

WKE

April 13, 2021

PROJECT ID:
WITH: N/A

2110-00-73

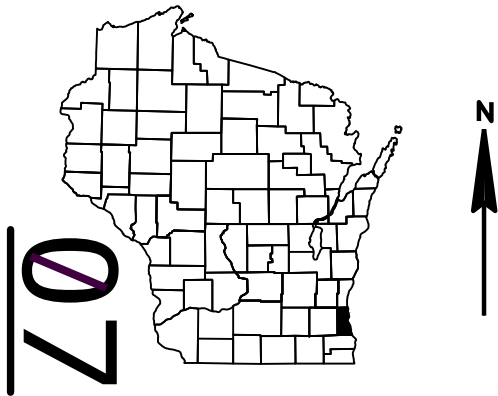
COUNTY:

MILWAUKEE

ORDER OF SHEETS

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

TOTAL SHEETS = 236



DESIGN DESIGNATION

A.A.D.T.	(2021)	=	14,500
A.A.D.T.	(2041)	=	16,100
D.H.V.	(2041)	=	1,610
D.D.		=	55/45
T.		=	5%
DESIGN SPEED		=	35 MPH
ESALS		=	1,100,000

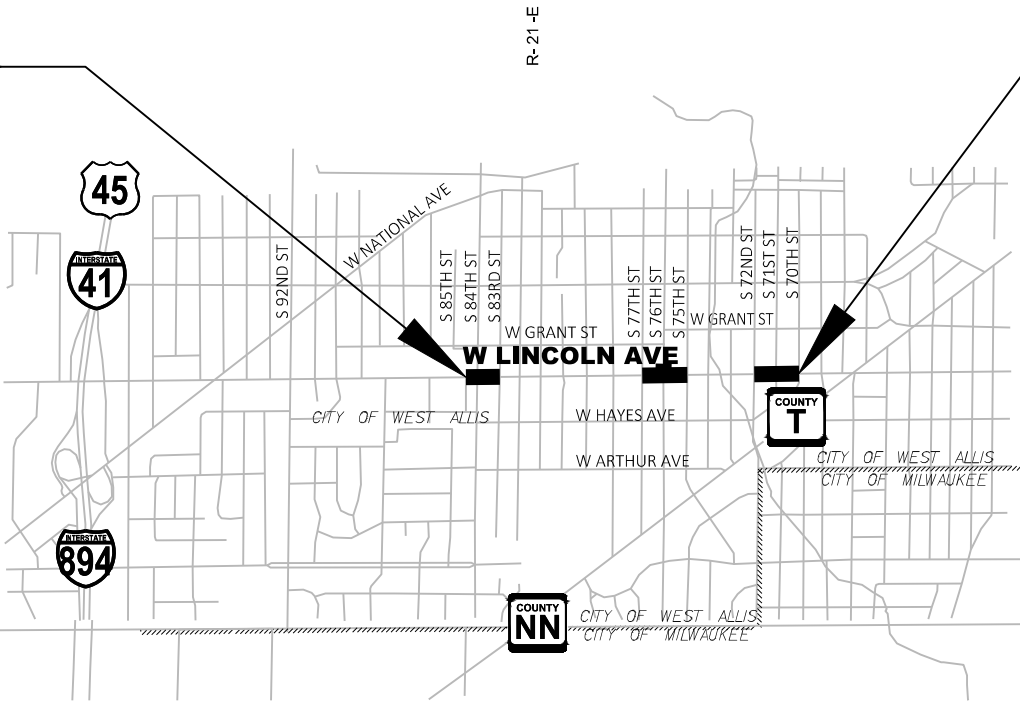
CONVENTIONAL SYMBOLS

COUNTY LINE	
CORPORATE LIMITS	
PROPERTY LINE	
LIMITED EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
FENCE	
GUARD RAIL	
SLOPE INTERCEPT	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
MARSH AREA	
WOODED OR SHRUB AREA	
STREAM OR WATER EDGE	
BUSH	
PINE TREE	
TREE	
TRAFFIC SIGNAL CONTROL CABINET	
TRAFFIC SIGNAL	
TRAFFIC SIGNAL MAST-ARM	
TRAFFIC SIGNAL WITH LIGHT	
EXISTING PULL BOX	
BOLLARD	

COMBUSTIBLE FLUIDS
UNDERGROUND UTILITIES
GAS
SANITARY SEWER
STORM SEWER
WATER
ELECTRIC
TELEPHONE
FIBER OPTIC
CABLE TELEVISION
FORCE MAIN
MANHOLE
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE
POWER POLE
TELEPHONE POLE

RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE
CURB STOP
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)

CAUTION
(SIZE) G
(SIZE) SAN
(SIZE) SS
(SIZE) W
E
T
FO
TV
FM
MH
HH
b
Ø
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE
CURB STOP
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)



LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.325 MI

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, NAD 27 SOUTH ZONE.
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF WEST ALLIS DATUM. TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL VERTICAL DATUM OF 1929, ADD 580.56 TO THE ELEVATIONS SHOWN ON THIS PLAN.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

W. LINCOLN AVENUE

INTERSECT W/ 84TH, 76TH, & 71ST STR

LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2110-00-73

STATE PROJECT

2110-00-73

FEDERAL PROJECT

PROJECT

WISC 2021260

CONTRACT

1

ACCEPTED FOR

CITY of WEST ALLIS

Traci Gengler
(Printed Name)

Traci Gengler
(Signature)

10/09/2020
(Date)

Principal Engineer
(Title of Official)

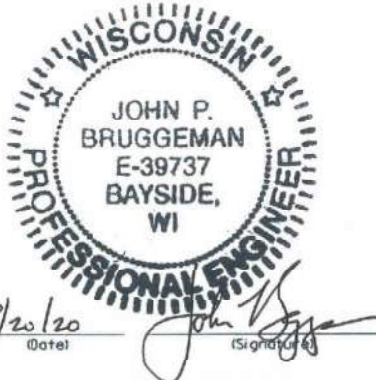
CITY OF WEST ALLIS
(STORM SEWER, SANITARY SEWER, AND WATER MAIN PLANS)



ORIGINAL PLANS PREPARED BY

raSmith
CREATIVITY BEYOND ENGINEERING

rasmith.com



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	MJR (raSmith)
Surveyor	JPB/SJL (raSmith)
Designer	KATHY KRAMER
Project Manager	
Regional Examiner	
Regional Supervisor	JEFF BOHEN

APPROVED FOR THE DEPARTMENT
10/19/20 Kathleen Kramer
DATE: 2020.10.19 20:54:09
(Signature)

E

UTILITIES

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ANDY TILLMAN
MCTS BUS STOPS & SHELTERS
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MILWAUKEE, WI 53205
(414) 343-1728
ATILLMAN@MCTS.ORG

GENERAL NOTES

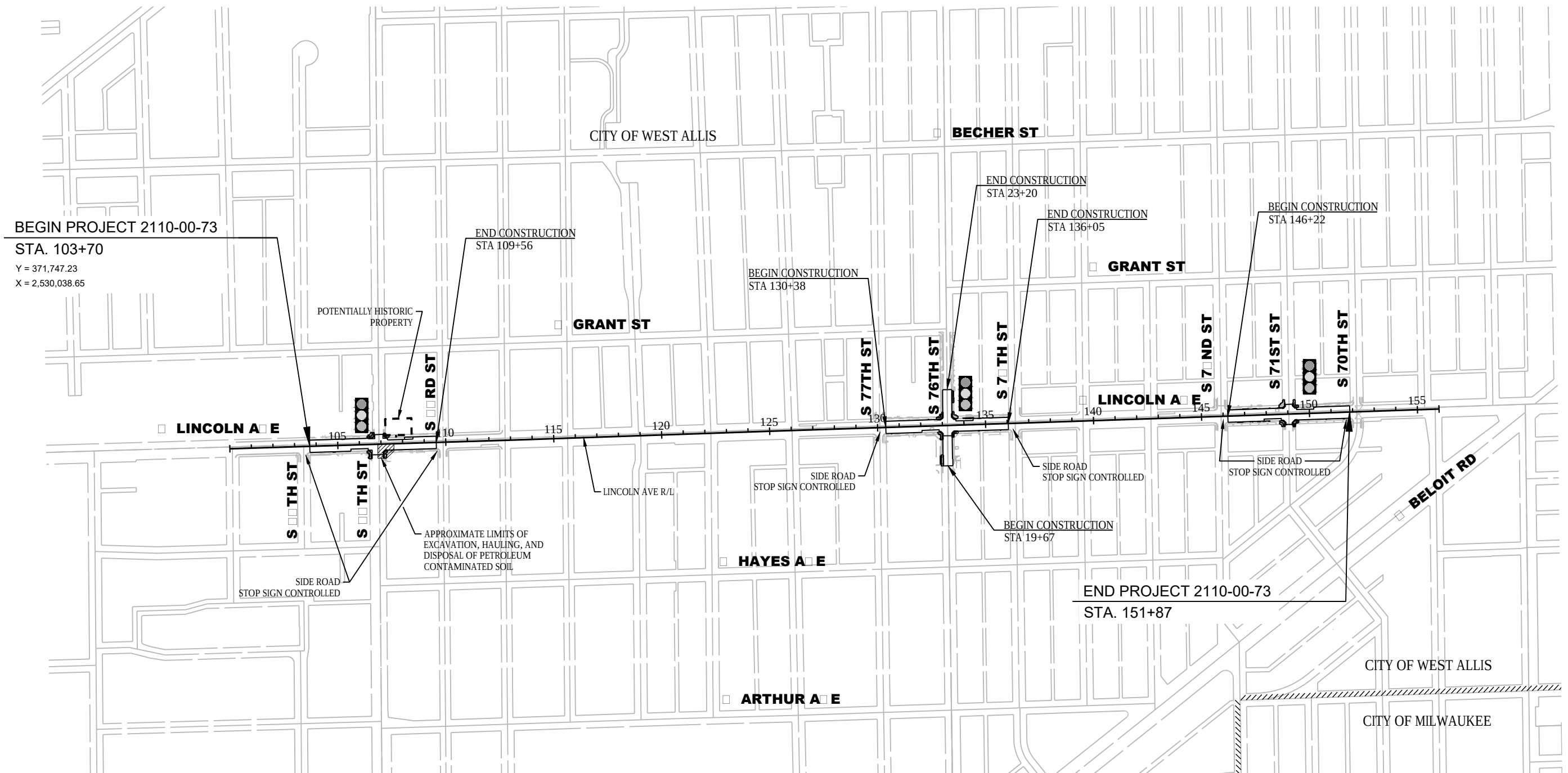
- 1
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
- 2
- ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. GRANULAR BACKFILL SHALL BE INCIDENTAL TO CONSTRUCTION.
- 3
- NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
- 4
- CURB AND GUTTER GRADES ARE MEASURED AT THE FLANGE LINE UNLESS OTHERWISE NOTED. CURB AND GUTTER STATIONS, OFFSETS, AND RADII ARE MEASURED AT THE FACE OF CURB UNLESS OTHERWISE NOTED.
- 5
- EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S "ECIP" AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER REQUIRED.
- 6
- THE LIMITS OF SIDEWALK AND CURB & GUTTER REMOVALS ARE APPROXIMATE. FINAL LOCATIONS TO BE DETERMINED BY THE ENGINEER.

ORDER OF SECTION 2 SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- CURB RAMP DETAILS
- UTILITY DETAILS
- STORM & SANITARY SEWER DETAILS
- PERMANENT SIGNING & PAVEMENT MARKING
- LIGHTING
- TRAFFIC SIGNAL REMOVALS
- TEMPORARY SIGNAL PLAN
- TRAFFIC SIGNAL PLAN
- TRAFFIC SIGNALS CABLE ROUTING
- TRAFFIC CONTROL
- DETOUR PLAN

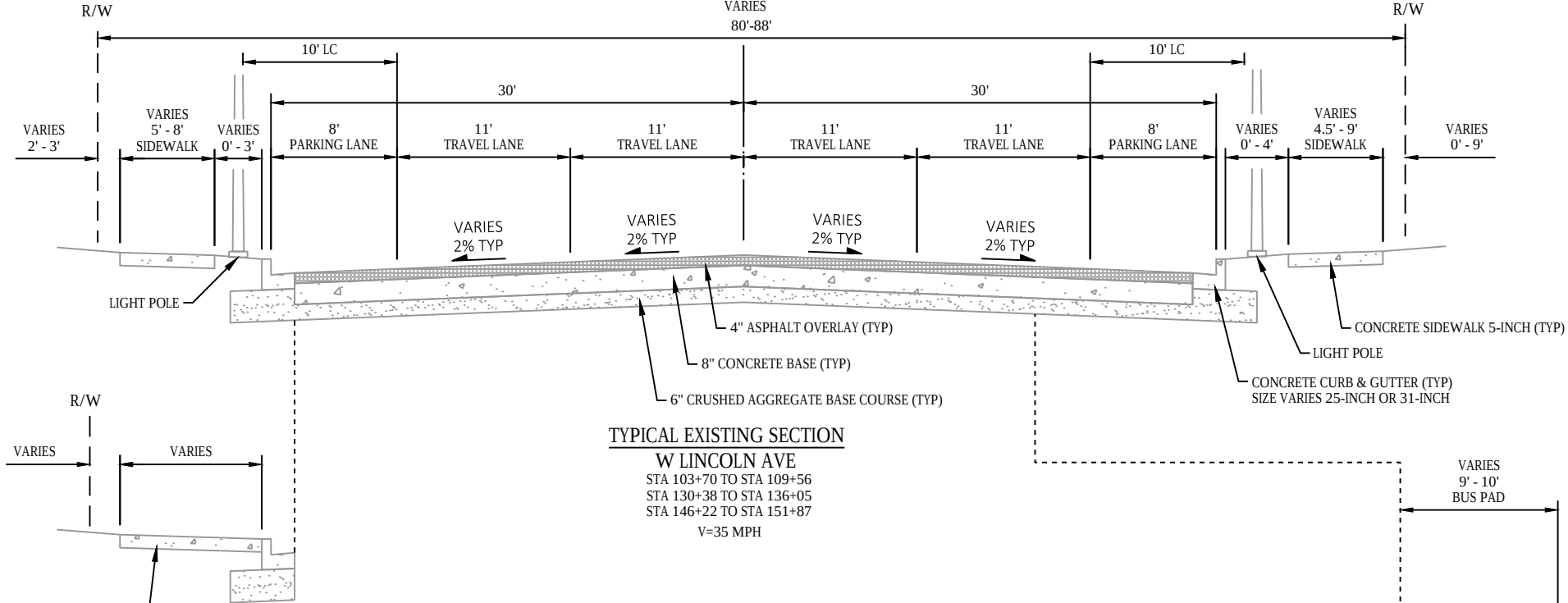


Dial 811 or (800) 242-8511
www.DiggersHotline.com



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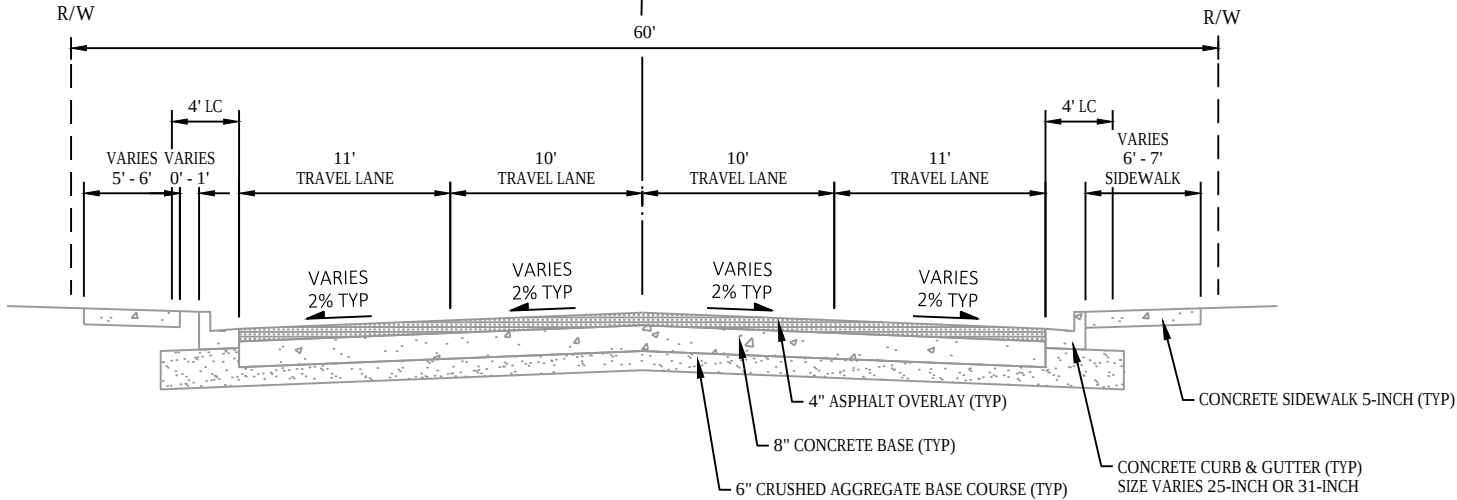


W LINCOLN AVE

STA 103+70 TO STA 109+56
STA 130+38 TO STA 136+05
STA 146+22 TO STA 151+87
V=35 MPH

(RIGHT SIDE IS MIRROR IMAGE)

SEE PLAN FOR LOCATIONS

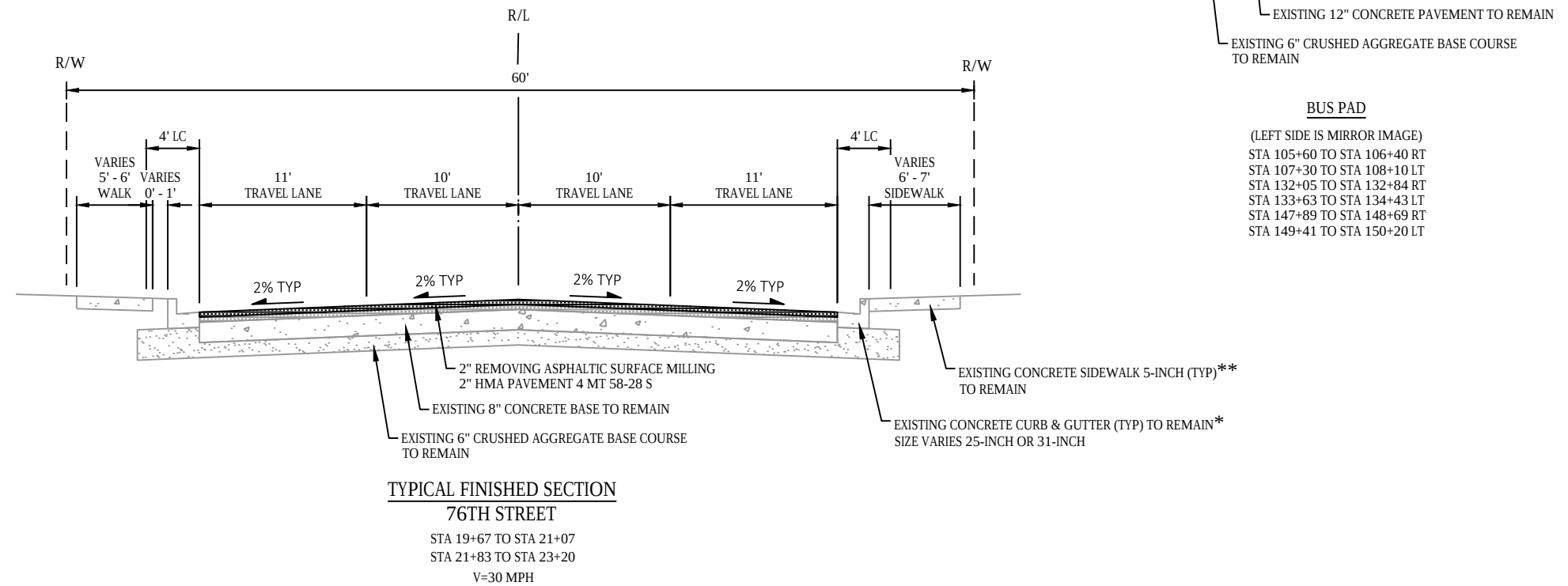
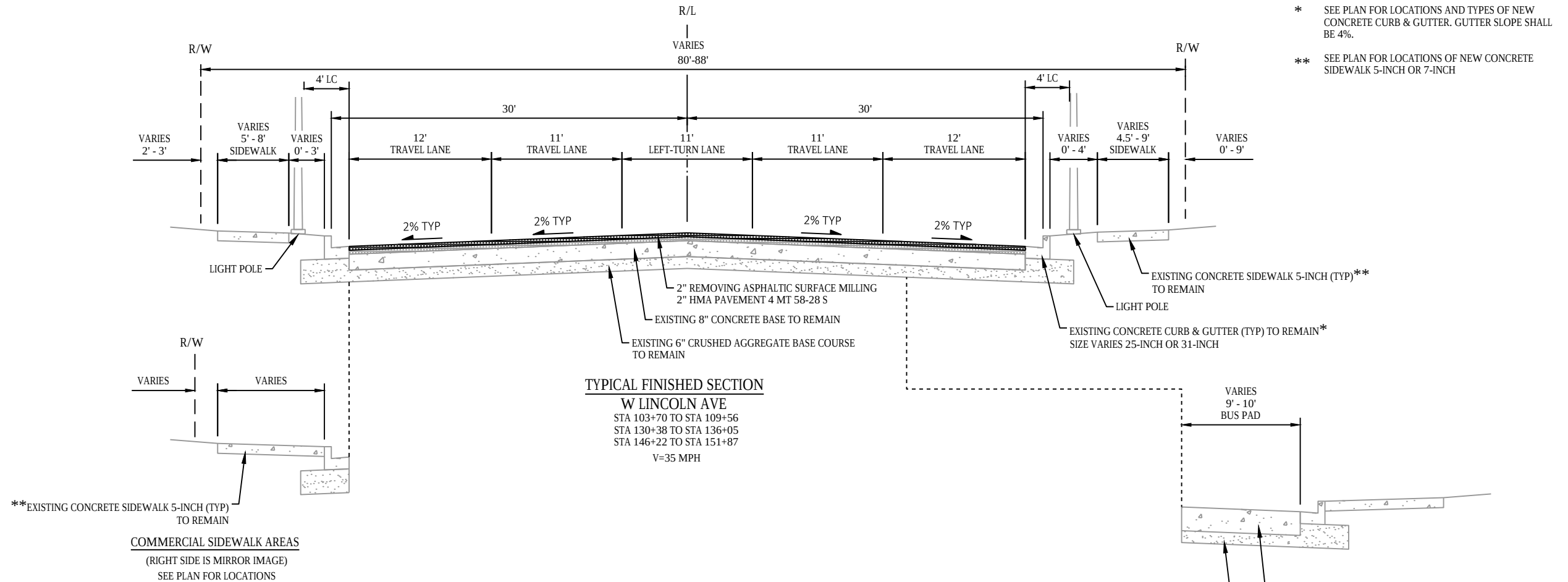


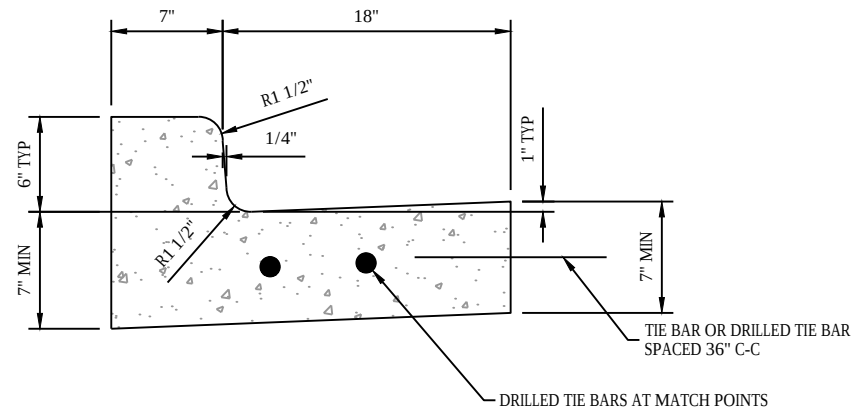
76TH STREET

STA 19+67 TO STA 21+07
STA 21+83 TO STA 23+20
V=30 MPH

DE IS MIRROR

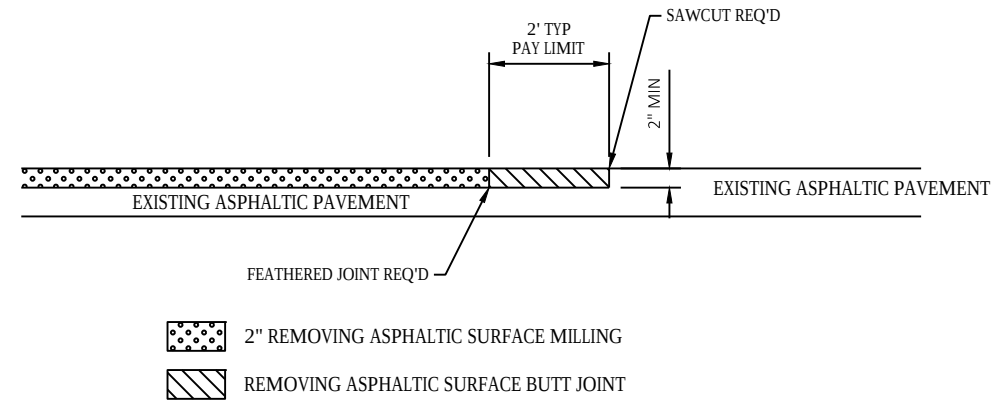
(LEFT SIDE IS MIRROR IMAGE)
STA 105+60 TO STA 106+40 RT
STA 107+30 TO STA 108+10 LT
STA 132+05 TO STA 132+84 RT
STA 133+63 TO STA 134+43 LT
STA 147+89 TO STA 148+69 RT
STA 149+41 TO STA 150+20 LT





CONCRETE CURB & GUTTER 25-INCH

SEE PLANS FOR LOCATIONS

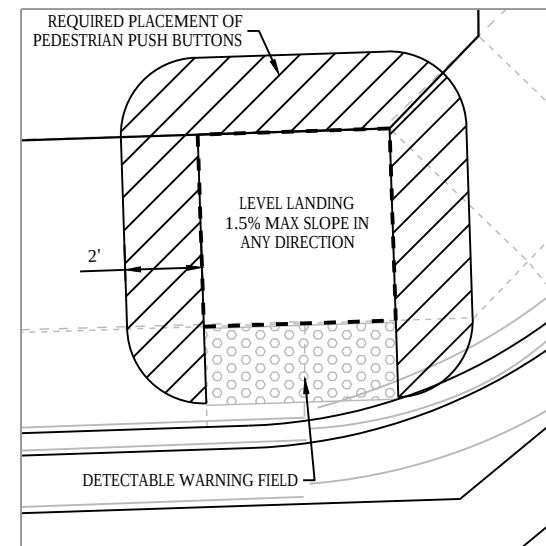


BUTT JOINT DETAIL

RUNOFF COEFFICIENT TABLE

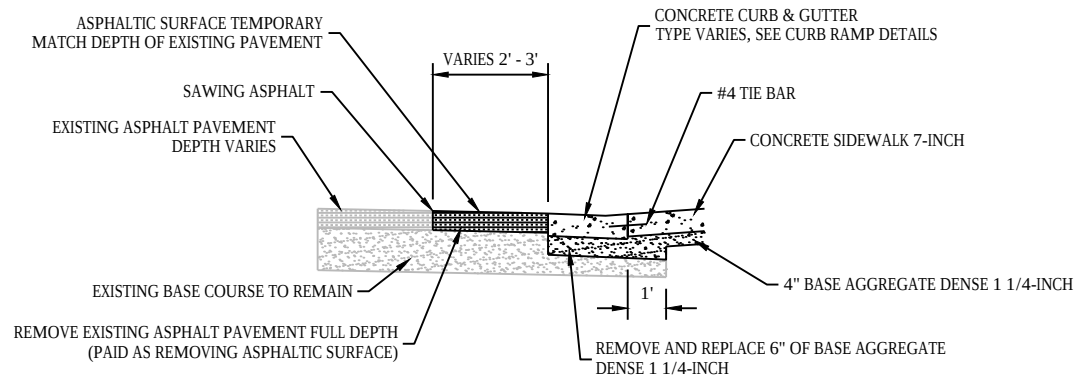
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 3.79 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.02 ACRES

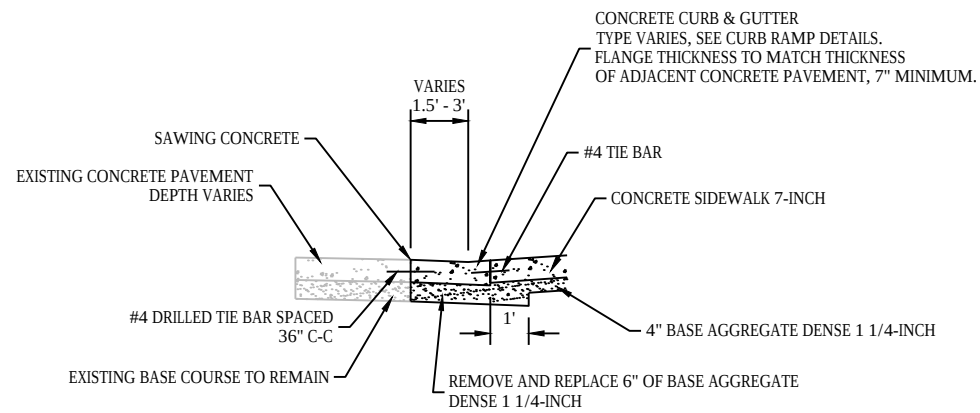


PEDESTRIAN PUSH BUTTON PLACEMENT DETAIL

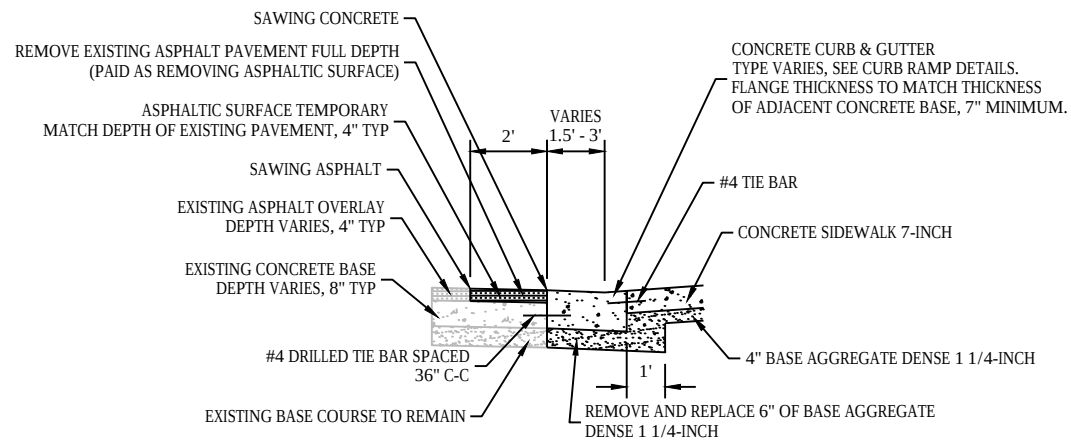
- NOTES
1. PEDESTRIAN PUSH BUTTONS SHALL BE PLACED WITHIN 2' OF LEVEL LANDINGS.
 2. MINIMUM 4' CLEAR SIDEWALK WIDTH AND MINIMUM 5' CURB RAMP WIDTH.



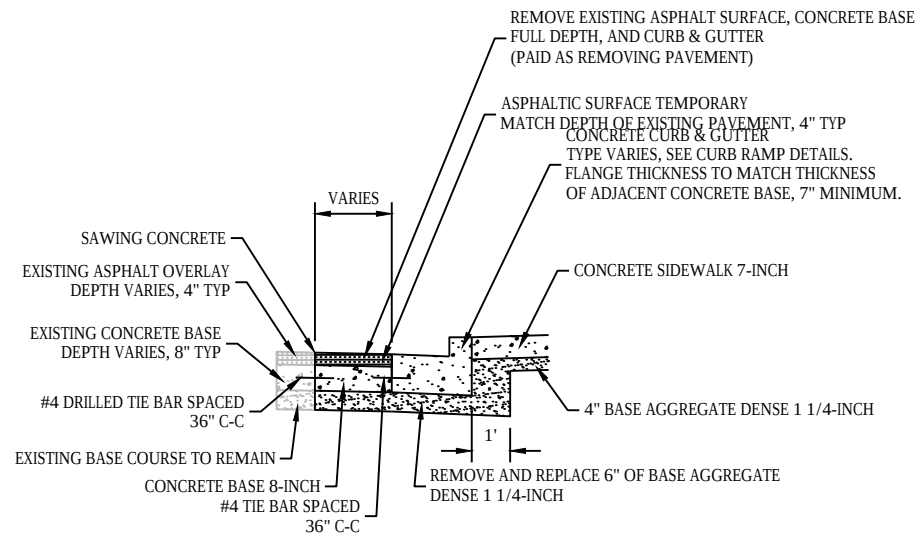
SECTION A-A
ASPHALT PAVEMENT



SECTION A-A
CONCRETE PAVEMENT



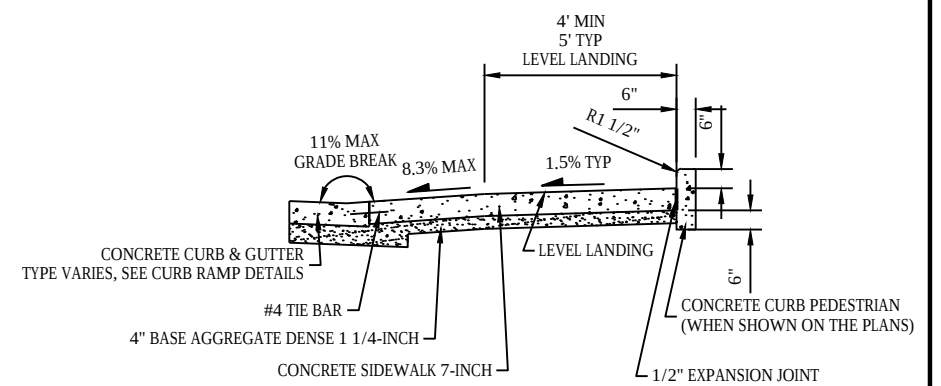
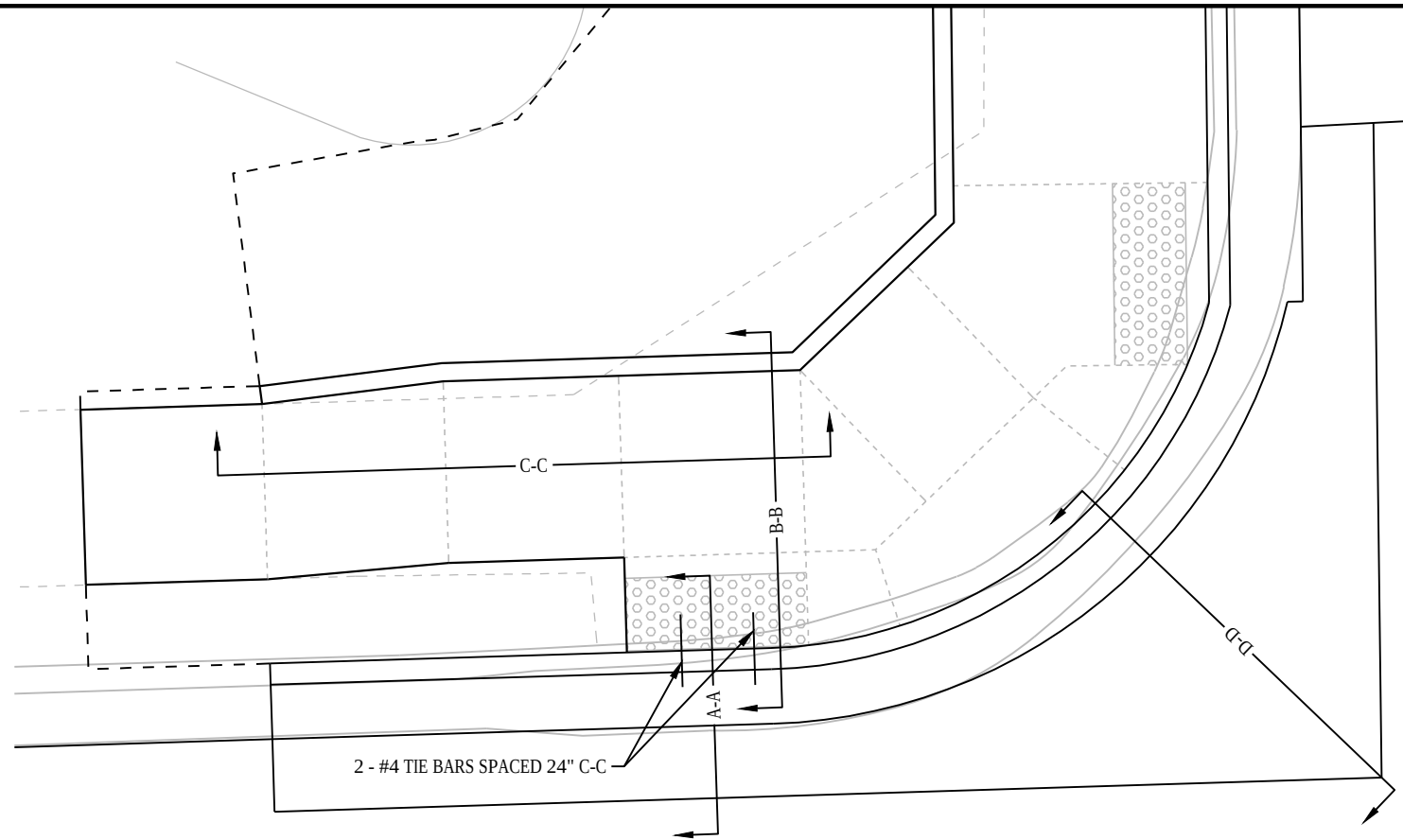
SECTION A-A
CONCRETE BASE WITH ASPHALT OVERLAY



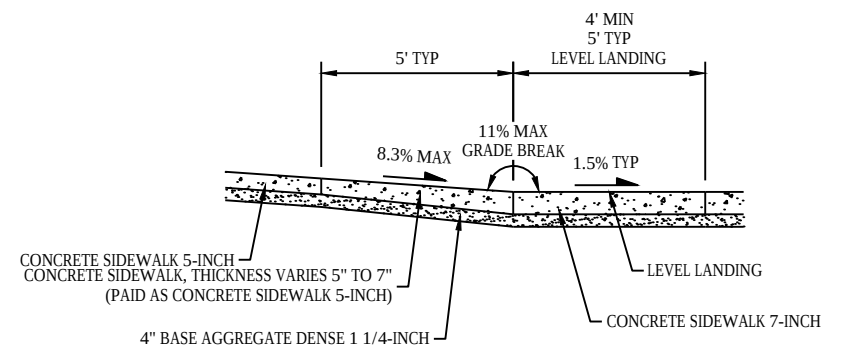
SECTION D-D
CONCRETE BASE WITH ASPHALT OVERLAY

84TH ST - NORTHWEST CORNER
84TH ST - NORTHEAST CORNER
84TH ST - SOUTHWEST CORNER

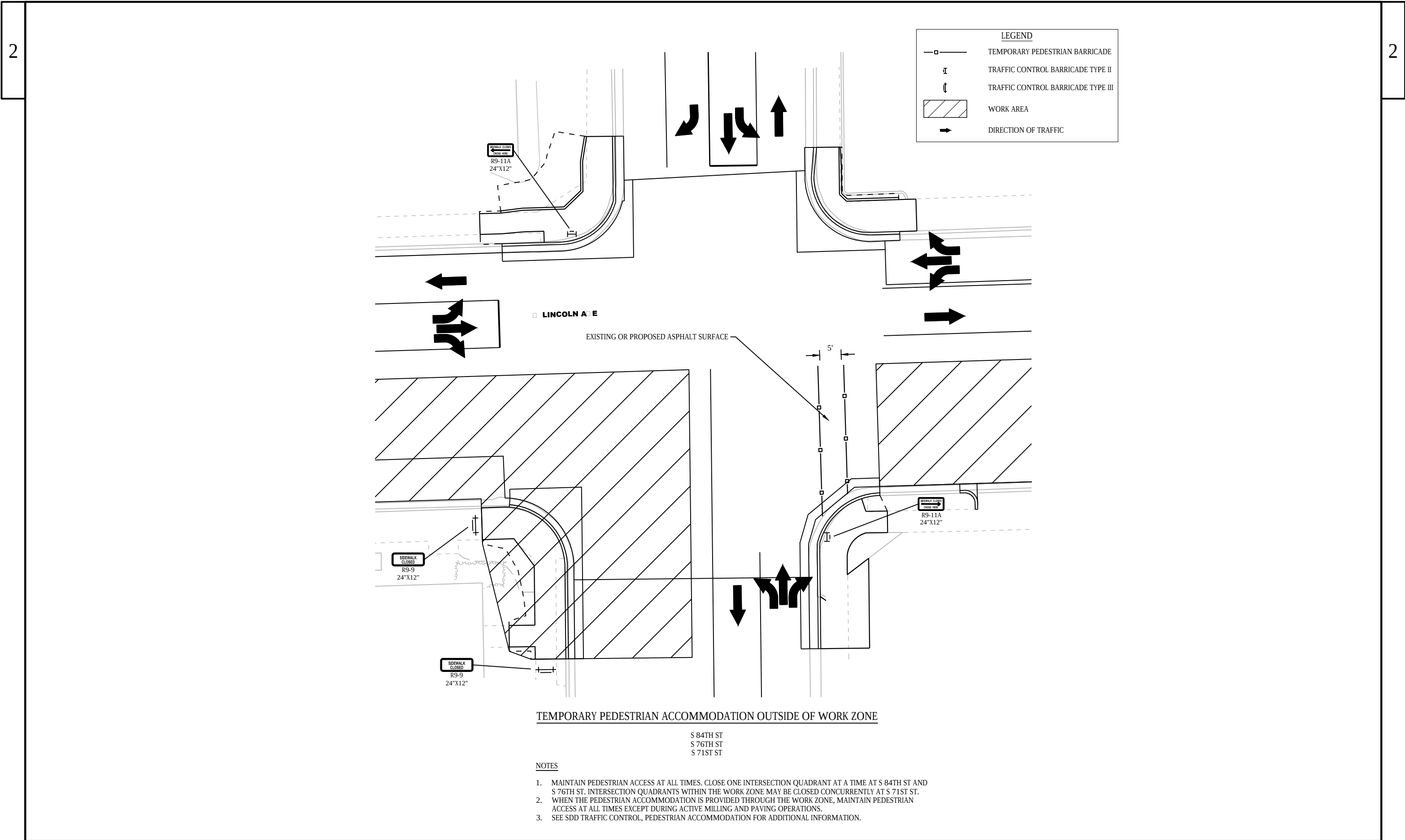
CURB & GUTTER AND CURB RAMP REPLACEMENT DETAILS

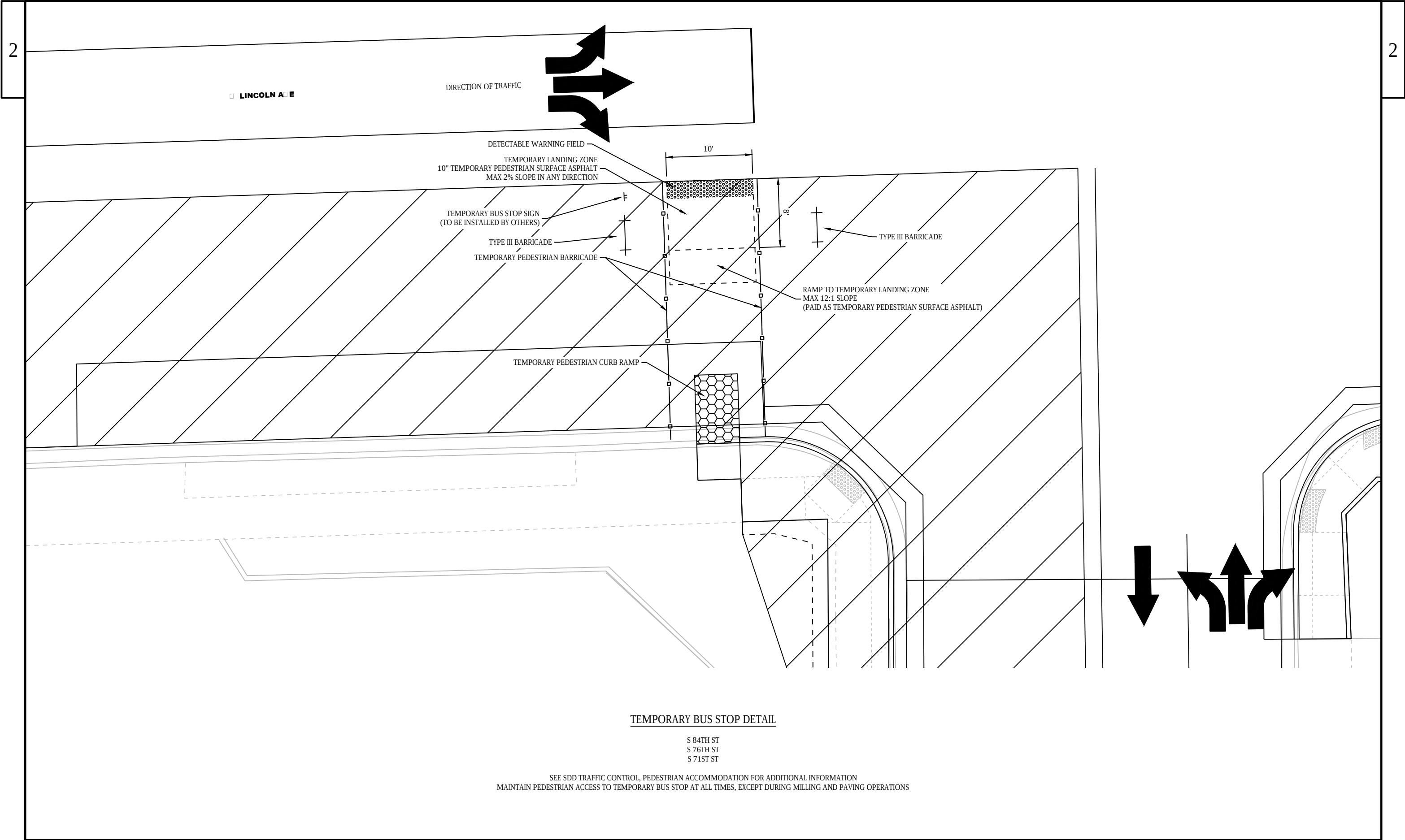


SECTION B-B



SECTION C-C

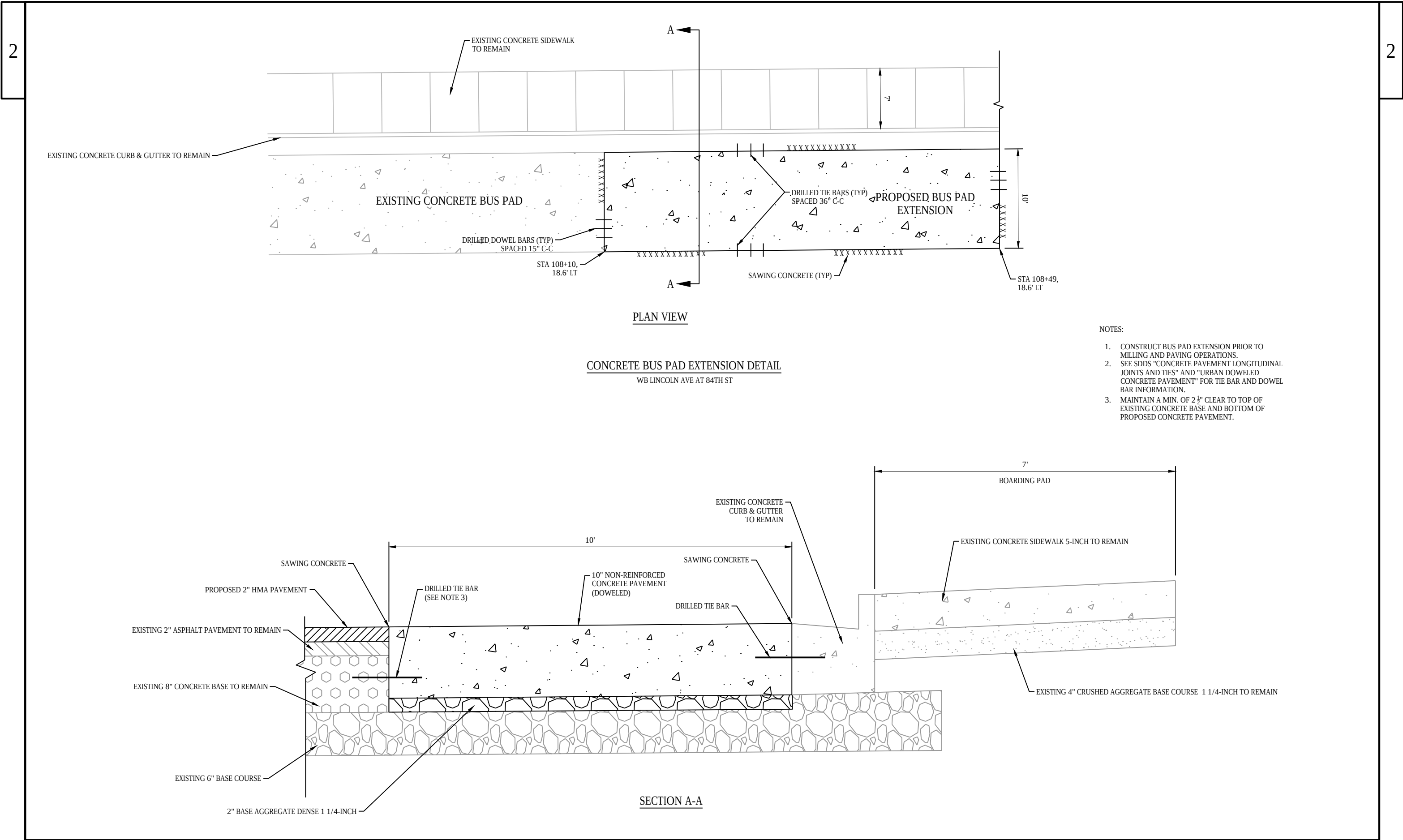




TEMPORARY BUS STOP DETAIL

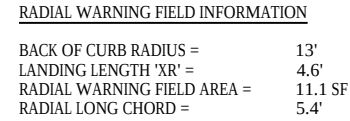
S 84TH ST
S 76TH ST
S 71ST ST

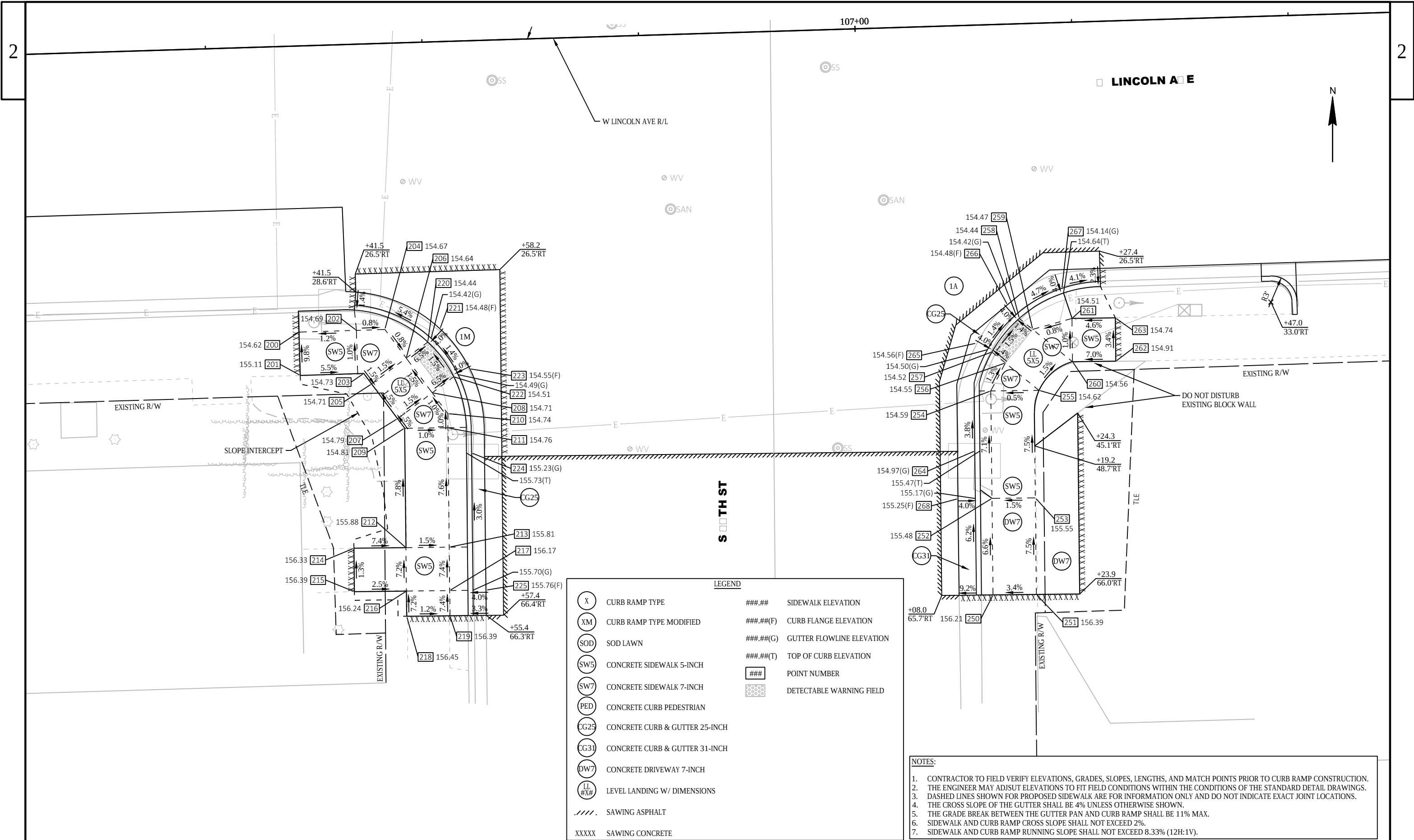
SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR ADDITIONAL INFORMATION
MAINTAIN PEDESTRIAN ACCESS TO TEMPORARY BUS STOP AT ALL TIMES, EXCEPT DURING MILLING AND PAVING OPERATIONS



NOTES:

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4. THE CROSS SLOPE OF THE GUTTER SHALL BE 4% UNLESS OTHERWISE SHOWN.
5. THE GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11% MAX.
6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).





S 84TH STREET NW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
100	106+41.44	37.73' LT	371793.31	2530308.80
101	106+41.44	32.91' LT	371788.49	2530308.95
102	106+46.44	38.20' LT	371793.94	2530313.78
103	106+46.44	33.20' LT	371788.94	2530313.93
104	106+51.27	38.20' LT	371794.08	2530318.61
105	106+51.27	33.20' LT	371789.09	2530318.76
106	106+56.27	38.20' LT	371794.24	2530323.60
107	106+56.27	33.20' LT	371789.24	2530323.76
108	106+58.19	33.20' LT	371789.30	2530325.68
109	106+59.62	34.49' LT	371790.63	2530327.07
110	106+59.32	40.95' LT	371797.08	2530326.56
111	106+62.67	37.24' LT	371793.48	2530330.03
112	106+60.64	43.15' LT	371799.32	2530327.82
113	106+66.93	38.03' LT	371794.40	2530334.27
114	106+67.64	43.02' LT	371799.40	2530334.82
115	106+60.75	49.15' LT	371805.32	2530327.75
116	106+67.75	49.02' LT	371805.40	2530334.75
117	106+61.86	54.88' LT	371811.09	2530328.68
118	106+67.86	54.77' LT	371811.16	2530334.68
119	106+51.27	30.58' LT	371786.47	2530318.84
120	106+51.27	28.50' LT	371784.39	2530318.91
121	106+56.27	30.63' LT	371786.67	2530323.84
122	106+56.44	28.55' LT	371784.60	2530324.07
123	106+68.82	37.15' LT	371793.57	2530336.18
124	106+70.22	42.97' LT	371799.44	2530337.40
125	106+49.71	28.50' LT	371784.34	2530317.35
126	106+58.96	30.53' LT	371786.65	2530326.53
127	106+65.56	34.81' LT	371791.13	2530332.99

S 84TH STREET NE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
150	107+15.16	50.72' LT	371808.57	2530382.08
151	107+20.35	50.63' LT	371808.64	2530387.27
152	107+14.66	46.48' LT	371804.32	2530381.72
153	107+20.27	46.38' LT	371804.39	2530387.33
154	107+14.40	42.16' LT	371799.99	2530381.58
155	107+20.20	42.05' LT	371800.06	2530387.38
156	107+16.01	37.13' LT	371795.01	2530383.35
157	107+20.15	39.61' LT	371797.62	2530387.41
158	107+21.73	38.00' LT	371796.06	2530389.04
159	107+17.00	37.11' LT	371795.02	2530384.34
160	107+18.43	35.65' LT	371793.61	2530385.82
161	107+19.87	34.19' LT	371792.19	2530387.30
162	107+19.87	32.90' LT	371790.90	2530387.34
163	107+24.87	38.00' LT	371796.15	2530392.18
164	107+24.87	33.00' LT	371791.16	2530392.33
165	107+24.87	30.80' LT	371788.96	2530392.40
166	107+33.87	38.00' LT	371796.43	2530401.17
167	107+33.87	33.00' LT	371791.43	2530401.33
168	107+33.87	30.58' LT	371789.02	2530401.40
169	107+12.32	41.94' LT	371799.71	2530379.52
170	107+14.19	36.10' LT	371793.93	2530381.57
171	107+17.15	34.54' LT	371792.46	2530384.56
172	107+18.68	31.19' LT	371789.15	2530386.20
173	107+24.48	28.76' LT	371786.90	2530392.08
174	107+30.37	28.50' LT	371786.83	2530397.97
175	107+13.75	43.75' LT	371801.56	2530380.88

S 84TH STREET SW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
200	106+34.78	33.00' RT	371722.41	2530304.32
201	106+34.78	38.00' RT	371717.41	2530304.48
202	106+41.41	33.00' RT	371722.61	2530310.95
203	106+42.11	38.00' RT	371717.64	2530311.80
204	106+44.71	33.00' RT	371722.72	2530314.25
205	106+42.98	39.24' RT	371716.43	2530312.70
206	106+47.07	36.37' RT	371719.42	2530316.71
207	106+45.84	43.33' RT	371712.42	2530315.70
208	106+49.94	40.47' RT	371715.41	2530319.70
209	106+46.63	44.46' RT	371711.32	2530316.52
210	106+51.66	42.93' RT	371713.01	2530321.50
211	106+51.63	44.56' RT	371711.38	2530321.52
212	106+46.36	58.23' RT	371697.54	2530316.67
213	106+51.35	58.33' RT	371697.60	2530321.67
214	106+40.36	58.12' RT	371697.48	2530310.67
215	106+40.26	63.12' RT	371692.48	2530310.72
216	106+46.26	63.24' RT	371692.54	2530316.72
217	106+51.26	63.34' RT	371692.60	2530321.72
218	106+46.20	66.15' RT	371689.63	2530316.76
219	106+51.20	66.25' RT	371689.69	2530321.76
220	106+49.60	34.60' RT	371721.26	2530319.18
221	106+51.06	33.12' RT	371722.79	2530320.60
222	106+52.47	38.70' RT	371717.26	2530322.17
223	106+54.36	37.83' RT	371718.18	2530324.04
224	106+54.26	47.54' RT	371708.48	2530324.24
225	106+55.44	63.42' RT	371692.64	2530325.91

S 84TH STREET SE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
250	107+13.91	65.77' RT	371692.09	2530384.42
251	107+18.91	65.87' RT	371692.15	2530389.42
252	107+14.13	54.63' RT	371703.23	2530384.30
253	107+19.13	54.73' RT	371703.29	2530389.30
254	107+14.38	42.24' RT	371715.63	2530384.16
255	107+19.94	42.35' RT	371715.69	2530389.73
256	107+16.16	39.07' RT	371718.85	2530385.85
257	107+14.65	37.76' RT	371720.12	2530384.29
258	107+17.92	33.98' RT	371723.99	2530387.45
259	107+19.43	35.29' RT	371722.73	2530389.00
260	107+23.91	39.17' RT	371718.99	2530393.60
261	107+24.00	34.17' RT	371723.99	2530393.53
262	107+28.91	39.26' RT	371719.05	2530398.60
263	107+29.00	34.26' RT	371724.05	2530398.53
264	107+12.32	49.11' RT	371708.69	2530382.32
265	107+12.86	36.68' RT	371721.14	2530382.48
266	107+16.60	32.37' RT	371725.56	2530386.08
267	107+22.95	30.65' RT	371727.47	2530392.37
268	107+10.21	54.56' RT	371703.19	2530380.38

LEGEND

X

CURB RAMP TYPE

XM

CURB RAMP TYPE MODIFIED

SOD

SOD LAWN

SW5

CONCRETE SIDEWALK 5-INCH

SW7

CONCRETE SIDEWALK 7-INCH

PED

CONCRETE CURB PEDESTRIAN

CG25

CONCRETE CURB & GUTTER 25-INCH

CG31

CONCRETE CURB & GUTTER 31-INCH

DW7

CONCRETE DRIVEWAY 7-INCH

LL
#X#

LEVEL LANDING W/ DIMENSIONS

////

SAWING ASPHALT

XXXX

SAWING CONCRETE

###

SIDEWALK ELEVATION

###.##(F)

CURB FLANGE ELEVATION

###.##(G)

GUTTER FLOWLINE ELEVATION

###.##(T)

TOP OF CURB ELEVATION

###

POINT NUMBER

DETECTABLE WARNING FIELD

- NOTES:
1.

CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
2.

THE ENGINEER MAY ADJSUT ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
3.

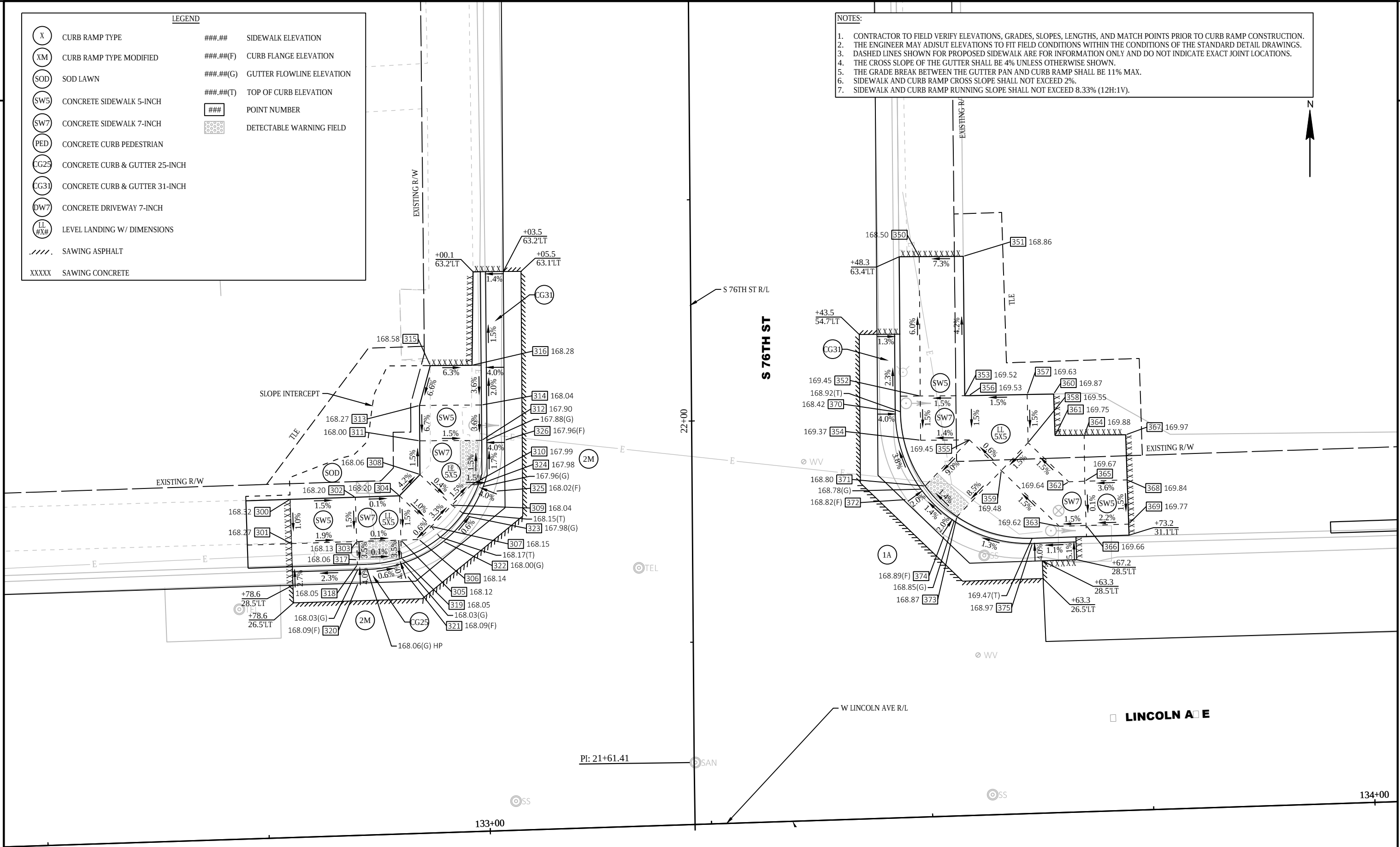
DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
4.

THE CROSS SLOPE OF THE GUTTER SHALL BE 4% UNLESS OTHERWISE SHOWN.
5.

THE GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11% MAX.
6.

SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
7.

SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).



S 76TH STREET NW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
300	132+78.60	38.20' LT	371880.66	2532944.45
301	132+78.60	33.20' LT	371875.66	2532944.61
302	132+85.97	38.20' LT	371880.90	2532951.81
303	132+85.97	33.20' LT	371875.90	2532951.97
304	132+90.97	38.20' LT	371881.06	2532956.81
305	132+90.97	33.20' LT	371876.06	2532956.97
306	132+93.00	33.20' LT	371876.13	2532959.00
307	132+94.46	34.62' LT	371877.59	2532960.41
308	132+93.36	40.53' LT	371883.47	2532959.12
309	132+96.85	36.95' LT	371880.00	2532962.73
310	132+99.15	39.19' LT	371882.32	2532964.95
311	132+93.46	44.34' LT	371887.28	2532959.09
312	133+00.46	44.16' LT	371887.33	2532966.09
313	132+93.56	48.34' LT	371891.28	2532959.06
314	133+00.56	48.16' LT	371891.33	2532966.06
315	132+94.92	52.81' LT	371895.78	2532960.28
316	132+99.64	52.69' LT	371895.82	2532965.00
317	132+85.97	31.15' LT	371873.85	2532952.04
318	132+85.97	30.58' LT	371873.28	2532952.06
319	132+90.97	31.15' LT	371874.01	2532957.04
320	132+85.97	28.50' LT	371871.20	2532952.13
321	132+91.56	29.15' LT	371872.03	2532957.69
322	132+95.75	32.91' LT	371875.92	2532961.76
323	132+98.54	35.66' LT	371878.76	2532964.45
324	132+99.90	39.18' LT	371882.32	2532965.70
325	133+01.83	38.38' LT	371881.59	2532967.65
326	133+03.04	44.10' LT	371887.35	2532968.68

S 76TH STREET NE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
350	133+50.53	63.31' LT	371908.09	2533015.52
351	133+55.51	63.18' LT	371908.13	2533020.50
352	133+50.14	47.56' LT	371892.34	2533015.64
353	133+55.16	47.44' LT	371892.38	2533020.67
354	133+50.01	42.57' LT	371887.34	2533015.68
355	133+55.53	42.43' LT	371887.38	2533021.19
356	133+55.65	47.43' LT	371892.39	2533021.16
357	133+62.22	47.34' LT	371892.51	2533027.72
358	133+62.14	41.90' LT	371887.07	2533027.82
359	133+59.02	38.85' LT	371883.92	2533024.80
360	133+65.22	47.30' LT	371892.57	2533030.72
361	133+65.22	42.60' LT	371887.87	2533030.87
362	133+66.59	37.33' LT	371882.65	2533032.42
363	133+65.37	32.33' LT	371877.61	2533031.36
364	133+68.51	42.53' LT	371887.91	2533034.17
365	133+68.40	37.33' LT	371882.71	2533034.22
366	133+68.40	32.33' LT	371877.71	2533034.38
367	133+73.20	42.43' LT	371887.96	2533038.86
368	133+73.20	37.33' LT	371882.87	2533039.02
369	133+73.20	32.33' LT	371877.87	2533039.18
370	133+47.26	45.88' LT	371890.56	2533012.82
371	133+50.35	37.38' LT	371882.17	2533016.18
372	133+48.21	35.92' LT	371880.64	2533014.09
373	133+53.84	33.80' LT	371878.70	2533019.79
374	133+52.33	31.70' LT	371876.56	2533018.35
375	133+62.26	30.50' LT	371875.68	2533028.31

S 76TH STREET SW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
400	132+81.60	34.80' RT	371807.79	2532949.82
401	132+81.60	39.80' RT	371802.80	2532949.98
402	132+88.96	34.80' RT	371808.03	2532957.17
403	132+88.96	39.80' RT	371803.03	2532957.33
404	132+90.85	34.80' RT	371808.09	2532959.07
405	132+91.52	39.80' RT	371803.12	2532959.89
406	132+91.51	40.20' RT	371802.71	2532959.89
407	132+95.36	37.39' RT	371805.65	2532963.65
408	132+96.53	39.62' RT	371803.46	2532964.89
409	132+96.51	40.34' RT	371802.74	2532964.89
410	132+90.94	61.43' RT	371781.48	2532960.01
411	132+95.94	61.57' RT	371781.50	2532965.01
412	132+91.91	65.46' RT	371777.48	2532961.12
413	132+95.91	65.57' RT	371777.50	2532965.12
414	132+92.54	33.16' RT	371809.79	2532960.70
415	132+93.75	31.46' RT	371811.52	2532961.85
416	132+96.03	36.74' RT	371806.32	2532964.30
417	132+97.76	35.58' RT	371807.54	2532965.99
418	132+84.47	30.00' RT	371812.68	2532952.53
419	132+98.97	44.89' RT	371798.27	2532967.50
420	133+00.02	61.68' RT	371781.53	2532969.10

S 76TH STREET SE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
450	133+47.38	55.54' RT	371789.20	2533016.23
451	133+51.32	55.65' RT	371789.22	2533020.18
452	133+47.52	50.48' RT	371794.27	2533016.21
453	133+51.28	50.58' RT	371794.29	2533019.97
454	133+47.71	43.19' RT	371801.55	2533016.16
455	133+51.21	43.29' RT	371801.57	2533019.67
456	133+47.61	38.19' RT	371806.55	2533015.90
457	133+51.19	40.99' RT	371803.87	2533019.57
458	133+50.68	35.27' RT	371809.57	2533018.88
459	133+53.78	38.53' RT	371806.41	2533022.08
460	133+53.59	32.50' RT	371812.43	2533021.69
461	133+54.03	32.50' RT	371812.45	2533022.13
462	133+55.40	36.99' RT	371808.00	2533023.64
463	133+59.03	32.50' RT	371812.61	2533027.13
464	133+59.03	37.10' RT	371808.01	2533027.28
465	133+68.50	32.50' RT	371812.92	2533036.59
466	133+68.50	37.38' RT	371808.03	2533036.75
467	133+71.50	32.50' RT	371813.01	2533039.59
468	133+71.50	37.89' RT	371807.63	2533039.77
469	133+43.84	50.38' RT	371794.25	2533012.53
470	133+45.39	48.42' RT	371796.25	2533014.01
471	133+44.03	43.10' RT	371801.53	2533012.49
472	133+46.12	43.15' RT	371801.54	2533014.57
473	133+45.36	37.32' RT	371807.34	2533013.62
474	133+47.26	38.18' RT	371806.55	2533015.55
475	133+49.42	34.02' RT	371810.78	2533017.57
476	133+53.22	29.67' RT	371815.25	2533021.23
477	133+54.03	31.59' RT	371813.36	2533022.10
478	133+59.03	28.50' RT	371816.61	2533027.00
479	133+59.03	30.58' RT	371814.52	2533027.07
480	133+62.42	30.00' RT	371815.22	2533030.44
481	133+68.50	30.00' RT	371815.42	2533036.51

X

CURB RAMP TYPE

XM

CURB RAMP TYPE MODIFIED

SOD

SOD LAWN

SW5

CONCRETE SIDEWALK 5-INCH

SW7

CONCRETE SIDEWALK 7-INCH

PED

CONCRETE CURB PEDESTRIAN

CG25

CONCRETE CURB & GUTTER 25-INCH

CG31

CONCRETE CURB & GUTTER 31-INCH

DW7

CONCRETE DRIVEWAY 7-INCH

LL
#X#

LEVEL LANDING W/ DIMENSIONS

////

SAWING ASPHALT

XXXX

SAWING CONCRETE

###

SIDEWALK ELEVATION

###.##(F)

CURB FLANGE ELEVATION

###.##(G)

GUTTER FLOWLINE ELEVATION

###.##(T)

TOP OF CURB ELEVATION

###

POINT NUMBER

XXXX

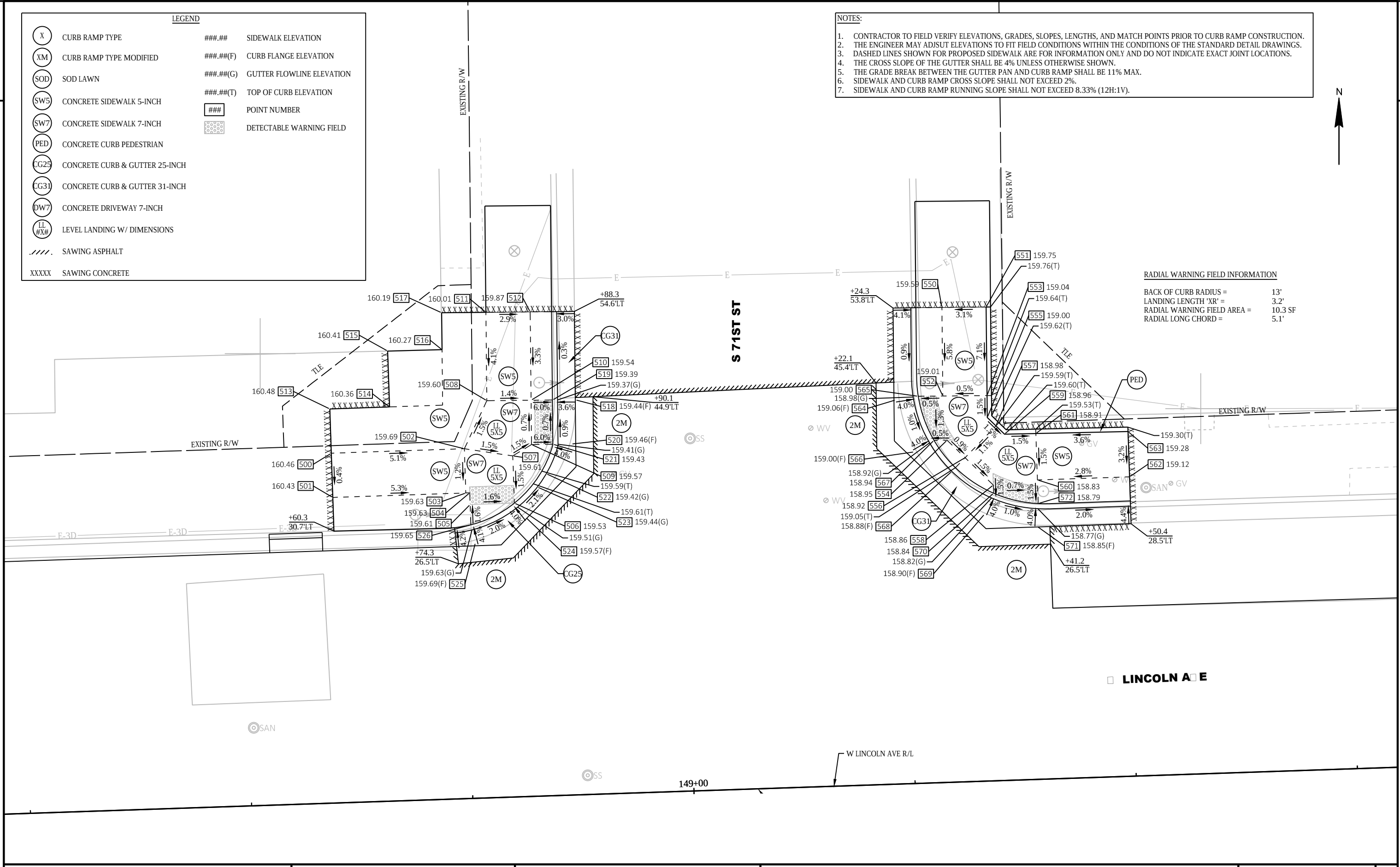
DETECTABLE WARNING FIELD

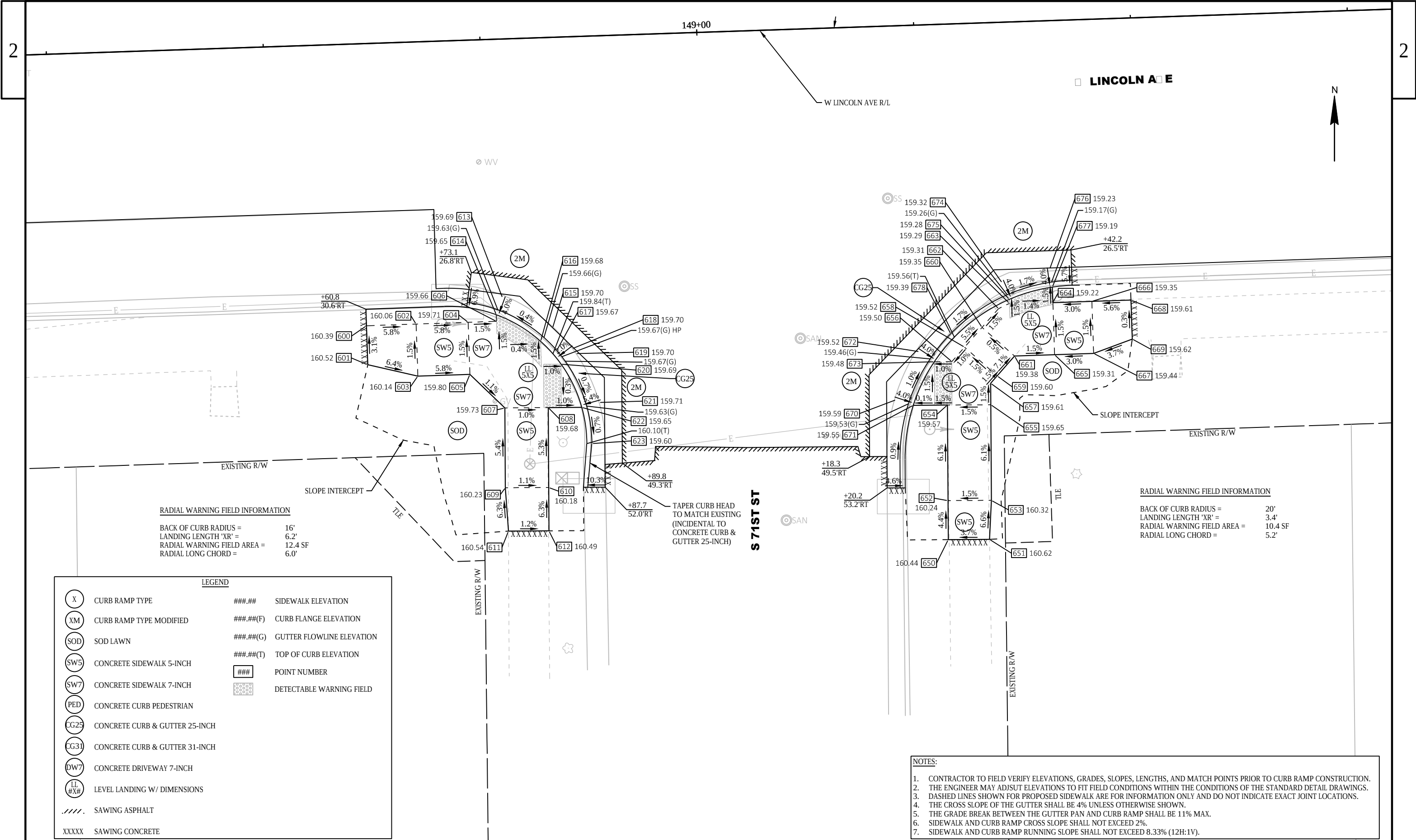
- NOTES:
- CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
 - THE ENGINEER MAY ADJSUT ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
 - DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
 - THE CROSS SLOPE OF THE GUTTER SHALL BE 4% UNLESS OTHERWISE SHOWN.
 - THE GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11% MAX.
 - SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
 - SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).



RADIAL WARNING FIELD INFORMATION

BACK OF CURB RADIUS = 13'
LANDING LENGTH 'XR' = 3.2'
RADIAL WARNING FIELD AREA = 10.3 SF
RADIAL LONG CHORD = 5.1'





RADIAL WARNING FIELD INFORMATION

BACK OF CURB RADIUS = 16'
LANDING LENGTH 'XR' = 6.2'
RADIAL WARNING FIELD AREA = 12.4 SF
RADIAL LONG CHORD = 6.0'

RADIAL WARNING FIELD INFORMATION

BACK OF CURB RADIUS = 20'
LANDING LENGTH 'XR' = 3.4'
RADIAL WARNING FIELD AREA = 10.4 SF
RADIAL LONG CHORD = 5.2'

LEGEND		
(X)	CURB RAMP TYPE	###.## SIDEWALK ELEVATION
(XM)	CURB RAMP TYPE MODIFIED	###.##(F) CURB FLANGE ELEVATION
(SOD)	SOD LAWN	###.##(G) GUTTER FLOWLINE ELEVATION
(SW5)	CONCRETE SIDEWALK 5-INCH	###.##(T) TOP OF CURB ELEVATION
(SW7)	CONCRETE SIDEWALK 7-INCH	### POINT NUMBER
(PED)	CONCRETE CURB PEDESTRIAN	[Pattern] DETECTABLE WARNING FIELD
(CG25)	CONCRETE CURB & GUTTER 25-INCH	
(CG31)	CONCRETE CURB & GUTTER 31-INCH	
(DW7)	CONCRETE DRIVEWAY 7-INCH	
(LL #X#)	LEVEL LANDING W/ DIMENSIONS	
////	SAWING ASPHALT	
XXXXX	SAWING CONCRETE	

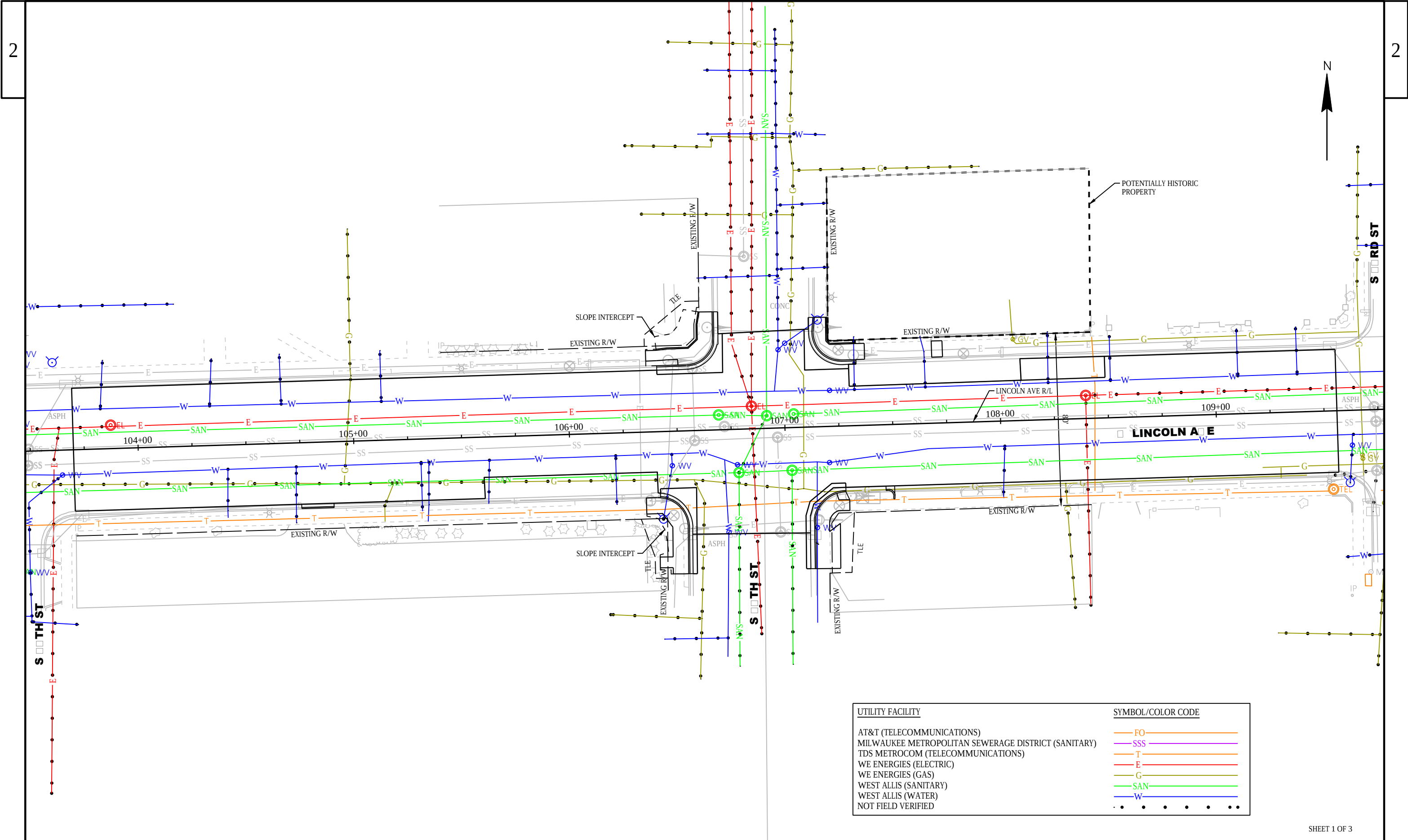
- NOTES:**
1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS, AND MATCH POINTS PRIOR TO CURB RAMP CONSTRUCTION.
 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.
 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
 4. THE CROSS SLOPE OF THE GUTTER SHALL BE 4% UNLESS OTHERWISE SHOWN.
 5. THE GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11% MAX.
 6. SIDEWALK AND CURB RAMP CROSS SLOPE SHALL NOT EXCEED 2%.
 7. SIDEWALK AND CURB RAMP RUNNING SLOPE SHALL NOT EXCEED 8.33% (12H:1V).

S 71ST STREET NW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
500	148+60.34	39.50' LT	371934.57	2534525.22
501	148+60.34	34.50' LT	371929.58	2534525.39
502	148+75.37	39.50' LT	371935.08	2534540.25
503	148+75.37	34.50' LT	371930.08	2534540.41
504	148+75.81	34.50' LT	371930.10	2534540.85
505	148+75.81	33.17' LT	371928.77	2534540.90
506	148+80.81	33.17' LT	371928.94	2534545.90
507	148+80.81	38.50' LT	371934.26	2534545.72
508	148+78.09	44.84' LT	371940.50	2534542.78
509	148+82.97	39.72' LT	371935.56	2534547.84
510	148+83.09	44.72' LT	371940.56	2534547.78
511	148+78.32	54.81' LT	371950.48	2534542.68
512	148+83.32	54.69' LT	371950.53	2534547.68
513	148+60.34	44.50' LT	371939.57	2534525.05
514	148+67.08	44.50' LT	371939.80	2534531.79
515	148+67.08	50.81' LT	371946.11	2534531.58
516	148+73.23	50.76' LT	371946.26	2534537.72
517	148+73.32	54.93' LT	371950.43	2534537.68
518	148+88.09	44.60' LT	371940.61	2534552.78
519	148+85.51	44.66' LT	371940.58	2534550.20
520	148+87.47	39.62' LT	371935.60	2534552.34
521	148+85.39	39.66' LT	371935.58	2534550.25
522	148+84.52	36.37' LT	371932.26	2534549.49
523	148+83.47	34.91' LT	371930.76	2534548.49
524	148+82.06	31.50' LT	371927.31	2534547.20
525	148+76.26	28.85' LT	371924.46	2534541.49
526	148+75.81	30.88' LT	371926.48	2534540.98

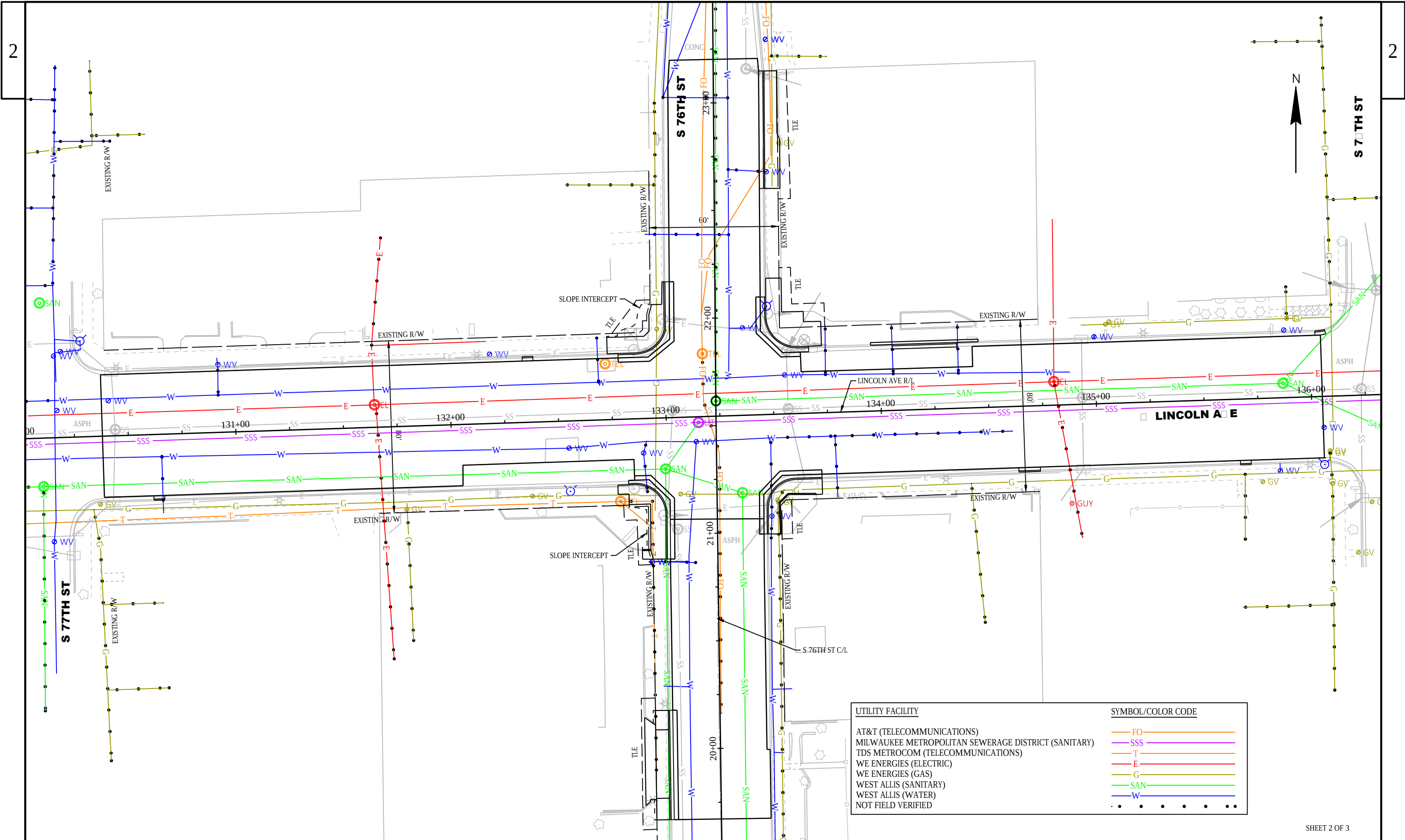
S 71ST STREET NE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
550	149+29.83	53.63' LT	371951.03	2534594.20
551	149+34.83	53.51' LT	371951.08	2534599.20
552	149+29.60	43.63' LT	371941.03	2534594.30
553	149+34.60	43.52' LT	371941.08	2534599.30
554	149+29.91	38.62' LT	371936.04	2534594.78
555	149+34.54	41.03' LT	371938.60	2534599.33
556	149+31.88	36.58' LT	371934.06	2534596.82
557	149+35.48	40.06' LT	371937.65	2534600.30
558	149+34.96	33.39' LT	371930.98	2534600.01
559	149+36.42	39.09' LT	371936.72	2534601.27
560	149+39.96	33.80' LT	371931.55	2534604.99
561	149+39.96	39.04' LT	371936.79	2534604.82
562	149+50.37	33.80' LT	371931.90	2534615.40
563	149+50.37	38.92' LT	371937.02	2534615.22
564	149+24.26	43.38' LT	371940.60	2534588.97
565	149+26.82	43.70' LT	371941.00	2534591.52
566	149+26.16	37.43' LT	371934.72	2534591.07
567	149+28.43	38.66' LT	371936.02	2534593.31
568	149+30.33	35.09' LT	371932.52	2534595.32
569	149+33.86	30.13' LT	371927.68	2534599.02
570	149+34.96	32.47' LT	371930.05	2534600.04
571	149+39.75	28.56' LT	371926.30	2534604.95
572	149+39.96	31.13' LT	371928.89	2534605.08

S 71ST STREET SW - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
600	148+60.83	32.50' RT	371862.63	2534528.13
601	148+60.83	37.00' RT	371858.13	2534528.28
602	148+66.55	32.50' RT	371862.82	2534533.85
603	148+66.55	38.50' RT	371856.83	2534534.05
604	148+72.55	32.50' RT	371863.03	2534539.84
605	148+72.55	38.50' RT	371857.03	2534540.04
606	148+75.81	32.50' RT	371863.14	2534543.11
607	148+76.44	42.50' RT	371853.16	2534544.07
608	148+81.44	42.63' RT	371853.20	2534549.07
609	148+76.19	51.70' RT	371843.96	2534544.13
610	148+81.19	51.83' RT	371843.99	2534549.13
611	148+76.38	56.71' RT	371838.96	2534544.49
612	148+81.05	56.83' RT	371838.99	2534549.16
613	148+76.60	29.82' RT	371865.84	2534543.80
614	148+75.81	31.75' RT	371863.88	2534543.08
615	148+82.25	33.47' RT	371862.38	2534549.57
616	148+80.81	34.98' RT	371860.82	2534548.19
617	148+82.64	36.10' RT	371859.77	2534550.05
618	148+84.41	35.95' RT	371859.98	2534551.81
619	148+84.81	36.52' RT	371859.42	2534552.23
620	148+83.07	37.67' RT	371858.21	2534550.54
621	148+87.32	42.24' RT	371853.78	2534554.93
622	148+85.29	42.74' RT	371853.22	2534552.92
623	148+86.32	46.95' RT	371849.05	2534554.09

S 71ST STREET SE - POINT TABLE				
POINT NUMBER	STATION	OFFSET	Y	X
650	149+27.00	59.39' RT	371837.98	2534595.17
651	149+31.75	59.52' RT	371838.01	2534599.92
652	149+27.12	54.89' RT	371842.48	2534595.14
653	149+32.12	55.03' RT	371842.51	2534600.14
654	149+27.42	43.88' RT	371853.49	2534595.07
655	149+32.42	44.02' RT	371853.52	2534600.07
656	149+28.10	38.90' RT	371858.49	2534595.58
657	149+32.49	41.54' RT	371856.00	2534600.05
658	149+29.62	37.29' RT	371860.16	2534597.05
659	149+33.26	40.72' RT	371856.86	2534600.80
660	149+31.71	35.07' RT	371862.44	2534599.06
661	149+35.35	38.50' RT	371859.14	2534602.81
662	149+33.68	32.98' RT	371864.60	2534600.95
663	149+34.96	32.41' RT	371865.21	2534602.22
664	149+39.96	32.50' RT	371865.29	2534607.22
665	149+39.96	38.50' RT	371859.29	2534607.42
666	149+44.46	32.50' RT	371865.44	2534611.72
667	149+44.46	38.50' RT	371859.45	2534611.92
668	149+48.96	32.50' RT	371865.59	2534616.22
669	149+48.96	37.00' RT	371861.10	2534616.37
670	149+21.54	43.07' RT	371854.10	2534589.16
671	149+23.50	43.78' RT	371853.47	2534591.14
672	149+24.40	37.63' RT	371859.64	2534591.84
673	149+26.09	38.85' RT	371858.48	2534593.57
674	149+34.20	30.02' RT	371867.57	2534601.38
675	149+34.96	31.96' RT	371865.66	2534602.21
676	149+39.73	28.64' RT	371869.14	2534606.85
677	149+39.96	30.71' RT	371867.08	2534607.16
678	149+28.08	35.68' RT	371861.72	2534595.45



UTILITY FACILITY	SYMBOL/COLOR CODE
AT&T (TELECOMMUNICATIONS)	FO
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT (SANITARY)	SSS
TDS METROCOM (TELECOMMUNICATIONS)	T
WE ENERGIES (ELECTRIC)	E
WE ENERGIES (GAS)	G
WEST ALLIS (SANITARY)	SAN
WEST ALLIS (WATER)	W
NOT FIELD VERIFIED	.



PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

UTILITY DETAILS

SHEET

21

E

FILE NAME : T:\1191100\CIVIL3D\21100003\SHEETSPLAN\023001-UP.DWG
LAYOUT NAME - 76

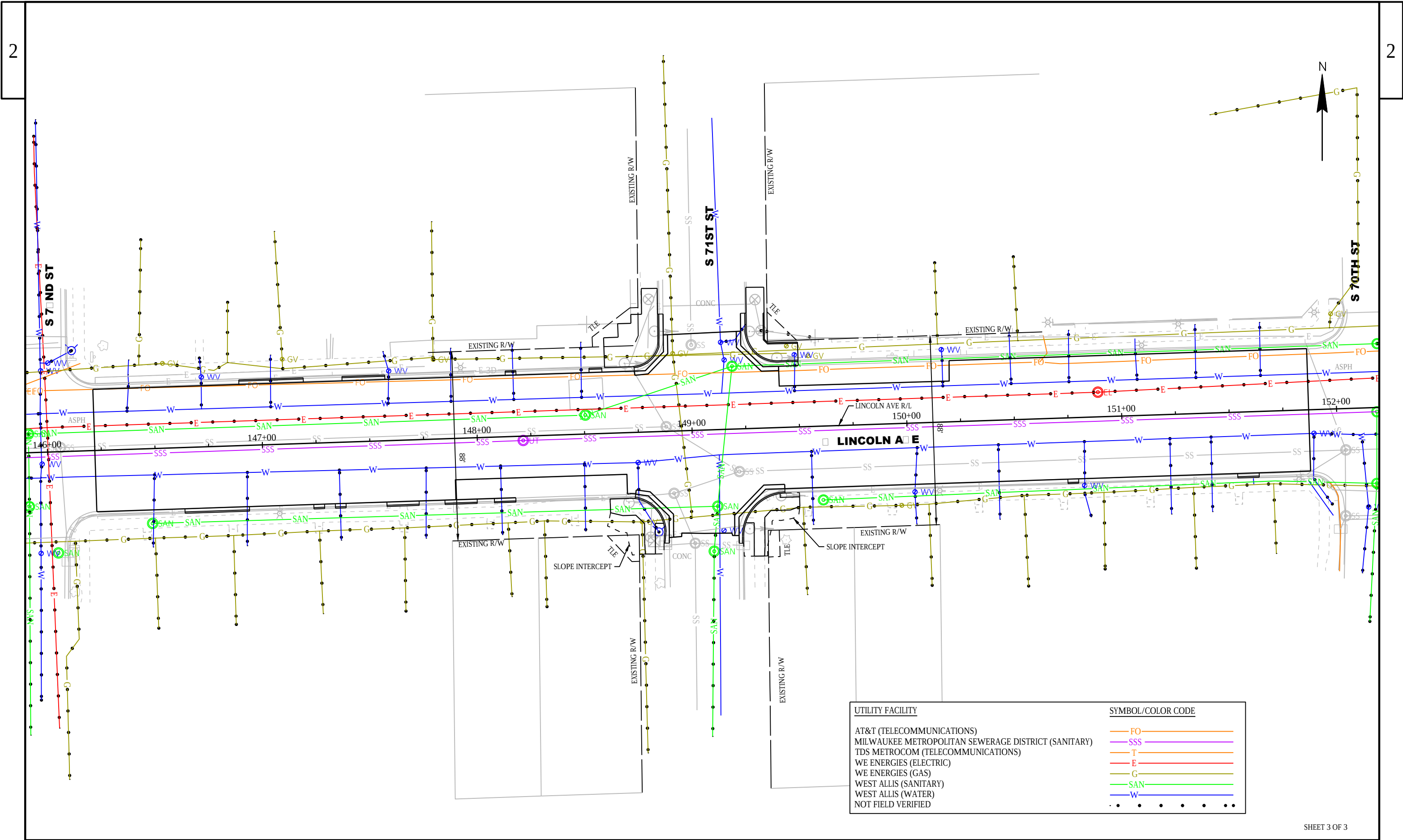
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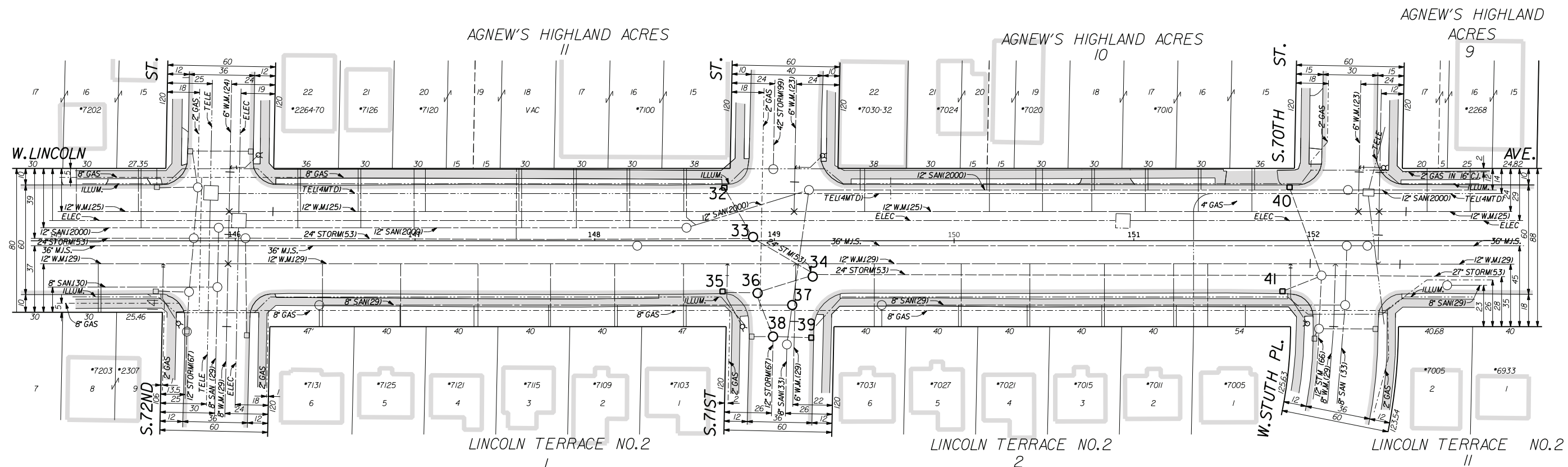
PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42





STORM SEWER

STRUCTURE *	ID	TYPE	VFT.REBUILD	VFT.MH	ADJUSTMENT	MISC.INSIDE	NOTES
32	12943	CB	2.0				
33	6407	MH				1	TUCKPOINT CHIMNEY
34	6448	MH		6.0 (48")			NEW MH, RIM ELEV.159.81 24" NW.154.44 24" E.154.07 12" SW.154.68
35	12912	CB		REPLACE			NEW CB, GRATE ELEV.159.54 12" E.155.87
36	6449	MH				1	TUCKPOINT CHIMNEY
38	8600	MH		5.0 (42")			NEW MH, RIM ELEV.160.07 12" E.156.19 12" S.155.51 12" W.156.43 12" NW.155.50
39	13538	CB				1	TUCKPOINT BARREL
40	12911	CB			1		
41	12910	CB			1		

*STRUCTURES NOT LABELED ARE EITHER IN GOOD CONDITION OR OUT OF PAVING LIMITS

SANITARY SEWER

STRUCTURE *	ID	INSTALL INT. SEAL	VFT.REBUILD	ADJUSTMENT	NOTES
37	1018090	1	3.0		

- NOTES: 1. THE EXISTING ROADWAY SURFACE IN WEST LINCOLN AVENUE FROM SOUTH 70TH STREET TO SOUTH 72ND STREET IS ASPHALT WITH A CONCRETE BASE.
2. ALL EXISTING AND PROPOSED CATCH BASINS SHALL HAVE INLET PROTECTION BARRIERS.
3. REBUILT OR NEWLY CONSTRUCTED STRUCTURES SHALL BE SET TO FINAL GRADE. NO ADDITIONAL ADJUSTMENT ITEM SHALL BE PAID UNLESS OTHERWISE NOTED.



SCALE FT.
0 30 60



CONSTRUCTION ESTIMATE

- 2 VERT. FT. OF REBUILD STORM STRUCTURE (1)
- 6 VERT. FT. OF 48" DIA. STORM MH (1)
- 5 VERT. FT. OF 42" DIA. STORM MH (1)
- 1 CATCH BASIN REPLACEMENT
- 3 STORM STRUCTURE MISCELLANEOUS INSIDE REPAIRS
- 3 VERT. FT. OF REBUILD SANITARY MH (1)
- 2 ADJUST CATCH BASIN FRAMES
- 2 ADJUST WATER VALVE BOXES
- 1 INSTALL INTERNAL SANITARY MANHOLE SEAL
- 2 STORM MANHOLE FRAMES W/ 8-HOLE LIDS
- 4 INLET COVERS TYPE R (WITH SPECIAL COVER R-1)
- 1 SANITARY MH FRAMES W/ SOLID GASKETED LID

CONTRACTOR TO FURNISH

- 1 INTERNAL SANITARY MANHOLE SEAL

CITY OF WEST ALLIS ENGINEERING DEPARTMENT

PLAN & PROFILE
MISC. ADJUSTMENTS
WEST LINCOLN AVENUE

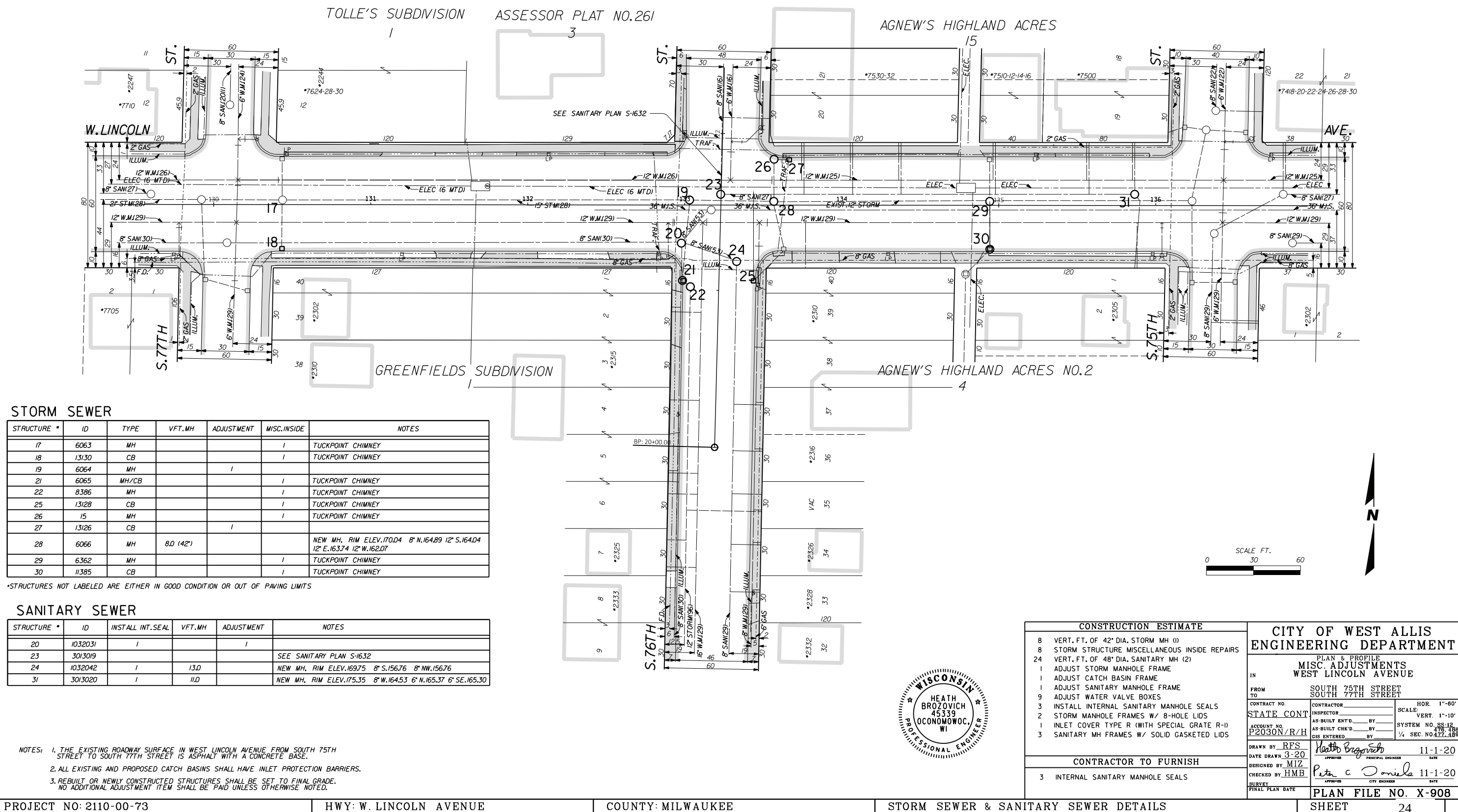
IN
FROM TO
SOUTH 70TH STREET
SOUTH 72ND STREET

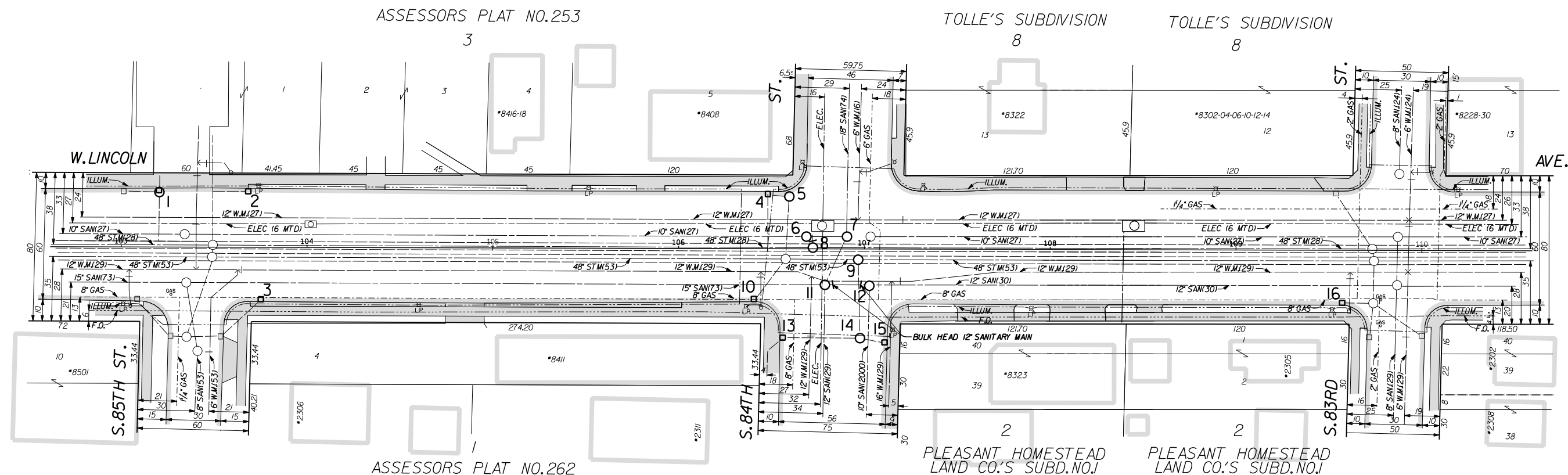
CONTRACT NO. _____
INSPECTOR _____
STATE CONT. AS-BUILT ENT'D. BY _____
ACCOUNT NO. P2030N/R/H AS-BUILT CHK'D. BY _____
GIS ENTERED BY _____

DRAWN BY RFS
DATE DRAWN 3-20
DESIGNED BY MIZ
CHECKED BY HMB
SURVEY
FINAL PLAN DATE

APPROVED
CITY ENGINEER
DATE 11-1-20

PLAN FILE NO. X-907





STORM SEWER

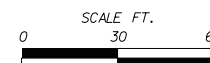
STRUCTURE #	ID	TYPE	VFT.REBUILD	ADJUSTMENT	MISC.INSIDE	NOTES
1	5687	MH/CB			I	BULKHEAD NORTH PIPE
2	13263	CB			I	TUCKPOINT CHIMNEY
3	15531	CB		I		
4	15536	CB			I	TUCKPOINT CHIMNEY
5	5698	MH		I		
8	5692	MH			I	BULKHEAD NORTH PIPE AND TUCKPOINT CHIMNEY
9	5699	MH			I	TUCKPOINT CHIMNEY
10	15535	CB	2.0			
13	5701	MH/CB			I	TUCKPOINT CHIMNEY
14	5700	MH			I	TUCKPOINT PIPE TO EAST
15	15534	CB			I	TUCKPOINT CHIMNEY
16	13177	CB			I	TUCKPOINT CHIMNEY

*STRUCTURES NOT LABELED ARE EITHER IN GOOD CONDITION OR OUT OF PAVING LIMITS

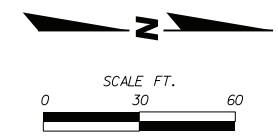
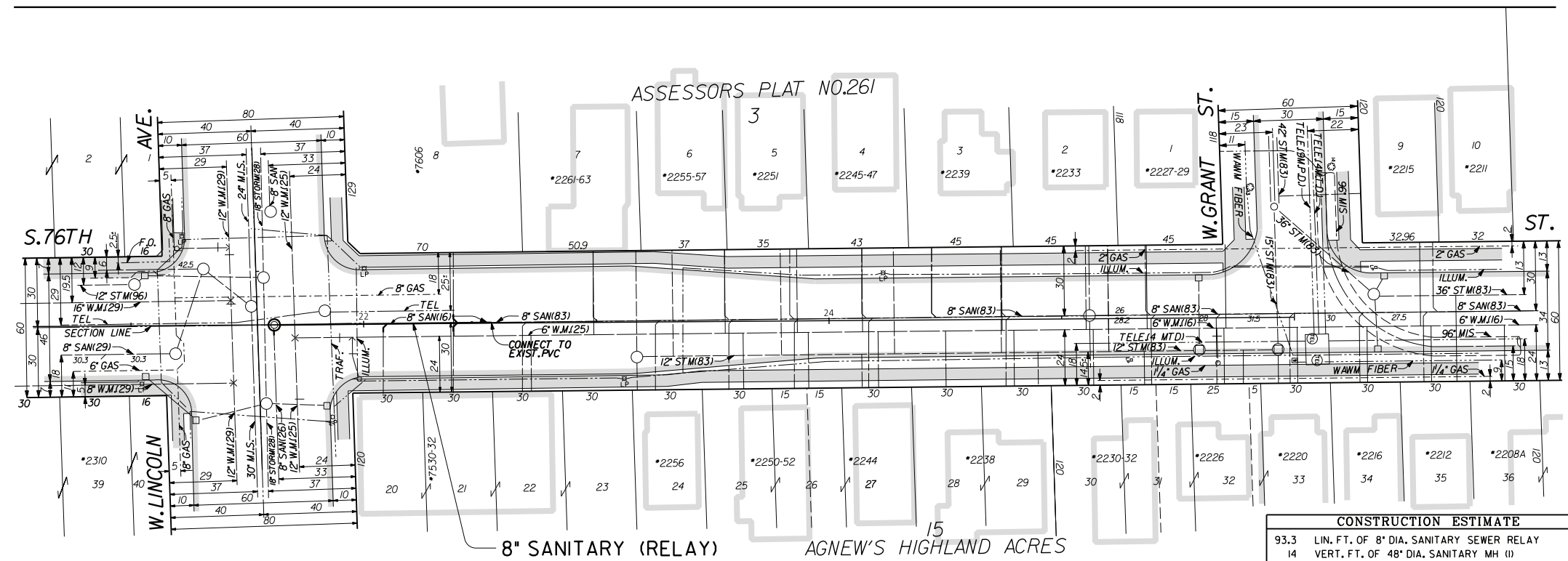
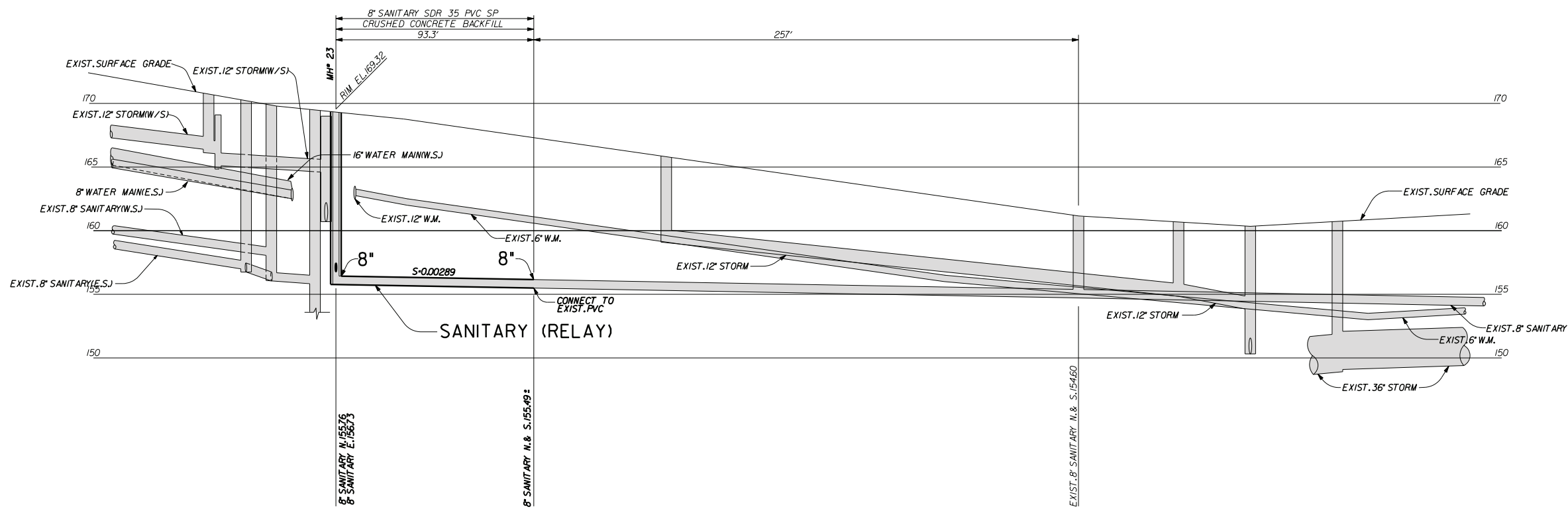
- NOTES: 1. THE EXISTING ROADWAY SURFACE IN WEST LINCOLN AVENUE FROM SOUTH 83RD STREET TO SOUTH 85TH STREET IS ASPHALT WITH A CONCRETE BASE.
2. ALL EXISTING AND PROPOSED CATCH BASINS SHALL HAVE INLET PROTECTION BARRIERS.
3. REBUILT OR NEWLY CONSTRUCTED STRUCTURES SHALL BE SET TO FINAL GRADE. NO ADDITIONAL ADJUSTMENT ITEM SHALL BE PAID UNLESS OTHERWISE NOTED.

SANITARY SEWER

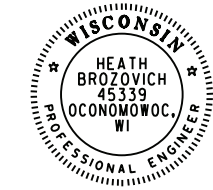
STRUCTURE #	ID	INSTALL INT. SEAL	ADJUSTMENT	MISC.INSIDE	NOTES
6	3014004	I	I		
7	3014003	I		I	TUCKPOINT CHIMNEY
11	3014018			I	BULKHEAD EAST PIPE
12	1032111			I	BULKHEAD WEST PIPE



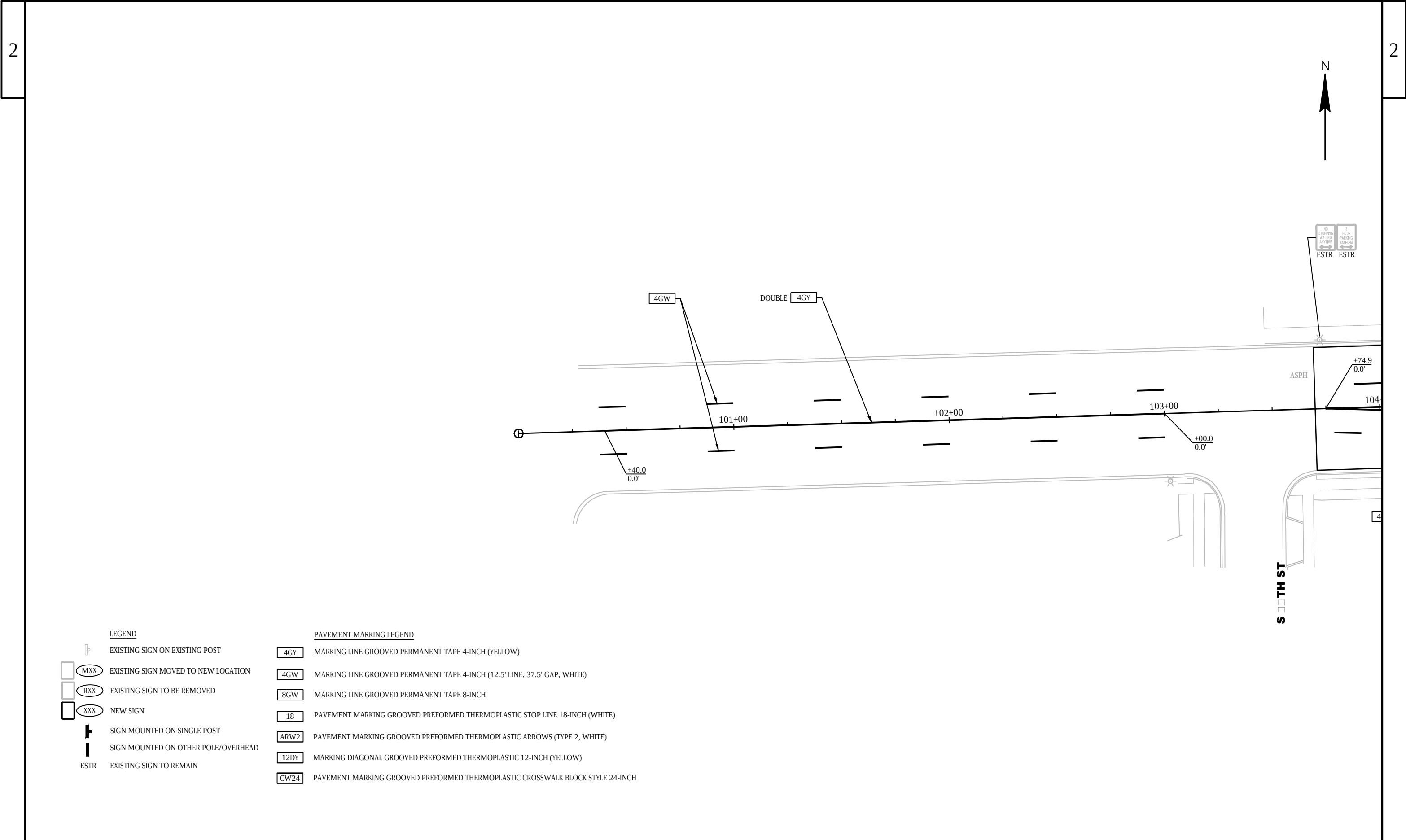
CONSTRUCTION ESTIMATE 2 VERT. FT. OF REBUILD STORM STRUCTURE (1) 9 STORM STRUCTURE MISCELLANEOUS INSIDE REPAIRS 3 SANITARY STRUCTURE MISCELLANEOUS INSIDE REPAIRS 1 ADJUST STORM MANHOLE FRAME 1 ADJUST CATCH BASIN FRAME 1 ADJUST SANITARY MANHOLE FRAME 2 ADJUST WATER VALVE BOXES 7 INSTALL INTERNAL SANITARY MANHOLE SEALS 1 STORM MANHOLE FRAMES W/ 8-HOLE LID 2 INLET COVERS TYPE R (WITH SPECIAL GRATE R-1) 1 SANITARY MH FRAMES W/ SOLID GASKETED LID		CITY OF WEST ALLIS ENGINEERING DEPARTMENT PLAN & PROFILE MISC. ADJUSTMENTS WEST LINCOLN AVENUE IN FROM SOUTH 83RD STREET TO SOUTH 85TH STREET CONTRACT NO. _____ DATE DRAWN 3-20 DESIGNED BY MIZ CHECKED BY HMB SURVEY _____ FINAL PLAN DATE _____		HORIZ. 1"=60' VERT. 1"=10' SCALE: _____ SYSTEM NO. SS-12 1/4 SEC. NO. 477.487 11-1-20 11-1-20 PLAN FILE NO. X-909	
CONTRACTOR TO FURNISH 2 INTERNAL SANITARY MANHOLE SEALS		DRAWN BY RFS DATE DRAWN 3-20 DESIGNED BY MIZ CHECKED BY HMB SURVEY _____ FINAL PLAN DATE _____			



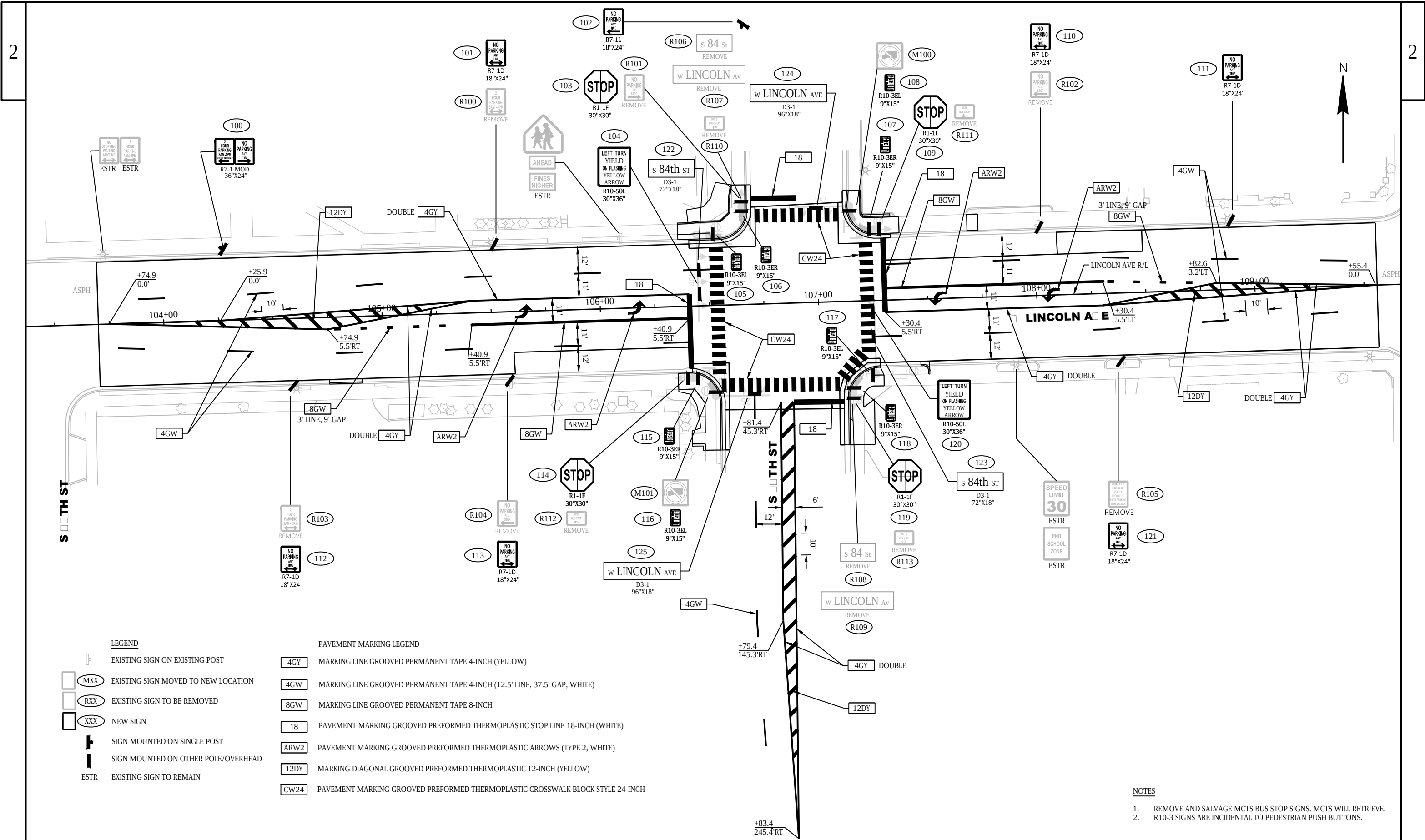
- NOTES:
1. THE EXISTING ROADWAY SURFACE IN SOUTH 76TH STREET IN SANITARY RELAY PROJECT LIMITS IS ASPHALT OVER CONCRETE.
 2. ALL EXISTING CATCH BASINS SHALL HAVE INLET PROTECTION BARRIERS.
 3. REBUILT OR NEWLY CONSTRUCTED STRUCTURES SHALL BE SET TO FINAL GRADE. NO ADDITIONAL ADJUSTMENT ITEM SHALL BE PAID UNLESS OTHERWISE NOTED.



