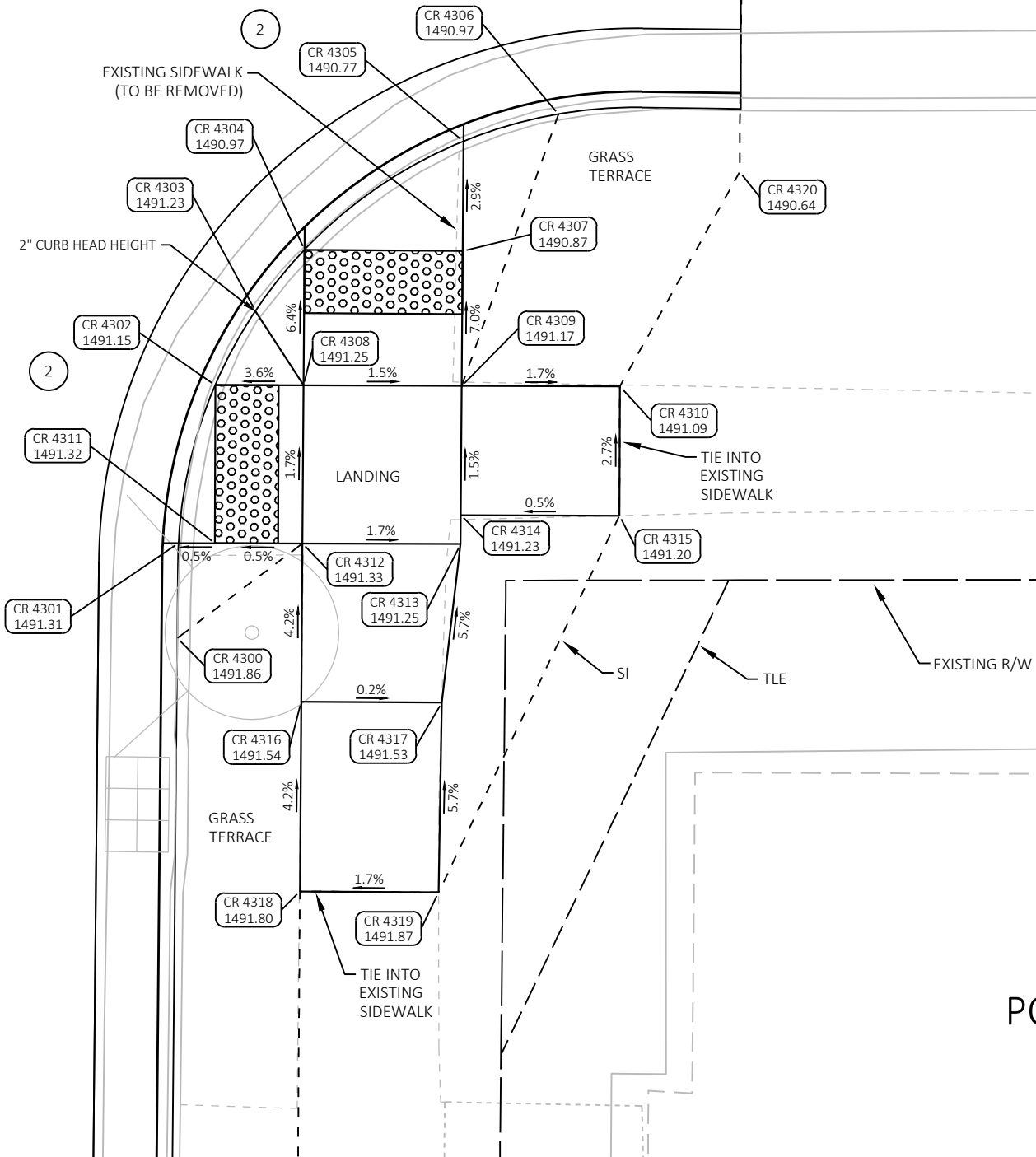


PoplarSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 4200	230+45.35	41.80' LT	1491.24	371902.30	743521.23
CR 4201	230+44.70	38.79' LT	1490.80	371901.74	743524.26
CR 4202	230+42.57	33.77' LT	1490.92	371899.74	743529.34
CR 4203	230+39.52	29.65' LT	1491.53	371896.81	743533.54
CR 4204	230+36.81	27.18' LT	1491.61	371894.16	743536.08
CR 4205	230+32.18	24.42' LT	1491.24	371889.61	743538.96
CR 4206	230+27.19	22.88' LT	1491.30	371884.66	743540.64
CR 4207	230+21.18	22.50' LT	1491.90	371878.66	743541.18
CR 4208	230+42.52	38.77' LT	1490.84	371899.56	743524.34
CR 4209	230+32.05	46.67' LT	1491.96	371888.87	743516.72
CR 4210	230+28.05	46.65' LT	1492.00	371884.88	743516.85
CR 4211	230+32.09	38.68' LT	1491.57	371889.14	743524.72
CR 4212	230+27.10	38.63' LT	1491.65	371884.15	743524.90
CR 4213	230+32.12	33.66' LT	1491.50	371889.30	743529.73
CR 4214	230+32.14	31.64' LT	1491.47	371889.37	743531.75
CR 4215	230+27.14	31.61' LT	1491.54	371884.38	743531.91
CR 4216	230+27.18	24.39' LT	1491.33	371884.61	743539.13
CR 4217	230+23.61	35.15' LT	1491.62	371880.75	743528.47
CR 4218	230+21.16	25.65' LT	1491.80	371878.56	743538.03
CR 4219	230+19.08	30.63' LT	1491.82	371876.34	743533.11
CR 4220	230+19.07	25.65' LT	1491.81	371876.47	743538.09
CR 4221	230+13.91	29.79' LT	1492.09	371871.20	743534.09
CR 4222	230+14.04	29.30' LT	1492.08	371871.34	743534.57
CR 4223	230+14.07	25.66' LT	1491.97	371871.47	743538.21
CR 4224	230+26.63	38.86' LT	1492.15	371883.66	743524.68
CR 4225	230+18.82	31.08' LT	1492.32	371876.07	743532.67
CR 4226	230+43.58	49.96' LT	1491.23	371900.31	743513.13

POPLAR - SW QUADRANT



PoplarSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 4300	230+24.46	22.50' RT	1491.86	371883.16	743586.07
CR 4301	230+27.46	22.51' RT	1491.31	371886.16	743586.01
CR 4302	230+32.47	23.63' RT	1491.15	371891.19	743586.98
CR 4303	230+34.82	24.87' RT	1491.23	371893.58	743588.17
CR 4304	230+36.77	26.41' RT	1490.97	371895.57	743589.65
CR 4305	230+40.24	31.40' RT	1490.77	371899.18	743594.55
CR 4306	230+41.13	34.40' RT	1490.97	371900.15	743597.52
CR 4307	230+36.78	31.41' RT	1490.87	371895.72	743594.65
CR 4308	230+32.48	26.42' RT	1491.25	371891.29	743589.77
CR 4309	230+32.51	31.42' RT	1491.17	371891.45	743594.77
CR 4310	230+32.54	36.42' RT	1491.09	371891.62	743599.77
CR 4311	230+27.47	23.66' RT	1491.32	371886.20	743587.15
CR 4312	230+27.48	26.43' RT	1491.33	371886.29	743589.92
CR 4313	230+27.51	31.43' RT	1491.25	371886.45	743594.92
CR 4314	230+28.43	31.43' RT	1491.23	371887.37	743594.89
CR 4315	230+28.46	36.44' RT	1491.20	371887.53	743599.90
CR 4316	230+22.48	26.44' RT	1491.54	371881.29	743590.06
CR 4317	230+22.49	30.88' RT	1491.53	371881.42	743594.51
CR 4318	230+16.48	26.45' RT	1491.80	371875.29	743590.24
CR 4319	230+16.49	30.84' RT	1491.87	371875.42	743594.62
CR 4320	230+39.36	40.14' RT	1490.64	371898.53	743603.31



POPLAR - SE QUADRANT

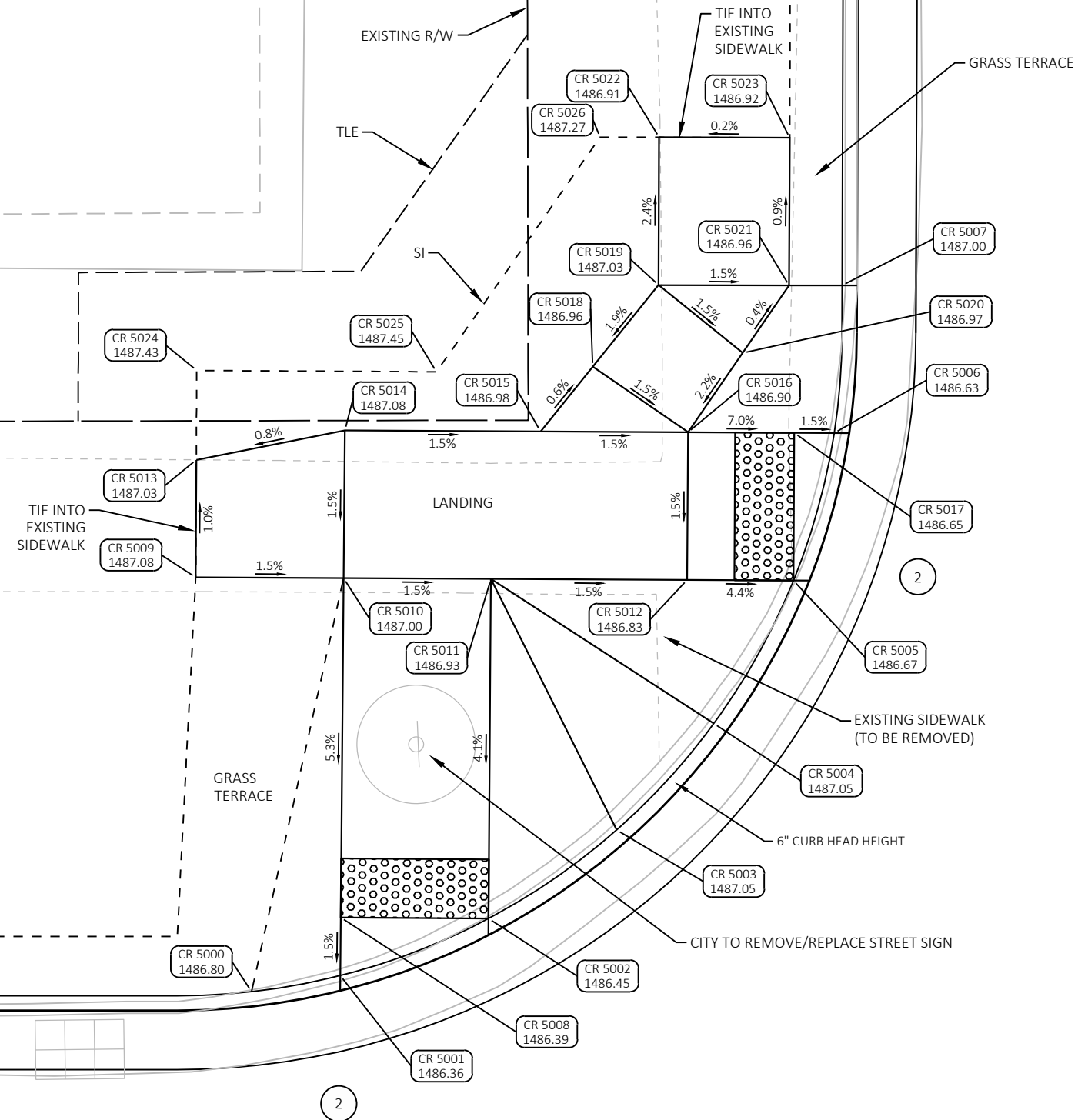
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X

CURB RAMP TYPE

2

2 |

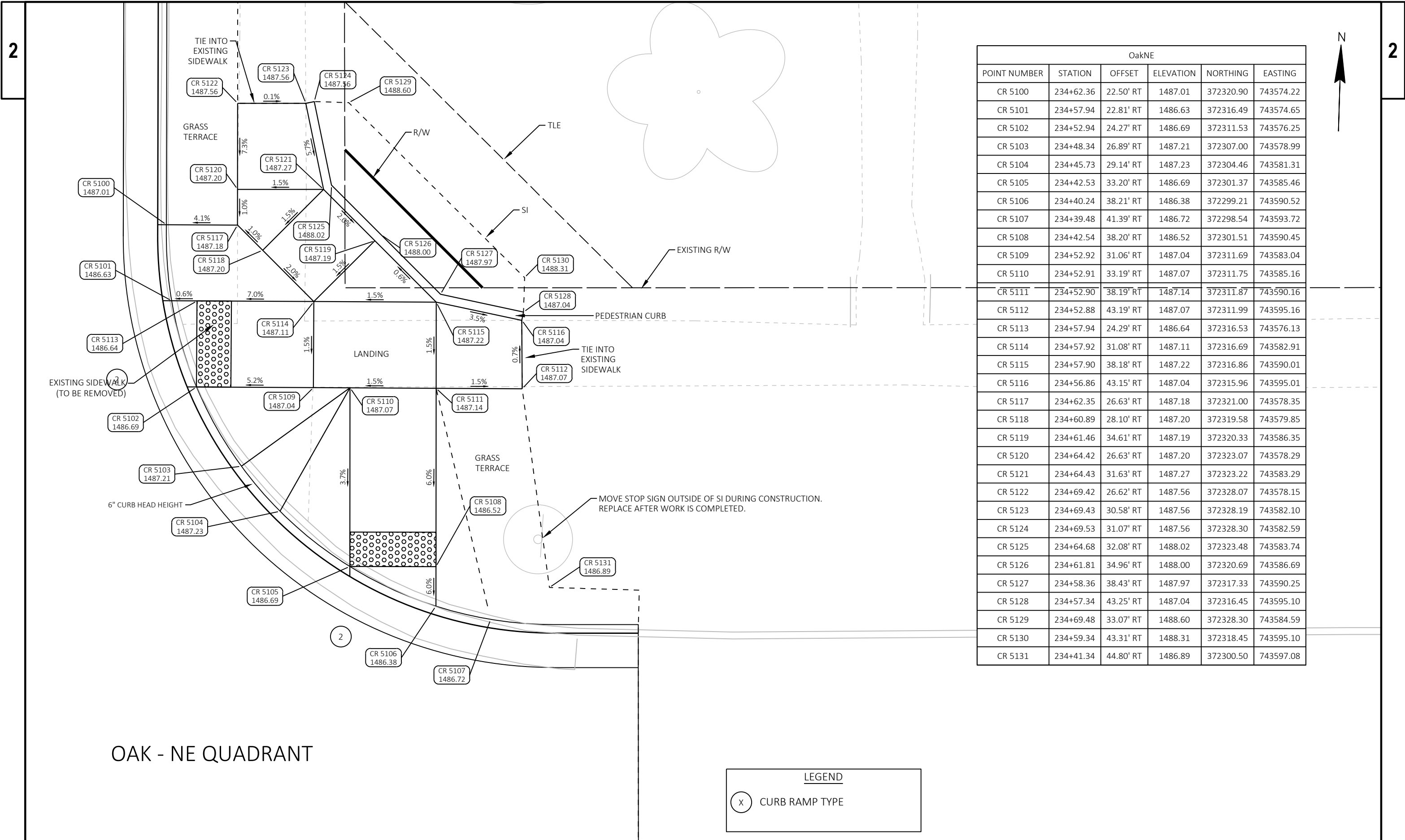


Oak NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 5000	234+39.11	42.43' LT	1486.80	372295.90	743509.94
CR 5001	234+39.66	39.43' LT	1486.36	372296.54	743512.93
CR 5002	234+41.61	34.42' LT	1486.45	372298.61	743517.88
CR 5003	234+44.62	30.08' LT	1487.05	372301.74	743522.14
CR 5004	234+48.22	26.81' LT	1487.05	372305.43	743525.31
CR 5005	234+53.08	24.12' LT	1486.67	372310.36	743527.87
CR 5006	234+58.07	22.76' LT	1486.63	372315.39	743529.10
CR 5007	234+63.07	22.50' LT	1487.00	372320.39	743529.22
CR 5008	234+41.63	39.42' LT	1486.39	372298.50	743512.89
CR 5009	234+53.13	44.35' LT	1487.08	372309.87	743507.64
CR 5010	234+53.12	39.35' LT	1487.00	372309.99	743512.64
CR 5011	234+53.10	34.36' LT	1486.93	372310.11	743517.63
CR 5012	234+53.09	27.72' LT	1486.83	372310.27	743524.27
CR 5013	234+57.11	44.35' LT	1487.03	372313.84	743507.54
CR 5014	234+58.12	39.32' LT	1487.08	372314.99	743512.54
CR 5015	234+58.10	32.70' LT	1486.98	372315.15	743519.16
CR 5016	234+58.09	27.71' LT	1486.90	372315.27	743524.15
CR 5017	234+58.08	24.11' LT	1486.65	372315.35	743527.75
CR 5018	234+60.29	30.94' LT	1486.96	372317.39	743520.86
CR 5019	234+63.06	28.71' LT	1487.03	372320.22	743523.01
CR 5020	234+60.78	25.86' LT	1486.97	372318.01	743525.92
CR 5021	234+63.06	24.30' LT	1486.96	372320.33	743527.42
CR 5022	234+68.06	28.71' LT	1486.91	372325.22	743522.88
CR 5023	234+68.06	24.29' LT	1486.92	372325.33	743527.29
CR 5024	234+60.13	44.34' LT	1487.43	372316.86	743507.46
CR 5025	234+60.11	36.22' LT	1487.45	372317.06	743515.58
CR 5026	234+68.07	30.71' LT	1487.27	372325.16	743520.88

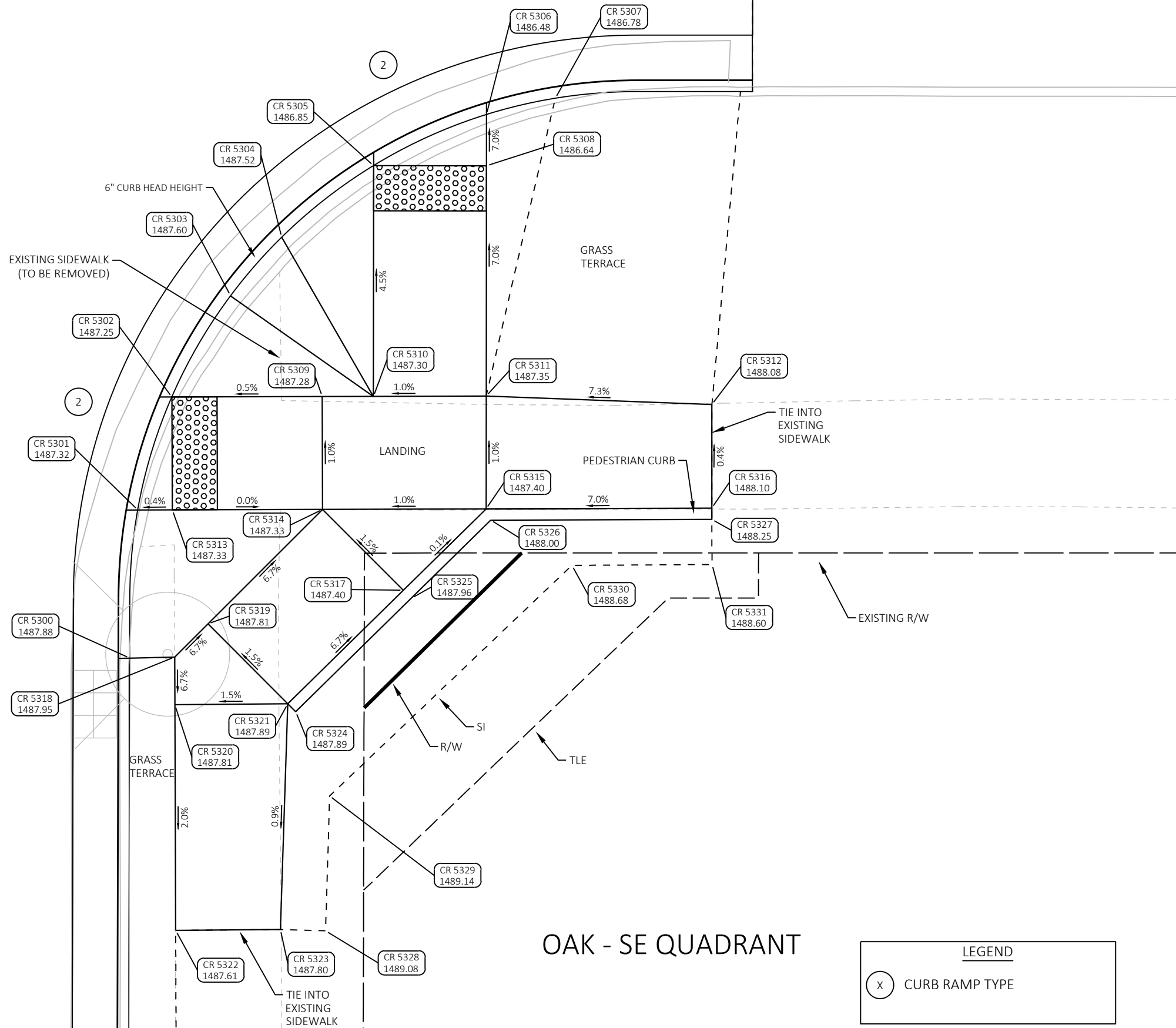
LEGEND

(X) CURB RAMP TYPE

OAK - NW QUADRANT



OakNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 5100	234+62.36	22.50' RT	1487.01	372320.90	743574.22
CR 5101	234+57.94	22.81' RT	1486.63	372316.49	743574.65
CR 5102	234+52.94	24.27' RT	1486.69	372311.53	743576.25
CR 5103	234+48.34	26.89' RT	1487.21	372307.00	743578.99
CR 5104	234+45.73	29.14' RT	1487.23	372304.46	743581.31
CR 5105	234+42.53	33.20' RT	1486.69	372301.37	743585.46
CR 5106	234+40.24	38.21' RT	1486.38	372299.21	743590.52
CR 5107	234+39.48	41.39' RT	1486.72	372298.54	743593.72
CR 5108	234+42.54	38.20' RT	1486.52	372301.51	743590.45
CR 5109	234+52.92	31.06' RT	1487.04	372311.69	743583.04
CR 5110	234+52.91	33.19' RT	1487.07	372311.75	743585.16
CR 5111	234+52.90	38.19' RT	1487.14	372311.87	743590.16
CR 5112	234+52.88	43.19' RT	1487.07	372311.99	743595.16
CR 5113	234+57.94	24.29' RT	1486.64	372316.53	743576.13
CR 5114	234+57.92	31.08' RT	1487.11	372316.69	743582.91
CR 5115	234+57.90	38.18' RT	1487.22	372316.86	743590.01
CR 5116	234+56.86	43.15' RT	1487.04	372315.96	743595.01
CR 5117	234+62.35	26.63' RT	1487.18	372321.00	743578.35
CR 5118	234+60.89	28.10' RT	1487.20	372319.58	743579.85
CR 5119	234+61.46	34.61' RT	1487.19	372320.33	743586.35
CR 5120	234+64.42	26.63' RT	1487.20	372323.07	743578.29
CR 5121	234+64.43	31.63' RT	1487.27	372323.22	743583.29
CR 5122	234+69.42	26.62' RT	1487.56	372328.07	743578.15
CR 5123	234+69.43	30.58' RT	1487.56	372328.19	743582.10
CR 5124	234+69.53	31.07' RT	1487.56	372328.30	743582.59
CR 5125	234+64.68	32.08' RT	1488.02	372323.48	743583.74
CR 5126	234+61.81	34.96' RT	1488.00	372320.69	743586.69
CR 5127	234+58.36	38.43' RT	1487.97	372317.33	743590.25
CR 5128	234+57.34	43.25' RT	1487.04	372316.45	743595.10
CR 5129	234+69.48	33.07' RT	1488.60	372328.30	743584.59
CR 5130	234+59.34	43.31' RT	1488.31	372318.45	743595.10
CR 5131	234+41.34	44.80' RT	1486.89	372300.50	743597.08



OakSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 5300	233+88.04	22.50' RT	1487.88	372246.61	743576.23
CR 5301	233+94.60	22.84' RT	1487.32	372253.17	743576.40
CR 5302	233+99.61	24.34' RT	1487.25	372258.22	743577.76
CR 5303	234+04.09	26.93' RT	1487.60	372262.77	743580.22
CR 5304	234+06.70	29.19' RT	1487.52	372265.44	743582.41
CR 5305	234+09.88	33.25' RT	1486.85	372268.73	743586.39
CR 5306	234+12.15	38.25' RT	1486.48	372271.14	743591.32
CR 5307	234+12.88	41.30' RT	1486.78	372271.95	743594.35
CR 5308	234+09.89	38.25' RT	1486.64	372268.87	743591.39
CR 5309	233+99.65	31.00' RT	1487.28	372258.44	743584.42
CR 5310	233+99.66	33.27' RT	1487.30	372258.51	743586.68
CR 5311	233+99.69	38.27' RT	1487.35	372258.68	743591.68
CR 5312	233+99.34	48.27' RT	1488.08	372258.60	743601.69
CR 5313	233+94.61	24.37' RT	1487.33	372253.22	743577.93
CR 5314	233+94.65	31.03' RT	1487.33	372253.44	743584.58
CR 5315	233+94.69	38.28' RT	1487.40	372253.68	743591.82
CR 5316	233+94.75	48.28' RT	1488.10	372254.01	743601.82
CR 5317	233+91.08	34.61' RT	1487.40	372249.97	743588.26
CR 5318	233+88.09	24.50' RT	1487.95	372246.71	743578.23
CR 5319	233+89.57	25.97' RT	1487.81	372248.23	743579.66
CR 5320	233+85.98	24.51' RT	1487.81	372244.60	743578.30
CR 5321	233+86.04	29.51' RT	1487.89	372244.79	743583.29
CR 5322	233+75.98	24.57' RT	1487.61	372234.61	743578.63
CR 5323	233+76.03	29.21' RT	1487.80	372234.79	743583.27
CR 5324	233+85.68	29.86' RT	1487.89	372244.45	743583.65
CR 5325	233+90.72	34.97' RT	1487.96	372249.63	743588.62
CR 5326	233+94.19	38.48' RT	1488.00	372253.19	743592.04
CR 5327	233+94.25	48.28' RT	1488.25	372253.51	743601.83
CR 5328	233+75.98	31.21' RT	1489.08	372234.79	743585.27
CR 5329	233+81.95	31.37' RT	1489.14	372240.76	743585.27
CR 5330	233+92.20	42.08' RT	1488.68	372251.29	743595.69
CR 5331	233+92.25	48.29' RT	1488.60	372251.51	743601.90

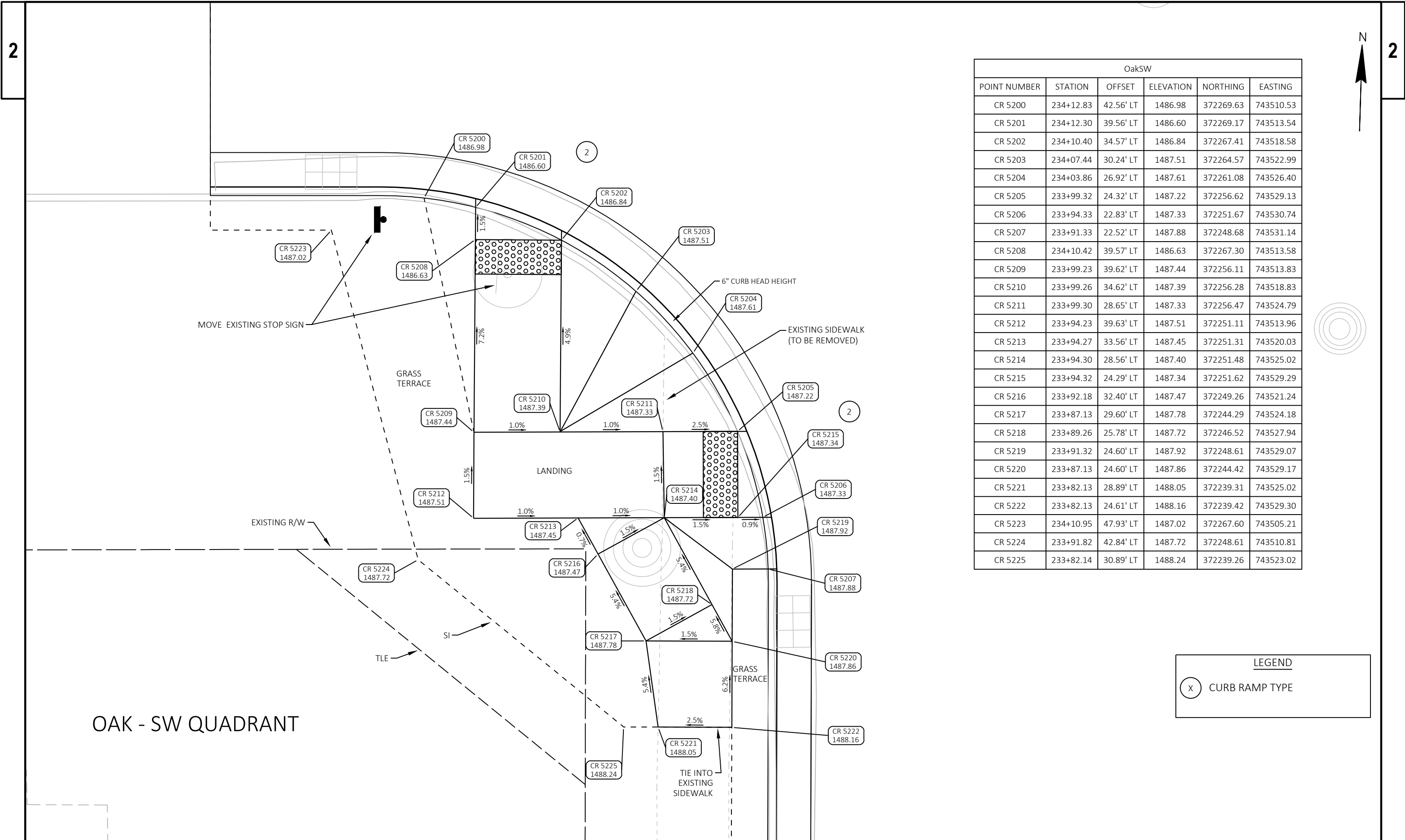


OAK - SE QUADRANT

LEGEND

X

CURB RAMP TYPE



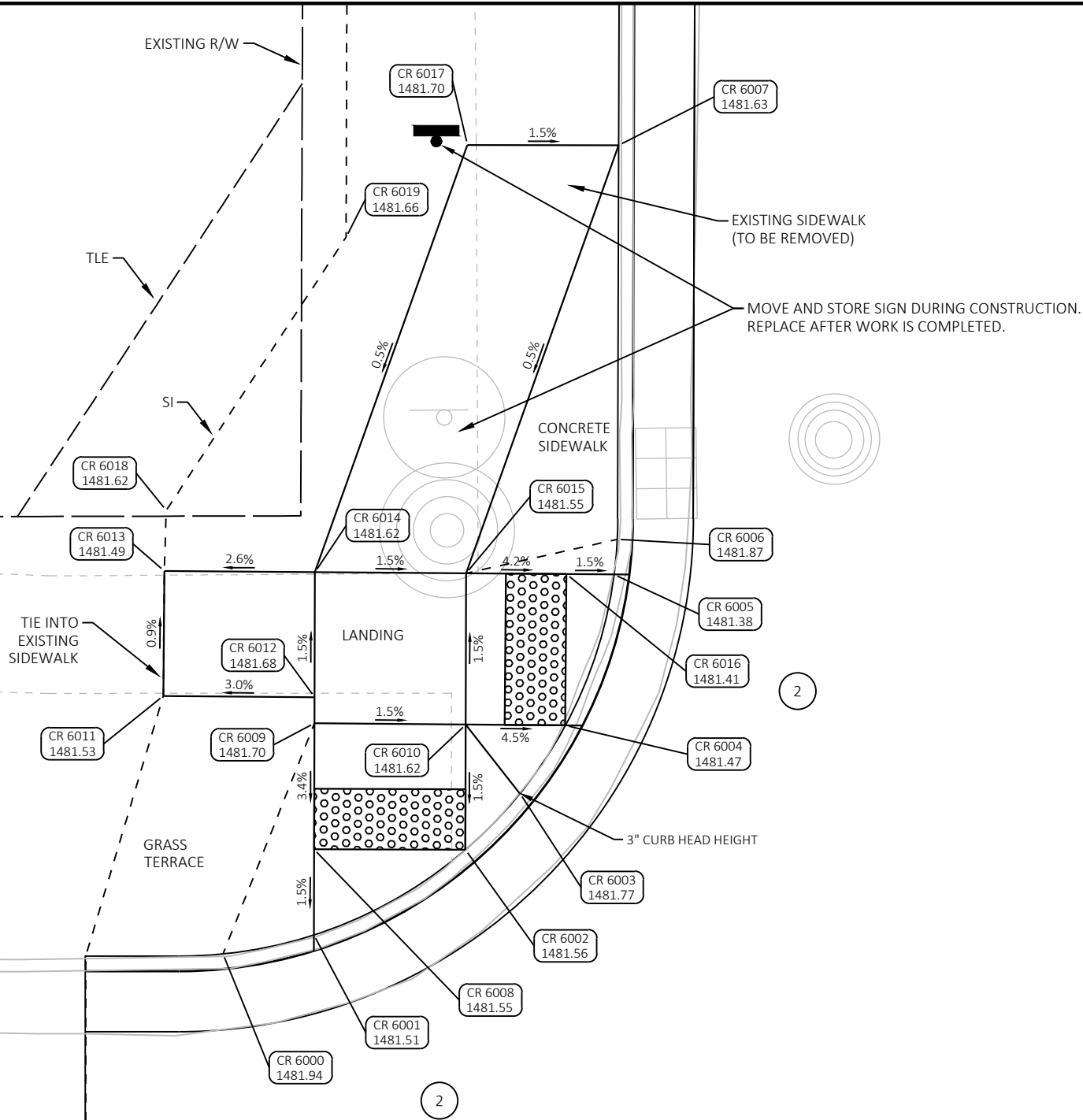
OakSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 5200	234+12.83	42.56' LT	1486.98	372269.63	743510.53
CR 5201	234+12.30	39.56' LT	1486.60	372269.17	743513.54
CR 5202	234+10.40	34.57' LT	1486.84	372267.41	743518.58
CR 5203	234+07.44	30.24' LT	1487.51	372264.57	743522.99
CR 5204	234+03.86	26.92' LT	1487.61	372261.08	743526.40
CR 5205	233+99.32	24.32' LT	1487.22	372256.62	743529.13
CR 5206	233+94.33	22.83' LT	1487.33	372251.67	743530.74
CR 5207	233+91.33	22.52' LT	1487.88	372248.68	743531.14
CR 5208	234+10.42	39.57' LT	1486.63	372267.30	743513.58
CR 5209	233+99.23	39.62' LT	1487.44	372256.11	743513.83
CR 5210	233+99.26	34.62' LT	1487.39	372256.28	743518.83
CR 5211	233+99.30	28.65' LT	1487.33	372256.47	743524.79
CR 5212	233+94.23	39.63' LT	1487.51	372251.11	743513.96
CR 5213	233+94.27	33.56' LT	1487.45	372251.31	743520.03
CR 5214	233+94.30	28.56' LT	1487.40	372251.48	743525.02
CR 5215	233+94.32	24.29' LT	1487.34	372251.62	743529.29
CR 5216	233+92.18	32.40' LT	1487.47	372249.26	743521.24
CR 5217	233+87.13	29.60' LT	1487.78	372244.29	743524.18
CR 5218	233+89.26	25.78' LT	1487.72	372246.52	743527.94
CR 5219	233+91.32	24.60' LT	1487.92	372248.61	743529.07
CR 5220	233+87.13	24.60' LT	1487.86	372244.42	743529.17
CR 5221	233+82.13	28.89' LT	1488.05	372239.31	743525.02
CR 5222	233+82.13	24.61' LT	1488.16	372239.42	743529.30
CR 5223	234+10.95	47.93' LT	1487.02	372267.60	743505.21
CR 5224	233+91.82	42.84' LT	1487.72	372248.61	743510.81
CR 5225	233+82.14	30.89' LT	1488.24	372239.26	743523.02

LEGEND

x

CURB RAMP TYPE

BernardNW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 6000	238+10.28	35.50' LT	1481.94	372667.02	743506.15
CR 6001	238+10.92	32.50' LT	1481.51	372667.75	743509.13
CR 6002	238+13.75	27.50' LT	1481.56	372670.73	743514.05
CR 6003	238+15.62	25.70' LT	1481.77	372672.64	743515.79
CR 6004	238+17.87	24.21' LT	1481.47	372674.94	743517.21
CR 6005	238+22.87	22.62' LT	1481.38	372679.98	743518.66
CR 6006	238+24.03	22.52' LT	1481.87	372681.14	743518.73
CR 6007	238+37.05	22.50' LT	1481.63	372694.16	743518.36
CR 6008	238+13.75	32.50' LT	1481.55	372670.58	743509.05
CR 6009	238+17.92	32.50' LT	1481.70	372674.74	743508.93
CR 6010	238+17.89	27.50' LT	1481.62	372674.86	743513.93
CR 6011	238+18.81	37.50' LT	1481.53	372675.48	743503.90
CR 6012	238+18.78	32.50' LT	1481.68	372675.61	743508.90
CR 6013	238+22.94	37.48' LT	1481.49	372679.62	743503.80
CR 6014	238+22.92	32.50' LT	1481.62	372679.74	743508.78
CR 6015	238+22.89	27.50' LT	1481.55	372679.86	743513.78
CR 6016	238+22.87	24.19' LT	1481.41	372679.94	743517.09
CR 6017	238+37.05	27.50' LT	1481.70	372694.02	743513.36
CR 6018	238+24.94	37.42' LT	1481.62	372681.62	743503.80
CR 6019	238+33.99	31.50' LT	1481.66	372690.84	743509.45

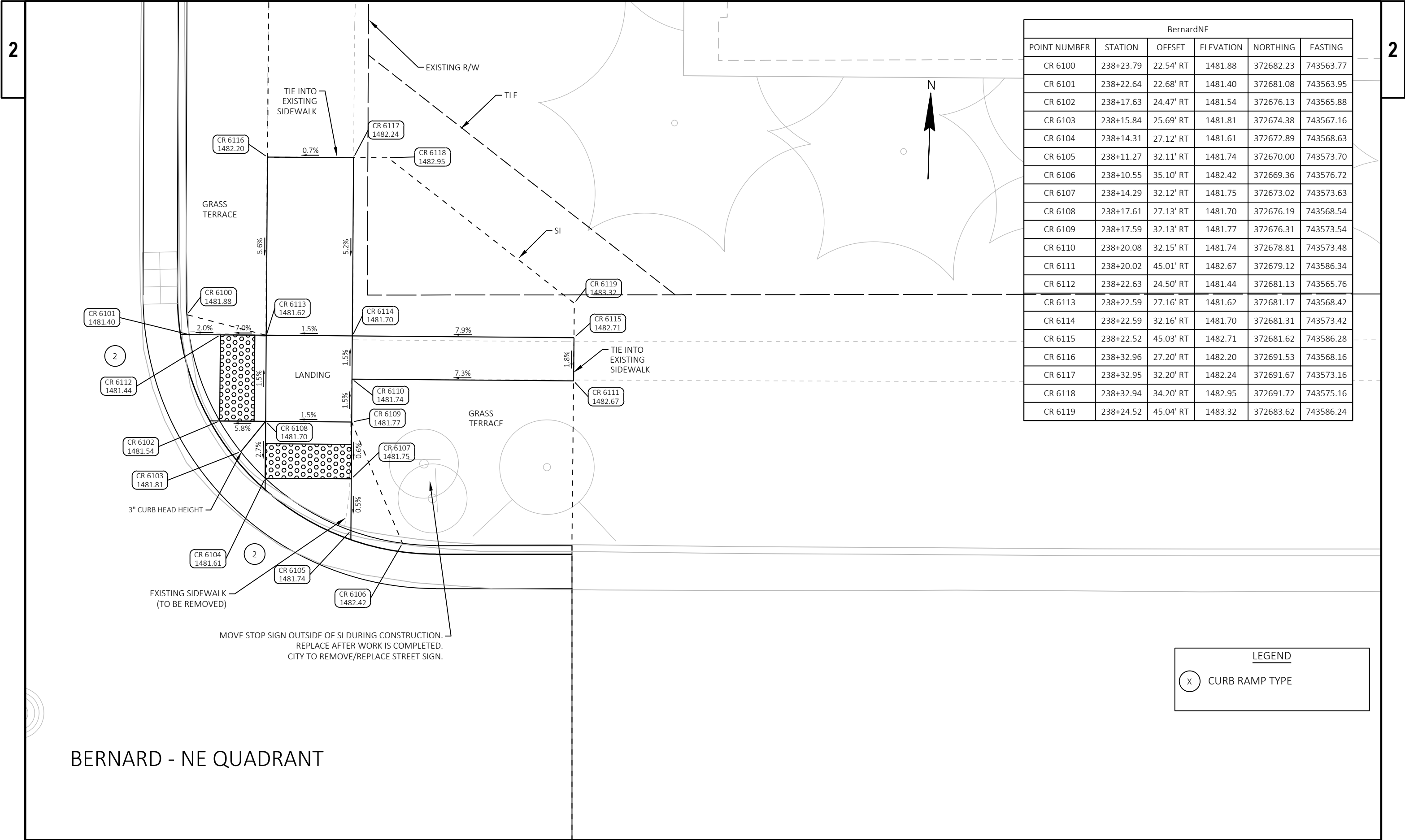


LEGEND

X

CURB RAMP TYPE

BERNARD - NW QUADRANT



BernardNE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 6100	238+23.79	22.54' RT	1481.88	372682.23	743563.77
CR 6101	238+22.64	22.68' RT	1481.40	372681.08	743563.95
CR 6102	238+17.63	24.47' RT	1481.54	372676.13	743565.88
CR 6103	238+15.84	25.69' RT	1481.81	372674.38	743567.16
CR 6104	238+14.31	27.12' RT	1481.61	372672.89	743568.63
CR 6105	238+11.27	32.11' RT	1481.74	372670.00	743573.70
CR 6106	238+10.55	35.10' RT	1482.42	372669.36	743576.72
CR 6107	238+14.29	32.12' RT	1481.75	372673.02	743573.63
CR 6108	238+17.61	27.13' RT	1481.70	372676.19	743568.54
CR 6109	238+17.59	32.13' RT	1481.77	372676.31	743573.54
CR 6110	238+20.08	32.15' RT	1481.74	372678.81	743573.48
CR 6111	238+20.02	45.01' RT	1482.67	372679.12	743586.34
CR 6112	238+22.63	24.50' RT	1481.44	372681.13	743565.76
CR 6113	238+22.59	27.16' RT	1481.62	372681.17	743568.42
CR 6114	238+22.59	32.16' RT	1481.70	372681.31	743573.42
CR 6115	238+22.52	45.03' RT	1482.71	372681.62	743586.28
CR 6116	238+32.96	27.20' RT	1482.20	372691.53	743568.16
CR 6117	238+32.95	32.20' RT	1482.24	372691.67	743573.16
CR 6118	238+32.94	34.20' RT	1482.95	372691.72	743575.16
CR 6119	238+24.52	45.04' RT	1483.32	372683.62	743586.24

LEGEND

x

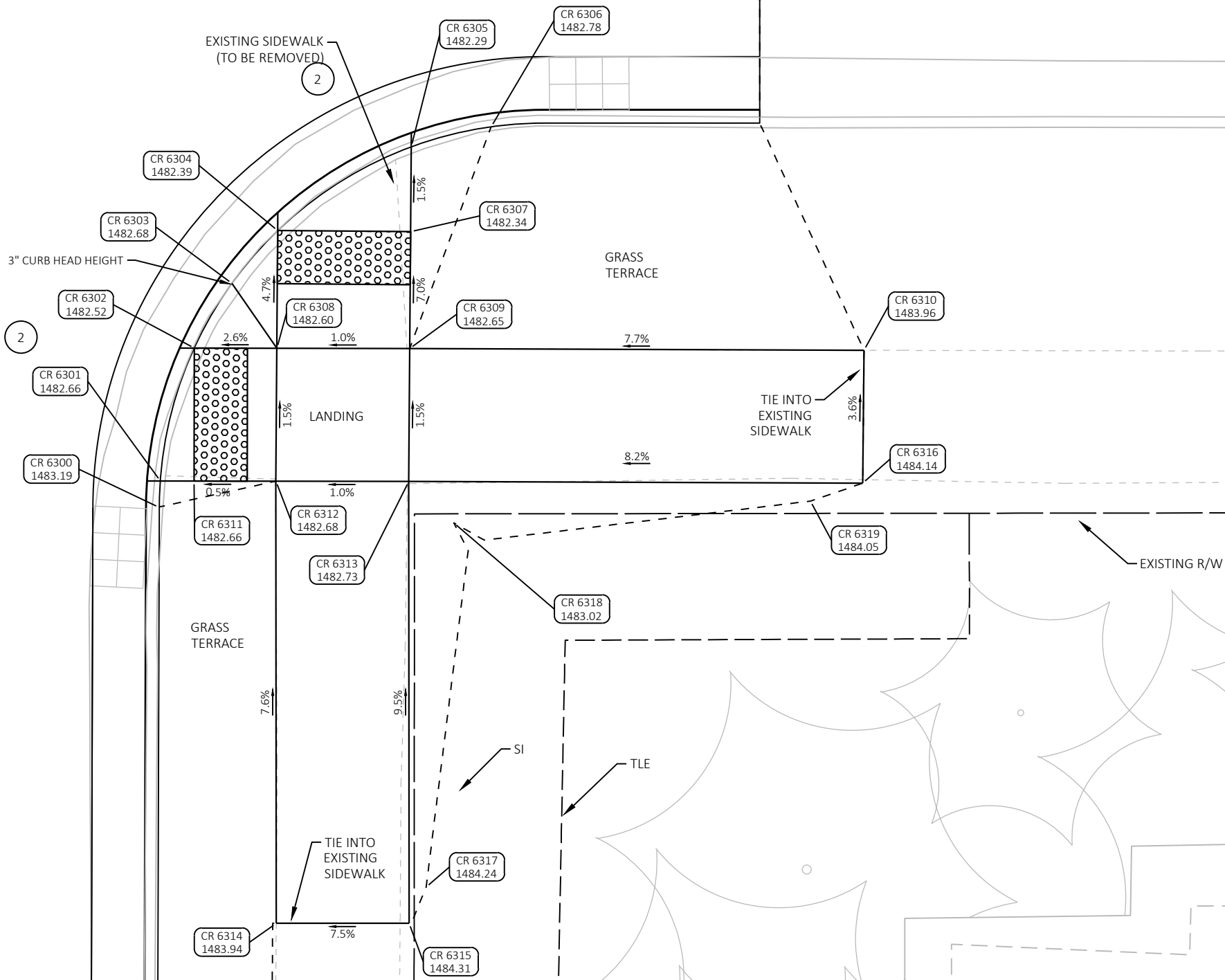
 CURB RAMP TYPE

BERNARD - NE QUADRANT

BERNARD - SE QUADRANT



BernardSE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 6300	237+59.17	22.50' RT	1483.19	372617.64	743565.63
CR 6301	237+60.17	22.53' RT	1482.66	372618.64	743565.64
CR 6302	237+65.17	23.80' RT	1482.52	372623.67	743566.75
CR 6303	237+67.61	25.21' RT	1482.68	372626.15	743568.09
CR 6304	237+69.60	26.92' RT	1482.39	372628.19	743569.75
CR 6305	237+72.76	31.94' RT	1482.29	372631.50	743574.67
CR 6306	237+73.53	34.94' RT	1482.78	372632.35	743577.65
CR 6307	237+69.58	31.92' RT	1482.34	372628.32	743574.75
CR 6308	237+65.17	26.91' RT	1482.60	372623.77	743569.86
CR 6309	237+65.18	31.91' RT	1482.65	372623.92	743574.86
CR 6310	237+65.16	49.00' RT	1483.96	372624.41	743591.94
CR 6311	237+60.17	23.81' RT	1482.66	372618.68	743566.91
CR 6312	237+60.17	26.88' RT	1482.68	372618.77	743569.98
CR 6313	237+60.18	31.88' RT	1482.73	372618.93	743574.98
CR 6314	237+43.54	26.94' RT	1483.94	372602.15	743570.53
CR 6315	237+43.56	31.94' RT	1484.31	372602.31	743575.53
CR 6316	237+60.16	48.97' RT	1484.14	372619.41	743592.06
CR 6317	237+44.92	32.58' RT	1484.24	372603.69	743576.13
CR 6318	237+58.62	33.58' RT	1483.02	372617.42	743576.72
CR 6319	237+59.48	47.00' RT	1484.05	372618.67	743590.11



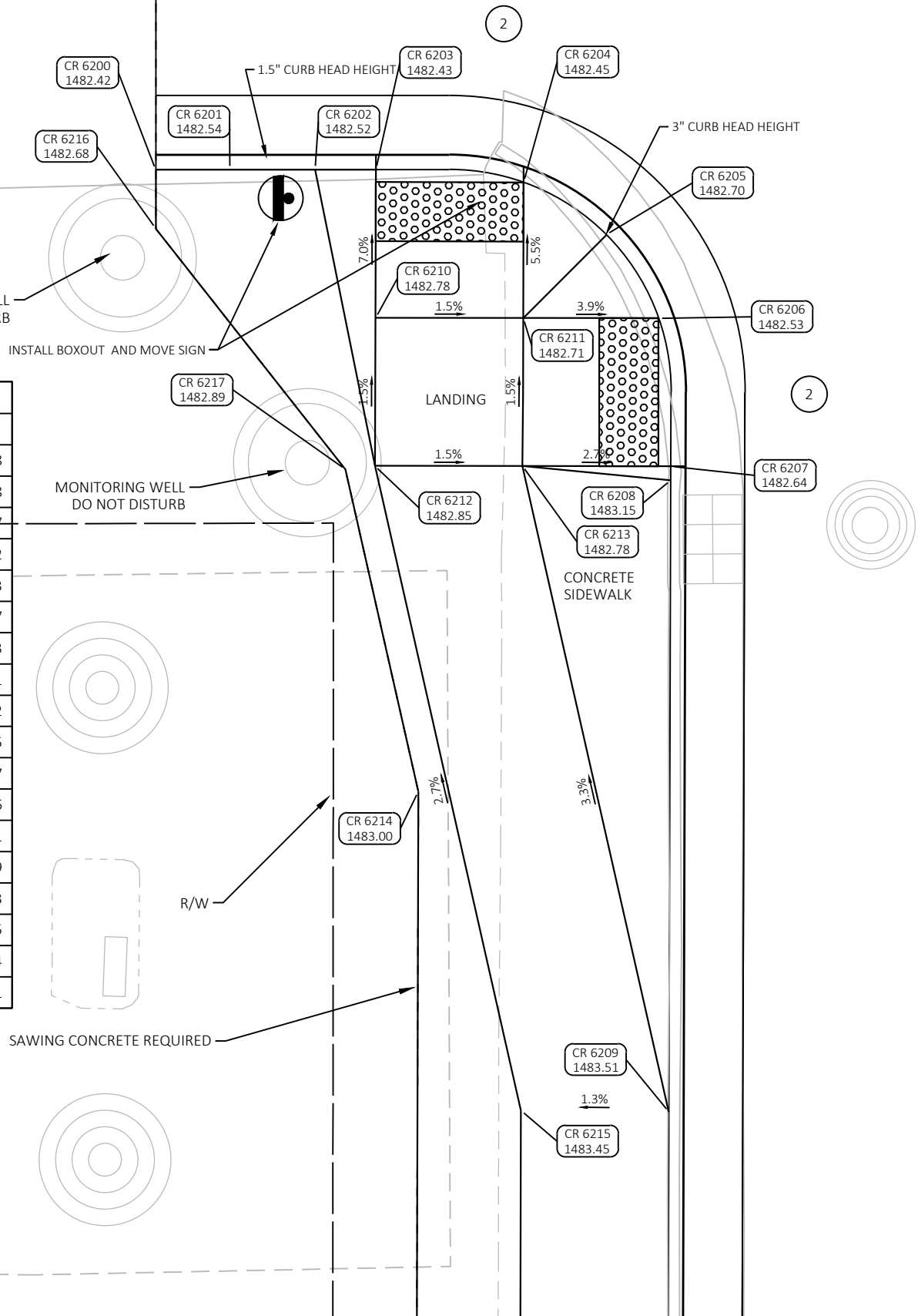
LEGEND

X

CURB RAMP TYPE



BernardSW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
CR 6200	237+70.69	39.94' LT	1482.42	372627.31	743502.88
CR 6201	237+70.70	37.44' LT	1482.54	372627.40	743505.38
CR 6202	237+70.71	34.55' LT	1482.52	372627.50	743508.27
CR 6203	237+70.72	32.50' LT	1482.43	372627.56	743510.32
CR 6204	237+70.30	27.50' LT	1482.45	372627.29	743515.33
CR 6205	237+68.54	24.70' LT	1482.70	372625.61	743518.17
CR 6206	237+65.72	22.93' LT	1482.53	372622.85	743520.03
CR 6207	237+60.72	22.50' LT	1482.64	372617.86	743520.61
CR 6208	237+60.24	22.50' LT	1483.15	372617.39	743520.62
CR 6209	237+38.90	22.50' LT	1483.51	372596.06	743521.25
CR 6210	237+65.71	32.49' LT	1482.78	372622.55	743510.47
CR 6211	237+65.72	27.50' LT	1482.71	372622.71	743515.46
CR 6212	237+60.71	32.50' LT	1482.85	372617.56	743510.61
CR 6213	237+60.71	27.52' LT	1482.78	372617.71	743515.59
CR 6214	237+49.70	31.00' LT	1483.00	372606.60	743512.43
CR 6215	237+38.94	27.50' LT	1483.45	372595.94	743516.25
CR 6216	237+68.70	39.93' LT	1482.68	372625.32	743502.94
CR 6217	237+60.58	33.50' LT	1482.89	372617.40	743509.61

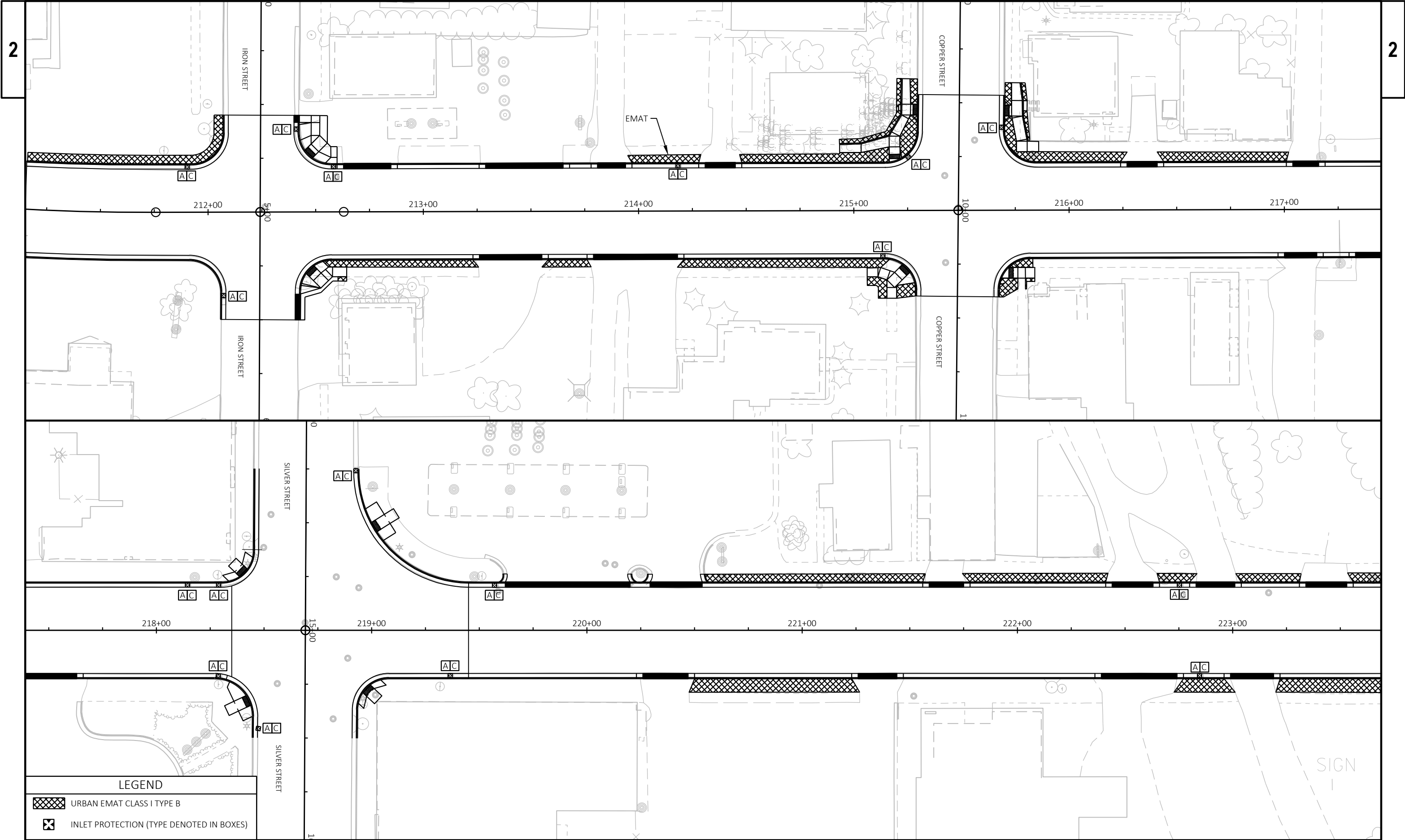


BERNARD - SW QUADRANT

LEGEND

(X)

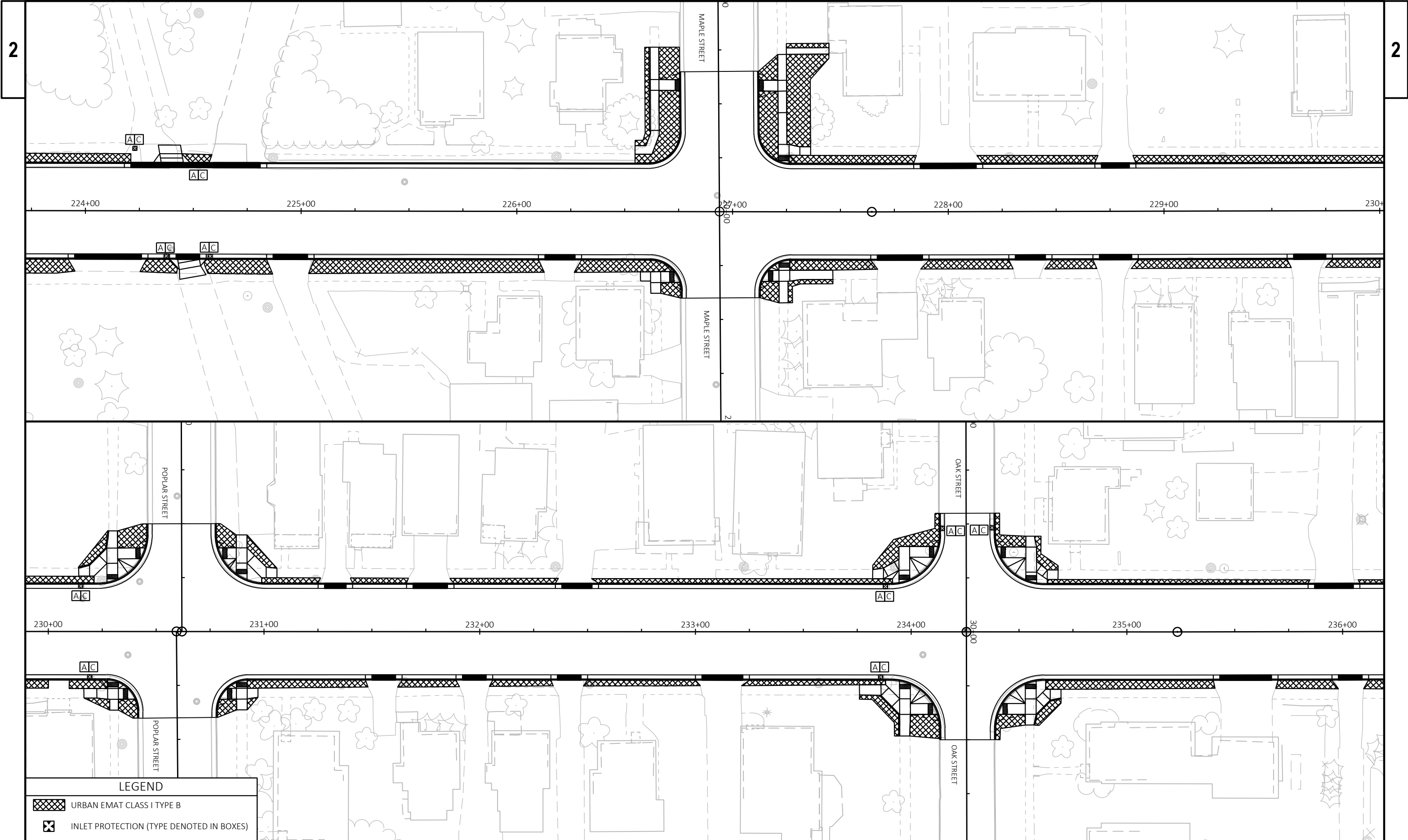
CURB RAMP TYPE



LEGEND

URBAN EMAT CLASS I TYPE B

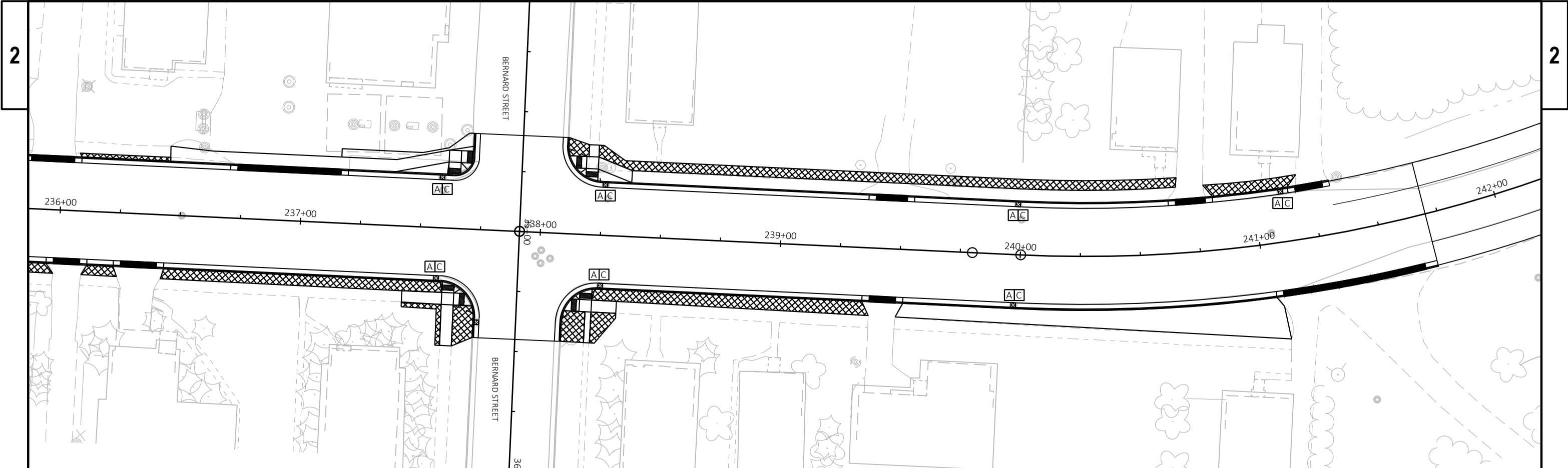
INLET PROTECTION (TYPE DENOTED IN BOXES)



LEGEND

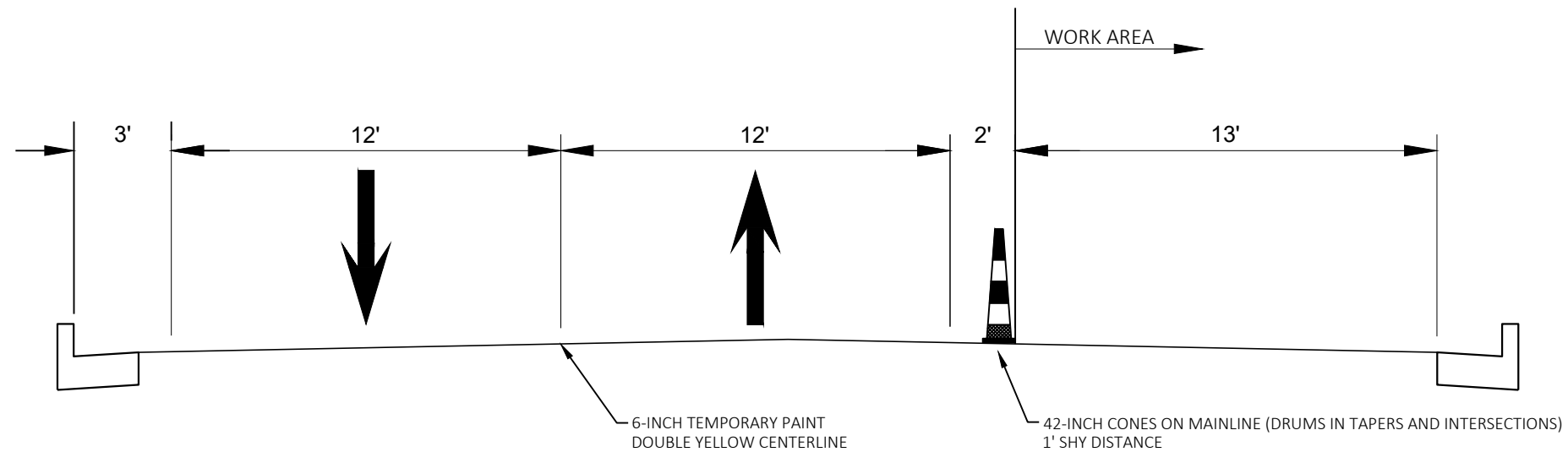
 URBAN EMAT CLASS I TYPE B

 INLET PROTECTION (TYPE DENOTED IN BOXES)

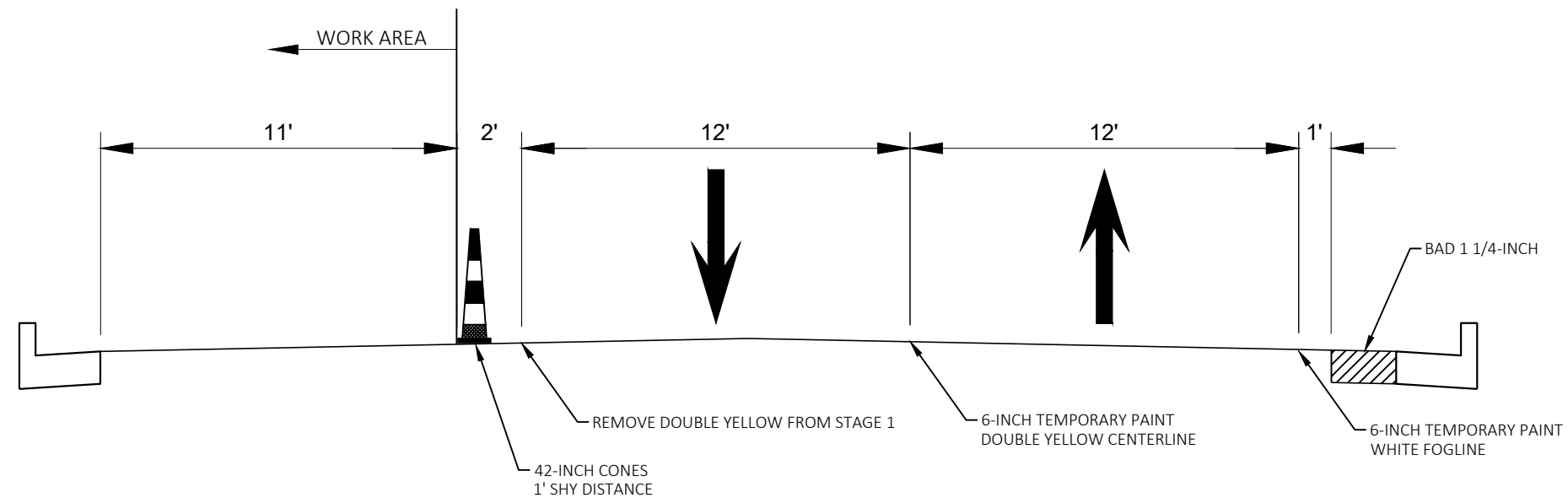


LEGEND	
	URBAN EMAT CLASS I TYPE B
	INLET PROTECTION (TYPE DENOTED IN BOXES)

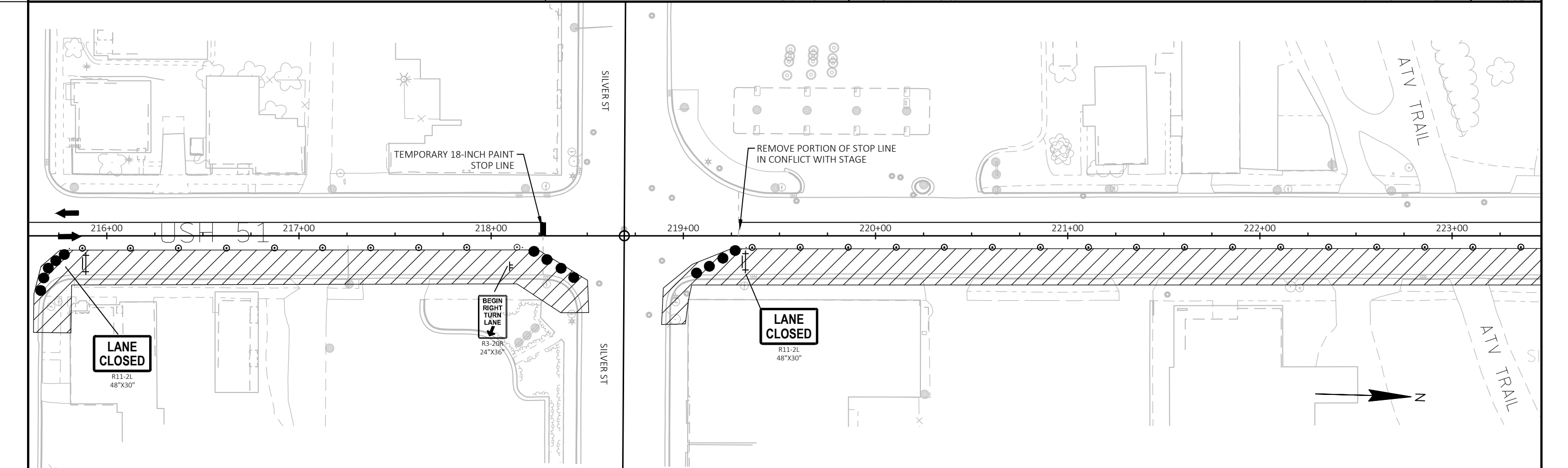
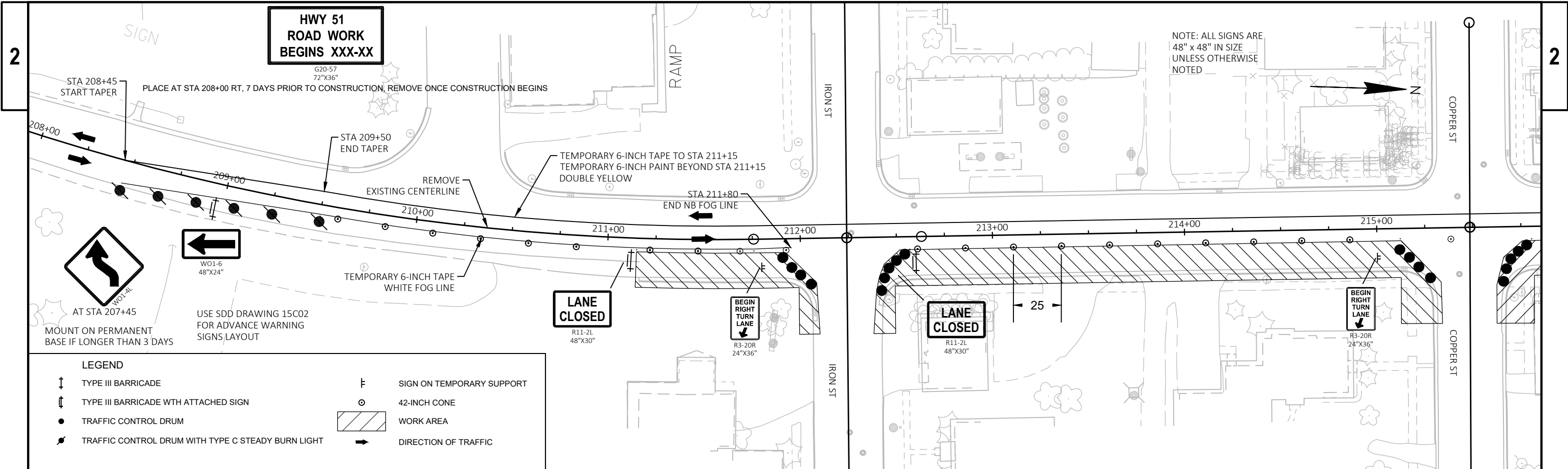
PROJECT NO: 1175-21-70	HWY: USH 51	COUNTY: IRON	EROSION CONTROL	SHEET 50	E
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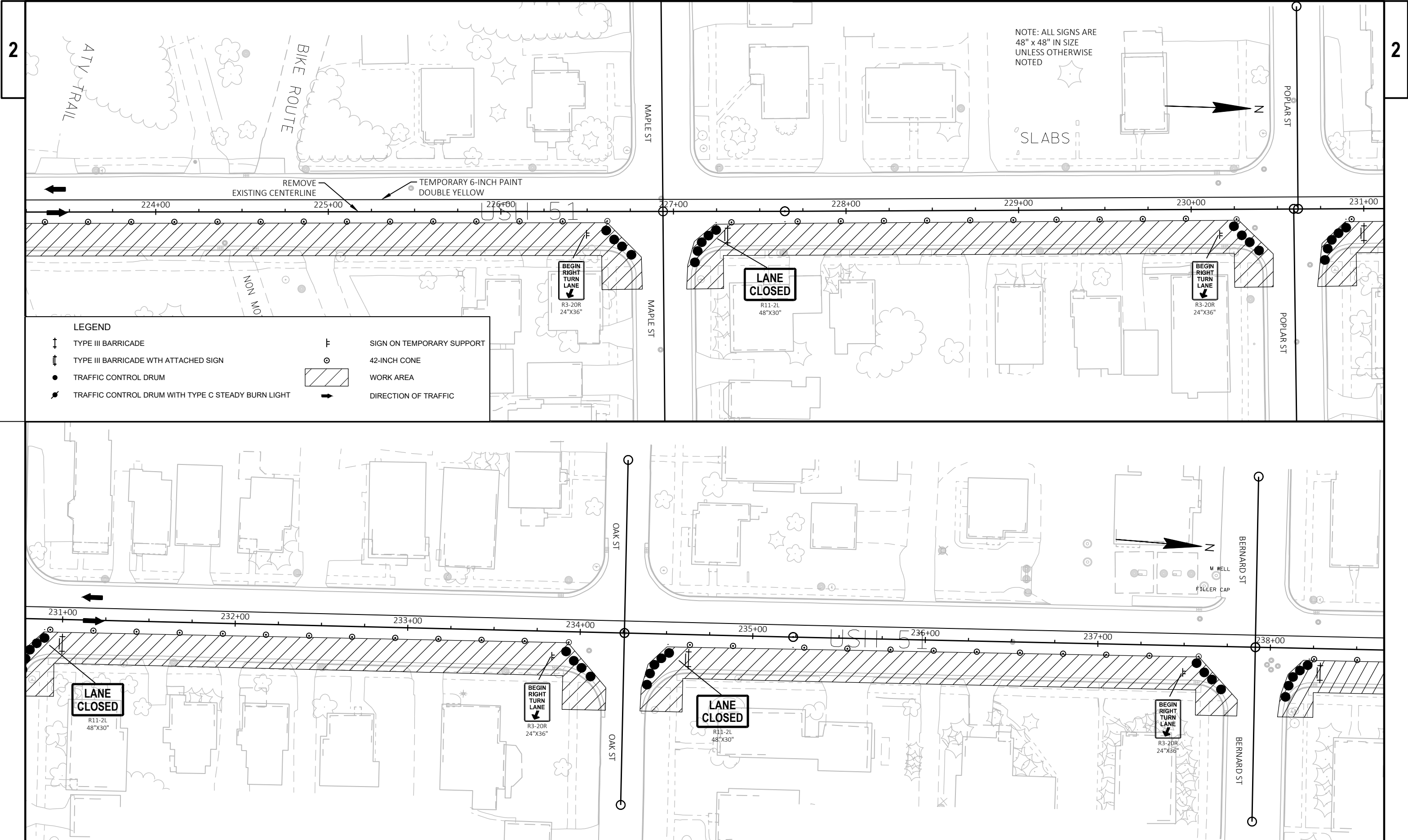


