SEL APR 2017

PROJECT ID 2025-01-72
WITH: 2585-00-70, 2595-08-70

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: 54

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WEST CAPITOL DRIVE (S.T.H. 190)

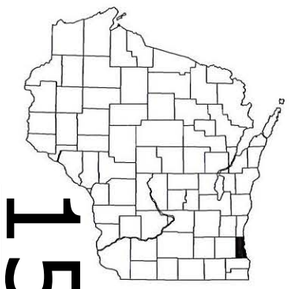
12 CONNECTING HIGHWAY INTERSECTIONS

STH 190
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2025-01-72		

Accepted For
City of Milwaukee

10/25/16 Ghassan Khalaf
(Date) Commissioner of Public Works



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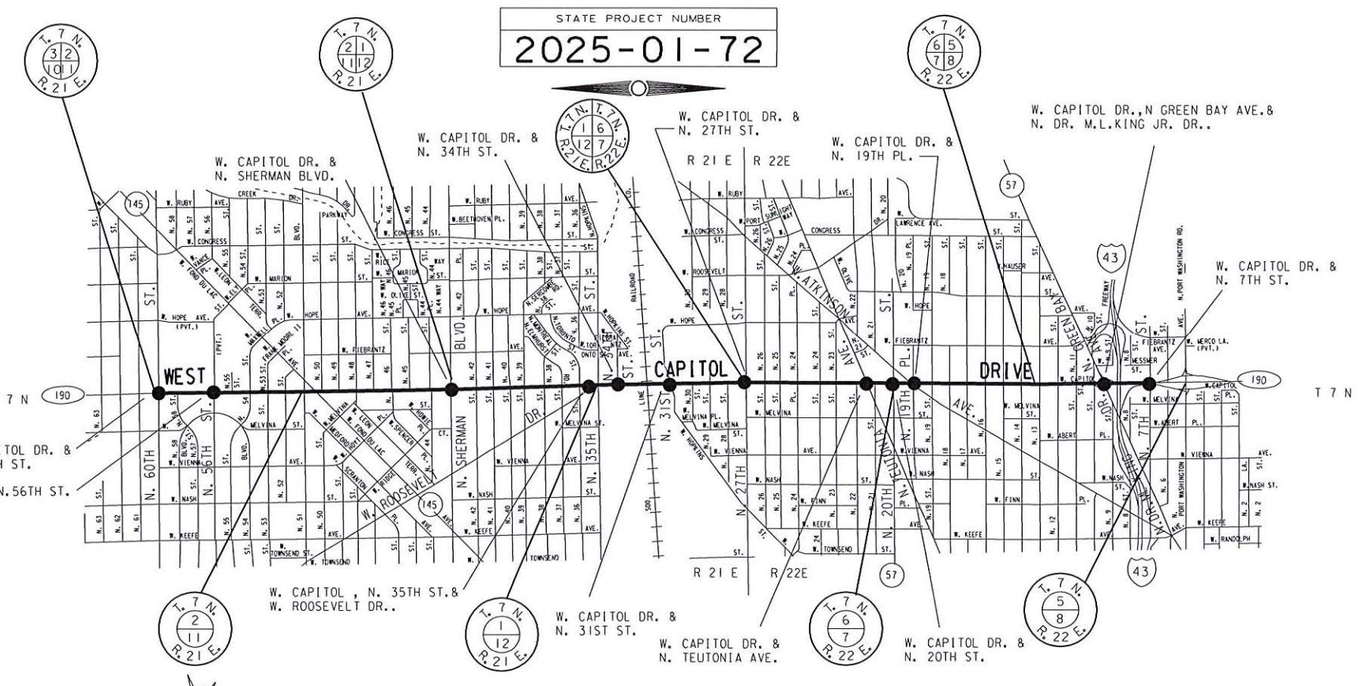


DESIGN DESIGNATION

A.D.T. (CURRENT)	= N/A
A.D.T. ( )	= N/A
D.H.V.	= N/A
D.	= N/A
T.	= N/A
DESIGN SPEED	= N/A
ESALS	= N/A

CONVENTIONAL SIGNS

COUNTY LINE	
TOWNSHIP OR RANGE LINE	
SECTION LINE	
CORPORATE OR CITY LIMITS	
PROPERTY LINE	P.L.
STANDARD BENCH MARK	
EXISTING RIGHT OF WAY LINE	R/W
PROPOSED SEWER LATERAL	
BASE OF SURVEY LINE	
CONCRETE WALK/DWY. REMOVAL	
LIMITS OF CONCRETE PAVEMENT REMOVAL	X X X X X X
CATCH BASIN OR INLET	EXISTING PROPOSED
COMBUSTIBLE FLUIDS UNDER PRESSURE	CAUTION
RAILROADS	
FENCE	(TYPE)
FIRE & POLICE CALL BOX	
LIGHT POLE	
POWER POLE	
TELEPHONE OR TELEGRAPH POLE	
TRAFFIC SIGNAL	
TRAFFIC SIGNAL CONTROL BOX	
HYDRANT	
GAS OR WATER GATE VALVE	
MANHOLES - SEWER	UTILITY (TYPE)
TREES - EXISTING	TO BE REMOVED

LAYOUT
SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE =

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 27 SOUTH ZONE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODEDIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

Original Plans Prepared By

WISCONSIN
JEFFREY S. POLENSKE
E-33528
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER

10/19/16 Jeffrey S. Polenske
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor City of Milwaukee
Designer City of Milwaukee
Management Consultant
C.O. Examiner

APPROVED FOR THE DEPARTMENT
DATE: 10/26/2016 Christine Hanna
(Signature)

E

COUNTY MILWAUKEE

15

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TITLE.DGN

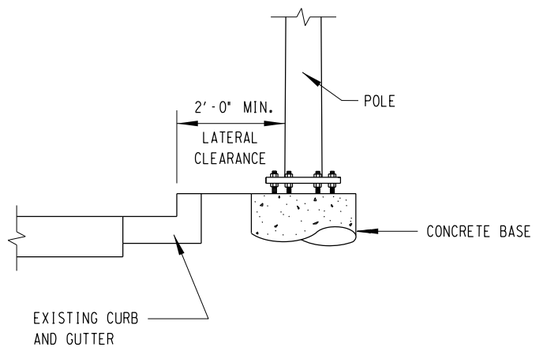
PLOT DATE:

GENERAL NOTES

1. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESINATED FOR REMOVAL BY THE ENGINEER.
2. TRANSVERSE JOINTS IN THE SIDEWALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHEREWISE DIRECTED BY THE ENGINEER.
3. THE LOCATION 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.
4. FOR ANY EXCAVATION OF SIX FEET OR MORE IN THE CITY OF MILWAUKEE, THE CONTRACTOR, WHEN REQUESTING A UTILITY LOCATE TICKET FROM DIGGER'S HOTLINE, SHALL SPECIFICALLY ASK FOR THE LOCATION TICKET TO INCLUDE THE MARKING OF ALL EXISTING SEWER FACILITIES WITHIN THE LIMITS REQUESTED.

MONOTUBE INSTALLATION DETAIL

(NTS)



STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
C	- CURB
ELEV.	- ELEVATION
ENT.	- ENTRANCE
EXIST.	- EXISTING
F	- FLANGE
G	- GUTTER, OR GAS
HYD.	- HYDRANT
LT.	- LEFT
MMSD	- MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
P/L.	- PROPERTY LINE
R OR RAD.	- RADIUS
RET.	- RETAINING
RT.	- RIGHT
R/W	- RIGHT OF WAY
TEL	- AMERITECH
TES	- TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	- TRANSIT LINE
WEP	- WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
UTILITY CONTACTS
PROJECT OVERVIEW
DRAINAGE DETAILS
TRAFFIC CONTROL
TRAFFIC SIGNAL CONDUIT DETAILS
TRAFFIC SIGNAL PLANS

2

UTILITY CONTACTS

CITY OF MILWAUKEE, SEWER AND WATER

MUSA ABU-KHADER
841 N. BROADWAY, RM 710
MILWAUKEE, WI 53202
PHONE: 414-286-2432
mkhade@milwaukee.gov

CITY OF MILWAUKEE, COMMUNICATIONS & UNDERGROUND CONDUIT

KAREN ROGNEY
841 N. BROADWAY, RM 920
MILWAUKEE, WI 53202
PHONE: 414-286-3243
krogne@milwaukee.gov

CITY OF MILWAUKEE, IRRIGATION

JAMES KRINGER
841 N. BROADWAY, RM 619
MILWAUKEE, WI 53202
PHONE: 414-708-2428
jkring@milwaukee.gov

CITY OF MILWAUKEE, STREET LIGHTING

DENIS KOZELEK
841 N. BROADWAY, RM 920
MILWAUKEE, WI 53202
PHONE: 414-286-3252
dkozel@milwaukee.gov

CITY OF MILWAUKEE, TRAFFIC SIGNALS (CONSTRUCTION)

ALPHONZO NICHOLS
1540 W CANAL ST., 2ND FLOOR
MILWAUKEE, WI 53202
PHONE: 414-286-5941
anicho@milwaukee.gov

CITY OF MILWAUKEE, TRAFFIC SIGNALS (OPERATIONS)

JOSEPH BLAKEMAN
841 N. BROADWAY, RM 920
MILWAUKEE, WI 53202
PHONE: 414-286-8070
jblake@milwaukee.gov

WE ENERGIES - GAS

MITCH BRAVERMAN
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-540-5709

WE ENERGIES - ELECTRIC

LEONARD WILSON
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-944-5690
leonard.wilson@we-energies.com

TIME WARNER CABLE

STEVE CRAMER
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-277-4045
steve.cramer@twcable.com

AT & T WISCONSIN

JAY BULANEK
2005 PEWAUKEE DR.
WAUKESHA, WI 53188
PHONE: 262-896-7669
jb5175@att.com

MILWAUKEE METROPILTAN SEWERAGE DISTRICT

LARRY ANDERSON
260 W. SEEBOTH ST.
MILWAUKEE, WI 53204
PHONE: 414-225-2241
landerson@mmsd.com

AMERICAN TRANSMISSION COMPANY

KIM HACKLEBERG
PHONE: 920-338-656

OTHER CONTACTS

WISCONSIN DEPT. OF NATURAL RESOURCES

KRISTINA BETZOLD
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212-0436
PHONE: 414-263-8517
kristina.betzold@wisconsin.gov

MILWAUKEE COUNTY TRANSIT SYSTEM

MELANIE MACARTHUR
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1764
mmacarthur@mcts.org

DESIGN CONSULTANT

DAVID TAPIA
841 N. BROADWAY RM 902
MILWAUKEE, WI 53202
PHONE: 414-286-2453
dtapia@milwaukee.gov

WISDOT PROJECT MANAGER

CHRISTINE HANNA
141 NW BARSTOW STREET
WAUKESHA, WI 53187
PHONE: 262-548-8809
christine.hanna@dot.wi.gov

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

STATE PROJECT NUMBER 2025-01-72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITY CONTACTS	SCALE FEET	SHEET NO: 3	E

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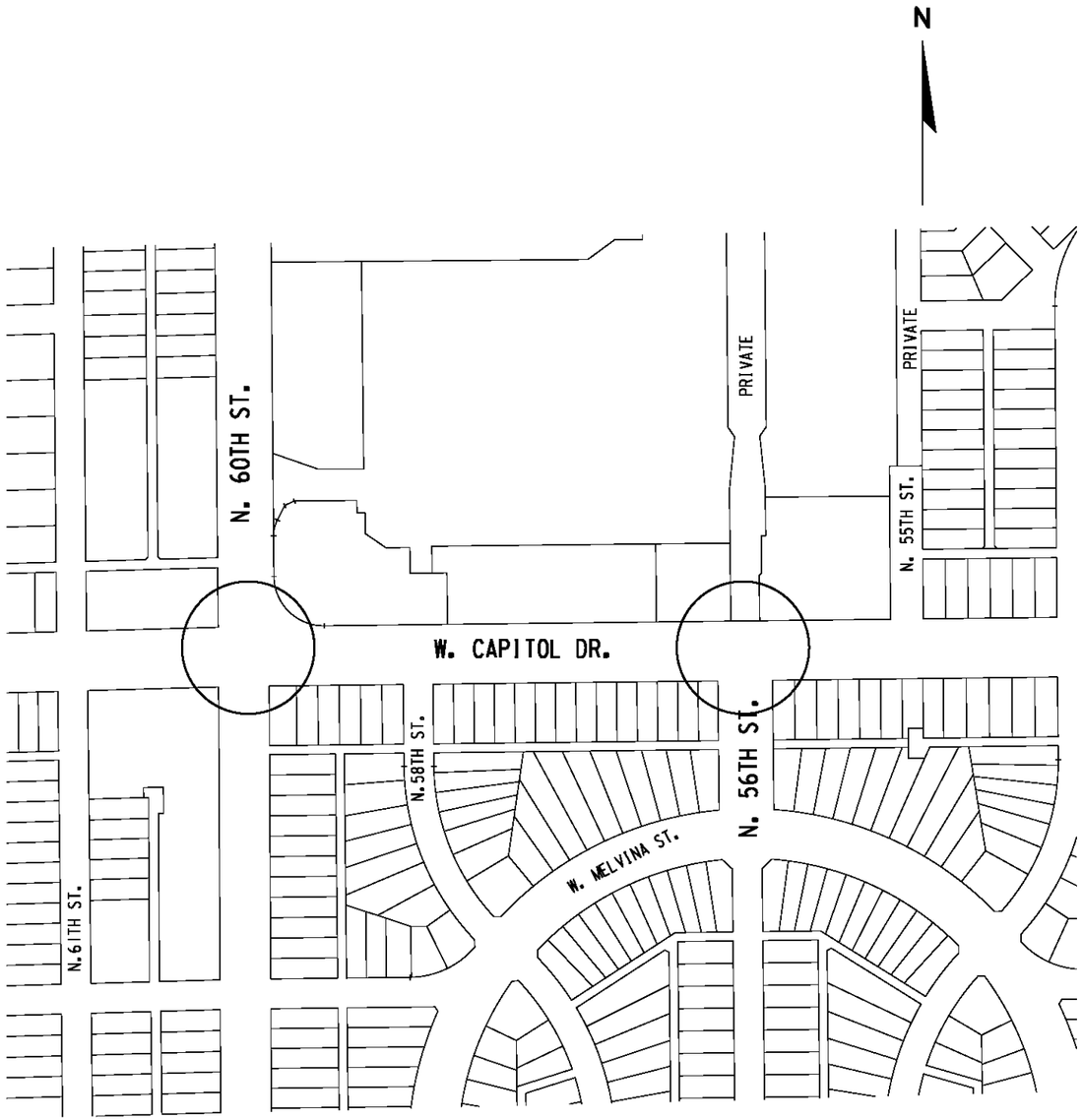

MONOTUBE MASTARM INTERSECTION ON W.CAPITOL DR.(STH 190)
N. 60TH ST.
N. 56TH ST.

MONOTUBE MASTARM INTERSECTION ON W.CAPITOL DR.(STH 190)
N. SHERMAN BLVD.

STATE PROJECT NUMBER 2025-01-72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0 300	SHEET NO: 4	E

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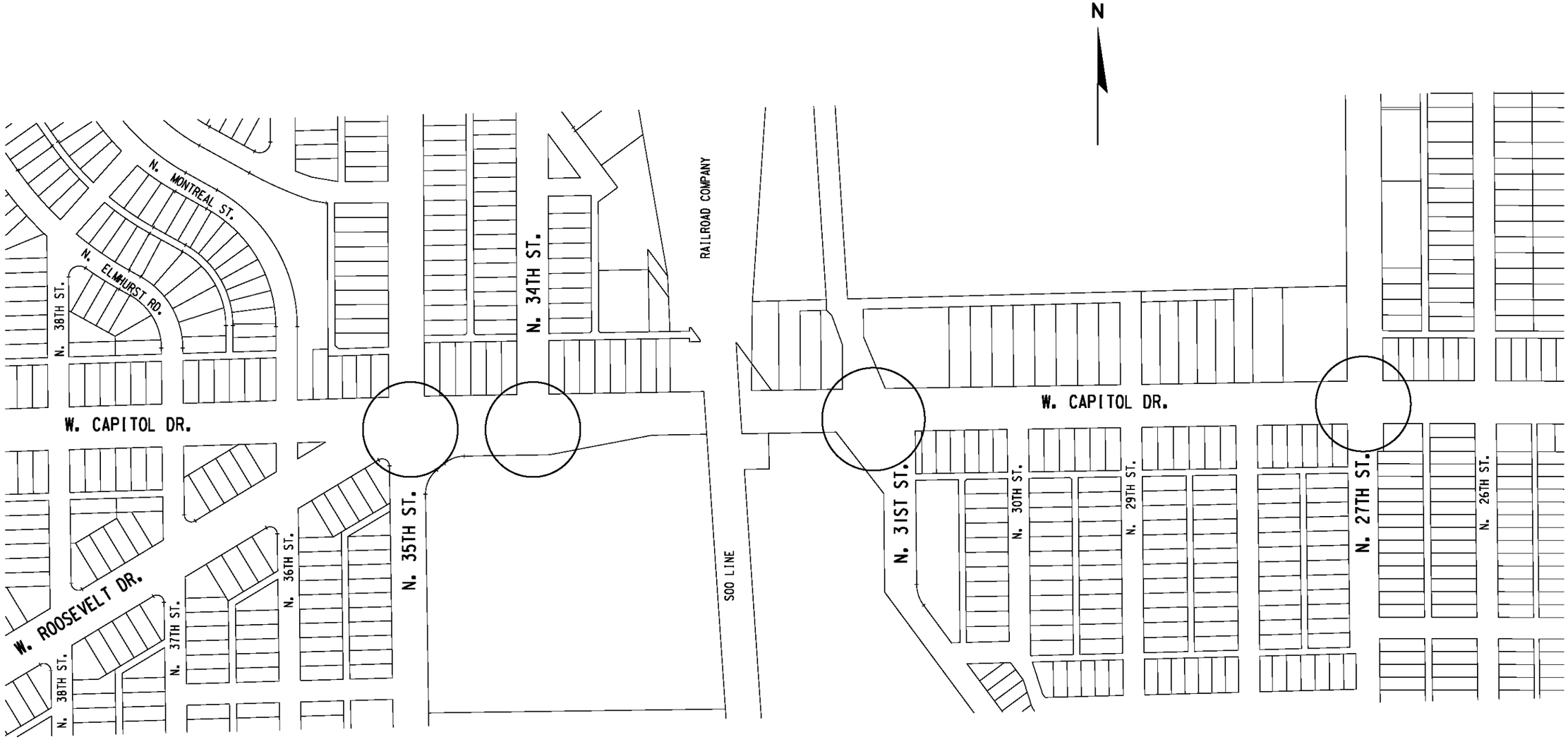

MONOTUBE MASTARM INTERSECTIONS ON W.CAPITOL DR.(STH 190)

N. 35TH ST./ W. ROOSEVELT DR.

N. 34TH ST.

N. 31ST ST.

N. 27TH ST.

SHEET 2 OF 4

STATE PROJECT NUMBER 2025-01-72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 5	E

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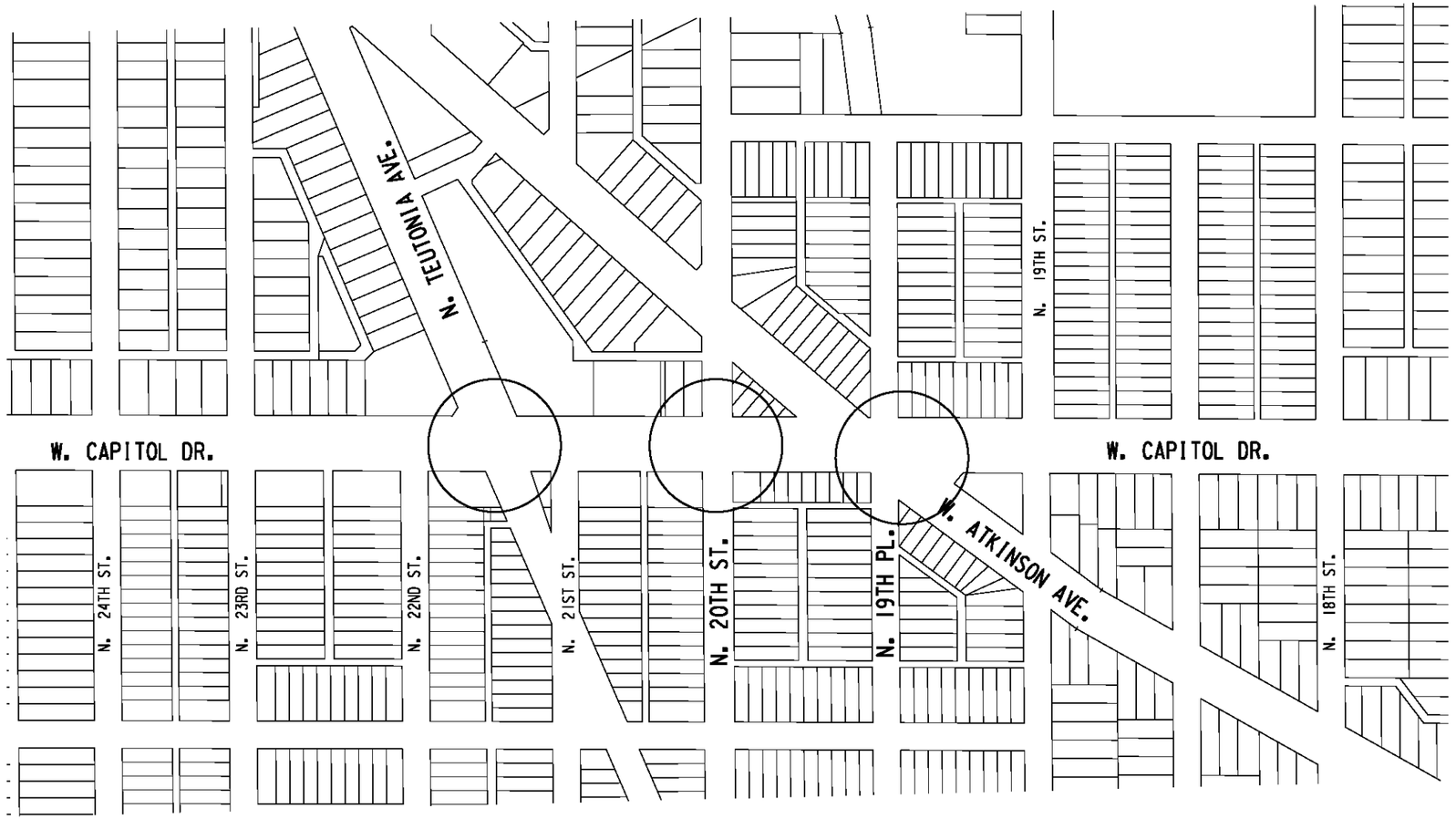


MONOTUBE MASTARM INTERSECTION ON W.CAPITOL DR.(STH 190)

N. TEUTONIA AVE.

N. 20TH ST.

N. 19TH PL.\ W. ATKINSON AVE.

SHEET 3 OF 4

STATE PROJECT NUMBER 2025-01-72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0 300	SHEET NO: 6	E

FILE NAME= W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\OVIEWCAP.DGN

2

N

MONOTUBE MASTARM INTERSECTION ON W.CAPITOL DR.(STH 190)

N. GREEN BAY AVE./ N. DR.L.M. KING JR. DR.

N. 7TH ST.

SHEET 4 OF 4

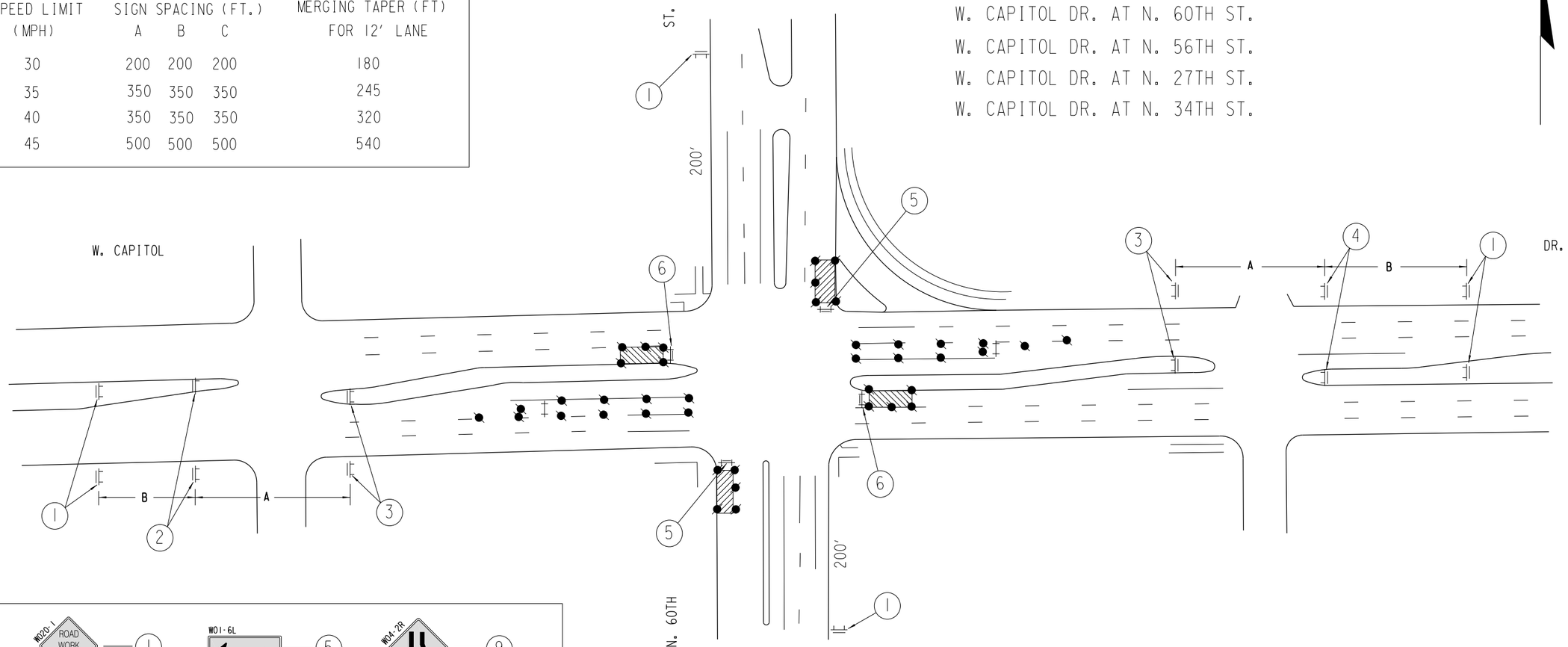
STATE PROJECT NUMBER 2025-01-72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0 300	SHEET NO: 7	E

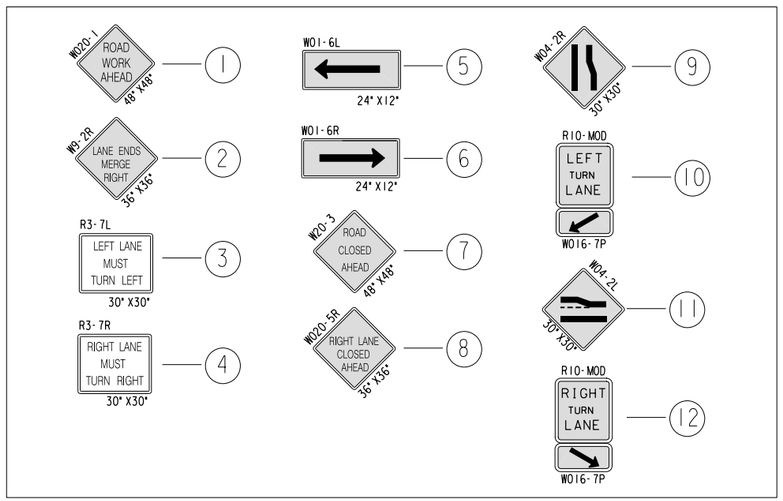
FILE NAME = W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\OVIEWCAP.DGN

2

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540

W. CAPITOL DR. AT N. 60TH ST.
W. CAPITOL DR. AT N. 56TH ST.
W. CAPITOL DR. AT N. 27TH ST.
W. CAPITOL DR. AT N. 34TH ST.





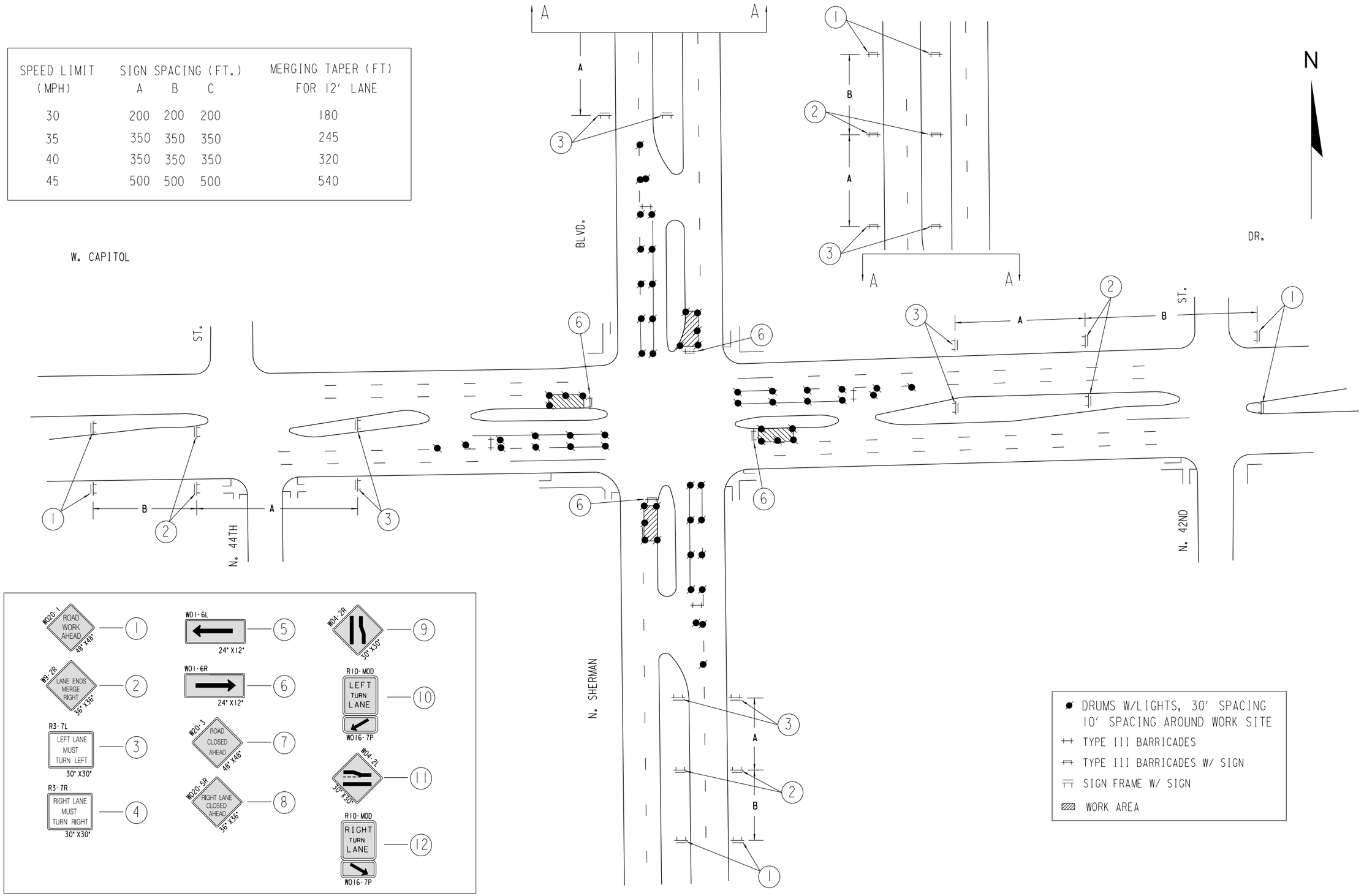
- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 8	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540

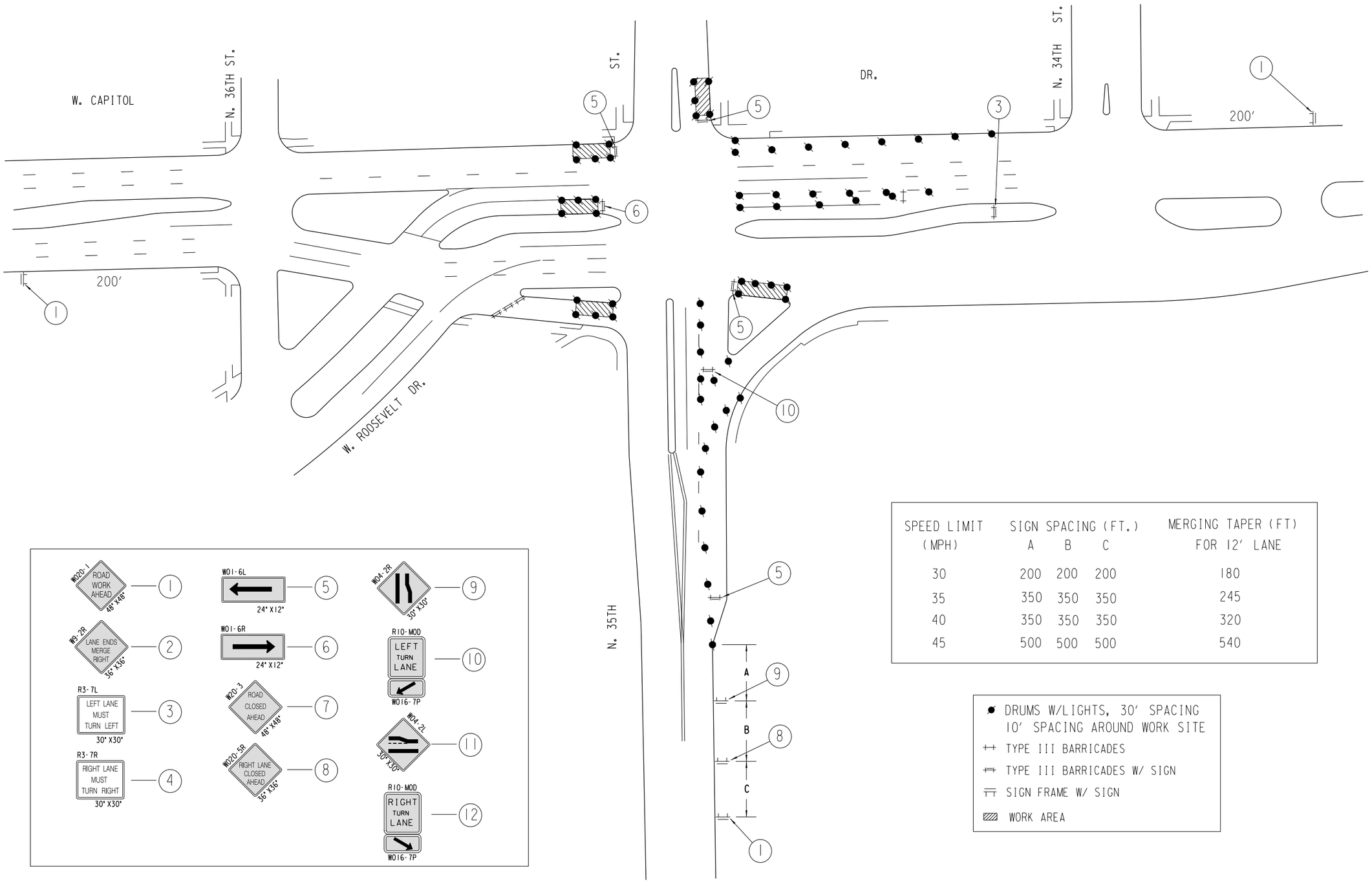


STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 9	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

2



SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540

- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 10	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

2

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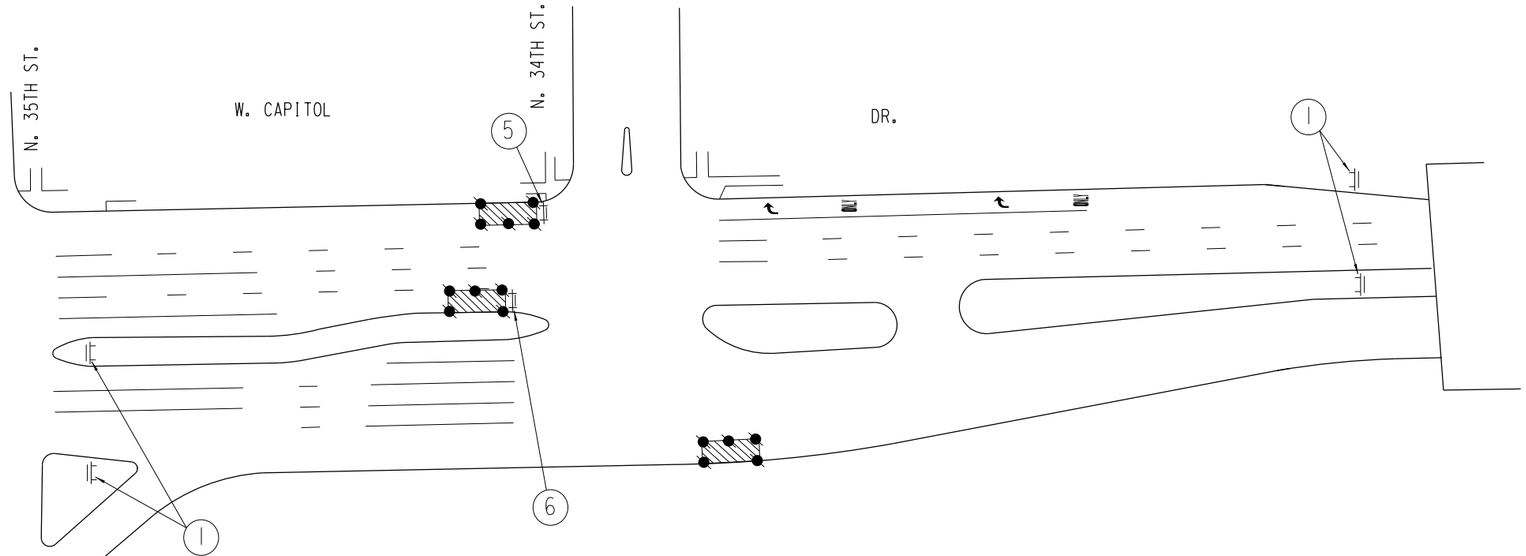

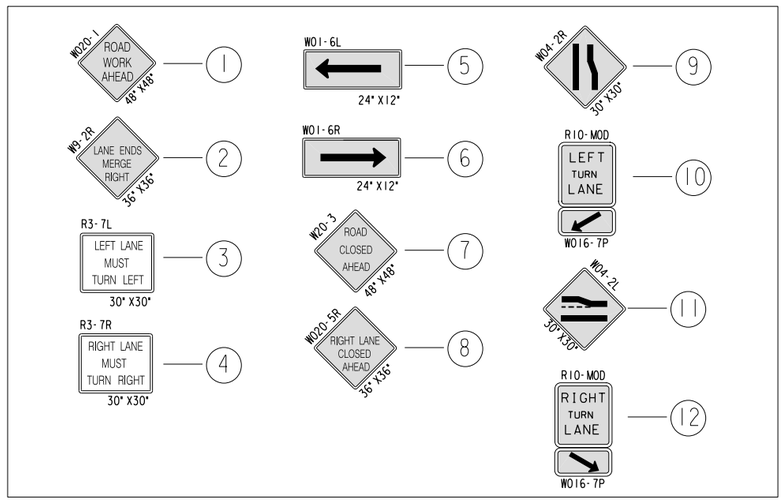

- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 11	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

2

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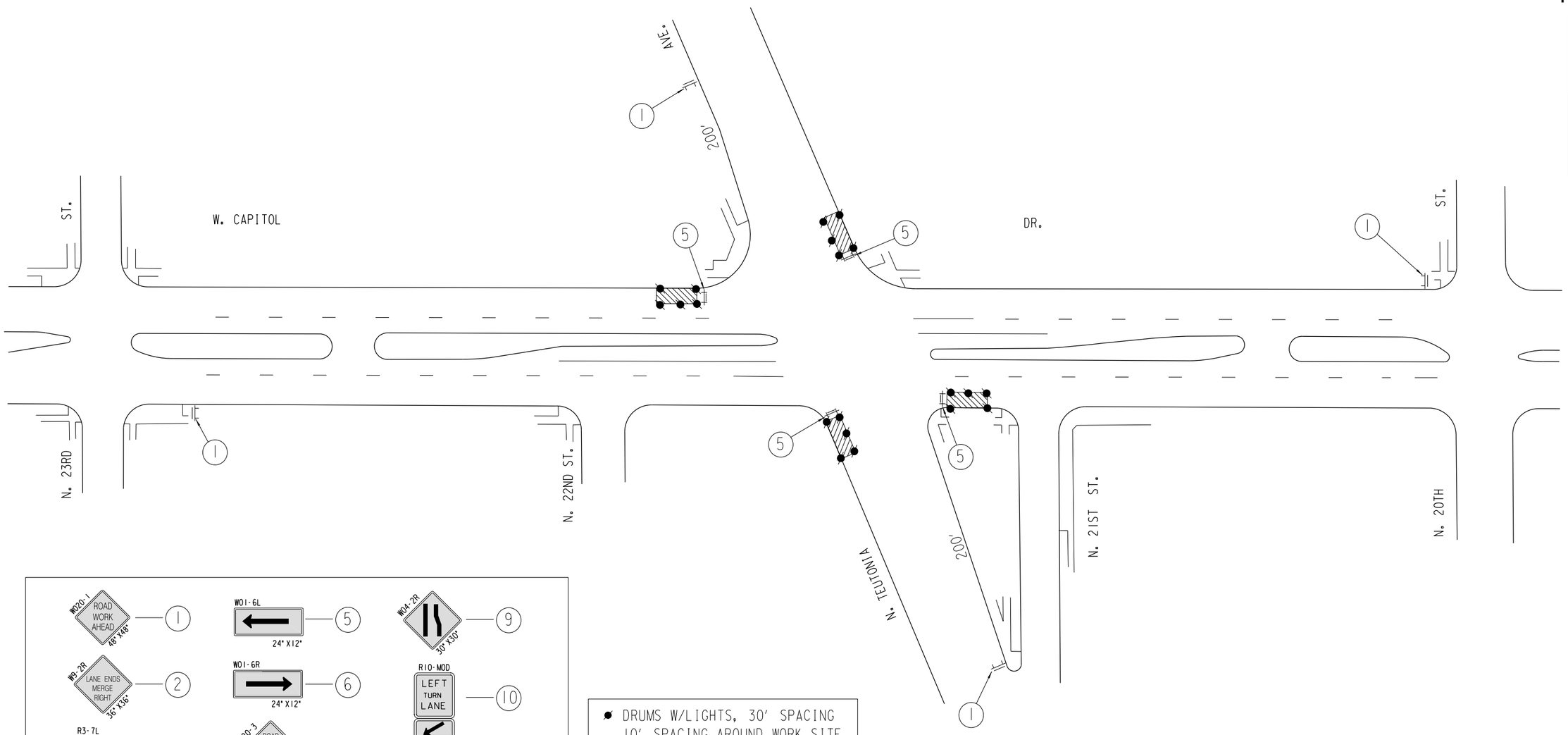
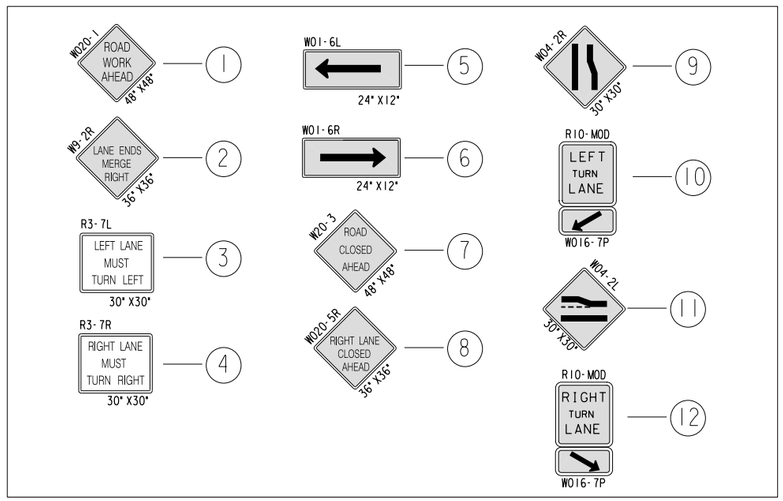




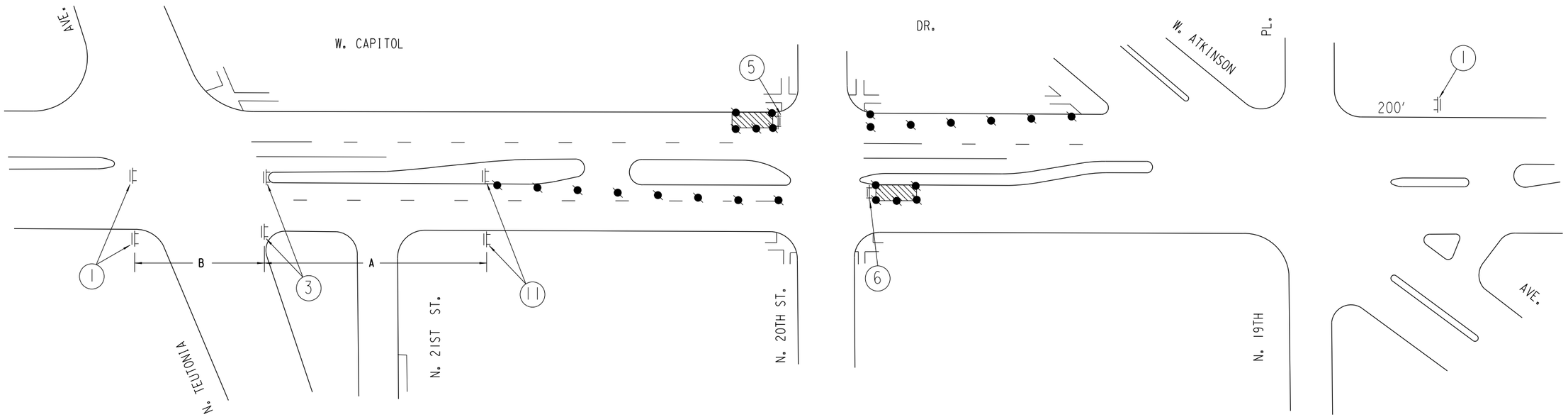
- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

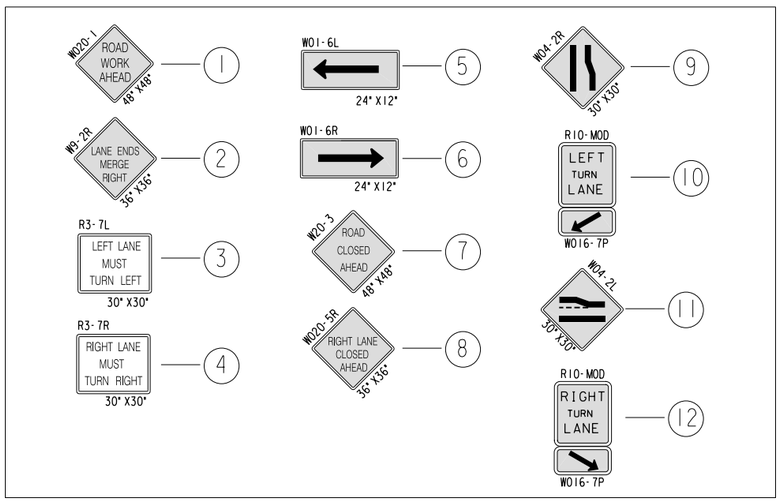
STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 12	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540





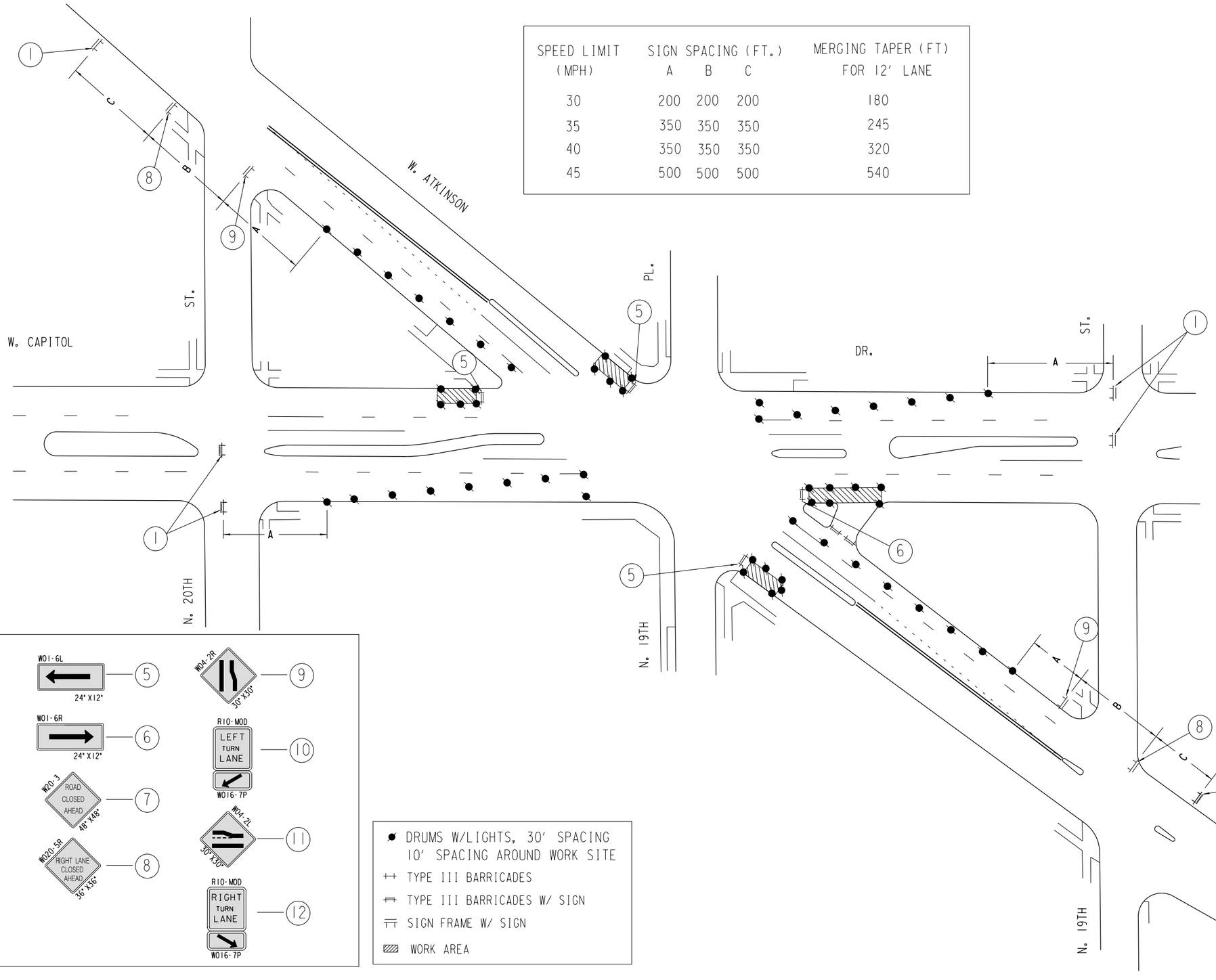
- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

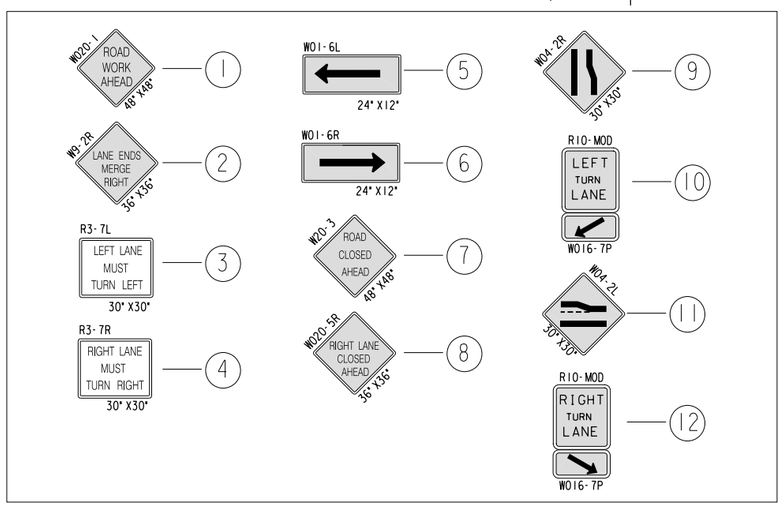
STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 13	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540





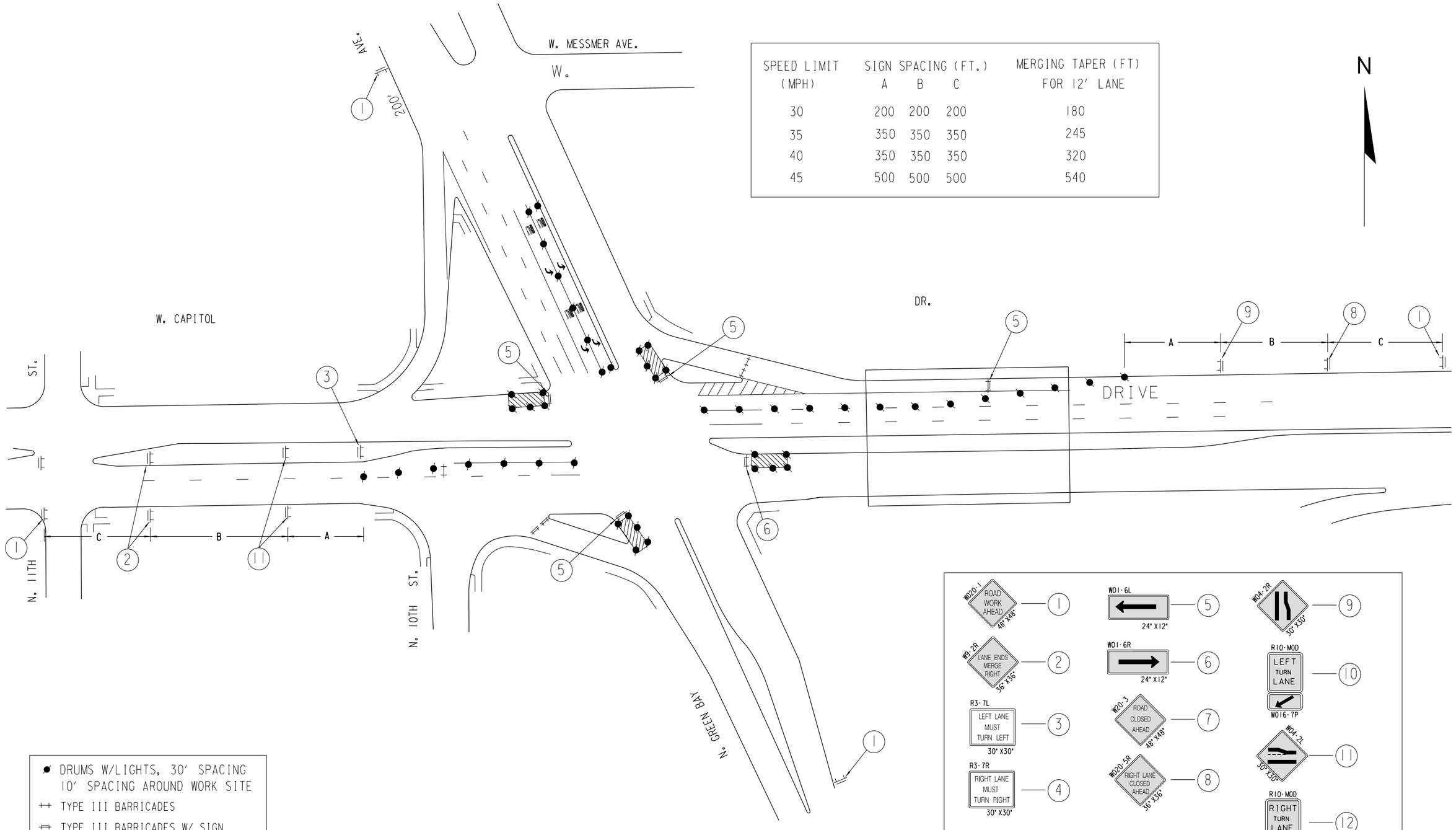
- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 14	E

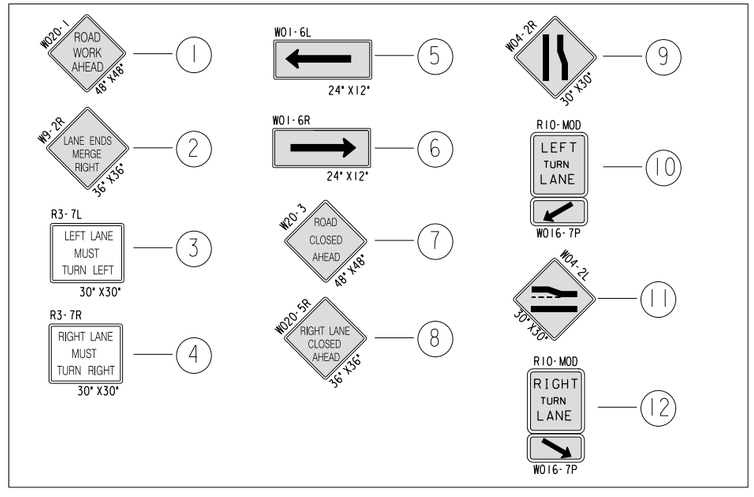
FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

SPEED LIMIT (MPH)	SIGN SPACING (FT.) A	B	C	MERGING TAPER (FT) FOR 12' LANE
30	200	200	200	180
35	350	350	350	245
40	350	350	350	320
45	500	500	500	540



- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA



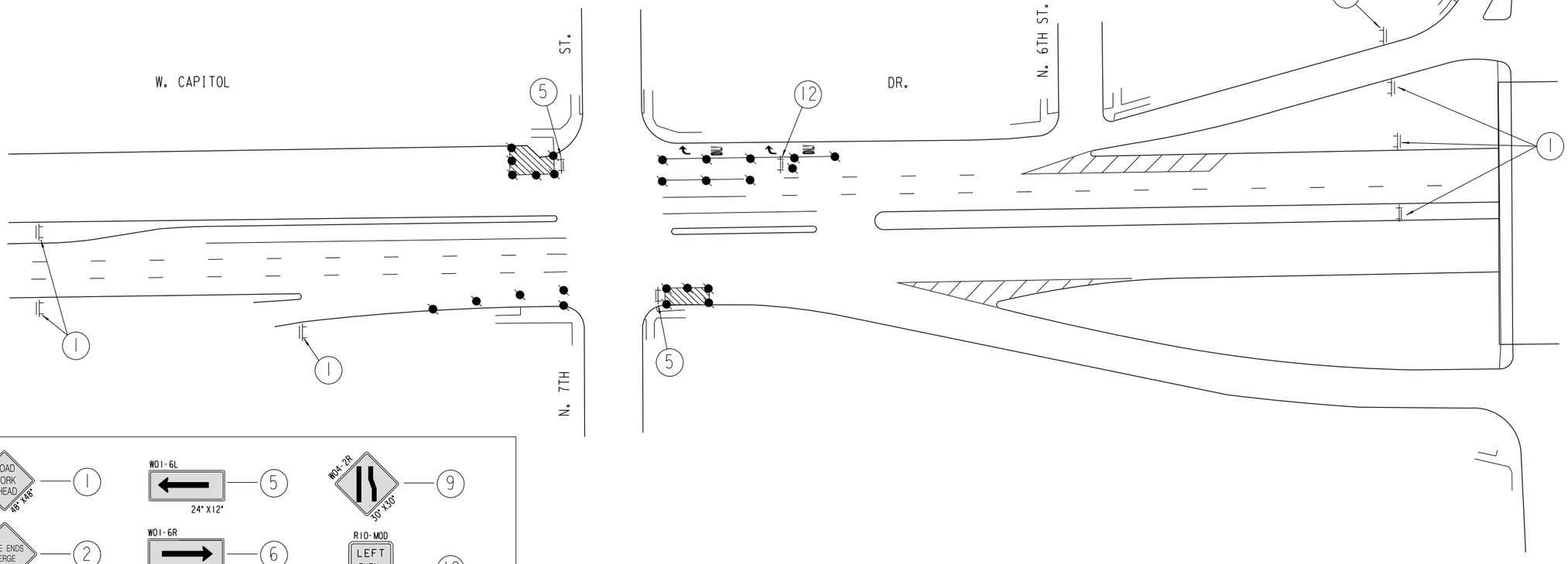
STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 15	E

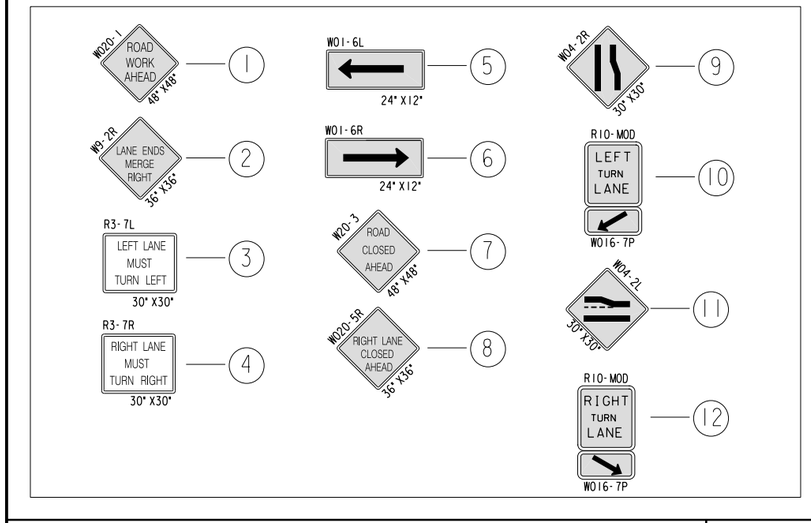
FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

2

N





- DRUMS W/LIGHTS, 30' SPACING 10' SPACING AROUND WORK SITE
- TYPE III BARRICADES
- TYPE III BARRICADES W/ SIGN
- SIGN FRAME W/ SIGN
- WORK AREA

STATE PROJECT NUMBER 2025-01-72 - -	HWY: W CAPITOL DR	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 16	E

FILE NAME: W:\SPR\MONOTUBE PROJECTS\CAPITOL MONOTUBES\TRAFFIC.DGN

REVISED: 01-NOV-2016

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.

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

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

9 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.

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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

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

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 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 UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

UTILITY LINE CODE

SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
E	ELECTRIC
TE&ES	CITY TRAFFIC, LIGHTING, COMM. & UNDERGROUND CONDUIT
OH	OVERHEAD LINE
T	TELEPHONE
TV	CABLE

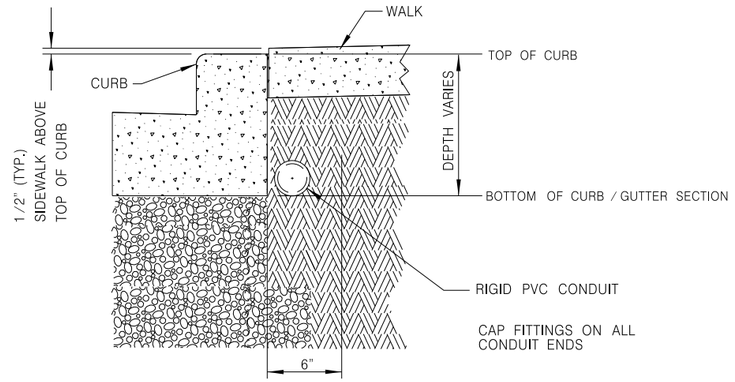
OTHER UTILITIES AS NOTED

SHEET 1 OF 6

PROJECT NO: 2025–01–02	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 17	E

FILE NAME : W:\spr\MONOTUBE PROJECTS\Capitol monotubes\2025–01–02 Traffic Plan Set 60%.dgn PLOT DATE : 04–OCT–2016 11:08 PLOT BY : sblega PLOT NAME : PLOT SCALE : 20.000011:1.000000
WISDOT/CADDS SHEET 42

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

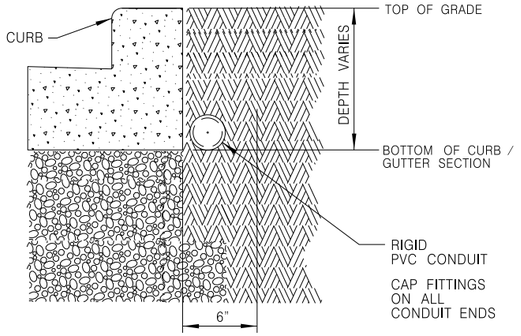
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

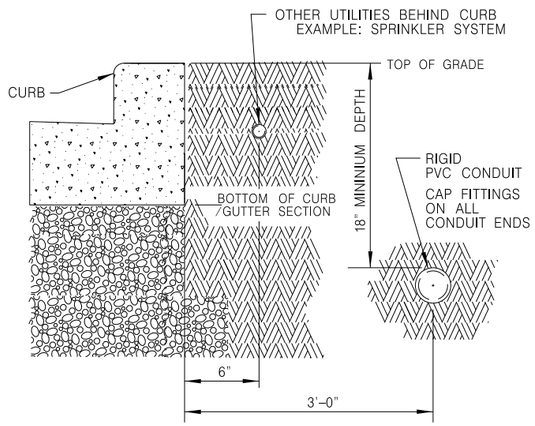
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB,
UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"

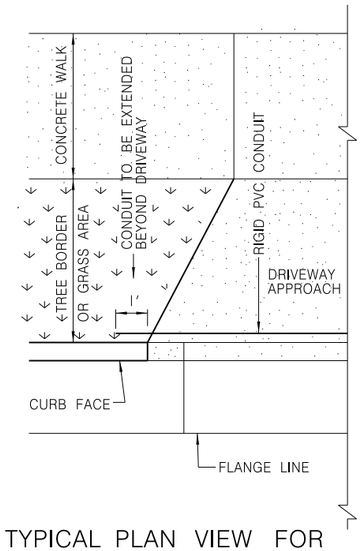


100 DETAIL "B" & "C"

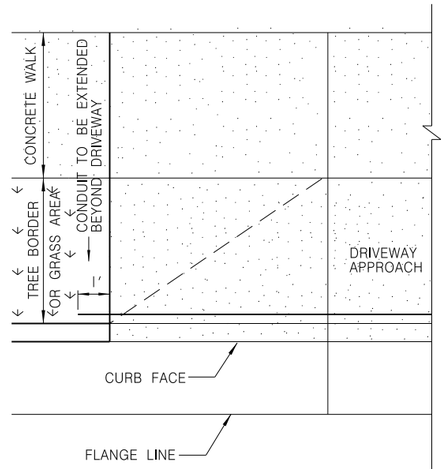
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

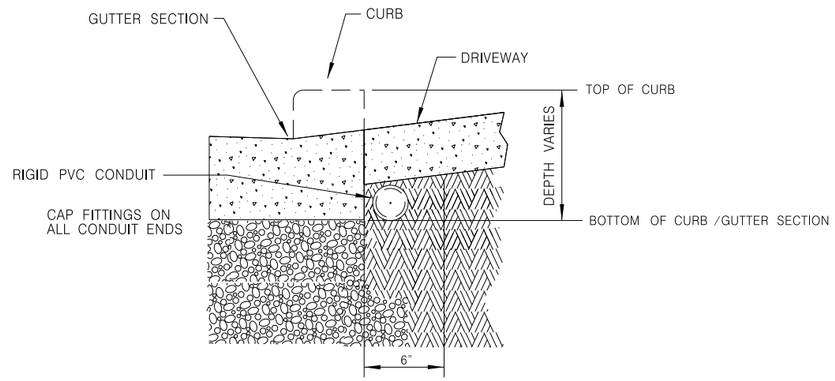


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



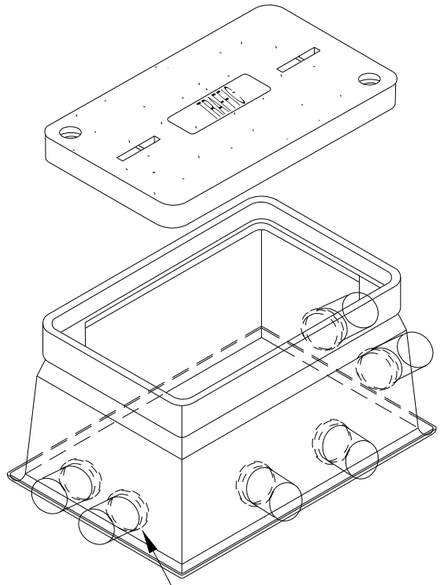
101 DETAIL

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 2 OF 6

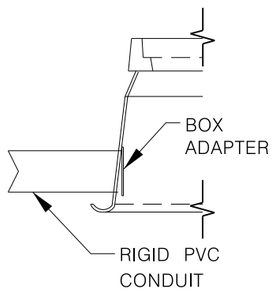


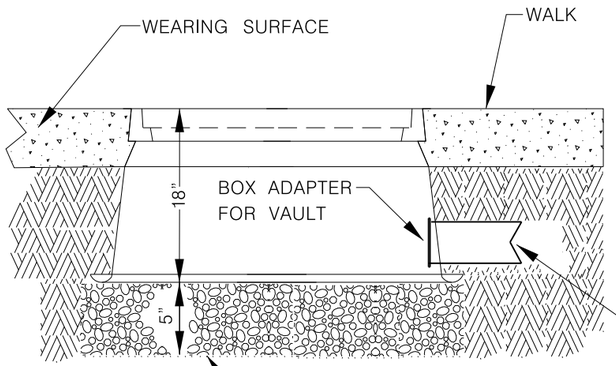
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W / 2 BOLTS
COLOR: GRAY

ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY
(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





PREPARE THE EXCAVATION APPROXIMATELY 4 TO 5 INCHES
DEEPER THAN THE DEPTH OF THE BOX, THEN ADD 4 TO 5
INCHES OF NO.2 COARSE AGGREGATE FILL FOR DRAINAGE.

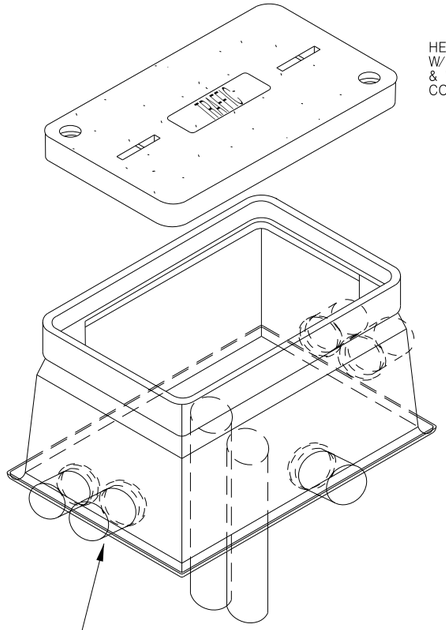
113 DETAIL

TYPICAL VAULT INSTALLATION
IN SIDEWALK

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2



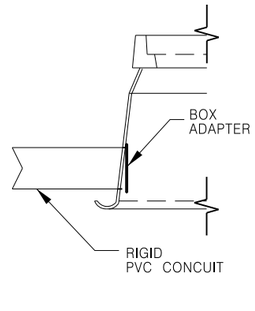
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

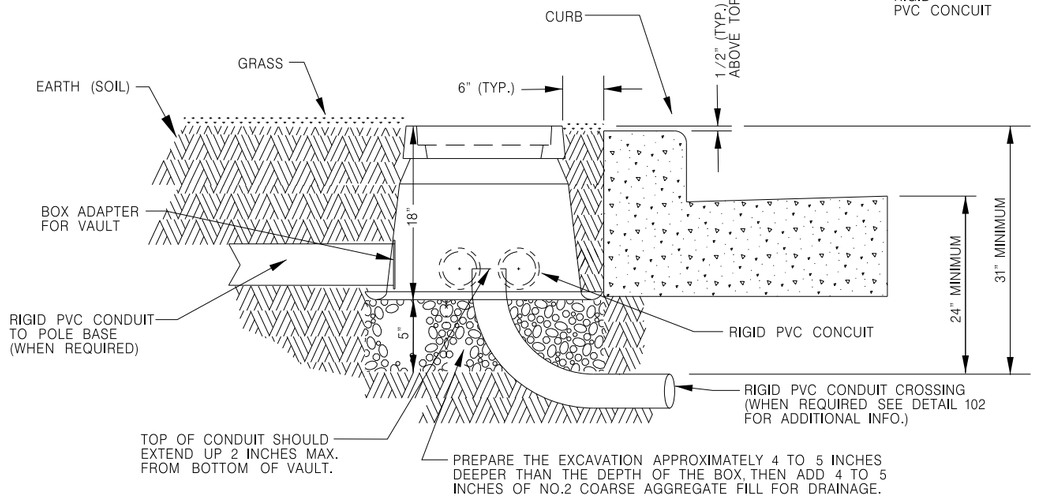
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL P.V.C. CONDUITS





121 DETAIL

TYPICAL VAULT INSTALLATION IN GRASS AREA

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 3 OF 6

FILE NAME : W:\spr\MONOTUBE PROJECTS\Capitol monotubes\2025-01-02 Traffic Plan Set 60%.dgn
PLOT DATE : 04-OCT-2016 11:10
PLOT BY : sblega
PLOT NAME :
PLOT SCALE : 20.000011:1.000000
WISDOT/CADDS SHEET 42

GENERAL NOTES

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 AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

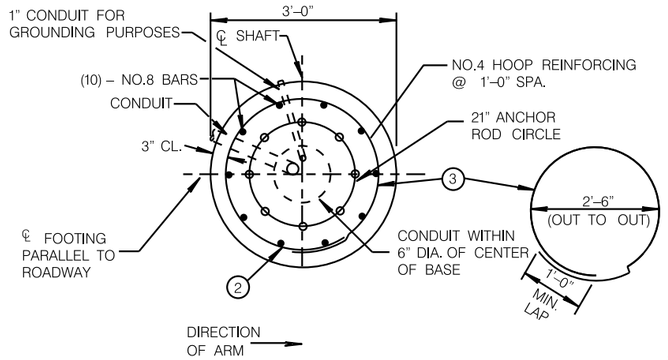
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

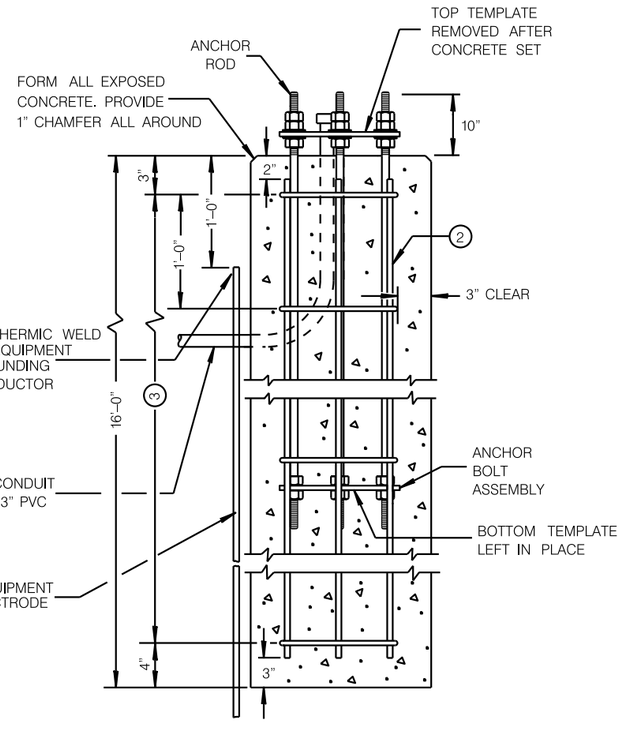
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (10) NO. 8 X 15'–7" BAR STEEL REINFORCEMENT.

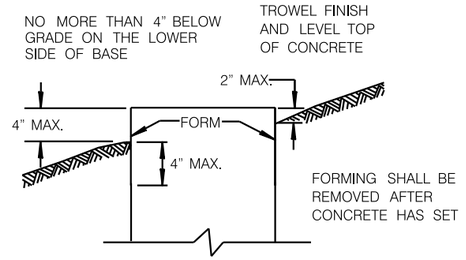
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

CONCRETE MASONRY	fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy = 36,000 p.s.i.

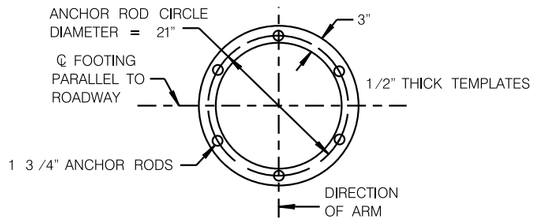




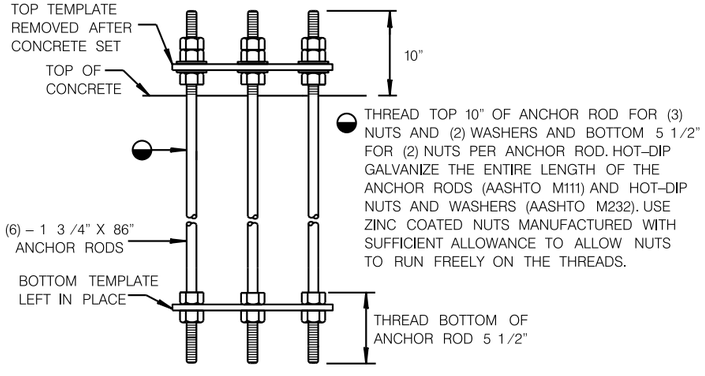
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

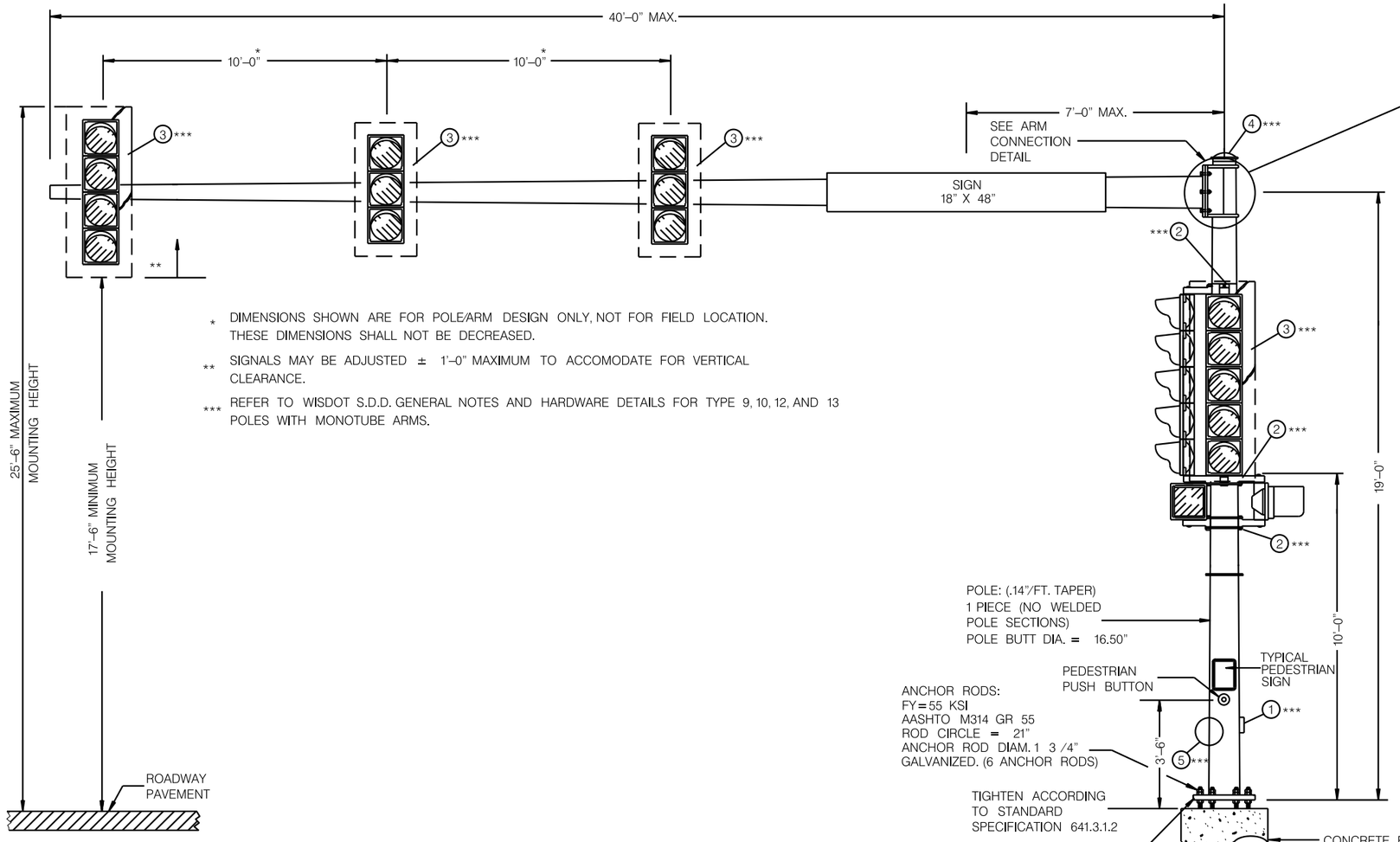
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.19
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	417

CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED:	DECEMBER 2014 (DATE)	2013 AASHTO (REVISION)
REVISED:	JULY 2015 (DATE)	2015 DESIGN UPDATE (REVISION)
REVISED:	NOVEMBER 2015 (DATE)	ANCHOR ROD PROJECTION UPDATE (REVISION)

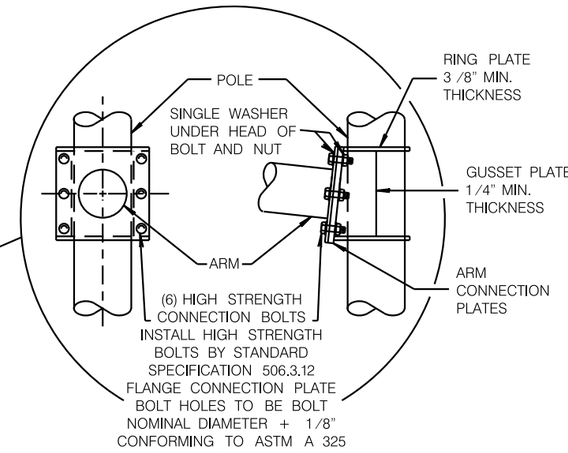
2



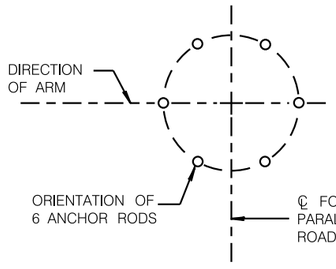
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

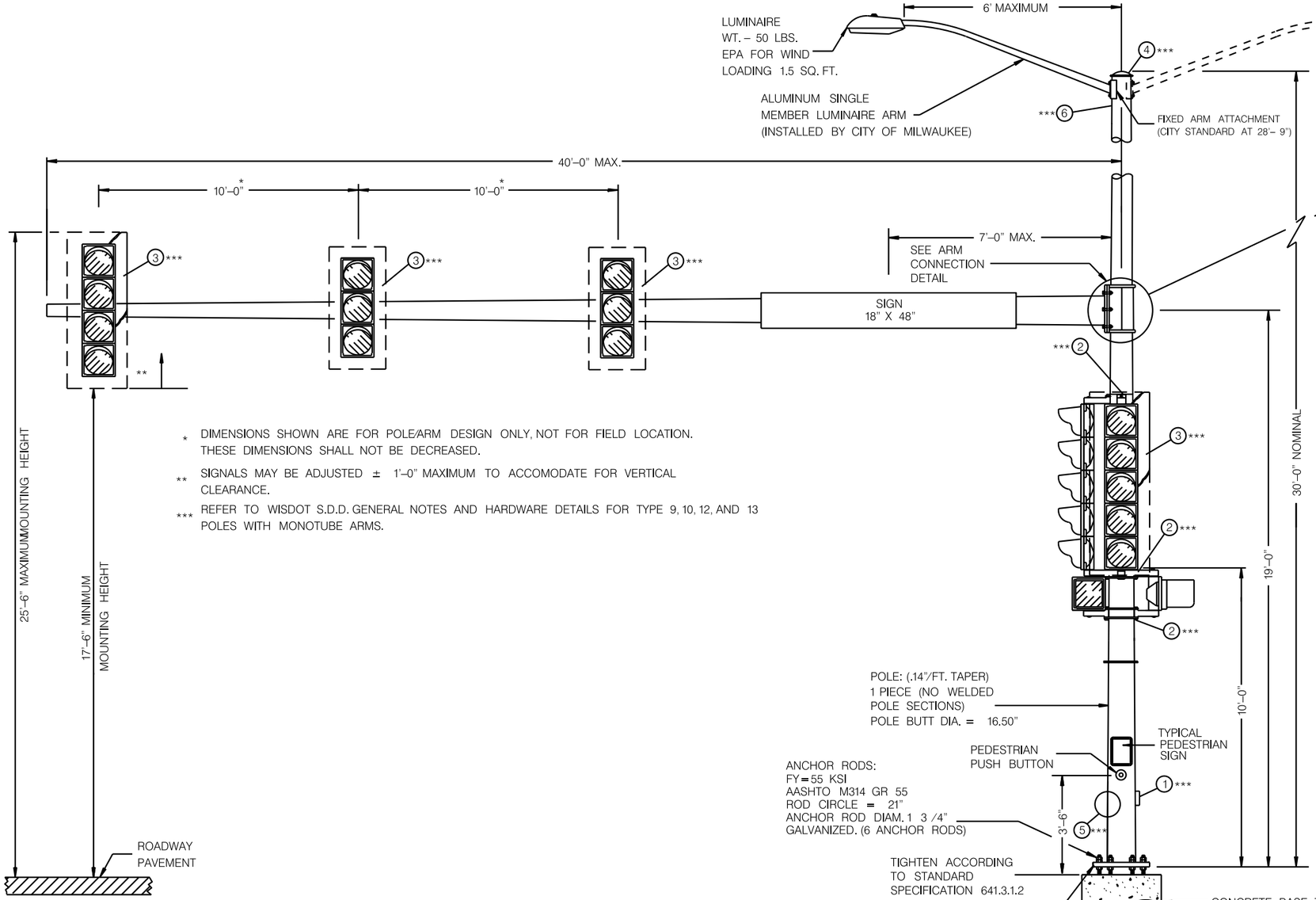
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

SHEET: 5 OF 6

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 21	E

2



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT S.D.D. GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

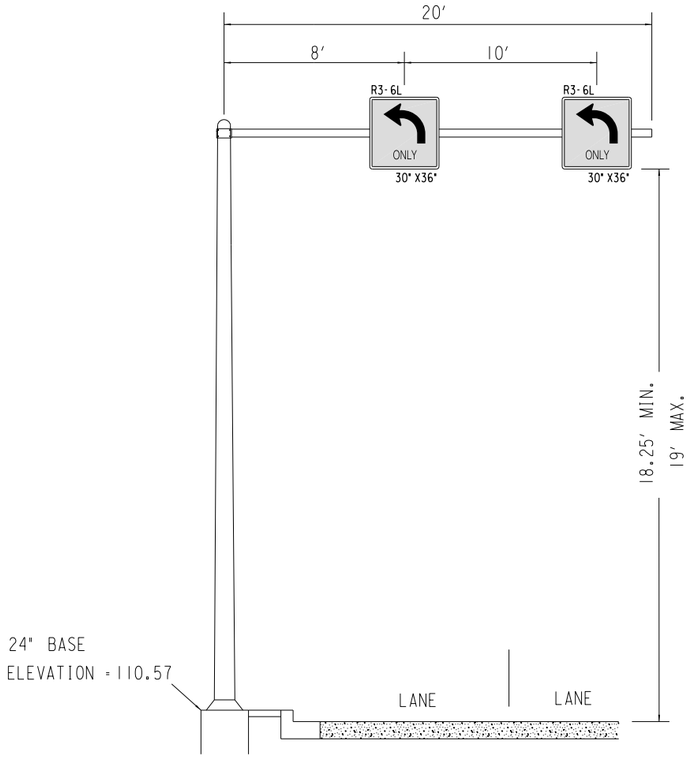
REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)

REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

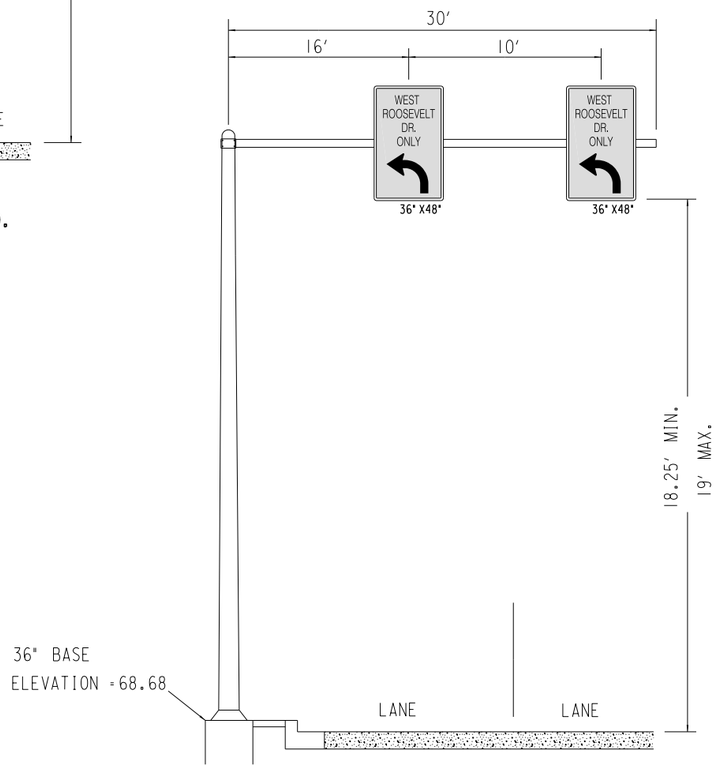
SHEET: 6 OF 6

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 22	E

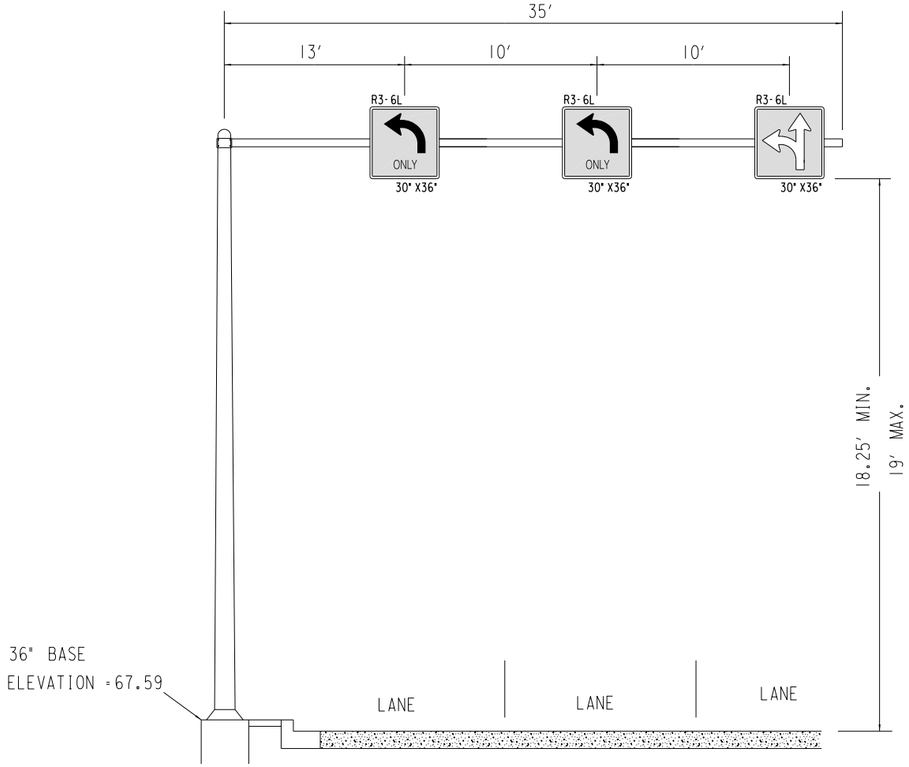
SIGN DETAILS



W. CAPITOL DR. AND N. GREEN BAY RD.



W. CAPITOL DR. AND N. 35TH ST.



W. CAPITOL DR. AND N. 31ST ST.

GENERAL NOTES:

FOR 24" BASE, REFER TO 24" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE S.D.D.(S.D.D. 15C22-02)
FOR 36" BASE, REFER TO 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE S.D.D.(S.D.D. 15C24-02)
MOUNTING BRACKETS FOR SIGNS TO BE APPROVED FROM PRODUCT LIST FOR TYPE II SIGNS.

CONTRACTOR SHALL:

SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT, FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
PROVIDE DESIGN CALCULATION.
SHOW SIGNS ON SHOP DRAWINGS.
SIX ANCHOR RODS SHALL BE USED PER S.D.D.S 15C22-02 AND 15C24-02.

NOTE:

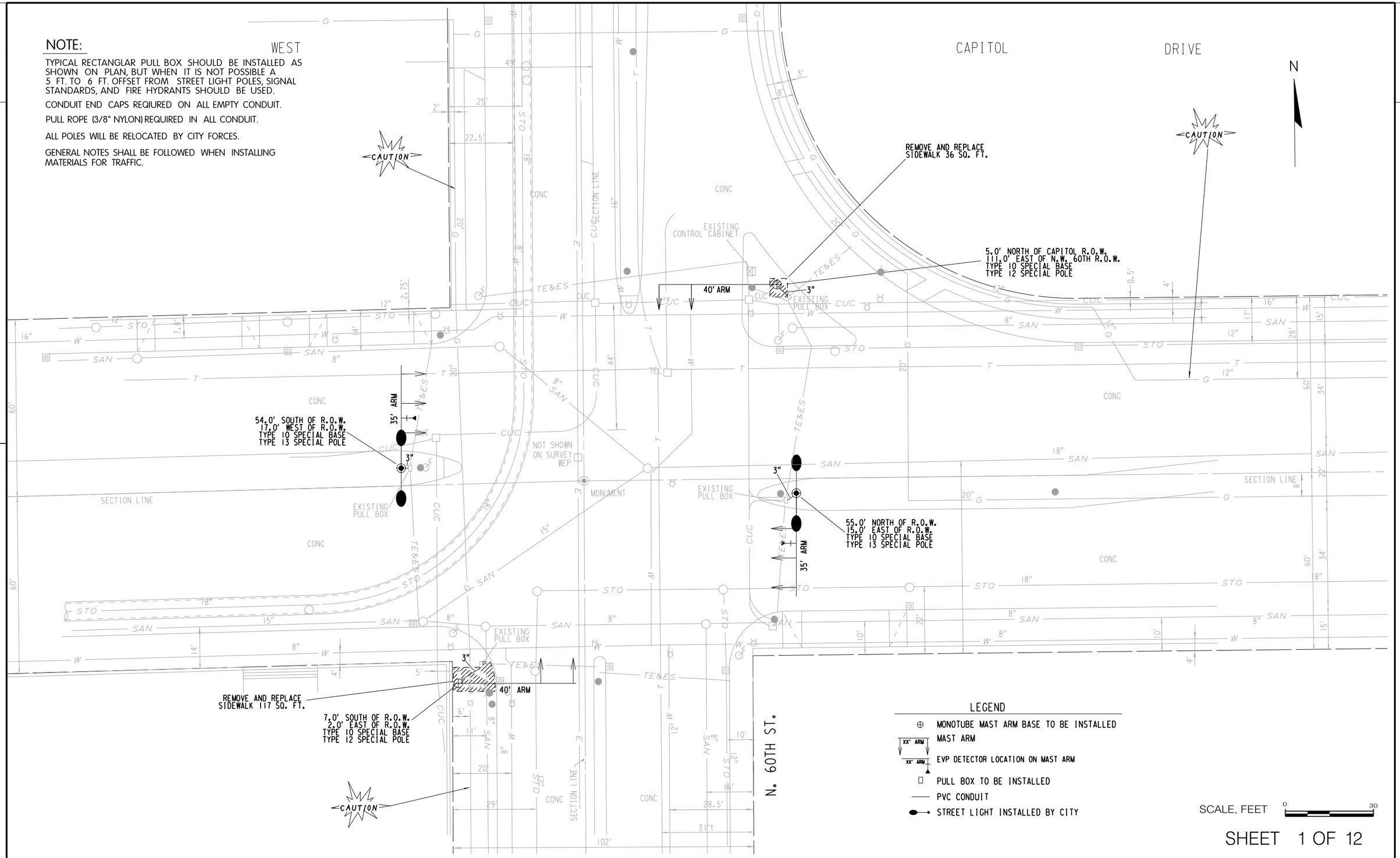
TYPICAL RECTANGLAR PULL BOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



SHEET 1 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 24	E

FILE NAME : W:\bte\signals\2025–01–72\2025–01–72 Revised 02–02–2017.dgn PLOT DATE : 03–FEB–2017 08:48 PLOT BY : glange PLOT NAME : PLOT SCALE : 29.904762:1.000000 WISDOT/CADDS SHEET 42

NOTE:

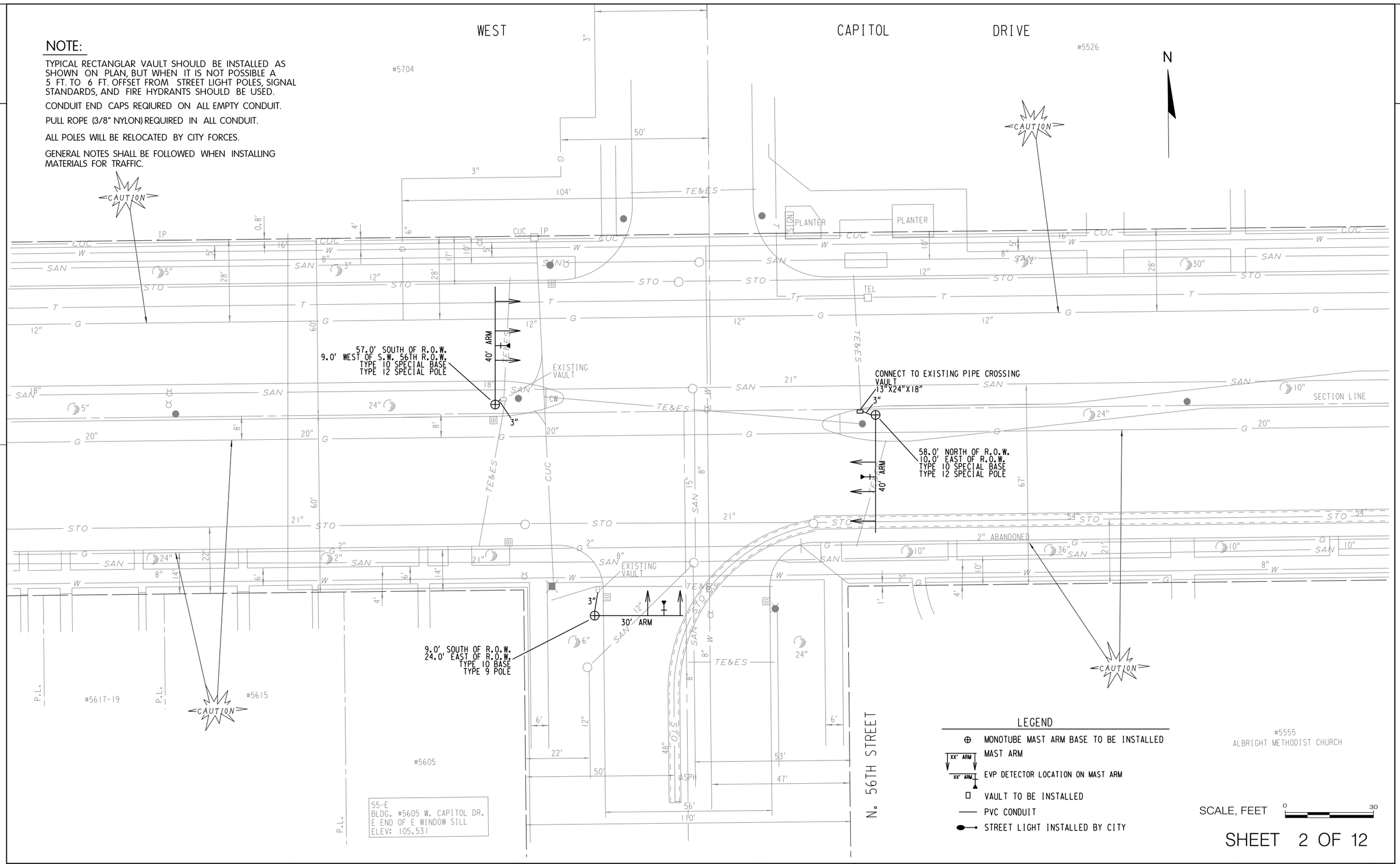
TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.



SHEET 2 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 25	E

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST

CAPITOL

DRIVE

N

CITGO GAS STATION
#4302

#4344

#4244-46

#4315

#4305

#4241

#4227-31

15.0' NORTH OF R.O.W.
55.0' WEST OF R.O.W.
TYPE 10 BASE
TYPE 9 POLE
30' ARM

55.0' SOUTH OF R.O.W.
15.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE
35' ARM

57.0' NORTH OF R.O.W.
16.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE
40' ARM

15.0' SOUTH OF R.O.W.
55.0' EAST OF R.O.W.
TYPE 10 BASE
TYPE 9 POLE
30' ARM

REMOVE AND REPLACE SIDEWALK 27 SQ. FT.

REMOVE AND REPLACE SIDEWALK 18 SQ. FT.

EXISTING VAULT

VAULT 13"X24"X18"

N. SHERMAN BOULEVARD

B.M. - N.E. COR. OF 2ND RISER AT MAIN ENT. OF #4315 W. CAPITOL DR. ELEV. 85.49

STD. BM #198
N. SHERMAN BL AND W. CAPITOL DR.
101' SOUTH OF CENTER LINE OF W. CAPITOL DR. ON CENTER LINE OF N. SHERMAN BL.
ELEV: 82.550

CONCRETE HANDICAP RAMP
GUARD RAIL
BUS SHELTER
CURB
RR TIE RET WALL
PATIO BLOCK
CONC BUMPER
SECTION LINE
ABANDONED

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM / XX' ARM — MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 3 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 26	E

NOTE:

TYPICAL RECTANGLAR PULL BOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST

B.M.-HYDRANT
NW COR N. 35TH
ELEV: 69.42

N. 35TH STREET

#3500

CAPITOL DRIVE

#3420

N

CAUTION

3" PULL BOX 13"X24"X24"

10.0' SOUTH OF R.O.W.
16.5' WEST OF R.O.W.
TYPE 10 BASE
TYPE 9 POLE

25' ARM

REMOVE AND REPLACE SIDEWALK 72 SQ. FT.

4.0' NORTH OF R.O.W.
2.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

PULL BOX 13"X24"X24"

35' ARM

SIGN BRIDGE
2-R3-5 SIGNS (36"X48")
TYPE 1 SIGN (DOUBLE ARM)
36" BASE (S.D.D. 15C-24)
80.0' SOUTH OF CAPITOL R.O.W.
73.0' WEST OF N.W. 35TH R.O.W.

30' ARM

40' ARM

EXISTING TERMINAL CABINET

85.0' SOUTH OF CAPITOL R.O.W.
116.0' WEST OF N.W. 35TH R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

PULL BOX 13"X24"X24"

40' ARM

81.0' SOUTH OF CAPITOL R.O.W.
16.5' WEST OF N.W. 35TH R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

SECTION LINE

PULL BOX 17"X30"X24"

45' ARM

(DECORATIVE) REMOVE AND REPLACE SIDEWALK 81 SQ. FT.

CONNECT PULL BOX TO EXISTING PIPES 2.5" PVC

CAP END AT SIGNAL BASE

(DECORATIVE) REMOVE AND REPLACE SIDEWALK 45 SQ. FT.

40' ARM

141.5' SOUTH OF N.W. CAPITOL R.O.W.
1.5' WEST OF S.W. 35TH R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

24.5' NORTH OF R.O.W.
10.0' EAST OF R.O.W.
TYPE 13 BASE
TYPE 12 POLE

MMSD PUMPING STATION

20" HIGH PRESSURE

12" HIGH PRESSURE

4'X8' BOX STORM

1/4 SECTION LINE

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 4 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 27	E

FILE NAME : W:\bte\signals\2025–01–72\2025–01–72 Revised 02–02–2017.dgn
PLOT DATE : 03–FEB–2017 11:41
PLOT BY : glange
PLOT NAME :
PLOT SCALE : 29.904762:1.000000
WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR PULL BOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST

CAPITOL DRIVE

N

N. 34TH STREET

#3420

#3336

HYDRANT
NE COR 34TH
ELEV: 69.36

CAUTION

REMOVE AND REPLACE SIDEWALK AS DETERMINED BY CONSTRUCTION ENGINEER (DECORATIVE) SIDEWALK 99 SQ. FT.

21" DIA. STORM
32" OUT TO OUT
HORIZONTAL

6" GAS
18" OUT TO OUT

PULL BOX
13"X24"X24"

CONNECT TO EXISTING PIPE CROSSING

40' ARM

4'-6" SOUTH OF R.O.W.
AT WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

74.5' SOUTH OF R.O.W.
7.0' WEST OF R.O.W.
TYPE 10 BASE
TYPE 10 POLE

NEXT TO DUCT PACKAGE
HYDROVAC TO EXPOSE
NORTH WALL OF
PACKAGE

SECTION
LINE

25' ARM

PULL BOX
13"X24"X24"

18" DIA. MMSD
16' TO SURFACE
25" OUT TO OUT

4 DUCT PACKAGE
WE ENERGIES
42" TO SURFACE

CONNECT PULL BOX
TO EXISTING PIPES
2.5" PVC
PULL BOX
17"X30"X24"

55' ARM

REMOVE AND REPLACE
SIDEWALK 81 SQ. FT.

11.5' NORTH OF R.O.W.
17.0' EAST OF N.E. 34TH R.O.W.
TYPE 13 BASE
TYPE 12 POLE

CONCRETE
WALL

20" HIGH PRESURE

CAUTION

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 5 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 28	E

FILE NAME : W:\bte\signals\2025–01–72\2025–01–72 Revised 02–02–2017.dgn
PLOT DATE : 03–FEB–2017 11:42
PLOT BY : glange
PLOT NAME :
PLOT SCALE : 29.904762:1.000000
WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

#3100

WEST

CAPITOL

DRIVE

N

40'

4'
8"GAS HIGH PRESSURE

MMSD

ASPH

CAUTION

8.0' NORTH OF R.O.W.
9.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

4"GAS

CHAIN LINK

GATE

BUSHES

GRASS & RUBBLE

LAWN

ASPH

STO

SAN

CUC

TE&ES

MMSD

WATER

VAULT
13"X24"X18"

35' ARM

3"

(DECORATIVE)
REMOVE AND REPLACE
SIDEWALK 72 SQ. FT.

CONNECT VAULT
TO EXISTING PIPES
2.5" PVC

54.0' SOUTH OF R.O.W.
33.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

CONNECT TO EXISTING PIPE CROSSING

(DECORATIVE)
REMOVE AND REPLACE
SIDEWALK 90 SQ. FT.

2-3"

CAUTION: WATER

54.0' NORTH OF R.O.W.
37.0' WEST OF S.E. 31ST R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

REMOVE AND REPLACE
SIDEWALK 63 SQ. FT.

20' ARM

8.5' SOUTH OF R.O.W.
91.0' WEST OF S.E. 31ST R.O.W.
TYPE 10 BASE
TYPE 9 POLE

SIGN BRIDGE:
2 - R3-5 & 1 - R3-6 [30"X36"]
34.0' SOUTH OF R.O.W.
CENTERED ON MEDIAN
36" BASE (S.D.D. 15C-24)

REMOVE AND REPLACE
SIDEWALK 18 SQ. FT.

CONCRETE WALL

6'
4"GAS HIGH PRESSURE CONCRETE WALL

SECTION LINE

B.M.-HYDRANT
SE COR N.31ST
ELEV: 69.63

#3031

#3023

N. 31ST STREET

P.L. 1-1/4" IN 12" C.I.

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM (XX' ARM / XX' ARM)
- EVP DETECTOR LOCATION ON MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 6 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 29	E

NOTE:

TYPICAL RECTANGLAR PULL BOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST CAPITOL DRIVE

N

#2710 MC DONALD'S

#2620 MOBIL GAS STATION

#2627 CITGO GAS STATION

#2725 WENDY'S

N. 27TH STREET

CAUTION

(DECORATIVE) REMOVE AND REPLACE SIDEWALK 36 SQ. FT.

12.5' NORTH OF R.O.W.
21.5' WEST OF R.O.W.
TYPE 10 BASE
TYPE 10 POLE

30' ARM

PULL BOX 17"X30"X24"
CONNECT PULL BOX TO EXISTING PIPES
2.5" PVC

55.0' SOUTH OF R.O.W.
5.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

35' ARM

(DECORATIVE) REMOVE AND REPLACE SIDEWALK 27 SQ. FT.

PULL BOX 13"X24"X24"

PULL BOX 13"X24"X24"

55.0' NORTH OF R.O.W.
11.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

REMOVE AND REPLACE SIDEWALK 27 SQ. FT.

12.0' SOUTH OF R.O.W.
21.0' EAST OF R.O.W.
TYPE 10 BASE
TYPE 10 POLE

30' ARM

EXISTING CONTROL CABINET

B.M. - HYDRANT
SE COR N. 27TH
ELEV: 73.79

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 7 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 30	E

FILE NAME : W:\bte\signals\2025–01–72\2025–01–72 Revised 02–02–2017.dgn PLOT DATE : 03–FEB–2017 11:43 PLOT BY : glange PLOT NAME : PLOT SCALE : 29.904762:1.000000

WISDOT/CADDS SHEET 42

2

WEST

CAUTION

BUS SHELTER

2.8'

43'

110'

18" SAN

38'

W

T

CUC

ABANDONED

TE&ES

W G 36"

12.0' SOUTH OF R.O.W.
33.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

3"

VAULT
13"X24"X18"

35' ARM

(DECORATIVE)
REMOVE AND REPLACE
SIDEWALK 81 SQ. FT.

23.0' NORTH OF R.O.W.
10.5' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

GAS SERVICE
LINE

40' ARM

CAPITOL

DRIVE

CAUTION

BUS SHELTER

8'

12" GAS

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

N

SECTION LINE

(DECORATIVE)
REMOVE AND REPLACE
SIDEWALK 36 SQ. FT.

1.0' SOUTH OF R.O.W.
10.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

40' ARM

67 DEGREES

VAULT
13"X24"X18"

17.0' NORTH OF R.O.W.
8.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

FULL CW

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM (XX' ARM)
- EVP DETECTOR LOCATION ON MAST ARM (XX' ARM)
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

N. 22ND STREET

N. TEUTONIA AVENUE

N. 21ST STREET

SCALE, FEET 0 30

SHEET 8 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 31	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2025–01–92 Monotube Mast Arm 12 CH Intersections\2025–01–72 Capitol Monotube Final\2025–01–72 Traffic Signal Plan.dwg PLOT DATE : 2025 11:06 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 29.904762:1.000000 WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST CAPITOL DRIVE

N

11.0' SOUTH OF R.O.W.
9.5' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

VAULT 13"X24"X18"

35' ARM

MONUMENT

55.0' NORTH OF R.O.W.
10.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

VAULT 13"X24"X18"

35' ARM

SECTION LINE

BUS SHELTER

ABANDONED

ABANDONED

I5 ALLEY

N. 20TH STREET

CAUTION

LEGEND

- ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM — MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 9 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 32	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2025–01–92 Monotube Mast Arm 12 CH Intersections\2025–01–72 Capitol Monotube Final\2025–01–72 Traffic Signal Plan.dwg PLOTTED : Sep 24, 2025 11:07 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 29.904762:1.000000

WISDOT/CADDS SHEET 42

2

WEST

N. ATKINSON AVE.

CAPITOL DRIVE

N

CAUTION

BUS SHELTER

18.0' NORTH OF R.O.W.
11.0' WEST OF R.O.W.
TYPE 10 BASE
TYPE 10 POLE
25' ARM
3"
VAULT
13"X24"X18"

12.5' SOUTH OF R.O.W.
1.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE
35' ARM

SECTION LINE

BUS SHELTER

REMOVE AND REPLACE
SIDEWALK 81 SQ. FT.

14.0' NORTH OF R.O.W.
4.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

49.0' SOUTH OF R.O.W.
17.0' EAST OF 19TH PLACE R.O.W.
TYPE 10 BASE
TYPE 9 POLE
30' ARM

N. 19TH PLACE

ABANDONED

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM (XX' ARM / XX' ARM)
- EVP DETECTOR LOCATION ON MAST ARM
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

SCALE, FEET 0 30

SHEET 10 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 33	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2025–01–92 Monotube Mast Arm 12 CH Intersections\2025–01–72 Capitol Monotube Final\2025–01–72 Traffic Signal Plan.dgn PLOT DATE : 23 Sep 2025 11:08 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 29.904762:1.000000 WISDOT/CADDS SHEET 42

NOTE:

TYPICAL RECTANGLAR PULL BOX SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- XX' ARM / XX' ARM — MAST ARM / EVP DETECTOR LOCATION ON MAST ARM
- PULL BOX TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

WEST

CAPITOL DRIVE

N. GREEN BAY AVENUE

SIGN BRIDGE:
2 - R3-5 SIGNS [30"X36"]
127' NORTH OF N.W. CAPITOL R.O.W.
CENTERED ON MEDIAN
24" BASE (S.D.D. 15C-22)

20' ARM

REMOVE AND REPLACE
SIDEWALK 18 SQ. FT.

29'

22.8'

CAUTION

6'-0"

3"

PULL BOX
13"X24"X24"

3'-6"

S.W. R.O.W.
DR. MARTIN
LUTHER KING EXT.

3.5' NORTH OF R.O.W.
6.0' EAST OF R.O.W.
TYPE 13 BASE
TYPE 12 POLE

N.W. R.O.W.
CAPITOL EXT.

50' ARM

66°28'42.9"

S.E. R.O.W.
DR. MARTIN
LUTHER KING EXT.

40' ARM

REMOVE AND REPLACE
SIDEWALK 27 SQ. FT.

3"

13.5' NORTH OF R.O.W.
9.5' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

PULL BOX
13"X24"X24"

N.W. R.O.W.
CAPITOL EXT.

55.5' NORTH OF R.O.W.
26.0' EAST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

3"

PULL BOX
13"X24"X24"

35' ARM

REMOVE AND REPLACE
SIDEWALK 63 SQ. FT.

S.E. R.O.W.
CAPITOL EXT.

7.0' SOUTH OF R.O.W.
0.5' EAST OF R.O.W.
TYPE 13 BASE
TYPE 12 POLE

BUS SHELTER

55' ARM

67 DEGREES

PULL BOX
17"X30"X24"
CONNECT PULL BOX
TO EXISTING PIPES

3"

S.W. R.O.W.
DR. MARTIN
LUTHER KING EXT.

N. 10TH STREET

N. DR. ML KING DRIVE

N

SCALE, FEET 0 30

SHEET 11 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 34	E

NOTE:

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC.

WEST

CAPITOL DRIVE

N

16.5' SOUTH OF R.O.W.
19.0' WEST OF R.O.W.
TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

VAULT
13"X24"X18"

40' ARM

50' ARM

8.5' NORTH OF R.O.W.
17.0' EAST OF R.O.W.
TYPE 13 BASE
TYPE 12 POLE

VAULT
13"X24"X18"

REMOVE TREE

CONC PAD BUS STOP

CUC SMH LID

N. 7TH STREET

CAUTION

LEGEND

- MONOTUBE MAST ARM BASE TO BE INSTALLED
- MAST ARM (XX' ARM)
- EVP DETECTOR LOCATION ON MAST ARM (XX' ARM)
- VAULT TO BE INSTALLED
- PVC CONDUIT
- STREET LIGHT INSTALLED BY CITY

SCALE, FEET 0 30

SHEET 12 OF 12

PROJECT NO: 2025–01–72	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 35 E

2025-01-72

Line	Item	Item Description	Unit	Total	Qty
0010	201.0120	Clearing	ID	14.000	14.000
0020	201.0220	Grubbing	ID	14.000	14.000
0060	204.0155	Removing Concrete Sidewalk	SY	170.000	170.000
0120	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	68.000	68.000
0130	213.0100	Finishing Roadway (project) 01. 2025-01-72	EACH	1.000	1.000
0180	405.0100	Coloring Concrete WisDOT Red	CY	1.630	1.630
0190	405.1000	Stamping Colored Concrete	CY	7.640	7.640
0310	602.0410	Concrete Sidewalk 5-Inch	SF	1,242.000	1,242.000
0420	619.1000	Mobilization	EACH	0.250	0.250
0460	625.0100	Topsoil	SY	100.000	100.000
0540	631.1000	Sod Lawn	SY	100.000	100.000
0800	641.8100	Overhead Sign Support (structure) 01. W Capitol Dr & N 35th St / Roosevelt Dr	LS	1.000	1.000
0810	641.8100	Overhead Sign Support (structure) 02. W Capitol Dr & N 31st St	LS	1.000	1.000
0820	641.8100	Overhead Sign Support (structure) 03. W Capitol Dr & N Green Bay Ave	LS	1.000	1.000
0830	642.5401	Field Office Type D	EACH	0.100	0.100
0840	643.0100	Traffic Control (project) 01. 2025-01-72	EACH	1.000	1.000
0870	643.0300	Traffic Control Drums	DAY	22,513.000	22,513.000
0890	643.0420	Traffic Control Barricades Type III	DAY	9,353.000	9,353.000
0920	643.0705	Traffic Control Warning Lights Type A	DAY	22,513.000	22,513.000
0930	643.0715	Traffic Control Warning Lights Type C	DAY	14,006.000	14,006.000
0950	643.0900	Traffic Control Signs	DAY	8,319.000	8,319.000
1140	650.8500	Construction Staking Electrical Installations (project) 01. 2025-01-72	LS	1.000	1.000
1170	650.9910	Construction Staking Supplemental Control (project) 01. 2025-01-72	LS	1.000	1.000
1210	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	80.000	80.000
1220	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	310.000	310.000
1280	654.0110	Concrete Bases Type 10	EACH	10.000	10.000
1290	654.0113	Concrete Bases Type 13	EACH	5.000	5.000
1440	SPV.0060	Special 01. Concrete Base Type 10 Special	EACH	29.000	29.000
1450	SPV.0060	Special 02. Monotube Arm 20-Ft	EACH	1.000	1.000
1460	SPV.0060	Special 03. Monotube Arm 25-Ft	EACH	3.000	3.000
1470	SPV.0060	Special 04. Monotube Arm 30-Ft	EACH	6.000	6.000
1480	SPV.0060	Special 05. Monotube Arm 35-Ft	EACH	19.000	19.000
1490	SPV.0060	Special 06. Monotube Arm 40-Ft	EACH	10.000	10.000
1500	SPV.0060	Special 07. Monotube Arm 45-Ft	EACH	1.000	1.000
1510	SPV.0060	Special 08. Monotube Arm 50-Ft	EACH	2.000	2.000

2025-01-72

Line	Item	Item Description	Unit	Total	Qty
1520	SPV.0060	Special 09. Monotube Arm 55-Ft	EACH	2.000	2.000
1530	SPV.0060	Special 10. Pole Type 9	EACH	4.000	4.000
1540	SPV.0060	Special 11. Pole Type 10	EACH	6.000	6.000
1550	SPV.0060	Special 12. Pole Type 12	EACH	5.000	5.000
1560	SPV.0060	Special 13. Pole Type 12 Special	EACH	14.000	14.000
1580	SPV.0060	Special 15. Pole Type 13 Special	EACH	15.000	15.000
1590	SPV.0060	Special 16. Fiberglass/Polymer Concrete Pull Box 13" x 24" x 24"	EACH	30.000	30.000
1600	SPV.0060	Special 17. Fiberglass/Polymer Concrete Pull Box 17" x 30" x 24"	EACH	5.000	5.000
1610	SPV.0060	Special 18. Utility Line Opening (ULO)	EACH	47.000	47.000

CONSTRUCTION ITEMS

CATEGORY 0010

LOCATION	CLEARING 201.0120 ID	GRUBBING 201.0220 ID	REMOVING CONCRETE SIDEWALK 204.0155 SY	EXCAVATION HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL 205.0501.S TON	FINISHING ROADWAY (PROJECT) 213.0100 EA	COLORING CONCRETE WISDOT RED 405.0100 CY	STAMPING COLORED CONCRETE 405.1000 CY	CONCRETE SIDEWALK 5-INCH 602.0410 SF	MOBILIZATION 619.1000 EA	TOPSOIL 625.0100 SY	SOD LAWN 631.1000 SY	OVERHEAD SIGN SUPPORT 641.8100 LS
W. Capitol Dr. & N. 60th St.			17					153				
W. Capitol Dr. & N. 56th St.												
W. Capitol Dr. & N. Sherman Blvd.			5					45				
W. Capitol Dr. & N. 35th St./ W. Roosevelt Dr.			35	68			1.94	198				1
W. Capitol Dr. & N. 34th St.			30			1.53		180				
W. Capitol Dr. & N. 31st St.			35				2.5	243				1
W. Capitol Dr. & N. 27th St.			15				1.39	117				
W. Capitol Dr. & N. Teutonia Ave.			10				1.81	117				
W. Capitol Dr. & N. 20th St.												
W. Capitol Dr. & W. Atkinson Ave./ N. 19th Pl.			13					81				
W. Capitol Dr. & N. Green Bay Ave.			10					108				1
W. Capitol Dr. & N. 7th St.	14	14										
GRAND TOTALS	**14**	**14**	**170**	**68**	**1**	**1.53**	**7.64**	**1242**	**0.25**	**100**	**100**	**3**

SIGNALS

CATEGORY 0010

LOCATION	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 650.9910 LS	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 650.8500 LS	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-1/2 INCH 652.0230 LF	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3 INCH 652.0235 LF	CONCRETE BASES TYPE 10 654.0110 EA	CONCRETE BASES TYPE 13 654.0113 EA
W. Capitol Dr. & N. 60th St.				35		
W. Capitol Dr. & N. 56th St.				20	1	
W. Capitol Dr. & N. Sherman Blvd.				25	2	
W. Capitol Dr. & N. 35th St./ W. Roosevelt Dr.			30	35	1	1
W. Capitol Dr. & N. 34th St.				30	1	1
W. Capitol Dr. & N. 31st St.			30	40	1	
W. Capitol Dr. & N. 27th St.			20	20	2	
W. Capitol Dr. & N. Teutonia Ave.				30		
W. Capitol Dr. & N. 20th St.				10		
W. Capitol Dr. & W. Atkinson Ave./ N. 19th Pl.				25	2	
W. Capitol Dr. & N. Green Bay Ave.				30		2
W. Capitol Dr. & N. 7th St.				10		1
GRAND TOTALS	**1**	**1**	**80**	**310**	**10**	**5**

ALL ITEMS ARE CATEGORY 0010

SPV ITEMS

CATEGORY 0010

LOCATION	CONCRETE BASES TYPE 10 SPECIAL SPV.0060.01 EA	MONOTUBE ARMS 20-FT SPV.0060.02 EA	MONOTUBE ARMS 25-FT SPV.0060.03 EA	MONOTUBE ARMS 30-FT SPV.0060.04 EA	MONOTUBE ARMS 35-FT SPV.0060.05 EA	MONOTUBE ARMS 40-FT SPV.0060.06 EA	MONOTUBE ARMS 45-FT SPV.0060.07 EA	MONOTUBE ARMS 50-FT SPV.0060.08 EA	MONOTUBE ARMS 55-FT SPV.0060.09 EA
W. Capitol Dr. & N. 60th St.	4				2	2			
W. Capitol Dr. & N. 56th St.	2			1		2			
W. Capitol Dr. & N. Sherman Blvd.	2			2	1	1			
W. Capitol Dr. & N. 35th St./ W. Roosevelt Dr.	4		1		3	1	1		
W. Capitol Dr. & N. 34th St.	1		1			1			1
W. Capitol Dr. & N. 31st St.	3	1			3				
W. Capitol Dr. & N. 27th St.	2			2	2				
W. Capitol Dr. & N. Teutonia Ave.	4				3	1			
W. Capitol Dr. & N. 20th St.	2				2				
W. Capitol Dr. & W. Atkinson Ave./ N. 19th	2		1	1	2				
W. Capitol Dr. & N. Green Bay Ave.	2				1	1		1	1
W. Capitol Dr. & N. 7th St.	1					1		1	
GRAND TOTALS	**29**	**1**	**3**	**6**	**19**	**10**	**1**	**2**	**2**

ALL ITEMS ARE CATEGORY 0010

SPV ITEMS (Continued)

CATEGORY 0010

LOCATION	POLES TYPE 9 SPV.0060.10 EA	POLES TYPE 10 SPV.0060.11 EA	POLES TYPE 12 SPV.0060.12 EA	POLES TYPE 12 SPECIAL SPV.0060.13 EA	POLES TYPE 13 SPECIAL SPV.0060.15 EA	FIBERGLASS POLYMER CONCRETE PULL BOX 13" x 24" x 24" SPV.0060.16 EA	FIBERGLASS POLYMER CONCRETE PULL BOX 17" x 30" x 24" SPV.0060.17 EA	UTILITY LINE OPENING (ULO) SPV.0060.18 EA	COLORED CONCRETE SIDEWALK 5-INCH SPV.0165.01 SF
W. Capitol Dr. & N. 60th St.				2	2			4	
W. Capitol Dr. & N. 56th St.	1				2	1		3	
W. Capitol Dr. & N. Sherman Blvd.		2			2	1		4	
W. Capitol Dr. & N. 35th St./ W. Roosevelt Dr.	1		1	2	2	4	1	7	225
W. Capitol Dr. & N. 34th St.		1	1	1		2	1	3	171
W. Capitol Dr. & N. 31st St.		1			3	5		5	216
W. Capitol Dr. & N. 27th St.		2			2	2	1	4	90
W. Capitol Dr. & N. Teutonia Ave.				3	1	4		4	90
W. Capitol Dr. & N. 20th St.				1	1	2	1	2	
W. Capitol Dr. & W. Atkinson Ave./ N. 19th Pl.	2			2		4		4	
W. Capitol Dr. & N. Green Bay Ave.			2	2		3	1	5	
W. Capitol Dr. & N. 7th St.			1	1		2		2	
GRAND TOTALS	**4**	**6**	**5**	**14**	**15**	**30**	**5**	**47**	**792**

ALL ITEMS ARE CATEGORY 0010

3

Estimate of Traffic Control Items Required (0010 Participating)

Items		Stage 1 (Each)	Stage 1 (Days)	Total
(1)643.0300	Traffic Control Drums	479	22,513	22,513
(2)643.0420	Traffic Control Barricades Type III	199	9,353	9,353
643.0705	Traffic Control Warning Lights Type A	479	22,513	22,513
643.0715	Traffic Control Warning Lights Type C	298	14,006	14,006
643.0900	Traffic Control Signs	177	8,319	8,319
643.0100	Traffic Control (Project)			1

NOTES:

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" WILL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- THIS WORK WILL BE INCIDENTAL TO THE ITEM OF TRAFFIC CONTROL.
- CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.
- WARNING SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

(1) All Drums have one steady burning yellow light

(2) All Type III Barricades have 2 flashing yellow lights

Items	Left Lane	Total
(1) W020-1	62	62
(2) W9-2R	18	18
(3) R3-7L	30	30
(4) R3-7R	8	8
(5) W01-6L	27	27
(6) W01-6R	17	17
(7) W20-3	1	1
(8) W020-5R	4	4
(9) W04-2R	4	4
(10) R-10-Mod	1	1
(11) W04-2L	4	4
(12) R-10-Mod	1	1
Total	177	177

PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

Standard Detail Drawing List

09C11-09	CONCRETE BASE TYPE 10
09C12-08A	CONCRETE BASE TYPE 13
09C12-08B	CONCRETE BASE TYPE 13
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
15C22-04	24" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15C24-04	36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

6

GENERAL NOTES

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 AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

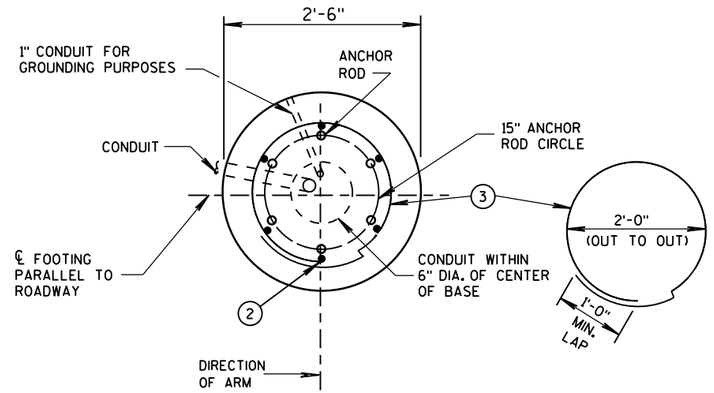
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

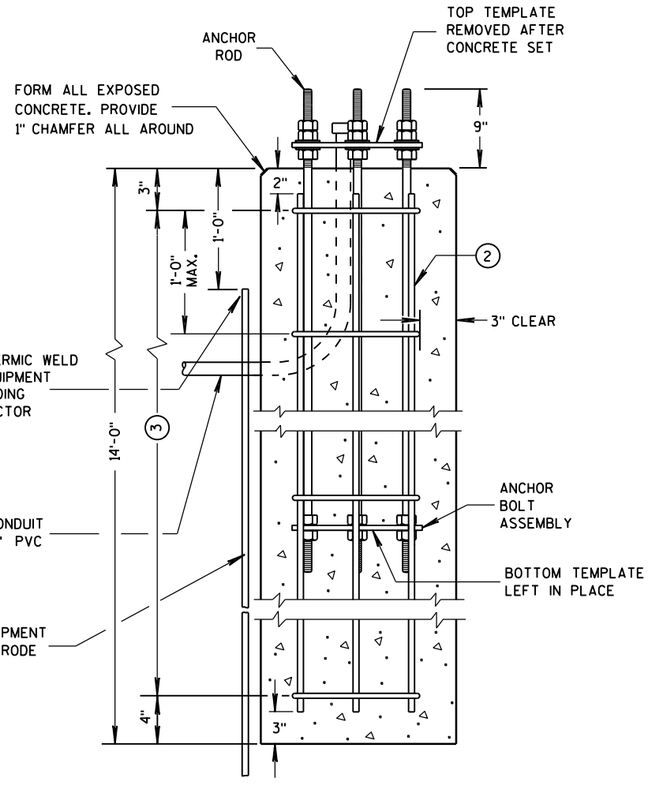
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" MAX. C-C.

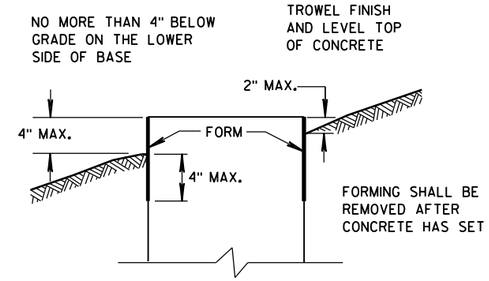
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



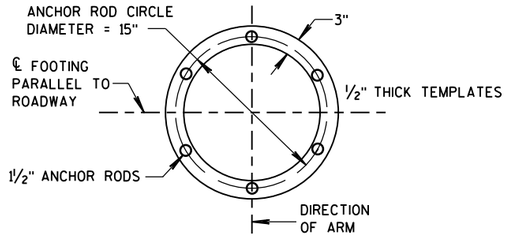


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

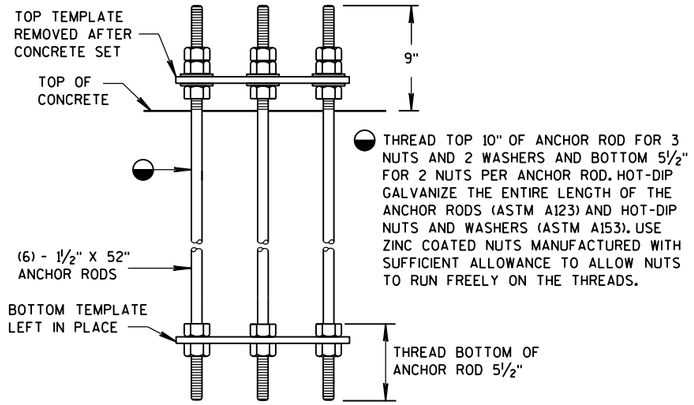
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Ahmet Demirbilek — STATE ELECTRICAL
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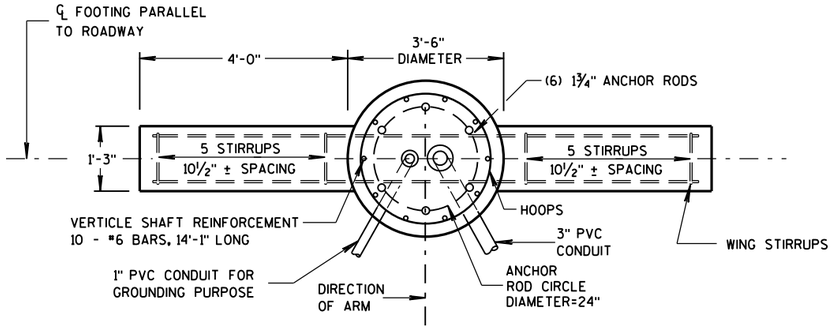
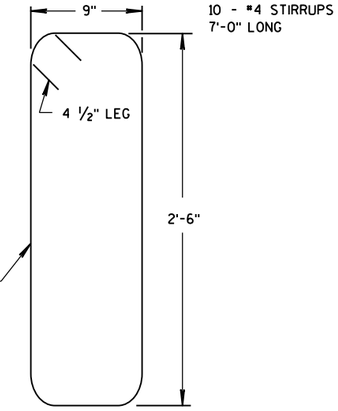
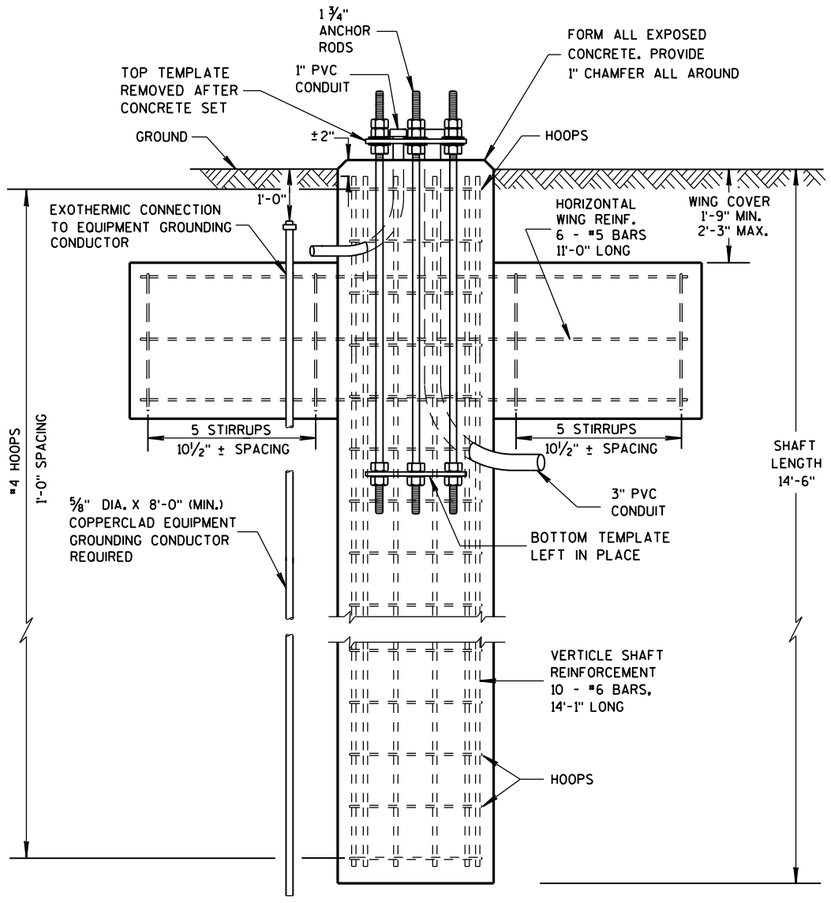
S.D.D. 9 C 11-9



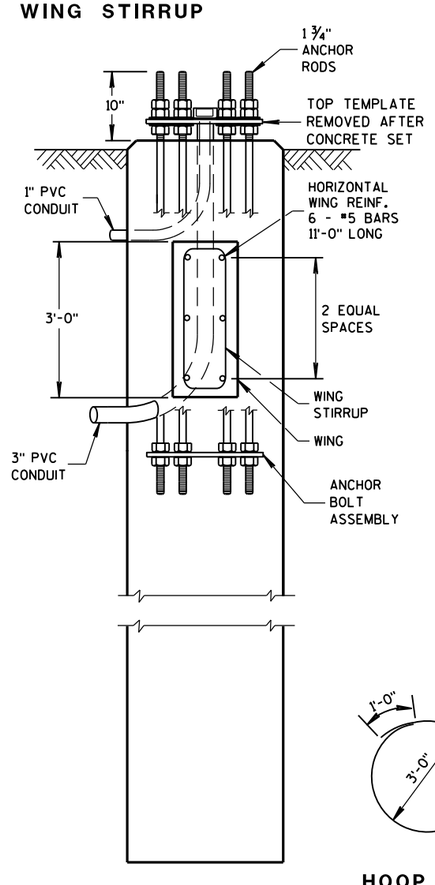
PLAN VIEW



WING STIRRUP

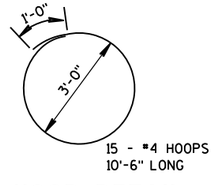


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

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

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

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

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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 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 NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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 THE WRITTEN APPROVAL OF THE ENGINEER.

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

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 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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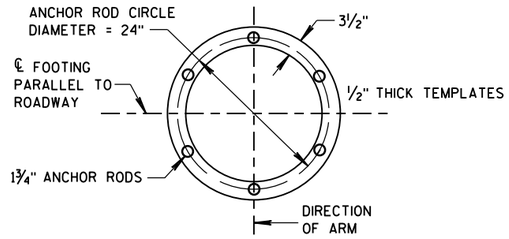
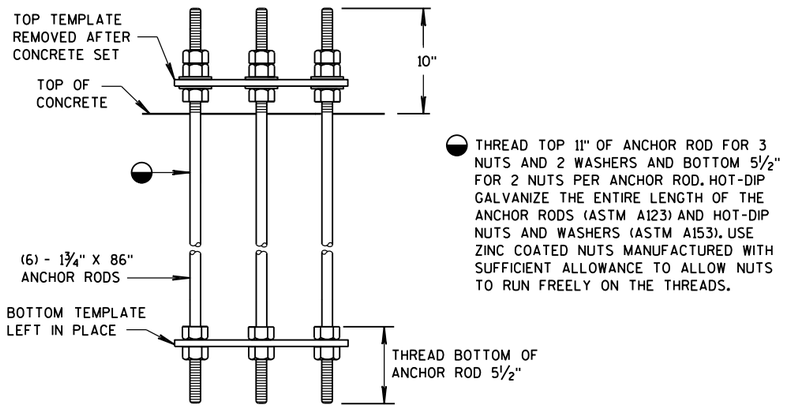
S.D.D. 9 C 12-8a
S.D.D. 9 C 12-8a

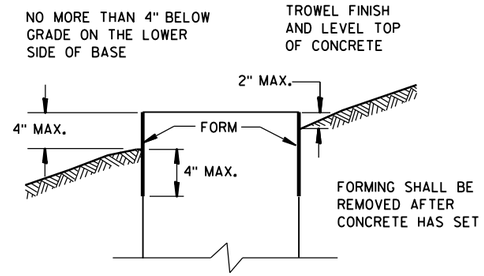


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
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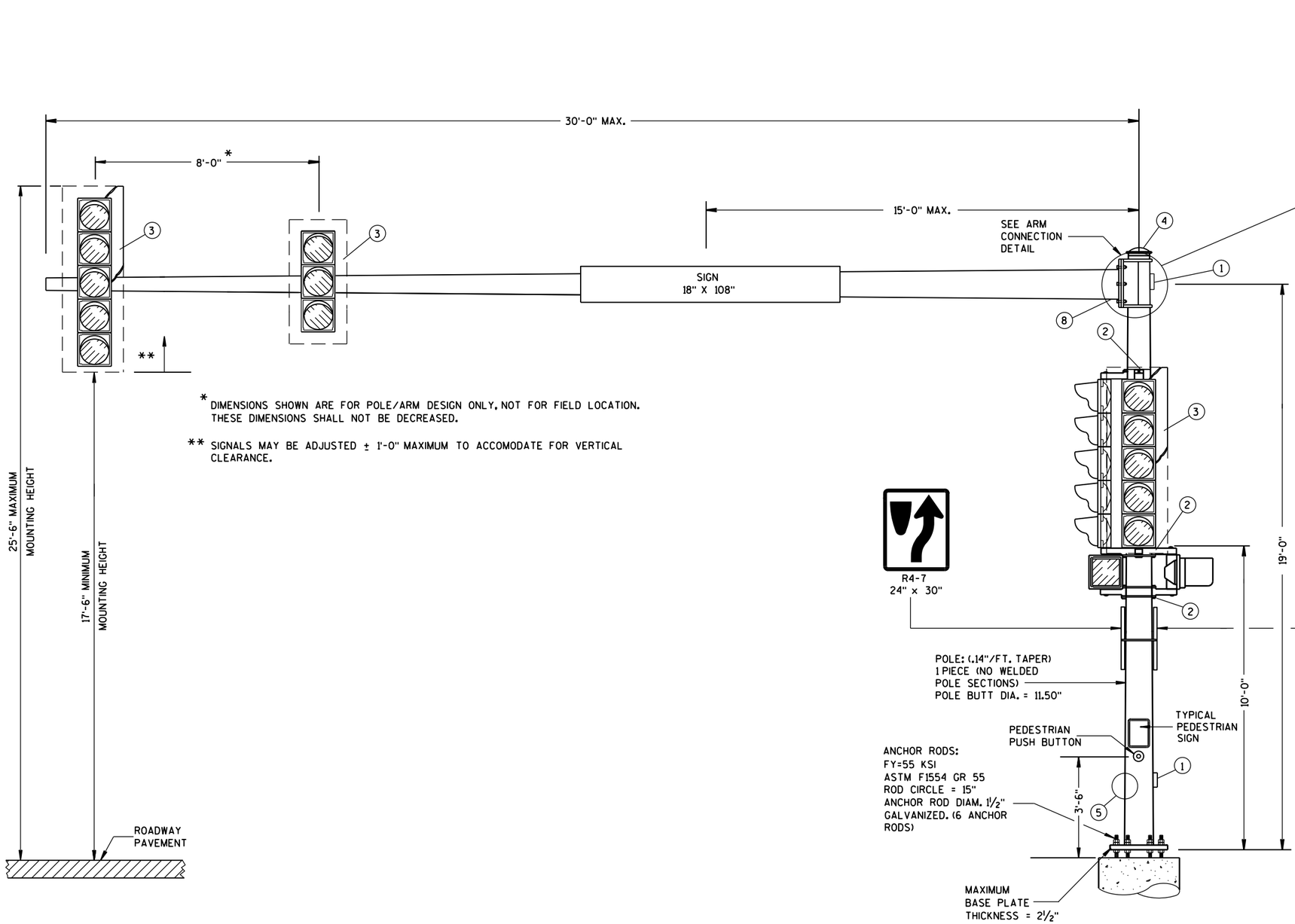
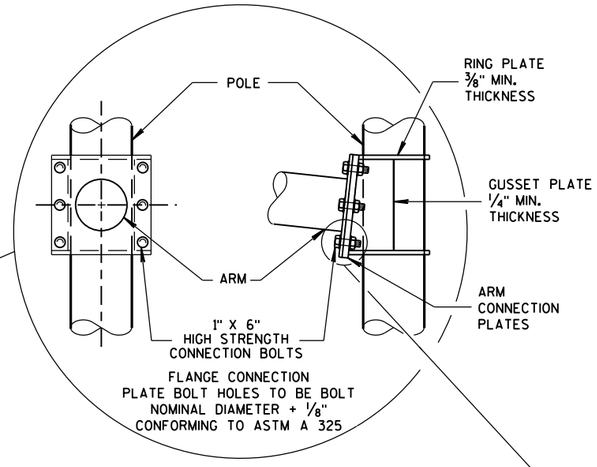
S.D.D. 9 C 12-8b

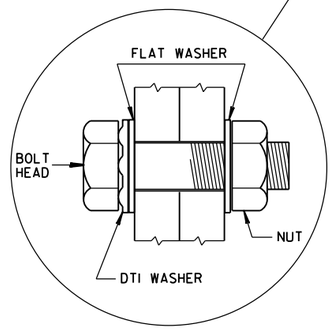


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

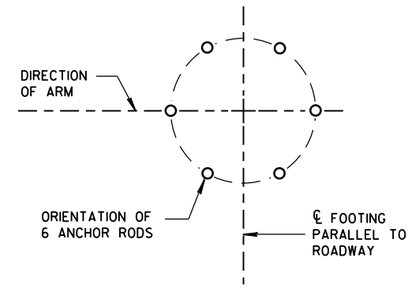
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



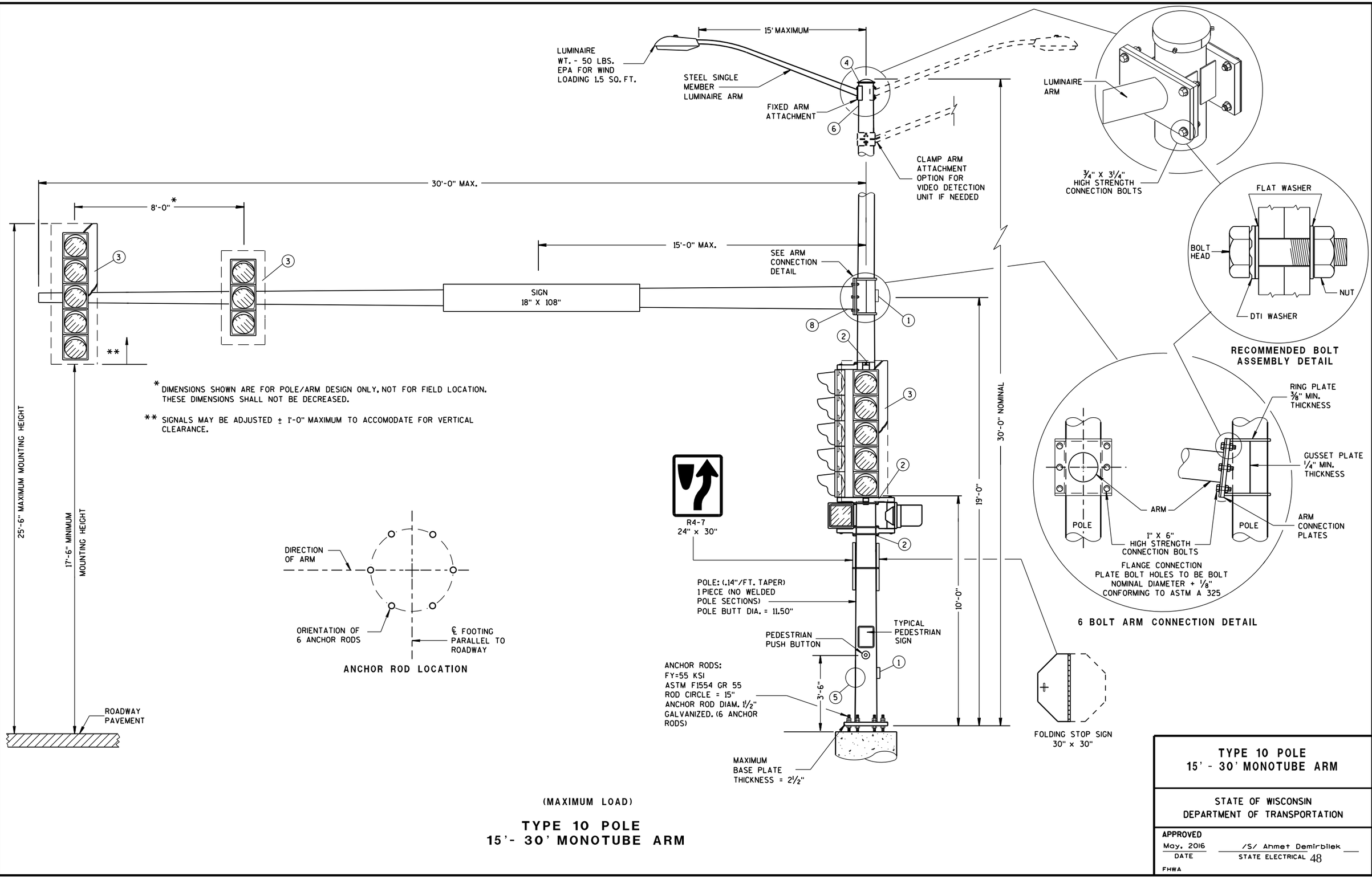
ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	47

S.D.D. 9 E 8-8a



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

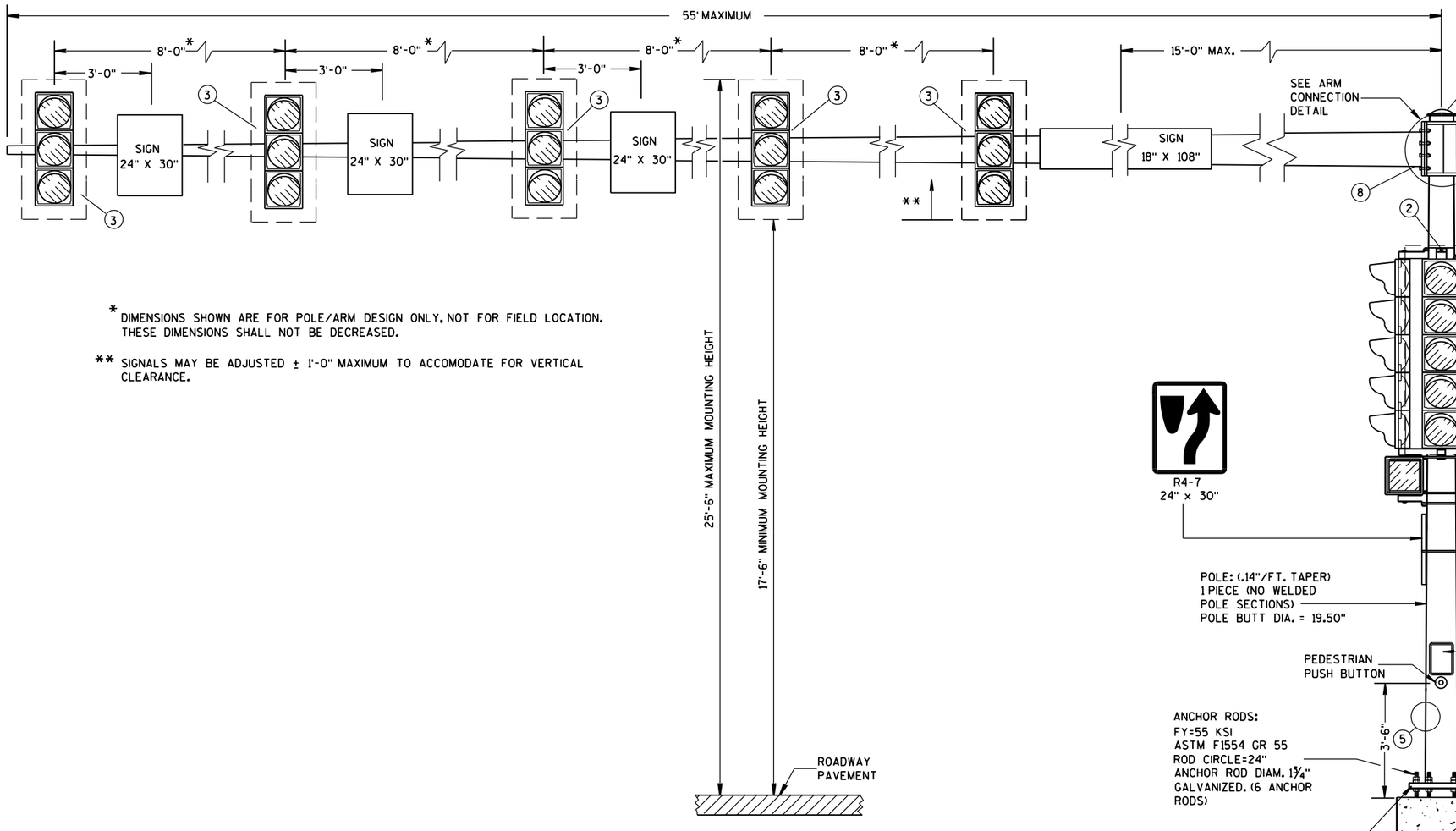
TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

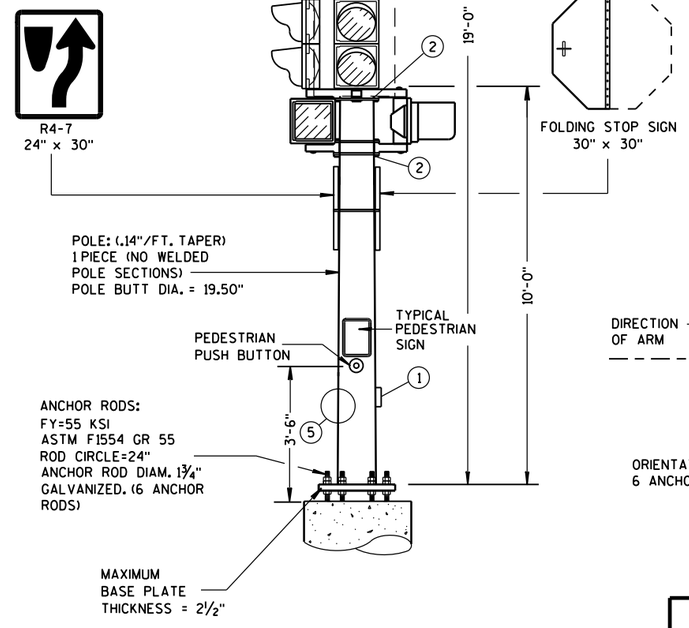
APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

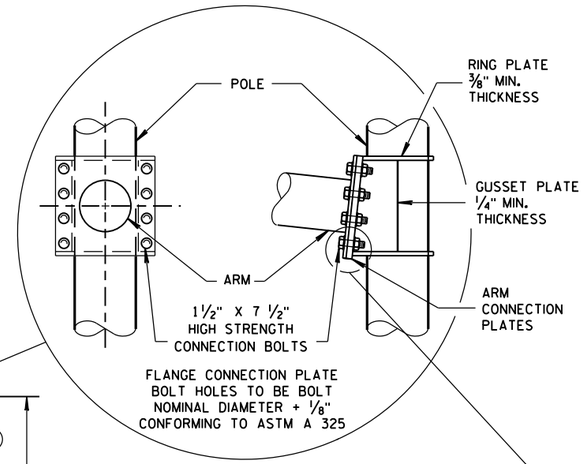
S.D.D. 9 E 8-8b



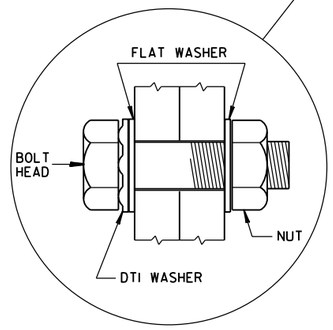
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

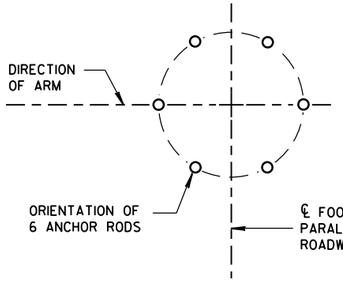




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2015 — DATE
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S.D.D. 9 E 8-8c

GENERAL NOTES

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

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

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

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

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

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

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

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

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

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

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

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

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

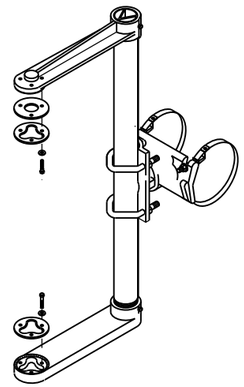
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

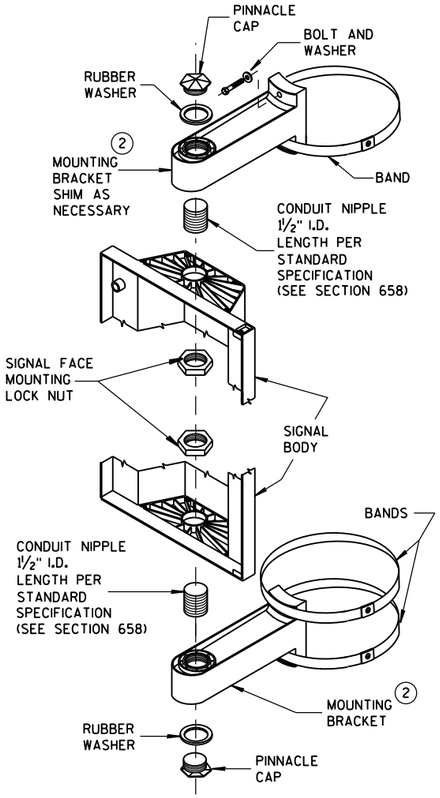
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

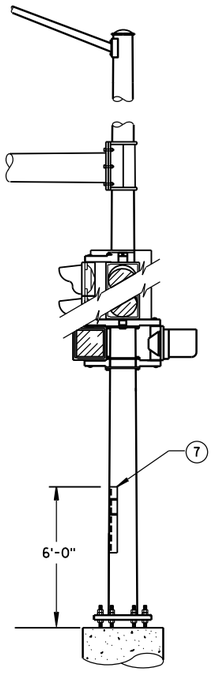


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

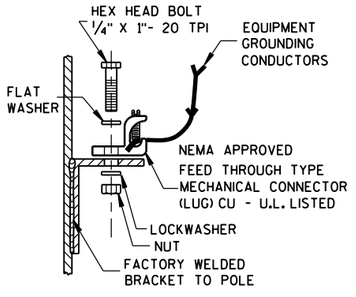
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

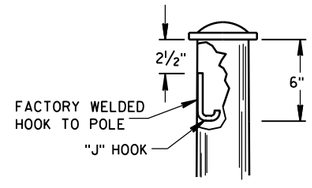


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 8-8e

GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

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

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

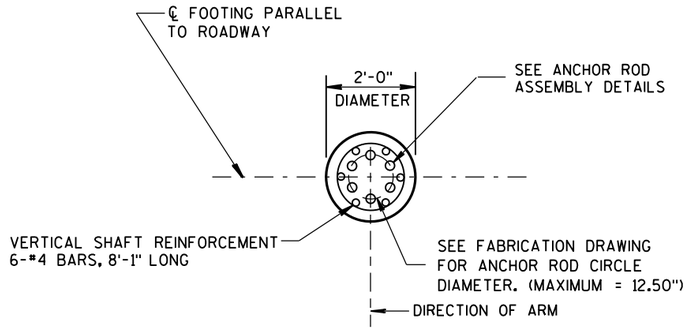
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH ¾" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

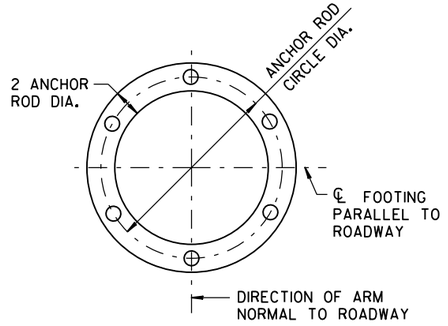
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554, GRADE 55	fy=55,000 p.s.i.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.	
PLATES, ASTM A709, GRADE 36	fy=36,000 p.s.i.