CONSTRUCTION ESTIMATE		CITY OF WEST ALLIS ENGINEERING DEPARTMENT	
93.3	LIN. FT. OF 8" DIA. SANITARY SEWER RELAY	PLAN & PROFILE SANITARY SEWER RELAY SOUTH 76TH STREET	
14	VERT. FT. OF 48" DIA. SANITARY MH (I)	IN	
3	BUILDING SANITARY SEWER RECONNECTS	FROM	WEST GRANT STREET
1	INSTALL INTERNAL SANITARY MANHOLE SEAL	TO	WEST LINCOLN AVENUE
1	SANITARY MH FRAME W/ SOLID GASKETED LID	CONTRACT NO.	
		STATE CONT	
		ACCOUNT NO.	
		P2030N	
		CONTRACTOR	
		INSPECTOR	
		AS-BUILT ENT'D. BY	
		AS-BUILT CHK'D. BY	
		GIS ENTERED BY	
			HOR. 1"=60'
			VERT. 1"=10'
			SYSTEM NO. SS-12.
			1/4 SEC. NO. 476.477
CONTRACTOR TO FURNISH		DRAWN BY	RFS
		DATE DRAWN	5-20
1 INTERNAL SANITARY MANHOLE SEALS		DESIGNED BY	MIZ
		CHECKED BY	HMB
		SURVEY	
		FIRAL PLAN DATE	
		APPROVED	CITY ENGINEER
		DATE	
		APPROVED	CITY ENGINEER
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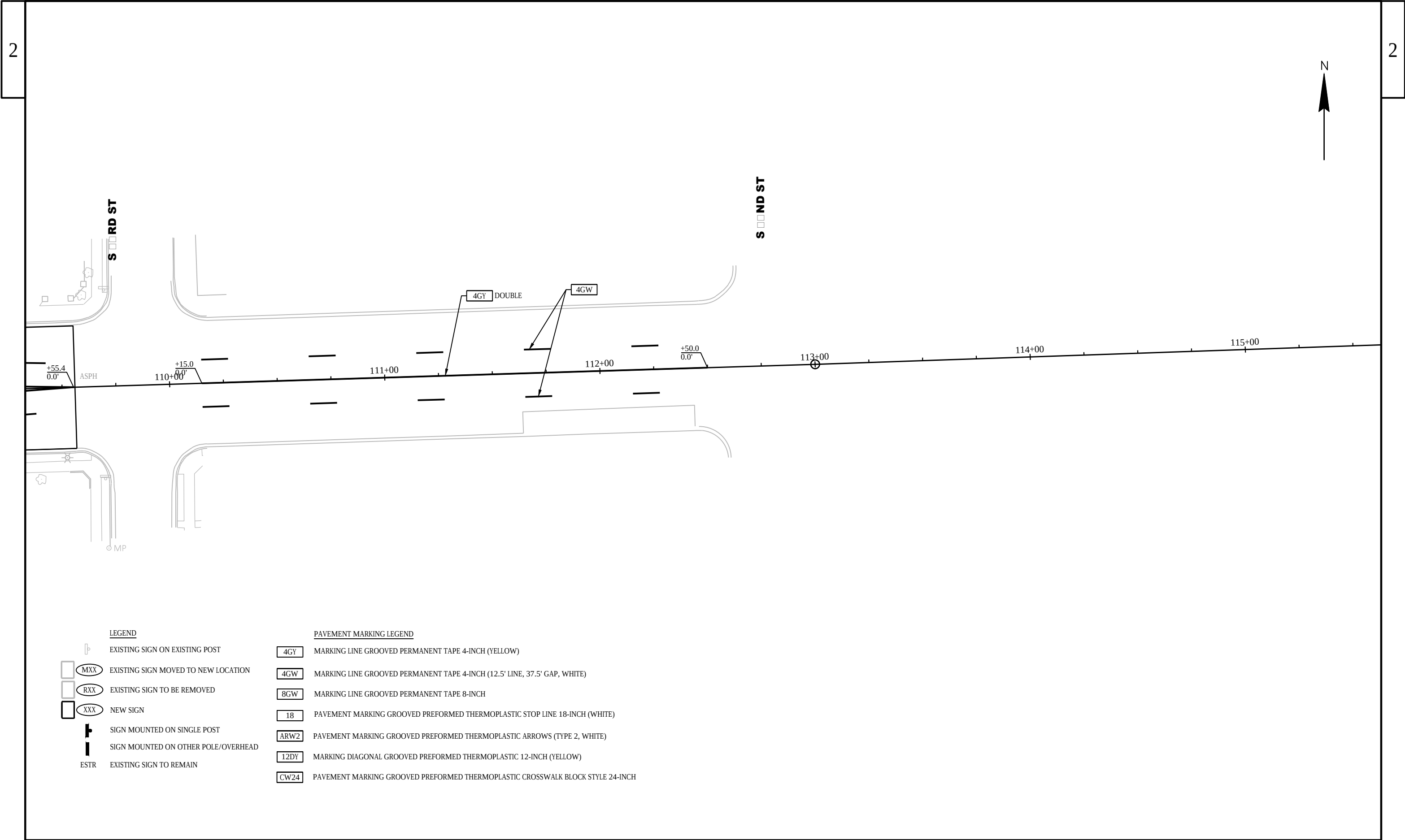
LEGEND		PAVEMENT MARKING LEGEND	
	EXISTING SIGN ON EXISTING POST		MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
	EXISTING SIGN MOVED TO NEW LOCATION		MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
	EXISTING SIGN TO BE REMOVED		MARKING LINE GROOVED PERMANENT TAPE 8-INCH
	NEW SIGN		PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
	SIGN MOUNTED ON SINGLE POST		PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
	SIGN MOUNTED ON OTHER POLE/OVERHEAD		MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
ESTR	EXISTING SIGN TO REMAIN		PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH

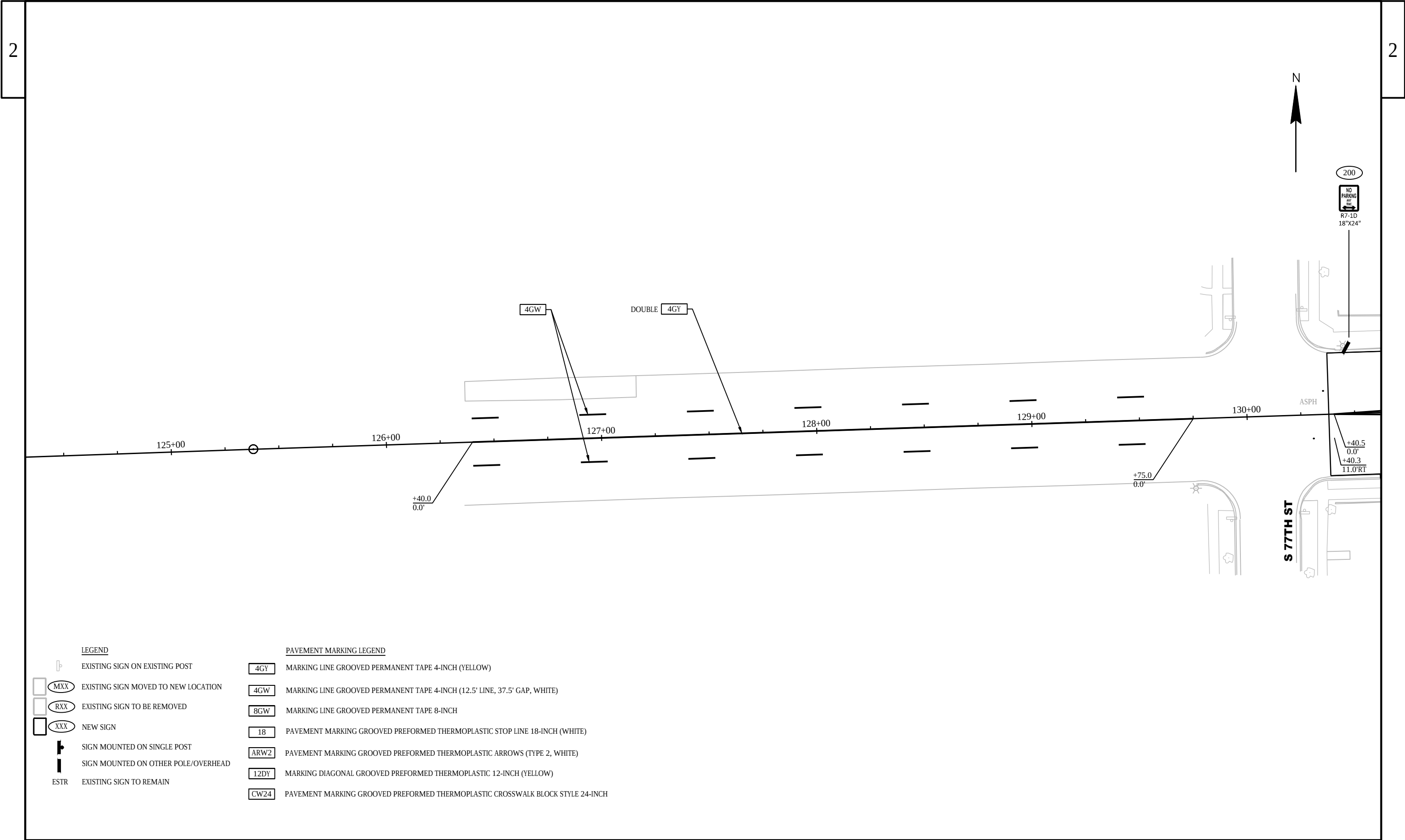


- LEGEND**
- EXISTING SIGN ON EXISTING POST
 - MXX EXISTING SIGN MOVED TO NEW LOCATION
 - RXX EXISTING SIGN TO BE REMOVED
 - XXX NEW SIGN
 - SIGN MOUNTED ON SINGLE POST
 - SIGN MOUNTED ON OTHER POLE/OVERHEAD
 - ESTR EXISTING SIGN TO REMAIN

- PAVEMENT MARKING LEGEND**
- 4GY MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
 - 4GW MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
 - 8GW MARKING LINE GROOVED PERMANENT TAPE 8-INCH
 - 18 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
 - ARW2 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
 - 12DY MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
 - CW24 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH

- NOTES**
- REMOVE AND SALVAGE MCTS BUS STOP SIGNS. MCTS WILL RETRIEVE.
 - R10-3 SIGNS ARE INCIDENTAL TO PEDESTRIAN PUSH BUTTONS.



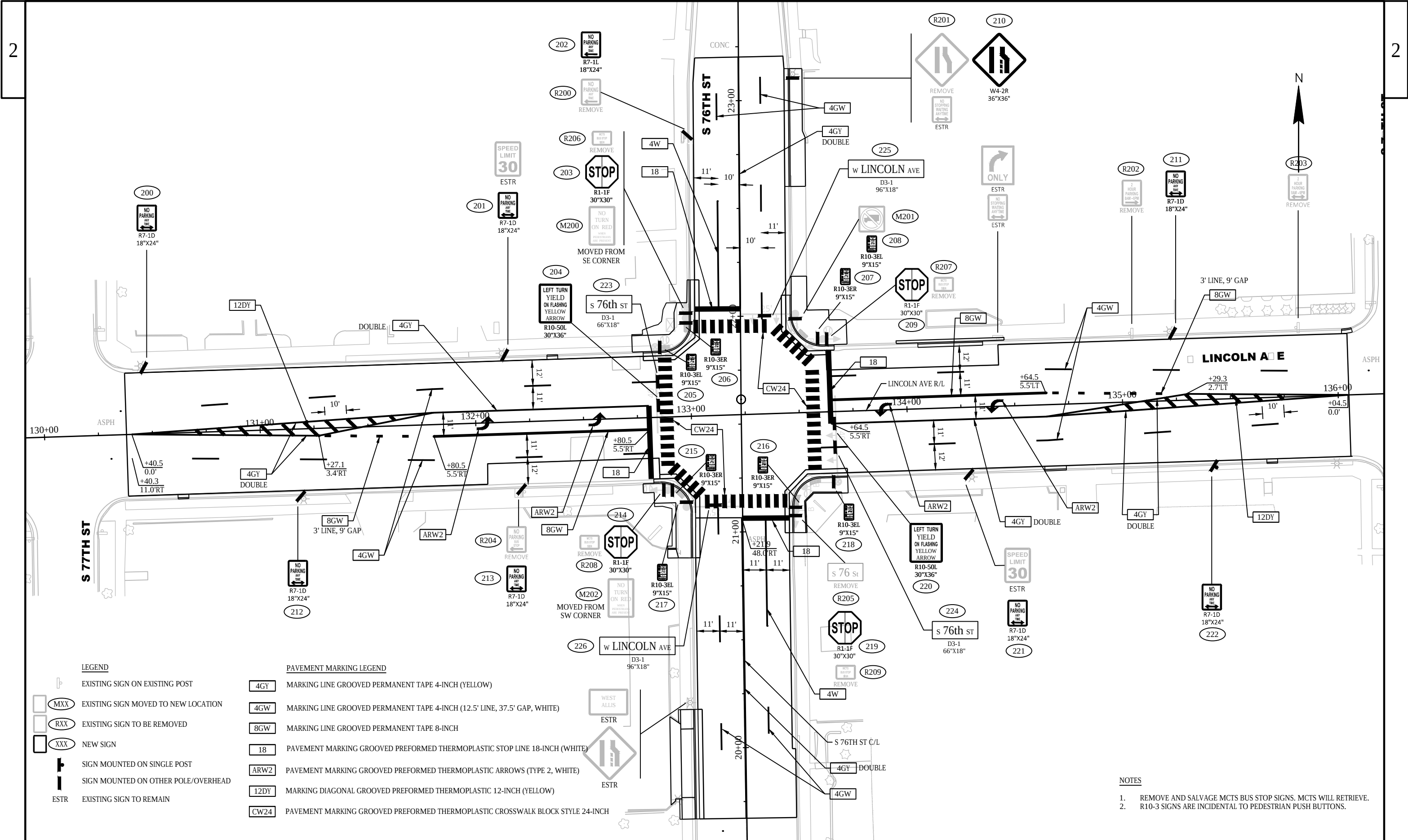


LEGEND

-  EXISTING SIGN ON EXISTING POST
-  (MXX) EXISTING SIGN MOVED TO NEW LOCATION
-  (RXX) EXISTING SIGN TO BE REMOVED
-  (XXX) NEW SIGN
-  SIGN MOUNTED ON SINGLE POST
-  SIGN MOUNTED ON OTHER POLE/OVERHEAD
-  ESTR EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

-  4GY MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
-  4GW MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
-  8GW MARKING LINE GROOVED PERMANENT TAPE 8-INCH
-  18 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
-  ARW2 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
-  12DY MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
-  CW24 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH



LEGEND

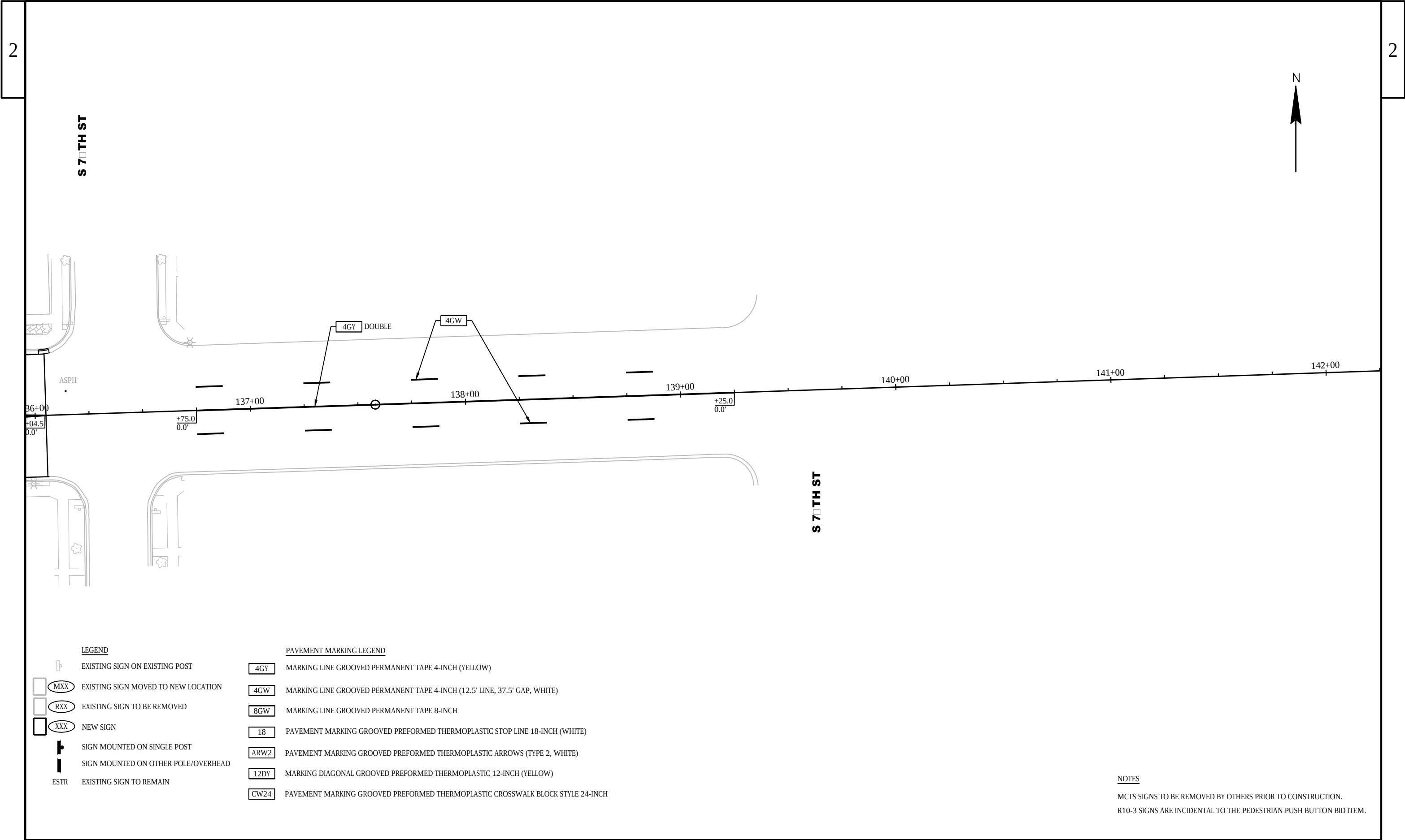
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- EXISTING SIGN MOVED TO NEW LOCATION
- EXISTING SIGN TO BE REMOVED
- NEW SIGN
- SIGN MOUNTED ON SINGLE POST
- SIGN MOUNTED ON OTHER POLE/OVERHEAD
- EXISTING SIGN TO REMAIN

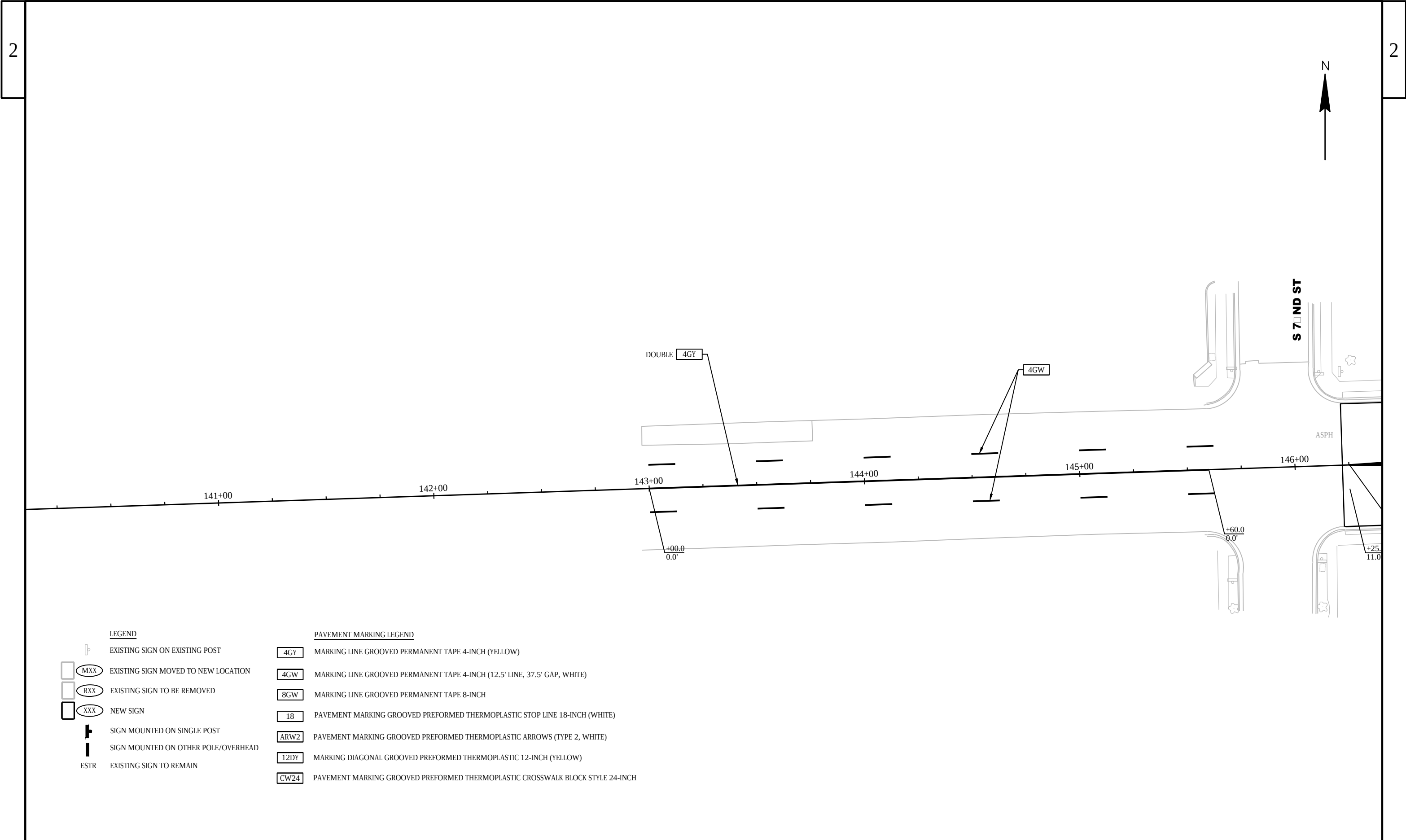
PAVEMENT MARKING LEGEND

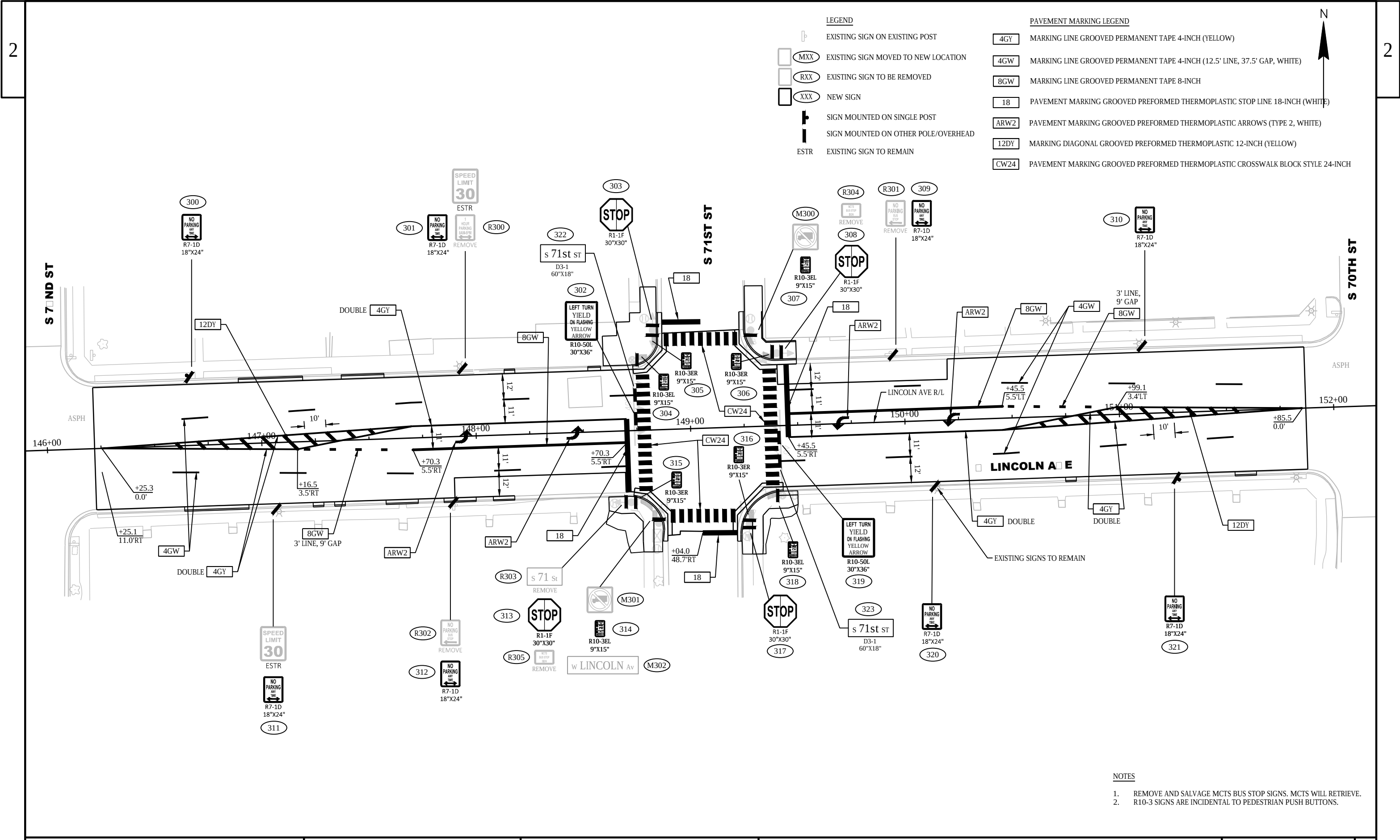
- MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
- MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- MARKING LINE GROOVED PERMANENT TAPE 8-INCH
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
- MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH

NOTES

- REMOVE AND SALVAGE MCTS BUS STOP SIGNS. MCTS WILL RETRIEVE.
- R10-3 SIGNS ARE INCIDENTAL TO PEDESTRIAN PUSH BUTTONS.







LEGEND

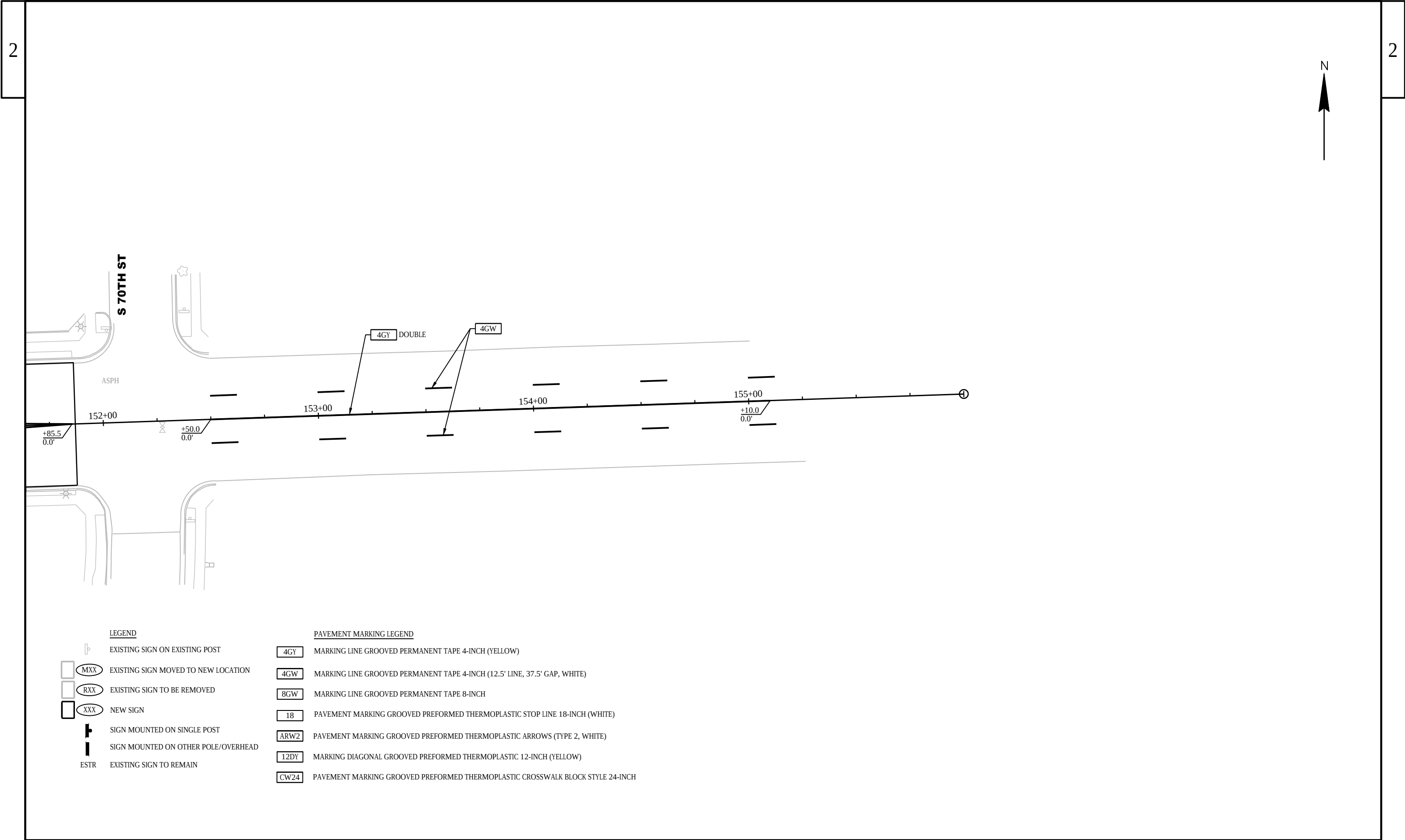
- EXISTING SIGN ON EXISTING POST
- EXISTING SIGN MOVED TO NEW LOCATION
- EXISTING SIGN TO BE REMOVED
- NEW SIGN
- SIGN MOUNTED ON SINGLE POST
- SIGN MOUNTED ON OTHER POLE/OVERHEAD
- EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

- MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
- MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
- MARKING LINE GROOVED PERMANENT TAPE 8-INCH
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
- MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
- PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH

NOTES

- 1. REMOVE AND SALVAGE MCTS BUS STOP SIGNS. MCTS WILL RETRIEVE.
- 2. R10-3 SIGNS ARE INCIDENTAL TO PEDESTRIAN PUSH BUTTONS.

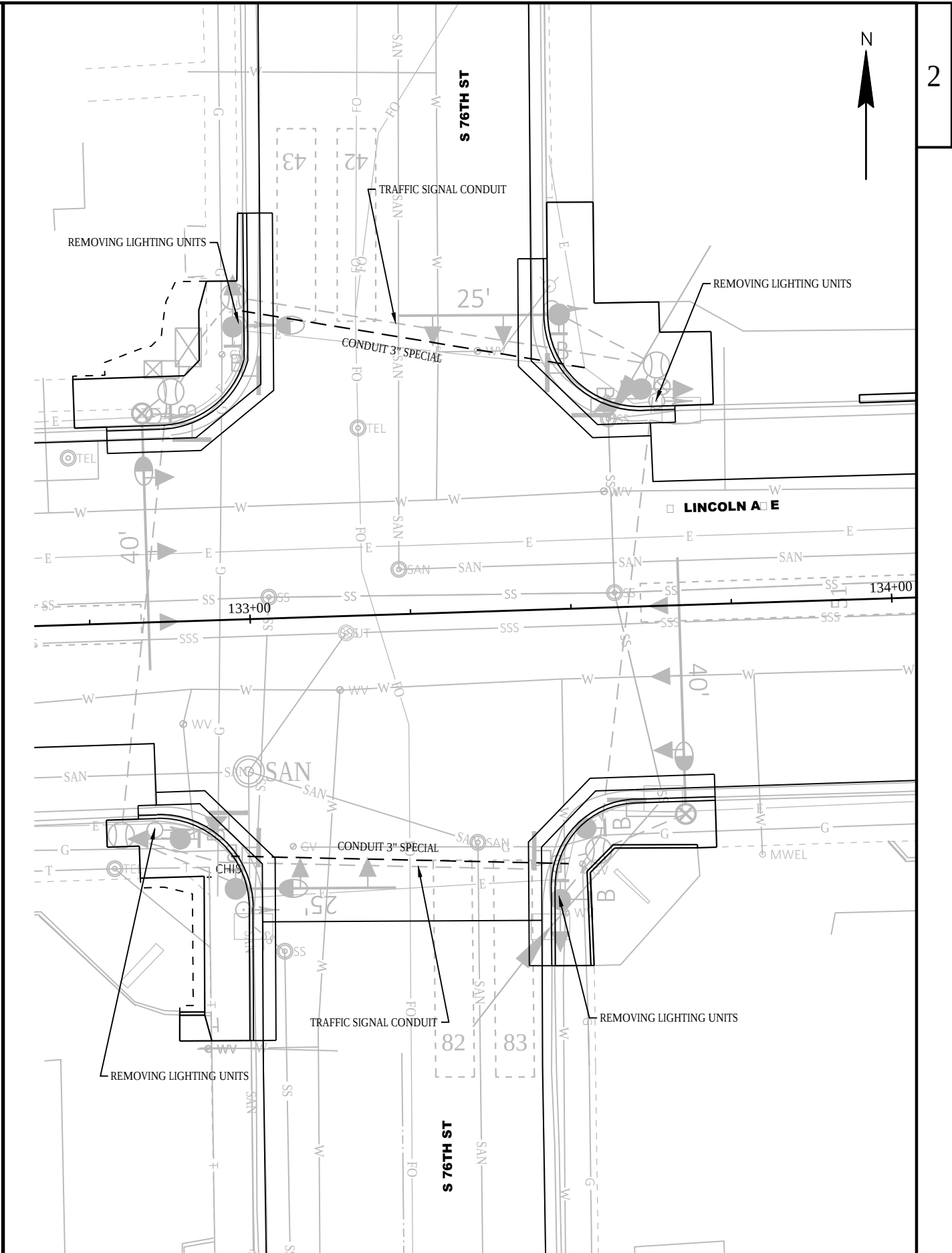
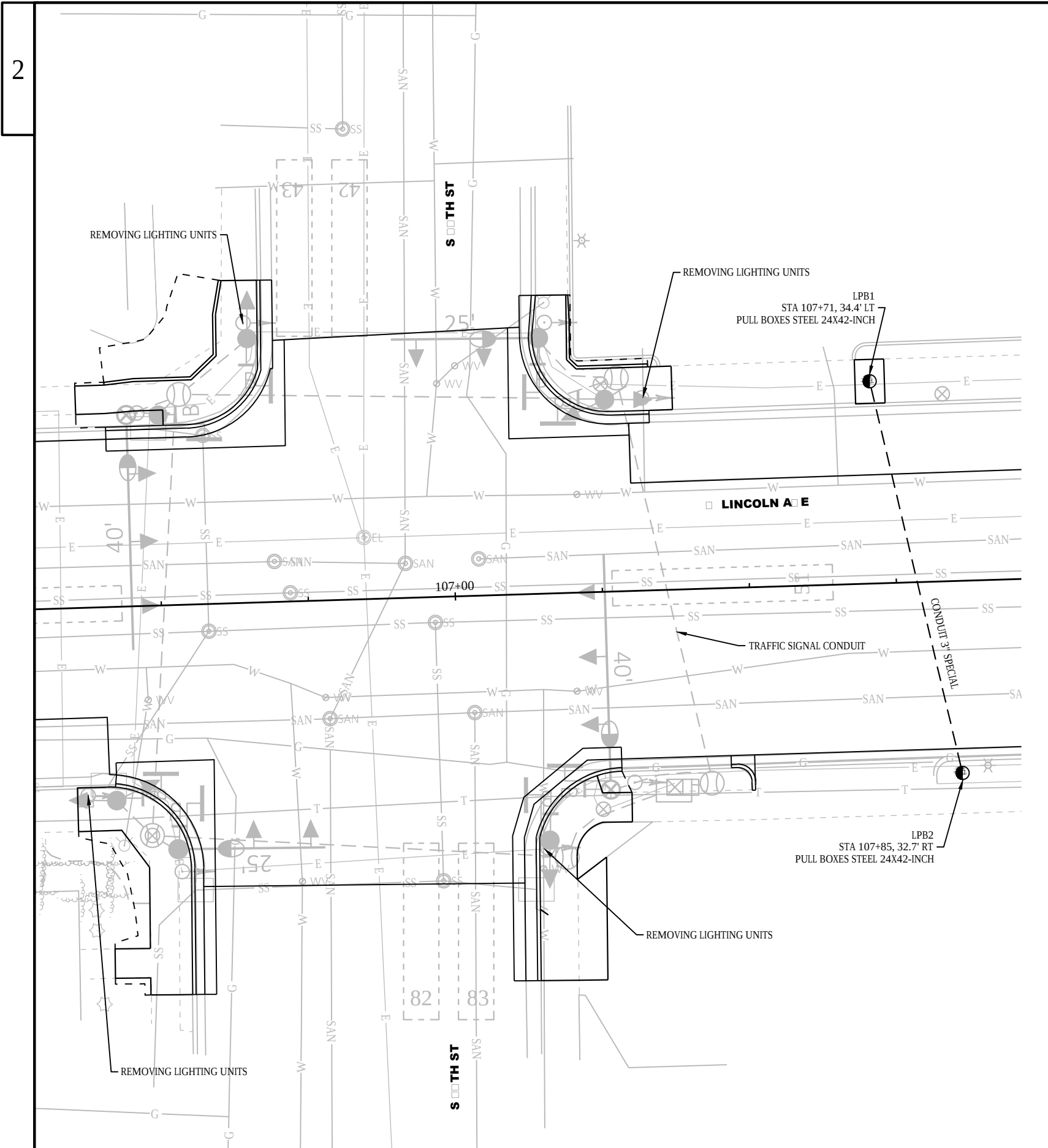


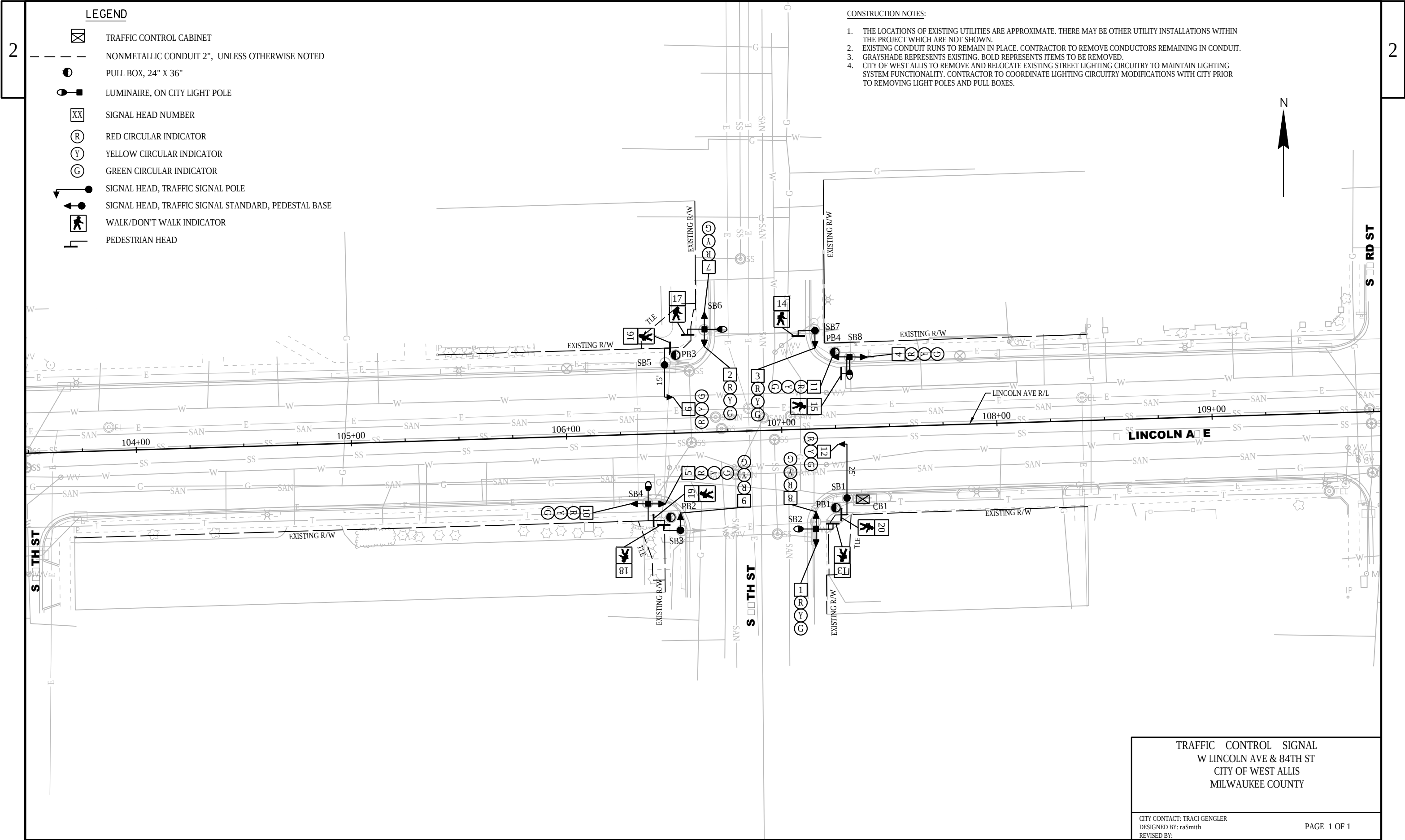
LEGEND

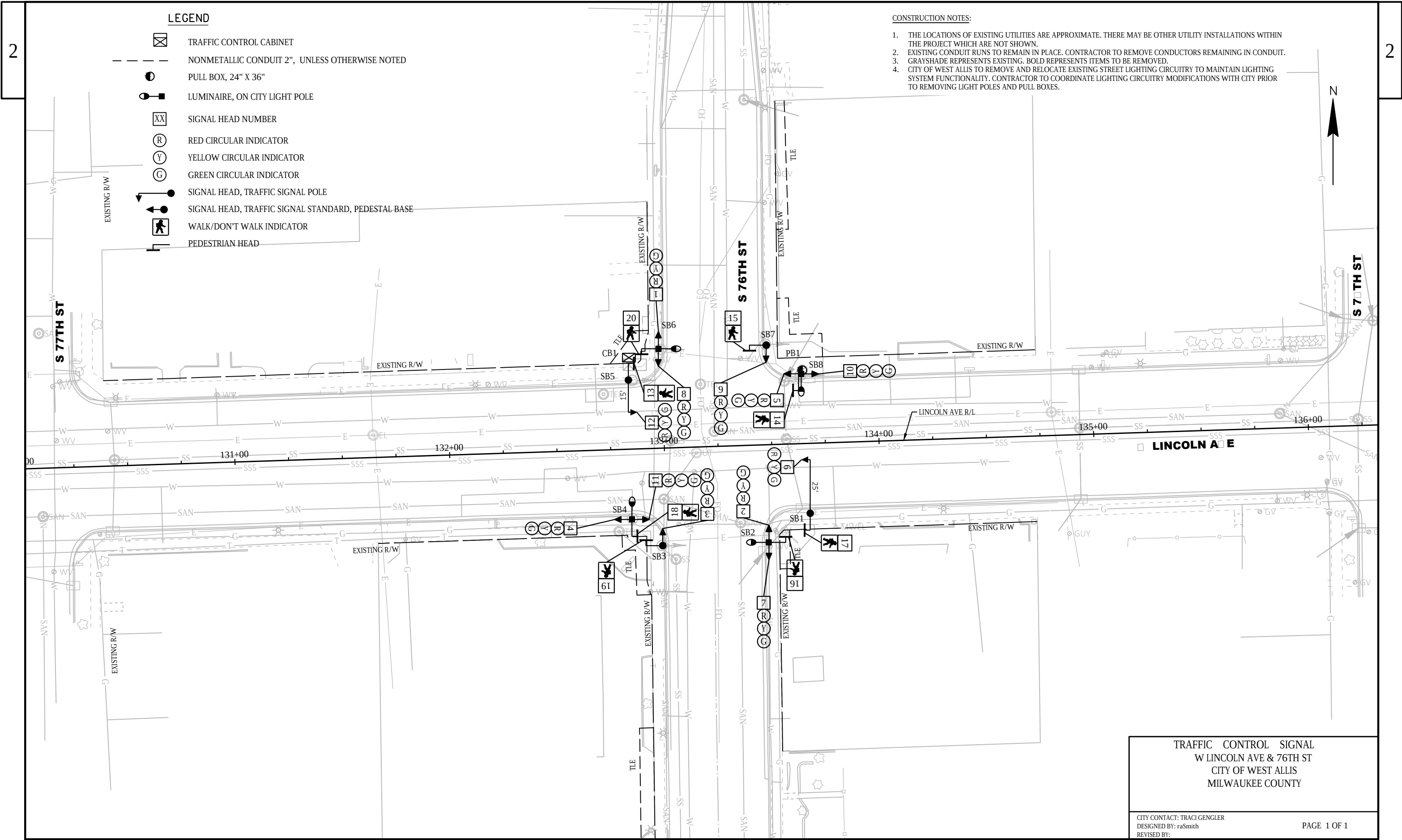
-  EXISTING SIGN ON EXISTING POST
-  (MXX) EXISTING SIGN MOVED TO NEW LOCATION
-  (RXX) EXISTING SIGN TO BE REMOVED
-  (XXX) NEW SIGN
-  SIGN MOUNTED ON SINGLE POST
-  SIGN MOUNTED ON OTHER POLE/OVERHEAD
-  ESTR EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

-  4GY MARKING LINE GROOVED PERMANENT TAPE 4-INCH (YELLOW)
-  4GW MARKING LINE GROOVED PERMANENT TAPE 4-INCH (12.5' LINE, 37.5' GAP, WHITE)
-  8GW MARKING LINE GROOVED PERMANENT TAPE 8-INCH
-  18 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
-  ARW2 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS (TYPE 2, WHITE)
-  12DY MARKING DIAGONAL GROOVED PREFORMED THERMOPLASTIC 12-INCH (YELLOW)
-  CW24 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK BLOCK STYLE 24-INCH

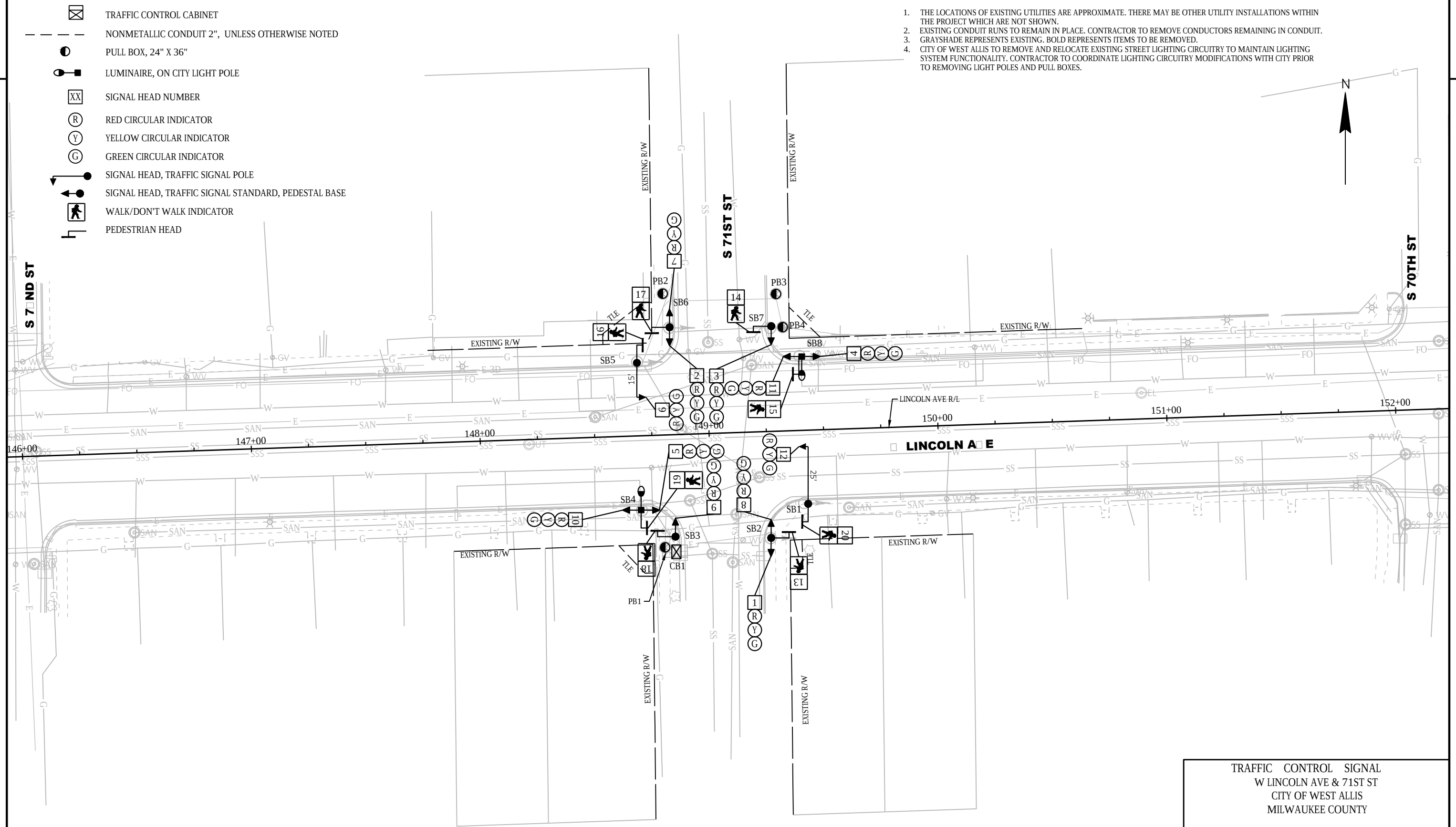




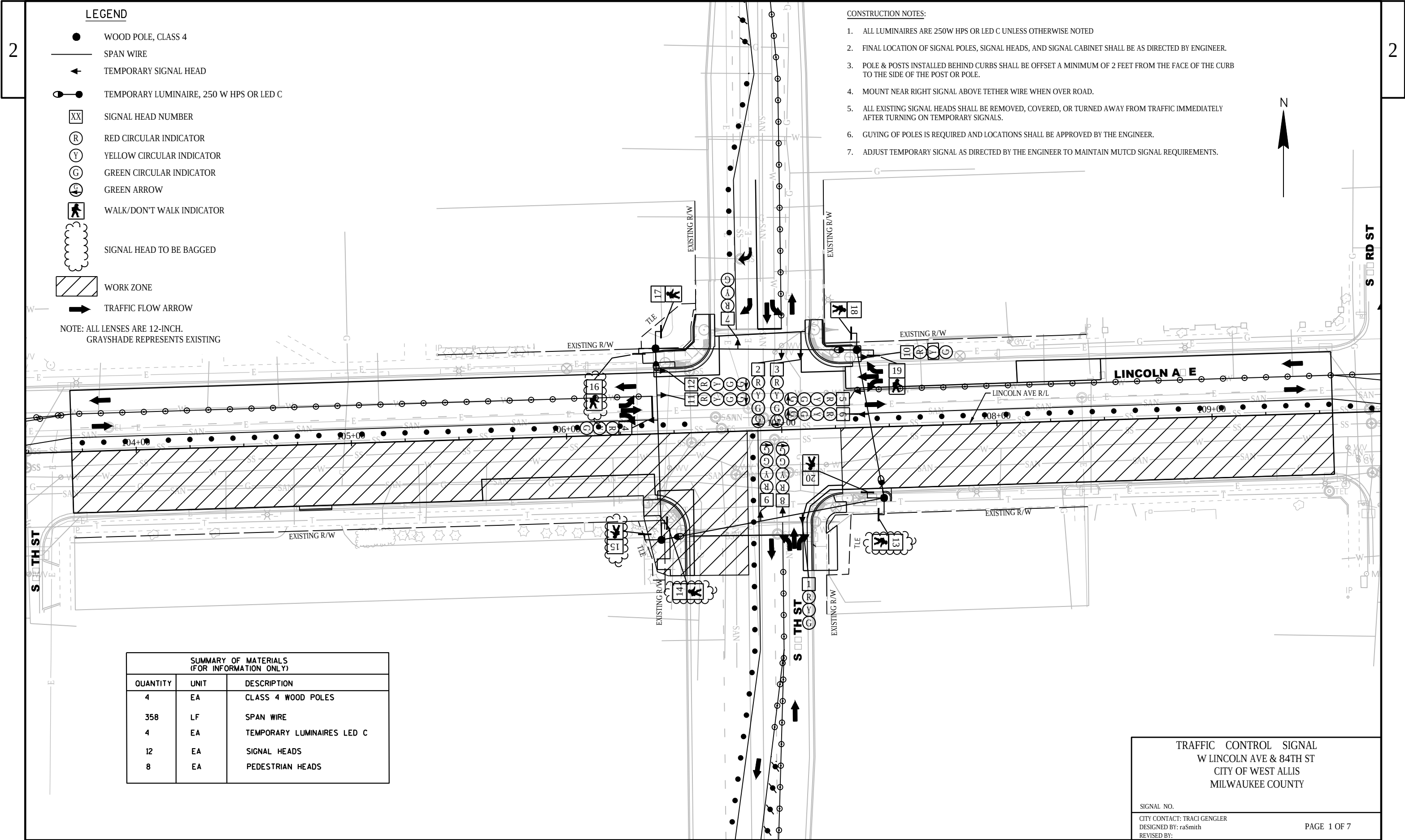


CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO REMAIN IN PLACE. CONTRACTOR TO REMOVE CONDUCTORS REMAINING IN CONDUIT.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.
4. CITY OF WEST ALLIS TO REMOVE AND RELOCATE EXISTING STREET LIGHTING CIRCUITRY TO MAINTAIN LIGHTING SYSTEM FUNCTIONALITY. CONTRACTOR TO COORDINATE LIGHTING CIRCUITRY MODIFICATIONS WITH CITY PRIOR TO REMOVING LIGHT POLES AND PULL BOXES.



TRAFFIC CONTROL SIGNAL W LINCOLN AVE & 71ST ST CITY OF WEST ALLIS MILWAUKEE COUNTY	
CITY CONTACT: TRACI GENGLER DESIGNED BY: raSmith REVISED BY:	PAGE 1 OF 1



LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

- ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED
- FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
- POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
- MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
- ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
- GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
- ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.

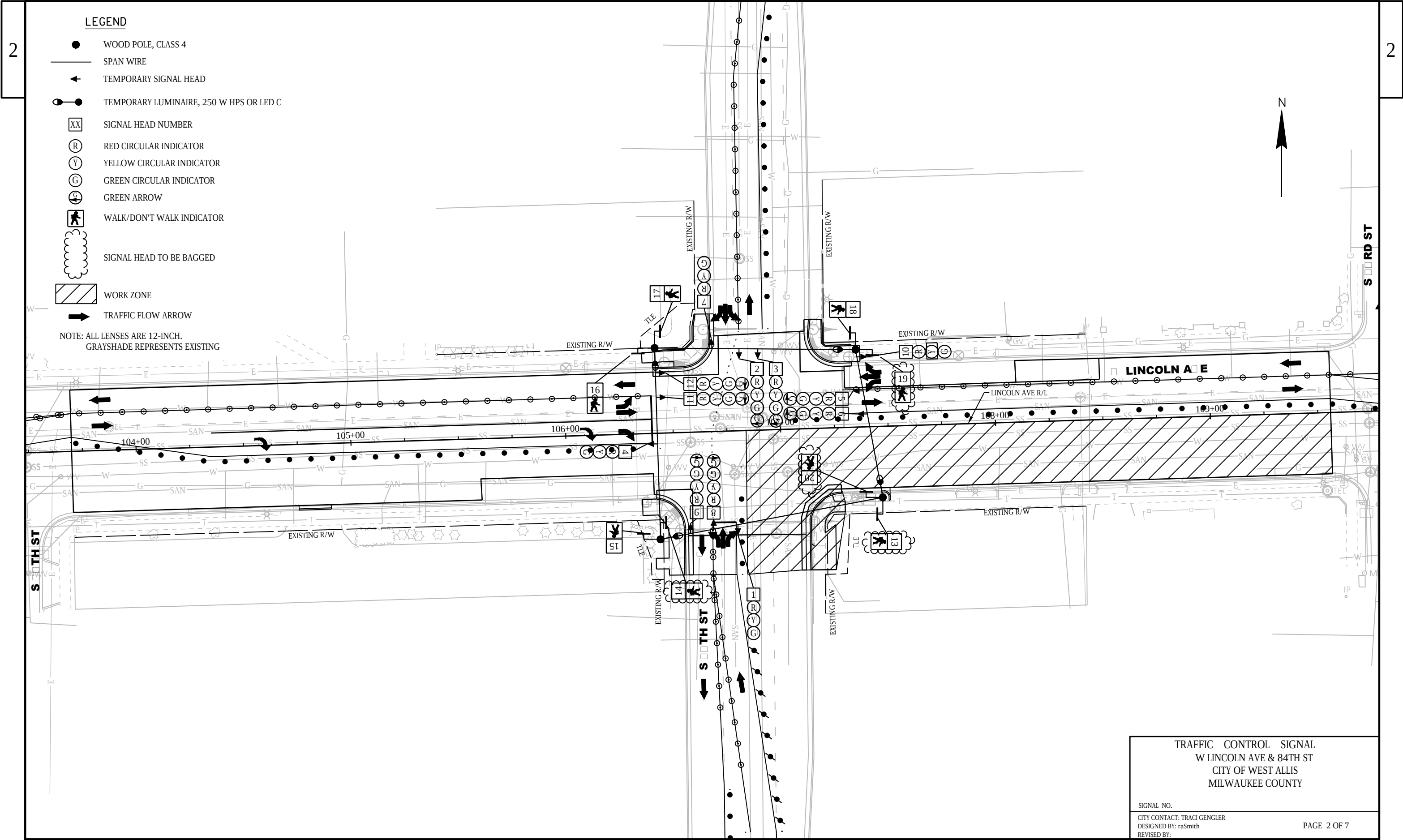
SUMMARY OF MATERIALS (FOR INFORMATION ONLY)		
QUANTITY	UNIT	DESCRIPTION
4	EA	CLASS 4 WOOD POLES
358	LF	SPAN WIRE
4	EA	TEMPORARY LUMINAIRES LED C
12	EA	SIGNAL HEADS
8	EA	PEDESTRIAN HEADS

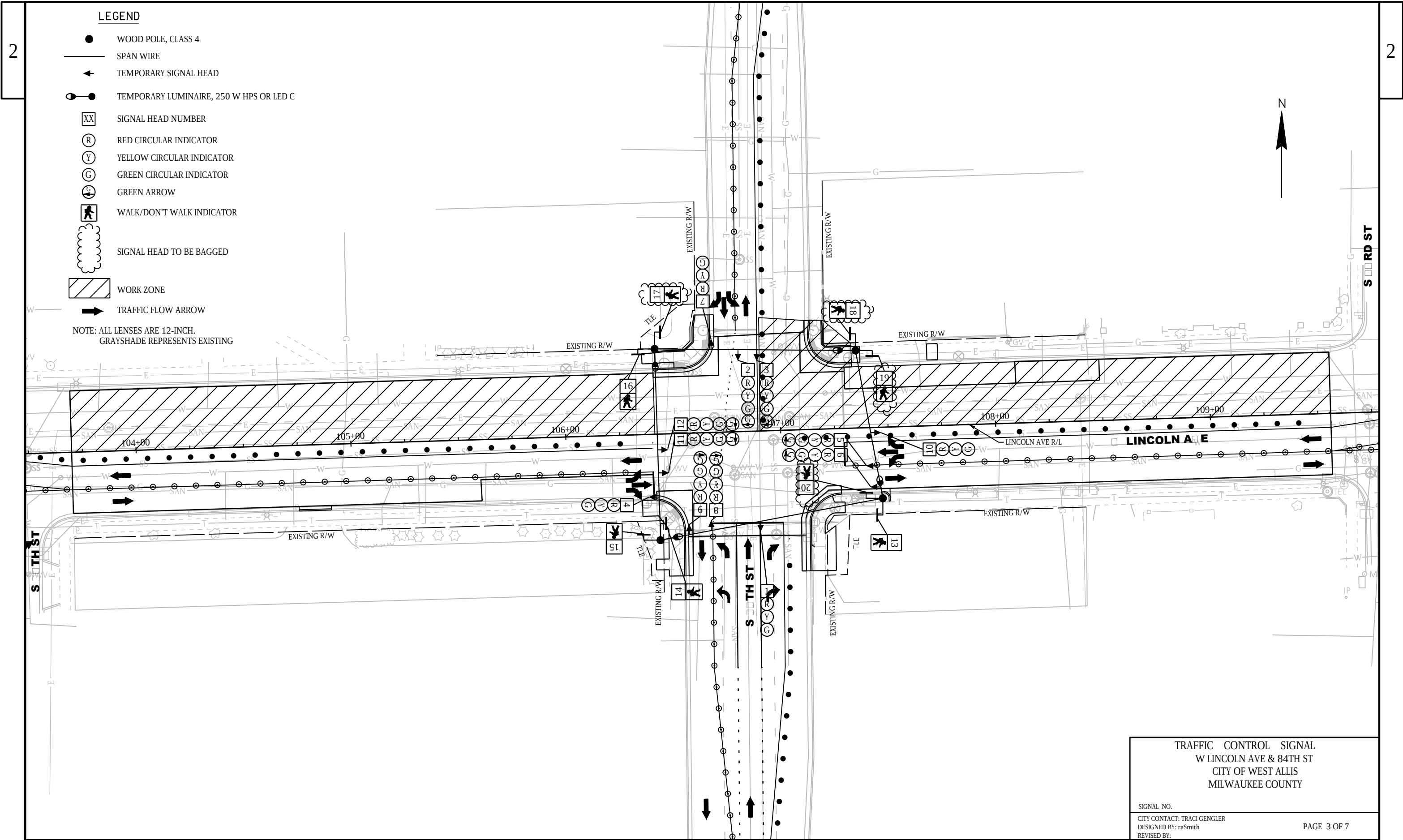
TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 84TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

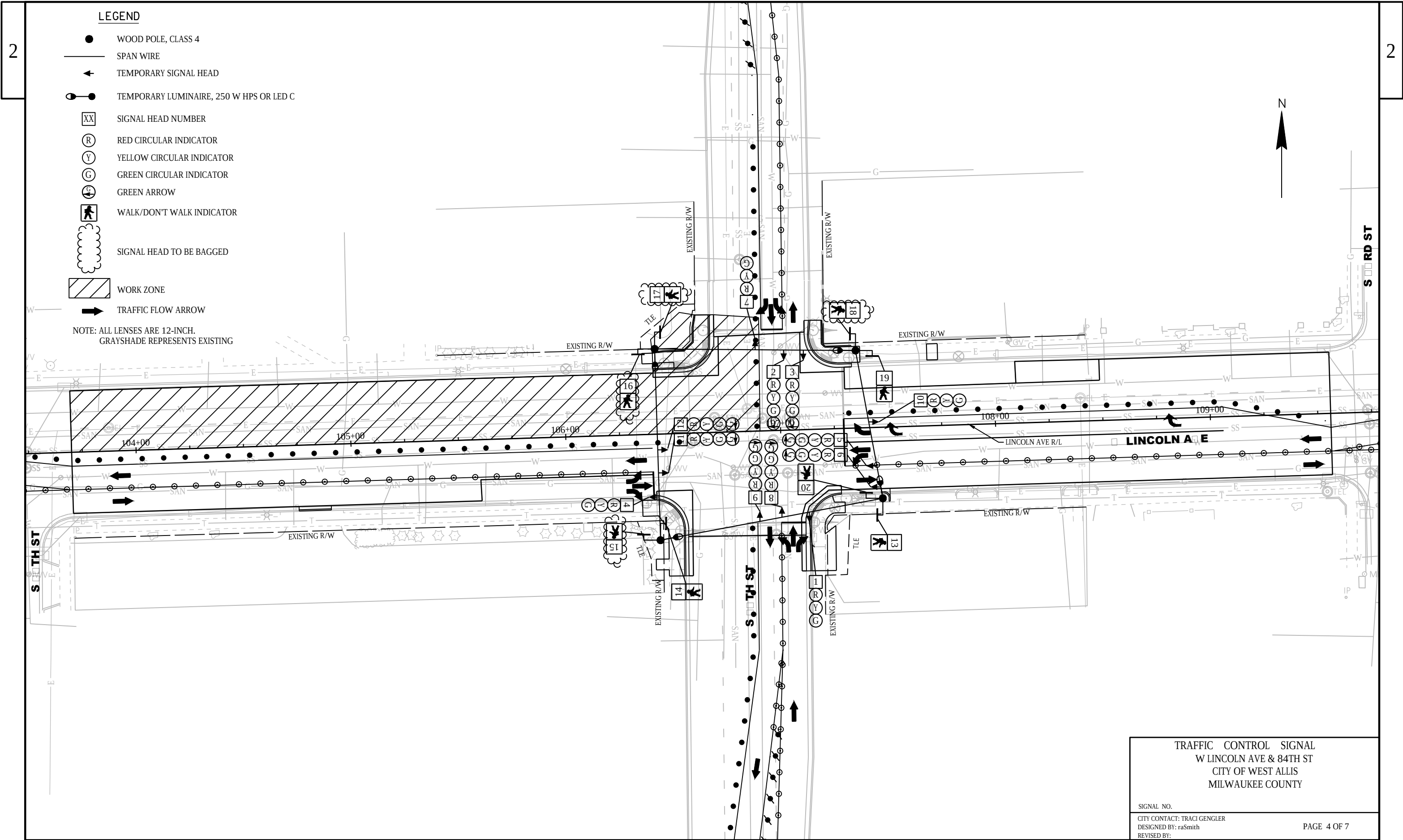
SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 7







TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 84TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 4 OF 7

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

TEMPORARY SIGNAL PLAN - STAGE 2B

SHEET

43

E

FILE NAME: T:\1191100\CIVIL3D\21100003\SHEETSPLAN\024104-ST-2B.DWG
LAYOUT NAME - 84

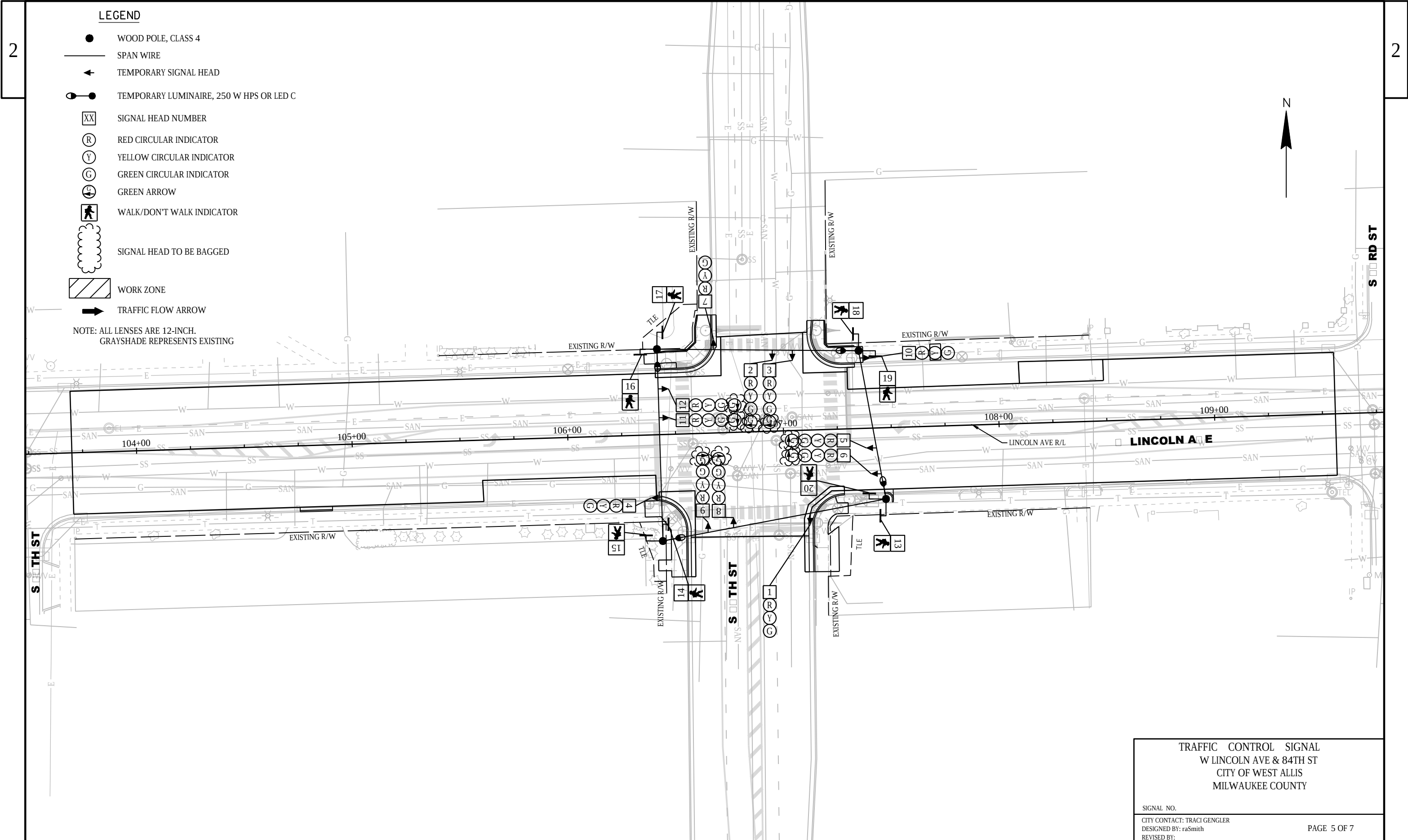
PLOT DATE: 1/20/2021 4:30 PM

PLOT BY: AXT, ANDREW

PLOT NAME:

PLOT SCALE: 1 IN:40 FT

WISDOT/CADDs SHEET 42



LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

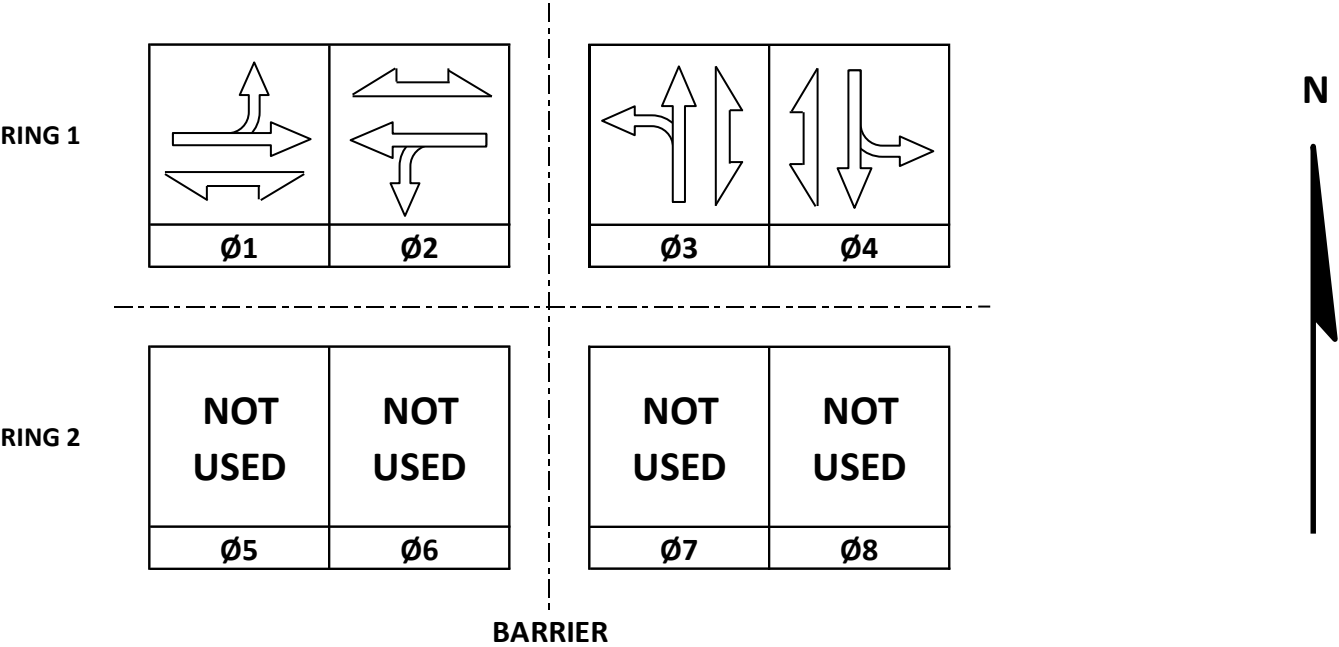
NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 84TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.
CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 5 OF 7

	HEAD NUMBERS	F L A S H
Ø1	4,5,6	R
Ø2	10,11,12	R
Ø3	1,2,3	R
Ø4	7,8,9	R
Ø5		
Ø6		
Ø7		
Ø8		
Ø1P	13,14	
Ø2P	17,18	
Ø3P	19,20	
Ø4P	15,16	
OLA		
OLB		
OLC		
OLD		



N

CONTROLLER LOGIC

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

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

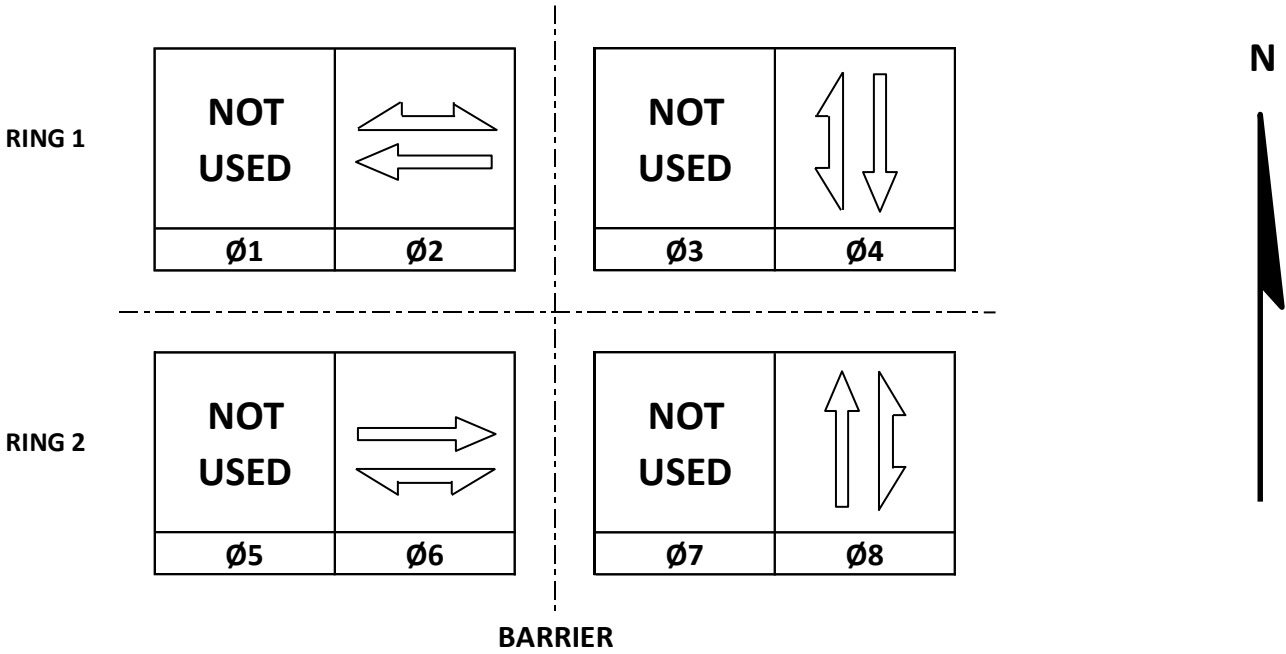
TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER	
CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

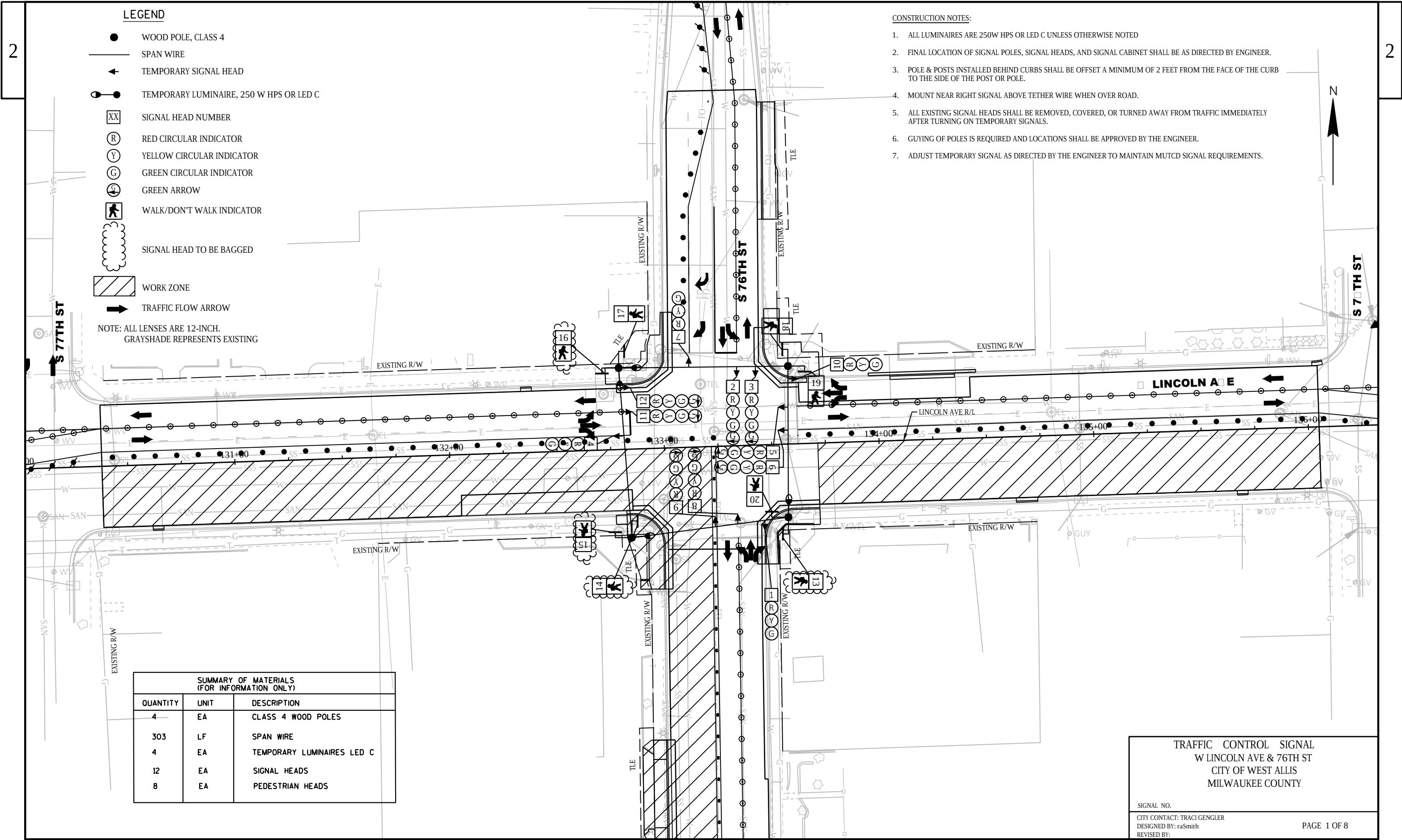
TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE LIGHTING CABINET	

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

W. LINCOLN AVE & 84TH ST		
CITY OF WEST ALLIS		
MILWAUKEE COUNTY		
SIGNAL NO:	CABINET TYPE:	
		CONTROLLER TYPE:
DATE: 11/1/2020	PAGE NO. 6 OF 7	

	HEAD NUMBERS	F L A S H
Ø1		
Ø2	10,11,12	R
Ø3		
Ø4	7,8,9	R
Ø5		
Ø6	4,5,6	R
Ø7		
Ø8	1,2,3	R
Ø2P	17,18	
Ø4P	15,16	
Ø6P	13,14	
Ø8P	19,20	
OLA		
OLB		
OLC		
OLD		





LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

- ALL LUMINAIRES ARE 250W HPS OR LED C UNLESS OTHERWISE NOTED
- FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY ENGINEER.
- POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF THE CURB TO THE SIDE OF THE POST OR POLE.
- MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
- ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
- GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
- ADJUST TEMPORARY SIGNAL AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.

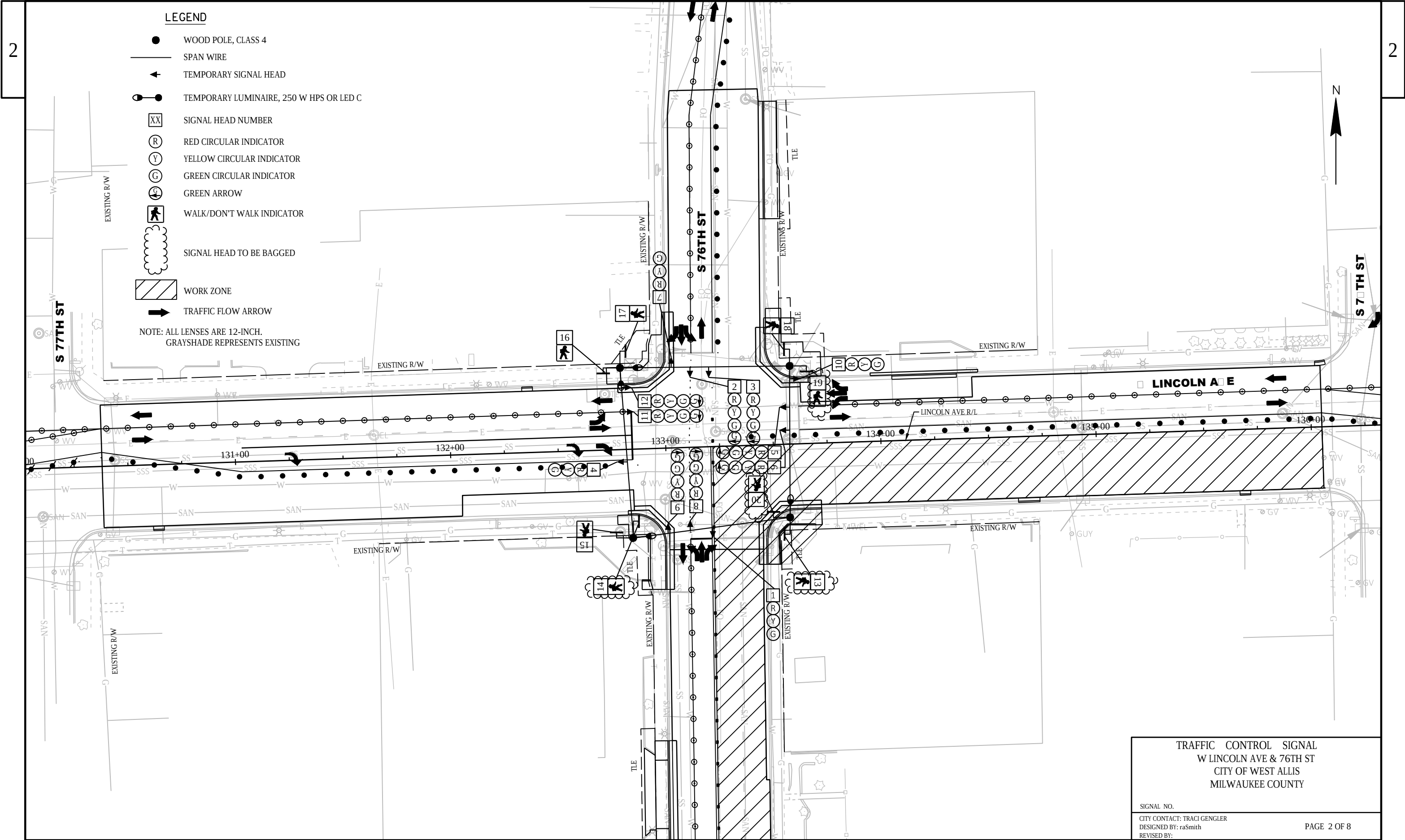
SUMMARY OF MATERIALS (FOR INFORMATION ONLY)		
QUANTITY	UNIT	DESCRIPTION
4	EA	CLASS 4 WOOD POLES
303	LF	SPAN WIRE
4	EA	TEMPORARY LUMINAIRES LED C
12	EA	SIGNAL HEADS
8	EA	PEDESTRIAN HEADS

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 76TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 8



LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 76TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 2 OF 8

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

TEMPORARY SIGNAL PLAN - STAGE 1B

SHEET

48

E

FILE NAME : T:\1191100\CIVIL3D\21100003\SHEETSP\AN\024102-ST-1B.DWG
LAYOUT NAME - 76

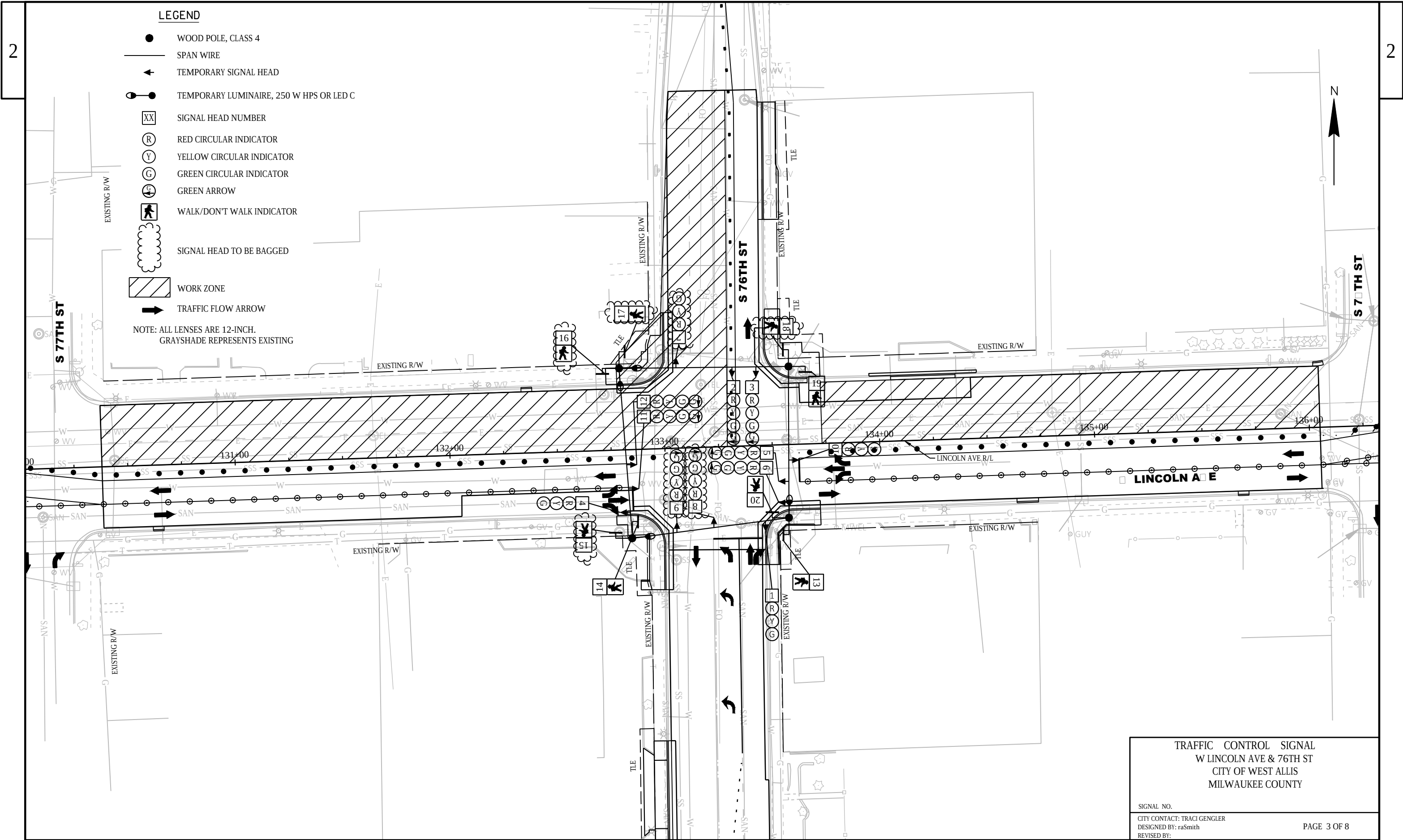
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PLOT BY : AXT, ANDREW

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42



LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 76TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 3 OF 8

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

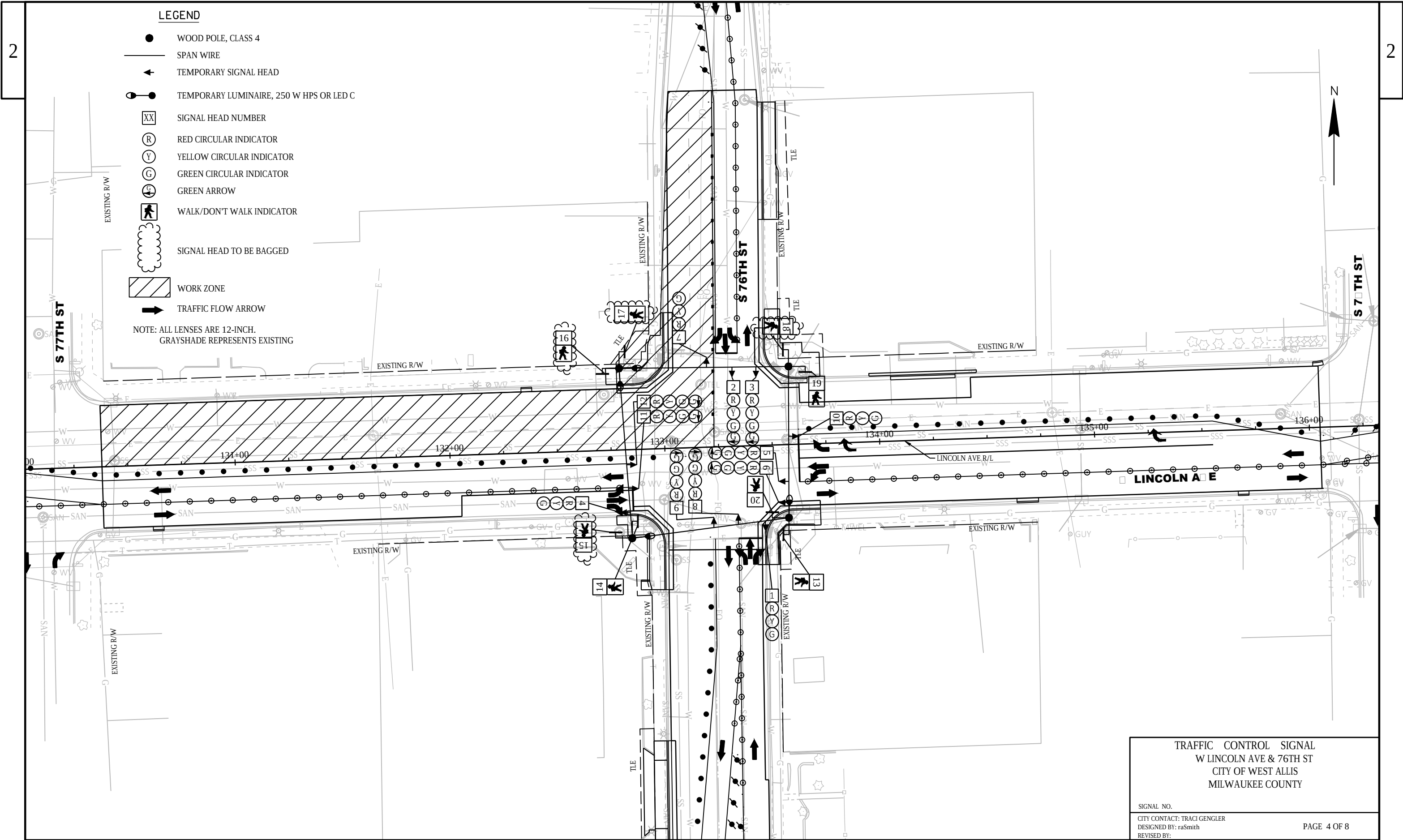
COUNTY: MILWAUKEE

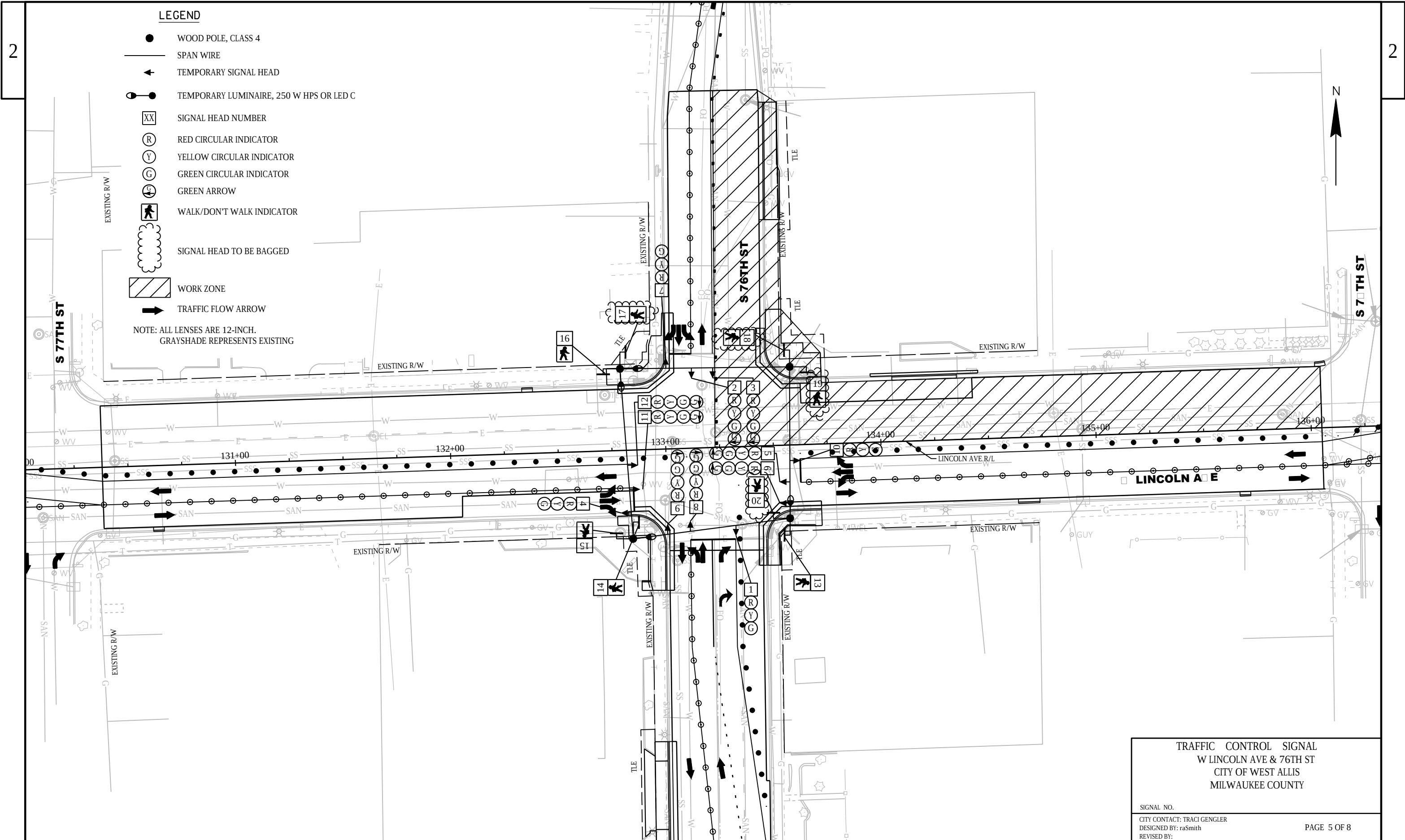
TEMPORARY SIGNAL PLAN - STAGE 2A

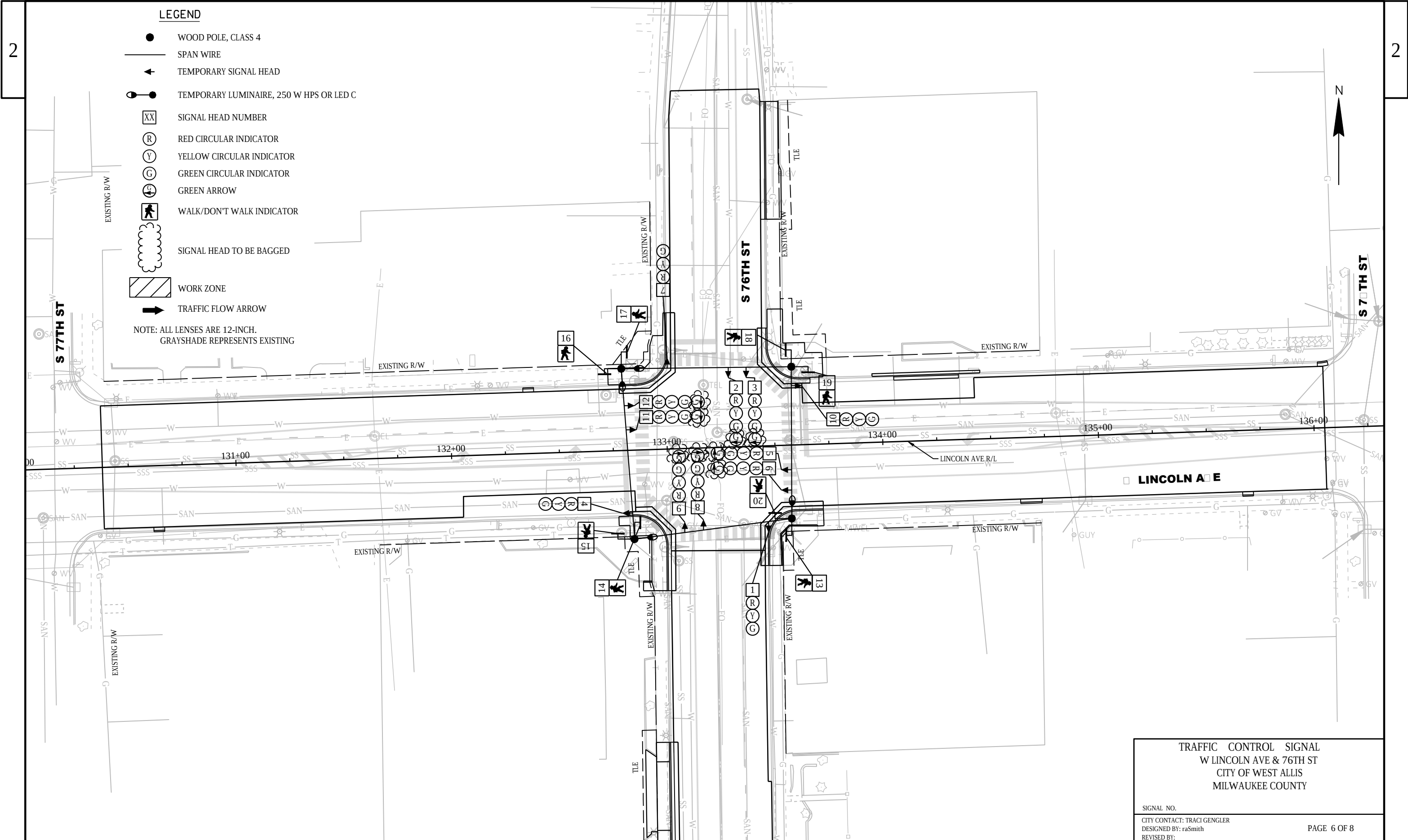
SHEET

49

E







LEGEND

- WOOD POLE, CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250 W HPS OR LED C
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- SIGNAL HEAD TO BE BAGGED
- WORK ZONE
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 76TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO.

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 6 OF 8

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

TEMPORARY SIGNAL PLAN - STAGE 3

SHEET

52

E

FILE NAME: T:\1191100\CIVIL3D\21100003\SHEETSPLAN\024106-ST-3.DWG
LAYOUT NAME - 76

PLOT DATE: 1/20/2021 4:30 PM

PLOT BY: AXT, ANDREW

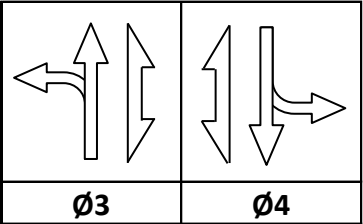
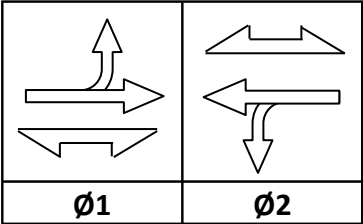
PLOT NAME:

PLOT SCALE: 1 IN:40 FT

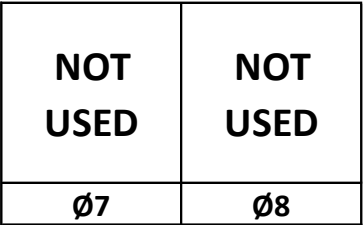
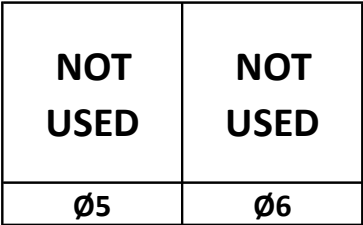
WISDOT/CADDs SHEET 42

	HEAD NUMBERS	F L A S H
Ø1	4,5,6	R
Ø2	10,11,12	R
Ø3	1,2,3	R
Ø4	7,8,9	R
Ø5		
Ø6		
Ø7		
Ø8		
Ø1P	13,14	
Ø2P	17,18	
Ø3P	19,20	
Ø4P	15,16	
OLA		
OLB		
OLC		
OLD		

RING 1



RING 2



BARRIER

N

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

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

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

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

CONTROLLER LOGIC

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

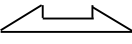
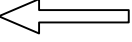
GENERAL NOTES:

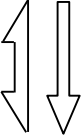
1. OMIT PHASE 4 DURING STAGE 2A. SEE TIMING PLAN.

W. LINCOLN AVE & 76TH ST	
CITY OF WEST ALLIS	
MILWAUKEE COUNTY	
SIGNAL NO:	CABINET TYPE:
CONTROLLER TYPE:	
DATE: 11/1/2020	PAGE NO. 7 OF 8

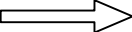
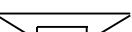
	HEAD NUMBERS	F L A S H
Ø1		
Ø2	10,11,12	R
Ø3		
Ø4	7,8,9	R
Ø5		
Ø6	4,5,6	R
Ø7		
Ø8	1,2,3	R
Ø2P	17,18	
Ø4P	15,16	
Ø6P	13,14	
Ø8P	19,20	
OLA		
OLB		
OLC		
OLD		

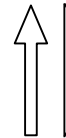
RING 1

NOT USED	 
Ø1	Ø2

NOT USED	 
Ø3	Ø4

RING 2

NOT USED	 
Ø5	Ø6

NOT USED	 
Ø7	Ø8

BARRIER

N



CONTROLLER LOGIC

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

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

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

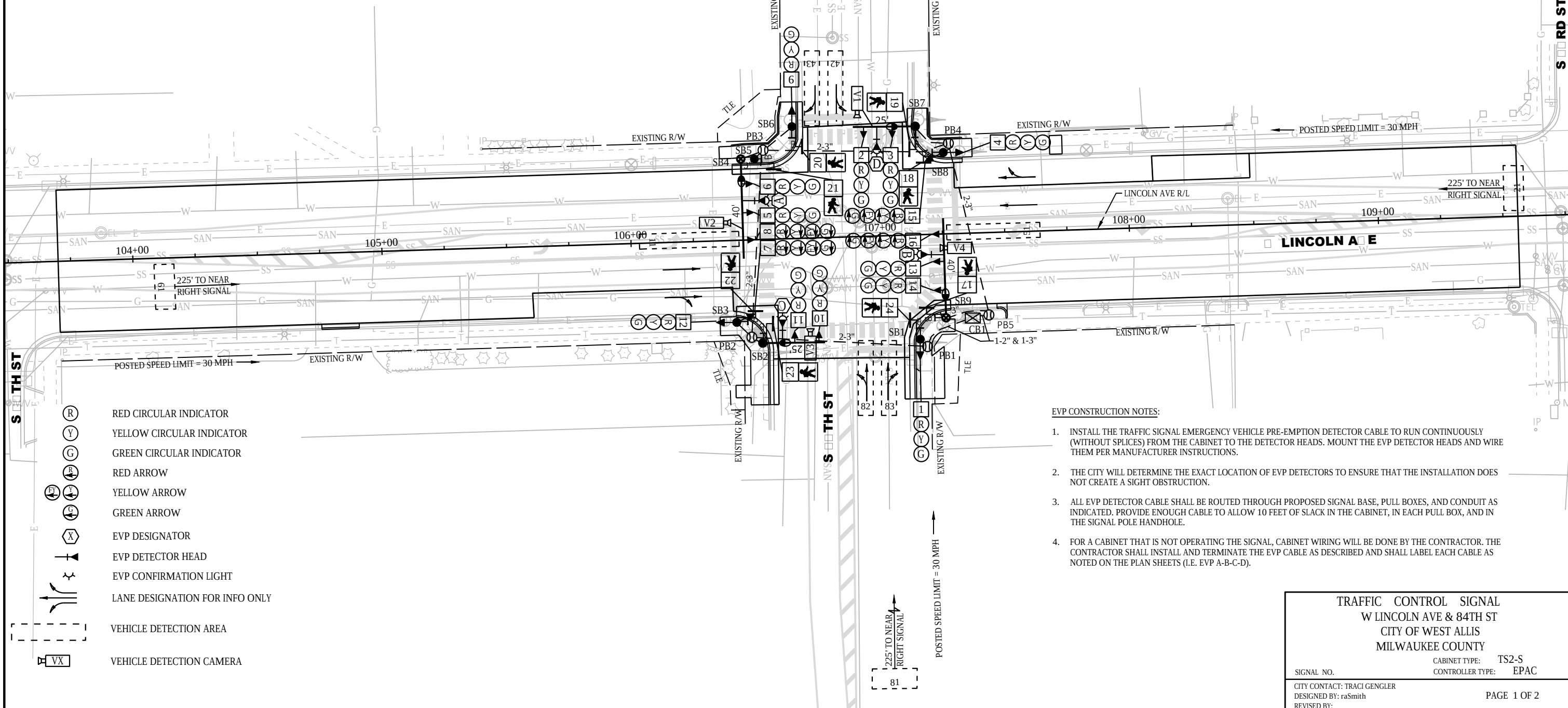
TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE LIGHTING CABINET	

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

W. LINCOLN AVE & 76TH ST	
CITY OF WEST ALLIS	
MILWAUKEE COUNTY	
SIGNAL NO:	CABINET TYPE:
CONTROLLER TYPE:	
DATE: 11/1/2020	PAGE NO. 8 OF 8

LEGEND

- ☒ TRAFFIC CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- XX' ● SIGNAL HEAD, MAST-ARM MOUNT
- ← ● SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- (XX) ⊗ MONOTUBE BASE, POLE, 35'-45' ARM
- ⊙ PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- Ⓜ WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- Ⓜ PEDESTRIAN HEAD WITH PUSH BUTTON



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM.
2. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. PROPOSED PAVEMENT MARKINGS & DETECTABLE WARNING FIELDS GRAYSHADED FOR PLAN CLARITY.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASE, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 84TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. CABINET TYPE: TS2-S
CONTROLLER TYPE: EPAC

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

TRAFFIC SIGNAL PLAN

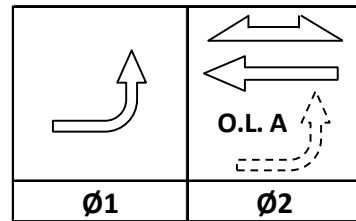
SHEET

55

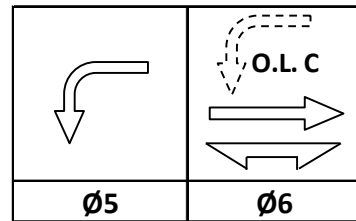
E

	HEAD NUMBERS	F L A S H
Ø1	15,16	-
Ø2	4,5,6	R
Ø3		
Ø4	9,10,11	R
Ø5	7,8	-
Ø6	12,13,14	R
Ø7		
Ø8	1,2,3	R
Ø2P	19,20	
Ø4P	21,22	
Ø6P	23,24	
Ø8P	17,18	
OLA	15,16	R
OLB		
OLC	7,8	R
OLD		

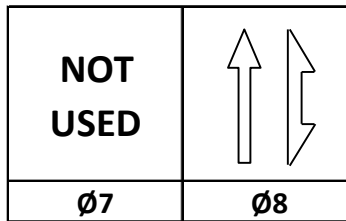
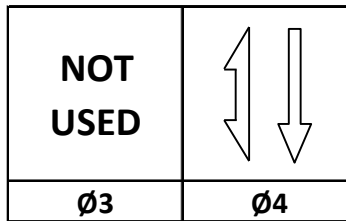
RING 1



RING 2



BARRIER



N

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	8+4

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

AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	41	43	51	61	81	83
ASSIGNED PHASE	2	2	4	4	6	6	8	8
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND			X				X	
DELAY				X				X

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)			42				82	
ASSIGNED PHASE			4				8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

19	17	23	21	27	25	31	29
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

DETECTOR INPUT
PLAN LOOP DETECTOR*(S)
ASSIGNED PHASE
OPERATION MODE
SWITCH
EXTEND
DELAY

20	18	24	22	28	26	32	30
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

DETECTOR INPUT
PLAN LOOP DETECTOR*(S)
ASSIGNED PHASE
OPERATION MODE
SWITCH
EXTEND
DELAY

W. LINCOLN AVENUE & S. 84TH STREET	
CITY OF WEST ALLIS	
MILWAUKEE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: EPAC	
DATE: NOVEMBER 2020	PAGE NO. 2 OF 2

PROJECT ID:	2110-00-73
INTERSECTION:	W. Lincoln Avenue & S. 84th Street

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	11/1/20
------	---------

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

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

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB2
PB3	SB5
PB4	SB8
PB5	CB1

LIGHTING UF 10 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB4
CB1	SB9
SB9	SB7

EMERGENCY VEHICLE PREEMPTION (EVP) CABLE	
FROM	TO
CB1	HEAD A (SB4)
CB1	HEAD B (SB9)
CB1	HEAD C (SB2)
CB1	HEAD D (SB7)

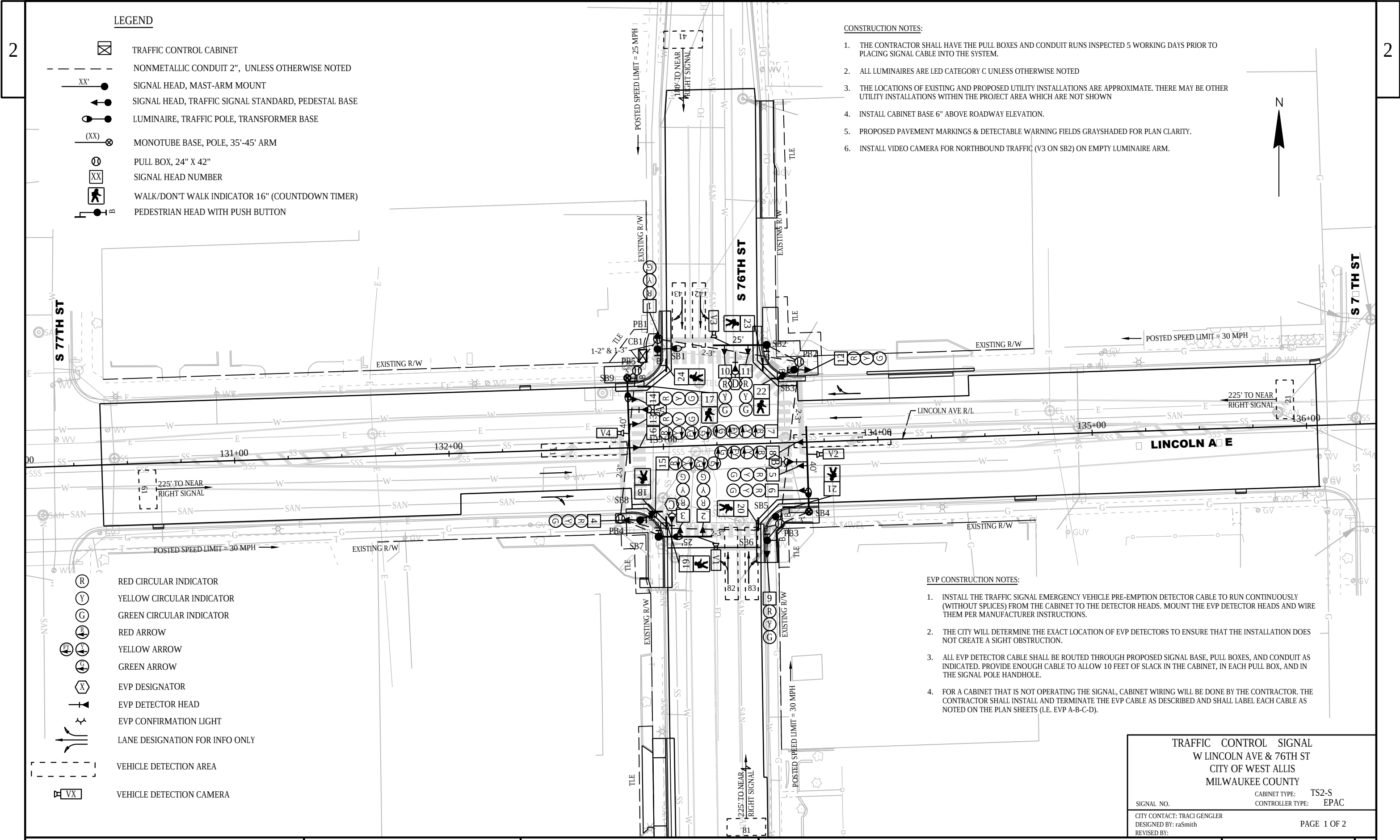
VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB7)
CB1	V2 (SB4)
CB1	V3 (SB2)
CB1	V4 (SB9)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications.

*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.

*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.



LEGEND

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM.
2. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. PROPOSED PAVEMENT MARKINGS & DETECTABLE WARNING FIELDS GRAYSHADED FOR PLAN CLARITY.
6. INSTALL VIDEO CAMERA FOR NORTHBOUND TRAFFIC (V3 ON SB2) ON EMPTY LUMINAIRE ARM.

EVP CONSTRUCTION NOTES:

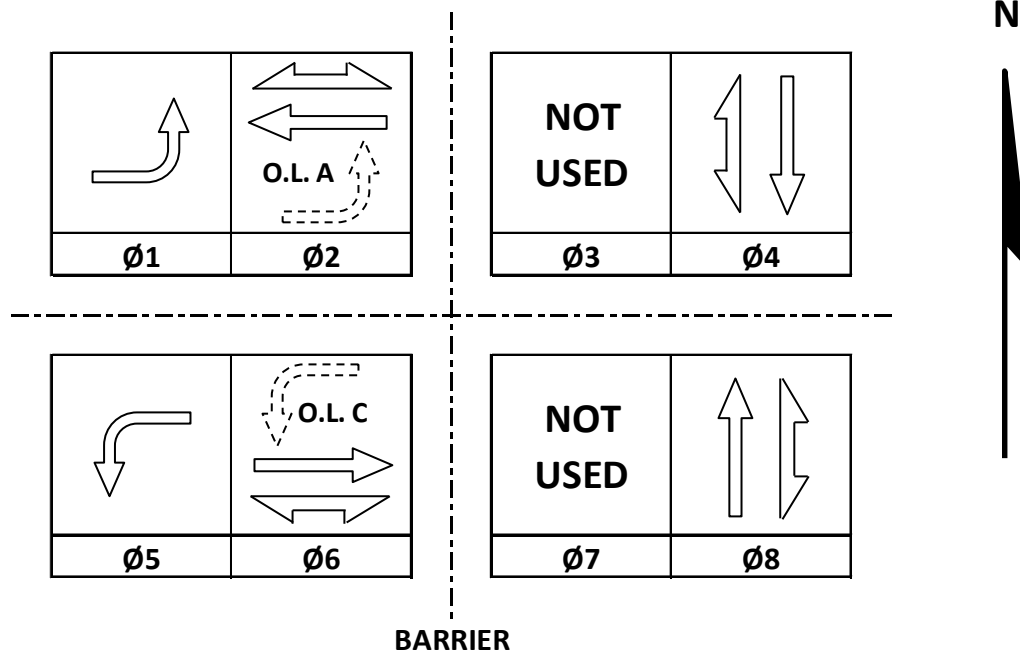
1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE CITY WILL DETERMINE THE EXACT LOCATION OF EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
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4. FOR A CABINET THAT IS NOT OPERATING THE SIGNAL, CABINET WIRING WILL BE DONE BY THE CONTRACTOR. THE CONTRACTOR SHALL INSTALL AND TERMINATE THE EVP CABLE AS DESCRIBED AND SHALL LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. EVP A-B-C-D).

TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 76TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. CABINET TYPE: TS2-S
CONTROLLER TYPE: EPAC

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

	HEAD NUMBERS	F L A S H
Ø1	7,8	-
Ø2	12,13,14	R
Ø3		
Ø4	1,2,3	R
Ø5	15,16	-
Ø6	4,5,6	R
Ø7		
Ø8	9,10,11	R
Ø2P	23,24	
Ø4P	17,18	
Ø6P	19,20	
Ø8P	21,22	
OLA	7,8	R ←
OLB		
OLC	15,16	R ←
OLD		



CONTROLLER LOGIC

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

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

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE				
EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	8+4

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

AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	41	43	51	61	81	83
ASSIGNED PHASE	2	2	4	4	6	6	8	8
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND			X				X	
DELAY				X				X

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)			42				82	
ASSIGNED PHASE			4				8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

	19	17	23	21	27	25	31	29
	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

	20	18	24	22	28	26	32	30
	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

W. LINCOLN AVENUE & S. 76TH STREET	
CITY OF WEST ALLIS	
MILWAUKEE COUNTY	
SIGNAL NO:	CABINET TYPE: TS2
CONTROLLER TYPE: EPAC	
DATE: NOVEMBER 2020	PAGE NO. 2 OF 2

PROJECT ID:	2110-00-73
INTERSECTION:	W. Lincoln Avenue & S. 76th Street

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	11/1/20
------	---------

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

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

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB3
PB3	SB5
PB4	SB8
PB5	SB9

LIGHTING UF 10 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB4
CB1	SB9
SB9	SB7

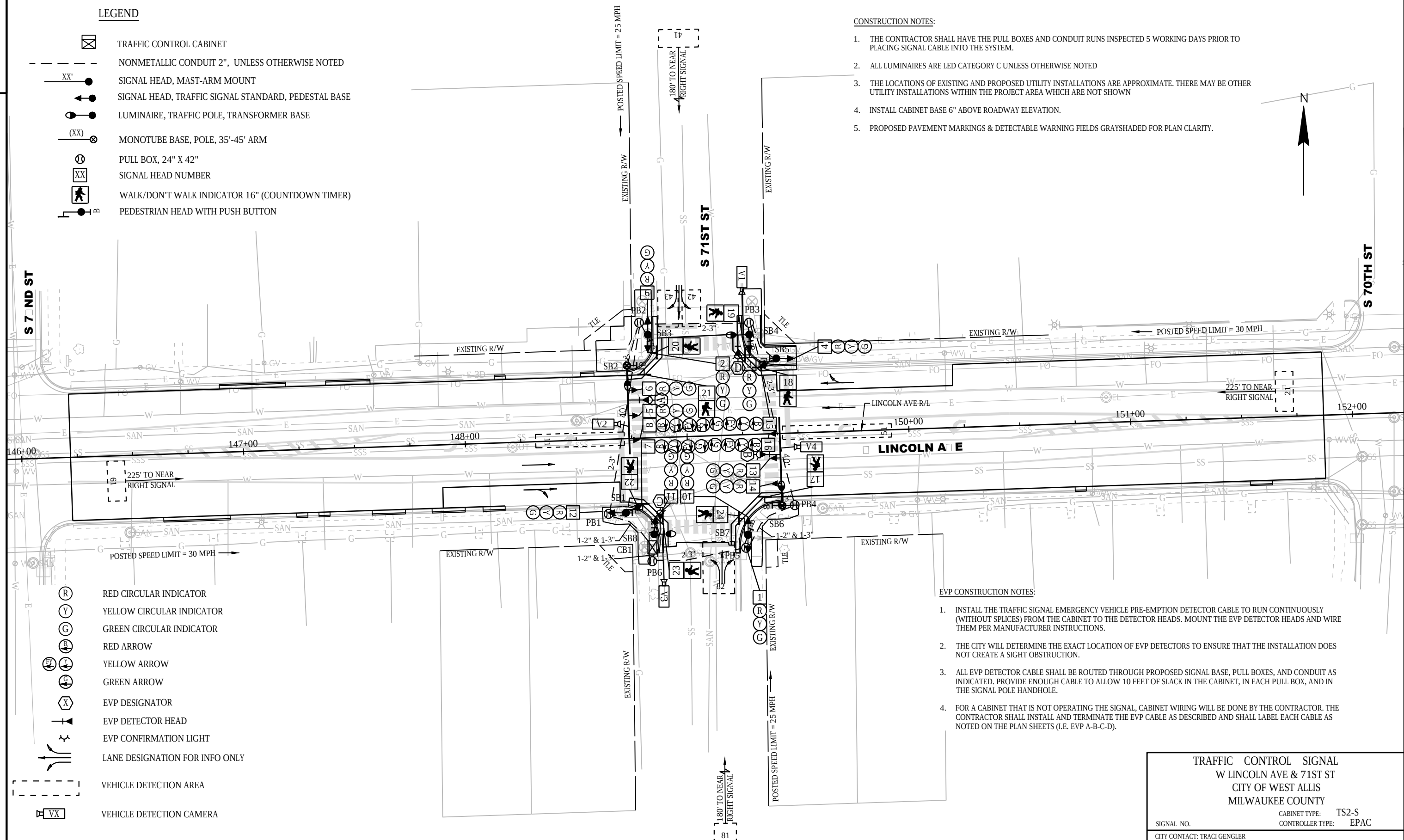
EMERGENCY VEHICLE PREEMPTION (EVP) CABLE	
FROM	TO
CB1	HEAD A (SB9)
CB1	HEAD B (SB4)
CB1	HEAD C (SB7)
CB1	HEAD D (SB2)

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

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications.
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM.
2. ALL LUMINAIRES ARE LED CATEGORY C UNLESS OTHERWISE NOTED
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN
4. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
5. PROPOSED PAVEMENT MARKINGS & DETECTABLE WARNING FIELDS GRAYSHADED FOR PLAN CLARITY.



EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
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TRAFFIC CONTROL SIGNAL
W LINCOLN AVE & 71ST ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

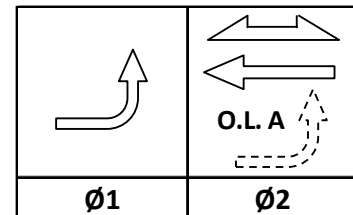
SIGNAL NO.	CABINET TYPE: TS2-S CONTROLLER TYPE: EPAC
------------	--

CITY CONTACT: TRACI GENGLER
DESIGNED BY: raSmith
REVISED BY:

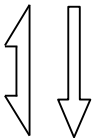
PAGE 1 OF 2

	HEAD NUMBERS	F L A S H
Ø1	15,16	-
Ø2	4,5,6	R
Ø3		
Ø4	9,10,11	R
Ø5	7,8	-
Ø6	12,13,14	R
Ø7		
Ø8	1,2,3	R
Ø2P	19,20	
Ø4P	21,22	
Ø6P	23,24	
Ø8P	17,18	
OLA	15,16	R
OLB		
OLC	7,8	R
OLD		

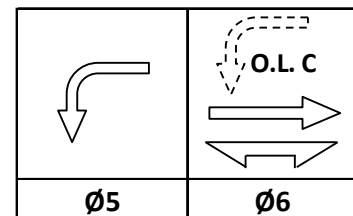
RING 1



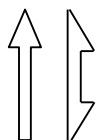
NOT USED



RING 2



NOT USED



BARRIER

N

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	8+4

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

AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	21	41	43	51	61	81	
ASSIGNED PHASE	2	2	4	4	6	6	8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND			X				X	
DELAY				X				

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)			42				82	
ASSIGNED PHASE			4				8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

	19	17	23	21	27	25	31	29
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

	20	18	24	22	28	26	32	30
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

W. LINCOLN AVENUE & S. 71ST STREET

CITY OF WEST ALLIS

MILWAUKEE COUNTY

SIGNAL NO: CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE: NOVEMBER 2020 PAGE NO. 2 OF 2

PROJECT ID:	2110-00-73
INTERSECTION:	W. Lincoln Avenue & S. 71st Street

Signal Wire Color Coding	BLK - black	RED - red	GRN - green
	WHT - white	BLU - blue	ORG - orange

DATE	11/1/20
------	---------

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

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

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB3
PB3	SB4
PB4	SB6
PB5	SB7
PB6	CB1

LIGHTING UF 10 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB4
CB1	SB8
SB8	SB6

EMERGENCY VEHICLE PREEMPTION (EVP) CABLE	
FROM	TO
CB1	HEAD A (SB2)
CB1	HEAD B (SB6)
CB1	HEAD C (SB8)
CB1	HEAD D (SB4)

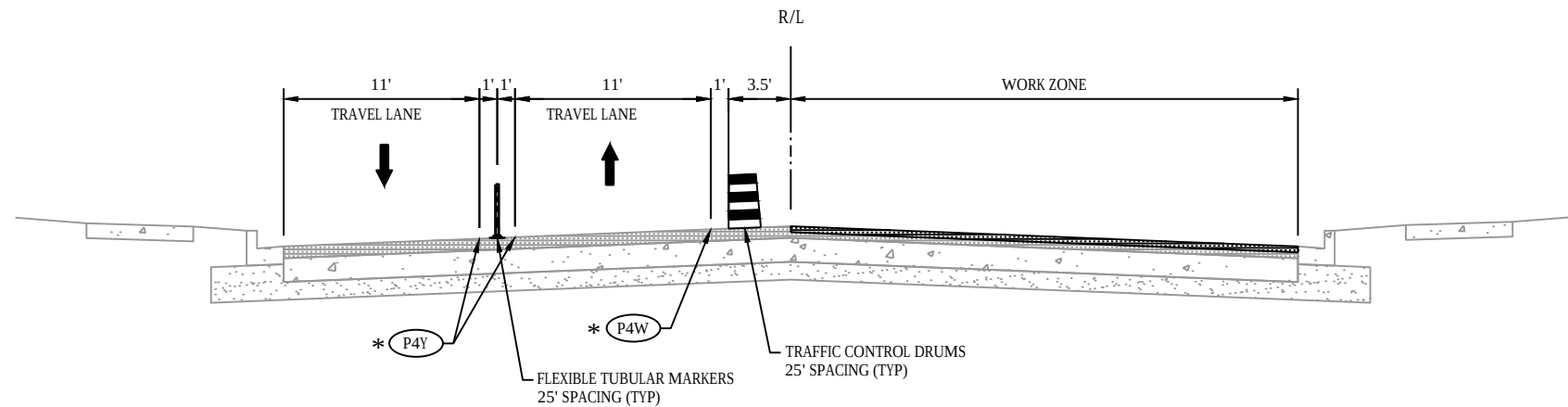
VIDEO DETECTION CABLE	
FROM	TO
CB1	V1 (SB4)
CB1	V2 (SB2)
CB1	V3 (SB8)
CB1	V4 (SB6)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications.

*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.

*At the signal bases, connect one terminal from the pedestrian push buttons to the color indicated in the chart. Connect the other terminal to the grounded conductor.

*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

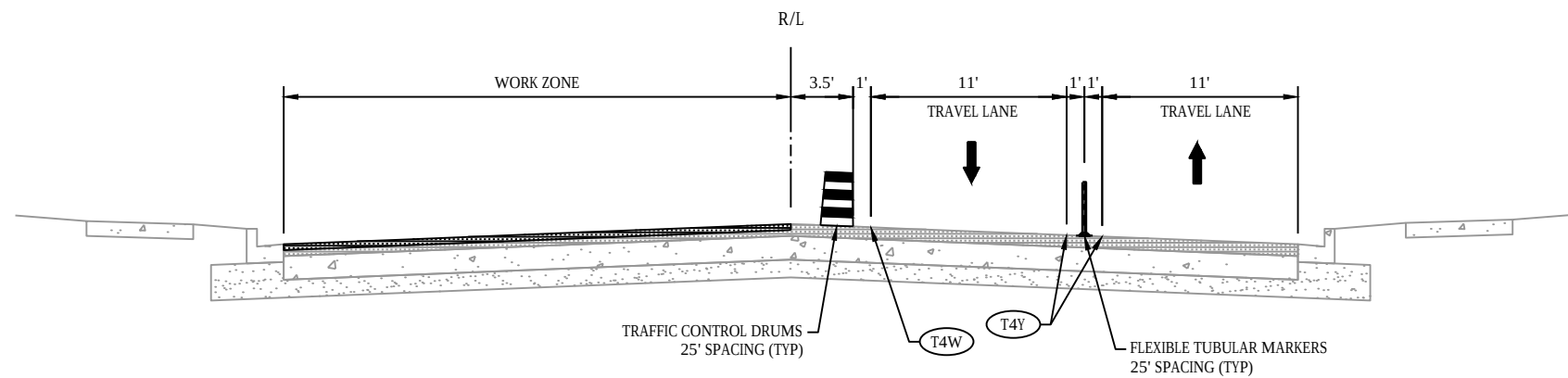


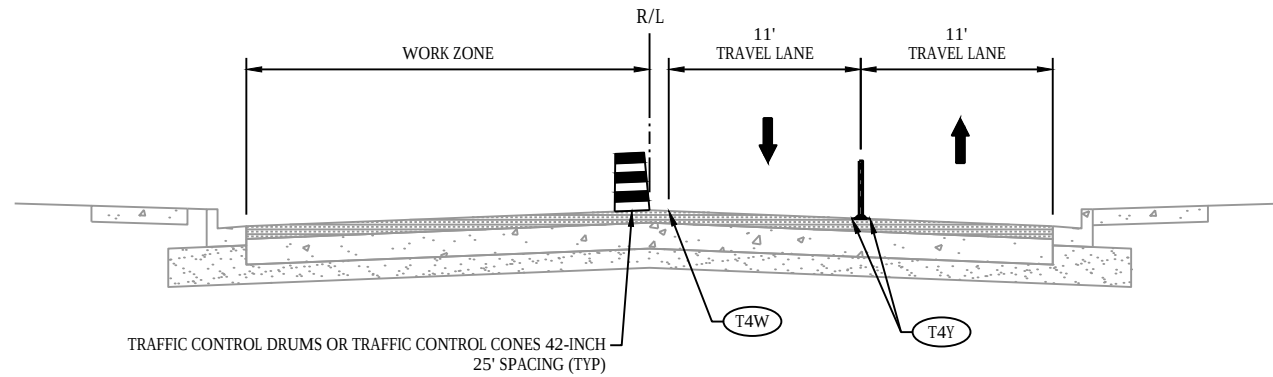
TRAFFIC CONTROL NOTES:

1. ALL SIGNS SHALL BE 48"X48" UNLESS NOTED OTHERWISE.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. USE SDD TRAFFIC CONTROL, SINGLE RIGHT/LEFT LANE CLOSURE, UNDIVIDED NON FREEWAY/EXPRESSWAY. USE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS.
4. PERMANENT PAVEMENT MARKING MAY BE INSTALLED WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECT BY THE ENGINEER.
5. MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN WORKING IMMEDIATELY IN FRONT OF DRIVEWAY.
6. MASK OR REMOVE EXISTING CONFLICTING PAVEMENT MARKINGS. MASKING AND REMOVING PAVEMENT MARKINGS NOT SHOWN FOR PLAN READABILITY.
7. COVER ALL EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.
8. MAINTAIN ONE 11' LANE IN EACH DIRECTION ON W LINCOLN AVE. MAINTAIN ONE 10' LANE IN EACH DIRECTION ON S 84TH ST AND S 76TH ST EXCEPT IN STAGE 2A ON S 76TH ST.
9. SINGLE-LANE CLOSURES ON 84TH, 76TH, AND 71ST STREETS MAY BE USED DURING CURB & GUTTER AND SIDEWALK WORK.
10. WORK AT 76TH STREET SHALL NOT PROCEED CONCURRENTLY WITH WORK AT EITHER S 84TH ST OR S 71ST ST. WORK AT S 84TH ST AND S 71ST ST MAY PROCEED CONCURRENTLY.
11. TEMPORARILY SIGN NO-PARKING ON BOTH SIDES OF THE ROAD AS FOLLOWS:
 - W LINCOLN AVE
 - BETWEEN 86TH AND 82ND STREETS DURING WORK AT 84TH STREET
 - BETWEEN 78TH AND 74TH STREETS DURING WORK AT 76TH STREET
 - BETWEEN 73RD AND 69TH STREETS DURING WORK AT 71ST STREET
 - S 84TH ST
 - STA 3+50 TO STA 11+00
 - S 76TH ST
 - STA 17+00 TO STA 24+25
12. TRAFFIC CONTROL FOR STAGE 3 IS NOT SHOWN. CLOSE THE OUTSIDE LANE OF W. LINCOLN AVE IN EACH DIRECTION ONE BLOCK EAST AND WEST OF THE S 84TH ST, S 76TH ST, AND S 71ST ST INTERSECTIONS. INSTALL ABOVEGROUND MONOTUBE AND TRAFFIC SIGNAL EQUIPMENT. IMPLEMENT TRAFFIC CONTROL IN ACCORDANCE WITH SDDS AND AS DIRECTED BY THE ENGINEER. USE THE FOLLOWING SDDS:
 - TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
 - TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

* TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE OR YELLOW)

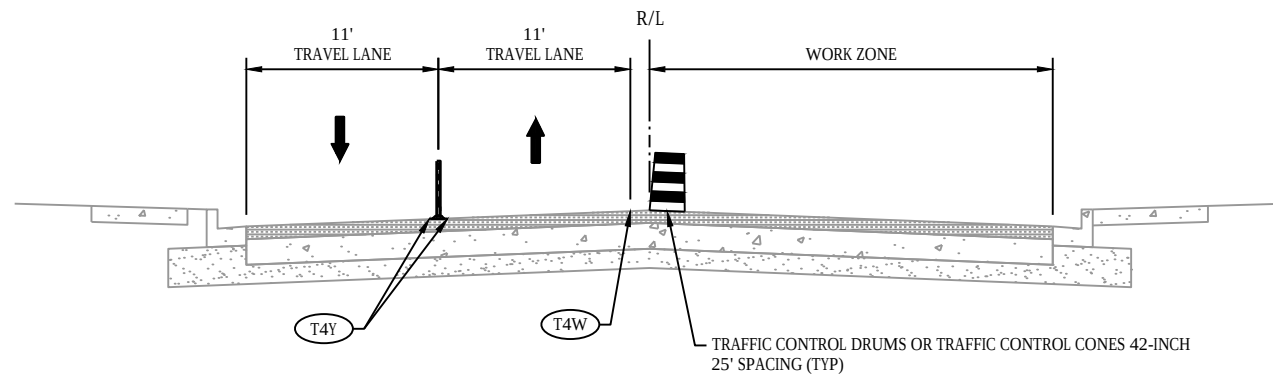
FOR TEMPORARY MARKINGS ON NEW HMA PAVEMENT OR ON EXISTING PAVEMENT TO REMAIN BEYOND THE WORK ZONES





TRAFFIC CONTROL - STAGE 1A & 2B
84TH STREET

PROVIDE SB RIGHT TURN LANE
NORTH OF LINCOLN AVENUE IN STAGE 1A



TRAFFIC CONTROL - STAGE 1B & 2A
84TH STREET

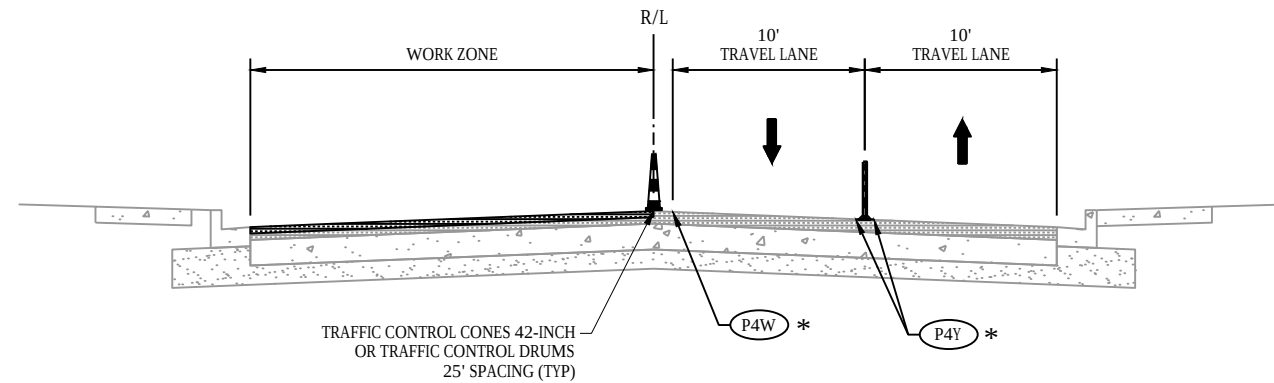
PROVIDE NB RIGHT TURN LANE
SOUTH OF LINCOLN AVENUE IN STAGE 2A

TRAFFIC CONTROL NOTES:

1. ALL SIGNS SHALL BE 48"X48" UNLESS NOTED OTHERWISE.
2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. USE SDD TRAFFIC CONTROL, SINGLE RIGHT/LEFT LANE CLOSURE, UNDIVIDED NON FREEWAY/EXPRESSWAY. USE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS.
4. PERMANENT PAVEMENT MARKING MAY BE INSTALLED WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECT BY THE ENGINEER.
5. MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN WORKING IMMEDIATELY IN FRONT OF DRIVEWAY.
6. MASK OR REMOVE EXISTING CONFLICTING PAVEMENT MARKINGS. MASKING AND REMOVING PAVEMENT MARKINGS NOT SHOWN FOR PLAN READABILITY.
7. COVER ALL EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.
8. MAINTAIN ONE 11' LANE IN EACH DIRECTION ON W LINCOLN AVE. MAINTAIN ONE 10' LANE IN EACH DIRECTION ON S 84TH ST AND S 76TH ST EXCEPT IN STAGE 2A ON S 76TH ST.
9. SINGLE-LANE CLOSURES ON 84TH, 76TH, AND 71ST STREETS MAY BE USED DURING CURB & GUTTER AND SIDEWALK WORK.
10. WORK AT 76TH STREET SHALL NOT PROCEED CONCURRENTLY WITH WORK AT EITHER S 84TH ST OR S 71ST ST. WORK AT S 84TH ST AND S 71ST ST MAY PROCEED CONCURRENTLY.
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 - BETWEEN 78TH AND 74TH STREETS DURING WORK AT 76TH STREET
 - BETWEEN 73RD AND 69TH STREETS DURING WORK AT 71ST STREET
 - S 84TH ST
 - STA 3+50 TO STA 11+00
 - S 76TH ST
 - STA 17+00 TO STA 24+25

* TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE OR YELLOW)

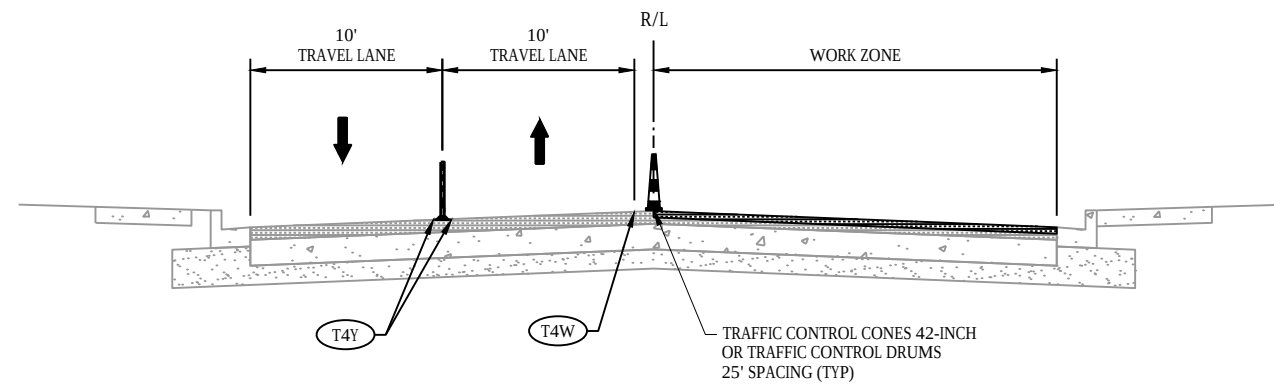
FOR TEMPORARY MARKINGS ON NEW HMA PAVEMENT OR ON EXISTING PAVEMENT TO REMAIN BEYOND THE WORK ZONES



TRAFFIC CONTROL - STAGE 1A & 2B

76TH STREET

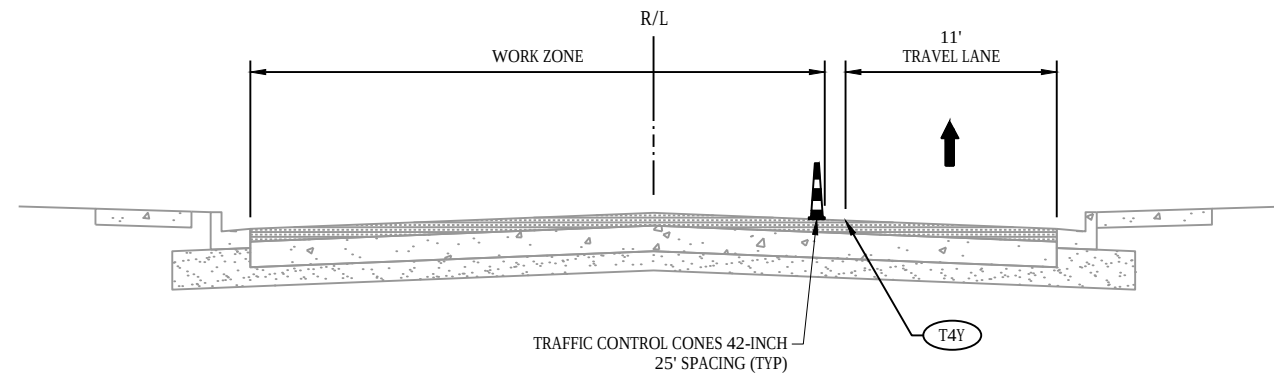
PROVIDE SB RIGHT TURN LANE
NORTH OF LINCOLN AVENUE IN STAGE 1A



TRAFFIC CONTROL - STAGE 1B & 2C

76TH STREET

PROVIDE NB RIGHT TURN LANE
SOUTH OF LINCOLN AVENUE IN STAGE 2C



TRAFFIC CONTROL - STAGE 2A

76TH STREET

MAINTAIN ALL TRAFFIC LANES SOUTH OF LINCOLN AVENUE

TRAFFIC CONTROL NOTES:

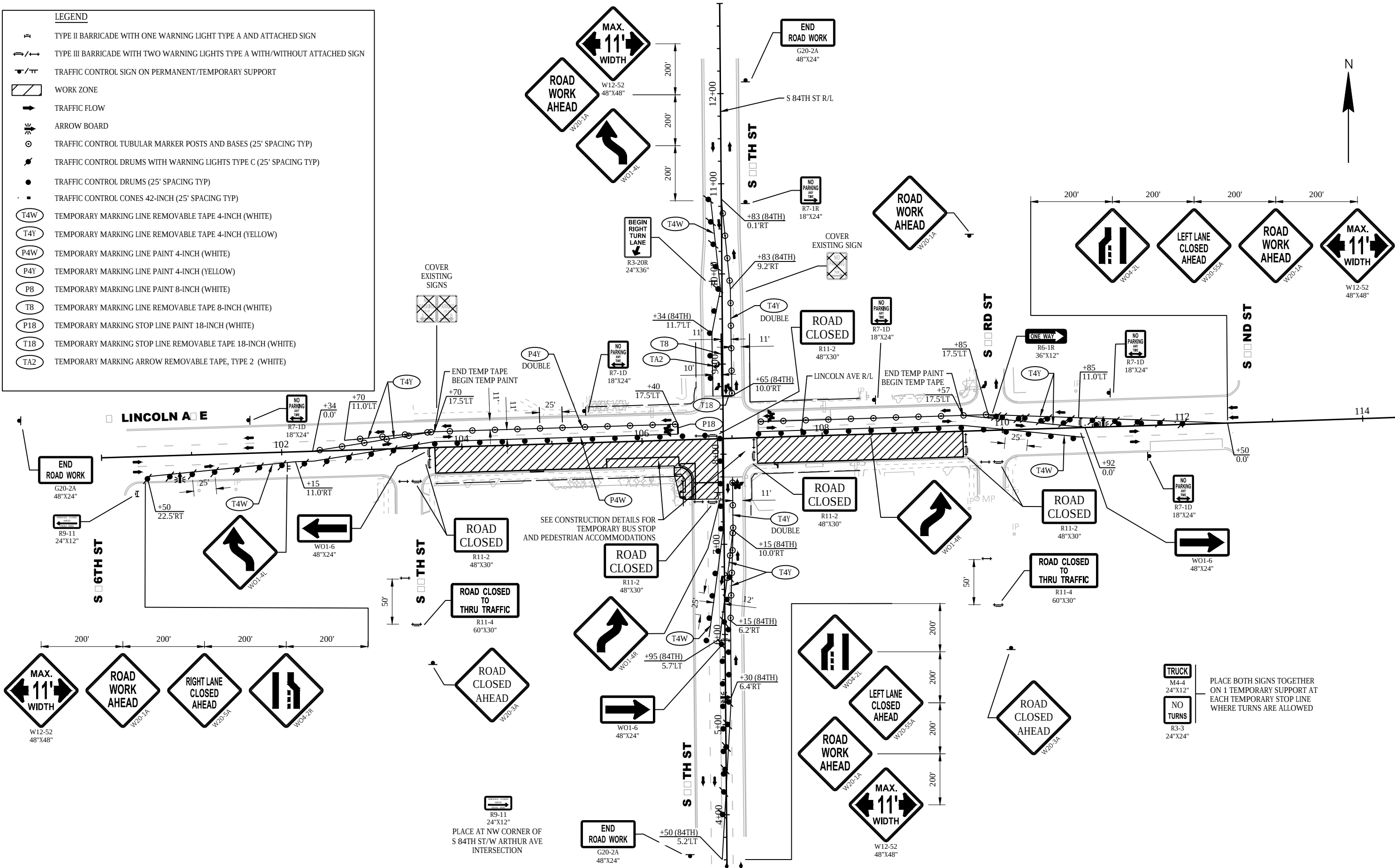
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2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
3. USE SDD TRAFFIC CONTROL, SINGLE RIGHT/LEFT LANE CLOSURE, UNDIVIDED NON FREEWAY/EXPRESSWAY. USE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS.
4. PERMANENT PAVEMENT MARKING MAY BE INSTALLED WHEN APPROPRIATE DURING CONSTRUCTION STAGING OR AS DIRECT BY THE ENGINEER.
5. MAINTAIN ACCESS TO ALL DRIVEWAYS EXCEPT WHEN WORKING IMMEDIATELY IN FRONT OF DRIVEWAY.
6. MASK OR REMOVE EXISTING CONFLICTING PAVEMENT MARKINGS. MASKING AND REMOVING PAVEMENT MARKINGS NOT SHOWN FOR PLAN READABILITY.
7. COVER ALL EXISTING SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.
8. MAINTAIN ONE 11' LANE IN EACH DIRECTION ON W LINCOLN AVE. MAINTAIN ONE 10' LANE IN EACH DIRECTION ON S 84TH ST AND S 76TH ST EXCEPT IN STAGE 2A ON S 76TH ST.
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 - BETWEEN 73RD AND 69TH STREETS DURING WORK AT 71ST STREET
 - S 84TH ST
 - STA 3+50 TO STA 11+00
 - S 76TH ST
 - STA 17+00 TO STA 24+25

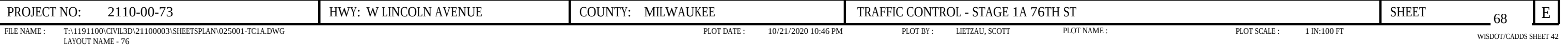
* TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE OR YELLOW)

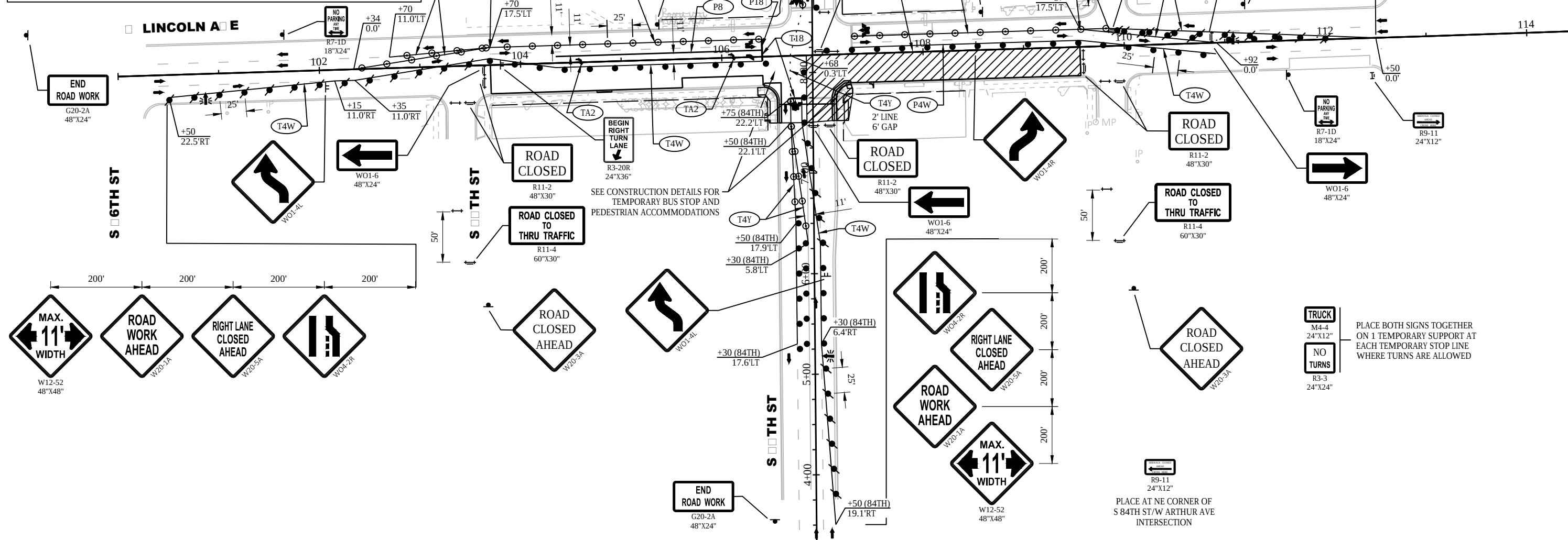
FOR TEMPORARY MARKINGS ON NEW HMA PAVEMENT OR ON EXISTING PAVEMENT TO REMAIN BEYOND THE WORK ZONES

LEGEND

- TYPE II BARRICADE WITH ONE WARNING LIGHT TYPE A AND ATTACHED SIGN
- TYPE III BARRICADE WITH TWO WARNING LIGHTS TYPE A WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE
- TRAFFIC FLOW
- ARROW BOARD
- TRAFFIC CONTROL TUBULAR MARKER POSTS AND BASES (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHTS TYPE C (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS (25' SPACING TYP)
- TRAFFIC CONTROL CONES 42-INCH (25' SPACING TYP)
- T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- P4W TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- P4Y TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- P8 TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- T8 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- P18 TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
- T18 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- TA2 TEMPORARY MARKING ARROW REMOVABLE TAPE, TYPE 2 (WHITE)

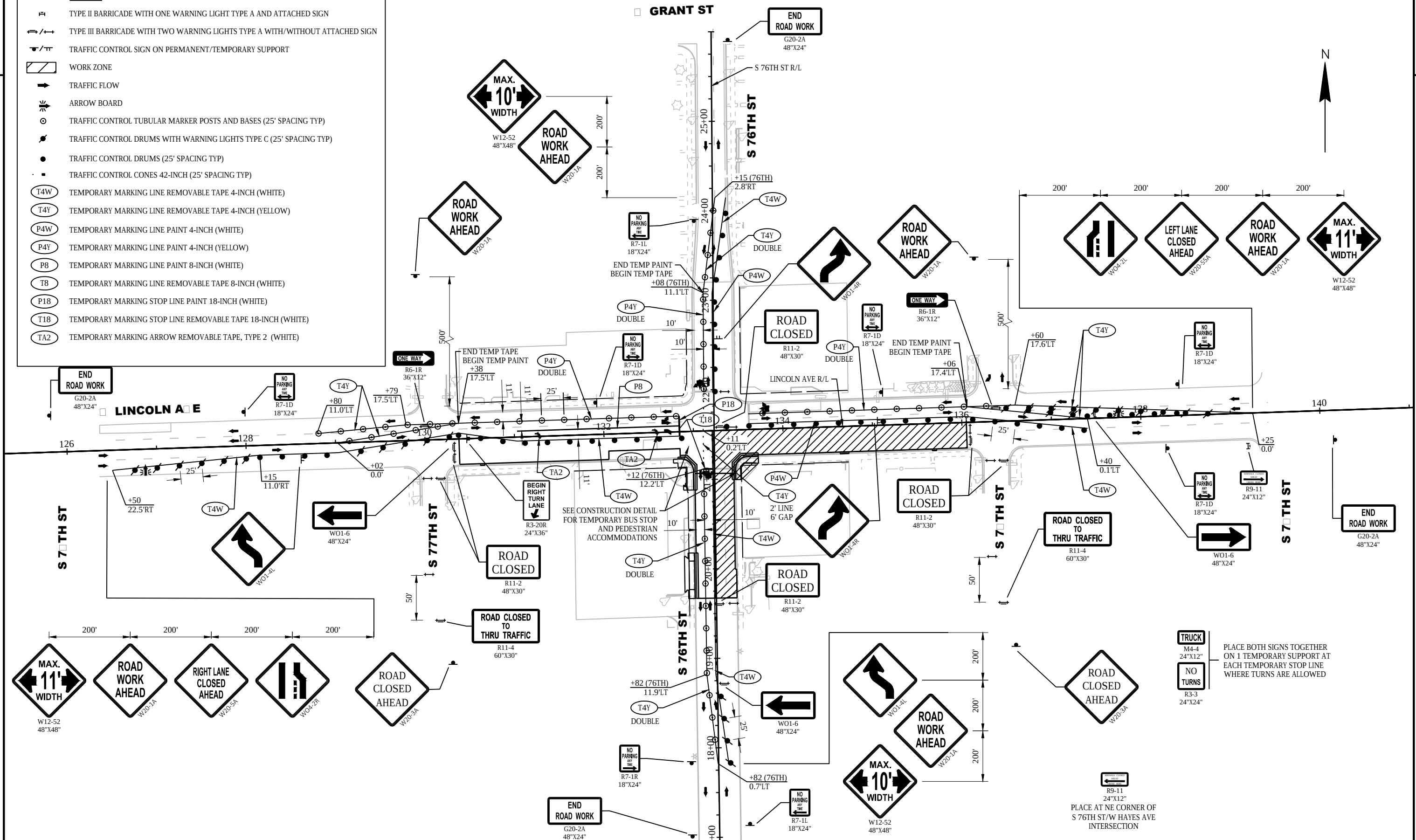






LEGEND

- TYPE II BARRICADE WITH ONE WARNING LIGHT TYPE A AND ATTACHED SIGN
- TYPE III BARRICADE WITH TWO WARNING LIGHTS TYPE A WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE
- TRAFFIC FLOW
- ARROW BOARD
- TRAFFIC CONTROL TUBULAR MARKER POSTS AND BASES (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHTS TYPE C (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS (25' SPACING TYP)
- TRAFFIC CONTROL CONES 42-INCH (25' SPACING TYP)
- T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- P4W TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- P4Y TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- P8 TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- T8 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- P18 TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
- T18 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- TA2 TEMPORARY MARKING ARROW REMOVABLE TAPE, TYPE 2 (WHITE)



LEGEND

 TYPE II BARRICADE WITH ONE WARNING LIGHT TYPE A AND ATTACHED SIGN

 TYPE III BARRICADE WITH TWO WARNING LIGHTS TYPE A WITH/WITHOUT ATTACHED SIGN

 TRAFFIC CONTROL SIGN ON PERMANENT/TEMPORARY SUPPORT

 WORK ZONE

 TRAFFIC FLOW

 ARROW BOARD

 TRAFFIC CONTROL TUBULAR MARKER POSTS AND BASES (25' SPACING TYP)

 TRAFFIC CONTROL DRUMS WITH WARNING LIGHTS TYPE C (25' SPACING TYP)

 TRAFFIC CONTROL DRUMS (25' SPACING TYP)

 TRAFFIC CONTROL CONES 42-INCH (25' SPACING TYP)

 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

 TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

 TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

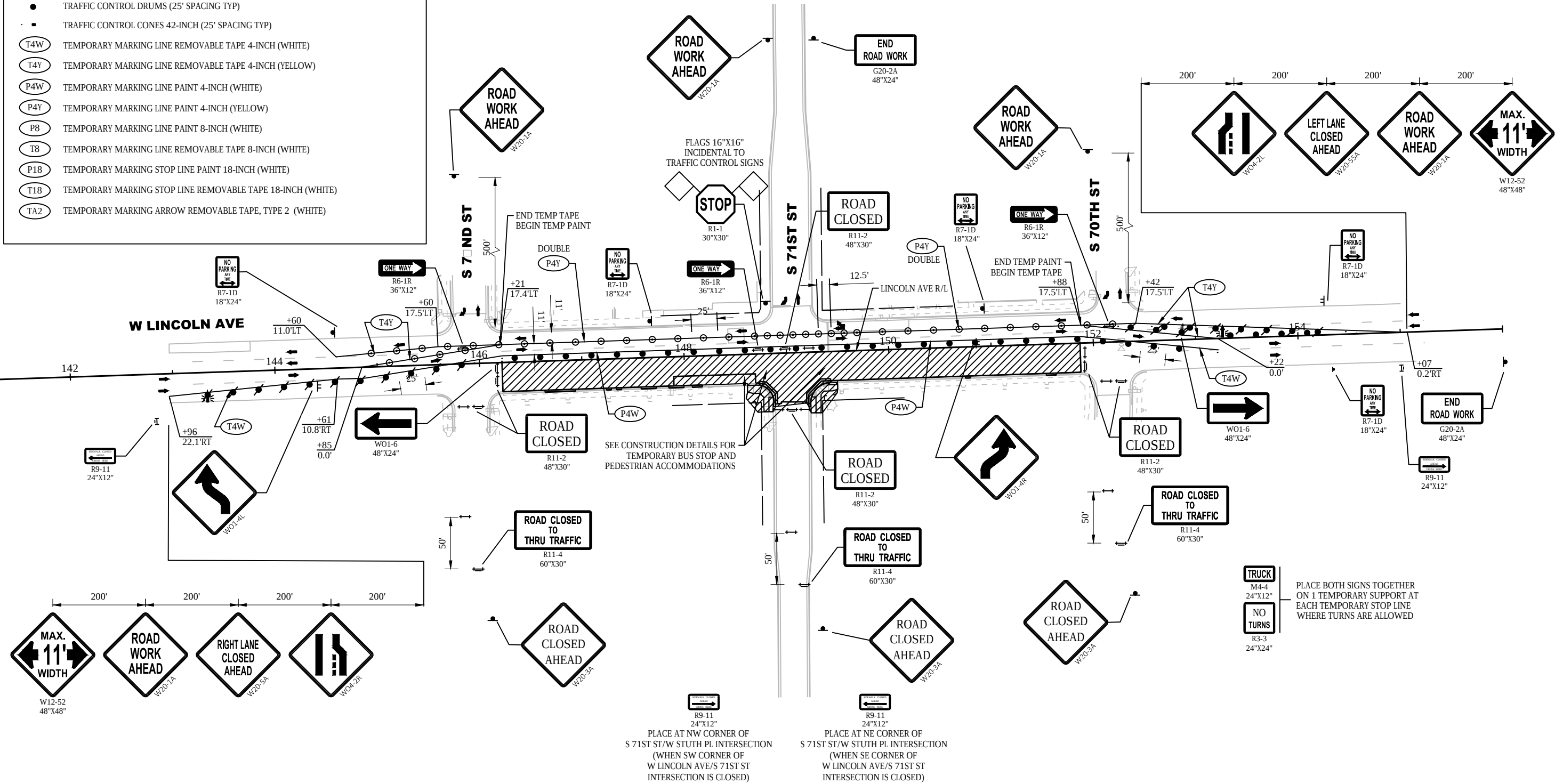
 TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)

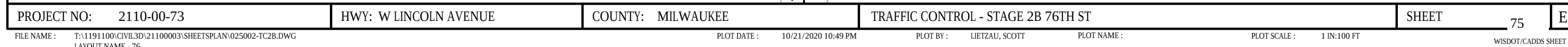
 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)

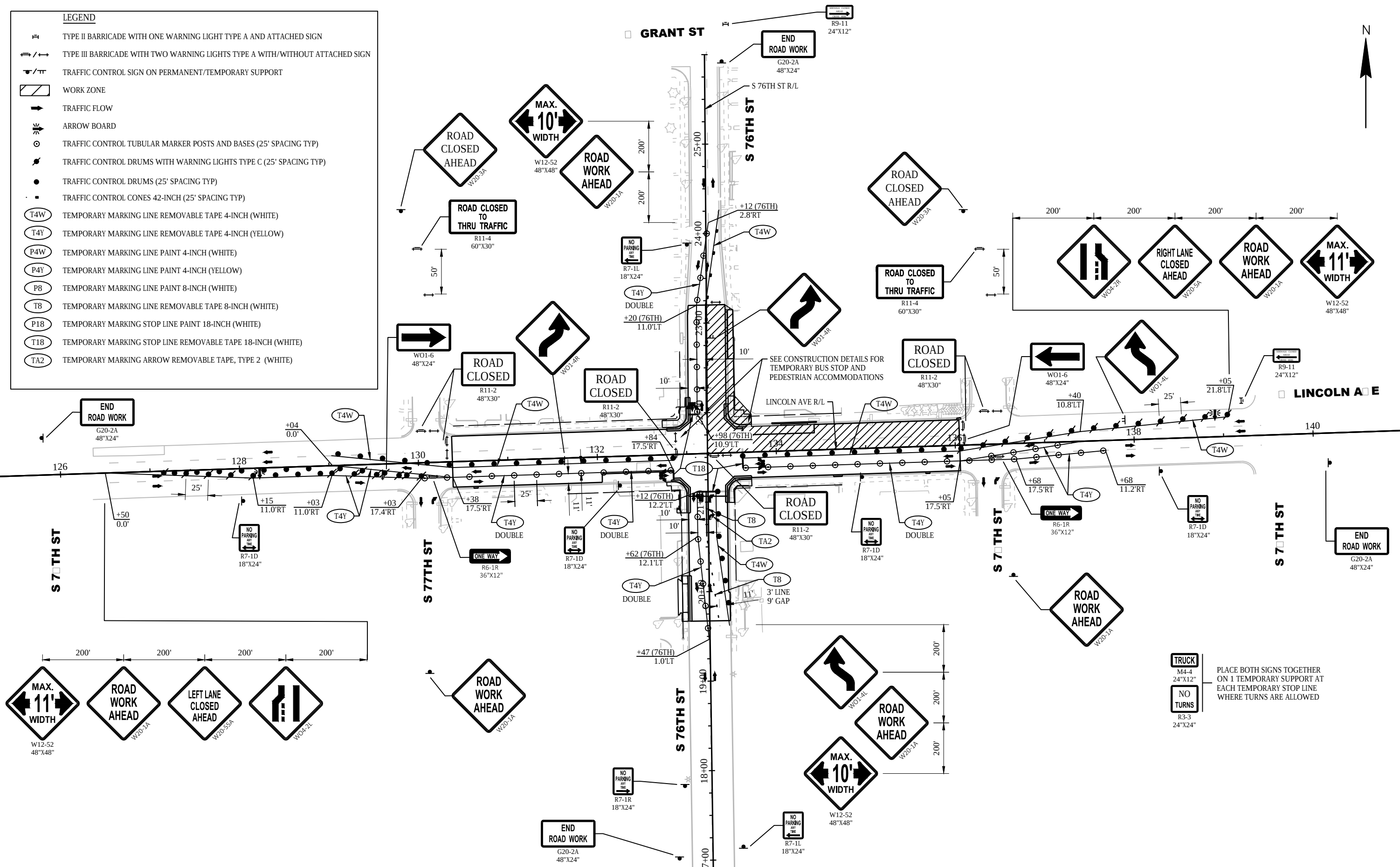
 TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)

 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

 TEMPORARY MARKING ARROW REMOVABLE TAPE, TYPE 2 (WHITE)

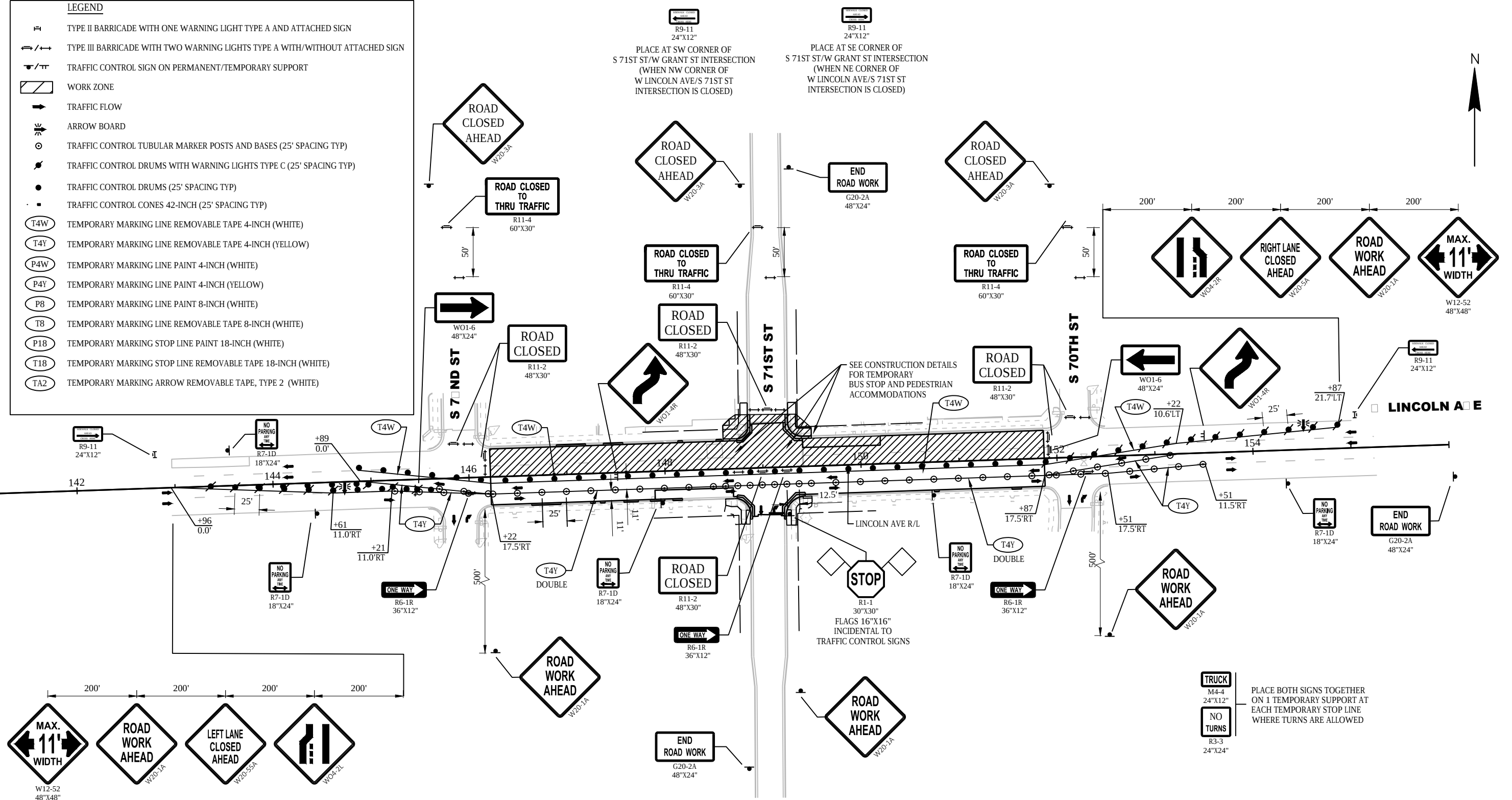




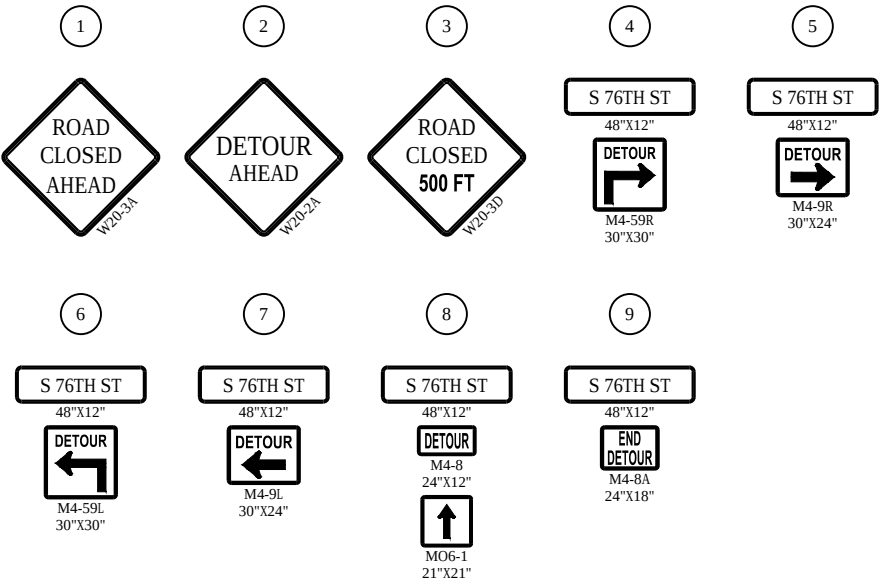


LEGEND

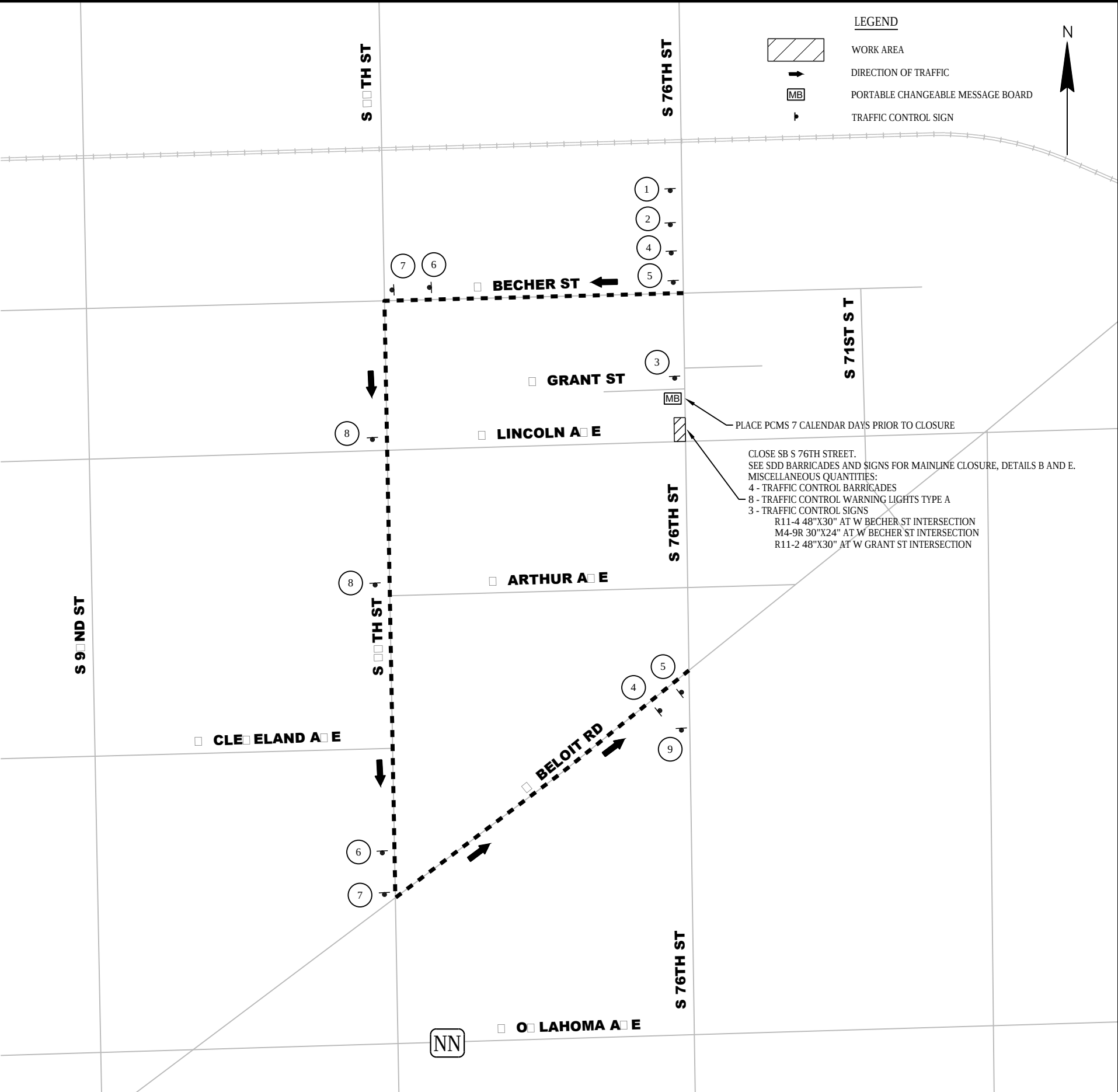
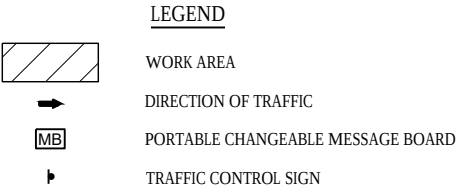
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- TRAFFIC CONTROL SIGN ON PERMANENT/TEMPORARY SUPPORT
- WORK ZONE
- TRAFFIC FLOW
- ARROW BOARD
- TRAFFIC CONTROL TUBULAR MARKER POSTS AND BASES (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS WITH WARNING LIGHTS TYPE C (25' SPACING TYP)
- TRAFFIC CONTROL DRUMS (25' SPACING TYP)
- TRAFFIC CONTROL CONES 42-INCH (25' SPACING TYP)
- T4W TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- T4Y TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- P4W TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
- P4Y TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
- P8 TEMPORARY MARKING LINE PAINT 8-INCH (WHITE)
- T8 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- P18 TEMPORARY MARKING STOP LINE PAINT 18-INCH (WHITE)
- T18 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- TA2 TEMPORARY MARKING ARROW REMOVABLE TAPE, TYPE 2 (WHITE)

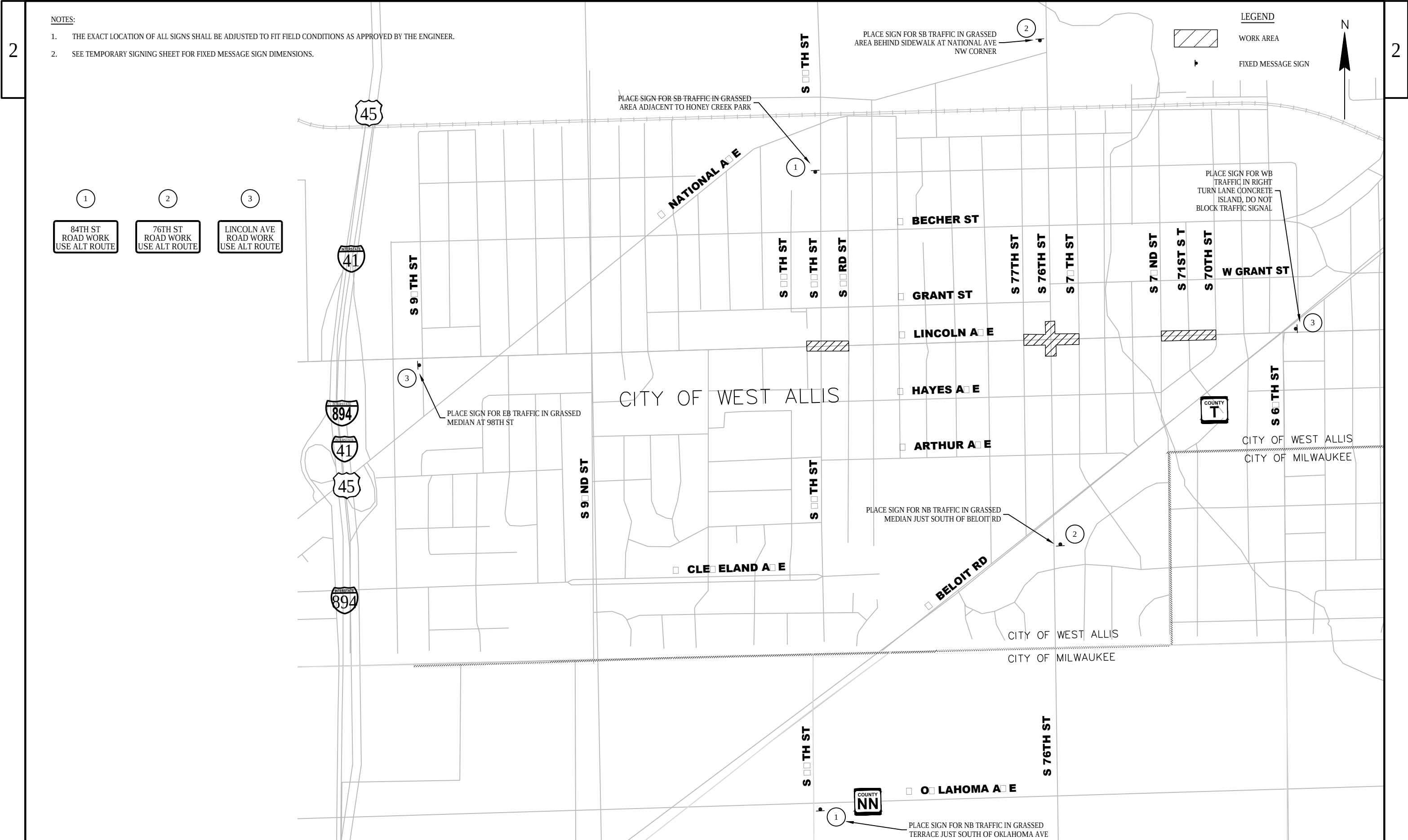


- NOTES:
- ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 - IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES.
 - THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
 - "WO" SIGNS ARE THE SAME AS "W" AND "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
 - "W" AND "WO" DIAMOND SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.



- NOTES
- SIGN IS TYPE II - TYPE F REFLECTIVE
 - COLOR:
BACKGROUND - ORANGE
MESSAGE - BLACK
 - MESSAGE SERIES - C
 - CORNERS MAY BE SQUARE OR ROUNDED WHEN BASE MATERIAL IS PLYWOOD BUT BORDERS SHALL BE ROUNDED AS SHOWN. WHEN BASE MATERIAL IS METAL, THE CORNERS AND BORDERS SHALL BE ROUNDED.





- NOTES:
1. THE EXACT LOCATION OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 2. SEE TEMPORARY SIGNING SHEET FOR FIXED MESSAGE SIGN DIMENSIONS.

- 1
84TH ST
ROAD WORK
USE ALT ROUTE
- 2
76TH ST
ROAD WORK
USE ALT ROUTE
- 3
LINCOLN AVE
ROAD WORK
USE ALT ROUTE

Estimate Of Quantities

2110-00-73					
Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	121.000	121.000
0004	204.0110	Removing Asphaltic Surface	SY	94.000	94.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	134.000	134.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	12,131.000	12,131.000
0010	204.0130	Removing Curb	LF	5.000	5.000
0012	204.0150	Removing Curb & Gutter	LF	737.000	737.000
0014	204.0155	Removing Concrete Sidewalk	SY	473.000	473.000
0016	204.0195	Removing Concrete Bases	EACH	17.000	17.000
0018	204.9105.S	Removing (item description) 01. Traffic Signals (W. Lincoln Ave & S. 84th St)	LS	1.000	1.000
0020	204.9105.S	Removing (item description) 02. Traffic Signals (W. Lincoln Ave & S. 76th St)	LS	1.000	1.000
0022	204.9105.S	Removing (item description) 03. Traffic Signals (W. Lincoln Ave & S. 71st St)	LS	1.000	1.000
0024	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	10.000	10.000
0026	211.0300	Prepare Foundation for Concrete Base (project) 01. 2110-00-73	LS	1.000	1.000
0028	213.0100	Finishing Roadway (project) 01. 2110-00-73	EACH	1.000	1.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	218.000	218.000
0032	320.0145	Concrete Base 8-Inch	SY	44.000	44.000
0034	415.0100	Concrete Pavement 10-Inch	SY	43.000	43.000
0036	416.0170	Concrete Driveway 7-Inch	SY	12.000	12.000
0038	416.0610	Drilled Tie Bars	EACH	379.000	379.000
0040	416.0620	Drilled Dowel Bars	EACH	16.000	16.000
0042	455.0605	Tack Coat	GAL	865.000	865.000
0044	460.2000	Incentive Density HMA Pavement	DOL	910.000	910.000
0046	460.6224	HMA Pavement 4 MT 58-28 S	TON	1,415.000	1,415.000
0048	465.0125	Asphaltic Surface Temporary	TON	40.000	40.000
0050	601.0331	Concrete Curb & Gutter 31-Inch	LF	158.000	158.000
0052	601.0600	Concrete Curb Pedestrian	LF	127.000	127.000
0054	602.0410	Concrete Sidewalk 5-Inch	SF	2,557.000	2,557.000
0056	602.0420	Concrete Sidewalk 7-Inch	SF	1,350.000	1,350.000
0058	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	120.000	120.000
0060	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	90.000	90.000
0062	611.0648	Inlet Covers Type R	EACH	7.000	7.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	621.0100	Landmark Reference Monuments	EACH	2.000	2.000
0068	625.0100	Topsoil	SY	92.000	92.000
0070	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0072	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000

Estimate Of Quantities

2110-00-73

Line	Item	Item Description	Unit	Total	Qty
0074	628.7015	Inlet Protection Type C	EACH	21.000	21.000
0076	629.0210	Fertilizer Type B	CWT	0.100	0.100
0078	631.0300	Sod Water	MGAL	2.100	2.100
0080	631.1000	Sod Lawn	SY	92.000	92.000
0082	637.2210	Signs Type II Reflective H	SF	180.000	180.000
0084	637.2215	Signs Type II Reflective H Folding	SF	89.520	89.520
0086	637.2230	Signs Type II Reflective F	SF	9.000	9.000
0088	638.2102	Moving Signs Type II	EACH	8.000	8.000
0090	638.2602	Removing Signs Type II	EACH	30.000	30.000
0092	638.3000	Removing Small Sign Supports	EACH	2.000	2.000
0094	642.5001	Field Office Type B	EACH	1.000	1.000
0096	643.0300	Traffic Control Drums	DAY	12,759.000	12,759.000
0098	643.0410	Traffic Control Barricades Type II	DAY	540.000	540.000
0100	643.0420	Traffic Control Barricades Type III	DAY	3,755.000	3,755.000
0102	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	658.000	658.000
0104	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	658.000	658.000
0106	643.0705	Traffic Control Warning Lights Type A	DAY	8,050.000	8,050.000
0108	643.0715	Traffic Control Warning Lights Type C	DAY	4,945.000	4,945.000
0110	643.0800	Traffic Control Arrow Boards	DAY	393.000	393.000
0112	643.0900	Traffic Control Signs	DAY	8,511.000	8,511.000
0114	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0116	643.1000	Traffic Control Signs Fixed Message	SF	42.000	42.000
0118	643.1050	Traffic Control Signs PCMS	DAY	10.000	10.000
0120	643.1070	Traffic Control Cones 42-Inch	DAY	768.000	768.000
0122	643.5000	Traffic Control	EACH	1.000	1.000
0124	644.1430	Temporary Pedestrian Surface Plate	SF	480.000	480.000
0126	644.1601	Temporary Pedestrian Curb Ramp	DAY	93.000	93.000
0128	644.1810	Temporary Pedestrian Barricade	LF	1,270.000	1,270.000
0130	646.1050	Marking Line Grooved Permanent Tape 4-Inch	LF	10,910.000	10,910.000
0132	646.3050	Marking Line Grooved Permanent Tape 8-Inch	LF	690.000	690.000
0134	646.9000	Marking Removal Line 4-Inch	LF	5,180.000	5,180.000
0136	646.9200	Marking Removal Line Wide	LF	105.000	105.000
0138	649.0105	Temporary Marking Line Paint 4-Inch	LF	5,700.000	5,700.000
0140	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	25,590.000	25,590.000
0142	649.0205	Temporary Marking Line Paint 8-Inch	LF	390.000	390.000
0144	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	921.000	921.000
0146	649.0550	Temporary Marking Arrow Removable Tape	EACH	11.000	11.000
0148	649.0805	Temporary Marking Stop Line Paint 18-Inch	LF	33.000	33.000
0150	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	194.000	194.000
0152	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	1,053.000	1,053.000

Estimate Of Quantities

2110-00-73					
Line	Item	Item Description	Unit	Total	Qty
0154	650.5000	Construction Staking Base	LF	67.000	67.000
0156	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	487.000	487.000
0158	650.7000	Construction Staking Concrete Pavement	LF	39.000	39.000
0160	650.8000	Construction Staking Resurfacing Reference	LF	1,718.000	1,718.000
0162	650.8500	Construction Staking Electrical Installations (project) 01. 2110-00-73	LS	1.000	1.000
0164	650.9000	Construction Staking Curb Ramps	EACH	20.000	20.000
0166	650.9910	Construction Staking Supplemental Control (project) 01. 2110-00-73	LS	1.000	1.000
0168	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	299.000	299.000
0170	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	186.000	186.000
0172	652.0615	Conduit Special 3-Inch	LF	1,870.000	1,870.000
0174	653.0140	Pull Boxes Steel 24x42-Inch	EACH	18.000	18.000
0176	653.0905	Removing Pull Boxes	EACH	9.000	9.000
0178	654.0101	Concrete Bases Type 1	EACH	13.000	13.000
0180	654.0102	Concrete Bases Type 2	EACH	7.000	7.000
0182	654.0120	Concrete Bases Type 10-Special	EACH	6.000	6.000
0184	654.0205	Concrete Control Cabinet Bases Type 7	EACH	3.000	3.000
0186	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,862.000	1,862.000
0188	655.0240	Cable Traffic Signal 7-14 AWG	LF	939.000	939.000
0190	655.0260	Cable Traffic Signal 12-14 AWG	LF	3,036.000	3,036.000
0192	655.0320	Cable Type UF 2-10 AWG Grounded	LF	1,259.000	1,259.000
0194	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,503.000	2,503.000
0196	655.0610	Electrical Wire Lighting 12 AWG	LF	1,566.000	1,566.000
0198	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. W. Lincoln Ave & S. 84th St	LS	1.000	1.000
0200	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. W. Lincoln Ave & S. 76th St	LS	1.000	1.000
0202	656.0200	Electrical Service Meter Breaker Pedestal (location) 03. W. Lincoln Ave & S. 71st St	LS	1.000	1.000
0204	657.0100	Pedestal Bases	EACH	13.000	13.000
0206	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	7.000	7.000
0208	657.0310	Poles Type 3	EACH	7.000	7.000
0210	657.0352	Poles Type 10-Special	EACH	6.000	6.000
0212	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	2.000	2.000
0214	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	5.000	5.000
0216	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	6.000	6.000
0218	657.0541	Monotube Arms 40-FT-Special	EACH	6.000	6.000
0220	657.0595	Trombone Arms 25-FT	EACH	4.000	4.000
0222	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	7.000	7.000
0224	657.0815	Luminaire Arms Steel 15-FT	EACH	6.000	6.000

Estimate Of Quantities

2110-00-73					
Line	Item	Item Description	Unit	Total	Qty
0226	658.0173	Traffic Signal Face 3S 12-Inch	EACH	36.000	36.000
0228	658.0174	Traffic Signal Face 4S 12-Inch	EACH	12.000	12.000
0230	658.0416	Pedestrian Signal Face 16-Inch	EACH	24.000	24.000
0232	658.0500	Pedestrian Push Buttons	EACH	24.000	24.000
0234	658.5069	Signal Mounting Hardware (location) 01. W. Lincoln Ave & S. 84th St	LS	1.000	1.000
0236	658.5069	Signal Mounting Hardware (location) 02. W. Lincoln Ave & S. 76th St	LS	1.000	1.000
0238	658.5069	Signal Mounting Hardware (location) 03. W. Lincoln Ave & S. 71st St	LS	1.000	1.000
0240	659.1125	Luminaires Utility LED C	EACH	12.000	12.000
0242	661.0200	Temporary Traffic Signals for Intersections (location) 01. W. Lincoln Ave & S. 84th St	LS	1.000	1.000
0244	661.0200	Temporary Traffic Signals for Intersections (location) 02. W. Lincoln Ave & S. 76th St	LS	1.000	1.000
0246	690.0150	Sawing Asphalt	LF	770.000	770.000
0248	690.0250	Sawing Concrete	LF	785.000	785.000
0250	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0252	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,400.000	1,400.000
0254	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	900.000	900.000
0256	SPV.0060	Special 01. Removing Lighting Units	EACH	10.000	10.000
0258	SPV.0060	Special 02. Traffic Signal Controller & Cabinet	EACH	3.000	3.000
0260	SPV.0060	Special 03. Internal Sanitary Manhole Seal	EACH	7.000	7.000
0262	SPV.0060	Special 04. Adjust Sanitary Manhole Frame	EACH	2.000	2.000
0264	SPV.0060	Special 05. Building Sanitary Sewer Reconnect, 6-Inch	EACH	3.000	3.000
0266	SPV.0060	Special 06. Round Steel Sign Post System	EACH	5.000	5.000
0268	SPV.0060	Special 07. Adjust Water Valve Box	EACH	20.000	20.000
0270	SPV.0060	Special 08. Catch Basin Replacement	EACH	1.000	1.000
0272	SPV.0060	Special 09. Adjust Storm Manhole Frame	EACH	2.000	2.000
0274	SPV.0060	Special 10. Adjust Catch Basin Frame	EACH	4.000	4.000
0276	SPV.0060	Special 11. Storm Manhole Frame With 8-Hole Lid	EACH	5.000	5.000
0278	SPV.0060	Special 12. Sanitary Manhole Frame With Solid Gasketed Lids	EACH	6.000	6.000
0280	SPV.0060	Special 13. Sanitary Structure Miscellaneous Inside Repair	EACH	3.000	3.000
0282	SPV.0060	Special 14. Storm Structure Miscellaneous Inside Repair	EACH	20.000	20.000
0284	SPV.0060	Special 15. Marking Grooved Preformed Thermoplastic Arrows Type 2	EACH	12.000	12.000
0286	SPV.0060	Special 16. Utility Line Opening	EACH	16.000	16.000
0288	SPV.0090	Special 01. Concrete Curb & Gutter 25-Inch	LF	330.000	330.000

Estimate Of Quantities

2110-00-73					
Line	Item	Item Description	Unit	Total	Qty
0290	SPV.0090	Special 02. Sanitary Sewer Relay, SDR 35 PVC SP, 8-Inch	LF	93.300	93.300
0292	SPV.0090	Special 03. Marking Grooved Preformed Thermoplastic Stop Line 18-Inch	LF	325.000	325.000
0294	SPV.0090	Special 04. Marking Grooved Preformed Thermoplastic Crosswalk Block Style 24--Inch	LF	936.000	936.000
0296	SPV.0090	Special 05. Marking Diagonal Grooved Preformed Thermoplastic 12-Inch	LF	465.000	465.000
0298	SPV.0105	Special 01. Video Vehicle Detection System (W. Lincoln Ave & S. 84th St)	LS	1.000	1.000
0300	SPV.0105	Special 02. Video Vehicle Detection System (W. Lincoln Ave & S. 76th St)	LS	1.000	1.000
0302	SPV.0105	Special 03. Video Vehicle Detection System (W. Lincoln Ave & S. 71st St)	LS	1.000	1.000
0304	SPV.0105	Special 04. Emergency Vehicle Preemption System (W. Lincoln Ave & S. 84th St)	LS	1.000	1.000
0306	SPV.0105	Special 05. Emergency Vehicle Preemption System (W. Lincoln Ave & S. 76th St)	LS	1.000	1.000
0308	SPV.0105	Special 06. Emergency Vehicle Preemption System (W. Lincoln Ave & S. 71st St)	LS	1.000	1.000
0310	SPV.0200	Special 01. Rebuild Sanitary Manhole	VF	3.000	3.000
0312	SPV.0200	Special 02. Sanitary Manhole, 48 Inch Diameter	VF	38.000	38.000
0314	SPV.0200	Special 03. Storm Manhole, 48-Inch Diameter	VF	6.000	6.000
0316	SPV.0200	Special 04. Storm Manhole, 42-Inch Diameter	VF	13.000	13.000
0318	SPV.0200	Special 05. Rebuild Storm Structure	VF	4.000	4.000

REMOVAL ITEMS										
				204.0100	204.0110	204.0115	204.0120	204.0130	204.0150	204.0155
				REMOVING	REMOVING	REMOVING	REMOVING		REMOVING	REMOVING
				CONCRETE	ASPHALTIC	ASPHALTIC	ASPHALTIC	REMOVING	CURB &	CONCRETE
				PAVEMENT	SURFACE	BUTT JOINTS	MILLING	CURB	GUTTER	SIDEWALK
LOCATION	STATION	TO	STATION	SY	SY	SY	SY	LF	LF	SY
84TH ST	103+70	-	109+56	121	15	47	3,739	--	103	119
76TH ST	130+38	-	136+05	--	50	45	4,849	5	344	201
71ST ST	146+22	-	151+87	--	28	42	3,543	--	290	153
PROJECT TOTALS				121	94	134	12,131	5	737	473

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DETECTABLE WARNING FIELDS					
			602.0505	602.0605	
			CURB RAMP		
			DETECTABLE WARNING FIELD		
			YELLOW	RADIAL YELLOW	
LOCATION	STATION	TO STATION	SF	SF	
84TH ST	103+70	- 109+56	40	23	
76TH ST	130+38	- 136+05	40	21	
71ST ST	146+22	- 151+87	40	46	
PROJECT TOTALS			120	90	

<u>PROJECT WIDE ITEMS</u>					
	211.0300 PREPARE FOUNDATION FOR CONCRETE BASE 2110-00-73	213.0100 FINISHING ROADWAY 2110-00-73	619.1000 MOBILIZATION	642.5001 FIELD OFFICE TYPE B	643.5000 TRAFFIC CONTROL (2110-00-73)
LOCATION	LS	EACH	EACH	EACH	EACH
PROJECT 2110-00-73	1	1	1	1	1
PROJECT TOTALS	1	1	1	1	1

LANDMARK REFERENCE MONUMENTS	
	621.0100
LOCATION	EACH
LINCOLN AVE / 84TH ST	1
LINCOLN AVE / 76TH ST	1
PROJECT TOTALS	2

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RESTORATION ITEMS							
		625.0100	629.0210	631.0300	631.1000		
		TOPSOIL	FERTILIZER	SOD	SOD		
		SY	TYPE B	WATER	LAWN		
		SY	CWT	MGAL	SY		
84TH ST	103+70 - 109+56	32	0.02	0.7	32		
76TH ST	130+38 - 136+05	19	0.01	0.4	19		
71ST ST	146+22 - 151+87	41	0.03	0.9	41		
PROJECT TOTALS		92	0.1	2.1	92		

EROSION CONTROL						
		628.1905	628.1910	628.7015		
		MOBILIZATIONS	MOBILIZATIONS	INLET		
		EROSION	EROSION	PROTECTION		
		CONTROL	CONTROL	TYPE C		
		EACH	EACH	EACH		
84TH ST	103+70 - 109+56	2	1	8		
76TH ST	130+38 - 136+05	2	1	8		
71ST ST	146+22 - 151+87	2	1	5		
PROJECT TOTALS		6	3	21		

TEMPORARY PEDESTRIAN ACCOMMODATIONS						
		644.1430	644.1601	644.1810		
		TEMPORARY	TEMPORARY	TEMPORARY		
		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN		
		SURFACE	CURB RAMP	BARRICADE		
		PLATE	DAY	LF		
LOCATION	STATION TO STATION	SF	DAY	LF		
84TH ST	103+70 - 109+56	160	30	400		
76TH ST	130+38 - 136+05	240	43	530		
71ST ST	146+22 - 151+87	80	20	340		
PROJECT TOTALS		480	93	1,270		

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVING SIGNS									
				638.2602 REMOVING SIGN MOUNTED ON SAME POST AS		638.3000 REMOVING SMALL SIGN SUPPORTS			
SIGN #	SHEET #			SIGN CODE	#	EACH	EACH	DESCRIPTION	NOTES
R100	1	OF	3	R7-5D	---	1	---	__ HOUR PARKING (TIME) TO (TIME) - DOUBLE ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R101	1	OF	3	R7-7R	---	1	---	NO PARKING BUS STOP - RIGHT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R102	1	OF	3	R7-7L	---	1	---	NO PARKING BUS STOP - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R103	1	OF	3	R7-5D	---	1	---	__ HOUR PARKING (TIME) TO (TIME) - DOUBLE ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R104	1	OF	3	R7-7L	---	1	---	NO PARKING BUS STOP - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R105	1	OF	3	R7-1MOD	---	1	---	VEHICLES IN EXCESS OF 25 FT PROHIBITED FROM PARKING IN THIS BLOCK	EXISTING ROUND STEEL SIGN POST TO REMAIN
R106	1	OF	3	D3-1	SIGNAL POLE	1	---	STREET NAME SIGN	S 84TH ST
R107	1	OF	3	D3-1	SIGNAL POLE	1	---	STREET NAME SIGN	W LINCOLN AVE
R108	1	OF	3	D3-1	SIGNAL POLE	1	---	STREET NAME SIGN	S 84TH ST
R109	1	OF	3	D3-1	SIGNAL POLE	1	---	STREET NAME SIGN	W LINCOLN AVE
R110	1	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R111	1	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R112	1	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R113	1	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R200	2	OF	3	R7-1L	---	1	---	NO PARKING ANY TIME - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R201	2	OF	3	W4-2R	---	1	---	LANE REDUCTION TRANSITION SYMBOL - [RIGHT LANE]	EXISTING ROUND STEEL SIGN POST TO REMAIN
R202	2	OF	3	R7-5R	---	1	1	__ HOUR PARKING (TIME) TO (TIME) - RIGHT ARROW	---
R203	2	OF	3	R7-5D	---	1	1	__ HOUR PARKING (TIME) TO (TIME) - DOUBLE ARROW	---
R204	2	OF	3	R7-7L	---	1	---	NO PARKING BUS STOP - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R205	2	OF	3	D3-1	SIGNAL POLE	1	---	STREET NAME SIGN	S 76TH ST
R206	2	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R207	2	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R208	2	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R209	2	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R300	3	OF	3	R7-5D	---	1	---	__ HOUR PARKING (TIME) TO (TIME) - DOUBLE ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R301	3	OF	3	R7-7L	---	1	---	NO PARKING BUS STOP - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R302	3	OF	3	R7-7L	---	1	---	NO PARKING BUS STOP - LEFT ARROW	EXISTING ROUND STEEL SIGN POST TO REMAIN
R303	3	OF	3	D3-1	---	1	---	STREET NAME SIGN	S 71ST ST
R304	3	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
R305	3	OF	3	R7-1MOD	SIGNAL POLE	1	---	MCTS BUS STOP SIGN	SALVAGE FOR MCTS RETRIEVAL
PROJECT TOTAL						30	2		

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PERMANENT SIGNING														
SIGN #	SIGN CODE	SHEET #	SIGN SIZE	SIGN SIZE			637.2210	637.2215	637.2230	638.2102	SPV.0060.06	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES
				W	X	H	REFLECTIVE TYPE II	REFLECTIVE TYPE II	REFLECTIVE TYPE II	MOVING TYPE II	ROUND STEEL SIGN POST SYSTEM			
				IN.	IN.	IN.	H SF	H FOLDING SF	F SF	EACH	EACH			
100	R7-1MOD	1 OF 3	2S	36	X	24	6	---	---	---	1	---	NO PARKING (CUSTOM MESSAGE)	---
101	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
102	R7-1L	1 OF 3	2S	18	X	24	3	---	---	---	1	---	NO PARKING ANY TIME - LEFT ARROW	---
103	R1-1F	1 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 6	STOP (FOLDING)	---
104	R10-50L	1 OF 3	2S	30	X	36	7.5	---	---	---	---	TRAFFIC SIGNAL SB 4 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
105	R10-3EL	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 5	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
106	R10-3ER	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 6	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
107	R10-3ER	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 8	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
108	R10-3ER	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 7	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
109	R1-1F	1 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 8	STOP (FOLDING)	---
110	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
111	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
112	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
113	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
114	R1-1F	1 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 3	STOP (FOLDING)	---
115	R10-3ER	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 3	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
116	R10-3EL	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 2	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
117	R10-3EL	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 9	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
118	R10-3ER	1 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 1	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
119	R1-1F	1 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 1	STOP (FOLDING)	---
120	R10-50L	1 OF 3	2S	30	X	36	7.5	---	---	---	---	TRAFFIC SIGNAL SB 9 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
121	R7-1D	1 OF 3	2S	18	X	24	3	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
122	D3-1	1 OF 3	2M	72	X	18	9	---	---	---	---	TRAFFIC SIGNAL SB 4 (OVERHEAD ARM)	STREET NAME SIGN	S 84TH ST
123	D3-1	1 OF 3	2M	72	X	18	9	---	---	---	---	TRAFFIC SIGNAL SB 9 (OVERHEAD ARM)	STREET NAME SIGN	S 84TH ST
124	D3-1	1 OF 3	2M	96	X	18	12	---	---	---	---	TRAFFIC SIGNAL SB 7 (OVERHEAD ARM)	STREET NAME SIGN	W LINCOLN AVE
125	D3-1	1 OF 3	2M	96	X	18	12	---	---	---	---	TRAFFIC SIGNAL SB 2 (OVERHEAD ARM)	STREET NAME SIGN	W LINCOLN AVE
M100	R5-2	1 OF 3	2S	24	X	24	---	---	---	1	---	TRAFFIC SIGNAL SB 7	NO TRUCKS SYMBOL	---
M101	R5-2	1 OF 3	2S	24	X	24	---	---	---	1	---	TRAFFIC SIGNAL SB 2	NO TRUCKS SYMBOL	---
200	R7-1D	2 OF 3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
201	R7-1D	2 OF 3	2S	18	X	24	---	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
202	R7-1L	2 OF 3	2S	18	X	24	---	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - LEFT ARROW	---
203	R1-1F	2 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 1	STOP (FOLDING)	---
204	R10-50L	2 OF 3	2S	30	X	36	---	---	---	---	---	TRAFFIC SIGNAL SB 9 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
205	R10-3EL	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 9	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
206	R10-3ER	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 1	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
207	R10-3ER	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 3	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
208	R10-3EL	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 2	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
209	R1-1F	2 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 3	STOP (FOLDING)	---
210	W4-2R	2 OF 3	2S	36	X	36	---	---	9	---	---	LIGHT POLE	LANE REDUCTION TRANSITION SYMBOL - [RIGHT LANE]	---
211	R7-1D	2 OF 3	2S	18	X	24	---	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
212	R7-1D	2 OF 3	2S	18	X	24	---	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
213	R7-1D	2 OF 3	2S	18	X	24	---	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
214	R1-1F	2 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 8	STOP (FOLDING)	---
215	R10-3ER	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 8	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
216	R10-3ER	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 6	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
217	R10-3EL	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 7	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
218	R10-3EL	2 OF 3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 4	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
219	R1-1F	2 OF 3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 6	STOP (FOLDING)	---
220	R10-50L	2 OF 3	2S	30	X	36	7.5	---	---	---	---	TRAFFIC SIGNAL SB 4 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
221	R7-1D	2 OF 3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
SUBTOTAL							97.5	59.68	9	2	2			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

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PERMANENT SIGNING (CONT.)																
SIGN #	SIGN CODE			SIGN SIZE	SIGN SIZE			637.2210	637.2215	637.2230	638.2102	SPV.0060.06	SIGN MOUNTED ON SAME POST AS #	DESCRIPTION	NOTES	
					W IN.	X IN.	H IN.	SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE H FOLDING SF	SIGNS TYPE II REFLECTIVE F SF	MOVING SIGNS TYPE II EACH	ROUND STEEL SIGN POST SYSTEM EACH				
222	R7-1D	2	OF	3	2S	18	X	24	3	---	---	---	1	---	NO PARKING ANY TIME - DOUBLE ARROW	---
223	D3-1	2	OF	3	2M	66	X	18	8.25	---	---	---	---	TRAFFIC SIGNAL SB 9 (OVERHEAD ARM)	STREET NAME SIGN	S 76TH ST
224	D3-1	2	OF	3	2M	66	X	18	8.25	---	---	---	---	TRAFFIC SIGNAL SB 4 (OVERHEAD ARM)	STREET NAME SIGN	S 76TH ST
225	D3-1	2	OF	3	2M	96	X	18	12	---	---	---	---	TRAFFIC SIGNAL SB 2 (OVERHEAD ARM)	STREET NAME SIGN	W LINCOLN AVE
226	D3-1	2	OF	3	2M	96	X	18	---	---	---	---	---	TRAFFIC SIGNAL SB 7 (OVERHEAD ARM)	STREET NAME SIGN	W LINCOLN AVE
M200	R10-11S	2	OF	3	2S	24	X	36	---	---	---	1	---	TRAFFIC SIGNAL SB 1	NO TURN ON RED WHEN CHILDREN ARE PRESENT	---
M201	R5-2	2	OF	3	2S	24	X	24	---	---	---	1	---	TRAFFIC SIGNAL SB 2	NO TRUCKS SYMBOL	---
M202	R10-11S	2	OF	3	2S	24	X	36	---	---	---	1	---	TRAFFIC SIGNAL SB 8	NO TURN ON RED WHEN CHILDREN ARE PRESENT	---
300	R7-1D	2	OF	3	2S	18	X	24	3	---	---	---	1	---	NO PARKING ANY TIME - DOUBLE ARROW	---
301	R7-1D	2	OF	3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
302	R10-50L	2	OF	3	2S	30	X	36	7.5	---	---	---	---	TRAFFIC SIGNAL SB 2 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
303	R1-1F	3	OF	3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 3	STOP (FOLDING)	---
304	R10-3EL	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 2	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
305	R10-3ER	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 3	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
306	R10-3ER	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 5	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
307	R10-3EL	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 4	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
308	R1-1F	3	OF	3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 5	STOP (FOLDING)	---
309	R7-1D	3	OF	3	2S	18	X	24	3	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
310	R7-1D	3	OF	3	2S	18	X	24	---	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
311	R7-1D	3	OF	3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
312	R7-1D	3	OF	3	2S	18	X	24	3	---	---	---	---	EXISTING ROUND STEEL SIGN POST	NO PARKING ANY TIME - DOUBLE ARROW	---
313	R1-1F	3	OF	3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 1	STOP (FOLDING)	---
314	R10-3EL	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 8	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
315	R10-3ER	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 1	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
316	R10-3ER	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 7	TO CROSS PUSH BUTTON [RIGHT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
317	R1-1F	3	OF	3	2S	30	X	30	---	7.46	---	---	---	TRAFFIC SIGNAL SB 7	STOP (FOLDING)	---
318	R10-3EL	3	OF	3	2S	9	X	15	---	---	---	---	---	TRAFFIC SIGNAL SB 6	TO CROSS PUSH BUTTON [LEFT ARROW]	INCIDENTAL TO PEDESTRIAN PUSH BUTTONS
319	R10-50L	3	OF	3	2S	30	X	36	7.5	---	---	---	---	TRAFFIC SIGNAL SB 6 (OVERHEAD ARM)	LEFT TURN YIELD ON FLASHING YELLOW ARROW	---
320	R7-1D	3	OF	3	2S	18	X	24	3	---	---	---	---	LIGHT POLE	NO PARKING ANY TIME - DOUBLE ARROW	---
321	R7-1D	3	OF	3	2S	18	X	24	3	---	---	---	1	---	NO PARKING ANY TIME - DOUBLE ARROW	---
M300	R5-2	3	OF	3	2S	24	X	24	---	---	---	1	---	TRAFFIC SIGNAL SB 4	NO TRUCKS SYMBOL	---
M301	R5-2	3	OF	3	2S	24	X	24	---	---	---	1	---	TRAFFIC SIGNAL SB 8	NO TRUCKS SYMBOL	---
322	D3-1	3	OF	3	2M	60	X	18	7.5	---	---	---	---	TRAFFIC SIGNAL SB 2 (OVERHEAD ARM)	STREET NAME SIGN	S 71ST ST
323	D3-1	3	OF	3	2M	60	X	18	7.5	---	---	---	---	TRAFFIC SIGNAL SB 6 (OVERHEAD ARM)	STREET NAME SIGN	S 71ST ST
M302	D3-1	3	OF	3	2S	36	X	12	---	---	---	1	---	TRAFFIC SIGNAL SB 8	STREET NAME SIGN	W LINCOLN AVE
SUBTOTAL									82.5	29.84	0	6	3			
PROJECT TOTAL									180.00	89.52	9	8	5			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

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TRAFFIC CONTROL ITEMS																							
LOCATION	* DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0410 TRAFFIC CONTROL BARRICADES TYPE II		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS		** 643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE		643.1050 PCMS QTY* DAY		643.1070 TRAFFIC CONTROL CONES 42-INCH	
		QTY*	DAY	QTY*	DAY	QTY*	DAY	EACH	EACH	QTY*	DAY	QTY*	DAY	QTY*	DAY	QTY*	DAY	SF	QTY*	DAY	QTY*	DAY	
84TH ST																							
STAGE 1A	7	95	665	4	28	25	175	51	51	54	378	41	287	3	21	58	406	--	--	--	--	--	
STAGE 1B	8	95	760	4	32	23	184	50	50	50	400	38	304	3	24	57	456	--	--	--	--	--	
STAGE 2A	7	84	588	4	28	19	133	51	51	42	294	34	238	3	21	53	371	--	--	--	--	--	
STAGE 2B	6	93	558	4	24	24	144	50	50	52	312	42	252	3	18	57	342	--	--	--	--	--	
STAGE 3	10	56	560	--	--	4	40	--	--	8	80	12	120	2	20	16	160				--	--	
SUBTOTALS		3,131		112		676		202	202	1,464		1,201		104		1,735		--		--		0	
76TH ST																							
STAGE 1A	15	83	1245	4	60	26	390	51	51	56	840	39	585	2	30	61	915	--	--	--	12	180	
STAGE 1B	15	74	1110	4	60	25	375	55	55	54	810	28	420	2	30	60	900	--	--	--	11	165	
STAGE 2A	9	64	576	4	36	25	225	33	33	54	486	27	243	2	18	51	459	--	1	7	11	99	
STAGE 2B	10	90	900	4	40	27	270	50	50	58	580	42	420	2	20	58	580	--	--	--	6	60	
STAGE 2C	10	69	690	4	40	24	240	50	50	52	520	27	270	2	20	56	560	--	--	--	11	110	
STAGE 3	10	56	560	--	--	4	40	--	--	8	80	12	120	2	20	16	160				--	--	
SUBTOTALS		5,081		236		1,540		239	239	3,316		2,058		138		3,574		--		7		614	
71ST ST																							
STAGE 1A & 1B	15	52	780	3	45	27	405	38	38	57	855	21	315	2	30	49	735	--	--	--	--	--	
STAGE 2A & 2B	13	59	767	3	39	27	351	47	47	57	741	22	286	2	26	49	637	--	--	--	--	--	
STAGE 3	8	56	448	--	--	4	32	--	--	8	64	12	96	2	16	16	128				--	--	
SUBTOTALS		1,995		84		788		85	85	1,660		697		72		1,500		--		--		0	
UNDISTRIBUTED		2,552		108		751		132	132	1,610		989		79		1,702		42		3		154	
PROJECT TOTALS		12,759		540		3,755		658	658	8,050		4,945		393		8,511		42		10		768	
* FOR INFORMATION ONLY																							
** FOR ALTERNATE ROUTE SIGNING																							

PERMANENT PAVEMENT MARKING									
* LOCATION	STATION	TO	STATION	646.1050	646.3050	SPV.0060.15	SPV.0090.03	SPV.0090.04	SPV.0090.05
				MARKING LINE		MARKING		MARKING DIAGONAL	
				GROOVED PERMANENT TAPE			GROOVED PREFORMED THERMOPLASTIC		GROOVED PREFORMED THERMOPLASTIC 12-INCH
				4-INCH (WHITE)	4-INCH (YELLOW)	8-INCH (WHITE)	ARROWS TYPE 2	STOP LINE 18-INCH	
				LF	LF	LF	EACH	LF	
84TH ST	100+50	-	112+50	535	3,370	230	4	112	336
76TH ST	126+25	-	139+25	678	3,240	230	4	111	330
71ST ST	143+00	-	155+25	505	2,582	230	4	102	270
SUBTOTALS				1,718	9,192	--	--	--	--
PROJECT TOTALS				10,910	690	12	325	936	465
* LOCATION TOTALS INCLUDE MARKINGS 1 BLOCK EAST AND WEST OF EACH PROJECT INTERSECTION									

<u>COVERING SIGNS</u>			
643.0920			
TRAFFIC CONTROL			
COVERING SIGNS TYPE II			
	NUMBER OF		NUMBER OF
STAGE	EACH	CYCLES*	SIGNS*
STAGE 1	7	1	7
PROJECT TOTALS	7		
* FOR INFORMATION ONLY			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

TEMPORARY PAVEMENT MARKING															
				646.9000	646.9200	649.0105		649.0150		649.0205	649.0250	649.0550	649.0805	649.0850	649.0960
				TEMPORARY MARKING REMOVAL LINE		TEMPORARY MARKING LINE PAINT 4-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH		TEMPORARY MARKING LINE PAINT 8-INCH	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH	TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	TEMPORARY MARKING STOP LINE PAINT 18-INCH	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH	TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH
LOCATION	STATION	TO	STATION	4-INCH LF	WIDE LF	(WHITE) LF	(YELLOW) LF	(WHITE) LF	(YELLOW) LF	(WHITE) LF	(WHITE) LF		(WHITE) LF	(WHITE) LF	
84TH ST	100+50	-	112+50												
STAGE 1A				580	34	500	1,000	910	1,715	--	70	1	11	11	793
STAGE 1B				--	--	--	--	925	854	210	--	--	--	22	130
STAGE 2A				--	--	--	--	1,580	2,702	--	277	--	--	11	100
STAGE 2B				--	--	--	--	580	1,050	--	180	2	--	33	--
STAGE 3				--	--	--	--	360	--	--	--	--	--	--	--
FINAL*				930	--	--	--	--	--	--	--	--	--	--	--
SUBTOTALS				1,510	34	1,500		10,676		210	527	3	11	77	1,023
76TH ST	126+25	-	139+25												
STAGE 1A				850	30	640	1,280	850	1,470	--	70	1	11	10	230
STAGE 1B				--	11	110	220	690	904	180	--	2	11	32	30
STAGE 2A				--	--	--	--	940	2,480	--	124	2	--	44	--
STAGE 2B				60	--	--	240	640	690	--	200	2	--	11	--
STAGE 2C				--	--	--	--	620	780	--	--	1	--	20	--
STAGE 3				--	--	--	--	360	--	--	--	--	--	--	--
FINAL*				1,190	--	--	--	--	--	--	--	--	--	--	--
SUBTOTALS				2,100	41	2,490		10,424		180	394	8	22	117	30
71ST ST	143+00	-	155+25												
STAGE 1A & 1B				590	30	570	1,140	470	760	--	--	--	--	--	--
STAGE 2A & 2B				--	--	--	--	1,000	1,900	--	--	--	--	--	--
STAGE 3				--	--	--	--	360	--	--	--	--	--	--	--
FINAL*				980	--	--	--	--	--	--	--	--	--	--	--
SUBTOTALS				1,570	30	1,710		4,490		0	0	0	0	0	0
PROJECT TOTALS				5,180	105	5,700		25,590		390	921	11	33	194	1,053
* FINAL PAVEMENT MARKING REMOVALS LOCATED ON LINCOLN AVE 1 BLOCK EAST AND 1 BLOCK WEST OF EACH PROJECT WORK ZONE FOR REFRESHING EXISTING CENTERLINES AND LANE SKIPS.															

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CONSTRUCTION STAKING ITEMS										
			650.5000	650.5500	650.7000	650.8000	650.8500	650.9000	650.9910	
			CONSTRUCTION STAKING							
			CURB		CONCRETE PAVEMENT	RESURFACING REFERENCE	ELECTRICAL		SUPPLEMENTAL	
			BASE	GUTTER AND CURB & GUTTER			INSTALLATIONS (2110-00-73)	CURB RAMPS	CONTROL (2110-00-73)	
LOCATION	STATION	TO STATION	LF	LF	LF	LF	LS	EACH	LS	
84TH ST	103+70	- 109+56	67	170	39	586	--	6	--	
76TH ST	130+38	- 136+05	--	181	--	567	--	6	--	
71ST ST	146+22	- 151+87	--	136	--	565	--	8	--	
PROJECT 2110-00-73			--	--	--	--	1	--	1	
PROJECT TOTALS			67	487	39	1,718	1	20	1	

SAWING PAVEMENT ITEMS					
			690.0150	690.0250	
			SAWING	SAWING	
			ASPHALT	CONCRETE	
LOCATION	STATION	TO STATION	LF	LF	
84TH ST	103+70	- 109+56	175	355	
76TH ST	130+38	- 136+05	385	225	
71ST ST	146+22	- 151+87	210	205	
PROJECT TOTALS			770	785	

UTILITY LINE OPENING	
SPV.0060.16 UTILITY LINE OPENING	
LOCATION	EACH
PROJECT WIDE	16
PROJECT TOTALS	16

STORM SEWER STRUCTURES

				611.0648	SPV.0060.08	SPV.0060.09	SPV.0060.10	SPV.0060.11	SPV.0060.14	SPV.0200.03	SPV.0200.04	SPV.0200.05				
				INLET COVERS	CATCH BASIN	ADJUST STORM	ADJUST CATCH	STORM MANHOLE	STORM STRUCTURE	STORM MANHOLE		REBUILD				
				TYPE R-1	REPLACEMENT	MANHOLE FRAME	BASIN FRAME	FRAMES	MISCELLANEOUS	48-INCH	42-INCH	STORM	RIM			
CATEGORY	STRUCTURE	STATION	LOCATION	EACH	EACH	EACH	EACH	EACH	EACH	DIAMETER	DIAMETER	STRUCTURE	ELEVATION	INVERT ELEVATION		
	NUMBER									VF	VF	VF				
0010	1	103+20.5	29.6'	LT	-	-	-	-	-	1	-	-	-	-	-	
	2	103+68.3	30.2'	LT	-	-	-	-	-	1	-	-	-	-	-	
	3	103+75.1	27.8'	RT	1	-	-	1	-	-	-	-	-	-	-	
	4	106+48.0	29.5'	LT	-	-	-	-	-	1	-	-	-	-	-	
	5	106+59.6	28.2'	LT	-	-	1	-	1	-	-	-	-	-	-	
	8	106+72.2	0.7'	LT	-	-	-	-	-	1	-	-	-	-	-	
	9	106+96.6	5.7'	RT	-	-	-	-	-	1	-	-	-	-	-	
	10	106+40.4	27.0'	RT	1	-	-	-	-	-	-	-	2.0	-	-	
	13	106+72.2	47.9'	RT	-	-	-	-	-	1	-	-	-	-	-	
	14	106+97.6	48.0'	RT	-	-	-	-	-	1	-	-	-	-	-	
	15	107+10.8	50.2'	RT	-	-	-	-	-	1	-	-	-	-	-	
	16	109+57.1	28.2'	RT	-	-	-	-	-	1	-	-	-	-	-	
	17	130+43.8	3.0'	LT	-	-	-	-	-	1	-	-	-	-	-	
	18	130+43.5	28.0'	RT	-	-	-	-	-	1	-	-	-	-	-	
	19	133+03.1	3.2'	LT	-	-	1	-	1	-	-	-	-	-	-	
	21	132+98.6	48.0'	RT	-	-	-	-	-	1	-	-	-	-	-	
	22	133+03.6	52.0'	RT	-	-	-	-	-	1	-	-	-	-	-	
	25	133+43.8	48.2'	RT	-	-	-	-	-	1	-	-	-	-	-	
	26	133+56.7	29.3'	LT	-	-	-	-	-	1	-	-	-	-	-	
	27	133+66.6	28.9'	LT	1	-	-	1	-	-	-	-	-	-	-	
	28	133+56.9	2.4'	RT	-	-	-	-	1	-	-	8.0	-	-	8" N. 164.89 12" S. 164.04 12" E. 163.74 12" W. 162.07	
	29	134+94.2	2.5'	LT	-	-	-	-	-	1	-	-	-	-	-	-
	30	134+94.3	27.9'	RT	-	-	-	-	-	1	-	-	-	-	-	-
	32	148+72.1	29.5'	LT	1	-	-	-	-	-	-	-	2.0	-	-	-
	33	148+88.1	2.2'	LT	-	-	-	-	-	1	-	-	-	-	-	-
	34	149+21.3	19.9'	RT	-	-	-	-	1	-	6.0	-	-	159.81	24" NW. 154.44, 24" E. 154.07, 12" SW. 154.68	
	35	148+71.2	28.1'	RT	1	1	-	-	-	-	-	-	-	GRATE 159.54	12" E. 155.87	
	36	148+90.7	29.1'	RT	-	-	-	-	-	1	-	-	-	-	-	-
	38	148+99.2	53.2'	RT	-	-	-	-	1	-	-	5.0	-	160.07	12" E. 156.19, 12" S. 155.51, 12" W. 156.43, 12" NW. 155.50	
	39	149+20.5	53.9'	RT	-	-	-	-	-	1	-	-	-	-	-	-
	40	151+86.7	29.8'	LT	1	-	-	1	-	-	-	-	-	-	-	-
	41	151+82.8	28.1'	RT	1	-	-	1	-	-	-	-	-	-	-	-
	PROJECT TOTALS				7	1	2	4	5	20	6.0	13.0	4.0			

ALL ITEMS CATEGORY 0010 UNLESS NOTED

REMOVING CONCRETE BASES

* 204.0195 REMOVING CONCRETE BASES		
LOCATION	ITEM NO.	EACH
W. LINCOLN AVE & S. 84TH ST	SB1	1
	SB3	1
	SB5	1
	SB7	1
	CB1	1
INTERSECTION TOTAL		5

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING LIGHTING UNITS

* SPV.0060.01 REMOVING LIGHTING UNITS		
LOCATION	ITEM NO.	EACH
W. LINCOLN AVE & S. 84TH ST	SB2	1
	SB4	1
	SB6	1
	SB8	1
INTERSECTION TOTAL		4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING PULL BOXES

* 653.0905 REMOVING PULL BOXES		
LOCATION	ITEM NO.	EACH
W. LINCOLN AVE & S. 84TH ST	PB1	1
	PB2	1
	PB3	1
	PB4	1
INTERSECTION TOTAL		4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 84TH ST

204.9105.S.01 REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 84TH ST	
LOCATION	LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 1 OF 8

CONDUIT ITEMS

LOCATION	FROM	TO	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	* 652.0615 CONDUIT SPECIAL 3-INCH
			LF	LF	LF
W. LINCOLN AVE & S. 84TH ST	CB1	PB1	23	23	--
	PB1	SB1	4	--	--
	PB1	PB2	--	--	142
	PB2	SB2	5	--	--
	PB2	SB3	9	--	--
	PB2	PB3	--	--	150
	PB3	SB4	--	10	--
	PB3	SB5	5	--	--
	PB3	SB6	15	--	--
	PB3	PB4	--	--	150
	PB4	SB7	16	--	--
	PB4	SB8	4	--	--
	PB4	PB5	--	--	142
	PB5	SB9	--	19	--
	PB5	CB1	7	7	--
	LPB1	LPB2	--	--	60
INTERSECTION TOTAL			88	59	644

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	* 653.0140 PULL BOXES STEEL 24" x 42" EACH
W. LINCOLN AVE & S. 84TH ST	PB1	W LINCOLN AVE	107+17.6	45.0' RT	1
	PB2	W LINCOLN AVE	106+47.3	39.1' RT	1
	PB3	W LINCOLN AVE	106+54.1	35.8' LT	1
	PB4	W LINCOLN AVE	107+28.5	36.3' LT	1
	PB5	W LINCOLN AVE	107+42.6	33.1' RT	1
	LPB1	W LINCOLN AVE	107+71.5	34.4' LT	1
	LPB2	W LINCOLN AVE	107+85.2	32.7' RT	1
INTERSECTION TOTAL					7

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL W. LINCOLN AVE & S. 84TH ST LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	* 654.0101 CONCRETE BASES TYPE 1	* 654.0102 CONCRETE BASES TYPE 2	* 654.0120 CONCRETE BASES TYPE 10 SPECIAL	* 654.0205 CONCRETE CONTROL CABINET BASE TYPE 7
					EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 84TH ST	SB1	W LINCOLN AVE	107+14.8	41.9' RT	1	--	--	--
	SB2	W LINCOLN AVE	106+51.6	41.5' RT	--	1	--	--
	SB3	W LINCOLN AVE	106+41.4	33.0' RT	1	--	--	--
	SB4	W LINCOLN AVE	106+45.0	32.5' LT	--	--	1	--
	SB5	W LINCOLN AVE	106+50.4	32.4' LT	1	--	--	--
	SB6	W LINCOLN AVE	106+65.9	44.9' LT	1	--	--	--
	SB7	W LINCOLN AVE	107+15.4	43.5' LT	--	1	--	--
	SB8	W LINCOLN AVE	107+26.3	32.7' LT	1	--	--	--
	SB9	W LINCOLN AVE	107+25.4	33.7' RT	--	--	1	--
	CB1	W LINCOLN AVE	107+36.1	34.1' RT	--	--	--	1
INTERSECTION TOTAL					5	2	2	1

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE
	W. LINCOLN AVE & S. 84TH ST LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
	W. LINCOLN AVE & S. 84TH ST LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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SIGNAL BASES, POLES, AND MAST ARMS														
		*	*	*	*	*	*	*	*	*	*	*	*	*
		657.0100	657.0255	657.0310	657.0405	657.0420	657.0425	657.0352	657.0595	657.0541	657.0609	657.0815	658.0500	659.1125
		PEDESTAL	TRANSFORMER	POLES	TRAFFIC SIGNAL	TRAFFIC SIGNAL	TRAFFIC SIGNAL	POLES	TROMBONE	MONOTUBE	LUMINAIRE ARMS	LUMINAIRE	PEDESTRIAN	LUMINAIRES
		BASE	BASES BREAKAWAY	TYPE 3	STANDARDS	STANDARDS	STANDARDS	TYPE 10	ARMS	ARMS	SINGLE MEMBER	ARMS STEEL	PUSH	UTILITY
	SIGNAL		11 1/2-INCH		ALUMINUM	ALUMINUM	ALUMINUM		25-FT	40-FT	4-INCH CLAMP	15-FT	BUTTONS	LED C
	BASE		BOLT CIRCLE		3.5-FT	13-FT	15-FT			SPECIAL	6-FT			
LOCATION	NO	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 84TH ST	SB1	1	--	--	--	1	--	--	--	--	--	--	1	--
	SB2	--	1	1	--	--	--	--	1	--	1	--	1	1
	SB3	1	--	--	--	--	1	--	--	--	--	--	1	--
	SB4	--	--	--	--	--	--	1	--	1	--	1	--	1
	SB5	1	--	--	1	--	--	--	--	--	--	--	1	--
	SB6	1	--	--	--	1	--	--	--	--	--	--	1	--
	SB7	--	1	1	--	--	--	--	1	--	1	--	1	1
	SB8	1	--	--	--	--	1	--	--	--	--	--	1	--
	SB9	--	--	--	--	--	--	1	--	1	--	1	1	1
INTERSECTION TOTAL		5	2	2	1	2	2	2	2	2	2	2	8	4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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(CONTINUED ON NEXT PAGE)

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 76TH STREET TRAFFIC SIGNAL TABLES.

⁺⁺EVP DETECTOR CABLE IS MEASURED FROM CB1 TO THE EVP DETECTOR HEAD.

**W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY**

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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			TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE					(CONTINUED FROM PREVIOUS PAGE)			
			*	*	*	*	*	*	*, ++	*	*
			655.0230	655.0240	655.0260	655.0320	655.0515	655.0610	(INCIDENTAL)	(INCIDENTAL)	(INCIDENTAL)
			CABLE	CABLE	CABLE	CABLE TYPE	ELECTRICAL	ELECTRICAL	TRAFFIC	VIDEO	LOOP
			TRAFFIC	TRAFFIC	TRAFFIC	TYPE UF	WIRE TRAFFIC	WIRE	SIGNAL EVP	DETECTION	DETECTOR
			SIGNAL	SIGNAL	SIGNAL	2-10 AWG	SIGNALS	LIGHTING	DETECTOR	CABLE	LEAD IN
LOCATION	FROM	TO	5-14 AWG	7-14 AWG	12-14 AWG	GROUND	10 AWG	12 AWG	CABLE	LF	CABLE
W. LINCOLN AVE & S. 84TH ST	SB1	HEAD 1	19	--	--	--	--	--	--	--	--
	SB1	HEAD 24	15	--	--	--	--	--	--	--	--
	SB1	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB2	HEAD 10	50	--	--	--	--	--	--	--	--
	SB2	HEAD 11	50	--	--	--	--	--	--	--	--
	SB2	HEAD 23	15	--	--	--	--	--	--	--	--
	SB2	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB2	LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB3	HEAD 7	--	22	--	--	--	--	--	--	--
	SB3	HEAD 12	22	--	--	--	--	--	--	--	--
	SB3	HEAD 22	15	--	--	--	--	--	--	--	--
	SB3	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB4	HEAD 5	65	--	--	--	--	--	--	--	--
	SB4	HEAD 6	65	--	--	--	--	--	--	--	--
	SB4	HEAD 8	--	66	--	--	--	--	--	--	--
	SB4	LUMINAIRE	--	--	--	--	--	144	--	--	--
	SB5	HEAD 21	15	--	--	--	--	--	--	--	--
	SB5	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB6	HEAD 9	19	--	--	--	--	--	--	--	--
	SB6	HEAD 20	15	--	--	--	--	--	--	--	--
	SB6	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB7	HEAD 2	50	--	--	--	--	--	--	--	--
	SB7	HEAD 3	50	--	--	--	--	--	--	--	--
	SB7	HEAD 19	15	--	--	--	--	--	--	--	--
	SB7	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB7	LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB8	HEAD 4	22	--	--	--	--	--	--	--	--
	SB8	HEAD 15	--	22	--	--	--	--	--	--	--
	SB8	HEAD 18	15	--	--	--	--	--	--	--	--
	SB8	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB9	HEAD 13	65	--	--	--	--	--	--	--	--
	SB9	HEAD 14	65	--	--	--	--	--	--	--	--
	SB9	HEAD 16	--	66	--	--	--	--	--	--	--
	SB9	HEAD 17	15	--	--	--	--	--	--	--	--
	SB9	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB9	LUMINAIRE	--	--	--	--	--	144	--	--	--
INTERSECTION TOTAL			662	382	1009	428	827	522	735	735	48

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 76TH STREET TRAFFIC SIGNAL TABLES.

**EVP DETECTOR CABLE IS MEASURED FROM CB1 TO THE EVP DETECTOR HEAD.

ALL ITEMS CATEGORY 0020 UNLESS NOTED

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL FACES														
		*	*			+	+	+	+	+	+	+	+	++
		658.0173	658.0174	BACKPLATE	BACKPLATE	LED	LED	LED	LED	LED	LED	LED	658.0416	LED MODULES
		TRAFFIC	TRAFFIC	3-SEC	4-SEC	RED	YELLOW	GREEN	RED	YELLOW	GREEN	RED	PEDESTRIAN	COUNTDOWN
		FACE	FACE			BALL	BALL	BALL	ARROW	ARROW	ARROW	ARROW	SIGNAL	TIMER 16"
		3S 12-INCH	4S 12-INCH											16-INCH
LOCATION	SIG. BASE NO	SIG. HEAD NO	TYPE OF MOUNT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 84TH ST	SB1	1	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB1	24	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB2	10	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB2	11	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB2	23	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB3	12	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB3	22	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB3	7	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--
	SB4	8	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--
	SB4	5	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB4	6	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB4	21	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB6	9	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB6	20	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB7	2	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB7	3	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB7	19	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB8	4	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB8	15	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--
	SB8	18	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
	SB9	16	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--
	SB9	13	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB9	14	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--
	SB9	17	PEDESTRIAN	--	--	--	--	--	--	--	--	--	1	1
INTERSECTION TOTAL				12	4	12	4	12	12	12	4	8	4	8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 76TH STREET TRAFFIC SIGNAL TABLES.

+INCIDENTAL TO 658.0173 OR 658.0174
++INCIDENTAL TO 658.0416

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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TRAFFIC SIGNAL CONTROLLER & CABINET

*
SPV.0060.02
TRAFFIC SIGNAL
CONTROLLER & CABINET

LOCATION	EACH
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

*
ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
76TH STREET TRAFFIC SIGNAL
TABLES.

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EMERGENCY VEHICLE PREEMPTION SYSTEM

W. LINCOLN AVE & S. 84TH ST

SPV.0105.04
EMERGENCY VEHICLE
PREEMPTION SYSTEM
W. LINCOLN AVE & S. 84TH ST

LOCATION	LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

VIDEO VEHICLE DETECTION SYSTEM

SPV.0105.01
VIDEO VEHICLE DETECTION
SYSTEM
W. LINCOLN AVE & S. 84TH ST

LOCATION	LS
W. LINCOLN AVE & S. 84TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 84TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 8 OF 8

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REMOVING CONCRETE BASES

			* 204.0195 REMOVING CONCRETE BASES EACH
LOCATION	ITEM NO.		
W. LINCOLN AVE & S. 76TH ST	SB1		1
	SB3		1
	SB5		1
	SB7		1
	CB1		1
INTERSECTION TOTAL			5

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING PULL BOXES

			* 653.0905 REMOVING PULL BOXES EACH
LOCATION	ITEM NO.		
W. LINCOLN AVE & S. 76TH ST	PB1		1
INTERSECTION TOTAL			1

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

3

REMOVING LIGHTING UNITS

			* SPV.0060.01 REMOVING LIGHTING UNITS EACH
LOCATION	ITEM NO.		
W. LINCOLN AVE & S. 76TH ST	SB2		1
	SB4		1
	SB6		1
	SB8		1
INTERSECTION TOTAL			4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 76TH ST

		204.9105.S.02 REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 76TH ST LS
LOCATION		
W. LINCOLN AVE & S. 76TH ST		1
TOTAL		1

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

CONDUIT ITEMS

			*	*	*
			652.0225	652.0235	652.0615
			CONDUIT RIGID	CONDUIT RIGID	CONDUIT
			NONMETALLIC	NONMETALLIC	SPECIAL
			SCHEDULE 40	SCHEDULE 40	3-INCH
			2-INCH	3-INCH	
LOCATION	FROM	TO	LF	LF	LF
W. LINCOLN AVE & S. 76TH ST	CB1	PB1	11	11	--
	PB1	SB1	5	--	--
	PB1	PB2	--	--	134
	PB2	SB2	17	--	--
	PB2	SB3	5	--	--
	PB2	PB3	--	--	152
	PB3	SB4	--	15	--
	PB3	SB5	4	--	--
	PB3	SB6	10	--	--
	PB3	PB4	--	--	150
	PB4	SB7	20	--	--
	PB4	SB8	9	--	--
	PB4	PB5	--	--	140
	PB5	SB9	--	6	--
	PB5	CB1	7	7	--
	NORTH CROSSING (LIGHTING)		--	--	60
	SOUTH CROSSING (LIGHTING)		--	--	60
INTERSECTION TOTAL			88	39	696

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	* 653.0140 PULL BOXES STEEL 24" x 42" EACH
W. LINCOLN AVE & S. 76TH ST	PB1	W LINCOLN AVE	132+99.1	50.2' LT	1
	PB2	W LINCOLN AVE	133+64.5	37.5' LT	1
	PB3	W LINCOLN AVE	133+53.1	37.8' RT	1
	PB4	W LINCOLN AVE	132+78.8	33.1' RT	1
	PB5	W LINCOLN AVE	132+88.8	35.8' LT	1
INTERSECTION TOTAL					5

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

ELECTRICAL SERVICE METER BREAKER PEDESTAL

656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL W. LINCOLN AVE & S. 76TH ST LS	
LOCATION	
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	*	*	*	*
					654.0101	654.0102	654.0120	654.0205
					CONCRETE	CONCRETE	CONCRETE	CONCRETE
					BASES	BASES	BASES	CONTROL CABINET
					TYPE 1	TYPE 2	TYPE 10	BASE TYPE 7
					EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 76TH ST	SB1	W LINCOLN AVE	132+98.7	45.5' LT	--	1	--	--
	SB2	W LINCOLN AVE	133+49.6	45.8' LT	--	1	--	--
	SB3	W LINCOLN AVE	133+62.0	33.8' LT	1	--	--	--
	SB4	W LINCOLN AVE	133+66.8	32.5' RT	--	--	1	--
	SB5	W LINCOLN AVE	133+51.2	34.3' RT	1	--	--	--
	SB6	W LINCOLN AVE	133+46.9	45.3' RT	1	--	--	--
	SB7	W LINCOLN AVE	132+96.4	41.9' RT	--	1	--	--
	SB8	W LINCOLN AVE	132+88.0	33.9' RT	1	--	--	--
	SB9	W LINCOLN AVE	132+84.2	32.5' LT	--	--	1	--
	CB1	W LINCOLN AVE	132+91.7	42.7' LT	--	--	--	1
INTERSECTION TOTAL					4	3	2	1

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.02 SIGNAL MOUNTING HARDWARE
	W. LINCOLN AVE & S. 76TH ST LS
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200.02 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
	W. LINCOLN AVE & S. 76TH ST LS
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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SIGNAL BASES, POLES, AND MAST ARMS								
		*	*	*	*	*	*	*
		657.0100	657.0255	657.0310	657.0405	657.0420	657.0425	657.0352
		PEDESTAL	TRANSFORMER	POLES	TRAFFIC SIGNAL	TRAFFIC SIGNAL	TRAFFIC SIGNAL	POLES
		BASE	BASES BREAKAWAY	TYPE 3	STANDARDS	STANDARDS	STANDARDS	TYPE 10
	SIGNAL		11 1/2-INCH		ALUMINUM	ALUMINUM	ALUMINUM	SPECIAL
	BASE		BOLT CIRCLE		3.5-FT	13-FT	15-FT	
LOCATION	NO	EACH	EACH	EACH	EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 76TH ST	SB1	--	1	1	--	--	--	--
	SB2	--	1	1	--	--	--	--
	SB3	1	--	--	--	--	1	--
	SB4	--	--	--	--	--	--	1
	SB5	1	--	--	1	--	--	--
	SB6	1	--	--	--	1	--	--
	SB7	--	1	1	--	--	--	--
	SB8	1	--	--	--	--	1	--
	SB9	--	--	--	--	--	--	1
INTERSECTION TOTAL		4	3	3	1	1	2	2

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 4 OF 9

SIGNAL BASES, POLES, AND MAST ARMS (CONT.)

	*	*	*	*	*	*
	657.0595	657.0541	657.0609	657.0815	658.0500	659.1125
	TROMBONE	MONOTUBE	LUMINAIRE ARMS	LUMINAIRE	PEDESTRIAN	LUMINAIRES
	ARMS	ARMS	SINGLE MEMBER	ARMS STEEL	PUSH	UTILITY
SIGNAL	25-FT	40-FT	4-INCH CLAMP	15-FT	BUTTONS	LED C
BASE		SPECIAL	6-FT			
NO	EACH	EACH	EACH	EACH	EACH	EACH
SB1	--	--	1	--	1	1
SB2	1	--	1	--	1	--
SB3	--	--	--	--	1	--
SB4	--	1	--	1	--	1
SB5	--	--	--	--	1	--
SB6	--	--	--	--	1	--
SB7	1	--	1	--	1	1
SB8	--	--	--	--	1	--
SB9	--	1	--	1	1	1
INTERSECTION TOTAL	2	2	3	2	8	4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

**++EVP DETECTOR CABLE IS MEASURED FROM
CB1 TO THE EVP DETECTOR HEAD.**

**W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY**

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED FROM PREVIOUS PAGE)											
* * * * *											
655.0230 655.0240 655.0260 655.0320 655.0515 655.0610 (INCIDENTAL) (INCIDENTAL) (INCIDENTAL)											
CABLE CABLE CABLE CABLE TYPE ELECTRICAL ELECTRICAL * , ++ * *											
TRAFFIC TRAFFIC TRAFFIC TYPE UF WIRE TRAFFIC WIRE TRAFFIC VIDEO VIDEO											
SIGNAL SIGNAL SIGNAL 2-10 AWG SIGNALS LIGHTING DETECTOR DETECTOR DETECTOR											
5-14 AWG 7-14 AWG 12-14 AWG GROUNDED 10 AWG 12 AWG CABLE CABLE CABLE											
LOCATION	FROM	TO	LF	LF	LF	LF	LF	LF	LF	LF	LF
W. LINCOLN AVE & S. 76TH ST	SB1	HEAD 1	19	--	--	--	--	--	--	--	--
	SB1	HEAD 24	15	--	--	--	--	--	--	--	--
	SB1	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB1	LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB2	HEAD 10	50	--	--	--	--	--	--	--	--
	SB2	HEAD 11	50	--	--	--	--	--	--	--	--
	SB2	HEAD 23	15	--	--	--	--	--	--	--	--
	SB2	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB3	HEAD 7	--	22	--	--	--	--	--	--	--
	SB3	HEAD 12	22	--	--	--	--	--	--	--	--
	SB3	HEAD 22	15	--	--	--	--	--	--	--	--
	SB3	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB4	HEAD 5	65	--	--	--	--	--	--	--	--
	SB4	HEAD 6	65	--	--	--	--	--	--	--	--
	SB4	HEAD 8	--	66	--	--	--	--	--	--	--
	SB4	HEAD 21	15	--	--	--	--	--	--	--	--
	SB4	LUMINAIRE	--	--	--	--	--	144	--	--	--
	SB5	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB6	HEAD 9	19	--	--	--	--	--	--	--	--
	SB6	HEAD 20	15	--	--	--	--	--	--	--	--
	SB6	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB7	HEAD 2	50	--	--	--	--	--	--	--	--
	SB7	HEAD 3	50	--	--	--	--	--	--	--	--
	SB7	HEAD 19	15	--	--	--	--	--	--	--	--
	SB7	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB7	LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB8	HEAD 4	22	--	--	--	--	--	--	--	--
	SB8	HEAD 15	--	22	--	--	--	--	--	--	--
	SB8	HEAD 18	15	--	--	--	--	--	--	--	--
	SB8	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB9	HEAD 13	65	--	--	--	--	--	--	--	--
	SB9	HEAD 14	65	--	--	--	--	--	--	--	--
	SB9	HEAD 16	--	66	--	--	--	--	--	--	--
	SB9	HEAD 17	15	--	--	--	--	--	--	--	--
	SB9	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB9	LUMINAIRE	--	--	--	--	--	144	--	--	--
INTERSECTION TOTAL			662	381	964	391	815	522	726	726	48

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

**EVP DETECTOR CABLE IS MEASURED FROM CB1 TO THE EVP DETECTOR HEAD.

ALL ITEMS CATEGORY 0020 UNLESS NOTED

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL FACES															
		*	*			+	+	+	+	+	+	+	+	*	++
		658.0173	658.0174	+	+	+	+	+	+	+	+	+	+	658.0416	++
		TRAFFIC	TRAFFIC	BACKPLATE	BACKPLATE	LED	LED	LED	LED	LED	LED	LED	LED	PEDESTRIAN	LED MODULES
		SIGNAL	SIGNAL	3-SEC	4-SEC	RED	YELLOW	GREEN	RED	YELLOW	GREEN	RED	YELLOW	SIGNAL	COUNTDOWN
		FACE	FACE			BALL	BALL	BALL	ARROW	ARROW	ARROW	ARROW	ARROW	FACE	TIMER 16"
		3S 12-INCH	4S 12-INCH											16-INCH	16-INCH
LOCATION	SIG. BASE NO	SIG. HEAD NO	TYPE OF MOUNT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 76TH ST	SB1	1	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB1	24	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB2	10	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB2	11	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB2	23	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB3	12	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB3	7	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB3	22	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB4	8	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB4	5	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB4	6	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB4	21	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB6	9	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB6	20	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB7	2	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB7	3	TROMBONE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB7	19	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB8	4	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB8	15	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB8	18	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
INTERSECTION TOTAL				12	4	12	4	12	12	12	4	8	4	8	8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 71ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

+INCIDENTAL TO 658.0173 OR 658.0174
++INCIDENTAL TO 658.0416

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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TRAFFIC SIGNAL CONTROLLER & CABINET

*
SPV.0060.02
TRAFFIC SIGNAL
CONTROLLER & CABINET

LOCATION	EACH
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

*
ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 71ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

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EMERGENCY VEHICLE PREEMPTION SYSTEM
W. LINCOLN AVE & S. 76TH ST

SPV.0105.05
EMERGENCY VEHICLE
PREEMPTION SYSTEM
W. LINCOLN AVE & S. 76TH ST

LOCATION	LS
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

VIDEO VEHICLE DETECTION SYSTEM

SPV.0105.02
VIDEO VEHICLE DETECTION
SYSTEM
W. LINCOLN AVE & S. 76TH ST

LOCATION	LS
W. LINCOLN AVE & S. 76TH ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 76TH STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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REMOVING CONCRETE BASES

* 204.0195 REMOVING CONCRETE BASES EACH		
LOCATION	ITEM NO.	
W. LINCOLN AVE & S. 71ST ST	SB1	1
	SB2	1
	SB3	1
	SB5	1
	SB6	1
	SB7	1
	CB1	1
INTERSECTION TOTAL		7

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

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REMOVING LIGHTING UNITS

* SPV.0060.01 REMOVING LIGHTING UNITS EACH		
LOCATION	ITEM NO.	
W. LINCOLN AVE & S. 71ST ST	SB4	1
	SB8	1
INTERSECTION TOTAL		2

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING PULL BOXES

* 653.0905 REMOVING PULL BOXES EACH		
LOCATION	ITEM NO.	
W. LINCOLN AVE & S. 71ST ST	PB1	1
	PB2	1
	PB3	1
	PB4	1
INTERSECTION TOTAL		4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 71ST ST

204.9105.S.03 REMOVING TRAFFIC SIGNALS W. LINCOLN AVE & S. 71ST ST LS	
LOCATION	
W. LINCOLN AVE & S. 71ST ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 1 OF 8

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CONDUIT ITEMS

LOCATION	FROM	TO	*	*	*
			652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	652.0615 CONDUIT SPECIAL 3-INCH
W. LINCOLN AVE & S. 71ST ST	CB1	PB1	26	26	
	PB1	SB1	8	--	--
	PB1	PB2	--	--	174
	PB2	SB2	--	20	--
	PB2	SB3	7	--	--
	PB2	PB3	--	--	100
	PB3	SB4	5	--	--
	PB3	SB5	21	--	--
	PB3	PB4	--	--	170
	PB4	SB6	--	6	--
	PB4	PB5	30	30	--
	PB5	SB7	6	--	--
	PB5	PB6	--	--	86
	PB6	SB8	14	--	--
	PB6	CB1	6	6	--
INTERSECTION TOTAL			123	88	530

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

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PULL BOXES

LOCATION	PULL BOX NO.	ALIGNMENT	STATION	OFFSET	*
					653.0140 PULL BOXES STEEL 24" x 42" EACH
W. LINCOLN AVE & S. 71ST ST	PB1	W LINCOLN AVE	148+63.4	33.7' RT	1
	PB2	W LINCOLN AVE	148+80.0	52.0' LT	1
	PB3	W LINCOLN AVE	149+29.5	50.3' LT	1
	PB4	W LINCOLN AVE	149+47.4	32.5' RT	1
	PB5	W LINCOLN AVE	149+24.8	51.0' RT	1
	PB6	W LINCOLN AVE	148+82.4	55.6' RT	1
INTERSECTION TOTAL					6

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

ELECTRICAL SERVICE METER BREAKER PEDESTAL

		656.0200.03 ELECTRICAL SERVICE METER BREAKER PEDESTAL W. LINCOLN AVE & S. 71ST ST
LOCATION		LS
W. LINCOLN AVE & S. 71ST ST		1
TOTAL		1

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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CONCRETE BASES

LOCATION	SIGNAL BASE NO.	ALIGNMENT	STATION	OFFSET	*	*	*	*
					654.0101	654.0102	654.0120	654.0205
					CONCRETE	CONCRETE	CONCRETE	CONCRETE
					BASES TYPE 1	BASES TYPE 2	BASES TYPE 10 SPECIAL	CONTROL CABINET BASE TYPE 7
					EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 71ST ST	SB1	W LINCOLN AVE	148+71.2	33.4' RT	1	--	--	--
	SB2	W LINCOLN AVE	148+74.0	32.9' LT	--	--	1	--
	SB3	W LINCOLN AVE	148+83.8	46.5' LT	1	--	--	--
	SB4	W LINCOLN AVE	149+29.5	45.0' LT	--	1	--	--
	SB5	W LINCOLN AVE	149+41.3	33.8' LT	1	--	--	--
	SB6	W LINCOLN AVE	149+41.8	32.5' RT	--	--	1	--
	SB7	W LINCOLN AVE	149+25.9	45.2' RT	1	--	--	--
	SB8	W LINCOLN AVE	148+83.7	43.5' RT	--	1	--	--
	CB1	W LINCOLN AVE	148+82.7	49.3' RT	--	--	--	1
INTERSECTION TOTAL					4	2	2	1

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

SIGNAL MOUNTING HARDWARE

LOCATION	658.5069.03
	SIGNAL MOUNTING HARDWARE
W. LINCOLN AVE & S. 71ST ST	
LS	
W. LINCOLN AVE & S. 71ST ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

SIGNAL BASES, POLES, AND MAST ARMS												
		*	*	*	*	*	*	*	*	*	*	*
		657.0100	657.0255	657.0310	657.0420	657.0425	657.0352	657.0541	657.0609	657.0815	658.0500	659.1125
		PEDESTAL	TRANSFORMER	POLES	TRAFFIC SIGNAL	TRAFFIC SIGNAL	POLES	MONOTUBE	LUMINAIRE ARMS	LUMINAIRE	PEDESTRIAN	LUMINAIRES
		BASE	BASES BREAKAWAY	TYPE 3	STANDARDS	STANDARDS	TYPE 10	ARMS	SINGLE MEMBER	ARMS STEEL	PUSH	UTILITY
			11 1/2-INCH		ALUMINUM	ALUMINUM	SPECIAL	40-FT	4-INCH CLAMP	15-FT	BUTTONS	LED C
			BOLT CIRCLE		13-FT	15-FT		SPECIAL	6-FT			
LOCATION	SIGNAL	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	BASE											
W. LINCOLN AVE & S. 71ST ST	NO											
	SB1	1	--	--	--	1	--	--	--	--	1	--
	SB2	--	--	--	--	--	1	1	--	1	1	1
	SB3	1	--	--	1	--	--	--	--	--	1	--
	SB4	--	1	1	--	--	--	--	1	--	1	1
	SB5	1	--	--	--	1	--	--	--	--	1	--
	SB6	--	--	--	--	--	1	1	--	1	1	1
	SB7	1	--	--	1	--	--	--	--	--	1	--
	SB8	--	1	1	--	--	--	--	1	--	1	1
INTERSECTION TOTAL		4	2	2	2	2	2	2	2	2	8	4

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

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3

[illegible]

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 76ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

++EVP DETECTOR CABLE IS MEASURED FROM
CB1 TO THE EVP DETECTOR HEAD.