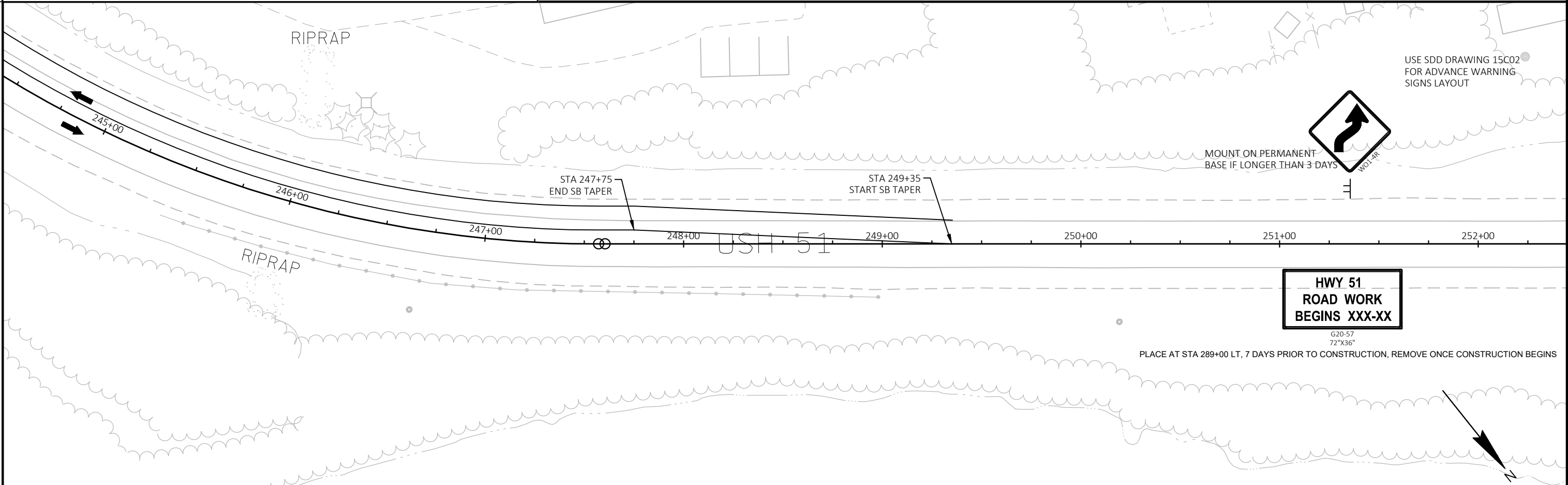
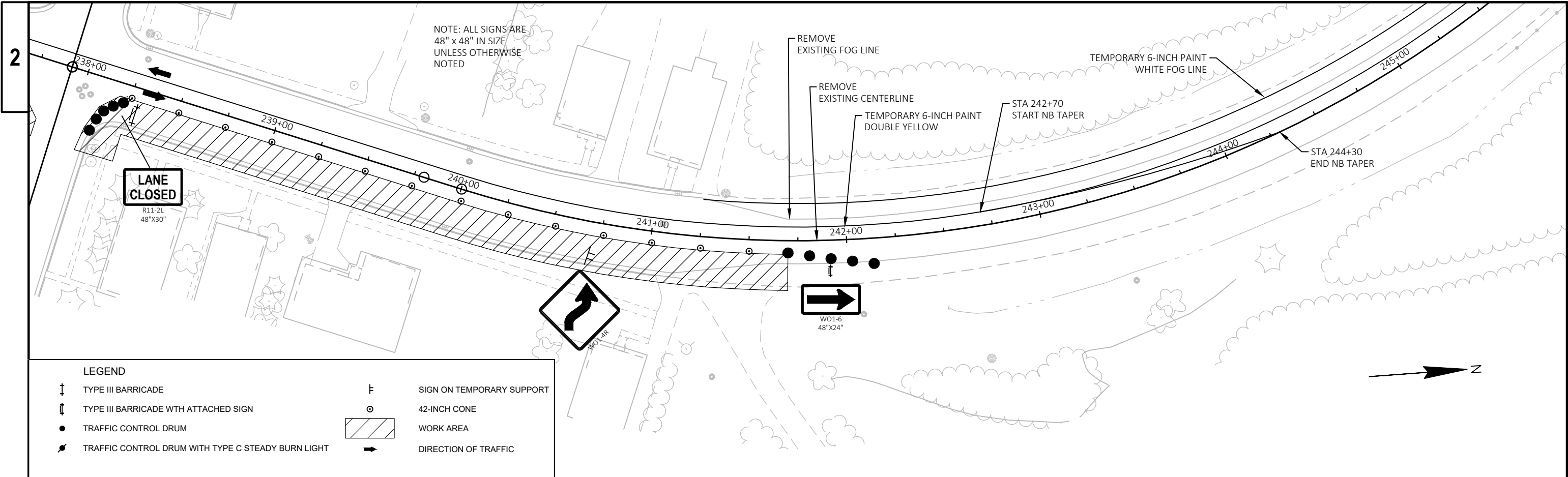
STAGE 1 TRAFFIC CONTROL TYPICAL SECTION

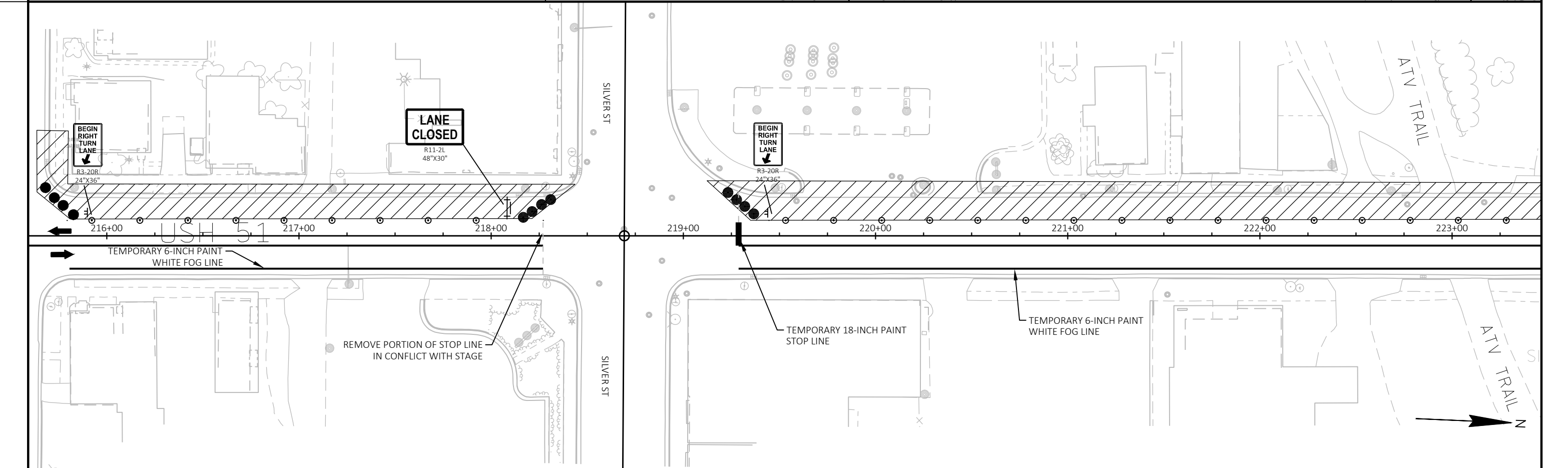
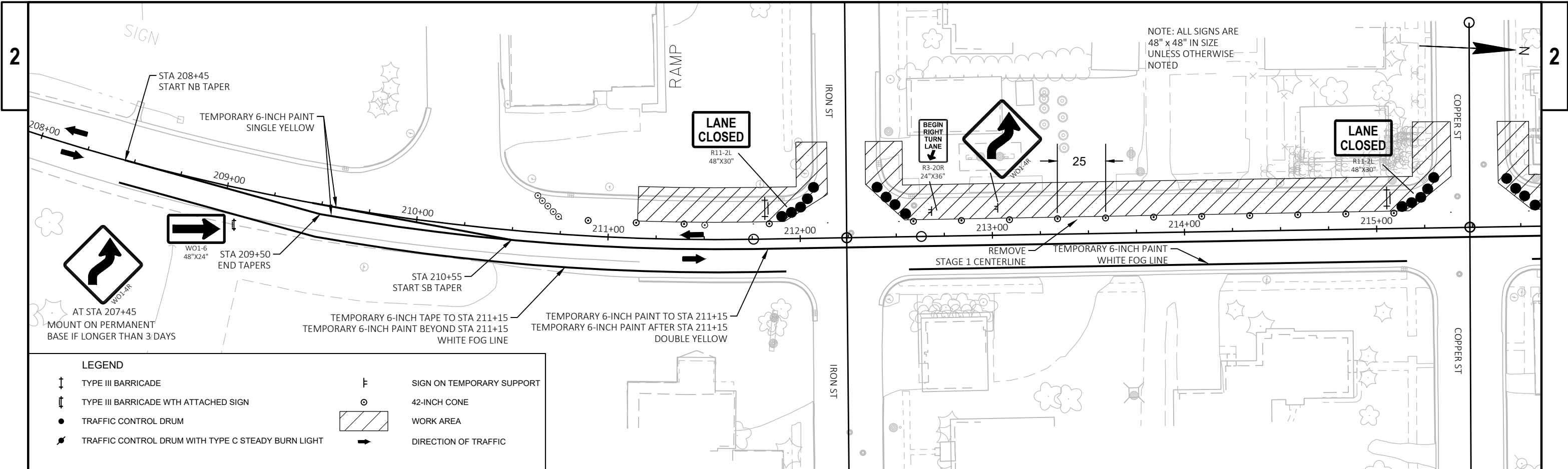


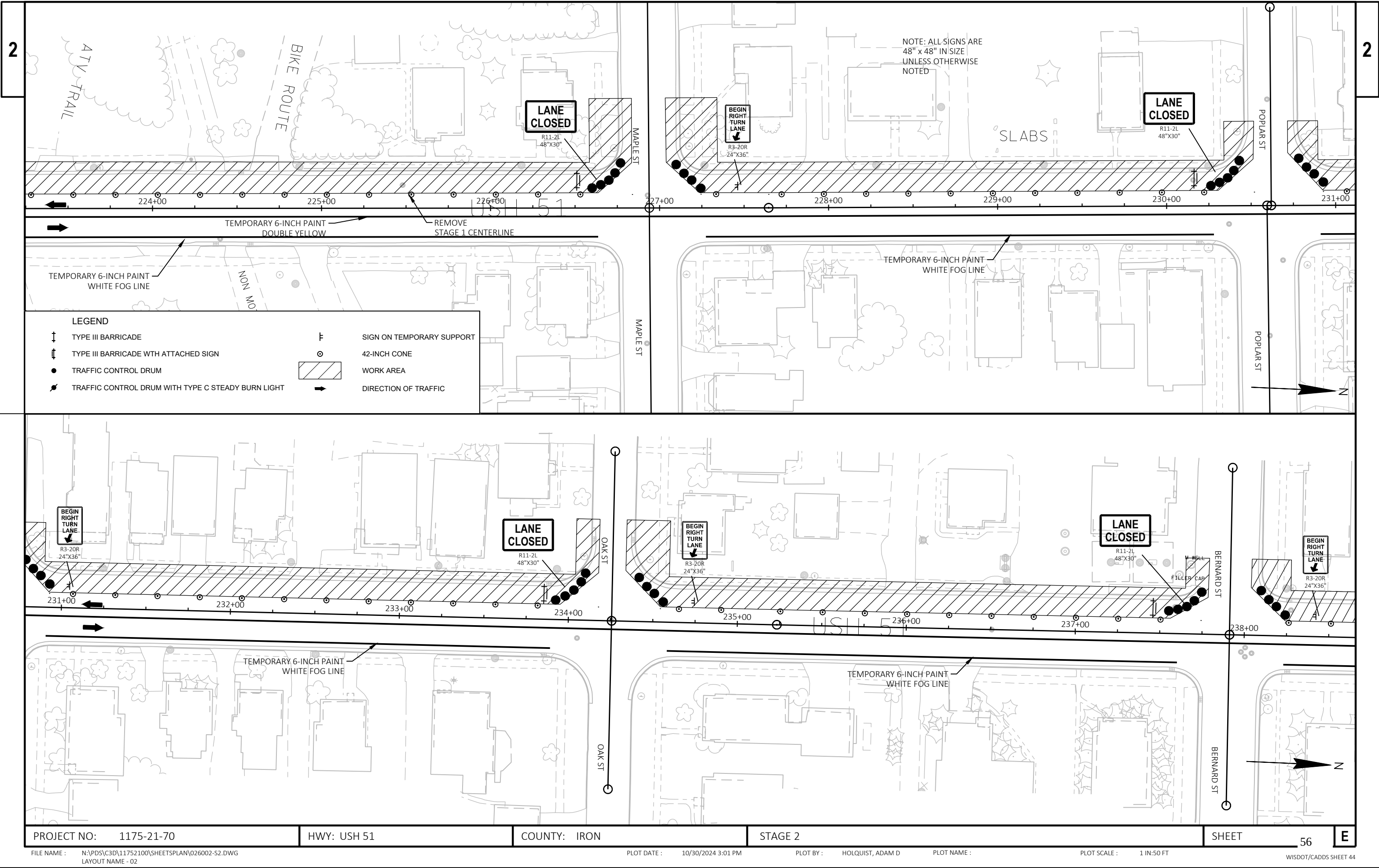
STAGE 2 TRAFFIC CONTROL TYPICAL SECTION

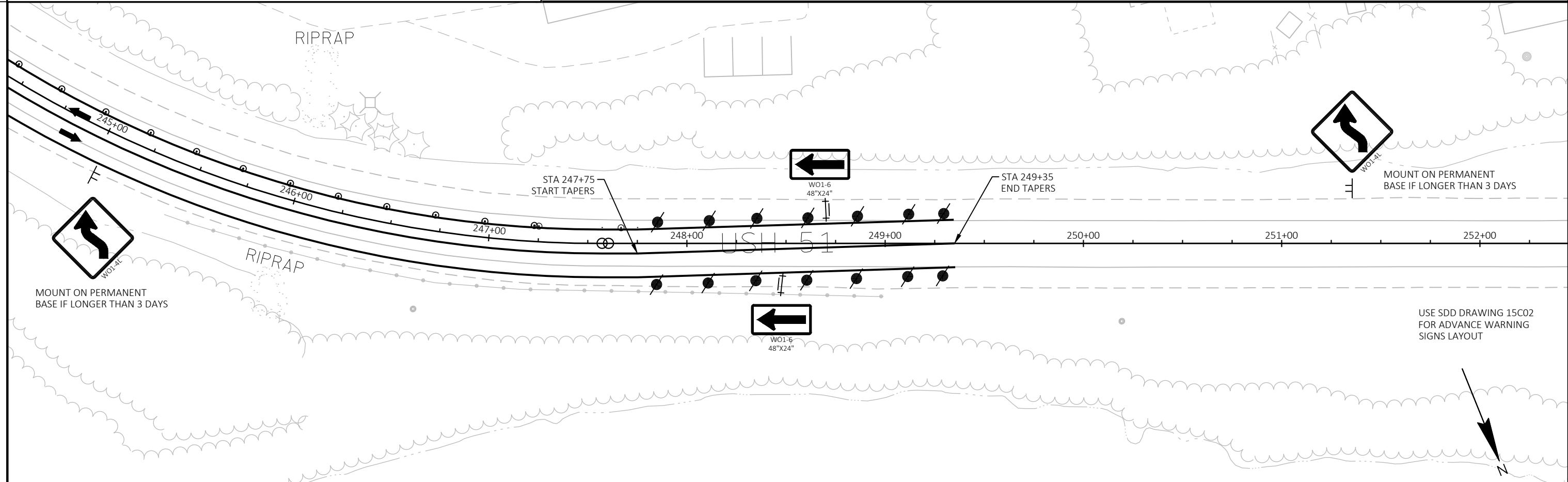
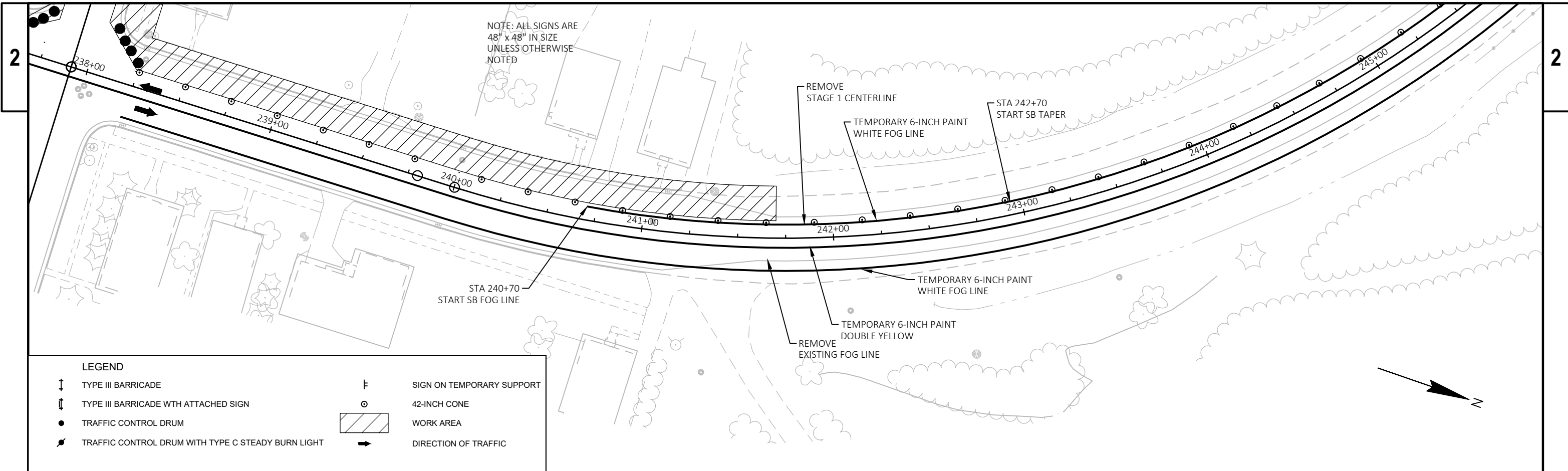


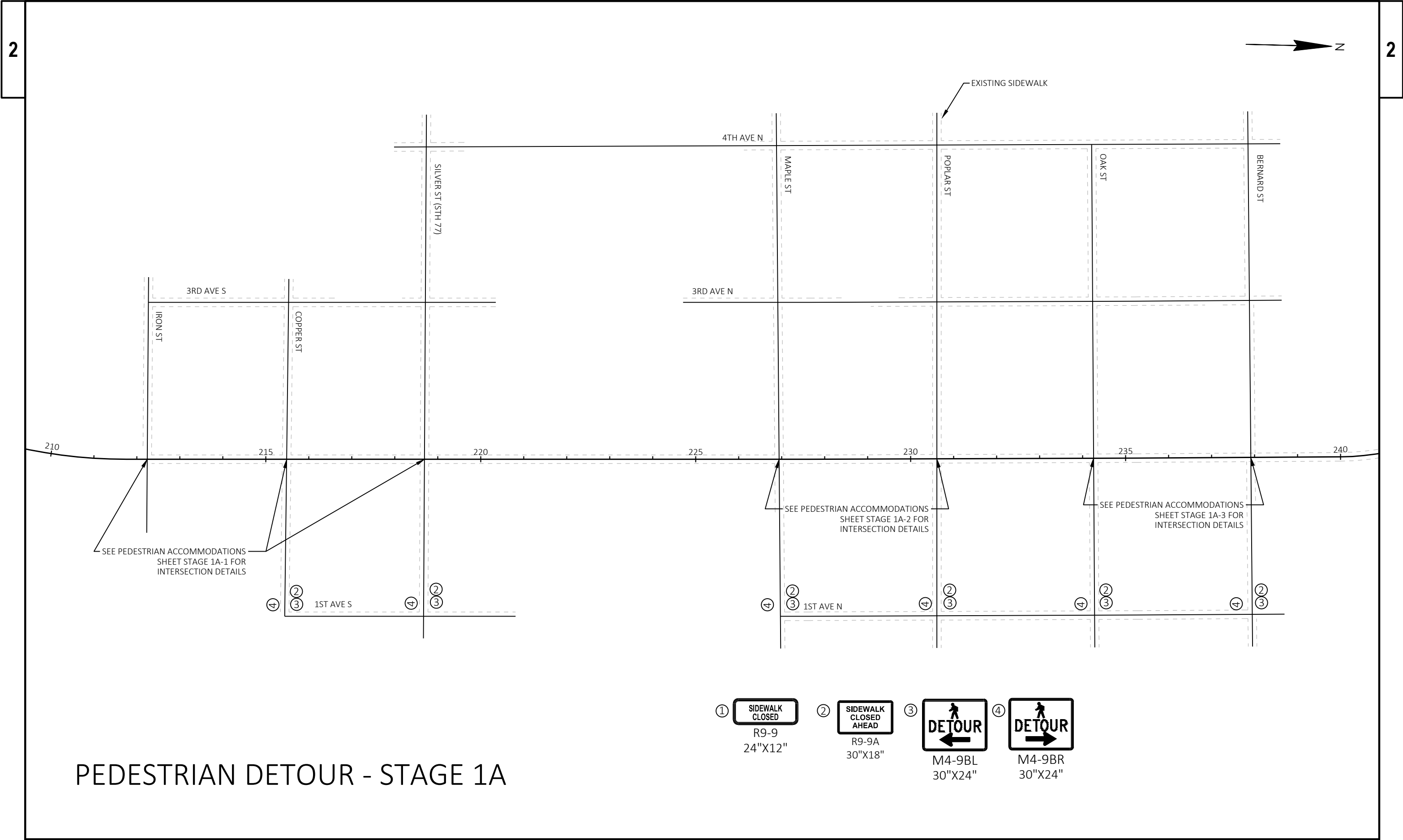






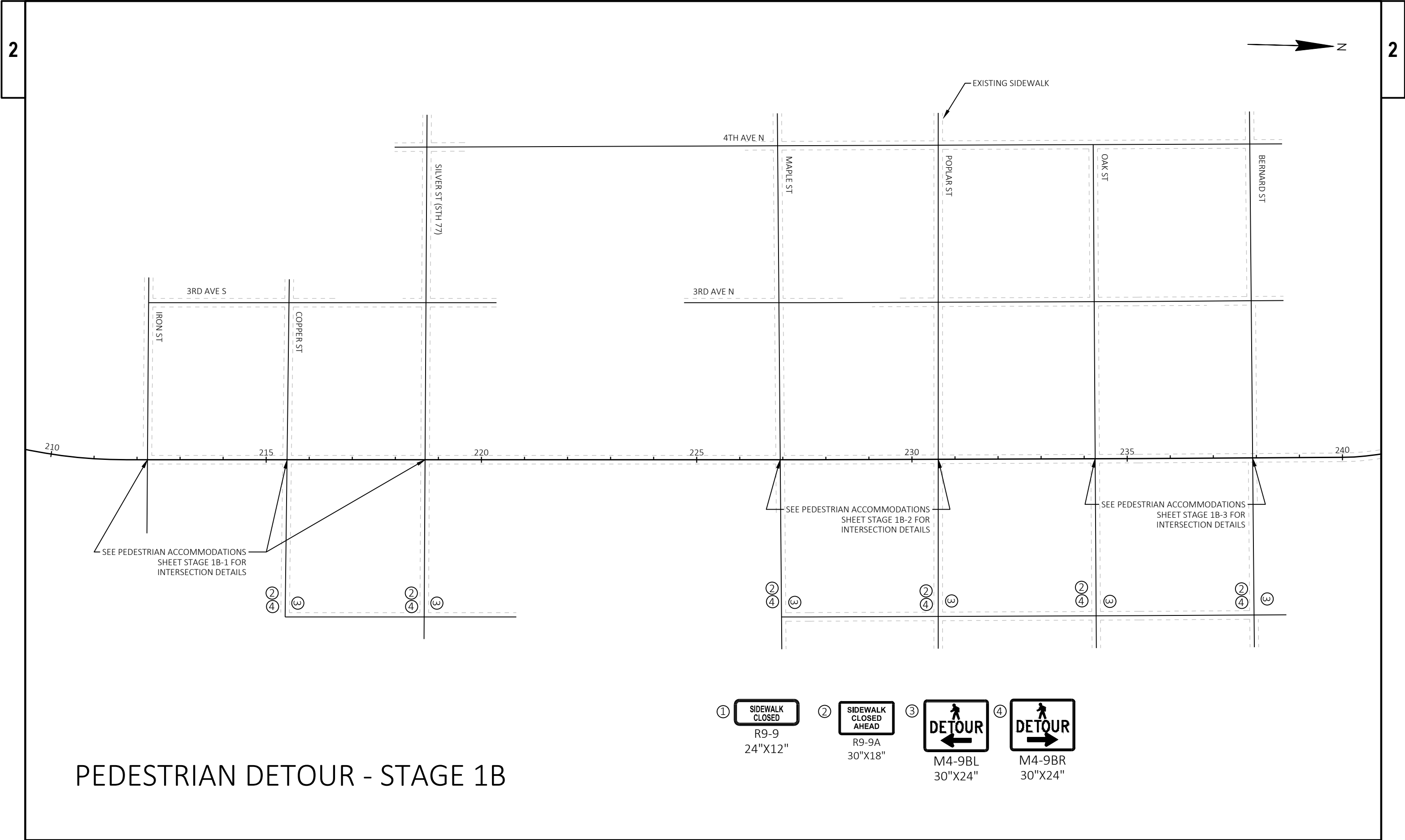


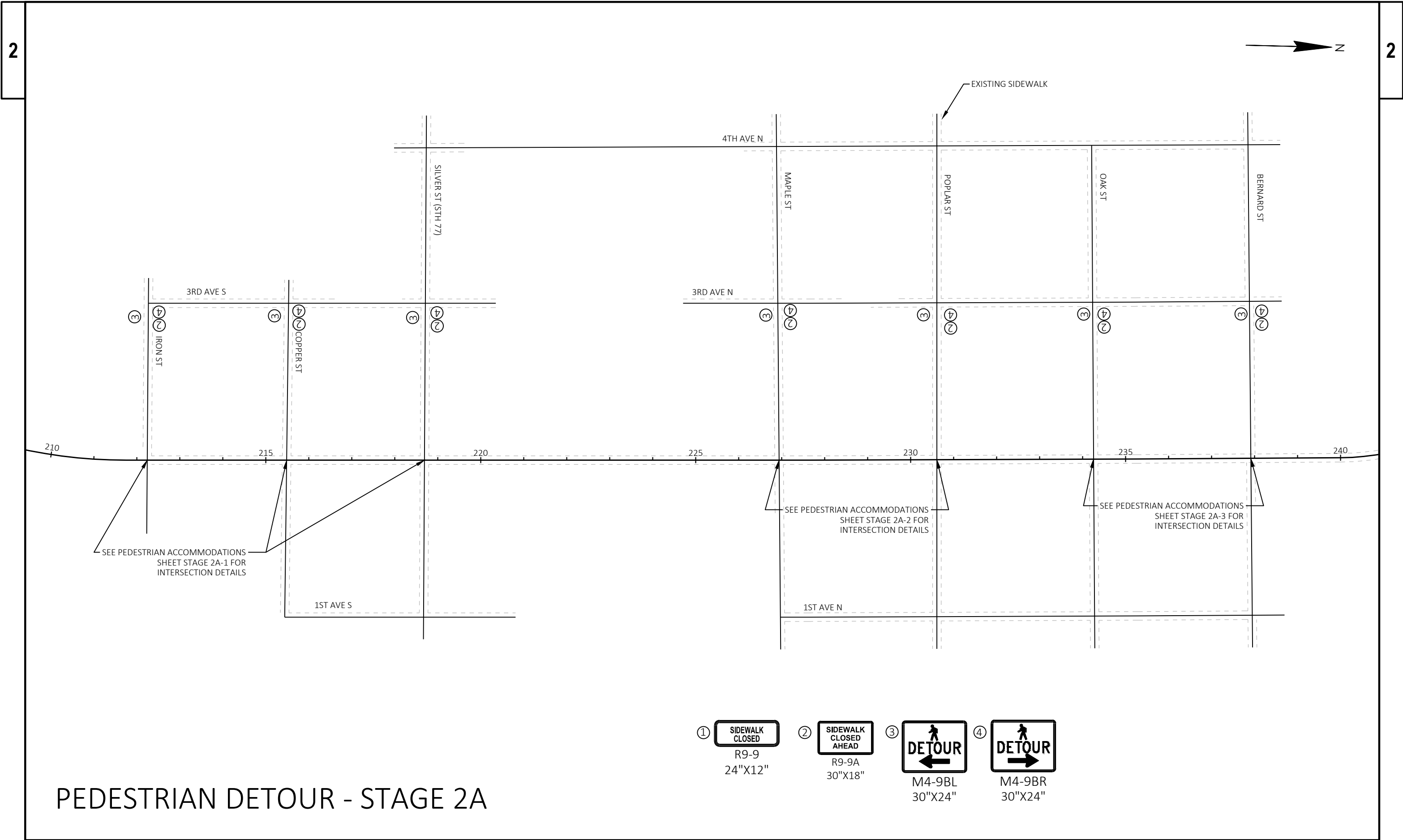




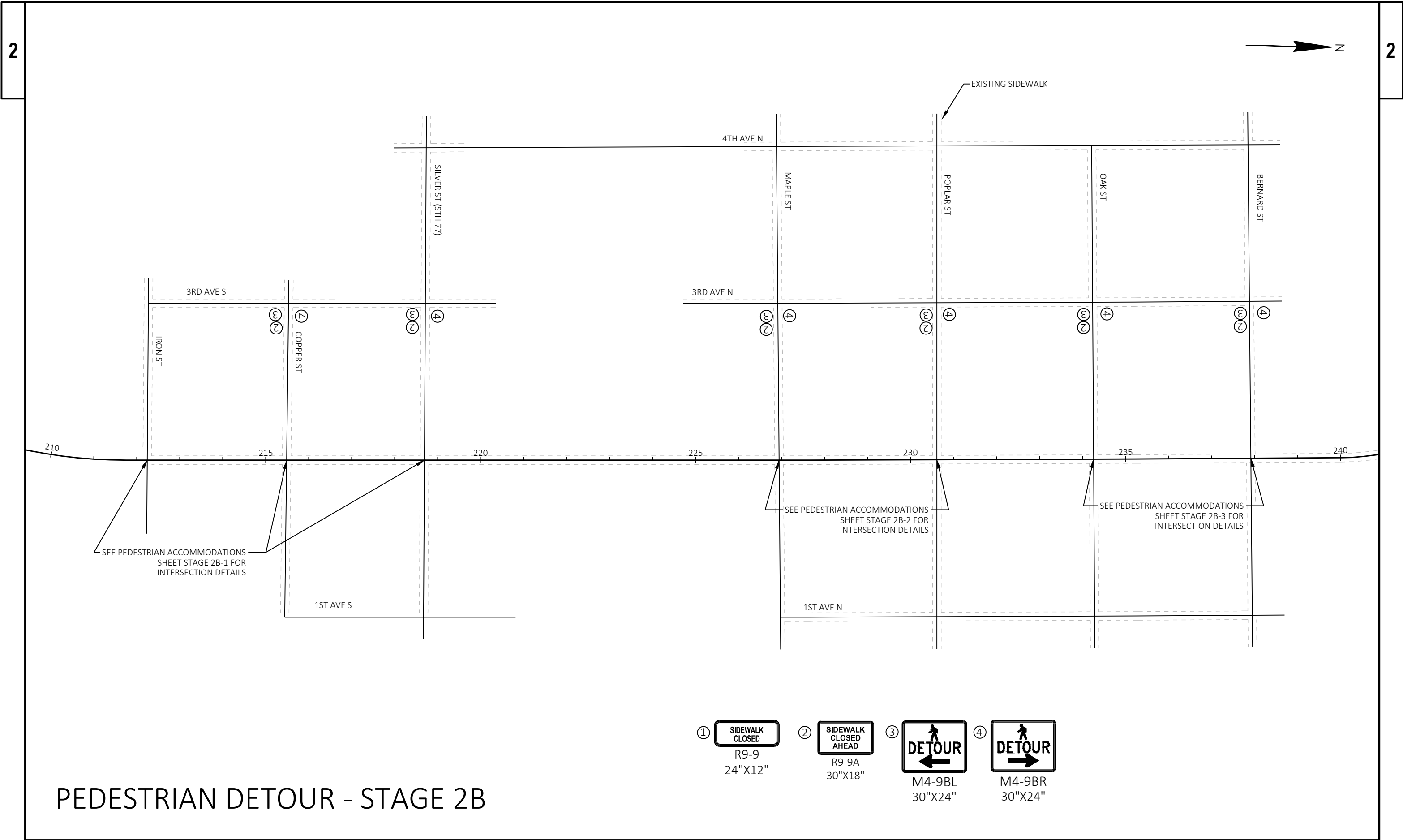
PEDESTRIAN DETOUR - STAGE 1A

- ① **SIDEWALK CLOSED**
R9-9
24"X12"
- ② **SIDEWALK CLOSED AHEAD**
R9-9A
30"X18"
- ③ **DETOUR**
M4-9BL
30"X24"
- ④ **DETOUR**
M4-9BR
30"X24"

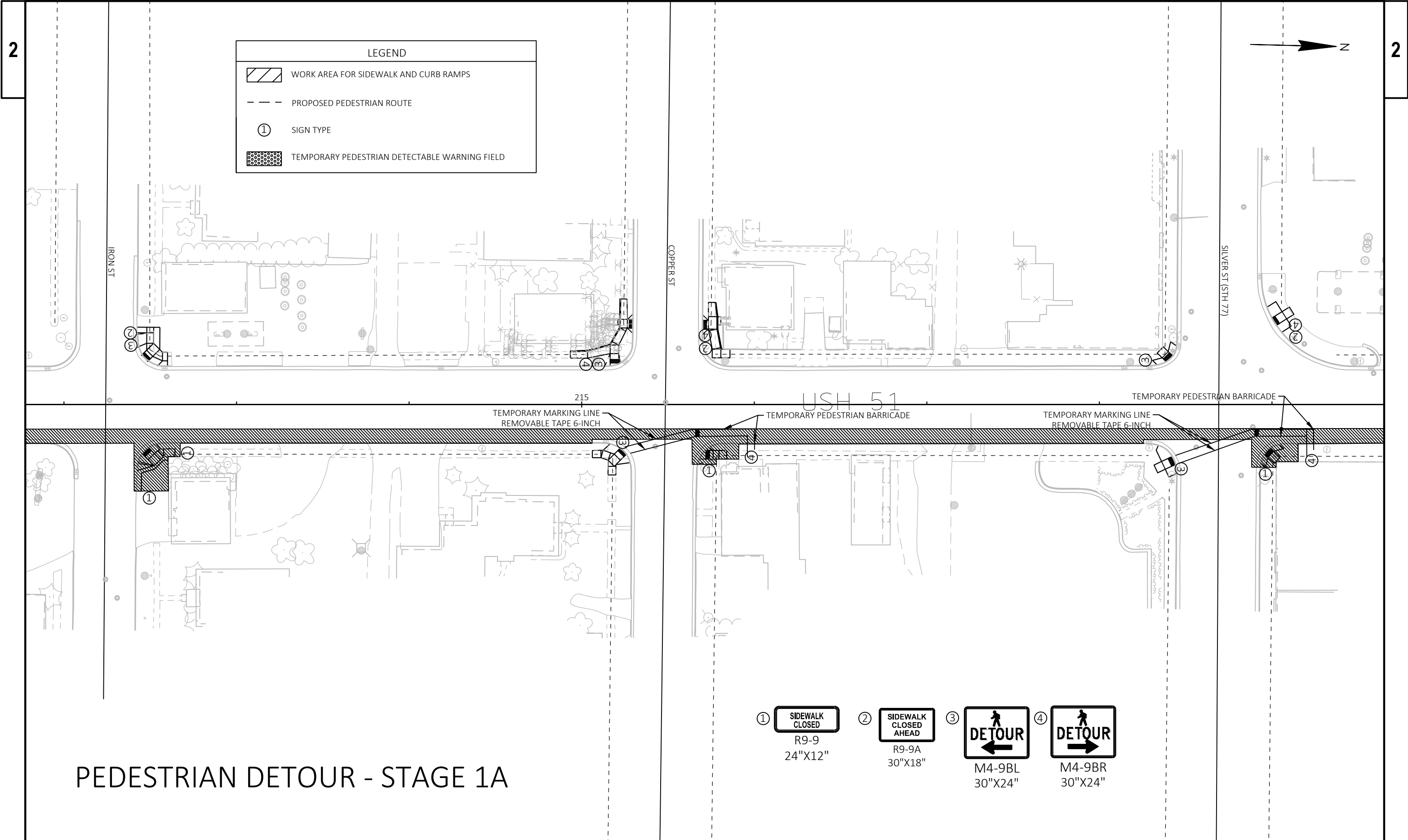




PEDESTRIAN DETOUR - STAGE 2A



PEDESTRIAN DETOUR - STAGE 2B



PEDESTRIAN DETOUR - STAGE 1A

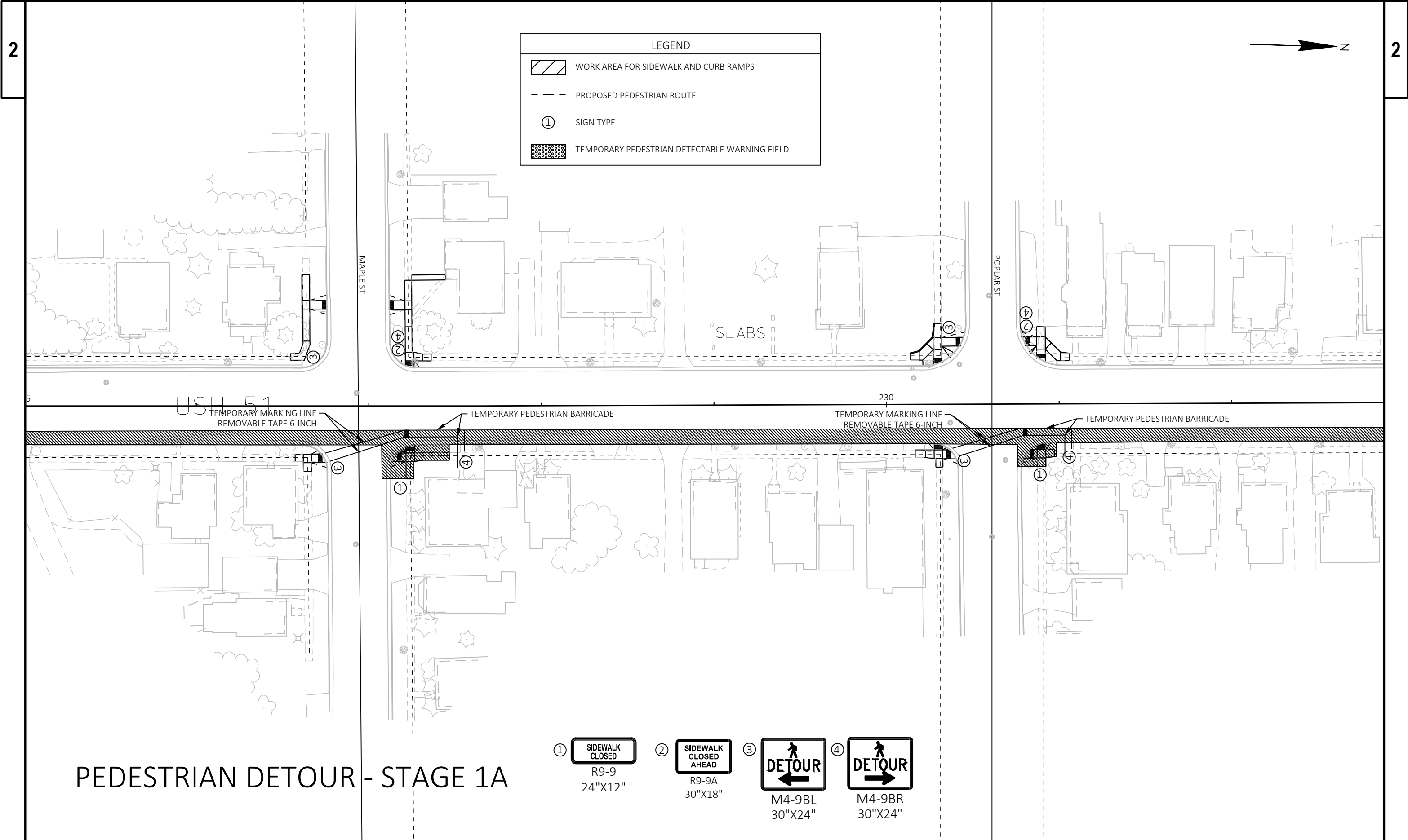
- ①

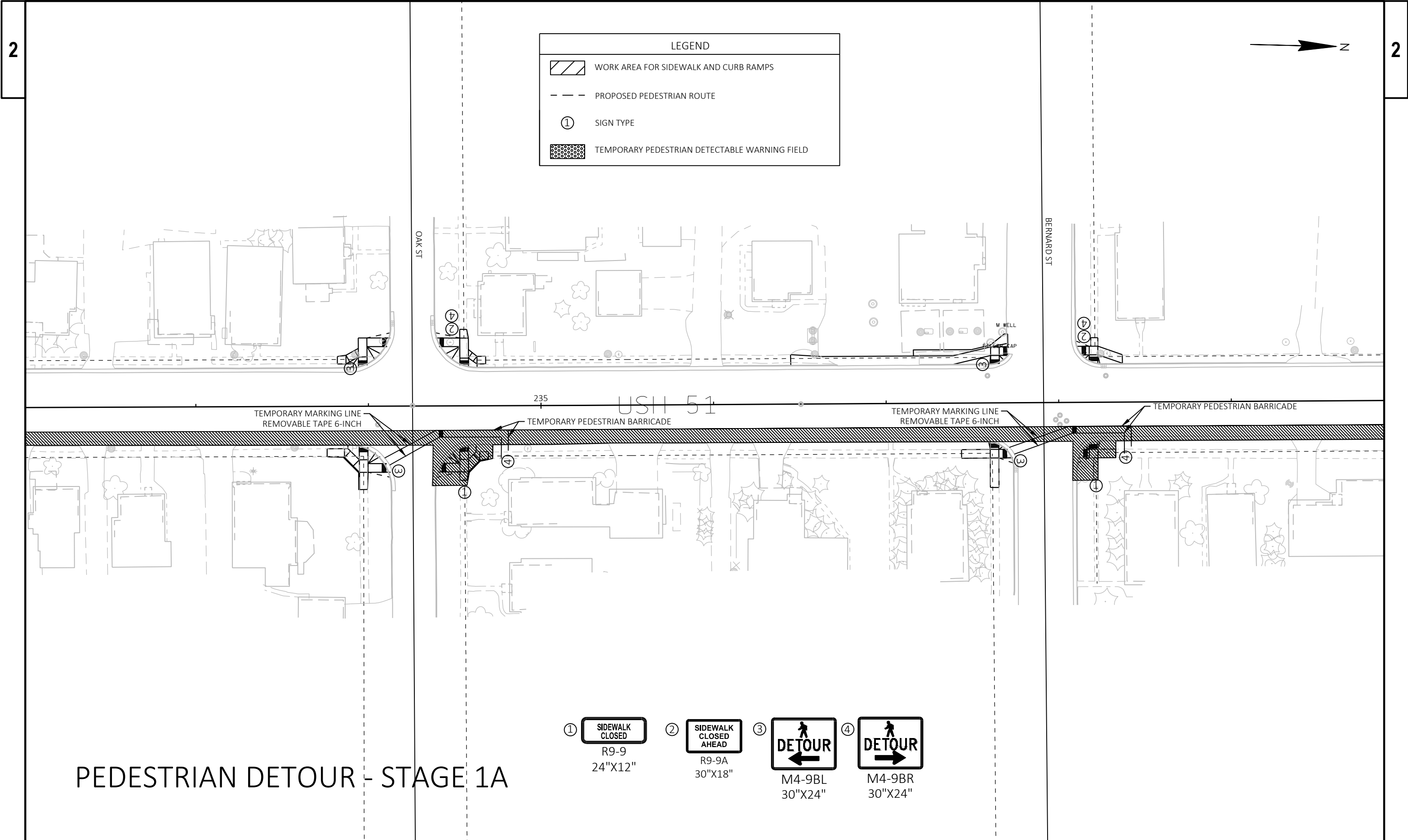
SIDEWALK
CLOSED
R9-9
24"X12"
- ②

SIDEWALK
CLOSED
AHEAD
R9-9A
30"X18"
- ③

DETOUR
←
M4-9BL
30"X24"
- ④

DETOUR
→
M4-9BR
30"X24"





PEDESTRIAN DETOUR - STAGE 1A

- ①

SIDEWALK
CLOSED

R9-9
24"X12"
- ②

SIDEWALK
CLOSED
AHEAD

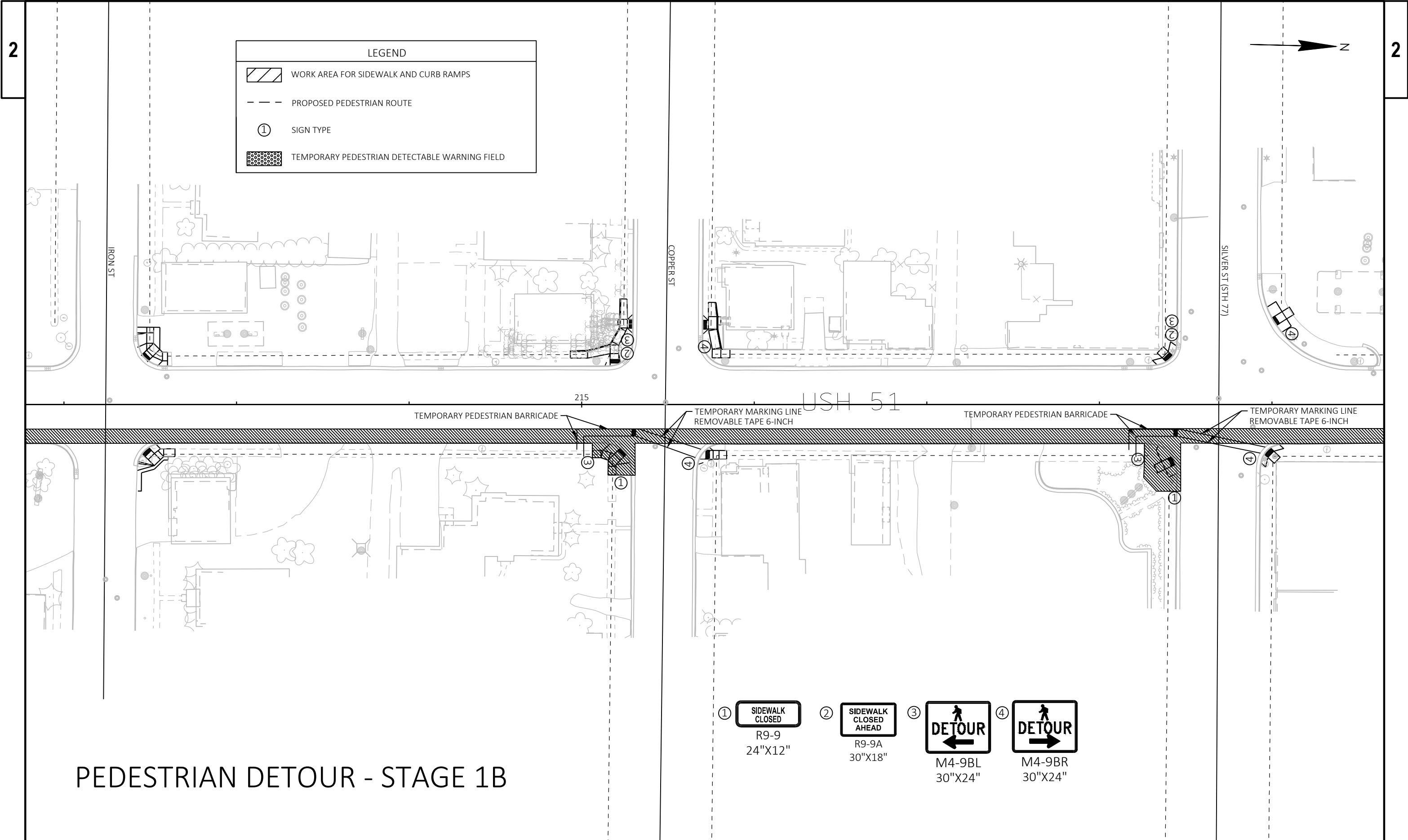
R9-9A
30"X18"
- ③

DETOUR

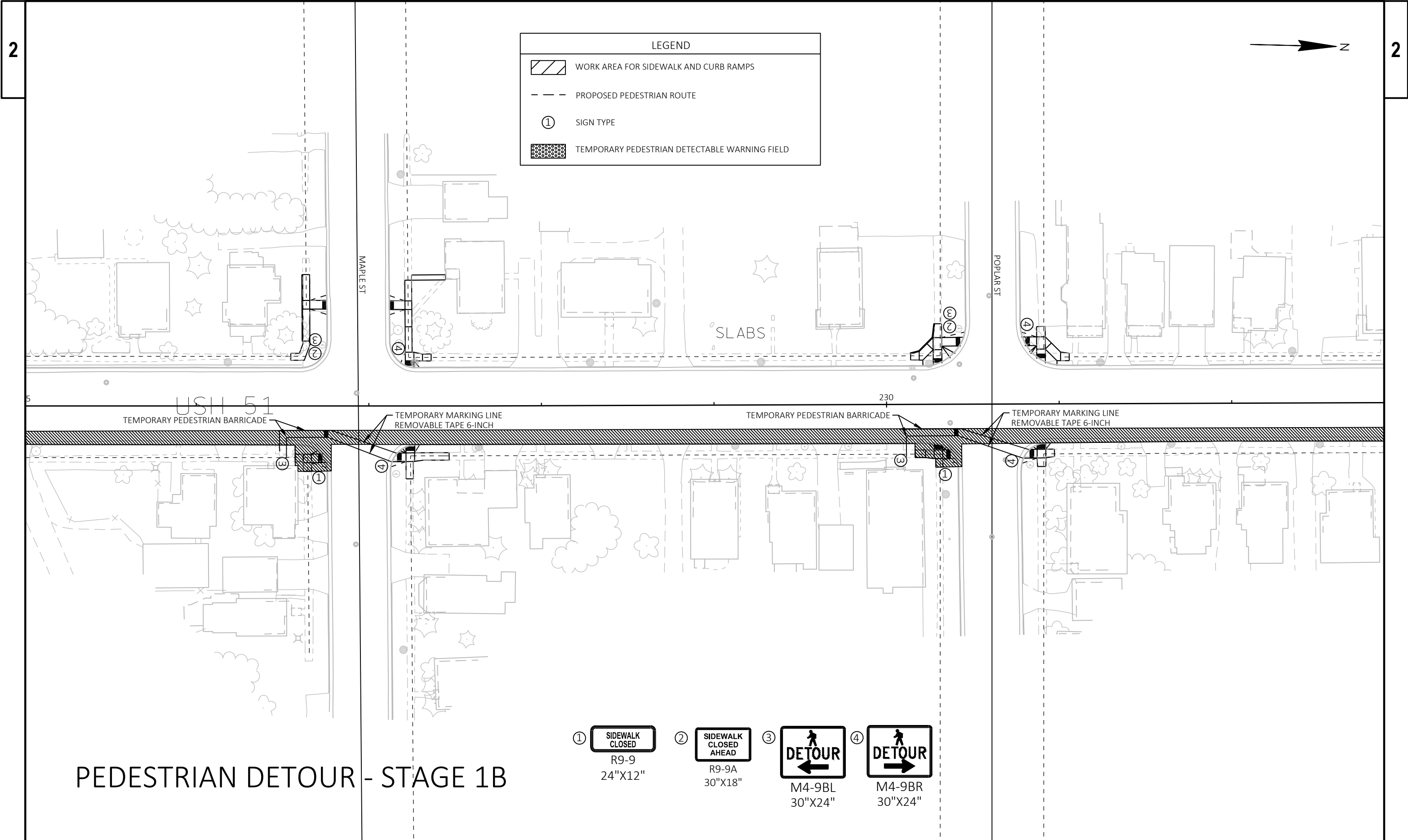
M4-9BL
30"X24"
- ④

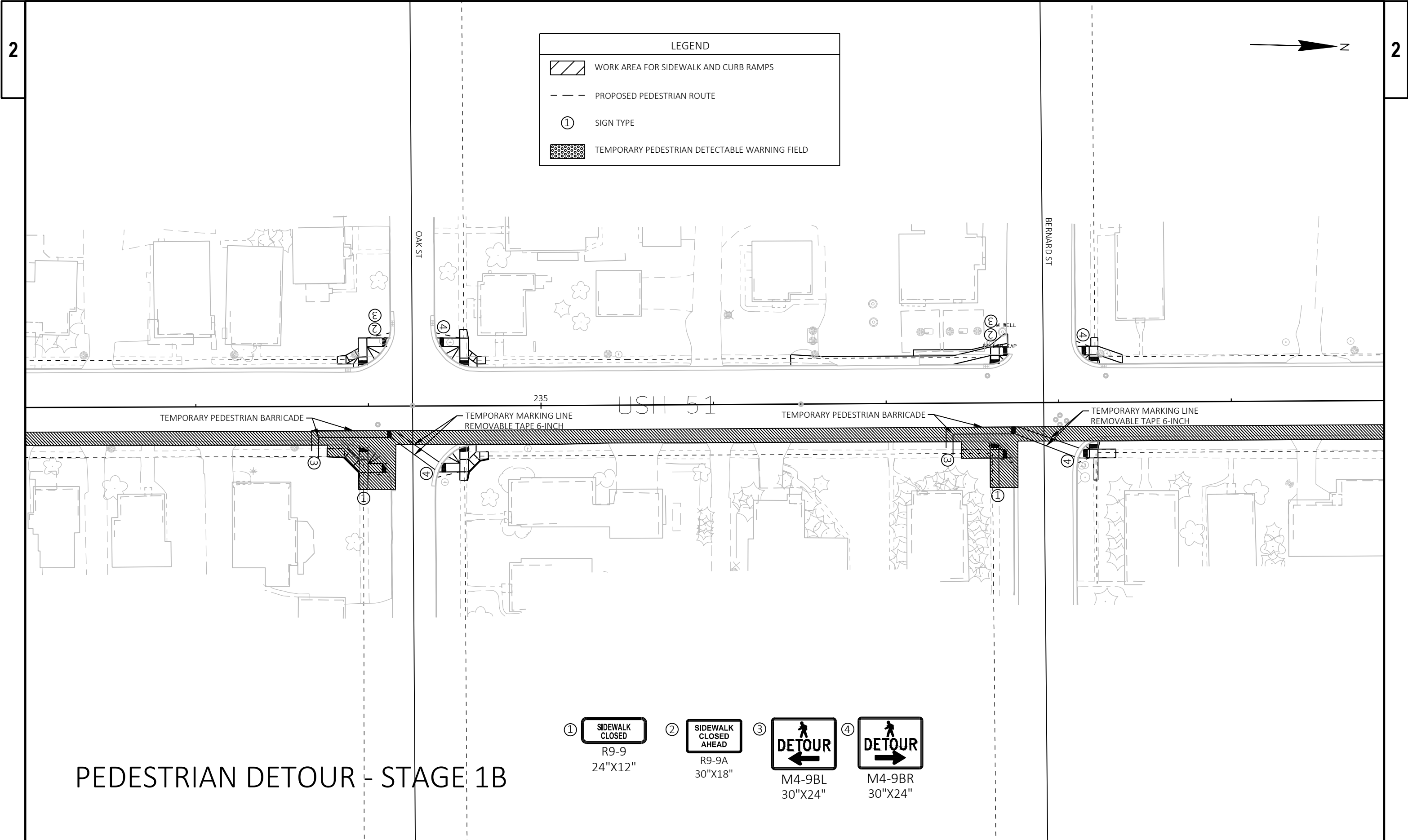
DETOUR

M4-9BR
30"X24"



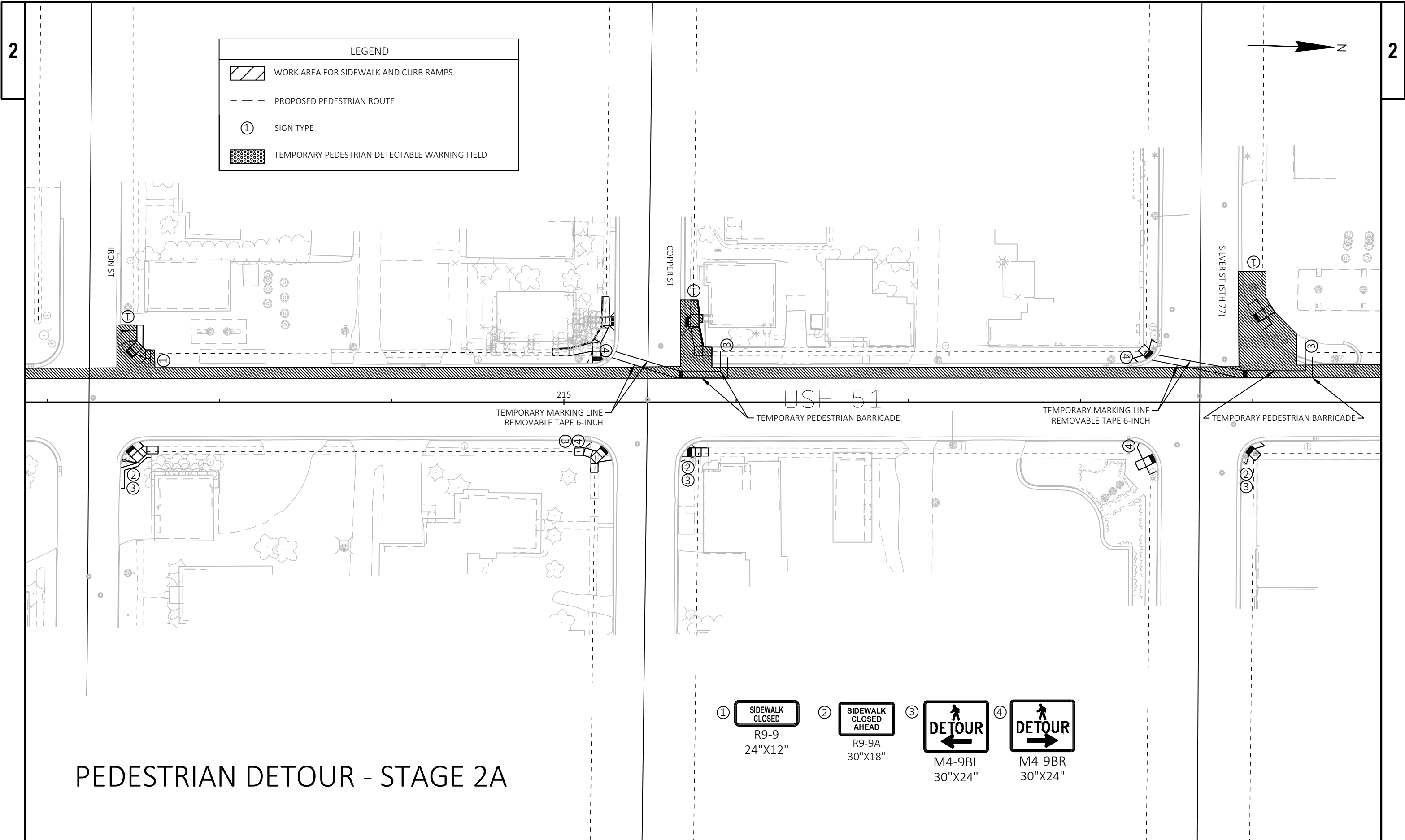
PEDESTRIAN DETOUR - STAGE 1B

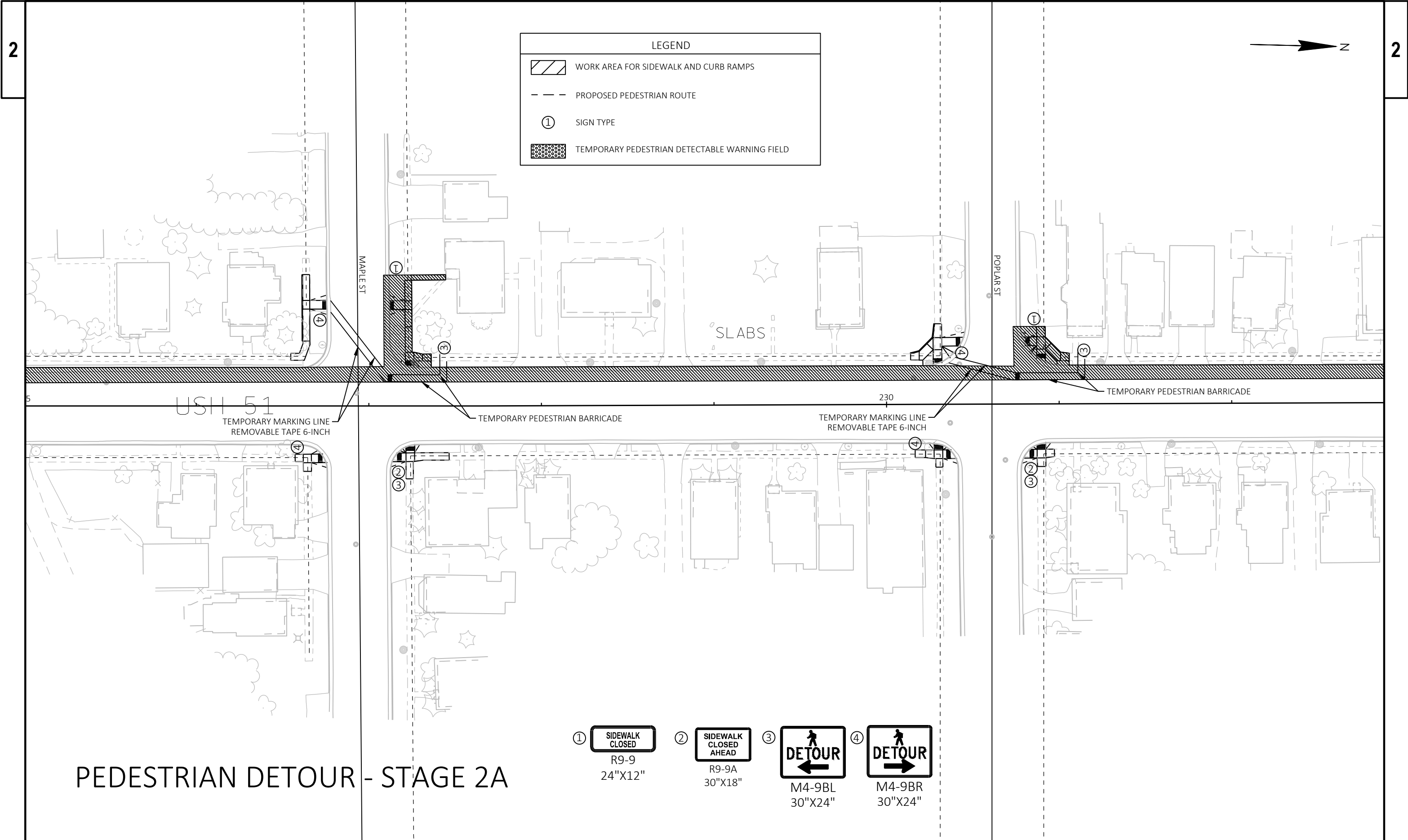




PEDESTRIAN DETOUR - STAGE 1B

- ① **SIDEWALK CLOSED**
R9-9
24"x12"
- ② **SIDEWALK CLOSED AHEAD**
R9-9A
30"x18"
- ③ **DETOUR**
M4-9BL
30"x24"
- ④ **DETOUR**
M4-9BR
30"x24"





LEGEND

WORK AREA FOR SIDEWALK AND CURB RAMPS

PROPOSED PEDESTRIAN ROUTE

①

SIGN TYPE

TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD

PEDESTRIAN DETOUR - STAGE 2A

①

SIDEWALK
CLOSED

R9-9
24"X12"

②

SIDEWALK
CLOSED
AHEAD

R9-9A
30"X18"

③

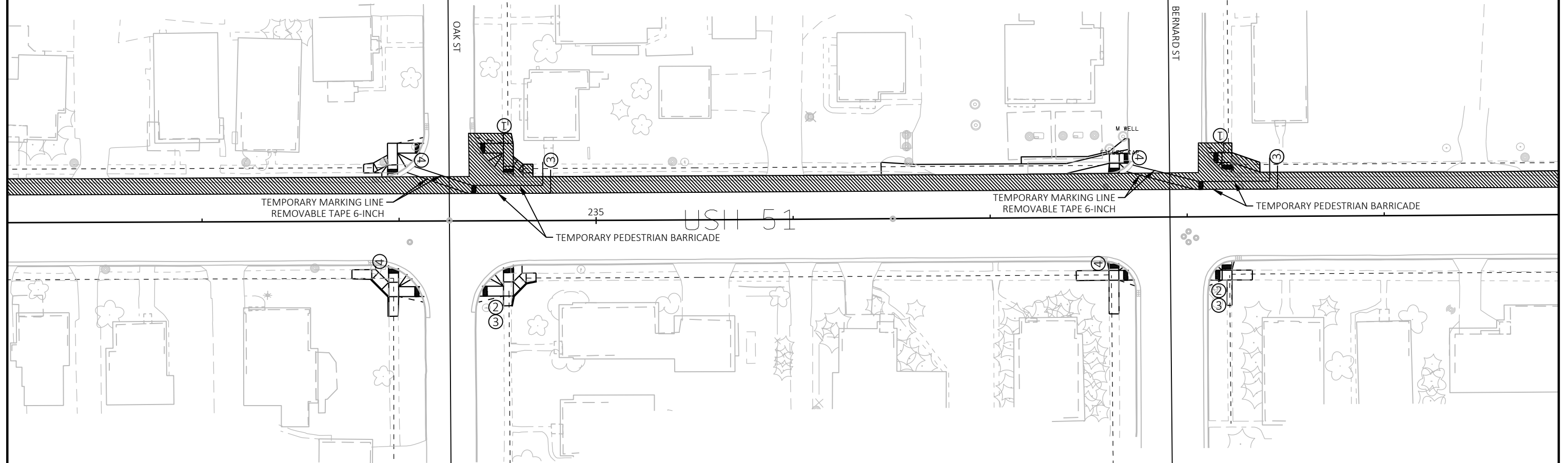
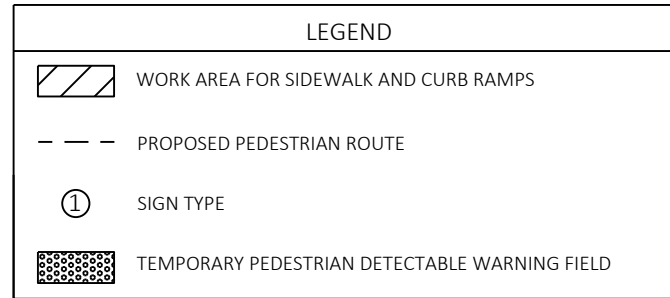
DETOUR

M4-9BL
30"X24"

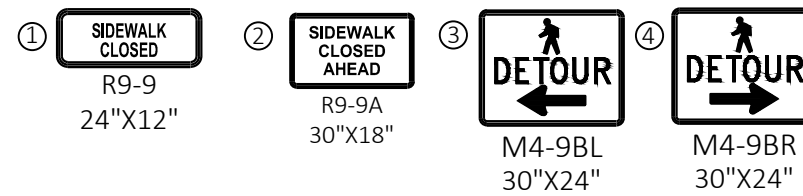
④

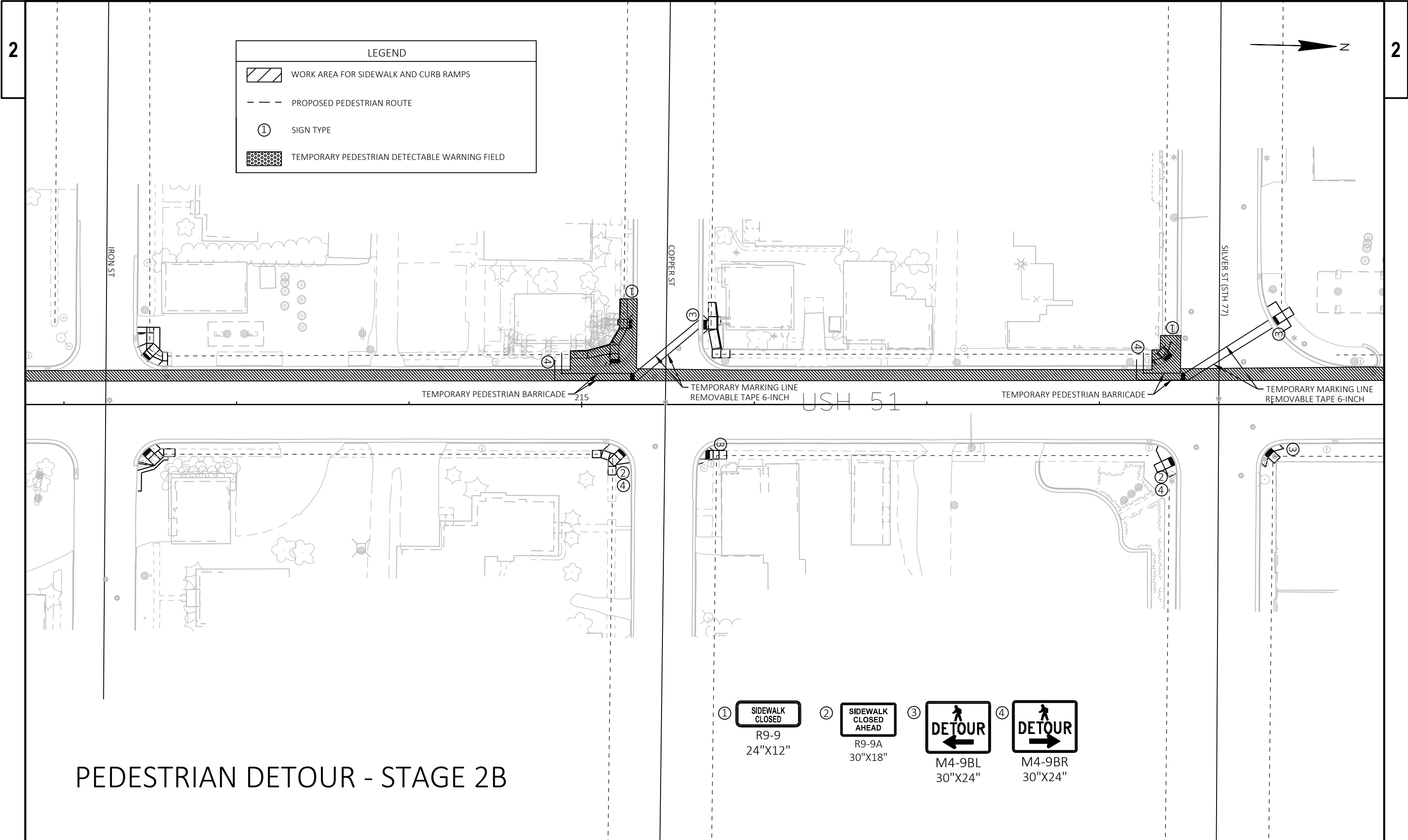
DETOUR

M4-9BR
30"X24"