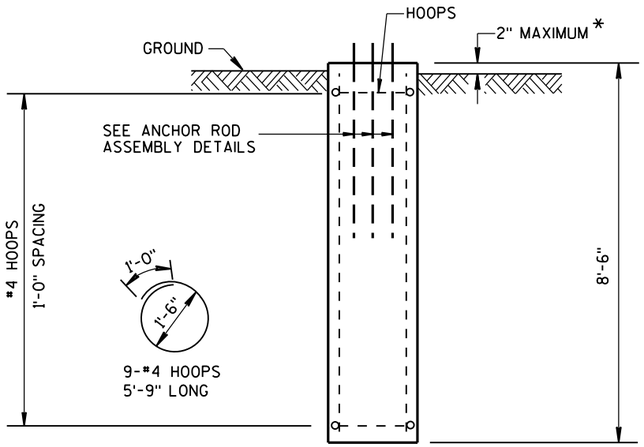
THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



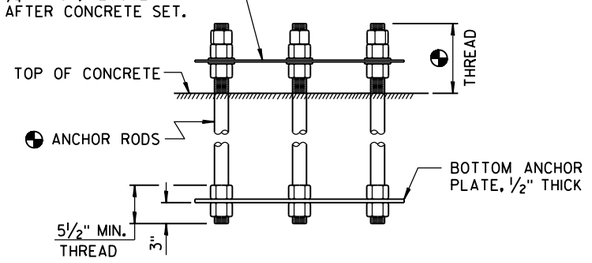
PLAN VIEW



TOP TEMPLATE AND BOTTOM ANCHOR PLATE



ELEVATION VIEW



ANCHOR ROD ASSEMBLY DETAILS

⊕ MINIMUM OF 6 ANCHOR RODS, EXACT NUMBER, SIZE, DIMENSION AND ORIENTATION AS SHOWN ON FABRICATION DRAWING.

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 1.0 C.Y. PER FOOTING
H.S. REINFORCEMENT - 67 LBS. PER FOOTING

24" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Vu Thao — WIND LOADED STRU PROGRAM LEA
FHWA

6

S.D.D. 15 C 22-4

6

S.D.D. 15 C 22-4

GENERAL NOTES

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

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

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

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

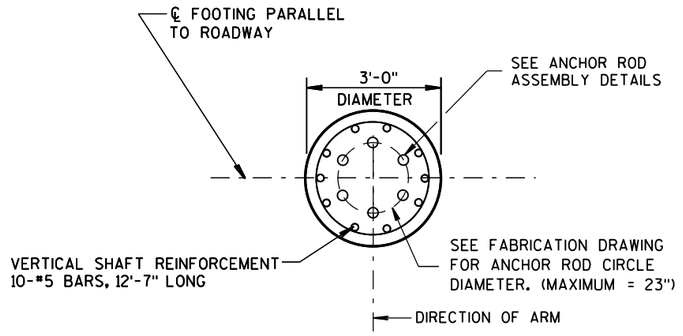
THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

FORM ALL EXPOSED CONCRETE CORNERS WITH ¾" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

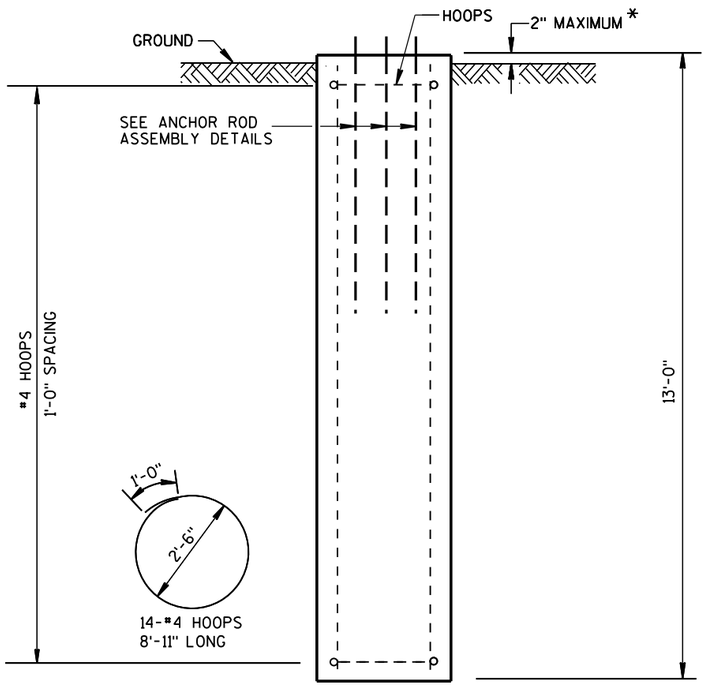
ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554, GRADE 55	fy=55,000 p.s.i.
ASTM A563A HEAVY HEX NUTS, AND ASTM F436 WASHERS.	
PLATES, ASTM A709, GRADE 36	fy=36,000 p.s.i.

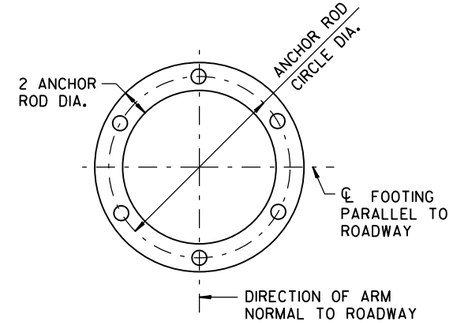
THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



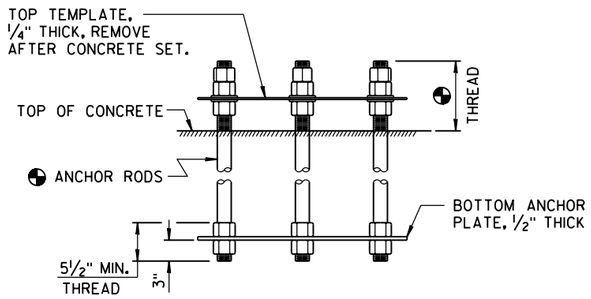
PLAN VIEW



ELEVATION VIEW



TOP TEMPLATE AND BOTTOM ANCHOR PLATE



ANCHOR ROD ASSEMBLY DETAILS

⊕ MINIMUM OF 6 ANCHOR RODS, EXACT NUMBER, SIZE, DIMENSION AND ORIENTATION AS SHOWN ON FABRICATION DRAWING.

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

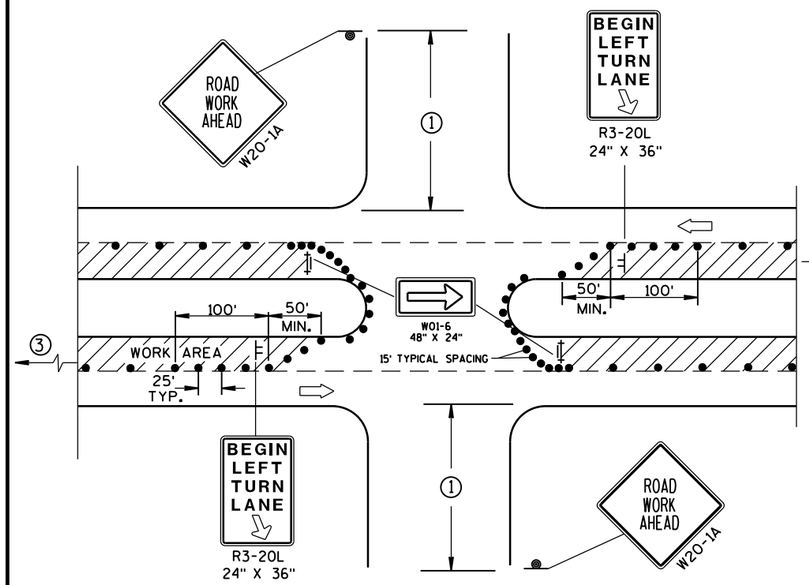
/S/ Vu Thao
WIND LOADED STRU PROGRAM LEAD

6

S.D.D. 15 C 24-4

6

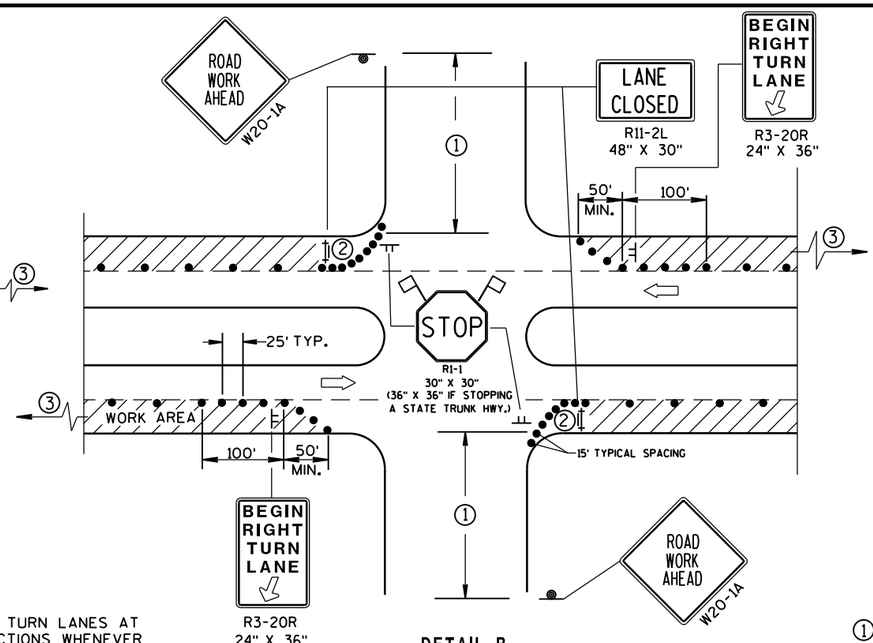
S.D.D. 15 C 24-4



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

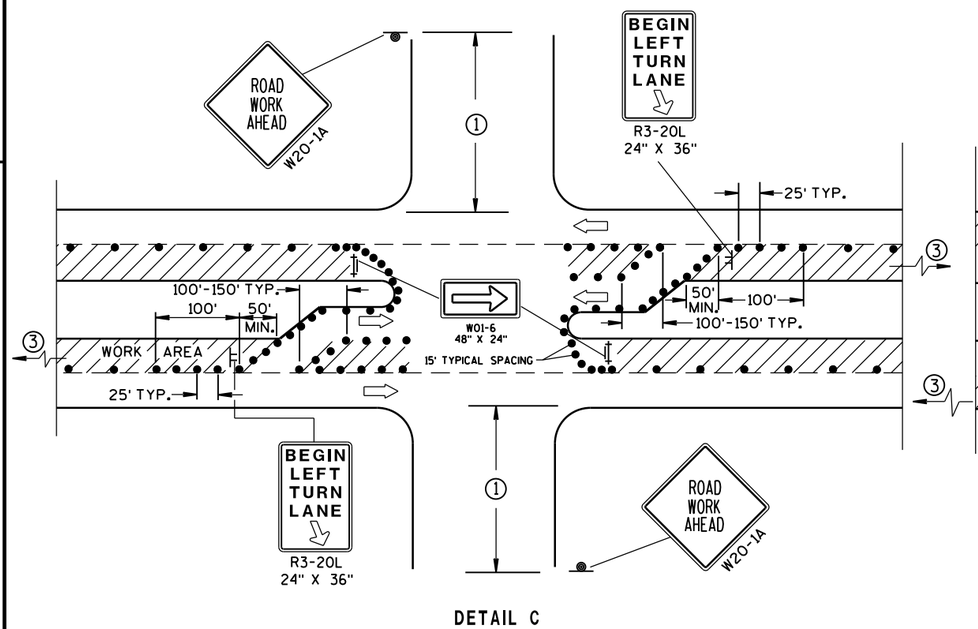
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

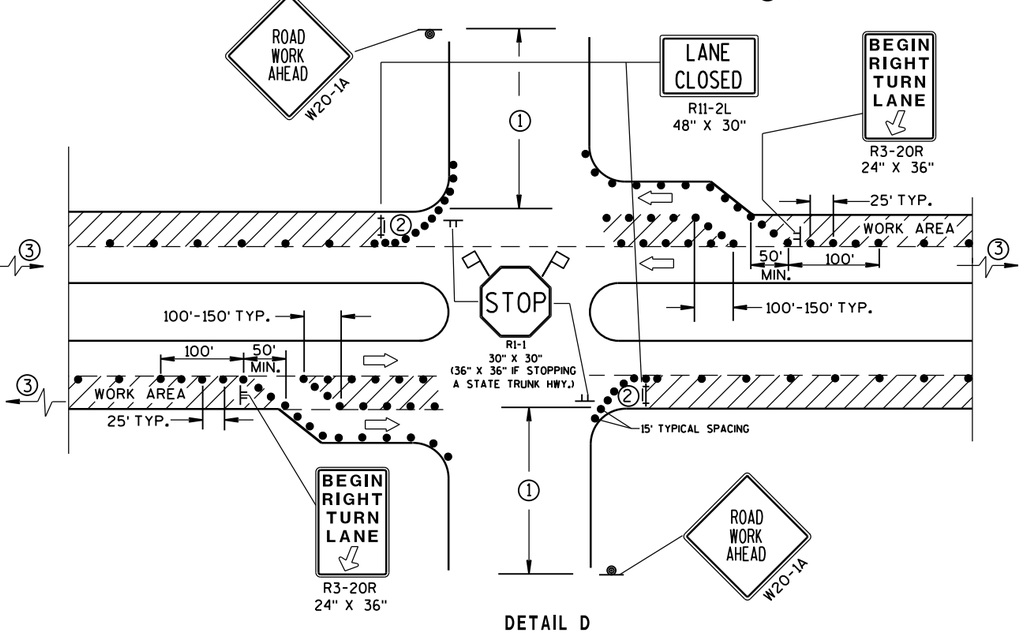
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

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

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

SEL APR 2017

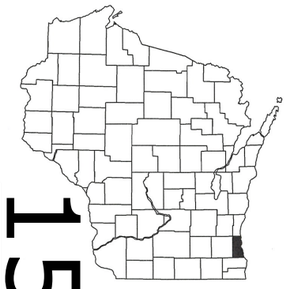
PROJECT ID 2585-00-70
WITH: 2025-01-72, 2595-08-70

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: 250



15

W. CAPITOL DR.
TO
W. HAMPTON AVE.

DESIGN DESIGNATION

A.D.T. (2015)	=	12,500
A.D.T. (2037)	=	15,000
D.H.V.	=	1500
D.	=	59%
TRUCKS	=	4.8%
DESIGN SPEED	=	40 M.P.H.
ESALS	=	870,000

CONVENTIONAL SYMBOLS

PLAN

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE (P.L.)
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE (R/W)
- PROPOSED SEWER LATERAL (SIZE)
- REFERENCE LINE
- COMBUSTIBLE FLUIDS (CAUTION)
- RAILROADS
- FENCE (TYPE)
- CATCH BASIN OR INLET EXISTING PROPOSED

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- GRADE ELEVATION 95.36

UTILITIES

- CITY UNDERGROUND CONDUIT — CUC
- ELECTRIC — E
- GAS — G
- SANITARY SEWER — SAN
- STORM SEWER — STO
- TELEPHONE — T
- WATER — W
- FIRE & POLICE CALL BOX
- LIGHT POLE
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- HYDRANT
- GAS OR WATER GATE VALVE
- MANHOLES - SEWER ○ UTILITY (TYPE) □
- TREES - EXISTING ◑ TO BE REMOVED ⊗

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

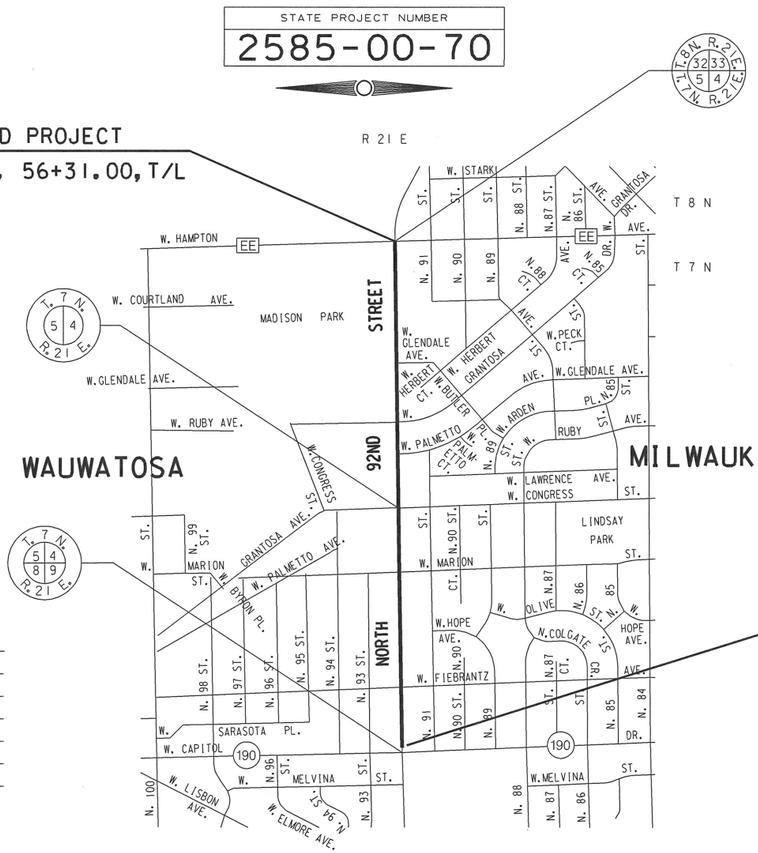
NORTH 92ND STREET

WEST CAPITOL DRIVE TO WEST HAMPTON AVENUE

LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2585-00-70	WISC 2017165	1

STATE PROJECT NUMBER
2585-00-70



BEGIN PROJECT
STA. 03+06.00, T/L
Y. = 403,579.28
X. = 2,526,821.18

LAYOUT
SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.008 MI. (URBAN)

THE COORDINATES ON THIS PLAN ARE BASED ON THE WISCONSIN STATE PLANE COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 27 SOUTH ZONE.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODEDIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

Accepted For
City of Milwaukee

10/25/16 _____
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN
JEFFREY S. POLENSKE
E-33528
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER

10/19/16 _____
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor City of Milwaukee
Designer City of Milwaukee
Management Consultant Daar Engineering
C.O. Examiner

APPROVED FOR THE DEPARTMENT
DATE: 10/28/16 _____
(Management Consultant Signature)

E

FILE NAME = W:\SPR\ 92ND_CAP-HAMP\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH GRANULAR BACKFILL, AND PAID FOR AS PART OF REMOVAL BID ITEM

2. ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4"OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. TOPSOILED AREAS SHALL BE SODDED AND FERTILIZED WITHIN 5 CALENDAR DAYS.

3. TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

4. ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL.

5. 'PAVEMENT TIES' AS SHOWN ON STANDARD DETAIL DRAWING 'CONCRETE GUTTER,CURB AND GUTTER AND PAVEMENT TIES' ARE REQUIRED TO TIE EXISTING CONCRETE TO NEW CONCRETE CURB AND GUTTER.

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

7. CONSTRUCTION PERMITS FOR CONCRETE WALK &/ OR CONCRETE DRIVEWAY WORK HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTORS.

8. INLET PROTECTION IS TO BE PROVIDED AT EACH INLET FRAME AND GRATE LOCATION TO PREVENT SOIL FROM ENTERING THE STORM SEWER.

9. ALL CURB AND GUTTER SHALL HAVE A FLANGE THICKNESS OF 8-INCH.

10. ALL STATION AND OFFSET OF CURB REFERENCED IN THE PLANS ARE TO THE FACE OF THE CURB.

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

12. THE CONTRACTOR SHALL GIVE THE PROJECT ENGINEER AT LEAST TWO WEEKS NOTICE PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT MAY DISTURB ANY PUBLIC SURVEY MONUMENTS.

13. IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL INSTALL THE INLET PROTECTION TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

14. EXISTING DRIVEWAYS AND FIELD ENTRANCES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

15. TRAFFIC CONTROL DEVICES TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

16. EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER.

17. ANY MESH OR REINFORCEMENT FOUND DURING REMOVAL OF THE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM "REMOVING PAVEMENT".

18. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPERATELY.

19. ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED,UNLESS NOTED IN THE PLANS,

20. SAWCUT ASPHALT AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER.

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
C	- CURB
ELEV.	- ELEVATION
ENT.	- ENTRANCE
EXIST.	- EXISTING
F	- FLANGE
G	- GUTTER, OR GAS
HYD.	- HYDRANT
LT	- LEFT
MMSD	- MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
NB	- NORTHBOUND
P/L	- PROPERTY LINE
PGL	- PROPOSED GRADE LINE
R OR RAD.	- RADIUS
RET.	- RETAINING
RT	- RIGHT
R/W	- RIGHT OF WAY
SB	- SOUTHBOUND
TEL	- AMERITECH
TES	- TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	- TRANSIT LINE
V.T. OR VT	- VARIABLE THICKNESS
WEP	- WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

WRITTEN MATERIAL
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
INTERSECTION DETAILS
EROSION CONTROL
UTILITIES AND DRAINAGE
TREE PLANTING AND REMOVAL
BIO-SWALE DETAIL AND PLANS
STREET LIGHTING ANDTRAFFIC SIGNALS
COMMUNICATIONS AND UNDERGOUND CONDUIT (TES)
PAVEMENT MARKING
TRAFFIC CONTROL & CONSTRUCTION STAGING
ALIGNMENT

UTILITY CONTACTS

CITY OF MILWAUKEE, SEWER AND WATER

MUSA ABU-KHADER
841 N. BROADWAY, RM 710
MILWAUKEE, WI 53202
PHONE: 414-286-2432

CITY OF MILWAUKEE, COMMUNICATIONS

DAVID HENKE
809 N. BROADWAY, RM 400
MILWAUKEE, WI 53202
PHONE: 414-286-3248

CITY OF MILWAUKEE, UNDERGROUND CONDUIT

KAREN ROGNEY
841 N. BROADWAY, RM 920
MILWAUKEE, WI 53202
PHONE: 414-286-3243

CITY OF MILWAUKEE, IRRIGATION

JAMES KRINGER
841 N. BROADWAY, RM 619
MILWAUKEE, WI 53202
PHONE: 414-708-2428

CITY OF MILWAUKEE, STREET LIGHTING

DENNIS MILLER
1540 W CANAL ST, 2ND FLOOR
MILWAUKEE, WI 53223
PHONE: 414-286-5942

CITY OF MILWAUKEE, TRAFFIC SIGNALS (CONSTRUCTION)

ALPHONZO NICHOLS
1540 W CANAL ST, 2ND FLOOR
MILWAUKEE, WI 53223
PHONE: 414-286-5941

CITY OF MILWAUKEE, TRAFFIC SIGNALS (OPERATIONS)

SCOTT REINBACHER
841 N. BROADWAY, RM 920
MILWAUKEE, WI 53202
PHONE: 414-286-6301

CITY OF WAUWATOSA, WATER

ADAM FLORIN
7725 W NORTH AVE.
WAUWATOSA, WI 53213
PHONE: 414-471-8480

TIME WARNER CABLE

STEVE STORM
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-4789

LEVEL 3 COMMUNICATIONS

SASHA DEMIAN
3235 INTERTECH DR., SUITE 600
BROOKFIELD, WI 53045
PHONE: 414-908-1042

WE ENERGIES - GAS (CONSTRUCTION)

PAUL HEBEIN
5400 N GREEN BAY AVE.
GLENDALE, WI 53209
PHONE: 414-688-7257

WE ENERGIES - GAS (CONSTRUCTION)

JOSH MOUNT
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-218-2053

WE ENERGIES - ELECTRIC

KENNETH FRANECKI
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-944-5531

AT&T WISCONSIN

JEFF OLDENBURG
2005 PEWAUKEE RD
WAUKESHA, WI 53188
PHONE: 262-896-7522

OTHER CONTACTS

MILWAUKEE COUNTY TRANSIT SYSTEM

MELANIE FLYNN
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1764

WISCONSIN DEPT. OF NATURAL RESOURCES

KRISTINA BETZOLD
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212-0436
PHONE: 414-263-8517

SEWRPC

JOHN WASHBURN
W239 N1812 ROCKWOOD DR.
P.O. BOX 1607
WAUKESHA, WI 53187
PHONE: 262-547-6721

CITY OF WAUWATOSA

BILL WEHRLEY - CITY ENGINEER
7725 W. NORTH AVE.
WAUWATOSA, WI 53213
PHONE: 414-479-8929

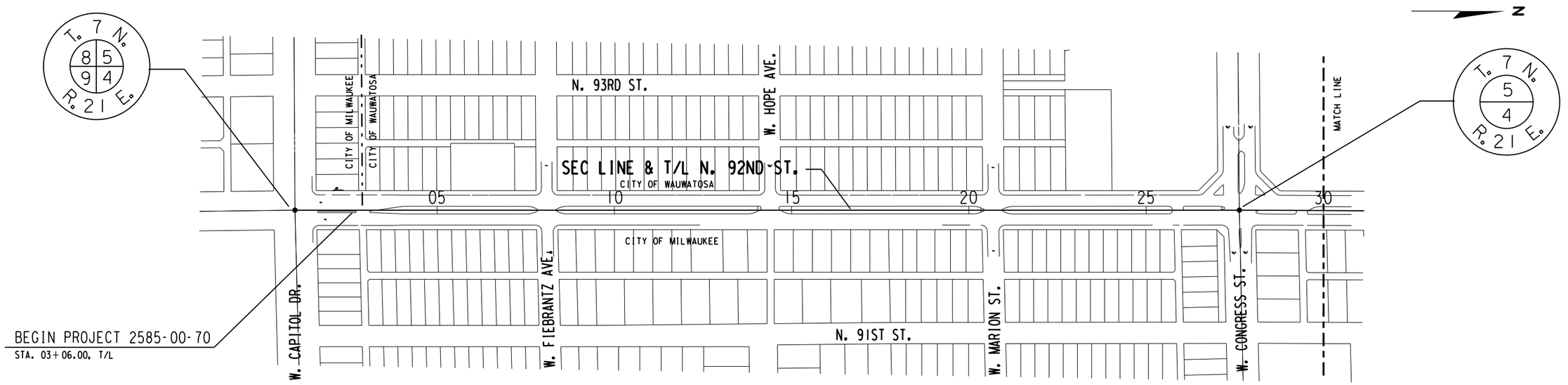
WISDOT LOCAL MANAGEMENT CONSULTANT - DAAR ENGINEERING

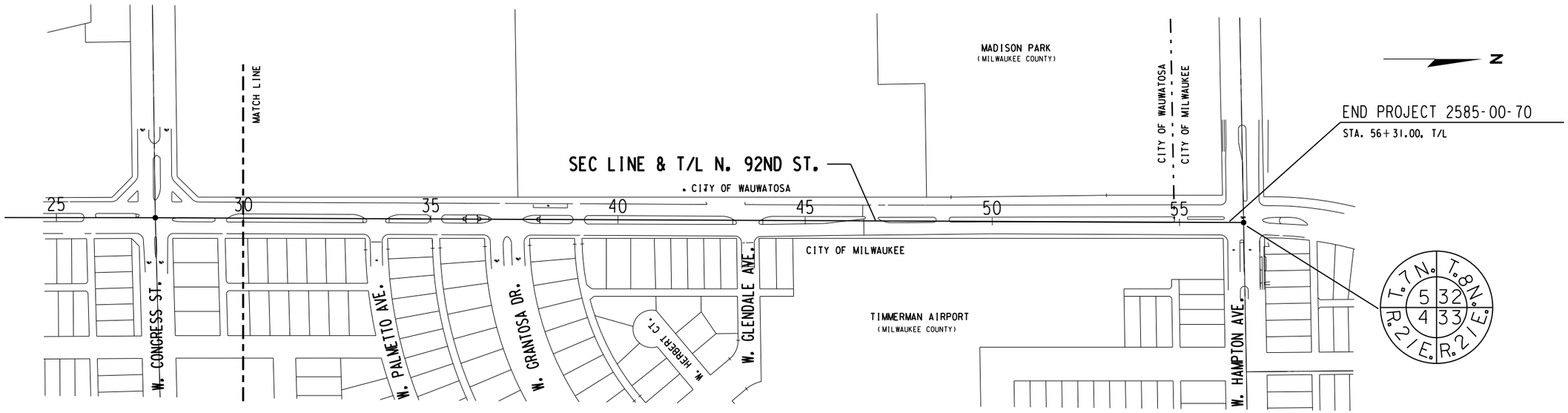
TODD BECKER - PROJECT MANAGER
325 E. CHICAGO ST.
MILWAUKEE, WI 53202
PHONE: 414-225-9817

MILWAUKEE COUNTY HIGHWAY DEPARTMENT

VERNON SINGLETON
10320 W WATERTOWN PLANK RD
MILWAUKEE, WI 53226
PHONE: 414-257-5947

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

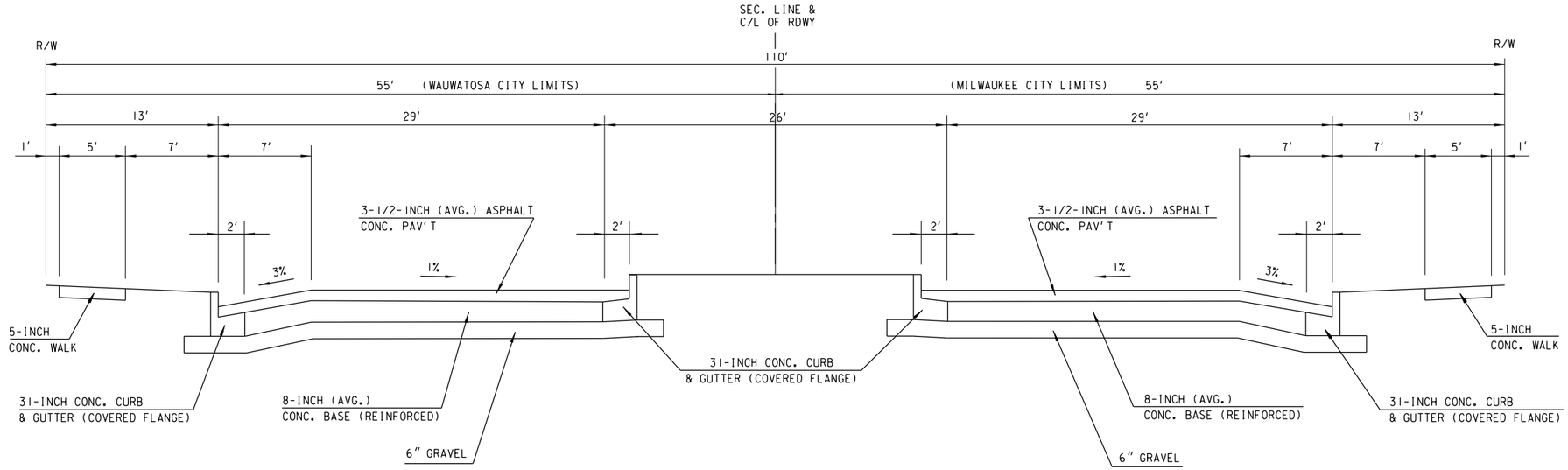




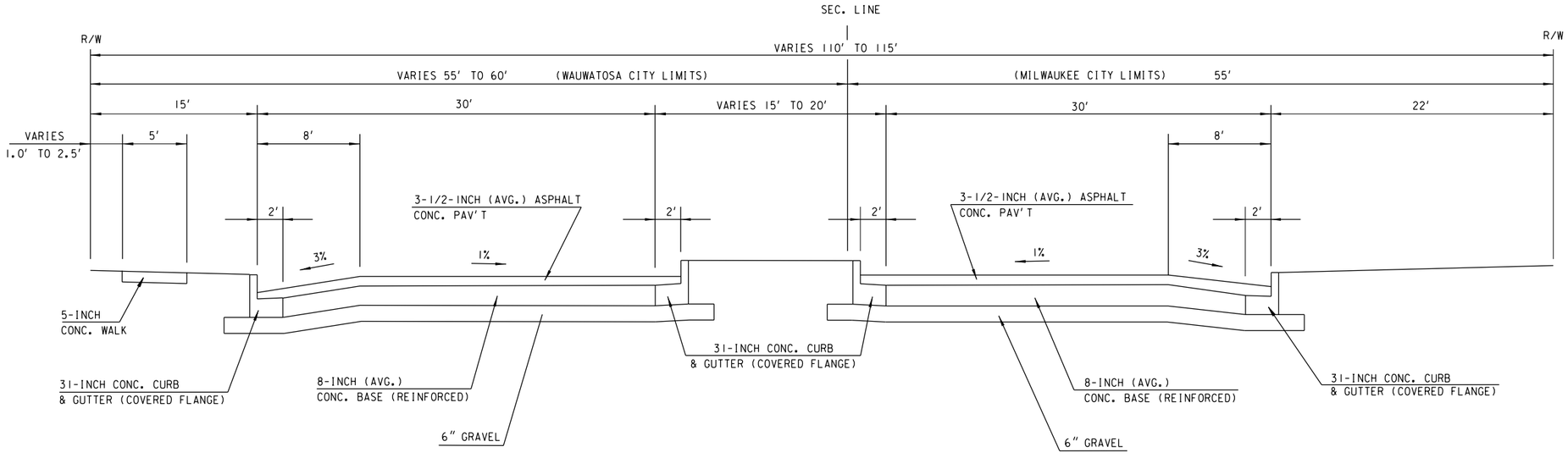
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 4	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\OVERVIEW92.DGN

REVISED: 10-13-2015



TYPICAL EXISTING SECTION
STA. 03 + 06.0 TO STA. 44 + 95.5



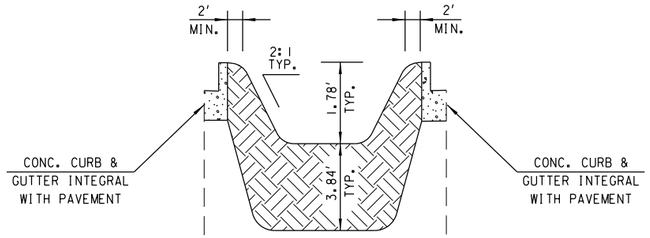
TYPICAL EXISTING SECTION
STA. 44 + 95.5 TO STA. 56 + 31.0

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 5	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TYPSEC.DGN

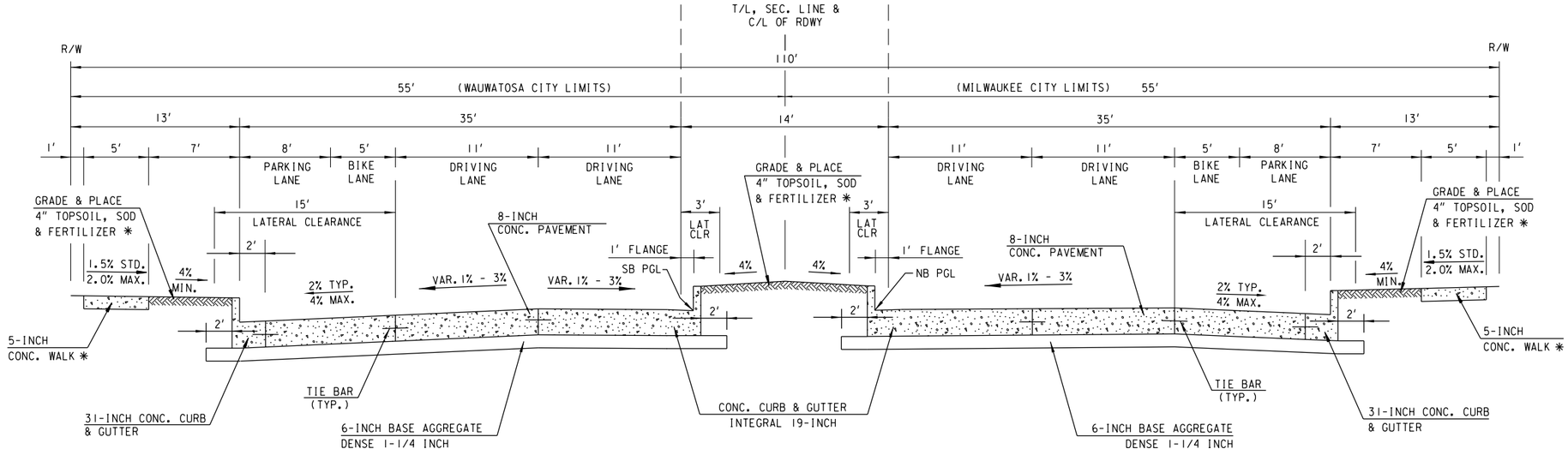
REVISED: 05-27-2016

2



BIO-SWALE DETAIL

NO.1 - STA. 08+93 TO STA. 09+89
NO.2 - STA. 19+20 TO STA. 19+65
NO.3 - STA. 29+73 TO STA. 30+36



TYPICAL FINISHED SECTION

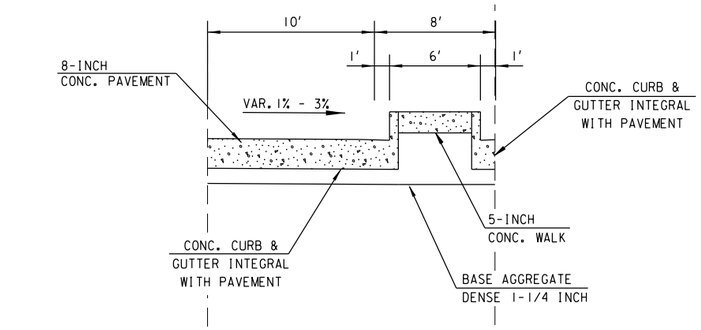
STA. 03 + 06.0 TO STA. 25 + 50.0
STA. 29 + 75.0 TO STA. 42 + 75.0

* WHERE INDICATED ON PLAN
SB PGL = POINT REFERRED TO ON SOUTHBOUND PROFILE
NB PGL = POINT REFERRED TO ON NORTHBOUND PROFILE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 6	E

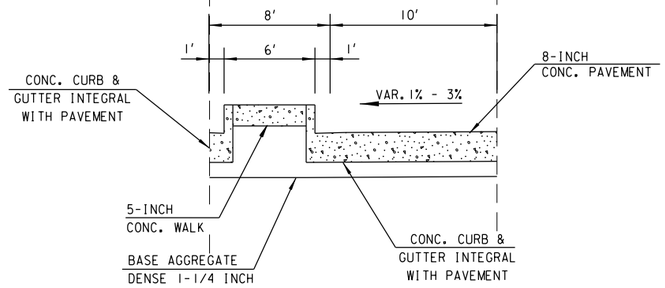
FILENAME: W:\SPR\92ND N_CAP-HAMP\TYPSEC.DGN

REVISED: 06-14-2016



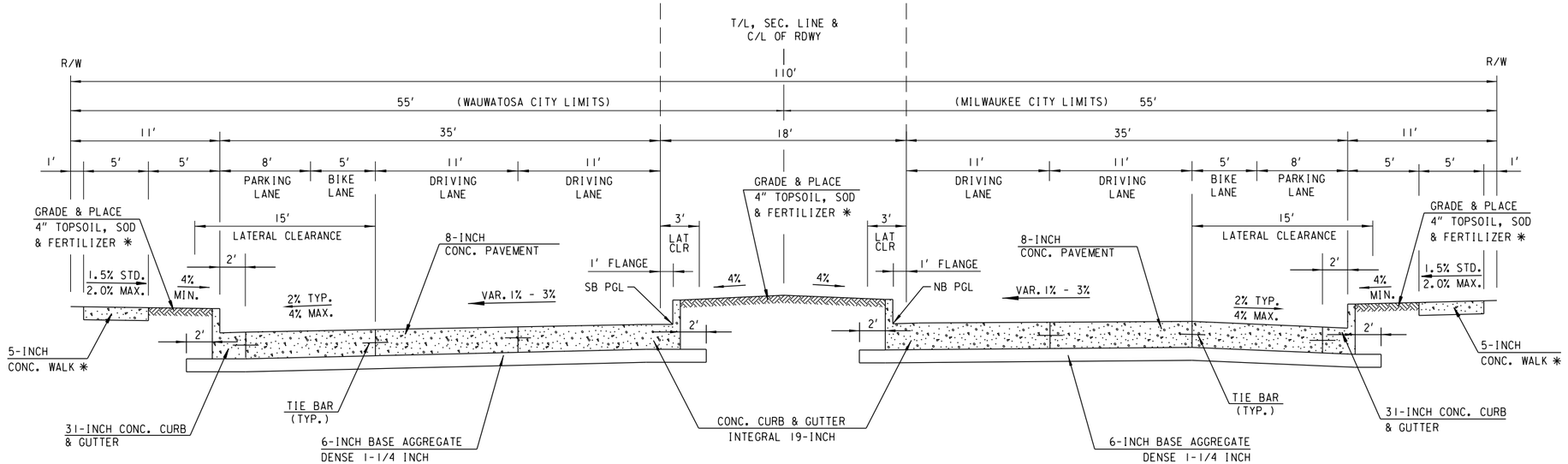
SOUTHBOUND LEFT TURN LANE

STA. 28+15.0 TO STA. 29+15.0



NORTHBOUND LEFT TURN LANE

STA. 25+65.0 TO STA. 27+15.0



* WHERE INDICATED ON PLAN
SB PGL = POINT REFERRED TO ON SOUTHBOUND PROFILE
NB PGL = POINT REFERRED TO ON NORTHBOUND PROFILE

TYPICAL FINISHED SECTION

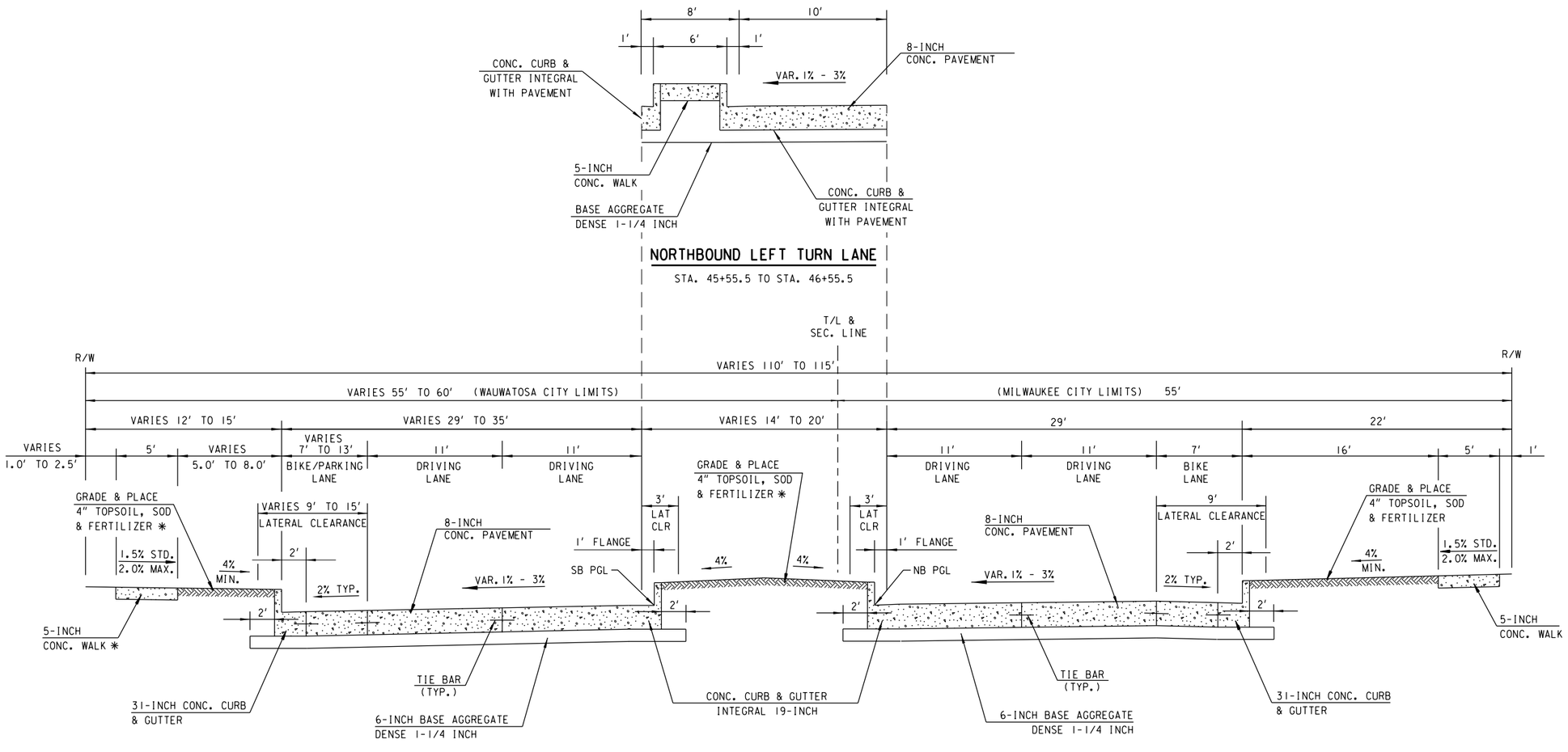
STA. 25 + 50.0 TO STA. 29 + 75.0

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 7	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TYPSEC.DGN

REVISED: 06-14-2016

2



TYPICAL FINISHED SECTION

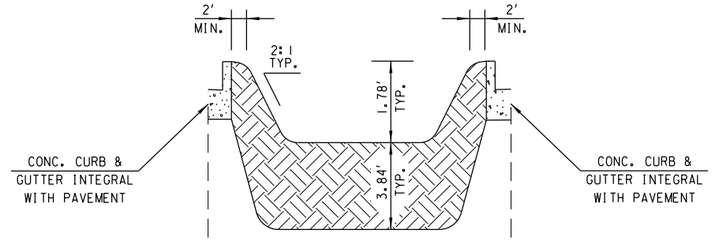
STA. 42 + 75.0 TO STA. 51 + 30.0

* WHERE INDICATED ON PLAN
SB PGL = POINT REFERRED TO ON SOUTHBOUND PROFILE
NB PGL = POINT REFERRED TO ON NORTHBOUND PROFILE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 8	E

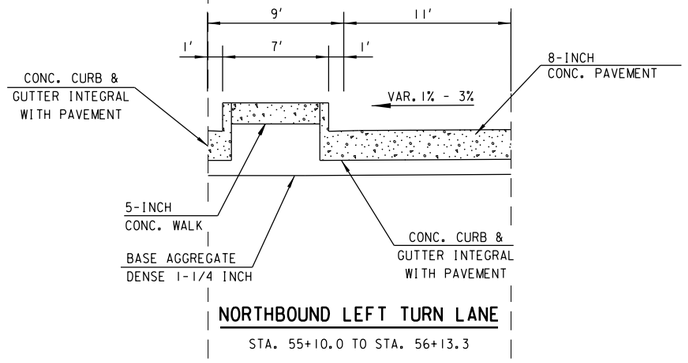
FILENAME: W:\SPR\92ND N_CAP-HAMP\TYPSEC.DGN

REVISED: 06-14-2016



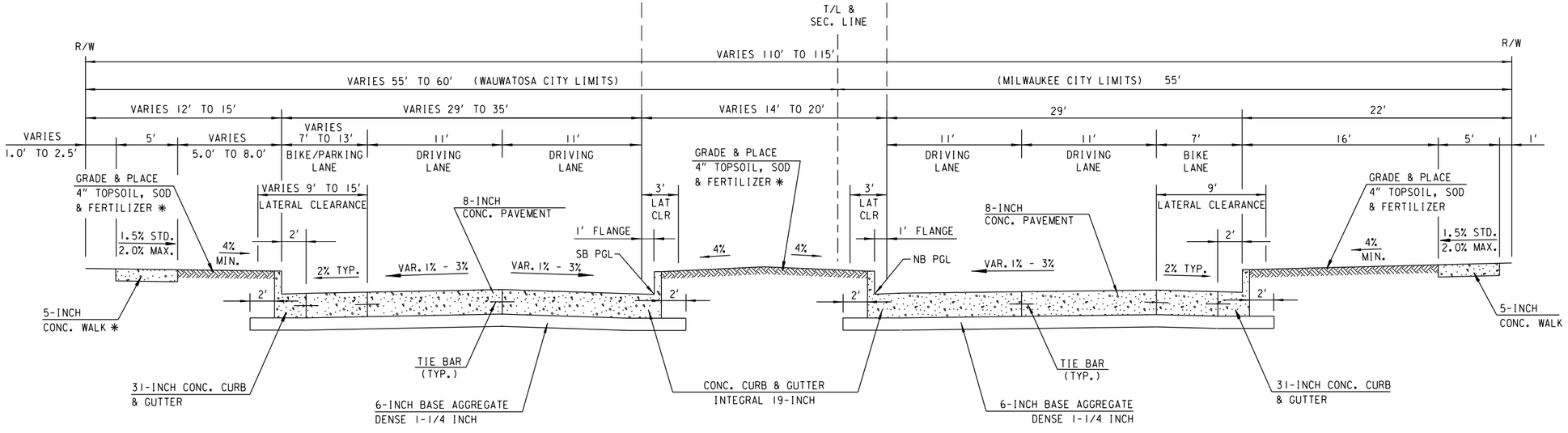
BIO-SWALE DETAIL

NO.4 - STA. 51+58 TO STA. 51+91
NO.5 - STA. 54+25 TO STA. 54+75



NORTHBOUND LEFT TURN LANE

STA. 55+10.0 TO STA. 56+13.3



* WHERE INDICATED ON PLAN
SB PGL = POINT REFERRED TO ON SOUTHBOUND PROFILE
NB PGL = POINT REFERRED TO ON NORTHBOUND PROFILE

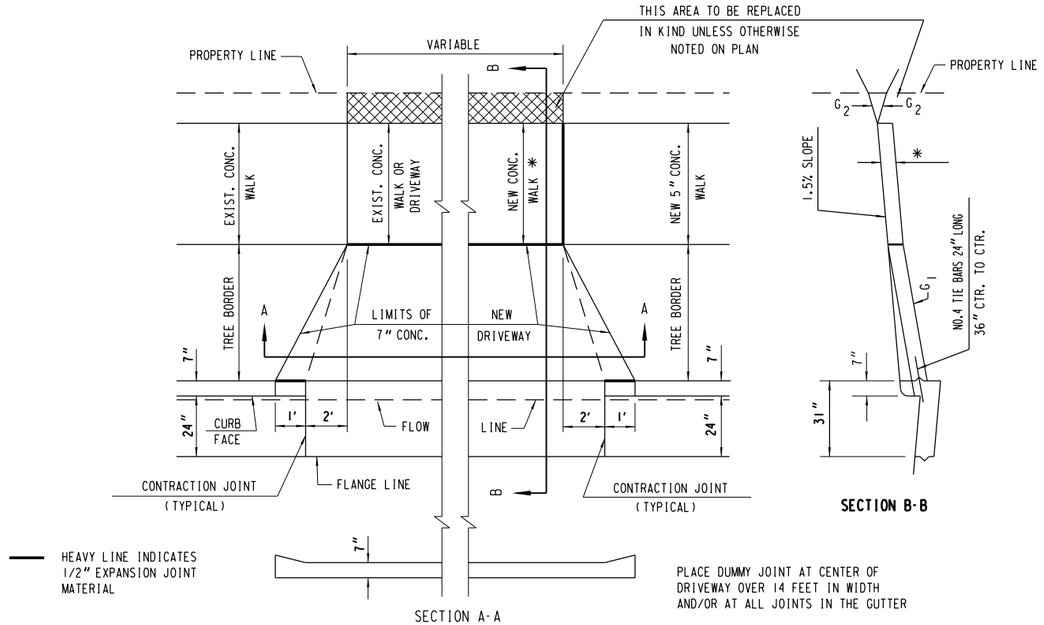
TYPICAL FINISHED SECTION

STA. 51 + 30.0 TO STA. 56 + 31.0

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 9	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TYPSEC.DGN

REVISED: 06-14-2016



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

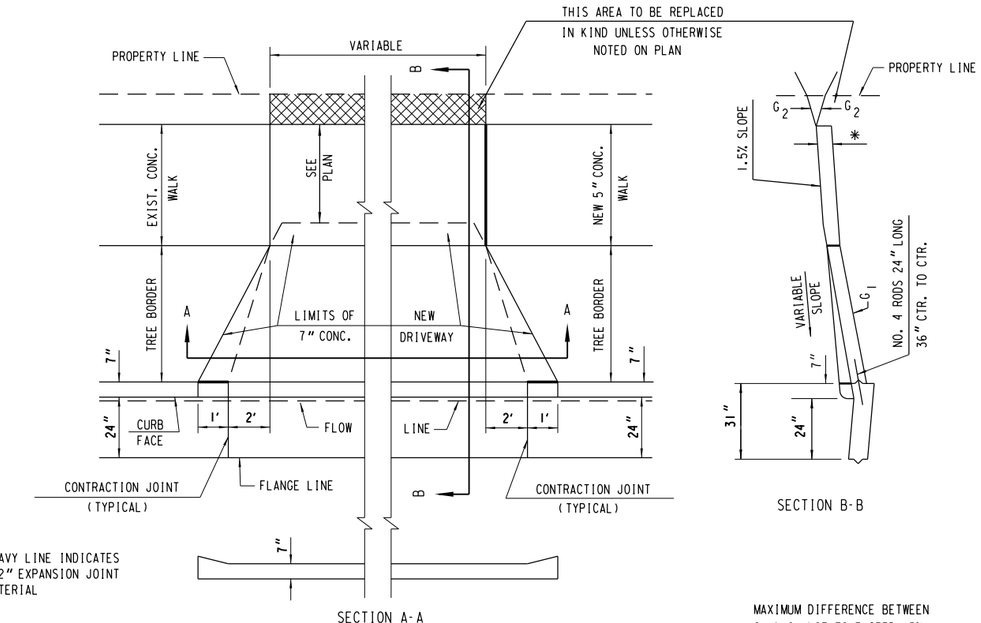
PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

FLARED CONCRETE DRIVEWAY

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

* LOCATIONS PER PLAN: USE 7" CONC. FOR BUSINESS PROPERTY AND 5" CONC. FOR RESIDENTIAL PROPERTY.



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

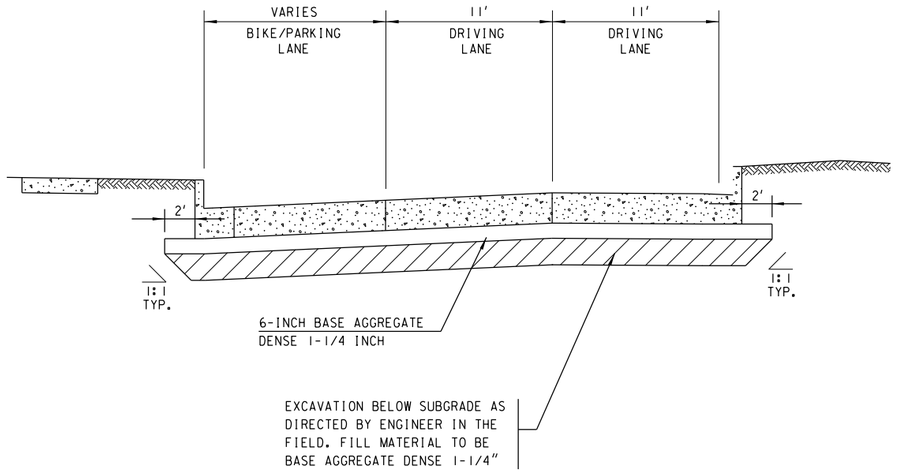
PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

FLARED CONCRETE DRIVEWAY (MODIFIED)

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15%
DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

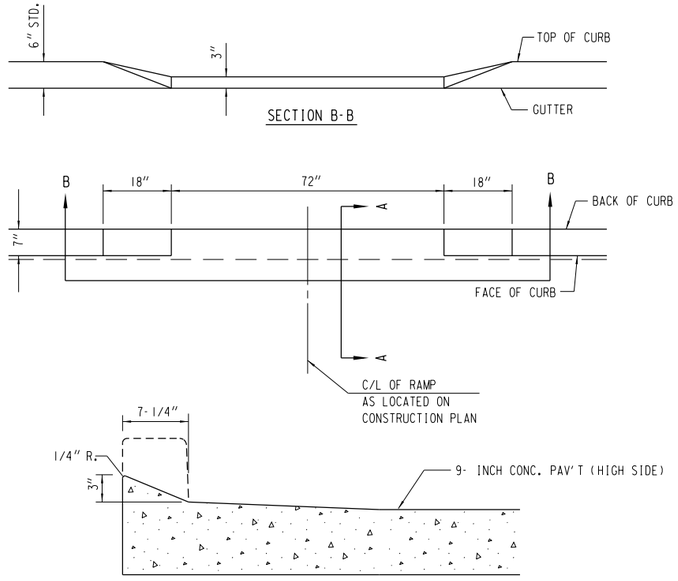
* LOCATIONS PER PLAN: USE 7" CONC. FOR BUSINESS PROPERTY AND 5" CONC. FOR RESIDENTIAL PROPERTY.



NOTE:

ANTICIPATED DEPTH OF "EXCAVATION BELOW SUBGRADE" IS 1.0 FEET

EXCAVATION BELOW SUBGRADE

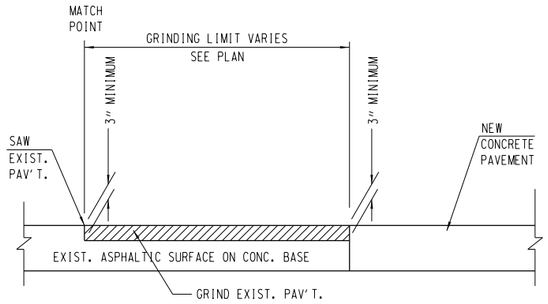


MAINTENANCE RAMP

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 11	E

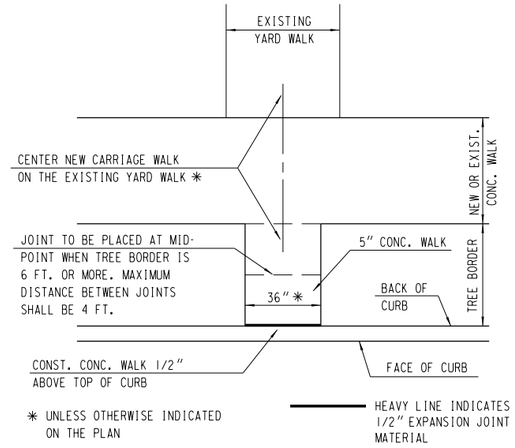
FILENAME: W:\SPR\92ND N_CAP-HAMP\CONDET.DGN

REVISED DATE: - -

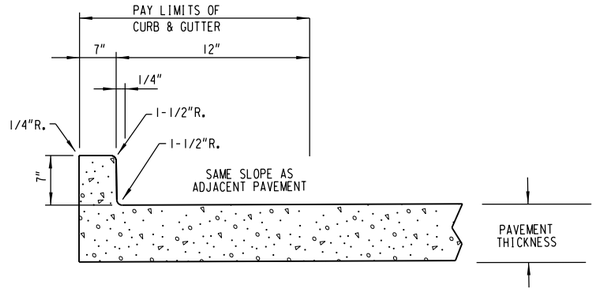


REMOVING ASPHALTIC SURFACE BUTT JOINTS

IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT



CARRIAGE WALK



CONCRETE CURB & GUTTER INTEGRAL 19-INCH

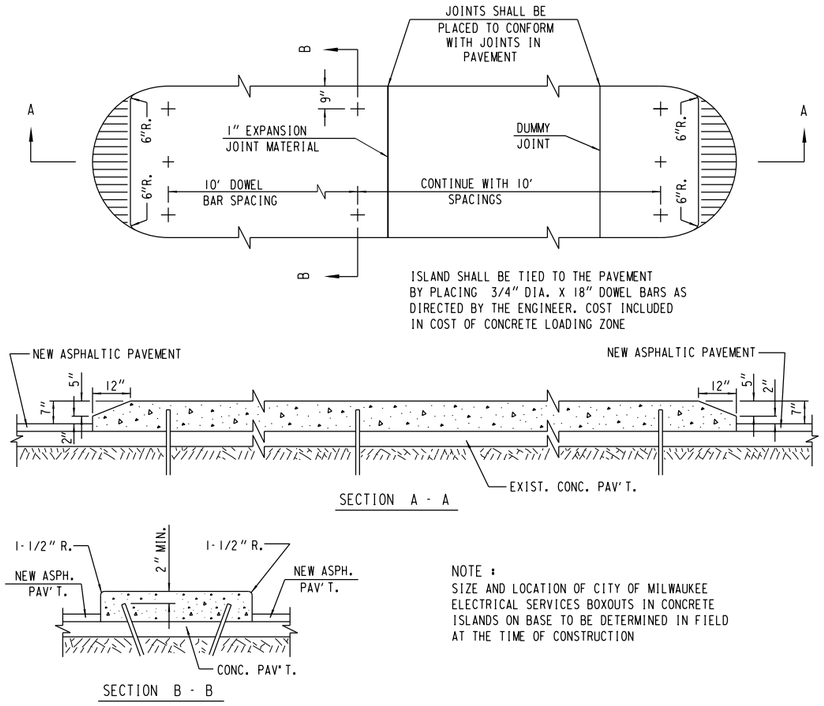
TO BE PAID FOR AS ITEM SPV.0090.02
CONCRETE C&G INTEGRAL 19-INCH

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 40'	SHEET NO: 12 E

FILENAME: W:\SPR\92ND N_CAP-HAMP\CONDET.DGN

REVISED DATE: - -

2



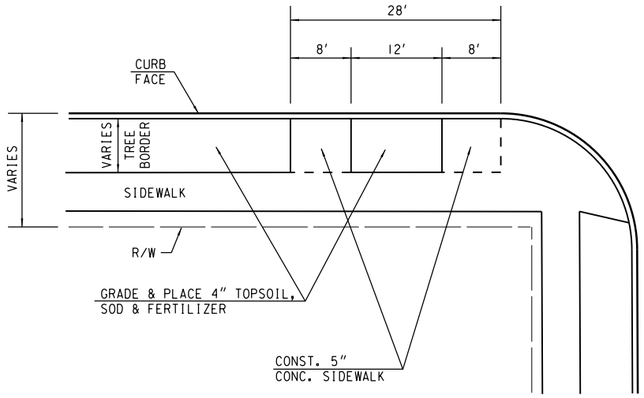
CONCRETE LOADING ZONE

(WITH CONCRETE MEDIAN SLOPED NOSE)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 13	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\CONDET.DGN

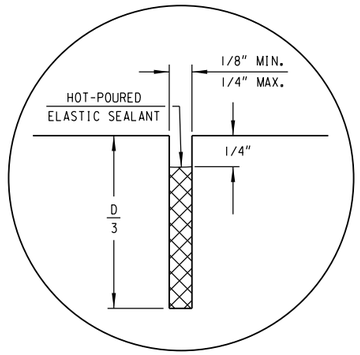
REVISED DATE: - -



BUS STOP WALK DETAIL

GENERAL NOTES

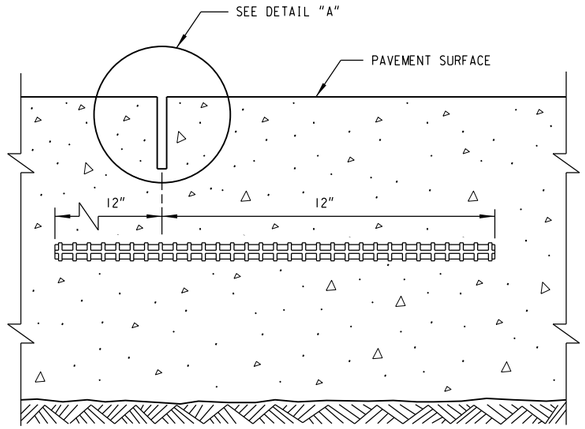
THE SLOPE OF PASSENGER BOARDING AREA MAY NOT EXCEED 2%.



JOINT SEALING DETAIL

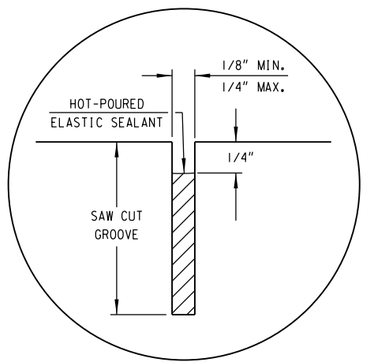
PAVEMENT DEPTH AND JOINT SPACING TABLE	
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6"	12'
7"	14'
8"	15'
9"	15'
10" & ABOVE	18'

JOINTS WITH HOT POURED SEALANT

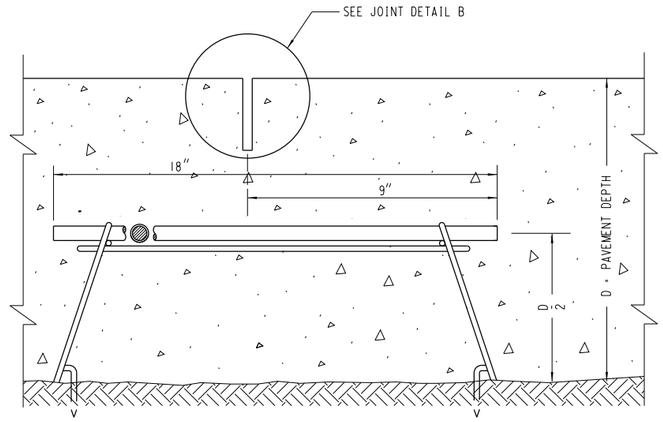


SAWED JOINT

NOTE: DETAIL 'A' SHOWN IN S.D.D. 13C1-18 "CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES" HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL A'.

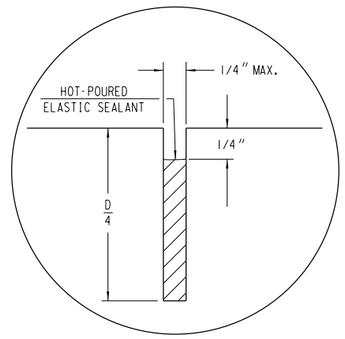


JOINT DETAIL "A"



DOWELED CONTRACTION JOINT

NOTE: 'JOINT DETAIL' SHOWN IN S.D.D. 13C13-8 "URBAN DOWELED CONCRETE PAVEMENT" HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL B'.



JOINT DETAIL "B"

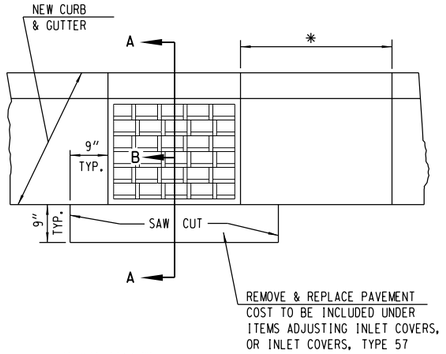
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 15	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\CONDET.DGN

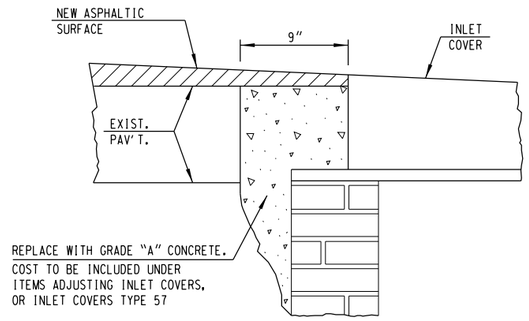
REVISED DATE: - -

2

* REMOVE 3'-0" CURB & GUTTER MIN. OR TO THE NEAREST JOINT, 6'-0" MAX. UNLESS OTHERWISE DIRECTED ON THE PLAN.

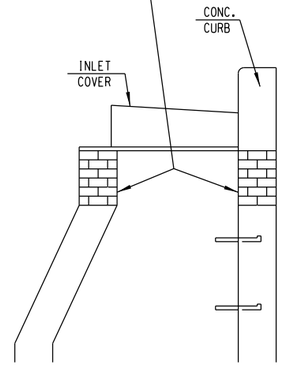


PLAN VIEW



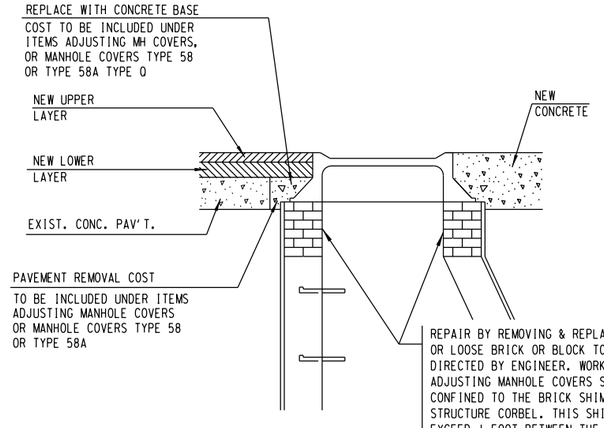
SECTION A-B

REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING CATCH BASIN COVERS SHALL BE CONFINED TO THE BRICK SHIMMING ABOVE THE STRUCTURE CORBEL. THIS SHIMMING SHALL NOT EXCEED 1 FOOT BETWEEN THE TOP OF THE CORBEL AND THE FRAME BOTTOM. ANY WORK MORE EXTENSIVE THAN DESCRIBED IMMEDIATELY ABOVE SHALL BE CONSTRUED AS WORK UNDER RECONSTRUCTING CATCH BASINS. DEPTHS OF BRICKWORK TO BE REPAIRED, AS INDICATED ON THE PLAN, ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

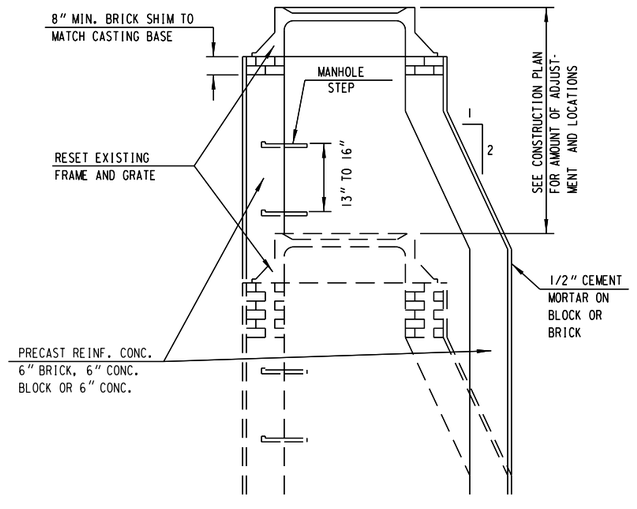


SECTION A-A

ADJUSTING INLET COVERS



ADJUSTING MANHOLE COVERS
OR MANHOLE COVERS TYPE 58A



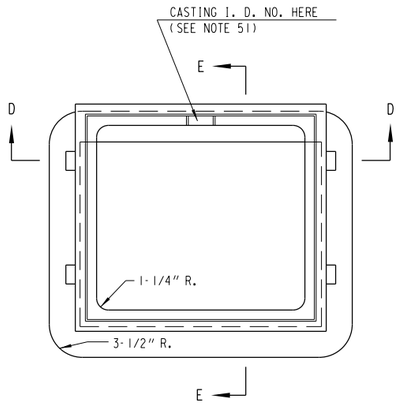
CORBEL MAY BE REVERSED
STRAIGHT SIDE LEANED
SLIGHTLY TO CLEAR CURB HEAD.

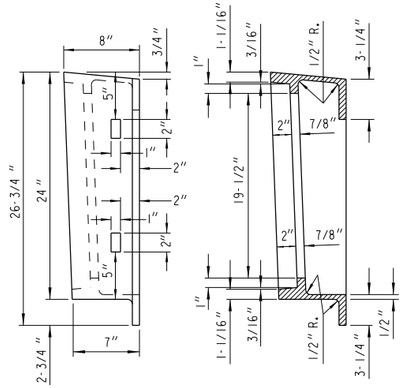
REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES
AND INLETS

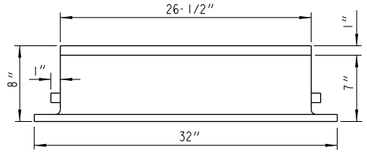
CONSTRUCTION NOTES

1. LOCATIONS OF STRUCTURES IN CURB & GUTTER SECTIONS REFER TO FACE OF CURB.
2. LOCATIONS OF STRUCTURES NOT IN CURB AND GUTTER SECTIONS REFER TO CENTERLINE OF STRUCTURE.
3. PIPE LENGTHS GIVEN ARE APPROXIMATE OUT TO OUT OF STRUCTURE.
4. GRATE & RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET COVER OR AT CENTER-LINE OF MANHOLE COVER.
5. WHEN NEW COVERS ARE PLACED, THE FIRST 12" OF ADJUSTMENT OR REPAIRING SHALL BE INCLUDED IN THE COST OF THE NEW COVER. ANY ADJUSTMENT OR REPAIR OF BRICKWORK 12" OR LESS WILL BE PAID AS ADJUSTING COVERS WHEN RESETTING EXISTING COVERS, ANY ADJUSTMENT OR REPAIR OF BRICKWORK MORE THAN 12" WILL BE PAID AS A RECONSTRUCT.
6. MANHOLE ADJUSTMENTS IN ASPHALTIC PAVEMENT WILL BE MADE AFTER THE LOWER LAYER IS PLACED.
7. WHEN CONSTRUCTING CONCRETE CURB ADJACENT TO INLET COVER TYPE 57, TWO (2) DEFORMED TIE BARS SHALL BE PLACED LONGITUDINALLY THROUGH THE CURB SECTION AND EXTENDED ONE (1) FOOT BEYOND EACH SIDE OF THE FRAME. A DUMMY JOINT SHALL BE CUT IN THE CURB AT EACH SIDE OF THE FRAME.

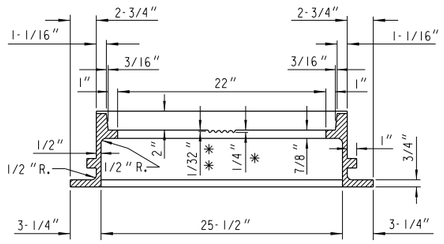




SECTION E-E



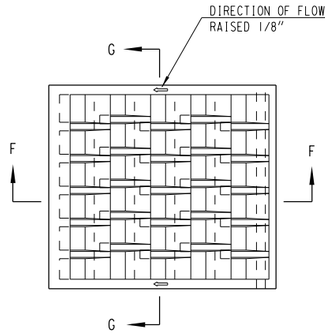
FRAME



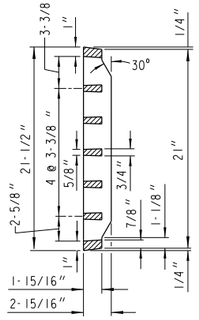
SECTION D-D

* DEPRESSION FOR LETTERS

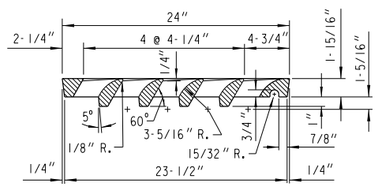
** CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



GRATE



SECTION G-G



SECTION F-F

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8"

ON THE FRAME

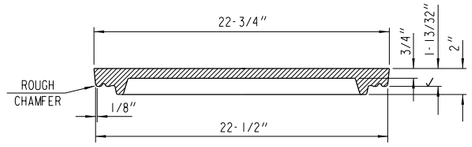
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

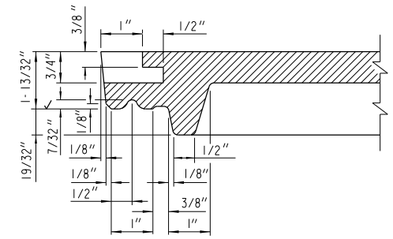
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

INLET COVER - TYPE 57

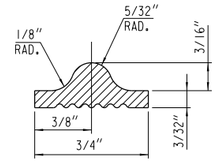
LID-145 LBS., FRAME-204 LBS.



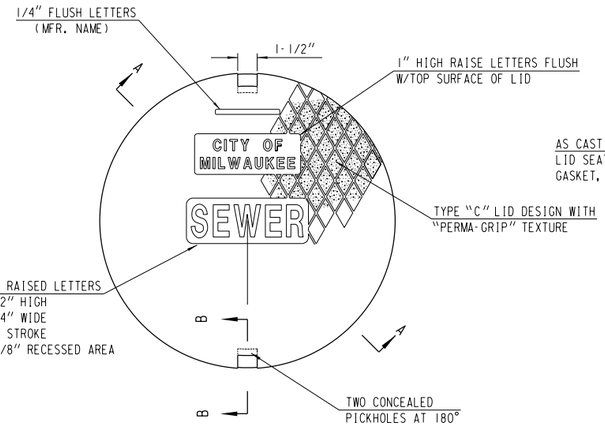
SECTION A-A



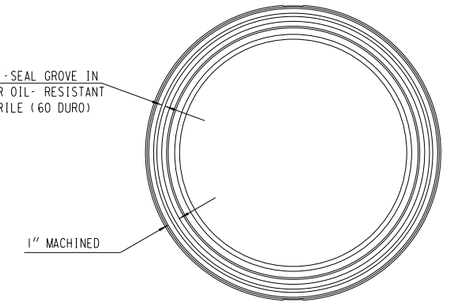
SECTION B-B



"T" GASKET DETAIL



TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

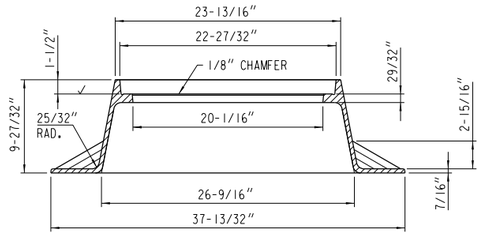
LID - 107 LBS.

NOTE:

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8" HAVING A DIGIT OR LETTER HEIGHT OF ONE INCH ON LOWER FACE OF LID:

1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



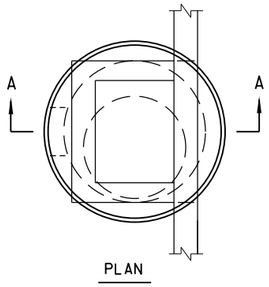
MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.

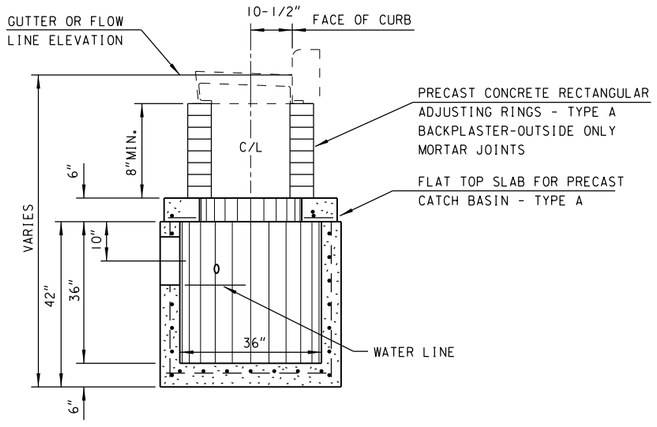
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 17	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\DRAINDET.DGN

REVISED DATE: - -



PLAN



SECTION A-A

CATCH BASIN - TYPE 45A

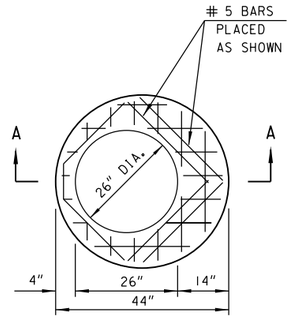
GENERAL NOTES

1. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL GOVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.

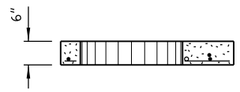
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4 IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PLAN



SECTION A-A

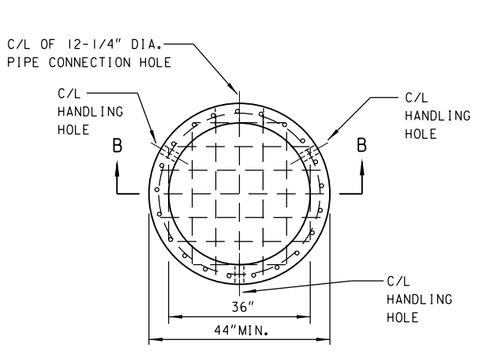
TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 6" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED NEAR THE BOTTOM OF THE SLAB WITH 1" CLEAR COVER.

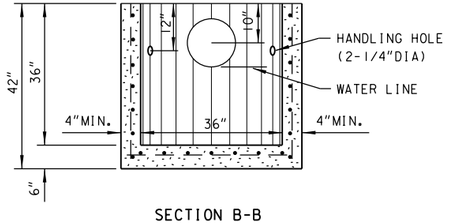
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

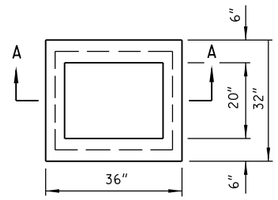
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



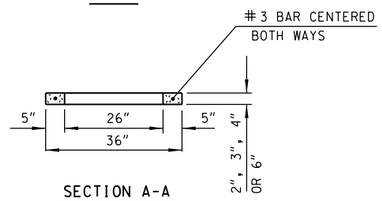
RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B



PLAN



SECTION A-A

RECTANGULAR ADJUSTING RING - TYPE A

THE ADJUSTING RINGS SHALL BE 2", 3", 4" OR 6" IN HEIGHT.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

CIRCUMFERENTIAL AND LONGITUDINAL REINFORCEMENT IN THE RISER SECTON SHALL EACH CONSIST OF ONE LAYER OF STEEL NOT LESS THAN 0.12 SQ. IN. PER FOOT AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

THE BASE SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER FOOT IN BOTH DIRECTIONS, PLACED ABOVE THE MIDPOINT OF THE SLAB.

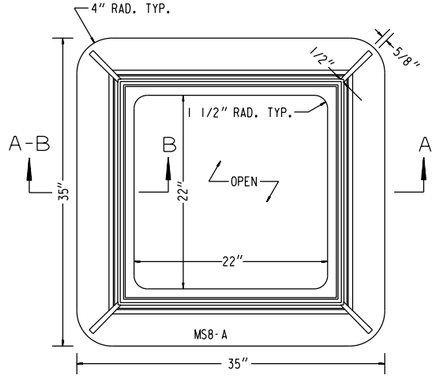
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

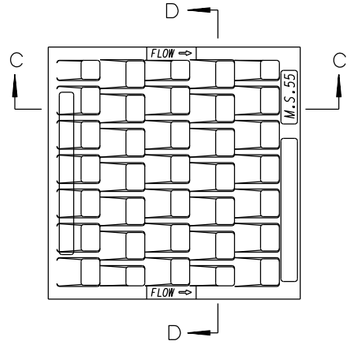
NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

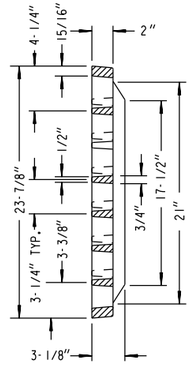
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

RISER SECTION MAY TAPER TO A 33" INTERNAL DIAMETER AT IT'S BOTTOM PROVIDED A 44" MINIMUM OUTSIDE DIAMETER IS MAINTAINED.

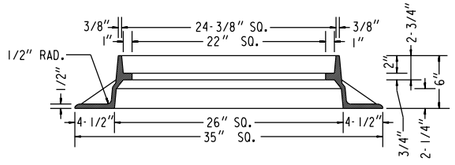


TOP VIEW

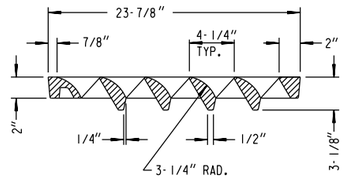




SECTION D-D



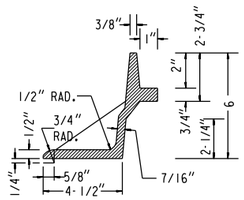
SECTION A-A



SECTION C-C

MS-55
SCALE N.T.S.

GRATE DETAIL



SECTION B-B

FRAME DETAIL

MS-8A
SCALE N.T.S.

INLET COVER - TYPE 55

GRATE-159 LBS., FRAME-165 LBS.

GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 INCH

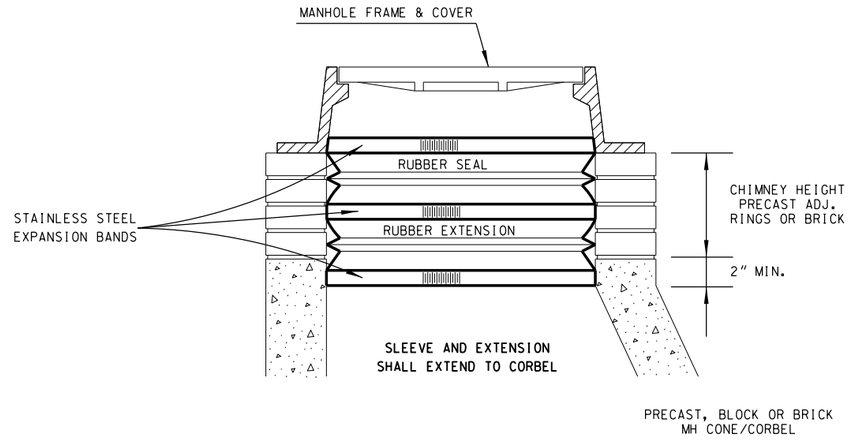
ON THE FRAME

1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE CASTING IDENTIFICATION NUMBER (MS-8A), THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 3/4 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (8).

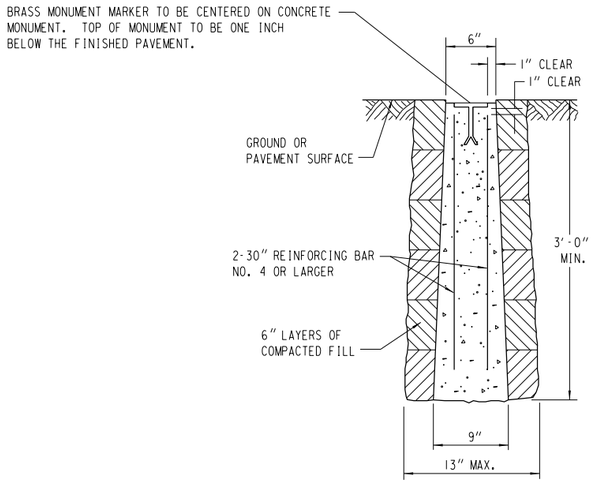
ON THE GRATE

1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (MS-55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

2



INTERNAL SANITARY MANHOLE SEAL



PRECAST

CONCRETE MONUMENT

WISCONSIN REGIONAL PLANNING COMMISSION S.E. WISCONSIN TIME FOR DISTURBING T.1N. 21 22 28 27 R.22E. MARK IMPROVEMENT

MONUMENT MARKER LOGO

(TO BE FURNISHED BY OTHERS)

GENERAL NOTES

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

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION.

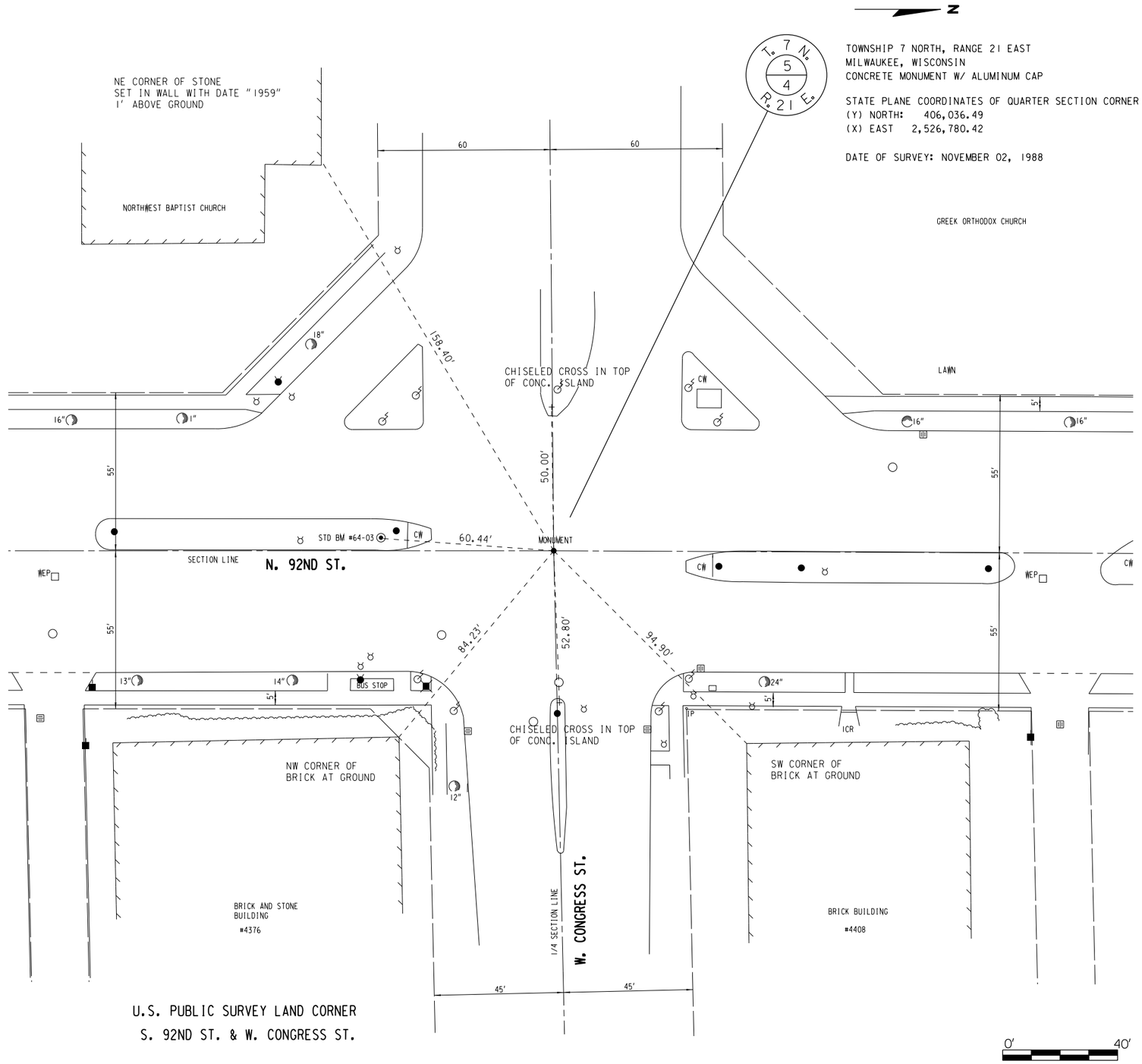
INSTALLATION OF PRECAST MONUMENT TO BE SUPERVISED BY CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION FOR ACCURACY OF LOCATION.

LANDMARK REFERENCE MONUMENT TO BE REPLACED

LOCATION	MONUMENT	STATION	REMARKS
N. 92ND ST. AT W. CONGRESS ST.	I	27+63.71 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS

LANDMARK REFERENCE MONUMENT

N.T.S.



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 21	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\LANDMARK.DGN

REVISED: 03-02-2016

NORTH 92ND STREET

N

STD.BW #64-05 IN CENTER PLOT
OF N 92ND ST., SOUTH OF W. CAPITOL DR.,
26.0 FT. SOUTH OF ISLAND TIP & 4.4 FT.
WEST OF EAST CURB OF CENTER PLOT
ELEV: 163.899

BEGIN PROJECT
STA. 03 + 06.00 T/L

01 MONUMENT +50 02 SECTION LINE +50 03 +50 04 +50 05 +50 06

CITY OF MILWAUKEE
CITY OF WAUWATOSA

N. 00° 56' 07" E.

∠PT. + +00
42.0' LT.

∠ PT. +00.0
06.0' LT.

8.0' LT.

+74

CTR. 02.0' R=
+12.0-05.0'RT.

19' RT

∠PT. +74.5
07.0' RT.

∠PT. +00.0
06.0' RT.

+48.5

∠PT. +00.0
42.0' RT.

∠PT. +74.5
43.0' RT.

CAUTION

#9208 CONC. ASPH LIGHT BASE BUS SHELTER R/W WEP WALL CW P.L. 4CR 3CR 5CR 21" 16" 15" 14" 12" 6" 4"

#9100 W. CAPITOL DR. #4020 #4026 #4032 #4036-38 #4044 #4050-52

W. CAPITOL DR. SECTION LINE CONC. ALLEY 60' 20' 55' 84'

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 22	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 00-06.DGN

REVISED: 10-13-2015

NORTH 92ND STREET

N

BM: SE CORNER OF CAPSTONE ON "AURORA EAP" SIGN @ STA 6+10 W/SIDE N. 92ND ST. ELEV: 167.03

CAUTION

CTR. 15.0' R= +79.2-57.0'LT.

60'

30' ASPH.

80' LT

CTR. 15.0' R= +39.2-57.0'LT.

CAUTION

P.L.

ASPH

R/W

BUS STOP

∠PT.+91.5 06.0' LT.

CTR. 03.0' R= +43.5-03.0'RT.

CTR. 03.0' R= +77.5-03.0'LT.

∠PT.+29.5 06.0' RT.

06 +50 07 T/L +50 08 +50 09 +50 10 +50 11 T/L +50 12

CITY OF WAUWATOSA EXIST. BIO-SWALE

N.00°56'07"W.

SECTION LINE

CTR. 15.0' R= +80.7-57.0'RT.

69' RT

CTR. 15.0' R= +42.8-57.0'RT.

BM: HYD., (NW BOLT) NE CORNER N. 92ND ST. & W. FIEBRANTZ AVE. STA. 08+29, 58'RT ELEV: 166.99

W. FIEBRANTZ AVE.

ASPH. 32'

60

#4058-68 #4076 #4108 #4120 #4140

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 23	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 06-12.DGN

REVISED: 10-13-2015

NORTH 92ND STREET

N

BM: SE CORNER OF IST CONCRETE RISER, #4167 N. 92ND ST. ELEV: 180.08

W. HOPE AVE.

60

30'
ASPH. ON CONC.

BM: HYD. (NW BOLT), NW CORNER N. 92ND ST. & W. HOPE AVE. STA. 14+58, 57' LT ELEV: 181.77

BM: HYD. (NW BOLT), W/S NORTH LINE OF #4233 N. 92ND ST. STA. 17+54, 45' LT ELEV: 180.27

CAUTION

CTR. 15.0' R= +09.0-57.0' LT.

91' LT.

CTR. 15.0' R= +69.0-57.0' LT.

P.T. +90.5 06.0' LT.

CTR. 03.0' R= +06.5-03.0' LT.

60' R.

CTR. 03.0' R= +72.0- T/L

60' R.

∠PT. +58.5 06.0' RT.

P.T. +90.5 06.0' RT.

SECTION LINE

N.00°56'07"W.

BM: ALUM LIGHT POLE #4154 (NW BOLT), IN MEDIAN STA. 12+57, 1' RT N. 92ND ST. ELEV: 176.26

#4154 #4168-68A #4174-76 PED WAY 20 #4200-06 #4219-18 #4224 #4236 #4242

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 24	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 12-18.DGN

REVISED: 03-09-2016

NORTH 92ND STREET

N

BM: SE CORNER OF THIRD CONCRETE RISER, #4261 N. 92ND ST. ELEV: 177.01

BM: HYD. (NW BOLT), W/S N. 92ND ST. STA 24+05 ELEV: 172.57

CAUTION

CTR. 15.0' R= +39.0-57.0' LT.

CTR. 15.0' R= +99.5-57.0' LT.

78.8' LT.

60

30' ASPH.

2' 26' 2'

13' 13'

R/W

BUS STOP

CTR. 03.0' R= +02.1-03.0' RT.

∠PT. +50.1 06.0' LT.

CTR. 03.0' R= +34.3-03.0' LT.

∠PT. +86.3 06.0' RT.

18 +50 19 +50 20 +50 21 +50 22 +50 23 +50 24

T/L CITY OF WAUWATOSA CITY OF MILWAUKEE

EXIST. BIO-SWALE

EXIST. BIO-SWALE

EQUATION LINE N. 00° 56' 07" W.

84' 11' 12' 11' 11' 55' 11' 12' 11' 11'

2' 2' 2'

14' 14'

28' 2' 2'

76' RT.

CTR. 15.0' R= +37.0-57.0' RT.

CTR. 15.0' R= +99.5-57.0' RT.

W. MARION AVE.

ASPH. 32'

60

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. MARION ST. STA. 20+87, 62' RT ELEV: 174.65

#4242 #4252 #4260-62 #4272 #4300 #4314 #4324 #4334

P.L.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 25	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 18-24.DGN

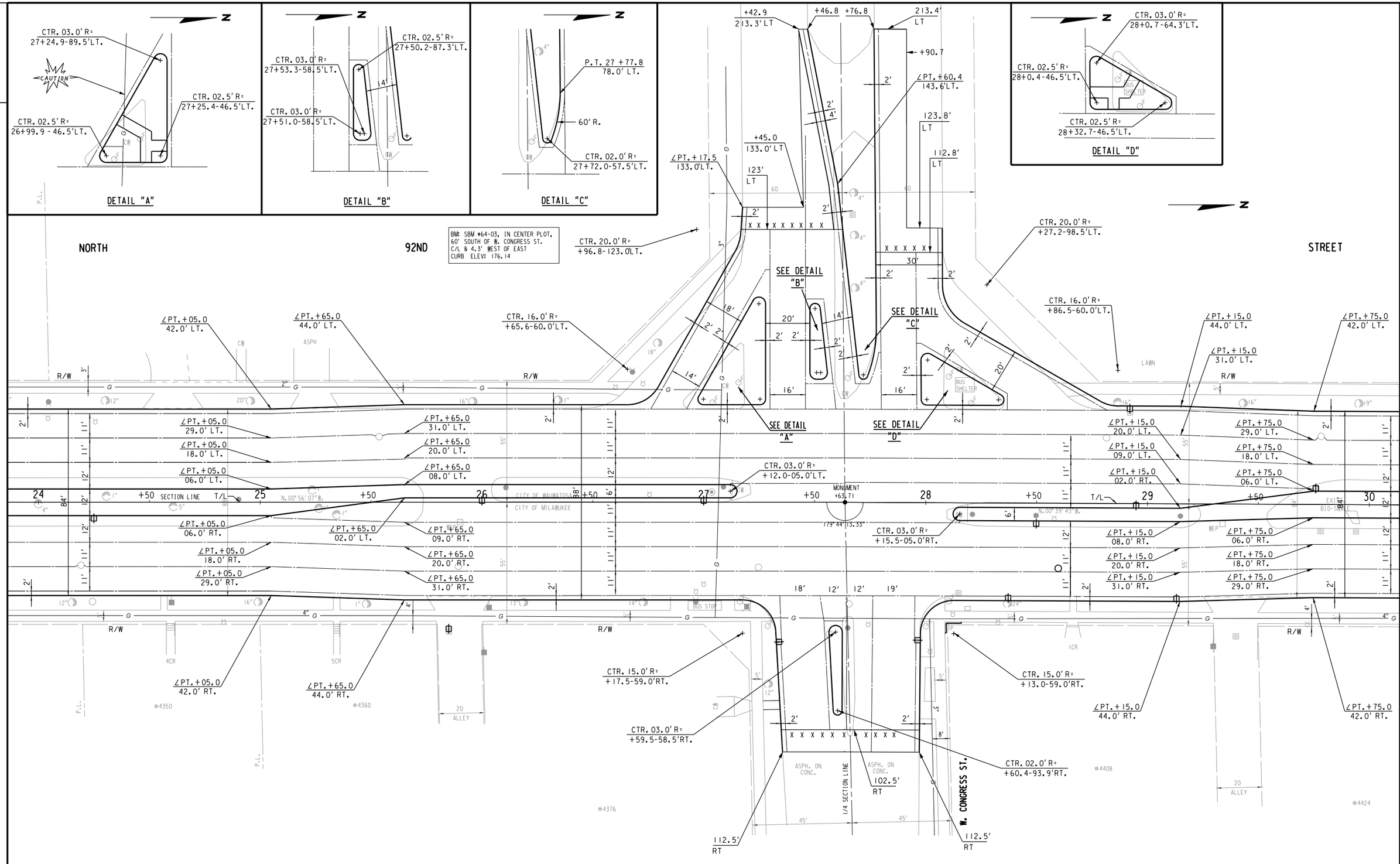
REVISED: 10-13-2015

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "D"



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 26	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 24-30.DGN

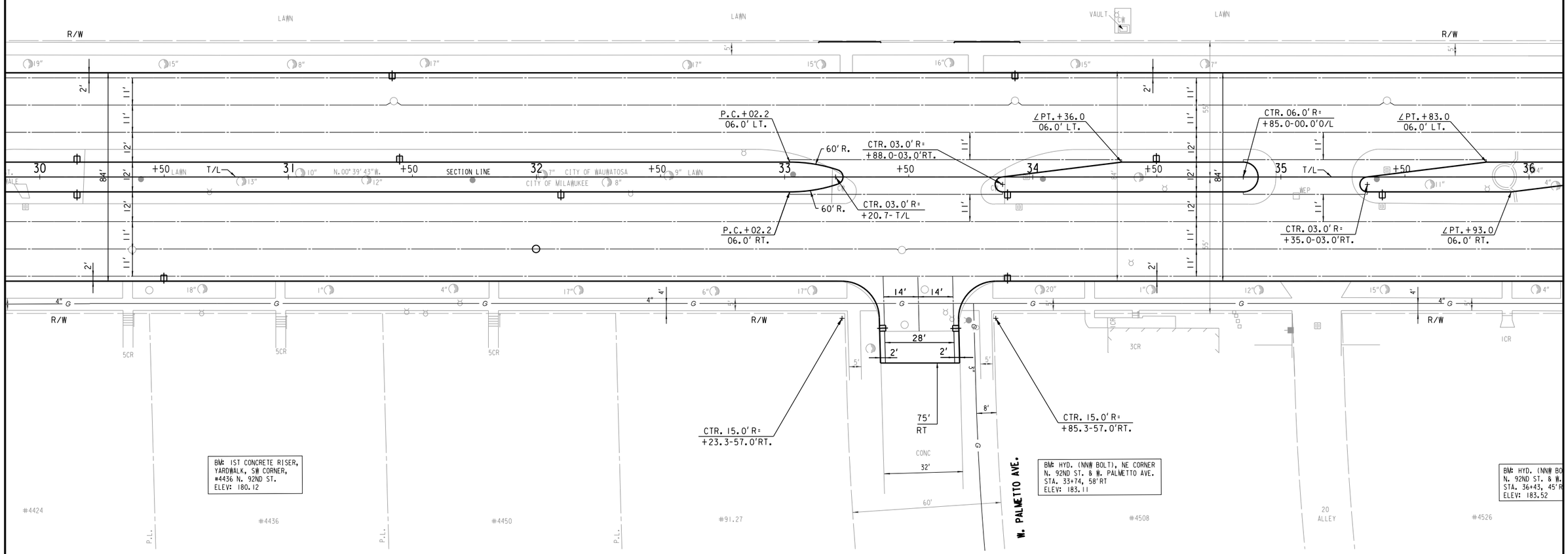
REVISED: 10-13-2015

2

NORTH 92ND STREET

2

N



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 27	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 30-36.DGN

REVISED: 03-09-2016

NORTH 92ND STREET

N

CONC. CURB
CONC. CURB
LAWN
R/W
BUS SHELTER
SIGN
CONC
CONC. CURB
ASPH
SIGN
R/W

CONC

CTR. 03.0' R= +41.0-03.0'LT.
CTR. 03.0' R= +68.5-03.0'RT.
∠PT. +16.5 06.0' LT.
CTR. 03.0' R= +72.5-03.0'LT.
∠PT. +66.5 06.0' LT.

36 T/L +50 CW 37 +50 CW 38 +50 WEP 39 +50 40 N.00°39'43"W. +50 CITY OF WAUWATOSA CITY OF MILWAUKEE 41 T/L +50 SECTION LINE 42

∠PT. +93.0 06.0' RT.
∠PT. +24.5 06.0' RT.
CTR. 03.0' R= +18.5-03.0'RT.

CTR. 03.0' R= +04.8-58.5'RT.
CTR. 15.0' R= +44.5-57.0'RT.
CTR. 15.0' R= +64.5-57.0'RT.
60' R.
60' R.
30'
30'
84' RT
83' RT
ASPH. ON CONC.
ASPH. ON CONC.
BUS STOP
1CR
3CR
2CR
2CR
CW
ASPH
CW
20 ALLEY
#9134-26
#4448-4464
#4572-74
#4578
P.I.
P.I.
P.I.

BM: HYD. (NNW BOLT), SE CORNER N. 92ND ST. & W. GRANTOSA DR. STA. 36+43, 45'RT ELEV: 183.52

W. GRANTOSA DR.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 28	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 36-42.DGN

REVISED: 10-13-2015

NORTH 92ND STREET

BM: HYD. (NNW BOLT), WEST SIDE N. 92ND ST. STA. 43+27, 57'LT ELEV: 186.28

N

ASPH CONC. CURB SIGN CW 6" R/W 6" 14" ASPH SIGN 8" 5' BUS STOP 12" 17" 14" CK 12" VAULT SIGN G ASPH TEL ASPH R/W 5' 12" 8" ASPH

∠PT.+95.5 42.0' LT. ∠PT.+55.5 44.0' LT. ∠PT.+32.5 44.0' LT. ∠PT.+92.5 42.0' LT.

∠PT.+95.5 40.0' LT. ∠PT.+55.5 31.0' LT. CTR. 03.0' R= +55.5-05.0'LT. ∠PT.+32.5 31.0' LT. ∠PT.+92.5 29.0' LT.

∠PT.+95.5 29.0' LT. ∠PT.+55.5 20.0' LT. CTR. 03.0' R= +01.7-05.0'LT. ∠PT.+32.5 20.0' LT. ∠PT.+92.5 18.0' LT.

CTR. 03.0' R= +13.0-03.0'LT. ∠PT.+31.0 06.0' LT. ∠PT.+95.5 06.0' LT. ∠PT.+95.5 18.0' LT. ∠PT.+55.5 08.0' LT. ∠PT.+32.5 08.0' LT. ∠PT.+92.5 06.0' LT.

42 9" 84' 12' 12' 11' 11' 2' +50 T/L 43 +50 44 N.00°39'43"W. +50 SECTION LINE 45 6" CITY OF WAUWATOSA CITY OF MILWAUKEE +50 46 6' 88' +50 47 T/L +50 48 6" 6"

∠PT.+65.0 06.0' RT. CTR. 03.0' R= +83.0-03.0'RT. ∠PT.+95.5 06.0' RT. ∠PT.+55.5 02.0' LT. ∠PT.+55.5 09.0' RT. 60' R. P.T.+32.5 08.0' RT. ∠PT.+92.5 06.0' RT.

∠PT.+95.5 18.0' RT. ∠PT.+55.5 20.0' RT. ∠PT.+32.5 20.0' RT. ∠PT.+92.5 18.0' RT.

∠PT.+95.5 29.0' RT. ∠PT.+55.5 31.0' RT. ∠PT.+32.5 31.0' RT. ∠PT.+92.5 29.0' RT.

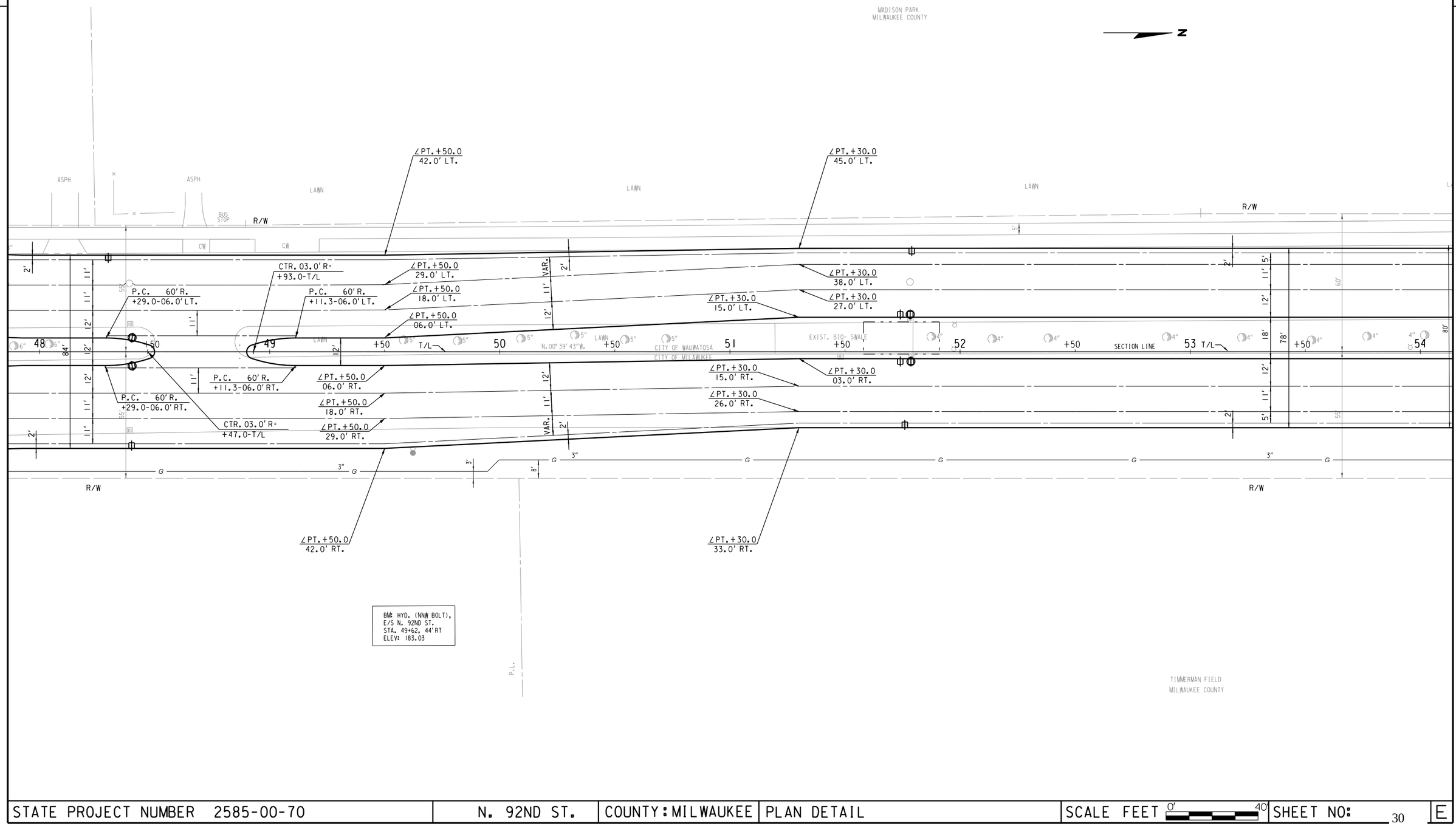
2' 11' 11' 12' 11' 11' 2' 2' 11' 11' 12' 6' 11' 11' 2' 2' 11' 11' 12'

23" 3' 21" BUS STOP 15' 15' 20" 26" 3' 3" 3" 3" 3" 3" R/W 2' 30' 2' 5' 2CR 1CR 4CR R/W

G 4" G G G

NORTH 92ND STREET

2



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 30	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 48-54.DGN

REVISED DATE: 09-24-2016 BY PN

NORTH 92ND STREET

CITY OF WAUWATOSA

CITY OF MILWAUKEE

TIMMERMAN FIELD
MILWAUKEE COUNTY

N

END PROJECT
STA. 56+31.00 T/L

∠PT.+57.0
45.0' LT.

CTR. 15.0' R=
+09.0-62.0'LT.

+31.0
42' LT.

LAWN

R/W

2' 5' 11' 12' 18' 80' 78' 4" 4" EXIST. BIO-SWALE 2' 11' VAR. 12' 7' 12' 11' 11' 5' 2' 2' 5' 55' 60' CW

54 +50 55 +50 56 +50 57 +50 58

CITY OF WAUWATOSA
CITY OF MILWAUKEE

SECTION LINE
N.00°39'43"W.

T/L

MONUMENT

TEL

ASPH. ON CONC.

LAWN

PLANTER

∠PT.+22.0
03.0' RT.

∠PT.+10.0
08.0' LT.

CTR. 03.5' R=
+13.3-11.5'LT.

BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

+31.0
30' LT.

G 8" 4" 3' 8' R/W LAWN CW ASPH ASPH ASPH 5' 55'

W. HAMPTON AVE.

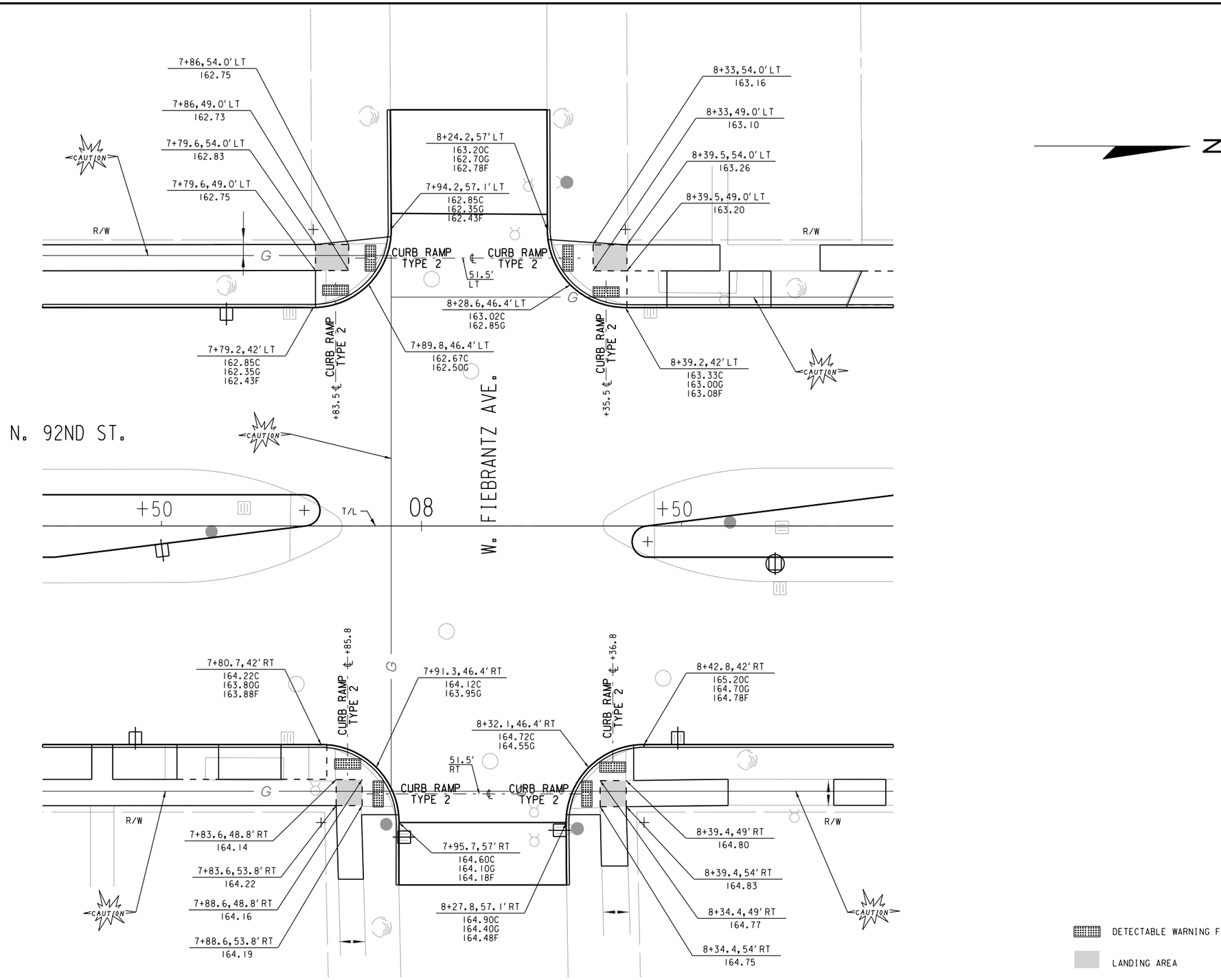
SECTION LINE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 31	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PDET 54-60.DGN

REVISED: 05-03-2016

2



N. 92ND ST. AND W. FIEBRANTZ AVE.

SHEET 1 OF 7

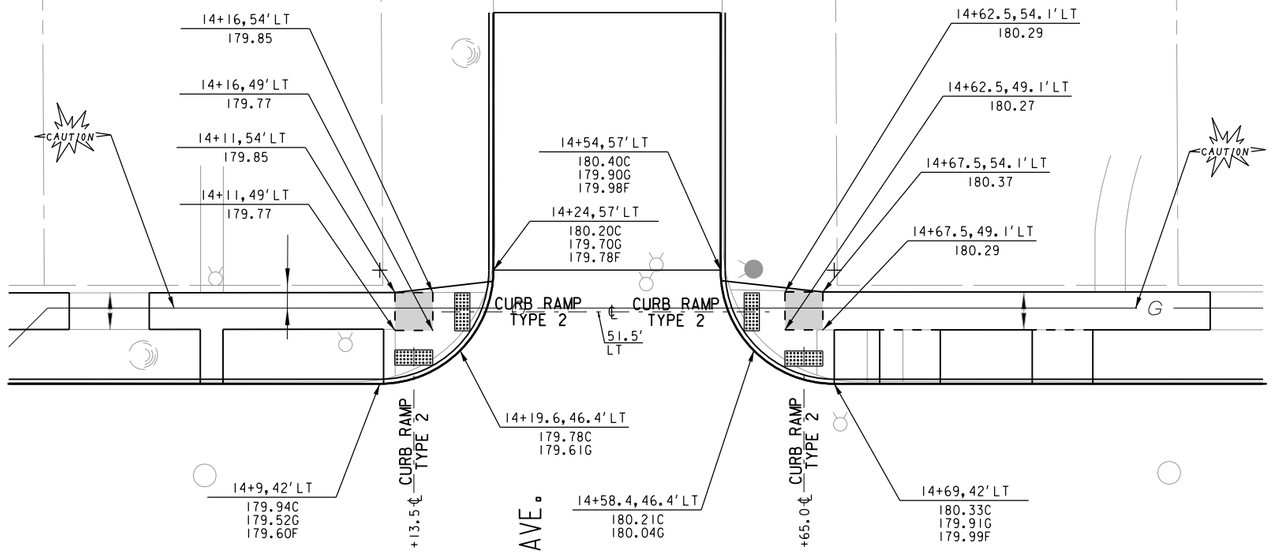
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 32	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\OIRD_FIEBRANTZ.DGN

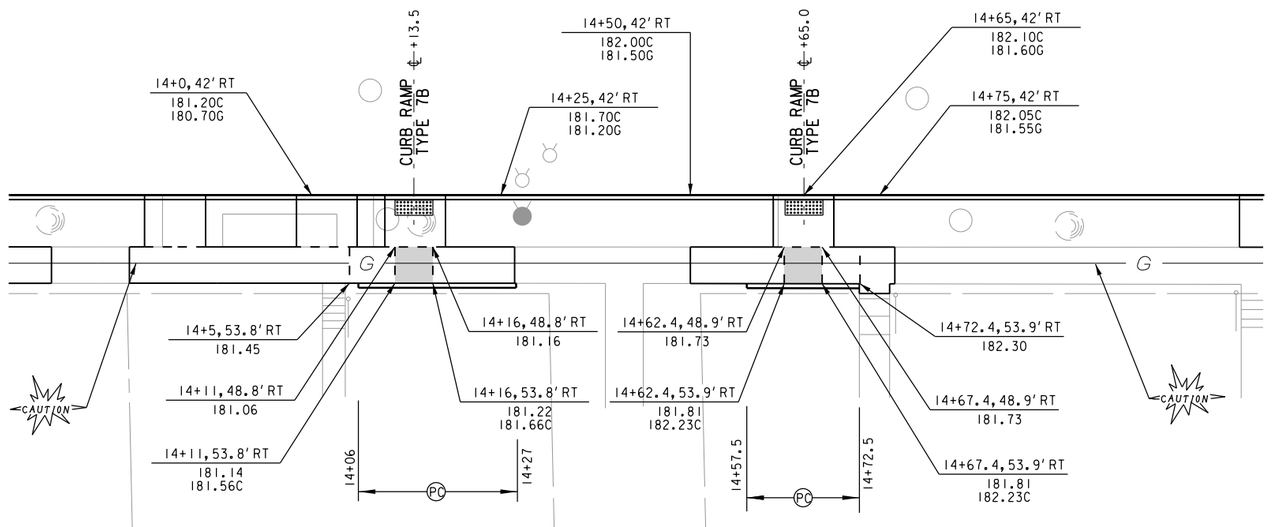
REVISED DATE: 05-06-2016 BY PN

2

N



N. 92ND ST.



N. 92ND ST. AND W. HOPE AVE.

DETECTABLE WARNING FIELD

LANDING AREA

PC CONST. CONC. CURB PEDESTRIAN

SHEET 2 OF 7

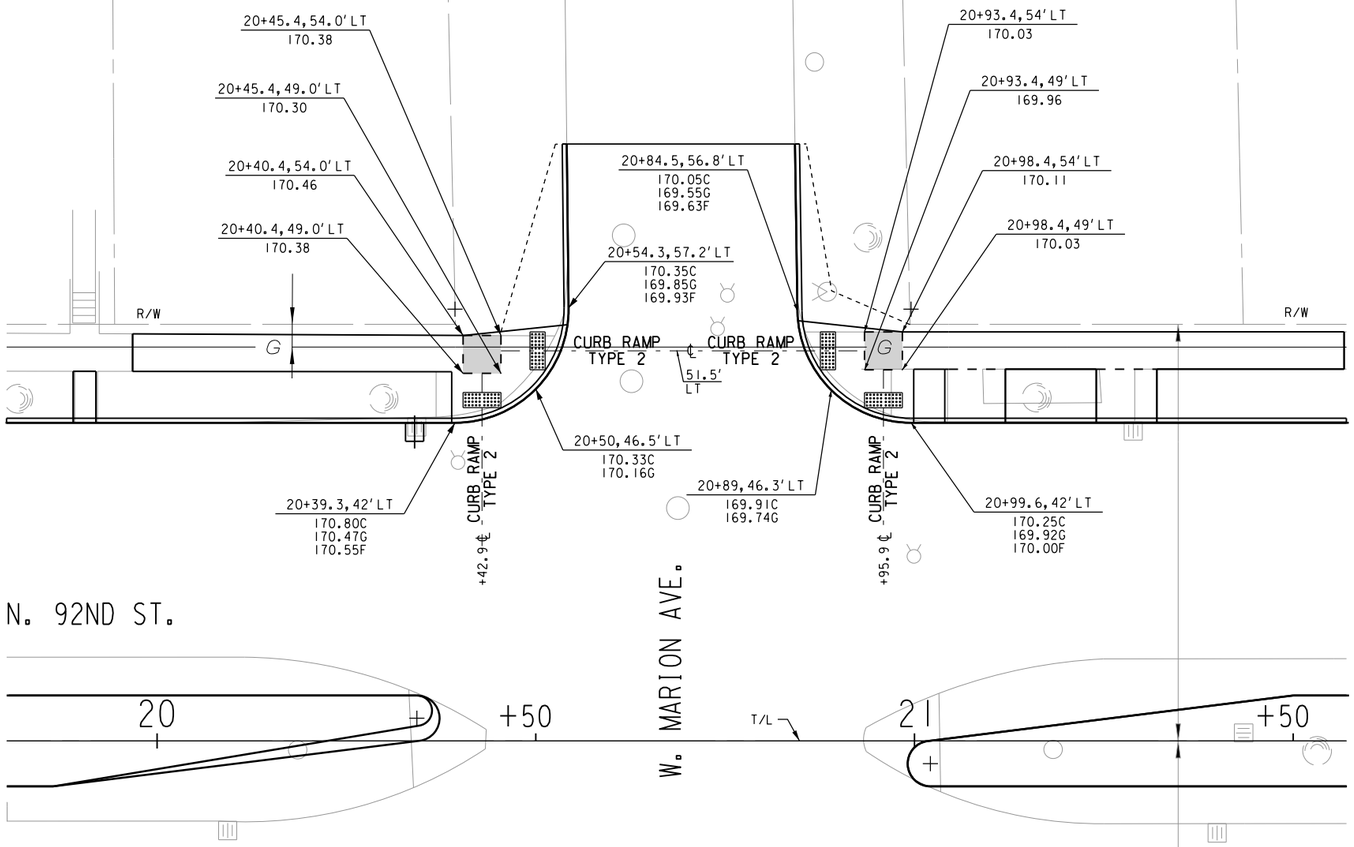
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 33	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\02RD_HOPE_AVE.DGN

REVISED DATE: 03-02-2016

2

N



N. 92ND ST. AND W. MARION AVE.

DETECTABLE WARNING FIELD

LANDING AREA

SHEET 3 OF 7

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 34	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\03RD_MARION_AVE.DGN

REVISED DATE: 05-06-2016 BY PN

2

N

DETECTABLE WARNING FIELD

LANDING AREA

(PC) CONST. CONC. CURB PEDESTRIAN

26+79.1, 84.3' LT
174.35

26+78, 83.2' LT
174.35

26+81.5, 79.8' LT
174.27

26+74.4, 79.5' LT
174.42

26+77.9, 76.1' LT
174.34

CAUTION

R/W

G

26+80.3, 53.5' LT
174.85C
174.35G

26+89.4, 69.5' LT
173.75G

CURB RAMP TYPE 3

CURB RAMP TYPE 6

27+6.8, 100.2' LT
173.50C
173.00G

26+91.9, 73.9' LT
173.60G

CURB RAMP TYPE 6 - ℄ 51.0' LT

SEE ISLAND DETAIL "A"

CURB RAMP TYPE 6 ℄ +18.4

N. 92ND ST.

CAUTION

+50

27

T/L

+50

W. CONGRESS AVE.

28

+50

29

28+17.4, 80.9' LT
174.50C
174.00G

28+23.8, 85.3' LT
174.80

28+28.1, 82.8' LT
174.40

28+32.5, 80.4' LT
174.53

28+41.2, 75.4' LT
175.30

CURB RAMP TYPE 7A

CURB RAMP TYPE 6

51.0' LT ℄ CURB RAMP TYPE 6

SEE ISLAND DETAIL "B"

CURB RAMP TYPE 6 ℄ +8.5

28+43.1, 66.3' LT
175.30C
174.80G

R/W

27+22.5, 91.3' LT
173.98C
173.40G

27+27.9, 89.5' LT
174.28C
173.70G

27+7.6, 65' LT
174.16G

27+15.9, 54.5' LT
175.15

27+20.9, 57.4' LT
175.10

27+27.9, 58.5' LT
175.48C
174.90G

℄ CURB RAMP TYPE 6

27+5.1, 60.6' LT
174.31G

CURB RAMP ℄ TYPE 6

26+97.9, 48.0' LT
175.38C
174.80G

27+27.9, 46.5' LT
175.98C
175.40G

26+99.9, 44.0' LT
175.68C
175.10G

27+25.4, 44.0' LT
176.08C
175.50G

27+15.9, 48.5' LT
175.25

CURB RAMP TYPE 6 ℄

27+15.9, 44.0' LT
175.40G

27+20.9, 48.5' LT
175.20

ISLAND DETAIL "A"

N

27+17.5, 44.0' RT
177.50C
177.00G
177.08F

CURB RAMP TYPE 2 ℄ +19.0

27+0, 44.0' RT
177.25C
176.75G

27+27.8, 47.6' RT
177.32C
177.15G

CAUTION

CURB RAMP TYPE 2 - ℄ 51.5' RT

R/W

27+16.5, 49' RT
177.27

27+16.5, 53.7' RT
177.35

27+26.2, 49' RT
177.39

27+26.2, 53.7' RT
177.47

27+32.5, 57.7' RT
177.90C
177.40G
177.48F

27+32.8, 63.0' RT
177.95C
177.45G

28+2.5, 47.8' RT
177.82C
177.65G

CURB RAMP TYPE 2 ℄ +09.0

51.5' RT ℄ CURB RAMP TYPE 2

27+98, 58.4' RT
178.40C
177.90G
177.98F

27+97.7, 62' RT
178.45C
178.00G
178.08F

28+13.1, 44.0' RT
178.01C
177.51G
177.59F

28+25, 44.0' RT
177.95C
177.45G
177.53F

R/W

(PC)

28+11.5, 49' RT
177.76

28+11.5, 53.7' RT
177.84

28+8.9, 53.6' RT
178.30T.O.C.

28+4.2, 49' RT
177.76

28+4.3, 53.7' RT
177.84

N. 92ND ST. AND W. CONGRESS AVE.

SHEET 4 OF 7

28+2.2, 66.9' LT
175.28C
174.70G

28+12.5, 53.5' LT
175.40

28+15.7, 59.1' LT
174.98G

28+20.0, 56.7' LT
175.08G

27+97.7, 64.3' LT
175.58C
175.00G

28+6, 53.5' LT
175.50

27+98.4, 53.5' LT
175.40G

CURB RAMP TYPE 6

BUS SHELTER

CURB RAMP TYPE 6

28+33.9, 49.7' LT
175.98C
175.40G

℄ CURB RAMP TYPE 6

27+97.9, 48.5' LT
175.60G

27+97.9, 46.5' LT
176.28C
175.70G
175.78F

28+32.7, 44.0' LT
176.23C
175.65G
175.73F

28+0.4, 44.0' LT
176.43C
175.85G

28+15.5, 48.5' LT
175.48

28+6, 48.5' LT
175.58

28+11, 48.5' LT
175.53

CURB RAMP TYPE 6 ℄

28+6, 44.0' LT
175.82G

28+11, 44.0' LT
175.79G

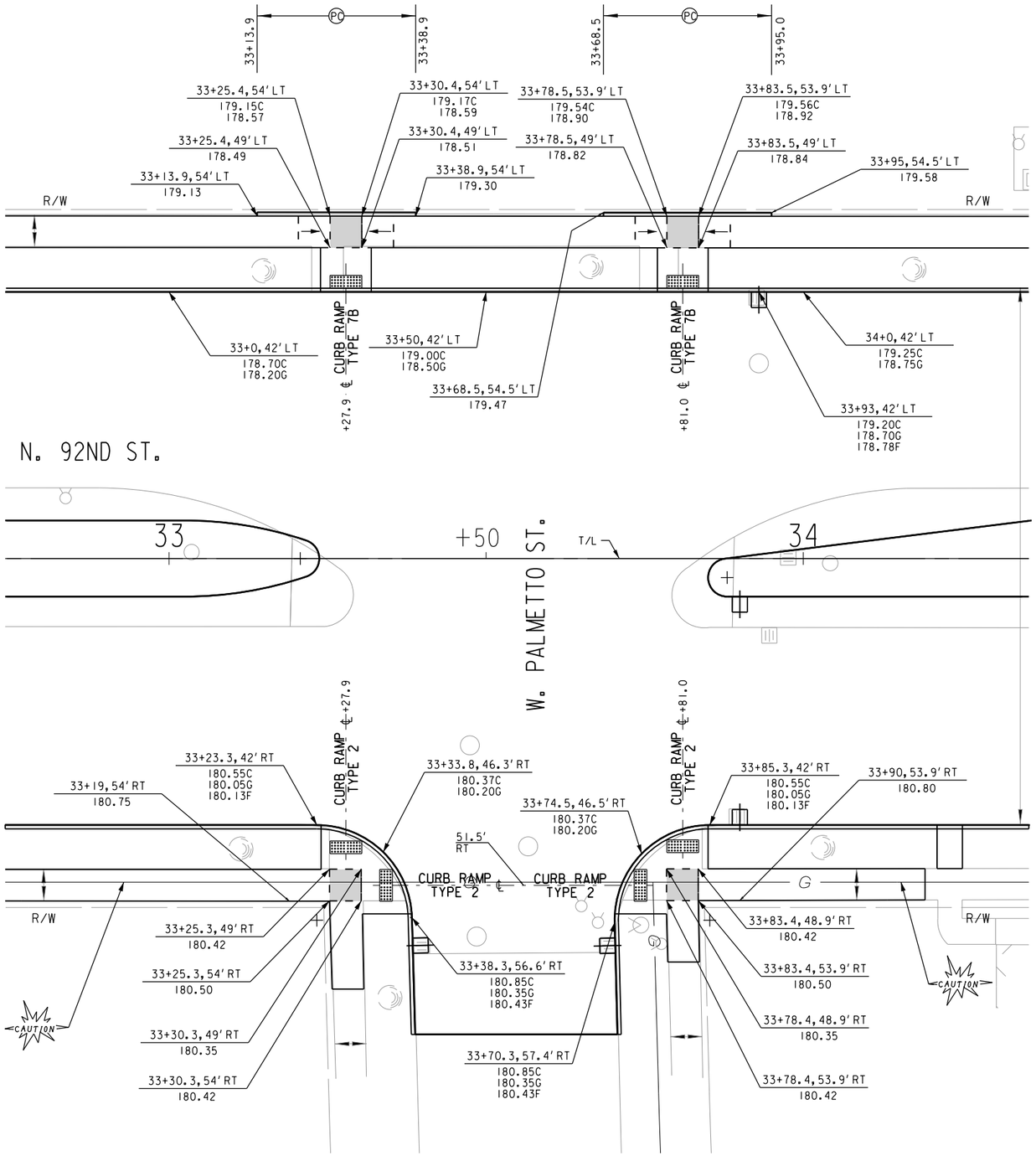
ISLAND DETAIL "B"

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 35	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\04RD_CONGRESS_AVE.DGN

REVISED DATE: 05-06-2016 BY PN

2



N. 92ND ST. AND W. PALMETTO ST.

SHEET 5 OF 7

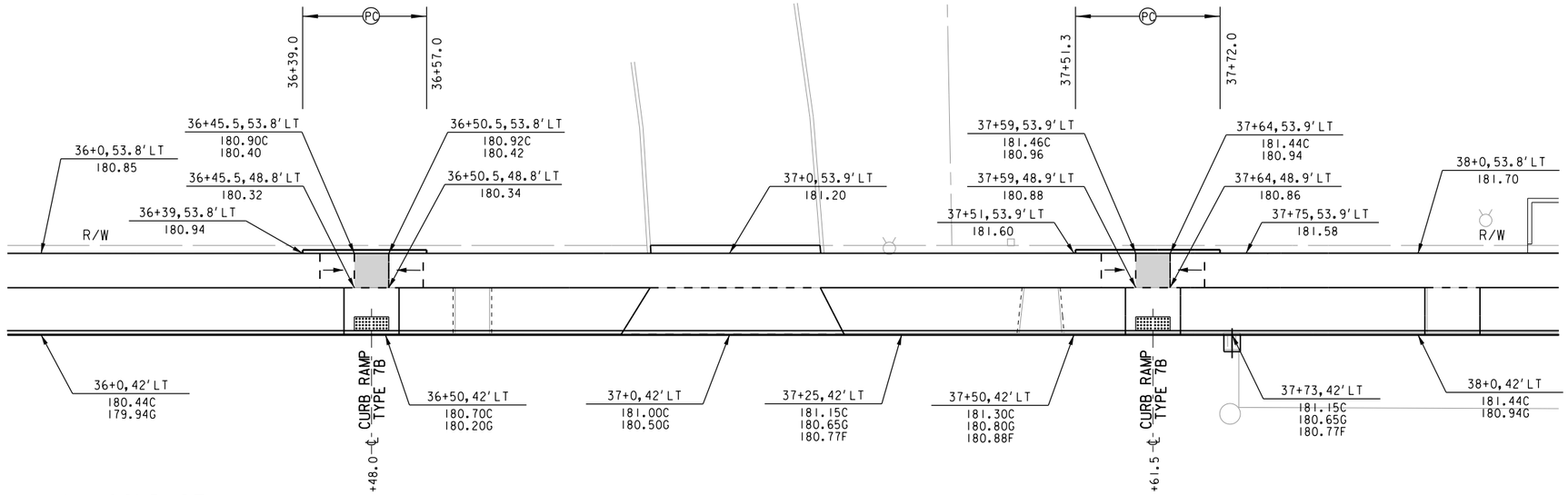
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 36	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\05RD_PALMETTO_ST.DGN

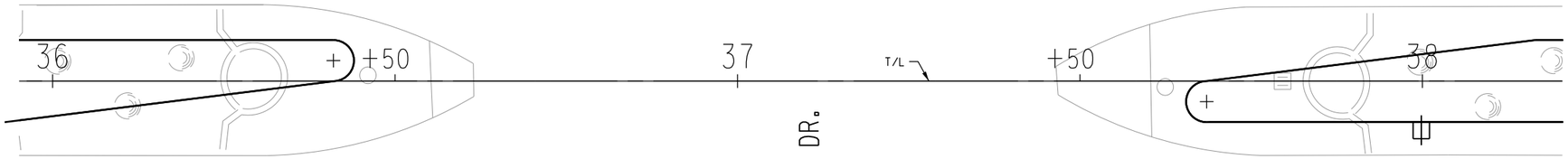
REVISED DATE: 05-06-2016 BY PN

2

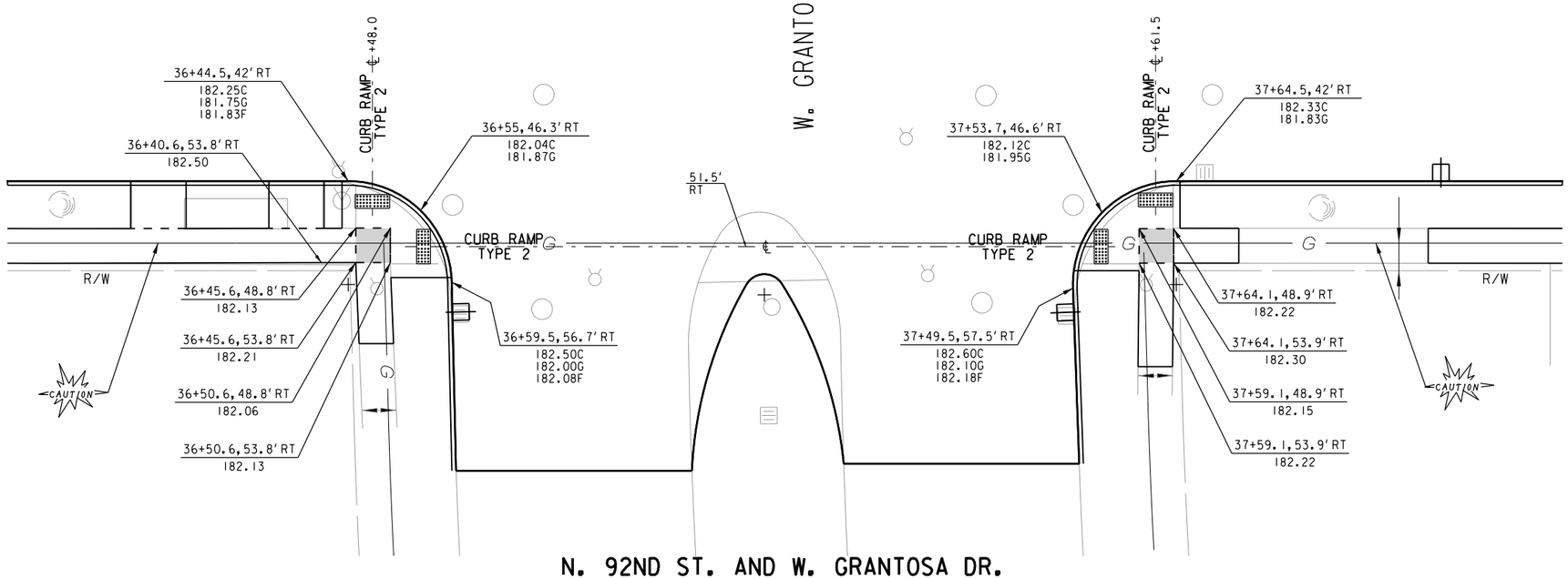
N



N. 92ND ST.



W. GRANTOSA DR.



DETECTABLE WARNING FIELD

LANDING AREA

PC CONST. CONC. CURB PEDESTRIAN

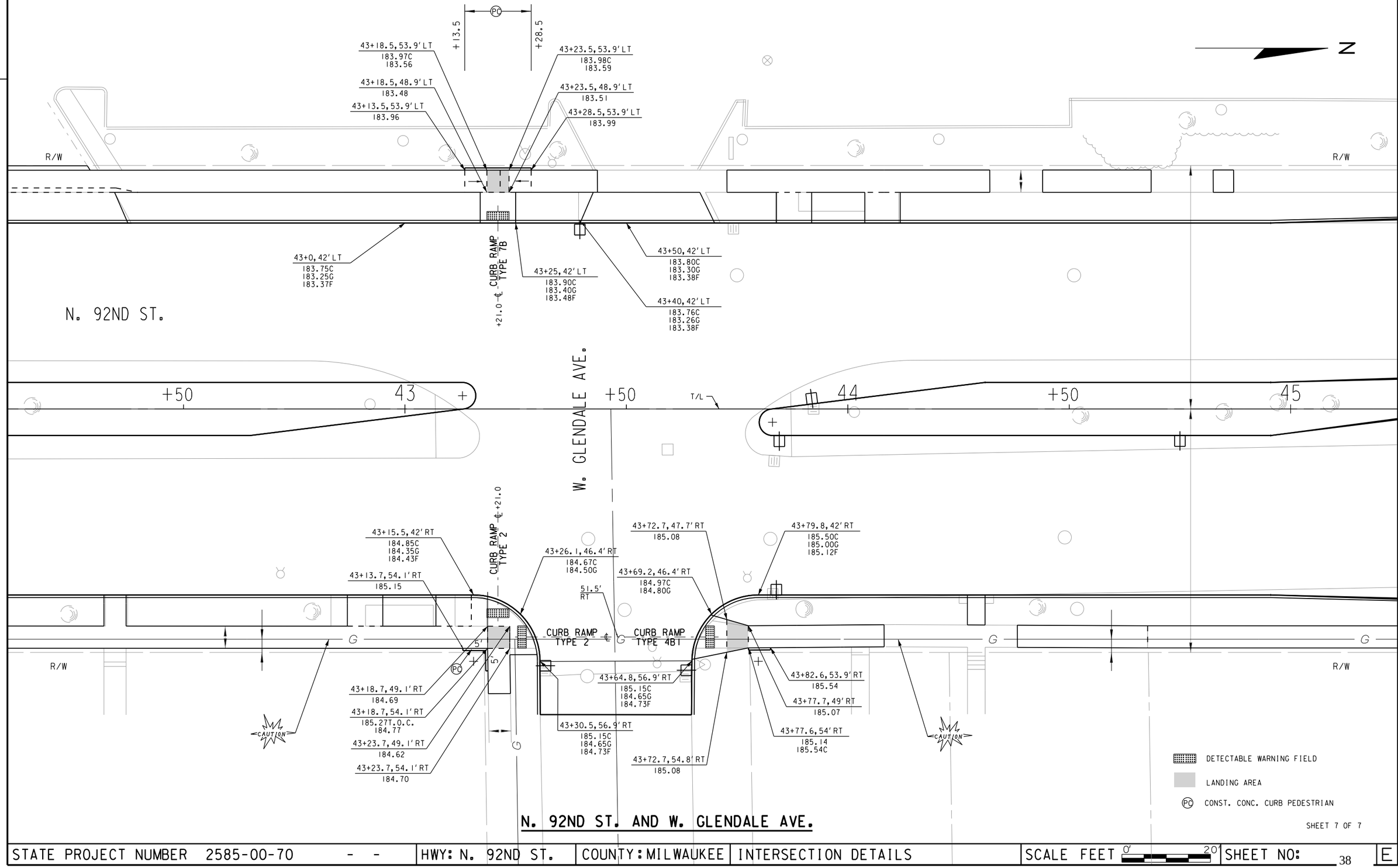
N. 92ND ST. AND W. GRANTOSA DR.

SHEET 6 OF 7

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 37	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\06RD_GRANTOSA_DR.DGN

REVISED DATE: 05-06-2016 BY PN



N. 92ND ST. AND W. GLENDALE AVE.

SHEET 7 OF 7

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 38	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\RAMPDETAILS\07RD_GLENDALE_AVE.DGN

REVISED DATE: 08-03-2016

NORTH 92ND STREET

N

#9208

CITY OF MILWAUKEE
CITY OF WAUWATOSA

PLACE TOPSOIL, SOD, FERTILIZER TO DRIVEWAY

CAUTION

BEGIN PROJECT
STA. 103 + 06.00 T/L

01 +50 02 SECTION LINE +50 03 +50 04 T/L +50 05 +50 06

MONUMENT

CITY OF WAUWATOSA
CITY OF MILWAUKEE
N. 00° 56' 07" W.

STD.BM #64-05 IN CENTER PLOT
OF N 92ND ST., SOUTH OF W. CAPITOL DR.,
26.0 FT. SOUTH OF ISLAND TIP & 4.4 FT.
WEST OF EAST CURB OF CENTER PLOT
ELEV: 163.899

W. CAPITOL DR.

#9100 W. CAPITOL DR.

