WKE

PROJECT ID 2060-00-76

WITH: 2110-00-72

MARCH 2019

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 PAGES = 416

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

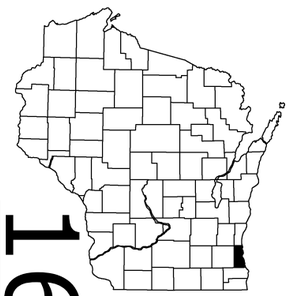
SOUTH CHASE AVENUE-CITY OF MILWAUKEE

OHIO AVE TO LINCOLN AVE

S.T.H. 38

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2060-00-76	WISC 2019158	1



16

DESIGN DESIGNATION

A.D.T. (CURRENT)	=	14,200
A.D.T. (2033)	=	16,300
D.H.V.	=	1,800
D.	=	63%
T.	=	6.5%
DESIGN SPEED	=	40 M.P.H.
ESALS	=	3,024,700

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
CONCRETE WALK/DWY. REMOVAL
LIMITS OF CONCRETE PAVEMENT REMOVAL X X X X X X
COMBUSTIBLE FLUIDS (CAUTION)
RAILROADS
FENCE (TYPE)
CATCH BASIN OR INLET EXISTING PROPOSED

PROFILE

GRADE LINE
ORIGINAL GROUND
GRADE ELEVATION 95.36

UTILITIES

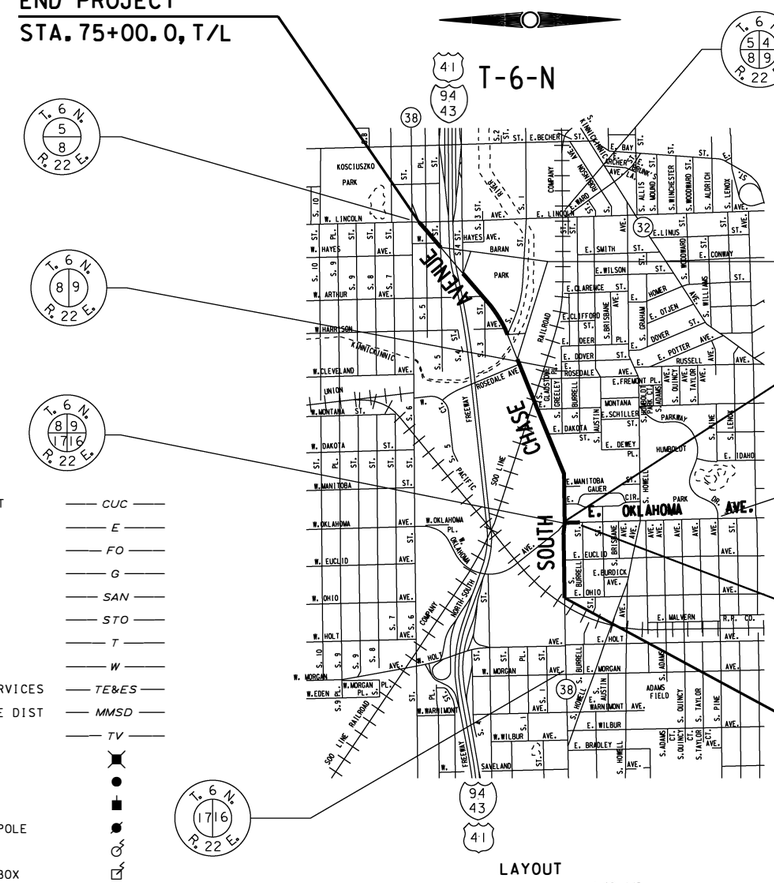
CITY UNDERGROUND CONDUIT	CUC
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	STO
TELEPHONE	T
WATER	W
TRAFFIC & ELECTRICAL SERVICES	TE&ES
MILWAUKEE METRO SEWERAGE DIST	MMSD
CABLE TELEVISION	TV
FIRE & POLICE CALL BOX	
LIGHT POLE	
POWER POLE	
TELEPHONE OR TELEGRAPH POLE	
TRAFFIC SIGNAL	
TRAFFIC SIGNAL CONTROL BOX	
HYDRANT	
GAS OR WATER GATE VALVE	
MANHOLES - SEWER / UTILITY (TYPE)	
TREES - EXISTING / TO BE REMOVED	

N

STATE PROJECT NUMBER
2060-00-76

END PROJECT
STA. 75+00.0, T/L

T-6-N



LAYOUT

SCALE 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.405 MI.(URBAN)

EXCEPTION TO NET CENTERLINE LENGTH STA.46+56 TO STA.48+71 AND STA.63.+82 TO STA.62+11

STA. 15+00.00 - S. CHASE AVE. = STA. 100+00.00 - E. OKLAHOMA AVE. — EQUATION

BEGIN CONSTRUCTION
EAST OKLAHOMA AVENUE
STA. 100+00.0

R-22-E

END CONSTRUCTION
EAST OKLAHOMA AVENUE
STA. 102+64.70

BEGIN PROJECT
STA. 00+77.0, T/L
Y. = 365,795.278
X. = 2,559,364.165

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

10/30/18 (Date)
for Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLCYNSKE E-32128 MILWAUKEE WI PROFESSIONAL ENGINEER

10/30/18 (Date)
Timothy J. Thum
City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee
Designer City of Milwaukee
Project Manager Christine Hanna
Region Examiner
Region Supervisor Dean Stahlin
C.O. Examiner

APPROVED FOR THE DEPARTMENT
DATE: 10/30/18 Christine Hanna
(Signature)

E

COUNTY MILWAUKEE

FILE NAME = W:SPR\CHASE_OHIO_LINCOLN\TITLE.DGN

PLOT DATE:

GENERAL NOTES

1. ALL OPENINGS BELOW SUBGRADE, RESULTING FROM REMOVALS OR ABANDONMENTS, SHALL BE BACKFILLED WITH GRANULAR MATERIAL TO SUBGRADE ELEVATION.

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. WHEN THE QUANTITY OF ITEMS OF BASE & / OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIALS AS DIRECTED BY THE ENGINEER.

4. NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.

5. ALL ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.

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

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

8. '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.

9. 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.

10. ALL COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COORDINATE SYSTEM, SOUTH ZONE. THE CONTROL SURVEY FOR THIS IMPROVEMENT PROJECT WAS CONDUCTED UNDER AND MET SPECIFICATIONS FOR THIRD ORDER CONTROL SURVEYS.

11. REPLACE ALL CONCRETE CURB AND GUTTER INDICATED FOR REMOVAL AND REPLACEMENT IN EXISTING LOCATION UNLESS OTHERWISE NOTED ON PLAN.

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

13. INLET SCREENS ARE TO BE PLACED BETWEEN THE FRAME AND GRATE OF CATCH BASINS / INLETS TO PREVENT SOIL FROM ENTERING THE SEWERS.

14. CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

15. EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS 'ECIP' AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGATATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

16. RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOIL AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

17. STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

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
TYPICAL SECTIONS
ALIGNMENT PLANS
REMOVAL PLANS
CONSTRUCTION DETAILS
PLAN DETAILS
LANDMARK REFERENCE PLANS
INTERSECTION DETAIL
EROSION CONTROL
UTILITIES AND DRAINAGE
TREE REMOVING AND PLANTING
PERMANENT SIGNING
TRAFFIC SIGNALS & STREET LIGHTING
CITY UNDERGROUND CONDUIT
PAVEMENT MARKING
TRAFFIC CONTROL & CONSTRUCTION STAGING

2

UTILITY CONTACTS

CITY OF MILWAUKEE - UNDERGROUND CONDUIT
MS. KAREN ROGNEY
841 N. BROADWAY, RM. 501
MILWAUKEE, WI 53202
PHONE: 414-286-3243
karen.rogney@milwaukee.gov

CITY OF MILWAUKEE - COMMUNICATIONS
MR. BRIAN PAWLAK
1440 W. CANAL ST.
MILWAUKEE, WI 53233
PHONE: 414-286-3686
brian.pawlak@milwaukee.gov

CITY OF MILWAUKEE - LIGHTING
MR. ENG-KIE LEE
841 N. BROADWAY, RM. 501
MILWAUKEE, WI 53202
PHONE: 414-286-2174
eng-kie@milwaukee.gov

CITY OF MILWAUKEE - SEWERS
MR. ZAFAR YOUSUF
841 N. BROADWAY, RM. 501
MILWAUKEE, WI 53202
PHONE: 414-286-2467
zafar.yousuf@milwaukee.gov

CITY OF MILWAUKEE - TRAFFIC SIGNALS
MR. AL NICHOLS
1540 W. CANAL ST.
MILWAUKEE, WI 53233
PHONE: 414-286-5941
414-708-5148 (CELL)

CITY OF MILWAUKEE - WATER
MR. DAVE GOLDAPP
841 N. BROADWAY, RM. 409
MILWAUKEE, WI 53202
PHONE: 414-286-6301
dave.goldapp@milwaukee.gov

WE ENERGIES - ELECTRIC - GAS - PETROLEUM
LATROY BRUMFIELD
333 W. EVERETT ST., RM. A299
MILWAUKEE, WI 53203
PHONE: 414-221-5617
latroy.brumfield@we-energies.com

MIDWEST FIBER NETWORKS LLC - COMMUNICATION LINE
RICHARD TRGOVEC
6070 N. FLINT RD.
GLENDALE, WI 53209
PHONE: 414-459-3554
rtrgovec@midwestfibernetworks.com

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
JEFF MADISON
433 W. ST.PAUL AVE., STE 300
MILWAUKEE, WI 53203-3723
PHONE: 414-225-3723
jeffrey.madison@dot.wi.gov

WISCONSIN DEPARTMENT OF TRANSPORTATION - WISCONSIN SIGNAL
ELIZABETH LLOYD-WEIS
141 NW BARSTOW ST.
P.O. BOX 798
WAUKESHA, WI 53187-0798
PHONE: 262-521-4404
elizabeth.loyd-weis@dot.wi.gov

AT&T LOCAL NETWORK - COMMUNICATION LINE
JENNIFER NAVARRO
6070 N. FLINT RD.
GLENDALE, WI 53209
PHONE: 414-459-3564
j.navarro@northwindtech.com

SBC/AT&T
MARK EDER
2005 PEWAUKEE RD.
WAUKESHA, WI 53188
PHONE: 262-896-7434

TDS METROCOM - COMMUNICATION LINE
MATHEW SCHULTE
16924 W. VICTOR RD.
NEW BERLIN WI 53151
PHONE: 262-754-3063
matt.schulte@tdstelecom.com

TIME WARNER CABLE
LUKAS LACROSSE
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-4766

LEVEL3 COMMUNICATIONS
1025 ELDORADO BLVD.
BROOMFIELD, CO 80021
PHONE: 720-888-0336
level3.networkrelocations@level3.com

OTHER CONTACTS

CITY OF MILWAUKEE - DESIGN
SAMUEL MEDHIN
841 N. BROADWAY, RM. 902
MILWAUKEE, WI 53202
PHONE: 414-286-0474
samuel.medhin@milwaukee.gov

CITY OF MILWAUKEE - FORESTRY
JAMES KRINGER
841 N. BROADWAY, RM. 801
MILWAUKEE, WI 53202
PHONE: 414-286-2428
james.kringer@milwaukee.gov

MILWAUKEE COUNTY TRANSIT SYSTEM - ROUTES
MELANIE FLYNN
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1764
mflynn@mets.org

MILWAUKEE COUNTY TRANSIT SYSTEM - BUS STOPS
ANDY TILLMAN
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PHONE: 414-343-1728
atillman@mcts.org

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
DEBRA JENSEN
200 W. SEEBOTH ST.
MILWAUKEE, WI 53204
PHONE: 414-225-2143

ATC
RON LATUS
P.O. BOX 47
WAUKESHA, WI 53187
PHONE: 262-832-8688

MCI\VERIZON
TOM BUHER
7719 W. 60TH PL.
SUMMIT, IL 60501
PHONE: 708-458-6410

TELEPORT COMMUNICATIONS
JENNIFER NAVARRO
6070 N. FLINT RD.
GLENDALE, WI 53209
PHONE: 414-459-3564
j.navarro@northwindtech.com

MILWAUKEE COUNTY - HIGHWAY MAINTENANCE
GREG HEISEL
10190 W. WATERTOWN PLANK RD.
WAUWATOSA, WI 53226
PHONE: 414-257-6568

SEWRPC - LAND MONUMENTS
JOHN WASHBURN
W239 N1812 ROCKWOOD DR.
WAUKESHA, WI 53187
PHONE: 262-547-6722 EXT 295

WISCONSIN DEPT. OF NATURAL RESOURCES
KRISTINA BETZOLD
2300 N. DR. MARTIN LUTHER KING, JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-263-8517

WISDOT - PROJECT MANAGER
CHRISTINE HANNA
141 NW BARSTOW ST.
WAUKESHA, WI 53187
PHONE: 262-548-8809

CLEAR CHANNEL OUTDOOR - BUS SHELTERS
DAVID JASENSKI
908 SILVERNAIL RD.
PEWAUKEE, WI 53072
PHONE: 262-506-9031

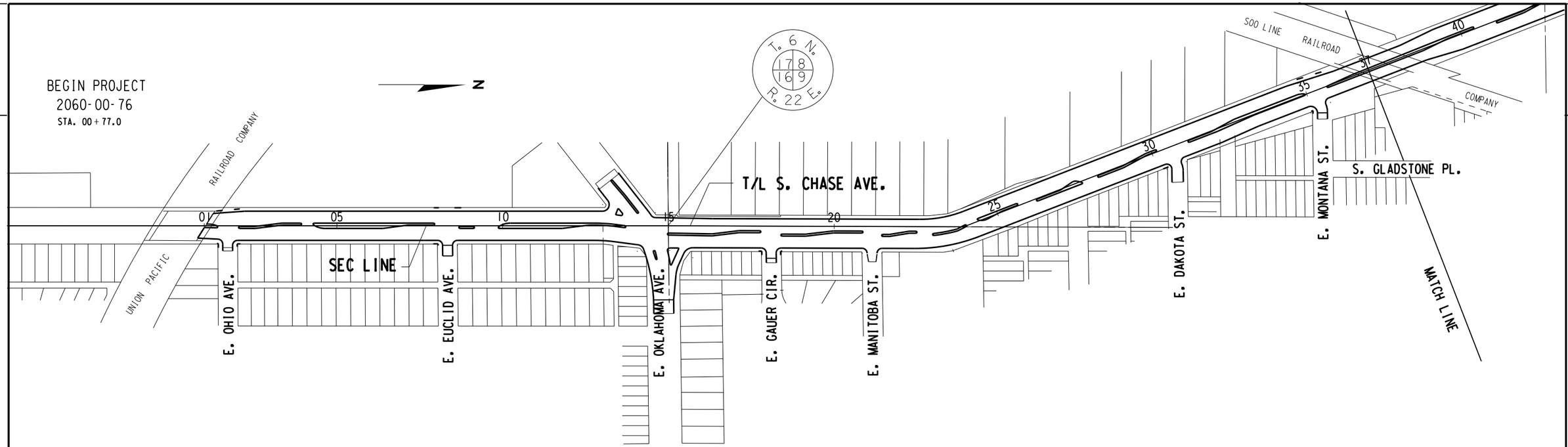
MILWAUKEE COUNTY - DEPT. OF TRANSPORTATION
ANDREA WEDDLE-HENNING
2711 W. WELLS ST., SUITE 300
MILWAUKEE, WI 53208
PHONE: 414-278-4934

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

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITY CONTACTS	SCALE FEET	SHEET NO: 3	E

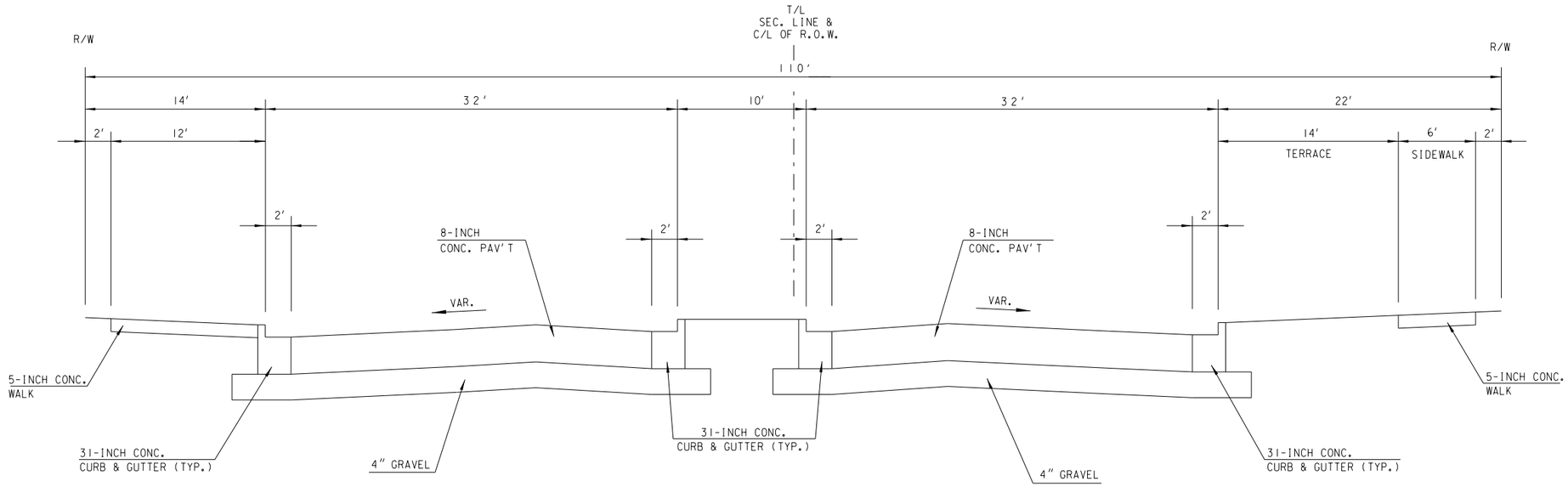
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONTACTS.DGN

REVISED DATE: 01-23-2019 BY JC



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 4	E

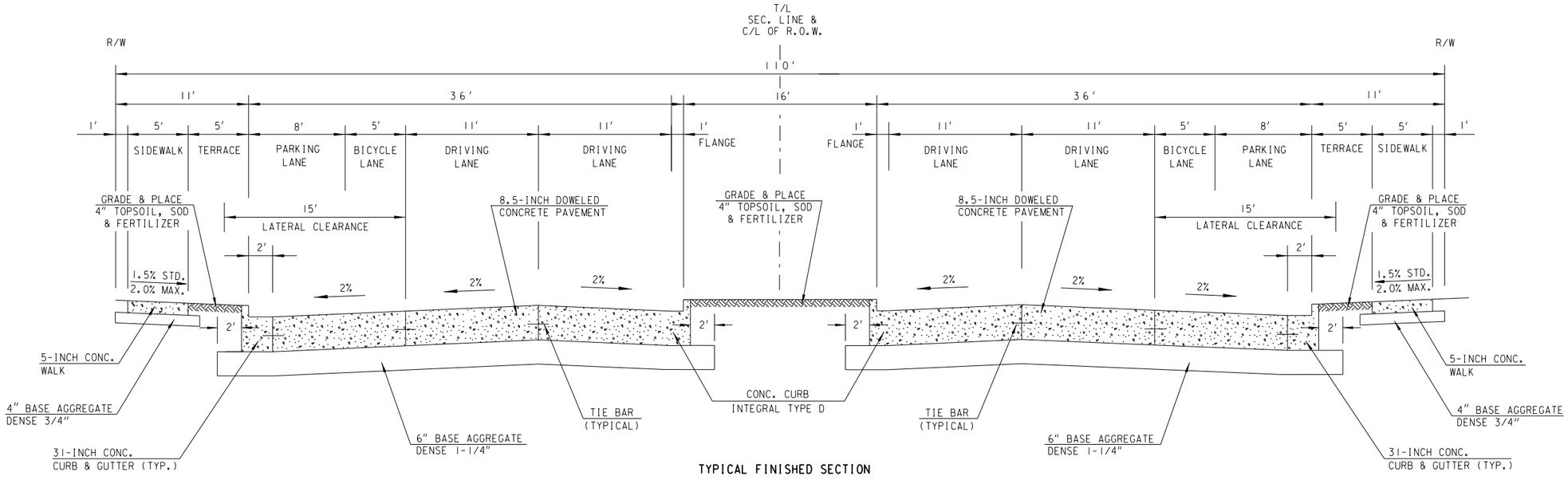
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\OVERVIEWCHASE.DGN



TYPICAL EXISTING SECTION

SOUTH CHASE AVENUE (STH 38)

STA. 00+77.0 TO STA. 14+50.0



TYPICAL FINISHED SECTION

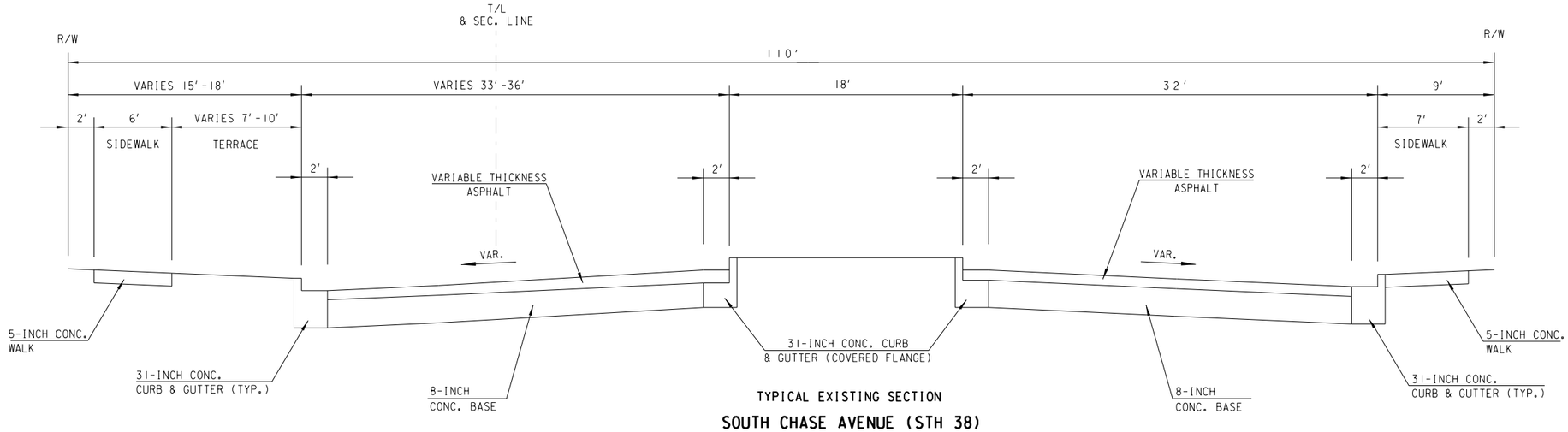
SOUTH CHASE AVENUE (STH 38)

STA. 00+77.0 TO STA. 14+50.0

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 5	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TYPSEC.DGN

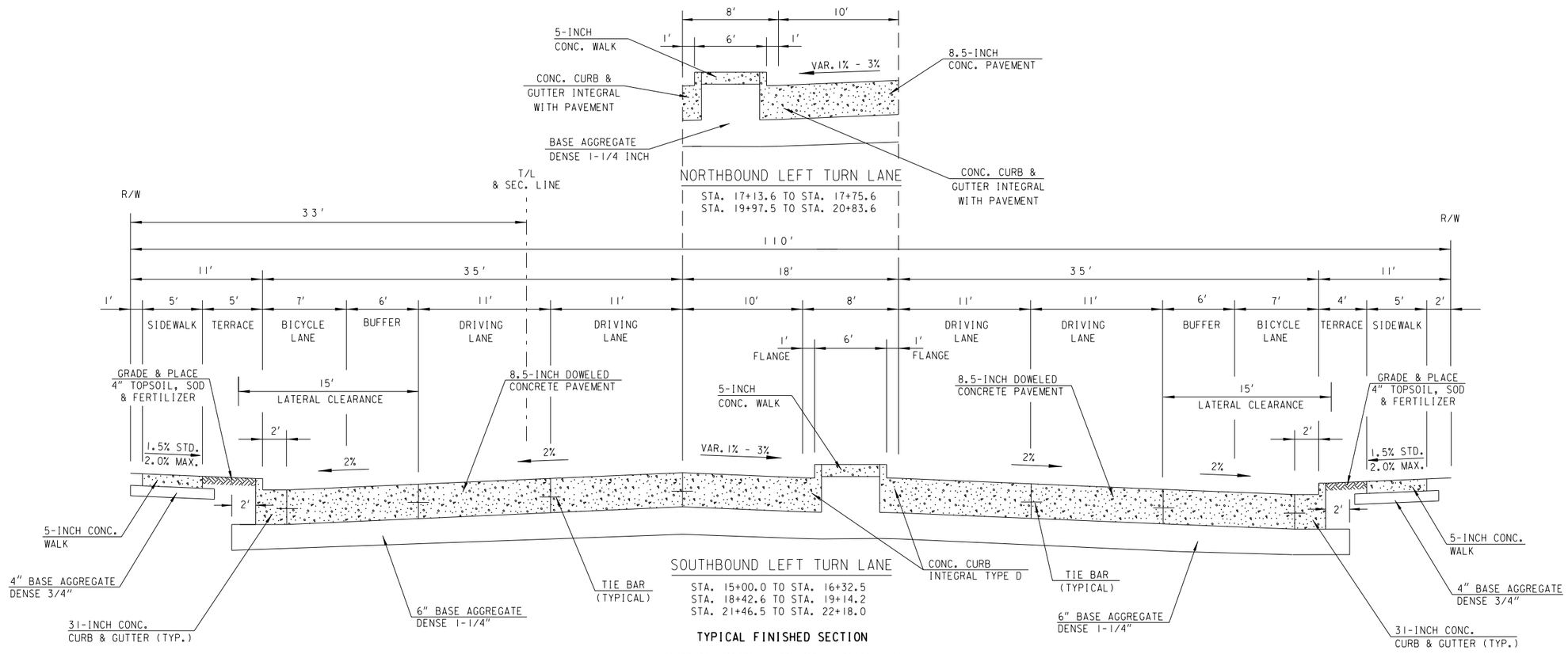
REVISED DATE: 08-24-2018 BY SB



TYPICAL EXISTING SECTION

SOUTH CHASE AVENUE (STH 38)

STA. 14+50.0 TO STA. 23+91.26



TYPICAL FINISHED SECTION

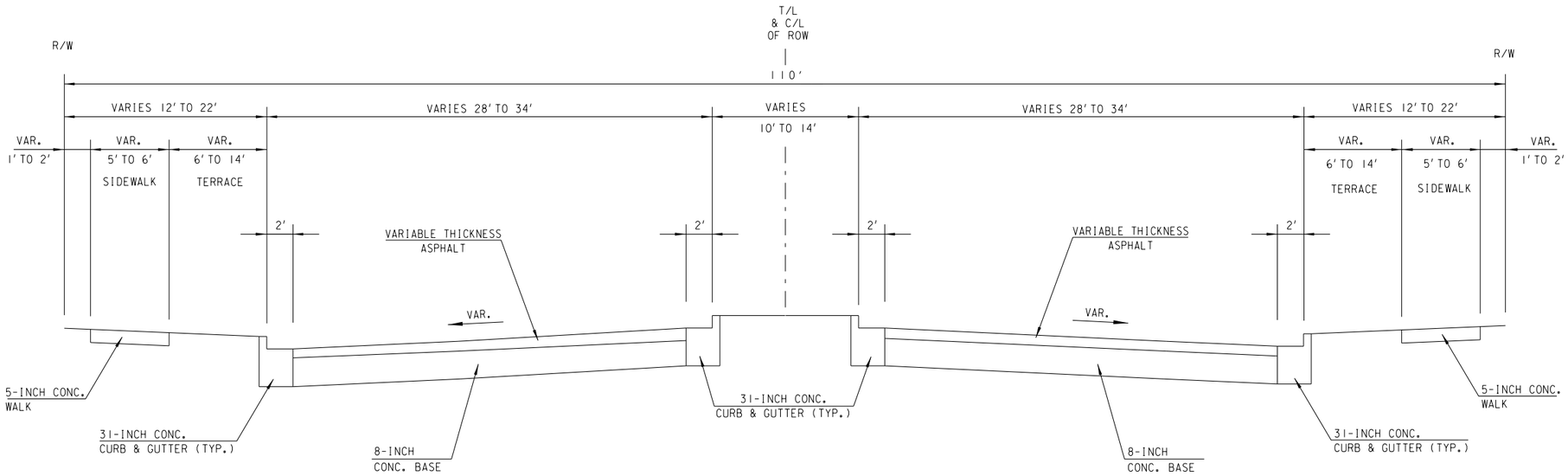
SOUTH CHASE AVENUE (STH 38)

STA. 14+50.0 TO STA. 23+91.26

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 6	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TYPSEC.DGN

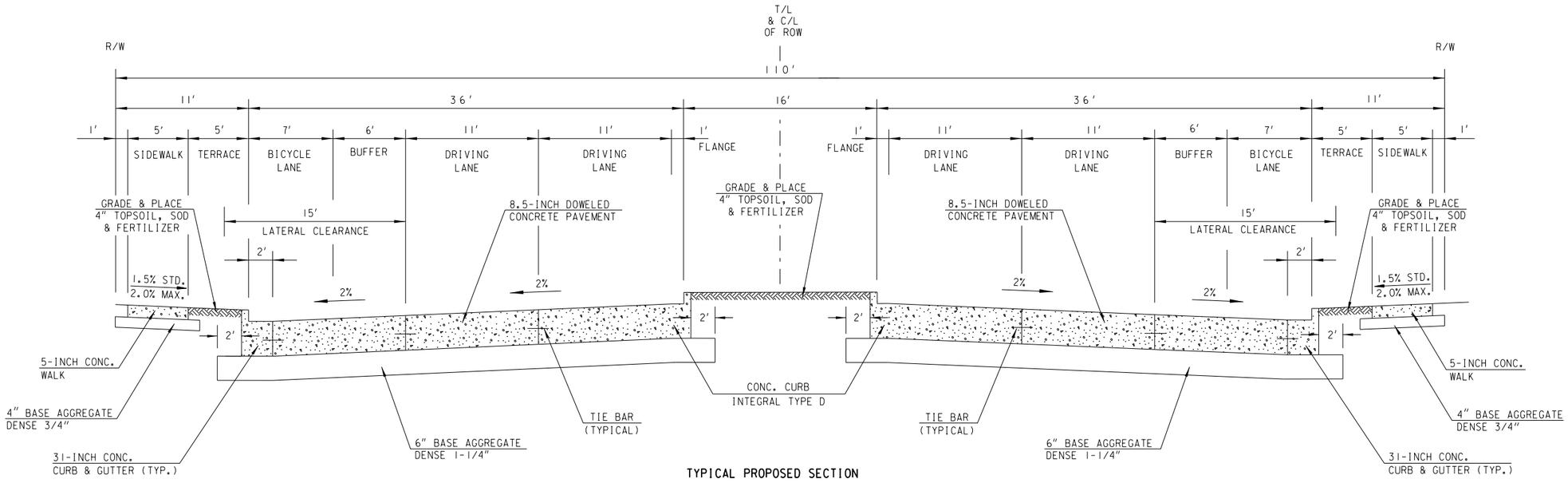
REVISED DATE: 09-10-2018 BY SB



TYPICAL EXISTING SECTION

SOUTH CHASE AVENUE (STH 38)

STA. 23+91.26 TO STA. 47+27.8



TYPICAL PROPOSED SECTION

SOUTH CHASE AVENUE (STH 38)

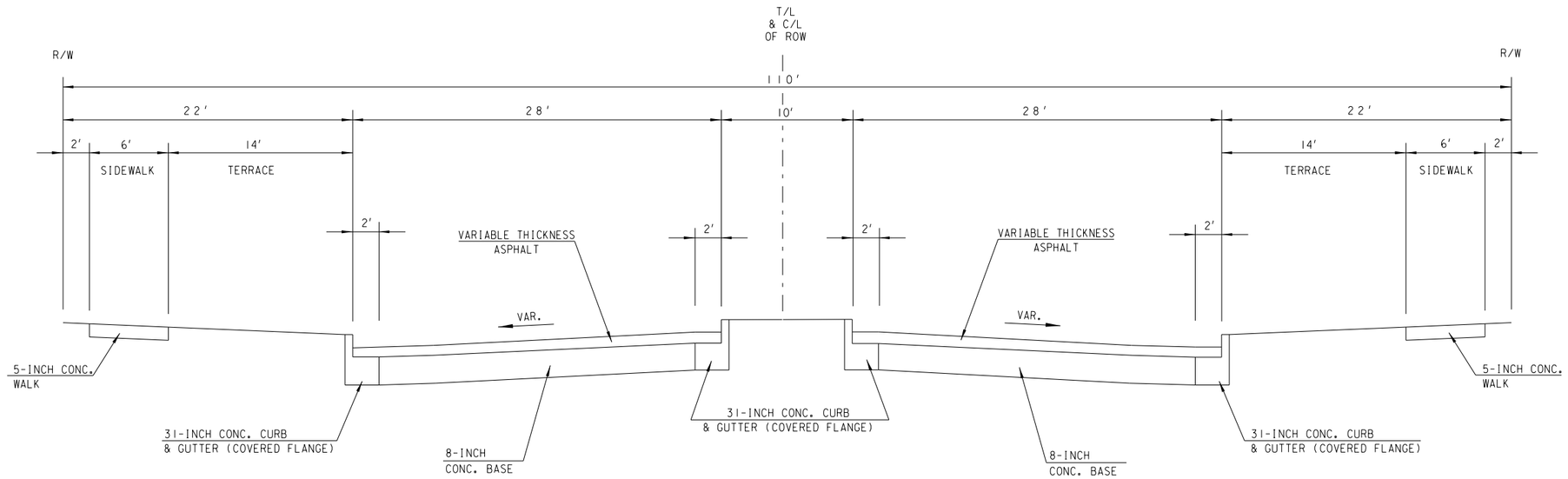
STA. 23+91.26 TO STA. 47+27.8

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 7	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TYPSEC.DGN

REVISED DATE: 08-24-2018 BY SB

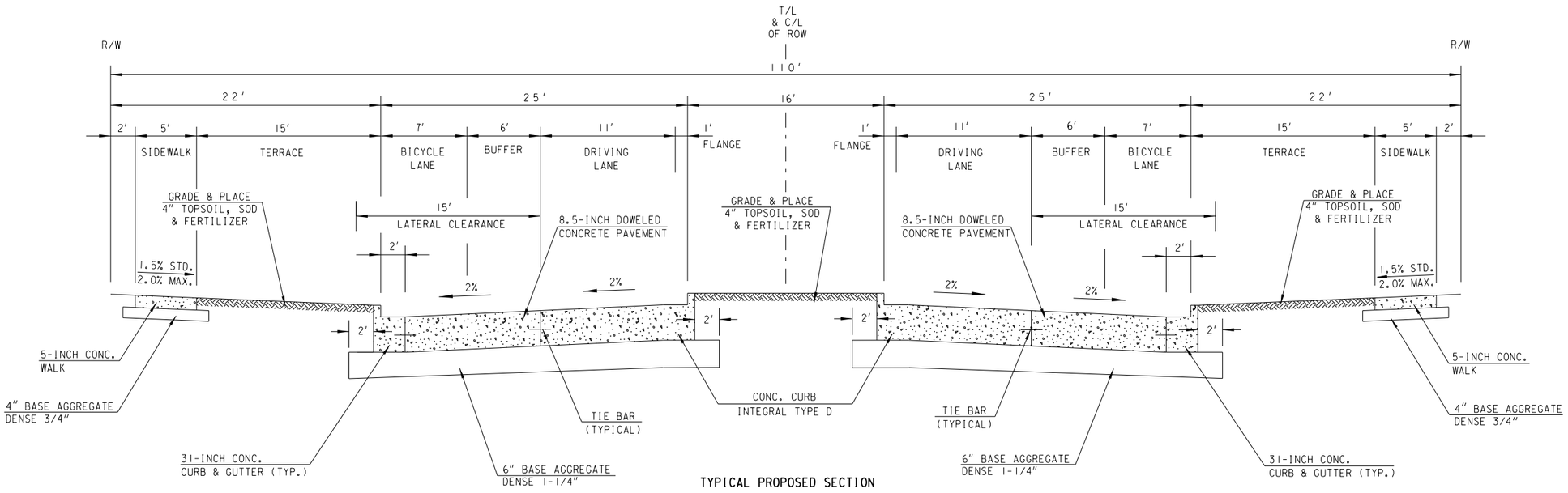
2



TYPICAL EXISTING SECTION

SOUTH CHASE AVENUE (STH 38)

STA. 48+21.5 TO STA. 63+82.0



TYPICAL PROPOSED SECTION

SOUTH CHASE AVENUE (STH 38)

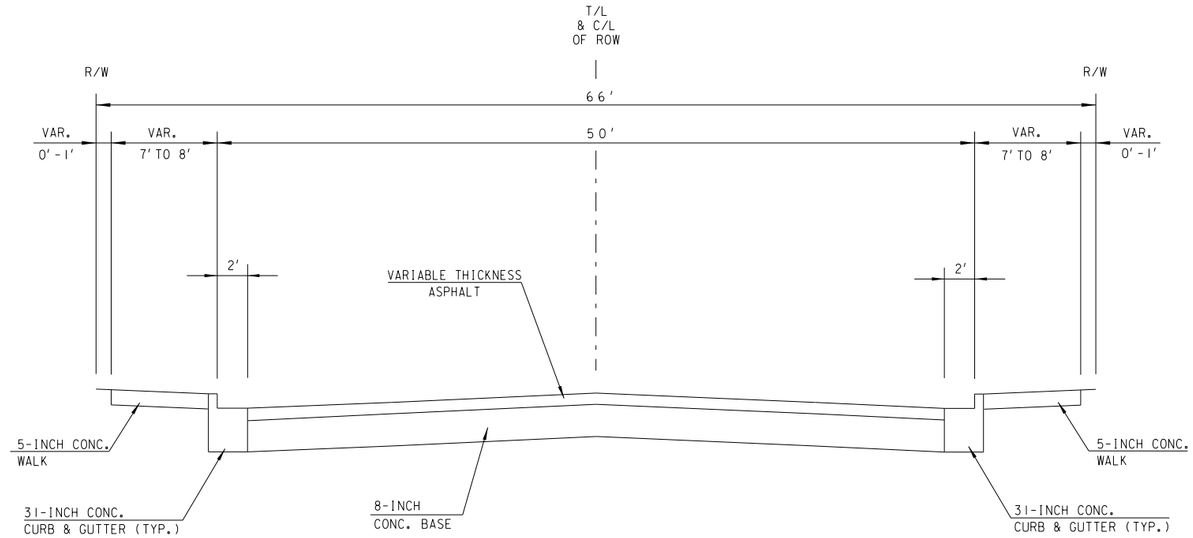
STA. 48+21.5 TO STA. 63+82.0

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 8	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TYPSEC.DGN

REVISED DATE: 08-24-2018 BY SB

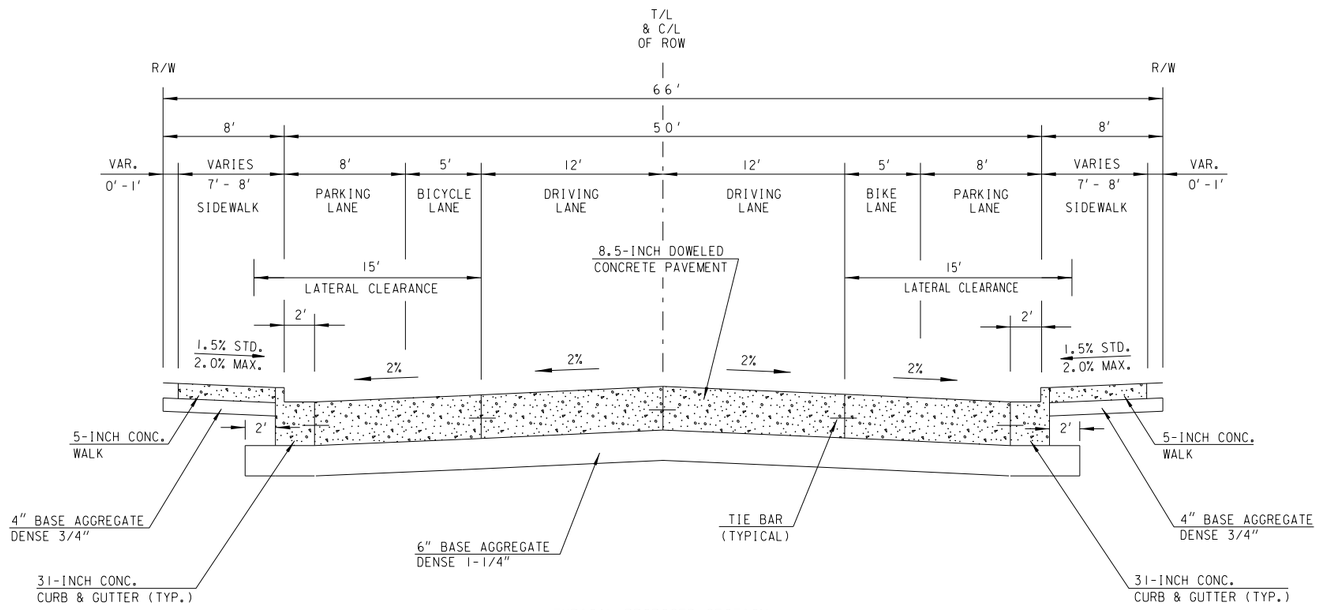
2



TYPICAL EXISTING SECTION

SOUTH CHASE AVENUE (STH 38)

STA. 67+11.0 TO STA. 75+00.0



TYPICAL PROPOSED SECTION

SOUTH CHASE AVENUE

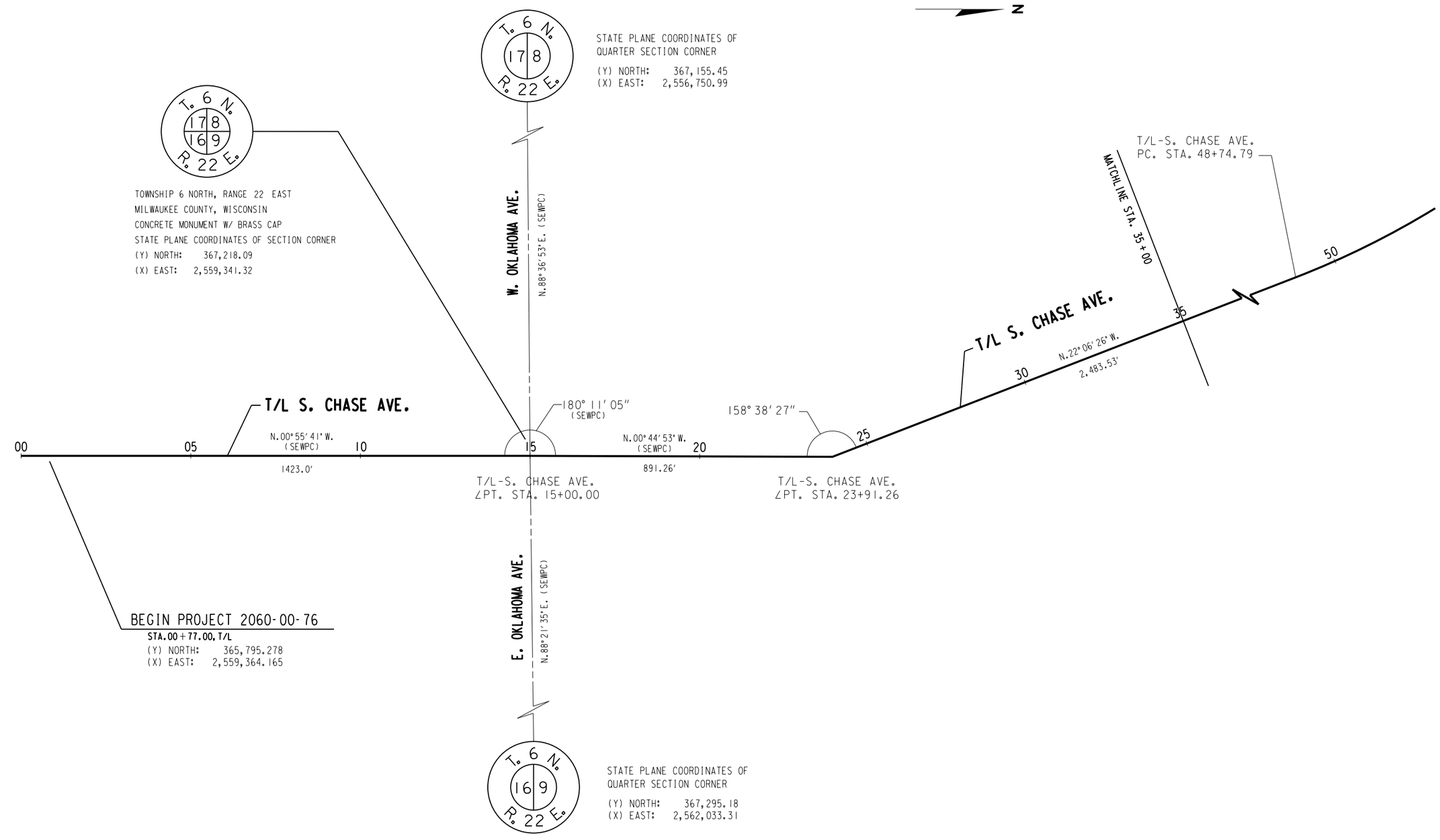
STA. 67+11.0 TO STA. 75+00.0

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 9	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TYPSEC.DGN

REVISED DATE: 02-06-2018 BY PN

2



(SEWPC) THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

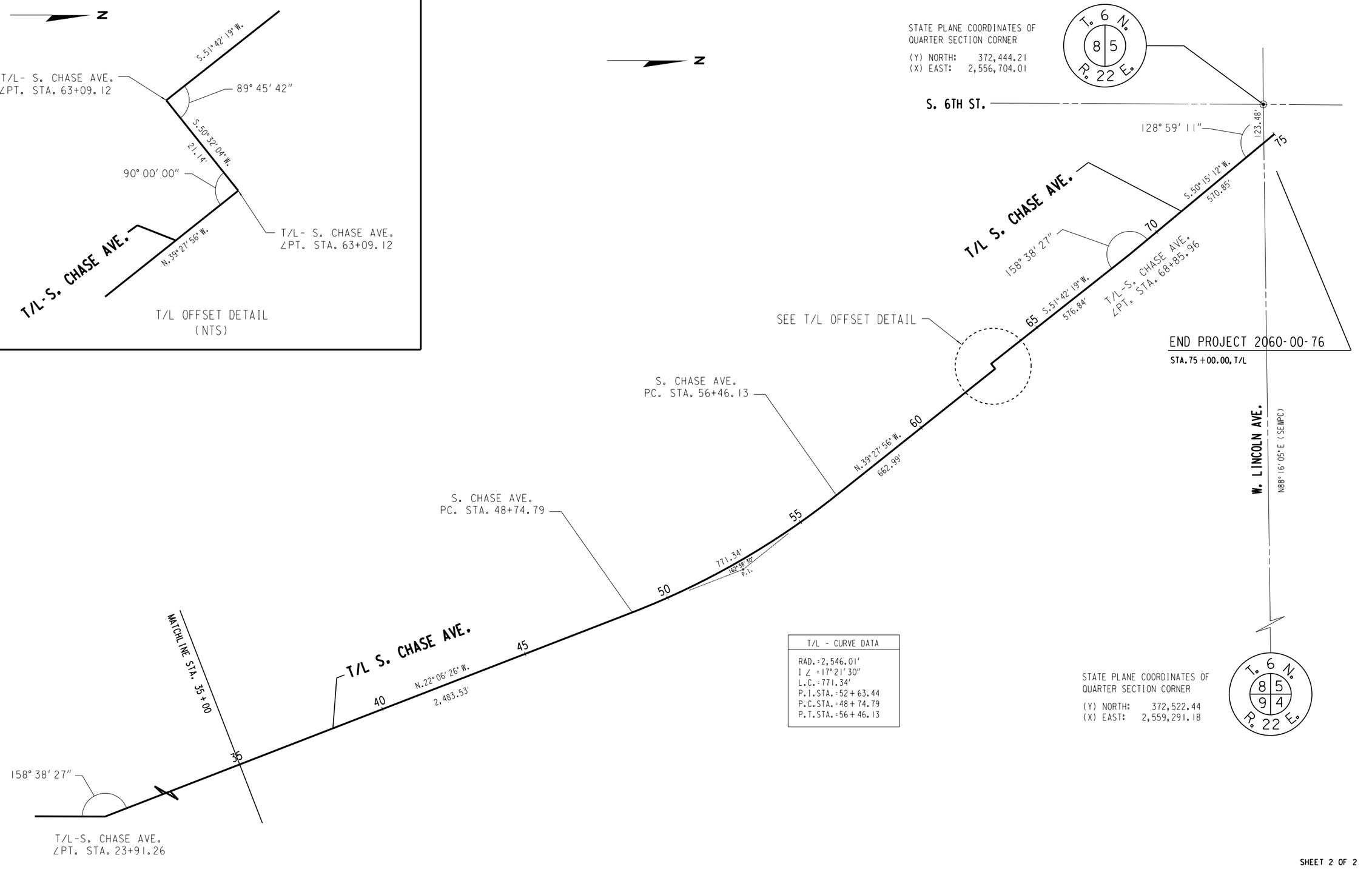
SHEET 1 OF 2

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 10	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\ALIGNMENT1.DGN

REVISED DATE: 03-05-2017 BY PN

T/L OFFSET DETAIL
(NTS)



T/L - CURVE DATA
RAD. = 2,546.01'
I ∠ = 17° 21' 30"
L.C. = 771.34'
P.I.STA. = 52 + 63.44
P.C.STA. = 48 + 74.79
P.T.STA. = 56 + 46.13

SHEET 2 OF 2

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 300'	SHEET NO: 11	E

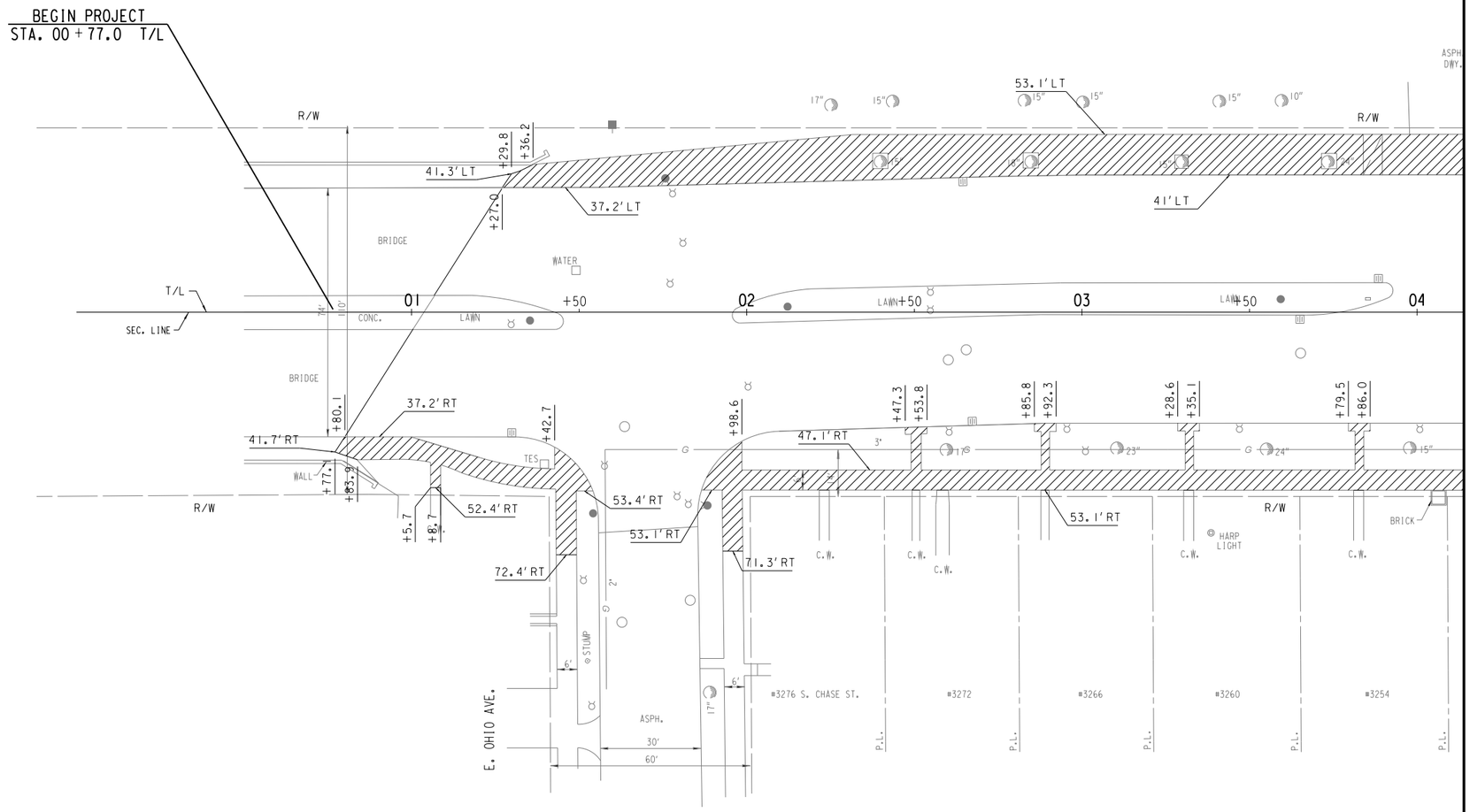
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\ALIGNMENT2.DGN

REVISED DATE: 03-05-2017 BY PN

SOUTH CHASE AVENUE

B.W. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40'LT.
ELEV. 68.48

N



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 12	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 01-04.DGN

REVISED DATE: 11-30-2018 BY AL

2

SOUTH CHASE AVENUE

2

N

PIGGLY WIGGLY
GROCERY
#123 W. OKLAHOMA AVE.

ASPH. DWY. 55' LT
+97.7
+26.2
R/W
14"
53.2' LT
?
C.W.
10" PINE
SIGN
CURB
+17.2
ASPH. DWY. 55' LT
+47.1
CURB
12"
13"
R/W
41.2' LT

04 +50 LAWN 05 +50 6" 6" T/L 06 6" 5" LAWN +50 SEC. LINE 07 +50 LAWN 08 +50 09 +50 10

WEP

+32.6 +39.1 +76.9 +83.4 47' RT CUC +65.2 +71.7 +98.9 +5.4 +36.8 +43.3 +96.2 +2.7 +39.5 +46.0 +6.0 +62.0 +2.0 33.2' RT +97.9

15" 20" 24" 17" 13" 3" 12" G 25" TES 47' RT TES

BRICK
10" PINE
8"
C.W.
R/W
53.2' RT
24" PINE
3"
53.5' RT
53' RT
69' RT
63.8' RT
FLAG POST
2'
R/W
DRAIN
CONC. DWY
53' RT
GAS PUMP

#3254 #3248 #3242 #3236 #3230 #3224 #3218 #3212 #3206 #3200 S. CHASE ST. #3160-3174 S. CHASE ST.

P.L.

B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 05+23 - 35' RT.
ELEV. 65.31

CAUTION

RAILING
E. EUCLID AVE.
6' 15" 1" 3" 18" 18"
ASPH. ON CONC.
6' 6'
30'
60'

B.W. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. EUCLID AVE.
STA. 08+51 - 58' RT.
ELEV. 61.44

CAUTION

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 13	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 04-10.DGN

REVISED DATE: 11-30-2018 BY AL

2

SOUTH CHASE AVENUE

N

#115 W. OKLAHOMA AVE.

ARBY'S RESTAURANT

ASPH. PARKING

W. OKLAHOMA AVE.

LIGHT ON CONC. BASE

CURB

CONC. GUTTER

RAILING

C.W.

SIGN

CONTROL BOX

P.L.

R/W

53.2' LT

41.3' LT

BRICK

CAUTION

100'

76'

ASPH.

+48.7

+51.5

162.1' LT

159.9' LT

+72.4

145.2' LT

+82.1

+87.6

114.2' LT

105.5' LT

FO

ATC

CONC. SIGN

CURB

PLANTER

33' LT

R/W

12'

27' LT

19.4' LT

180° 11' 05"

90° 42' 44"

89° 06' 11"

TEL

TEL

S. CHASE AVE. T/L

SEC. LINE

10 +50 11 +50 12 +50 13 +50 14 +50 15 +50 16

WATER

+97.9

+21.7

+28.2

+65.4

+71.9

33.1' RT

+9.9

+16.4

46.9' RT

+19.2

52.9' RT

15" PINE

2-3" PINE

ASPH.

PARKING BUMPER

CONC. DWY.

+3.6

+29.8

+50.8

+92.3

+99.0

WOOD RAMP

ENT.

LAWN

LONG TRAIL GRILL & PUB

GLUTO FREE TRADING

#3118-3118A

#3114-3116

ASPH. PARKING

CONC.

14' ALLEY

E. OKLAHOMA AVE.

WMSD

107.5' RT

CUC

85.5' RT

142.9' RT

E. OKLAHOMA AVE. T/L

SEE EAST OKLAHOMA AVENUE REMOVAL PLAN SHEET
(STA. 100+00.0 TO STA. 102+64.7)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 14	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 10-16.DGN

REVISED DATE: 12-03-2018 BY AL

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22'LT.
ELEV. 60.62

CHASE COMMERCIAL BUILDING

CAUTION

33'LT

26.8'LT

17.9'LT

+89.9

+96.2

17.9'LT

SEC. LINE

+28.6

+64.9

15.2'LT

30.9'LT

24.9'LT

15.1'LT

+53.2

15.1'LT

+44.3

+65.0

+68.3

15.1'LT

16 +50 17 T/L +50 +50 18 +50 19 +50 20 +50 21 +50 22

R/W ENT. ASPH. FENCE FENCE ASPH. DWY. ASPH. PARKING C.W. C.W. P.L. P.L. R/W

6" 6" 6" G 4" G 7" FO 7" FO 7" FO 9" FO 5" G 8" FO 14" G 15"

FO FO FO

WMSD WATER 1" 3" WEP 16" WMSD 3" 1" WEP

ATC ATC ATC ATC

TES TES

FO 98' 83' 110'

SIGN CURB CURB CURB R/W C.W. C.W. ASPH. DWY. WENDY'S

#3042 TO 3072 S. CHASE AVE.

99'RT

75.1'RT

75.3'RT

99.1'RT

68'RT

75.2'RT

+97.9

+31.5

68'RT

14" LAWN R/W ENT. ASPH. DWY. ASPH. DWY. 13" C.W. #3010 ASPH. PARKING ATC LAWN 12" R/W 14" 76'RT #2990

CAUTION CAUTION CAUTION CAUTION

17" 10" 16" 19' 6" 9" 6' 4" 8" #3030 FOWARD DENTAL COMMUNITY VETERINARY CLINIC

E. GAUER CIRCLE ASPH. 30' 60' 15" CONC. ASPH. DWY. CONC. DWY. P.L. E. MANITOBA ST. 18" 60'

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70'RT.
ELEV. 60.97

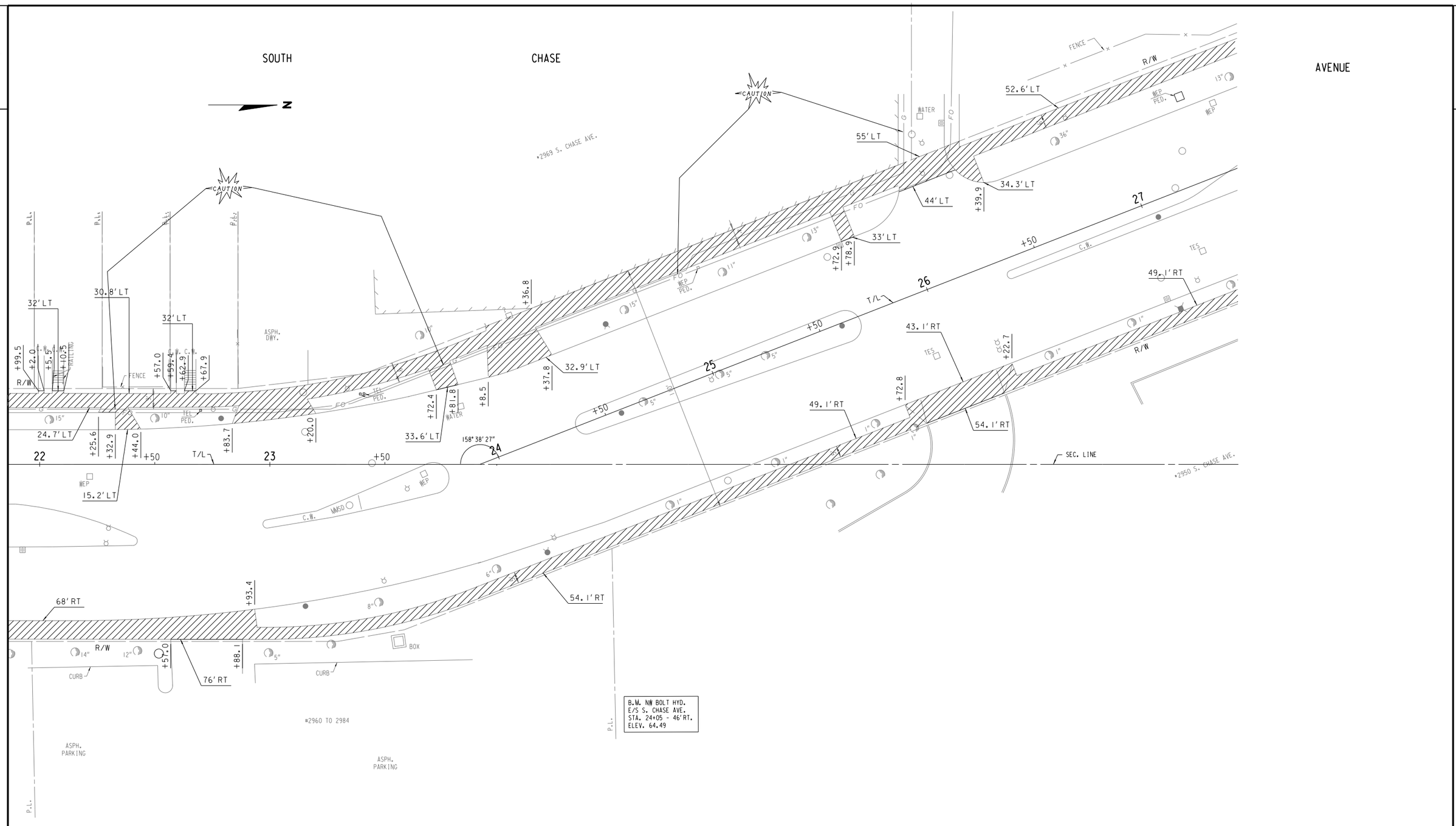
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 16-22.DGN

REVISED DATE: 12-03 [illegible]

SOUTH CHASE AVENUE

2



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 22-27.DGN

REVISED DATE: 12-03-2018 BY AL

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 29+15 - 35'LT.
ELEV. 51.73

*2929 S. CHASE AVE.

FENCE 52.6'LT FRENCH DRAIN CONC. DWY. 54'LT FENCE 52.9'LT FENCE CONC. WALL FENCE 54'LT CONC. DWY CONC. FENCE 52.9'LT

+80.8 +8.9 +73.3 +7.8

R/W R/W

WEP PED. 13" 5" 9" 13" 13" 4" TEL PED. 11" 12" 14" 4" 1"

46.7'LT 46.9'LT 46.9'LT

+59.0 33.1'LT +11.2 +33.2 +39.7 33.1'LT +67.1 33.2'LT +12.3

WEP WEP

WATER

27 +50 28 +50 29 +50 30 +50 31 +50 32 +50 33

T/L C.W. C.W. C.W. WMSD WEP LAWN 12" 6"

TES

49.1'RT +74.7 43.1'RT +25.3 49.1'RT +22.9 +96.7 46.9'RT +14.1 +16.6 +46.6 +49.5 +80.7 +83.7

1" 1" 1" 4" 4" 12" 10"

R/W R/W

6" 13" 54.1'RT 54.1'RT 52.7'RT 9" 9" 52.9'RT

CURB CURB C.W. C.W. C.W.

WMSD 69.4'RT 76.4'RT

E. DAKOTA ST. 18" 14" 34' 60'

ASPH. PARKING •108 TO 118 E. DAKOTA ST. •2836 S. CHASE AVE. •2830 •2826 •2822

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

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. DAKOTA ST.
STA. 30+81 - 58'RT.
ELEV. 48.20

CAUTION

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 17	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 27-33.DGN

REVISED DATE: 12-04-2018 BY AL

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 35+02 - 35'LT.
ELEV. 31.61

N

SOO RAILROAD CO.

PRIVATE ROADWAY & PARKING EASEMENT

60

LIGHT POLE BASE

CONC. SIGN BASE

FENCE

52.9'LT

R/W

46.9'LT

+8.4

44.7'LT

BRIDGE WALL

53.9'LT

R/W

48.9'LT

+22.3

33.1'LT

+50.7

WEP

WMSD

10"

6"

33 T/L +50 34 +50 35 +50 36 +50 37 +50 38 +50 39

STUMP

LAWN

8"

BRIDGE SUPPORT

BRIDGE SUPPORT

+18.4 +21.4 +43.2 +46.2 +79.5 +82.5 +9.3 +12.3 +46.5 +49.5

9" 24" 20"

47'RT

R/W

C.W. C.W. C.W. C.W.

53'RT

CAUTION

*2822 *2816 *2812 *2810-2810A *2804 *2800-2802 S. CHASE AVE.

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

WMSD

CONC. DWY

97.7'RT

ASPH.

30'

60'

18"

E. MONTANA ST.

*100 E. MONTANA ST.

+63.5 +70.0

42.5'RT

48.5'RT

107.1'RT

R/W

+9.1

33.1'RT

+84.2

+15.0

+62.8

42.9'RT

44.8'RT

R/W

SOO RAILROAD CO.

*2715 S. GLADSTONE PL.

CAUTION

*2747 S. GLADSTONE PL.

P.L. P.L.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 18	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 33-39.DGN

REVISED DATE: 12-04-2018 BY AL

2

SOUTH CHASE AVENUE

N

B.M. LIGHT POLE BASE
STA. 42+53 - 45'LT.
ELEV. 13.67

W. ROSEDALE AVE.

40'

28'

P.L.

FULL WALK

*2701 S. CHASE AVE.

*2647 S. CHASE AVE.

*2635

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & W. ROSEDALE AVE.
STA. 44+73 - 42'LT.
ELEV. 9.73

94'LT

LIGHT POLE BASE

TRAP DOOR

ASPH. DWY

CURB

CURB

SIGN

LIGHT POLE BASE

LIGHT POLE BASE

WEP PED.

WMSD

53.9'LT

53.8'LT

53.8'LT

53.1'LT

R/W

R/W

R/W

48.9'LT

42.9'LT

48.8'LT

48.1'LT

+47.4

+0.1

+68.0

+41.5

+5.9

+10.9

TEL PED.

WEP

6" 4" 1" 1" 6" 6" 5" 1" 6" 5" 4" 1"

39 C.W. +50 40 C.W. +50 T/L 41 +50 42 +50 43 C.W. +50 44 +50 45

C.W. C.W. C.W. C.W.

33.1'RT

33.1'RT

34.7'RT

47.8'RT

+55.6

+98.3

+88.2

+16.5

+63.6

+40.1

G G 3' G G G G G

43.7'RT

46.9'RT

STUMP

1" 10" 34" 30" 1"

HANDHOLE BOX

20" 16"

TEL PED.

49.7'RT

52.9'RT

52.9'RT

52.9'RT

53.1'RT

FENCE

28'

R/W

SEWER EASEMENT

SEWER EASEMENT 20

SEWER EASEMENT

20

SEWER EASEMENT

CAUTION

CAUTION

*2650 TO 2700 S. CHASE AVE.
KLEMENT COMPANY

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 40+21 - 37'RT.
ELEV. 17.33

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 19	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 39-45.DGN

REVISED DATE: 12-04-2018 BY AL

SOUTH CHASE AVENUE

N

END CONSTRUCTION
STA. 47+27.8 T/L

PED./ BIKE WAY
PED./ BIKE WAY
RESERVED LOT
KINNICKINNIC RIVER
KINNICKINNIC RIVER PARKWAY (MILWAUKEE COUNTY)
BRIDGE WALL
BRIDGE
CONCRETE BRIDGE COLUMN BASE
CRASH CUSHION
CRASH CUSHION
T/L
P.C. +74.8
WATER
WATER
SEWER EASEMENT
SEWER EASEMENT
SEWER EASEMENT
SEWER EASEMENT
PED./ BIKE WAY
*2644 S. CHASE AVE.
KINNICKINNIC RIVER
S. 1ST ST.
CAUTION
MMSD

53.1'LT
48.1'LT
42.5'LT
35.5'LT
34.9'LT
35.1'LT
52.9'LT
46.9'LT
33'LT
34.9'RT
35'RT
47.6'RT
47.2'RT
53.1'RT
52.2'RT
53.1'RT
42.2'RT
42.2'RT
34.8'RT
64.5'RT
47'RT
53'RT

+5.9
+10.9
+79.4
+71.8
+91.5
+97.7
+91.5
+85.4
+44.0
+44.3
+11.3
+17.8
+26.3
+71.5
+44.0
+57.9
+64.2
+51.3
+57.8
+28.7
+53.6
+64.8
+12.7
+17.3

45 +50 46 +50 47 +50 48 +50 50

498-9996

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 20 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 45-50.DGN

REVISED DATE: 12-04-2018 BY AL

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 51+03 - 35' LT.
ELEV. 22.54

*2529-2579 S. CHASE AVE.

S. 3RD ST.

CAUTION

53.1' LT
47.1' LT
53' LT
47' LT
33' LT
+11.3
+17.8
RAILING
+29.9
96.8' LT
+26.2
+25.8
+93.1
+10.2
+13.9
WMSD
WEP
50
51
52
53
54
55
56
+50
LAWN
WATER
47' RT
+12.7
+17.3
53' RT
46.8' RT
+57.9
+55.9
52.8' RT
46.9' RT
53.1' RT
28'
MATCH LINE
S. 1ST ST.

*2474 S. CHASE AVE.
BARAN PARK

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 21	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 50-56.DGN

REVISED DATE: 12-05-2018 BY AL

SOUTH CHASE AVENUE

2 2

S. 3RD ST. P.I. P.I. P.I. P.I. P.I. P.I. P.I. P.I.

CAUTION CAUTION

2509 S. 3RD ST. 2501 S. CHASE AVE. 2483 S. CHASE AVE. •2479 •2475 •2469 •2459 S. CHA

W. ARTHUR AVE.

C.M. C.M. C.W. C.W.

76'LT 52.7'LT 53'LT 52.8'LT 65.7'LT 72.7'LT 53.6'LT 53.6'LT 53.9'LT

+25.8 +26.6 +33.0 +10.2 +13.9 +61.5 +69.3 +64.1 +19.5 +23.5 +27.0 +91.7 +94.7 +64.7 +76.4 +42.0 +45.2 +61.1 +83.7 +1.1 +18.0 +42.3 +45.3 +91.8 +94.3 +40.1 +54.2 +71.8

46.8'LT 47.1'LT 40.1'LT 41.2'LT 42.1'LT 43.5'LT 45'LT

RAILING RAILING ENT. WATER FENCE FENCE

AMSD WEP TES

56 +50 57 +50 58 +50 59 +50 60 +50 61 +50 62

P.T. +46.1 LAWN LAWN LAWN

33'RT 46.7'RT 32.9'RT 32.9'RT 47.2'RT

46.6'RT +44.9 +80.3 32.9'RT +68.9 +92.6

52.9'RT 55'RT 55'RT 52.8'RT 52.8'RT +70.7 +90.8 53.2'RT

•2450-2458 S. CHASE AVE. P.I. •2454 S. 4TH ST. CAUTION P.I.

B.M. NW BOLT HYD.
E/S S. CHASE AVE. @ W. ARTHUR AVE.
STA. 57+80 - 35'RT.
ELEV. 53.96

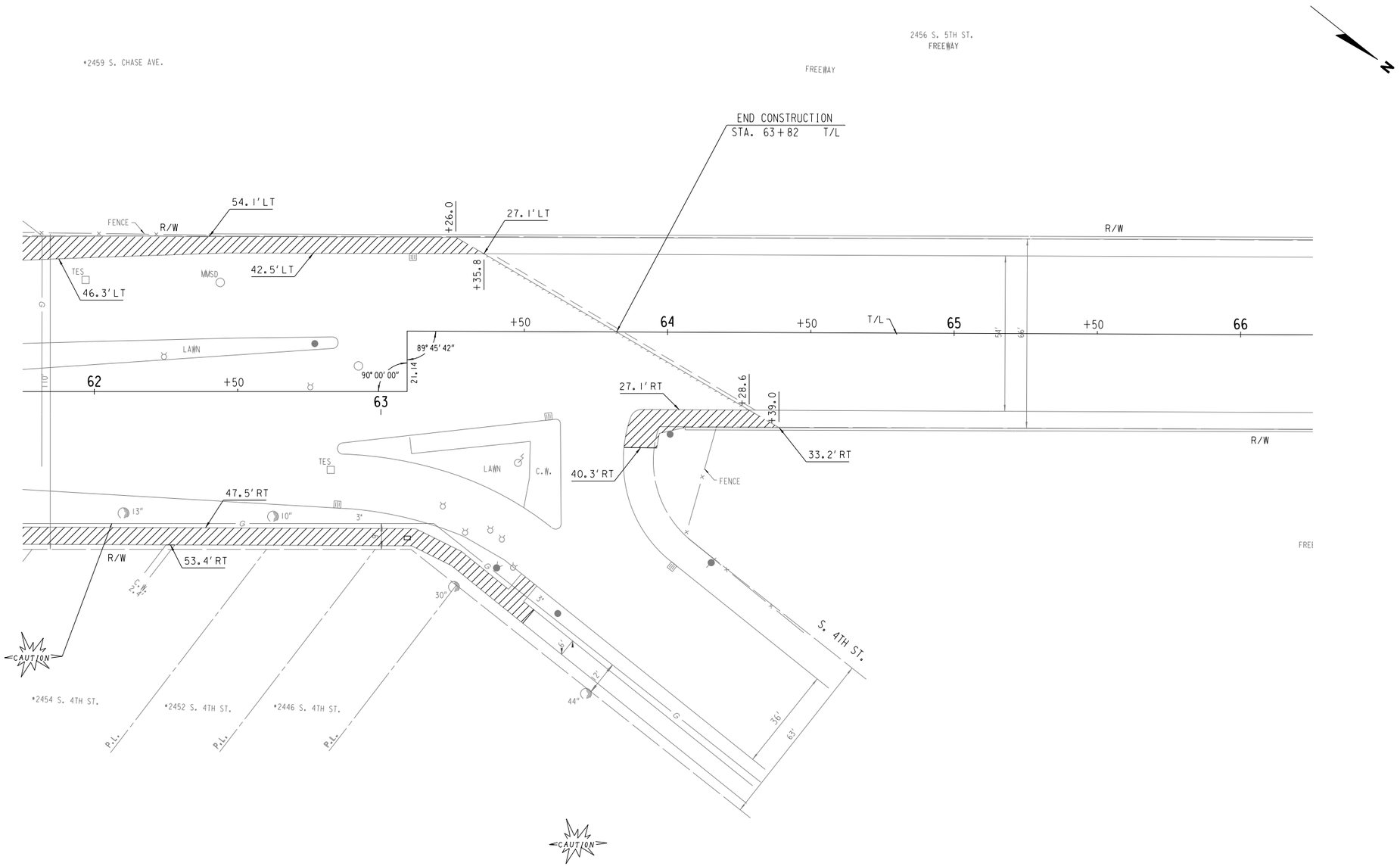
B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 60+66 - 35'RT.
ELEV. 58.52

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 22	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 56-62.DGN

REVISED DATE: 12-05-2018 BY AL

SOUTH CHASE AVENUE



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 23	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 62-66.DGN

REVISED DATE: 12-05-2018 BY AL

2

SOUTH CHASE AVENUE

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & S. 5TH ST.
STA. 68+72 - 37'LT.
ELEV. 51.32

S. 5TH ST.

W. HAYES AVE.

149.6'LT
+32.2
140.8'LT
+42.8
+50.9
+53.2
+67.6
+70.0
+79.5
108.2'LT
+93.0
103.5'LT
+8.3
+10.6
MMSD
65.4'LT
+36.5
53.1'LT
+51.3
+60.9
+73.2
45.7'LT
+75.4
+79.8
87.8'LT
+26.4
+17.8
33.2'LT
+54.3
+65.0
27.1'LT
+56.8
27.1'RT
+66.9
33'RT
+80.1
38'RT
+76.5
63.1'LT
+49.1
68.2'LT
+55.2
+22.8
33.3'LT
25.8'LT
24.6'RT
32.4'RT
64.2'RT
+93.5

*2413 S. 5TH ST.
*2409 S. 5TH ST.
*2405 S. 5TH ST.
*2403 S. CHASE AVE.
*2341 S. CHASE AVE.
*2323-2337 S. 5TH ST.

66 +50 67 +50 68 +50 69 +50 70 +50 71

178°32'53"

FREEWAY

FIBER OPTIC
CAUTION
FIBER OPTIC
CAUTION

C.W. P.L. FO G CONC. ENT. WEP

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 24	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 66-71.DGN

REVISED DATE: 12-06-2018 BY AL

SOUTH CHASE AVENUE

CAUTION

*2341 S. CHASE AVE.

40'
26'
C.W.
+7.9
+4.0
+92.9
+88.8
33.6'LT
25.8'LT
50'LT
42'LT
4'

P.I.
P.I.
P.I.
P.I.
P.I.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

ASPH. PARKING

32.9'LT
25.6'LT
+20.5
30.7'LT
47.7'LT
+43.0
+47.5

S. 6TH ST.

CAUTION

END PROJECT
STA. 75+00.0 T/L

N

71 +50 72 +50 73 +50 74 +50 75

128°59'11"

+92.4
2.9'LT
*2265-2279 S. CHASE AVE.

24.7'RT
22.6'RT
16.5'RT
TEL
30.6'RT
12"
TES
32.8'RT
74.5'RT
+22.6
+30.4
89.6'RT

CONC. 20' ALLEY

5TH ST.

*525 W. LINCOLN AVE.

+99.3
+79.4
+87.1
39.8'RT
+85.3
LAWN
BRICK
64.1'RT
68.5'RT
LAWN
BRICK
*550 W. LINCOLN AVE.
LAWN
+37.2
S. 5TH PL.
119.9'RT
+33.2

CAUTION

+80.7
135.2'RT
+19.0
143.2'RT
BMS
+12.3
W. LINCOLN AVE.
*522 W. LINCOLN AVE.

CAUTION

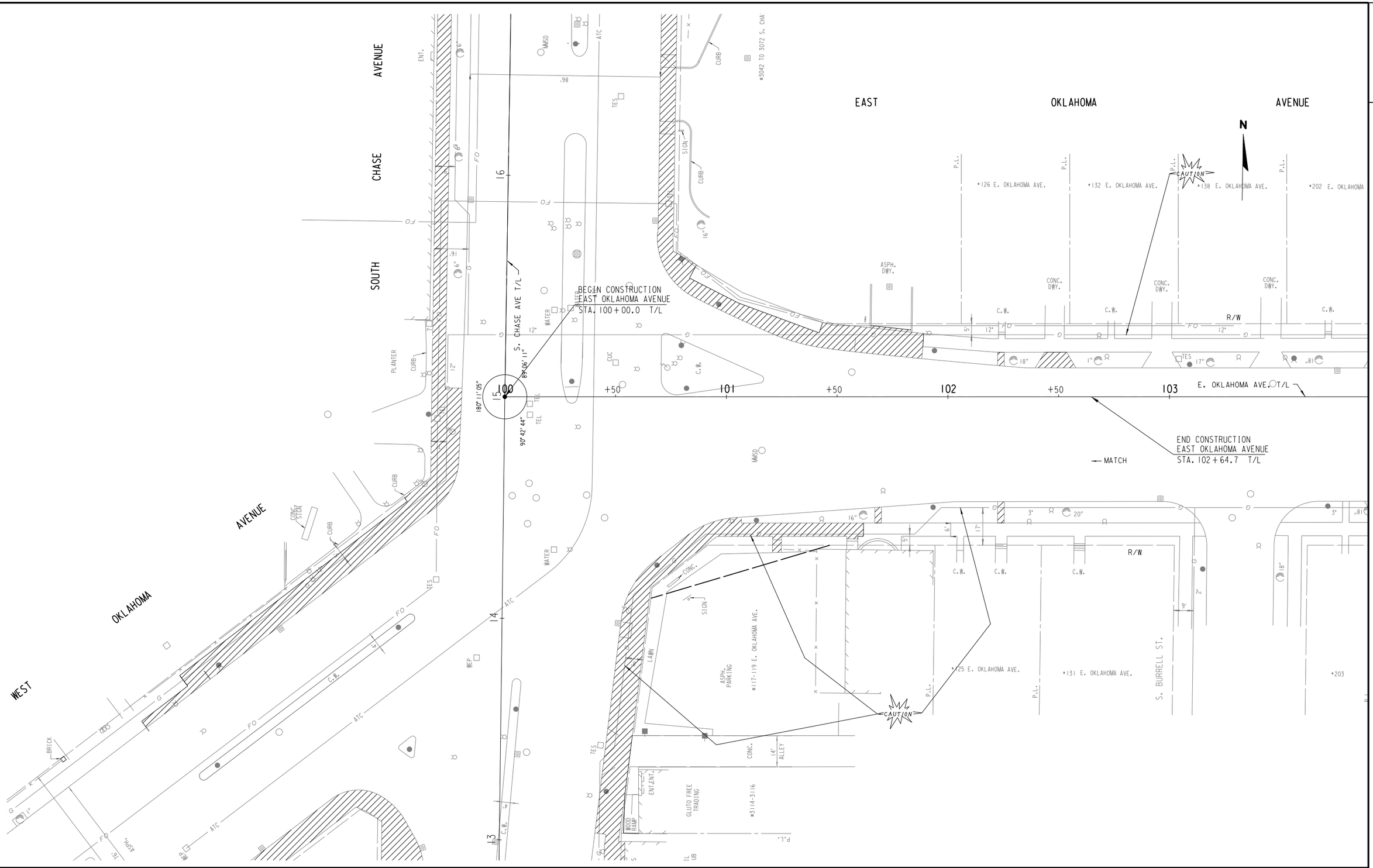
B.M. NW BOLT HYD NE CORNER
W. LINCOLN AVE. & S. 5TH PL.
STA. 74+00 - 127'RT.
ELEV. 45.75

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 25	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 71-75.DGN

REVISED DATE: 12-06-2018 BY AL

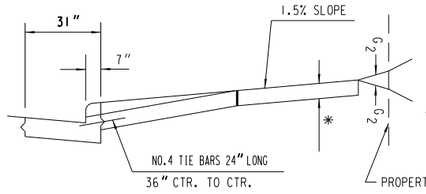
2



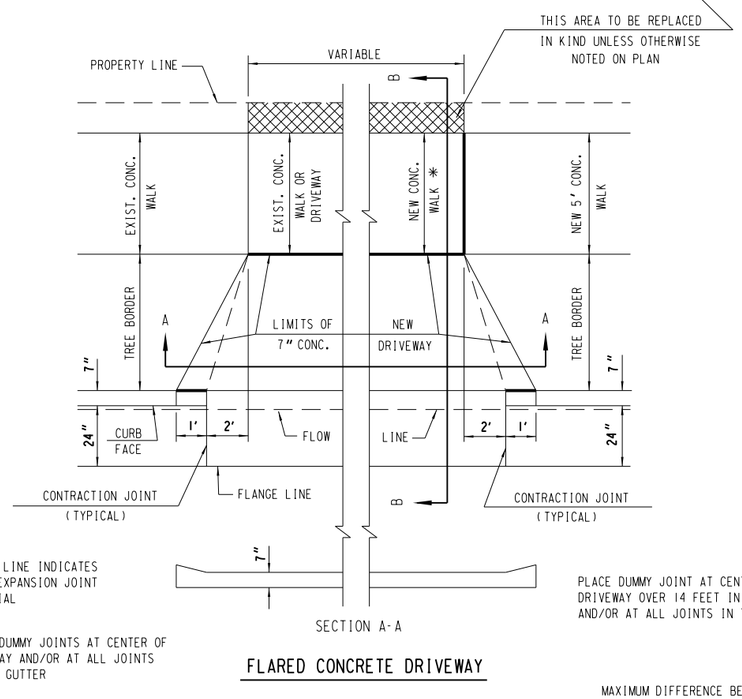
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	REMOVAL PLAN	SCALE FEET 0' 40'	SHEET NO: 26	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\REMOVAL 100-106.DGN

REVISED DATE: 12-06-2018 BY AL



SECTION B-B



FLARED CONCRETE DRIVEWAY

HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

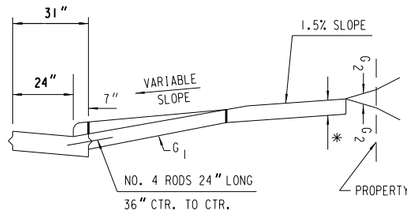
PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

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

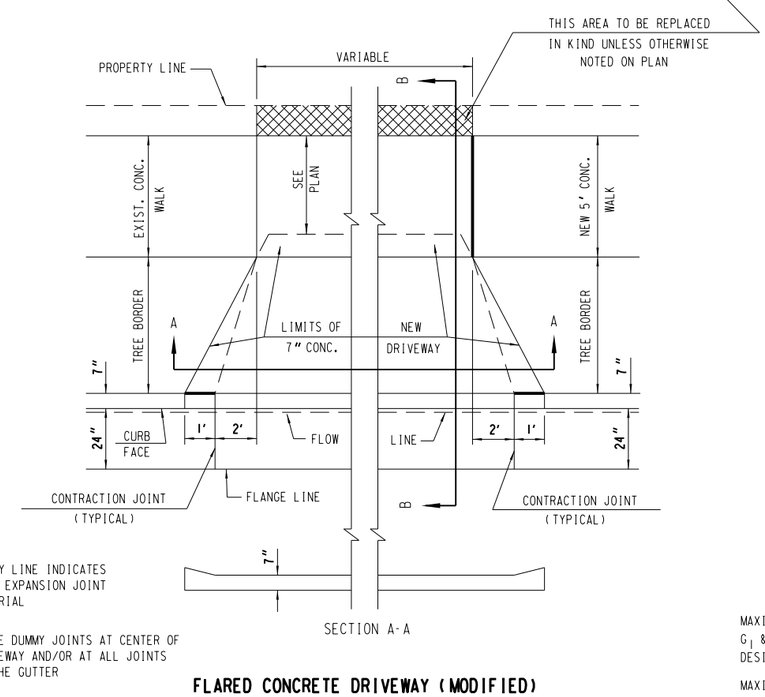
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 NOT TO EXCEED 15% DESIRABLE MAXIMUM = 10%

MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

* LOCATIONS PER PLAN: USE 9" CONC. FOR HEAVY COMMERCIAL OR INDUSTRIAL PROPERTY AND 7" CONC. FOR LIGHT COMMERCIAL PROPERTY.