PEDESTRIAN DETOUR - STAGE 2A





PEDESTRIAN DETOUR - STAGE 2B

- ①

SIDEWALK CLOSED

R9-9

24"X12"
- ②

SIDEWALK CLOSED AHEAD

R9-9A

30"X18"
- ③

DETOUR

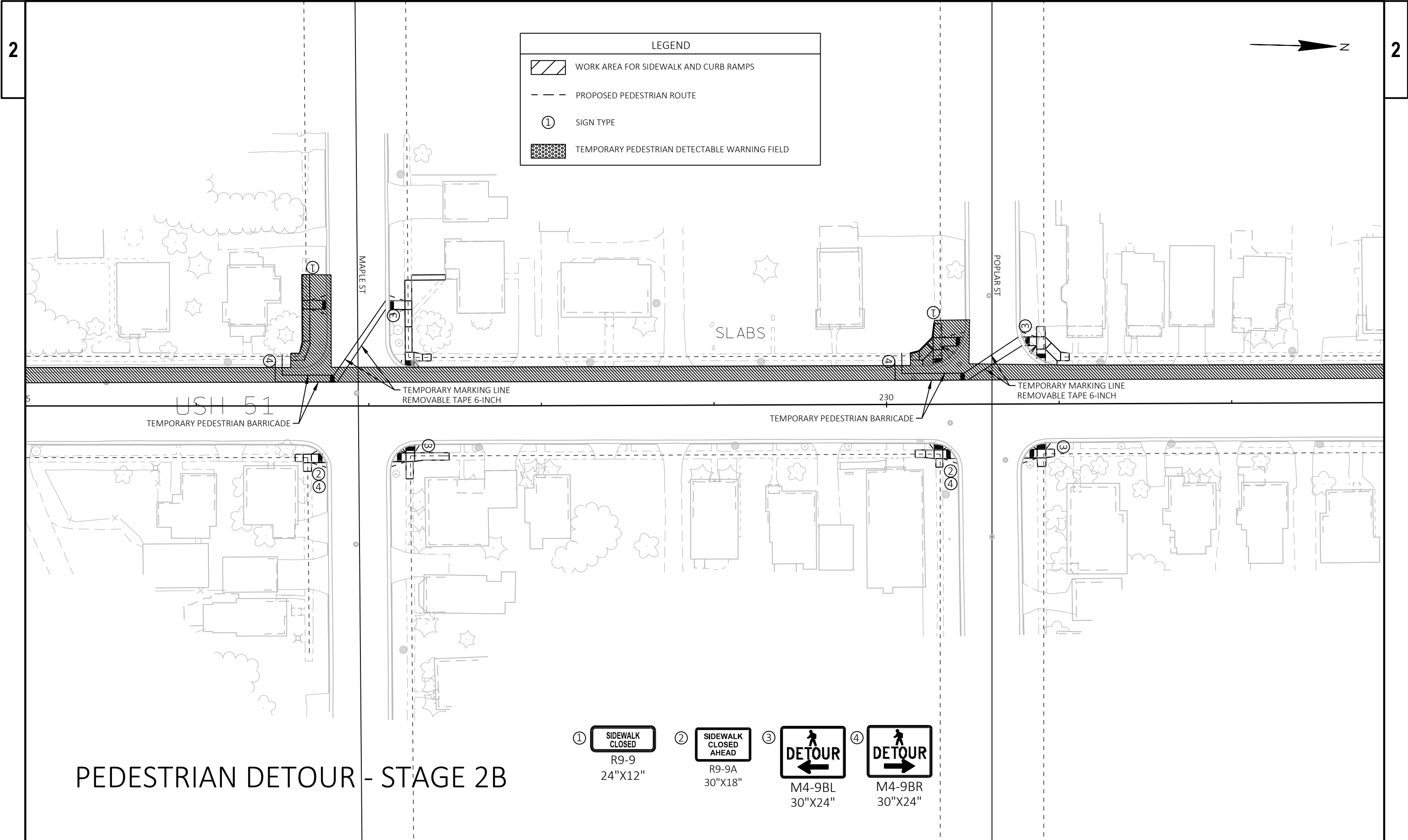
M4-9BL

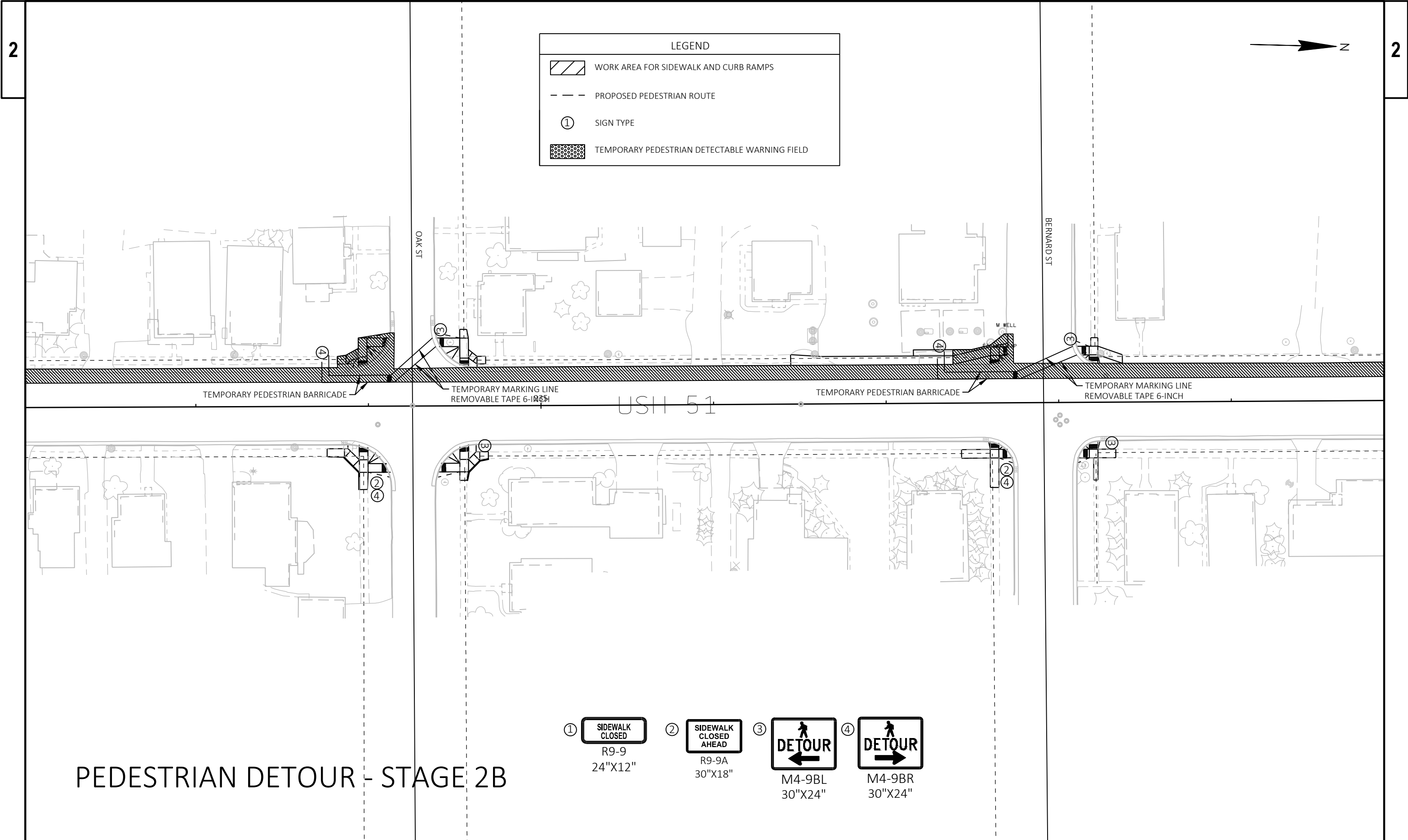
30"X24"
- ④

DETOUR

M4-9BR

30"X24"





LEGEND

WORK AREA FOR SIDEWALK AND CURB RAMP

PROPOSED PEDESTRIAN ROUTE

①

SIGN TYPE

TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD

PEDESTRIAN DETOUR - STAGE 2B

①

SIDEWALK
CLOSED

R9-9
24"X12"

②

SIDEWALK
CLOSED
AHEAD

R9-9A
30"X18"

③

DETOUR
←

M4-9BL
30"X24"

④

DETOUR
→

M4-9BR
30"X24"

Estimate Of Quantities

1175-21-70

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	512.000	512.000
0004	204.0110	Removing Asphaltic Surface	SY	1,463.000	1,463.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	743.000	743.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	34,879.000	34,879.000
0010	204.0150	Removing Curb & Gutter	LF	5,862.000	5,862.000
0012	204.0155	Removing Concrete Sidewalk	SY	1,066.000	1,066.000
0014	204.0210	Removing Manholes	EACH	1.000	1.000
0016	204.0220	Removing Inlets	EACH	2.000	2.000
0018	213.0100	Finishing Roadway (project) 01. 1175-21-70	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	50.000	50.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	380.000	380.000
0024	305.0500	Shaping Shoulders	STA	86.000	86.000
0026	405.0100	Coloring Concrete WisDOT Red	CY	24.000	24.000
0028	455.0605	Tack Coat	GAL	2,980.000	2,980.000
0030	460.2000	Incentive Density HMA Pavement	DOL	5,140.000	5,140.000
0032	460.6223	HMA Pavement 3 MT 58-28 S	TON	3,847.000	3,847.000
0034	460.6244	HMA Pavement 4 MT 58-34 S	TON	5,310.000	5,310.000
0036	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	13.000	13.000
0038	509.0400.S	Cleaning Concrete Surfaces	SY	62.000	62.000
0040	509.1500	Concrete Surface Repair	SF	3.000	3.000
0042	509.9025.S	Epoxy Injection Crack Repair	LF	33.000	33.000
0044	517.1010.S	Concrete Staining (structure) 01. Retaining Wall	SF	551.000	551.000
0046	520.8000	Concrete Collars for Pipe	EACH	6.000	6.000
0048	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	6,100.000	6,100.000
0050	601.0600	Concrete Curb Pedestrian	LF	218.000	218.000
0052	602.0415	Concrete Sidewalk 6-Inch	SF	10,331.000	10,331.000
0054	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	430.000	430.000
0056	602.0810	Concrete Driveway 6-Inch	SY	540.000	540.000
0058	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0060	611.3230	Inlets 2x3-FT	EACH	2.000	2.000
0062	612.0106	Pipe Underdrain 6-Inch	LF	1,926.000	1,926.000
0064	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1175-21-70	EACH	1.000	1.000
0066	619.1000	Mobilization	EACH	1.000	1.000
0068	624.0100	Water	MGAL	10.000	10.000
0070	625.0100	Topsoil	SY	2,255.000	2,255.000
0072	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0074	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0076	628.2008	Erosion Mat Urban Class I Type B	SY	2,255.000	2,255.000
0078	628.7005	Inlet Protection Type A	EACH	32.000	32.000
0080	628.7015	Inlet Protection Type C	EACH	32.000	32.000
0082	629.0210	Fertilizer Type B	CWT	2.000	2.000
0084	630.0140	Seeding Mixture No. 40	LB	100.000	100.000
0086	630.0500	Seed Water	MGAL	39.000	39.000
0088	638.2102	Moving Signs Type II	EACH	26.000	26.000
0090	642.5201	Field Office Type C	EACH	1.000	1.000
0092	643.0300	Traffic Control Drums	DAY	3,190.000	3,190.000
0094	643.0420	Traffic Control Barricades Type III	DAY	420.000	420.000
0096	643.0705	Traffic Control Warning Lights Type A	DAY	840.000	840.000
0098	643.0715	Traffic Control Warning Lights Type C	DAY	735.000	735.000

Estimate Of Quantities

1175-21-70

Line	Item	Item Description	Unit	Total	Qty
0100	643.0900	Traffic Control Signs	DAY	4,378.000	4,378.000
0102	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000
0104	643.1070	Traffic Control Cones 42-Inch	DAY	5,124.000	5,124.000
0106	643.3165	Temporary Marking Line Paint 6-Inch	LF	28,584.000	28,584.000
0108	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	4,232.000	4,232.000
0110	643.3820	Temporary Marking Stop Line Epoxy 18-Inch	LF	19.000	19.000
0112	643.5000	Traffic Control	EACH	1.000	1.000
0114	644.1440	Temporary Pedestrian Surface Matting	SF	1,090.000	1,090.000
0116	644.1601	Temporary Pedestrian Curb Ramp	DAY	120.000	120.000
0118	644.1605	Temporary Pedestrian Detectable Warning Field	SF	192.000	192.000
0120	644.1810	Temporary Pedestrian Barricade	LF	2,280.000	2,280.000
0122	646.2020	Marking Line Epoxy 6-Inch	LF	2,371.000	2,371.000
0124	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	9,105.000	9,105.000
0126	646.4020	Marking Line Epoxy 10-Inch	LF	68.000	68.000
0128	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	729.000	729.000
0130	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	14,940.000	14,940.000
0132	646.5020	Marking Arrow Epoxy	EACH	11.000	11.000
0134	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0136	646.5205	Marking Symbol Paint	EACH	2.000	2.000
0138	646.6120	Marking Stop Line Epoxy 18-Inch	LF	163.000	163.000
0140	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	51.000	51.000
0142	646.8320	Marking Parking Stall Epoxy	LF	1,200.000	1,200.000
0144	646.9000	Marking Removal Line 4-Inch	LF	10,210.000	10,210.000
0146	646.9200	Marking Removal Line Wide	LF	12.000	12.000
0148	650.4000	Construction Staking Storm Sewer	EACH	3.000	3.000
0150	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	6,084.000	6,084.000
0152	650.8000	Construction Staking Resurfacing Reference	LF	8,270.000	8,270.000
0154	650.9000	Construction Staking Curb Ramps	EACH	26.000	26.000
0156	650.9911	Construction Staking Supplemental Control (project) 1175-21-70	EACH	1.000	1.000
0158	690.0150	Sawing Asphalt	LF	7,318.000	7,318.000
0160	690.0250	Sawing Concrete	LF	1,564.000	1,564.000
0162	740.0440	Incentive IRI Ride	DOL	5,600.000	5,600.000
0164	SPV.0060	Special 01. Grading and Shaping Curb Ramp	EACH	26.000	26.000
0166	SPV.0060	Special 02. Adjusting Water Valve Boxes	EACH	30.000	30.000
0168	SPV.0165	Special 01. Asphalt Terrace	SF	573.000	573.000
0170	SPV.0180	Special 01. Protective Thermoplastic Coating at Snowmobile Trail Crossings	SY	111.000	111.000

3

REMOVING ASPHALTIC SURFACE						
204.0110						
REMOVING ASPHALTIC SURFACE						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	211+15	-	212+12	LT	26	
0010	211+15	-	212+10	RT	27	
0010	211+15	-	212+05	RT	49	PARKING LOT
0010	212+38	-	215+34	LT	76	
0010	212+43	-	212+60	RT	7	PARKING LOT
0010	214+38	-	215+33	RT	73	
0010	215+66	-	218+35	LT	66	
0010	215+63	-	218+34	RT	63	
0010	215+83		217+00	RT	56	TERRACE
0010	217+50		217+33	RT	8	TERRACE
0010	219+44	-	226+80	LT	173	
0010	218+99	-	226+80	RT	176	
0010	227+07	-	230+50	LT	89	
0010	227+08	-	230+46	RT	81	
0010	230+73	-	234+17	LT	88	
0010	230+74	-	234+18	RT	84	
0010	234+34	-	237+75	LT	85	
0010	234+34	-	237+78	RT	85	
0010	238+05	-	241+33	LT	75	
0010	238+06	-	241+25	RT	76	
0010	240+67	-	240+78	LT	5	DRIVEWAY
0010	241+15	-	241+33	LT	7	DRIVEWAY
0010	241+05	-	241+70	RT	36	DRIVEWAY
TOTAL 0010					1,463	

REMOVING BUTT JOINTS

204.0115						
REMOVING ASPHALTIC SURFACE BUTT JOINTS						
CATEGORY	STATION	TO	STATION	LOCATION	SY	
0010	211+15	-	211+25	BEGIN PROJECT	CL	40
0010	241+60	-	241+70	END URBAN AREA	CL	47
0010	288+77	-	288+87	END PROJECT	CL	53
0010	212+09	-	212+39	IRON ST	LT	30
0010	212+09	-	212+09	IRON ST	RT	32
0010	215+32	-	215+67	COPPER ST	LT	36
0010	215+31	-	215+65	COPPER ST	RT	34
0010	218+47	-	218+92	STH 77	LT	50
0010	218+47	-	218+90	STH 77	RT	49
0010	226+78	-	227+10	MAPLE ST	LT	31
0010	226+78	-	227+10	MAPLE ST	RT	32
0010	230+48	-	230+75	POPLAR ST	LT	26
0010	230+43	-	230+76	POPLAR ST	RT	32
0010	234+15	-	234+36	OAK ST	LT	19
0010	234+16	-	234+37	OAK ST	RT	20
0010	237+73	-	238+08	BERNARD ST	LT	35
0010	237+76	-	238+08	BERNARD ST	RT	31
0010	254+04	-	254+64	5TH AVE	LT	64
0010	276+48	-	277+26	10TH AVE	LT	82
TOTAL 0010						743

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PROJECT NO: 1175-21-70

HWY: USH 51

COUNTY: IRON

MISCELLANEOUS QUANTITIES

SHEET

76

E

3

3

MILLING

204.0120
REMOVING ASPHALTIC SURFACE
MILLING

CATEGORY	STATION	TO	STATION	LOCATION		SY	REMARKS
0010	241+70	-	288+77	DRIVING LANES		12560	
0010	241+70	-	288+77	NB SHOULDER		5310	INCLUDES TURN LANES
0010	241+70	-	288+77	SB SHOULDER		5340	INCLUDES TURN LANES
0010	218+47	-	218+92	STH 77	LT	900	
0010	218+47	-	218+90	STH 77	RT	810	
0010				PARK AND RIDE		9959	
				TOTAL 0010		34,879	
PROJECT TOTAL						34,879	

BASE AGGREGATE

305.0110
BASE AGGREGATE
DENSE 3/4-INCH

305.0120
BASE AGGREGATE
DENSE 1 1/4-INCH

305.0500
SHAPING SHOULDERS

624.0100
WATER

CATEGORY	STATION	TO	STATION	LOCATION	TON	TON	STA	MGAL	REMARKS
0010				PROJECT	--	--	--	10	
0010	211+15	-	241+70	CURB & GUTTER REPLACEMENT	--	150	--	--	
0010	211+15	-	241+70	RT	--	230	--	--	FILL IN FRONT OF C&G FOR STAGING
0010	241+70	-	288+87	RT/LT	50	--	86	--	RESHAPE INSLOPE AFTER PAVING
				TOTAL 0010	50	380	86	10	

COLORING
CONCRETE

405.0100
COLORING CONCRETE WISDOT
RED

CATEGORY	STATION	TO	STATION	LOCATION	CY	REMARKS
0010	217+16	-	218+28	LT	9	RED TERRACE
0010	217+67	-	218+28	RT	6	RED TERRACE
0010	219+01	-	220+25	RT	9	RED TERRACE
				TOTAL 0010	24	

PROJECT NO: 1175-21-70

HWY: USH 51

COUNTY: IRON

MISCELLANEOUS QUANTITIES

SHEET

77

E

CONCRETE DRIVEWAYS

CATEGORY	STATION	TO	STATION	LOCATION	*	*	REMARKS
					204.0100 REMOVING PAVEMENT SY	602.0810 CONCRETE DRIVEWAY 6-INCH SY	
0010	212+60	-	213+97	LT	47	47	
0010	213+23	-	213+58	RT	15	13	
0010	213+76	-	214+21	RT	18	17	
0010	214+28	-	214+48	LT	9	8	
0010	216+24	-	216+44	LT	9	9	
0010	216+97	-	217+18	RT	9	9	
0010	217+01	-	217+19	LT	8	8	
0010	217+30	-	217+66	RT	19	18	
0010	219+45	-	220+53	LT	42	42	
0010	220+29	-	220+53	LT	10	10	
0010	220+23	-	220+50	RT	17	17	
0010	221+23	-	221+47	RT	15	15	
0010	221+56	-	221+78	LT	8	9	
0010	222+36	-	222+61	RT	25	25	
0010	222+41	-	222+66	LT	11	11	
0010	222+80	-	223+04	LT	10	10	ATV TRAIL
0010	222+96	-	223+22	RT	16	16	ATV TRAIL
0010	223+31	-	223+56	LT	11	11	
0010	223+92	-	224+29	RT	22	21	
0010	224+18	-	224+42	LT	7	22	
0010	224+39	-	224+56	RT	--	12	
0010	224+56	-	224+84	LT	8	12	
0010	224+84	-	225+06	RT	14	15	
0010	226+10	-	226+30	RT	10	11	
0010	227+64	-	227+91	RT	11	11	
0010	227+84	-	228+16	LT	13	12	
SUBTOTAL 0010					384	411	

* QUANTITIES SHOWN ELSEHERE IN THE PLAN

CONCRETE DRIVEWAYS

CATEGORY	STATION	TO	STATION	LOCATION	* 204.0100 REMOVING PAVEMENT SY	* 602.0810 CONCRETE DRIVEWAY 6-INCH SY	REMARKS
0010	228+28	-	228+48	RT	8	8	
0010	228+67	-	228+88	RT	8	9	
0010	228+68	-	228+87	LT	15	14	
0010	229+57	-	229+78	RT	7	8	
0010	231+25	-	231+41	LT	4	4	
0010	231+47	-	231+64	RT	6	6	
0010	231+66	-	231+88	LT	6	6	
0010	231+89	-	232+06	RT	6	5	
0010	232+33	-	232+50	RT	5	5	
0010	232+55	-	232+54	LT	4	5	
0010	233+00	-	233+25	RT	6	7	
0010	235+40	-	235+70	RT	13	12	
0010	235+84	-	236+08	LT	13	15	
0010	235+95	-	236+12	RT	7	7	
0010	236+23	-	236+44	RT	10	9	
0010	239+35	-	239+52	RT	10	9	
SUBTOTAL 0010					128	129	
TOTAL 0010					512	540	

* QUANTITIES SHOWN ELSEHERE IN THE PLAN

HMA ITEMS									
					455.0605	460.6223	460.6244	465.0120	
						HMA PAVEMENT 3	HMA PAVEMENT 4	ASPHALTIC SURFACE	
						MT 58-28 S	MT 58-34 S	DRIVEWAYS AND FIELD	
					TACK COAT			ENTRANCES	
CATEGORY	STATION	TO	STATION	LOCATION	GAL	TON	TON	TON	REMARKS
0010	211+15	-	219+45	MAINLINE	190	--	280	6	
0010	219+45	-	235+00	MAINLINE	330	--	430	0	
0010	235+00	-	241+70	MAINLINE	140	--	190	0	
0010	241+70	-	288+87	DRIVING LANES	760	2,130	1,420	0	
0010	241+70	-	288+87	NB SHOULDER	320	680	600	0	INCLUDES TURN LANES
0010	241+70	-	288+87	SB SHOULDER	320	680	600	0	INCLUDES TURN LANES
0013	212+09	-	212+39	IRON ST LT	10	--	20	0	
0010	212+09	-	212+09	IRON ST RT	10	--	20	1	
0010	215+32	-	215+67	COPPER ST LT	10	--	20	0	
0010	215+31	-	215+65	COPPER ST RT	10	--	20	0	
0010	218+47	-	218+92	STH 77 LT	30	70	40	0	
0010	218+47	-	218+90	STH 77 RT	10	30	20	0	
0010	226+78	-	227+10	MAPLE ST LT	10	--	20	0	
0010	226+78	-	227+10	MAPLE ST RT	10	--	10	0	
0010	230+48	-	230+75	POPLAR ST LT	10	--	20	0	
0010	230+43	-	230+76	POPLAR ST RT	10	--	10	0	
0010	234+15	-	234+36	OAK ST LT	10	--	20	0	
0010	234+16	-	234+37	OAK ST RT	10	--	20	0	
0010	237+73	-	238+08	BERNARD ST LT	10	--	10	0	
0010	237+76	-	238+08	SERNARD ST RT	10	--	20	0	
0010	253+77	-	254+97	5TH AVE LT	20	--	30	0	
0010	276+22	-	277+63	10TH AVE LT	20	--	30	0	
0010	240+67	-	240+78	DRIVEWAY LT	--	--	--	1	
0010	241+15	-	241+33	DRIVEWAY LT	--	--	--	1	
0010	241+05	-	241+70	DRIVEWAY RT	--	--	--	4	
0010		-		PARK AND RIDE	720	--	1,130	--	
0010		-		OFFSET CURB	--	257	--	--	
				TOTAL 0010	2,980	3,847	4,980	13	
0020	211+25	-	219+45	PARKING	--	--	70	--	
0020	219+45	-	235+00	PARKING	--	--	180	--	
0020	235+00	-	241+60	PARKING	--	--	80	--	
				TOTAL 0020	0	0	330	0	
				PROJECT TOTAL	2980	3847	5310	13	

RETAINING WALL
ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	509.0400.S	509.1500	509.9025.S	517.1010.S.01
					CLEANING CONCRETE SURFACES SY	CONCRETE SURFACE REPAIR SF	EPOXY INJECTION CRACK REPAIR LF	CONCRETE STAINING (STRUCTURE) (01. RETAINING WALL) SF
0010	224+90	-	226+62	LT	62	3	33	551
				TOTAL 0010	62	3	33	551

CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150	601.0411	650.5500	REMARKS
					REMOVING CURB & GUTTER LF	CONCRETE CURB & GUTTER 30-INCH TYPE D LF	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	
0010	211+15	-	212+07	LT	108	108	108	
0010	211+16	-	212+06	RT	105	113	113	
0010	212+42	-	215+29	LT	329	330	330	
0010	212+42	-	215+29	RT	304	320	320	
0010	215+69	-	218+34	LT	289	290	290	
0010	215+66	-	218+32	RT	277	277	277	
0010	218+42			LT	--	25	25	
0010	218+43			RT	--	29	29	
0010	218+98			RT	--	26	26	
0010	219+01			LT	--	41	41	
0010	219+45	-	226+75	LT	767	767	767	
0010	219+61	-	220+54	LT	16	16	--	DRIVEWAY RADIUS
0010	219+00	-	226+76	RT	786	787	787	
0010	224+40			LT	--	17	17	
0010	224+50			RT	--	16	16	
0010	227+00	-	230+46	LT	388	389	389	
0010	227+12	-	230+41	RT	352	353	353	
0010	230+77	-	234+13	LT	375	377	377	
0010	230+77	-	234+13	RT	363	365	365	
0010	234+38	-	237+71	LT	358	370	370	
0010	234+38	-	237+73	RT	365	370	370	
0010	238+09	-	241+33	LT	330	330	330	
0010	238+10	-	241+37	RT	350	383	383	
				TOTAL 0010	5,862	6,100	6,084	

					CONCRETE SIDEWALK					
					*		*		*	
					204.0155		601.0600		602.0415	
					REMOVING CONCRETE SIDEWALK		CONCRETE CURB PEDESTRIAN		CONCRETE SIDEWALK 6-INCH	
									CURB RAMP DETECTABLE WARNING FIELD YELLOW	
CATEGORY	STATION	TO	STATION	LOCATION	SY	LF	SF	SF	REMARKS	
0010	212+42	-	212+62	LT	31	--	282	10		
0010	212+45	-	212+64	RT	9	--	164	10		
0010	213+26	-	213+46	LT	12	--	100	--		
0010	213+65	-	213+95	LT	17	--	148	--		
0010	214+93	-	215+29	LT	30	52	282	20		
0010	215+06	-	215+27	RT	17	--	185	10		
0010	215+70	-	215+85	LT	42	27	206	10		
0010	215+68	-	215+84	RT	14	--	87	10		
0010	216+75	-	--	LT	2	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	217+02	-	217+16	LT	9	--	73	--		
0010	217+16	-	218+28	LT	50	--	448	--	WISDOT RED	
0010	217+67	-	218+28	RT	34	--	319	--	WISDOT RED	
0010	218+42			LT	30	--	265	10		
0010	218+43			RT	22	--	198	10		
0010	218+98			RT	16	--	141	10		
0010	219+01			LT	25	--	220	10		
0010	219+01	-	220+25	RT	52	--	457	--	WISDOT RED	
0010	221+44	-	222+39	RT	64	--	572	--		
0010	224+40			LT	14	--	123	10		
0010	224+50			RT	15	--	133	10		
0010	224+81	-	226+74	LT	18	--	159	--		
0010	226+43	-	--	RT	3	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	226+62	-	226+75	LT	23	39	202	10		
0010	226+57	-	226+75	RT	17	--	105	10		
0010	227+11	-	227+44	LT	46	--	354	20		
0010	227+14	-	227+46	RT	24	--	219	20		
0010	227+54	-	--	RT	2	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	228+00	-	--	RT	3	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	228+40	-	--	LT	2	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	228+50	-	--	RT	2	--	--	--	SIDEWALK CONNECTION TO C & G	
0010	229+00	-	--	RT	2	--	--	--	SIDEWALK CONNECTION TO C & G	
SUBTOTAL 0010					647	118	5,442	190		

*QUANTITIES
SHOWN
ELSEWHERE IN
PLAN

CONCRETE SIDEWALK										
						*	*	*	*	
						204.0155	601.0600	602.0415	602.0505	
						REMOVING CONCRETE	CONCRETE CURB	CONCRETE SIDEWALK	CURB RAMP	
						SIDEWALK	PEDESTRIAN	6-INCH	DETECTABLE	
						SY	LF	SF	WARNING FIELD	
									YELLOW	REMARKS
CATEGORY	STATION	TO	STATION	LOCATION						
0010	229+35	-	--	RT	1	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	229+69	-	--	LT	1	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	230+14	-	230+39	LT	19	25	341	20		
0010	230+00	-	230+40	RT	20	--	188	20		
0010	230+85	-	231+06	LT	16	--	280	20		
0010	230+80	-	230+97	RT	13	--	127	20		
0010	231+09	-	--	LT	1	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	231+09	-	--	RT	2	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	232+09	-	--	LT	2	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	232+72	-	--	RT	3	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	233+82	-	234+05	LT	10	--	292	20		
0010	233+75	-	234+05	RT	24	22	376	20		
0010	234+46	-	234+68	LT	17	--	284	20		
0010	234+45	-	234+69	RT	17	19	305	20		
0010	234+75	-	--	LT	1	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	236+44	-	237+71	LT	96	--	897	20		
0010	237+02	-	--	RT	2	--	--	--	--	SIDEWALK CONNECTION TO C &G
0010	237+43	-	237+72	RT	27	34	232	20		
0010	238+13	-	240+82	LT	129	--	1409	20		
0010	238+11	-	238+33	RT	18	--	158	20		
SUBTOTAL 0010					419	100	4,889	240		
TOTAL 0010					1066	218	10331	430		

*QUANTITIES
SHOWN
ELSEWHERE IN
PLAN

STORM SEWER

			204.0210	204.0220	520.8000	611.2004	611.3230	612.0106	650.4000	
			REMOVING	REMOVING	CONCRETE	MANHOLES 4-FT		PIPE UNDERDRAIN	CONSTRUCTION	
			MANHOLES	INLETS	COLLARS FOR PIPE	DIAMETER	INLETS 2X3-FT	6-INCH	STAKING STORM	
CATEGORY	STATION	LOCATION	EACH	EACH	EACH	EACH	EACH	LF	SEWER	REMARKS
0010	212+00 - 218+25	LT/RT	--	--	--	--	--	1250	--	IN SELECT CRUSH AREAS
0010	223+17	17.5' LT	1	--	3	1	--	--	1	MH 7073
0010	224+52	22' LT	--	1	1	--	1	--	1	INL 7077
0010	224+58	22' RT	--	1	2	--	1	--	1	INL 7079
0010	238+370 - 241+75	LT/RT	--	--	--	--	--	676	--	IN SELECT CRUSH AREAS
		TOTAL 0010	1	2	6	1	2	1,926	3	

LANDSCAPING ITEMS

					625.0100	628.2008	629.0210	630.0140	630.0500	REMARKS
					TOPSOIL	EROSION MAT URBAN	FERTILIZER TYPE	SEEDING MIXTURE	SEED WATER	
CATEGORY	STATION	TO	STATION	LOCATION	SY	CLASS I TYPE B	B	NO. 40	MGAL	
0010	211+15	-	212+07	LT	50	50	0.04	3	0.9	
0010	212+53	-	213+25	RT	30	30	0.02	2	0.5	
0010	213+55	-	213+78	RT	10	10	0.01	1	0.2	
0010	213+95	-	214+29	LT	20	20	0.02	1	0.3	
0010	214+18	-	215+28	RT	60	60	0.04	3	1.0	
0010	214+47	-	215+30	LT	60	60	0.04	2	1.0	
0010	215+70	-	216+27	LT	40	40	0.03	2	0.7	
0010	215+67	-	215+84	RT	20	20	0.02	1	0.3	
0010	216+71	-	217+02	LT	30	30	0.02	2	0.5	
0010	220+47	-	221+27	RT	60	60	0.04	3	1.0	
0010	220+55	-	221+57	LT	50	50	0.04	2	0.9	
0010	221+74	-	222+42	LT	30	30	0.02	2	0.5	
0010	222+65	-	222+83	LT	10	10	0.01	1	0.2	
0010	222+72	-	223+01	RT	20	20	0.02	1	0.3	
0010	223+01	-	223+32	LT	20	20	0.02	1	0.3	
0010	223+20	-	223+95	RT	60	60	0.04	2	1.0	
0010	223+53	-	224+20	LT	30	30	0.02	2	0.5	
0010	224+25	-	224+42	RT	10	10	0.01	1	0.2	
0010	224+39	-	224+59	LT	10	10	0.01	1	0.2	
0010	224+57	-	224+87	RT	30	30	0.02	2	0.5	
0010	225+03	-	226+13	RT	80	80	0.06	4	1.4	
0010	226+27	-	226+76	RT	40	40	0.03	2	0.7	
0010	226+59	-	226+75	LT	60	60	0.04	2	1.0	
0010	227+11	-	227+85	LT	130	130	0.09	4	2.2	
0010	227+13	-	227+67	RT	40	40	0.03	2	0.7	
0010	227+87	-	228+30	RT	20	20	0.02	1	0.3	
0010	228+13	-	228+69	LT	30	30	0.02	1	0.5	
0010	228+45	-	228+49	RT	10	10	0.01	1	0.2	
0010	228+85	-	230+46	LT	70	70	0.05	2	1.2	
0010	228+85	-	229+59	RT	40	40	0.03	2	0.7	
0010	229+75	-	230+41	RT	30	30	0.02	1	0.5	
0010	230+75	-	231+26	LT	30	30	0.02	1	0.5	
0010	230+78	-	231+48	RT	30	30	0.02	1	0.5	
0010	231+40	-	231+67	LT	10	10	0.01	1	0.2	
0010	231+62	-	231+91	RT	10	10	0.01	1	0.2	
0010	231+86	-	232+36	LT	20	20	0.02	1	0.3	
0010	232+04	-	232+34	RT	10	10	0.01	1	0.2	
0010	232+48	-	233+02	RT	20	20	0.02	1	0.3	
0010	232+51	-	234+13	LT	60	60	0.04	2	1.0	
0010	233+21	-	234+13	RT	50	50	0.04	2	0.9	
0010	234+39	-	235+85	LT	40	40	0.03	2	0.7	
0010	234+39	-	235+41	RT	60	60	0.04	3	1.0	
0010	235+69	-	235+98	RT	20	20	0.02	1	0.3	
0010	236+07	-	236+45	LT	10	10	0.01	1	0.2	
0010	236+10	-	236+25	RT	10	10	0.01	1	0.2	
0010	236+43	-	237+74	RT	80	80	0.06	3	1.4	
0010	238+10	-	240+67	LT	120	120	0.08	6	2.0	
0010	238+10	-	239+38	RT	90	90	0.06	3	1.5	
0010	239+49	-	241+08	RT	160	160	0.11	5	2.7	
0010	240+79	-	241+19	LT	20	20	0.02	1	0.3	
UNDISTRIBUTED					205	205	0.13	6	3.5	
TOTAL 0010					2,255	2,255	2	100	39	

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INLET PROTECTION

			628.7005	628.7015
			INLET PROTECTION TYPE A	INLET PROTECTION TYPE C
CATEGORY	STATION	LOCATION	EACH	EACH
0010	211+90	21' LT	1	1
0010	212+07	39' RT	1	1
0010	212+41	38' LT	1	1
0010	212+58	21' LT	1	1
0010	214+18	21' LT	1	1
0010	215+14	21' RT	1	1
0010	215+25	25' LT	1	1
0010	215+68	38' LT	1	1
0010	218+14	21' LT	1	1
0010	218+29	21' LT	1	1
0010	218+29	21' RT	1	1
0010	219+36	21' RT	1	1
0010	219+57	21' LT	1	1
0010	222+75	21' LT	1	1
0010	222+85	21' RT	1	1
0010	224+37	21' RT	1	1
0010	224+52	22' LT	1	1
0010	224+58	22' RT	1	1
0010	230+15	21' LT	1	1
0010	230+19	21' RT	1	1
0010	233+86	21' RT	1	1
0010	233+88	21' LT	1	1
0010	234+14	48' LT	1	1
0010	234+37	48' LT	1	1
0010	237+58	21' LT	1	1
0010	237+58	21' RT	1	1
0010	237+75	28' RT	1	1
0010	238+26	21' LT	1	1
0010	238+26	21' RT	1	1
0010	239+98	21' LT	1	1
0010	239+98	21' RT	1	1
0010	241+12	21' LT	1	1
TOTAL 0010			32	32

MOVING SIGNS

638.2102					
MOVING SIGNS TYPE II					
CATEGORY	STATION		LOCATION	EACH	REMARKS
0010	212+45	RT	NE IRON ST	2	STOP
0010	215+21	LT	SW COPPER ST	2	STOP
0010	215+70	RT	NE COPPER ST	2	STOP
0010	215+74	RT	NE COPPER ST	2	DESTINATION
0010	226+73	LT	SW MAPLE ST	2	STOP
0010	227+16	RT	NE MAPLE ST	2	STOP
0010	230+42	LT	SW POPLAR ST	2	STOP
0010	230+83	RT	NE POPLAR ST	2	STOP
0010	234+08	LT	SW OAK ST	2	STOP
0010	234+44	RT	NE OAK ST	2	STOP
0010	237+70	LT	SW BERNARD ST	2	STOP
0010	238+13	RT	NE BERNARD ST	2	STOP
0010	238+28	LT	NW BERNARD ST	2	NO - U TURN
TOTAL 0010				26	

EROSION CONTROL
MOBILIZATIONS

		628.1905	628.1910
		MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL
CATEGORY	LOCATION	EACH	EACH
0010	PROJECT	<u>4</u>	<u>2</u>
	TOTAL 0010	4	2

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TRAFFIC CONTROL ITEMS																
		643.0300		643.0420		643.0705		643.0715		643.0900		643.1000		643.1070		643.5000
		TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS FIXED MESSAGE		TRAFFIC CONTROL CONES 42-INCH		TRAFFIC CONTROL
CATEGORY	LOCATION	DAYS NEEDED / NUMBER	DAY	DAYS NEEDED / NUMBER	DAY	DAYS NEEDED / NUMBER	DAY	DAYS NEEDED / NUMBER	DAY	DAYS NEEDED / NUMBER	DAY	DAYS NEEDED / NUMBER	SF	DAYS NEEDED / NUMBER	DAY	EACH
0010	PROJECT	7 / 10	70	--	--	--	--	--	--	60 / 25	1500	7 / 2	36	--	--	1
0010	STAGE 1	21 / 65	1365	21 / 10	210	21 / 20	420	21 / 12	252	21 / 34	714	--	--	21 / 122	2562	--
0010	STAGE 1A	5 / 39	195	--	--	--	--	--	--	5 / 59	295	--	--	--	--	--
0010	STAGE 1B	5 / 39	195	--	--	--	--	--	--	5 / 54	270	--	--	--	--	--
0010	STAGE 2	21 / 65	1365	21 / 10	210	21 / 20	420	21 / 23	483	21 / 49	1029	--	--	21 / 122	2562	--
0010	STAGE 2A	5 / 59	295	--	--	--	--	--	--	5 / 62	310	--	--	--	--	--
0010	STAGE 2B	5 / 47	235	--	--	--	--	--	--	5 / 52	260	--	--	--	--	--
TOTAL 0010			3,190		420		840		735		4,378		36		5,124	1

TEMPORARY PEDESTRIAN ITEMS

		644.1601	644.1810	644.1605	644.1440
		TEMPORARY PEDESTRIAN CURB RAMP	TEMPORARY PEDESTRIAN BARRICADE	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD	TEMPORARY PEDESTRIAN SURFACE MATTING
CATEGORY	LOCATION	DAY	LF	SF	SF
0010	STAGE 1A	30	546	48	291
0010	STAGE 1B	30	552	48	284
0010	STAGE 2A	30	582	48	252
0010	STAGE 2B	30	600	48	262
TOTAL 0010		120	2,280	192	1,090

MARKING REMOVAL

					646.9000	646.9200
					MARKING REMOVAL LINE 4-INCH	MARKING REMOVAL LINE WIDE
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF
STAGE 1						
0010	208+45	-	218+30	CENTERLINE	1,970	--
0010	219+30	-	244+30	CENTERLINE	5,000	7
0010	241+25	-	249+35	LT	810	--
STAGE 2						
0010	218+27	-		RT	--	5
0010	241+25	-	249+35	CENTERLINE	1,620	--
0010	241+25	-	249+35	RT	810	--
TOTAL 0010					10,210	12

TEMPORARY MARKING LINE									
				643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)	643.3820 TEMPORARY MARKING STOP LINE PAINT 18- INCH	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF	LF	REMARKS
STAGE 1									
0010	208+45	-	211+15	CENTERLINE / RT	--	--	540	370	--
0010	211+15	-	218+30	CENTERLINE	1430	--	--	--	7
0010	219+30	-	241+70	CENTERLINE	4480	--	--	--	--
0010	241+70	-	249+35	CENTERLINE / LT	765	810	--	--	--
0010				CURB RAMPS	--	--	--	485	--
0010				CURB RAMPS	--	--	--	471	--
STAGE 2									
0010	208+45	-	211+15	CENTERLINE / RT	--	--	540	270	--
0010	211+15	-	218+30	CENTERLINE / RT	--	588	--	--	--
0010	219+30	-	241+70	CENTERLINE / RT	4480	2772	--	--	12
0010	241+70	-	249+35	LT	--	765	--	--	--
0010				CURB RAMPS	--	--	--	493	--
0010				CURB RAMPS	--	--	--	522	--
STAGE 3									
0010	208+45	-	211+15	CENTERLINE	--	--	540	--	--
0010	241+70	-	249+35	CENTERLINE	1530	--	--	--	--
0010	241+70	-	249+35	CENTERLINE	1530	--	--	--	--
0010	241+70	-	288+87	CENTERLINE	9434				
SUB TOTAL 0010					23649	4935	1620	2612	19
TOTAL 0010					28584		4232		19

CONSTRUCTION STAKING

					650.8000	650.9911
					CONSTRUCTION STAKING	CONSTRUCTION STAKING
					RESURFACING REFERENCE	SUPPLEMENTAL CONTROL
					(PROJECT) (01. 1175-21-70)	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LS
0010				PROJECT	--	1
0010	211+15	-	241+70	CL	3055	--
0010	241+70	-	288+87	CL	4717	--
0010	4+55	-	5+50	IRON ST	59	--
0010	9+46	-	10+40	COPPER ST	57	--
0010	14+25	-	15+50	STH 77	85	--
0010	19+35	-	20+40	MAPLE ST	69	--
0010	4+50	-	26+40	POPLAR ST	54	--
0010	29+45	-	30+50	OAK ST	69	--
0010	34+60	-	35+45	BERNARD ST	49	--
0010	39+50	-	39+77	5TH AVE	27	--
0010	44+47	-	44+73	10TH AVE	29	--
TOTAL 0010					8,270	1

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CURB & GUTTER
RELATED SAWING

		*				*	
		690.0150				690.0250	
		SAWING ASPHALT				SAWING CONCRETE	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	
0010	211+15	-	212+12	LT	115	--	
0010	211+15	-	212+10	RT	120	--	
0010	212+38	-	215+34	LT	342	--	
0010	212+38	-	215+33	RT	334	--	
0010	215+66	-	218+35	LT	297	--	
0010	215+63	-	218+35	RT	286	5	
0010	218+35	-	218+50	LT	63	5	
0010	218+35	-	218+50	RT	36	5	
0010	218+90	-	219+45	LT	88	5	
0010	218+90	-	219+45	RT	80	--	
0010	219+45	-	226+80	LT	774	--	
0010	219+45	-	226+81	RT	750	--	
0010	227+08	-	230+50	LT	402	--	
0010	227+08	-	230+46	RT	365	--	
0010	230+73	-	234+18	LT	390	--	
0010	230+74	-	234+18	RT	378	--	
0010	234+34	-	237+75	LT	383	--	
0010	234+35		237+78	RT	383	--	
0010	238+06		241+33	LT	337	--	
0010	238+06		241+70	RT	388	--	
SUBTOTAL 0010					6,309	20	

* QUANTITIES
SHOWN
ELSEHERE IN
THE PLAN

3

TIE-IN RELATED
SAWING

		*				*	
		690.0150				690.0250	
		SAWING ASPHALT				SAWING CONCRETE	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	
0010	211+15	-	--	TIE IN	40	3	
0010	212+05	-	212+44	RT	39	--	
0010	212+07	-	212+42	LT	31	5	
0010	215+30	-	215+70	LT	35	5	
0010	215+28	-	215+88	RT	34	5	
0010	218+48	-	218+92	LT	44	--	
0010	218+47	-	218+91	RT	44	--	
0010	226+75	-	227+12	LT	32	5	
0010	226+76	-	227+12	RT	32	5	
0010	230+45	-	230+78	LT	27	5	
0010	230+41	-	230+78	RT	32	5	
0010	234+15	-	234+36	LT	21	--	
0010	234+15	-	234+37	RT	21	--	
0010	237+73	-	238+10	LT	34	3	
0010	237+76	-	238+10	RT	32	5	
0010	241+70	-	--	TIE IN	40	--	
0010	254+06	-	254+62	LT	56	--	
0010	276+54	-	277+20	LT	67	--	
0010	288+87	-	--	TIE IN	48	--	
SUBTOTAL 0010					709	46	

* QUANTITIES
SHOWN
ELSEHERE IN
THE PLAN

3

CURB RAMP
RELATED SAWING

CATEGORY	STATION	TO	STATION	LOCATION	* 690.0150 SAWING ASPHALT	* 690.0250 SAWING CONCRETE
					LF	LF
0010	211+15	-	212+05	RT	117	--
0010	212+42	-	213+95	LT	--	156
0010	212+43	-	212+64	RT	33	5
0010	213+25	-	231+55	RT	--	29
0010	213+78	-	214+18	RT	--	40
0010	214+29	-	214+47	LT	--	18
0010	214+93	-	215+26	LT	--	8
0010	215+06	-	215+19	RT	--	9
0010	215+73	-	215+86	LT	--	19
0010	215+76	-	215+84	RT	--	9
0010	216+27	-	216+41	LT	--	14
0010	217+00	-	217+14	RT	--	14
0010	217+02	-	217+16	LT	--	10
0010	217+33	-	217+67	RT	--	34
0010	218+42			LT		43
0010	218+43			RT		29
0010	218+98			RT		29
0010	219+01			LT		38
0010	219+52	-	220+55	LT	--	103
0010	220+25	-	220+47	RT	--	22
0010	221+27	-	221+44	RT	--	18
0010	221+57	-	221+74	LT	--	17
0010	222+39	-	222+73	RT	--	34
0010	222+42	-	222+65	LT	--	23
0010	222+83	-	223+01	LT	18	--
0010	223+01	-	223+20	RT	19	--
0010	223+31	-	223+54	LT	--	22
0010	224+40			LT		23
0010	224+42	-	224+57	RT	15	--
0010	224+50			RT	10	23
0010	224+58	-	224+74	LT	--	16
0010	224+87	-	225+03	RT	--	16
0010	224+89	-	226+73	LT	--	186
0010	226+13	-	226+27	RT	--	14
0010	226+61	-	226+65	LT	--	8
0010	226+57	-	226+67	RT	--	9
0010	227+21	-	227+45	LT	--	11
0010	227+22	-	227+47	RT	--	8
0010	228+30	-	228+45	RT	--	15
0010	228+69	-	228+84	RT	--	15
0010	228+70	-	228+85	LT	--	9
0010	230+14	-	230+32	LT	--	8
0010	230+16	-	230+33	RT	--	8
0010	230+88	-	231+06	LT	4	4
0010	230+87	-	230+97	RT	--	9
0010	231+26	-	231+40	LT	--	14
SUBTOTAL 0010					216	1,139

* QUANTITIES
SHOWN
ELSEHERE IN
THE PLAN

CURB RAMP
RELATED SAWING
CONTINUED

CATEGORY	STATION	TO	STATION	LOCATION	* 690.0150 SAWING ASPHALT	* 690.0250 SAWING CONCRETE
					LF	LF
0010	231+67	-	231+86	LT	--	19
0010	231+91	-	232+04	RT	--	14
0010	232+34	-	232+48	RT	--	14
0010	232+35	-	232+52	LT	--	17
0010	233+02	-	233+21	RT	--	19
0010	233+82	-	--	LT	--	4
0010	233+76	-	233+99	RT	--	9
0010	234+53	-	234+68	LT	--	8
0010	234+52	-	234+69	RT	--	8
0010	235+41	-	235+69	RT	--	28
0010	235+85	-	236+06	LT	--	9
0010	235+98	-	236+10	RT	--	12
0010	236+25	-	236+43	RT	--	18
0010	236+45	-	237+71	LT	--	137
0010	237+43	-	237+65	RT	--	10
0010	238+19	-	238+49	LT	--	6
0010	238+20	-	238+33	RT	--	8
0010	239+38	-	239+49	RT	--	11
0010	240+58	-	240+79	LT	11	4
0010	241+04	-	241+31	LT	12	4
0010	241+07	-	241+65	RT	61	--
SUBTOTAL 0010					84	359
TOTAL 0010					7,318	1,564

* QUANTITIES
SHOWN
ELSEHERE IN
THE PLAN

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CURB RAMP GRADING

		650.9000	SPV.0060.01
		CONSTRUCTION STAKING CURB RAMP	SPECIAL (01. GRADING AND SHAPING CURB RAMP)
CATEGORY	LOCATION	EACH	EACH
0010	Iron St	2	2
0010	Copper St	4	4
0010	Maple St	4	4
0010	Poplar St	4	4
0010	Silver St	4	4
0010	Oak St	4	4
0010	Bernard St	4	4
	TOTAL 0010	26	26

ADJUSTING WATER VALVE BOXES

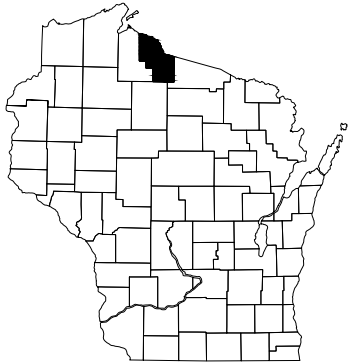
				SPV.0060.02		
				SPECIAL (02. ADJUSTING WATER VALVE BOXES)		
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS
0030		-		PROJECT	30	
				TOTAL 0020	30	

HMA TERRACE

SPV.0165.01 SPECIAL (01. ASPHALT TERRACE)					
CATEGORY	STATION	TO	STATION	LOCATION	SF
0010	215+83	-	217+00	RT	501
0010	217+14	-	217+33	RT	72
TOTAL 0010					573

THERMO
PLASTIC

SPV.0180.01 SPECIAL (01. PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS)					
CATEGORY	STATION	TO	STATION		SY
0010	222+80	-	223+22		111
TOTAL 0010					111



R/W PROJECT NUMBER 1175-21-20	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	12
PLAT OF RIGHT-OF-WAY REQUIRED FOR HURLEY IRON STREET - BERNARD STREET		
USH 51	IRON COUNTY	
CONSTRUCTION PROJECT NUMBER 1175-21-70		

777.39' SOUTH AND 3012.01'
EAST OF OF THE NORTH
QUARTER CORNER OF
SECTION 24, TOWNSHIP 46
NORTH, RANGE 2 EAST,
IRON COUNTY, WISCONSIN.
Y = 372989.543
X = 743516.754

END RELOCATION ORDER
PROJECT 1175-21-20
STA. 241+33.55

BEGIN RELOCATION ORDER
PROJECT 1175-21-20
STA. 212+57.33

1168.58' NORTH AND
2921.86' EAST OF OF THE
SOUTH QUARTER CORNER
OF SECTION 24, TOWNSHIP
46 NORTH, RANGE 2 EAST,
IRON COUNTY, WISCONSIN.
Y = 370115.927
X = 743605.742

CONVENTIONAL SYMBOLS

SECTION LINE	-----	SECTION CORNER		R/W MONUMENT	•
QUARTER LINE	-----	NOTATION FOR COMBUSTIBLE FLUIDS		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	-----	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES		FOUND IRON PIN	IP
NEW REFERENCE LINE	-----	ELECTRIC POLE		VALVE (GAS, WATER, ETC.)	⊙ (TYPE)
NEW R/W LINE	-----	TELEPHONE POLE		SIGN	⊞ SIGN
EXISTING R/W LINE	-----	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		OFF-PREMISE SIGN	⊞-25 SIGN
PROPERTY LINE	-----	ACCESS CONTROLLED BY ACQUISITION		COMPENSABLE	
LOT, TIE & OTHER MINOR LINES	-----	NO ACCESS (BY STATUTORY AUTHORITY)		NON-COMPENSABLE	
CORPORATE LIMITS	-----	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	-----				
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	-----				
TEMPORARY LIMITED EASEMENT AREA	-----				
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	-----				
TRANSMISSION STRUCTURES	-----				
BUILDING	-----				
NATIONAL GEODETIC SURVEY MONUMENT	-----				
SIXTEENTH CORNER MONUMENT	-----				

CONVENTIONAL ABBREVIATIONS

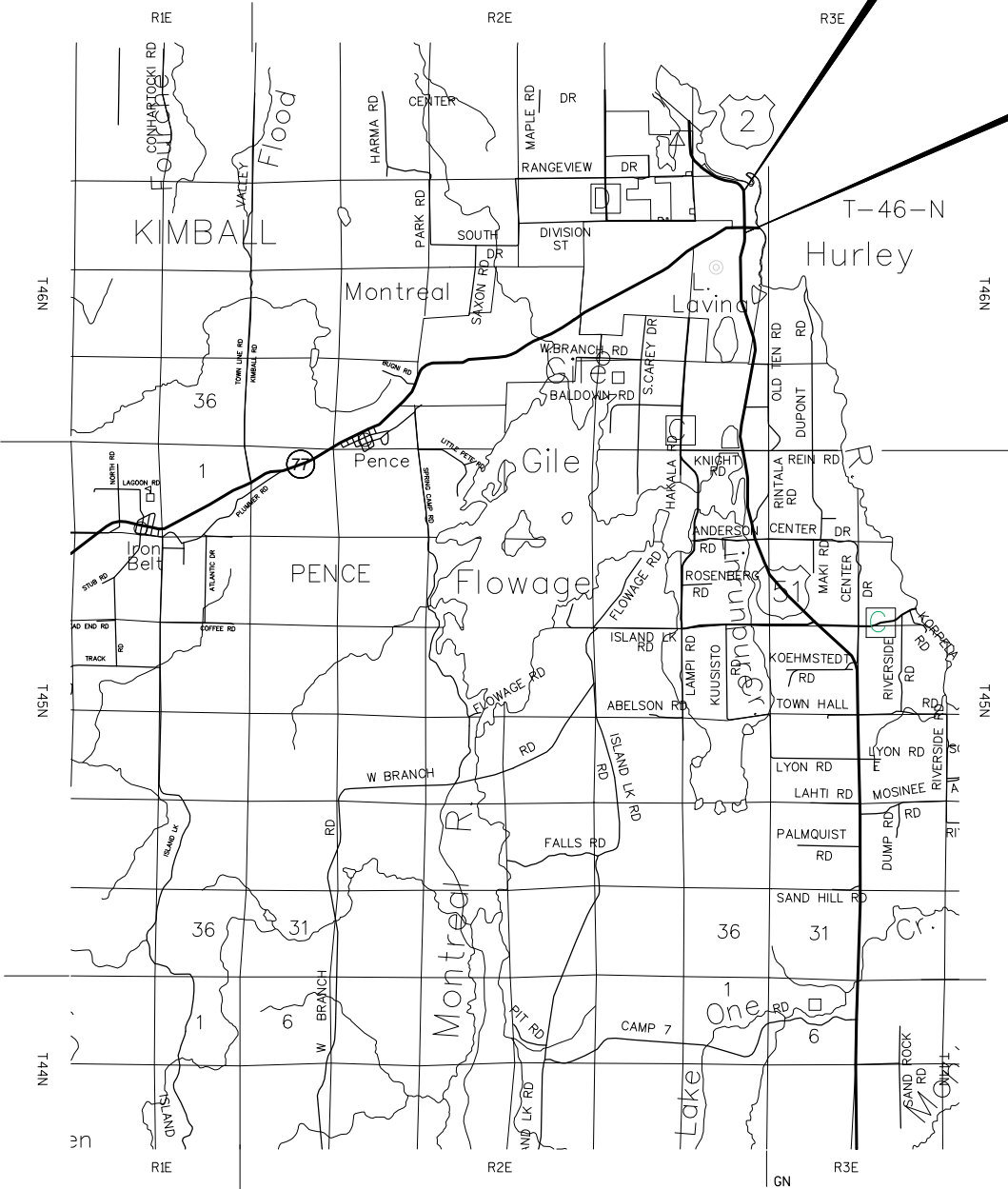
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

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



LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.54 MI.



COLEMAN ENGINEERING COMPANY
IRON MOUNTAIN • IRONWOOD • NEGAUNEE • GREEN BAY
www.coleman-engineering.com

REVISION DATE

7-02-2024 NC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

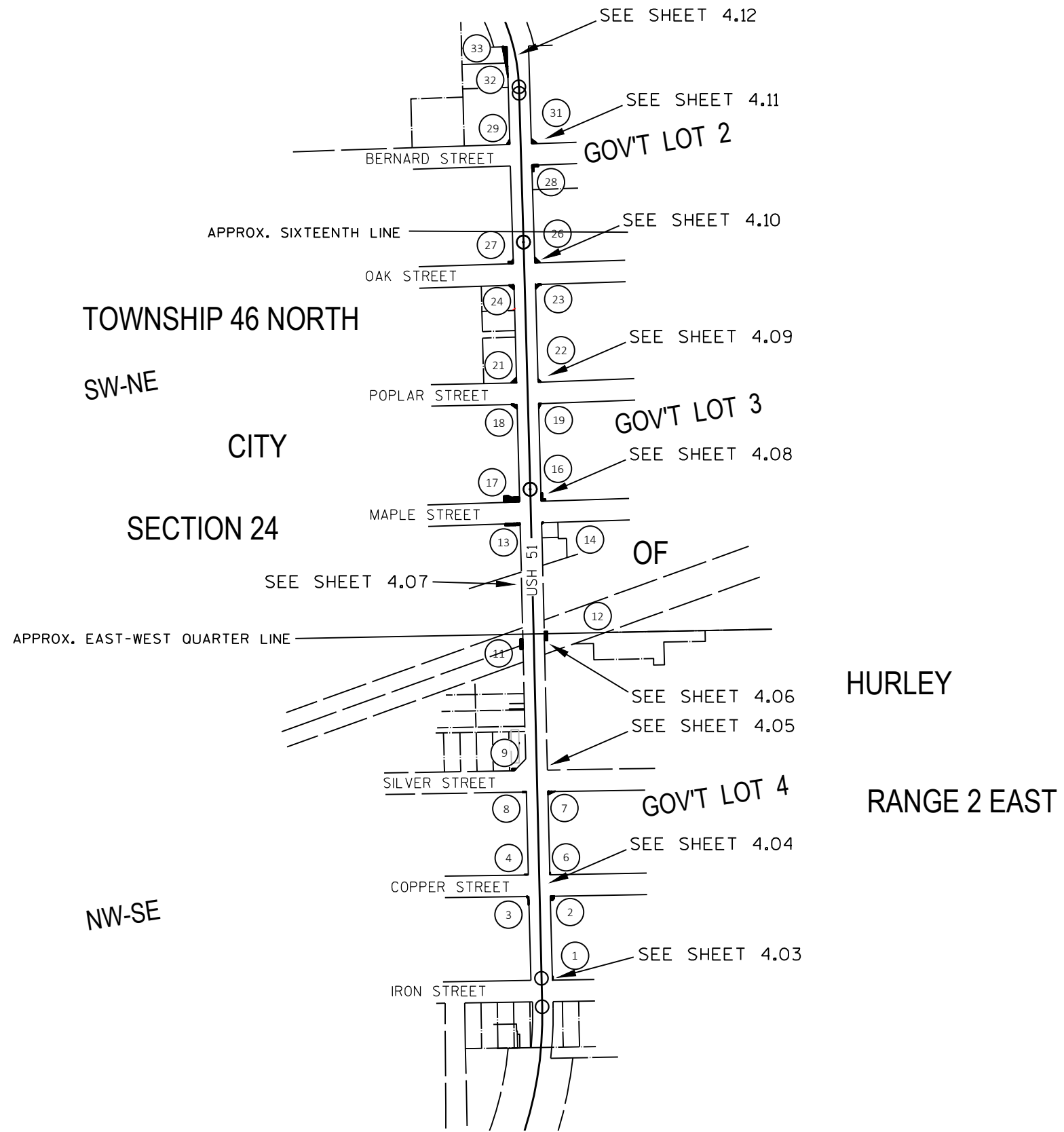
DATE: 10/23/23 *Brent L Stella*
(Signature)

96

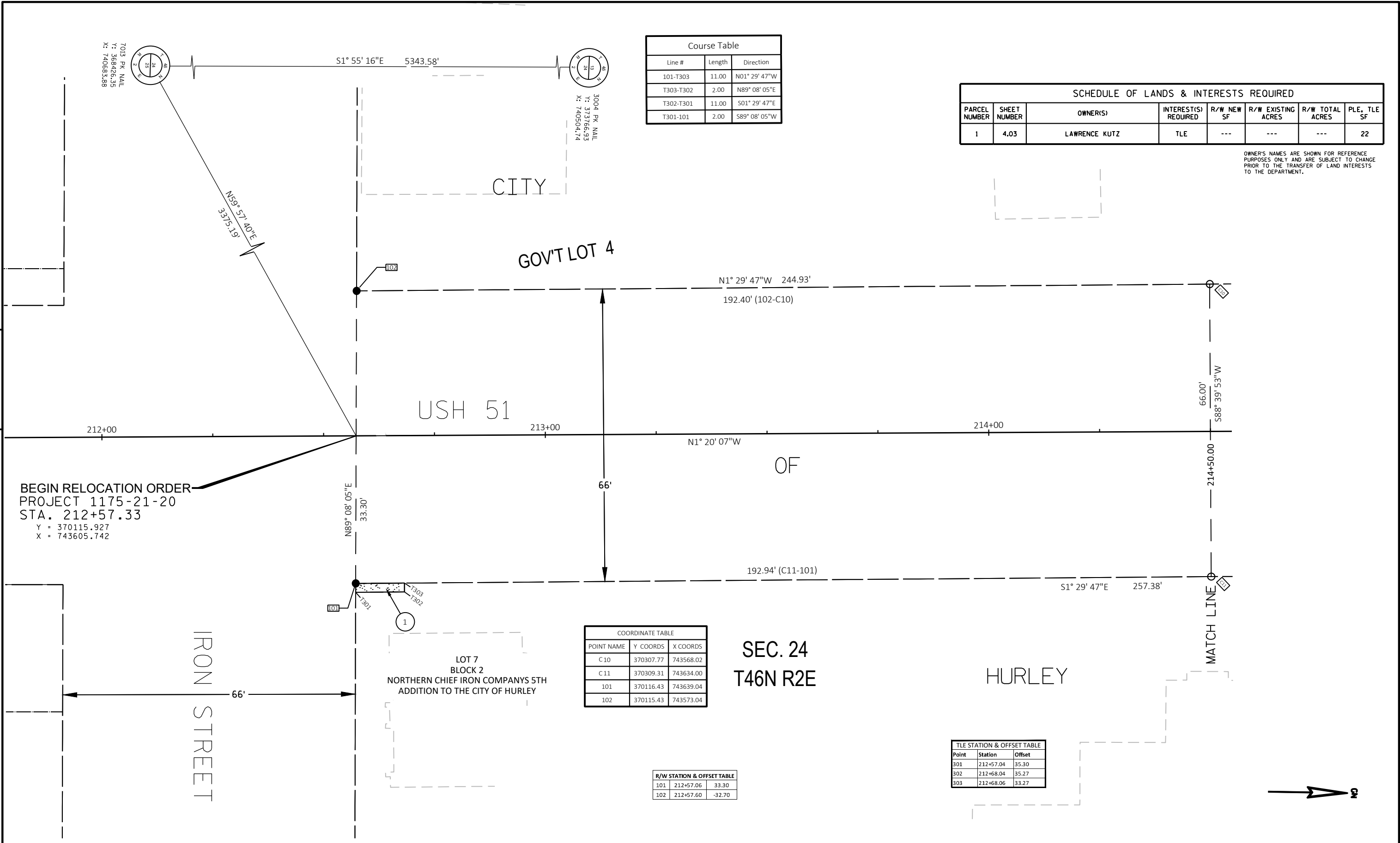
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4



REVISION DATE	7-02-2024 NC	DATE	7/14/2023	SCALE, FEET	HWY: USH 51	STATE R/W PROJECT NUMBER	1175-21-20	PLAT SHEET	402	
				0 --- NA	COUNTY: IRON	CONSTRUCTION PROJECT NUMBER	1175-21-70	PS&E SHEET	--97	E



Course Table		
Line #	Length	Direction
101-T303	11.00	N01° 29' 47"W
T303-T302	2.00	N89° 08' 05"E
T302-T301	11.00	S01° 29' 47"E
T301-101	2.00	S89° 08' 05"W

SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
1	4.03	LAWRENCE KUTZ	TLE	---	---	---	22

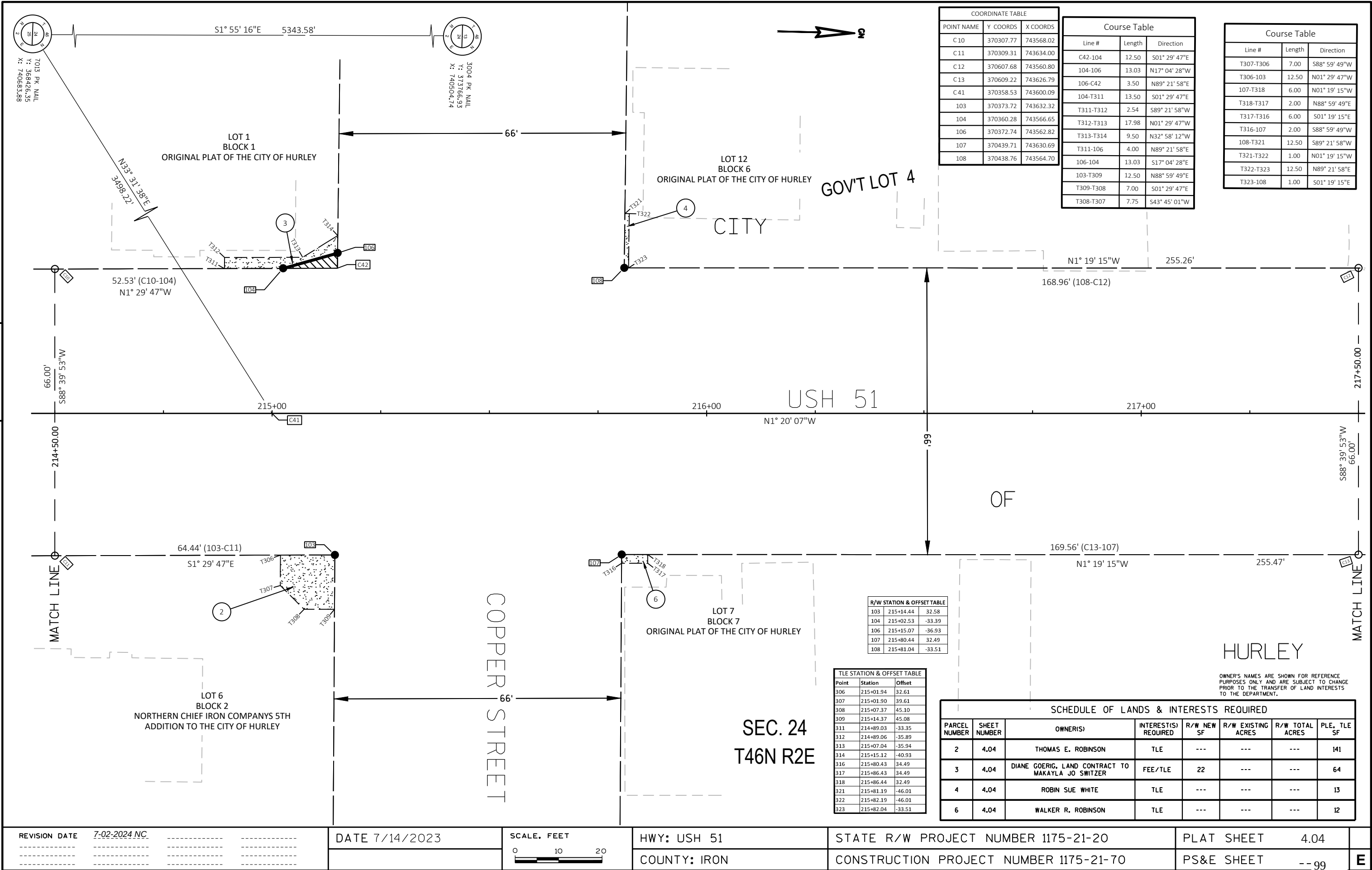
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

COORDINATE TABLE		
POINT NAME	Y COORDS	X COORDS
C10	370307.77	743568.02
C11	370309.31	743634.00
101	370116.43	743639.04
102	370115.43	743573.04

R/W STATION & OFFSET TABLE		
Point	Station	Offset
101	212+57.06	33.30
102	212+57.60	-32.70

TLE STATION & OFFSET TABLE		
Point	Station	Offset
301	212+57.04	35.30
302	212+68.04	35.27
303	212+68.06	33.27

REVISION DATE 7-02-2024 NC	DATE 7/14/2023	SCALE, FEET 0 10 20	HWY: USH 51	STATE R/W PROJECT NUMBER 1175-21-20	PLAT SHEET 4.03	E
			COUNTY: IRON	CONSTRUCTION PROJECT NUMBER 1175-21-70	PS&E SHEET -- 98	



COORDINATE TABLE		
POINT NAME	Y COORDS	X COORDS
C 10	370307.77	743568.02
C 11	370309.31	743634.00
C 12	370607.68	743560.80
C 13	370609.22	743626.79
C 41	370358.53	743600.09
103	370373.72	743632.32
104	370360.28	743566.65
106	370372.74	743562.82
107	370439.71	743630.69
108	370438.76	743564.70

Course Table		
Line #	Length	Direction
C42-104	12.50	S01° 29' 47"E
104-106	13.03	N17° 04' 28"W
106-C42	3.50	N89° 21' 58"E
104-T311	13.50	S01° 29' 47"E
T311-T312	2.54	S89° 21' 58"W
T312-T313	17.98	N01° 29' 47"W
T313-T314	9.50	N32° 58' 12"W
T311-106	4.00	N89° 21' 58"E
106-104	13.03	S17° 04' 28"E
103-T309	12.50	N88° 59' 49"E
T309-T308	7.00	S01° 29' 47"E
T308-T307	7.75	S43° 45' 01"W

Course Table		
Line #	Length	Direction
T307-T306	7.00	S88° 59' 49"W
T306-103	12.50	N01° 29' 47"W
107-T318	6.00	N01° 19' 15"W
T318-T317	2.00	N88° 59' 49"E
T317-T316	6.00	S01° 19' 15"E
T316-107	2.00	S88° 59' 49"W
108-T321	12.50	S89° 21' 58"W
T321-T322	1.00	N01° 19' 15"W
T322-T323	12.50	N89° 21' 58"E
T323-108	1.00	S01° 19' 15"E

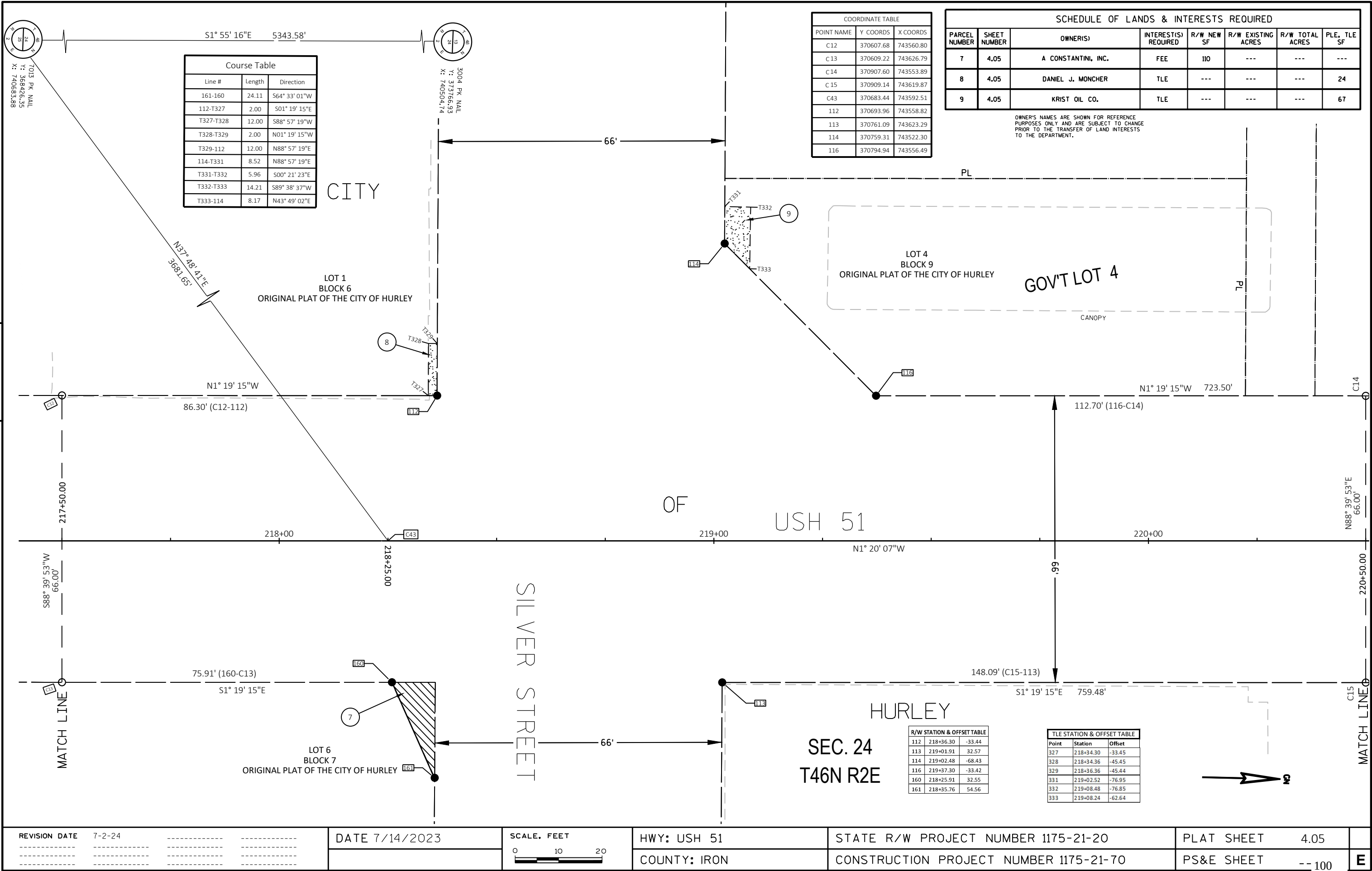
R/W STATION & OFFSET TABLE		
103	215+14.44	32.58
104	215+02.53	-33.39
106	215+15.07	-36.93
107	215+80.44	32.49
108	215+81.04	-33.51

TLE STATION & OFFSET TABLE		
Point	Station	Offset
306	215+01.94	32.61
307	215+01.90	39.61
308	215+07.37	45.10
309	215+14.37	45.08
311	214+89.03	-33.35
312	214+89.06	-35.89
313	215+07.04	-35.94
314	215+15.12	-40.93
316	215+80.43	34.49
317	215+86.43	34.49
318	215+86.44	32.49
321	215+81.19	-46.01
322	215+82.19	-46.01
323	215+82.04	-33.51

SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
2	4.04	THOMAS E. ROBINSON	TLE	---	---	---	141
3	4.04	DIANE GOERIG, LAND CONTRACT TO MAKAYLA JO SWITZER	FEE/TLE	22	---	---	64
4	4.04	ROBIN SUE WHITE	TLE	---	---	---	13
6	4.04	WALKER R. ROBINSON	TLE	---	---	---	12

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

REVISION	DATE	7-02-2024 NC	DATE	7/14/2023	SCALE, FEET	0 10 20	HWY: USH 51	STATE R/W PROJECT NUMBER	1175-21-20	PLAT SHEET	4.04	E
							COUNTY: IRON	CONSTRUCTION PROJECT NUMBER	1175-21-70	PS&E SHEET	-- 99	



SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
11	4.06	BRAUNEL LAND HOLDING CO. LLC CONTRACT TO 116 2nd AVE N, LLC	TLE	---	---	---	117
12	4.06	CITY OF HURLEY	TLE	---	---	---	441