PLACE TOPSOIL, SOD, FERTILIZER TO CARRIAGE WALK

CAUTION

#4020 #4026 #4032 #4036-38 #4044 #4050-52

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 1 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 39	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 00-06.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

N

BM: SE CORNER OF CAPSTONE ON "AURORA EAP" SIGN @ STA 6+10 W/SIDE N. 92ND ST. ELEV: 167.03

BM: HYD., (NW BOLT) NE CORNER N. 92ND ST. & W. FIEBRANTZ AVE. STA. 08+29, 58'RT ELEV: 166.99

W. FIEBRANTZ AVE.

CITY OF WAUWATOSA

EXIST. BIO-SWALE

N.00°56'07"W.

SECTION LINE

BUS STOP

CAUTION

R/W

P.L.

CW

ASPH.

60'

30'

32'

55'

84'

#4058-68 #4076 #4108 #4120 #4140

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 2 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 40	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 06-12.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

N

BM: SE CORNER OF IST CONCRETE RISER, #4167 N. 92ND ST. ELEV: 180.08

W. HOPE AVE.

BM: HYD. (NW BOLT), NW CORNER N. 92ND ST. & W. HOPE AVE. STA. 14+58, 57' LT ELEV: 181.77

BM: HYD. (NW BOLT), W/S NORTH LINE OF #4233 N. 92ND ST. STA. 17+54, 45' LT ELEV: 180.27

BM: ALUM LIGHT POLE #4154 (NW BOLT), IN MEDIAN STA. 12+57, 1' RT N. 92ND ST. ELEV: 176.26

SECTION LINE

N.00°56'07"W.

#4154 #4168-68A #4174-76 #4200-06 #4219-18 #4224 #4236 #4242

PED WAY 20

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 3 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 41	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 12-18.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

N

BM: SE CORNER OF THIRD CONCRETE RISER, #4261 N. 92ND ST. ELEV: 177.01

BM: HYD. (NW BOLT), W/S N. 92ND ST. STA 24+05 ELEV: 172.57

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. MARION ST. STA. 20+87, 62' RT ELEV: 174.65

W. MARION AVE.

CITY OF MILWAUKEE / T/L / CITY OF WAUWATOSA

EXISTING LINE N. 00° 56' 07" W.

EXIST. BIO-SWALE

ASPH. 30' 60

ASPH. 32' 60

LAWN

BUS STOP

CW

3CR 5CR 6CR 4CR 1CR 3CR

#4242 #4252 #4260-62 #4272 #4300 #4314 #4324 #4334

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

(A) INLET PROTECTION TYPE A
(B) INLET PROTECTION TYPE B
(C) INLET PROTECTION TYPE C

SHEET 4 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 42	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 18-24.DGN

REVISED: 07-22-2016

2

NORTH

92ND

STREET

N

BM: SBM #64-03, IN CENTER PLOT, 60' SOUTH OF W. CONGRESS ST. C/L & 4.3' WEST OF EAST CURB ELEV: 176.14

P.L.

CW

ASPH

R/W

G

60

4"

18"

12"

20"

16"

1"

19"

LAWN

BUS SHELTER

55'

24

SECTION LINE

T/L

25

N.00°56'07"W.

26

CITY OF WAUWATOSA

CITY OF MILWAUKEE

27

MONUMENT +63.71

179°44'13.33"

28

N.00°39'43"W.

29

30

EXIST. BIO-SWALE

WEP

4CR

5CR

1CR

#4350

#4360

#4376

#4408

#4424

20 ALLEY

BUS STOP

ASPH. ON CONC.

1/4 SECTION LINE

45'

W. CONGRESS ST.

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 5 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 43	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 24-30.DGN

REVISED: 07-22-2016

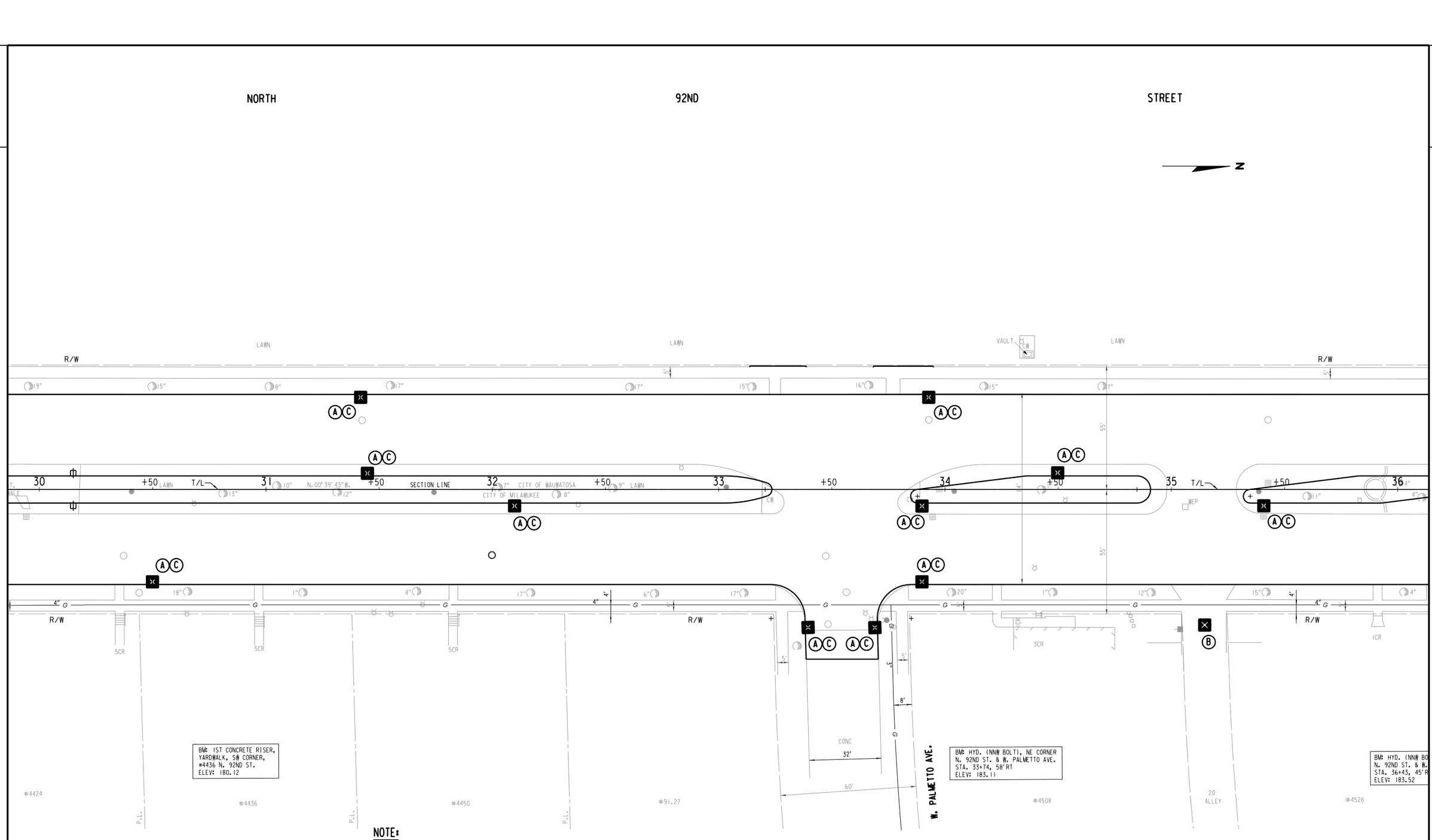
2

NORTH

92ND

STREET

2



NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 6 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 44	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 30-36.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

N

LAWN CONC. CURB CONC. CURB R/W BUS SHELTER SIGN CONC CONC. CURB ASPH SIGN R/W

36 37 38 39 40 41 42

T/L +50 +50 +50 +50 +50 +50 +50 T/L

N. 00° 39' 43" W. 55'

CITY OF WAUWATOSA
CITY OF MILWAUKEE
SECTION LINE

BUS STOP R/W 1CR ASPH. ON CONC. ASPH. ON CONC. 34' 22' 34' 120' 5' 2" 4" W. GRANTOSA DR.

R/W CW 3CR 2CR 2CR CW ASPH CW R/W

#9134-26 20 ALLEY #4448-4464 #4572-74 #4578

P.L. P.L. P.L.

BM: HYD. (NNW BOLT), SE CORNER
N. 92ND ST. & W. GRANTOSA DR.
STA. 36+43, 45' RT
ELEV: 183.52

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 7 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 45	E

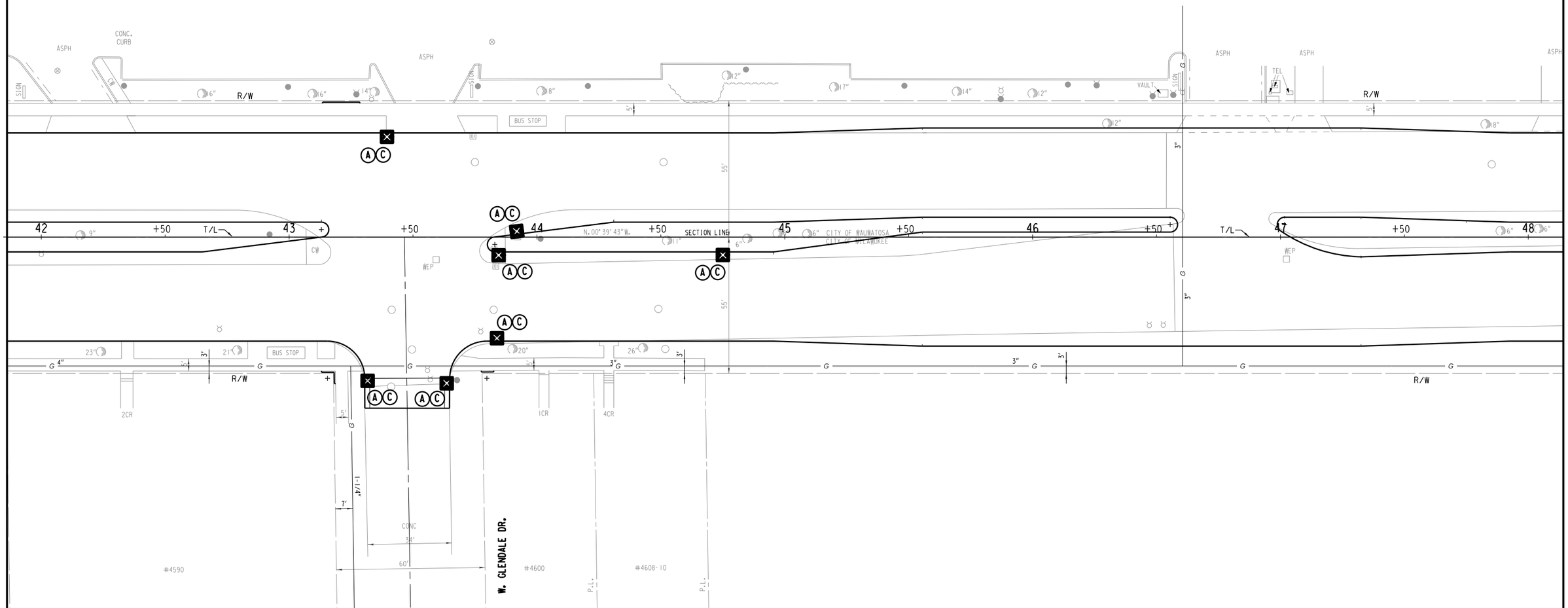
FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 36-42.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

BM: HYD. (NNW BOLT),
WEST SIDE N. 92ND ST.
STA. 43+27, 57'LT
ELEV: 186.28

N



NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

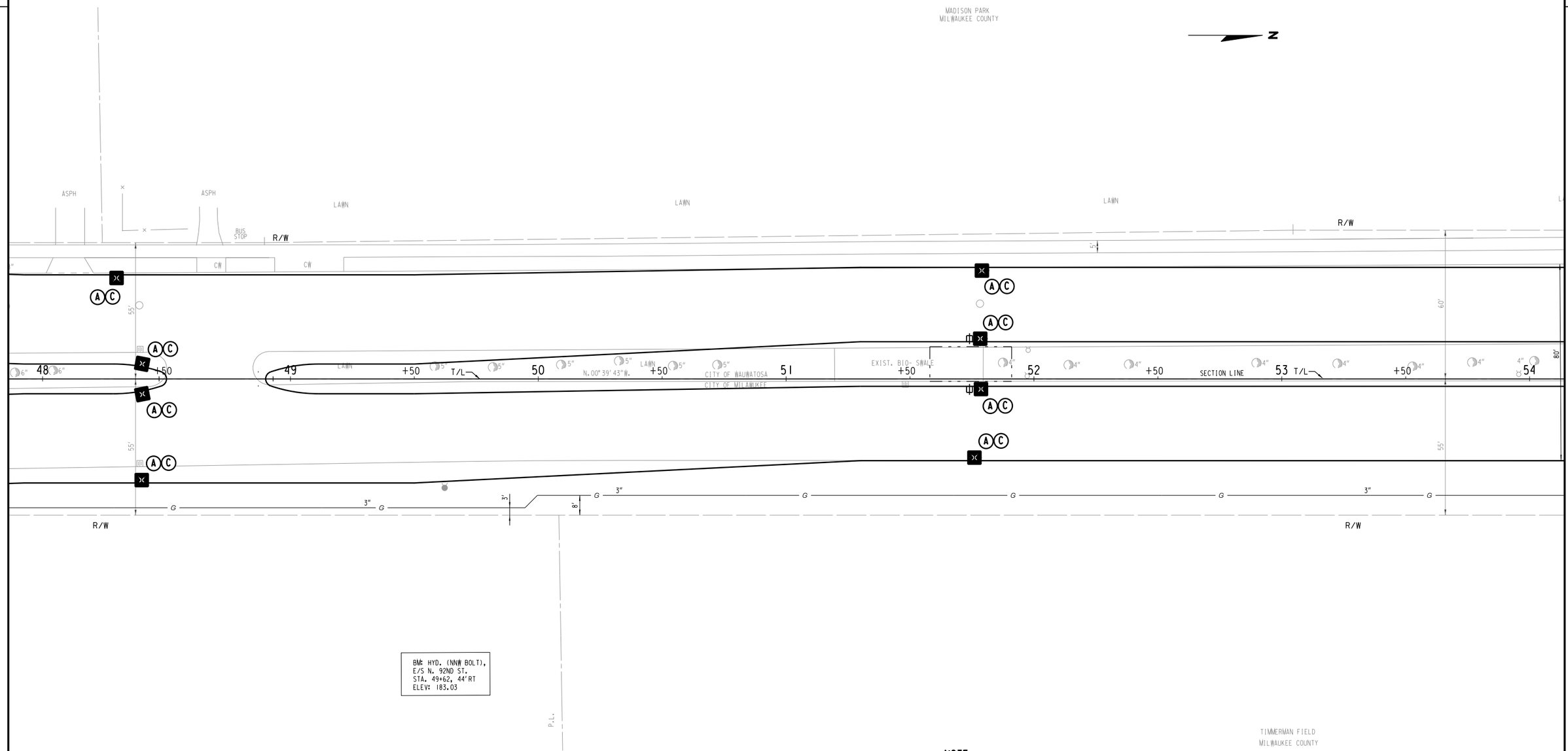
SHEET 8 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 46	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 42-48.DGN

REVISED: 07-22-2016

NORTH 92ND STREET



NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C

SHEET 9 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 47	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 48-54.DGN

REVISED: 07-22-2016

NORTH 92ND STREET

CITY OF WAUWATOSA

CITY OF MILWAUKEE

TIMMERMAN FIELD
MILWAUKEE COUNTY

N

END PROJECT
STA. 56+31.00 T/L

LAWN

R/W

55'

5'

8'

G

60'

54 +50 55 +50 56 +50 57 +50 58

CITY OF WAUWATOSA
CITY OF MILWAUKEE

SECTION LINE
N.00°39'43"W.

T/L

MONUMENT

TEL

EXIST. BIO-SWALE

4"

80'

CW

ASPH. ON CONC.

LAWN

PLANTER

BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

A C

C

8'

4"

3'

PLACE TOPSOIL, SOD, FERTILIZER

ASPH

W. HAMPTON AVE.

SECTION LINE

NOTE:

TOPSOIL (4"), SOD, FERTILIZER TO BE PLACED BETWEEN SIDEWALK AND CURB & GUTTER AND IN MEDIAN EXCEPT WHERE CONCRETE WALK AND BIO-SWALES ARE CONSTRUCTED IN AREA WITH NO SIDEWALK BEHIND CURB & GUTTER, PLACE TOPSOIL, SOD, FERTILIZER 18" BEHIND CURB (MIN.)

- A INLET PROTECTION TYPE A
- B INLET PROTECTION TYPE B
- C INLET PROTECTION TYPE C

SHEET 10 OF 10

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 40'	SHEET NO: 48	E

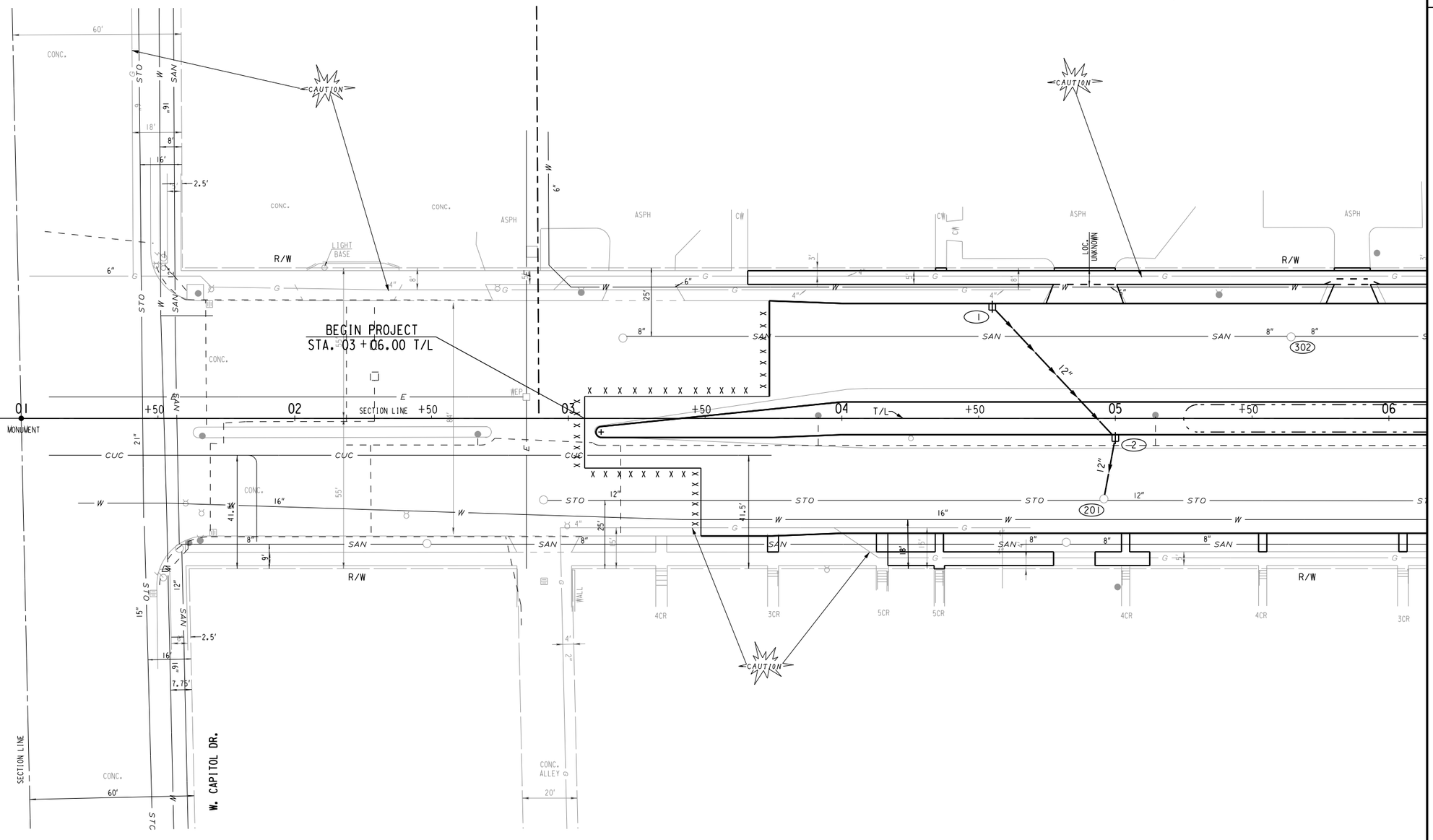
FILENAME: W:\SPR\92ND N_CAP-HAMP\EROSION 54-60.DGN

REVISED: 07-22-2016

2

NORTH 92ND STREET

N

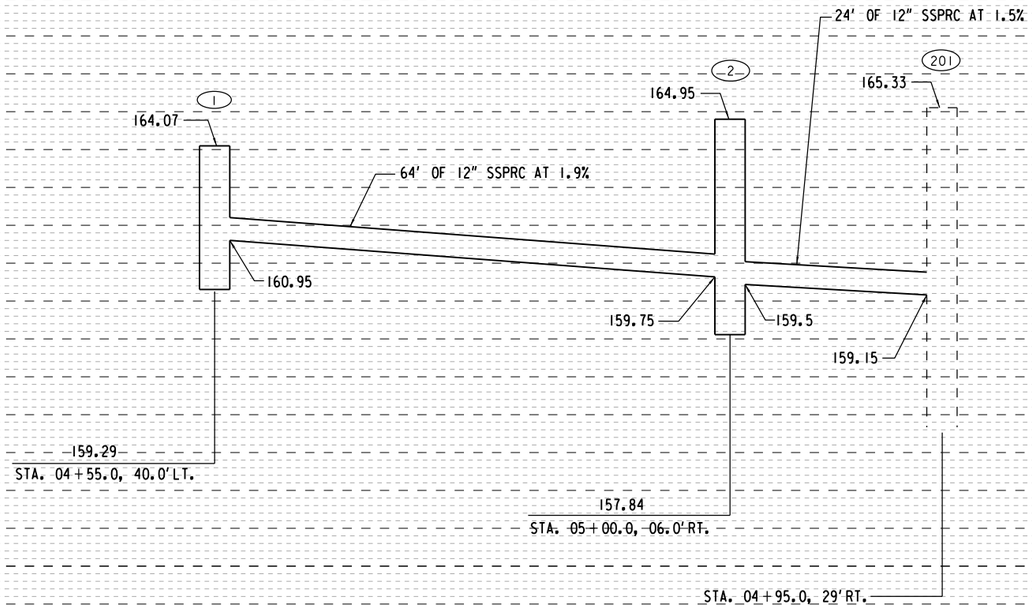


THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 49	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 00-06.DGN

REVISED: 06-06-2016



(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 50	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 00-06.DGN

REVISED: 10-05-2016 BY PN

NORTH 92ND STREET

N

BIO-SWALE NO. 1
(SEE BIO-SWALE PLAN)

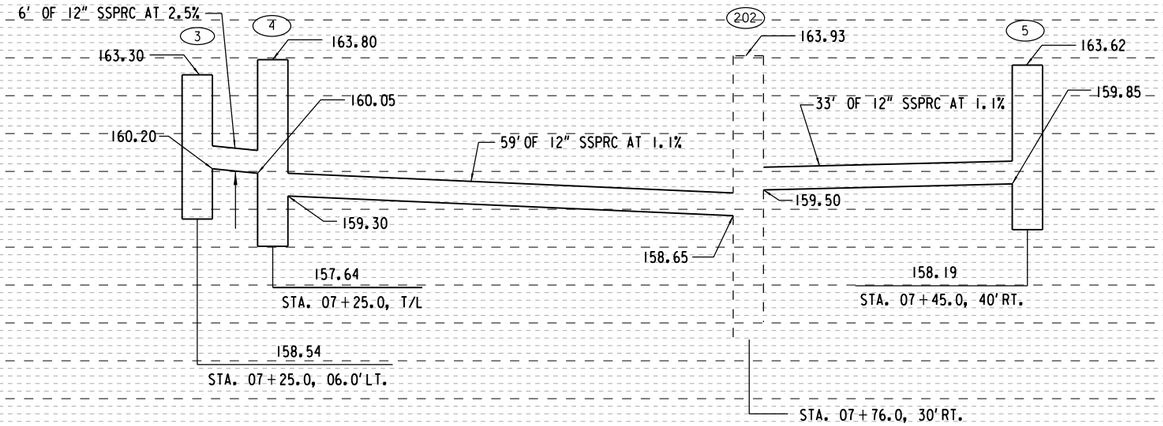
W. FIEBRANTZ AVE.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 51	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 06-12.DGN

REVISED: 06-06-2016



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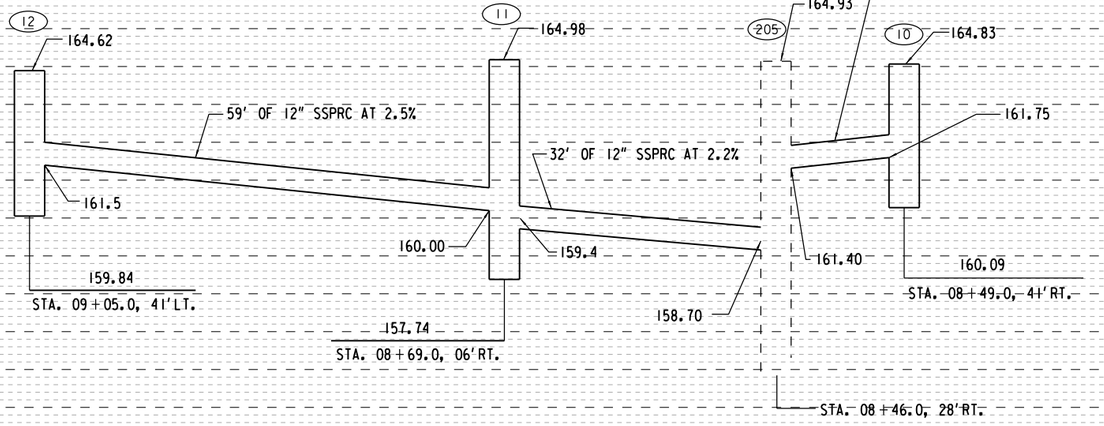

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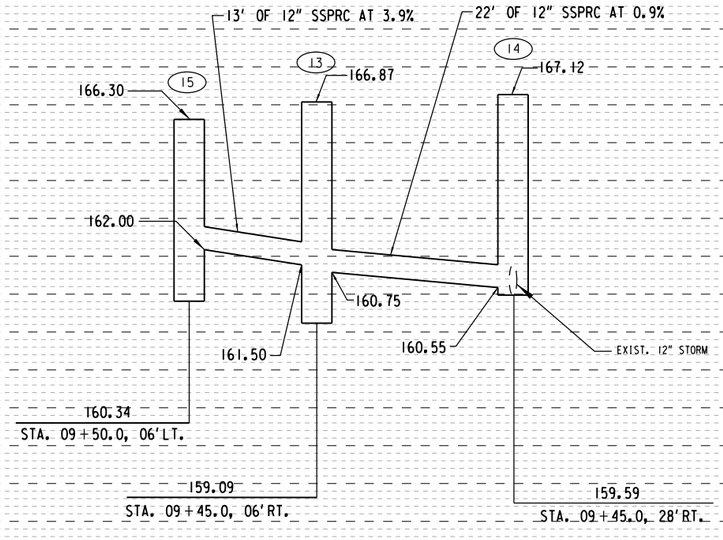
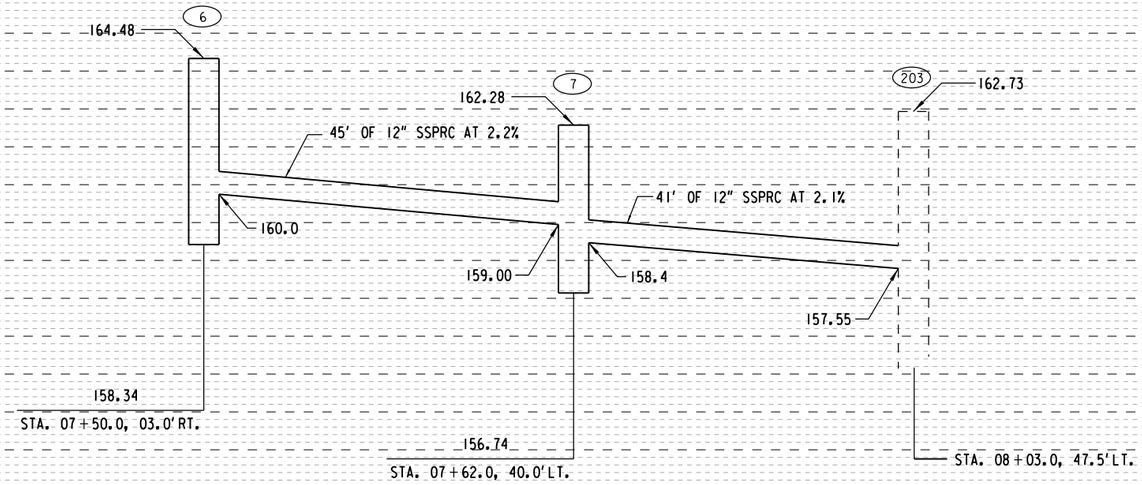


(LOOKING NORTHERLY)

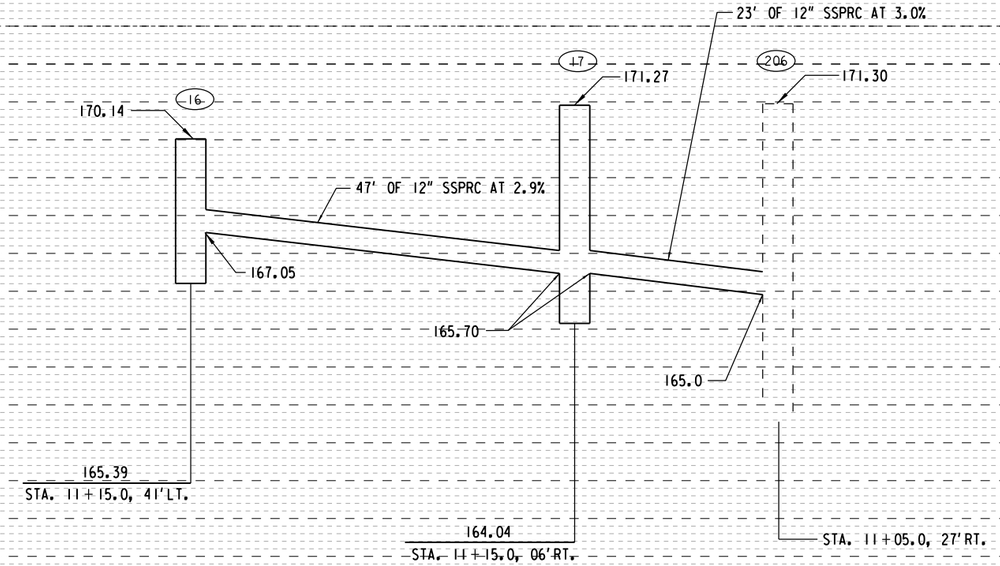
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 52	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 06-12.DGN

REVISED: 10-05-2016



(LOOKING WESTERLY)



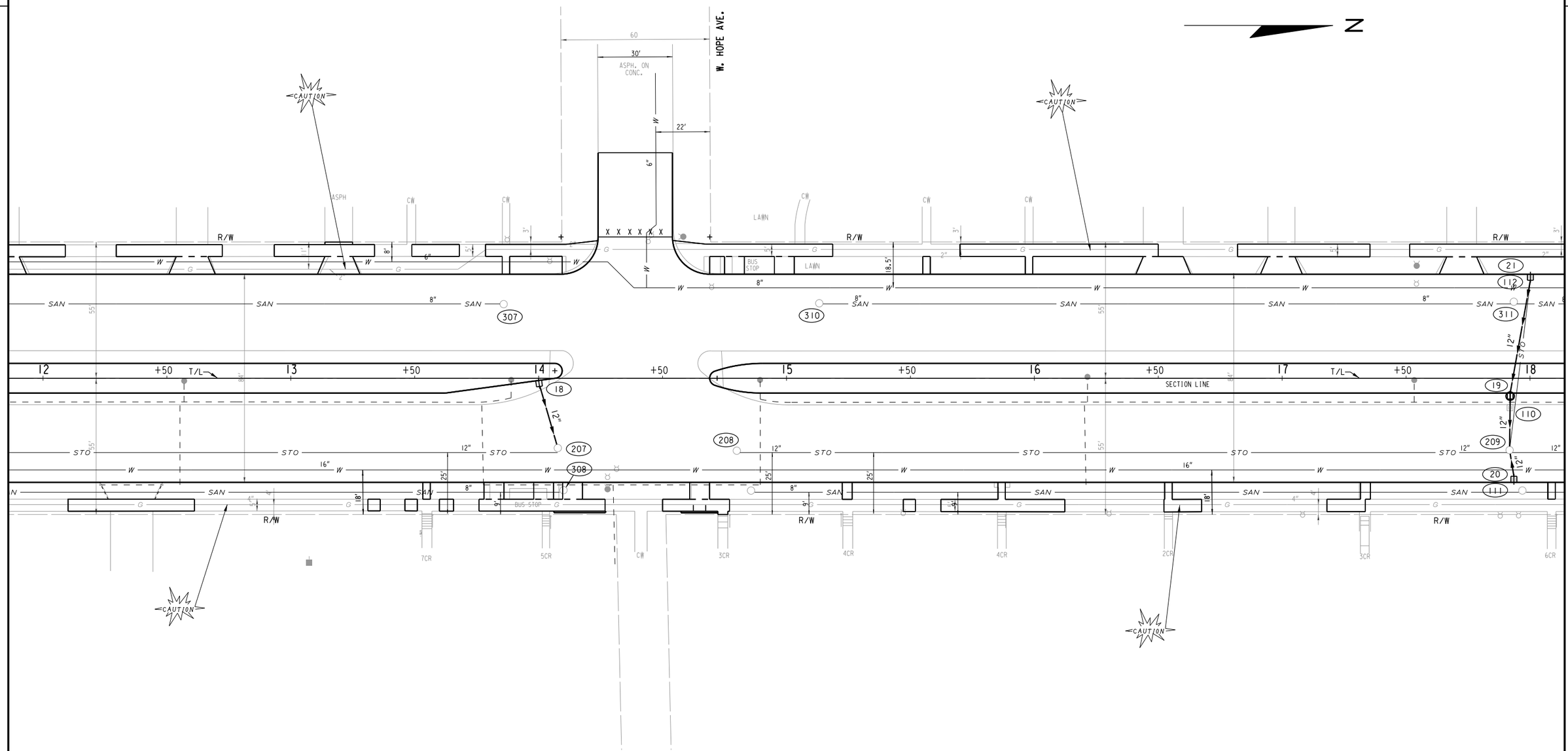
(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 53	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 06-12.DGN

REVISED DATE: 10-05-2016 BY PN

NORTH 92ND STREET

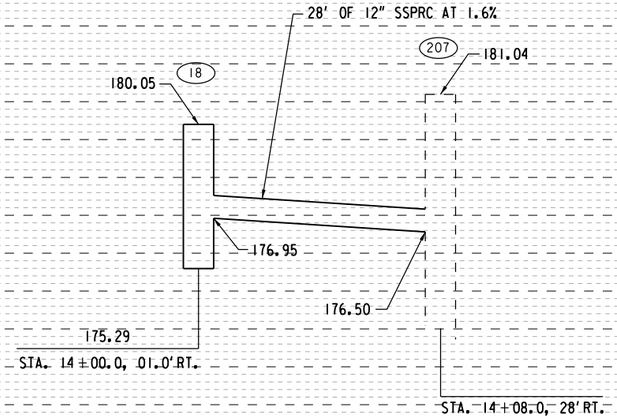


THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 54	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 12-18.DGN

REVISED: 06-06-2016



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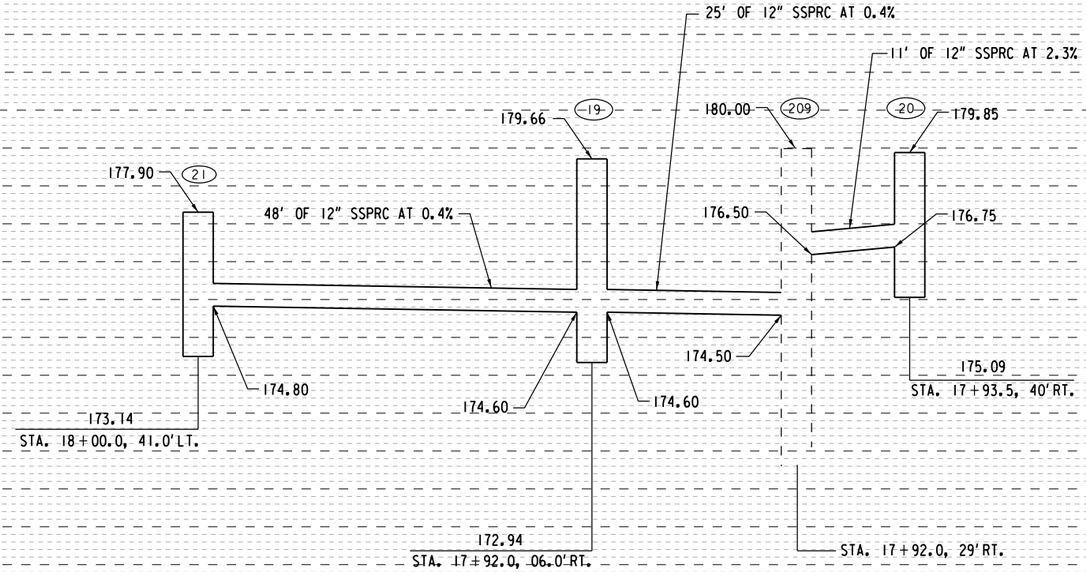


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 55	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 12-18.DGN

REVISED DATE: 10-06-2016 BY PN

NORTH 92ND STREET

N

BIO-SWALE NO.2
(SEE BIO-SWALE PLAN)

CAUTION

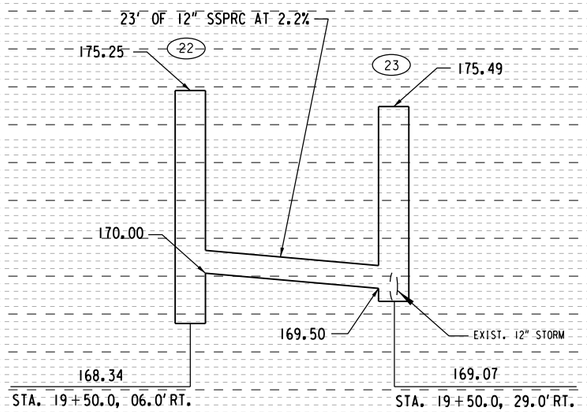
W. MARION AVE.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

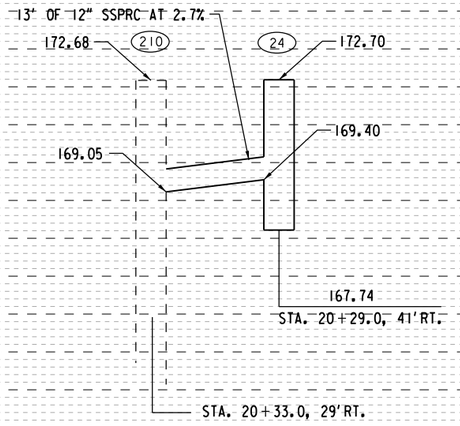
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 56	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 18-24.DGN

REVISED: 06-06-2016



(LOOKING WESTERLY)



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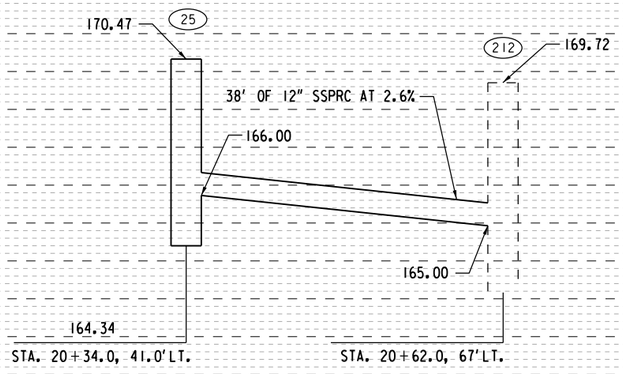
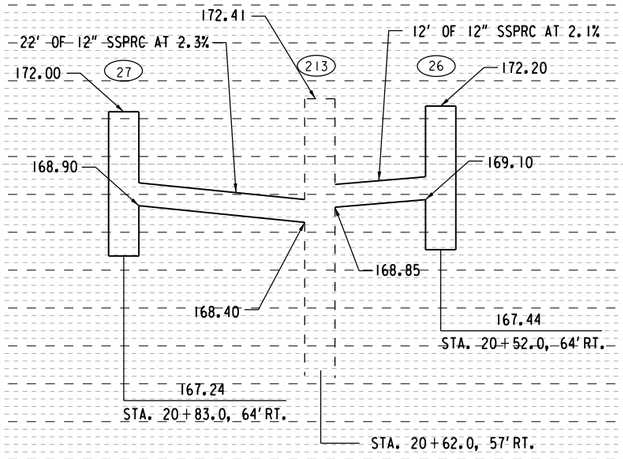


(LOOKING WESTERLY)

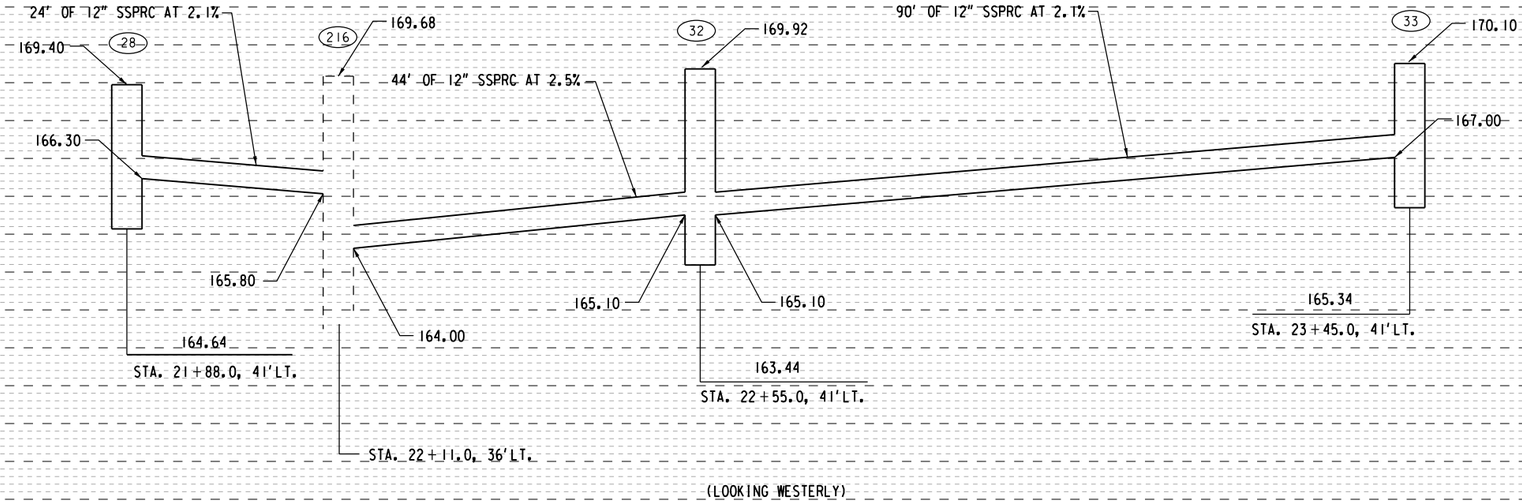


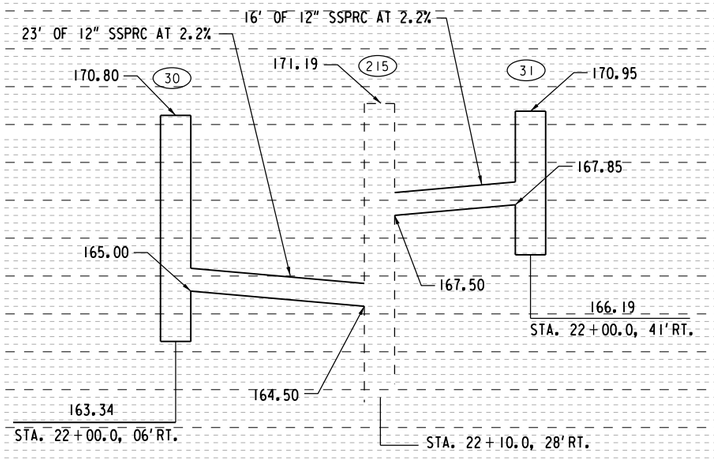
(LOOKING NORTHERLY)

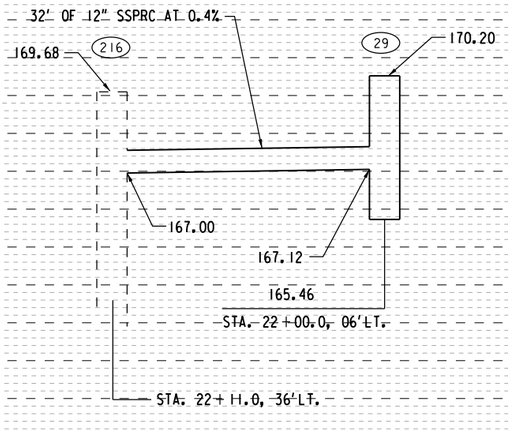
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 57	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 18-24.DGN

REVISED: 10-05-2016 PN







STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 58	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 18-24.DGN

REVISED: 10-05-2016 PN

NORTH 92ND STREET

BIO-SWALE NO.3
(SEE BIO-SWALE PLAN)

BM: SBM #64-03, IN CENTER PLOT, 60' SOUTH OF W. CONGRESS ST. C/L & 4.3' WEST OF EAST CURB ELEV: 176.14

35' ARM

25' ARM

40' ARM

CITY OF WAUWATOSA

CITY OF MILWAUKEE

MONUMENT +63.71

179°44'13.33"

N.00°56'07"W.

N.00°39'43"W.

SECTION LINE T/L

1/4 SECTION LINE

W. CONGRESS ST.

#4350 #4360 #4376 #4408

20 ALLEY

4CR 5CR 1CR

BUS SHELTER

LEGEND

⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED

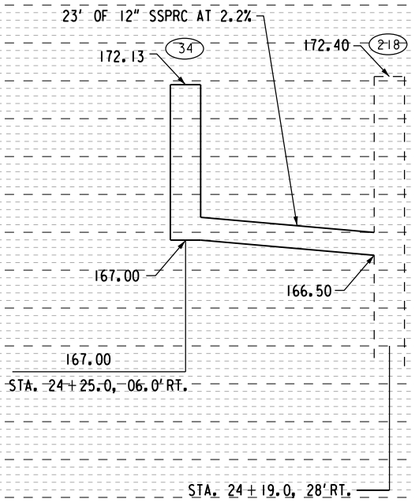
XX' ARM MAST ARM

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

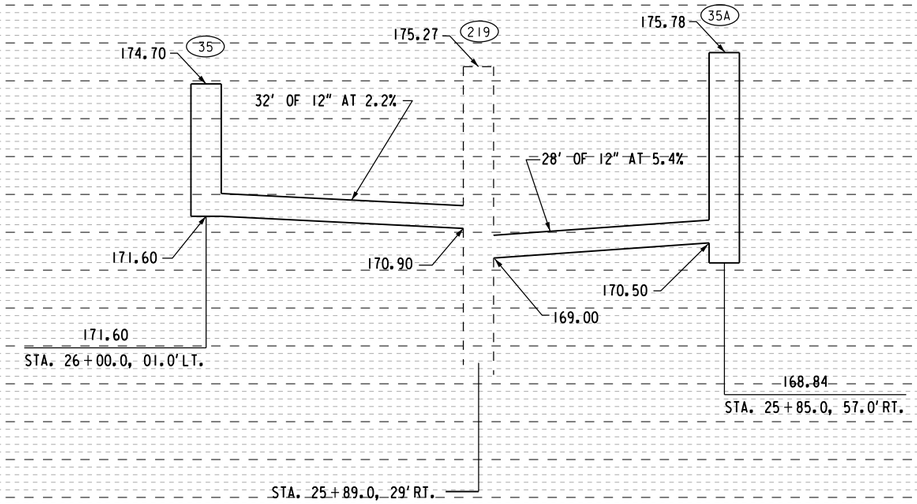
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 59	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 24-30.DGN

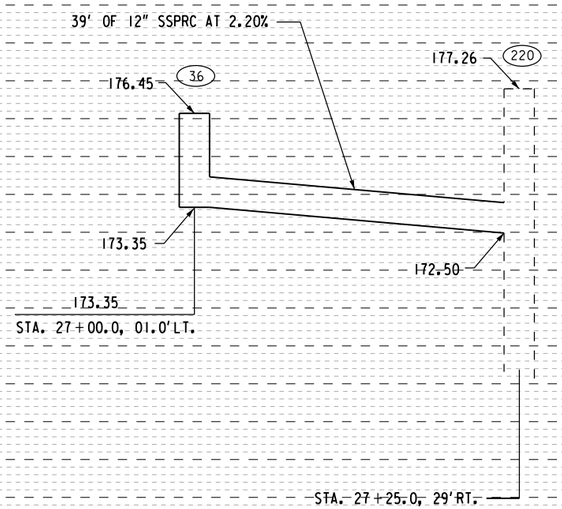
REVISED: 06-06-2016



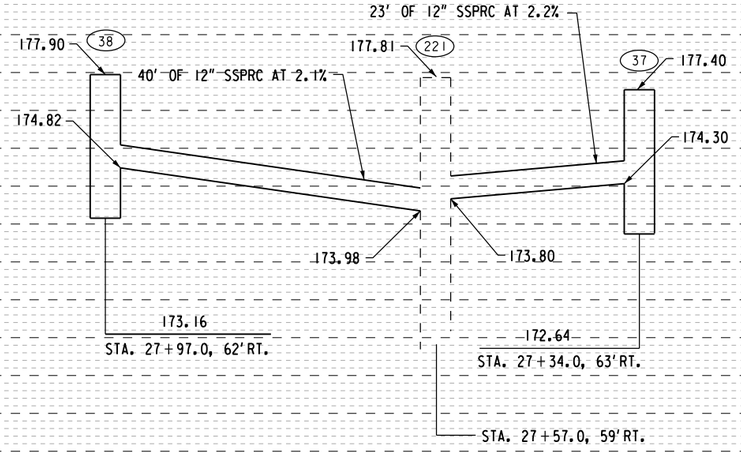
(LOOKING NORTHERLY)



(LOOKING NORTHERLY)



(LOOKING NORTHERLY)

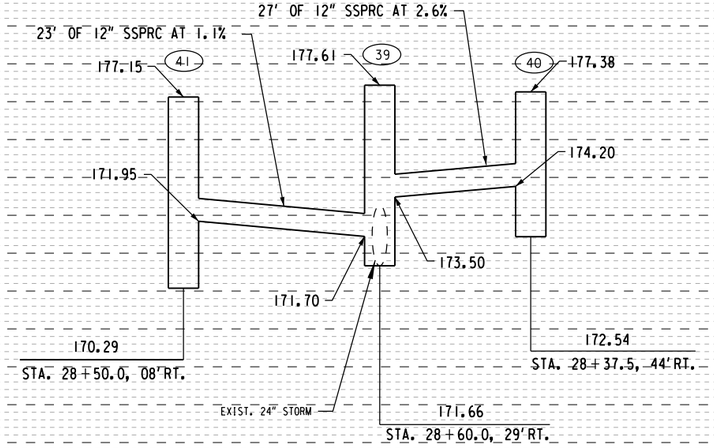


(LOOKING EASTERLY)

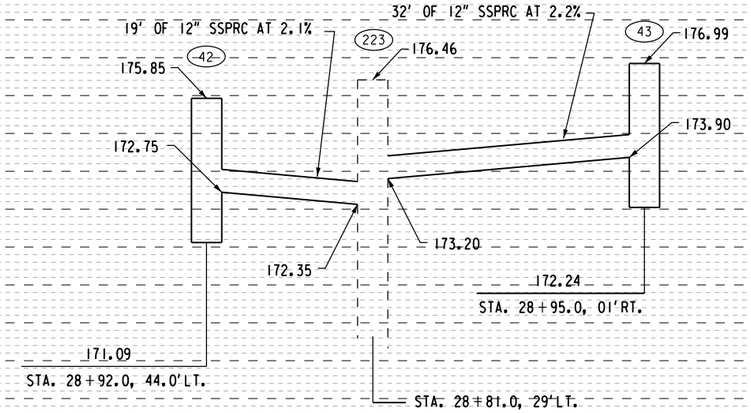
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 60	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 24-30.DGN

REVISED DATE: 10-05-2016 BY PN



(LOOKING NORTHERLY)



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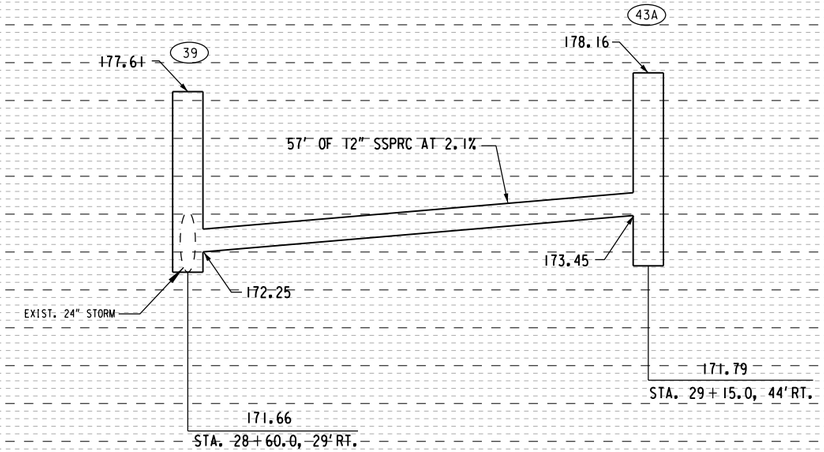
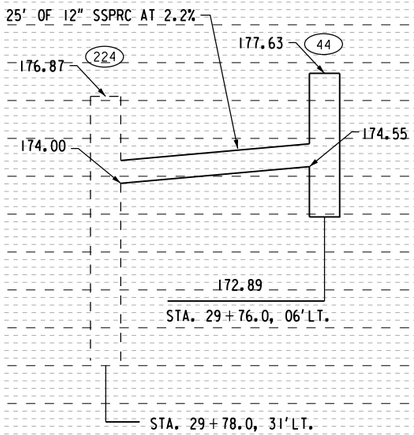


(LOOKING NORTHERLY)



(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 61	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 24-30.DGN

REVISED DATE: 10-05-2016 BY PN

2

NORTH 92ND STREET

2

N

BIO-SWALE NO.3
(SEE BIO-SWALE PLAN)

R/W

LAWN

VAULT

CW

604 605 132 225 319 46 49 48 133A 47 133 226 50 30 31 32 33 34 35 36 T/L SECTION LINE +50 E W STO SAN G T 18" 24" 21" 16" 12" 8" 15" 25' 5' 9' 5CR 3CR 1CR

53 137 54 138 229 56 139 55 136 227 320 228 51 134 52 135 140 57 141 230 CAUTION

25' 8' 20' 27' 32' 60' STO CONN SAN

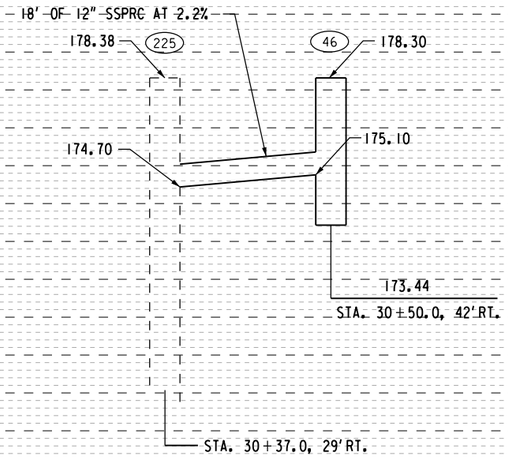
W. PALMETTO AVE.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 62	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 30-36.DGN

REVISED: 06-06-2016



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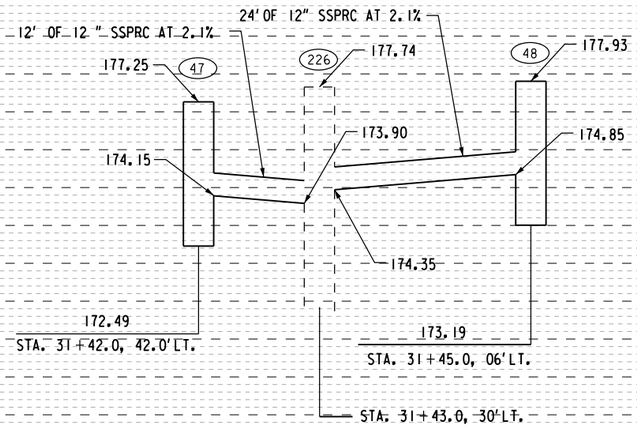

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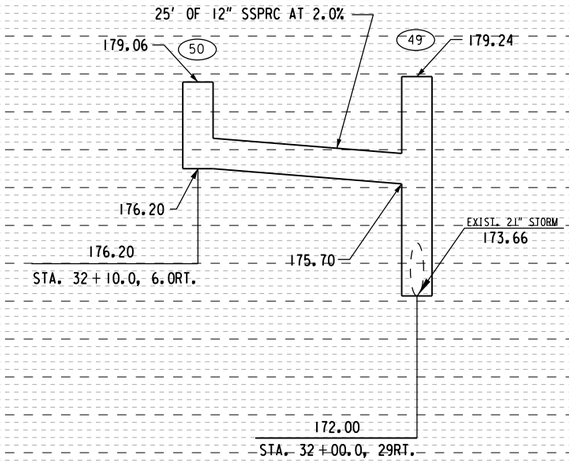

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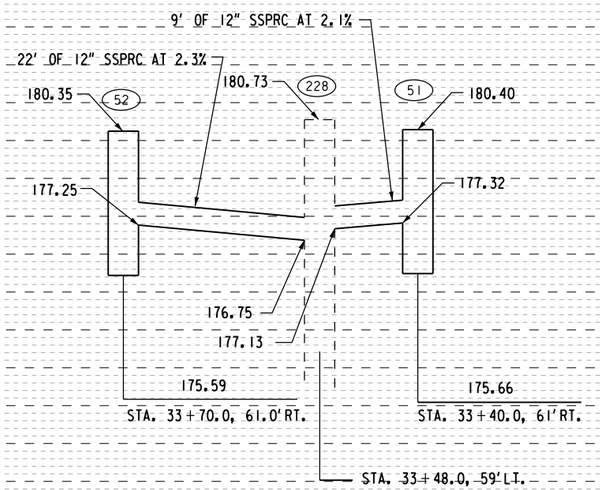
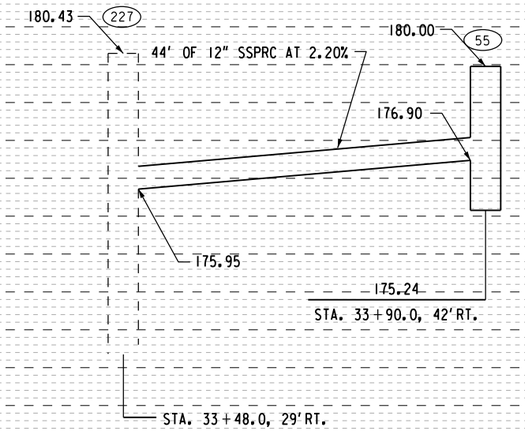


(LOOKTNG EASTERLY)

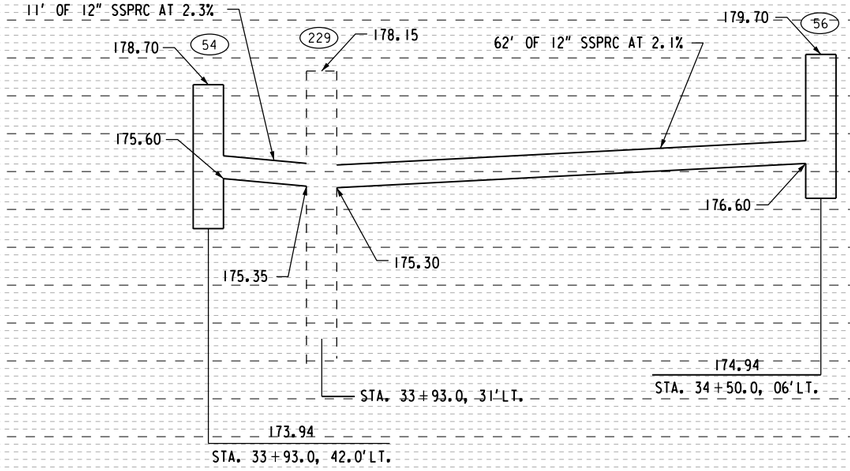


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 63	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 30-36.DGN

REVISED DATE: 10-05-2016 BY PN



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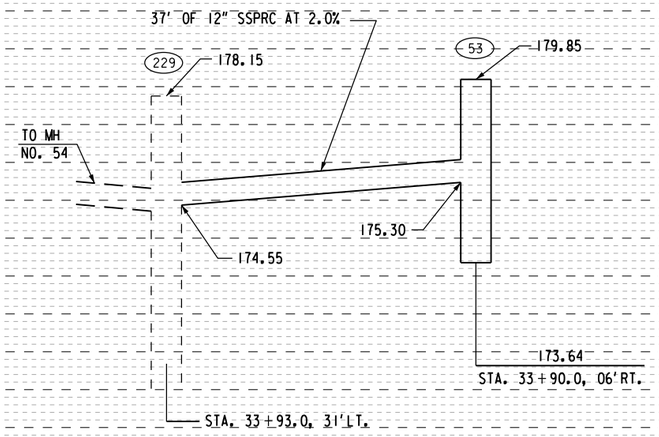

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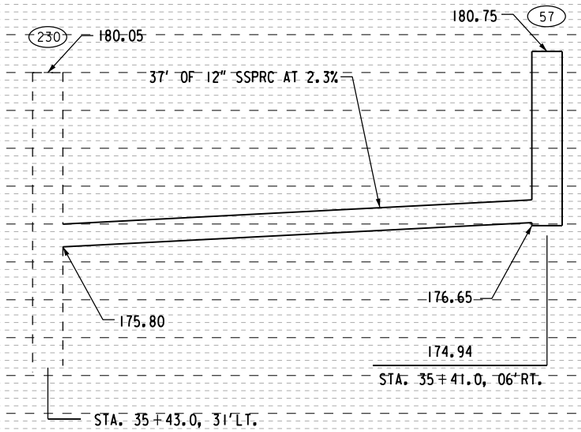


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 64	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 30-36.DGN

REVISED DATE: 10-05-2016 BY PN

NORTH 92ND STREET

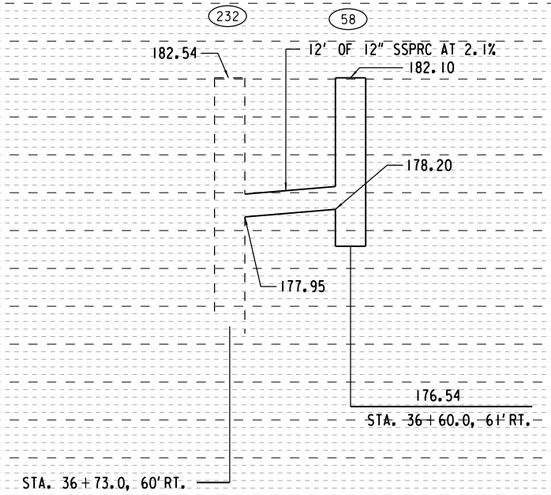
N

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

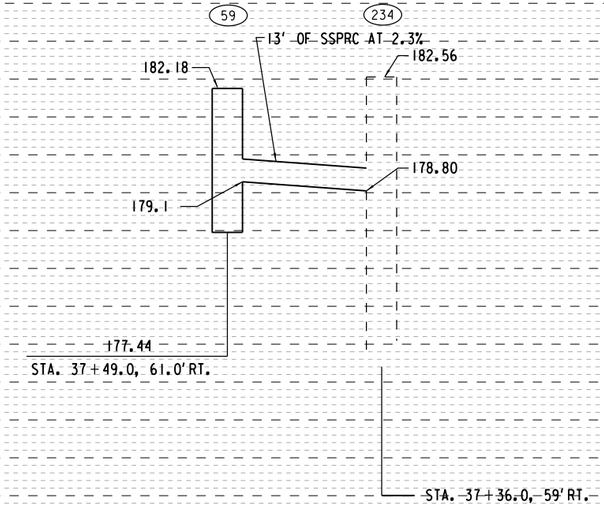
STATE PROJECT NUMBER 2585-00-25	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 65	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 36-42.DGN

REVISED: 06-06-2016



(LOOKING EASTERLY)



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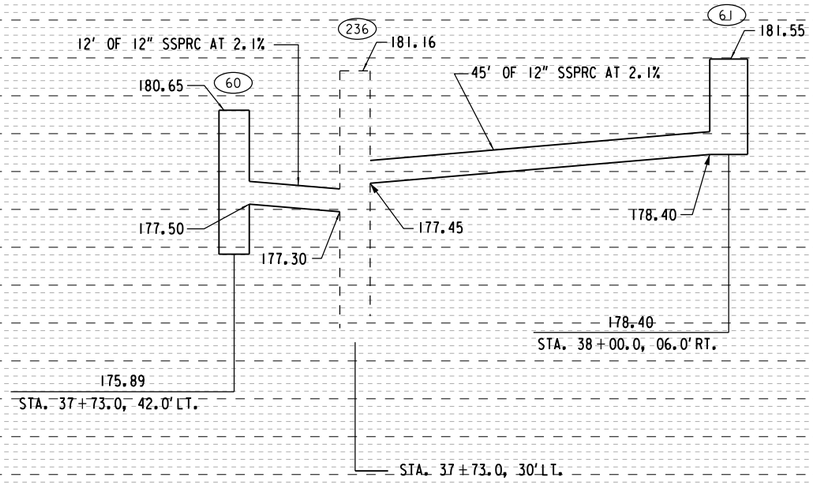
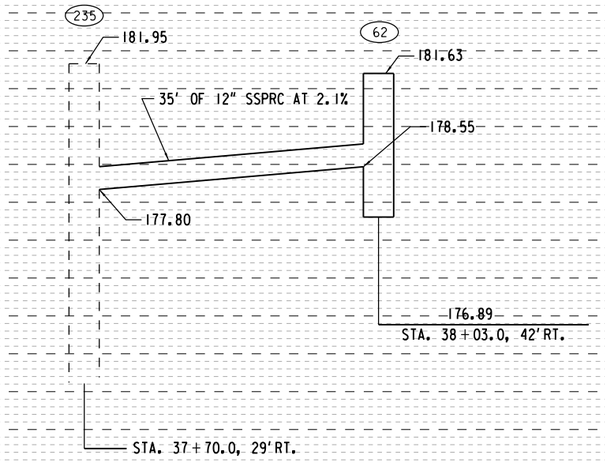


(LOOKING NORTHERLY)

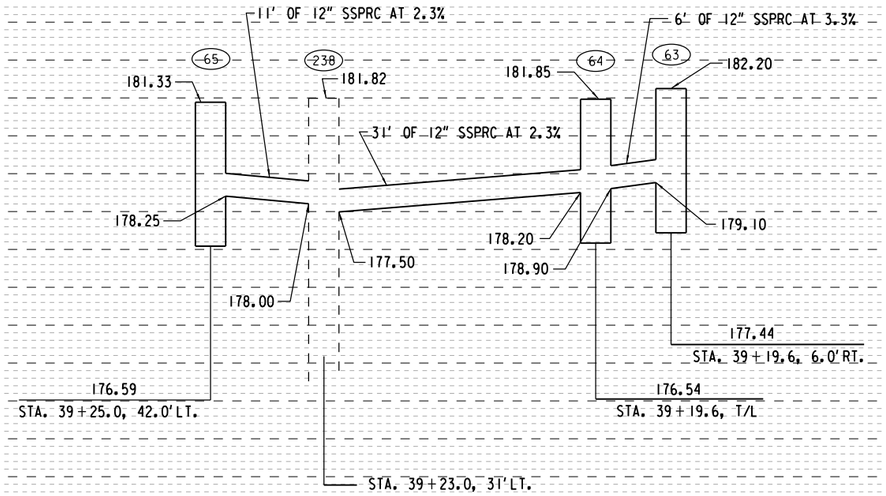


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-25	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 66	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 36-42.DGN

REVISED: 10-05-2016 PN



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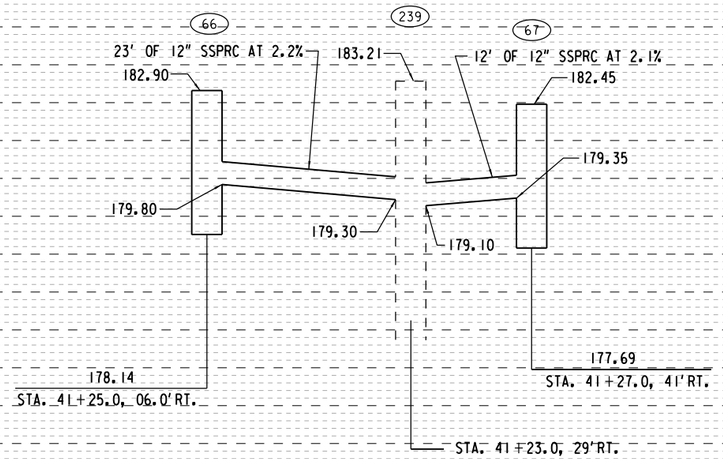

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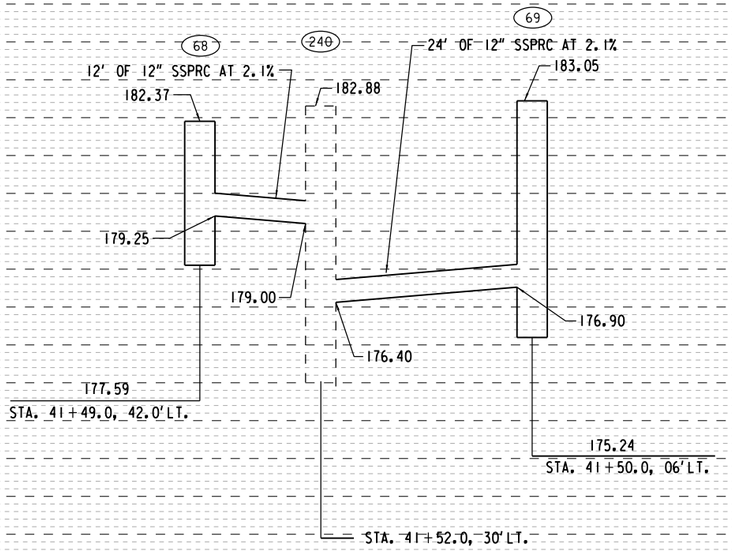


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2585-00-25	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 67	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 36-42.DGN

REVISED: 10-05-2016 PN

NORTH

92ND

STREET

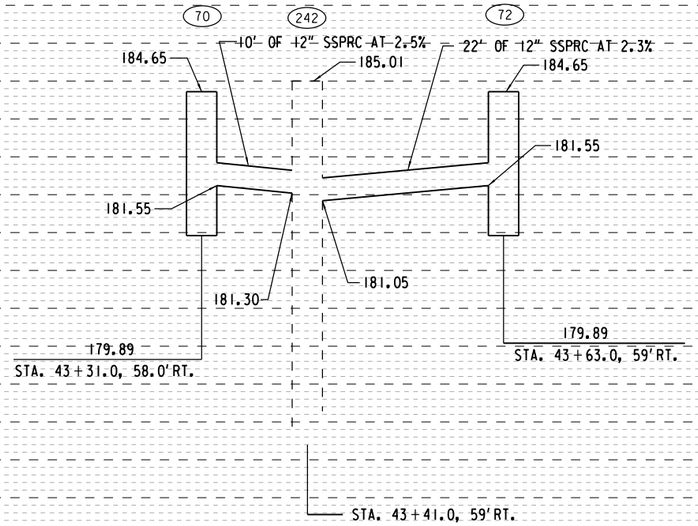
N

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 68	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 42-48.DGN

REVISED: 10-25-2016 SB



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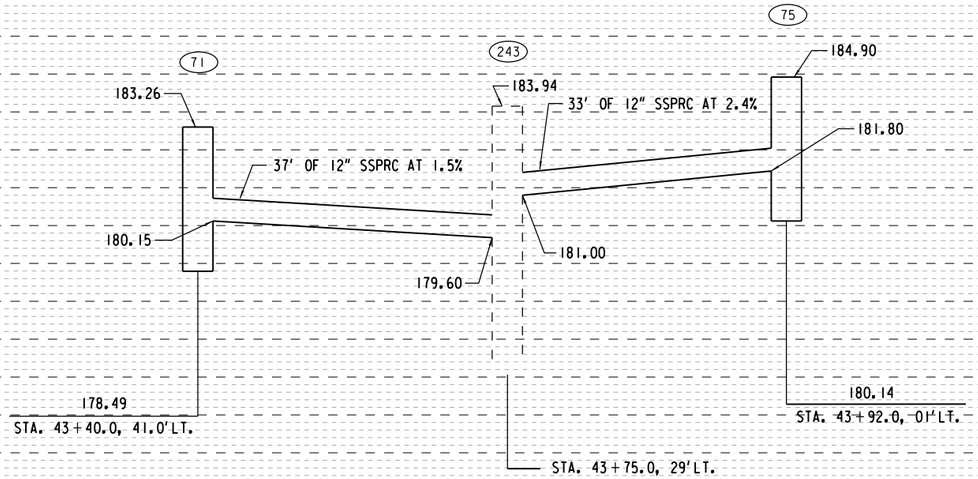

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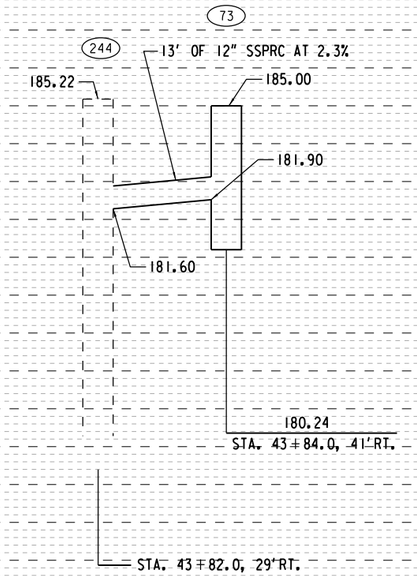

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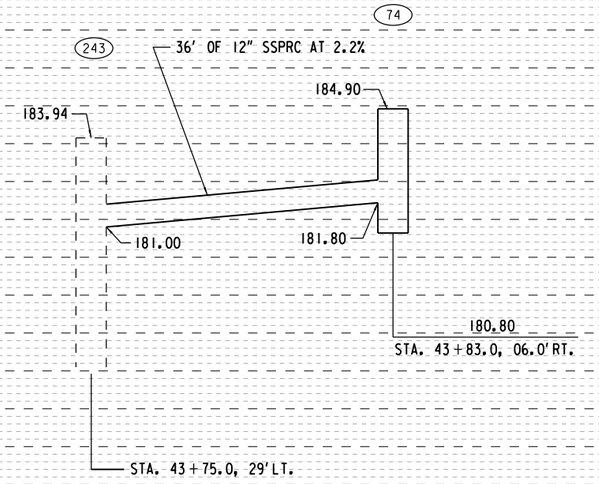

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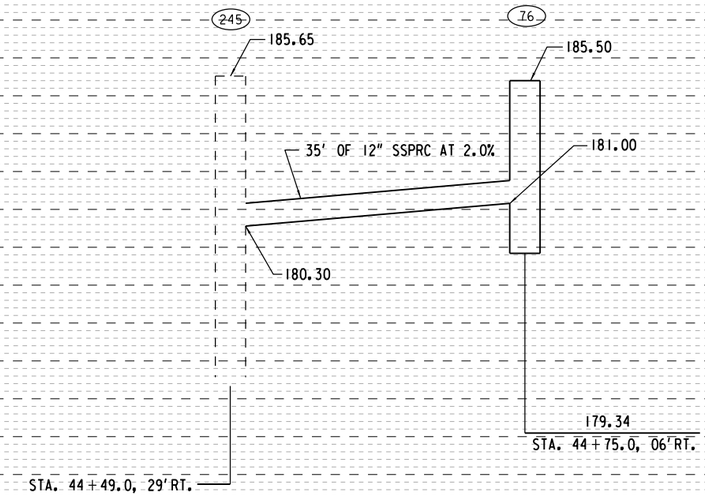


(LOOKING NORTHERLY)

NORTH 92ND STREET

MADISON PARK
MILWAUKEE COUNTY

N

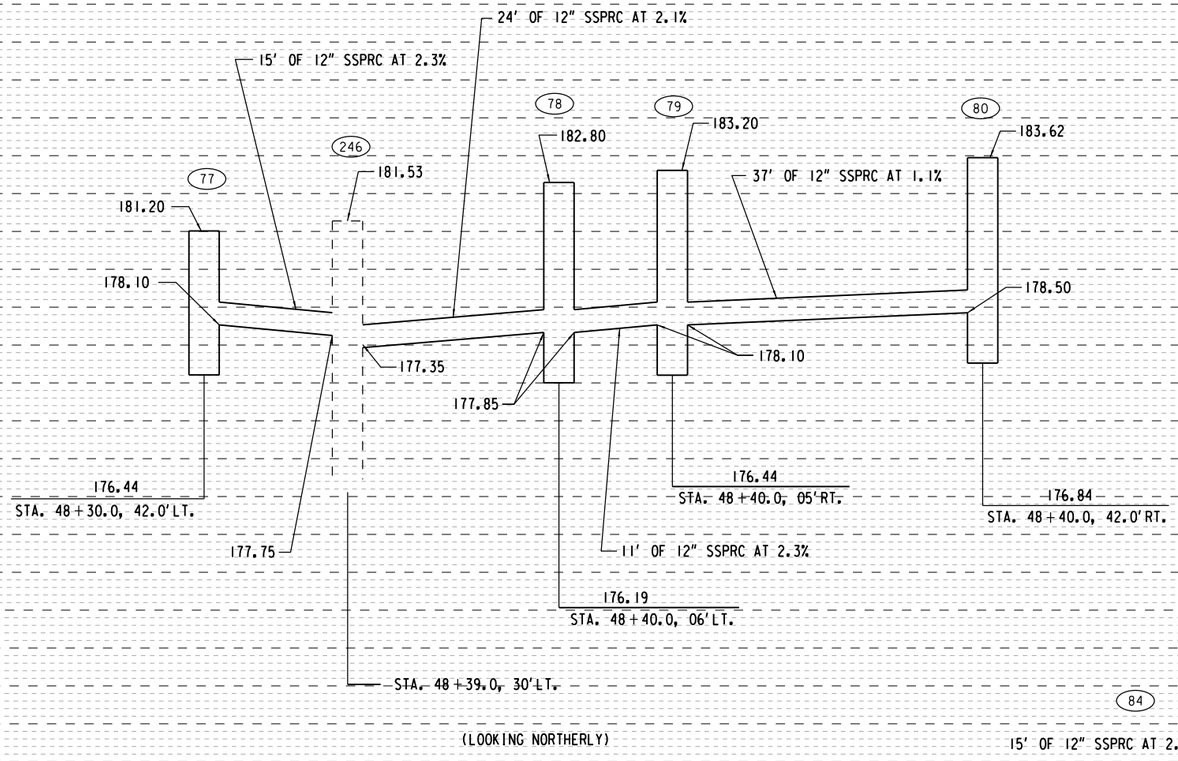
BIO-SWALE NO.4
(SEE BIO-SWALE PLAN)

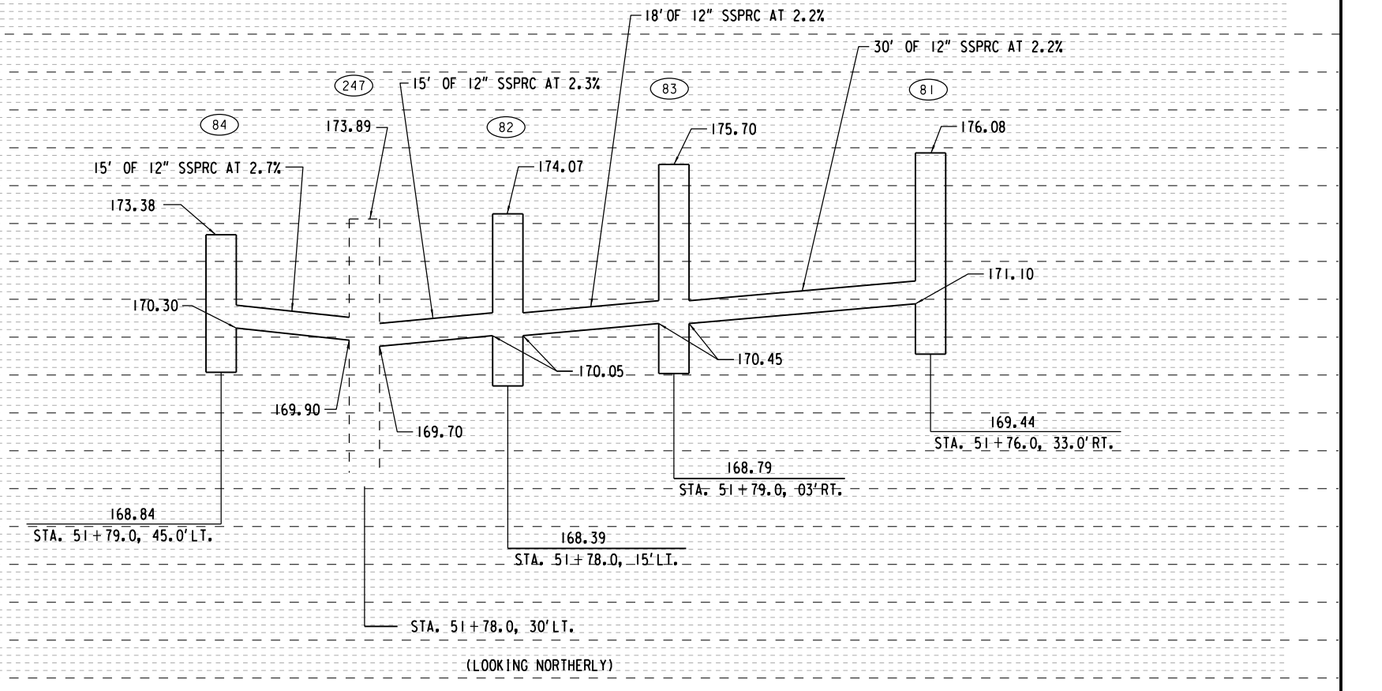
ASPH ASPH LAWN LAWN LAWN

BUS STOP

R/W R/W

T T T





STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 71	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 48-54.DGN

REVISED: 10-25-2016 SB

2

N

BIO-SWALE NO.5
(SEE BIO-SWALE PLAN)

END PROJECT
STA. 56+31.00 T/L

CAUTION

TINKERMAN FIELD
MILWAUKEE COUNTY

CITY OF WAUWATOSA

CITY OF MILWAUKEE

LAWN

R/W

EXIST. BIO- SWALE

CW

ASPH. ON CONC.

CUC

LAWN

PLANTER

SECTION LINE
N.00°39'43"W.

T/L

MONUMENT

54 +50 55 +50 56 +50 57 +50 58

CITY OF WAUWATOSA
CITY OF MILWAUKEE

LOCATION UNKNOWN

R/W

W. HAMPTON AVE.

SECTION LINE

ASPH

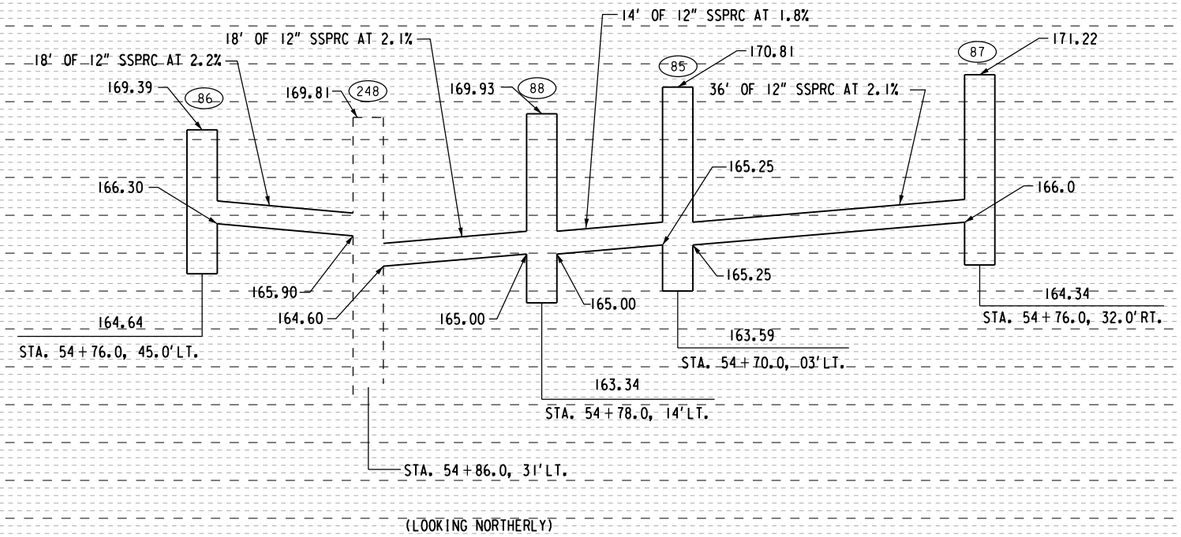
BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

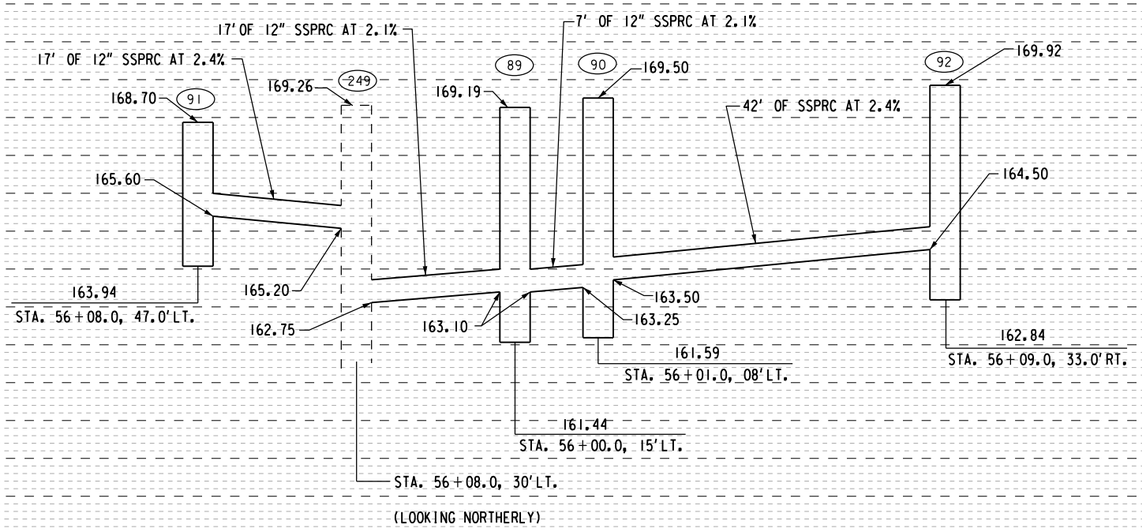
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2015. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 72	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 54-60.DGN

REVISED: 06-06-2016





STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 73	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\UTIL 54-60.DGN

REVISED DATE: 10-25-2016 BY SB

NORTH 92ND STREET

N

BEGIN PROJECT
STA. 03+06.00 T/L

01 MONUMENT +50 02 SECTION LINE +50 03 T/L +50 04 +50 05 +50 06

ABS ABS ABS

CAUTION CAUTION CAUTION

W. CAPITOL DR.

SECTION LINE

LIGHT BASE

LOC. UNKNOWN

WALL

4CR 3CR 5CR 5CR 4CR 4CR 3CR

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

AUTUMN BRILLIANCE SERVICEBERRY (ABS)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 74	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 00-06.DGN

REVISED: 06-20-2016

NORTH 92ND STREET

N

W. FIEBRANTZ AVE.

BIO-SWALE NO. 1
(SEE BIO-SWALE PLAN)

SECTION LINE

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

SUNBURST HONEYLOCUST (SHL)
RED BUD (RB)
AMERICAN SWEETGUM 'MORAINE' (SM)

NOTES:

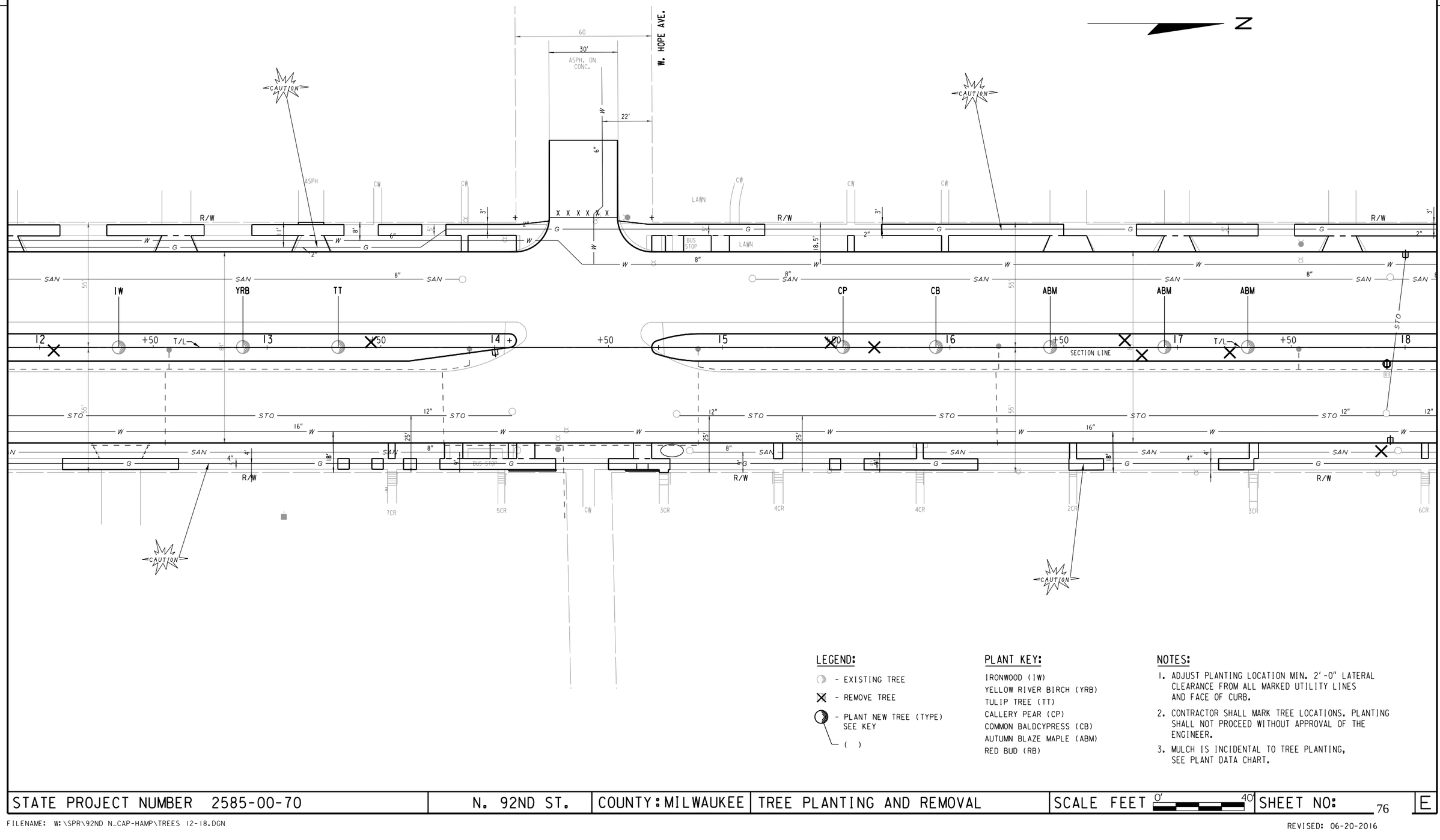
1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 75 E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 06-12.DGN

REVISED: 06-20-2016

NORTH 92ND STREET



LEGEND:

- ◑ - EXISTING TREE
- ✕ - REMOVE TREE
- ◑ - PLANT NEW TREE (TYPE) SEE KEY
  - ( )

PLANT KEY:

IRONWOOD (IW)
YELLOW RIVER BIRCH (YRB)
TULIP TREE (TT)
CALLERY PEAR (CP)
COMMON BALDCYPRESS (CB)
AUTUMN BLAZE MAPLE (ABM)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

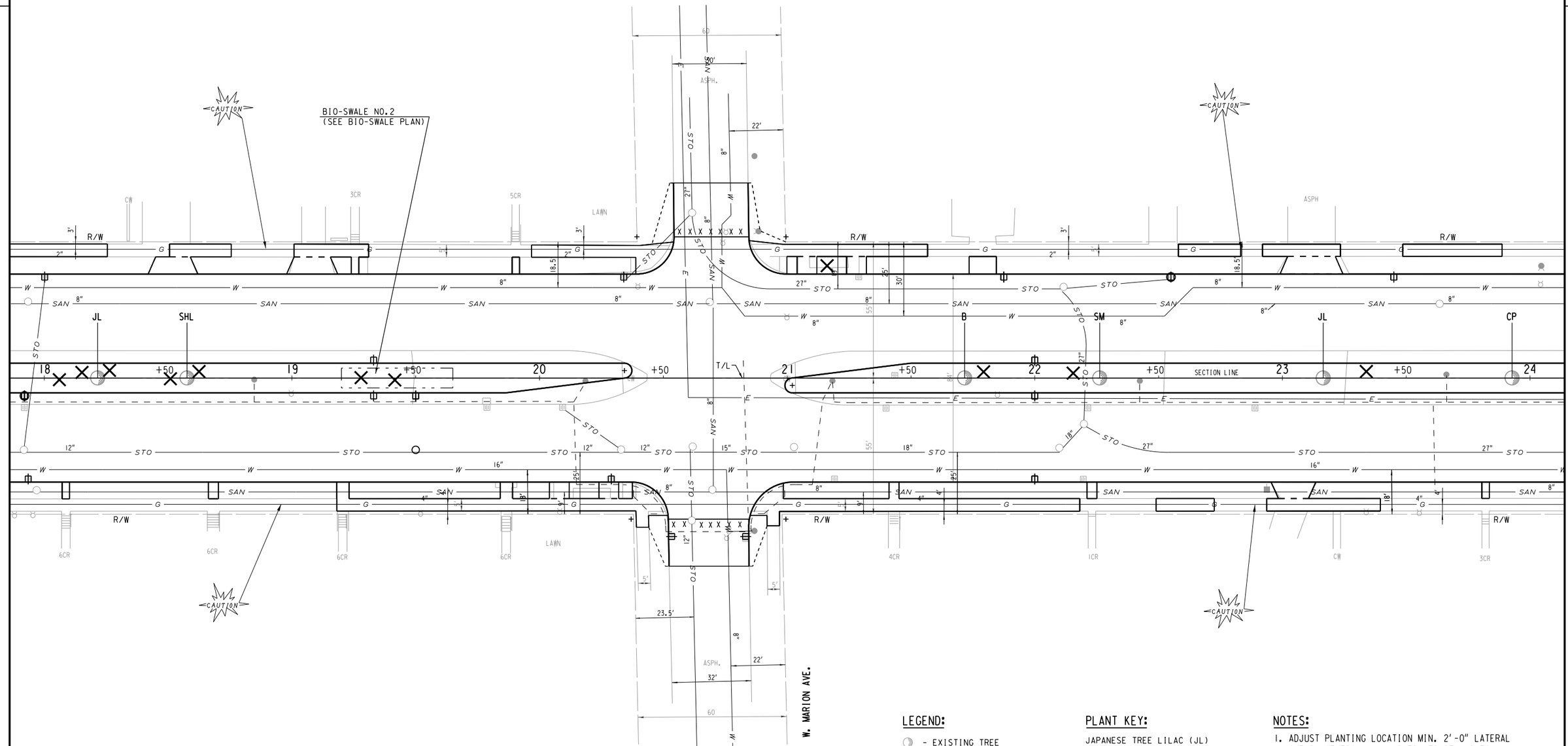
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 76	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 12-18.DGN

REVISED: 06-20-2016

NORTH 92ND STREET

N



LEGEND:

- ◐ - EXISTING TREE
- ✕ - REMOVE TREE
- ◍ - PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

JAPANESE TREE LILAC (JL)
SUNBURST HONEYLOCUST (SHL)
BUTTERNUT (B)
AMERICAN SWEETGUM 'MORAINE' (SM)
CALLERY PEAR (CP)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 77	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 18-24.DGN

REVISED: 06-06-2016

NORTH

92ND

STREET

BM: SBM #64-03, IN CENTER PLOT, 60' SOUTH OF W. CONGRESS ST. C/L & 4.3' WEST OF EAST CURB ELEV: 176.14

BIO-SWALE NO.3
(SEE BIO-SWALE PLAN)

35' ARM

40' ARM

25' ARM

25' ARM

RB

KC

4CR

5CR

1CR

20 ALLEY

#4350

#4360

#4376

#4408

CITY OF WAUWATOSA

CITY OF MILWAUKEE

MONUMENT +63.71

179° 44' 13.33"

N.00° 56' 07" W.

N.00° 39' 43"W.

W. CONGRESS ST.

1/4 SECTION LINE

SECTION LINE

T/L

P.L.

ASPH. ON CONC.

BUS SHELTER

LAWN

CAUTION

LEGEND

⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED

XX' ARM MAST ARM

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

RED BUD (RB)

KENTUCKY COFFEETREE (KC)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 78	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 24-30.DGN

REVISED: 06-20-2016

NORTH 92ND STREET

N

BIO-SWALE NO.3
(SEE BIO-SWALE PLAN)

R/W

LAWN

VAULT

30 31 32 33 34 35 36

+50

SECTION LINE

CITY OF WAUWATOSA

CITY OF MILWAUKEE

N.00°39'43"W.

T/L

STO 18" 15"

AC

E

W

SAN

G

CW

WEP

CAUTION

5CR

3CR

1CR

W. PALMETTO AVE.

BM: IST CONCRETE RISER, YARDWALK, SW CORNER, #4436 N. 92ND ST. ELEV: 180.12

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. PALMETTO AVE. STA. 33+74, 58'RT ELEV: 183.11

BM: HYD. (NNW BO
N. 92ND ST. & W.
STA. 36+43, 45'R
ELEV: 183.52

#4424 #4436 #4450 #91.27 #4508 20 ALLEY #4526

P.L.

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

FREEMAN MAPLE (FM)
IVORY SILK LILAC (ISL)
SHAG BARK HICKORY (SBH)
AMUR CORK (AC)
PEAR (P)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

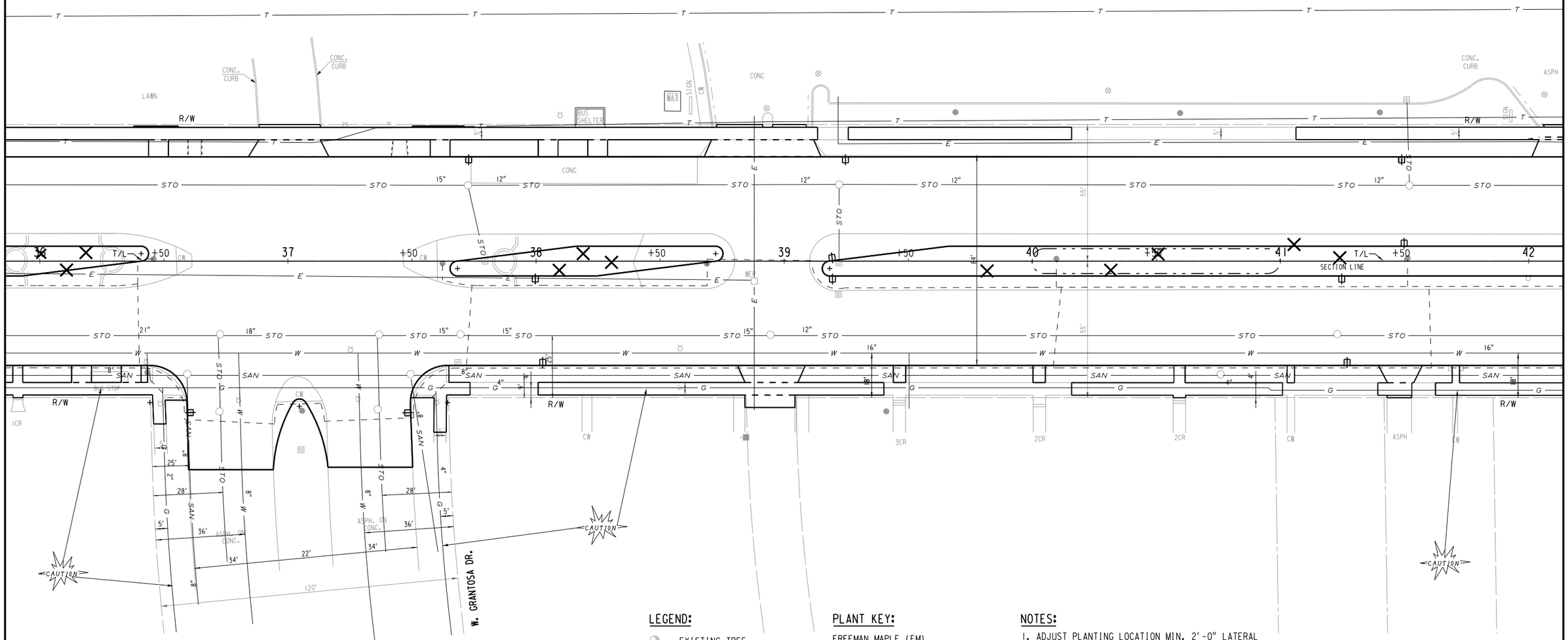
STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 79	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 30-36.DGN

REVISED: 06-20-2016

NORTH 92ND STREET

N



LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

FREEMAN MAPLE (FM)
IVORY SILK LILAC (ISL)
SHAG BARK HICKORY (SBH)
AMUR CORK (AC)
PEAR (P)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-25	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 80	E

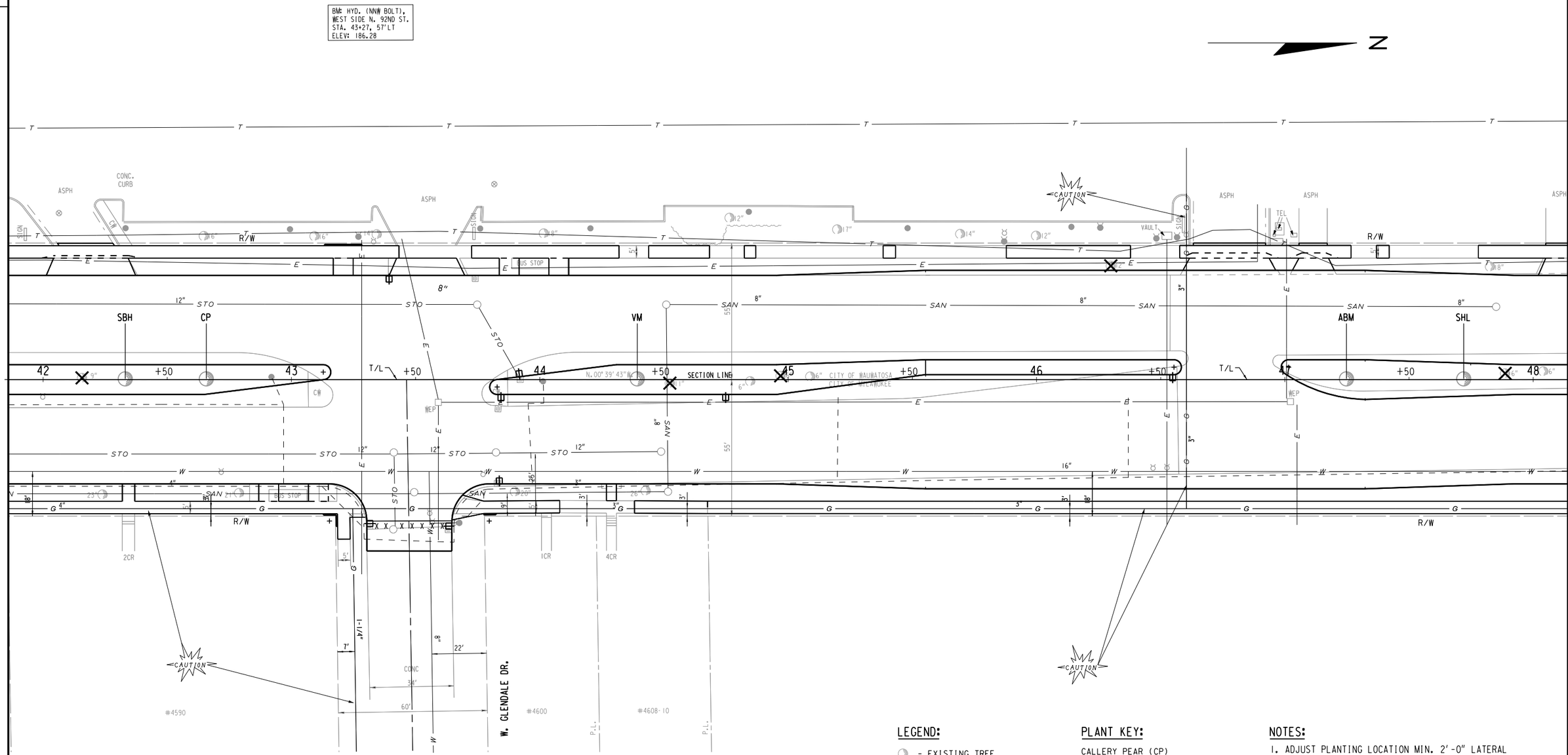
FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 36-42.DGN

REVISED: 06-20-2016

2

NORTH 92ND STREET

BM: HYD. (NNW BOLT), WEST SIDE N. 92ND ST. STA. 43+27, 57'LT ELEV: 186.28



LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
  ( )

PLANT KEY:

CALLERY PEAR (CP)
VARIGATED MAPLE (VM)
SHAG BARK HICKORY (SBH)
AUTUMN BLAZE MAPLE (ABM)
SUNBURST HONEYLOCUST (SHL)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 81	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 42-48.DGN

REVISED: 06-20-2016

NORTH 92ND STREET

MADISON PARK
MILWAUKEE COUNTY

N

BIO-SWALE NO.4
(SEE BIO-SWALE PLAN)

ASPH ASPH LAWN LAWN LAWN R/W

BUS STOP R/W

CW CW

STO 12" STO STO STO 12" STO 15" STO STO

55' 55' 66' 80'

48 +50 49 LAWN +50 50 N.00°39'43"W. +50 LAWN CITY OF WAUWATOSA CITY OF MILWAUKEE 51 T/L EXIST. BIO- SWALE +50 52 +50 SECTION LINE 53 +50 54

W W 16" W W W W W 16" W W

3" G 3" G 3" G G G G 3" G

18" 3' 18"

R/W R/W

CAUTION CAUTION

BM: HYD. (NNW BOLT),
E/S N. 92ND ST.
STA. 49+62, 44' RT
ELEV: 183.03

P.L.

TIMMERMAN FIELD
MILWAUKEE COUNTY

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
- ( )

PLANT KEY:

FREEMAN MAPLE (FM)
IVORY SILK LILAC (ISL)
SHAG BARK HICKORY (SBH)
AMUR CORK (AC)
PEAR (P)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 82	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 48-54.DGN

REVISED: 06-20-2016

2

CITY OF WAUWATOSA

CITY OF MILWAUKEE

TIMMERMAN FIELD
MILWAUKEE COUNTY

N

BIO-SWALE NO.5
(SEE BIO-SWALE PLAN)

END PROJECT
STA. 56+31.00 T/L

CAUTION

LAWN

R/W

55'

5'

26'

39'

16" W

STO 21"

8" G

STO 15"

CW

ASPH. ON CONC.

CUC

LAWN

PLANTER

EXIST. BIO- SWALE

80'

CITY OF WAUWATOSA

CITY OF MILWAUKEE

54 +50 55 +50 56 +50 57 +50 58

SECTION LINE
N.00°39'43"W.

T/L

MONUMENT

TEL

21" STO

8" SAN

16" W

12" STO

8" SAN

33.75'

LOCATION UNKNOWN

8'

4"

3'

CW

ASPH

32'

38'

5'

9.5'

25.6'

91

12" STO

8" SAN

55'

SECTION LINE

BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

LEGEND:

- EXISTING TREE
- REMOVE TREE
- PLANT NEW TREE (TYPE) SEE KEY
  ( )

PLANT KEY:

FREEMAN MAPLE (FM)
IVORY SILK LILAC (ISL)
SHAG BARK HICKORY (SBH)
AMUR CORK (AC)
PEAR (P)
SWEETGUM (SG)
RED BUD (RB)

NOTES:

1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB.
2. CONTRACTOR SHALL MARK TREE LOCATIONS. PLANTING SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.
3. MULCH IS INCIDENTAL TO TREE PLANTING, SEE PLANT DATA CHART.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	TREE PLANTING AND REMOVAL	SCALE FEET 0' 40'	SHEET NO: 83	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TREES 54-60.DGN

REVISED: 06-20-2016

2

2

TREE PLANTING TABLE - LANDSCAPING

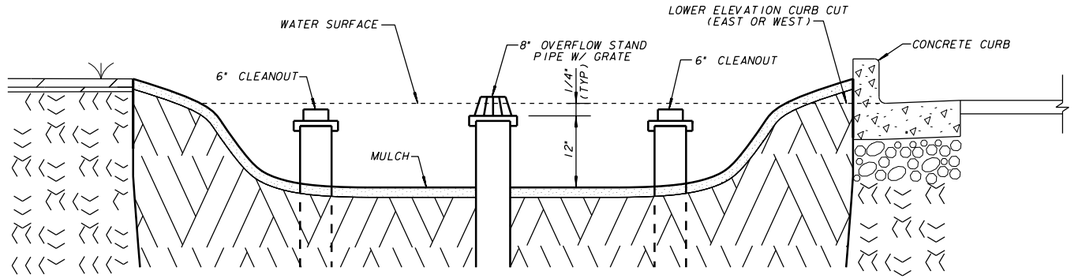
LOCATION (IN MEDIAN)	COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	BALL (MIN. SIZE)		HOLE (MIN. SIZE)		BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECTION REQ'D	MULCH RING DIAMETER	REMARKS
					DIA.	DEPTH	DIA.	DEPTH					
STA. 4+17	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER CANADENSIS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA. 4+52	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER CANADENSIS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA. 4+88	AUTUMN BRILLIANCE SERVICEBERRY	AMELANCHIER CANADENSIS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, STRAIGHT TRUNK
STA. 6+64	SUNBURST HONEYLOCUST	GLEDITSIA TRIACANTHOS 'INFERMIS'	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 7+13	RED BUD	CERCIS CANADENSIS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, CLUMP FORM
STA. 10+94	AMERICAN SWEETGUM 'MORAINE'	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 11+35	AMERICAN SWEETGUM 'MORAINE'	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 11+79	AMERICAN SWEETGUM 'MORAINE'	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 12 +32	IRONWOOD	OSTRA VIRGINIANA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 12+90	YELLOW RIVER BIRCH	BEULA NIGRA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, CLUMP FORM
STA. 13+29	TULIP TREE	LIRIODENDRON TULIPIFERA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 15+50	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 15+93	COMMON BALDCYPRESS	TAXODIUM DISTICHUM	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 16+47	AUTUMN BLAZE MAPLE	ACER FREEMANANII "AUTUMN BLAZE"	3.5" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 16+85	AUTUMN BLAZE MAPLE	ACER FREEMANANII "AUTUMN BLAZE"	3.5" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 17+25	AUTUMN BLAZE MAPLE	ACER FREEMANANII "AUTUMN BLAZE"	3.5" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY

2

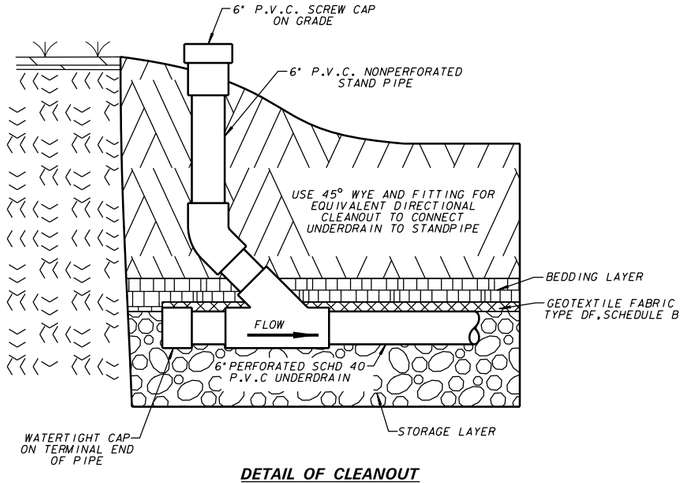
TREE PLANTING TABLE - LANDSCAPING

LOCATION (IN MEDIAN)	COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	BALL (MIN. SIZE)		HOLE (MIN. SIZE)		BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECTION REQ'D	MULCH RING DIAMETER	REMARKS
					DIA.	DEPTH	DIA.	DEPTH					
STA. 18+17	JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 18+56	SUNBURST HONEYLOCUST	GLEDITSIA TRIACANTHOS 'INFERMIS'	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 21+75	BUTTERNUT	JUGLANS CINERA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 22+22	AMERICAN SWEETGUM 'MORAINE'	LIQUIDDAMBAR STYRACIFLUA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 23+17	JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 23+99	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 24+60	RED BUD	CERCIS CANADENSIS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY, CLUMP FORM
STA. 25+05	KENTUCKY COFFEETREE	GYMNOCLADUS DIOICUS	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 31+44	AMUR CORKTREE	PHELLODENDRON AMURENSE	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 32+05	AMUR CORKTREE	PHELLODENDRON AMURENSE	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 32+49	AMUR CORKTREE	PHELLODENDRON AMURENSE	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 42+30	SHAGBARK HICKORY	CARY OVATA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 42+71	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 44+42	VARIGATED MAPLE	ACER NEGUNDO VARIGATA	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 47+25	AUTUMN BLAZE MAPLE	ACER FREEMANANII "AUTUMN BLAZE"	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY
STA. 47+69	SUNBURST HONEYLOCUST	GLEDITSIA TRIACANTHOS 'INFERMIS'	3" CAL.	B&B	24"	19"	48"	24"	BRACE	4 EACH	NONE	68"	SPECIMEN QUALITY

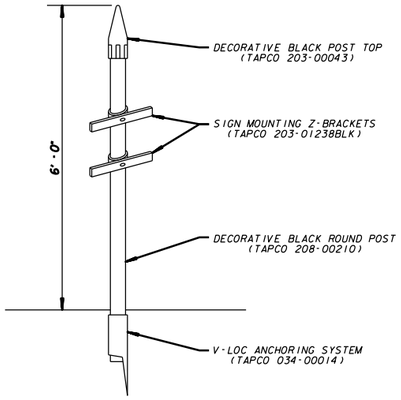
BIO-SWALE DETAILS



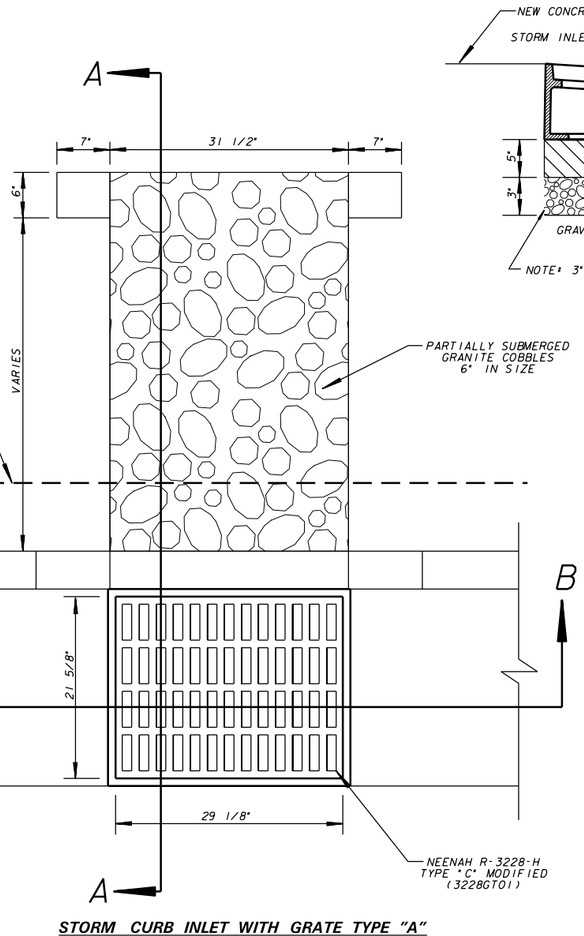
DETAIL OF 8" OVERFLOW STAND PIPE
SCALE • N.T.S.



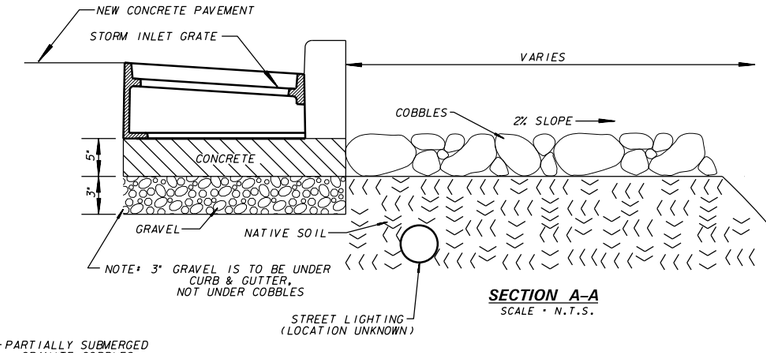
DETAIL OF CLEANOUT
SCALE • N.T.S.



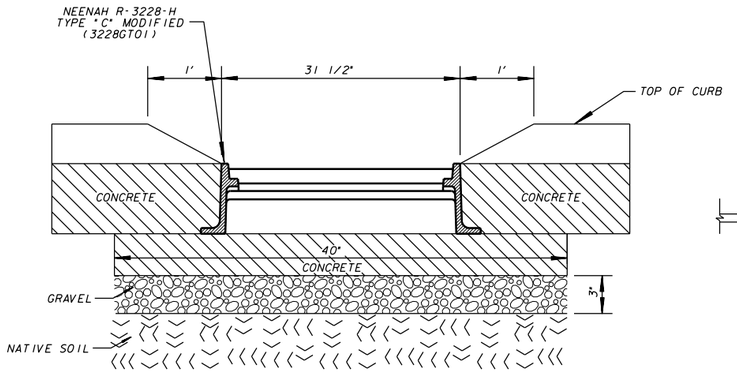
DETAIL OF INFORMATIONAL SIGN
SCALE • N.T.S.



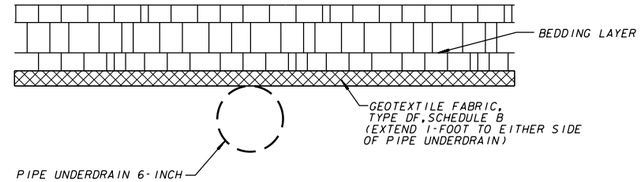
STORM CURB INLET WITH GRATE TYPE "A"
SCALE • N.T.S.



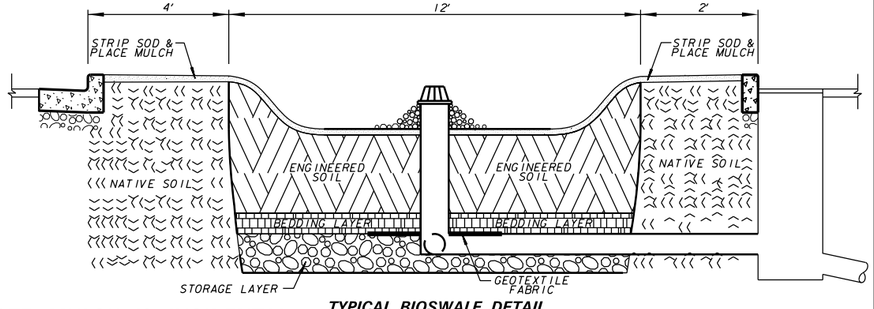
SECTION A-A
SCALE • N.T.S.



SECTION B-B
SCALE • N.T.S.



DETAIL OF GEOTEXTILE FABRIC
SCALE • N.T.S.



TYPICAL BIOSWALE DETAIL
SCALE • N.T.S.

NOTE: STRIP SOD & PLACE MULCH TO BE PAID AS PART OF THE BIOSWALE CONSTRUCTION

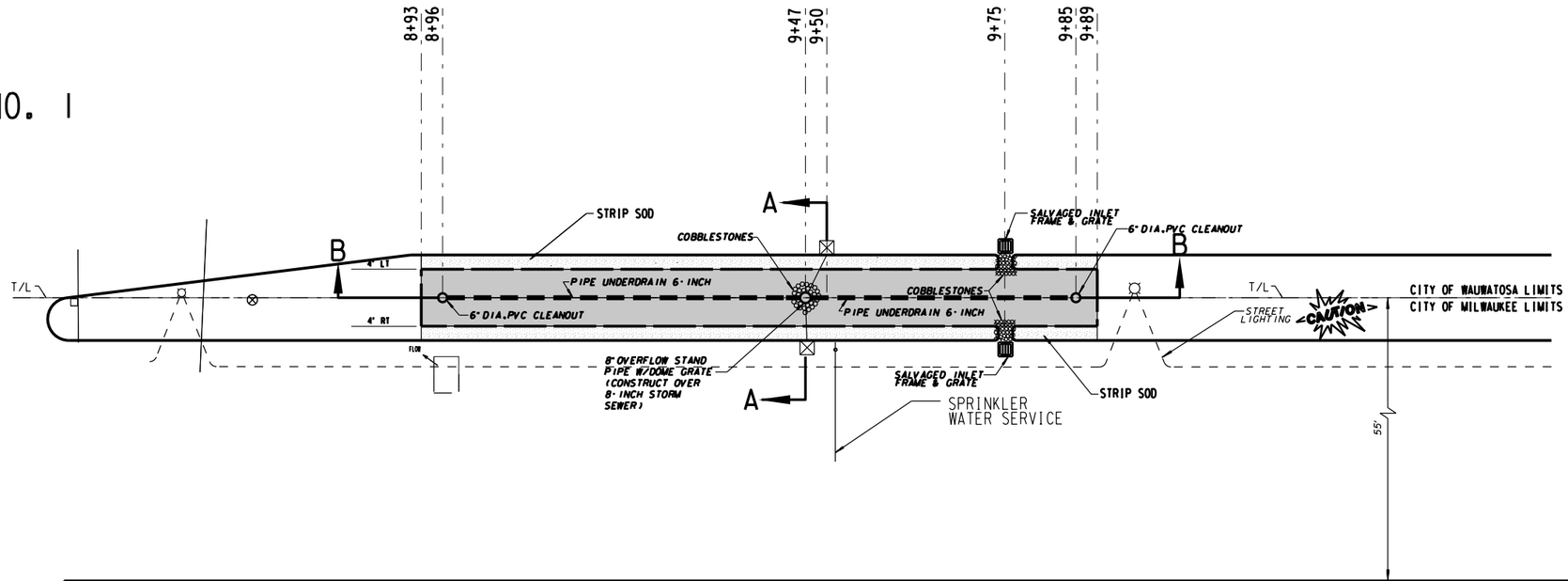
NOTE: MULCH IS INCIDENTAL TO THE BIOSWALE PLANTINGS. SEE BIOSWALE PLANS

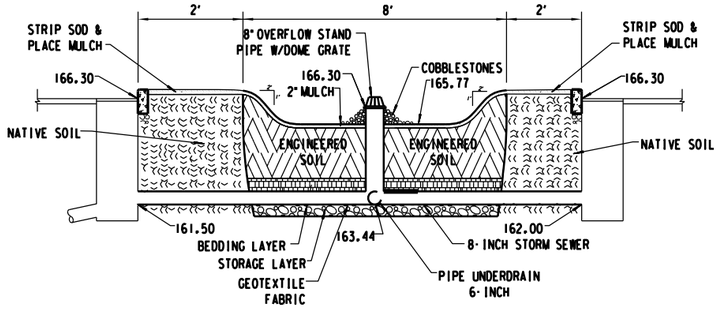
STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE DETAIL	SCALE FEET 0' 20'	SHEET NO: 86 E

FILE NAME: W:\

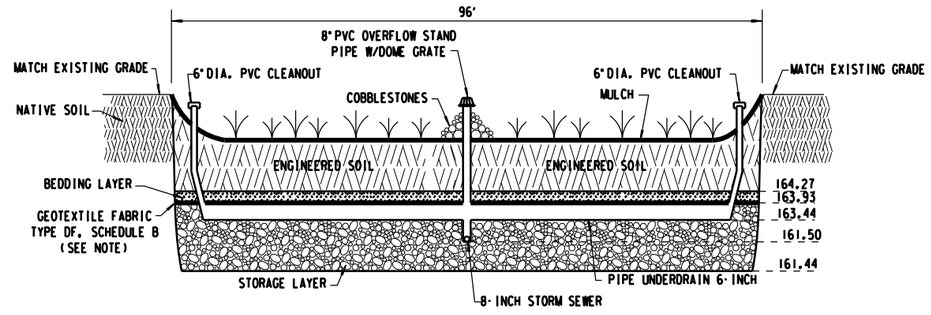
2

BIO-SWALE NO. 1





SECTION A–A
SCALE - N.T.S.



SECTION B–B
SCALE - N.T.S.

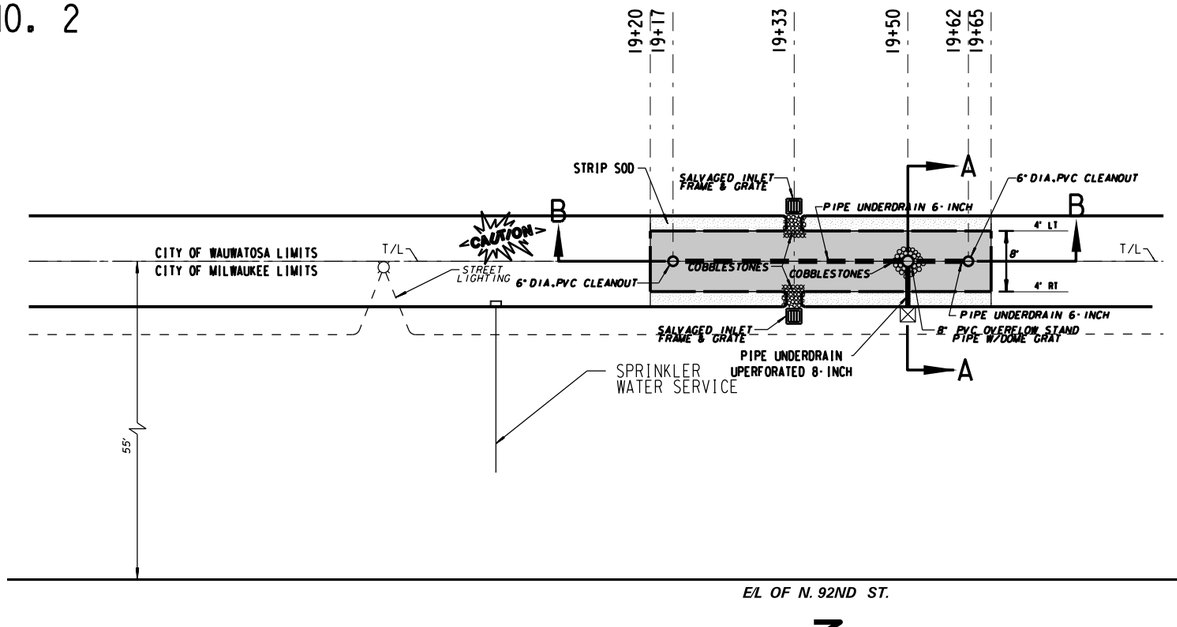
NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

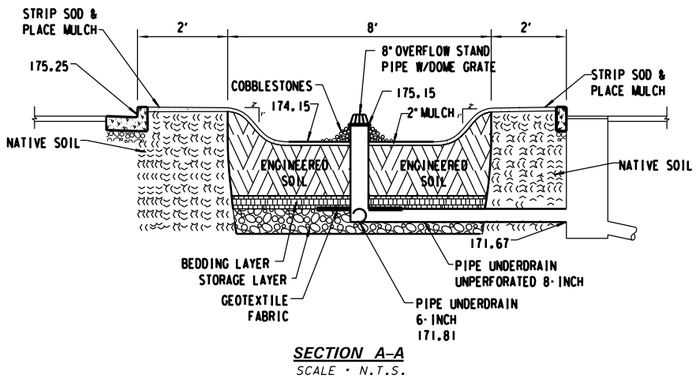
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 87	E

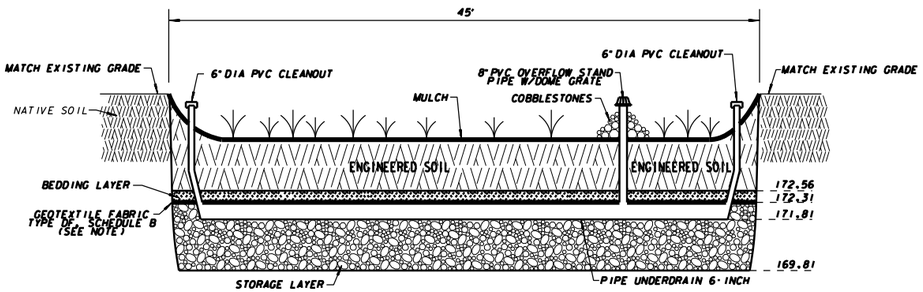
FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

BIO-SWALE NO. 2





SECTION A-A
SCALE - N.T.S.



SECTION B-B
SCALE - N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

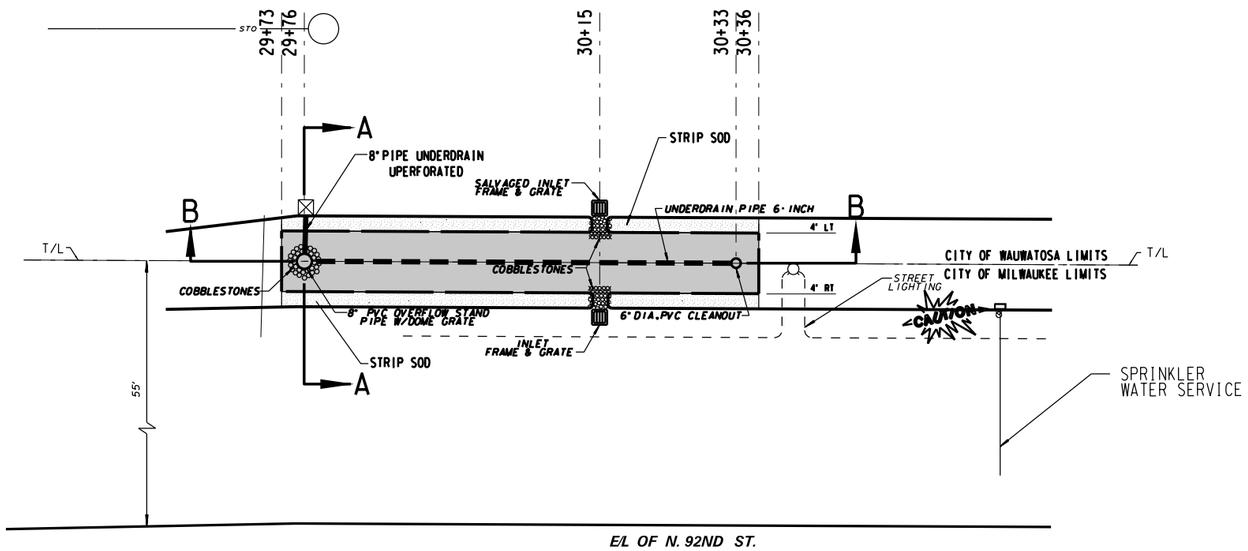
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

2

BIO-SWALE NO. 3



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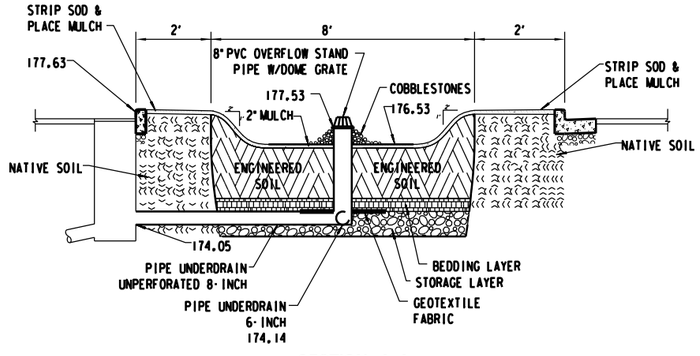
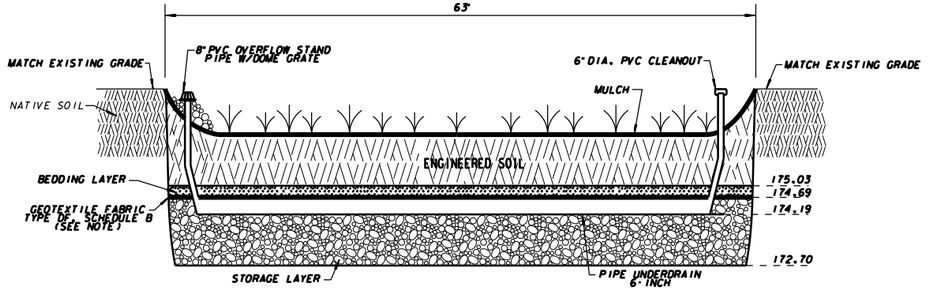


SECTION A-A
SCALE · N.T.S.



SECTION B-B
SCALE · N.T.S.

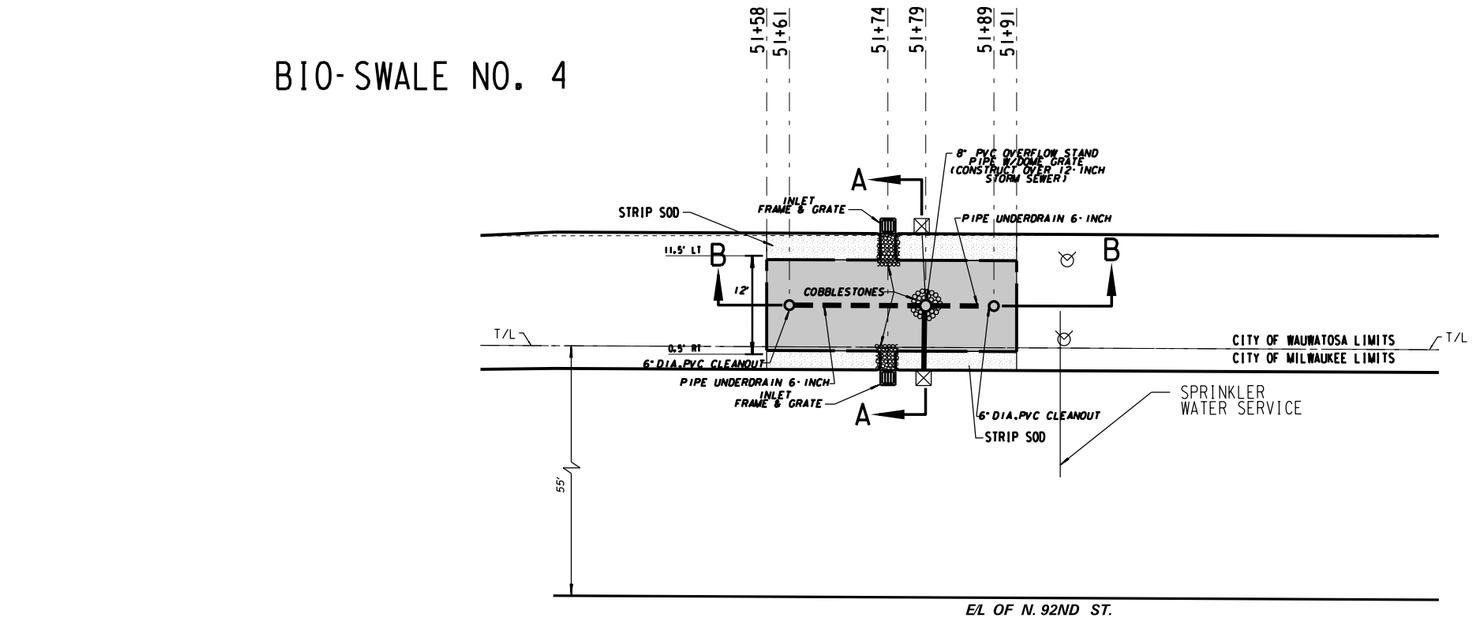
NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO: 89	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

BIO-SWALE NO. 4



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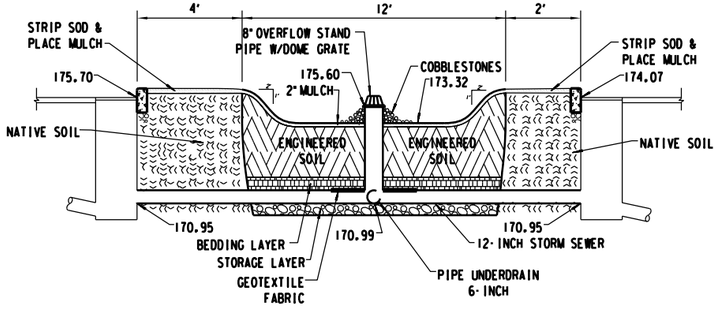
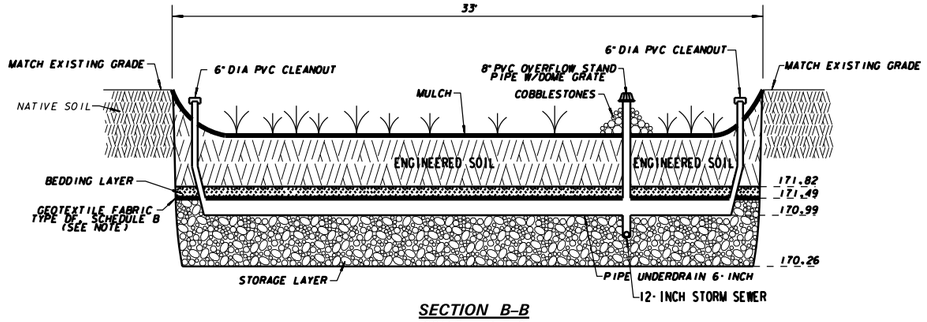


SECTION A–A
SCALE • N.T.S.



SECTION B–B
SCALE • N.T.S.

NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

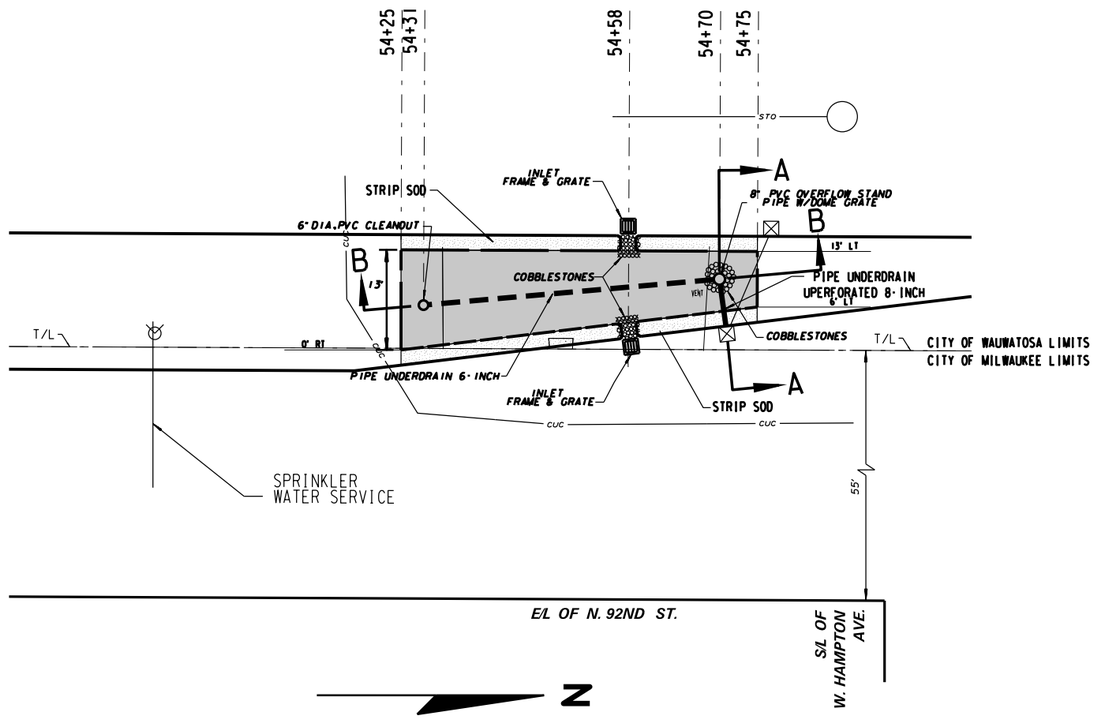
NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS. EXTEND FABRIC 1' ON EITHER SIDE.

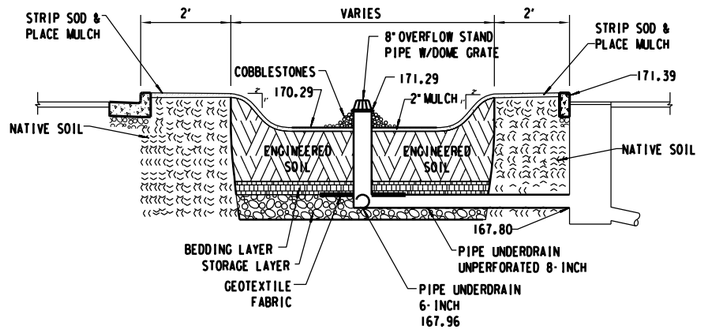
STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO:

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

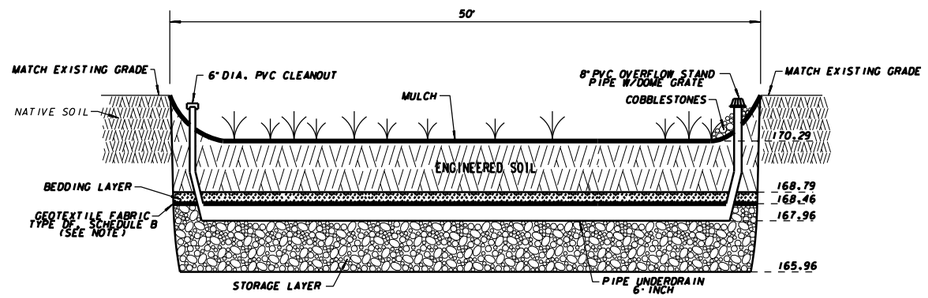
2

BIO-SWALE NO. 5





SECTION A–A
SCALE · N.T.S.



SECTION B–B
SCALE · N.T.S.

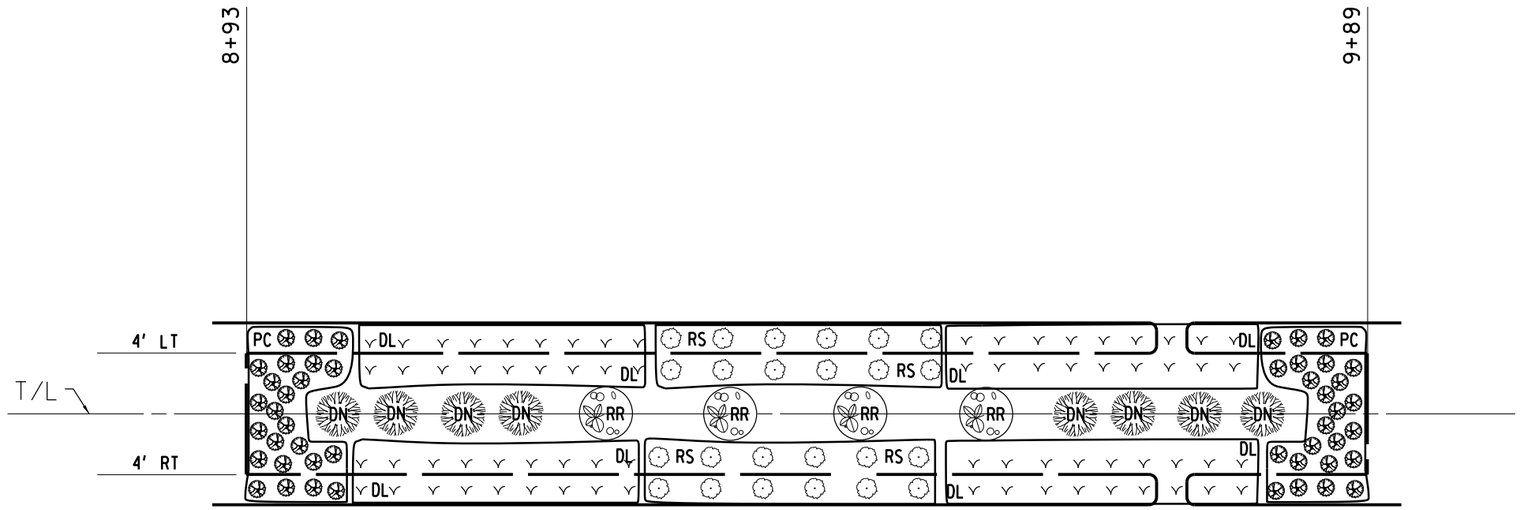
NOTE: ALL AREAS WITH SOD STRIPPING SHALL BE PLANTED AND MULCHED ACCORDING TO THE BIOSWALE PLANS.

NOTE: DO NOT WRAP FILTER FABRIC AROUND PERFORATED UNDERDRAINS, EXTEND FABRIC 1' ON EITHER SIDE.

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 20'	SHEET NO:

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

BIO-SWALE NO. 1
NORTH 92ND STREET



SHRUBS

(8)	DN	DIABLO NINEBARK
(4)	RR	RUGASA ROSES

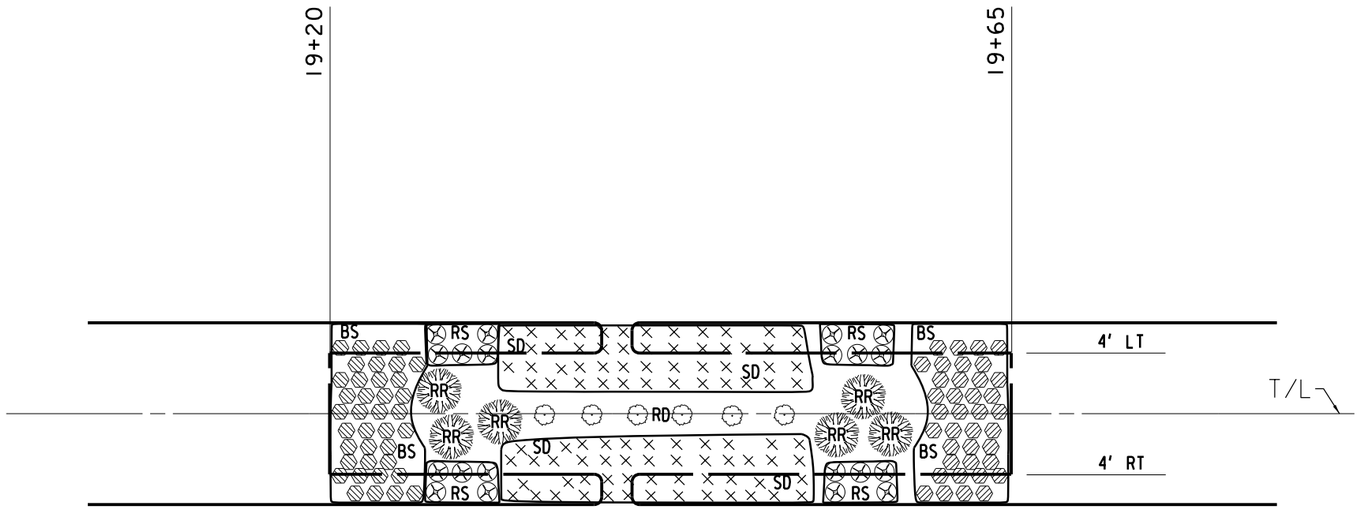
PERENNIALS, GRASS, AND BULBS

(24)	RS	RUSSIAN SAGE
(48)	PC	PURPLE CONEFLOWER
(72)	DL	DAYLILES-HAPPY RETURNS

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 92	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

BIO-SWALE NO. 2
NORTH 92ND STREET



SHRUBS

(5)	RD	RED TWIG DOGWOODS
(6)	RR	RUGASA ROSES

PERENNIALS, GRASS, AND BULBS

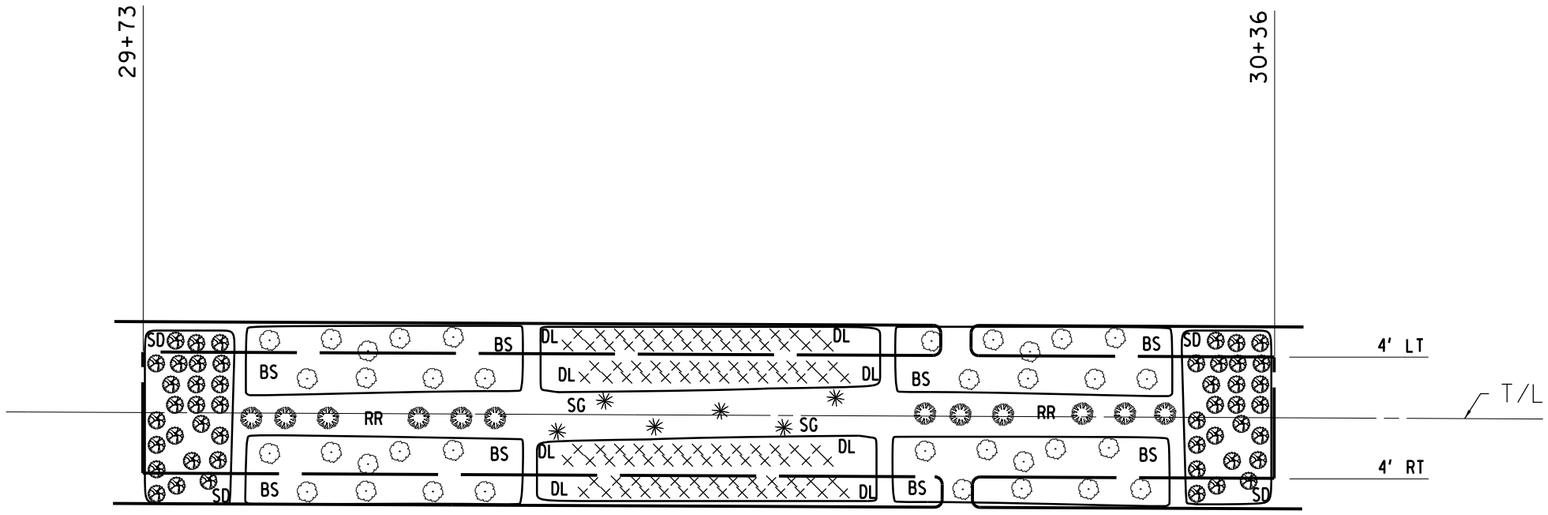
(72)	BS	BLACK EYED SUSAN
(96)	DL	DAYLILES- HAPPY RETURNS
(20)	SG	RUSSIAN SAGE

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 93	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

2

BIO-SWALE NO. 3
NORTH 92ND STREET



SHRUBS

(10)	RR	RUGASA ROSES
(6)	SG	SEA GREEN JUNIPER

PERENNIALS, GRASS, AND BULBS

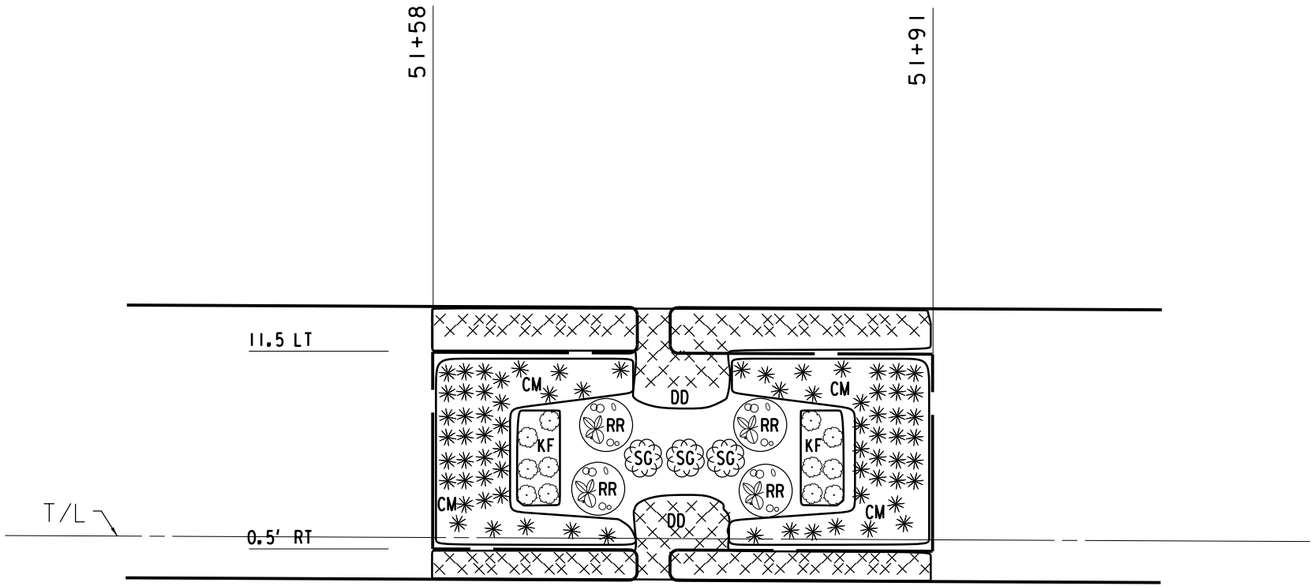
(108)	DL	DAYLILIES-HAPPY RETURNS
(72)	BS	BLACK EYED SUSANS
(48)	SD	SHASTA DASIY

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 94	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

2

BIO-SWALE NO. 4
NORTH 92ND STREET



SHRUBS

(4)	RR	RUGOSA ROSES
(3)	SG	SEA GREEN JUNIPER

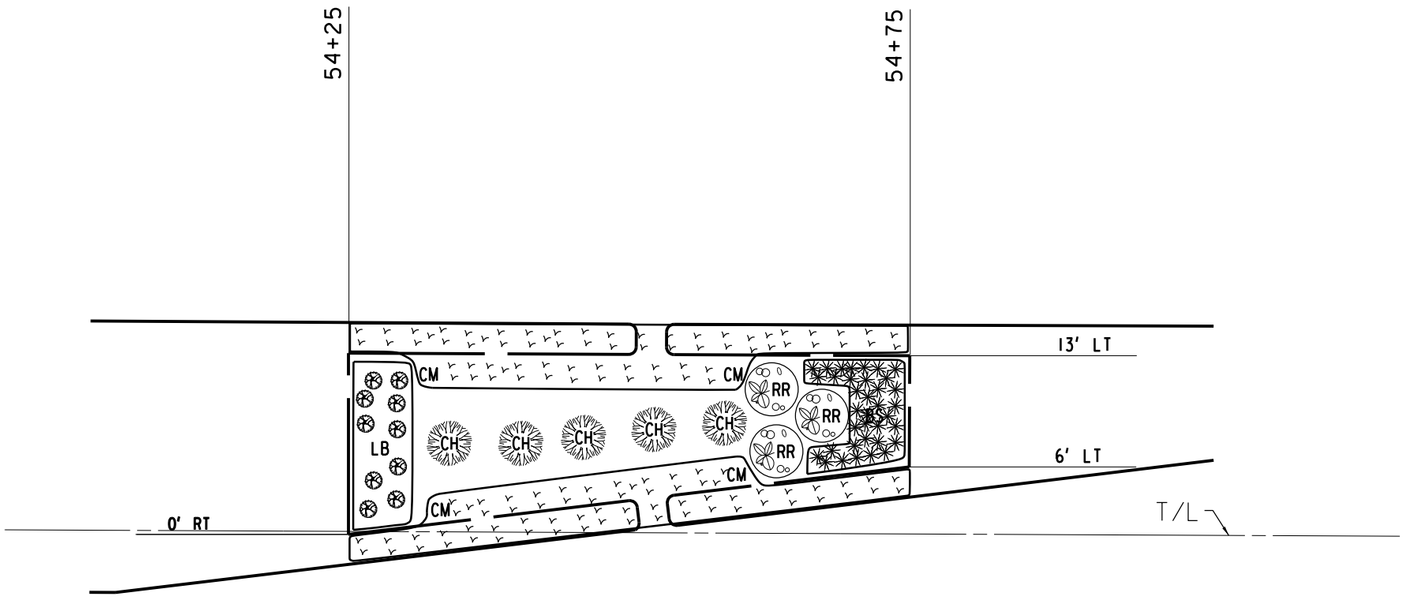
PERENNIALS, GRASS, AND BULBS

(12)	KF	KARL FOERSTER GRASS
(136)	DD	DWARF DAYLILIES
(72)	CM	CATMINT

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: 95	E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

BIO-SWALE NO. 5
NORTH 92ND STREET



SHRUBS

(5)	CH	COOL SPLASH HONEYSUCKLE
(4)	RR	RUGOSA ROSES

PERENNIALS, GRASS, AND BULBS

(10)	LB	LITTLE BUNNY GRASS
(36)	BS	BLACK EYED SUSANS
(72)	CM	CATMINT

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	BIO-SWALE PLAN	SCALE FEET 0' 10'	SHEET NO: E

FILE NAME: W:\SEW\SNDRAFT\BIOSWALES\N.92ND\N92ND.SMP

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

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

2 LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.

3 TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.

4 DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)

5 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT A DISTANCE OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND 18 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.