**W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY**

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 5 OF 8

			TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE				(CONTINUED FROM PREVIOUS PAGE)				
			*	*	*	*	*	*	*, ++	*	*
			655.0230	655.0240	655.0260	655.0320	655.0515	655.0610	(INCIDENTAL)	(INCIDENTAL)	(INCIDENTAL)
			CABLE	CABLE	CABLE	CABLE TYPE	ELECTRICAL	ELECTRICAL	TRAFFIC	VIDEO	LOOP
			TRAFFIC	TRAFFIC	TRAFFIC	TYPE UF	WIRE TRAFFIC	WIRE	SIGNAL EVP	DETECTION	DETECTOR
			SIGNAL	SIGNAL	SIGNAL	2-10 AWG	SIGNALS	LIGHTING	DETECTOR	CABLE	LEAD IN
			5-14 AWG	7-14 AWG	12-14 AWG	GROUND	10 AWG	12 AWG	CABLE		CABLE
LOCATION	FROM	TO	LF	LF	LF	LF	LF	LF	LF	LF	LF
W. LINCOLN AVE & S. 71ST ST	SB1	HEAD 7	--	22	--	--	--	--	--	--	--
	SB1	HEAD 12	22	--	--	--	--	--	--	--	--
	SB1	HEAD 22	15	--	--	--	--	--	--	--	--
	SB1	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB2	HEAD 5	65	--	--	--	--	--	--	--	--
	SB2	HEAD 6	65	--	--	--	--	--	--	--	--
	SB2	HEAD 8	--	66	--	--	--	--	--	--	--
	SB2	HEAD 21	15	--	--	--	--	--	--	--	--
	SB2	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB2	LUMINAIRE	--	--	--	--	--	144	--	--	--
	SB3	HEAD 2	19	--	--	--	--	--	--	--	--
	SB3	HEAD 9	19	--	--	--	--	--	--	--	--
	SB3	HEAD 20	15	--	--	--	--	--	--	--	--
	SB3	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB4	HEAD 3	19	--	--	--	--	--	--	--	--
	SB4	HEAD 19	15	--	--	--	--	--	--	--	--
	SB4	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB4	LUMINAIRE	--	--	--	--	--	117	--	--	--
	SB5	HEAD 4	22	--	--	--	--	--	--	--	--
	SB5	HEAD 15	--	22	--	--	--	--	--	--	--
	SB5	HEAD 18	15	--	--	--	--	--	--	--	--
	SB5	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB6	HEAD 13	65	--	--	--	--	--	--	--	--
	SB6	HEAD 14	65	--	--	--	--	--	--	--	--
	SB6	HEAD 16	--	66	--	--	--	--	--	--	--
	SB6	HEAD 17	15	--	--	--	--	--	--	--	--
	SB6	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB6	LUMINAIRE	--	--	--	--	--	144	--	--	--
	SB7	HEAD 1	19	--	--	--	--	--	--	--	--
	SB7	HEAD 10	19	--	--	--	--	--	--	--	--
	SB7	HEAD 24	15	--	--	--	--	--	--	--	--
	SB7	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB8	HEAD 11	19	--	--	--	--	--	--	--	--
	SB8	HEAD 23	15	--	--	--	--	--	--	--	--
	SB8	PUSH BUTTON	--	--	--	--	--	--	--	--	6
	SB8	LUMINAIRE	--	--	--	--	--	--	117	--	--
INTERSECTION TOTAL			538	176	1063	440	861	522	779	779	48

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 76ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

**EVP DETECTOR CABLE IS MEASURED FROM CB1 TO THE EVP DETECTOR HEAD.

ALL ITEMS CATEGORY 0020 UNLESS NOTED

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

3

3

			SIGNAL FACES												
			*	*										*	
			658.0173	658.0174	+	+	+	+	+	+	+	+	+	658.0416	++
			TRAFFIC	TRAFFIC	BACKPLATE	BACKPLATE	LED	LED	LED	LED	LED	LED	LED	PEDESTRIAN	LED MODULES
			SIGNAL	SIGNAL	3-SEC	4-SEC	RED	YELLOW	GREEN	RED	YELLOW	GREEN	GREEN	SIGNAL	COUNTDOWN
			FACE	FACE			BALL	BALL	BALL	ARROW	ARROW	ARROW	ARROW	FACE	TIMER 16"
			3S 12-INCH	4S 12-INCH										16-INCH	16-INCH
LOCATION	SIG. BASE NO	SIG. HEAD NO	TYPE OF MOUNT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
W. LINCOLN AVE & S. 71ST ST	SB1	12	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB1	7	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB1	22	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB2	8	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB2	5	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB2	6	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB2	21	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB3	2	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB3	9	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB3	20	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB4	3	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB4	19	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB5	4	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB5	15	POST MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB5	18	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB6	16	MONOTUBE ARM MOUNT VERTICAL	--	1	--	1	--	--	--	1	2	1	--	--
	SB6	13	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB6	14	MONOTUBE ARM MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB6	17	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB7	1	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB7	10	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB7	24	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
	SB8	11	POST MOUNT VERTICAL	1	--	1	--	1	1	1	--	--	--	--	--
	SB8	23	PEDESTRIAN	--	--	--	--	--	--	--	--	--	--	1	1
INTERSECTION TOTAL				12	4	12	4	12	12	12	4	8	4	8	8

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE. PLEASE SEE 76ST AND 84TH STREET TRAFFIC SIGNAL TABLES.

+INCIDENTAL TO 658.0173 OR 658.0174
++INCIDENTAL TO 658.0416

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 7 OF 8

3

TRAFFIC SIGNAL CONTROLLER & CABINET

*
SPV.0060.02
TRAFFIC SIGNAL
CONTROLLER & CABINET

LOCATION	EACH
W. LINCOLN AVE & S. 71ST ST	1
TOTAL	1

* ADDITIONAL QUANTITIES SHOWN
ELSEWHERE. PLEASE SEE 76ST AND
84TH STREET TRAFFIC SIGNAL
TABLES.

3

EMERGENCY VEHICLE PREEMPTION SYSTEM
W. LINCOLN AVE & S. 71ST ST

SPV.0105.06
EMERGENCY VEHICLE
PREEMPTION SYSTEM
W. LINCOLN AVE & S. 71ST ST

LOCATION	LS
W. LINCOLN AVE & S. 71ST ST	1
TOTAL	1

VIDEO VEHICLE DETECTION SYSTEM

SPV.0105.03
VIDEO VEHICLE DETECTION
SYSTEM
W. LINCOLN AVE & S. 71ST ST

LOCATION	LS
W. LINCOLN AVE & S. 71ST ST	1
TOTAL	1

W. LINCOLN AVENUE & S. 71ST STREET
CITY OF WEST ALLIS
MILWAUKEE COUNTY

ALL ITEMS CATEGORY 0020 UNLESS NOTED

PAGE 8 OF 8

3

3

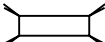
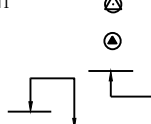
SANITARY SEWER STRUCTURES											
				SPV.0060.03	SPV.0060.04	SPV.0060.12	SPV.0060.13	SPV.0200.01	SPV.0200.02	STRUCTURE	
				INTERNAL SANITARY	ADJUST SANITARY	SANITARY MANHOLE	SANITARY STRUCTURE	REBUILD	SANITARY	RIM	BOTTOM
CATEGORY	STRUCTURE	STATION	LOCATION	MANHOLE SEAL	MANHOLE FRAME	FRAMES WITH	MISCELLANEOUS	SANITARY	48-INCH DIAMETER	ELEV.	ELEV.
	NUMBER			EACH	EACH	SOLID GASKETED LIDS	INSIDE REPAIR	MANHOLE	VF		COMMENTS
0030	101/23	21+61.6	0.1' LT	1	-	1	-	-	14.0	169.32	155.76
	6	106+68.7	6.6' LT	1	1	1	-	-	-	-	-
	7	106+90.6	6.7' LT	1	-	-	1	-	-	-	-
	11	106+78.8	19.3' RT	-	-	-	1	-	-	-	-
	12	107+02.6	19.8' RT	-	-	-	1	-	-	-	-
	20	132+97.8	24.2' RT	1	1	1	-	-	-	-	-
	24	133+33	35.9' RT	1	-	1	-	-	13.0	169.75	156.76
	31	135+86.6	7.2' LT	1	-	1	-	-	11.0	175.35	165.30
	37	149+09.9	35.7' RT	1	-	1	-	3.0	-	-	-
PROJECT TOTALS				7	2	6	3	3.0	38.0		

SANITARY SEWER PIPES			
		SPV.0090.02	
		SANITARY SEWER RELAY	
		SDR 35 PVC SP, 8-INCH	
CATEGORY	UPSTREAM	DOWNSTREAM	LF
	STRUCTURE	STRUCTURE	
0030	101	CONNECT TO EXIST PVC	93.3
PROJECT TOTALS			93.3

BUILDING SANITARY SEWER			
		SPV.0060.05	
		BUILDING	
		SANITARY	
		SEWER RECONNECT	
CATEGORY	STATION	Plan S-1632	6-INCH
		LOCATION	EACH
0030	22+10.1	RT	1
	22+40.3	LT	1
	22+40.4	RT	1
PROJECT TOTALS			3

WATER VALVE BOX ADJUSTMENT		
		SPV.0060.07
		ADJUST WATER
		VALVE BOX
CATEGORY	LOCATION	EACH
0040	83RD - 85TH	7
	75TH - 77TH	9
	70TH - 72ND	4
PROJECT TOTALS		20

ALL ITEMS CATEGORY 0030 UNLESS NOTED

CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	
QUARTER LINE		UTILITY NUMBER	
SIXTEENTH LINE			
NEW REFERENCE LINE		SECTION CORNER	
NEW R/W LINE			R/W MONUMENT
EXISTING R/W LINE			NON-MONUMENTED
PROPERTY LINE		NOTATION FOR COMBUSTIBLE FLUIDS	R/W POINT
LOT, TIE, AND OTHER MINOR LINES			
SLOPE INTERCEPT			FOUND IRON PIN
CORPORATE LIMITS		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			CAUTION
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			SIGN
TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING		NO ACCESS (NEW HIGHWAY)	
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT	
BRIDGE		SIXTEENTH CORNER MONUMENT	
		PARALLEL OFFSETS	

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

NOTES:

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS),
NAD 27 (91) SOUTH ZONE .

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE CITY OF WEST ALLIS.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THE PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

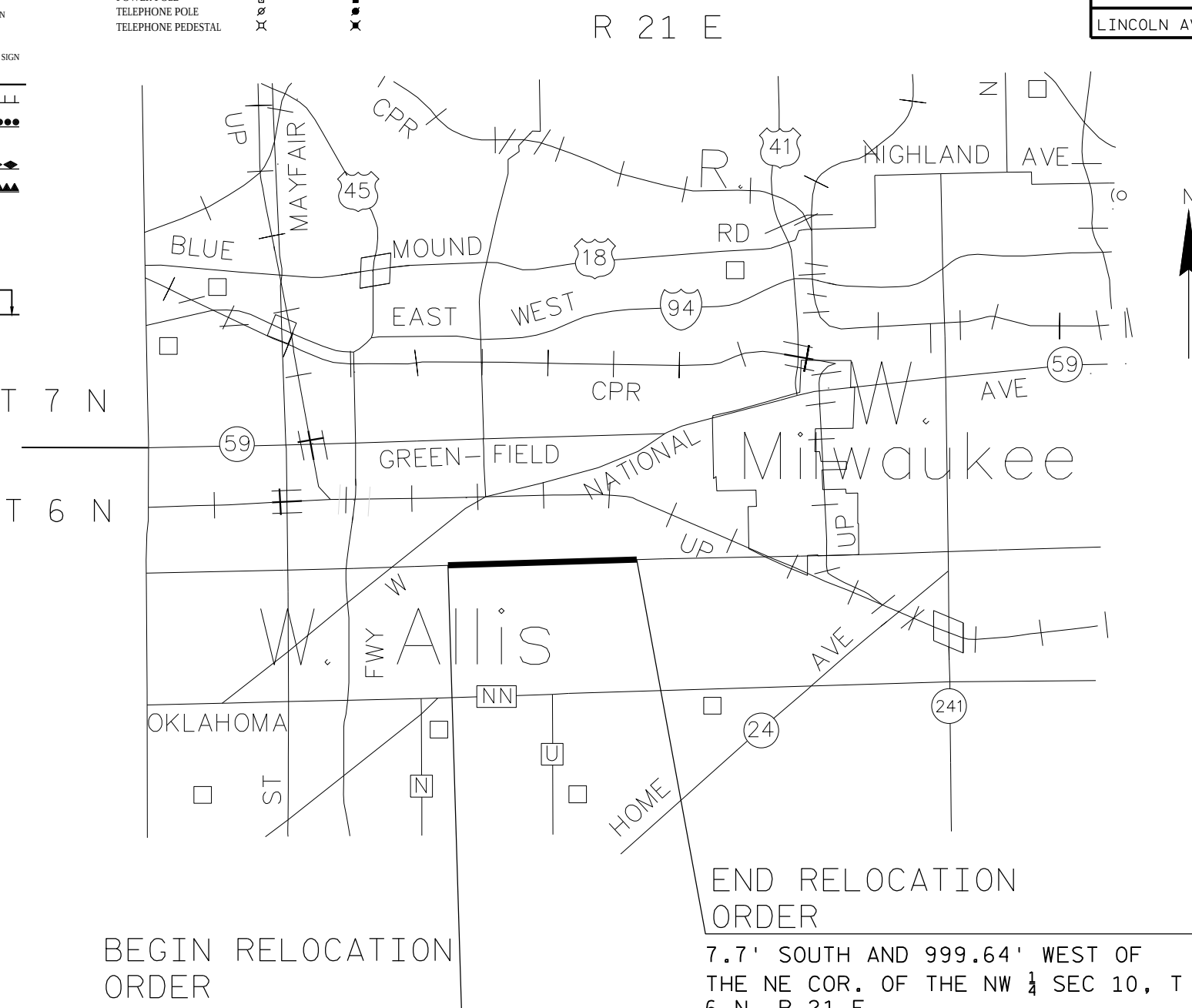
CONVENTIONAL UTILITY SYMBOLS

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

	NON- COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

CURVE DATA ABBREVIATIONS

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



BEGIN RELOCATION
ORDER

6.6' SOUTH AND 90.22' WEST
OF THE NE COR. OF THE NW $\frac{1}{4}$
SEC 9, T 6 N, R 21 E

END RELOCATION
ORDER

7.7' SOUTH AND 999.64' WEST OF
THE NE COR. OF THE NW $\frac{1}{4}$ SEC 10, T
6 N, R 21 E

LAYOUT
NO SCALE

TOTAL NET LENGTH OF REFERENCE LINE = 0.833 MI

R/W PROJECT NUMBER 2110-00-03	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER N/A	4.01	7
PLAT OF RIGHT OF WAY REQUIRED FOR LINCOLN AVENUE 84TH ST. TO 71ST ST.		
LINCOLN AVENUE	MILWAUKEE COUNTY	

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS
MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

ORIGINAL PLAT PREPARED BY raSmith CREATIVITY BEYOND ENGINEERING 16745 W. Bluemound Road, Brookfield WI 53005 262-781-1000 Fax 262-781-8466 www.ra-smithnational.com	
DATE: <u>07/30/20</u> <i>Michael J. Ratzburg</i> LAND SURVEYOR	
CITY OF WEST ALLIS	
APPROVED FOR THE CITY OF WEST ALLIS <i>Traci Jenglew</i> DATE: <u>7/27/2020</u> (Signature) <u>120</u>	

SCHEDULE OF LANDS & INTERESTS REQUIRED

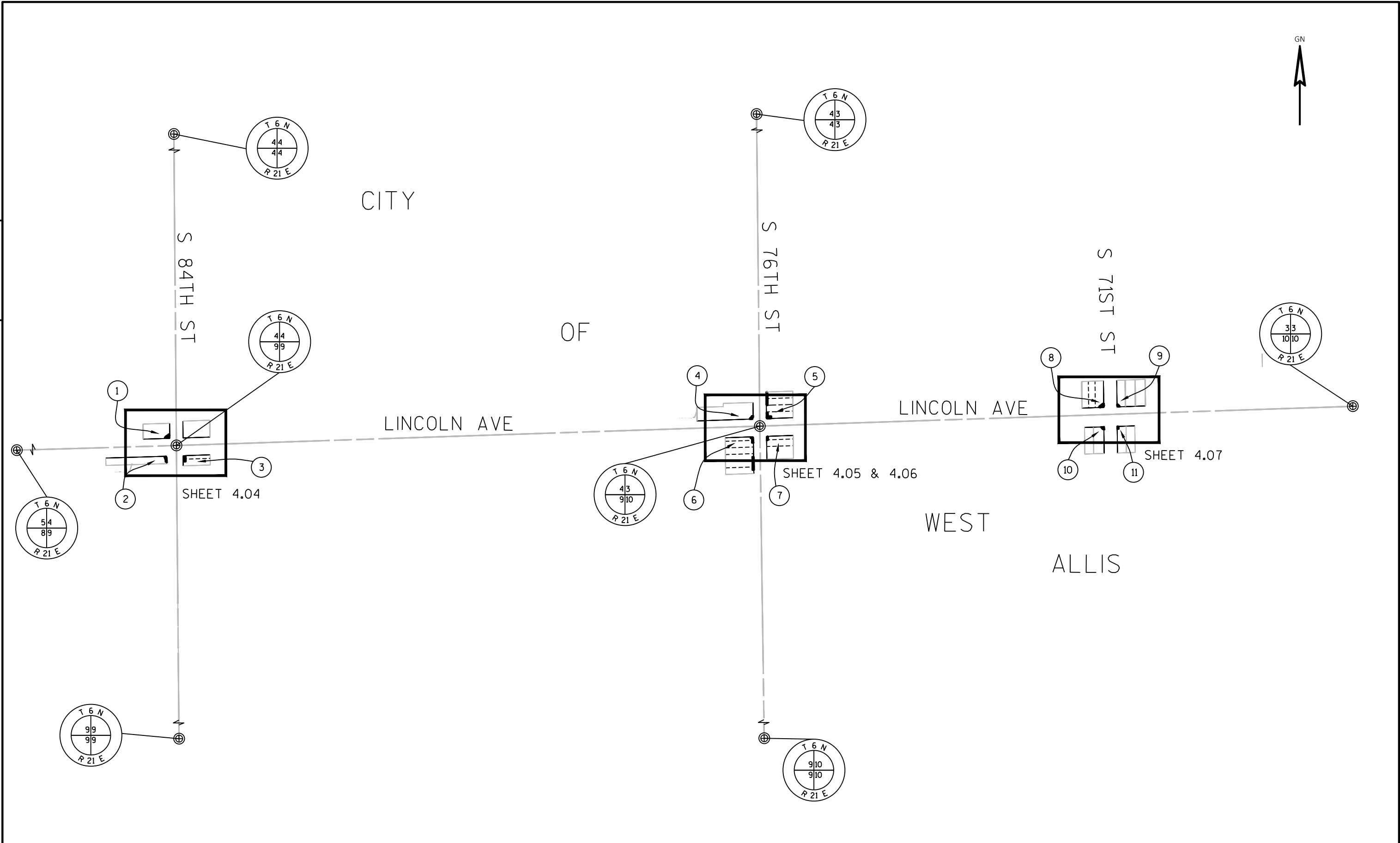
OWNERS' NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO MILWAUKEE COUNTY.

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

4

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED ACRES			TOTAL REMAINING ACRES	T.L.E. TEMP. ACRES	P.L.E. PERM. ACRES	PARCEL NUMBER
					NEW	EXISTING	TOTAL				
1	4.04	RYAN D. SWAN	FEE, TLE	0.19	0.001	-	0.001	0.19	0.008	-	1
2	4.04	FP RENTAL PROPERTIES LLC	TLE	0.21	-	-	-	0.21	0.005	-	2
3	4.04	FP RENTAL PROPERTIES LLC	FEE, TLE	0.13	0.001	-	0.001	0.13	0.006	-	3
4	4.05	SEMANDEL INVESTMENTS LLC	FEE, TLE	0.40	0.001	-	0.001	0.40	0.003	-	4
5	4.05	HOSS BROS LLC	TLE	0.33	-	-	-	0.33	0.014	-	5
6	4.05 & 4.06	MAC SERVICES INC	FEE, TLE	0.48	0.001	-	0.001	0.48	0.013	-	6
7		SFC SERVICES, LLC	FEE, TLE	0.29	0.001	-	0.001	0.29	0.002	-	7
8		J & D FREEDOM LLC	FEE, TLE	0.27	0.001	-	0.001	0.27	0.006	-	8
9		CHILANGO EXPRESS PROPERTY LLC	TLE	0.10	-	-	-	0.10	0.002	-	9
10		MIKO INTHIRAJ	TLE	0.13	-	-	-	0.13	0.003	-	10
11	4.07	MARK B FEDRAN	TLE	0.11	-	-	-	0.11	0.001	-	11

4



REVISION DATE _____ _____ _____ _____	DATE 7/30/2020		SCALE, FEET 0 200 400 	HWY: LINCOLN AVE.	STATE R/W PROJECT NUMBER 2110-00-03	PLAT SHEET 4.03	E
	GRID FACTOR _____			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2110-00-73	PS&E SHEET — 122	

TLE COURSE TABLE		
700-701	N01°46'01"W	5.31'
701-702	N49°56'34"E	24.21'
702-703	N88°13'59"E	6.82'
704-705	S20°12'07"E	18.66'
705-706	S01°46'01"E	10.00'
706-707	S88°13'59"E	5.71'
706-708	N88°13'59"E	9.13'
708-709	S02°19'07"E	27.80'
300-700	S88°17'35"W	19.66'
703-304	S00°28'21"E	3.00'
325-704	S88°17'35"E	12.22'
707-325	N00°29'58"W	27.69'
308-709	N88°06'08"E	7.33'
708-306	S88°13'59"W	9.13'

RYAN D. SWAN
LOT 5
BLOCK 3
ASSESSORS PLAT NO. 253

1

SE-SW
NOTE: THE TLE DOES NOT AFFECT ANY PART OF THE BUILDING

R/W COURSE TABLE		
300-301	N46°08'47"E	4.68'
301-302	N00°42'51"W	6.49'
302-303	N09°08'29"E	7.84'
303-304	N88°13'59"E	1.25'
305-306	N88°13'59"E	1.14'
306-307	N00°38'02"W	23.10'
307-308	N34°02'26"E	5.69'
300-324	N88°17'35"E	5.69'
324-304	N00°28'21"E	17.34'
704-325	N88°17'35"E	12.22'
325-707	S00°29'58"E	27.69'
305-326	N00°29'58"E	27.71'
326-308	N88°06'08"E	4.31'

CONCRETE MONUMENT WITH BRASS CAP
N=371,685.190
E=2,527,722.870

BEGIN RELOCATION ORDER

STA 106+00.00
N=371,754.32
E=2,530,268.54

EXISTING BUILDING
NE-NW

2
NOTE: THE TLE DOES NOT AFFECT ANY PART OF THE BUILDING

LOT 4
BLOCK 1
ASSESSORS PLAT NO. 262

HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
WEST LINCOLN AVE.	ASSESSORS PLAT NO. 262	80'	-
WEST LINCOLN AVE.	ASSESSORS PLAT NO. 253	80'	-
WEST LINCOLN AVE.	HOMESTEAD SUB	80'	-

CONCRETE MONUMENT WITH BRASS CAP
N=369,115.980
E=2,530,381.739

CONCRETE MONUMENT WITH BRASS CAP
N=371,763.742
E=2,530,358.661

CONCRETE MONUMENT WITH BRASS CAP
N=371,850.930
E=2,532,990.105

3
FP RENTAL PROPERTIES LLC
BLOCK 2
HOMESTEAD SUB.

LOT 39
NW-NE

LOT 40

CITY OF WEST ALLIS
SW-SE

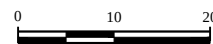


REVISION DATE				

DATE 7/30/2020

GRID FACTOR

SCALE, FEET



HWY: LINCOLN AVE.

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER

2110-00-03

CONSTRUCTION PROJECT NUMBER

2110-00-73

PLAT SHEET 4.04

PS&E SHEET

123

E

4

4

NOTE: SEE SHEET
4.06 FOR REMAINDER
OF PARCEL 6

R/W COURSE TABLE		
309-310	N00°25'33"W	4.04'
310-311	N89°34'27"E	2.00'
311-312	N00°25'33"W	3.14'
312-313	N15°06'28"E	5.95'
314-315	S01°51'46"E	0.78'
315-316	N88°08'14"E	9.00'
316-317	S00°19'07"E	20.75'
317-318	S15°28'20"E	6.65'
318-319	N88°08'14"E	0.38'
320-321	N44°34'23"E	2.87'
309-327	N43°58'13"E	5.18'
327-313	N00°36'29"W	9.20'
713-328	S00°36'29"E	27.97'
328-714	N88°04'46"E	21.00'
320-330	N00°47'58"W	1.98'
330-321	N88°04'46"E	2.05'
329-314	S88°06'08"W	10.90'
329-319	N00°47'58"W	27.99'
309-326	N43°58'13"W	2.00'
326-710	N88°06'08"E	12.95'
712-313	N00°36'29"W	0.81'

TLE COURSE TABLE		
710-711	N36°45'07"E	19.23'
711-712	N88°08'14"E	6.31'
713-736	N88°08'14"E	5.39'
736-737	S01°51'46"E	17.00'
737-738	N88°08'14"E	15.00'
738-714	S01°51'46"E	10.94'
715-716	N88°08'14"E	5.69'
716-717	N01°51'46"W	60.01'
717-735	N88°04'46"E	4.37'
718-719	S01°51'46"E	6.98'
719-720	N88°08'14"E	6.00'
720-721	S01°51'46"E	21.00'
721-318	N88°08'14"E	6.50'
722-723	N88°08'14"E	4.93'
723-724	N01°51'46"W	18.04'
735-715	N88°04'46"E	4.37'
718-314	N88°06'08"W	2.49'
722-320	S00°47'58"E	18.04'

HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
WEST LINCOLN AVE.	CSM 7921	80'	-
WEST LINCOLN AVE.	AGNEWS HIGHLAND ACRES	80'	-
WEST LINCOLN AVE.	GREENFIELD SUB	80'	-

REVISION DATE	7/30/2020
9/01/2020	

DATE	7/30/2020
GRID FACTOR	

SCALE, FEET
0 10 20

HWY: LINCOLN AVE.
COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER	2110-00-03
CONSTRUCTION PROJECT NUMBER	2110-00-73

PLAT SHEET	4.05
PS&E SHEET	124
	E

CITY OF WEST ALLIS

NOTE: SEE SHEET 4.05

LOT 2
BLOCK 1
GREENFIELD SUB.

MAC SERVICES INC

NE-NE

LOT 3

LOT 1

WEST LINCOLN AVE

S 76TH ST

132+94.31
55.00'

TLE742

132+94.31
55.00'

TLE741

132+84.28
130.00'

TLE740

132+90.72
130.00'

TLE739

132+92.39
40.01'

EX329

CONCRETE
MONUMENT WITH
BRASS CAP
N=371,763.742
E=2,530,358.661

CONCRETE
MONUMENT WITH
BRASS CAP
N=371,850.930
E=2,532,990.105

CONCRETE
MONUMENT WITH
BRASS CAP
N=371,940.626
E=2,535,664.966

SEC LINE = S00°47'58"E
2650.67'

191.59'

STA 133+23.14

7.01'

TLE COURSE TABLE

739-740	S88°08'14"W	6.50'
740-741	S00°47'58"E	61.01'
741-742	N88°08'14"E	6.50'
739-742	N00°47'58"E	61.01'

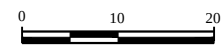
HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
WEST LINCOLN AVE.	CSM T921	80'	-
WEST LINCOLN AVE.	AGNEWS HIGHLAND ACRES	80'	-
WEST LINCOLN AVE.	GREENFIELD SUB	80'	-

REVISION DATE			

DATE 7/30/2020

GRID FACTOR

SCALE, FEET



HWY: LINCOLN AVE.

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER

2110-00-03

CONSTRUCTION PROJECT NUMBER

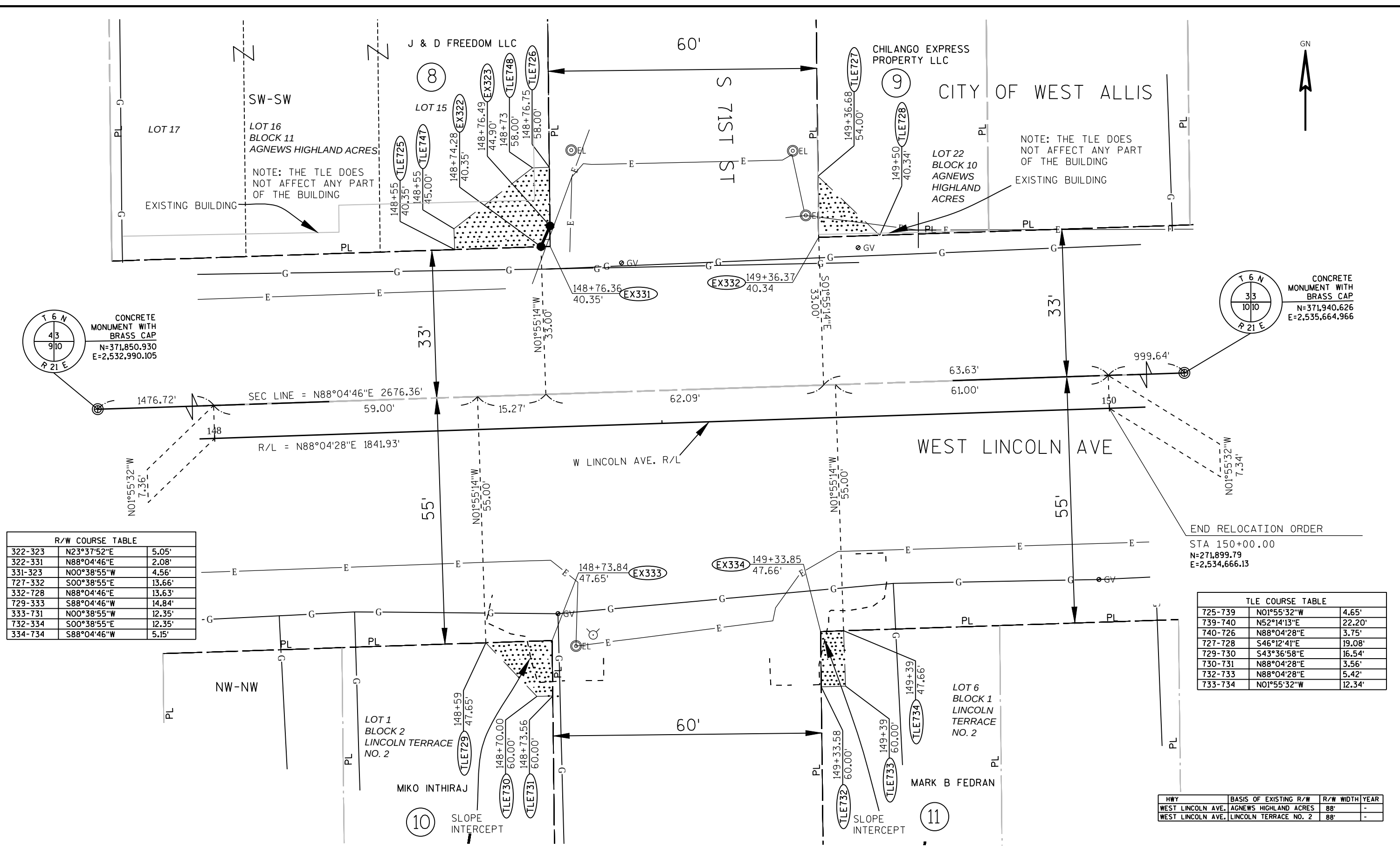
2110-00-73

PLAT SHEET 4.06

PS&E SHEET

125

E



R/W COURSE TABLE		
322-323	N23°37'52"E	5.05'
322-331	N88°04'46"E	2.08'
331-323	N00°38'55"W	4.56'
727-332	S00°38'55"E	13.66'
332-728	N88°04'46"E	13.63'
729-333	S88°04'46"W	14.84'
333-731	N00°38'55"W	12.35'
732-334	S00°38'55"E	12.35'
334-734	S88°04'46"W	5.15'

TLE COURSE TABLE		
725-739	N01°55'32"W	4.65'
739-740	N52°14'13"E	22.20'
740-726	N88°04'28"E	3.75'
727-728	S46°12'41"E	19.08'
729-730	S43°36'58"E	16.54'
730-731	N88°04'28"E	3.56'
732-733	N88°04'28"E	5.42'
733-734	N01°55'32"W	12.34'

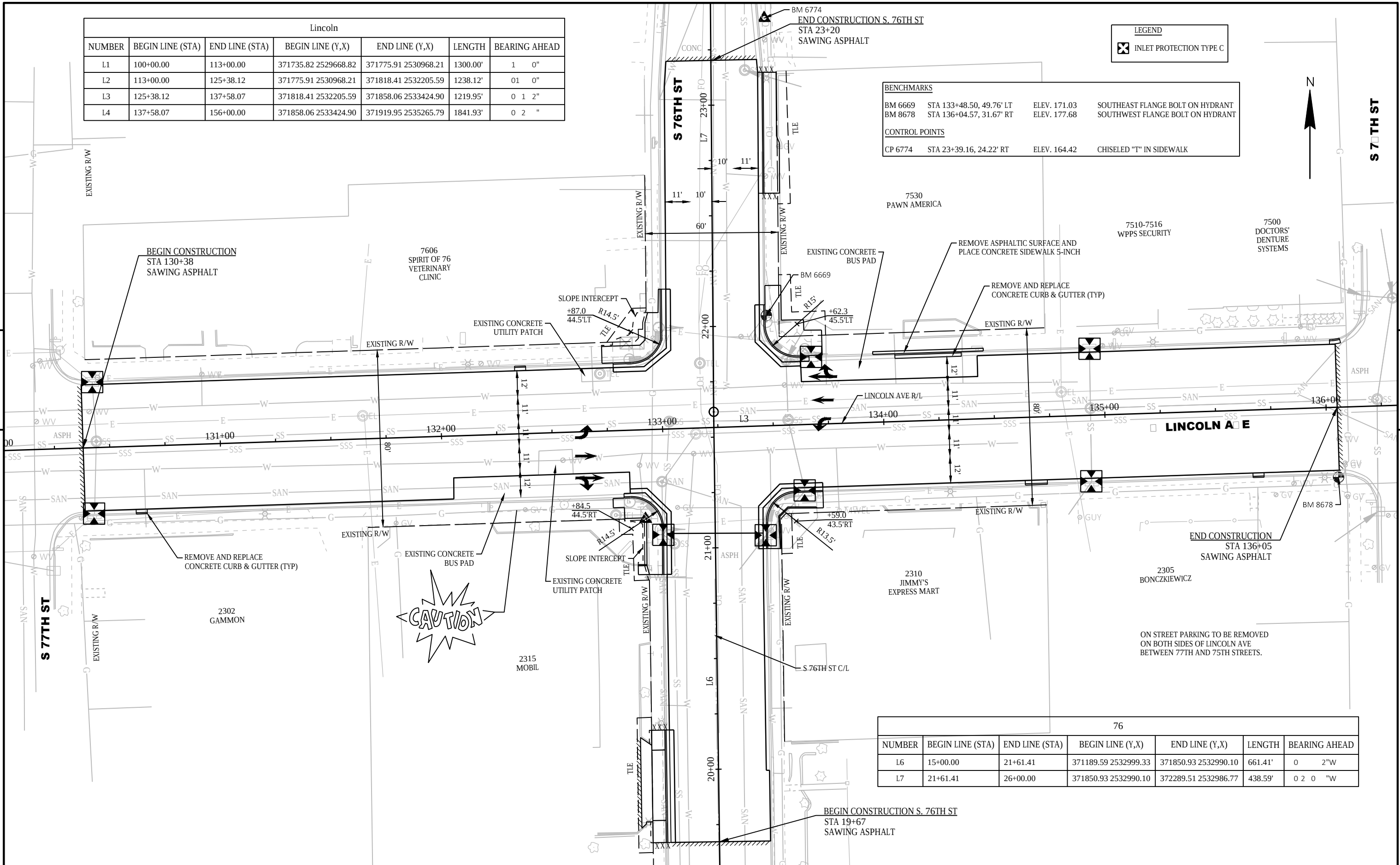
HWY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
WEST LINCOLN AVE.	AGNEWS HIGHLAND ACRES	88'	-
WEST LINCOLN AVE.	LINCOLN TERRACE NO. 2	88'	-

REVISION DATE	DATE 7/30/2020	SCALE, FEET	HWY: LINCOLN AVE.	STATE R/W PROJECT NUMBER 2110-00-03	PLAT SHEET 4.07
	GRID FACTOR	0 10 20	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2110-00-73	PS&E SHEET 126

Lincoln						
NUMBER	BEGIN LINE (STA)	END LINE (STA)	BEGIN LINE (Y,X)	END LINE (Y,X)	LENGTH	BEARING AHEAD
L1	100+00.00	113+00.00	371735.82 2529668.82	371775.91 2530968.21	1300.00'	1 0"
L2	113+00.00	125+38.12	371775.91 2530968.21	371818.41 2532205.59	1238.12'	01 0"
L3	125+38.12	137+58.07	371818.41 2532205.59	371858.06 2533424.90	1219.95'	0 1 2"
L4	137+58.07	156+00.00	371858.06 2533424.90	371919.95 2535265.79	1841.93'	0 2 "

LEGEND	
	INLET PROTECTION TYPE C

BENCHMARKS			
BM 6669	STA 133+48.50, 49.76' LT	ELEV. 171.03	SOUTHEAST FLANGE BOLT ON HYDRANT
BM 8678	STA 136+04.57, 31.67' RT	ELEV. 177.68	SOUTHWEST FLANGE BOLT ON HYDRANT
CONTROL POINTS			
CP 6774	STA 23+39.16, 24.22' RT	ELEV. 164.42	CHISELED "T" IN SIDEWALK



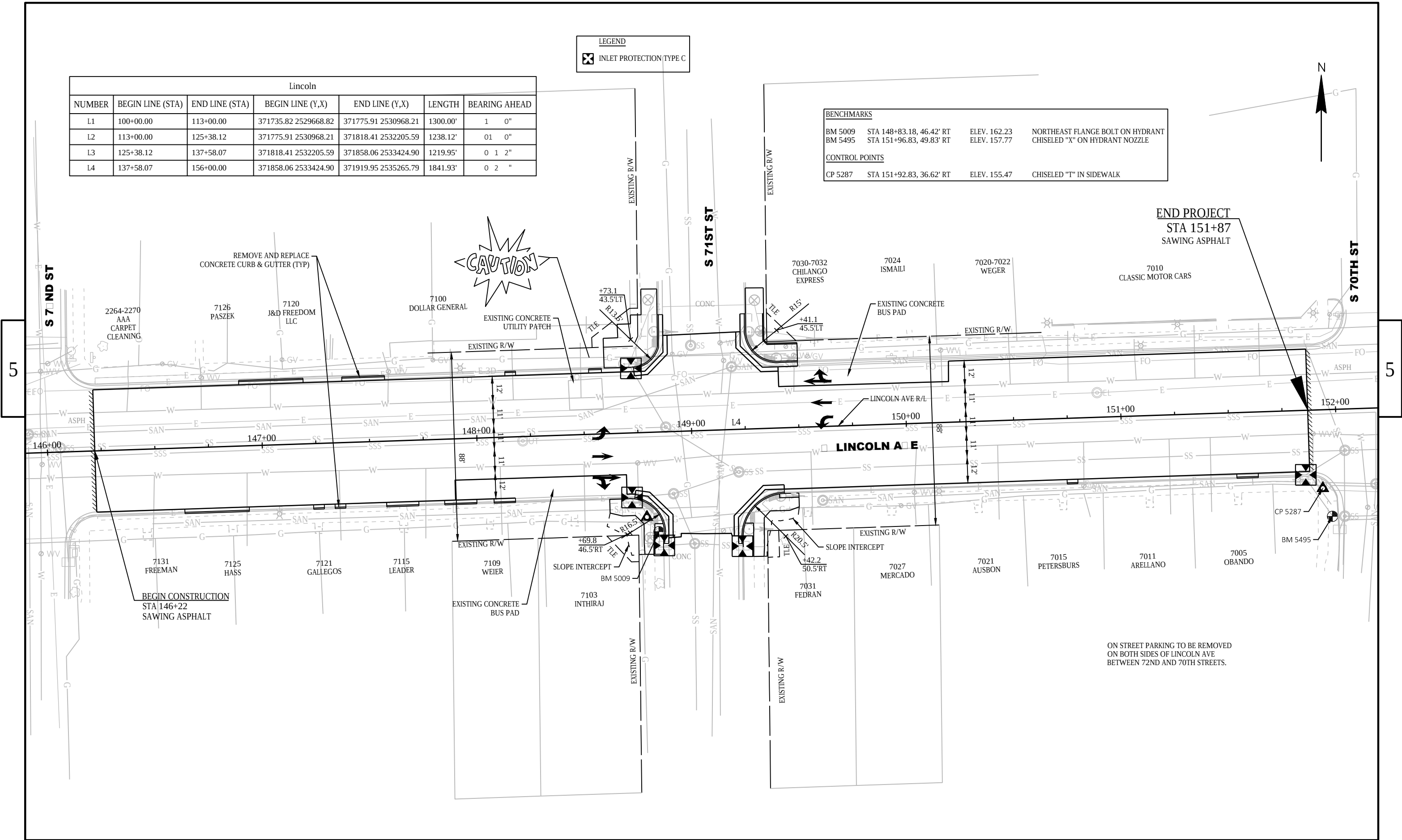
76						
NUMBER	BEGIN LINE (STA)	END LINE (STA)	BEGIN LINE (Y,X)	END LINE (Y,X)	LENGTH	BEARING AHEAD
L6	15+00.00	21+61.41	371189.59 2532999.33	371850.93 2532990.10	661.41'	0 2"W
L7	21+61.41	26+00.00	371850.93 2532990.10	372289.51 2532986.77	438.59'	0 2 0 "W

Lincoln						
NUMBER	BEGIN LINE (STA)	END LINE (STA)	BEGIN LINE (Y,X)	END LINE (Y,X)	LENGTH	BEARING AHEAD
L1	100+00.00	113+00.00	371735.82 2529668.82	371775.91 2530968.21	1300.00'	1 0"
L2	113+00.00	125+38.12	371775.91 2530968.21	371818.41 2532205.59	1238.12'	01 0"
L3	125+38.12	137+58.07	371818.41 2532205.59	371858.06 2533424.90	1219.95'	0 1 2"
L4	137+58.07	156+00.00	371858.06 2533424.90	371919.95 2535265.79	1841.93'	0 2 "

LEGEND

INLET PROTECTION/TYPE C

BENCHMARKS			
BM 5009	STA 148+83.18, 46.42' RT	ELEV. 162.23	NORTHEAST FLANGE BOLT ON HYDRANT
BM 5495	STA 151+96.83, 49.83' RT	ELEV. 157.77	CHISELED "X" ON HYDRANT NOZZLE
CONTROL POINTS			
CP 5287	STA 151+92.83, 36.62' RT	ELEV. 155.47	CHISELED "T" IN SIDEWALK



ON STREET PARKING TO BE REMOVED
ON BOTH SIDES OF LINCOLN AVE
BETWEEN 72ND AND 70TH STREETS.

PROJECT NO: 2110-00-73

HWY: W LINCOLN AVENUE

COUNTY: MILWAUKEE

PLAN - S 71ST ST

SHEET

129

E

FILE NAME : T:\1191100\CIVIL3D\21100003\SHEETS\PLAN\050101-PN.DWG
LAYOUT NAME - 71

PLOT DATE : 1/20/2021 4:38 PM

PLOT BY : AXT, ANDREW

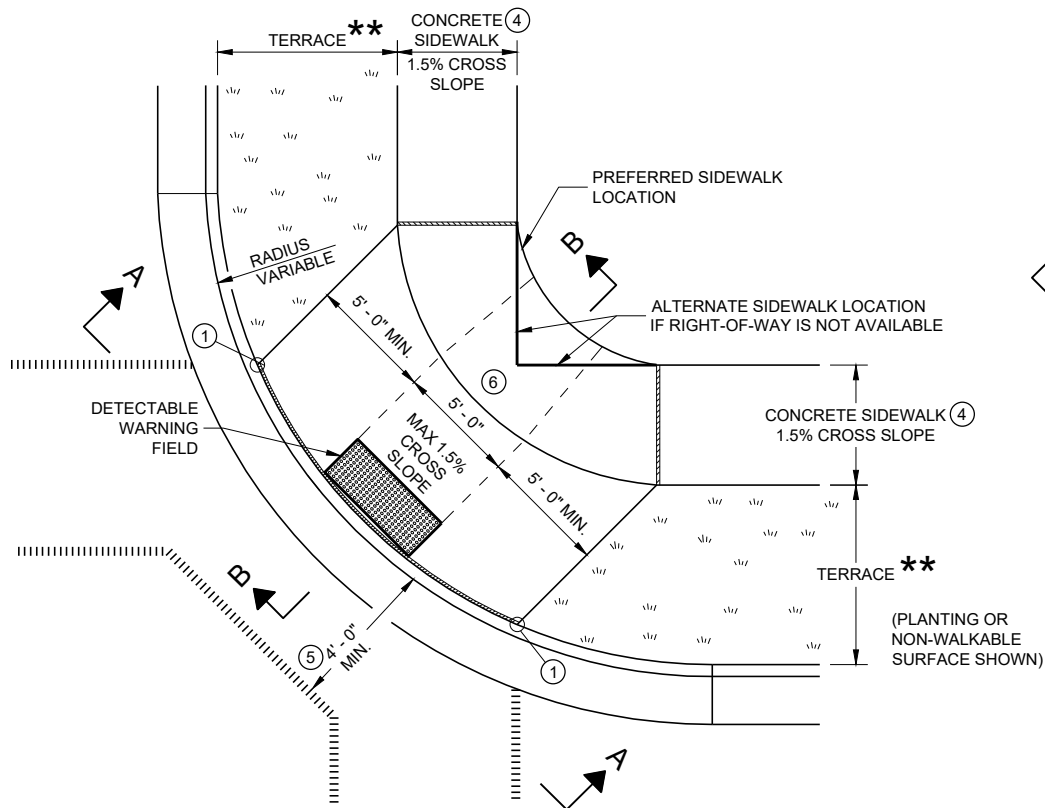
PLOT NAME :

PLOT SCALE : 1 IN=40 FT

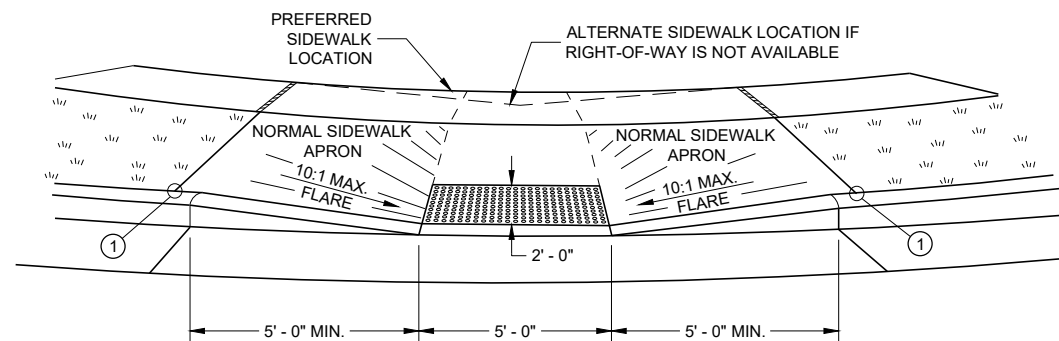
WISDOT/CADDs SHEET 44

Standard Detail Drawing List

08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-10	CONCRETE CONTROL CABINET BASES
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C19-03	HMA LONGITUDINAL JOINTS
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-05B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-05C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

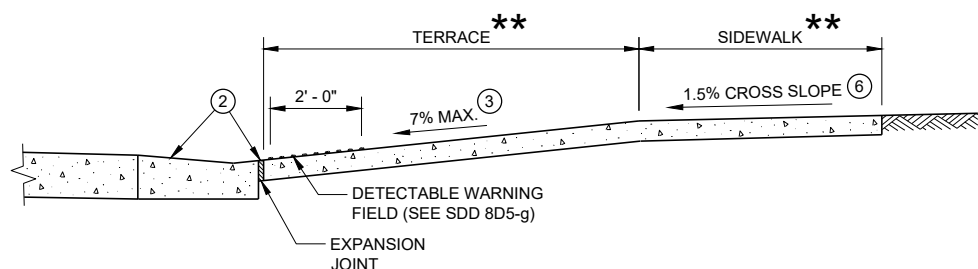


PLAN IE
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

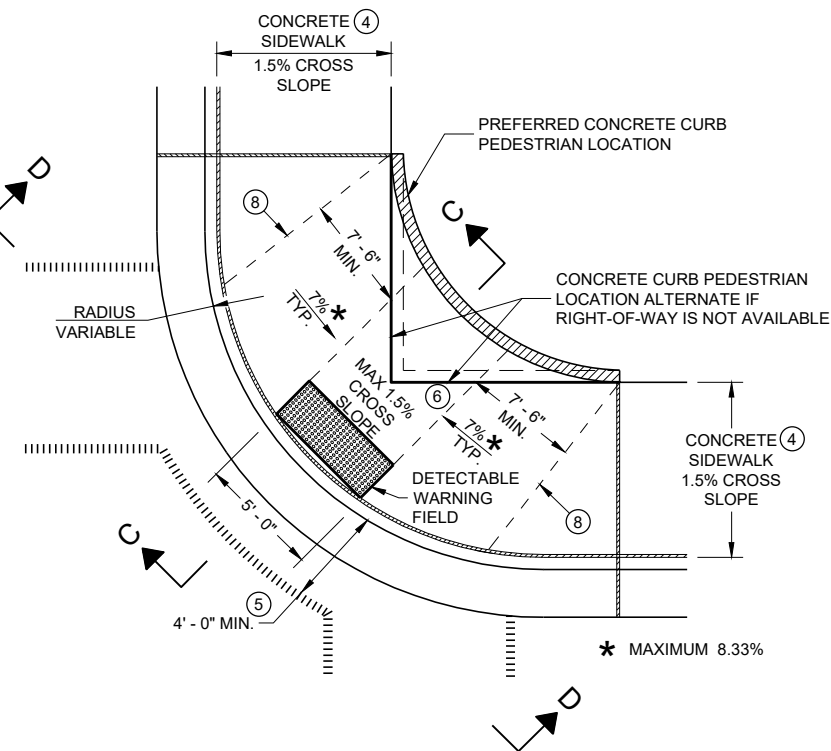


IE A - A FOR TYPE 1

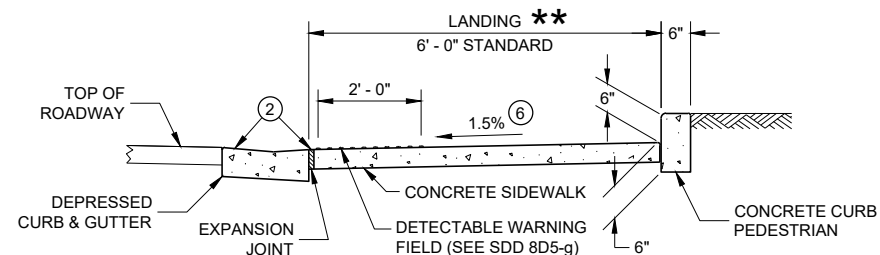
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



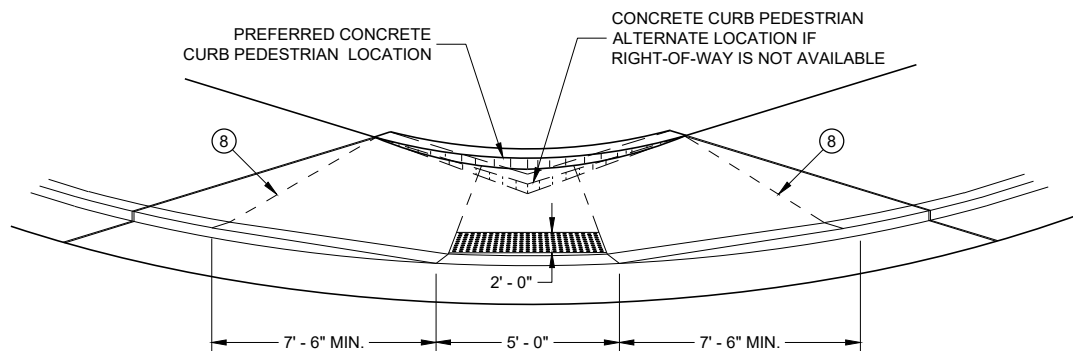
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



IE 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.

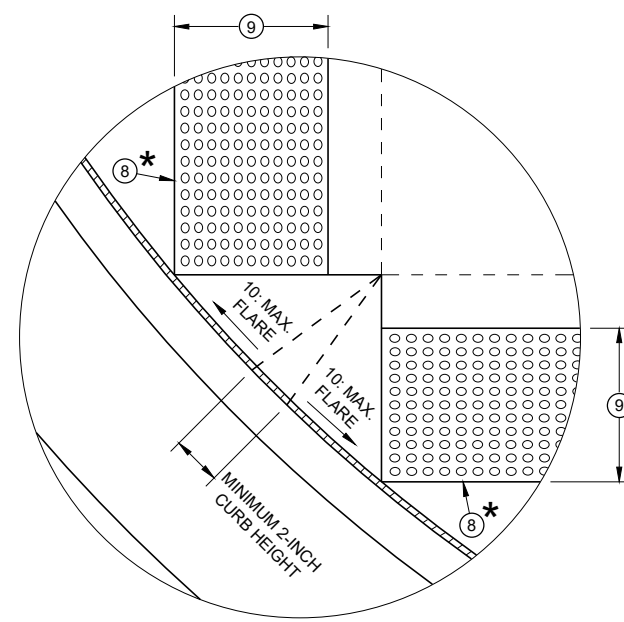
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM 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.
- MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 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.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

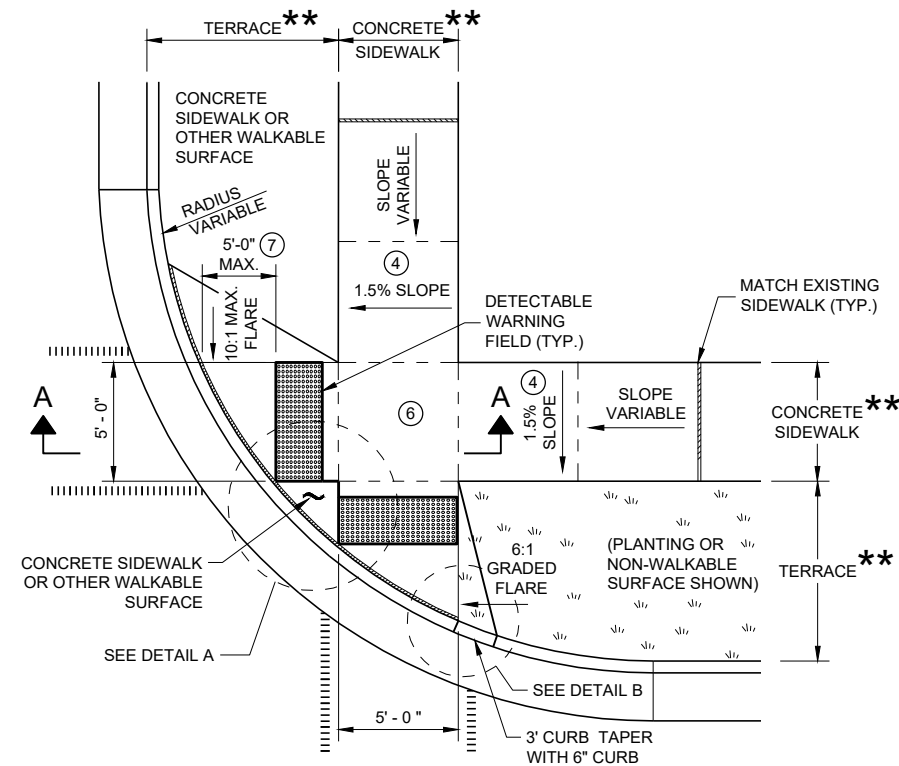
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

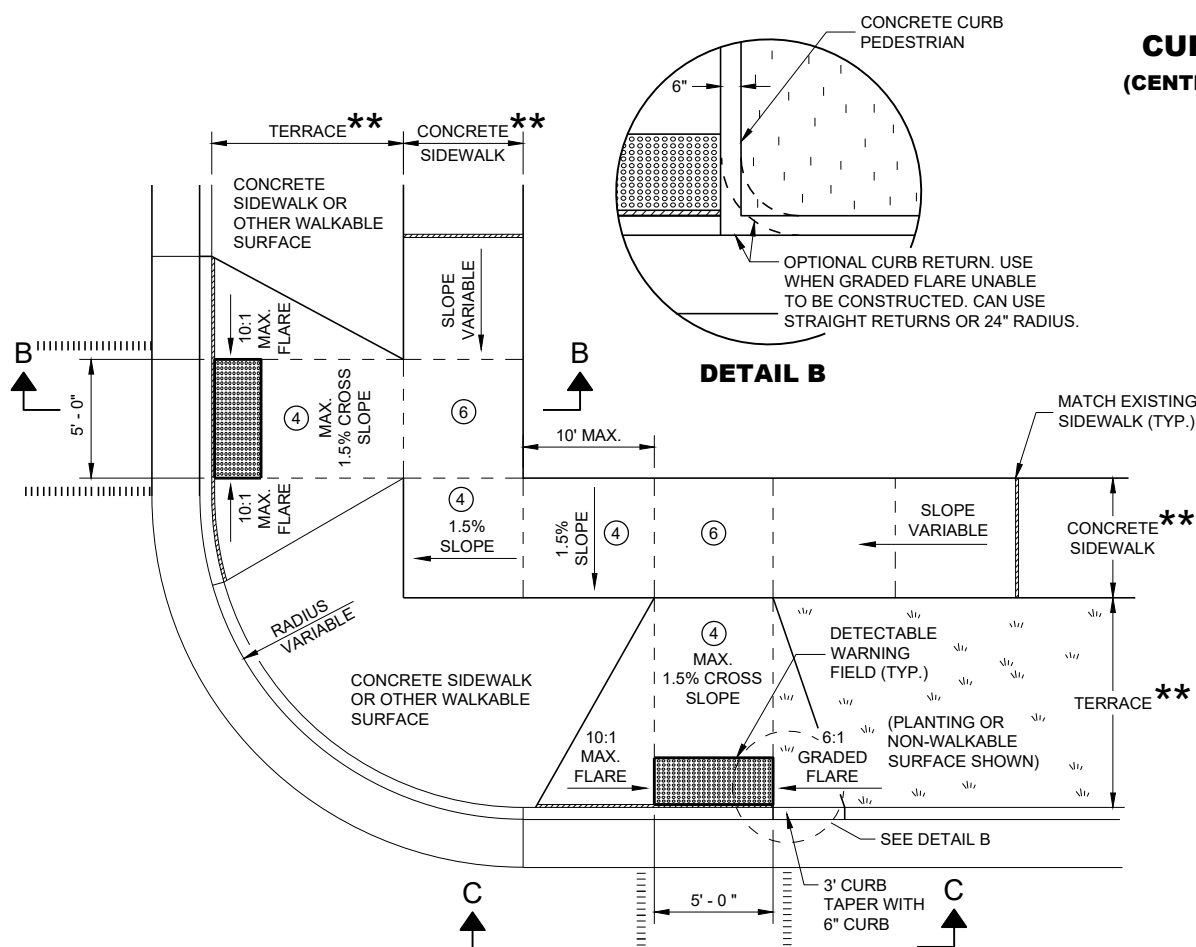
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 131



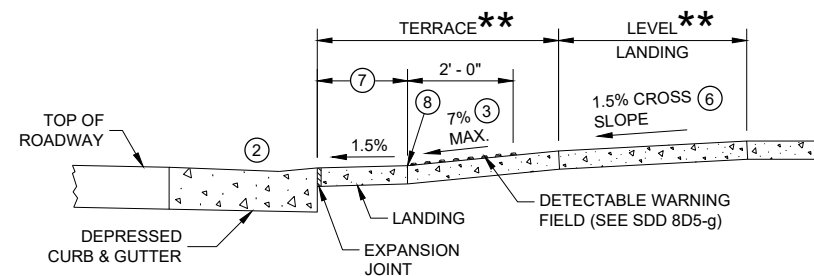
DETAIL A



PLAN ☐ IE ☐
CURB RAMP TYPE ☐
(CENTER OF CORNER RADIUS)



PLAN ☐ IE ☐
CURB RAMP TYPE ☐
(OUTSIDE OF CROSS ☐ AL ☐ AREA)



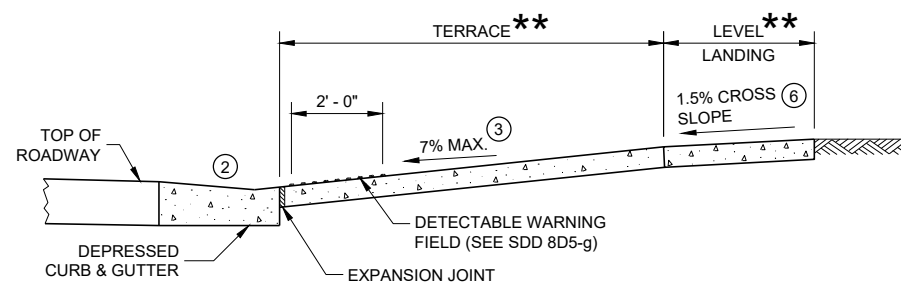
SECTION A - A FOR TYPE ☐

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

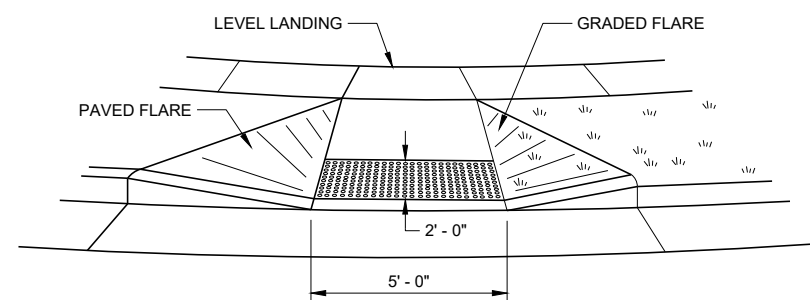
**** WIDTH SHOWN ELSEWHERE
IN THE PLANS**

LEGEND

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



SECTION B - B FOR TYPE ☐



IE C - C FOR TYPE

GENERAL NOTES

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

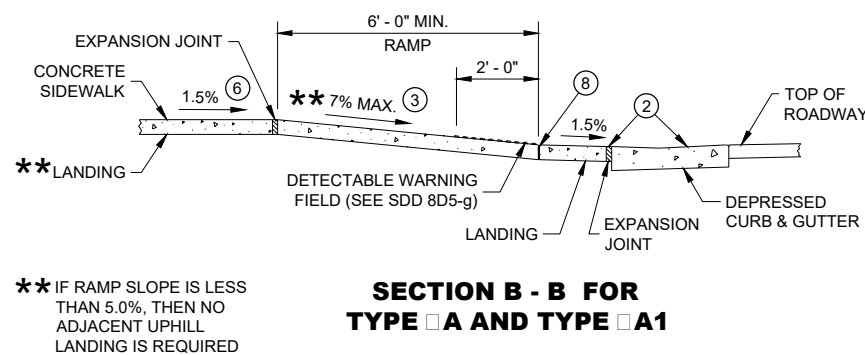
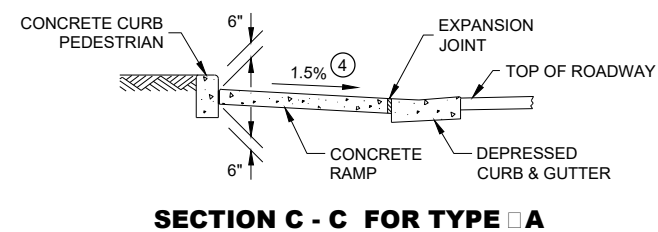
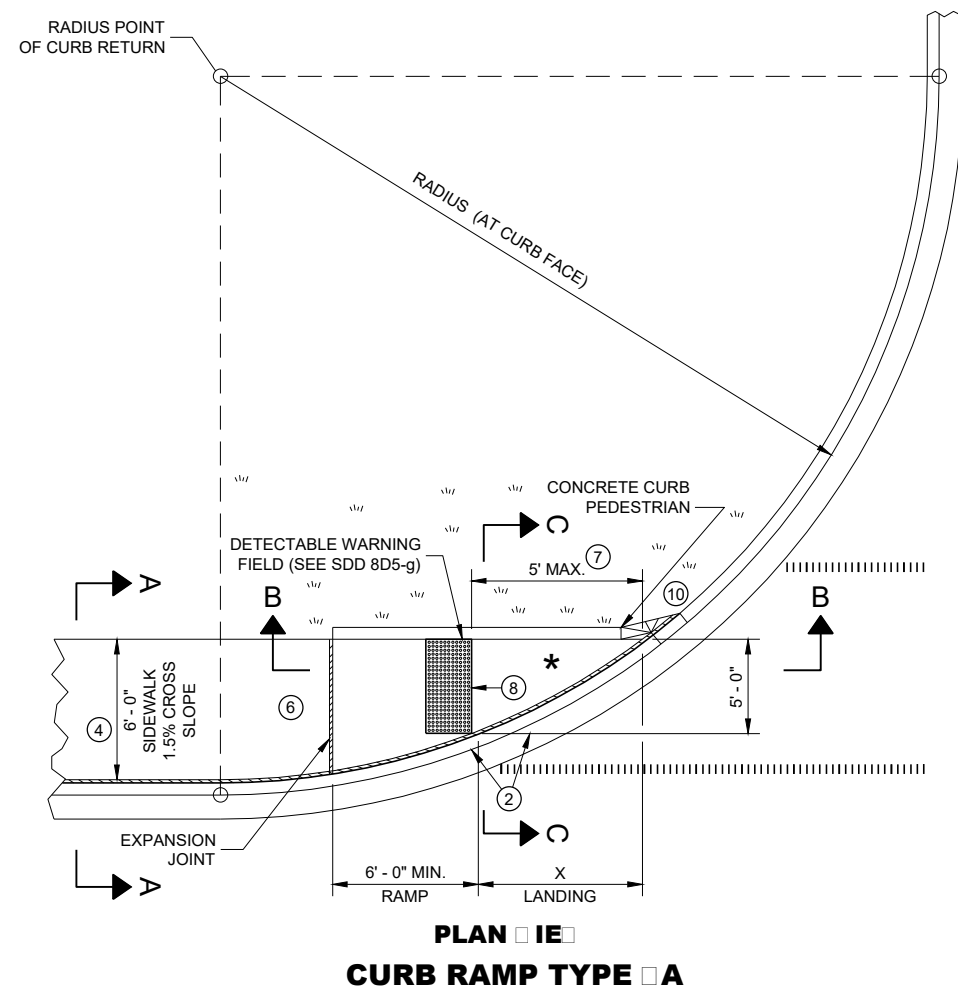
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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 (2.67% OR LESS) 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 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.

CURB RAMPS
TYPE ☐ AND ☐

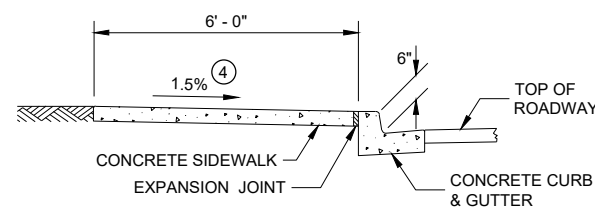
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 132



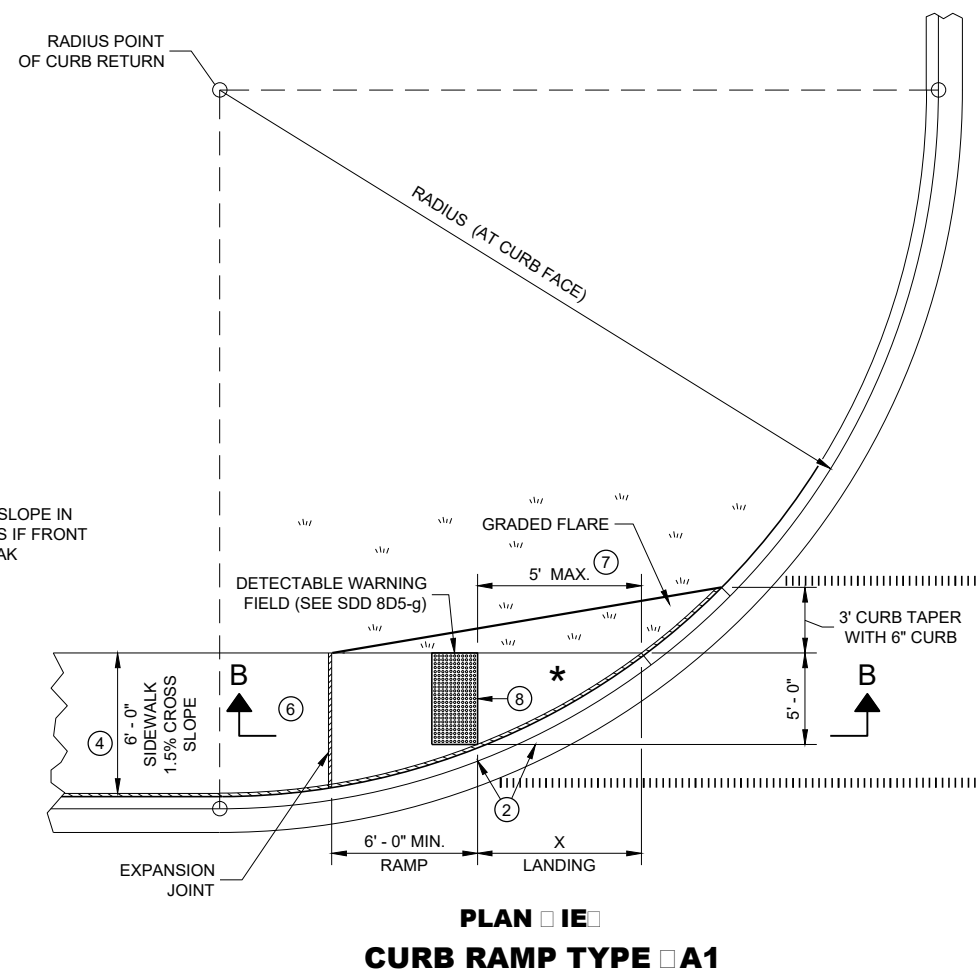
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE □A



GENERAL NOTES

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

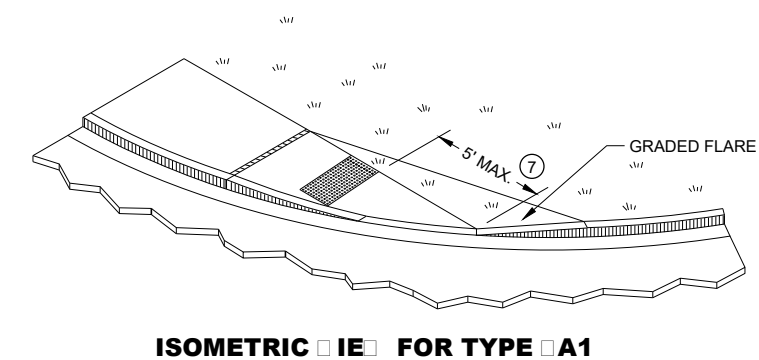
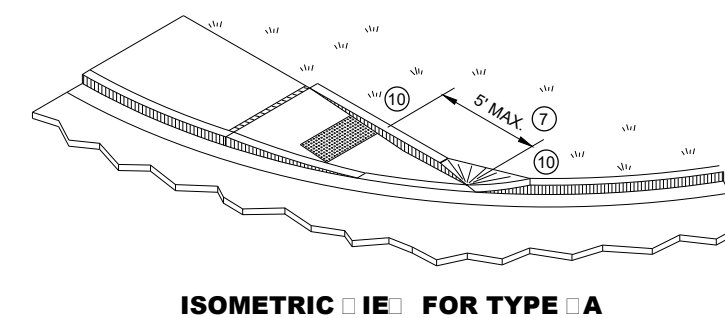
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

LEGEND

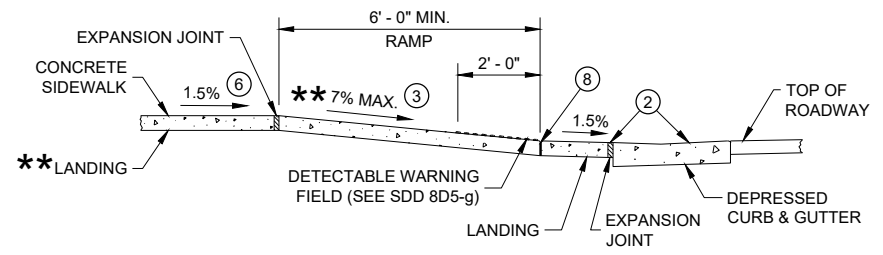
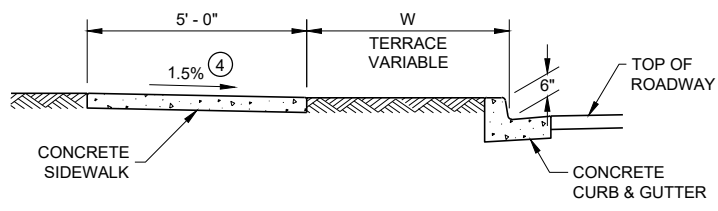
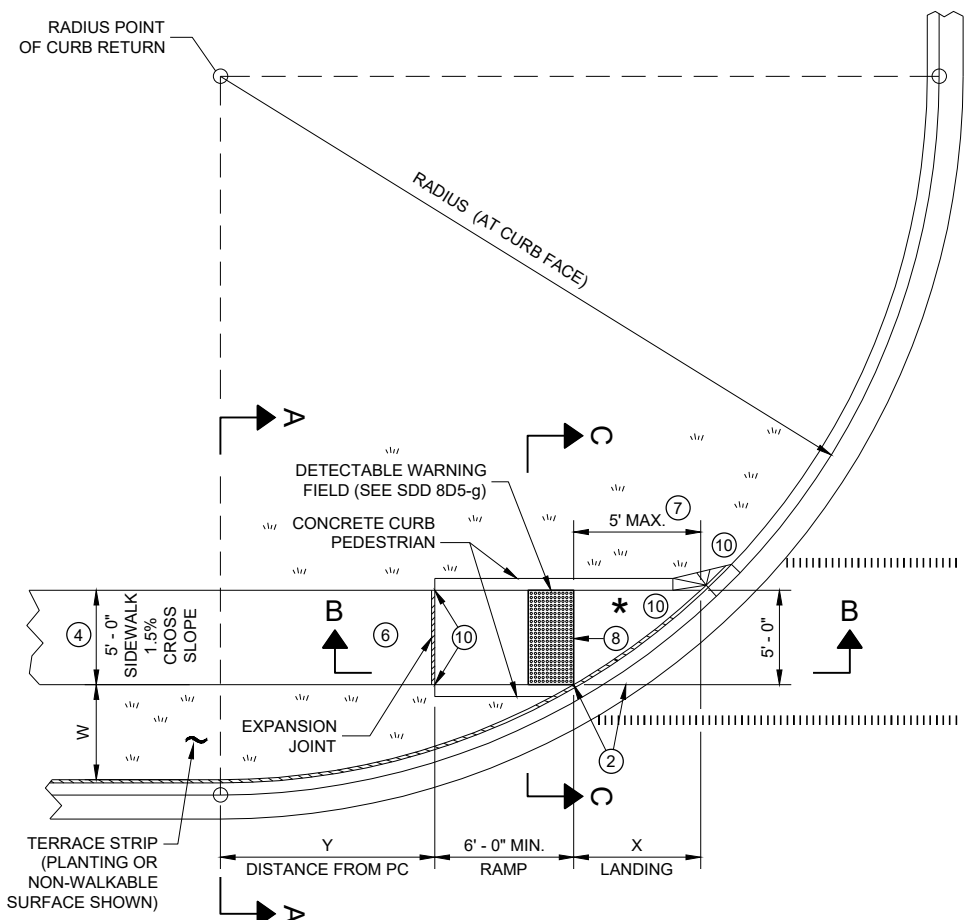
- | | |
|---|------------------------------------|
|  | 1/2" EXPANSION JOINT SIDEWALK |
|  | CONTRACTION JOINT SIDEWALK |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |



CURB RAMPS

TYPE ☐ A AND ☐ A1

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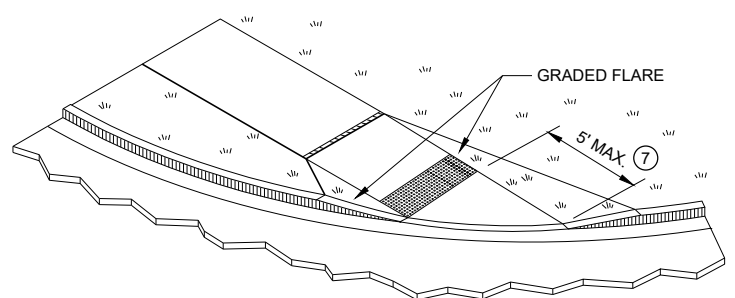
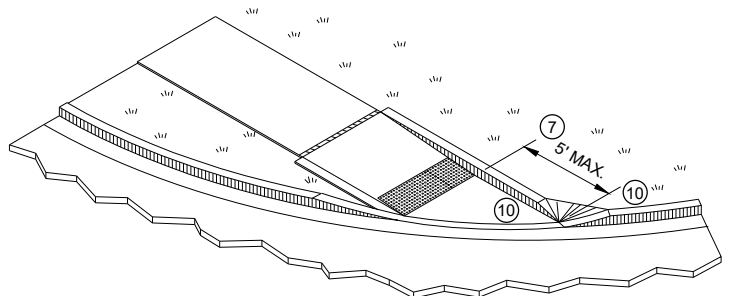
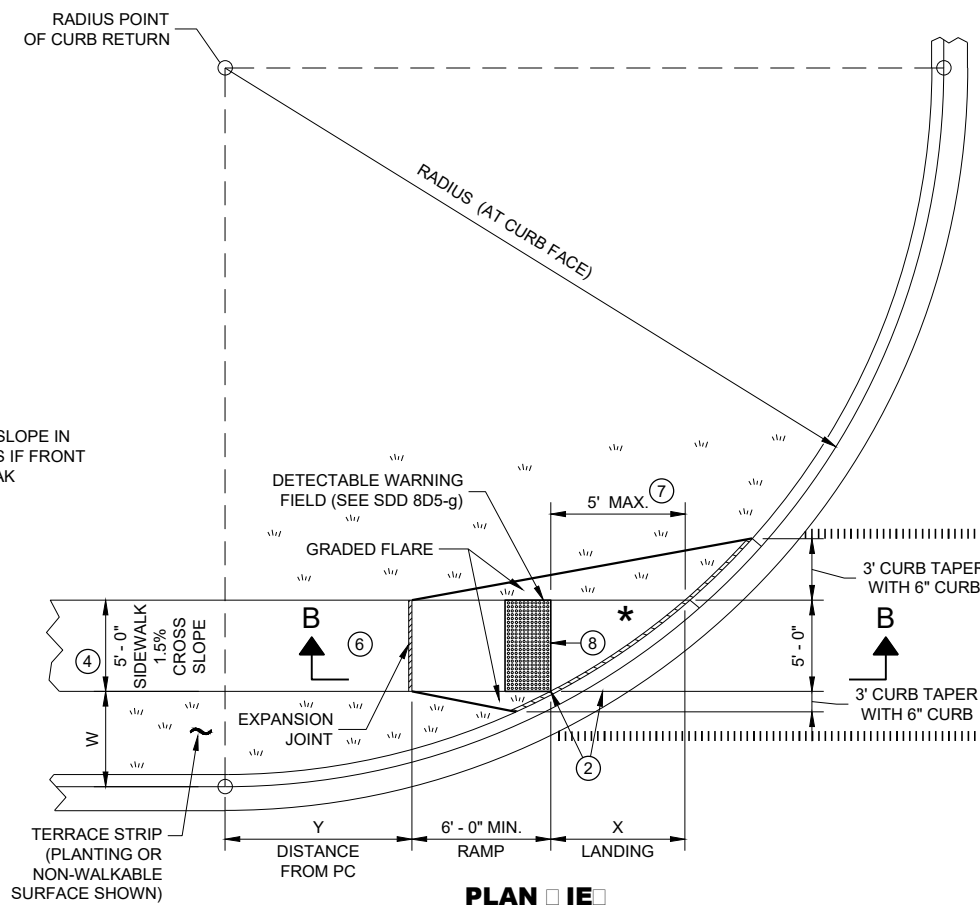
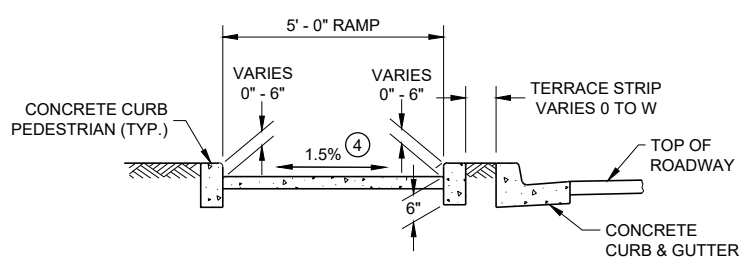


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 3/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

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



LEGEND

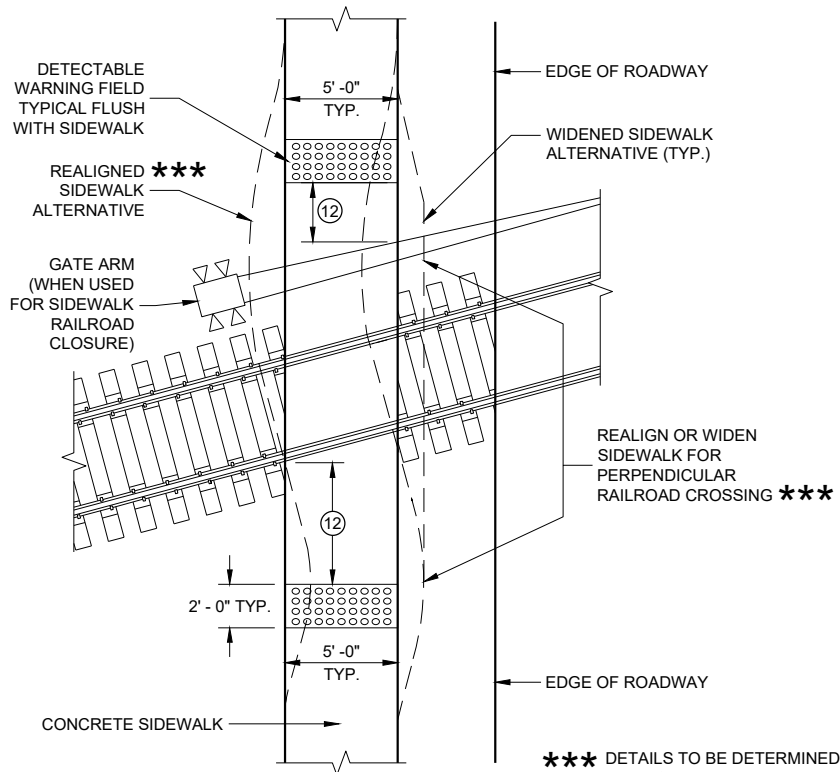
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- 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.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

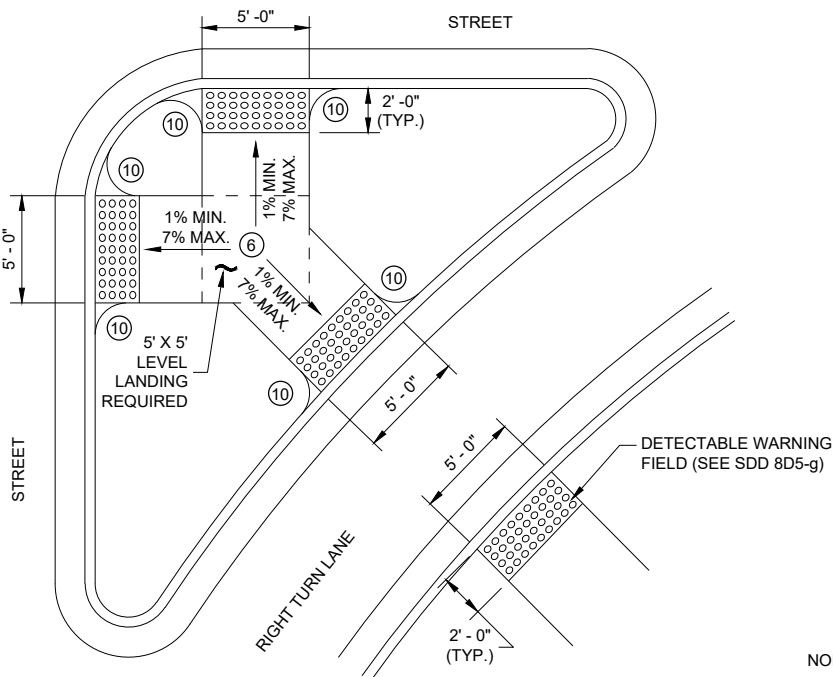
**CURB RAMPS
TYPE B AND B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 6

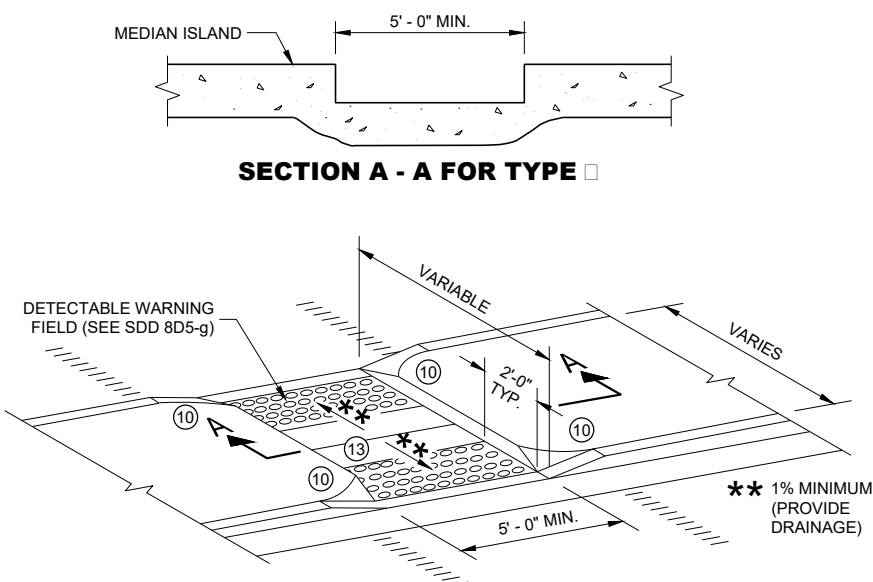
DETECTABLE WARNING AT RAILROAD CROSSING



CURB RAMP TYPE 6

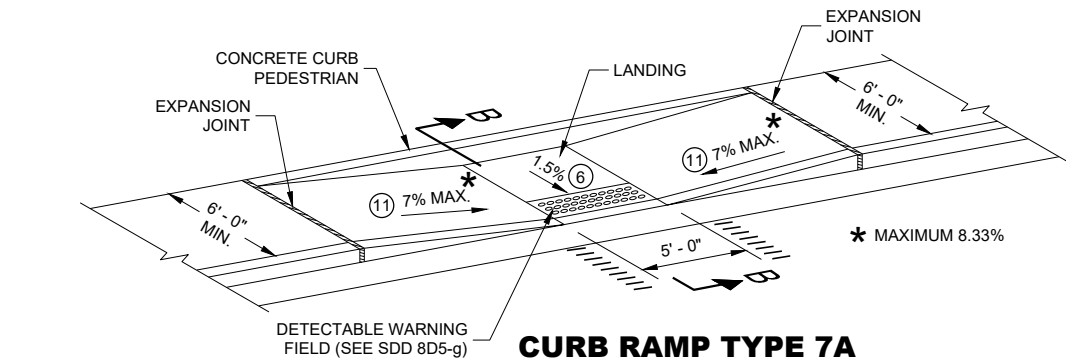
DETECTABLE WARNING AT ISLANDS

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

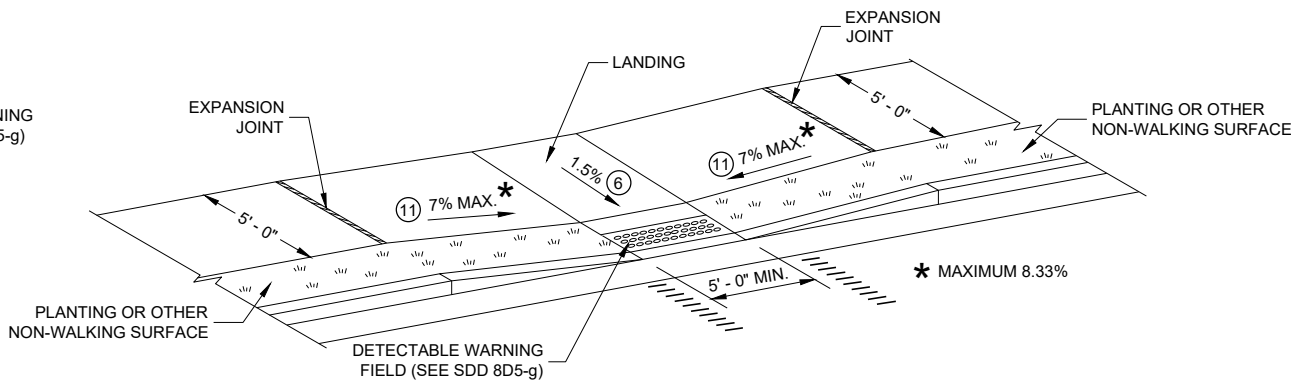


SECTION A - A FOR TYPE 7A

**CURB RAMP TYPE 7A
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B
MID BLOCK CROSSING**

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

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.

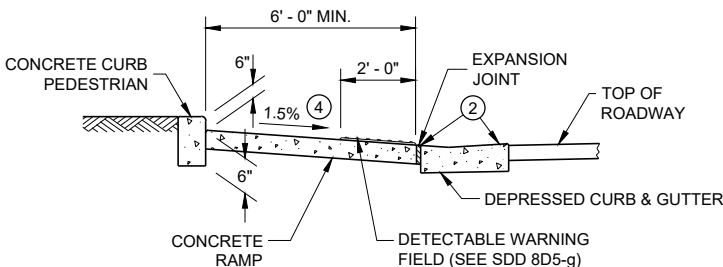
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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 1/4 - 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.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- (12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- (13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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

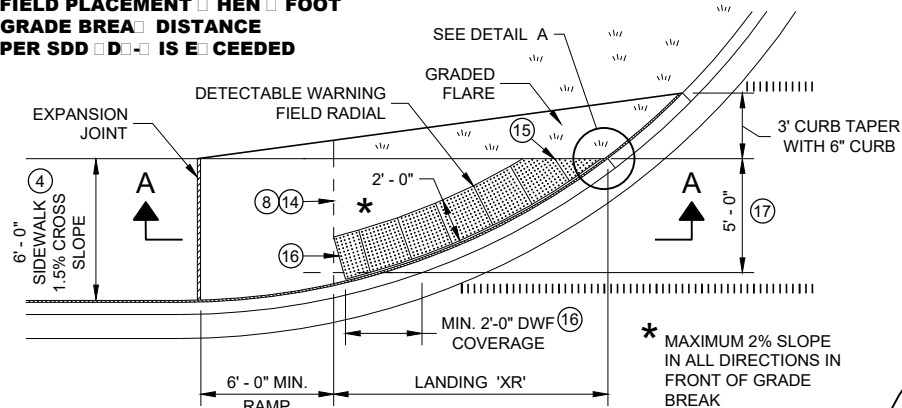


SECTION B - B FOR TYPE 7A

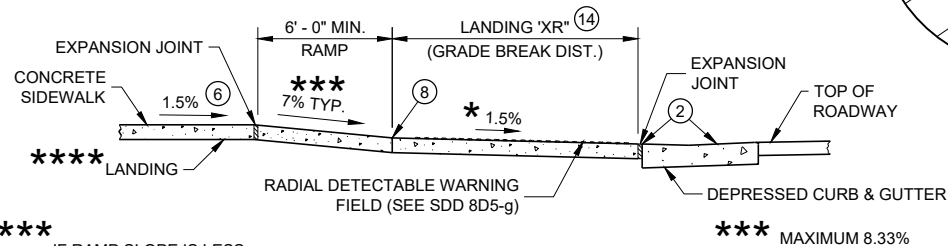
**CURB RAMPS
TYPE 6 7A 7B**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 135

RADIAL DETECTABLE **ARNING**
FIELD PLACEMENT **HEN** **FOOT**
GRADE BREA **DISTANCE**
PER SDD **D** **IS E** **CEEDED**



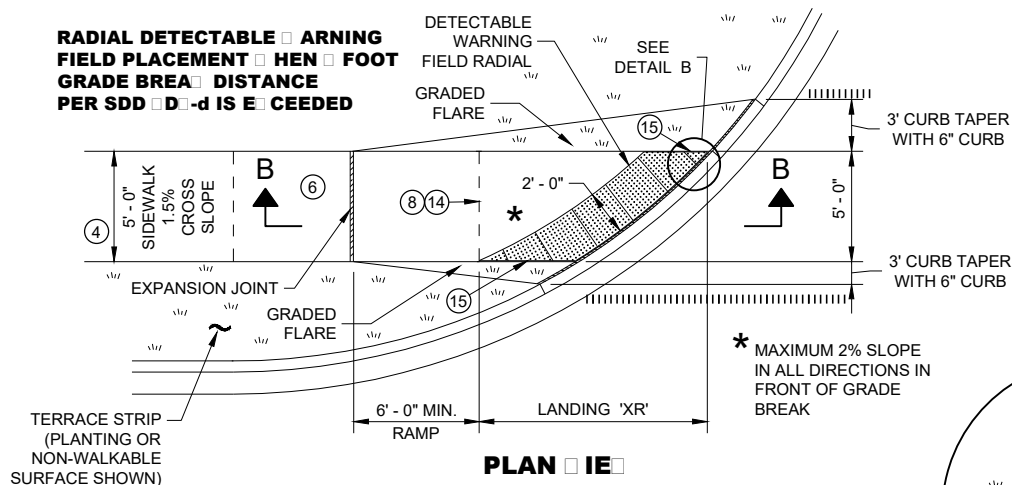
PLAN **IE**
CURB RAMP TYPE **A1**
(GRADE BREA **DISTANCE GREATER THAN** **FEET)**



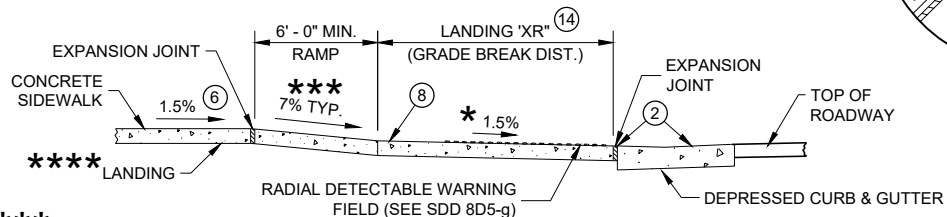
IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL
LANDING IS REQUIRED

SECTION A - A FOR TYPE **A1**

RADIAL DETECTABLE **ARNING**
FIELD PLACEMENT **HEN** **FOOT**
GRADE BREA **DISTANCE**
PER SDD **D** **IS E** **CEEDED**



PLAN **IE**
CURB RAMP TYPE **B1**
(GRADE BREA **DISTANCE GREATER THAN** **FEET)**

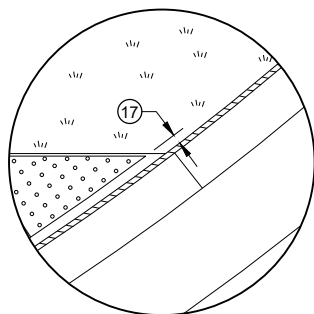


IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL
LANDING IS REQUIRED

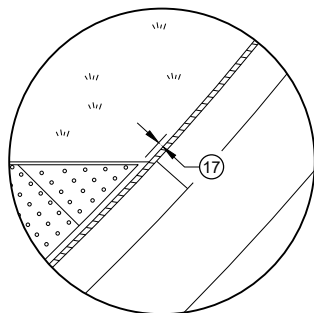
SECTION B - B FOR TYPE **B1**

LEGEND

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



DETAIL A



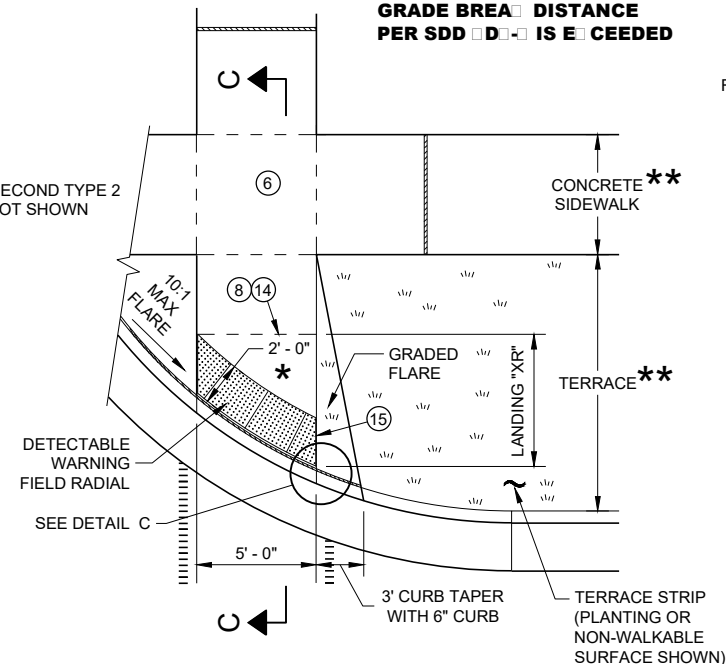
DETAIL B

GENERAL NOTES

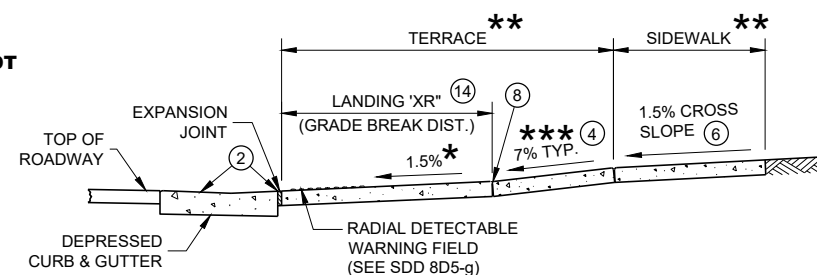
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 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.
- AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 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.
- A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE **ARNING**
FIELD PLACEMENT **HEN** **FOOT**
GRADE BREA **DISTANCE**
PER SDD **D** **IS E** **CEEDED**

NOTE: SECOND TYPE 2
RAMP NOT SHOWN

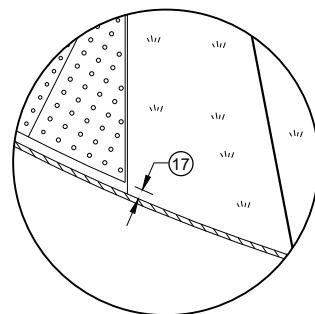


PLAN **IE**
CURB RAMP TYPE **B1**
(GRADE BREA **DISTANCE GREATER THAN** **FEET)**
(ON LINE **ITH SIDE** **AL** **)**



SECTION C - C FOR TYPE **B1**

- MAXIMUM 2% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE
BREAK
- WIDTH SHOWN ELSEWHERE
IN THE PLANS
- MAXIMUM 8.33%



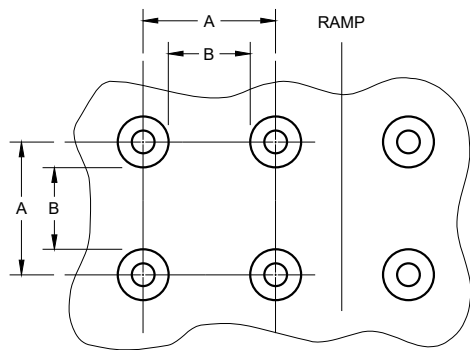
DETAIL C

CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS

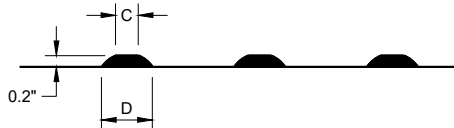
STATE OF WISCONSIN
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	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

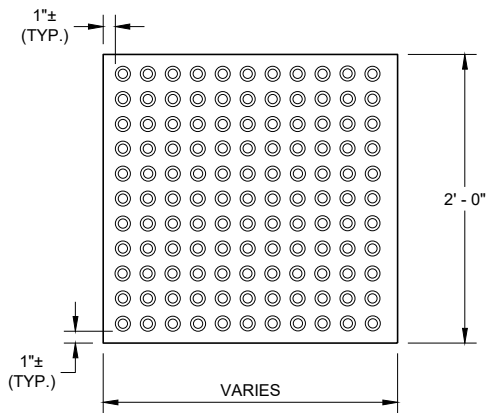


PLAN - IE

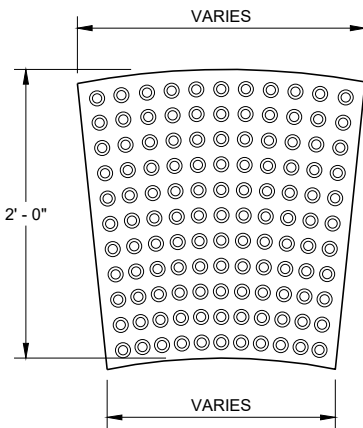


ELEVATION - IE

TRUNCATED DOMES
DETECTABLE - ARNING PATTERN DETAIL

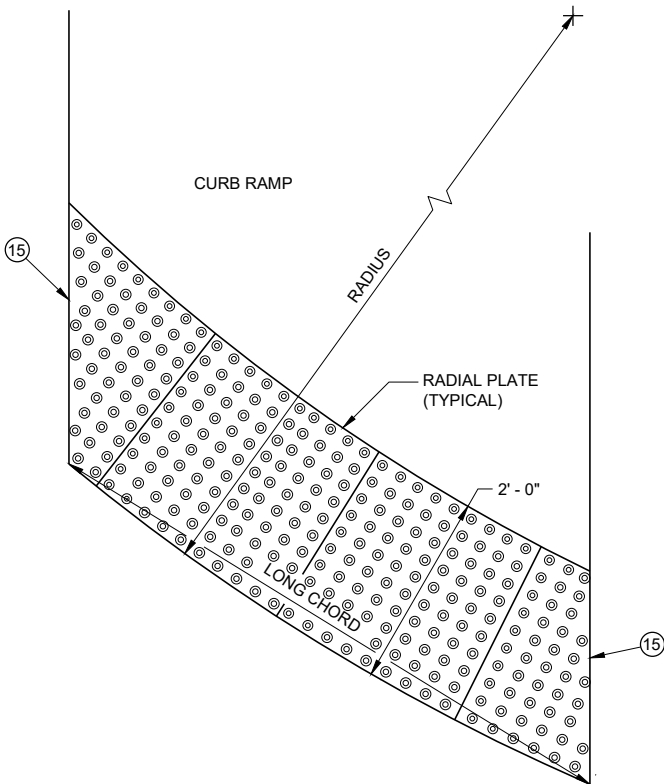


RECTANGULAR
PLATES

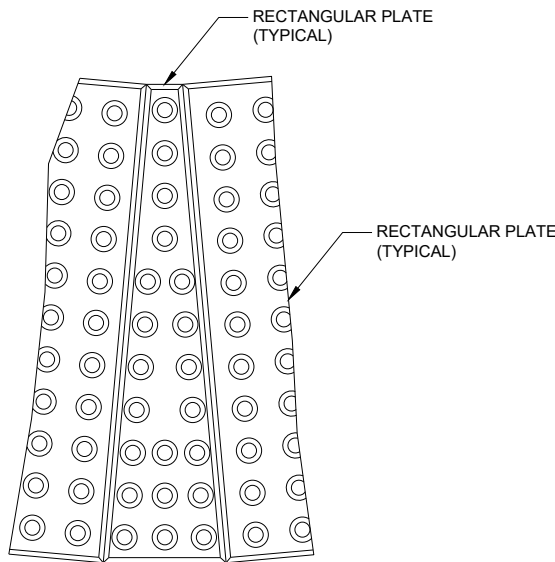


RADIAL
PLATES

PLAN - IE
DETECTABLE - ARNING FIELDS (TYPICAL)



PLAN - IE
RADIAL DETECTABLE
- ARNING FIELD ATTRIBUTES



PLAN - IE
RADIAL - EDGE PLATE
CONNECTION DETAIL

GENERAL NOTES

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

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

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

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

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 137



- ① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS

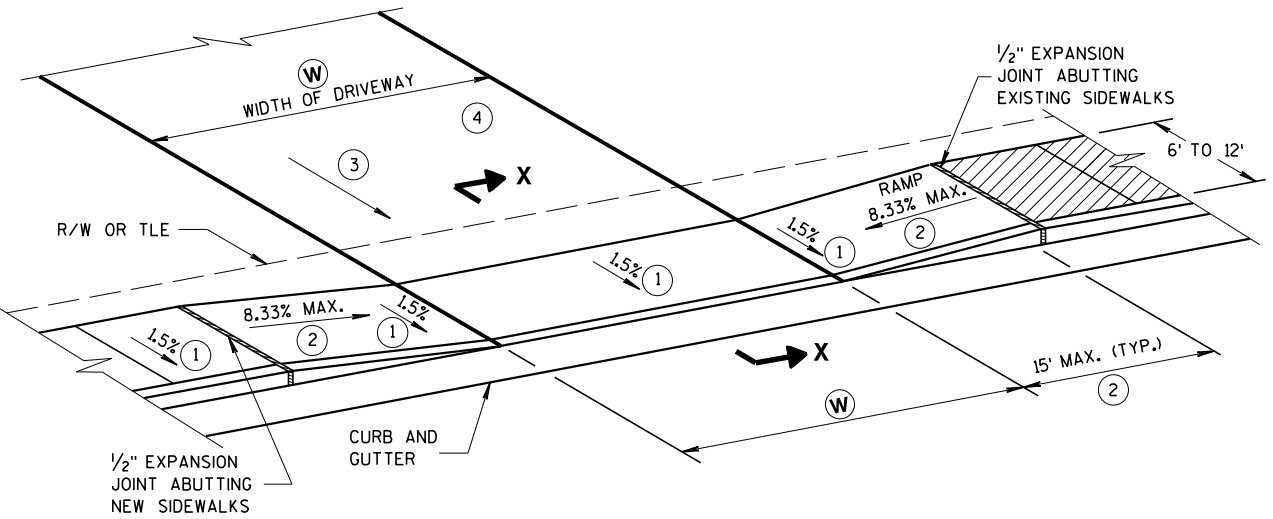


PAVEMENT TIES

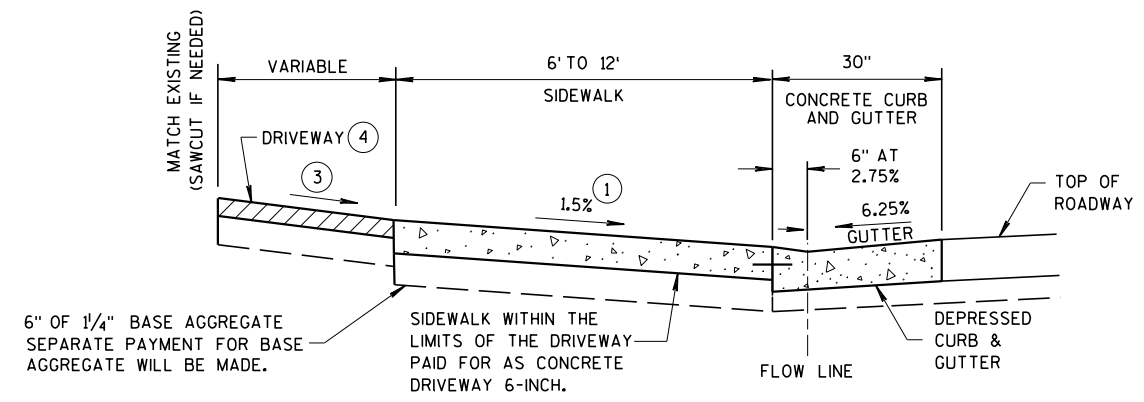
APPROVED
February 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

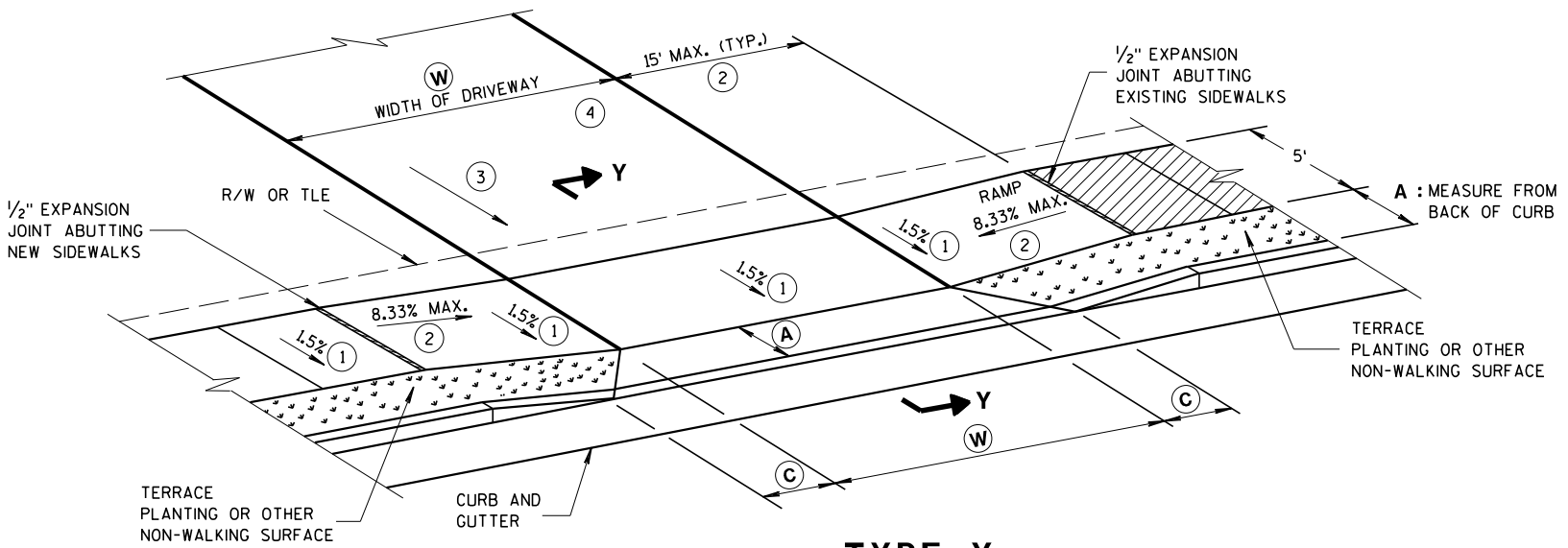
138



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



SECTION X-X



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

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

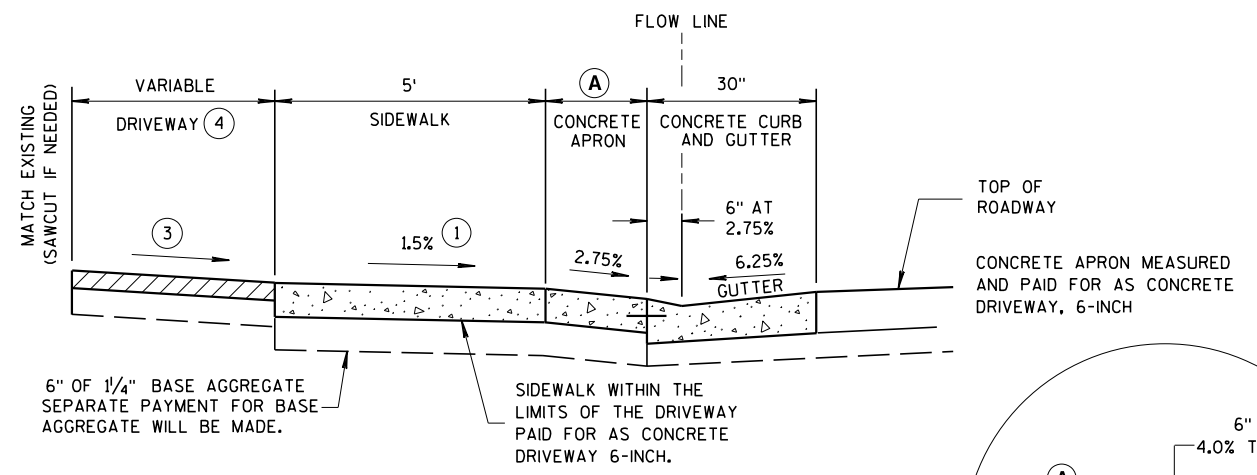
GENERAL NOTES

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)

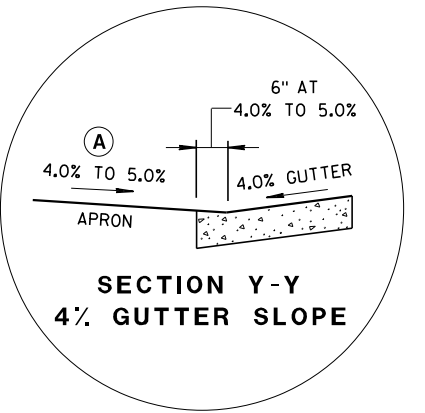


NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

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

TABLE Y

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



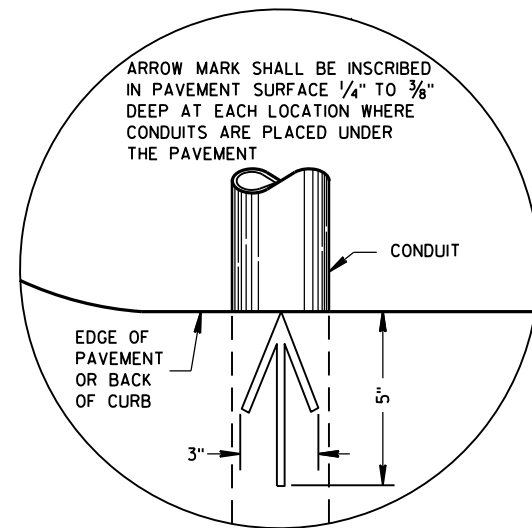
SECTION Y-Y
4% GUTTER SLOPE

DRIVEWAY AND SIDEWALK
RAMPS
TYPES X & Y

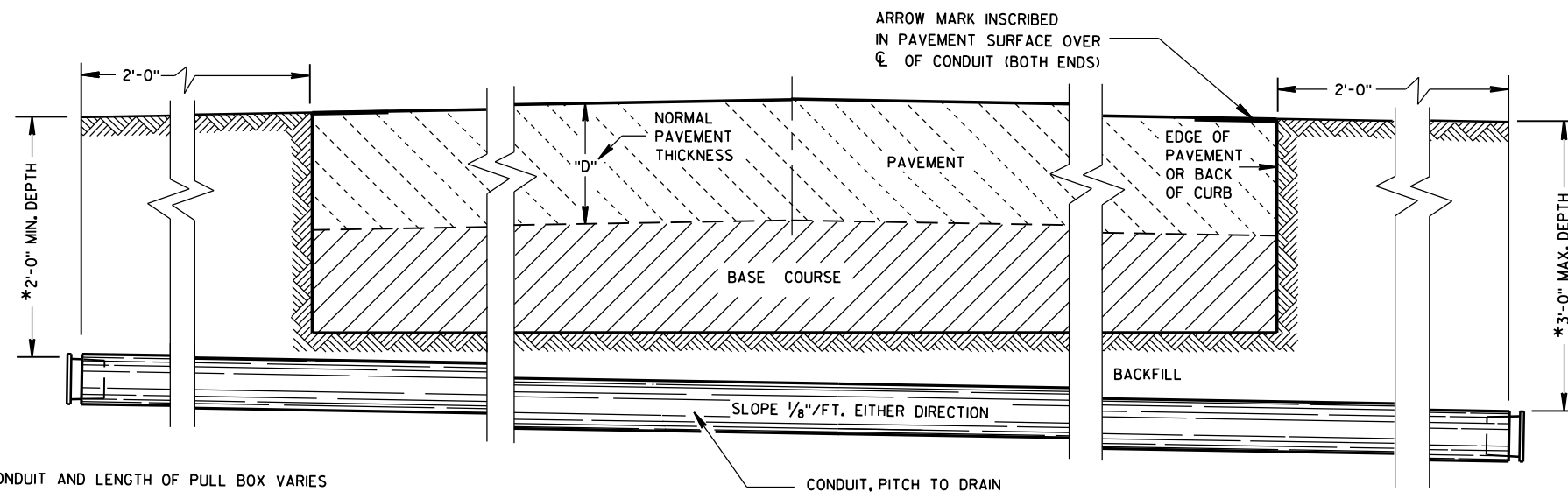
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Rodney Taylor
DATE ROADWAY STANDARDS 140 UNIT SUPERVISOR
FHWA

NOT TO SCALE



PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

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

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 142
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