Course Table		
Line #	Length	Direction
T341-T342	9.00	S88° 40' 45"W
T342-T343	11.45	N01° 19' 15"W
T343-T344	9.49	N70° 13' 22"E
T344-T341	14.45	S01° 19' 15"E
T344-T343	9.49	S70° 13' 22"W
T343-T345	20.55	N01° 19' 15"W
T345-T346	9.00	N88° 40' 45"E
T346-T344	17.55	S01° 19' 15"E
T336-T339	27.00	N01° 19' 15"W
T339-T338	10.00	N88° 40' 45"E
T338-T337	27.00	S01° 19' 15"E
T337-T336	10.00	S88° 40' 45"W

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

7013 PK NAIL
Y: 368426.35
X: 740683.88

3004 PK NAIL
Y: 373766.93
X: 740504.74

5

5

MATCH LINE

MATCH LINE

TLE STATION & OFFSET TABLE		
Point	Station	Offset
336	222+99.17	32.67
337	222+99.17	42.67
338	223+26.17	42.68
339	223+26.17	32.68
341	222+73.59	-33.33
342	222+73.59	-42.33
343	222+85.04	-42.33
344	222+88.04	-33.33
345	223+05.59	-42.33
346	223+05.59	-33.33

102 CHARTER - FIBER OPTIC
NO EASEMENT OF RECORD - PARCEL 12

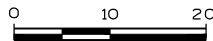
UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
102	CHARTER - FIBER OPTIC	RELEASE OF RIGHTS

COORDINATE TABLE		
POINT NAME	Y COORDS	X COORDS
C14	370907.60	743553.89
C15	370909.14	743619.87
C16	371207.52	743546.98
C17	371209.06	743612.96
C44	371133.32	743582.03

REVISION	DATE	7-02-2024	NC

DATE 7/14/2023

SCALE. FEET



HWY: USH 51

COUNTY: IRON

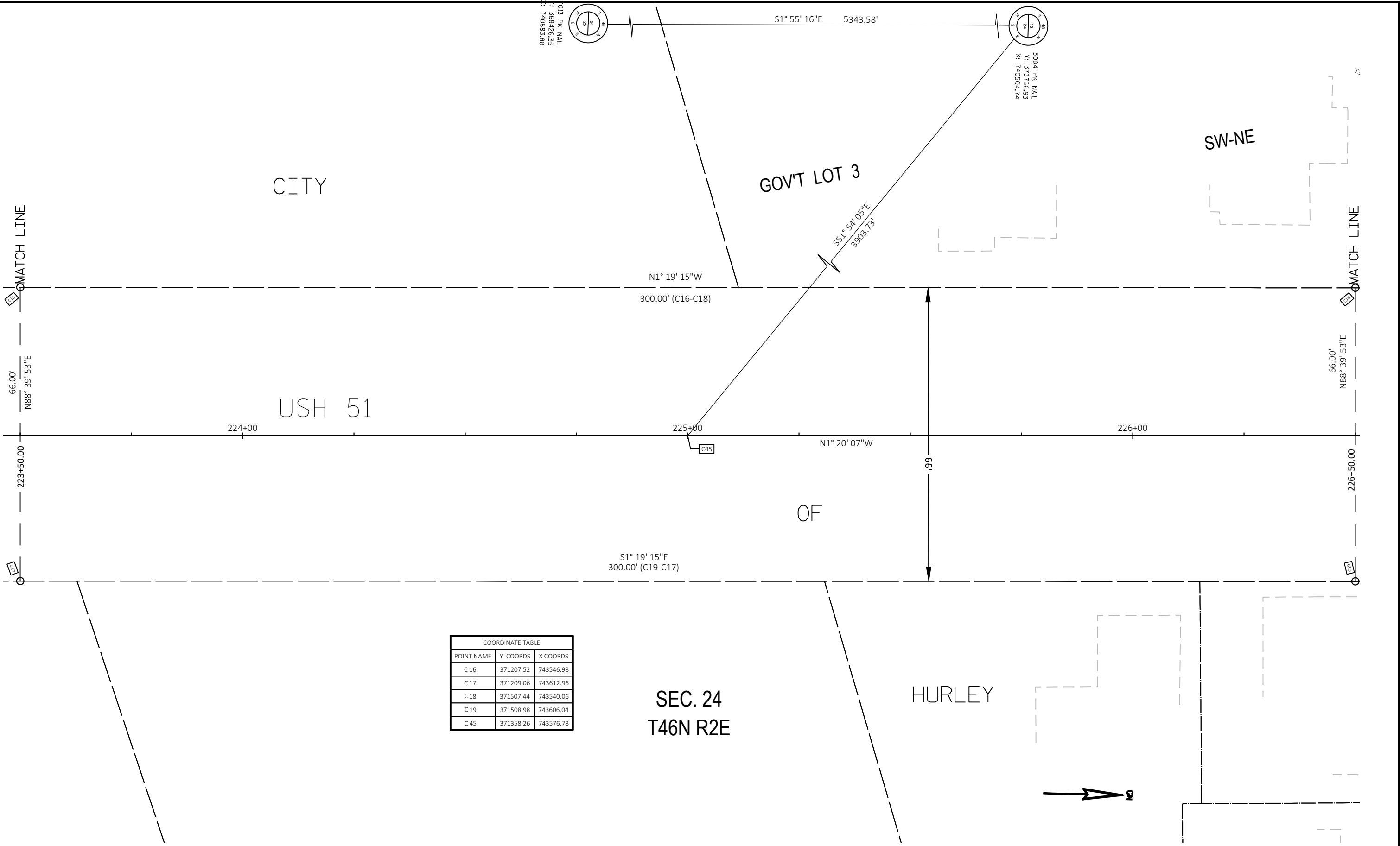
STATE R/W PROJECT NUMBER 1175-21-20

CONSTRUCTION PROJECT NUMBER 1175-21-70

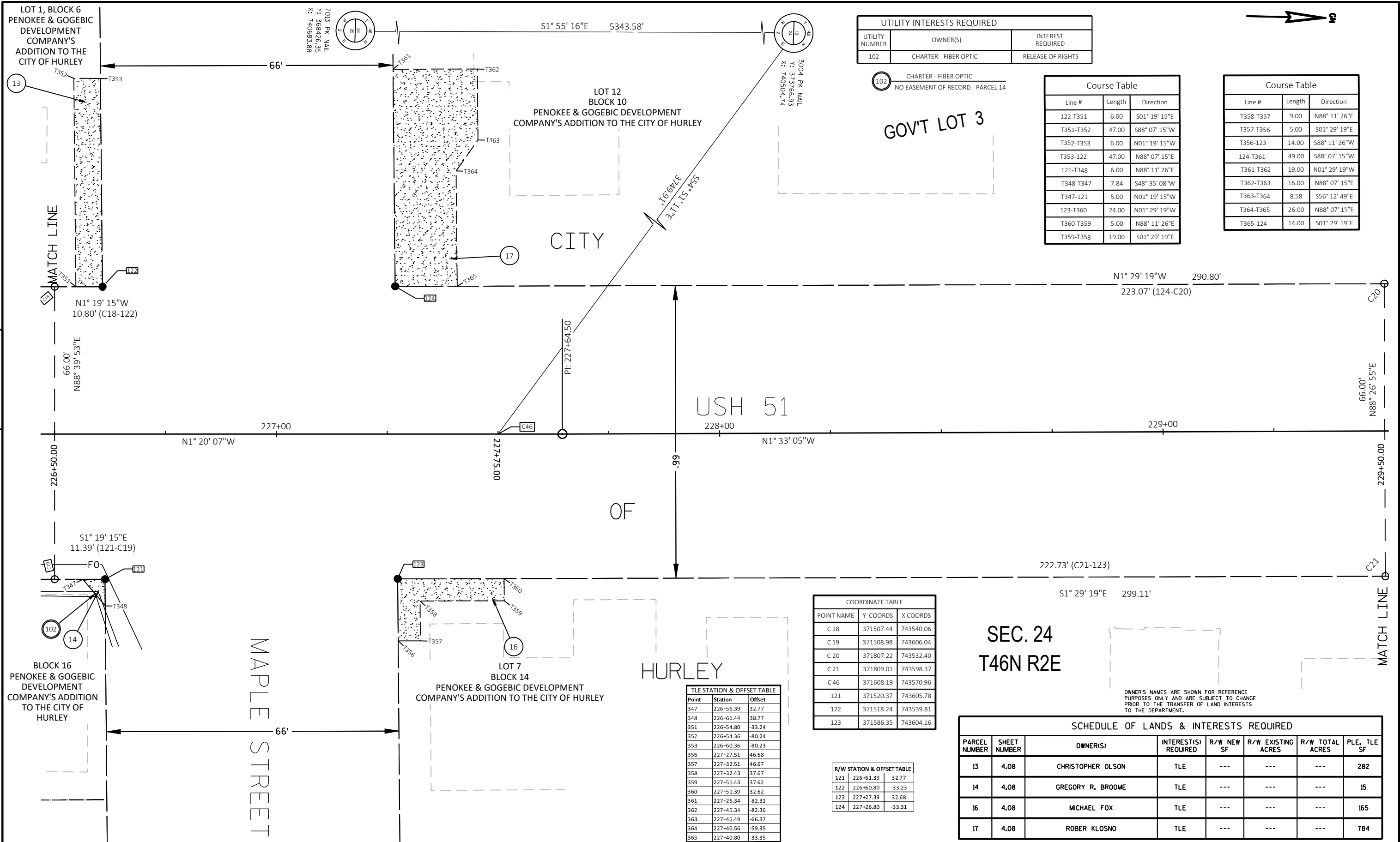
PLAT SHEET 4.06

PS&E SHEET -- 101

E



REVISION	DATE	7-02-2024	NC	DATE	7/14/2023	SCALE, FEET	0	10	20	HWY: USH 51	STATE R/W PROJECT NUMBER 1175-21-20	PLAT SHEET 4.07	E
									COUNTY: IRON	CONSTRUCTION PROJECT NUMBER 1175-21-70	PS&E SHEET	102	



UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
102	CHARTER - FIBER OPTIC	RELEASE OF RIGHTS

CHARTER - FIBER OPTIC
NO EASEMENT OF RECORD - PARCEL 14

Course Table		
Line #	Length	Direction
122-T351	6.00	S01° 19' 15"E
T351-T352	47.00	S88° 07' 15"W
T352-T353	6.00	N01° 19' 15"W
T353-122	47.00	N88° 07' 15"E
121-T348	6.00	N88° 11' 26"E
T348-T347	7.84	S48° 35' 08"W
T347-121	5.00	N01° 19' 15"W
123-T360	24.00	N01° 29' 19"W
T360-T359	5.00	N88° 11' 26"E
T359-T358	19.00	S01° 29' 19"E

Course Table		
Line #	Length	Direction
T358-T357	9.00	N88° 11' 26"E
T357-T356	5.00	S01° 29' 19"E
T356-123	14.00	S88° 11' 26"W
124-T361	49.00	S88° 07' 15"W
T361-T362	19.00	N01° 29' 19"W
T362-T363	16.00	N88° 07' 15"E
T363-T364	8.58	S56° 12' 49"E
T364-T365	26.00	N88° 07' 15"E
T365-124	14.00	S01° 29' 19"E

COORDINATE TABLE		
POINT NAME	Y COORDS	X COORDS
C 18	371507.44	743540.06
C 19	371508.98	743606.04
C 20	371807.22	743532.40
C 21	371809.01	743598.37
C 46	371608.19	743570.96
121	371520.37	743605.78
122	371518.24	743539.81
123	371586.35	743604.16

TLE STATION & OFFSET TABLE		
Point	Station	Offset
347	226+56.39	32.77
348	226+61.44	38.77
351	226+54.80	-33.24
352	226+54.36	-80.24
353	226+60.36	-80.23
356	227+27.51	46.68
357	227+32.51	46.67
358	227+32.43	37.67
359	227+51.43	37.62
360	227+51.39	32.62
361	227+26.34	-82.31
362	227+45.34	-82.36
363	227+45.49	-66.37
364	227+40.56	-59.35
365	227+40.80	-33.35

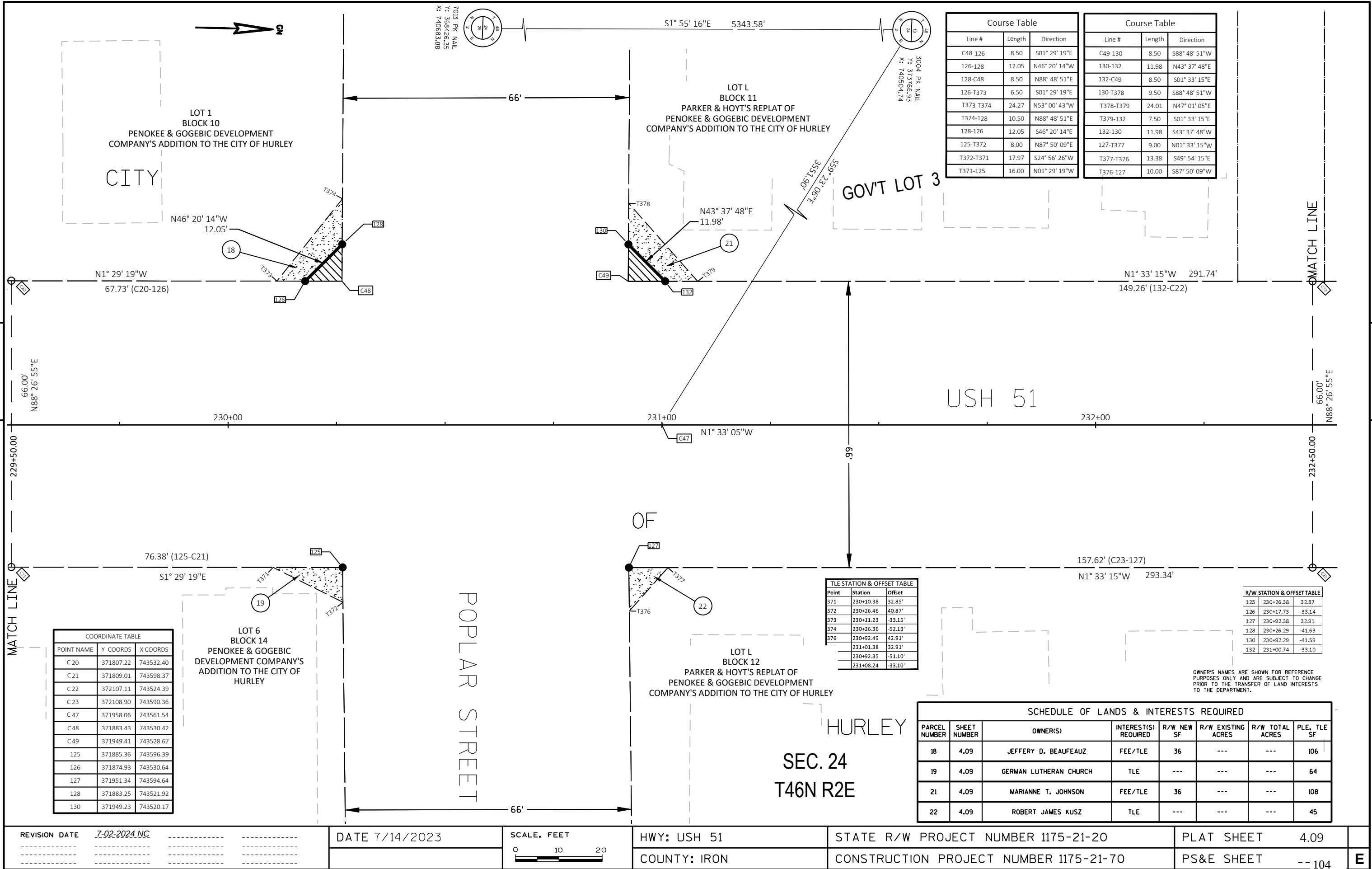
R/W STATION & OFFSET TABLE		
121	226+61.39	32.77
122	226+60.80	-33.23
123	227+27.39	32.68
124	227+26.80	-33.31

SEC. 24
T46N R2E

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

SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
13	4.08	CHRISTOPHER OLSON	TLE	---	---	---	282
14	4.08	GREGORY R. BROOME	TLE	---	---	---	15
16	4.08	MICHAEL FOX	TLE	---	---	---	165
17	4.08	ROBER KLOSNO	TLE	---	---	---	784

REVISION	DATE	7-02-2024 NC	DATE	7/14/2023	SCALE, FEET	0 10 20	HWY: USH 51	STATE R/W PROJECT NUMBER	1175-21-20	PLAT SHEET	4.08
							COUNTY: IRON	CONSTRUCTION PROJECT NUMBER	1175-21-70	PS&E SHEET	-- 103



Course Table		
Line #	Length	Direction
C48-126	8.50	S01° 29' 19"E
126-128	12.05	N46° 20' 14"W
128-C48	8.50	N88° 48' 51"E
126-T373	6.50	S01° 29' 19"E
T373-T374	24.27	N53° 00' 43"W
T374-128	10.50	N88° 48' 51"E
128-126	12.05	S46° 20' 14"E
125-T372	8.00	N87° 50' 09"E
T372-T371	17.97	S24° 56' 26"W
T371-125	16.00	N01° 29' 19"W

Course Table		
Line #	Length	Direction
C49-130	8.50	S88° 48' 51"W
130-132	11.98	N43° 37' 48"E
132-C49	8.50	S01° 33' 15"E
130-T378	9.50	S88° 48' 51"W
T378-T379	24.01	N47° 01' 05"E
T379-132	7.50	S01° 33' 15"E
132-130	11.98	S43° 37' 48"W
127-T377	9.00	N01° 33' 15"W
T377-T376	13.38	S49° 54' 15"E
T376-127	10.00	S87° 50' 09"W

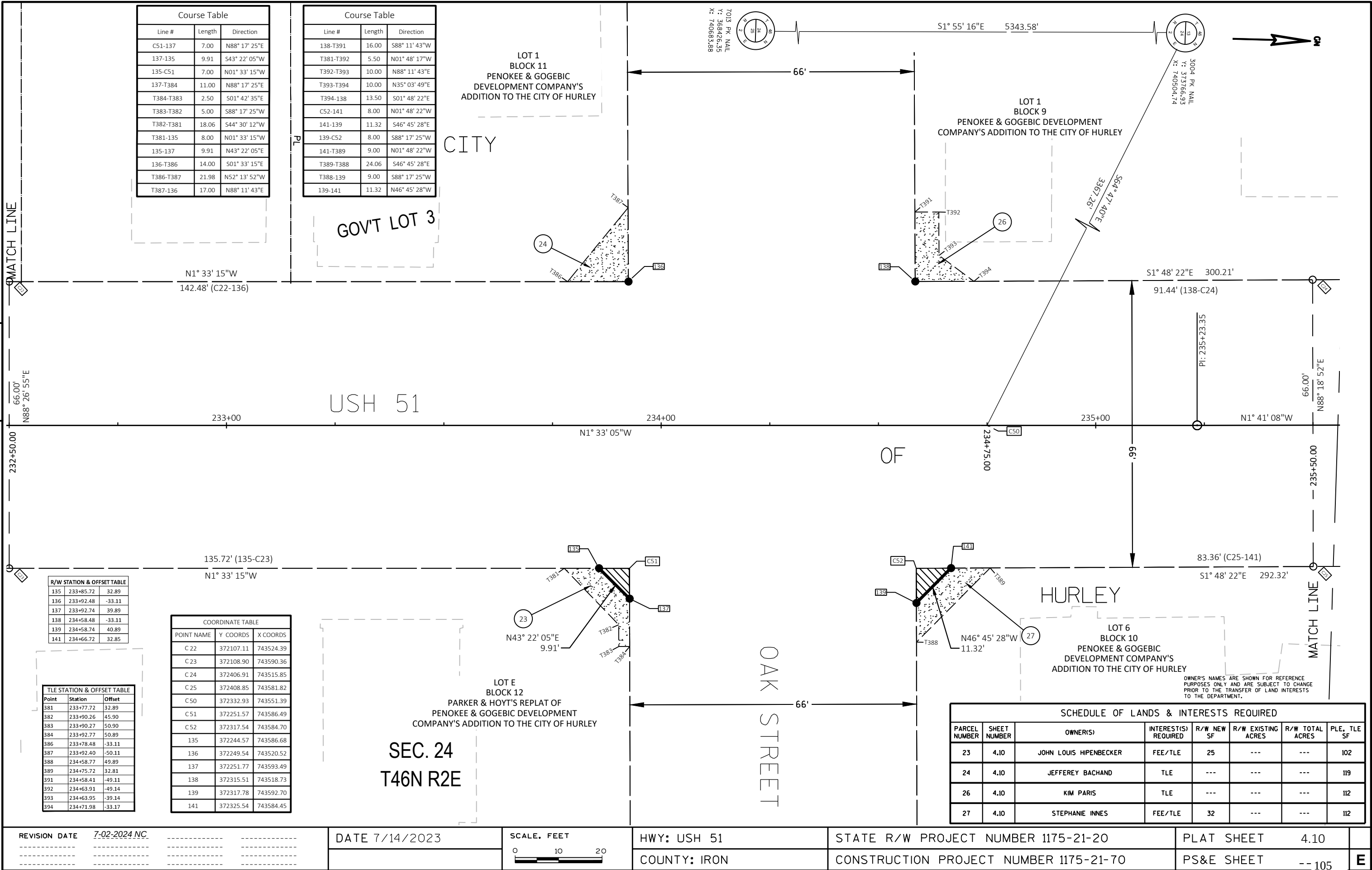
TLE STATION & OFFSET TABLE		
Point	Station	Offset
371	230+10.38	32.85'
372	230+26.46	40.87'
373	230+11.23	-33.15'
374	230+26.36	-52.13'
376	230+92.49	42.91'
	231+01.38	32.91'
	230+92.35	-51.10'
	231+08.24	-33.10'

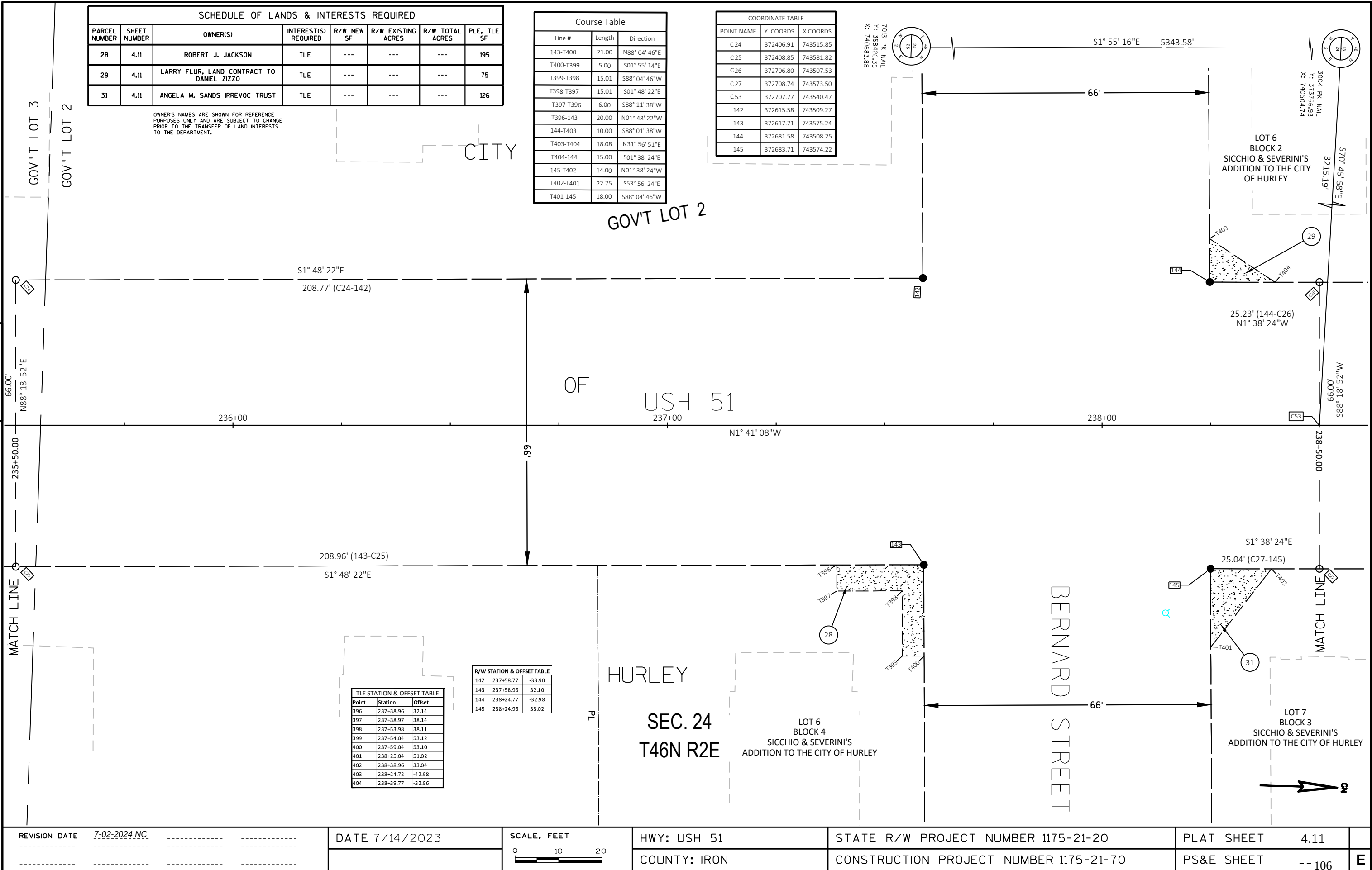
R/W STATION & OFFSET TABLE		
125	230+26.38	32.87
126	230+17.73	-33.14
127	230+92.38	32.91
128	230+26.29	-41.63
130	230+92.29	-41.59
132	231+00.74	-33.10

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

SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
18	4.09	JEFFERY D. BEAUFEAUZ	FEE/TLE	36	---	---	106
19	4.09	GERMAN LUTHERAN CHURCH	TLE	---	---	---	64
21	4.09	MARIANNE T. JOHNSON	FEE/TLE	36	---	---	108
22	4.09	ROBERT JAMES KUSZ	TLE	---	---	---	45

REVISION	DATE	7-02-2024	NC	DATE	7/14/2023	SCALE, FEET	HWY: USH 51	STATE R/W PROJECT NUMBER	1175-21-20	PLAT SHEET	4.09	
							COUNTY: IRON	CONSTRUCTION PROJECT NUMBER	1175-21-70	PS&E SHEET	-- 104	E





Course Table		
Line #	Length	Direction
C54-154	1.84	S88° 04' 17"W
154-156	50.55	N10° 21' 29"W
156-C55	9.50	N88° 04' 17"E
C55-C54	50.00	S01° 38' 24"E
154-T406	5.35	S88° 04' 17"W
T406-T407	50.57	N10° 31' 39"W
T407-156	5.50	N88° 04' 17"E
156-154	50.55	S10° 21' 29"E

Course Table		
Line #	Length	Direction
C54-152	12.00	S01° 38' 24"E
152-154	12.13	N10° 21' 29"W
154-C54	1.84	N88° 04' 17"E
154-152	12.13	S10° 21' 29"E
152-T405	34.00	S01° 38' 24"E
T405-406	46.52	N10° 31' 39"W
T406-154	5.35	N88° 04' 17"E

7013 PK NAIL
Y: 368426.35
X: 740683.88



S1° 55' 16"E 5343.58'



3004 PK NAIL
Y: 373766.93
X: 740504.74

LOT 2
BLOCK 2
SICCHIO & SEVERINI'S
ADDITION TO THE CITY OF HURLEY

LOT 1
BLOCK 2
SICCHIO & SEVERINI'S
ADDITION TO THE CITY OF HURLEY

CITY
GOV'T LOT 2

USH 51

OF

END RELOCATION ORDER
PROJECT 1175-21-20
STA. 241+25.85
Y = 372982.099
X = 743518.694

SEC. 24
T46N R2E

HURLEY

COORDINATE TABLE		
POINT NAME	Y COORDS.	X COORDS.
C 26	372706.80	743507.53
C 27	372708.74	743573.50
C 54	372931.48	743501.09
C 55	372981.46	743499.66
151	372983.68	743565.63
152	372919.48	743501.44
154	372931.42	743499.26
156	372981.14	743490.17
157	372984.23	743581.95
158	372980.09	743459.17

R/W STATION & OFFSET TABLE		
151	241+16.60	45.96
152	240+66.27	-29.18
154	240+79.05	-29.49
156	241+32.24	-27.85
157	241+13.69	61.99
158	241+39.96	-58.04

TILE STATION & OFFSET TABLE		
Point	Station	Offset
405	240+30.48	-32.06
406	240+79.80	-34.79
407	241+33.55	-33.21

101 CITY OF HURLEY - WATER
NO EASEMENT OF RECORD - PARCEL 33

103 XCEL ENERGY - GAS
NO EASEMENT OF RECORD - PARCEL 33

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
101	CITY OF HURLEY - WATER	RELEASE OF RIGHTS
103	XCEL ENERGY - GAS	RELEASE OF RIGHTS

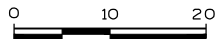
SCHEDULE OF LANDS & INTERESTS REQUIRED							
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W NEW SF	R/W EXISTING ACRES	R/W TOTAL ACRES	PLE, TLE SF
32	4.12	ARTHUR A. RUHA	FEE/TLE	11	---	---	154
33	4.12	MRC TRUST	FEE/TLE	283	---	---	271

PI STA = 244+44.99
Y = 373302.49'
X = 743522.97'
DELTA = 75°29'57"
D = 9°58'22"
T = 444.83'
L = 757.05'
R = 574.52'
PC STA = 240+00.15
PT STA = 247+57.20
LCH=703.45'
LCB=N39° 26' 07"W
DB=N01° 41' 08"W

REVISION	DATE	7-02-2024	NC

DATE 7/14/2023

SCALE, FEET



HWY: USH 51

COUNTY: IRON

STATE R/W PROJECT NUMBER 1175-21-20

CONSTRUCTION PROJECT NUMBER 1175-21-70

PLAT SHEET 4.12

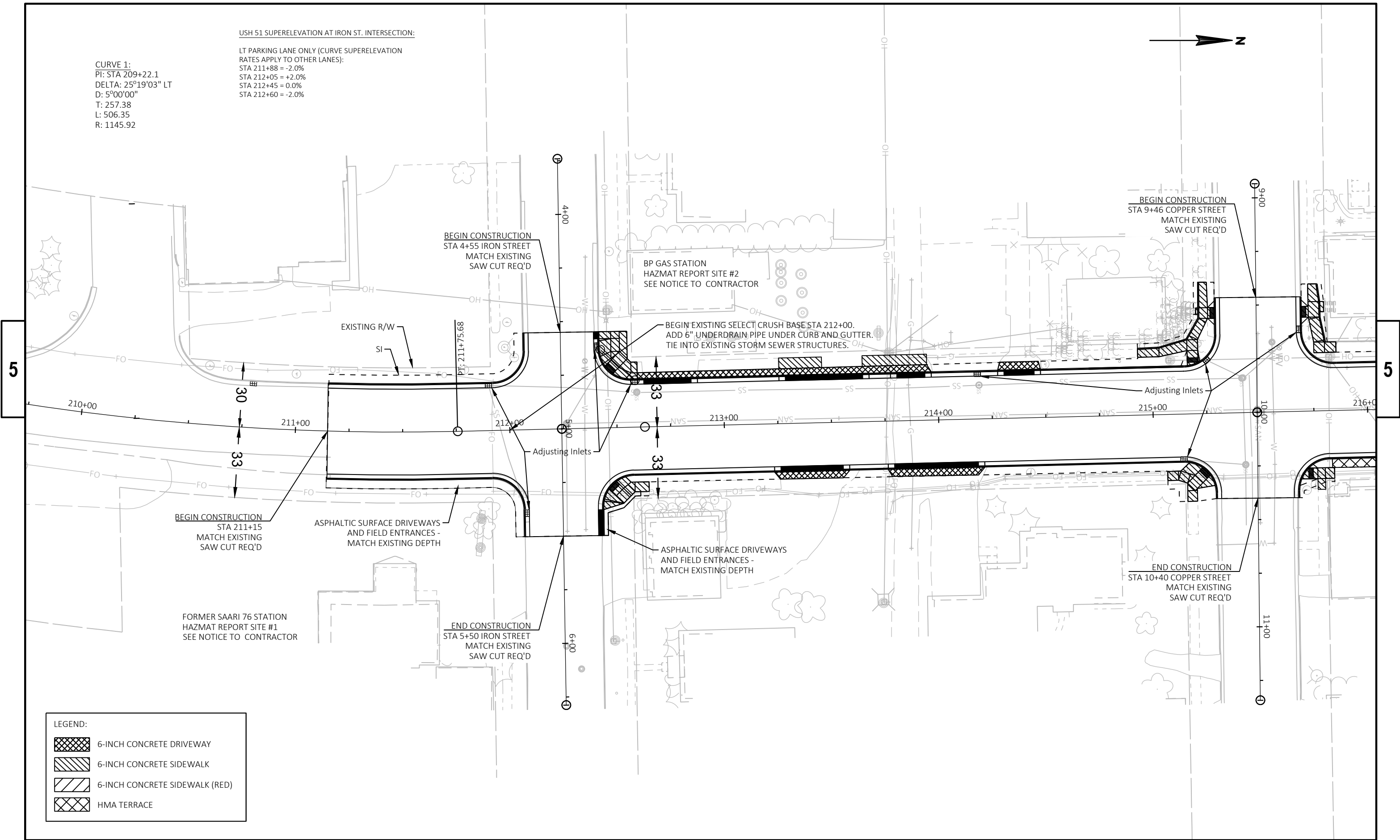
PS&E SHEET -- 107

E

USH 51 SUPERELEVATION AT IRON ST. INTERSECTION:

CURVE 1:
PI: STA 209+22.1
DELTA: 25°19'03" LT
D: 5°00'00"
T: 257.38
L: 506.35
R: 1145.92

LT PARKING LANE ONLY (CURVE SUPERELEVATION
RATES APPLY TO OTHER LANES):
STA 211+88 = -2.0%
STA 212+05 = +2.0%
STA 212+45 = 0.0%
STA 212+60 = -2.0%



LEGEND:

- 6-INCH CONCRETE DRIVEWAY
- 6-INCH CONCRETE SIDEWALK
- 6-INCH CONCRETE SIDEWALK (RED)
- HMA TERRACE

PROJECT NO: 1175-21-70

HWY: USH 51

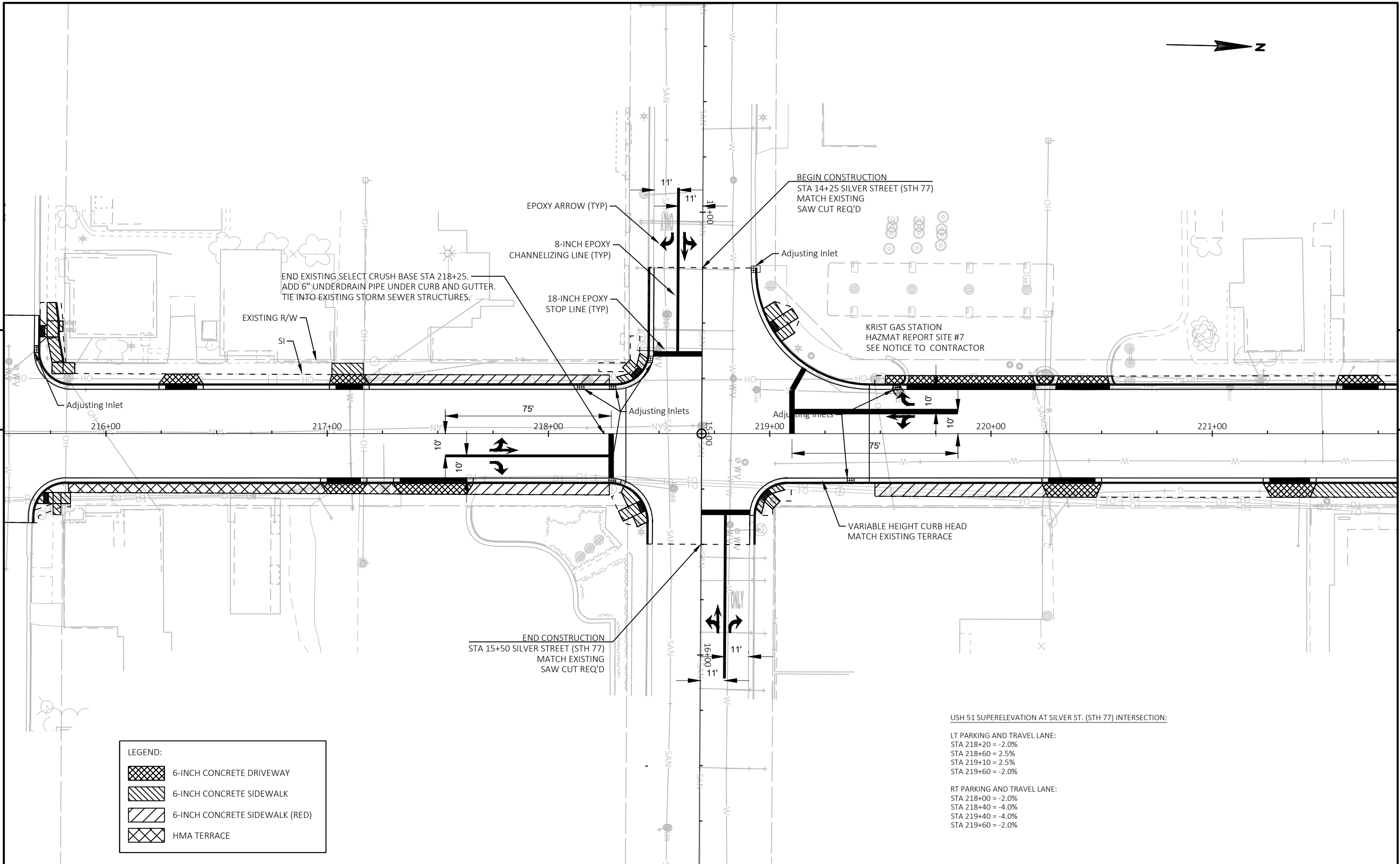
COUNTY: IRON

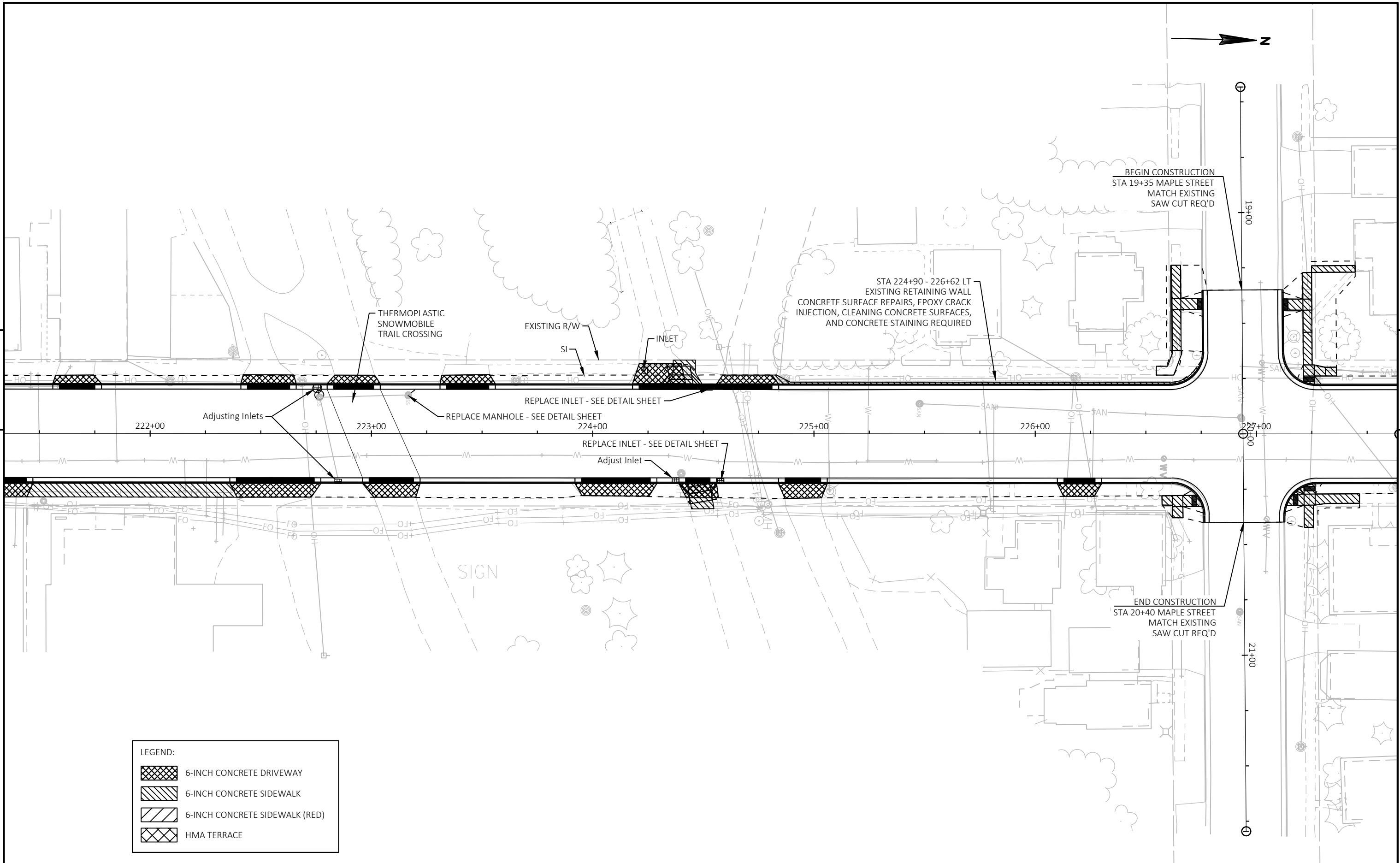
PLAN

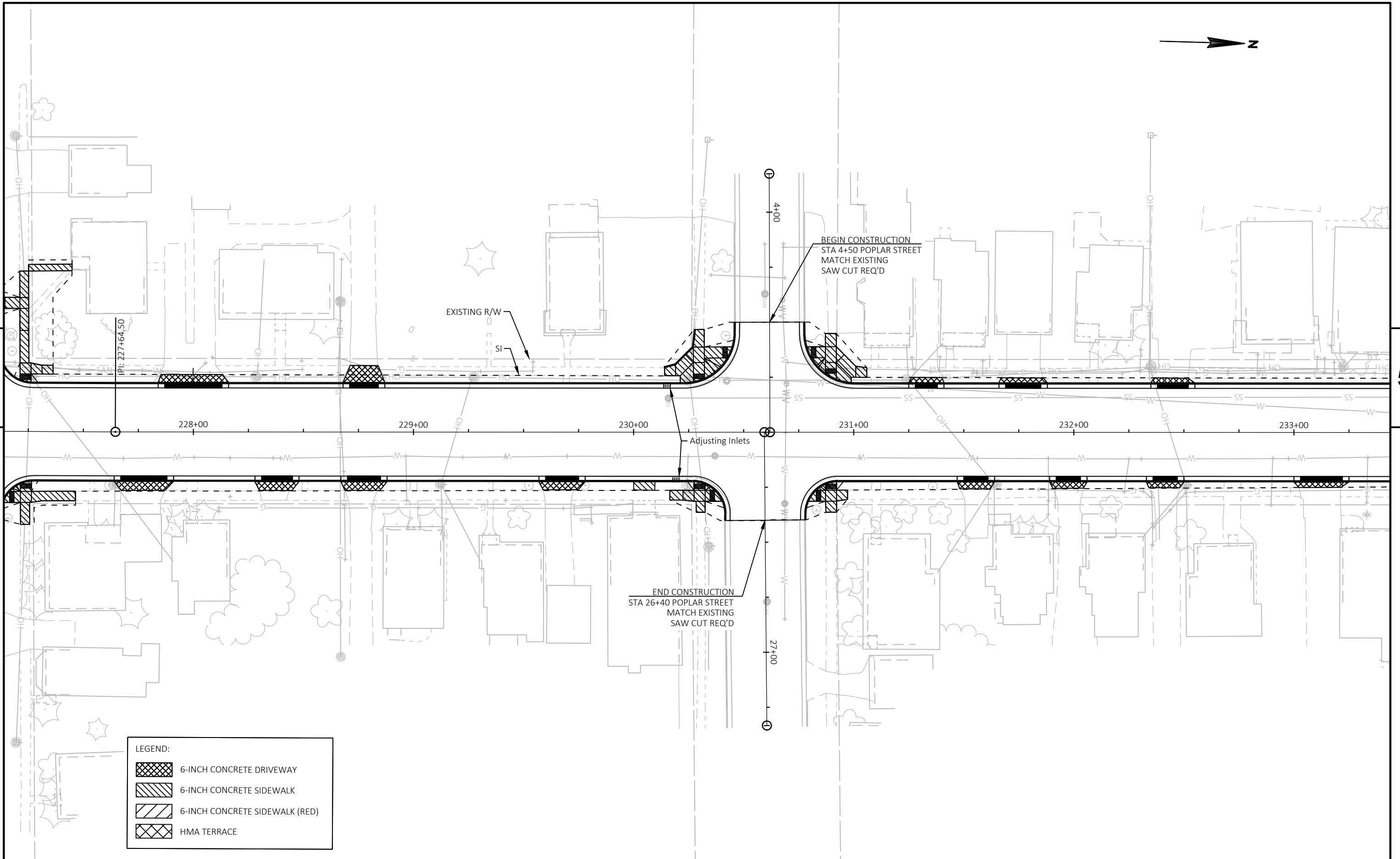
SHEET

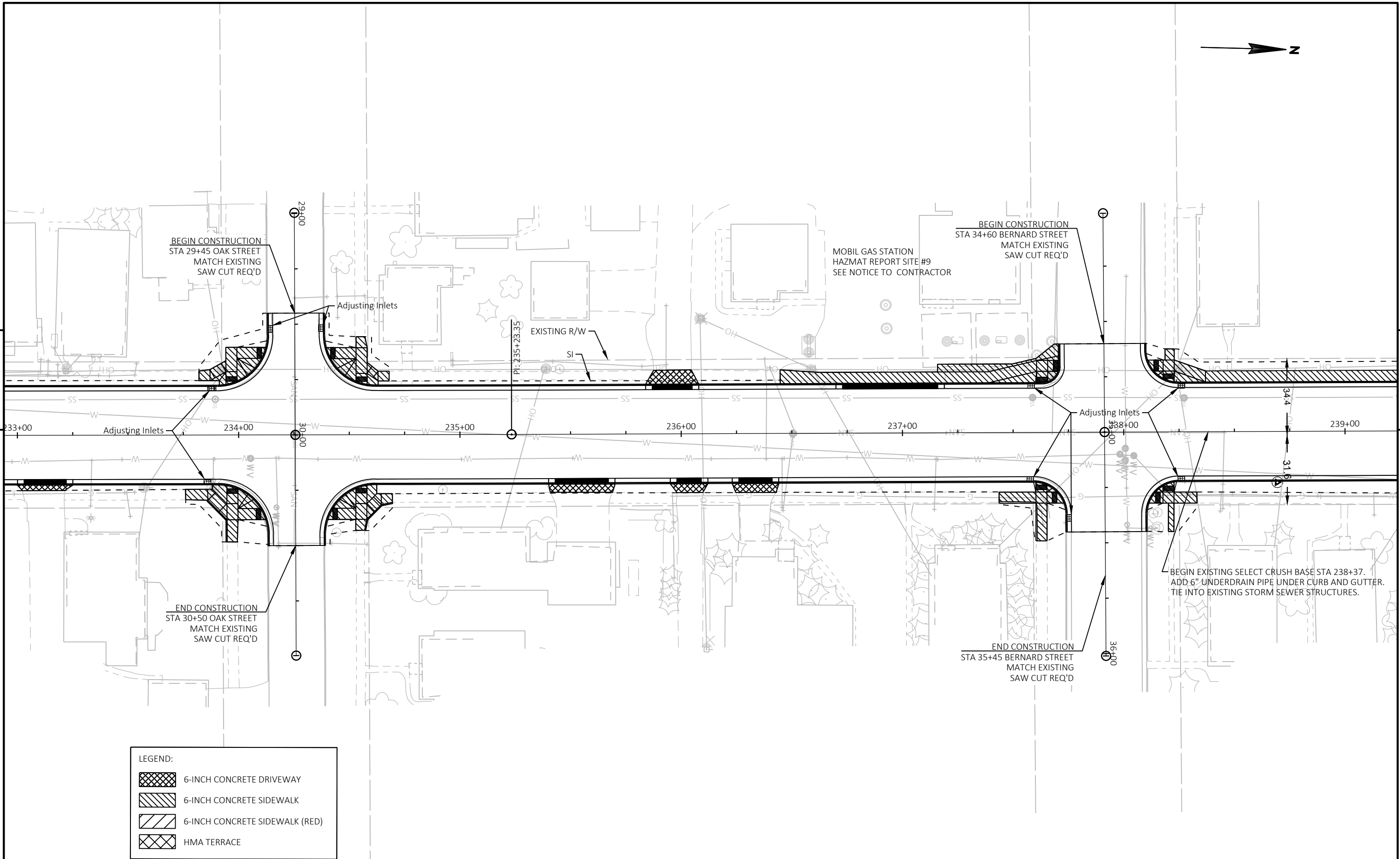
108

E



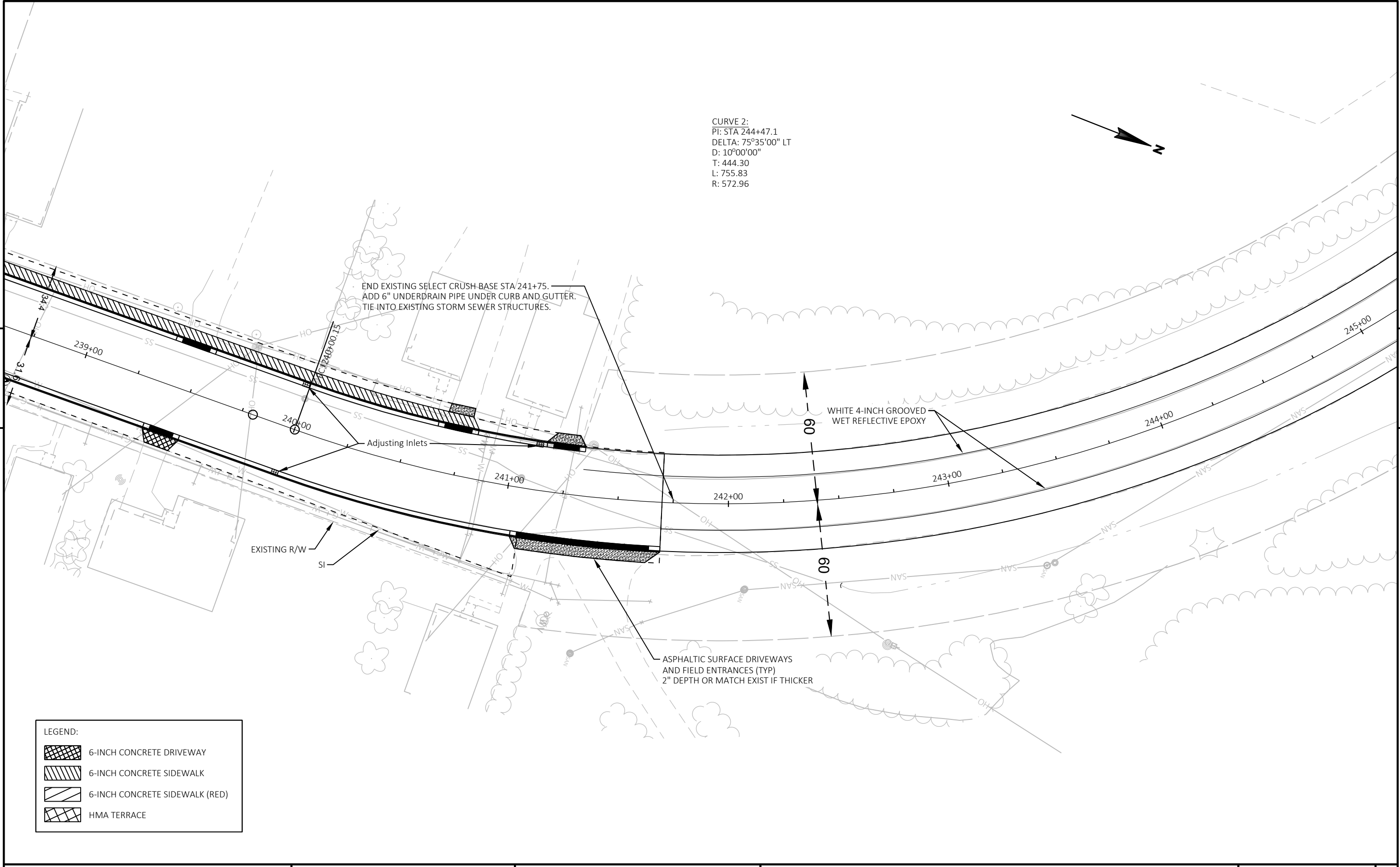






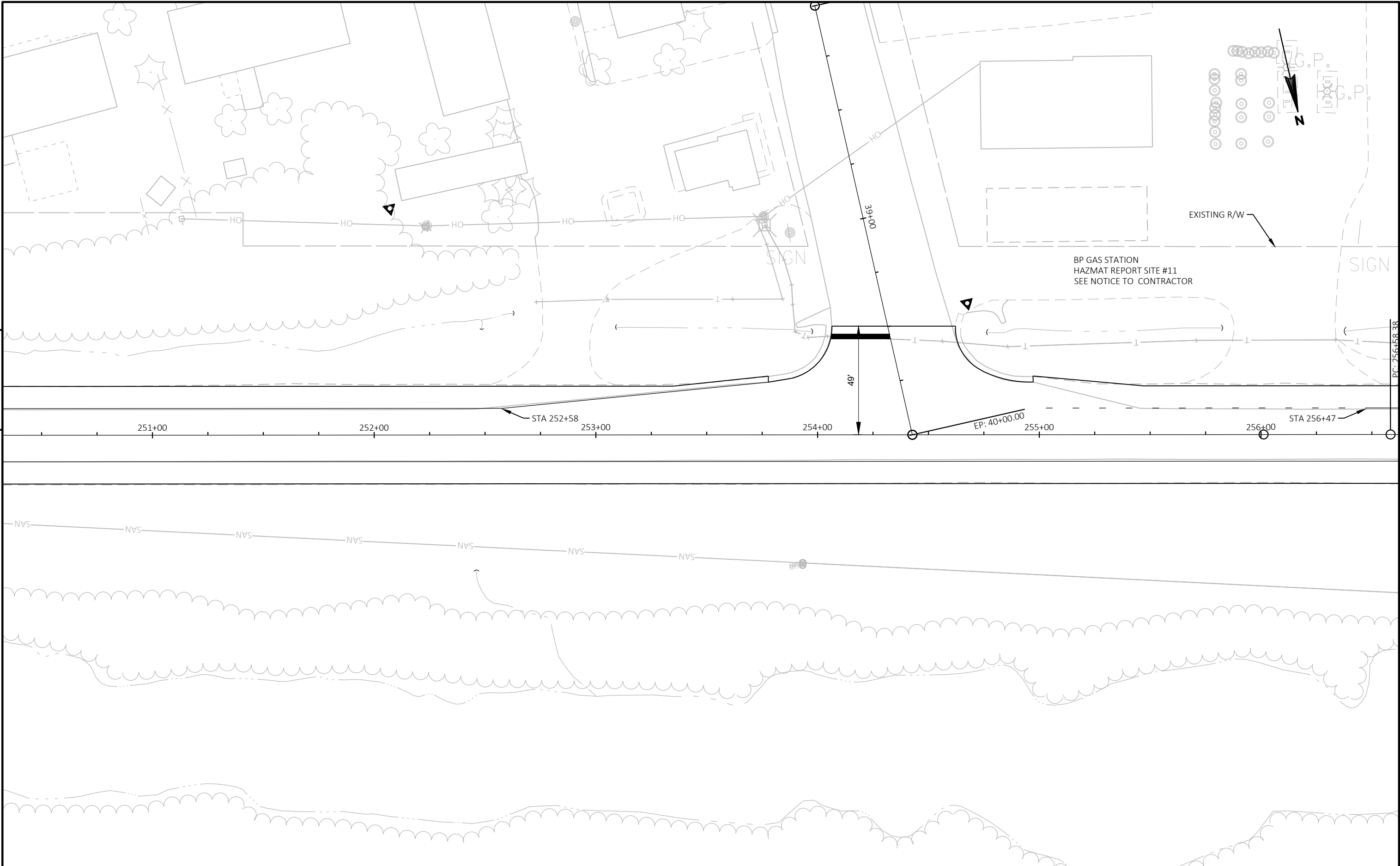
LEGEND:

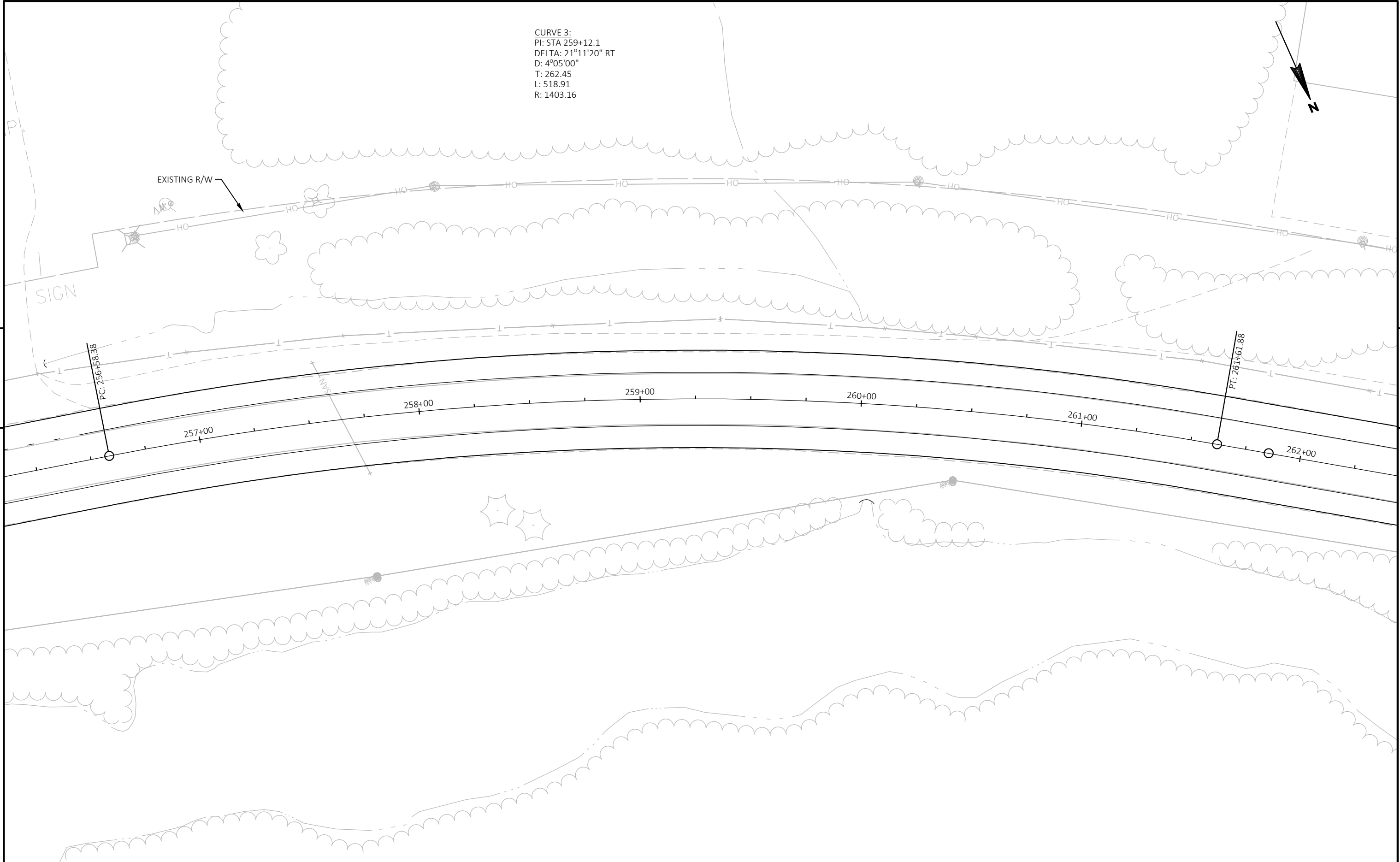
	6-INCH CONCRETE DRIVEWAY
	6-INCH CONCRETE SIDEWALK
	6-INCH CONCRETE SIDEWALK (RED)
	HMA TERRACE

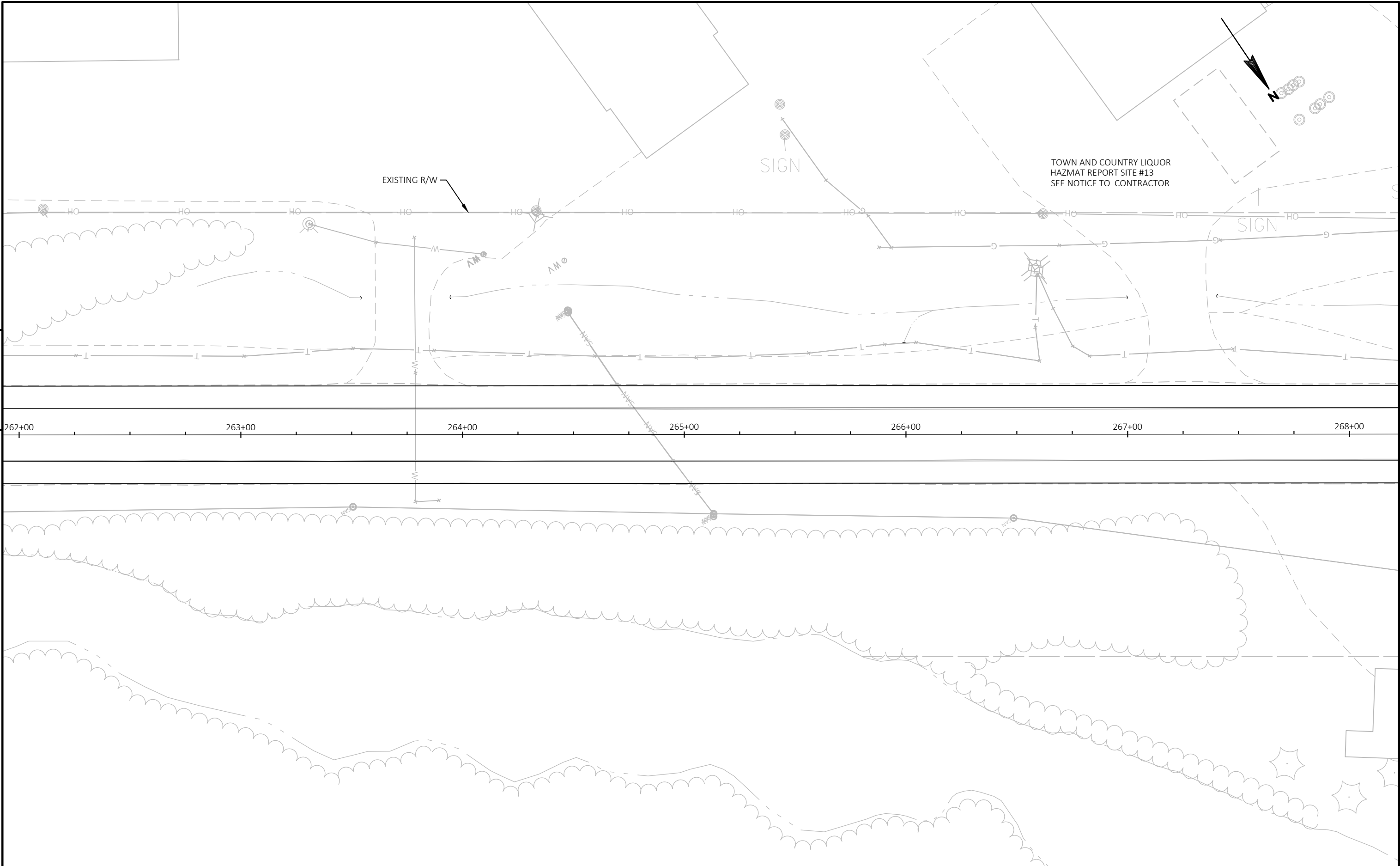


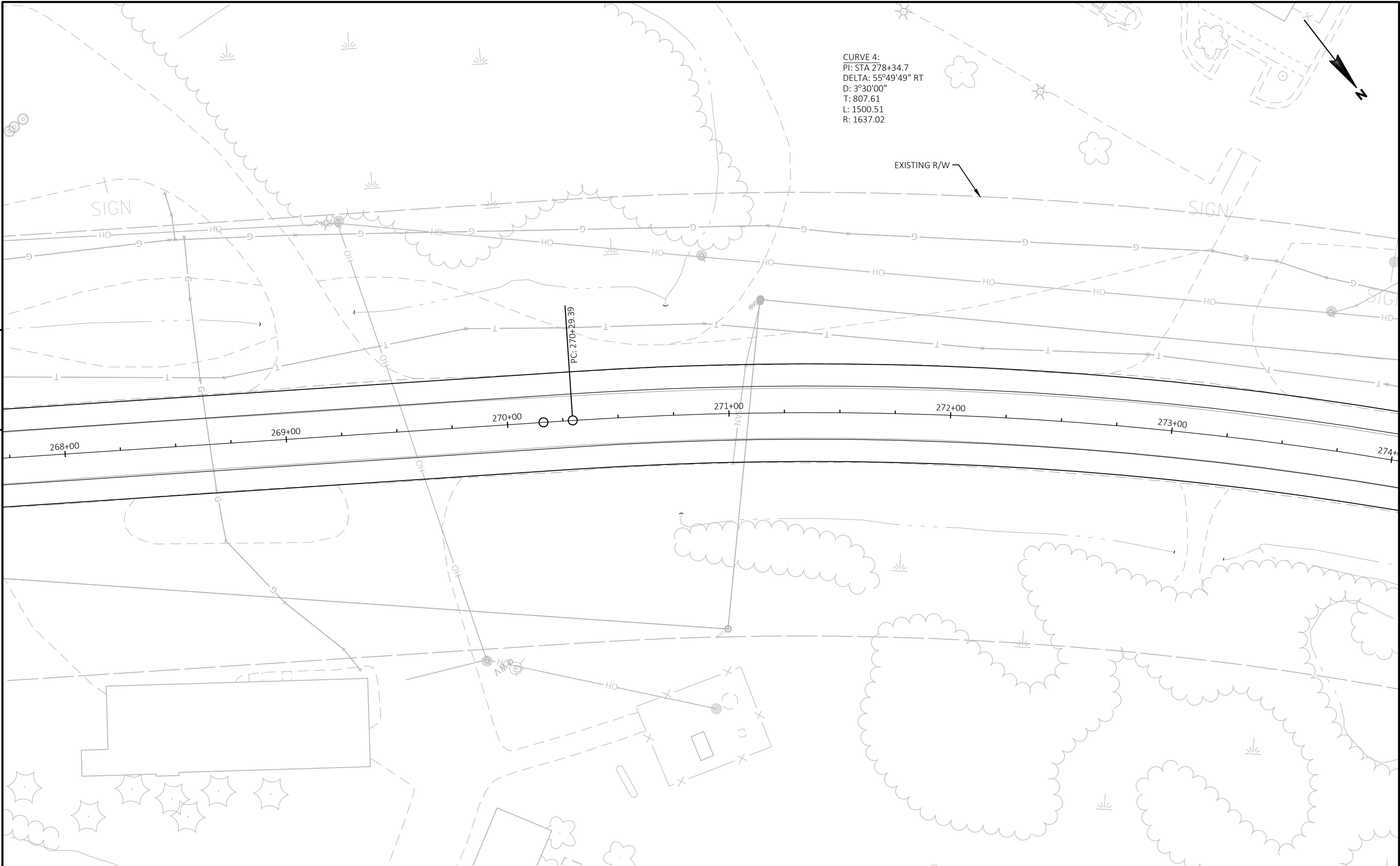


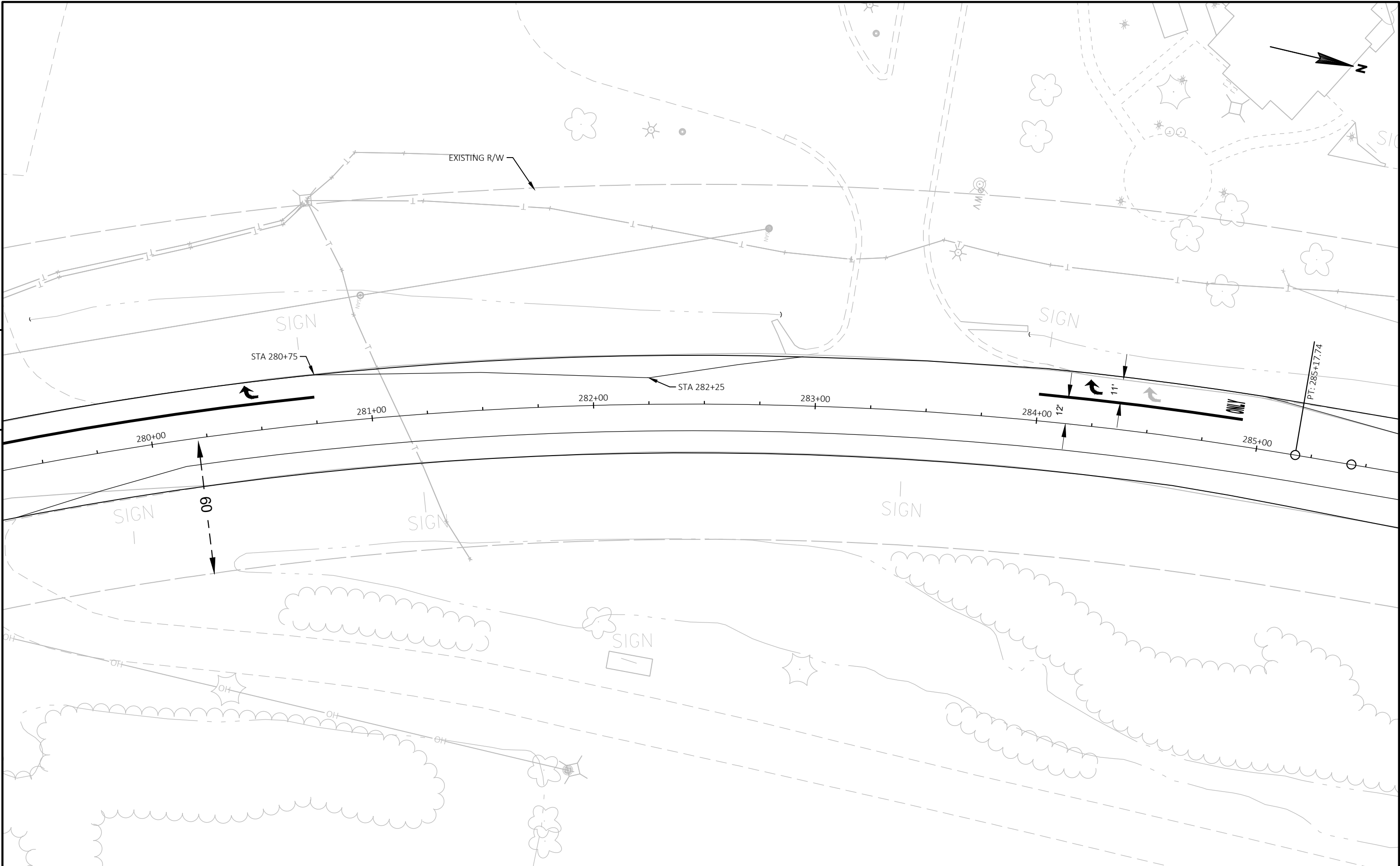
PROJECT NO: 1175-21-70	HWY: USH 51	COUNTY: IRON	PLAN	SHEET 114	E
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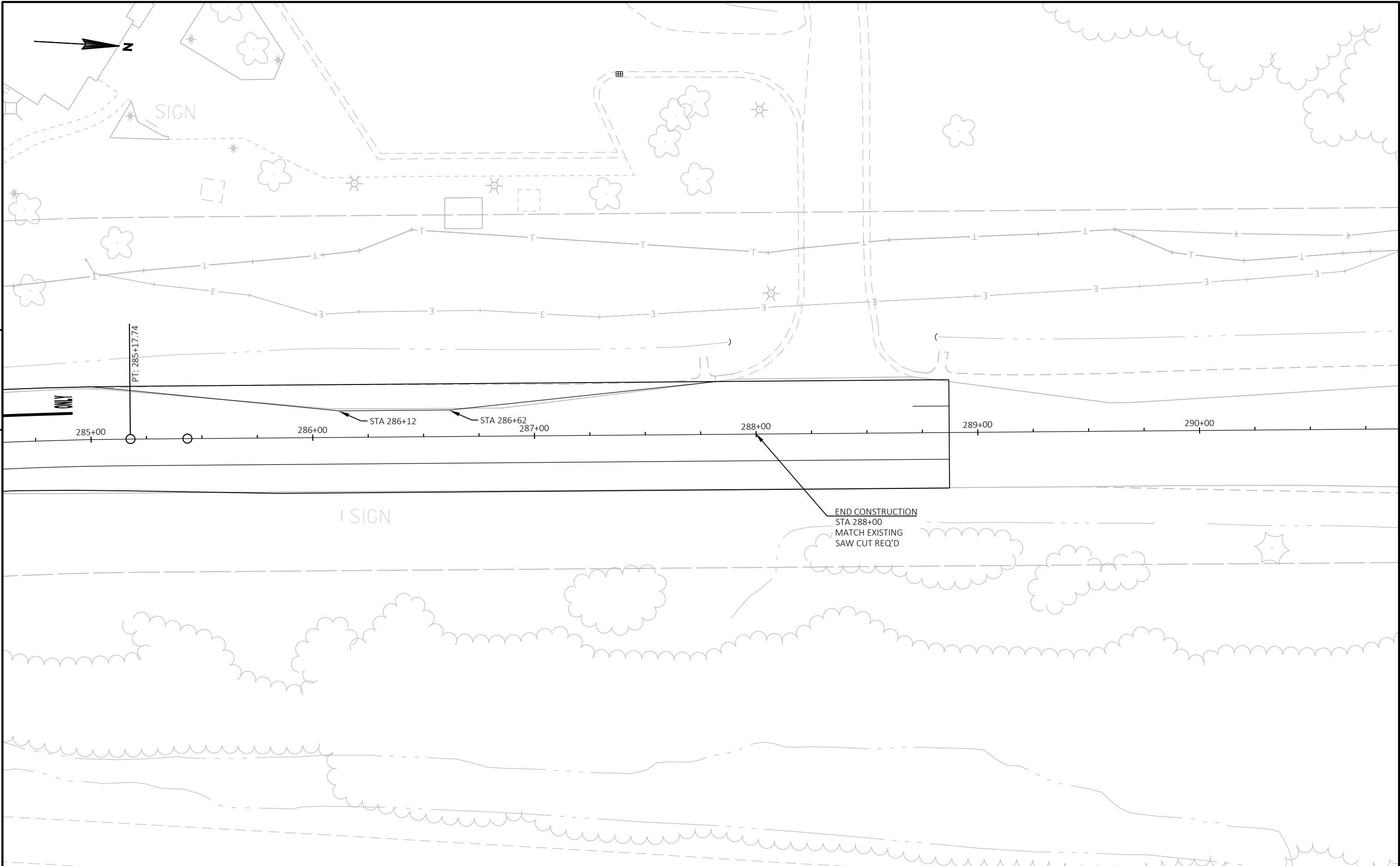