6 WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH.

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

8 THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

9 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.

10 ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)

11 PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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

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

14 PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.

15 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 UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

16 WHEN ENDS OF CONDUIT DO NOT CONNECT TO A PULL BOX / VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)

17 ALL PIPE CROSSINGS AND PULL BOXES / VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

18 ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)

19 TYPICAL RECTANGULAR PULL BOXES / VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

20 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/ VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 OR DISPATCHER @ 414-286-3687

TRAFFIC & STREET LIGHTING GENERAL NOTES:

21 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

22 CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

Provide as-built drawings detailing the final placement of conduit, cabling, equipment, and geometric modifications under the contract. Provide PDF copy conforming to CMM 1-65.14. The engineer will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

Record all changes in Red ink Only on the As-Let (Design) paper drawings.

It is critical that the Contractor work on the As-Built drawings while the job is progressing, so changes are documented while they are still fresh in your mind.

If there is a structure drawing, include all structures drawing sheets. It is the responsibility of the Contractor to insert any addendum or replacement drawing sheets. To do this, renumber them similarly to the original drawing sheet.

For example, "Revised Sheet 5" would replace sheet 5. However all original sheets shall remain in the As-Built. If the sheet has been replaced cross it out with an x and indicate the number of its replacement sheet. If additional sheets were added insert them in the logical location and label them with the previous sheet number followed by an "A","B","C", etc.

Note the sheet changes on the title sheet under the ORDER OF SHEETS.

The title sheet of the As-Built drawing should include the following info:

AS-BUILT DRAWING
SUPERVISER:
PROJECT MANAGER:
CONTRACTOR LEADER:
CONTRACTOR COMPANY:
WORK STARTED:
WORK COMPLETED:
Line out or cross out all changed information and write-in the corrected information above the original or close to it where ever possible. Use blank spaces on the drawing so notes are not superimposed. Drawings with excessive detail may require an alternate approach. Numbered changes or additions may-be shown on supplemental non-drawing sheets.

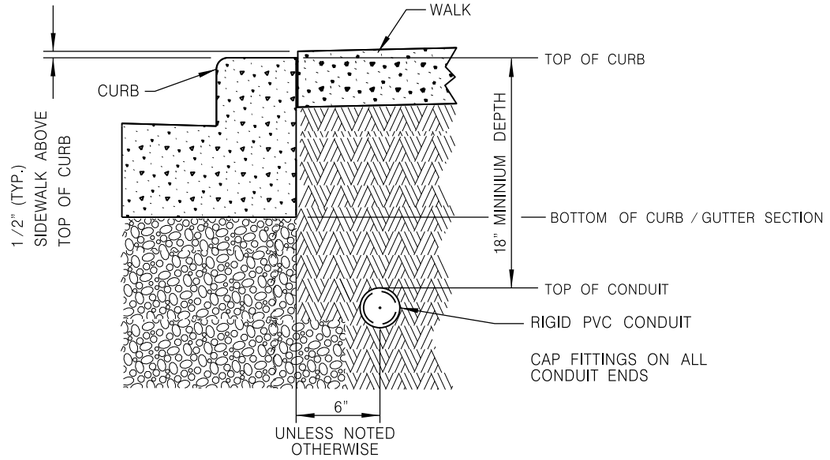
< Locate and clearly label all conduit runs, fittings, splice vaults, pull boxes, meter pedestals, concrete bases, transformers, poles and other appurtenances in two directions. Swing ties should be made from objects that are permanent in nature and visible on the finished surface.
< Street names shall be on all sheets.
< Show all sizes and material types of pipes and conduits, if changed or modified from original design.
< All horizontal distances shall be shown to the nearest tenth of a foot (i.e., 205.3'). All vertical distances shall be shown to the nearest inch (i.e., 24").
< Show location and elevations on pipes and fittings where changes or deflections in direction occur.
< Special detail drawings may be required where installations are not shown on approved construction drawings for whatever reason or where required for clarity.
< Typical service installation details with deviations from original plans or standard details shall be noted on as-built drawings.
< No arbitrary mark-ups will be permitted.

If there are no corrections or additions to the As-Let plan(s) put "NO CHANGE" on the sheet with other required As-Built information.
Send to:
City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & CUC Engineering Manager
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

SHEET: 1 OF 11

PROJECT NO:2585–00–70	HWY: N. 92nd St.	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 97	E

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



100 DETAIL "A"

NOT TO SCALE

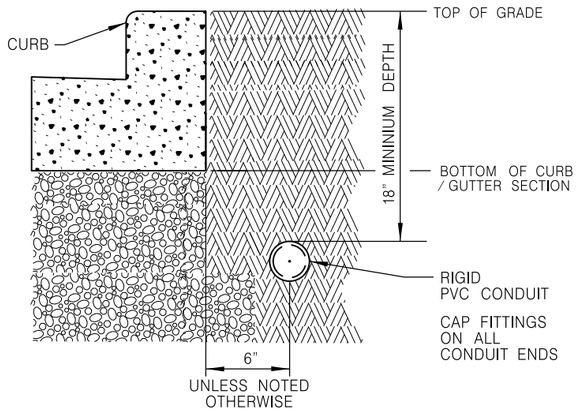
TYPICAL CONDUIT INSTALLATION BEHIND CURB

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

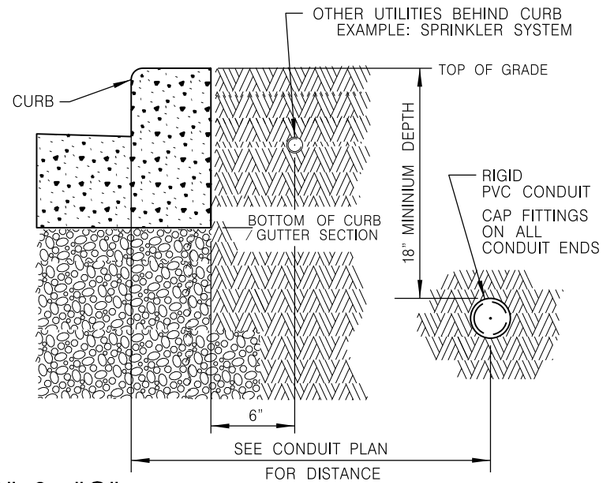
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED 6" ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



DETAIL "C"



100 DETAIL "B" & "C"

NOT TO SCALE

TYPICAL CONDUIT INSTALLATION BEHIND CURB

SHEET 2 OF 11

PROJECT NO: 2585–00–70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET 98	E

FILE NAME : W:\bes\pavings\2017work\n92nd St – Capitol to Hampton (2585–00–70)\2585–00–70 n92nd St. – Conduit– Oct 31–2016.dgn
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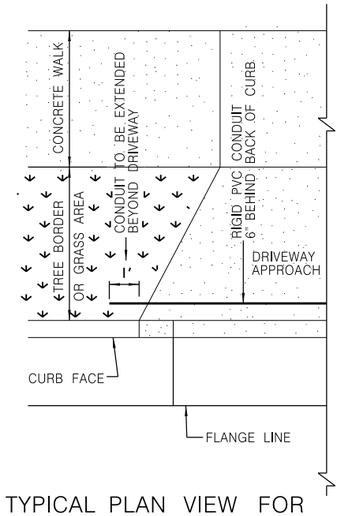
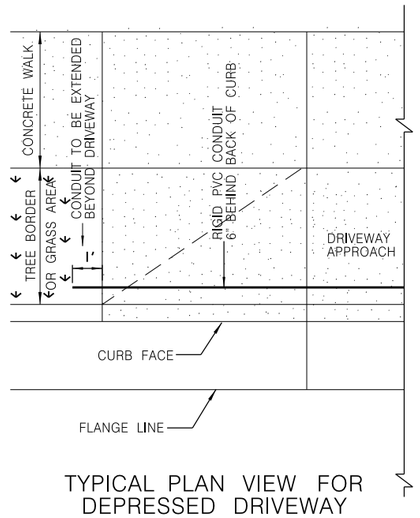
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

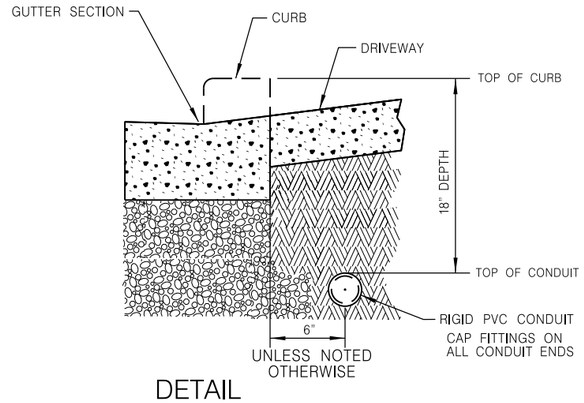


TYPICAL PLAN VIEW FOR FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR DEPRESSED DRIVEWAY

NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED 6 INCHES ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.

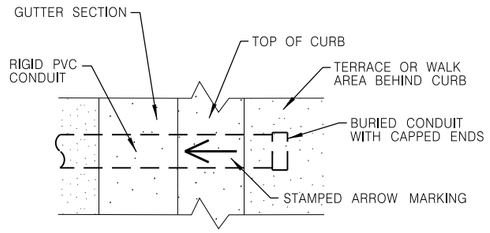


101 DETAIL

TYPICAL CONDUIT INSTALLATION UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

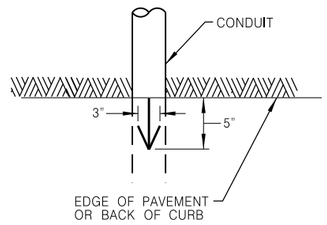


TOP VIEW OF CURB STAMPING

NOT TO SCALE

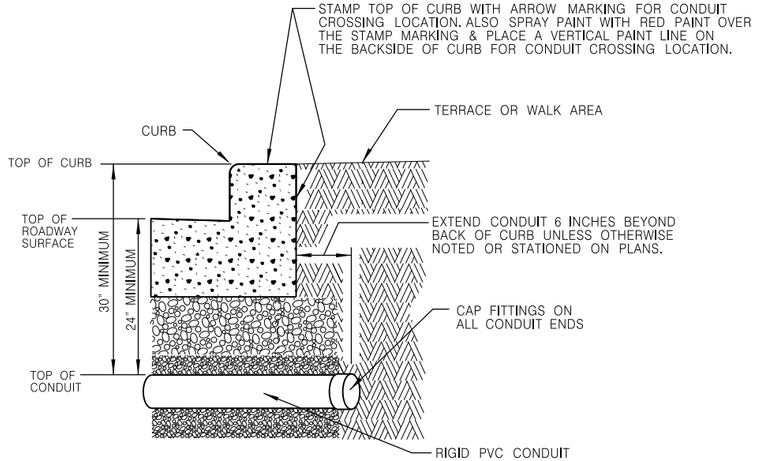
NOTE:

ARROW MARK SHALL BE INSCRIBED IN PAVEMENT SURFACE 1/4-INCH TO 3/8-INCH DEEP AT EACH LOCATION WHERE CONDUITS ARE PLACED UNDER THE PAVEMENT.



ARROW MARK

NOT TO SCALE



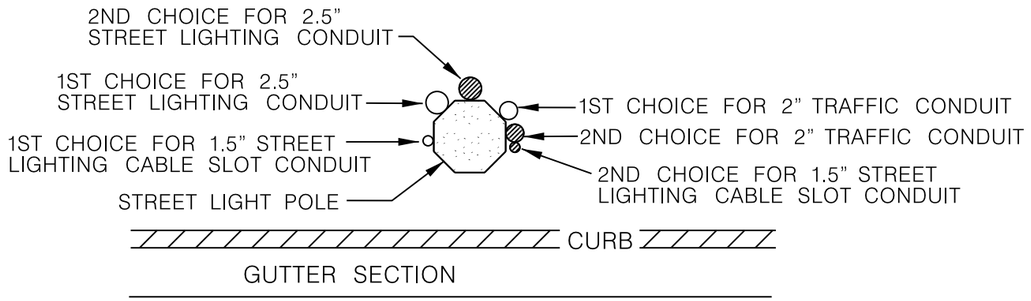
102 DETAIL VERSION #1

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

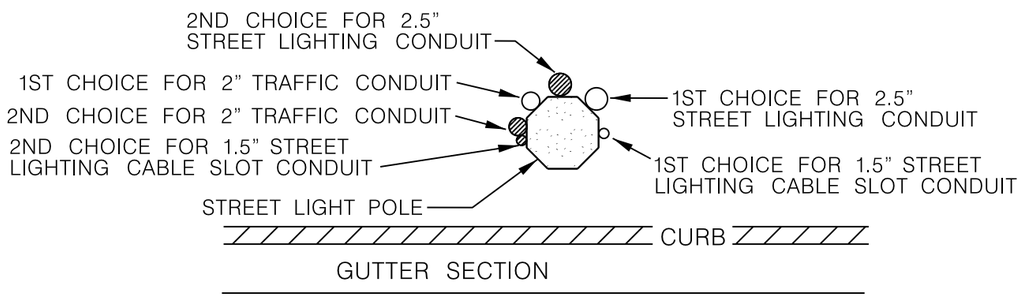
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOTE: CAP FITTINGS ON CONDUIT ENDS



DIRECTION OF TRAFFIC AT CURB



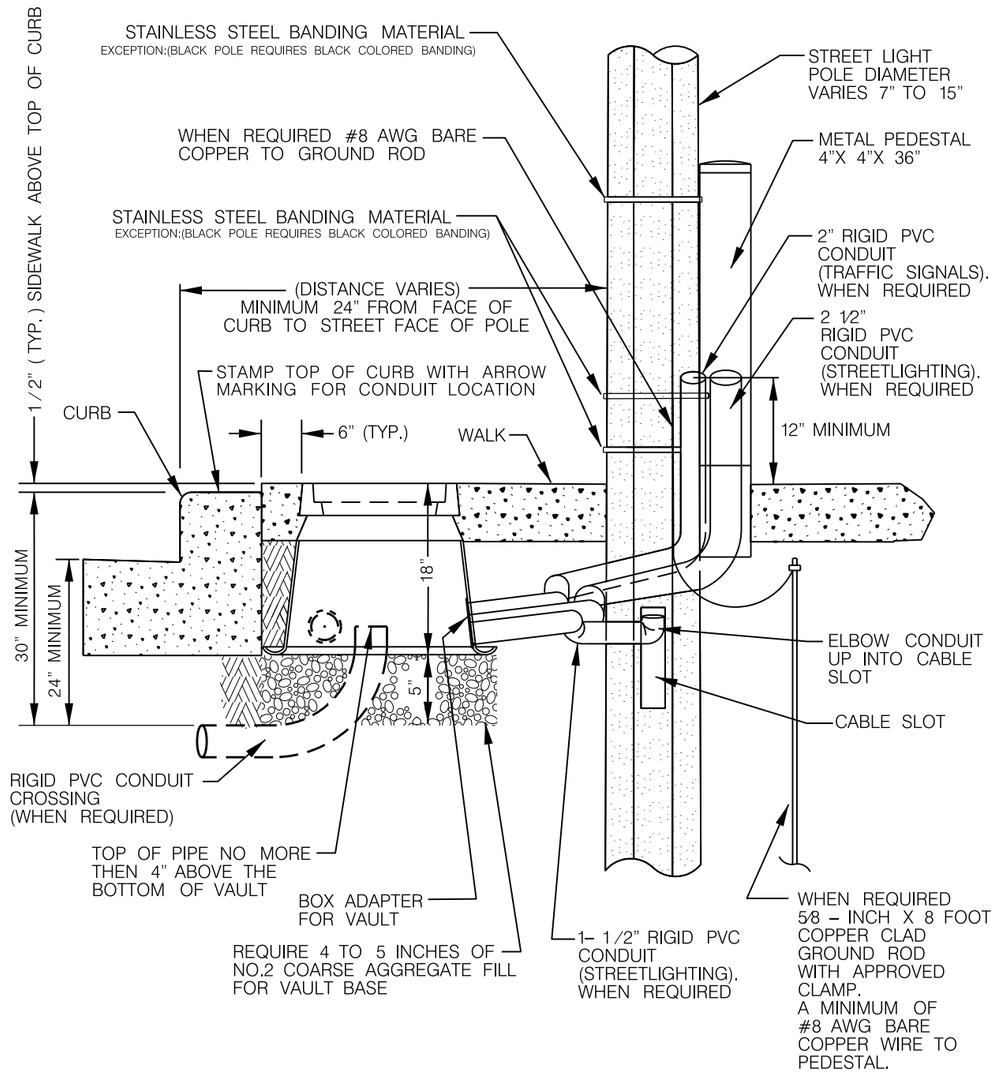
DIRECTION OF TRAFFIC AT CURB

104 DETAIL

TYPICAL TRAFFIC SIGNAL RISER AND STREET LIGHTING CONDUIT LOCATIONS ON LIGHT POLES DEPENDING ON DIRECTION OF TRAFFIC AT CURB

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC / STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

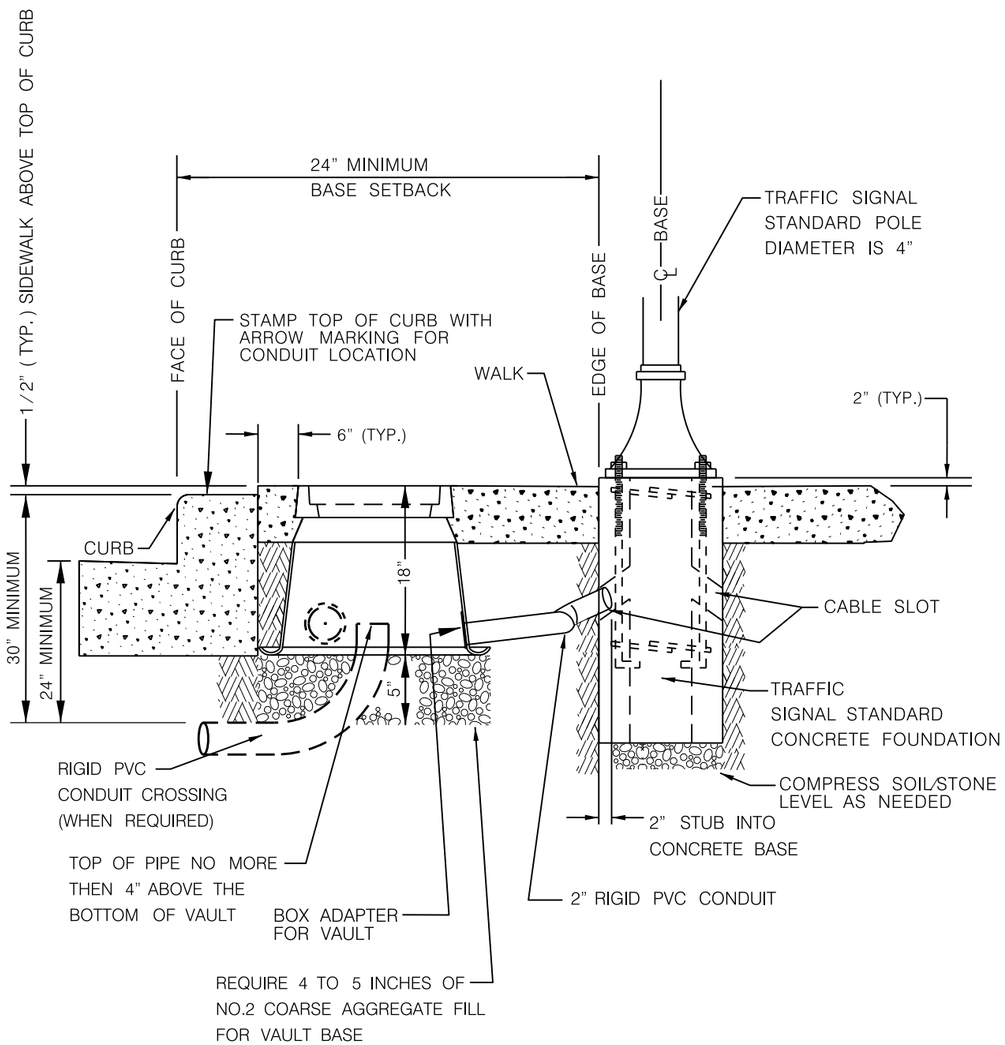


108 DETAIL VERSION #1

TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

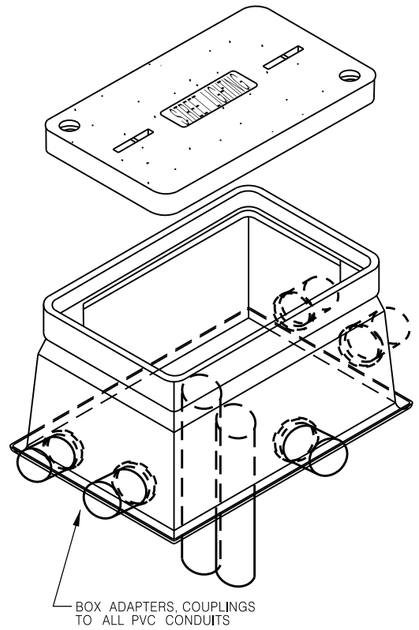


109 DETAIL

NOT TO SCALE

TYPICAL CONDUIT INSTALLATION FROM VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



112 DETAIL

TYPICAL VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

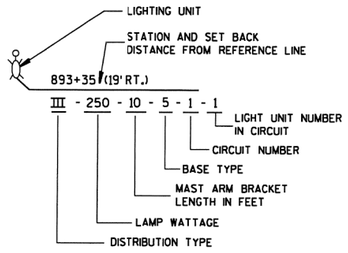
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

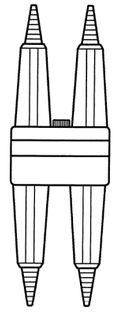
SHEET 8 OF 11

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET 104	E

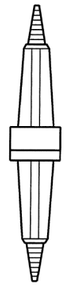
FILE NAME : W:\bes\pavings\2017work\n92nd St – Capitol to Hampton (2585-00-70)\2585-00-70 n92nd St. – Conduit– Oct 31-2016.dgn PLOT DATE : 31-OCT-2016 14:45 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



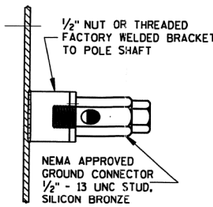
LIGHTING UNIT CODE
(TYPICAL)

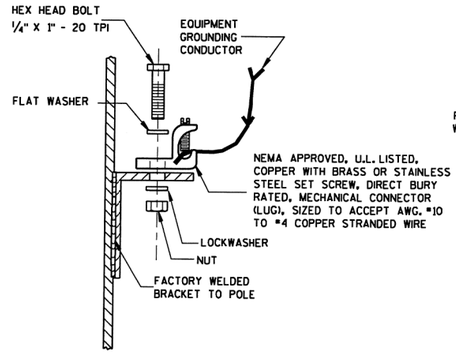


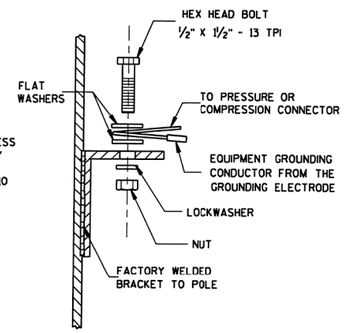
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



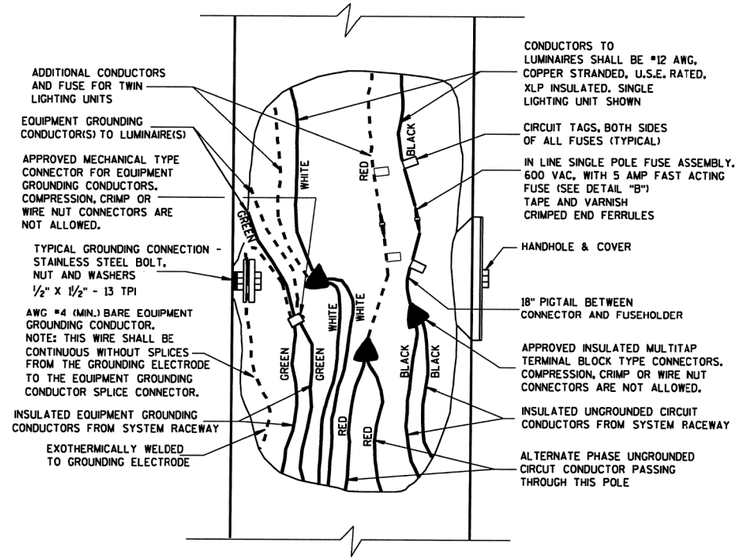
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



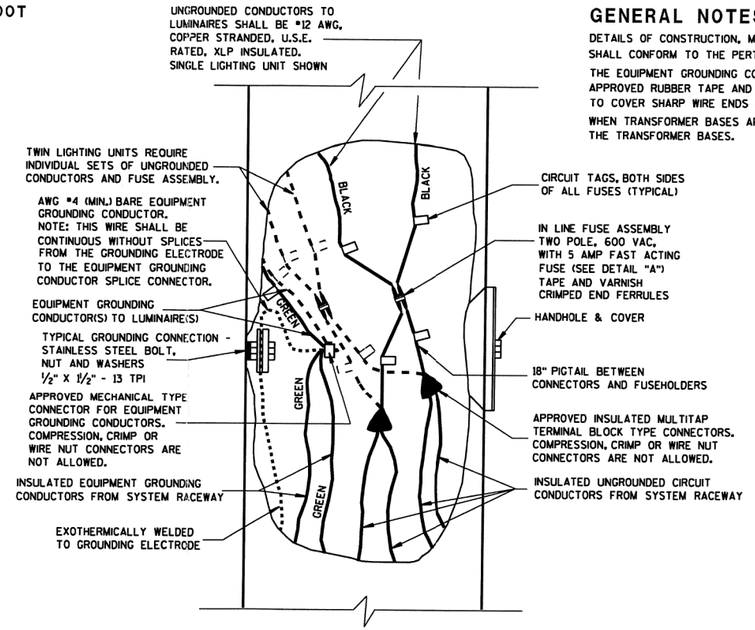




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR



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

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 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.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

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 AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

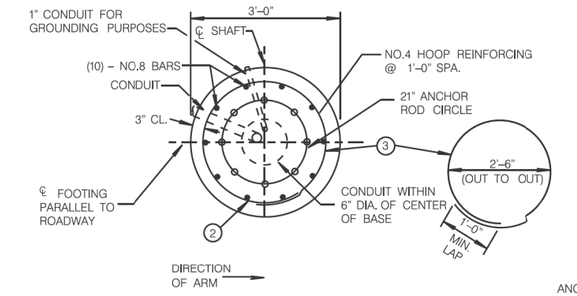
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

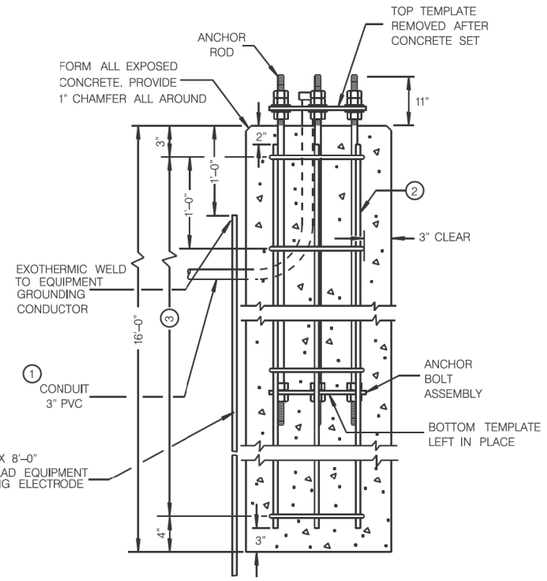
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (10) NO. 8 X 15'-7" BAR STEEL REINFORCEMENT.

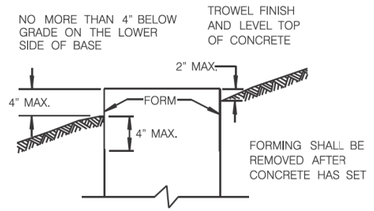
(3) (17) NO. 4 X 9'-0" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

CONCRETE MASONRY ——— fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55 ——— fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36 ——— fy = 36,000 p.s.i.

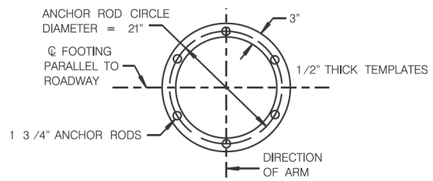




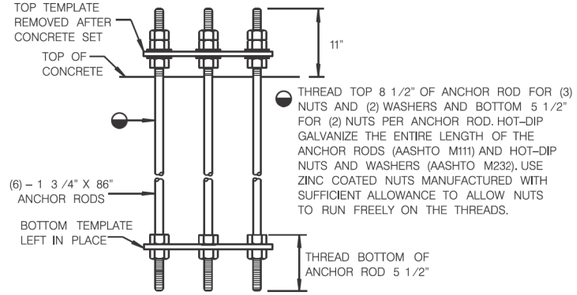
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.19
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	417

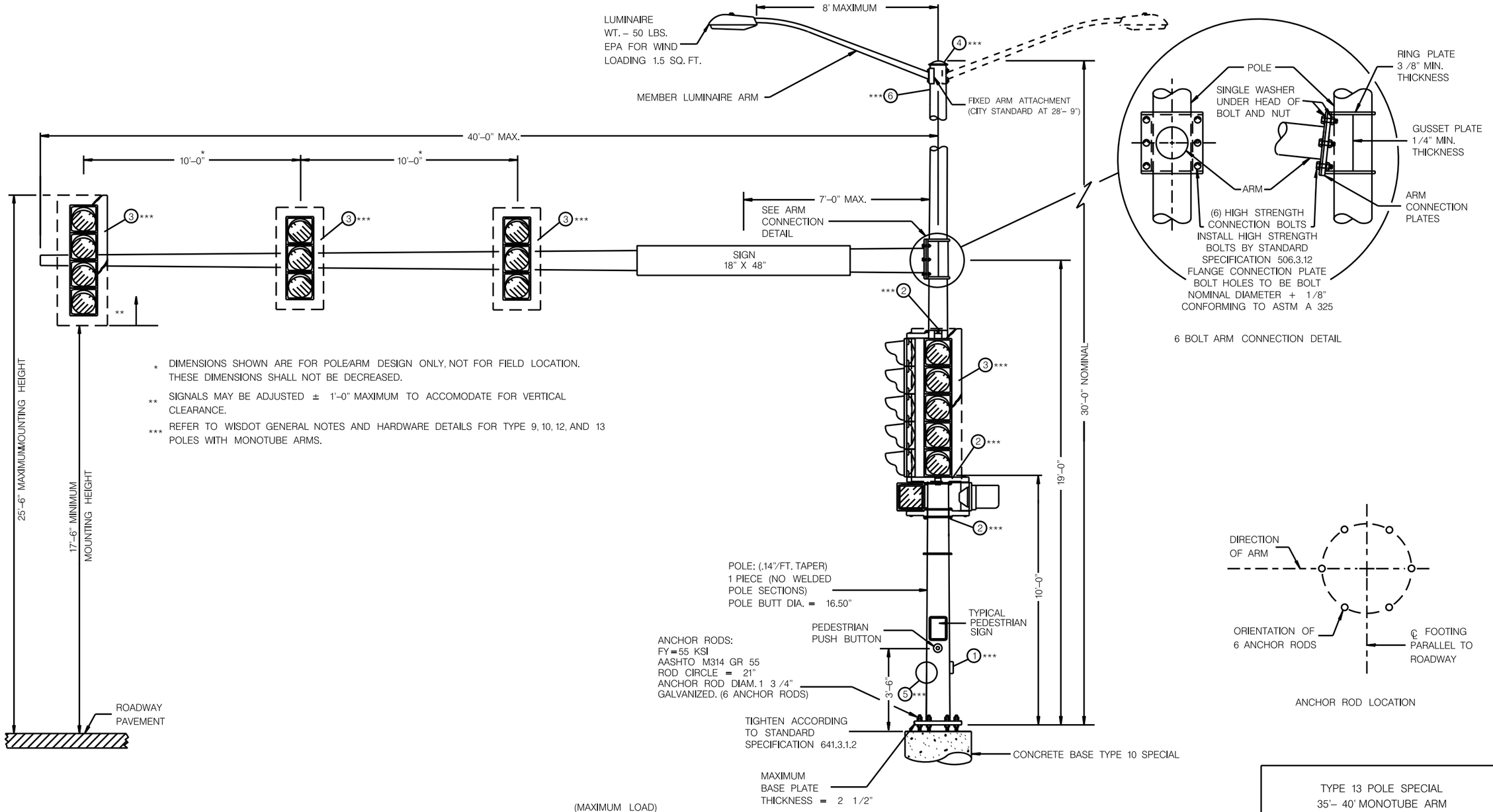
CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)

SHEET 10 OF 11

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET 106	E



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

SHEET: X

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)

SHEET 11 OF 11

0000–00–00

PROJECT NO: 2585–00–70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL DETAILS	SHEET 107	E

2

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL

N

POLE ADDRESS

ADDRESS LOCATION

TRAFFIC

CURB

PLACE ADDRESS 6'-0" ABOVE GRADE

W. CAPITOL DR.

N. 92 ST.

CITY OF MILWAUKEE

CITY OF WAUWATOSA

CITY OF WAUWATOSA

CITY OF MILWAUKEE

LIGHT BASE

BUS SHELTER

LOC. UNKNOWN

#4010 LIGHT POLE ATBM-H-D2 RETURN EXISTING COBRA FIXTURE TO CITY

CONNECT TO EXIST. UNIT #4010

CONNECT TO EXISTING 2.5"

2.5" INSTALLED 2' BACK OF CURB

2.5" INSTALLED CONNECT TO EXISTING 2.5"

DETAIL B 100

REMOVE BASE POLE REMOVED BY CITY

#4030 LIGHT POLE STA 4+92.0; 0' RT

#4044 LIGHT POLE STA 5+13.0; 0' RT

SECTION LINE

2+00

+50

3+00

4+00

5+00

3#4/1#8LTP T-3N-A IN CONDUIT

2.5" INSTALLED 2' BACK OF CURB

3#4/1#8LTP T-3N-A IN CONDUIT

2.5" INSTALLED 2' BACK OF CURB

3#4/1#8LTP T-3N-A IN CONDUIT

CONC.

60'

LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 1 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 108	E

2

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL

POLE ADDRESS
ADDRESS LOCATION
TRAFFIC
CURB
PLACE ADDRESS 6'-0" ABOVE GRADE

W. FIEBRANTZ

N. 92 ST.

CITY OF WAUWATOSA
CITY OF MILWAUKEE
N. 00° 56' 07" W.

AV.

DETAIL B 100
DETAIL I 102
112
108

#4068 LIGHT POLE STA 6+38.0; 0' RT
#4076 LIGHT POLE STA 7+58.0; 2.5' LT.
#4104 LIGHT POLE STA 8+62.0; 2' RT.
#4118 LIGHT POLE 9+98; 0' RT
#9137 LIGHT POLE

REMOVE BASE POLE REMOVED BY CITY

13"X24"X24" VAULT 7+63.5; 2.5' LT
13"X24"X24" VAULT 8+54.5; 2.0' RT
13"X24"X24" VAULT 7+64.3; 43.3' RT
13"X24"X24" VAULT 7+94.5; 64.3' RT
13"X24"X24" VAULT 8+53.5; 43.3' RT
13"X24"X24" VAULT

2.5" INSTALLED 2' BACK OF CURB

3#4/1#8LTP T-3N-A IN CONDUIT
3#6/1#8LTP T-3N-A IN CONDUIT
3#2/1#8LTP T-3N-A IN CONDUIT

2.5" SCH. 80
2.5" SPECIAL SCH. 80
2.5" CAP END

LEAVE 20' CABLE COIL IN VAULT

BUS STOP

ASPH.

LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 2 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 109	E

2

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

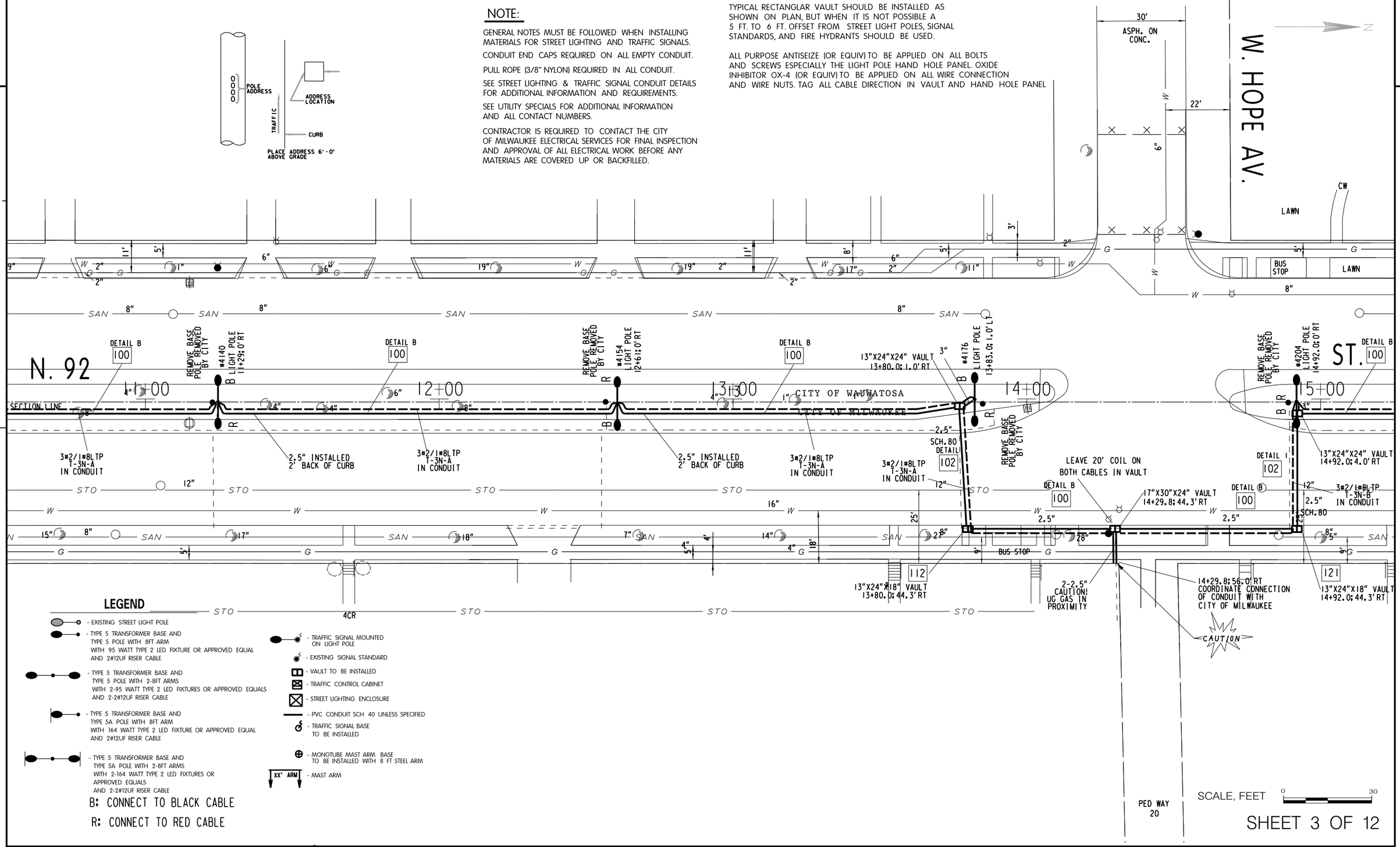
SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL



LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

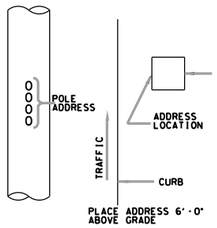
R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 3 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 110	E

2



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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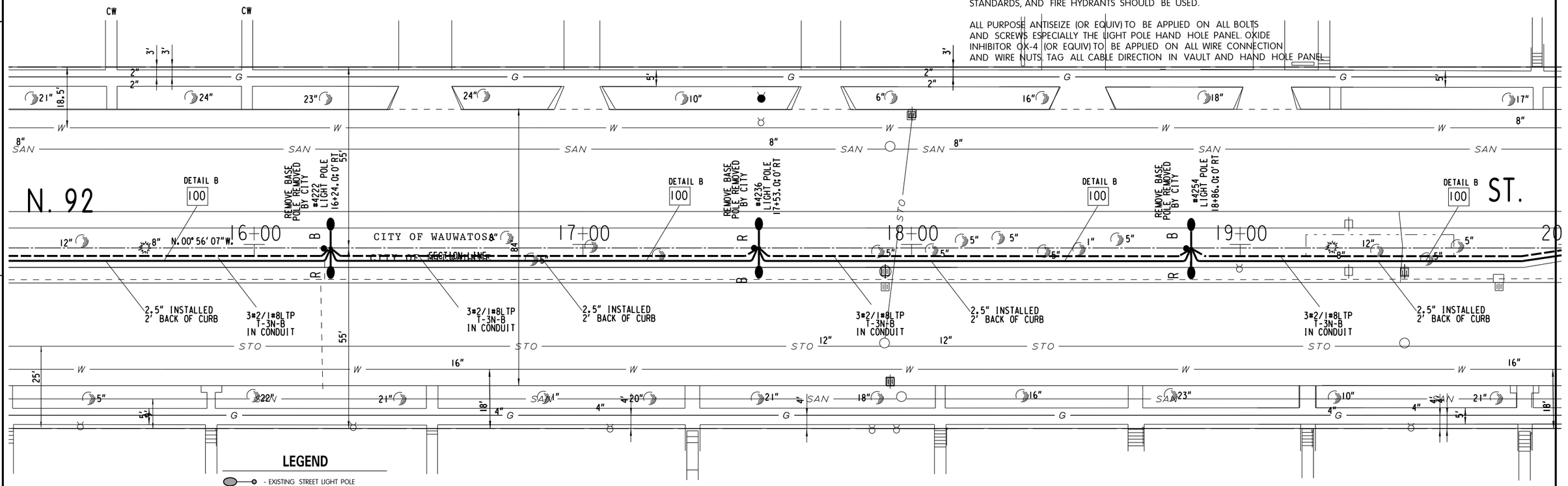

LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 15 OF 24

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 111	E

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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N

W. MARION ST.

N. 92 ST.

POLE ADDRESS
ADDRESS LOCATION
TRAFFIC
CURB
PLACE ADDRESS 6'-0" ABOVE GRADE

#4276 LIGHT POLE STA 20+13.0; 13"X24"X24" VAULT 20+22.3; 2.2' LT
REMOVE BASE POLE REMOVED BY CITY
#4304 LIGHT POLE STA 21+20.0; 13"X24"X24" VAULT 21+14.0; 2.0' RT
#4314 LIGHT POLE STA 22+40.0; 13"X24"X24" VAULT 21+14.1; 2.2' LT
#4334 LIGHT POLE STA 23+68.0;
DETAIL B 100
DETAIL 102
DETAIL I 112
13"X24"X24" VAULT 20+22.3; 44.3' RT
13"X24"X24" VAULT 20+50.8; 60.6' RT
13"X24"X24" VAULT 20+86.0; 60.6' LT
3#2/1#8LTP T-3N-B IN CONDUIT
2.5" INSTALLED 2' BACK OF CURB
2.5" SCH. 80
2.5" SPECIAL SCH. 80
CAUTION
BUS STOP
LAWN
SECTION LINE
CITY OF WAUWATOSA
CITY OF MILWAUKEE
N. 00°56'07"W.
ASPH.

LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 5 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 112	E

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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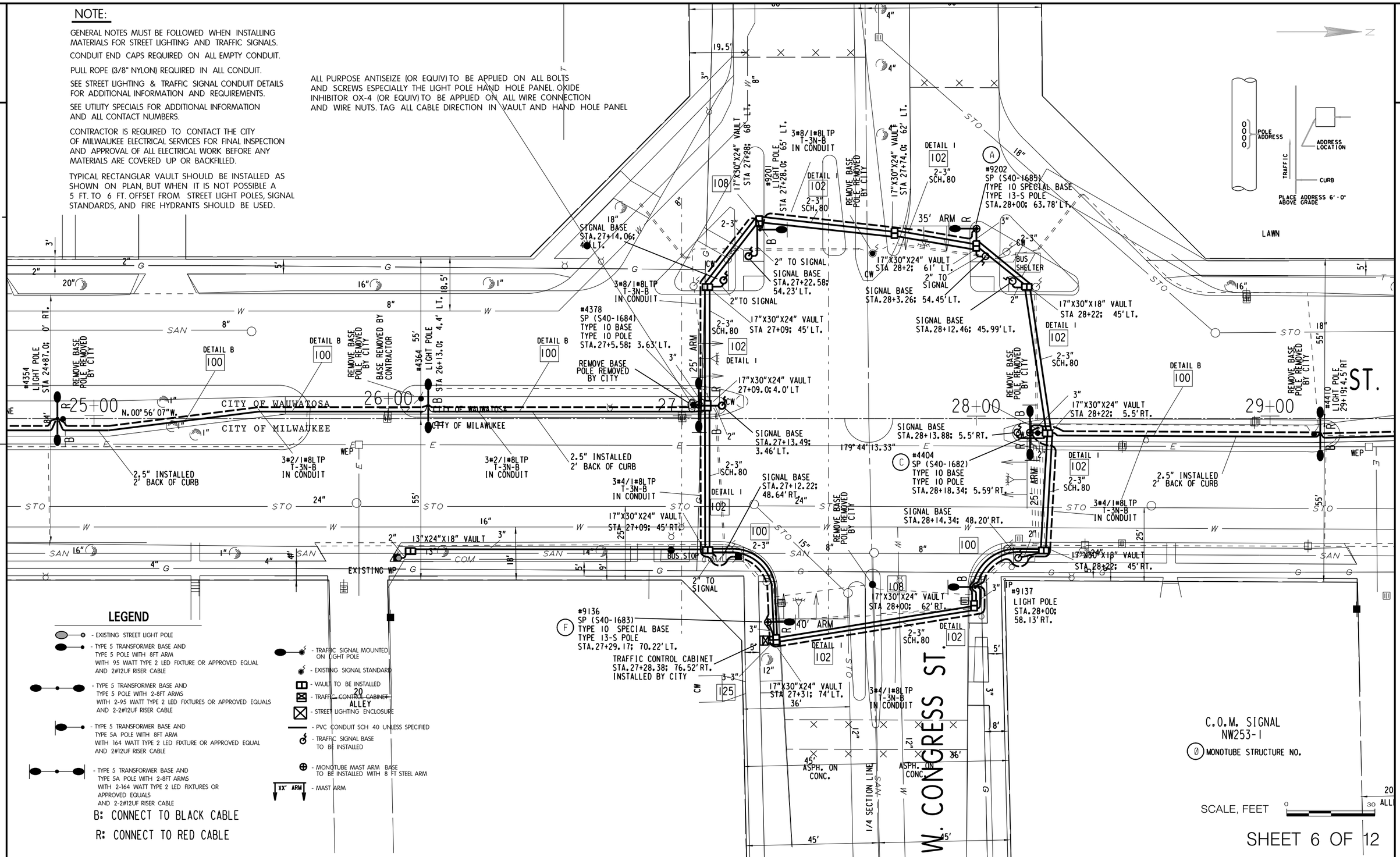


LEGEND

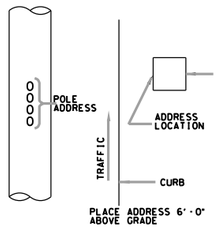
- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

PROJECT NO: 2585–00–70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 113	E



NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

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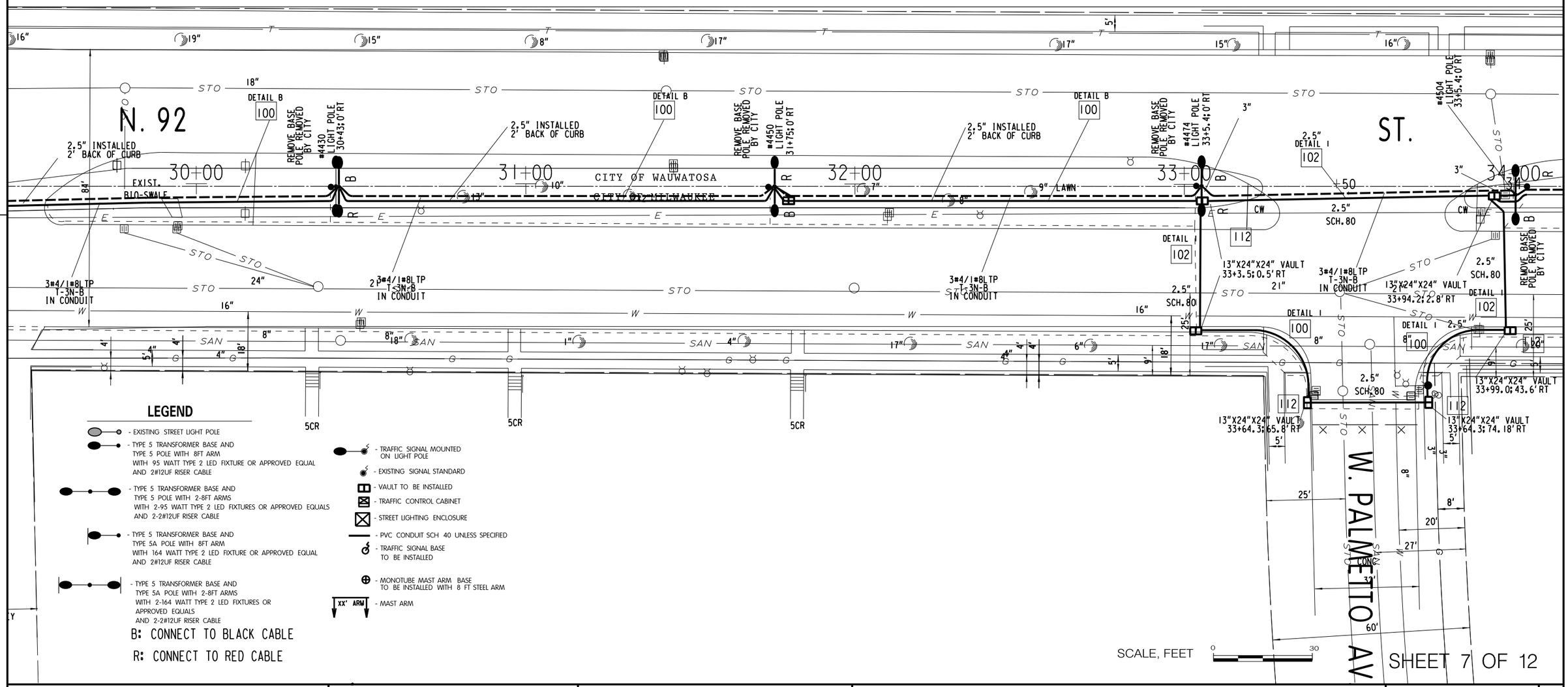
N



LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- xx' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SHEET 7 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 114	E

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

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POLE ADDRESS
ADDRESS LOCATION
TRAFFIC
CURB
PLACE ADDRESS 6'-0" ABOVE GRADE

N. 92 ST.
W. GRANTOSA DR.
CITY OF WAUWATOSA
CITY OF MILWAUKEE
BUS STOP
BUS SHELTER
CONC. CURB
VAULT
DETAIL B 100
DETAIL I 102
REMOVE BASE POLE, REMOVED BY CITY
#4534 LIGHT POLE 36+34; 2.2' LT
#4534 LIGHT POLE 35+42; 2.5' RT
#4534 LIGHT POLE 37+77; 3.5' RT
#4544 LIGHT POLE 38+67; 2.5' LT
#9136 LIGHT POLE STA 37+06; 65' RT.
2.5" INSTALLED 3.5' BACK OF CURB
2.5" INSTALLED 2' BACK OF CURB
2.5" SCH. 80
2.5" SPECIAL SCH. 80
3#4/1#8LTP T-3N-B IN CONDUIT
13"X24"X24" VAULT 36+37.5; 2.4' LT
13"X24"X24" VAULT 36+37.5; 43.7' RT
13"X24"X24" VAULT 36+58.6; 68.3' RT
13"X24"X24" VAULT 37+06.1; 70.0' RT
13"X24"X24" VAULT 37+73; 3.0' RT
13"X24"X24" VAULT 37+73.5; 70.0' RT
13"X24"X24" VAULT 37+51.3; 70.0' RT
ASPH. ON CONC.
SCALE, FEET 0 30

LEGEND

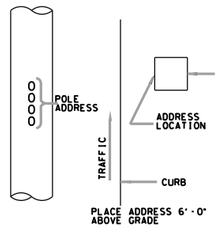
- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SHEET 8 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 115	E



NOTE:

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CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

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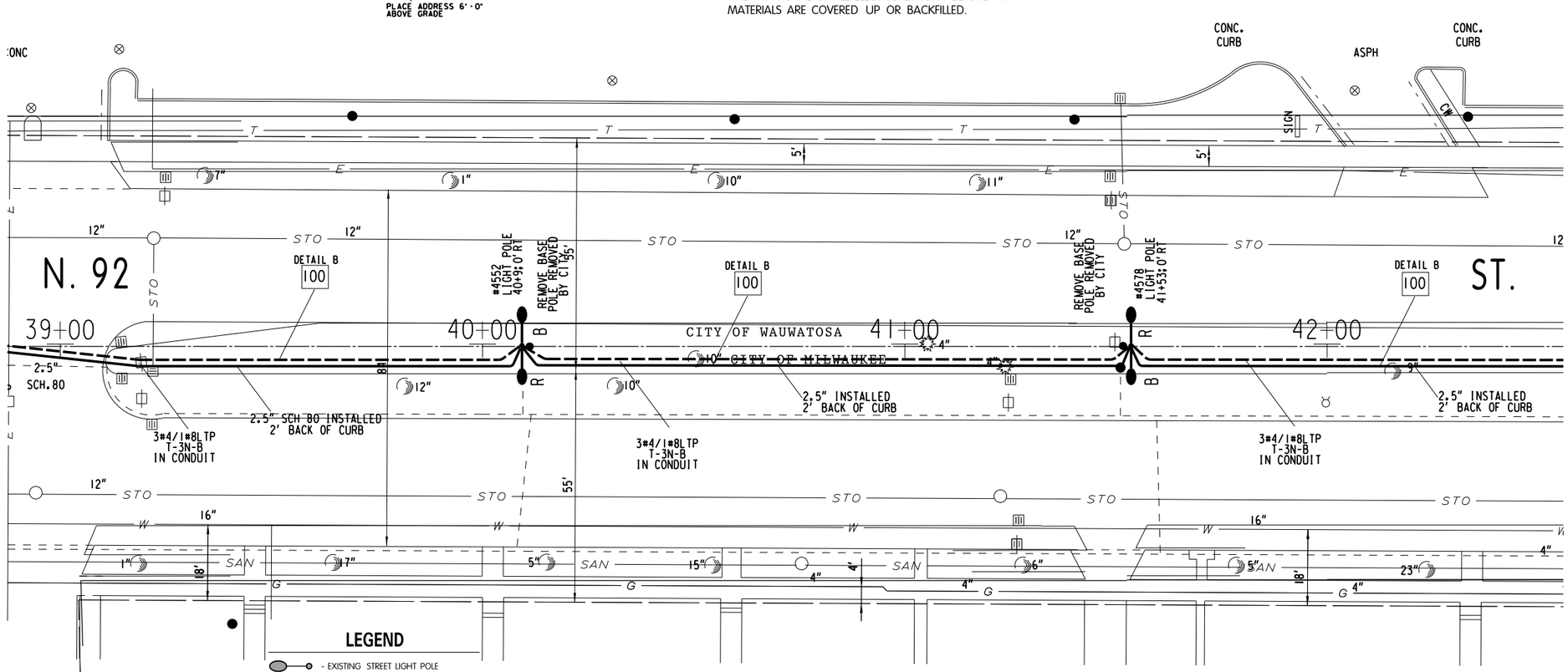


LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 9 OF 12

PROJECT NO: 2585–00–70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 116	E

2

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

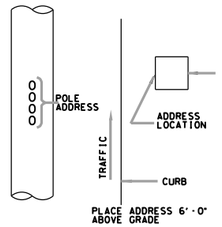
SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

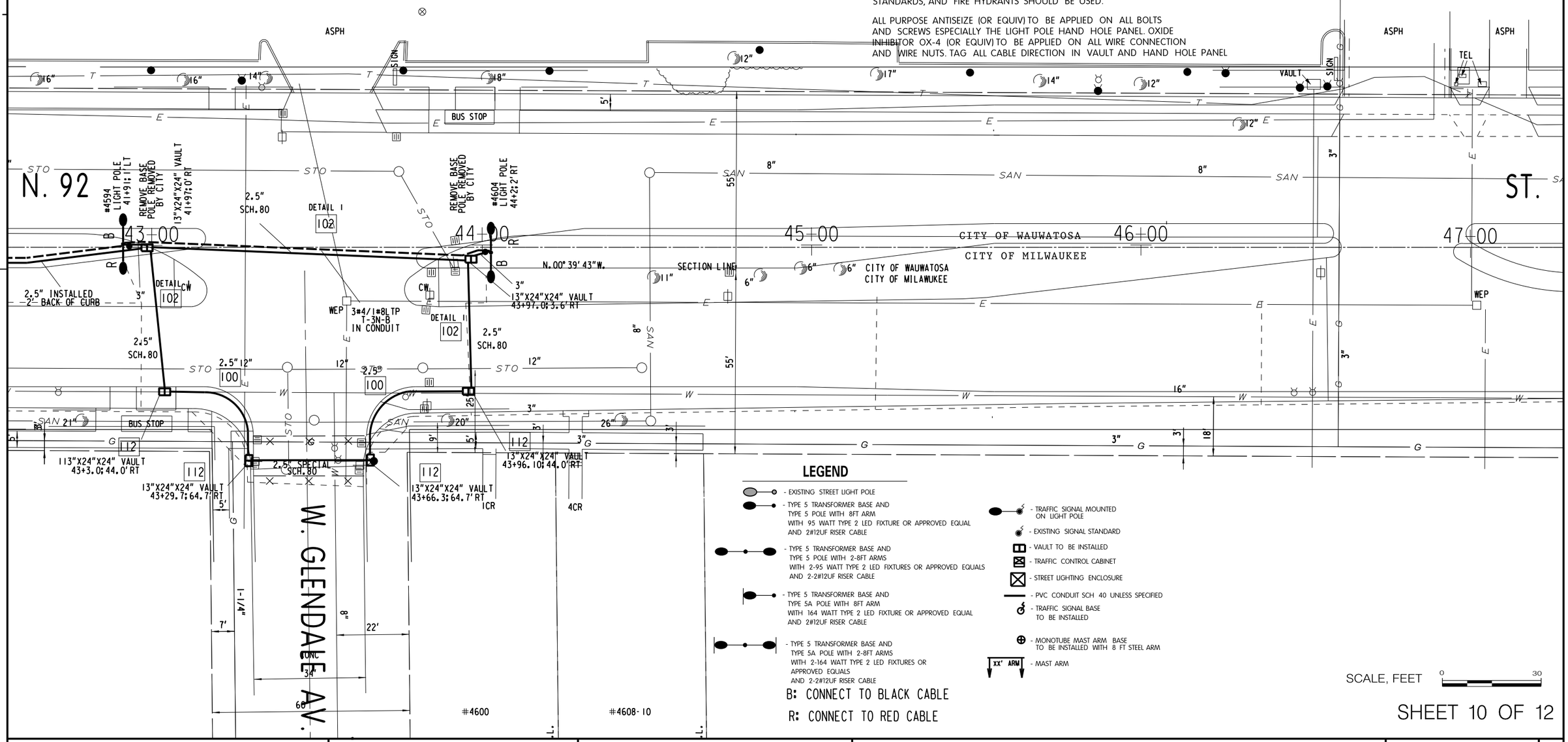
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SERVICES FOR FINAL INSPECTION AND APPROVAL OF ALL ELECTRICAL WORK BEFORE ANY MATERIALS ARE COVERED UP OR BACKFILLED.

TYPICAL RECTANGLAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.

ALL PURPOSE ANTISEIZE (OR EQUIV) TO BE APPLIED ON ALL BOLTS AND SCREWS ESPECIALLY THE LIGHT POLE HAND HOLE PANEL. OXIDE INHIBITOR OX-4 (OR EQUIV) TO BE APPLIED ON ALL WIRE CONNECTION AND WIRE NUTS. TAG ALL CABLE DIRECTION IN VAULT AND HAND HOLE PANEL





LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 2-8FT ARMS WITH 2-95 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 8FT ARM WITH 164 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE, FEET 0 30

SHEET 10 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 117	E

2

2

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

SEE STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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N

N. 92 ST.

48+00 49+00 50+00 51+00

CITY OF WAUWATOSA

CITY OF MILWAUKEE

LAWN

EXIST. BIO- SWALE

55'

16"

18'

3'

8'

3"

LEGEND

- EXISTING STREET LIGHT POLE
- TYPE 5 TRANSFORMER BASE AND TYPE 5 POLE WITH 8FT ARM WITH 95 WATT TYPE 2 LED FIXTURE OR APPROVED EQUAL AND 2#12UF RISER CABLE
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- TYPE 5 TRANSFORMER BASE AND TYPE 5A POLE WITH 2-8FT ARMS WITH 2-164 WATT TYPE 2 LED FIXTURES OR APPROVED EQUALS AND 2-2#12UF RISER CABLE

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- VAULT TO BE INSTALLED
- TRAFFIC CONTROL CABINET
- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

SCALE, FEET 0 30

SHEET 11 OF 12

PROJECT NO:\	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 118	E

FILE NAME : W:\bes\pavings\2017work\n92nd St – Capitol to Hampton (2585-00-70)\n92nd St. – Capitol to Hampton Conduit-2.dgn PLOT DATE : 27-FEB-2017 11:58 PLOT BY : lhickm PLOT NAME : PLOT SCALE : 30.000000:1.000000

WISDOT/CADDS SHEET 42

NOTE:

GENERAL NOTES MUST BE FOLLOWED WHEN INSTALLING MATERIALS FOR STREET LIGHTING AND TRAFFIC SIGNALS.

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

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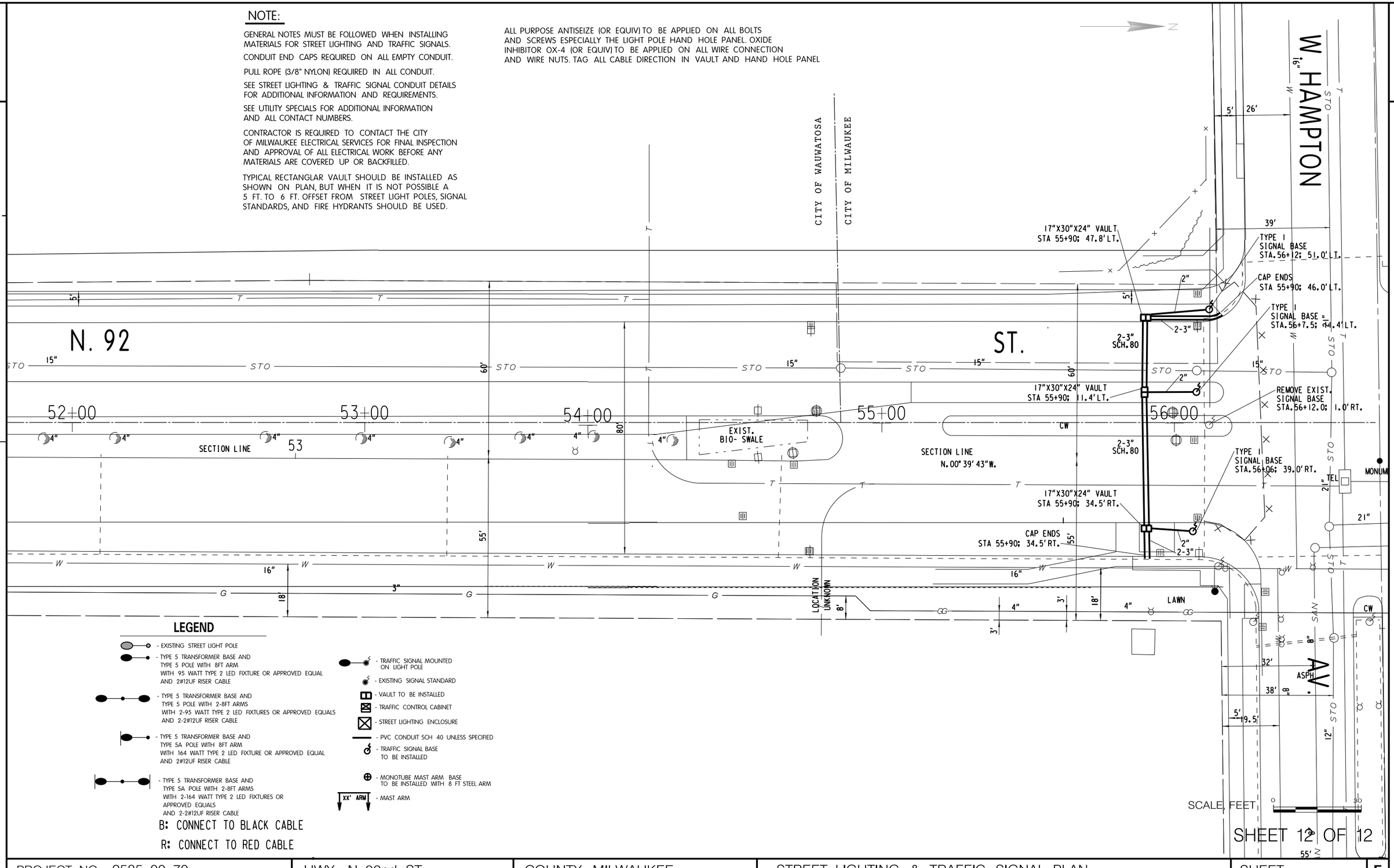

LEGEND

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- STREET LIGHTING ENCLOSURE
- PVC CONDUIT SCH 40 UNLESS SPECIFIED
- TRAFFIC SIGNAL BASE TO BE INSTALLED
- MONOTUBE MAST ARM BASE TO BE INSTALLED WITH 8 FT STEEL ARM
- XX' ARM - MAST ARM

B: CONNECT TO BLACK CABLE

R: CONNECT TO RED CABLE

SCALE: FEET 0 30

SHEET 12 OF 12

PROJECT NO: 2585-00-70	HWY: N. 92nd ST.	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL PLAN	SHEET 119 E

ESTIMATE OF QUANTITIES; STREET LIGHTING & TRAFFIC SIGNALS

PROJECT ID. 2585-00-70

MILWAUKEE COUNTY

	Std.Bid Item No.	Description	Unit	Quantity
-	204.0195	Removing Concrete Bases	EACH	35
-	650.8500	Construction Staking Electrical	LS	1
-	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	110
-	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	3,715
-	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	480
-	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	885
-	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	910
-	652.0610	Conduit Special 2.5-Inch Schedule 80	LF	490
-	654.0101	Concrete Base Type 1	EACH	8
-	654.0105	Concrete Bases Type 5	EACH	39
-	654.0110	Concrete Bases Type 10	EACH	2
-	655.0305	Cable Type 2-12AWG Grounded	LF	3,340
-	657.0255	Transformer Bases Breakaway 11 1/2-inch Bolt Circle	EACH	39
-	657.0322	Pole Type 5 Aluminum	EACH	5
-	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-Ft.	EACH	68
-	657.1808	Install Luminaire Arms Steel 8-Ft.	EACH	6
-	SPV.0060.01	Concrete Bases Type 10 -Special	EACH	2
-	SPV.0060.03	Install Monotube Arm 25-FT	EACH	2
-	SPV.0060.05	install Monotube Arm 35-FT	EACH	1
-	SPV.0060.06	Install Monotube Arm 40-FT	EACH	1
-	SPV.0060.11	Install Pole Type 10	EACH	2
-	SPV.0060.13	Install Pole Type 13 Special	EACH	2
-	SPV.0060.16	Fiberglass/Polymer Concrete Pull Box 13" x 24" x 24"	EACH	34
-	SPV.0060.17	Fiberglass/Polymer Concrete Pull Box 17" x 30" x 24"	EACH	15
-	SPV.0060.18	Utility Line opening (ULO)	EACH	4
-	SPV.0060.49	Luminaire Utility LED 95W Type 2	EACH	62
-	SPV.0060.50	Luminaire Utility LED 164W Type 2	EACH	14
-	SPV.0060.51	Pole Type 5A Aluminum	EACH	34
-	SPV.0090.08	Cable Type 3#2/1#8 LTP	LF	1,850
-	SPV.0090.09	Cable Type 3#4/1#8 LTP	LF	2,290
-	SPV.0090.10	Cable Type 3#6/1#8 LTP	LF	160

SHEET 1 OF 1

2

N

N. 92ND ST.

#9208

W. CAPITOL DR.

CONC. ASPH

CAUTION

LIGHT BASE

BUS SHELTER

CITY OF MILWAUKEE

CITY OF WAUWATOSA

P.L.

SECTION LINE

MONUMENT

01 +50 02 +50 03 +50 04 +50 05 +50 06

N 00° 56' 07" W.

CUC

4"PVC

STO

SAN

W

G

CW

LOC. UNKNOWN

WEP

WALL

4CR 3CR 5CR 5CR 4CR 4CR 3CR

∠ PT. STA. 04+00.3, 12.7' RT.

STA. 03+73.5, 13.5' RT.
SEE NOTE 5

351'-6-4" PVC CONDUIT
CEMENT ENCASED

STD.BM #64-05 IN CENTER PLOT
OF N 92ND ST., SOUTH OF W. CAPITOL DR.,
26.0 FT. SOUTH OF ISLAND TIP & 4.4 FT.
WEST OF EAST CURB OF CENTER PLOT
ELEV: 163.899

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
5) LOCATE EXISTING 4"PVC DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

— CUC — EXISTING CONDUIT

SHEET 1 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 121	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\00-06.DGN

2

N

BM: SE CORNER OF CAPSTONE ON "AURORA EAP" SIGN @ STA 6+10 W/SIDE N. 92ND ST. ELEV: 167.03

N. 92ND ST.

W. FIEBRANTZ AVE.

PROP. 4' DIA. MANHOLE #500
STA. 07+26.0, 12.5' RT.

538'-6-4" PVC CONDUIT CEMENT ENCASED

#4058-68

BM: HYD., (NW BOLT) NE CORNER N. 92ND ST. & W. FIEBRANTZ AVE. STA. 08+29, 58' RT ELEV: 166.99

CITY OF WAUWATOSA

EXIST. BIO-SWALE

SECTION LINE

N.00°36'07"W.

BUS STOP

CAUTION

ASPH.

LOC. UNKNOWN

CUC

STO

SAN

CW

3CR

2CR

5CR

4CR

NOTES:

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4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 2 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 122	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\06-12.DGN

2

N

N. 92ND ST.

W. HOPE AVE.

BM: SE CORNER OF 1ST CONCRETE RISER, #4167 N. 92ND ST. ELEV: 180.08

BM: HYD. (NW BOLT), NW CORNER N. 92ND ST. & W. HOPE AVE. STA. 14+58, 57'LT ELEV: 181.77

BM: HYD. (NW BOLT), W/S NORTH LINE OF #4233 N. 92ND ST. STA. 17+54, 45'LT ELEV: 180.27

P.L.

CAUTION

ASPH

CW

LAWN

BUS STOP

60

30'

ASPH. ON CONC.

22'

17"

6"

SAN

STO

CUC

12

13

14

15

16

17

18

+50

SECTION LINE

N.00°56'07"W.

PROP. 4'DIA. MANHOLE #501
STA. 12+68.0, 12.5'RT.

PROP. 4'DIA. MANHOLE #502
STA. 17+75.0, 12.5'RT.

503'-6-4" PVC CONDUIT
CEMENT ENCASED

PEDESTRIAN WAY

BM: ALUM LIGHT POLE #4154 (NW BOLT), IN MEDIAN STA. 12+57, 1'RT N. 92ND ST. ELEV: 176.26

NOTES:

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4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 3 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 123	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\12-18.DGN

2

N

N. 92ND AVE.

ST.

BM: SE CORNER OF THIRD CONCRETE RISER, #4261 N. 92ND ST. ELEV: 177.01

BM: HYD. (NW BOLT), W/S N.92ND ST. STA 24+05 ELEV: 172.57

CITY OF WAUWATOSA

CITY OF MILWAUKEE

EXIST. BIO-SWALE

SECTION LINE

N.00°56'07"W.

539'-6-4" PVC CONDUIT CEMENT ENCASED

PROP. 4'DIA. MANHOLE #503
STA. 23+18.0, 12.5'RT.

W. MARION

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. MARION ST. STA. 20+87, 62'RT ELEV: 174.65

NOTES:

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LEGEND

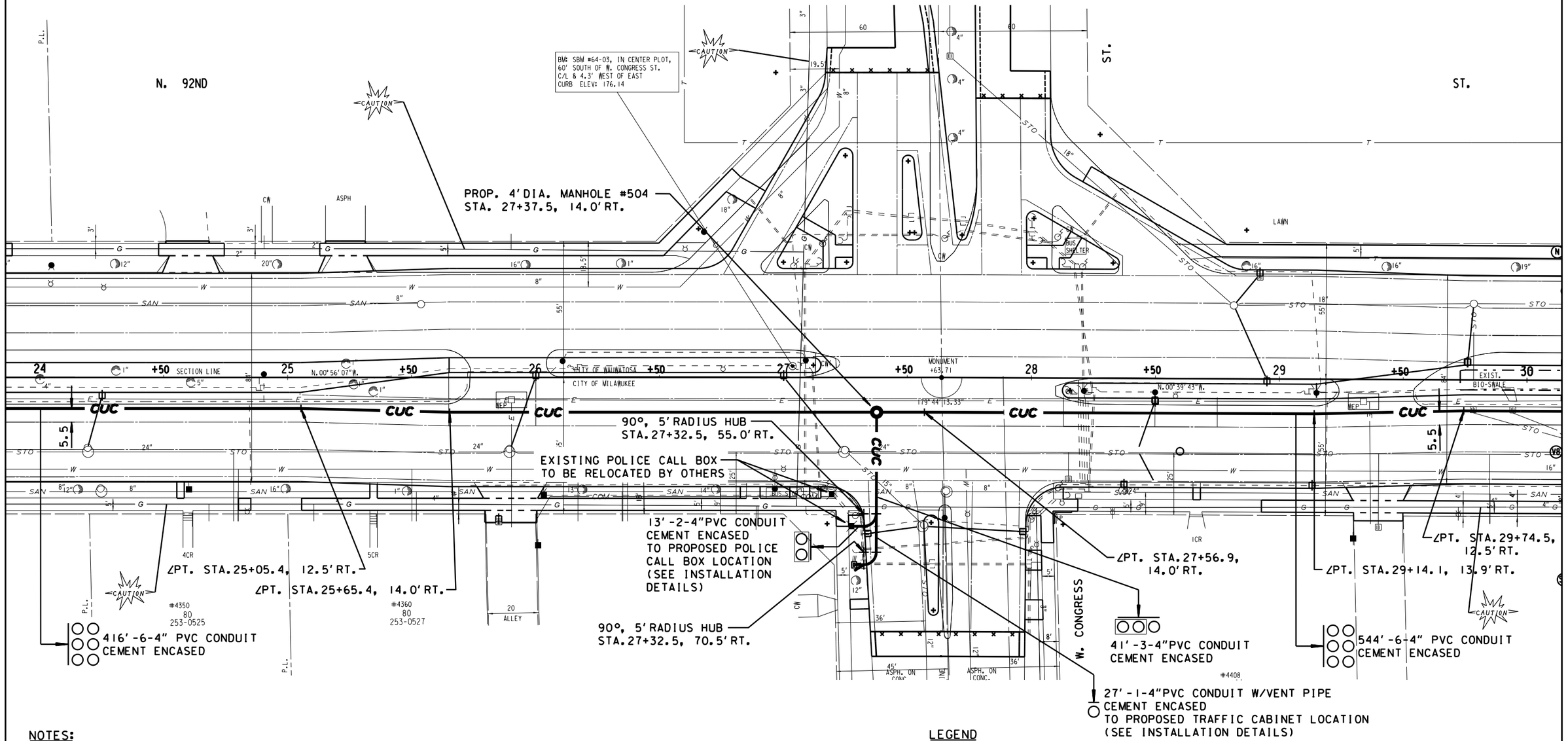
— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 4 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 124	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\18-24.DGN



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LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 5 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 125	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\24-30.DGN

2

N

854.32

N. 92ND ST.

LAWN

LAWN

VAULT

LAWN

PROP. 4'DIA. MANHOLE #505
STA. 32+85.0, 12.5'RT.

W. PALMETTO AVE.

541'-6-4" PVC CONDUIT
CEMENT ENCASED

BM: IST CONCRETE RISER,
YARDWALK, SW CORNER,
#4436 N. 92ND ST.
ELEV: 180.12

BM: HYD. (NNW BOLT), NE CORNER
N. 92ND ST. & W. PALMETTO AVE.
STA. 33+74, 58'RT
ELEV: 183.11

BM: HYD. (NNW BO
N. 92ND ST. & W.
STA. 36+43, 45'R
ELEV: 183.52

CAUTION

CAUTION

NOTES:

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LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 6 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 126	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\30-36.DGN

N. 92ND ST.

1091

CONC. CURB
CONC. CURB
LAWN
BUS SHELTER
SIGN
CONC
CONC. CURB
ASPH
CONC CONC
STO
SAN
W
G
E
T
CUC
CW
ICR
2CR
3CR
BUS STOP
CAUTION
ASPH. ON CONC.
CITY OF WAUWATOSA
CITY OF MILWAUKEE
SECTION LINE
PROP. 4' DIA. MANHOLE #506
STA. 38+30.0, 12.5' RT.
W. GRANTOSA DR.
596'-6-4" PVC CONDUIT
CEMENT ENCASED

NOTES:

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LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

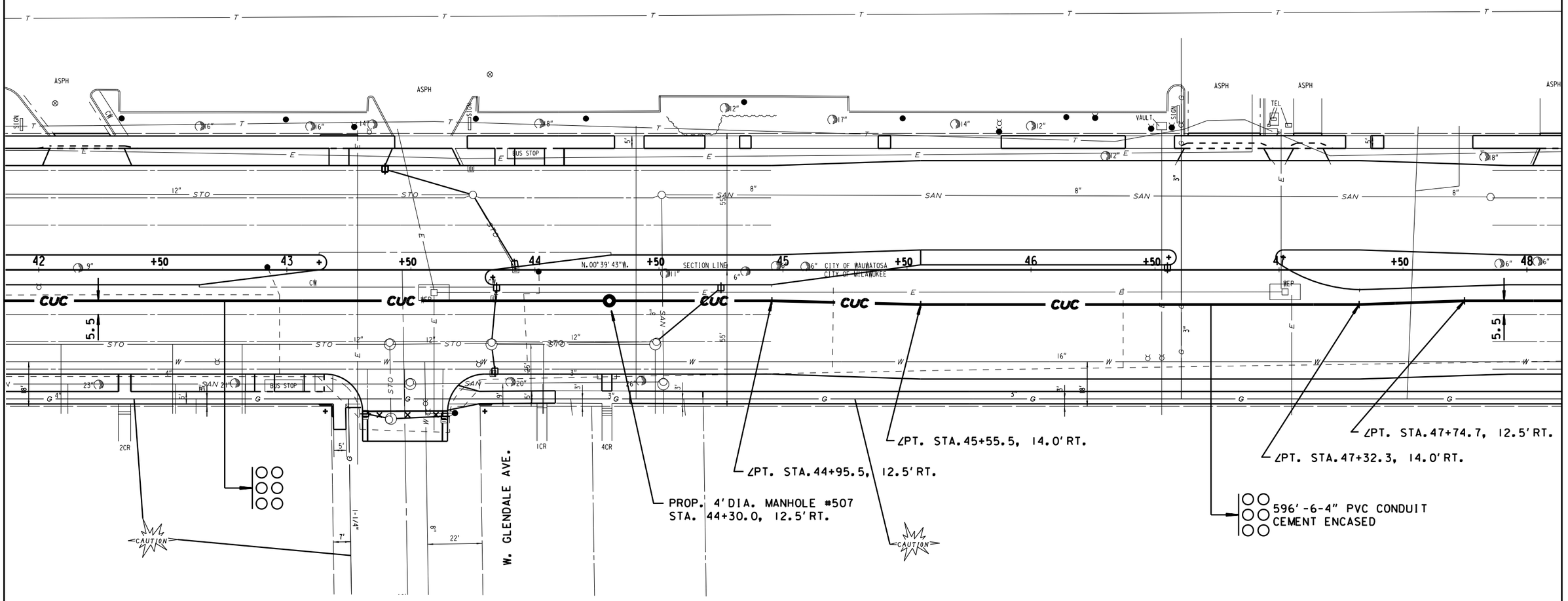
SHEET 7 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 127	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\36-42.DGN

N. 92ND ST.

BM: HYD. (NNW BOLT), WEST SIDE N. 92ND ST. STA. 43+27, 57' LT ELEV: 186.28



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LEGEND

- — CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED TES MANHOLE
- — CUC — EXISTING CONDUIT
- — — — ABANDONED CONDUIT

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 128	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\42-48.DGN

2

N

1091
MADISON PARK
MILWAUKEE COUNTY

N. 92ND ST.

ASPH
ASPH
BUS STOP
LAWN
LAWN
LAWN
CW
CW
STO 12" STO STO STO 12" STO 15" STO STO
CUC CUC CUC CUC CUC
48 49 50 51 52 53 54
+50
LAWN
N.00°39'43"W.
CITY OF WAUWATOSA
CITY OF MILWAUKEE
EXIST. BIO- SWALE
SECTION LINE
5.5
55'
80'
W
G
16"
3"
18"
30"
8"
℄PT.STA.49+50.0, 12.5'RT.
PROP. 4'DIA. MANHOLE #508
STA. 50.30.0, 11.2'RT.
℄PT.STA.51+30.0, 9.5'RT.
588'-6-4" PVC CONDUIT
CEMENT ENCASED
CAUTION
CAUTION
BM: HYD. (NNW BOLT), E/S N. 92ND ST.

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

SHEET 9 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 129	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\48-54.DGN

2

N

N. 92ND

CITY OF WAUWATOSA

CITY OF MILWAUKEE

AVE.

TIMMERMAN FIELD
MILWAUKEE COUNTY

ST.

SAW CONCRETE FOR 4' WIDE TRENCH
REMOVE EXISTING CONCRETE PAVEMENT.
PLACE CONDUIT PACKAGE. PLACE 8"
CONCRETE PAVEMENT WITH TIE BARS (30"C-C)

℄PT. STA.57+42.5, 18.9'LT.

173'-6-4" PVC CONDUIT
CEMENT ENCASED

STA.57+95.0, 19.9'LT.
SEE NOTE #5

PROP. 4'DIA. MANHOLE #509
STA. 56+21.5, 1.4'LT.

5° BEND
STA.55+47.8, 1.5'LT.

4.0 TRENCH WIDTH

5° BEND
STA.54+22.4, 6.5'RT.

62'-1-4" PVC CONDUIT
W/VENT PIPE
CEMENT ENCASED
TO EXISTING TRAFFIC CABINET
SEE INSTALLATION DETAIL

EXISTING
TRAFFIC CABINET

W. HAMPTON

CAUTION

CAUTION

EXIST.
BIO- SWALE

SECTION LINE
N.00°39'43"W.

MONUMENT

ASPH. ON GRAVEL

LAWN

PLANTER

LOCATION UNKNOWN

BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

NOTES:

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.
5) LOCATE EXISTING 4"PVC DUCTS AND ATTACH PROPOSED 4"DUCTS USING APPROPRIATE ADAPTOR.

LEGEND

— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

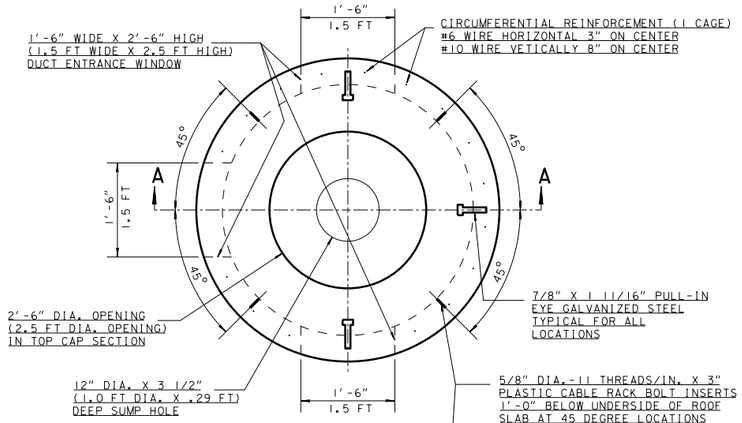
PROPOSED TES MANHOLE

— cuc — EXISTING CONDUIT

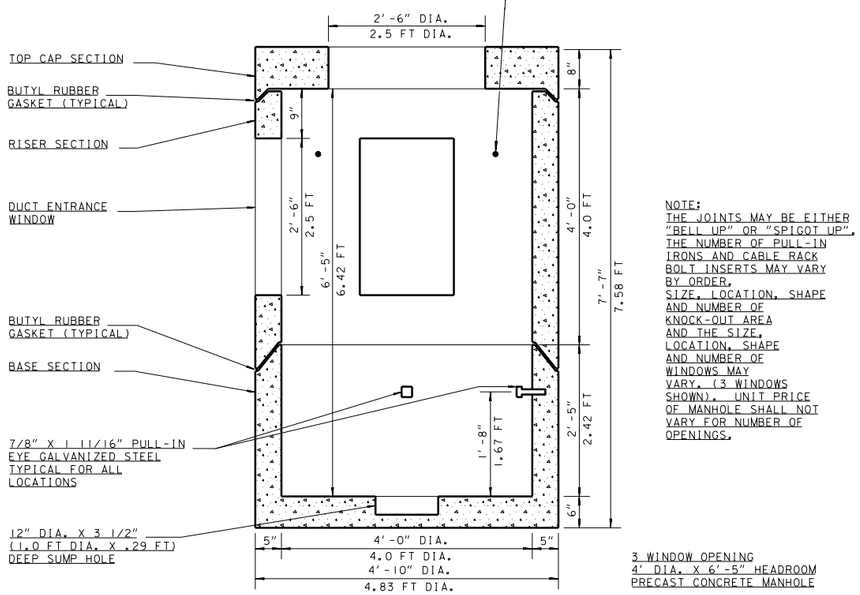
PAVING LIMITS

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT (TES)	SCALE FEET	SHEET NO: 130	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2016\N 92ND ST\54-60.DGN



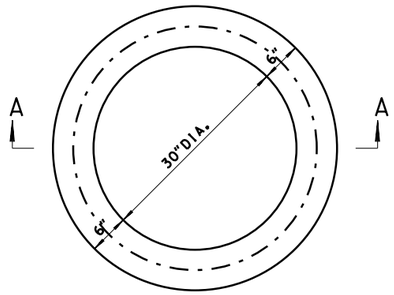
TOP VIEW



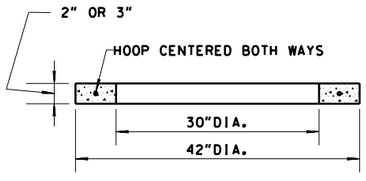
SECTION VIEW "A-A"

N.T.S.

4' DIAMETER MANHOLE TYPE TES DETAIL



PLAN



SECTION A-A

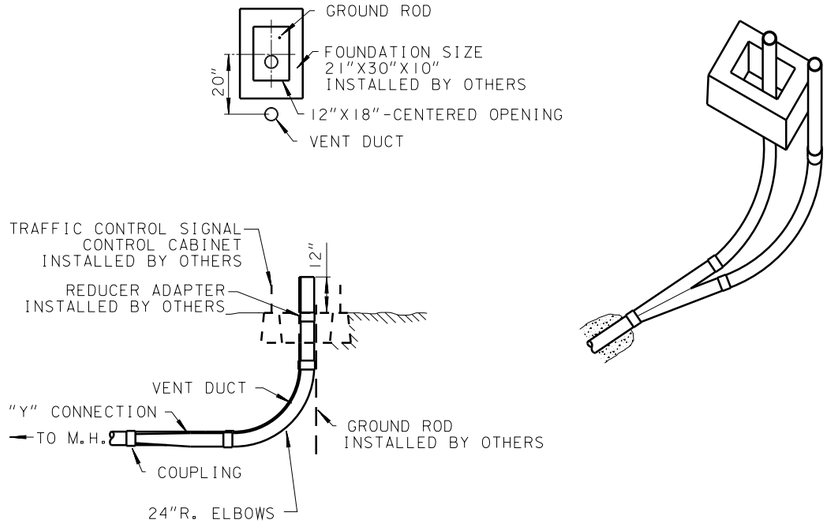
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

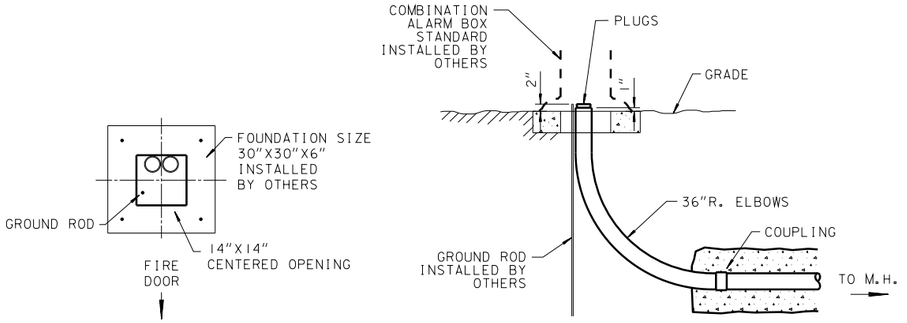
AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING



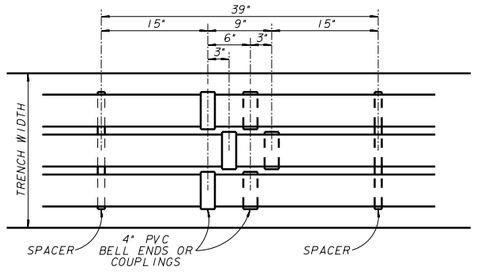
TRAFFIC CONTROL CABINET DETAIL



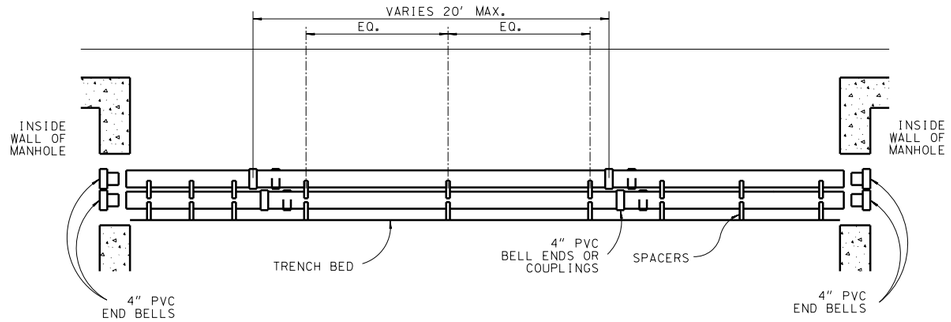
POLICE CALL BOX DETAIL

POLICE CALL BOX DETAIL

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 131	E

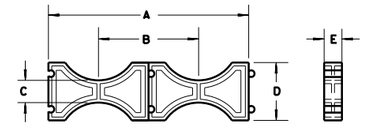


PLAN VIEW
N.T.S.



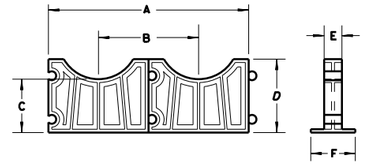
SECTION VIEW
N.T.S.

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	1 ½"	1 ¼"
D	3 ½"	3 ½"
E	1"	1"



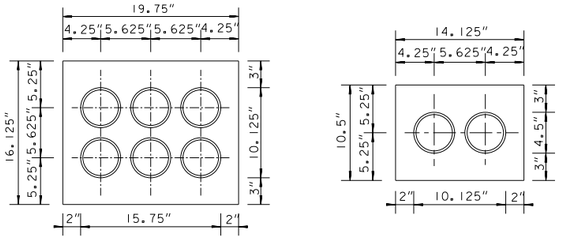
INTERMEDIATE SPACER

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	3"	3"
D	3 ⅛"	4 ⅛"
E	1"	1"
F	2 ½"	2 ½"

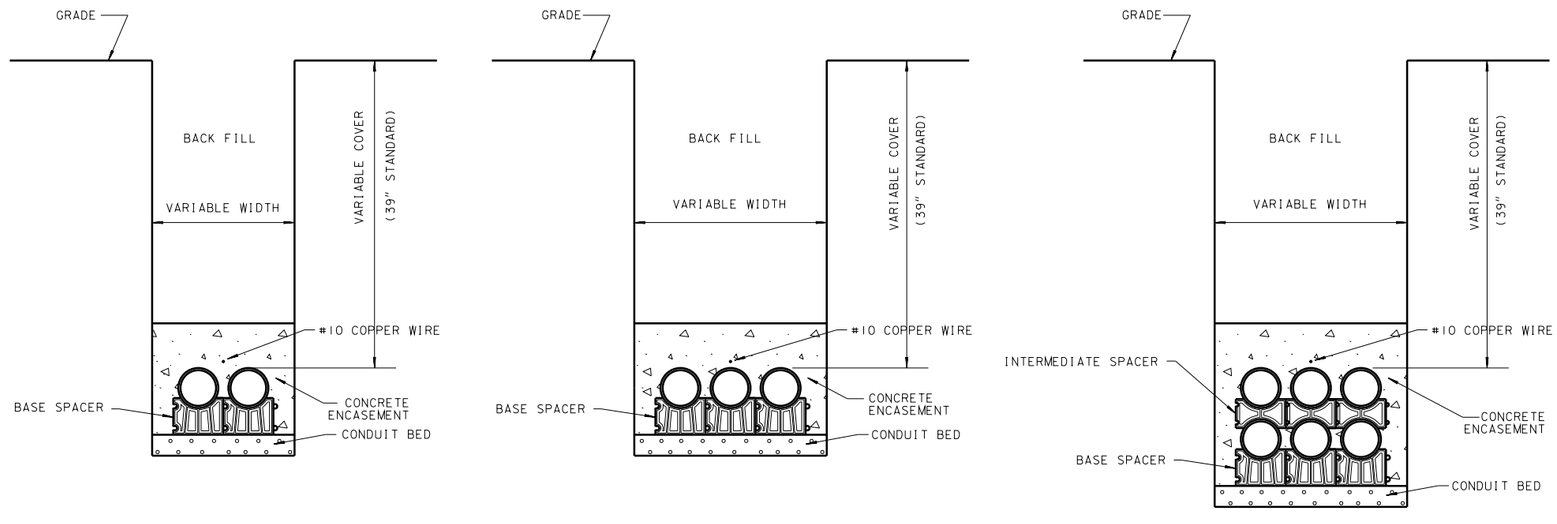


BASE SPACER

INTERMEDIATE AND BASE SPACER DETAIL



CROSS SECTION VIEW
N.T.S.

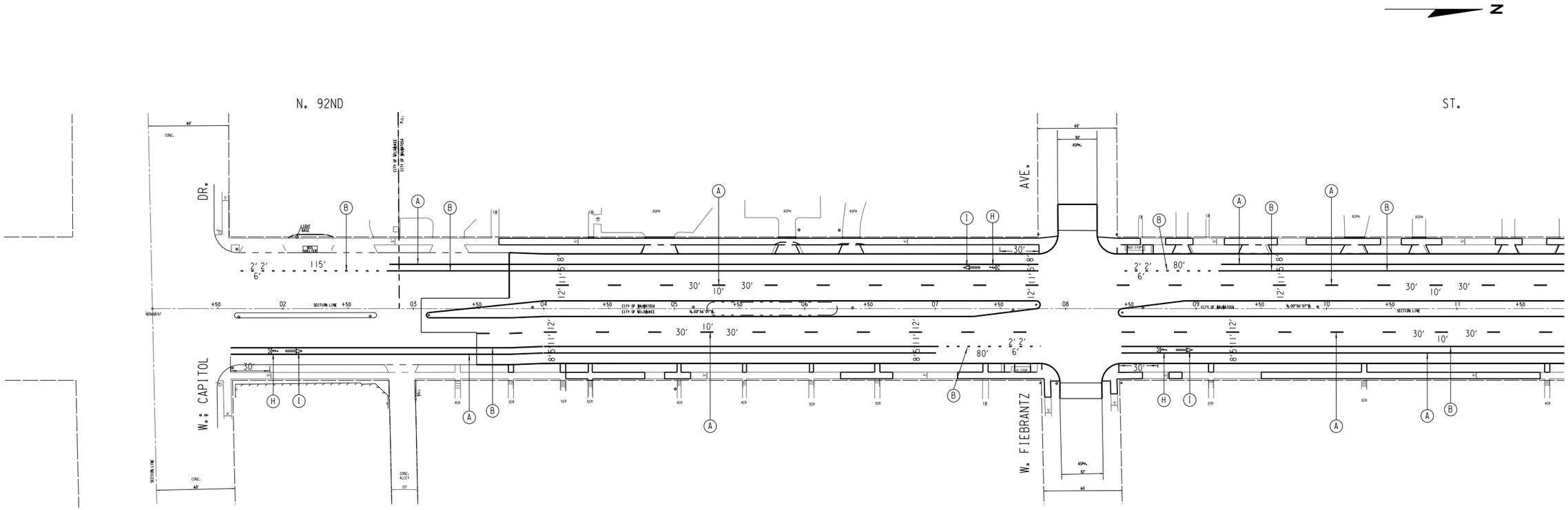


CROSS SECTION VIEW, TYP.
N.T.S.

SHEET 12 OF 12

STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 132	E

2



(A) PAVEMENT MARKING, 4-INCH WHITE
(B) PAVEMENT MARKING, 6-INCH WHITE
(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW
(D) PAVEMENT MARKING WORDS "ONLY"
(E) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
(F) PAVEMENT MARKING CROSS WALK, 12-INCH WHITE
(G) PAVEMENT MARKING STOP LINE, 24-INCH WHITE
(H) PAVEMENT MARKING, BIKE SYMBOLS
(I) PAVEMENT MARKING, ARROWS
(J) PAVEMENT MARKING, GREEN LANE
(K) PAVEMENT MARKING, GREEN BIKE LANE ARROW
(L) PAVEMENT MARKING, GREEN BIKE LANE BIKE SYMBOL
(N) PAVEMENT MARKING, 8-INCH WHITE

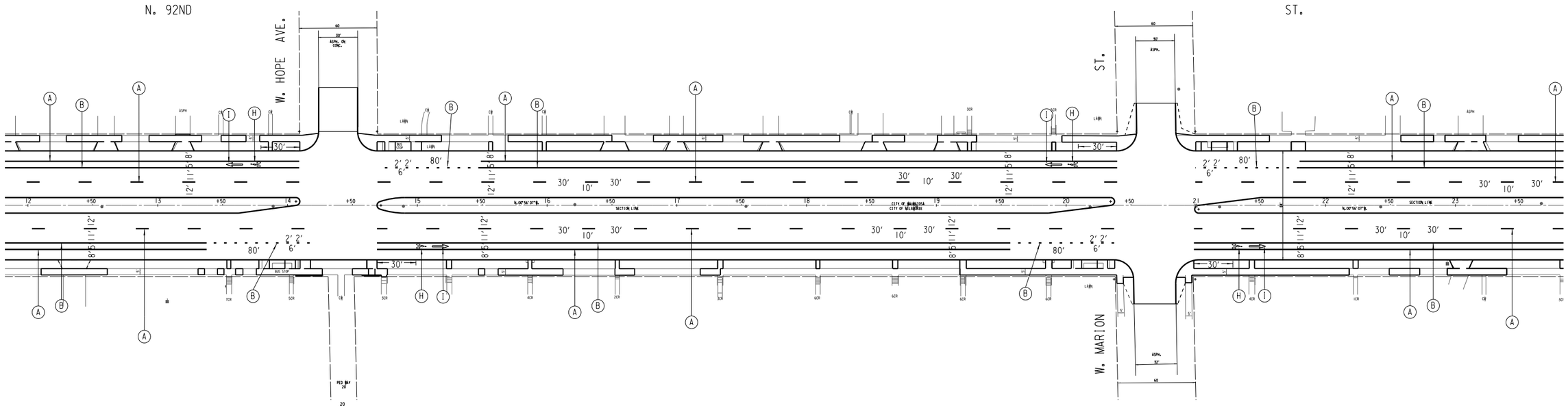
SHEET 1 OF 5

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 133	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PAVEMARK.DGN

REVISED DATE: 07-26-2016 BY DB

2



(A) PAVEMENT MARKING, 4-INCH WHITE
(B) PAVEMENT MARKING, 6-INCH WHITE
(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW
(D) PAVEMENT MARKING WORDS "ONLY"
(E) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
(F) PAVEMENT MARKING CROSS WALK, 12-INCH WHITE
(G) PAVEMENT MARKING STOP LINE, 24-INCH WHITE
(H) PAVEMENT MARKING, BIKE SYMBOLS
(I) PAVEMENT MARKING, ARROWS
(J) PAVEMENT MARKING, GREEN LANE
(K) PAVEMENT MARKING, GREEN BIKE LANE ARROW
(L) PAVEMENT MARKING, GREEN BIKE LANE BIKE SYMBOL
(N) PAVEMENT MARKING, 8-INCH WHITE

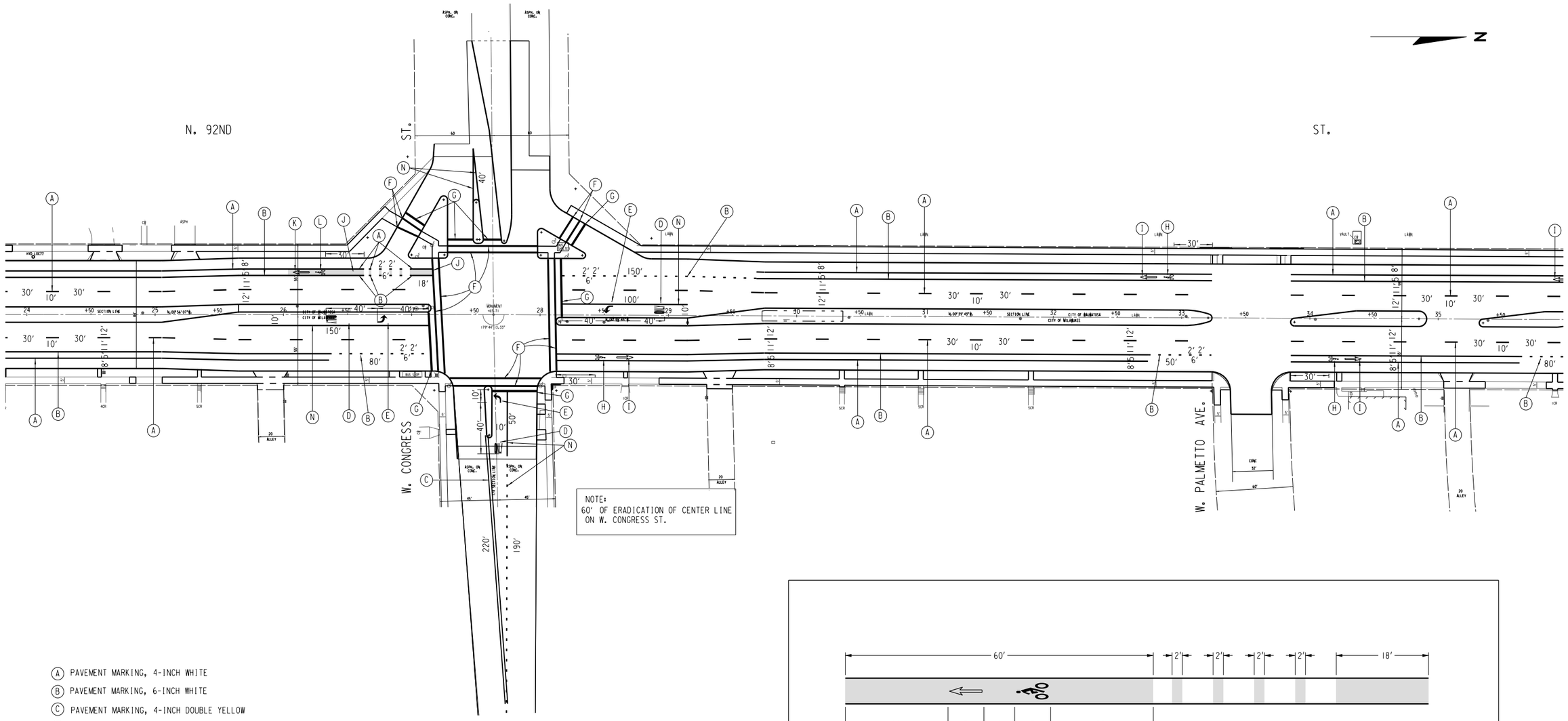
SHEET 2 OF 5

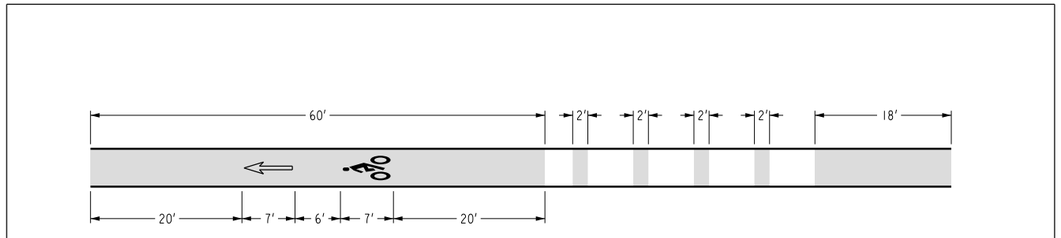
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 134	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PAVEMARK.DGN

REVISED DATE: 07-26-2016 BY DB

2





BIKE LANE DETAIL @ SW INTERSECTION
OF N. 92ST ST. AND W. CONGRESS AVE.

- (A) PAVEMENT MARKING, 4-INCH WHITE
- (B) PAVEMENT MARKING, 6-INCH WHITE
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW
- (D) PAVEMENT MARKING WORDS "ONLY"
- (E) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
- (F) PAVEMENT MARKING CROSS WALK, 12-INCH WHITE
- (G) PAVEMENT MARKING STOP LINE, 24-INCH WHITE
- (H) PAVEMENT MARKING, BIKE SYMBOLS
- (I) PAVEMENT MARKING, ARROWS
- (J) PAVEMENT MARKING, GREEN LANE
- (K) PAVEMENT MARKING, GREEN BIKE LANE ARROW
- (L) PAVEMENT MARKING, GREEN BIKE LANE BIKE SYMBOL
- (N) PAVEMENT MARKING, 8-INCH WHITE

SHEET 3 OF 5

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 135	E

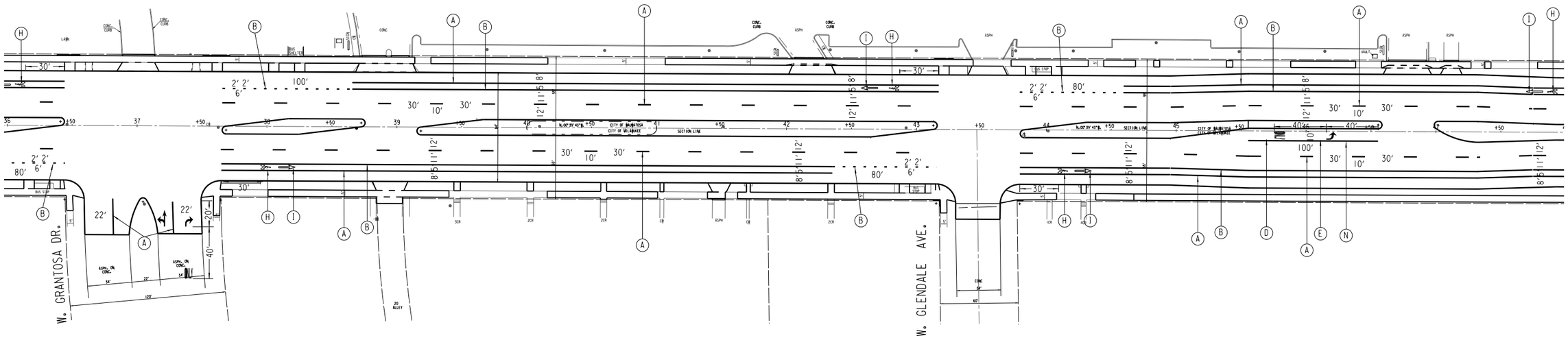
FILENAME: W:\SPR\92ND N_CAP-HAMP\PAVEMARK.DGN

REVISED DATE: 07-26-2016 BY DB

2

N

N. 92ND ST.



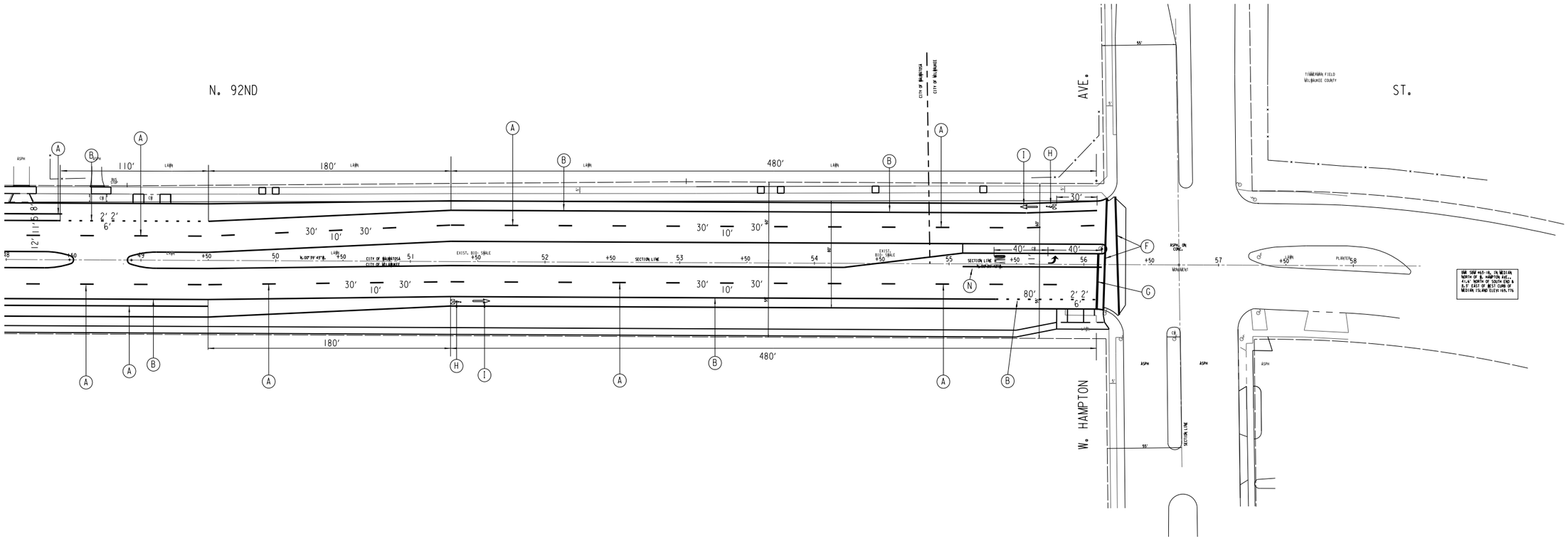
(A) PAVEMENT MARKING, 4-INCH WHITE
(B) PAVEMENT MARKING, 6-INCH WHITE
(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW
(D) PAVEMENT MARKING WORDS "ONLY"
(E) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
(F) PAVEMENT MARKING CROSS WALK, 12-INCH WHITE
(G) PAVEMENT MARKING STOP LINE, 24-INCH WHITE
(H) PAVEMENT MARKING, BIKE SYMBOLS
(I) PAVEMENT MARKING, ARROWS
(J) PAVEMENT MARKING, GREEN LANE
(K) PAVEMENT MARKING, GREEN BIKE LANE ARROW
(L) PAVEMENT MARKING, GREEN BIKE LANE BIKE SYMBOL
(N) PAVEMENT MARKING, 8-INCH WHITE

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 136 E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PAVEMARK.DGN

REVISED DATE: 01-27-2017 BY DB

2



(A) PAVEMENT MARKING, 4-INCH WHITE
(B) PAVEMENT MARKING, 6-INCH WHITE
(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW
(D) PAVEMENT MARKING WORDS "ONLY"
(E) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
(F) PAVEMENT MARKING CROSS WALK, 12-INCH WHITE
(G) PAVEMENT MARKING STOP LINE, 24-INCH WHITE
(H) PAVEMENT MARKING, BIKE SYMBOLS
(I) PAVEMENT MARKING, ARROWS
(J) PAVEMENT MARKING, GREEN LANE
(K) PAVEMENT MARKING, GREEN BIKE LANE ARROW
(L) PAVEMENT MARKING, GREEN BIKE LANE BIKE SYMBOL
(N) PAVEMENT MARKING, 8-INCH WHITE

SHEET 5 OF 5

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 137	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\PAVEMARK.DGN

REVISED DATE: 07-26-2016 BY DB

2

PEDESTRIAN TRAFFIC CONTROL NOTES

GENERAL

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

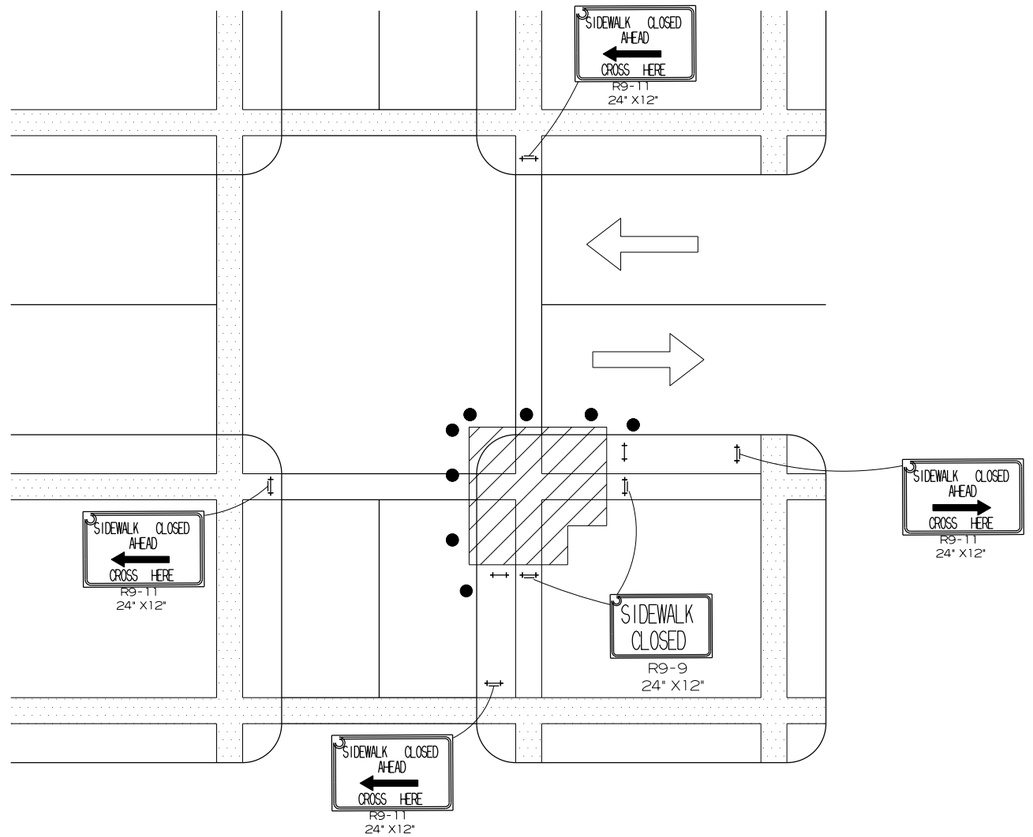
TEMPORARY OR PERMANANT ACCOMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESSES USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMODATIONS DURING ALL STAGES OF CONSTRUCTION,

A SIGNED PEDESTRIAN DETOUR TO ROUTE PEDESTRIAN TRAFFIC AROUND THE WORK ZONE IS SHOWN ON THE FOLLOWING CONSTRUCTION STAGING PEDESTRIAN RAMPS STREETS. FOR PEDESTRIANS WITH TRIPS STARTING OR ENDING INSIDE THE WORK ZONE, NO SIGNED DETOUR IS PLANNED. AREAS UNAVAILABLE TO PEDESTRIANS DURING CONSTRUCTION WILL BE SIGNED AND MARKED AS SHOWN IN THE 'CORNER SIDEWALK CLOSURE WITH NO TEMPORARY CROSSWALK' DETAIL.

ONLY ONE CORNER AT A TIME SHALL BE RECONSTRUCTED DURING ANY STAGE.
FOLLOW TYPICAL INTERSECTION DETAIL.

INTERSECTION DETAIL (TYPICAL)



STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET	SHEET NO: 138	E

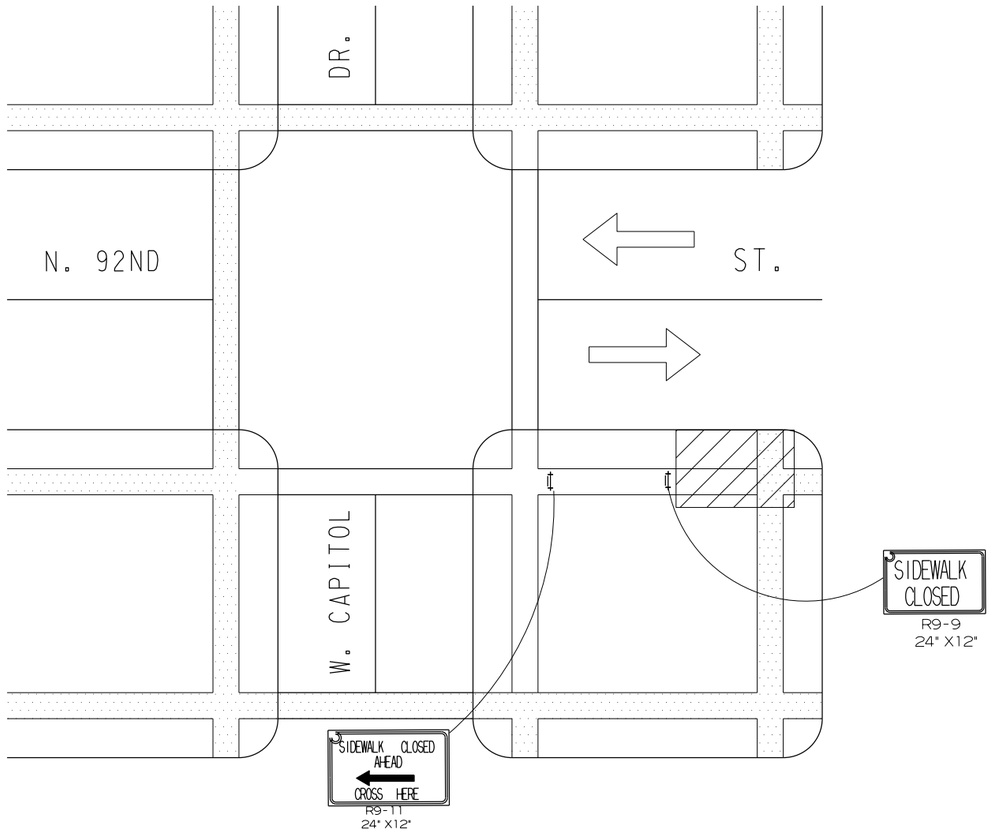
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-26-2016 BY TJK

2

W. CAPITOL DR. INTERSECTION DETAIL PEDESTRIANS

N



NOTE: DETAIL SHOWN FOR STAGE I DURING STAGE II
MOVE TO WEST SIDE

WORK AREA

UNDER PEDESTRIAN TRAFFIC

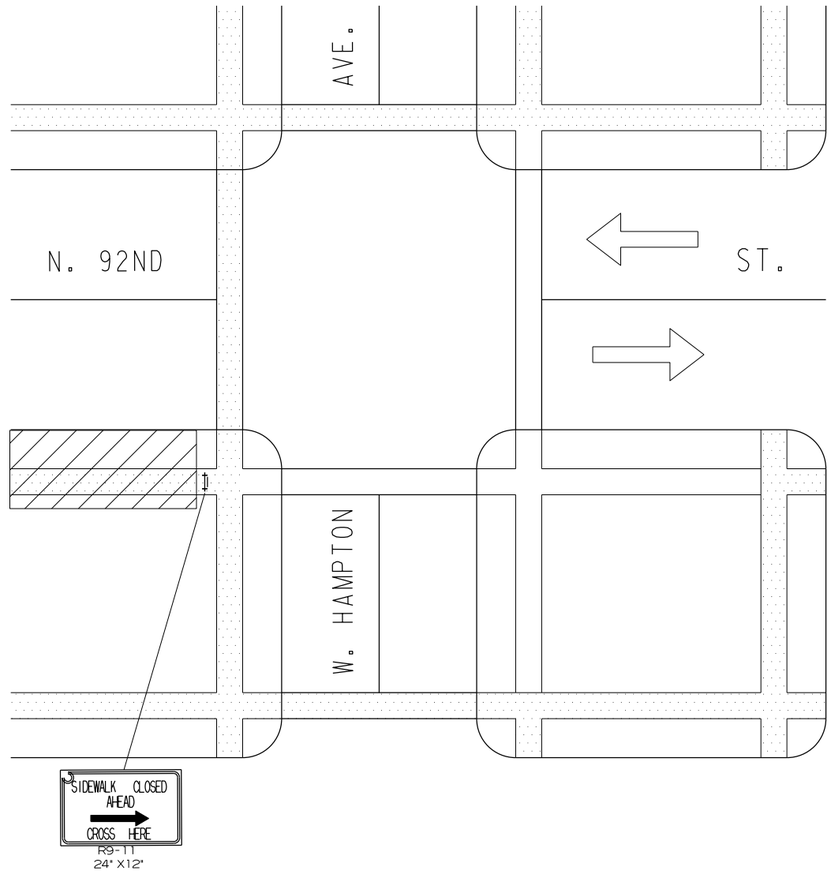
TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)

DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

W. HAMPTON AVE. INTERSECTION DETAIL PEDESTRIANS

N



NOTE: DETAIL SHOWN FOR STAGE I DURING STAGE II
MOVE TO WEST SIDE

WORK AREA

UNDER PEDESTRIAN TRAFFIC

TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)

DIRECTION OF TRAFFIC

TRAFFIC CONTROL DRUM

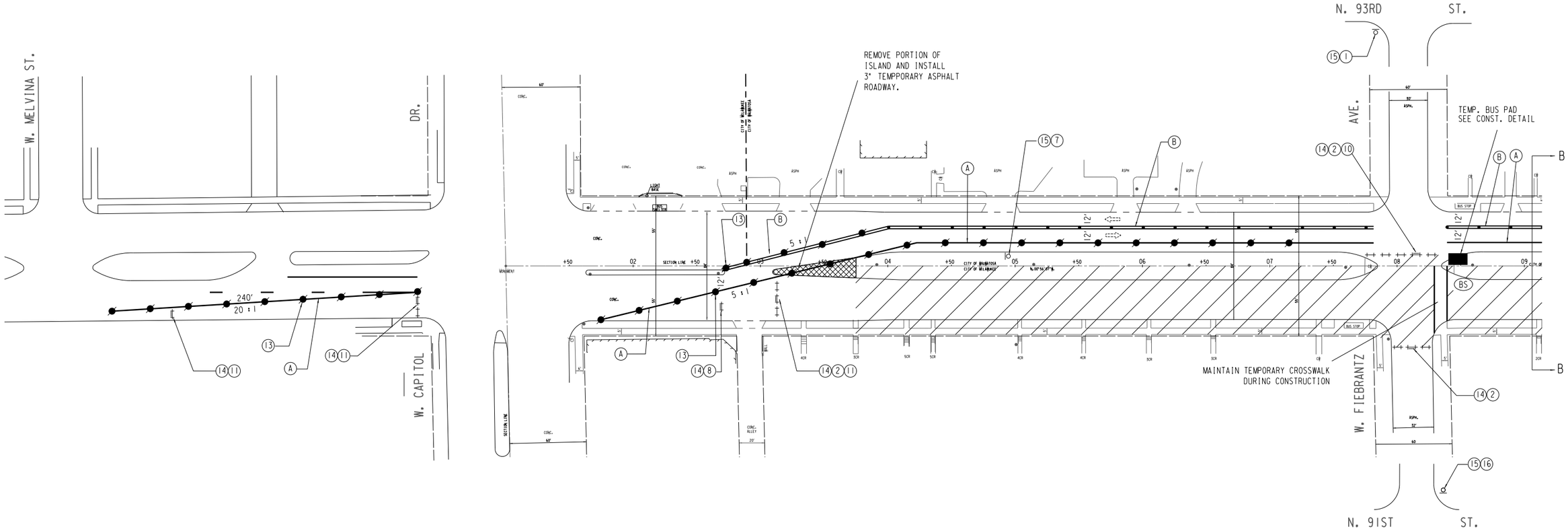
2

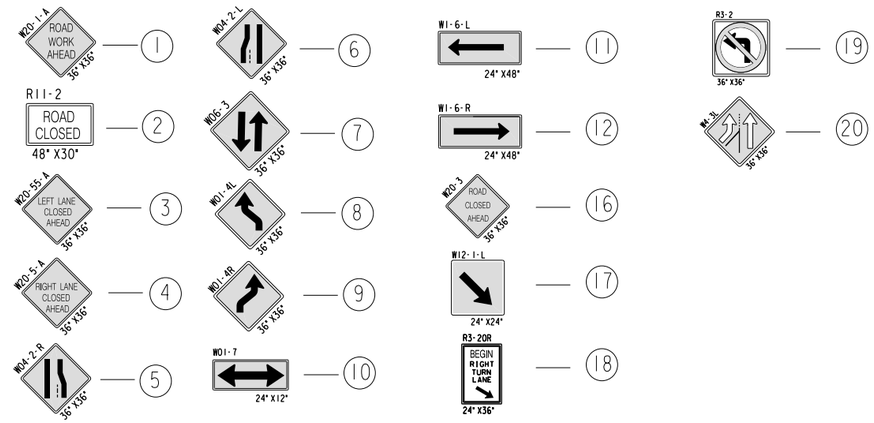
STATE PROJECT NUMBER 2585-00-70	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET	SHEET NO: 139	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE I





DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

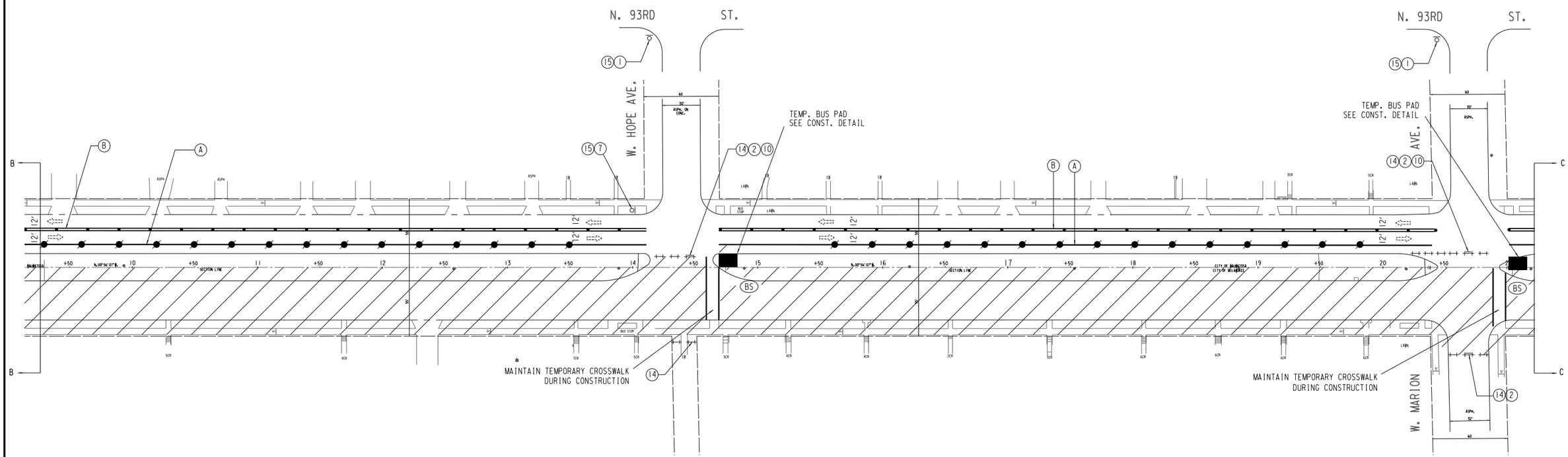
SHEET 1 OF 9

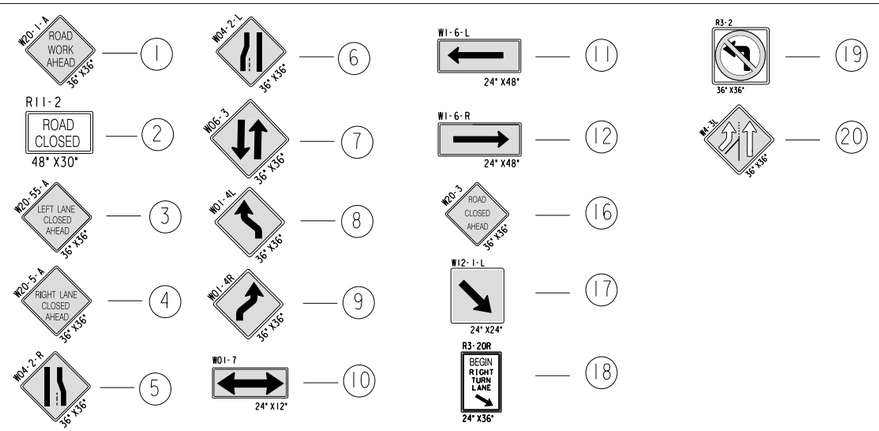
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SCALE FEET 0' 80'	SHEET NO: 140	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE I





DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15
WORK AREA
REMOVE ISLAND
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE
(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW
(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

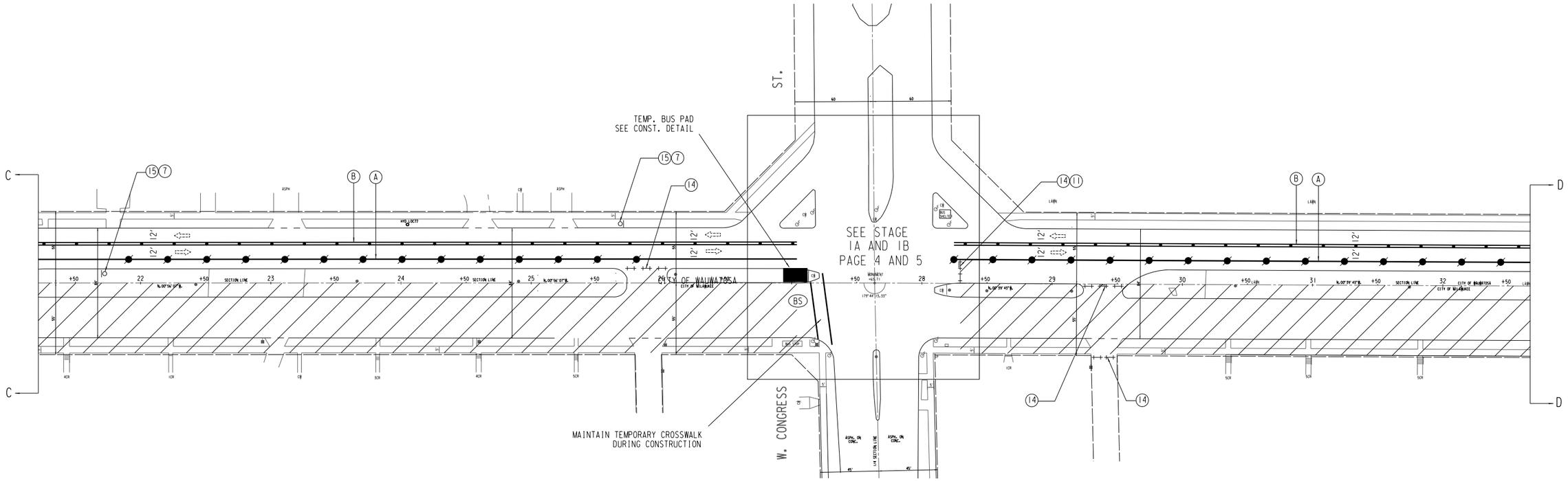
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE I	SCALE FEET 0' 80'	SHEET NO: 141	E

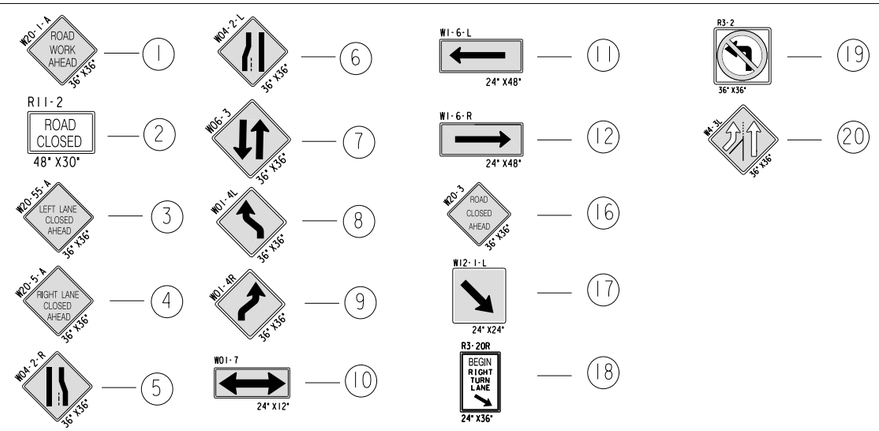
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE I

N





DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

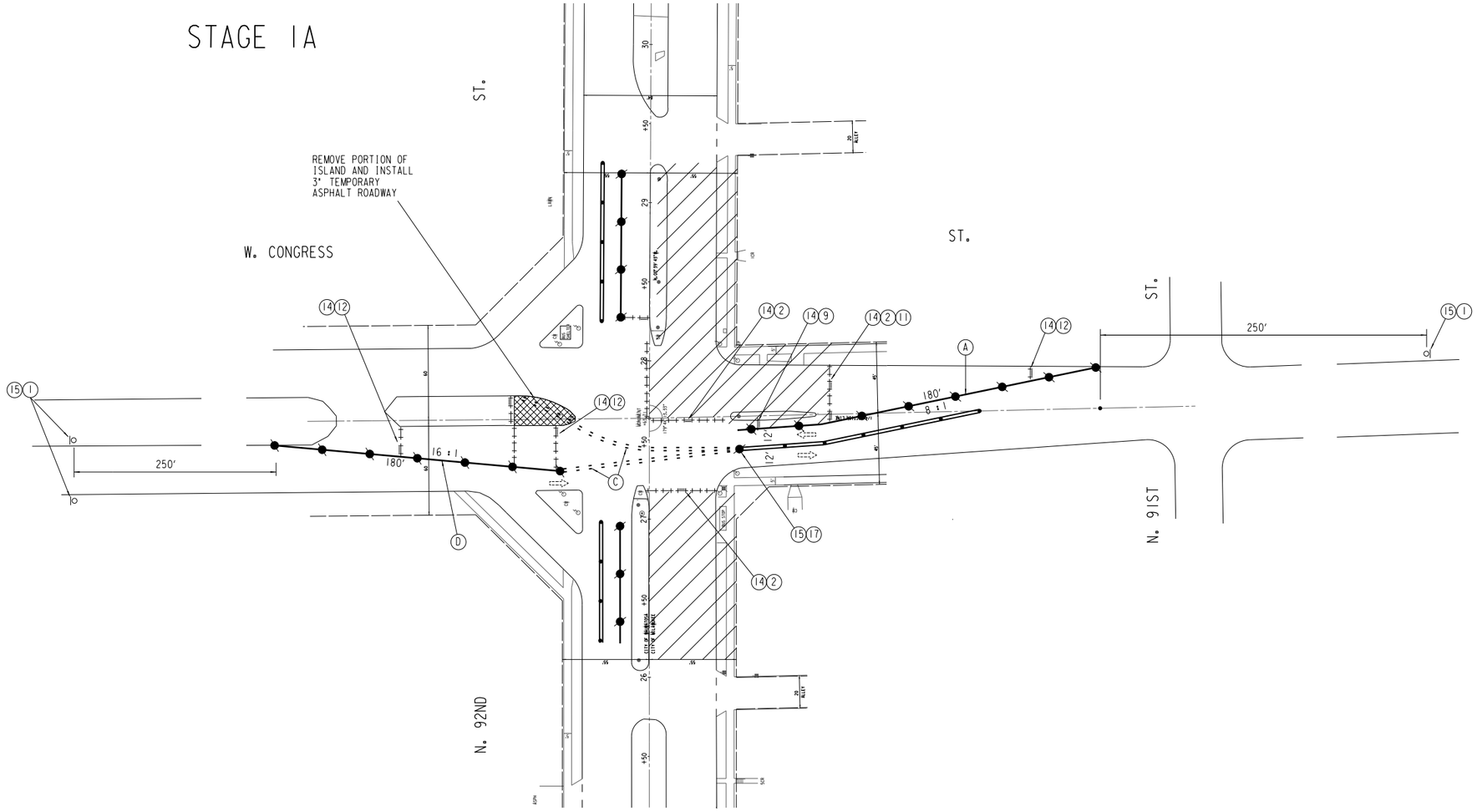
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

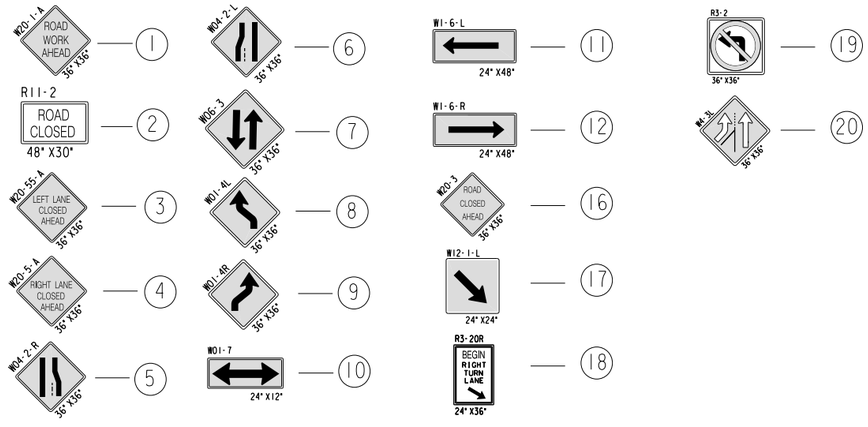
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE I	SCALE FEET 0' 80'	SHEET NO: 142	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE 1A





DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

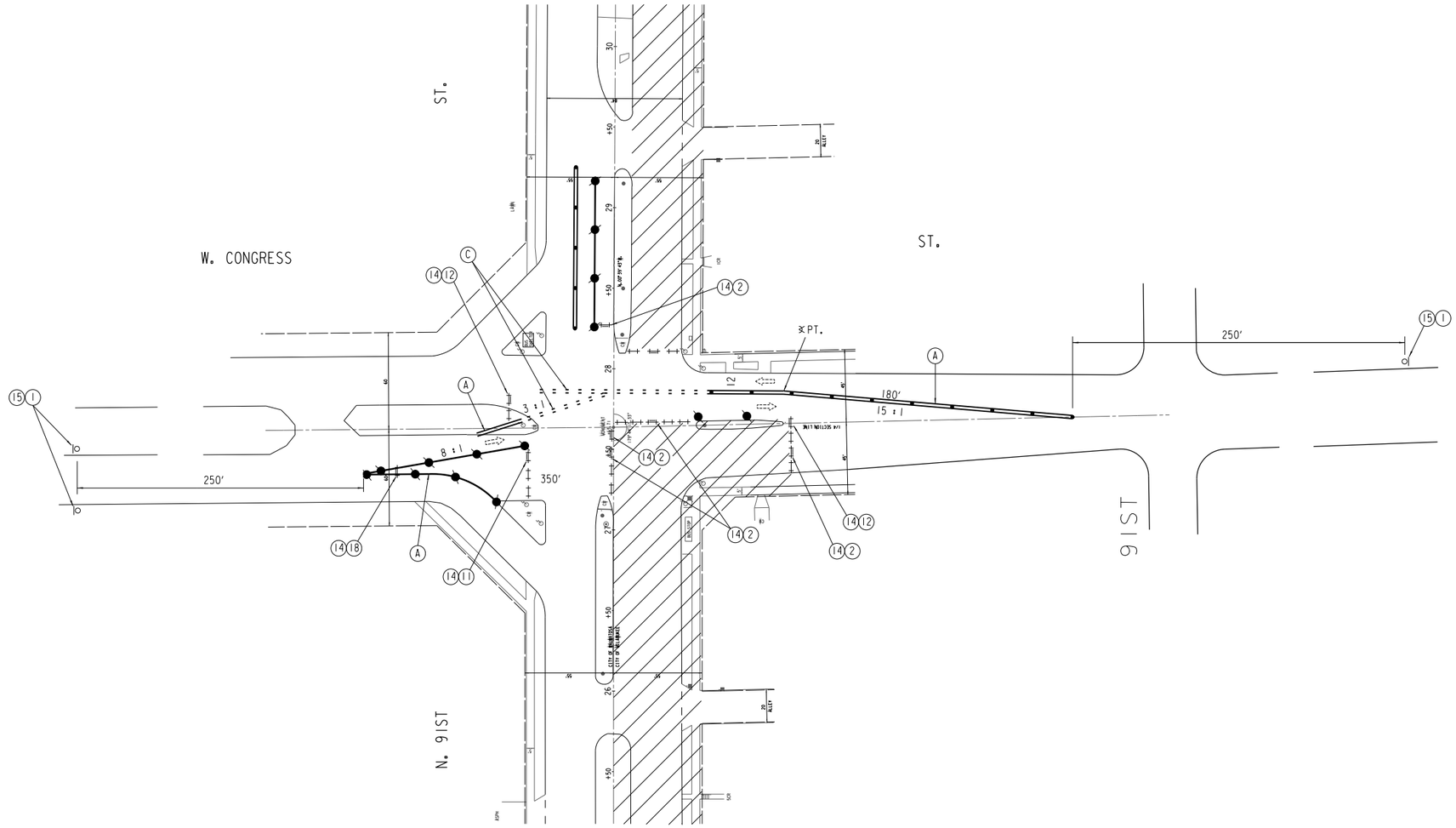
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SCALE FEET 0' 80'	SHEET NO: 143	E

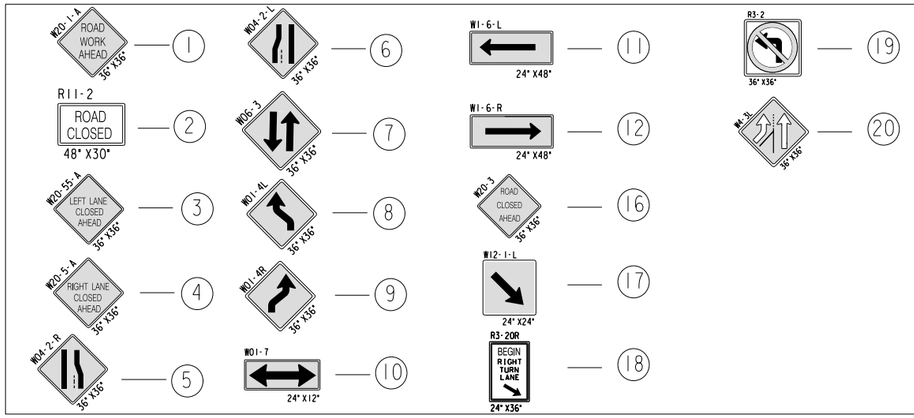
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE 1B



N



DRUMS W/LIGHTS 30' SPACING	●	13
TYPE III BARRICADES	++	14
TYPE III BARRICADES W/ SIGN	++	14 + X
SIGNS BANDED TO TRAFFIC CONTROL DEVICE	○	15
WORK AREA	▨	
REMOVE ISLAND	▩	
DIRECTION OF TRAFFIC	⇦	
TUBULAR MARKERS 25' SPACING	•	

- (A) TPM, REMOVABLE TAPE, 4" WHITE
- (B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (A) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW
- (B) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

SHEET 5 OF 9

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SCALE FEET 0' 80'	SHEET NO: 144	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE I

N

TEMP. BUS PAD
SEE CONST. DETAIL

TEMP. BUS PAD
SEE CONST. DETAIL

MAINTAIN TEMPORARY CROSSWALK
DURING CONSTRUCTION

MAINTAIN TEMPORARY CROSSWALK
DURING CONSTRUCTION

W. PALMETTO AVE.

W. GRANTOSA DR.

AVE.