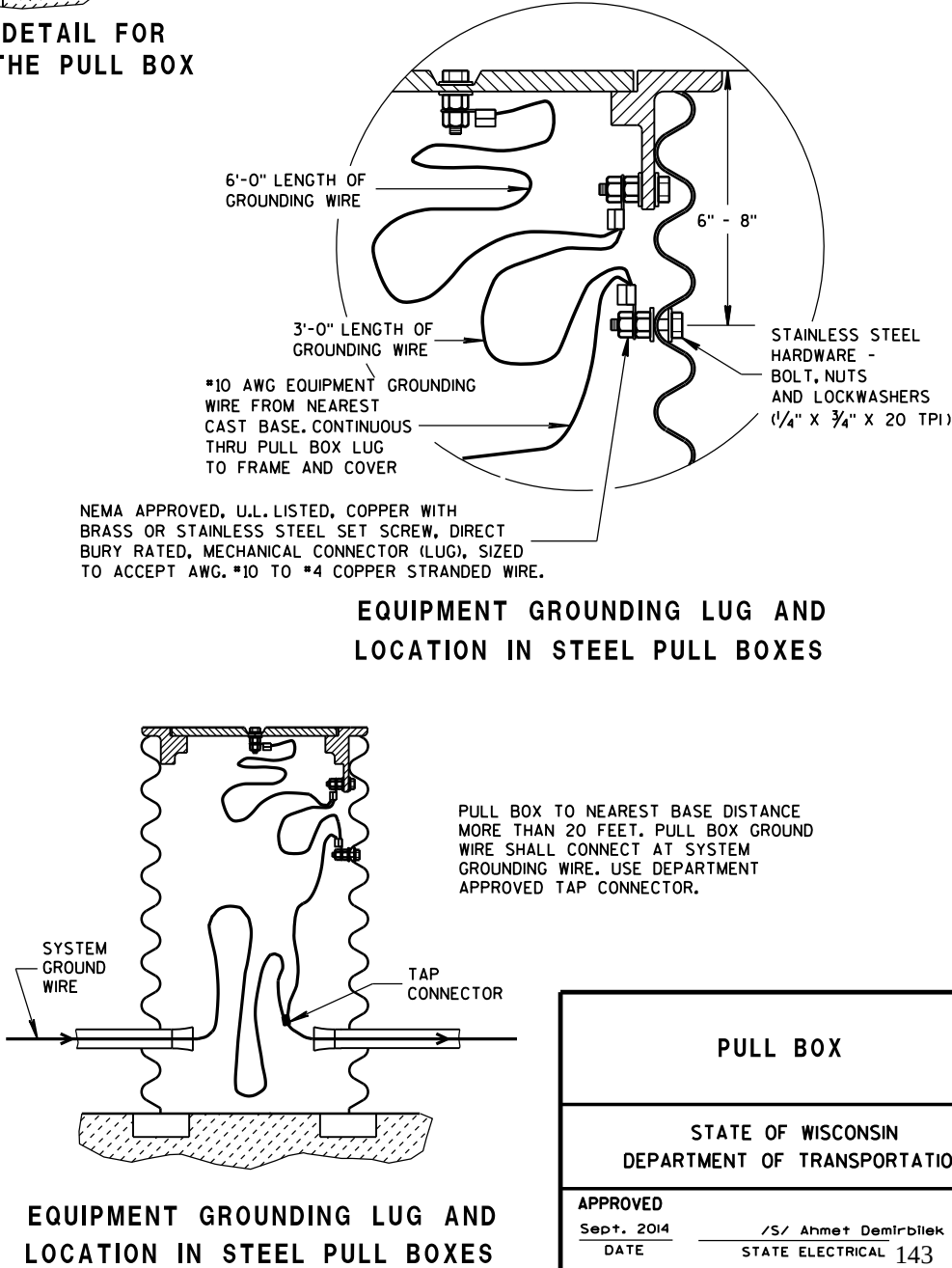
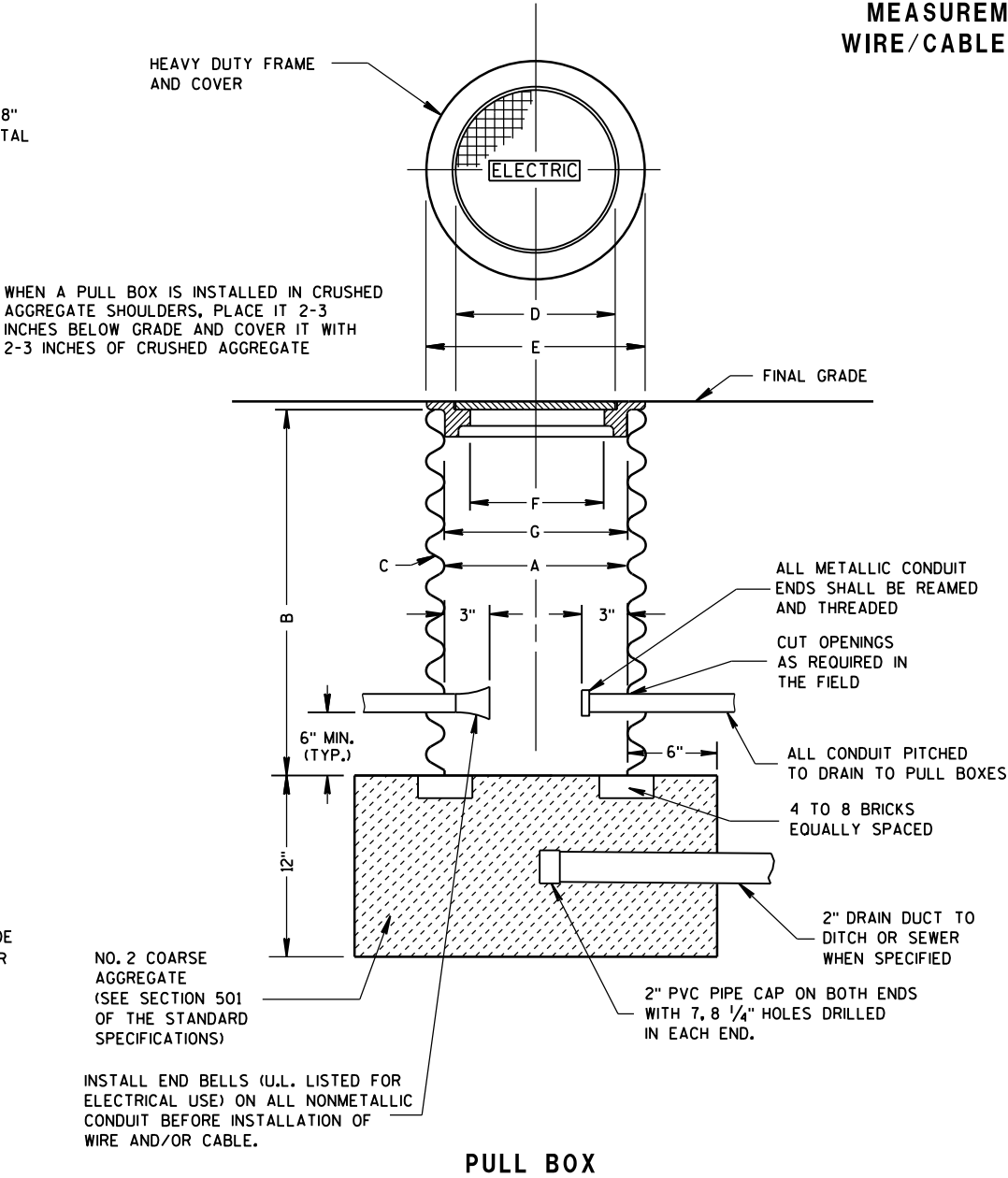
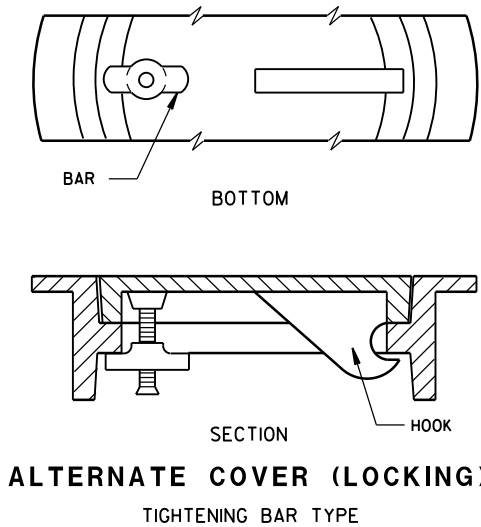
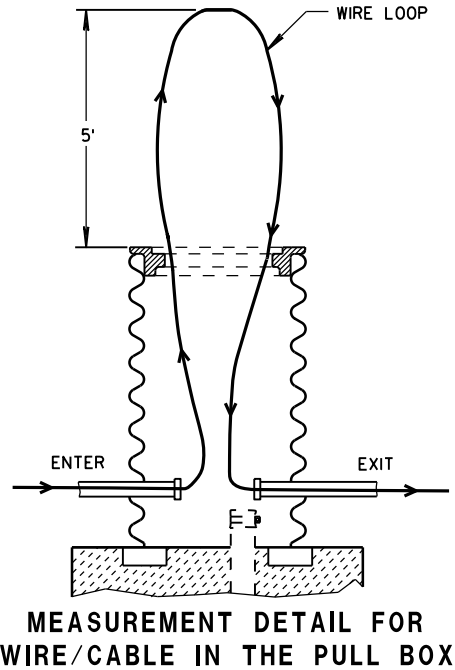
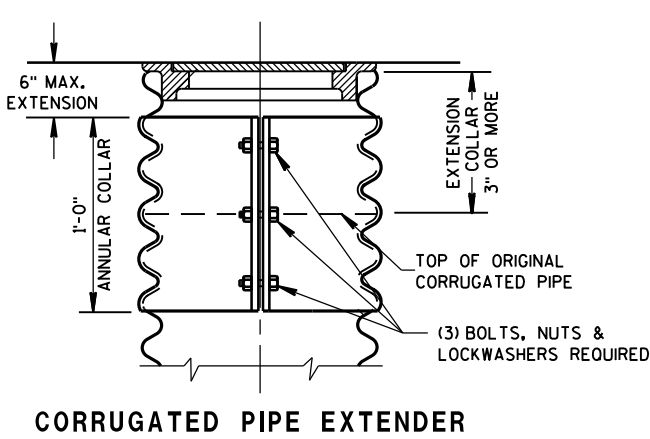
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

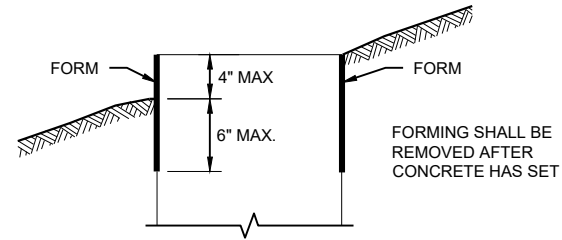
ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 143
FHWA	

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

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

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

GENERAL NOTES

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

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

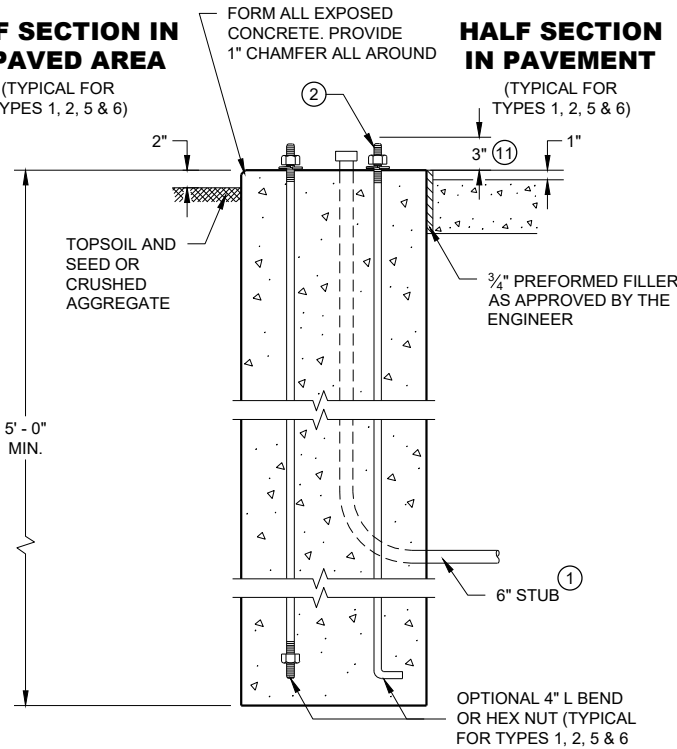
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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

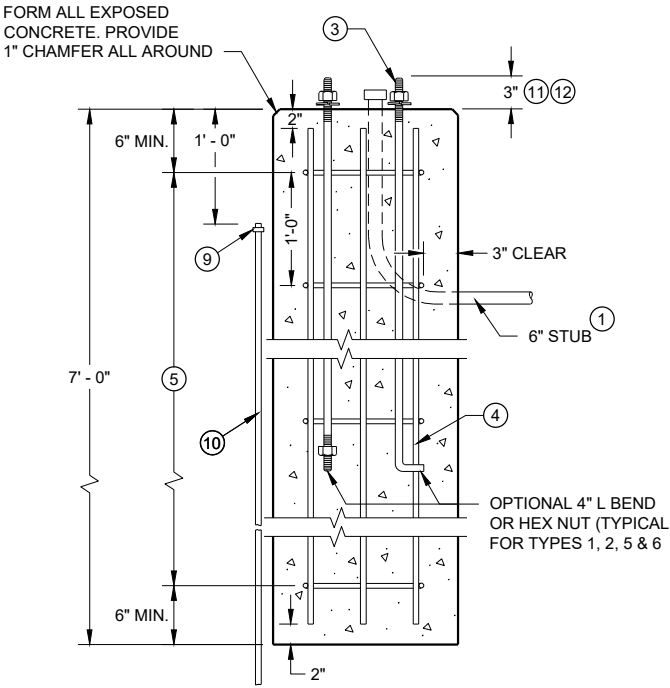
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- 4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 9 EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- 10 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- 11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/2" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 12 FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA



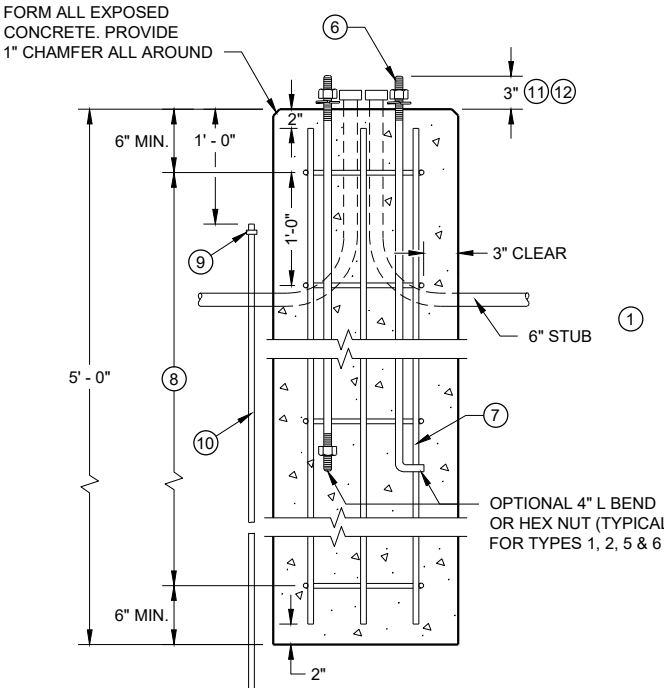
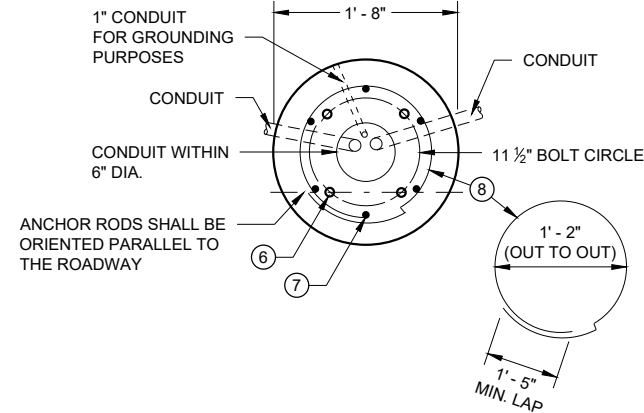
TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2

CONCRETE BASES



TYPE 5 & 6

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

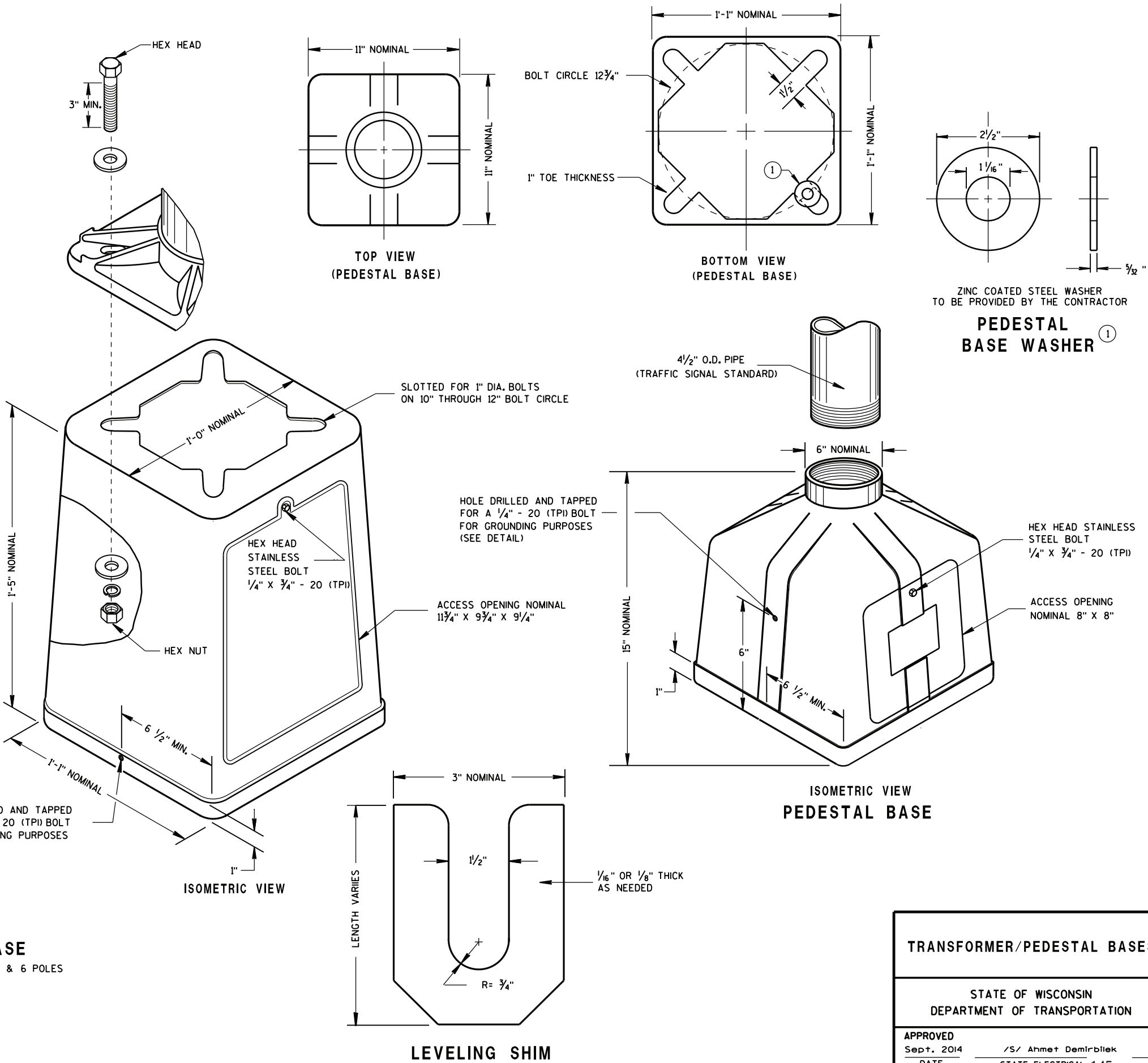
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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

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

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

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



TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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

TRANSFORMER/PEDESTAL BASES

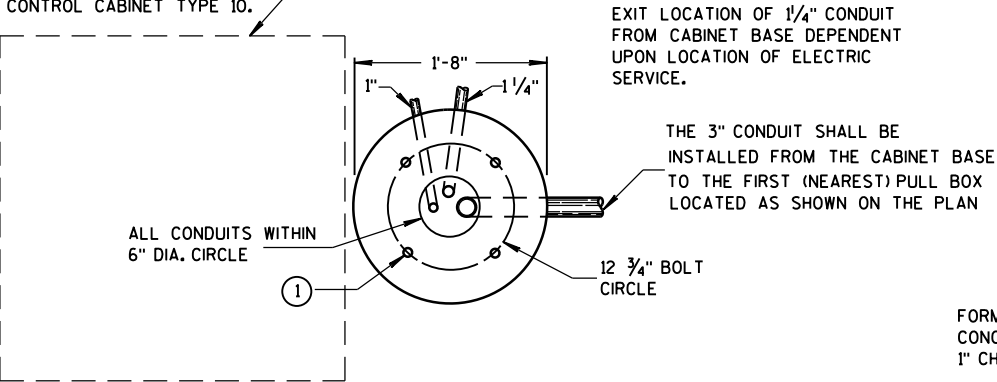
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 145
FHWA

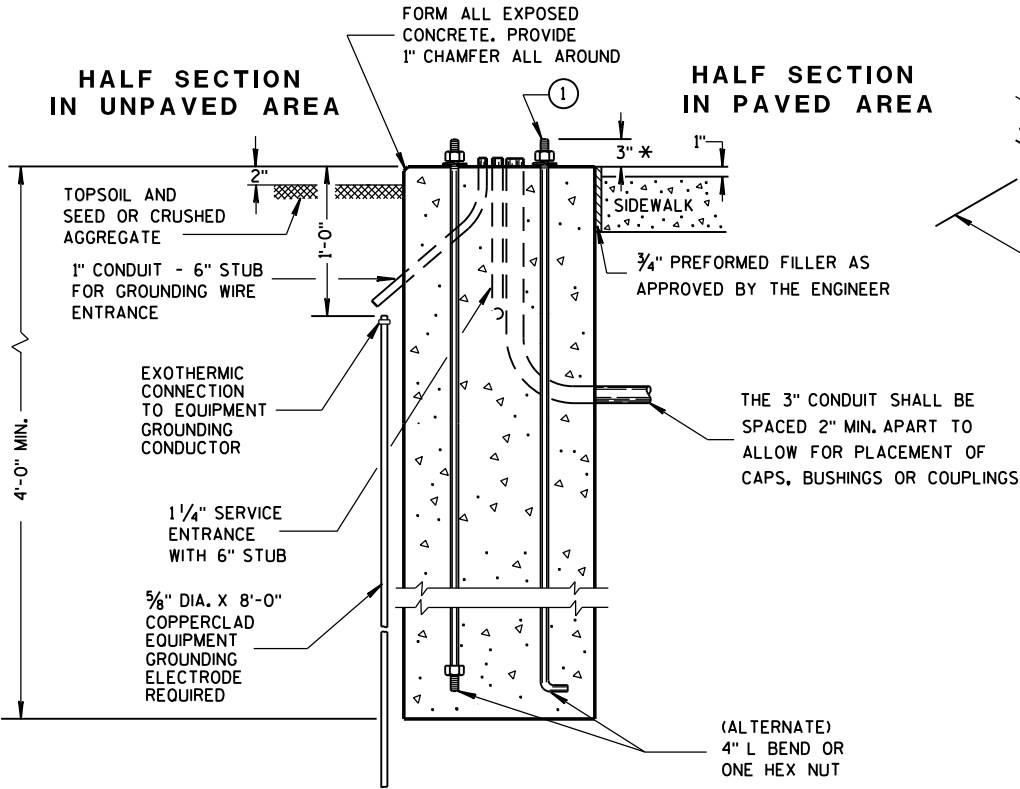
CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

* INCLUDES MAINTENANCE PLATFORM.

TYPICAL 3'-0" X 3'-0" X 4" THICK
MAINTENANCE PLATFORM.
LOCATION TO BE DETERMINED
IN THE FIELD. COST TO BE
INCLUDED UNDER CONCRETE
CONTROL CABINET TYPE 10.



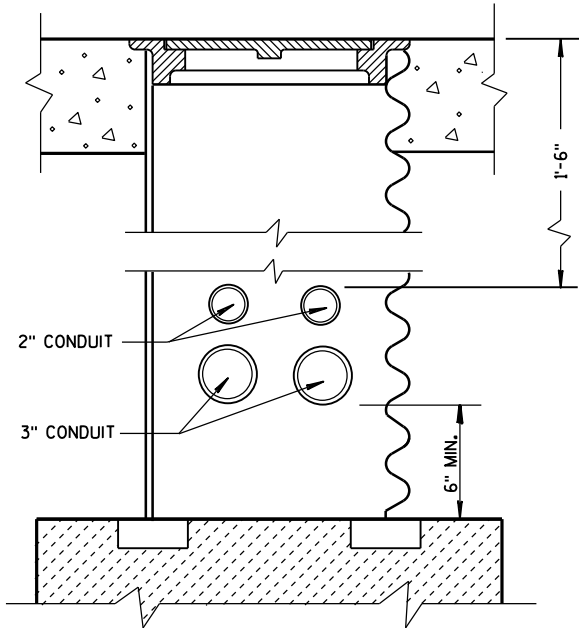
HALF SECTION IN UNPAVED AREA



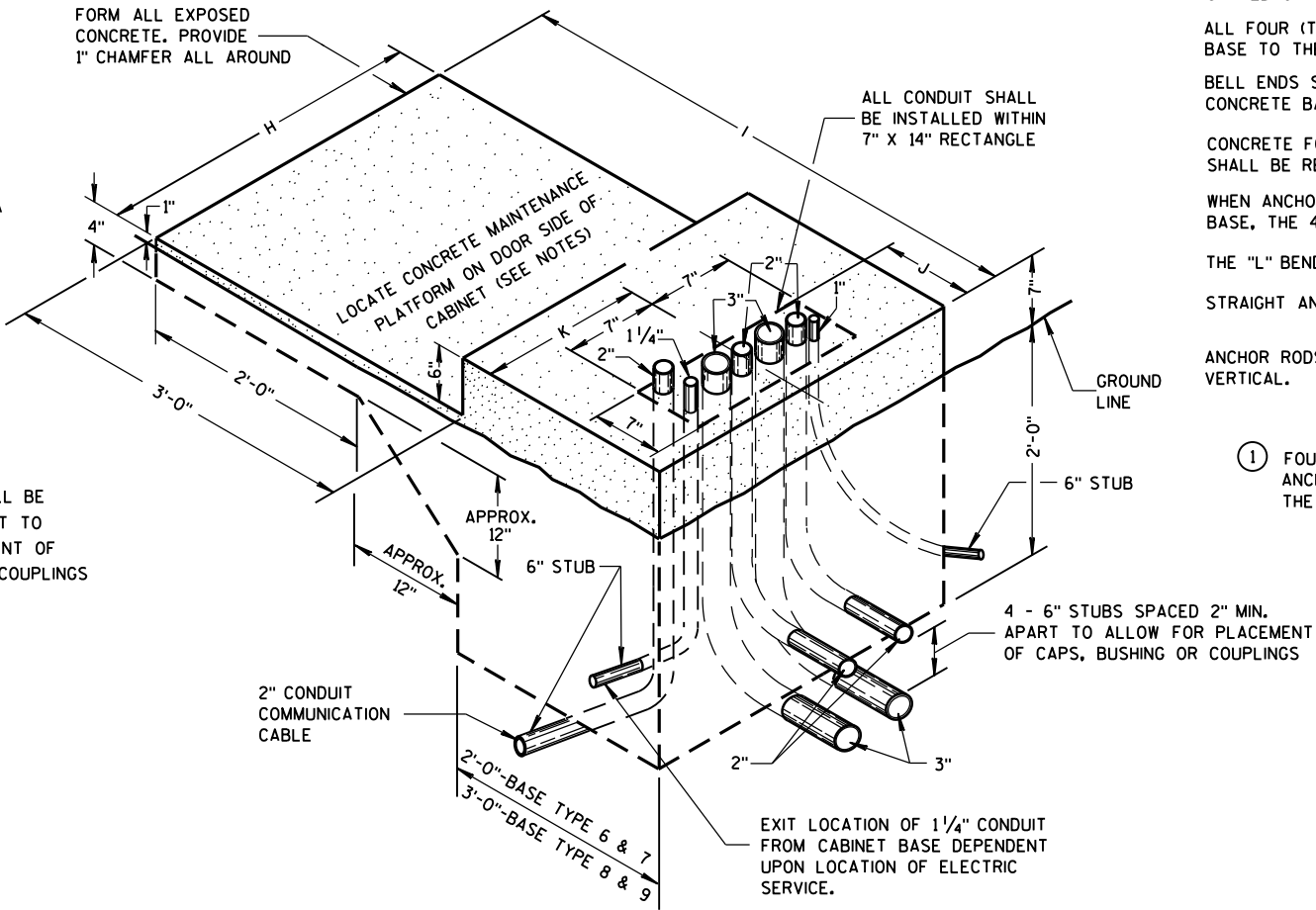
TYPE 10

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

CONCRETE CONTROL CABINET BASES



CONDUIT LOCATIONS IN 24" X 36" PULL BOX (LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

GENERAL NOTES

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

INSTALL FOUR 1/2 INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

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

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

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

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST) PULL BOX LOCATED AS SHOWN ON THE PLANS.

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

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

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

① FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2016 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 146
FHWA

GENERAL NOTES

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

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

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

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

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

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

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

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

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

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

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

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

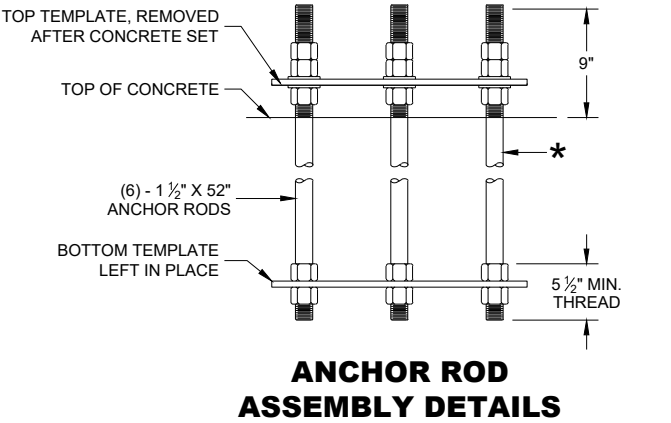
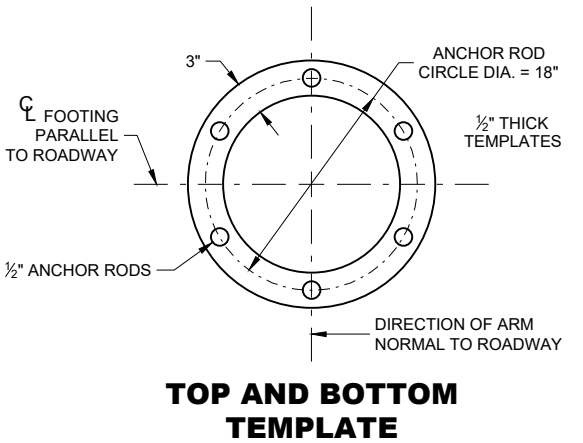
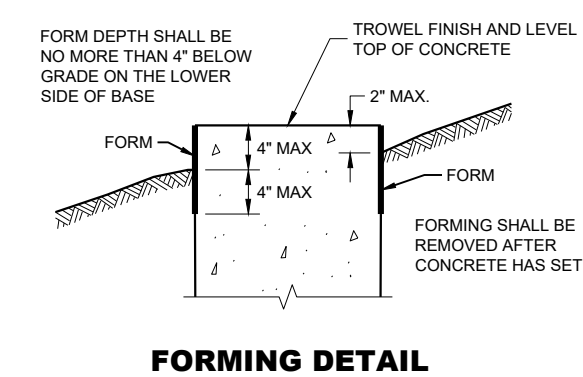
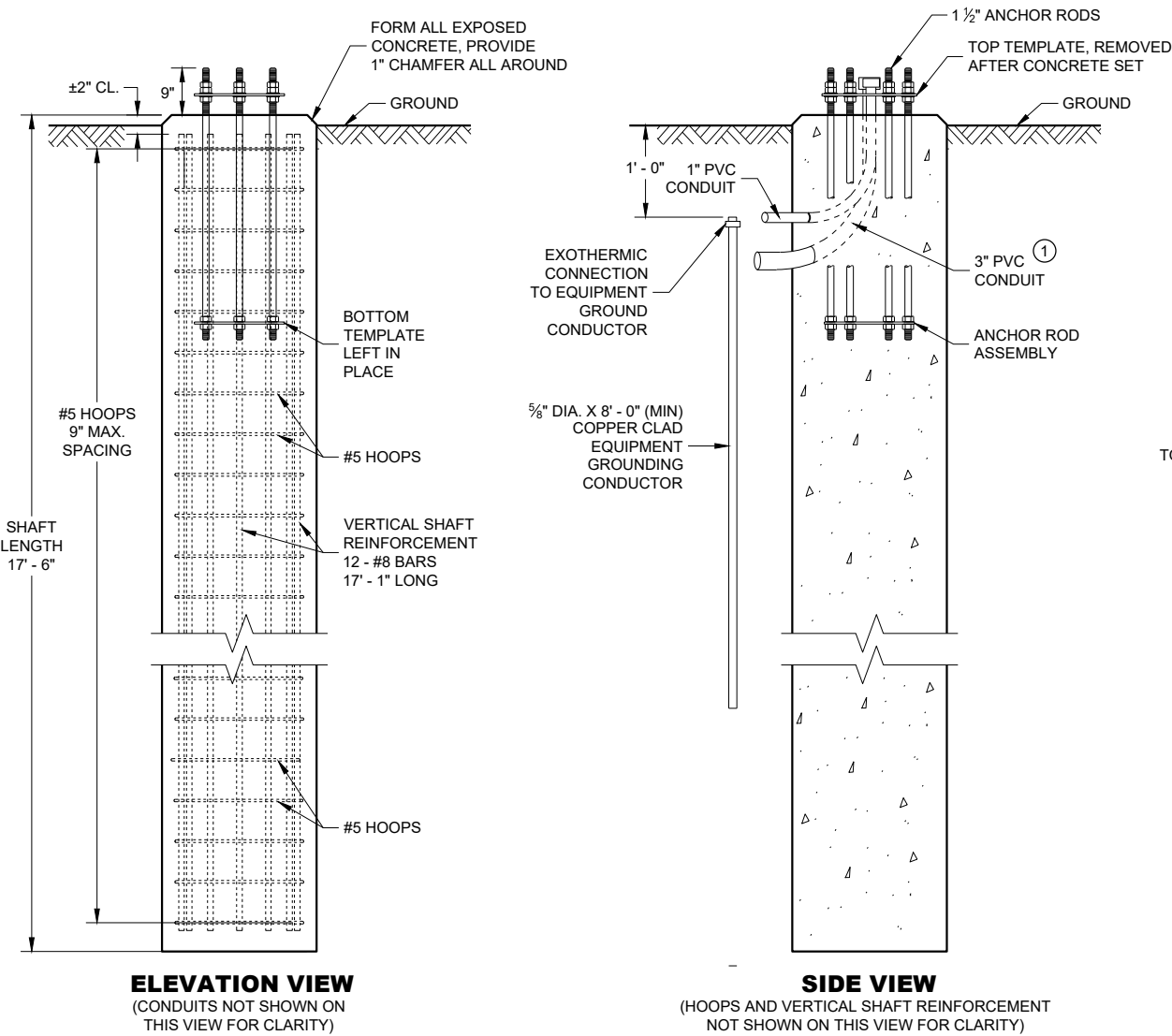
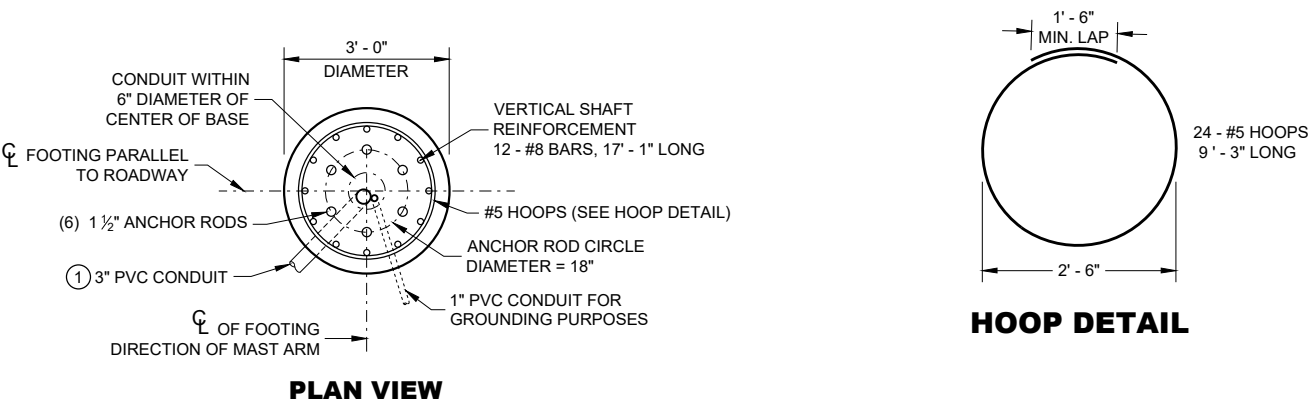
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

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

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

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



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

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

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

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

CONCRETE BASE
TYPE 10 SPECIAL

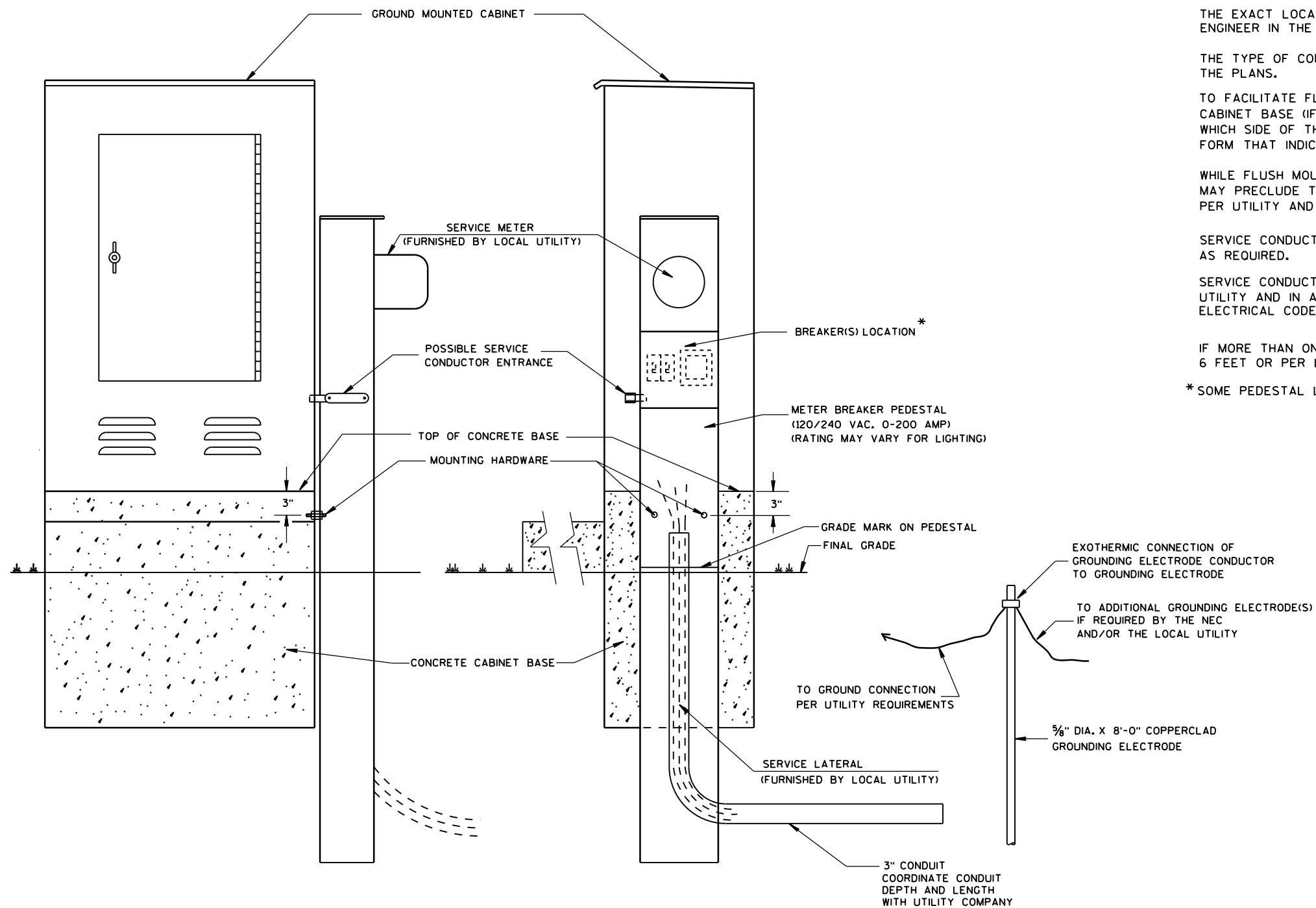
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Alex Crabtree
WIND LOADED STRUCTL
PROGRAM LEADER

147

FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

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

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

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

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

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

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

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

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

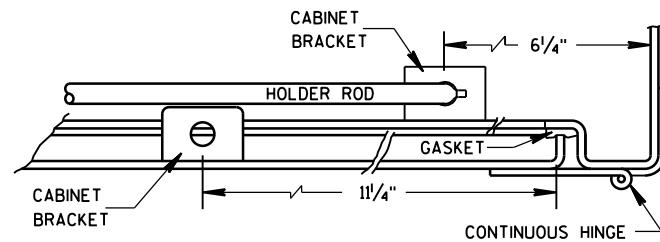
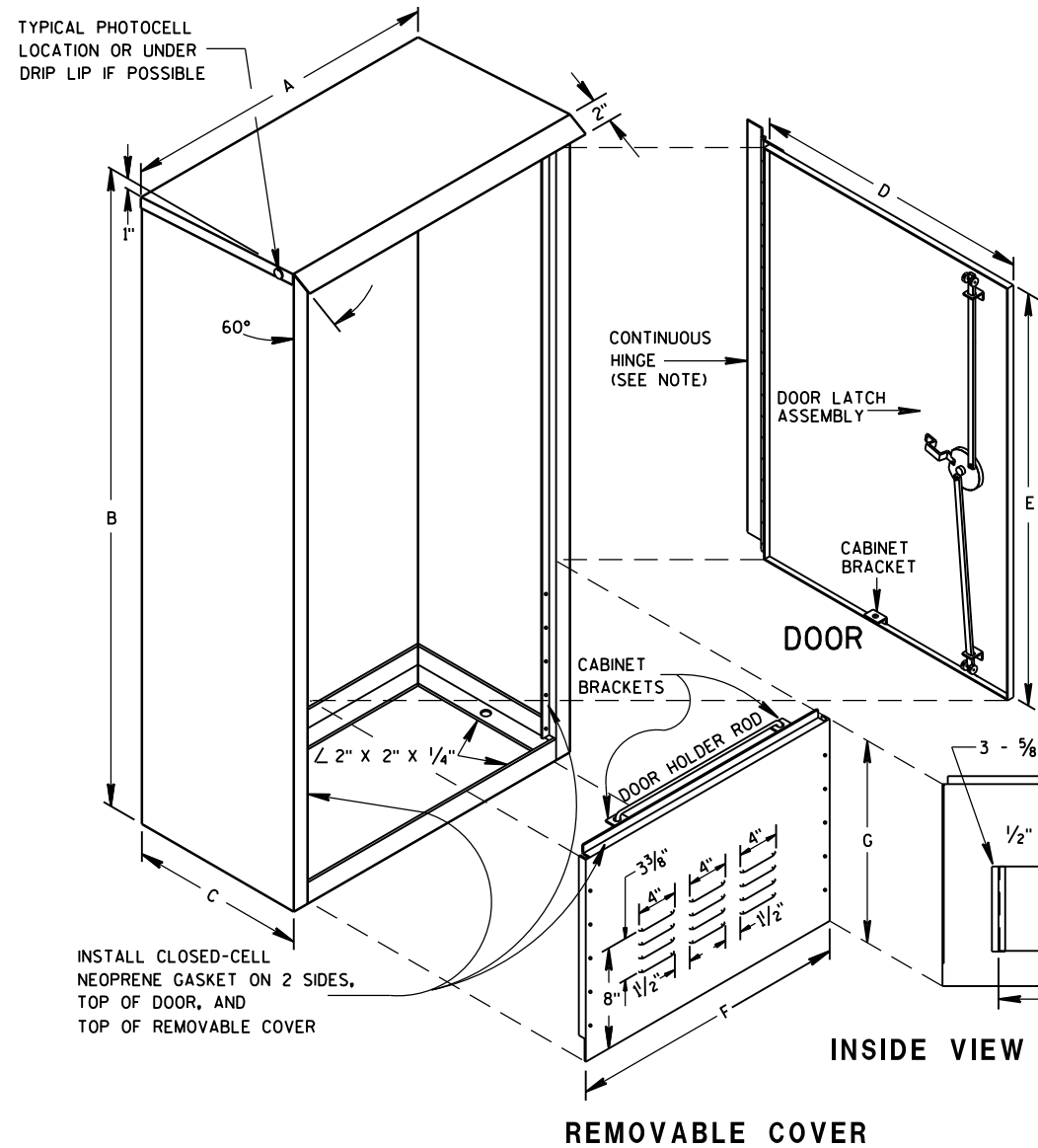
Sept. 2014

DATE

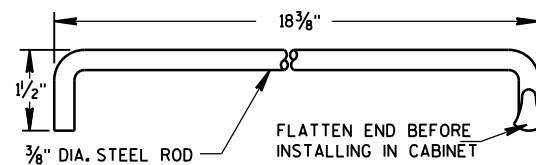
FHWA

/S/ Ahmet Demirbilek

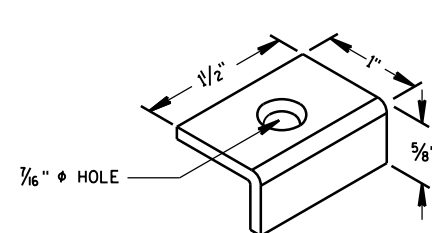
STATE ELECTRICAL 148



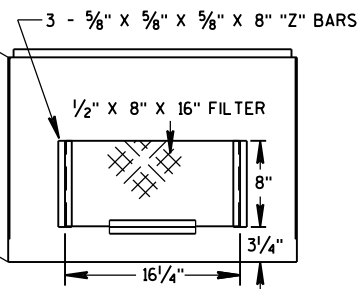
HINGE & DOOR HOLDER



HOLDER ROD



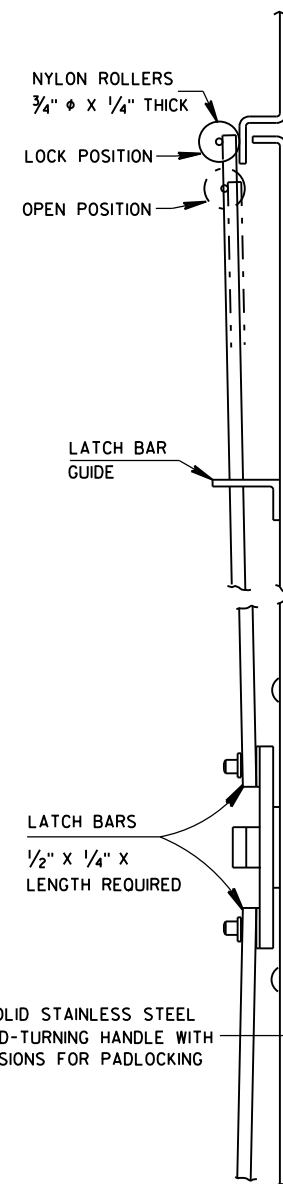
CABINET BRACKET



INSIDE VIEW SHOWING FILTER

TABLE OF DIMENSIONS (INCHES)

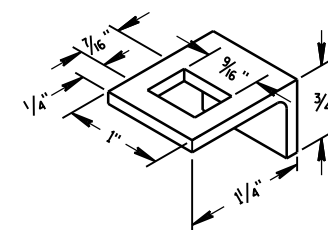
MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

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

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

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

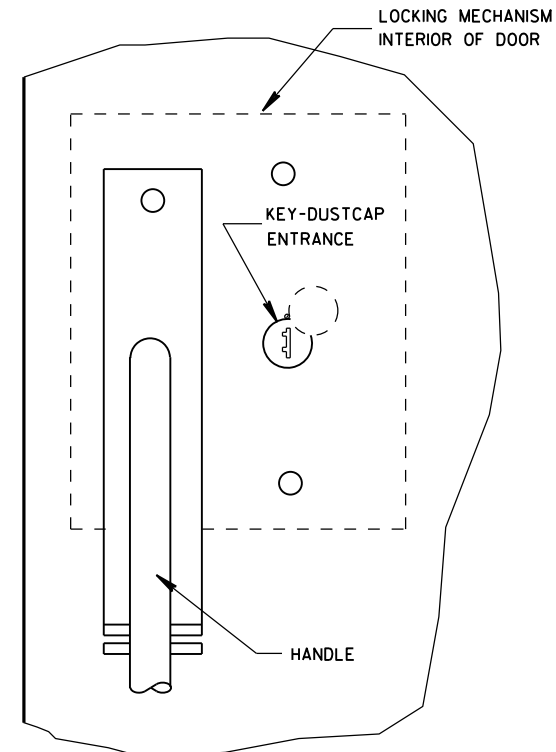
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

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

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

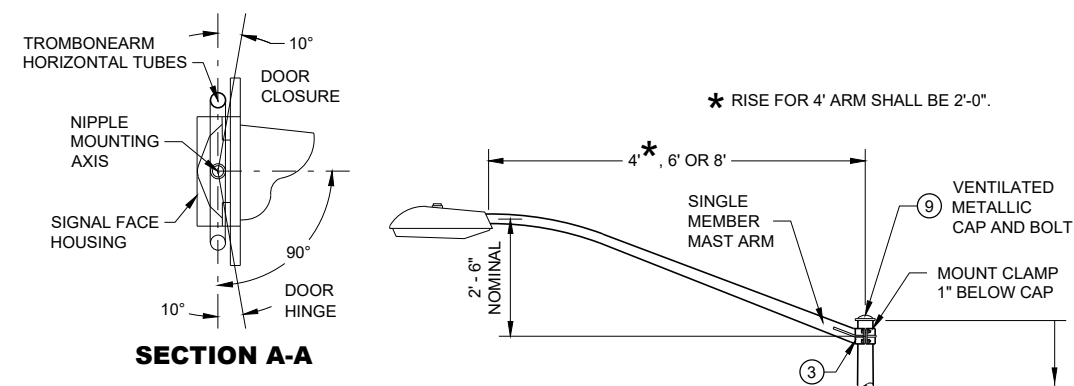
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

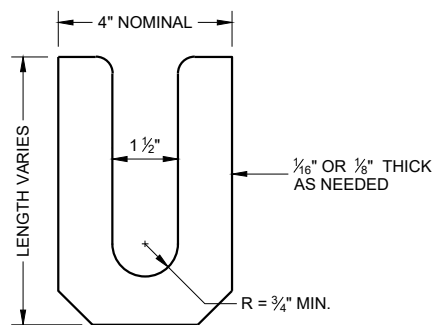


SIGNAL CONTROL CABINET

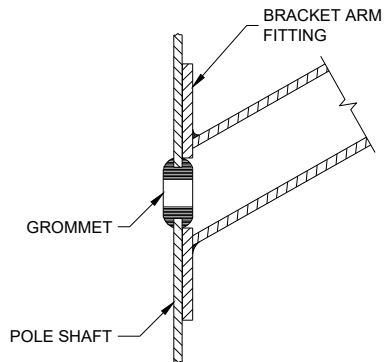
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 149
FHWA

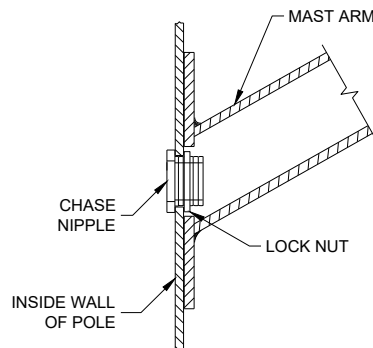




LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



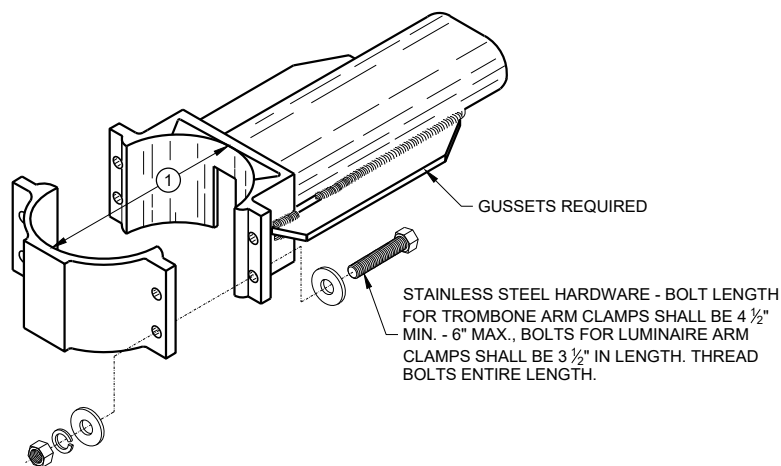
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

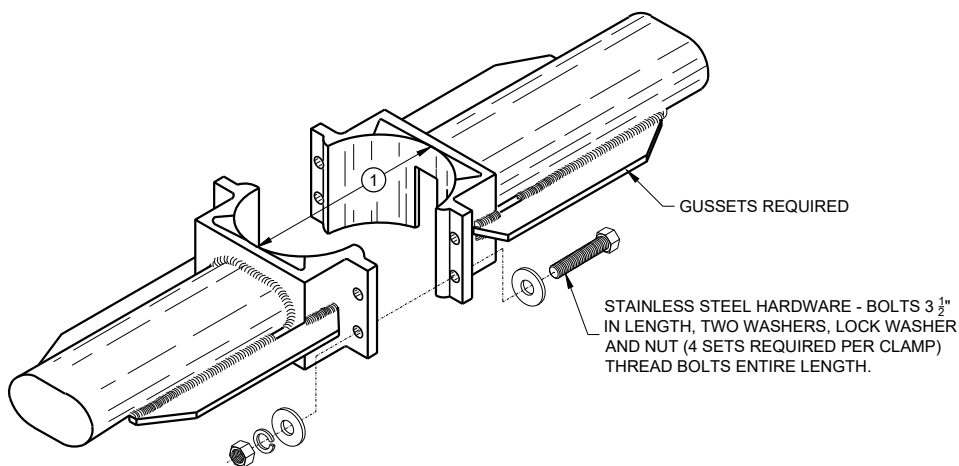
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

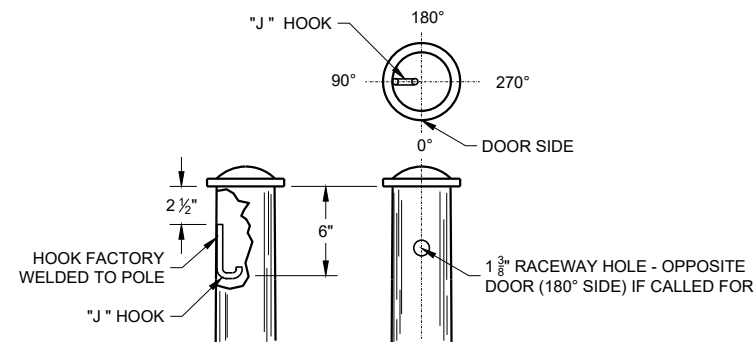
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



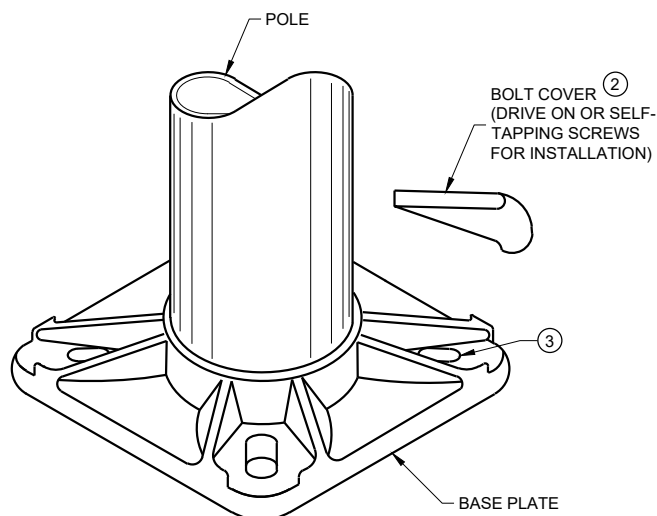
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



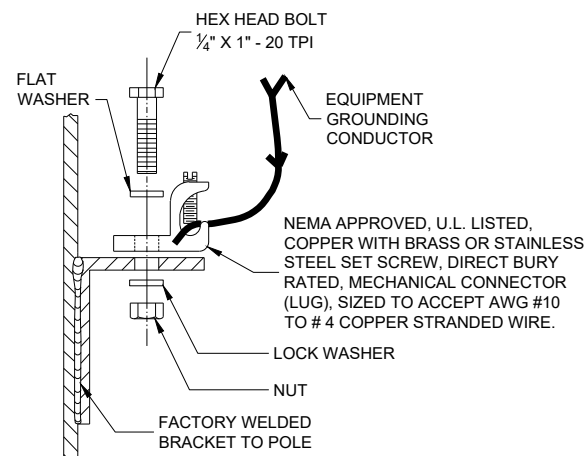
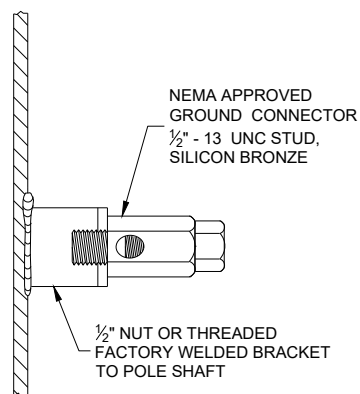
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



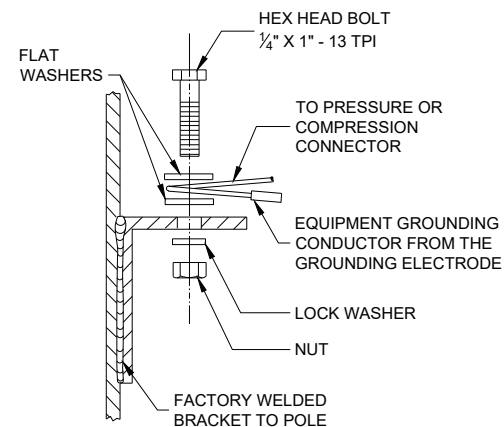
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

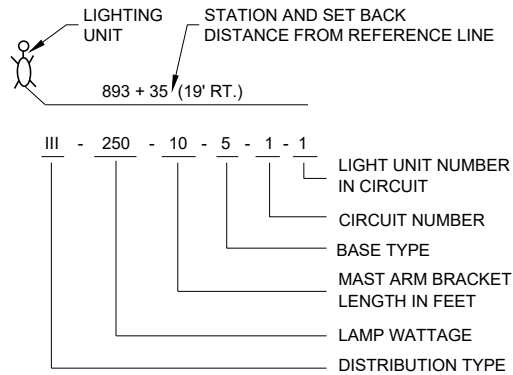
APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 151
FHWA

GENERAL NOTES

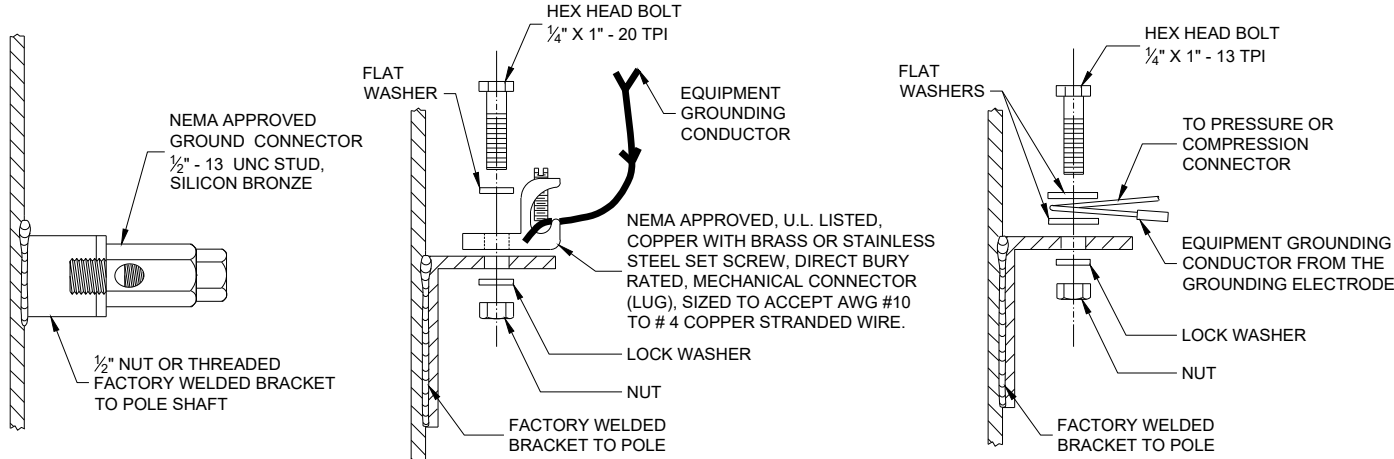
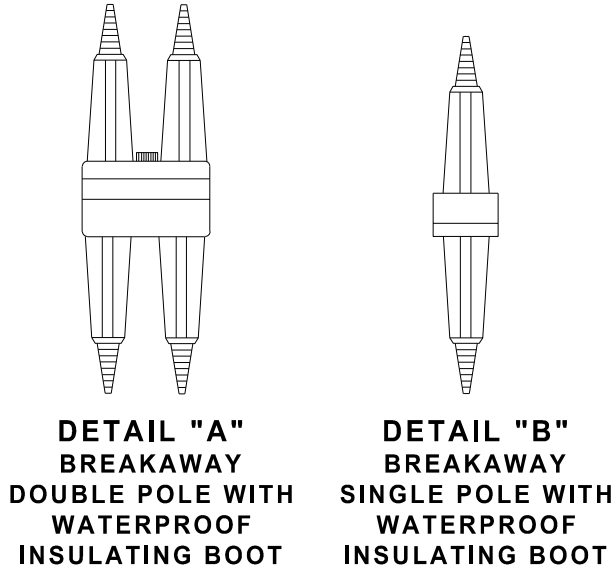
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



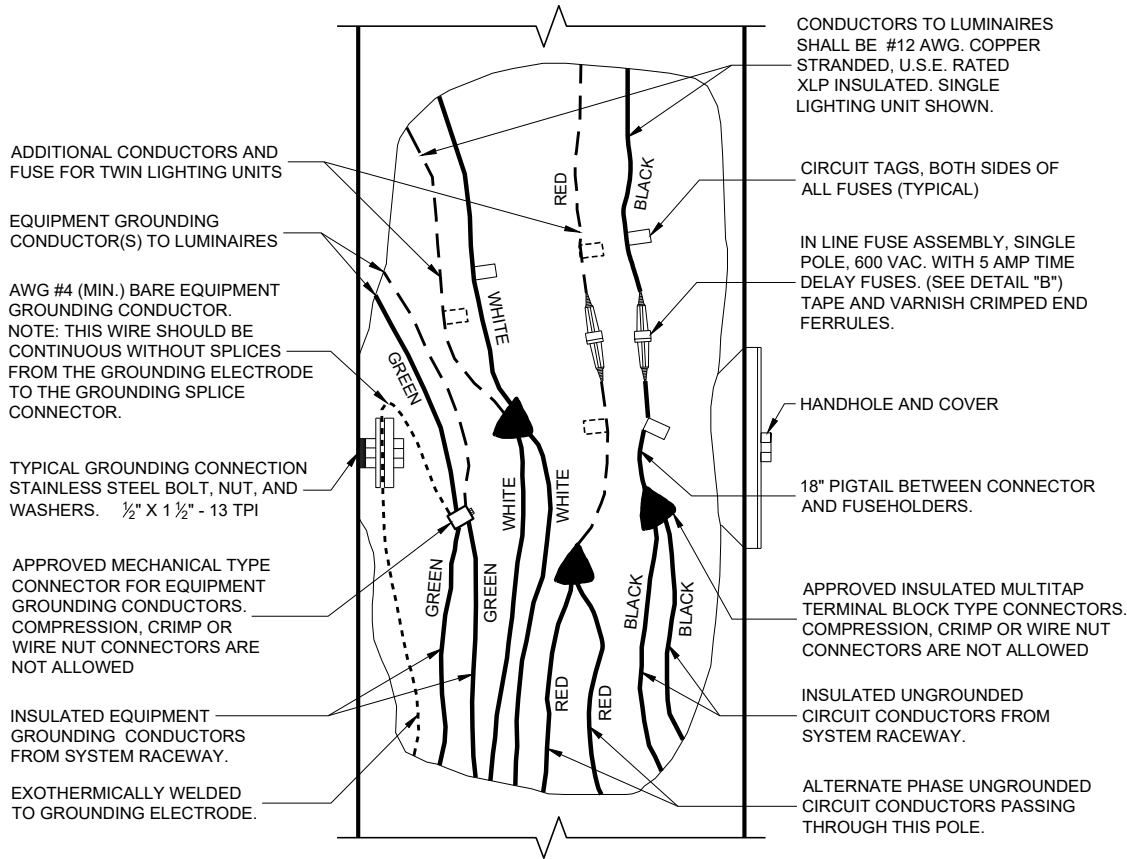
LIGHTING UNIT CODE (TYPICAL)



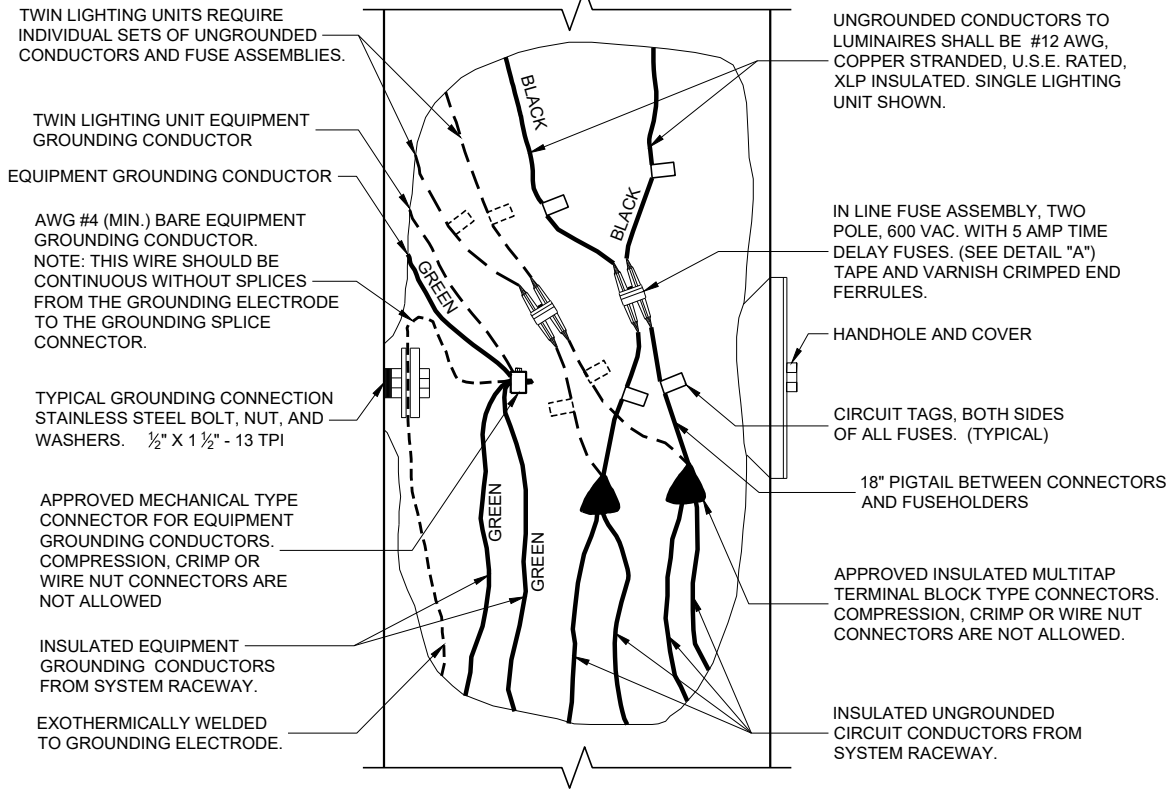
TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

6

SDD 09E0 - 06



3 WIRE - 120, 240 OR 480 VAC (UNGROUND ED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUND ED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

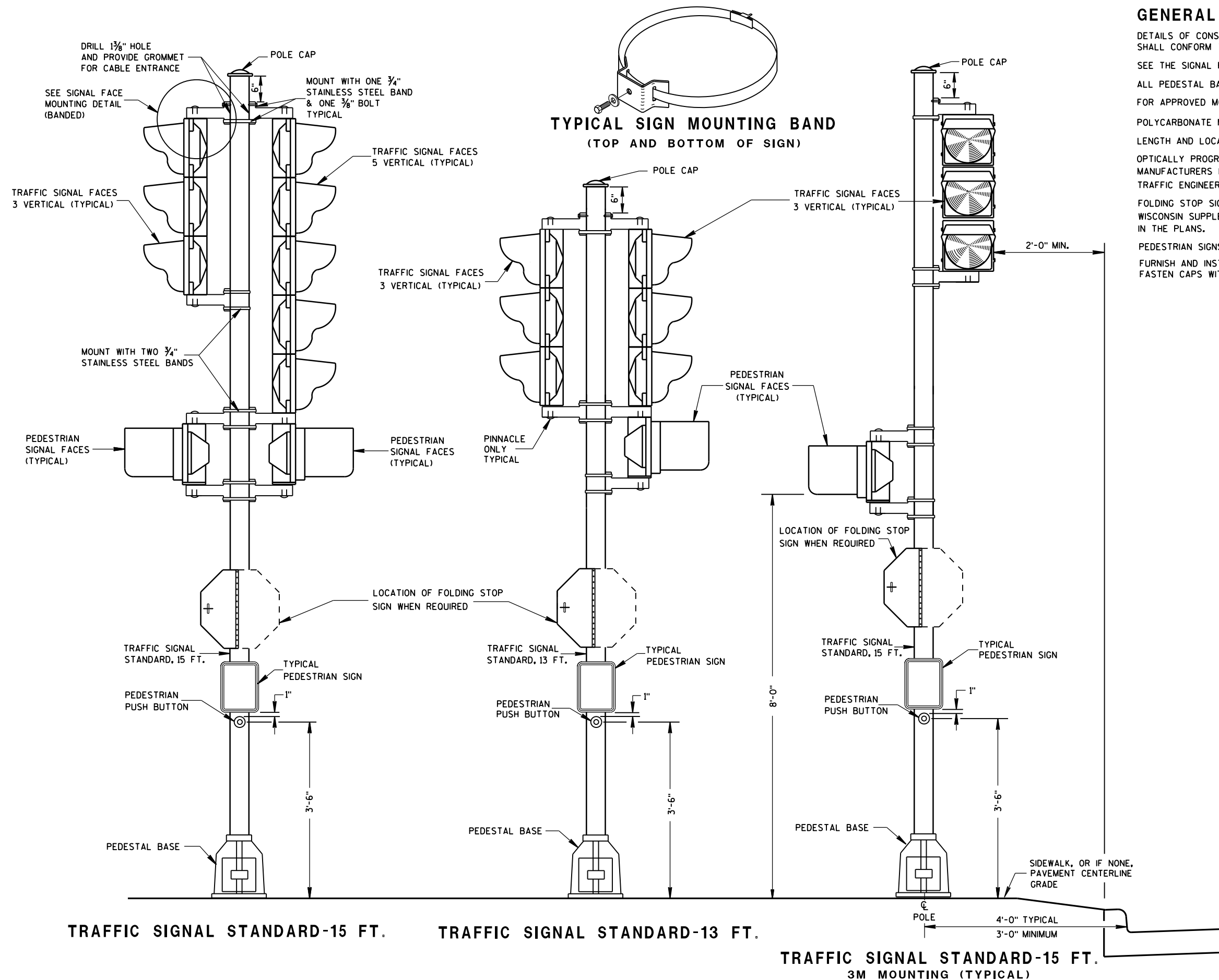
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SDD 09E0 - 06

NON - FREEWAY LIGHTING UNIT
POLE □ IRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGI 152
FHWA



GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

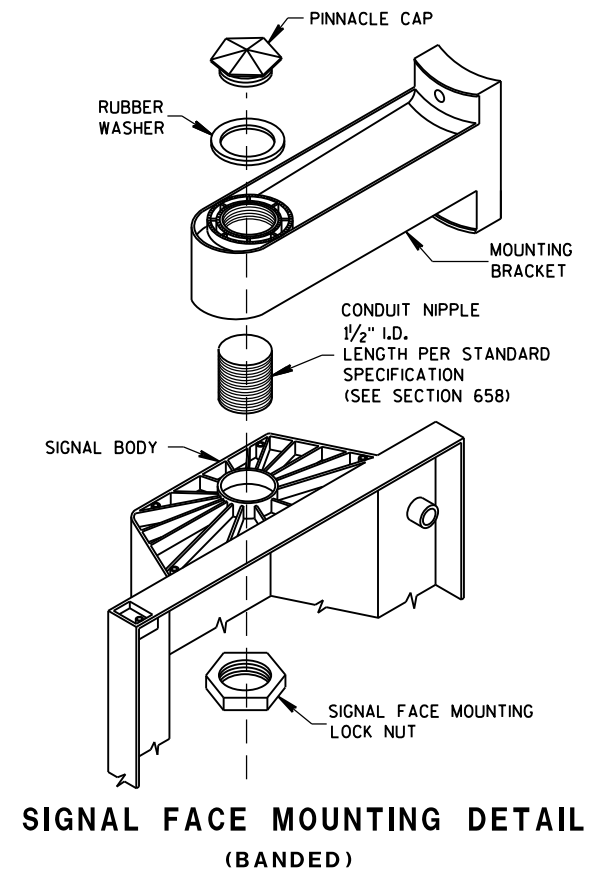
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) $\frac{1}{4}$ " X $\frac{3}{4}$ " - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



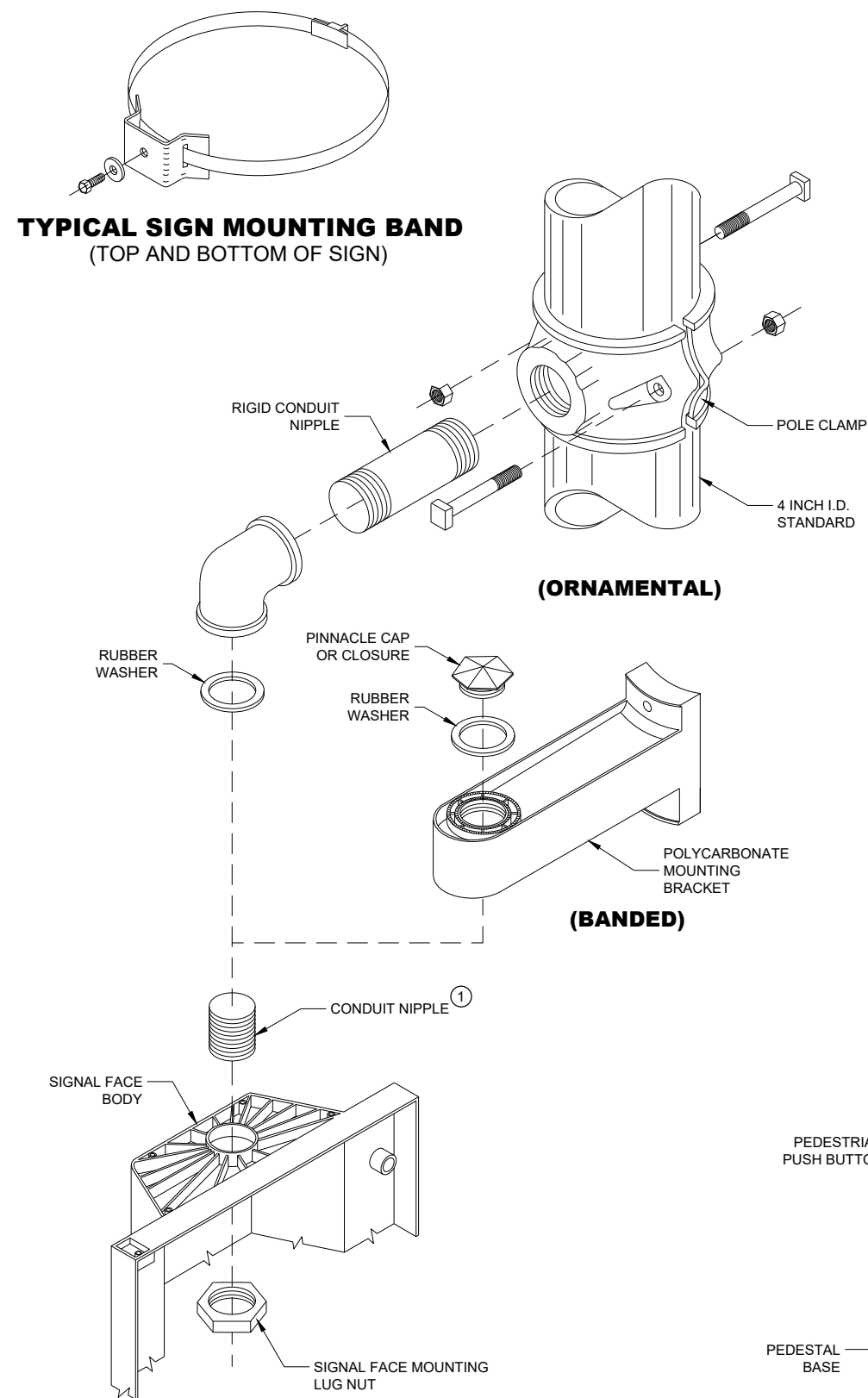
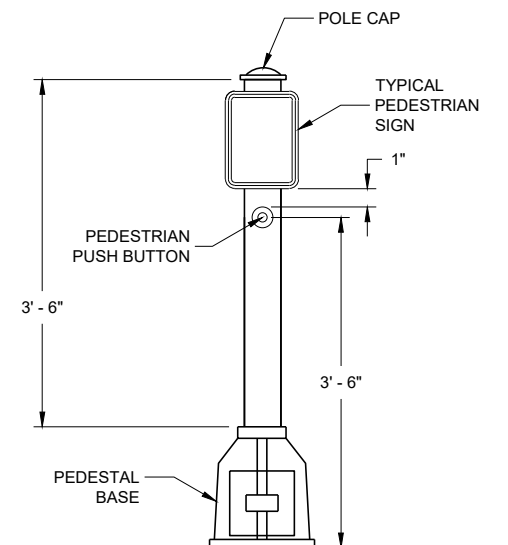
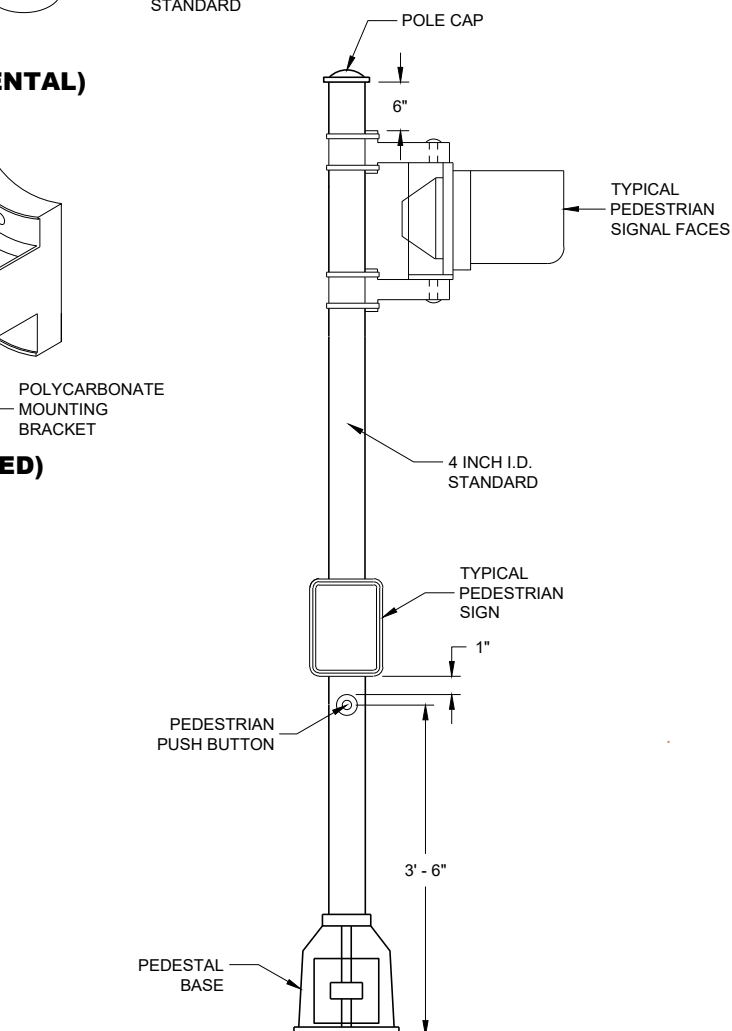
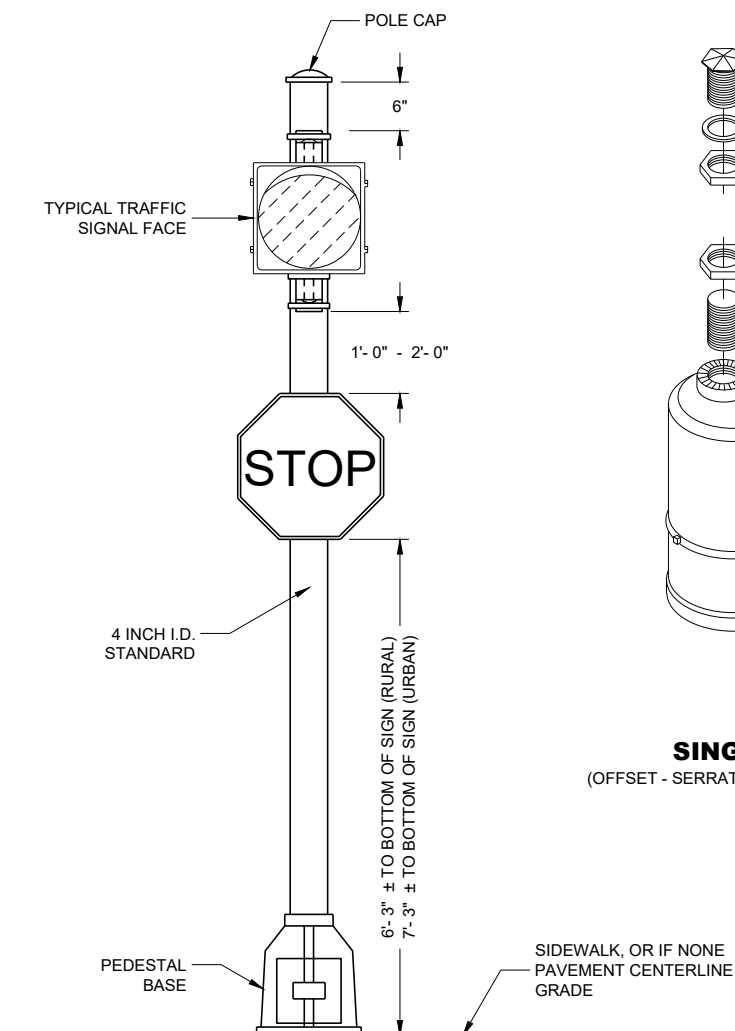
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 153

FHWA

**SIGNAL FACE MOUNTING DETAILS****PEDESTRIAN PUSH BUTTON
TYPICAL MOUNTING****PEDESTRIAN FACE STANDARD - 10 FT.**
(WALK - DON'T WALK)**STANDARD FLASHER**
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED**GENERAL NOTES**

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

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

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

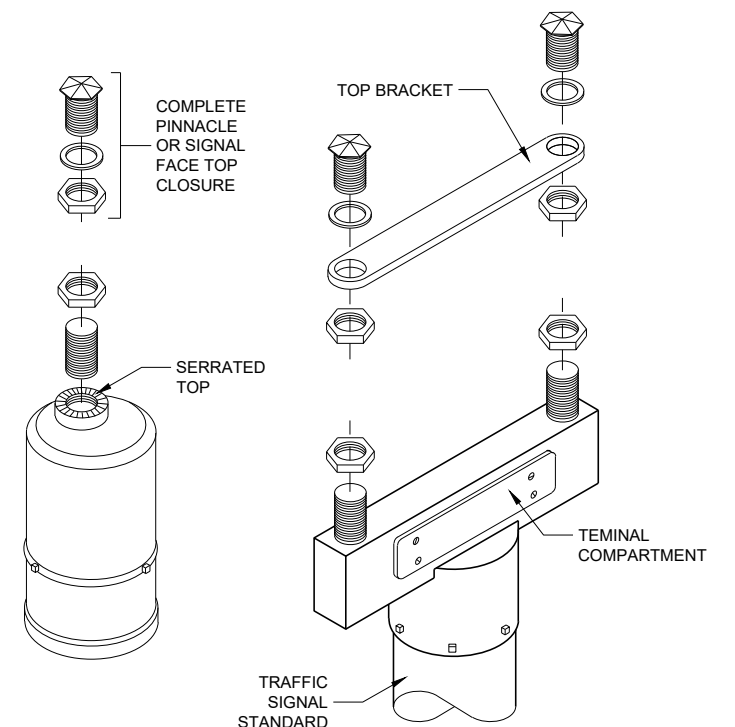
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

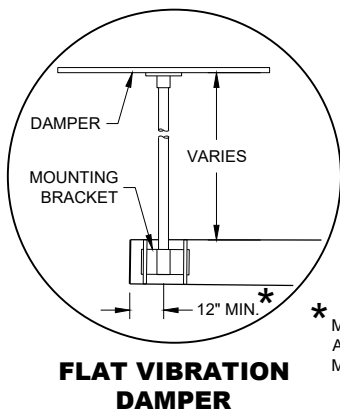
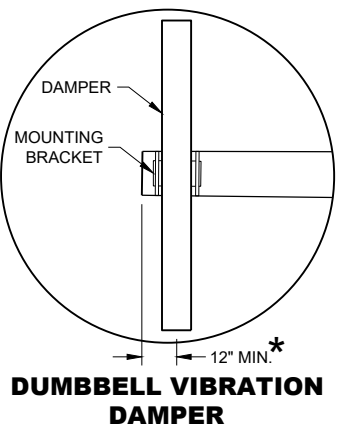
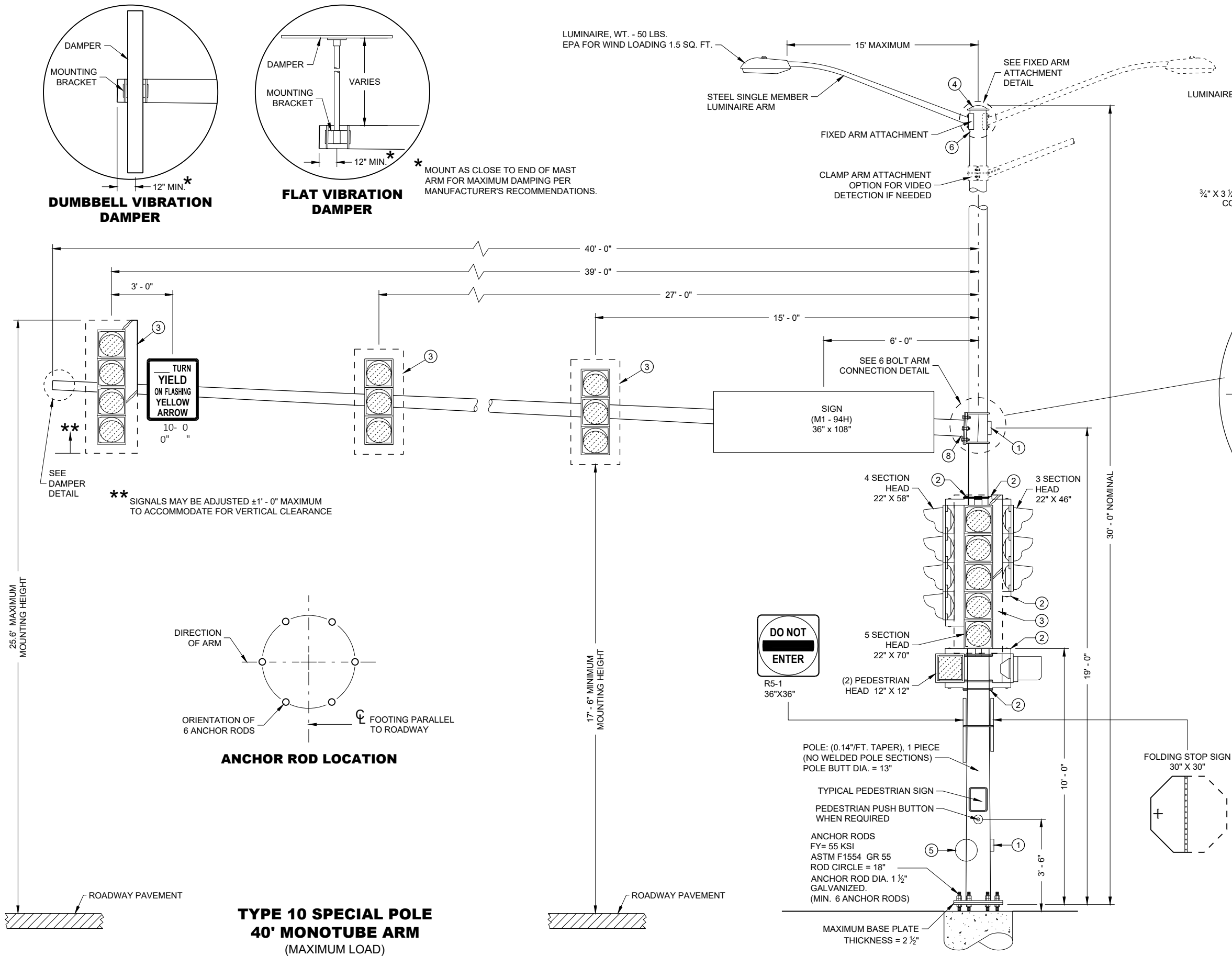
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

- ① USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.

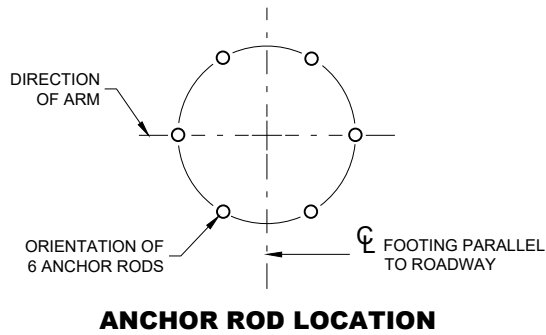
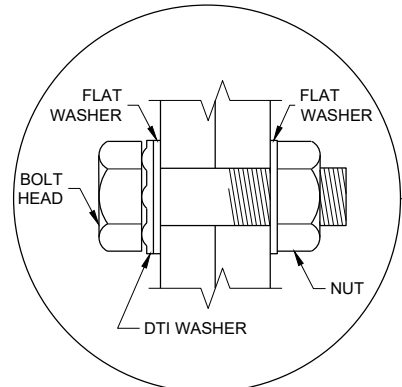
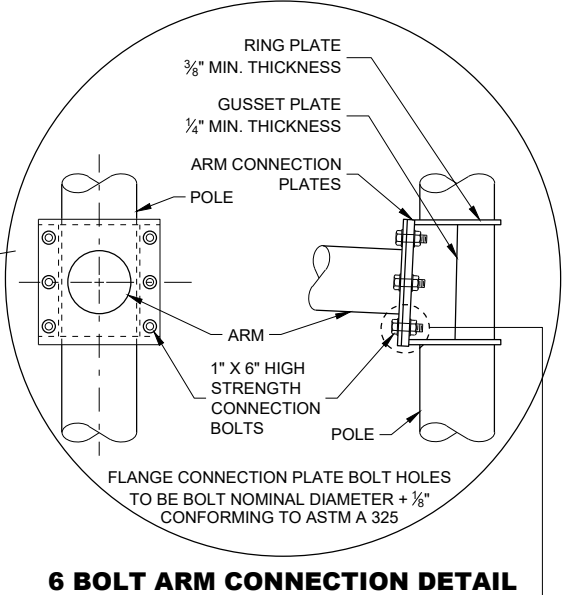
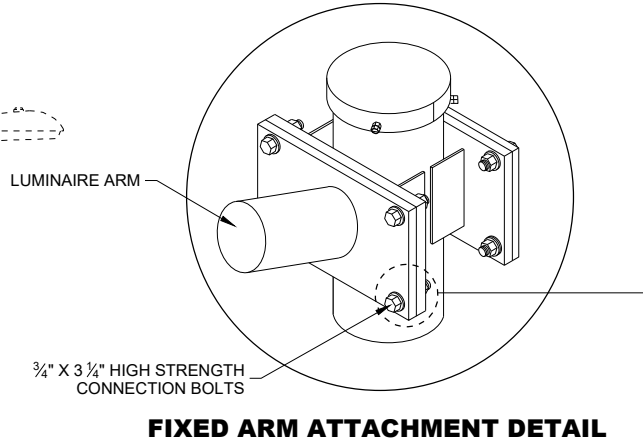
**SINGLE**
(OFFSET - SERRATED MOUNTING)**DOUBLE**
(SERRATED MOUNTING)
SLIPFITTERS**TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 154
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* MOUNT AS CLOSE TO END OF ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.



TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE 40' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Ahmet Demirebilek STATE ELECTRICAL ENGI 155
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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

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

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

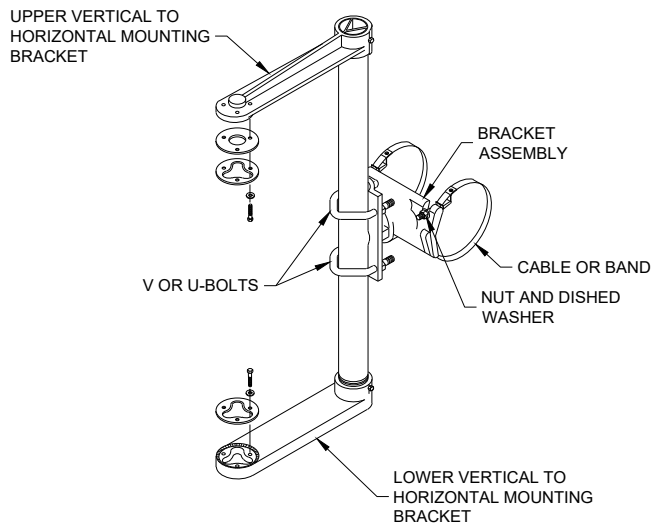
SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

- ① DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
- ② SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
- ③ SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.
- ④ THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
- ⑤ FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
- ⑥ FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.
- ⑦ INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

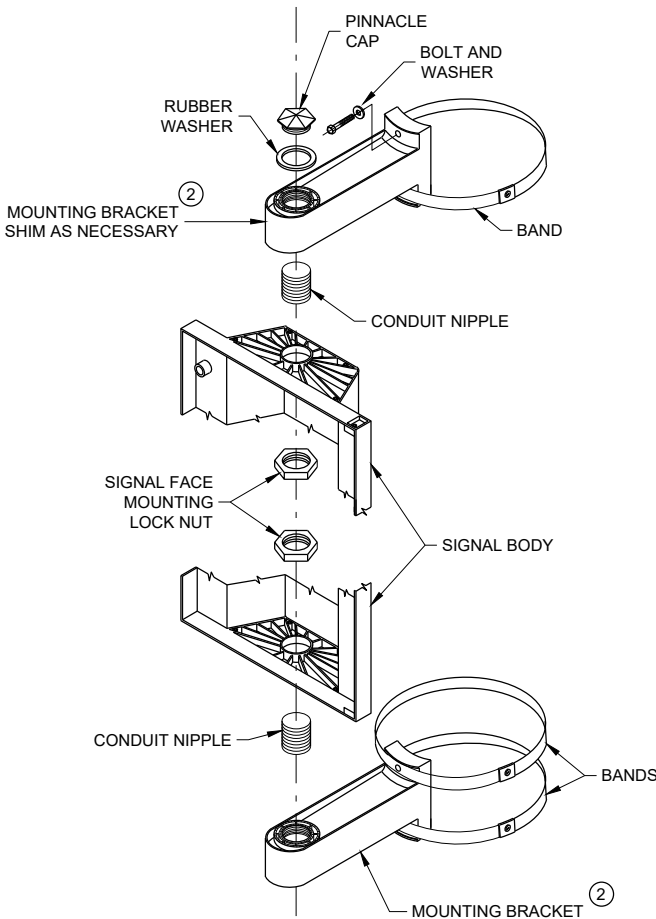
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

- ⑧ FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

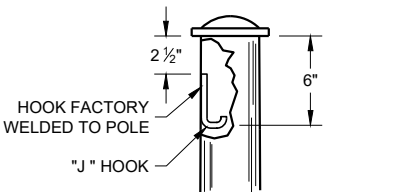


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

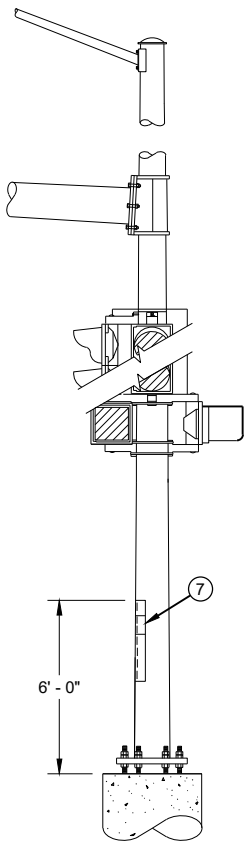
(MOUNT PER MANFACTURER'S RECOMMENDATION)



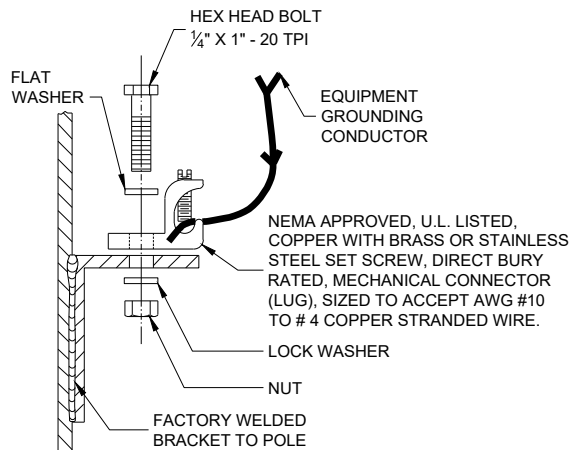
SIGNAL FACE VERTICAL
MOUNTING DETAIL



TYPICAL "J" HOOK
WIRE SUPPORT



STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING
CONNECTIONS

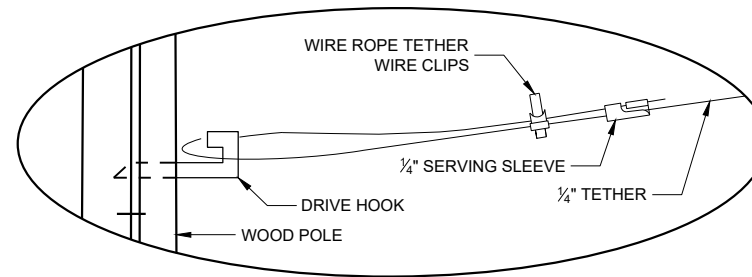
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES AND
HARDWARE FOR TYPES 9,10,
9/10 SPECIAL, 12 AND 13
POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER 156
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MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

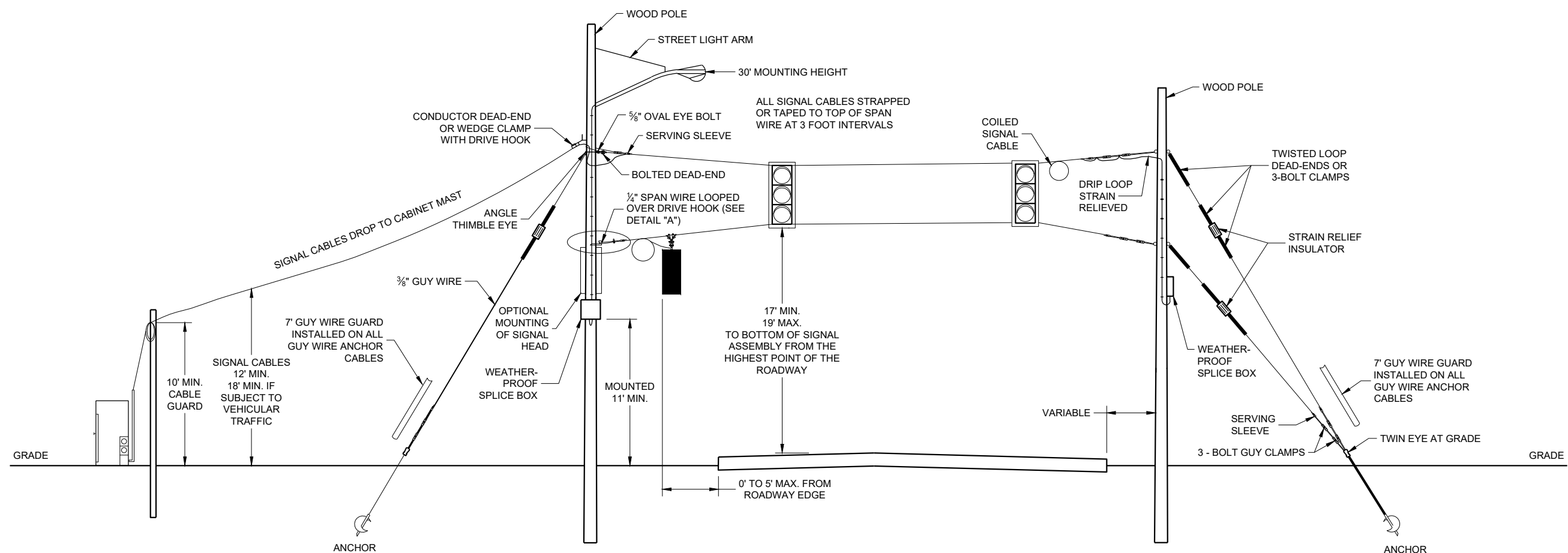


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
 - A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
 - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
 - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
 - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
 - A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
 - B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
 - C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

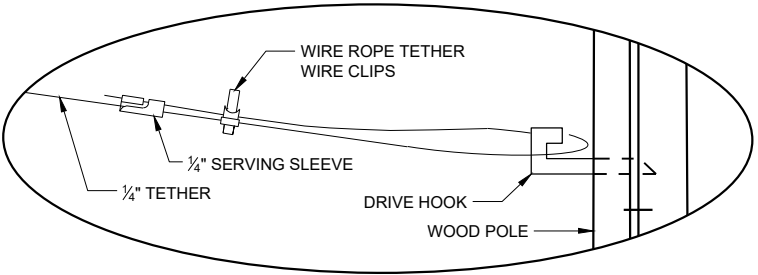
APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGINEER

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MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

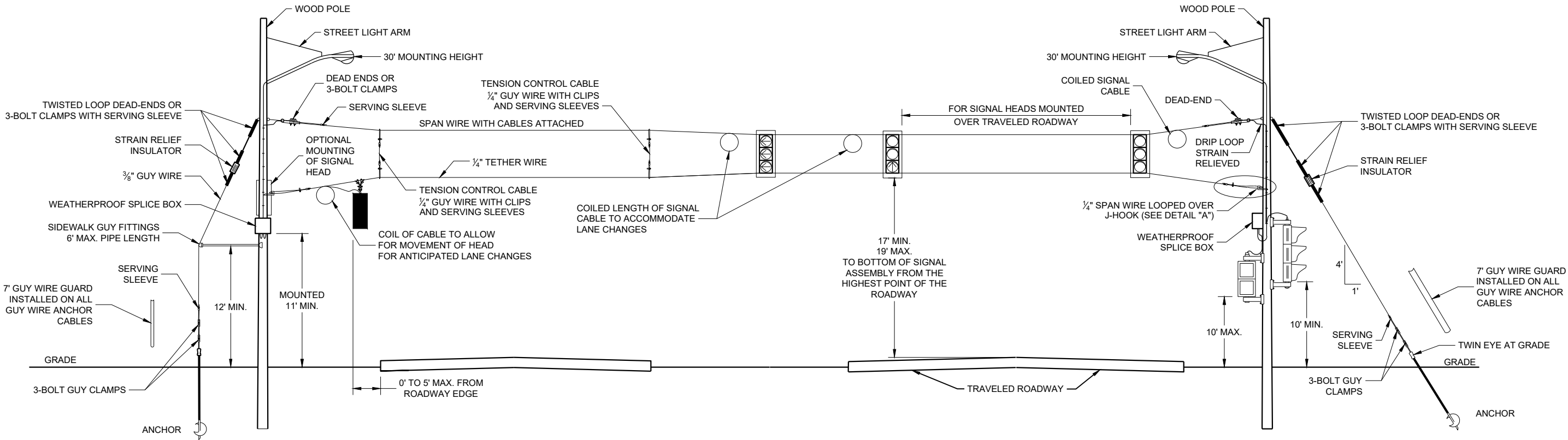


DETAIL "A"

GENERAL NOTES

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

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- SIGNAL FACES:
 - ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
 - EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
 - EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
 - NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
 - FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
- SPAN WIRE:
 - EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
 - SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
 - THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



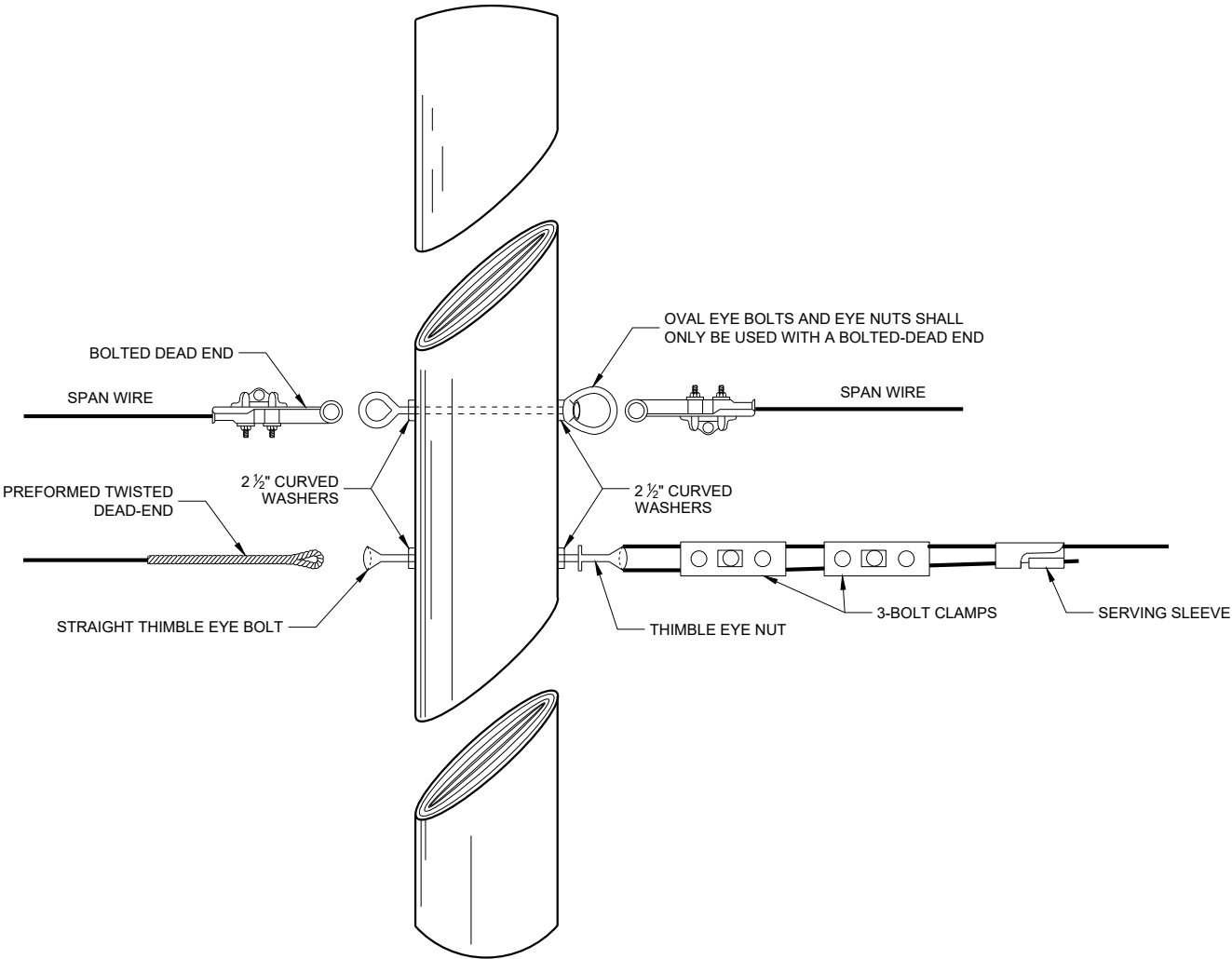
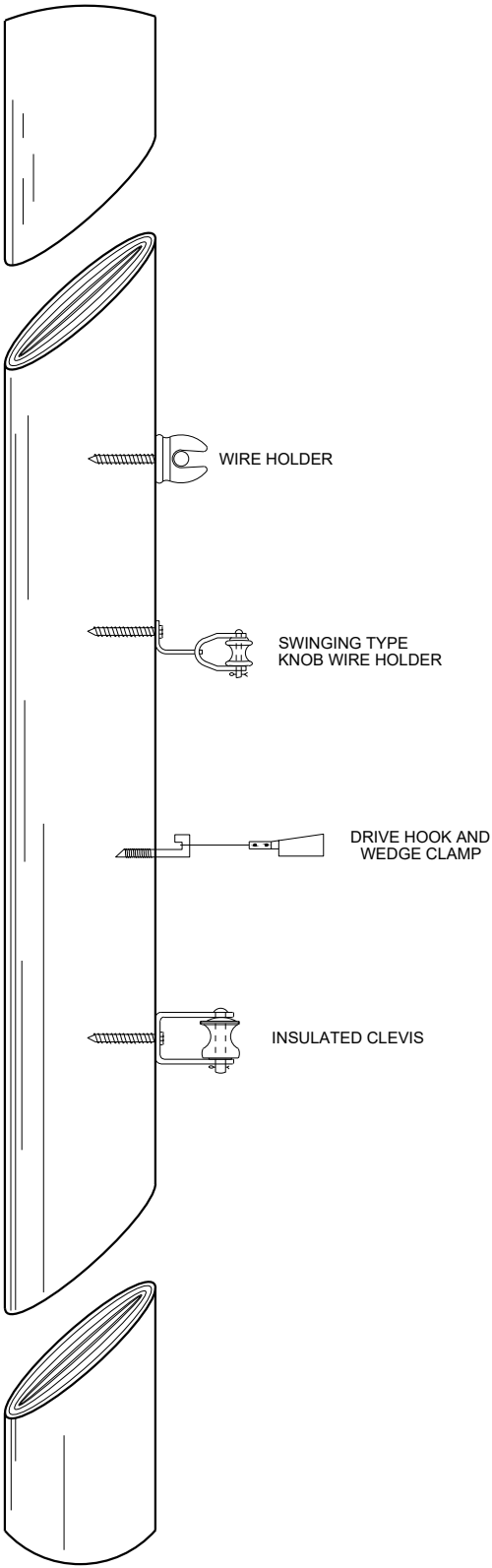
SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY
TRAFFIC SIGNAL

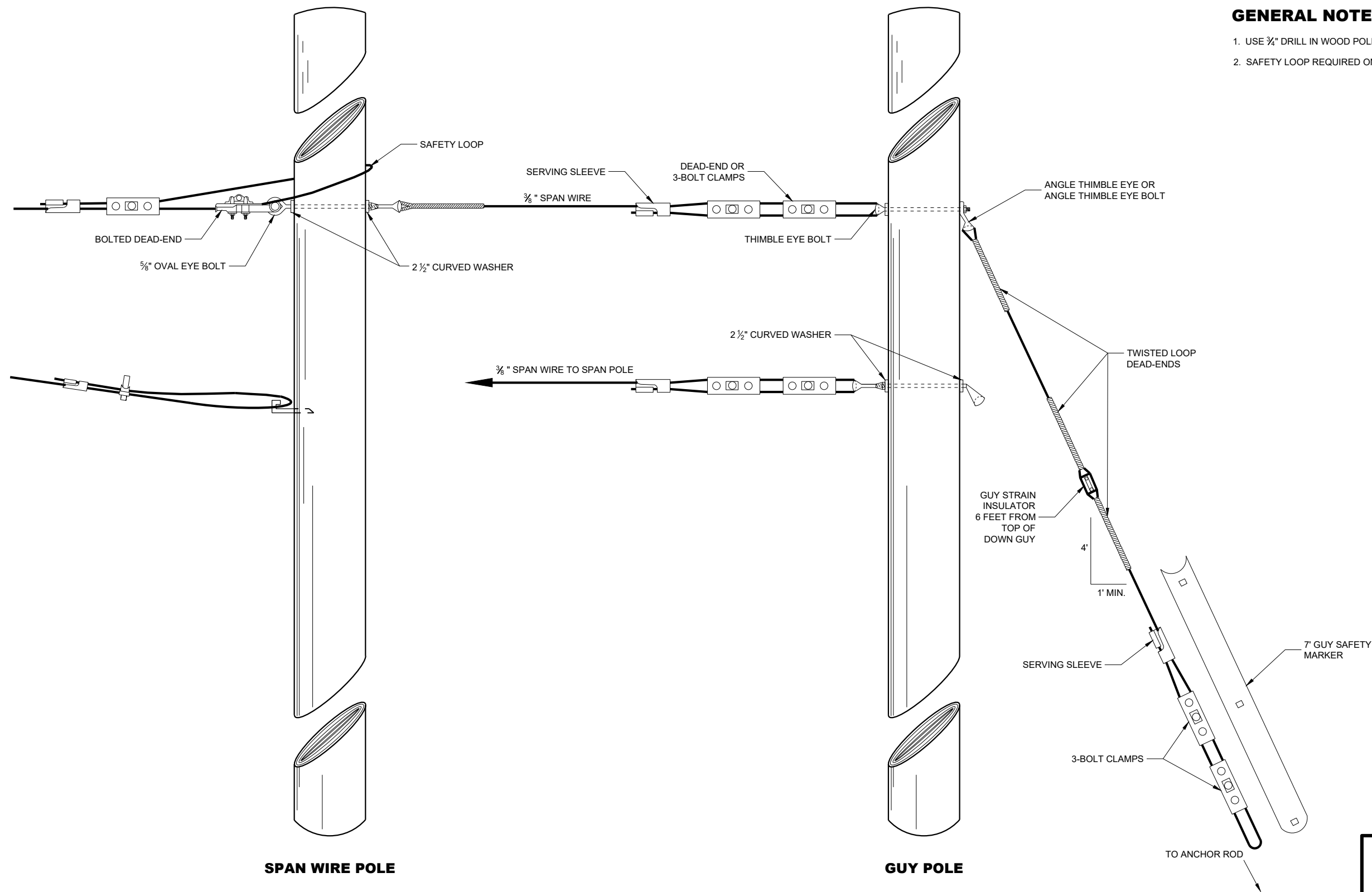
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SPAN WIRE TEMPORARY TRAFFIC SIGNAL		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED June 2015 DATE	/S/ Ahmet Demerbilek ROADWAY STANDARDS DEVELOPMENT ENGINEER	159
FHWA		

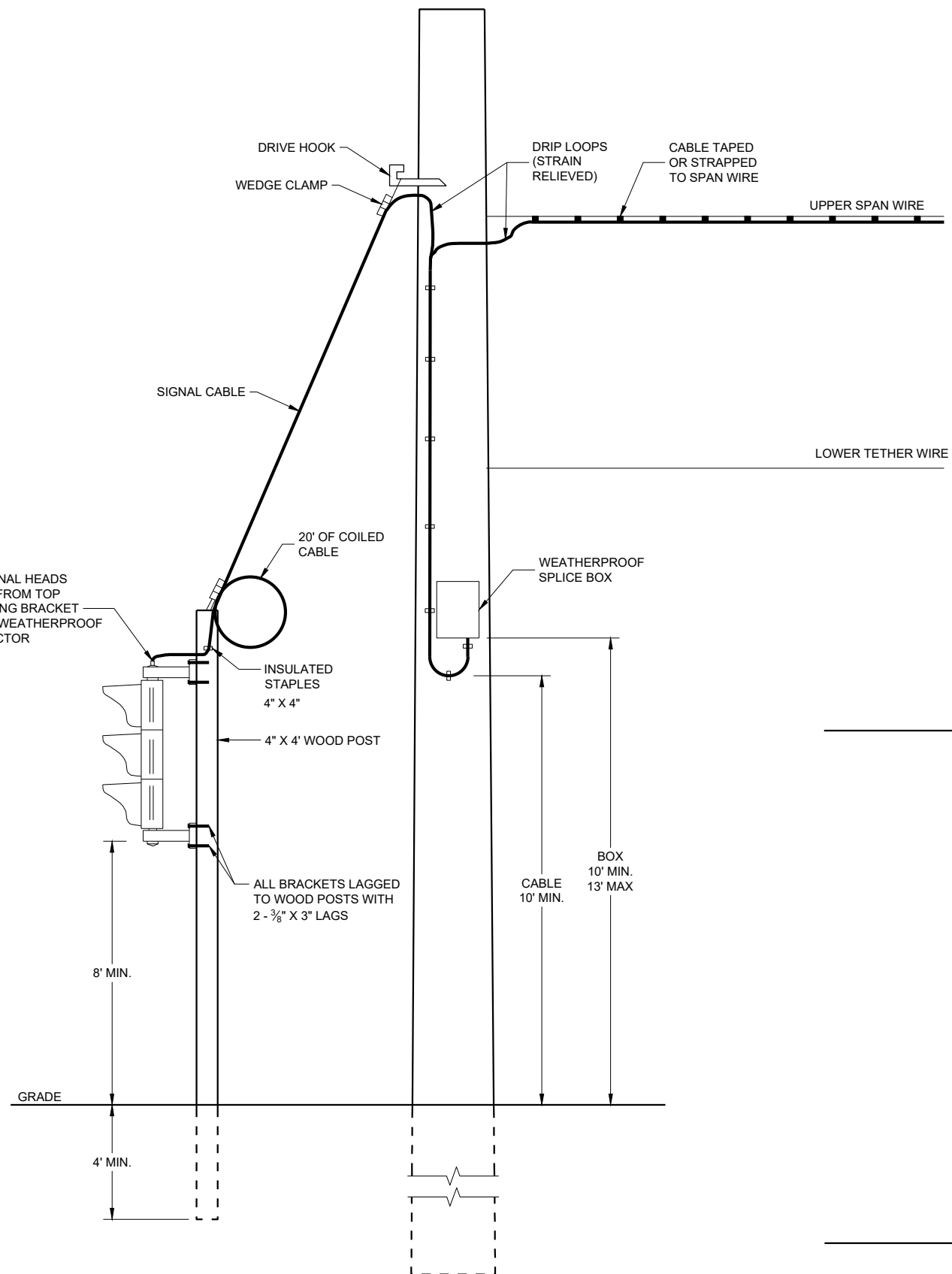


TYPICAL DEAD-ENDINGS OR GUYING

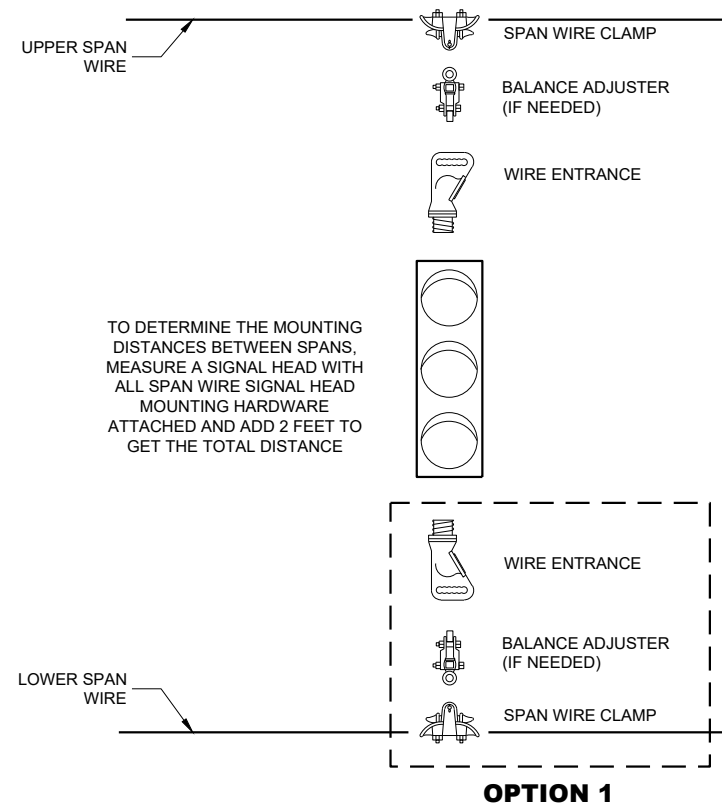
GENERAL NOTES

1. USE $\frac{3}{4}$ " DRILL IN WOOD POLE TO PROVIDE FOR $\frac{5}{8}$ " BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.