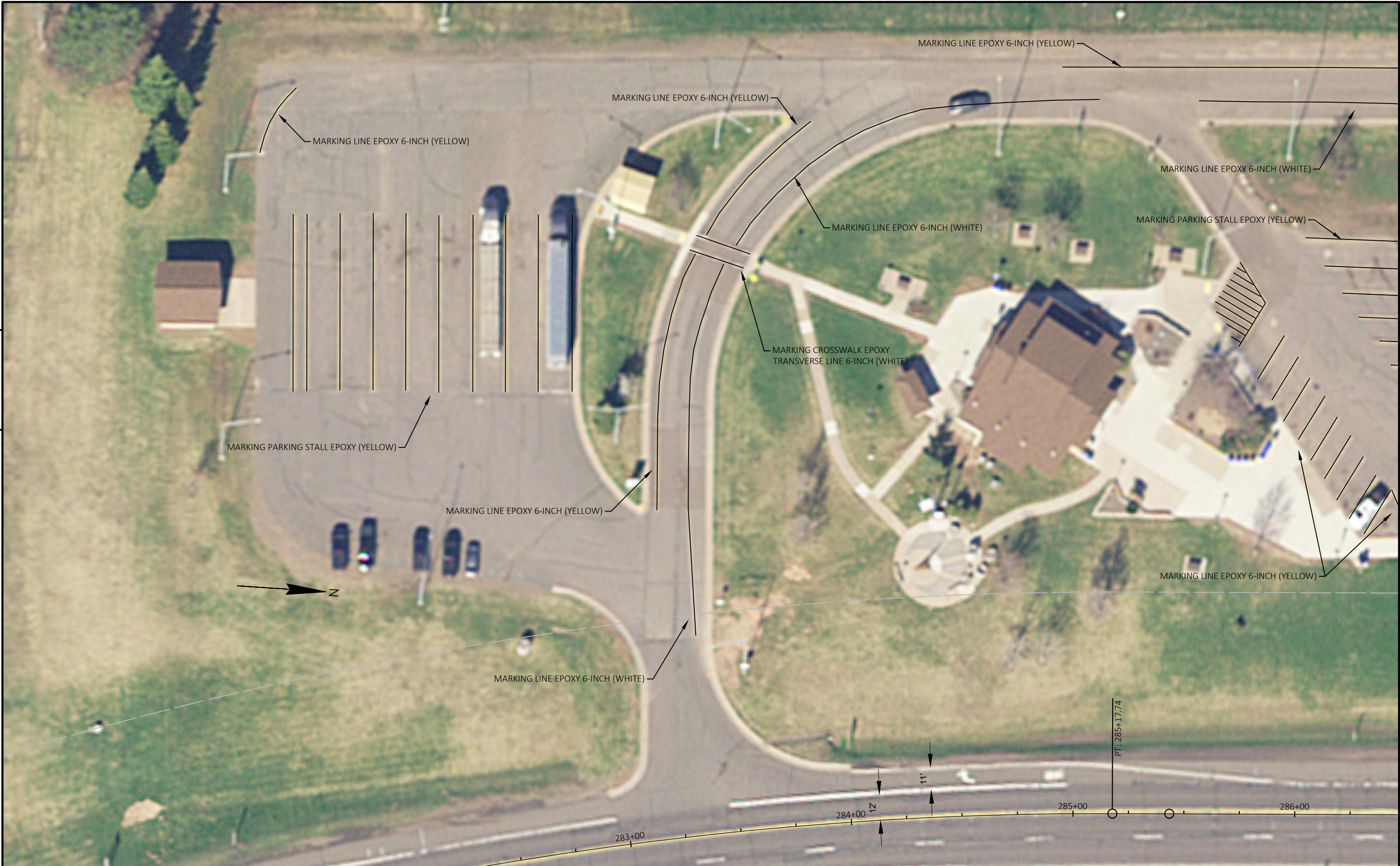




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5



5

5

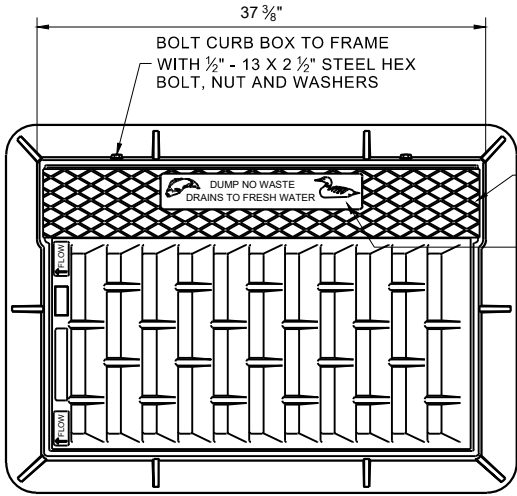


5

5

Standard Detail Drawing List

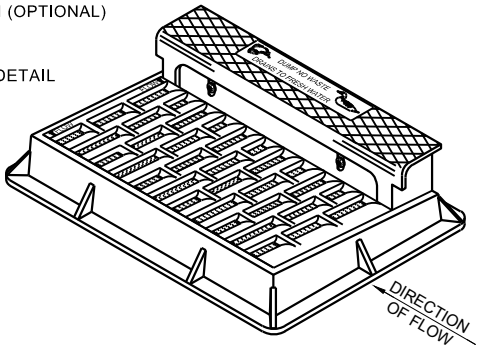
08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08B10-03	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C06-03	INLETS 3-FT AND 4-FT DIAMETER
08C07-03	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT, 2.5X3-FT & 2X3.5-FT
08D01-23A	CONCRETE CURB & GUTTER
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-04	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-04	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-09A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C36-01	PARKING STALL MARKING
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-05C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D41-04A	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD
15D41-04B	TRAFFIC CONTROL, MULTIPLE LANE SHIFT DIVIDED ROAD TEMPORARY RUMBLE STRIPS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL



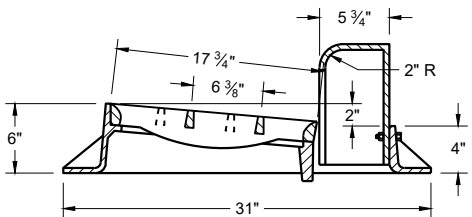
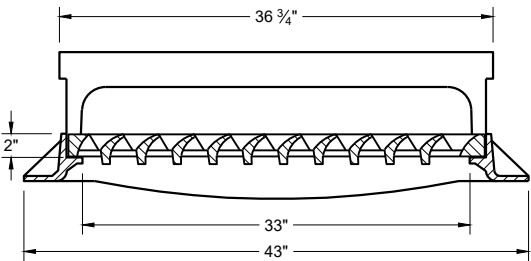
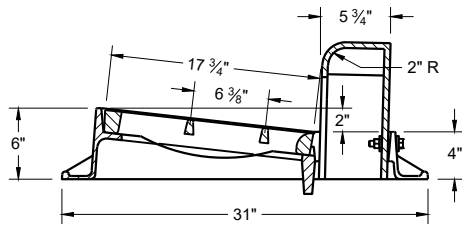
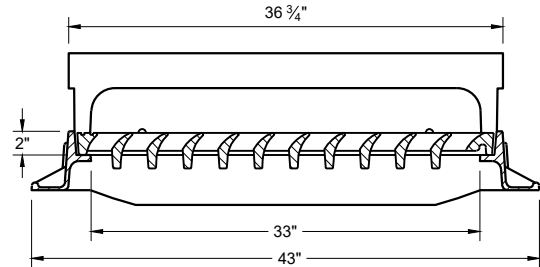
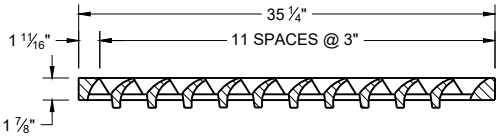
NOTE: EITHER CASTING IS ACCEPTABLE

TYPE "C" CHECKERED TOP DESIGN (OPTIONAL)

SEE LOGO DETAIL



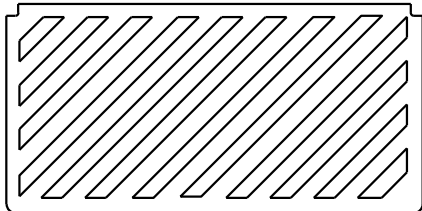
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"



TYPE "H"

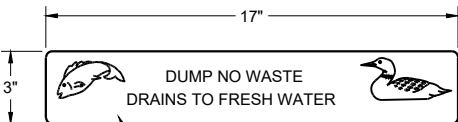
NOTE: EITHER CASTING IS ACCEPTABLE

1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS

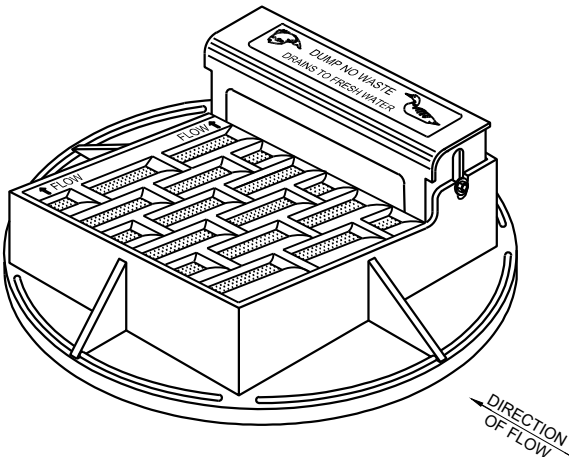


SPECIAL GRATE FOR TYPE "H" COVER

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

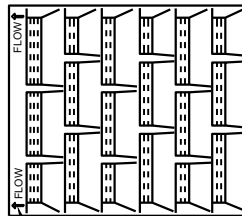


LOGO DETAIL

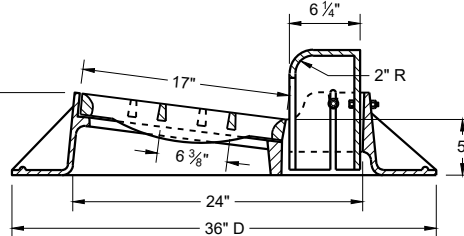
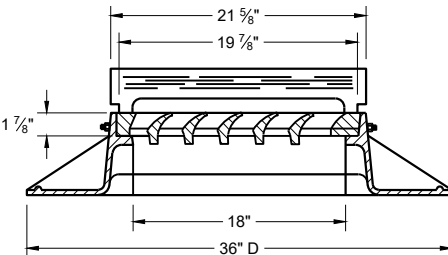
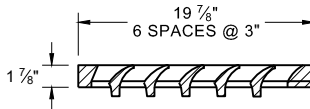


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

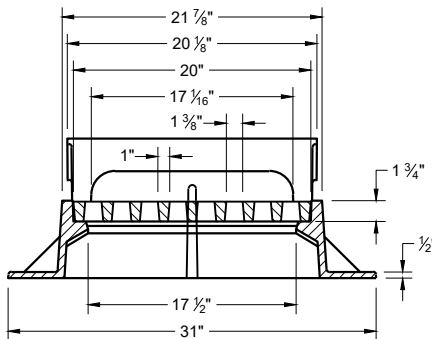
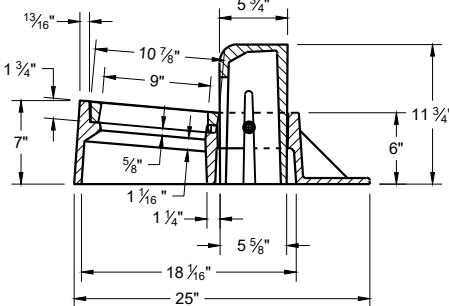
NOTE: EITHER CASTING IS ACCEPTABLE



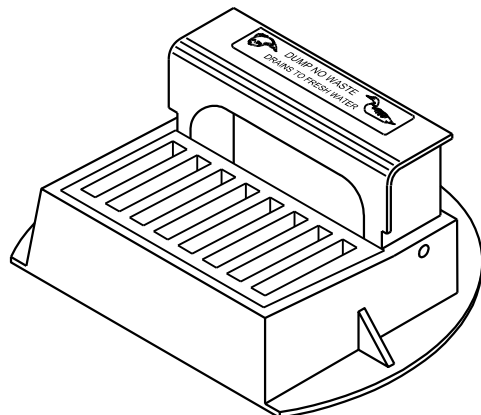
DIRECTION OF FLOW ARROWS



TYPE "A"



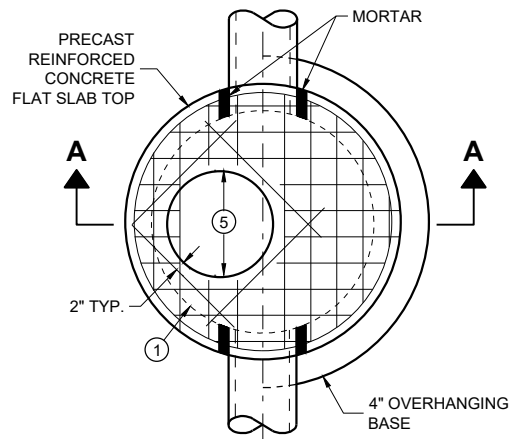
TYPE "Z"



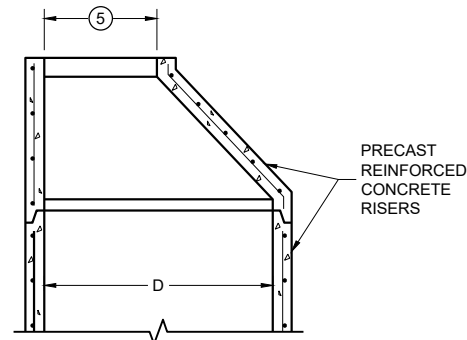
INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

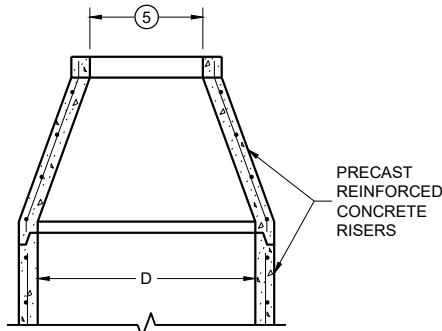
APPROVED
December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW
CIRCULAR OPENING



OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP



OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP

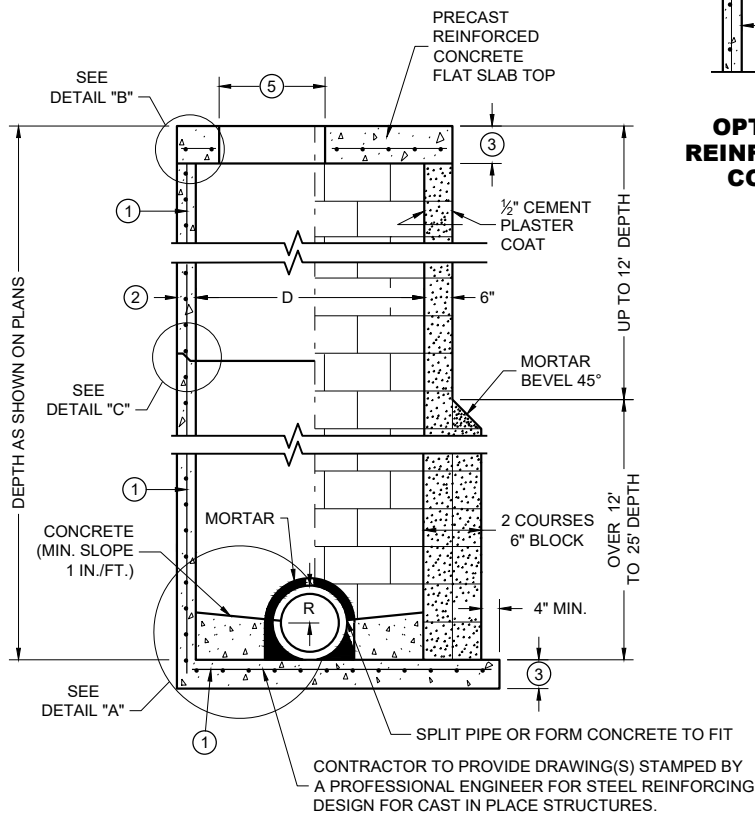
MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

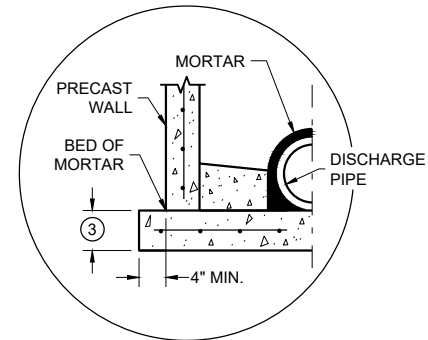
*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.



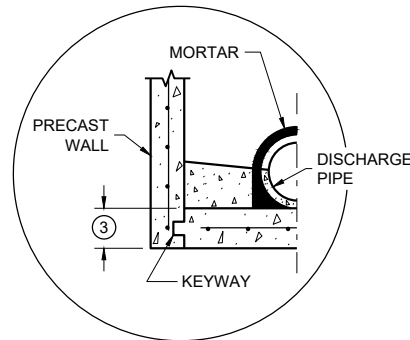
SECTION A - A

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

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

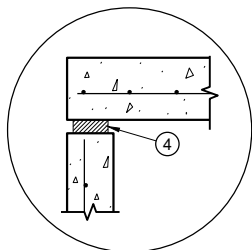


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

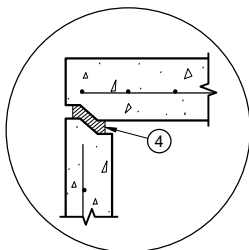


PRECAST REINFORCED CONCRETE
WITH INTEGRAL BASE OPTION

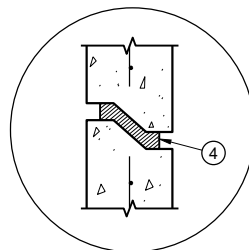
DETAIL "A"



TOP WITH PLAIN
END JOINT



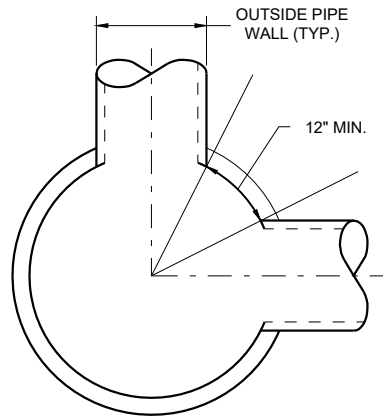
TOP WITH TONGUE
AND GROOVE JOINT



RISER WITH TONGUE
AND GROOVE JOINT

DETAIL "B"

DETAIL "C"



MINIMUM HORIZONTAL
PIPE SEPARATION

DETAIL "D"

GENERAL NOTES

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

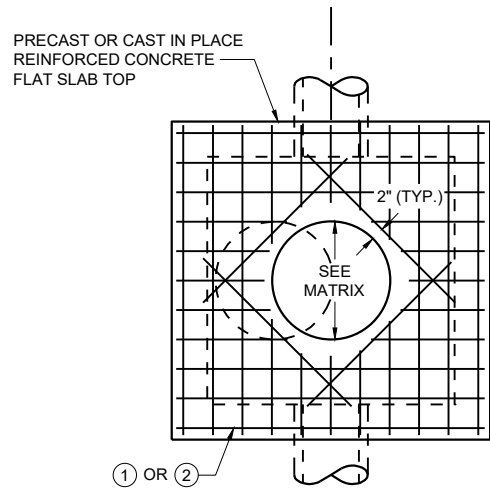
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

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

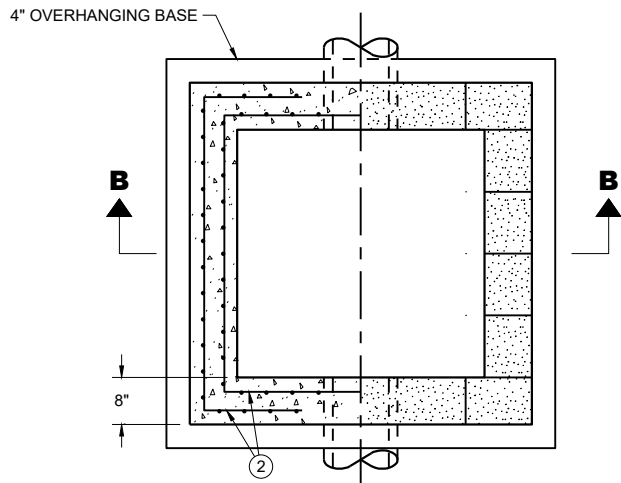
MANHOLES, 3-FT, 4-FT
5-FT, 6-FT, 7-FT, 8-FT, 9-FT
AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

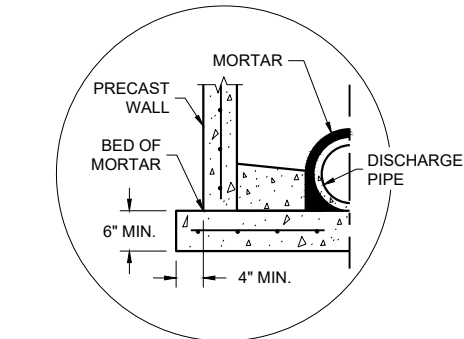
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PLAN VIEW
CIRCULAR OPENING

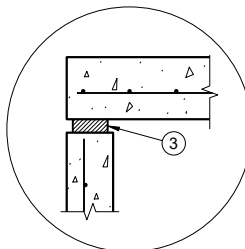


SECTION A - A
PLAN VIEW

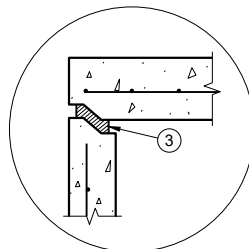


SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"

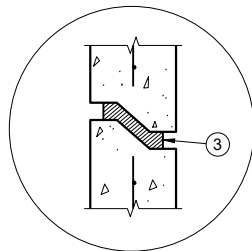


TOP WITH PLAIN
END JOINT



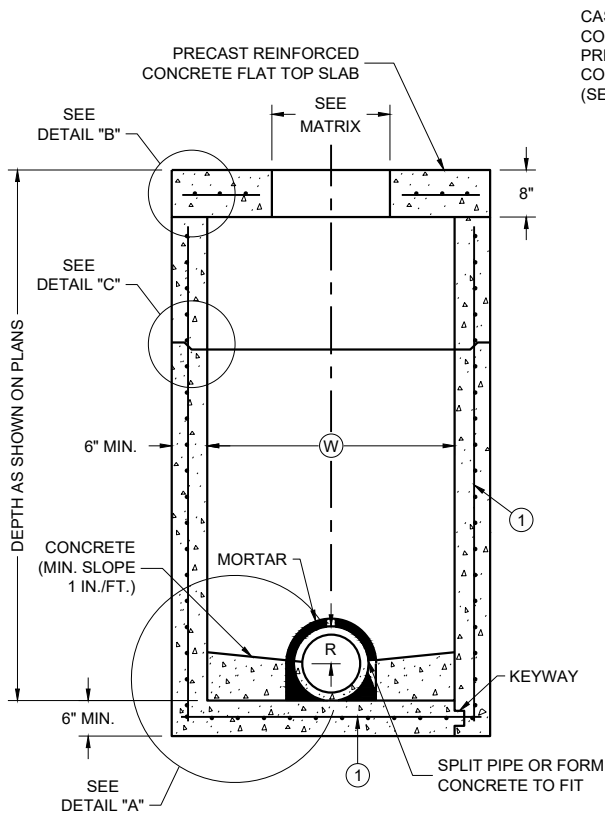
TOP WITH TONGUE
AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE
AND GROOVE JOINT

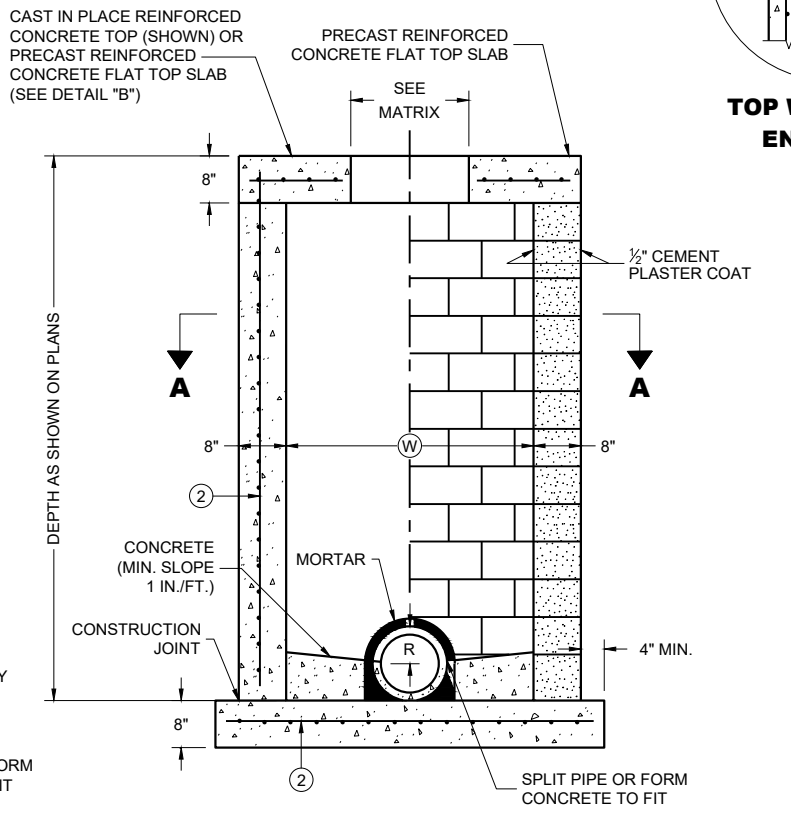
DETAIL "C"



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

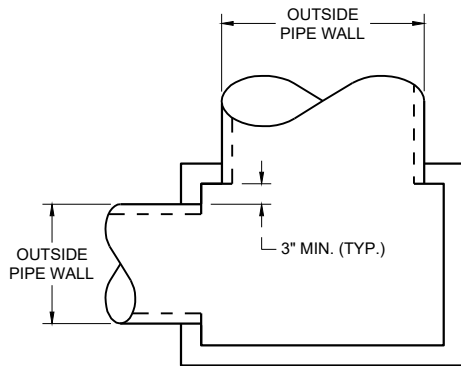
SQUARE MANHOLES WITH FLAT TOP



CAST IN PLACE
REINFORCED
CONCRETE

CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE

MANHOLES 3 X 3-FT, 4 X 4 -FT, 5 X 5-FT AND 6 X 6-FT



DETAIL "D"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C913.

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

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

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

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

- 1 FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- 2 CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGNFOR CAST-IN-PLACE STRUCTURES.
- 3 JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.)

MANHOLE COVER
OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT.)					
2 DIA.	X	X		X	
3 DIA.			X		X

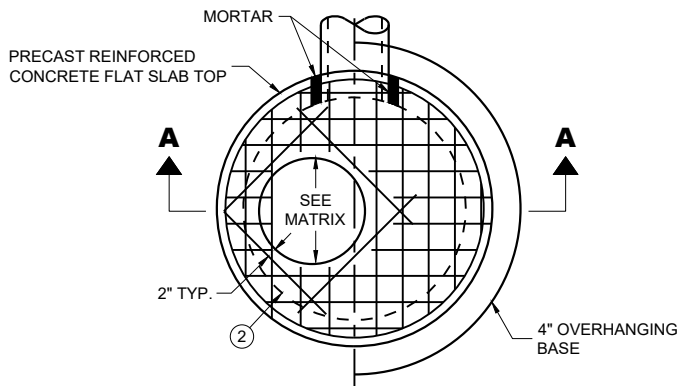
PIPE MATRIX

MANHOLE SIZE WxW-FT	MAXIMUM INSIDE PIPE DIAMETER (IN)
3 X 3 FT	24
4 X 4 FT	30
5 X 5 FT	42
6 X 6 FT	54

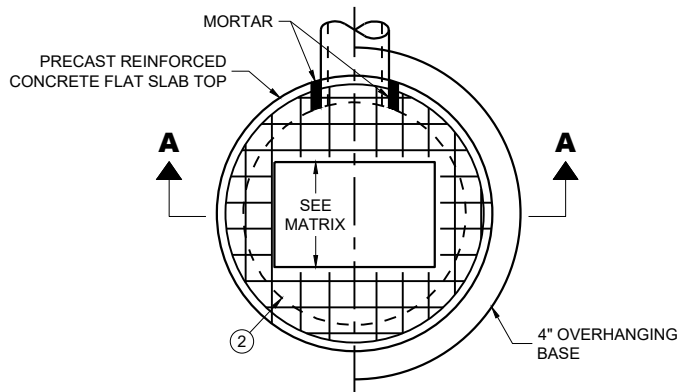
MANHOLES
3 X 3 -FT, 4 X 4-FT
5 X 5-FT AND 6 X 6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

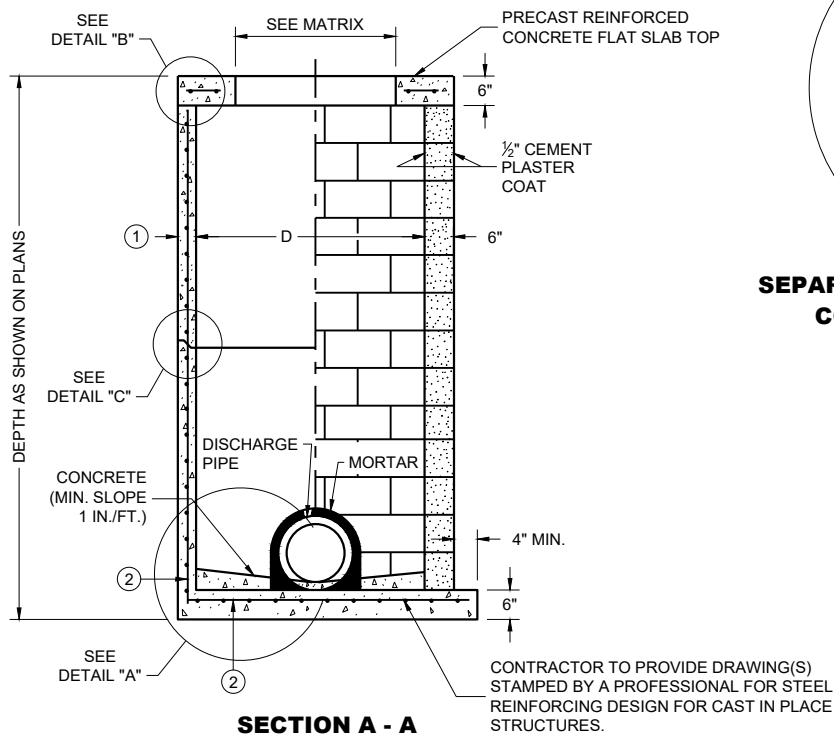
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PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE

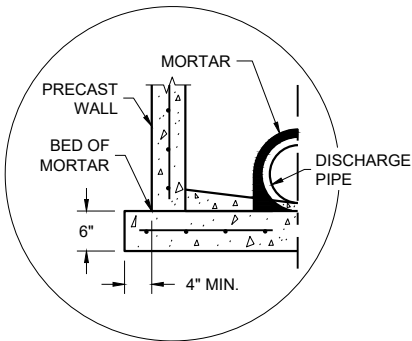
CIRCULAR INLETS WITH FLAT TOP

CATCH BASIN COVER OPENING MATRIX

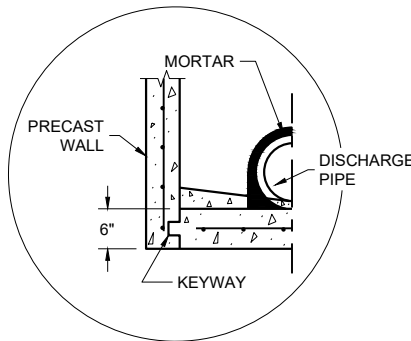
INLET SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT.)											
3-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
4-FT	2 DIA.				X							X
	2 X 2	X	X					X		X		
	2 X 2.5			X				X	X	X	X	
	2 X 3						X					
	2.5 X 3					X						

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

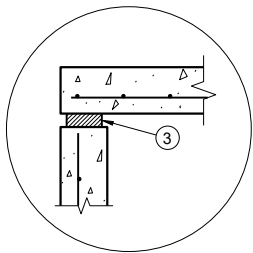


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

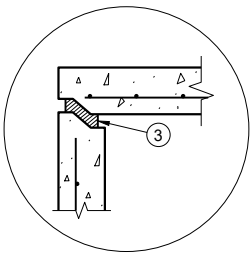


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

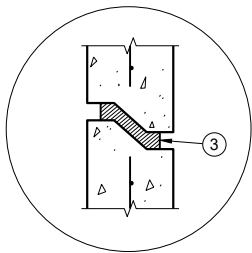


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

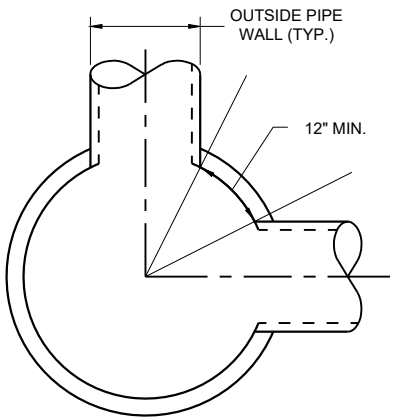
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT DIAMETER AND 5 INCHES FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST INLETS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

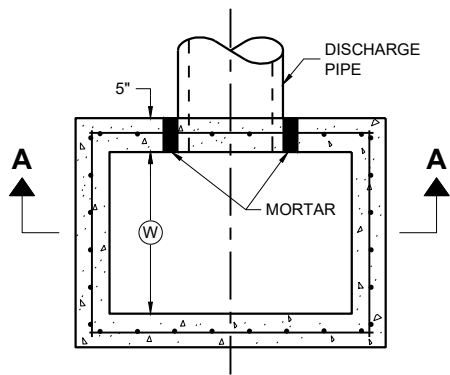


MINIMUM HORIZONTAL PIPE SEPARATION
DETAIL "D"

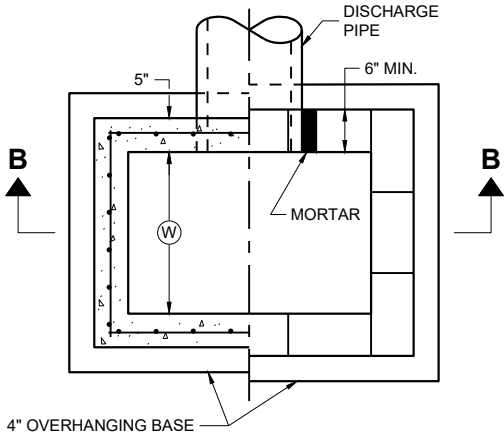
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

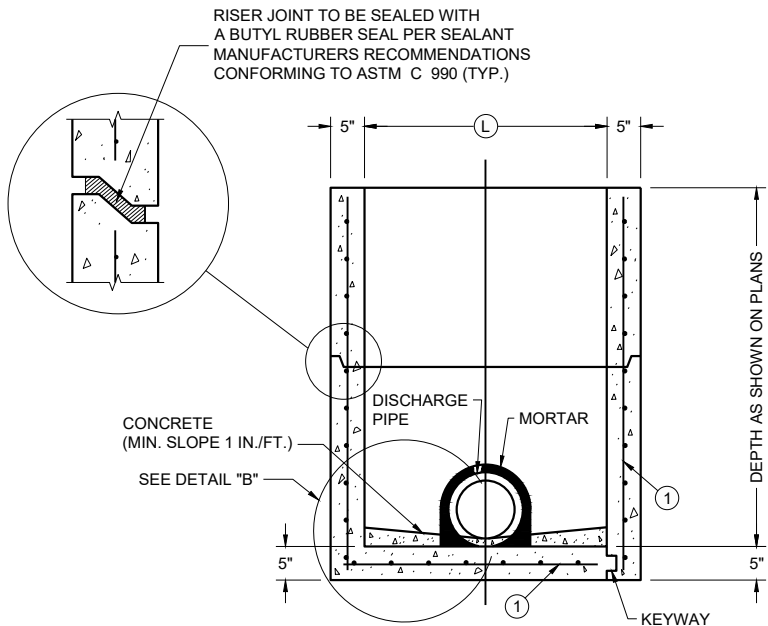
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December 2023 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



PLAN VIEW



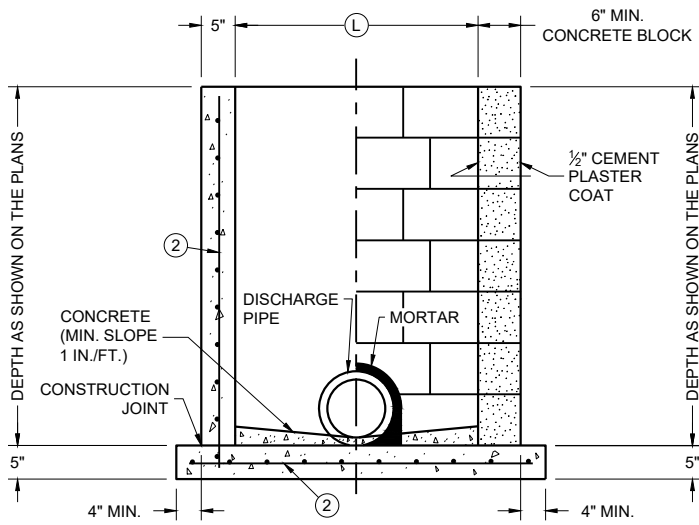
PLAN VIEW



PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

PRECAST REINFORCED
CONCRETE WITH
INTEGRAL BASE

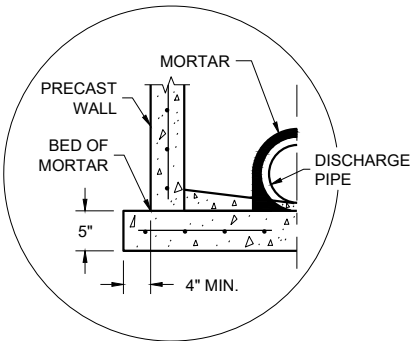
SECTION A - A



CAST IN PLACE
REINFORCED
CONCRETE

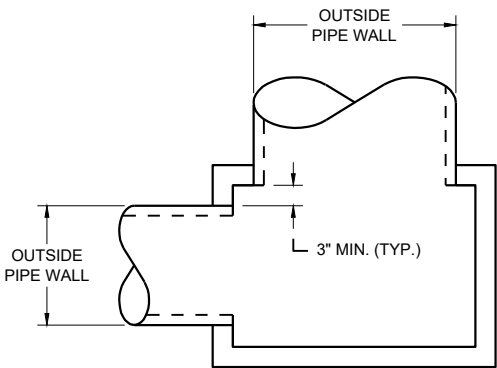
CONCRETE BLOCK WITH
CAST IN PLACE OR
PRECAST REINFORCED
CONCRETE BASE ①

SECTION B - B



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "B"



DETAIL "A"

INLETS 2 X 2-FT, 2 X 2.5-FT, 2 X 3-FT, 2.5 X 3-FT AND 2X3.5-FT

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.

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

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

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

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

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

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

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

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

CATCH BASIN COVER MATRIX

INLET SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE									
			ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM	V V-B
2 X 2-FT	2	2	X	X				X				
2 X 2.5-FT	2	2.5			X			X	X	X	X	
2 X 3-FT	2	3					X					
2.5 X 3-FT	2.5	3				X						
2 X 3.5-FT	2	3.5										X

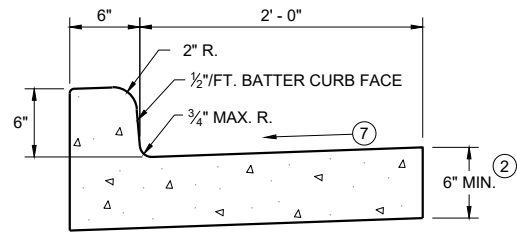
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2 X 2-FT	12	12
2 X 2.5-FT	12	18
2 X 3-FT	12	24
2.5 X 3-FT	18	24
2 X 3.5-FT	12	30

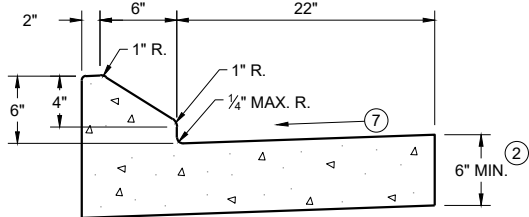
INLETS 2 X 2-FT, 2 X 2.5-FT,
2 X 3-FT, 2.5 X 3-FT
AND 2 X 3.5-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

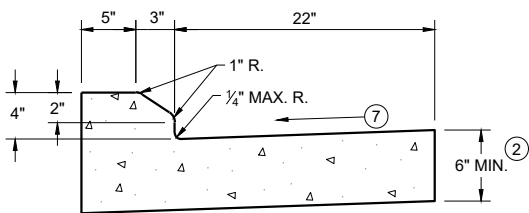
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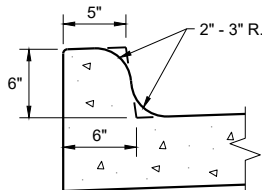
TYPES A^① & D



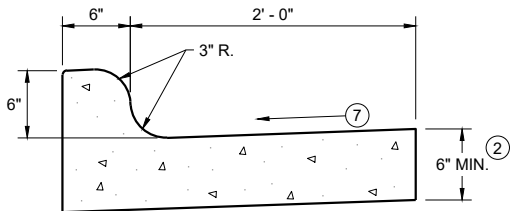
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

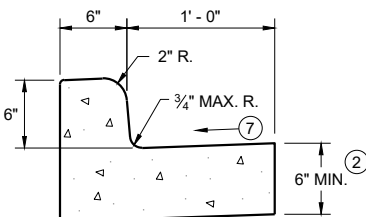


TYPES K^① & L
(OPTIONAL CURB SHAPE)



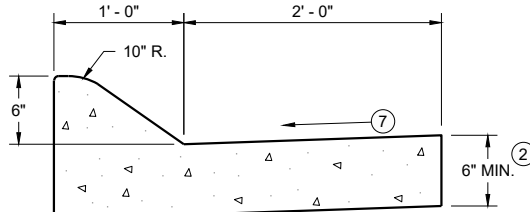
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

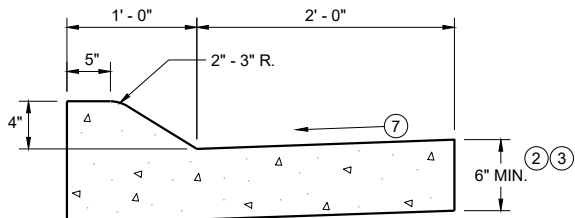


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

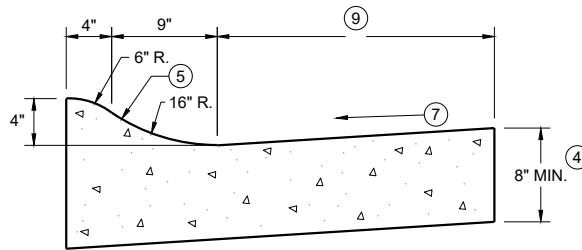


6" SLOPED CURB TYPES A^① & D



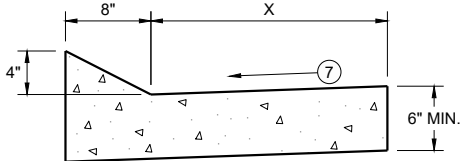
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

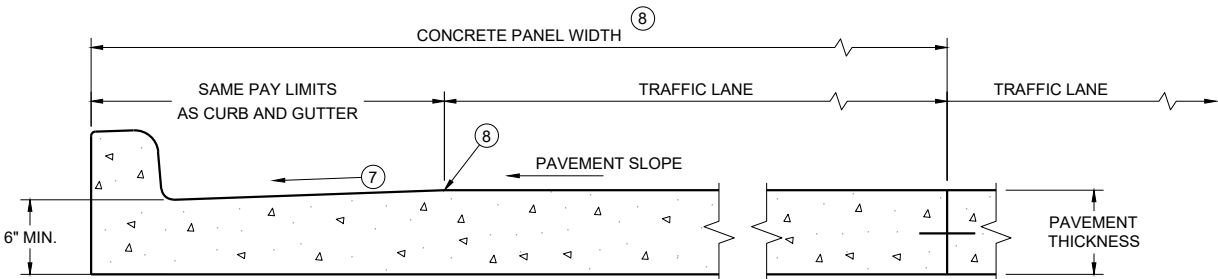


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

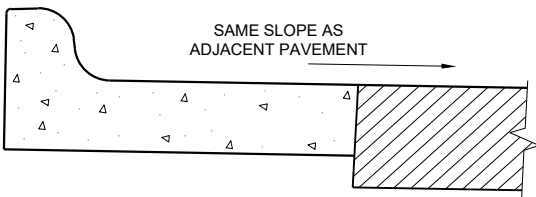
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

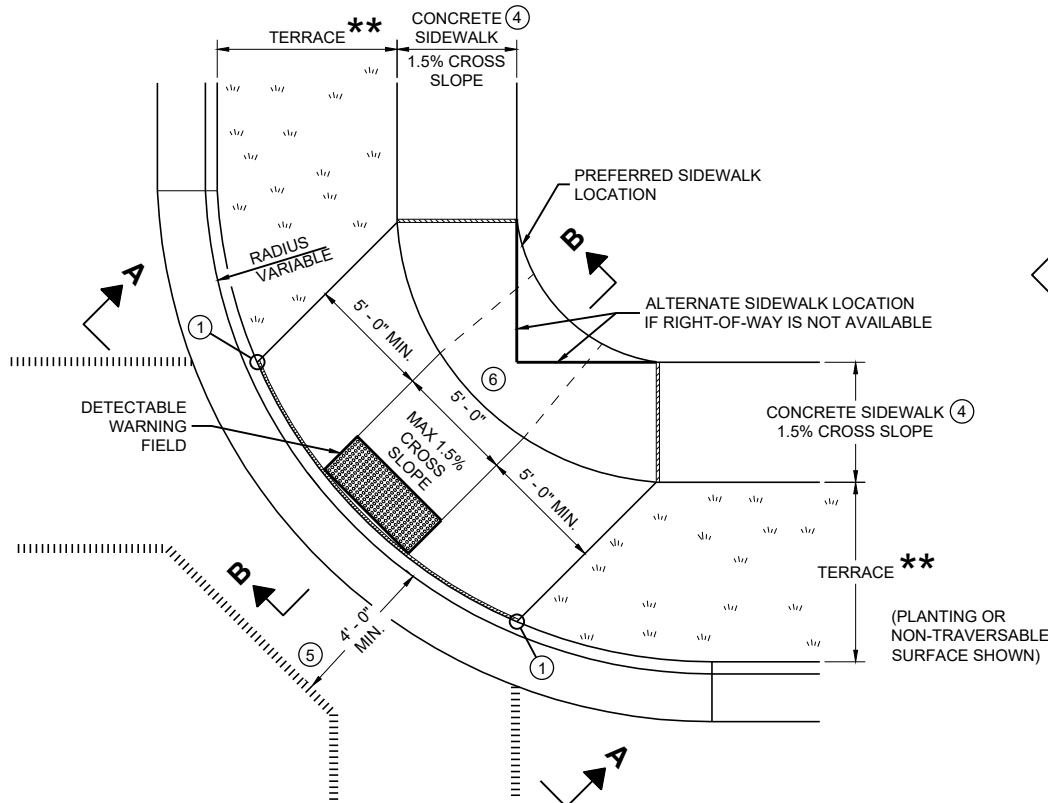
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

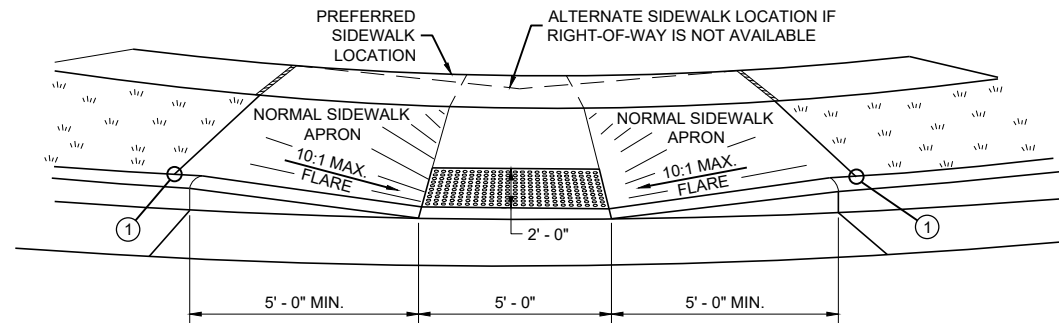
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

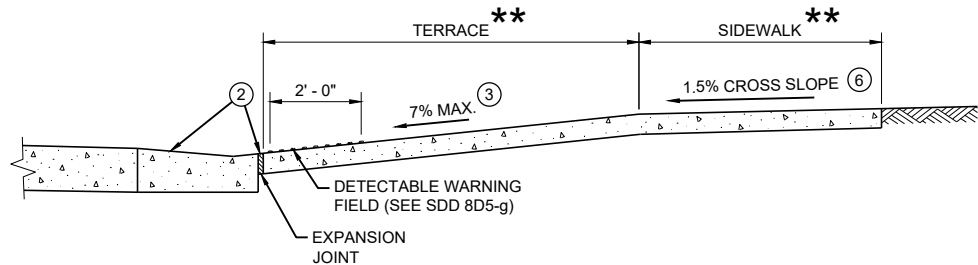


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

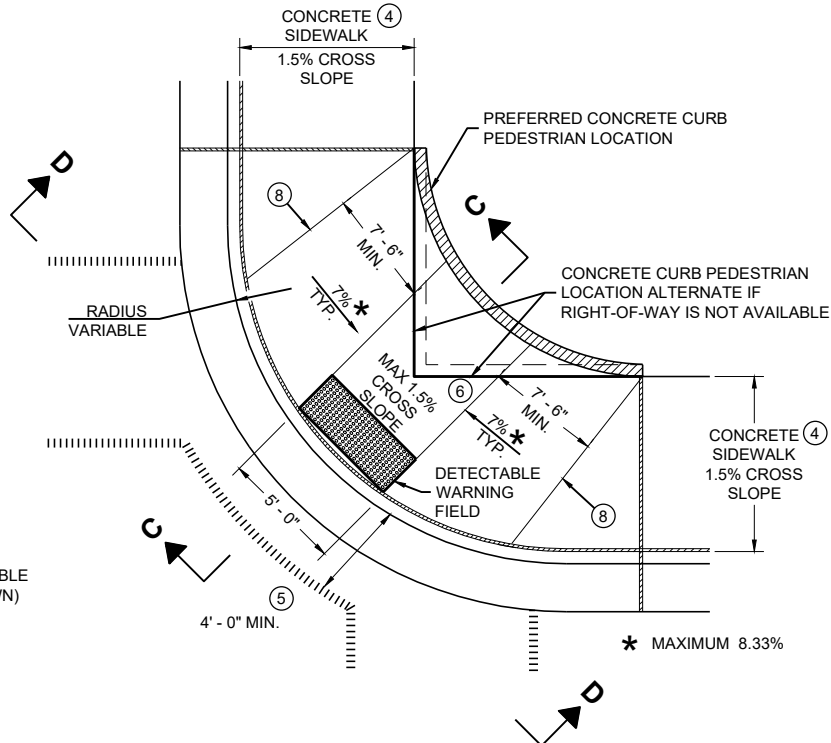


VIEW A - A FOR TYPE 1

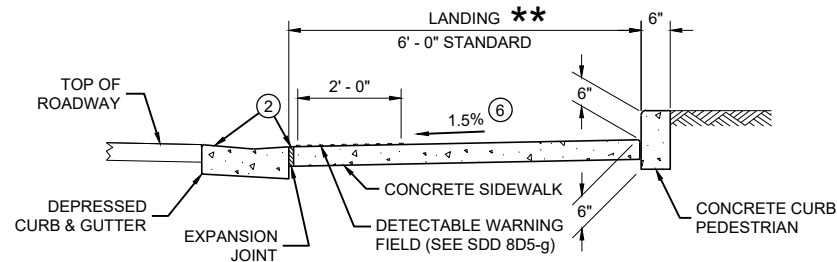
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



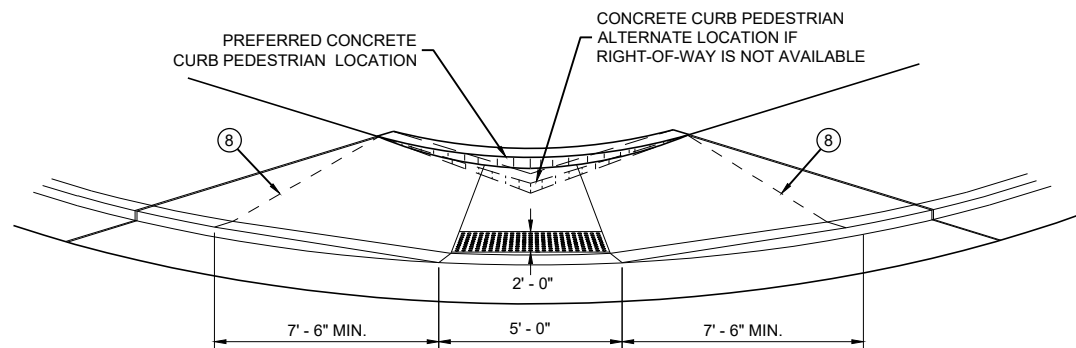
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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 FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

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

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

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

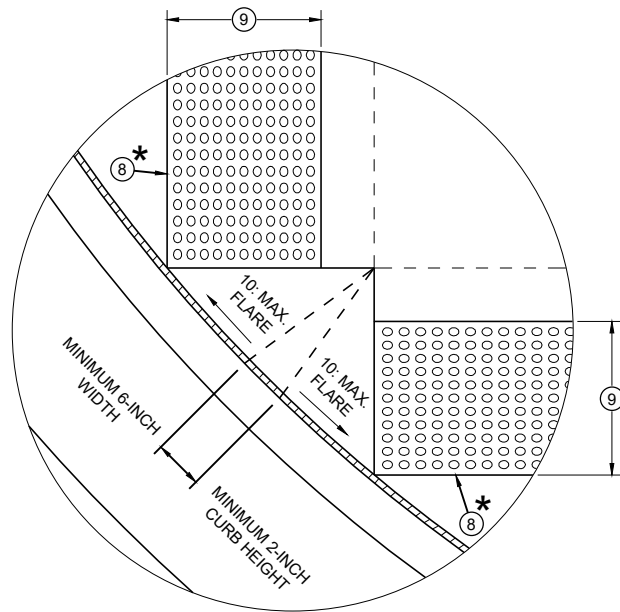
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

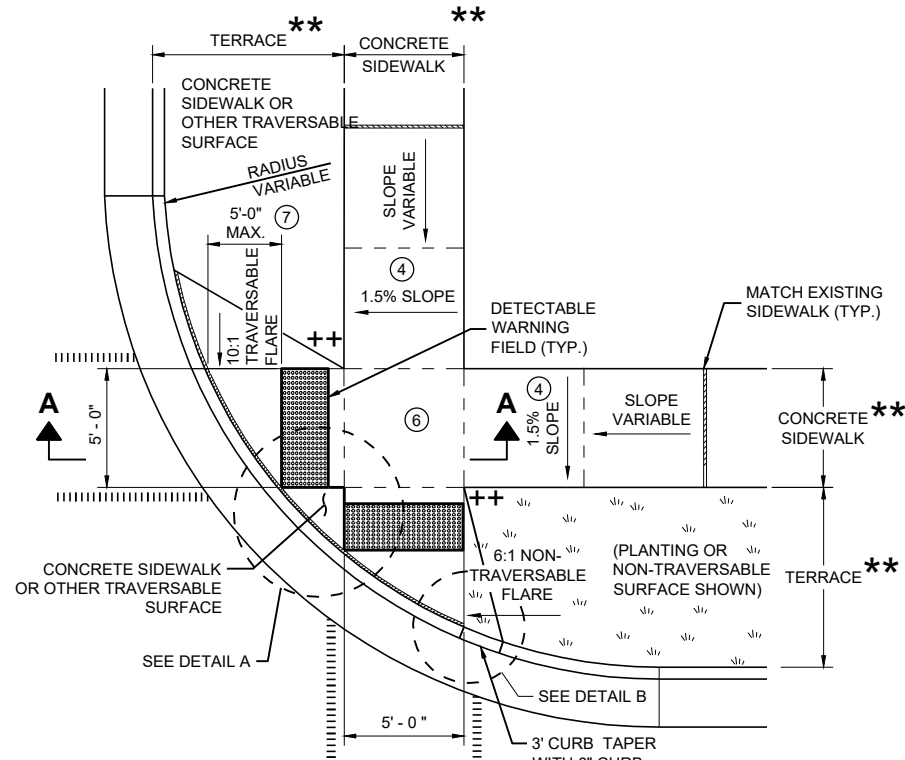
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 1 AND 1-A

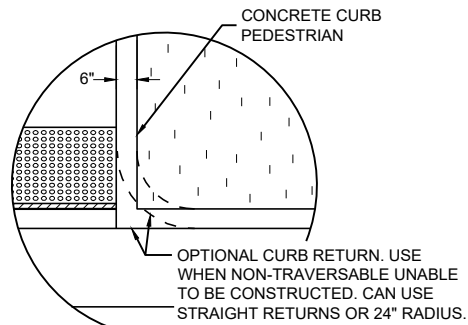
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



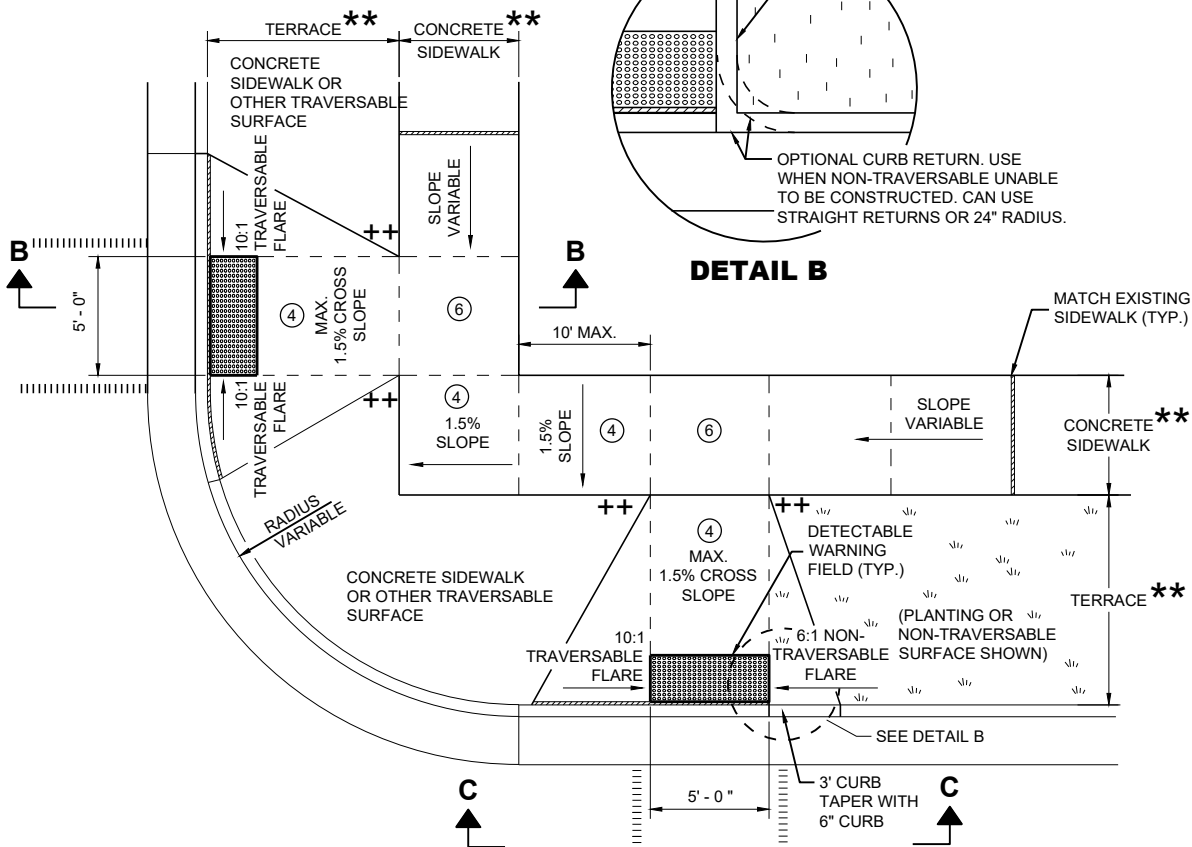
DETAIL A



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



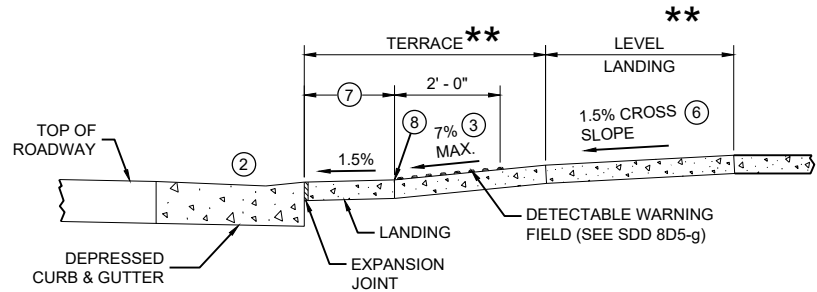
DETAIL B



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

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
 - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
 - ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
 - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

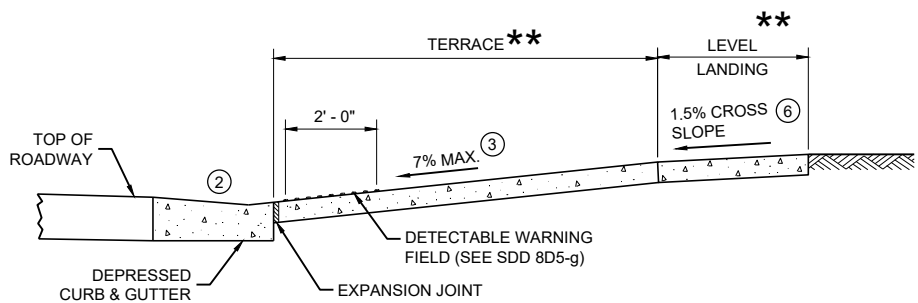


SECTION A - A FOR TYPE 2

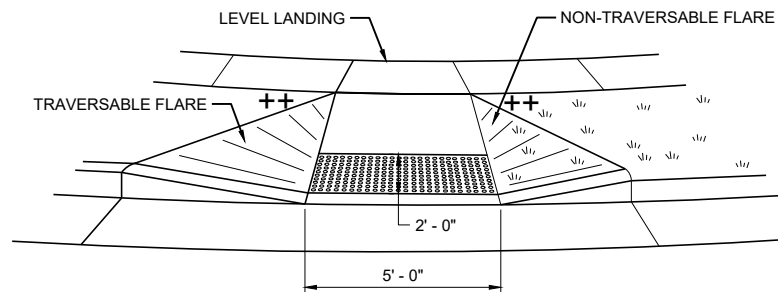
- ★ MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ★★ WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



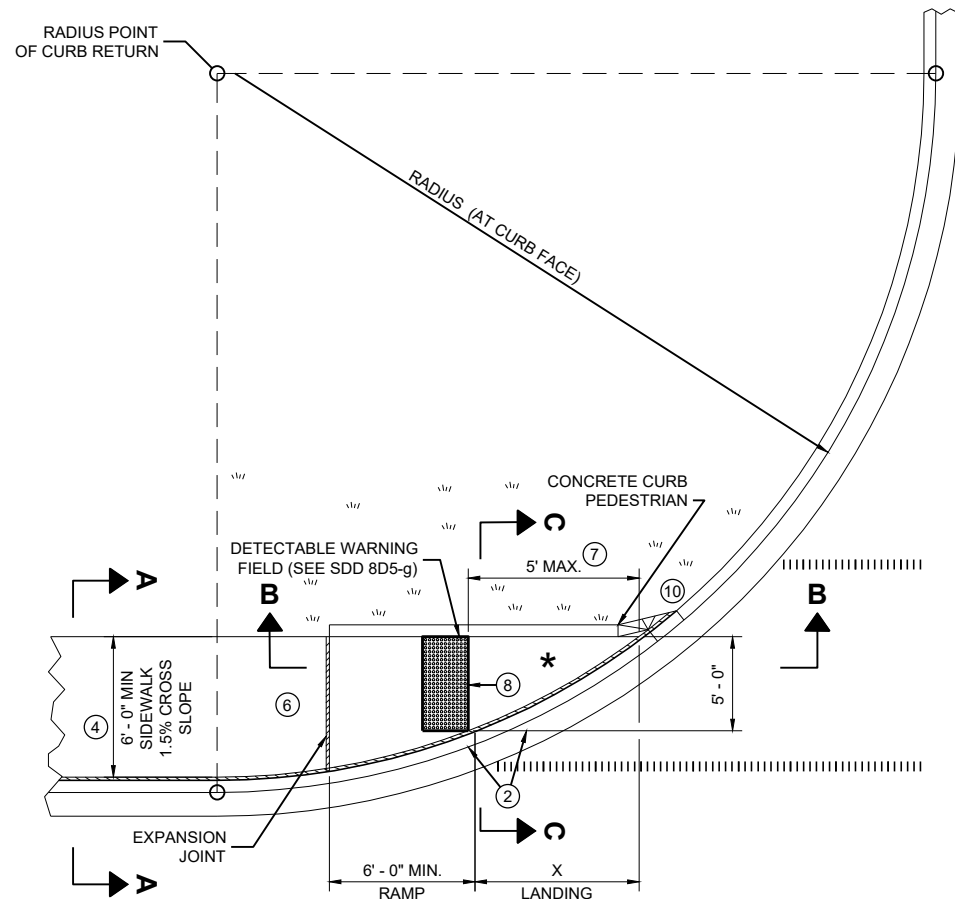
SECTION B - B FOR TYPE 3



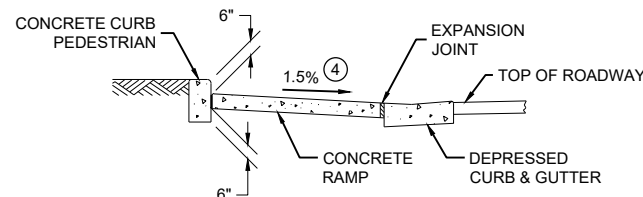
VIEW C - C FOR TYPE 3

CURB RAMPS
TYPE 2 AND 3

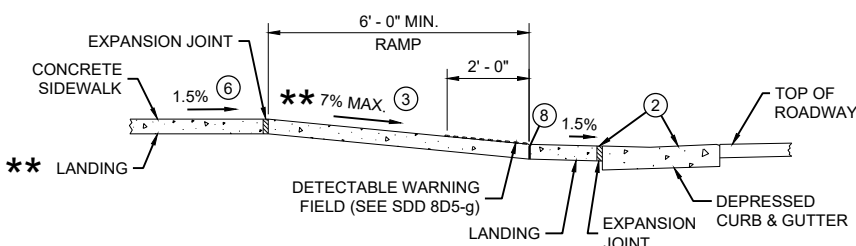
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW
CURB RAMP TYPE 4A**



SECTION C - C FOR TYPE 4A



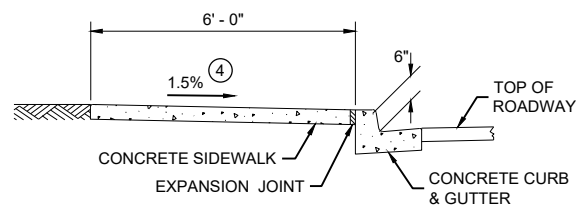
**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED**

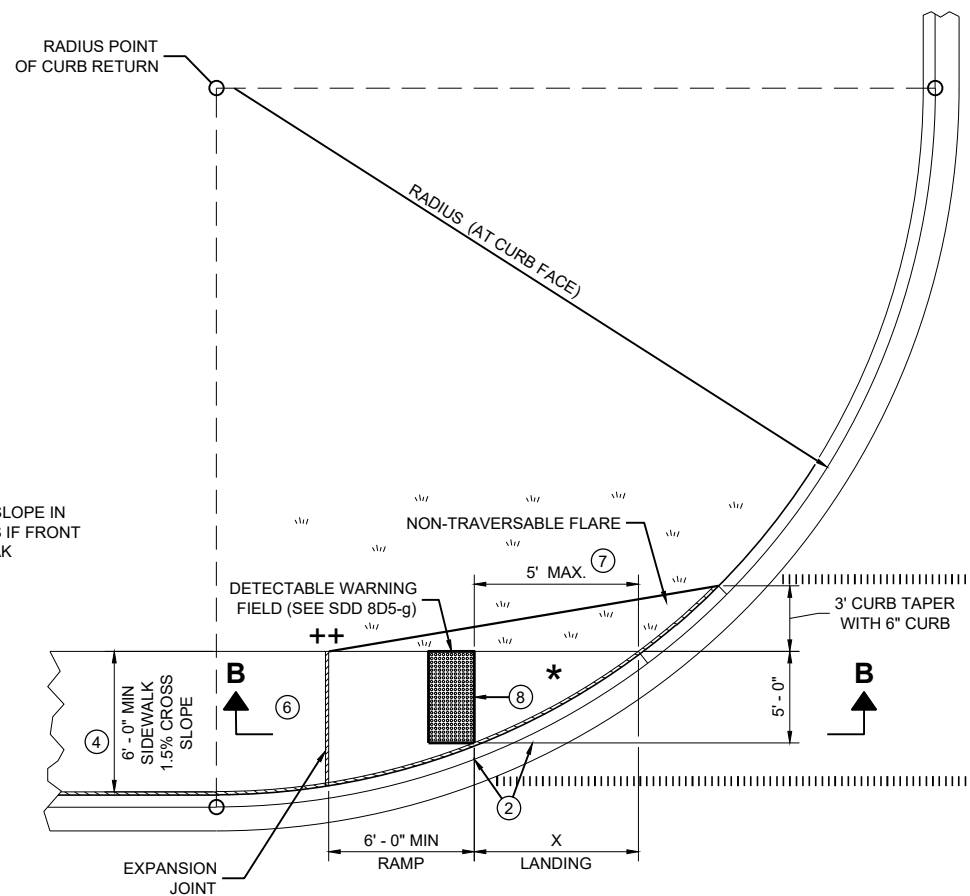
*** MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK**

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



**PLAN VIEW
CURB RAMP TYPE 4A1**

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

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

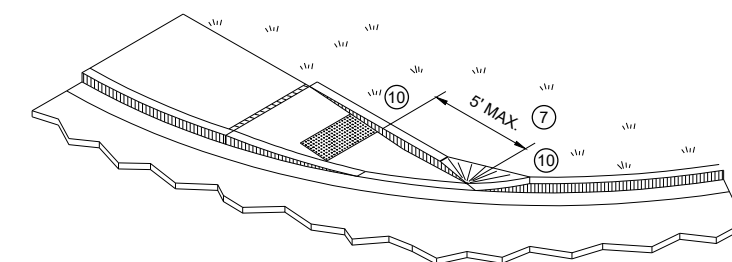
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

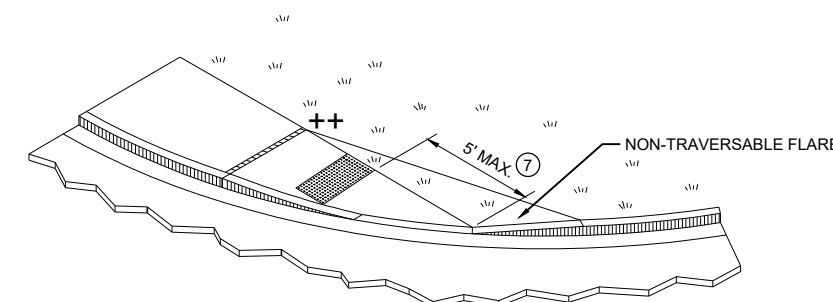
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH 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

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)



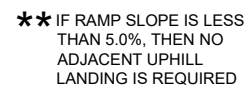
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS TYPE 4A AND 4A1

STATE OF WISCONSIN
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SECTION B - B FOR TYPE 4B AND TYPE 4B1

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 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 ¾"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ½"
20 FEET			4' - 11 ½"	5' - 1 ¾"	4' - 3 ¾"	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 ½"	10' - 9"
30 FEET									4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ½"
40 FEET															4' - 10 ¾"	19' - 8 ½"

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



++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

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.

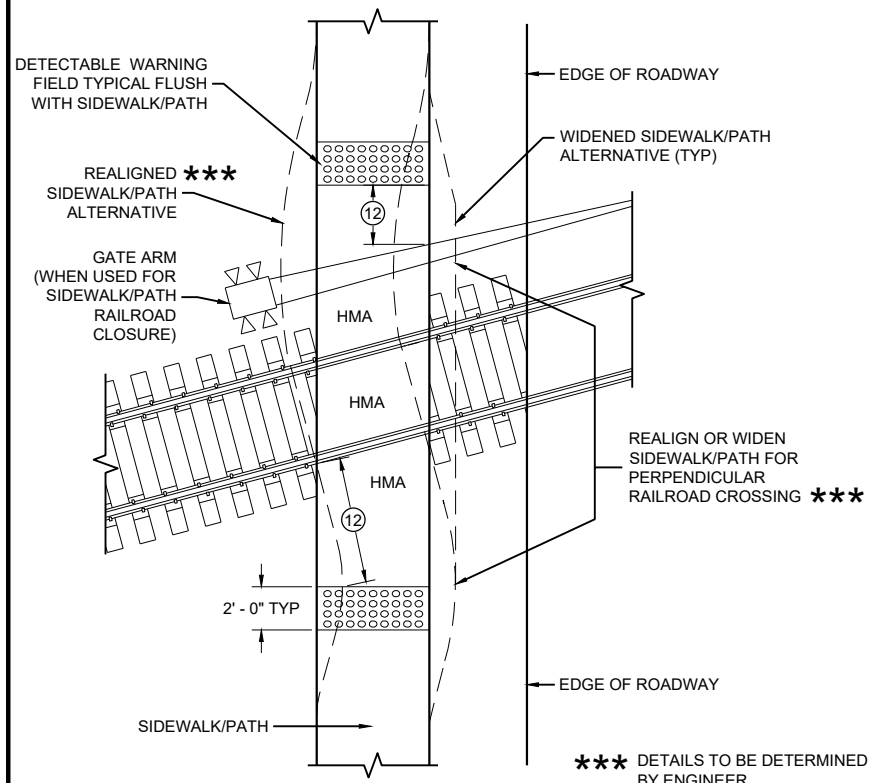
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- 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 $\frac{1}{4}$ - 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 $\pm 0.5\%$ 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.