N. 91ST ST.

W. BUTLER PL.

W. HERBERT

W. BUTLER PL.

W20-1-A ROAD WORK AHEAD 36" X36" — 1

R11-2 ROAD CLOSED 48" X30" — 2

W20-5S-A LEFT LANE CLOSED AHEAD 36" X36" — 3

W20-5-A RIGHT LANE CLOSED AHEAD 36" X36" — 4

W04-2-R 36" X36" — 5

W04-2-L 36" X36" — 6

W06-3 36" X36" — 7

W01-4L 36" X36" — 8

W01-4R 36" X36" — 9

W01-7 24" X12" — 10

W1-6-L 24" X48" — 11

W1-6-R 24" X48" — 12

W20-3 ROAD CLOSED AHEAD 36" X36" — 16

W12-1-L 24" X24" — 17

R3-20R BEGIN RIGHT TURN LANE 24" X36" — 18

R3-2 36" X36" — 19

W4-2L 36" X36" — 20

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

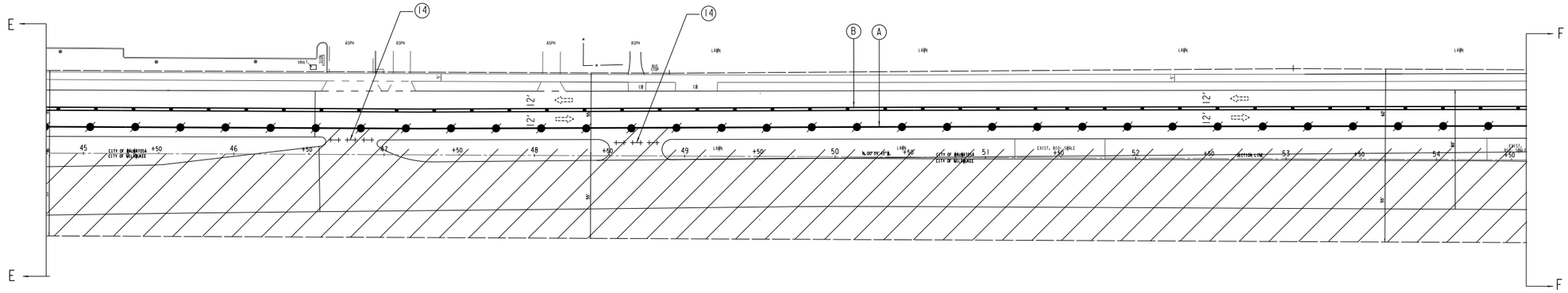
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

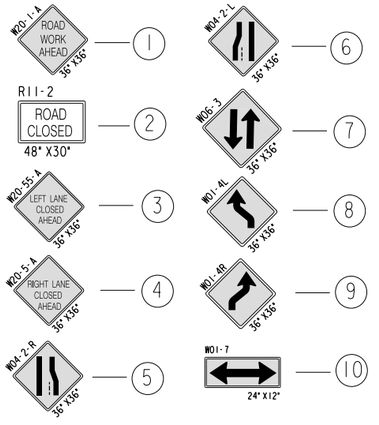
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE I	SCALE FEET 0' 80'	SHEET NO: 145	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 07-24-2016 BY ML

STAGE I





DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

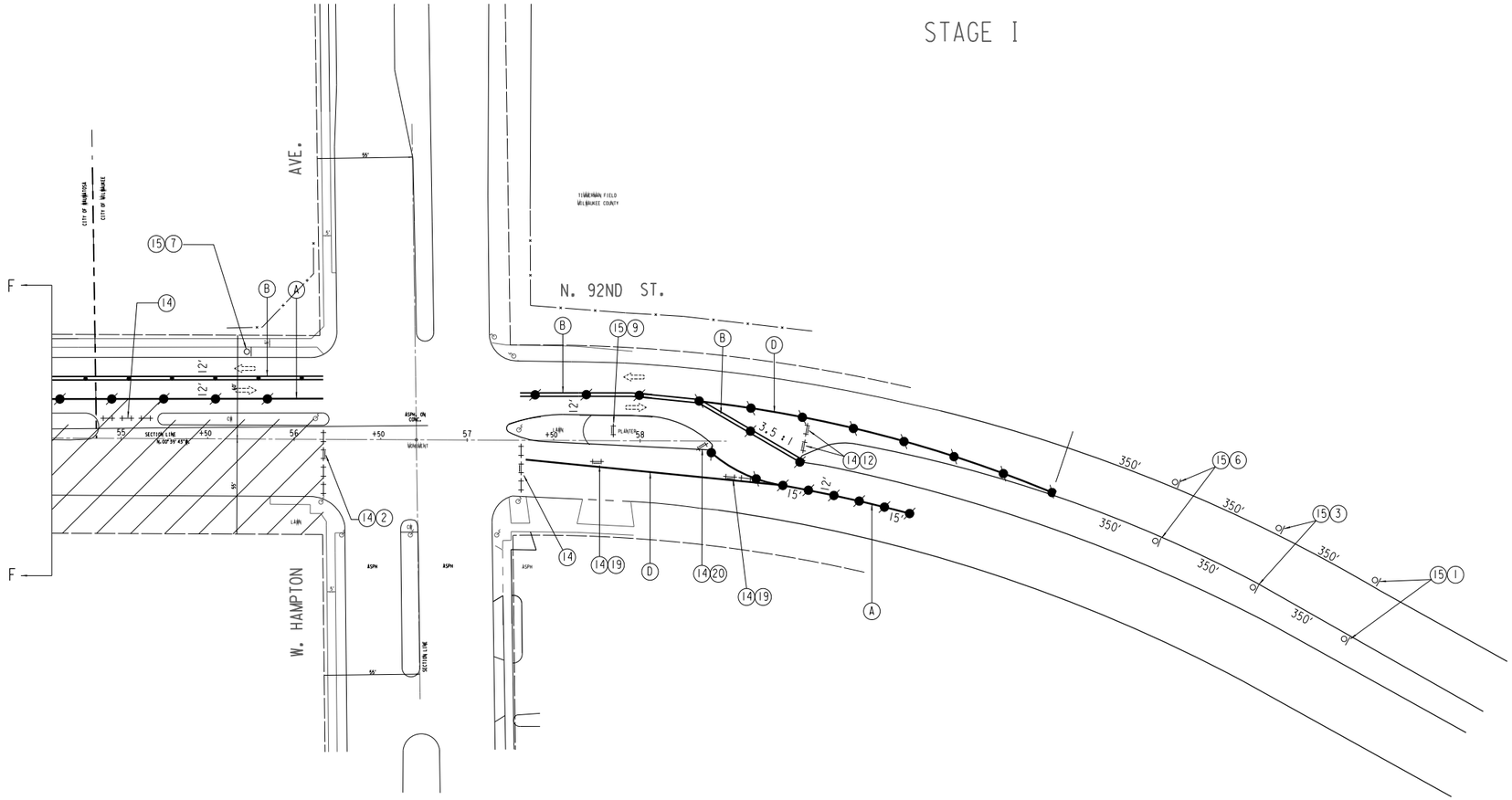
(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

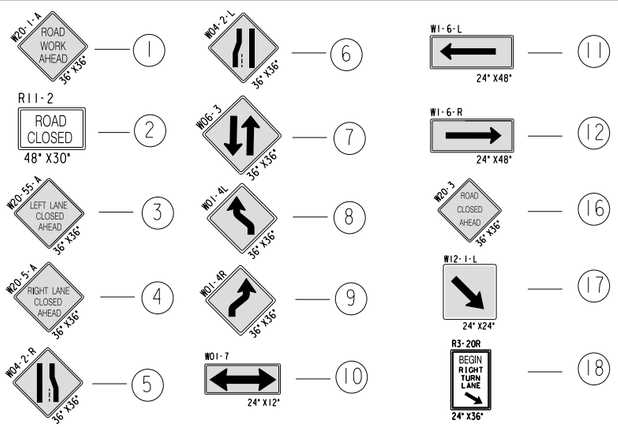
(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

STAGE I





DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

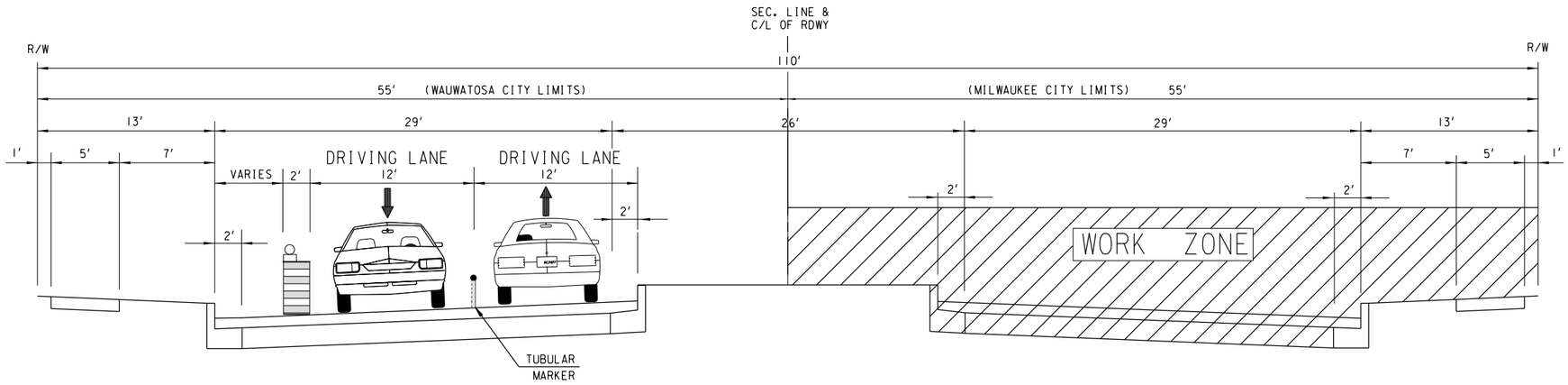
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE I	SCALE FEET 0' 80'	SHEET NO: 147	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

2

STAGE I TYPICAL



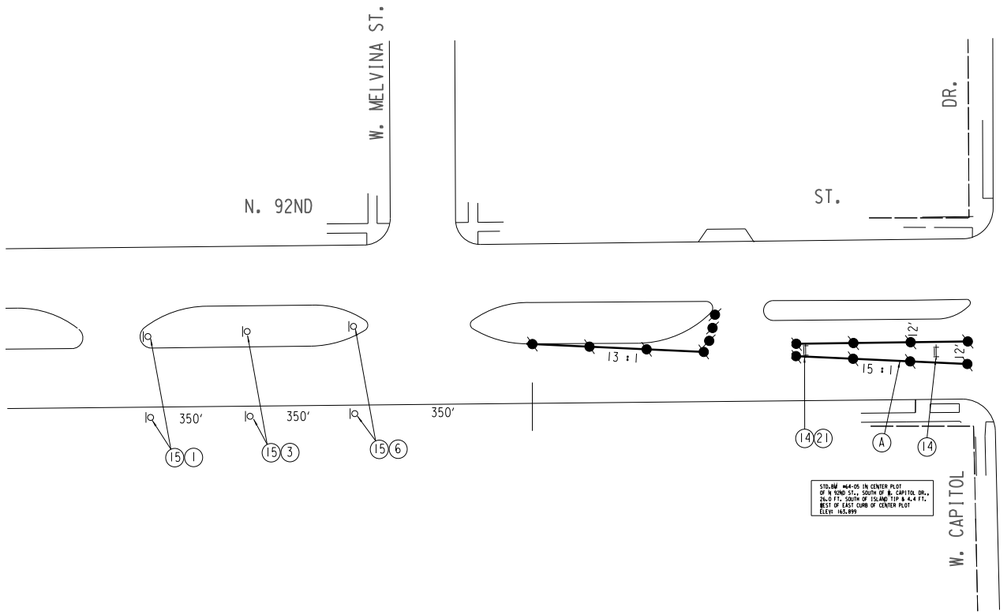
STATE PROJECT NUMBER 2585-00-70 - -	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION STAGING	SCALE FEET 0' 40'	SHEET NO: 148	E

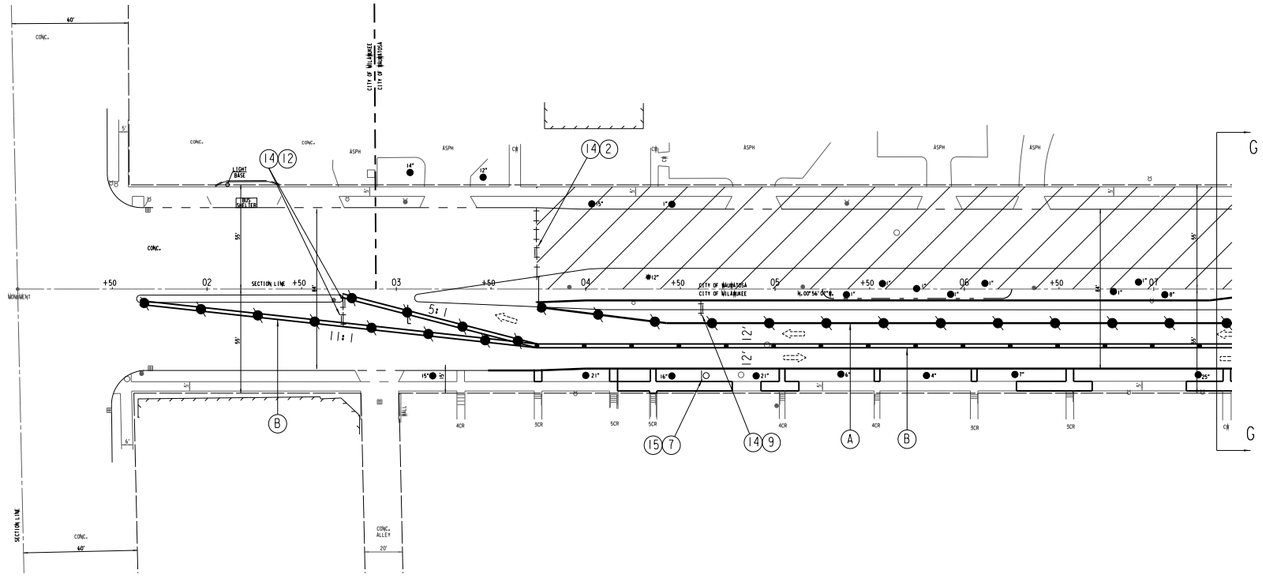
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

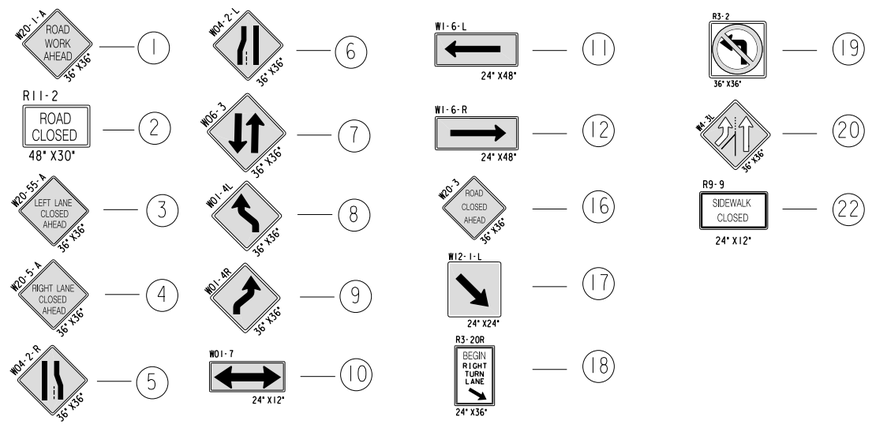
REVISED DATE: 10-28-2016

STAGE 2

N







DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

SHEET 1 OF 9

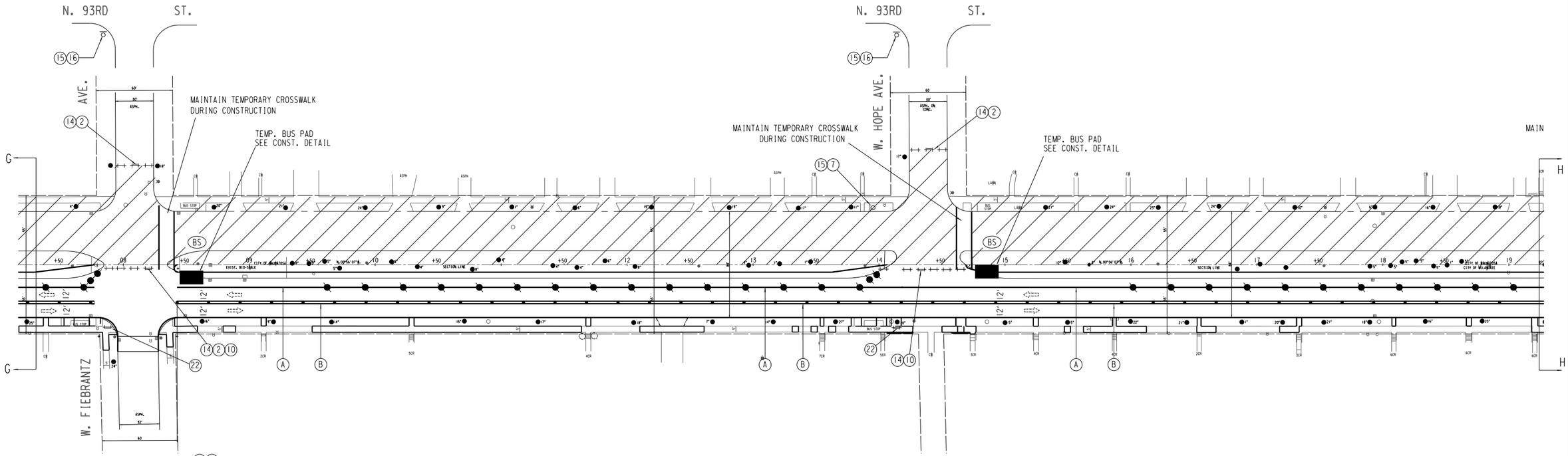
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 149	E

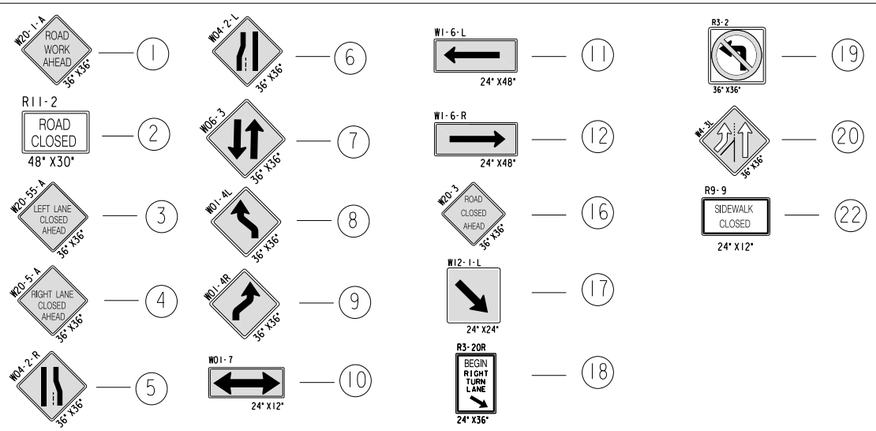
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE 2

N





DRUMS W/LIGHTS 30' SPACING — 13
TYPE III BARRICADES — 14
TYPE III BARRICADES W/ SIGN — 14 + X
SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15
WORK AREA
REMOVE ISLAND
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE
(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW
(D) TPM, REMOVABLE TAPE, 4" YELLOW

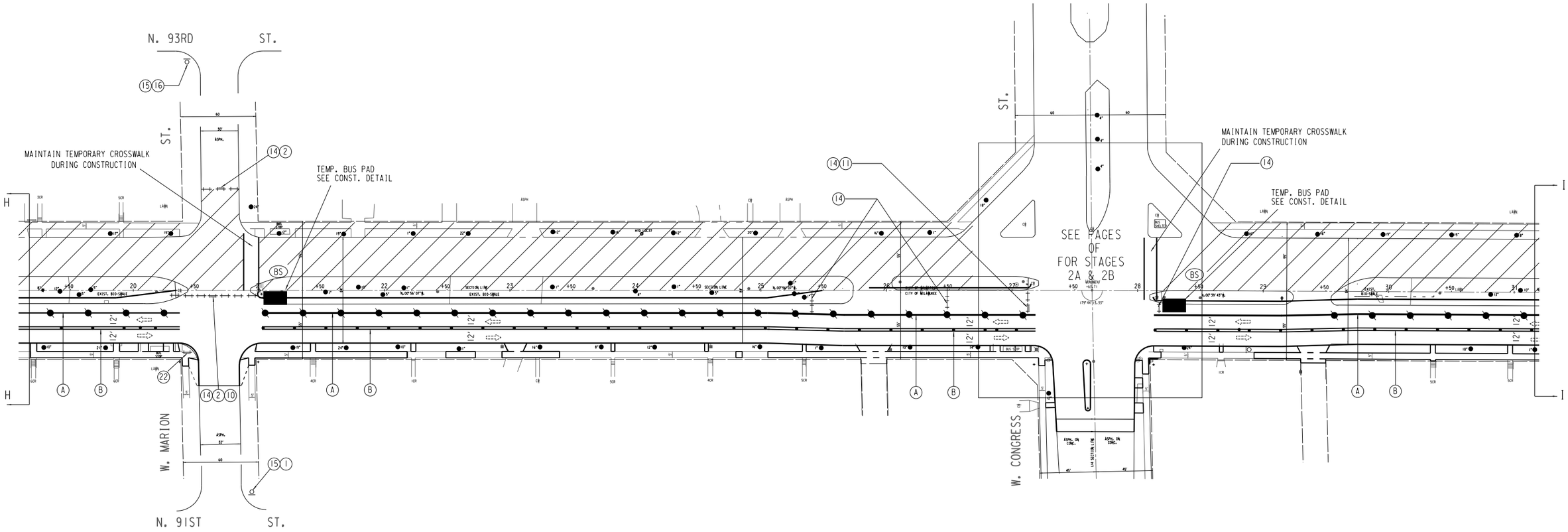
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

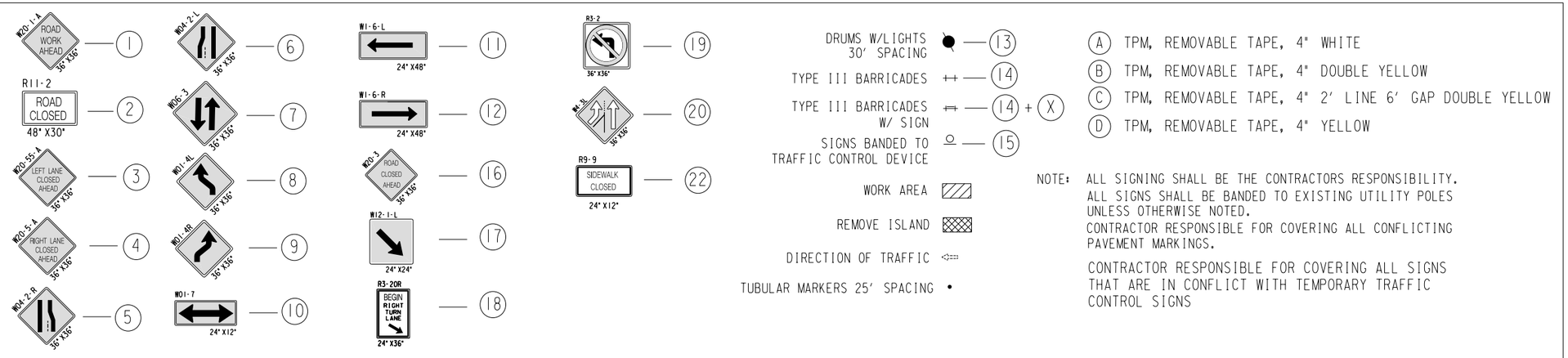
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 150	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE 2





NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

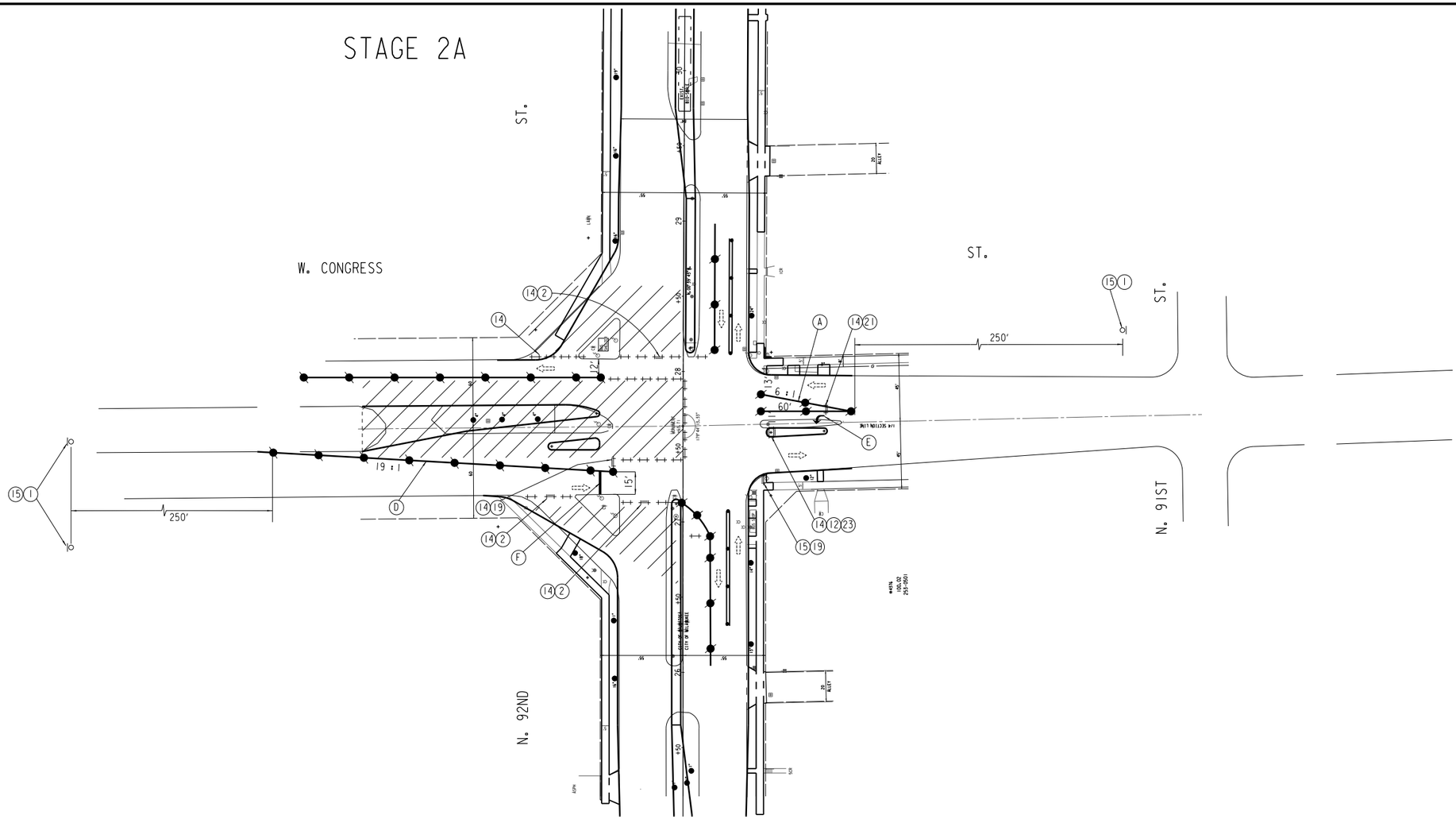
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

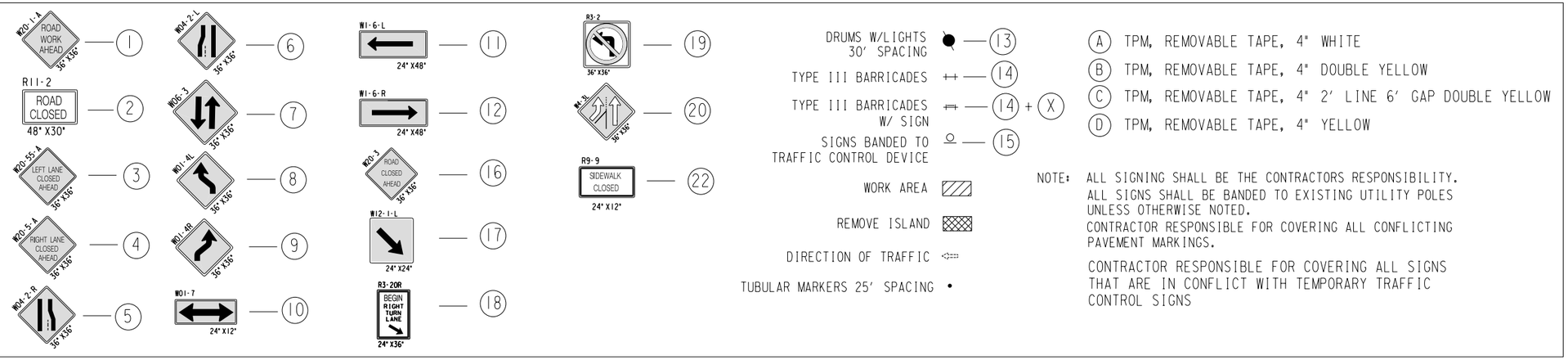
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 151	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE 2A



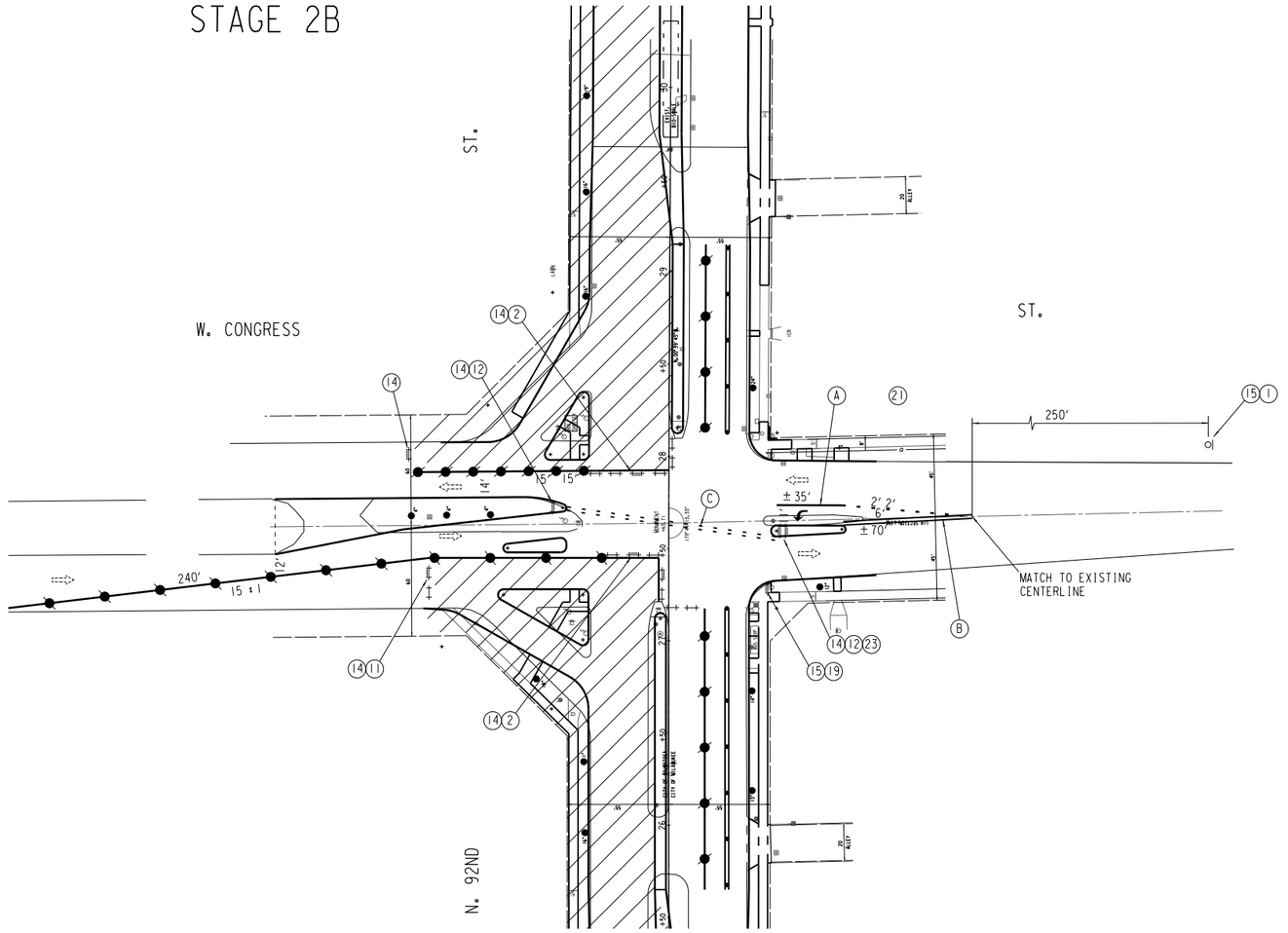


STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SCALE FEET 0' 80'	SHEET NO: 152	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE 2B



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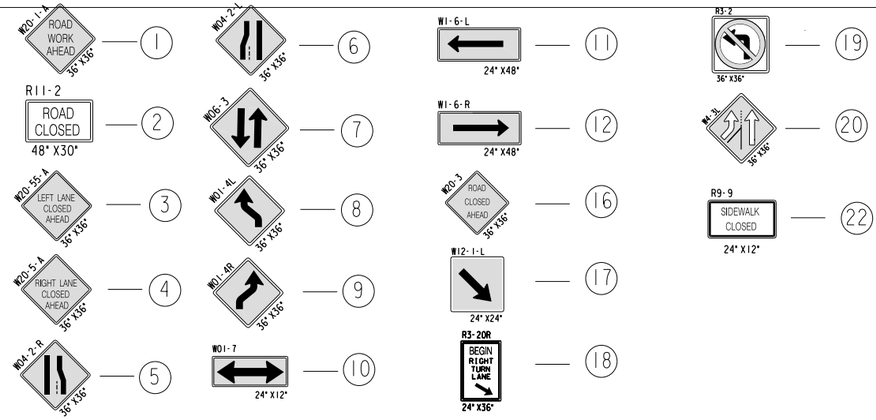


DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — 15

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

SHEET 5 OF 9

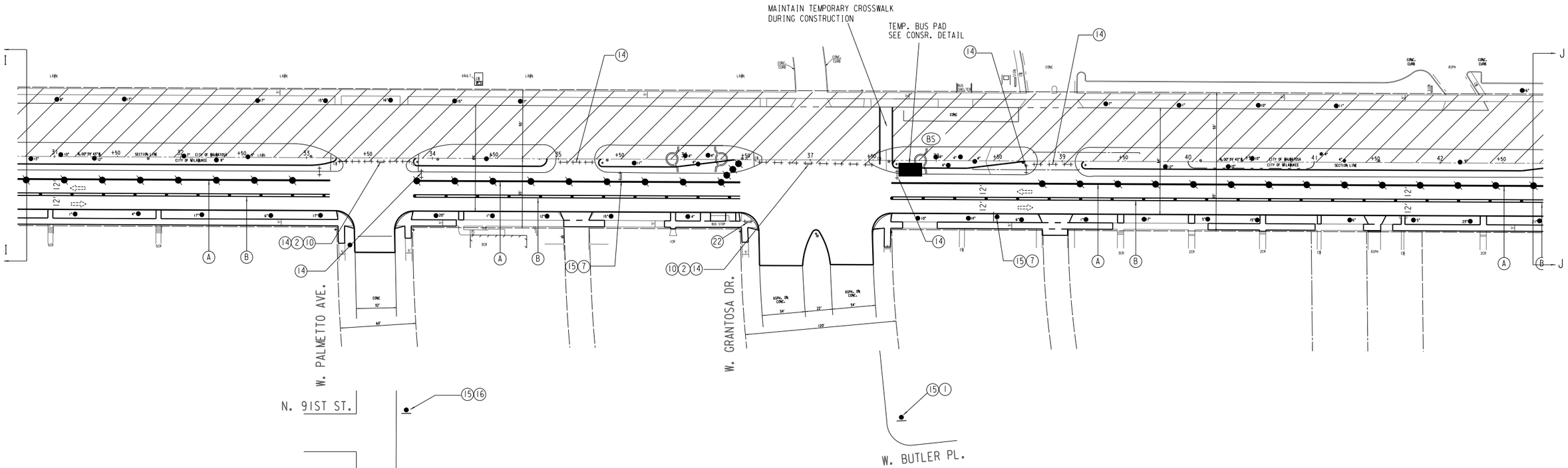
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SCALE FEET 0' 80'	SHEET NO: 153	E

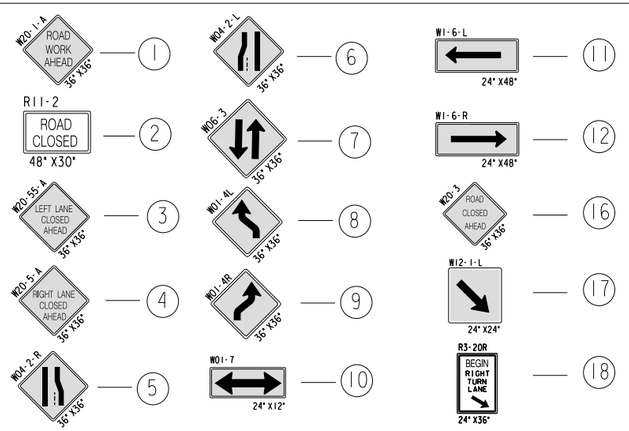
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

STAGE 2

N





DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

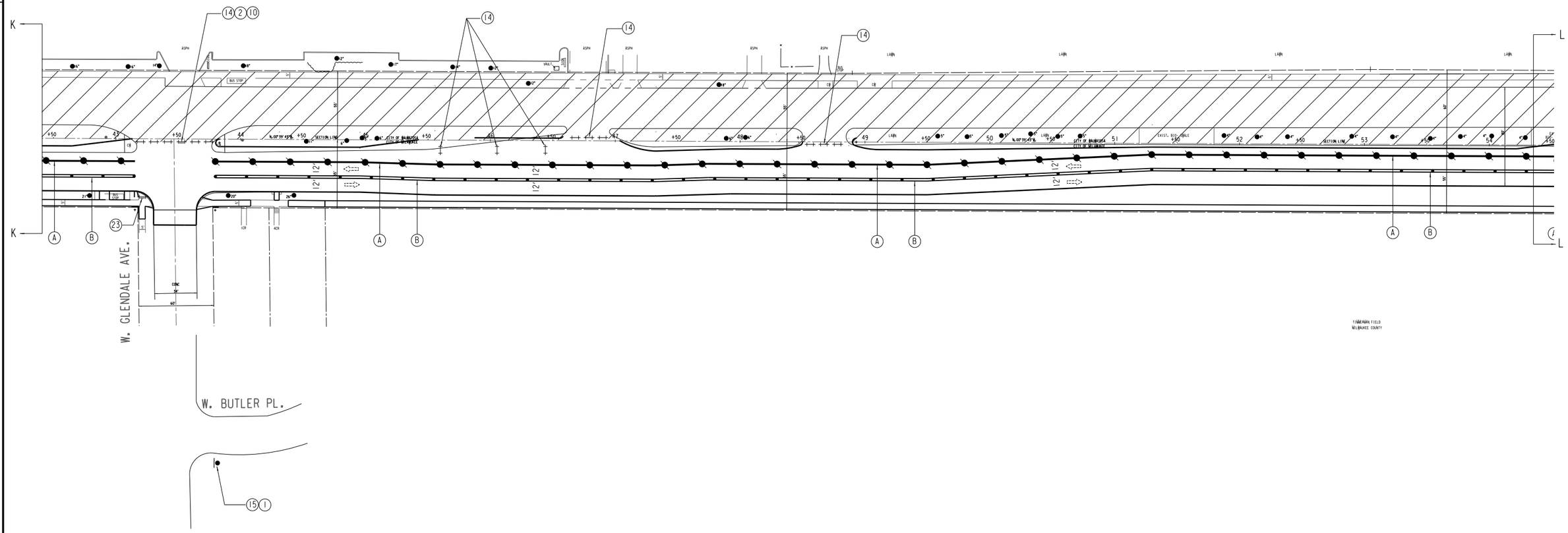
SHEET 6 OF 9

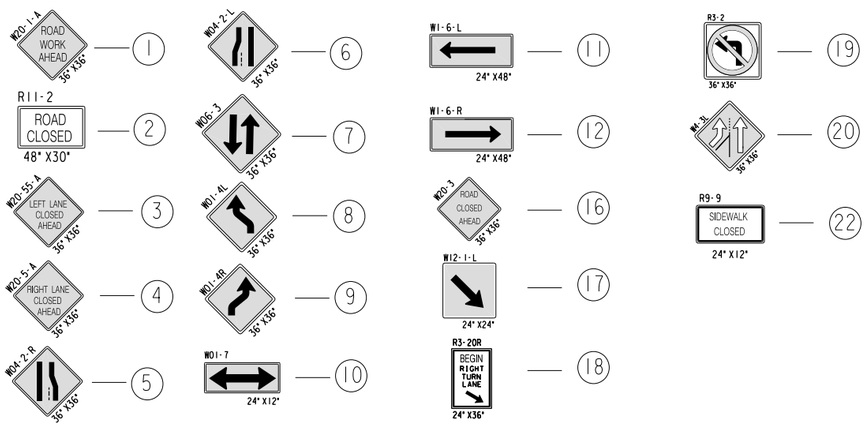
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 154	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

STAGE 2





DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

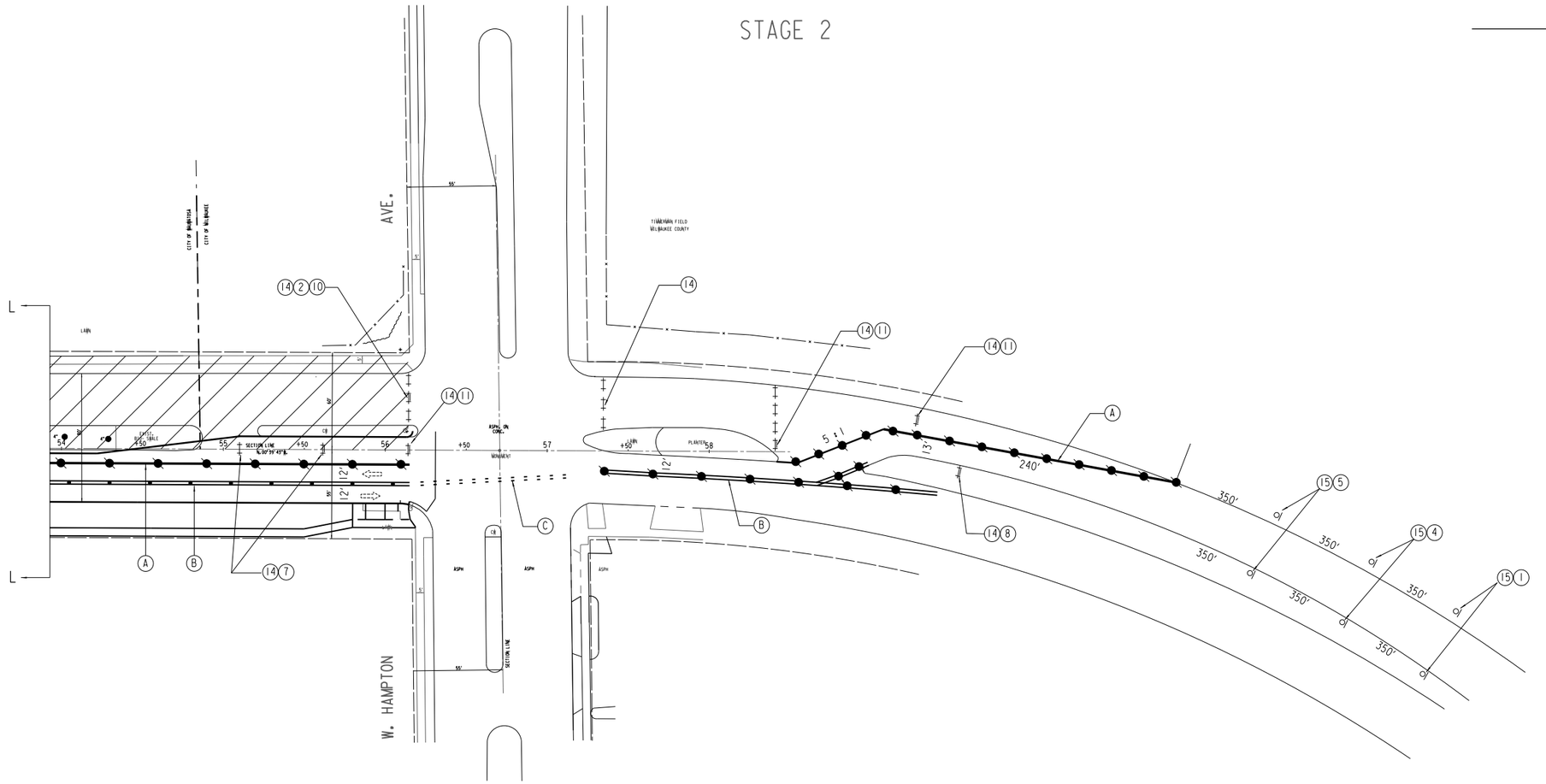
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 155	E

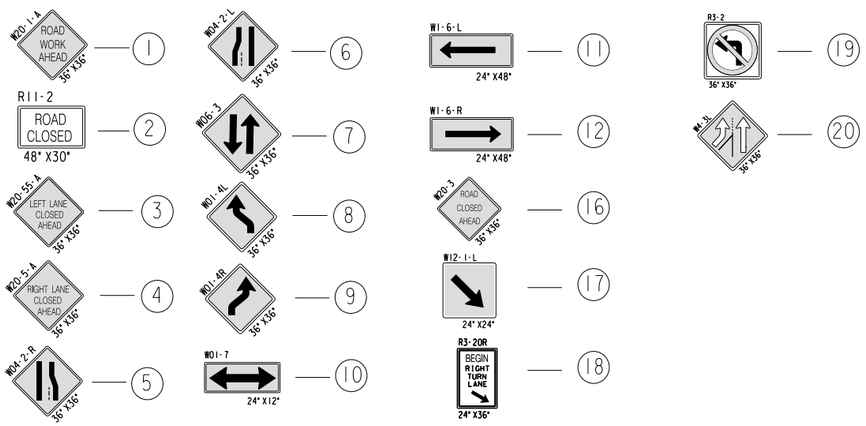
FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-27-2016 BY TJK

2

STAGE 2





DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE — (15)

WORK AREA

REMOVE ISLAND

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING •

(A) TPM, REMOVABLE TAPE, 4" WHITE

(B) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" 2' LINE 6' GAP DOUBLE YELLOW

(D) TPM, REMOVABLE TAPE, 4" YELLOW

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

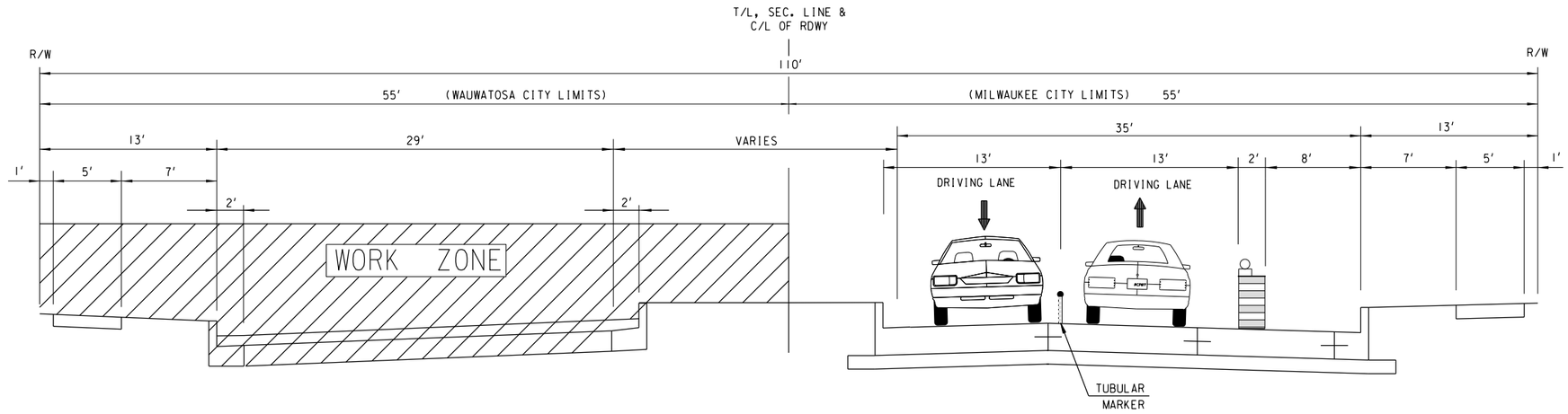
CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS

STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 80'	SHEET NO: 156	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 11-29-2016 BY SB

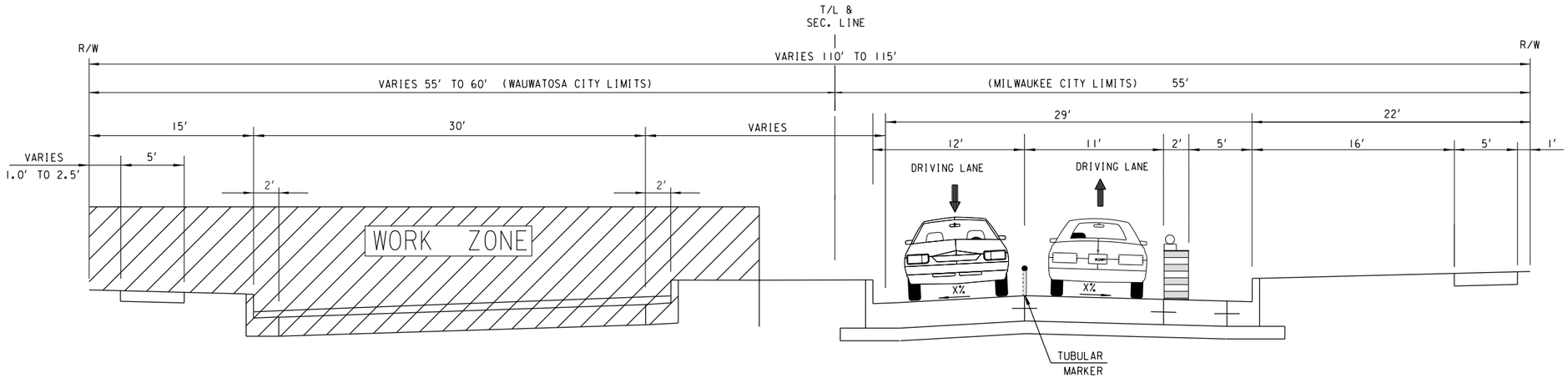
STAGE 2 TYPICAL



STA. 03 + 05.0 TO STA. 44 + 95.5

STA. 03 + 05.0 TO STA. 44 + 95.5

STAGE 2 TYPICAL



STA. 44 + 95.5 TO STA. 56 + 31.0

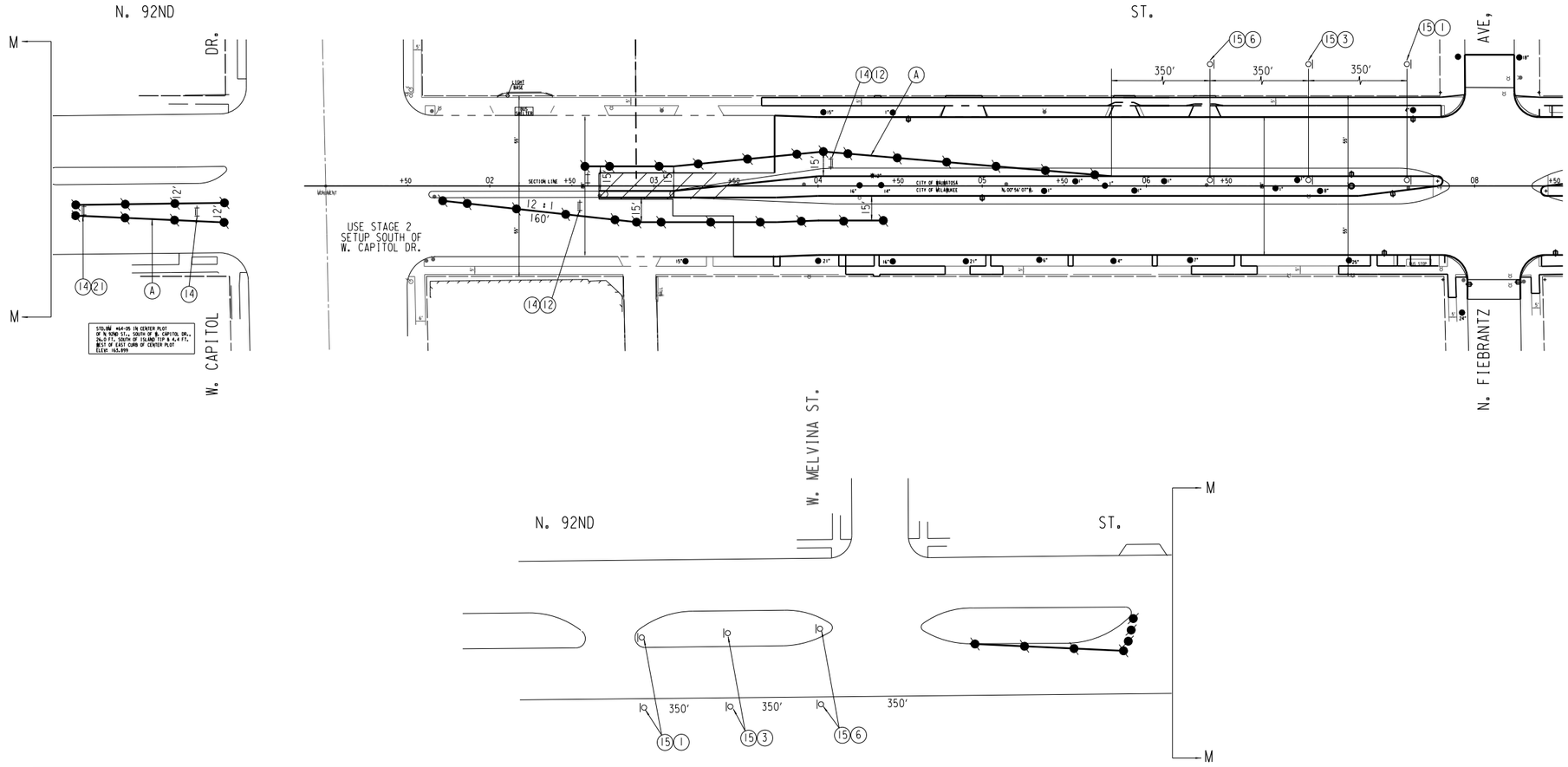
STA. 44 + 95.5 TO STA. 56 + 31.0

STATE PROJECT NUMBER 2585-00-70 - -	N. 92ND ST.	COUNTY: MILWAUKEE	CONSTRUCTION STAGING	SCALE FEET 0' 40'	SHEET NO: 157	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

REVISED DATE: 10-28-2016

STAGE 3



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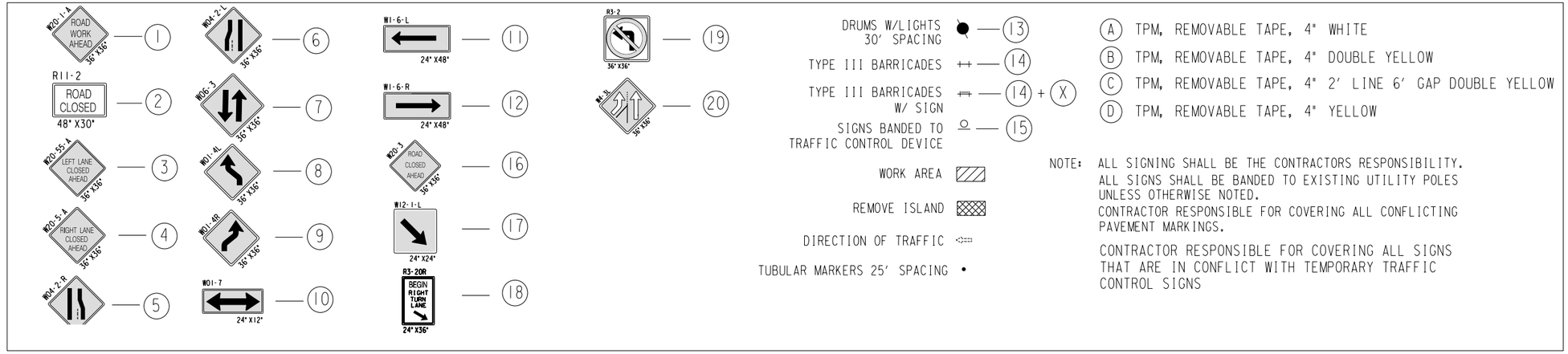
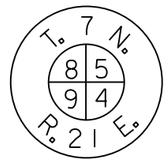


SHEET 1 OF 1

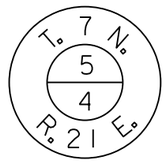
STATE PROJECT NUMBER 2585-00-70 - -	HWY: N. 92ND ST.	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SCALE FEET 0' 80'	SHEET NO: 158	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\TRAFFIC.DGN

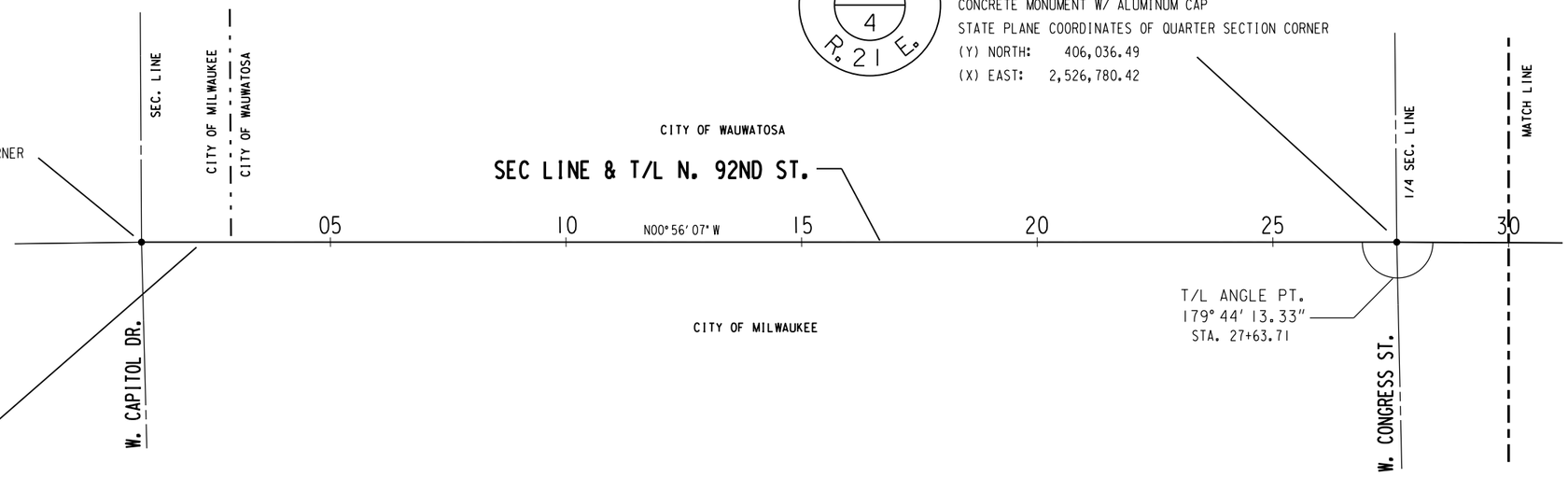
REVISED DATE: 07-24-2016 BY ML



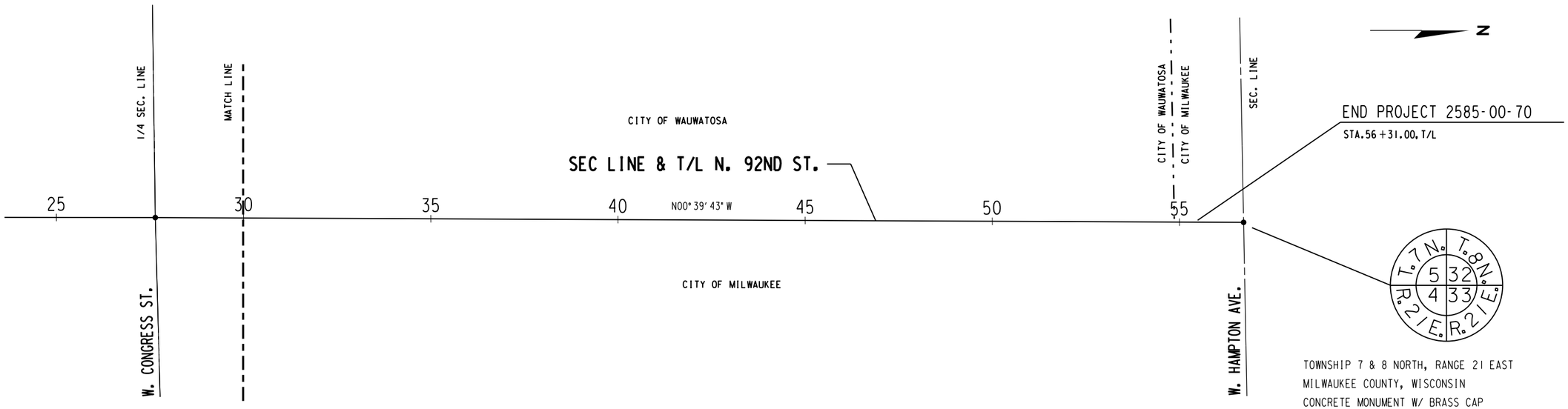
TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF SECTION CORNER
(Y) NORTH: 403,373.30
(X) EAST: 2,526,823.90



TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ ALUMINUM CAP
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 406,036.49
(X) EAST: 2,526,780.42



BEGIN PROJECT 2585-00-70
STA. 03+06.00, T/L
(Y) NORTH: 403,579.28
(X) EAST: 2,526,821.18



END PROJECT 2585-00-70
STA. 56+31.00, T/L

TOWNSHIP 7 & 8 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP
STATE PLANE COORDINATES OF SECTION CORNER
(Y) NORTH: 408,943.32
(X) EAST: 2,526,746.83

REVISED: 10-19-2015

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	ALIGNMENT	SCALE FEET 0' 40'	SHEET NO: 159	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\ALIGNMENT.DGN

2585-00-70

Line	Item	Item Description	Unit	Total	Qty
0010	201.0120	Clearing	ID	584.000	584.000
0020	201.0220	Grubbing	ID	584.000	584.000
0030	204.0100	Removing Pavement	SY	42,977.000	42,977.000
0040	204.0115	Removing Asphaltic Surface Butt Joints	SY	920.000	920.000
0050	204.0150	Removing Curb & Gutter	LF	320.000	320.000
0060	204.0155	Removing Concrete Sidewalk	SY	4,250.000	4,250.000
0070	204.0195	Removing Concrete Bases	EACH	35.000	35.000
0080	204.0220	Removing Inlets	EACH	71.000	71.000
0090	204.0245	Removing Storm Sewer (size) 01. 8-Inch Pipe	LF	2,153.000	2,153.000
0100	204.0245	Removing Storm Sewer (size) 02. 12-Inch Pipe	LF	44.000	44.000
0110	205.0100	Excavation Common	CY	39,891.000	39,891.000
0120	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	303.000	303.000
0140	213.0100	Finishing Roadway (project) 02. 2585-00-70	EACH	1.000	1.000
0160	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	40,142.000	40,142.000
0170	320.0125	Concrete Base 6-Inch	SY	120.000	120.000
0200	415.0070	Concrete Pavement 7-Inch	SY	120.000	120.000
0210	415.0080	Concrete Pavement 8-Inch	SY	40,677.000	40,677.000
0220	415.0210	Concrete Pavement Gaps	EACH	6.000	6.000
0230	416.0170	Concrete Driveway 7-Inch	SY	600.000	600.000
0240	416.0610	Drilled Tie Bars	EACH	90.000	90.000
0250	416.0620	Drilled Dowel Bars	EACH	30.000	30.000
0260	455.0605	Tack Coat	GAL	25.000	25.000
0270	460.2000	Incentive Density HMA Pavement	DOL	110.000	110.000
0280	460.5224	HMA Pavement 4 LT 58-28 S	TON	170.000	170.000
0290	601.0331	Concrete Curb & Gutter 31-Inch	LF	11,050.000	11,050.000
0300	601.0600	Concrete Curb Pedestrian	LF	170.000	170.000
0310	602.0410	Concrete Sidewalk 5-Inch	SF	40,900.000	40,900.000
0320	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	500.000	500.000
0330	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	1,389.000	1,389.000
0340	611.2004	Manholes 4-FT Diameter	EACH	19.000	19.000
0350	611.3225	Inlets 2x2.5-FT	EACH	10.000	10.000
0360	611.8110	Adjusting Manhole Covers	EACH	80.000	80.000
0370	611.9710	Salvaged Inlet Covers	EACH	5.000	5.000
0380	612.0108	Pipe Underdrain 8-Inch	LF	34.000	34.000
0390	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	253.000	253.000
0400	612.0208	Pipe Underdrain Unperforated 8-Inch	LF	5.000	5.000
0420	619.1000	Mobilization	EACH	0.500	0.500
0430	620.0300	Concrete Median Sloped Nose	SF	1,700.000	1,700.000

2585-00-70

Line	Item	Item Description	Unit	Total	Qty
0440	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0450	623.0200	Dust Control Surface Treatment	SY	40,700.000	40,700.000
0460	625.0100	Topsoil	SY	12,900.000	12,900.000
0470	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0480	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0490	628.7005	Inlet Protection Type A	EACH	90.000	90.000
0500	628.7010	Inlet Protection Type B	EACH	3.000	3.000
0510	628.7015	Inlet Protection Type C	EACH	90.000	90.000
0520	629.0205	Fertilizer Type A	CWT	0.722	0.722
0540	631.1000	Sod Lawn	SY	12,900.000	12,900.000
0550	632.0101	Trees (species) (size) (root) 01. American Sweetgum 'Moraine' 3" Cal B&B	EACH	4.000	4.000
0560	632.0101	Trees (species) (size) (root) 02. Amur Corktree 3" Cal B&B	EACH	3.000	3.000
0570	632.0101	Trees (species) (size) (root) 03. Autumn Blaze Maple 3.5" Cal B&B	EACH	4.000	4.000
0580	632.0101	Trees (species) (size) (root) 04. Autumn Brilliance Servicebry 3" Cal B&B	EACH	3.000	3.000
0590	632.0101	Trees (species) (size) (root) 05. Butternut 3" Cal B&B	EACH	1.000	1.000
0600	632.0101	Trees (species) (size) (root) 06. Callery Pear 3" Cal B&B	EACH	3.000	3.000
0610	632.0101	Trees (species) (size) (root) 07. Common Bald Cypress 3" Cal B&B	EACH	1.000	1.000
0620	632.0101	Trees (species) (size) (root) 08. Ironwood 3" Cal B&B	EACH	1.000	1.000
0630	632.0101	Trees (species) (size) (root) 09. Japanese Tree Lilac 3" Cal B&B	EACH	2.000	2.000
0640	632.0101	Trees (species) (size) (root) 10. Kentucky Coffeetree 3" Cal B&B	EACH	1.000	1.000
0650	632.0101	Trees (species) (size) (root) 11. Red Bud 3" Cal B&B	EACH	2.000	2.000
0660	632.0101	Trees (species) (size) (root) 12. Shagbark Hickory 3" Cal B&B	EACH	1.000	1.000
0670	632.0101	Trees (species) (size) (root) 13. Sunburst Honeylocust 3" Cal B&B	EACH	3.000	3.000
0680	632.0101	Trees (species) (size) (root) 14. Tulip Tree 3" Cal B&B	EACH	1.000	1.000
0690	632.0101	Trees (species) (size) (root) 15. Varigated Maple 3" Cal B&B	EACH	1.000	1.000
0700	632.0101	Trees (species) (size) (root) 16. Yellow River Birch 3" Cal B&B	EACH	1.000	1.000
0710	632.0101	Trees (species) (size) (root) 17. Hornbeam 3" Cal B&B	EACH	3.000	3.000
0720	632.0201	Shrubs (species) (size) (root) 01. Dwarf Serbian Spruce #5 CG	EACH	2.000	2.000
0730	632.0201	Shrubs (species) (size) (root) 02. Yellow Knockout	EACH	6.000	6.000

2585-00-70

Line	Item	Item Description	Unit	Total	Qty
		Roses #3 CG			
0740	632.0201	Shrubs (species) (size) (root) 03. Red Twig Dogwood #3 CG	EACH	5.000	5.000
0750	632.0201	Shrubs (species) (size) (root) 04. Rugosa Roses #3 CG	EACH	28.000	28.000
0760	632.0201	Shrubs (species) (size) (root) 05. Sea Green Juniper #5 CG	EACH	9.000	9.000
0770	632.0201	Shrubs (species) (size) (root) 06. Cool Splash Honeysuckle #5 CG	EACH	5.000	5.000
0780	632.0201	Shrubs (species) (size) (root) 07. Diablo Ninebark #5 CG	EACH	8.000	8.000
0790	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	9.000	9.000
0830	642.5401	Field Office Type D	EACH	0.800	0.800
0850	643.0100	Traffic Control (project) 02. 2585-00-70	EACH	1.000	1.000
0870	643.0300	Traffic Control Drums	DAY	74,805.000	74,805.000
0880	643.0410	Traffic Control Barricades Type II	DAY	18,396.000	18,396.000
0890	643.0420	Traffic Control Barricades Type III	DAY	24,979.000	24,979.000
0900	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	451.000	451.000
0910	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	451.000	451.000
0920	643.0705	Traffic Control Warning Lights Type A	DAY	93,201.000	93,201.000
0930	643.0715	Traffic Control Warning Lights Type C	DAY	49,958.000	49,958.000
0950	643.0900	Traffic Control Signs	DAY	25,330.000	25,330.000
0960	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	6,500.000	6,500.000
0970	644.1430.S	Temporary Pedestrian Surface Plate	SF	660.000	660.000
0980	645.0112	Geotextile Type DF Schedule B	SY	88.000	88.000
0990	646.0106	Pavement Marking Epoxy 4-Inch	LF	11,334.000	11,334.000
1000	646.0116	Pavement Marking Epoxy 6-Inch	LF	7,072.000	7,072.000
1010	646.0126	Pavement Marking Epoxy 8-Inch	LF	628.000	628.000
1020	646.0600	Removing Pavement Markings	LF	60.000	60.000
1030	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	4.000	4.000
1040	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	17.000	17.000
1050	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	17.000	17.000
1060	647.0356	Pavement Marking Words Epoxy	EACH	4.000	4.000
1070	647.0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	174.000	174.000
1080	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	688.000	688.000
1090	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	27,283.000	27,283.000
1100	650.4000	Construction Staking Storm Sewer	EACH	92.000	92.000
1110	650.4500	Construction Staking Subgrade	LF	10,700.000	10,700.000
1120	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	20,560.000	20,560.000
1130	650.7000	Construction Staking Concrete Pavement	LF	10,700.000	10,700.000
1150	650.8500	Construction Staking Electrical Installations (project) 02. 2585-00-70	LS	1.000	1.000

2585-00-70

Line	Item	Item Description	Unit	Total	Qty
1180	650.9910	Construction Staking Supplemental Control (project) 02. 2585-00-70	LS	1.000	1.000
1200	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	110.000	110.000
1210	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	3,715.000	3,715.000
1220	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	480.000	480.000
1230	652.0330	Conduit Rigid Nonmetallic Schedule 80 2 1/2-Inch	LF	885.000	885.000
1240	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	910.000	910.000
1250	652.0610	Conduit Special 2 1/2-Inch	LF	490.000	490.000
1260	654.0101	Concrete Bases Type 1	EACH	8.000	8.000
1270	654.0105	Concrete Bases Type 5	EACH	39.000	39.000
1280	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
1310	655.0305	Cable Type UF 2-12 AWG Grounded	LF	3,340.000	3,340.000
1320	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	39.000	39.000
1330	657.0322	Poles Type 5-Aluminum	EACH	5.000	5.000
1340	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	68.000	68.000
1350	657.1808	Install Luminaire Arms Steel 8-FT	EACH	6.000	6.000
1360	690.0150	Sawing Asphalt	LF	830.000	830.000
1370	690.0250	Sawing Concrete	LF	600.000	600.000
1380	715.0415	Incentive Strength Concrete Pavement	DOL	12,239.000	12,239.000
1390	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,800.000	1,800.000
1400	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,000.000	3,000.000
1410	SPV.0035	Special 01. Engineered Soil	CY	133.000	133.000
1420	SPV.0035	Special 02. Bedding Layer	CY	29.000	29.000
1430	SPV.0035	Special 03. Storage Layer	CY	177.000	177.000
1440	SPV.0060	Special 01. Concrete Base Type 10 Special	EACH	2.000	2.000
1460	SPV.0060	Special 03. Monotube Arm 25-Ft	EACH	2.000	2.000
1480	SPV.0060	Special 05. Monotube Arm 35-Ft	EACH	1.000	1.000
1490	SPV.0060	Special 06. Monotube Arm 40-Ft	EACH	1.000	1.000
1540	SPV.0060	Special 11. Pole Type 10	EACH	2.000	2.000
1580	SPV.0060	Special 15. Pole Type 13 Special	EACH	2.000	2.000
1590	SPV.0060	Special 16. Fiberglass/Polymer Concrete Pull Box 13" x 24" x 24"	EACH	34.000	34.000
1600	SPV.0060	Special 17. Fiberglass/Polymer Concrete Pull Box 17" x 30" x 24"	EACH	15.000	15.000
1610	SPV.0060	Special 18. Utility Line Opening (ULO)	EACH	4.000	4.000
1620	SPV.0060	Special 20. Manhole Cover Type 58A	EACH	70.000	70.000
1630	SPV.0060	Special 21. Storm Inlet Type 45A	EACH	64.000	64.000
1640	SPV.0060	Special 22. Inlet Cover Type 55	EACH	1.000	1.000
1650	SPV.0060	Special 23. Inlet Cover Type 57	EACH	88.000	88.000
1660	SPV.0060	Special 24. Internal Sanitary Manhole Seal	EACH	21.000	21.000

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Line	Item	Item Description	Unit	Total	Qty
1670	SPV.0060	Special 25. Adjusting Water Valve Box	EACH	19.000	19.000
1680	SPV.0060	Special 26. Informational Sign Post	EACH	3.000	3.000
1690	SPV.0060	Special 27. 8-Inch PVC Standpipe with Dome Grate	EACH	5.000	5.000
1700	SPV.0060	Special 28. 6-Inch Cleanout	EACH	7.000	7.000
1710	SPV.0060	Special 29. Black Eyed Susan #1 CG	EACH	180.000	180.000
1720	SPV.0060	Special 30. Blue Wonder Catmint #1 CG	EACH	168.000	168.000
1730	SPV.0060	Special 31. Dwarf Daylilies Happy Returns #1 CG	EACH	412.000	412.000
1740	SPV.0060	Special 32. Karl Foerster Grass #1 CG	EACH	12.000	12.000
1750	SPV.0060	Special 33. Little Bunny Grass #1 CG	EACH	10.000	10.000
1760	SPV.0060	Special 34. Purple Coneflower #1 CG	EACH	48.000	48.000
1770	SPV.0060	Special 35. Russian Sage #1 CG	EACH	56.000	56.000
1780	SPV.0060	Special 36. Shasta Daisy #1 CG	EACH	72.000	72.000
1790	SPV.0060	Special 37. Inlet Frame and Grate	EACH	5.000	5.000
1800	SPV.0060	Special 38. Storm Sewer Pipe Coupling 8-Inch	EACH	1.000	1.000
1810	SPV.0060	Special 39. 4' Diameter Manhole Type TES	EACH	10.000	10.000
1820	SPV.0060	Special 40. Skid/Slip Resistance Grn Preformed Thermoplastic Integrated Bike Ln Symbol	EACH	1.000	1.000
1830	SPV.0060	Special 41. Skid/Slip Resistance Grn Preformed Thermoplastic Integrated Bike Ln Arrow	EACH	1.000	1.000
1840	SPV.0060	Special 42. Construction Staking Curb Ramp	EACH	46.000	46.000
1850	SPV.0060	Special 43. Signature Bed	EACH	2.000	2.000
1860	SPV.0060	Special 44. Cloud Nine Switch Grass #1 CG	EACH	14.000	14.000
1870	SPV.0060	Special 45. Dwarf Korean Lilac #3 CG	EACH	12.000	12.000
1880	SPV.0060	Special 46. Woods Pastel Aster #1 CG	EACH	72.000	72.000
1890	SPV.0060	Special 47. Luminaire Utility LED 95W Type 2	EACH	62.000	62.000
1900	SPV.0060	Special 48. Luminaire Utility LED 164W Type 2	EACH	14.000	14.000
1910	SPV.0060	Special 49. Poles Type 5A Aluminum 25'	EACH	34.000	34.000
1920	SPV.0090	Special 01. Construct Staking Concrete Sidewalk	LF	5,870.000	5,870.000
1930	SPV.0090	Special 02. Concrete C&G Integral 19-Inch	LF	9,510.000	9,510.000
1940	SPV.0090	Special 03. 6-Duct Conduit Cement Encased DB-60	LF	5,383.000	5,383.000
1950	SPV.0090	Special 04. 3-Duct Conduit Cement Encased DB-60	LF	41.000	41.000
1960	SPV.0090	Special 05. 2-Duct Conduit Cement Encased DB-60	LF	13.000	13.000
1970	SPV.0090	Special 06. 1-Duct Conduit Cement Encased DB-60	LF	89.000	89.000
1980	SPV.0090	Special 07. Fieldstone Boulder Wall	LF	76.000	76.000
1990	SPV.0090	Special 08. Cable Type 3#2/1#8 LTP	LF	1,850.000	1,850.000
2000	SPV.0090	Special 09. Cable Type 3#4/1#8 LTP	LF	2,290.000	2,290.000
2010	SPV.0090	Special 10. Cable Type 3#6/1#8 LTP	LF	160.000	160.000
2020	SPV.0165	Special 02. Skid/Slip Resistance Grn Preformed Thermoplastic Integrated Bike Ln Panel	SF	288.000	288.000
2030	SPV.0180	Special 01. Cobblestone	SY	30.000	30.000

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2040	SPV.0180	Special 02. Joint Sealing	SY	43,382.000	43,382.000	

ROADWAY REMOVAL ITEMS

CATEGORY 010

ITEM	CLEARING		
ITEM NO.	201.0120		
UNIT PAY	ID		
LOCATION	LEFT	RIGHT	MEDIAN
STA 2+66.5 to STA 6+00	0	0	42
STA 6+00 to STA 12+00	4	21	29
STA 12+00 to STA 18+00	0	18	45
STA 18+00 to STA 24+00	12	0	50
STA 24+00 to STA 30+00	105	118	0
STA 30+00 to STA 36+00	0	0	60
STA 36+00 to STA 42+00	0	0	38
STA 42+00 to STA 48+00	0	0	32
STA 48+00 to STA 54+00	0	0	6
STA 54+00 to STA 56+31	0	0	4
	121	157	306
TOTAL	584		

CATEGORY 010

ITEM	GRUBBING		
ITEM NO.	201.0220		
UNIT PAY	ID		
LOCATION	LEFT	RIGHT	MEDIAN
STA 2+66.5 to STA 6+00	0	0	42
STA 6+00 to STA 12+00	4	21	29
STA 12+00 to STA 18+00	0	18	45
STA 18+00 to STA 24+00	12	0	50
STA 24+00 to STA 30+00	105	118	0
STA 30+00 to STA 36+00	0	0	60
STA 36+00 to STA 42+00	0	0	38
STA 42+00 to STA 48+00	0	0	32
STA 48+00 to STA 54+00	0	0	6
STA 54+00 to STA 56+31	0	0	4
	121	157	306
TOTAL	584		

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ROADWAY REMOVAL ITEMS

CATEGORY 010

LOCATION / ITEM / ITEM NO. / UNIT PAY	REMOVING PAVEMENT 204.0100 SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115 SY	REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	REMOVING STORM SEWER 8" 204.0245.01 LF	REMOVING STORM SEWER 12" 204.0245.02 LF	SAWING ASPHALT 690.0150 LF	SAWING CONCRETE 690.0250 LF
STA 3+06 to STA 6+00	1,920	0	0	220	0	0	40	0
STA 6+00 to STA 12+00	4,630	100	60	590	257	0	90	0
STA 12+00 to STA 18+00	4,660	0	0	480	223	44	40	0
STA 18+00 to STA 24+00	4,610	120	80	480	334	0	80	60
STA 24+00 to STA 30+00	6,570	340	110	610	250	0	300	150
STA 30+00 to STA 36+00	4,680	0	0	650	251	0	0	10
STA 36+00 to STA 42+00	4,770	180	50	660	169	0	110	30
STA 42+00 to STA 48+00	4,800	0	0	470	110	0	60	0
STA 48+00 to STA 54+00	4,500	0	0	60	267	0	20	0
STA 54+00 to STA 56+31	1,760	180	20	30	292	0	90	0
TOTAL	42,900	920	320	4,250	2,153	44	830	250

ROADWAY REMOVAL ITEMS

CATEGORY 010

ITEM / ITEM NO. / UNIT PAY	EXCAVATION COMMON 205.0100 CY
STA 3+06 to STA 56+31	28,178
Undistributed EBS	11,271
TOTAL	39,449

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EARTH WORK SUMMARY

CATEGORY 010

From/To Station	Location	Excavation Common (1) (Item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow(8)
		Cut (2)	EBS Excavation (3)				1.15 Factor			
		CY	CY	CY	CY	CY	CY	CY	CY	CY
Sta. 3+06 to Sta. 56+31	N. 92nd St.	28,178	11,271	14,002	25,447	1,823	2,096	23,260	37,262	0

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100.
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Base Aggregate Dense Graded 1-1/4 Inch material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Expanded Fill. Factor = 1.15
7) The Mass Ordinate (+) or (-) quantity calculated for the Division. Positive (+) quantity indicates an excess of material within the Division. Negative (-) quantity indicates a shortage of material.
8) To be bid as part of Base Aggregate Dense Graded 1-1/4 Inch. Item number 305.0120.

SEE SECTION 9 OF PLANS FOR CUT & FILL QUANTITIES

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ROADWAY CONSTRUCTION ITEMS

CATEGORY 010

ITEM ITEM NO. UNIT PAY	BASE AGGREGATE DENSE 1 1/4 INCH 305.0120 TON	CONCRETE BASE 6-INCH 320.0125 SY	CONCRETE PAVEMENT 7-INCH 415.0070 SY	CONCRETE PAVEMENT 8-INCH 415.0080 SY	CONCRETE PAVEMENT GAPS 415.0210 EACH	CONCRETE DRIVEWAY 7-INCH 416.0170 SY	DRILLED TIE BARS 416.0610 EACH	DRILLED DOWEL BARS 416.0620 EACH	TACK COAT 455.0605 GAL	HMA PAVEMENT 4 LT 58-28S 460.5224 TON	CONCRETE CURB & GUTTER 31-INCH 601.0331 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 5-INCH 602.0410 SF	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 EACH
STA 3+06 to STA 6+00	870	0	0	1,840	0	50	90	0	0	0	480	0	1,500	0
STA 6+00 to STA 12+00	2,070	0	0	4,540	0	80	0	0	2	10	1,150	0	4,580	80
STA 12+00 to STA 18+00	2,050	100	0	4,470	0	50	0	0	2	20	1,210	40	3,750	60
STA 18+00 to STA 24+00	2,080	0	0	4,550	1	60	0	0	4	20	1,150	0	3,820	80
STA 24+00 to STA 30+00	2,460	0	10	5,910	1	100	0	0	9	60	1,900	10	7,000	120
STA 30+00 to STA 36+00	1,900	0	60	4,550	0	30	0	30	0	0	1,170	50	5,540	60
STA 36+00 to STA 42+00	1,940	10	10	4,770	2	130	0	0	4	30	1,190	40	4,550	60
STA 42+00 to STA 48+00	1,940	10	40	4,710	2	90	0	0	0	0	1,160	30	4,910	40
STA 48+00 to STA 54+00	1,680	0	0	3,870	0	10	0	0	0	0	1,200	0	3,360	0
STA 54+00 to STA 56+31	610	0	0	1,390	0	0	0	0	4	30	440	0	1,890	0
EBS BACKFILL	22,542	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	40,142	120	120	40,600	6	600	90	30	25	170	11,050	170	40,900	500

ROADWAY CONSTRUCTION ITEMS

CATEGORY 010

ITEM ITEM NO. UNIT PAY	CONCRETE MEDIAN SLOPED NOSE 620.0300 SF	DUST CONTROL SURFACE TREATMENT 623.0200 SY	TOPSOIL 625.0100 SY	FERTILIZER TYPE A 629.0205 CWT	SOD LAWN 631.1000 SY	CONSTRUCTION STAKING STORM SEWER 650.4000 EACH	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCTION STAKING CURB GUTTER and CURB & GUTTER 650.5500 LF	CONSTRUCTION STAKING CONCRETE PAVEMENT 650.7000 LF	CONSTRUCTION STAKING CURB RAMP SPV.0060.42 EACH	CONSTRUCTION STAKING CONCRETE SIDEWALK SPV.0090.01 LF	CONCRETE C&G INTEGRAL 19-INCH SPV.0090.02 LF
STA 3+06 to STA 6+00	0	1,840	640	0.036	640	2	470	1,060	470	0	290	580
STA 6+00 to STA 12+00	100	4,540	1,370	0.077	1,370	15	1,200	2,310	1,200	4	680	1,160
STA 12+00 to STA 18+00	80	4,470	1,420	0.080	1,420	4	1,200	2,330	1,200	6	250	1,120
STA 18+00 to STA 24+00	80	4,550	1,380	0.077	1,380	12	1,200	2,310	1,200	8	460	1,160
STA 24+00 to STA 30+00	530	5,910	1,280	0.072	1,280	11	1,410	2,890	1,410	12	710	990
STA 30+00 to STA 36+00	250	4,600	1,480	0.083	1,480	12	1,200	2,200	1,200	6	960	1,030
STA 36+00 to STA 42+00	190	4,770	1,270	0.071	1,270	12	1,200	2,110	1,200	6	800	920
STA 42+00 to STA 48+00	270	4,760	1,240	0.069	1,240	7	1,200	2,170	1,200	4	880	1,010
STA 48+00 to STA 54+00	120	3,870	2,150	0.120	2,150	8	1,200	2,310	1,200	0	620	1,110
STA 54+00 to STA 56+31	80	1,390	670	0.038	670	8	420	870	420	0	220	430
TOTAL	1,700	40,700	12,900	0.722	12,900	92	10,700	20,560	10,700	46	5,870	9,510

ROADWAY CONSTRUCTION ITEMS

CATEGORY 010

ITEM ITEM NO. UNIT PAY	EXCAVATION, HAULING.and DISPOSAL of PETROLEUM CONTAMINATED SOIL 205.0501.S TON	MOBILIZATION 619.1000 EACH	LANDMARK REFERENCE MONUMENT 621.0100 EACH	MOBILIZATION EROSION CONTROL 628.1905 EACH	MOBILIZATION EMERGENCY EROSION CONTROL 628.1910 EACH	FIELD OFFICE TYPE D 642.5401 EACH	TEMPORARY PEDESTRIAN SURFACE ASPHALT 644.1410.S SF	TEMPORARY PEDESTRIAN SURFACE PLATE 644.1430.S SF	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 650.9910 LS
TOTAL	303	1	1	1	1	1	6,500	660	1

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REMOVING INLETS

CATEGORY 0010
ITEM NO. 204.0220 (71)
UNIT PAY: EACH

NO	LOCATION	NO	LOCATION
101	7+75, 40' LT	136	33+90, 42' RT
101A	7+66, 3' LT	137	33+95, 11' RT
102	7+74, 40' RT	138	33+93, 42' LT
103	7+96, 58' RT	139	33+98, TL
104	8+27, 57' RT	140	35+43, 3' LT
105	8+44, 41' LT	141	35+41, 11' RT
106	8+49, 41' RT	142	36+60, 61' RT
107	8+69, T/L	143	37+49, 61' RT
108	8+69, 11' RT	144	37+69, 42' RT
109	8+97, 11' RT	145	37+73, 42' LT
110	17+92, 12' RT	146	37+79, TL
111	17+93.5, 40' RT	147	39+22, 12' RT
112	18+00, 41' LT	148	39+22, 1' RT
113	19+79, 11' RT	149	41+27, 41' RT
114	20+09, 11' RT	150	41+49, 42' LT
115	20+34, 41' LT	151	43+31, 58' RT
116	20+29, 41' RT	152	43+63, 59' RT
117	20+52, 64' RT	153	43+7441' LT
118	20+83, 64' RT	154	43+83, 12' RT
119	21+19, 41' RT	155	43+83, 42' RT
120	21+29, 41' LT	156	43+92, TL
121	21+44, 13' RT	157	48+30, 43' LT
122	21+43, 1' LT	158	48+39, 34' RT
123	22+21, 11' RT	159	48+39, 11' LT
124	22+20, 41' RT	160	51+76, 33' RT
125	22+55, 41' LT	161	51+79, 2' RT
126	22+89, 12' RT	162	51+79, 13' LT
127	27+34, 63' RT	163	51+79, 45' LT
128	27+97, 62' RT	165	54+71, 1' RT
129	28+15, 41' RT	166	54+76, 46' LT
130	28+92, 43' LT	167	54+76, 32' RT
131	29+78, 11' RT	168	54+78, 14' LT
132	29+94, 11' RT	169	55+96, 33' RT
133	31+42, 42' LT	170	56+07, 8' LT
134	33+40, 61' RT	171	56+08, 47' LT
135	33+70, 61' RT		

EROSION CONTROL ITEMS

CATEGORY 0010

LOCATION	INLET PROTECTION TYPE A 628.7005 EACH	INLET PROTECTION TYPE B 628.7010 EACH	INLET PROTECTION TYPE C 628.7015 EACH
STA 2+66.5 to STA 6+00	2		4
STA 6+00 to STA 12+00	14		13
STA 12+00 to STA 18+00	4		4
STA 18+00 to STA 24+00	11		11
STA 24+00 to STA 30+00	11	2	10
STA 30+00 to STA 36+00	12	1	12
STA 36+00 to STA 42+00	13		12
STA 42+00 to STA 48+00	7		7
STA 48+00 to STA 54+00	8		8
STA 54+00 to STA 56+31	8		9
	90	3	90

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ADJUSTING MANHOLE COVERS

CATEGORY 0010
ITEM NO. 611.8110 (49)
UNIT PAY: EACH

NO	LOCATION	PROPOSED ELEVATION	NO	LOCATION	PROPOSED ELEVATION
201	4+95, 29' RT	**165.33**	226	31+43, 30' LT	**177.74**
202	7+76, 30' RT	**163.93**	227	33+48, 29' RT	**180.43**
203	8+03, 41' LT	**162.73**	228	33+48, 59' RT	**180.73**
204	8+05, 20' RT	**164.19**	229	33+93, 31' LT	**179.15**
205	8+46, 28' RT	**164.93**	230	35+43, 31' LT	**180.05**
206	11+05, 27' RT	**171.30**	231	36+73, 29' RT	**182.25**
207	14+08, 28' RT	**181.04**	232	36+73, 60' RT	**182.54**
208	14+80, 29' RT	**161.72**	233	37+37, 29' RT	**182.29**
209	17+92, 29' RT	**180.00**	234	37+36, 59' RT	**182.56**
210	20+33, 29' RT	**172.68**	235	37+70, 29' RT	**181.95**
211	20+62, 27' RT	**172.11**	236	37+73, 30' LT	**181.16**
212	20+62, 67' LT	**169.72**	237	38+95, 30' RT	**182.32**
213	20+62, 57' RT	**172.41**	238	39+22, 31' LT	**181.82**
214	21+03, 28' RT	**171.66**	239	41+23, 29' RT	**183.21**
215	22+10, 28' RT	**171.19**	240	41+52, 30' LT	**182.88**
216	22+11, 36' LT	**169.68**	241	43+41, 59' RT	**185.01**
217	22+20, 18' RT	**171.14**	242	43+44, 29' RT	**184.87**
218	24+19, 28' RT	**172.40**	243	43+75, 29' LT	**183.94**
219	25+89, 29' RT	**175.27**	244	43+82, 29' RT	**185.22**
220	27+25, 29' RT	**177.26**	245	44+49, 29' RT	**185.65**
221	27+57, 59' LT	**177.81**	246	48+39, 30' LT	**181.53**
222	27+66, 129, LT	**172.21**	247	51+78, 30' LT	**173.89**
223	28+81, 29' LT	**176.46**	248	54+86, 31' LT	**169.81**
224	29+78, 31' LT	**176.87**	249	56+08, 20' LT	**169.26**
225	30+37, 29' RT	**178.38**			

*MANHOLE COVERS TYPE 58A

CATEGORY 0010
ITEM NO. SPV.0060.20 (49)
UNIT PAY: EACH

NO	LOCATION	NO	LOCATION
201	4+95, 29' RT	226	31+43, 30' LT
202	7+76, 30' RT	227	33+48, 29' RT
203	8+03, 41' LT	228	33+48, 59' RT
204	8+05, 20' RT	229	33+93, 31' LT
205	8+46, 28' RT	230	35+43, 31' LT
206	11+05, 27' RT	231	36+73, 29' RT
207	14+08, 28' RT	232	36+73, 60' RT
208	14+80, 29' RT	233	37+37, 29' RT
209	17+92, 29' RT	234	37+36, 59' RT
210	20+33, 29' RT	235	37+70, 29' RT
211	20+62, 27' RT	236	37+73, 30' LT
212	20+62, 67' LT	237	38+95, 30' RT
213	20+62, 57' RT	238	39+22, 31' LT
214	21+03, 28' RT	239	41+23, 29' RT
215	22+10, 28' RT	240	41+52, 30' LT
216	22+11, 36' LT	241	43+41, 59' RT
217	22+20, 18' RT	242	43+44, 29' RT
218	24+19, 28' RT	243	43+75, 29' LT
219	25+89, 29' RT	244	43+82, 29' RT
220	27+25, 29' RT	245	44+49, 29' RT
221	27+57, 59' LT	246	48+39, 30' LT
222	27+66, 129, LT	247	51+78, 30' LT
223	28+81, 29' LT	248	54+86, 31' LT
224	29+78, 31' LT	249	56+08, 20' LT
225	30+37, 29' RT		

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* Additional quantities shown elsewhere

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ROADWAY DRAINAGE ITEMS

CATEGORY 0010	QTY
Item No. 611.2004 Manhole 4-FT Diameter	8
Item No. SPV.0060.20 Manhole Cover Type 58A	2
Item No. SPV.0060.21 Storm Inlet Type 45A	15
Item No. SPV.0060.22 Inlet Cover Type 55	1
Item No. SPV.0060.23 Inlet Cover Type 57	20

CATEGORY 0010 □□ □	QTY
Item No. 608.0312 Storm Sewer Pipe, Reinforced Concrete Class III 12-Inch, UNIT PAY: LF	104
Item No. 612.0208 Pipe Underdrain, Unperforated 8-inch UNIT PAY: LF	5
Item No. SPV.0060.38 Storm Sewer Pipe Coupling 8-inch UNIT PAY: EACH	1

NO	LOCATION (at Gutter)	ITEM DESCRIPTION	ITEM COVER	ELEVATION (at Gutter)	DEPTH (FT)	SPAN FROM	SPAN TO	12-INCH RCP (FT)	8-INCH PVC (FT)	COUPLING	INVERT ELEVATION INLET	INVERT ELEVATION OUTLET	SLOPE FT/FT	REMARKS
1	4+55, 40' LT	Storm Inlet Type 45A	Inlet Cover Type 57	164.07	4.78	1	2	64	--	--	160.95	159.75	-0.019	--
2	5+00, 6' RT	Storm Inlet Type 45A	Inlet Cover Type 57	164.95	7.11	2	201	24	--	--	159.5	159.15	-0.015	--
3	7+25, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	163.30	4.76	3	4	6	--	--	160.20	160.05	-0.025	--
4	7+25, TL	Manhole 4-Ft Diameter	Inlet Cover Type 55	163.80	6.16	4	202	59	--	--	159.3	158.65	-0.011	--
5	7+45, 40' RT	Storm Inlet Type 45A	Inlet Cover Type 57	163.62	5.48	5	202	33	--	--	159.85	159.50	-0.011	--
6	7+50, 3' RT	Storm Inlet Type 45A	Inlet Cover Type 57	164.48	6.14	6	7	45	--	--	160	159	-0.022	--
7	7+62, 40' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	162.28	5.54	7	203	41	--	--	158.40	157.55	-0.021	--
8	7+96, 58' RT	Storm Inlet Type 45A	Inlet Cover Type 57	164.10	--	8	204	--	5	1	--	--	--	Connect new PVC pipe to new inlet and couple to existing pipe.
9	8+27, 57' RT	Storm Inlet Type 45A	Inlet Cover Type 57	164.45	--	9	204	--	5	1	--	--	--	Connect new PVC pipe to new inlet and couple to existing pipe.
10	8+49, 41' RT	Storm Inlet Type 45A	Inlet Cover Type 57	164.83	4.74	10	205	13	--	--	161.75	161.40	-0.027	--
11	8+69, 6' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	164.98	6.89	11	205	32	--	--	159.75	159.00	-0.023	--
12	9+05, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	164.62	4.78	12	11	59	--	--	161.50	160.00	-0.025	--
13	9+45, 6' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	166.87	7.28	13	14	22	--	--	161.25	160.75	-0.023	--
14	9+45, 28' RT	Manhole 4-Ft Diameter	Manhole Cover Type 58A	167.12	6.65	--	--	--	--	--	160.47	160.47	--	--
15	9+50, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	166.30	5.96	15	13	13	--	--	162.00	161.5	-0.038	--
16	11+15, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	170.14	4.75	16	17	47	--	--	167.05	165.70	-0.029	--
17	11+15, 6' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	171.27	7.23	17	206	23	--	--	165.70	165.00	-0.030	--
18	14+00, 1' RT	Storm Inlet Type 45A	Inlet Cover Type 57	180.05	4.76	18	207	28	--	--	176.95	176.50	-0.016	--
19	17+92, 6' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	179.66	6.72	19	209	23	--	--	174.60	174.50	-0.004	--
20	17+93.5, 40' RT	Storm Inlet Type 45A	Inlet Cover Type 57	179.85	4.76	20	209	11	--	--	176.75	176.50	-0.023	--
21	18+00, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	177.90	4.76	21	19	49	--	--	174.80	174.60	-0.004	--
22	19+50, 6' RT	Storm Inlet Type 45A	Inlet Cover Type 57	175.25	6.91	22	23	23	--	--	170	169.5	-0.022	--
23	19+50, 29' RT	Manhole 4-Ft Diameter	Manhole Cover Type 58A	175.49	6.42	--	--	--	--	--	169.07	169.07	--	--

* Additional quantities shown elsewhere

ROADWAY DRAINAGE ITEMS

CATEGORY 0010	QTY
Item No. 611.2004 Manhole 4-FT Diameter	2
Item No. 611.3225 Inlets 2 ft x 2.5 -FT	5
Item No. SPV.0060.20 Manhole Cover Type 58A	1
Item No. SPV.0060.21 Storm Inlet Type 45A	17
Item No. SPV.0060.23 Inlet Cover Type 57	23

CATEGORY 0010 □□ □	QTY
Item No. 608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	493
UNIT PAY: LF	

NO	LOCATION (at Gutter)	ITEM DESCRIPTION	ITEM COVER	ELEVATION (at Gutter)	DEPTH (FT)	SPAN FROM	SPAN TO	12-INCH RCP (FT)	8-INCH PVC (FT)	COUPLING	INVERT ELEVATION INLET	INVERT ELEVATION OUTLET	SLOPE FT/FT	REMARKS
24	20+29, 41' RT	Storm Inlet Type 45A	Inlet Cover Type 57	172.70	4.96	24	201	13	--	--	169.40	169.05	-0.027	--
25	20+34, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	170.47	4.73	25	212	38	--	--	167.40	166.50	-0.024	--
26	20+52, 64' RT	Storm Inlet Type 45A	Inlet Cover Type 57	172.20	4.76	26	213	12	--	--	169.10	168.85	-0.021	--
27	20+83, 64' RT	Storm Inlet Type 45A	Inlet Cover Type 57	172.00	4.76	27	213	22	--	--	168.90	168.40	-0.023	--
28	21+88, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	169.40	4.76	28	216	24	--	--	166.30	165.80	-0.021	--
29	22+00, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	170.20	4.74	29	216	32	--	--	167.12	167	-0.004	--
30	22+00, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	170.80	7.46	30	215	23	--	--	165.00	164.50	-0.022	--
31	22+00, 41' RT	Storm Inlet Type 45A	Inlet Cover Type 57	170.95	4.76	31	215	16	--	--	167.85	167.50	-0.022	--
32	22+55, 41' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	169.92	6.48	32	216	44	--	--	165.10	164.00	-0.025	--
33	23+45, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	170.10	4.76	33	32	90	--	--	167.00	165.10	-0.021	--
34	24+25, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	172.13	5.13	34	218	23	--	--	167.00	166.50	-0.022	--
35	26+00, 1' LT	2'X2.5' Inlet	Inlet Cover Type 57	174.70	3.10	35	219	32	--	--	171.60	170.90	-0.022	--
35A	25+85, 57' RT	Storm Inlet Type 45A	Inlet Cover Type 57	175.78	6.94	35A	219	28	--	--	170.50	169.00	-0.054	--
36	27+00, 1' LT	2'X2.5' Inlet	Inlet Cover Type 57	176.45	3.1	36	220	39	--	--	173.35	172.50	-0.022	--
37	27+34, 63' RT	Storm Inlet Type 45A	Inlet Cover Type 57	177.40	4.76	37	221	23	--	--	174.30	173.80	-0.022	--
38	27+97, 62' RT	Storm Inlet Type 45A	Inlet Cover Type 57	177.90	4.74	38	221	40	--	--	174.82	173.98	-0.021	--
39	28+60, 29' RT	Manhole 4-Ft Diameter	Manhole Cover Type 58A	177.61	5.95	--	--	--	--	--	171.66	171.66	--	--
40	28+37.5, 44' RT	Storm Inlet Type 45A	Inlet Cover Type 57	177.38	4.84	40	39	27	--	--	174.20	173.50	-0.026	--
41	28+50, 8' RT	2'X2.5' Inlet	Inlet Cover Type 57	177.15	6.86	41	39	23	--	--	171.95	171.70	-0.011	--
42	28+92, 44' LT	Storm Inlet Type 45A	Inlet Cover Type 57	175.85	4.76	42	223	19	--	--	172.75	172.35	-0.021	--
43	28+95, 1' RT	Storm Inlet Type 45A	Inlet Cover Type 57	176.99	4.75	43	223	32	--	--	173.90	173.20	-0.022	--
43A	29+15, 44' RT	Storm Inlet Type 45A	Inlet Cover Type 57	178.16	6.37	43A	39	57	--	--	173.45	172.25	-0.021	--
44	29+76, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	177.63	4.74	44	224	25	--	--	174.55	174.00	-0.022	--
46	30+50, 42' RT	Storm Inlet Type 45A	Inlet Cover Type 57	178.30	4.86	46	225	18	--	--	175.10	174.70	-0.022	--

* Additional quantities shown elsewhere

ROADWAY DRAINAGE ITEMS

CATEGORY 0010	QTY
Item No. 611.2004 Manhole 4-FT Diameter	1
Item No. 611.3225 Inlets 2 ft x 2.5 -FT	4
Item No. SPV.0060.20 Manhole Cover Type 58A	1
Item No. SPV.0060.21 Storm Inlet Type 45A	20
Item No. SPV.0060.23 Inlet Cover Type 57	24

CATEGORY 0010 □□ □	QTY
Item No. 608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch UNIT PAY: LF	520

NO	LOCATION (at Gutter)	ITEM DESCRIPTION	ITEM COVER	ELEVATION (at Gutter)	DEPTH (FT)	SPAN FROM	SPAN TO	12-INCH RCP (FT)	8-INCH PVC (FT)	COUPLING	INVERT ELEVATION INLET	INVERT ELEVATION OUTLET	SLOPE FT/FT	REMARKS
47	31+42, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	177.25	4.76	47	226	12	--	--	174.15	173.90	-0.021	--
48	31+45, 6 LT	Storm Inlet Type 45A	Inlet Cover Type 57	177.93	4.74	48	226	24	--	--	174.85	174.35	-0.021	--
49	32+00, 29' RT	Storm Inlet Type 45A	Manhole Cover Type 58A	179.24	7.24	--	--	--	--	--	173.66	173.66	--	--
50	32+10, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	179.06	2.86	50	49	25	--	--	176.20	175.70	-0.020	--
51	33+40, 61' RT	Storm Inlet Type 45A	Inlet Cover Type 57	180.40	4.74	51	228	9	--	--	177.32	177.13	-0.021	--
52	33+70, 61' RT	Storm Inlet Type 45A	Inlet Cover Type 57	180.35	4.76	52	228	22	--	--	177.25	176.75	-0.023	--
53	33+90, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	179.85	6.21	53	229	37	--	--	175.30	174.55	-0.020	--
54	33+90, 42' RT	Storm Inlet Type 45A	Inlet Cover Type 57	180.00	4.76	54	229	11	--	--	176.90	175.95	-0.086	--
55	33+93, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	178.70	4.76	55	227	44	--	--	175.60	175.35	-0.006	--
56	34+50, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	179.70	4.76	56	229	62	--	--	176.60	175.30	-0.021	--
57	35+41, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	180.75	5.76	57	230	37	--	--	176.65	175.80	-0.023	--
58	36+60, 61' RT	Storm Inlet Type 45A	Inlet Cover Type 57	182.10	5.56	58	232	12	--	--	178.20	177.95	-0.021	--
59	37+49, 61' RT	Storm Inlet Type 45A	Inlet Cover Type 57	182.18	4.74	59	234	13	--	--	179.10	178.80	-0.023	--
60	37+73, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	180.65	4.76	60	236	12	--	--	177.55	177.30	-0.021	--
61	38+00, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	181.55	3.15	61	236	45	--	--	178.4	177.45	-0.021	--
62	38+03, 42' RT	Storm Inlet Type 45A	Inlet Cover Type 57	181.63	4.74	62	235	35	--	--	178.55	177.80	-0.021	--
63	39+19.6, 6' RT	Storm Inlet Type 45A	Inlet Cover Type 57	182.20	4.76	63	64	6	--	--	179.10	178.90	-0.033	--
64	39+19.6, T/L	Manhole 4-Ft Diameter	Inlet Cover Type 57	181.85	5.31	64	238	31	--	--	178.20	177.50	-0.023	--
65	39+25, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	181.33	4.74	65	238	11	--	--	178.25	178.00	-0.023	--
66	41+25, 6' RT	Storm Inlet Type 45A	Inlet Cover Type 57	182.90	4.76	66	239	23	--	--	179.80	179.30	-0.022	--
67	41+27, 41' RT	Storm Inlet Type 45A	Inlet Cover Type 57	182.45	4.76	67	239	12	--	--	179.35	179.10	-0.021	--
68	41+49, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	182.37	4.78	68	240	12	--	--	179.25	179.00	-0.021	--
69	41+50, 6' LT	Storm Inlet Type 45A	Inlet Cover Type 57	183.05	7.81	69	240	24	--	--	176.90	176.40	-0.021	--
70	43+31, 58' RT	Storm Inlet Type 45A	Inlet Cover Type 57	184.65	4.76	70	242	10	--	--	181.55	181.30	-0.025	--
71	43+40, 41' LT	Storm Inlet Type 45A	Inlet Cover Type 57	183.26	5.57	71	243	37	--	--	179.35	178.55	-0.022	--

* Additional quantities shown elsewhere

ROADWAY DRAINAGE ITEMS

CATEGORY 0010	QTY
Item No. 611.2004 Manhole 4-FT Diameter	8
Item No. 611.3225 Inlets 2 ft x 2.5 -FT	1
Item No. SPV.0060.21 Storm Inlet Type 45A	12
Item No. SPV.0060.23 Inlet Cover Type 57	21

CATEGORY 0010 □□ □	QTY
Item No. 608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch UNIT PAY: LF	272

NO	LOCATION (at Gutter)	ITEM DESCRIPTION	ITEM COVER	ELEVATION (at Gutter)	DEPTH (FT)	SPAN FROM	SPAN TO	12-INCH RCP (FT)	8-INCH PVC (FT)	COUPLING	INVERT ELEVATION INLET	INVERT ELEVATION OUTLET	SLOPE FT/FT	REMARKS
72	43+63, 59' RT	Storm Inlet Type 45A	Inlet Cover Type 57	184.65	4.76	72	242	22	--	--	181.55	181.05	-0.023	--
73	43+84, 41' RT	Storm Inlet Type 45A	Inlet Cover Type 57	185.00	4.76	73	244	13	--	--	181.90	181.60	-0.023	--
74	43+83, 6' RT	2'X2.5' Inlet	Inlet Cover Type 57	184.90	4.10	74	243	36	--	--	181.80	181.00	-0.022	--
75	43+92, 1' LT	Storm Inlet Type 45A	Inlet Cover Type 57	184.90	4.76	75	243	33	--	--	181.80	181.00	-0.024	--
76	44+75, 6' RT	Storm Inlet Type 45A	Inlet Cover Type 57	185.50	5.71	76	245	35	--	--	181.45	180.70	-0.021	--
77	48+30, 42' LT	Storm Inlet Type 45A	Inlet Cover Type 57	181.20	4.76	77	246	15	--	--	178.10	177.75	-0.023	--
78	48+40, 6' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	182.80	6.61	78	246	24	--	--	177.85	177.35	-0.021	--
79	48+40, 5' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	183.20	6.76	79	78	11	--	--	178.10	177.85	-0.023	--
80	48+40, 42' RT	Storm Inlet Type 45A	Inlet Cover Type 57	183.62	6.78	80	79	37	--	--	178.50	178.10	-0.011	--
81	51+76, 33' RT	Storm Inlet Type 45A	Inlet Cover Type 57	176.08	6.64	81	83	30	--	--	171.10	170.45	-0.022	--
82	51+78, 15' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	174.07	5.68	82	247	15	--	--	170.05	169.70	-0.023	--
83	51+79, 3' RT	Manhole 4-Ft Diameter	Inlet Cover Type 57	175.70	6.91	83	82	18	--	--	170.45	170.05	-0.022	--
84	51+79, 45' LT	Storm Inlet Type 45A	Inlet Cover Type 57	173.38	4.74	84	247	15	--	--	170.30	169.90	-0.027	--
85	54+70, 3' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	170.81	6.87	85	88	14	--	--	165.6	165.30	-0.021	--
86	54+76, 45' LT	Storm Inlet Type 45A	Inlet Cover Type 57	169.39	4.75	87	85	18	--	--	166.30	165.90	-0.022	--
87	54+76, 32' RT	Storm Inlet Type 45A	Inlet Cover Type 57	171.22	6.53	86	248	36	--	--	166.35	165.60	-0.021	--
88	54+76, 14' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	169.93	6.29	88	248	19	--	--	165.30	164.90	-0.021	--
89	56+00, 15' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	169.19	7.75	89	249	17	--	--	163.10	162.75	-0.021	--
90	56.01, 8' LT	Manhole 4-Ft Diameter	Inlet Cover Type 57	169.50	7.91	90	89	7	--	--	163.25	163.10	-0.021	--
91	56+08, 47' LT	Storm Inlet Type 45A	Inlet Cover Type 57	168.70	4.76	91	249	17	--	--	165.60	165.20	-0.024	--
92	56+09, 33' RT	Storm Inlet Type 45A	Inlet Cover Type 57	169.92	7.08	92	90	42	--	--	164.50	163.50	-0.024	--

* Additional quantities shown elsewhere

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LANDSCAPING ITEMS

CATEGORY 0010

ITEM NO. UNIT PAY	AMERICAN SWEET GUM 'MORAINE' 3" B&B 632.0101.01 EACH	AMUR CORKTREE 3" B&B 632.0101.02 EACH	AUTUMN BLAZE MAPLE 3.5" B&B 632.0101.03 EACH	AUTUMN BRILLIANCE SERVICEBERRY 3" B&B 632.0101.04 EACH	BUTTERNUT 3" B&B 632.0101.05 EACH	CALLERY PEAR 3" B&B 632.0101.06 EACH	COMMON BALD CYPRESS 3" B&B 632.0101.07 EACH	IRONWOOD 3" B&B 632.0101.08 EACH	JAPANESE TREE LILAC 3" B&B 632.0101.09 EACH	KENTUCKY COFFEETREE 3" B&B 632.0101.10 EACH	RED BUD 3" B&B 632.0101.11 EACH	SHAGBARK HICKORY 3" B&B 632.0101.12 EACH	SUNBURST HONEYLOCUST 3" B&B 632.0101.13 EACH	TULIP TREE 3" B&B 632.0101.14 EACH
	4	3	4	3	1	3	1	1	2	1	2	1	3	1

LANDSCAPING ITEMS

CATEGORY 0010

ITEM NO. UNIT PAY	VARIGATED MAPLE 3" B&B 632.0101.15 EACH	YELLOW RIVER BIRCH 3" B&B 632.0101.16 EACH	HORNBEAM 3" B&B 632.0101.17 EACH	DWARF SERBIAN SPRUCE #5 CG 632.0201.01 EACH	YELLOW KNOCKOUT ROSES #3 CG 632.0201.02 EACH	LANDSCAPE PLANTING SURVEILLANCE and CARE CYCLES 632.9101 EACH	BLUE WONDER CATMINT #1 CG SPV.0060.30 EACH	RUSSIAN SAGE #1 CG SPV.0060.35 EACH	SHASTA DAISY #1 CG SPV.0060.36 EACH	SIGNATURE BED SPV.0060.43 EACH	CLOUD NINE SWITCH GRASS #1 CG SPV.0060.44 EACH	DWARF KOREAN LILAC #3 CG SPV.0060.45 EACH	WOODS PASTEL ASTER #1 CG SPV.0060.46 EACH	FIELDSTONE BOULDER WALL SPV.0090.07 LF
	1	1	3	2	6	9	24	12	24	2	14	12	72	76

3

TRAFFIC CONTROL ITEMS

CATEGORY 0010

BID ITEMS	STAGE 1		STAGE 2		STAGE 3		TOTAL	
	(EACH)	(DAYS)	(EACH)	(DAYS)	(EACH)	(DAYS)		
# TRAFFIC CONTROL DRUMS (643.0300)	205	19,885	368	35,696	144	1,440	57,021	DAYS
## TRAFFIC CONTROL BARRICADES, TYPE III (643.0420)	149	14,453	108	10,476	5	50	24,979	DAYS
TRAFFIC CONTROL, FLEXIBLE TUBULAR POSTS (643.0500)	231	EACH	220	EACH	0	EACH	451	EACH
TRAFFIC CONTROL, FLEXIBLE TUBULAR BASES (643.0600)	231	EACH	220	EACH	0	EACH	451	EACH
TRAFFIC CONTROL WARNING LIGHTS, TYPE "A" (FLASHING) (643.0705)	205	19,885	368	35,696	144	1,440	57,021	DAYS
TRAFFIC CONTROL WARNING LIGHTS, TYPE "C" (STEADY) (643.0715)	298	28,906	216	20,952	10	100	49,958	DAYS
### TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, WHITE (649.0400)	6,213	LF	6,704	LF	882	LF	13,799	LF
### TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, DOUBLE YELLOW (649.0400)	5,916	LF	5,918	LF	0	LF	11,834	LF
### TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 2-FT LINE 6-FT GAP, DOUBLE YELLOW (649.0400)	417	LF	211	LF	0	LF	628	LF
### TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, YELLOW (649.0400)	578	LF	444	LF	0	LF	1,022	LF

ALL DRUMS HAVE STEADY BURNING YELLOW LIGHTS (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

ALL TYPE III BARRICADES HAVE TWO (2) FLASHING YELLOW LIGHTS (LIGHTS ARE TO BE PAID FOR SEPERATLY UNDER THEIR APPROPRIATE BID ITEM)

WHEN PLACING TEMPORARY PAVEMENT MARKING REMOVABLE TAPE, THE TAPE SHALL BE SLICED OR CUT ACROSS IT'S WIDTH EVERY TWENTY FIVE FEET

ALL TEMPORARY PAVEMENT MARKINGS MUST BE REMOVED PRIOR TO FINAL ACCEPTANCE OF PROJECT

TRAFFIC CONTROL SIGNS

ITEM	SIZE	DESCRIPTION	STAGE 1	STAGE 2	STAGE 3	TOTAL
W20-1-A	36" x 36"	"ROAD WORK AHEAD"	10	9	2	21
R11-2	48" x 30"	"ROAD CLOSED"	20	15	0	35
W20-55-A	36" x 36"	"LEFT LANE CLOSED AHEAD"	1	2	2	5
W20-5-A	36" x 36"	"RIGHT LANE CLOSED AHEAD"	0	1	0	1
WO4-2-L	36" x 36"	"PAVEMANT WIDTH TRANSITION (LEFT)"	0	3	2	5
WO4-2-R	36" x 36"	"PAVEMANT WIDTH TRANSITION (RIGHT)"	0	0	0	0
WO6-3	36" x 36"	"TWO LANE TRAFFIC"	4	5	0	9
WO1-4L	36" x 36"	"LANE SHIFT" (LEFT)	1	1	0	2
WO1-4R	36" x 36"	"LANE SHIFT" (RIGHT)	2	1	0	3
WO1-7	24" x 12"		6	7	0	13
W1-6-L	24" x 48"	LARGE ARROW (LEFT)	2	5	0	7
W1-6-R	24" x 48"	LARGE ARROW (RIGHT)	3	5	2	10
W20-3	36" x 36"	"ROAD CLOSED AHEAD"	4	4	0	8
W12-1-L	24" x 24"		1	0	0	1
R3-20R	24" x 36"	"BEGIN RIGHT TURN LANE"	1	0	0	1
R3-2	36" x 36"	"NO LEFT TURN"	2	3	0	5
R9-9	24" X 12"	"SIDEWALK CLOSED"	0	5	0	5
W4-3L	36" x 36"	ADDED LANE LEFT	1	0	0	1
		TRAFFIC CONTROL, SIGNS (643.0900) TOTAL	58 5,626 (DAYS)	66 6,402 (DAYS)	8 80 (DAYS)	132 12,108 (DAYS)

TRAFFIC CONTROL ITEMS FOR SIDEWALK CONTROL

STAGE	LOCATION	TRAFFIC CONTROL DRUMS (643.0300) DAYS	TRAFFIC CONTROL BARRICADES, TYPE II (643.0410) DAYS	TRAFFIC CONTROL WARNING LIGHTS, TYPE "A" (FLASHING) (643.0705) DAYS	R9-9: "SIDEWALK CLOSED" SIGNS	R9-11: "SIDEWALK CLOSED AHEAD CROSS HERE" SIGNS	TRAFFIC CONTROL, SIGNS (643.0900) DAYS
1	UNDISTRIBUTED	9,256	9,256	18,512	13	52	6,305
2	UNDISTRIBUTED	8,528	8,528	17,056	13	52	6,305
ALL	W. CAPITOL & W. HAMPTON	0	612	612	1	2	612
TOTAL		17,784	18,396	36,180			13,222

TRAFFIC CONTROL ITEM

CATEGORY 0010	TRAFFIC CONTROL (PROJECT)
ITEM NO.	643.0100
UNIT PAY	EACH
	1

3

TRAFFIC SIGNAL & STREET LIGHTING ITEMS

CATEGORY 010

ITEM	REMOVING CONCRETE BASES	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT)	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 80 2 1/2-INCH	CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	CONDUIT SPECIAL 2 1/2-INCH	CONCRETE BASES TYPE 1	CONCRETE BASES TYPE 5	CONCRETE BASES TYPE 10
ITEM NO.	204.0195	650.8500	652.0225	652.0230	652.0235	652.0330	652.0335	652.0610	654.0101	654.0105	654.0110
UNIT PAY	EACH	LS	LF	LF	LF	LF	LF	LF	EACH	EACH	EACH
TOTAL	35	1	110	3,715	480	885	910	490	8	39	2

3

TRAFFIC SIGNAL & STREET LIGHTING ITEMS

CATEGORY 010

ITEM	CABLE TYPE UF 2-12 AWG GROUNDED	TRANSFORMER BASES BREAKAWAY 11 1/2- INCH BOLT CIRCLE	POLES TYPE 5 - ALUMINUM	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT	INSTALL LUMINAIRE ARMS STEEL 8-FT	CONCRETE BASE TYPE 10 SPECIAL	MONOTUBE ARM 25-FT	MONOTUBE ARM 35-FT	MONOTUBE ARM 40-FT	POLES TYPE 10	POLES TYPE 13 SPECIAL
ITEM NO.	655.0305	657.0255	657.0322	657.0615	657.1808	SPV .0060.01	SPV.0060.03	SPV.0060.05	SPV.0060.06	SPV.0060.11	SPV.0060.15
UNIT PAY	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
TOTAL	3,340	39	5	68	6	2	2	1	1	2	2

TRAFFIC SIGNAL & STREET LIGHTING ITEMS

CATEGORY 010

ITEM	FIBERGLASS POLYMER CONCRETE PULL BOX 13" x 24" x 24"	FIBERGLASS POLYMER CONCRETE PULL BOX 17" x 30" x 24"	UTILITY LINE OPENING (ULO)	LUMINAIRE UTILITY LED 95W TYPE 2	LUMINAIRE UTILITY LED 95W TYPE 2	POLES TYPE 5A ALUMINUM	CABLE TYPE 3#2/1#8 LTP	CABLE TYPE 3#4/1#8 LTP	CABLE TYPE 3#6/1#8 LTP
ITEM NO.	SPV.0060.16	SPV.0060.17	SPV.0060.18	SPV.0060.47	SPV.0060.48	SPV.0060.49	SPV.0090.08	SPV.0090.09	SPV.0090.10
UNIT PAY	EACH	EACH	EACH	EACH	EACH	EACH	LF	LF	LF
TOTAL	34	15	4	62	14	34	1,850	2,290	160

3

PAVEMENT MARKING ITEMS

CATEGORY 0010

ITEM ITEM NO. UNIT PAY	PAVEMENT MARKING EPOXY 4-INCH 646.0106 LF		PAVEMENT MARKING EPOXY 6-INCH 646.0116 LF	PAVEMENT MARKING EPOXY 8-INCH 646.0126 LF	REMOVING PAVEMENT MARKINGS 646.0600 LF	PAVEMENT MARKING ARROWS EPOXY TYPE 2 647.0166 EACH	PAVEMENT MARKING ARROWS BIKE LANE EPOXY 647.0206 EACH	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY 647.0306 EACH	PAVEMENT MARKING WORDS EPOXY 647.0356 EACH	PAVEMENT MARKING STOPLINE EPOXY 24-INCH 647.0576 LF	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH 647.0776 LF	SKID/SLIP RESISTANCE GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE SYMBOL SPV.0060.40 EACH	SKID/SLIP RESISTANCE GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE ARROW SPV.0060.41 EACH	SKID/SLIP RESISTANCE GREEN PREFORMED THERMOPLASTIC INTEGRATED BIKE LANE PANEL SPV.0165.02 SF
	(WHITE)	(YELLOW)	(WHITE)	(WHITE)						(WHITE)	(WHITE)			
STA 1+50 to STA 11+50	1,930	0	1,628	0	0	0	3	3	0	0	0	0	0	0
STA 11+50 to STA 23+50	2,390	0	1,870	0	0	0	4	4	0	0	0	0	0	0
STA 23+50 to STA 36+00	2,274	440	1,804	428	60	3	4	3	3	174	688	1	1	288
STA 36+00 to STA 48+00	2,232	0	1,770	100	0	0	4	5	0	0	0	0	0	0
STA 48+00 to STA 56+50	590	1,478	0	100	0	1	2	2	1	0	0	0	0	0
TOTAL	9,416	1,918												
	11,334		7,072	628	60	4	17	17	4	174	688	1	1	288

BIOSWALES ITEMS

CATEGORY 0020

ITEM NO. UNIT PAY	EXCAVATION COMMON 205.0100 CY	PIPE UNDERDRAIN 8-INCH 612.0108 LF	PIPE UNDERDRAIN UNPERFORATED 6-INCH 612.0206 LF	RED TWIG DOGWOODS #3 CG 632.0201.03 EACH	RUGOSA ROSES #3 CG 632.0201.04 EACH	SEA GREEN JUNIPER #5 CG 632.0201.05 EACH	COOL SPLASH HONEYSUCKLE #5 CG 632.0201.06 EACH	DIABLO NINEBARK #5 CG 632.0201.07 EACH	GEOTEXTILE FABRIC TYPE DF SCHEDULE B 645.0112 SY	ENGINEERED SOIL SPV.0035.01 CY	BEDDING LAYER SPV.0035.02 CY
TOTAL	442	34	253	5	28	9	5	8	88	133	29

BIOSWALES ITEMS

CATEGORY 0020

ITEM NO. UNIT PAY	STORAGE LAYER SPV.0035.03 CY	INFORMATIONAL SIGN POSTS SPV.0060.26 EACH	8-INCH PVC STANDPIPE WITH DOME GRATE SPV.0060.27 EACH	6-INCH CLEANOUT SPV.0060.28 EACH	BLACK EYED SUSANS #1 CG SPV.0060.29 EACH	BLUE WONDER CATMINT #1 CG SPV.0060.30 EACH	DWARF DAYLILIES HAPPY RETURNS #1 CG SPV.0060.31 EACH	KARL FOERSTER GRASS #1 CG SPV.0060.32 EACH	LITTLE BUNNY GRASS #1 CG SPV.0060.33 EACH	PURPLE CONEFLOWER #1 CG SPV.0060.34 EACH	RUSSIAN SAGE #1 CG SPV.0060.35 EACH	SHASTA DAISY #1 CG SPV.0060.36 EACH	COBBLESTONE SPV.0180.01 SY
TOTAL	177	3	5	7	180	144	412	12	10	48	44	48	30

BIOSWALE ITEMS

CATEGORY 0020
Item No. 611.9710 Salvaged Inlet Covers (5)
UNIT PAY: EACH

NO	LOCATION	REMARKS	ELEVATION
109	8+97, 11' RT	Installed at 09+75, 6' RT, No 600	167.53
113	19+79, 11' RT	Installed at 09+75, 6' LT, No 601	167.53
132	29+94, 11' RT	Installed at 19+33, 4' LT, No 602	176.97
159A	51+48, 1' RT	Installed at 19+33, 4' RT, No 603	175.90
164	54+49, 1' RT	Installed at 30+15, 6' LT, No 604	177.24

BIOSWALE ITEMS

CATEGORY 0020
Item No. SPV.0060.37 Inlet Frame and Grate (5)
UNIT PAY: EACH

NO	LOCATION	ELEVATION
605	30+15, 8' RT	178.37
606	51+74, 10' LT	175.81
607	51+74, 8' RT	174.70
608	54+58, 3' LT	171.00
609	54+58, 15' LT	170.04

ADJUSTING MANHOLE COVERS

CATEGORY 0030
ITEM NO. 611.8110 (10)
UNIT PAY: EACH

NO	LOCATION	PROPOSED ELEVATION	NOTE
304	8+13, 44' RT	**164.39**	
308	14+10, 45' RT	**181.53**	
314	20+70, 45' RT	**172.08**	Use Existing Cover
318	27+66, 46' RT	**177.92**	Use Existing Cover
319	30+44, 45' RT	**178.80**	
320	33+57, 45' RT	**180.54**	
321	36+60, 45' RT	**182.02**	Use Existing Cover
322	37+50, 45' RT	**182.12**	
323	40+76, 45' RT	**183.90**	
324	43+50, 44' RT	**184.89**	Use Existing Cover

MANHOLE COVERS TYPE 58A

CATEGORY 0030
ITEM NO. SPV.0060.20 (6)
UNIT PAY: EACH

NO	LOCATION
304	8+13, 44' RT
308	14+10, 45' RT
319	30+44, 45' RT
320	33+57, 45' RT
322	37+50, 45' RT
323	40+76, 45' RT

INTERNAL SANITARY MANHOLE SEALS

CATEGORY 0030
ITEM NO. SPV.0060.24 (10)
UNIT PAY: EACH

NO	LOCATION	REMARKS
304	8+13, 44' RT	Replace if necessary
308	14+10, 45' RT	Replace if necessary
314	20+70, 45' RT	Replace if necessary
318	27+66, 46' RT	Replace if necessary
319	30+44, 45' RT	Replace if necessary
320	33+57, 45' RT	Replace if necessary
321	36+60, 45' RT	Replace if necessary
322	37+50, 45' RT	Replace if necessary
323	40+76, 45' RT	Replace if necessary
324	43+50, 44' RT	Replace if necessary

NON-PARTICIPATING ITEMS (MILWAUKEE)

CATEGORY 0030

ITEM ITEM NO. UNIT PAY	ADJUSTING WATER BOX SPV.0060.25 EACH	JOINT SEALING SPV.0180.02 SY
TOTAL	19	21,691

3

CITY UNDERGROUND CONDUIT

LOCATION			CATEGORY 0030								
			204.0100	415.0080	611.8110	690.0250	SPV.0060.39	SPV.0090.03	SPV0090.04	SPV0090.05	SPV0090.06
			REMOVING PAVEMENT	CONCRETE PAVEMENT 8-INCH	ADJUSTING MANHOLE COVERS	SAWING CONCRETE	4' DIAMETER MANHOLE TYPE TES	6-DUCT CONDUIT CEMENT ENCASED DB-60	3-DUCT CONDUIT CEMENT ENCASED DB-60	2-DUCT CONDUIT CEMENT ENCASED DB-60	1-DUCT CONDUIT CEMENT ENCASED DB-60
			SY	SY	EACH	LF	EACH	LF	LF	LF	LF
STA 03 + 73.5,13.5 RT	TO	MANHOLE 500						351			
MANHOLE 500	-	STA 07 + 26.0, 12.5 RT			1		1				
MANHOLE 500	TO	MANHOLE 501						538			
MANHOLE 501	-	STA 12 + 68.0, 12.5 RT			1		1				
MANHOLE 501	TO	MANHOLE 502						503			
MANHOLE 502	-	STA 17 + 75.0, 12.5 RT			1		1				
MANHOLE 502	TO	MANHOLE 503						539			
MANHOLE 503	-	STA 23 + 18.0, 12.5 RT			1		1				
MANHOLE 503	TO	MANHOLE 504						416			
MANHOLE 504	-	STA 27 + 37.5, 14.0 RT			1		1				
MANHOLE 504	TO	STA 27 + 42.5, 55.0 RT							41		
STA 27 + 42.5,55.0 RT	TO	POLICE CALL BOX								13	
STA 27 + 42.5,55.0 RT	TO	TRAFFIC CONTROL CABINET									27
MANHOLE 504	TO	MANHOLE 505						544			
MANHOLE 505	-	STA 32 + 85.0, 12.5 RT			1		1				
MANHOLE 505	TO	MANHOLE 506						541			
MANHOLE 506	-	STA 38 + 30.0, 12.5 RT			1		1				
MANHOLE 506	TO	MANHOLE 507						596			
MANHOLE 507	-	STA 44 + 30.0, 12.5 RT			1		1				
MANHOLE 507	TO	MANHOLE 508						596			
MANHOLE 508	-	STA 50 + 30.0, 11.2 RT			1		1				
MANHOLE 508	TO	MANHOLE 509						588			
MANHOLE 509	-	STA 56 + 21.5, 1.4 LT			1		1				
MANHOLE 509	TO	EXISTING TRAFFIC CONTROL CABINET									62
MANHOLE 509	TO	STA 57 + 95.0, 19.9 LT	77	77		350		173			
TOTAL			77	77	10	350	10	5383	41	13	89

3

3

ADJUSTING MANHOLE COVERS

CATEGORY 0040
ITEM NO. 611.8110 (11)
UNIT PAY: EACH

NO	LOCATION	PROPOSED ELEVATION	NOTE
302	5+64, 29' LT	**164.16**	
303	8+09, 29' LT	**163.33**	
306	11+09, 29' LT	**170.30**	
307	13+86, 30' LT	**179.24**	
310	15+13, 30' LT	**177.05**	
311	17+93, 31' LT	**178.36**	
313	20+69, 31' LT	**170.50**	
315	23+63, 30' LT	**170.69**	
317	25+54, 29' LT	**173.34**	
326	44+51, 30' LT	**184.39**	
327	47+85, 29' LT	**182.73**	

MANHOLE COVERS TYPE 58A

CATEGORY 0040
ITEM NO. SPV.0060.20 (11)
UNIT PAY: EACH

NO	LOCATION
302	5+64, 29' LT
303	8+09, 29' LT
306	11+09, 29' LT
307	13+86, 30' LT
310	15+13, 30' LT
311	17+93, 31' LT
313	20+69, 31' L
315	23+63, 30' LT
317	25+54, 29' LT
326	44+51, 30' LT

3

INTERNAL SANITARY MANHOLE SEALS

CATEGORY 0040
ITEM NO. SPV.0060.24 (11)
UNIT PAY: EACH

NO	LOCATION	REMARKS
302	5+64, 29' LT	Replace if necessary
303	8+09, 29' LT	Replace if necessary
306	11+09, 29' LT	Replace if necessary
307	13+86, 30' LT	Replace if necessary
310	15+13, 30' LT	Replace if necessary
311	17+93, 31' LT	Replace if necessary
313	20+69, 31' L	Replace if necessary
315	23+63, 30' LT	Replace if necessary
317	25+54, 29' LT	Replace if necessary
326	44+51, 30' LT	Replace if necessary
327	47+85, 29' LT	Replace if necessary

NON-PARTICIPATING ITEMS (WAUWATOSA)

CATEGORY 0040

ITEM	JOINT SEALING
ITEM NO.	SPV.0180.02
UNIT PAY	SY
TOTAL	21,691

NOTE: CONTRACTOR TO REMOVE ASPHALTIC MATERIAL & ASPHALT CURB AND GUTTER FROM CITY OF WAUWATOSA WATER MAIN REPLACEMENT PROJECT ANTICIPATED TO BE COMPLETED PRIOR TO CONSTUCTION. REPLACE WITH 8-INCH CONCRETE PAVEMENT (V8) AND 31-INCH CURB & GUTTER

NORTH 92ND STREET

REMOVE TO EXISTING JOINTS.

BEGIN PROJECT
STA. 03 + 06.00 T/L

SIGNATURE BED NO. 1
(SEE CONSTRUCTION DETAIL)

CITY OF MILWAUKEE
CITY OF WAUWATOSA

SECTION LINE

W. CAPITOL DR.

STD.BW #64-05 IN CENTER PLOT
OF N 92ND ST., SOUTH OF W. CAPITOL DR.,
26.0 FT. SOUTH OF ISLAND TIP & 4.4 FT.
WEST OF EAST CURB OF CENTER PLOT
ELEV: 163.899

#9208 #9100 W. CAPITOL DR. #4020 #4026 #4032 #4036-38 #4044 #4050-52

- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (FI) CONST. CONC. DRIVEWAY FLARED MODIFIED (7-INCH)
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (Q) ASPHALT SHIM
- (SA) SAW ASPHALT
- (SC) SAW CONCRETE
- (V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8" CONC. PAVEMENT
- (X) CONST. MAINTENANCE RAMP
- (Z) CONST. CONC. LOADING ZONE WITH 7-IN. FACE

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 184	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\00-06.DGN

REVISED DATE: 05-03-2016 BY PN

NORTH

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

92ND

STREET

N

BM: SE CORNER OF CAPSTONE ON "AURORA EAP" SIGN @ STA 6+10 W/SIDE N. 92ND ST. ELEV: 167.03

SIGNATURE BED NO. 1 (SEE CONSTRUCTION DETAIL)

CAUTION

60'

30'

ASPH.

80' LT (SA)

55' LT (SA)

R/W

P.L.

CW

CCW

BUS STOP

CITY OF WAUWATOSA

EXIST. SIO-SWALE

SB PGL

NB PGL

SECTION LINE

N.00°56'07"W.

BIO-SWALE NO. 1 (SEE BIO-SWALE PLAN)

W. FIEBRANTZ AVE.

BM: HYD., (NW BOLT) NE CORNER N. 92ND ST. & W. FIEBRANTZ AVE. STA. 08+29, 58'RT ELEV: 166.99

#4058-68 #4076 #4108 #4120 #4140

3CR 3CR CW 2CR 5CR 4CR

06 07 08 09 10 11 12

(2) CONST. CURB RAMP TYPE 2

(A) CONST. CONC. CURB & GUTTER 31-INCH

(BS) BUS STOP

(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE

(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)

(F1) CONST. CONC. DRIVEWAY FLARED MODIFIED (7-INCH)

(G2) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 2" MIN. ASPH. OVERLAY

(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER

(SA) SAW ASPHALT

(SC) SAW CONCRETE

(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB

(V8) CONST. 8" CONC. PAVEMENT

(X) CONST. MAINTENANCE RAMP

(Y) CONCRETE MEDIAN SLOPE NOSE

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 185	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\06-12.DGN

REVISED DATE: 05-03-2016 BY PN

NORTH

92ND

STREET

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

N

W. HOPE AVE.

BM: SE CORNER OF IST CONCRETE RISER, #4167 N. 92ND ST. ELEV: 180.08

BM: HYD. (NW BOLT), NW CORNER N. 92ND ST. & W. HOPE AVE. STA. 14+58, 57'LT ELEV: 181.77

BM: HYD. (NW BOLT), W/S NORTH LINE OF #4233 N. 92ND ST. STA. 17+54, 45'LT ELEV: 180.27

BM: ALUM LIGHT POLE #4154 (NW BOLT), IN MEDIAN STA. 12+57, 1'RT N. 92ND ST. ELEV: 176.26

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

(2) CONST. CURB RAMP TYPE 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(BS) BUS STOP
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(PC) CONST. CONC. CURB PREDESTRIAN
(SA) SAW ASPHALT
(SC) SAW CONCRETE
(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8" CONC. PAVEMENT
(W) REM. PAV'T. CONST. 3" ASPH. ON 6" CONC. BASE
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 186	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\12-18.DGN

REVISED DATE: 09-26-2016 BY PN

NORTH

92ND

STREET

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

BM: SE CORNER OF THIRD CONCRETE RISER, #4261 N. 92ND ST. ELEV: 177.01

BM: HYD. (NW BOLT), W/S N. 92ND ST. STA 24+05 ELEV: 172.57

BIO-SWALE NO.2 (SEE BIO-SWALE PLAN)

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. MARION ST. STA. 20+87, 62'RT ELEV: 174.65

W. MARION AVE.

CITY OF WAUWATOSA

CITY OF MILWAUKEE

SECTION LINE

N.00°56'07"W.

EXIST. BIO-SWALE

SB PGL

NB PGL

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

(2) CONST. CURB RAMP TYPE 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(BS) BUS STOP
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(SA) SAW ASPHALT
(SC) SAW CONCRETE
(V) CONST. 9.5' CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 187	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\18-24.DGN

REVISED DATE: 05-04-2016 BY PN

DETAIL "A"

DETAIL "B"

DETAIL "C"

DETAIL "D"

DETAIL "E"

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

NORTH 92ND STREET

BM: SBM #64-03, IN CENTER PLOT, 60' SOUTH OF W. CONGRESS ST. C/L & 4.3' WEST OF EAST CURB ELEV: 176.14

PLACE LANDMARK REFERENCE MONUMENT STA. 27+63.71, T/L

BIO-SWALE NO.3 (SEE BIO-SWALE PLAN)

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

(1)	CONST. CURB RAMP TYPE 1	(G3)	REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(2)	CONST. CURB RAMP TYPE 2	(L)	GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(6)	CONST. CURB RAMP TYPE 6	(N)	CONST. 5" CONC. SIDEWALK
(A)	CONST. CONC. CURB & GUTTER 31-INCH	(PC)	CONST. CONC. CURB PREDESTRIAN
(AC)	CONST. CONC. CURB & GUTTER 31-INCH (COV. FLG.)	(SA)	SAW ASPHALT
(AH)	CONST. CONC. CURB & GUTTER 31-INCH (HIGH-SIDE)	(SC)	SAW CONCRETE
(BS)	BUS STOP	(V)	CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(F)	CONST. CONC. DRIVEWAY FLARED (7-IN.)	(VA)	CONST. 7" CONC. ALLEY PAVEMENT
		(VV)	REMOVE & CONST. 8" CONC. BASE
		(V8)	CONST. 8" CONC. PAVEMENT
		(X)	CONST. MAINTENANCE RAMP
		(Y)	CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 188 E

FILENAME: W:\SPR\92ND N_CAP-HAMP\24-30.DGN

REVISED DATE: 05-04-2016 BY PN

NORTH 92ND STREET

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

N

BIO-SWALE NO.3 (SEE BIO-SWALE PLAN)

SB PGL

NB PGL

SECTION LINE

N.00°39'43"W.

CITY OF WAUWATOSA

CITY OF MILWAUKEE

LAWN

T/L

VAULT

CW

WEP

W. PALMETTO AVE.

20 ALLEY

CONC

#4424 #4436 #4450 #91.27 #4508 #4526

BM: IST CONCRETE RISER, YARDWALK, SW CORNER, #4436 N. 92ND ST. ELEV: 180.12

BM: HYD. (NNW BOLT), NE CORNER N. 92ND ST. & W. PALMETTO AVE. STA. 33+74, 58'RT ELEV: 183.11

BM: HYD. (NNW BO N. 92ND ST. & W. STA. 36+43, 45'R ELEV: 183.52

(2) CONST. CURB RAMP TYPE 2
(7B) CONST. CURB RAMP TYPE 7B
(A) CONST. CONC. CURB & GUTTER 31-INCH
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(PC) CONST. CONC. CURB PREDESTRIAN
(SC) SAW CONCRETE
(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(V7) CONST. 7" CONC. PAVEMENT
(V8) CONST. 8" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 189	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\30-36.DGN

REVISED DATE: 05-04-2016 BY PN

NORTH 92ND STREET

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

N

SIGNATURE BED NO. 2 (SEE CONSTRUCTION DETAIL)

BM: HYD. (NNW BOLT), SE CORNER N. 92ND ST. & W. GRANTOSA DR. STA. 36+43, 45'RT ELEV: 183.52

W. GRANTOSA DR.

CITY OF WAUWATOSA / CITY OF MILWAUKEE

N.00°39'43"W.

SECTION LINE

SB PGL

NB PGL

#9134-26 #4448-4464 #4572-74 #4578

20 ALLEY

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

(2) CONST. CURB RAMP TYPE 2
(7B) CONST. CURB RAMP TYPE 7B
(A) CONST. CONC. CURB & GUTTER 31-INCH
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(N) CONST. 5" CONC. SIDEWALK
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(PC) CONST. CONC. CURB PREDESTRIAN
(SA) SAW ASPHALT
(SC) SAW CONCRETE
(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(V7) CONST. 7" CONC. PAVEMENT
(V8) CONST. 8" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 190	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\36-42.DGN

REVISED DATE: 05-04-2016 BY PN

NORTH

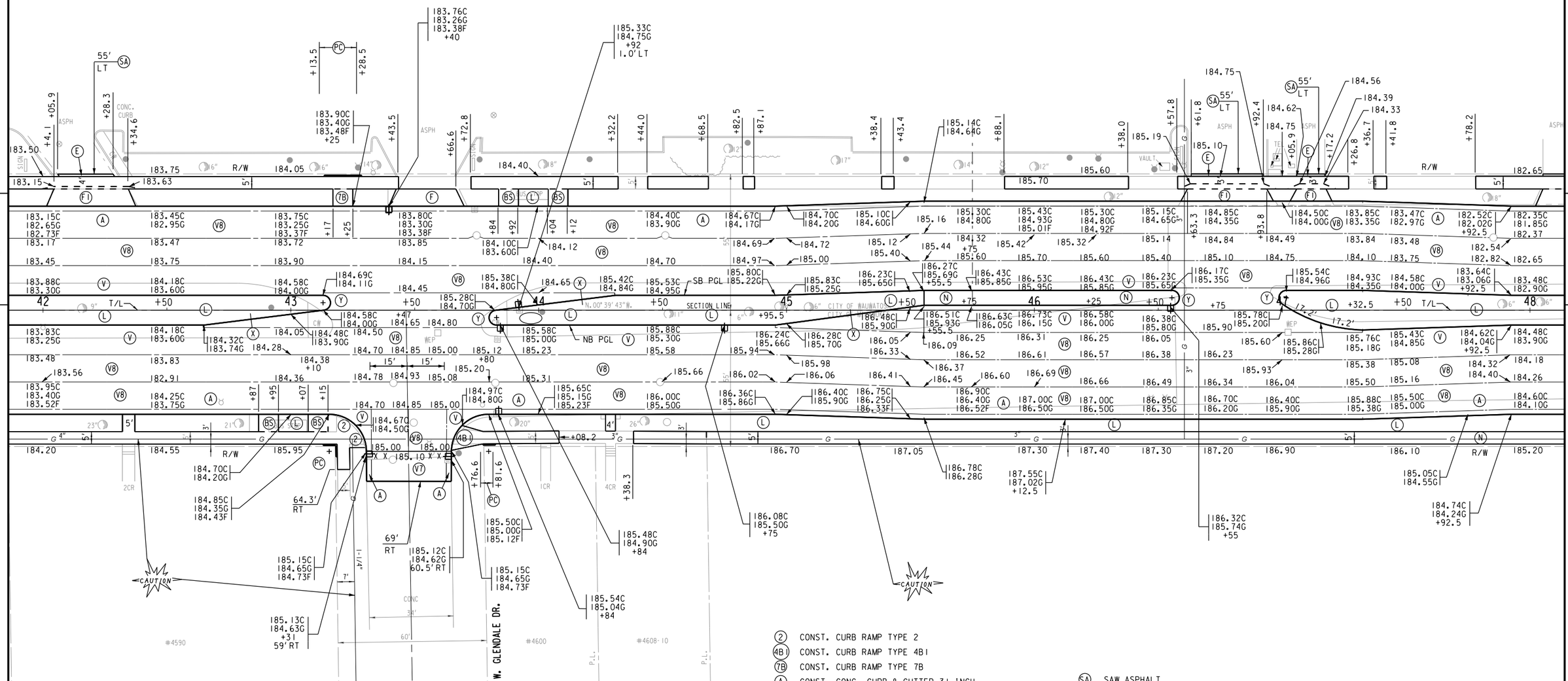
92ND

STREET

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

BM: HYD. (NNW BOLT), WEST SIDE N. 92ND ST. STA. 43+27, 57'LT ELEV: 186.28

N



(2) CONST. CURB RAMP TYPE 2
(4BI) CONST. CURB RAMP TYPE 4BI
(7B) CONST. CURB RAMP TYPE 7B
(A) CONST. CONC. CURB & GUTTER 31-INCH
(BS) BUS STOP
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(FI) CONST. CONC. DRIVEWAY FLARED MODIFIED (7-INCH)
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK

(SA) SAW ASPHALT
(SC) SAW CONCRETE
(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE
(PC) CONST. CONC. CURB PREDESTRIAN

SEE "PLAN DETAIL" FOR CURB GEOMETRICS

SEE CONST. DETAIL FOR ADDITIONAL INFORMATION ON CURB RAMPS

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 191	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\42-48.DGN

REVISED DATE: 05-04-2016 BY PN

NORTH 92ND STREET

MADISON PARK
MILWAUKEE COUNTY

N

181.70C
181.20G
+30

183.38C
182.80G
+40
6.0' LT

55' LT (SA)

55' LT (SA)

174.65C
174.07G
174.11F
+78.5

173.88C
173.38G
173.46F
+79

175.05C
174.55G

ASPH +5.2 +17.0 +22.1

ASPH +62.3 +72.5 +77.5

LAWN +94 +02 +14 +22

LAWN +87.4 +92.4 +97.4 +2.4

LAWN

LAWN

R/W +57.5 +62.5 +72.3 +77.3

182.65 (N) (F) (L) (L) (BS) (E) (BS) +63.0 R/W

179.10C 178.00C 176.90C 175.80C 174.55C 173.40C 172.25C 171.30C 170.75C 170.37C

182.35C (A) 181.85C 181.32C 180.82G 180.85C 180.35G 180.20C 179.70G (V8) 178.60G 177.50G 176.40G (A) 175.30G 174.05G (V8) 172.90G 171.75G 170.80G (A) 170.25G (V8) 169.85G

182.37 (V8) 179.12 177.94 176.78 175.62 8' 8' 8'

NORTH 92ND STREET

BIO-SWALE NO.5
(SEE BIO-SWALE PLAN)

END PROJECT
STA. 56+31.00 T/L

TIMMERMAN FIELD
MILWAUKEE COUNTY

CITY OF WAUWATOSA

CITY OF MILWAUKEE

SB PGL

NB PGL

EXIST. BIO- SWALE

SECTION LINE
N.00°39'43"W.

+50 T/L

MONUMENT

W. HAMPTON AVE.

BM: SBM #63-18, IN MEDIAN NORTH OF W. HAMPTON AVE., 41.6' NORTH OF SOUTH END & 8.3' EAST OF WEST CURB OF MEDIAN ISLAND ELEV: 169.776

∠PT. +50.0-54.0' RT.
172.00

∠PT. +80.0-48.0' RT.
170.92

CAUTION

CAUTION

(A) CONST. CONC. CURB & GUTTER 31-INCH
(BS) BUS STOP
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(SA) SAW ASPHALT
(SC) SAW CONCRETE
(V) CONST. 8" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

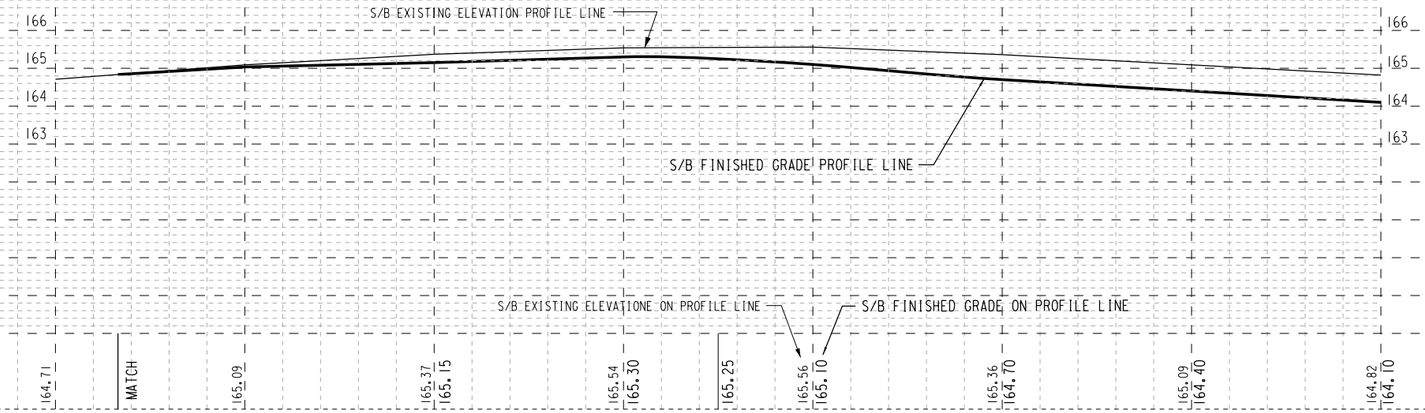
SEE "PLAN DETAIL" FOR CURB GEOMETRICS

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 193	E

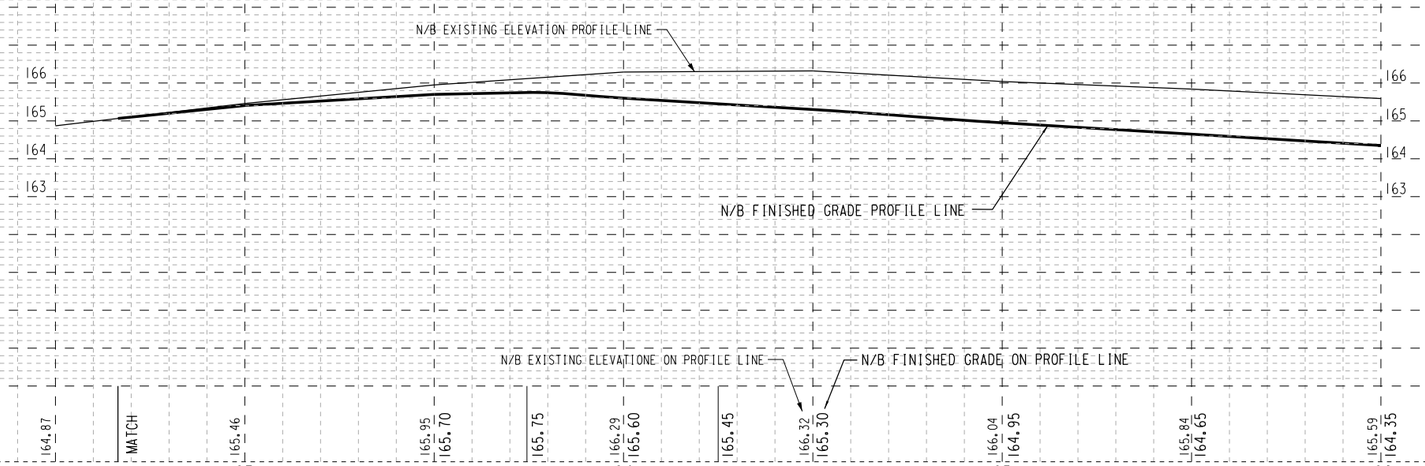
FILENAME: W:\SPR\92ND N_CAP-HAMP\54-60.DGN

REVISED DATE: 05-05-2016 BY PN

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.