SECTION B-B



FLARED CONCRETE DRIVEWAY (MODIFIED)

HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

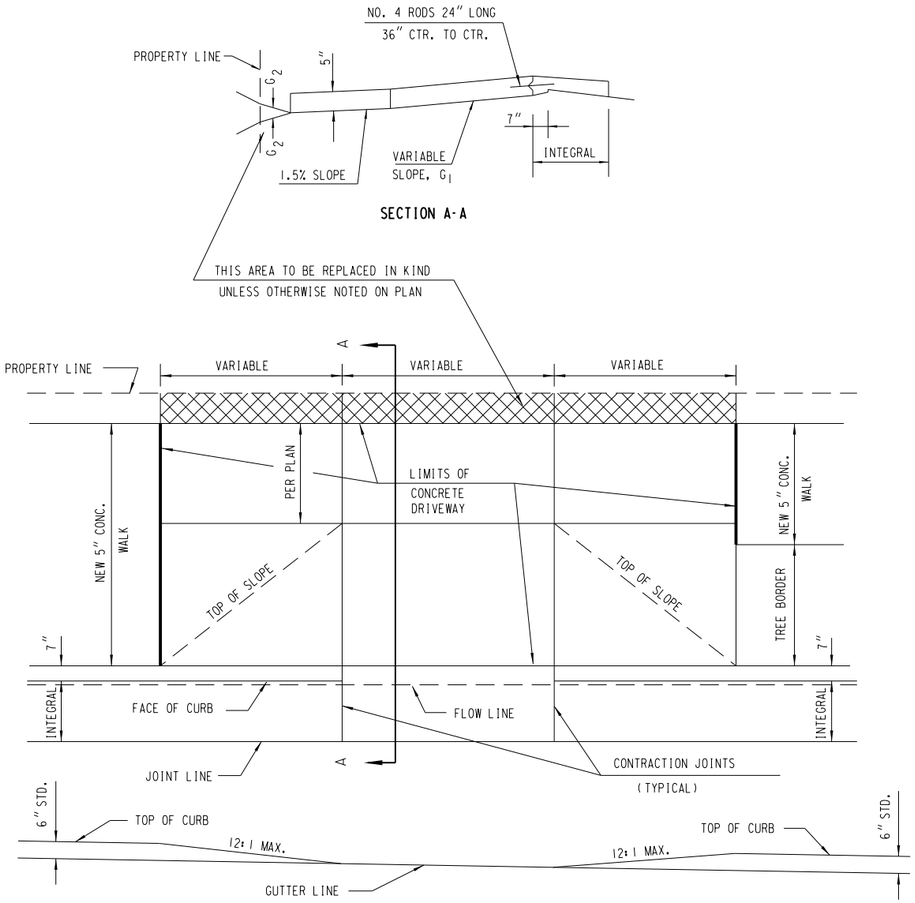
PLACE DUMMY JOINTS AT CENTER OF DRIVEWAY AND/OR AT ALL JOINTS IN THE GUTTER

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 9" CONC. FOR HEAVY COMMERCIAL OR INDUSTRIAL PROPERTY AND 7" CONC. FOR LIGHT COMMERCIAL PROPERTY.

2



HEAVY LINE INDICATES 1/2" EXPANSION JOINT MATERIAL

DRIVEWAY CONSTRUCTION NOTES

CONSTRUCT DRIVEWAY TO PROPERTY LINE ONLY WHEN MATCHING EXISTING DRIVEWAY AND INSTALL 1/2" EXPANSION JOINT MATERIAL BETWEEN NEW AND OLD DRIVEWAY, PLACE DUMMY JOINT AT CENTER OF DRIVEWAY AND AT ALL JOINTS IN THE GUTTER

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

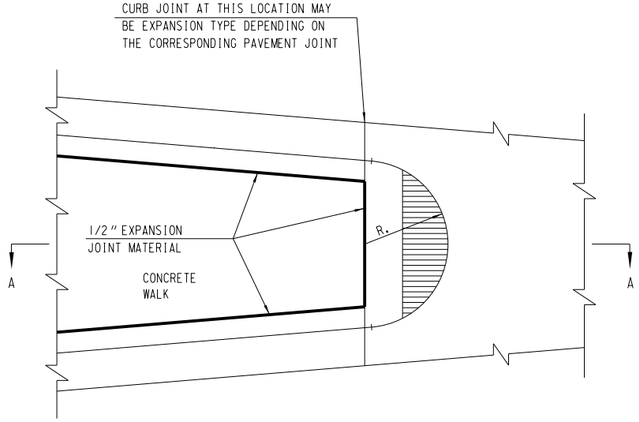
MAXIMUM DIFFERENCE BETWEEN G_1 & G_2 IN FILL = 14%

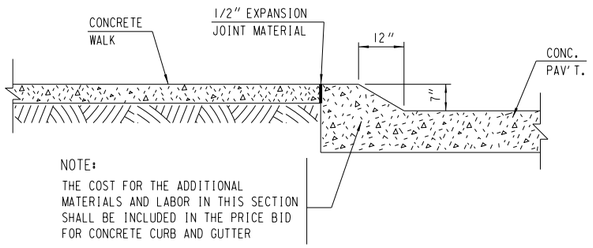
DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 28	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 12-17-2018 BY PN





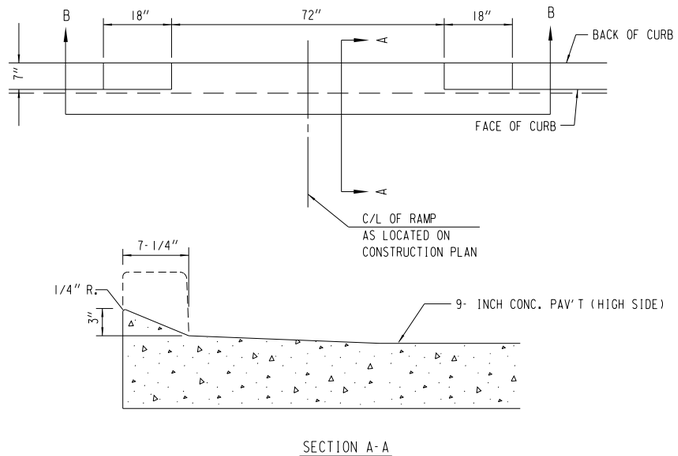
SECTION A-A

SNOWPLOWABLE MEDIAN ISLAND NOSE

(TYPICAL SECTION OF CONCRETE CURB & GUTTER
TO BE CONSTRUCTED AT END OF MEDIAN ISLAND)



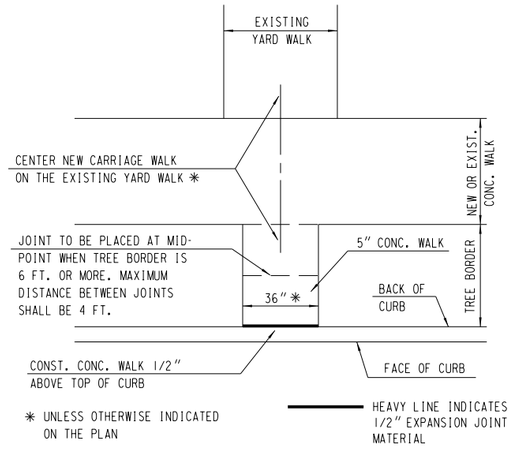
SECTION B-B



SECTION A-A

MAINTENANCE RAMP

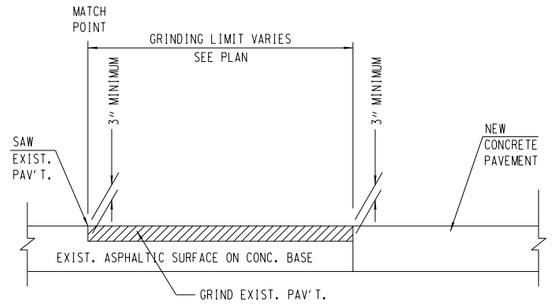
2



CARRIAGE WALK

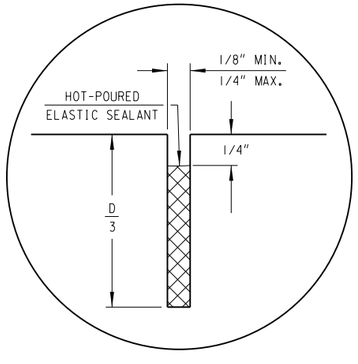
Ⓒ ✳ LOCATIONS SHOWN ON PLAN SHEETS

2



REMOVING ASPHALTIC SURFACE BUTT JOINTS

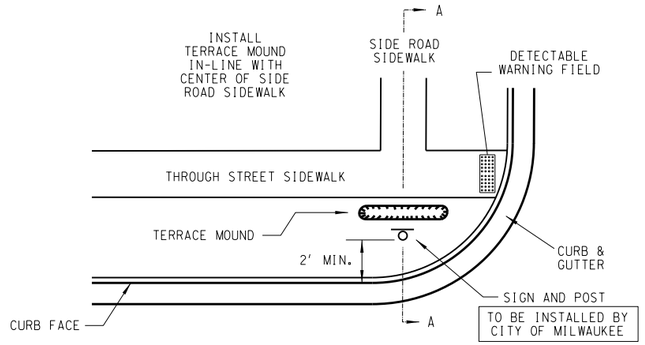
IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT



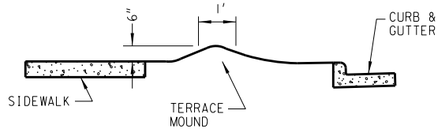
JOINT SEALING DETAIL

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

2

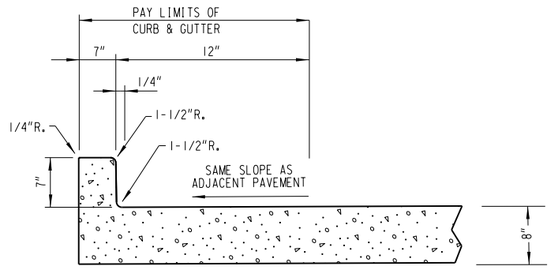


MOUND AND SIGN LOCATION DETAIL



TERRACE MOUND DETAIL
SECTION A-A

CROSSWALK CLOSURE DETAILS



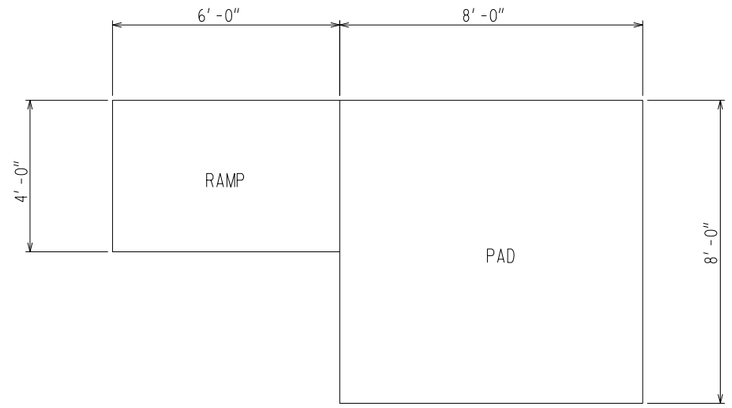
CONCRETE CURB INTEGRAL TYPE D

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 32	E

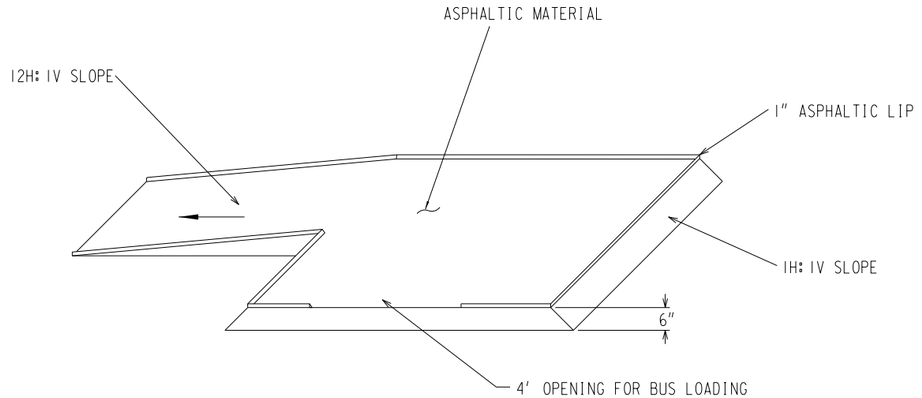
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 04-10-2017 BY PN

2



NOTE:
RAMP MAY BE LONGER
IF ROADWAY SLOPE REQUIRES



NOTE:
RAMP SHALL BE PLACED TO FACE
TOWARDS PEDESTRIAN CROSSING

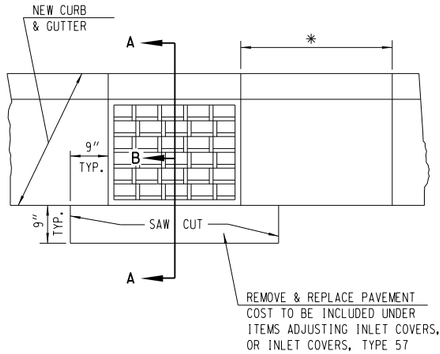
TEMPORARY BUS LOADING ZONE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 33	E

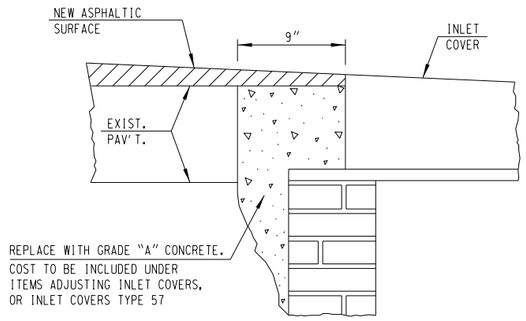
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 04-10-2017 BY PN

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

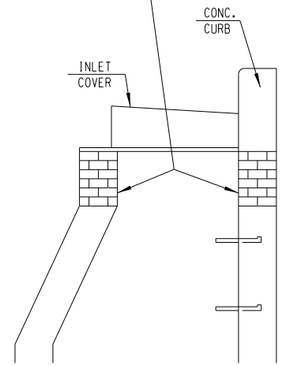


PLAN VIEW



SECTION A-B

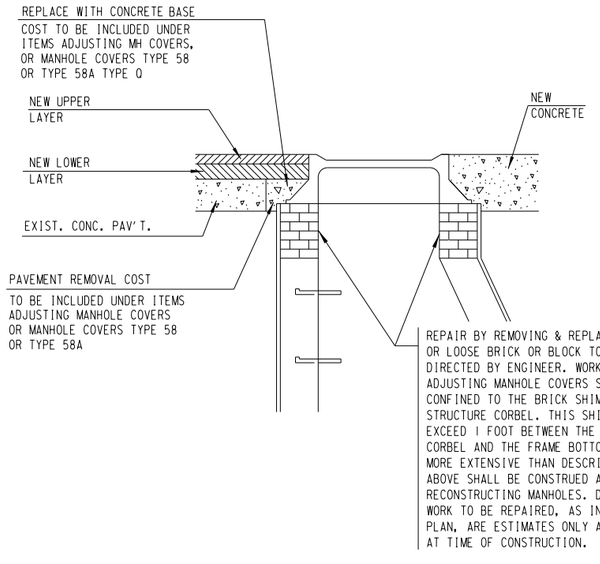
REPAIR BY REMOVING & REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO DEPTH AS DIRECTED BY ENGINEER. WORK UNDER ADJUSTING CATCH BASIN COVERS SHALL BE CONFINED TO THE BRICK SHIMMING ABOVE THE STRUCTURE CORBEL. THIS SHIMMING SHALL NOT EXCEED 1 FOOT BETWEEN THE TOP OF THE CORBEL AND THE FRAME BOTTOM. ANY WORK 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 TYPE 57

NOTE: ADJUSTMENT WORK INCIDENTAL WITH PLACING NEW COVER.

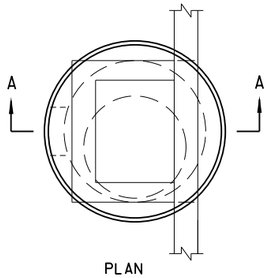


MANHOLE COVERS TYPE 58A

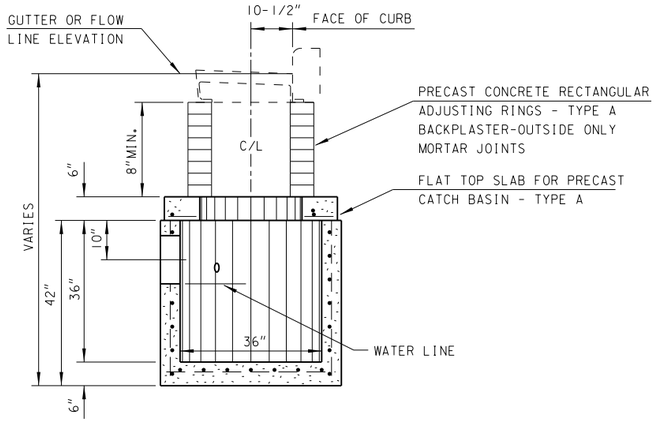
NOTE: ADJUSTMENT WORK INCIDENTAL WITH PLACING NEW COVER.

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.



PLAN



SECTION A-A

CATCH BASIN - TYPE 45A

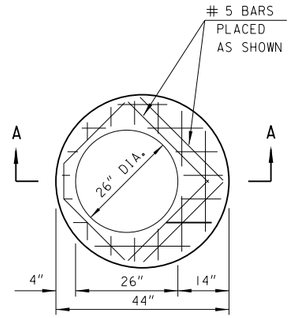
GENERAL NOTES

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.

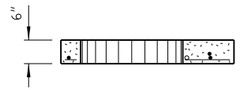
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

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

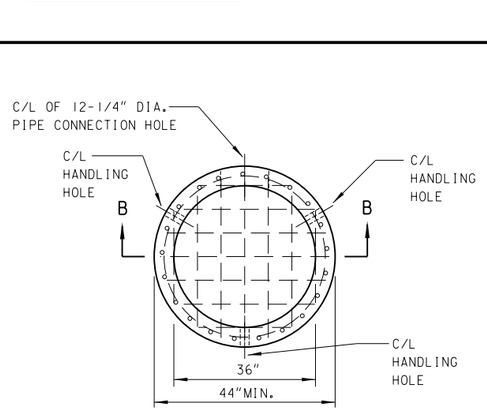
TOP SLAB - TYPE A

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.

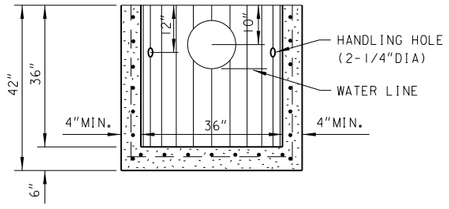
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

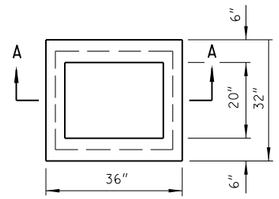
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



RISER SECTION WITH INTEGRAL BASE PLAN



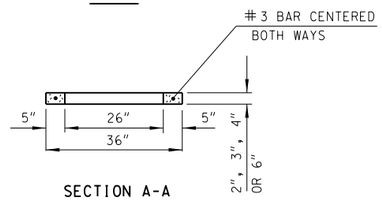
SECTION B-B



PLAN

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.



SECTION A-A

RECTANGULAR ADJUSTING RING - TYPE A

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.

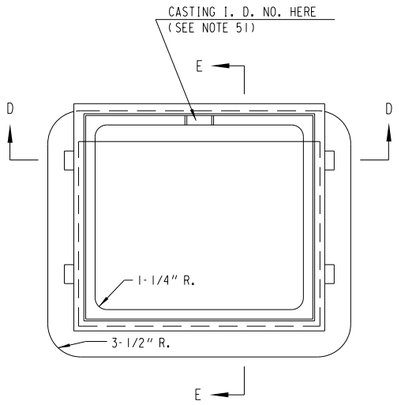
RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

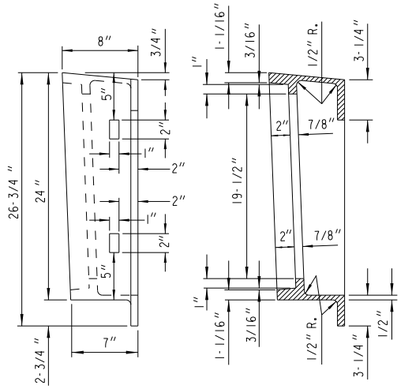
TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

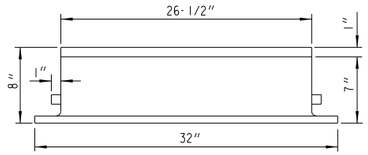
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.

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

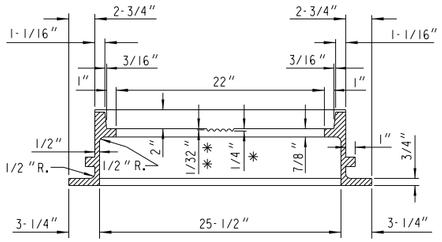




SECTION E-E



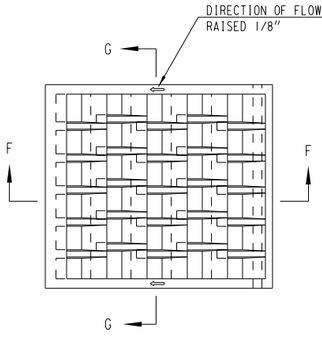
FRAME



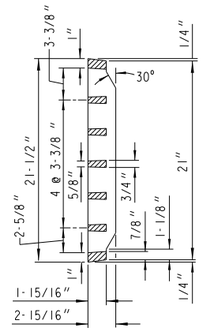
SECTION D-D

* DEPRESSION FOR LETTERS

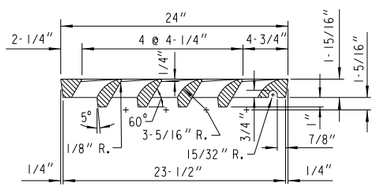
* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



GRATE



SECTION G-G



SECTION F-F

INLET COVER - TYPE 57

LID- 145 LBS., FRAME-204 LBS.

GENERAL NOTES

ALL EDGES ARE TO BE GROUND

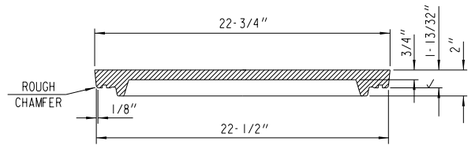
ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8"

ON THE FRAME

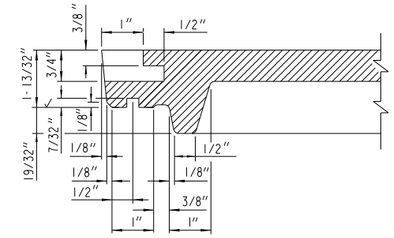
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.
2. ON THE SEAT OF THE FRAME IN 1 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (51).

ON THE GRATE

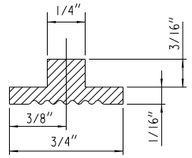
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (57) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

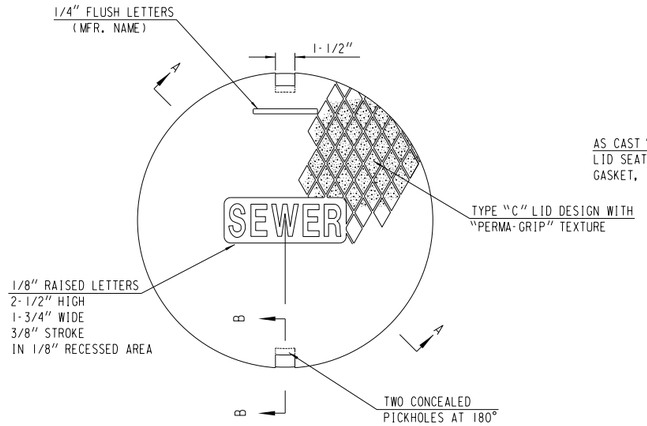


SECTION A-A

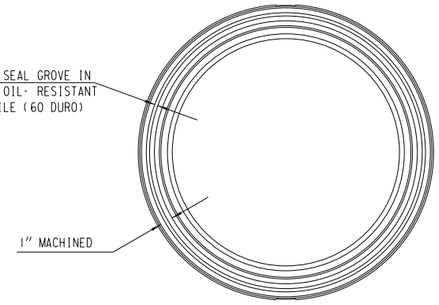


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

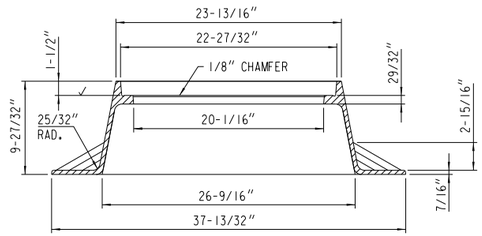
LID - 107 LBS.

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.



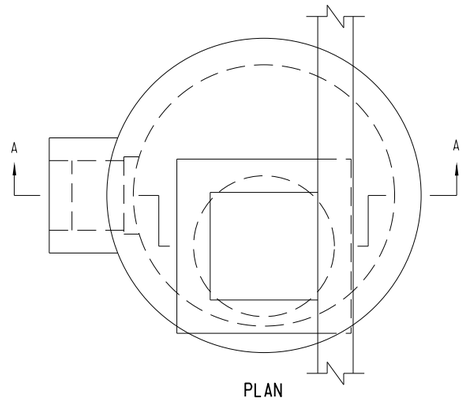
MANHOLE FRAME - TYPE MS21

FRAME - 182 LBS.

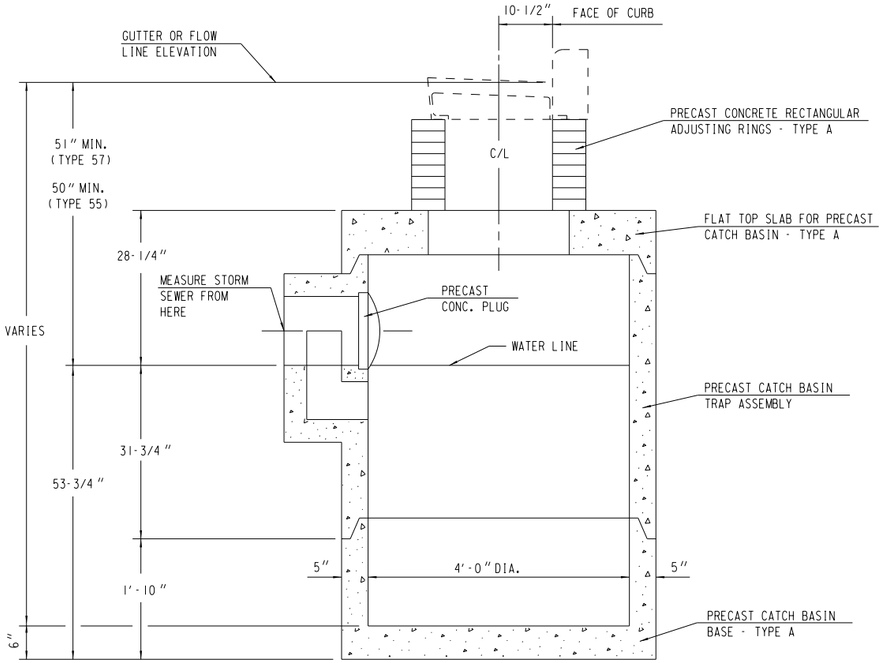
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 36	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 04-10-2017 BY PN



PLAN

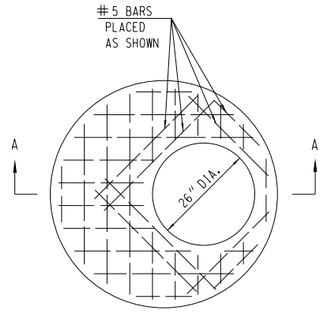


SECTION A-A

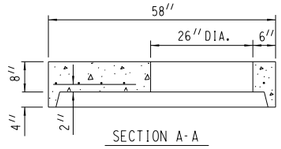
CATCH BASIN - TYPE 44A

GENERAL NOTES

1. REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
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.
5. A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.



PLAN



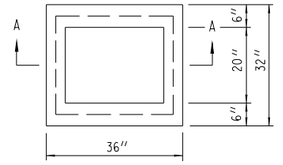
SECTION A-A

TOP SLAB - TYPE A

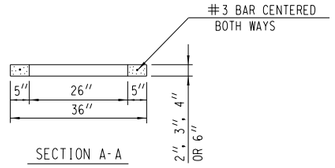
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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



PLAN

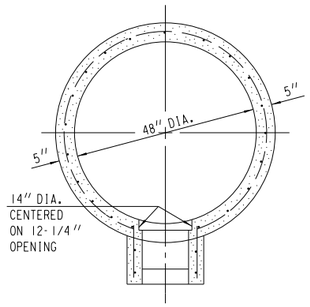


SECTION A-A

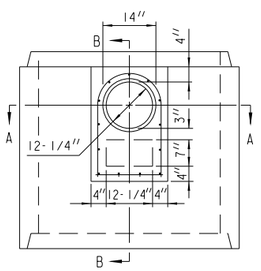
RECTANGULAR ADJUSTING RING - TYPE A

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

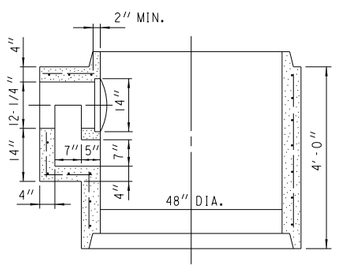
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A



PLAN



SECTION B-B

TRAP ASSEMBLY

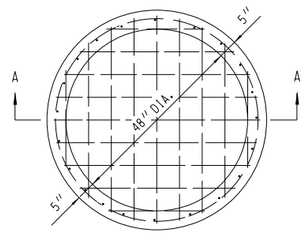
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

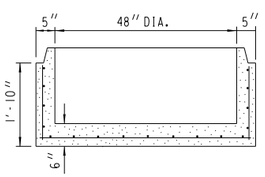
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.



PLAN



SECTION A-A

BASE - TYPE A

CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

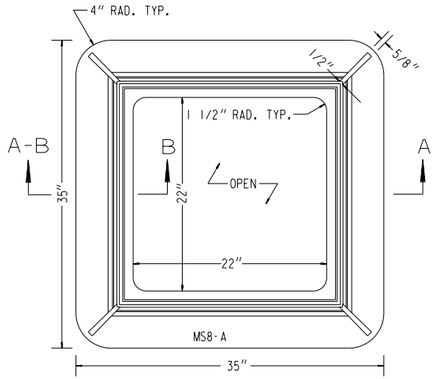
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

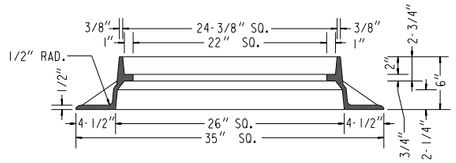
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 37	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

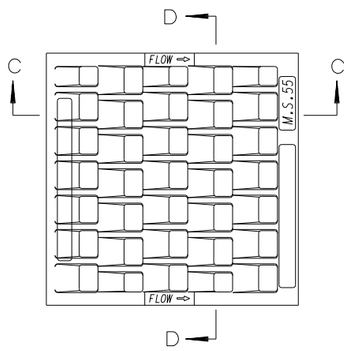
REVISED DATE: 04-10-2017 BY PN

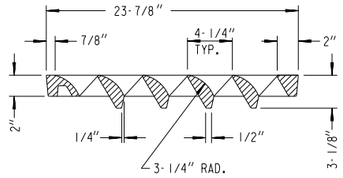


TOP VIEW

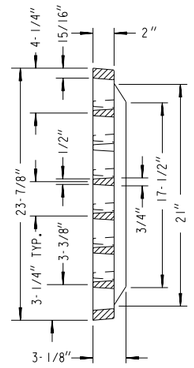


SECTION A-A





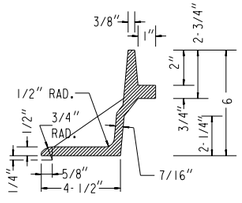
SECTION C-C



SECTION D-D

GRATE DETAIL

MS-55
SCALE N.T.S.



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.

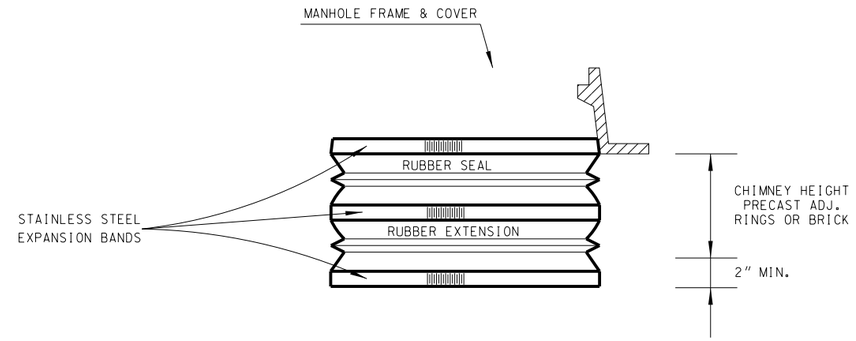
ALL CASTINGS SHALL BEAR THE FOLLOWING IDENTIFICATION MARKS IN THE FORM OF LEGIBLE LETTERS OR NUMERALS RAISED 1/8 INCH

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

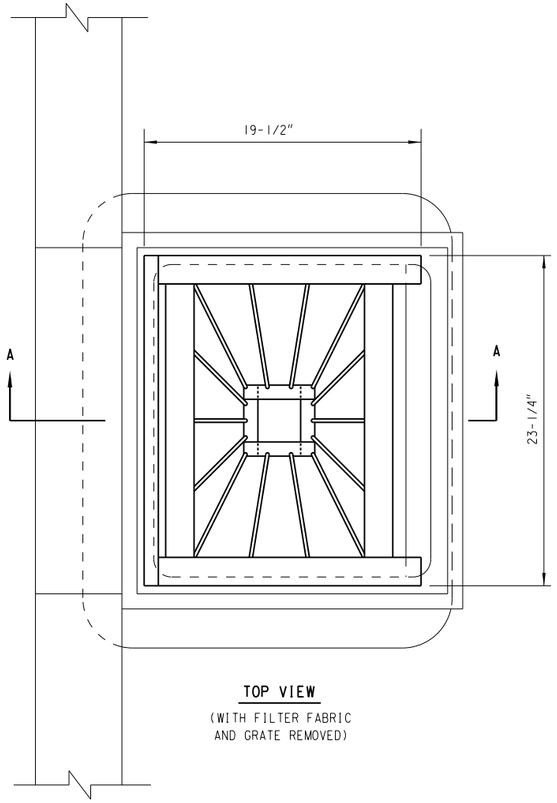
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (MS-55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.



SLEEVE AND EXTENSION SHALL EXTEND TO CORBEL

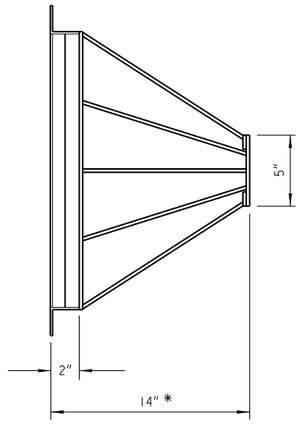
PRECAST, BLOCK OR BRICK
MH CONE/CORBEL

INTERNAL SANITARY MANHOLE SEAL



TOP VIEW

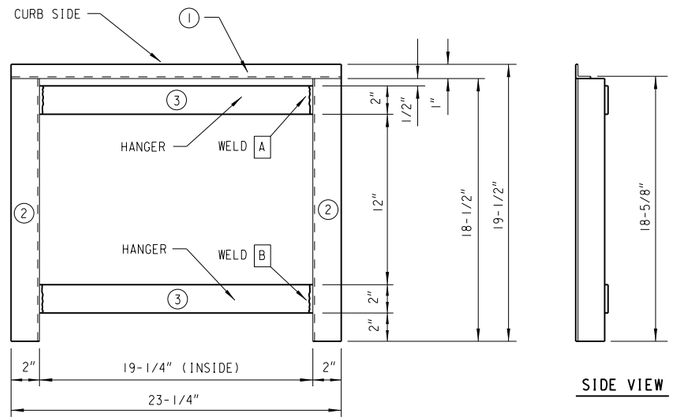
(WITH FILTER FABRIC AND GRATE REMOVED)



FRONT VIEW

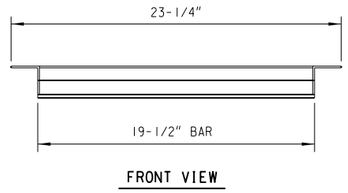
(BASKET ONLY)

* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH

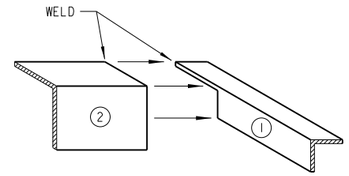


TOP VIEW

SIDE VIEW

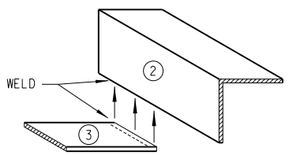


FRONT VIEW



WELD CONNECTION - A

TOP FRAME

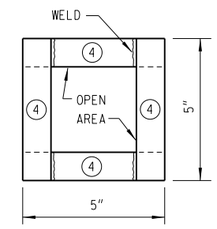


WELD CONNECTION - B

BASKET HANGER TO TOP FRAME

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
1	ANGLE	1" X 1"	1/8"	23-1/4"	1
2	ANGLE	2" X 2"	1/8"	18-1/2"	2
3	BAR	2"	1/4"	19-1/2"	2



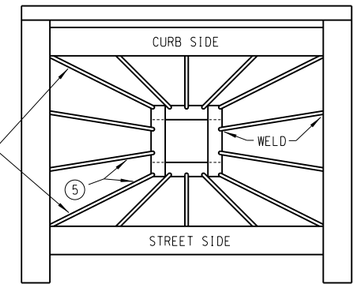
TOP VIEW

SIDE VIEW

BAR SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
4	BAR	1"	1/4"	5"	4

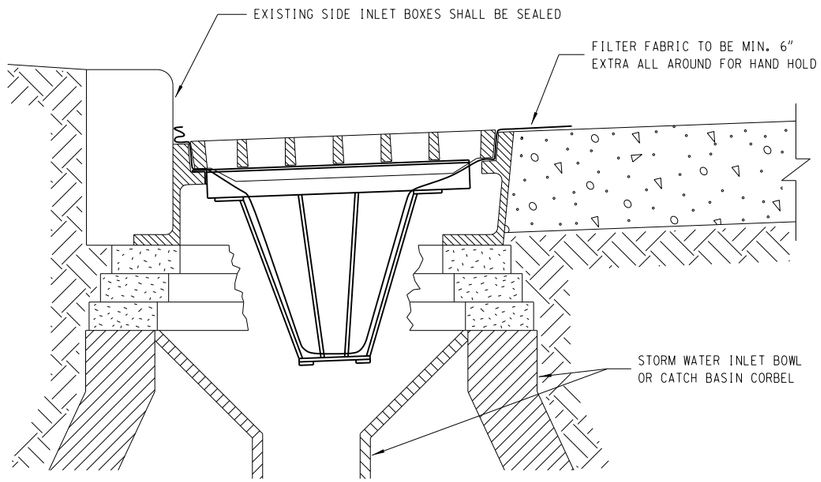
BASKET BOTTOM



ROD PLACEMENT

ROD SCHEDULE

NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
5	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14



SECTION A-A

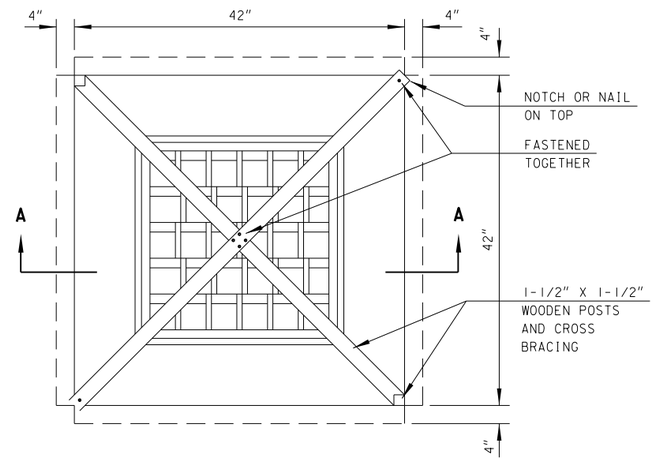
TYPE M
INLET / CATCH BASIN SCREEN

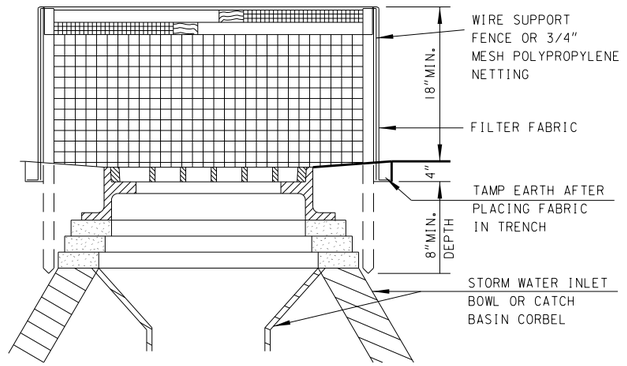
STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 40'	SHEET NO: 39	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\DRAINDET.DGN

REVISED DATE: 04-18-2018 BY: ML

2

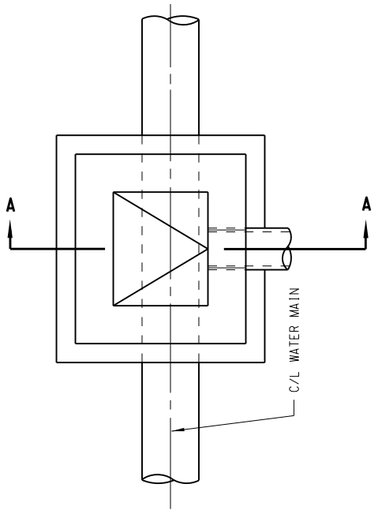




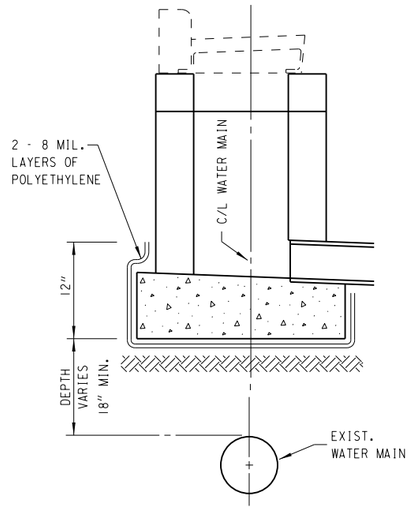
SECTION A-A

INLET SCREEN

(NOT PAVED) (TYPE R)



PLAN VIEW

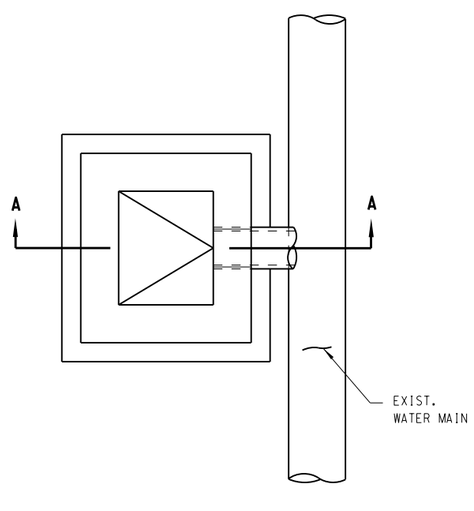


SECTION A-A

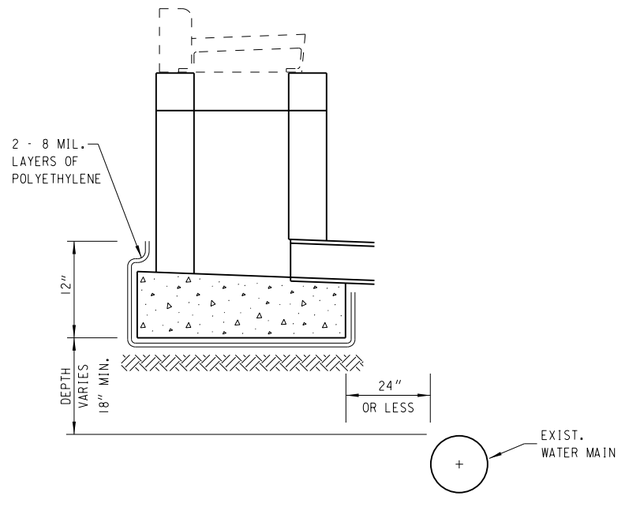
WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH
LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE
FROM STRUCTURE TO WATER MAIN

DRAINAGE STRUCTURES	
NO.	LOCATION
30	16 + 50, 30.5' RT.
51	32 + 75, 40.5' RT.
53	34 + 93, 41.0' LT.



PLAN VIEW

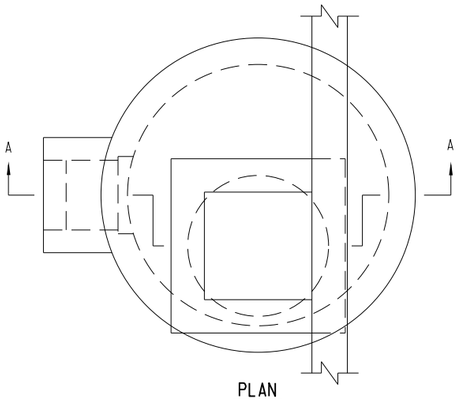


SECTION A-A

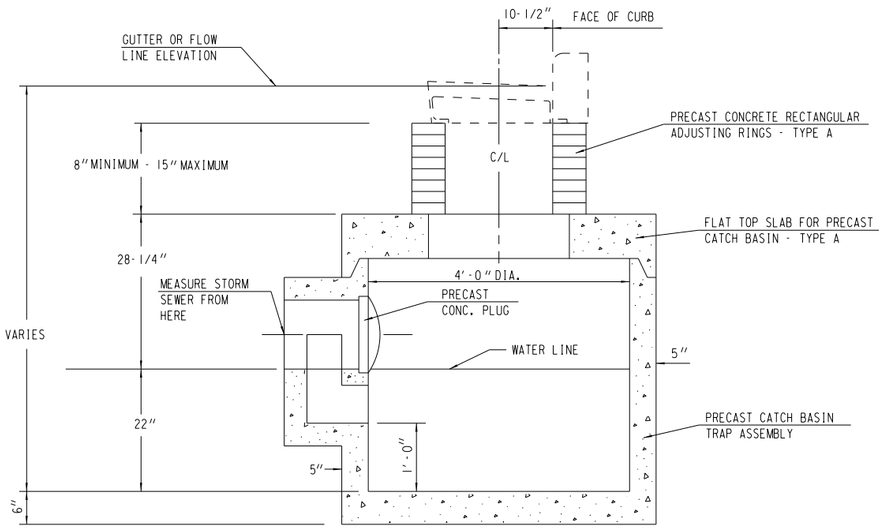
WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH
LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE
FROM STRUCTURE TO WATER MAIN

DRAINAGE STRUCTURES			
NO.	LOCATION	NO.	LOCATION
7	5 + 37, 08.0' LT.	50	32 + 20, 44.0' LT.
29	15 + 75, 65.2' RT.	61	43 + 57, 44.0' LT.
36	18 + 75, 66.0' RT.	79	56 + 13, 55.0' LT.
37	19 + 62.5, 22.0' LT.	84	63 + 11.5, 62.0' RT.
38	20 + 10, 66.0' RT.	87	67 + 19.6, 97.0' LT.
39	21 + 00, 83.0' RT.	88	68 + 41, 25.0' LT.
42	21 + 45, 22.0' LT.	92	69 + 50, 25.5' LT.
43	21 + 51, 66.0' RT.	95	71 + 52, 25.0' LT.
45	26 + 96, 44.0' RT.	96	71 + 94, 25.0' LT.
47	27 + 71, 03.0' RT.	3A	73 + 87, 25.0' LT.
48	29 + 20, 41.0' LT.	5A	74 + 34, 27.0' LT.
49	30 + 20, 44.0' RT.		



PLAN

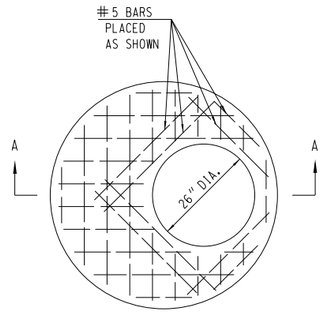


SECTION A-A

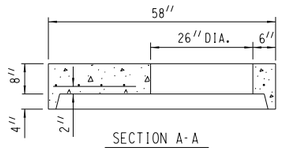
CATCH BASIN - TYPE 44B

GENERAL NOTES

1. REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
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.
5. A PRECAST CONCRETE PLUG SHALL BE CEMENTED INTO THE OPENING AT THE INNER FACE OF THE CATCH BASIN TRAP ASSEMBLY.



PLAN



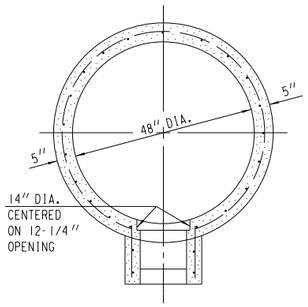
SECTION A-A

TOP SLAB - TYPE A

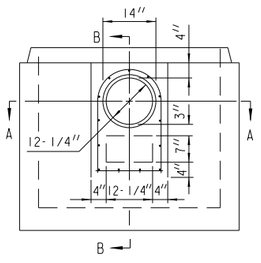
FLAT TOP SLAB SHALL BE 8" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

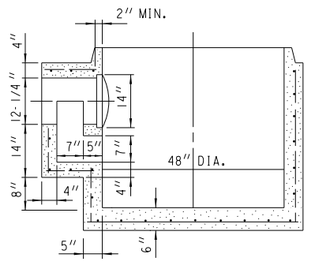
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.



SECTION A-A



PLAN



SECTION B-B

TRAP ASSEMBLY

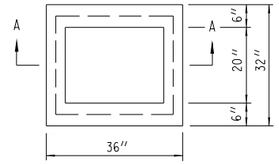
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

TRAP ASSEMBLY SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SECTION AS SHOWN.

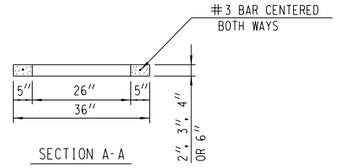
CIRCUMFERENTIAL AND TRAP ASSEMBLY REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.



PLAN

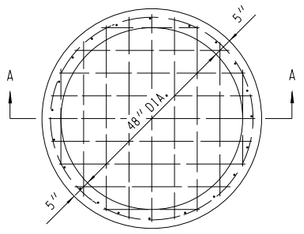


SECTION A-A

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.

RECTANGULAR ADJUSTING RING - TYPE A



PLAN

CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

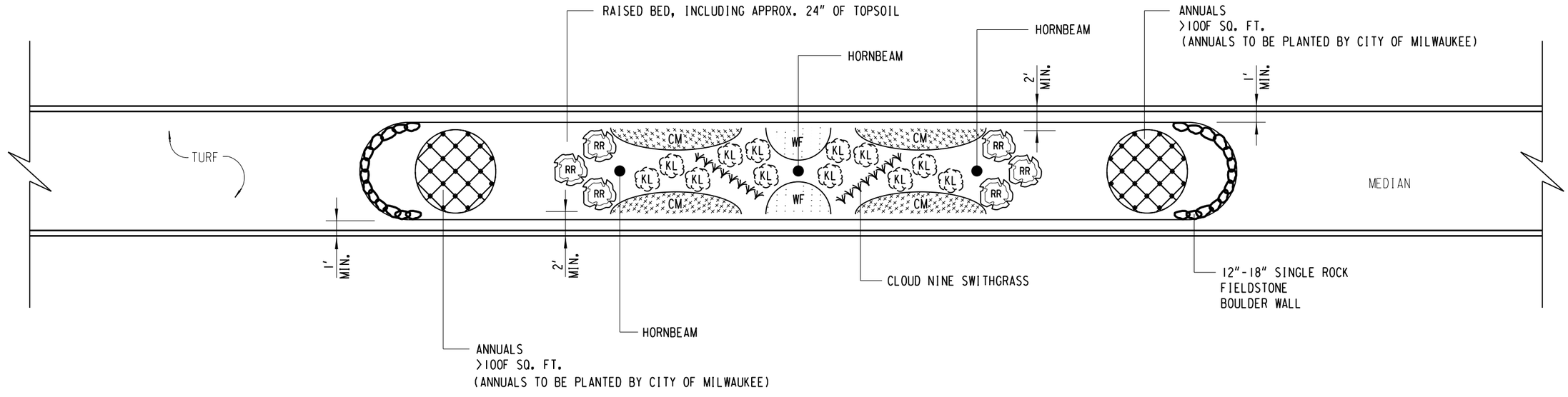
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 3300 P.S.I.

TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.

BOTTOM REINFORCEMENT

SIGNATURE BED DETAIL
(TYPE I)

N



NO.	LOCATIONS
1.	10+50 TO 11+50
3.	58+50 TO 59+30

LEGEND

RR	RED KNOCKOUT ROSE
KL	DWARF KOREAN LILAC
WF	WHITE CONE FLOWER
CM	CATMINT BLUE WONDER

ESTIMATE OF QUANTITIES

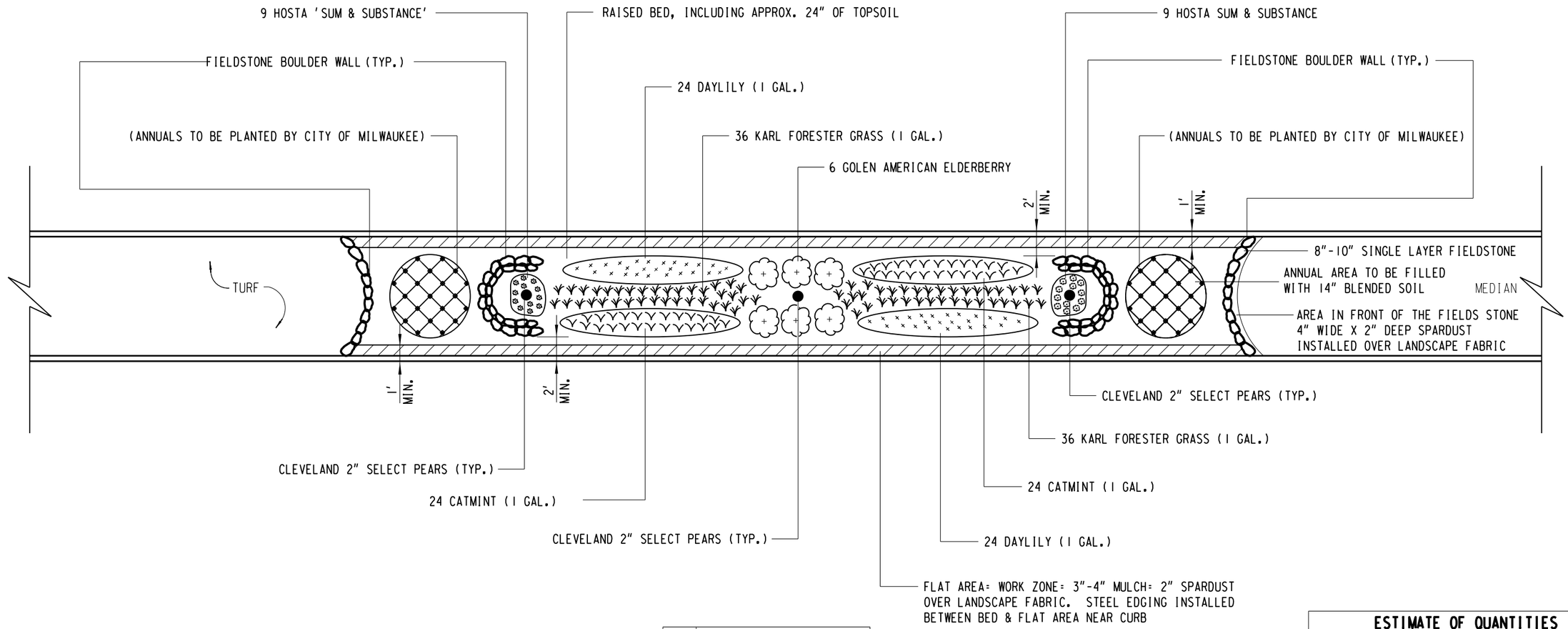
ITEM	UNIT	TOTAL
CATMINT BLUE WONDER	EACH	24
CLOUD NINE SWITCHGRASS	EACH	14
DWARF KOREAN LILAC	EACH	12
HORNBEAMS	EACH	3
RED KNOCKOUT ROSE	EACH	10
WHITE CONE FLOWER	EACH	20

NOTE:

SHREDDED BARK MULCH AROUND
ALL TREES AND IN BED 3-4" DEPTH.
SHOVEL CUT BED EDGE.

SIGNATURE BED DETAIL
(TYPE 2)

N



NO.	LOCATIONS
2.	52+75 TO 53+75

ESTIMATE OF QUANTITIES

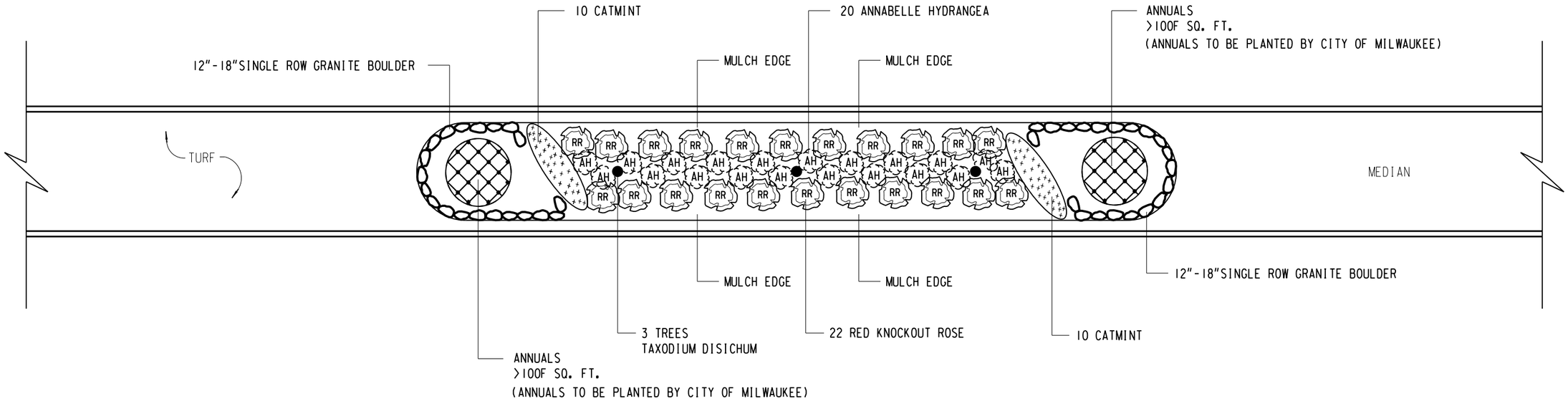
ITEM	UNIT	TOTAL
TREES		
CLEVELAND SELECT PEAR	EACH	3
SHRUBS AND PERRENIALS		
KARL FORESTER GRASS	EACH	72
CATMINT BLUE WONDER	EACH	48
GOLDEN AMERICAN ELDERBERRY	EACH	6
DAY LILIES	EACH	48
HOSTA SUM & SUBSTANCE	EACH	18

NOTE:

SHREDDED BARK MULCH AROUND ALL TREES AND IN BED 3-4" DEPTH. SHOVEL CUT BED EDGE.

SIGNATURE BED DETAIL
(TYPE 3)

N



NO.	LOCATIONS
1.	59+50 TO 60+30

LEGEND

RR RED KNOCKOUT ROSE

AH ANNABELLE HYDRANGEA

NOTE:

IF SIZE ALLOWS - A MINIMUM 5' TURF BOARDER IS ACCEPTABLE.

SHREDDED BARK MULCH AROUND ALL TREES AND IN BED 3-4" DEPTH. SHOVEL CUT BED EDGE.

ESTIMATE OF QUANTITIES

ITEM	UNIT	TOTAL
SHRUBS AND PERRENIALS		
CATMINT 'BLUE WONDER'	EACH	20
HYDRANGEA 'ANNABELLE'	EACH	20
ROSE 'KNOCKOUT RED'	EACH	22
TREES		
TAXODIUM DISTICHUM 'BALD CYPRESS'	EACH	3

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SCALE FEET	SHEET NO: 45	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 9-06-2018 BY DB

2

(A) CONST. CONC. CURB & GUTTER 31-INCH
(AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH-SIDE)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(J) SAW CONCRETE
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(TM) CONST. TERRACE MOUND
(V8) CONST. 8.5" CONC. PAVEMENT
(W) CONST. 6" CONC. BASE
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

SOUTH CHASE AVENUE
S. CHASE AVE. T/L
S. 1ST ST.
PROPOSED R.O.W.
R/W
MATCH
MMSD
24.92C
24.42G
24.50F
51+14.8
33'RT
(77)
19.62C
19.01G
19.08F
51+11
182.2'RT
(76)
21.21C
20.71G
50+82.2
95.9'RT
22.52
50+68
48.7'RT
51+30.4
168.9'RT
51+32
171'RT
51+47.3
189.7'RT
50+59.8
179.7'RT
18.96C
18.46G
50+89.6
209.2'RT
51+02.9
227.2'RT
17.73C
17.15G
17.23F
49+55.1
27'RT
(72)
20.00C
19.51G
19.59F
50+64.8
74.4'RT
(73)
20.22C
19.60G
19.68F
50+38.6
85.8'RT
(75)
49+72.3
89'RT

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 46	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 07-25-2018 BY ML

WEST OKLAHOMA AVENUE

SOUTH CHASE AVENUE

EAST OKLAHOMA AVENUE

E. OKLAHOMA AVE T/L

S. CHASE AVE. T/L

CAUTION

PLANTER

CURB

WOOD RAMP

LAWN

LONG TRAIL GRILL & PUB

GLUTO FREE TRADING

ASPH. PARKING

CONC.

C.W.

WATER

CUC

TEL

WEP

13+62.6-35.9' LT
58.33C-57.75G

13+59.7-30.7' LT
58.38C-57.80G

13+75.8-22.6' LT
58.00

14+57.7-12.7' LT
57.96

14+75

14+22.2-57.2' RT
57.68

14+91.2-61.8' RT
57.76

∠PT. +00.0
T/L

58.15C
57.57G
57.65F
+92.5
54.7' LT

57.77C
57.27G
57.35F
+75
53' RT

57.40G
57.90C

+00
57.40G
57.82C

+7.8
57.53F
57.45G
57.70C

+00
57.59

+50

+75
57.99

14

15

Ⓐ CONST. CONC. CURB & GUTTER 31-INCH
Ⓝ CONST. 5" CONC. SIDEWALK
Ⓥ8 CONST. 8.5" CONC. PAVEMENT
Ⓨ CONCRETE MEDIAN SLOPE NOSE

#3118-3118A

#3114-3116

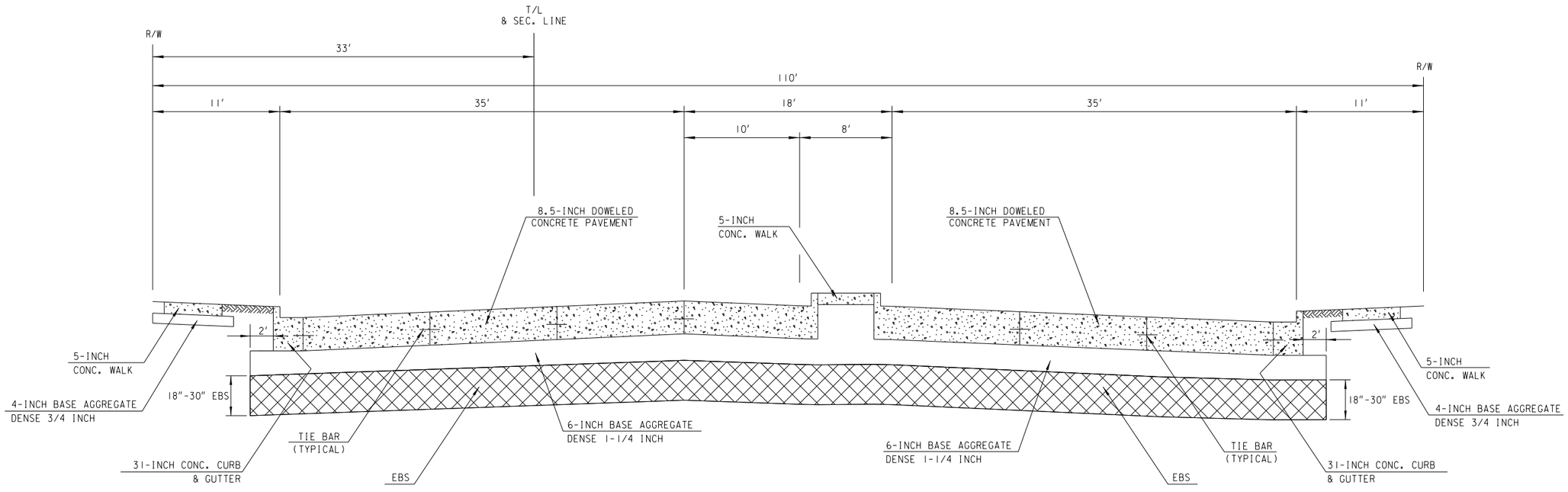
#117-119 E. OKLAHOMA AVE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 47	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\CONDET.DGN

REVISED DATE: 10-29-2018 BY SB

2

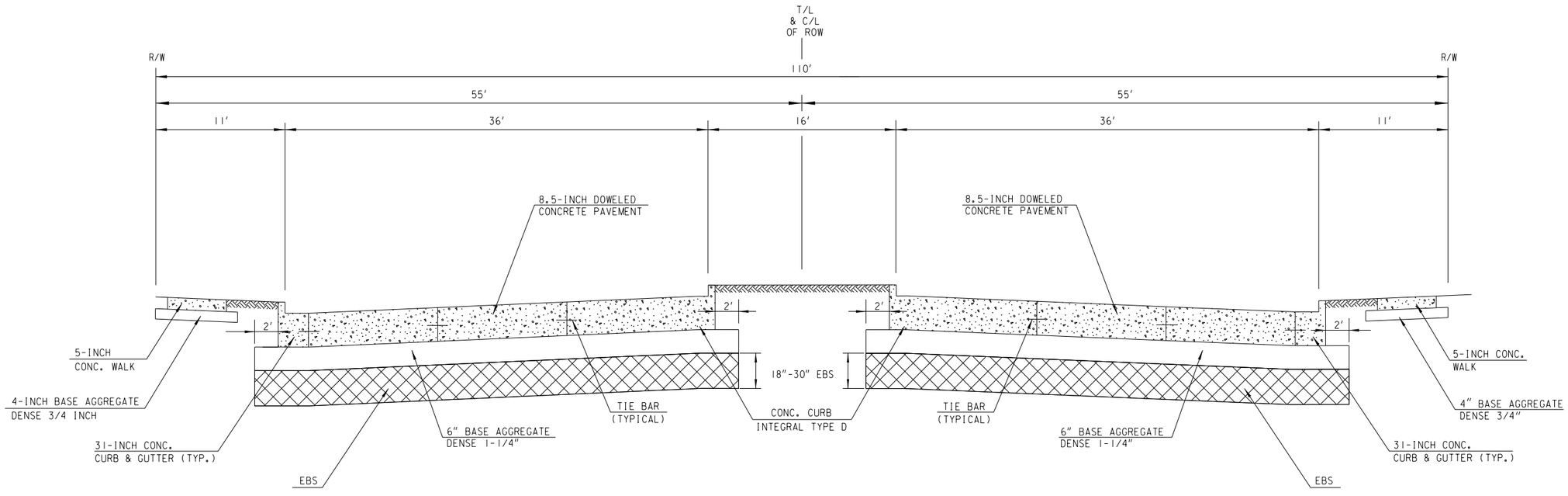


SOUTH CHASE AVENUE EBS

STA. 17+75.0 TO STA. 23+91.26

EBS TO BE UNDERTAKEN ONLY AT THE DIRECTION OF THE ENGINEER.
NO EXCAVATION BELOW SUBGRADE WILL BE CONDUCTED PRIOR TO
FAILURE OF PROOF ROLL. DEPTH AND WIDTH OF EXCAVATIONS WILL
BE DETERMINED BY THE ENGINEER BASED UPON FIELD CONDITIONS
AT THE TIME OF CONSTRUCTION. SOIL REPORT AVAILABLE UPON REQUEST.

2

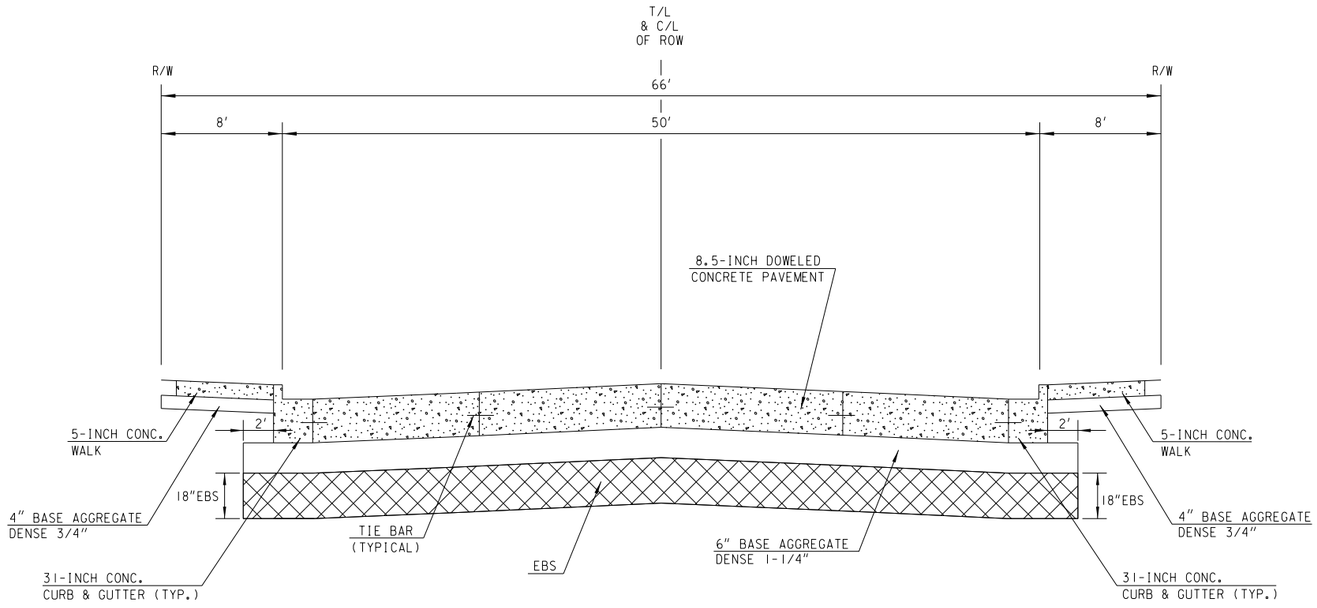


SOUTH CHASE AVENUE EBS

STA. 23+91.26 TO STA.35+50.0

EBS TO BE UNDERTAKEN ONLY AT THE DIRECTION OF THE ENGINEER. NO EXCAVATION BELOW SUBGRADE WILL BE CONDUCTED PRIOR TO FAILURE OF PROOF ROLL. DEPTH AND WIDTH OF EXCAVATIONS WILL BE DETERMINED BY THE ENGINEER BASED UPON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. SOIL REPORT AVAILABLE UPON REQUEST.

2

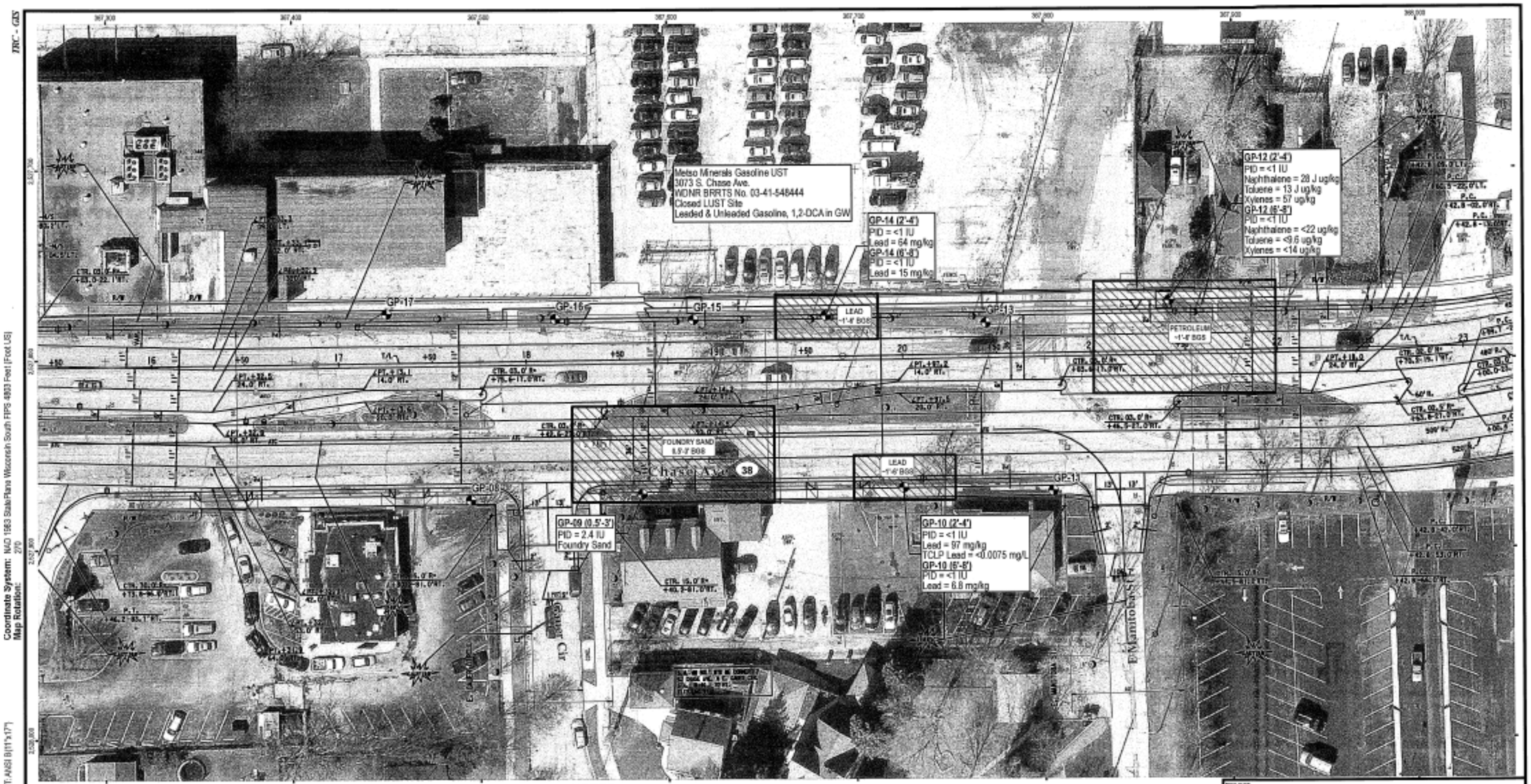


SOUTH CHASE AVENUE EBS

STA. 68+50.0 TO STA. 75+00.0

EBS TO BE UNDERTAKEN ONLY AT THE DIRECTION OF THE ENGINEER. NO EXCAVATION BELOW SUBGRADE WILL BE CONDUCTED PRIOR TO FAILURE OF PROOF ROLL. DEPTH AND WIDTH OF EXCAVATIONS WILL BE DETERMINED BY THE ENGINEER BASED UPON FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. SOIL REPORT AVAILABLE UPON REQUEST.

2



LEGEND

- SOIL BORING
- GROUNDWATER FLOW DIRECTION
- CONTAMINATED AREA

NOTES

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY LAND INFORMATION OFFICE, 2013.
2. CONSTRUCTION PLANS PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. MAP PROJECTION AND GRID COORDINATES ARE NAD83 STATE PLANE WISCONSIN -SOUTH (US SURVEY FEET).