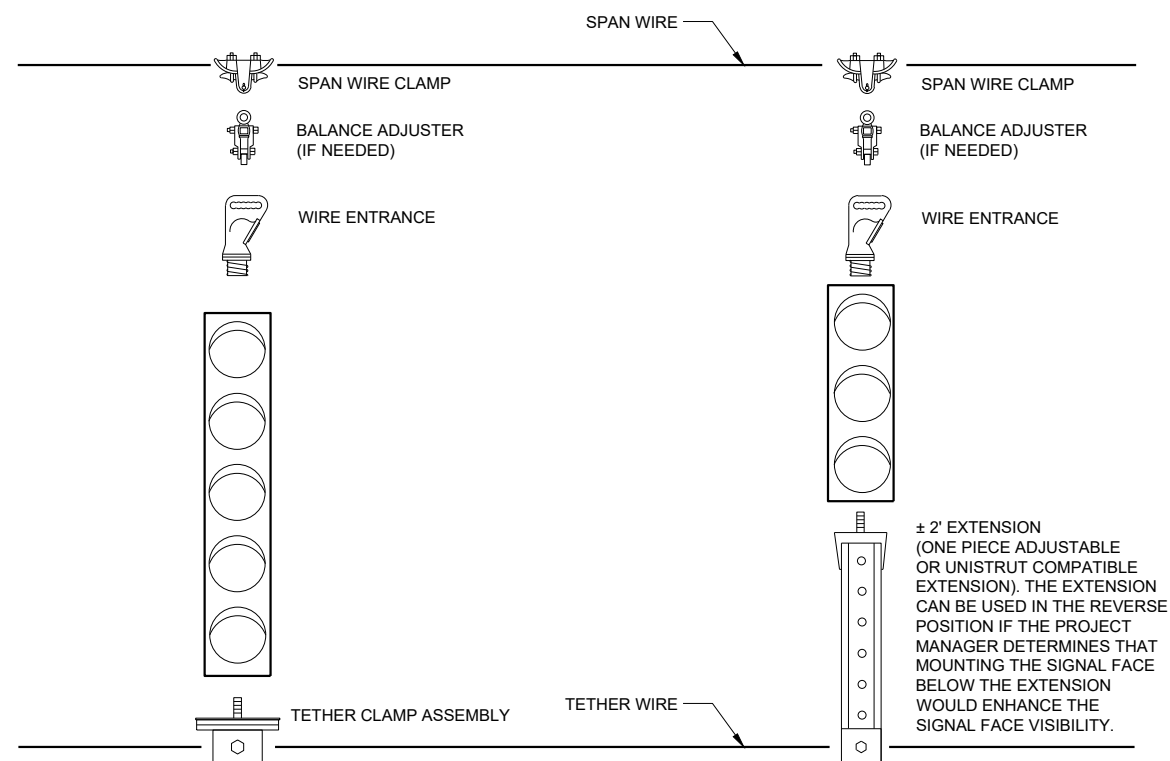
SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2015 DATE	/S/ Ahmet Demerbilek ROADWAY STANDARDS DEVELOPMENT ENGINEER 160
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TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



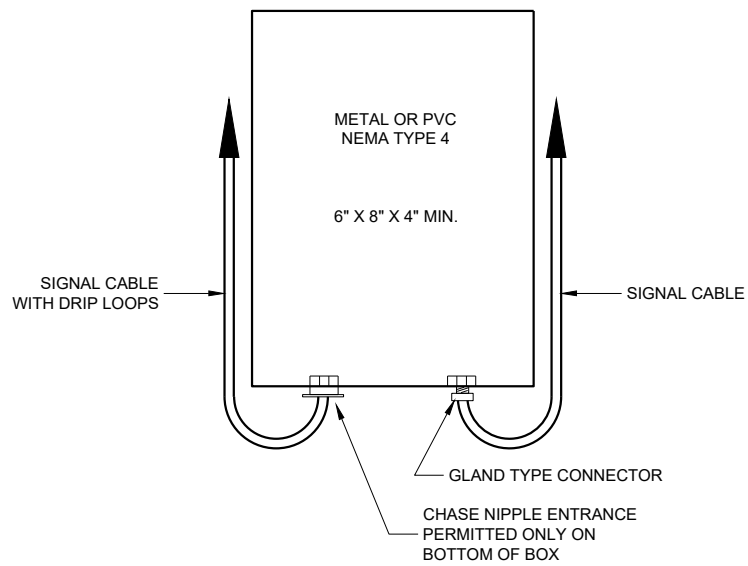
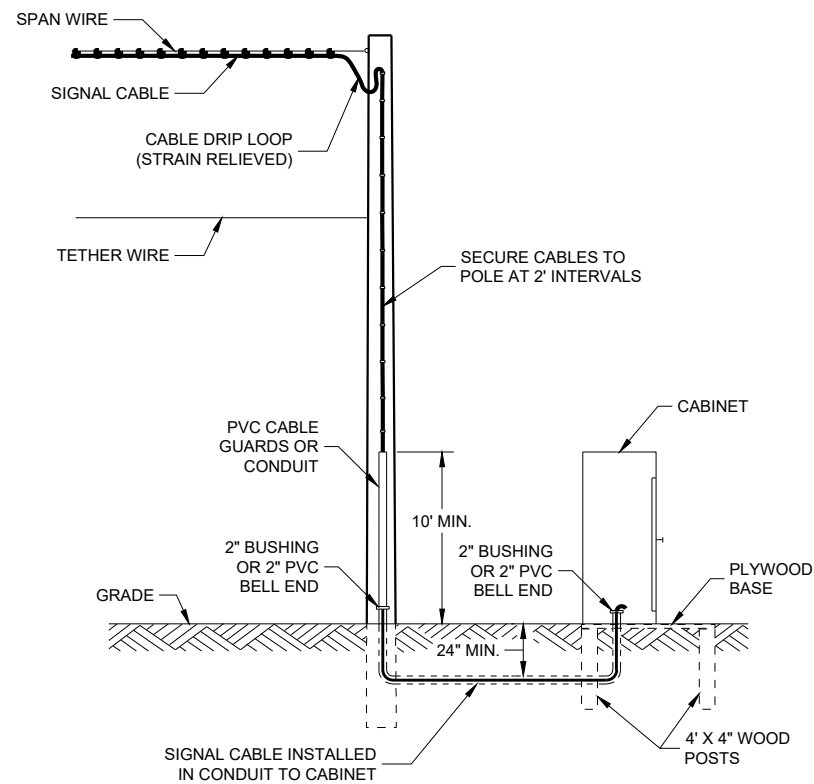
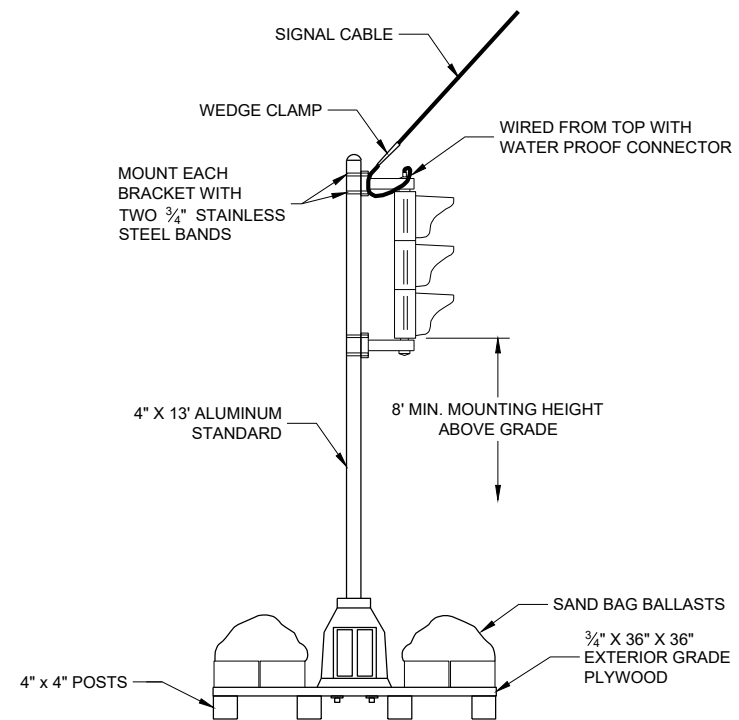
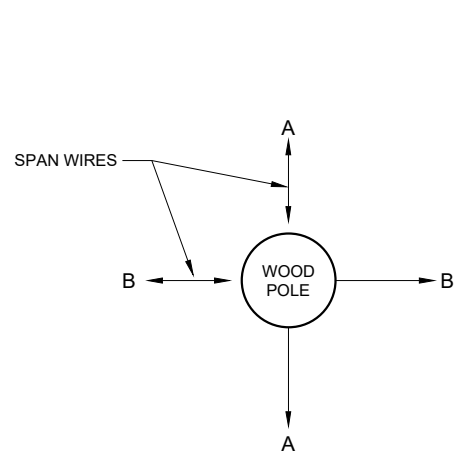
TYPICAL SPAN WIRE MOUNTING HARDWARE



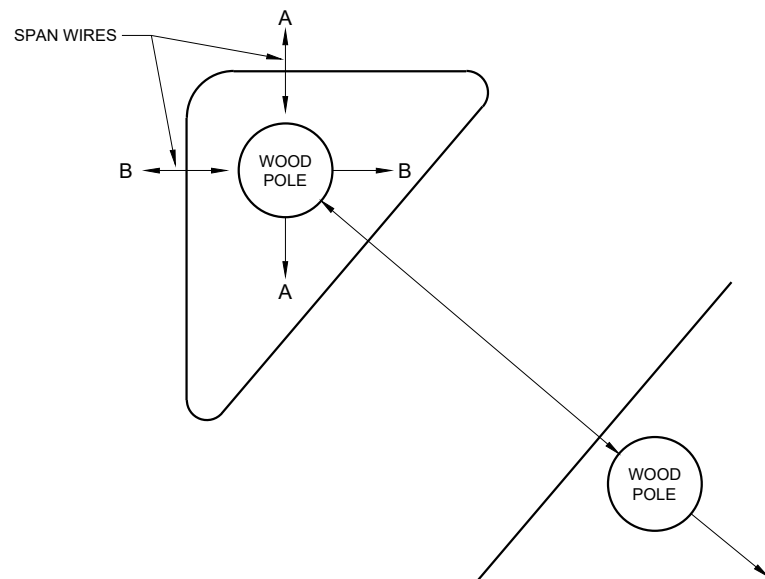
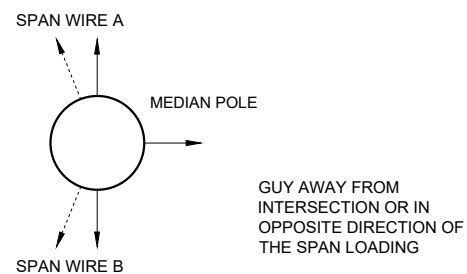
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATIONAPPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVE ENGINEER 161
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**SPLICE BOX****TYPICAL SKID TYPE TEMPORARY****CORNER POLES**

ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

**ISLAND POLES****MEDIAN POLES**

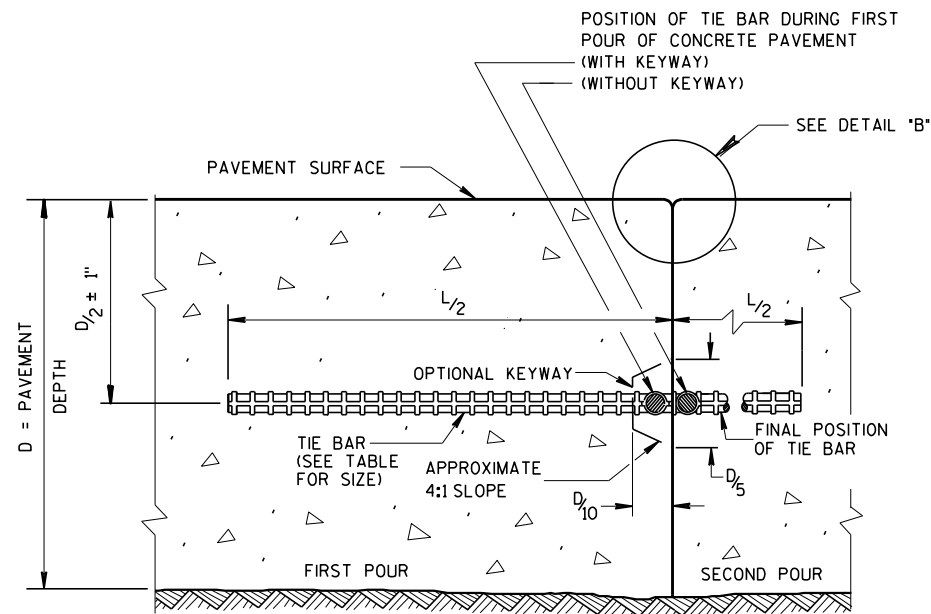
GUY AWAY FROM INTERSECTION OR IN OPPOSITE DIRECTION OF THE SPAN LOADING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

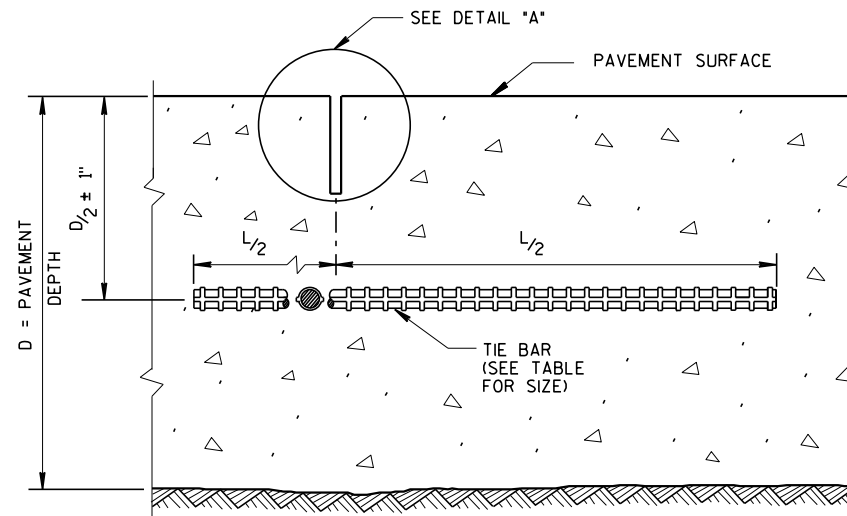
STATE OF WISCONSIN
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June 2015
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ROADWAY STANDARDS DEVELOPMENT ENGINEER
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CONSTRUCTION JOINT



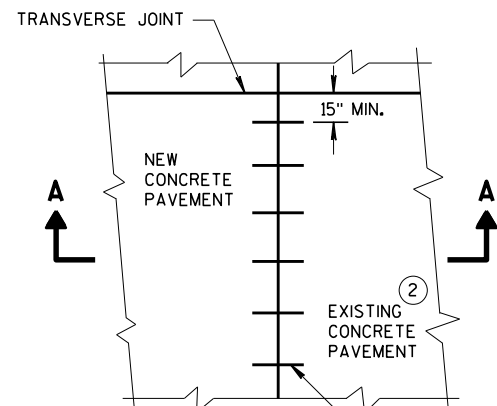
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

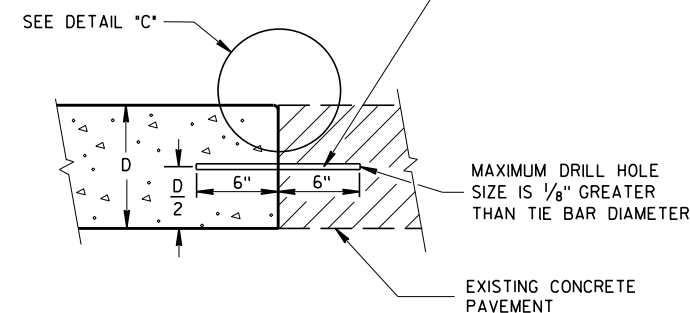
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

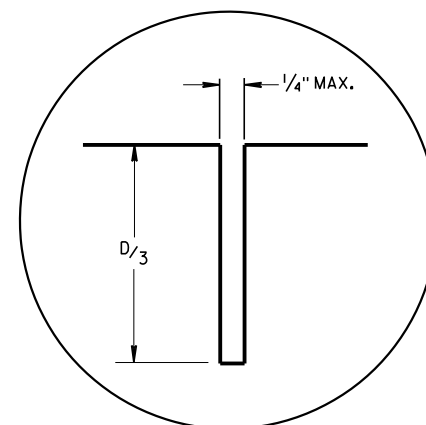


PLAN VIEW

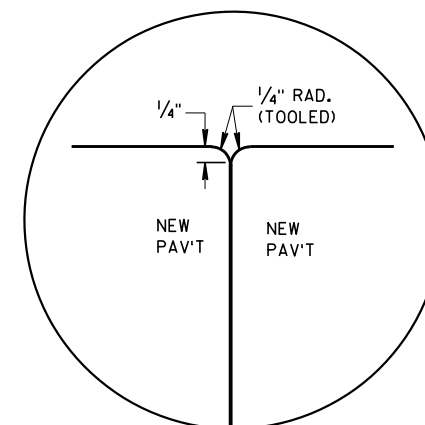
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



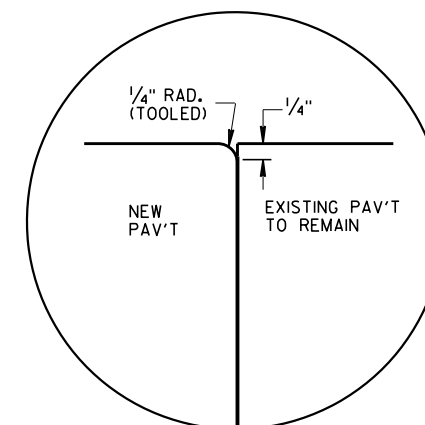
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



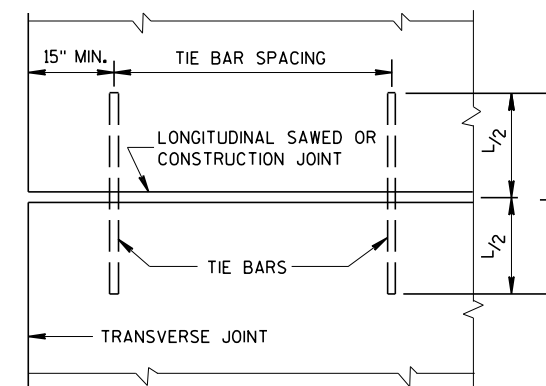
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

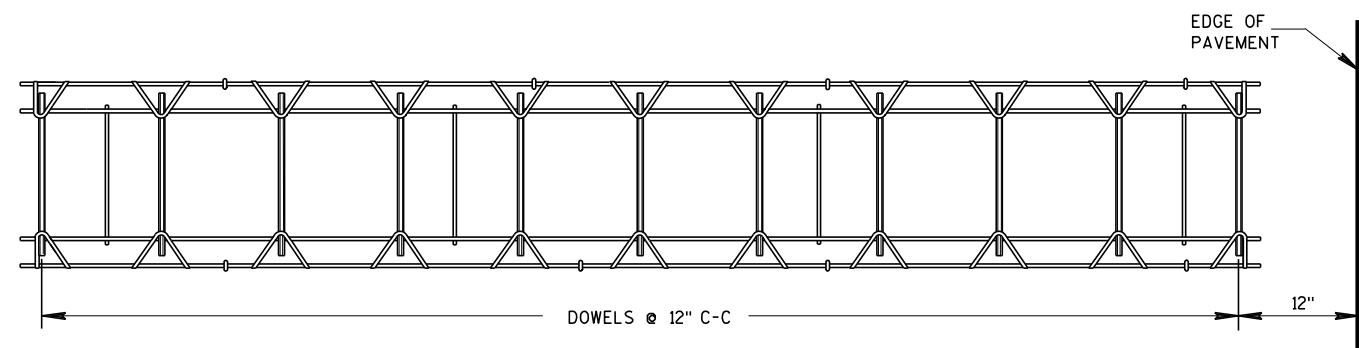


PLAN VIEW
SHOWING LOCATION OF TIE BARS

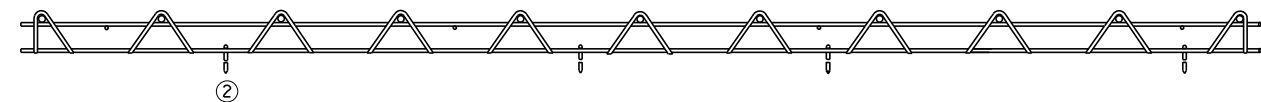
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

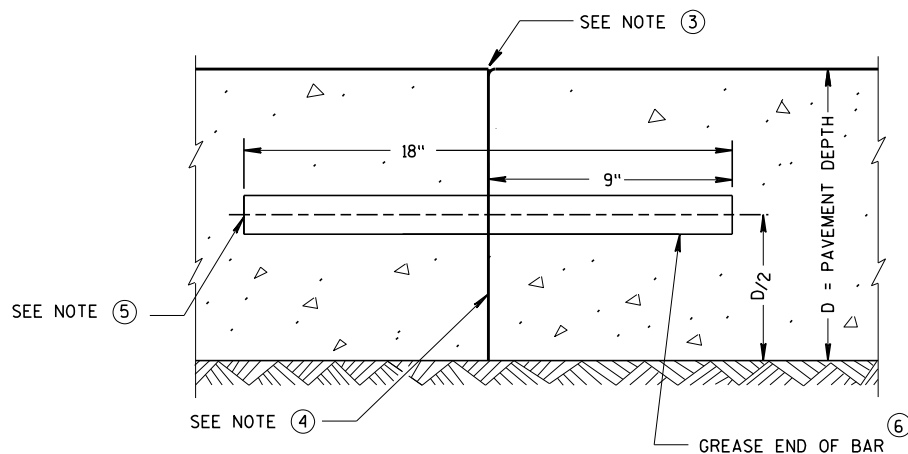
APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 163
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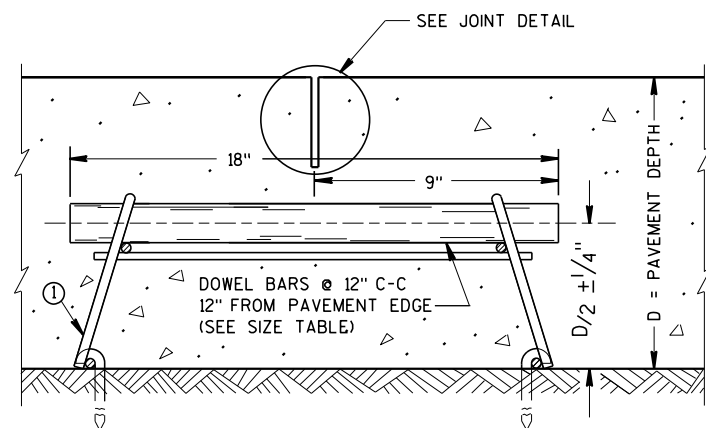
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

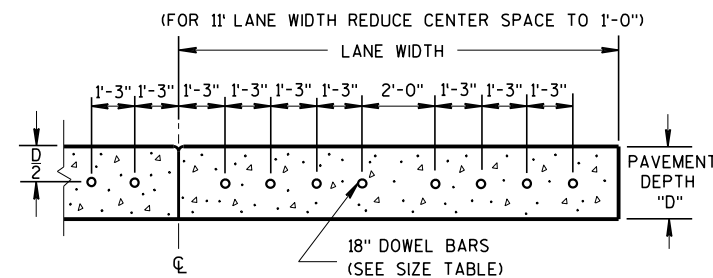
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

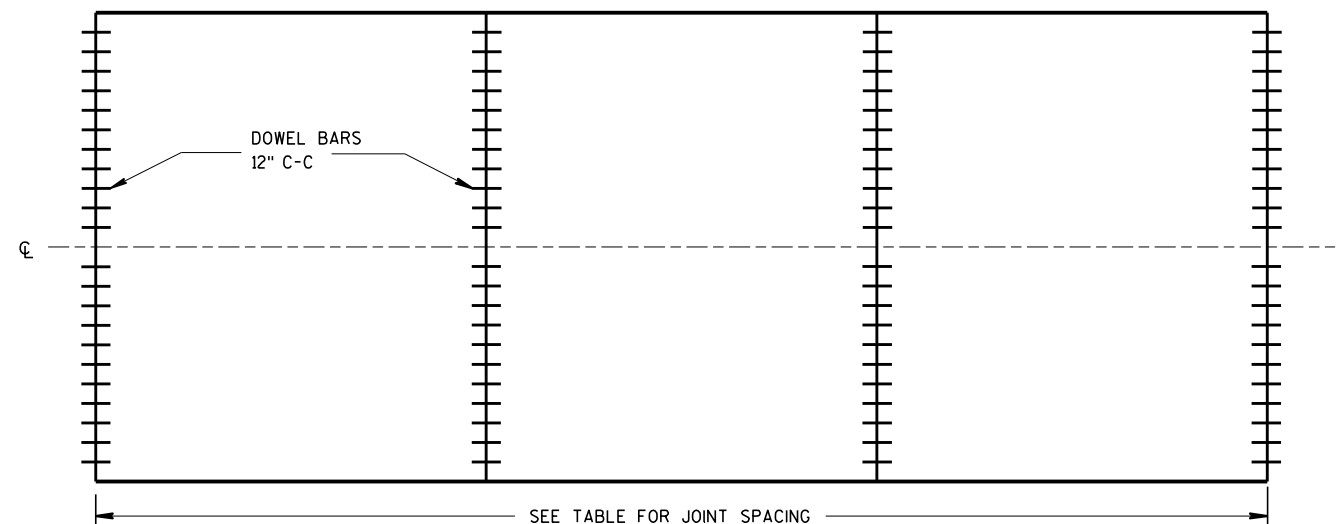
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

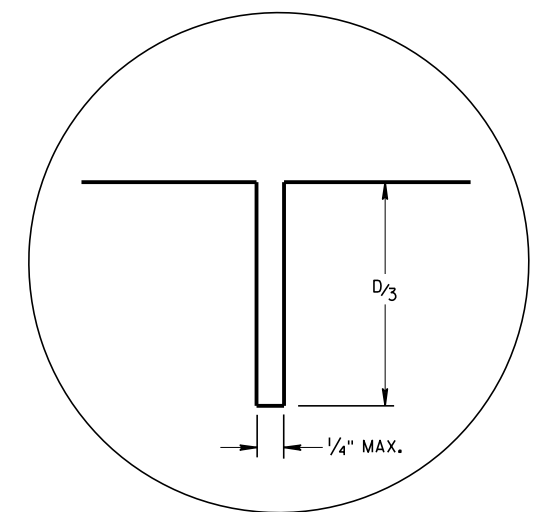
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT



CONTRACTION JOINT LOCATIONS

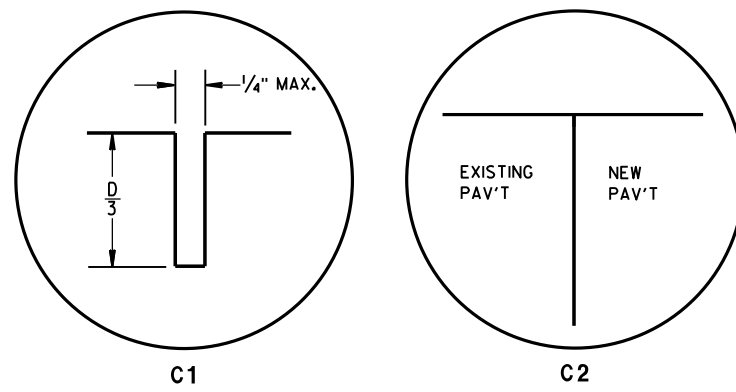


JOINT DETAIL

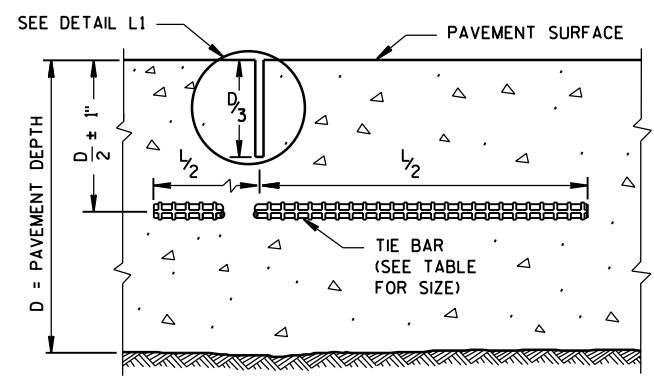
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

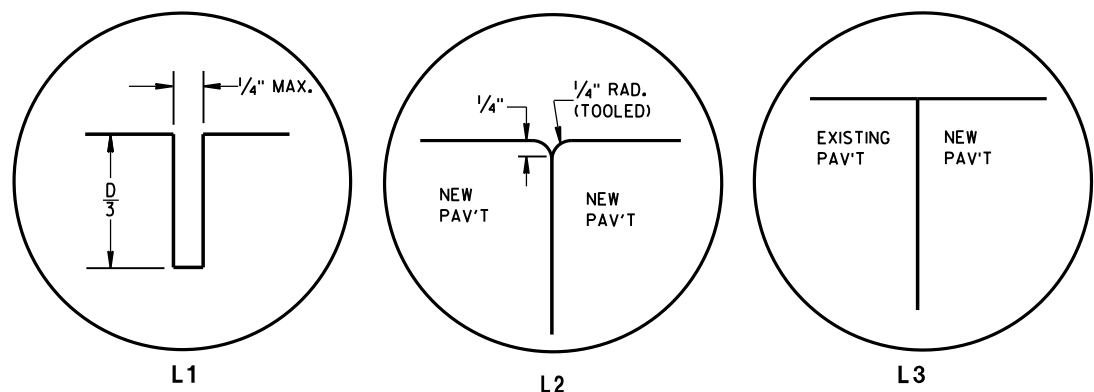
APPROVED
March 2018 /S/ Peter Kern P.E.
DATE PAVEMENT SUP 164
FHWA



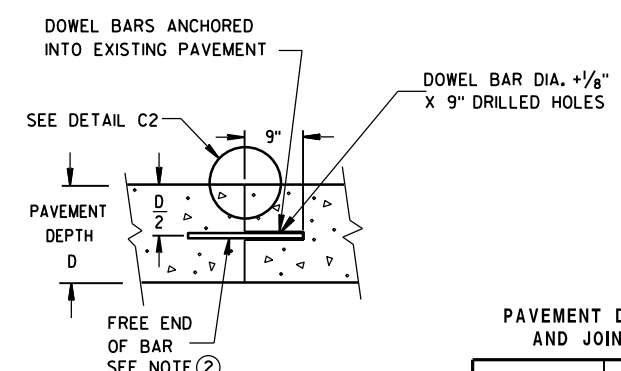
TRANSVERSE JOINTS



SECTION C-C
SAWED JOINT



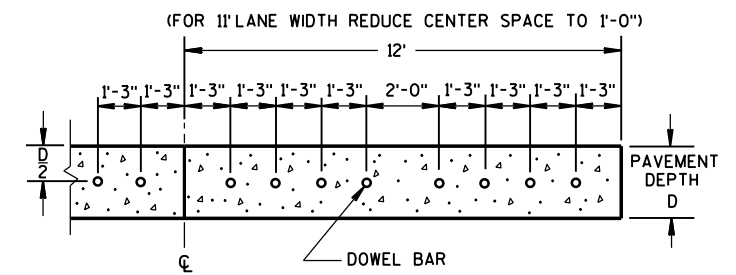
LONGITUDINAL JOINTS



SECTION D-D

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6, 6 1/2"	NONE	12'
7, 7 1/2"	1"	14'
8, 8 1/2"	1 1/4"	15'
9, 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



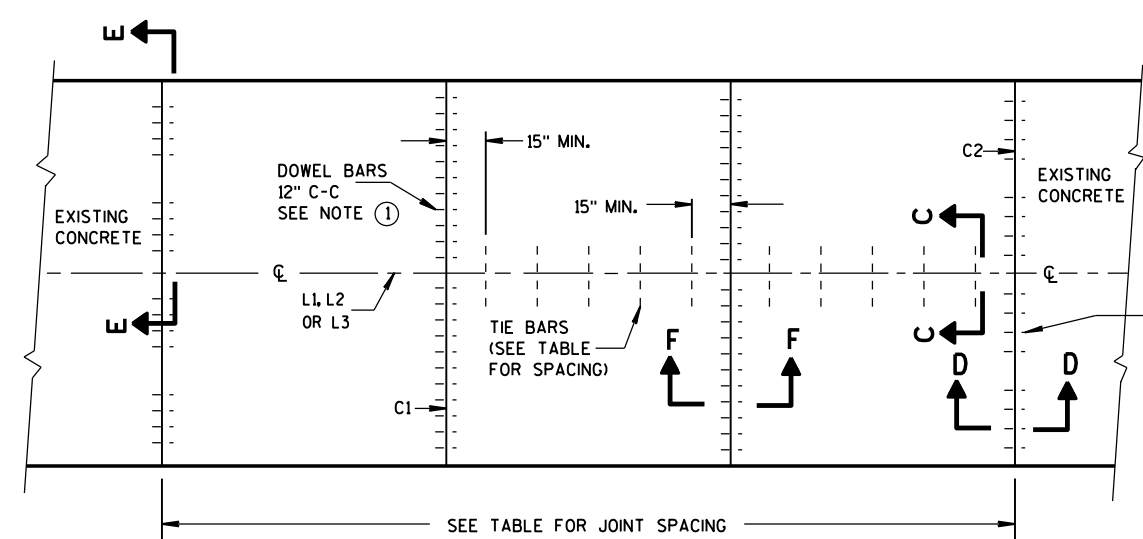
SECTION E-E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

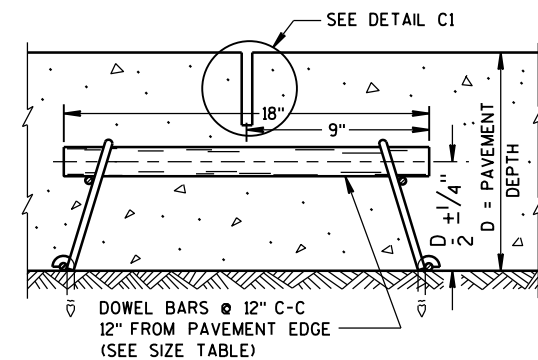
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
CONCRETE BASE
CONTRACTION JOINT LOCATIONS

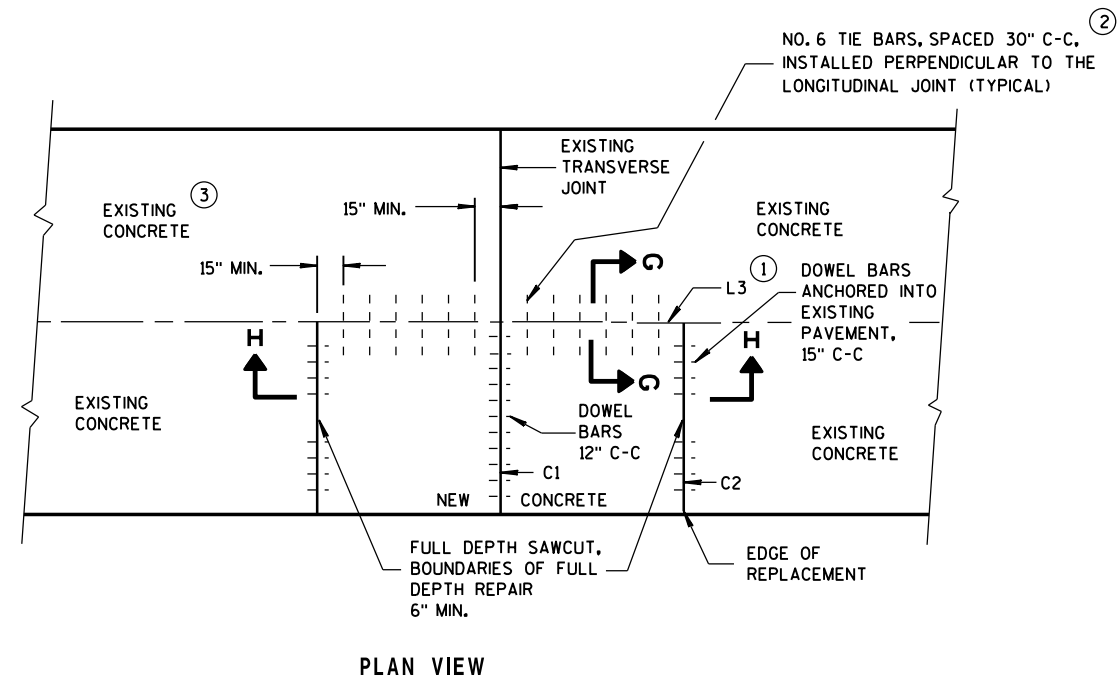
DOWEL BARS
ANCHORED
INTO EXISTING
PAVEMENT,
15" C-C



SECTION F-F
CONTRACTION JOINT

CONCRETE BASE

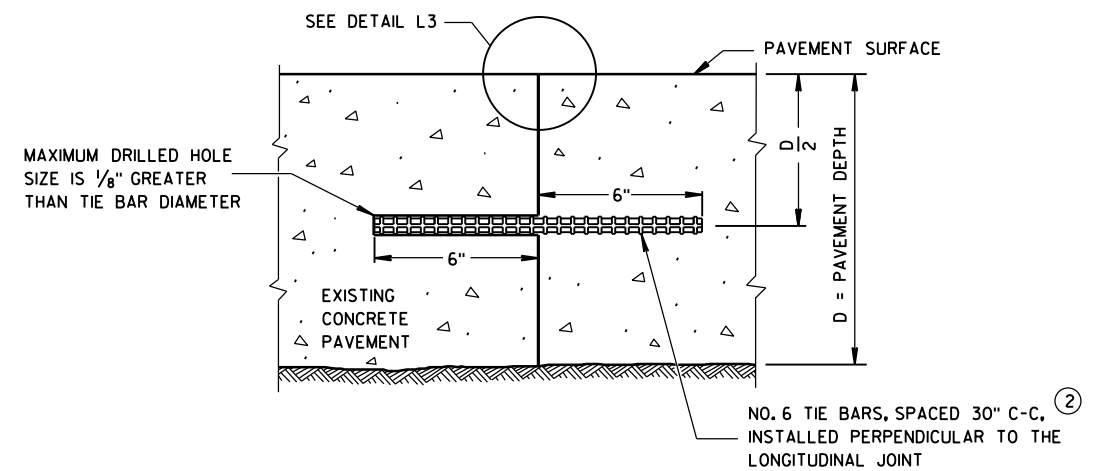
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SINGLE LANE CONCRETE BASE REPAIR

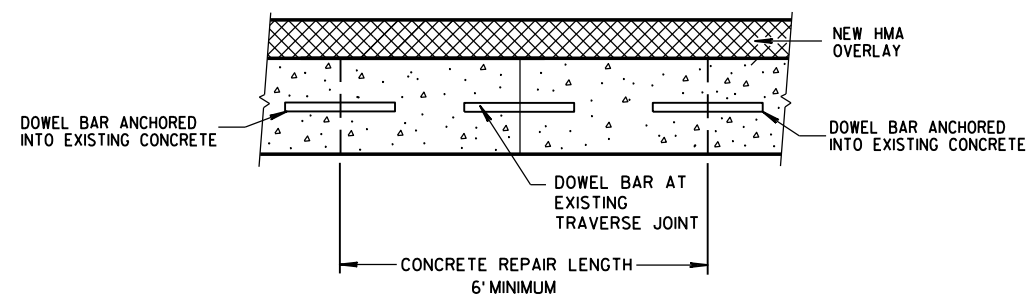
GENERAL NOTES

- (1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.
- (2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- (3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

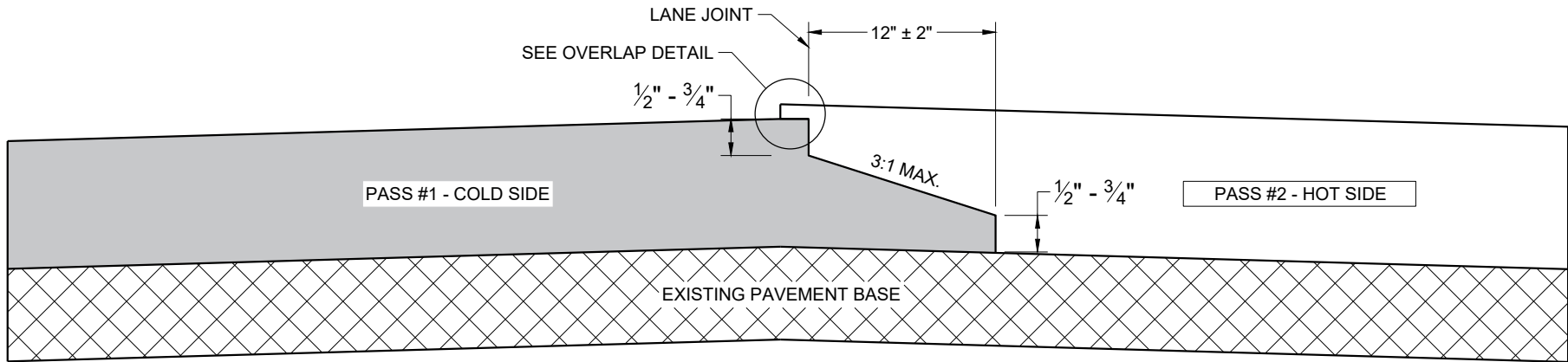
CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

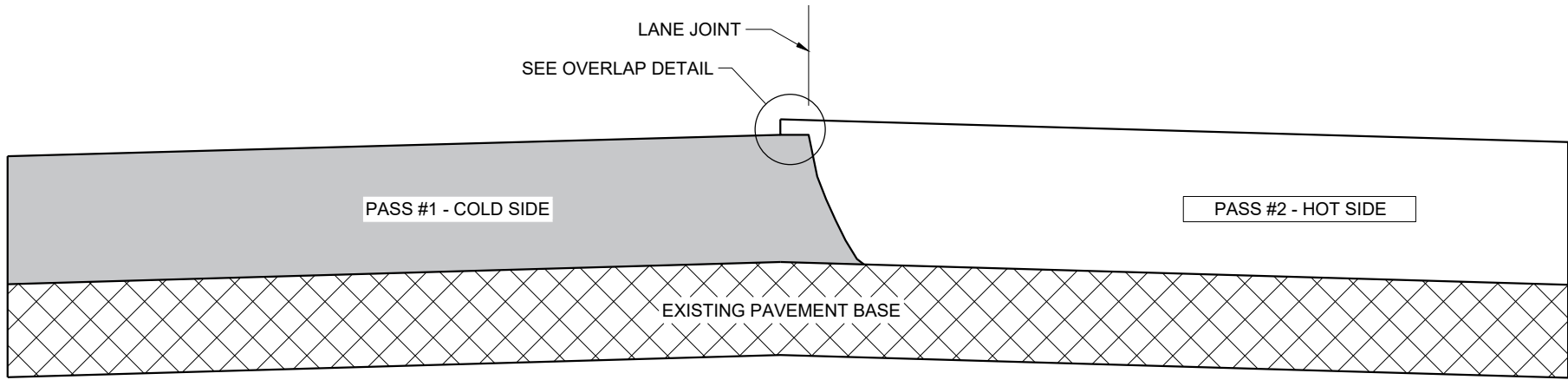
APPROVED

June, 2015
DATE/S/ Peter Kemp, P.E.
PAVEMENT SUPEI 166

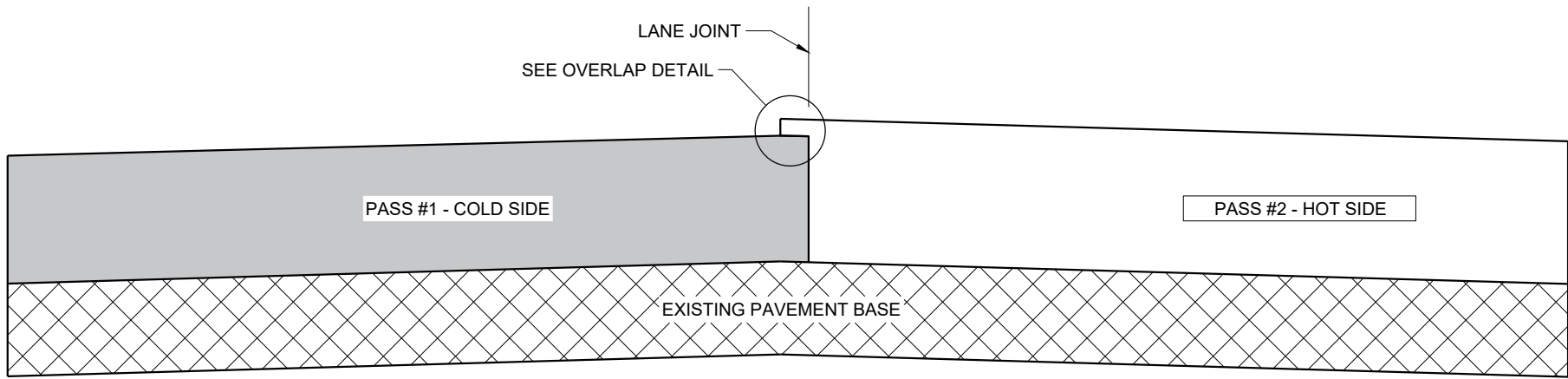
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

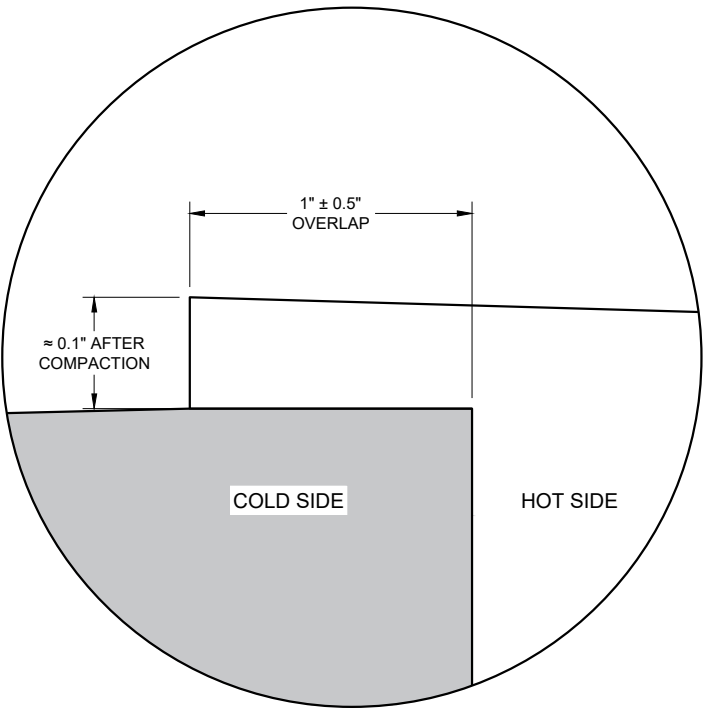
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



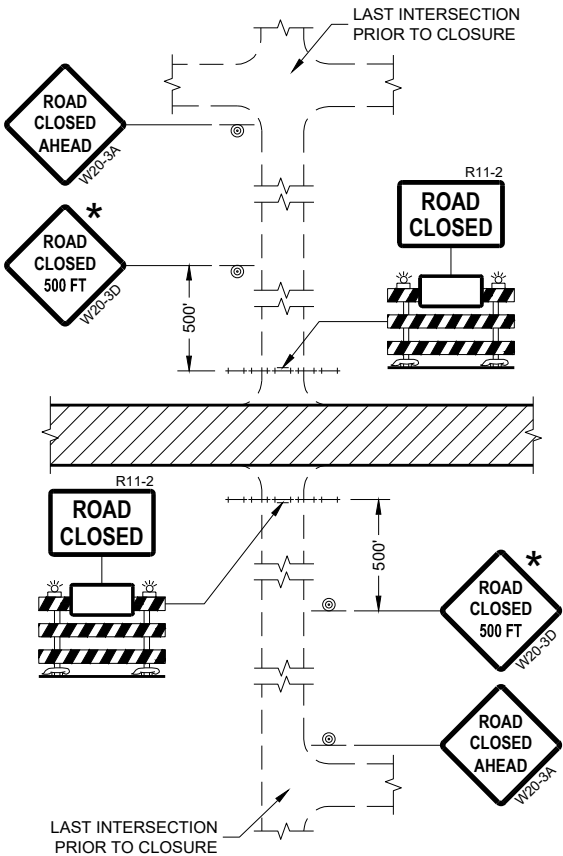
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

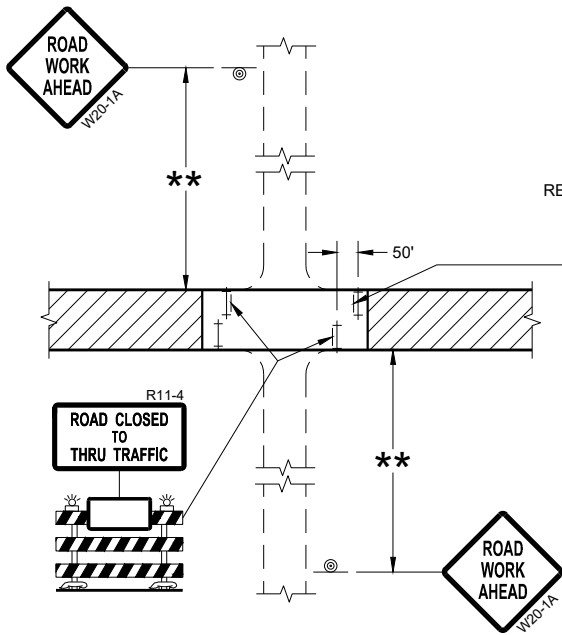
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 167

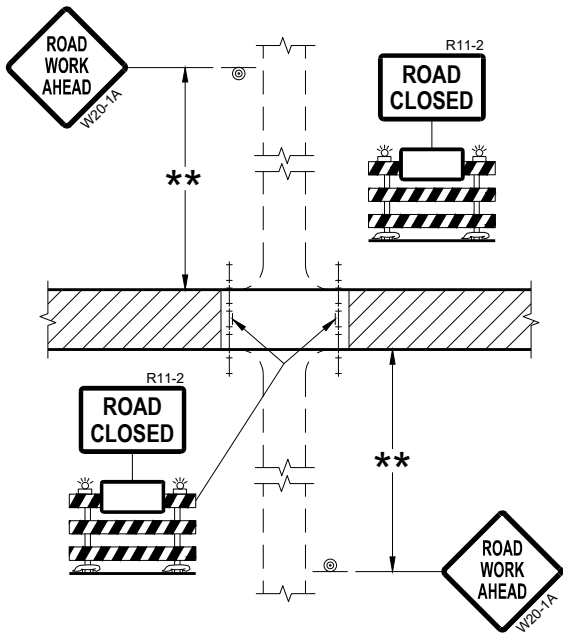
FHWA



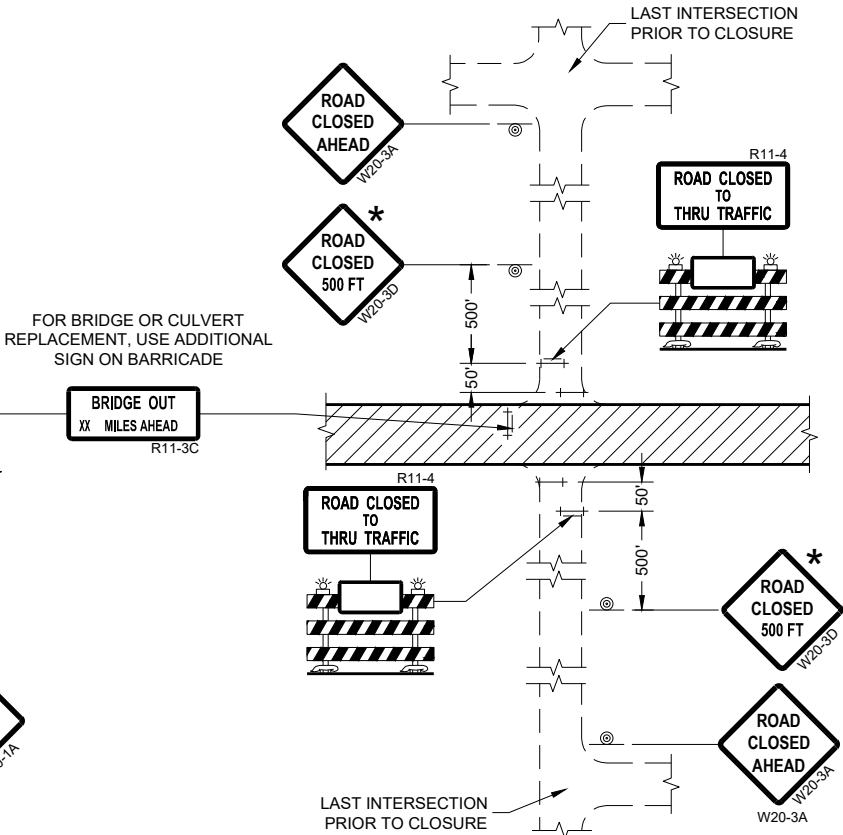
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

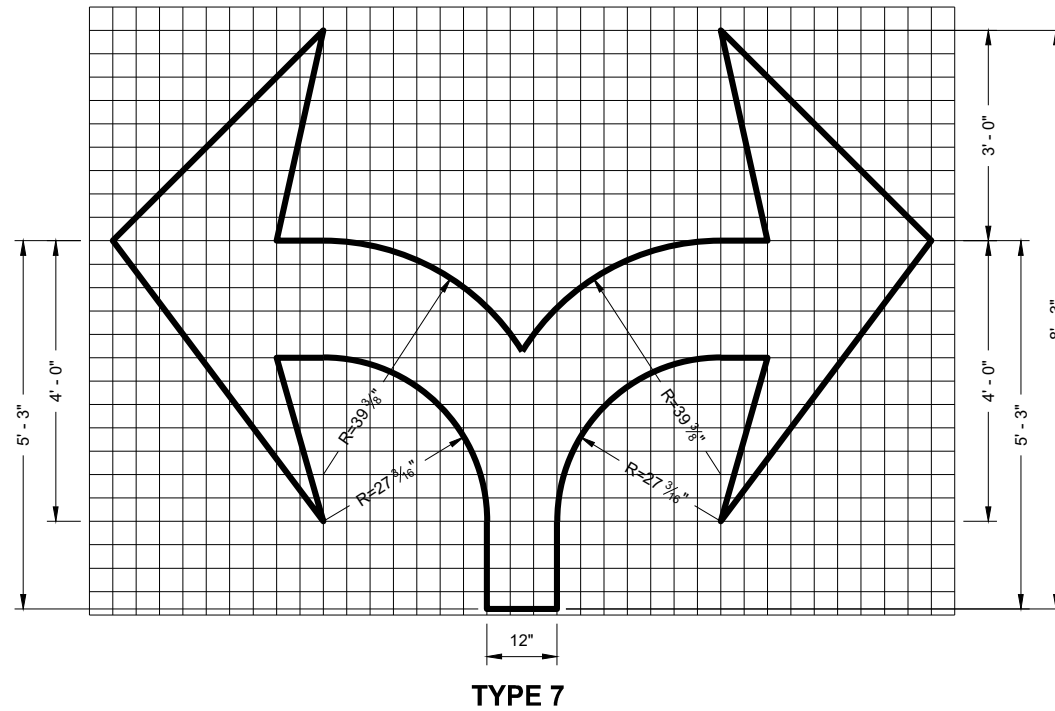
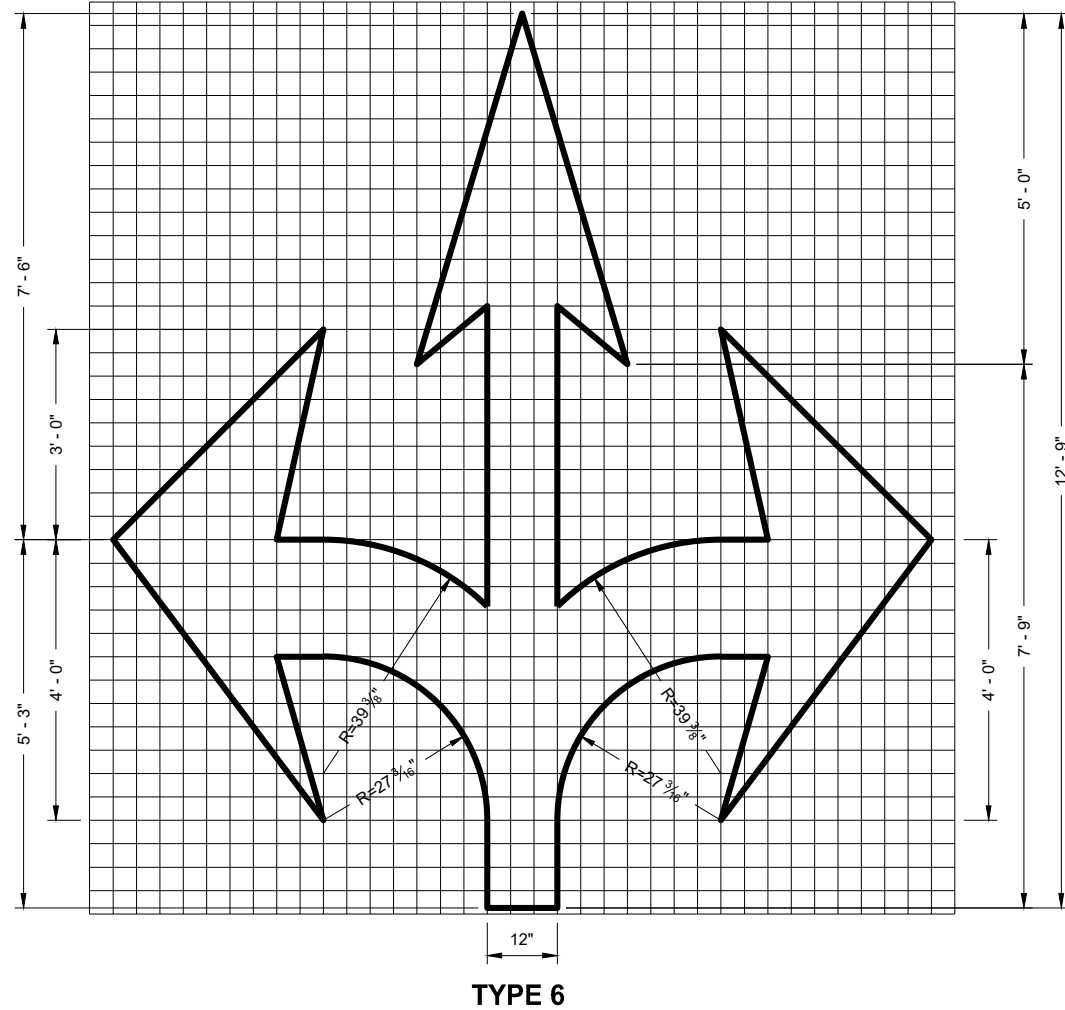
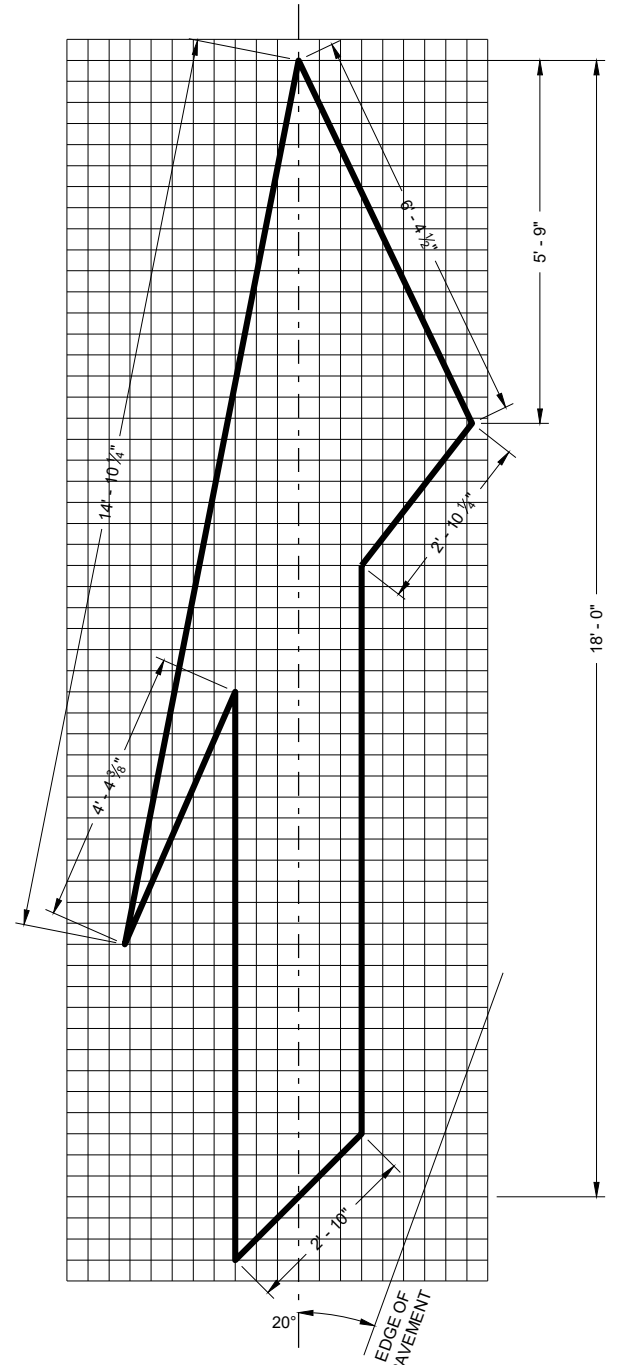
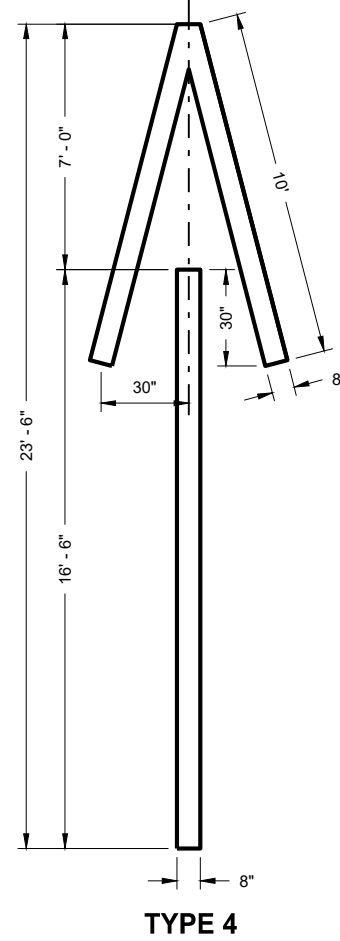
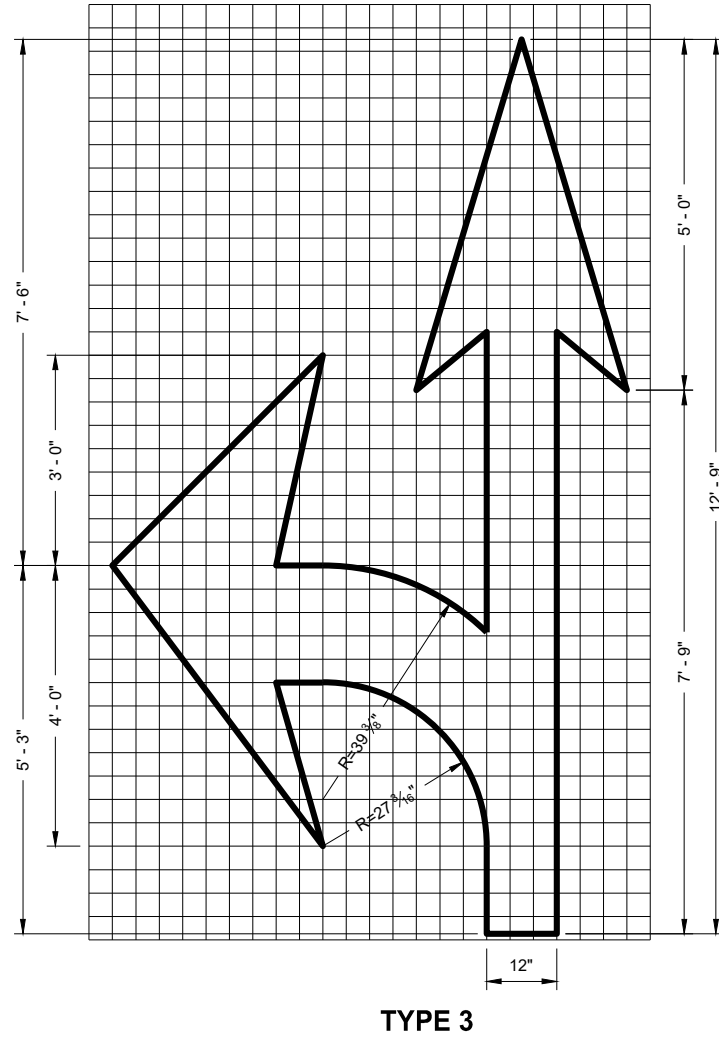
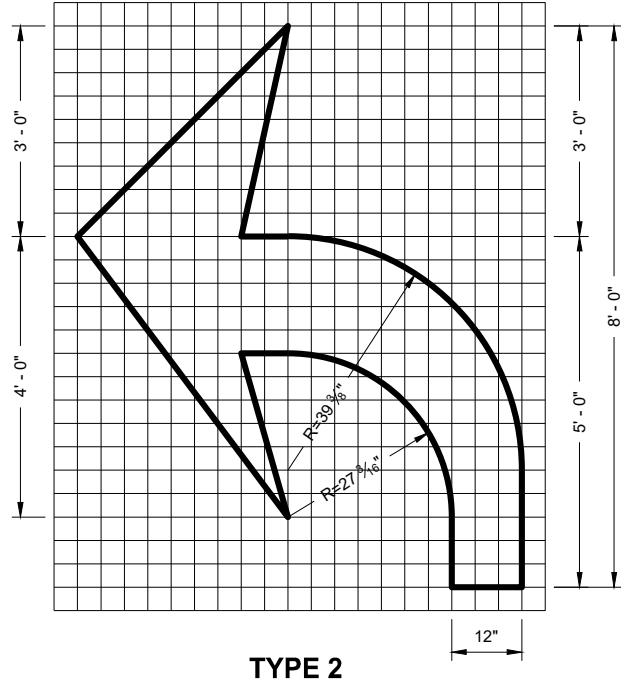
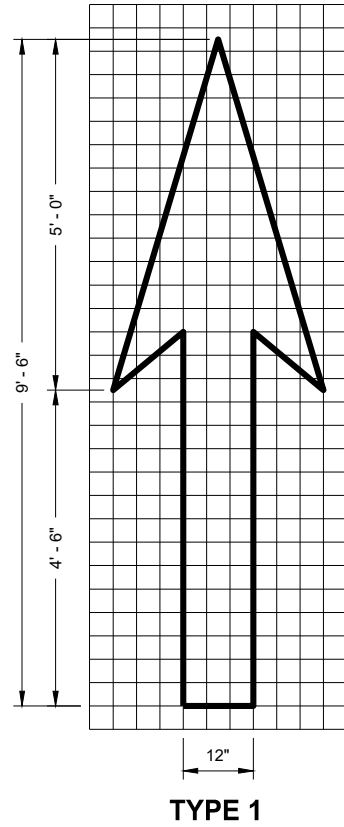
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 168

FHWA



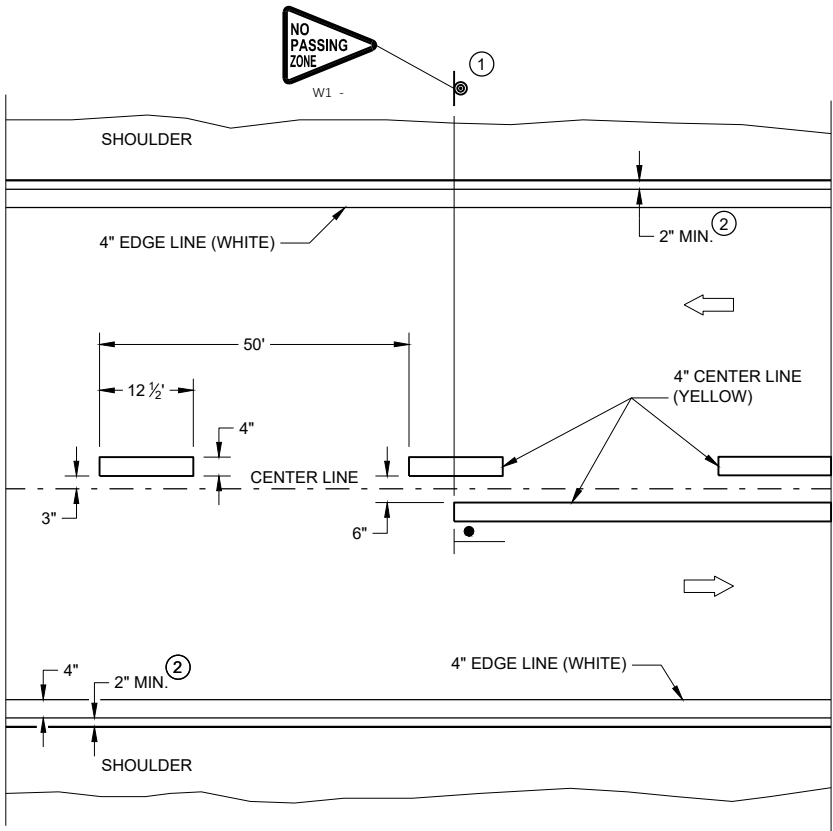
GENERAL NOTES

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

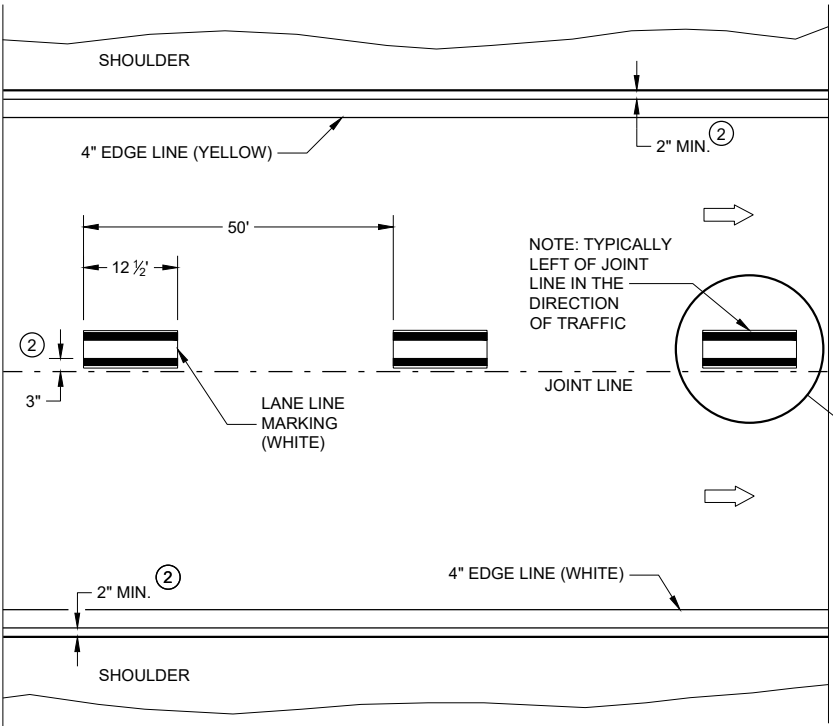
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAP ENGINEER 169
FHWA

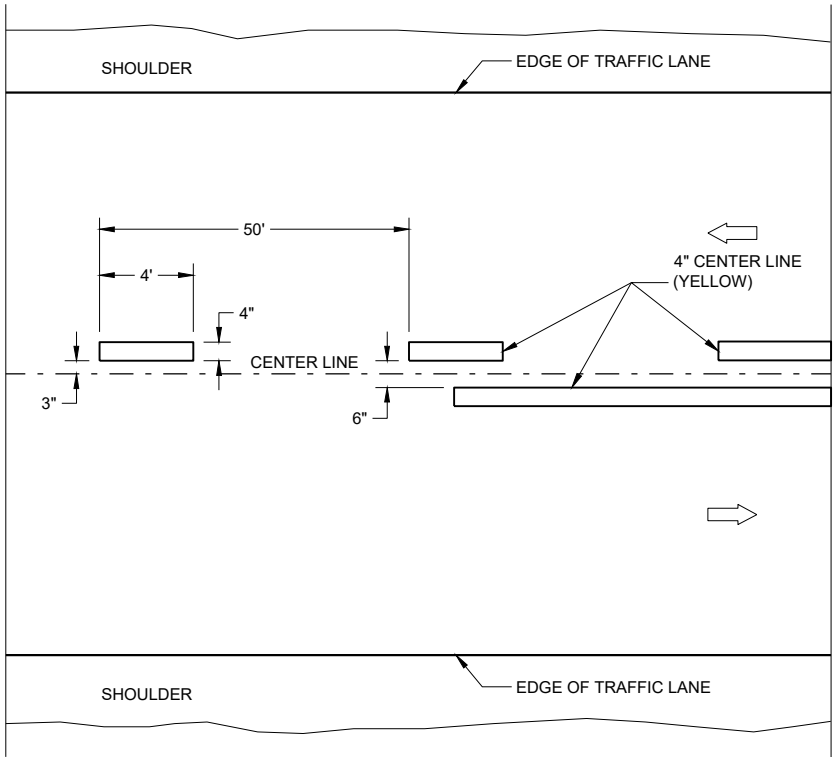


TWO WAY TRAFFIC

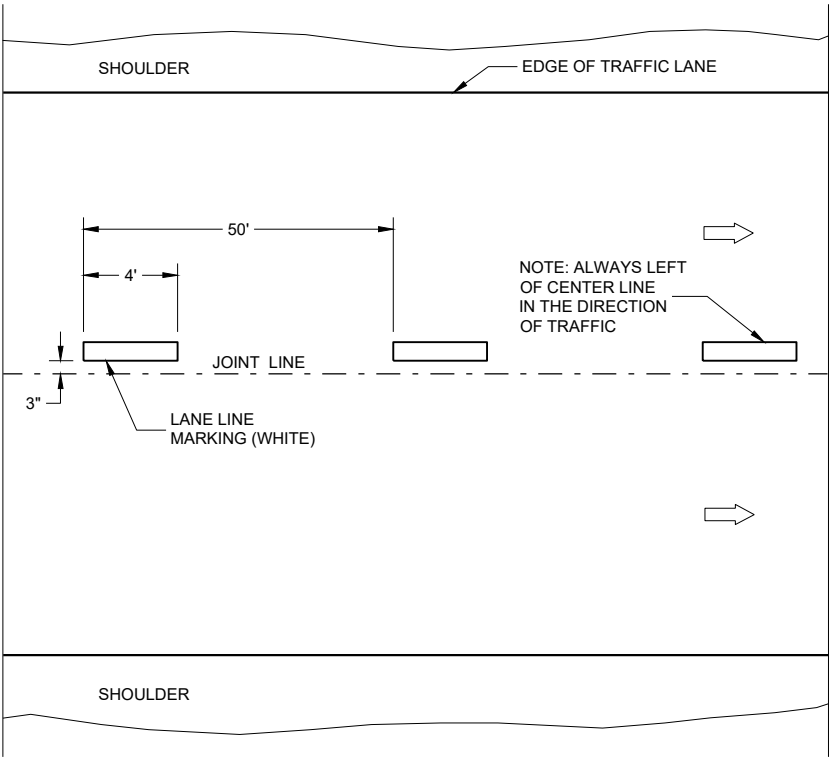


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

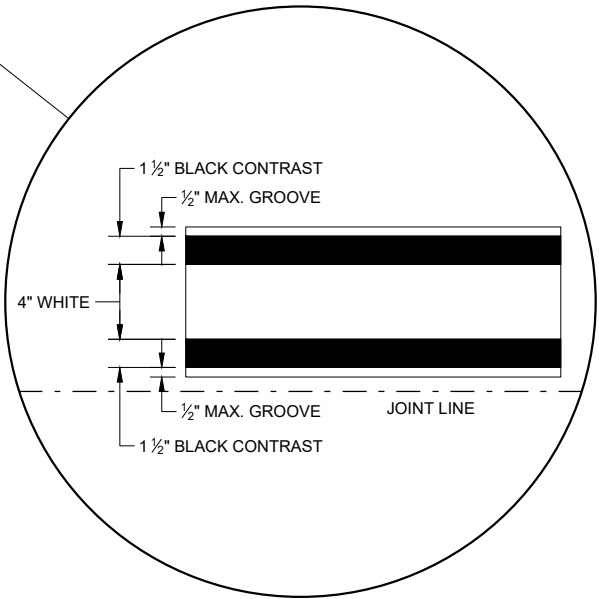
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 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



LONGITUDINAL MARKING
(MAINLINE)

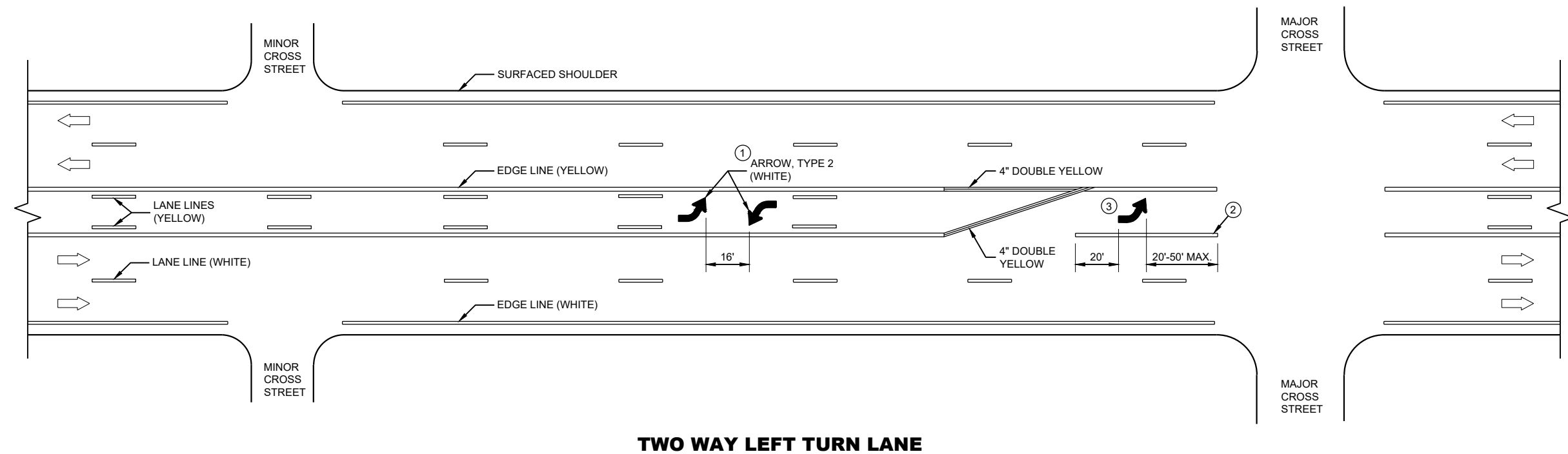
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING ENGINEER 170
FHWA

GENERAL NOTES

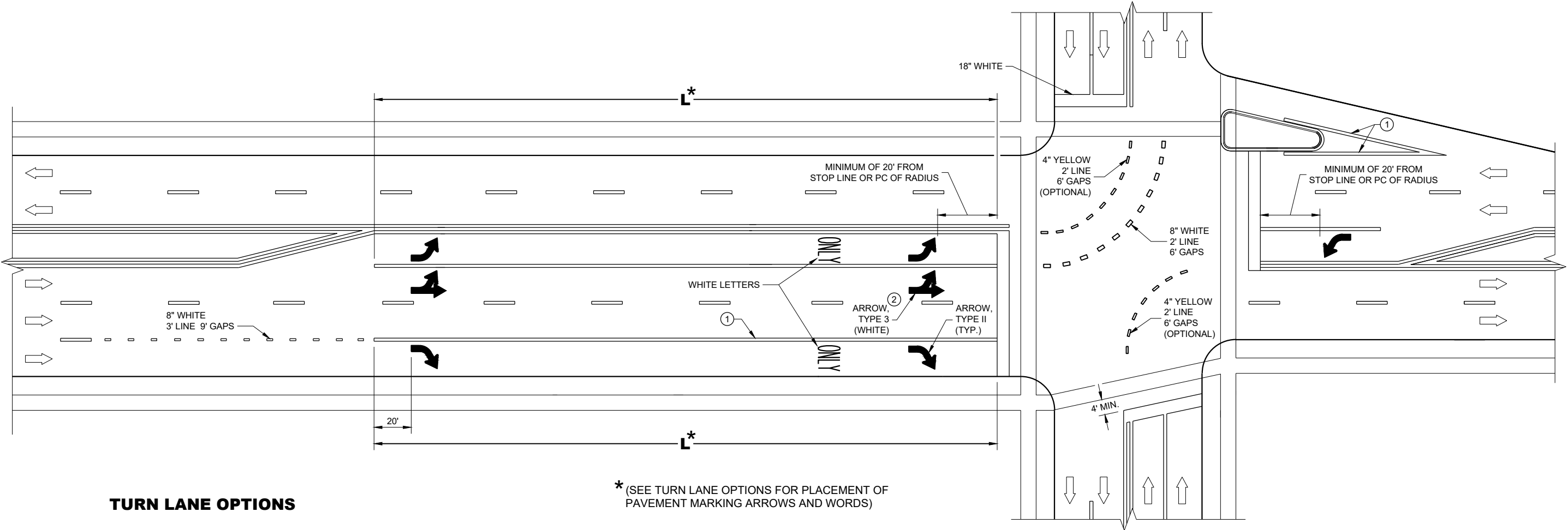
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 8" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

 DIRECTION OF TRAFFIC



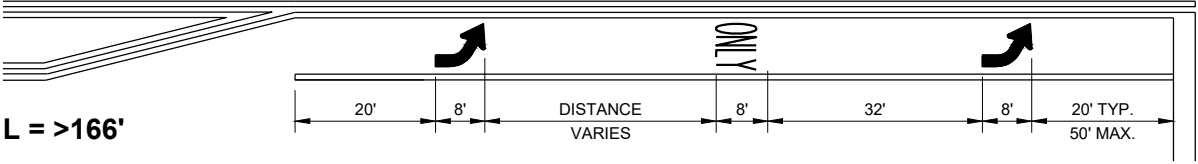
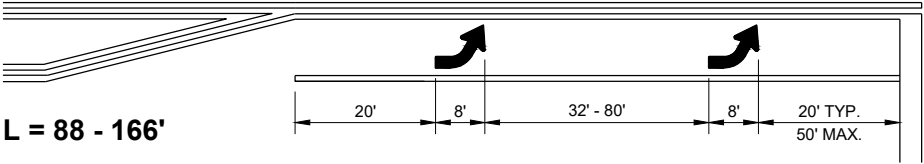
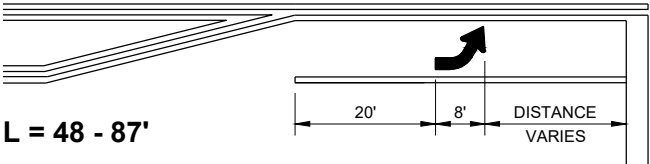
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 171



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT
REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF
PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

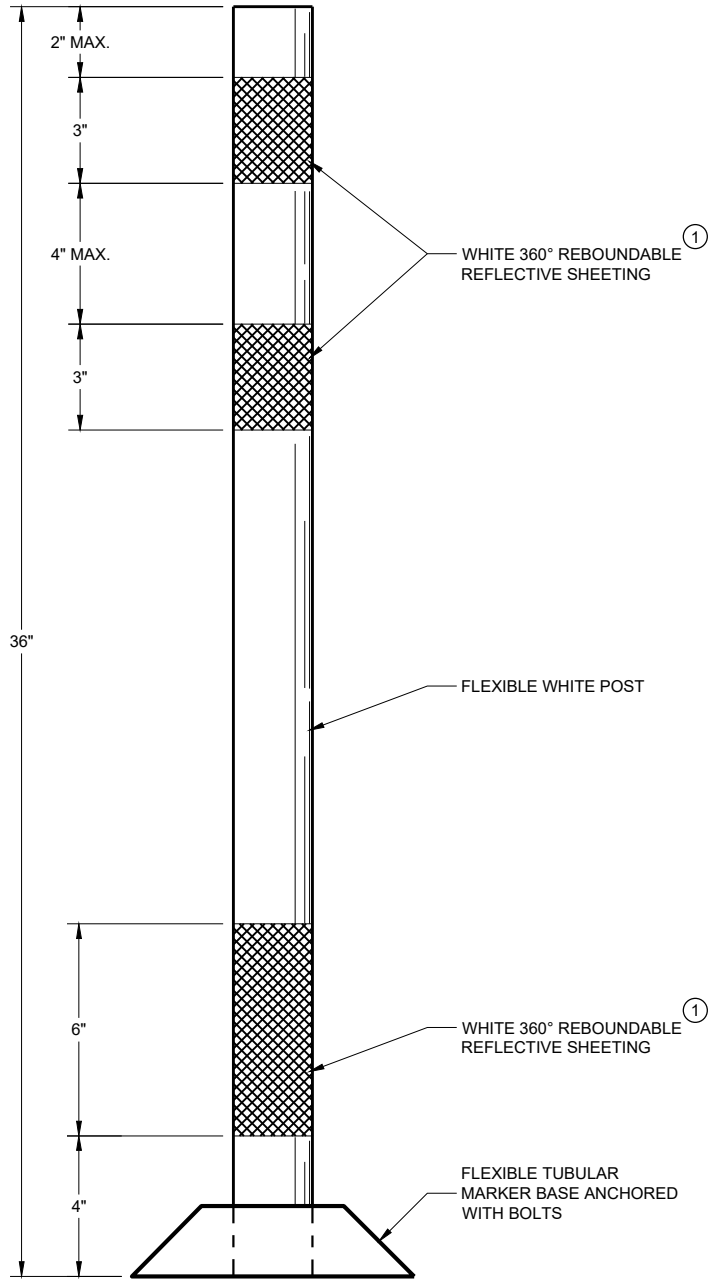
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

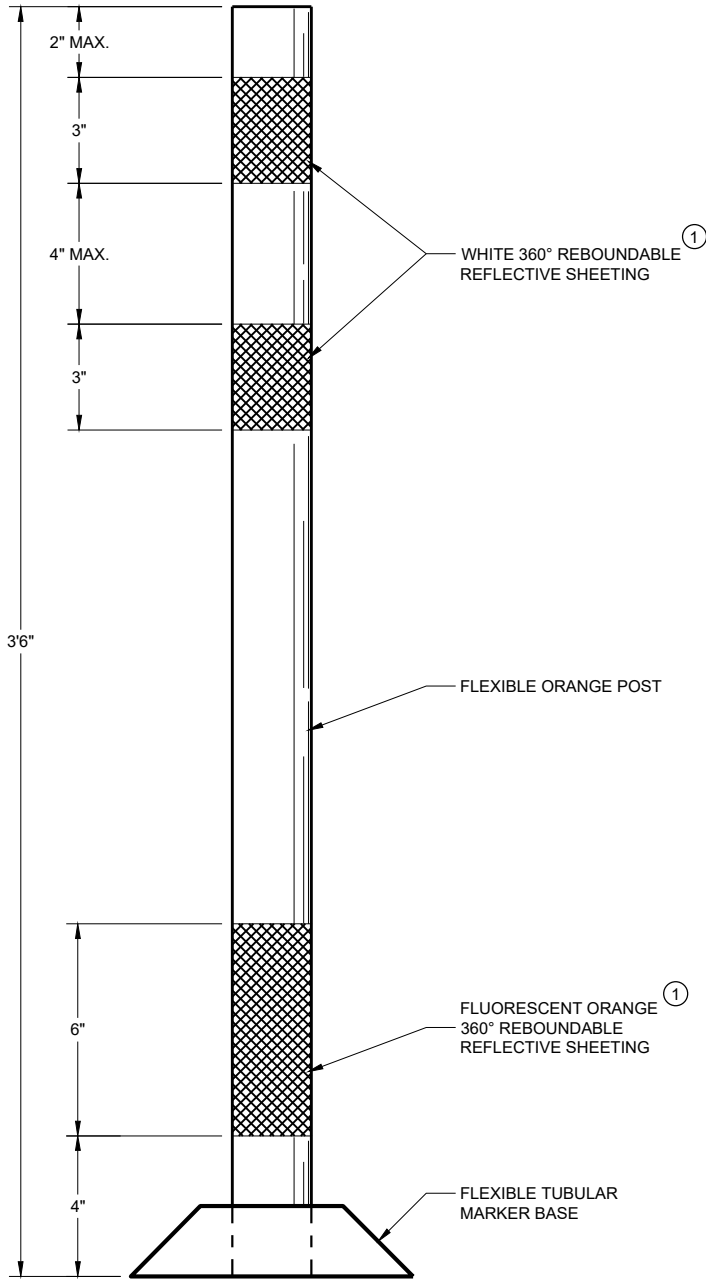
L = LENGTH OF TURN BAY

**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 172



FLEXIBLE TUBULAR
MARKER POST
PERMANENT CROSSOVER



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

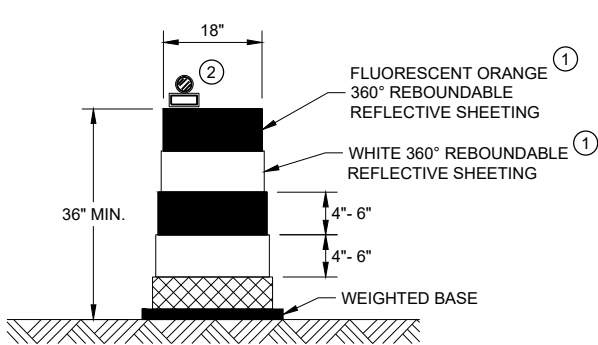
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

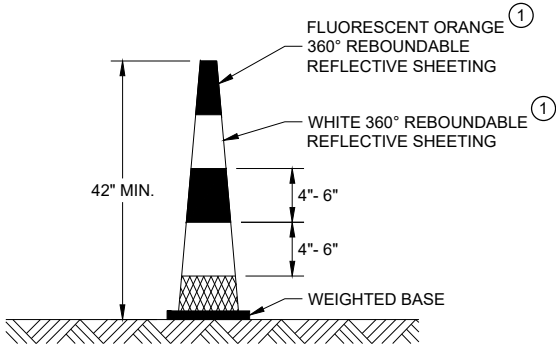
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 173

FHWA

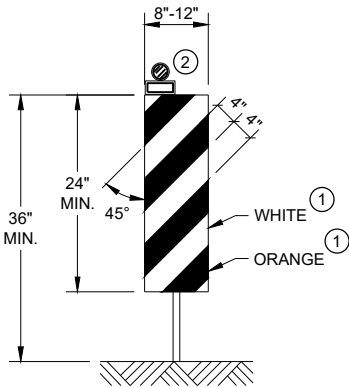


DRUM



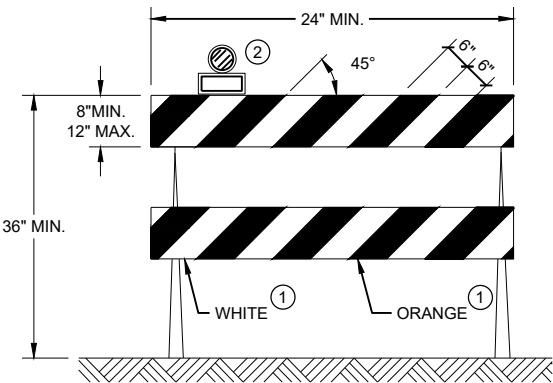
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



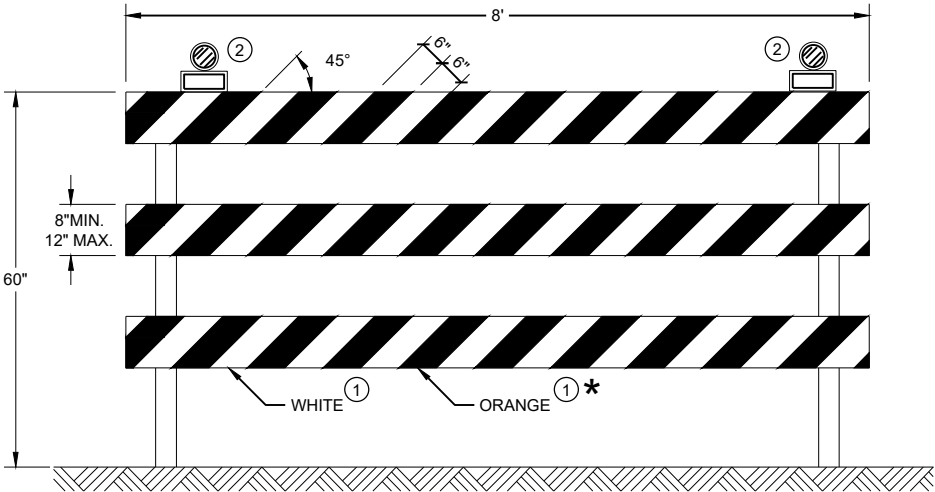
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

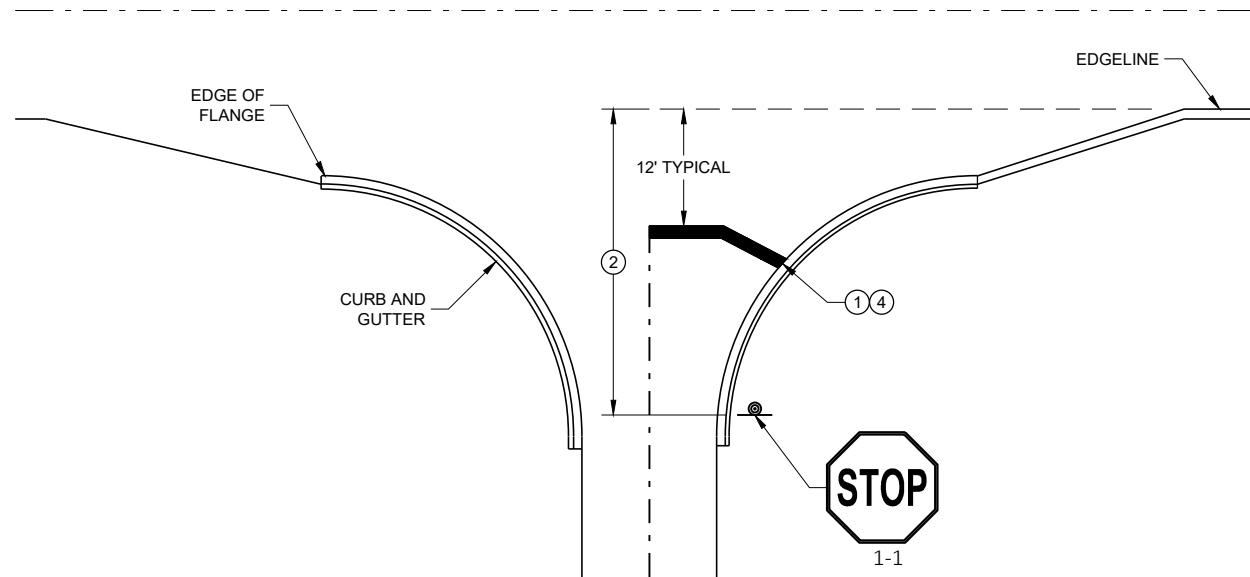
GENERAL NOTES

- 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.

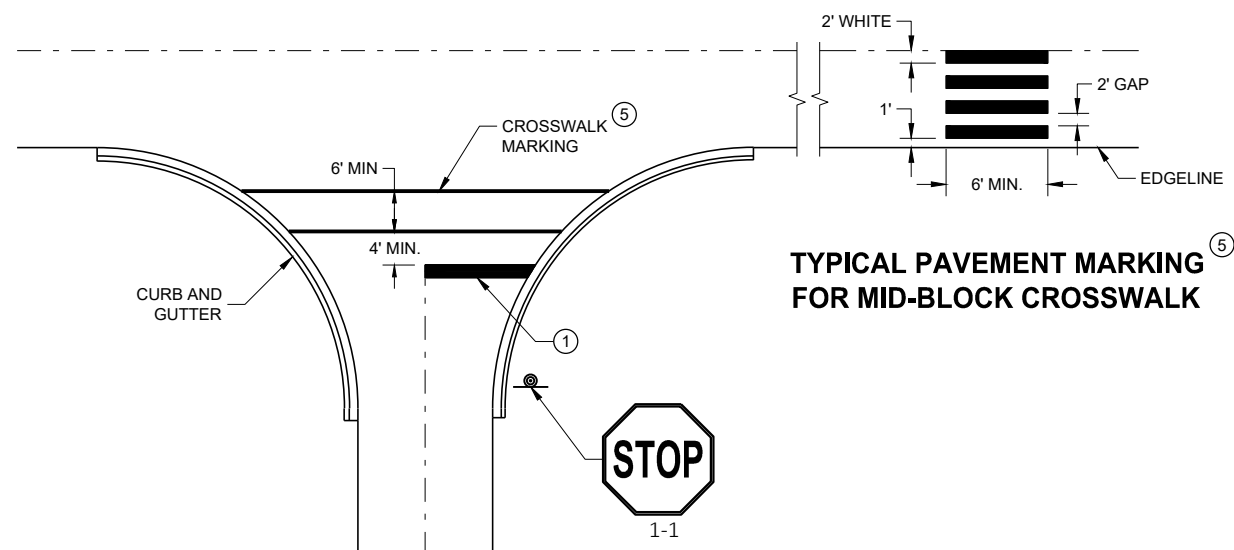
CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 174
FHWA

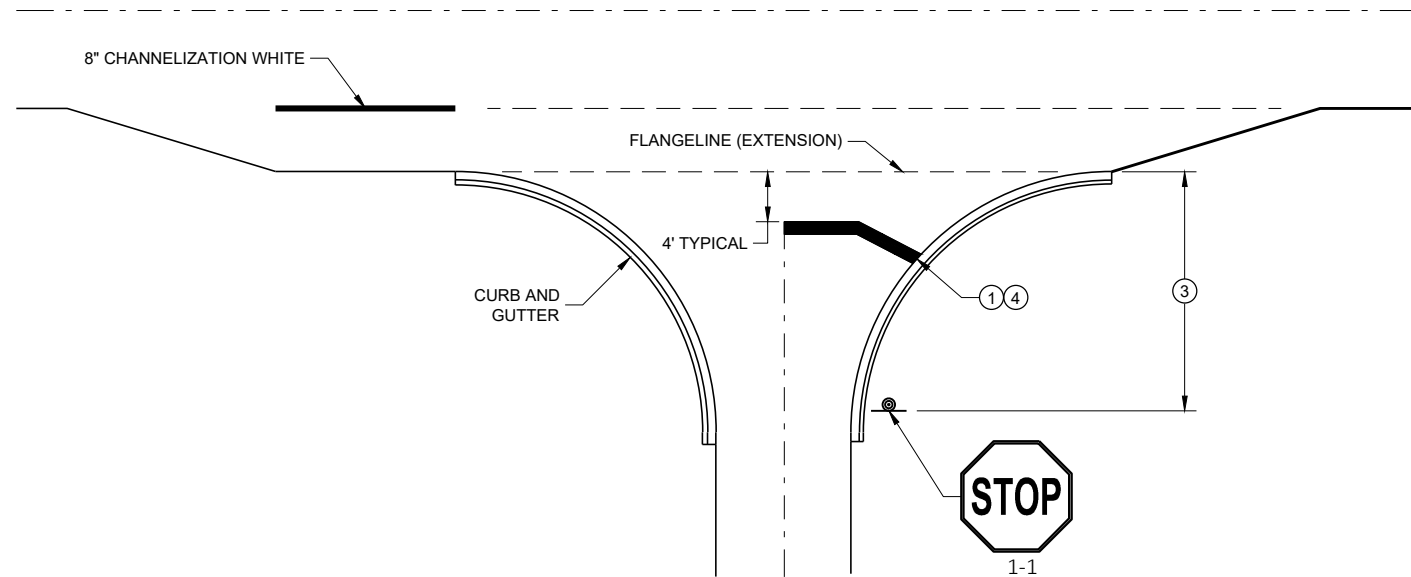


**TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER**

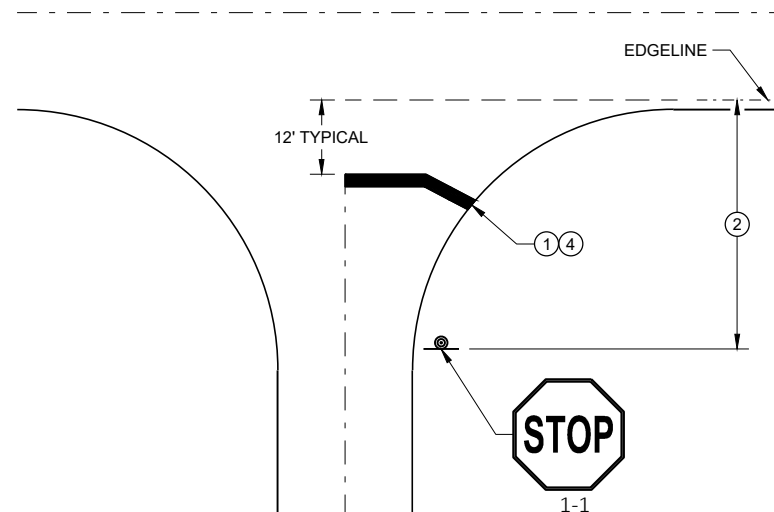


**TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING**

**TYPICAL PAVEMENT MARKING^⑤
FOR MID-BLOCK CROSSWALK**



**TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE**



**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 EDGE LINE 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 EDGE LINE.
- 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 INSTEAD.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 175
FHWA

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

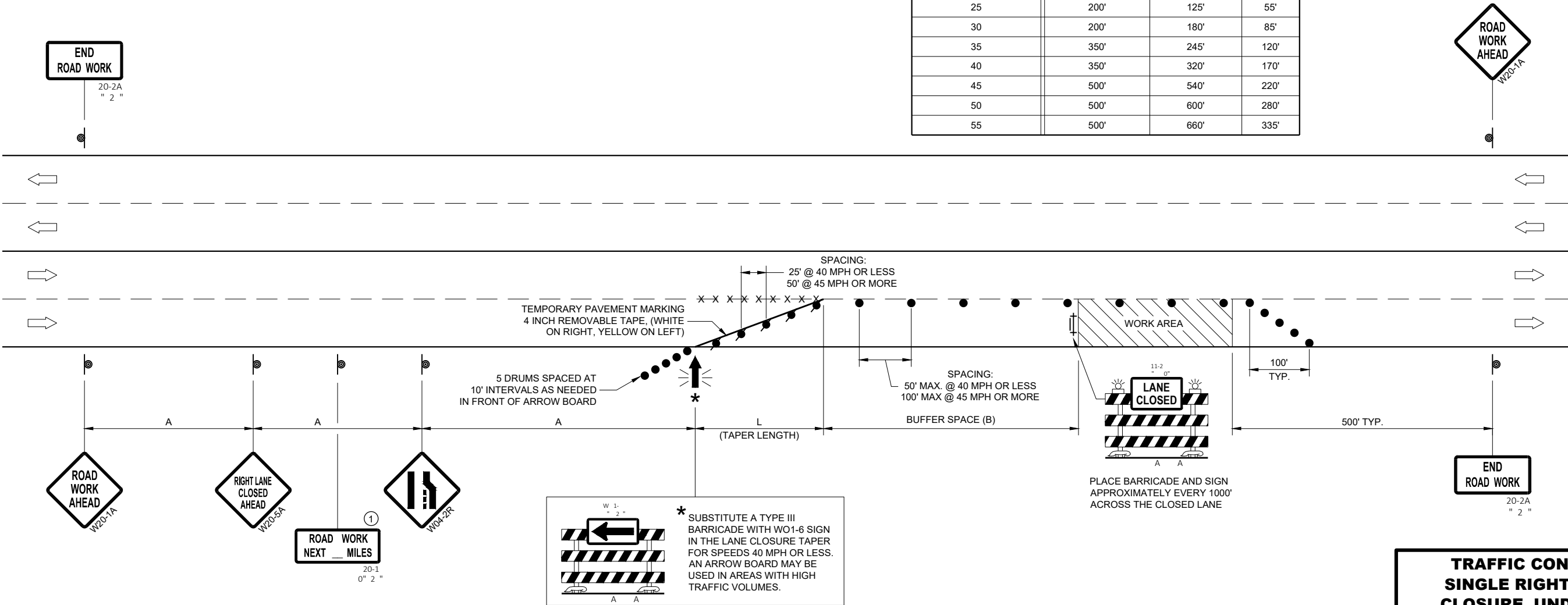
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



**TRAFFIC CONTROL,
SINGLE RIGHT LANE
CLOSURE, UNDIVIDED
NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 176

FHWA

LEGEND

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

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

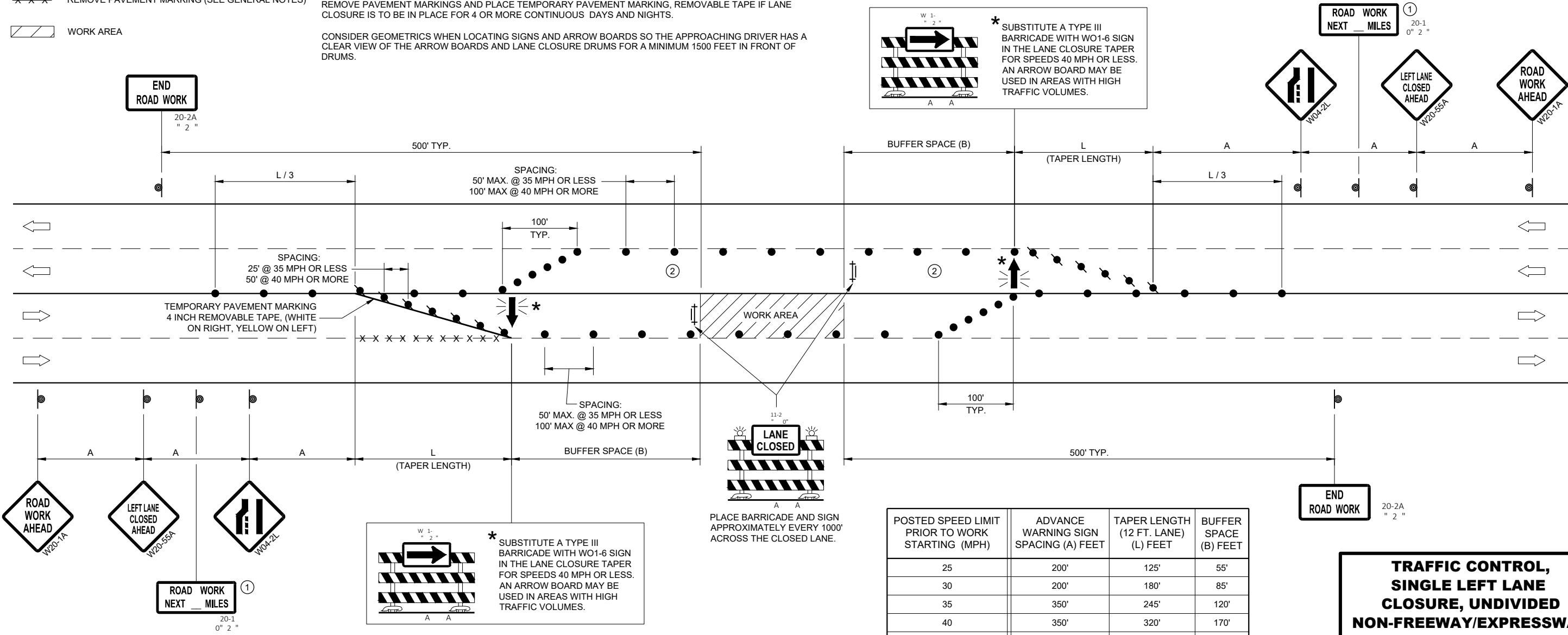
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.

* SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.



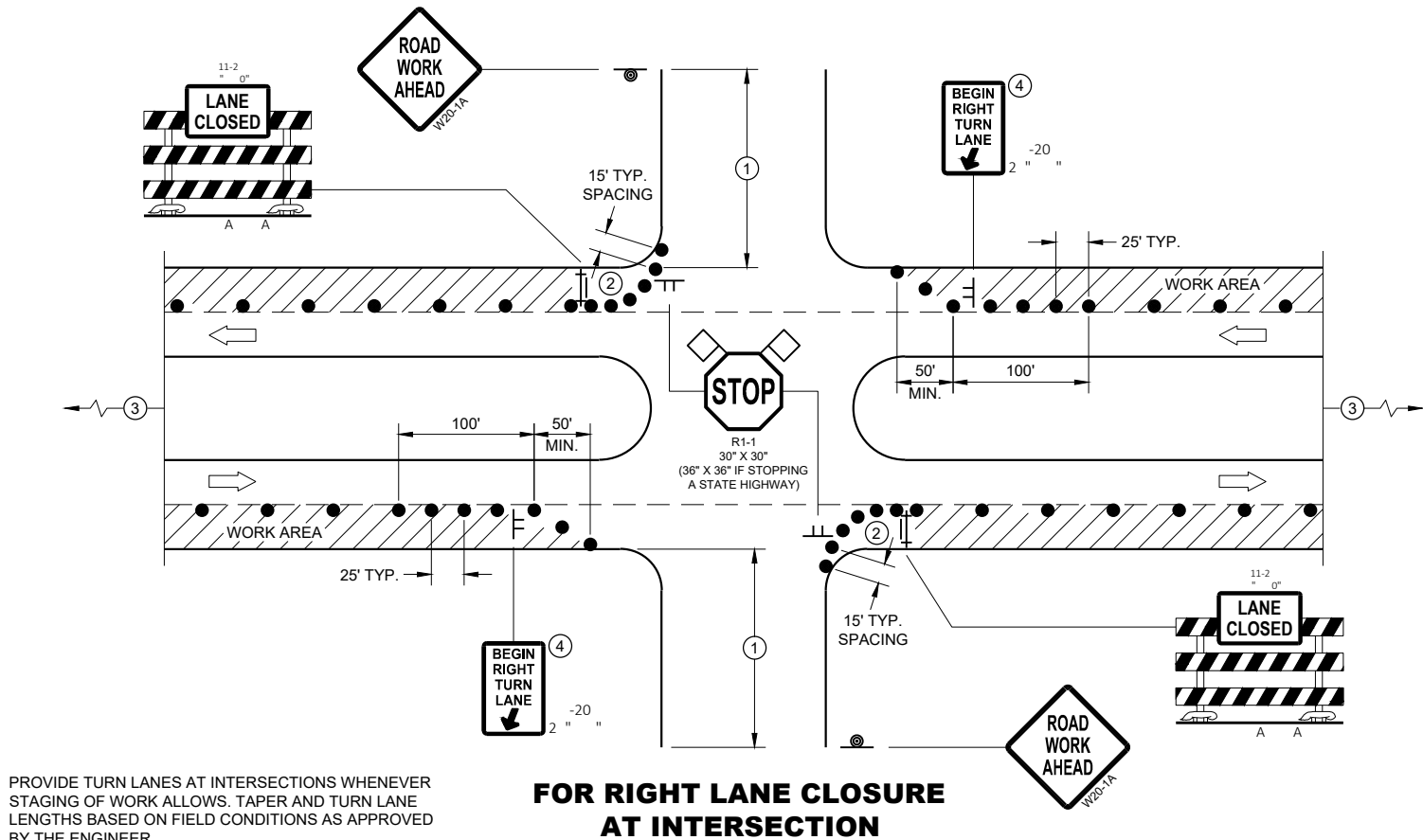
POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

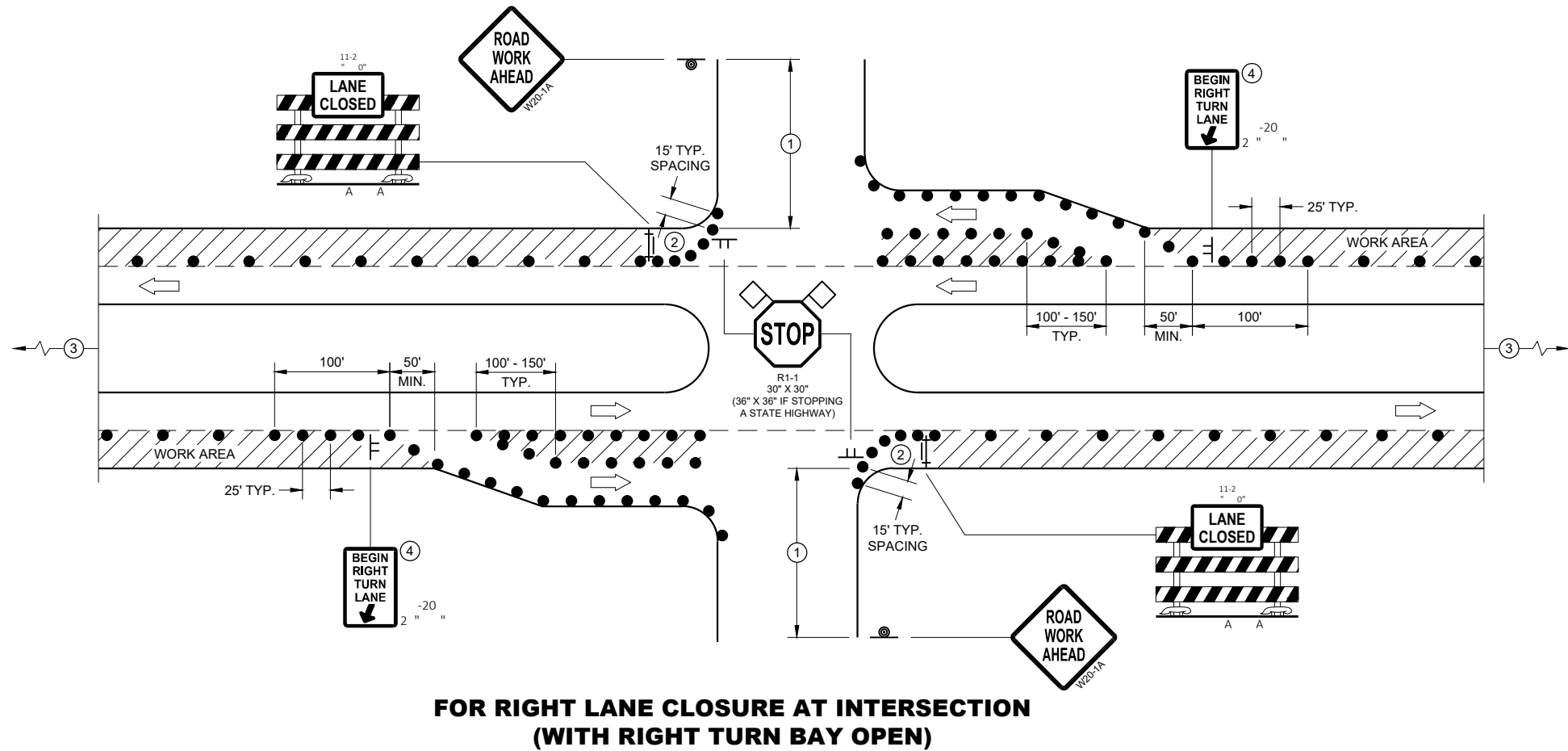
APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 177

FHWA



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.