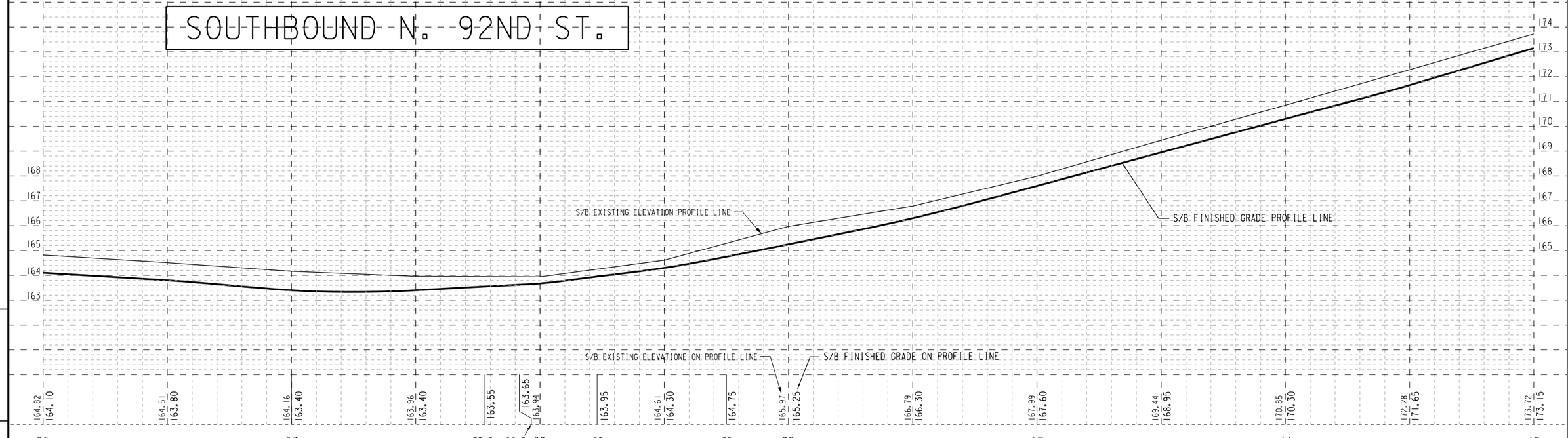


STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 194	E

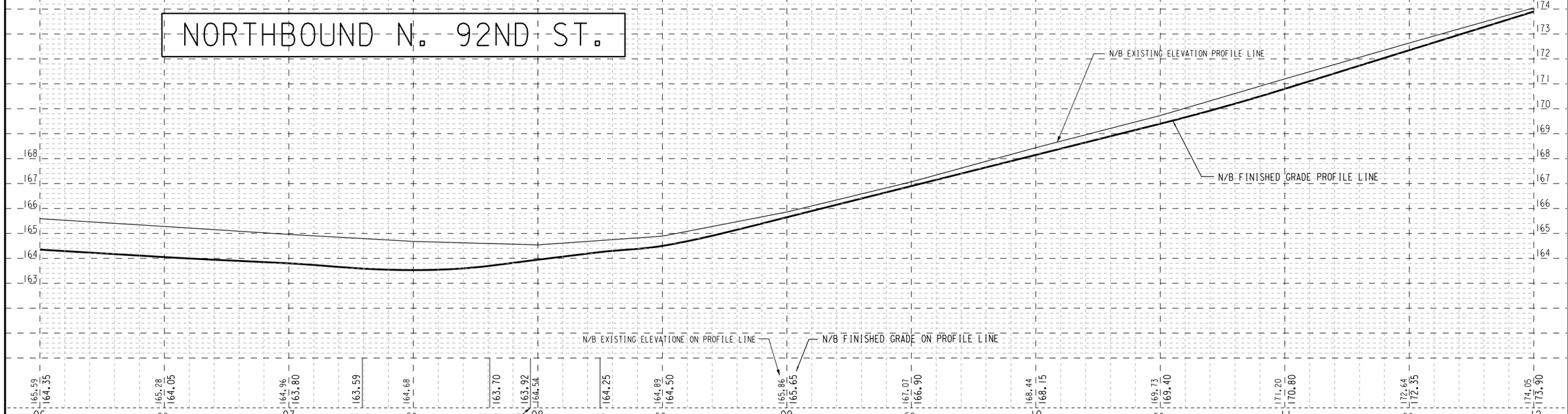
FILENAME: W:\SPR\92ND N_CAP-HAMP\00-06.DGN

REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.

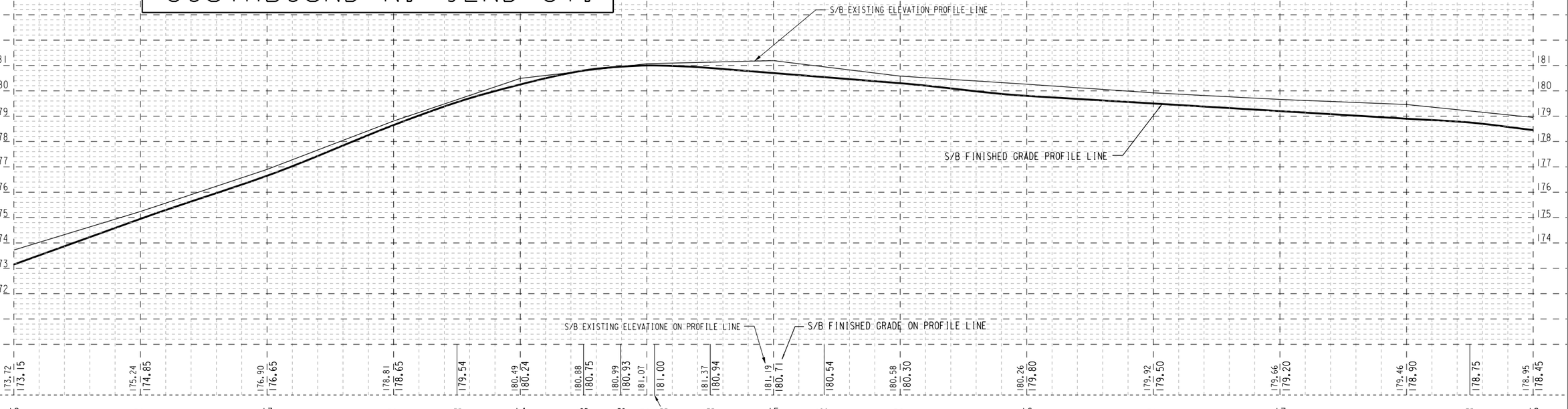


STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 195 E

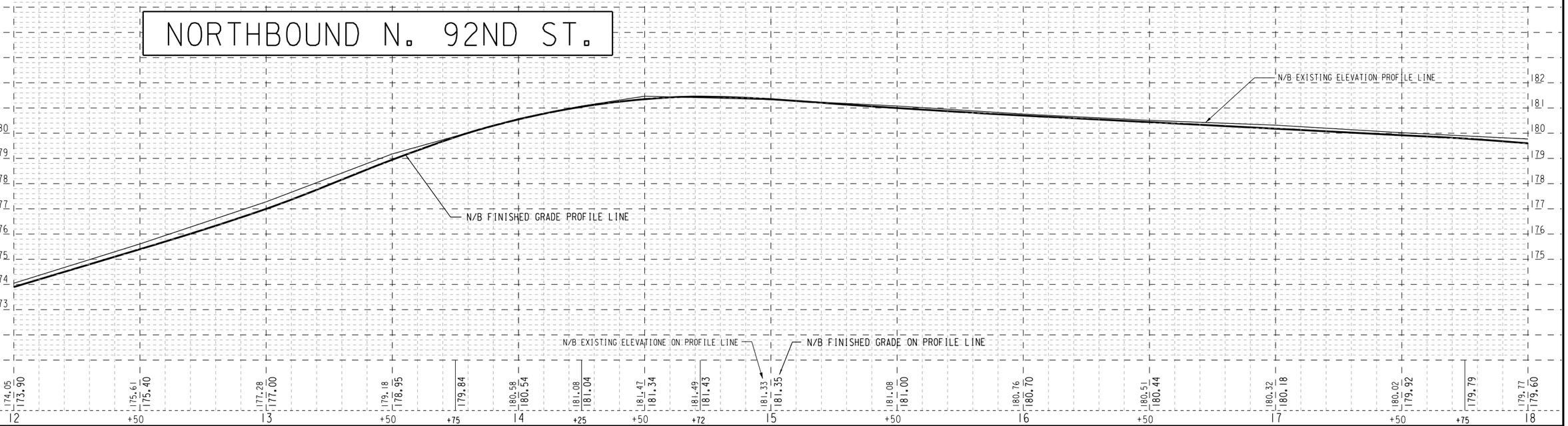
FILENAME: W:\SPR\92ND N_CAP-HAMP\06-12.DGN

REVISED: 11-16-2015

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.

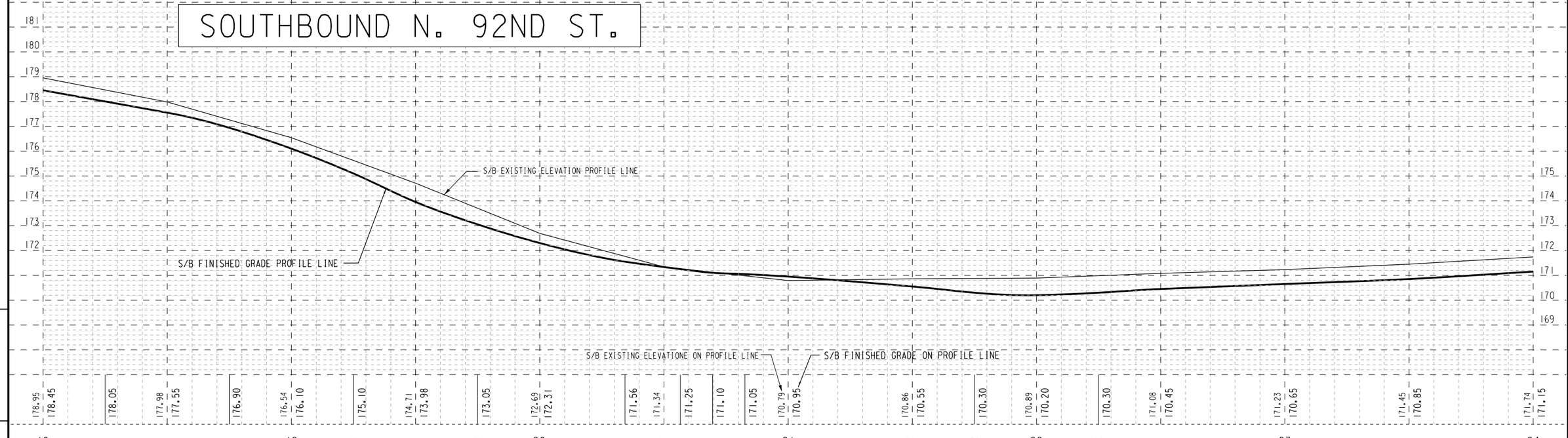


STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 196 E

FILENAME: W:\SPR\92ND N_CAP-HAMP\12-18.DGN

REVISED: 03-10-2016

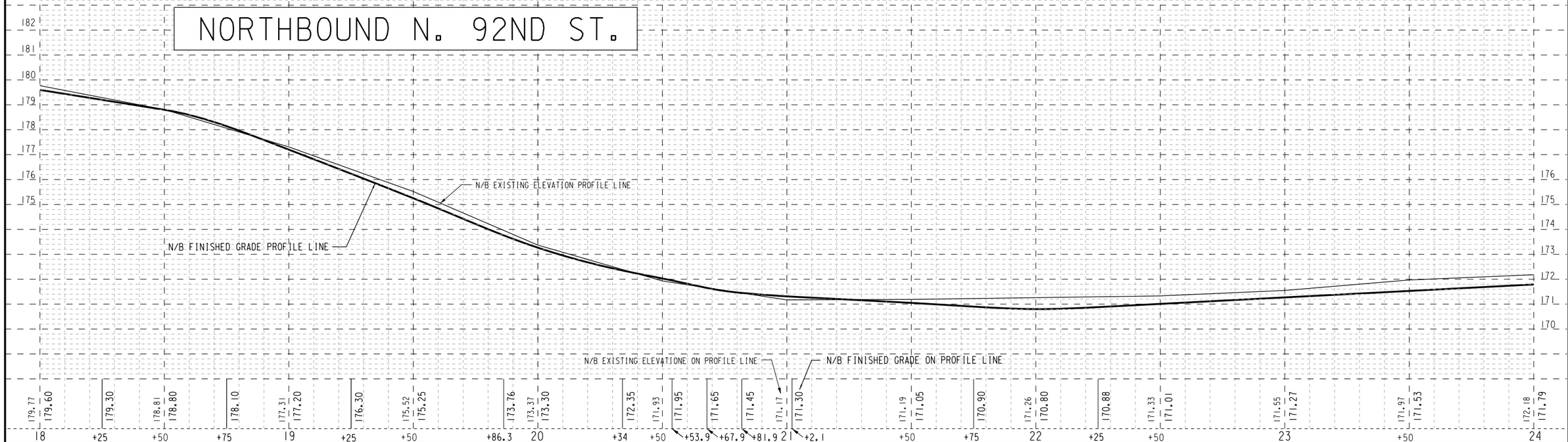
SOUTHBOUND N. 92ND ST.



5

5

NORTHBOUND N. 92ND ST.



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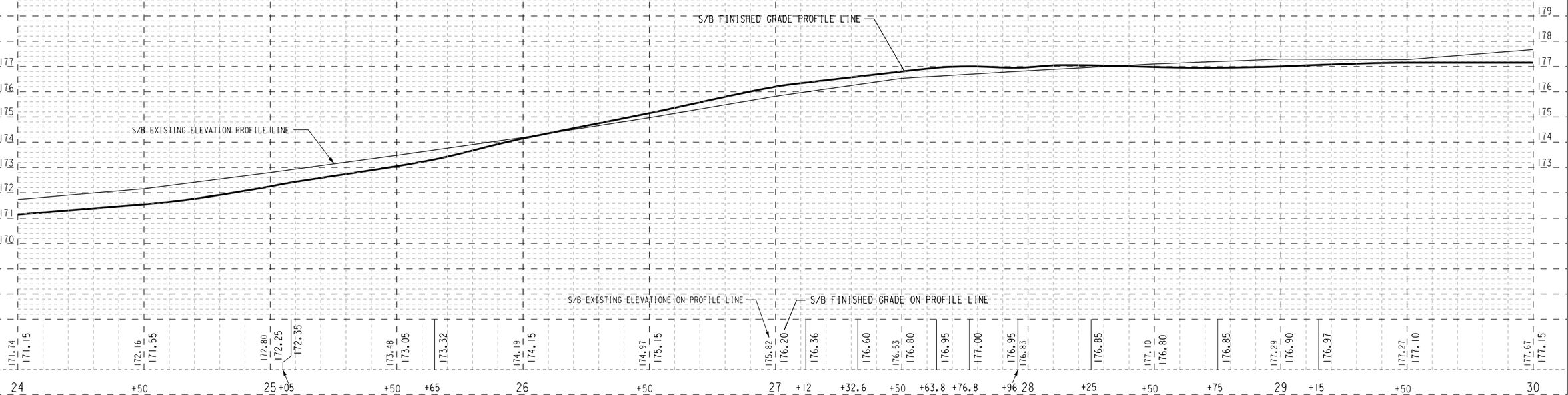
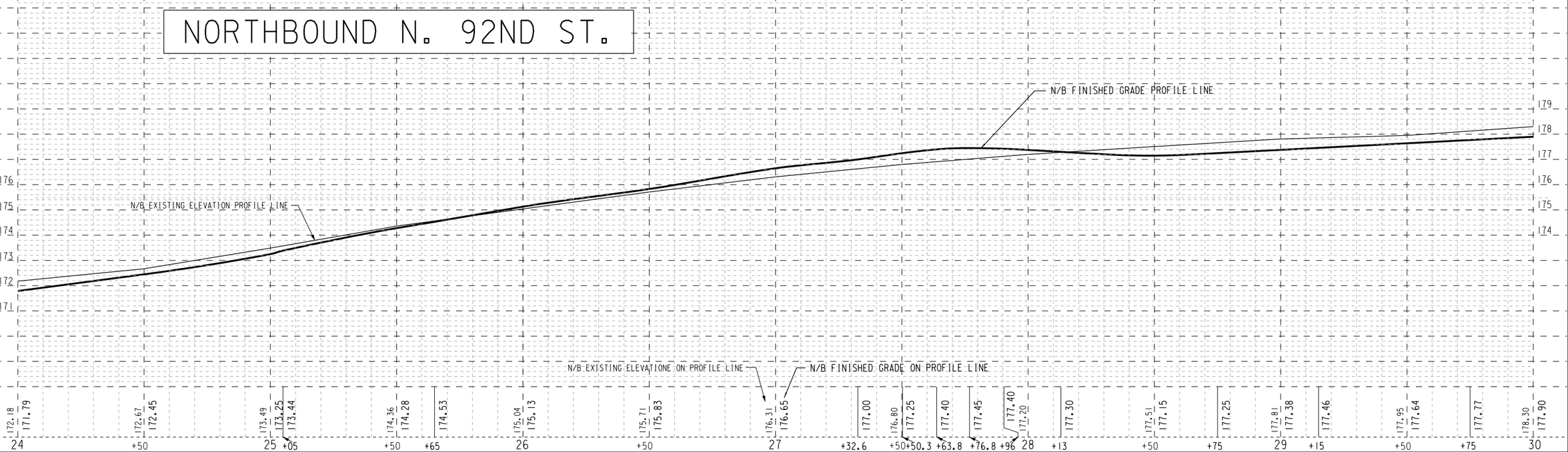
REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 198	E

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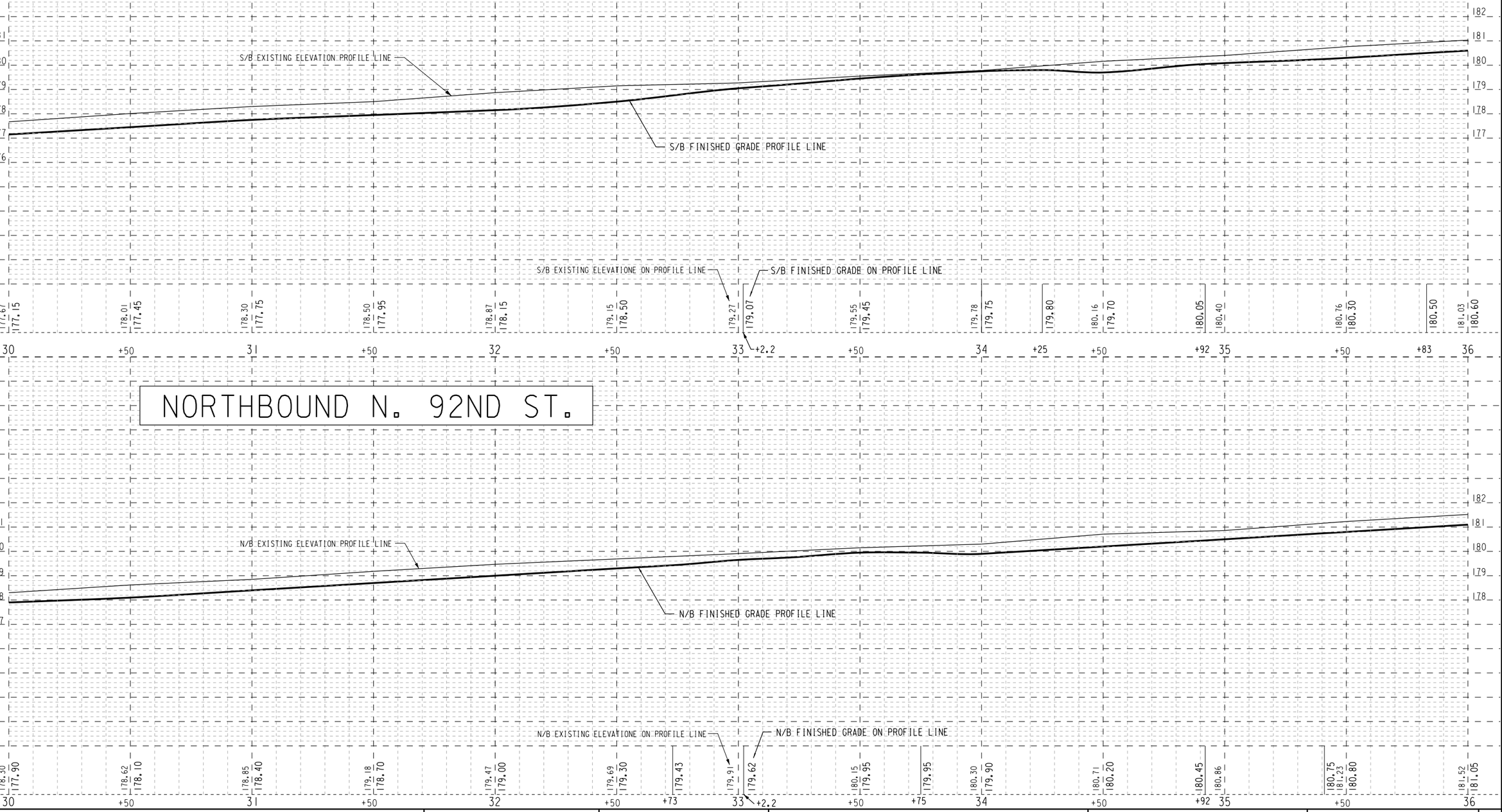
REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



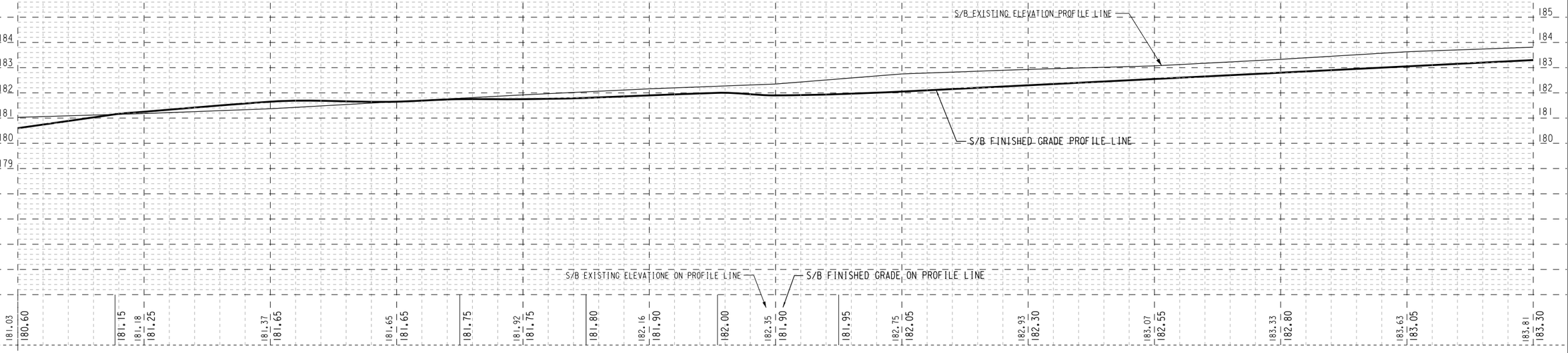
NORTHBOUND N. 92ND ST.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 199 E

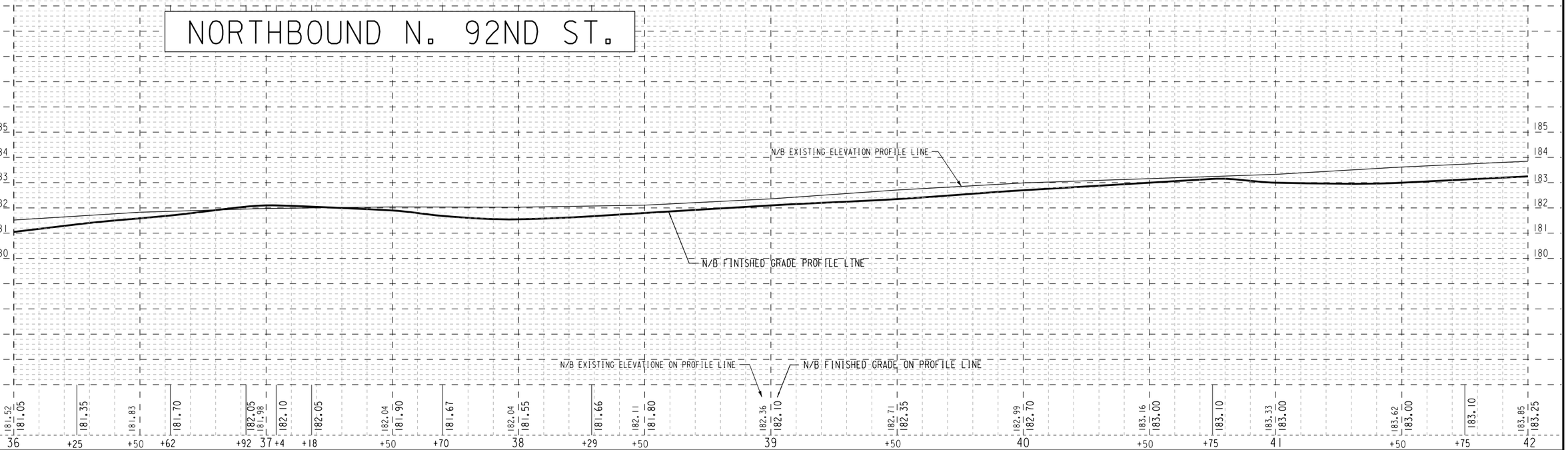
FILENAME: W:\SPR\92ND N_CAP-HAMP\30-36.DGN

REVISED: 03-10-2016

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.

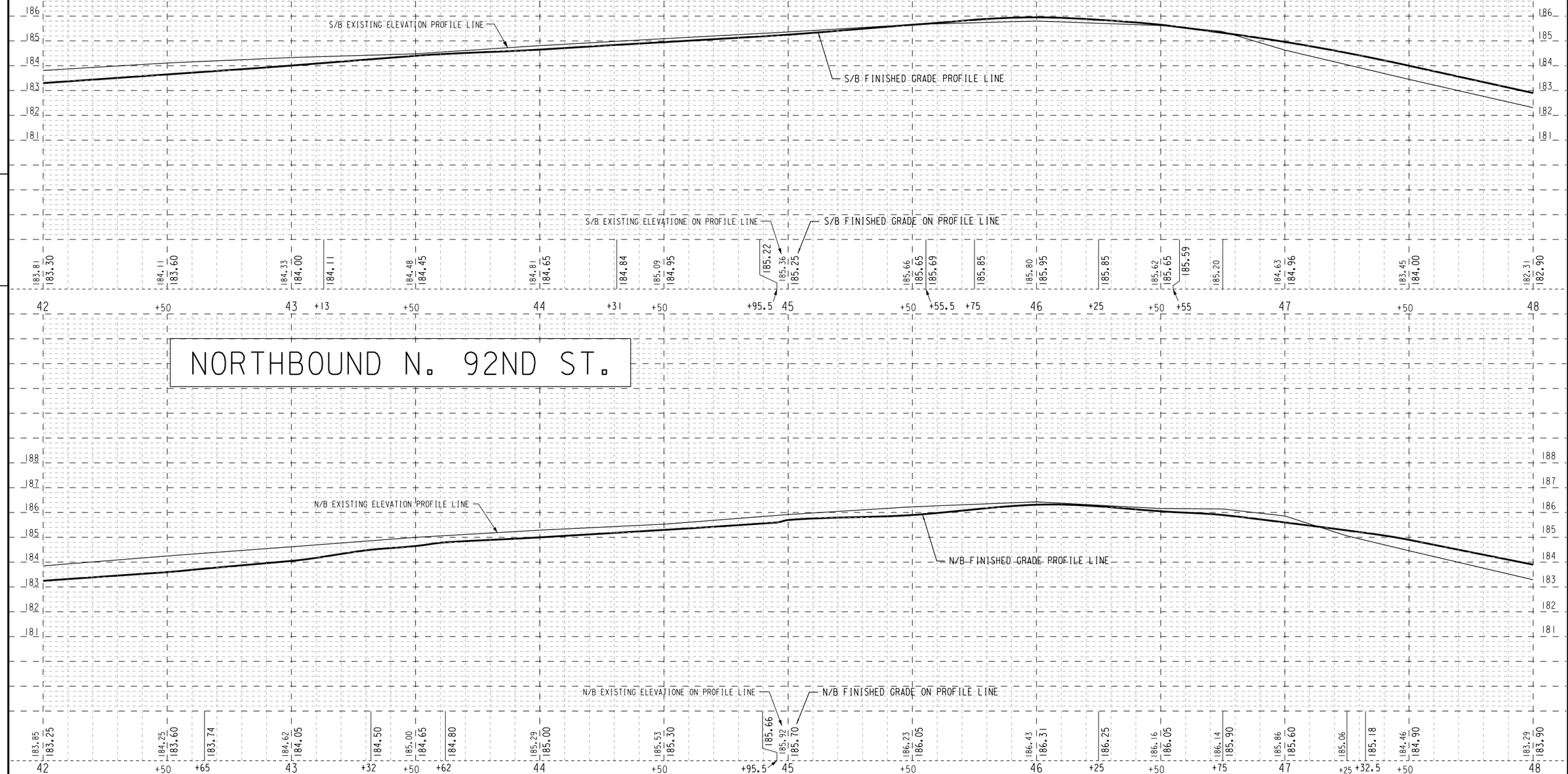


STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 200	E

FILENAME: W:\SPR\92ND N_CAP-HAMP\36-42.DGN

REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



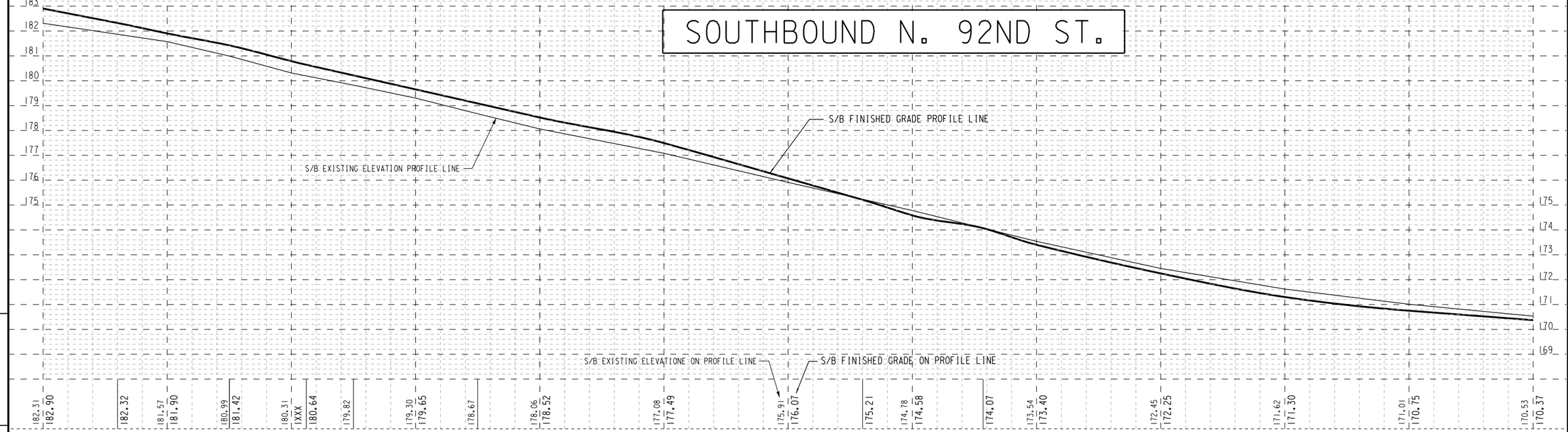
NORTHBOUND N. 92ND ST.

STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 201	E

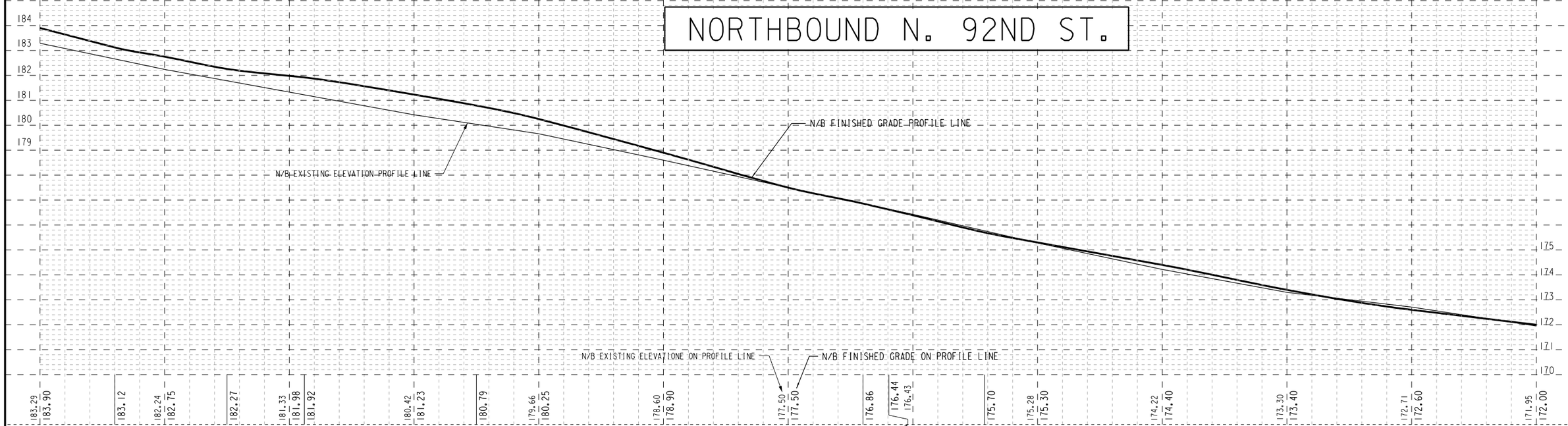
FILENAME: W:\SPR\92ND N_CAP-HAMP\42-48.DGN

REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 202 E

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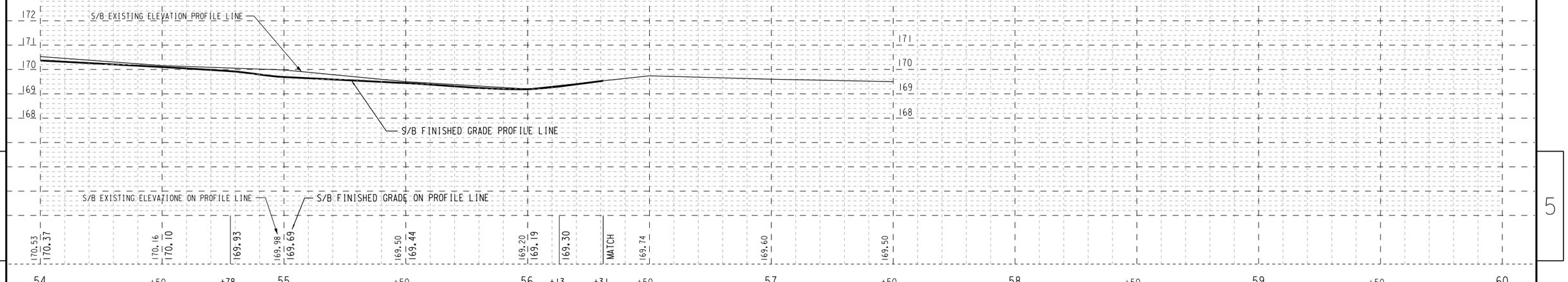
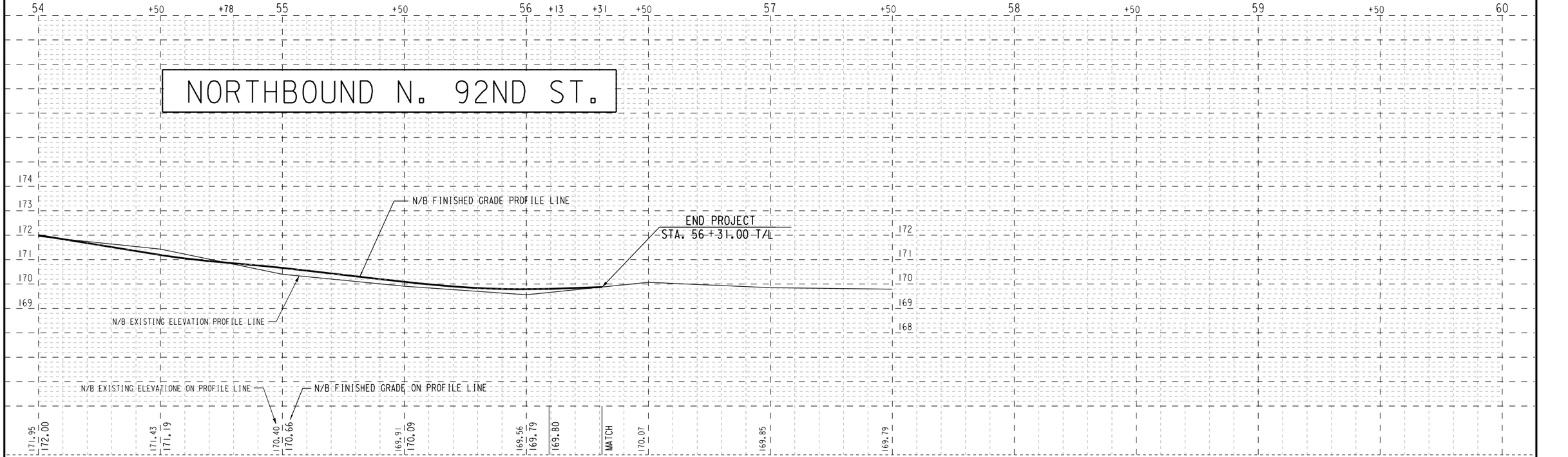
REVISED: 10-12-2015

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.



STATE PROJECT NUMBER 2585-00-70	N. 92ND ST.	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 203 E

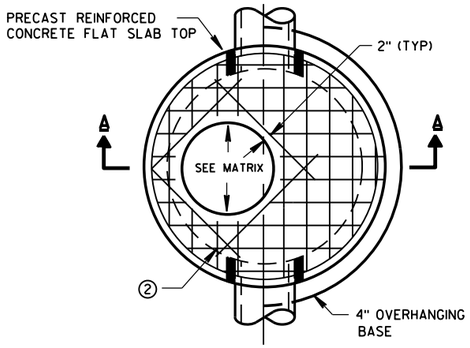
FILENAME: W:\SPR\92ND N_CAP-HAMP\54-60.DGN

REVISED: 10-12-2015

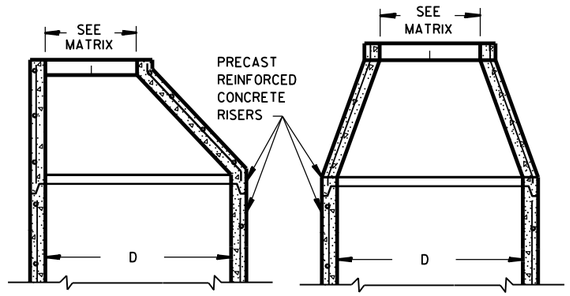
Standard Detail Drawing List

08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D05-17A	CURB RAMPS TYPES 1 AND 1-A
08D05-17B	CURB RAMPS TYPES 2 AND 3
08D05-17C	CURB RAMPS TYPES 4A AND 4A1
08D05-17D	CURB RAMPS TYPE 4B AND 4B1
08D05-17E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E05-02	SODDED BACKSLOPE FLUME AND INTERCEPTING EMBANKMENT
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-09	CONCRETE BASE TYPE 10
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
11B02-02	CONCRETE MEDIAN NOSE
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C11-06	FLEXIBLE TUBULAR MARKER POST
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

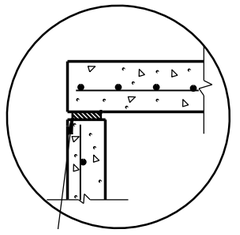


PLAN VIEW CIRCULAR OPENING

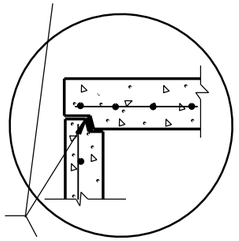


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

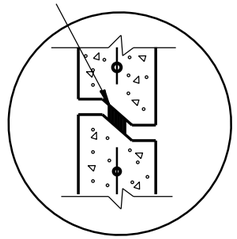


TOP WITH PLAIN END JOINT



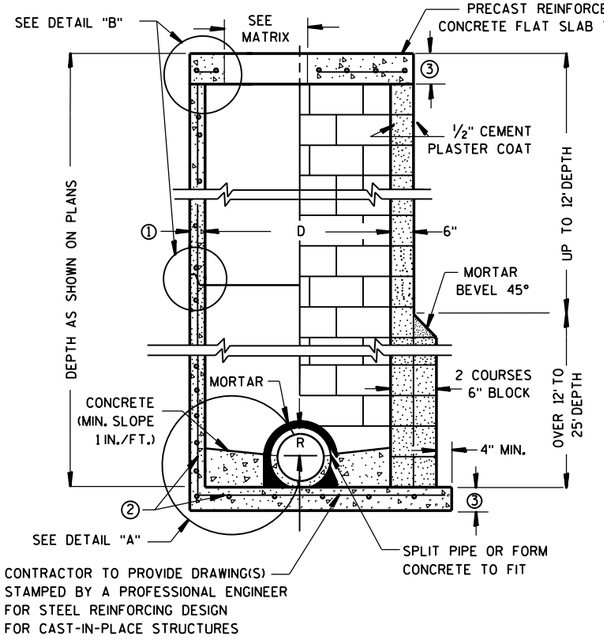
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



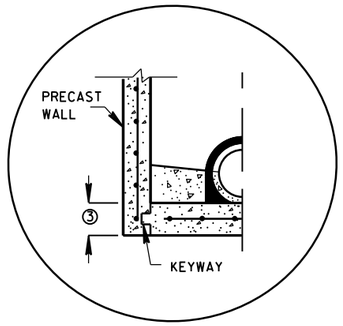
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

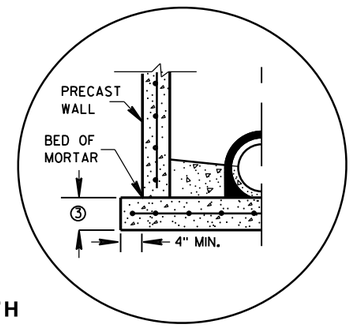


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

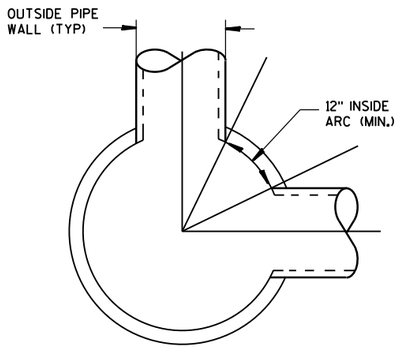


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

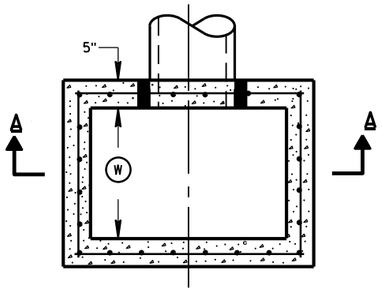
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

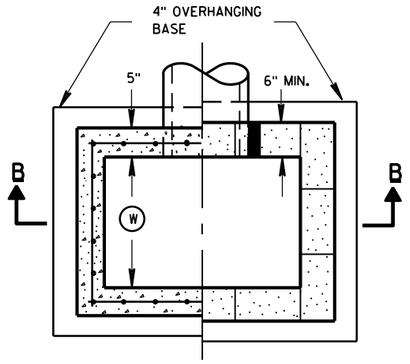
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

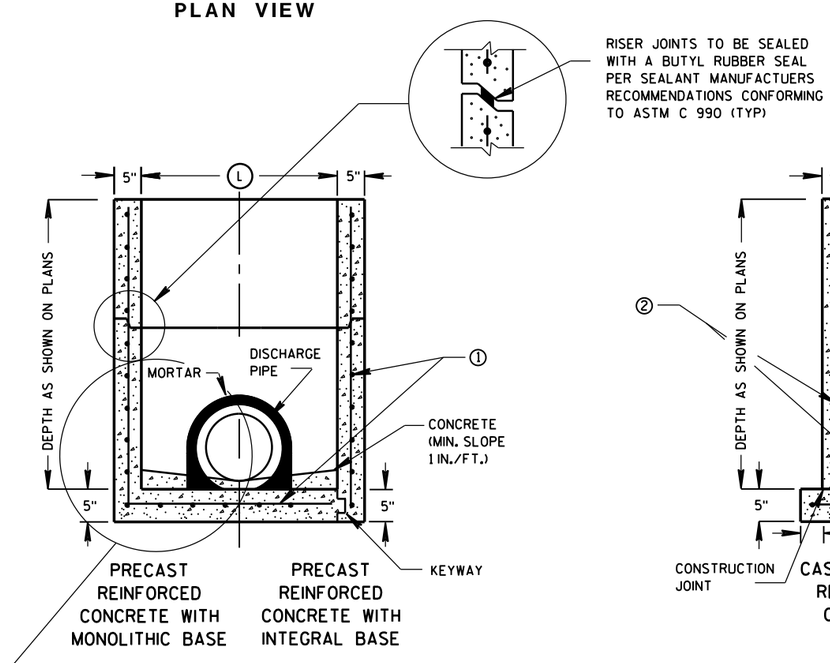
6
S.D.D. 8 B 9-1



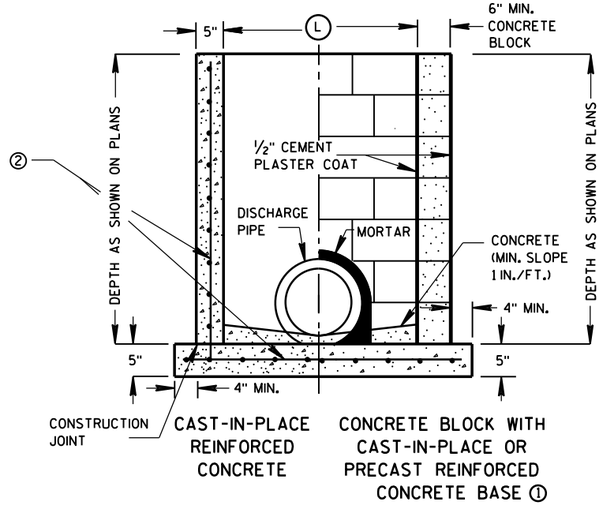
PLAN VIEW



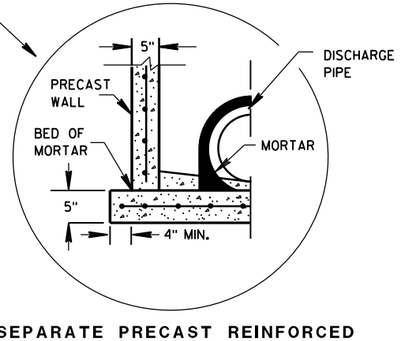
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

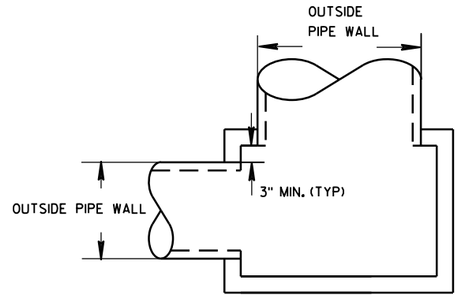
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER
FHWA

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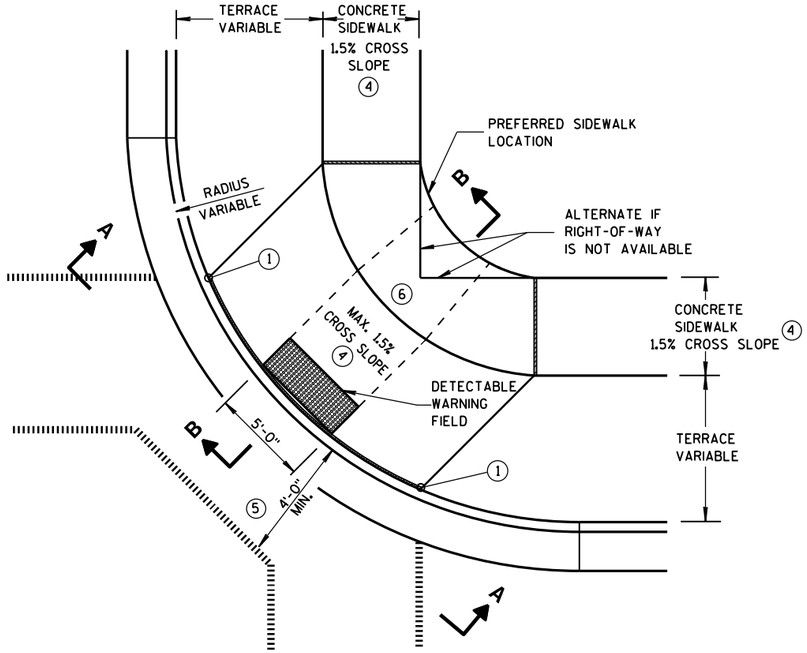
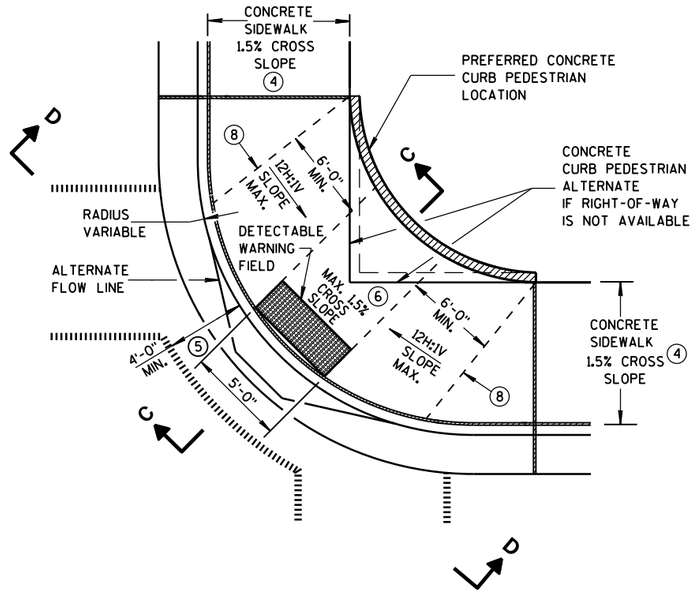
S.D.D. 8 C 7-1



PLAN VIEW

TYPE 1 RAMP

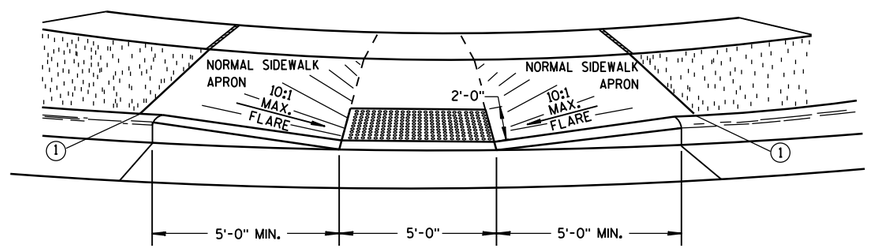
(CENTER OF CORNER RADIUS)



PLAN VIEW

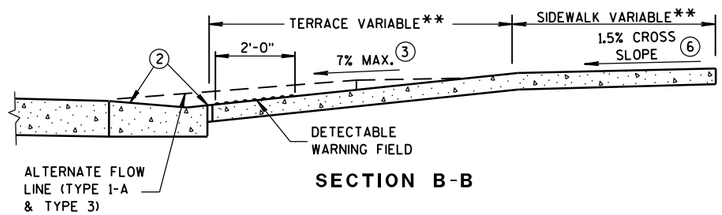
TYPE 1-A RAMP

(NO TERRACE)

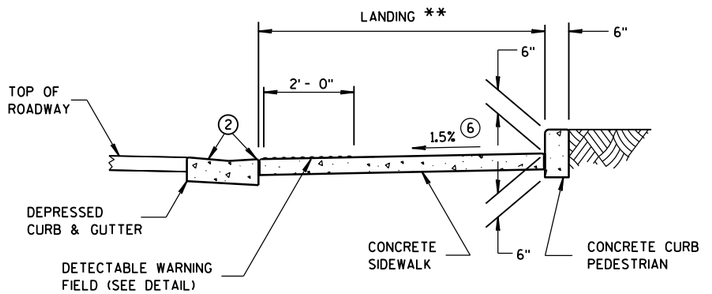


VIEW A-A

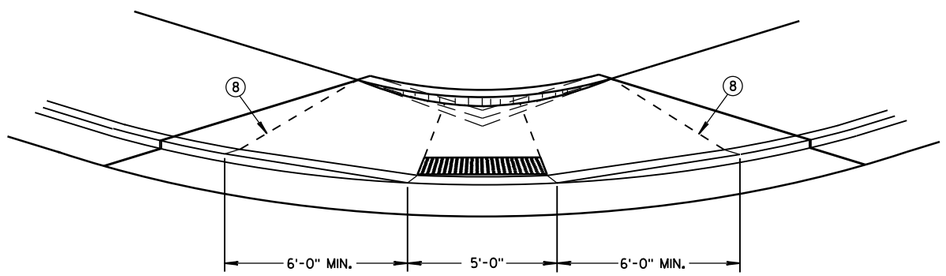
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

TYPE 1 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 LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

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

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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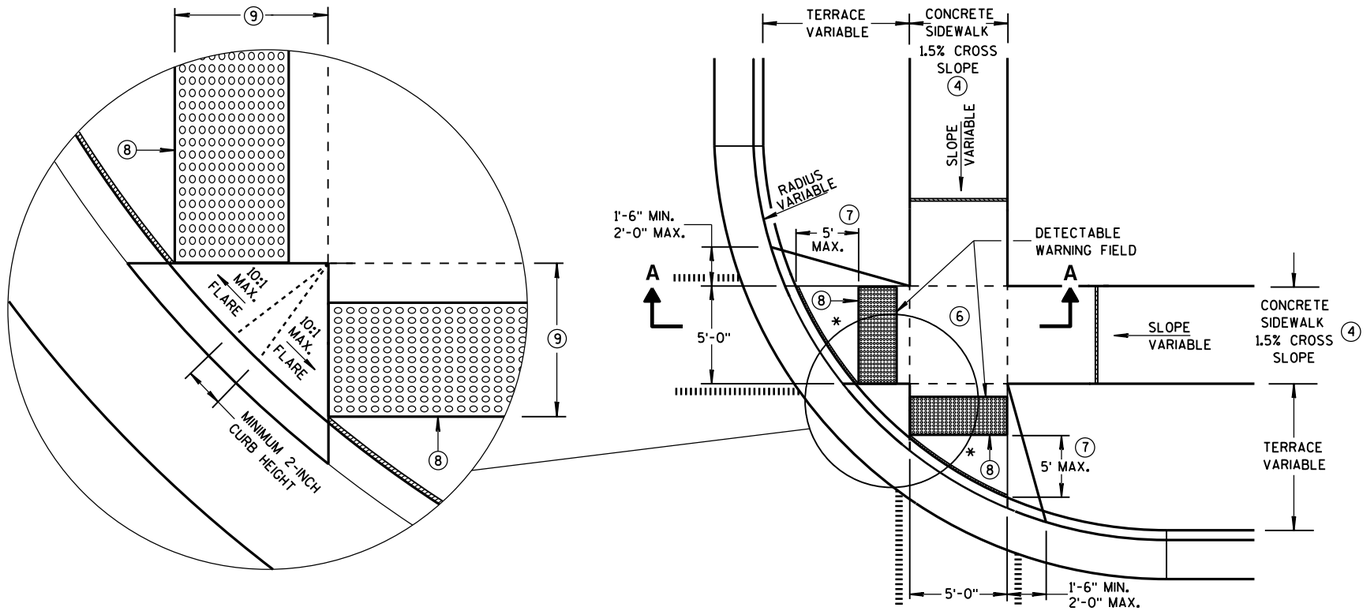
S.D.D. 8 D 5-17a

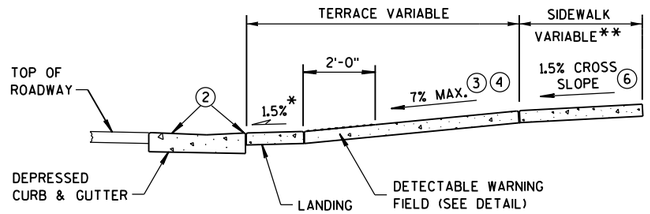


PLAN VIEW

TYPE 2 RAMP

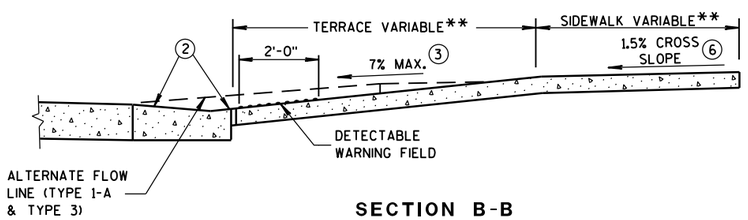
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

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 NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

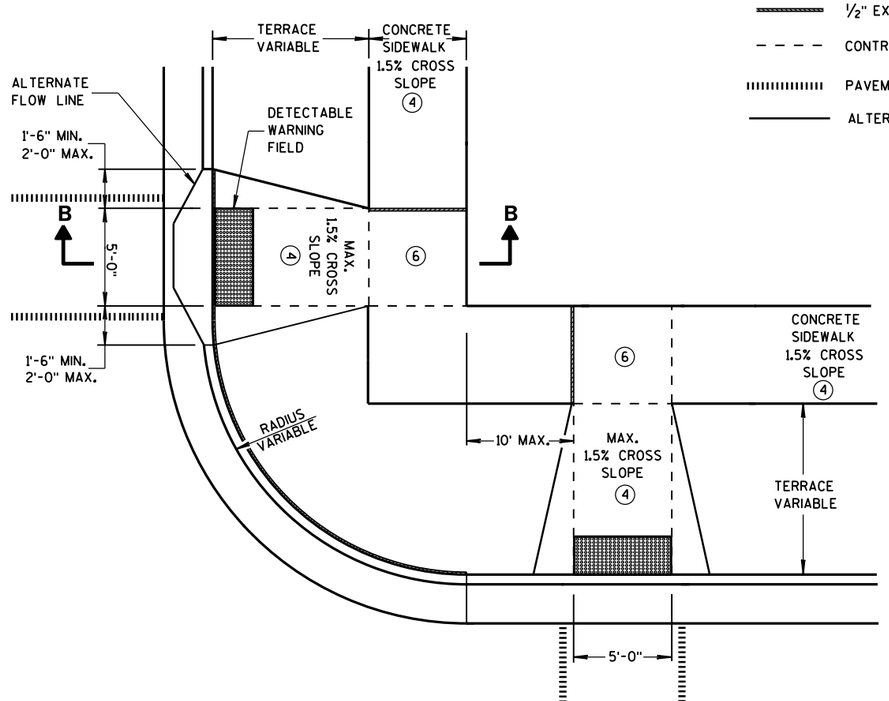
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS 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.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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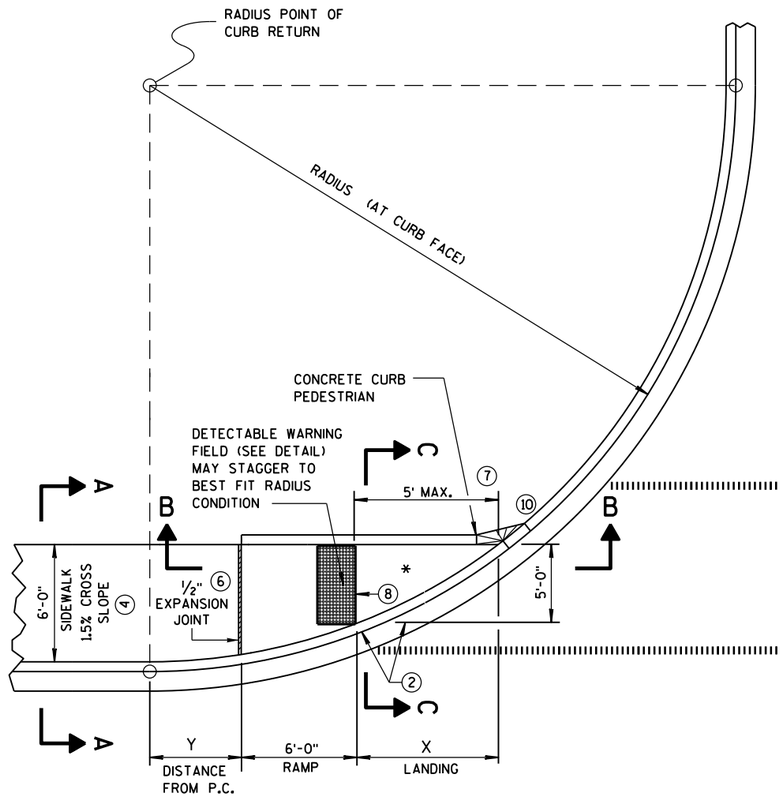
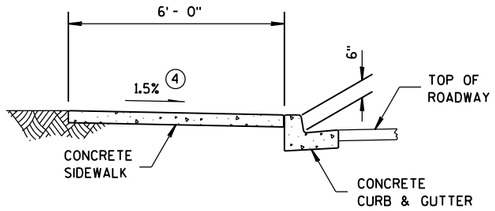


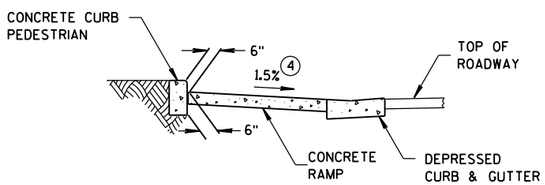
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

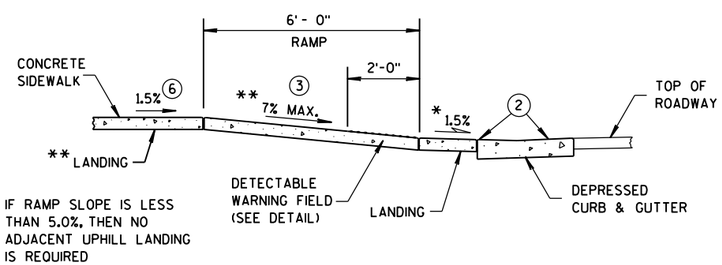
INTERMEDIATE RADII CAN BE INTERPOLATED



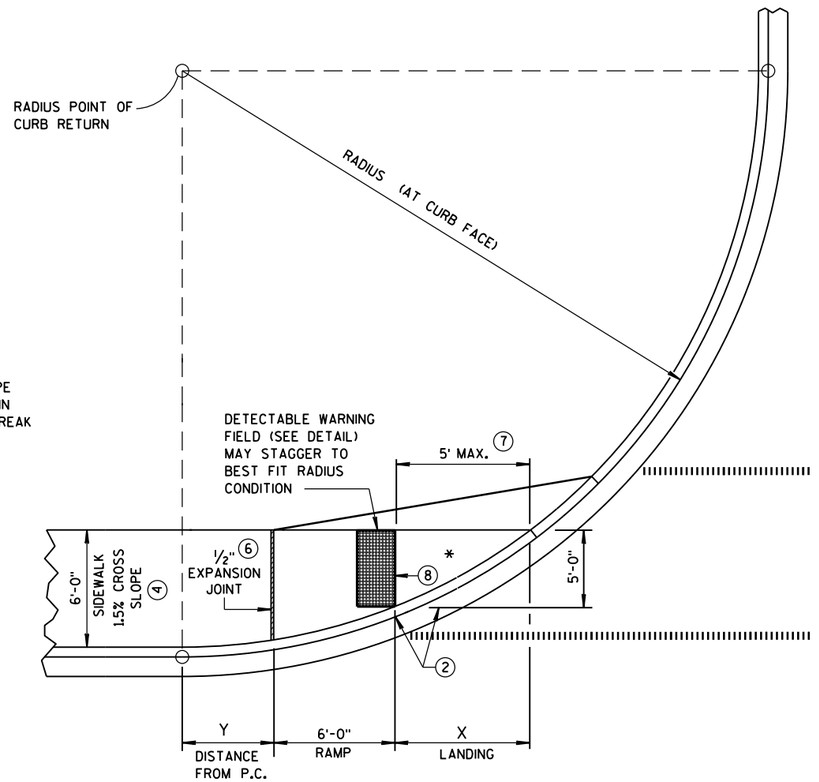
SECTION A-A FOR TYPE 4A



SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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 NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

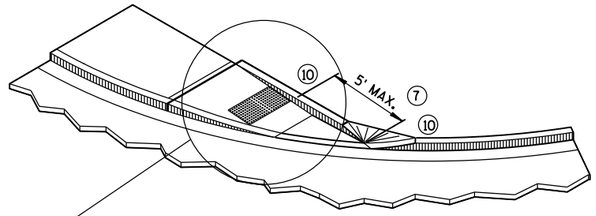
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

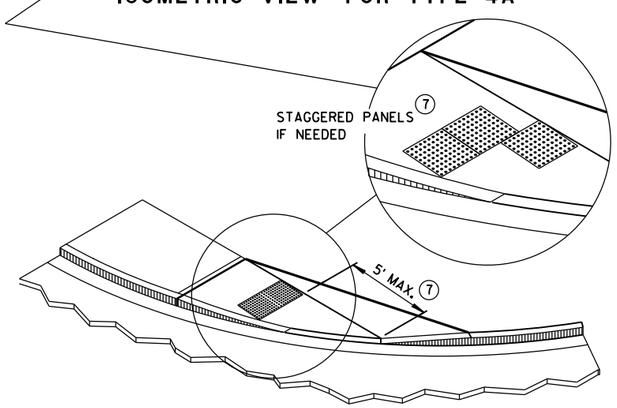
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

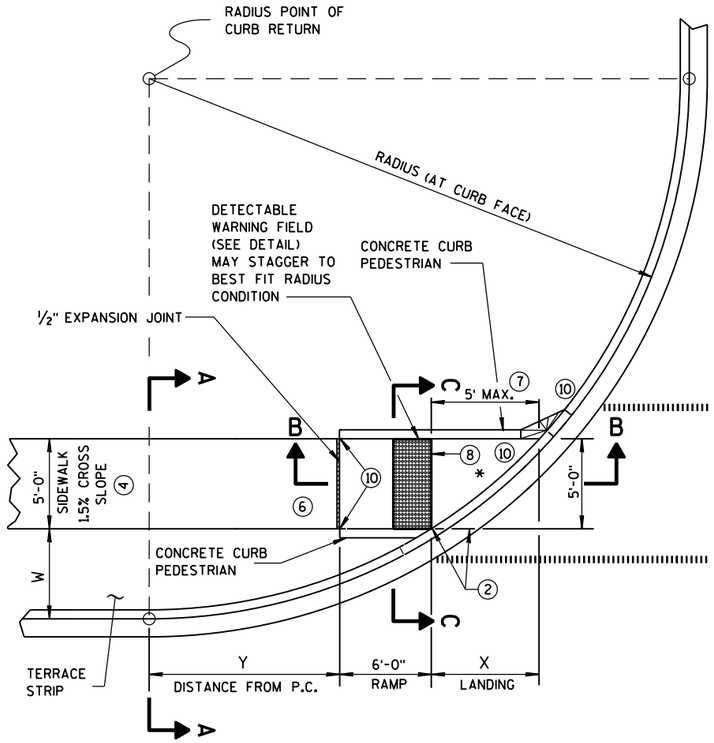
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

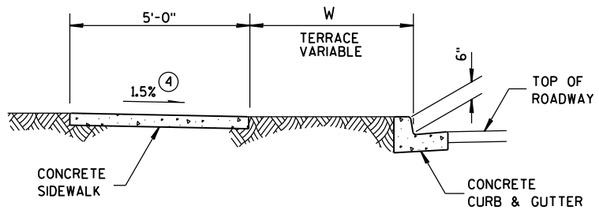
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

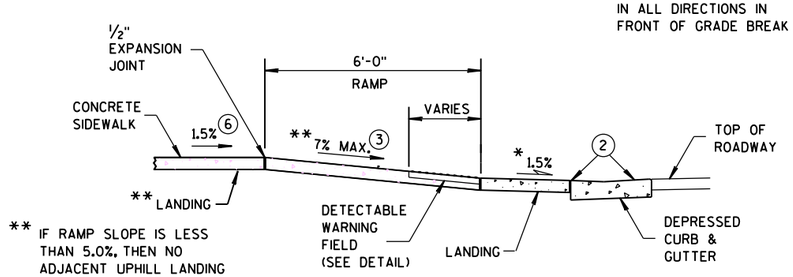
S.D.D. 8 D 5-17c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



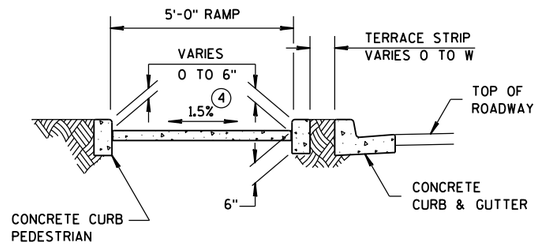
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

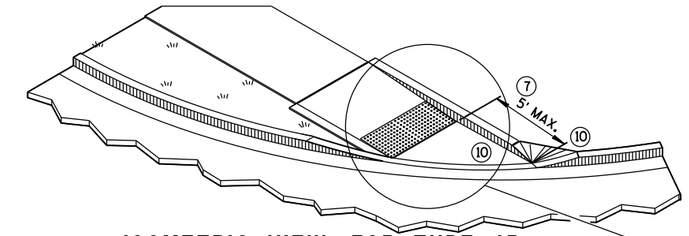
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

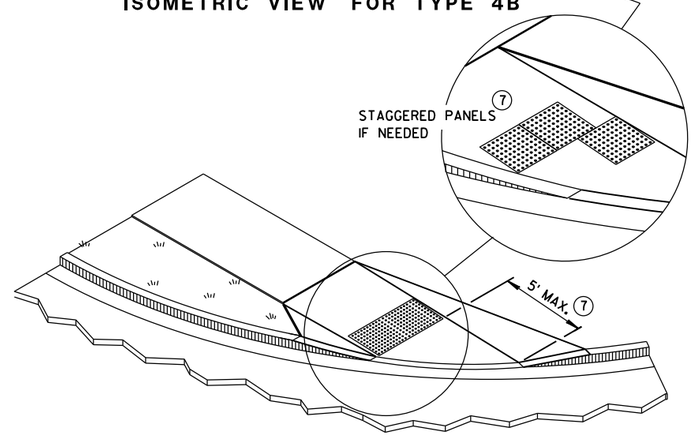
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

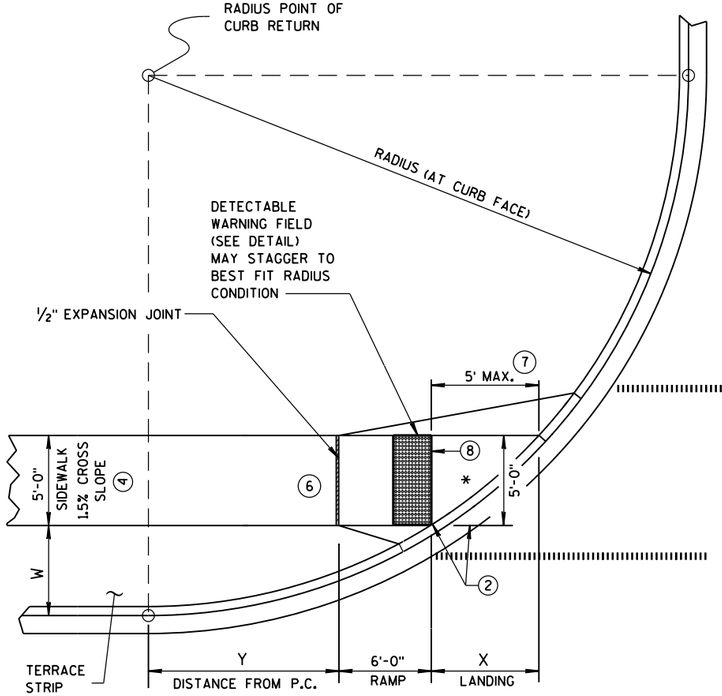
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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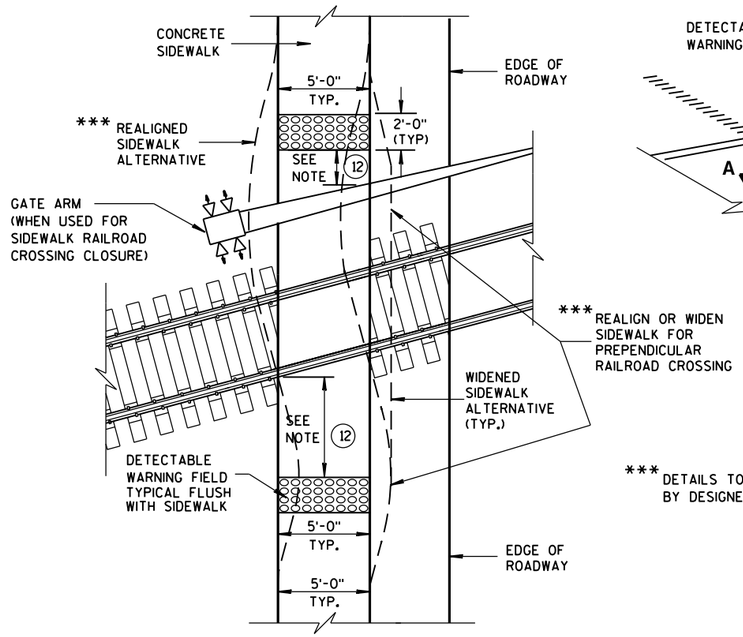
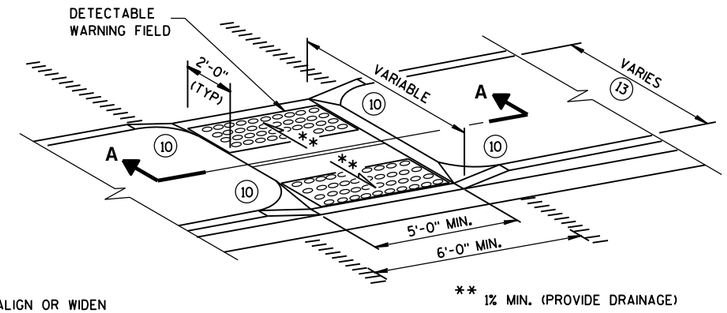
S.D.D. 8 D 5-17d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

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 NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

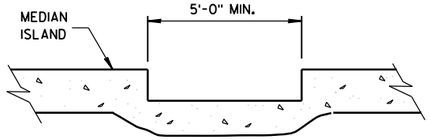
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

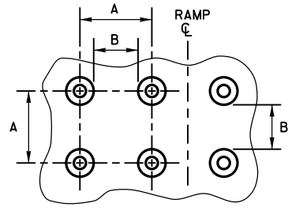
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



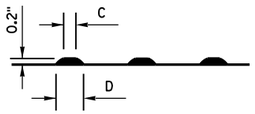
SECTION A-A

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

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

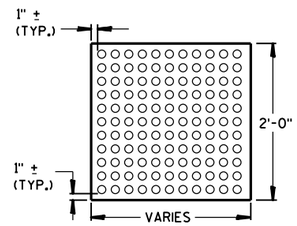


PLAN VIEW

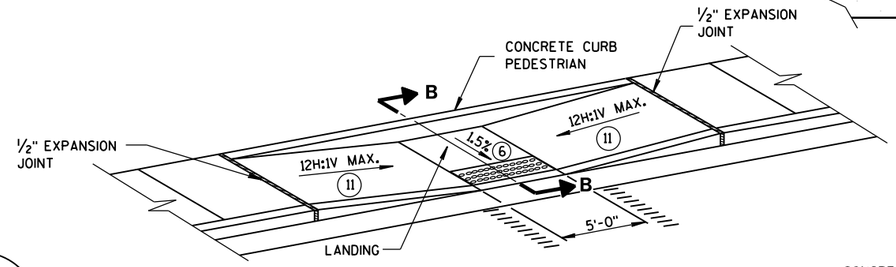


ELEVATION VIEW

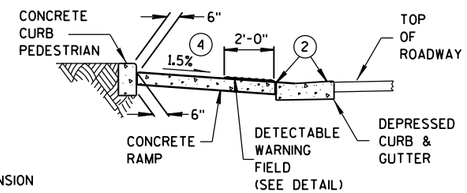
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

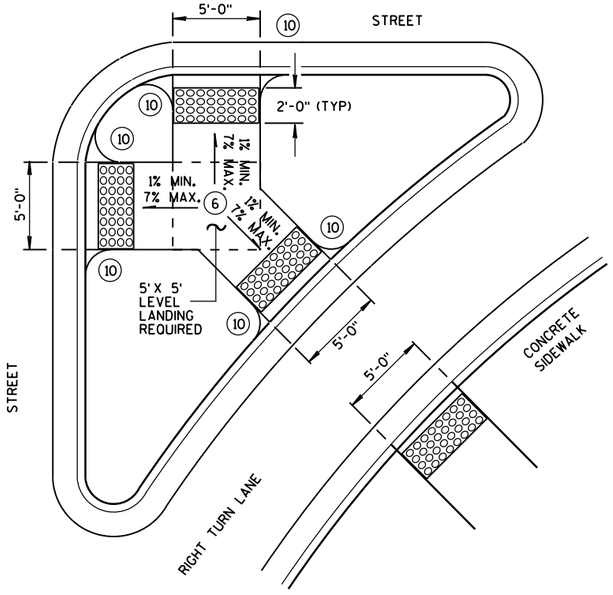


MID-BLOCK CROSSING
TYPE 7A

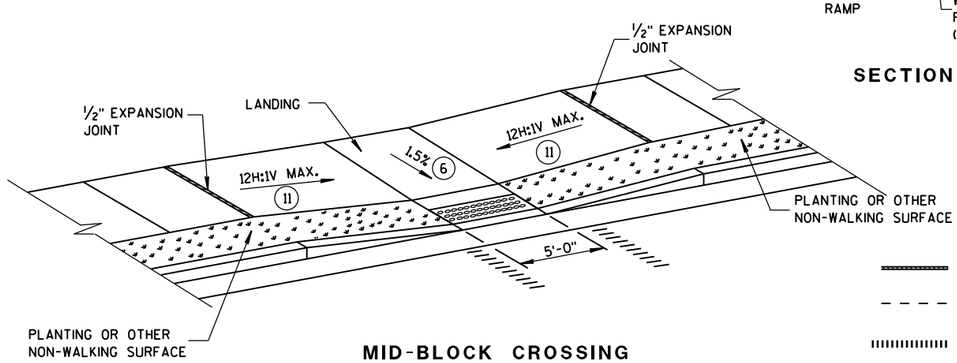


SECTION B-B

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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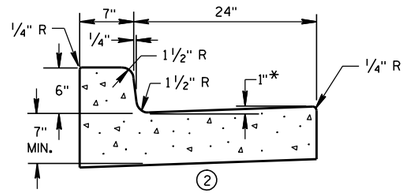
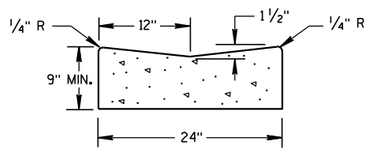
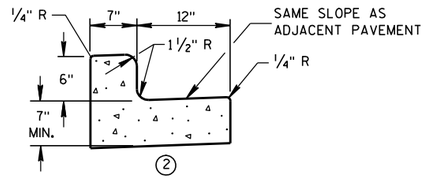
S.D.D. 8 D 5-17e



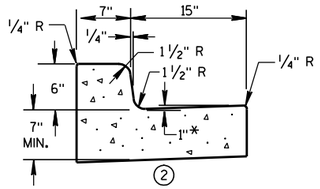
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

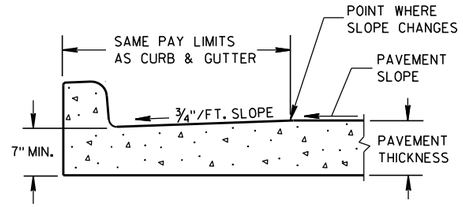


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

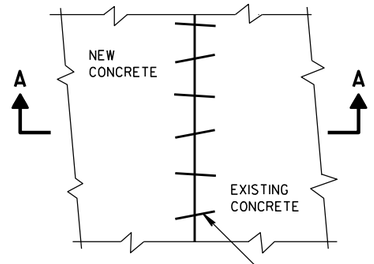
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

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" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

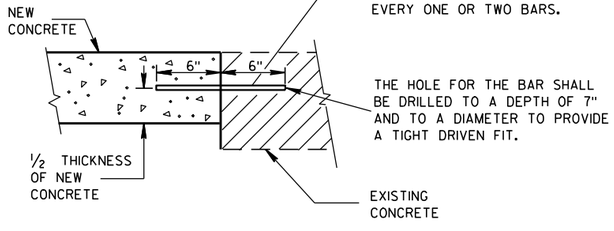
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

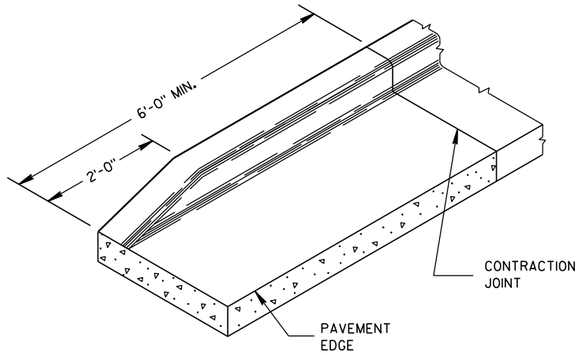
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



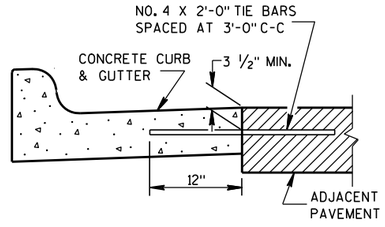
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

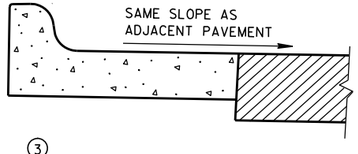
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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FHWA

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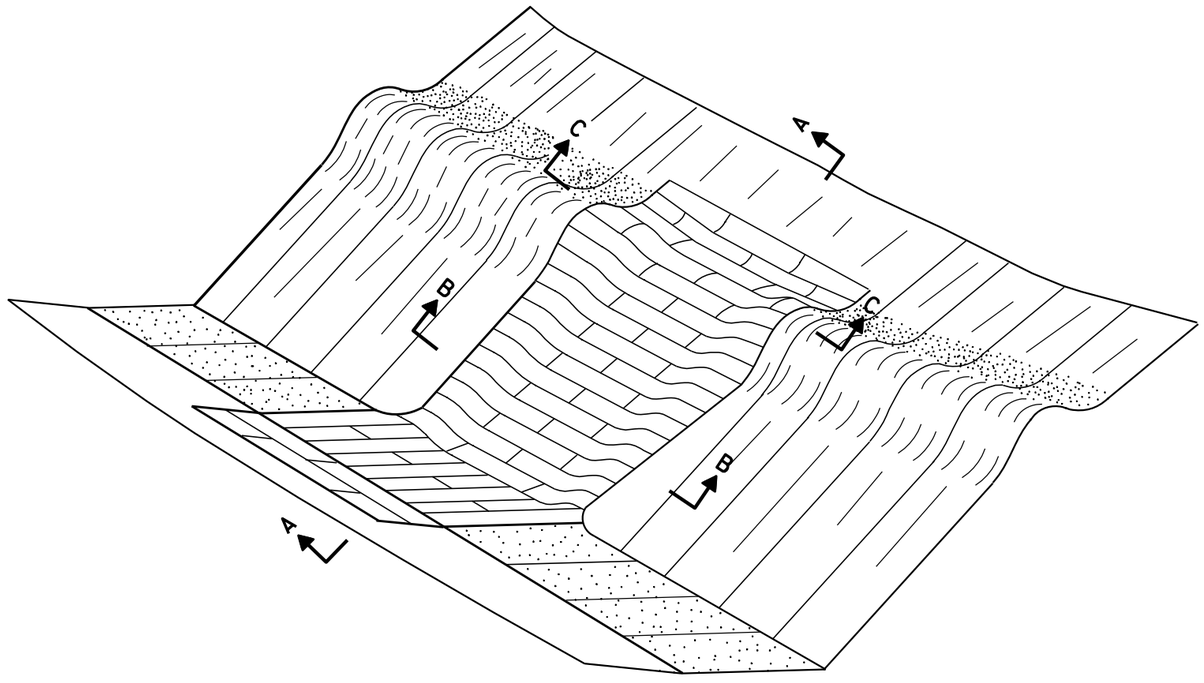
S.D.D. 8 D 16-10



PERSPECTIVE

BACKSLOPE WITH FLUME AND INTERCEPTING EMBANKMENT

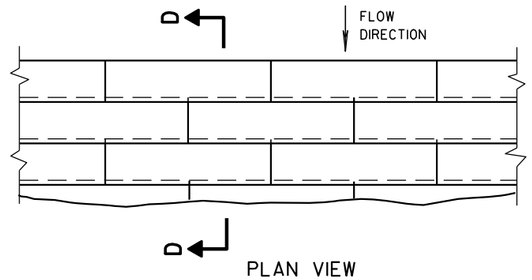
GENERAL NOTES

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

GRADING AND SHAPING INTERCEPTING EMBANKMENT WILL BE MEASURED AND PAID FOR IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 205, "ROADWAY AND DRAINAGE EXCAVATION".

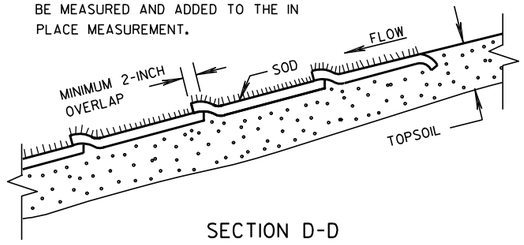
SOD STRIPS SHALL BE LAID TRANSVERSELY TO THE DIRECTION OF THE WATER FLOW.

DIMENSIONS SHALL BE ADJUSTED TO FIT SITE CONDITIONS AS DIRECTED BY THE ENGINEER.



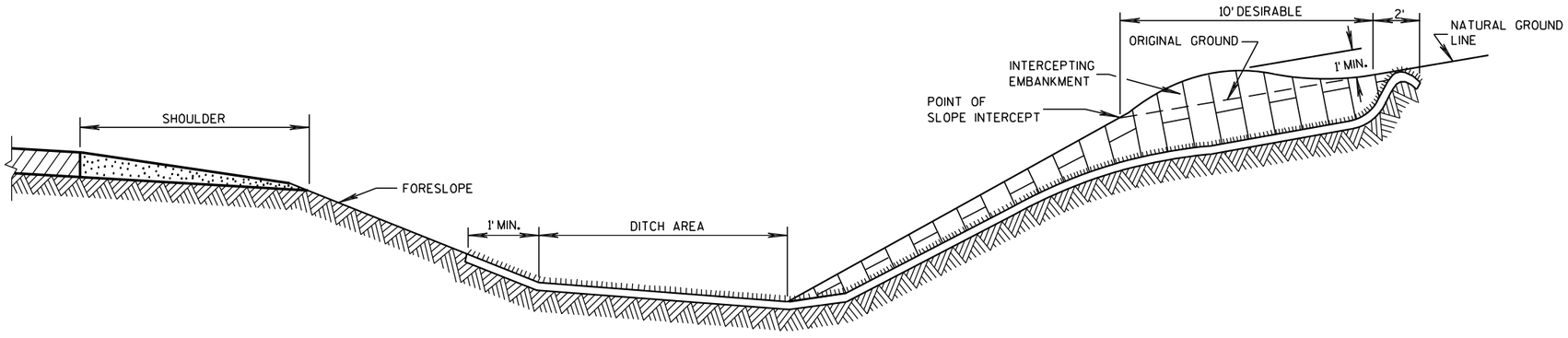
PLAN VIEW

NOTE:
SOD SHALL BE LAID AS SHOWN ON THE PLAN VIEW, AND AS DIRECTED BY THE ENGINEER. THE SOD OVERLAP WILL BE MEASURED AND ADDED TO THE IN PLACE MEASUREMENT.

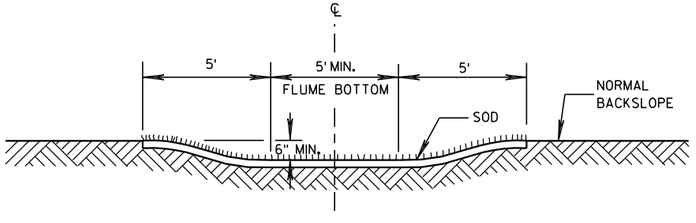


SECTION D-D

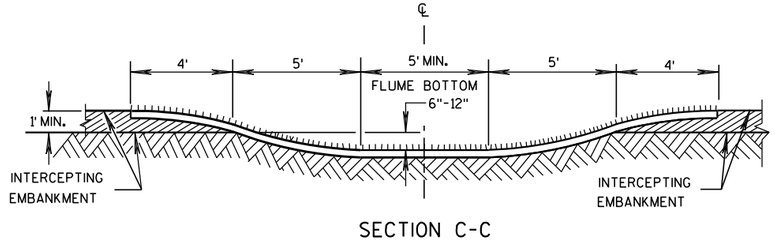
DETAIL FOR OVERLAP OF SOD STRIPS



SECTION A-A



SECTION B-B



SECTION C-C

SODDED BACKSLOPE FLUME AND INTERCEPTING EMBANKMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

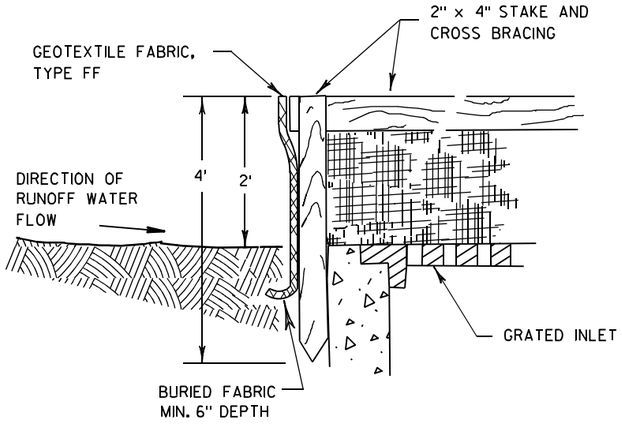
APPROVED
10/24/95 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

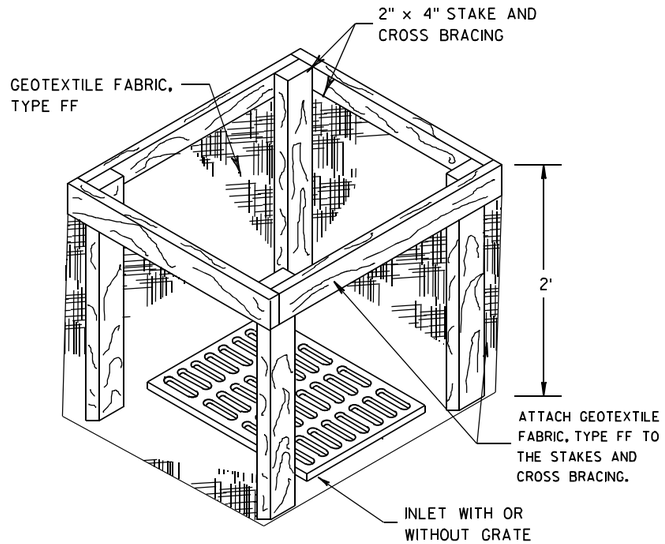
6

S.D.D. 8 E 5-2

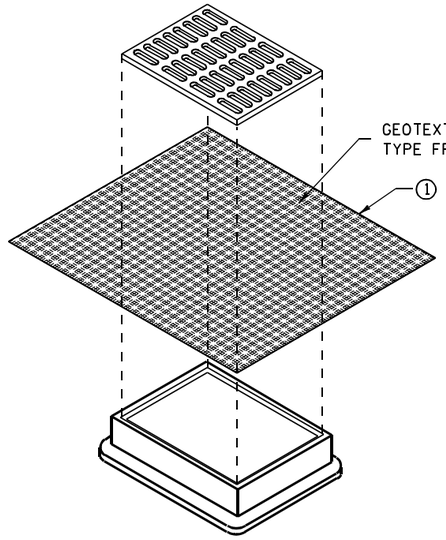
6

S.D.D. 8 E 5-2



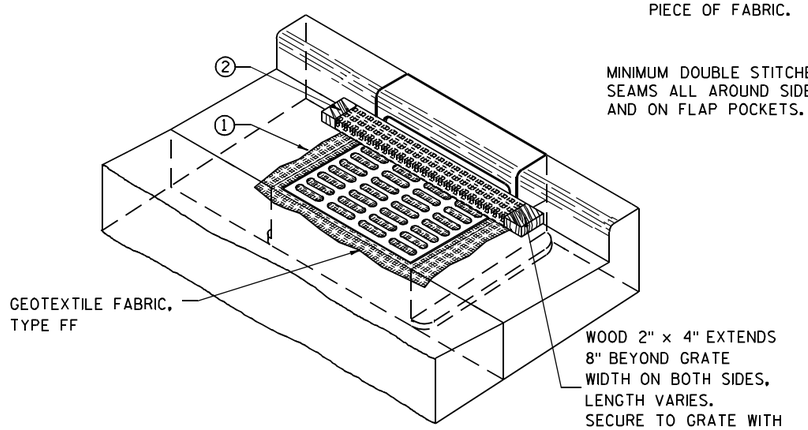


INLET PROTECTION, TYPE A

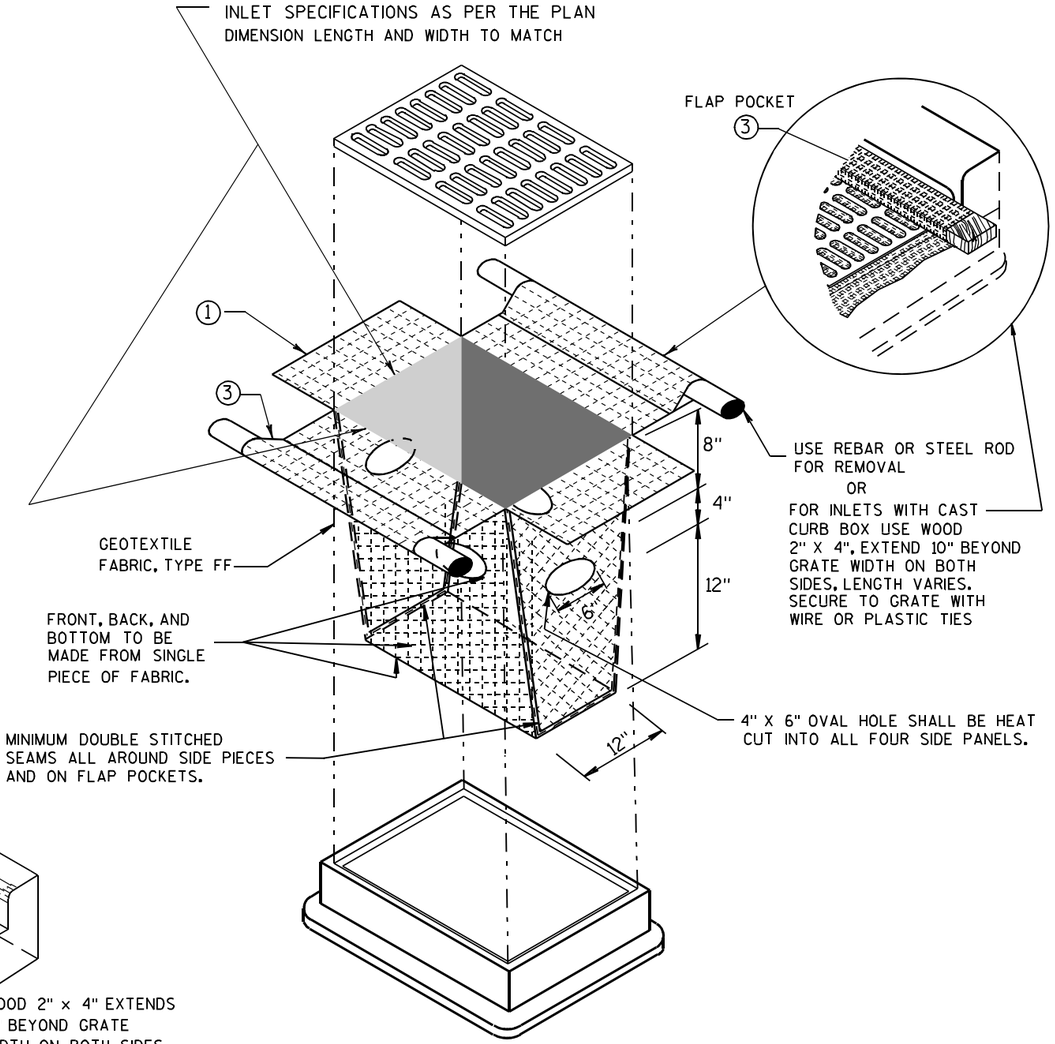


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

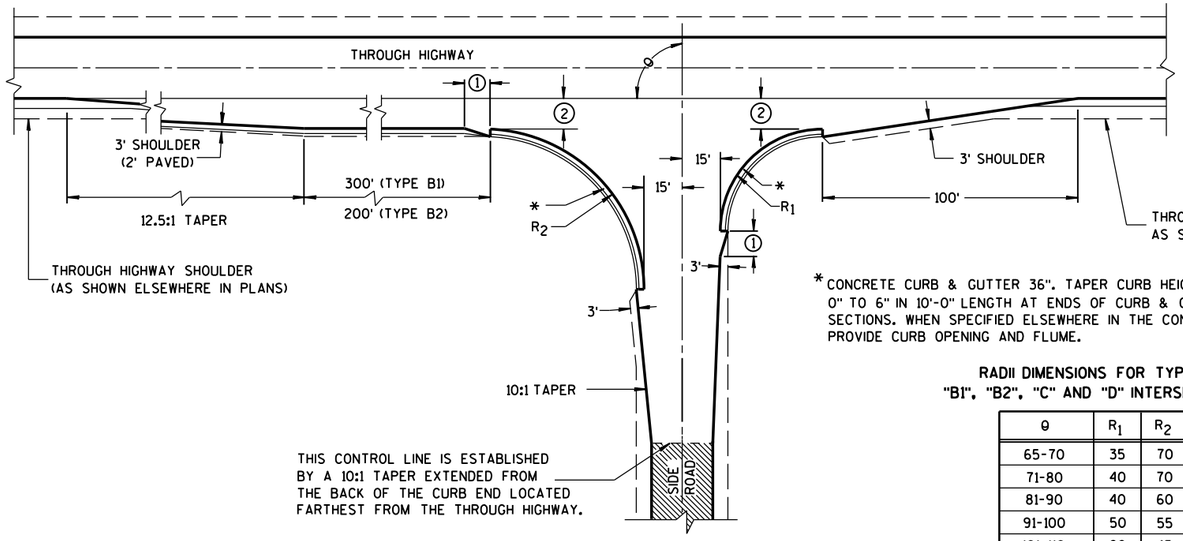
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

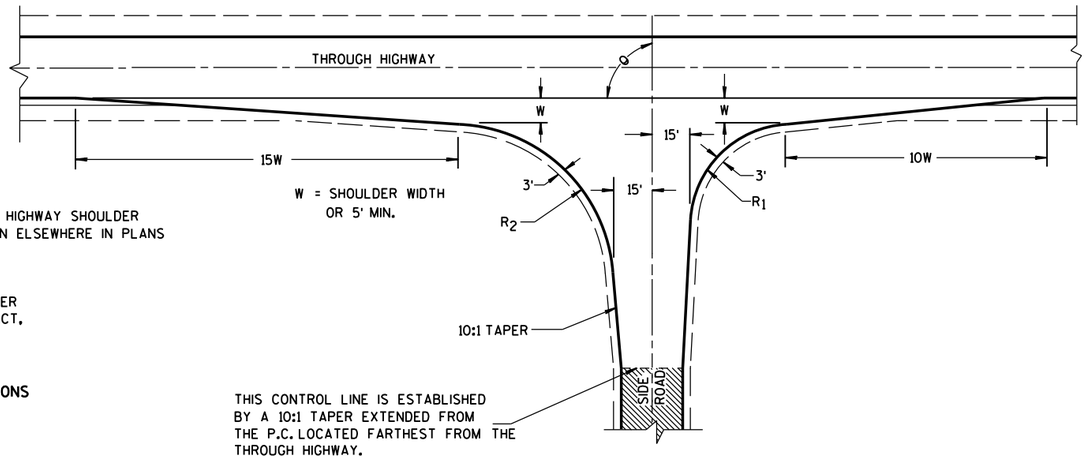


TYPE "B1" AND "B2"

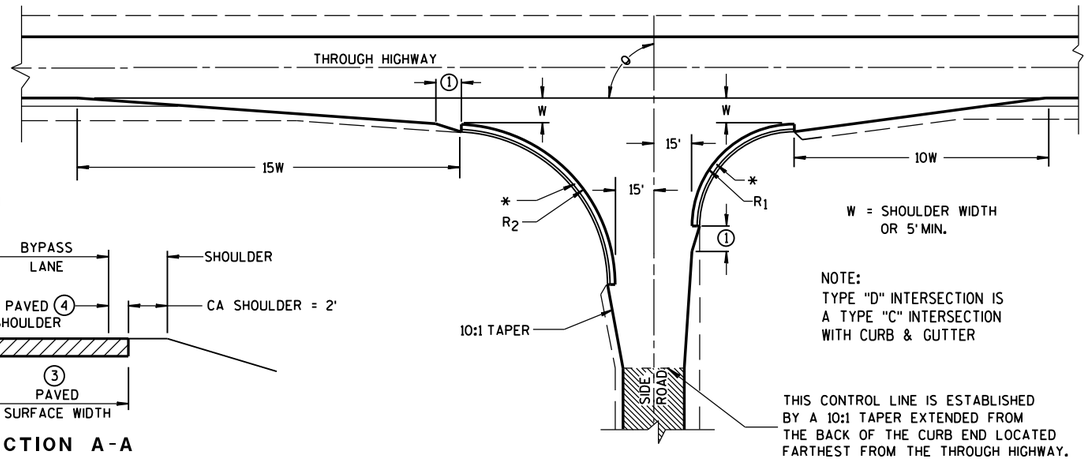
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

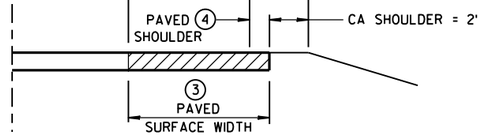
(1) 10-FT TYPICAL.

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

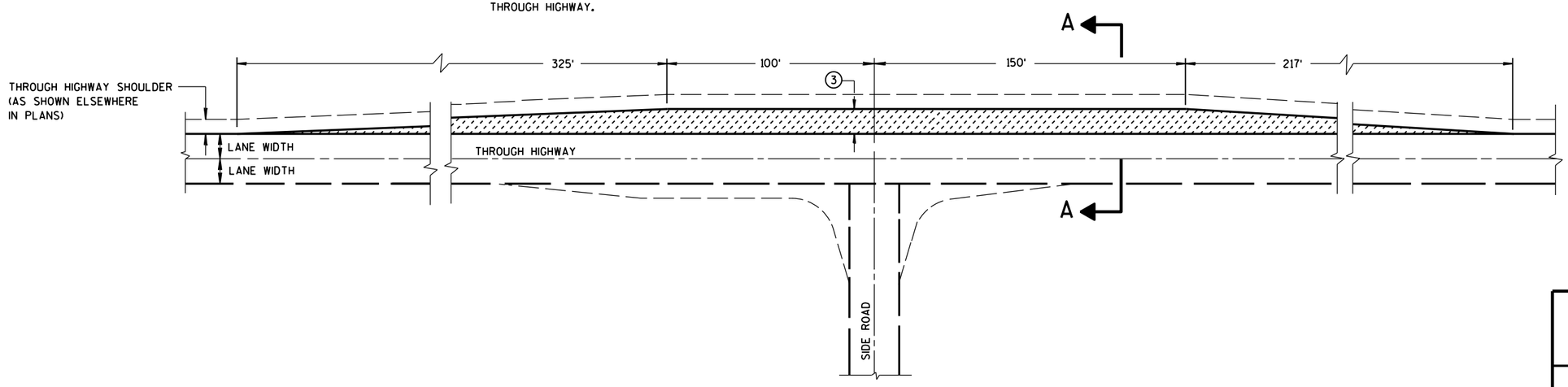
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

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



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



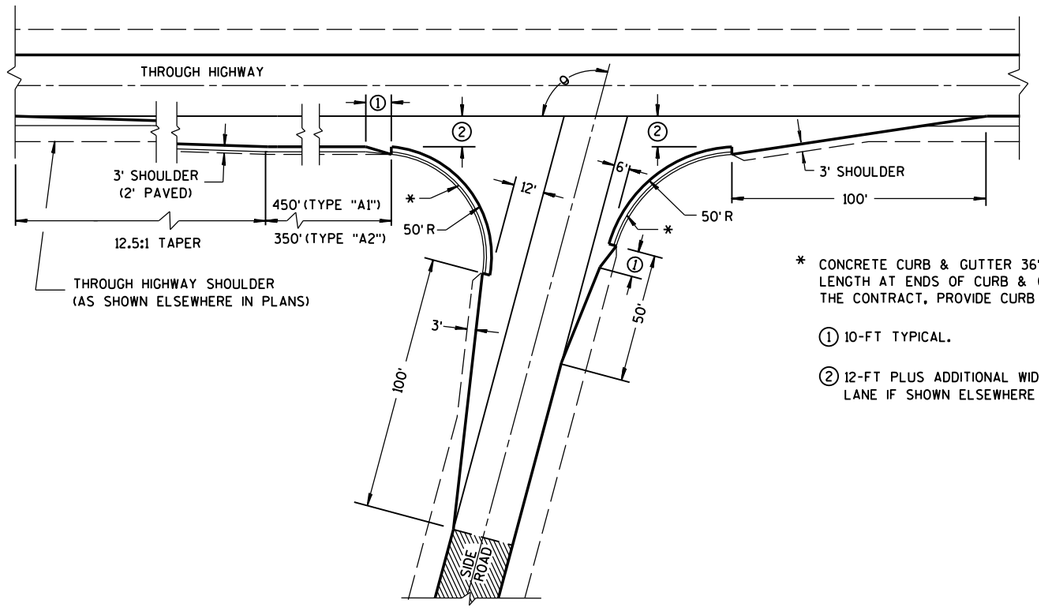
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 9 A 1-13a



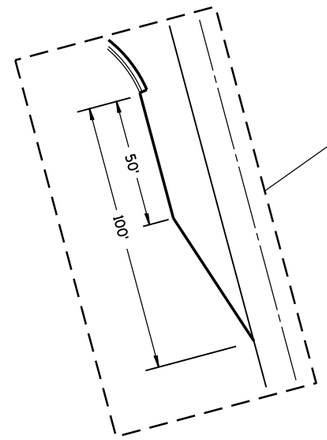
θ = MORE THAN 80°

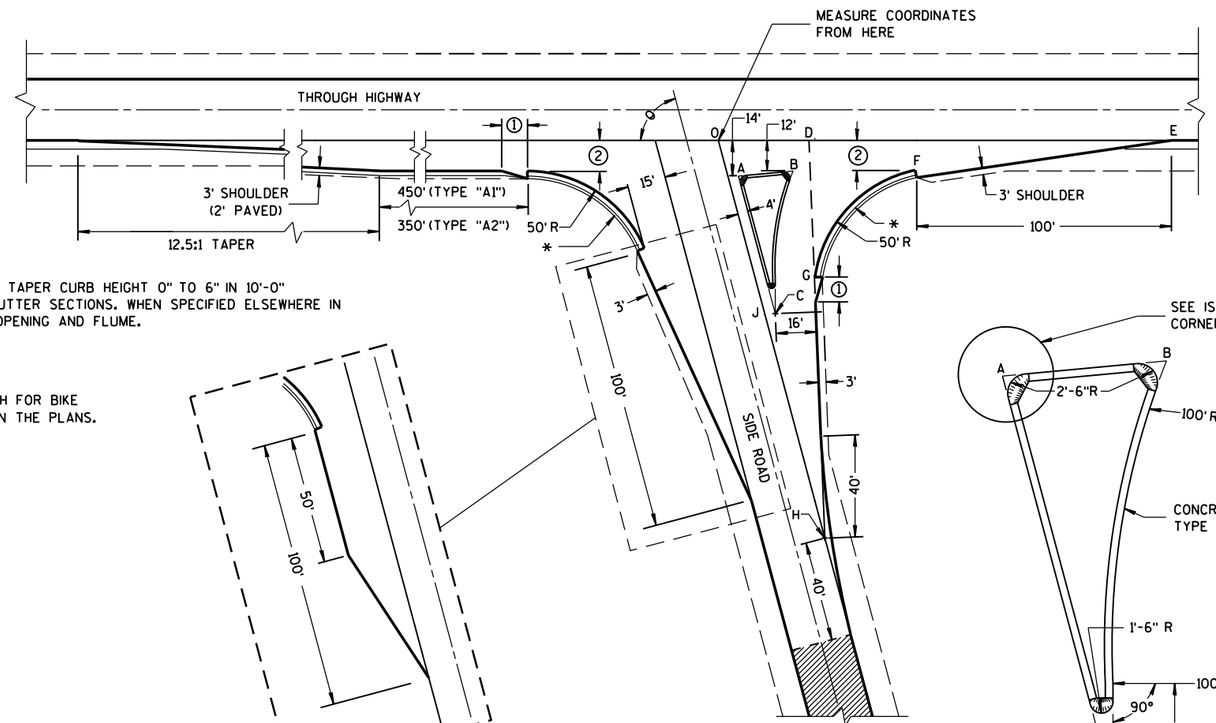
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

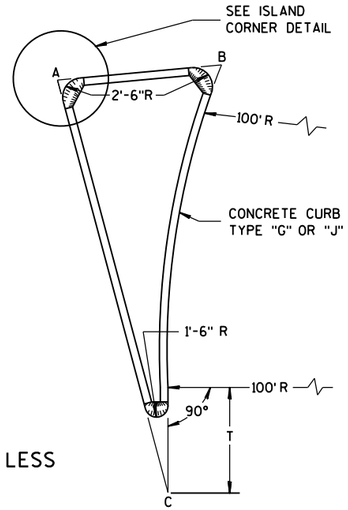
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE





θ = ACUTE ANGLES 80° OR LESS

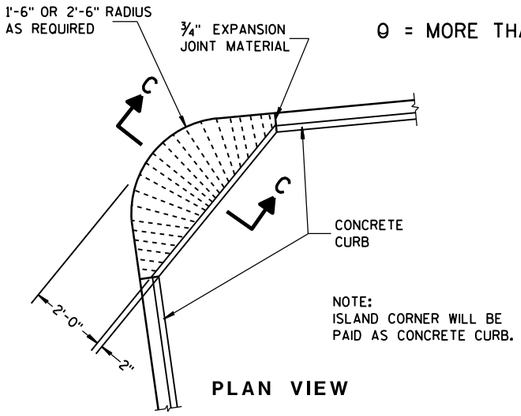


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

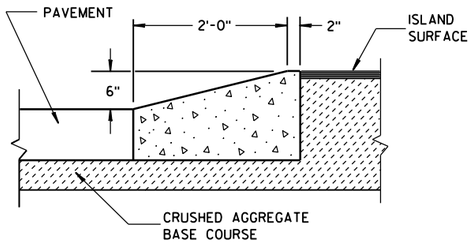
ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS



NOTE:
ISLAND CORNER WILL BE
PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

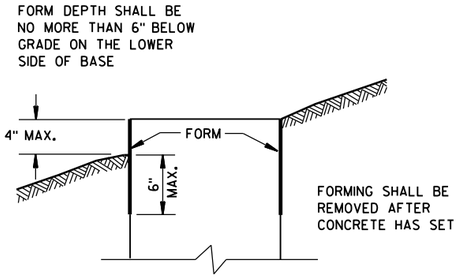
AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6 S.D.D. 9 A 1-13b

6 S.D.D. 9 A 1-13b



FORMING DETAIL

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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS 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 AS 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.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X 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 NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES 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" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END 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 BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

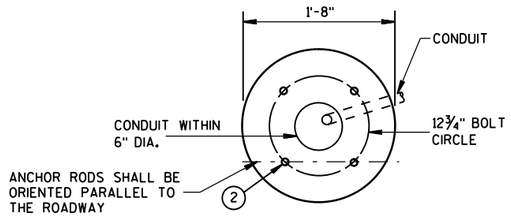
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

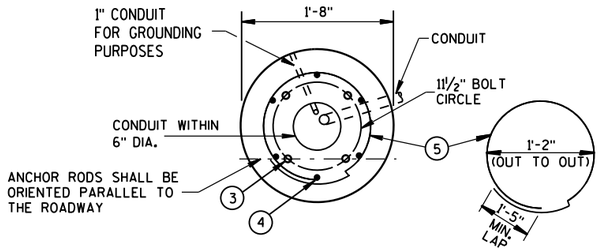
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

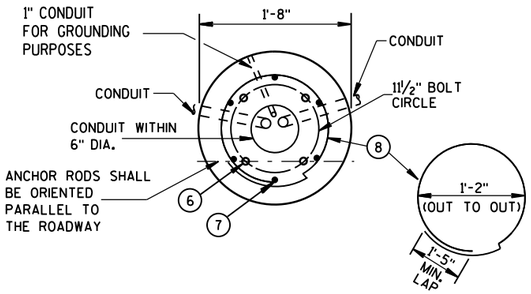
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

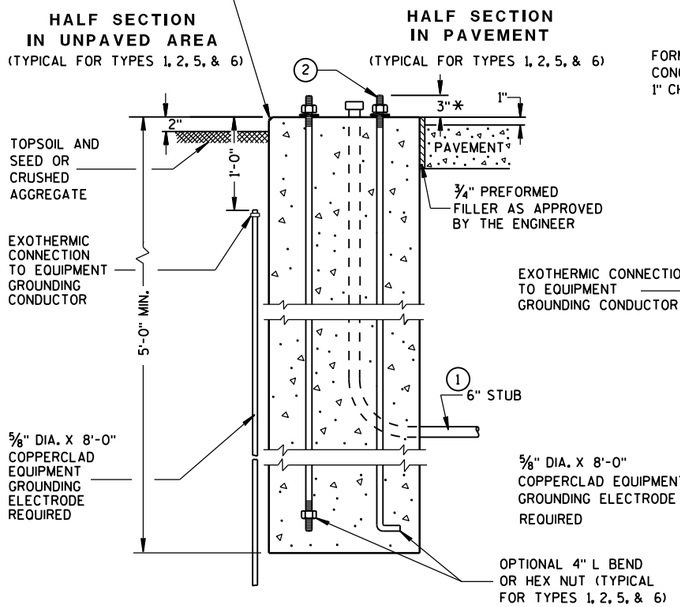






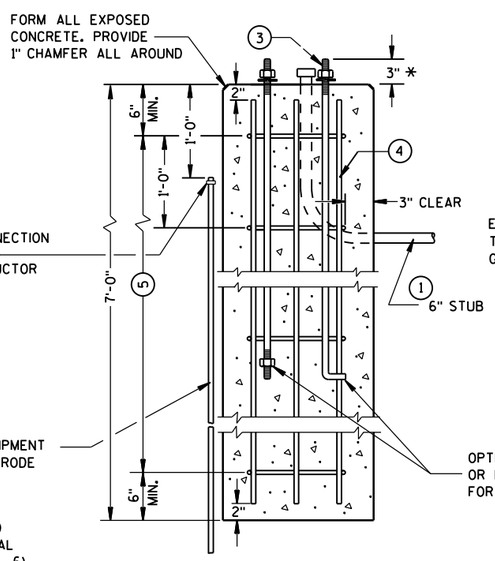
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

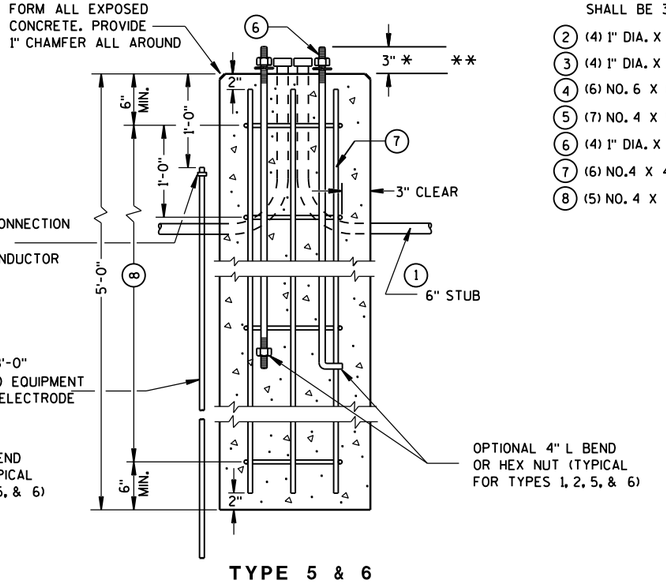


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

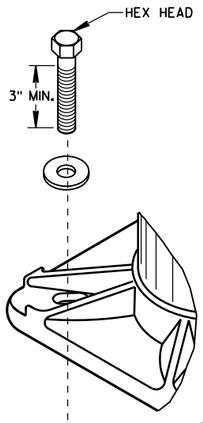
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

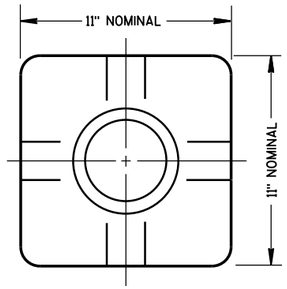
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

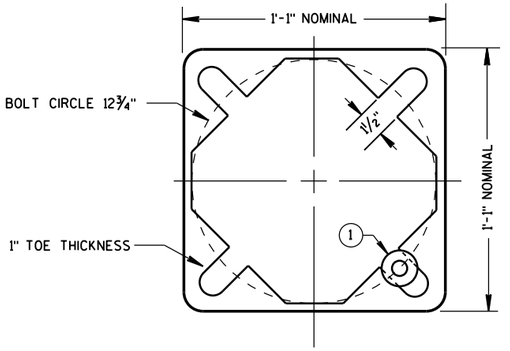
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

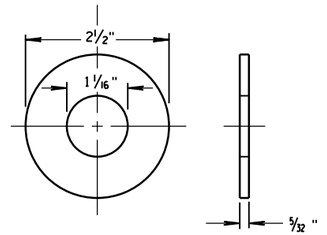




TOP VIEW
(PEDESTAL BASE)

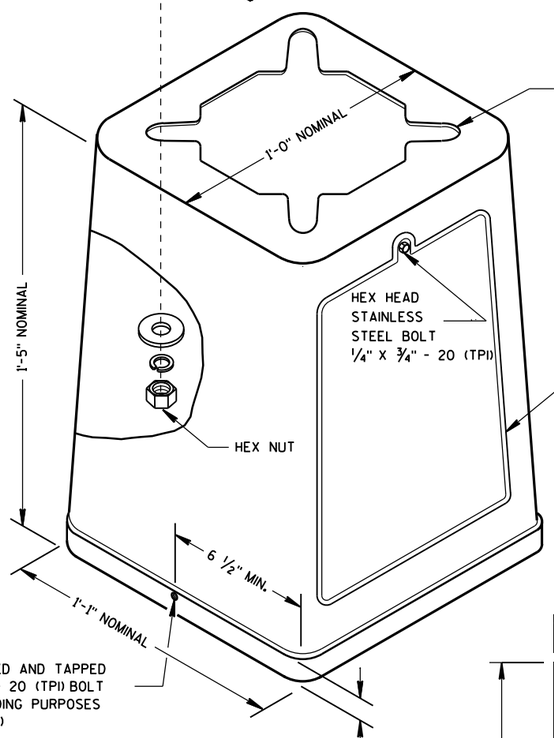


BOTTOM VIEW
(PEDESTAL BASE)

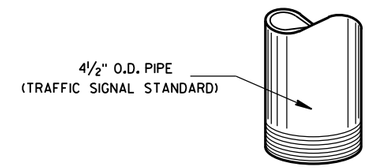


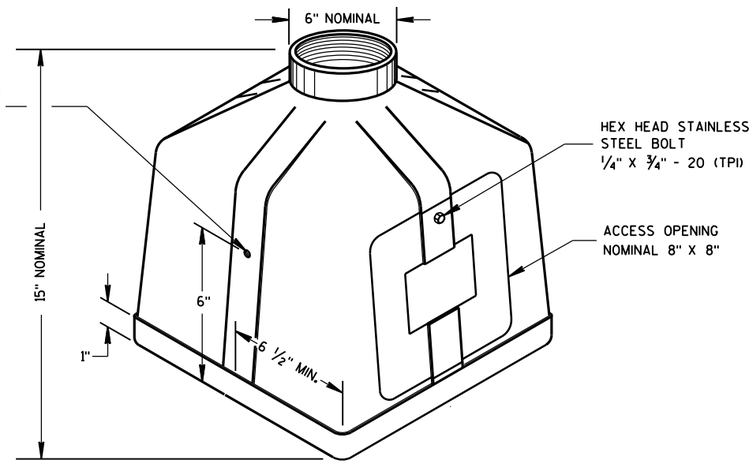
ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)



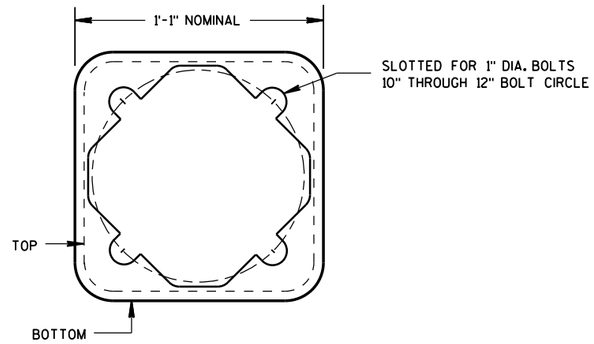
ISOMETRIC VIEW



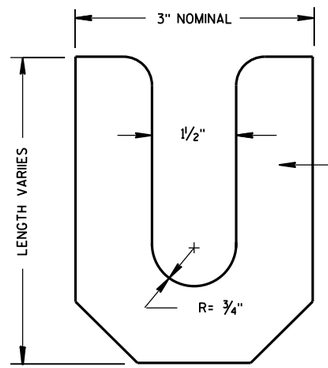


ISOMETRIC VIEW

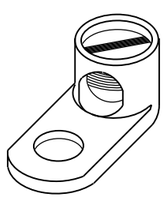
PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)



LEVELING SHIM



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 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

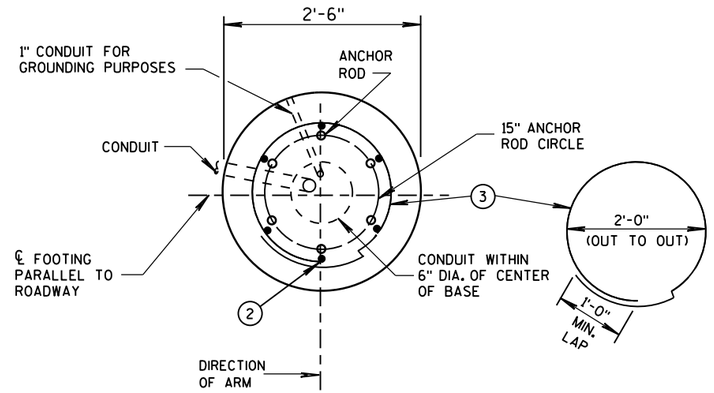
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

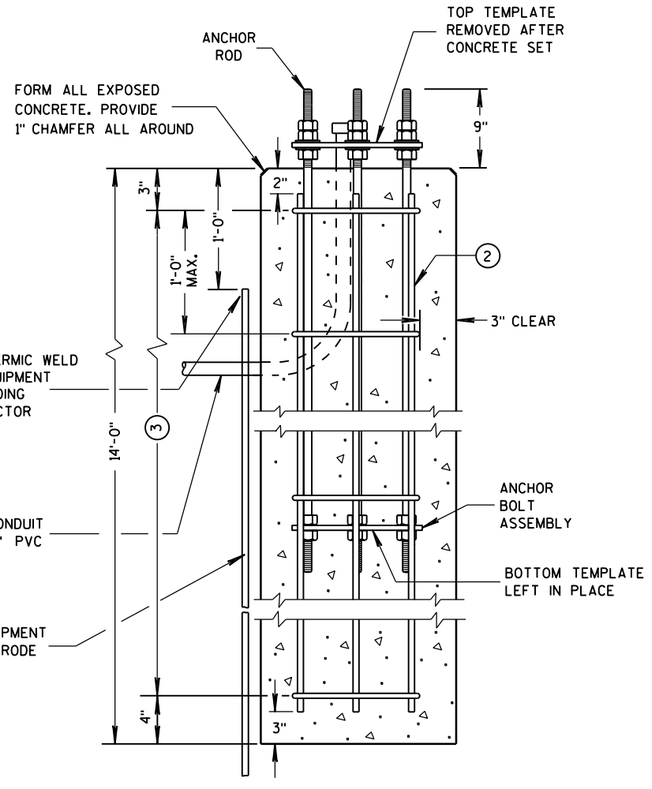
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" MAX. C-C.

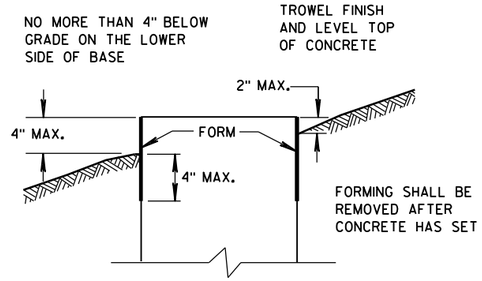
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



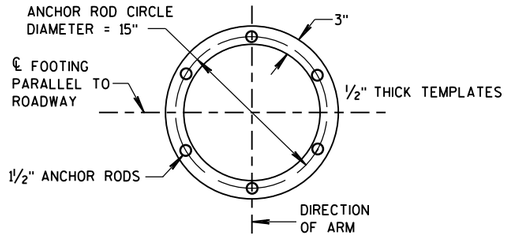


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

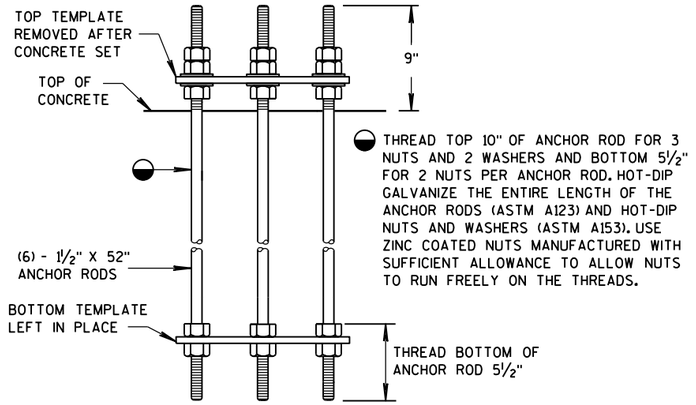
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
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APPROVED
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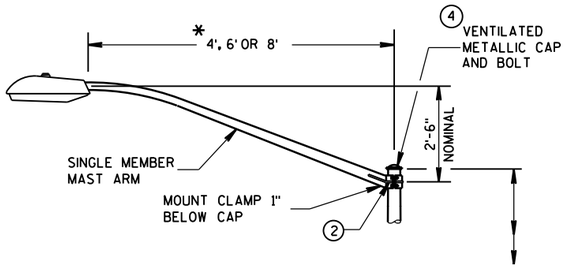
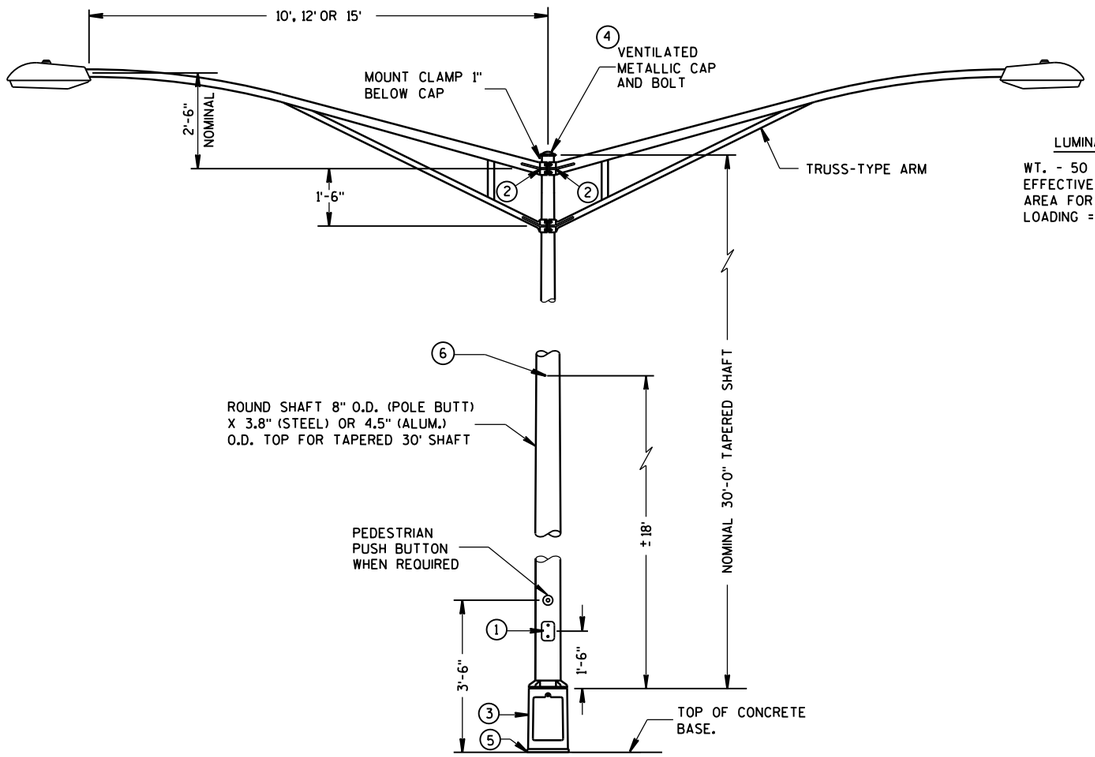
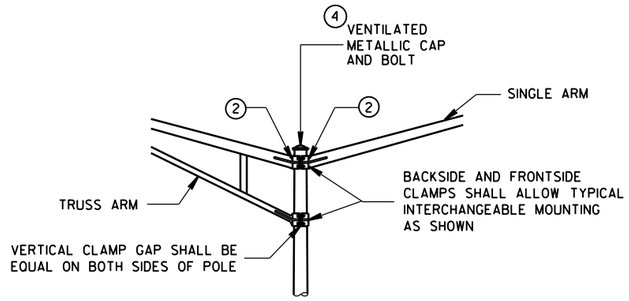
S.D.D. 9 C 11-9

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

6

S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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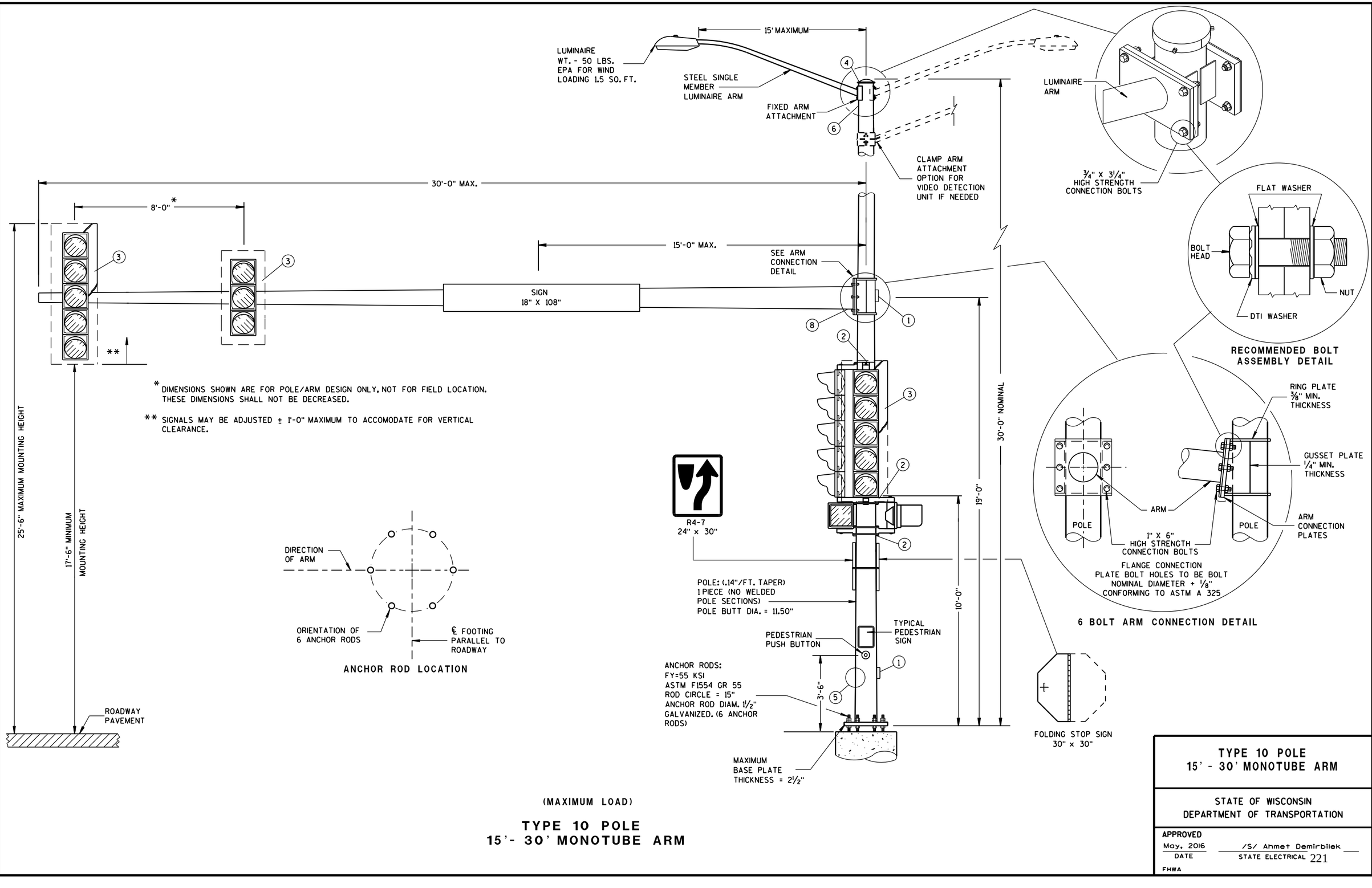
S.D.D. 9 E 1-14d



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
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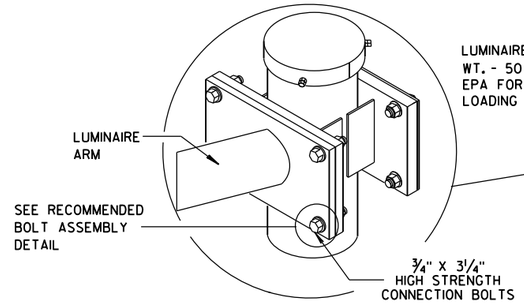
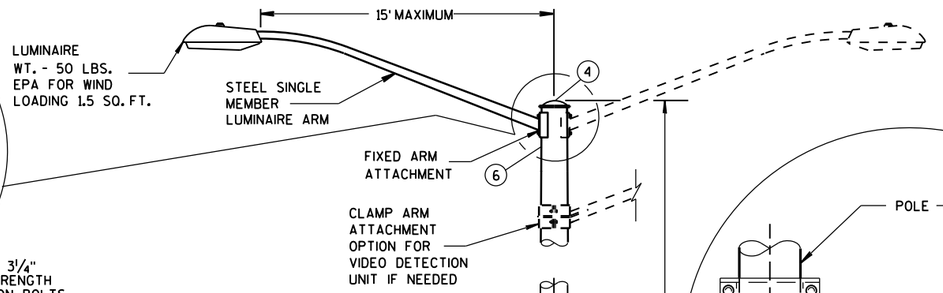
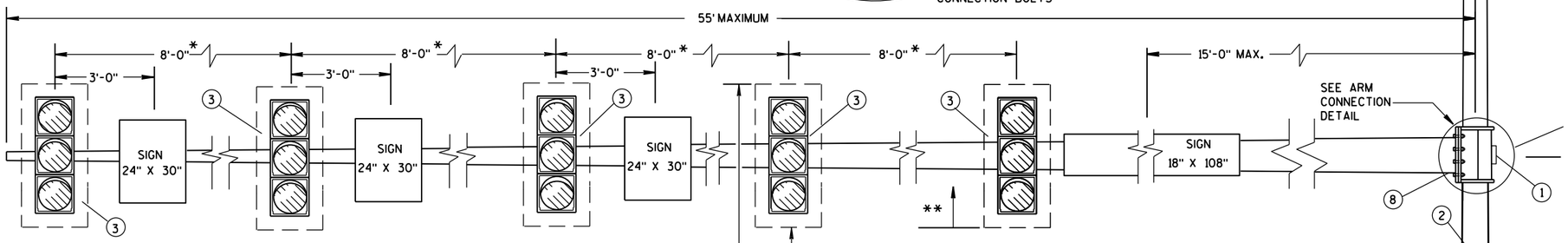
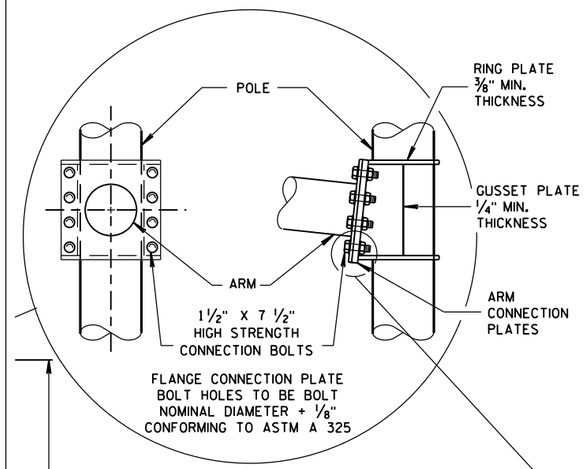
6

S.D.D. 9 E 8-8b





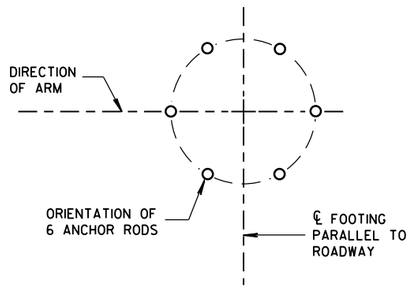




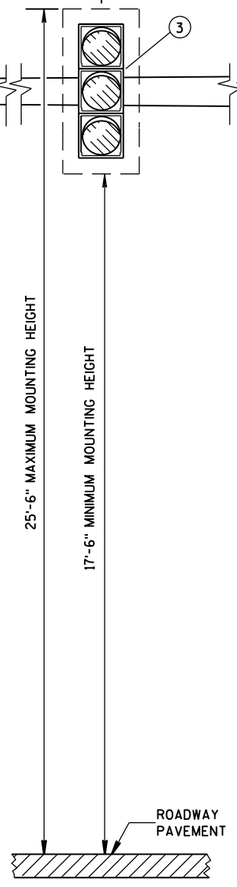
8 BOLT ARM CONNECTION DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

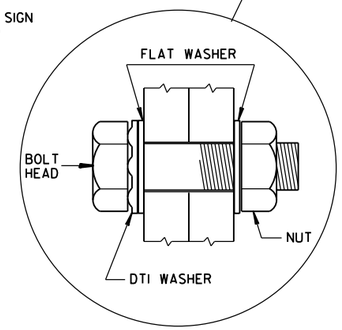
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



ANCHOR ROD LOCATION



(MAXIMUM LOAD)



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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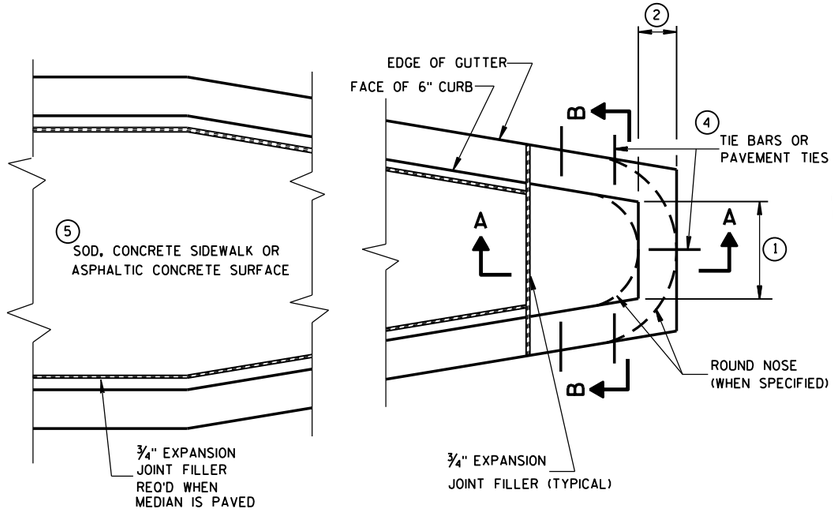
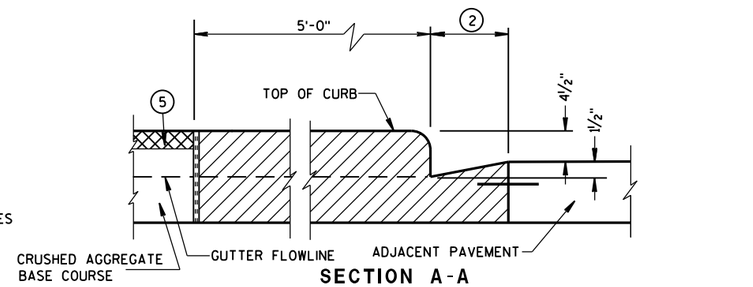
S.D.D. 9 E 8-8d





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

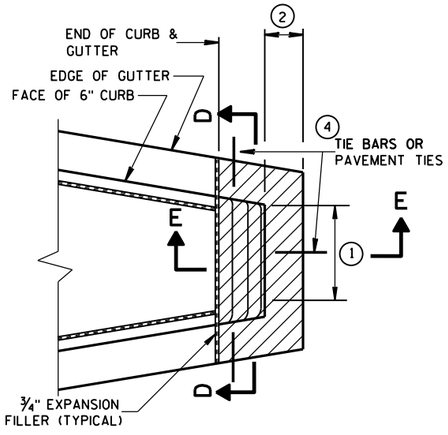
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

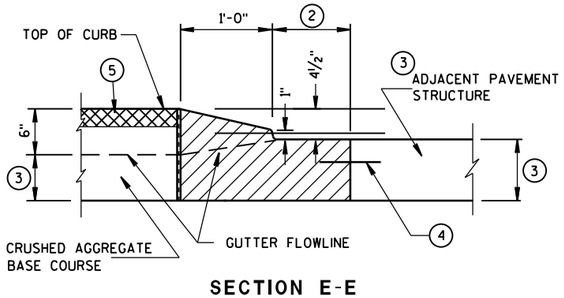
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

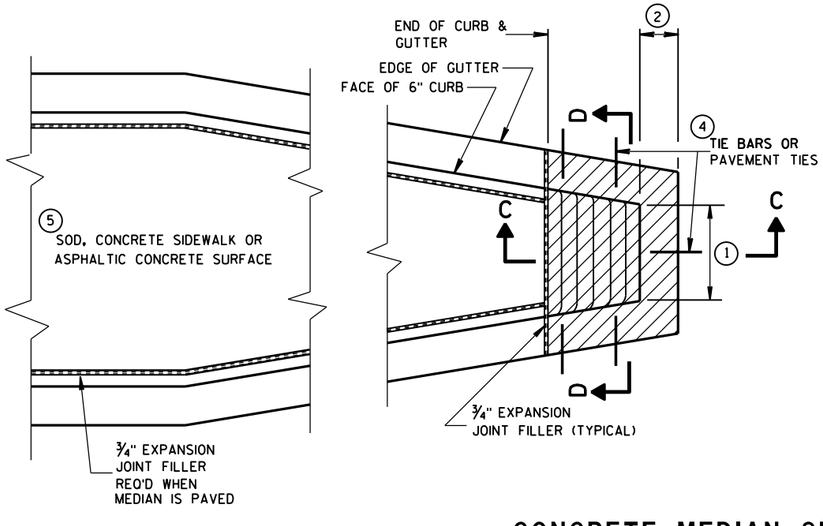
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

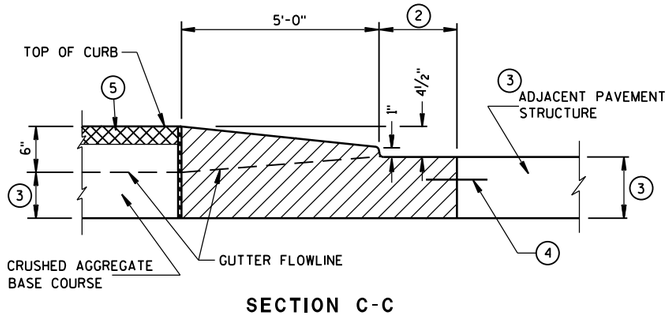




SECTION E-E

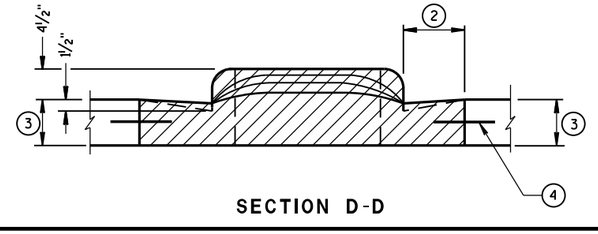
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 11 B 2-2

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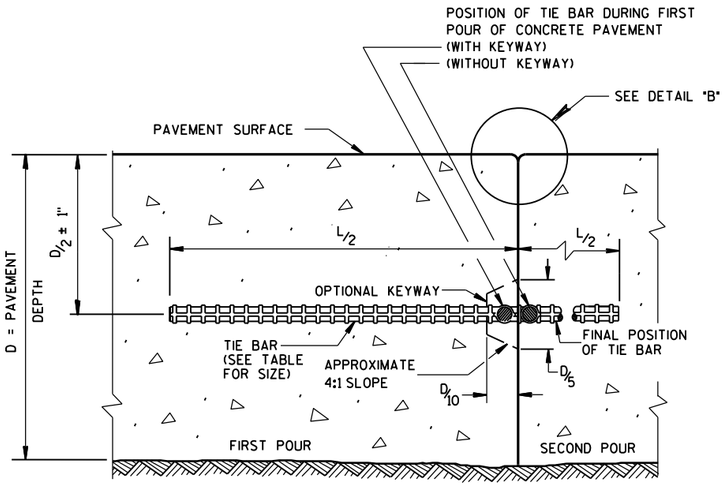
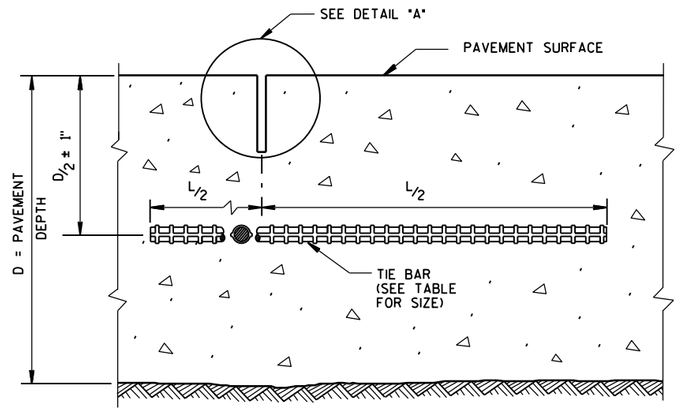
S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

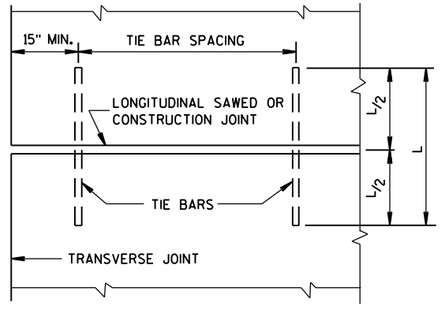
DETAIL "C"

TIE BAR TABLE

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

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

** CONFORM TO 15" MINUMUM 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
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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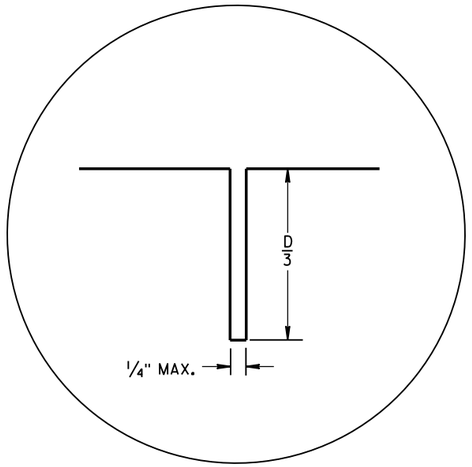
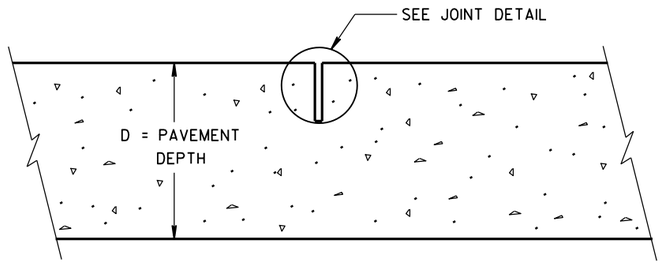
S.D.D. 13 C 1-18



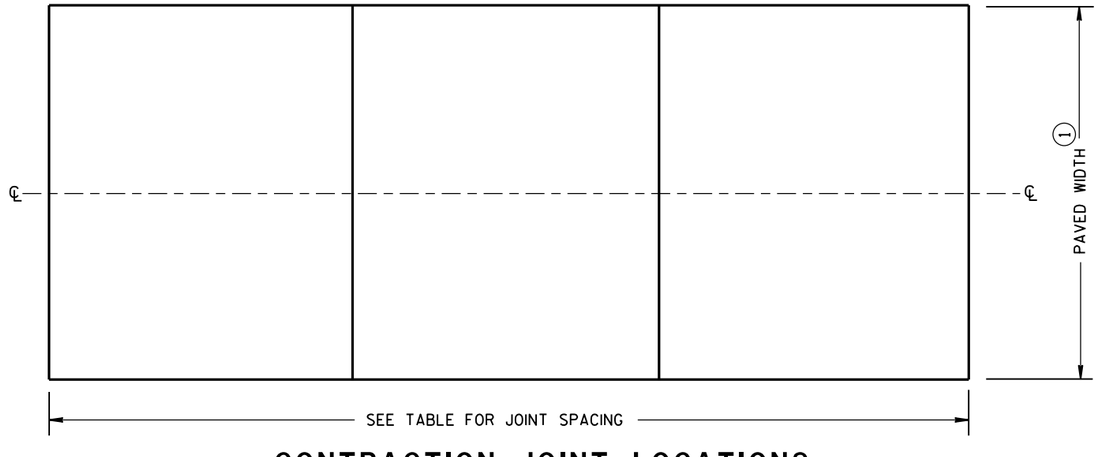
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

CONSTRUCTION JOINTS

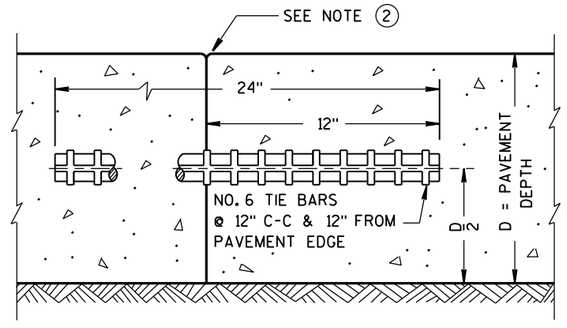
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

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S.D.D. 13 C 4-16

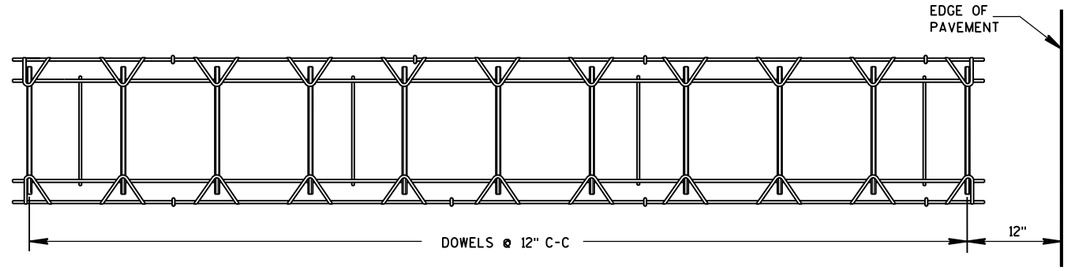
S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE
FHWA