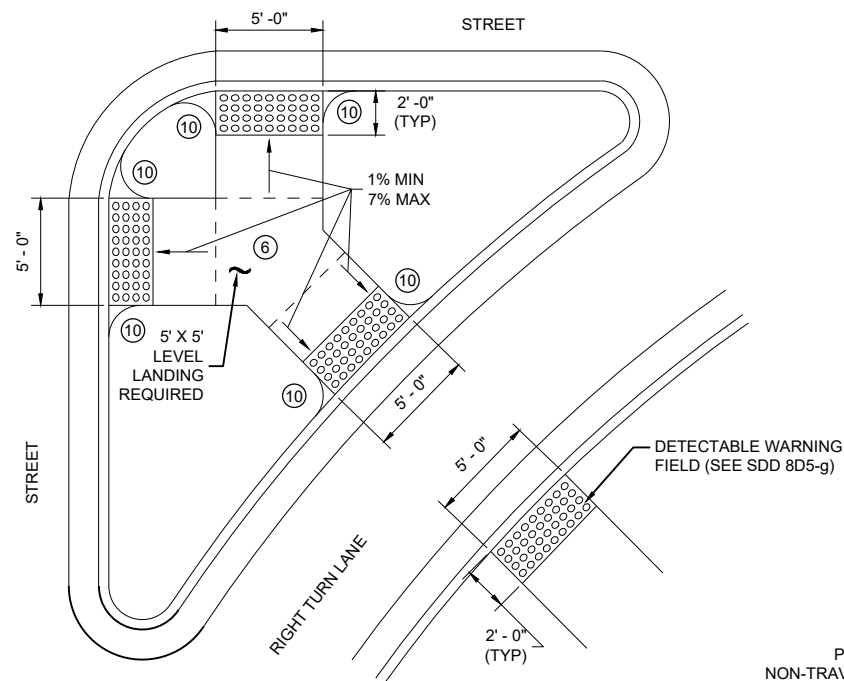
CURB RAMPS TYPE 4B AND 4B1

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CURB RAMP TYPE 8

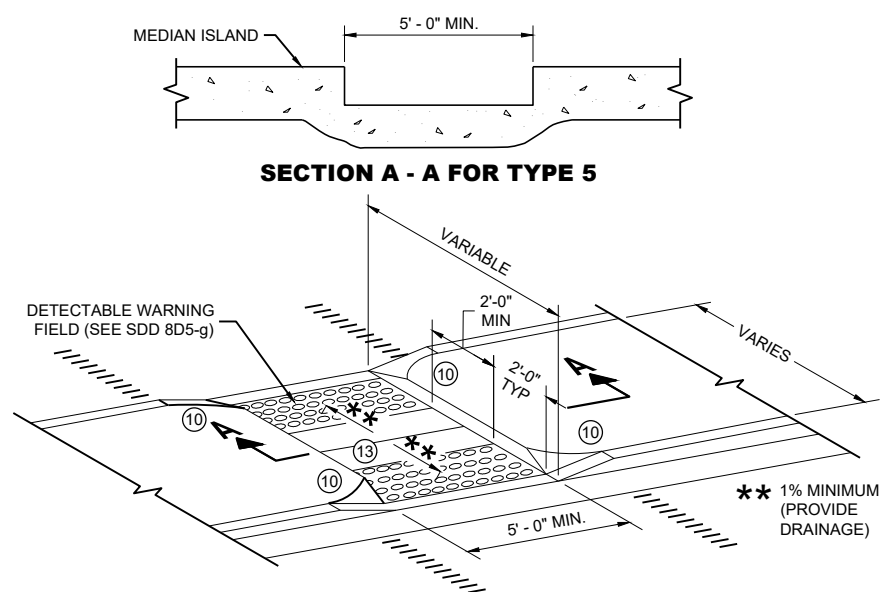
DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

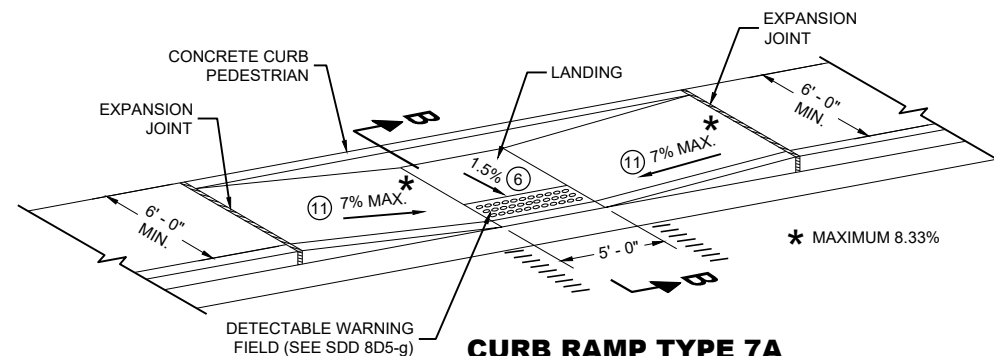
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



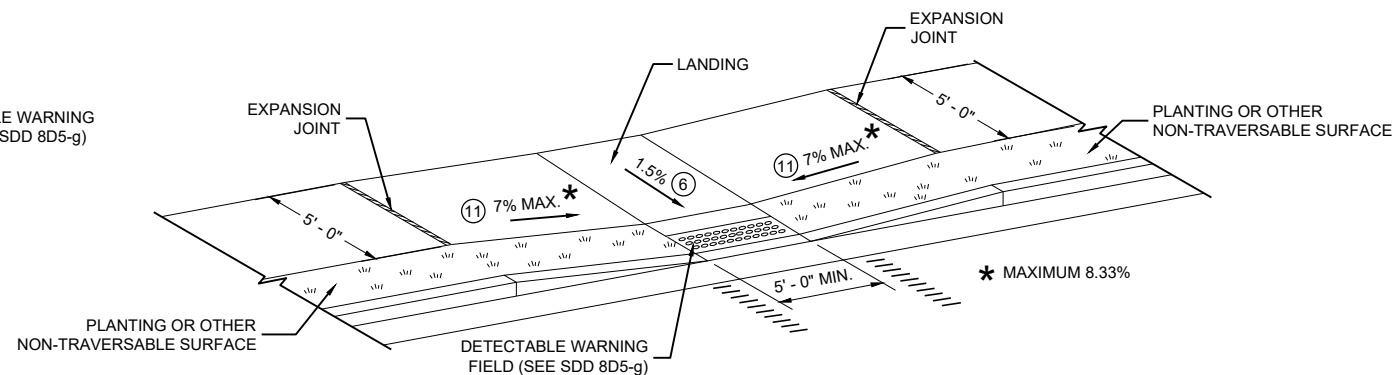
SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A FOR INTERSECTIONS AND MID BLOCK CROSSINGS



CURB RAMP TYPE 7B FOR INTERSECTIONS AND MID BLOCK CROSSINGS

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF 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.

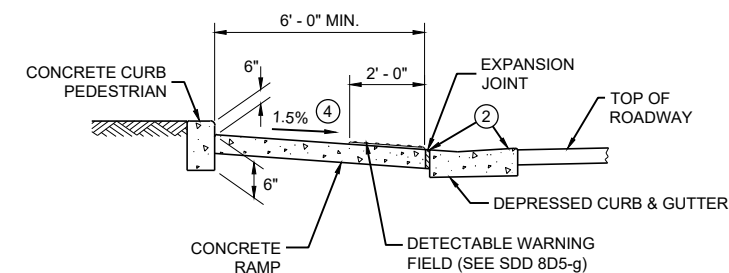
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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 1/8 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 $\pm 0.5\%$ 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 $\pm 0.1'$ FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-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

- ===== 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

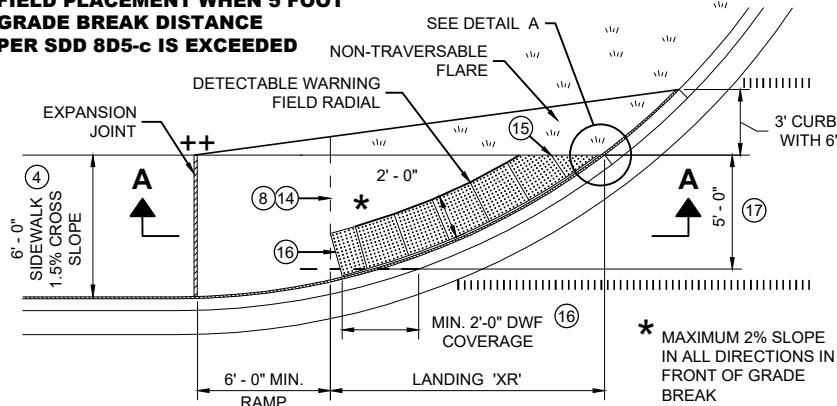


SECTION B - B FOR TYPE 7A

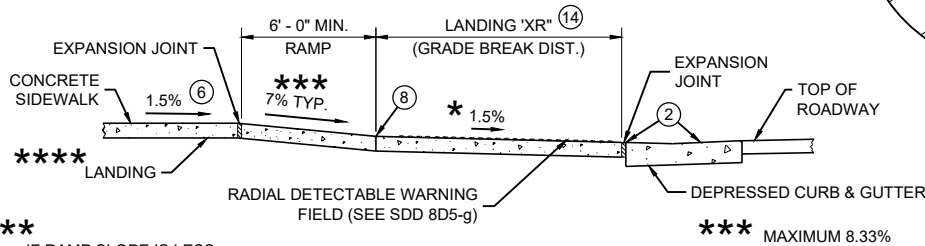
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

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



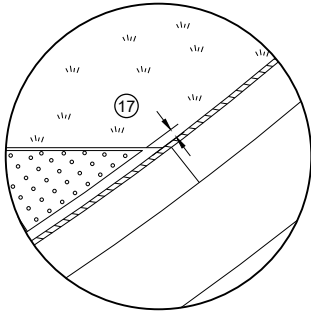
**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



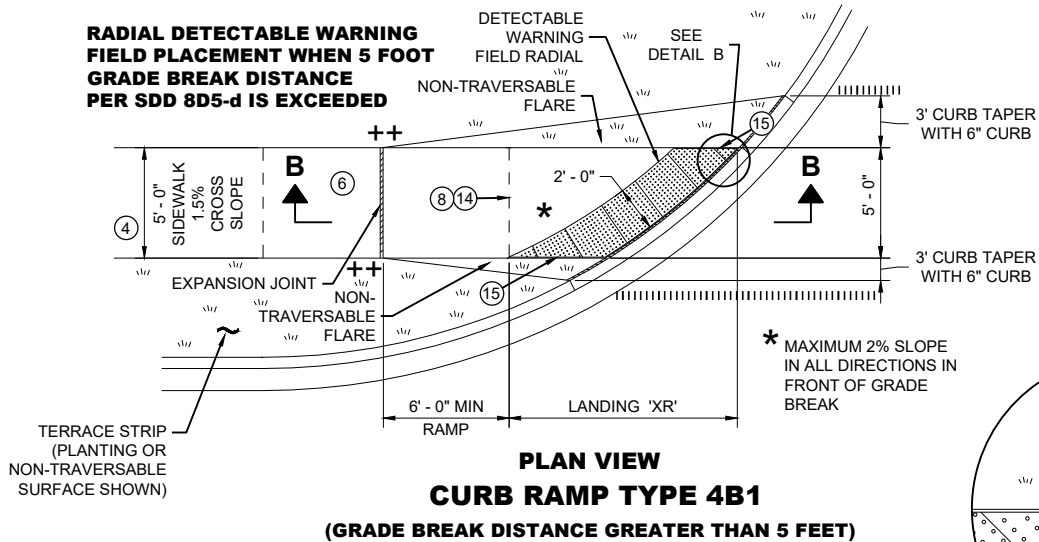
SECTION A - A FOR TYPE 4A1

IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL
LANDING IS REQUIRED

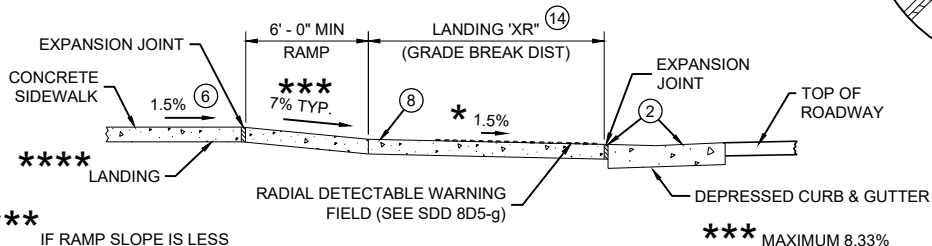
DETAIL A



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



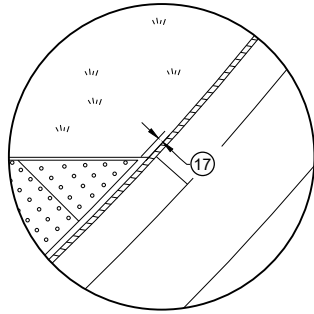
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



SECTION B - B FOR TYPE 4B1

IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL
LANDING IS REQUIRED

DETAIL B



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.

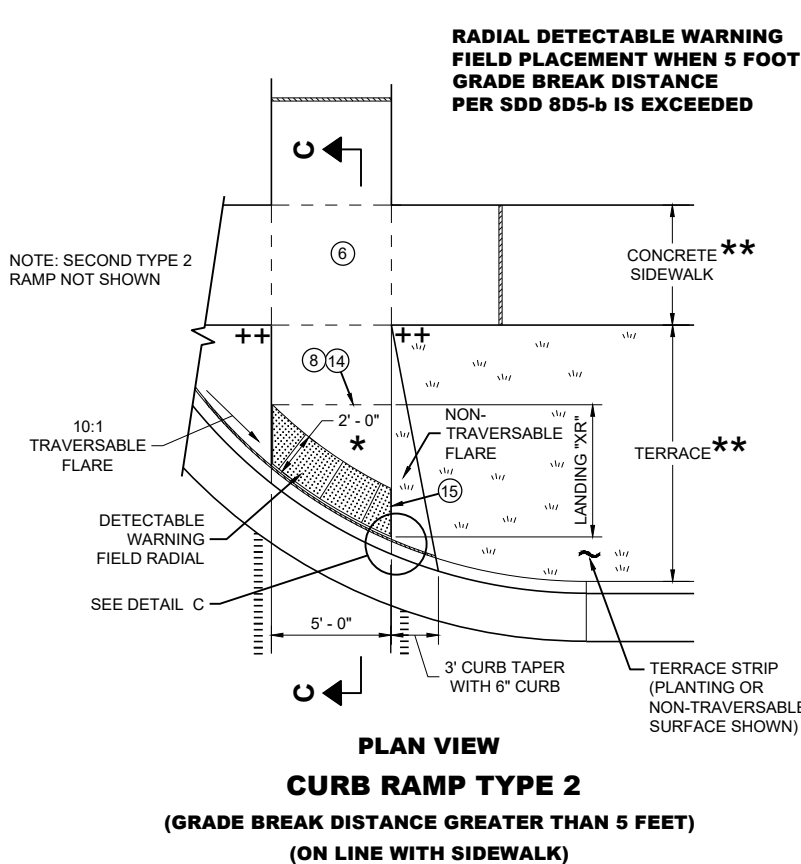
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

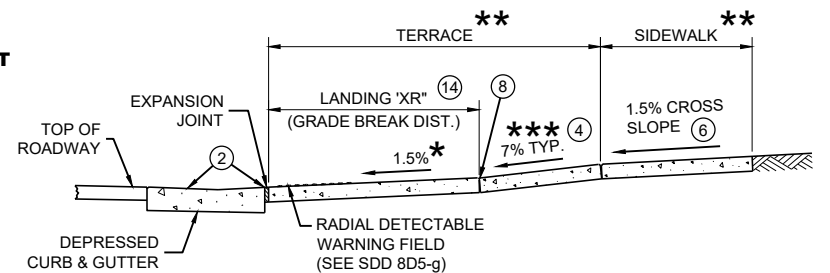
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- (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 1/4" 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 1/2" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- (16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- (17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

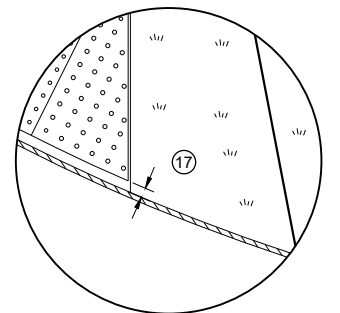
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**



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



SECTION C - C FOR TYPE 2



DETAIL C

*** MAXIMUM 2% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE
BREAK

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

*** MAXIMUM 8.33%

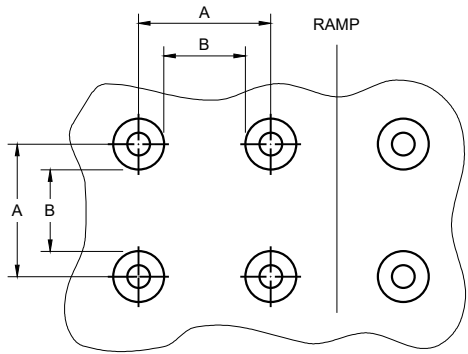
++ CONSTRUCT 6" WEDGE TO
AVOID CONCRETE BREAKAGE

**CURB RAMPS
RADIAL DETECTABLE WARNING**

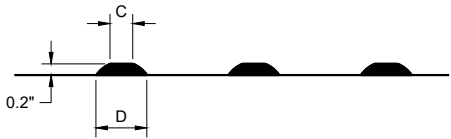
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

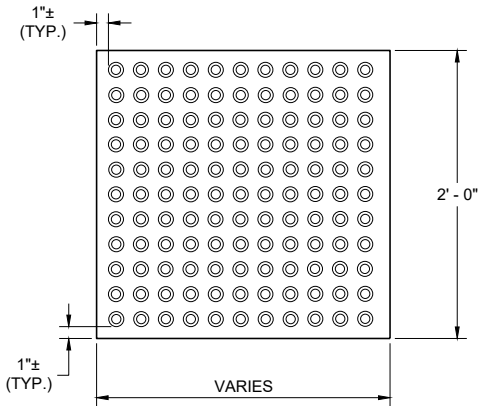


PLAN VIEW

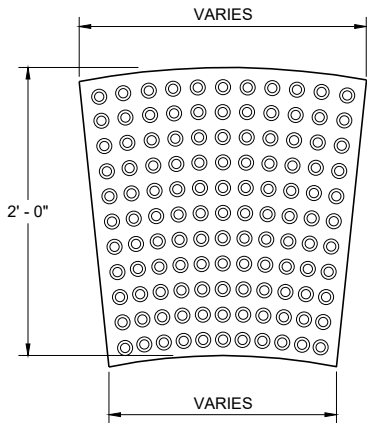


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

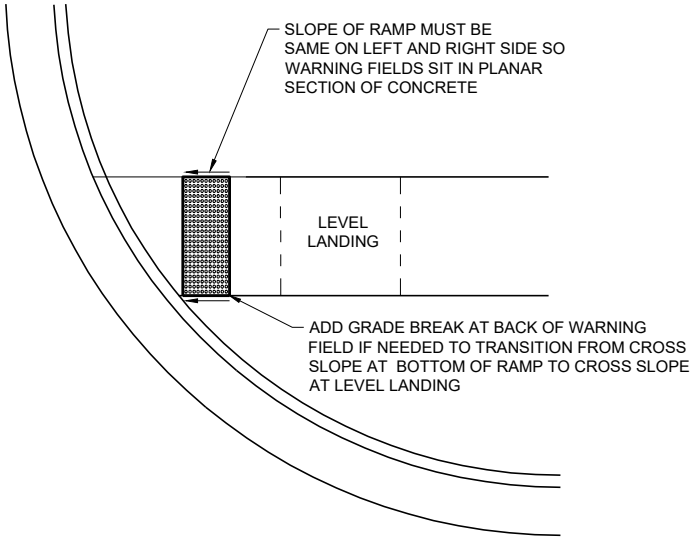


RECTANGULAR
PLATES

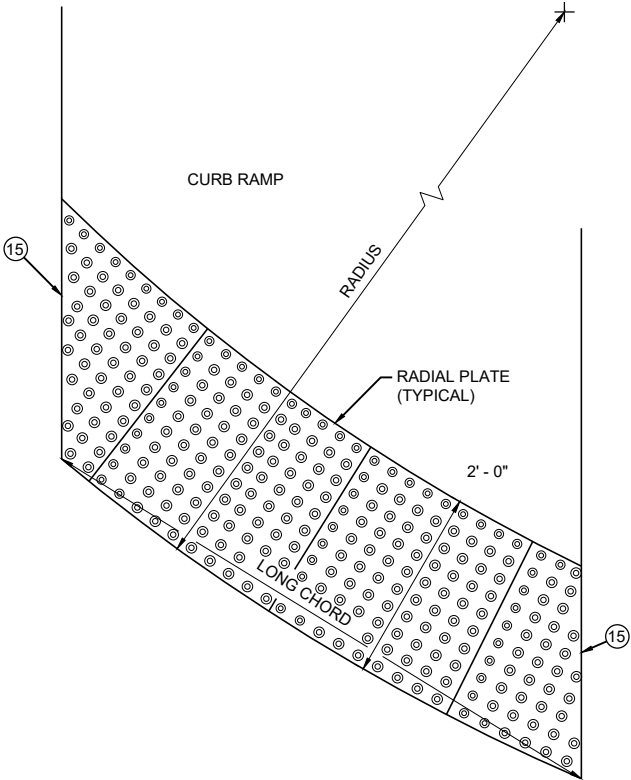


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

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

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

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

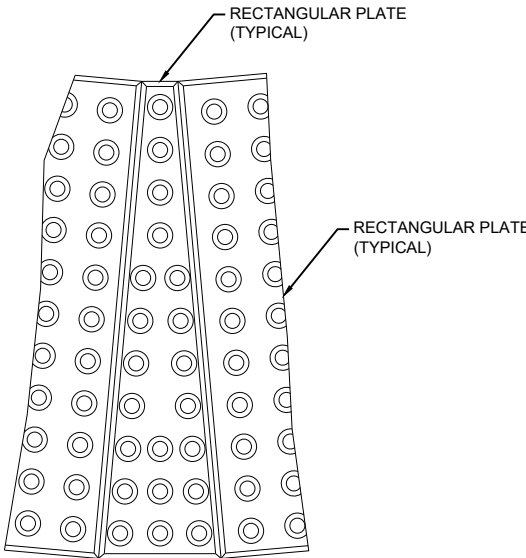
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

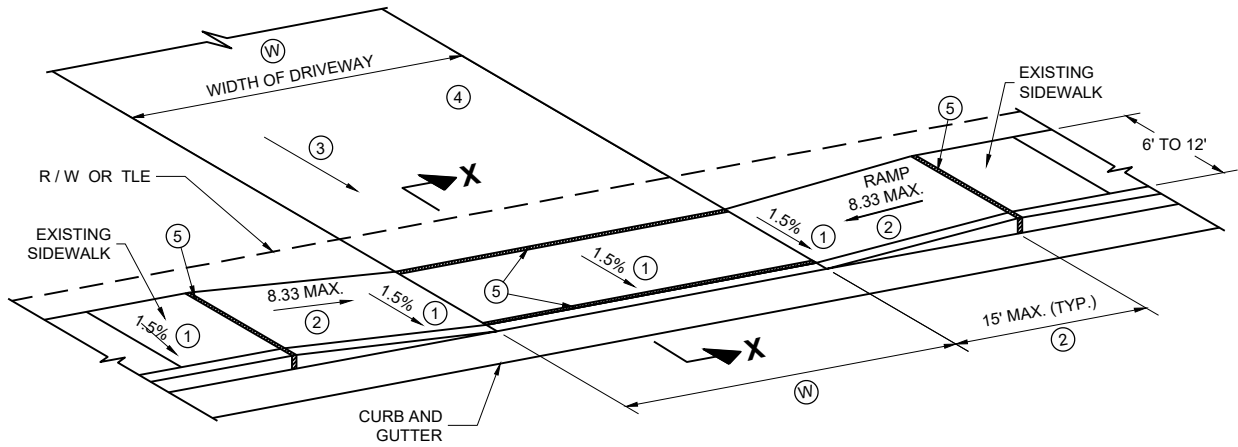


PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

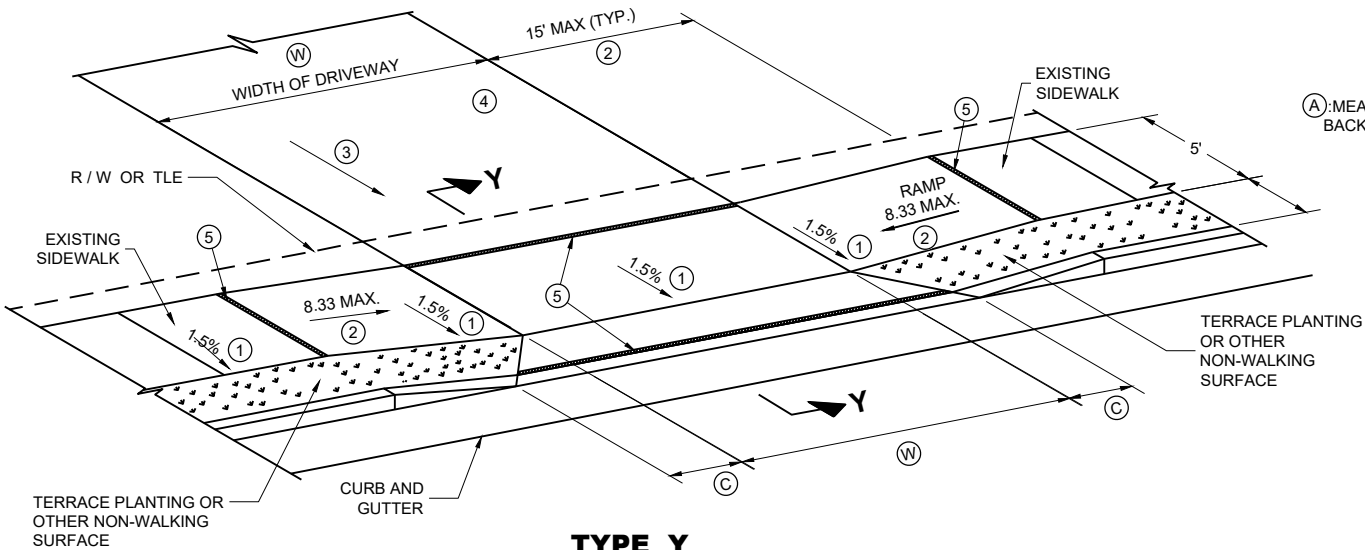
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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



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

GENERAL NOTES

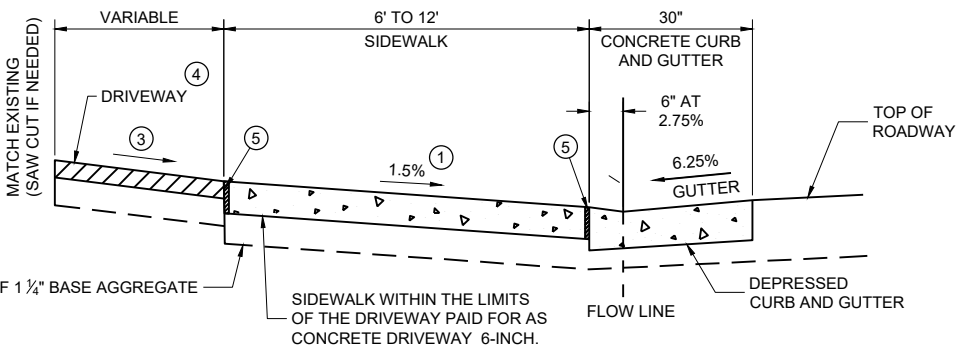
PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

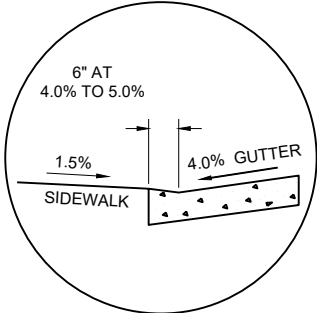
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- ① CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- ② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

- ③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- ④ DRIVEWAY TYPES
· 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
· 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
· 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)
- ⑤ ½" EXPANSION JOINT FILLER



SECTION X - X



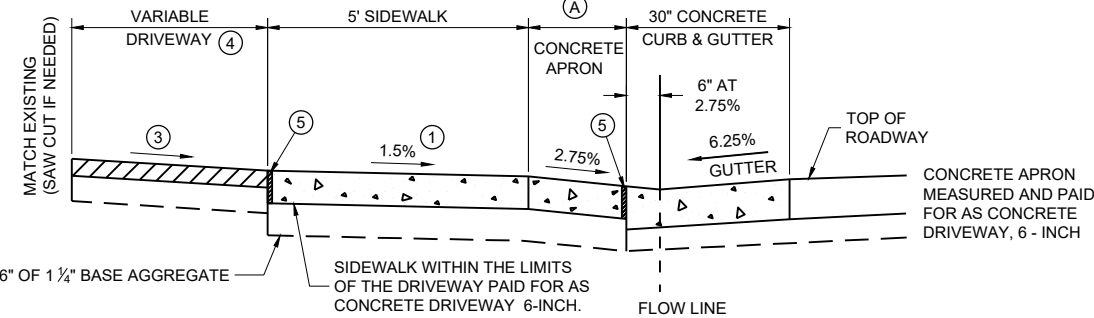
SECTION X - X
4% GUTTER SLOPE

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)

TABLE Y

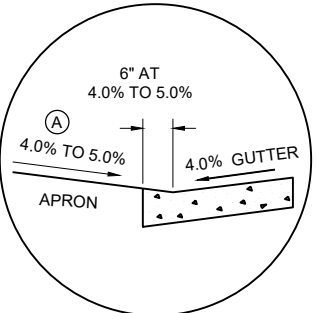
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

(A): MEASURE FROM BACK OF CURB



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

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

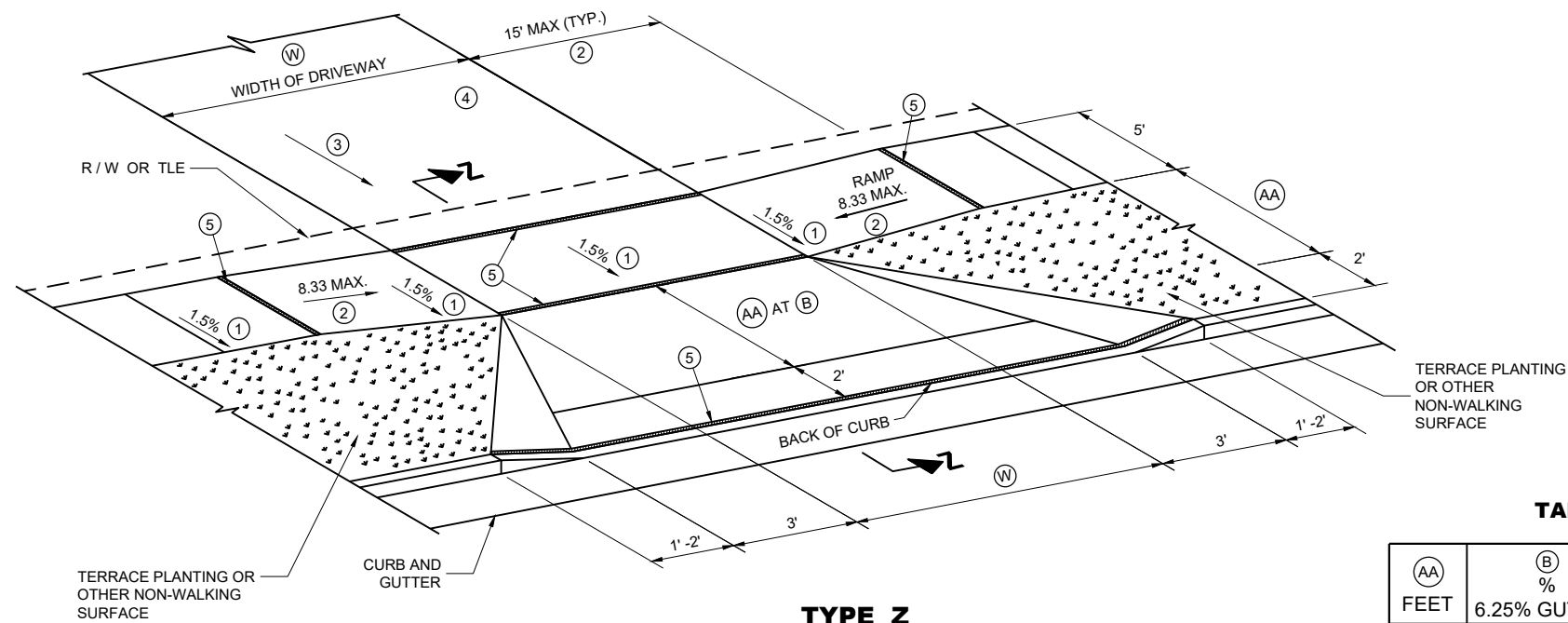


SECTION Y - Y
4% GUTTER SLOPE

DRIVEWAY AND SIDEWALK RAMPS
TYPES X AND Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TYPE Z
SIDEWALK WITH WIDER TERRACE
TERRACE VARIES 7 TO 12 FEET

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

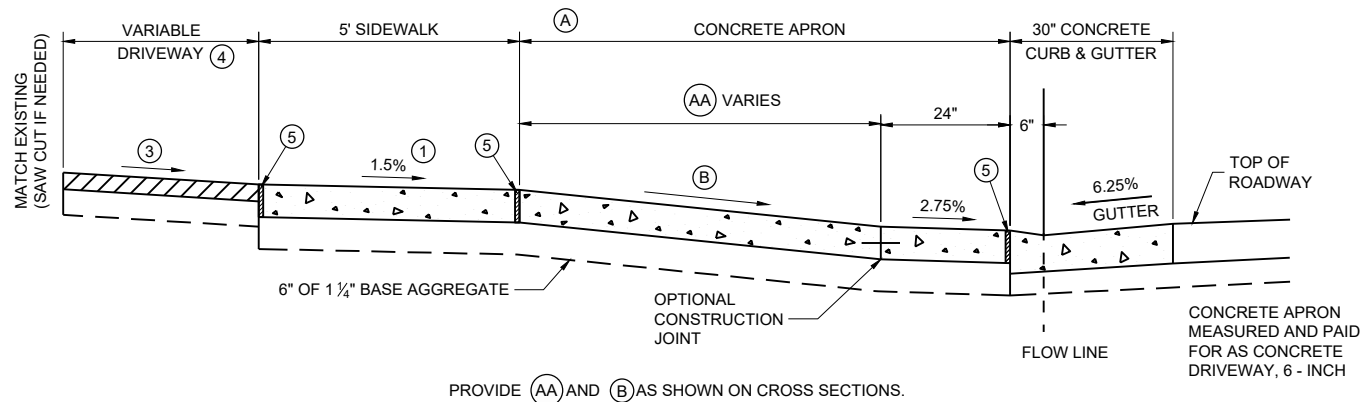
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

- CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.
- DRIVEWAY SLOPES: DESIRABLE MAXIMUM**
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG
- DRIVEWAY TYPES**
 - 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
 - 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
 - 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)
- ½" EXPANSION JOINT FILLER.

TABLE Z

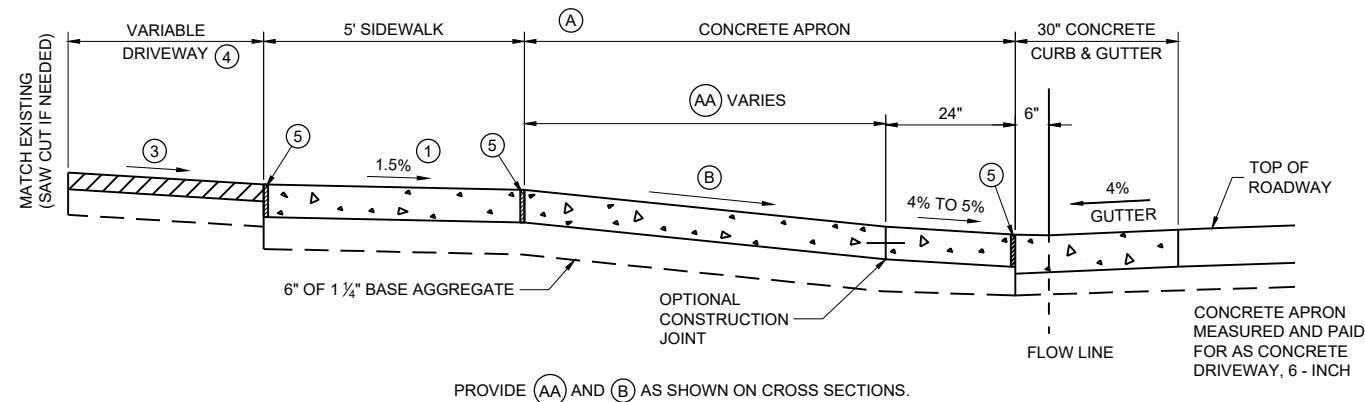
(AA) FEET	(B) % 6.25% GUTTER	(B) % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND
NON-COMMERCIAL (PE & FE)
16' MIN. - 35' MAX. COMMERCIAL (CE)



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

6.25% GUTTER SLOPE



PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

4% GUTTER SLOPE

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

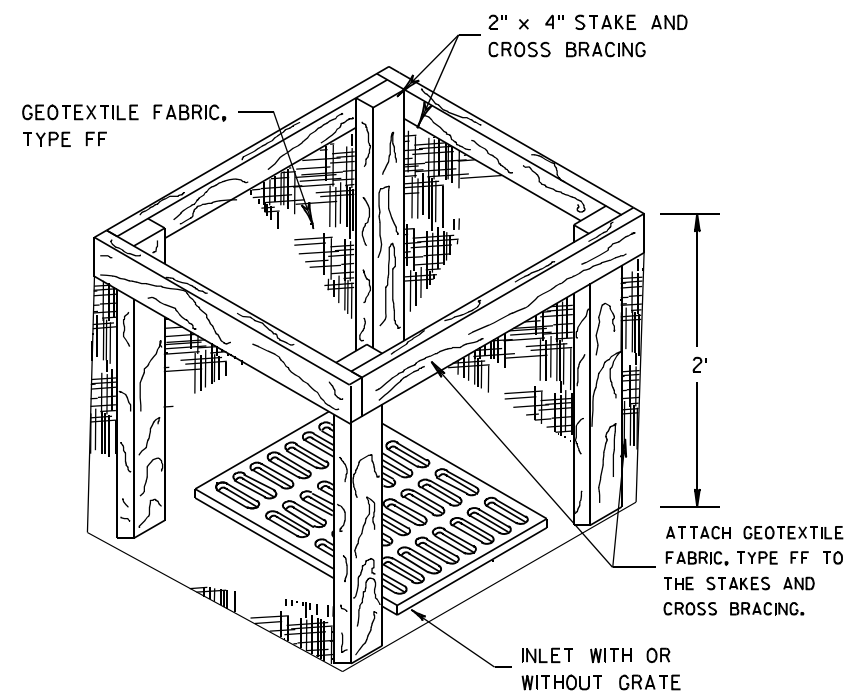
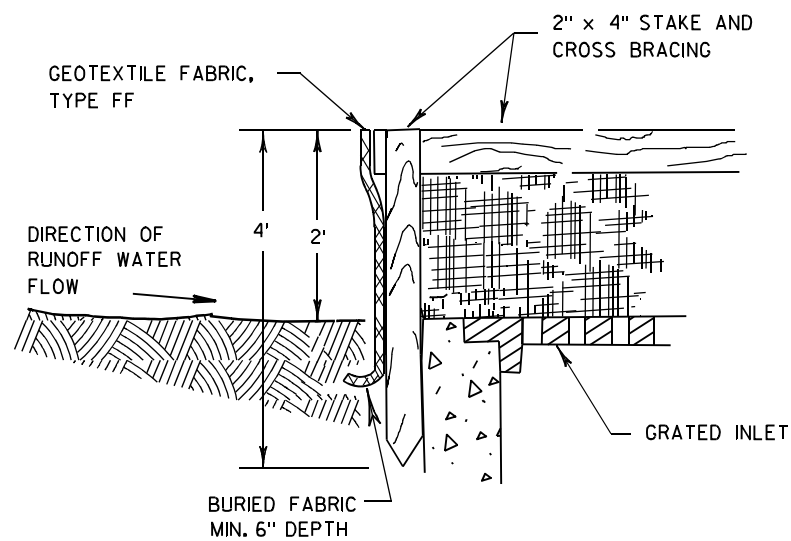
SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

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

**DRIVEWAY AND
SIDEWALK RAMPS
TYPE Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

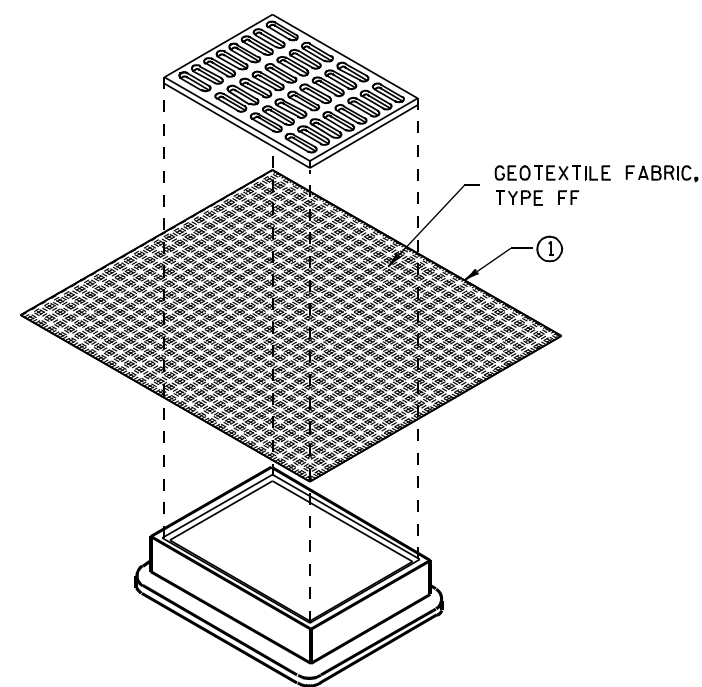
GENERAL NOTES

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

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

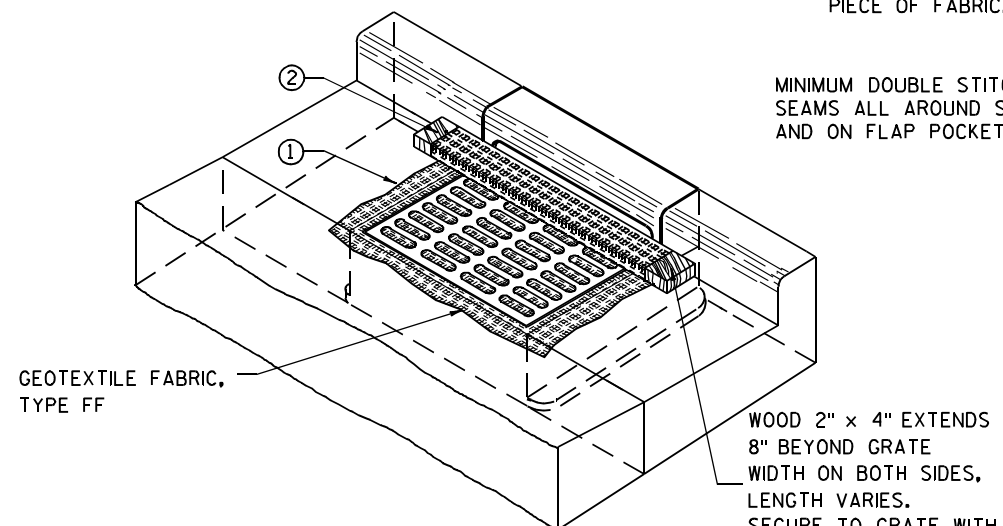
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

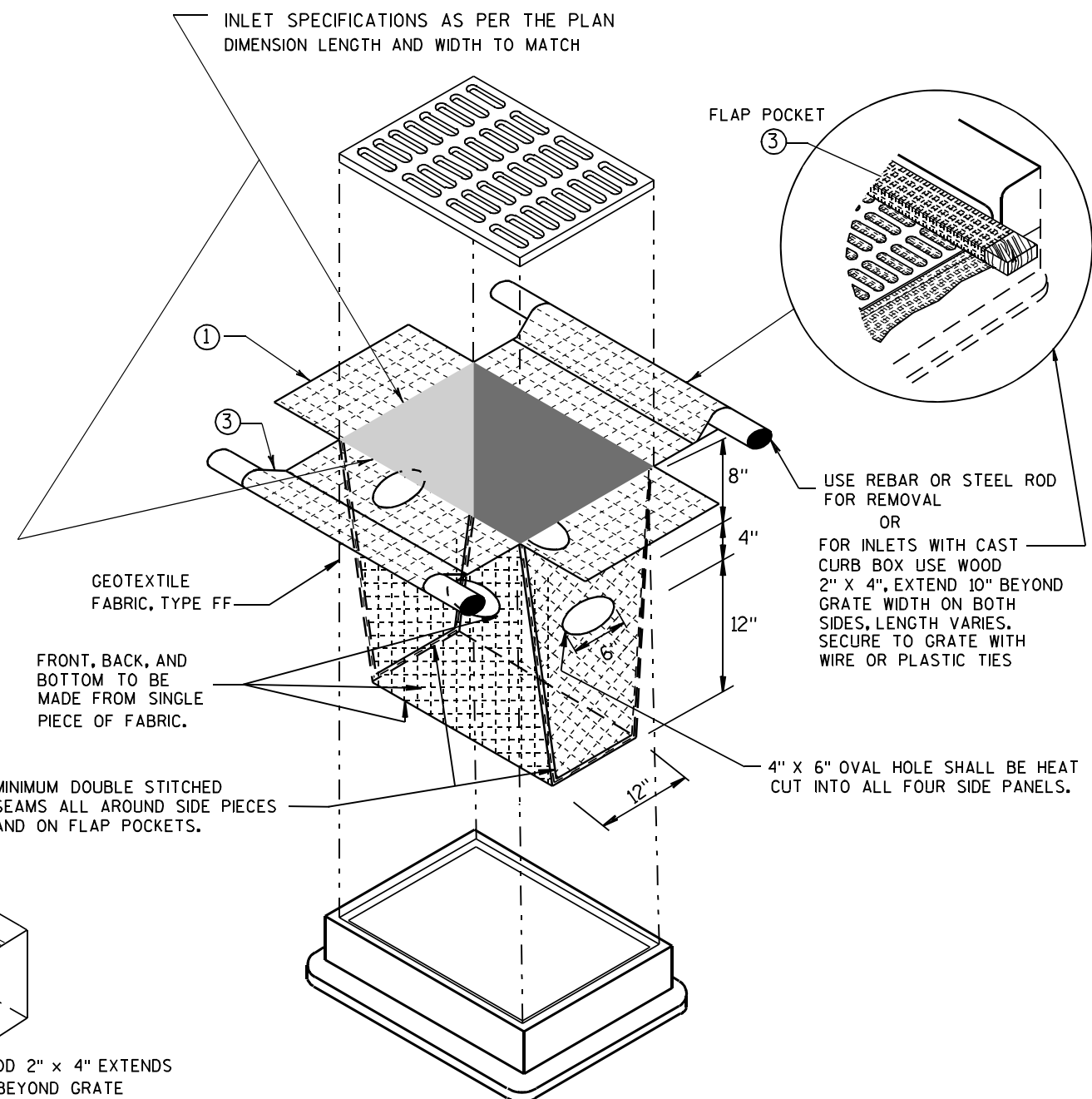
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



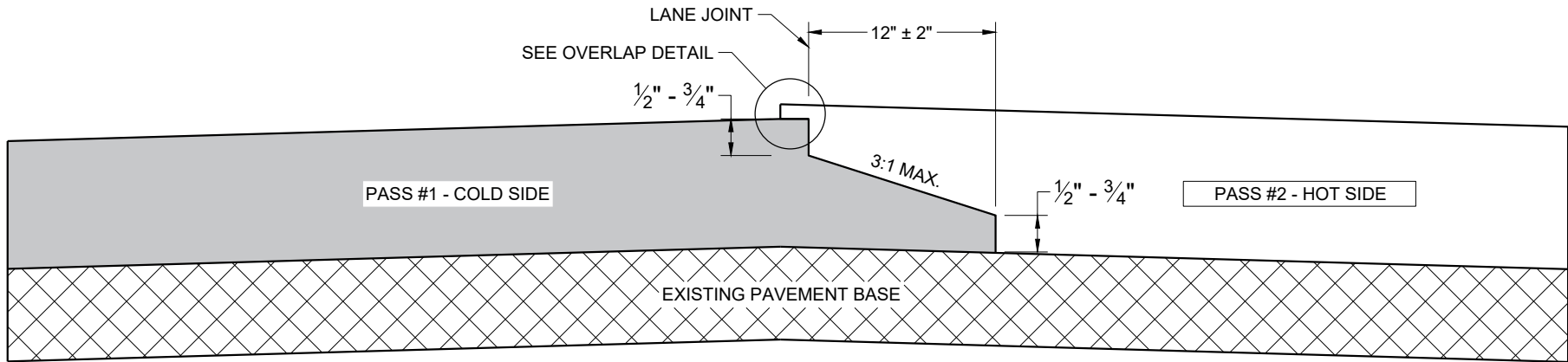
INLET PROTECTION, TYPE D

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

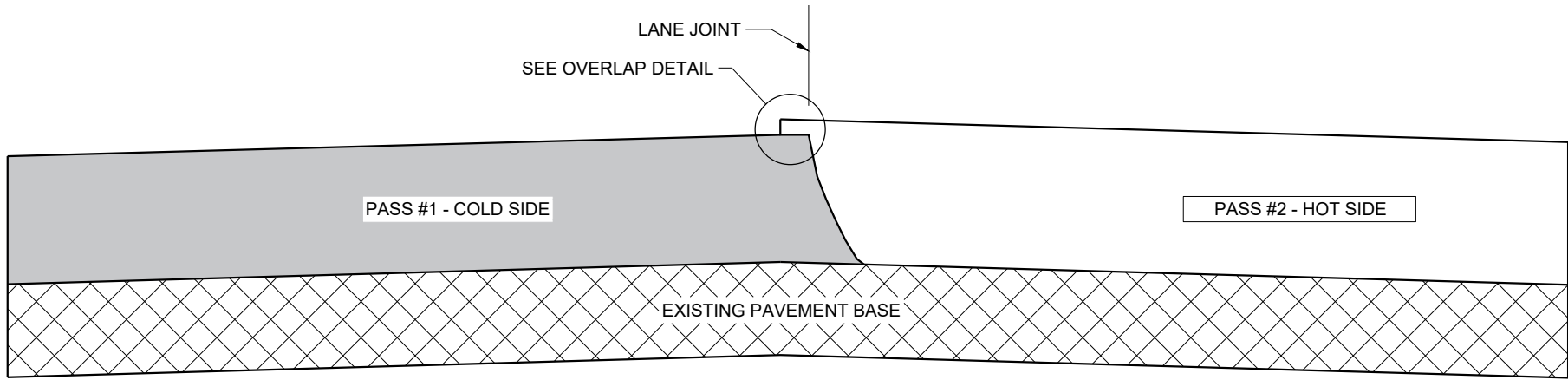
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

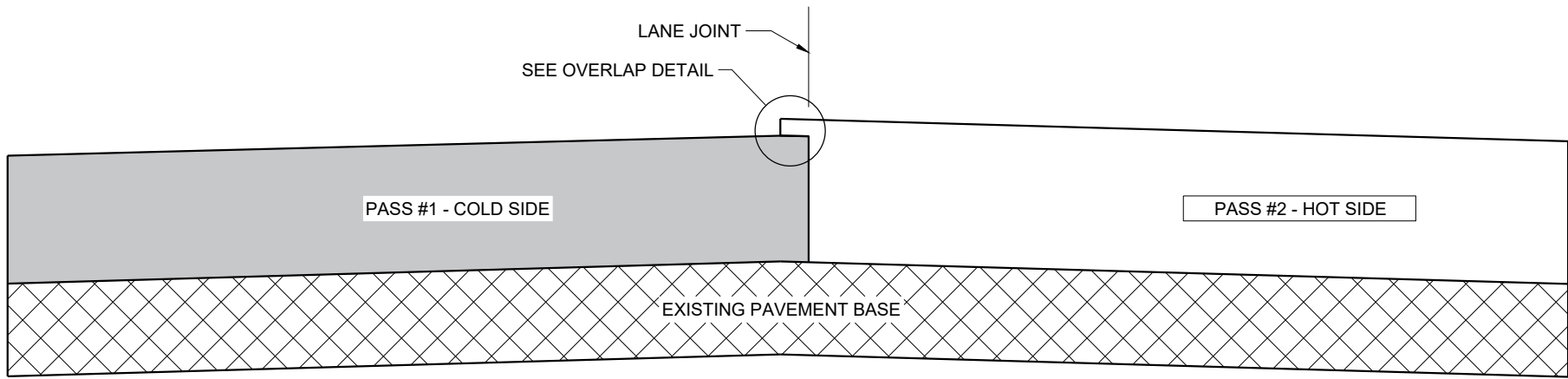
APPROVED
10/16/02 /S/ Beth Connolly
DATE 142
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

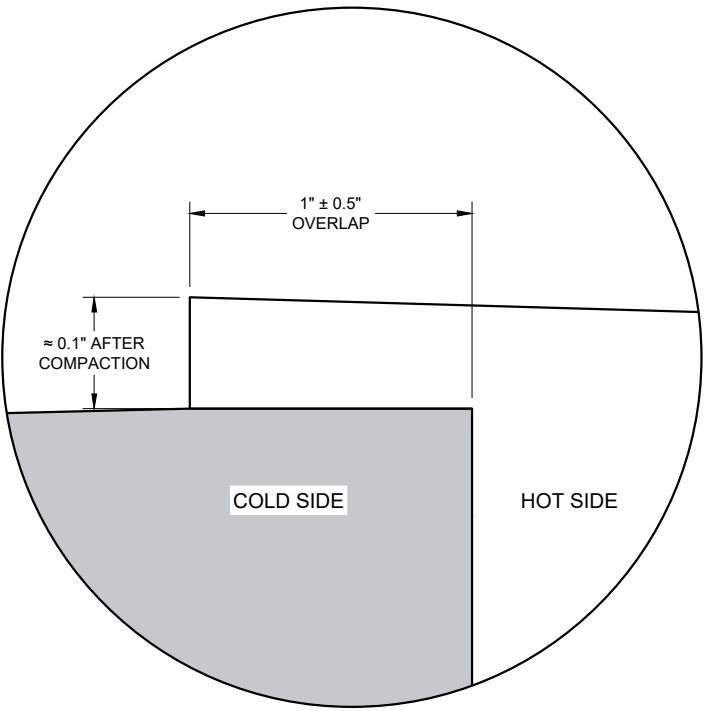
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



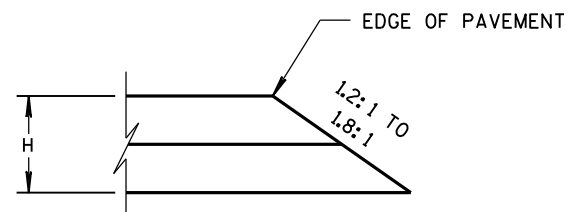
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

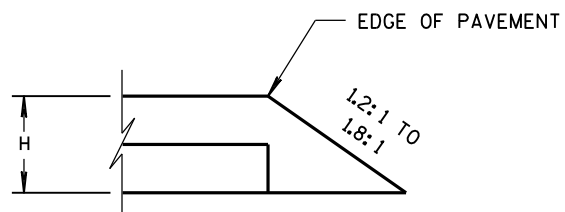
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 143

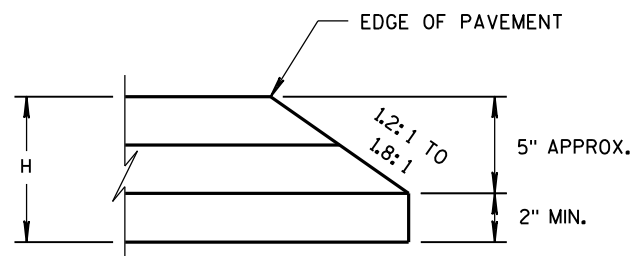
FHWA



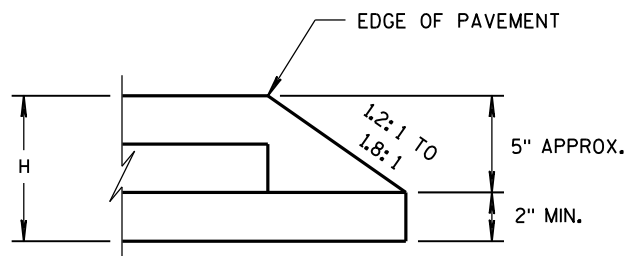
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

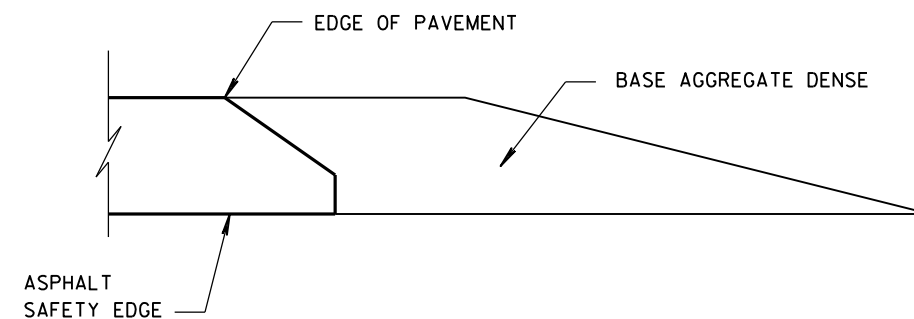


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



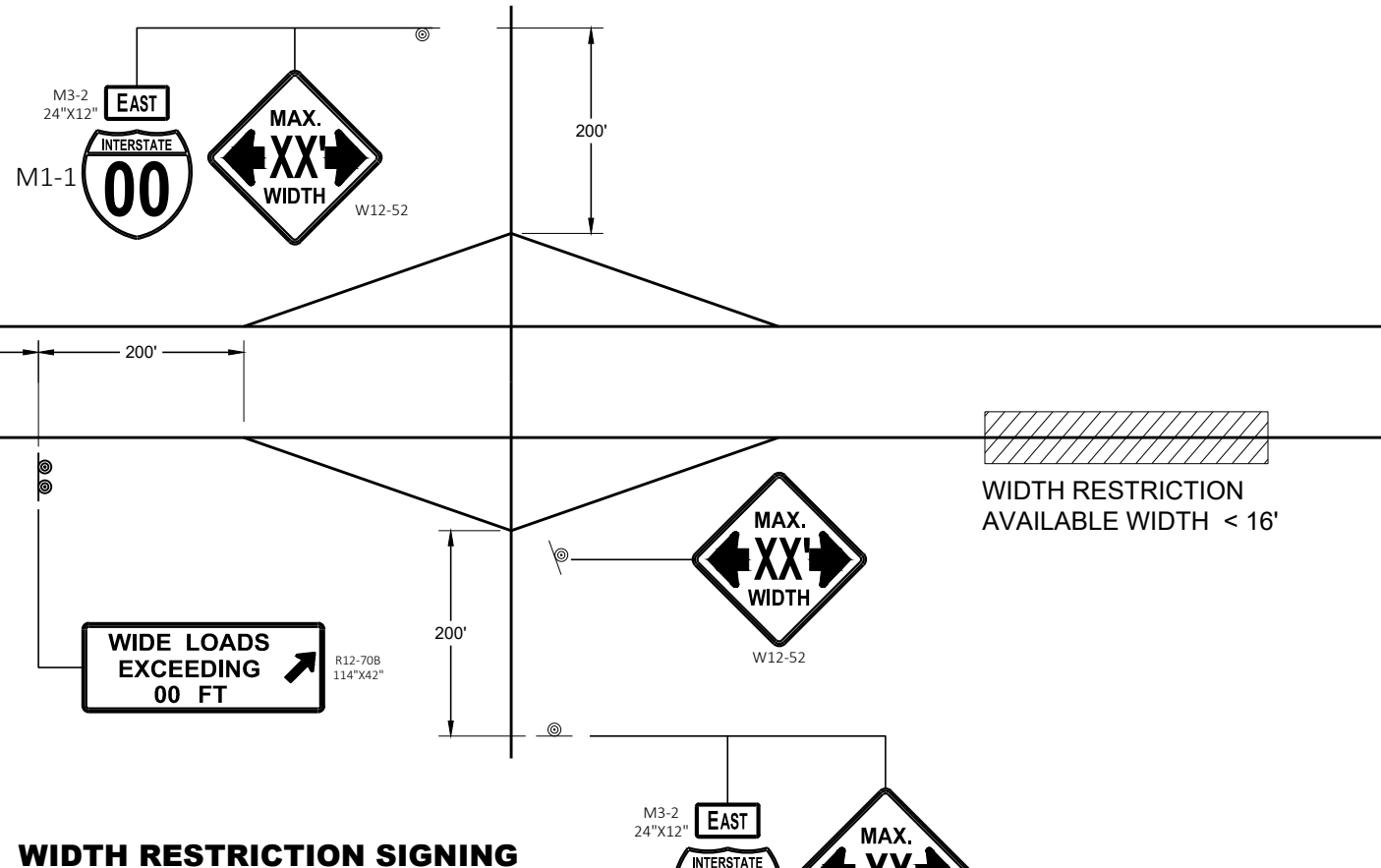
FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

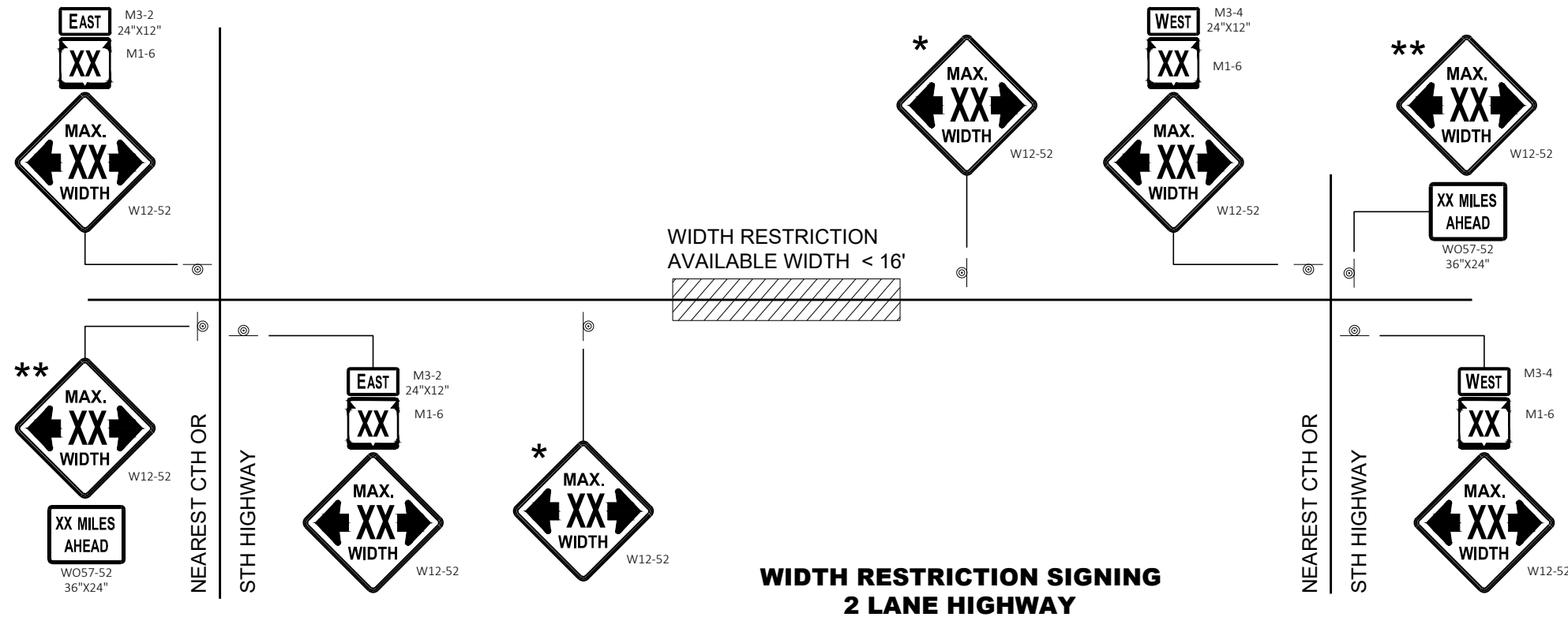
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 11/30/2012
FHWA

/s/ Jerry H. Zoaga
ROADWAY STANDARDS
ENGINEER 144 ENT



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

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

- * PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- ** SIGN SHALL BE VISIBLE FROM ROADWAY.
- *** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



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

ADVANCED WIDTH
RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 145
FHWA

GENERAL NOTES

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

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

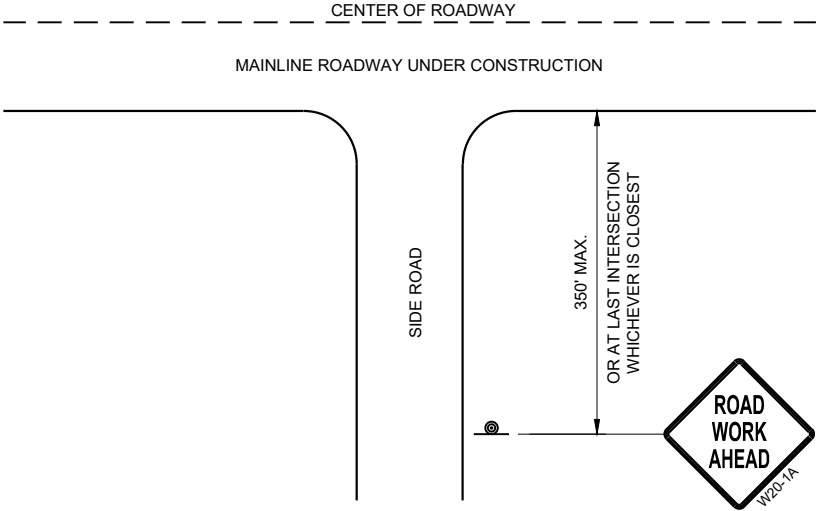
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

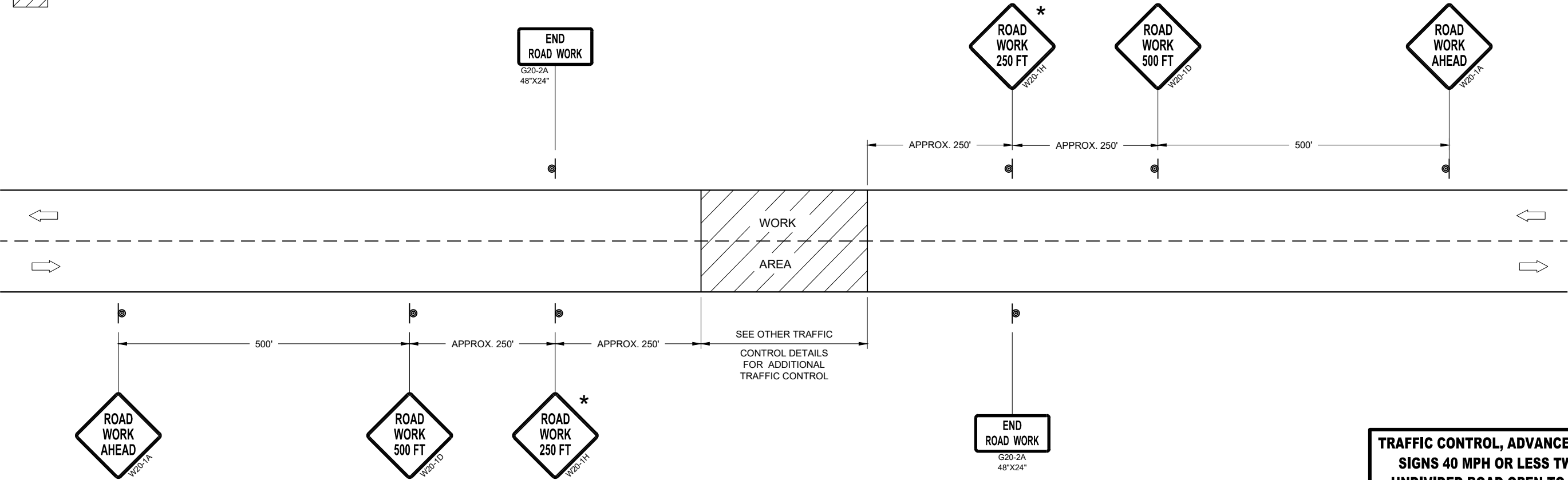
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



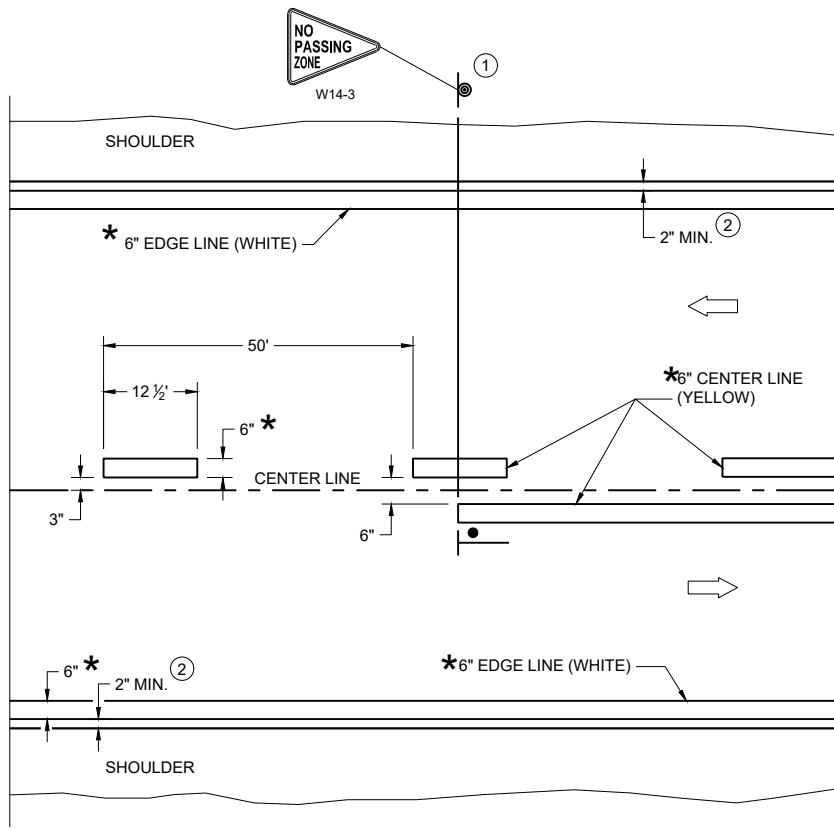
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

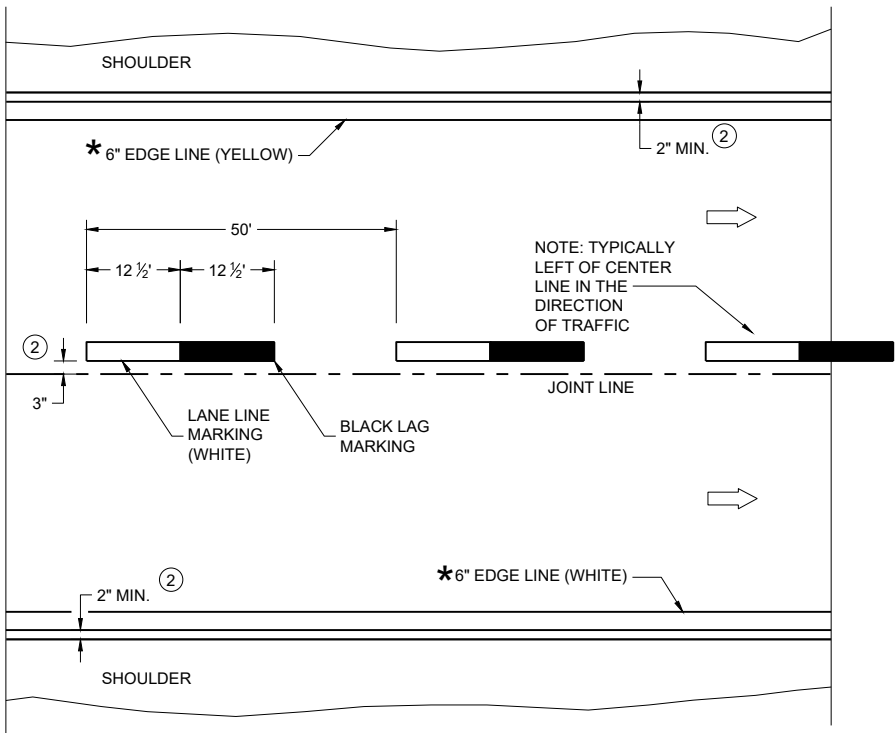
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 146

FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

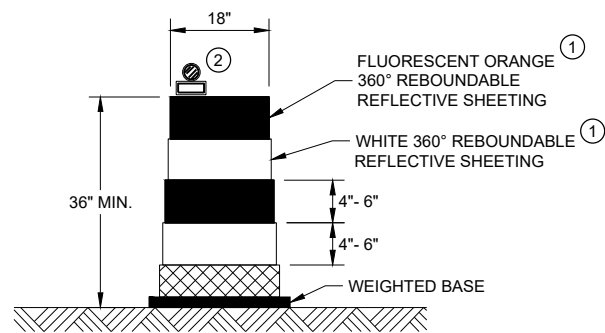
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

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

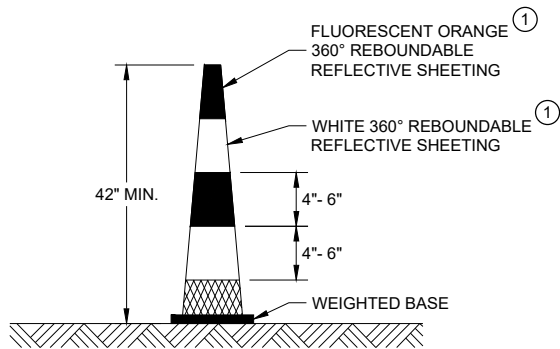
LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

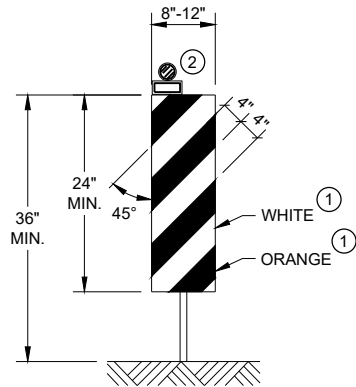
PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 147	



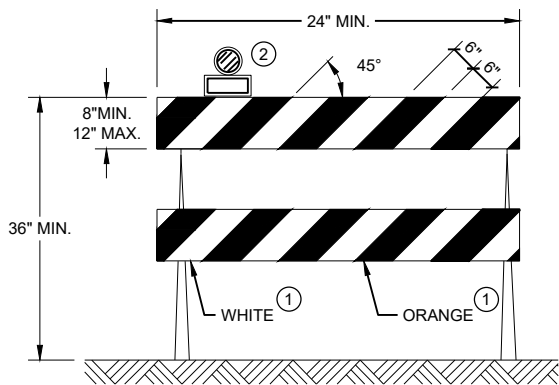
DRUM
BALLAST WIDTHS
RANGE FROM 24"-36"



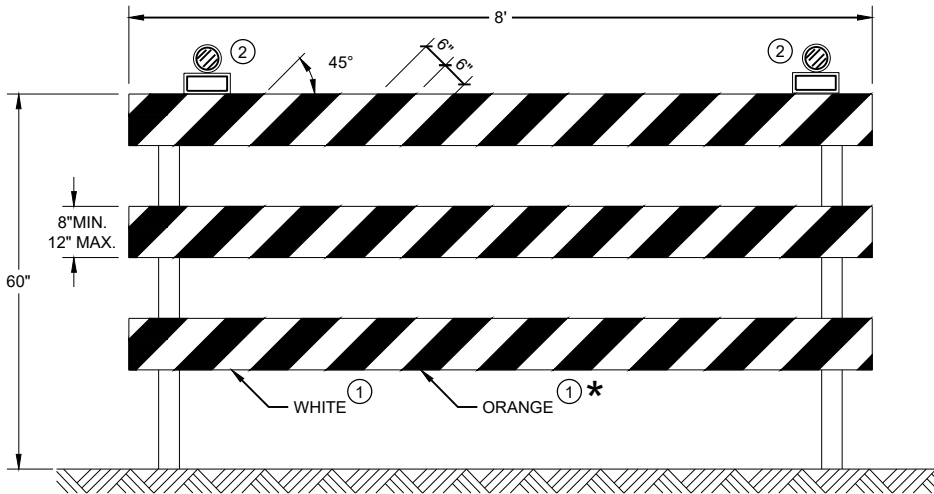
42" CONE
DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