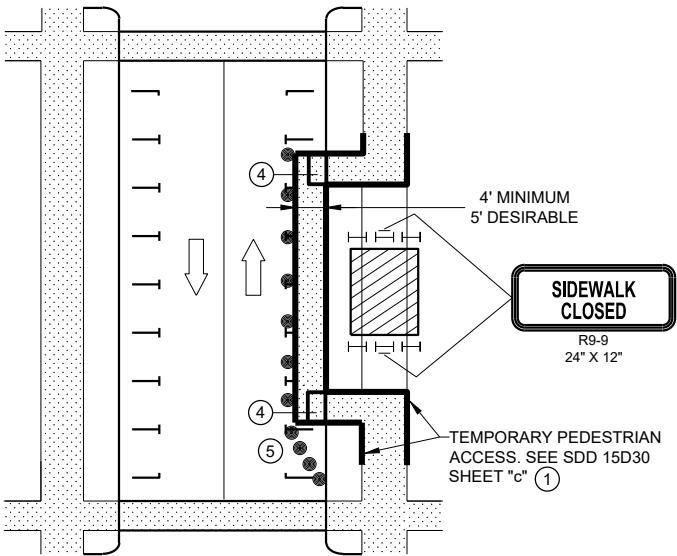
LEGEND

- 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**

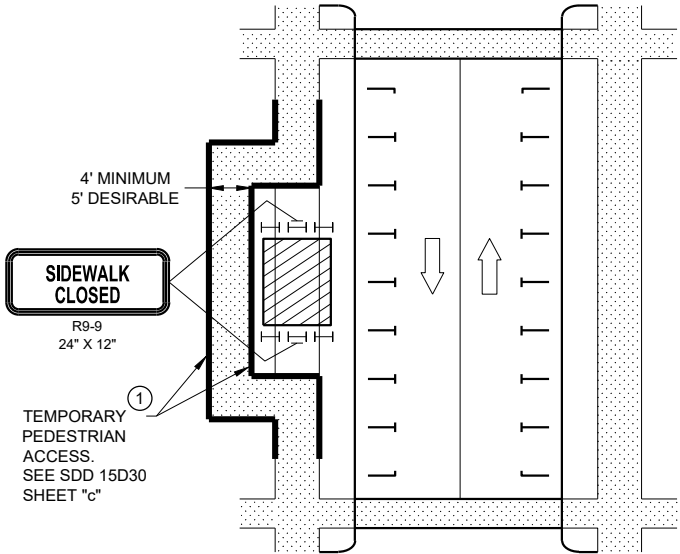
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 178

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

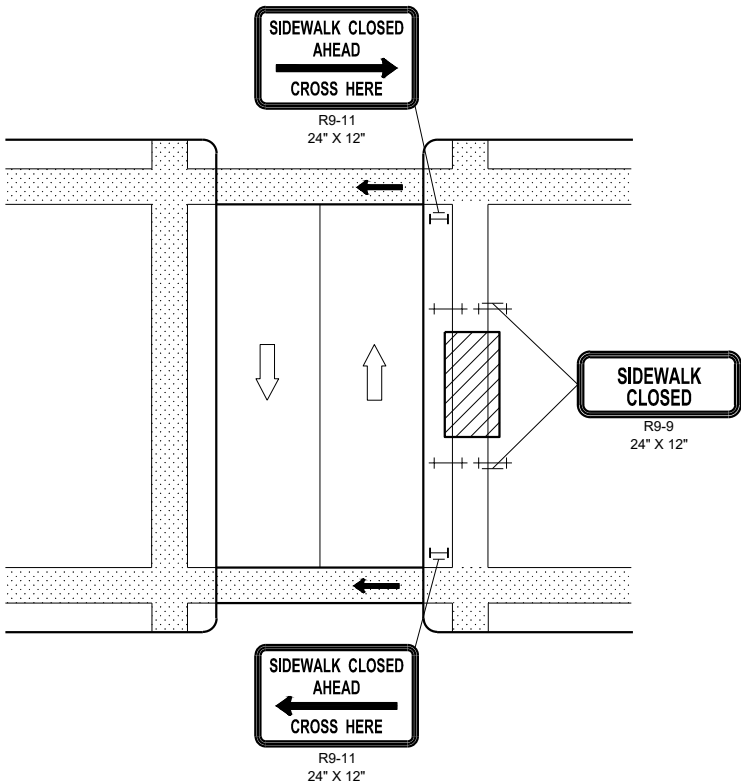


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

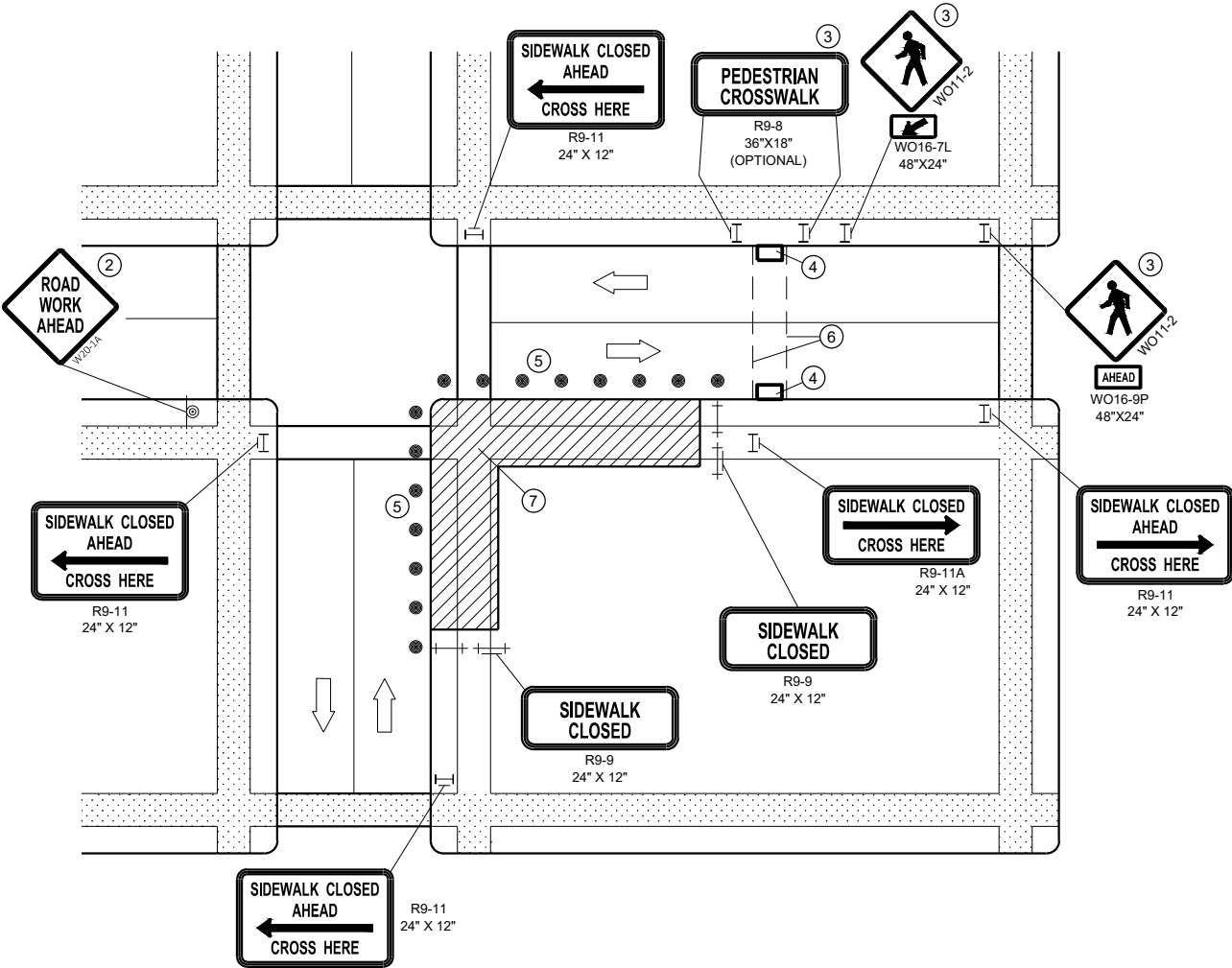
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

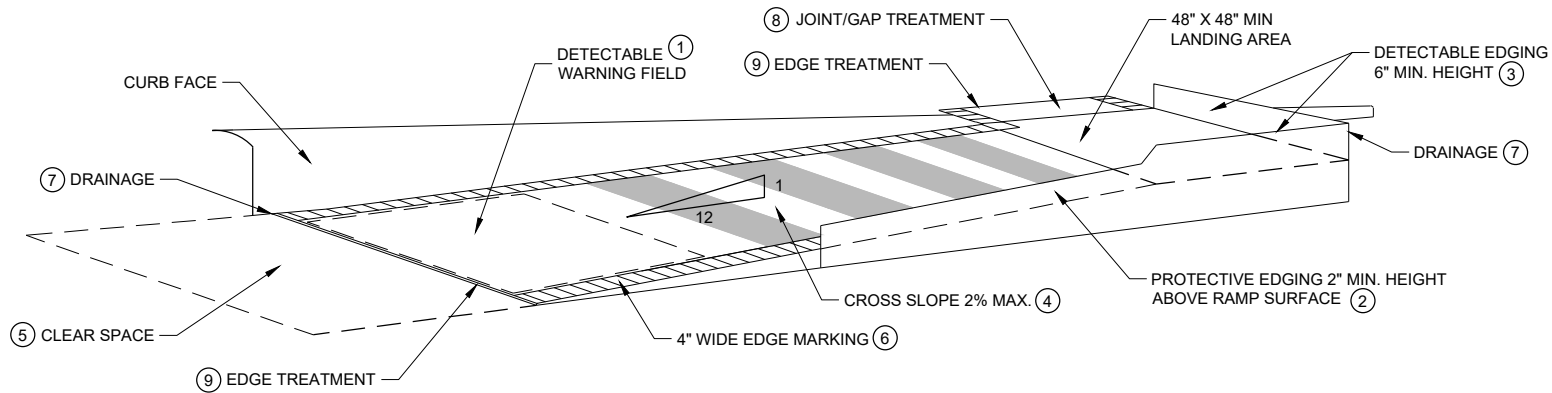
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

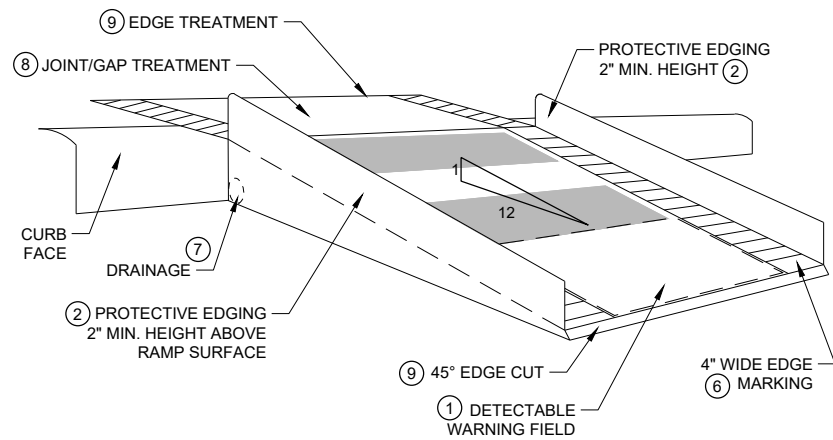
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

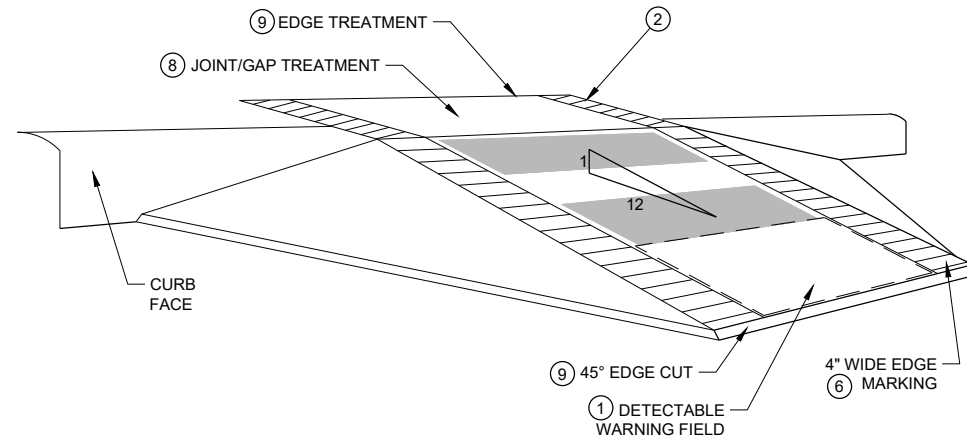
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

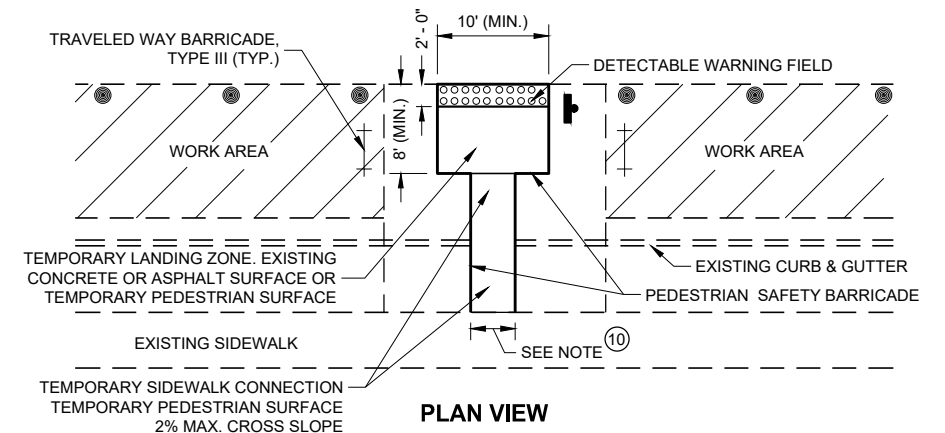
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

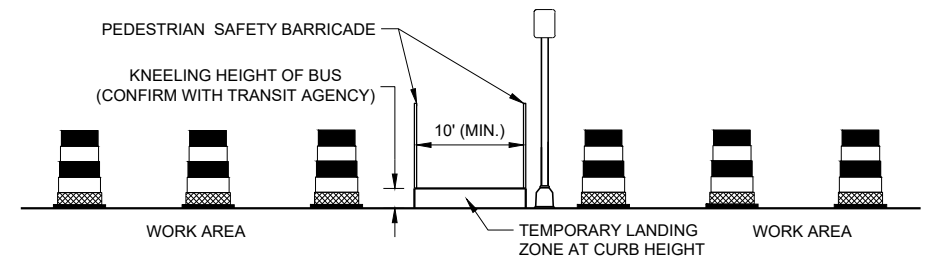
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- 5 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- 10 5' WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



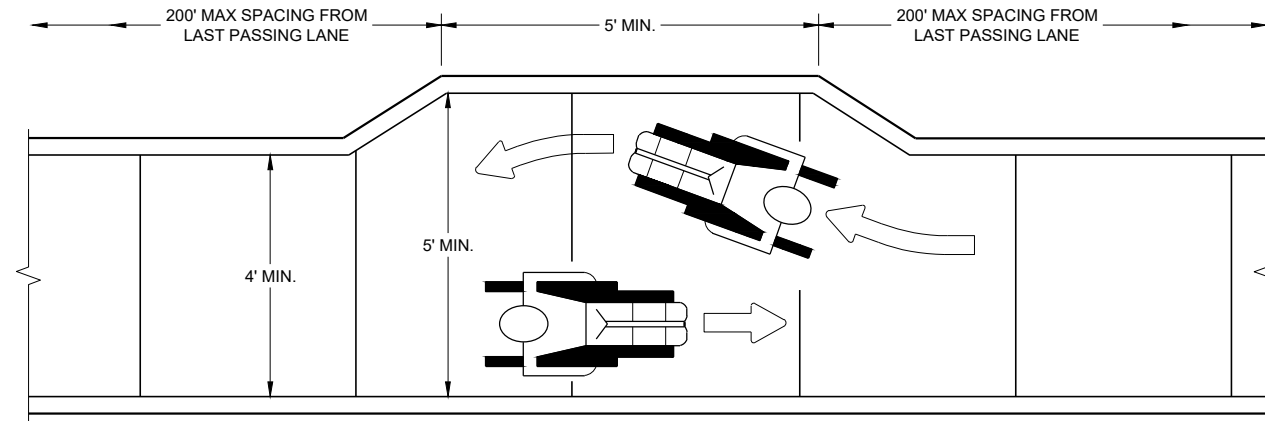
PROFILE VIEW

TEMPORARY BUS STOP PAD

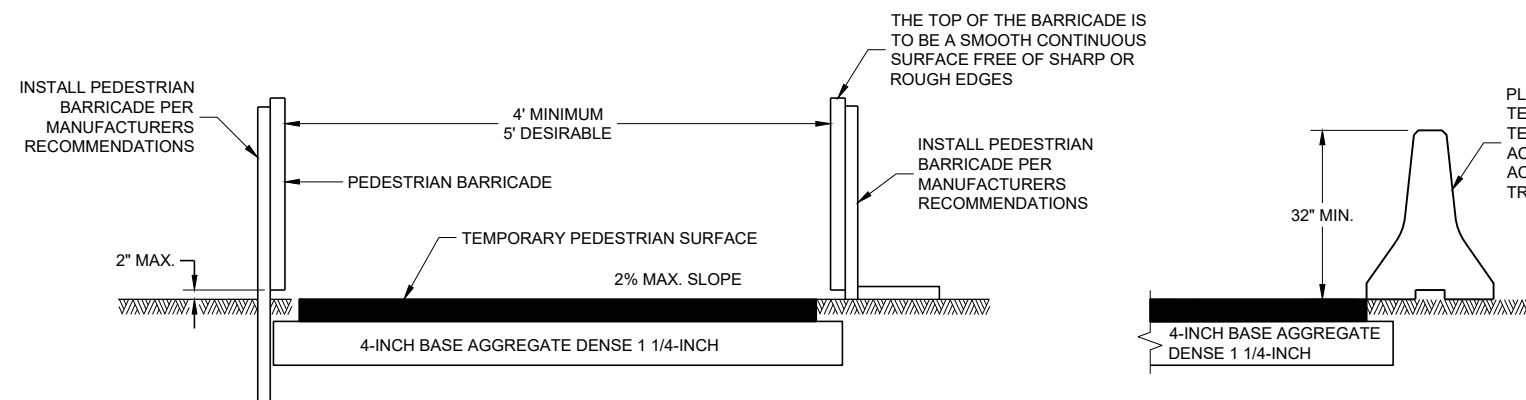
LEGEND

- TRAFFIC CONTROL DRUM
- † TYPE III BARRICADE
- ▨ WORK AREA

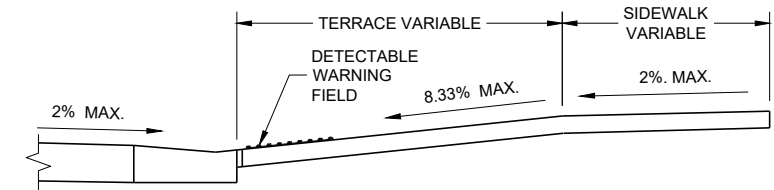
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 180



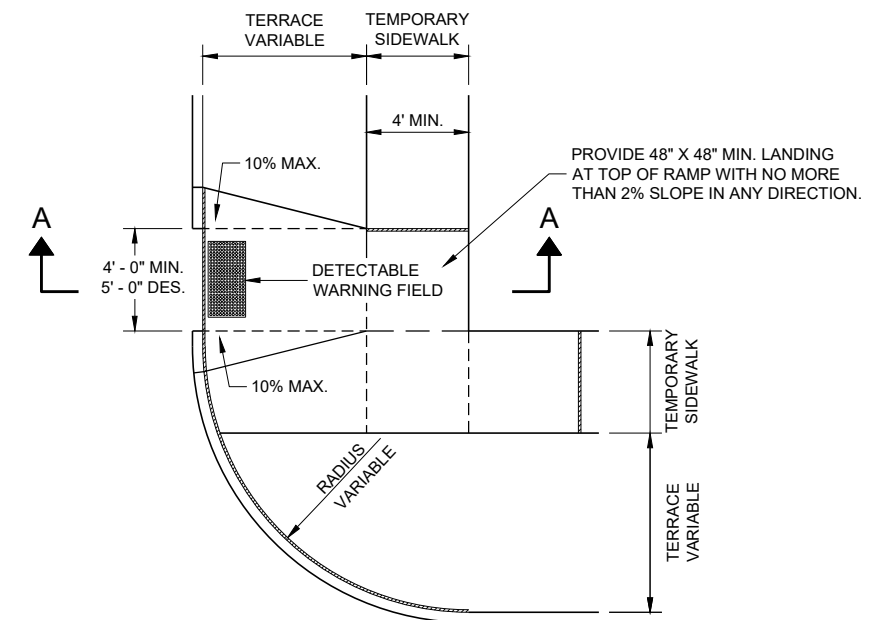
NARROW SIDEWALK PASSING DETAIL



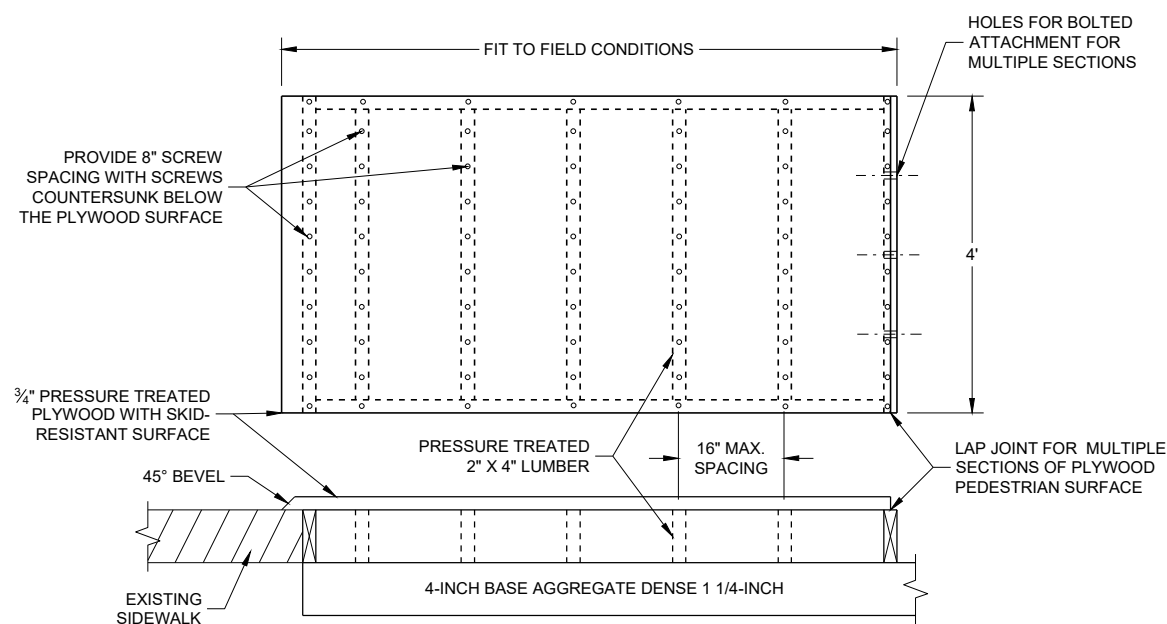
TEMPORARY PEDESTRIAN ACCESS



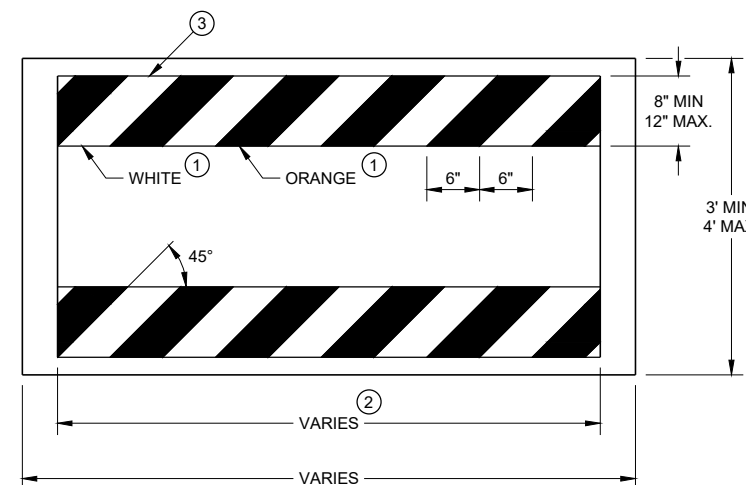
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- * USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

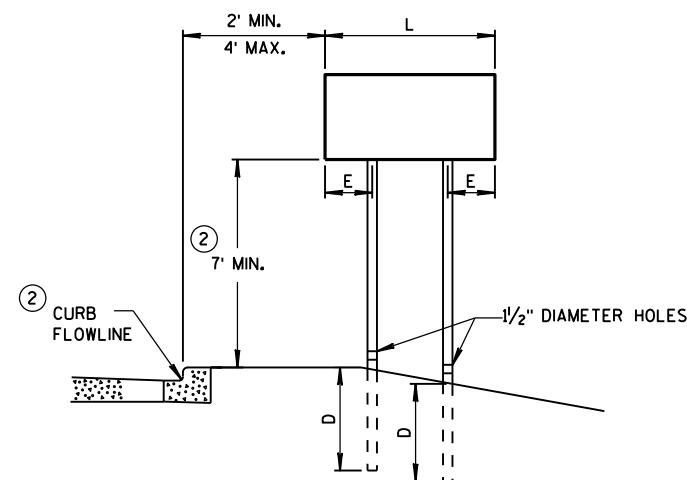
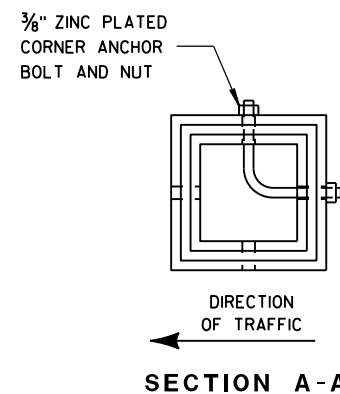
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 181
FHWA	



TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

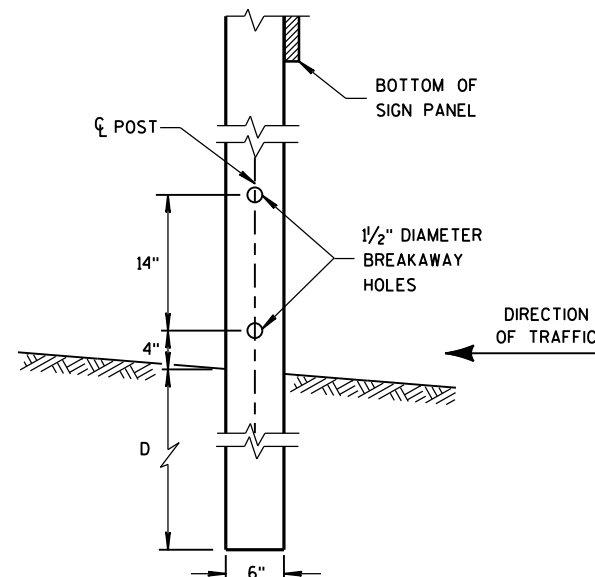


URBAN AREA

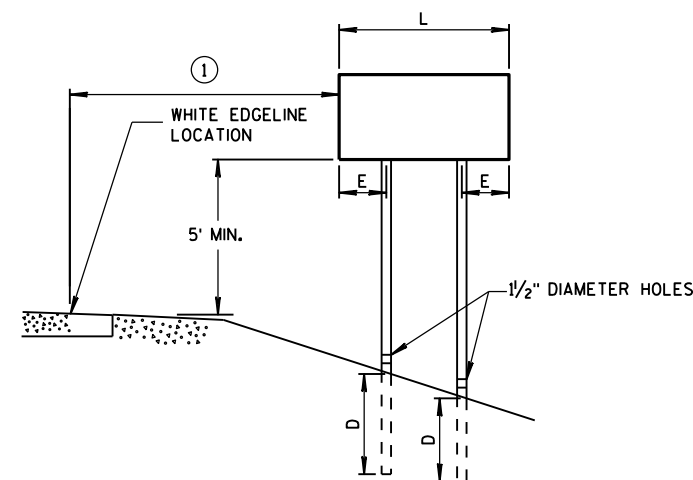
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

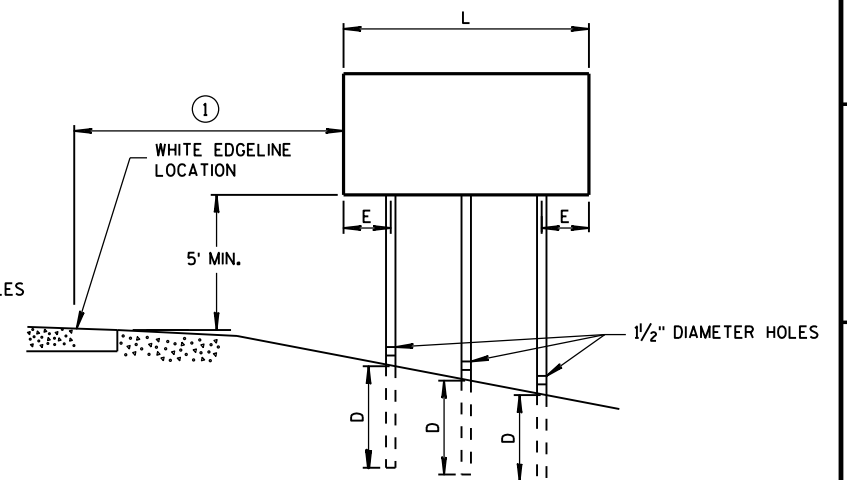
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" x 6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

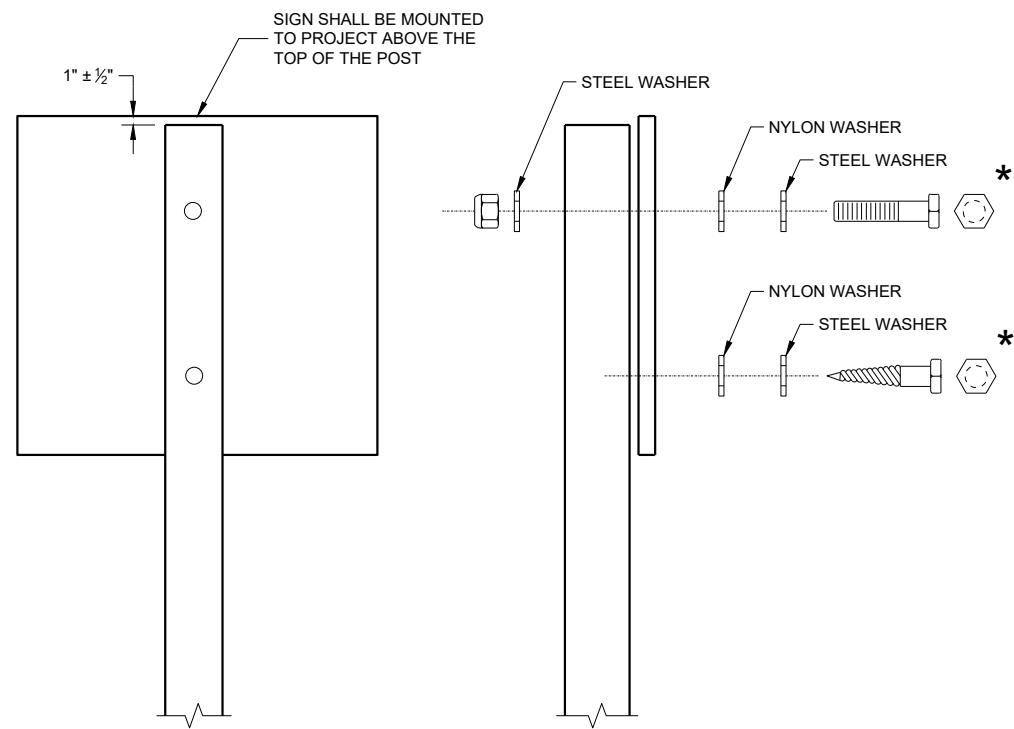
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 182



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

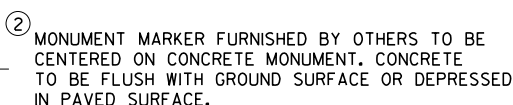
SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

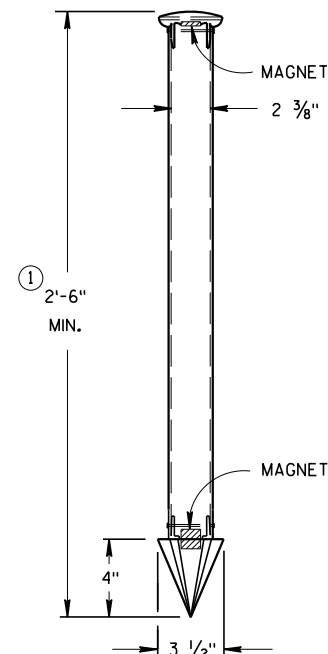
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 183

FHWA



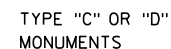
PRECAST



TYPE C

**TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT**

(INCLUDES MARKER)



SECTION B-B SECTION A-A

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



(APPROXIMATE WEIGHT 95 LBS)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

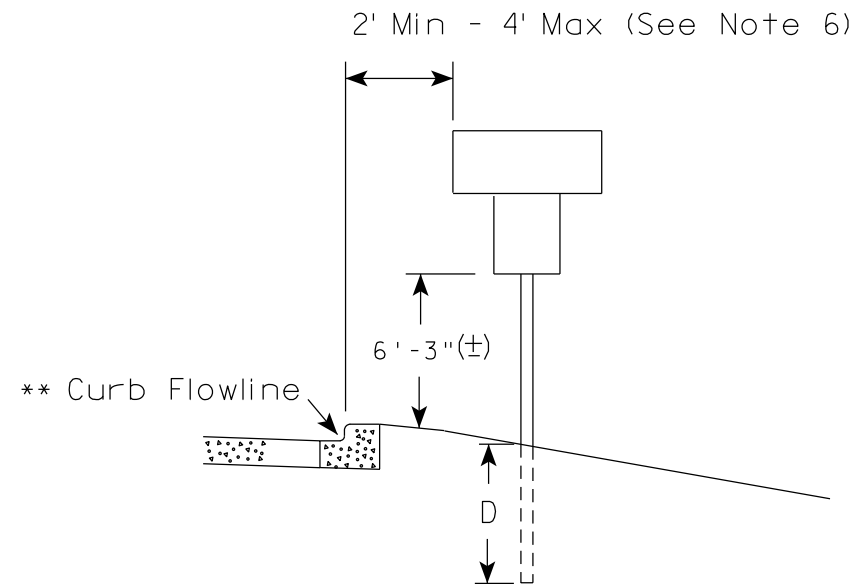
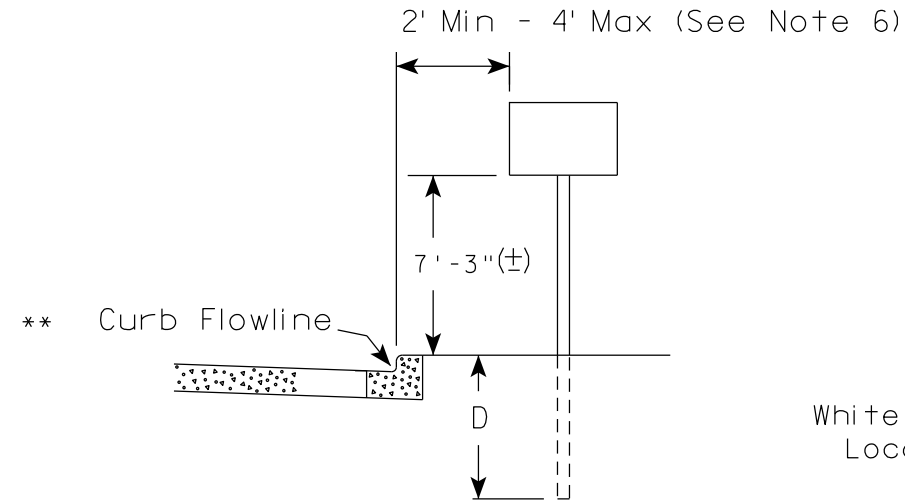
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

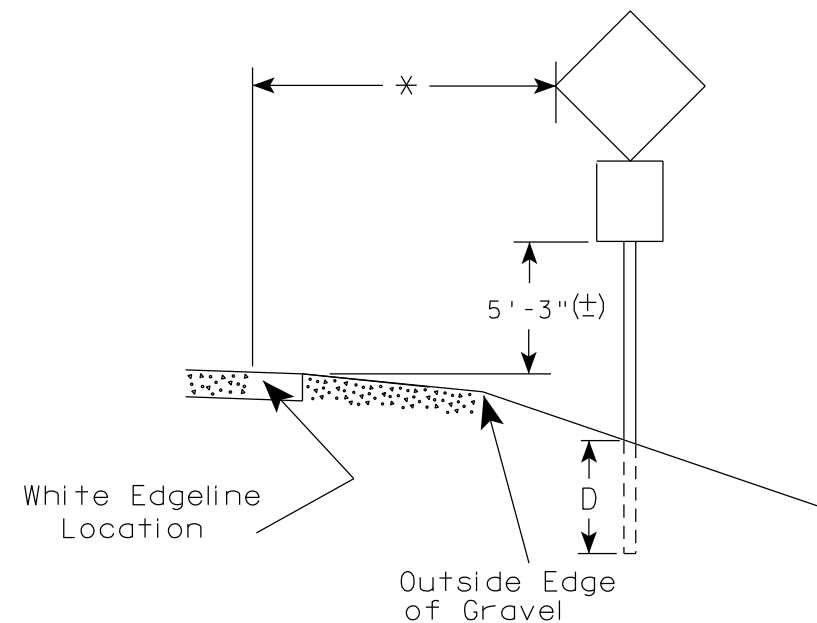
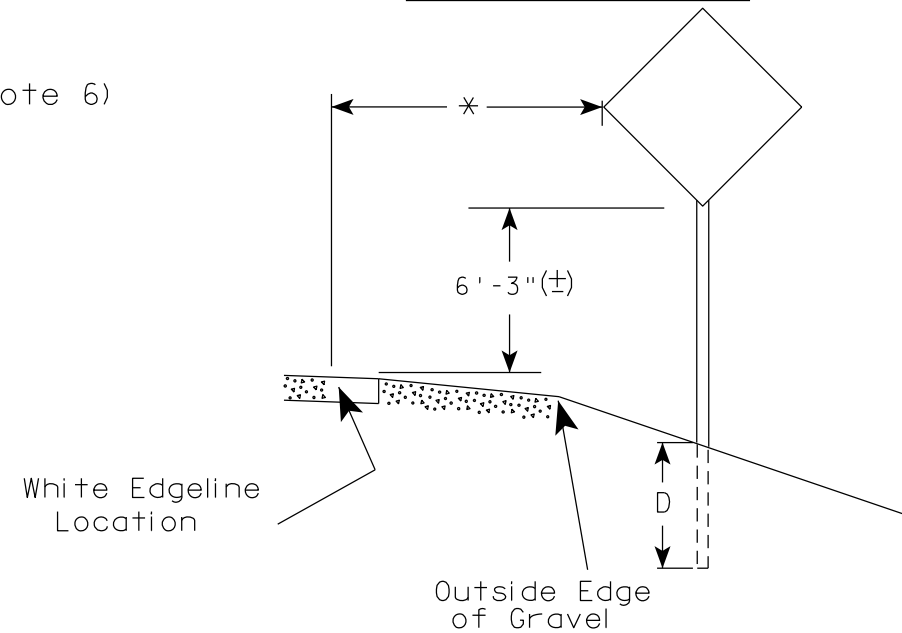
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

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

- Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
- If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
- For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
- Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- The (±) tolerance for mounting height is 3 inches.
- Folding signs shall be mounted at a height of 5'-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 5/13/2020 PLATE NO. A4-3.22

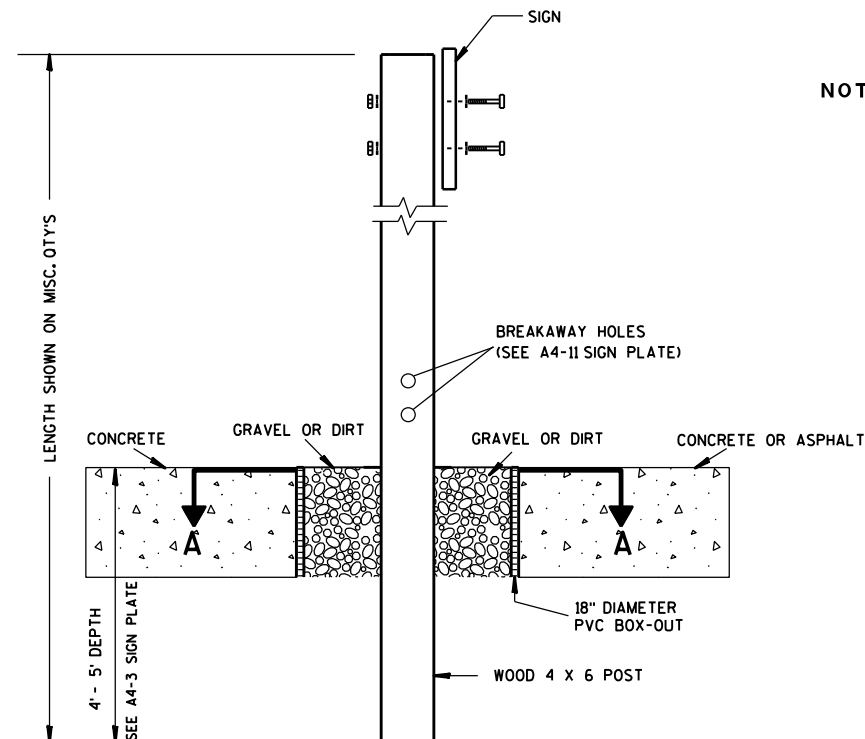
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 185

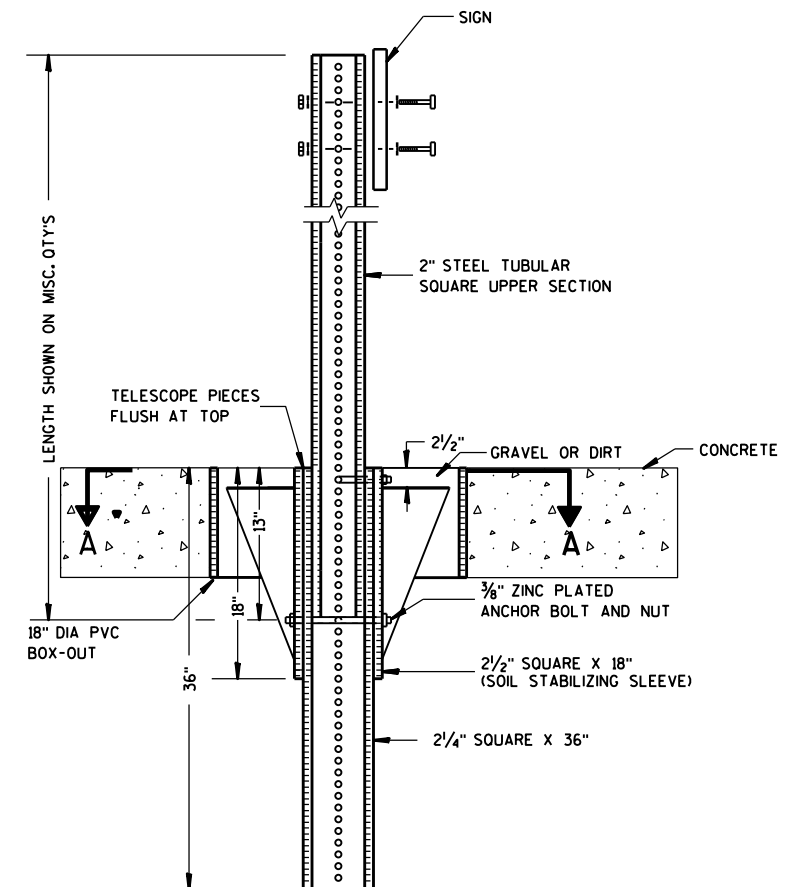
E



ELEVATION VIEW

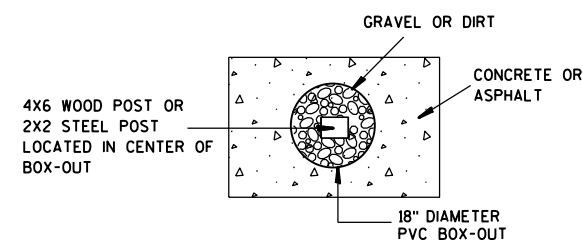
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 186 A4-3B.1

PROJECT NO:

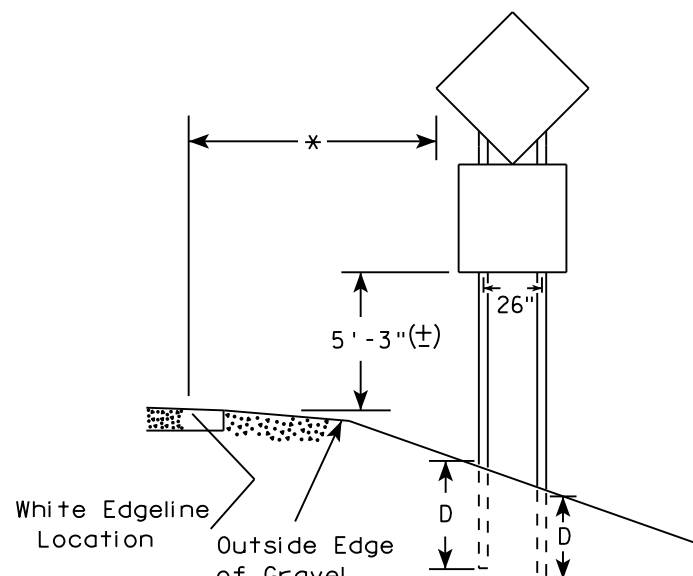
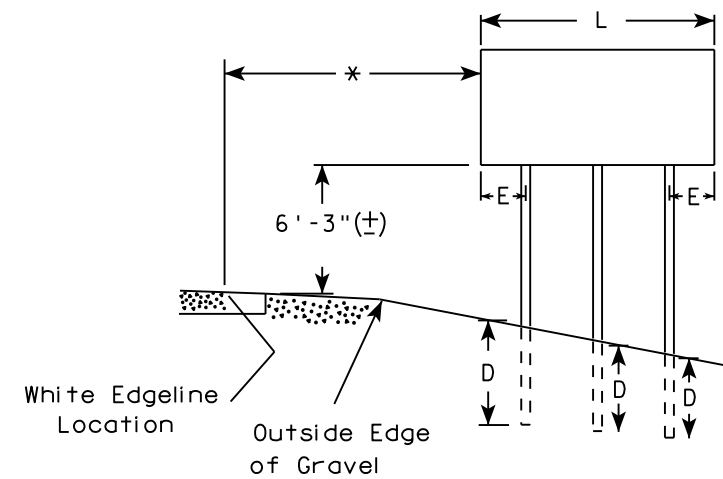
HWY:

COUNTY:

SHEET NO:

E

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" ($\pm$) or 6'-3" ($\pm$) depending upon existence of sub-sign.
4. The ($\pm$) 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" ($\pm$) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" ($\pm$). 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" ($\pm$).



48" DIAMOND WARNING SIGN

* * 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.

POST EMBEDMENT DEPTH

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

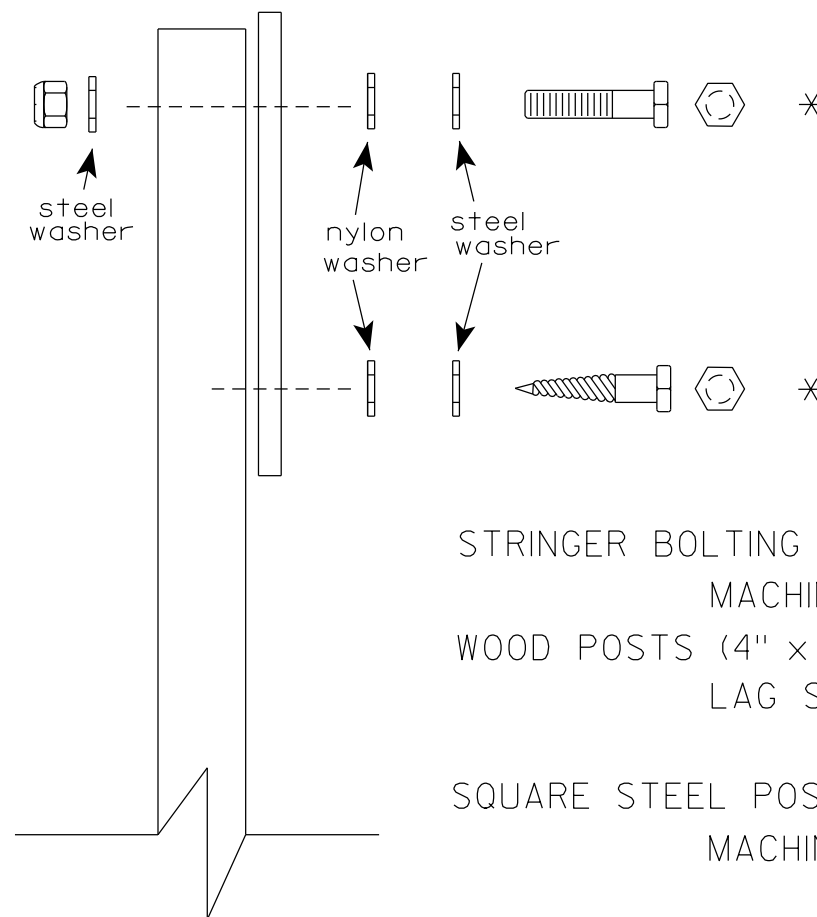
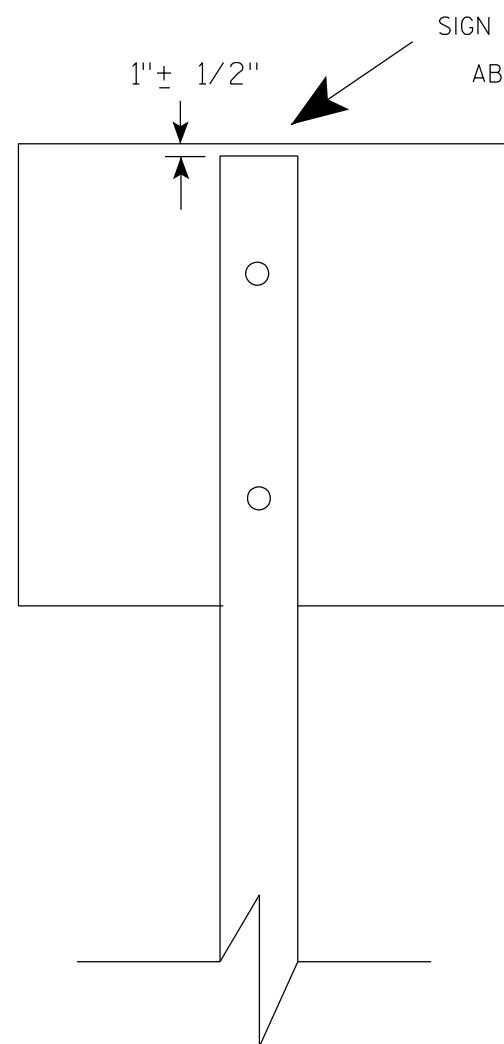
WISCONSIN DEPT OF TRANSPORTATION

Matthew R Rauch
for State Traffic Engineer

PLATE NO. A4-4.15

***	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"



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.

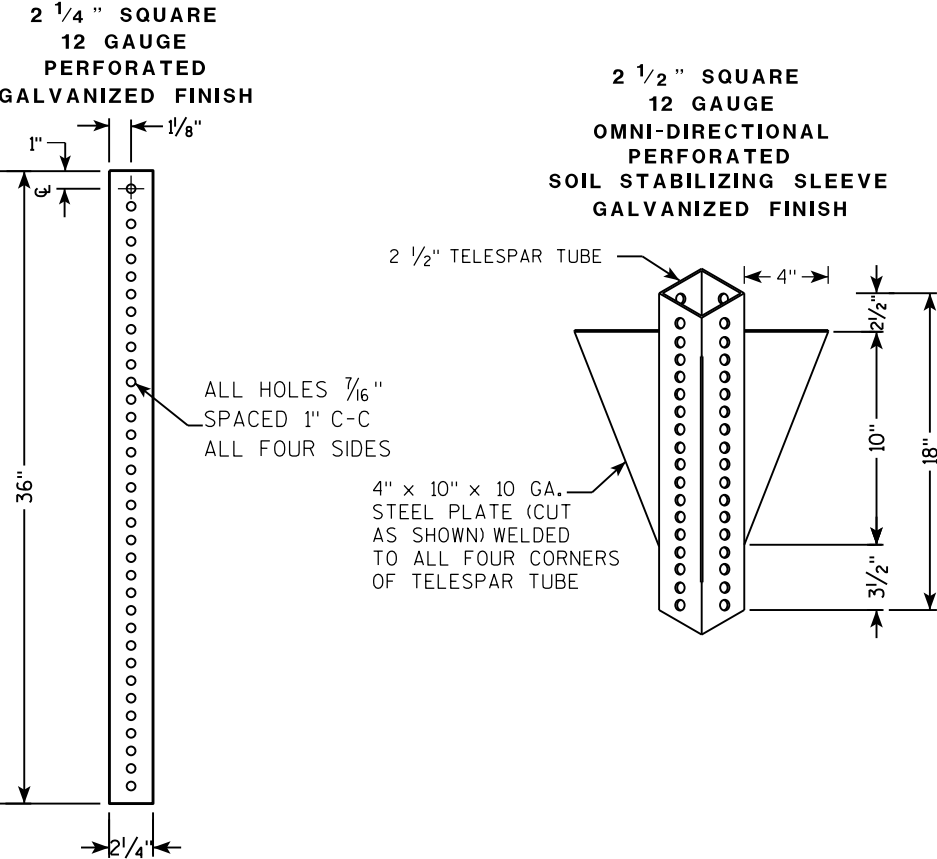
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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

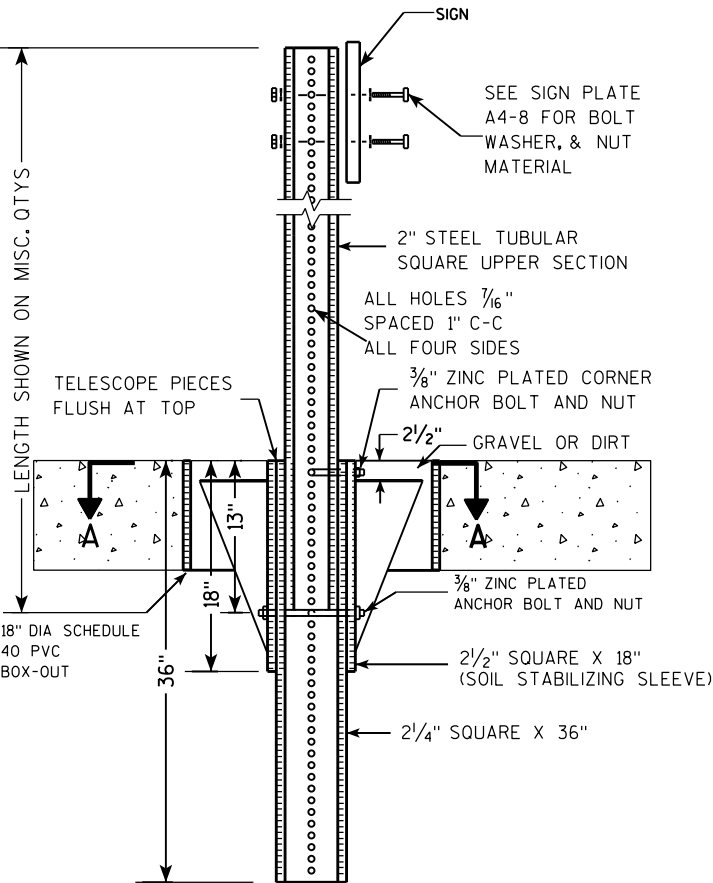
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

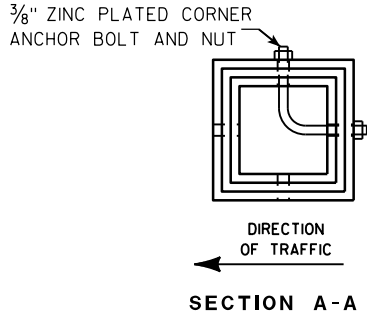
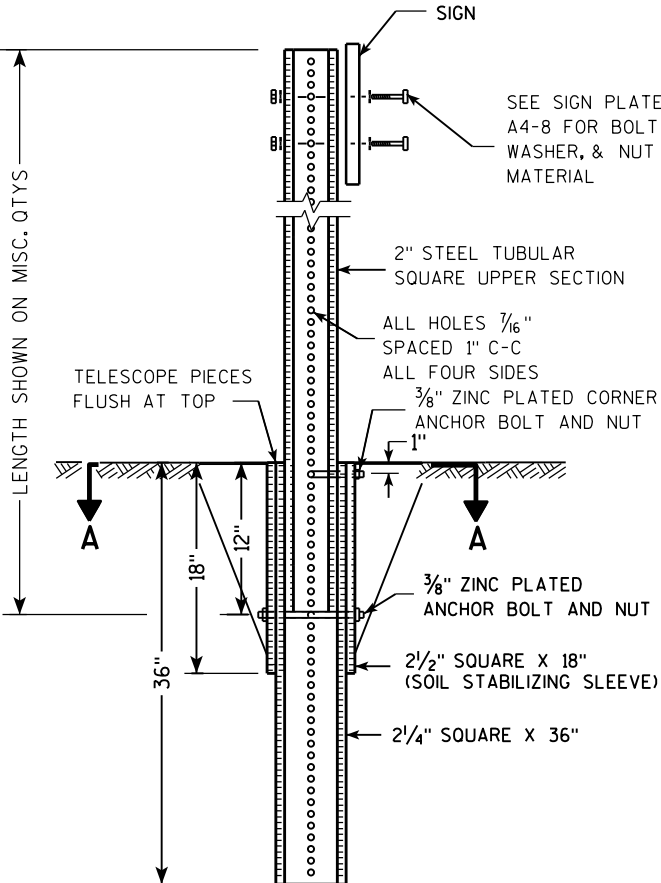
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

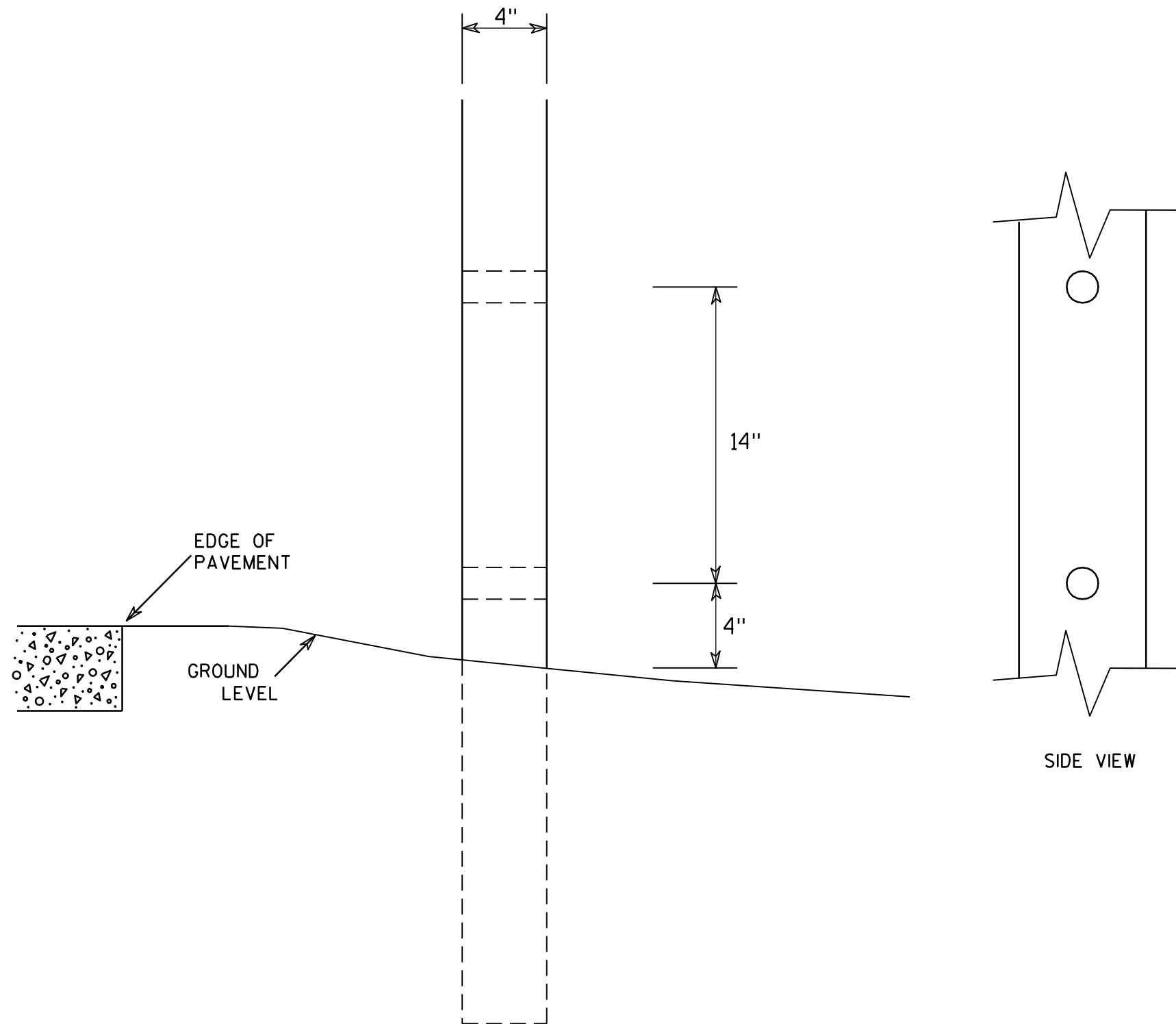
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 189 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

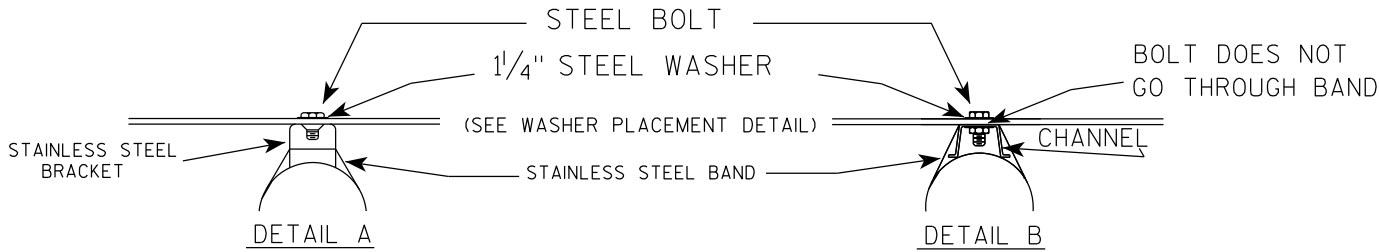
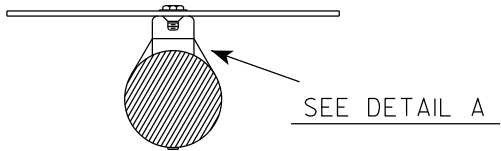
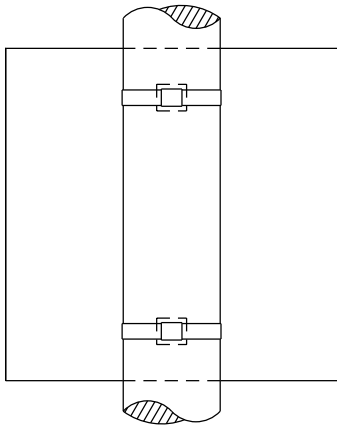
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J. Spang*
for State Traffic Engineer

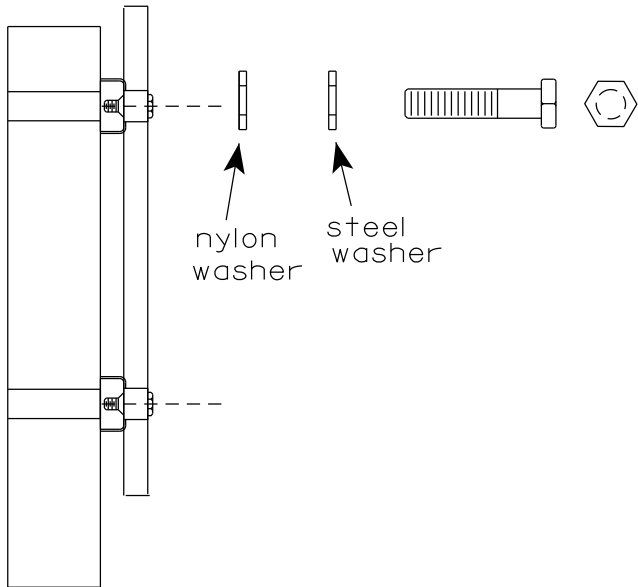
DATE 3/27/97 PLATE NO. A4-11.2

BANDING

SINGLE SIGN



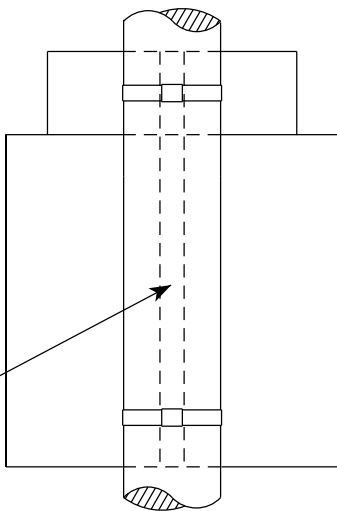
WASHER PLACEMENT



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

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

"J" ASSEMBLY



SEE DETAIL B

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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

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

VIEW FROM
BACK

VIEW FROM SIDE

VIEW FROM TOP

GENERAL NOTES

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

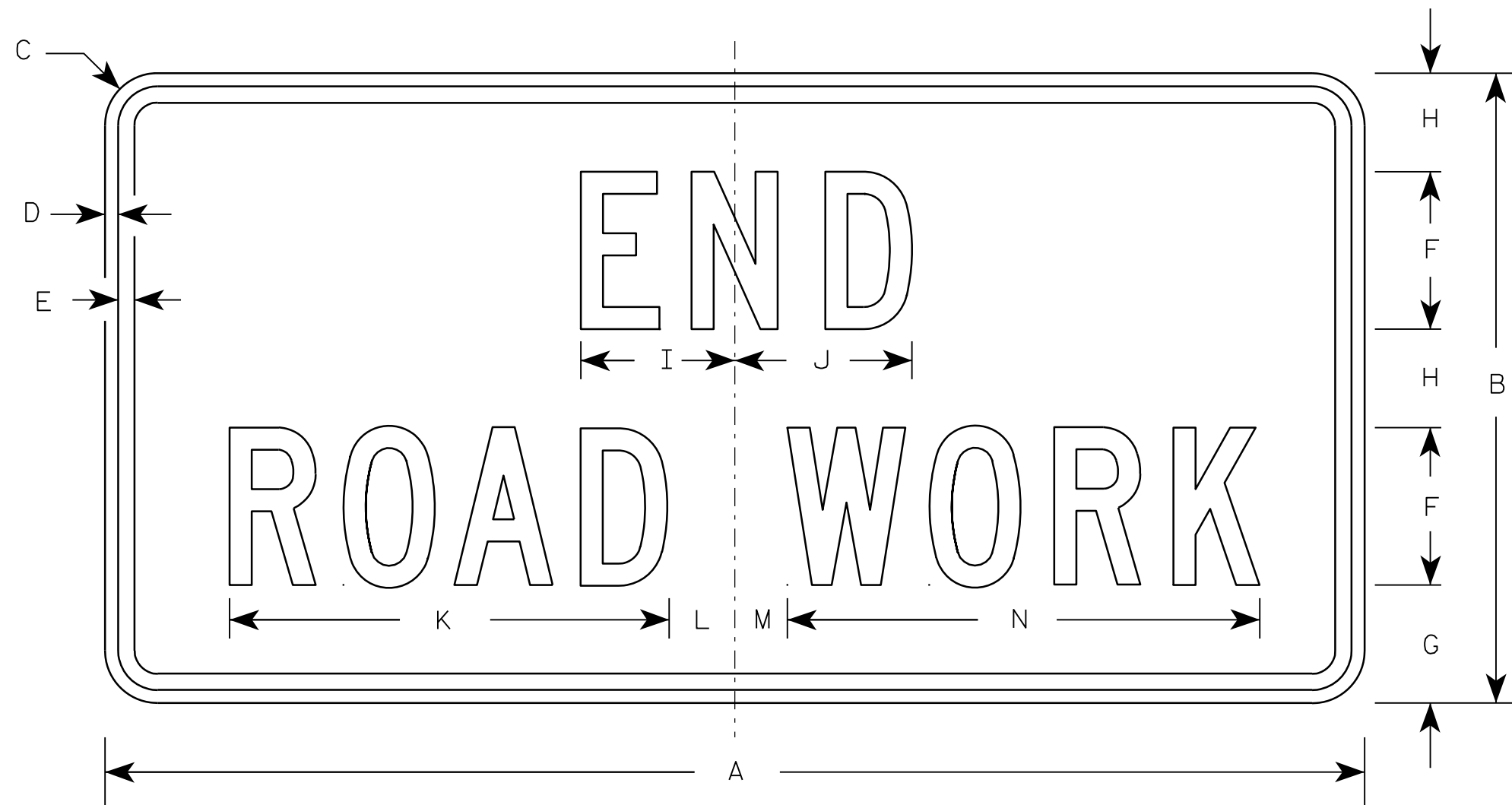
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 192

E

7



G20-2A

NOTES

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

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN

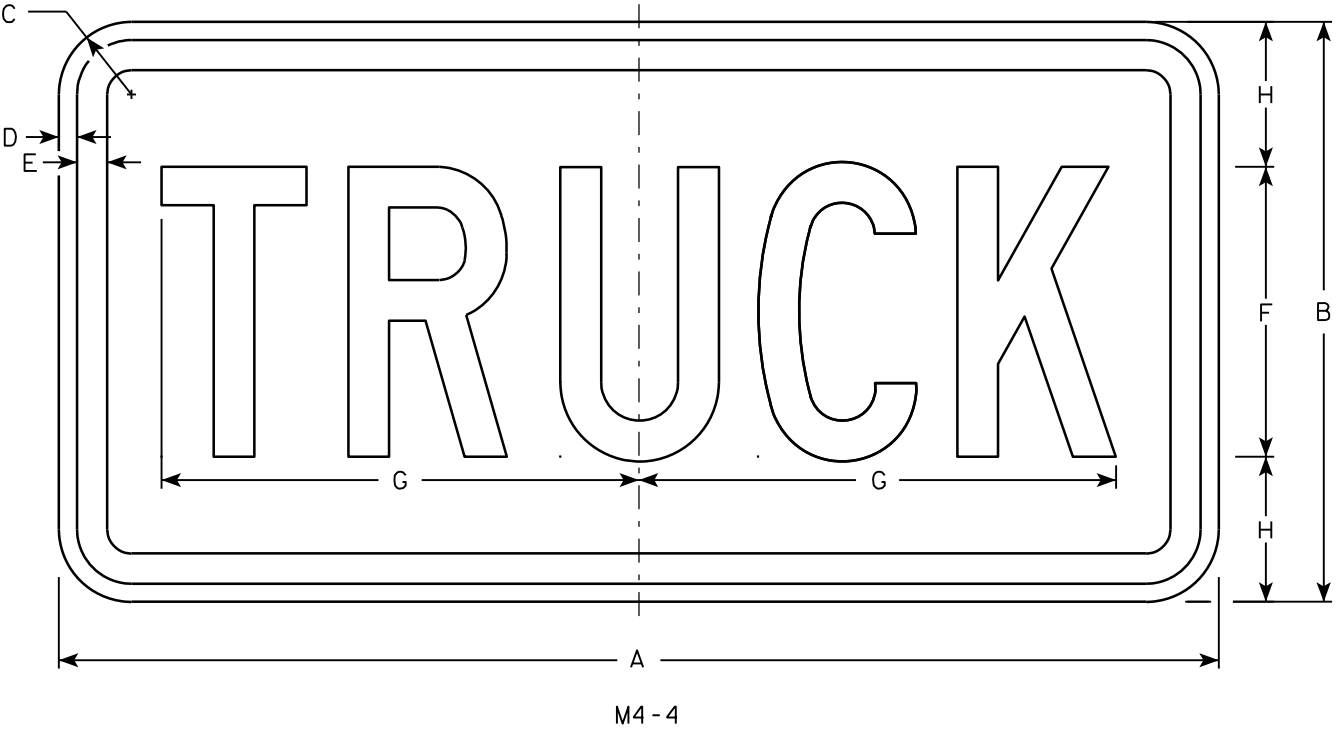
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

7



NOTES

- 1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - White - See Note 5
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Permanent Signs
 - Background - Type H ReflectiveTemporary or other temporary Signs
 - Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/2	3/8	3/8	6	9 7/8	3																			2.0
3	36	18	1 1/2	3/8	1/2	9	15 5/8	4 1/2																			4.5
4																											
5																											

STANDARD SIGN

M4 - 4

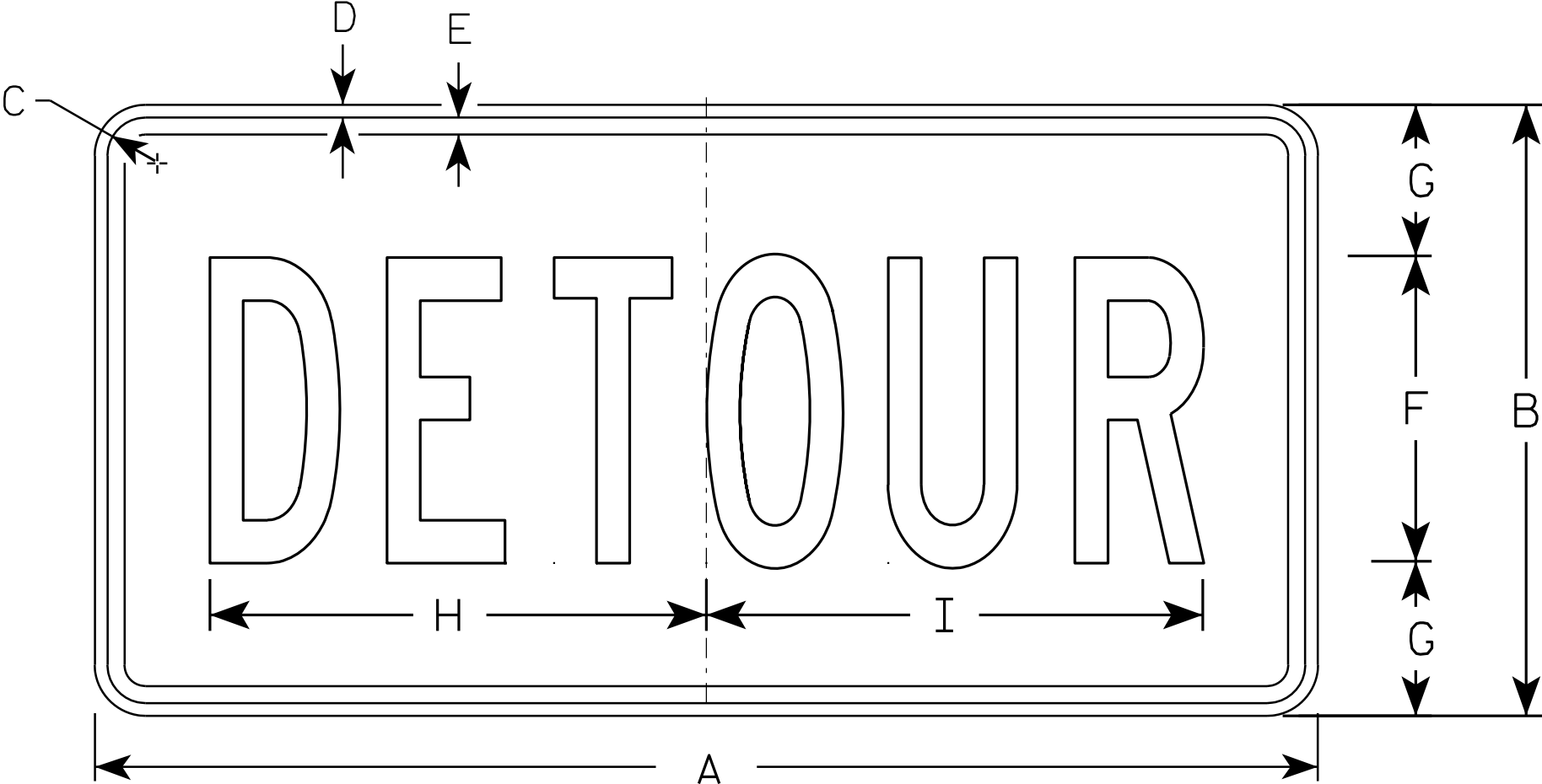
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-4.3

NOTES

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



M4 - 8

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	Areg. sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

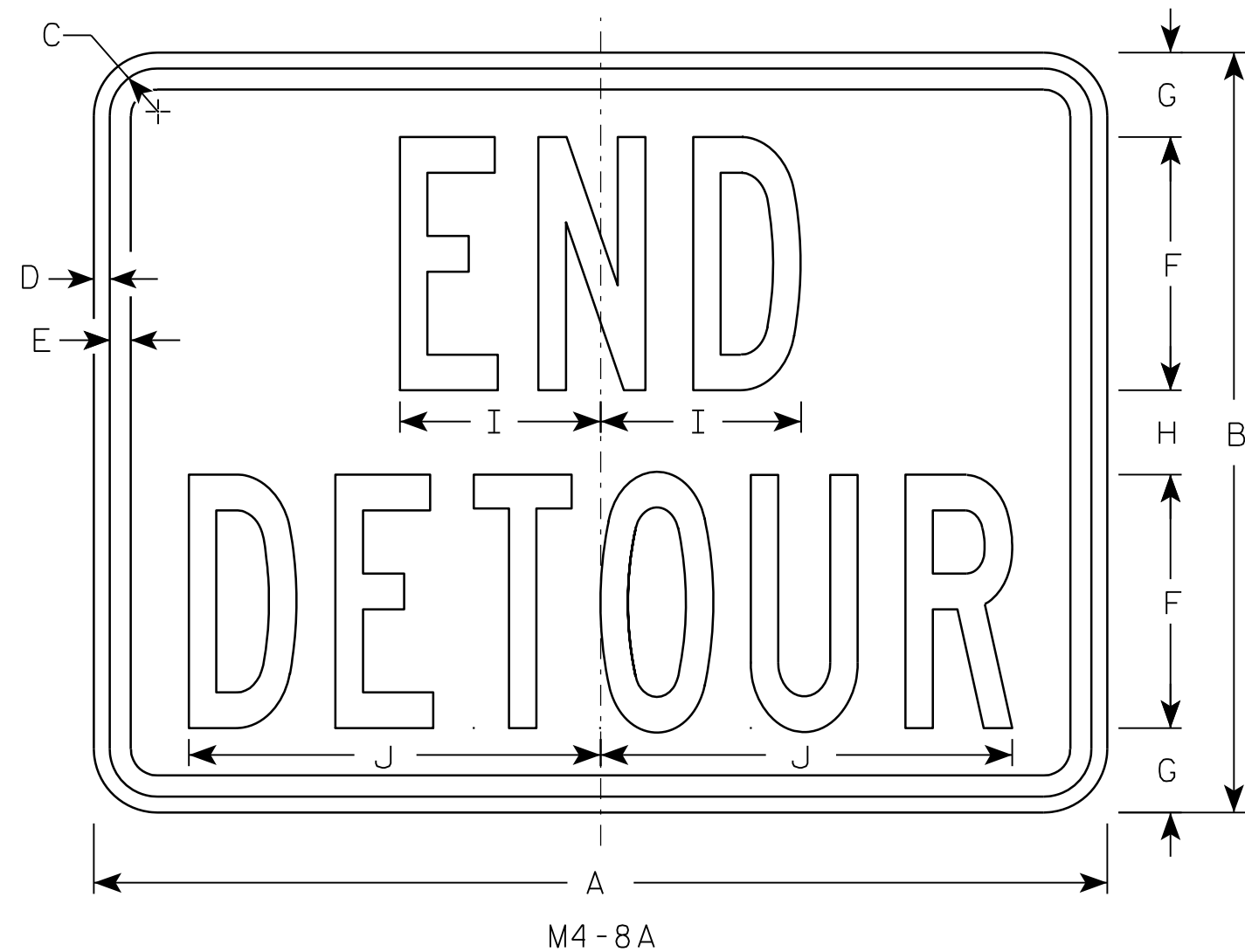
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

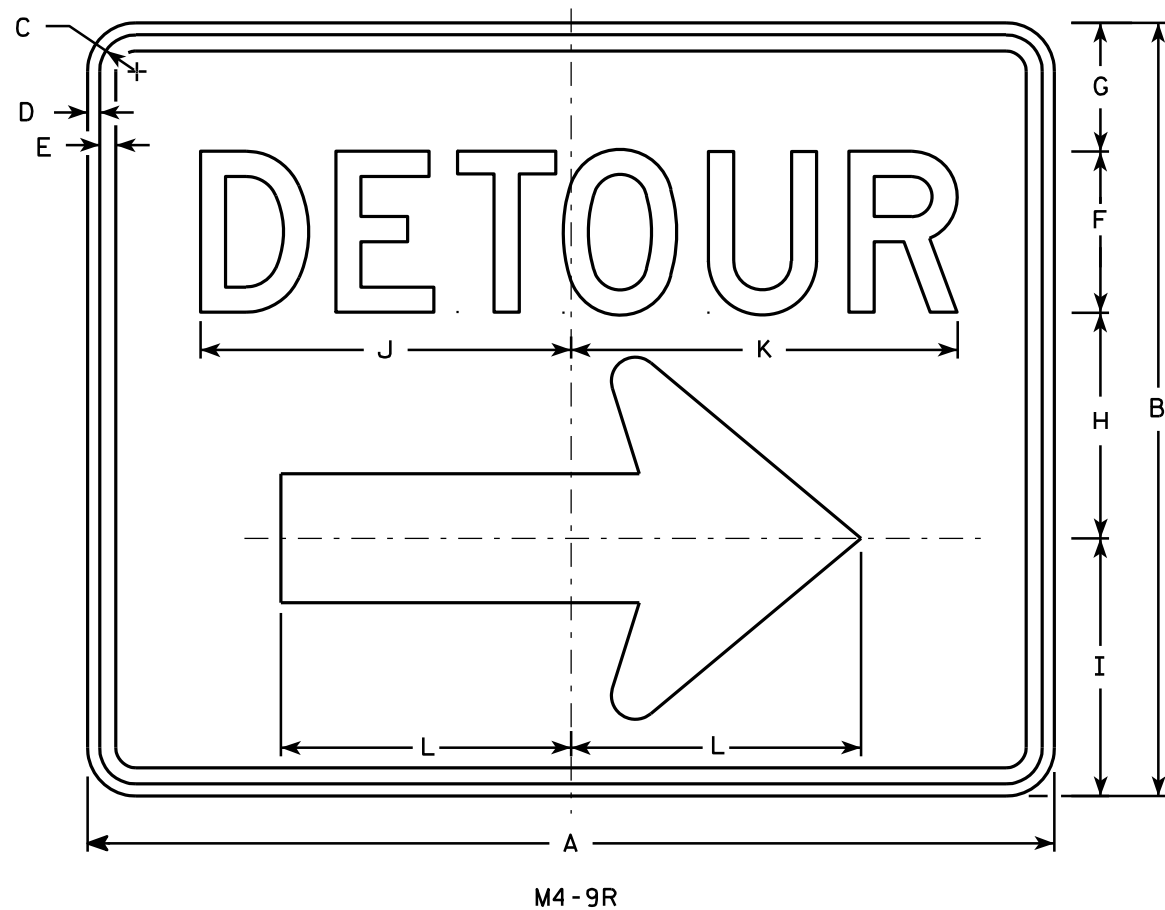
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 196	E
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STANDARD SIGN
M4-8A

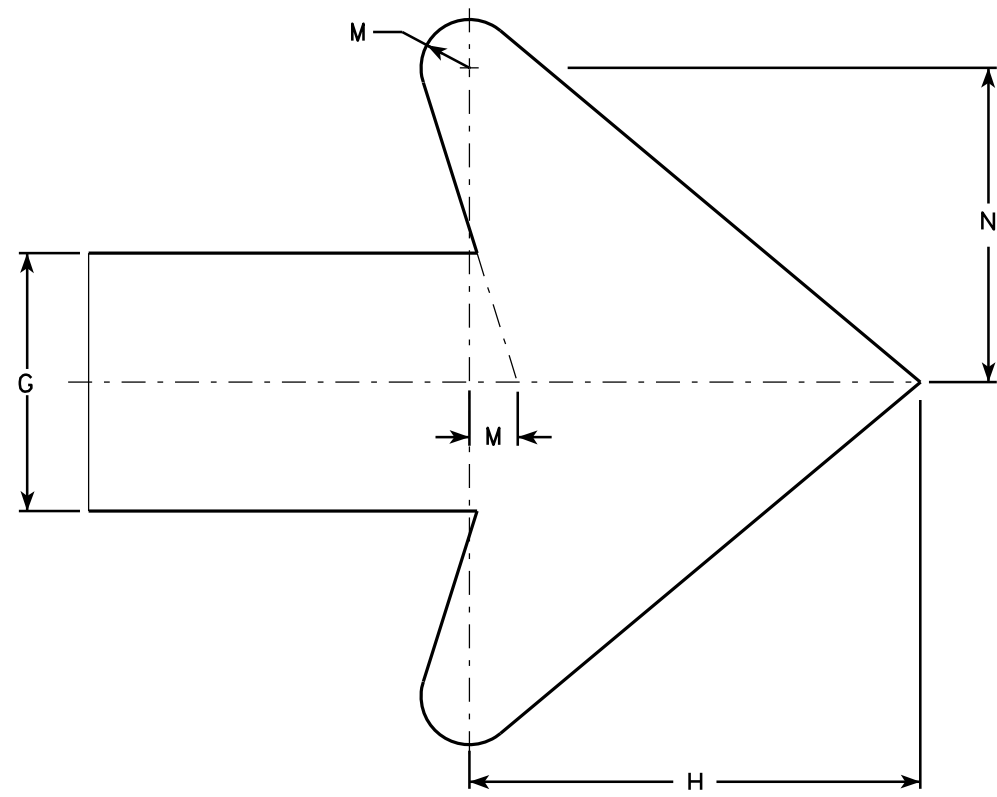
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

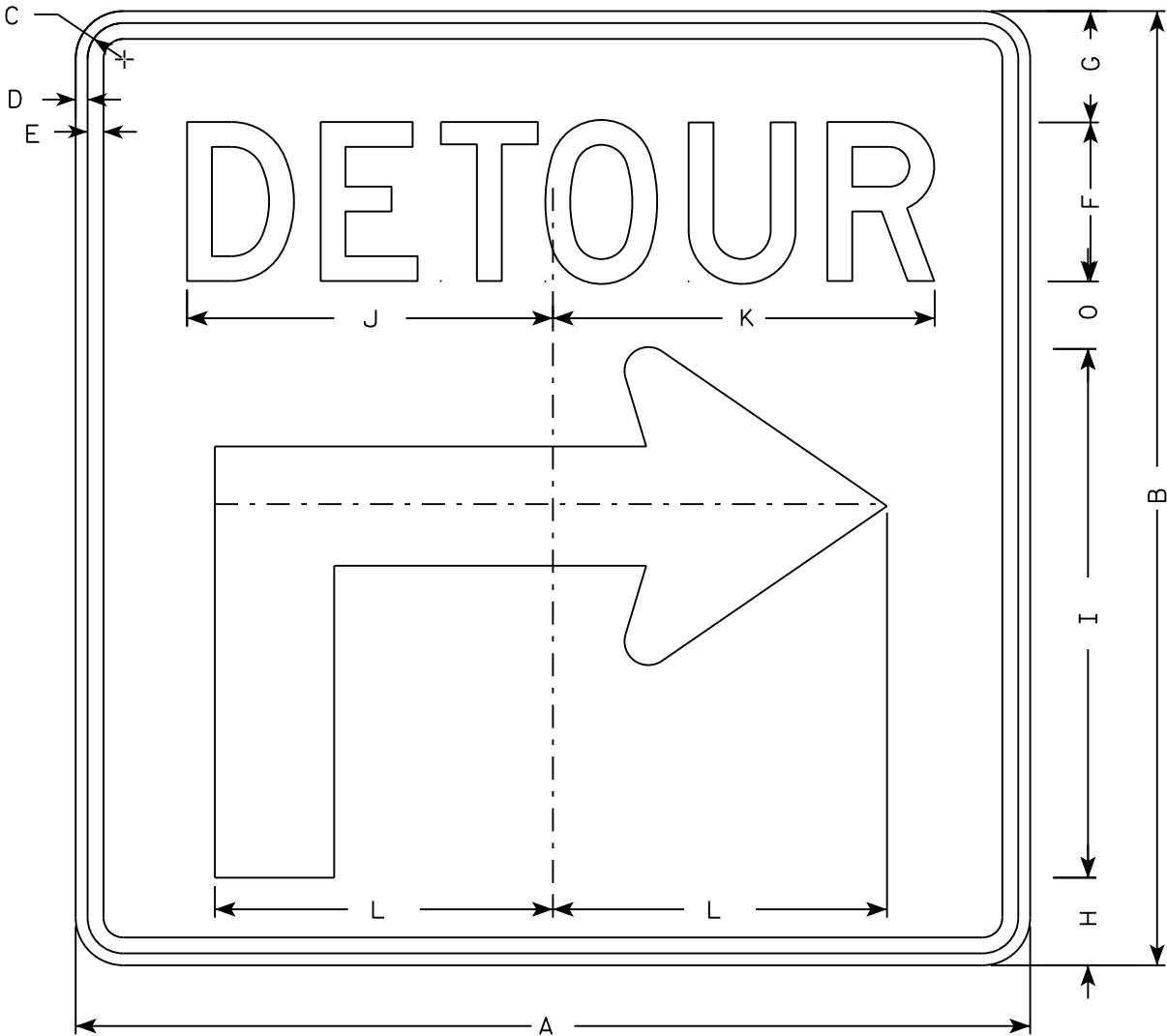
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 197

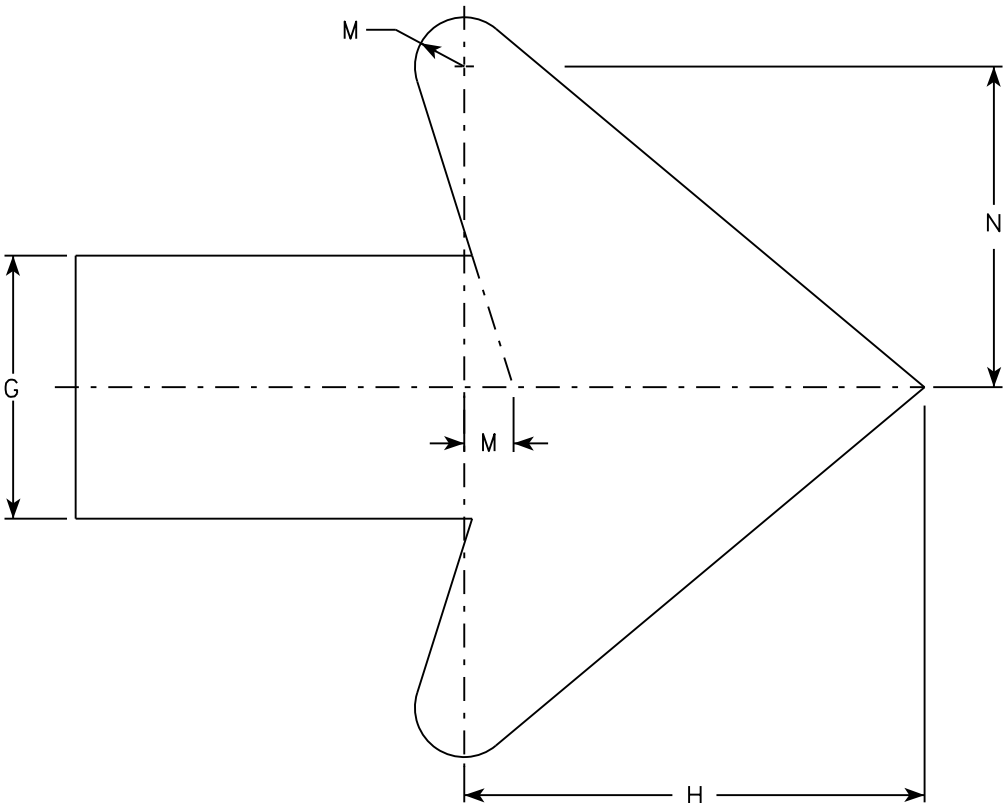
E



M4-59R

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.
- 5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

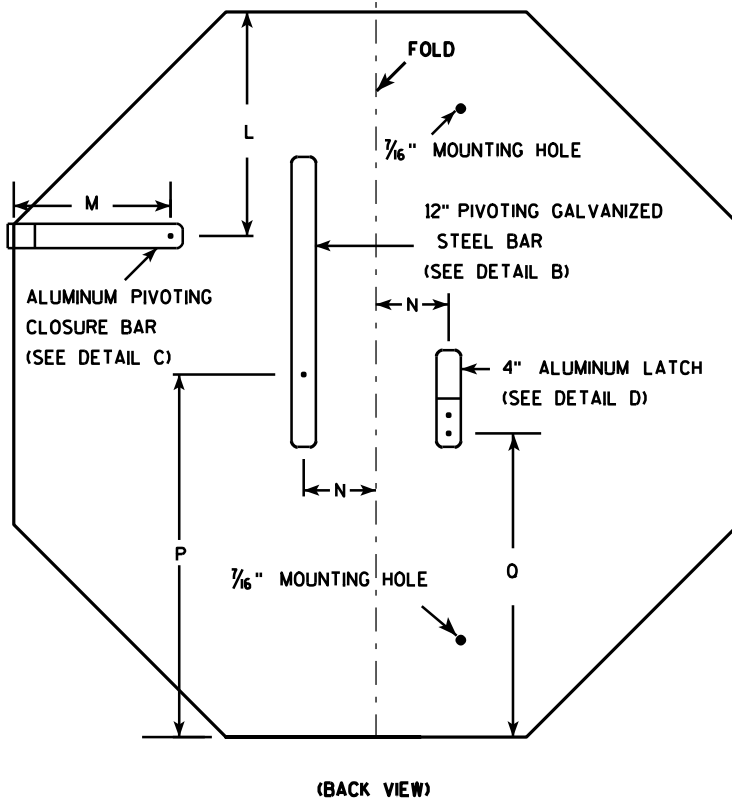
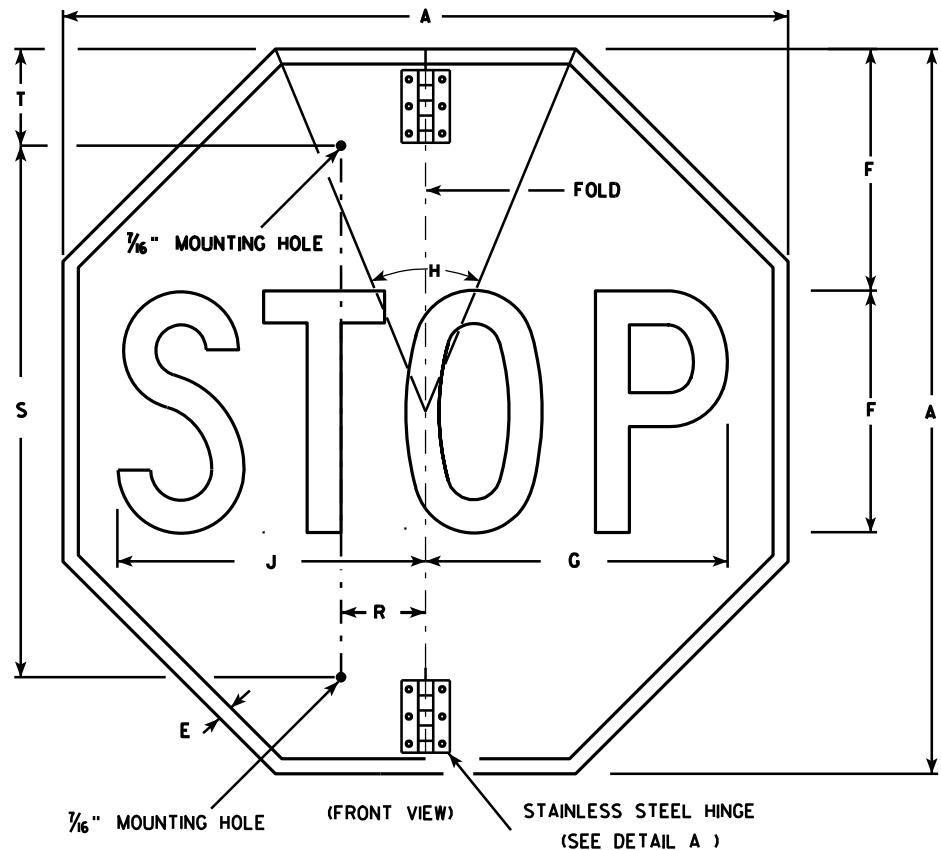
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

STANDARD SIGN
M4-59 L&R

WISCONSIN DEPT OF TRANSPORTATION

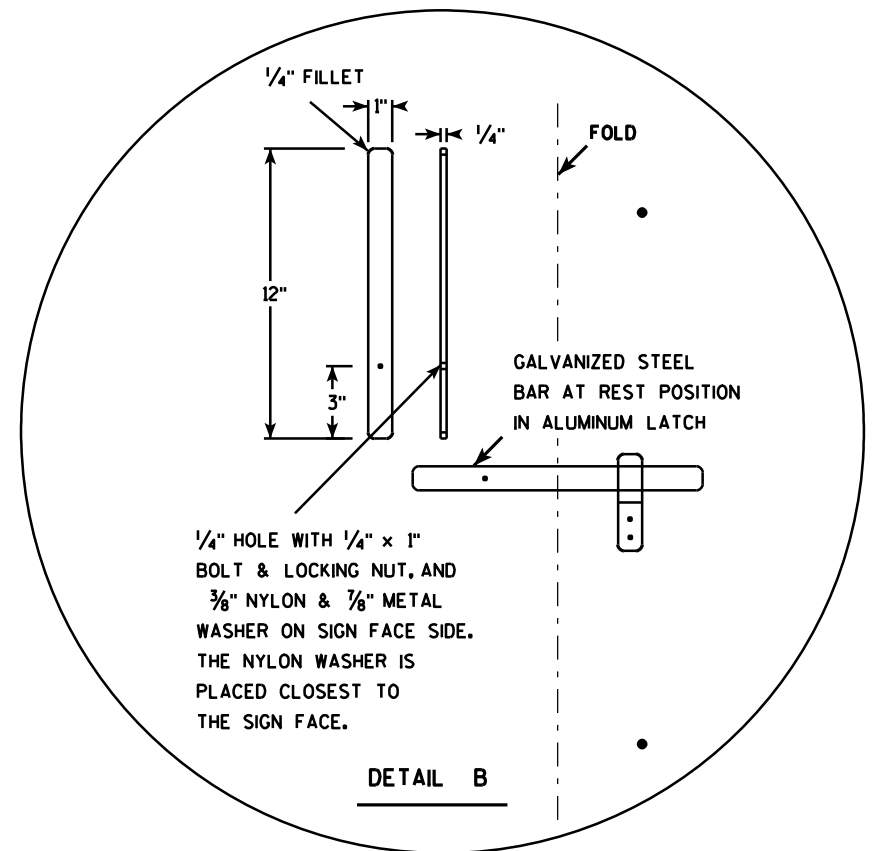
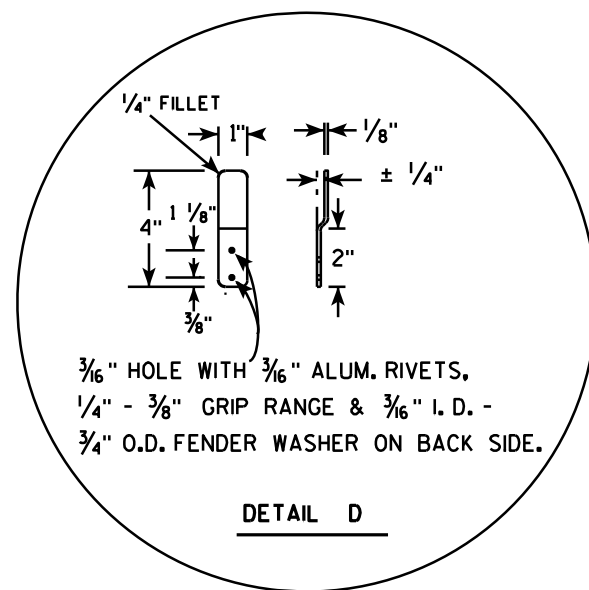
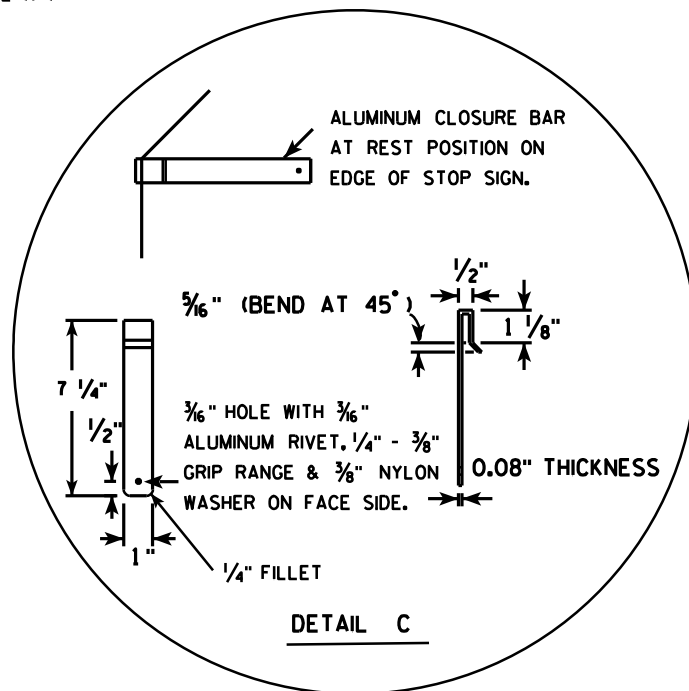
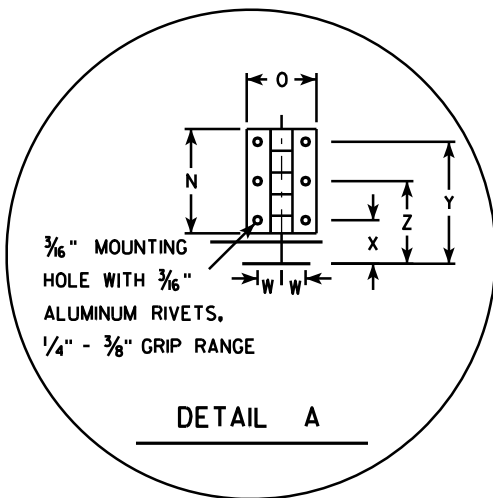
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE 198 M4-59.1



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Red
Message - White
- Message Series - C
- All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				$\frac{5}{8}$	10	12 $\frac{1}{2}$	45		12 $\frac{3}{4}$		9 $\frac{1}{4}$	6 $\frac{1}{2}$	3	2	15	12 $\frac{3}{8}$	2 $\frac{1}{2}$	22	5			$\frac{11}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	5.18
2M	36				$\frac{3}{4}$	12	15	45		15 $\frac{3}{8}$		11	6 $\frac{1}{2}$	3	2	18	15 $\frac{3}{8}$	2 $\frac{1}{2}$	26	5			$\frac{11}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	7.46
3	36				$\frac{3}{4}$	12	15	45		15 $\frac{3}{8}$		11	6 $\frac{1}{2}$	3	2	18	15 $\frac{3}{8}$	2 $\frac{1}{2}$	26	5			$\frac{11}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	7.46
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 199	E
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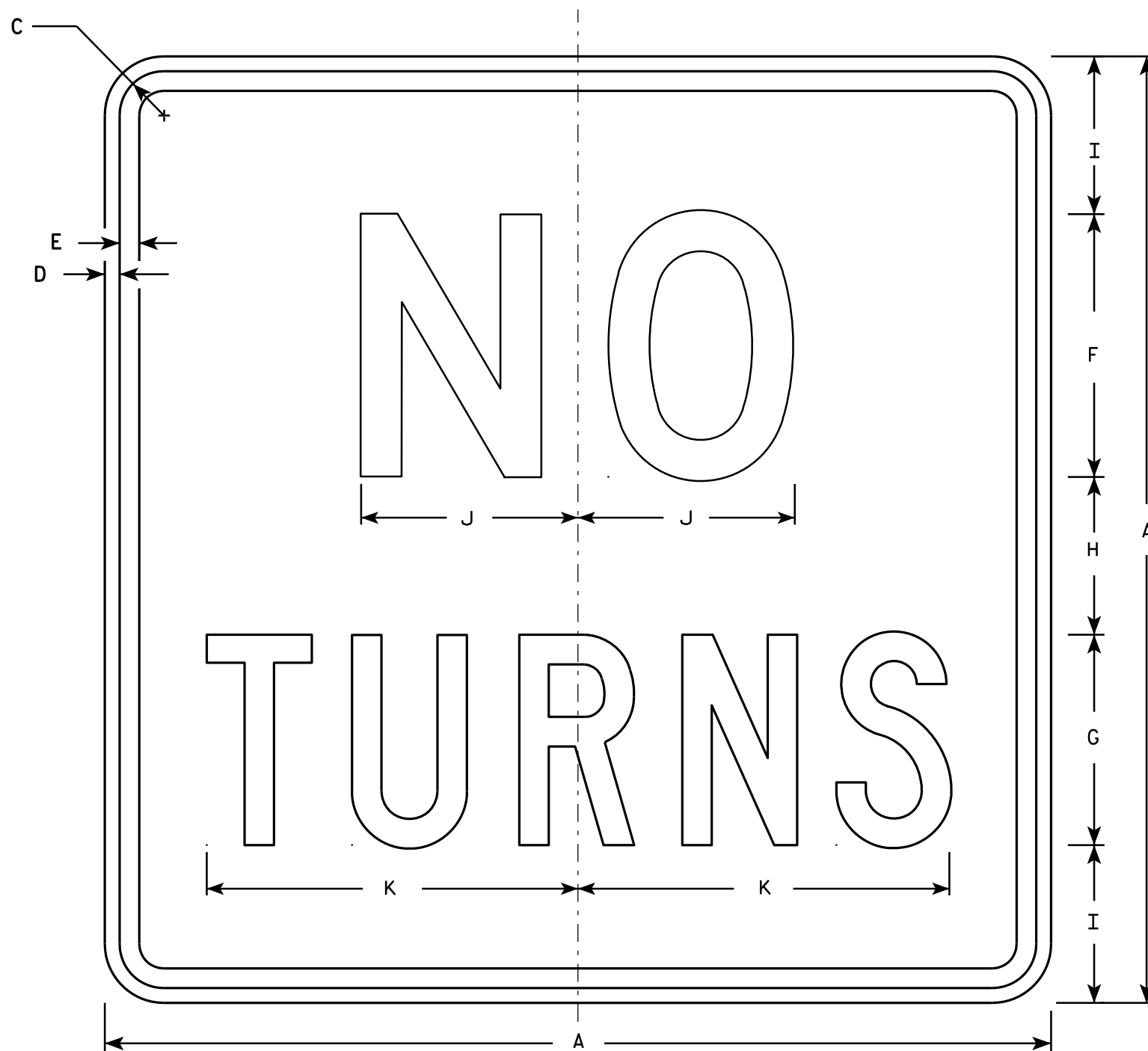
STANDARD SIGN

R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3



R3-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D and Line 2 is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	6	5	4	4 1/2	5 1/8	8 3/4																4.0
2M	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
3	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
4	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
5	48		2 1/4	3/4	1	12	10	8	9	10 1/4	17 5/8																16.0

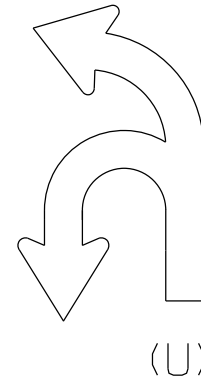
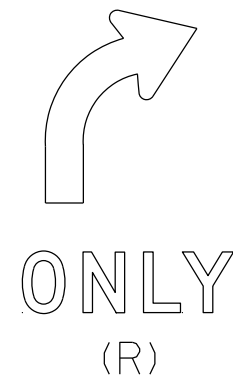
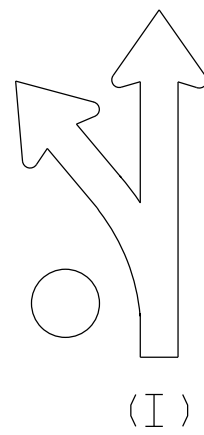
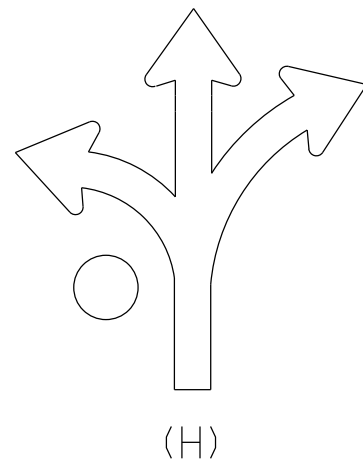
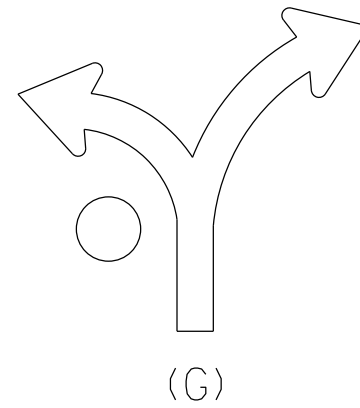
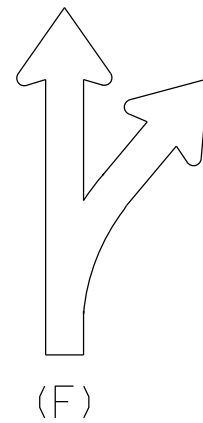
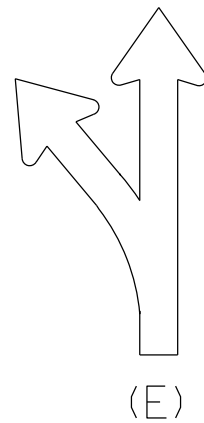
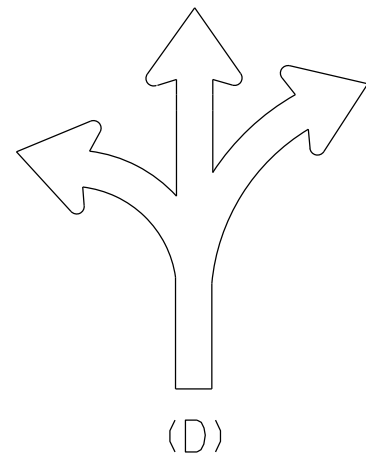
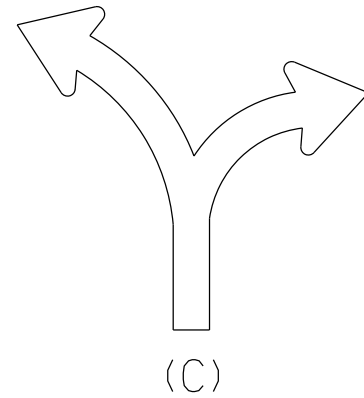
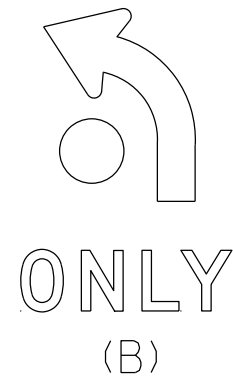
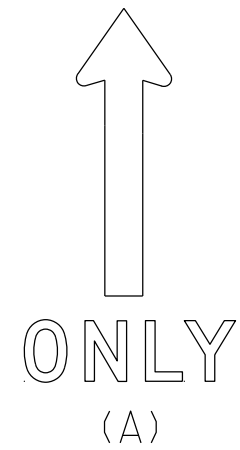
STANDARD SIGN
R3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-3.10

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 200	E
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NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1 Letter = 3.75 sq ft for Size 2

6.0 sq ft for Size 3

10.0 sq ft for Size 4 or 5

2 Letters = 7.5 sq ft for Size 2

12.0 sq ft for Size 3

20.0 sq ft for Size 4 or 5

3 Letters = 11.25 sq ft for Size 2

18.0 sq ft for Size 3

30.0 sq ft for Size 4 or 5

4 Letters = 15.0 sq ft for Size 2

24.0 sq ft for Size 3

40.0 sq ft for Size 4 or 5

5 Letters = 18.75 sq ft for Size 2

30.0 sq ft for Size 3

50.0 sq ft for Size 4 or 5

6 Letters = 22.5 sq ft for Size 2

36.0 sq ft for Size 3

60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq.Ft. changes.

Add the amounts when these letters are used:

1.25 sq ft for Size 2

1.5 sq ft for Size 3

2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

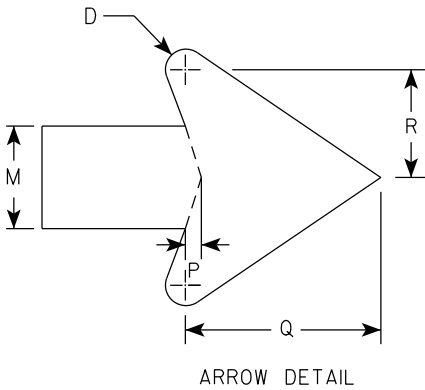
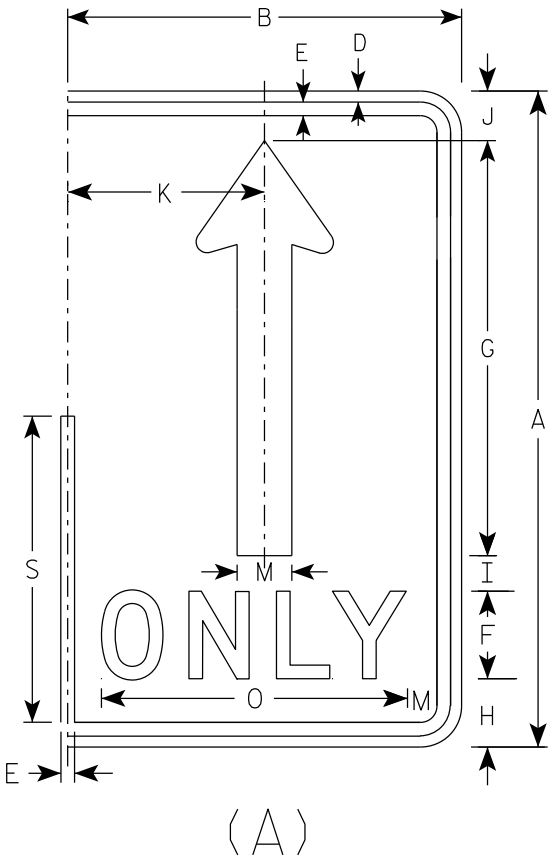
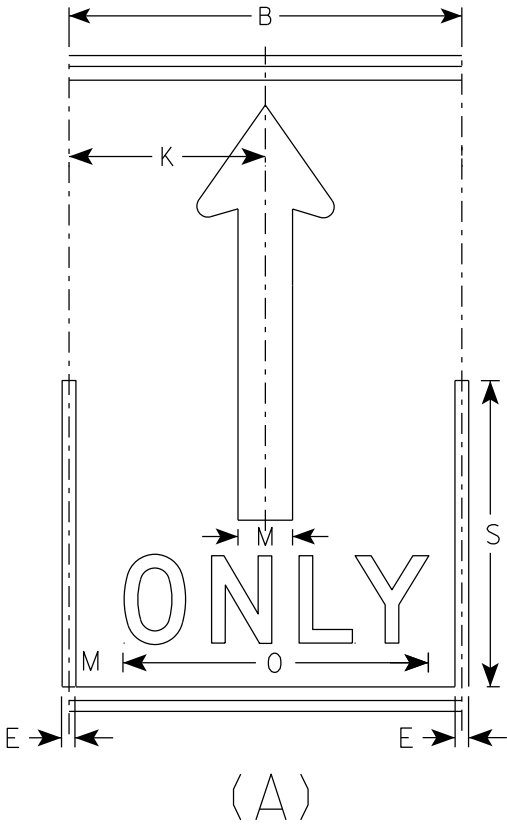
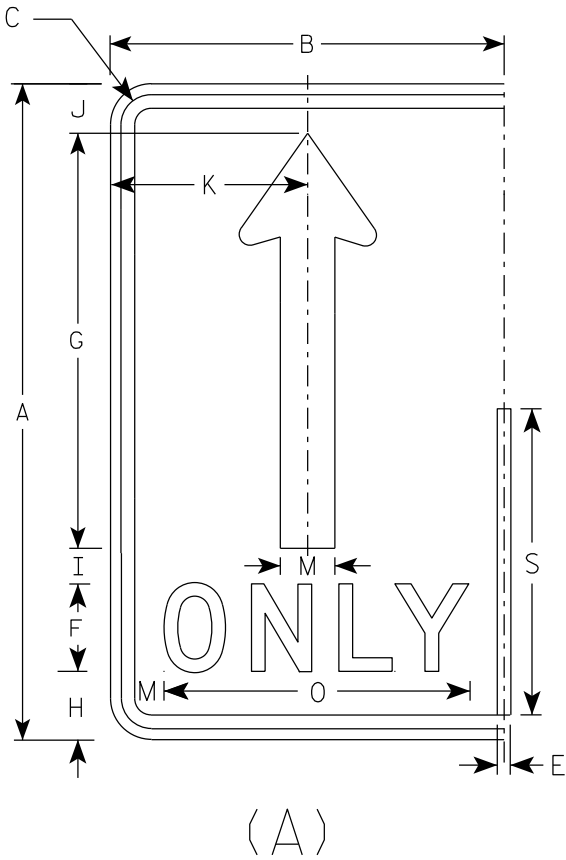
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	19	3 1⁄8	1 5⁄8	2 1⁄4	9		2 1⁄2		14	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	19	3 1⁄8	1 5⁄8	2 1⁄4	9		2 1⁄2		14	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	22 3⁄4	3 3⁄4	1 3⁄4	2 3⁄4	12		3		17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1	6	30 3⁄8	5 1⁄8	2 7⁄8	3 5⁄8	15		4		21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1	6	30 3⁄8	5 1⁄8	2 7⁄8	3 5⁄8	15		4		21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

7

7

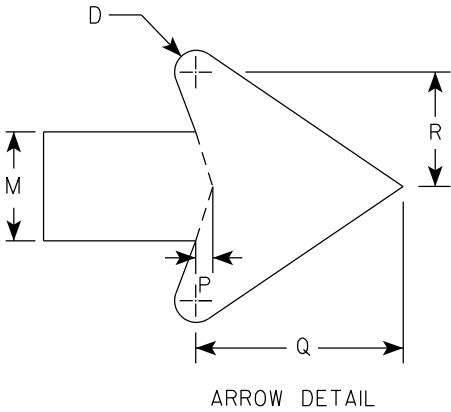
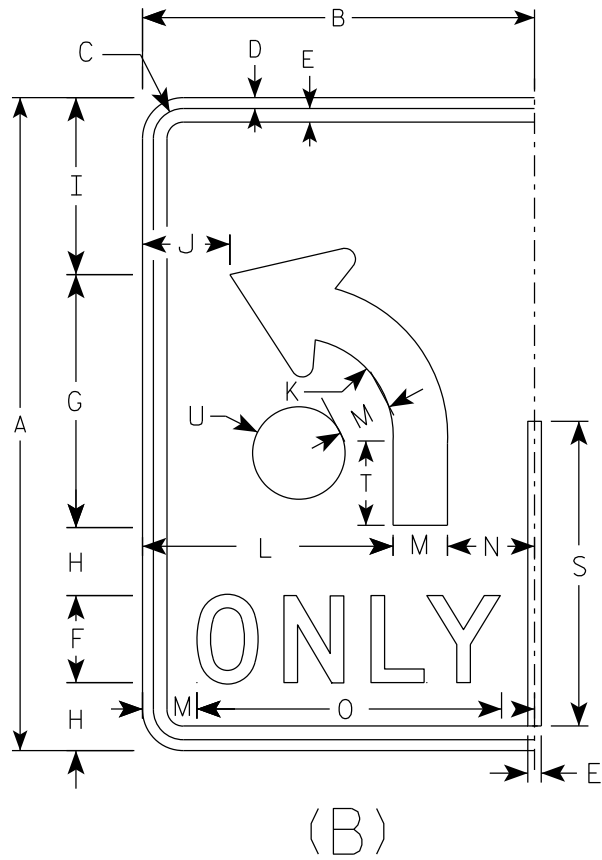
NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black

Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8	2 1⁄8						3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8	2 1⁄8						3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	14	3 1⁄2	9 3⁄4	6	5 3⁄8	15	3	6	17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	4 5⁄8	2 1⁄2						6.0
4	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4	3 3⁄8						10.0
5	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4	3 3⁄8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

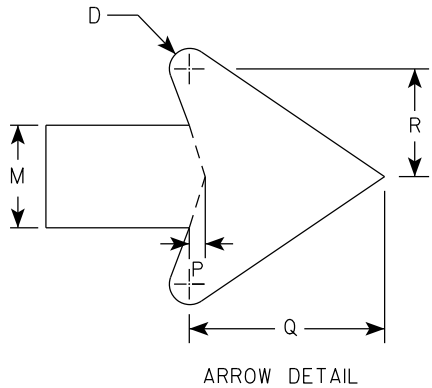
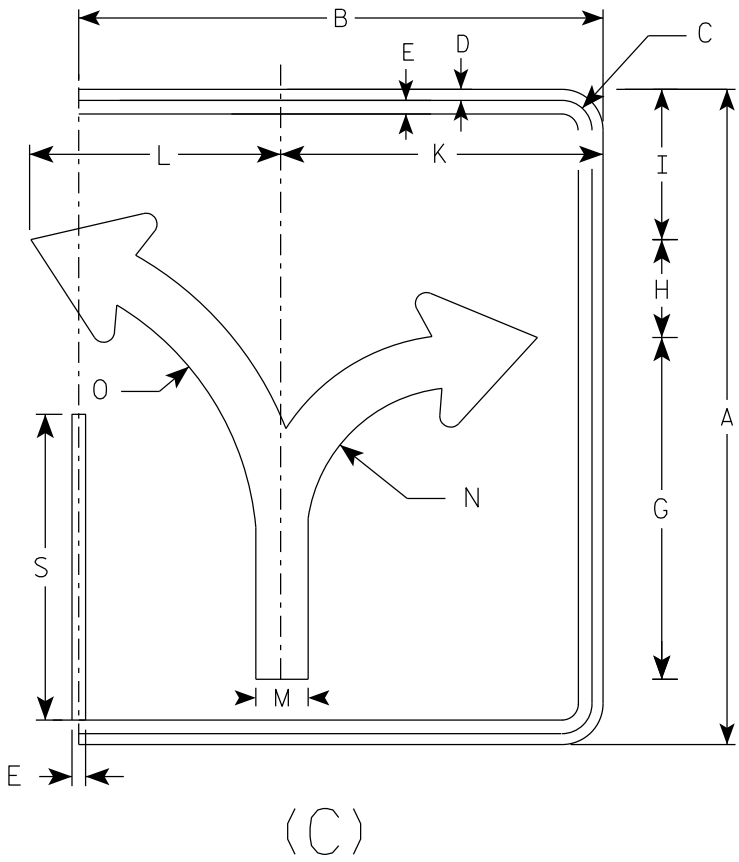
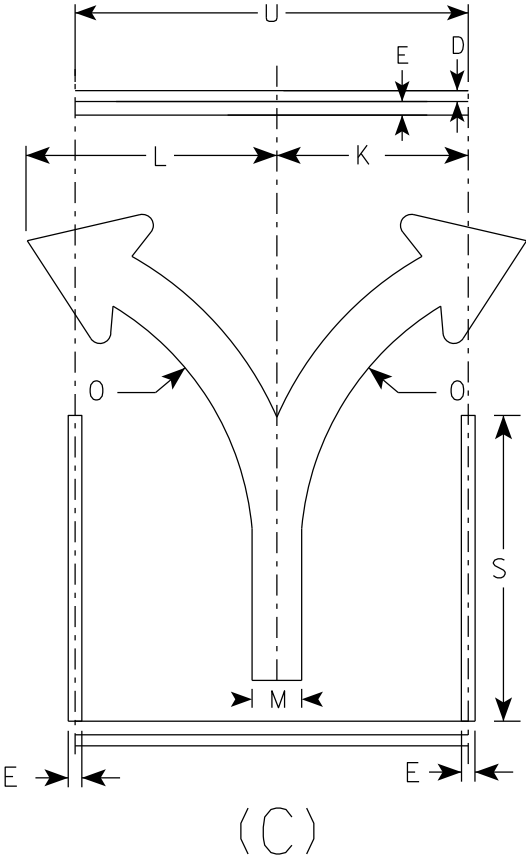
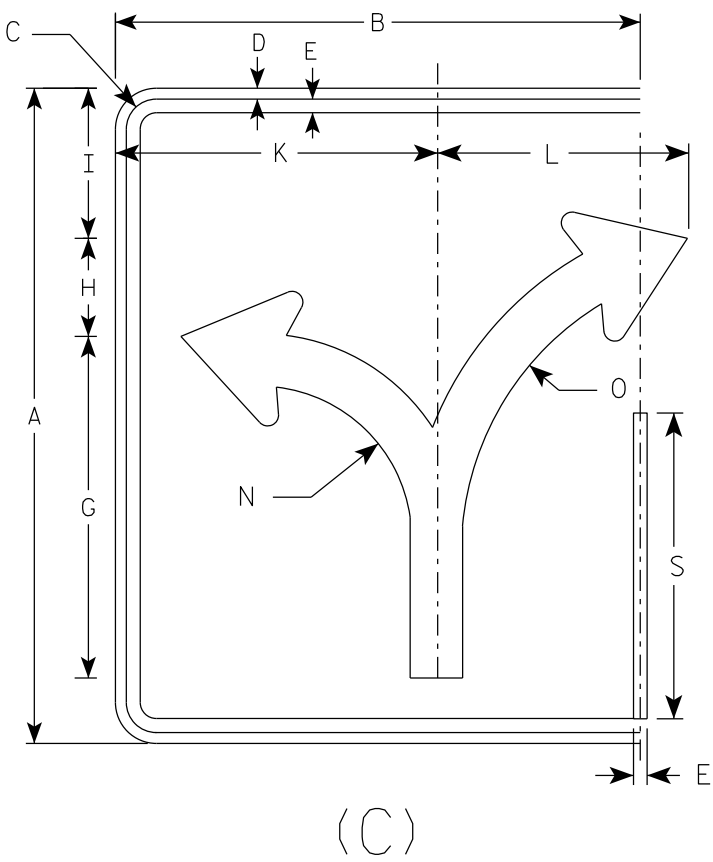
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



7

																											ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	6 7⁄8		14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		18						5.0	3.75
2M	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	6 7⁄8		14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		18						5.0	3.75
3	36	30	1 3⁄8	1⁄2	5⁄8		18 3⁄4	5 1⁄2	8 1⁄4		17 1⁄4	17 1⁄4	2 7⁄8	8 3⁄8	16	1⁄2	5 1⁄2	3	16 3⁄4		24						7.5	6.0
4	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	11		23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		30						12.0	10.0
5	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	11		23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		30						12.0	10.0

PROJECT NO:

HWY:

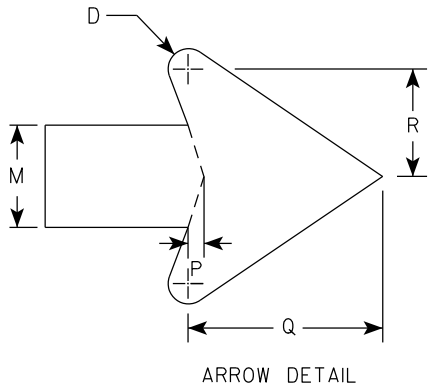
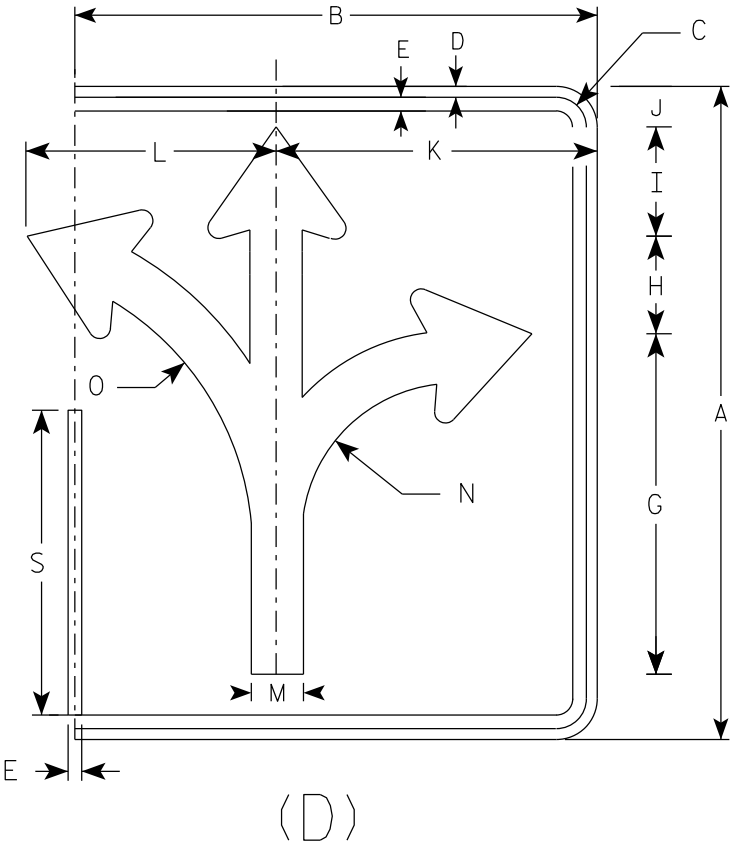
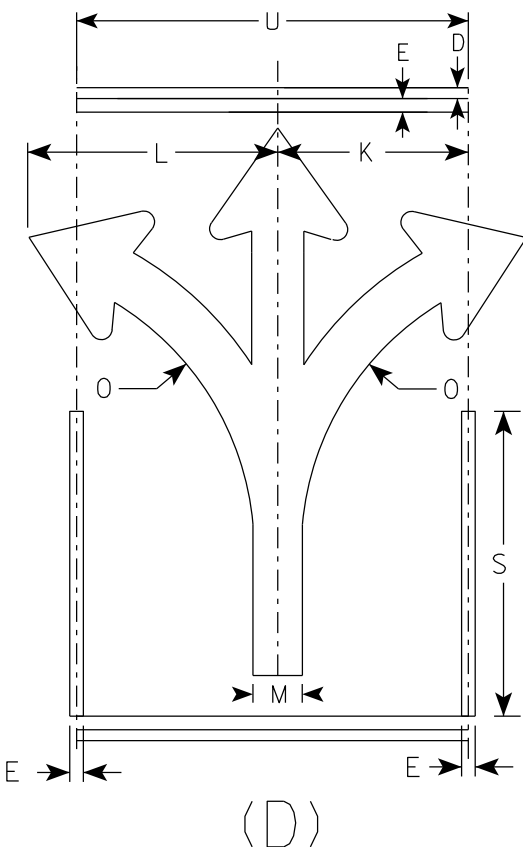
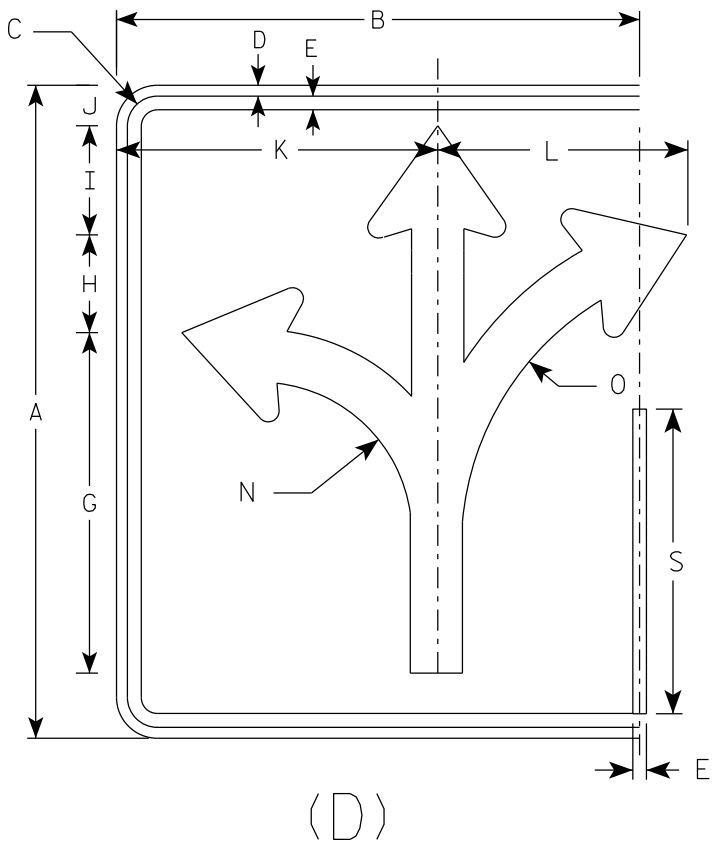
COUNTY:

SHEET NO: 204

E

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



																											ENDS	MIDDLE
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	5	1 7⁄8	14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		18						5.0	3.75
2M	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	5	1 7⁄8	14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		18						5.0	3.75
3	36	30	1 3⁄8	1⁄2	5⁄8		18 3⁄4	5 1⁄2	6	2 1⁄4	17 1⁄4	17 1⁄4	2 7⁄8	8 3⁄8	16	1⁄2	5 1⁄2	3	16 3⁄4		24						7.5	6.0
4	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	7 7⁄8	3 1⁄8	23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		30						12.0	10.0
5	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	7 7⁄8	3 1⁄8	23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		30						12.0	10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 205

E

STANDARD SIGN
R3-8 (D) Arrow

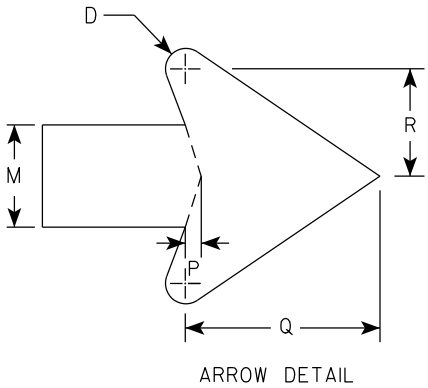
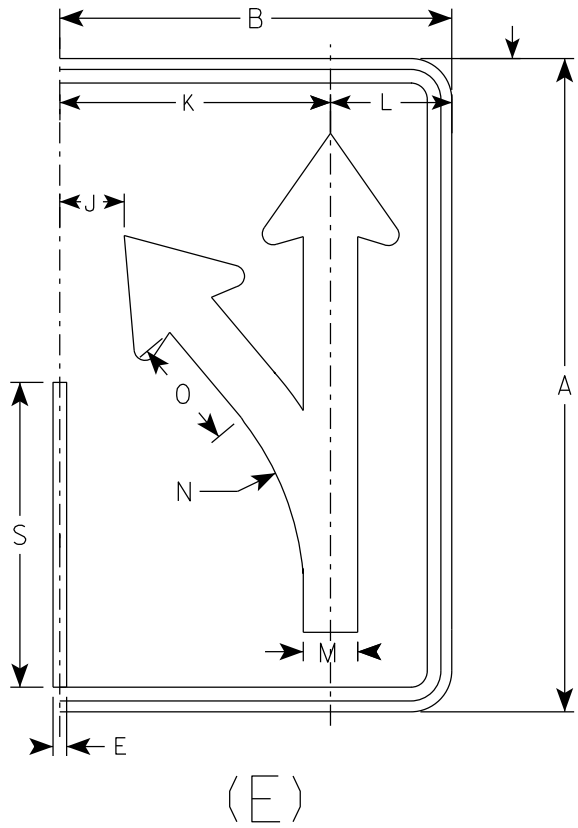
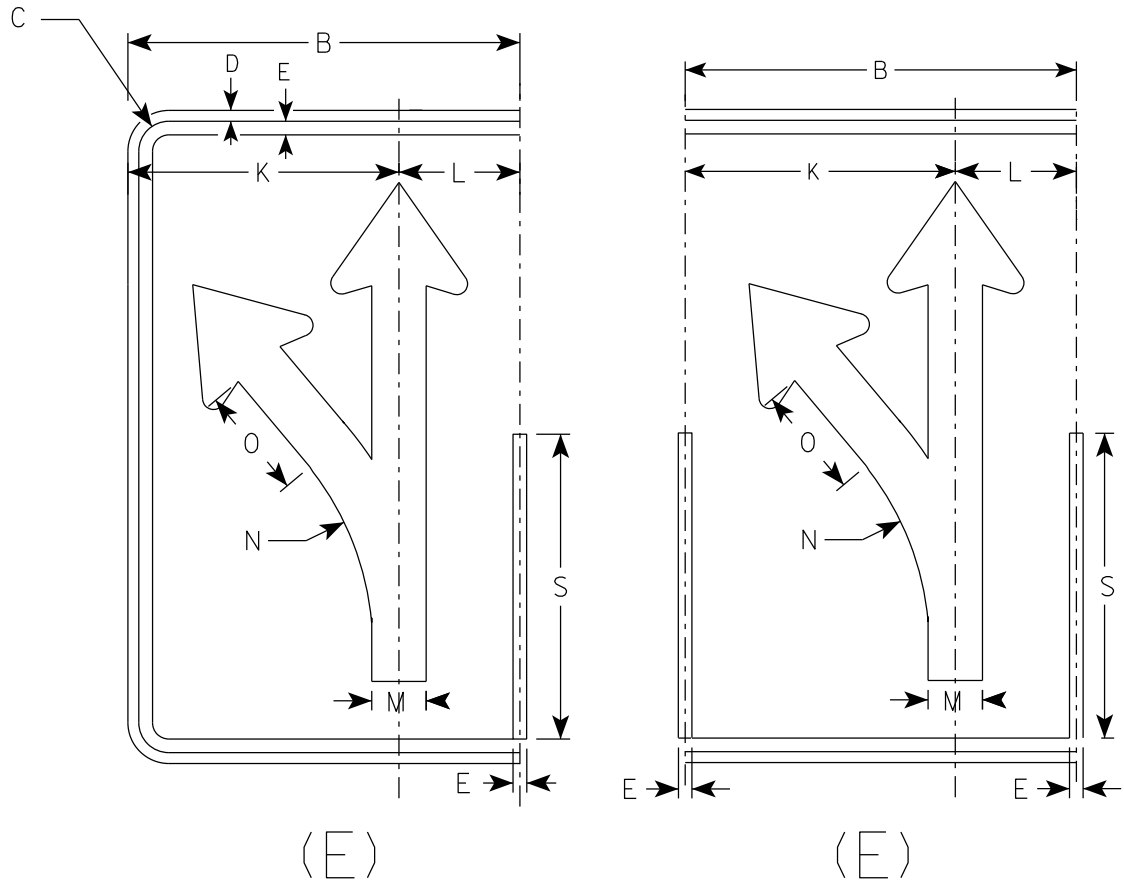
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	5 5⁄8	4	4 7⁄8	16 1⁄8	7 3⁄4	3	15 7⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 206