0 50 100 Feet
1 " = 50 '
1:600

PROJECT:
WISDOT ID# 2060-00-06
SOUTH CHASE AVENUE (STH 38)
MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

TITLE:
SOIL BORING LOCATION MAP
STATION 16+00 TO 23+00

DRAWN BY:	R SUEMNICHT	PROJ NO.:	250456
CHECKED BY:	B BEROMANN		
APPROVED BY:	D HAAK		FIGURE 3
DATE:	SEPTEMBER 2017		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

FILE NO.: 250456-002mb.mxd

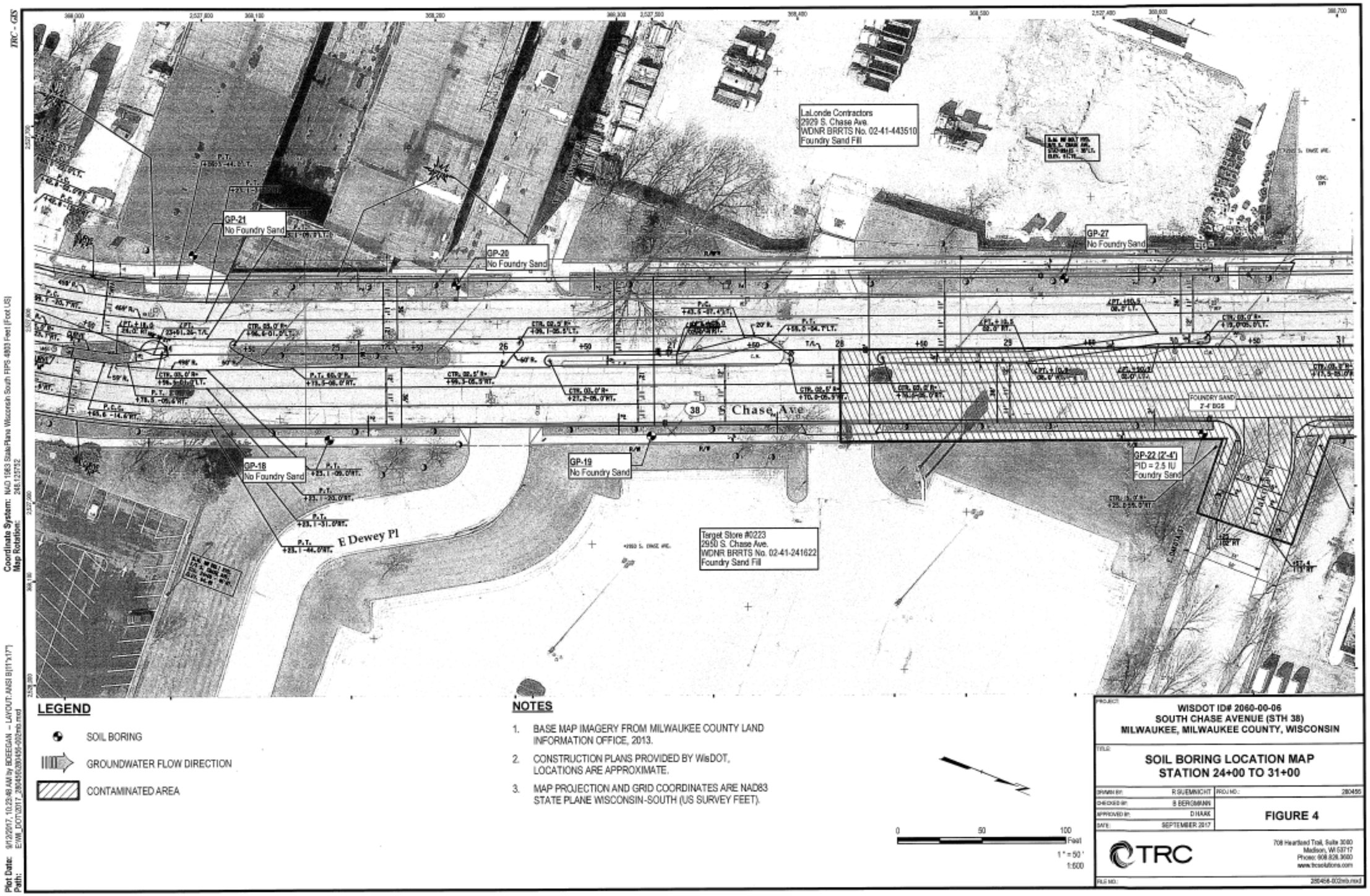
Coordinate System: NAD 1983 State Plane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 270°

Plot Date: 9/12/2017, 10:25:46 AM by BDEEGAN – LAYOUT: ANSI B(11"x17")
Path: E:\HI_DOT\2017_250456\250456-002mb.mxd

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET: 51	E

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

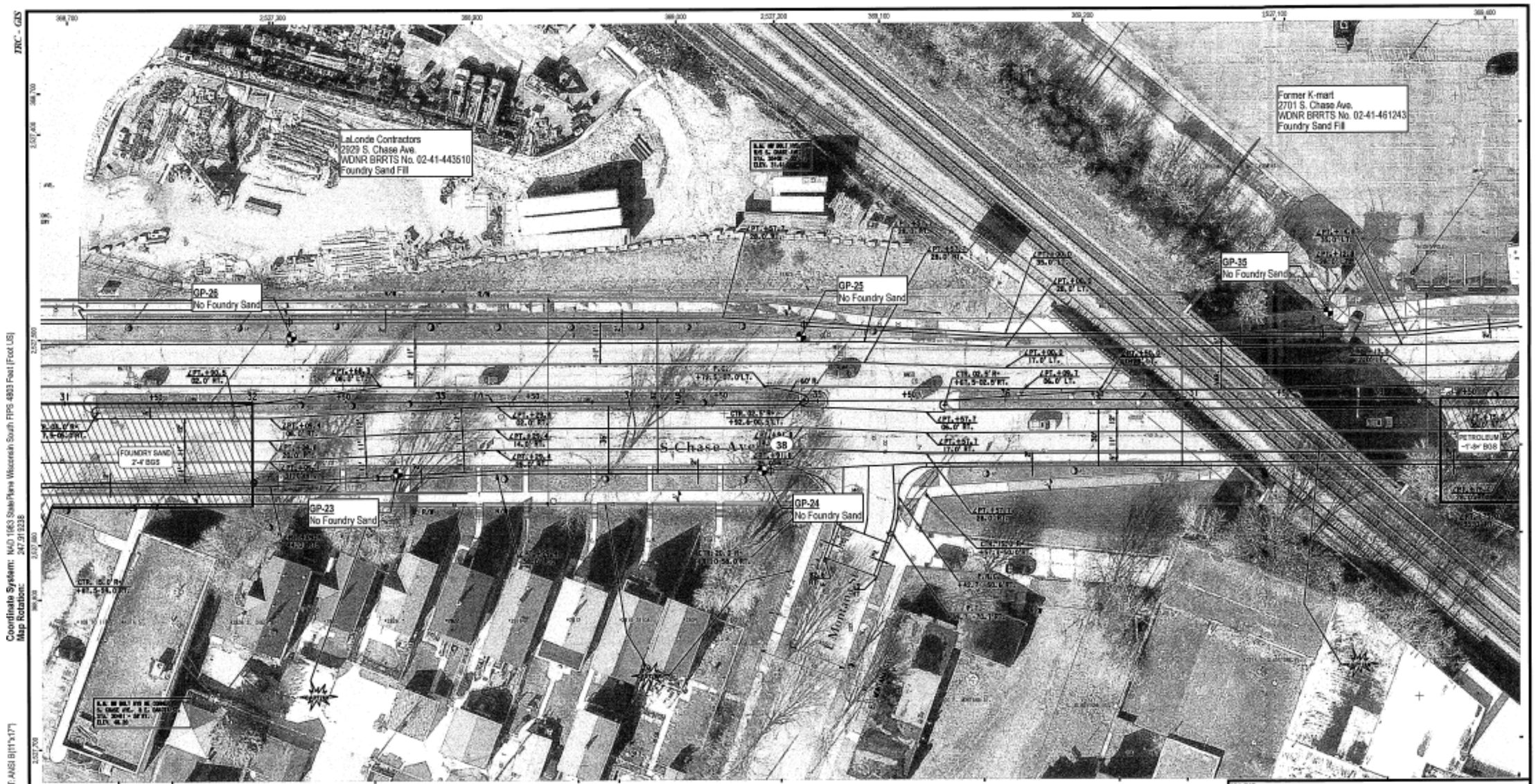
2



PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET: 52	E

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

2



LEGEND

- SOIL BORING
- GROUNDWATER FLOW DIRECTION
- CONTAMINATED AREA

NOTES

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY LAND INFORMATION OFFICE, 2013.
2. CONSTRUCTION PLANS PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. MAP PROJECTION AND GRID COORDINATES ARE NAD83 STATE PLANE WISCONSIN-SOUTH (US SURVEY FEET).

0 50 100 Feet
1" = 50'
1:600

PROJECT: WISDOT ID# 2060-00-06
SOUTH CHASE AVENUE (STH 38)
MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

TITLE: **SOIL BORING LOCATION MAP**
STATION 31+00 TO 38+00

DRAWN BY:	R SUEMNICHT	PROJ NO.:	280456
CHECKED BY:	B BERGMANN		
APPROVED BY:	D HAAK		**FIGURE 5**
DATE:	SEPTEMBER 2017		

TRC
788 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

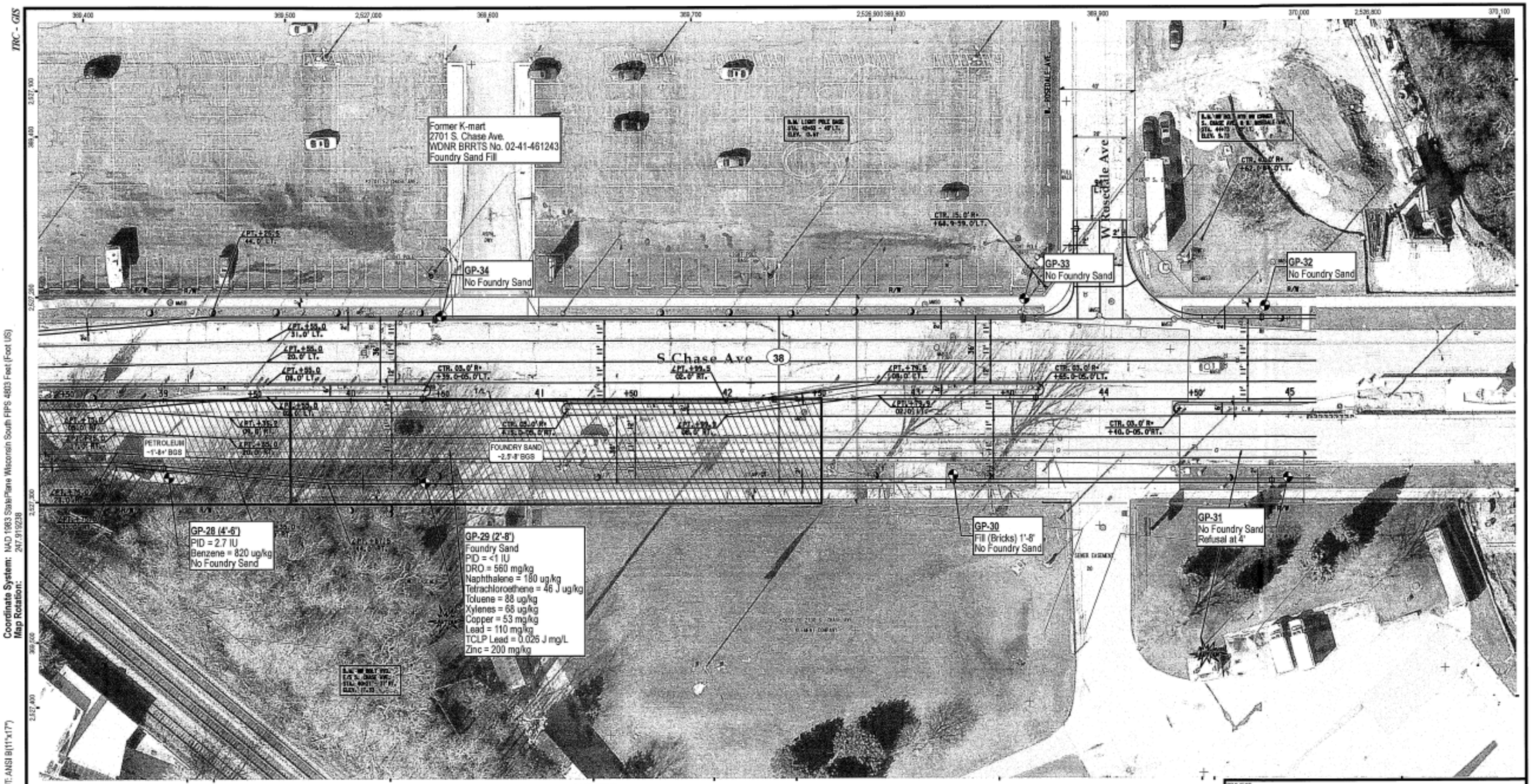
FILE NO.: 280456-002mb.mxd

Coordinate System: NAD 1983 State Plane Wisconsin South FIPS 4803 Feet [Foot US]
Map Rotation: 247.9193238
Plot Date: 9/12/2017, 10:23:49 AM by BDEEGAN – LAYOUT: ANSI B [11"x17"]
Path: E:\WI_DOT\2017_280456\280456-002mb.mxd

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET: 53	E

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

2



LEGEND

- SOIL BORING
- GROUNDWATER FLOW DIRECTION
- CONTAMINATED AREA

NOTES

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY LAND INFORMATION OFFICE, 2013.
2. CONSTRUCTION PLANS PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. MAP PROJECTION AND GRID COORDINATES ARE NAD83 STATE PLANE WISCONSIN-SOUTH (US SURVEY FEET).

0 50 100 Feet

1 " = 50 '

1:600

PROJECT: WISDOT ID# 2060-00-06
SOUTH CHASE AVENUE (STH 38)
MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

TITLE: SOIL BORING LOCATION MAP
STATION 39+00 TO 45+00

DRAWN BY:	R SUEMNICHT	PROJ NO.:	280456
CHECKED BY:	B BERGMANN		
APPROVED BY:	D HAAK		FIGURE 6
DATE:	SEPTEMBER 2017		

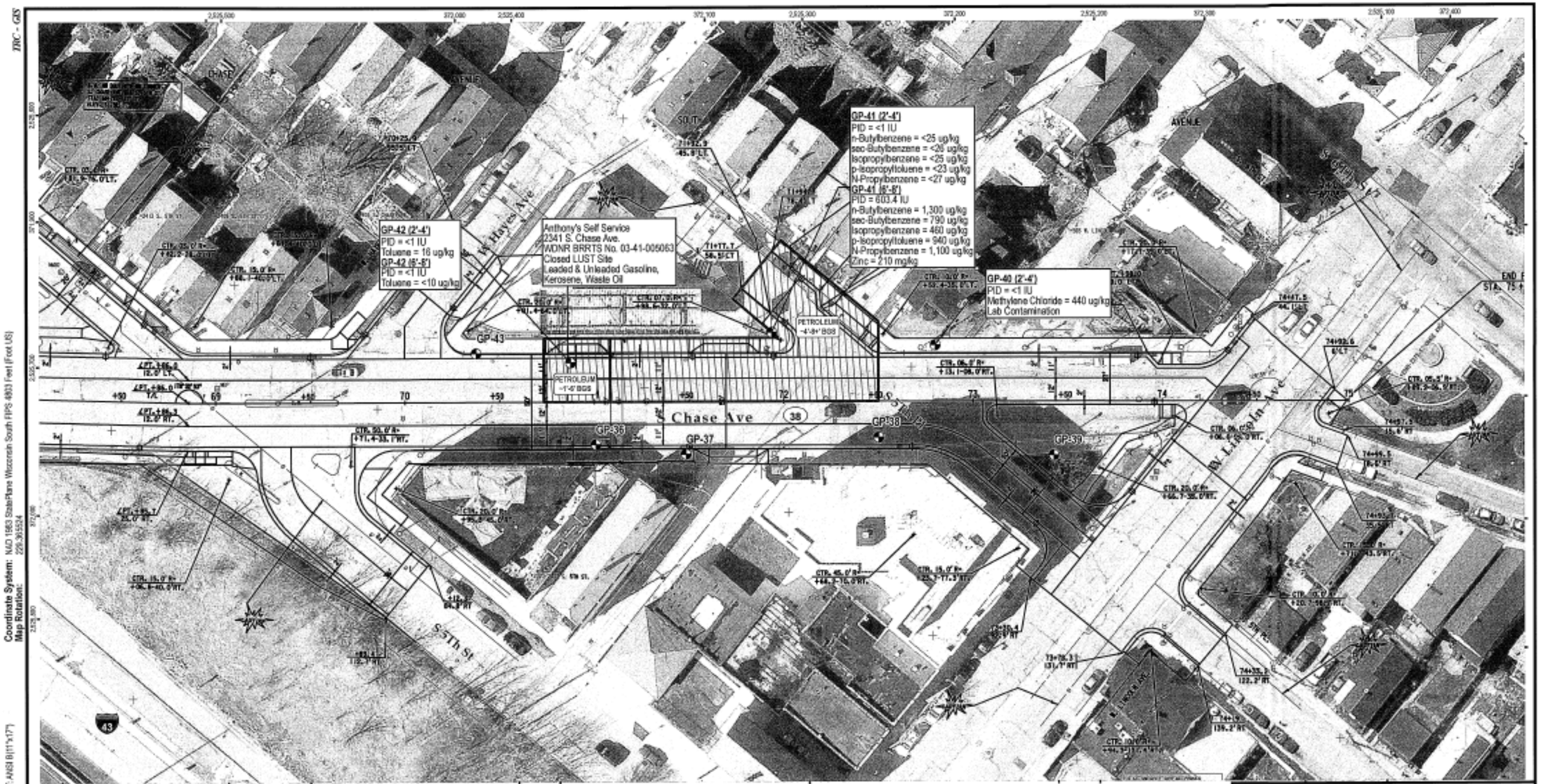
TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

FILE NO.: 280456-002mb.mxd

Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 247.919238

Plot Date: 9/12/2017, 10:23:48 AM by BDEEGAN -- LAYOUT: ANSI B(11"x17")
Path: E:\ML_DOT\2017_280456\280456-002mb.mxd

2



LEGEND

- SOIL BORING
- GROUNDWATER FLOW DIRECTION
- CONTAMINATED AREA

NOTES

1. BASE MAP IMAGERY FROM MILWAUKEE COUNTY LAND INFORMATION OFFICE, 2013.
2. CONSTRUCTION PLANS PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. MAP PROJECTION AND GRID COORDINATES ARE NAD83 STATE PLANE WISCONSIN SOUTH (US SURVEY FEET).

0 50 100 Feet
1 " = 50 '
1:600

PROJECT:
WISDOT ID# 2060-00-06
SOUTH CHASE AVENUE (STH 38)
MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

TITLE:
SOIL BORING LOCATION MAP
STATION 69+00 TO 75+00

DRAWN BY:	R SUEMNICHT	PROJ NO.:	280455
CHECKED BY:	B BERGMANN		
APPROVED BY:	D HAAK		**FIGURE 7**
DATE:	SEPTEMBER 2017		

TRC
700 Heartland Trail, Suite 3060
Madison, WI 53717
Phone: 608.826.3060
www.trcsolutions.com

FILE NO.: 280456-002mb.mxd

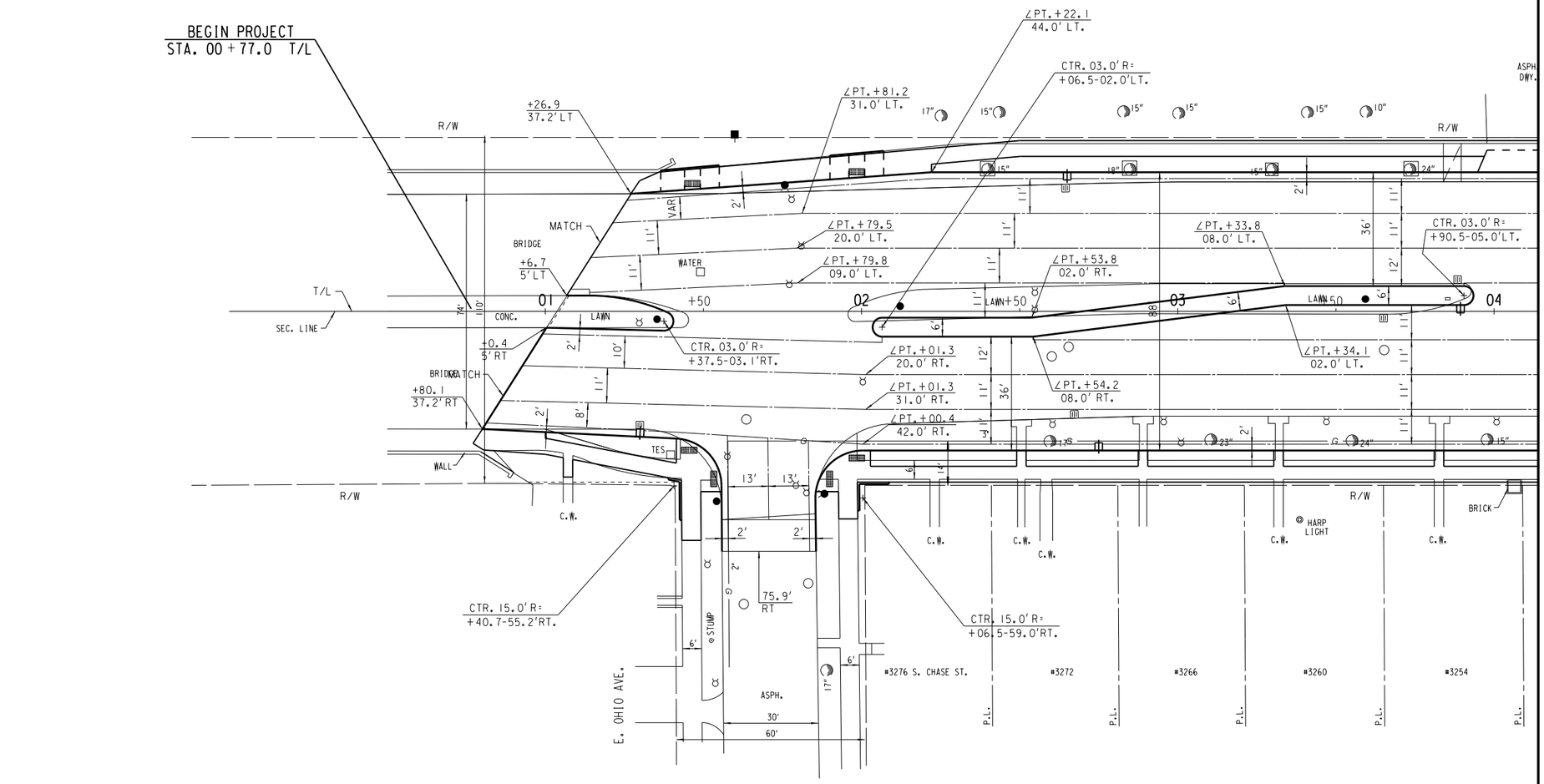
Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Ford US)
Map Rotation: 229.365524
Plot Date: 9/12/2017, 10:23:49 AM by BDEEGAN – LAYOUT: ANSI B (11"x 17")
Path: E:\WI_DOT\2017_280456\280455-002mb.mxd

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET: 55	E

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

SOUTH CHASE AVENUE

B.W. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40'LT.
ELEV. 68.48



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 56 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 01-04.DGN

SOUTH CHASE AVENUE

N

PIGGLY WIGGLY
GROCERY
#123 W. OKLAHOMA AVE.

ASPH. DWY.
R/W
14"
?
C.W.
10" PINE
SIGN
CURB
ASPH. DWY.
CURB
12"
13"
R/W
15" 10" 15" 19" 12" 15" 3" 10" 3" 7" 3"

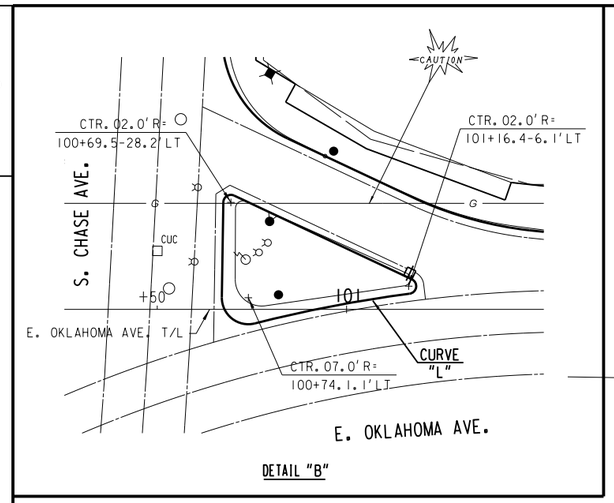
CTR. 03.0' R= +31.4-05.0'LT.
CTR. 03.0' R= +92.0-05.0'LT.
CTR. 03.0' R= +12.0-05.0'RT.
WEP
04 +50 LAWN 05 +50 6" 6" T/L 06 6" 5" LAWN +50 SEC. LINE 07 +50 LAWN 08 +50 09 +50 60' R. 10
60' R.
CTR. 03.0' R= +90.5-05.0'LT.
P.T. 60.0' R. +63.6-08.0'RT.
℄PT. +39.0 08.0' RT.
℄PT. +13.4 02.0' LT.
CTR. 03.0' R= +90.0-05.0'RT.
CTR. 03.0' R= +71.0-05.0'RT.
CUC
15" 20" 24" 17" 13" 3" 12" 28" TEL TEL
BRICK
10" PINE
8"
C.W.
R/W
24" PINE
3"
DRAIN
CONC. DWY
FLAG POST
GAS PUMP
CTR. 15.0' R= +08.3-59.0'RT.
CTR. 15.0' R= +63.9-59.0'RT.
91.9' RT
3254 #3248 #3242 #3236 #3230 #3224 #3218 #3212 #3206 #3200 S. CHASE ST. #3160-3174 S. CHASE ST.
P.I.
B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 05+23 - 35'RT.
ELEV. 65.31
RAILING
E. EUCLID AVE.
ASPH. ON CONC.
30'
60'
B.W. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. EUCLID AVE.
STA. 08+51 - 58'RT.
ELEV. 61.44
CAUTION

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 57	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 04-10.DGN

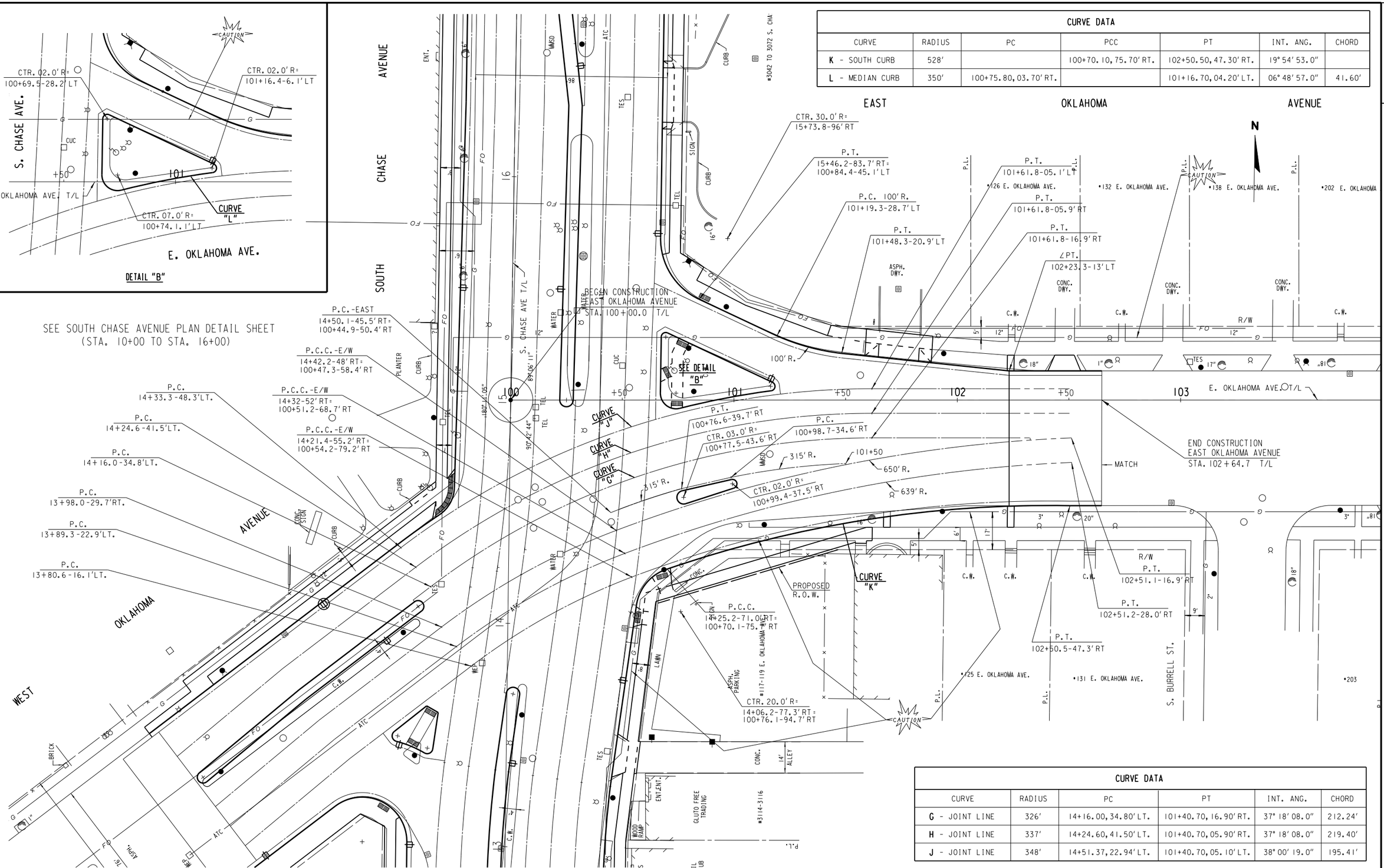
2

CURVE DATA						
CURVE	RADIUS	PC	PCC	PT	INT. ANG.	CHORD
K - SOUTH CURB	528′		100+70.10, 75.70′ RT.	102+50.50, 47.30′ RT.	19° 54′ 53.0″	
L - MEDIAN CURB	350′	100+75.80, 03.70′ RT.		101+16.70, 04.20′ LT.	06° 48′ 57.0″	41.60′



DETAIL "B"

SEE SOUTH CHASE AVENUE PLAN DETAIL SHEET
(STA. 10+00 TO STA. 16+00)



CURVE DATA					
CURVE	RADIUS	PC	PT	INT. ANG.	CHORD
C - JOINT LINE	326′	14+16.00, 34.80′ LT.	101+40.70, 16.90′ RT.	37° 18′ 08.0″	212.24′
H - JOINT LINE	337′	14+24.60, 41.50′ LT.	101+40.70, 05.90′ RT.	37° 18′ 08.0″	219.40′
J - JOINT LINE	348′	14+51.37, 22.94′ LT.	101+40.70, 05.10′ LT.	38° 00′ 19.0″	195.41′

CURVE DATA					
CURVE	RADIUS	PC	PT	INT. ANG.	CHORD
A - MEDIAN CURB	532'	12+76.16, 08.00'LT.	13+35.36, 04.70'LT.	06°23'12.5"	59.30'
B - MEDIAN CURB	526'	12+56.90, 01.60'LT.	13+34.60, 01.30'RT.	08°28'53.0"	77.90'
C -EAST CURB	480'	12+76.10, 44.00'RT.	13+29.50, 47.00'RT.	06°23'12.5"	53.00'

SOUTH CHASE AVENUE

N

W. OKLAHOMA AVE.

LIGHT ON CONC. BASE

CURB

CAUTION

BRICK

CTR. 02.6' R= 13+31.4-137.1'LT.

13+48.6 159.9'LT

13+37.0 171.5'LT

∠PT. +69.1 93.1' LT.

∠PT. +78.5 100.5' LT.

P.C.-E/W +80.6-16.1'LT.

P.C.-E/W +89.3-22.9'LT.

P.C.-E/W +98.0-29.7'RT.

CTR. 02.6' R= +07.1-40.3'LT.

P.C. +16.0-34.8'LT.

P.C.-E/W +24.6-41.5'LT.

P.C.(FLANGE JOINT) +33.3-48.3'LT.

P.C.(CURB) +34.9-49.5'LT.

P.R.C. +48.3-31.2'LT.

CTR. 15.0' R= +60.7-39.7'LT

P.T. +60.4-24.7'LT.

P.T. +92.3-11.1'LT.

P.T. +92.0-T/L

P.T. +91.8-10.9'LT.

CTR. 03.0' R= +00.0-25.0'RT.

CTR. 02.5' R= +49.0-48.7'LT.

13+62.6 35.9'LT

13+59.7 30.7'LT

48' R.

S. CHASE AVE.

CTR. 02.5' R= 13+43.7-35.4'LT.

S. CHASE AVE. -T/L

W. OKLAHOMA AVE.

DETAIL "A"

SEE DETAIL "A"

#115 W. OKLAHOMA AVE.

ARBY'S RESTAURANT

CTR. 20.0' R= +01.4-64.0'RT.

ASPH. PARKING

∠PT. +65.0 80.0' LT.

CONC. GUTTER

∠PT. +56.3 83.2' LT.

∠PT. +97.6 76.4' LT.

∠PT. +39.0 69.6' LT.

P.L.

RAILING

C.W.

SIGN

R/W

CONTROL BOX

P.T. +37.3-27.6'LT.

P.C. +76.1-31.0'LT.

555' R.

544' R.

P.T. +35.8-16.7'LT.

P.C. +76.1-20.0'LT.

P.C. +76.1-08.0'LT.

CURVE "A"

P.T. +34.3-04.8'LT.

P.T. 60.0' R. +23.8-08.0'LT.

S. CHASE AVE. T/L

CURVE "B"

C.W.P. T= +33.5-01.1'RT.

P.C. +56.9-12.0'RT.

P.C. +76.1-09.0'RT.

515' R.

504' R.

493' R.

P.C. +76.1-20.0'RT.

P.C. +76.1-31.0'RT.

∠PT. +79.7 08.0' RT.

CURVE "C"

P.T. +32.0-12.0'RT.

P.T. +30.6-22.9'RT.

P.T. +29.2-33.8'RT.

CTR. 03.0' R= +68.4-02.7'RT.

P.C.-N/S +17.4-45.5'RT.

P.C.C.-E/W +21.4-55.2'RT.

CURVE "D"

CURVE "E"

CURVE "F"

CURVE "G"

CURVE "H"

CURVE "J"

P.C.-N/S +24.7-16.1'LT.

P.C.-N/S +23.3-05.2'LT.

P.C.-N/S +21.9-05.7'RT.

P.C.-N/S +19.5-23.5'RT.

P.C.-N/S +18.1-34.0'RT.

P.C.C.-E/W +42.2-48.0'RT.

P.C.C.-E/W +32.0-52.0'RT.

180° 11' 05"

90° 42' 44"

89° 06' 11"

P.T.-N/S +19.5-23.5'RT.

P.T.-N/S +19.5-23.5'RT.

P.T.-N/S +19.5-23.5'RT.

15+60.8 85.5'RT

CTR. 30.0' R= +73.8-96.0'RT.

15+54.9 82.5'RT

P.C. +46.2-83.7'RT.

P.T.-N/S +92.9-61.9'RT.

CURB

CAUTION

PLANTER

WATER

WMSD

TEL

FO

SIGN

CONC. SIGN

ASPH.

CONC.

LAWN

WOOD RAMP

ENT.

ENT.

BWS

CONC. DWY.

PARKING BUMPER

2-3" PINE

15" PINE

LONG TRAIL GRILL & PUB

GLUTO FREE TRADING

#3118-3118A

#3114-3116

#117-119 E. OKLAHOMA AVE.

PROPOSED R.O.W.

E. OKLAHOMA AVE.

E. OKLAHOMA AVE. T/L

14' ALLEY

P.C. +08.8-57.5'RT.

CTR. 20.0' R= +06.2-77.3'RT.

P.C.-N/S +22.2-57.2'RT.

P.C.C. +25.2-71.0'RT.

CURVE DATA						
CURVE	RADIUS	PC	PT	PCC	INT. ANG.	CHORD
D - JOINT LINE	287'	13+80.60, 16.10'LT.		14+21.40, 55.20'RT.	14°36'31.0"	83.19'
E - JOINT LINE	298'	13+89.30, 22.90'LT.		14+42.20, 48.00'RT.	16°37'48.0"	86.49'
F - JOINT LINE	309'	13+97.99, 29.68'LT.		14+42.21, 47.98'RT.	16°37'48.0"	89.69'
G - JOINT LINE	326'	14+16.00, 34.80'LT.	101+40.70, 16.90'RT.		37°18'08.0"	212.24'
H - JOINT LINE	337'	14+24.60, 41.50'LT.	101+40.70, 05.90'RT.		37°18'08.0"	219.40'
J - JOINT LINE	348'	14+51.37, 22.94'LT.	101+40.70, 05.10'LT.		38°00'19.0"	195.41'

N/S = NORTH AND SOUTH DIRECTION
E/W = EAST AND WEST DIRECTION

SEE EAST OKLAHOMA AVENUE PLAN DETAIL SHEET (STA. 100+00.0 TO STA. 102+64.7)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40	SHEET NO: 59 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 10-16.DGN

REVISED DATE: 05-05-2017 BY PN

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22' LT.
ELEV. 60.62

N

CHASE COMMERCIAL BUILDING

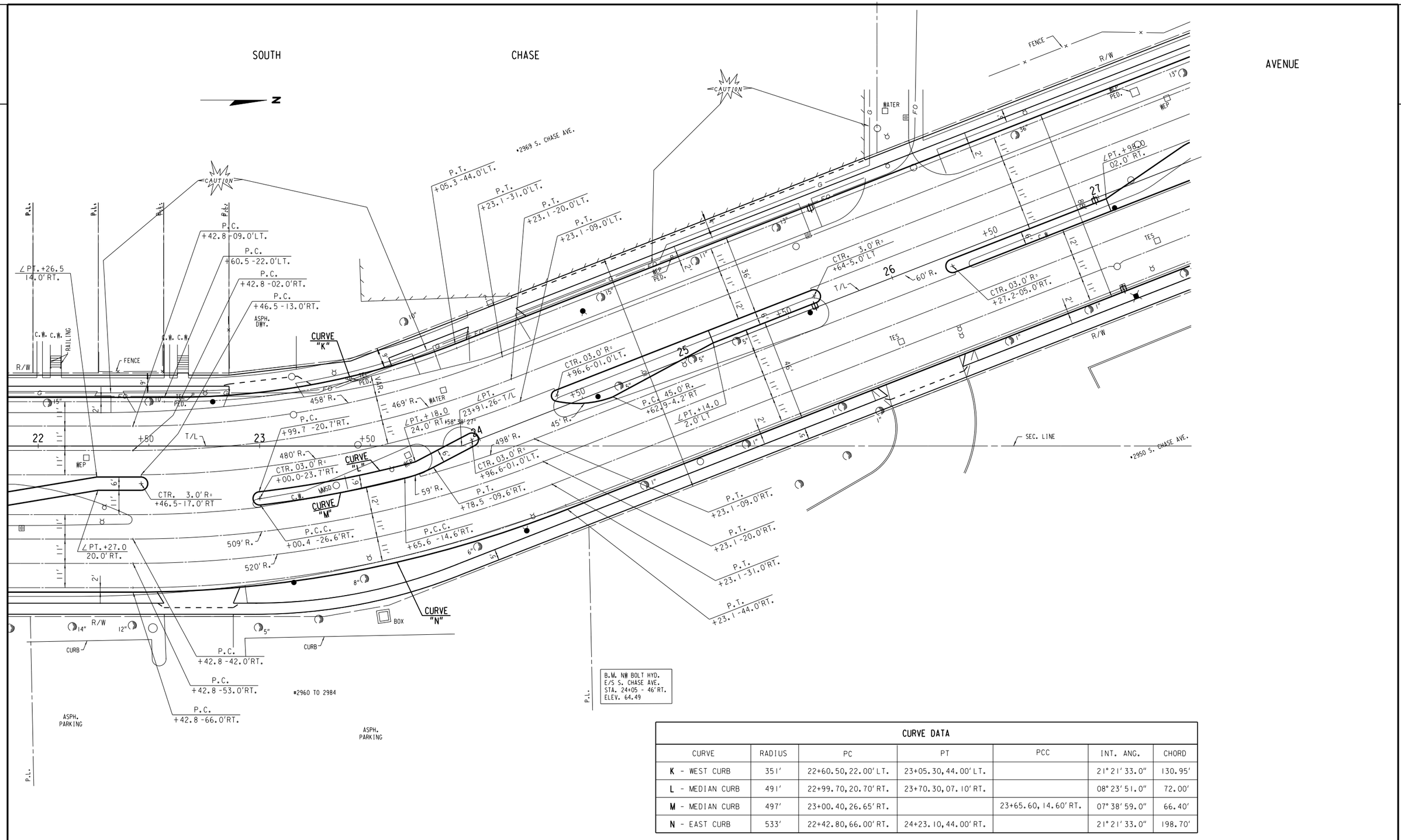
∠PT. +33.2 / 22.0' LT.
∠PT. +33.1 / 09.0' LT.
∠PT. +33.1 / 02.0' RT.
∠PT. +32.9 / 13.0' RT.
CAUTION
ENT.
R/W
ASPH.
FENCE
P.L.
ASPH. DWY.
ASPH. PARKING
C.W.
C.W. C.W.
SIDEWALK
FO VAR.
16 17 18 19 20 21 22
+50
T/L
SEC. LINE
∠PT. +32.5 / 24.0' RT.
∠PT. +13.1 / 14.0' RT.
CTR. 03.0' R= +75.6-17.0'RT.
∠PT. +14.2 / 24.0' RT.
∠PT. +97.2 / 14.0' RT.
CTR. 03.0' R= +83.6-17.0'RT.
∠PT. +66.5 / 24.0' RT.
WMSD
WEP
WATER
∠PT. +32.8 / 30.0' RT.
∠PT. +13.6 / 20.0' RT.
CTR. 03.0' R= +42.6-27.0'RT.
∠PT. +14.5 / 30.0' RT.
∠PT. +97.5 / 20.0' RT.
CTR. 03.0' R= +46.5-27.0'RT.
∠PT. +67.0 / 30.0' RT.
ATC
TES
TEL
SIGN
CURB
WENDY'S
#3042 TO 3072 S. CHASE AVE.
∠PT. +32.1 / 42.0' RT.
∠PT. +31.9 / 53.0' RT.
CTR. 15.0' R= +80.2-81.0'RT.
110.5' RT.
CTR. 15.0' R= +40.2-81.0'RT.
#3030 FOWARD DENTAL
#3010
CTR. 15.0' R= +84.5-81.0'RT.
106.7' RT. ATC
COMMUNITY VETERINARY CLINIC
#2990
CTR. 15.0' R= +44.5-81.0'RT.
LAWN
E. GAUER CIRCLE
E. MANITOBA ST.
CONC.
CONC. DWY.
B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70' RT.
ELEV. 60.97

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 60	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 16-22.DGN

REVISED DATE: 10-23-2018 BY SB

SOUTH CHASE AVENUE



CURVE DATA

CURVE	RADIUS	PC	PT	PCC	INT. ANG.	CHORD
K - WEST CURB	351'	22+60.50, 22.00'LT.	23+05.30, 44.00'LT.		21°21'33.0"	130.95'
L - MEDIAN CURB	491'	22+99.70, 20.70'RT.	23+70.30, 07.10'RT.		08°23'51.0"	72.00'
M - MEDIAN CURB	497'	23+00.40, 26.65'RT.		23+65.60, 14.60'RT.	07°38'59.0"	66.40'
N - EAST CURB	533'	22+42.80, 66.00'RT.	24+23.10, 44.00'RT.		21°21'33.0"	198.70'

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 61	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 22-27.DGN

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 29+15 - 35'LT.
ELEV. 51.73

•2929 S. CHASE AVE.

FRENCH DRAIN
CONC. DWY.
FENCE
R/W
CONC. WALL
CONC. DWY
CONC.
WEP PED.
TEL PED.
WATER
LAWN
WMSD
TES
C.W.
P.C. +43.5 -07.4'LT.
∠PT. +03.0 02.0' RT.
20' R.
P.T. +59.0 -04.7'LT.
T/L
∠PT. +83.5 08.0' LT.
03.5+PT. RT. '02.0
CTR. 03.0' R= +13.0-05.0'LT.
∠PT. +90.5 02.0' RT.
∠PT. +68.3 08.0' LT.
∠PT. +03.9 08.0' RT.
∠PT. +83.9 02.0' LT.
CTR. 03.0' R= +17.5-05.0'RT.
∠PT. +09.4 08.0' RT.
∠PT. +08.8 20.0' RT.
∠PT. +09.1 31.0' RT.
∠PT. +09.4 44.0' RT.
CTR. 02.5' R= +70.0-05.5'RT.
CTR. 03.0' R= +75.5-05.0'RT.
CTR. 15.0' R= +25.0-59.0'RT.
CTR. 15.0' R= +87.5-59.0'RT.
CURB
E. DAKOTA ST.
ASPH. PARKING
+25 102' RT
+57.4 113' RT
•108 TO 118 E. DAKOTA ST.
•2836 S. CHASE AVE.
•2830
•2826
•2822
P.L.
B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. DAKOTA ST.
STA. 30+81 - 58'RT.
ELEV. 48.20
CAUTION

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 62	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 27-33.DGN

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 35+02 - 35'LT.
ELEV. 31.61

N

∠PT. +57.7 28.0' RT.
∠PT. +57.7 28.0' RT.
∠PT. +57.7 28.0' RT.
∠PT. +00.0 35.0' LT.
∠PT. +00.0 28.0' LT.
∠PT. +14.8 35.0' LT.
∠PT. +12.8 28.0' LT.
∠PT. +00.0 17.0' LT.
∠PT. +50.0 04.8' LT.
∠PT. +09.7 06.0' LT.
∠PT. +13.0 17.0' LT.
∠PT. +57.7 06.0' RT.
∠PT. +57.7 17.0' RT.
∠PT. +57.7 28.0' RT.
∠PT. +75.0 05.0' RT.
∠PT. +75.0 17.0' RT.
∠PT. +75.0 28.0' RT.
∠PT. +75.0 35.0' RT.
∠PT. +29.4 02.0' RT.
∠PT. +29.4 14.0' RT.
∠PT. +29.4 25.0' RT.
∠PT. +29.4 38.0' RT.
∠PT. +91.8 14.0' RT.
∠PT. +91.8 25.0' RT.

P.C. +72.5 -08.0'LT.
CTR. 02.5' R= +92.6-00.5'LT.
CTR. 02.5' R= +67.5-02.5'RT.
CTR. 20.0' R= +91.0-58.0'RT.
CTR. 15.0' R= +57.7-50.0'RT.
P.R.C. +42.7 -50.6'RT.
P.T. +39.7 -70.7'RT.

SOO RAILROAD CO.
PRIVATE ROADWAY & PARKING EASEMENT
60
FENCE
BRIDGE WALL
BRIDGE SUPPORT
BRIDGE SUPPORT
CONC. SIGN BASE
LIGHT POLE BASE
CONC. DWY
R/W
WMSD
WEP
T/L
STUMP
LAWN
60' R.
82.6' RT
93' RT
ASPH.
30'
60'
C.W.
VAR.
33 34 35 36 37 38 39
+50
•2822 •2816 •2812 •2810-2810A •2804 •2800-2802 S. CHASE AVE.
•100 E. MONTANA ST.
•2747 S. GLADSTONE PL.
•2715 S. GLADSTONE PL.
E. MONTANA ST.
P.L.
CAUTION

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 63	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 33-39.DGN

2

SOUTH CHASE AVENUE

2

N

B.M. LIGHT POLE BASE
STA. 42+53 - 45'LT.
ELEV. 13.67

W. ROSEDALE AVE.

40'

28'

FULL WALK

94' LT

P.I.

CTR. 40.0' R=
+62.0-84.0'LT.

•2635

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & W. ROSEDALE AVE.
STA. 44+73 - 42'LT.
ELEV. 9.73

•2701 S. CHASE AVE.

•2647 S. CHASE AVE.

∠PT.+25.5
44.0' LT.

ASPH. DWY

LIGHT POLE BASE

CURB

SIGN

CTR. 15.0' R=
+68.9-59.0'LT.

TRAP DOOR

WEP PED.

TEL PED.

R/W

MMSD

∠PT.+55.0
31.0' LT.

∠PT.+55.0
20.0' LT.

∠PT.+55.0
08.0' LT.

WEP

CTR. 03.0' R=
+39.0-05.0'LT.

∠PT.+99.5
02.0' RT.

∠PT.+79.5
08.0' LT.

CTR. 03.0' R=
+65.0-05.0'LT.

39 40 41 42 43 44 45

+50

T/L

C.W.

∠PT.+55.0
02.0' LT.

∠PT.+79.9
02.0' LT.

∠PT.+35.2
09.0' RT.

CTR. 03.0' R=
+15.0-05.0'RT.

∠PT.+99.9
08.0' RT.

CTR. 03.0' R=
+40.0-05.0'RT.

∠PT.+35.0
20.0' RT.

HANDHOLE BOX

STUMP

FENCE

∠PT.+35.0
31.0' RT.

∠PT.+87.5
44.0' RT.

SEWER EASEMENT

20

CAUTION

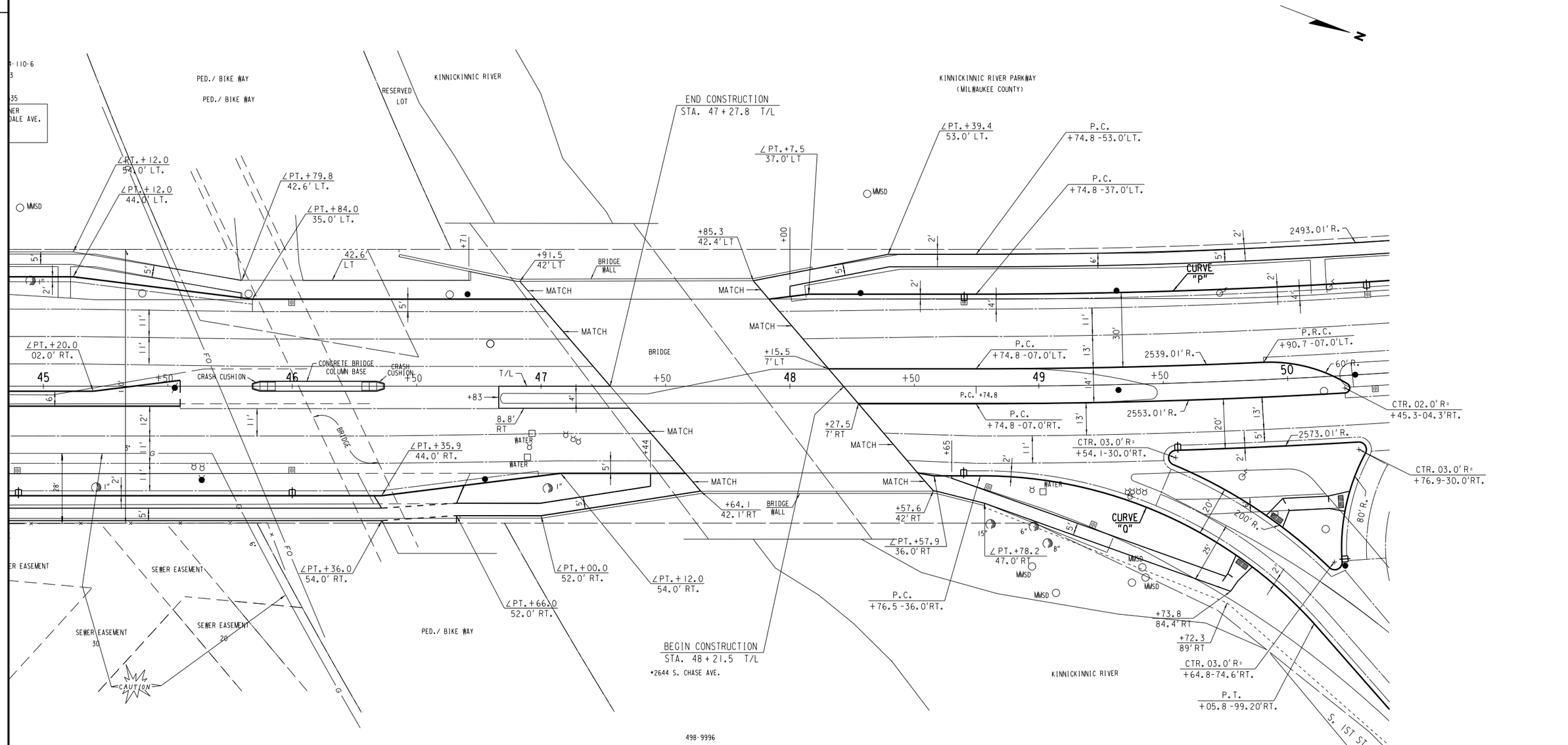
•2650 TO 2700 S. CHASE AVE.
KLEMENT COMPANY

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 40+21 - 37'RT.
ELEV. 17.33

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 64	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 39-45.DGN

SOUTH CHASE AVENUE



CURVE DATA						
CURVE	RADIUS	PC	PT	PI	INT. ANG.	CHORD
P - WEST CURB	2509.01'	48+74.86, 37.00' LT.	52+19.00, 37.00' LT.	50+20.30	08° 48' 51.0"	386.00
Q - EAST CURB	180.00'	48+76.5, 36.00' RT.	50+05.80, 99.20' RT.		48° 30' 36.0"	152.40'

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 65	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 45-50.DGN

REVISED DATE: 08-27-2018 BY DB

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 51+03 - 35'LT.
ELEV. 22.54

•2529-2579 S. CHASE AVE.

RAILING

CURVE "P"

∠PT. +0.0
33.0' LT

∠PT. +19.0
37.0' LT.

2493.01' R.

CURVE "S"

∠PT. +19.0
02.0' RT.

∠PT. +99.2
08.0' LT.

CTR. 03.0' R=
+17.7-05.0'RT.

∠PT. +97.2
08.0' RT.

∠PT. +77.1
02.0' LT.

CTR. 03.0' R=
+17.7-05.0'RT.

P.T.
+13.5 -60.4'LT.

P.C.
+88.7 - 109.1'LT.

S. 3RD ST.

+29.9
99' LT

C.W. - ∠PT.
+64.3- 66.8' LT.

62' R

CTR. 30.0' R/62.0' R=
+50.0-59.6'LT.

30' R

+64.4
67' LT

CTR. 15.0' R=
+65.6-48.0'LT.

CURVE "R"

259.01' R.

P.C.
+75.6 -35.0'RT.

CTR. 40.0' R=
+14.1-73.0'RT.

CTR. 05.0' R=
+43.5-59.4'RT.

P.T.
50+82.2 -95.9'RT.

P.T.
50+67.7 - 116.8'RT.

∠PT. 50+99.2
08.0' LT.

MATCH LINE

S. 1ST ST.

∠PT. 50+62.6
176.4' LT.

∠PT. 50+67.6
172.2' LT.

∠PT. 51+32.0
171.0' RT.

51+47.3
189.7'RT

CTR. 03.0' R=
51+09.1-184.7'RT.

51+02.9
227.2'RT

•2474 S. CHASE AVE.
BARAN PARK

CURVE DATA

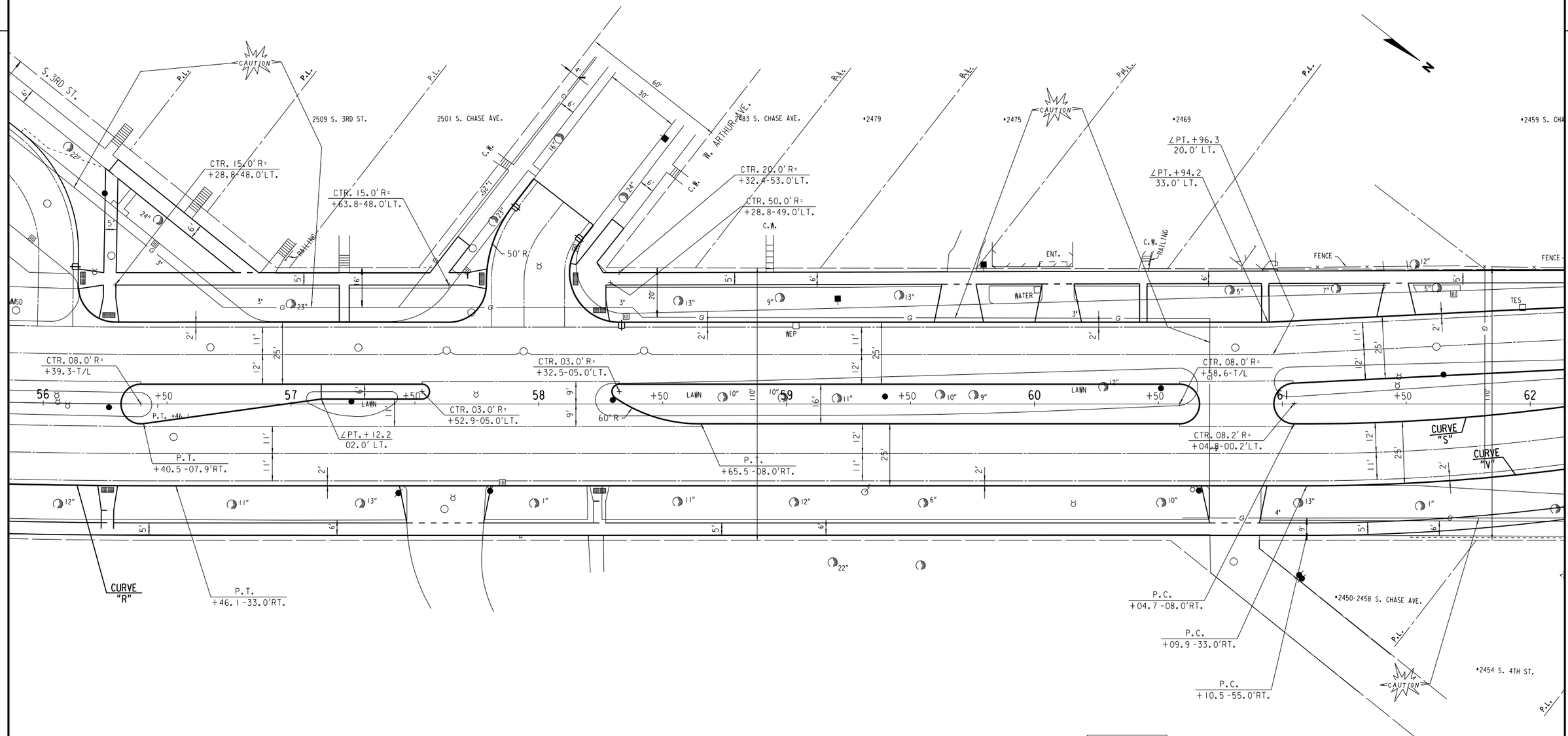
CURVE	RADIUS	PC	PT	PI	INT. ANG.	CHORD
P - WEST CURB	2509.01'	48+74.80, 37.00' LT.	52+19.00, 37.00' LT.	50+20.30	08° 48' 51.0"	386.00'
S - WEST CURB	2513.01'	52+99.00, 33.00' LT.	56+58.50, 33.00' LT.	54+28.50	05° 50' 35.0"	256.30'
R - EAST CURB	2579.01'	51+14.32, 33.00' RT.	56+46.10, 33.00' RT.	53+72.20	12° 20' 57.0"	537.92'

STATE PROJECT NUMBER 2060-00-76 - - | HWY: S.T.H. 38 | COUNTY: MILWAUKEE | PLAN DETAIL | SCALE FEET 0' 40' | SHEET NO: 66 | E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 50-56.DGN

REVISED DATE: 07-27-2018 BY SB

SOUTH CHASE AVENUE



B.M. NW BOLT HYD.
E/S S. CHASE AVE. @ W. ARTHUR AVE.
STA. 57+80 - 35'RT.
ELEV. 53.96

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 60+66 - 35'RT.
ELEV. 58.52

CURVE DATA

CURVE	RADIUS	PC	PT	PI	INT. ANG.	CHORD
R - EAST CURB	2579.01'	51+14.32,33.00'RT.	56+46.10,33.00'RT.	53+72.20	12°20'57.0"	555.90'

C.W.-CURVE DATA

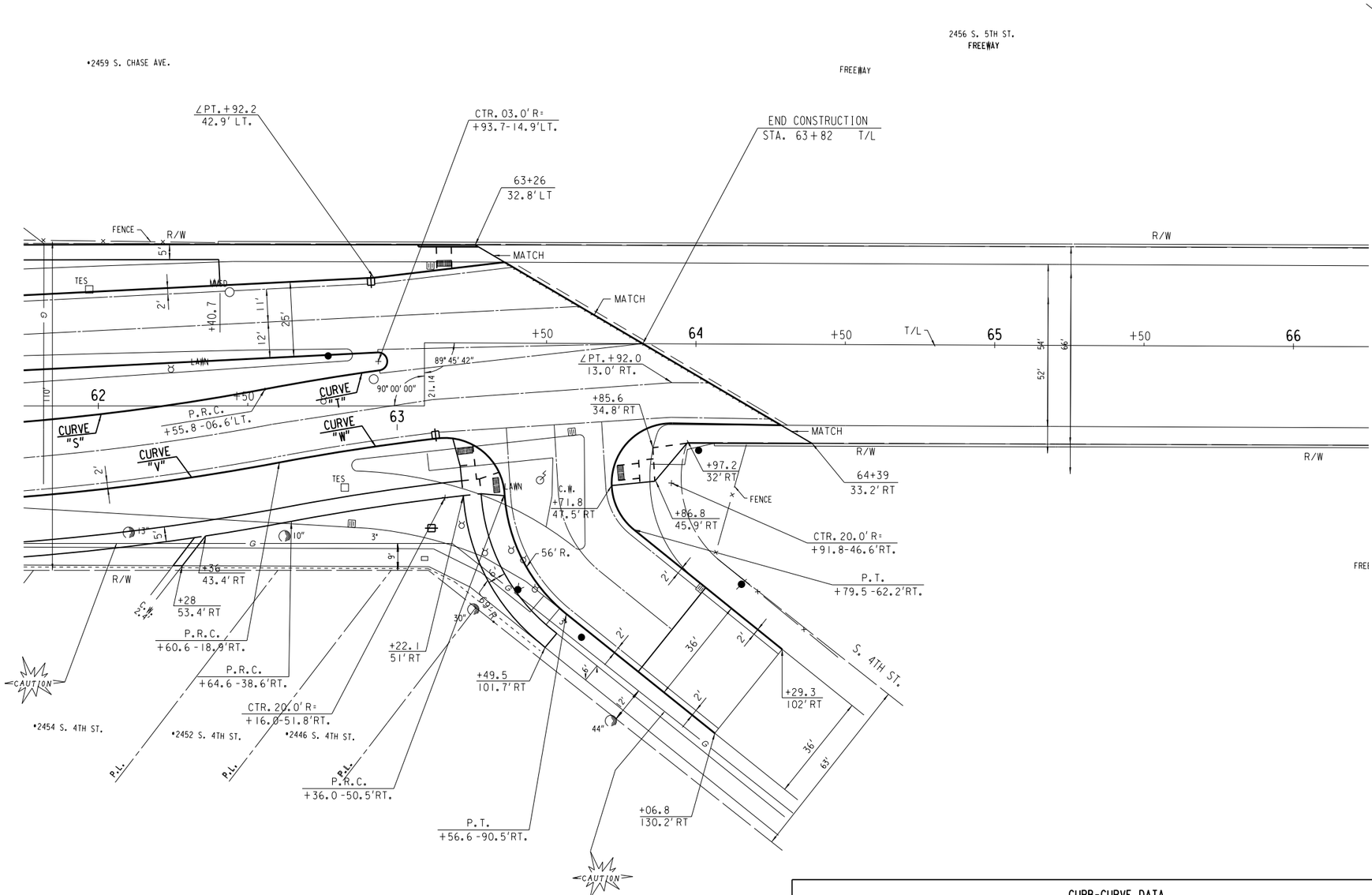
CURVE	RADIUS	PC	PRC	INT. ANG.	LENGTH
S - MEDIAN CURB	787'	61+04.80,00.20'LT.	62+55.80,06.60'LT.	10°02'22.5"	151.64'
V - EAST CURB	813'	61+09.90,33.00'RT.	62+60.60,18.90'RT.	10°40'57.0"	151.58'

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 67	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 56-62.DGN

REVISED DATE: 05-05-2017 BY PN

SOUTH CHASE AVENUE



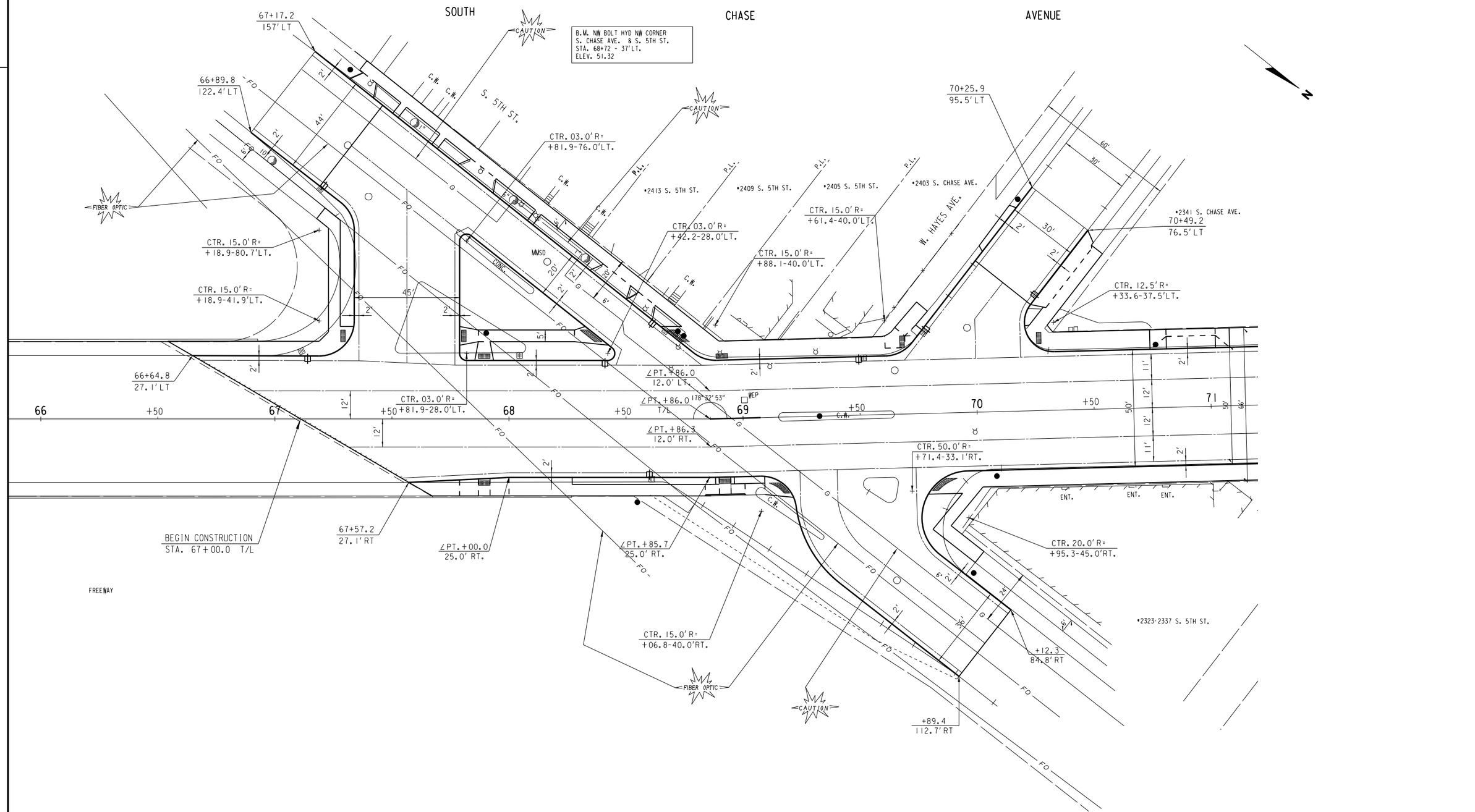
CURB-CURVE DATA						
CURVE	RADIUS	PC	PRC	PC	INT. ANG.	LENGTH
S - MEDIAN CURB	787'	61+04.80, 00.20' LT.	62+55.80, 06.60' LT.		10° 02' 22.5"	151.64'
T - MEDIAN CURB	813'		62+55.80, 06.60' LT.	62+94.10, 11.90' LT.	02° 44' 12.0"	38.83'
V -EAST CURB	813'	61+09.90, 33.00' RT.	62+60.60, 18.90' RT.		10° 40' 57.0"	151.58'
W -EAST CURB	787'		62+60.60, 18.90' RT.	63+13.70, 32.00' RT.	03° 53' 19.0"	53.41'

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 68	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 62-66.DGN

REVISED DATE: 05-05-2017 BY PN

2



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 69	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 66-71.DGN

REVISED DATE: 04-07-2017 BY PN

SOUTH CHASE AVENUE

71+92.9
45.8' LT

71+94.3
78.4' LT

72+4
70.3' LT

∠PT. +19.0
57.8' LT.

∠PT. +19.6
49.5' LT.

CTR. 10.0' R=
+52.4-35.0'LT.

CTR. 07.0' R=
+98.4-32.0'LT.

71+77.7
58.5' LT

*2341 S. CHASE AVE.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

ASPH. PARKING

CTR. 20.0' R=
+17.7-39.0'LT.

∠PT. +98.0
19.0' LT.

∠PT. +92.5
25.0' LT.

74+47.5
44.1' LT

S. 6TH ST.

END PROJECT
STA. 75 + 00.0 T/L

74+92.6
6' LT

*2265-2279 S. CHASE AVE.

CTR. 05.5' R=
+89.2-06.9'RT.

74+97.5
15.6' RT

74+99.5
18.5' RT

74+93.7
35.5' RT

CTR. 15.0' R=
+71.7-43.5'RT.

CTR. 06.0' R=
+13.1-08.0'RT.

CTR. 06.0' R=
+06.6-08.0'RT.

CTR. 20.0' R=
+66.7-38.0'RT.

128°59'11"

71 +50 72 +50 73 +50 74 +50 75

CTR. 45.0' R=
+68.2-70.0'RT.

CTR. 15.0' R=
+23.7-77.3'RT.

*525 W. LINCOLN AVE.

5TH ST.

CONC. 20' ALLEY

73+30.4
92.9' RT

*550 W. LINCOLN AVE.

CTR. 10.0' R=
+20.7-98.7'RT.

S. 5TH PL.

73+78.3
131.7' RT

74+33.2
122.2' RT

W. LINCOLN AVE.

*522 W. LINCOLN AVE.

74+19
139.2' RT

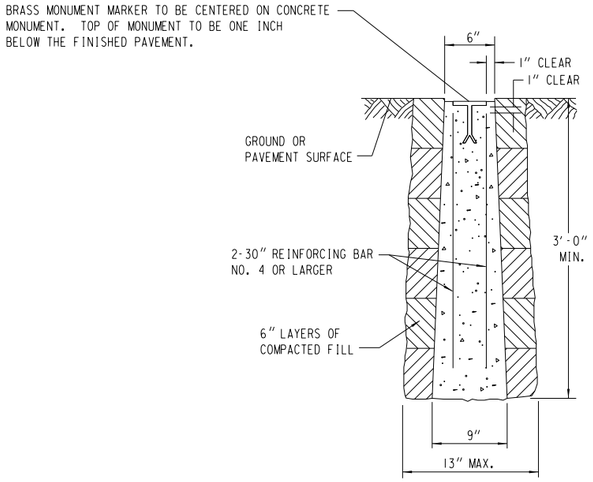
CTR. 10.0' R=
+94.3-131.4'RT.

B.M. NW BOLT HYD NE CORNER
W. LINCOLN AVE. & S. 5TH PL.
STA. 74+00 - 127' RT.
ELEV. 45.75

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 70 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PDET 71-75.DGN

REVISED DATE: 05-05-2017 BY PN



PRECAST

CONCRETE MONUMENT



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 MONUMENTS TO BE REPLACED

LOCATION	MONUMENTS	STATION	REMARKS
S. CHASE AVE.			
AT E./W. OKLAHOMA AVE.	1	15+00 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS

LANDMARK REFERENCE MONUMENT

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	LANDMARK REFERENCE PLAN	SCALE FEET	SHEET NO: 71	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\LANDMARK.DGN

REVISED DATE: 05-22-2017 BY PN

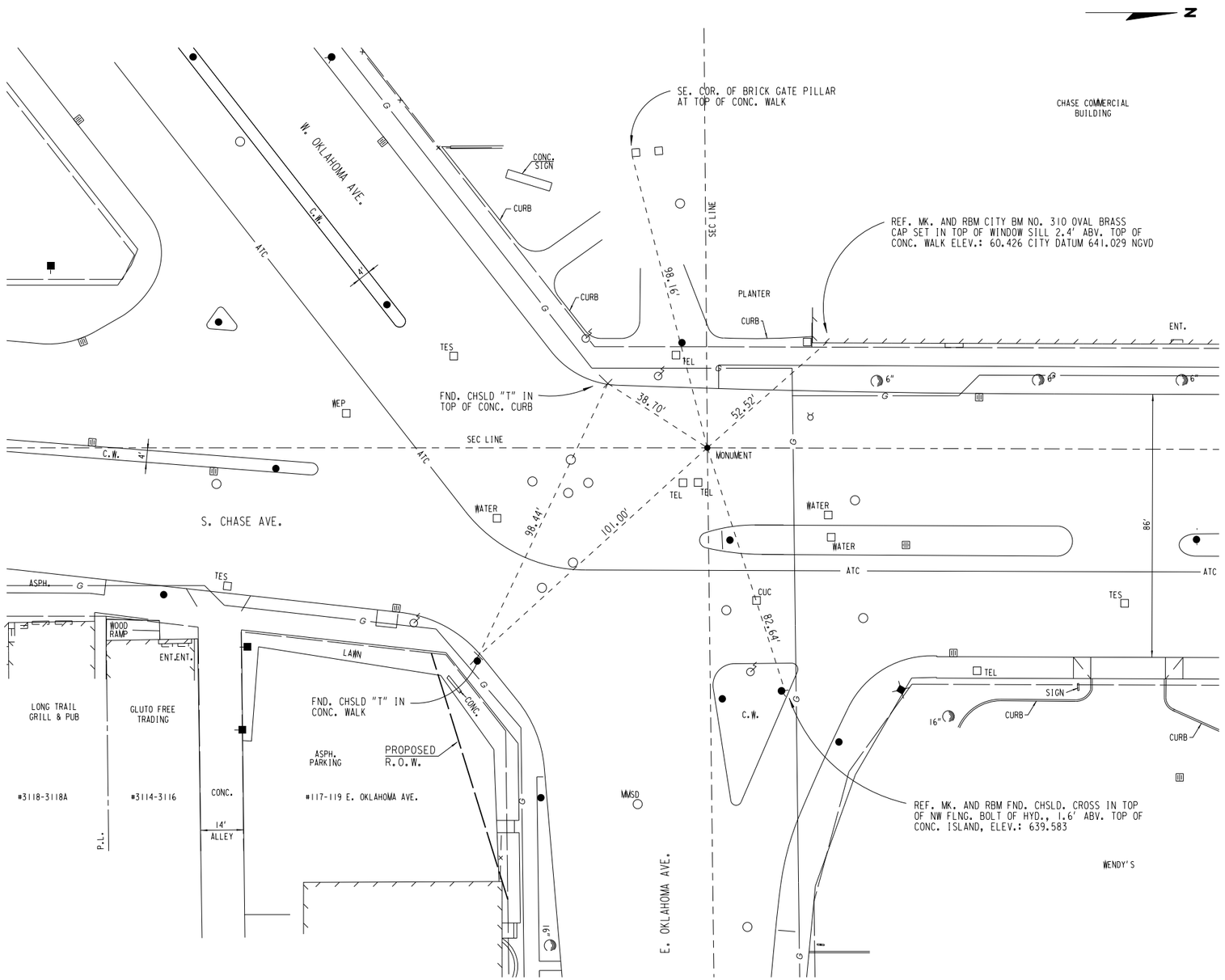
2



TOWNSHIP 6 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/ SEWRPC BRASS CAP

STATE PLANE COORDINATES OF QUARTER SECTION CORNER
NORTH: 367,218.09
EAST: 2,559,341.32
ELEV: 640.223

SURVEY DATE: JUNE 28, 1997



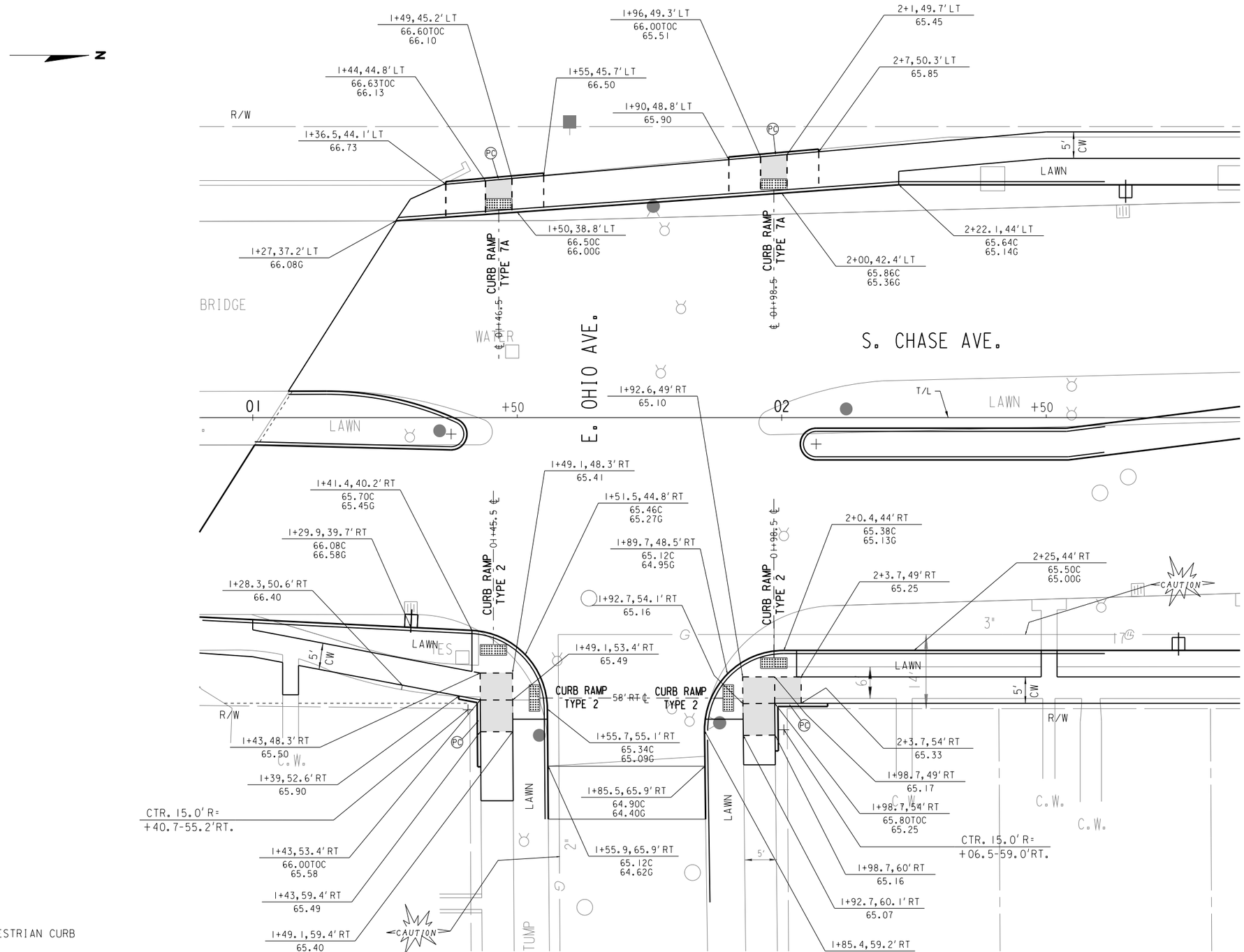
U.S. PUBLIC LAND SURVEY CORNER
S. HOWELL AVE. & W. EDGERTON AVE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	LANDMARK REFERENCE PLAN	SCALE FEET	SHEET NO: 72	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\LANDMARK.DGN

REVISED DATE: 05-22-2017 BY PN

2

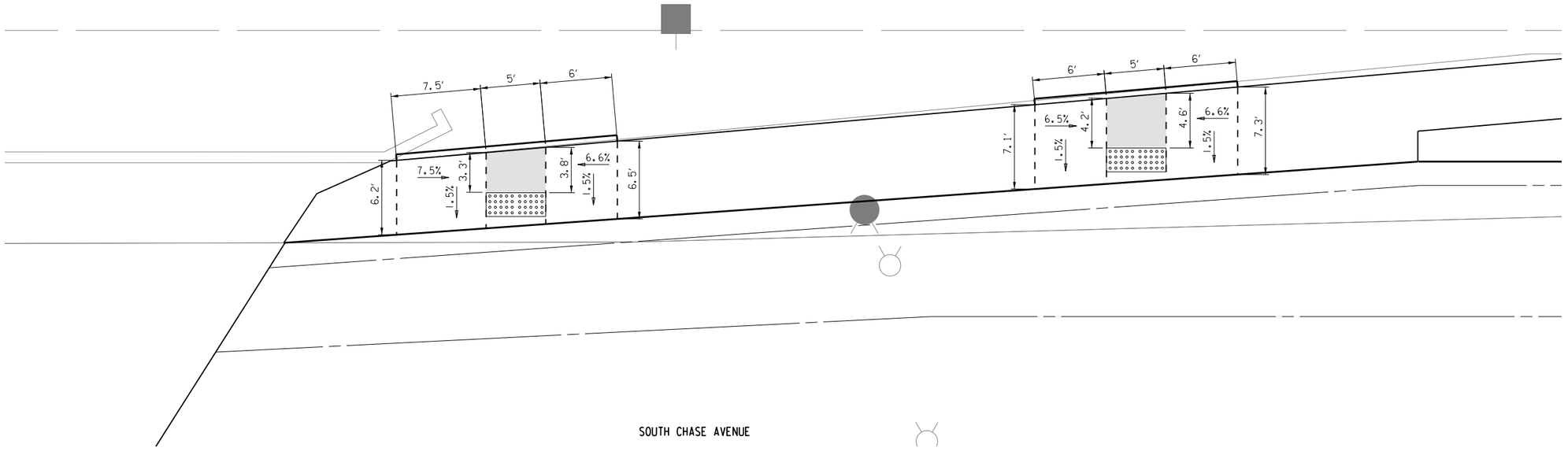


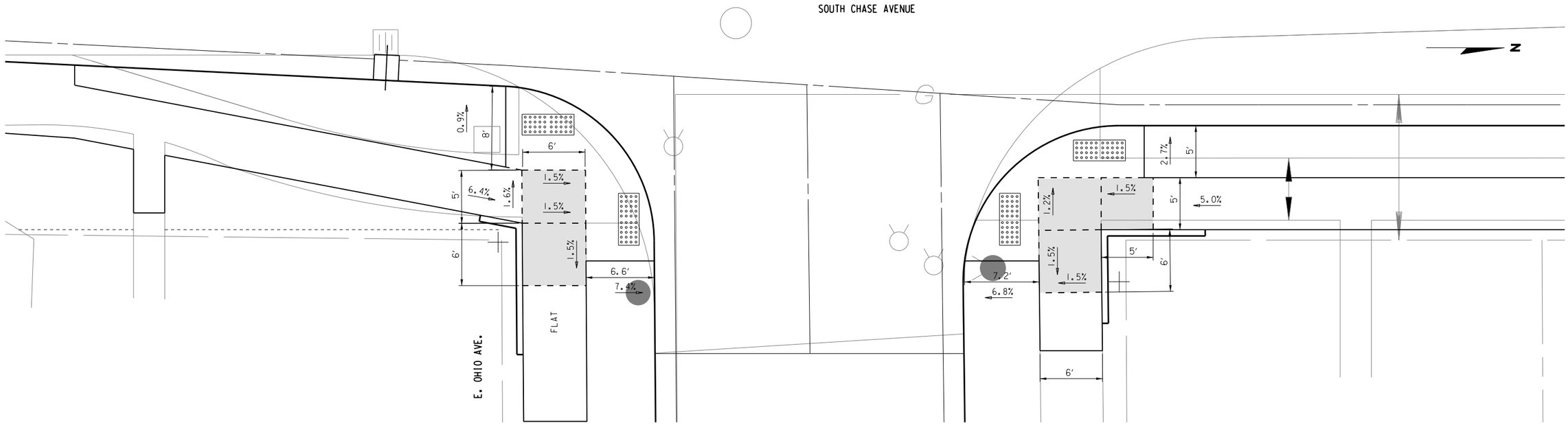
S. CHASE AVE. AND E. OHIO AVE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 73 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\1_OHIO.DGN