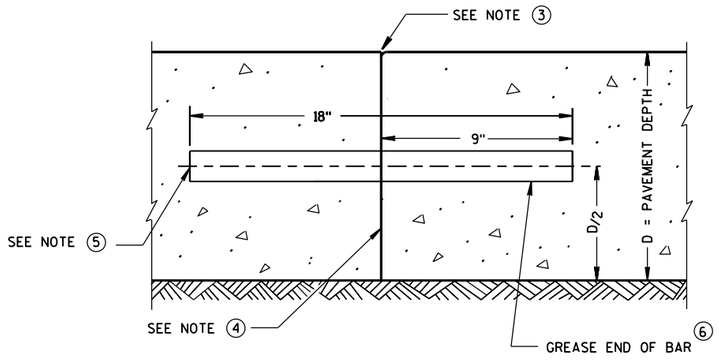
IEER



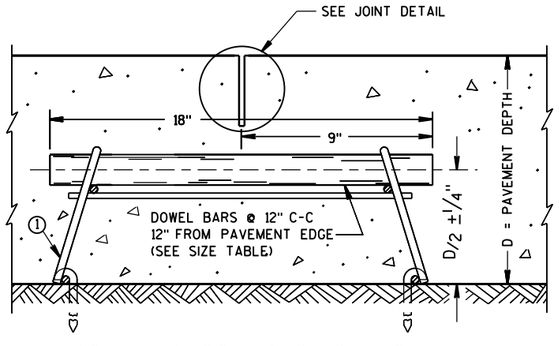
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



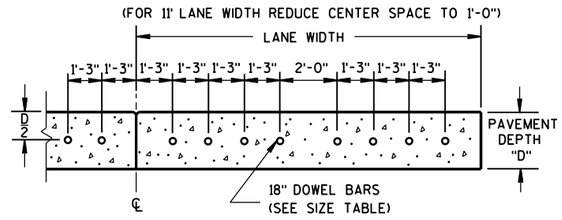
TRANSVERSE CONSTRUCTION JOINT



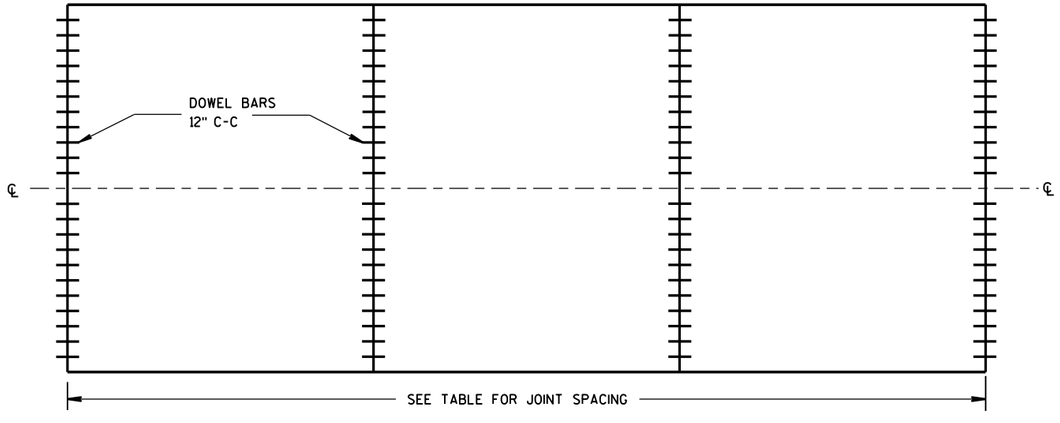
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

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.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

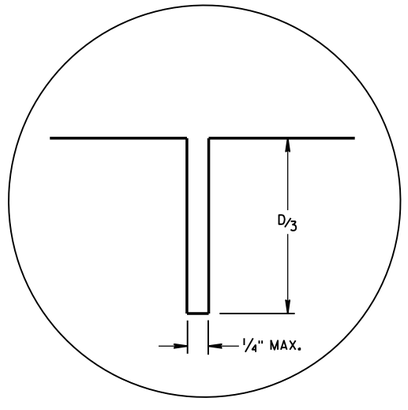
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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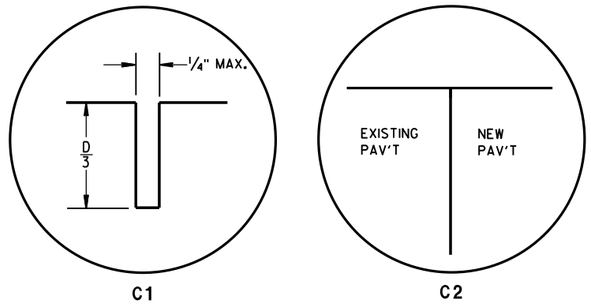
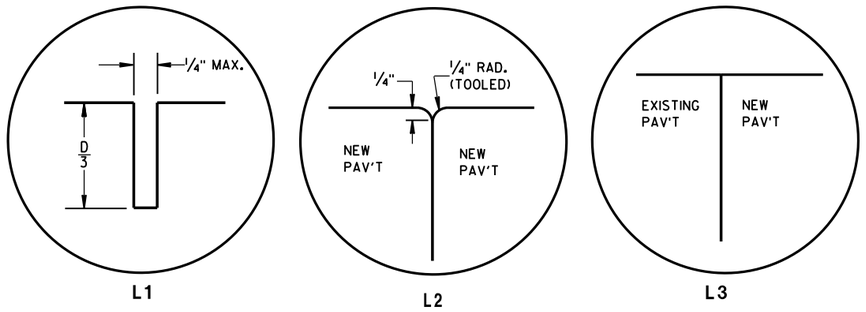
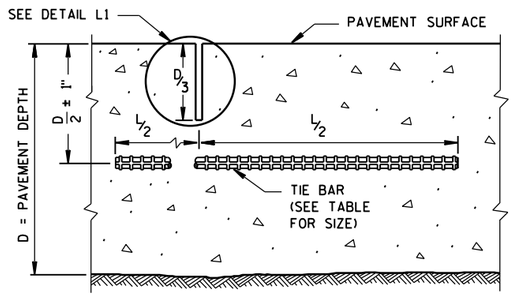
S.D.D. 13 C 13-8



TRANSVERSE JOINTS

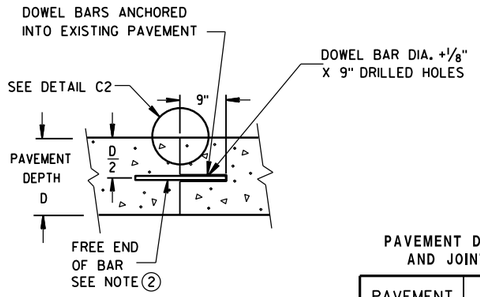


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

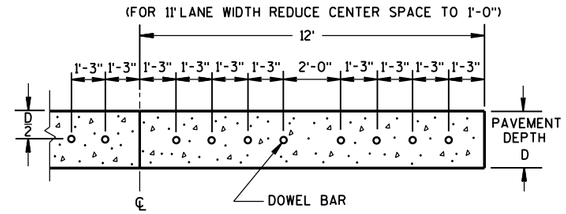
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

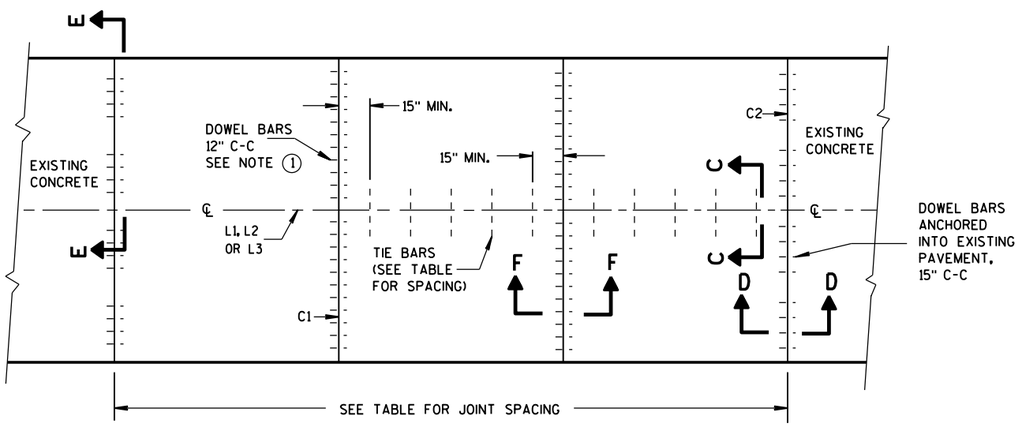
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

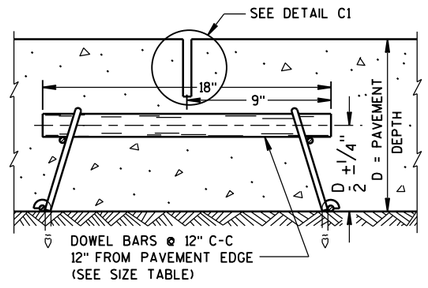
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

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



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

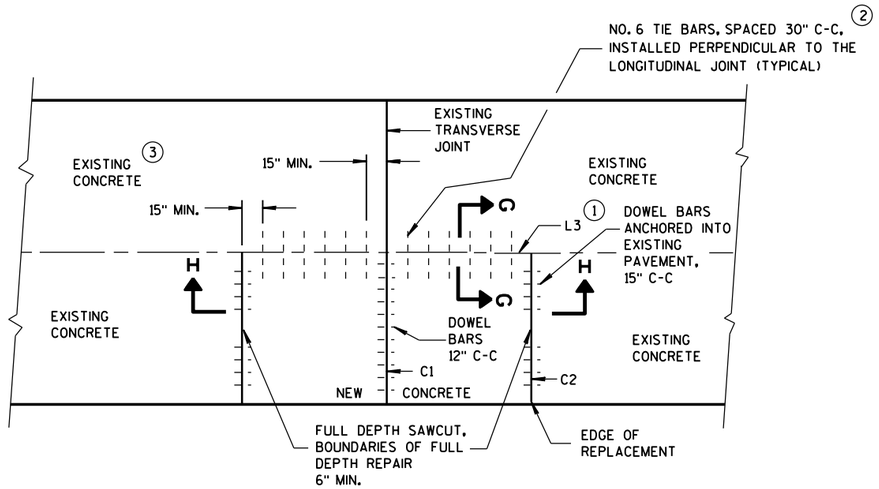
6
S.D.D. 13 C 15-6a

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

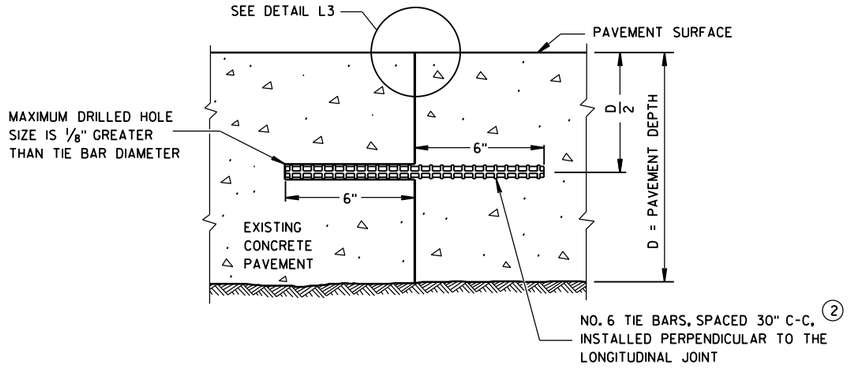
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



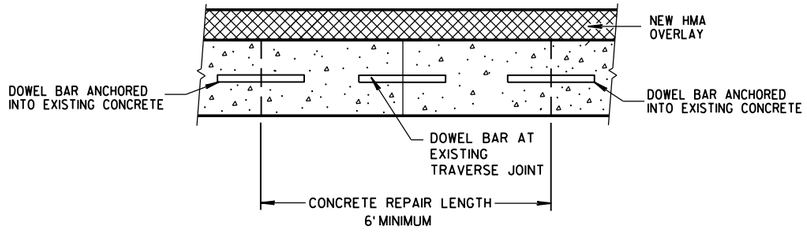
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPEI
FHWA

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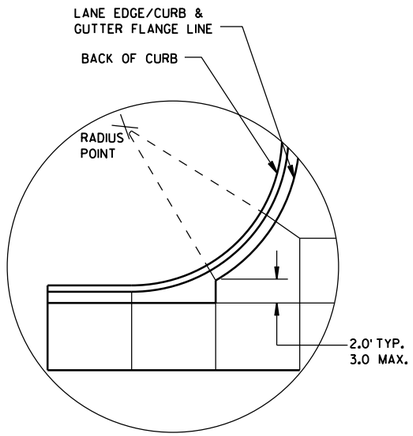
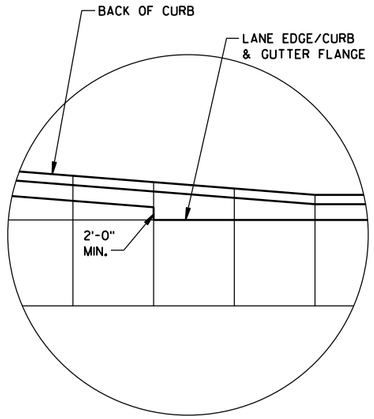
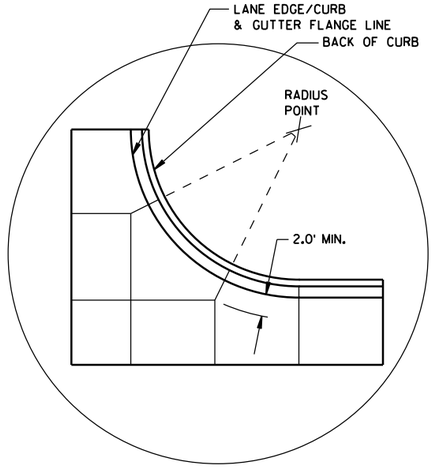
S.D.D. 13 C 15-6b



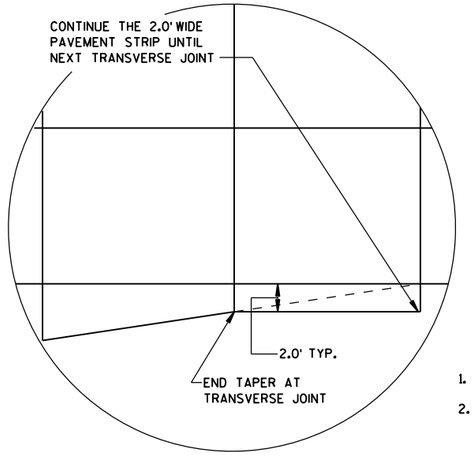
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

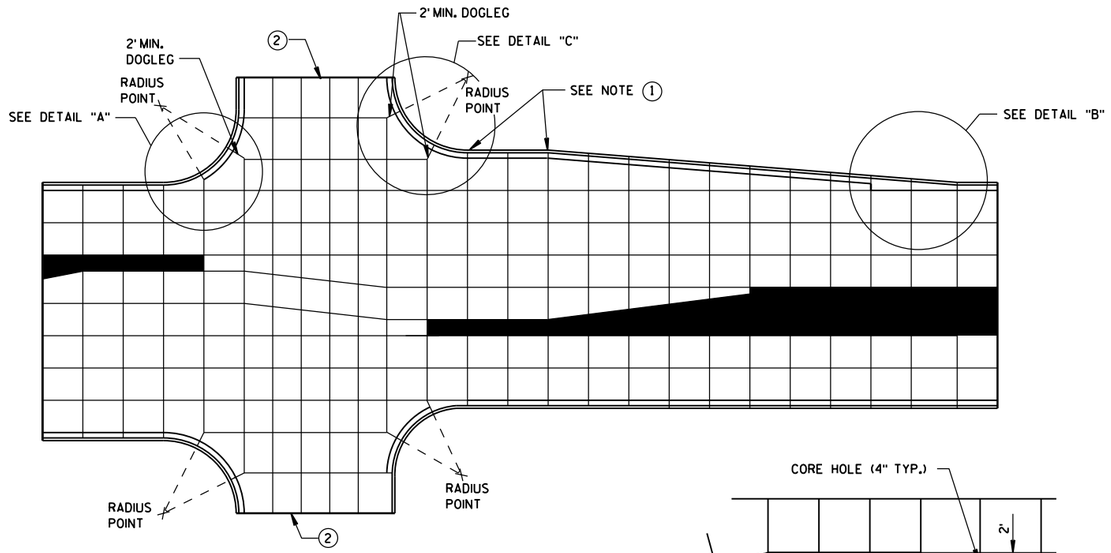
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

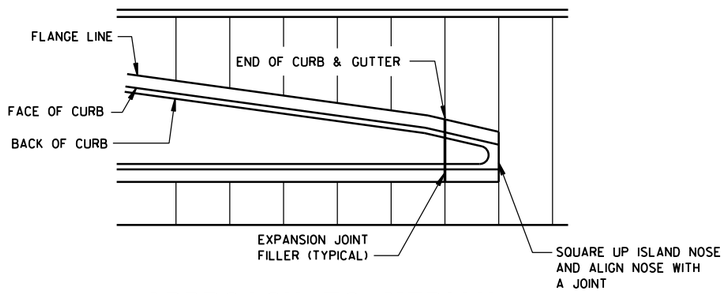
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



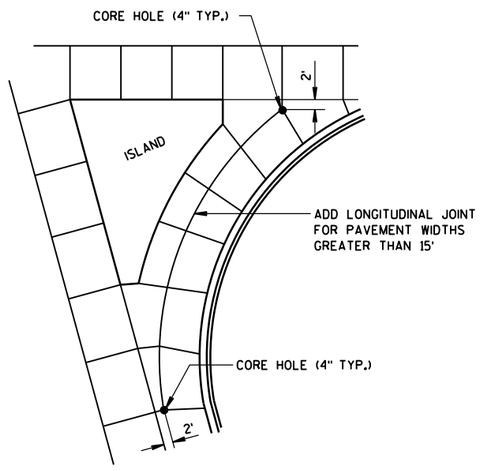
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

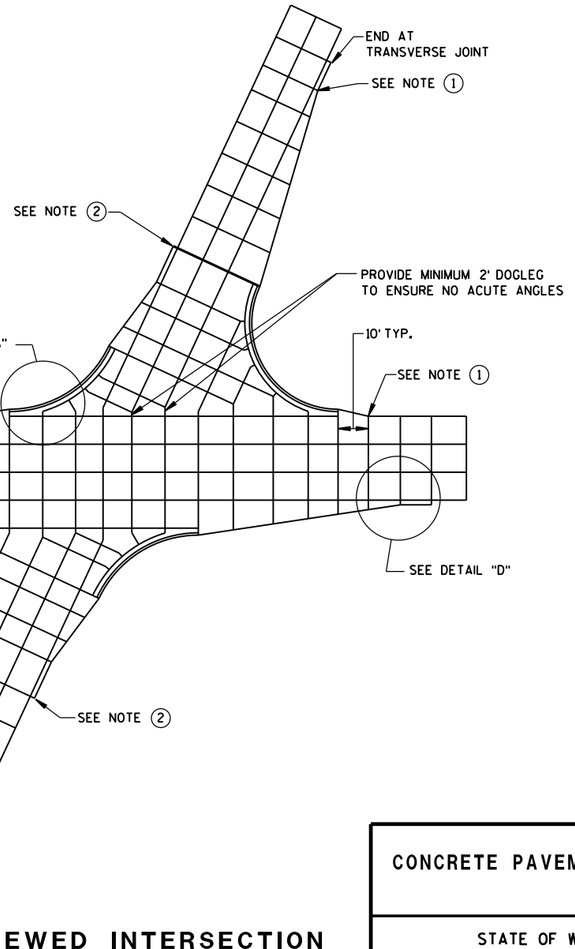
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

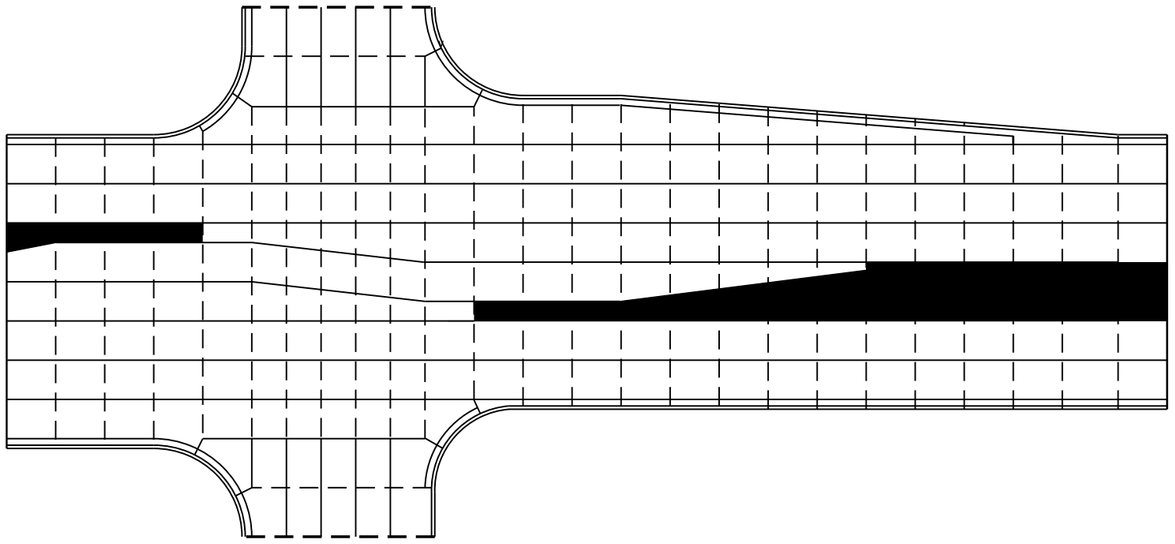
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

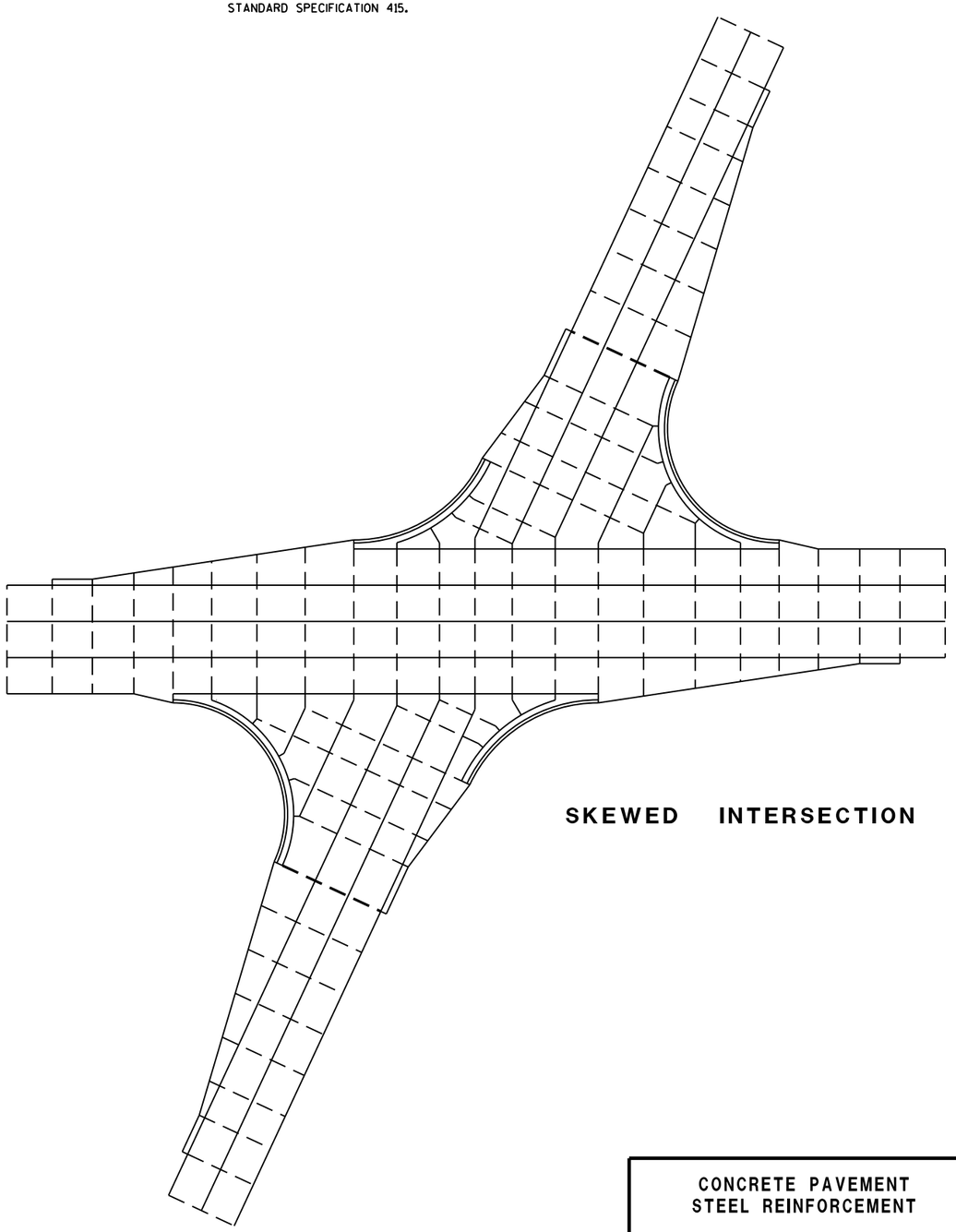
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

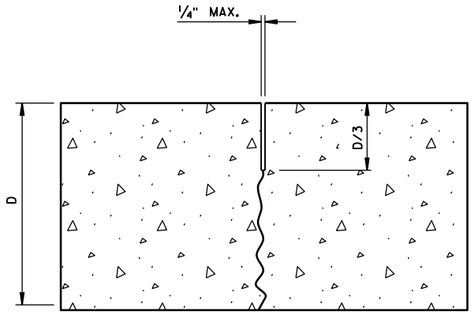
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

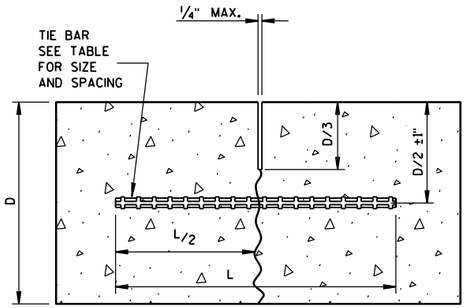
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

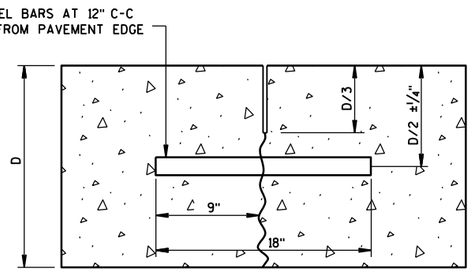
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

GENERAL NOTES

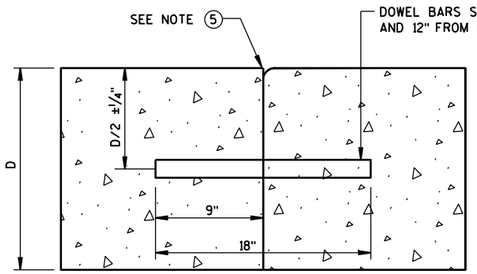
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



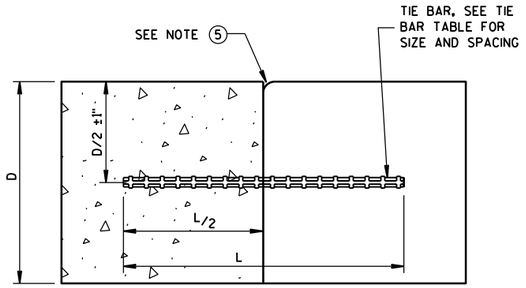
DOWELED-TRANSVERSE

CONTRACTION JOINTS

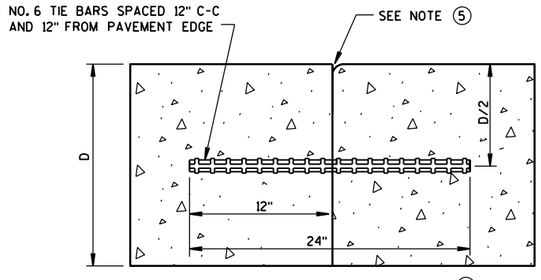
SEE NOTE (2)



DOWELED TRANSVERSE (3)

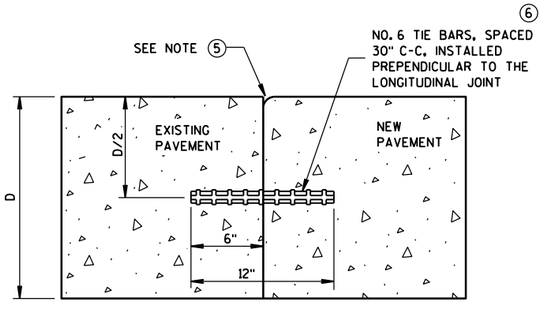


TIED LONGITUDINAL



TIED TRANSVERSE (3)

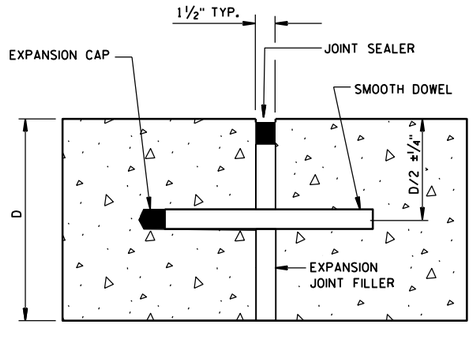
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

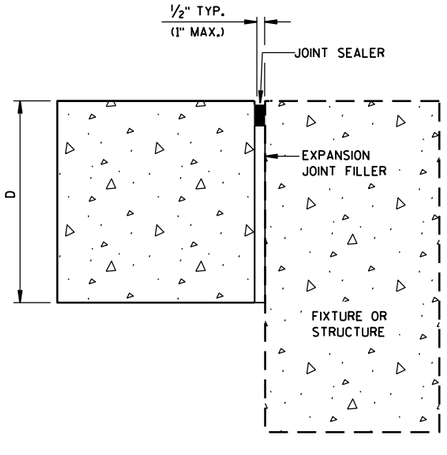
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

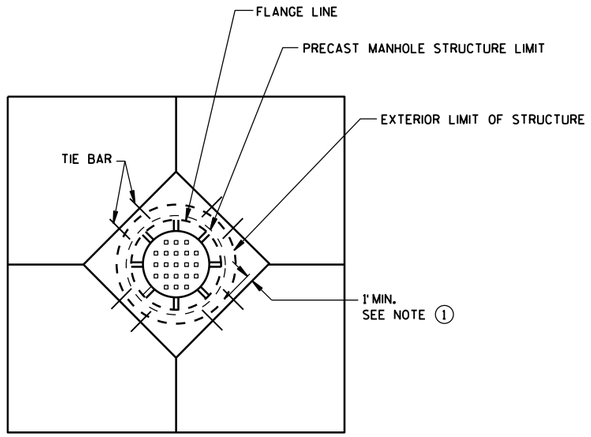
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

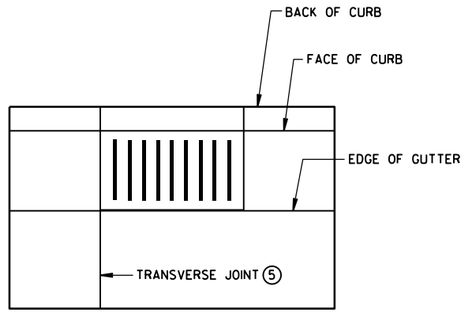
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

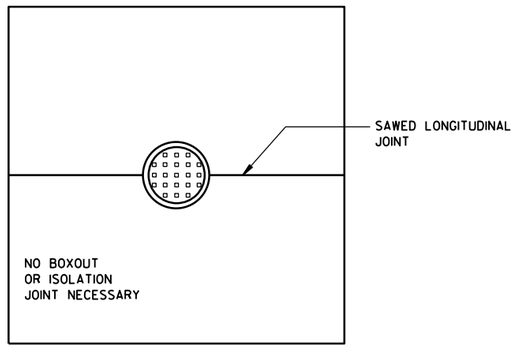
S.D.D. 13 C 18-3c



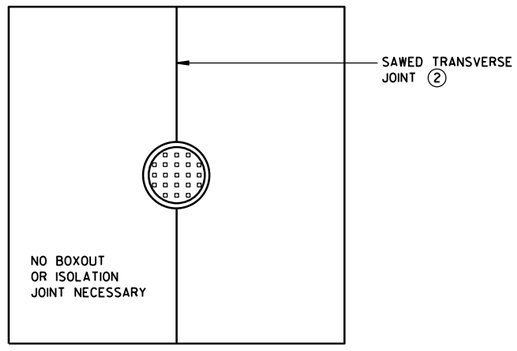
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



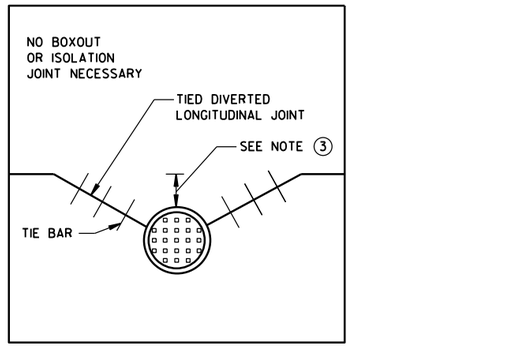
INLET WITH TRANSVERSE JOINT



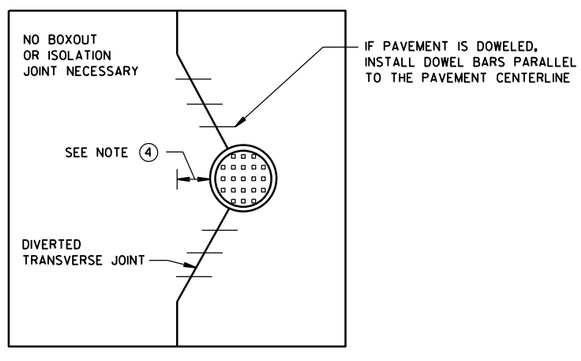
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

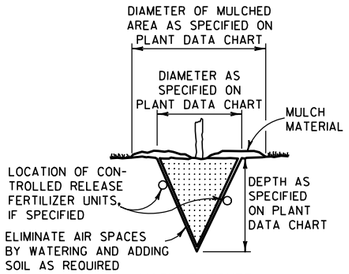
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

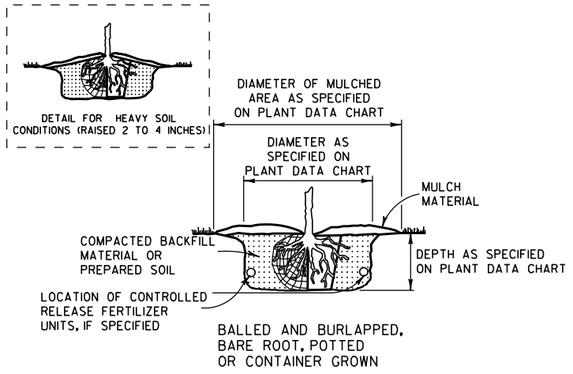
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

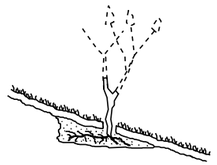
S.D.D. 13 C 18-3d



MACHINE MOVED

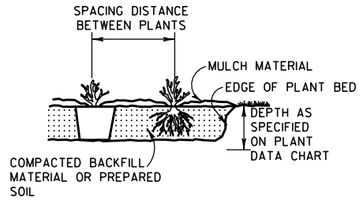


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



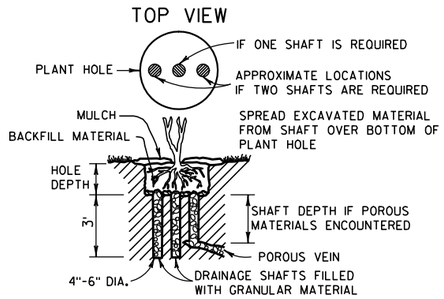
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



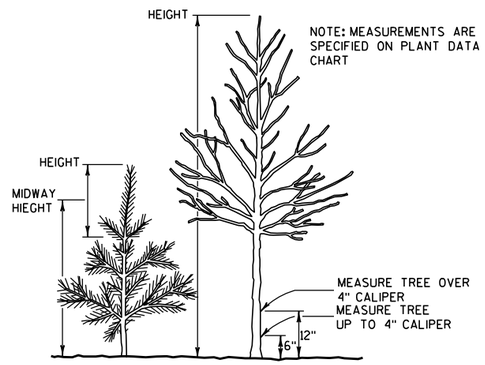
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

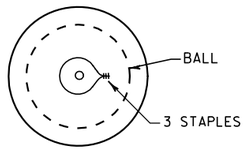


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

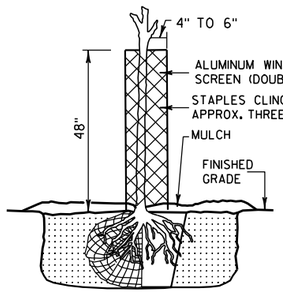
DRAINING



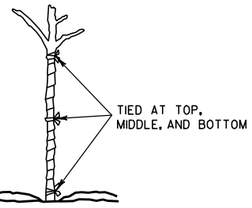
MEASURING



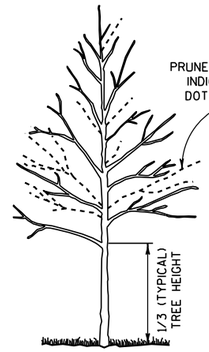
TOP VIEW



RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

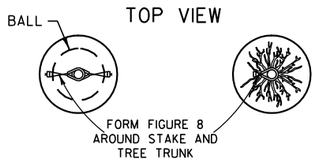
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

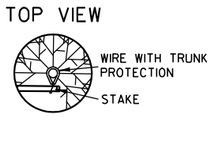
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

SUMAC

TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

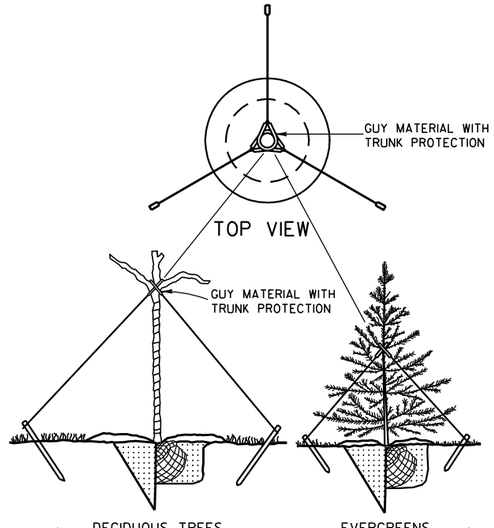
PRUNING



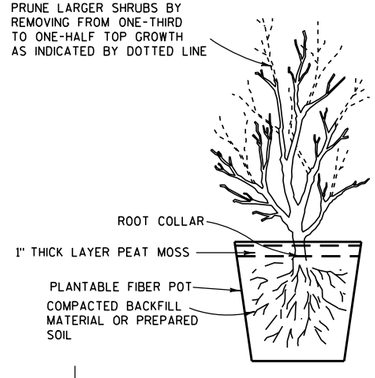


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

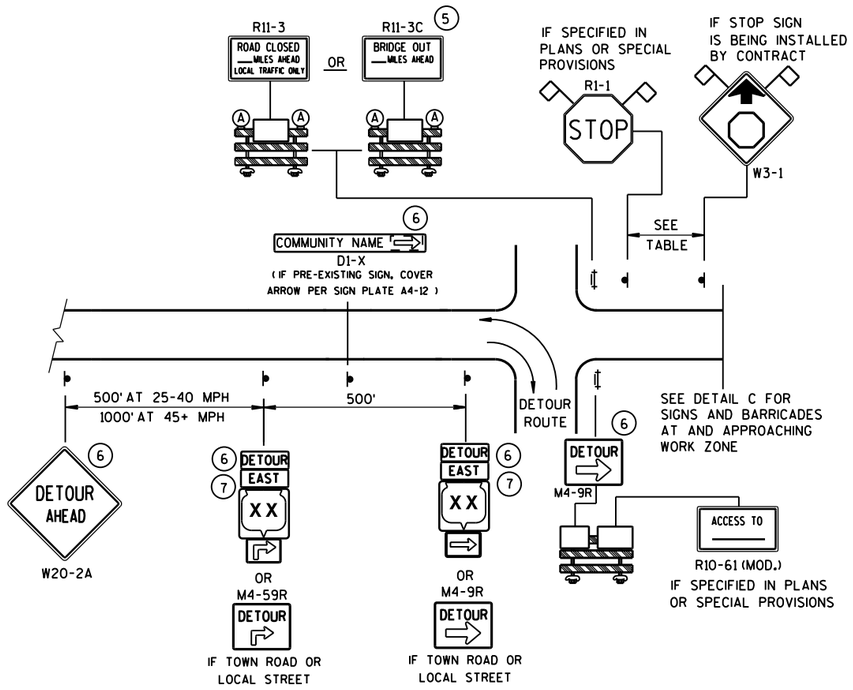
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

6

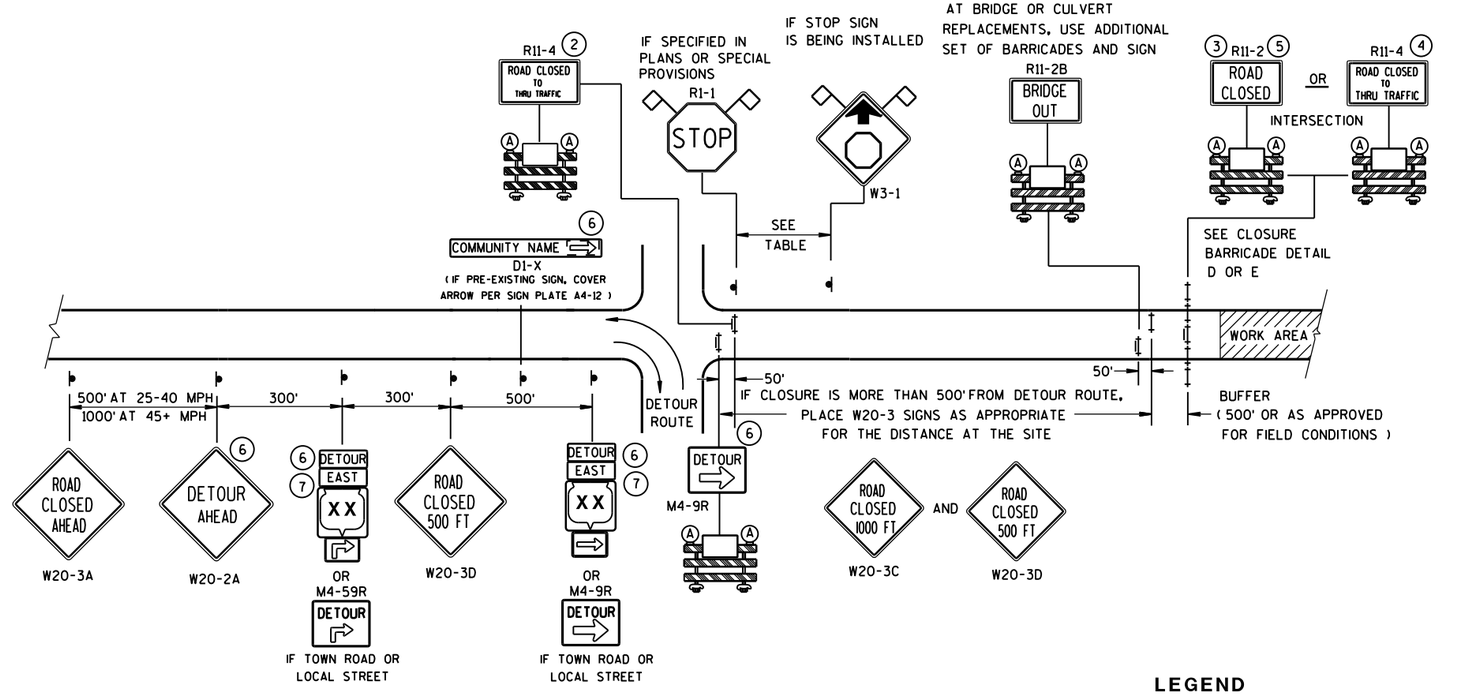
S.D.D. 14 A 2-1



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

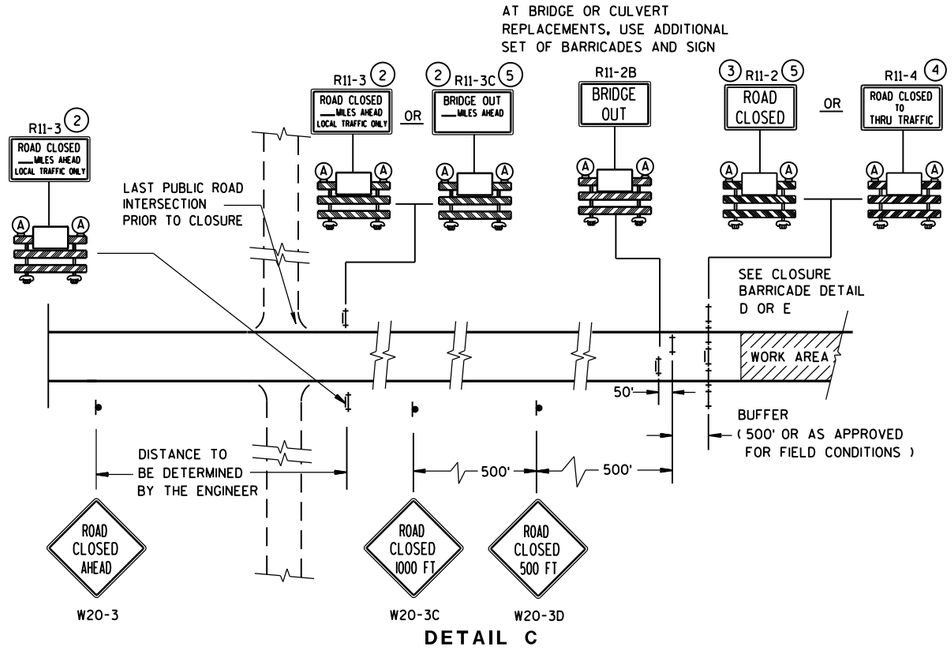
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

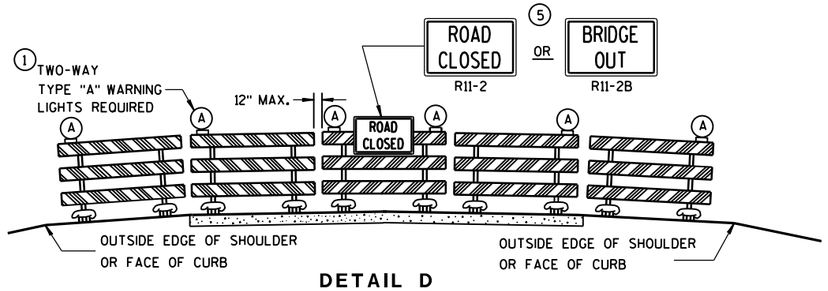
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

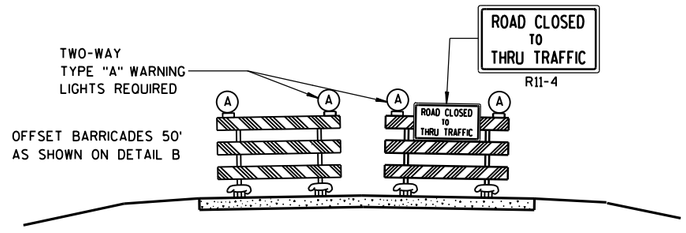
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

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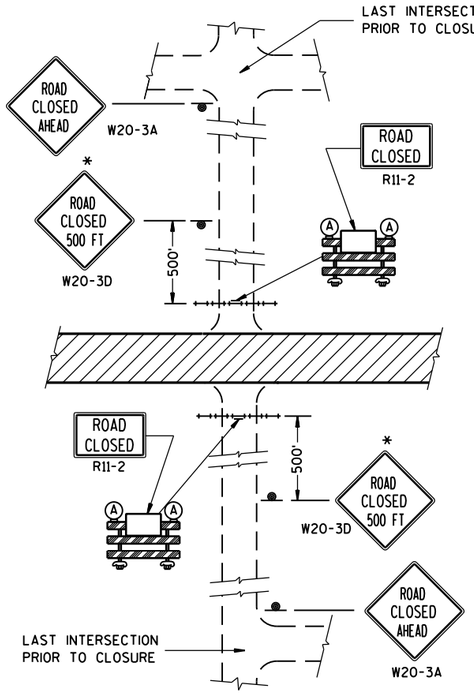
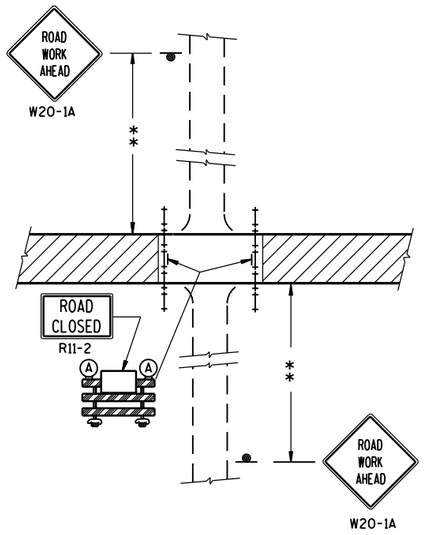


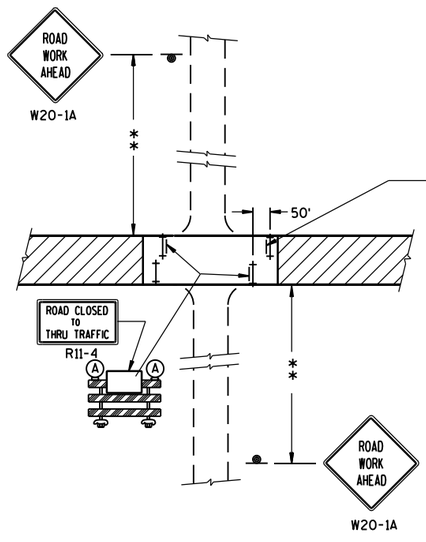
DETAIL 1

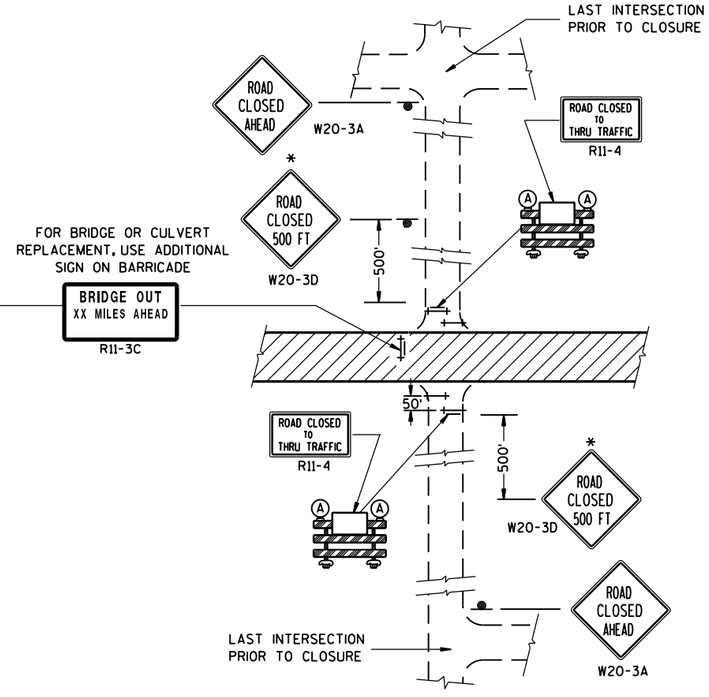
(NO ACCESS TO PROJECT)



DETAIL 2

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





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

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 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 RE-ESTABLISHED.

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

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

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

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

THE R11-2, R11-3 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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... FIC
FHWA

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S.D.D. 15 C 3-3

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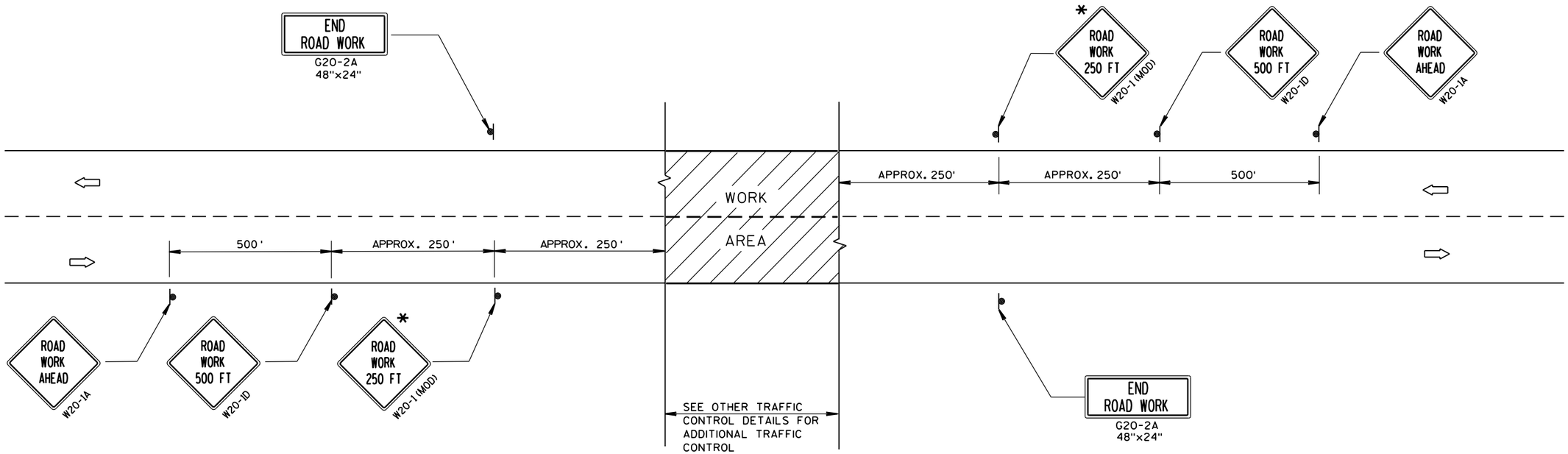
S.D.D. 15 C 3-3

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

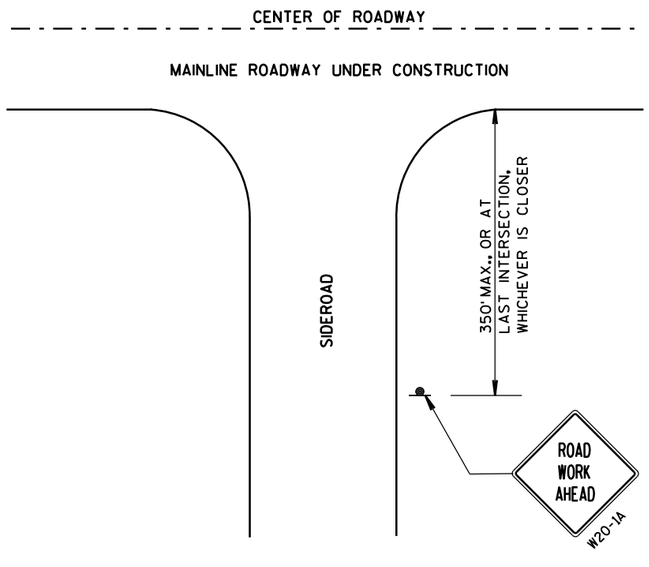
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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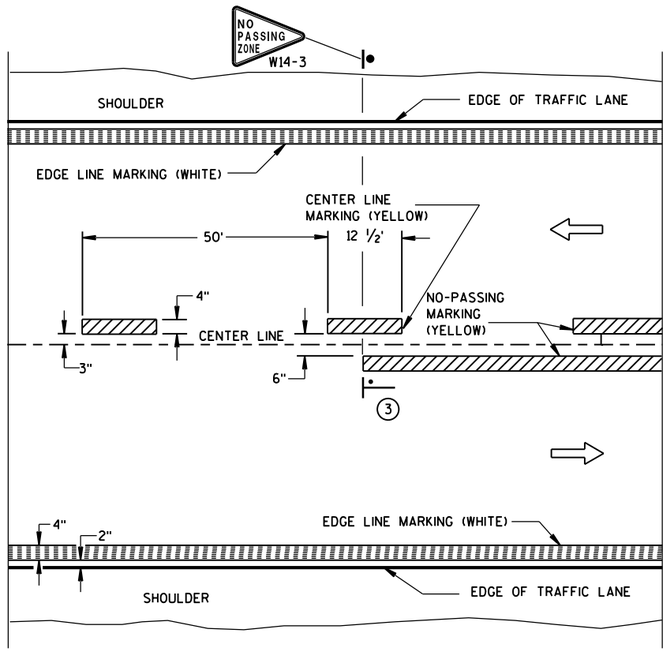
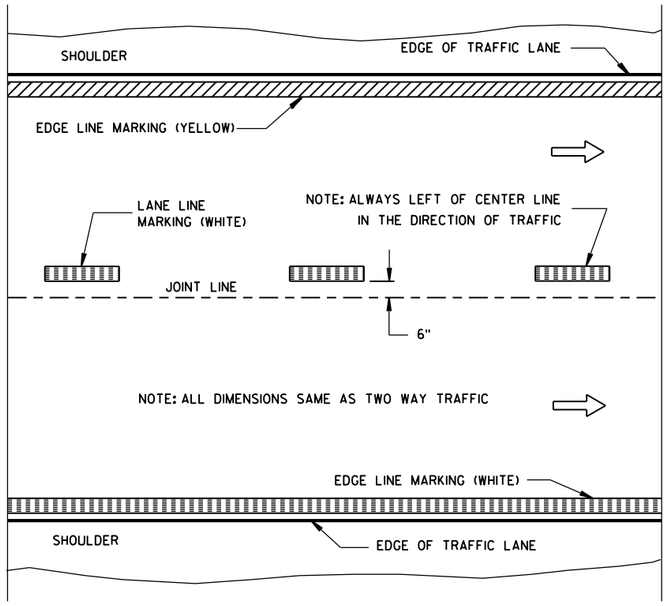
S.D.D. 15 C 5-3

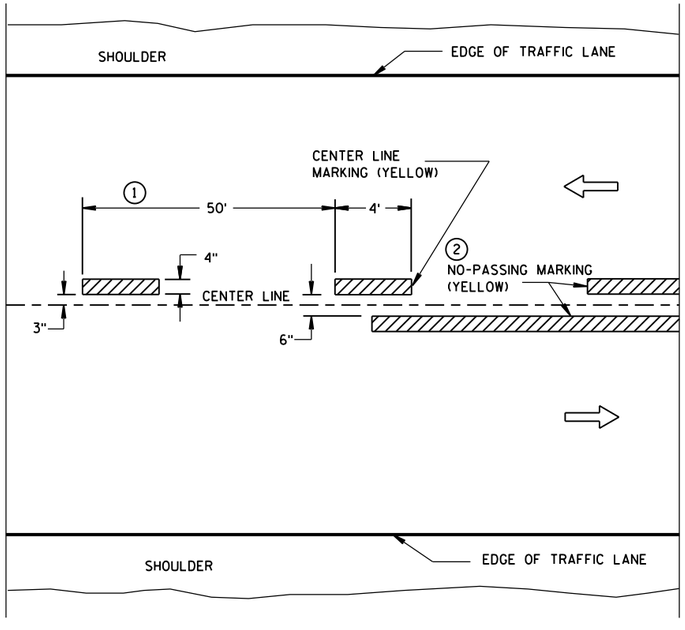


TWO WAY TRAFFIC

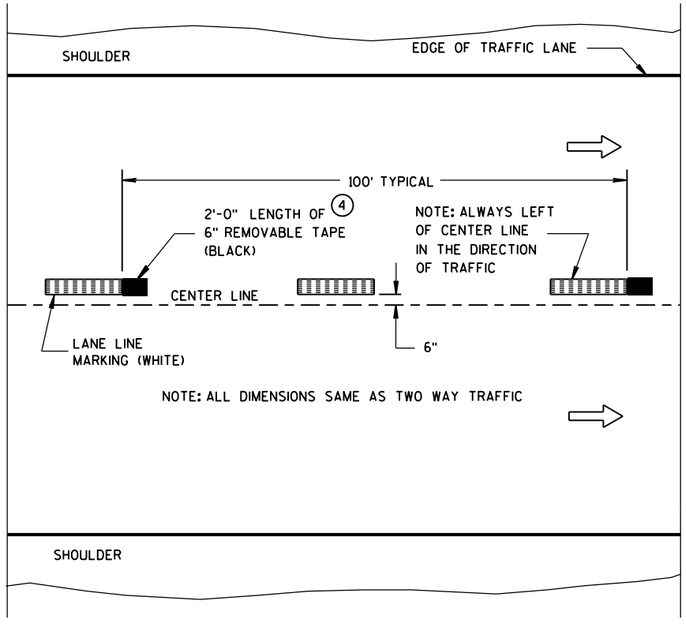


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

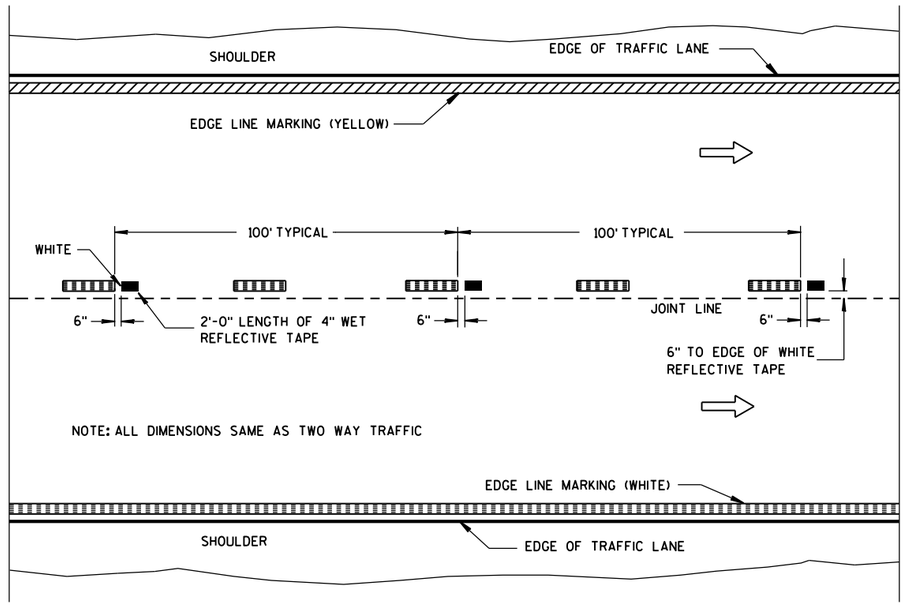
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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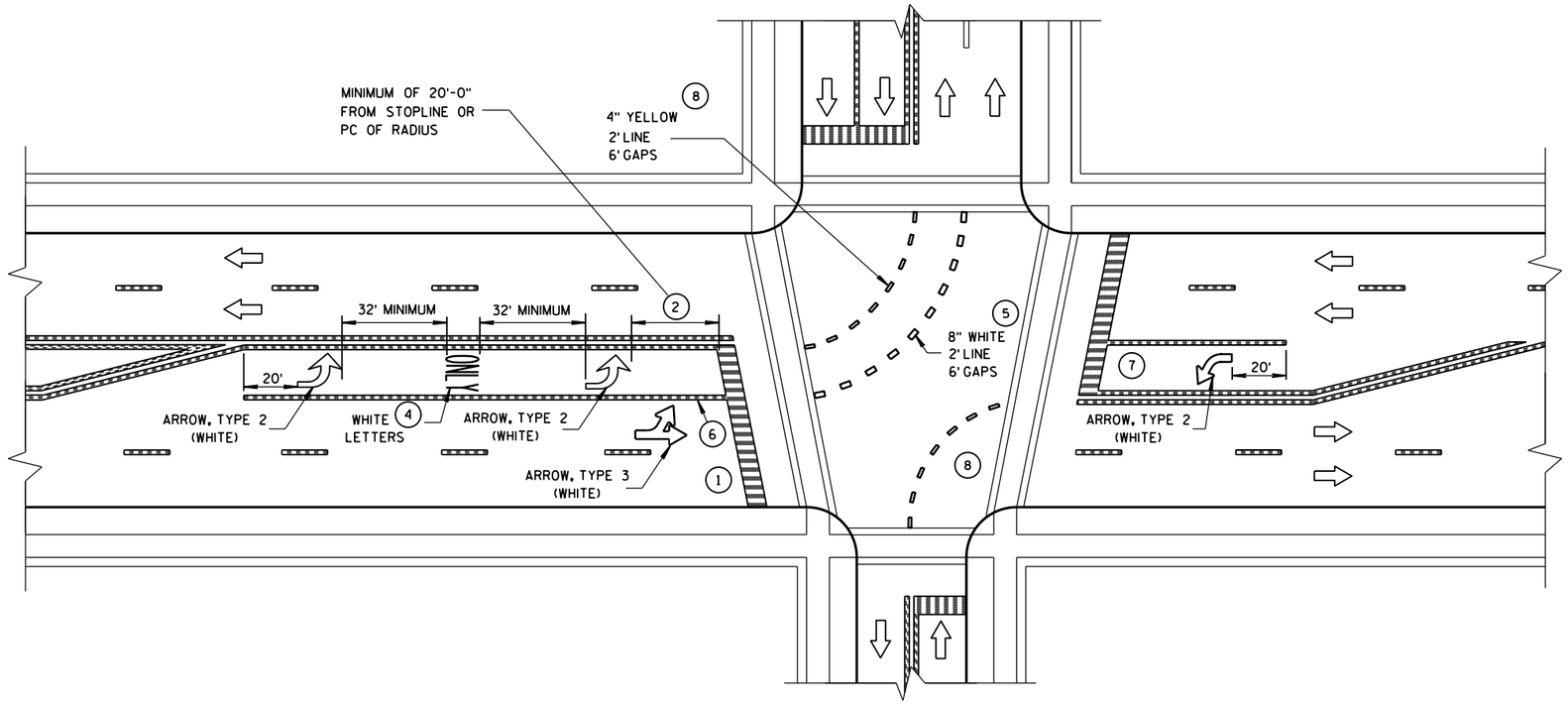
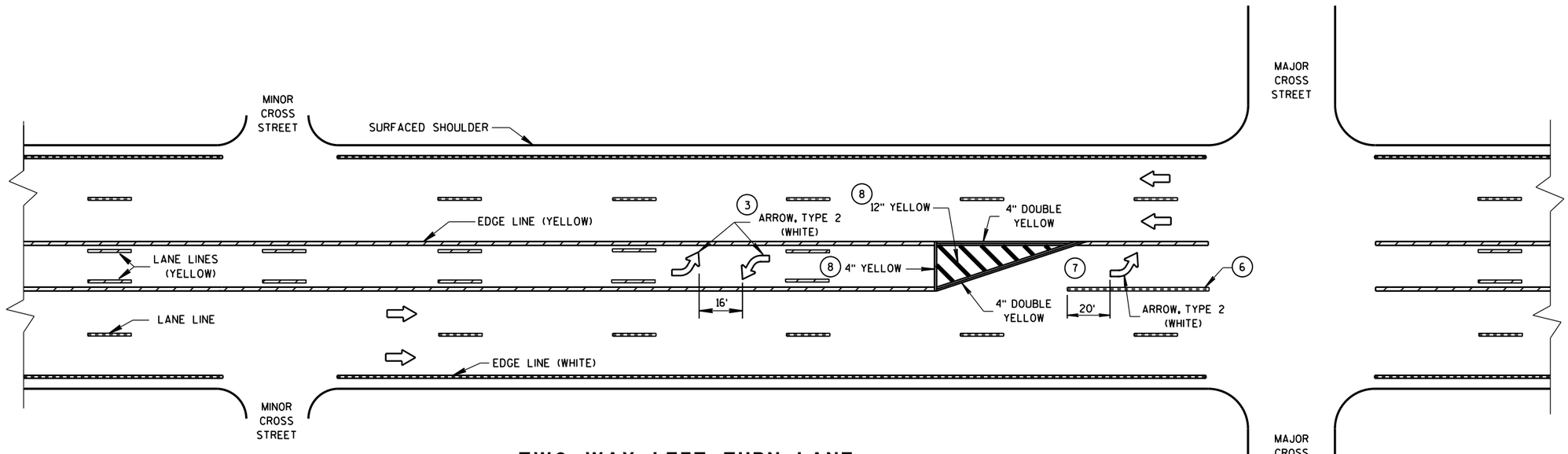
S.D.D. 15 C 8-16a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 8-16e

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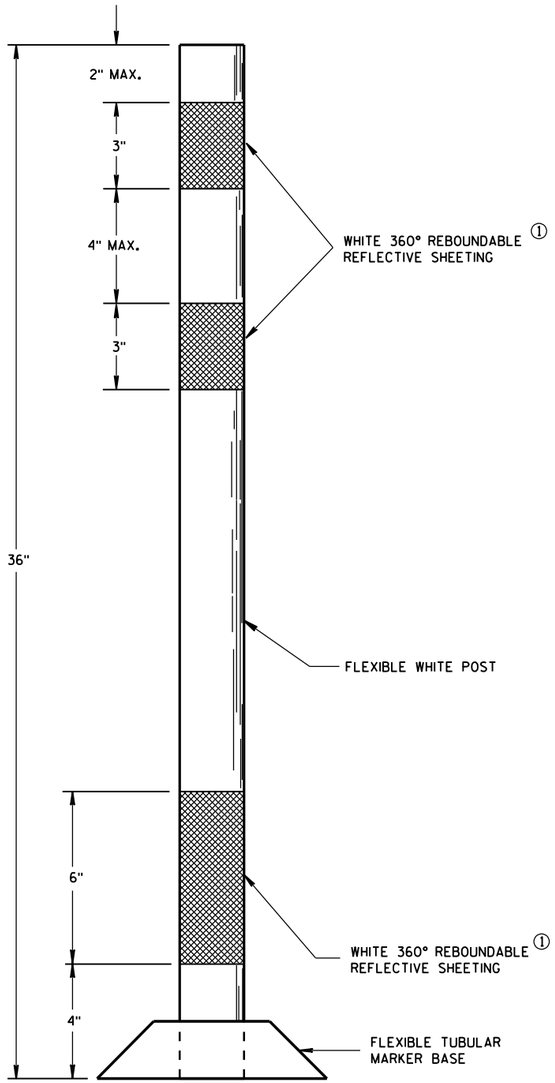
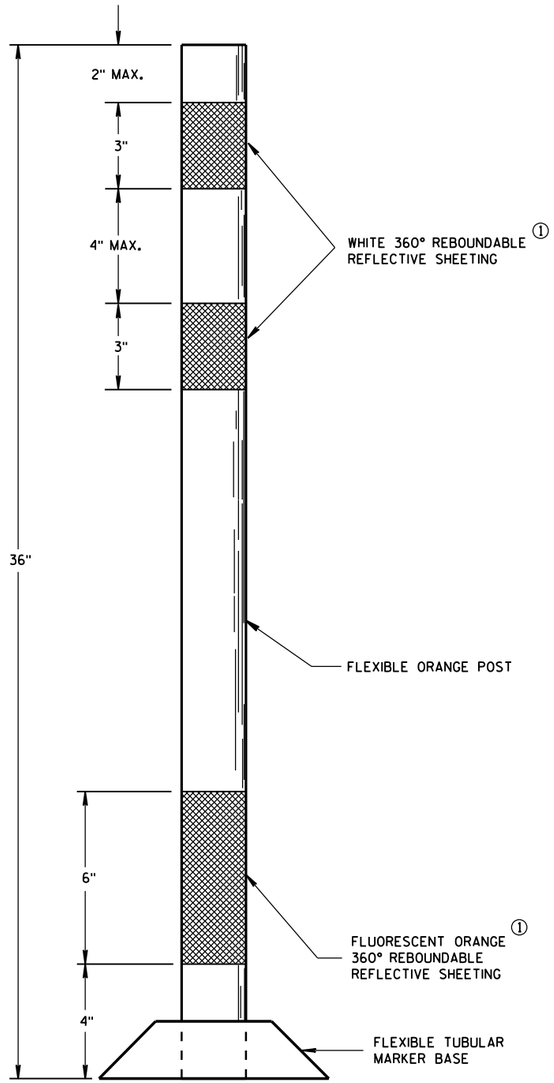


FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



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 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.

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

FLEXIBLE TUBULAR MARKER POST

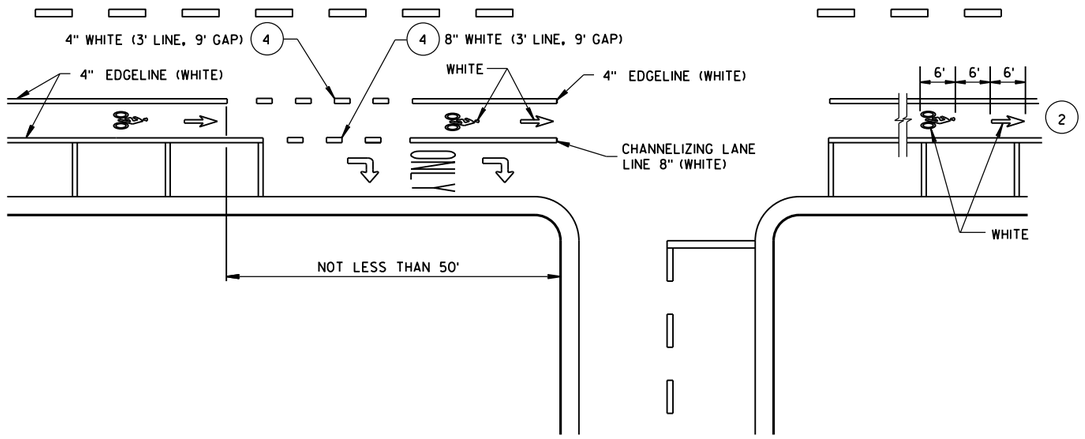
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-16-2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON
SAFETY ENGINE

6

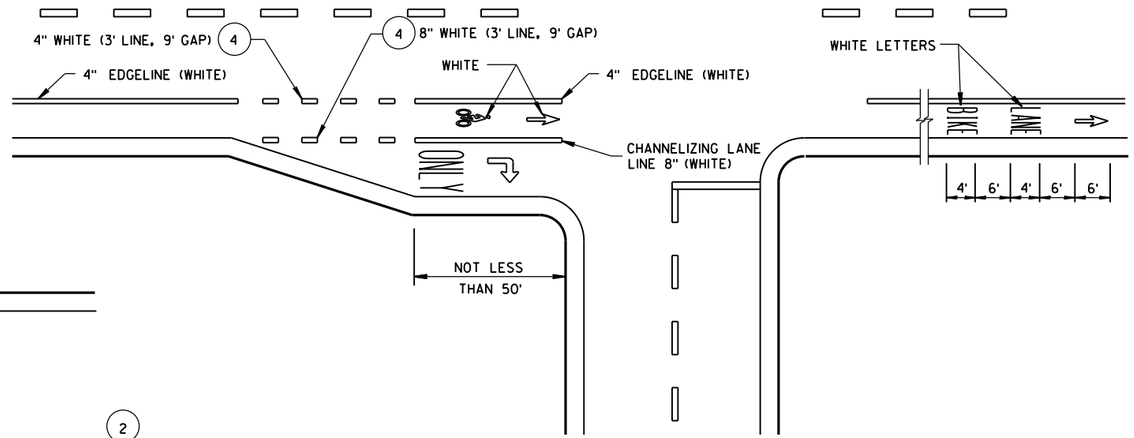
S.D.D. 15 C 11-6



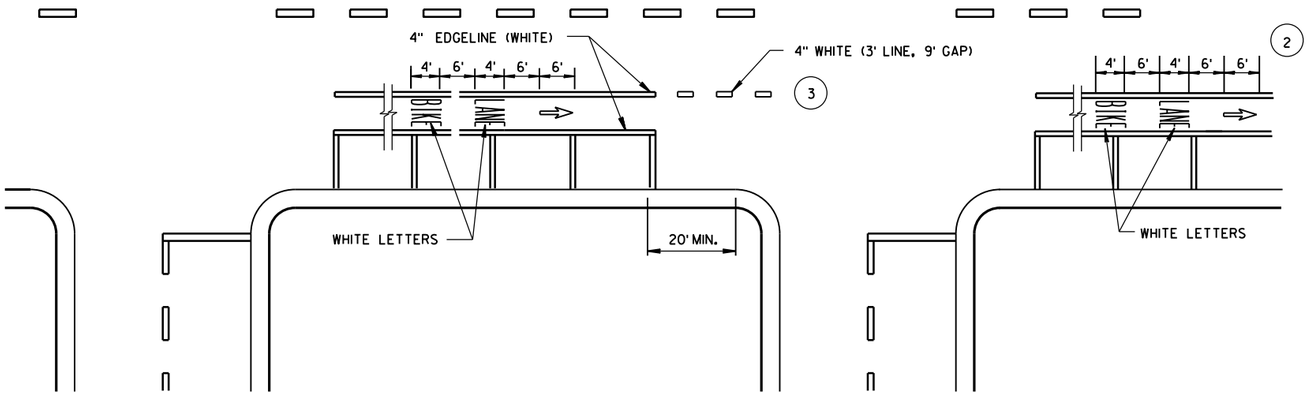
DESIGNATED BICYCLE LANE

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3c

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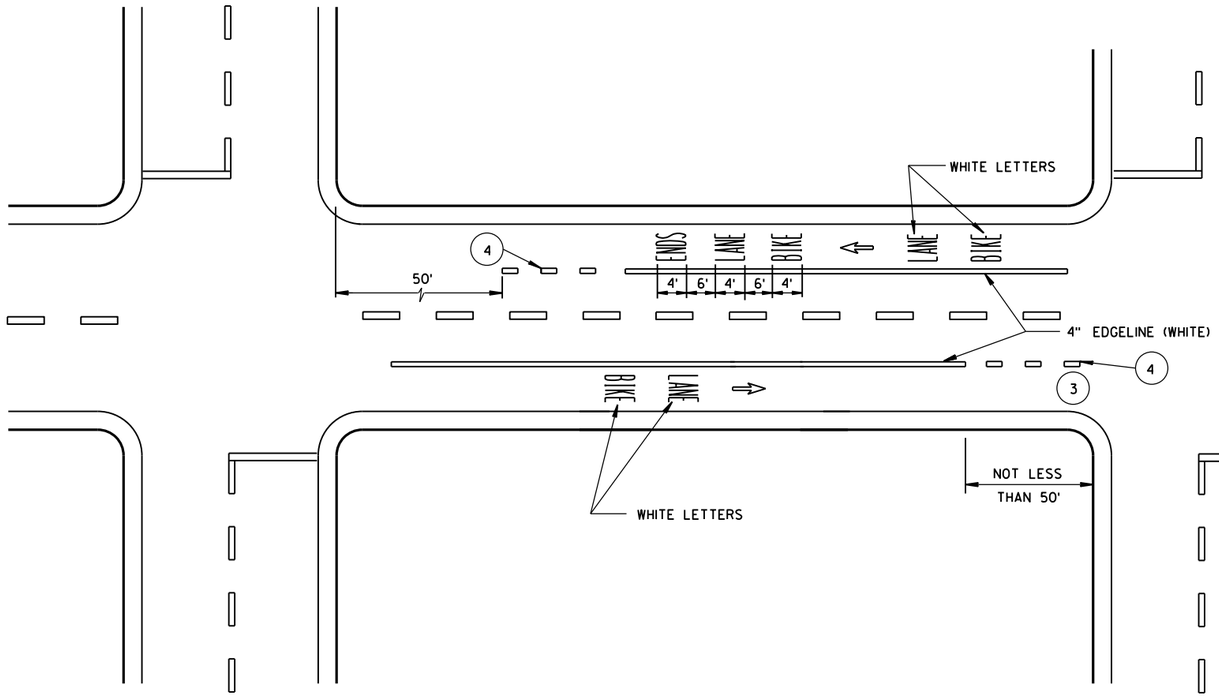
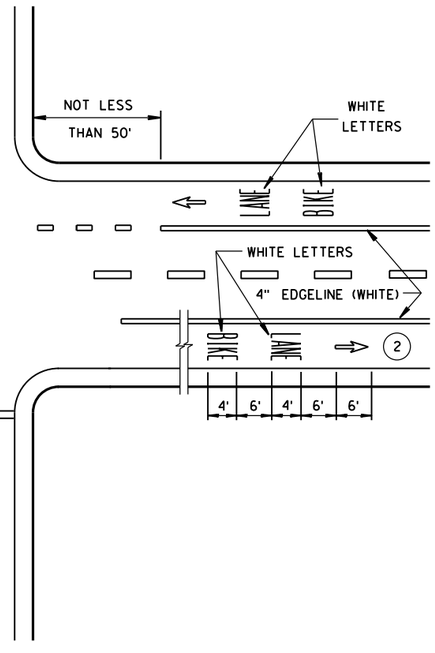
S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN 242

FHWA

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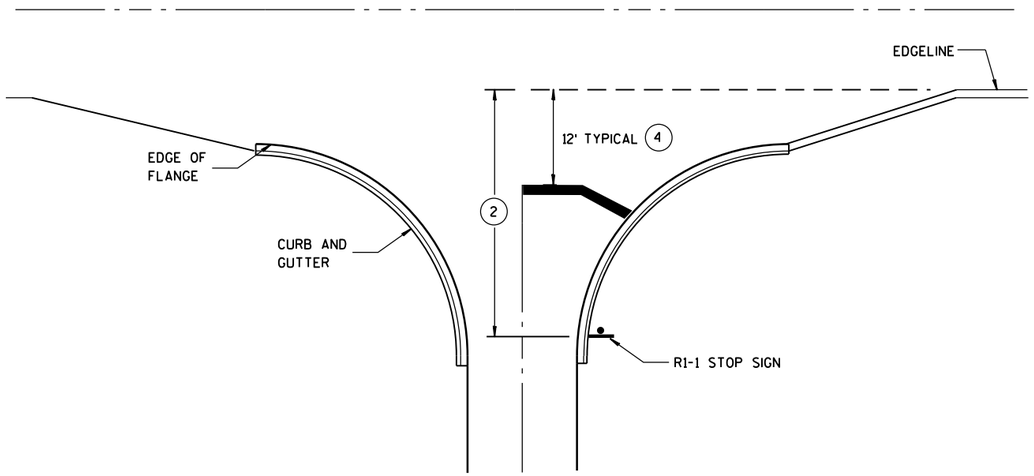
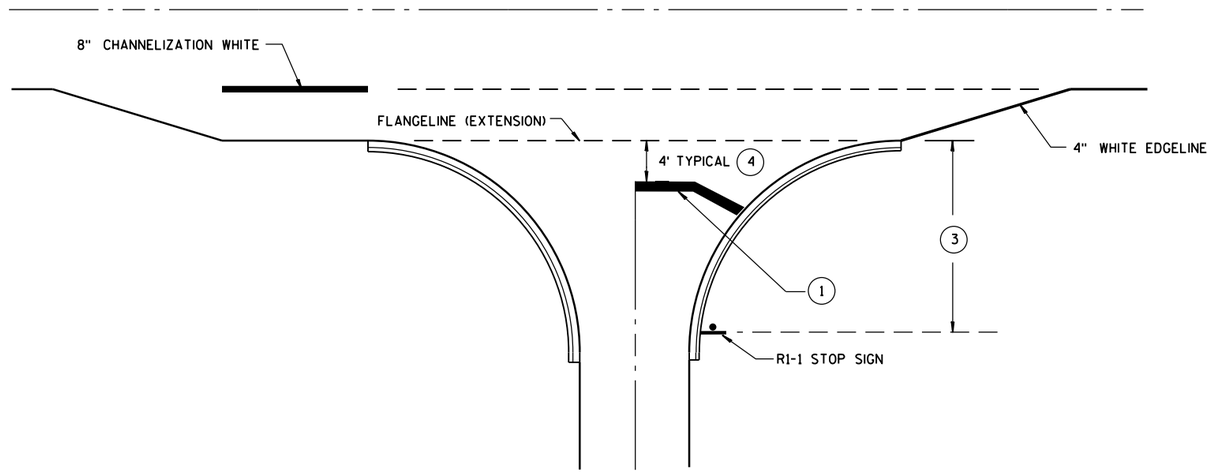
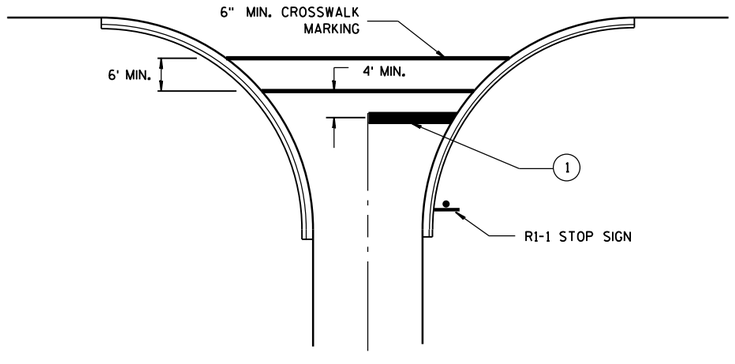
S.D.D. 15 C 29-3d



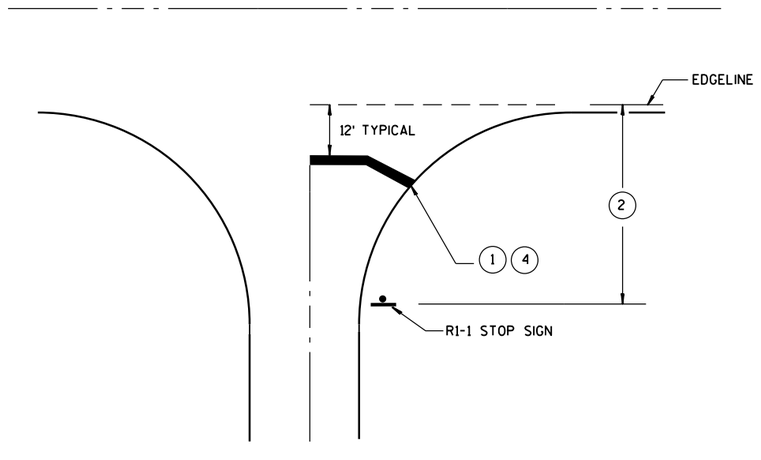
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 243 NEER

FHWA

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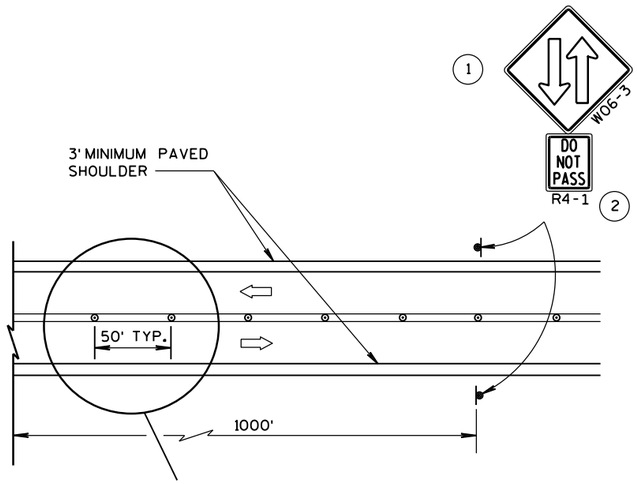
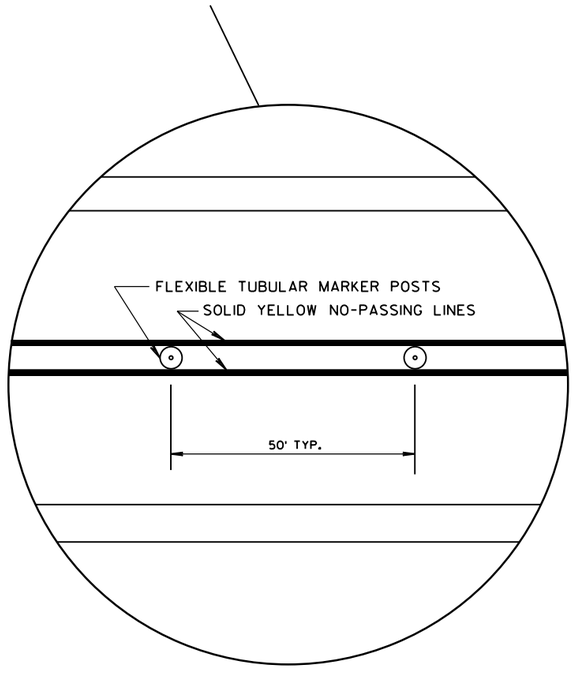
S.D.D. 15 C 33-2



TWO LANE, TWO WAY OPERATION



GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

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

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

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

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

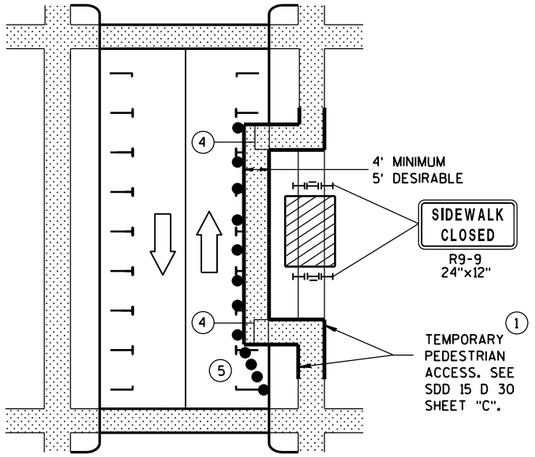
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

6

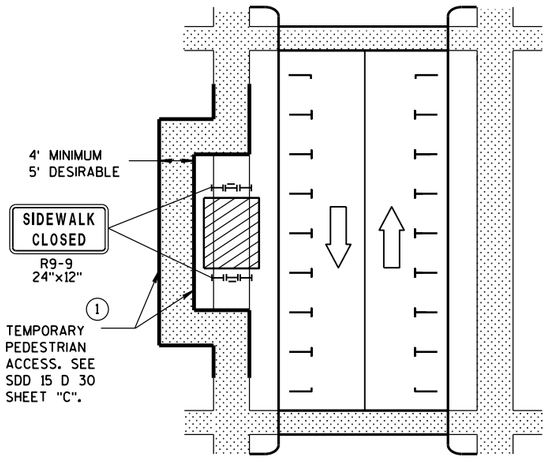
S.D.D. 15 D 6-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

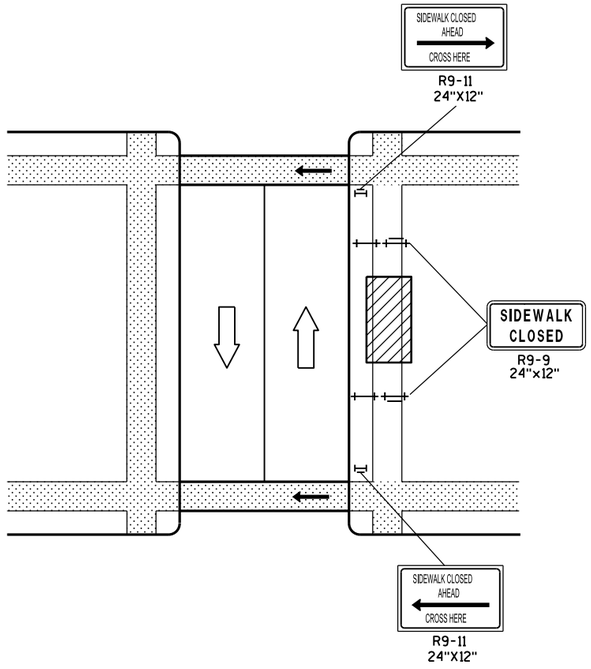


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

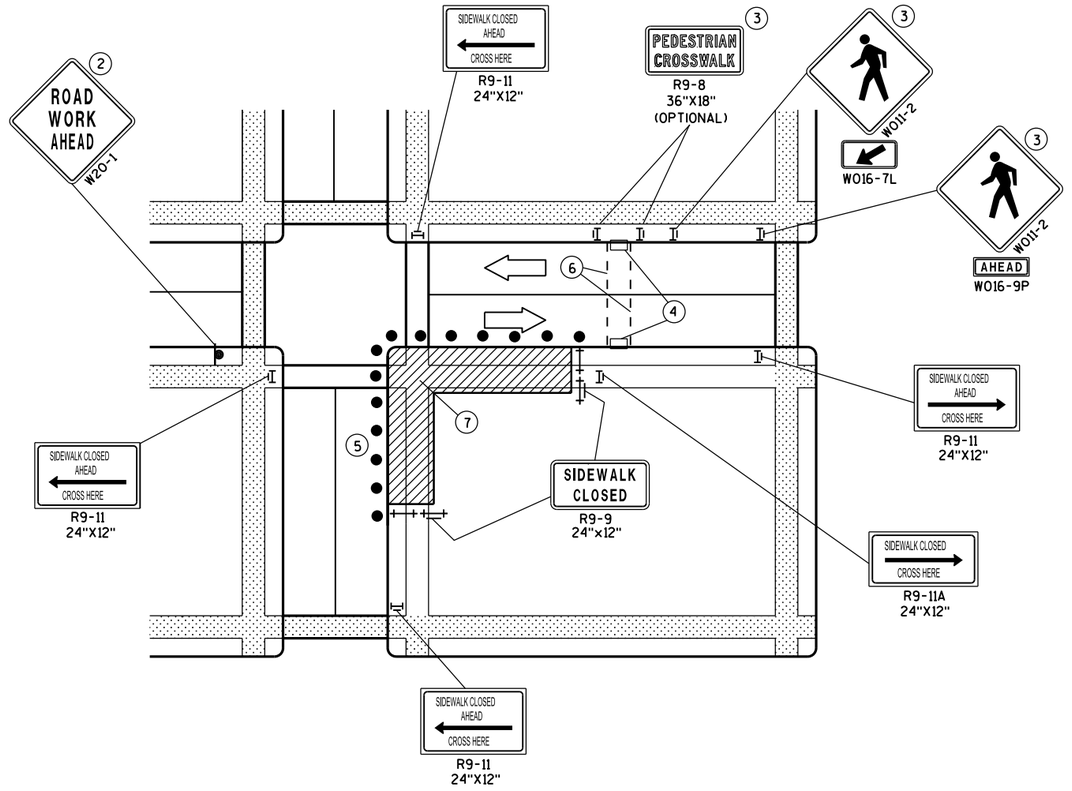
NOTE: LAYOUT SAME AS ABOVE.



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 W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 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.

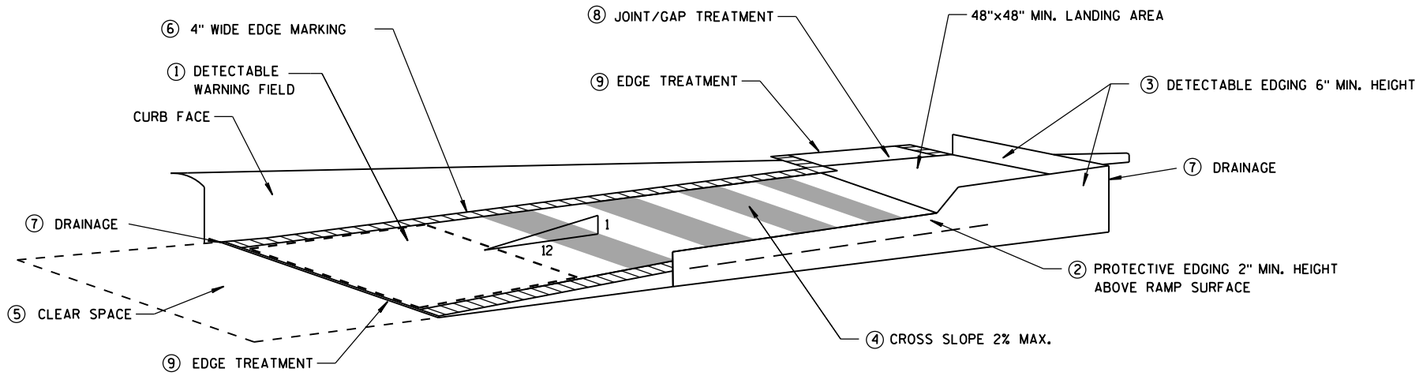
(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- 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)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

6
S.D.D. 15 D 30-3a



TEMPORARY CURB RAMP PARALLEL 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 8D5 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"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

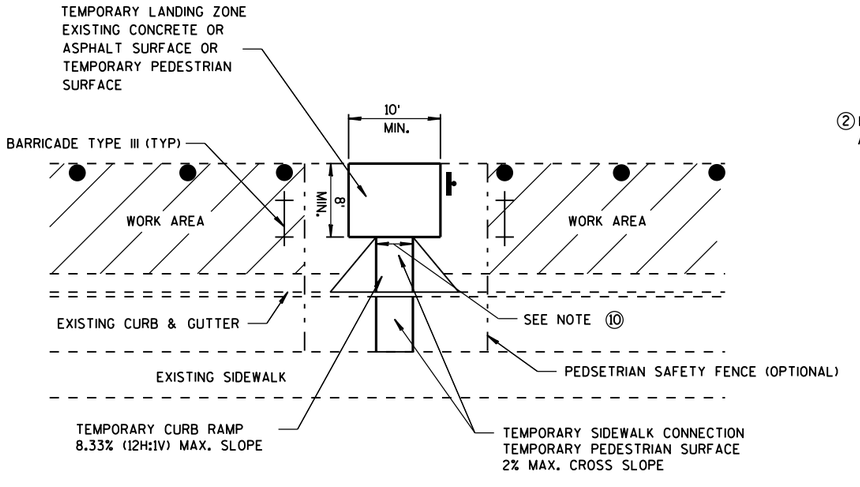
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

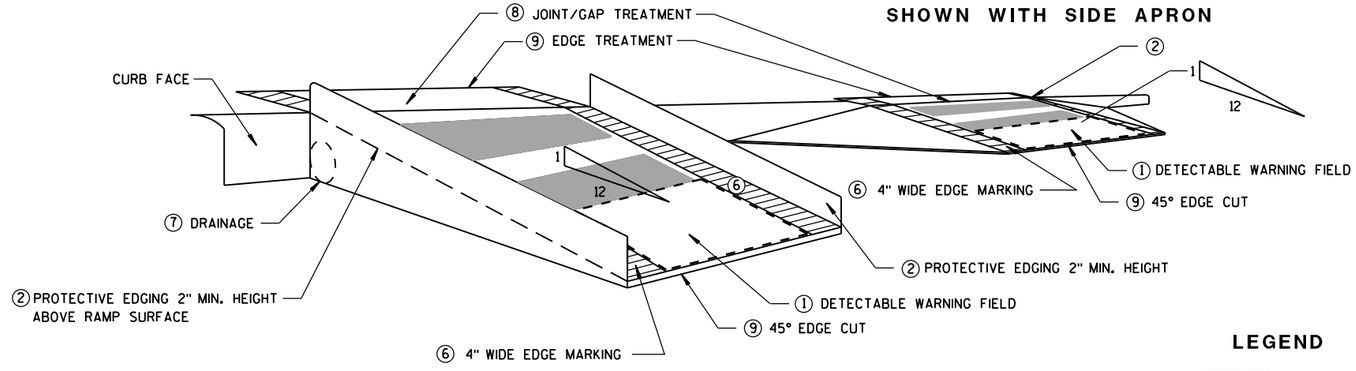
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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 PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

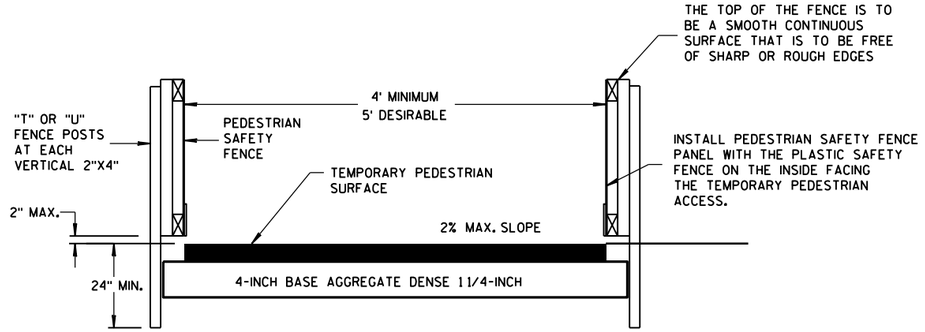
FHWA

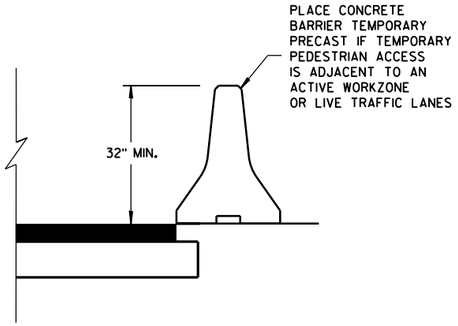
6

S.D.D. 15 D 30-3b

6

S.D.D. 15 D 30-3b

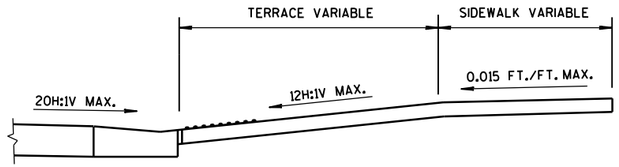




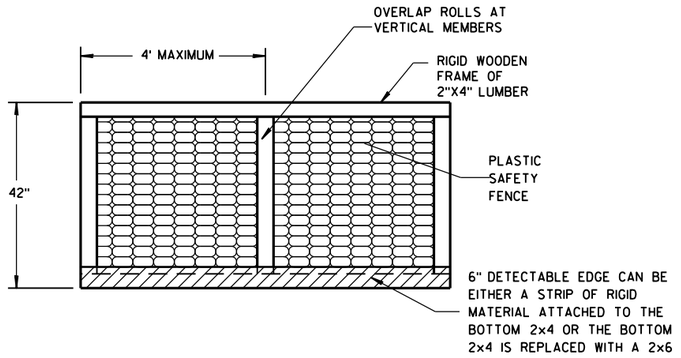
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

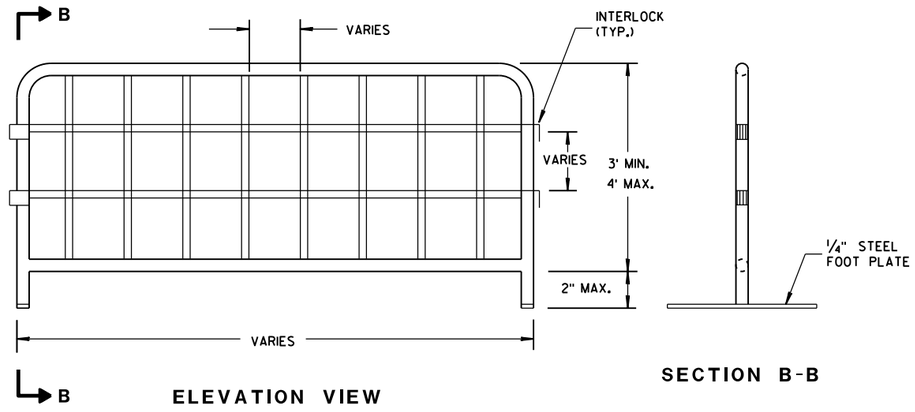
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



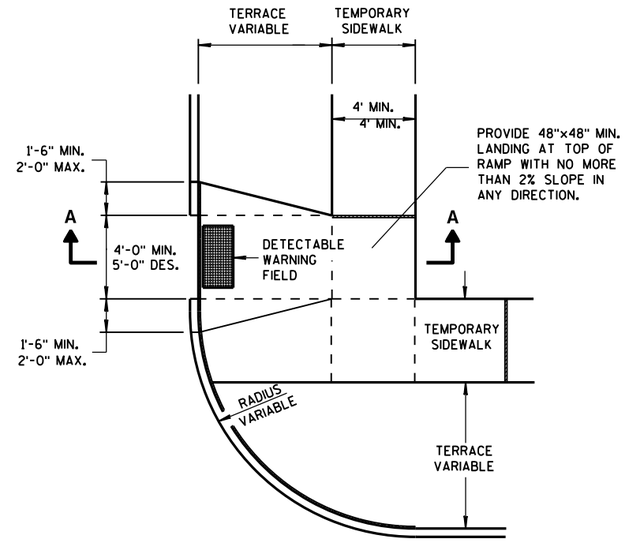
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

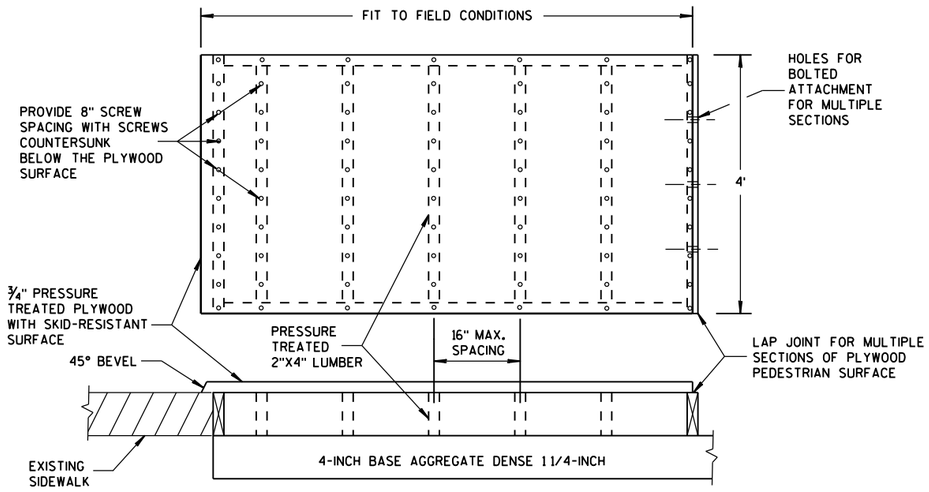
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



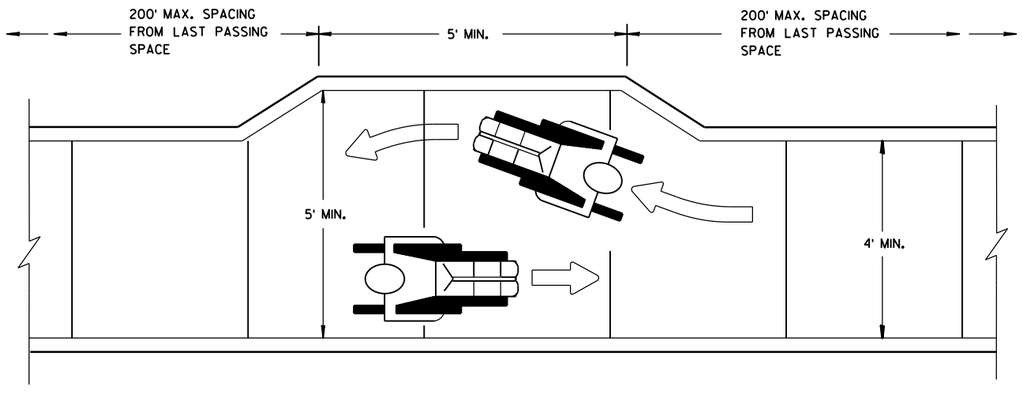
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

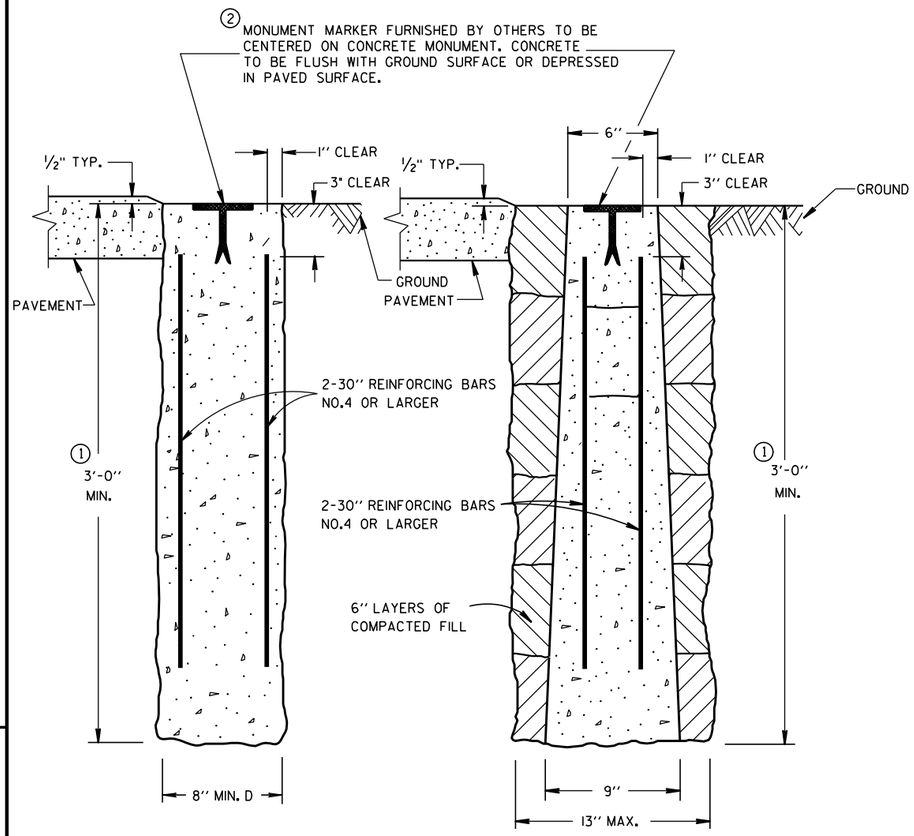
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

S.D.D. 15 D 30-3c

6

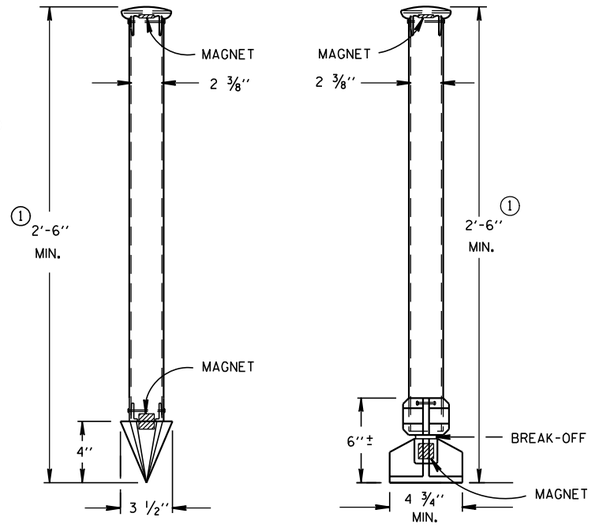
S.D.D. 15 D 30-3c



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

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.

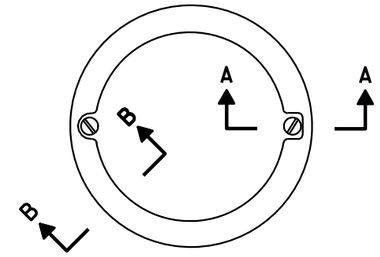
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

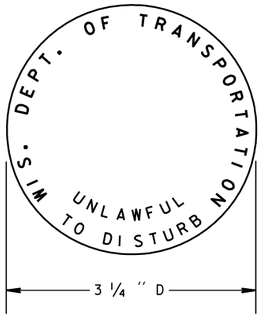
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

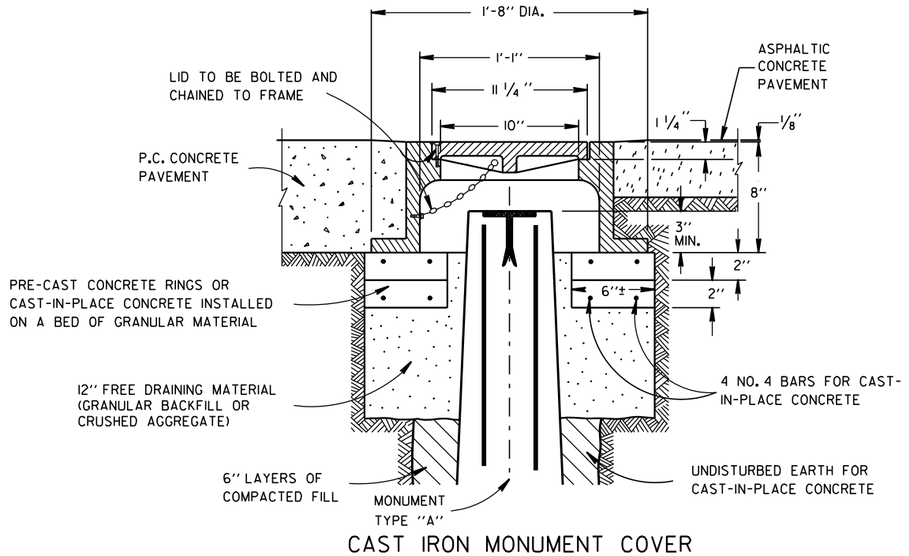
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

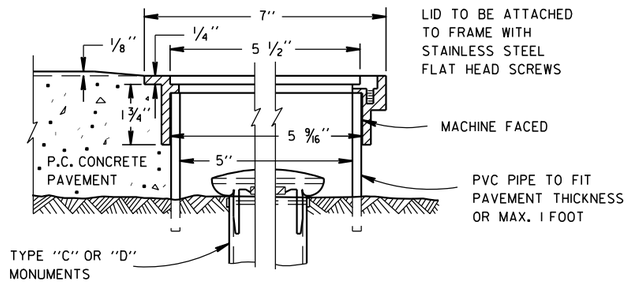


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 16 A 1-6

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
4+00	85	17	1.98	1.60
4+50	138	25	1.81	1.43
5+00	138	25	2.00	1.51
5+50	137	26	2.13	1.52
6+00	137	25	2.00	1.56
6+50	137	25	1.96	1.51
7+00	137	24	1.96	0.96
7+50	137	26	1.99	0.95
8+00	122	24	1.98	1.60
8+50	104	12	1.81	1.43
9+00	140	25	2.00	1.51
9+50	138	26	2.13	1.52
10+00	138	25	2.00	1.56
10+50	136	25	1.96	1.51
11+00	137	24	1.96	0.96
11+50	138	22	1.99	0.95
12+00	139	23	1.98	1.52
12+50	139	23	1.81	1.56
13+00	139	23	2.00	1.51
13+50	139	24	2.13	0.96
14+00	140	24	2.00	0.95
14+50	111	12	1.96	1.60
15+00	130	16	1.96	1.43
15+50	139	24	1.99	1.51
16+00	138	24	1.98	1.52
16+50	138	24	1.81	1.56
17+00	136	24	2.00	1.51
17+50	137	23	2.13	1.52
18+00	137	23	2.00	1.56
18+50	137	23	1.96	1.51
19+00	137	23	1.96	0.96
19+50	137	23	1.99	0.95
20+00	138	23	1.96	1.60
20+50	138	24	1.96	1.43
21+00	107	1	1.99	1.51
21+50	138	21	1.98	1.52
22+00	139	24	1.81	1.56
22+50	141	23	2.00	1.51
23+00	139	23	2.13	1.60
23+50	138	23	2.00	1.43
24+00	138	24	1.96	1.51
24+50	138	26	1.96	1.52
25+00	138	25	1.99	1.56
25+50	137	23	1.96	1.60
26+00	137	23	1.99	1.43
26+50	137	23	1.98	1.51
27+00	19	15	1.81	1.52
27+50	226	0	1.81	
28+00	278	12	2.00	1.51
28+50	204	11	2.13	1.60
29+00	159	12	2.00	1.43
29+50	137	23	1.96	1.51
30+00	138	23	1.96	1.52
30+50	139	25	1.99	1.56
31+00	143	25	1.98	1.51
31+50	134	25	1.81	1.51
32+00	137	25	2.00	1.60
32+50	135	25	2.13	1.43
33+00	138	25	2.00	1.51
33+50	138	12	1.96	1.52
34+00	104	11	1.96	1.56
34+50	119	16	1.99	1.51
35+00	123	23	1.96	1.43
35+50	100	12	1.96	1.51
36+00	123	12	1.81	1.52
36+50	126	8	2.00	1.56
37+00	100	4	2.13	1.51
37+50	104	4	2.00	1.51
38+00	122	11	1.96	1.60
38+50	119	25	1.98	1.43
39+00	88	12	1.81	1.51
39+50	101	13	2.00	1.52
40+00	128	25	2.13	1.56
40+50	123	25	2.00	1.56
41+00	123	25	1.96	1.51
41+50	137	25	1.96	0.96
42+00	137	25	1.99	0.95
42+50	137	25	1.81	1.43
43+00	130	25	2.00	1.51
43+50	111	16	2.13	1.52
44+00	100	11	2.00	1.56
44+50	111	16	1.96	1.51
45+00	137	25	1.98	1.51
45+50	138	25	1.81	1.60
46+00	122	25	2.00	1.43
46+50	124	18	2.13	1.51
47+00	119	12	2.13	1.43
47+50	148	25	2.00	1.51
48+00	150	25	1.96	1.52
48+50	152	24	1.96	1.56
49+00	122	12	1.99	1.51
49+50	144	25	1.96	1.43
50+00	148	25	1.96	1.51
50+50	152	25	1.81	1.52
51+00	152	25	2.00	1.56
51+50	152	25	2.13	1.51
52+00	153	25	2.00	1.51
52+50	144	25	1.96	1.60
53+00	148	25	1.98	1.43
53+50	150	25	1.81	1.51
54+00	144	25	2.00	1.52
54+50	152	25	2.13	1.56
55+00	148	25	2.00	1.56
55+50	133	12	1.96	1.43
56+00	122	12	1.96	1.51
56+50	56	7	1.99	1.52
TOTAL	14176	2187		

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

SEL

APR 2017

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 = --60

PROJECT ID: 2595-08-70

WITH: 2585-00-70/90 2025-01-72/90/92

COUNTY: MILWAUKEE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NORTH 60TH STREET/WEST HAMPTON AVENUE

11 LOCAL STREET INTERSECTIONS

NON-HIGHWAY

MILWAUKEE COUNTY

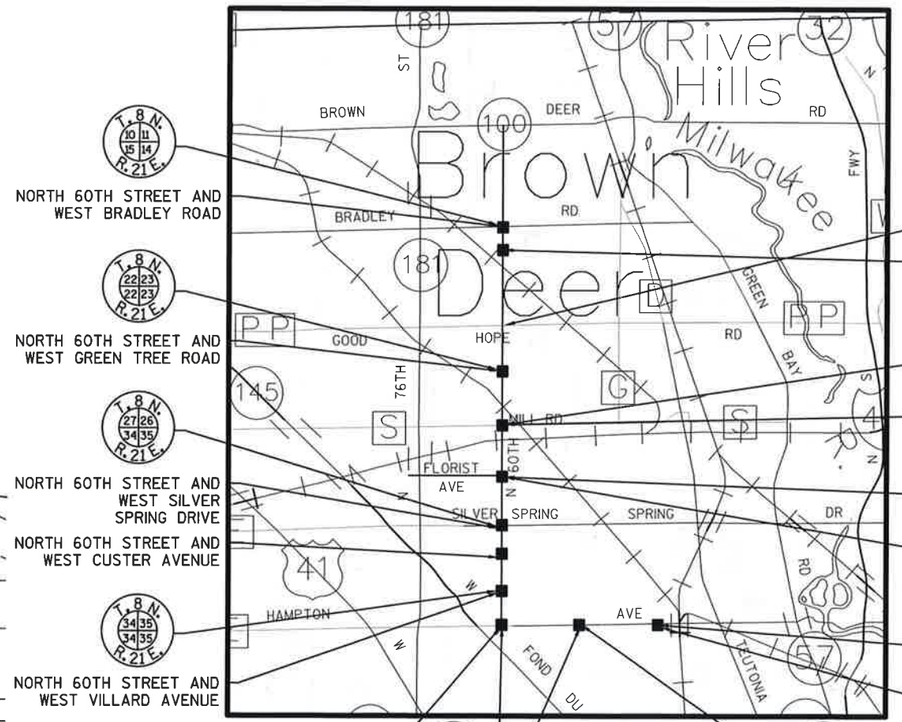
STATE PROJECT NUMBER
2595-08-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2595-08-70	WISC 2017166	1

15

DESIGN DESIGNATION

A.A.D.T. 2013 =	HAMPTON (24850) 60TH (15788)
A.A.D.T. 2036 =	VARIES BY ROADWAY
D.H.V. =	VARIES BY ROADWAY
D.D. =	VARIES BY ROADWAY
T. =	VARIES BY ROADWAY
DESIGN SPEED =	VARIES BY ROADWAY
ESALS =	VARIES BY ROADWAY



LAYOUT

SCALE 0 0.5mi

TOTAL NET LENGTH OF CENTERLINE = 0.00 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY, NAD83 (2007).

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2007) ADJUSTMENT.

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- OVERHEAD UTILITY (OH)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR

CITY of MILWAUKEE

2/9/17 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

WISCONSIN DARRELL J. BERRY E-16235 MILWAUKEE, WI PROFESSIONAL ENGINEER

(Date) 2/6/2017 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor CITY OF MILWAUKEE
Designer MEAD & HUNT, INC.
Management Consultant DAAR ENGINEERING
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 2/9/17 (Management Consultant Signature)

E

SEQUENCE OF PLANS AND DETAILS IN SECTION 2

GENERAL NOTES
PROJECT OVERVIEW
CONSTRUCTION DETAIL
TRAFFIC SIGNAL PLAN
TRAFFIC CONTROL PLAN

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	PAVT	PAVEMENT
AGG	AGGREGATE	PGL	PROFILE GRADE LINE
ASPH	ASPHALTIC	PI	POINT OF INTERSCETION
BM	BENCH MARK	PL	PROPERTY LINE
C/L	CENTER OR CONSTRUCTION LINE	PT	POINT OF TANGENT
CONC	CONCRETE	P_R/W	PROPOSED RIGHT-OF-WAY
CWT	HUNDREDWEIGHT	R	RADIUS OF CURVE
CY	CUBIC YARD	R/L	REFERENCE LINE
D	DEGREE OF CURVE	RT	RIGHT
Δ	DELTA	SDD	STANDARD DETAIL DRAWINGS
DHV	DESIGN HOURLY VOLUME	SF	SQUARE FOOT
DWY	DRIVEWAY	SHLDR	SHOULDER
EL	ELEVATION	SI	SLOPE INTERCEPT
EXC	EXCAVATION	STA	STATION
EX_R/W	EXISTING RIGHT-OF-WAY	SY	SQUARE YARD
FT	FOOT	T	TRUCKS (PERCENT OF)
FTG	FOOTING	TLE	TEMPORARY LIMITED EASEMENT
HMA	HOT MIX ASPHALT	TYP	TYPICAL
L	LENGTH OF CURVE	VAR	VARIABLE
LB	POUND	VC	VERTICAL CURVE
LF	LINEAR FOOT	VCL	VERTICAL CURVE LENGTH
LS	LUMP SUM	VPC	VERTICAL POINT OF CURVE
LT	LEFT	VPI	VERTICAL POINT OF INTERSECTION
MAX	MAXIUMUM	VPT	VERTICAL POINT OF TANGENCY
MIN	MINIMUM		

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2

GENERAL NOTES

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

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

3. THE CONTRACTOR SHALL GIVE THE PROJECT ENGINEER AT LEAST TWO WEEKS NOTICE PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT MAY DISTURB ANY PUBLIC SURVEY MONUMENTS.

4. TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

5. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

UTILITIES

ELECTRIC
WE ENERGIES - ELECTRIC
MR. KENNETH FRANECKI
PHONE: (414) 944-5531

GAS
WE ENERGIES - GAS
MR. JOSHUA MOUNT
PHONE: (414) 218-2053

CABLE TELEVISION
TIME WARNER CABLE
STEVE STORM
1320 N DR. MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 908-4789
STEVEN.STORM@TWCABLE.COM

TELEPHONE
AT&T WISCONSIN
MR. JEFF OLDENBURG
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7522
JO2376@ATT.COM

UNDERGROUND CONDUIT
CITY OF MILWAUKEE - TES
MS. KAREN ROGNEY
840 N BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3243
KAREN.ROGNEY@MILWAUKEE.GOV

DNR LIASON
DEPARTMENT OF NATURAL RESOURCES
SOUTH EAST HQ
2300 N. DR. MARTIN LUTHER KING, JR. DRIVE
MILWAUKEE, WI 53212-3128
ATTN: MS KRISTINA BETZOLD
PHONE: (414) 263-8517
KRISTINA.BETZOLD@WISCONSIN .GOV

STREET LIGHTING
CITY OF MILWAUKEE - STREET LIGHTING
MR. DENNIS MILLER
1540 W. CANAL ST
MILWAUKEE, WI 53233
PHONE: (414) 286-5942 (OFFICE),
(414) 708-4251 (CELL)

TRAFFIC SIGNALS
CITY OF MILWAUKEE - TRAFFIC SIGNALS & SIGNS
MR. AL NICHOLS
1540 W. CANAL ST
MILWAUKEE, WI 53233
PHONE: (414) 286-3687 (OFFICE),
(414) 708-5148 (CELL)

WATER
CITY OF MILWAUKEE – WATER
MR. MUSA ABU-KHADER
840 N BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: (414) 708-2529

SEWER
CITY OF MILWAUKEE – SEWER
MR. MUSA ABU-KHADER
840 N BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: (414) 708-2529

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT (MMSD)
MR. LARRY ANDERSON
PHONE: (414) 225-2241

AGENCIES/PROJECT CONTACTS

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS)
1942 NORTH 17TH STREET
MILWAUKEE, WISCONSIN 53205
ATTN: MS. MELANIE FLYNN

MILWAUKEE COUNTY
DEPARTMENT OF TRANSPORTATION
10190 WEST WATERTOWN PLANK ROAD
MILWAUKE, WISCONSIN 53226
ATTN: MR. GREG HEISEL, HIGHWAY MAINTENANCE MANAGER

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC)
W 239 N 1812 ROCKWOOD DRIVE
PO BOX 1607
WAUKESHA, WISCONSIN 53187
ATTN: MR. JOHN WASHBURN
(262) 547-6721

CONSULTANT CONTACT
MEAD & HUNT, INC.
10700 WEST RESEARCH DRIVE, SUITE 155
WAUWATOSA, WISCONSIN 53226
ATTN: DARRELL BERRY
(262) 790-0232

2

UTILITY NOTES

WATER FACILITIES

PRIOR TO PROCEEDING WITH CONSTRUCTION, THE LOCATION OF EACH WATER MAIN SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE".

MAINTAIN A MINIMUM OF 6" VERTICAL CLEARANCE FROM THE OUTSIDE EDGE OF THE PROPOSED INSTALLATION (OR BORING) TO THE O.D. OF WATER MAIN (OR APPURTENANCE).

A MINIMUM OF 2'-0" OF UNDISTURBED EARTH SHALL BE MAINTAINED FROM THE TRENCH EDGE (OR BORING) OF THE PROPOSED INSTALLATION TO THE O.D. OF THE EXISTING WATER MAIN AS WELL AS TO THE OUTSIDE EDGE OF ANY EXISTING FIRE HYDRANT (OR APPURTENANCE).

A MINIMUM OF 3'-0" OF CLEARANCE SHALL BE MAINTAINED FROM THE OUTSIDE EDGE OF THE PROPOSED ABOVEGROUND INSTALLATION (SUCH AS: FENCE, POLE, ETC.) TO THE OUTSIDE EDGE OF ANY FIRE HYDRANT.

MAINTAIN ACCESS TO ALL FIRE HYDRANTS WITHIN THE CONSTRUCTION AREA FOR FIRE PROTECTION, AND PROTECT ALL HYDRANTS AGAINST DAMAGE FOR THE DURATION OF THE PROJECT.

MAINTAIN A MINIMUM OF 1'-0" OF UNDISTURBED EARTH FROM THE PROPOSED INSTALLATION'S TRENCH EDGE (OR BORING) TO THE OUTSIDE EDGE OF ANY EXISTING VALVE BOX.

WHEN THE PROPOSED INSTALLATION CROSSES EXISTING WATER MAINS, THAT UTILITY SHALL BE INSTALLED PERPENDICULAR TO THE WATER MAIN, HOWEVER, EXCEPTIONS MAY BE MADE FOR ANGLES BETWEEN 90 AND 45 DEGREES.

ASSUME ALL EXISTING WATER MAINS, BRANCHES AND SERVICES ARE LIVE AND PRESSURIZED. TAKE CARE SO AS NOT TO DISRUPT SERVICE IN ANY WAY.

THE PROPOSED CONSTRUCTION WORK AND THE EQUIPMENT USED SHALL NOT AFFECT THE INTEGRITY OF THE EXISTING WATER MAINS AND APPURTENANCES. IF DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INCURRED TO RESTORE THE WATER MAIN TO ITS ORIGINAL CONDITION.

2

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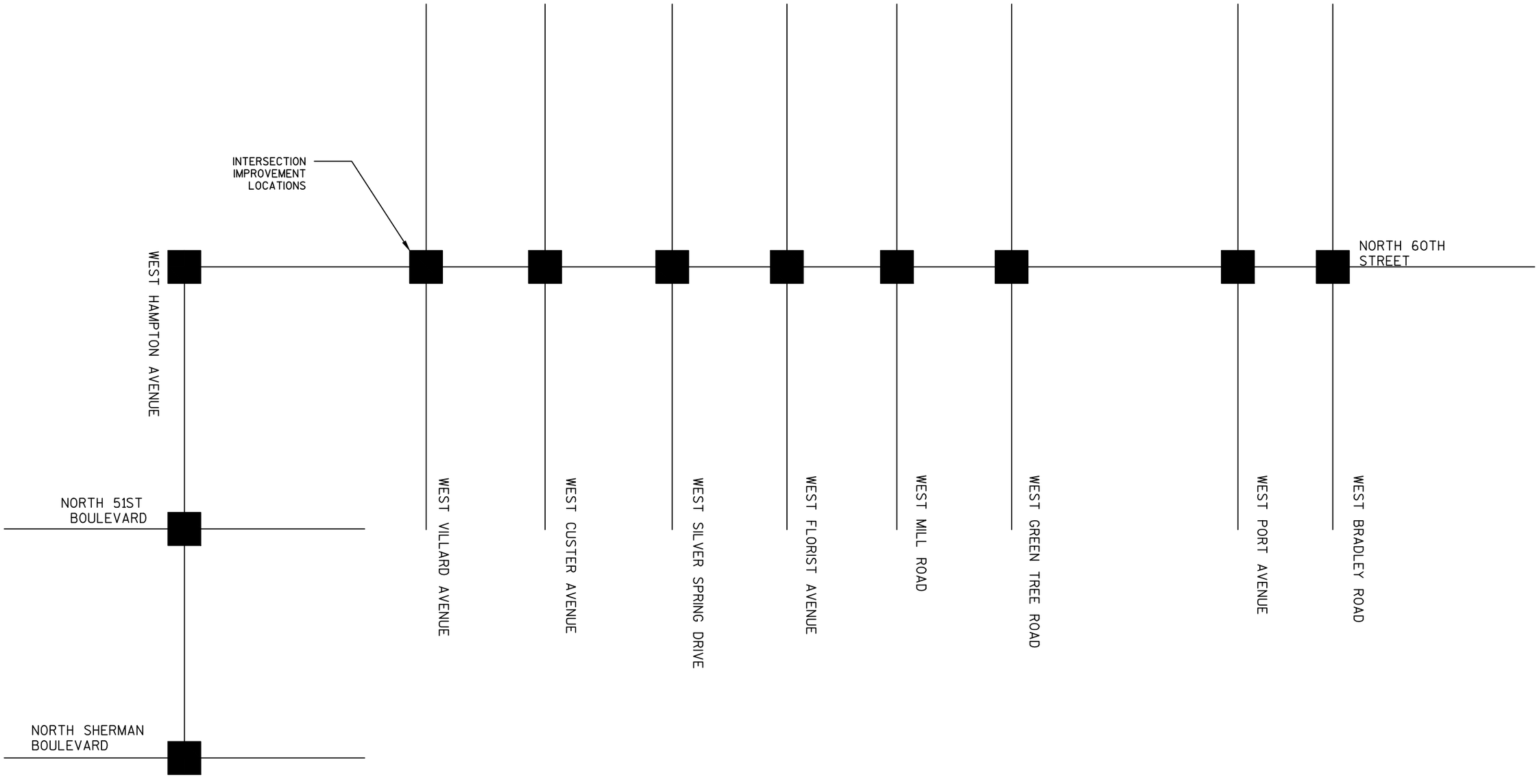


PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 4	E

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

STREET LIGHTING & TRAFFIC SIGNALS SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 EXCEPT:

THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING OR TRAFFIC SIGNAL FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING OR TRAFFIC SIGNAL DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. ANY RELOCATIONS MUST BE APPROVED BY THE ENGINEER. FIELD MARK EACH CONDUIT LOCATION BY STAMPING AND PAINTING WITH RED PAINT ON TOP AND BACKSIDE OF CURB.
3. TYPICAL CONDUIT INSTALLED UP TO DIRECT BURIED STREET LIGHT POLES IS AS FOLLOWS 3-INCH OR 2.5-INCH (AS NOTED) SCHEDULE 40 RIGID PVC TO STREET LIGHTING METAL HOUSING (PEDESTAL), THE 1.5-INCH SCHEDULE 40 RIGID PVC TO STREET LIGHT POLE CABLE SLOT, AND THE 2-INCH SCHEDULE 40 RIGID PVC TO SIGNAL STANDARD BASE AND RISER FOR TRAFFIC SIGNAL ON STREET LIGHT POLE.
4. DEPTH OF CONDUIT INSTALLED BELOW THE STREETS, HIGHWAYS, ROADS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE)
5. CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT THE BASE OF THE BACKSIDE OF THE CURB/GUTTER SECTION.
6. WHEN THERE IS MORE THAN ONE CONDUIT TO BE LAID BEHIND THE CURB, PLACE ALL CONDUITS IN THE SAME TRENCH.
7. ANY EXCEPTION TO THE MINIMUM OR MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
8. THE CONTRACTOR OR HIS SUBCONTRACTOR MUST MAKE SURE THE AREA BEHIND CURB AND/OR WITHIN TRENCH SHALL BE FREE OF DEBRIS AND OVERPOUR AND SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.
9. 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.
10. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS. (SEE NEC 352.28 2008 CODE)
11. PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED IN THE FUTURE. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.
12. ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.
13. CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX OR JUNCTION BOX OR BASE TO BASE, ETC.).
14. PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUIT.
15. 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 UNLESS OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.
16. WHEN ENDS OF CONDUIT DO NOT CONNECT TO A VAULT AND WILL END UP UNDER CONCRETE WALK. THE CONTRACTOR IS REQUIRED TO LEAVE A 24" X 24" BOX FORM CENTERED OVER THE END OF CONDUIT AND FILL THE BOXFORM WITH CRUSHED GRAVEL. (PER WISDOT SPEC 209.2.1(1) GRANULAR BACKFILL)
17. ALL PIPE CROSSINGS AND VAULTS SHALL BE AT LEAST SIX (6) FEET AWAY FROM FIRE HYDRANTS, UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.
18. ALL POLES AND TRAFFIC STANDARDS IN CONCRETE ARE REQUIRED TO HAVE A 30"X30" BOX SHAPED JOINT PLACED AROUND THEM USING AN EXPANSION JOINT FILLER. UNLESS NOTED OTHERWISE (SEE DETAIL 122)
19. TYPICAL RECTANGULAR VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.
20. COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 OR DISPATCHER @ 414-286-5944 TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 OR DISPATCHER @ 414-286-3687
21. IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL VAULT, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK. STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 STREET LIGHTING - GEORGE BERDINE (OFFICE) 414-286-5943 (CELL) 414-708-4245 STREET LIGHTING - THOMAS HUGHES (OFFICE) 414-286-3457 (CELL) 414-708-3175 STREET LIGHTING - DISPATCHER @ 414-286-5944 TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148 TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687
22. CONDUIT WILL ONLY BE INSTALLED AFTER THE CURB IS POURED, UNLESS APPROVED BY BOTH THE ENGINEER & STREET LIGHTING SHOP SUPERVISOR.

LEGEND

- LUMINARE (TO BE INSTALLED BY OTHERS)
- VAULT TO BE INSTALLED
- PVC CONDUIT
- MAST ARM
- SIGNAL HEAD LOCATION ON MAST ARM
- CONCRETE BASE TYPE 10
- CONCRETE BASE TYPE 10 SPECIAL
- CONCRETE BASE TYPE 13
- EVP DETECTOR LOCATION ON MAST ARM
- SIDEWALK REPLACEMENT

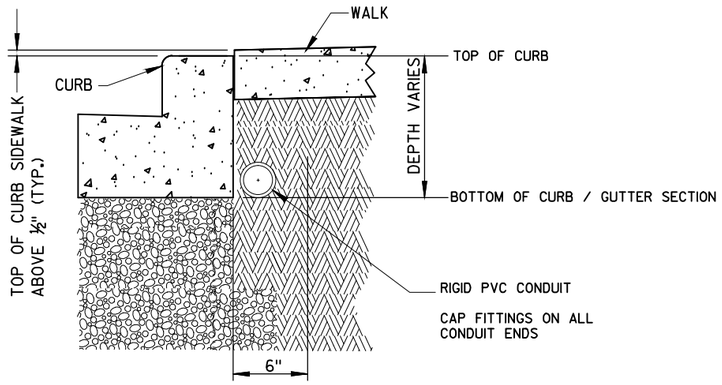
UTILITY LINE CODE

SAN	SANITARY SEWER
SS	STORM SEWER
W	WATER
G	GAS
E	ELECTRIC
C	CITY TRAFFIC, LIGHTING, COMM. & UNDERGROUND CONDUIT
OH	OVERHEAD LINE
SSS	COMBINED SEWER
TV	CABLE

OTHER UTILITIES AS NOTED

2

NOTE:
1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



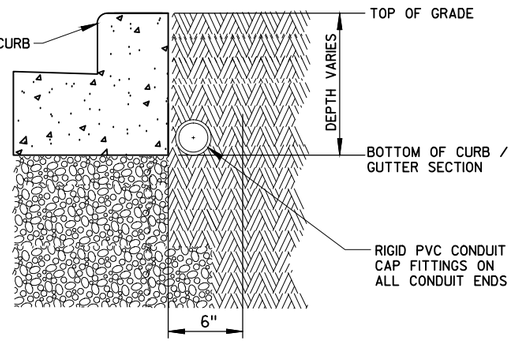
100 DETAIL "A"
TYPICAL CONDUIT INSTALLATION BEHIND CURB
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

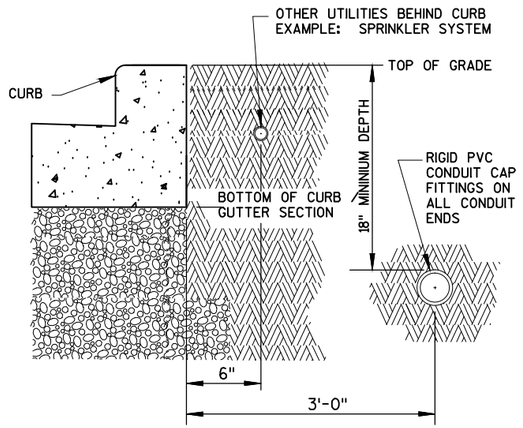
NOTE:
1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.

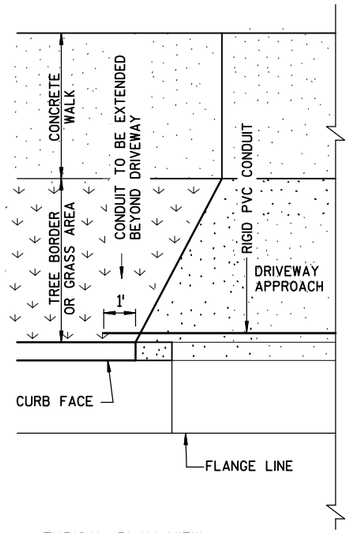


DETAIL "C"

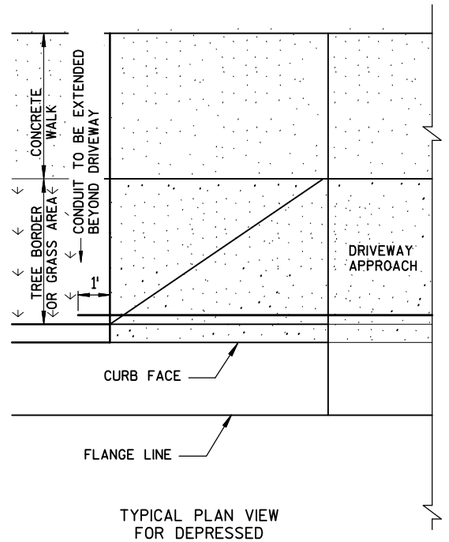


100 DETAIL "B" & "C"
TYPICAL CONDUIT INSTALLATION BEHIND CURB
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

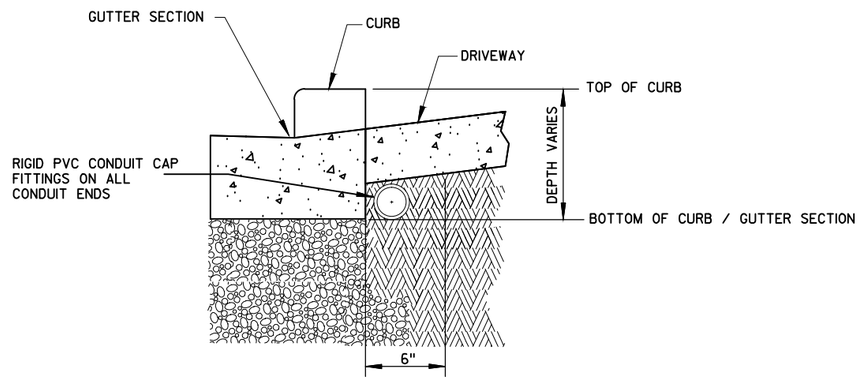


TYPICAL PLAN VIEW
FOR FLARED DRIVEWAY



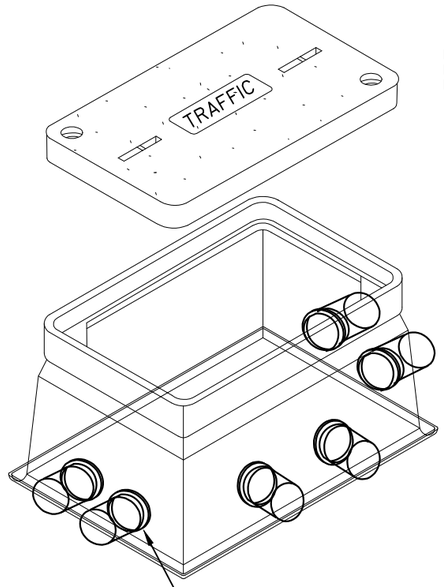
TYPICAL PLAN VIEW
FOR DEPRESSED
DRIVEWAY

NOTE:
1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.
2.) CONDUIT TO BE PLACED WITHIN A 6" AREA DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



101 DETAIL
TYPICAL CONDUIT INSTALLATION UNDER DRIVEWAYS OR PEDESTRIAN RAMPS
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

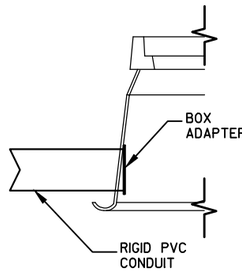


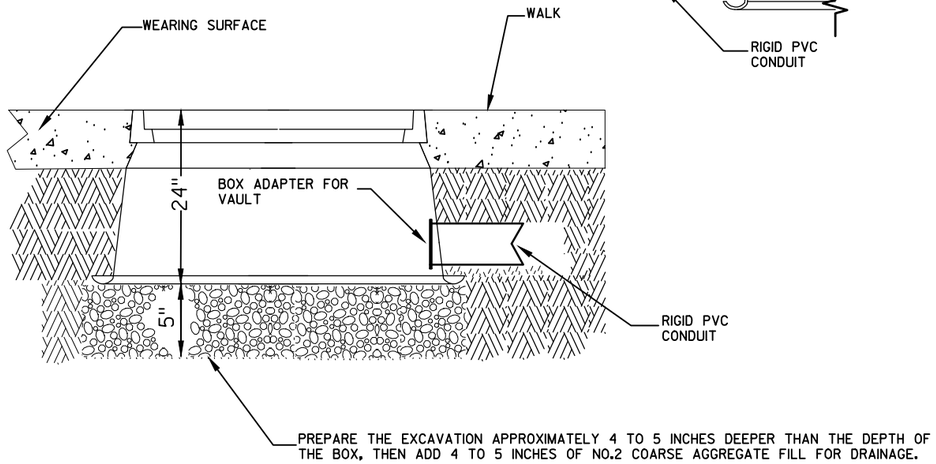
HEAVY DUTY COVER W/ ELECTRIC LOGO & W / 2 BOLTS COLOR: GRAY

ELECTRICAL VAULT FLARED WALL BOX W / NO BASE COLOR: GRAY (VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS TO ALL PVC CONDUITS

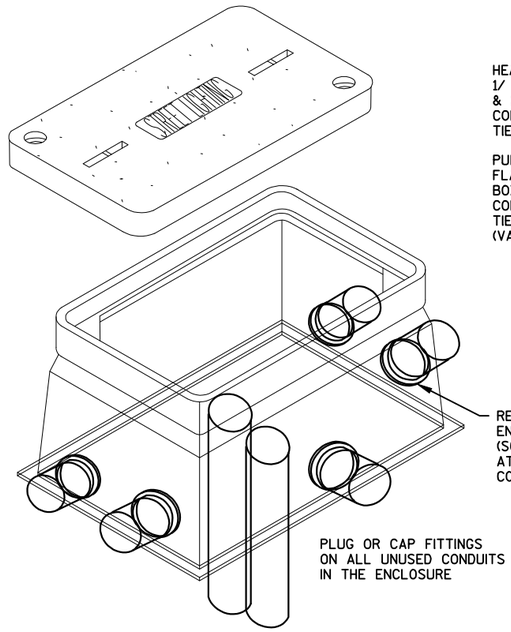




113 DETAIL
TYPICAL VAULT INSTALLATION IN SIDEWALK
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

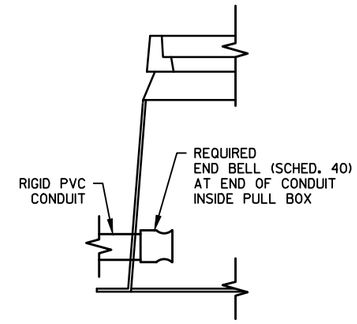


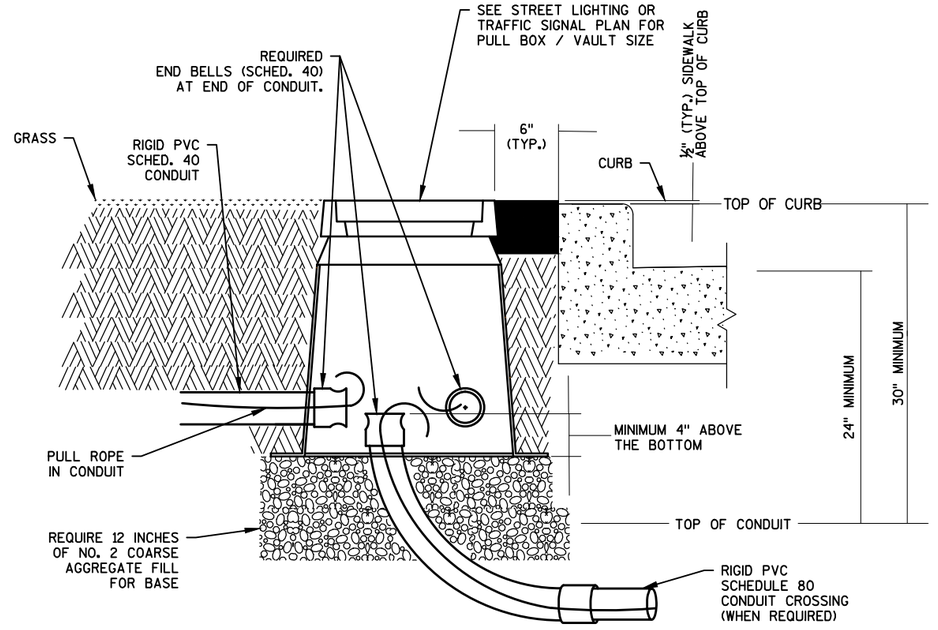
HEAVY DUTY COVER
1/ STREETLIGHTING LOGO & 2/ 2 BOLTS
COLOR: GRAY
TIER 15 RATING (MINIMUM)

PULL BOX / VAULT FLARED WALL BOX W / NO BASE
COLOR: GRAY
TIER 15 RATING (MINIMUM)
(VARIOUS SIZES)

REQUIRED END BELLS (SCHED. 40) AT END OF CONDUIT.

PLUG OR CAP FITTINGS ON ALL UNUSED CONDUITS IN THE ENCLOSURE





112 DETAIL
TYPICAL PULL BOX / VAULT INSTALLATION
IN EITHER PAVEMENT OR GRASS AREAS
NOT TO SCALE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 7	E

GENERAL NOTES

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 AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER. CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

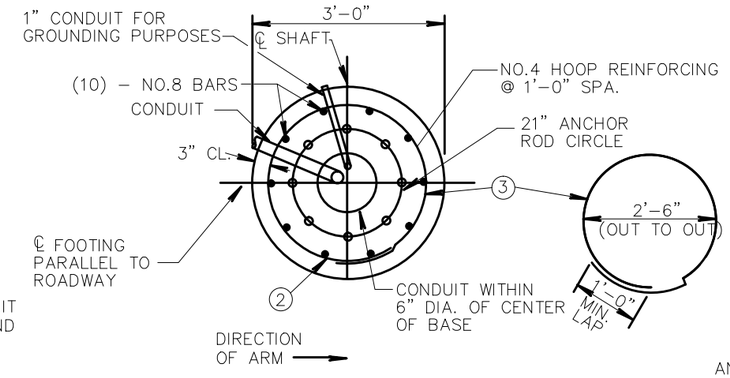
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

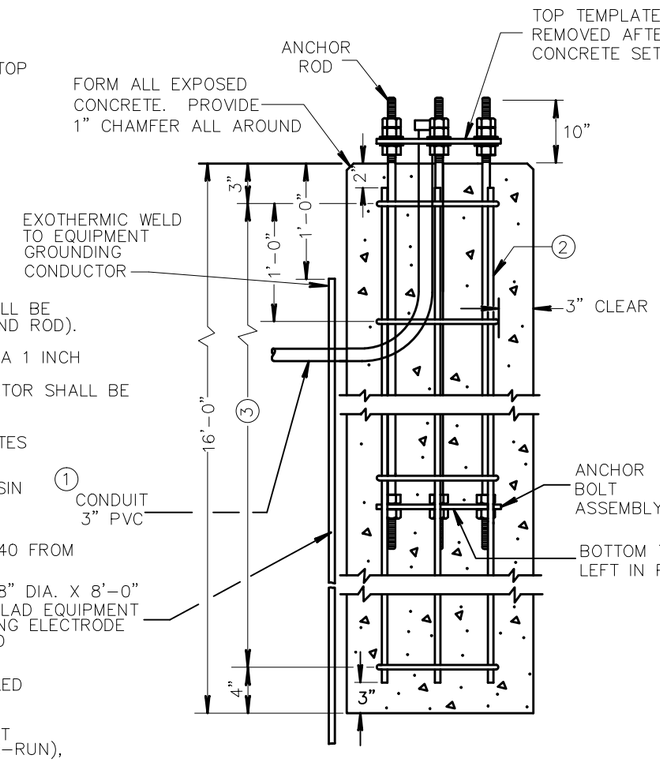
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (10) NO. 8 X 15'-7" BAR STEEL REINFORCEMENT.

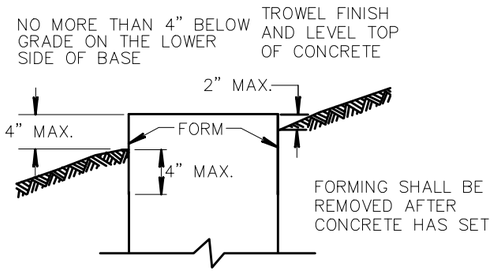
(3) (17) NO. 4 X 9'-0" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.