VERTICAL PANEL
THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE
FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.
* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 148

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

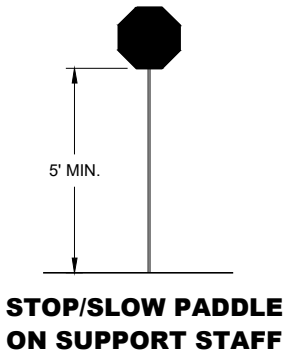
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

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

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

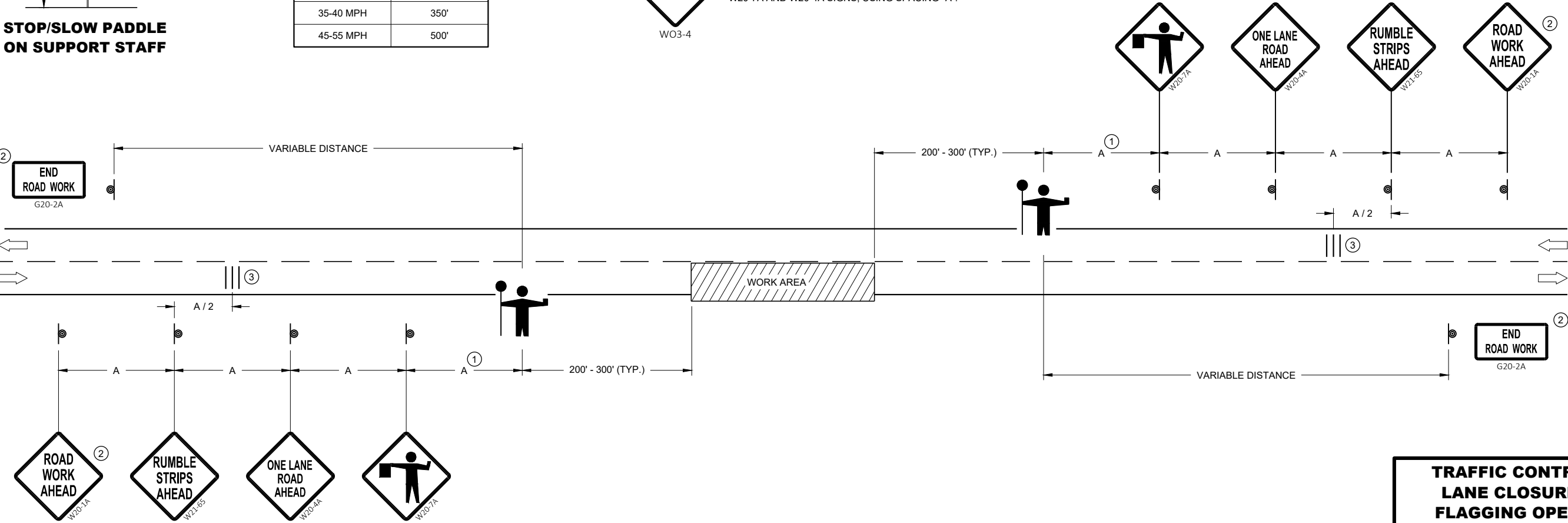


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



**TRAFFIC CONTROL FOR
LANE CLOSURE WITH
FLAGGING OPERATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 149

FHWA

LEGEND

- V1

LEAD VEHICLE
- V2

MARKING VEHICLE
- V3

SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

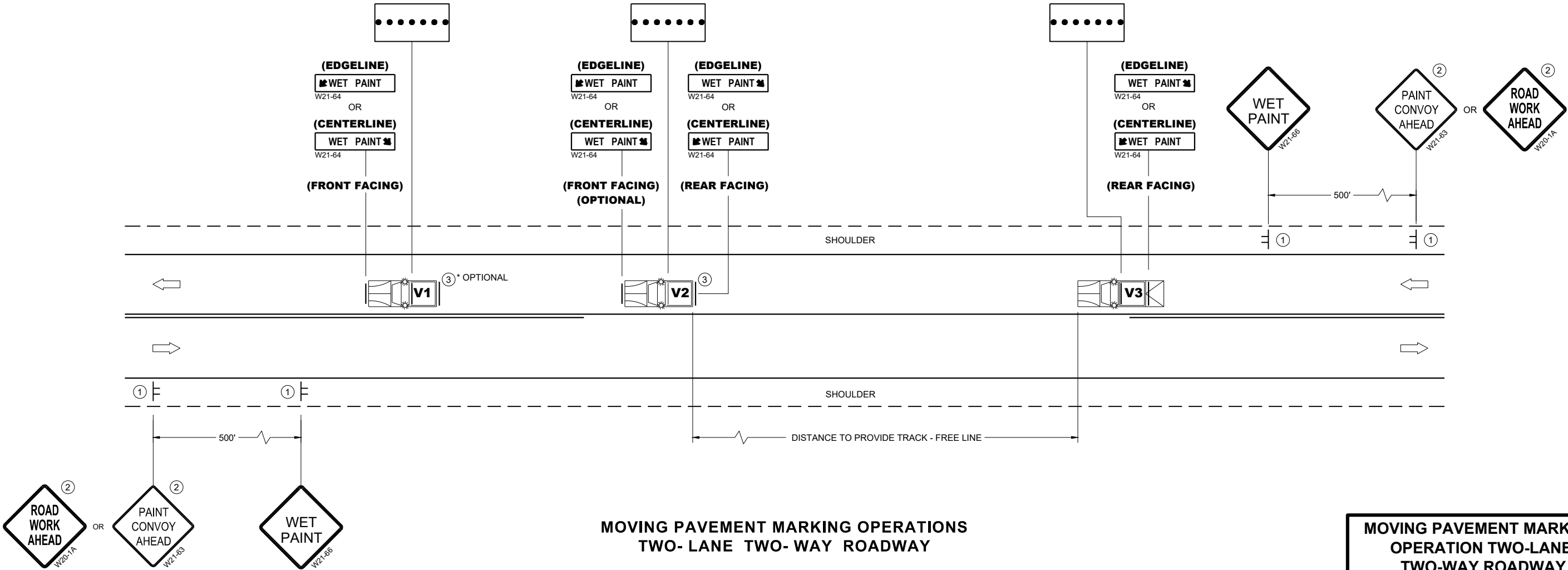
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

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

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

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



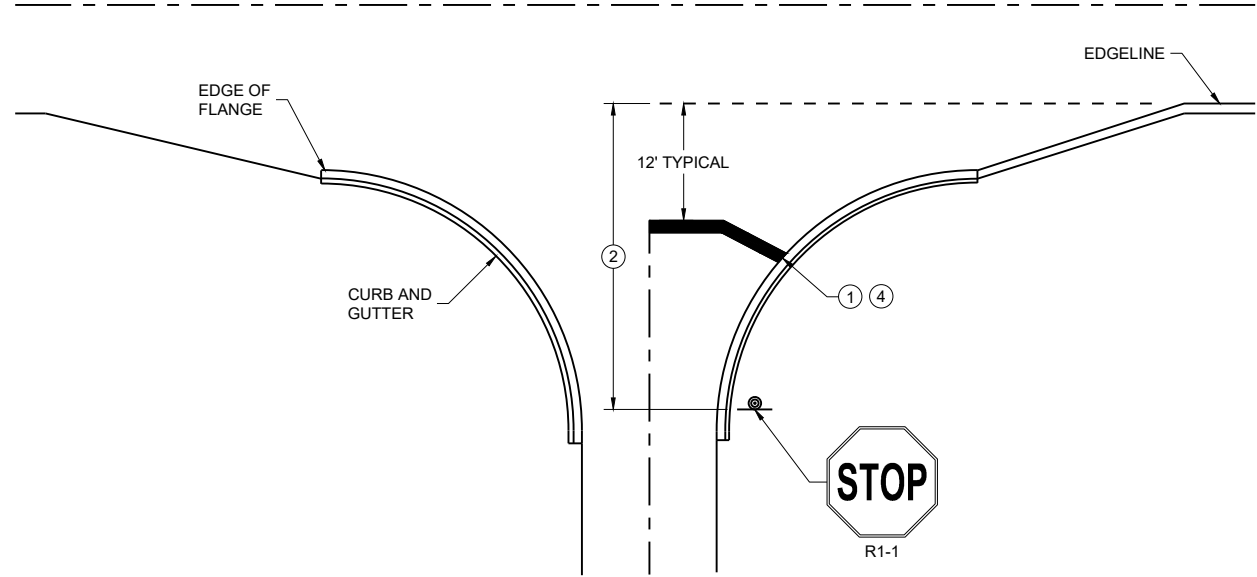
MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

MOVING PAVEMENT MARKING
OPERATION TWO-LANE
TWO-WAY ROADWAY

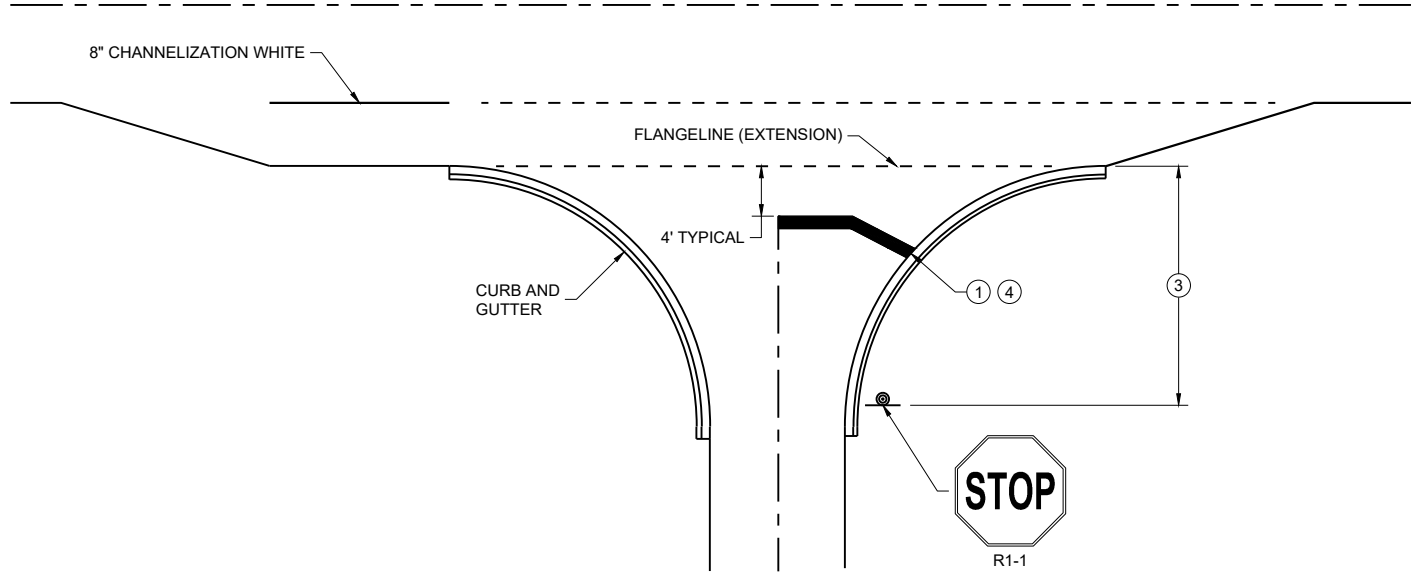
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

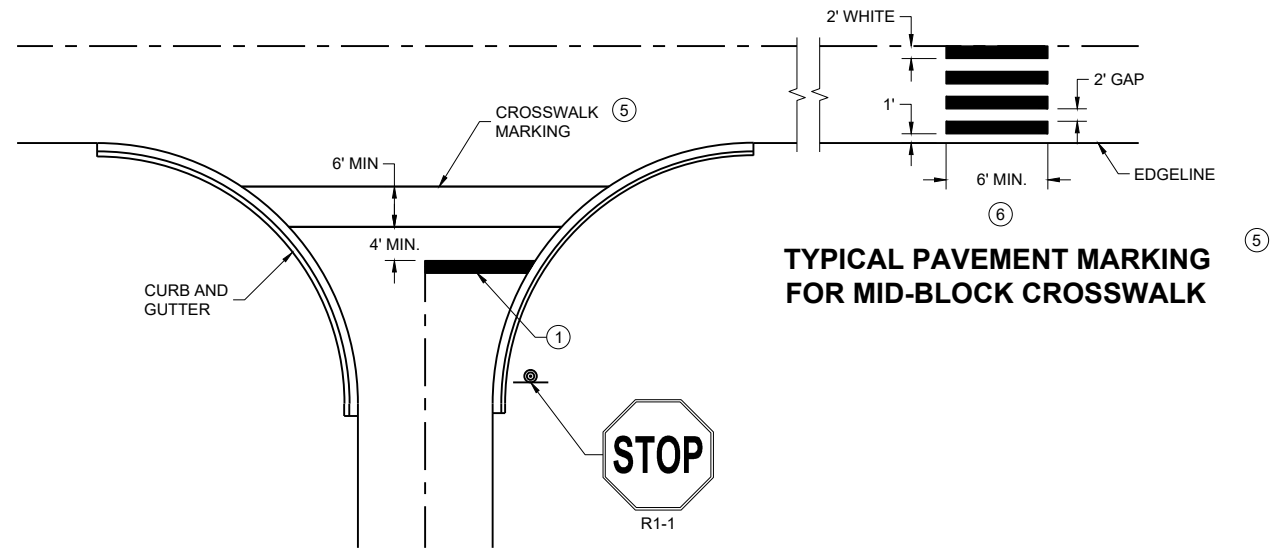
FHWA



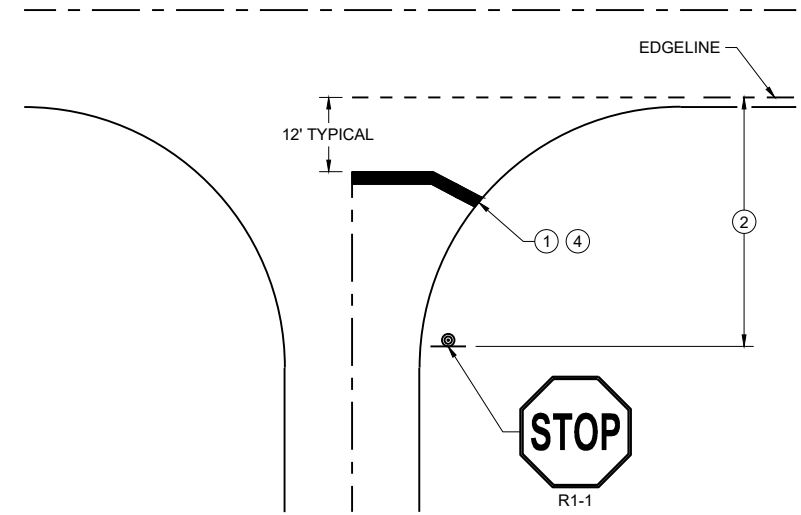
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDE ROADS WITH CROSSWALK MARKING



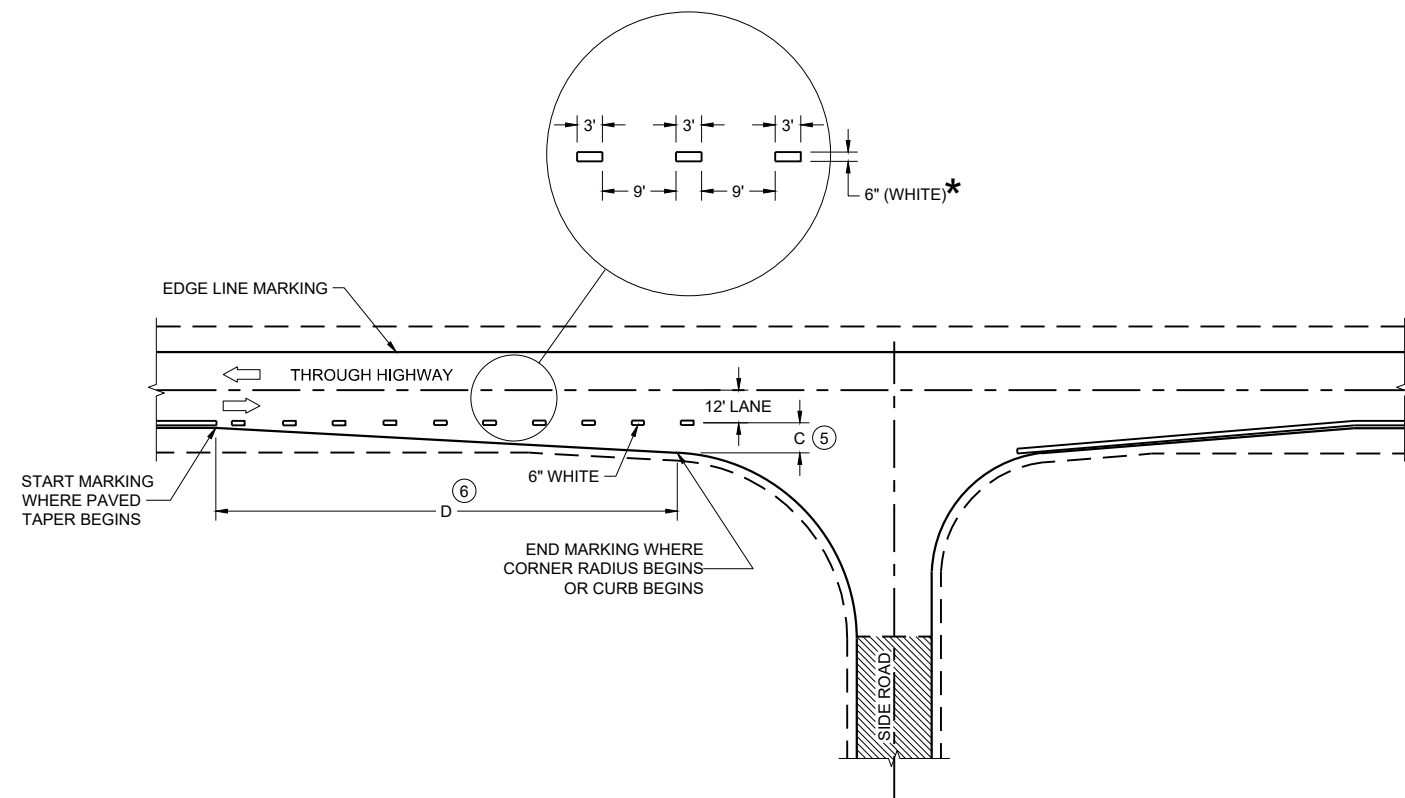
TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

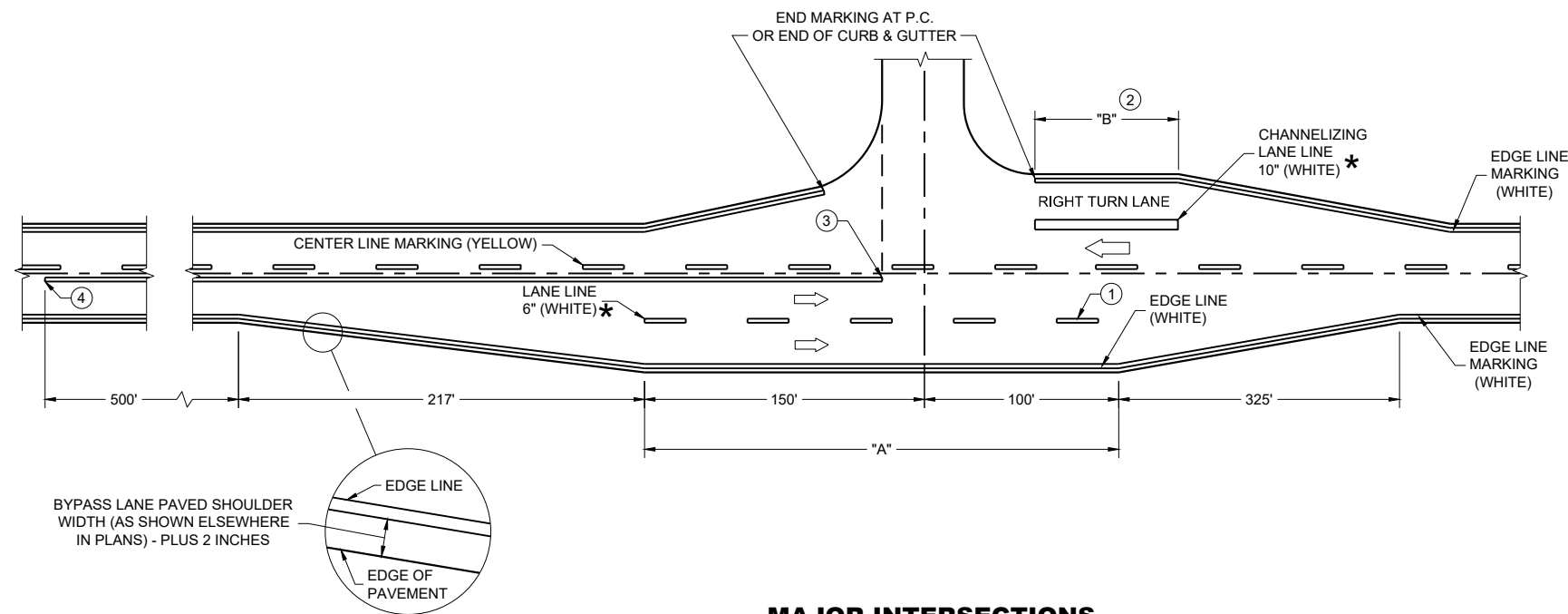
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2024 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER



MINOR INTERSECTION



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

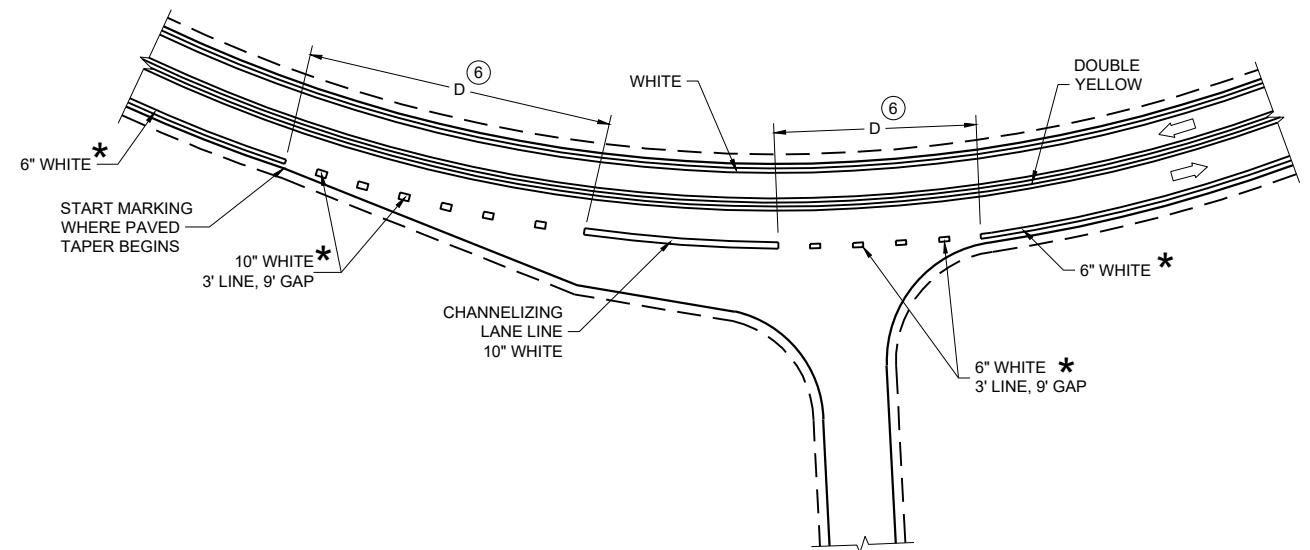
GENERAL NOTES

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

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

LEGEND

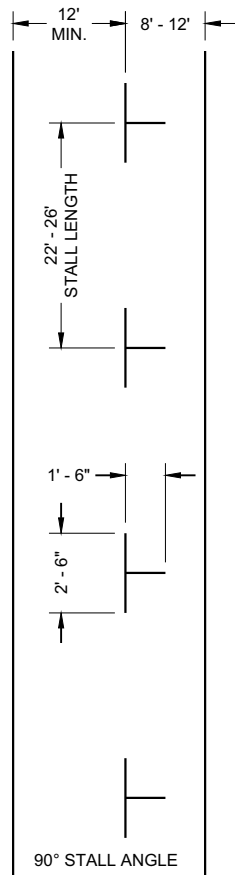
➡ DIRECTION OF TRAVEL



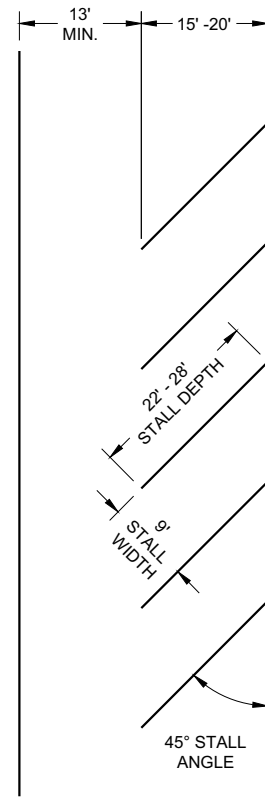
INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

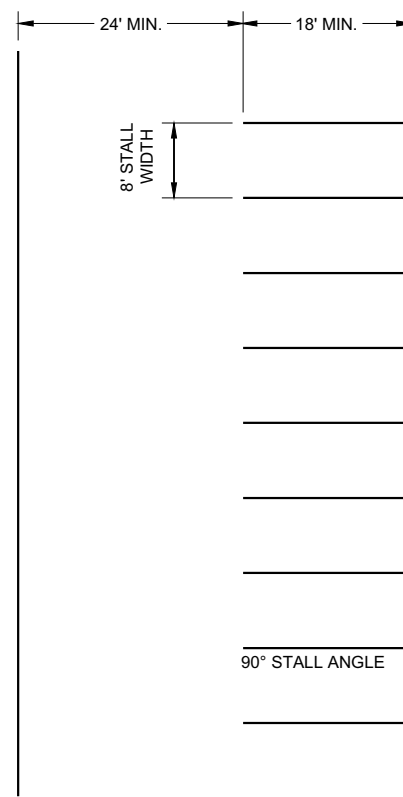
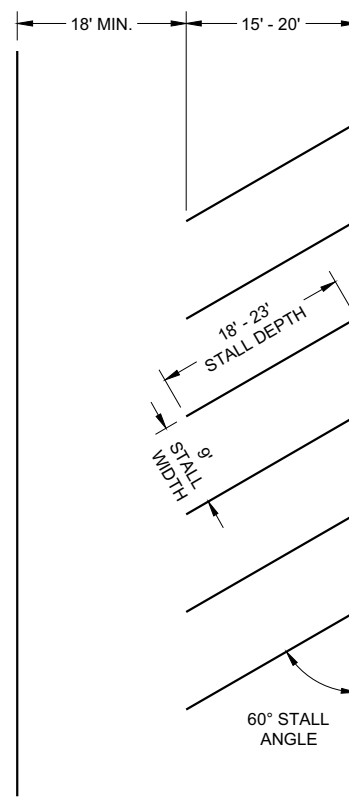


PARALLEL PARKING



ANGLED PARKING

(ANGLED PARKING IS NOT ALLOWED ON STATE HIGHWAYS UNLESS A DESIGN JUSTIFICATION HAS BEEN COMPLETED.)



PARKING LOTS

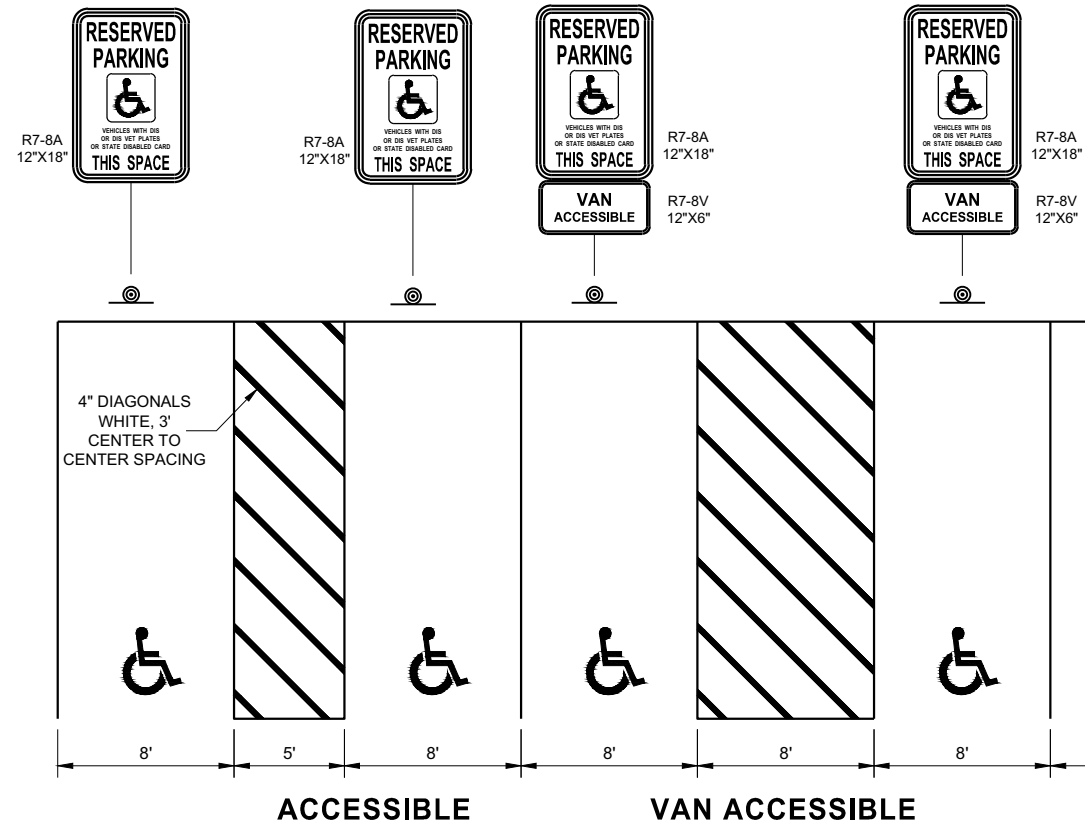
GENERAL NOTES

ALL LINES 4" WHITE (UNLESS OTHERWISE NOTED)

LAST PARKING STALL IS A MINIMUM OF 15' FROM THE CROSSWALK.

LEGEND

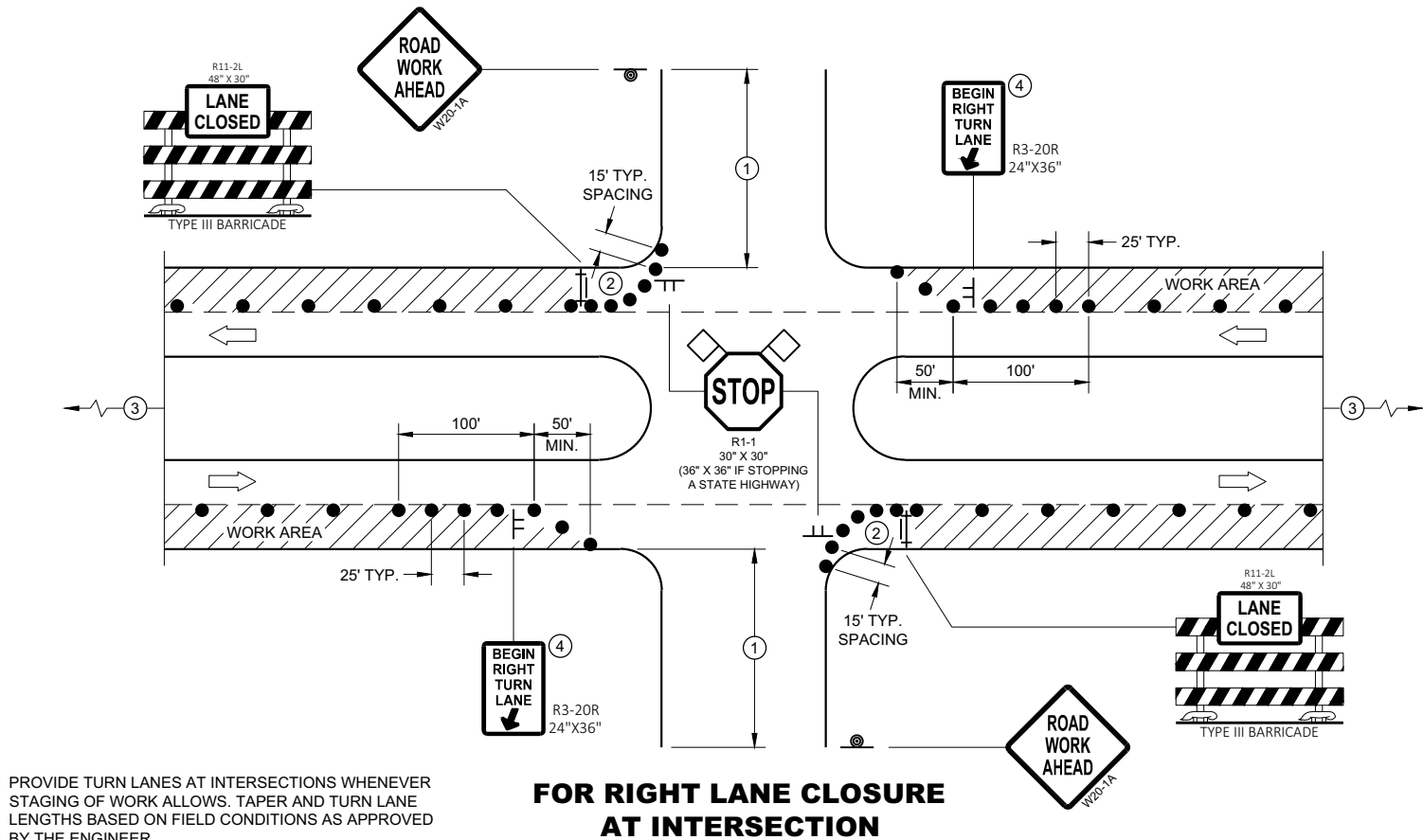
⊙ SIGN ON PERMANENT SUPPORT



PARKING STALL MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 153
FHWA



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

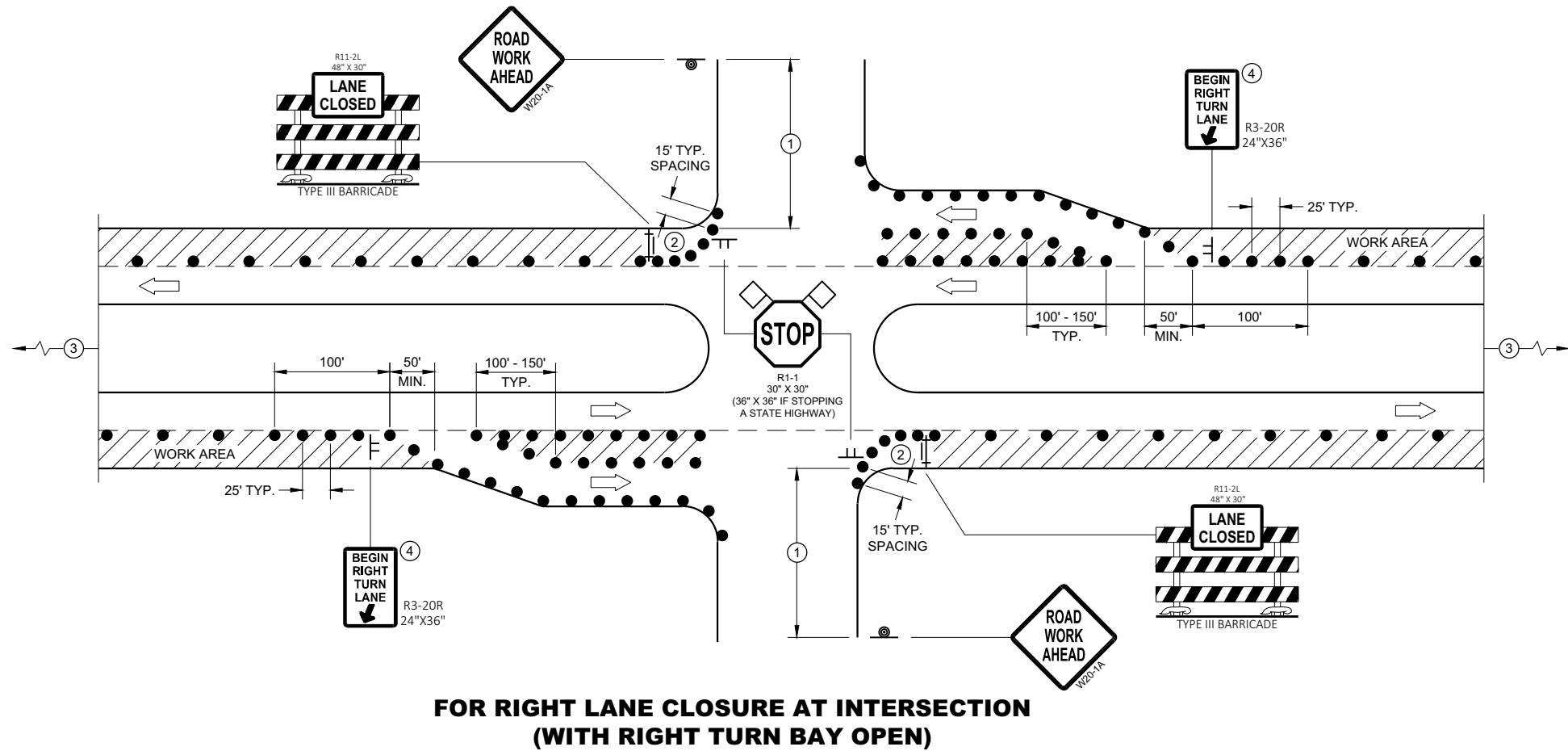
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



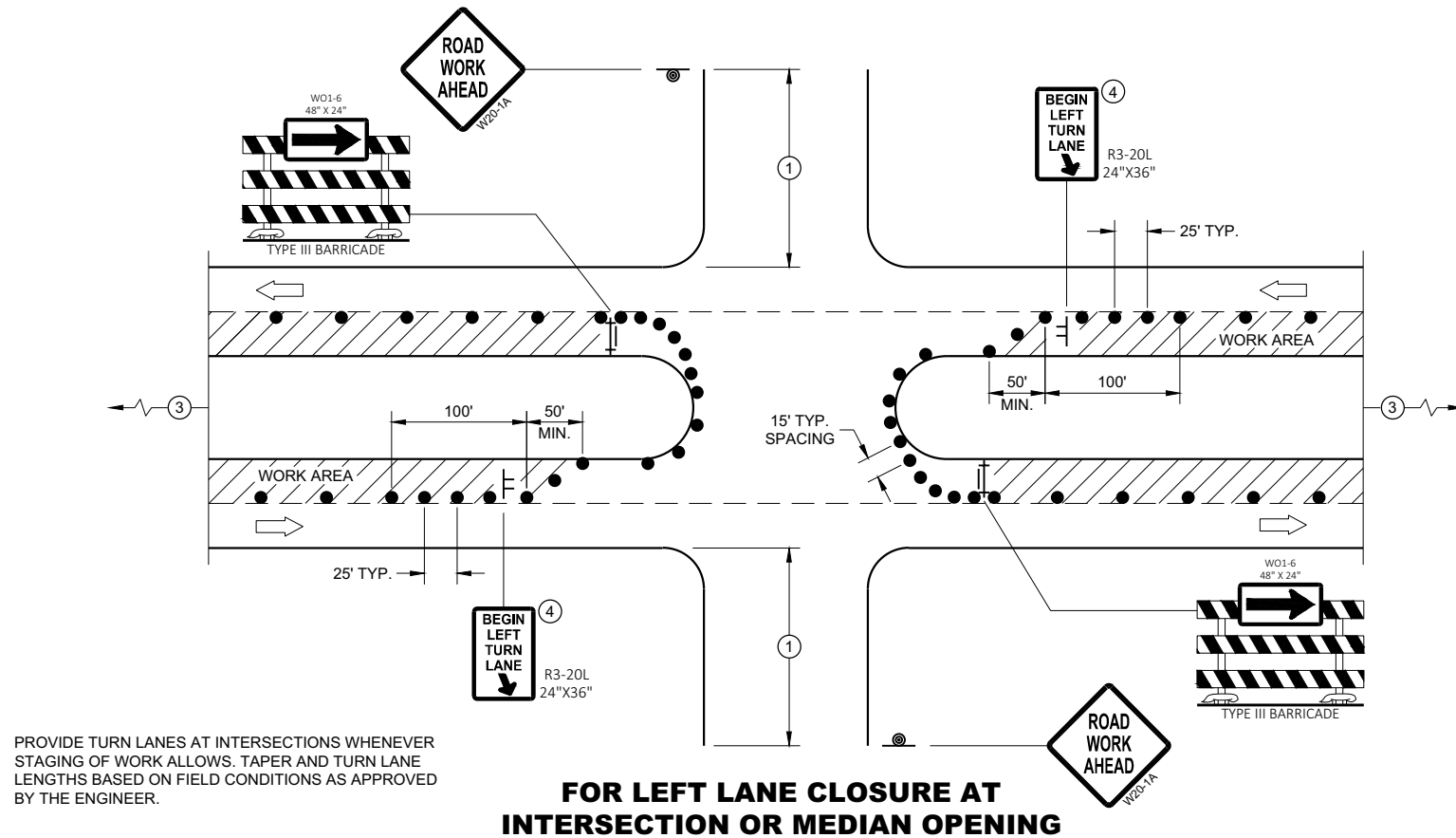
FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- ◇ ◇ FLAGS, 16" X 16" MIN., ORANGE
- ▨ WORK AREA

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
RIGHT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 154

**GENERAL NOTES**

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**FOR LEFT LANE CLOSURE AT INTERSECTION
OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)****TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
LEFT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 155
FHWA

LEGEND

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

GENERAL NOTES

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

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

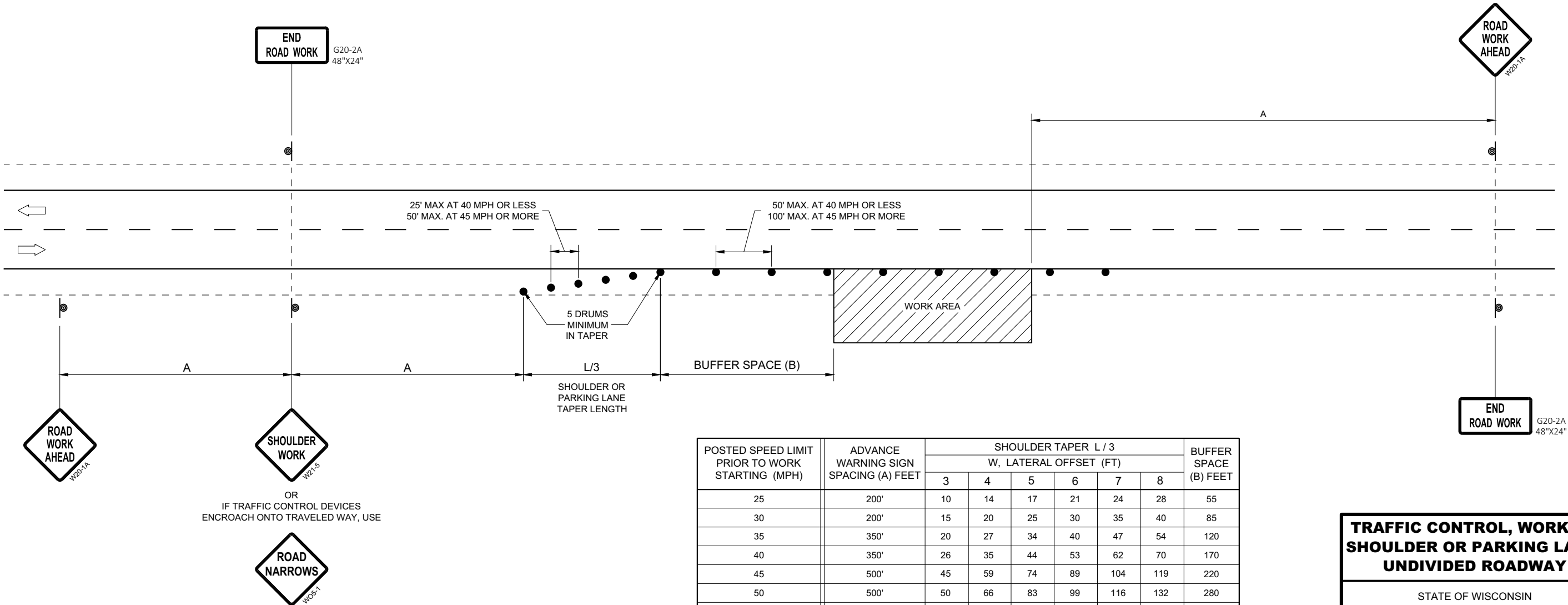
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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

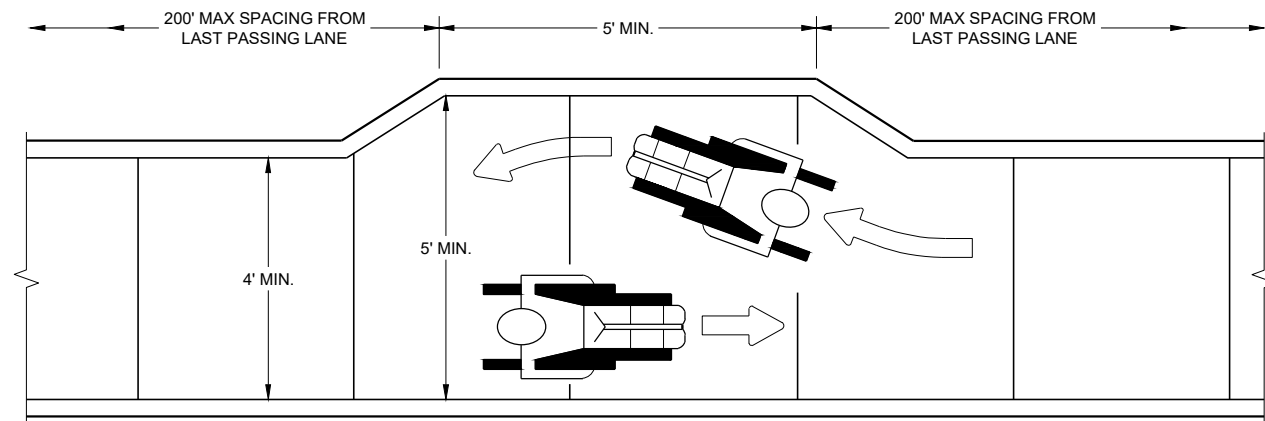


POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

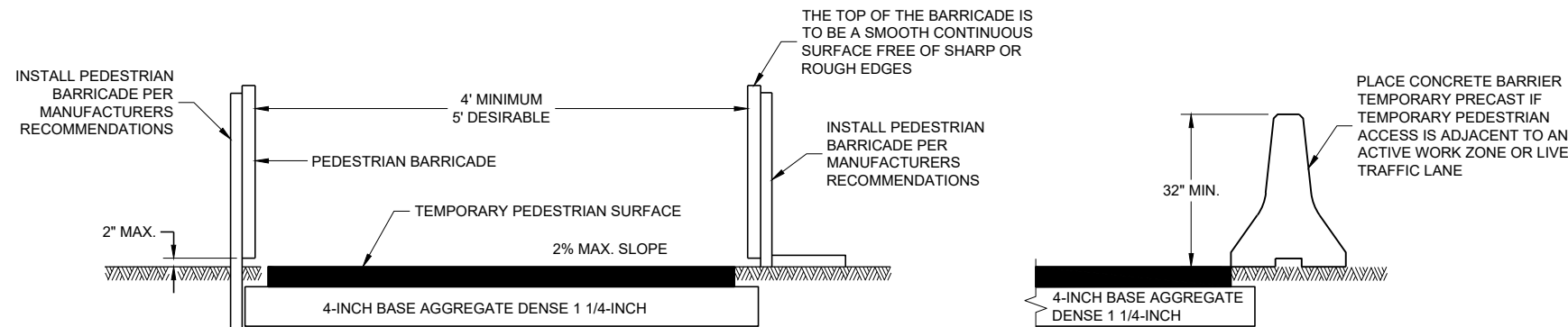
TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE
/S/ Andrew Heidtke
STATEWIDE WORK ZONE T
SAFETY ENGINEER 156
FHWA



NARROW SIDEWALK PASSING DETAIL



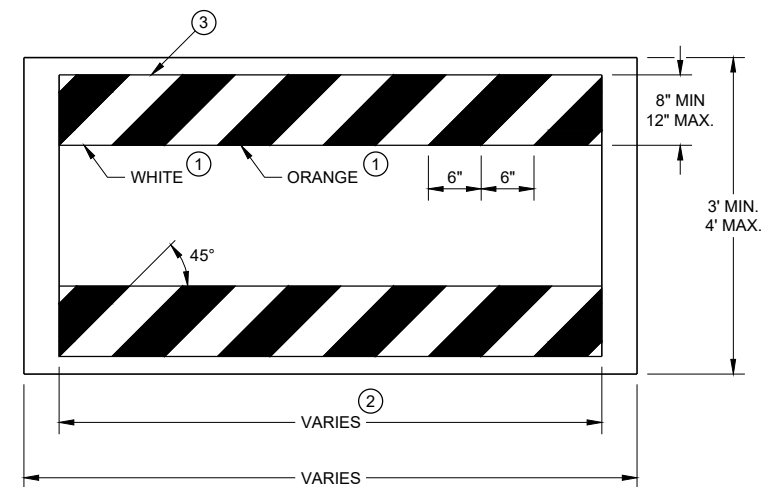
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

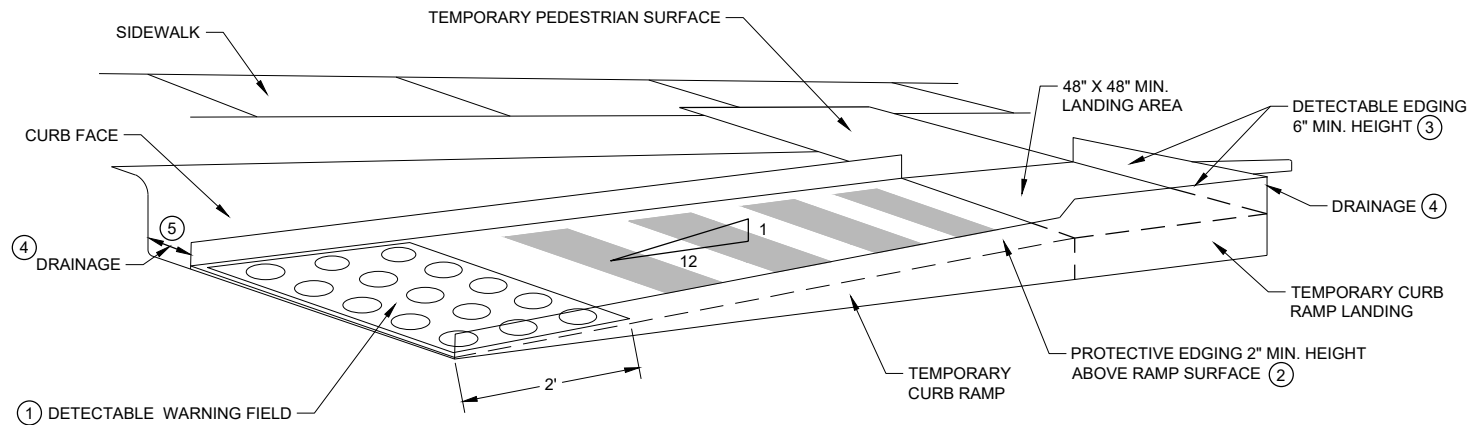
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

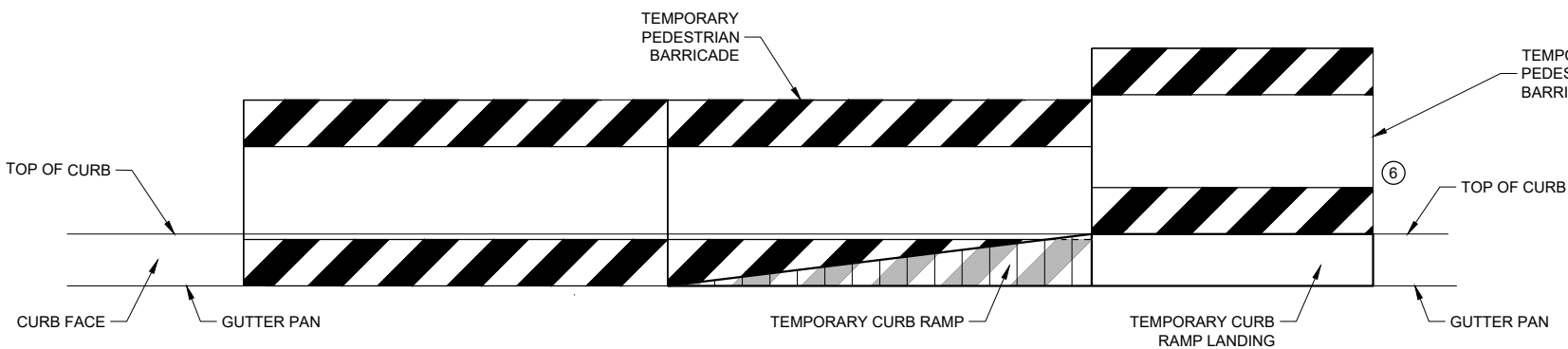
★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



TEMPORARY PEDESTRIAN BARRICADE*

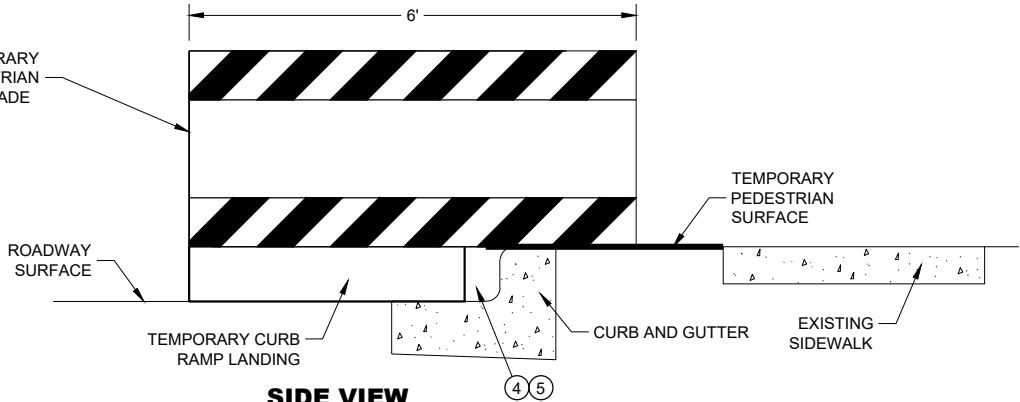


PERSPECTIVE VIEW



FRONT VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

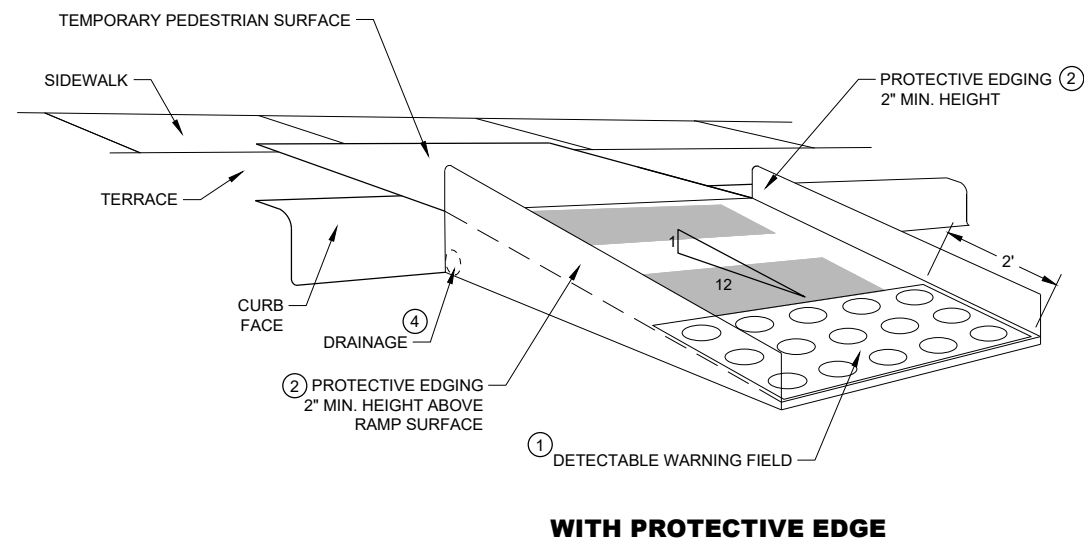
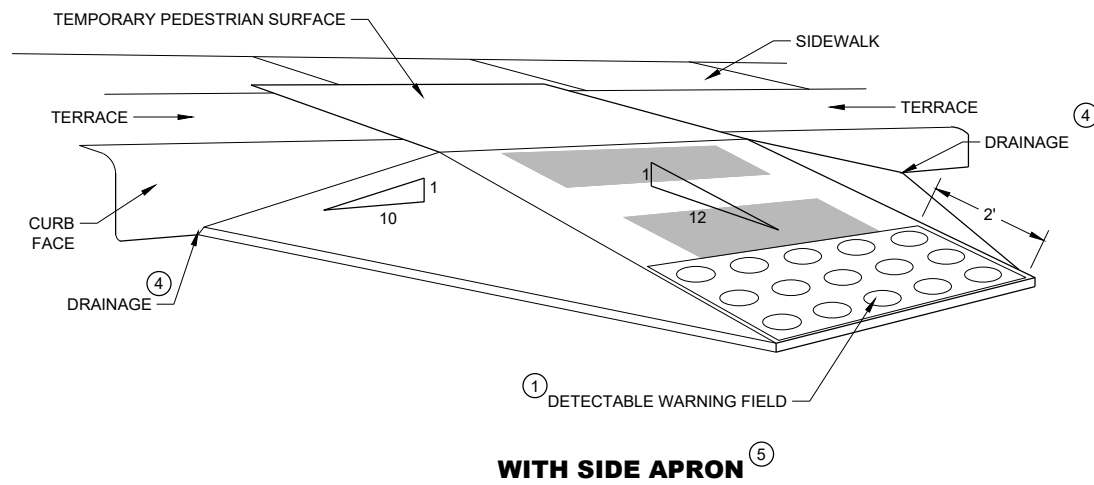


SIDE VIEW

GENERAL NOTES

- CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

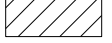
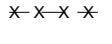
CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 159

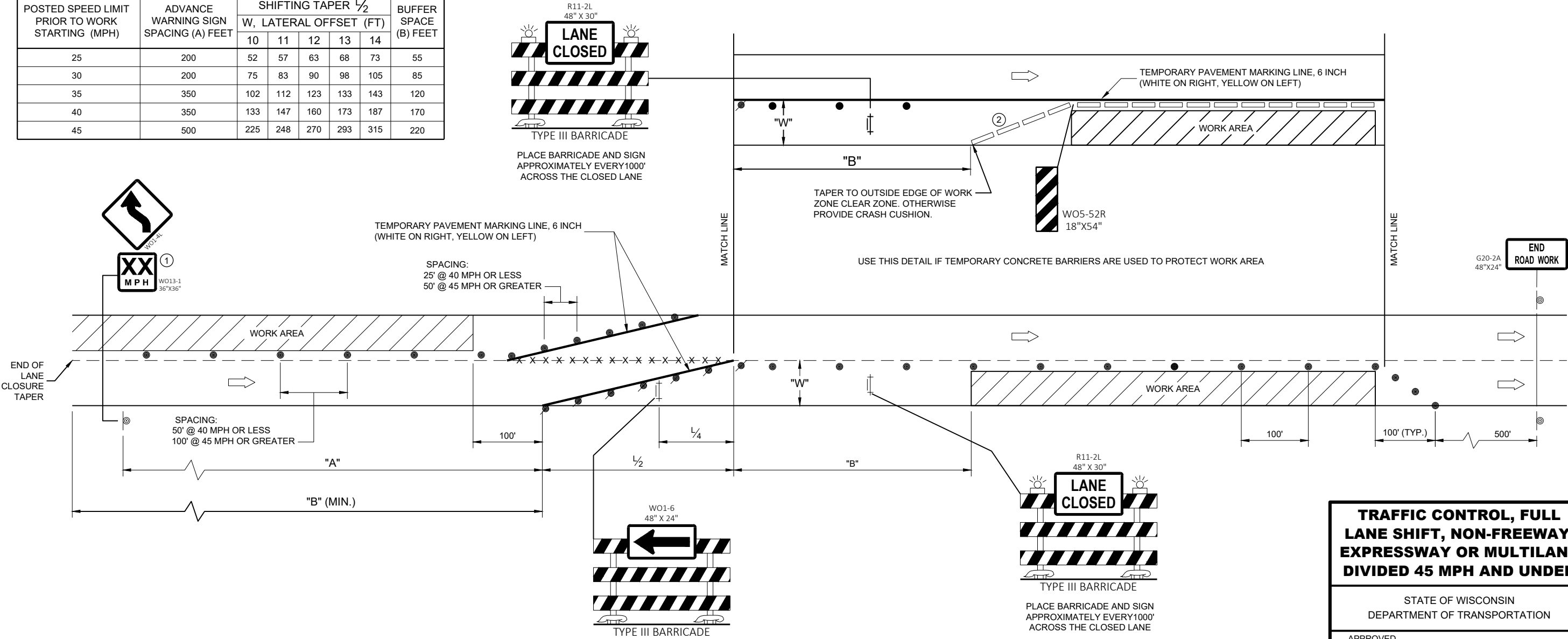
LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

GENERAL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
- ALL SIGNS ARE 48"x48" 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 ANY "COVERED" OR "DOWNED" SIGNS.
- CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS 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 AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS 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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.
- ① USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- ② BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER 160

FHWA

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" 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 ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS 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 AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

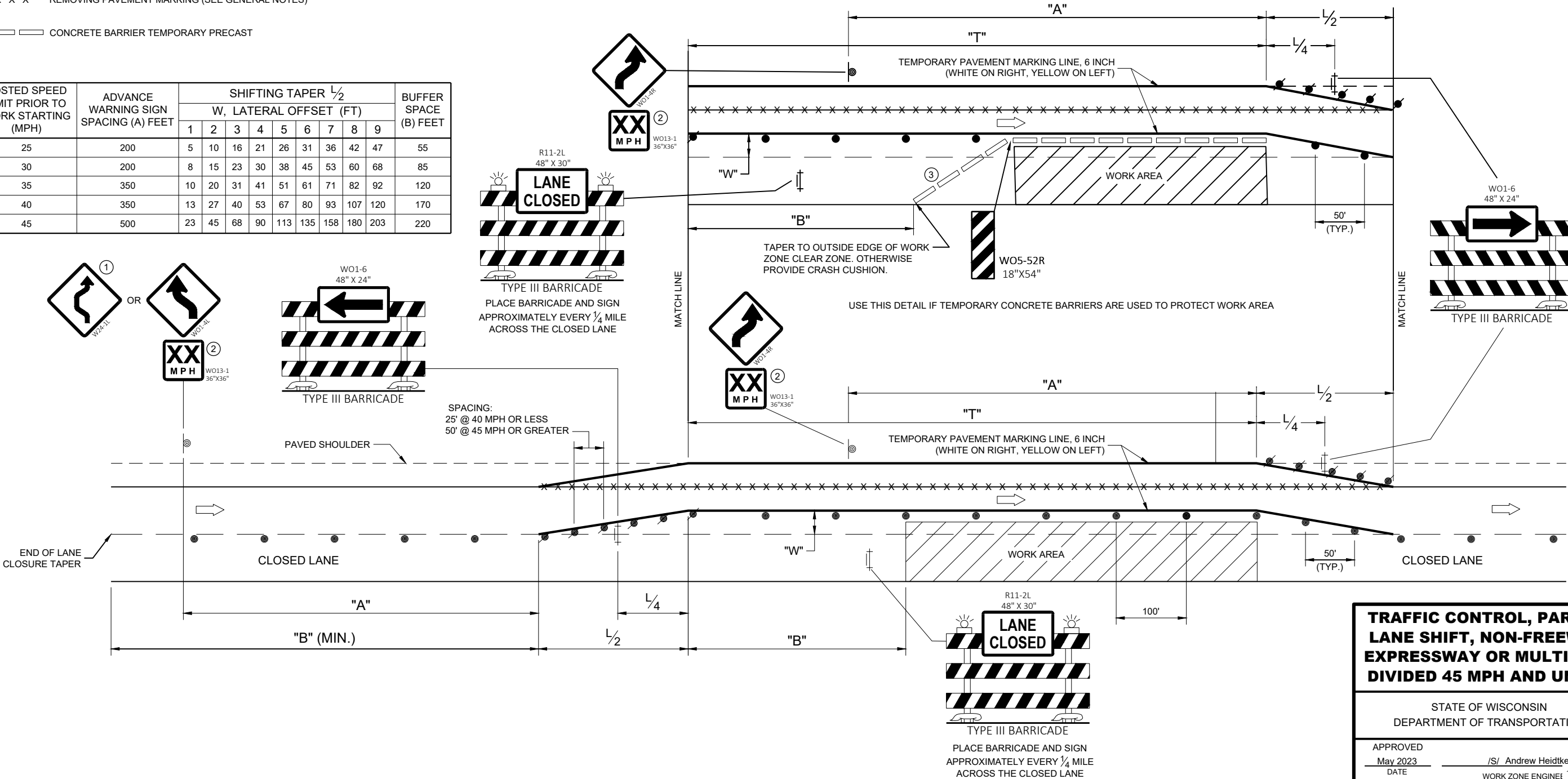
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.

- 1 USE ONLY WHEN T<600', OMIT WO1-4R.
- 2 IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- 3 BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $\frac{L}{2}$ W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL
LANE SHIFT, NON-FREEWAY/
EXPRESSWAY OR MULTILANE
DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 161
FHWA

LEGEND



TYPE III BARRICADE WITH ATTACHED SIGN



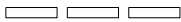
SIGN ON PERMANENT SUPPORT



TRAFFIC CONTROL DRUM



DIRECTION OF TRAFFIC



CONCRETE BARRIER TEMPORARY PRECAST



TYPE "A" WARNING LIGHT (FLASHING)



WORK AREA



W03-5

OR



R2-1
48"x60"

OR



W03-5

OR



R2-1
48"x60"

LOCATED
3000 FEET BEYOND THE
"ROAD WORK 1 MILE"
(W20-1F) SIGN

(BLACK AND WHITE)
LOCATED
700 FEET BEYOND THE
W03-5 SIGN

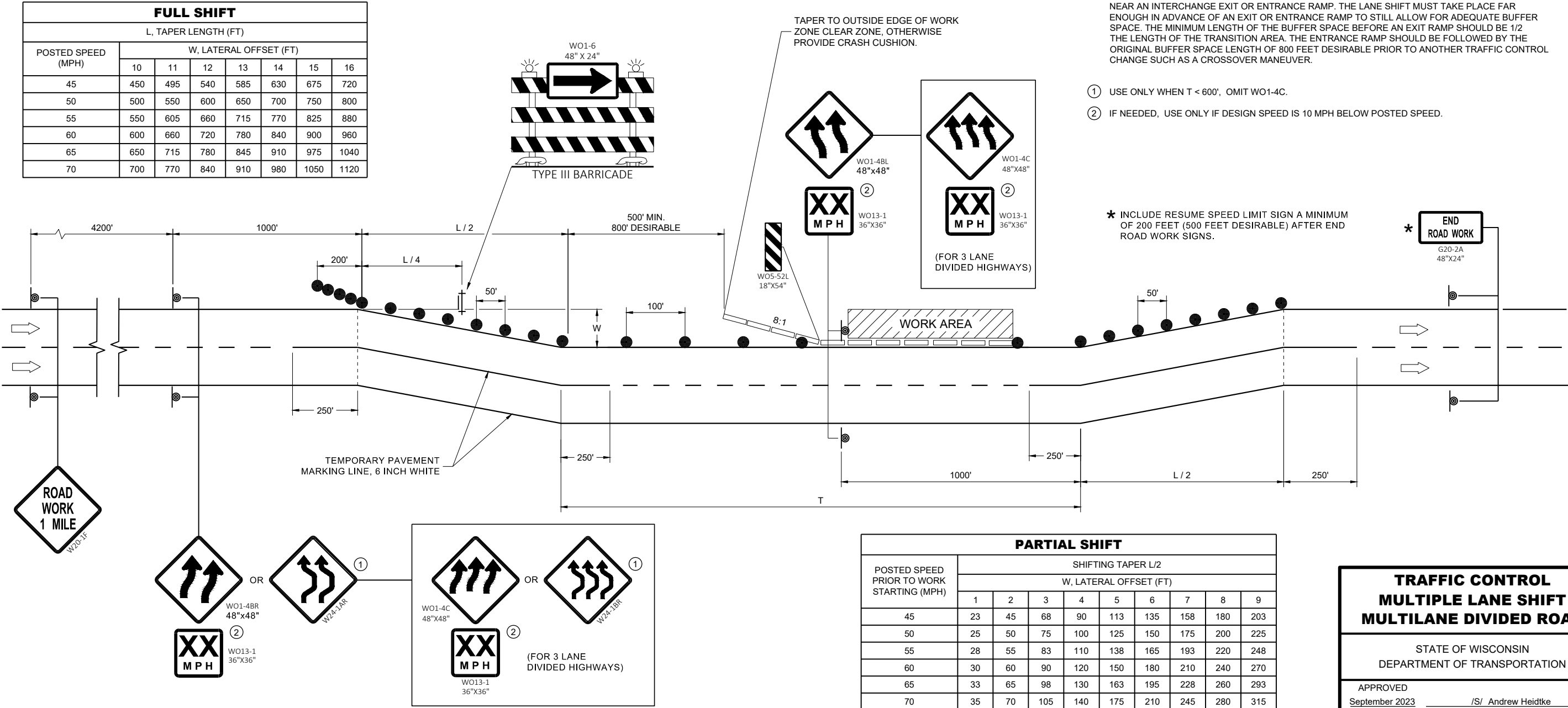
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

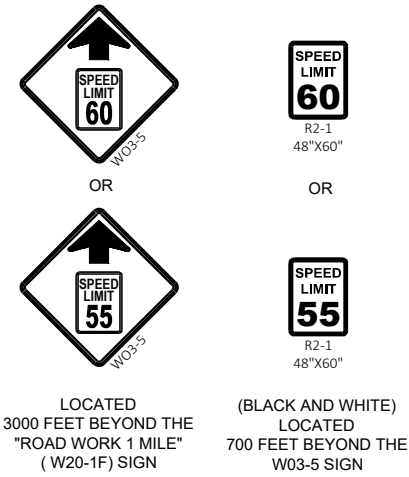
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.
- THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
- ALL SIGNS ARE 48"x48" 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.
- FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.
- ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.

- ① USE ONLY WHEN T < 600', OMIT W01-4C.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.



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.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT RIGHT - REVERSE FOR SHIFTING LEFT.
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

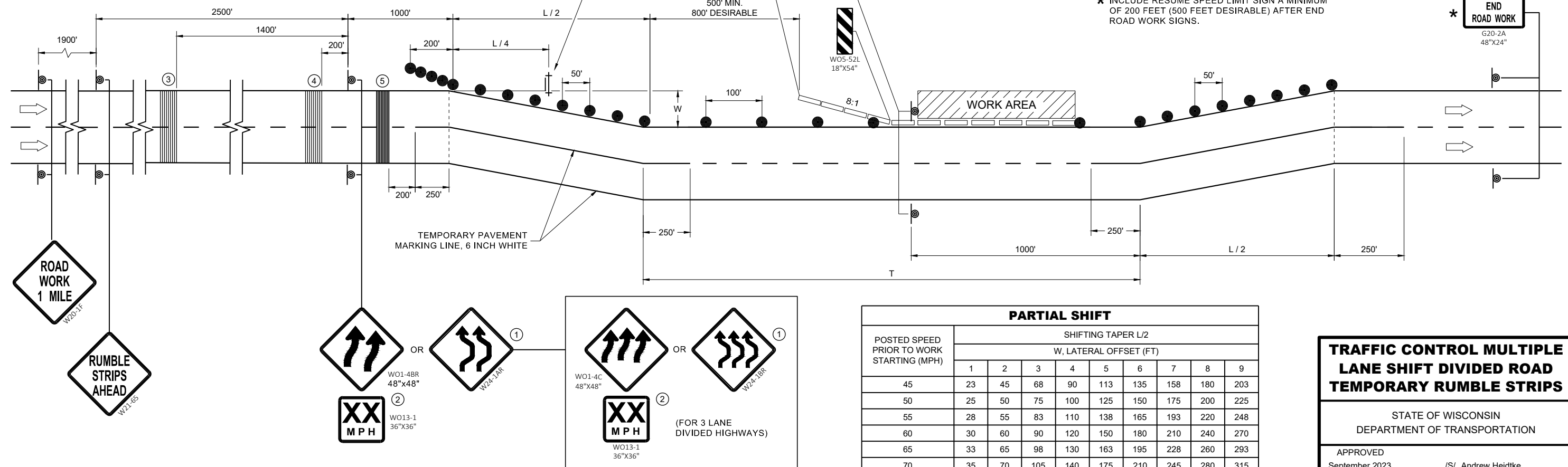
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE"
SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.