REVISED DATE: 11-01-2018 BY SB

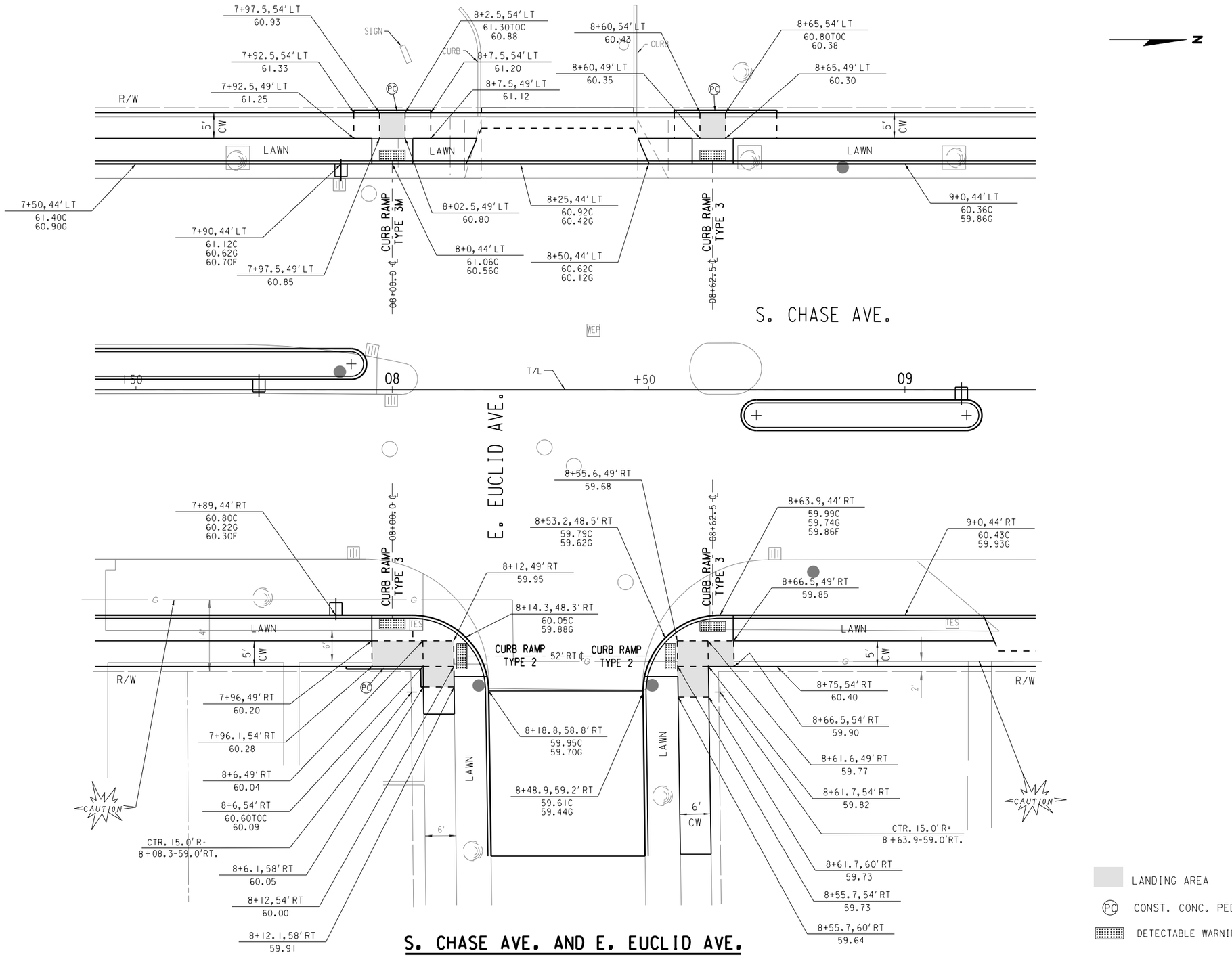




STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 74	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\1_OHIO SLOPE.DGN

REVISED DATE: 11-01-2018 BY SB



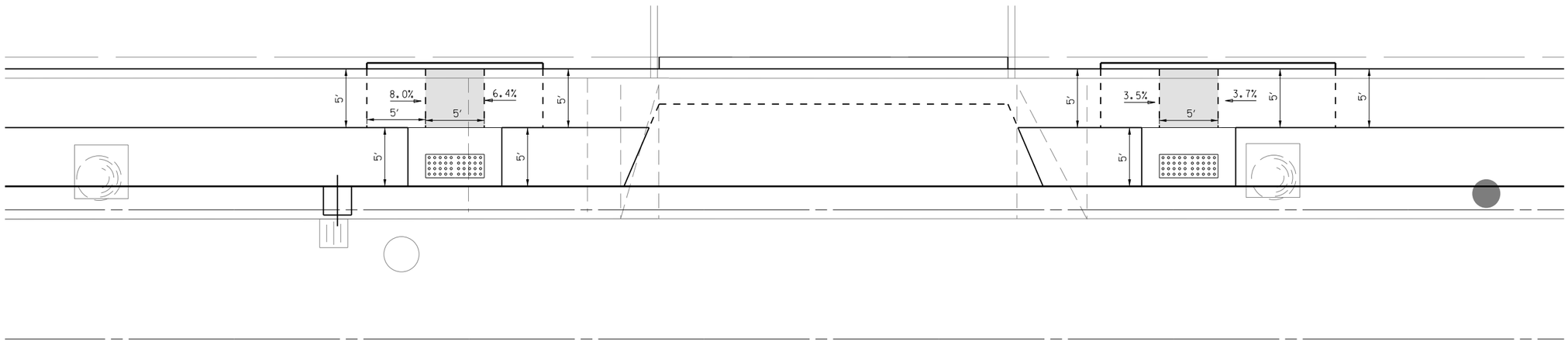
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 75	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\2_EUCLID.DGN

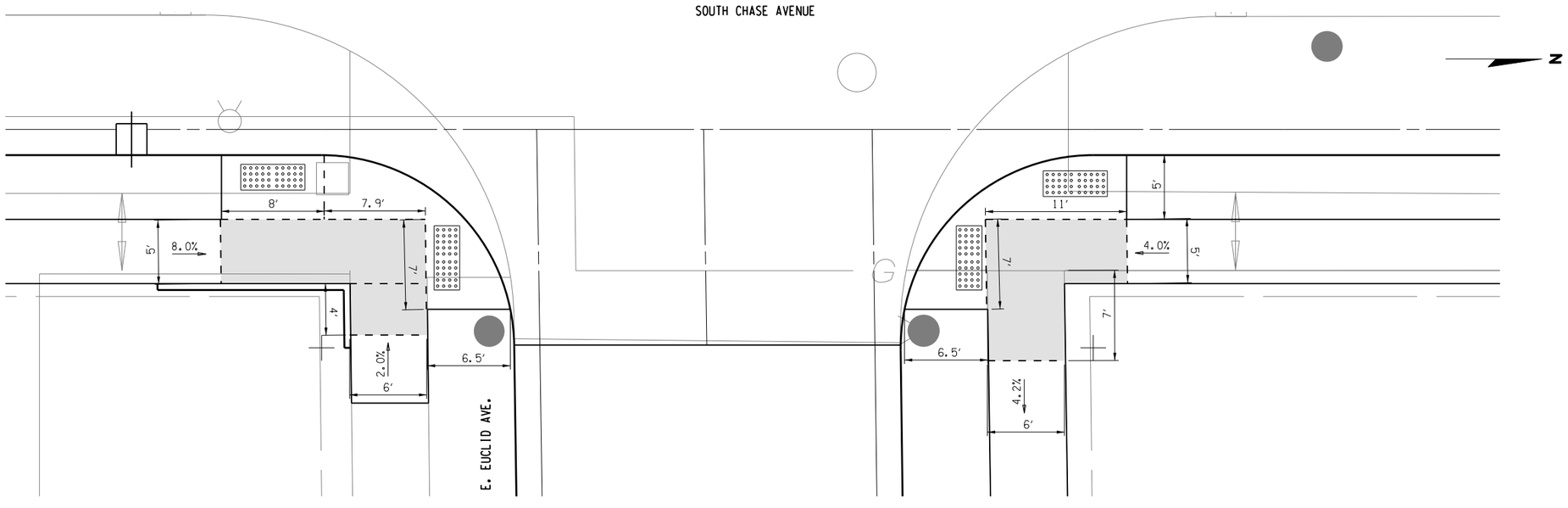
REVISED DATE: 10-31-2018 BY AL

2

2



SOUTH CHASE AVENUE

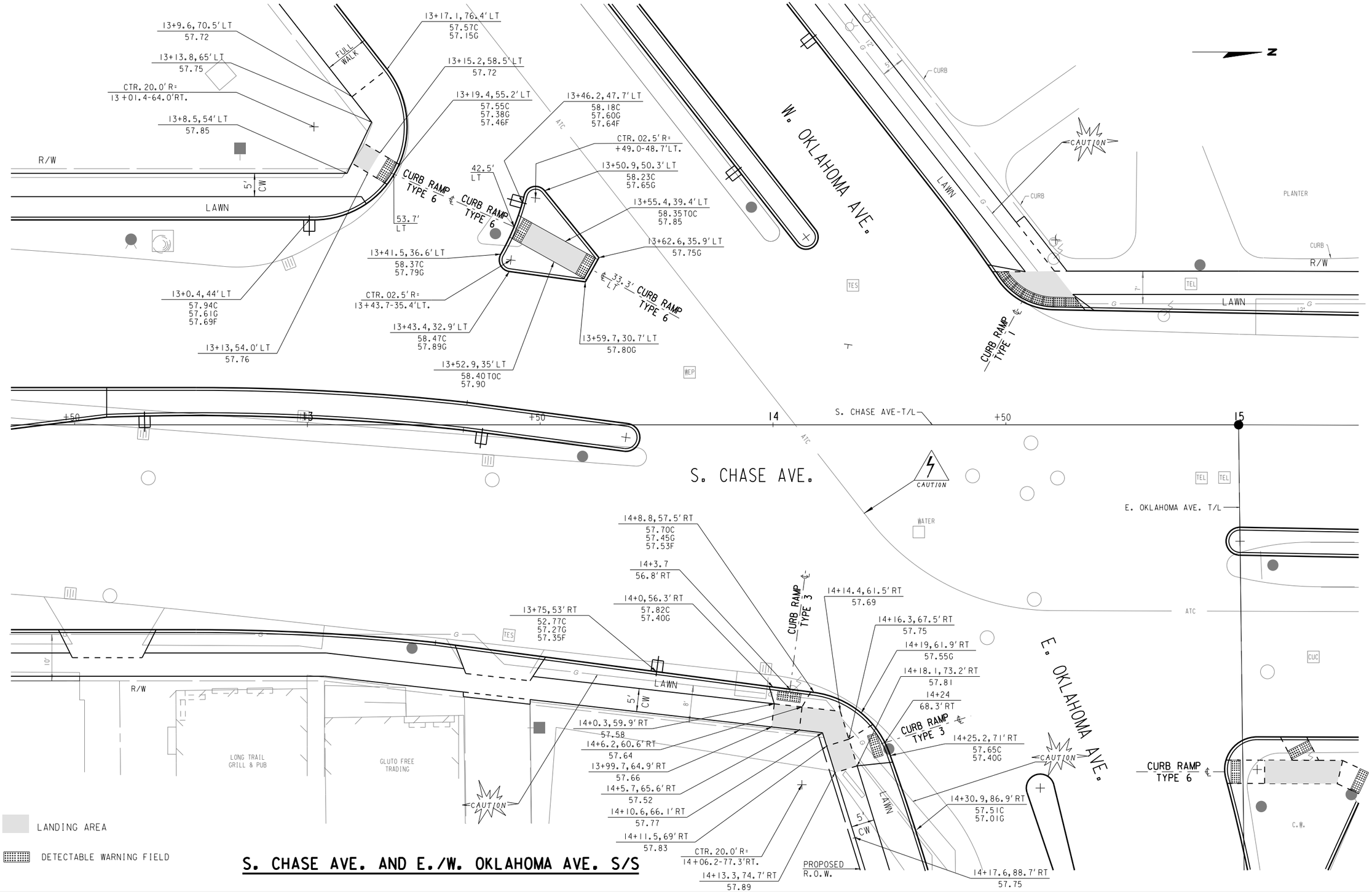


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 76	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\2_EUCLID SLOPE.DGN

REVISED DATE: 11-01-2018 BY SB

2



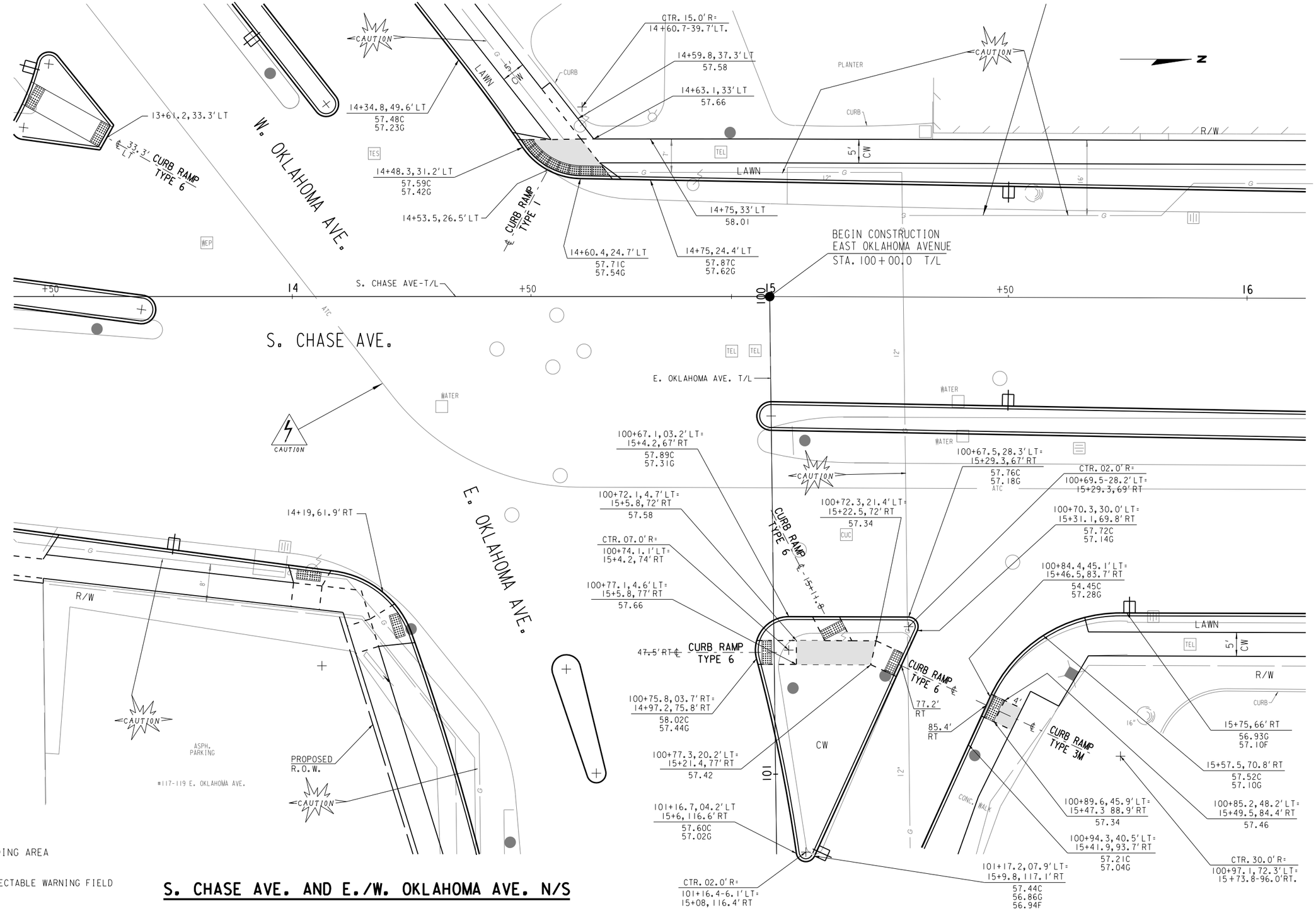
S. CHASE AVE. AND E./W. OKLAHOMA AVE. S/S

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 77	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\3_OKLAHOMASS.DGN

REVISED DATE: 10-25-2018 BY SB

2

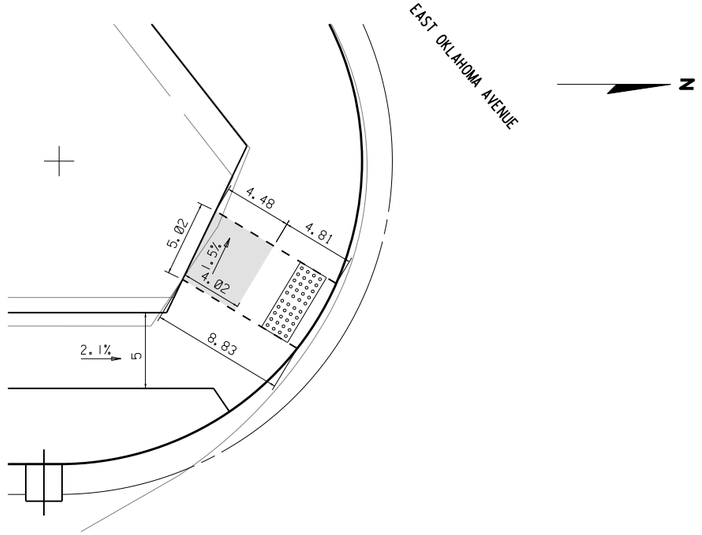


S. CHASE AVE. AND E./W. OKLAHOMA AVE. N/S

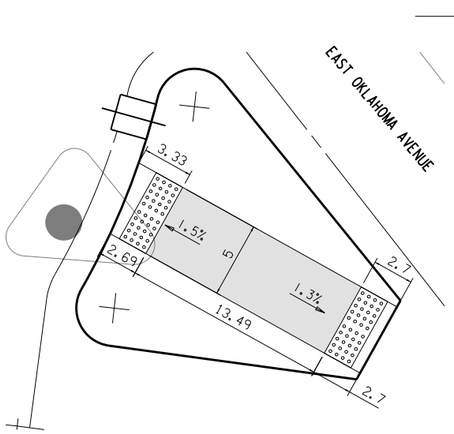
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 78	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\4_OKLAHOMANS.DGN

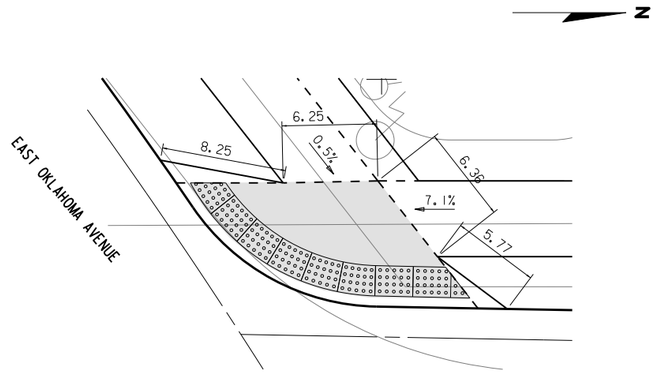
REVISED DATE: 10-26-2018 BY SB



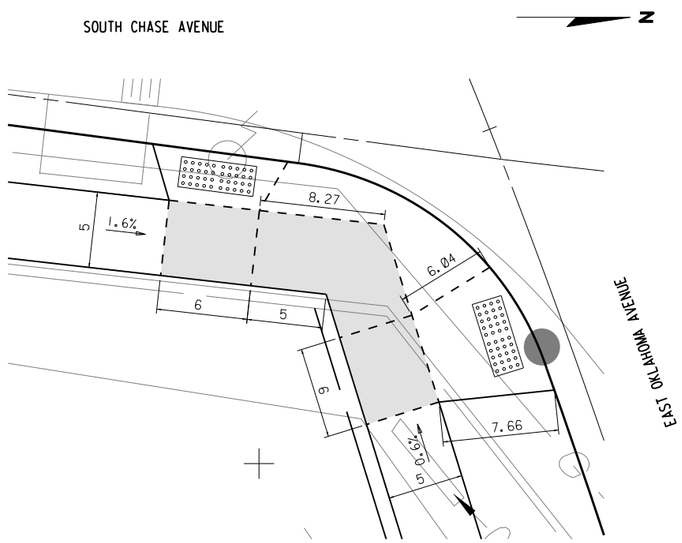
SOUTH CHASE AVENUE

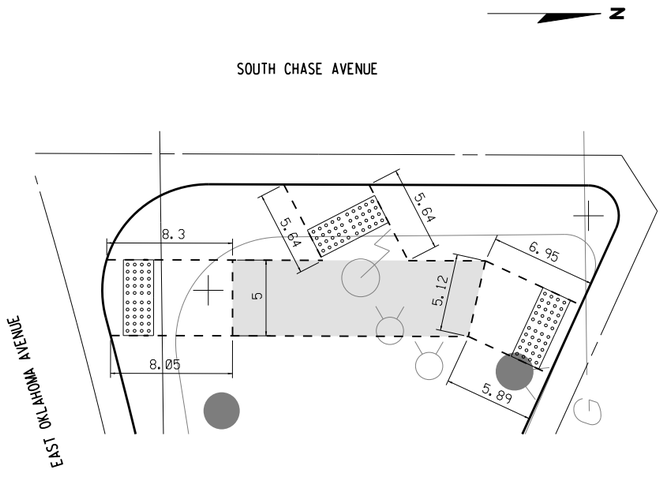


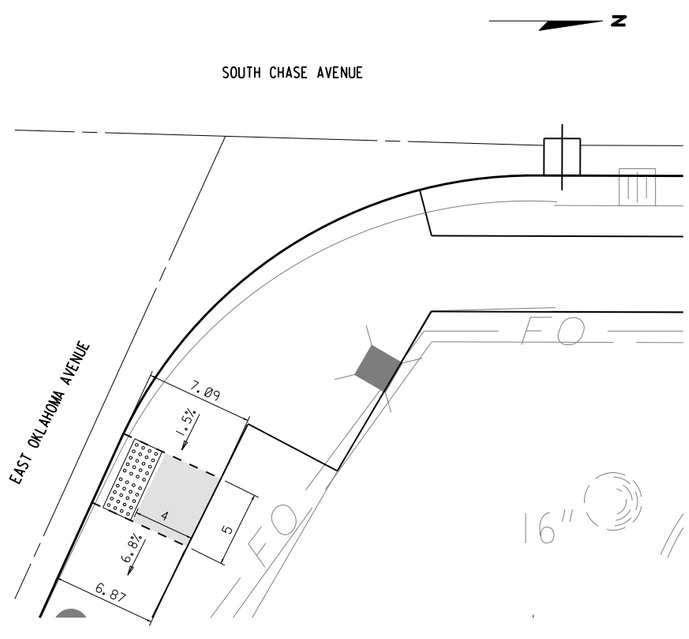
SOUTH CHASE AVENUE



SOUTH CHASE AVENUE





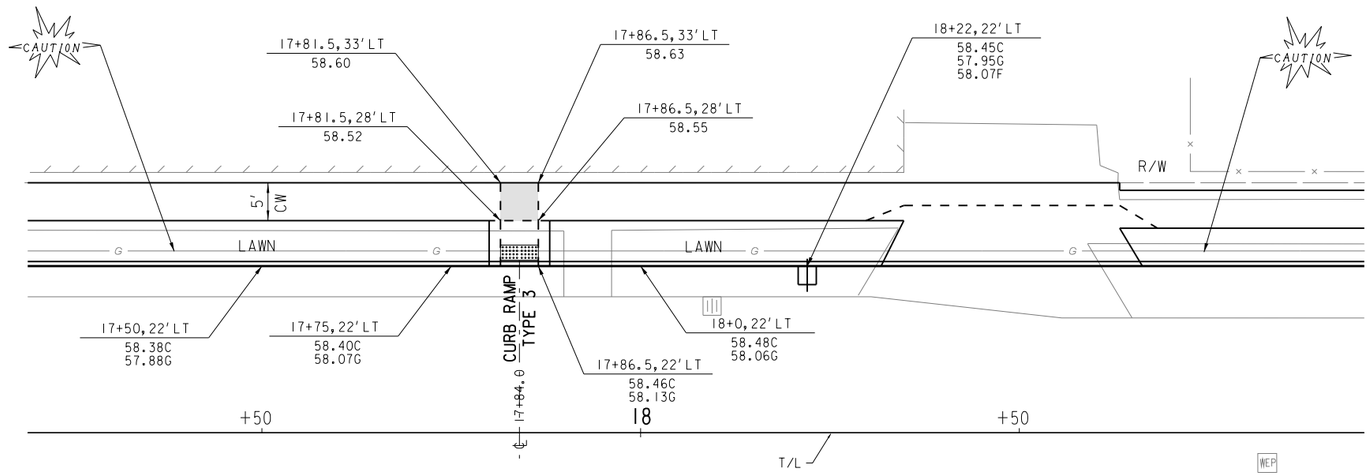


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 79	E

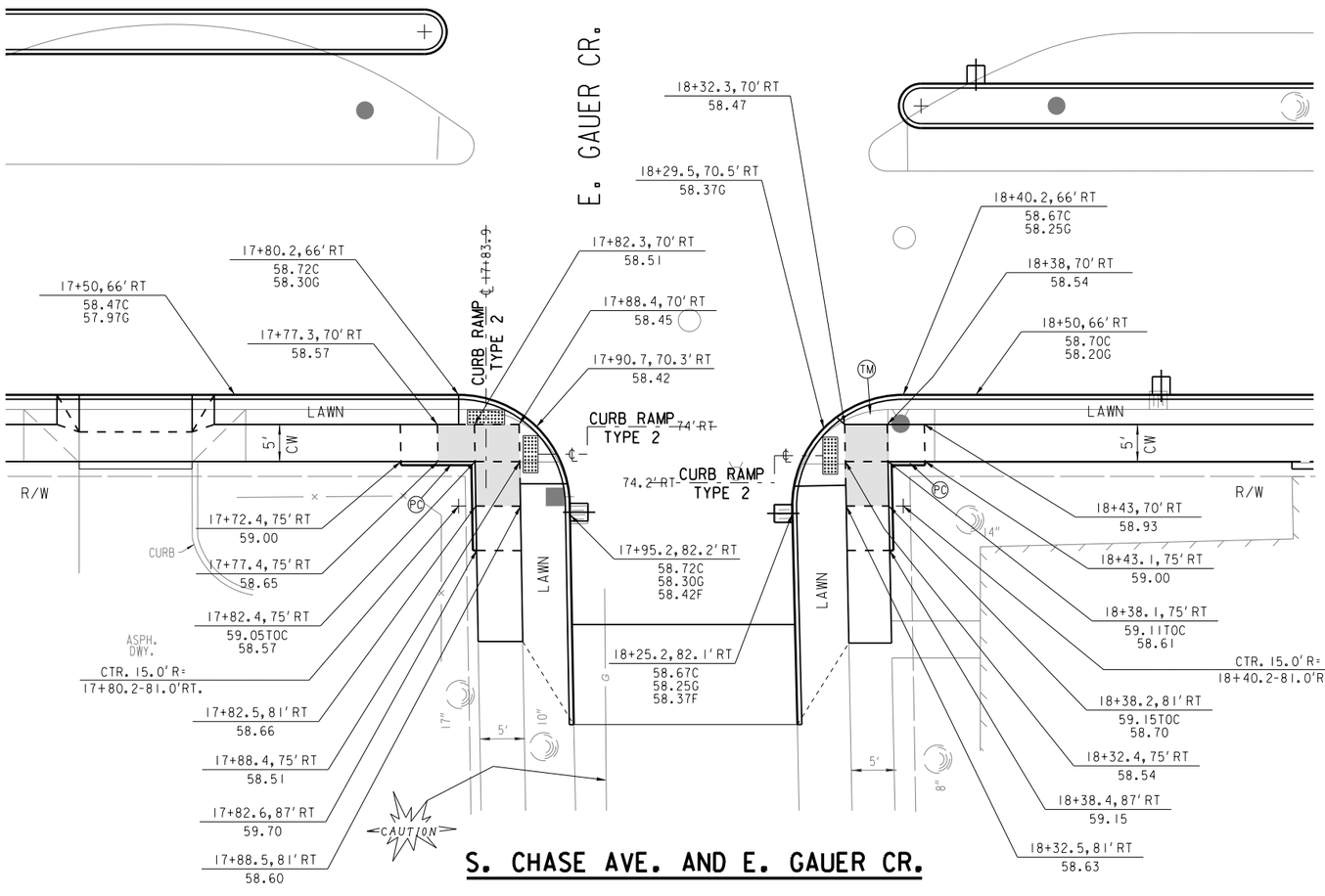
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\3_4_OKLAHOMA SLOPE.DGN

REVISED DATE: 11-01-2018 BY DB

2



S. CHASE AVE.



S. CHASE AVE. AND E. GAUER CR.

N

LANDING AREA

PC CONST. CONC. PEDESTRIAN CURB

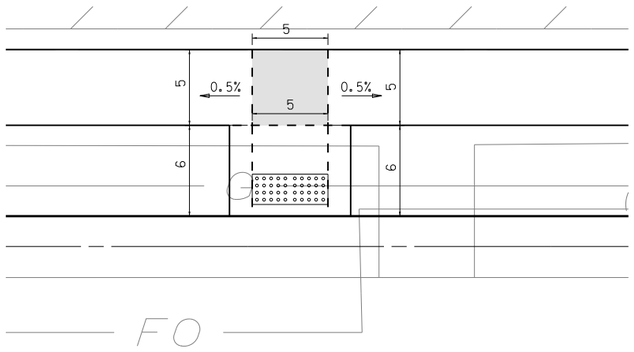
TM CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

DETECTABLE WARNING FIELD

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 80	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\5_GAUER.DGN

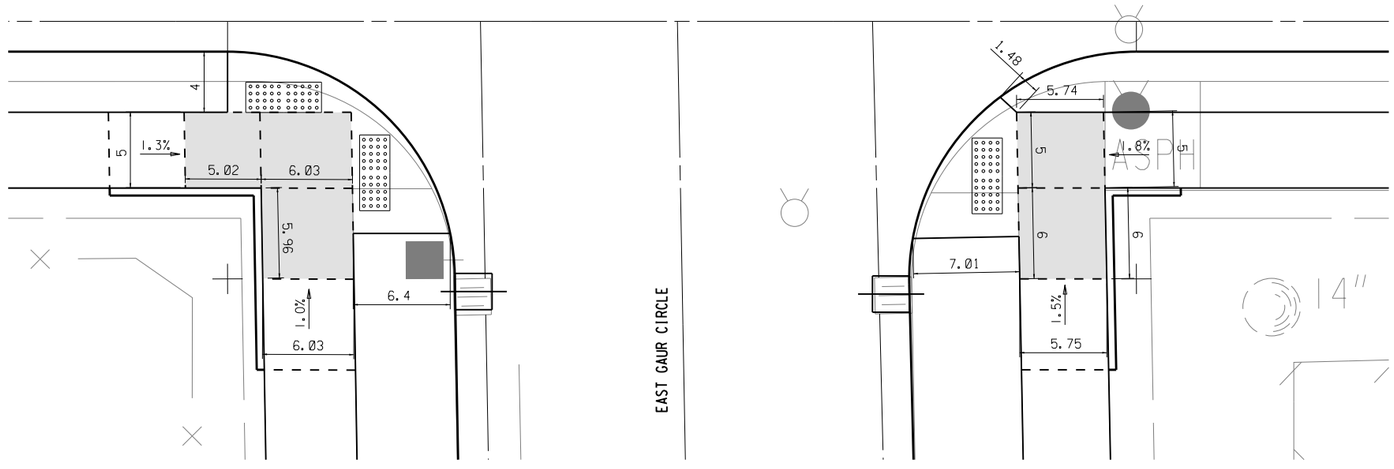
REVISED DATE: 10-31-2018 BY AL



SOUTH CHASE AVENUE

N

SOUTH CHASE AVENUE



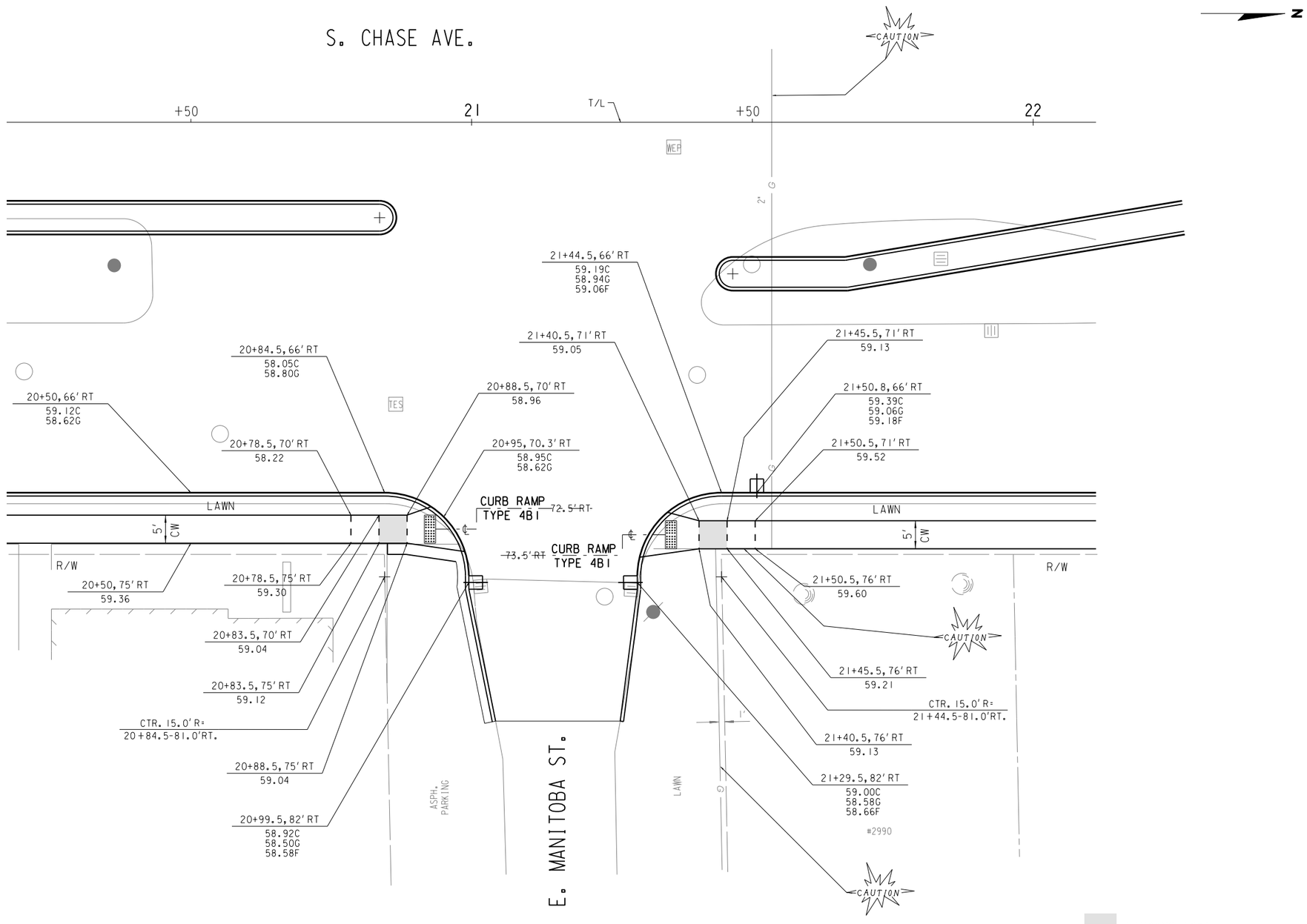
N

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 81	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\5_GAUER SLOPE.DGN

REVISED DATE: 11-01-2018 BY DB

2



LANDING AREA

DETECTABLE WARNING FIELD

S. CHASE AVE. AND E. MANITOBA ST.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 82	E

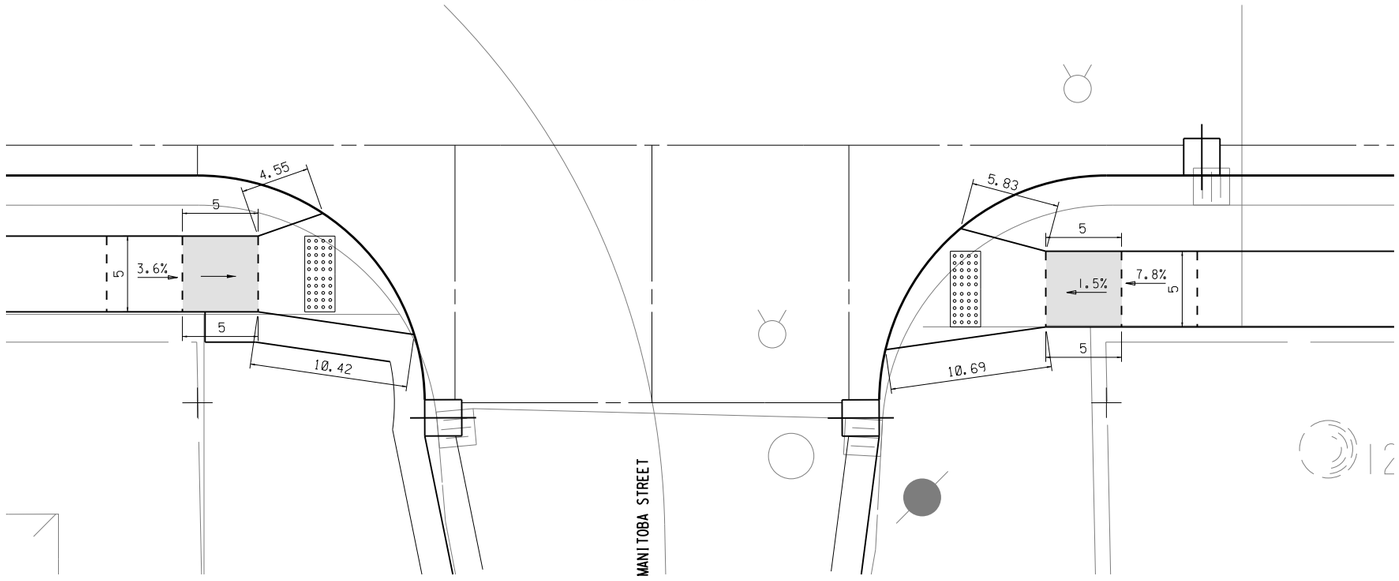
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\6_MANITOBA.DGN

REVISED DATE: 10-31-2018 BY AL

2

N

SOUTH CHASE AVENUE

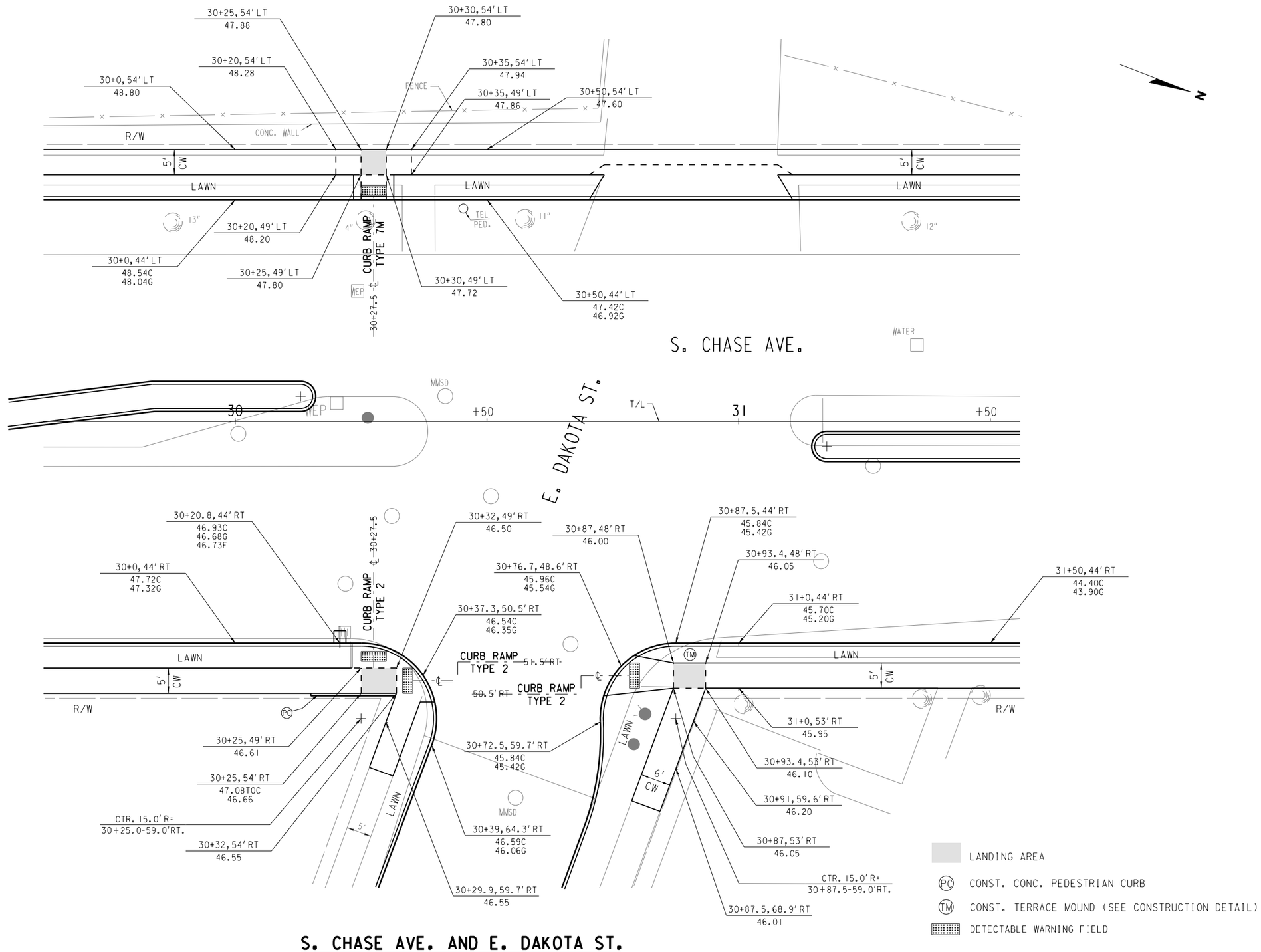


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 83	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\6_MANITOBA SLOPE.DGN

REVISED DATE: 11-01-2018 BY DB

2

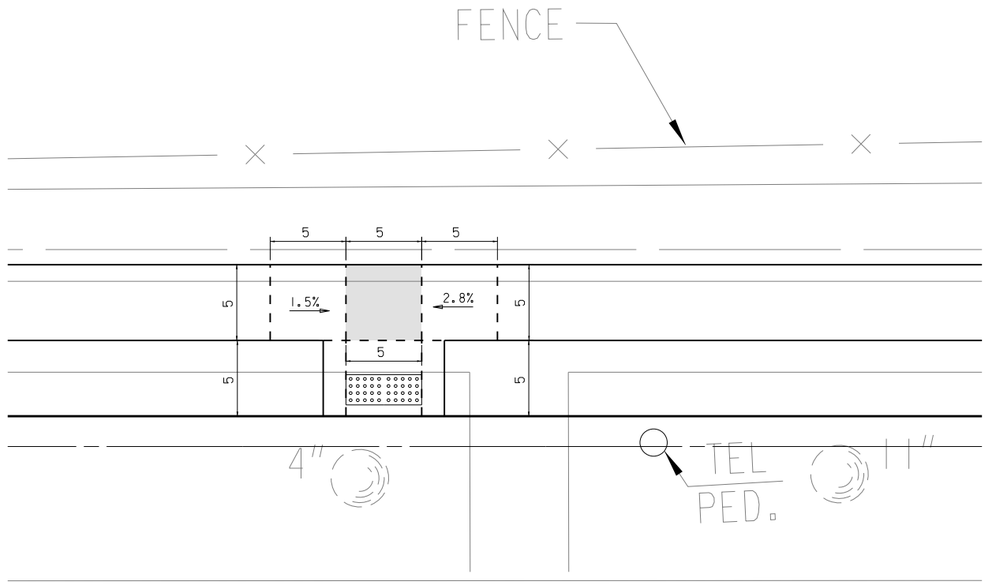


S. CHASE AVE. AND E. DAKOTA ST.

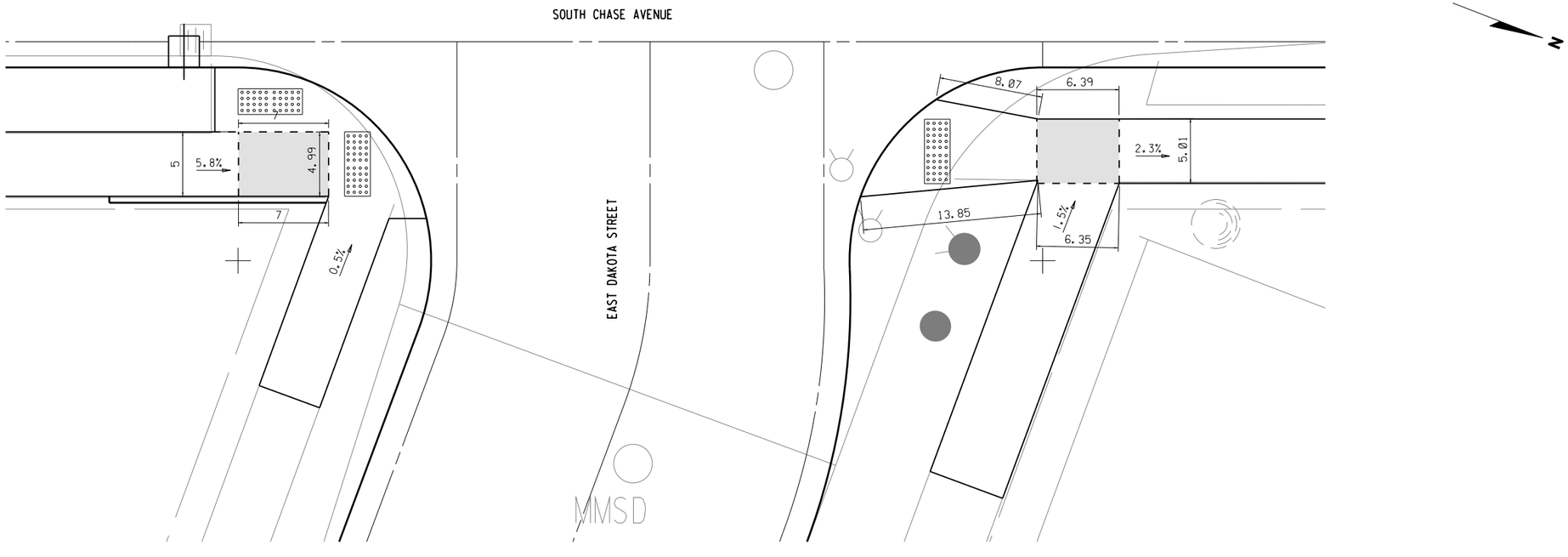
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 84	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\7_DAKOTA.DGN

REVISED DATE: 10-31-2018 BY AL



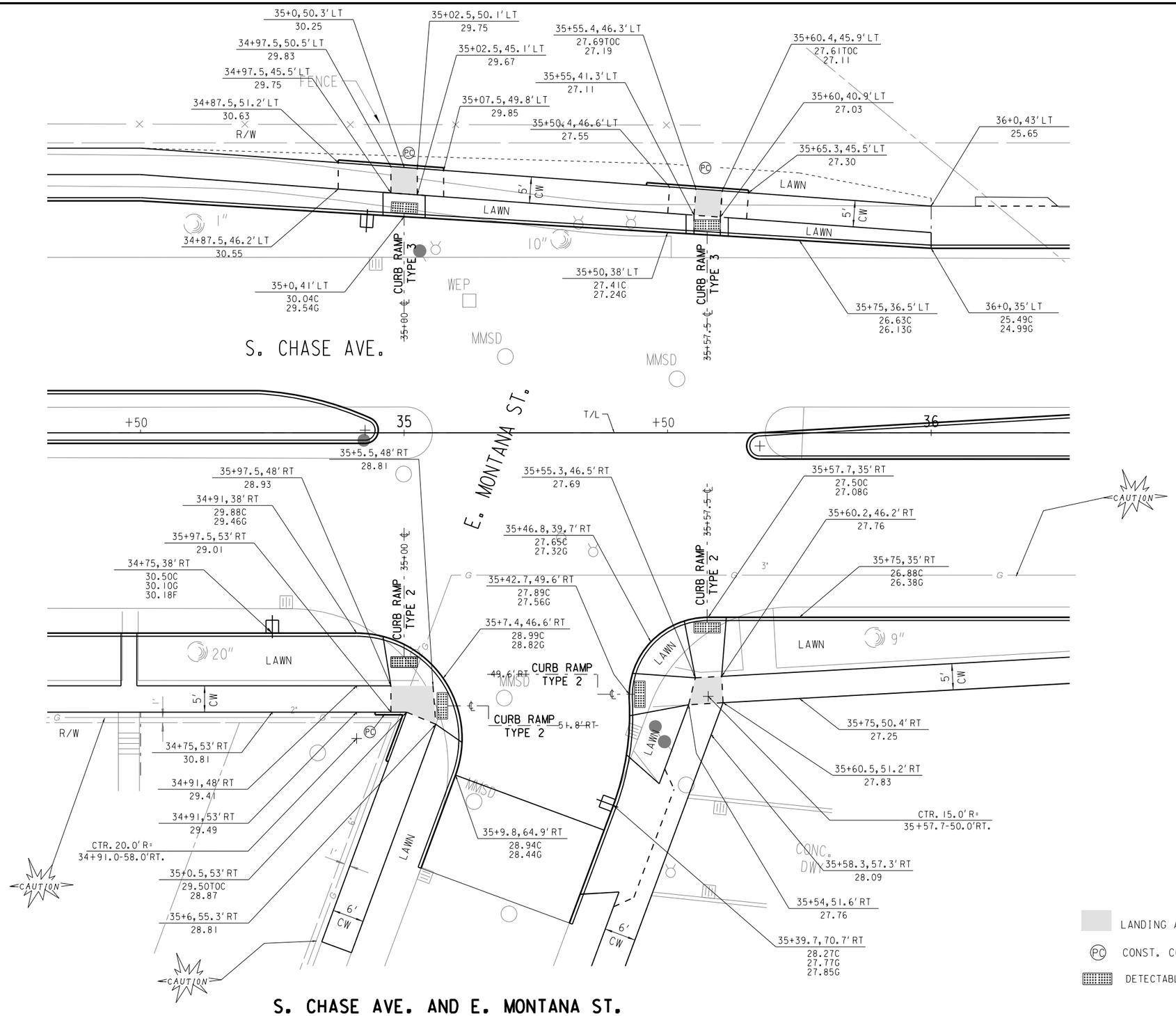
SOUTH CHASE AVENUE



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 85	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\7_DAKOTA SLOPE.DGN

REVISED DATE: 11-01-2018 BY DB

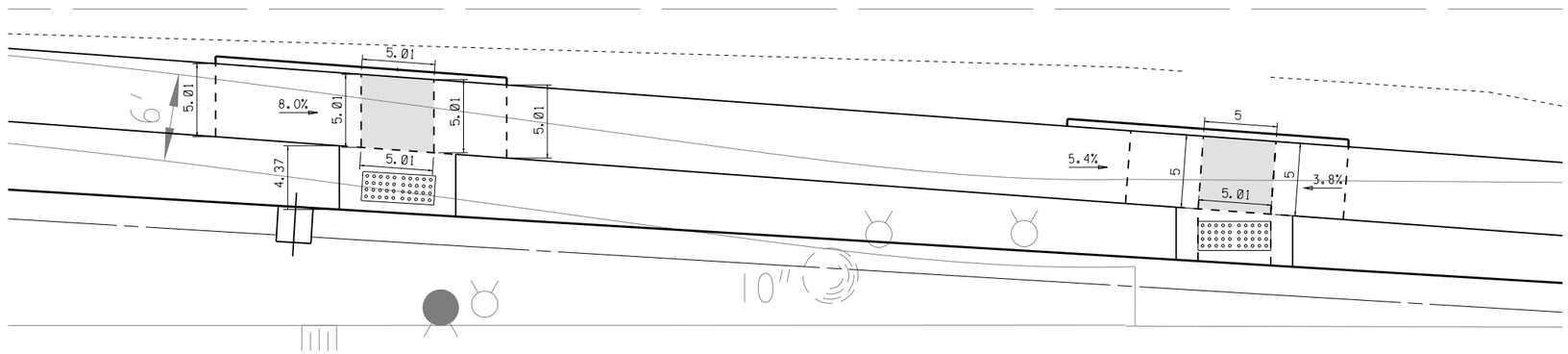


S. CHASE AVE. AND E. MONTANA ST.

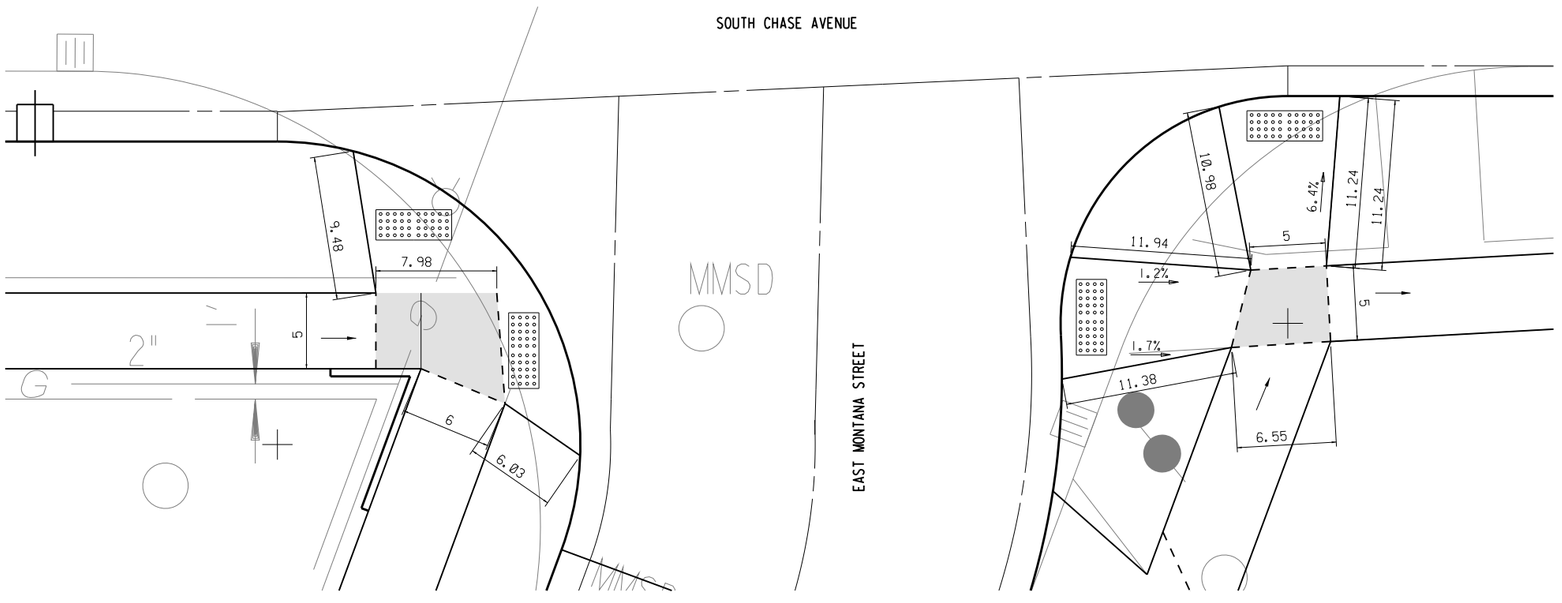
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 86	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\8_MONTANA.DGN

REVISED DATE: 10-31-2018 BY AL



SOUTH CHASE AVENUE

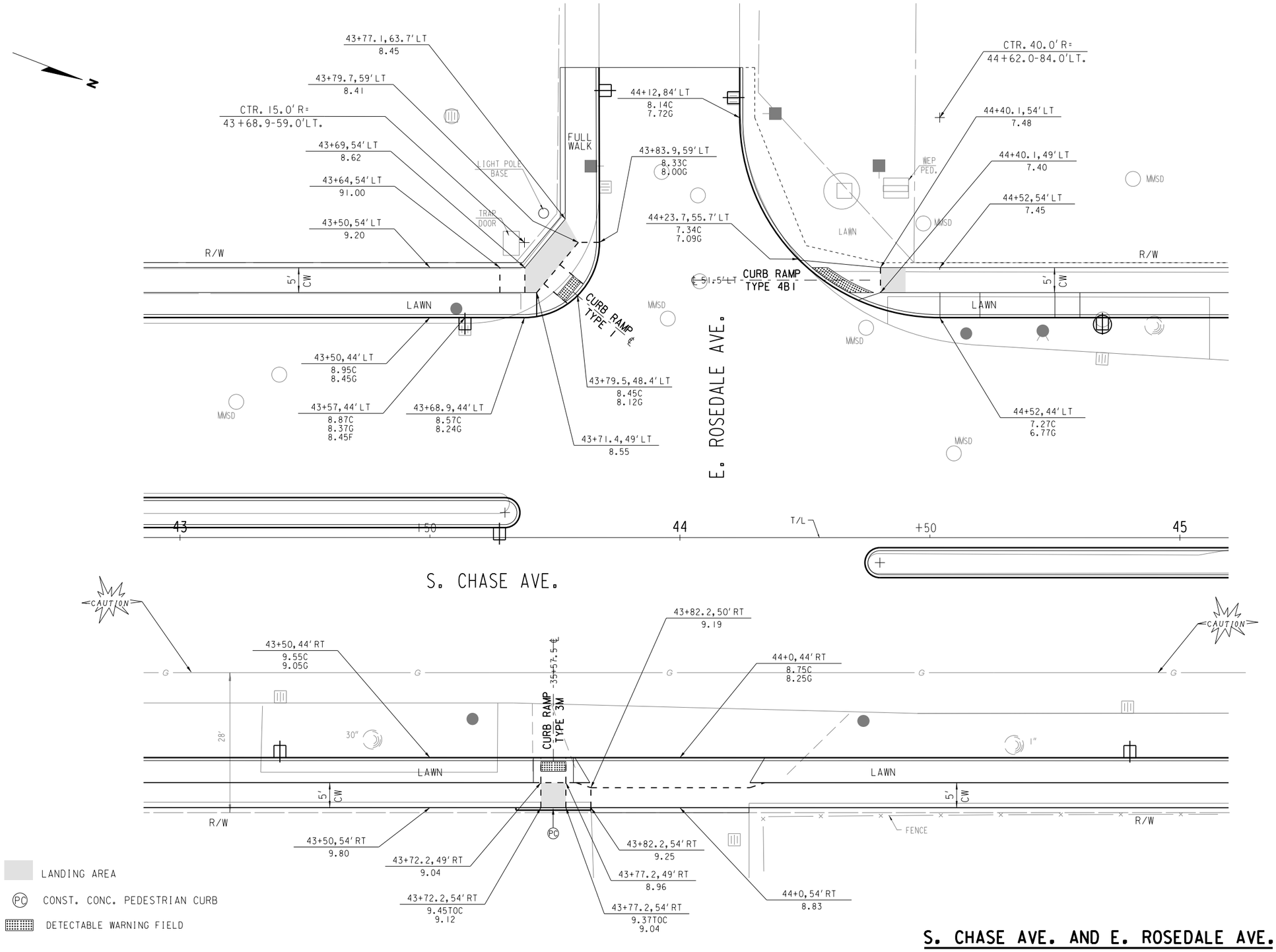


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 87	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\8_MONTANA SLOPE.DGN

REVISED DATE: 11-01-2018 BY DB

2



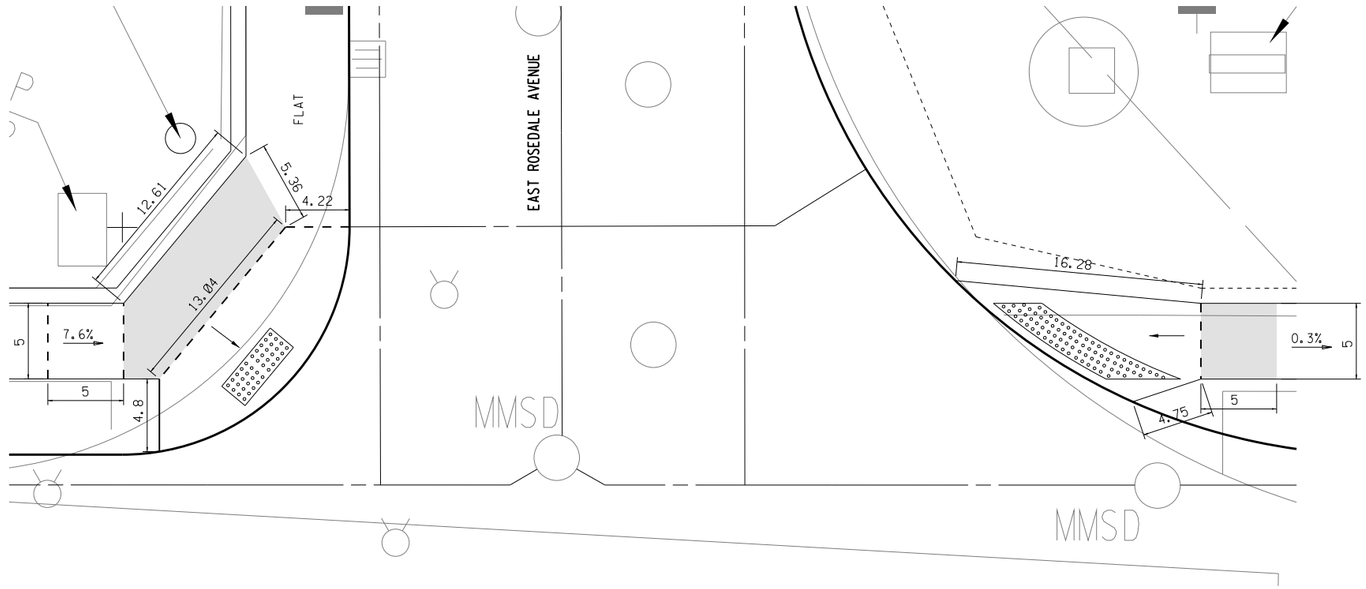
S. CHASE AVE. AND E. ROSEDALE AVE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 88	E

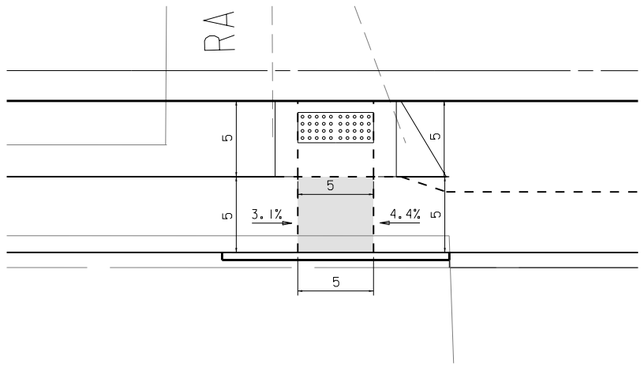
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\9_ROSEDALE.DGN

REVISED DATE: 10-31-2018 BY AL

2



SOUTH CHASE AVENUE



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 89	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\9_ROSEDALE SLOPE.DGN

REVISED DATE: 10-30-2018 BY DB

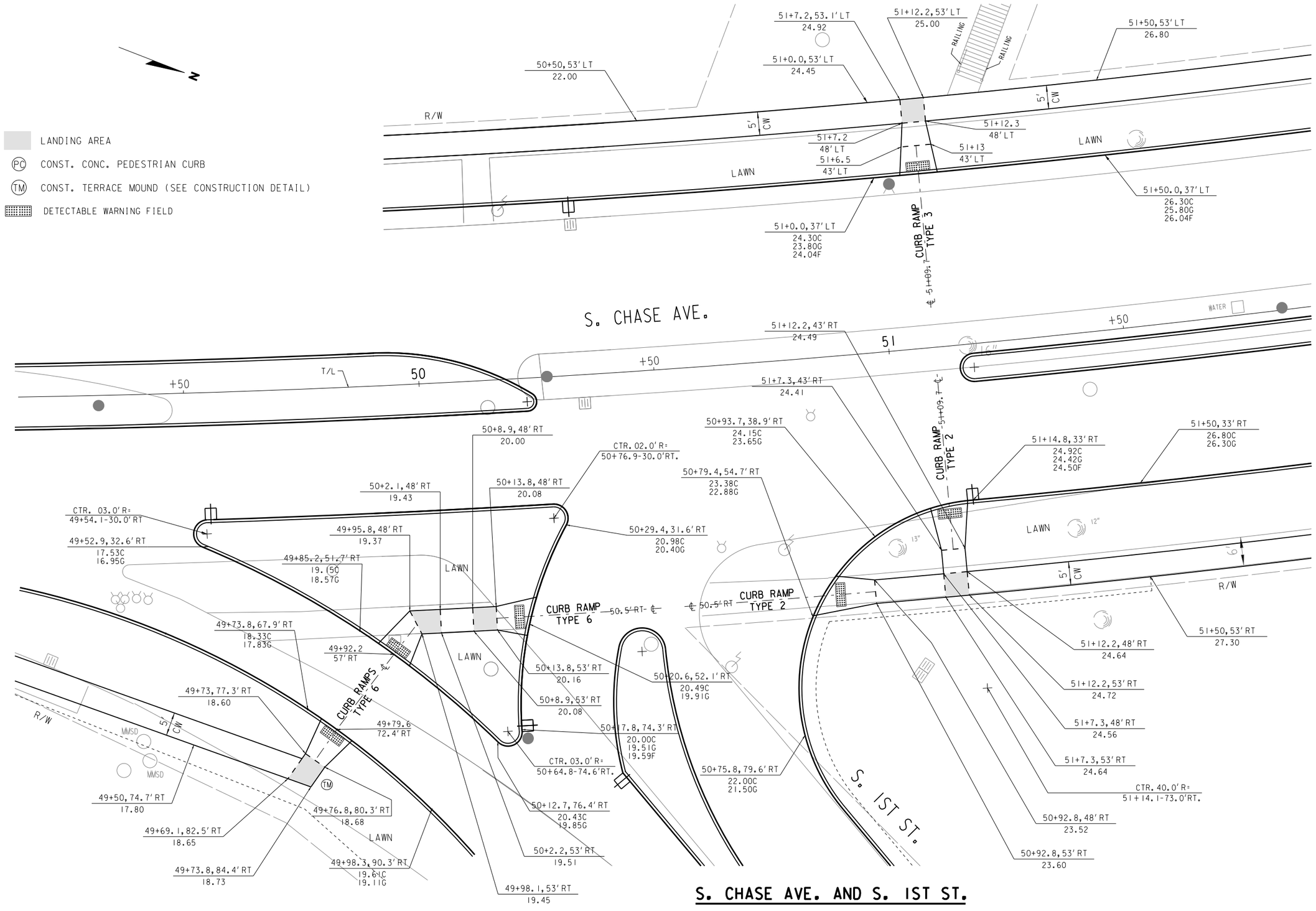
2

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

DETECTABLE WARNING FIELD

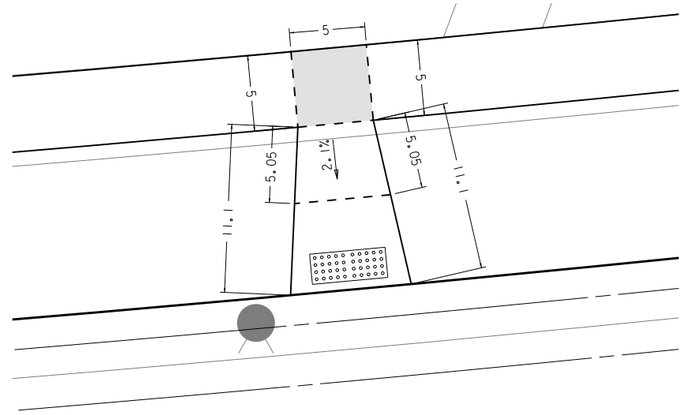


S. CHASE AVE. AND S. IST ST.

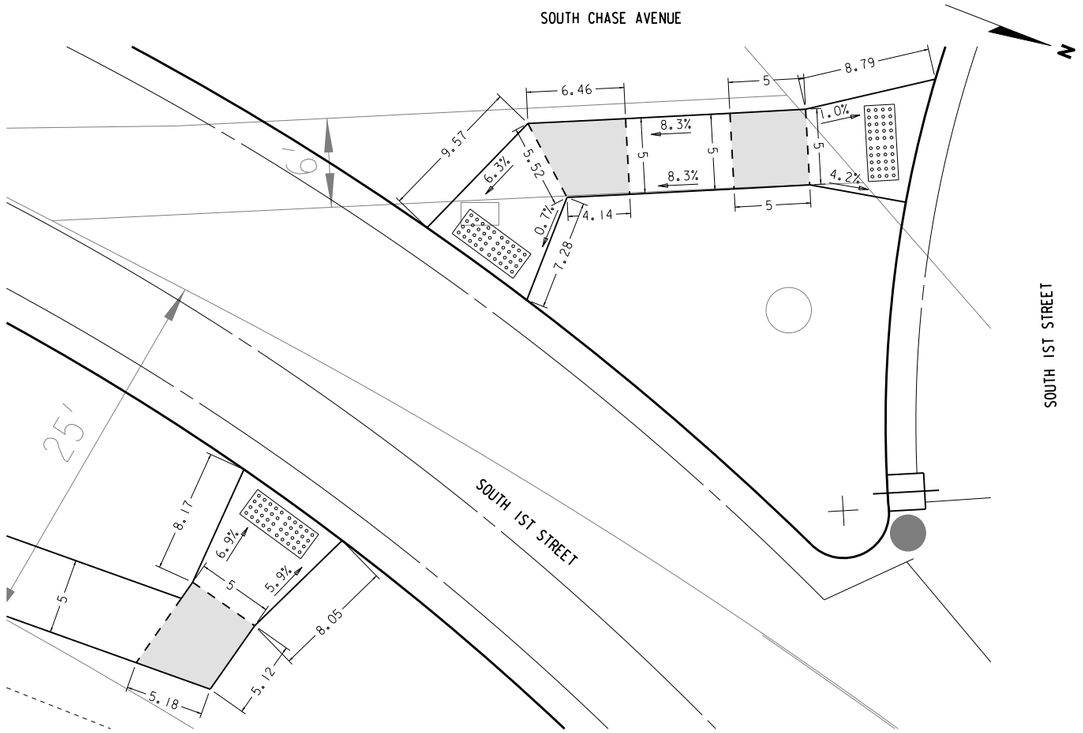
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 90	E

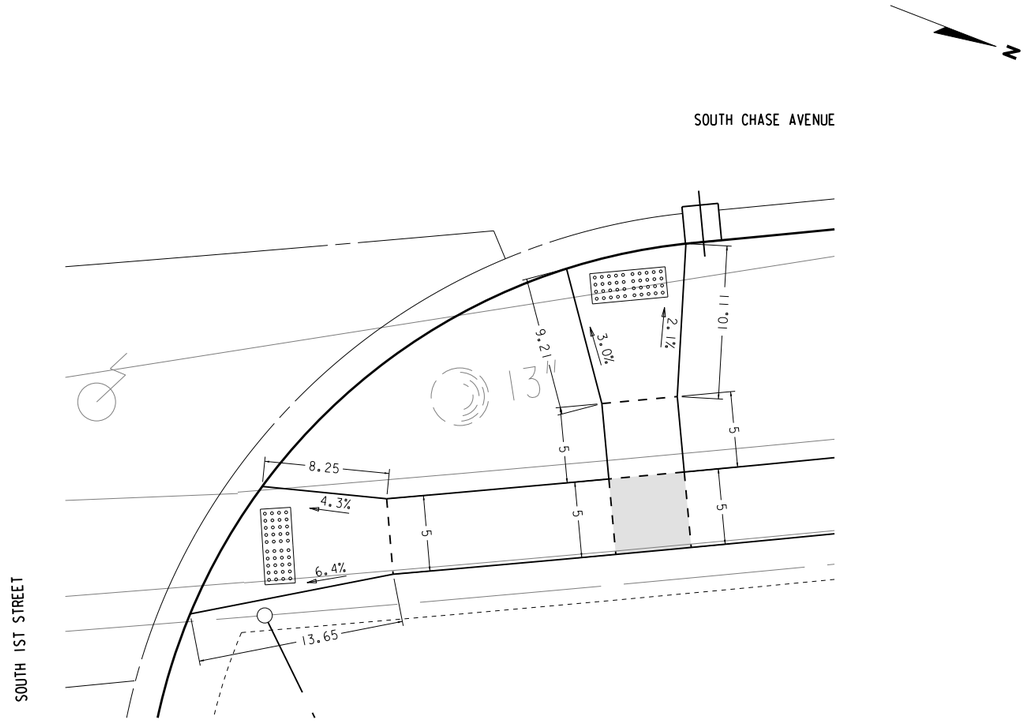
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\10_IST.DGN

REVISED DATE: 07-25-2018 BY SB



SOUTH CHASE AVENUE



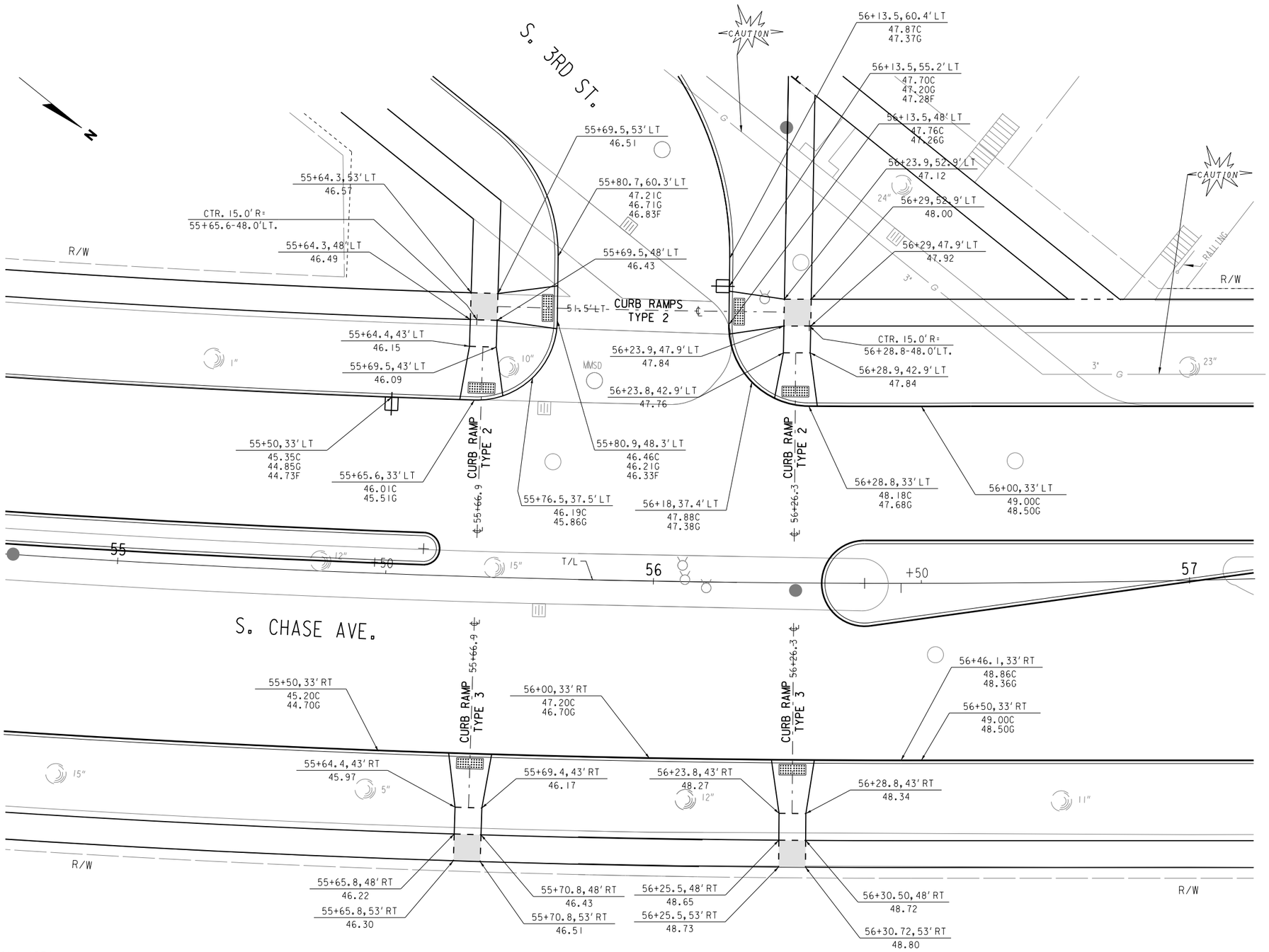


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 91	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\10_IST SLOPE.DGN

REVISED DATE: 12-14-2018 BY DB

2



LANDING AREA

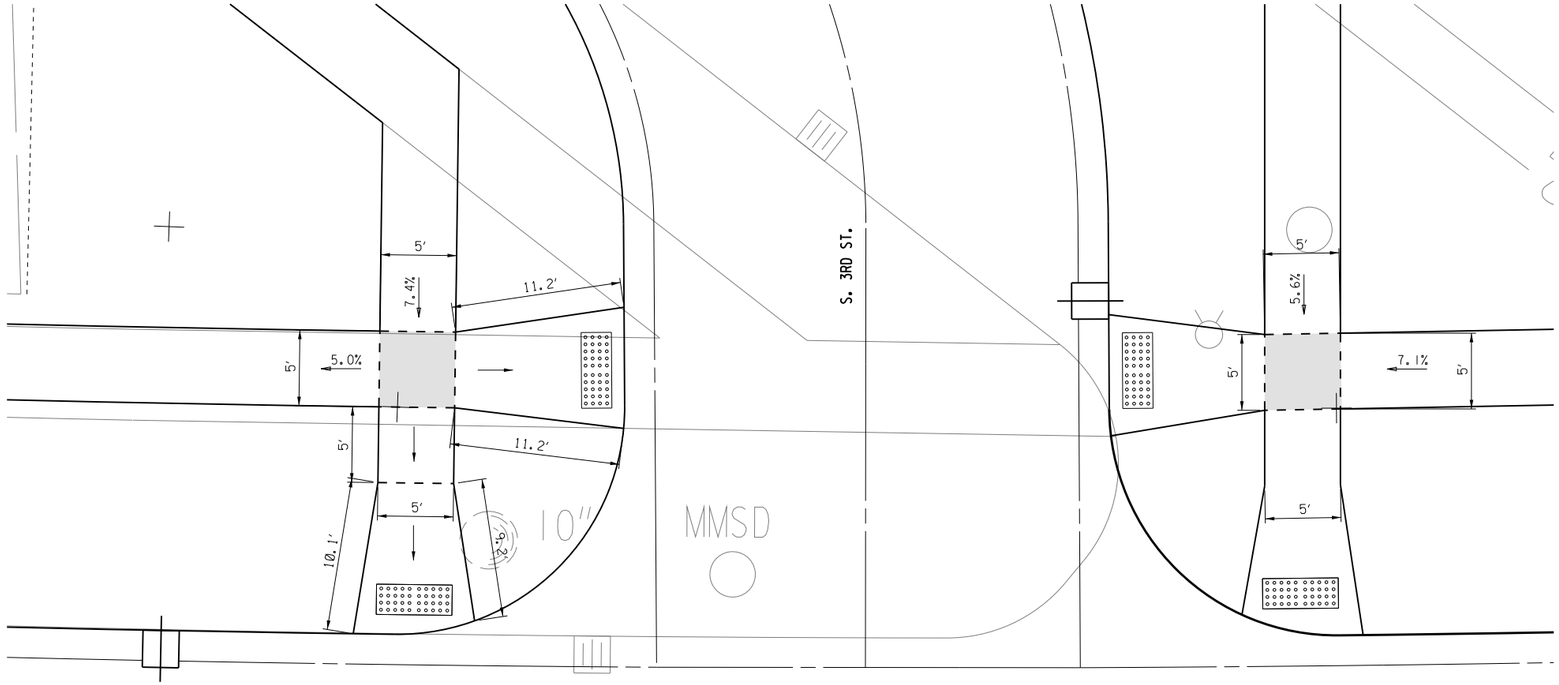
DETECTABLE WARNING FIELD

S. CHASE AVE. AND S. 3RD ST.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 92	E

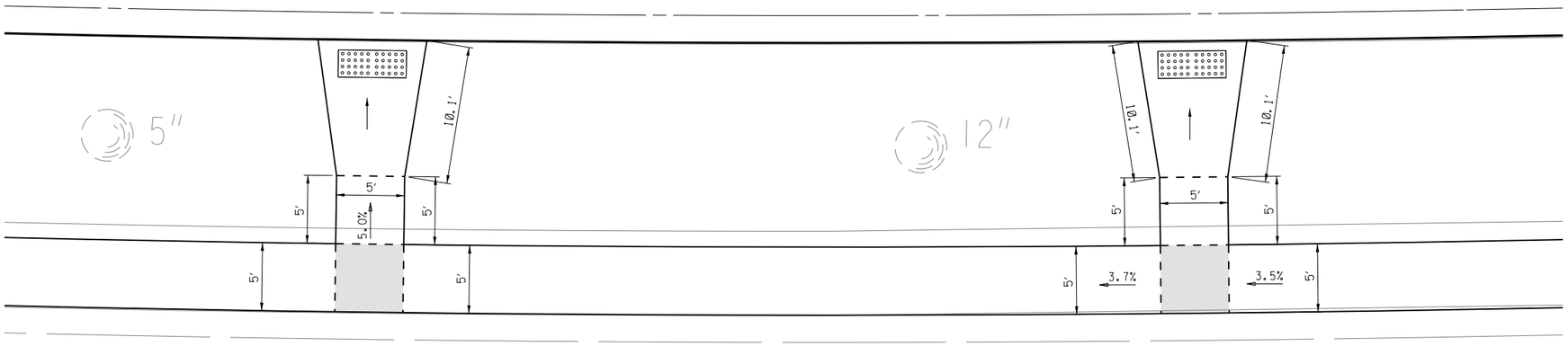
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\11_3RD.DGN

REVISED DATE: 10-31-2018 BY AL



SOUTH CHASE AVENUE

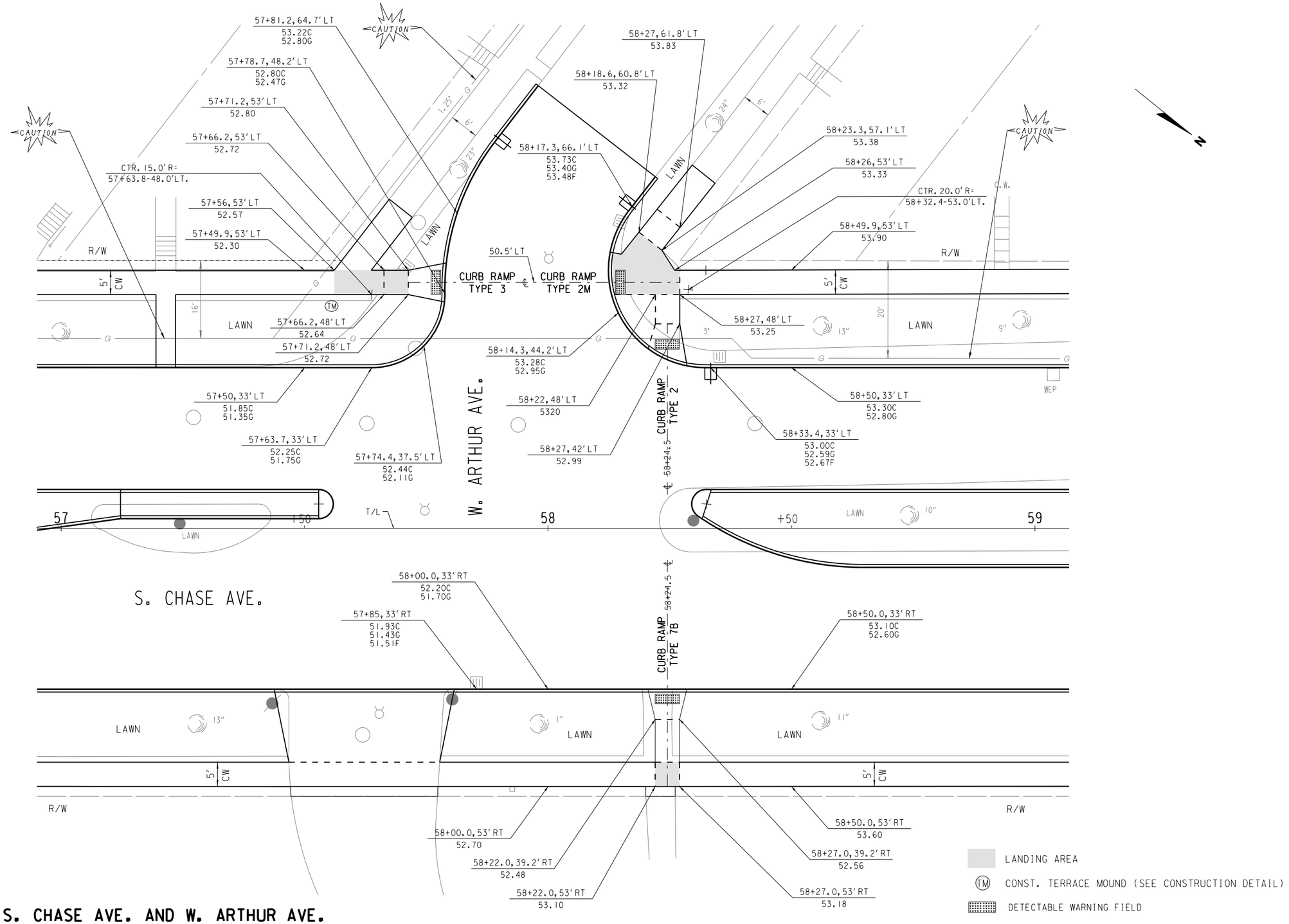
SOUTH CHASE AVENUE



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 93	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\11_3RD SLOPE.DGN

REVISED DATE: 10-30-2018 BY DB



S. CHASE AVE. AND W. ARTHUR AVE.

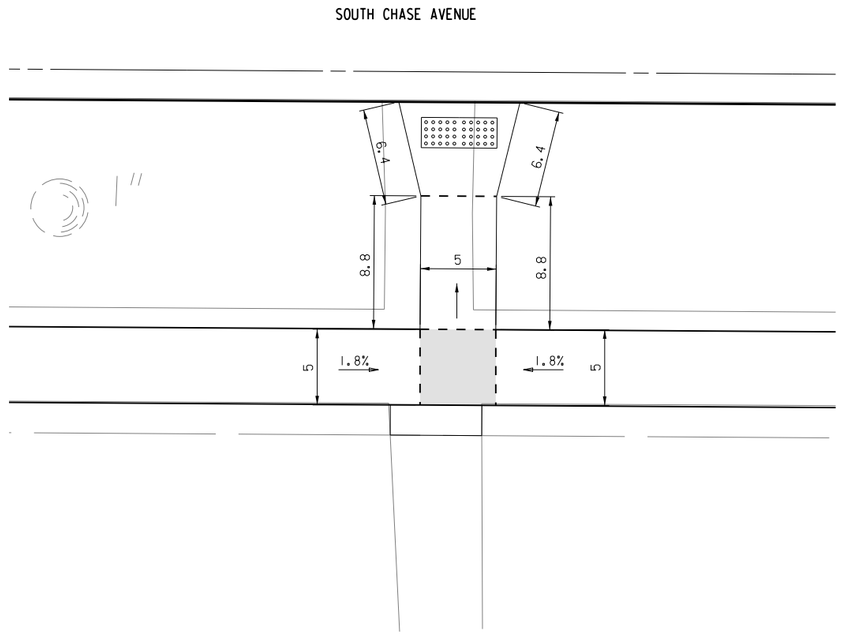
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 94	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\12_ARTHUR.DGN

REVISED DATE: 10-31-2018 BY AL

2

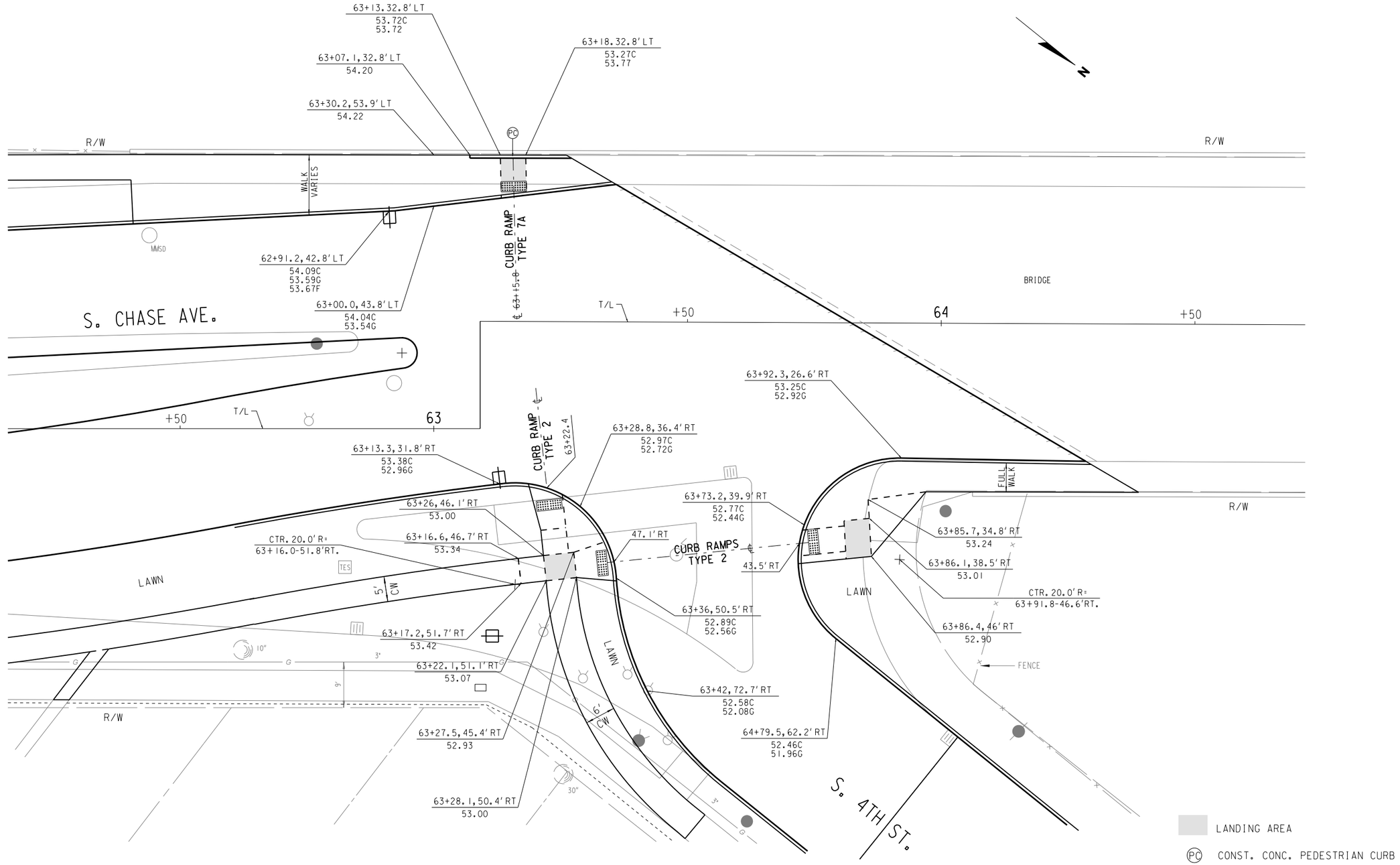




STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 95	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\12_ARTHUR SLOPE.DGN

REVISED DATE: 10-30-2018 BY DB



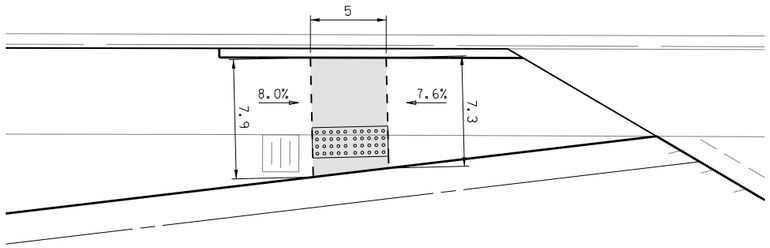
S. CHASE AVE. AND S. 4TH ST.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 96	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\13_4TH.DGN

REVISED DATE: 10-20-2017 BY AL

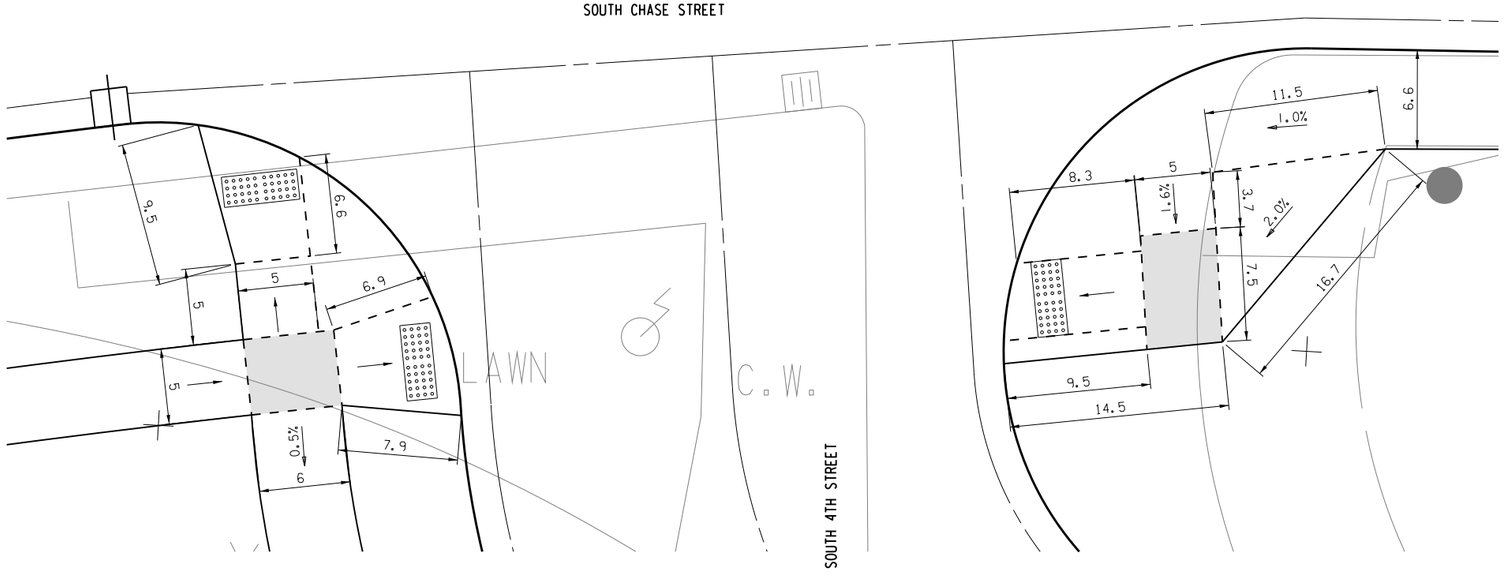
2



SOUTH CHASE STREET

N

SOUTH CHASE STREET



N

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 97	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\13_4TH SLOPE.DGN

REVISED DATE: 10-30-2018 BY DB

2

S. 5TH ST.

CAUTION

*2413 S. 5TH ST.