E

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

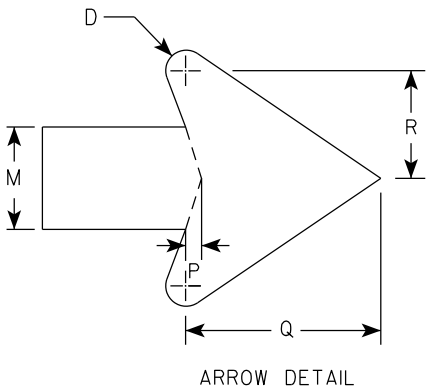
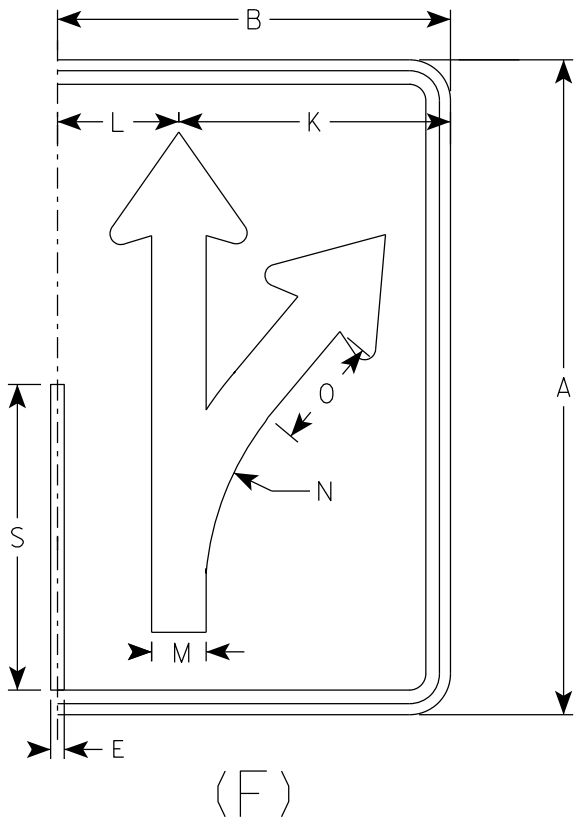
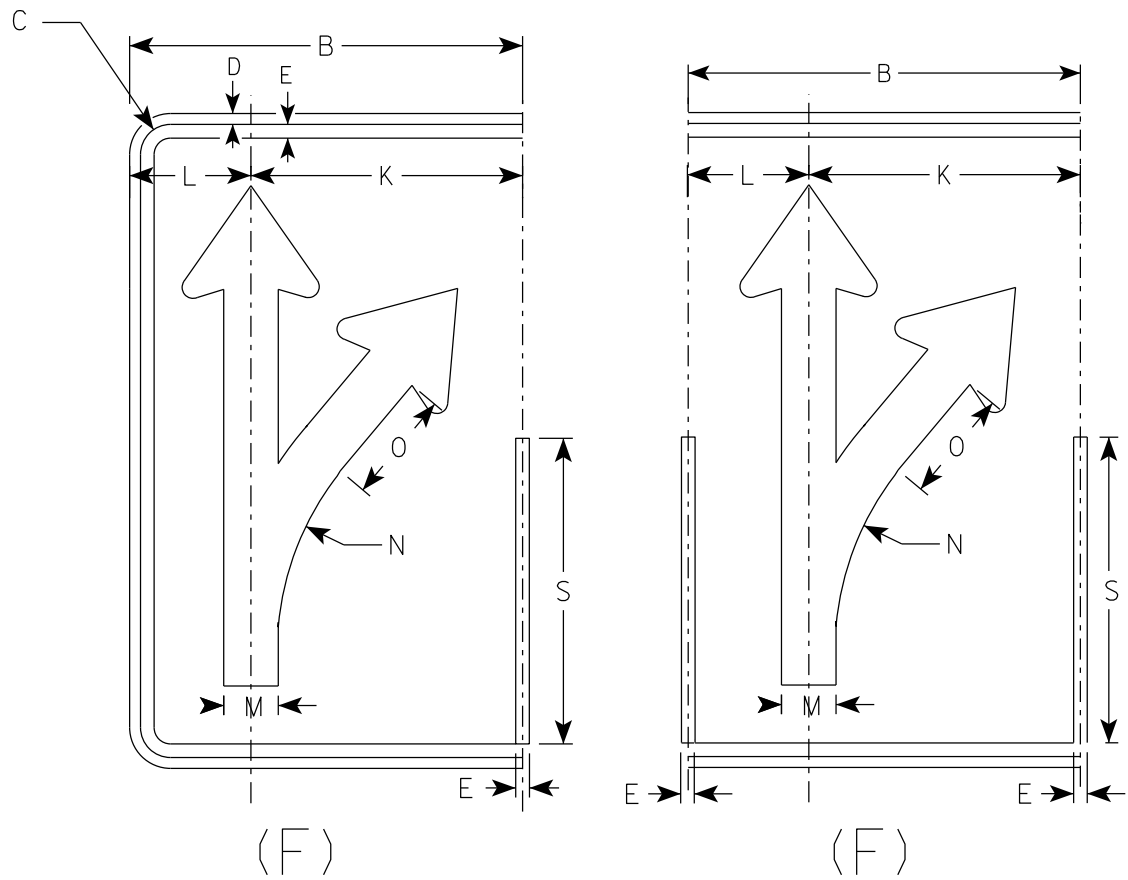
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

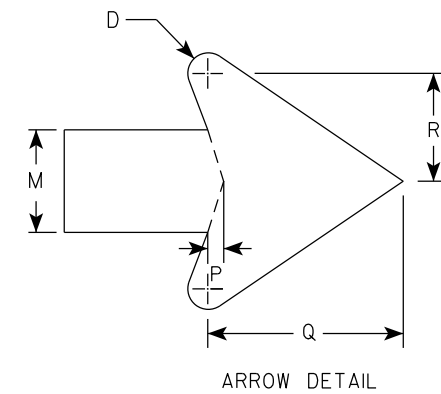
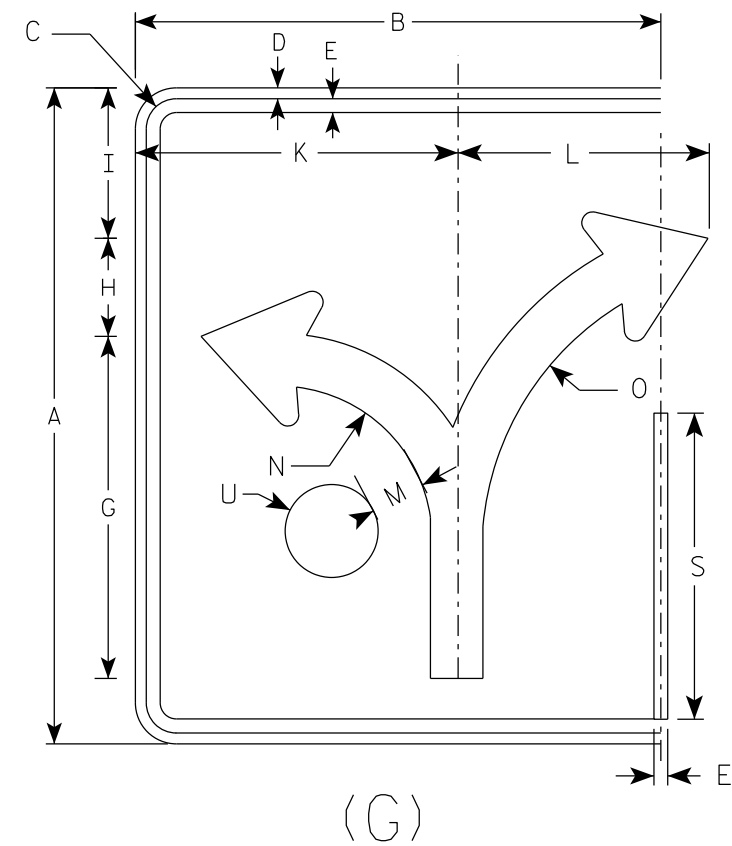
Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14								3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	5 5⁄8	4	4 7⁄8	16 1⁄8	7 3⁄4	3	15 7⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4								6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8								10.0

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	6 7⁄8		14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		2 1⁄8						5.0
2M	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	6 7⁄8		14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		2 1⁄8						5.0
3	36	30	1 3⁄8	1⁄2	5⁄8		18 3⁄4	5 1⁄2	8 1⁄4		17 1⁄4	17 1⁄4	2 7⁄8	8 3⁄8	16	1⁄2	5 1⁄2	3	16 3⁄4		2 1⁄2						7.5
4	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	11		23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		3 3⁄8						12.0
5	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	11		23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		3 3⁄8						12.0

STANDARD SIGN
R3-8 (G) Arrow

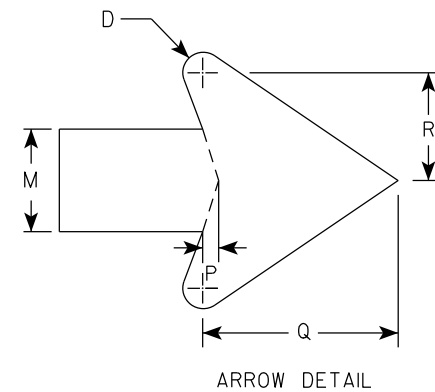
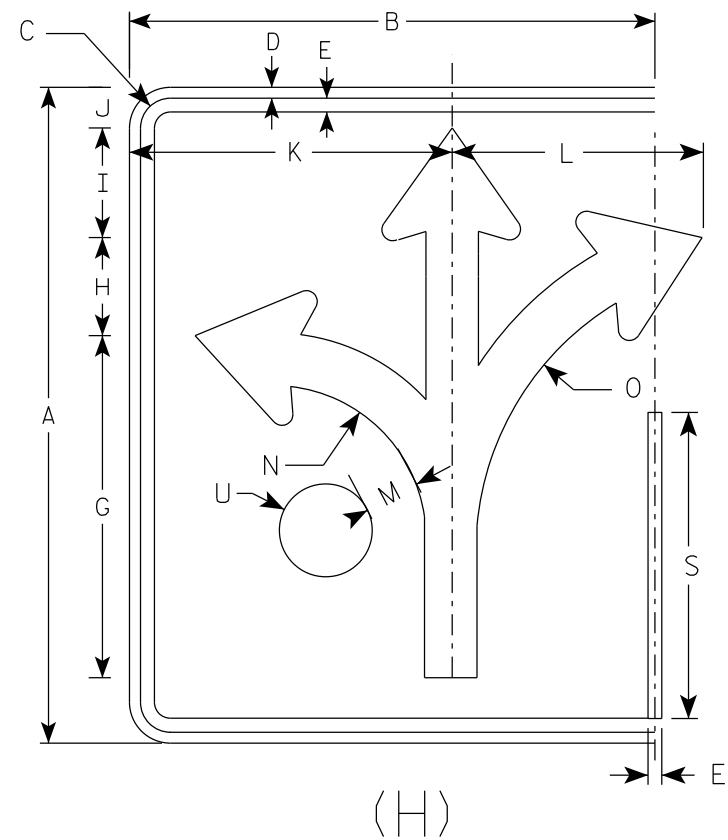
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	5	1 7⁄8	14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		2 1⁄8						5.0
2M	30	24	1 3⁄8	1⁄2	5⁄8		15 5⁄8	4 1⁄2	5	1 7⁄8	14 3⁄4	11 1⁄2	2 3⁄8	7	13 1⁄4	3⁄8	4 1⁄2	2 1⁄2	14		2 1⁄8						5.0
3	36	30	1 3⁄8	1⁄2	5⁄8		18 3⁄4	5 1⁄2	6	3 1⁄8	17 1⁄4	17 1⁄4	2 7⁄8	8 3⁄8	16	1⁄2	5 1⁄2	3	16 3⁄4		2 1⁄2						7.5
4	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	7 7⁄8	3 1⁄8	23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		3 3⁄8						12.0
5	48	36	2 1⁄4	3⁄4	1		24 7⁄8	7 1⁄4	7 7⁄8	3 1⁄8	23 1⁄8	18	3 3⁄4	11 1⁄8	21 1⁄4	5⁄8	7 1⁄8	4	22 3⁄8		3 3⁄8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

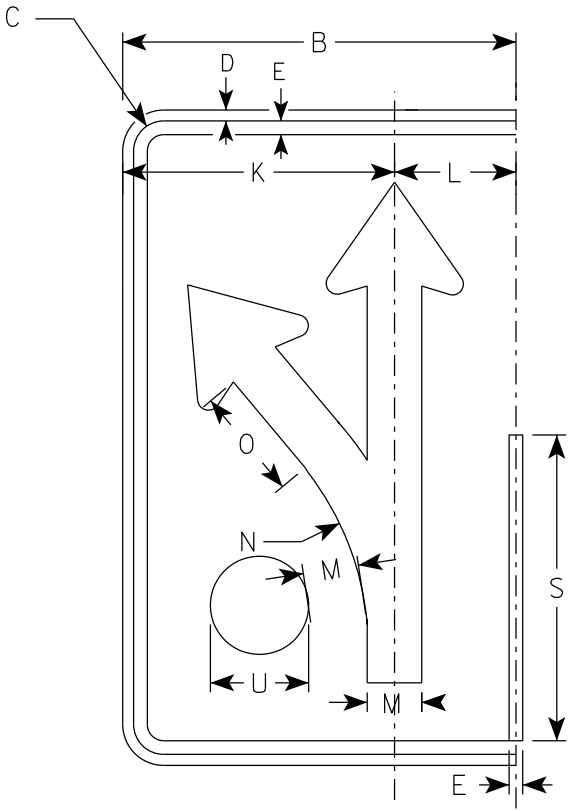
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

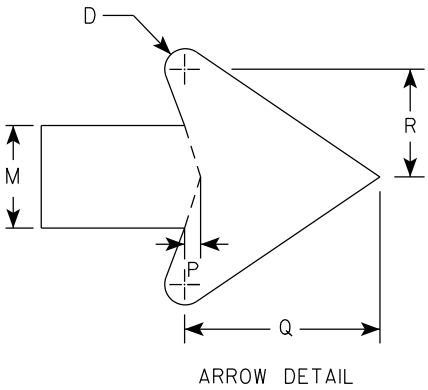
1. Sign is Type II - Type H Reflective
2. Color:

Background - White

Message - Black
3. Message Series - None



(I)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14		2 1⁄8						3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		18 1⁄4	4 3⁄4	3 1⁄4	3	12 1⁄2	5 1⁄2	2 1⁄2	13 1⁄4	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14		2 1⁄8						3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	5 5⁄8	4	4 7⁄8	16 1⁄8	7 3⁄4	3	15 7⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4		2 1⁄2						6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8		3 3⁄8						10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	7 1⁄2	5 1⁄4	5 3⁄8	20 1⁄2	9 1⁄2	4	21 1⁄4	8 1⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8		3 3⁄8						10.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 210

E

STANDARD SIGN

R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*

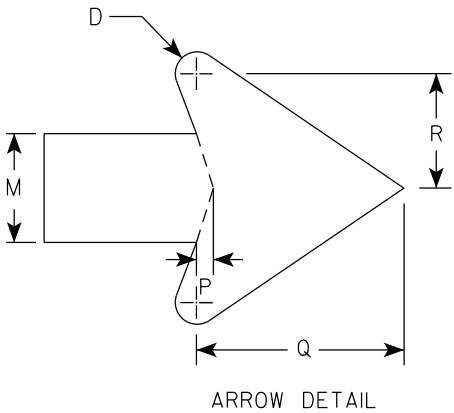
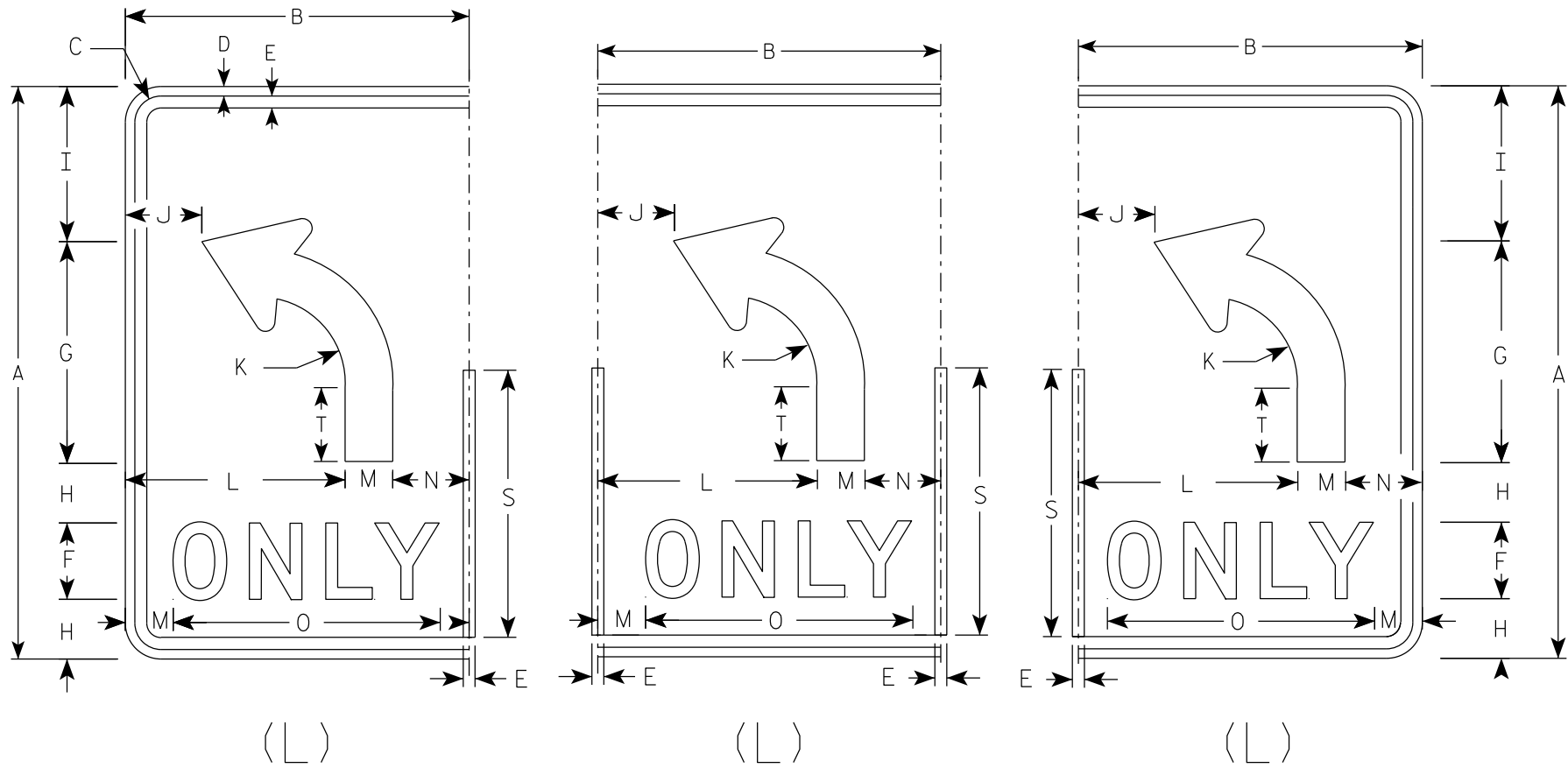
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

7

NOTES

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



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	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	14	3 1⁄2	9 3⁄4		5 3⁄8	15	3	6	17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	4 5⁄8							6.0
4	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0
5	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0

STANDARD SIGN
R3-8 (L) Arrow

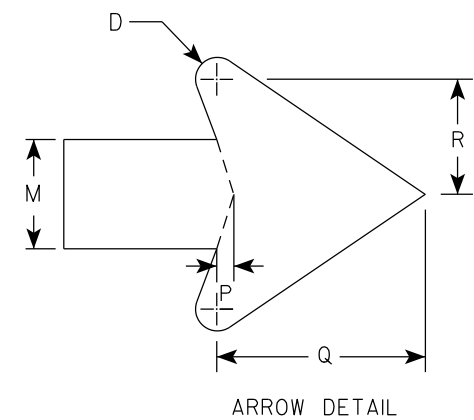
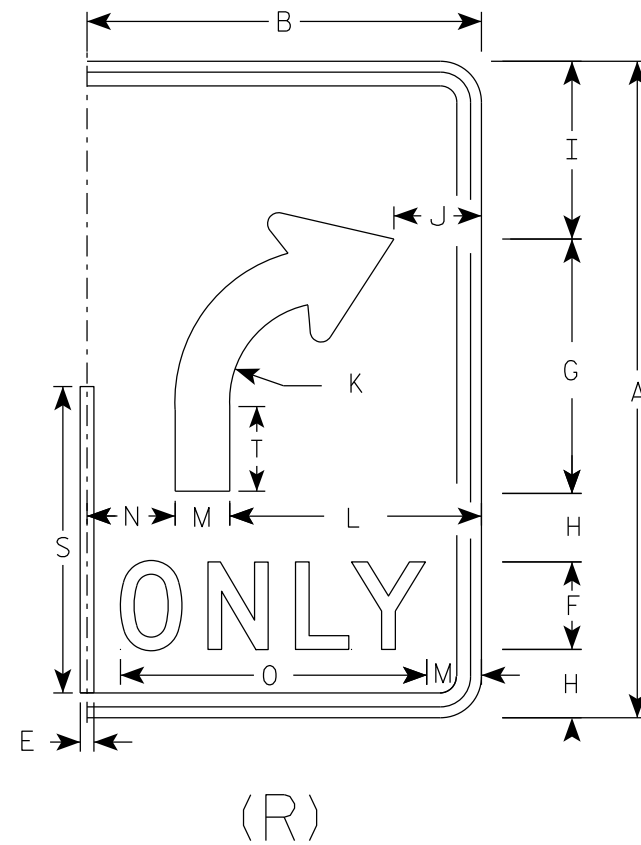
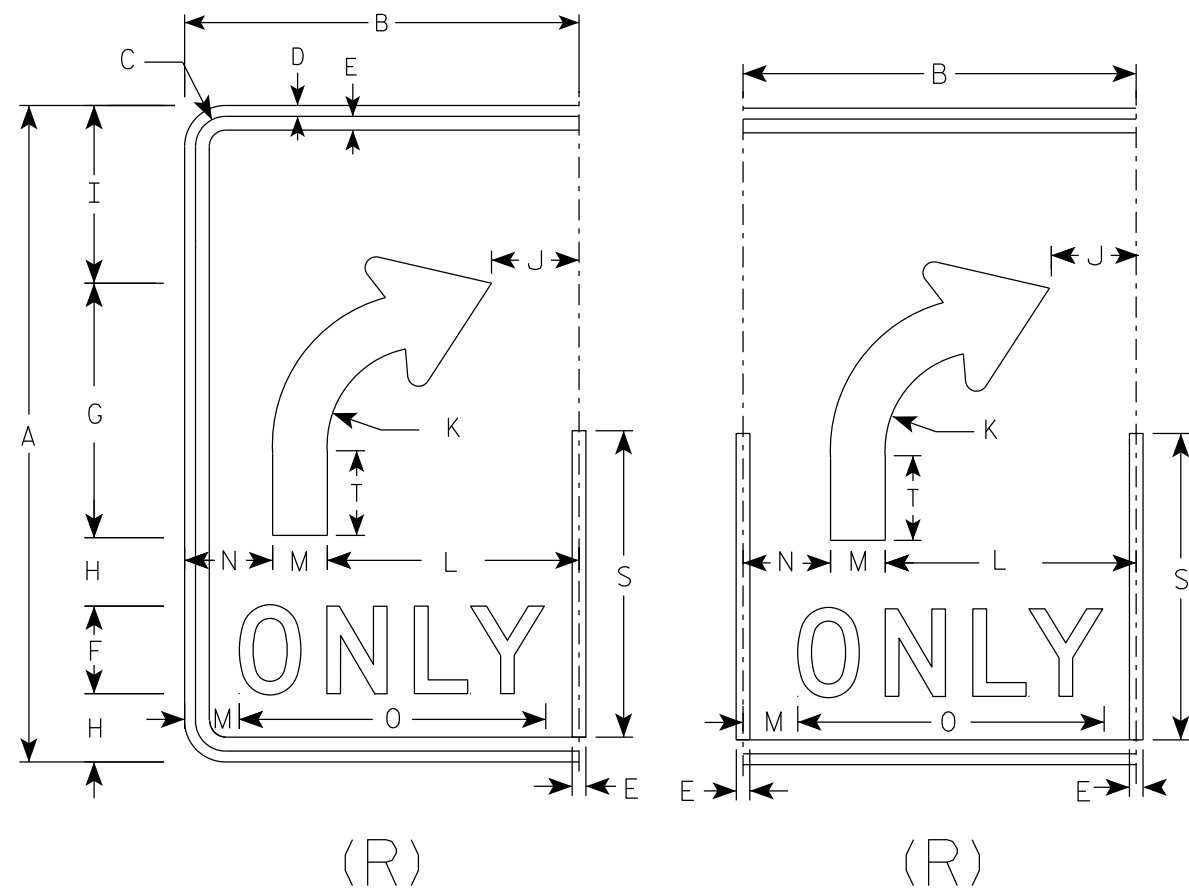
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8	4	11 5⁄8	3 1⁄8	8 1⁄8	4	4 1⁄2	11 1⁄2	2 1⁄2	4	14	3⁄8	4 3⁄4	2 5⁄8	14	3 7⁄8							3.75
3	36	24	1 3⁄8	1⁄2	5⁄8	5	14	3 1⁄2	9 3⁄4	6	5 3⁄8	15	3	6	17 5⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	4 5⁄8							6.0
4	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0
5	48	30	2 1⁄4	3⁄4	1	6	18 5⁄8	5 1⁄8	13 1⁄8	6 1⁄8	7 1⁄4	18	4	8	21 3⁄4	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	6 1⁄4							10.0

STANDARD SIGN

R3-8 (R) Arrow

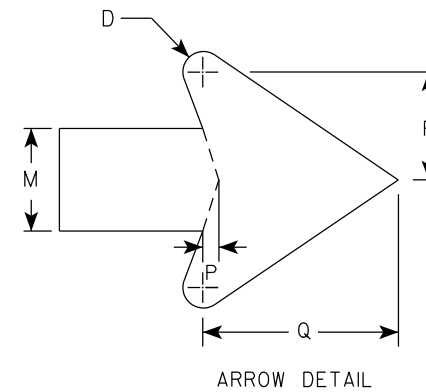
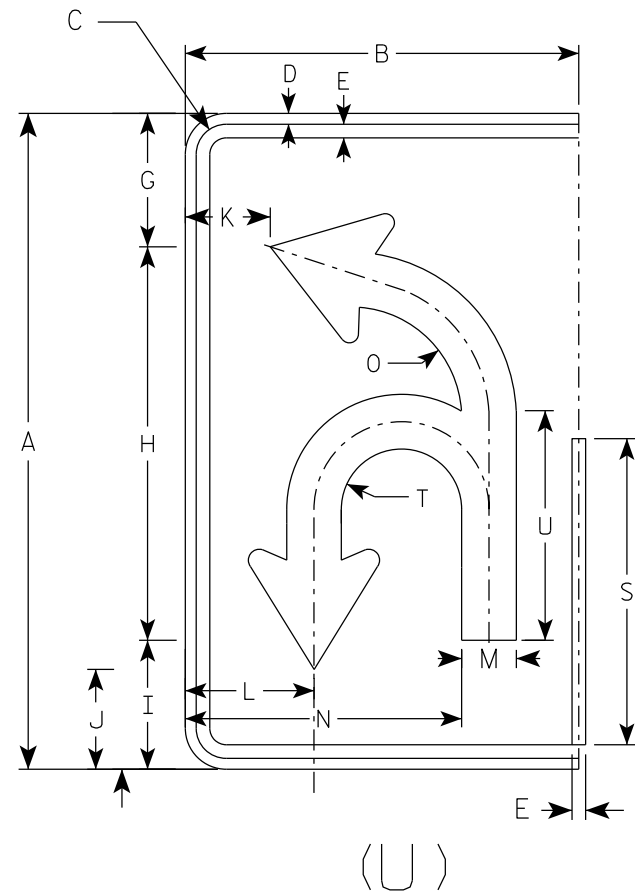
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - White
Message - Black
- 3. Message Series - None



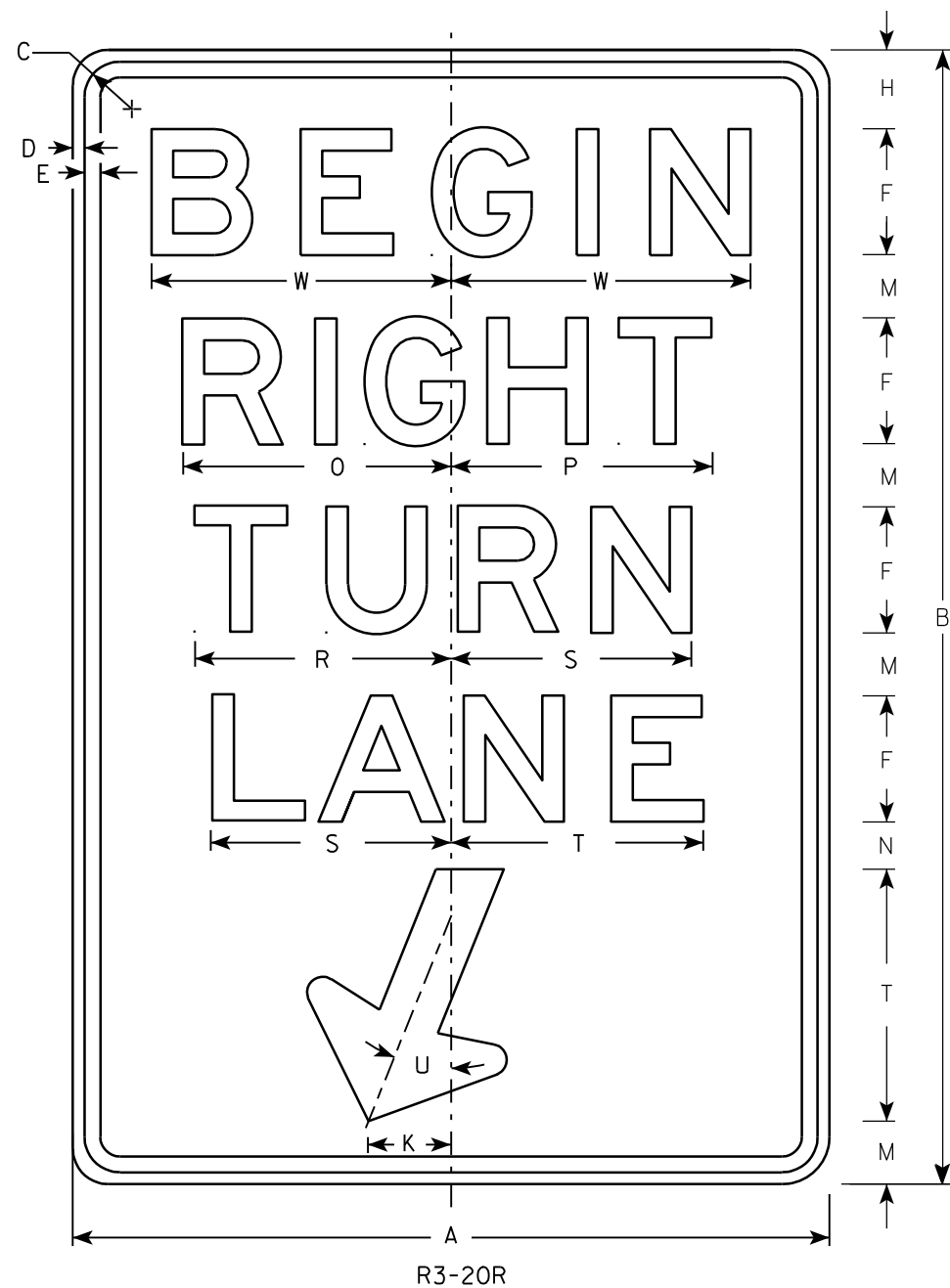
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3⁄8	1⁄2	5⁄8		6 1⁄8	18	5 7⁄8	4 5⁄8	3 7⁄8	5 7⁄8	2 1⁄2	12 5⁄8	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14	2 3⁄4	10 1⁄2						3.75
2M	30	18	1 3⁄8	1⁄2	5⁄8		6 1⁄8	18	5 7⁄8	4 5⁄8	3 7⁄8	5 7⁄8	2 1⁄2	12 5⁄8	5 1⁄8	3⁄8	4 3⁄4	2 5⁄8	14	2 3⁄4	10 1⁄2						3.75
3	36	24	1 3⁄8	1⁄2	5⁄8		21 7⁄8	21 5⁄8	7 1⁄8	5 1⁄2	5 7⁄8	8 1⁄4	3	16 3⁄8	6 1⁄8	1⁄2	5 3⁄4	3 1⁄8	16 3⁄4	3 1⁄4	12 5⁄8						6.0
4	48	30	2 1⁄4	3⁄4	1		29 1⁄8	28 3⁄4	9 3⁄8	7 1⁄4	6 7⁄8	10	4	20 7⁄8	8 1⁄8	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	4 3⁄8	16 3⁄4						10.0
5	48	30	2 1⁄4	3⁄4	1		29 1⁄8	28 3⁄4	9 3⁄8	7 1⁄4	6 7⁄8	10	4	20 7⁄8	8 1⁄8	5⁄8	7 5⁄8	4 1⁄4	22 3⁄8	4 3⁄8	16 3⁄4						10.0

STANDARD SIGN
R3-8 (U) Arrow

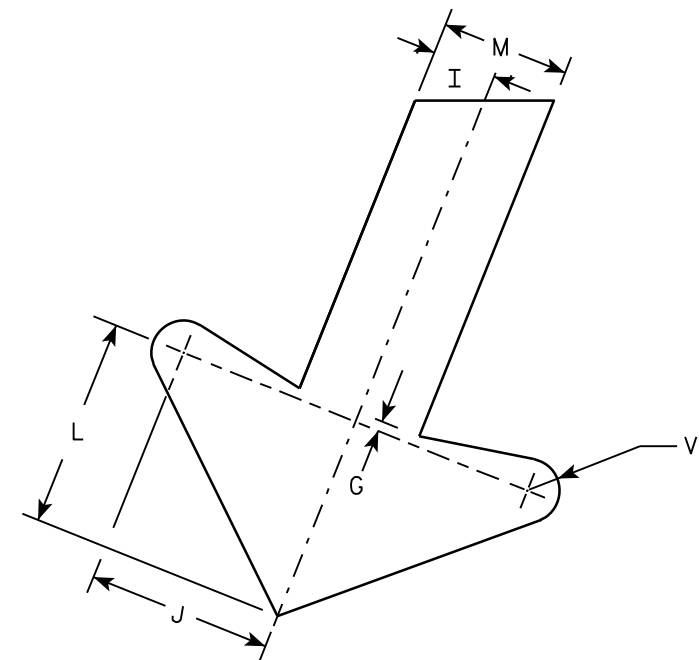
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1



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



ARROW DETAIL

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

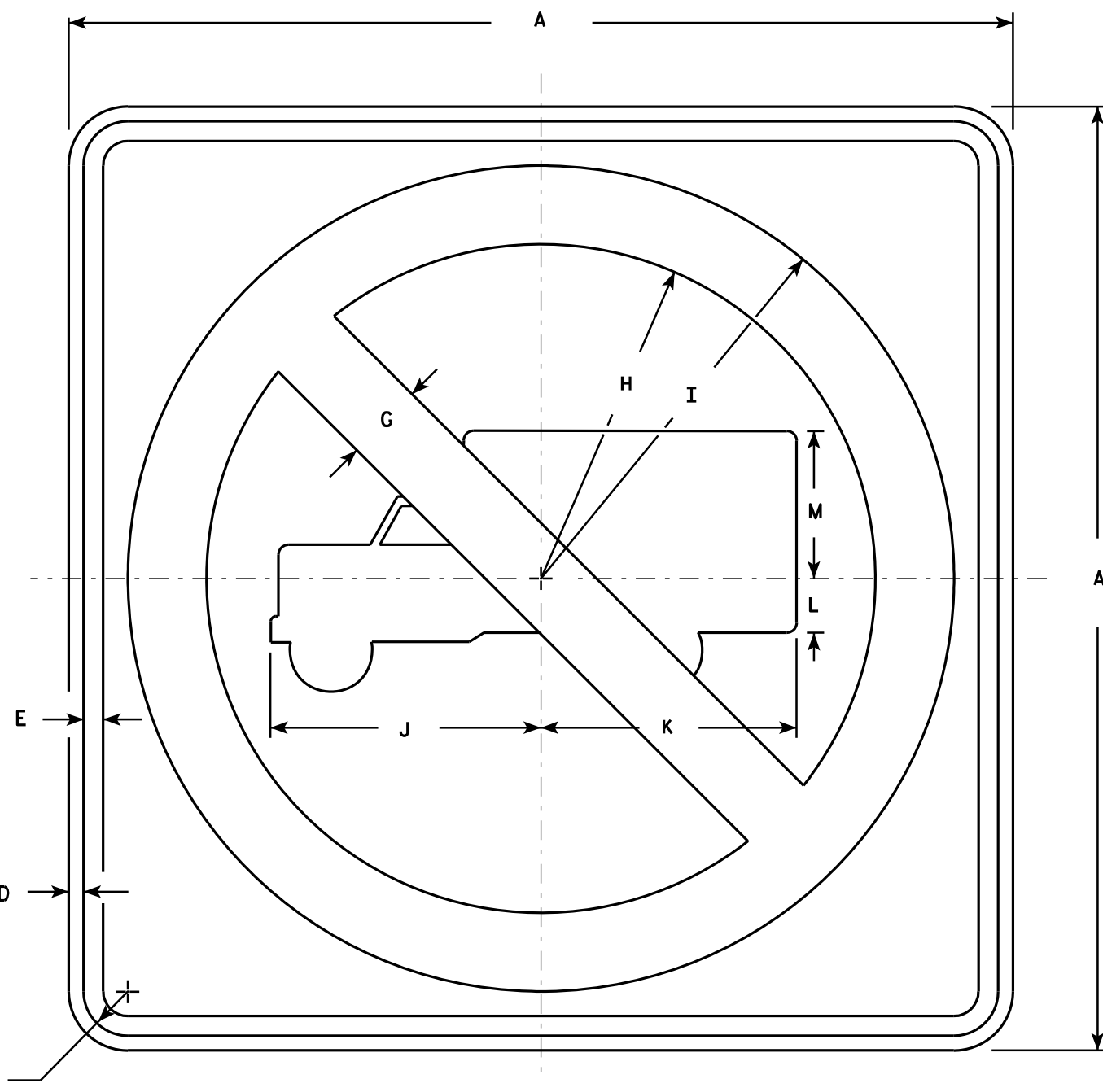
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 214	E
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STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
Truck Symbol & Border - Non-reflective black.

R5-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 215

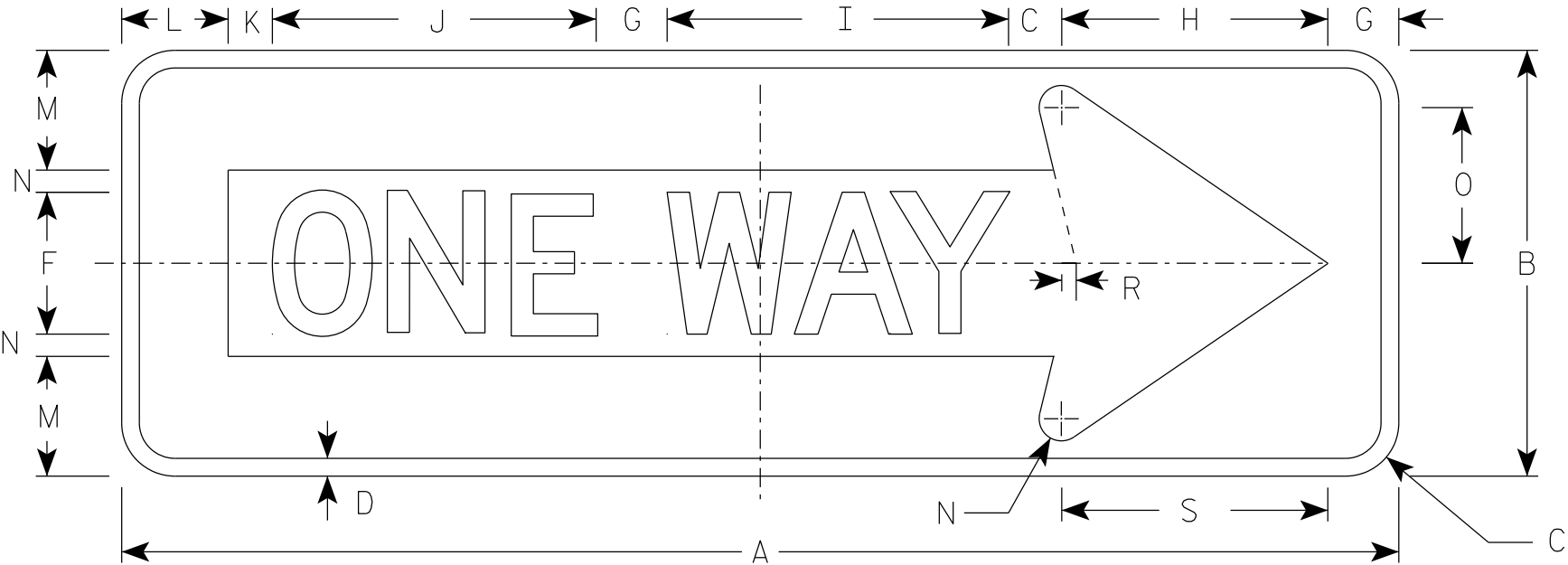
E

NOTES

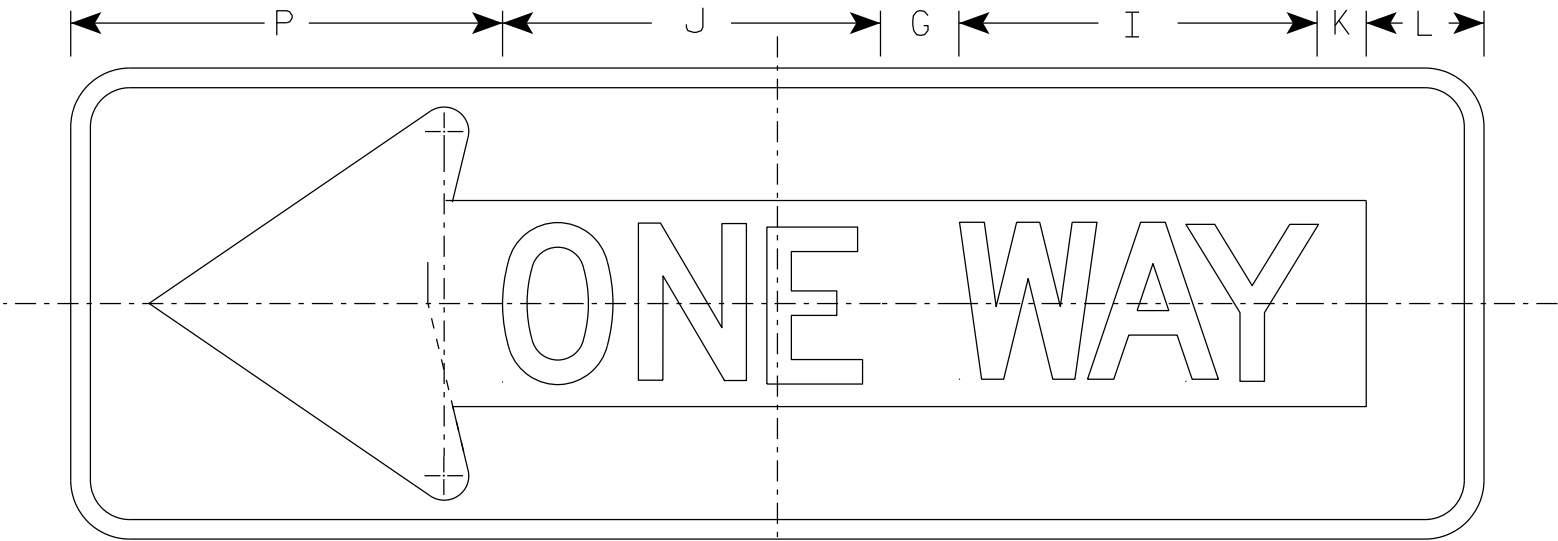
1. Sign is Type II - Type H Reflective
2. Color:

Background - BLACK

Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1 R



R6-1 L

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	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

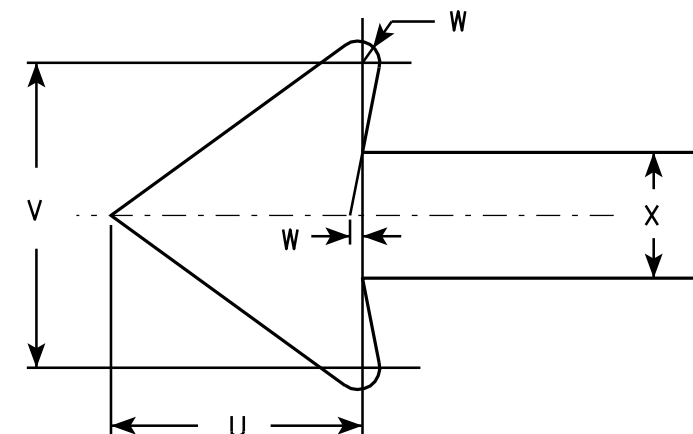
DATE 07/11/18 PLATE NO. R6-1.3



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN

R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/31/2011

PLATE NO. R7-1.9

PROJECT NO:

HWY:

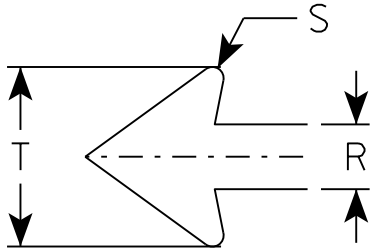
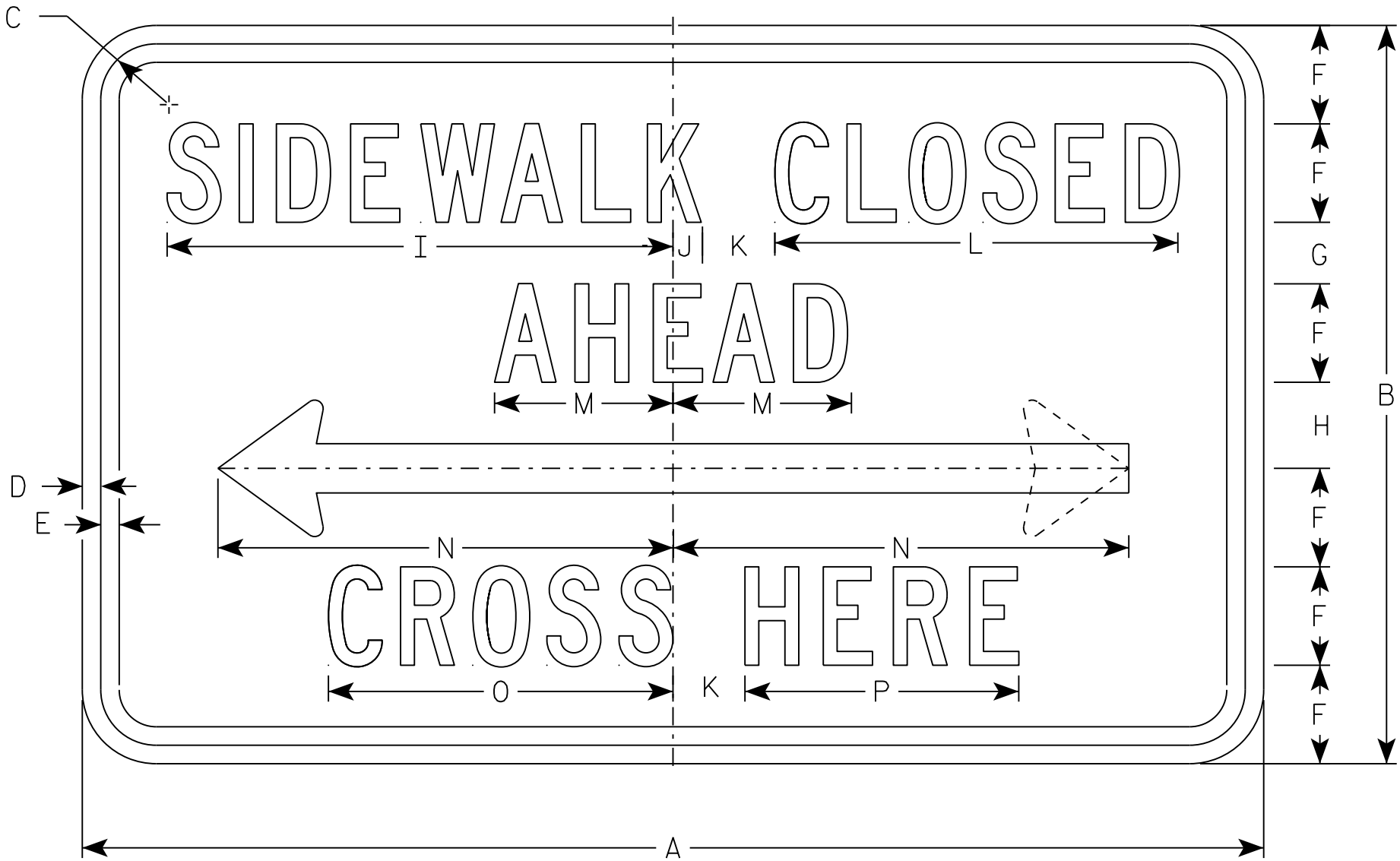
COUNTY:

SHEET NO: 217

E

NOTES

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



R9-11

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 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 218

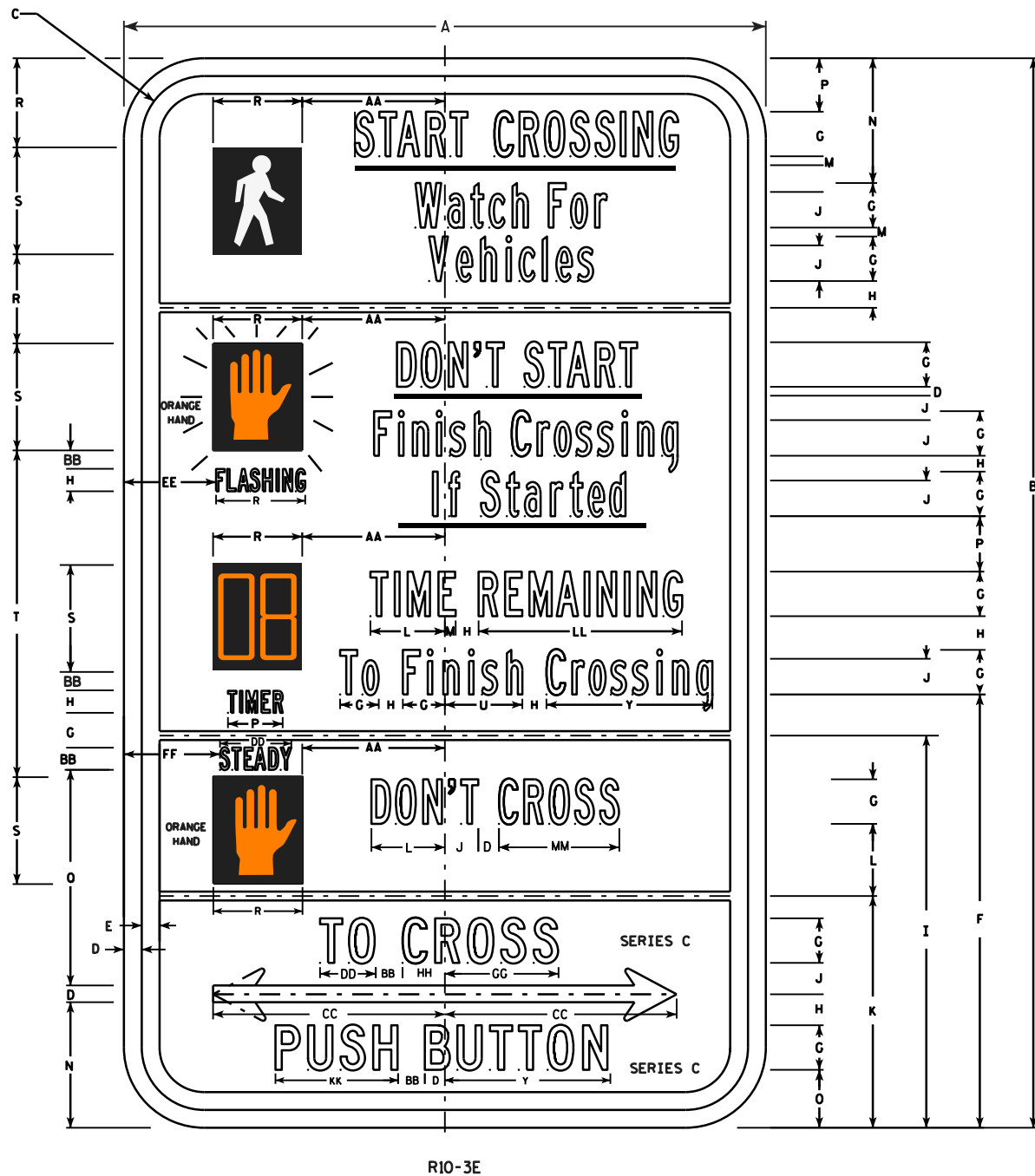
E

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

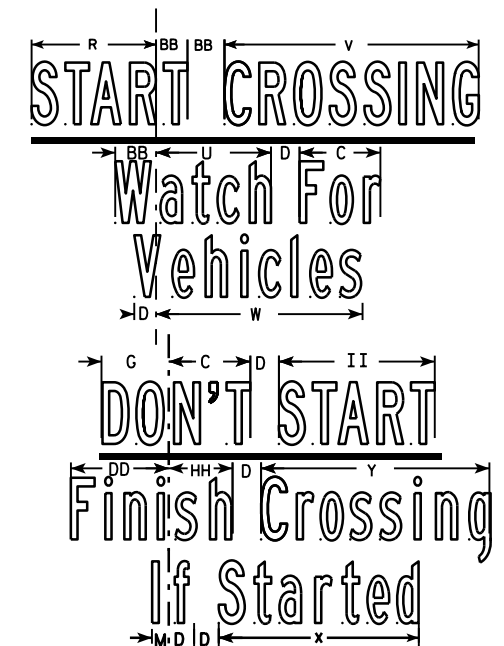
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3



NOTES

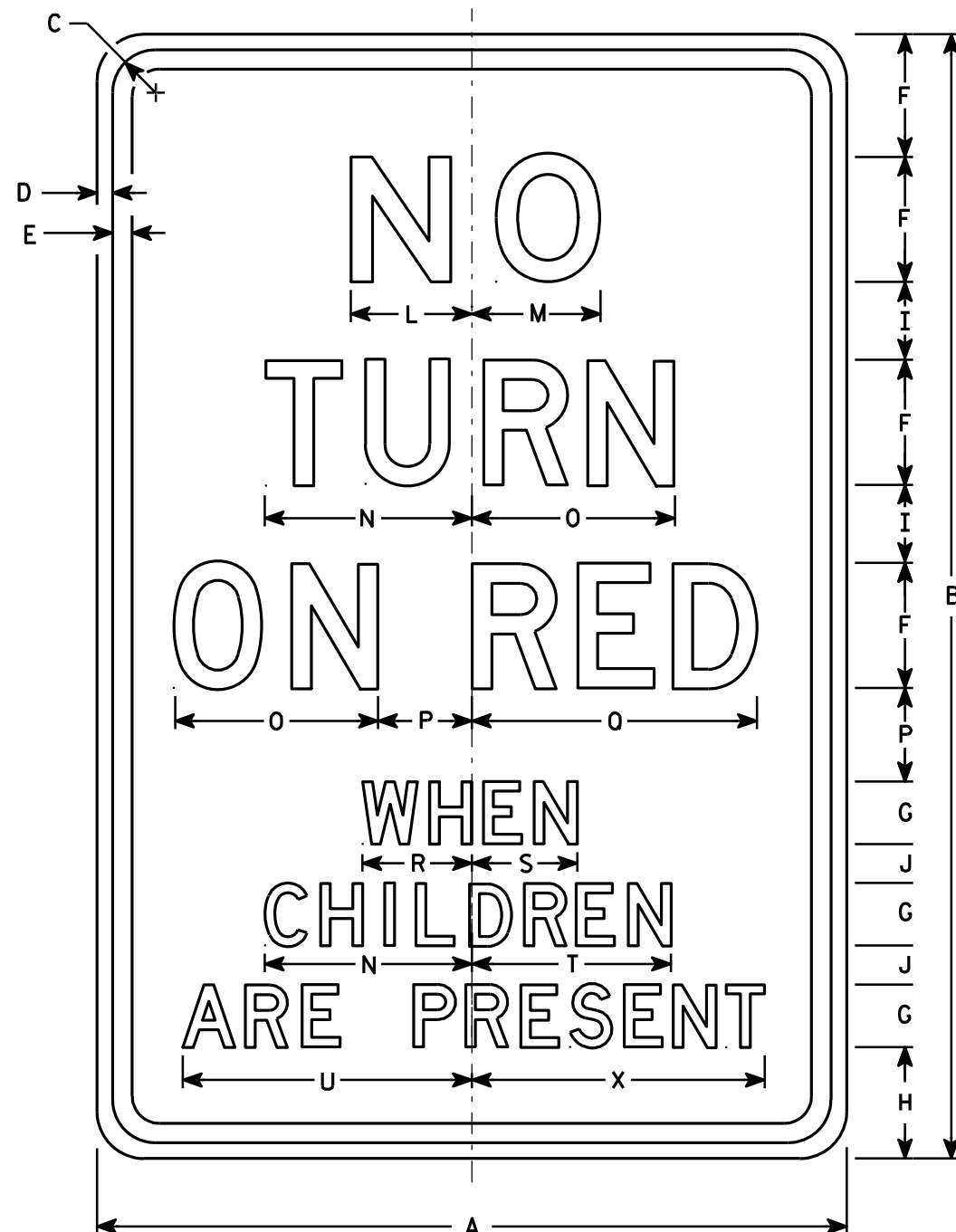
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - WHITE
Message - BLACK except Hand Symbol which is Orange with black background.
3. Message Series - B or as noted on the sign.
4. R10-3ER (right arrow)
R10-3EL (left arrow)
R10-3ED (double arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	6	10	1/2	1/8	1/8	4	3/8	1/4	4 1/8	1/4	2 1/8	3/4	1/8	1 1/8	1/2	1/2	2 1/4	7/8	1	3	3/4	1 3/4	1 5/8	1 3/8	1 1/2	5/8	0.42
2S	9	15	7/8	1/4	1/4	6 1/8	5/8	3/8	5 1/2	1/2	3 1/4	1	1/8	1 3/4	7/8	3/4	3	1 1/4	1 1/2	4 5/8	1 1/8	2 5/8	2 1/8	2	2 3/8	1 3/8	0.94
2M	9	15	7/8	1/4	1/4	6 1/8	5/8	3/8	5 1/2	1/2	3 1/4	1	1/8	1 3/4	7/8	3/4	3	1 1/4	1 1/2	4 5/8	1 1/8	2 5/8	2 1/8	2	2 3/8	1 3/8	0.94
3																											
4																											

SIZE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ	Area sq. ft.
1	1 3/8	1/4	2 1/4	1/2	7/8	7/8	1 1/8	3/8	1	1/2	1 1/8	1 7/8	1 1/8														
2S	2	3/8	3 1/4	1	1 1/4	1 3/8	1 5/8	5/8	1 5/8	3/4	1 3/4	2 7/8	1 5/8														
2M	2	3/8	3 1/4	1	1 1/4	1 3/8	1 5/8	5/8	1 5/8	3/4	1 3/4	2 7/8	1 5/8														
3																											
4																											

STANDARD SIGN R10-3EL,R,D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/12/2011	PLA 219 R10-3E.2



R10-11S

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
Lines 2 thru 6 are Series D.

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

STANDARD SIGN R10-11S

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 4/4/11

PLATE NO. R10-11S.5

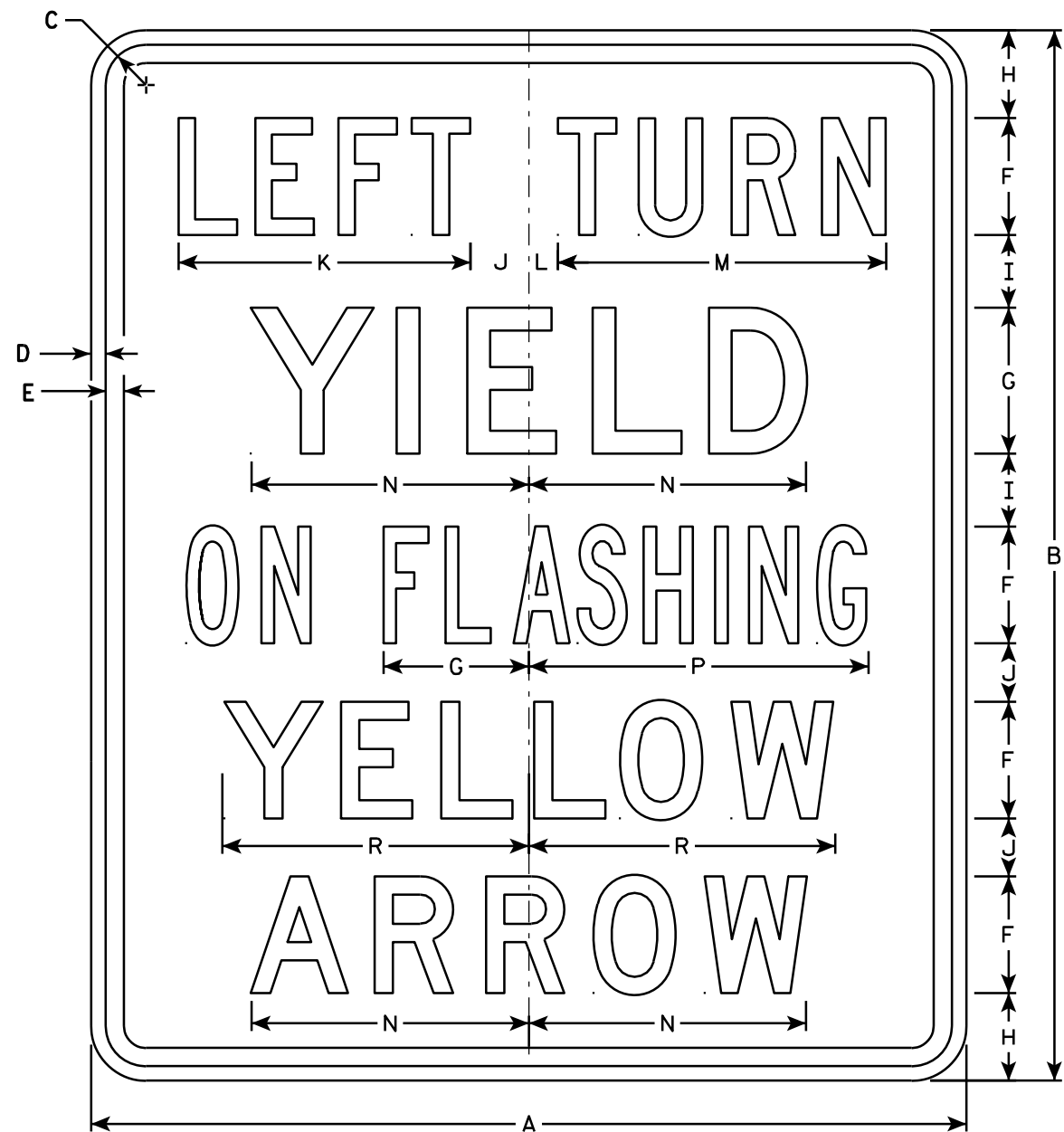
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 220

E

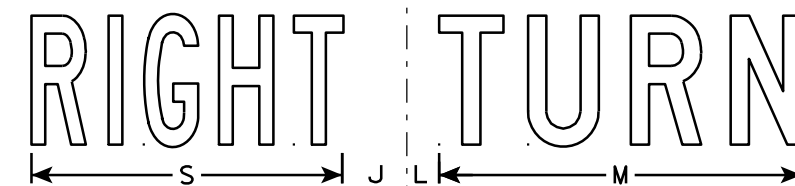


R10-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
Lines 2, 4 and 5 are Series D.
Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3⁄8	1⁄2	5⁄8	4	5	3	2 1⁄2	2	10	1	11 1⁄4	9 1⁄2	4 1⁄4	11 5⁄8		10 1⁄2	9 5⁄8								7.5
2M	30	36	1 3⁄8	1⁄2	5⁄8	4	5	3	2 1⁄2	2	10	1	11 1⁄4	9 1⁄2	4 1⁄4	11 5⁄8		10 1⁄2	9 5⁄8								7.5
3																											
4																											
5																											

STANDARD SIGN R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 4/11/13

PLATE NO. R10-50.2

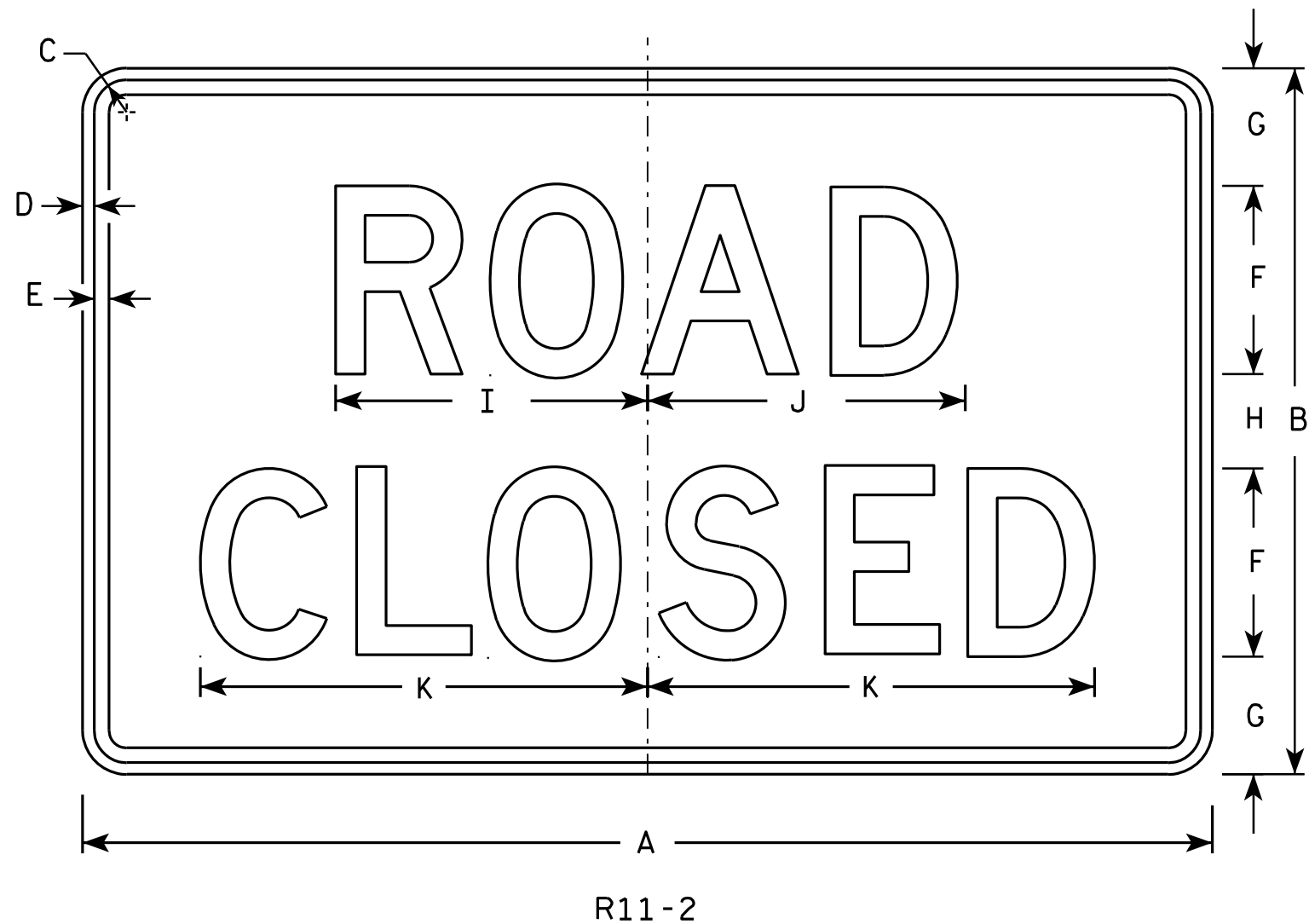
PROJECT NO:

HWY:

COUNTY:

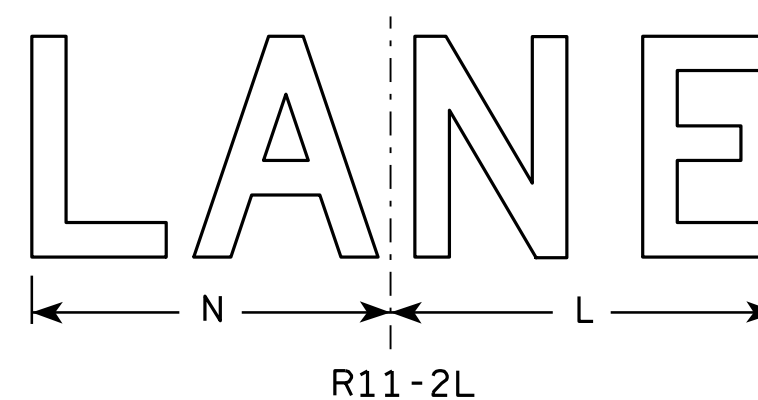
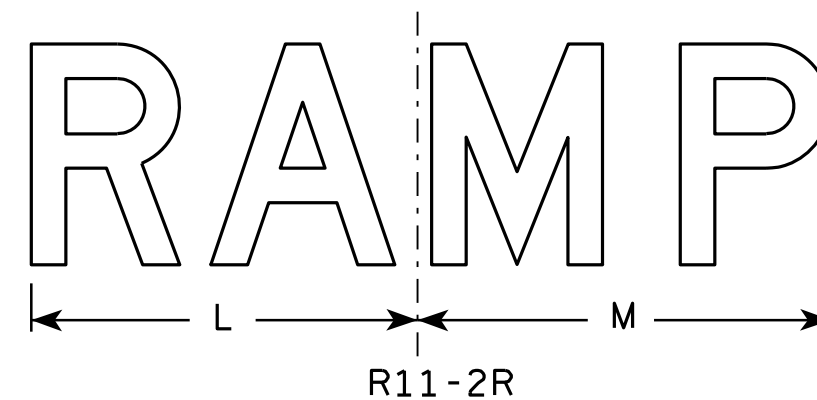
SHEET NO: 221

E



NOTES

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

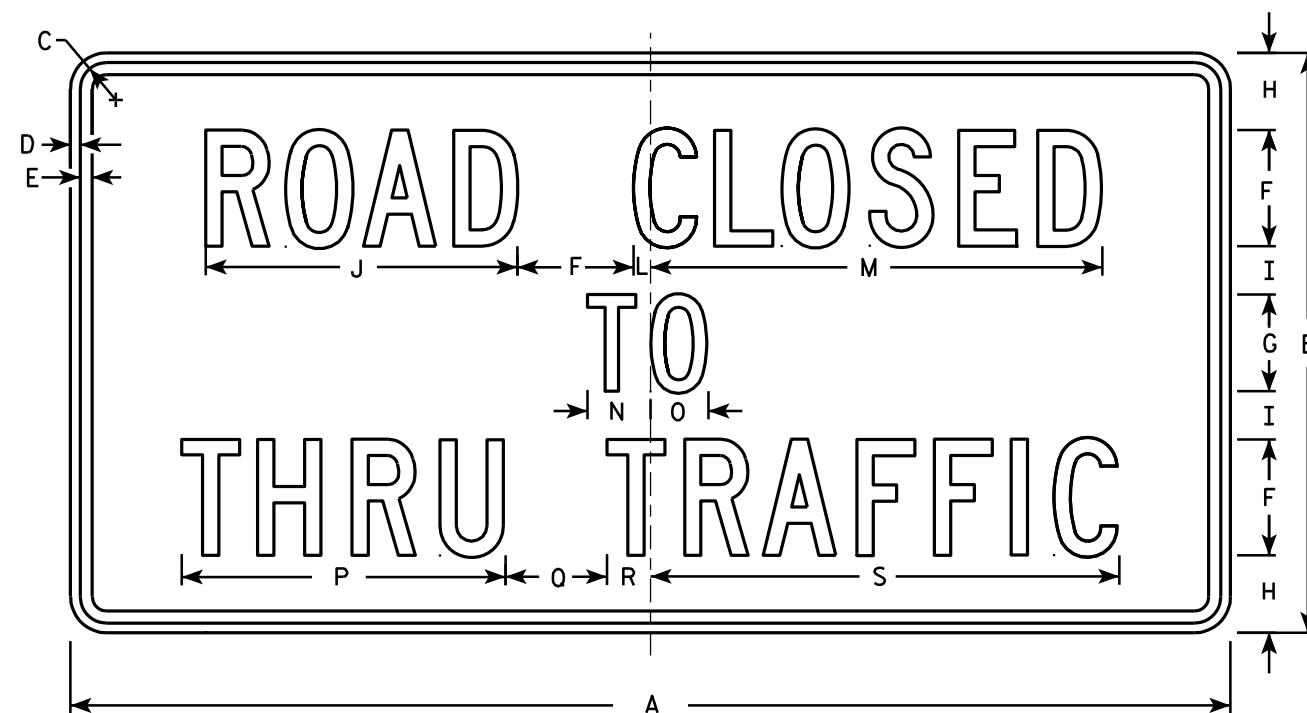


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13				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

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: 222 E



R11-4

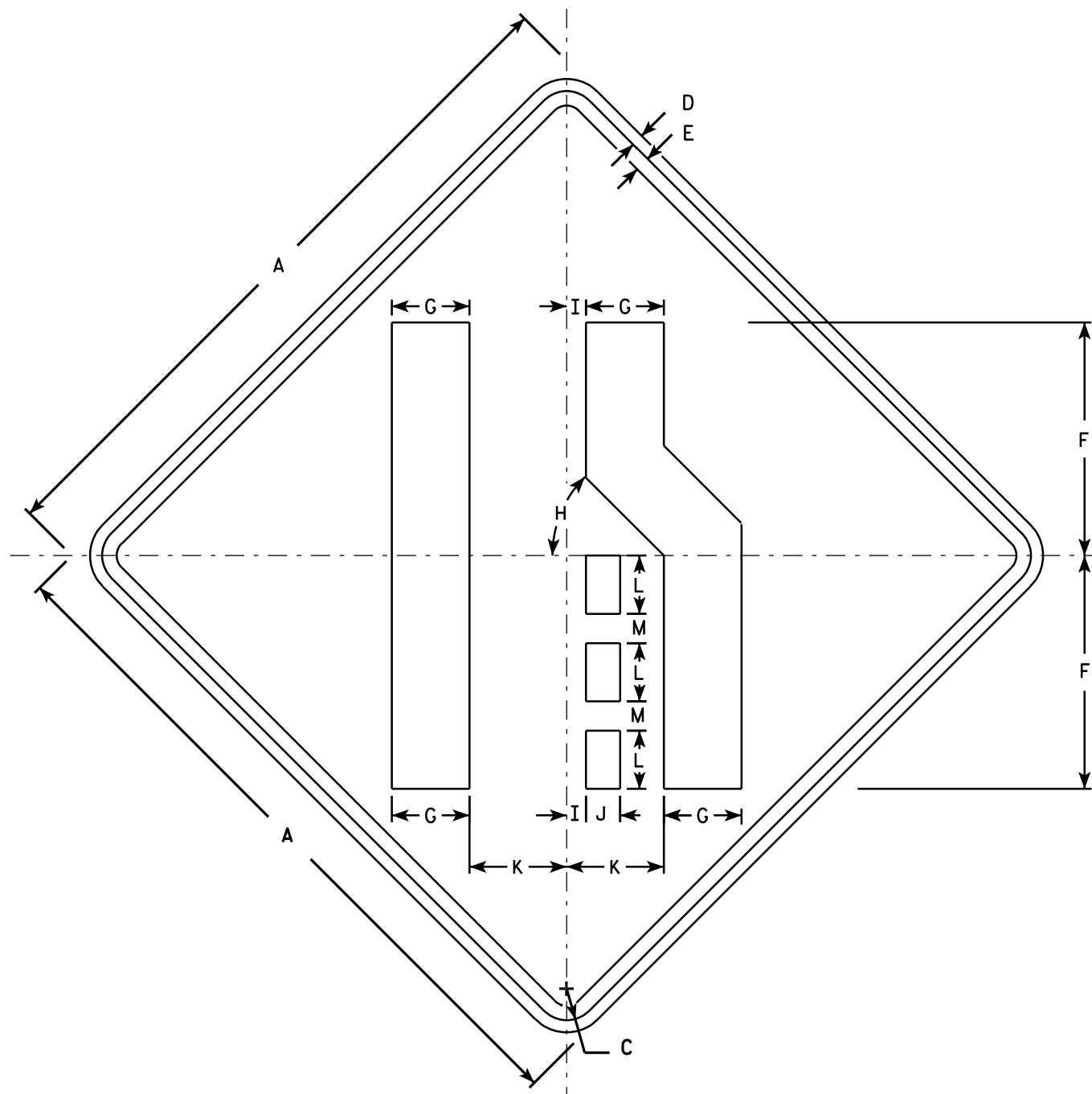
NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN	
R11 - 4	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-4.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 223		E
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W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbols is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8	10	3 3⁄8	45°	7⁄8	1 1⁄2	4 1⁄4	2 1⁄2	1 1⁄4														6.25
2S	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
2M	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
3	36		1 5⁄8	5⁄8	3⁄4	12	4	45°	1	1 3⁄4	5	3	1 1⁄2														9.0
4	48		2 1⁄4	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0
5	48		2 1⁄4	3⁄4	1	16	5 3⁄8	45°	1 1⁄4	2 3⁄8	6 3⁄4	4	2														16.0

STANDARD SIGN W4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

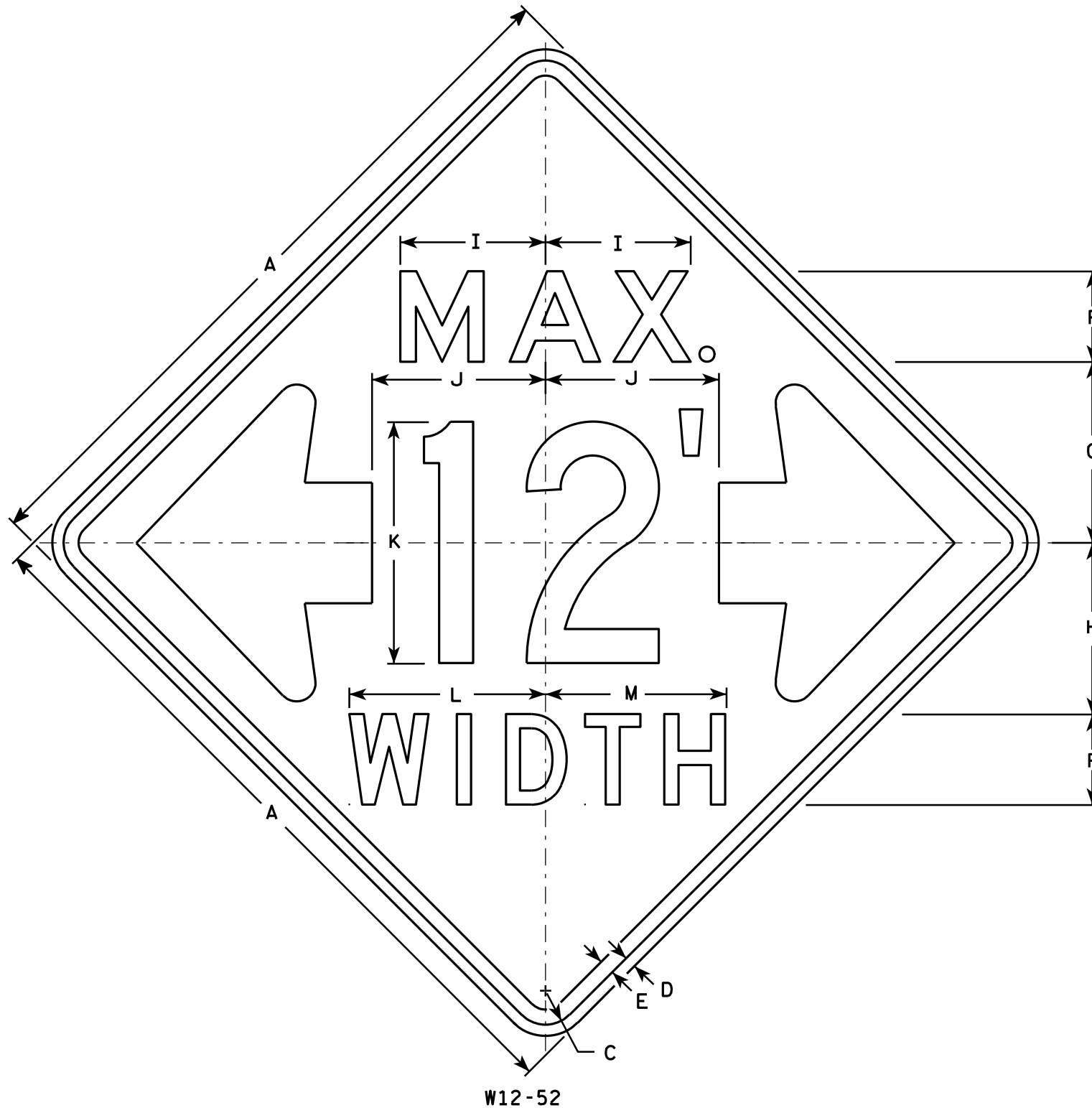
Matthew R. Rauch
for State Traffic Engineer

DATE 3/12/13

PLATE NO. W4-2.14

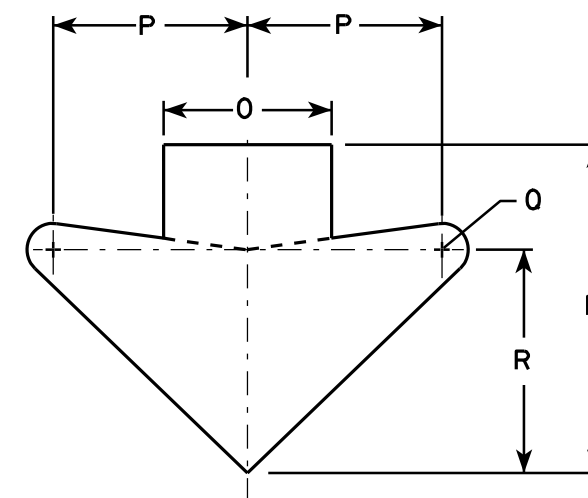
PROJECT NO:

SHEET NO: 224



NOTES

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



ARROW DETAIL

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

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
 For State Traffic Engineer

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

PROJECT NO:

HWY:

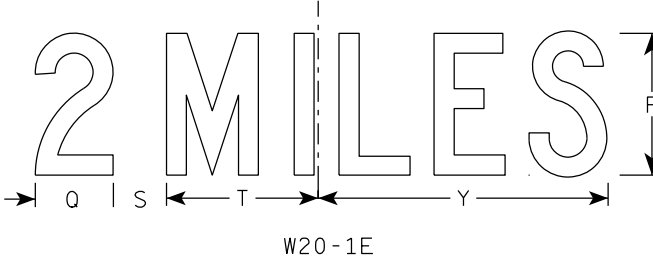
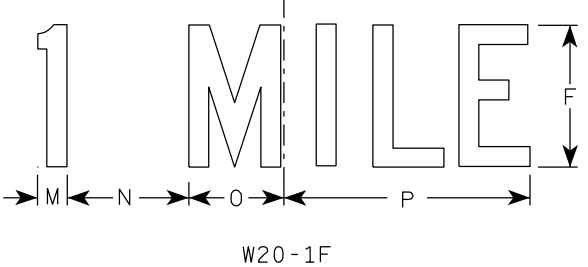
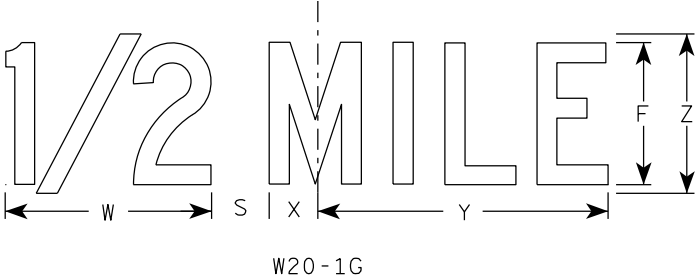
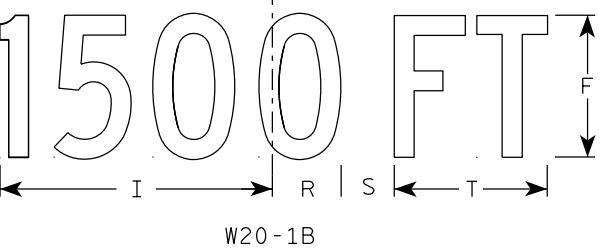
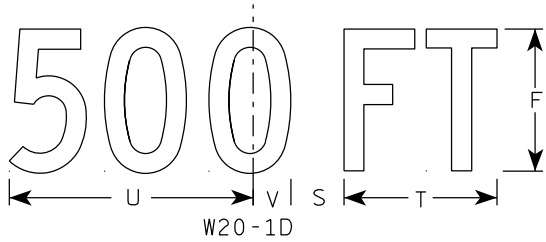
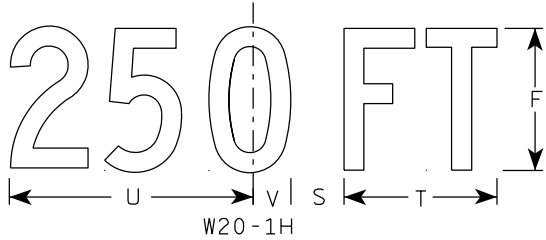
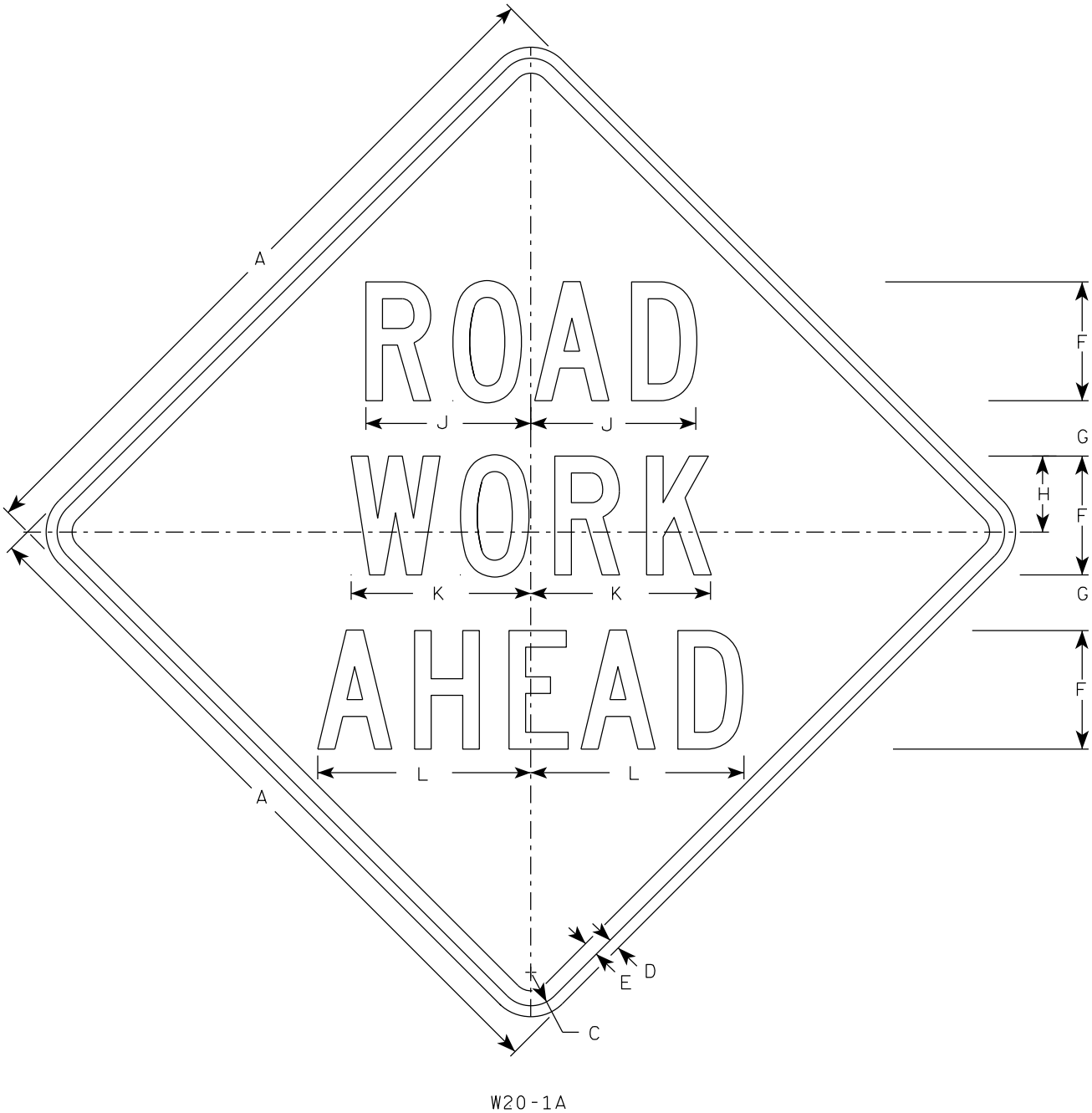
COUNTY:

SHEET NO: 225

E

NOTES

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



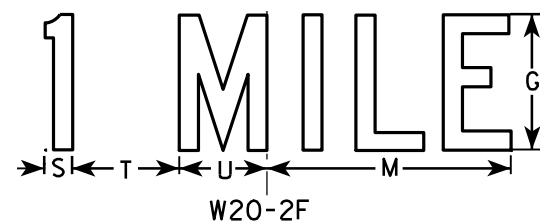
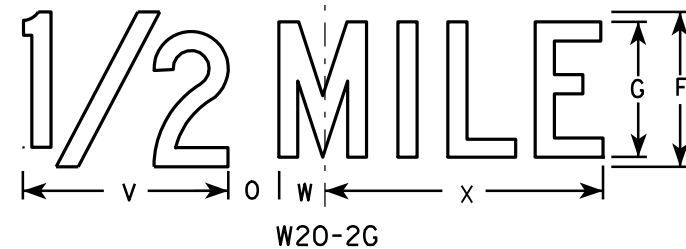
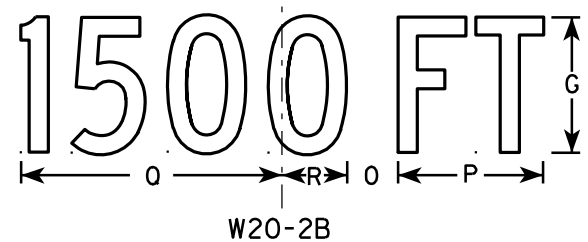
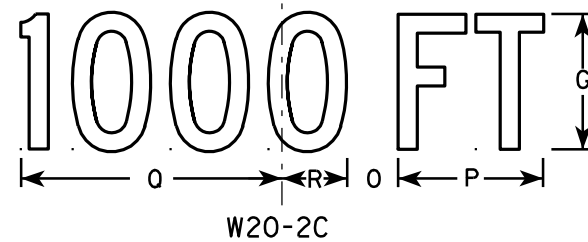
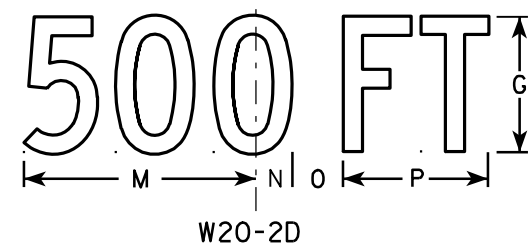
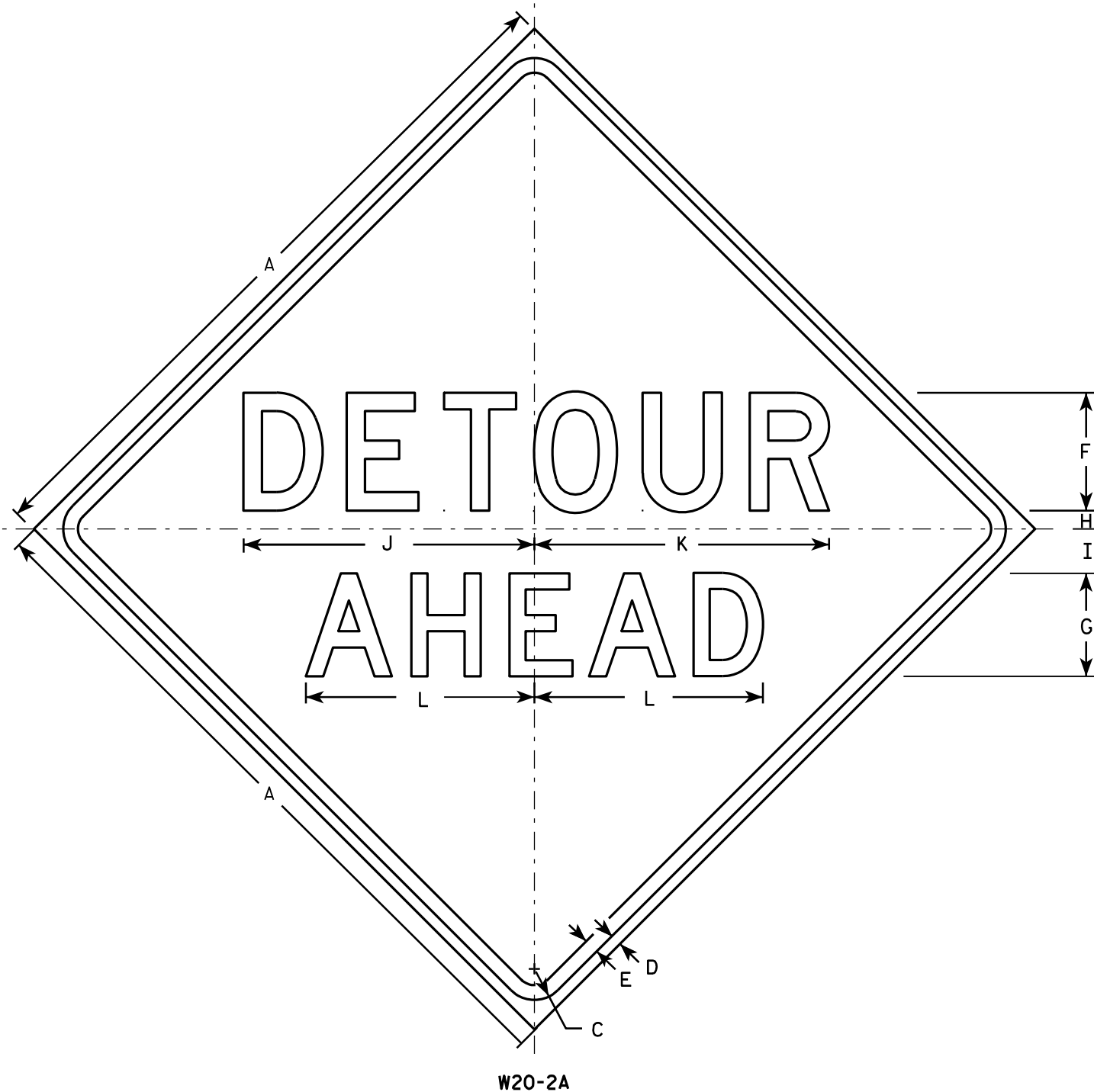
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

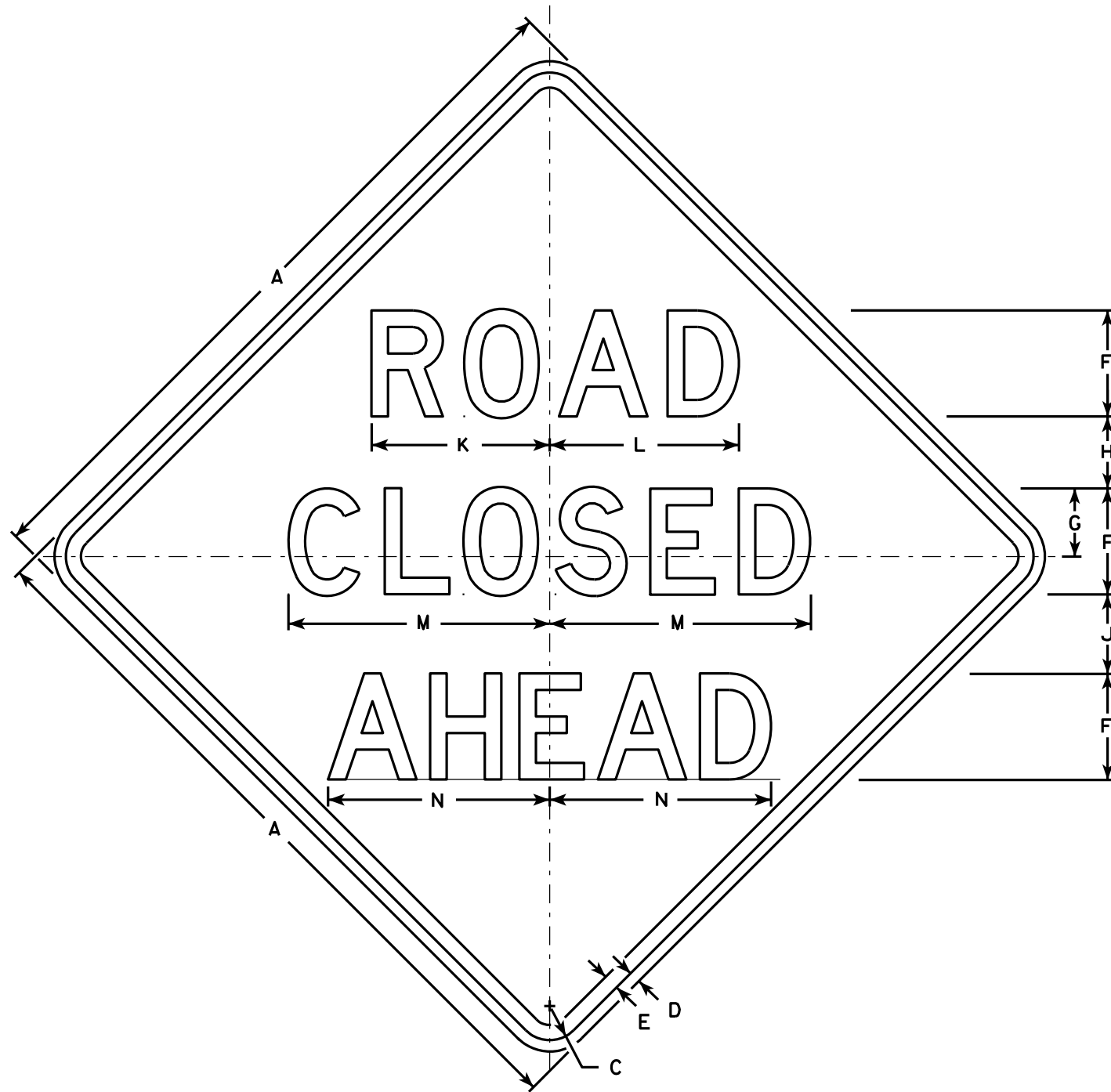


NOTES

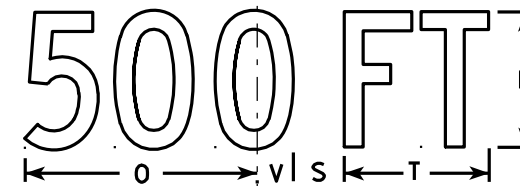
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

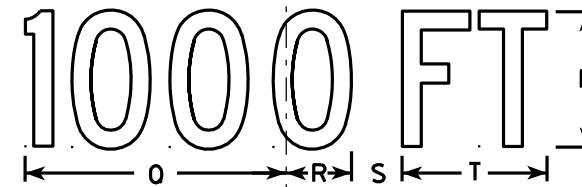
STANDARD SIGN	
W20-2A,B,C,D,F & G	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/18/11	PLATE NO. W20-2.6



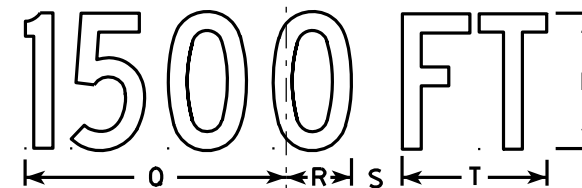
W20-3A



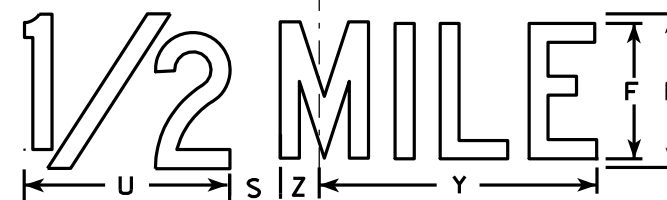
W20-3D



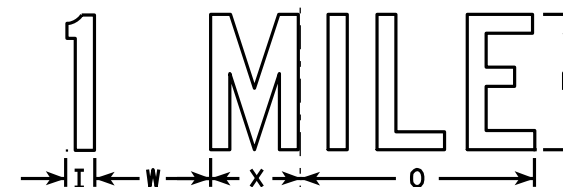
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - see note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 228

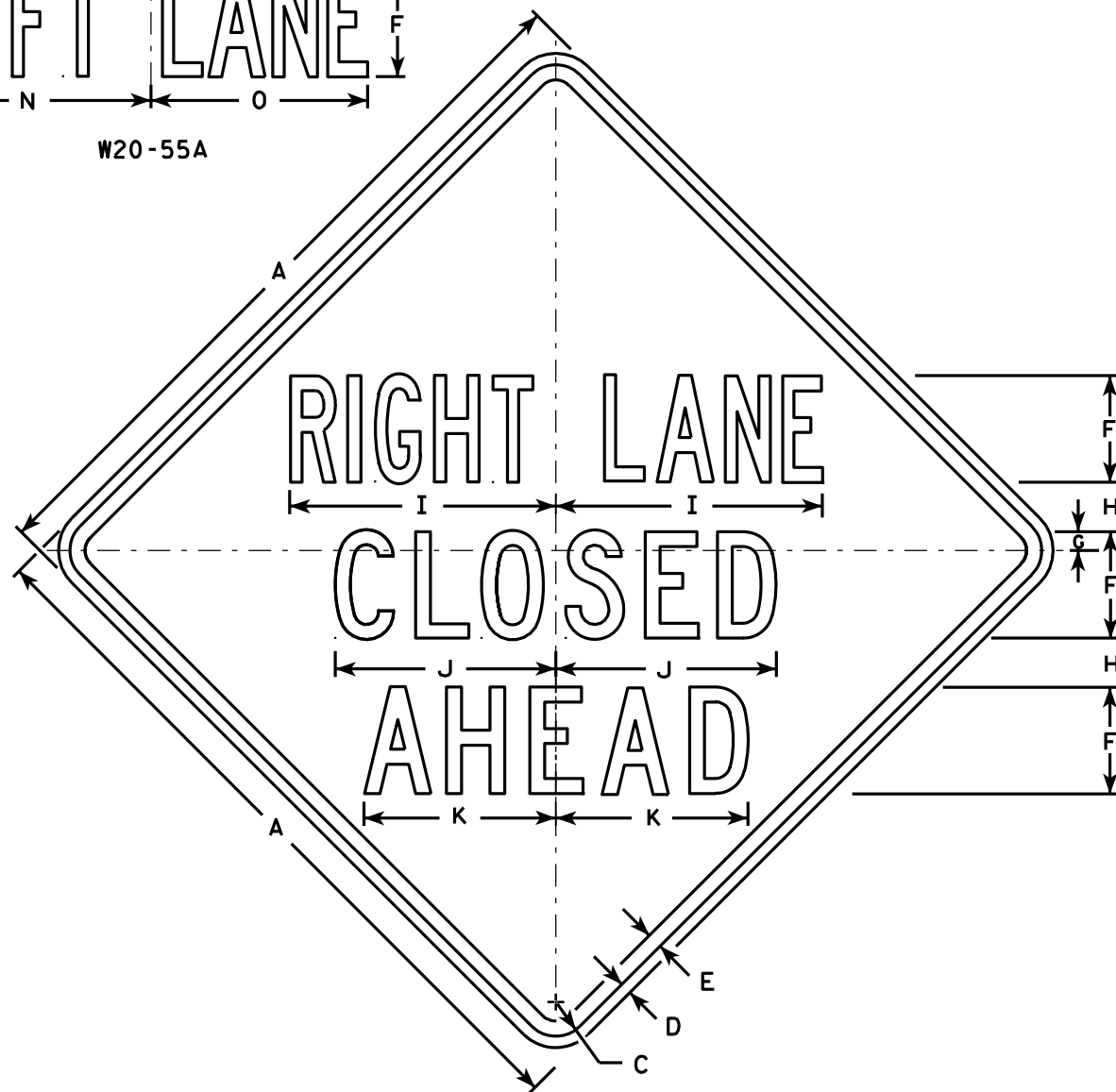
E

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "-----LANE" is Series B.
All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

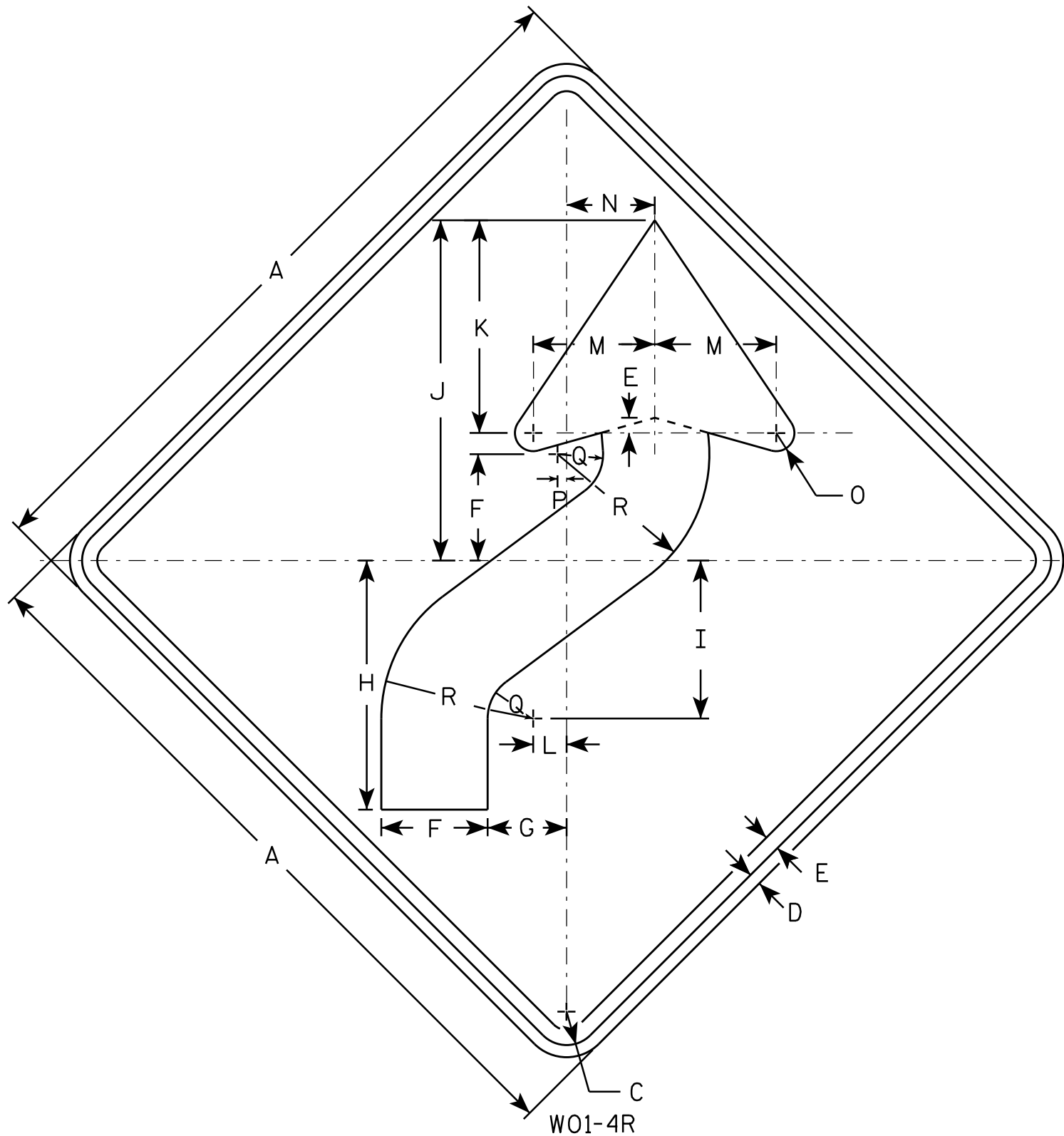
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 229

E



NOTES

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

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

STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

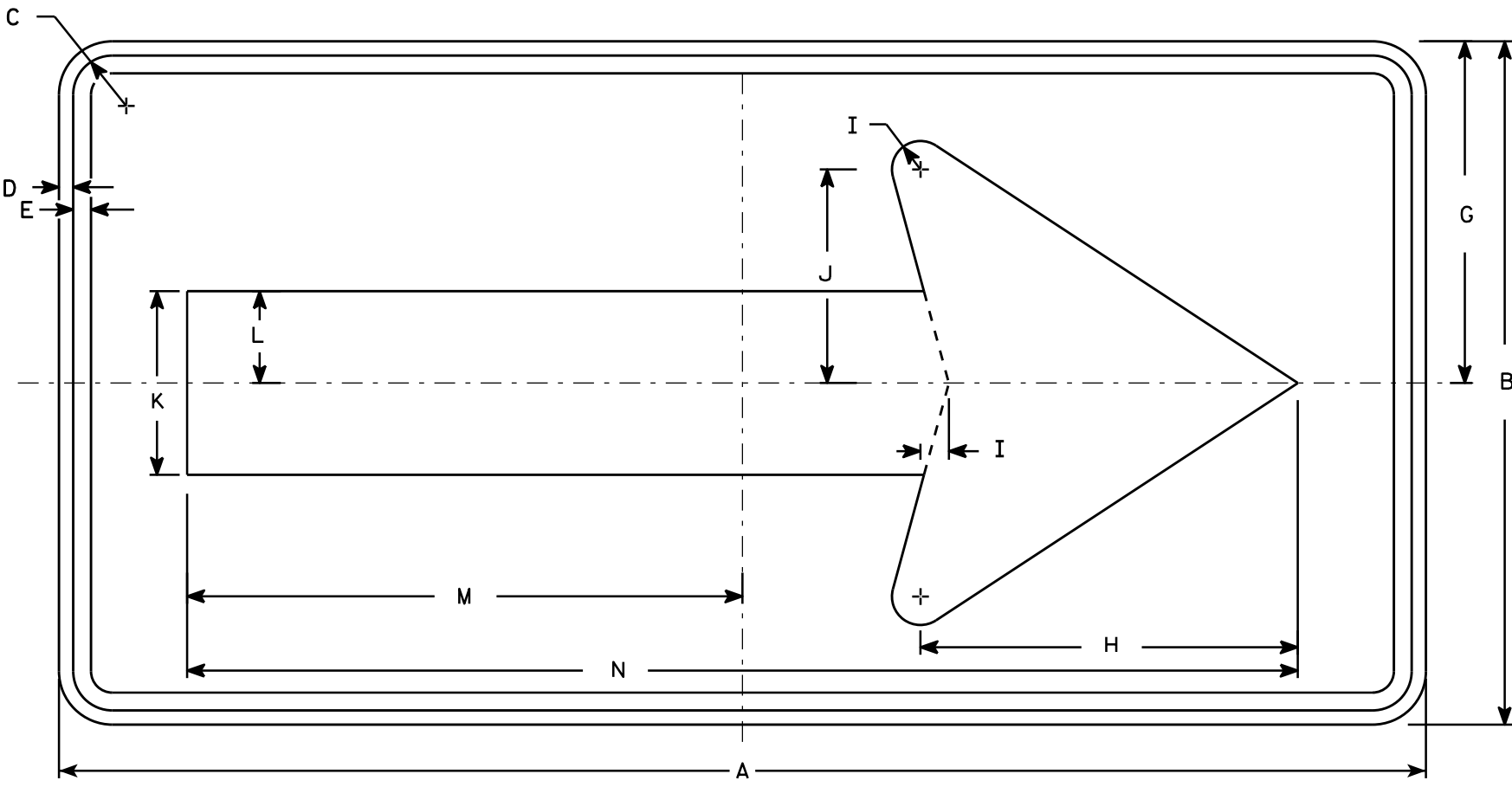
DATE 11/18/13 PLATE NO. W01-4.1
230

PROJECT NO:

HWY:

COUNTY:

SHEET NO: E



W01-6

NOTES

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

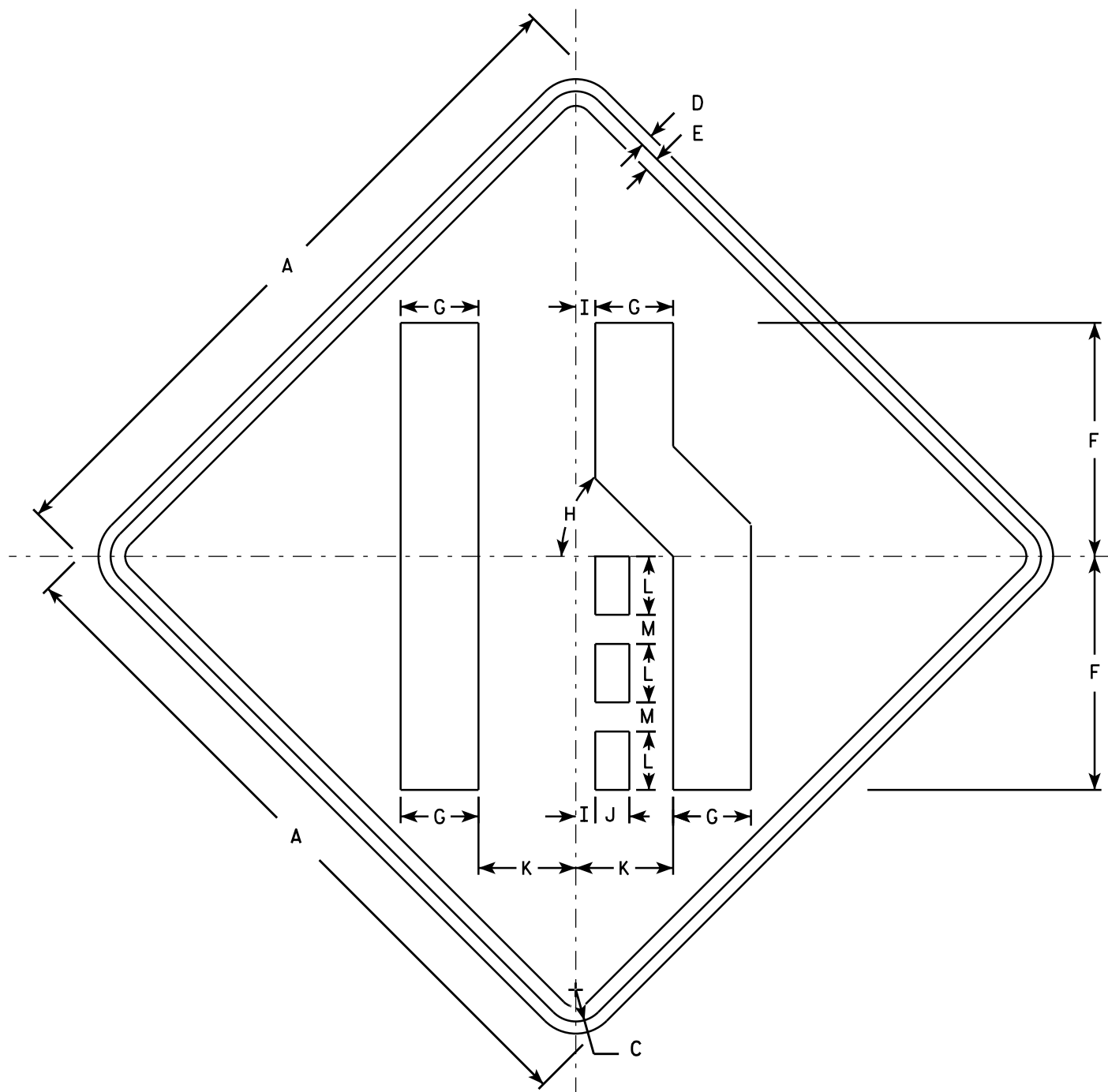
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4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

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. 231 W01-6.1



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

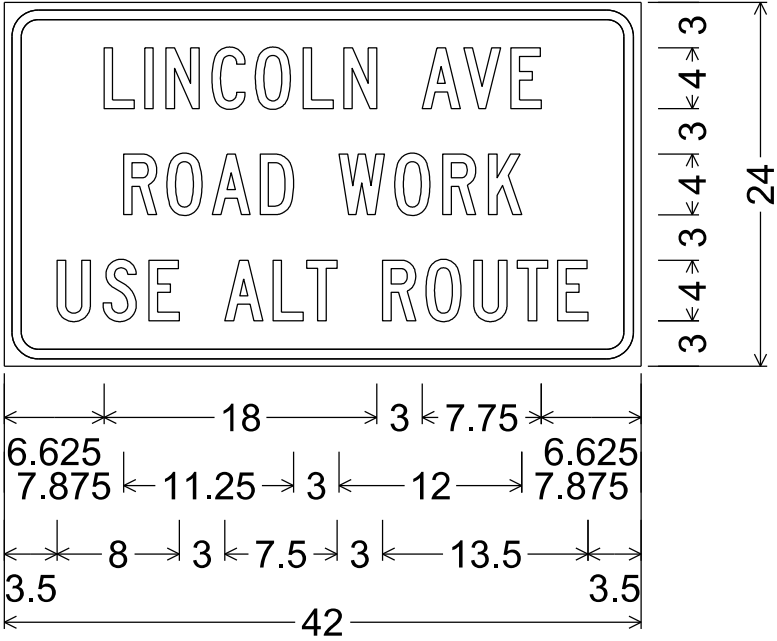
STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

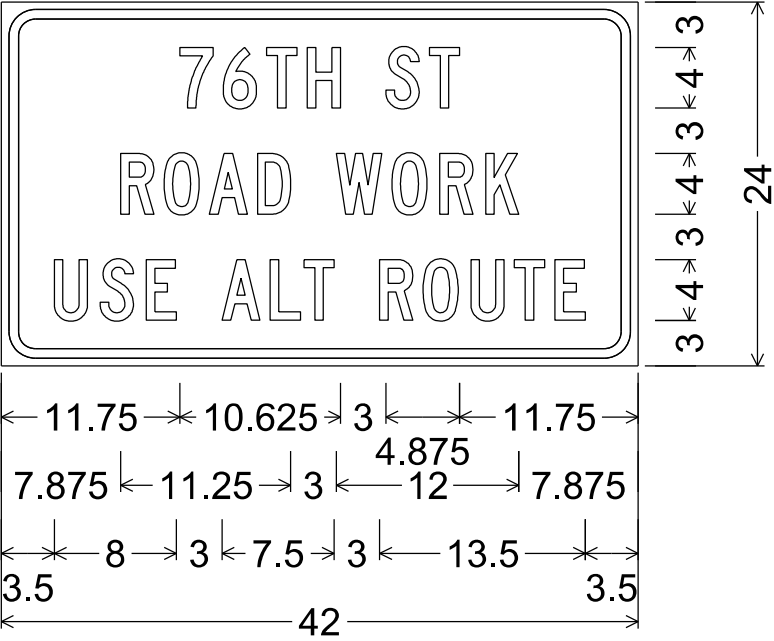
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 11/20/13 PLATE 232 W04-2.1

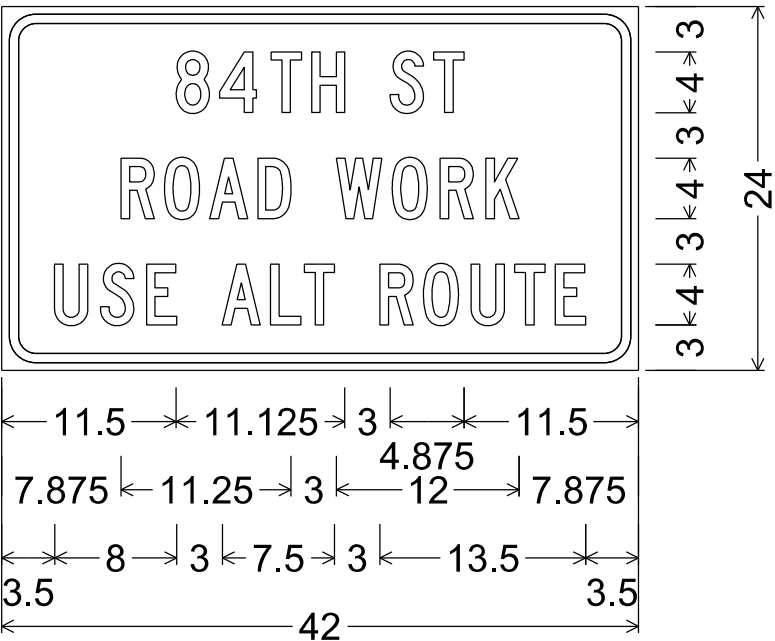
7



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

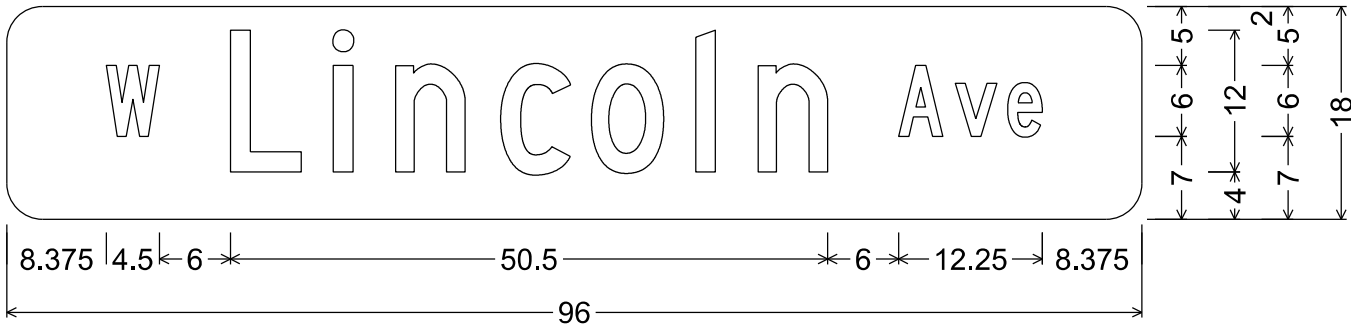
NOTES

- 1. Fixed Message Signs Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C

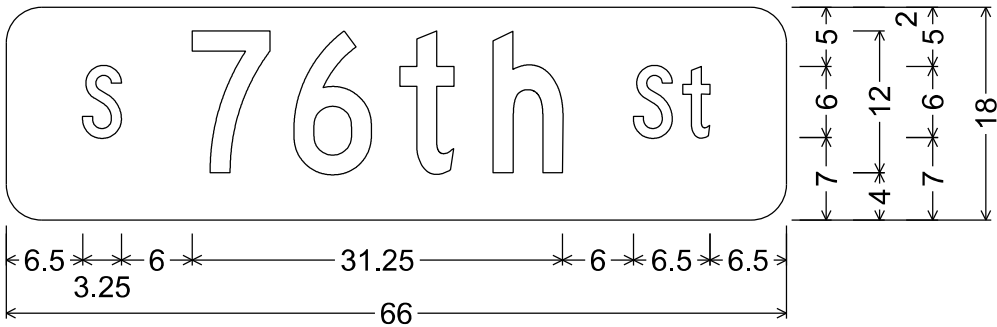
7

NOTES

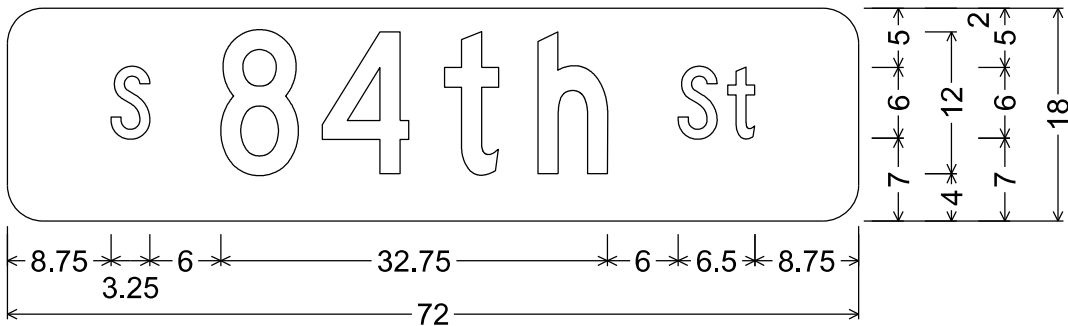
- 1. All Signs Type II - Type H Reflective
- 2. Color:
Background - Green
Message - White
- 3. Message Series - C



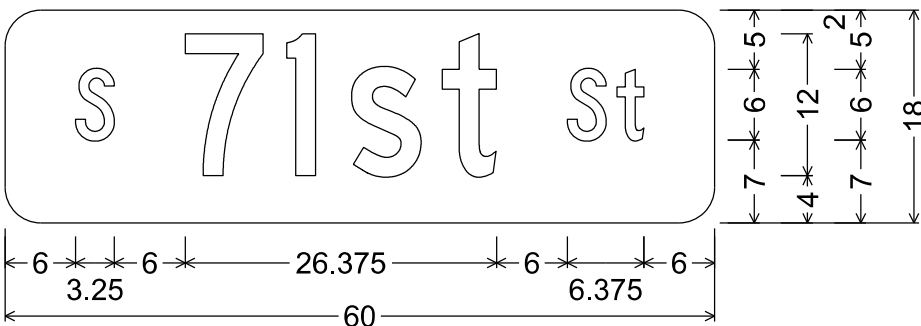
M1-94H; 3.000" Radius, No border



M1-94H; 3.000" Radius, No border



M1-94H; 3.000" Radius, No border

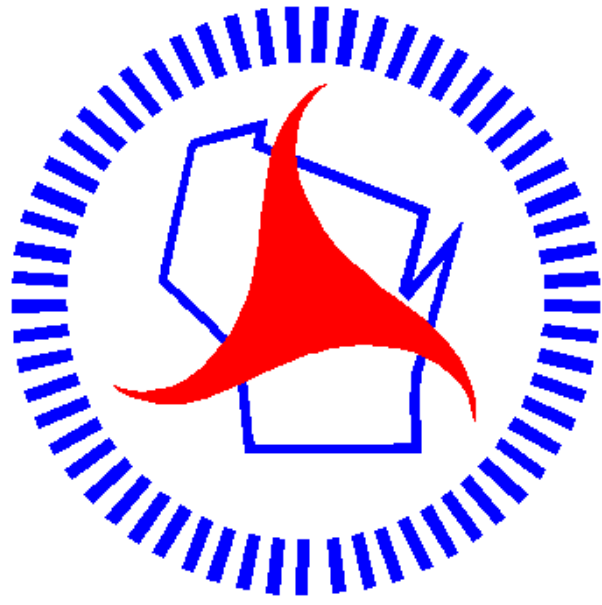


M1-94H; 3.000" Radius, No border

7

7

Notes



Wisconsin Department of Transportation

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<http://www.dot.wisconsin.gov>