PARTIAL SHIFT									
POSTED SPEED PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2								
	W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
45	23	45	68	90	113	135	158	180	203
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

- ① USE ONLY WHEN $T < 600'$, OMIT WO1-4C.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- ③ NINE RUMBLE STRIPS WITH 10 FOOT SPACING BETWEEN EACH INDIVIDUAL STRIP
- ④ NINE RUMBLE STRIPS WITH 5 FOOT SPACING BETWEEN EACH INDIVIDUAL STRIP
- ⑤ NINE RUMBLE STRIPS WITH 1.5 FOOT SPACING BETWEEN EACH INDIVIDUAL STRIP

**END
ROAD WORK**

G20-2A
48"X24"

**TRAFFIC CONTROL MULTIPLE
LANE SHIFT DIVIDED ROAD
TEMPORARY RUMBLE STRIPS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

GENERAL NOTES

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

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

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

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

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

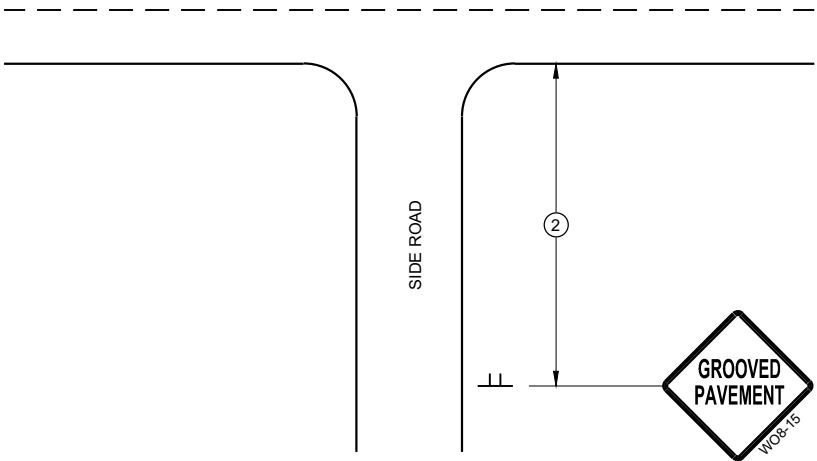
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

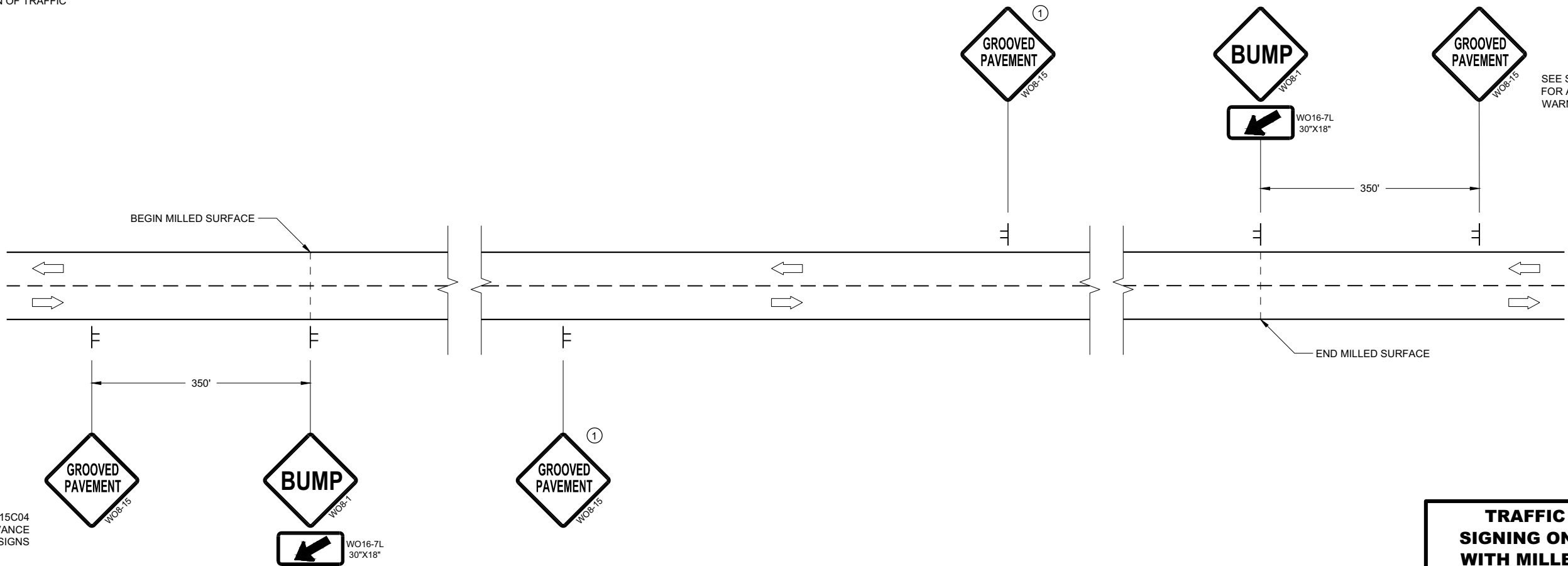
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 164

FHWA

GENERAL NOTES

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

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

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

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

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

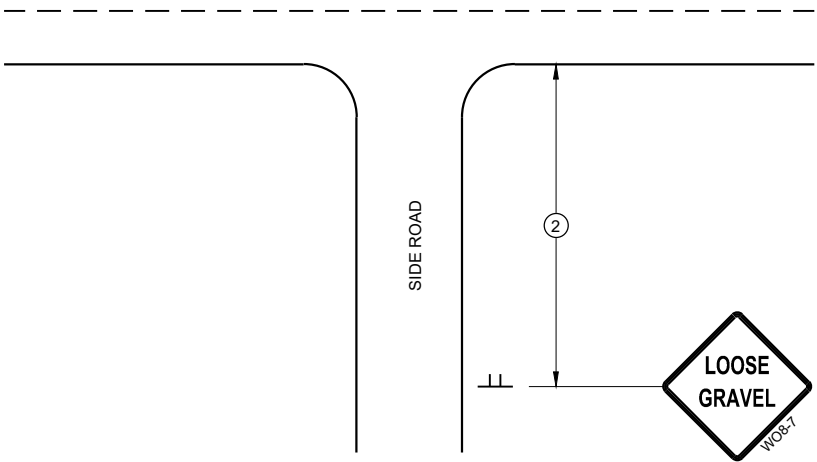
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

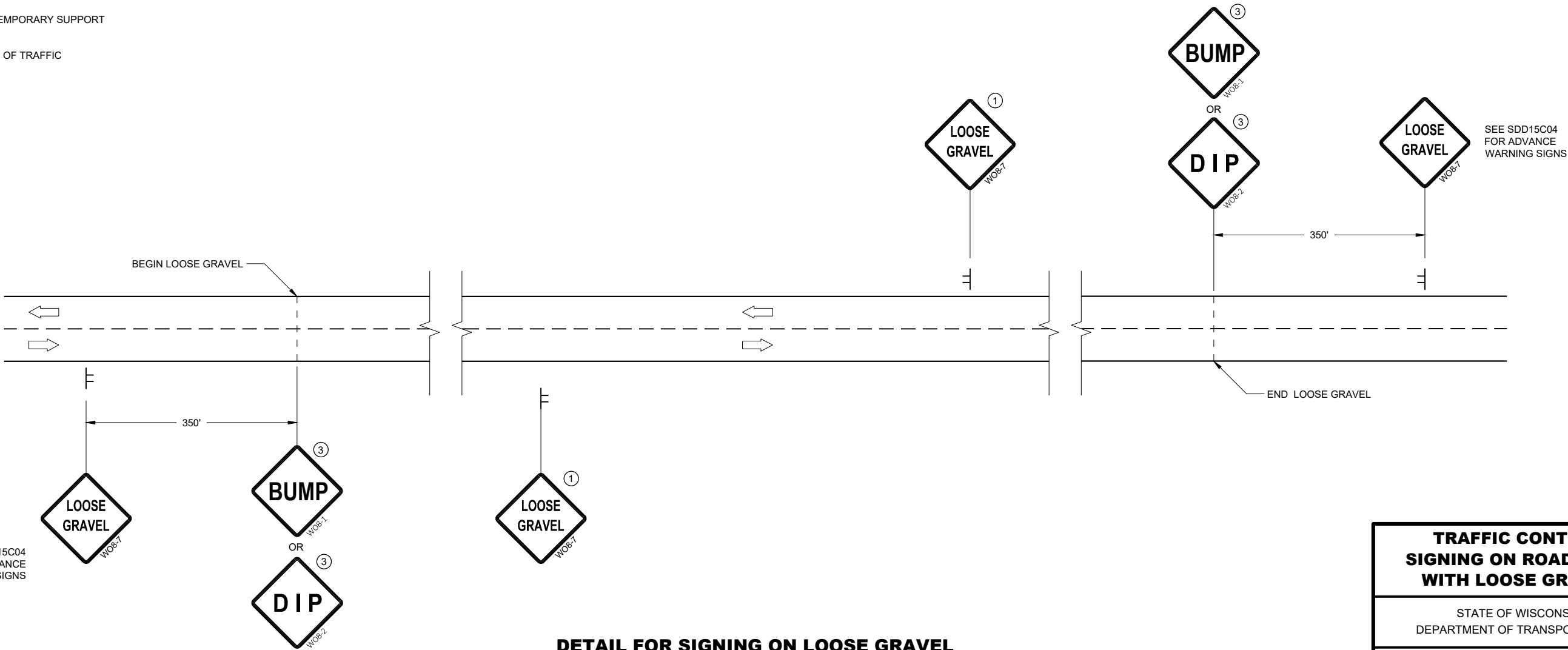
- 1 PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- 2 PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- 3 ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



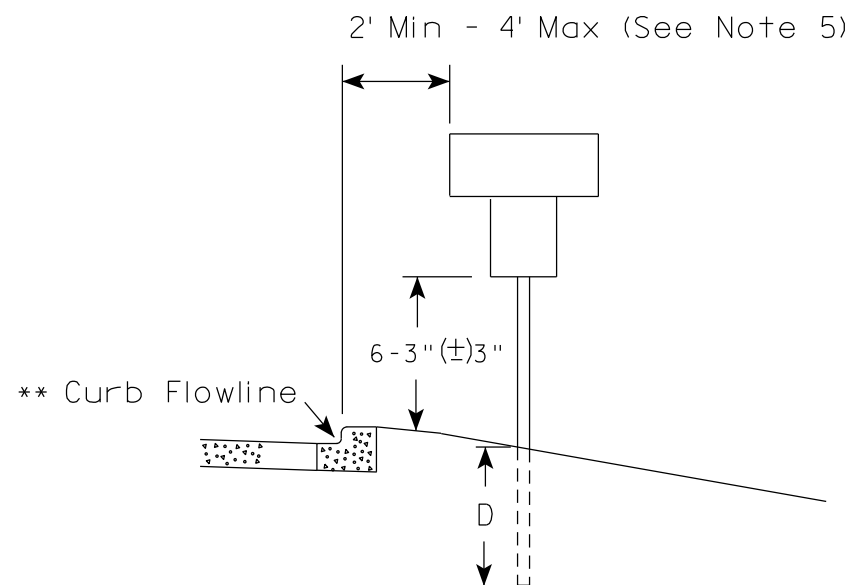
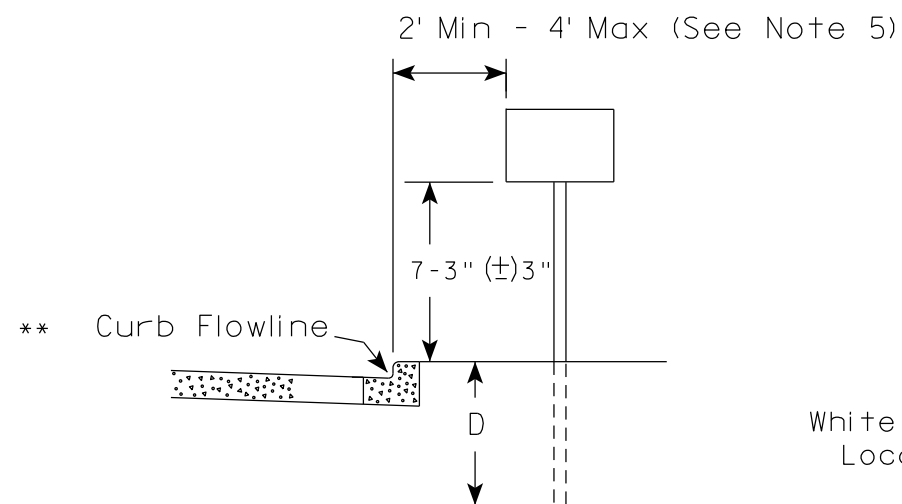
DETAIL FOR SIGNING ON LOOSE GRAVEL
OR CHIP SEALED SURFACES

TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

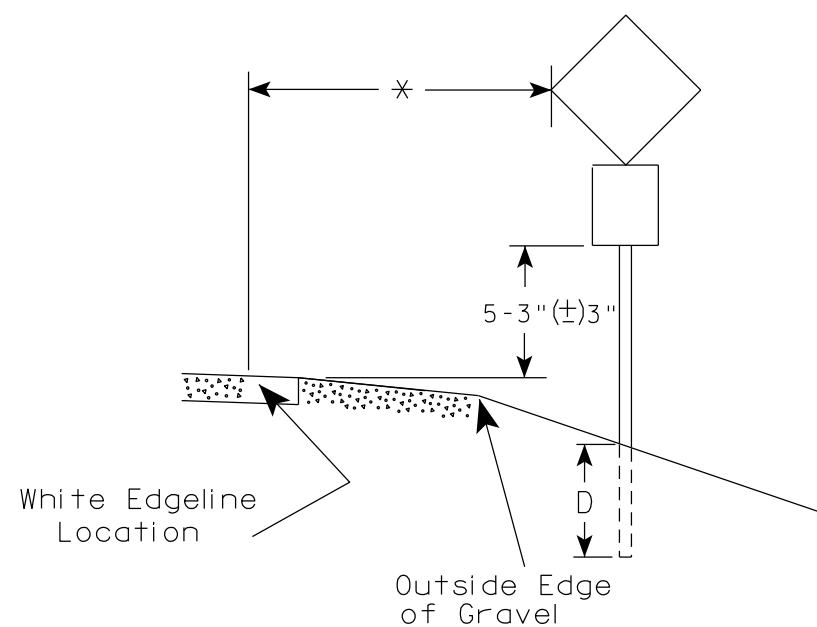
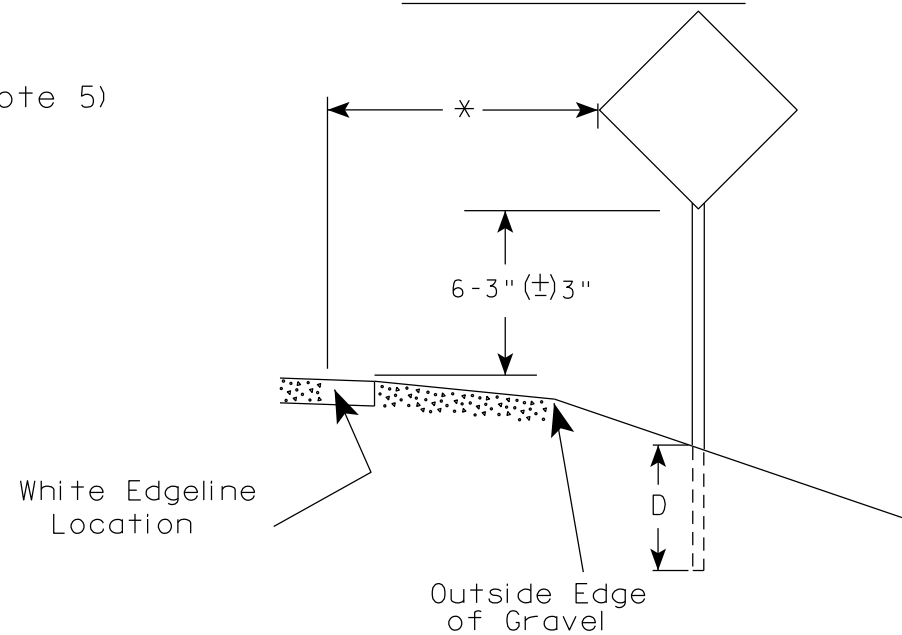
APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 165
FHWA

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

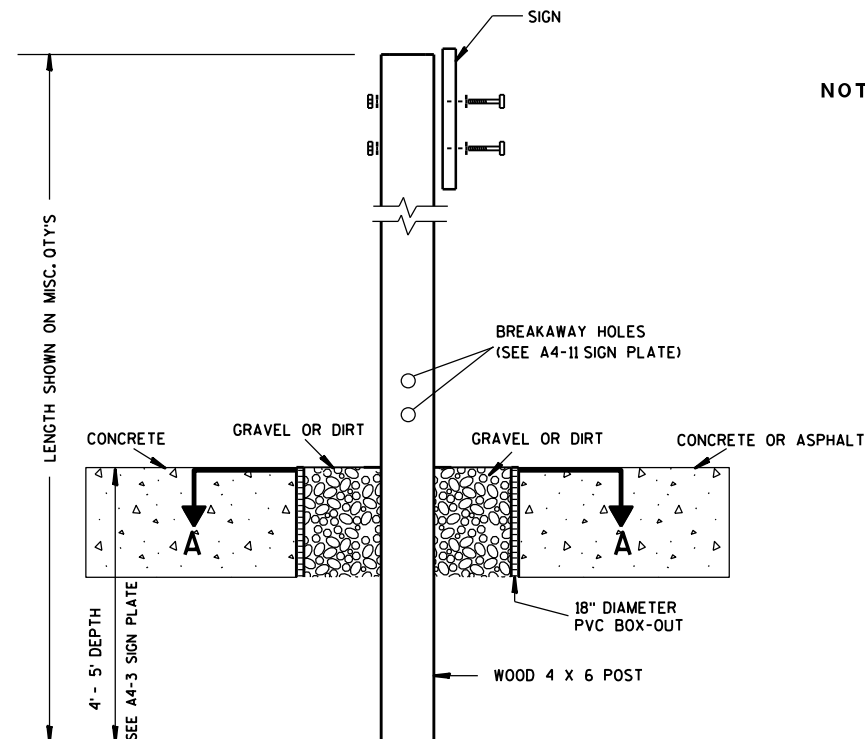
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

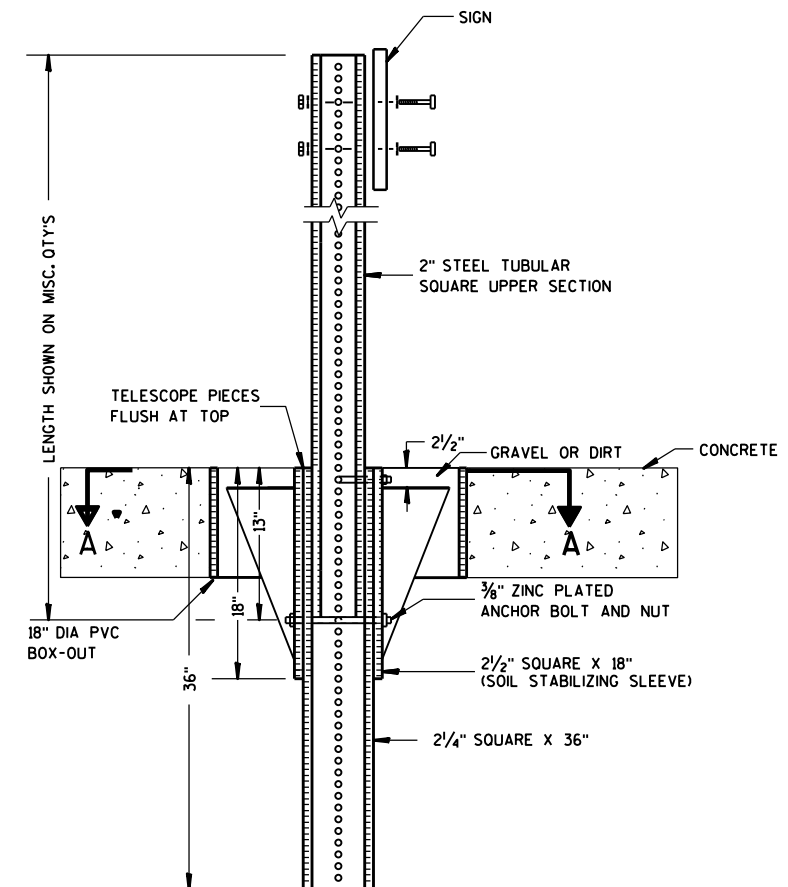
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

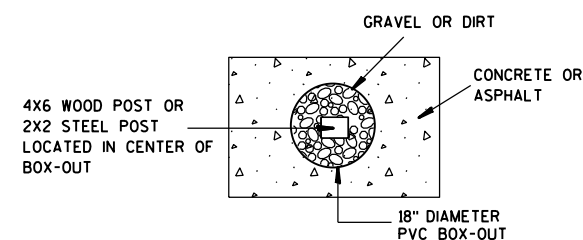
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

**SIGN POST
BOX-OUTS
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 167 A4-3B.1

PROJECT NO:

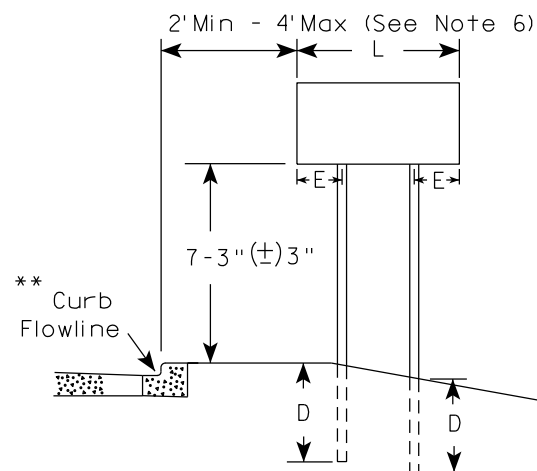
HWY:

COUNTY:

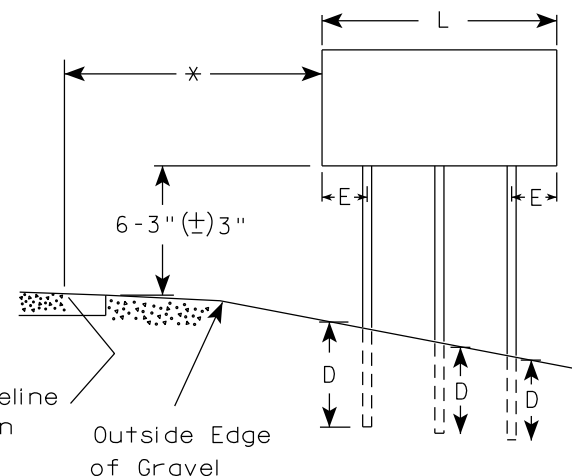
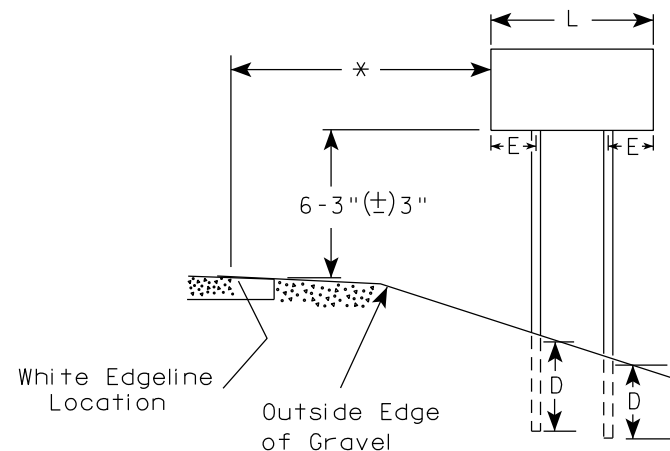
SHEET NO:

E

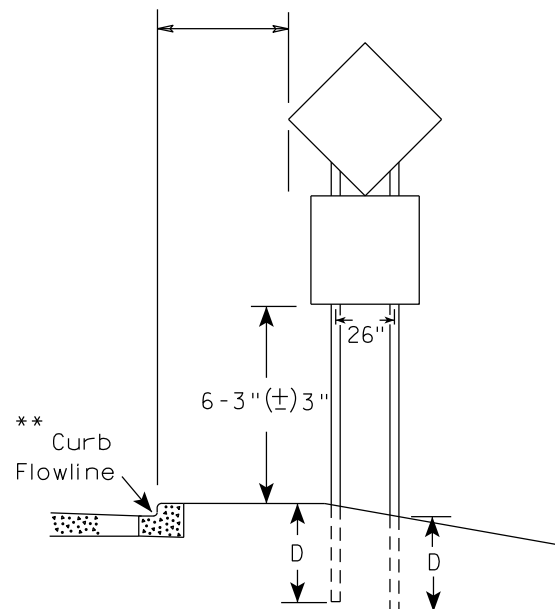
URBAN AREA



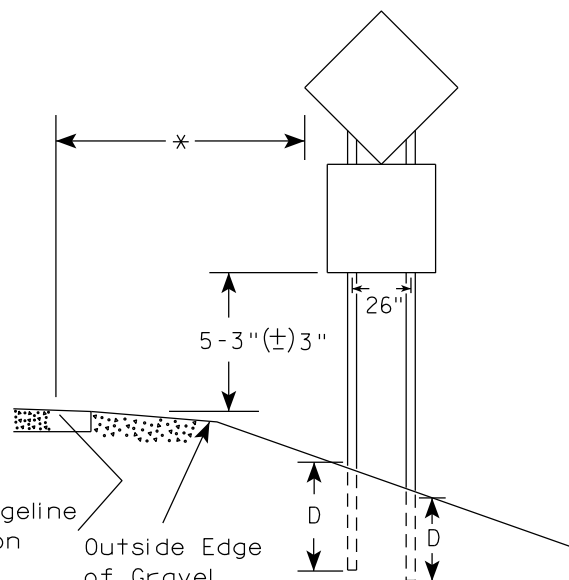
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

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

POST EMBEDMENT DEPTH

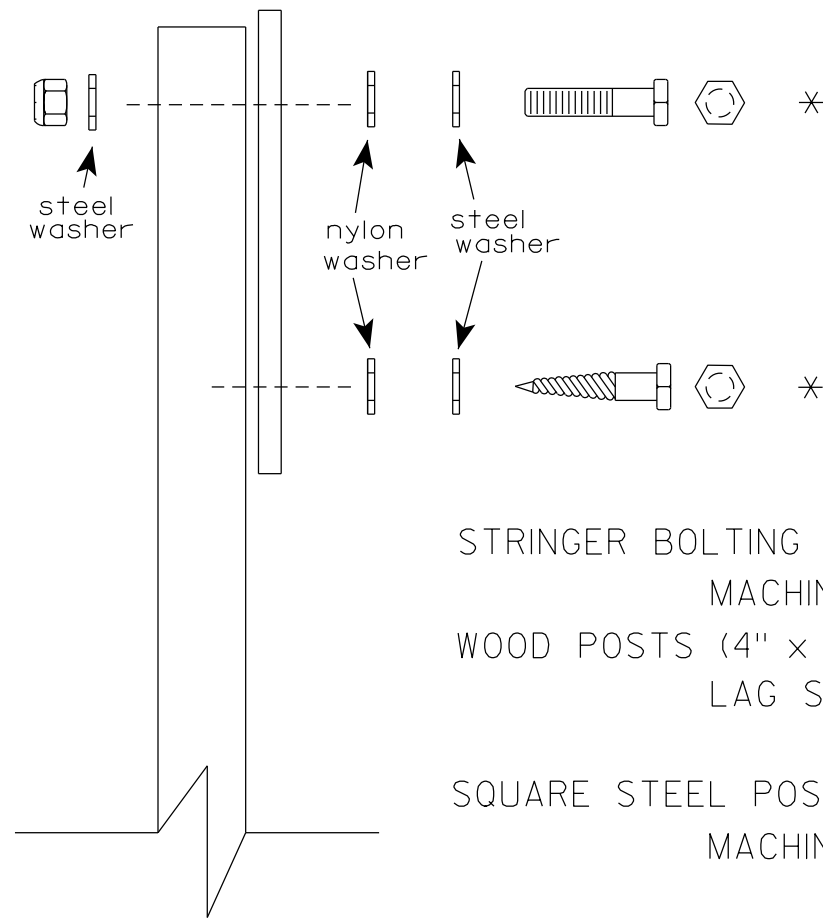
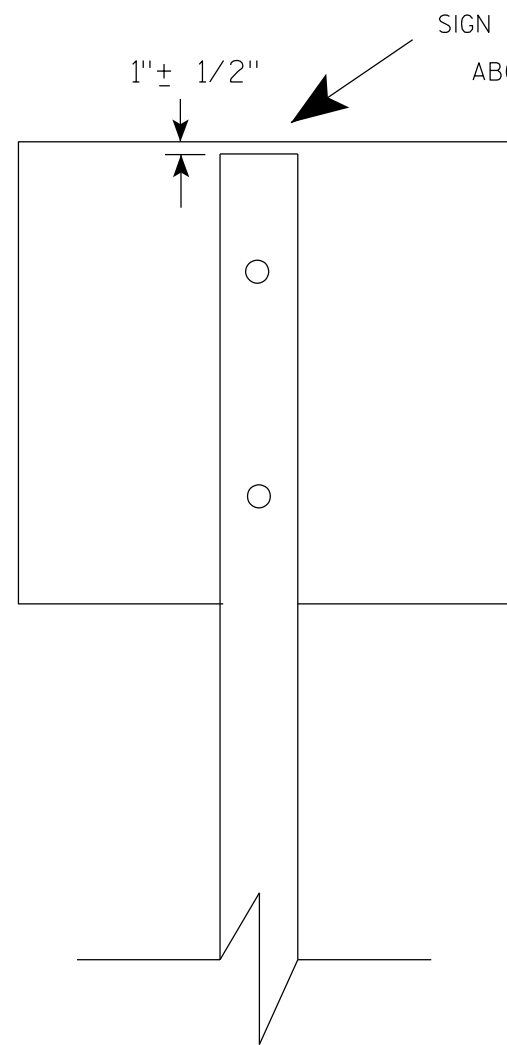
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

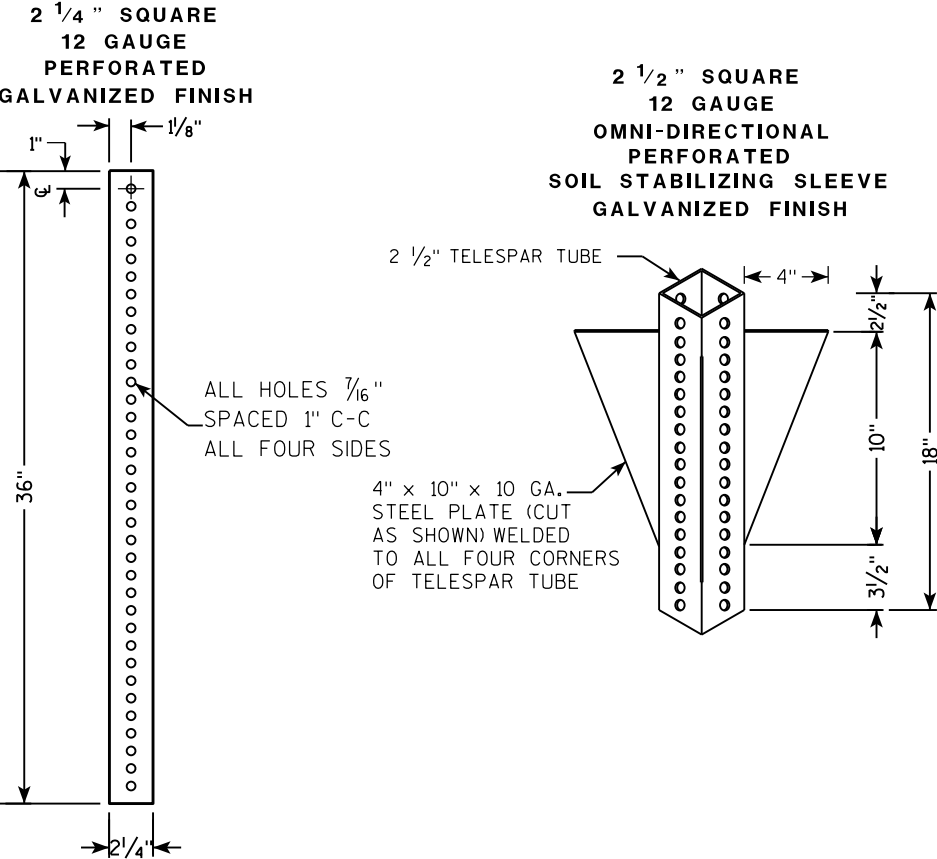
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

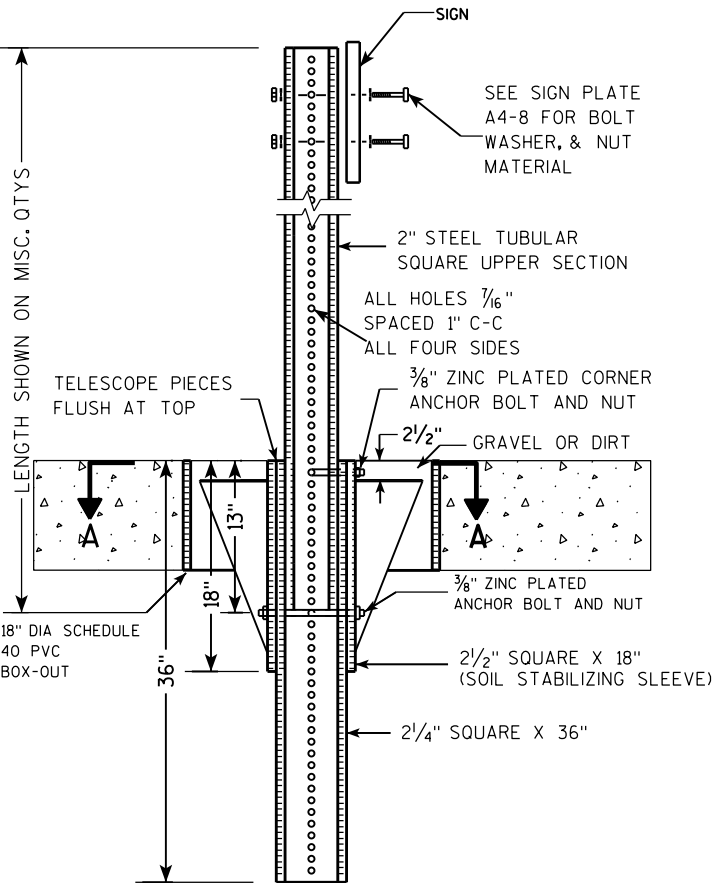
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

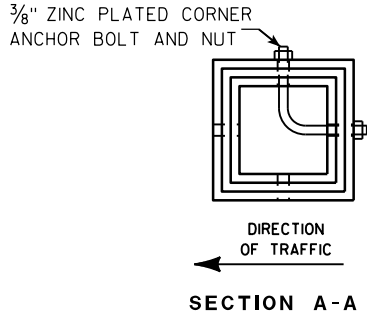
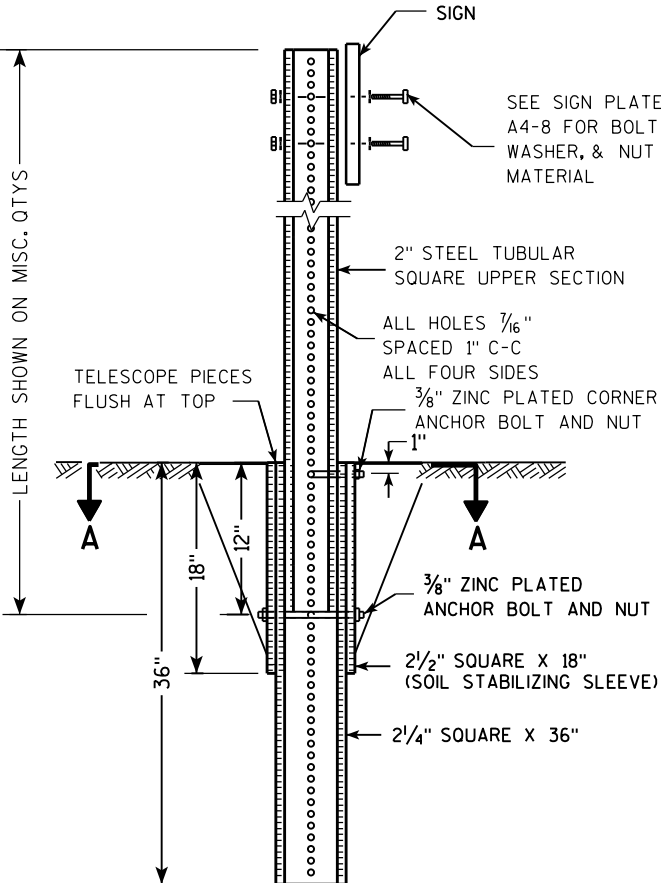
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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)



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).

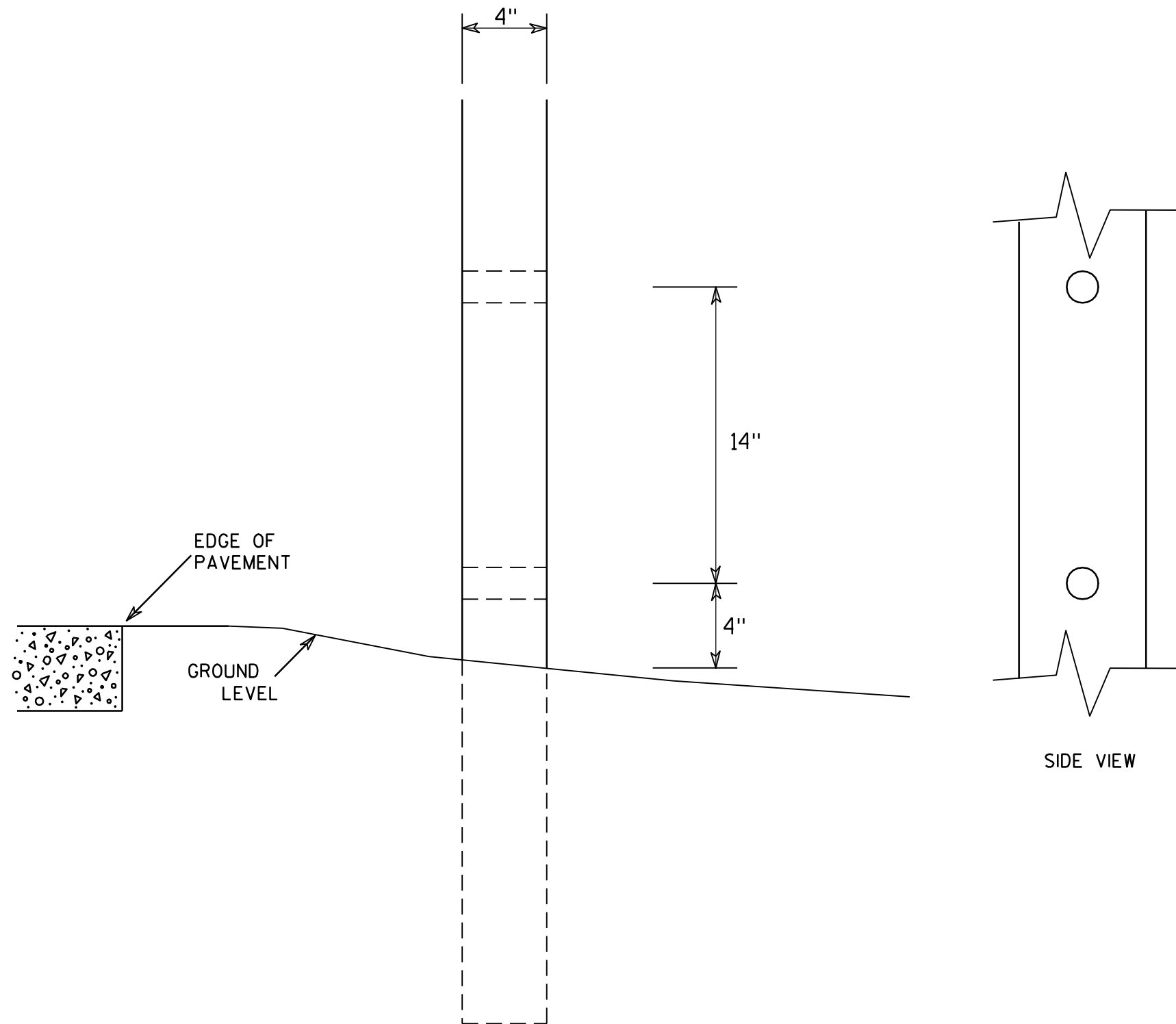
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 170 14-9.9

7



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

4 X 6 WOOD POST
MODIFICATIONS

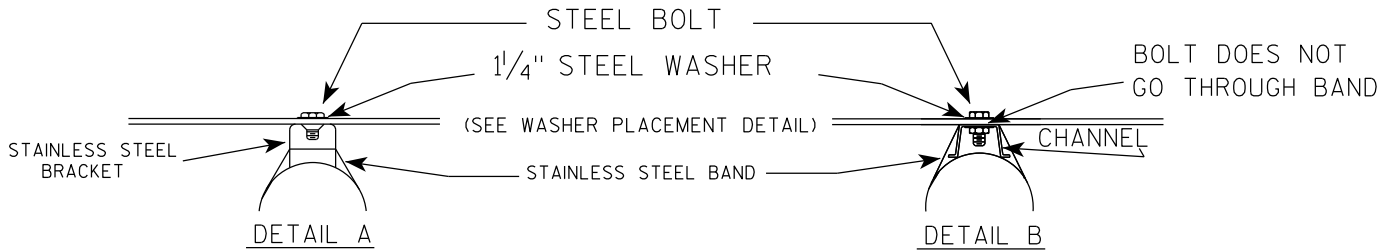
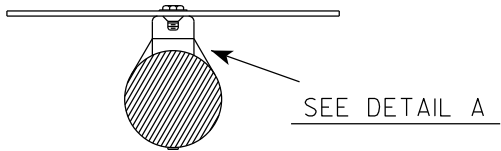
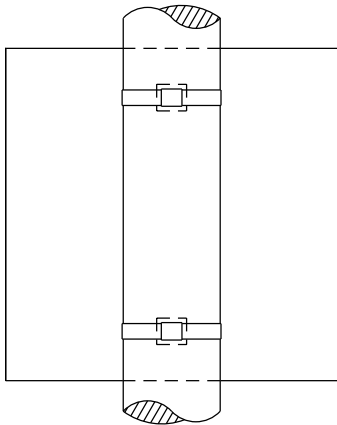
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J. Spang*
for State Traffic Engineer

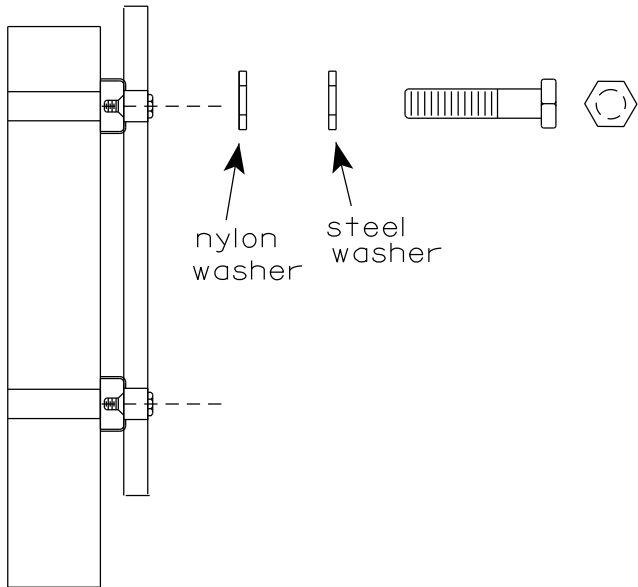
DATE 3/27/97 PLATE NO. A4-11.2

BANDING

SINGLE SIGN



WASHER PLACEMENT

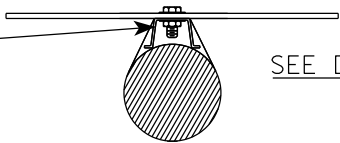
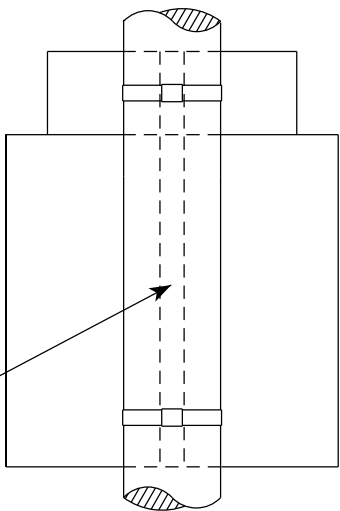


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

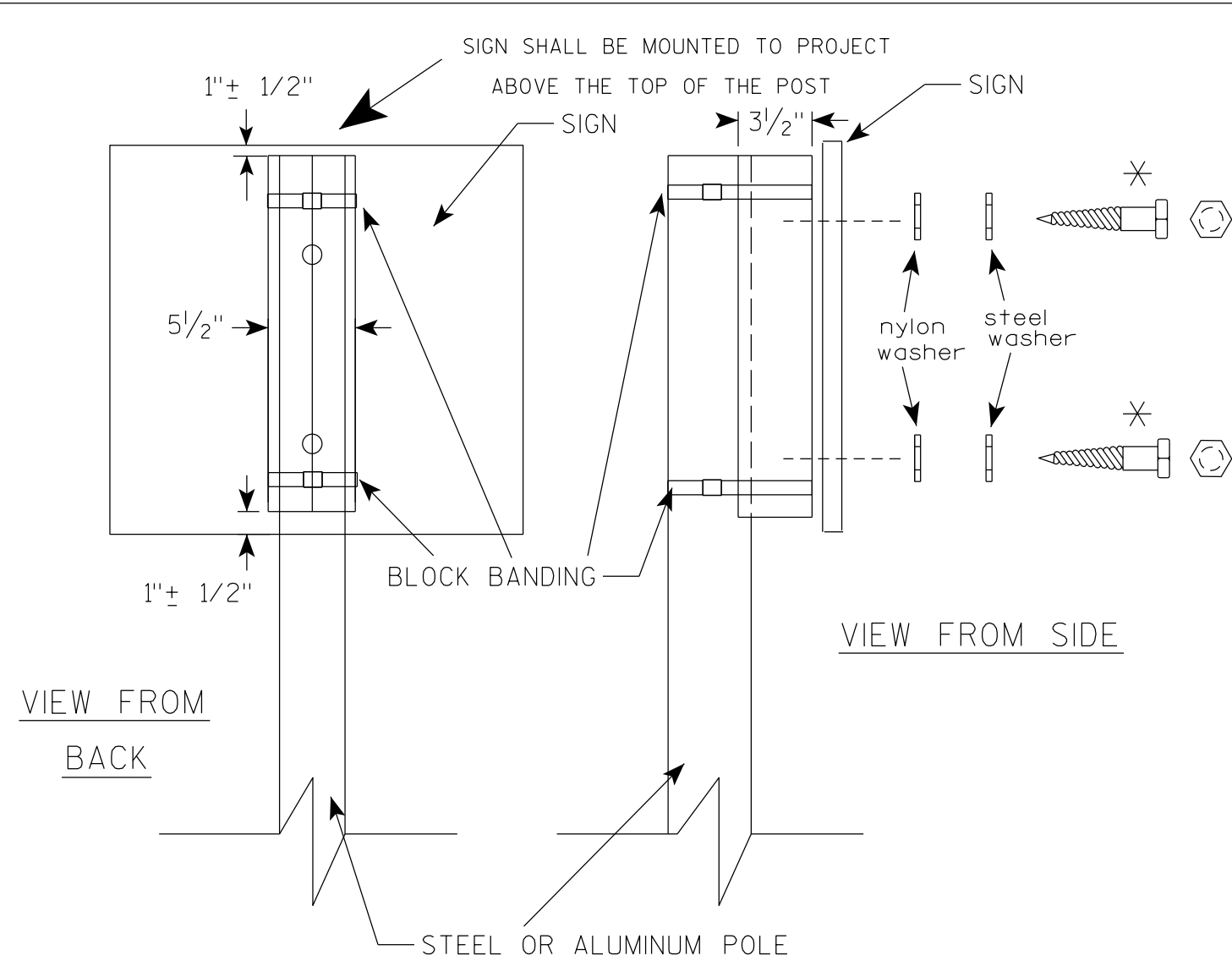
"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

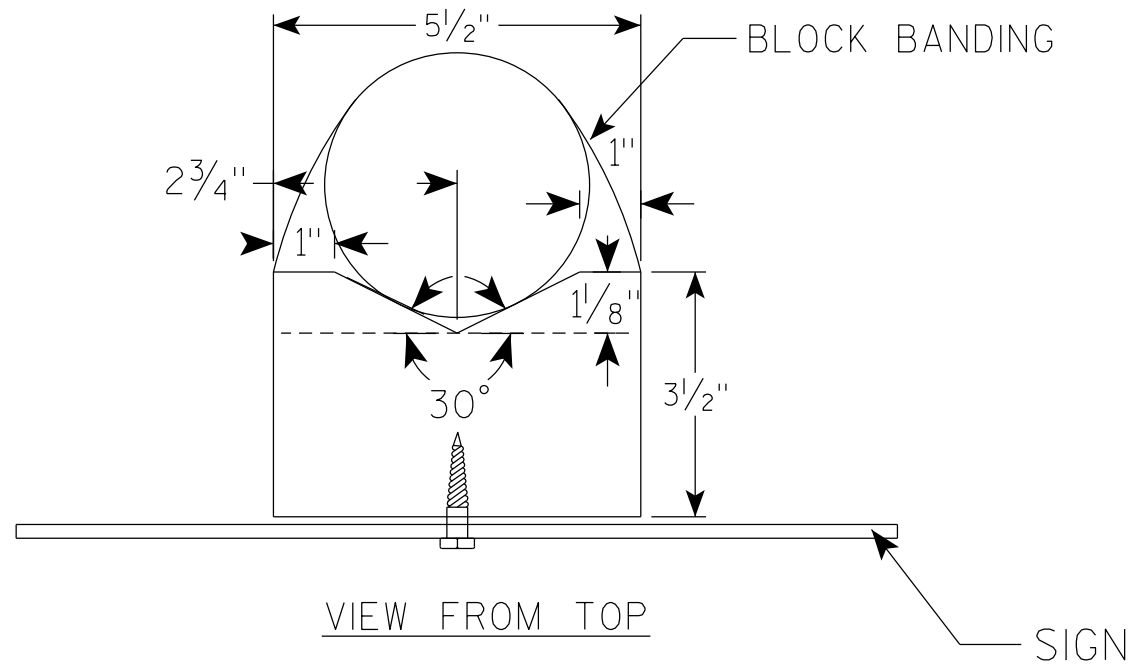
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

SIGN

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 173

E

NOTES

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



G20-57

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

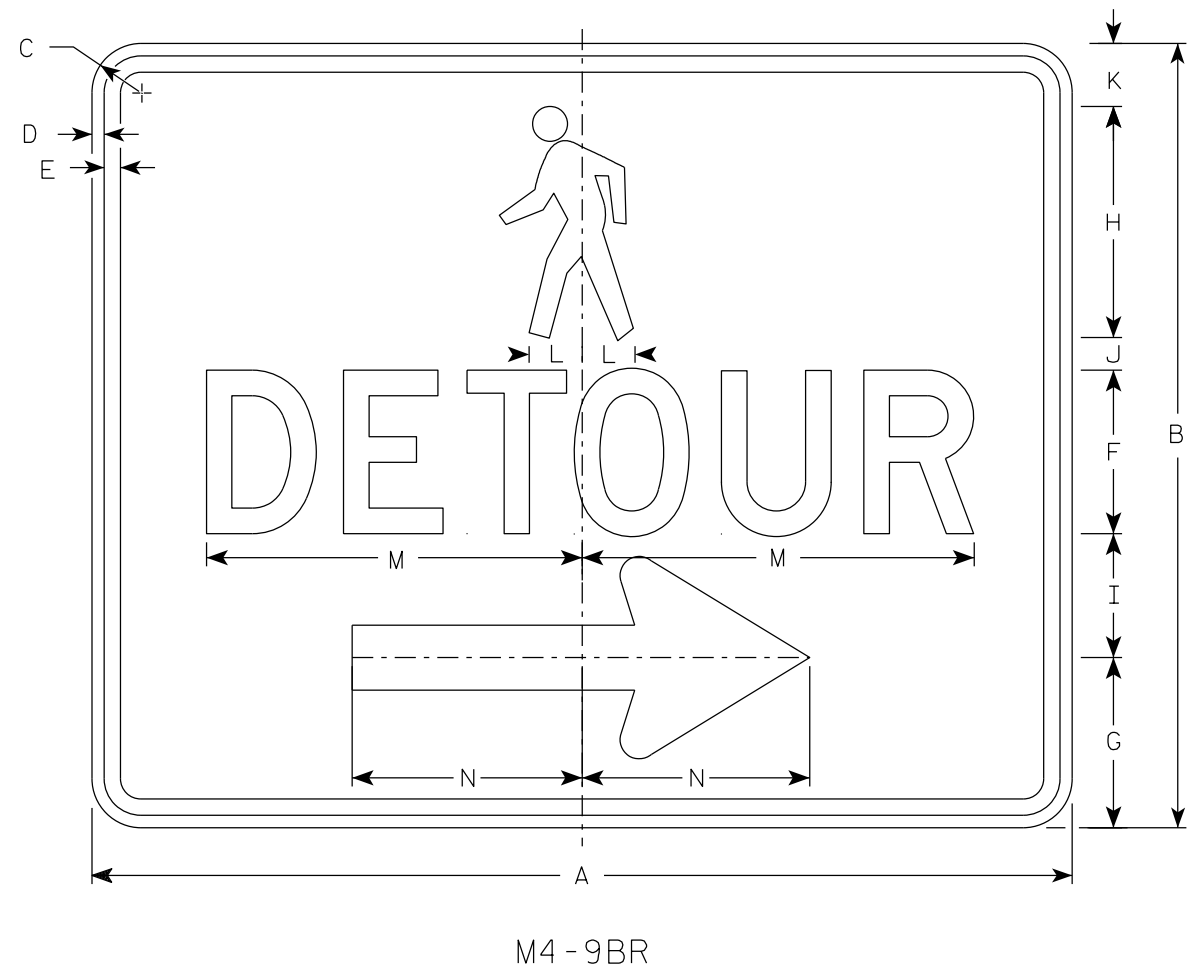
STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

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

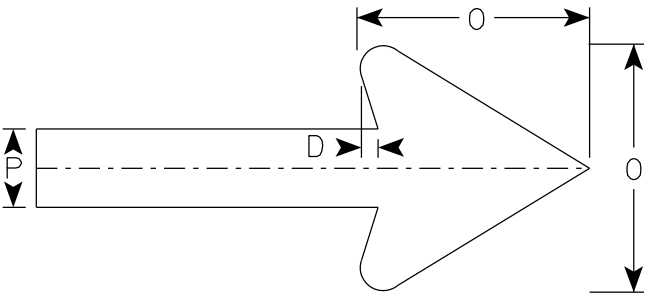
7



M4-9BR

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



Arrow Detail

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

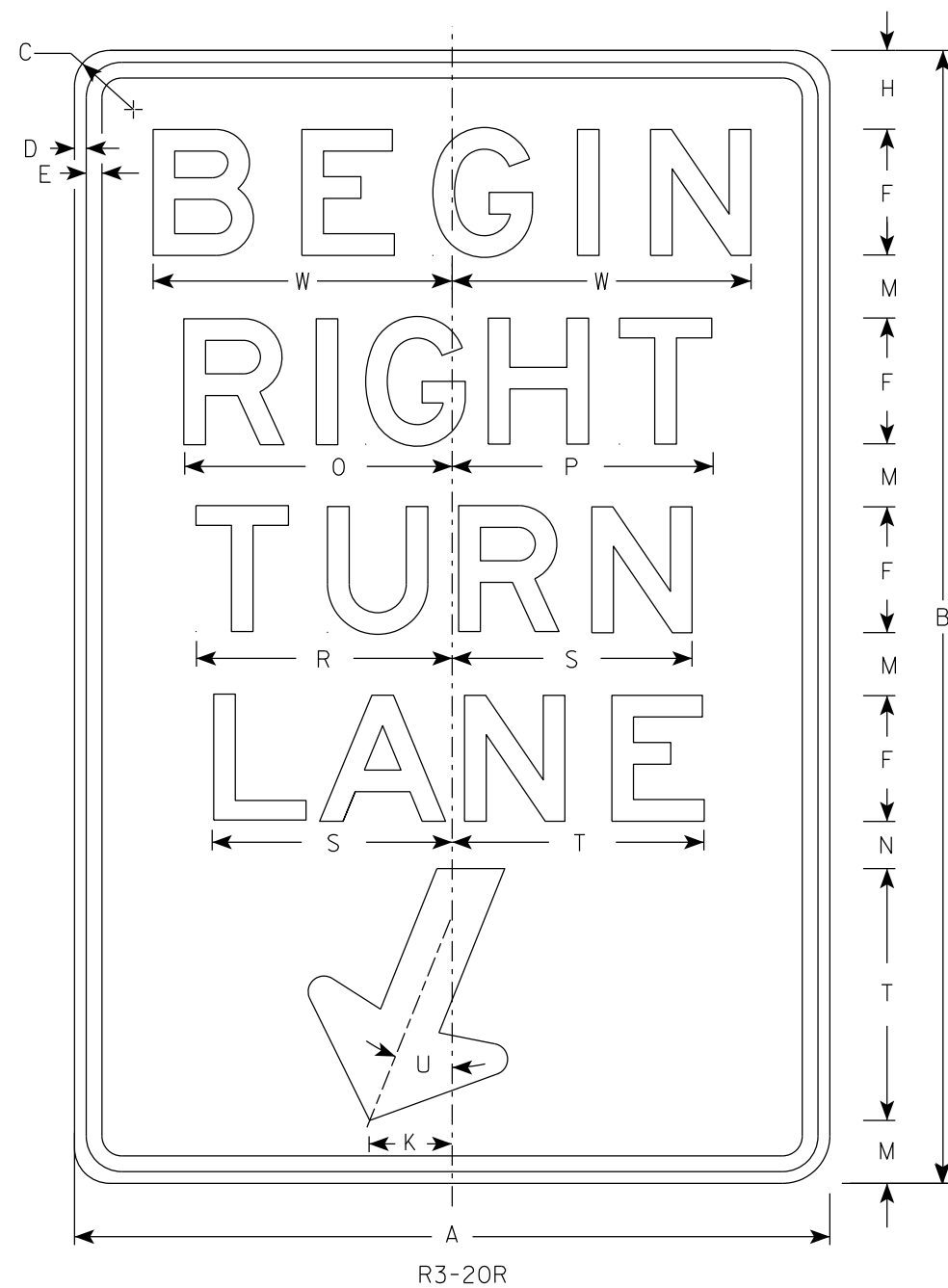
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

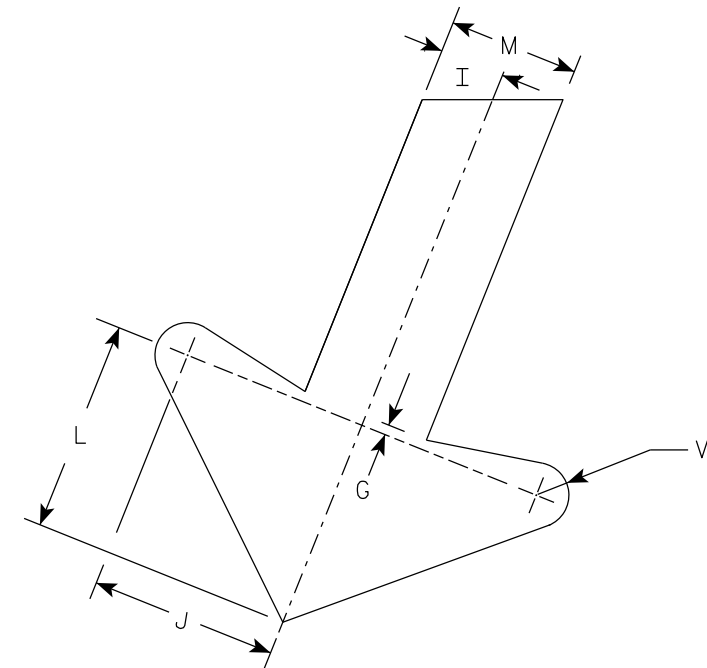
DATE 2/9/2023 PLATE NO. M4-9B.4

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - E



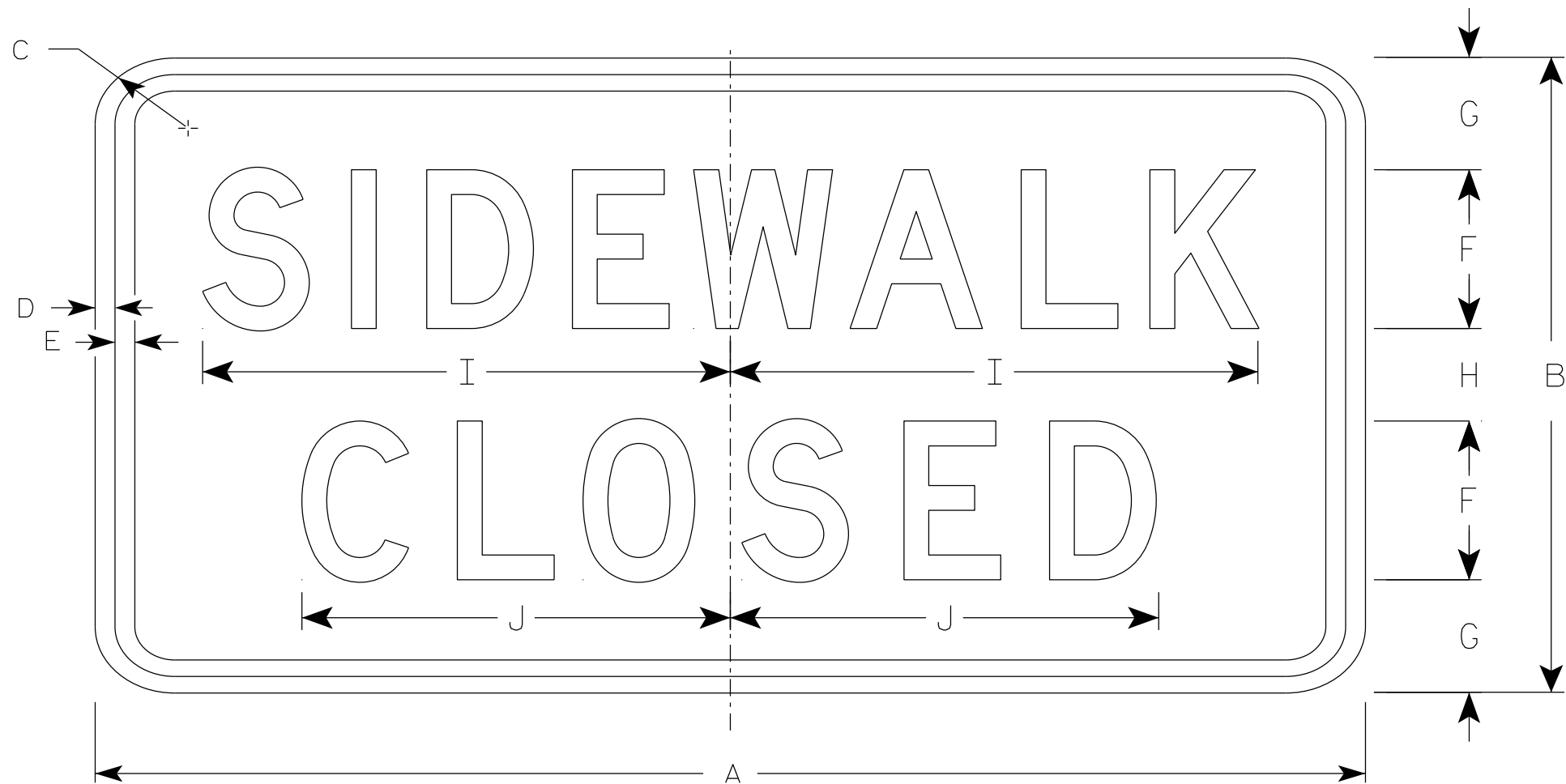
ARROW DETAIL

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	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	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 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	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 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

PROJECT NO:		HWY:		COUNTY:		SHEET NO: 176										E
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7

7



R9-9

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 177

E

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

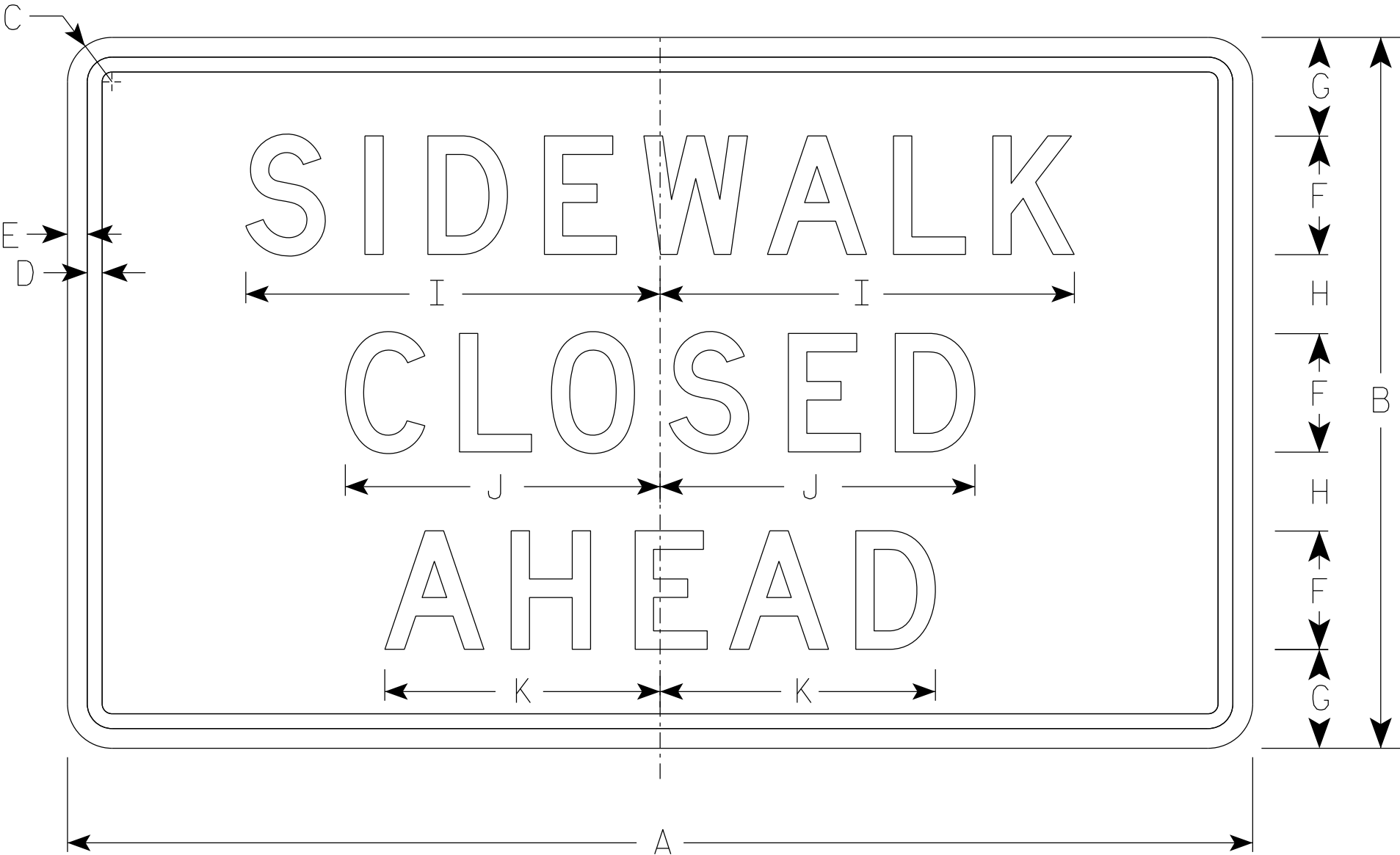
For State Traffic Engineer

DATE 1/24/24

PLATE NO. R9-9.7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D



R9-9A

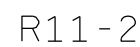
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

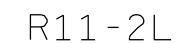
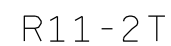
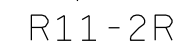
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

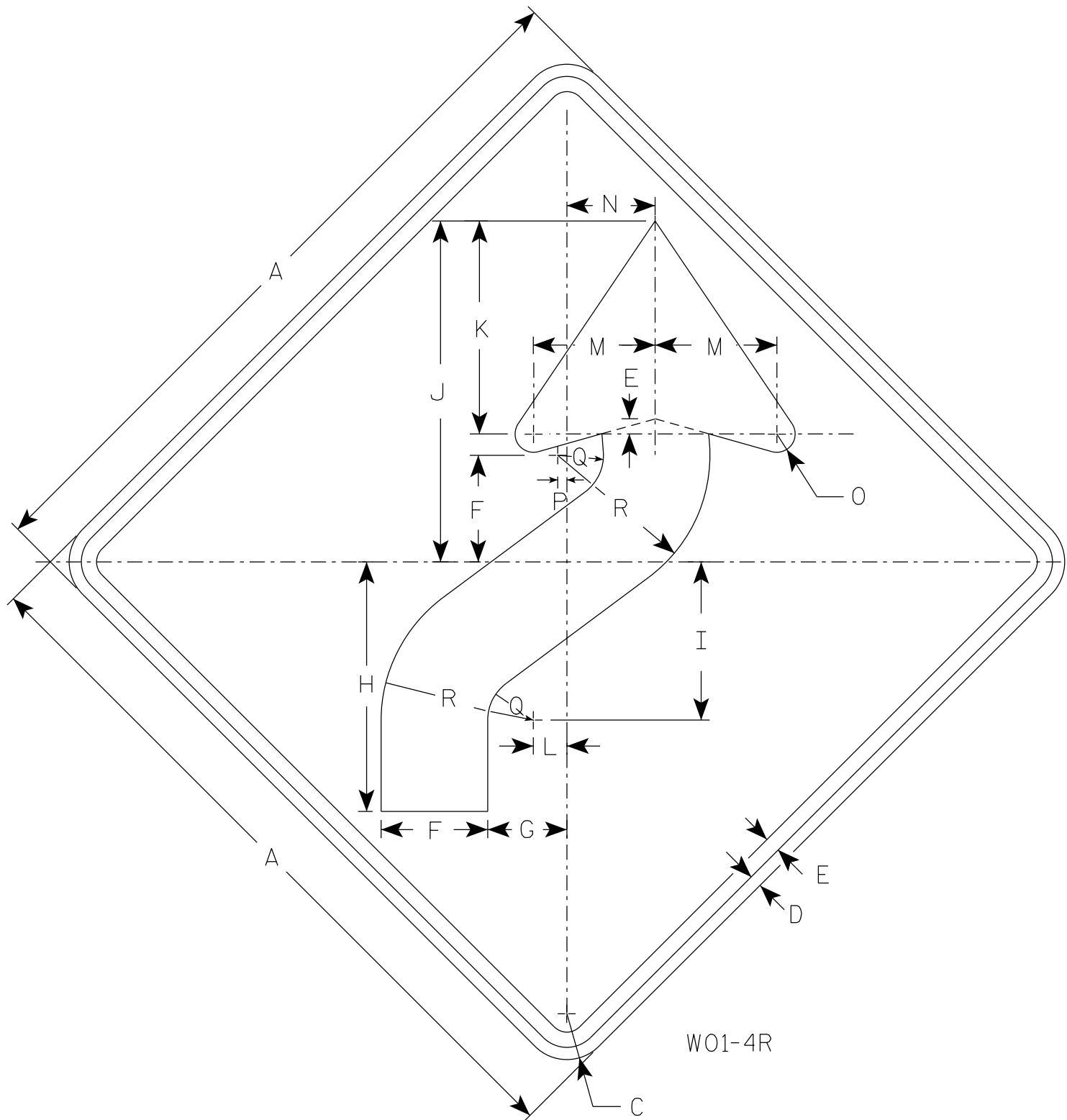
DATE 1/24/24 PLATE NO. R9-9A.2



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



STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>2/5/24</u>	PLATE NO. <u>R11-2.12</u>



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

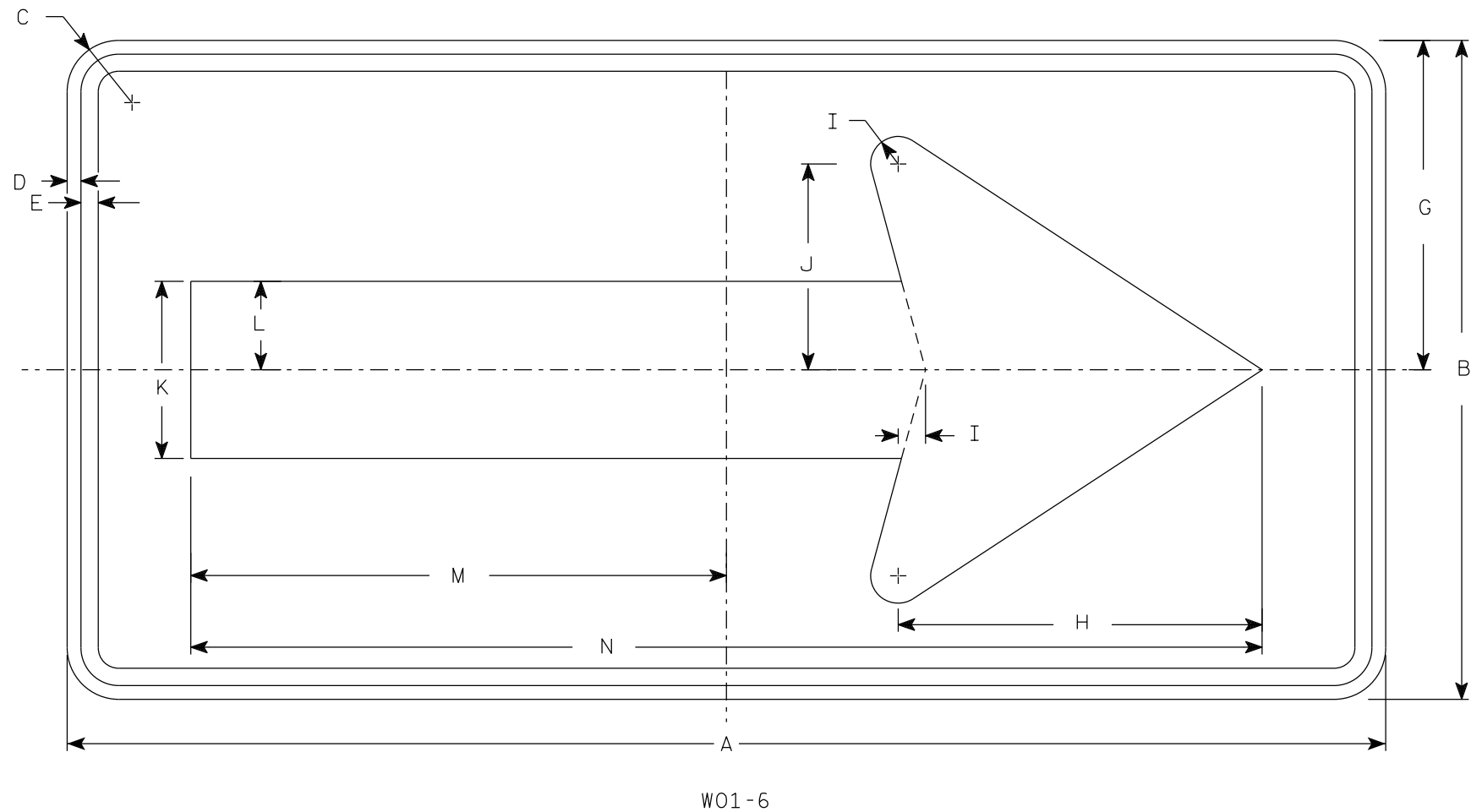
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

7



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

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

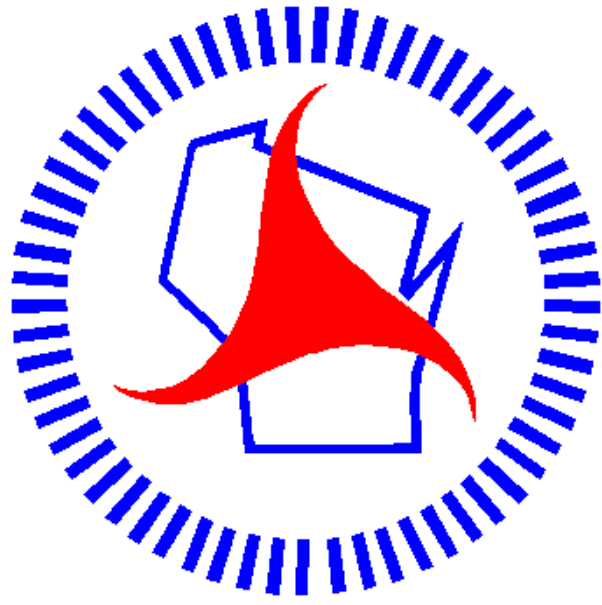
STANDARD SIGN

W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-6.2



Wisconsin Department of Transportation

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