*2409 S. 5TH ST.

*2405 S. 5TH ST.

67+96.9, 38' LT
51.06

68+18, 38' LT
50.90

68+04.9, 61.5' LT
51.32C
50.74G

68+23, 38' LT
50.53

67+96.9, 33' LT
50.98

CTR. 03.0' R=
68+28.2-28.0' LT.

68+28, 38' LT
50.45

67+86.9, 38' LT
50.74

67+91.9, 38' LT
50.82

68+62, 41.7' LT
50.00C
49.67G
49.75F

67+86.9, 33' LT
50.66

68+23, 33' LT
50.45

67+78.9, 41.9' LT
51.18C
50.60G

68+28, 33' LT
50.37

67+27.9, 38' LT
51.41

CTR. 15.0' R=
68+88.1-40.0' LT.

67+22.9, 43' LT
51.81

CTR. 15.0' R=
67+18.9-41.9' LT.

68+82.5, 32.5' LT
49.90

67+33.9, 1.9' LT
51.61C
51.28G

68+88.6, 28.2' LT
49.82

67+22.9, 38' LT
51.49

69+00, 33.2' LT
49.94

67+22.9, 33.2' LT
51.41

68+95.4, 28.2' LT
49.84

67+18.9, 33.2' LT
51.49

R/W

6' CW

5' CW

LAWN

CURB RAMP TYPE 2M

35.5' LT

RAMP

CURB RAMP TYPE 6

CURB RAMP TYPE 6

CURB RAMP TYPE 3

35.5' LT

8' CW

67+91.9, 33' LT
50.74

68+18, 33' LT
50.82

67+78.9, 28' LT
50.88C
50.30G

CTR. 03.0' R=
67+81.9-28.0' LT.

67+18.8, 26.9' LT
51.37C
51.04G

67+27.9, 33.2' LT
51.33

67+29.5, 31.3' LT
51.33C
51.16G

67+81.9, 25' LT
50.82C
50.24G

68+25, 25' LT
50.52C
49.94G

68+41, 25' LT
50.15C
49.82G
49.90F

CTR. 03.0' R=
68+42.2-28.0' LT.

68+44.1, 30.3' LT
50.48C
49.90G

68+78.7, 28.3' LT
49.87C
49.78G

68+89.1, 25' LT
49.84C
49.67G

69+00, 25' LT
49.84C
49.59G

CURB RAMP TYPE 6 +89.4

CURB RAMP TYPE 3 +91.6

∠ PT.
178° 32' 53"

67

+50

68

+50

T/L

+50

69

+50

WEP

68+00, 25' LT
50.72C
50.14G

S. CHASE AVE.

CURB RAMP TYPE 7A +89.4

68+00, 25' RT
50.22C
49.72G

68+75, 25' RT
49.50C
49.00G

68+85.7, 25' RT
49.27C
48.94G

CURB RAMP TYPE 7A +91.6

69+00, 25' RT
49.20C
48.87G

69+6.8, 25' RT
49.33C
48.83G

68+60, 25' RT
49.57C
49.07G
49.15F

69+16.8, 28.8' RT
48.94C
48.61G

CURB RAMP TYPE 4A1

35.5' LT

VAR. CW

LAWN

LAWN

LAWN

PC

R/W

68+00, 32.9' RT
50.36

67+78.9, 32.9' RT
50.67

67+91.9, 32.9' RT
49.96

67+86.9, 32.9' RT
50.04

68+83.9, 32.5' RT
49.48

69+21.7, 38.4' RT
48.89C
48.39G

68+89, 32.3' RT
49.45C
49.03

68+94, 32.2' RT
49.43C
49.01

69+00, 32' RT
49.40

69+8.6, 28' RT
48.92

69+8.6, 32.3' RT
49.00

CTR. 15.0' R=
69+06.8-40.0' RT.

S. 5TH ST.

CAUTION

LANDING AREA

(PC) CONST. CONC. PEDESTRIAN CURB

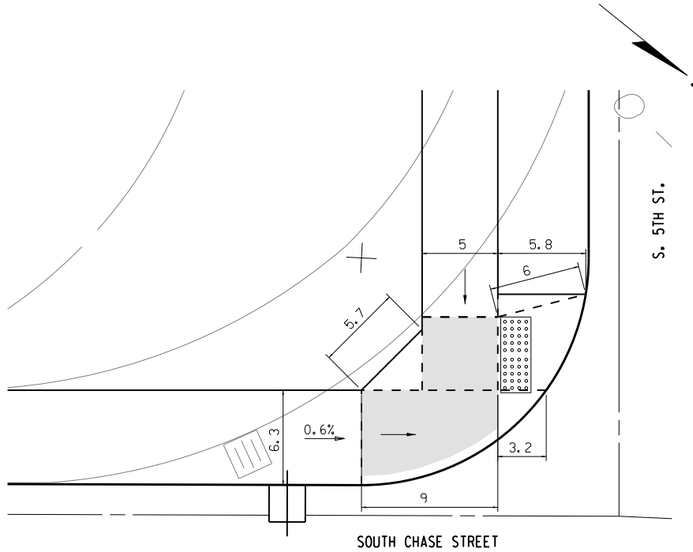
DETECTABLE WARNING FIELD

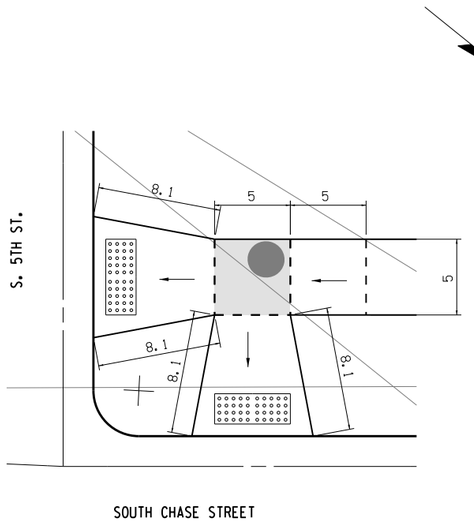
S. CHASE AVE. AND S. 5TH ST.

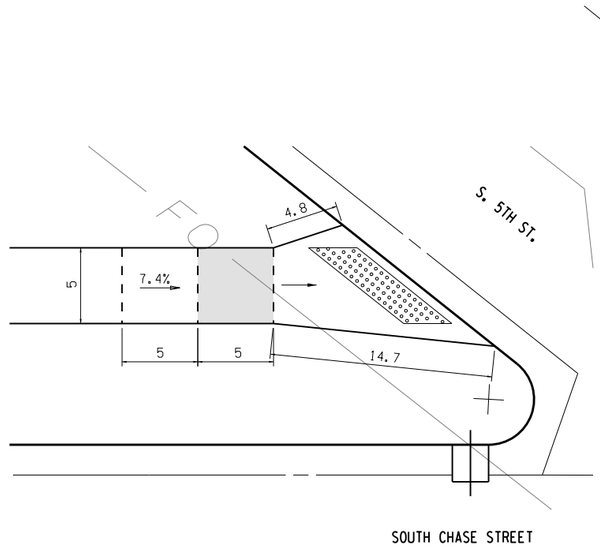
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 98	E

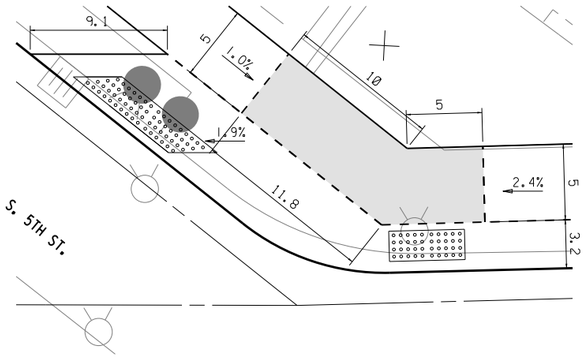
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\14_5TH ST.DGN

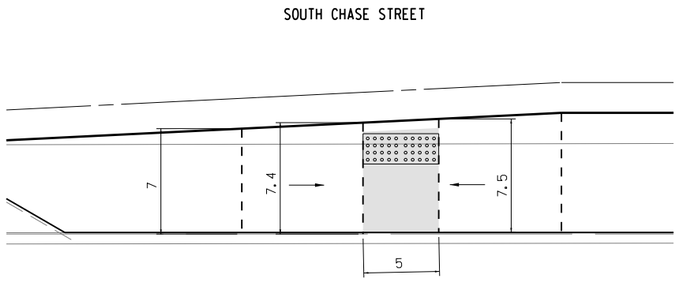
REVISED DATE: 10-31-2018 BY AL

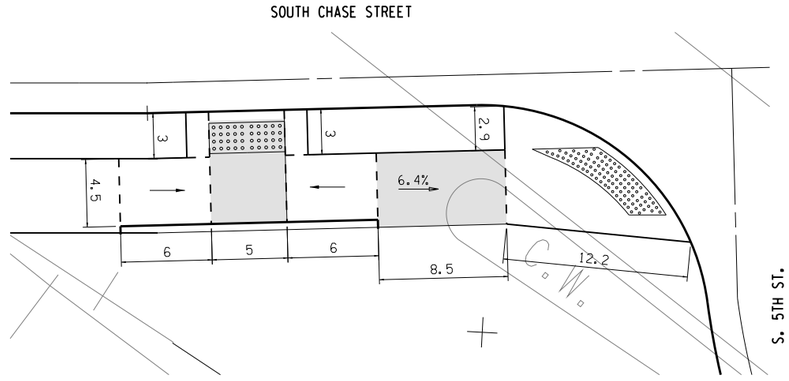










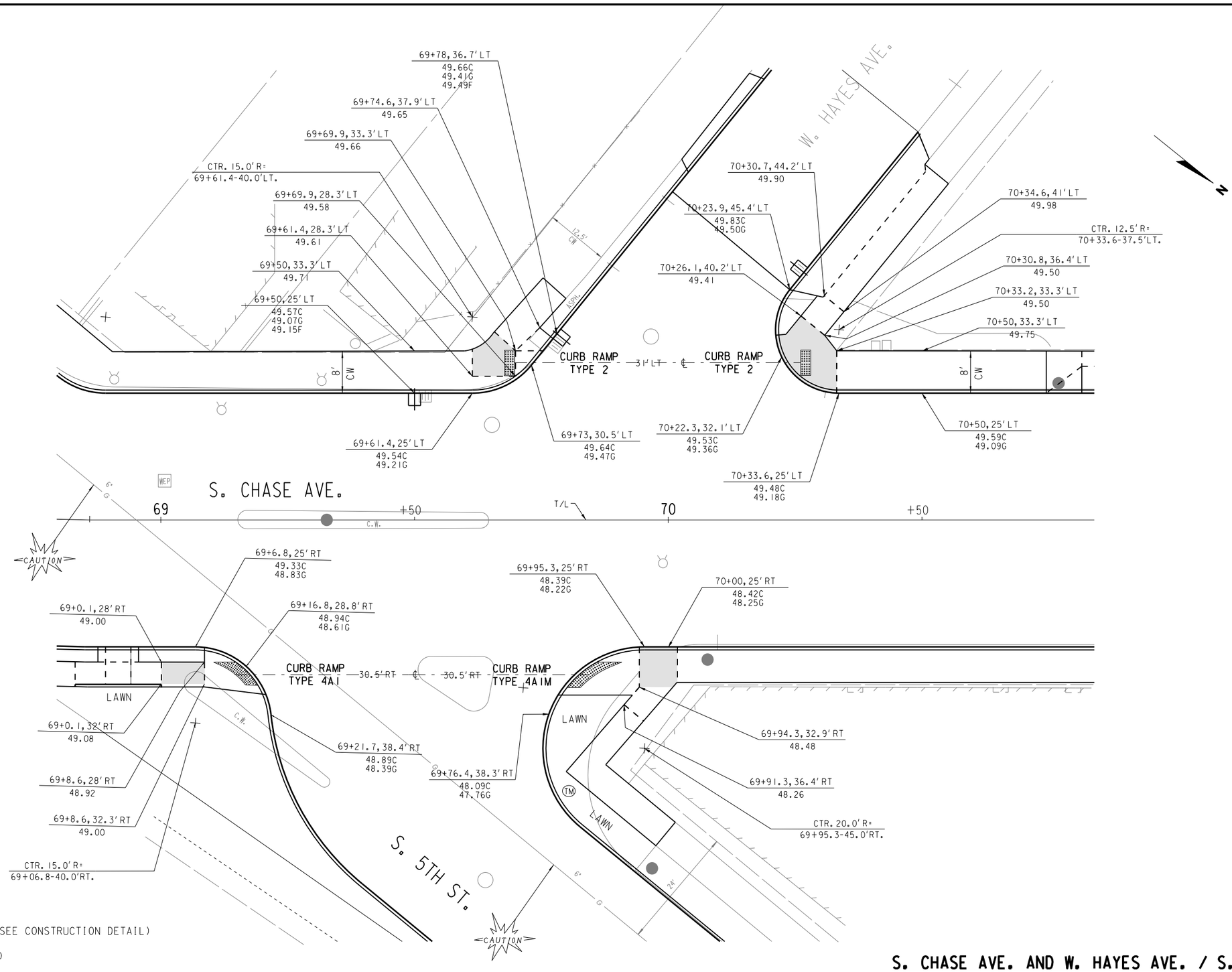


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 99	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\14_5TH ST SLOPE.DGN

REVISED DATE: 10-31-2018 BY DB

2



LANDING AREA

(TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)

DETECTABLE WARNING FIELD

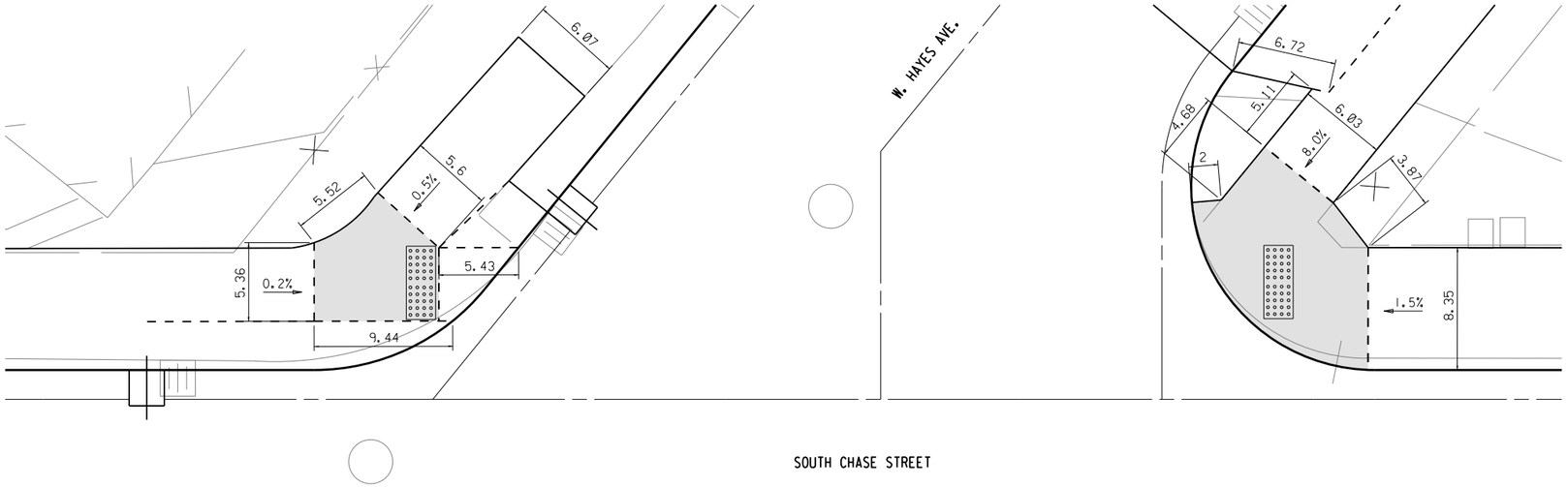
S. CHASE AVE. AND W. HAYES AVE. / S. 5TH ST.

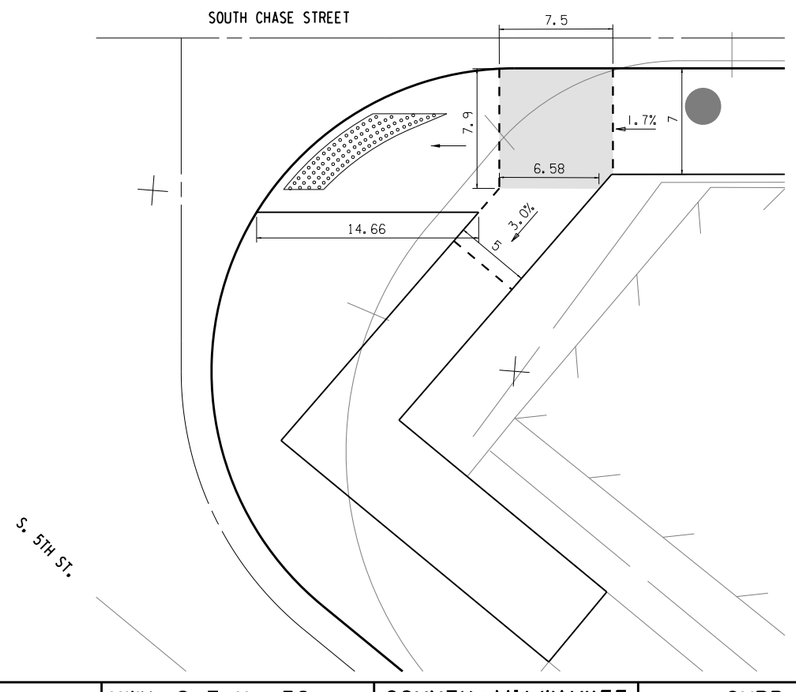
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 100	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\15_HAYES.DGN

REVISED DATE: 10-31-2018 BY AL

2



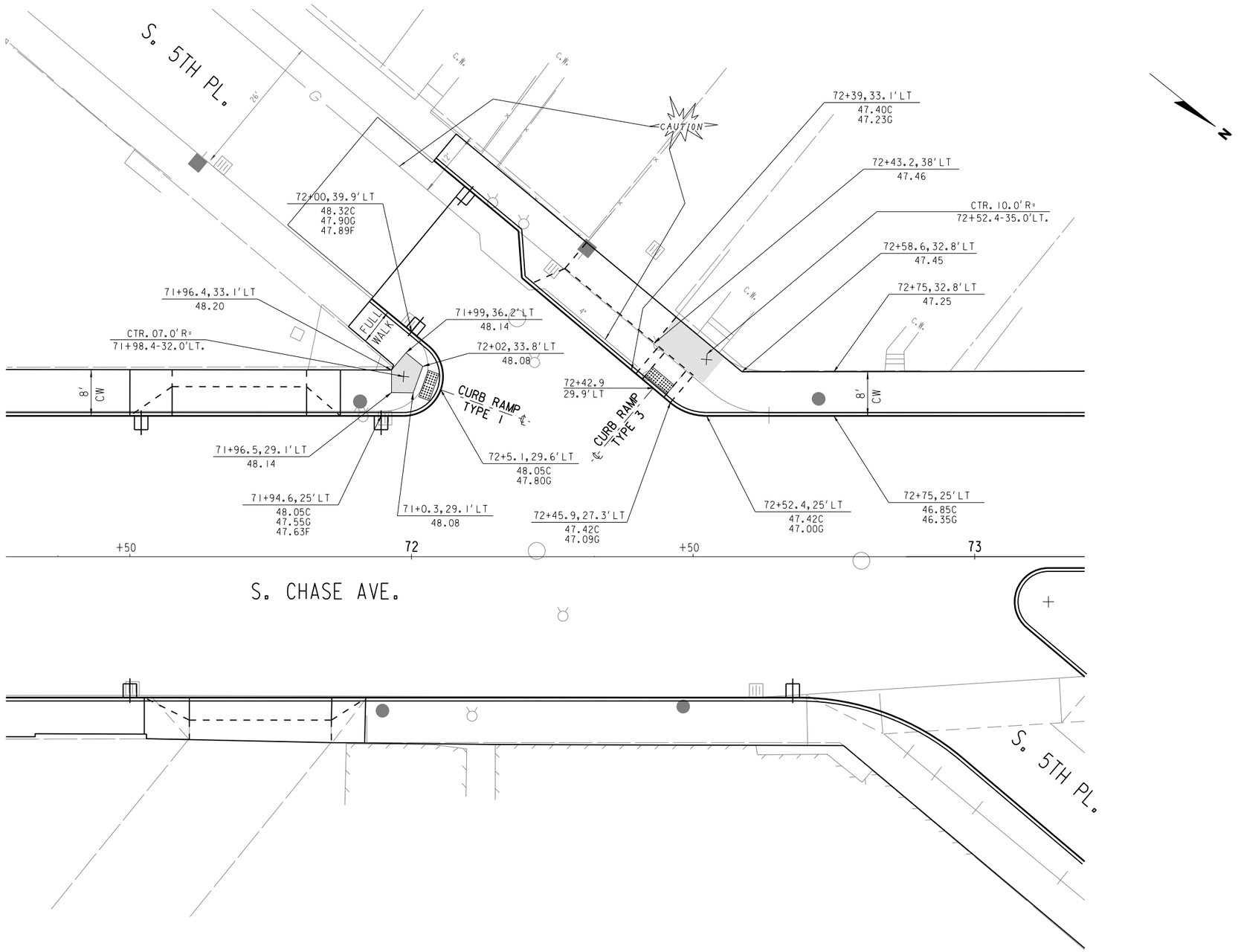


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 101	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\15_HAYES SLOPE.DGN

REVISED DATE: 10-31-2018 BY DB

2



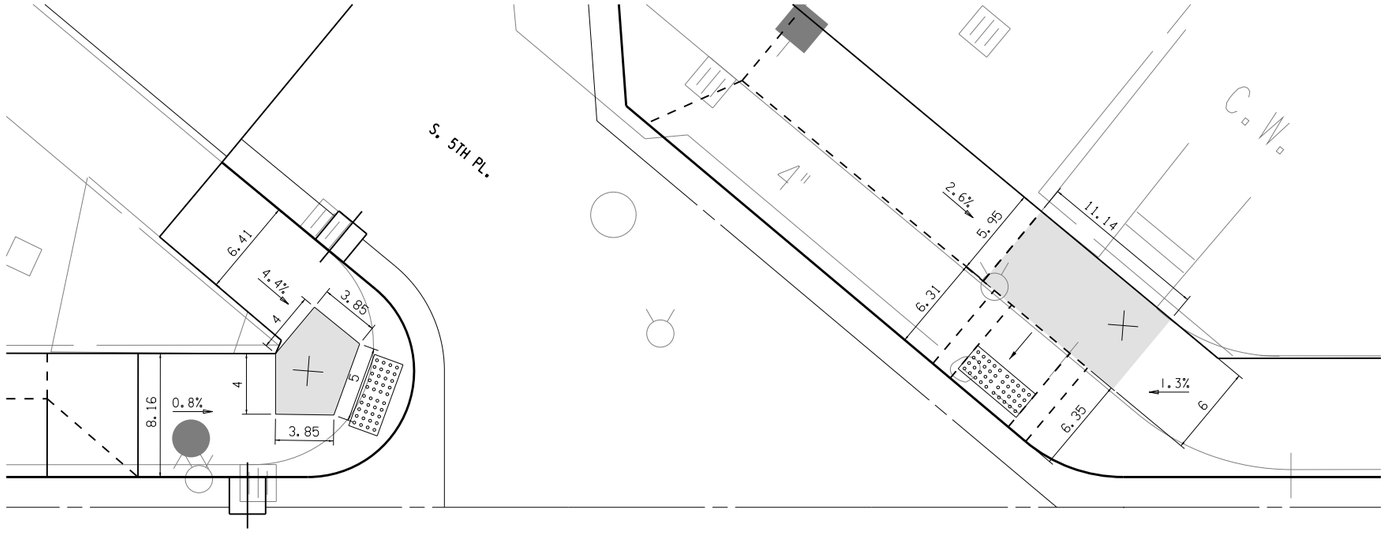
S. CHASE AVE. AND S. 5TH PL.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 102	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\16_5PL.DGN

REVISED DATE: 02-20-2017 BY PN

2



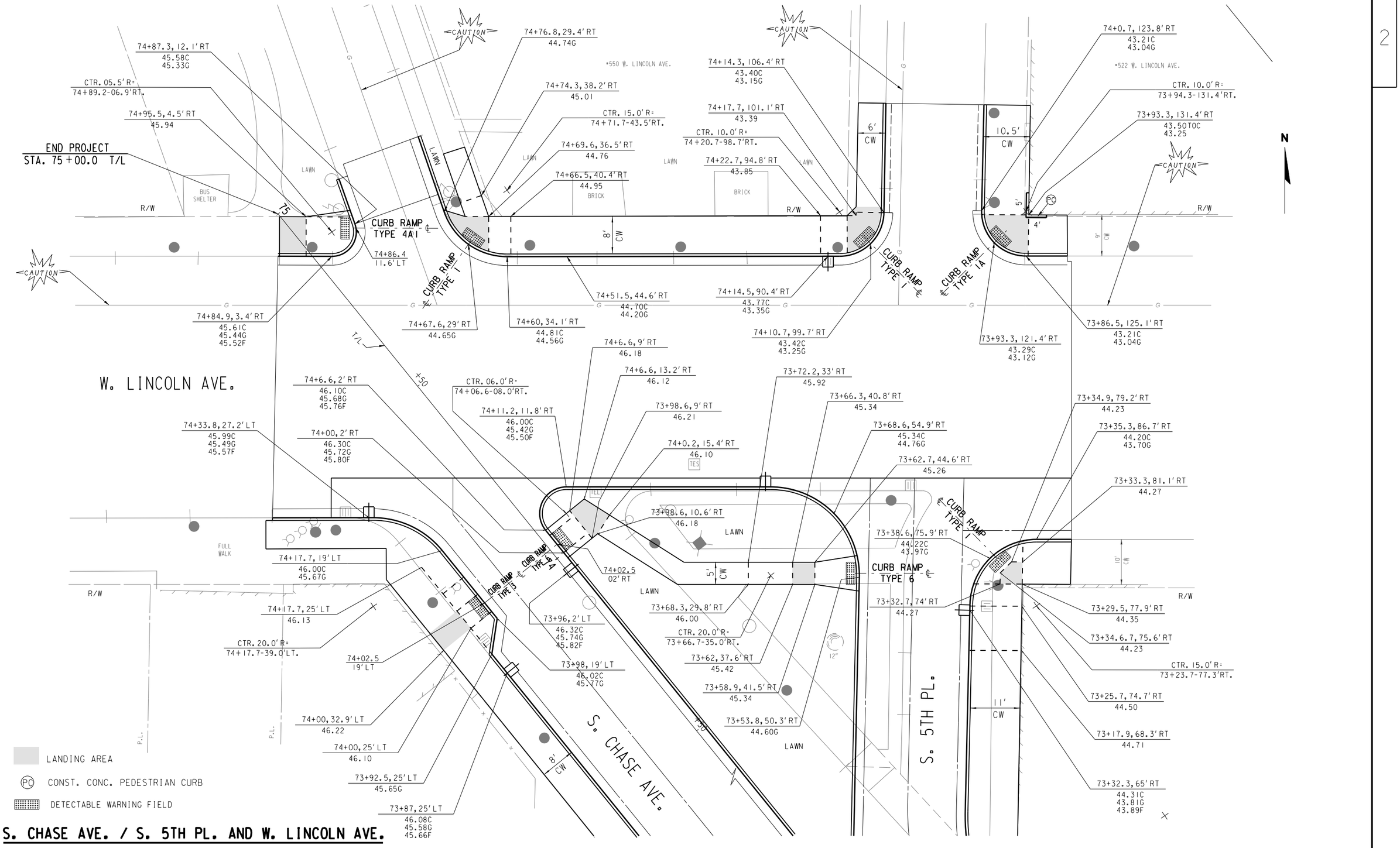
SOUTH CHASE STREET

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 103	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\16_5PL SLOPE.DGN

REVISED DATE: 10-31-2018 BY DB

2

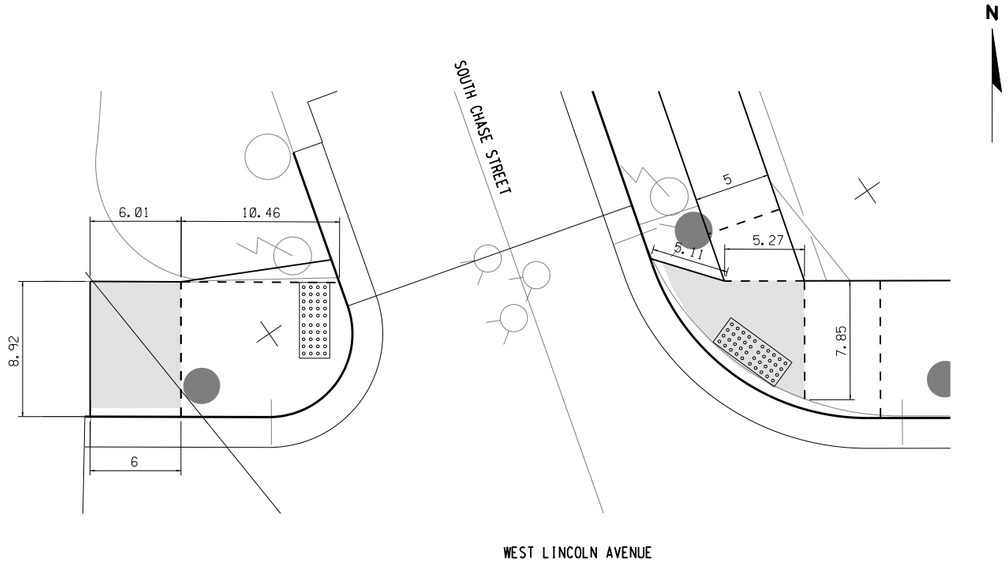


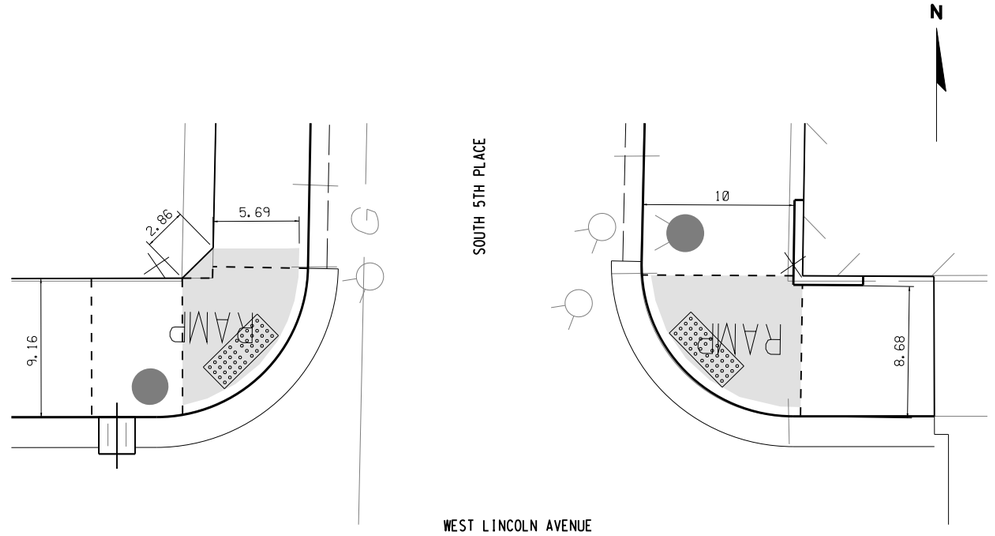
S. CHASE AVE. / S. 5TH PL. AND W. LINCOLN AVE.

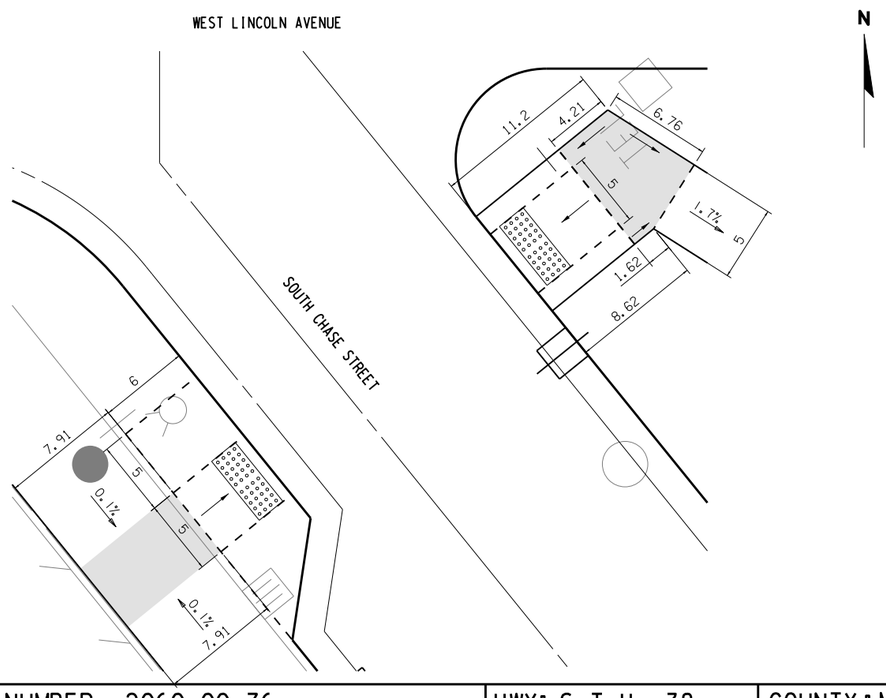
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	INTERSECTION DETAILS	SCALE FEET 0' 20'	SHEET NO: 104	E

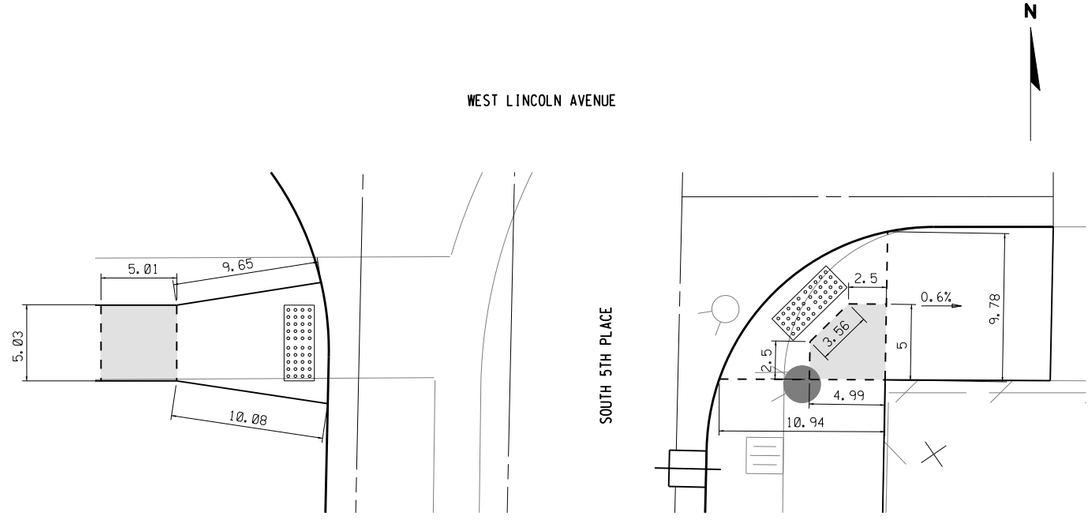
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\17_LINCOLN.DGN

REVISED DATE: 10-31-2018 BY AL









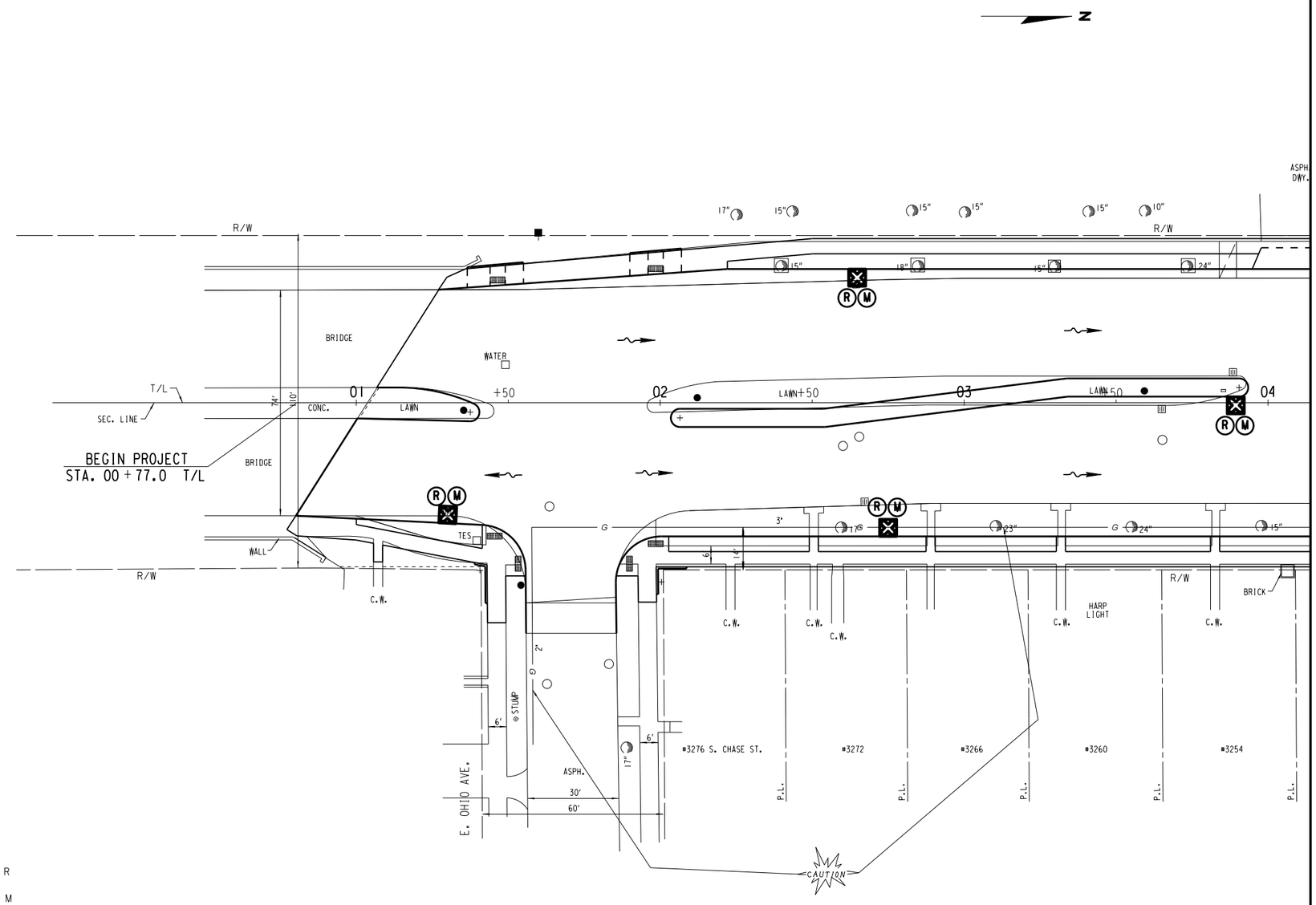
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SCALE FEET 0' 10'	SHEET NO: 105	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\RAMPDETAILS\17_LINCOLN SLOPE.DGN

REVISED DATE: 10-31-2018 BY DB

SOUTH CHASE AVENUE

B.W. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40'LT.
ELEV. 68.48



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 106 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 01-04.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

N

PIGGLY WIGGLY
GROCERY
#123 W. OKLAHOMA AVE.

ASPH. DWY.
R/W
14"
?
C.W.
10" PINE
SIGN
CURB
ASPH. DWY.
CURB
12"
13"
R/W
15" 10" 15" 19" 12" 15" 3" 10" 3" 7" 3"

04 +50 LAWN 05 T/L +50 6" 6" 06 6" 5" LAWN +50 SEC. LINE 07 +50 LAWN 08 +50 09 +50 10

WEP

CUC
15" 20" 24" 17" 13" 12" 28" 18"
BRICK
10" PINE
8"
C.W.
24" PINE
3"
R/W
TES
DRAIN
R/W
CONC. DWY
FLAG POST
GAS PUMP

3254 #3248 #3242 #3236 #3230 #3224 #3218 #3212 #3206 #3200 S. CHASE ST. #3160-3174 S. CHASE ST.

P.L.

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 05+23 - 35'RT.
ELEV. 65.31

CAUTION

RAILING
E. EUCLID AVE.
6' 15' ASPH. ON CONC. 6'
30'
60'
18" 18"
3"
7"

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. EUCLID AVE.
STA. 08+51 - 58'RT.
ELEV. 61.44

CAUTION

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 107	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 04-10.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

STA. 12+62 - 40' LT.
ELEV. 60.43

LIGHT ON CONC. BASE

#115 W. OKLAHOMA AVE.
ARBY'S RESTAURANT
ASPH. PARKING
CONC. GUTTER
CURB
RAILING
C.W.
SIGN
P.I.
R/W
CONTROL BOX
WEP
ATC
FO
E. OKLAHOMA AVE.
138 KV
CAUTION
FIBER OPTIC
CONC. SIGN
PLANTER
TEL
TES
WATER
SEC. LINE
T/L
LAWN
180° 11' 05"
90° 42' 44"
89° 06' 11"
ASPH.
2-3" PINE
PARKING BUMPER
CONC. DWY.
ENT.
BWS
WOOD RAMP
LONG TRAIL GRILL & PUB
GLUTO FREE TRADING
CONC.
14' ALLEY
#117-119 E. OKLAHOMA AVE.
PROPOSED ROW
E. OKLAHOMA AVE.
CUC
WMSD
ASPH. CHIP.
#3154
#3148
#3142
#3136
#3130
#3124-3126
#3118-3118A
#3114-3116

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

3 OF 14

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 108 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 10-16.DGN

REVISED DATE: 09-11-2018 BY SB

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22' LT.
ELEV. 60.62

N

CHASE COMMERCIAL BUILDING

CAUTION

ENT.

R/W

ASPH.

FENCE

ASPH. DWY.

ASPH. PARKING

C.W.

P.L.

FIBER OPTIC

16 +50 17 T/L +50 18 SEC. LINE +50 19 +50 20 +50 21 +50 22

WMSD

WATER

ATC

TES

TEL

SIGN

CURB

#3042 TO 3072 S. CHASE AVE.

WENDY'S

E. GAUER CIRCLE

138 KV

#3030 FOWARD DENTAL

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70' RT.
ELEV. 60.97

#3010

COMMUNITY VETERINARY CLINIC

#2990

E. MANITOBA ST.

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

4 OF 14

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 109 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 16-22.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

N

•2969 S. CHASE AVE.

•2950 S. CHASE AVE.

•2960 TO 2984

FIBER OPTIC

CAUTION

FENCE

R/W

WATER

G

FO

TES

SEC. LINE

C.W.

RAILING

ASPH. DWY.

ASPH. PARKING

CURB

BOX

MWP

MWSD

WEP

WEP PED.

TEL PED.

P.L.

T/L

+50

158° 38' 27"

22

23

24

25

26

27

B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 24+05 - 46' RT.
ELEV. 64.49

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 110 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 22-27.DGN

REVISED DATE: 10-23-2018 BY SB

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 29+15 - 35'LT.
ELEV. 51.73

•2929 S. CHASE AVE.

FENCE
FRENCH DRAIN
CONC. DWY.
CONC. WALL
CONC. DWY
CONC.
R/W
WEP PED.
TEL PED.
WEP
WATER
WMSD
TES
LAWN
C.W.
T/L
CURB
E. DAKOTA ST.
ASPH. PARKING
•108 TO 118 E. DAKOTA ST.
•2836 S. CHASE AVE.
•2830
•2826
•2822
P.I.
CAUTION

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. DAKOTA ST.
STA. 30+81 - 58'RT.
ELEV. 48.20

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

6 OF 14

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 111 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 27-33.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 35+02 - 35'LT.
ELEV. 31.61

SOO RAILROAD CO.

PRIVATE ROADWAY & PARKING EASEMENT

60

LIGHT POLE BASE

CONC. SIGN BASE

FENCE

R/W

BRIDGE WALL

BRIDGE SUPPORT

BRIDGE SUPPORT

WMSD

WEP

STUMP

LAWN

T/L

CONC. DWY

ASPH.

30'

60'

E. MONTANA ST.

•2822 •2816 •2812 •2810-2810A •2804 •2800-2802 S. CHASE AVE.

•100 E. MONTANA ST.

•2747 S. GLADSTONE PL.

•2715 S. GLADSTONE PL.

CAUTION

C.W.

P.L.

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

7 OF 14

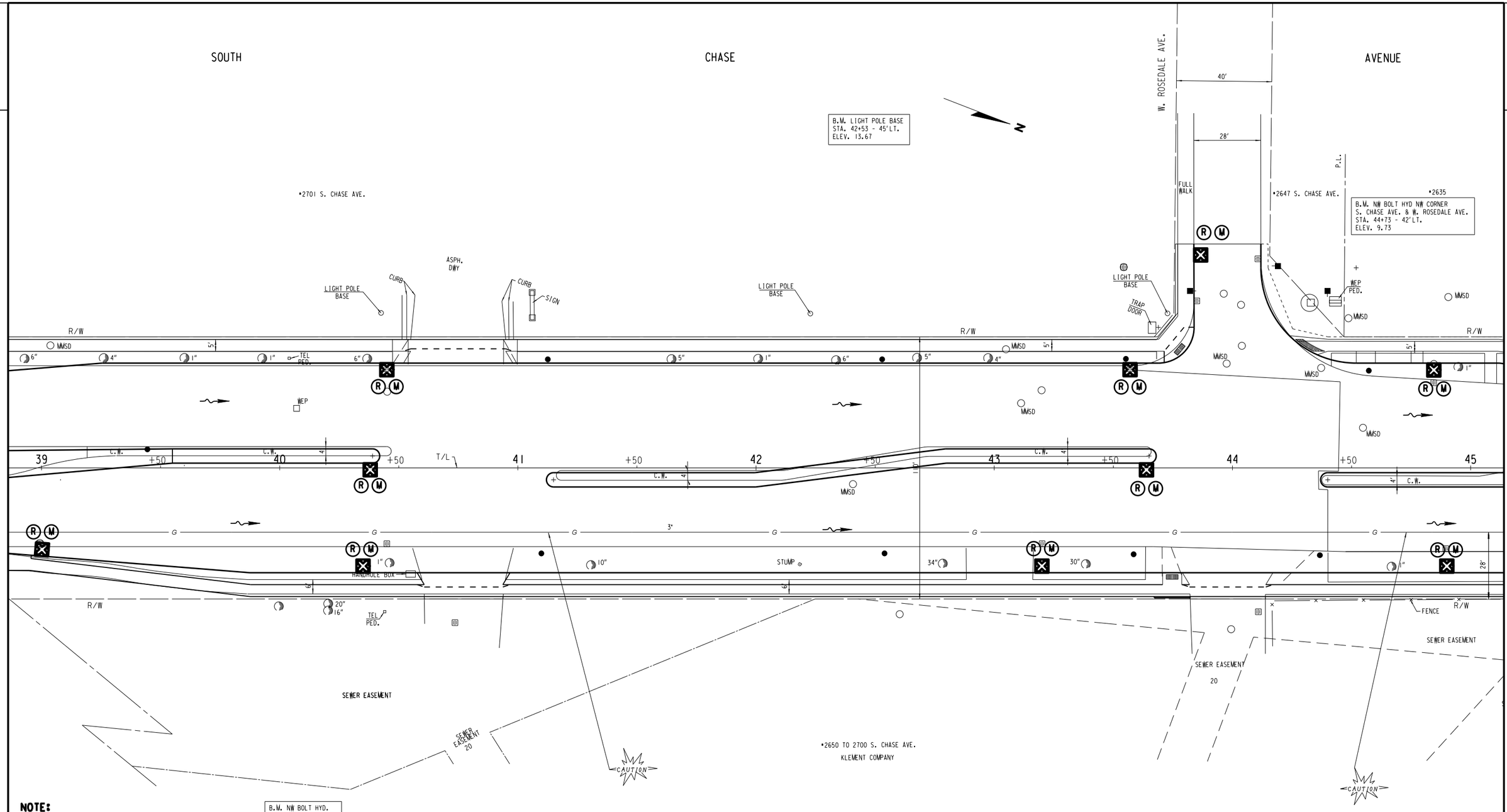
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 112 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 33-39.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

2



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 40+21 - 37'RT.
ELEV. 17.33

LEGEND

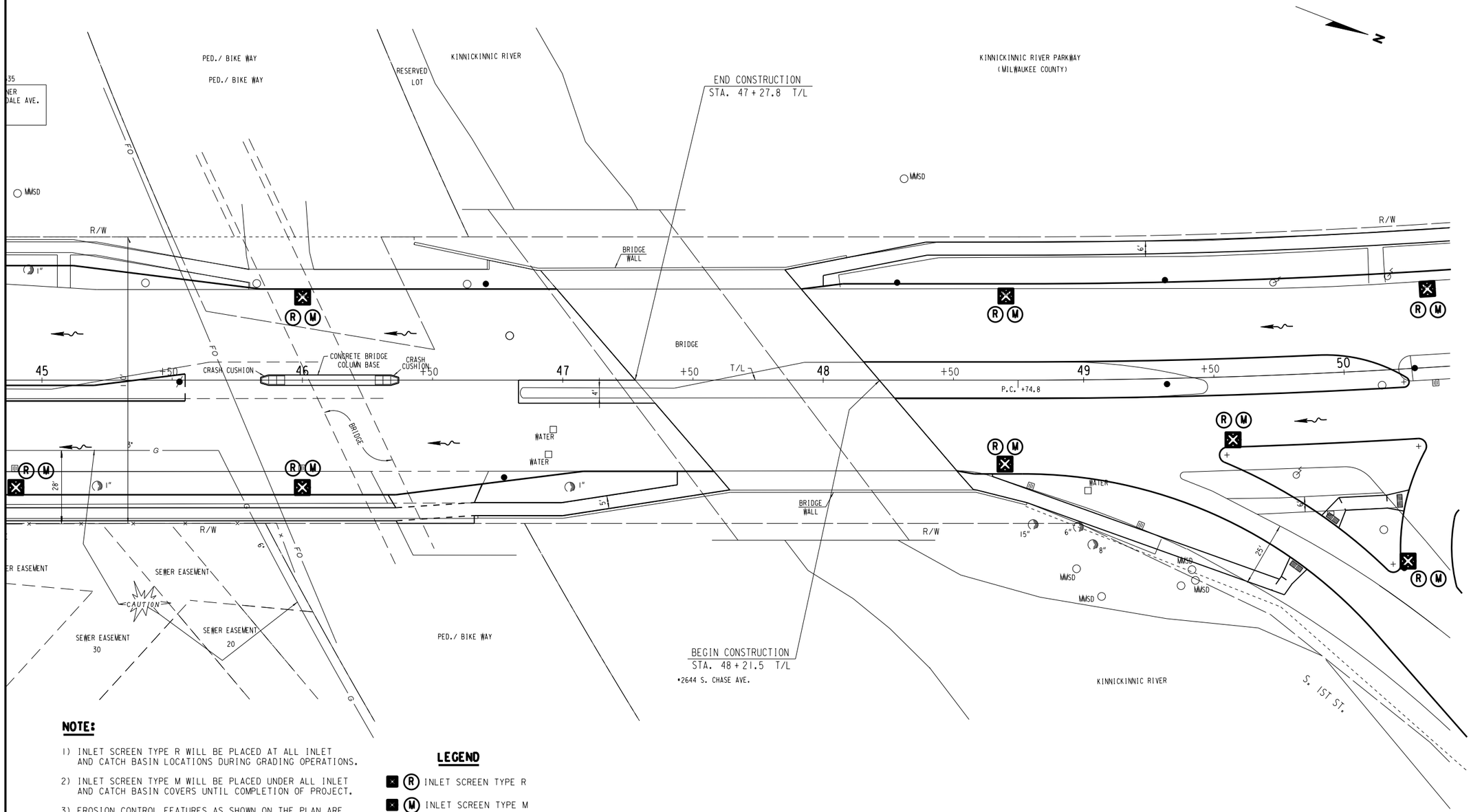
- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 113	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 39-45.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 114 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 45-50.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 51+03 - 35'LT.
ELEV. 22.54

•2529-2579 S. CHASE AVE.

S. 3RD ST.

CAUTION

R/W

RAILING

LAWN

WATER

WEP

T/L

PROPOSED ROW

S. 1ST ST.

WMSD

•2474 S. CHASE AVE.
BARAN PARK

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

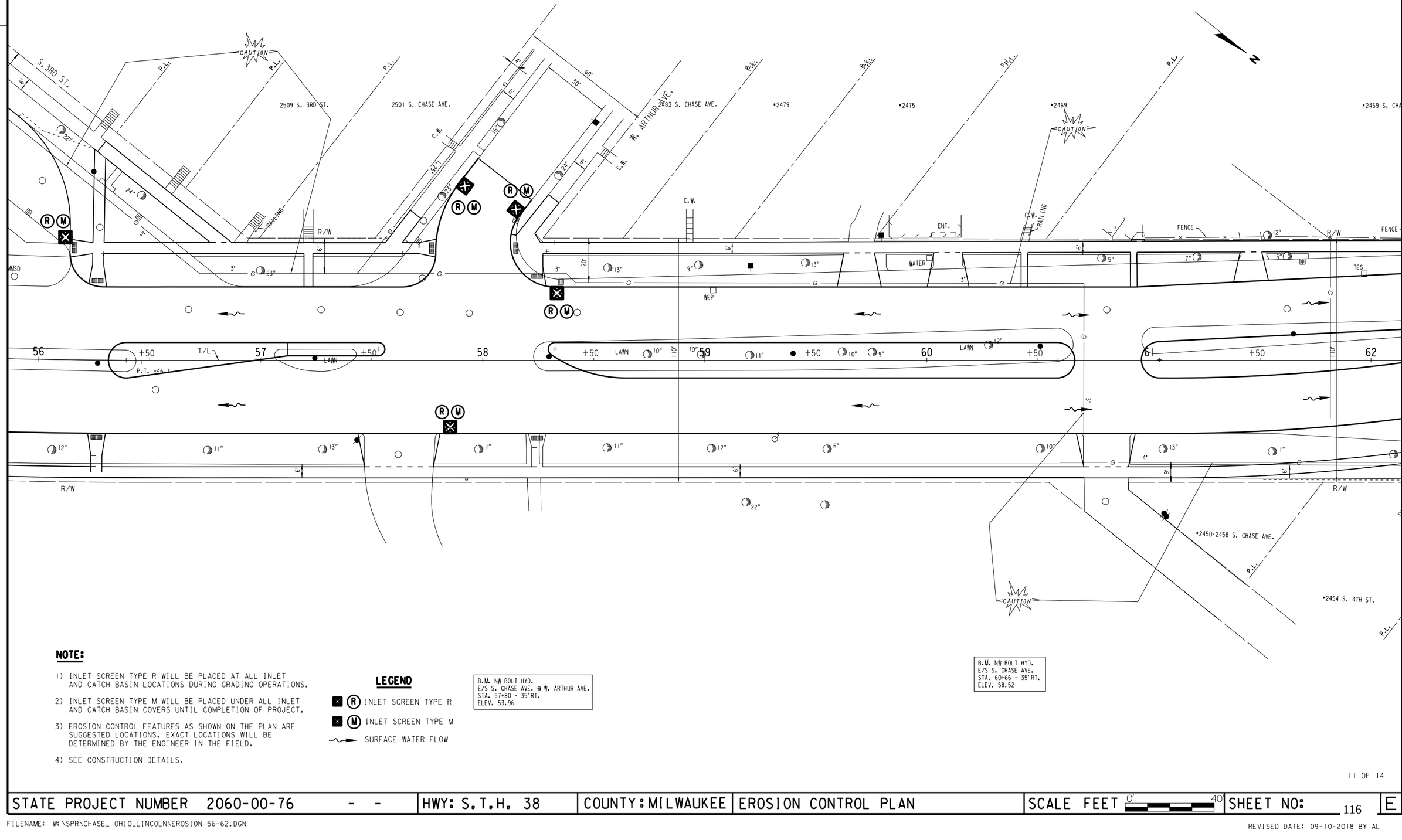
10 OF 14

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 115 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 50-56.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE



B.M. NW BOLT HYD.
E/S S. CHASE AVE. @ W. ARTHUR AVE.
STA. 57+80 - 35'RT.
ELEV. 53.96

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 60+66 - 35'RT.
ELEV. 58.52

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

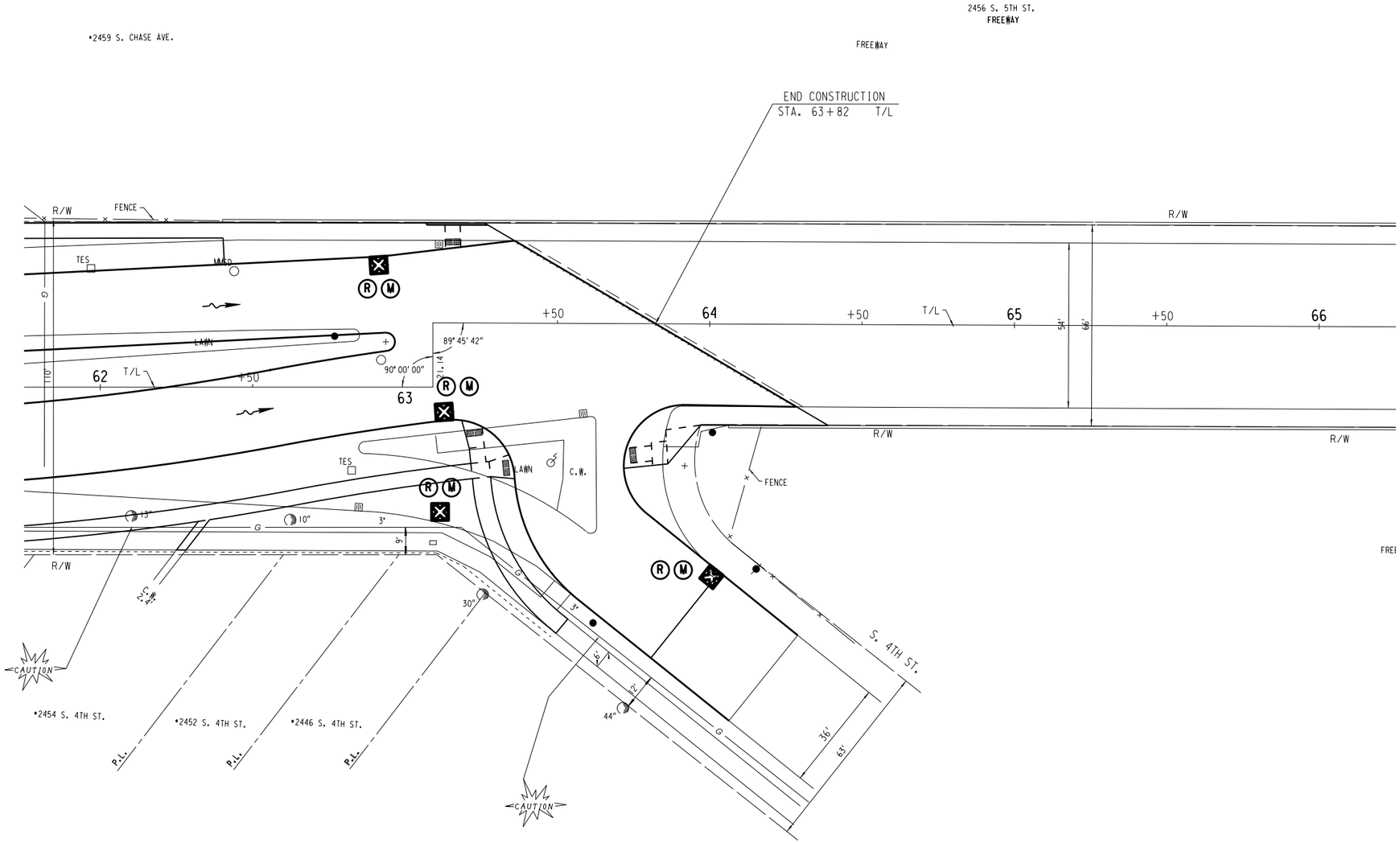
- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 116	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 56-62.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

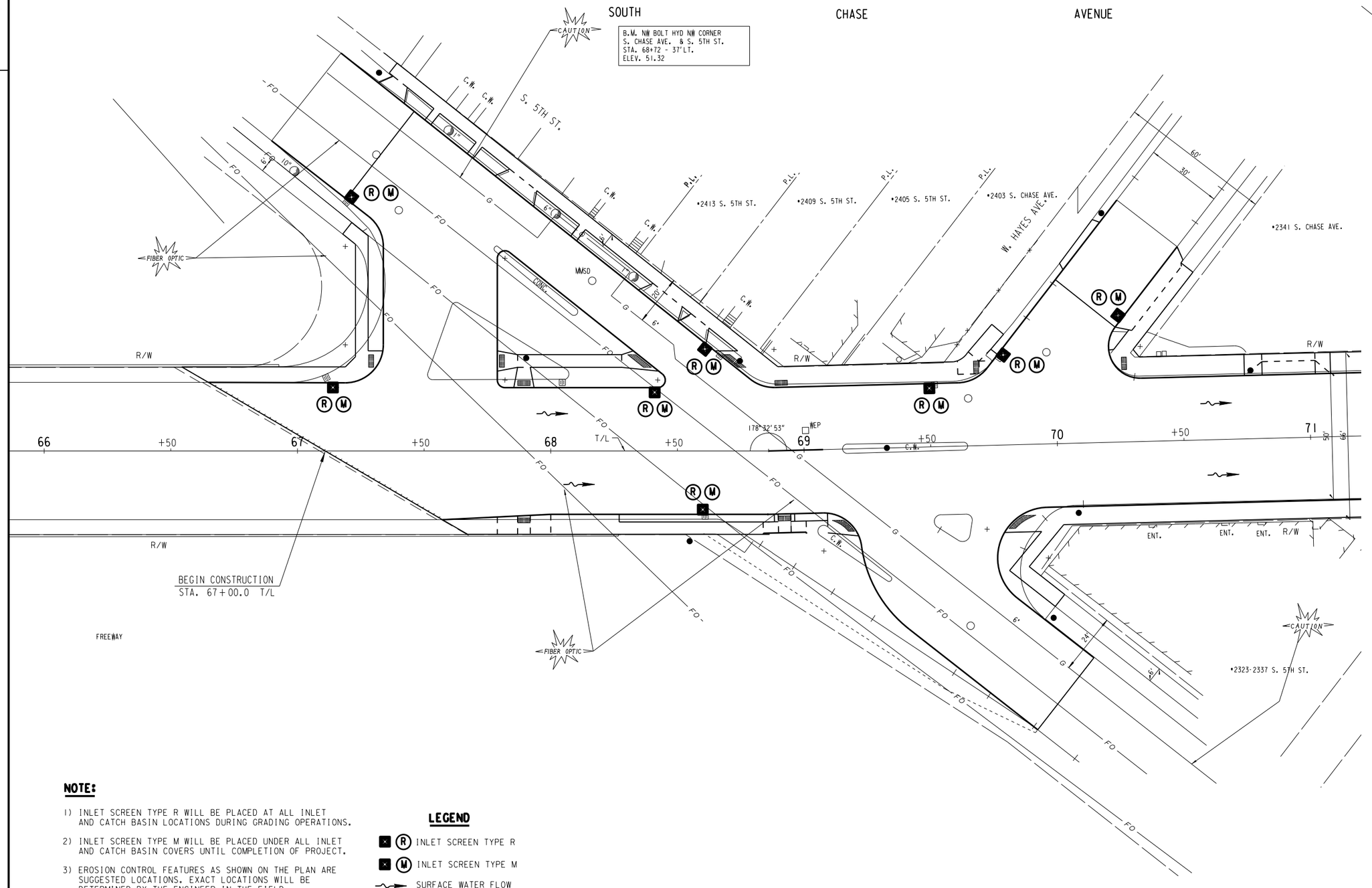
- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 117 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 62-66.DGN

REVISED DATE: 09-10-2018 BY AL

2



NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.
2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.
3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 118	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 66-71.DGN

REVISED DATE: 09-10-2018 BY AL

2

SOUTH CHASE AVENUE

CAUTION

S. 5TH PL.

40'

26'

24'

C.W.

4'

P.I.

•2341 S. CHASE AVE.

•2317-2317A S. CHASE AVE.

•565 W. LINCOLN AVE.

ASPH. PARKING

S. 6TH ST.

R/W

G

•2265-2279 S. CHASE AVE.

128°59'11"

71 +50 72 +50 73 +50 74 +50 75

T/L

50'

66'

TEL

TES

2"

BRICK

LAWN

5'

•550 W. LINCOLN AVE.

CONC. 20' ALLEY

5TH ST.

•525 W. LINCOLN AVE.

W. LINCOLN AVE.

BMS

•522 W. LINCOLN AVE.

N

NOTE:

1) INLET SCREEN TYPE R WILL BE PLACED AT ALL INLET AND CATCH BASIN LOCATIONS DURING GRADING OPERATIONS.

2) INLET SCREEN TYPE M WILL BE PLACED UNDER ALL INLET AND CATCH BASIN COVERS UNTIL COMPLETION OF PROJECT.

3) EROSION CONTROL FEATURES AS SHOWN ON THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

4) SEE CONSTRUCTION DETAILS.

LEGEND

- (R) INLET SCREEN TYPE R
- (M) INLET SCREEN TYPE M
- SURFACE WATER FLOW

B.M. NW BOLT HYD NE CORNER
W. LINCOLN AVE. & S. 5TH PL.
STA. 74+00 - 127' RT.
ELEV. 45.75

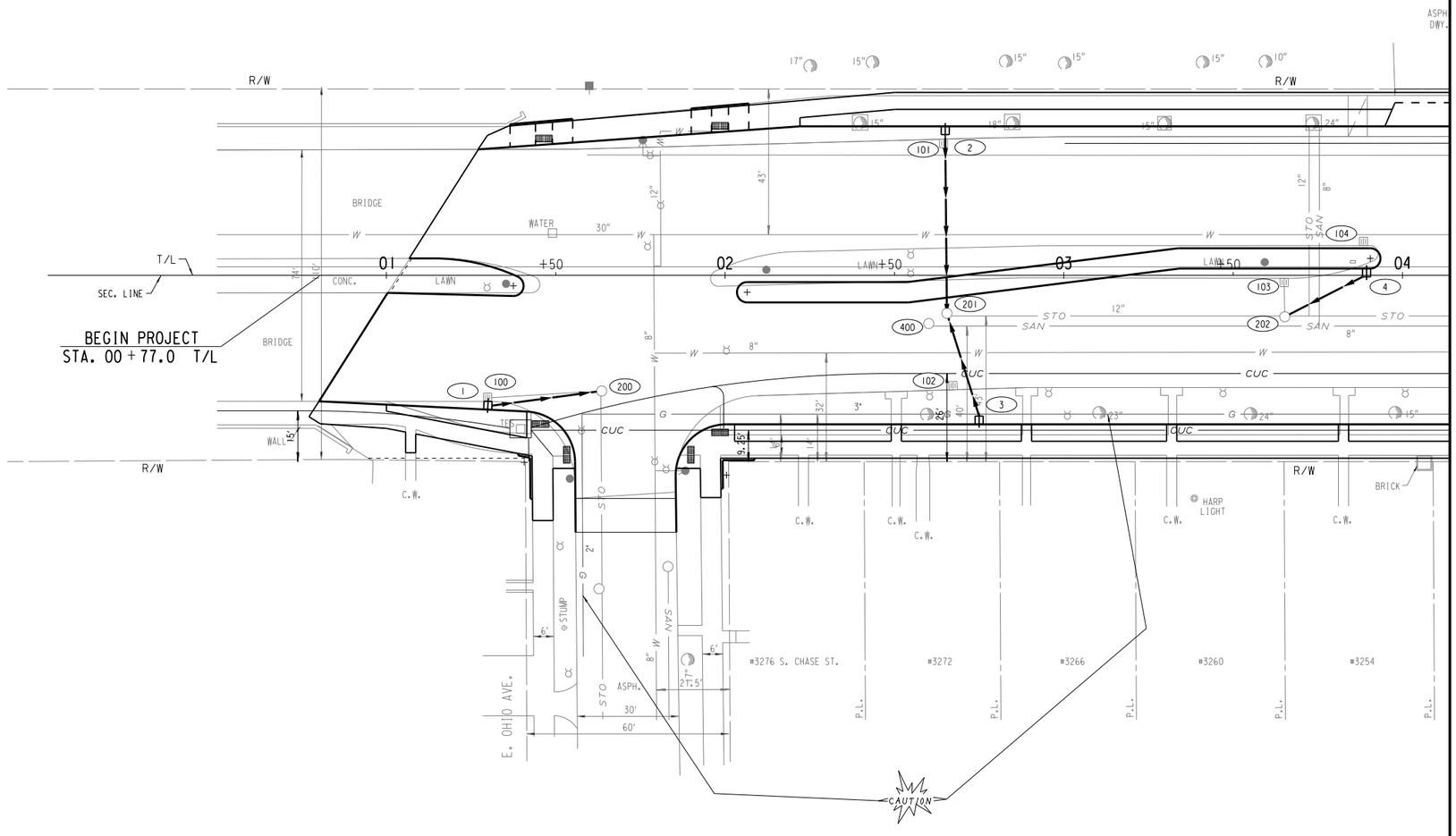
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	EROSION CONTROL PLAN	SCALE FEET 0' 40'	SHEET NO: 119	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\EROSION 71-75.DGN

REVISED DATE: 09-10-2018 BY AL

SOUTH CHASE AVENUE

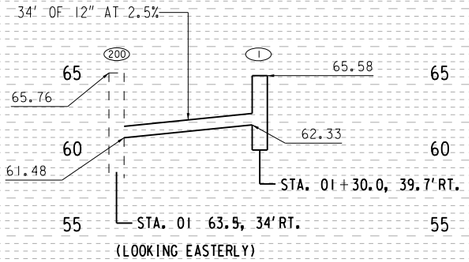
B.W. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40'LT.
ELEV. 68.48



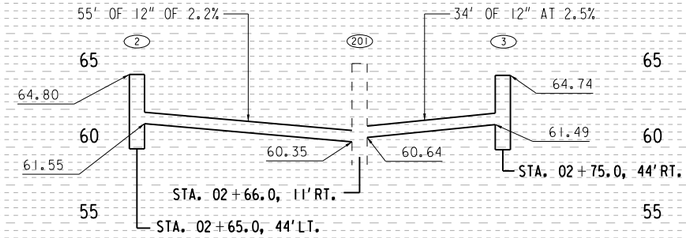
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 120	E

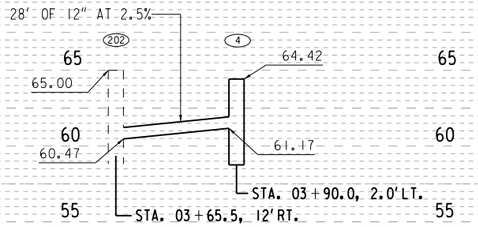
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 01-04.DGN



(LOOKING EASTERLY)



(LOOKING NORTHERLY)



(LOOKING EASTERLY)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 121	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 01-04.DGN

2

SOUTH CHASE AVENUE

2

N

PIGGLY WIGGLY
GROCERY
#123 W. OKLAHOMA AVE.

ASPH. DWY.

R/W

14"

C.W.

?

10" PINE

SIGN

CURB

ASPH. DWY.