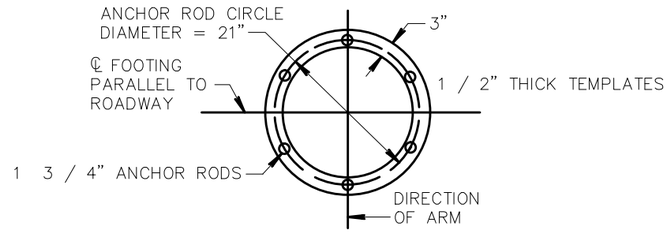




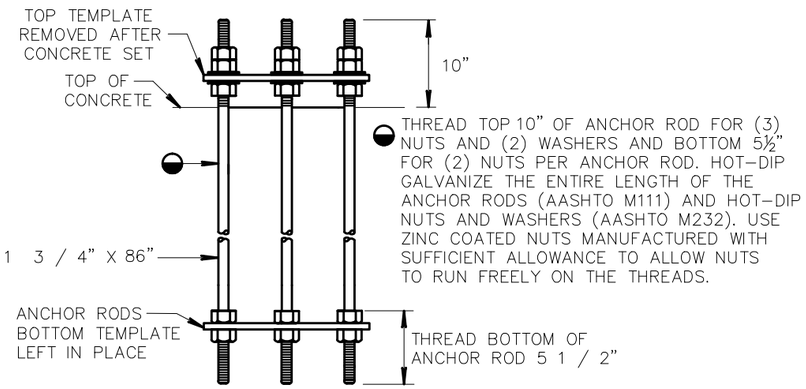
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL
ANCHOR ASSEMBLY

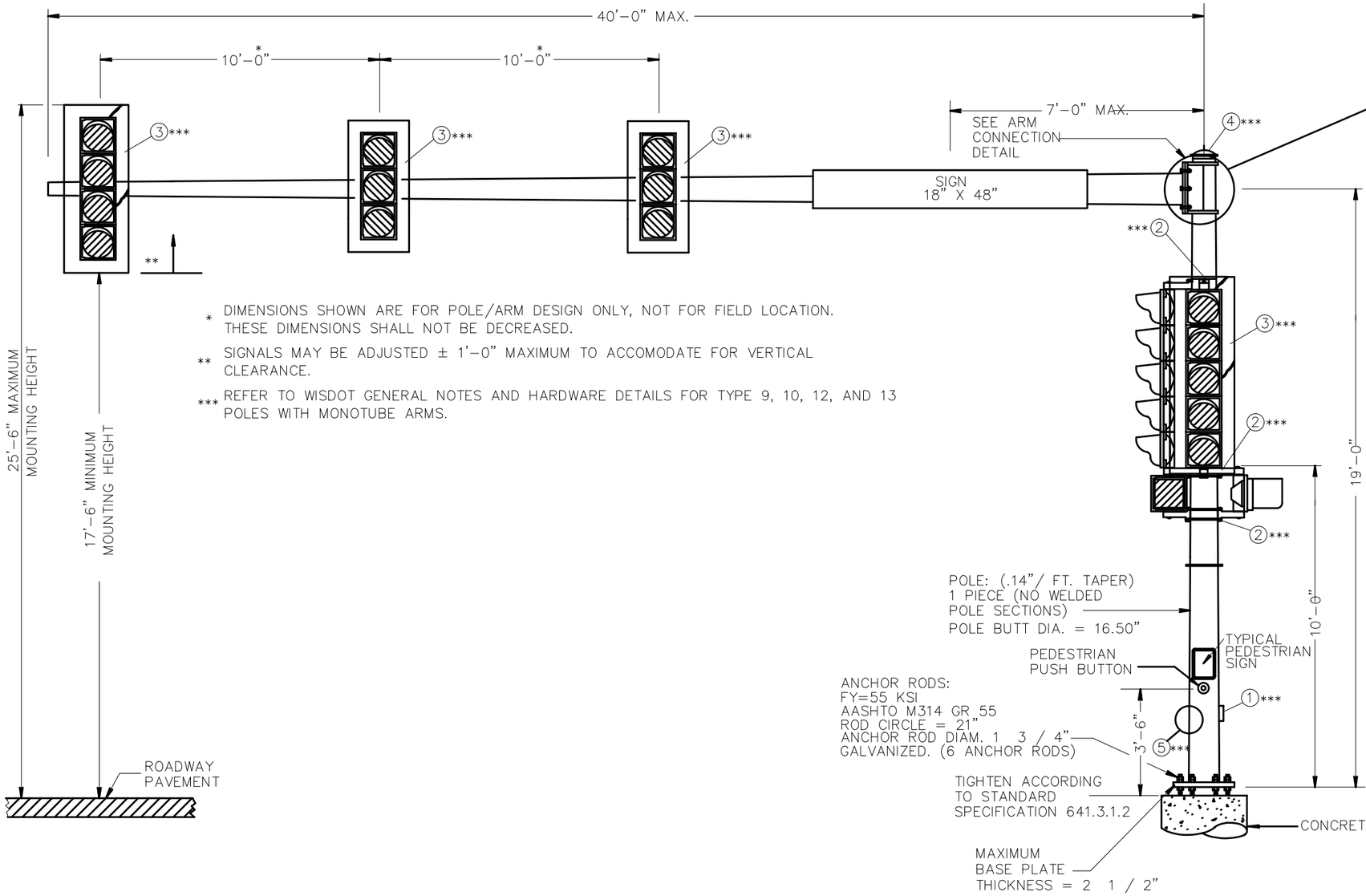
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.19
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	417

CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) — 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) — 2015 DESIGN UPDATE (REVISION)
REVISED: NOVEMBER 2015 (DATE) — ANCHOR ROD PROJECTION UPDATE (REVISION)

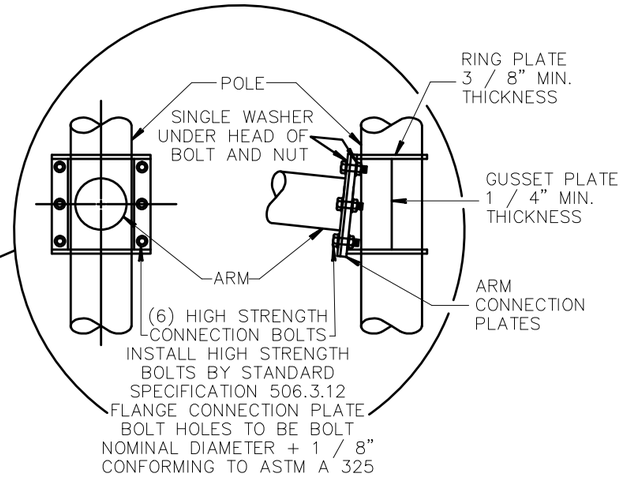
PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	CONCRETE BASE TYPE 10 SPECIAL DETAILS	SHEET 8	E



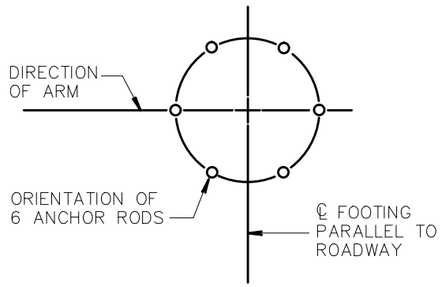
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

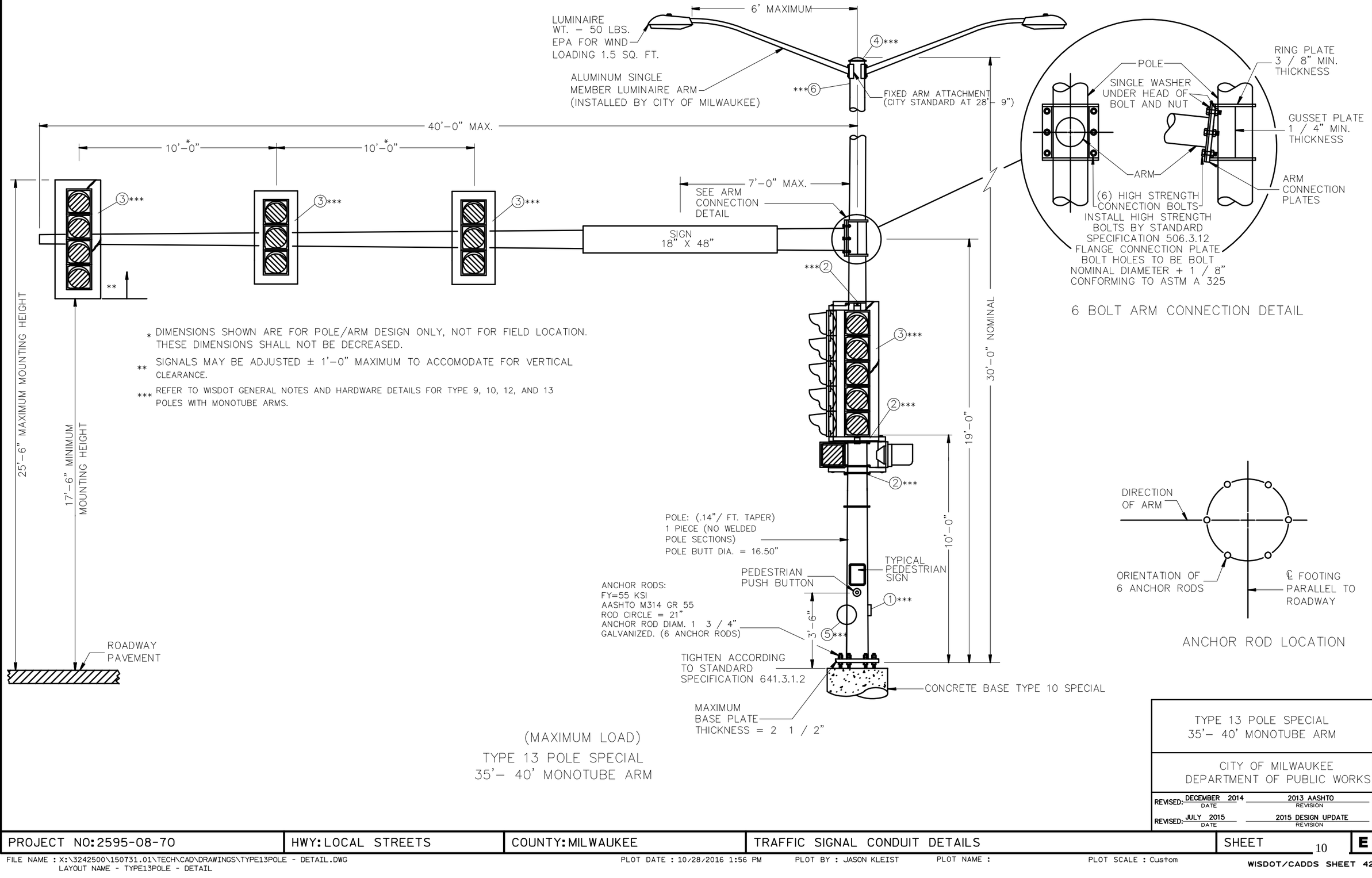
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 9	E

2



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'–0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

*** REFER TO WISDOT GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12, AND 13 POLES WITH MONOTUBE ARMS.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

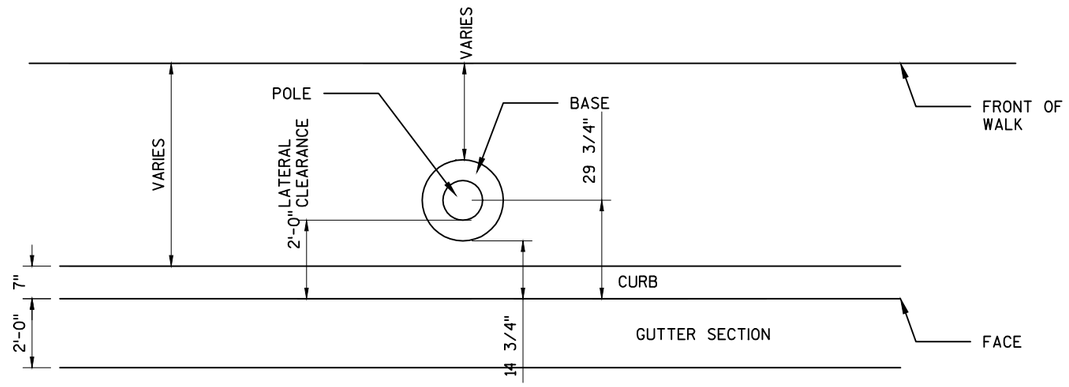
(MAXIMUM LOAD)
TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

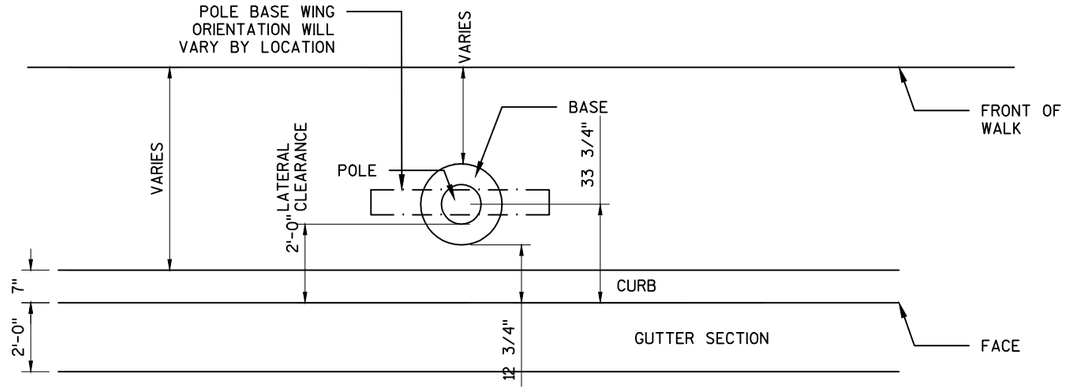
PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 10	E



MAST ARM POLE BASE INSTALLATION DETAIL

30" DIAMETER BASE
TYPE 10 BASE

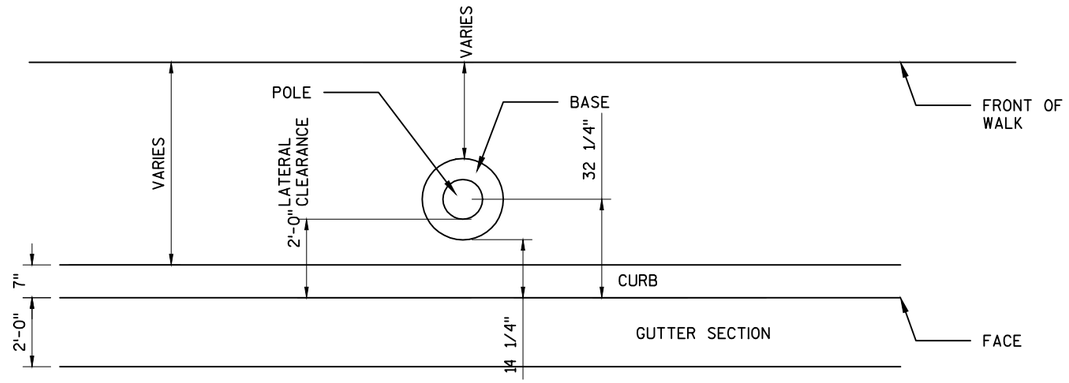
11.50" DIAMETER POLE
TYPE 9 POLE
TYPE 10 POLE
TYPE 10 SPECIAL POLE



MAST ARM POLE BASE INSTALLATION DETAIL

42" DIAMETER BASE
TYPE 13 BASE

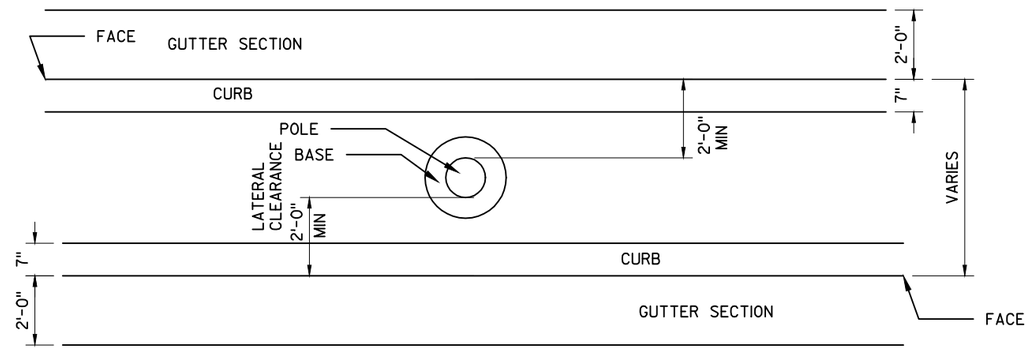
19.50" DIAMETER POLE
TYPE 12 POLE
TYPE 13 POLE



MAST ARM POLE BASE INSTALLATION DETAIL

36" DIAMETER BASE
TYPE 10 SPECIAL BASE

16.50" DIAMETER POLE
TYPE 12 SPECIAL POLE
TYPE 13 SPECIAL POLE



MAST ARM POLE BASE INSTALLATION DETAIL FOR MEDIAN

30" DIAMETER BASE
TYPE 10 BASE

11.50" DIAMETER POLE
TYPE 9 POLE
TYPE 10 POLE

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	MAST ARM POLE BASE INSTALLATION DETAIL	SHEET 11	E

2

2

S-40-1606
TYPE 13 CONCRETE BASE
TYPE 13 POLE (50' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 10' SOUTH &
14' EAST OF R/W CORNER

S-40-1607
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 14' WEST &
15' SOUTH OF R/W CORNER

S-40-1604
TYPE 13 CONCRETE BASE
TYPE 12 POLE (50' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 14' WEST &
8' NORTH OF R/W CORNER

S-40-1605
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 18' NORTH &
14' EAST OF R/W CORNER

CONNECT TO EXISTING BOX

FACE OF CURB

CAUTION

R/W

110'

19'

3'

1'

5'

10'

4'

60'

61'

2'

6'

15'

11'

NORTH 60TH STREET

WEST BRADLEY AVENUE

NOTE:
ALL VAULTS TO BE
INSTALLED ARE 13"x24"x18"

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STEET & W. BRADLEY ROAD	SHEET 12	E

2

N

S-40-1609
TYPE 10 CONCRETE BASE
TYPE 10 POLE (30' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 26' EAST &
2.5' SOUTH OF R/W CORNER

R/W

1'

5'

70'

R/W

24"

2'-6"

60'

FACE OF CURB

60'

NORTH 60TH STREET

FACE OF CURB

3'

23'

6'

1'

R/W

S-40-1608
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE
SEE ASSOCIATED DETAILS
CENTER ASE 20' WEST &
13' NORTH OF R/W CORNER

61'

60'

CAUTION

CAUTION

CAUTION

R/W

WEST PORT AVENUE

60'

CHURCH

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. PORT AVENUE	SHEET 13	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\024202_SP.DWG
LAYOUT NAME - 024202_SP - 60TH & PORT
PLOT DATE : 10/28/2016 1:57 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

2

50'

N

S-40-1611
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 1.5' EAST &
48' SOUTH OF R/W CORNER

1'
7'
5'
R/W
FACE OF CURB
CAUTION
45'
NORTH 60TH STREET
WEST GREEN TREE ROAD
75'

S-40-1610
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 1.5' WEST &
11.5' NORTH OF R/W CORNER

3'
1'

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINIARE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. GREEN TREE ROAD	SHEET 14	E

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

S-40-1614
TYPE 10 CONCRETE BASE
TYPE 9 POLE (30' ARM)
SEE ASSOCIATED DETAILS

15'
1'
5'
8'
6'
2'-6"
FACE OF CURB

CAUTION

3'
7'
6'
5'
1'
20'
S-40-1615
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
INSTALL INTO
CONTROL CABINET

N

2'-6"
12'
S-40-1612
TYPE 10 CONCRETE BASE
TYPE 10 POLE (30' ARM)
SEE ASSOCIATED DETAILS
66'
8'
20'
23'

NORTH 60TH STREET
CAUTION

FACE OF CURB
15'
1'
5'
4'
8'
3'
S-40-1613
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS

WEST MILL ROAD
SECTION LINE

LEGEND
- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. MILL ROAD	SHEET 15	E

2

2

WEST FLORIST AVENUE

#6008 N FLORIST AVE

N

R/W

R/W

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

S-40-1617
TYPE 10 CONCRETE BASE
TYPE 10 POLE (25' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 15' SOUTH &
50' WEST OF R/W CORNER

8'

2'-6"

NORTH 60TH STREET

9'

6'

R/W

S-40-1616
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 2' WEST &
18' NORTH OF R/W CORNER

6'

3'

5'

1'

R/W

#6000 N 60TH ST
CABLE MASTER

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. FLORIST AVENUE	SHEET 16	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\024205_SP.DWG
LAYOUT NAME - 024205_SP - 60TH & FLORIST

PLOT DATE : 2/1/2017 11:18 AM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

150'

155'

120'

50'

50'

55'

50'

R/W

R/W

R/W

NORTH 60TH STREET

WEST SILVER SPRING AVENUE

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

CAUTION

S-40-1620
TYPE 10 CONCRETE BASE
TYPE 9 POLE (30' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 8' WEST &
8' SOUTH OF R/W CORNER

1'
6'
4'
2'-6"

CONNECT TO EXISTING BOX

COLORED AND STAMPED

S-40-1621
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 13' WEST & 7.5'
SOUTH OF R/W CORNER

REFERENCED R/W CORNER

6'
3'
5'
1'

S-40-1619
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8.5' NORTH &
15' EAST OF R/W CORNER

1'
6'
5'
3'

S-40-1618
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8' WEST &
10' NORTH OF R/W CORNER

3'
6'
6'
1'

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH ST. & W. SILVER SPRING AVE.	SHEET 17	E

S-40-1623
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (40' ARM)
(INSTALL ARM AT ANGLE)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8' SOUTH & 5.5'
EAST OF R/W CORNER

N

R/W

R/W

5'

3'

8'

25.1°

60'

45'

50'

45'

50'

50'

NORTH 60TH STREET

CAUTION

CAUTION

CAUTION

8'

5'

3'

6'

R/W

R/W

S-40-1622
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 8' WEST &
40' NORTH OF R/W CORNER

R=40'

WEST CUSTER AVENUE

59'

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. CUSTER AVENUE	SHEET 18	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\024207_SP.DWG
LAYOUT NAME - 024207_SP - 60TH & CUSTER

PLOT DATE : 10/28/2016 1:57 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20FT

2

2

90'

WEST VILLARD AVENUE

N

S-40-1625
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 9' EAST
& 3' SOUTH OF R/W CORNER

R/W

1'
5'
6'
3'

CAUTION

45'

NORTH 60TH STREET

S-40-1624
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 9' NORTH
& 9' WEST OF R/W CORNER

11'

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - N. 60TH STREET & W. VILLARD AVENUE	SHEET 19	E

HISTORIC MILWAUKEE COUNTY PARK LAND

S-40-1628
TYPE 10 SPECIAL CONCRETE BASE
TYPE 13 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 19' EAST &
10' SOUTH OF R/W CORNER

TIE INTO EXISTING VAULT

S-40-1629
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8' SOUTH & 4'
WEST OF R/W CORNER

N

PROTECT IRON FENCE

S-40-1627
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 3' NORTH &
7.5' EAST OF R/W CORNER

GAS CONFLICT

S-40-1626
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 21' WEST &
25' NORTH OF R/W CORNER

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

NORTH 60TH STREET

WEST HAMPTON AVENUE

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - W. HAMPTON AVENUE & N. 60TH STREET	SHEET 20	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\024209_SP.DWG
LAYOUT NAME - 024209_SP - 60TH & HAMPTON

PLOT DATE : 10/28/2016 1:57 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

2

S-40-1632
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8' SOUTH &
7' WEST OF R/W CORNER

S-40-1633
TYPE 10 CONCRETE BASE
TYPE 10 POLE (25' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 6' NORTH
& 36' WEST OF R/W CORNER

N

R/W

114'

1'

5'

6'

3'

9.7'

5'

2'-6"

CAUTION

55'

WEST HAMPTON AVENUE

SAW CUT

6'

2'-6"

S-40-1631
TYPE 10 CONCRETE BASE
TYPE 9 POLE (25' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 35' EAST
& 7' SOUTH OF R/W CORNER

NORTH 51ST BLVD

3'

6'

5'

1'

GAS CONFLICT

S-40-1630
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (35' ARM)
SEE ASSOCIATED DETAILS
CENTER OF BASE 8' NORTH & 22'
WEST OF R/W CORNER

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - W. HAMPTON AVE. & N. 51ST BLVD	SHEET 21	E

2

2

NORTH SHERMAN BLVD

125'

N

CAUTION

S-40-1634
TYPE 10 SPECIAL CONCRETE BASE
TYPE 12 SPECIAL POLE (40' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 15' WEST &
8' NORTH OF R/W CORNER

3'
6'
7'
6'

R/W

R/W

S-40-1637
TYPE 10 CONCRETE BASE
TYPE 10 POLE (30' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 50' SOUTH &
9' WEST OF R/W CORNER

55'

55'

11'

4'
7'
2'-6"

WEST HAMPTON AVENUE

2'-6"
7'

S-40-1635
TYPE 10 CONCRETE BASE
TYPE 10 POLE (30' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 49' NORTH
& 5.5' EAST OF R/W CORNER

6'
2'-6"
120'

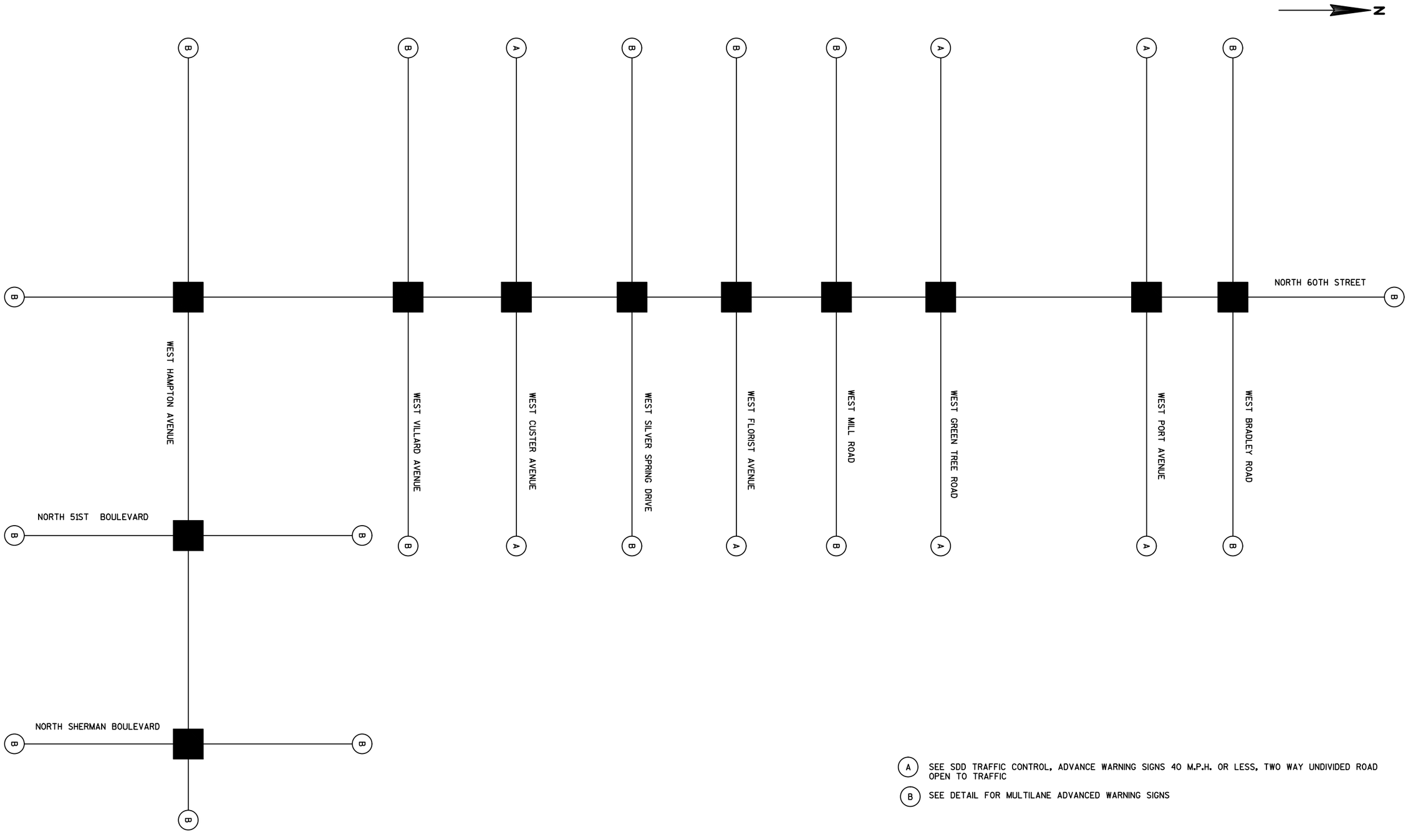
S-40-1636
TYPE 10 CONCRETE BASE
TYPE 10 POLE (30' ARM)
SEE ASSOCIATED DETAILS
CENTER OF POLE 52.5' EAST &
12' SOUTH OF R/W CORNER

NOTE:
ALL VAULTS TO BE INSTALLED ARE 13"x24"x18"
SEE INSTALLATION DETAILS FOR POLES PLACED
ADJACENT TO CURB AND GUTTER

LEGEND

- TYPE 10 BASE
- TYPE 10 SPECIAL BASE
- TYPE 13 BASE
- EVP DETECTOR
- LUMINAIRE (TO BE INSTALLED BY OTHERS)
- VAULT
- REMOVE AND REPLACE SIDEWALK

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN - W. HAMPTON AVE. & N. SHERMAN BLVD.	SHEET 22	E



PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SHEET 23	E

2

PEDESTRIAN TRAFFIC CONTROL NOTES:

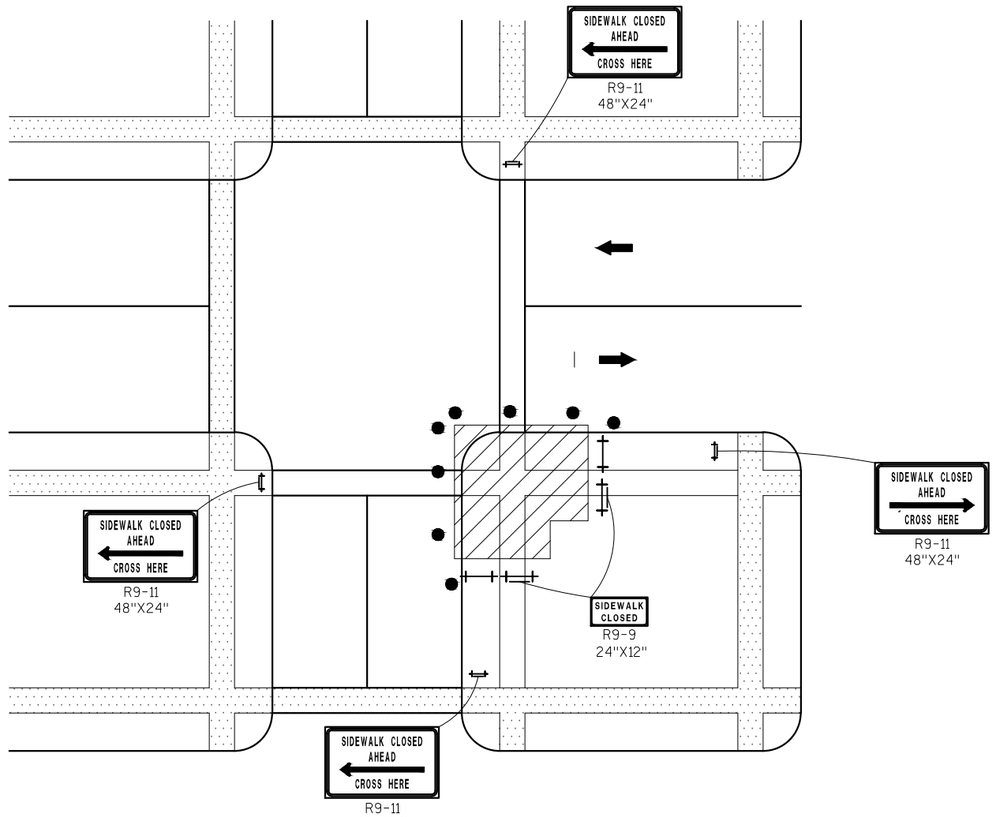
GENERAL

ALL PEDESTRIAN TRAFFIC CONTROL MUST BE PLACED PRIOR TO THE START OF ANY SIDEWALK WORK FOR EACH STAGE.

TEMPORARY OR PERMANENT ACCOMMODATIONS MUST BE PLACED AT ANY AREA OF SIDEWALK REMOVALS BEFORE ANOTHER AREA OF REMOVALS MAY BEGIN.

PEDESTRIAN ACCOMMODATIONS MUST BE PROVIDED TO ALL RESIDENCES AND BUSINESS USING EXISTING, NEWLY CONSTRUCTED OR TEMPORARY ACCOMMODATIONS DURING ALL STAGES OF CONSTRUCTION.

A SIGNED PEDESTRIAN DETOUR TO ROUTE PEDESTRIAN TRAFFIC AROUND THE WORK ZONE IS SHOWN ON THE FOLLOWING CONSTRUCTION STAGING PEDESTRIAN RAMPS SHEETS. FOR PEDESTRIANS WITH TRIPS STARTING OR ENDING INSIDE THE WORK ZONE, NO SIGNED DETOUR IS PLANNED. AREAS UNAVAILABLE TO PEDESTRIANS DURING CONSTRUCTION WILL BE SIGNED AND MARKED AS SHOWN IN THE 'CORNER SIDEWALK CLOSURE WITH NO TEMPORARY CROSSWALK' DETAIL.

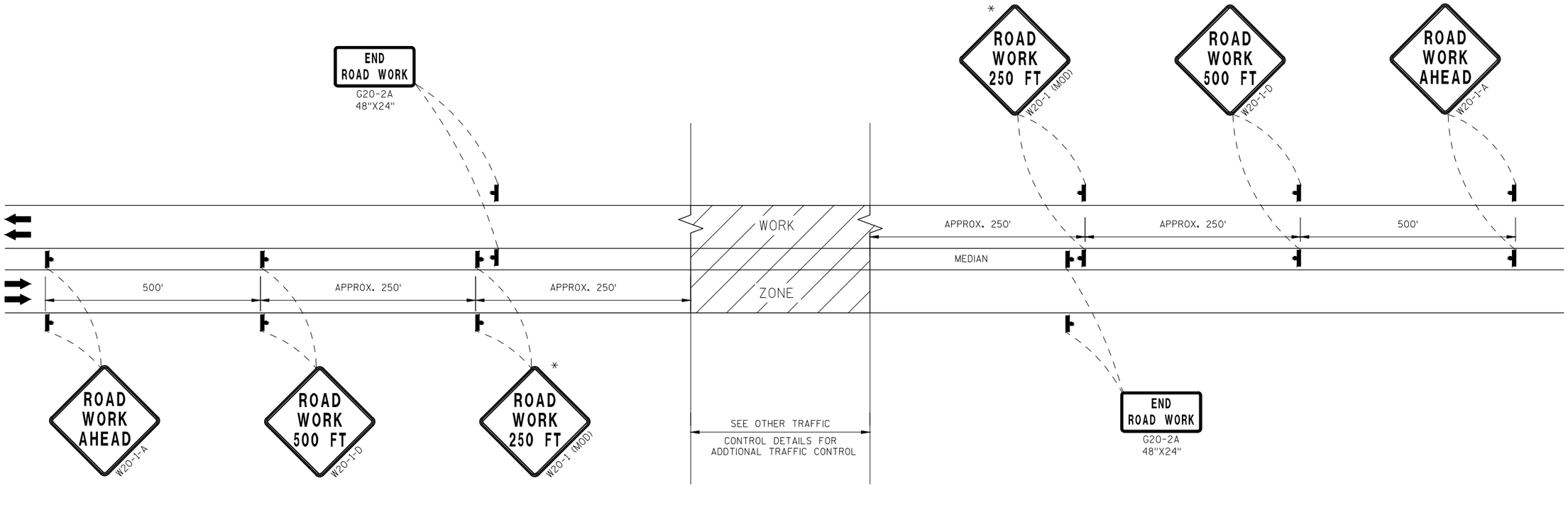


CORNER SIDEWALK CLOSURE WITH NO TEMPORARY CROSSWALK

LEGEND

- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- 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)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DRUM

PROJECT NO:2595-08-70	HWY:NORTH 60TH STREET	COUNTY:MILWAUKEE	TRAFFIC CONTROL PEDESTRIAN NOTES	SHEET 24	E



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

LEGEND

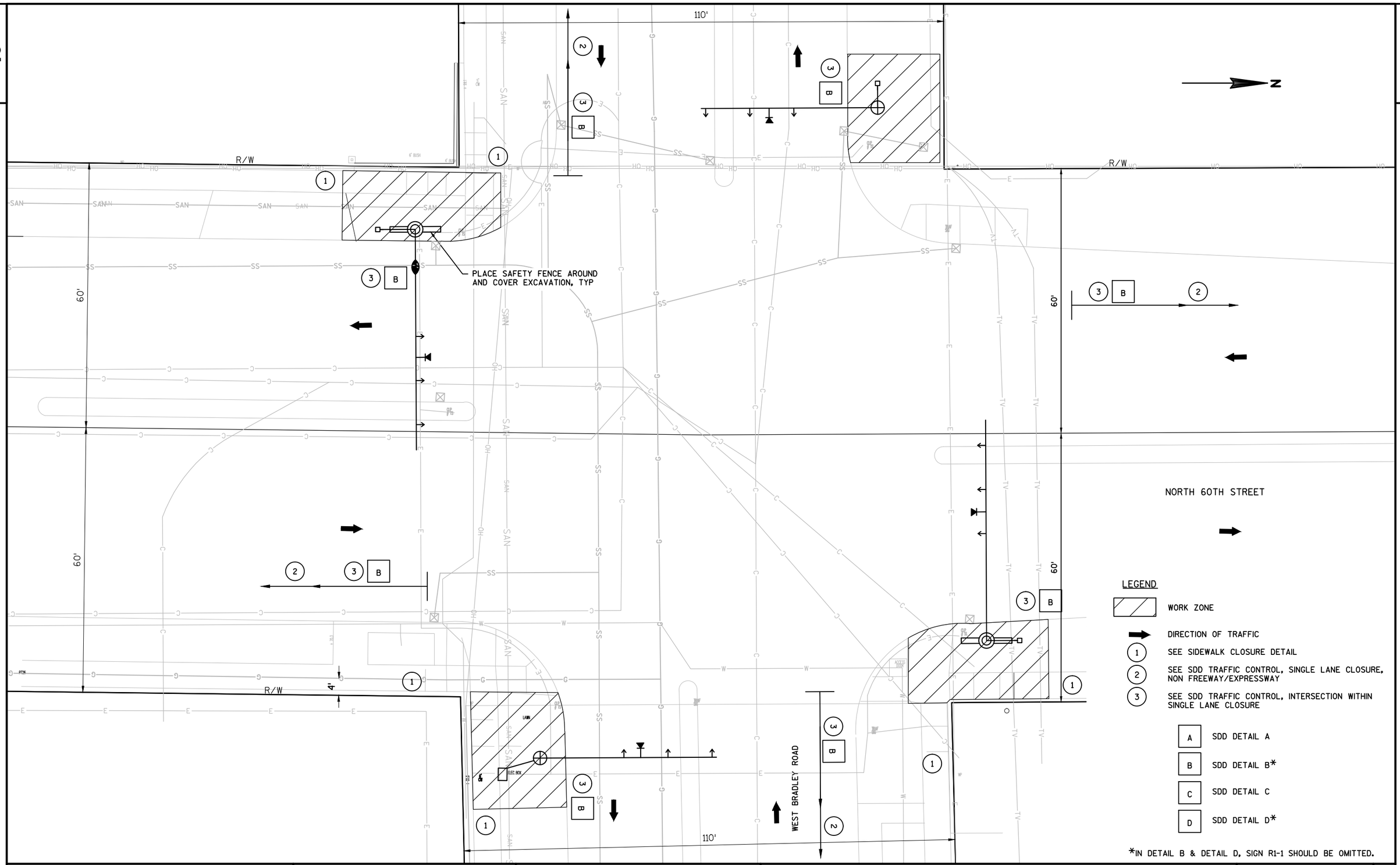
SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK ZONE

PROJECT NO: 2595-08-70	HWY: NORTH 60TH STREET	COUNTY: MILWAUKEE	DETAIL FOR MULTILANE ADVANCED WARNING SIGNS	SHEET 25	E

2



PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH STREET & W. BRADLEY ROAD	SHEET 26	E

2

N

R/W

70'

R/W

60'

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION, TYP.

3 B

3 B

2

2

3 B

3 B

60'

61'

60'

NORTH 60TH STREET

WEST PORT AVENUE

60'

R/W

R/W

LEGEND

WORK ZONE

DIRECTION OF TRAFFIC

1 SEE SIDEWALK CLOSURE DETAIL

2 SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY

3 SEE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

A SDD DETAIL A

B SDD DETAIL B*

C SDD DETAIL C

D SDD DETAIL D*

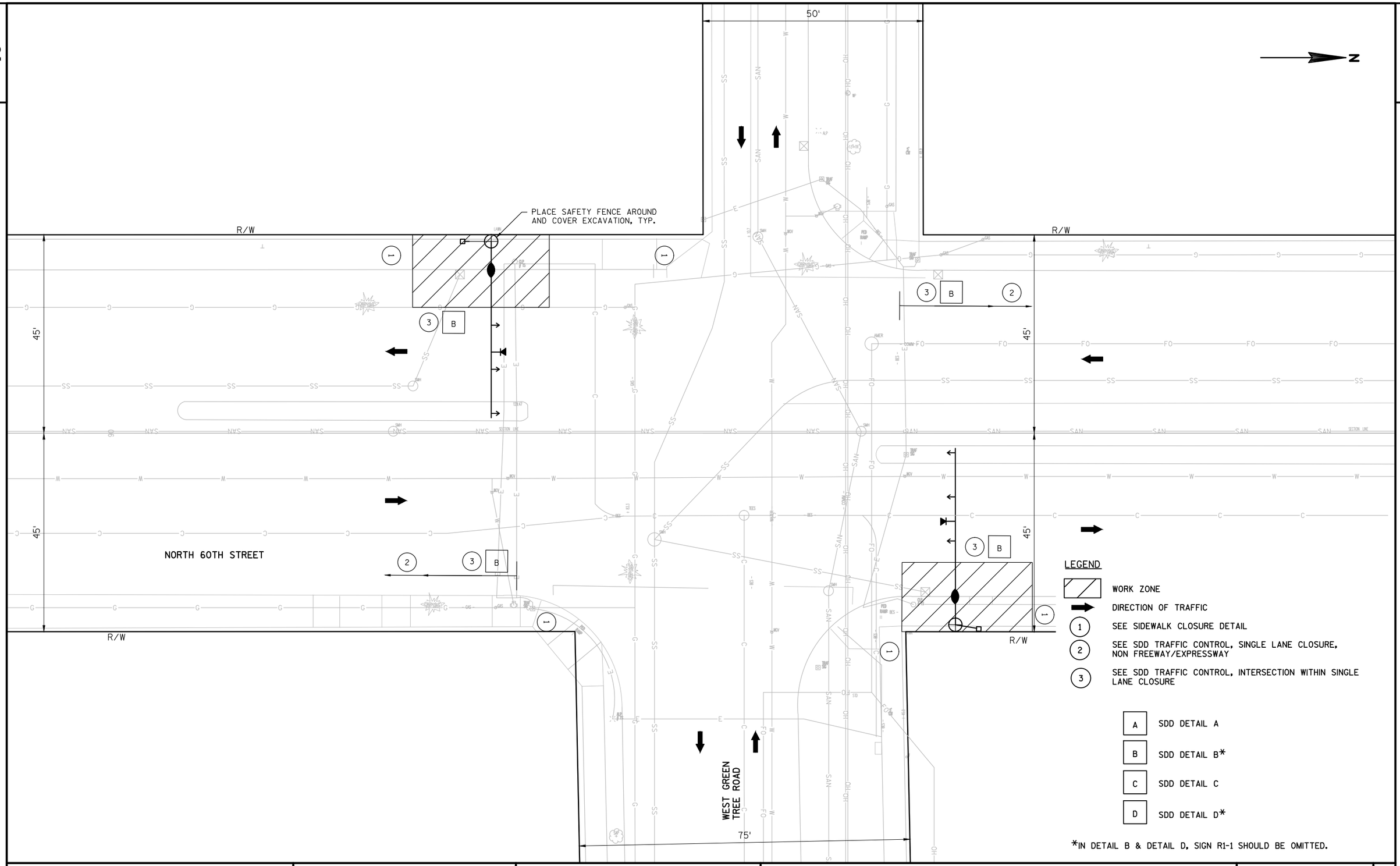
*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH STREET & W. PORT AVENUE	SHEET 27	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025005_TC-60TH & PORT.DWG
LAYOUT NAME - 025005_TC-60TH & PORT - 60TH & PORT

PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42



2

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH ST. & W. GREEN TREE RD.	SHEET 28	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025006_TC-60TH & GREEN TREE.DWG
LAYOUT NAME - 025006_TC-60TH & GREEN TREE
PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION, TYP.

NORTH 60TH STREET

WEST MILL ROAD

SECTION LINE

N

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SEE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

- A SDD DETAIL A
- B SDD DETAIL B*
- C SDD DETAIL C
- D SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH STREET & W. MILL ROAD	SHEET 29	E

2

WEST FLORIST AVENUE

#6008 N FLORIST AVE

R/W

R/W

R/W

R/W

NORTH 60TH STREET

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION, TYP.

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SEE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

A	SDD DETAIL A
B	SDD DETAIL B*
C	SDD DETAIL C
D	SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH STREET & W. FLORIST AVENUE	SHEET 30	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025008_TC - 60TH & FLORIST.DWG
LAYOUT NAME - 025008_TC - 60TH & FLORIST

PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

150'

155'

120'

R/W

R/W

R/W

50'

50'

55'

50'

50'

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION, TYP.

NORTH 60TH STREET

WEST SILVER SPRING AVENUE

N

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SEE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
- A SDD DETAIL A
- B SDD DETAIL B*
- C SDD DETAIL C
- D SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH ST. & W. SILVER SPRING AVE.	SHEET 31	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025009_TC - 60TH & SILVER SPRING.DWG
LAYOUT NAME - 025009_TC - 60TH & SILVER SPRING
PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

PLACE FENCE AROUND AND COVER EXCAVATION, TYP.

R/W

60'

45'

50'

NORTH 60TH STREET

WEST CUSTER AVENUE

59'

LINCOLN CREEK

DRAINAGE EASEMENT

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SEE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
- [A] SDD DETAIL A
- [B] SDD DETAIL B*
- [C] SDD DETAIL C
- [D] SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH ST. & W. CUSTER AVE.	SHEET 32 E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025010_TC - 60TH & CUSTER.DWG
LAYOUT NAME - 025010_TC - 60TH & CUSTER

PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20FT

2

2

90'

W. VILLARD AVE.

N

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION. TYP.

R/W

R/W

N. 60TH ST.

NORTH 60TH STREET

45'

90'

R/W

R/W

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

- A SDD DETAIL A
- B SDD DETAIL B*
- C SDD DETAIL C
- D SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO: 2595-08-70	HWY: LOCAL STREETS	COUNTY: MILWAUKEE	TRAFFIC CONTROL PLAN - N. 60TH ST. & W. VILLARD AVE.	SHEET 33	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025011_TC - 60TH & VILLARD.DWG
LAYOUT NAME - 025011_TC - 60TH & VILLARD

PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

R/W

55'

45'

PLACE SAFETY FENCE AROUND AND COVER EXCAVATION, TYP.

55'

R/W

N

NORTH 60TH STREET

61'

100'

R/W

55'

WEST HAMPTON AVENUE

55'

R/W

LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) SE SDD TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

- [A] SDD DETAIL A
- [B] SDD DETAIL B*
- [C] SDD DETAIL C
- [D] SDD DETAIL D*

*IN DETAIL B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - W. HAMPTON AVENUE & N. 60TH STREET	SHEET 34	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025012_TC - 60TH & HAMPTON.DWG
LAYOUT NAME - 025012_TC - 60TH & HAMPTON

PLOT DATE : 10/28/2016 1:58 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

N

R/W

R/W

114'

16'

16'

55'

PLACE SAFETY FENCE AROUND
AND COVER EXCAVATION, TYP.

WEST HAMPTON AVENUE

NORTH 51ST BLVD

16'

16'

114'

55'

R/W

R/W

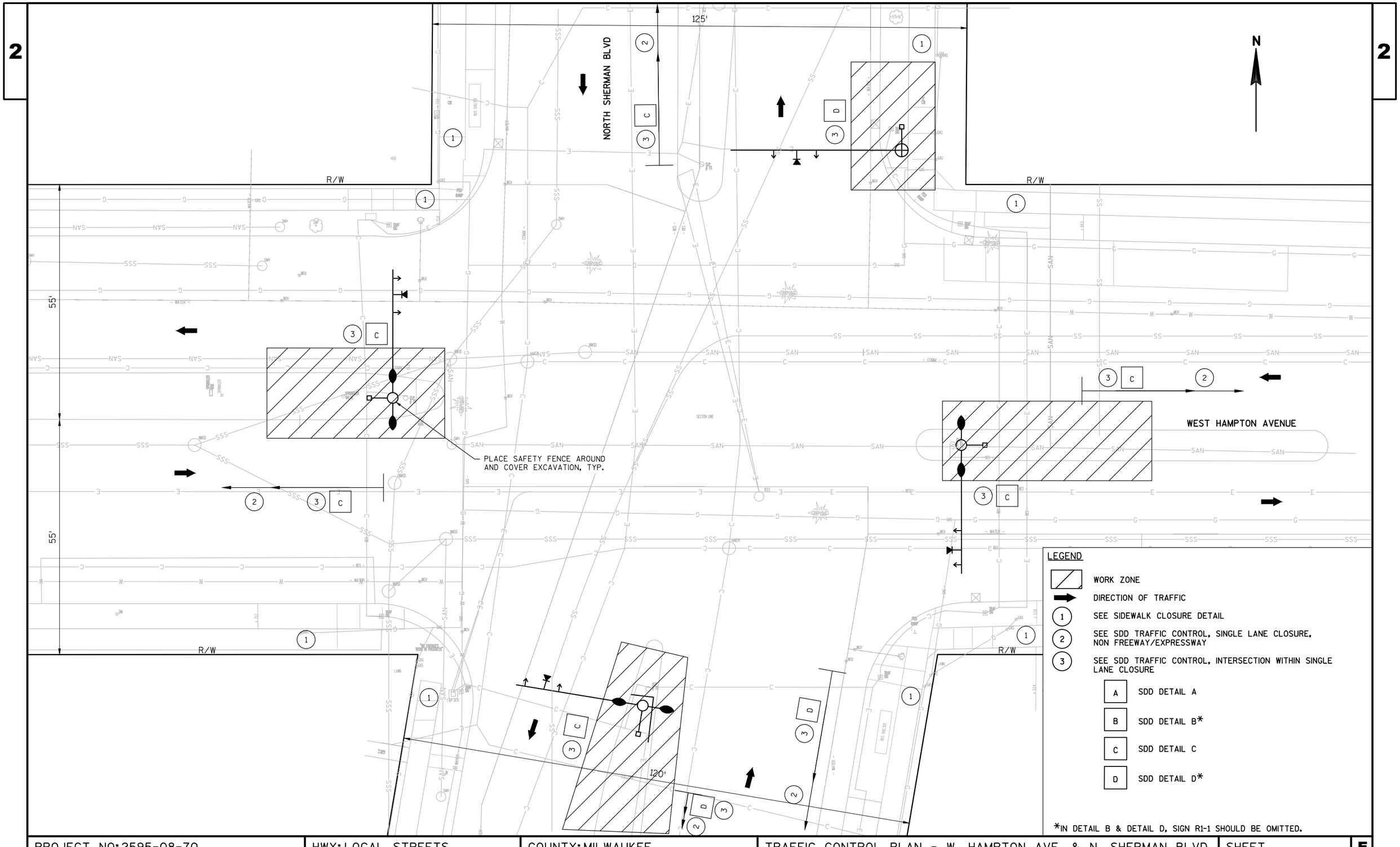
LEGEND

- WORK ZONE
- DIRECTION OF TRAFFIC
- (1) SEE SIDEWALK CLOSURE DETAIL
- (2) SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
- (3) TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
- [A] SDD DETAIL A
- [B] SDD DETAIL B*
- [C] SDD DETAIL C
- [D] SDD DETAIL D*

*IN DETAILS B & DETAIL D, SIGN R1-1 SHOULD BE OMITTED.

PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - W. HAMPTON AVE & N. 51ST BLVD	SHEET 35	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025013_TC - HAMPTON & 51ST.DWG
LAYOUT NAME - 025013_TC - HAMPTON & 51ST
PLOT DATE : 10/28/2016 1:59 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



PROJECT NO:2595-08-70	HWY:LOCAL STREETS	COUNTY:MILWAUKEE	TRAFFIC CONTROL PLAN - W. HAMPTON AVE. & N. SHERMAN BLVD.	SHEET 36	E

FILE NAME : X:\3242500\150731.01\TECH\CAD\DRAWINGS\025014_TC - HAMPTON & SHERMAN.DWG
LAYOUT NAME - 025014_TC - HAMPTON & SHERMAN
PLOT DATE : 10/28/2016 1:59 PM PLOT BY : JASON KLEIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

2595-08-70

Line	Item	Item Description	Unit	Total	Qty
0060	204.0155	Removing Concrete Sidewalk	SY	131.000	131.000
0150	213.0100	Finishing Roadway (project) 03. 2595-08-70	EACH	1.000	1.000
0190	405.1000	Stamping Colored Concrete	CY	1.250	1.250
0310	602.0410	Concrete Sidewalk 5-Inch	SF	1,185.000	1,185.000
0410	616.0700.S	Fence Safety	LF	1,360.000	1,360.000
0420	619.1000	Mobilization	EACH	0.250	0.250
0460	625.0100	Topsoil	SY	200.000	200.000
0470	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0480	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0500	628.7010	Inlet Protection Type B	EACH	16.000	16.000
0530	629.0210	Fertilizer Type B	CWT	0.130	0.130
0540	631.1000	Sod Lawn	SY	200.000	200.000
0830	642.5401	Field Office Type D	EACH	0.100	0.100
0860	643.0100	Traffic Control (project) 03. 2595-08-70	EACH	1.000	1.000
0870	643.0300	Traffic Control Drums	DAY	19,180.000	19,180.000
0880	643.0410	Traffic Control Barricades Type II	DAY	1,040.000	1,040.000
0890	643.0420	Traffic Control Barricades Type III	DAY	2,280.000	2,280.000
0920	643.0705	Traffic Control Warning Lights Type A	DAY	2,490.000	2,490.000
0930	643.0715	Traffic Control Warning Lights Type C	DAY	3,170.000	3,170.000
0940	643.0800	Traffic Control Arrow Boards	DAY	380.000	380.000
0950	643.0900	Traffic Control Signs	DAY	6,330.000	6,330.000
1160	650.8500	Construction Staking Electrical Installations (project) 03. 2595-08-70	LS	1.000	1.000
1190	650.9910	Construction Staking Supplemental Control (project) 03. 2595-08-70	LS	1.000	1.000
1220	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	249.000	249.000
1280	654.0110	Concrete Bases Type 10	EACH	10.000	10.000
1290	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
1300	655.0250	Cable Traffic Signal 9-14 AWG	LF	5,644.000	5,644.000
1370	690.0250	Sawing Concrete	LF	248.000	248.000
1440	SPV.0060	Special 01. Concrete Base Type 10 Special	EACH	22.000	22.000
1460	SPV.0060	Special 03. Monotube Arm 25-Ft	EACH	3.000	3.000
1470	SPV.0060	Special 04. Monotube Arm 30-Ft	EACH	7.000	7.000
1480	SPV.0060	Special 05. Monotube Arm 35-Ft	EACH	10.000	10.000
1490	SPV.0060	Special 06. Monotube Arm 40-Ft	EACH	12.000	12.000
1510	SPV.0060	Special 08. Monotube Arm 50-Ft	EACH	2.000	2.000
1530	SPV.0060	Special 10. Pole Type 9	EACH	4.000	4.000
1540	SPV.0060	Special 11. Pole Type 10	EACH	6.000	6.000
1550	SPV.0060	Special 12. Pole Type 12	EACH	1.000	1.000
1560	SPV.0060	Special 13. Pole Type 12 Special	EACH	15.000	15.000

2595-08-70

Line	Item	Item Description	Unit	Total	Qty
1570	SPV.0060	Special 14. Pole Type 13	EACH	1.000	1.000
1580	SPV.0060	Special 15. Pole Type 13 Special	EACH	7.000	7.000
1590	SPV.0060	Special 16. Fiberglass/Polymer Concrete Pull Box 13" x 24" x 24"	EACH	30.000	30.000
1610	SPV.0060	Special 18. Utility Line Opening (ULO)	EACH	15.000	15.000

3

CONCRETE SIDEWALK

LOCATION	204.0155 REMOVING CONCRETE SIDEWALK (SY)	405.1000 STAMPING COLORED CONCRETE (CY)	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	690.0250 SAWING CONCRETE (LF)
NORTH 60TH STREET AND WEST BRADLEY ROAD				
NORTH 60TH STREET AND WEST PORT AVENUE				
NORTH 60TH STREET AND WEST GREEN TREE	12		103	24
NORTH 60TH STREET AND WEST MILL ROAD	14		128	33
NORTH 60TH STREET AND WEST FLORIST AVENUE	8		92	14
NORTH 60TH STREET AND WEST SILVER SPRING	16	1.25	142	26
NORTH 60TH STREET AND WEST CUSTER AVENUE				
NORTH 60TH STREET AND WEST VILLARD AVENUE	10		89	43
NORTH 60TH STREET AND WEST HAMPTON	16		147	22
WEST HAMPTON AVENUE AND NORTH 51ST	27		242	35
WEST HAMPTON AVENUE AND NORTH SHERMAN	16		142	28
UNDISTRIBUTED	12		100	23
TOTAL	131	1.25	1,185	248

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY (LF)
NORTH 60TH STREET AND WEST BRADLEY ROAD	160
NORTH 60TH STREET AND WEST PORT AVENUE	80
NORTH 60TH STREET AND WEST GREEN TREE ROAD	80
NORTH 60TH STREET AND WEST MILL ROAD	160
NORTH 60TH STREET AND WEST FLORIST AVENUE	80
NORTH 60TH STREET AND WEST SILVER SPRING DRIVE	160
NORTH 60TH STREET AND WEST CUSTER AVENUE	80
NORTH 60TH STREET AND WEST VILLARD AVENUE	80
NORTH 60TH STREET AND WEST HAMPTON AVENUE	160
WEST HAMPTON AVENUE AND NORTH 51ST BOULEVARD	160
WEST HAMPTON AVENUE AND NORTH SHERMAN BOULEVARD	160
TOTAL	1,360

EROSION CONTROL SUMMARY

LOCATION	625.0100 TOPSOIL (SY)	631.1000 SOD LAWN (SY)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)	628.7010 INLET PROTECTION TYPE B (EACH)	629.0210 FERTILIZER TYPE B (CWT)
NORTH 60TH STREET AND WEST BRADLEY ROAD	30	30			4	0.02
NORTH 60TH STREET AND WEST PORT AVENUE	15	15			1	0.01
NORTH 60TH STREET AND WEST GREEN TREE ROAD	15	15			2	0.01
NORTH 60TH STREET AND WEST MILL ROAD	22.5	22.5			2	0.01
NORTH 60TH STREET AND WEST FLORIST AVENUE	7.5	7.5			1	0.00
NORTH 60TH STREET AND WEST SILVER SPRING DRIVE	22.5	22.5				0.01
NORTH 60TH STREET AND WEST CUSTER AVENUE	15	15			3	0.01
NORTH 60TH STREET AND WEST VILLARD AVENUE					1	
NORTH 60TH STREET AND WEST HAMPTON AVENUE	30	30			1	0.02
WEST HAMPTON AVENUE AND NORTH 51ST BOULEVARD	7.5	7.5				0.00
WEST HAMPTON AVENUE AND NORTH SHERMAN	15	15			1	0.01
UNDISTRIBUTED	20	20	2	2		0.01
TOTAL	200	200	2	2	16	0.13

TRAFFIC CONTROL SUMMARY

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS (DAY)	643.0410 TRAFFIC CONTROL BARRICADES TYPE II (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (DAY)	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C (DAY)	643.0800 TRAFFIC CONTROL ARROW BOARDS (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)
NORTH 60TH STREET AND WEST BRADLEY ROAD	10	1760	160	320	320	320	40	680
NORTH 60TH STREET AND WEST PORT AVENUE	10	880	80	160	80	180	20	350
NORTH 60TH STREET AND WEST GREEN TREE ROAD	10	880	80	160	80	180	20	350
NORTH 60TH STREET AND WEST MILL ROAD	10	2500	120	290	220	330	50	810
NORTH 60TH STREET AND WEST FLORIST AVENUE	10	1740		110	110	270	30	460
NORTH 60TH STREET AND WEST SILVER SPRING DRIVE	10	2080	160	300	300	360	40	710
NORTH 60TH STREET AND WEST CUSTER AVENUE	10	960	80	140	220	180	20	350
NORTH 60TH STREET AND WEST VILLARD AVENUE	10	960	80	140	220	180	20	350
NORTH 60TH STREET AND WEST HAMPTON AVENUE	10	2040	160	280	440	360	40	810
WEST HAMPTON AVENUE AND NORTH 51ST BOULEVARD	10	2200	80	200	280	360	40	640
WEST HAMPTON AVENUE AND NORTH SHERMAN	10	3180	40	180	220	450	60	820
TOTAL		19,180	1,040	2,280	2,490	3,170	380	6,330

***All quantities shown are associated with Group 0010 Roadway Items unless otherwise noted**

MONOTUBE AND BASE SUMMARY

LOCATION	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH (LF)	654.0110 CONCRETE BASES TYPE 10 (EACH)	654.0113 CONCRETE BASES TYPE 13 (EACH)	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG (LF)	SPV.0060.01 CONCRETE BASES TYPE 10 SPECIAL (EACH)	SPV.0060.03 MONOTUBE ARMS 25-FT (EACH)	SPV.0060.04 MONOTUBE ARMS 30-FT (EACH)	SPV.0060.05 MONOTUBE ARMS 35-FT (EACH)	SPV.0060.06 MONOTUBE ARMS 40-FT (EACH)	SPV.0060.08 MONOTUBE ARMS 50-FT (EACH)	SPV.0060.10 POLES TYPE 9 (EACH)	SPV.0060.11 POLES TYPE 10 (EACH)	SPV.0060.12 POLES TYPE 12 (EACH)	SPV.0060.13 POLES TYPE 12 SPECIAL (EACH)	SPV.0060.14 POLES TYPE 13 (EACH)	SPV.0060.15 POLES TYPE 13 SPECIAL (EACH)	SPV.0060.16 RECTANGULAR POLYMER CONCRETE VAULT 13-INCH x 24-INCH x 18-INCH (EACH)	SPV.0060.18 UTILITY LINE OPENING (ULO) (EACH)
NORTH 60TH STREET AND WEST BRADLEY ROAD	33		2	884	2				2	2			1	1	1	1	4	2
NORTH 60TH STREET AND WEST PORT AVENUE	15	1		322	1		1		1			1				1	1	1
NORTH 60TH STREET AND WEST GREEN TREE	14			422	2				2							2	2	
NORTH 60TH STREET AND WEST MILL ROAD	31	2		588	2		2	2			1	1		2			3	
NORTH 60TH STREET AND WEST FLORIST AVENUE	13	1		297	1	1		1				1				1	2	
NORTH 60TH STREET AND WEST SILVER SPRING	31	1		682	3		1	2	1		1			2		1	3	3
NORTH 60TH STREET AND WEST CUSTER AVENUE	15			299	2			1	1					2			2	1
NORTH 60TH STREET AND WEST VILLARD AVENUE	14			394	2			1	1							2	2	1
NORTH 60TH STREET AND WEST HAMPTON	30			608	4			1	3					3		1	3	2
WEST HAMPTON AVENUE AND NORTH 51ST	24	2		556	2	2		2			1	1		2			4	2
WEST HAMPTON AVENUE AND NORTH SHERMAN	29	3		592	1		3		1			3		1			4	3
TOTAL	249	10	2	5,644	22	3	7	10	12	2	3	7	1	13	1	9	30	15

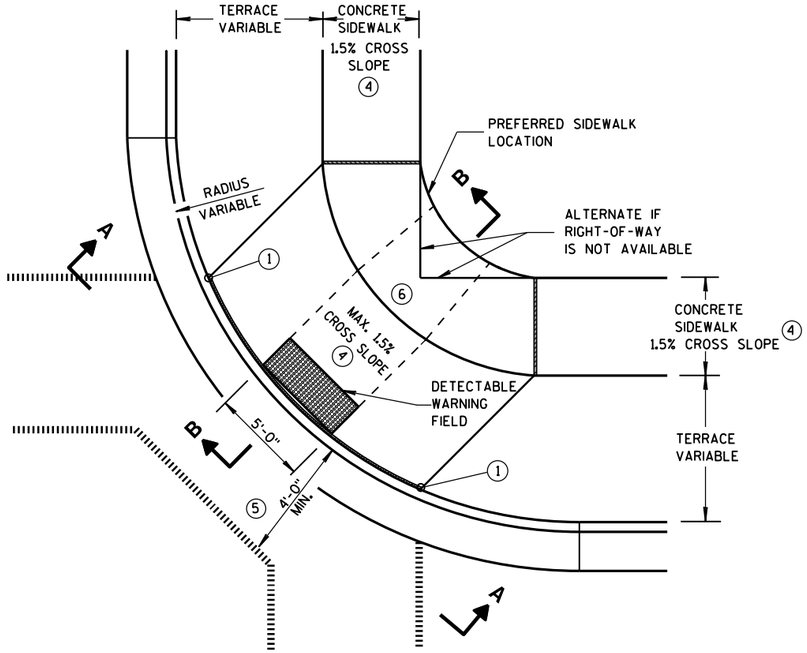
CONSTRUCTION STAKING SUMMARY

STATION - STATION	LOCATION	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 2595-08-70 (PROJECT)	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 2595-08-70 (PROJECT)
PROJECT		1	1
	TOTAL	1	1

***All quantities shown are associated with Group 0010 – Roadway Items unless otherwise noted**

Standard Detail Drawing List

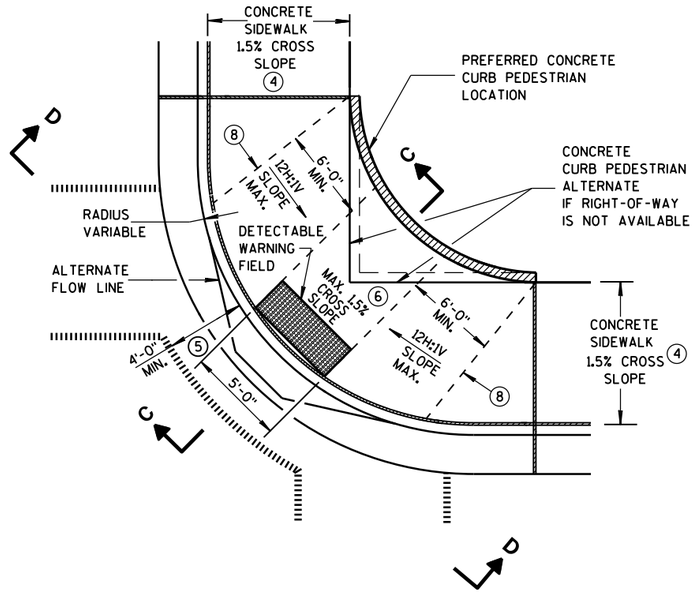
08D05-17A	CURB RAMPS TYPES 1 AND 1-A
08D05-17B	CURB RAMPS TYPES 2 AND 3
08D05-17C	CURB RAMPS TYPES 4A AND 4A1
08D05-17D	CURB RAMPS TYPE 4B AND 4B1
08D05-17E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09C11-09	CONCRETE BASE TYPE 10
09C12-08A	CONCRETE BASE TYPE 13
09C12-08B	CONCRETE BASE TYPE 13
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-08C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE



PLAN VIEW

TYPE 1 RAMP

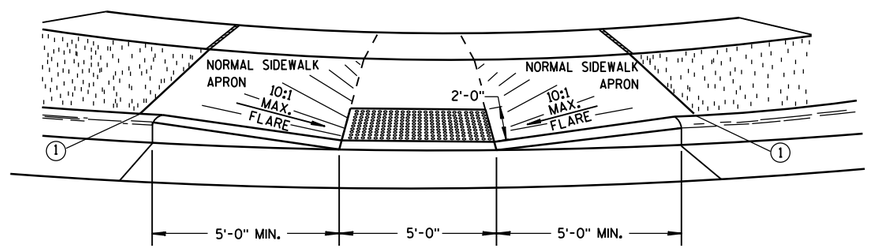
(CENTER OF CORNER RADIUS)



PLAN VIEW

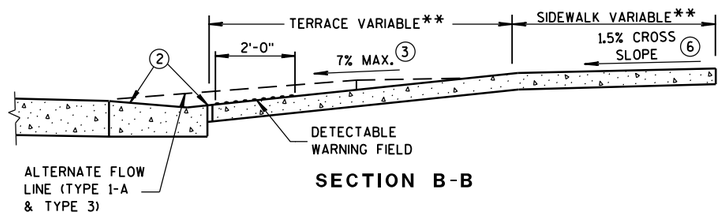
TYPE 1-A RAMP

(NO TERRACE)

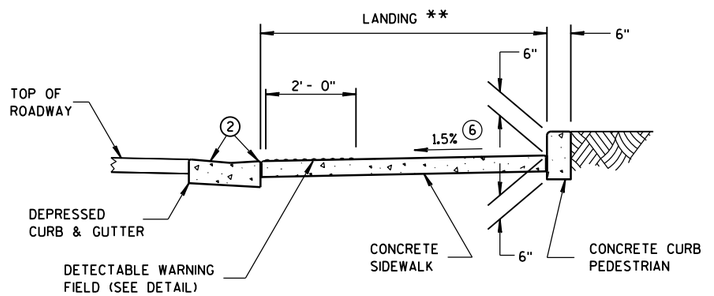


VIEW A-A

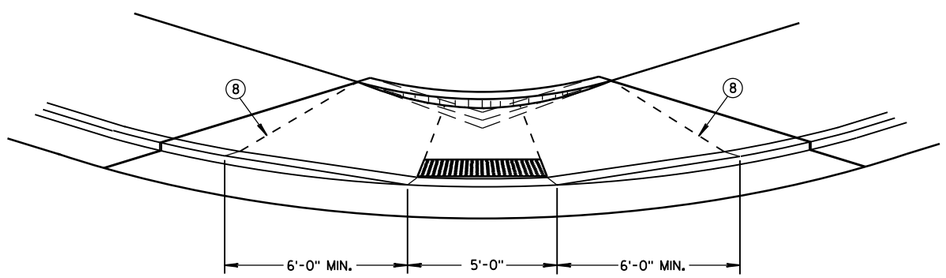
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

TYPE 1 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 LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

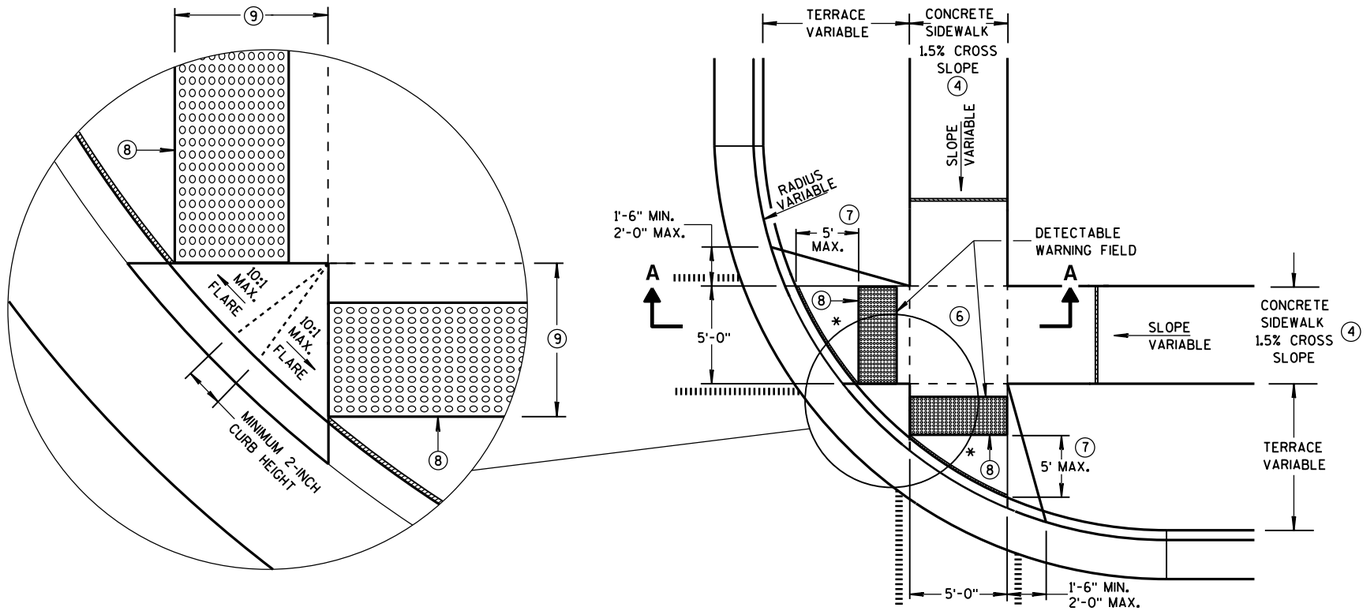
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-17a

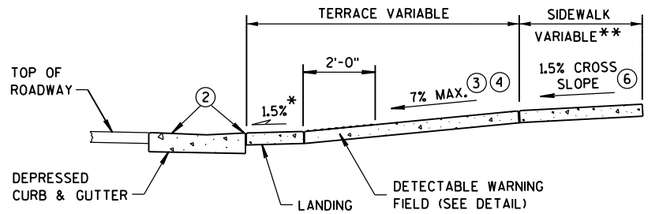


PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)

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



SECTION A-A

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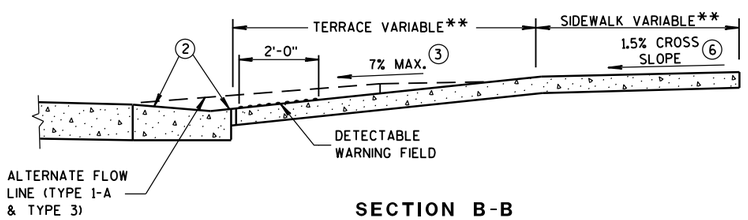


SECTION B-B

GENERAL NOTES

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 NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

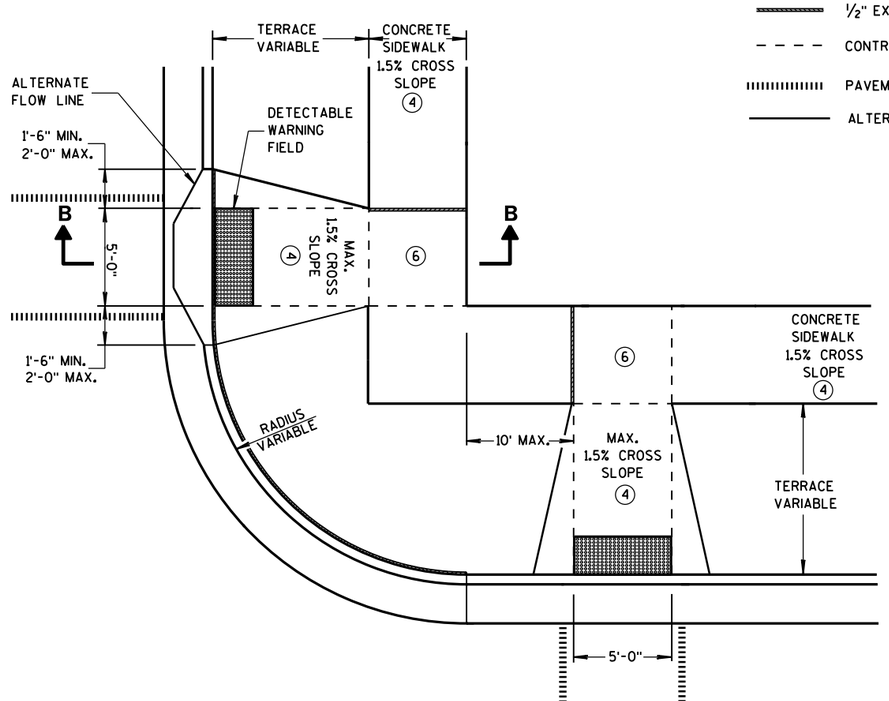
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS 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.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

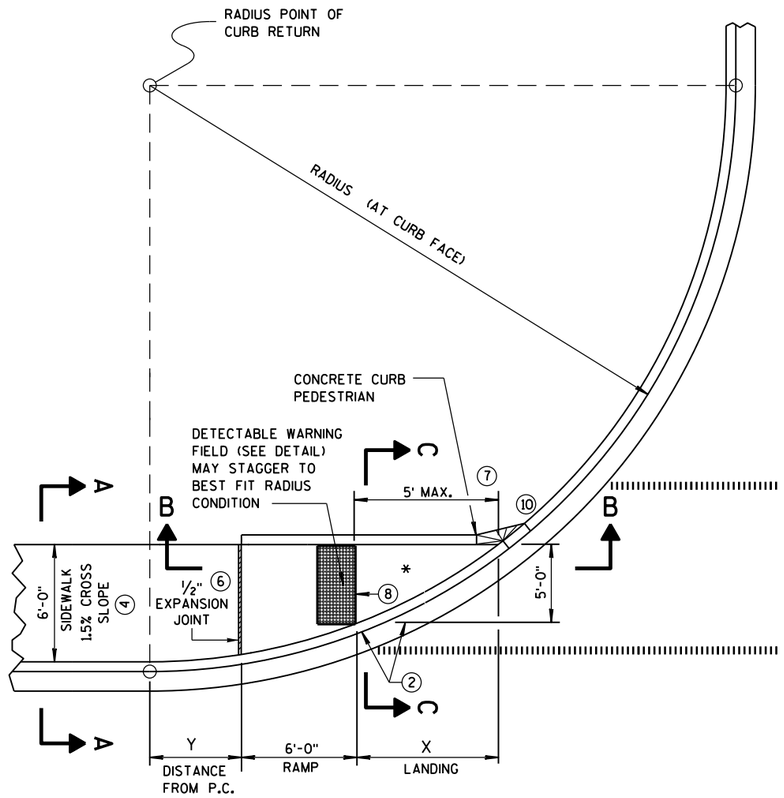
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

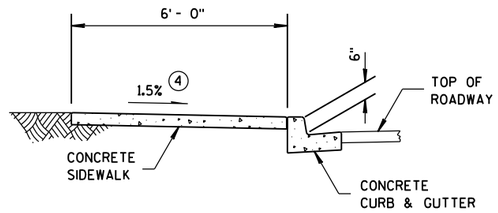
S.D.D. 8 D 5-17b



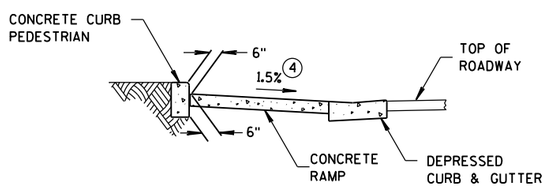
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

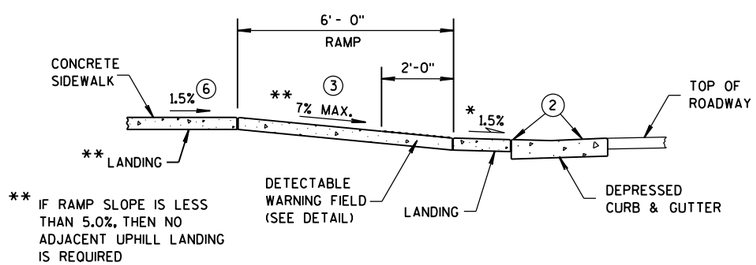
INTERMEDIATE RADII CAN BE INTERPOLATED



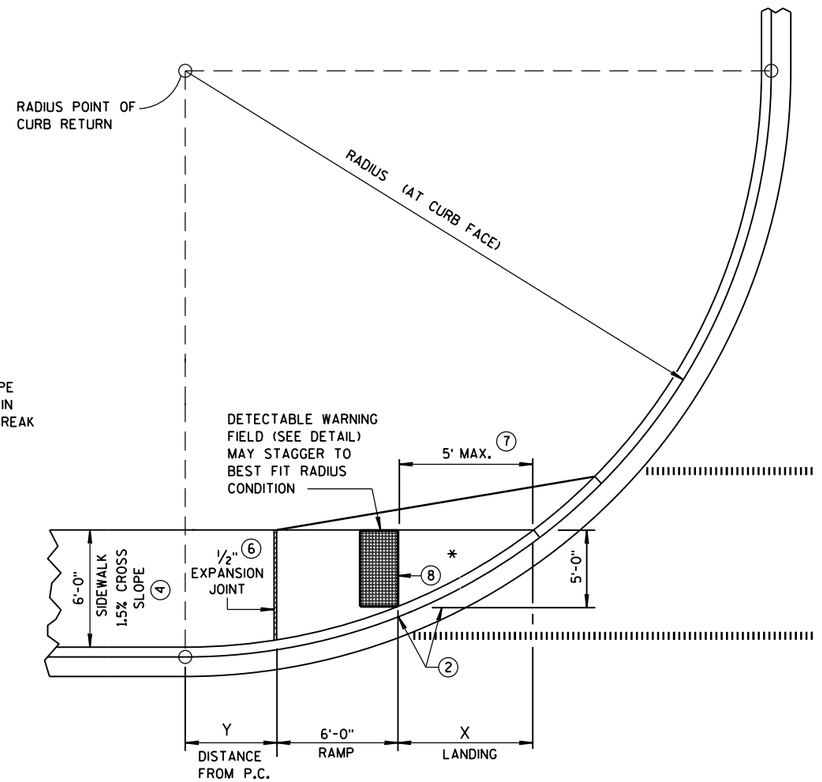
SECTION A-A FOR TYPE 4A



SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



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

CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

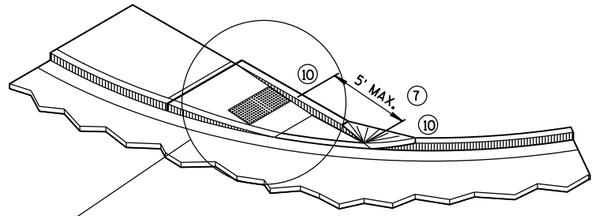
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

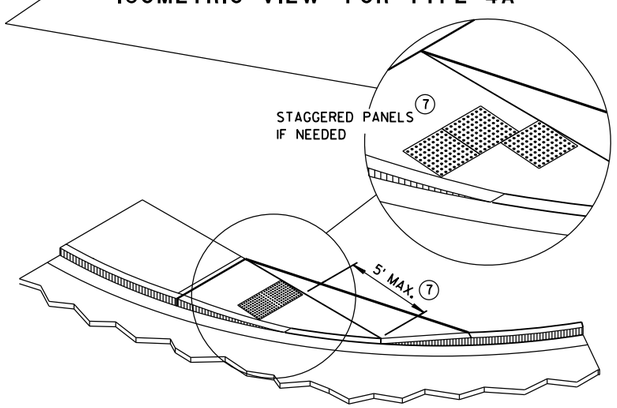
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

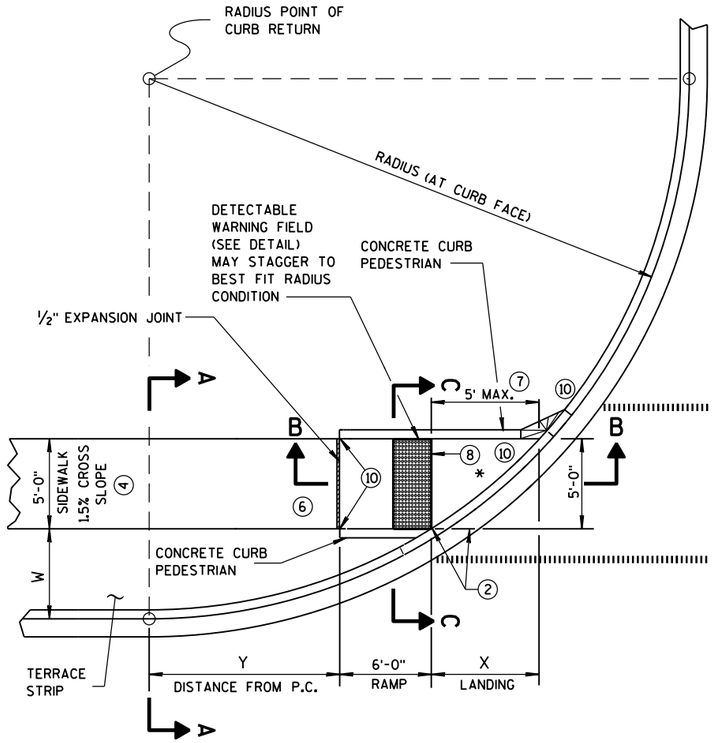
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

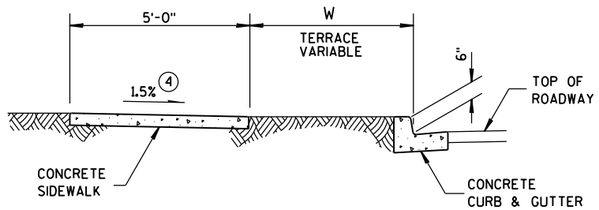
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

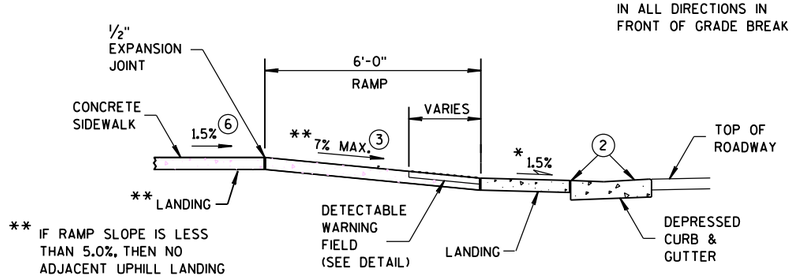
S.D.D. 8 D 5-17c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



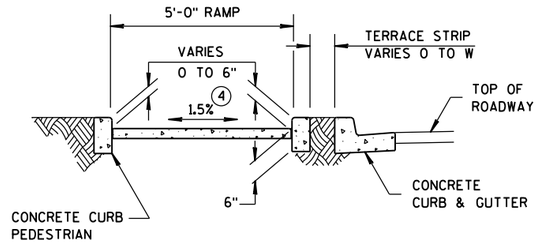
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

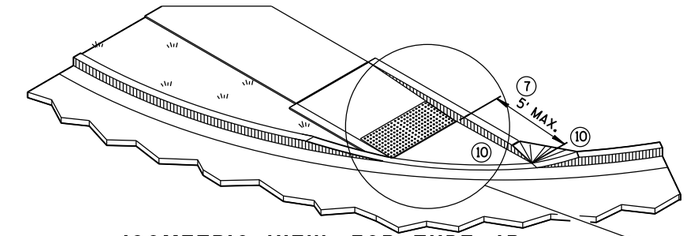
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

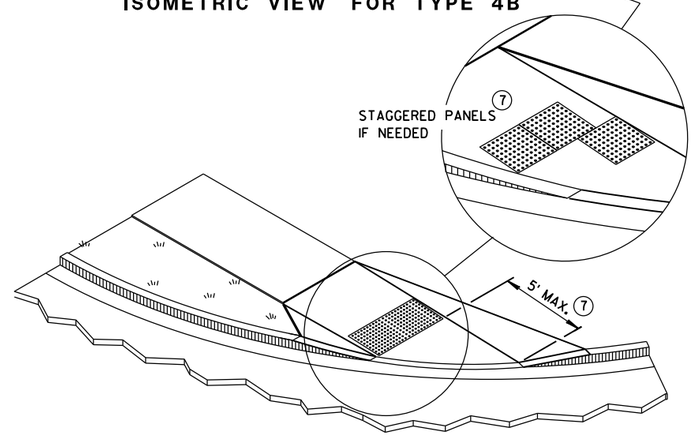
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

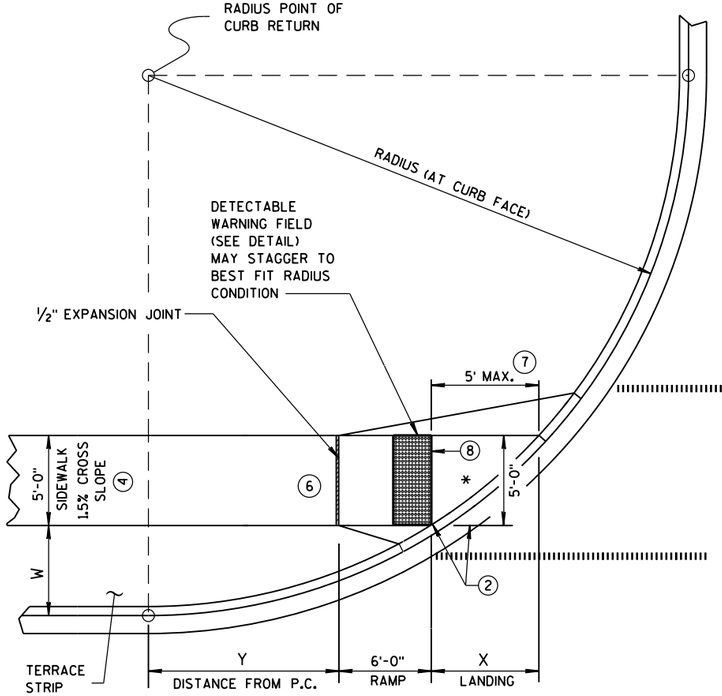
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



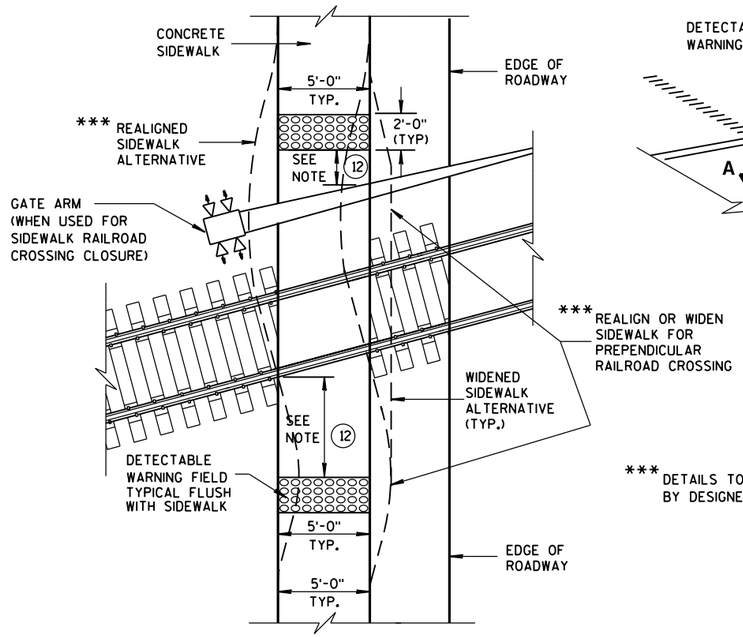
CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

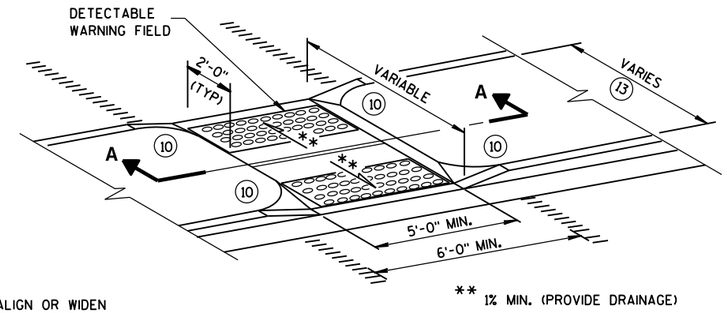
6

S.D.D. 8 D 5-17d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

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 NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

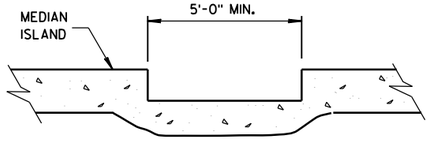
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

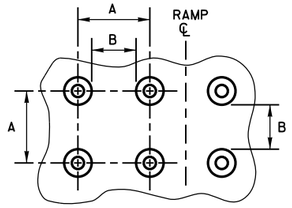
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



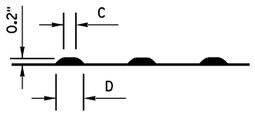
SECTION A-A

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

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

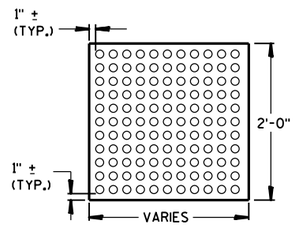


PLAN VIEW



ELEVATION VIEW

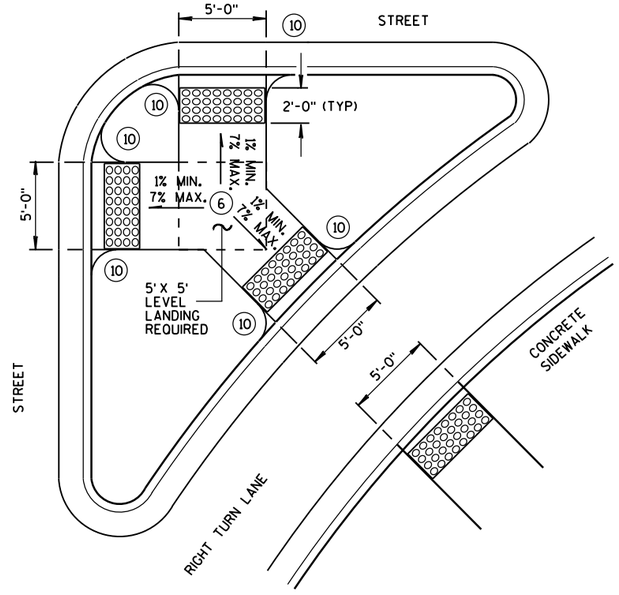
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



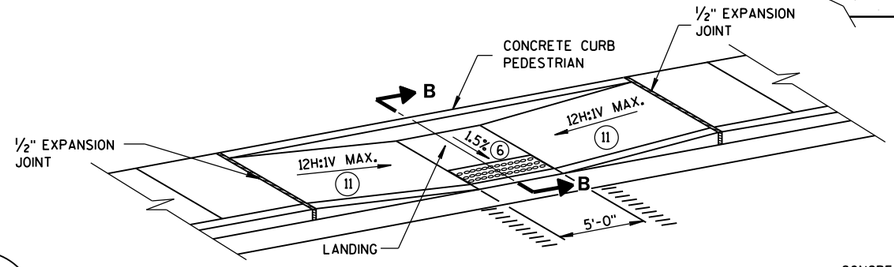
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

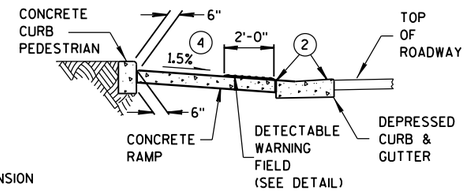
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



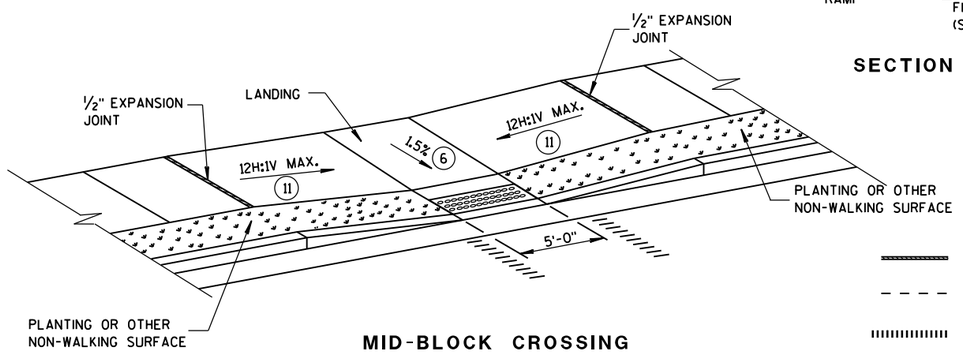
TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

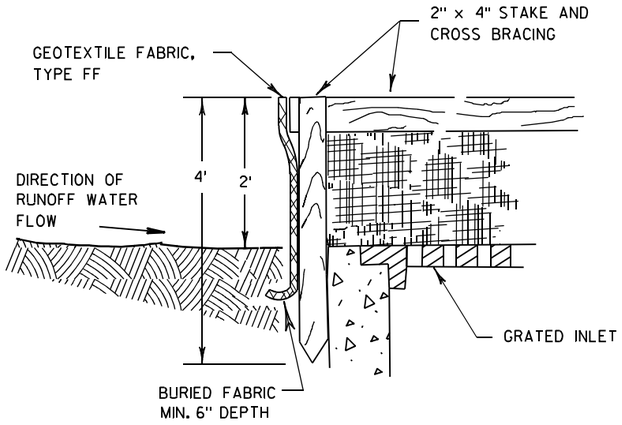
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

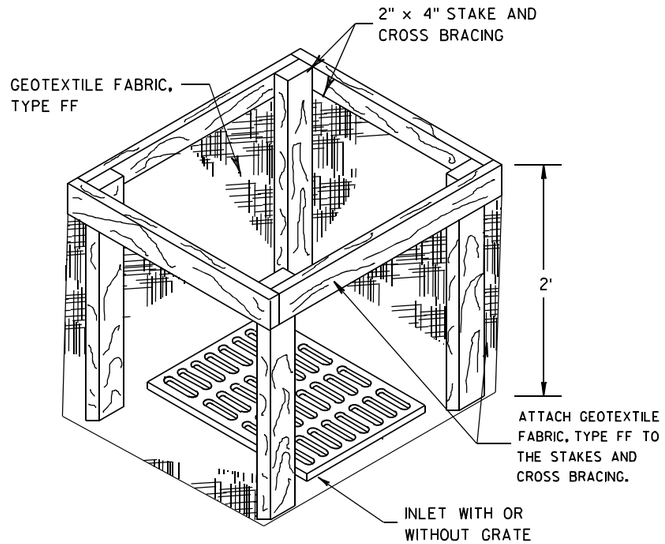
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

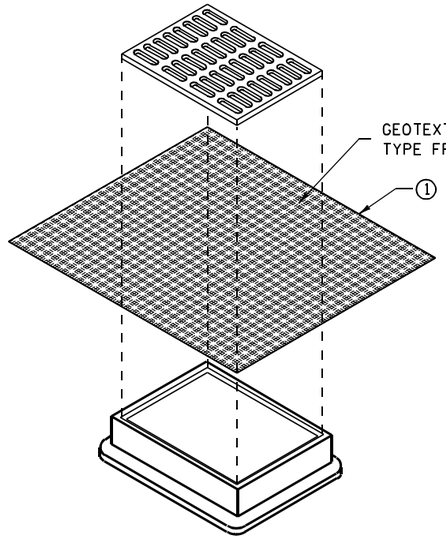
6

S.D.D. 8 D 5-17e



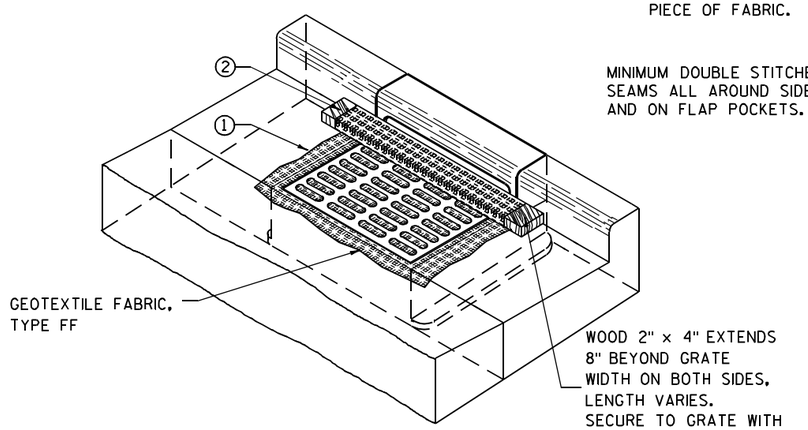


INLET PROTECTION, TYPE A

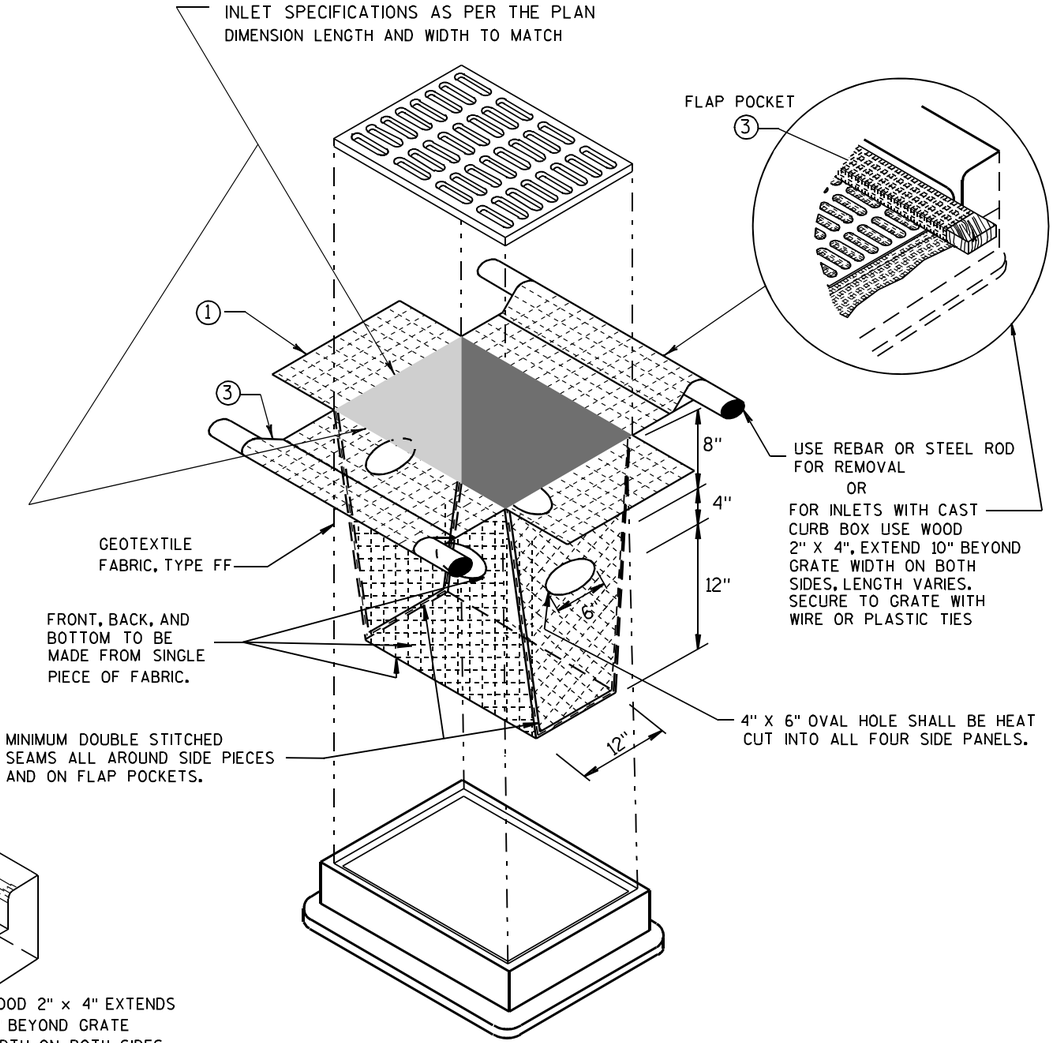


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2

GENERAL NOTES

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 AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS 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.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

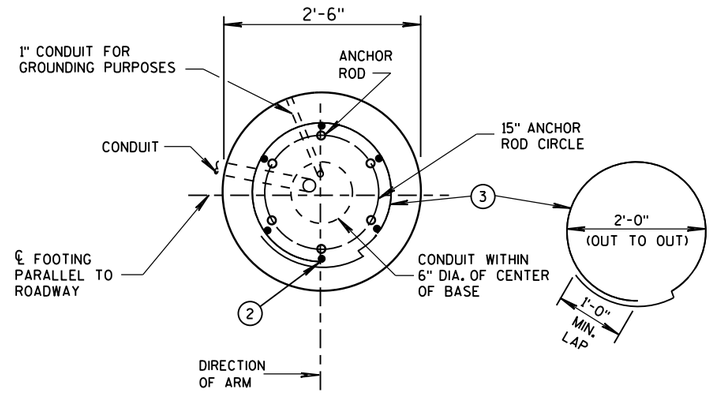
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

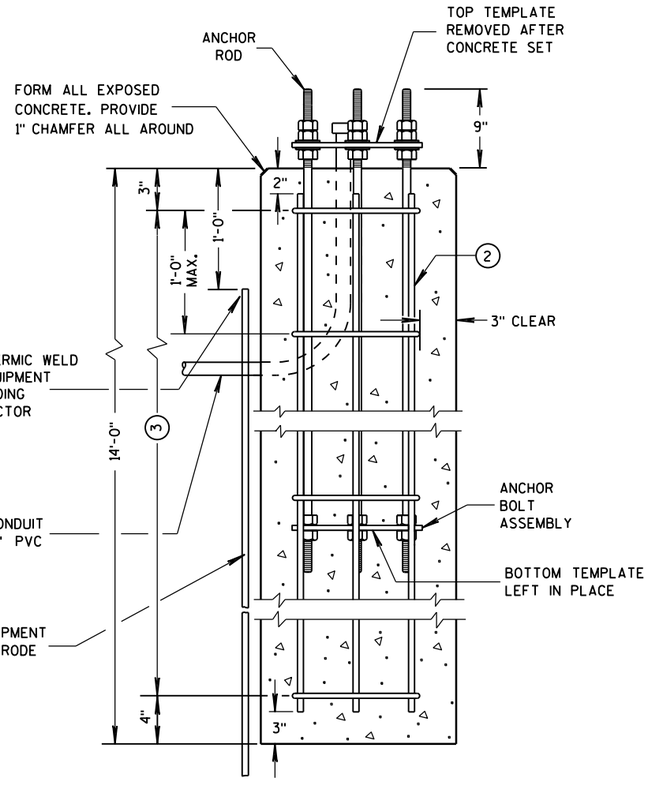
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" MAX. C-C.

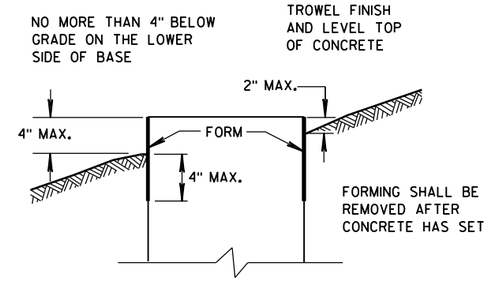
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



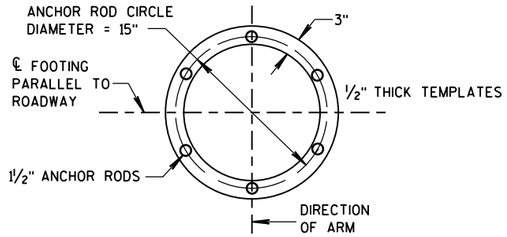


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

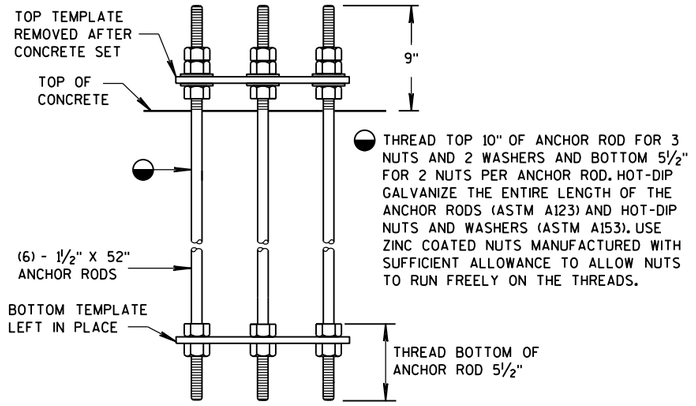
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

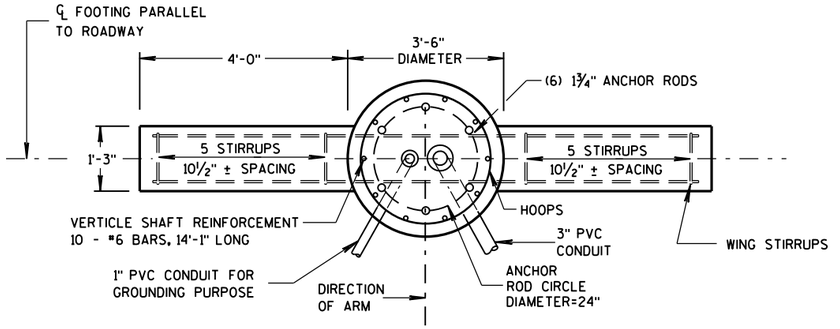
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

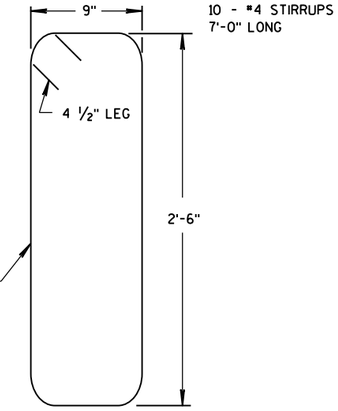
APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

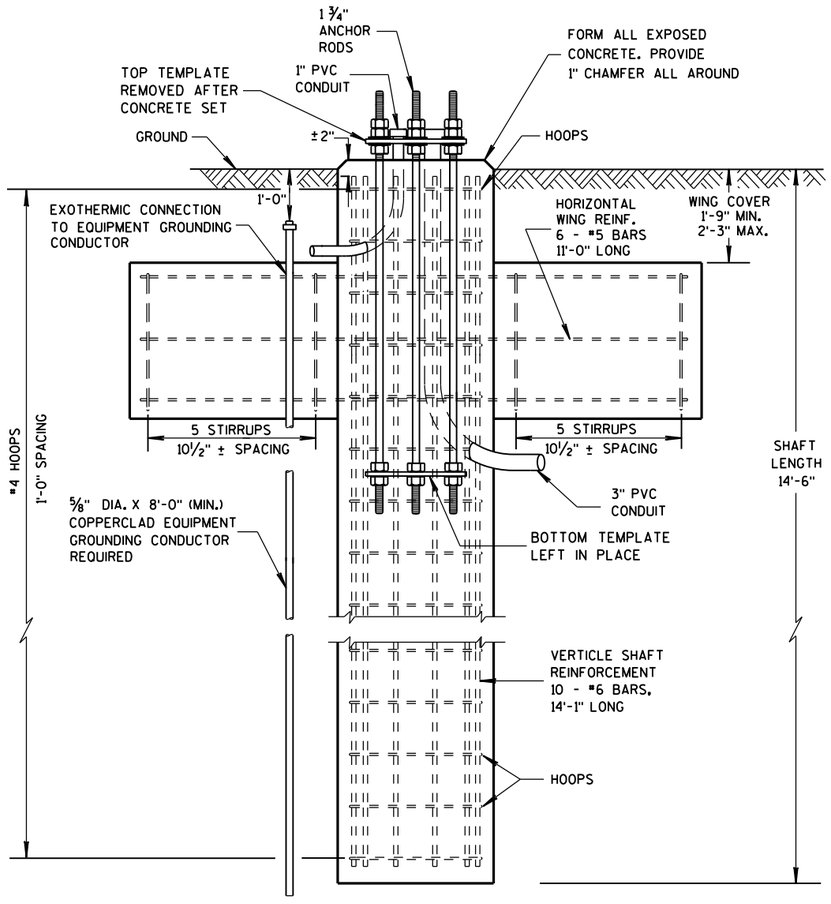
S.D.D. 9 C 11-9



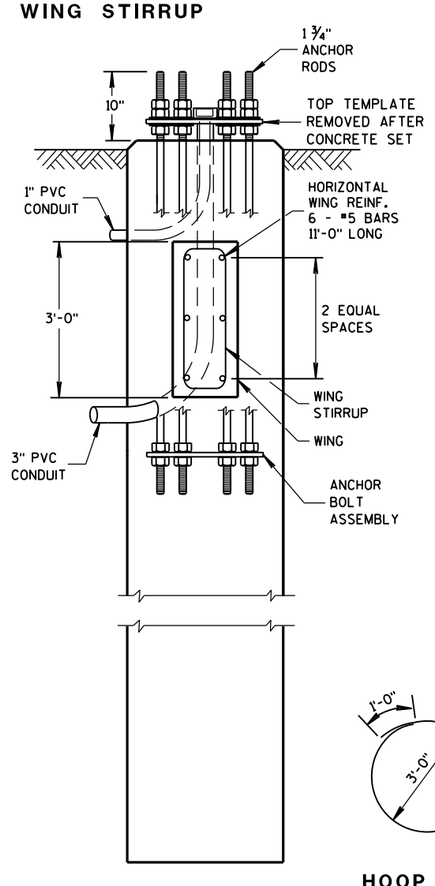
PLAN VIEW



WING STIRRUP

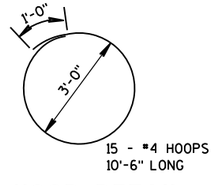


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

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

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

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

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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 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 NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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 THE WRITTEN APPROVAL OF THE ENGINEER.

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

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 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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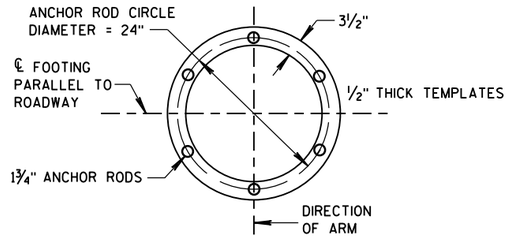
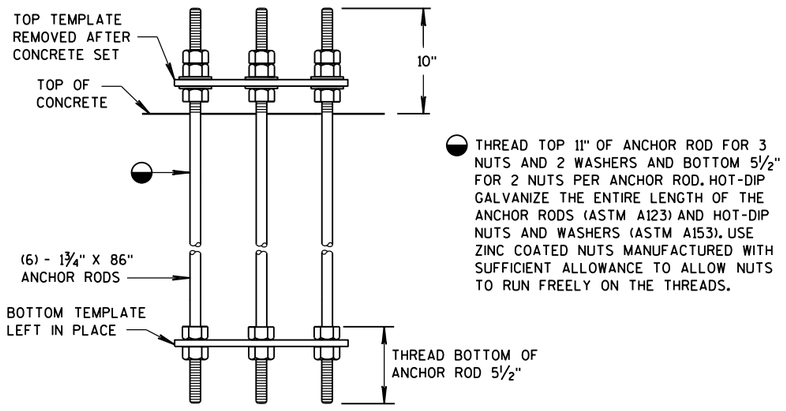
S.D.D. 9 C 12-8a

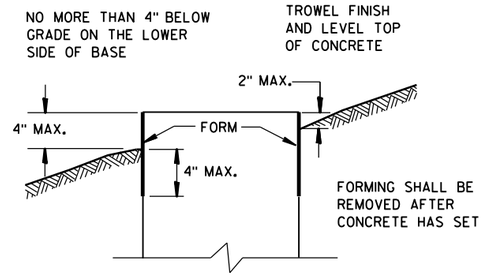


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

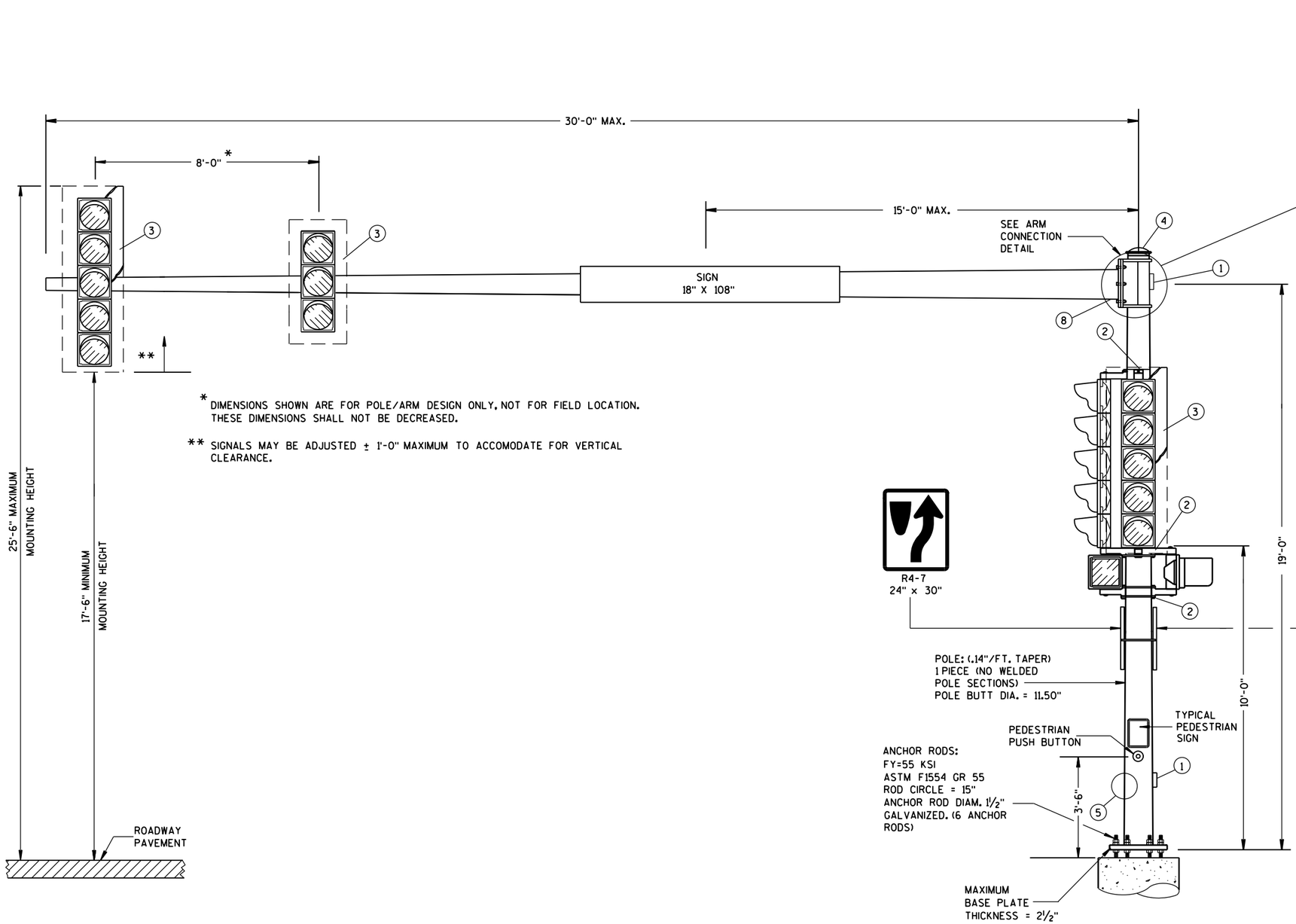


FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

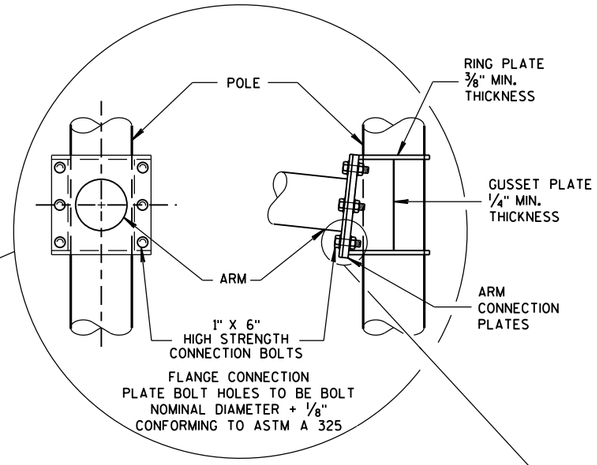
6

S.D.D. 9 C 12-8b

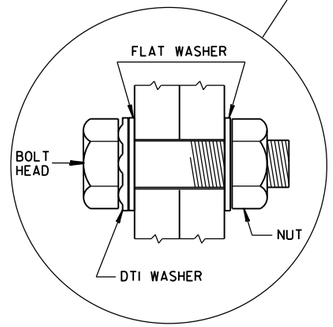


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

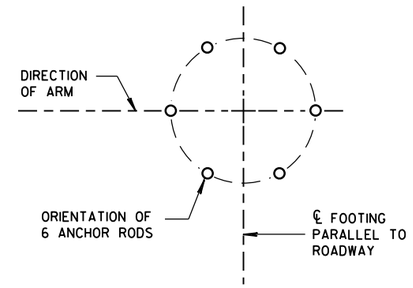
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

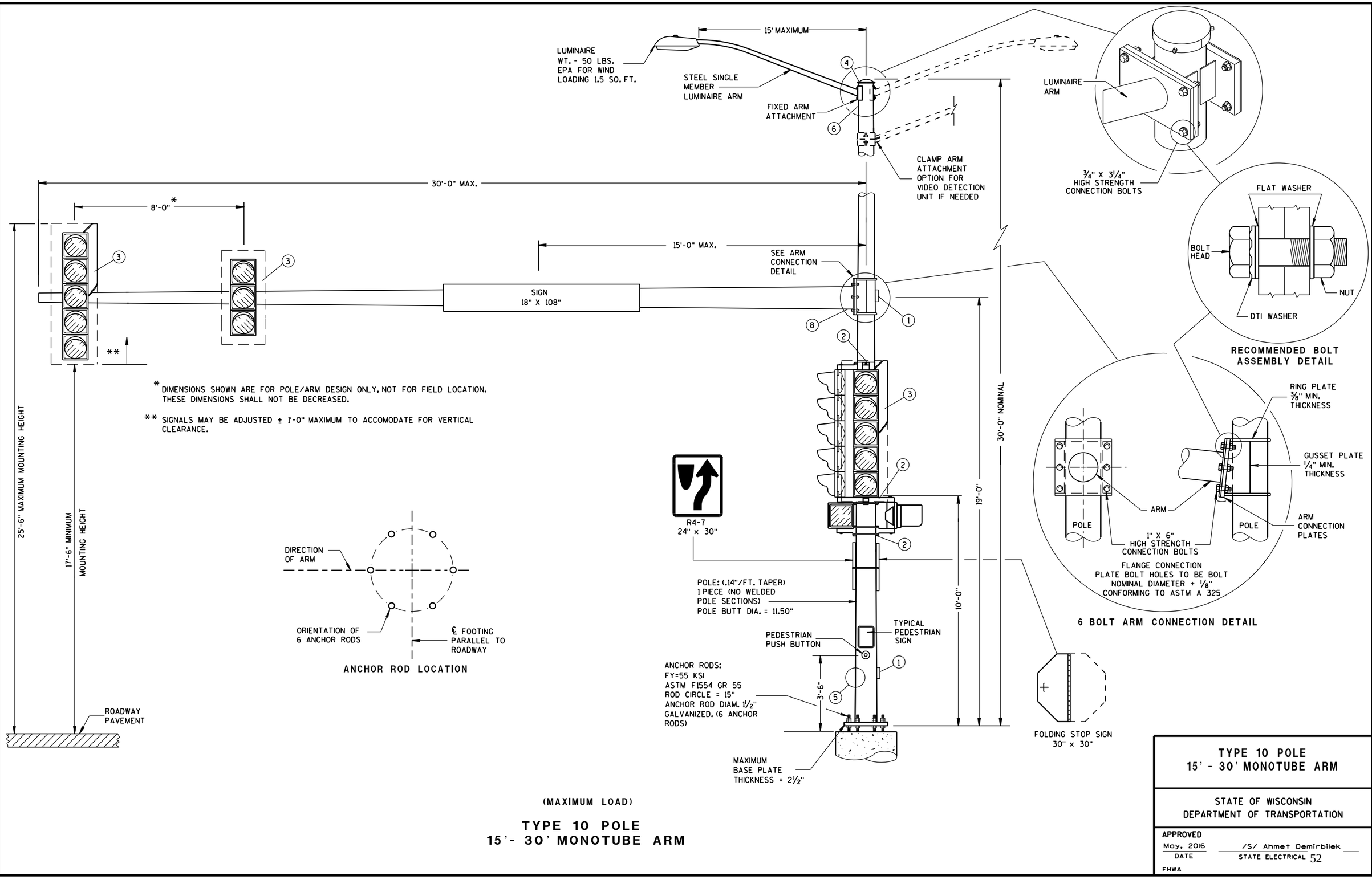
(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May, 2016 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

S.D.D. 9 E 8-8a



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** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

(MAXIMUM LOAD)

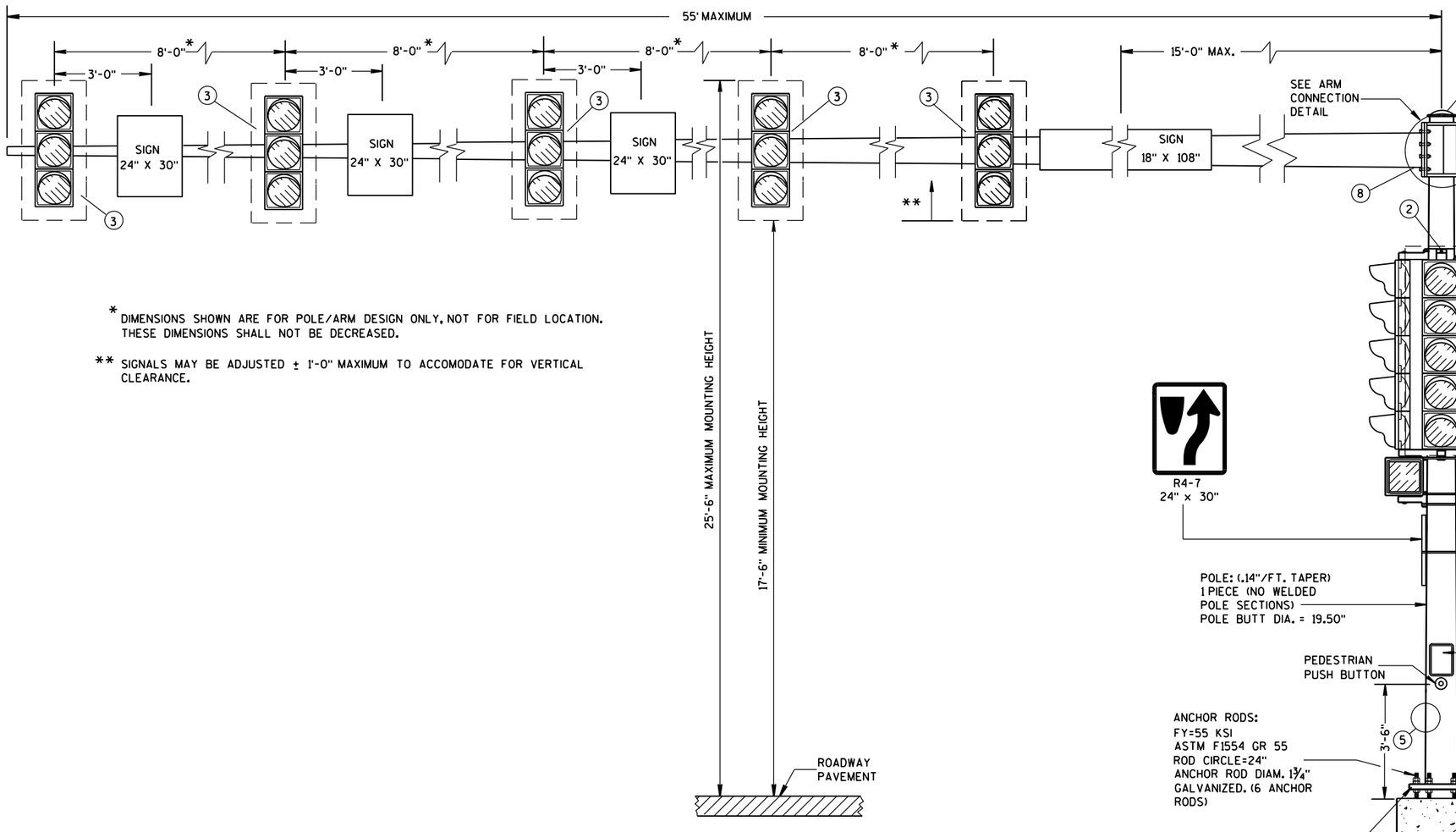
TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 8-8b



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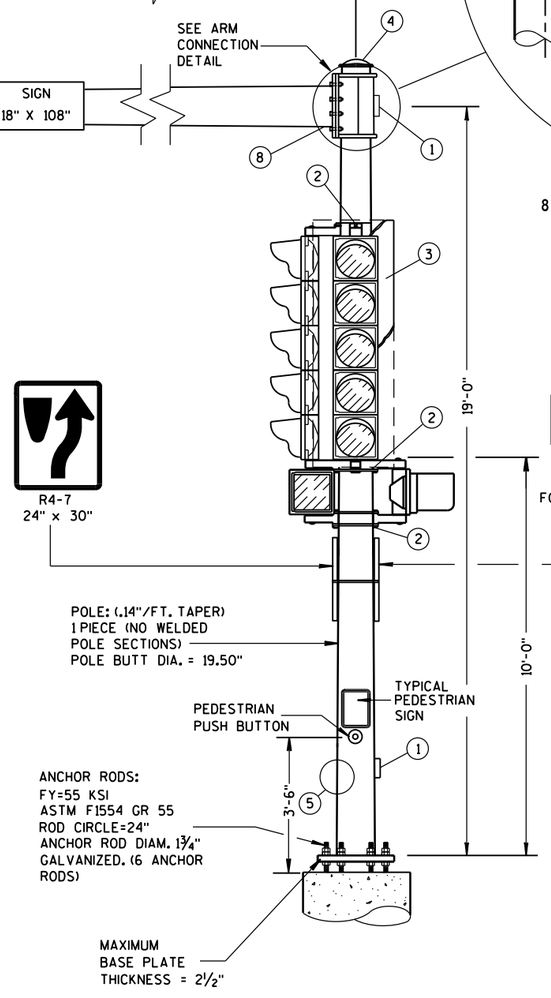
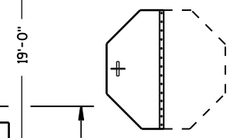
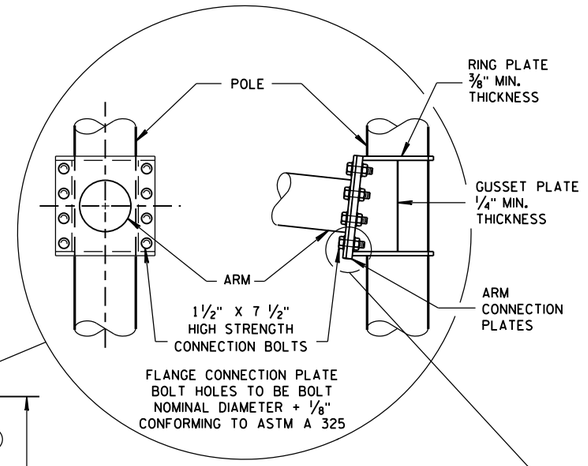
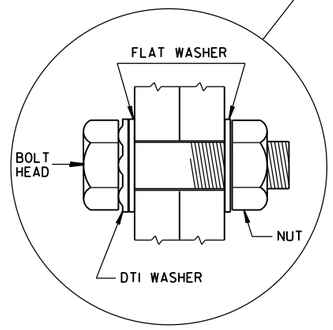


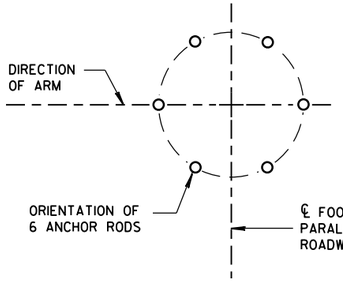




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED
BOLT ASSEMBLY
DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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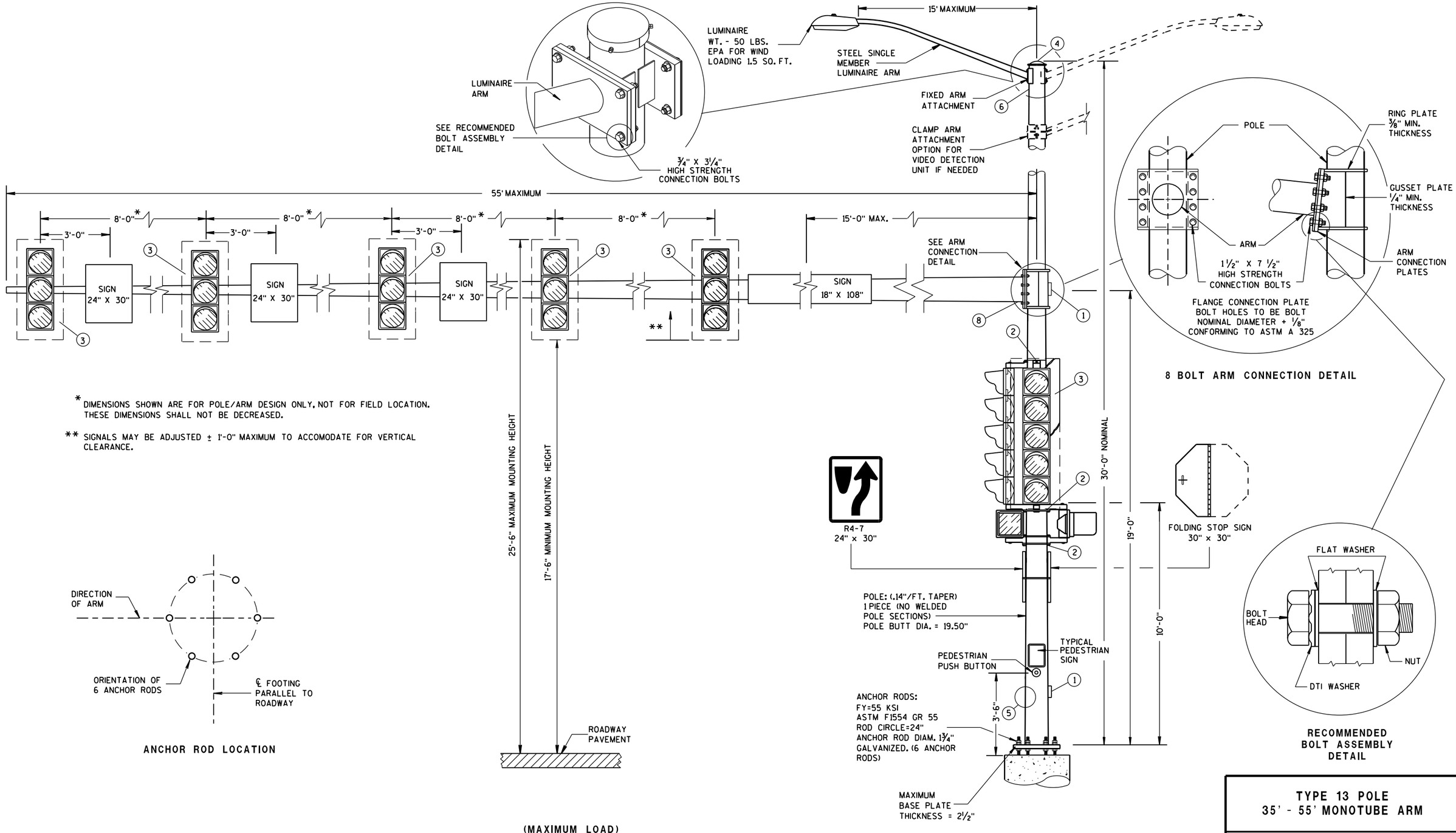
S.D.D. 9 E 8-8c



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** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

GENERAL NOTES

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

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

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

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

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

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

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

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

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

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

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

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

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

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

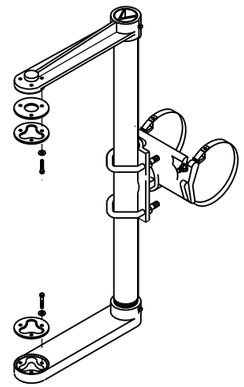
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

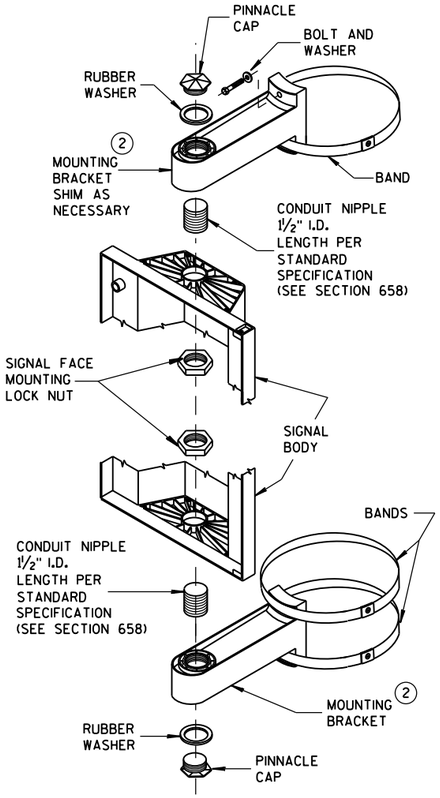
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

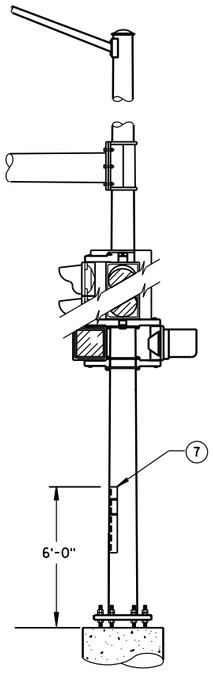


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

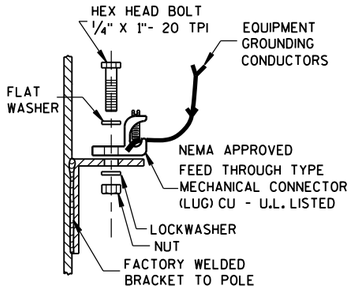
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

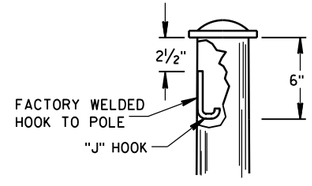


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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FHWA

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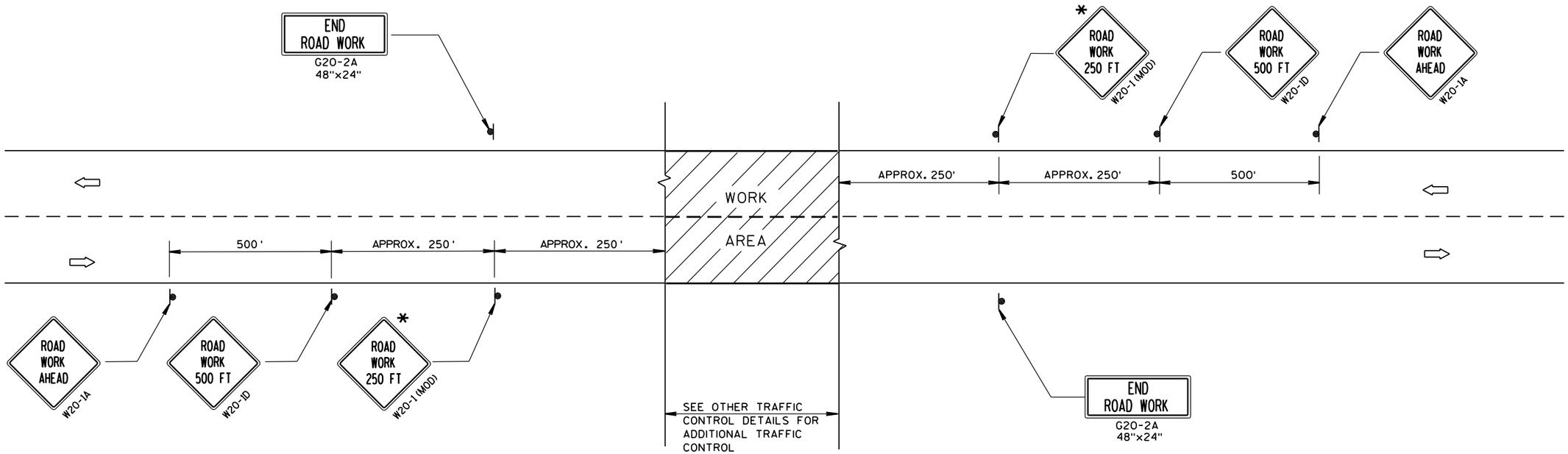
S.D.D. 9 E 8-8e

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

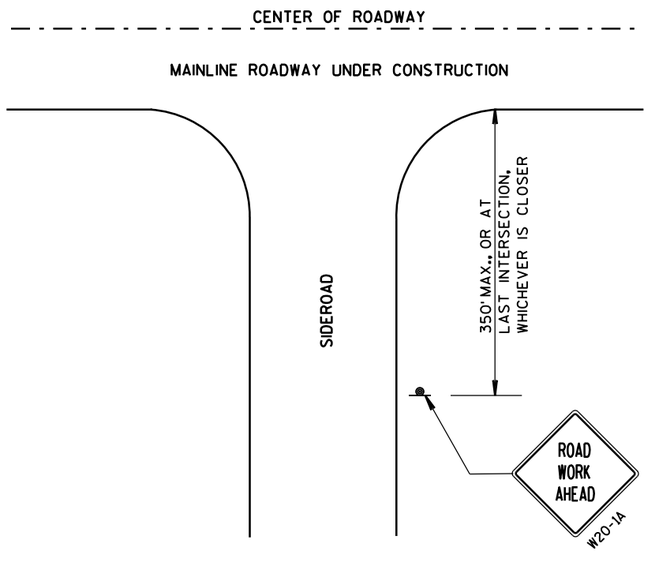
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
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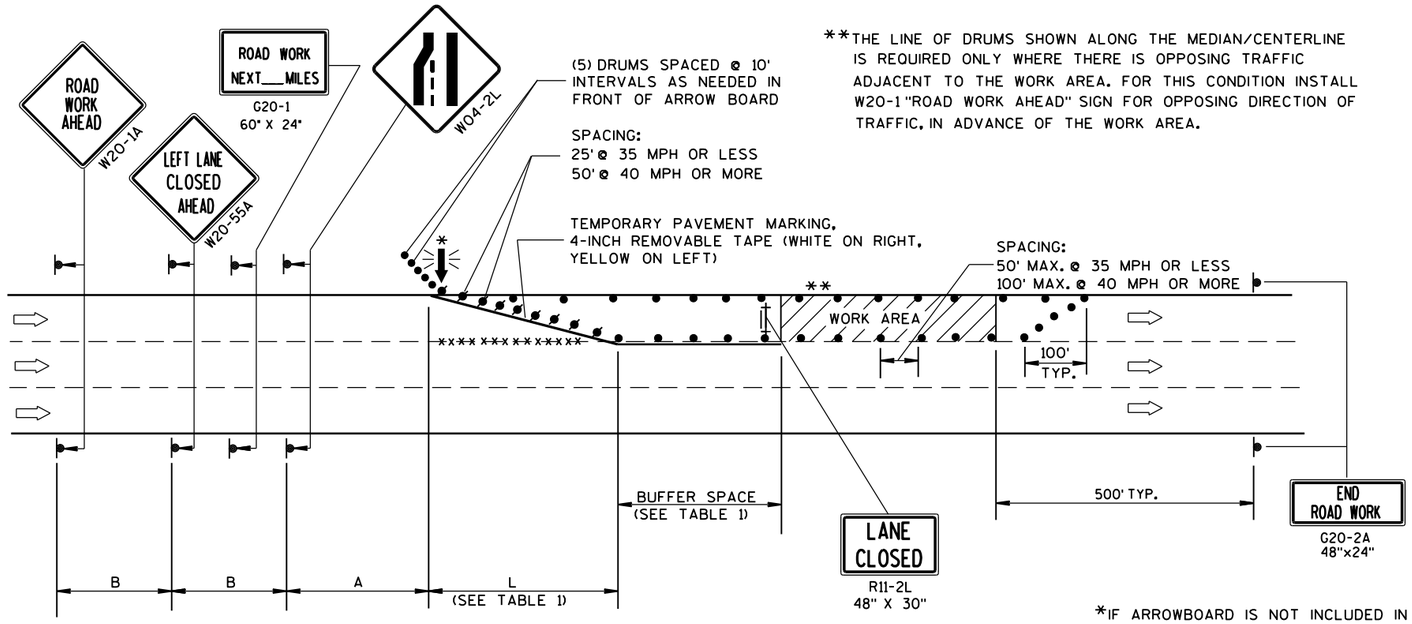

**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

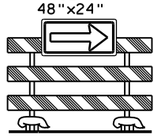

TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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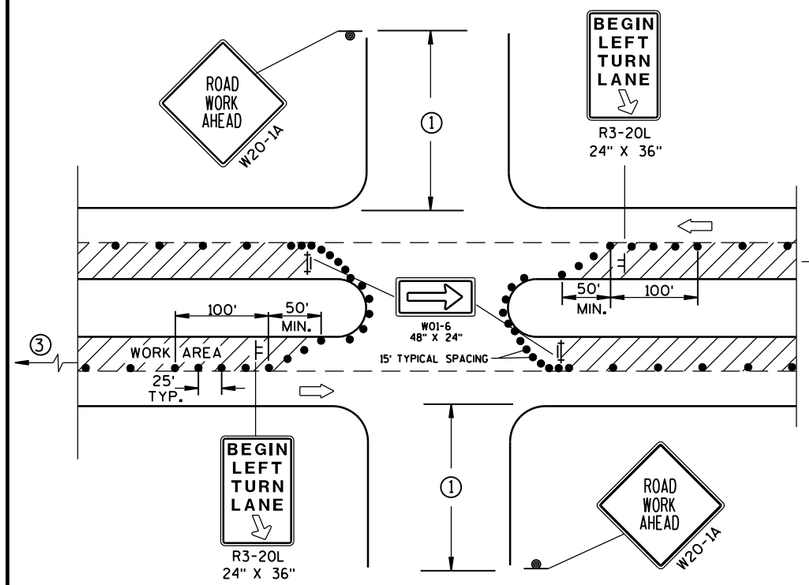
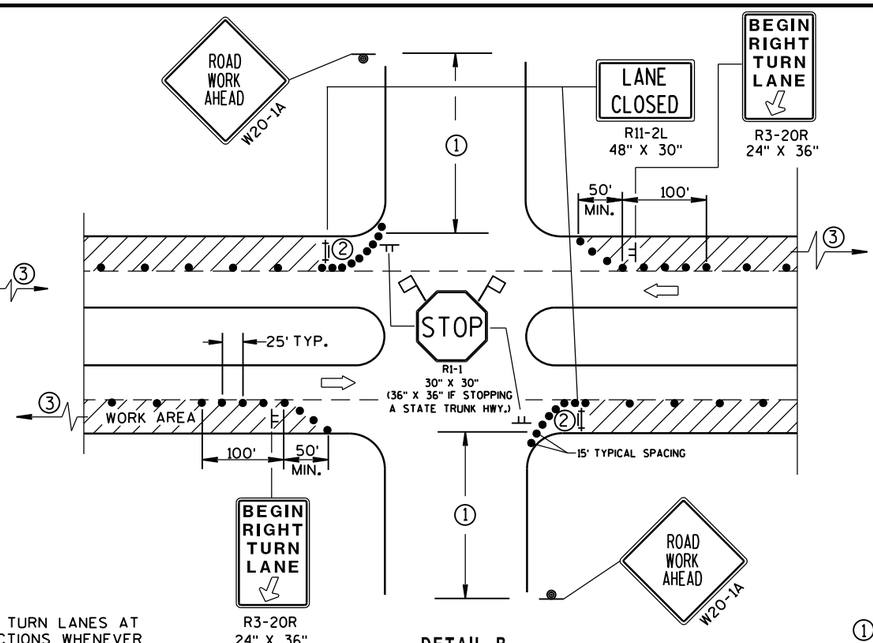


DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

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

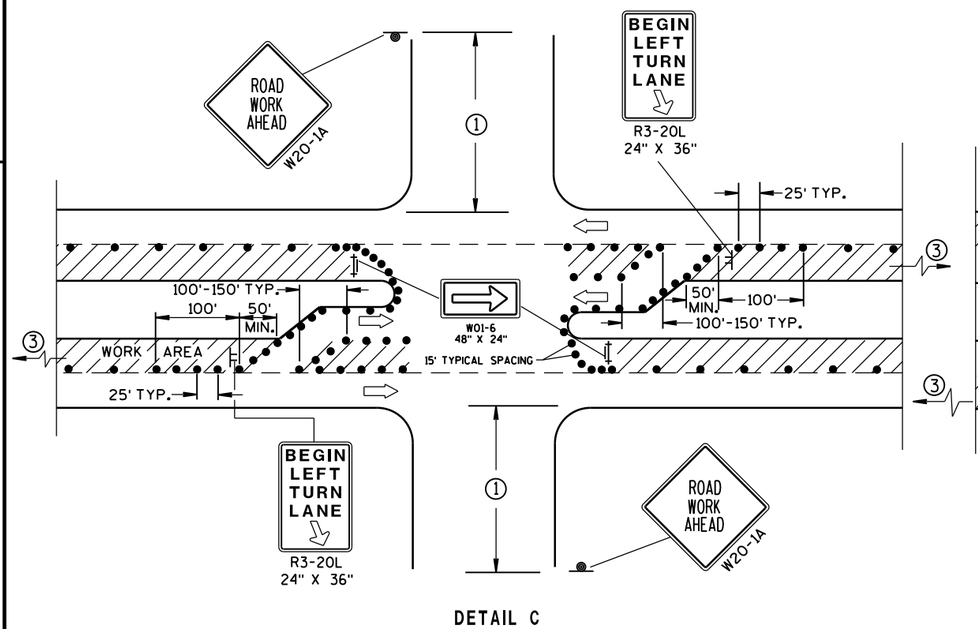
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

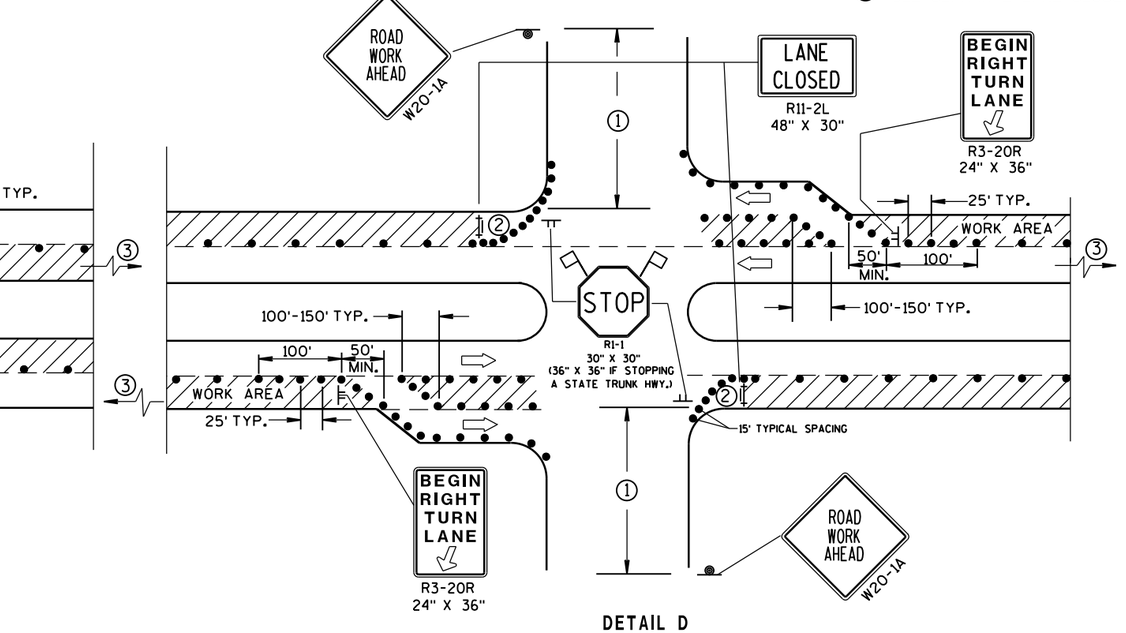
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

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

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZO... SAFETY ENGI... — FHWA

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Notes

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