CURB

12"

13"

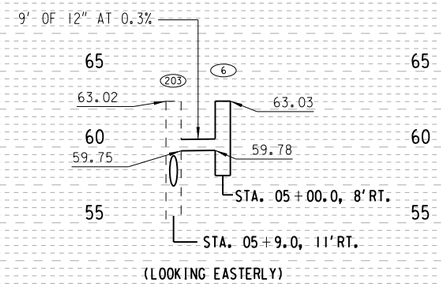
R/W

15" 10" 15" 19" 12" 15" 3" 10" 3" 7" 3"

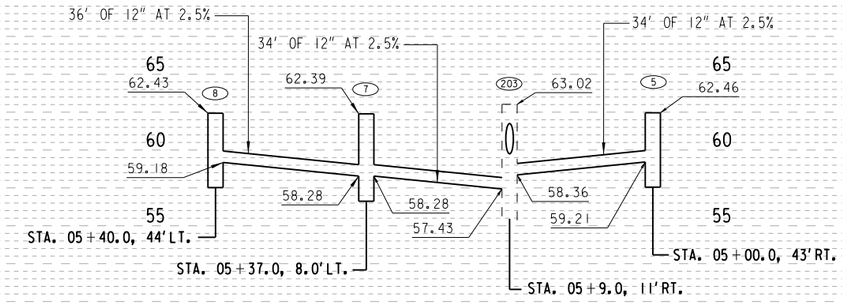
8 108 204 10 109 205

12" SAN 8" SAN 43' 12" SAN 8" W

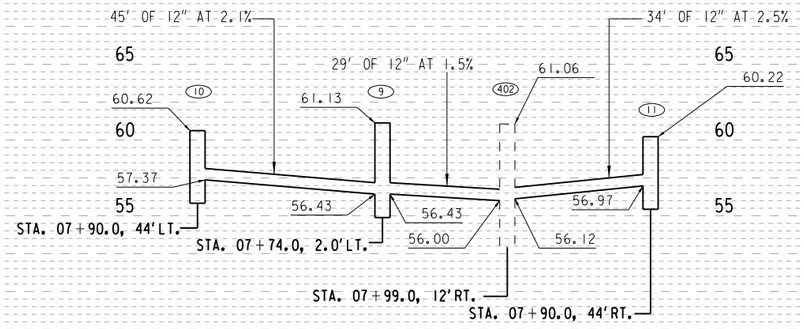
W W W



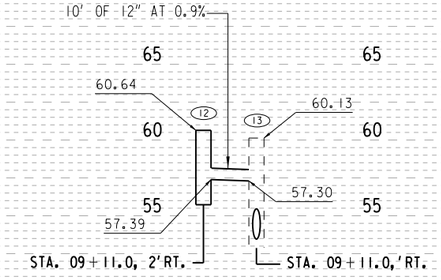
(LOOKING EASTERLY)



(LOOKING NORTHERLY)



(LOOKING NORTHERLY)

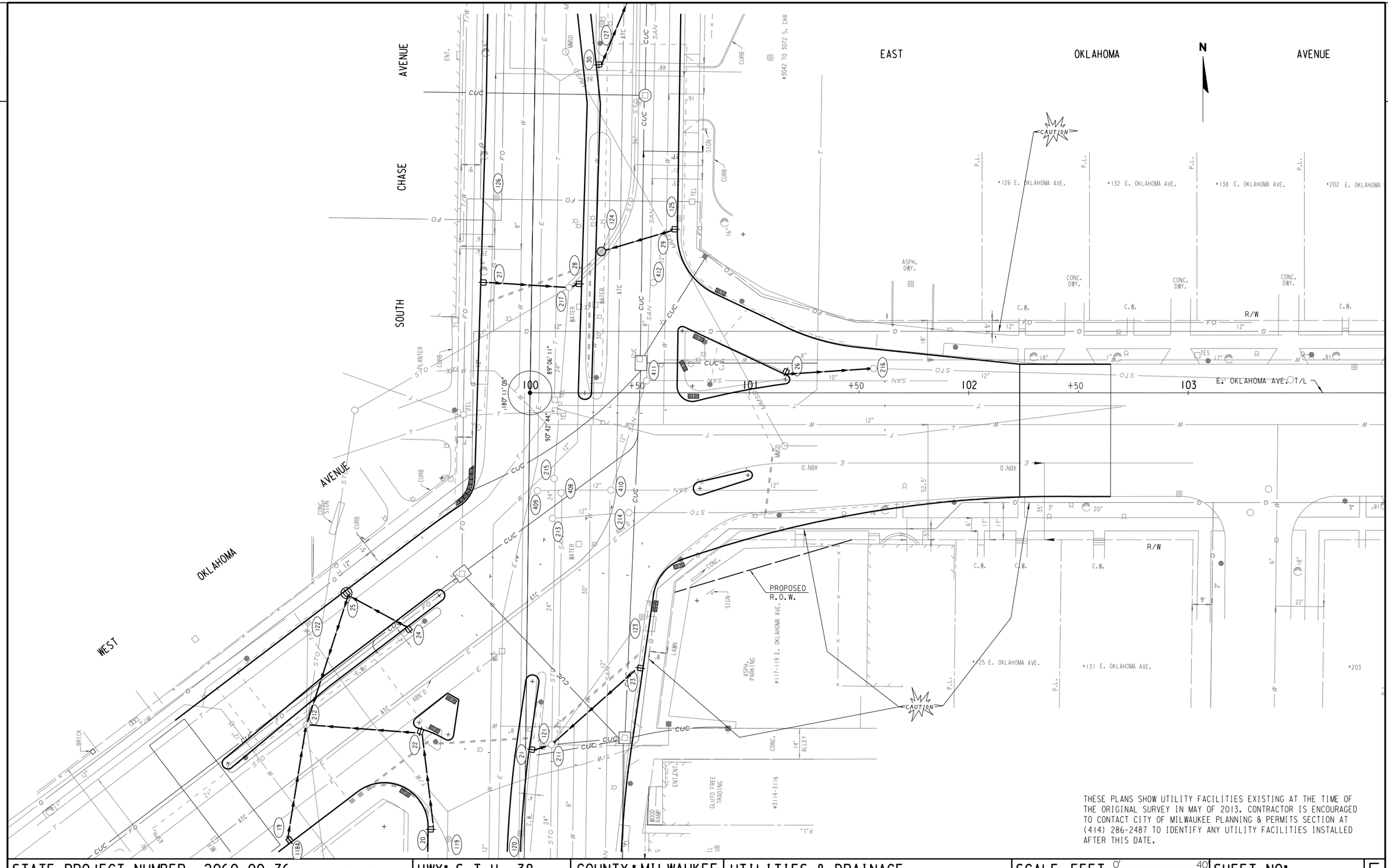


(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 123	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 04-10.DGN

2



THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. 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 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET 0' 40	SHEET NO: 124	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 100-106.DGN

REVISED DATE: 03-30-2017 BY PN

STA. 12+62 - 40'LT.
ELEV. 60.43

SOUTH CHASE AVENUE

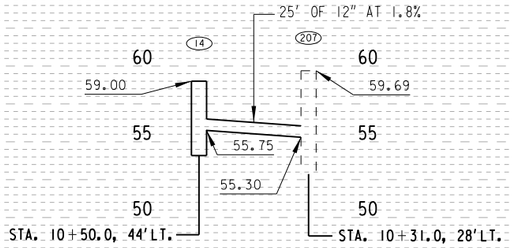
LIGHT ON CONC. BASE
CURB
#115 W. OKLAHOMA AVE.
ARBY'S RESTAURANT
ASPH. PARKING
CONC. GUTTER
P.L.
RAILING
C.W.
SIGN
R/W
CONTROL BOX
SEC. LINE
E. OKLAHOMA AVE.
138 KV
CAUTION
FIBER OPTIC
CONC. SIGN
PLANTER
TEL
LAWN
WOOD RAMP
ENT.
ASPH. PARKING BUMPER
CONC. DWY.
LONG TRAIL GRILL & PUB
GLUTO FREE TRADING
#3154
#3148
#3142
#3136
#3130
#3124-3126
#3118-3118A
#3114-3116
#117-119 E. OKLAHOMA AVE.
14' ALLEY
PROPOSED ROW
52.5'
180° 11' 05"
90° 42' 44"
89° 06' 11"

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

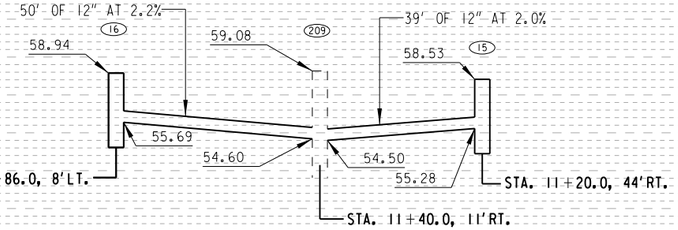
STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 125 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 10-16.DGN

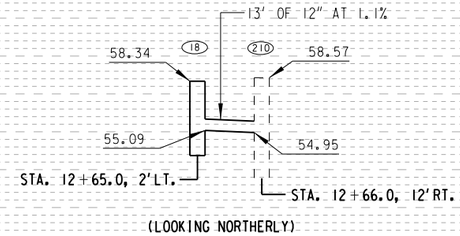
REVISED DATE: 09-04-2017 BY DB



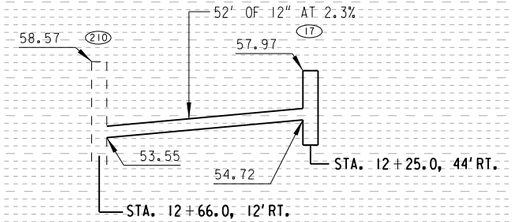
(LOOKING NORTHERLY)



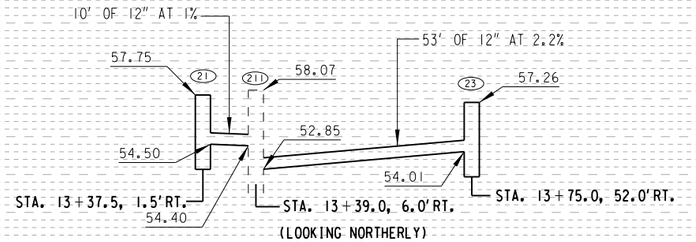
(LOOKING EASTERLY)



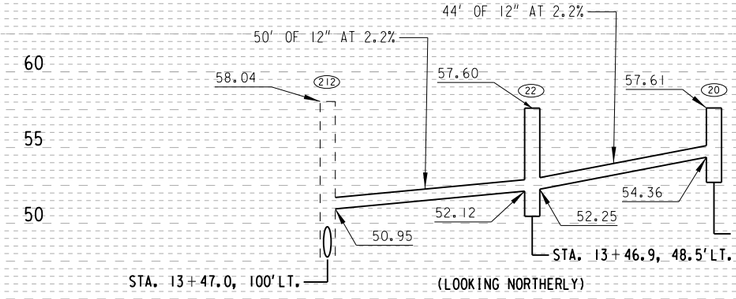
(LOOKING NORTHERLY)



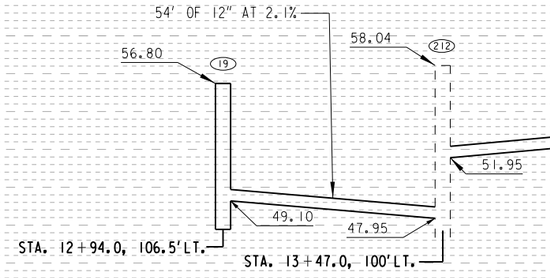
(LOOKING NORTHERLY)



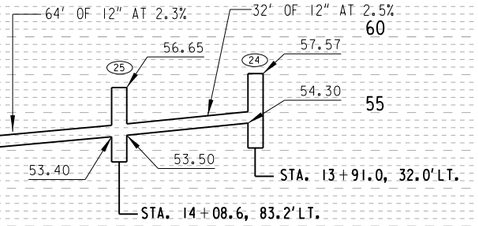
(LOOKING NORTHERLY)

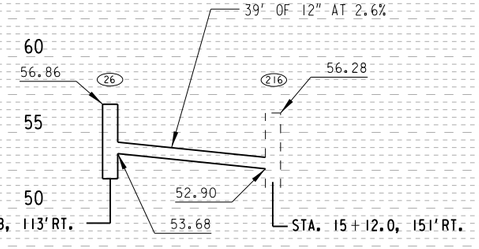


(LOOKING NORTHERLY)

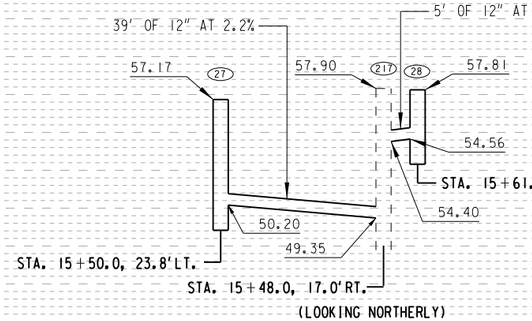


(LOOKING NORTHERLY)

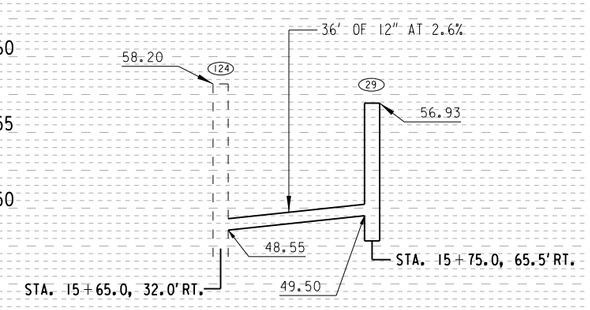




(LOOKING NORTHERLY)



(LOOKING NORTHERLY)



STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 126	E

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22' LT.
ELEV. 60.62

N

CHASE COMMERCIAL BUILDING

CAUTION FIBER OPTIC CAUTION FIBER OPTIC

ENT. R/W ASPH. FENCE ASPH. DWY. ASPH. PARKING P.L. C.W. C.W. C.W. R/W

16 +50 17 +50 18 +50 19 +50 20 +50 21 +50 22

SEC. LINE

MMSD WATER ATC STO SAN WEP CUC TEL SIGN CURB

#3042 TO 3072 S. CHASE AVE.

WENDY'S

#3030 FOWARD DENTAL

#3010 COMMUNITY VETERINARY CLINIC

#2990

138 KV

E. GAUER CIRCLE E. MANITOBA ST.

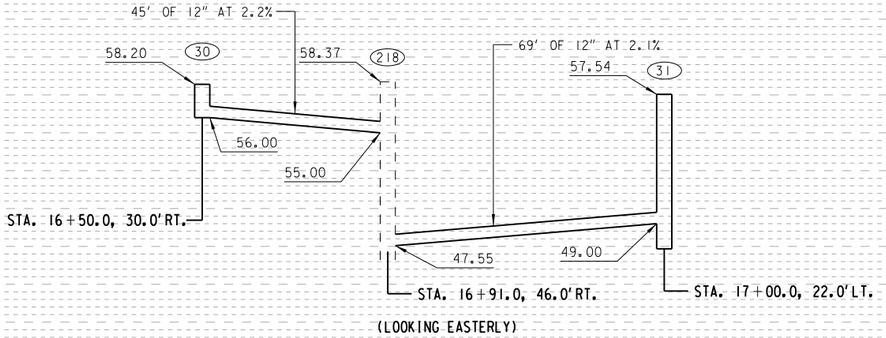
B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70' RT.
ELEV. 60.97

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

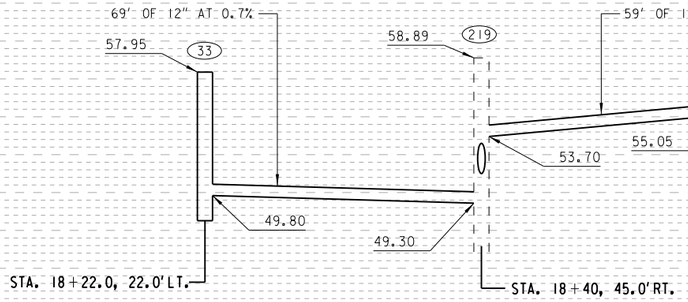
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 127 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 16-22.DGN

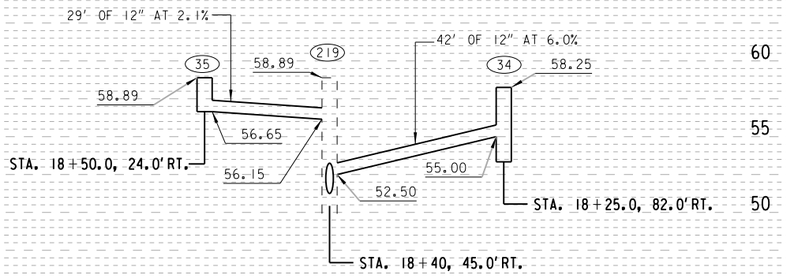
REVISED DATE: 10-02-2017 BY DB



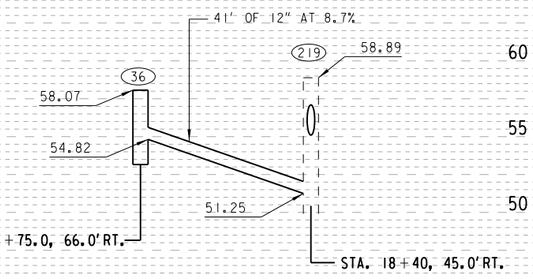
(LOOKING EASTERLY)



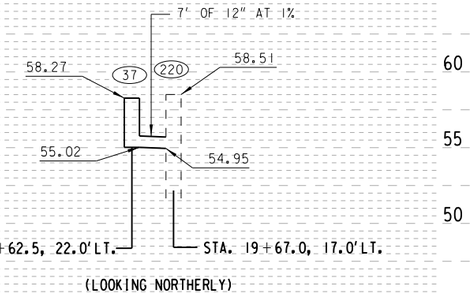
(LOOKING NORTHERLY)



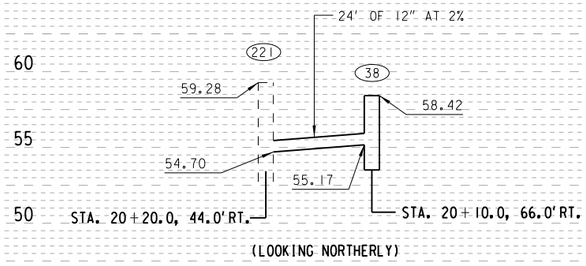
(LOOKING NORTHERLY)



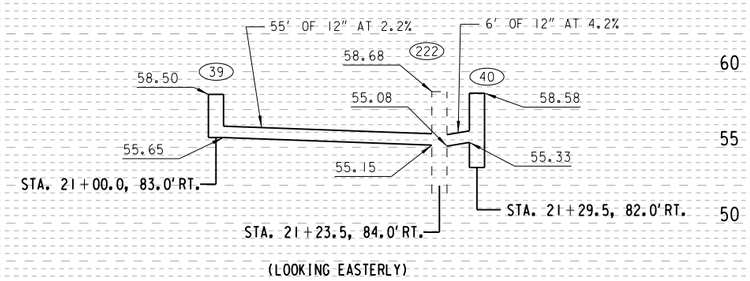
(LOOKING EASTERLY)



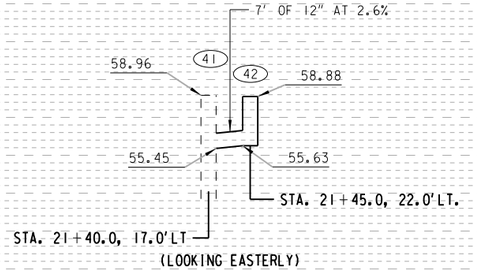
(LOOKING NORTHERLY)



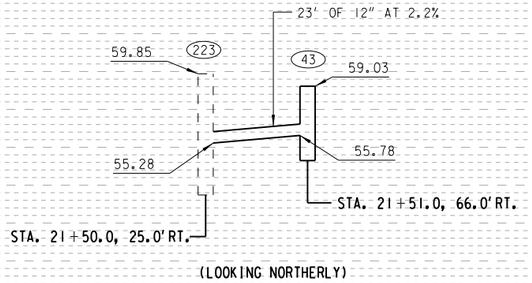
(LOOKING NORTHERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)



(LOOKING NORTHERLY)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 128	E

SOUTH CHASE AVENUE

N

*2969 S. CHASE AVE.

*2950 S. CHASE AVE.

*2960 TO 2984

SEC. LINE

T/L

158° 38' 27"

B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 24+05 - 46' RT.
ELEV. 64.49

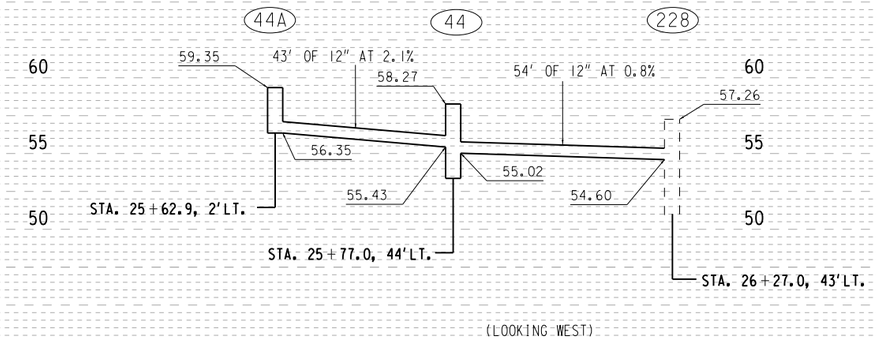
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 129 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 22-27.DGN

REVISED DATE: 10-30-2018 BY DB

2



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 130	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 22-27.DGN

REVISED DATE: 09-04-2018 BY DB

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 29+15 - 35'LT.
ELEV. 51.73

*2929 S. CHASE AVE.

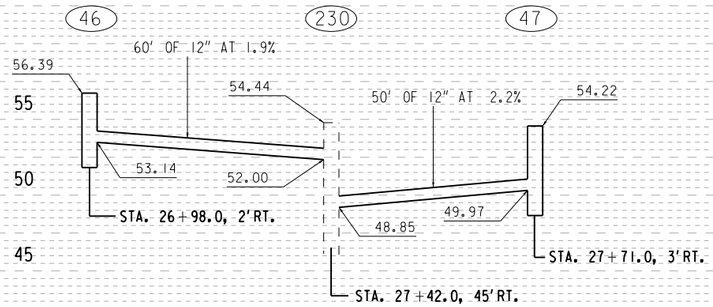
FENCE
FRENCH DRAIN
CONC. DWY.
CONC. WALL
R/W
WEP PED.
TEL PED.
WEP
WATER
LAWN
CONC.
C.W.
TEL
CUC
CMB
SAN
MMSD
STO
CURB
ASPH. PARKING
E. DAKOTA ST.
*108 TO 118 E. DAKOTA ST.
*2836 S. CHASE AVE.
*2830
*2826
*2822
P.L.
CAUTION

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. DAKOTA ST.
STA. 30+81 - 58'RT.
ELEV. 48.20

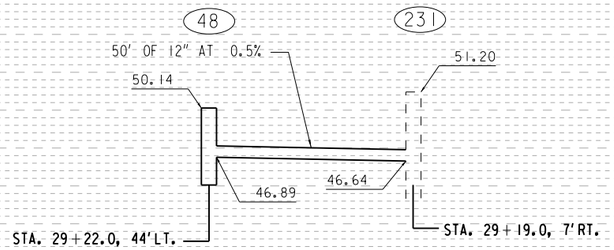
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 131	E

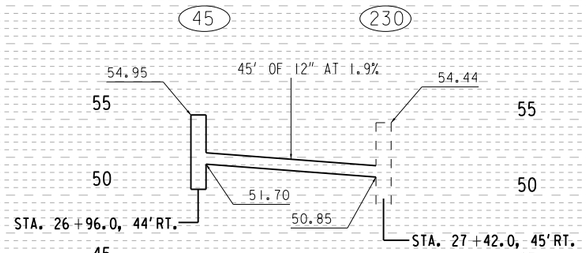
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 27-33.DGN



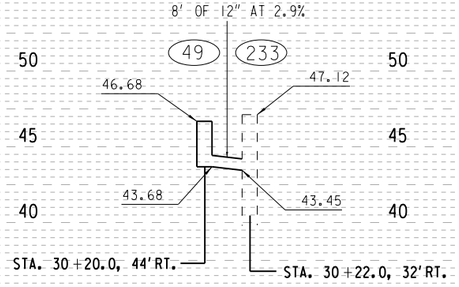
(LOOKING EAST)



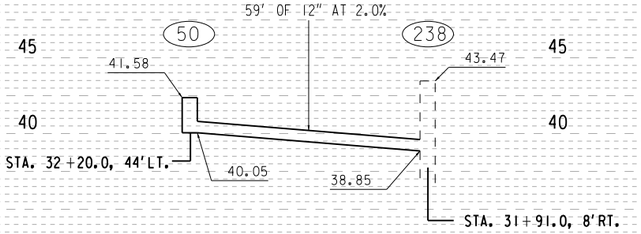
(LOOKING NORTH EAST)



(LOOKING EAST)



(LOOKING SOUTH)



(LOOKING EAST)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 132	E

2

SOUTH CHASE AVENUE

2

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 35+02 - 35'LT.
ELEV. 31.61

N

SOO RAILROAD CO.

PRIVATE ROADWAY & PARKING EASEMENT

LIGHT POLE BASE

CONC. SIGN BASE

BRIDGE WALL

FENCE

R/W

MMSD

CMB

STO

STUMP

LAWN

T/L

WEP

BRIDGE SUPPORT

CONC. DWY

CAUTION

*2822 *2816 *2812 *2810-2810A *2804 *2800-2802 S. CHASE AVE.

*100 E. MONTANA ST.

E. MONTANA ST.

*2747 S. GLADSTONE PL.

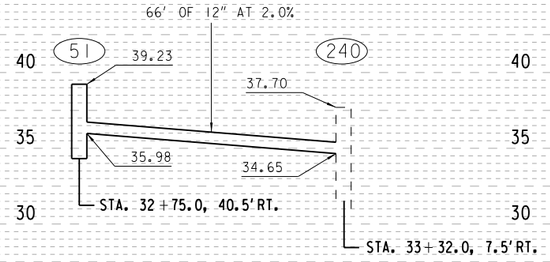
*2715 S. GLADSTONE PL.

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

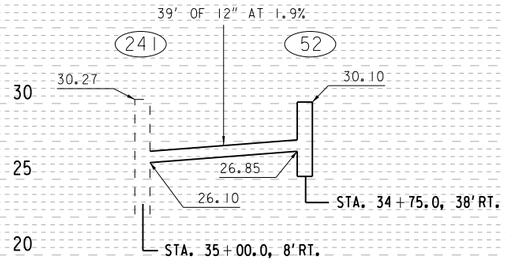
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 133	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 33-39.DGN

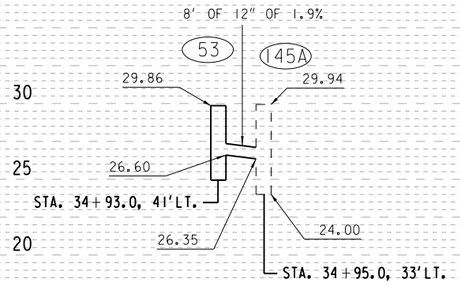
REVISED DATE: 09-04-2018 BY SB



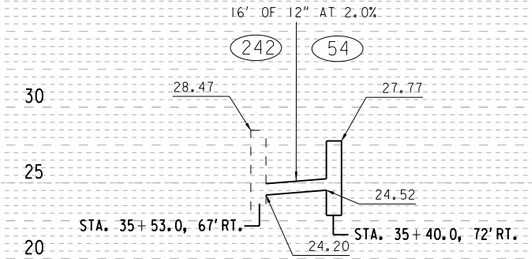
(LOOKING WEST)



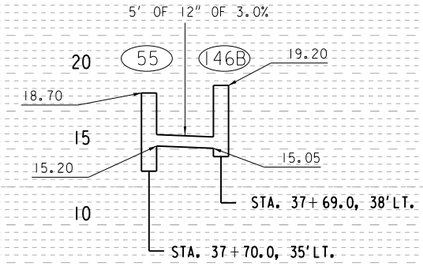
(LOOKING NORTH)



(LOOKING NORTH)



(LOOKING EAST)



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 134	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 33-39.DGN

REVISED DATE: 09-04-2018 BY SB

SOUTH CHASE AVENUE

B.M. LIGHT POLE BASE
STA. 42+53 - 45'LT.
ELEV. 13.67

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & W. ROSEDALE AVE.
STA. 44+73 - 42'LT.
ELEV. 9.73

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 40+21 - 37'RT.
ELEV. 17.33

*2701 S. CHASE AVE.

*2647 S. CHASE AVE.

*2635

*2650 TO 2700 S. CHASE AVE.
KLEMENT COMPANY

W. ROSEDALE AVE.

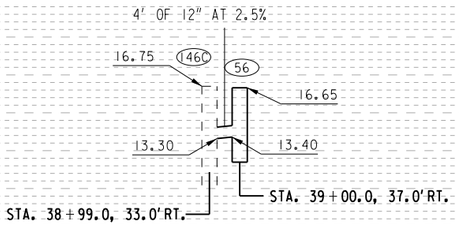
4' MANHOLE WITH
MS-57 FRAME AND GRATE

THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

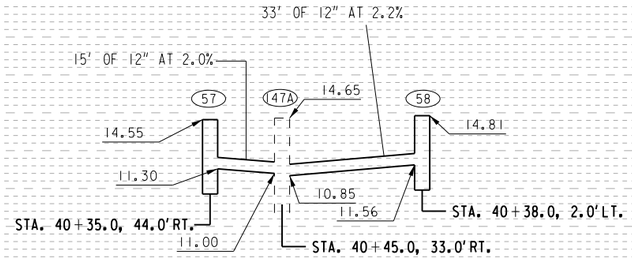
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 135	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 39-45.DGN

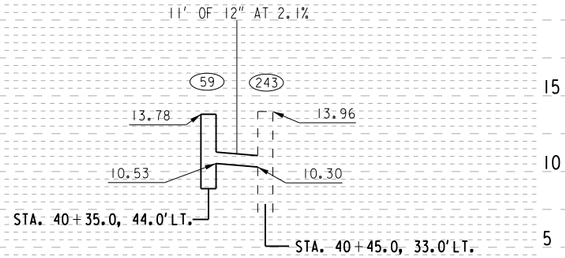
REVISED DATE: 04-16-2018 BY DLF



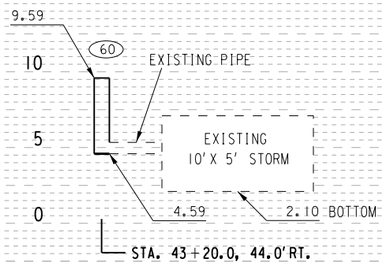
(LOOKING EASTERLY)

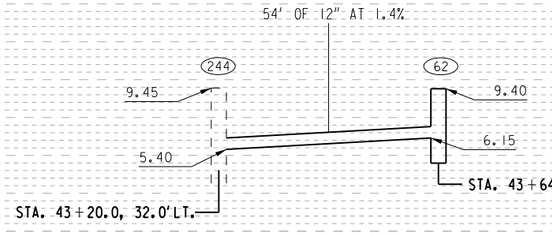


(LOOKING NORTHERLY)

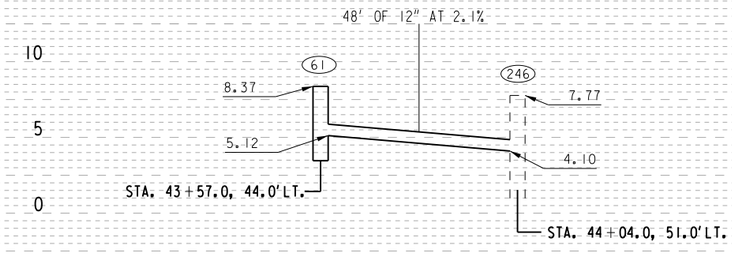


(LOOKING NORTHERLY)

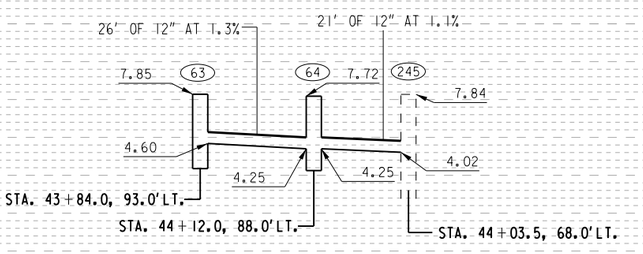




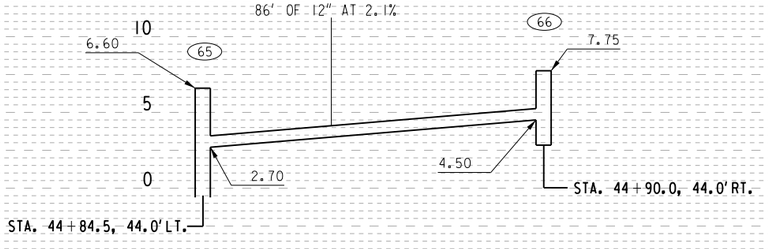
(LOOKING EASTERLY)



(LOOKING EASTERLY)



(LOOKING NORTHEASTERLY)

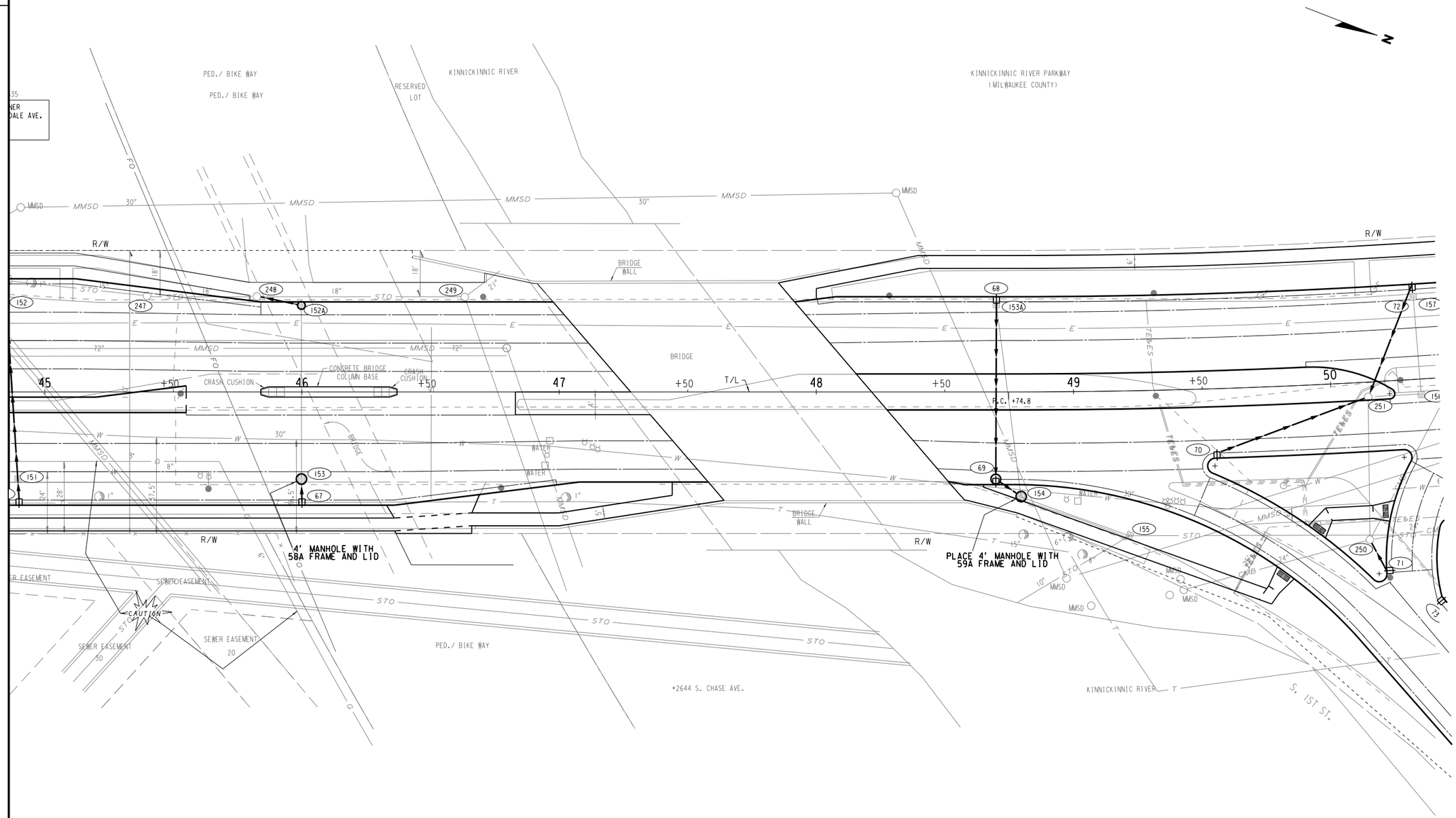


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 136	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 39-45.DGN

REVISED DATE: 10-26-2018 BY DB

SOUTH CHASE AVENUE



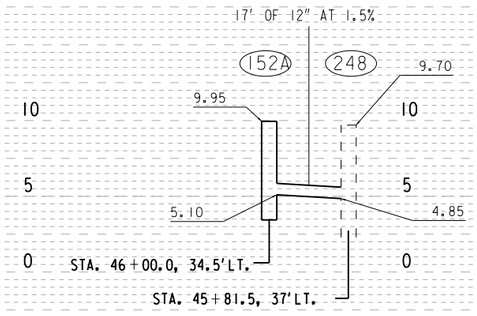
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 137	E

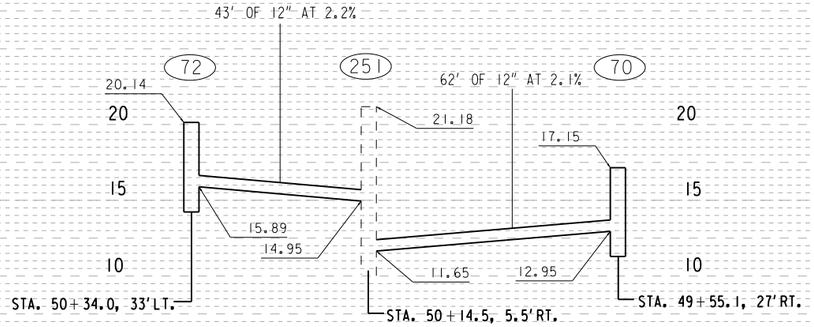
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 45-50.DGN

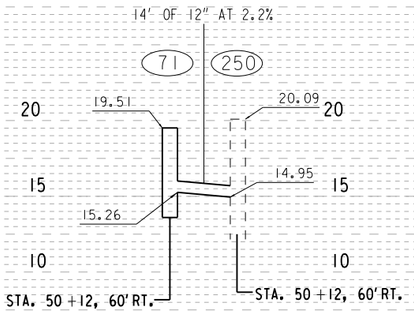
REVISED DATE: 04-16-2018 BY DLF

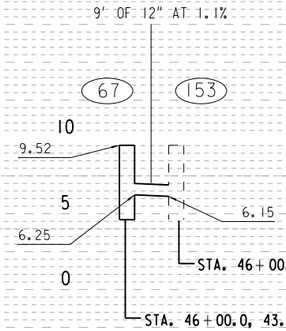
2



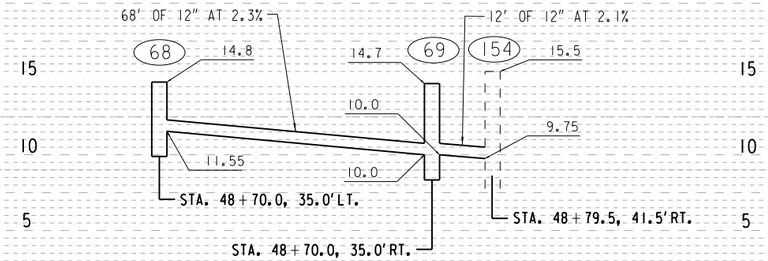
(LOOKING WEST)







(LOOKING WEST)



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 138	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 45-50.DGN

REVISED DATE: 10-30-2018 BY DB

2

SOUTH CHASE AVENUE

S. 3RD ST.

S. 1ST ST.

PROPOSED ROW

R/W

*2529-2579 S. CHASE AVE.

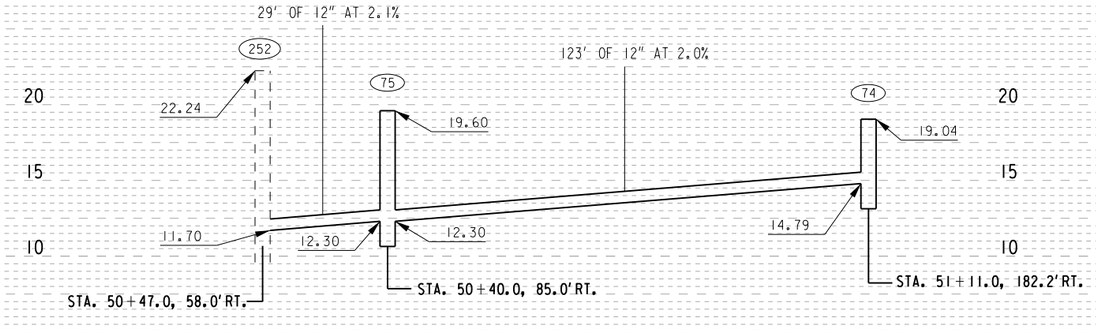
*2474 S. CHASE AVE.
BARAN PARK

CAUTION

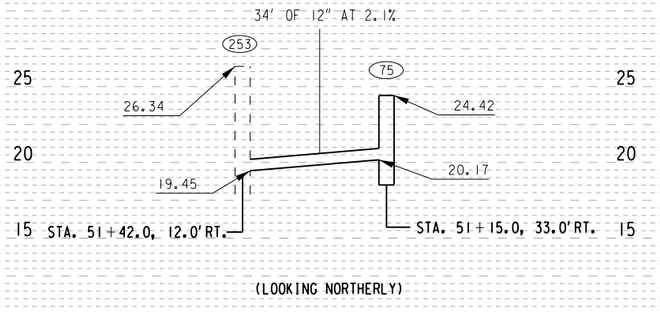
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 139	E

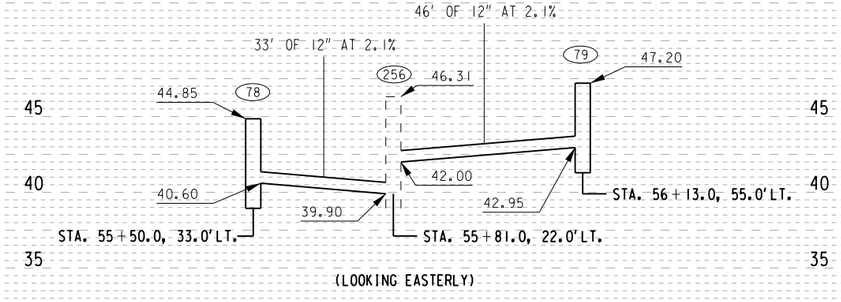
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 50-56.DGN



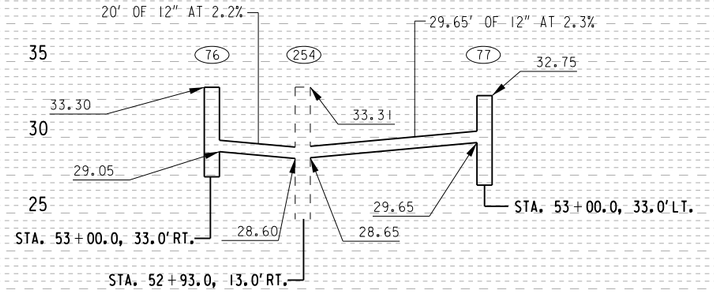
(LOOKING NORTHERLY)



(LOOKING NORTHERLY)



(LOOKING EASTERLY)

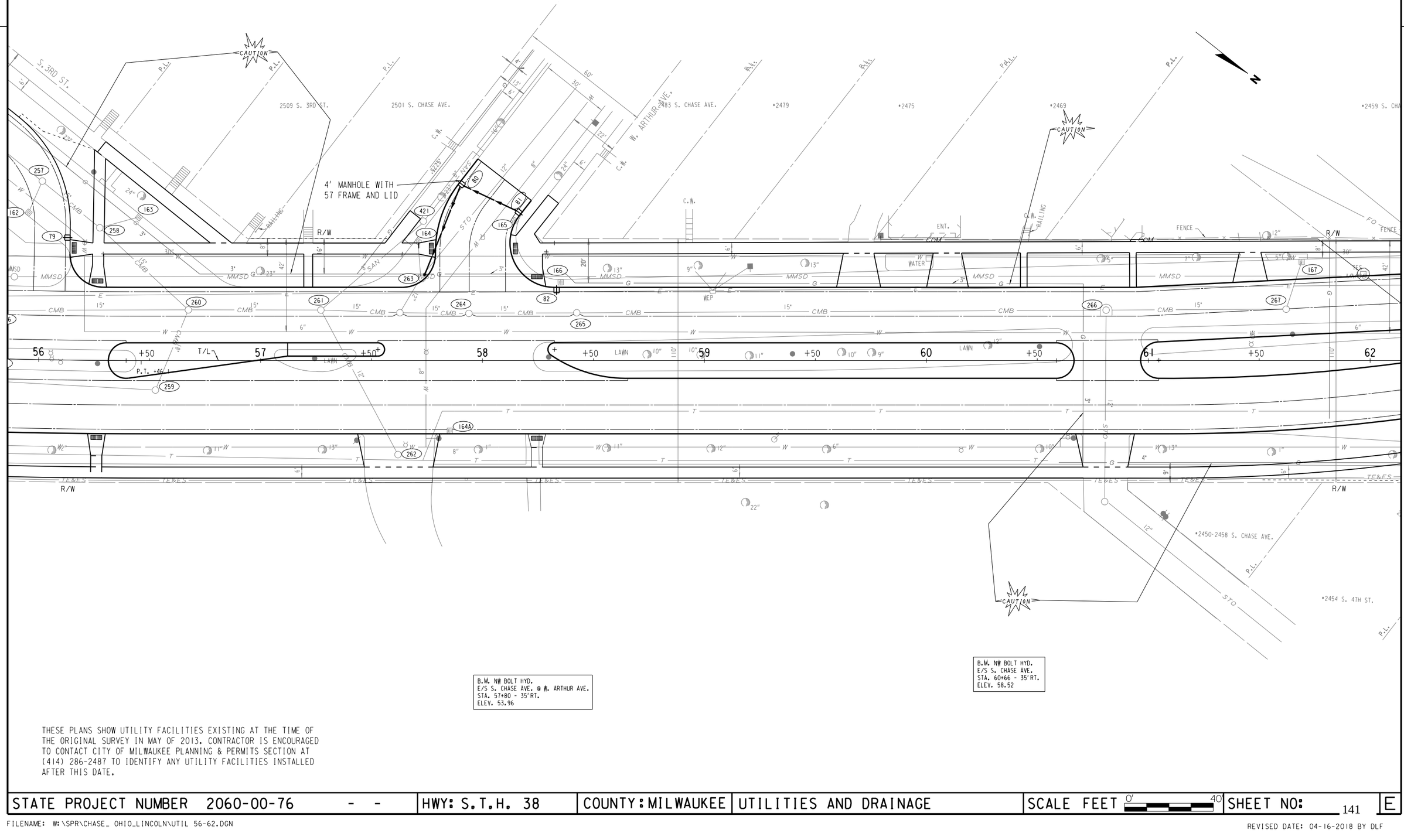


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 140	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 50-56.DGN

SOUTH CHASE AVENUE

2



B.W. NW BOLT HYD.
E/S S. CHASE AVE. @ W. ARTHUR AVE.
STA. 57+80 - 35'RT.
ELEV. 53.96

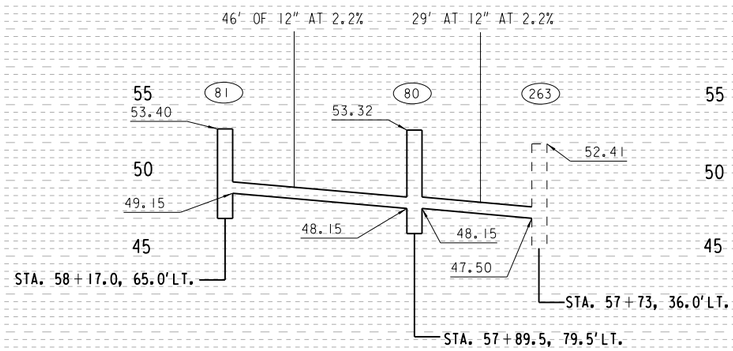
B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 60+66 - 35'RT.
ELEV. 58.52

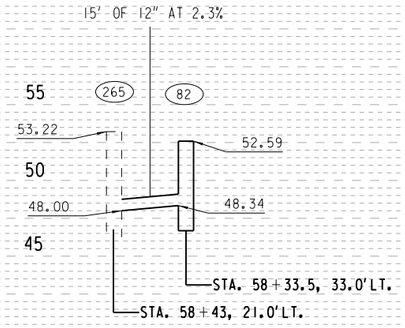
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 141	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 56-62.DGN

REVISED DATE: 04-16-2018 BY DLF



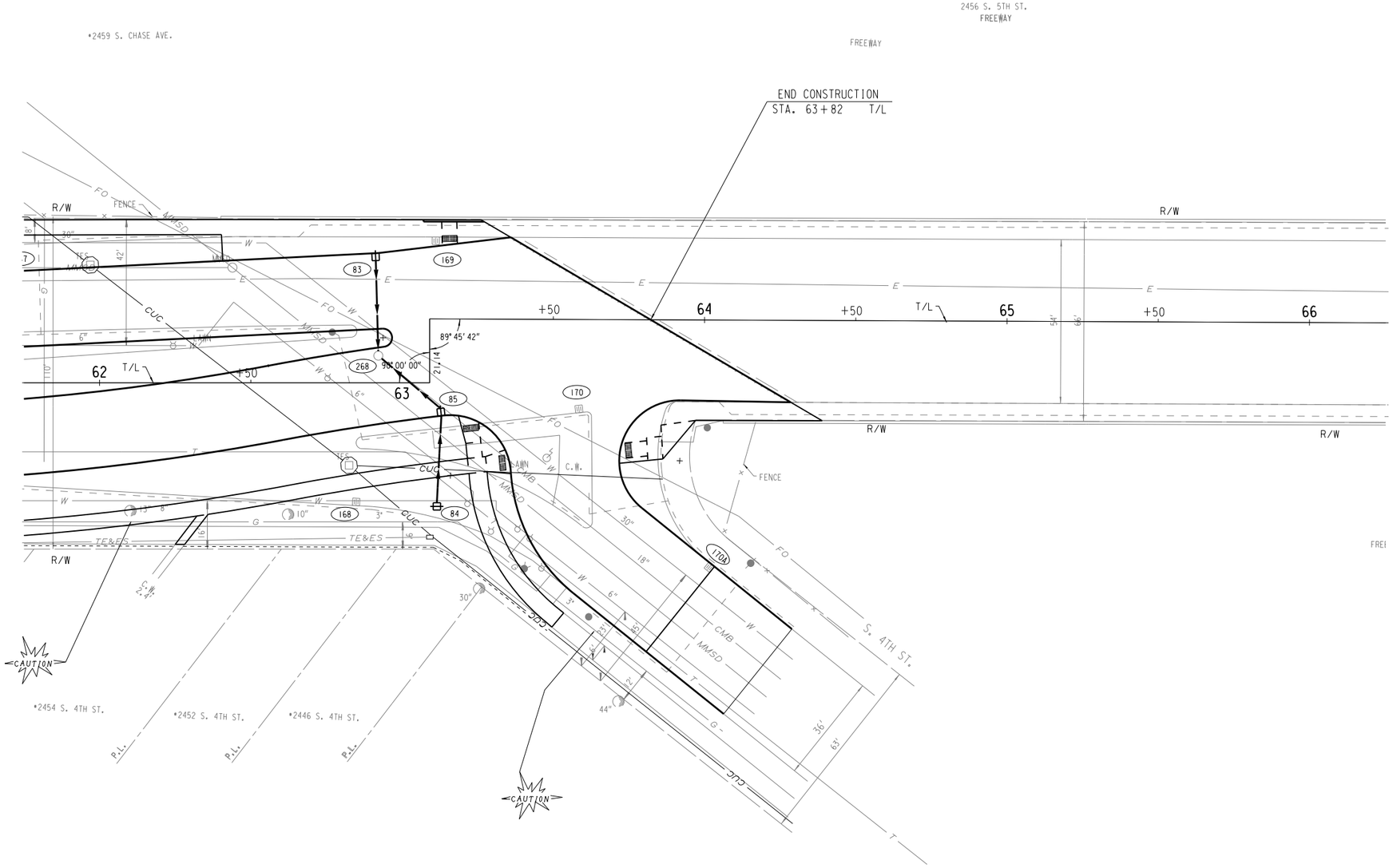


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 142	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 56-62.DGN

REVISED DATE: 04-16-2018 BY DLF

SOUTH CHASE AVENUE

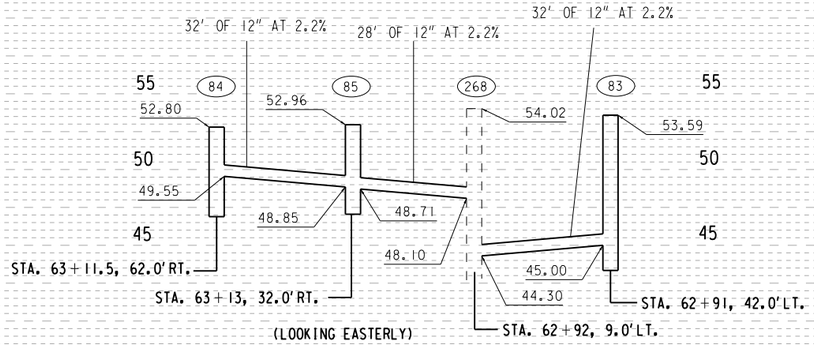


THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 143	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 62-66.DGN

REVISED DATE: 10-01-2017 BY DB



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET	SHEET NO: 144 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 62-66.DGN

REVISED DATE: 02-21-2018 BY DLF

2

SOUTH CHASE AVENUE

CAUTION

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & S. 5TH ST.
STA. 68+72 - 37'LT.
ELEV. 51.32

S. 5TH ST.

*2413 S. 5TH ST.
*2409 S. 5TH ST.
*2405 S. 5TH ST.
*2403 S. CHASE AVE.
*2341 S. CHASE AVE.

W. HAYES AVE.

FIBER OPTIC

WMSD

CONC.

R/W

FREEWAY

66 +50 67 +50 68 T/L +50 69 +50 70 +50 71

178°32'53" WEP

BEGIN CONSTRUCTION
STA. 67+00.0 T/L

ENT. ENT. ENT. R/W

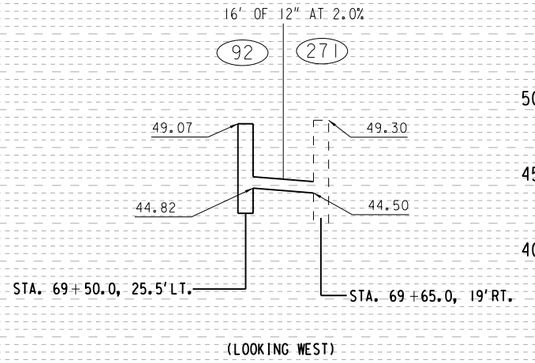
*2323-2337 S. 5TH ST.

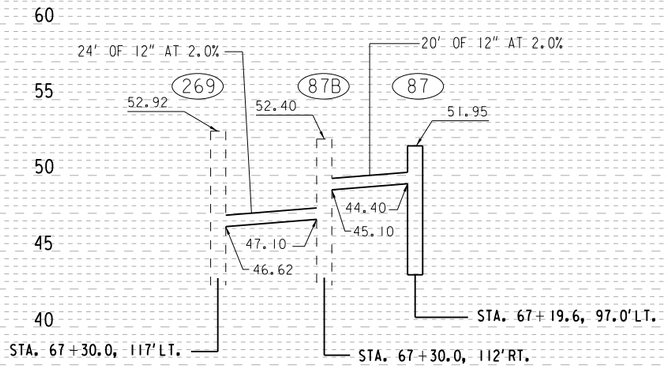
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

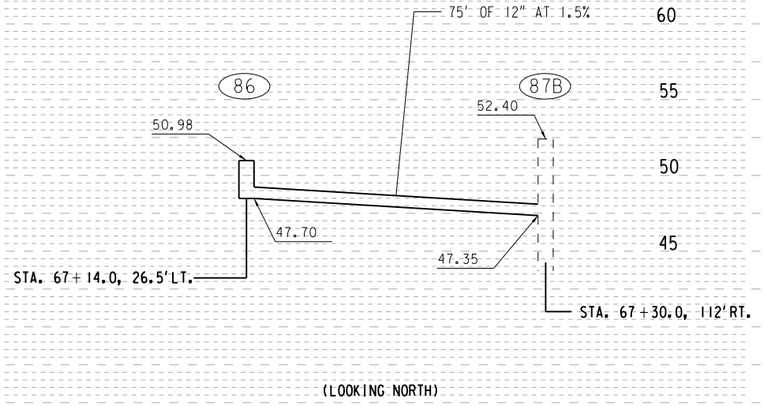
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 145	E

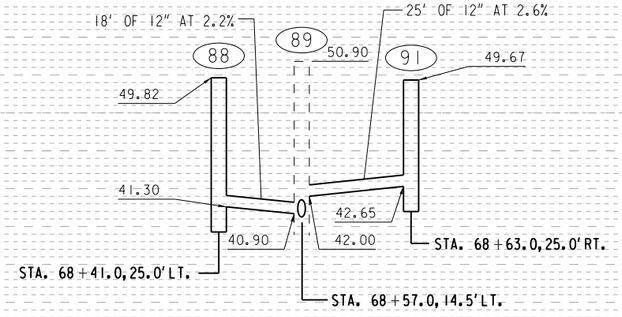
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 66-71.DGN

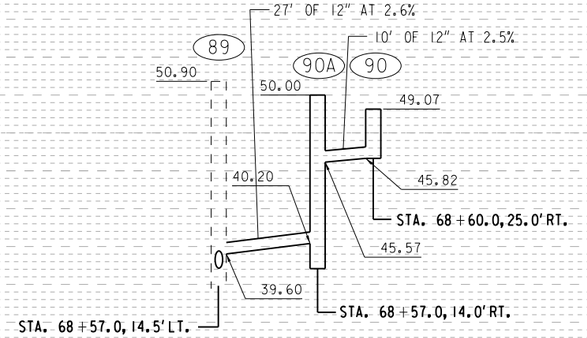
REVISED DATE: 10-03-2017 BY DB

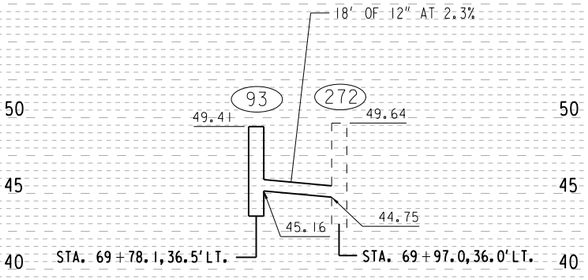

16' OF 12" AT 2.0%
92
271
49.07
49.30
44.82
44.50
STA. 69+50.0, 25.5'LT.
STA. 69+65.0, 19'RT.
(LOOKING WEST)


24' OF 12" AT 2.0%
20' OF 12" AT 2.0%
269
87B
87
52.92
52.40
51.95
44.40
45.10
47.10
46.62
STA. 67+30.0, 117'LT.
STA. 67+30.0, 112'RT.
STA. 67+19.6, 97.0'LT.
(LOOKING NORTH)


75' OF 12" AT 1.5%
86
87B
50.98
52.40
47.70
47.35
STA. 67+14.0, 26.5'LT.
STA. 67+30.0, 112'RT.
(LOOKING NORTH)


18' OF 12" AT 2.2%
25' OF 12" AT 2.6%
88
89
91
50.90
49.67
49.82
41.30
40.90
42.65
42.00
STA. 68+41.0, 25.0'LT.
STA. 68+57.0, 14.5'LT.
STA. 68+63.0, 25.0'RT.


27' OF 12" AT 2.6%
10' OF 12" AT 2.5%
89
90A
90
50.90
50.00
49.07
40.20
45.82
45.57
39.60
STA. 68+57.0, 14.5'LT.
STA. 68+57.0, 14.0'RT.
STA. 68+60.0, 25.0'RT.


18' OF 12" AT 2.3%
93
272
49.41
49.64
45.16
44.75
STA. 69+78.1, 36.5'LT.
STA. 69+97.0, 36.0'LT.

SOUTH CHASE AVENUE

S. 5TH PL.

*2341 S. CHASE AVE.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

S. 6TH ST.

ASPH. PARKING

*2265-2279 S. CHASE AVE.

*525 W. LINCOLN AVE.

*550 W. LINCOLN AVE.

*522 W. LINCOLN AVE.

W. LINCOLN AVE.

5TH ST.

CONC. 20' ALLEY

BRICK

LAWN

CAUTION

R/W

CMB

CUC

T/L

TEL

E&ES

BMS

71 72 73 74 75

+50

B.M. NW BOLT HYD NE CORNER
W. LINCOLN AVE. & S. 5TH PL.
STA. 74+00 - 127' RT.
ELEV. 45.75

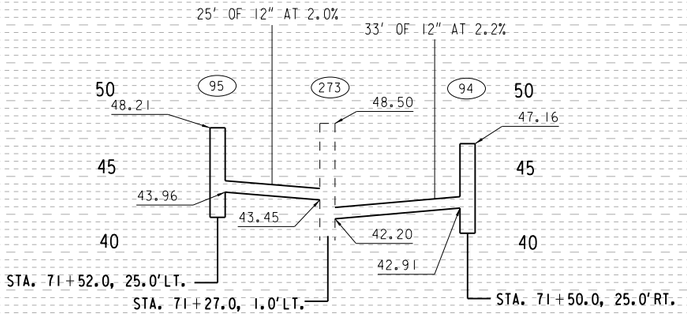
THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN MAY OF 2013. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING & PERMITS SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 147	E

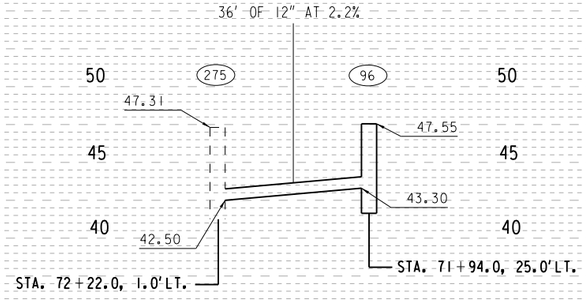
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 71-75.DGN

REVISED DATE: 10-05-2017 BY DB

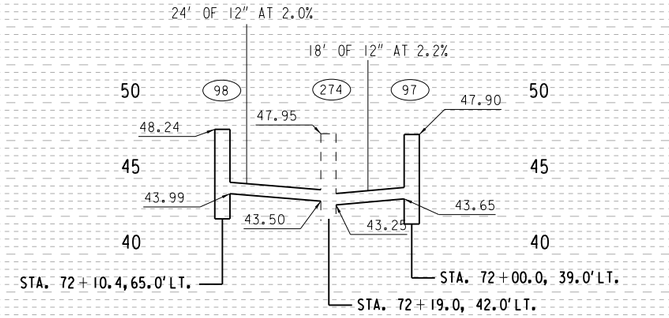
2



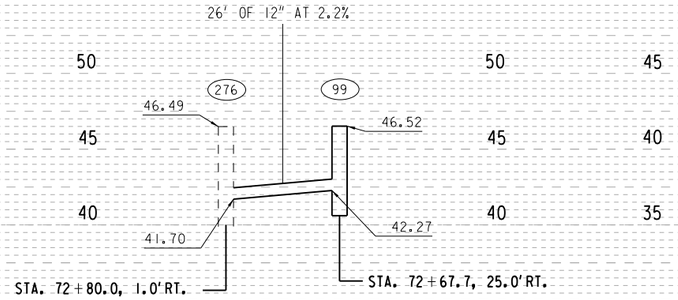
(LOOKING EASTERLY)



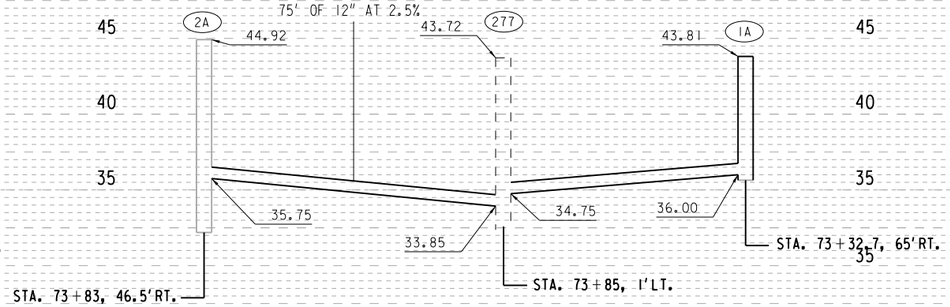
(LOOKING EASTERLY)



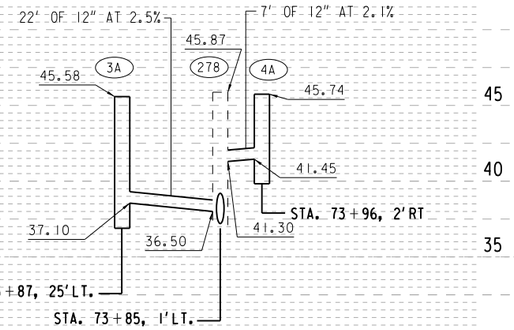
(LOOKING NORTHERLY)



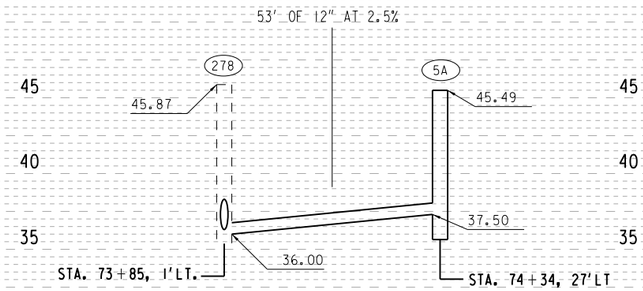
(LOOKING EASTERLY)



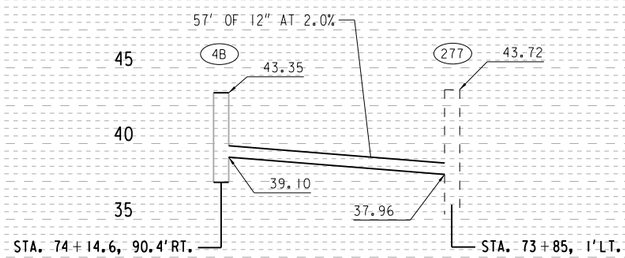
(LOOKING NORTHEAST)



(LOOKING WESTERLY)



(LOOKING SOUTHERLY)



(LOOKING NORTH)

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	UTILITIES & DRAINAGE	SCALE FEET	SHEET NO: 148	E

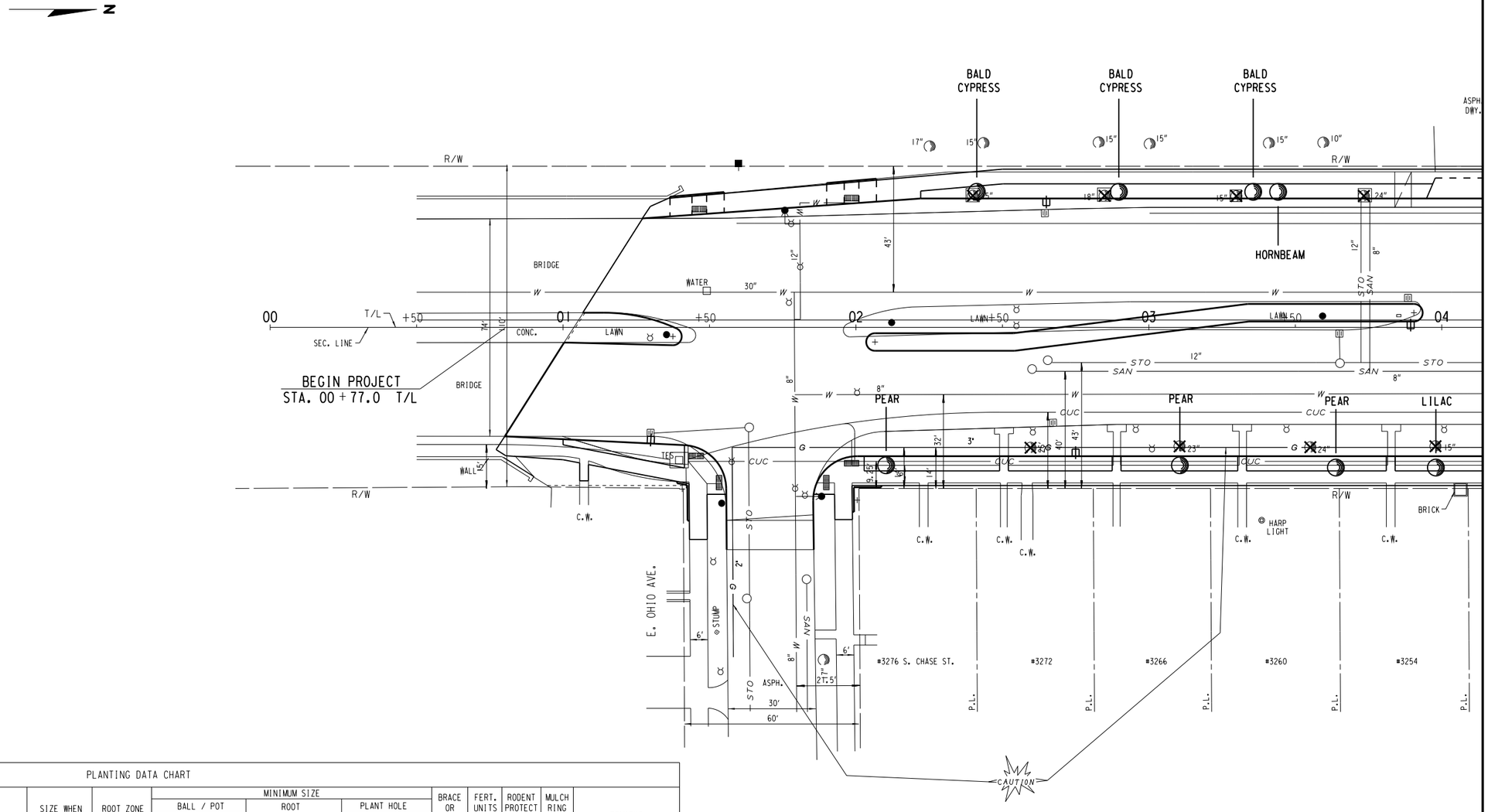
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\UTIL 71-75.DGN

REVISED DATE: 04-16-2018 BY JH

2

B.M. N/W BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40' LT.
ELEV. 68.48

SOUTH CHASE AVENUE



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 149	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 01-04.DGN

REVISED: 02-10-2018 BY: PN

2

SOUTH CHASE AVENUE

N

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.

◑ - PLANT NEW TREE (TYPE)

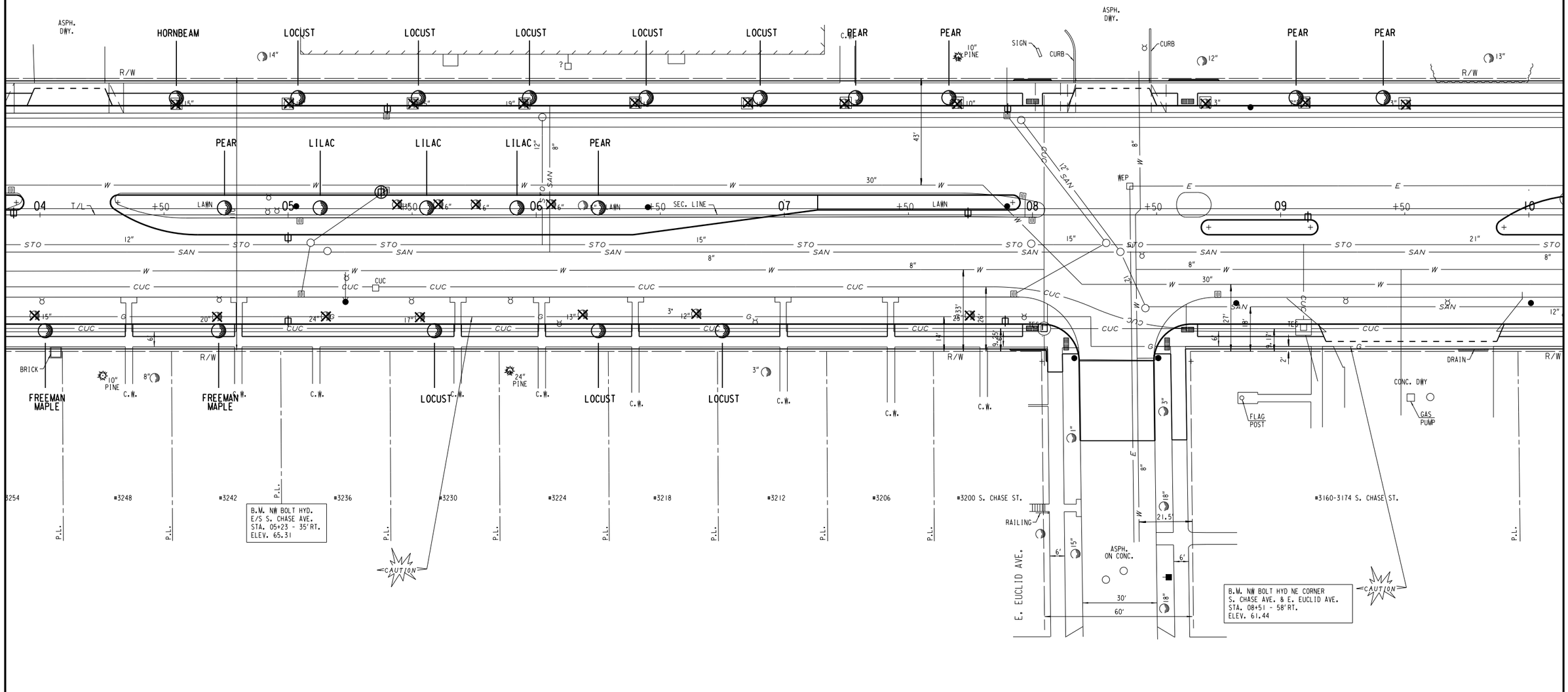
⊠ - CLEAR & GRUB TREE

PIGGLY WIGGLY GROCERY #123 W. OKLAHOMA AVE.

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 150	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 04-10.DGN

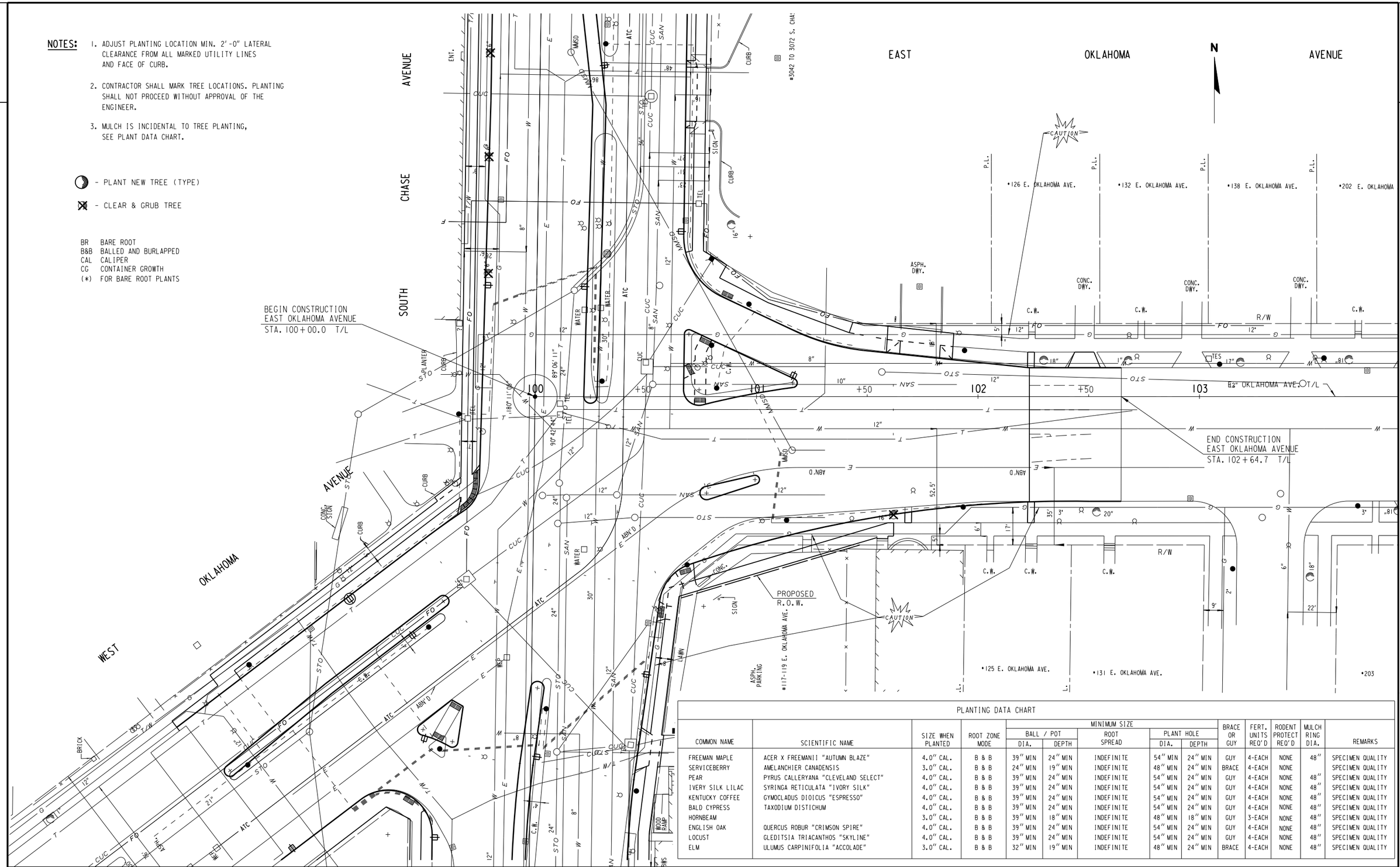
REVISED DATE: 02-10-2018 BY PN

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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM		3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 151 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 100-106.DGN

REVISED DATE: 10-23-2017 BY BB

SOUTH

CHASE

AVENUE

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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

*115 W. OKLAHOMA AVE. ARBY'S RESTAURANT

KENTUCKY COFFEE
KENTUCKY COFFEE
KENTUCKY COFFEE
LILAC
LILAC
LILAC
LILAC
SIGNATURE BED TYPE II
E. OKLAHOMA AVE.
E. OKLAHOMA AVE.
ASPH. PARKING
CONC. GUTTER
CONTROL BOX
WOOD RAMP
ENT.
ASPH. PARKING BUMPER
CONC. DWY.
LONG TRAIL GRILL & PUB
GLUTO FREE TRADING
ASPH. PARKING
CONC. 14' ALLEY
*117-119 E. OKLAHOMA AVE.
CONC. SIGN
PLANTER
LAWN
SEC. LINE
LIGHT ON CONC. BASE
CAUTION
*3154
*3148
*3142
*3136
*3130
*3124-3126
*3118-3118A
*3114-3116

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 152 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 10-16.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22'LT.
ELEV. 60.62

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.

CHASE COMMERCIAL BUILDING

ENGLISH OAK · KENTUCKY COFFEE · FREEMAN MAPLE · FREEMAN MAPLE · FREEMAN MAPLE · KENTUCKY COFFEE · HORNBEAM · HORNBEAM · HORNBEAM

ELM · ELM · ELM · LILAC · LILAC · LILAC · FREEMAN MAPLE · FREEMAN MAPLE

#3042 TO 3072 S. CHASE AVE.
WENDY'S
#3030 FOWARD DENTAL
#3010
COMMUNITY VETERINARY CLINIC
#2990

E. GAUER CIRCLE
E. MANITOBA ST.

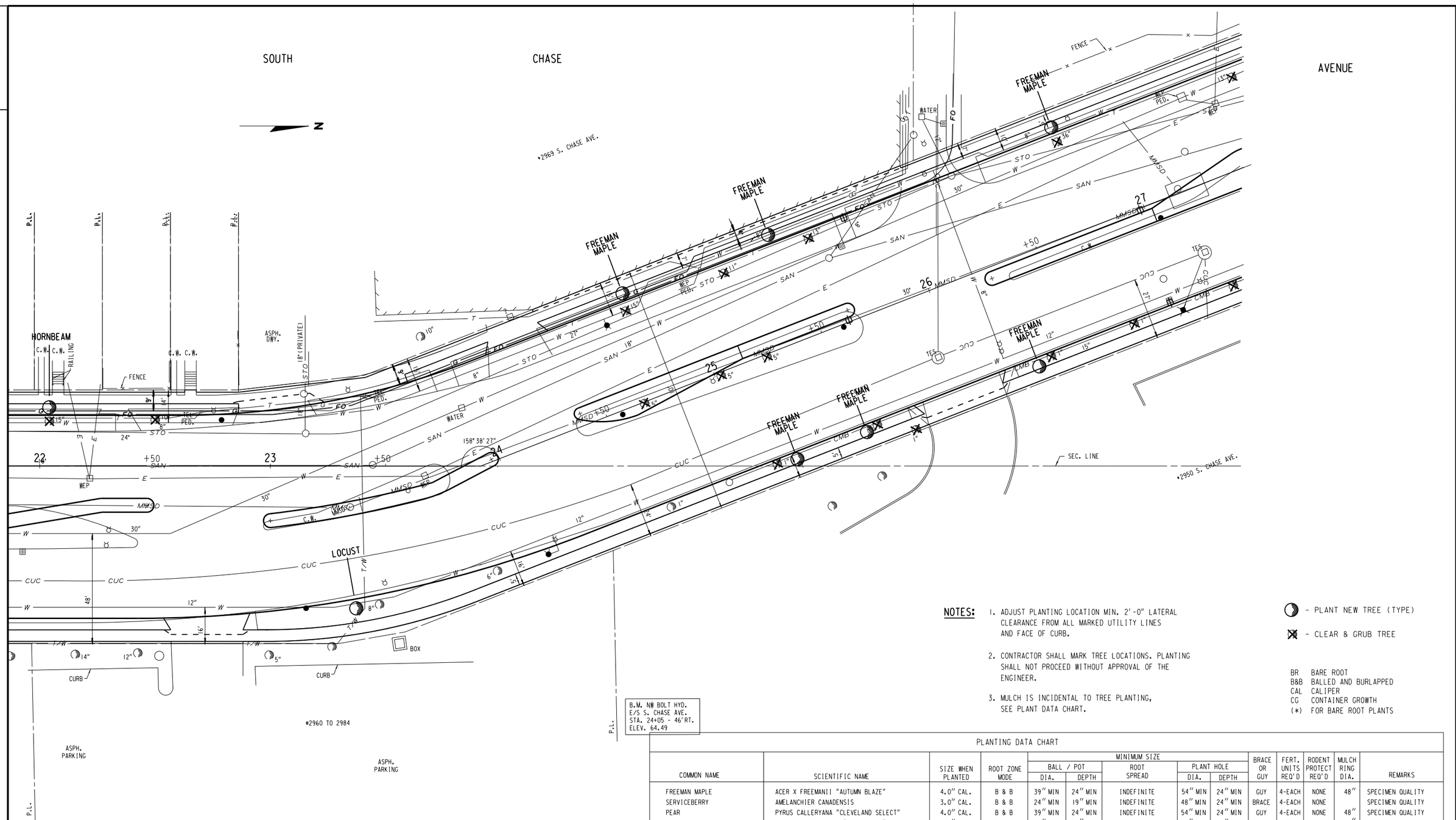
B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70' RT.
ELEV. 60.97

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 153	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 16-22.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE



B.W. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 24+05 - 46'RT.
ELEV. 64.49

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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

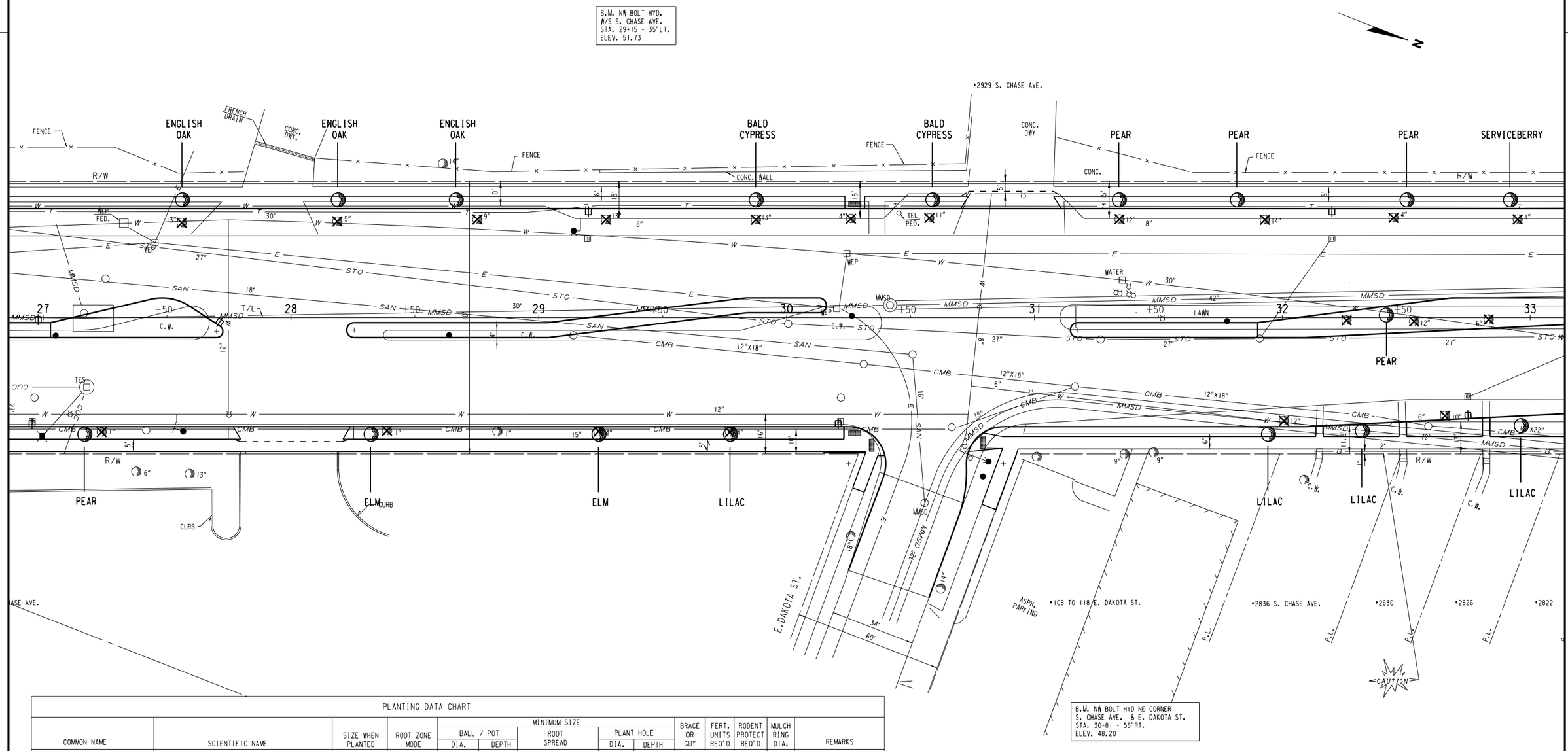
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 154	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 22-27.DGN

REVISED DATE: 10-29-2018 BY SB

SOUTH CHASE AVENUE

2



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

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.

◐ - PLANT NEW TREE (TYPE)

⊠ - CLEAR & GRUB TREE

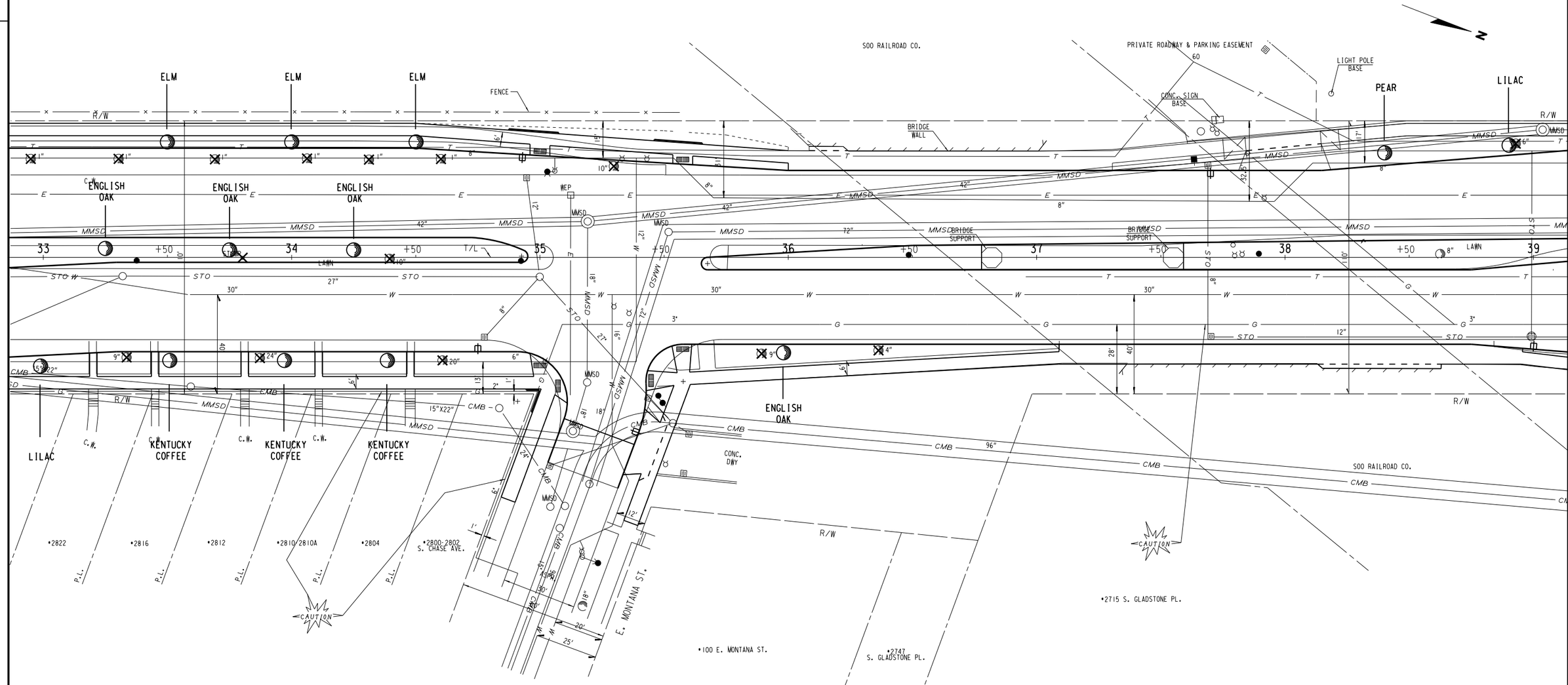
BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 155	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 27-33.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

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.

◐ - PLANT NEW TREE (TYPE)

⊠ - CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 156	E

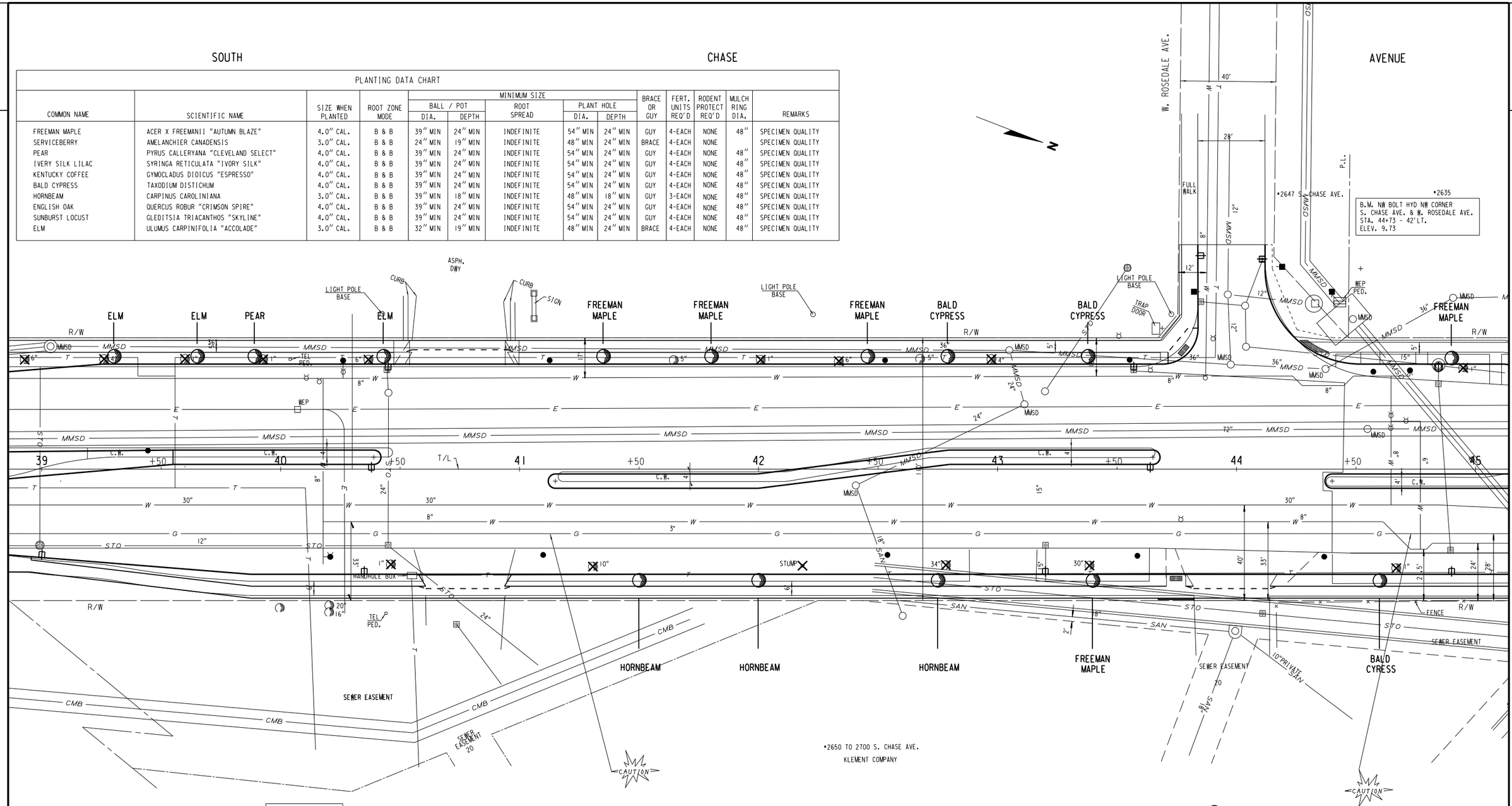
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 33-39.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY



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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

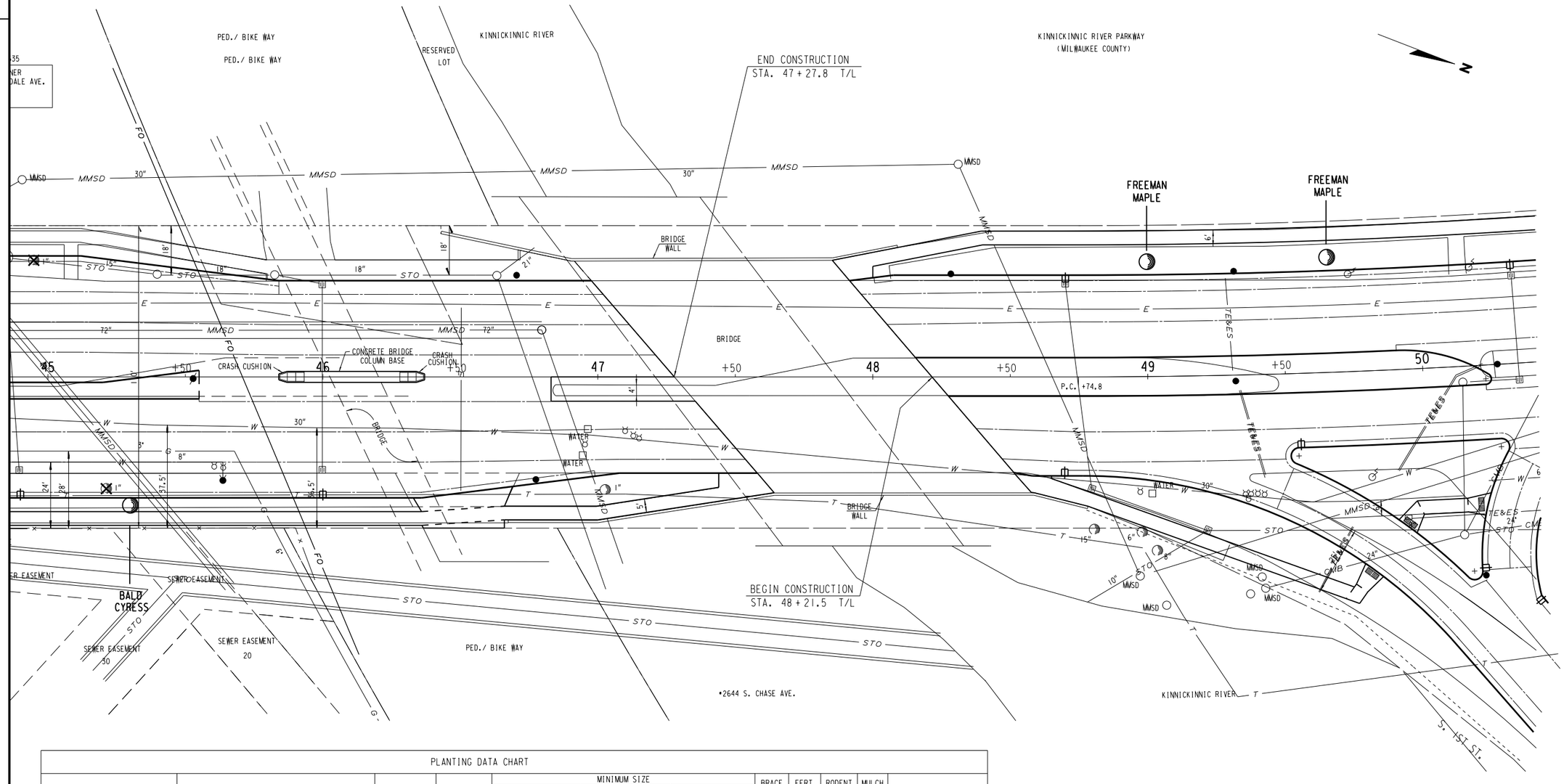
BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 157	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 39-45.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

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.

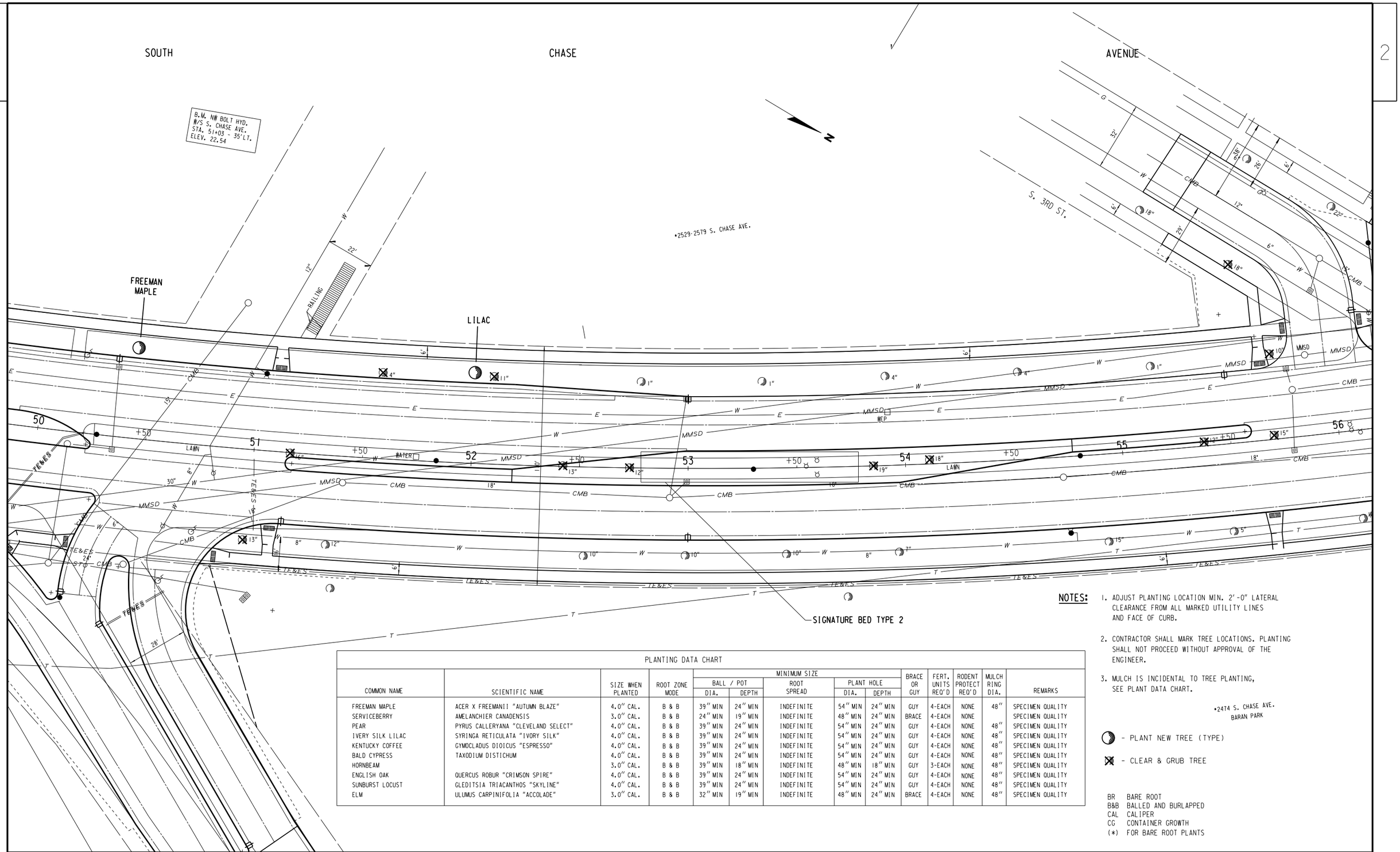
- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 158	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 45-50.DGN

REVISED: 02-10-2018 BY: PN



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM		3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

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.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

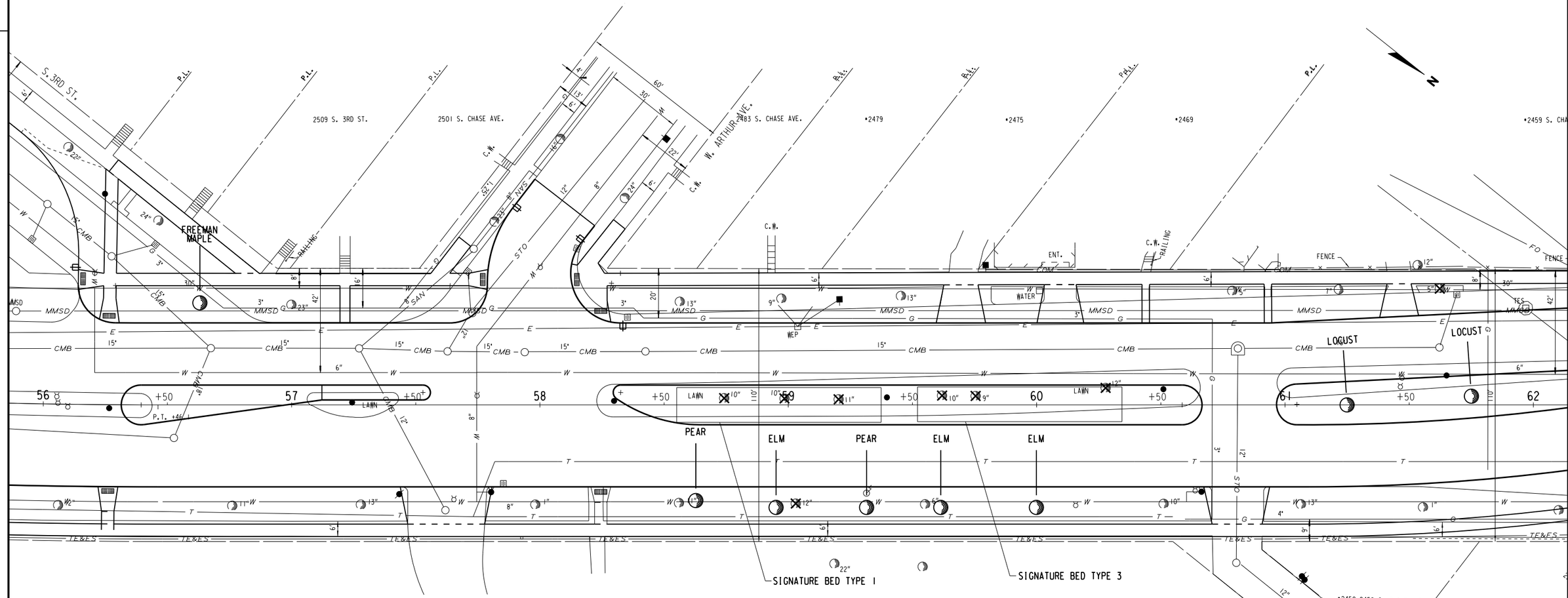
BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 159	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 50-56.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE



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.

- PLANT NEW TREE (TYPE) . 60+66 - 35' RT. ℄ HYD. ℄ CHASE AVE. ℄ ELEV. 58.52
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

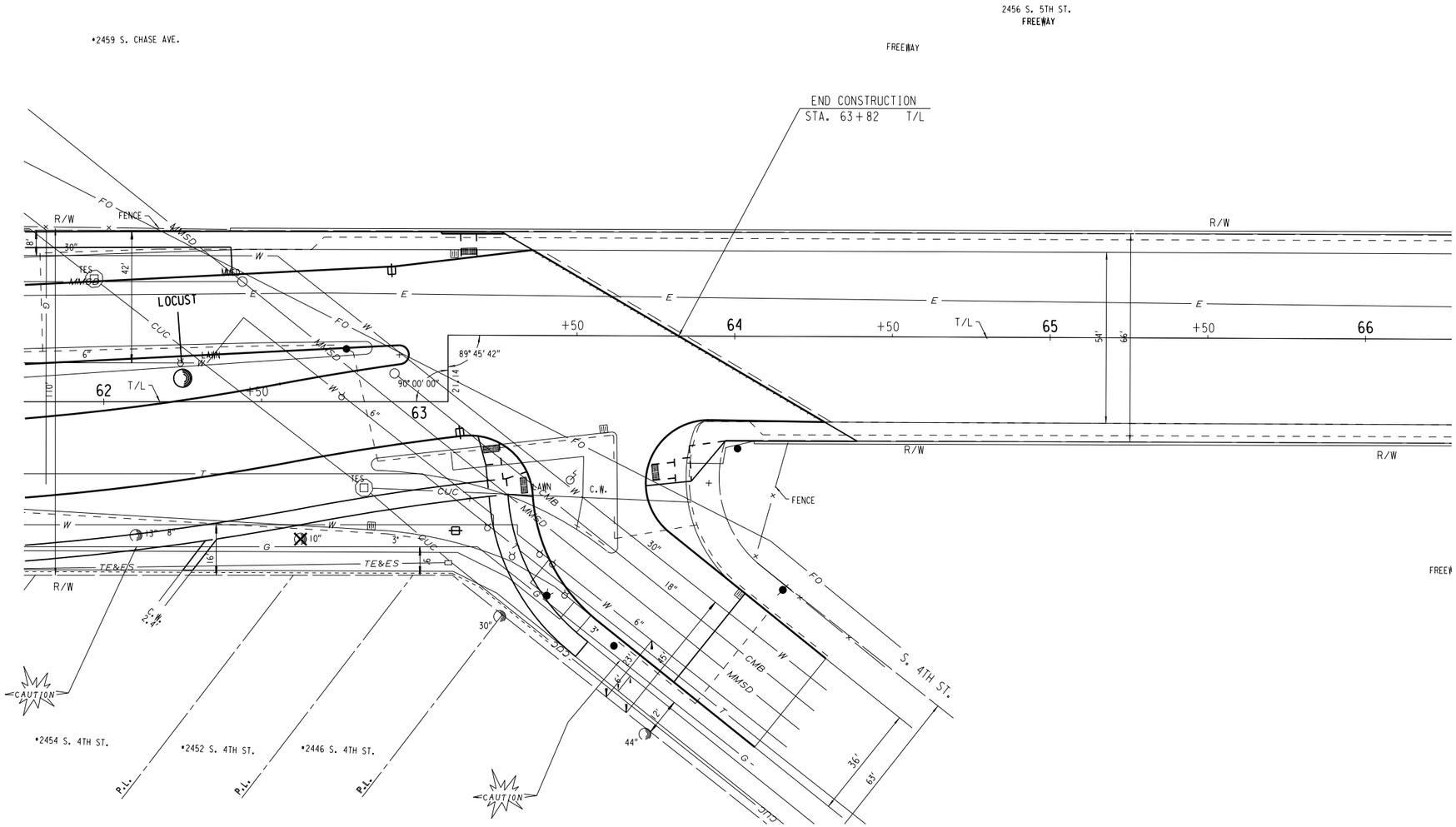
PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 160	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 56-62.DGN

REVISED DATE: 02-10-2018 BY PN



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

◑ - PLANT NEW TREE (TYPE)

⊠ - CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

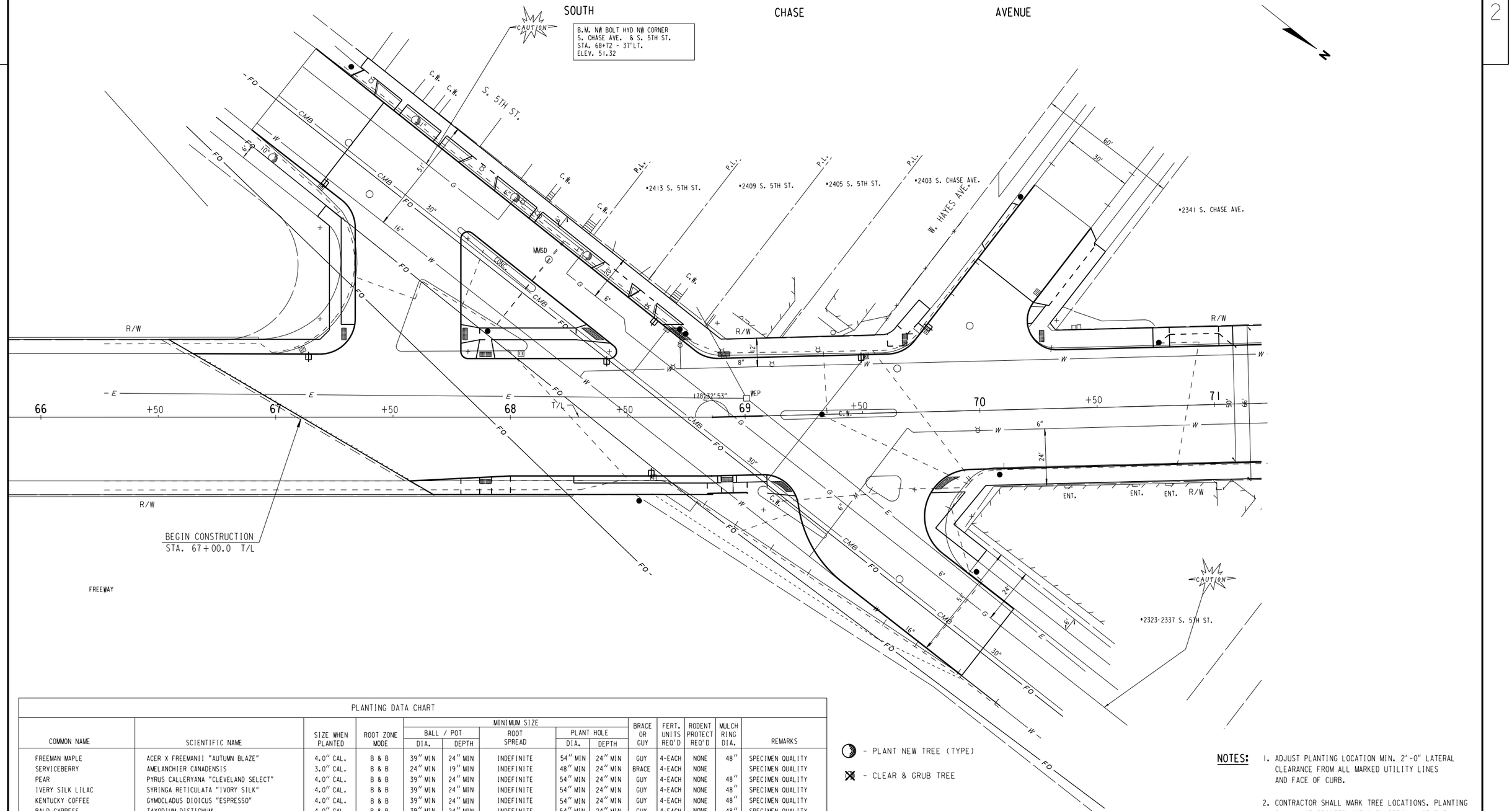
NOTES:

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 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 161	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 62-66.DGN

REVISED DATE: 02-10-2018 BY PN



PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT			PLANT HOLE						
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	ROOT SPREAD	DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

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 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 162	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 66-71.DGN

REVISED DATE: 02-10-2018 BY PN

SOUTH CHASE AVENUE

S. 5TH PL.

S. 6TH ST.

*2341 S. CHASE AVE.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

ASPH. PARKING

*2265-2279 S. CHASE AVE.

LOCUST LOCUST LOCUST

SIGNATURE BED NEW DESIGN

71 72 73 74 75

W. LINCOLN AVE.

*550 W. LINCOLN AVE.

*525 W. LINCOLN AVE.

5TH ST.

CONC. 20' ALLEY

BRICK

LAWN

CAUTION

N

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
FREEMAN MAPLE	ACER X FREEMANII "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SERVICEBERRY	AMELANCHIER CANADENSIS	3.0" CAL.	B & B	24" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE		SPECIMEN QUALITY
PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
IVERY SILK LILAC	SYRINGA RETICULATA "IVORY SILK"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE	GYMOCLADUS DIOICUS "ESPRESSO"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
BALD CYPRESS	TAXODIUM DISTICHUM	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
HORNBEAM	CARPINUS CAROLINIANA	3.0" CAL.	B & B	39" MIN	18" MIN	INDEFINITE	48" MIN	18" MIN	GUY	3-EACH	NONE	48"	SPECIMEN QUALITY
ENGLISH OAK	QUERCUS ROBUR "CRIMSON SPIRE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
SUNBURST LOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
ELM	ULUMUS CARPINIFOLIA "ACCOLADE"	3.0" CAL.	B & B	32" MIN	19" MIN	INDEFINITE	48" MIN	24" MIN	BRACE	4-EACH	NONE	48"	SPECIMEN QUALITY

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

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 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TREE REMOVAL AND PLANTING	SCALE FEET 0' 40'	SHEET NO: 163	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TREE 71-75.DGN

REVISED DATE: 02-10-2018 BY PN

2

N

W. OKLAHOMA AVE.

1

SOUTH M3-3

38 M1-6

J4-1 (2S)

SIGNAL POLE
MOUNT UP HIGH

STH 38

E. OHIO AVE.

E. EUCLID AVE.

E. OKLAHOMA AVE.

E. GAUR CIR.

E. MANTOBA ST.

E. DAKOTA ST.

REMOVE

NORTH 38

2

NORTH M3-1

38 M1-6

J4-1 (2S)

SIGNAL POLE
MOUNT UP HIGH

SHEET 1 OF 3

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING - ROUTE MARKERS	SHEET 164	E

FILE NAME : J:\projects\D2_20600038\SIGN\023201_PS.dgn PLOT DATE : 05-SEP-2017 07:40 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 200:1

2

2

NO SIGNS ON
THIS SHEET

N

E. ROSEDALE AVE.

W. ARTHUR AVE.

S. 3RD ST.

STH 38

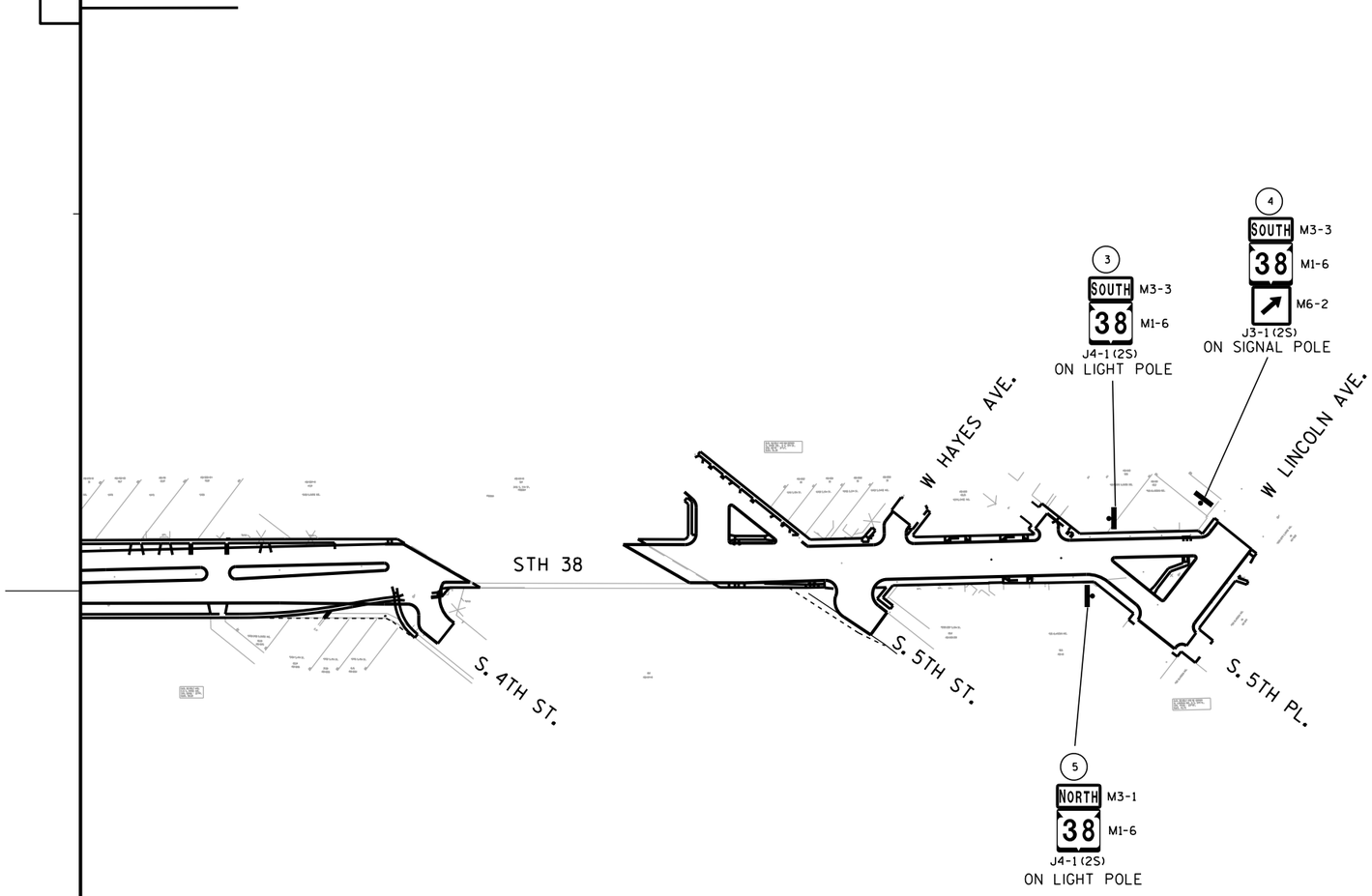
E. MONTANA ST.

S. 1ST ST.

SHEET 2 OF 3

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING - ROUTE MARKERS	SHEET 165	E

2



SHEET 3 OF 3

PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING - ROUTE MARKERS	SHEET 166	E

FILE NAME : J:\projects\D2_20600038\SIGN\023203_PS.dgn PLOT DATE : 05-SEP-2017 07:40 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 200:1

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.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

20 LIGHT POLES AND TRAFFIC STANDARDS INSTALLED BEHIND THE CURB MUST MEET A MINIMUM DISTANCE OF 24 INCHES FROM THE FACE OF CURB TO THE CURB SIDE FACE OF THE POLE OR TRAFFIC STANDARD.

21 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

22 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

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

2

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2060–00–76 Chase Avenue\traffic signals 75%.dgn PLOT DATE : 04–NOV–2017 09:55 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

As-Built Guidelines:

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, or record all changes in Red ink Only on the As-Let (Design) paper drawings. The engineer will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

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.

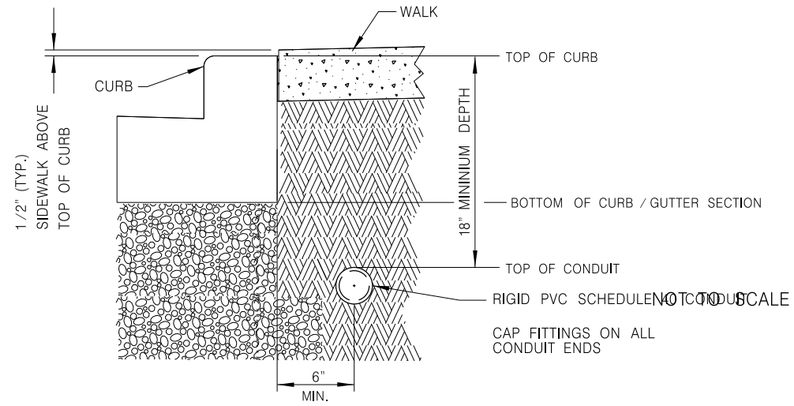
< Locate and clearly label all conduit runs, fittings, splice vaults, pull boxes, meter pedestals, concrete bases, transformers, poles and other appurtenances in two directions. Swing ties should be made from objects that are permanent in nature and visible on the finished surface.
< Street names shall 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

2

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

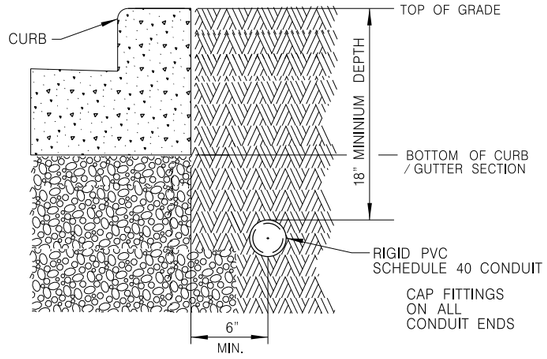
TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

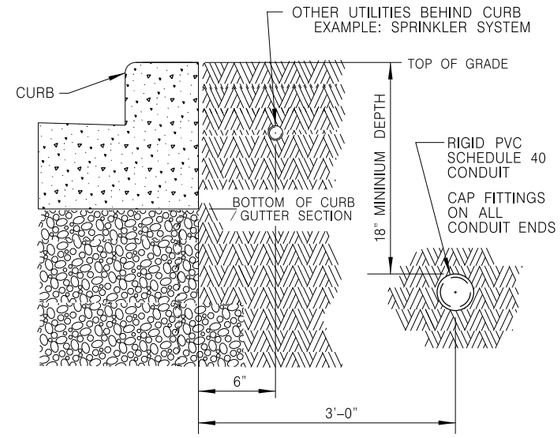
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

CONDUIT TO BE PLACED 6" ON CENTER DIRECTLY BEHIND CURB, UNLESS NOTED OR APPROVED BY ENGINEER.



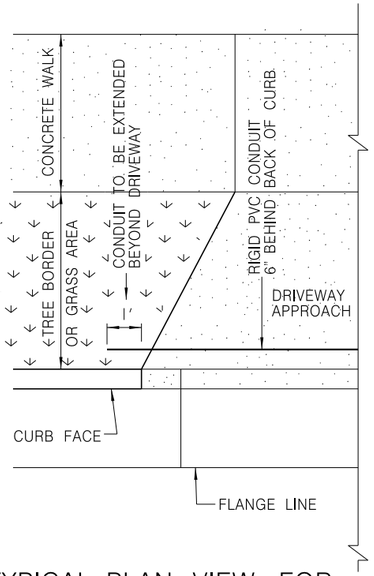
DETAIL "C"



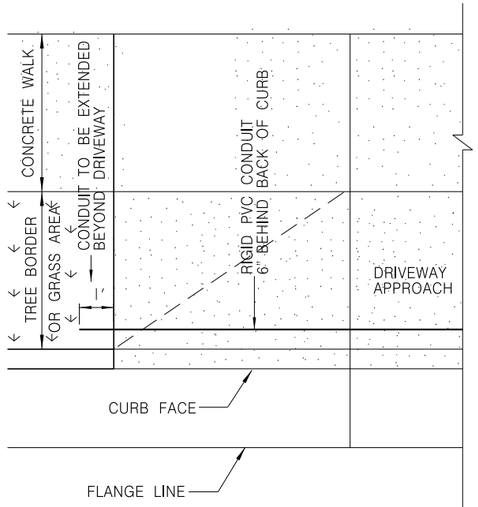
100 DETAIL "B" & "C" — NOT TO SCALE

TYPICAL CONDUIT INSTALLATION BEHIND CURB

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

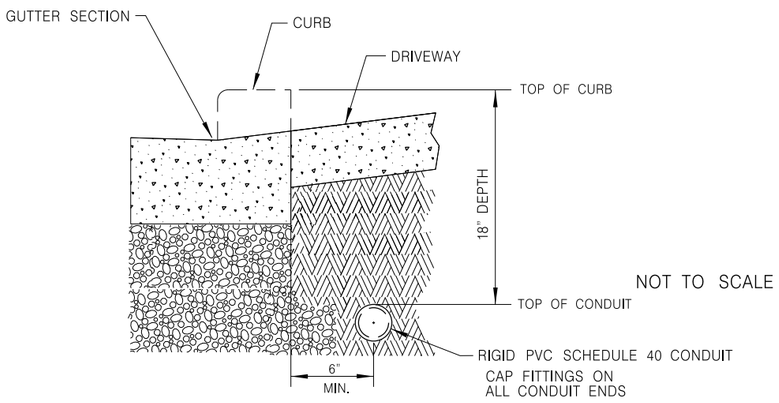


TYPICAL PLAN VIEW FOR FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR DEPRESSED DRIVEWAY

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



NOT TO SCALE

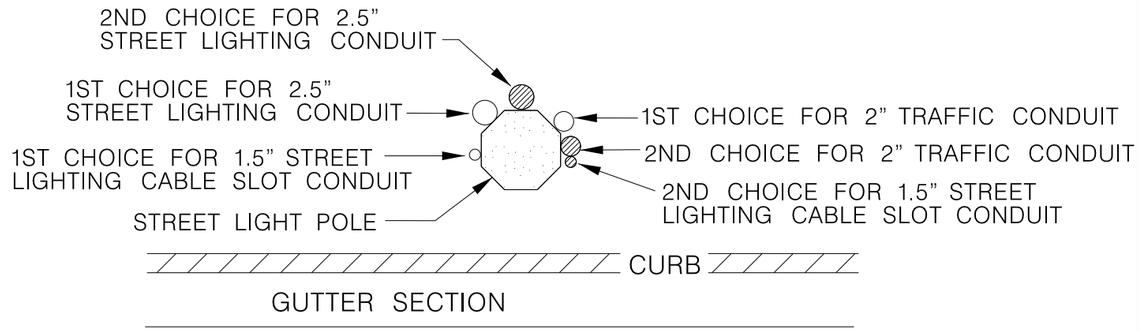
101 DETAIL

TYPICAL CONDUIT INSTALLATION UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

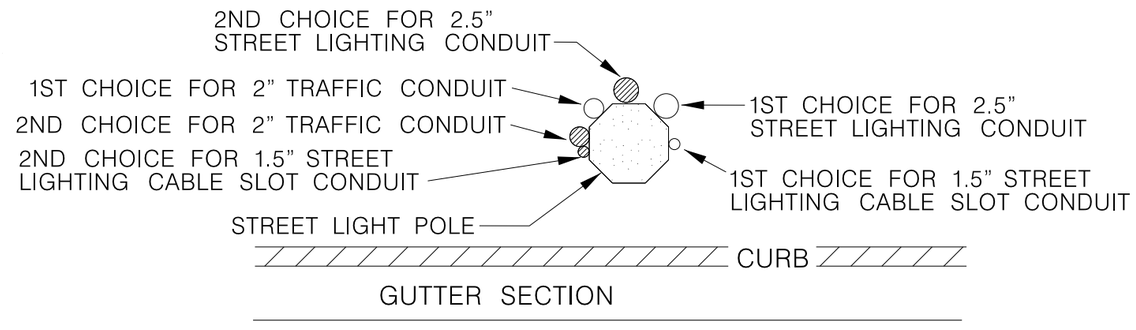
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

NOTE: CAP FITTINGS ON CONDUIT ENDS



DIRECTION OF TRAFFIC AT CURB



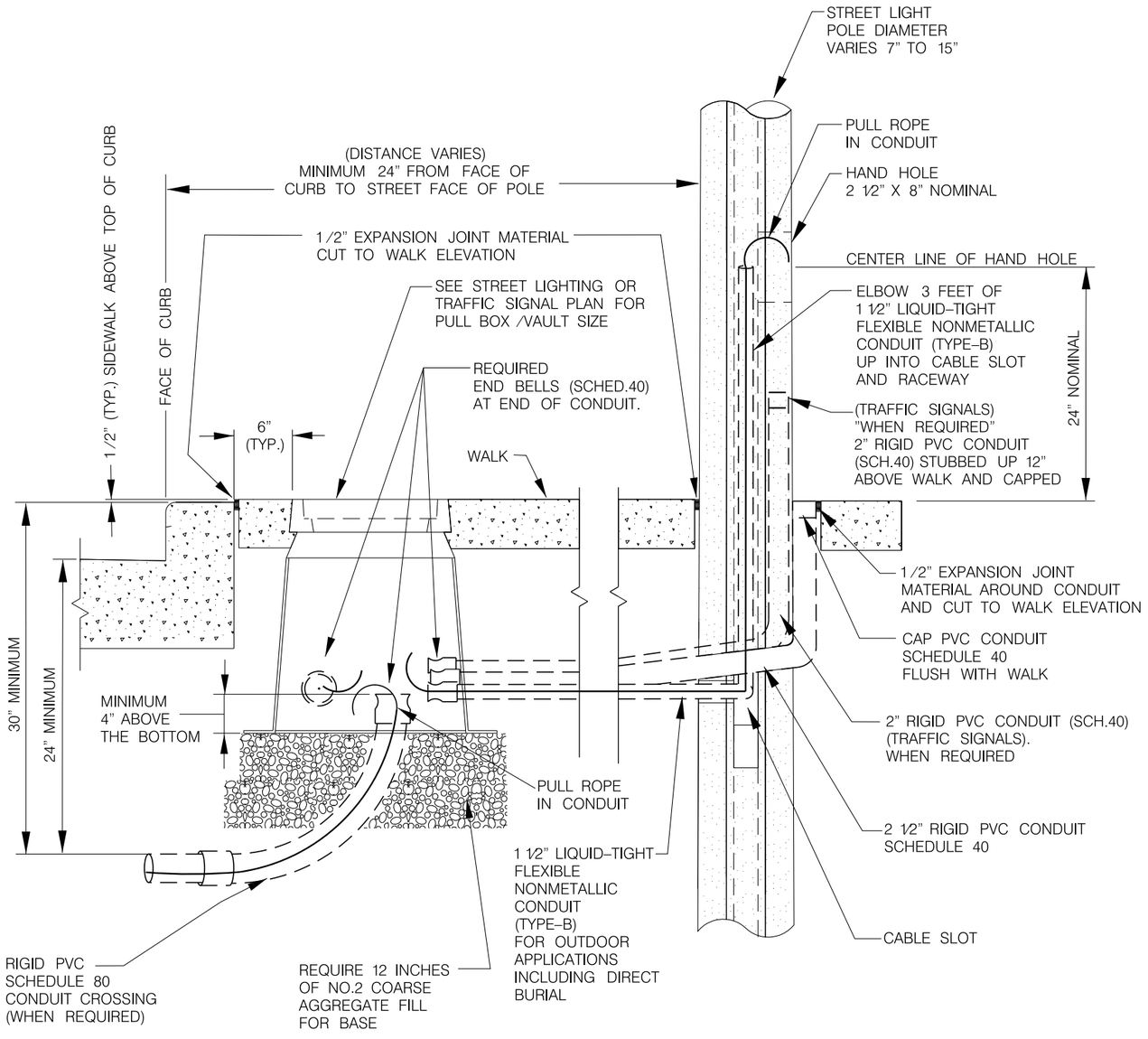
DIRECTION OF TRAFFIC AT CURB

104 DETAIL

TYPICAL TRAFFIC SIGNAL RISER AND STREET LIGHTING CONDUIT LOCATIONS ON LIGHT POLES DEPENDING ON DIRECTION OF TRAFFIC AT CURB

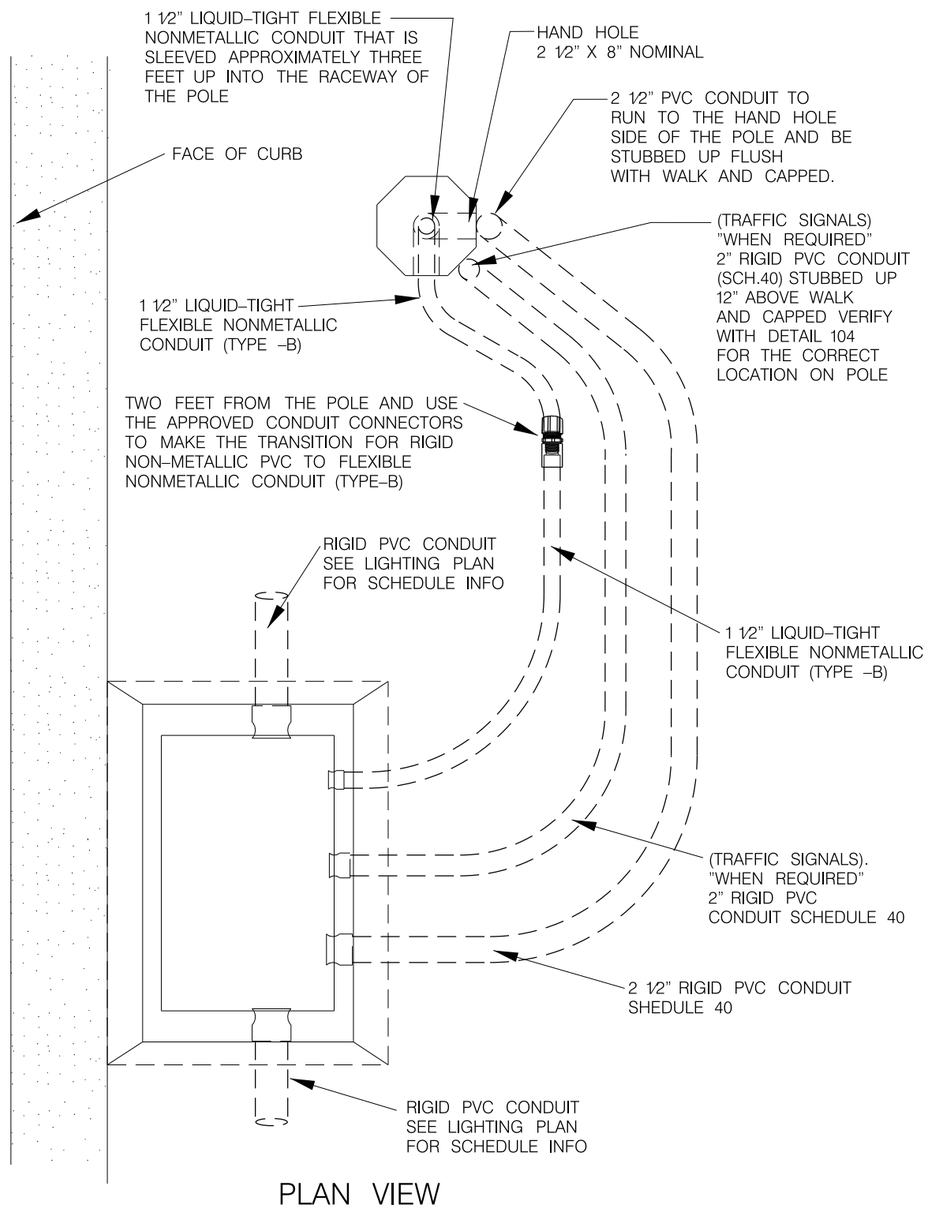
NOT TO SCALE

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



SECTION VIEW

NOT TO SCALE



PLAN VIEW

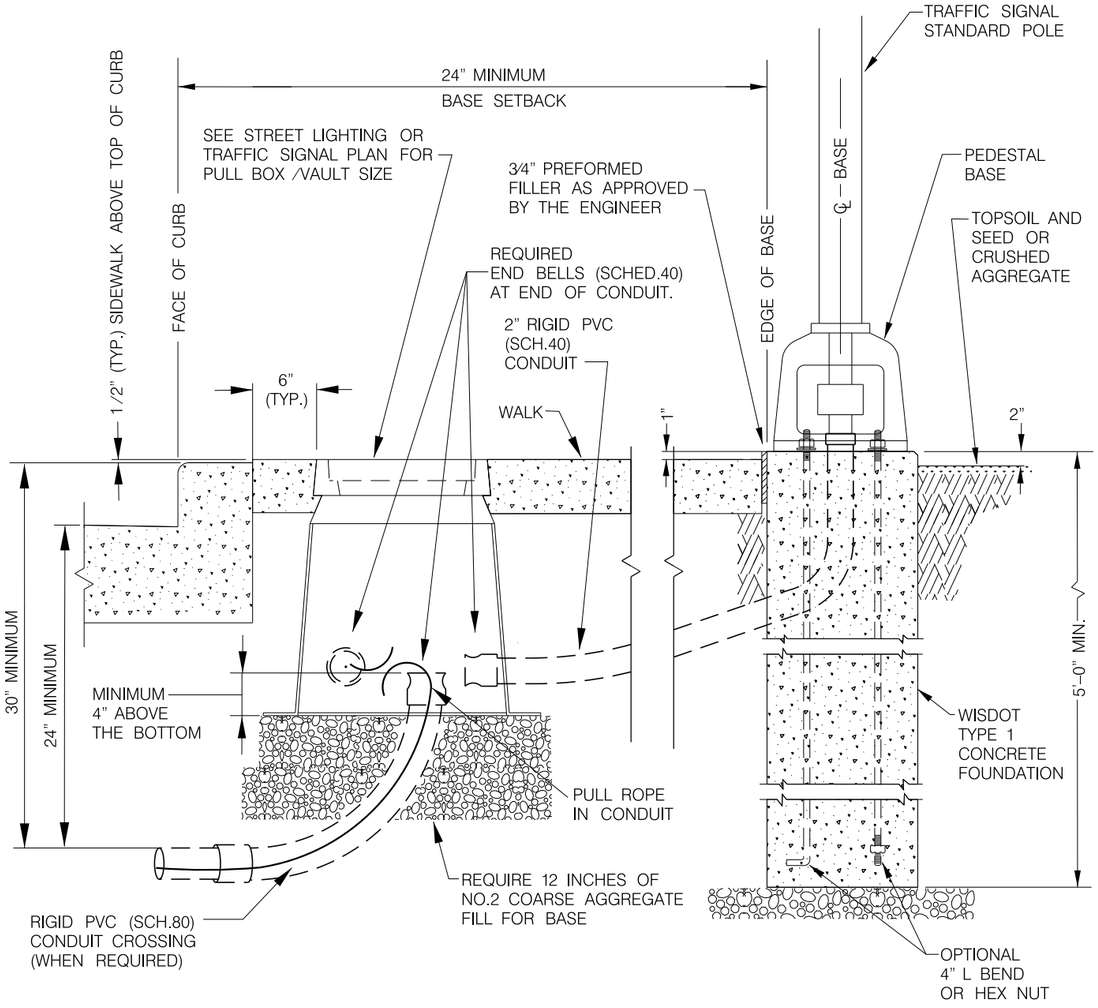
NOT TO SCALE

108A DETAIL VERSION

TYPICAL CONDUIT INSTALLATION FROM PULL BOX / VAULT TO POLE

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

NOT TO SCALE

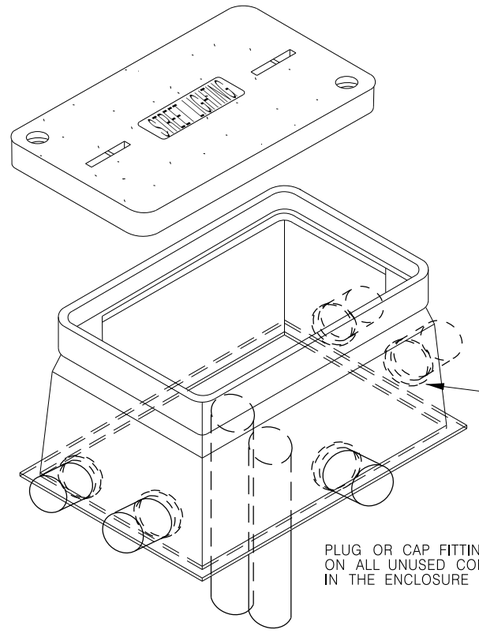


109 DETAIL

TYPICAL CONDUIT INSTALLATION FROM PULL BOX /VAULT TO SIGNAL STANDARD AND TYPICAL BASE INSTALLATION

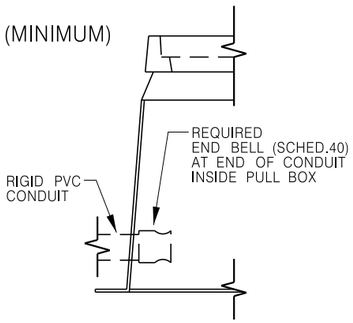
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

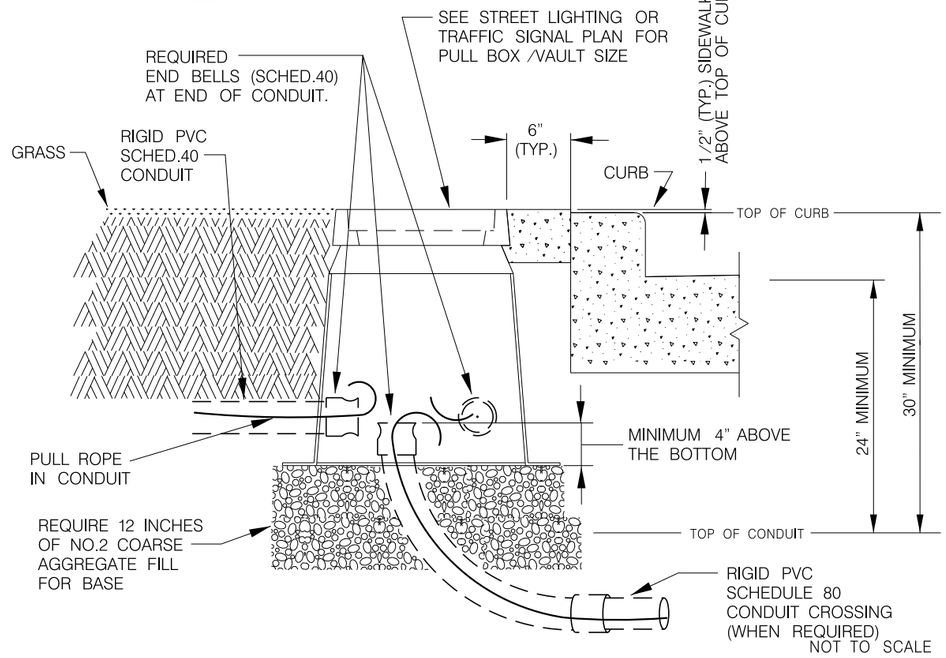
NOT TO SCALE



HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /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)





NOT TO SCALE

112 DETAIL

TYPICAL PULL BOX /VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

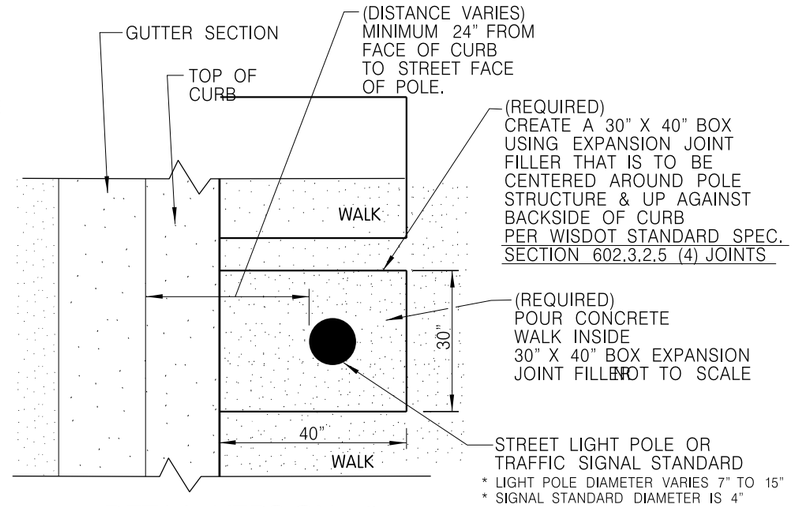
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

2

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



NOT TO SCALE

122

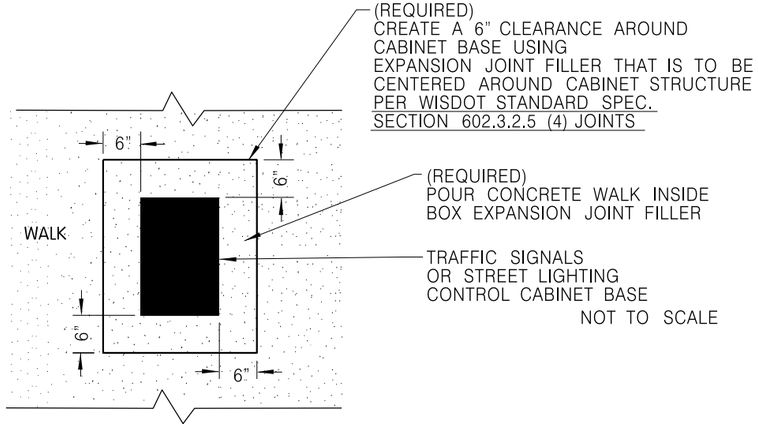
DETAIL VERSION #1

TYPICAL 30" X 40" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING AND TRAFFIC SIGNAL FACILITIES

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

THE CONTRACTOR IS REQUIRED TO INSTALL EXPANSION JOINT FILLER INTO THE CONCRETE WALK, WHICH SHALL BE 1/2" WIDE MINIMUM TO BE USED TO CREATE A SEPARATION BETWEEN A SMALL CONCRETE AREA AROUND THE TRAFFIC & STREET LIGHTING FACILITIES AND THE REST OF THE CONCRETE WALK.

THE BOX SIZE OF THE AREA CREATED USING THE EXPANSION JOINT FILLER IS STANDARD AROUND LIGHT POLES AND TRAFFIC SIGNALS, BUT WILL VARY WHEN PLACED AROUND TRAFFIC & LIGHTING CONTROL CABINETS.



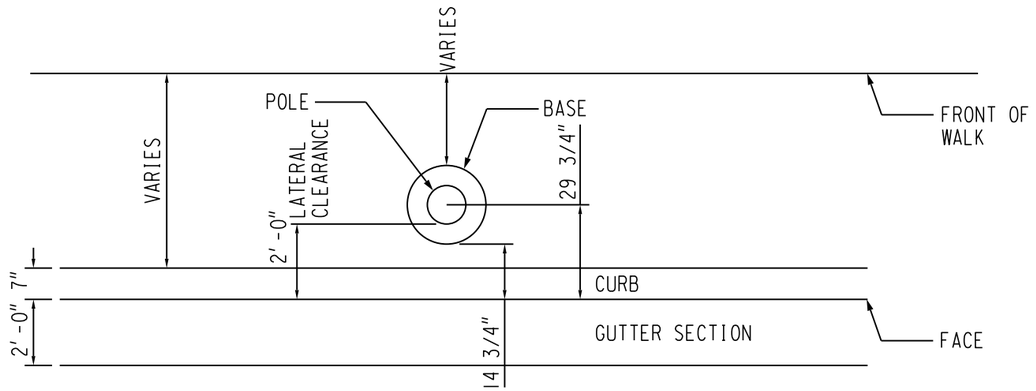
NOT TO SCALE

122

DETAIL VERSION #2

TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

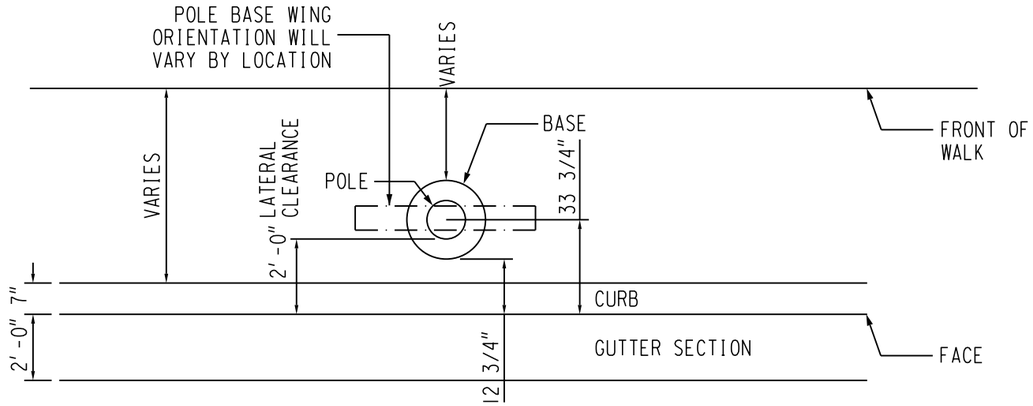
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



MAST ARM POLE BASE INSTALLATION DETAIL

30" DIAMETER BASE
TYPE 10 BASE

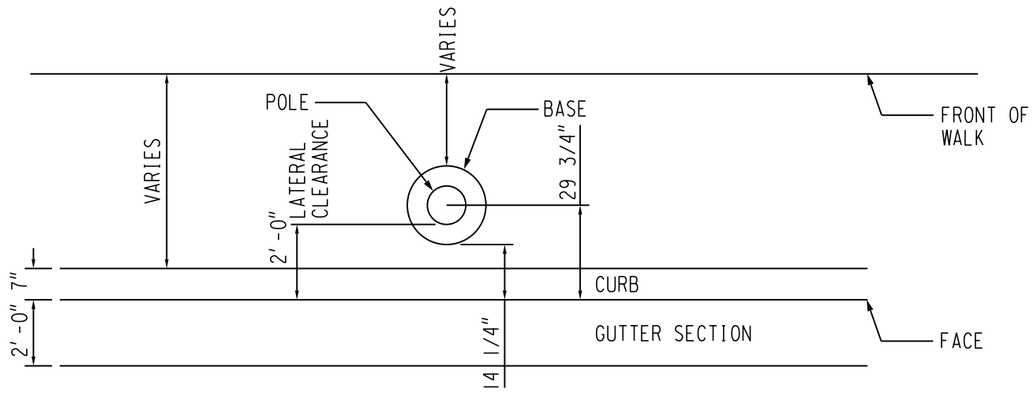
11.50" DIAMETER POLE
TYPE 9 POLE
TYPE 10 POLE
TYPE 10 SPECIAL POLE



MAST ARM POLE BASE INSTALLATION DETAIL

42" DIAMETER BASE
TYPE 13 BASE

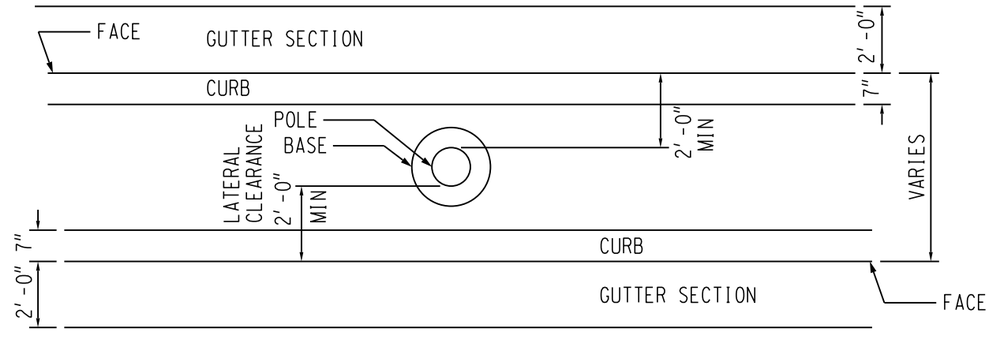
19.50" DIAMETER POLE
TYPE 12 POLE
TYPE 13 POLE



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

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).

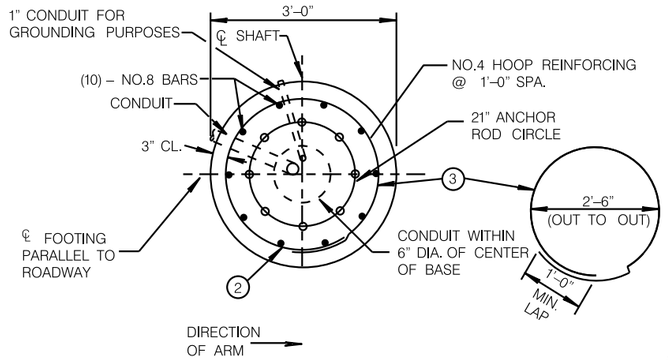
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

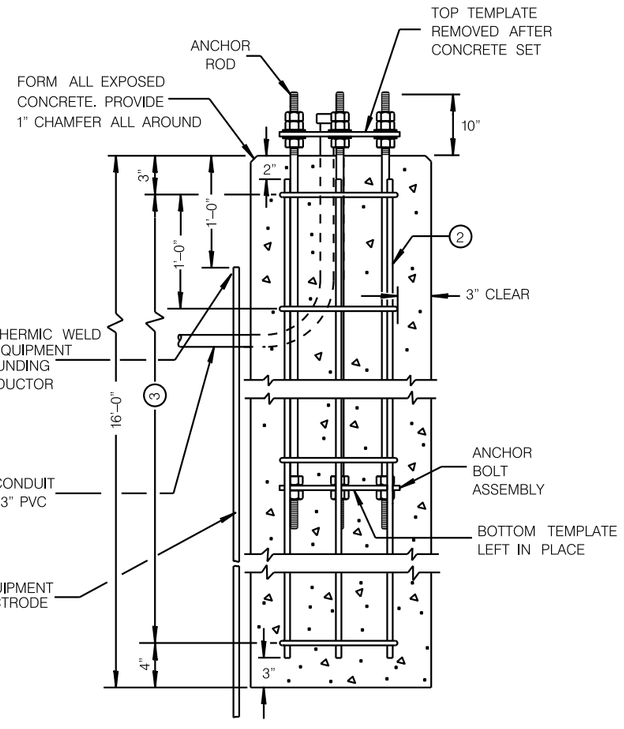
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

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

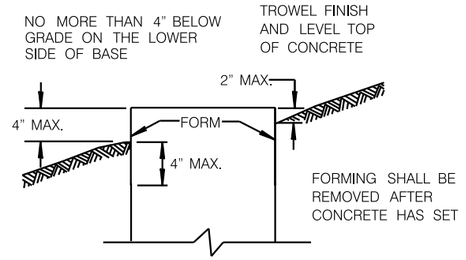
(3) (17) NO. 4 X 9'–0" BAR STEEL REINFORCEMENT @ 1'–0" C–C.

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.

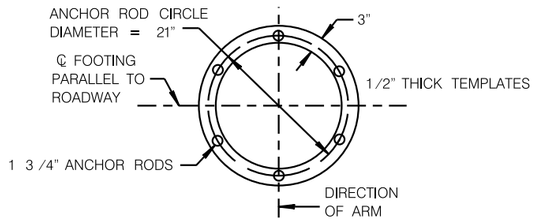




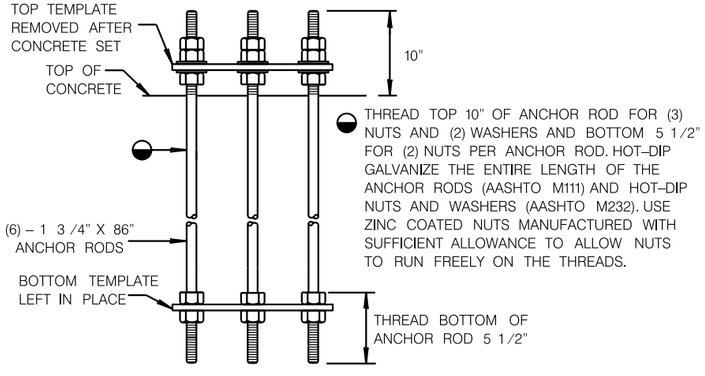
CONCRETE BASE TYPE 10 SPECIAL



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

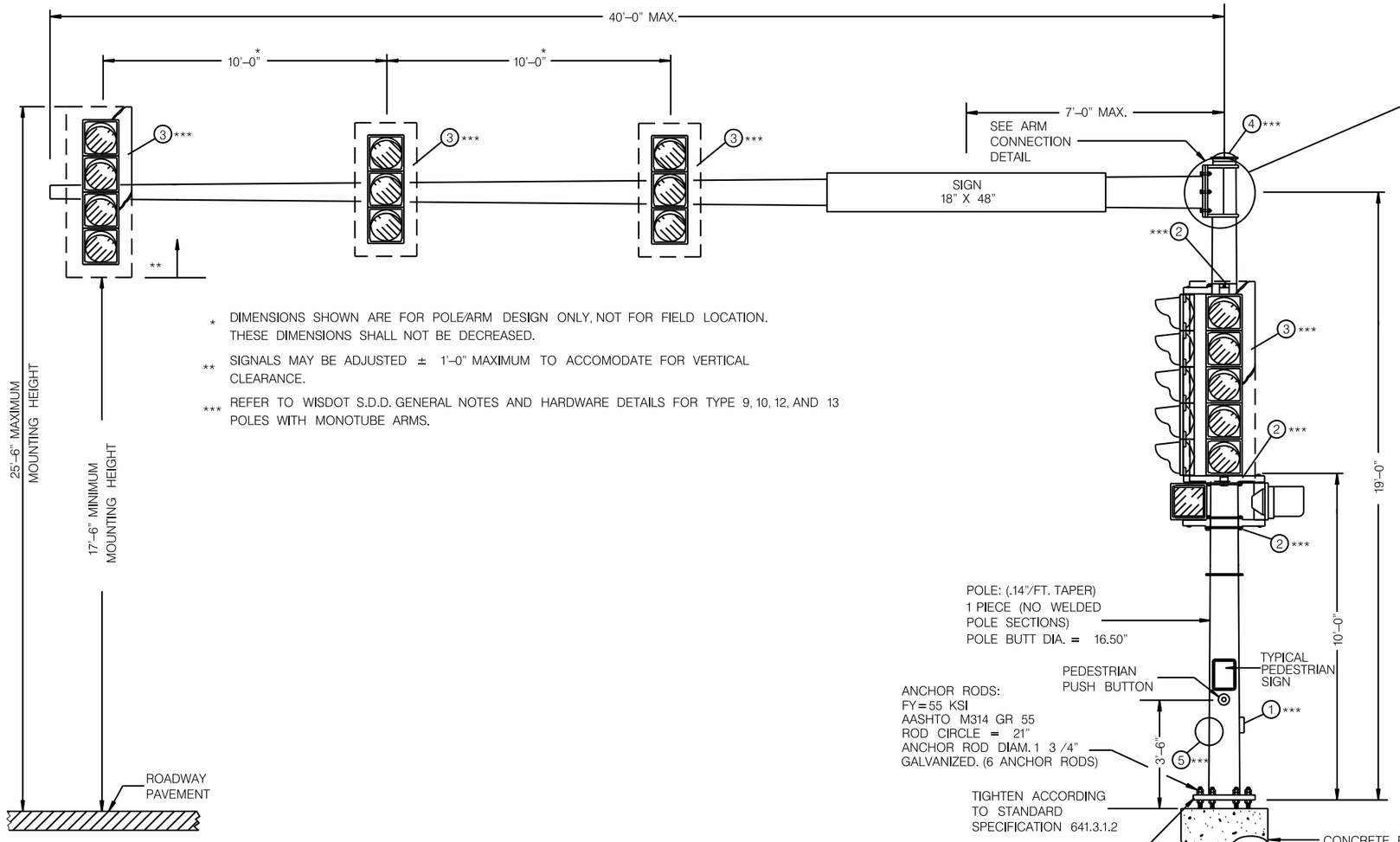
CONCRETE BASE TYPE 10 SPECIAL

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)

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2060–00–76 Chase Avenue\traffic signals 75%.dgn
PLOT DATE : 04–NOV–2017 10:07
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

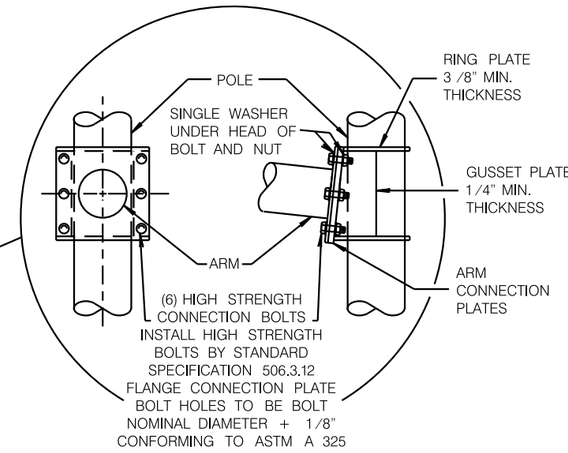
2



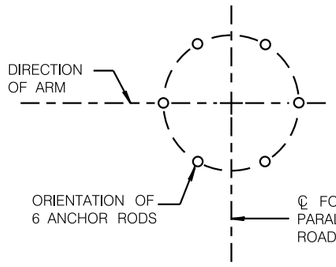
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** 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

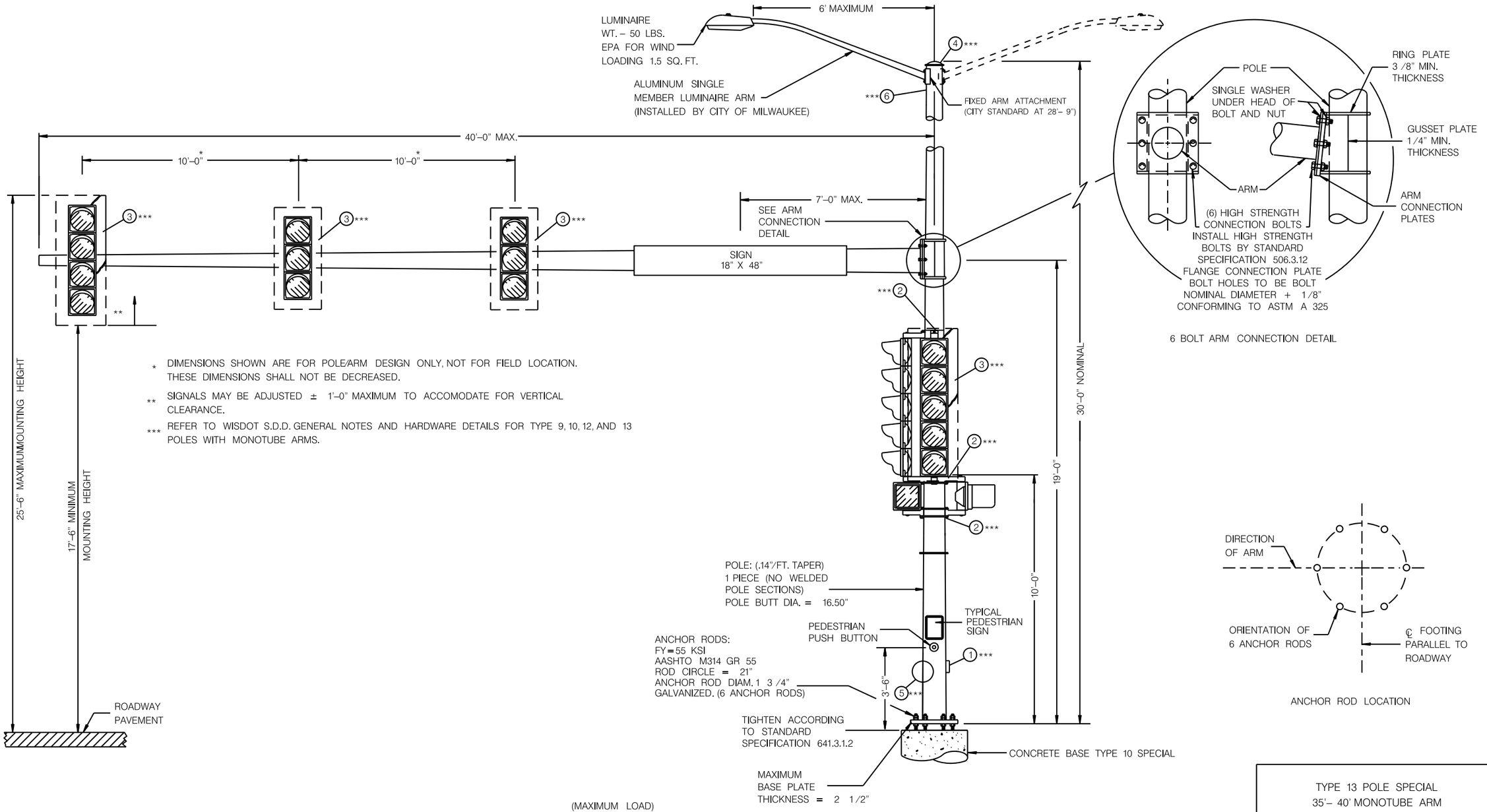
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 175	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)

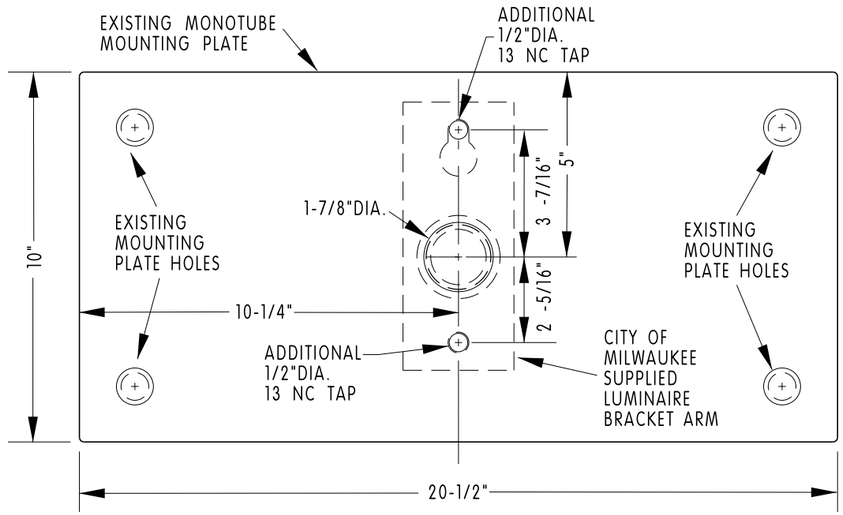
TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

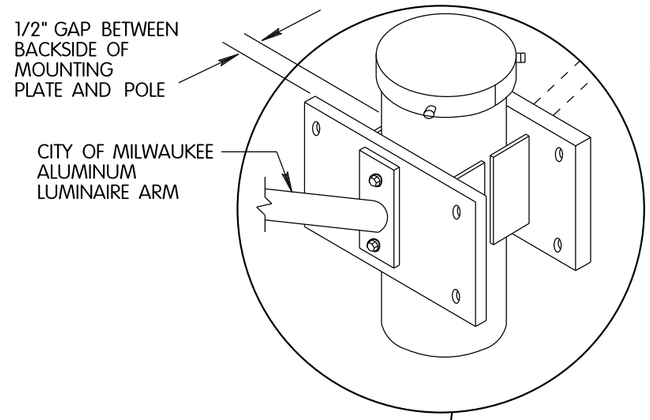
REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)
REVISED: JULY 2015 (DATE) 2015 DESIGN UPDATE (REVISION)

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT DETAILS	SHEET 176	E

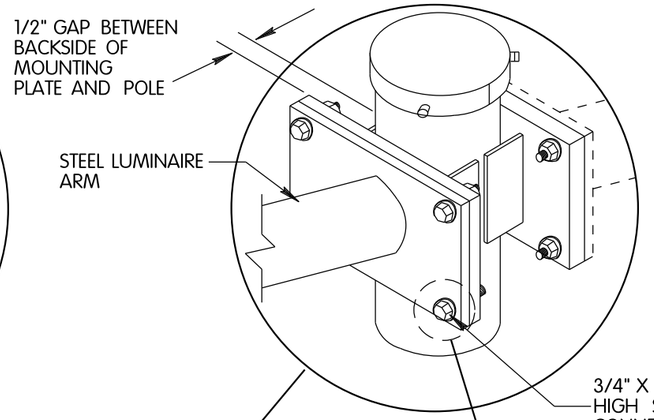


ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE

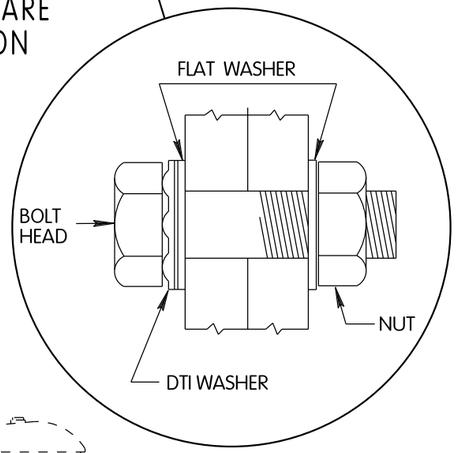
NOT TO SCALE



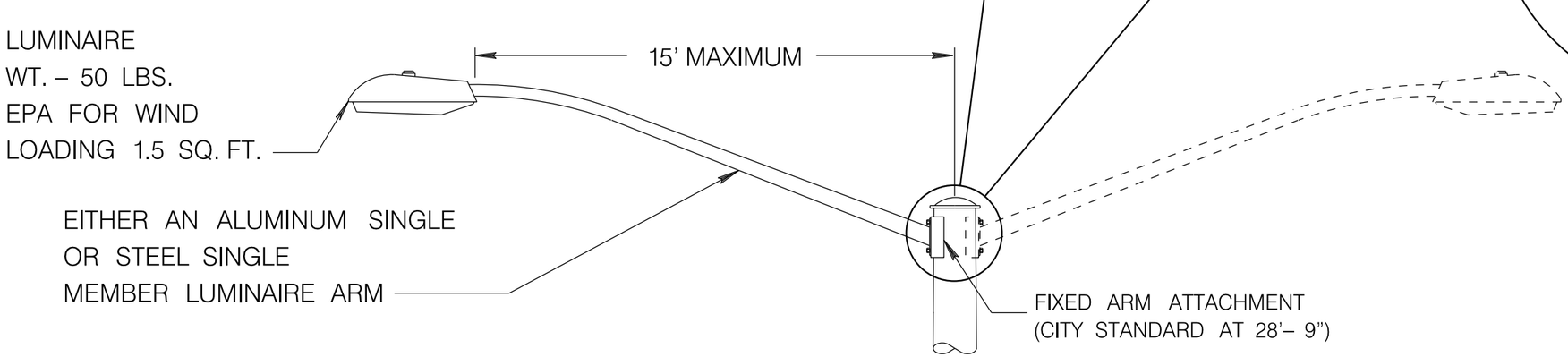
ALUMINUM LUMINIARE ARM OPTION



STEEL LUMINIARE ARM OPTION

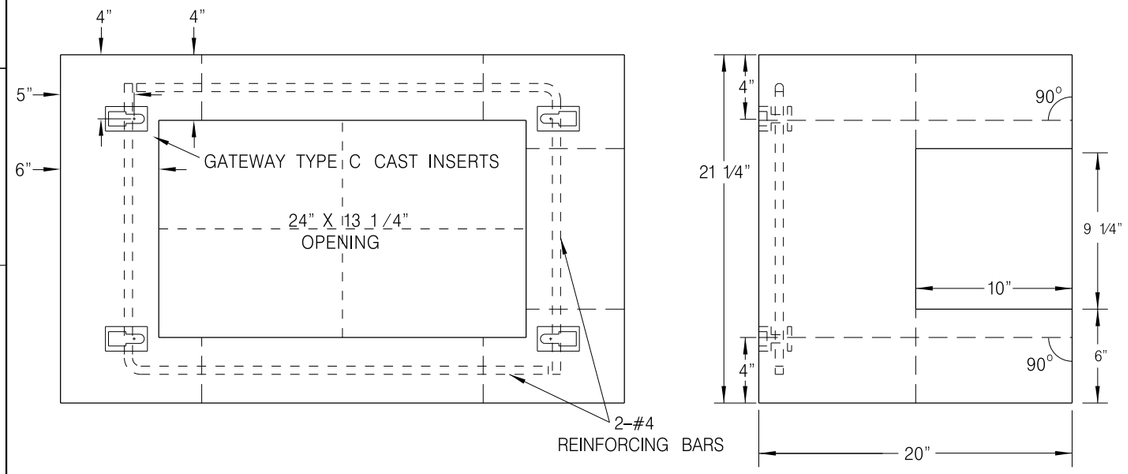


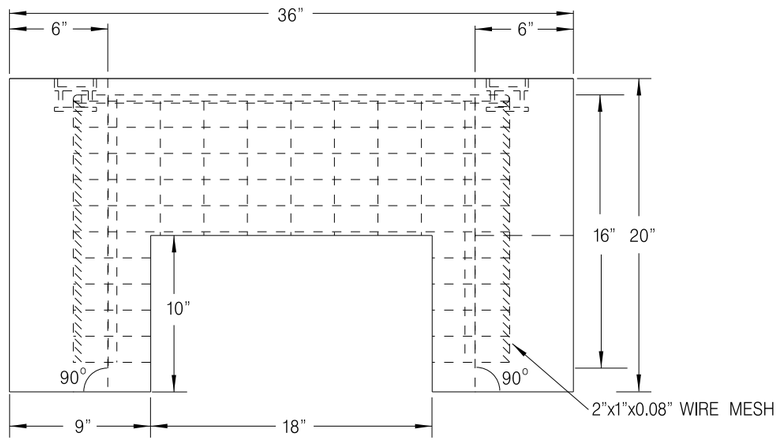
RECOMMENDED BOLT ASSEMBLY DETAIL



ADDITIONAL MOUNTING HOLES IN LUMINAIRE MOUNTING PLATE FOR POLES: TYPE 10 TYPE 13 SPECIAL TYPE 13

NOT TO SCALE





NOT TO SCALE

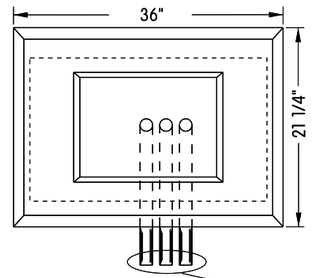
6 BAG MIX #1 STONE

COMM. CODE XXXX-XXX PRE-CAST CONCRETE FOUNDATION TRAFFIC SIGNAL CABINETS P1 AND P2				
TRAFFIC ENGINEERING AND ELECTRICAL SERVICES D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 8-30-16	SCALE N.T.S.	DRAWN JAB/JO	CHECKED SCR	APPROVED JCB
SUPERSEDES	REVISED DATE	DRG.		
SUPERSEDED BY	NEW DRG.	C-16-500-T		

125 DETAIL

TYPICAL TRAFFIC CONTROL CABINET CONCRETE FOUNDATION

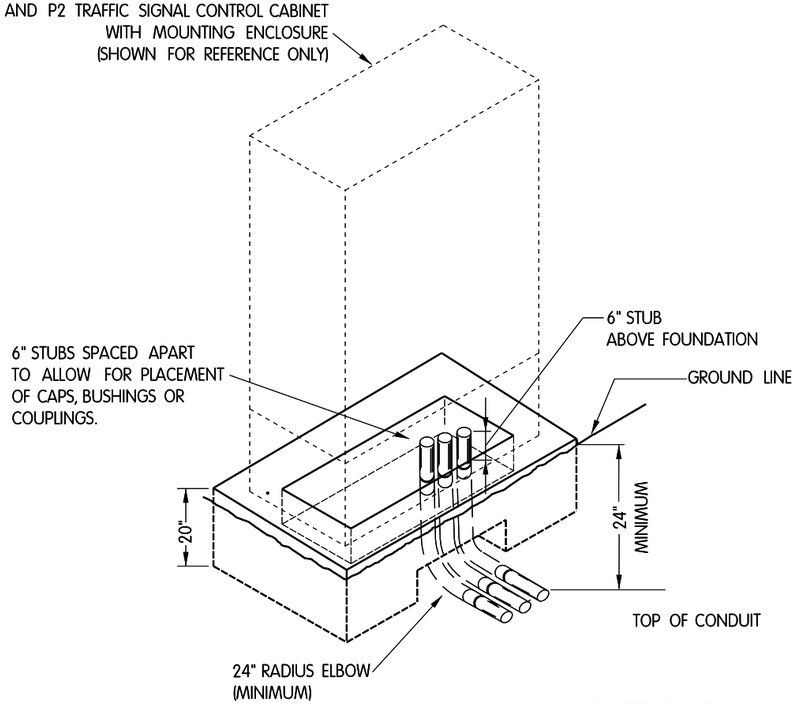
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM TRAFFIC SIGNAL FORCES.
CONTACT DISPATCHER AT (414) 286-3687 FOR SHOP SUPERVISOR.



NOTE:
CONDUIT SHOWN ON PLAN INCIDENTAL. REFER TO STREET LIGHTING AND TRAFFIC SIGNAL CONDUIT PLAN FOR THE QUANTITY & SIZE OF CONDUIT REQUIRED IN THE CONCRETE CONTROL CABINET BASE

PLAN VIEW

STYLE P1 AND P2 TRAFFIC SIGNAL CONTROL CABINET WITH MOUNTING ENCLOSURE (SHOWN FOR REFERENCE ONLY)



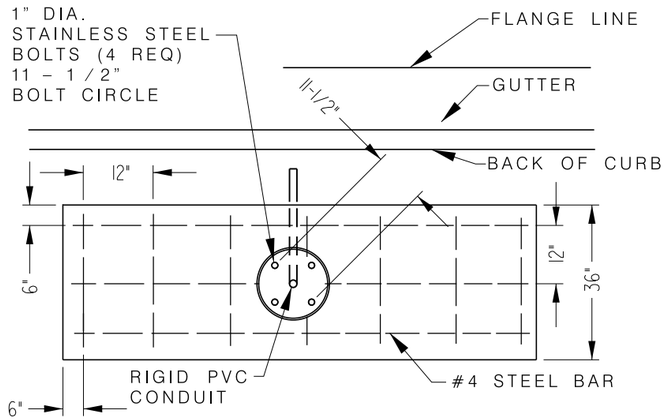
ISOMETRIC VIEW

125B TYPICAL DETAIL

CONDUIT INSTALLATION TO TRAFFIC CONTROL CABINET CONCRETE FOUNDATION

NOT TO SCALE

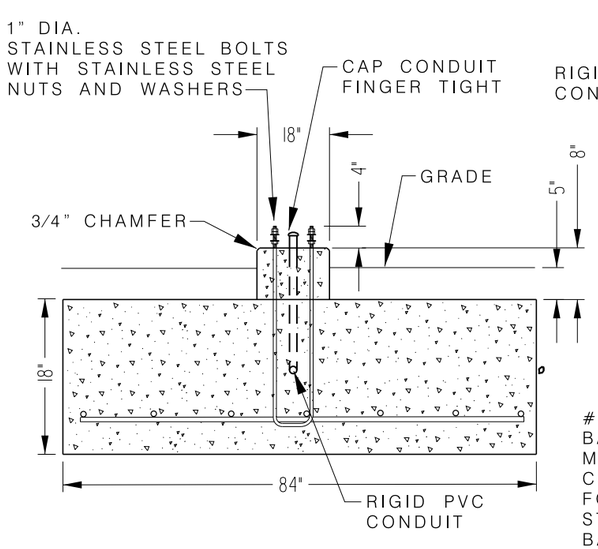
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM CITY OF MILWAUKEE D.P.W.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



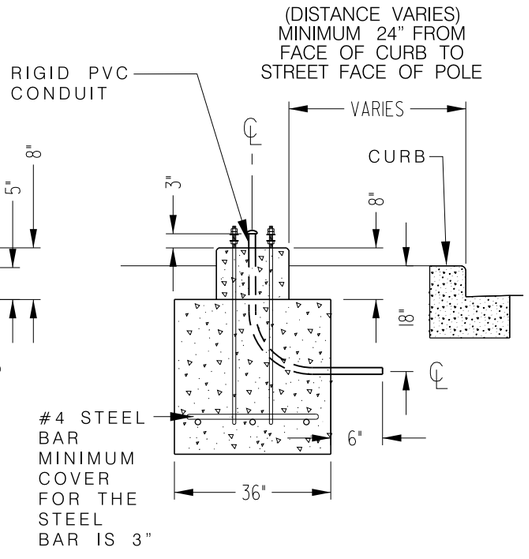
TOP VIEW

SPREAD FOOTING FOR
WISDOT TYPE 2 CONCRETE BASE

CONTACT: ENG-KIE LEE
(DPW) @(414)286-2174



FRONT VIEW



SIDE VIEW

115

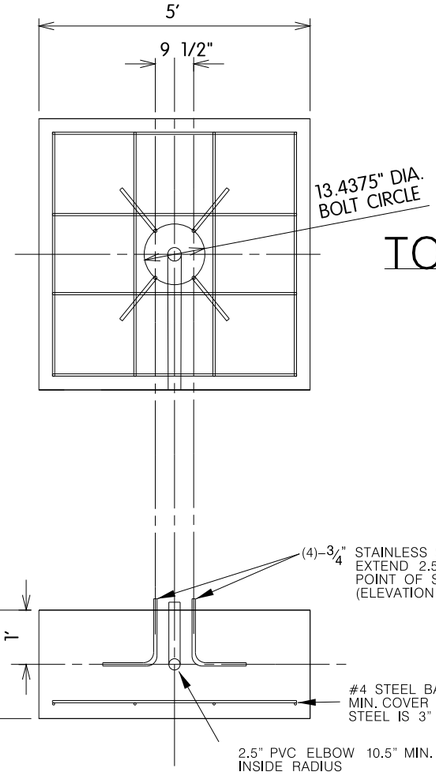
DETAIL

TYPICAL SPREAD FOOTING WITH
CURBSIDE CONDUIT FEED

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

NOT TO SCALE

PLOTDATE



TOP VIEW

FRONT VIEW

CONTACT: JOSEPH BLAKEMAN
(DPW) @(414)286-8020

DETAIL

TYPICAL SPREAD FOOTING OPTION
WISDOT TYPE ONE BASE

SPREAD FOOTING FOR
WISDOT TYPE 1 CONCRETE BASE

BUREAU OF TRAFFIC ENGINEERING
AND
ELECTRICAL SERVICES
D.P.W. CITY OF MILWAUKEE

TRAFFIC CONTROL MATERIAL

DATE	SCALE	DRAWN	CHECKED	APPROVED
6-16-17	Not To Scale	KAP		

SUPERSEDES

DRG. C-17-500-T

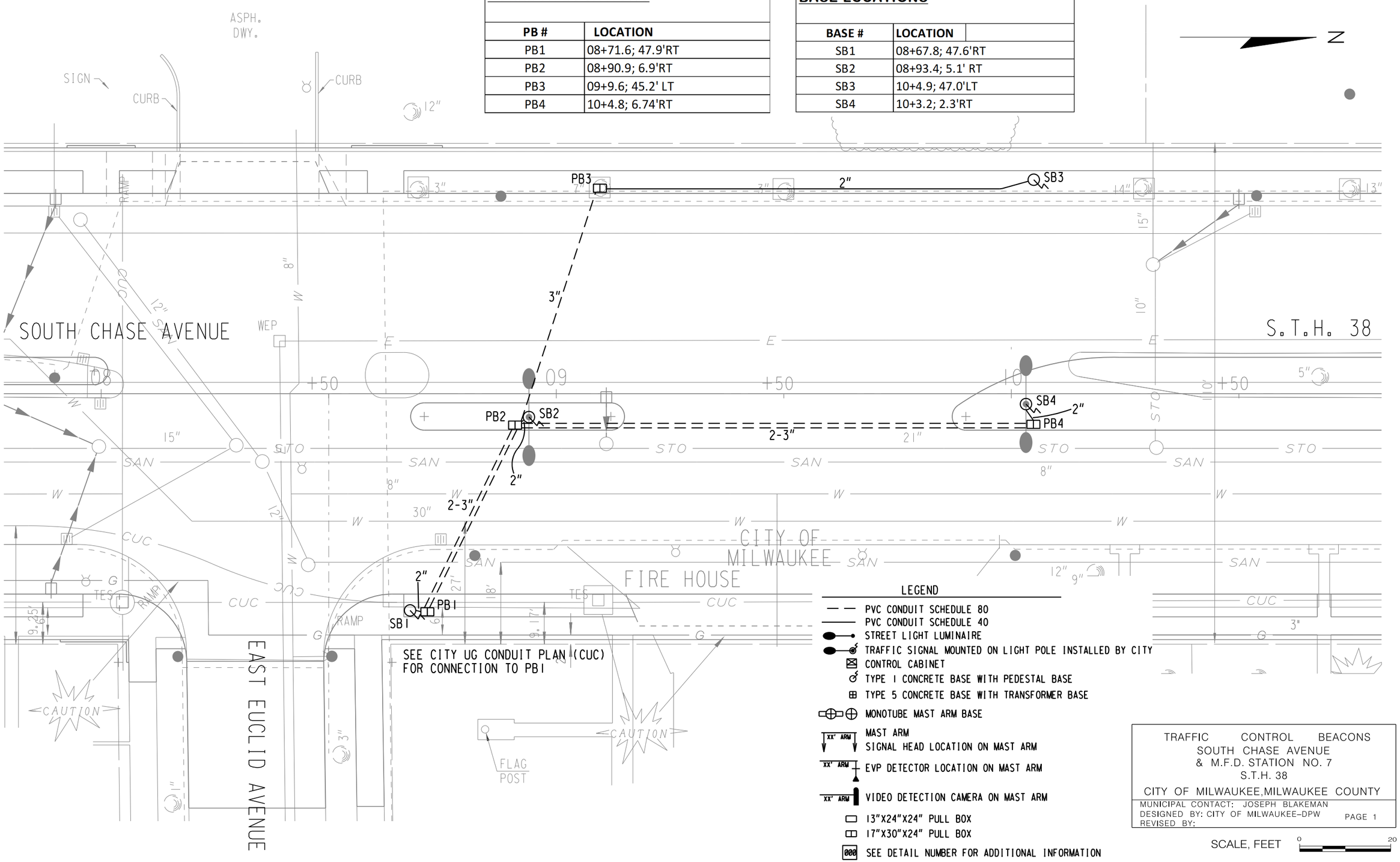
2

PULLBOX LOCATIONS

PB #	LOCATION
PB1	08+71.6; 47.9'RT
PB2	08+90.9; 6.9'RT
PB3	09+9.6; 45.2' LT
PB4	10+4.8; 6.74'RT

BASE LOCATIONS

BASE #	LOCATION
SB1	08+67.8; 47.6'RT
SB2	08+93.4; 5.1' RT
SB3	10+4.9; 47.0'LT
SB4	10+3.2; 2.3'RT



LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE I CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM (xx' ARM) SIGNAL HEAD LOCATION ON MAST ARM
- xx' ARM EVP DETECTOR LOCATION ON MAST ARM
- xx' ARM VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

TRAFFIC CONTROL BEACONS
SOUTH CHASE AVENUE
& M.F.D. STATION NO. 7
S.T.H. 38

CITY OF MILWAUKEE,MILWAUKEE COUNTY

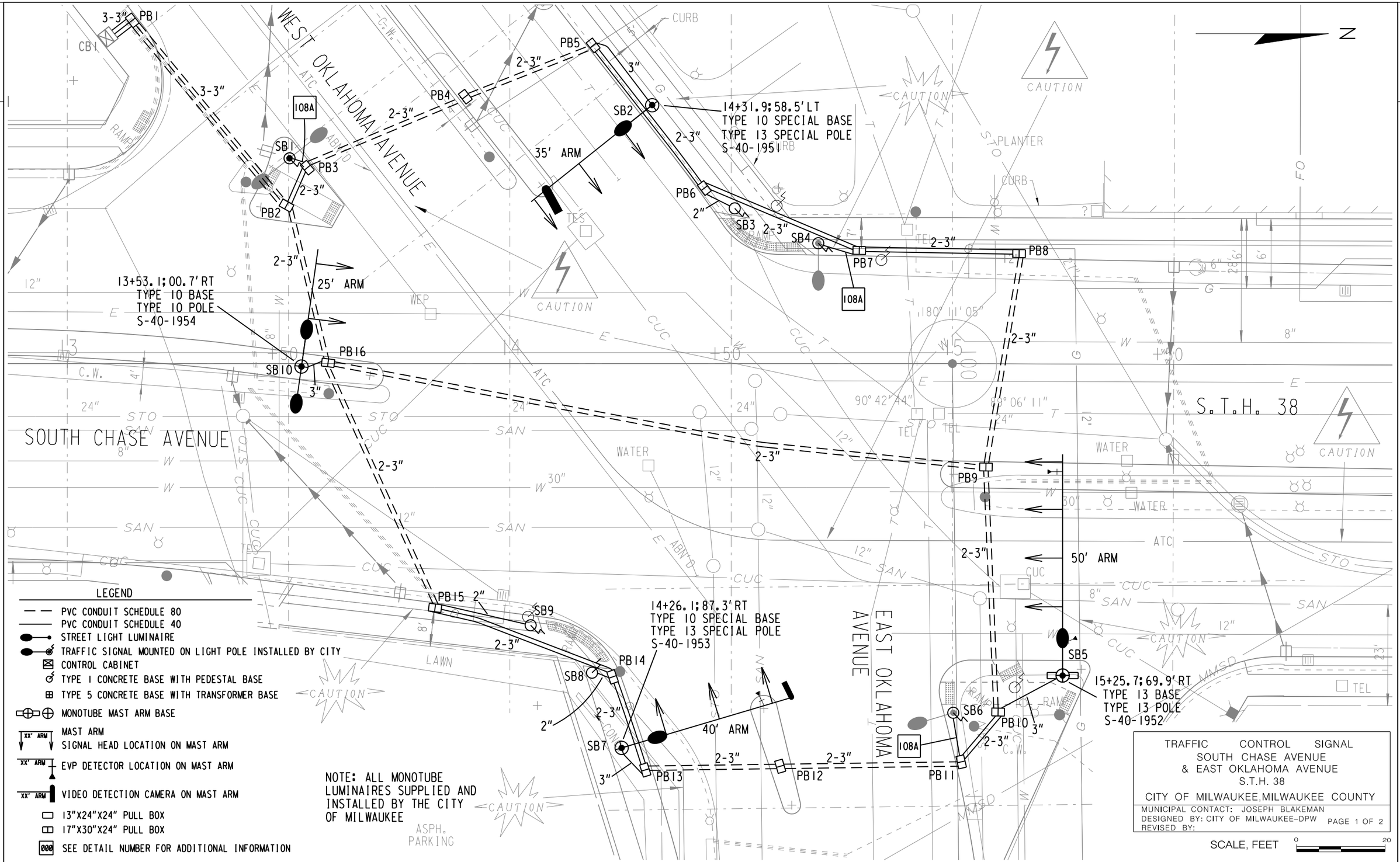
MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 180	E

2



LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE 1 CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM
- XX' ARM — SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM
- XX' ARM — VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE
& EAST OKLAHOMA AVENUE
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 181	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2060-00-76 Chase Avenue\2060-00-76.dgn
PLOT DATE : 19-JUL-2018 13:08
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

PULLBOX LOCATIONS

PB #	LOCATION
PB1	13+14.7; 77.6'LT
PB2	13+49.6; 35.7'LT
PB3	13+49.6; 35.7'LT
PB4	13+89.9; 60.4'LT
PB5	14+18.8; 71.9'LT
PB6	14+43.9; 39.7'LT
PB7	14+78.9; 25.6'LT
PB8	15+15.1; 24.9'LT
PB9	15+7.6; 23.4'RT
PB10	15+10.3; 78.7'RT
PB11	15+1.9; 90.1'RT
PB12	14+61.1; 91.0'RT
PB13	14+30.6; 91.9'RT
PB14	14+23.2; 70.8' RT
PB15	13+83.1; 55.2' RT
PB16	13+58.9; 0.2'LT

BASE LOCATIONS

BASE #	LOCATION
CB1	13+8.8; 73.5'LT
SB1	13+50.2; 46.4'LT
SB2	14+31.9; 58.5'LT
SB3	14+50.8; 35.1'LT
SB4	14+69.7; 27.2'LT
SB5	15+25.7; 69.9'RT
SB6	15+0.2; 78.9'RT
SB7	14+26.1; 87.3'RT
SB8	14+18.6; 69.9'RT
SB9	14+4.7; 59.1'RT
SB10	13+53.1; 0.7'RT

BASE REMOVAL LOCATIONS

SB #	LOCATION
1	14+62;35.7'LT
2	14+84; 23.4 LT
3	15+14;73.2'RT
4	14+4;57.2'RT

2

TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE
& EAST OKLAHOMA AVENUE
S.T.H. 38
CITY OF MILWAUKEE,MILWAUKEE COUNTY

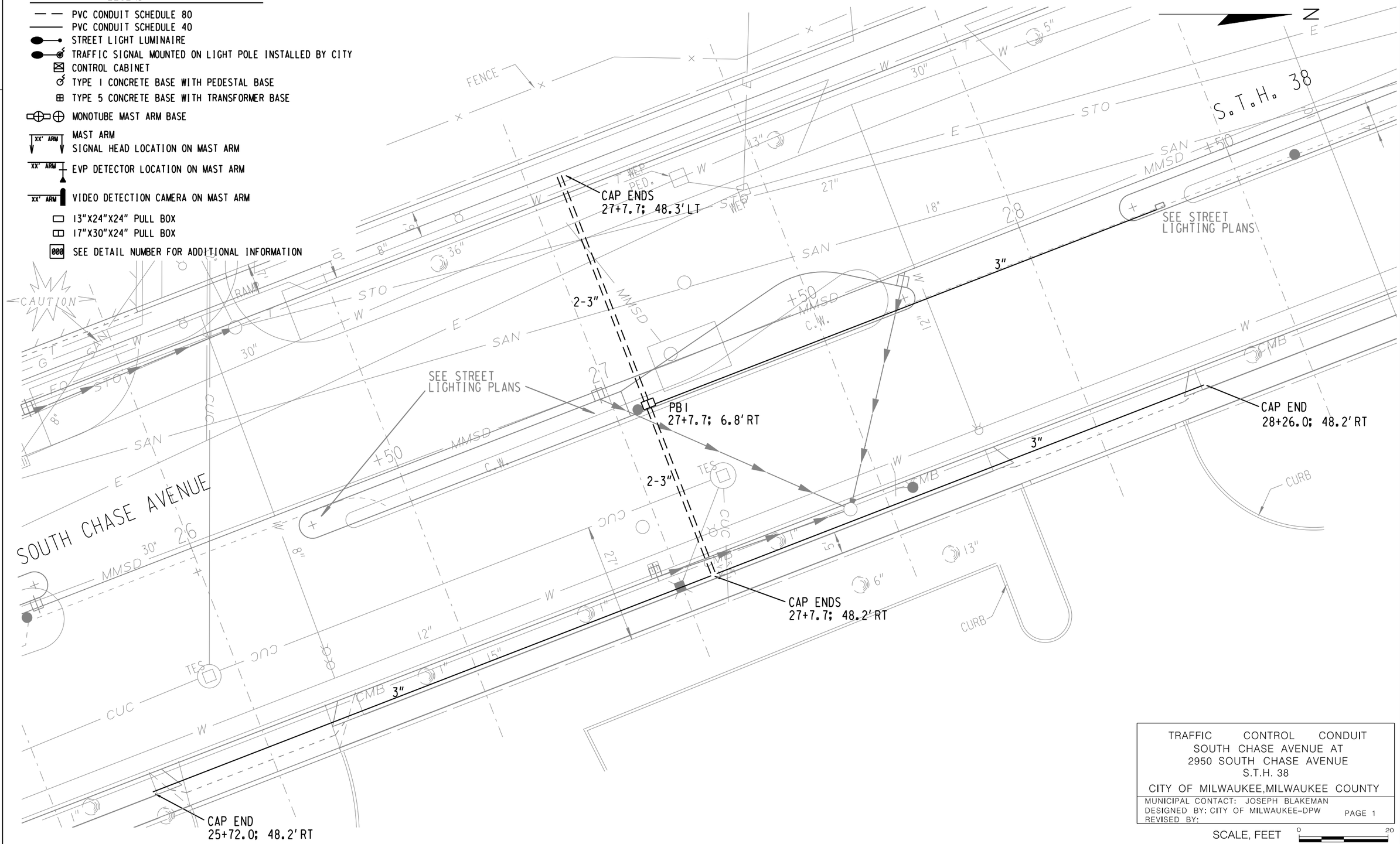
MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

SCALE, FEET 0 20

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2060-00-76 Chase Avenue\traffic signals 90%.dgn
PLOT DATE : 09-JUN-2018 13:52
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE I CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM / SIGNAL HEAD LOCATION ON MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION



TRAFFIC CONTROL CONDUIT
SOUTH CHASE AVENUE AT
2950 SOUTH CHASE AVENUE
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1

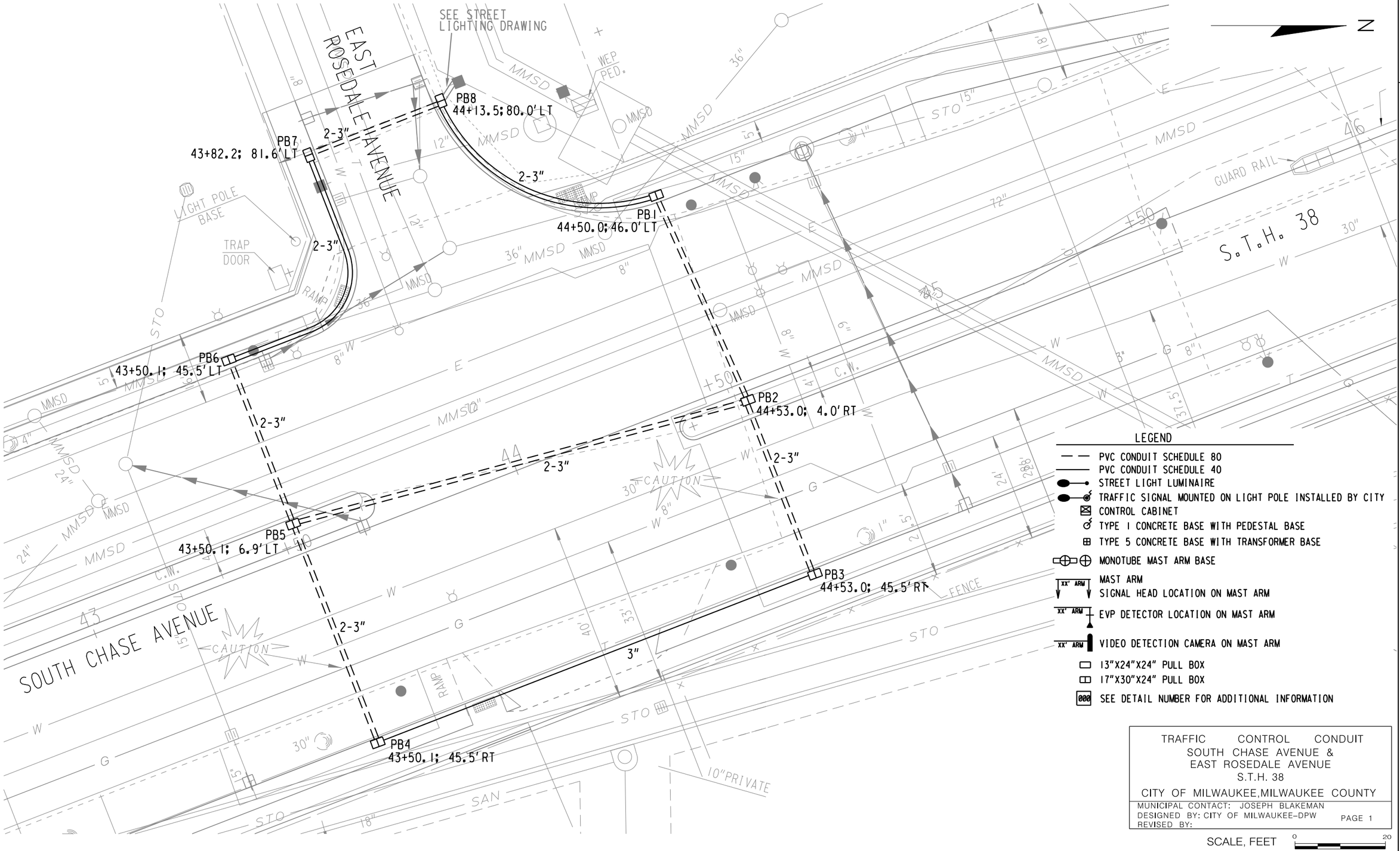
SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 183	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2060-00-76 Chase Avenue\2060-00-76.dgn PLOT DATE : 30-OCT-2018 09:15 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2



LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE I CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM
- SIGNAL HEAD LOCATION ON MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

TRAFFIC CONTROL CONDUIT
SOUTH CHASE AVENUE &
EAST ROSEDALE AVENUE
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 184	E

2

2

LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE 1 CONCRETE BASE WITH PEDESTAL BASE
- TYPE 2 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM / SIGNAL HEAD LOCATION ON MAST ARM (XX' ARM)
- EVP DETECTOR LOCATION ON MAST ARM (XX' ARM)
- VIDEO DETECTION CAMERA ON MAST ARM (XX' ARM)
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- 000 SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- SPREAD FOOTING REQUIRED DUE TO UTILITY CONFLICT

NOTE: ALL MONOTUBE LUMINAIRES SUPPLIED AND INSTALLED BY THE CITY OF MILWAUKEE

N

S.T.H. 38

SOUTH CHASE AVENUE

S. 1ST ST.

PROPOSED ROW

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9

CB1

108A 115

2-3" 2" 3"

50+07.5; 38.0' LT
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
S-40-1949

40' ARM

35' ARM

51+14.5; 46.3' RT
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
S-40-1950

TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE
& SOUTH 1ST STREET
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 185	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2060-00-76 Chase Avenue\2060-00-76.dgn
PLOT DATE : 21-JUL-2018 10:52
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

PULLBOX LOCATIONS

PB #	LOCATION
PB1	50+3.7; 28.5'RT
PB2	49+93.6; 5.3'LT
PB3	49+92.6; 34.7'LT
PB4	50+50.7; 34.7'LT
PB5	51+15.8; 34.7'LT
PB6	51+26.3; 3.3'RT
PB7	51+27.3; 34.0'RT
PB8	50+80.8; 65.3'RT
PB9	50+42.3; 62.3'RT

BASE LOCATIONS

BASE #	LOCATION
CB1	50+7.3; 54.1'RT
SB1	50+16.2; 30.0'RT
SB2	50+7.5; 38.0'LT
SB3	50+49.4; 45.8'LT
SB4	49+70.5; 45.8' LT
SB5	51+13.2; 45.2'LT
SB6	51+20.3; 36.2'LT
SB7	51+14.5; 46.3'RT
SB8	50+84.1; 60.5'RT
SB9	50+48.6; 67.7'RT
SB10	50+16.6; 44.0'RT

BASE REMOVAL LOCATIONS

SB #	LOCATION
1	49+81; 38.8'RT
2	49+73; 35.3'LT
3	50+18; 35.8' LT
4	50+76; 40.1'RT
5	50+64.5; 64.0'RT

2

TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE
& SOUTH 1ST STREET
S.T.H. 38
CITY OF MILWAUKEE,MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE–DPW
REVISED BY:

PAGE 2 OF 2

SCALE, FEET 0 20

2

LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE 1 CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- XX' ARM — MAST ARM / SIGNAL HEAD LOCATION ON MAST ARM
- XX' ARM — EVP DETECTOR LOCATION ON MAST ARM
- XX' ARM — VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- 000 — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

N

BASE LOCATIONS

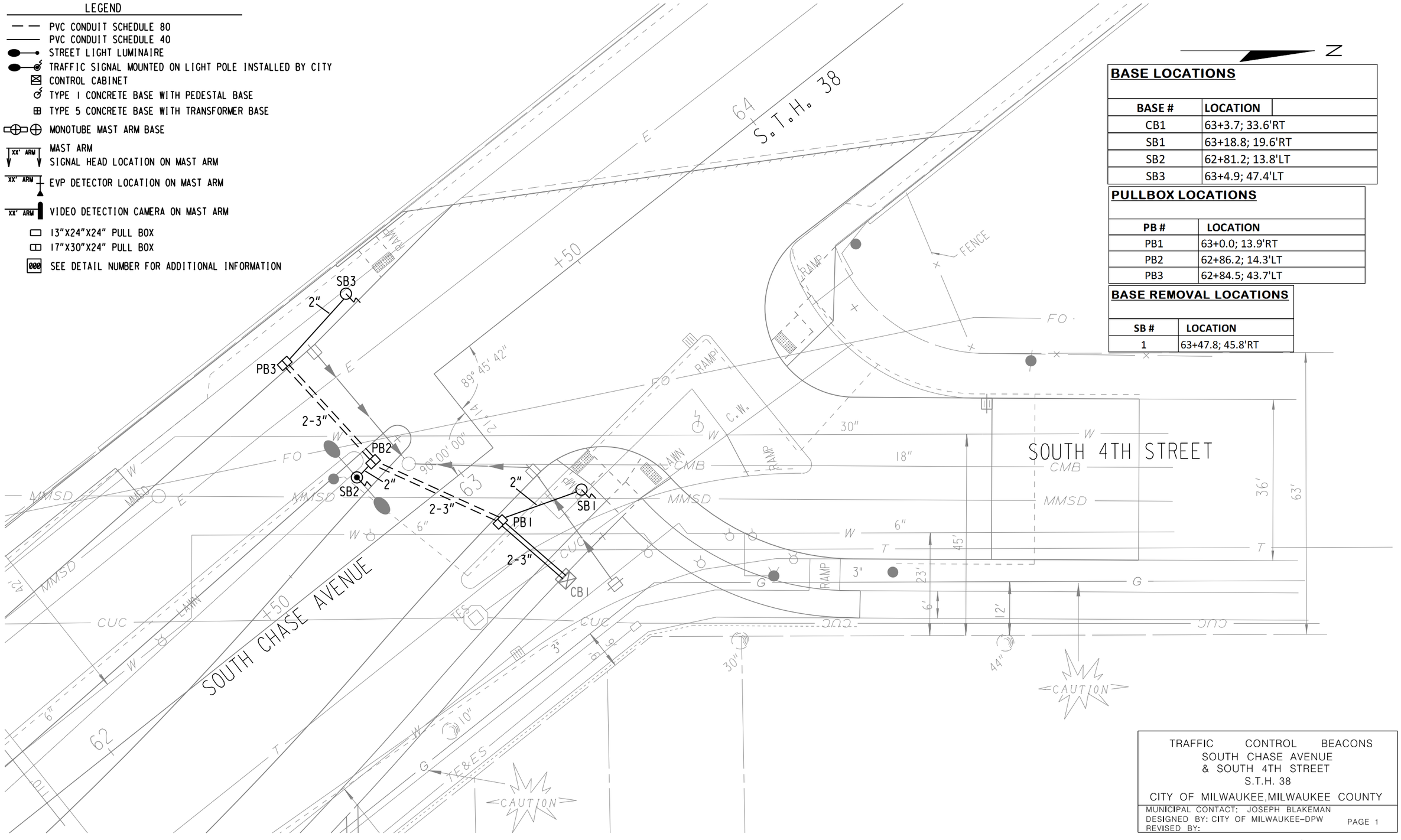
BASE #	LOCATION
CB1	63+3.7; 33.6'RT
SB1	63+18.8; 19.6'RT
SB2	62+81.2; 13.8'LT
SB3	63+4.9; 47.4'LT

PULLBOX LOCATIONS

PB #	LOCATION
PB1	63+0.0; 13.9'RT
PB2	62+86.2; 14.3'LT
PB3	62+84.5; 43.7'LT

BASE REMOVAL LOCATIONS

SB #	LOCATION
1	63+47.8; 45.8'RT



TRAFFIC CONTROL BEACONS
SOUTH CHASE AVENUE
& SOUTH 4TH STREET
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 187	E

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects-LFA\Preliminary Engineering\2060-00-76 Chase Avenue\traffic signals 90%.dgn PLOT DATE : 26-APR-2018 10:33 PLOT BY : jbondo PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

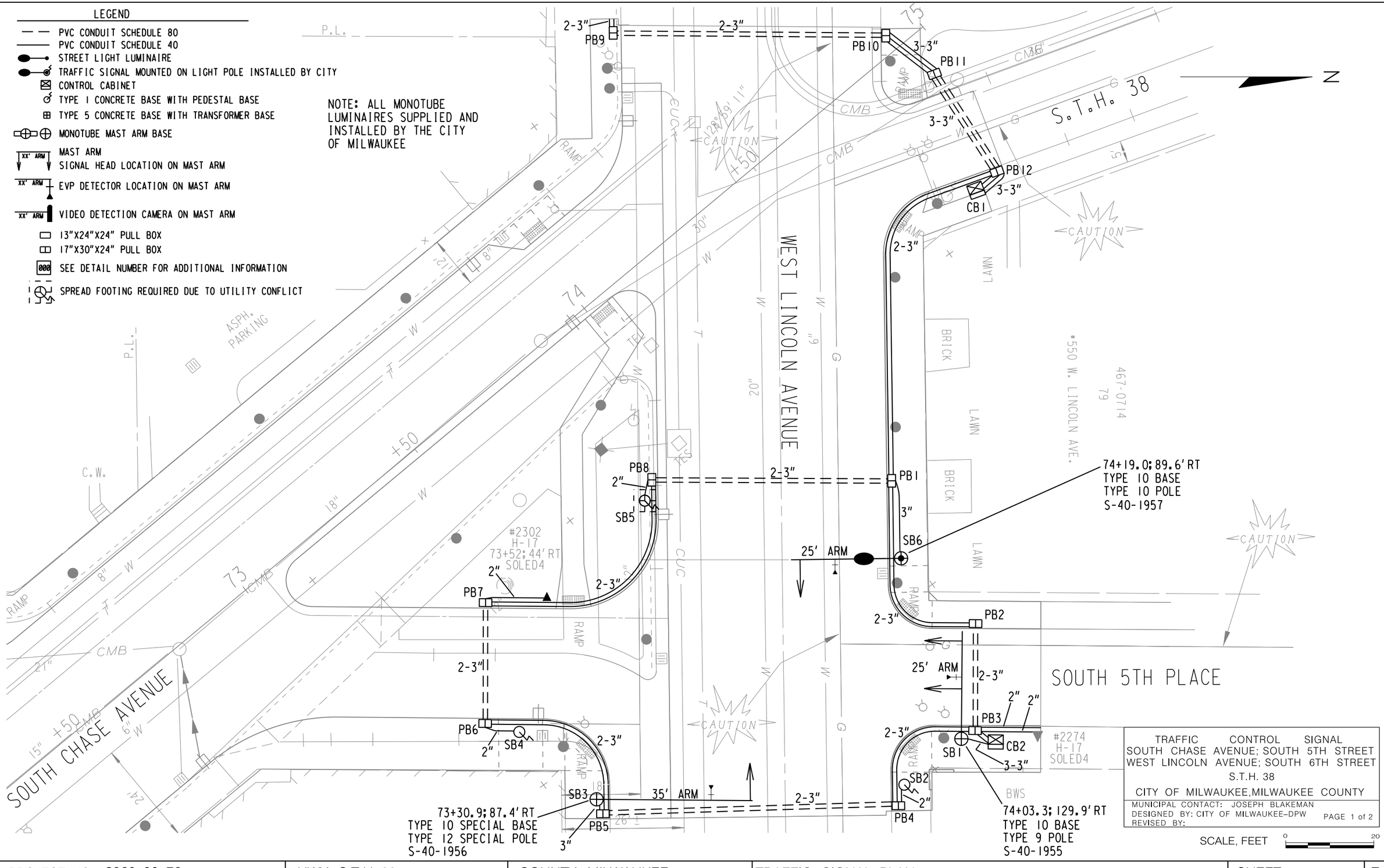
2

2

LEGEND

- PVC CONDUIT SCHEDULE 80
- PVC CONDUIT SCHEDULE 40
- STREET LIGHT LUMINAIRE
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE INSTALLED BY CITY
- CONTROL CABINET
- TYPE I CONCRETE BASE WITH PEDESTAL BASE
- TYPE 5 CONCRETE BASE WITH TRANSFORMER BASE
- MONOTUBE MAST ARM BASE
- MAST ARM
- SIGNAL HEAD LOCATION ON MAST ARM
- EVP DETECTOR LOCATION ON MAST ARM
- VIDEO DETECTION CAMERA ON MAST ARM
- 13"X24"X24" PULL BOX
- 17"X30"X24" PULL BOX
- SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
- SPREAD FOOTING REQUIRED DUE TO UTILITY CONFLICT

NOTE: ALL MONOTUBE LUMINAIRES SUPPLIED AND INSTALLED BY THE CITY OF MILWAUKEE



TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE; SOUTH 5TH STREET
WEST LINCOLN AVENUE; SOUTH 6TH STREET
S.T.H. 38
CITY OF MILWAUKEE, MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE-DPW
REVISED BY:

PAGE 1 of 2

SCALE, FEET 0 20

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 188	E

2

PULLBOX LOCATIONS

PB #	LOCATION
PB1	74+28.6; 74.7'RT
PB2	74+22.5; 111.8'RT
PB3	74+6.9; 130.4'RT
PB4	73+82.7; 132.4'RT
PB5	73+29.9; 90.9'RT
PB6	73+22.5; 58.1'RT
PB7	73+40.1; 37.0'RT
PB8	73+86.9; 39.8'RT
PB9	74+45.0; 44.0'LT
PB10	74+92.2; 3.9'LT
PB11	74+95.2; 9.9'RT
PB12	74+91.9; 36.0'RT

BASE LOCATIONS

BASE #	LOCATION
CB1	74+85.8; 35.8'RT
CB2	74+9.2; 135.0RT
SB1	74+3.3; 129.9'RT
SB2	73+86.7; 129.6'RT
SB3	73+30.9; 87.4'RT
SB4	73+27.1; 64.5'RT
SB5	73+82.7; 42.3'RT
SB6	74+19.0; 89.6'RT

BASE REMOVAL LOCATIONS

SB #	LOCATION
1	74+92; 11.3'RT
2	74+79.5; 33.1'RT
3	73+92; 26.7'RT

2

TRAFFIC CONTROL SIGNAL
SOUTH CHASE AVENUE; SOUTH 5TH STREET
WEST LINCOLN AVENUE; SOUTH 6TH STREET
S.T.H. 38
CITY OF MILWAUKEE,MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOSEPH BLAKEMAN
DESIGNED BY: CITY OF MILWAUKEE–DPW
REVISED BY:

SCALE, FEET 0 20

FILE NAME : W:\bte\signals\PAVING AND DESIGN\State Projects–LFA\Preliminary Engineering\2060–00–76 Chase Avenue\traffic signals 90%.dgn
PLOT DATE : 26–APR–2018 10:00
PLOT BY : jbondo
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

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 OR TRAFFIC ENGINEER'S 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 (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

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

21 CONTRACTOR MUST WORK IN CONCERT WITH THE TEMPORARY STREET LIGHTING AND/OR TRAFFIC SIGNAL OVERHEAD FACILITIES AND TEMPORARY POLES. CONTRACTOR IS RESPONSIBLE TO TAKE ALL NECESSARY ACTION TO ENSURE THE CONSTRUCTION PROCESS IS NOT IMPEDED BY TEMPORARY FACILITIES. LATERAL AND VERTICAL CONSTRAINTS MUST BE IDENTIFIED IN WRITING TO THE CITY'S UTILITY COORDINATOR TWO WEEKS PRIOR TO THE SCHEDULED CONSTRUCTION START DATE IN ORDER TO OBTAIN THE DESIGNER'S APPROVAL FOR OVERHEAD FACILITIES ADJUSTMENT. AFTER THE CONSTRUCTION START DATE, CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY SERVICE FEE FOR TEMPORARY FACILITY ADJUSTMENT AND ASSUME FULL RESPONSIBILITY FOR ANY PROJECT DELAY.

22 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 - MARK MACRAE (OFFICE) 414-286-5928 (CELL) 414-708-0434
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 @ 414-286-3015
TRAFFIC SIGNALS - AL NICHOLS (OFFICE) 414-286-3687 (CELL) 414-708-5148

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

24 CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

25 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.

26 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.

27 Provide three sets 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, or record all changes in Red ink Only on the As-Let (Design) paper drawings. The City will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

As-Built Guidelines:

< 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 Manager
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

28 RETURN ALL REMOVED STREET LIGHTING FIXTURES TO STREET LIGHTING FIELD OFFICE
(ATTN: JILL KRAMER)
1540 W. CANAL ST. MILWAUKEE WI 53233

UTILITY LINE CODE

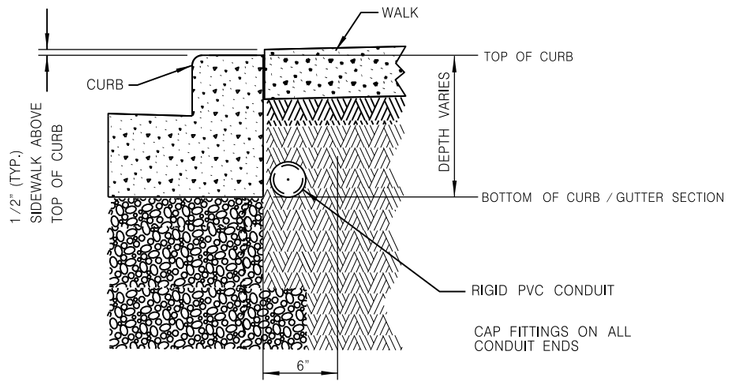
SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OLD CITY UNDERGROUND CONDUIT
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

SHEET 1 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS & PLAN	SHEET 190	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 11–DEC–2018 08:33 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000
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

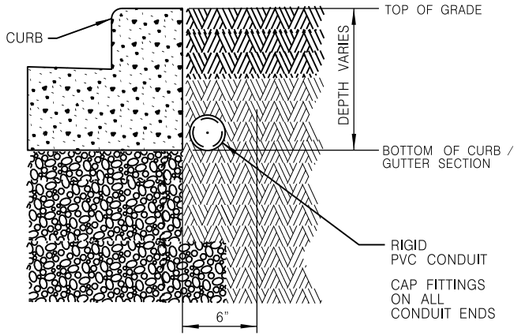
NOT TO SCALE

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

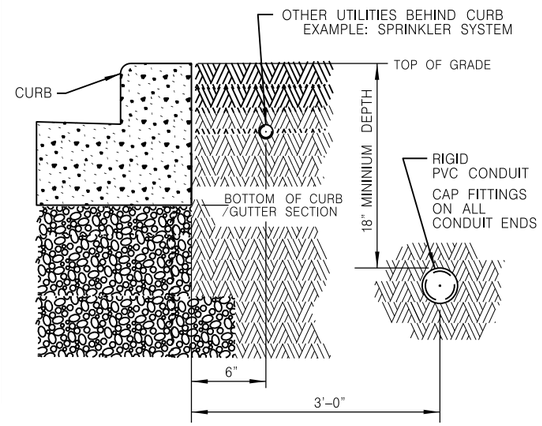
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



DETAIL "C"

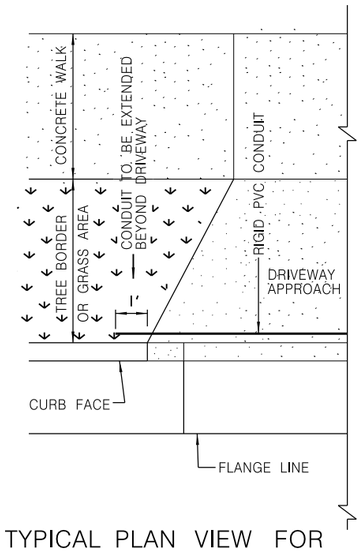


100 DETAIL "B" & "C"

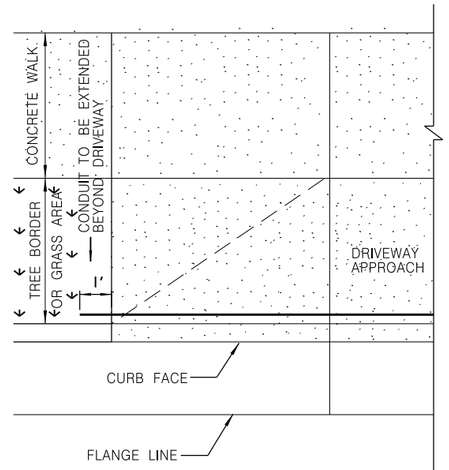
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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.

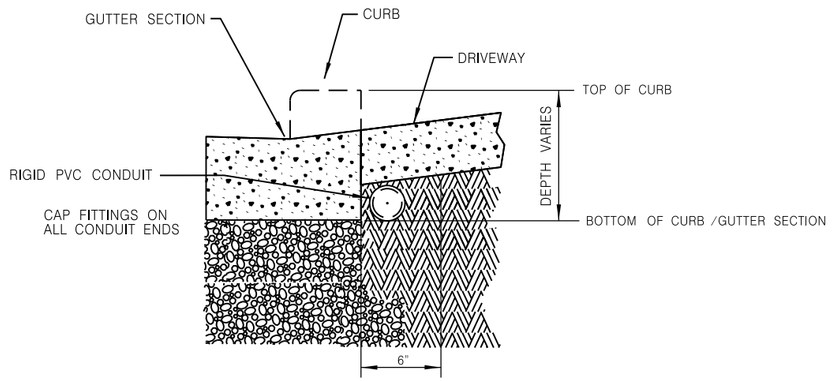


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



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.

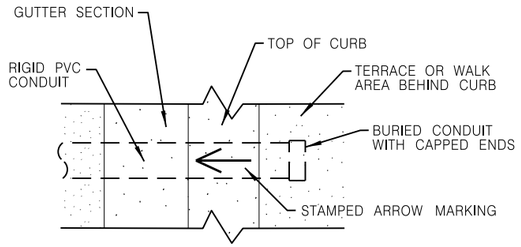


101 DETAIL

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.

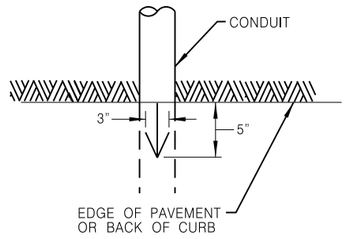


TOP VIEW OF CURB STAMPING

NOT TO SCALE

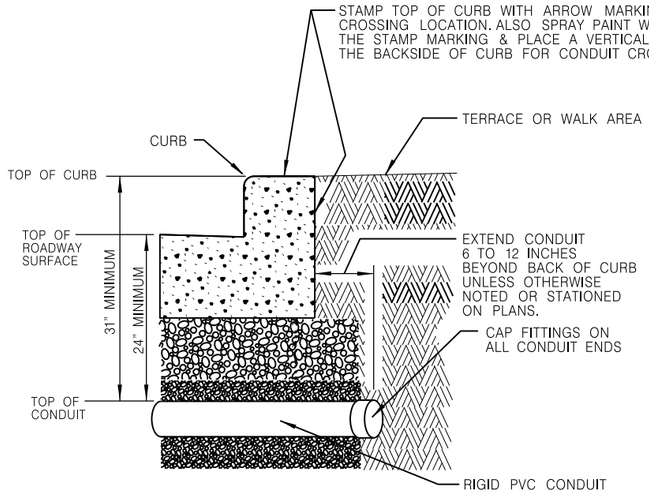
NOTE:

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

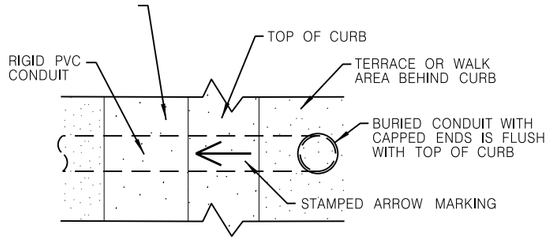


102 DETAIL VERSION #1

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.

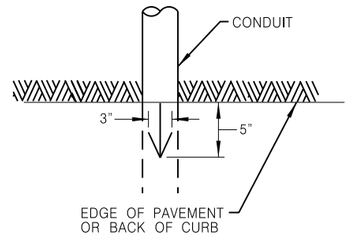


TOP VIEW OF CURB STAMPING

NOT TO SCALE

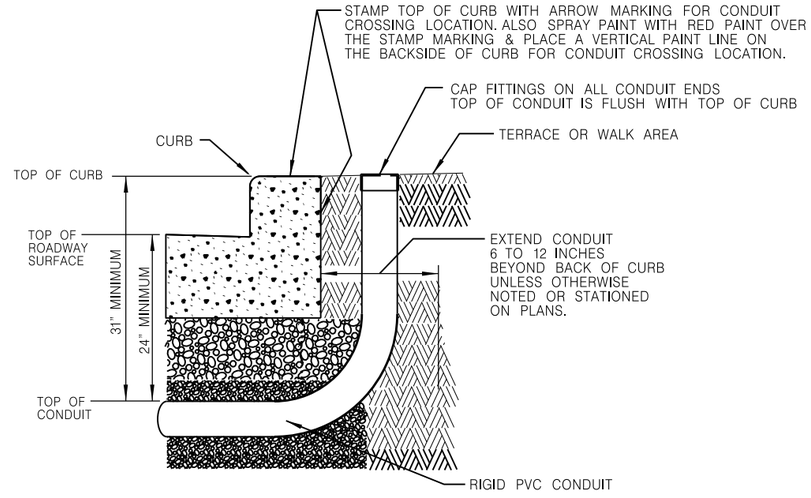
NOTE:

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

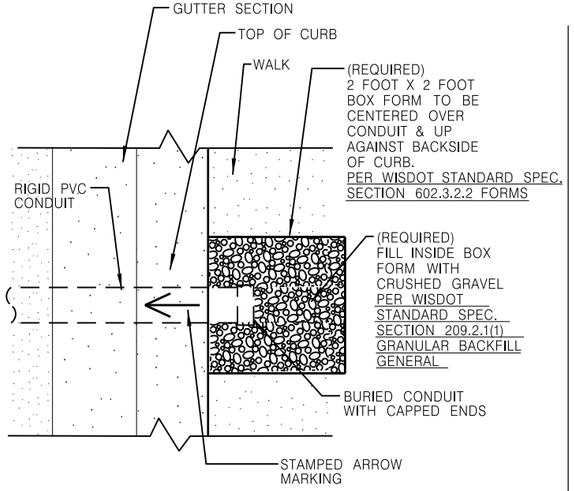


102 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS

NOT TO SCALE

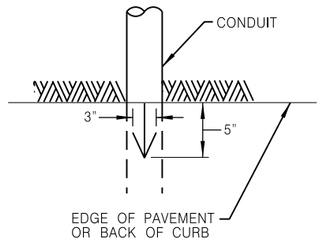
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.



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.

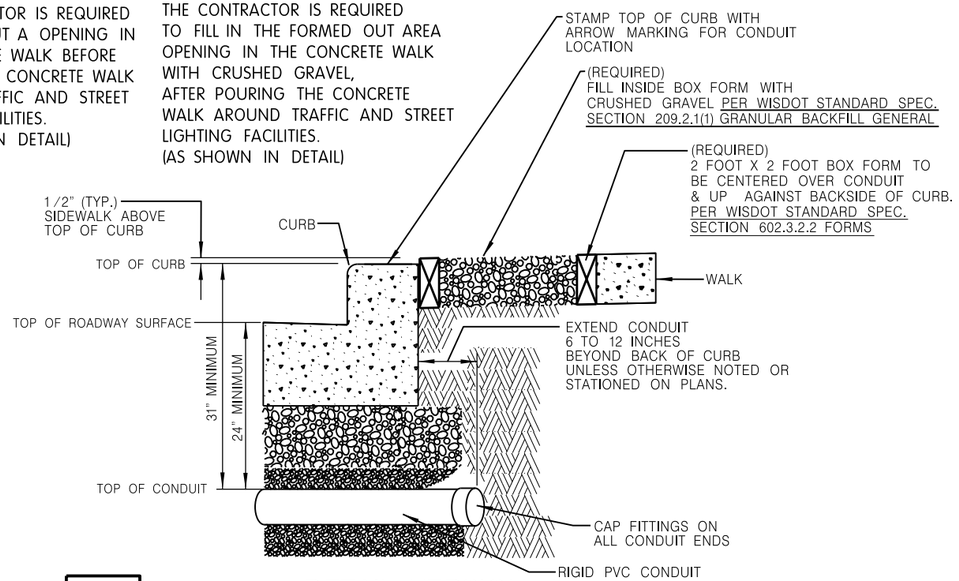


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)



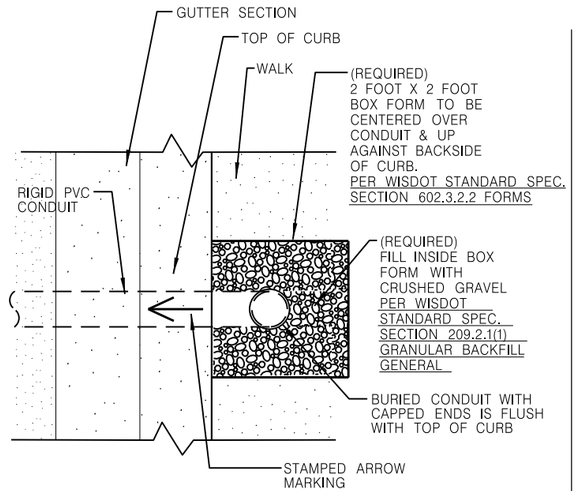
103 DETAIL VERSION 1

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK 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.

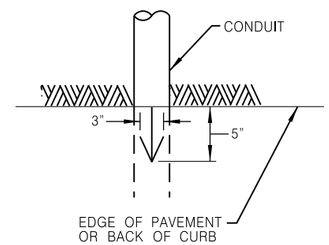
2



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.

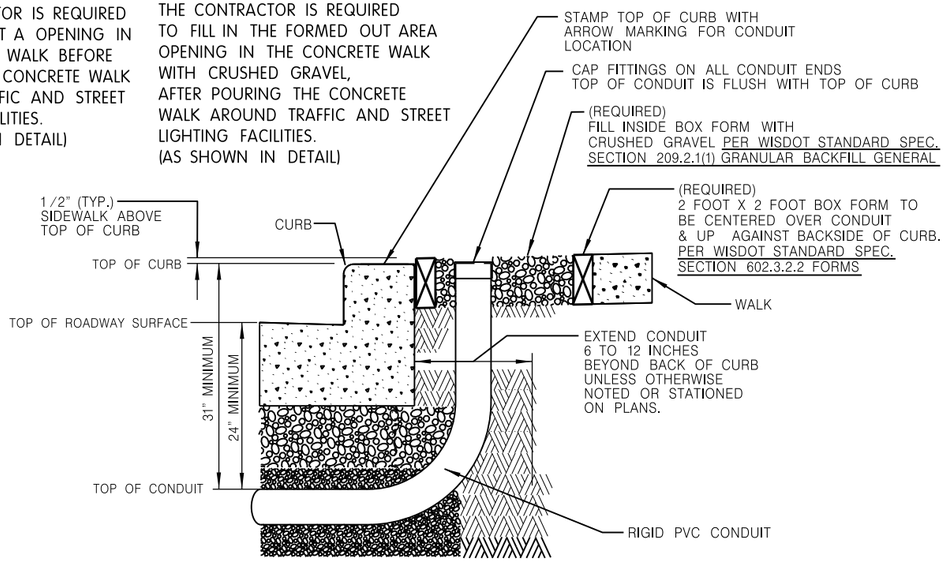


ARROW MARK

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN DETAIL)



103 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

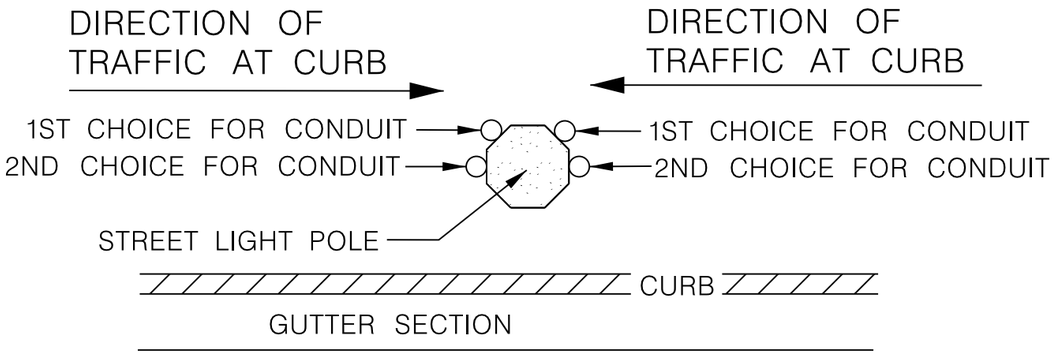
NOT TO SCALE

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

SHEET 4 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 193	E

NOTE: CAP FITTINGS ON CONDUIT ENDS



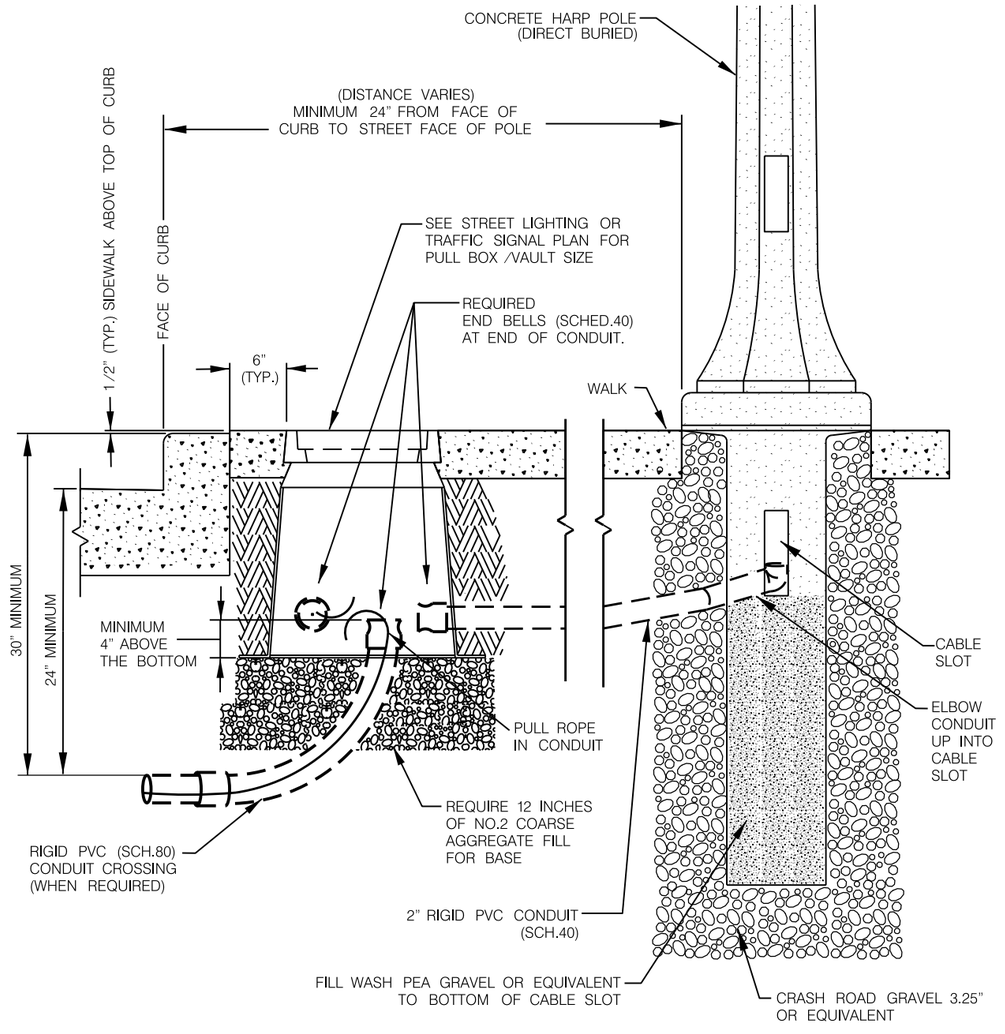
104 DETAIL

TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE 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.

2



123 DETAIL

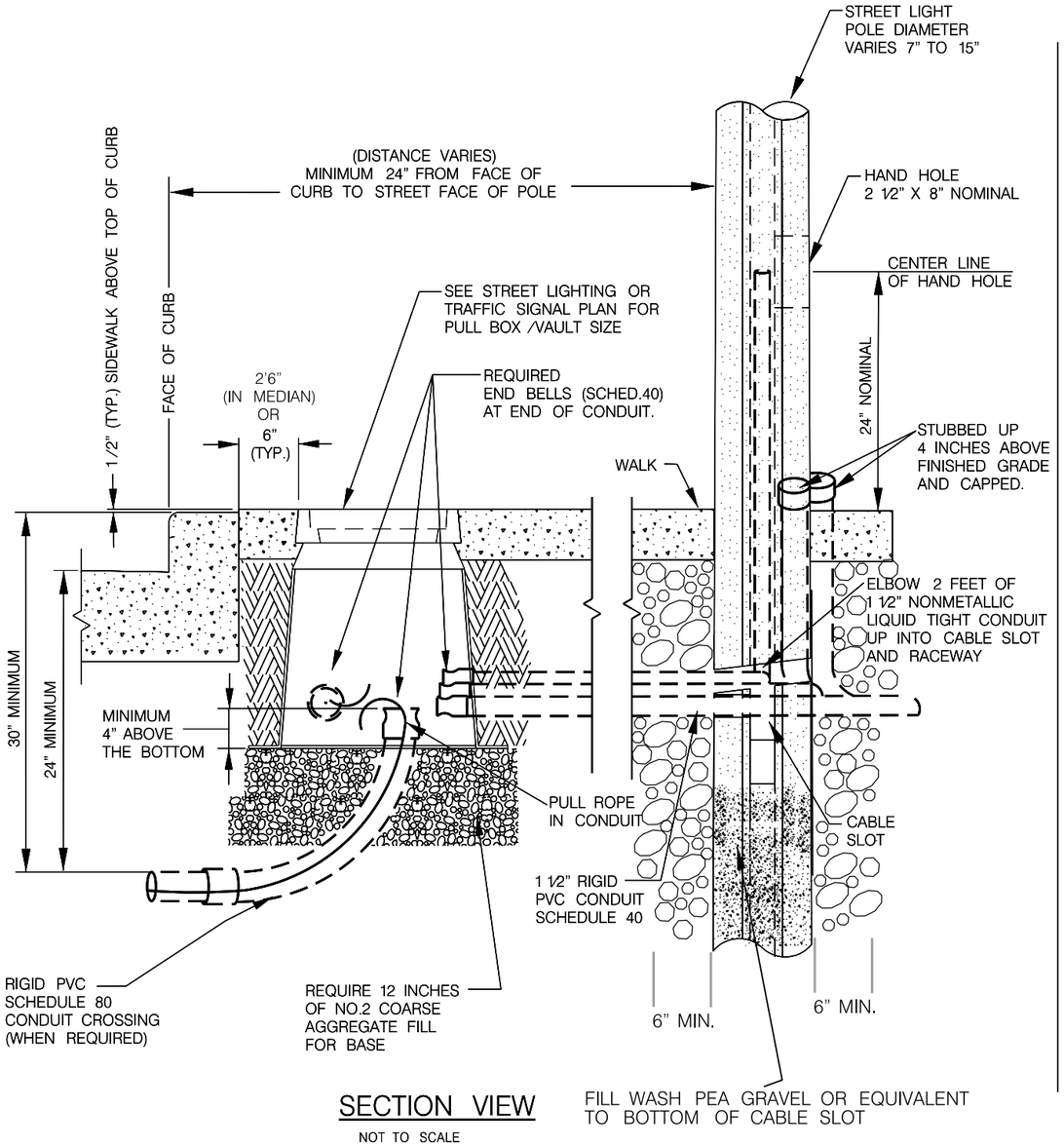
TYPICAL CONDUIT INSTALLATION FROM PULL BOX TO CONCRETE HARP POLE

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

NOT TO SCALE

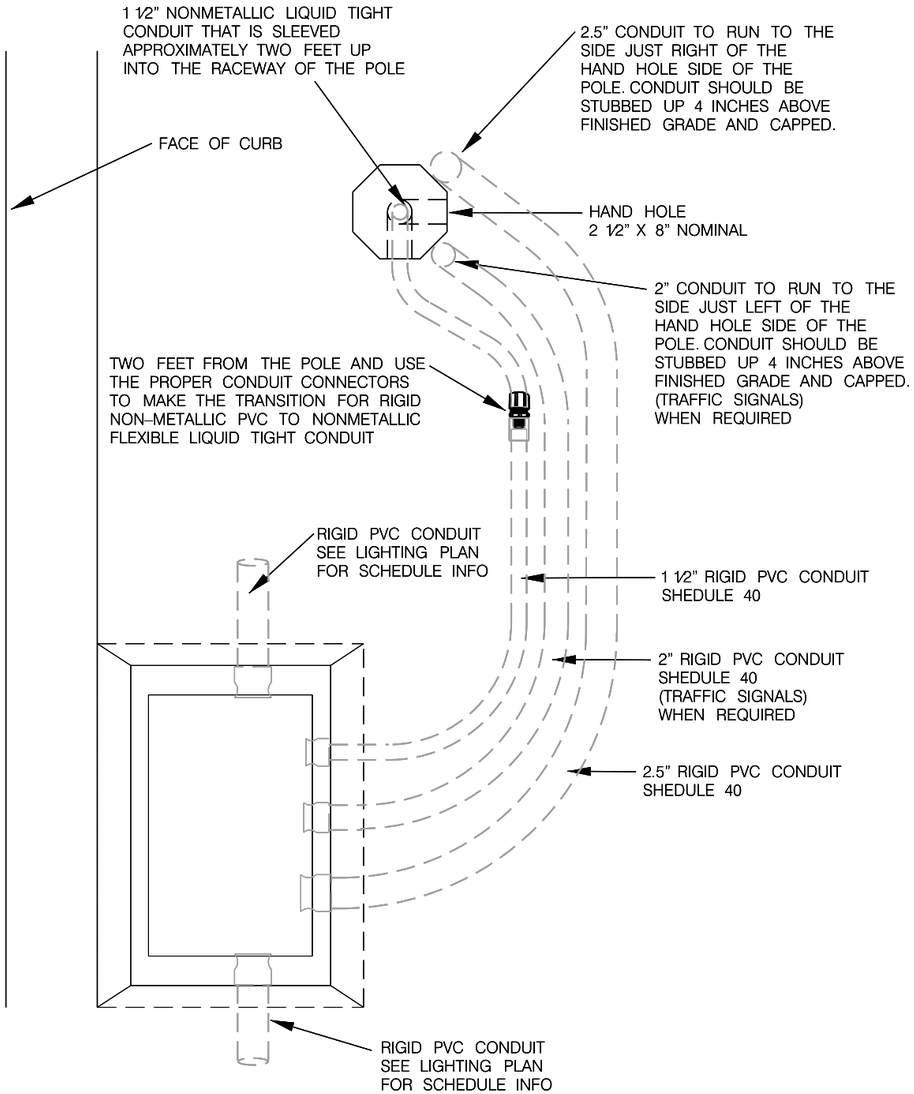
PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 194	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 11–DEC–2018 08:37 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



SECTION VIEW

NOT TO SCALE



PLAN VIEW

NOT TO SCALE

108A DETAIL VERSION

TYPICAL CONDUIT INSTALLATION FROM PULL BOX / VAULT TO POLE

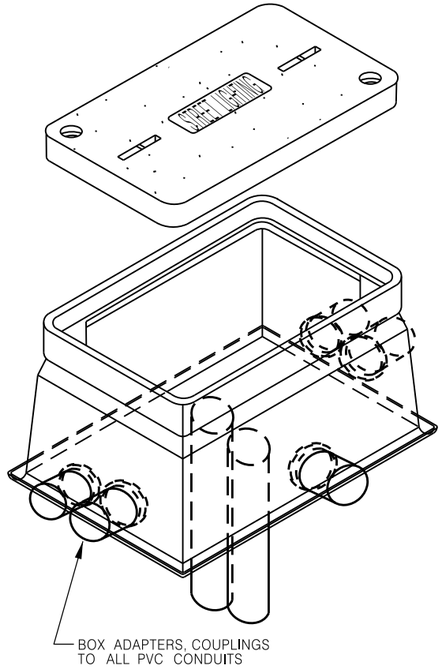
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES. CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 6 OF 44

NOT TO SCALE

11-DEC-2018 08:39

PROJECT NO: 2060-00-7	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 195	E



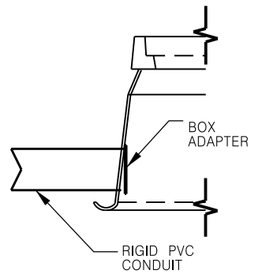
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

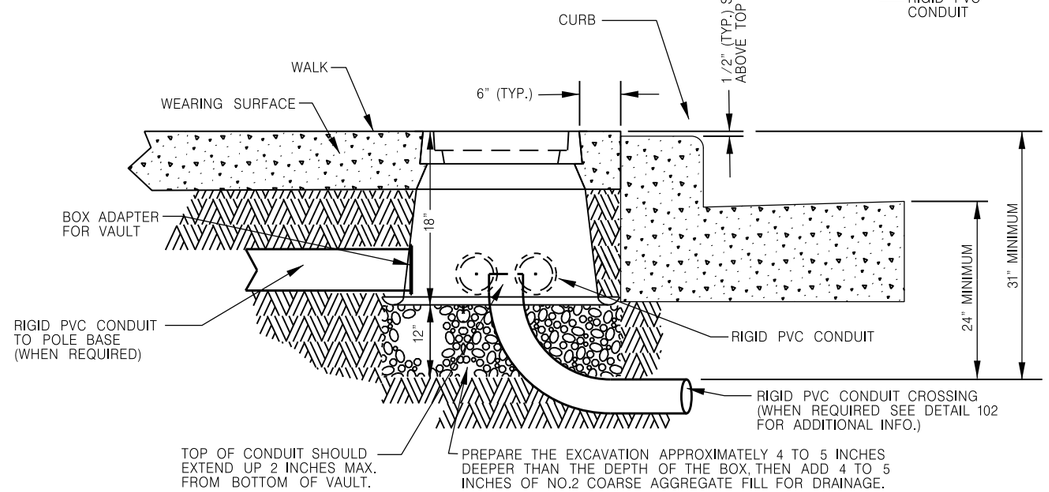
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

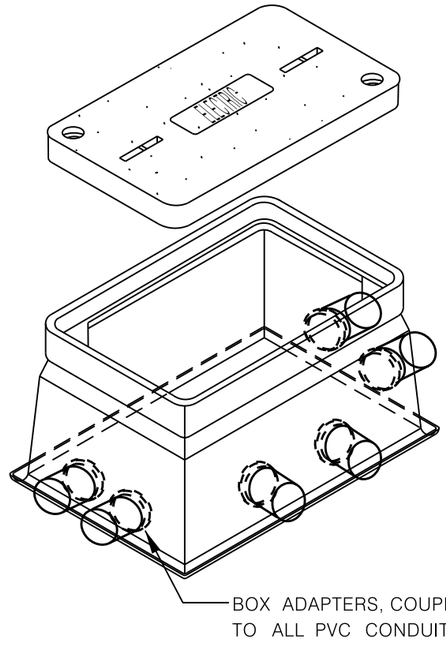
BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





112 DETAIL
TYPICAL VAULT INSTALLATION IN WALK
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.

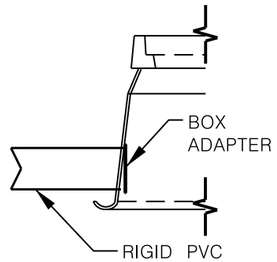


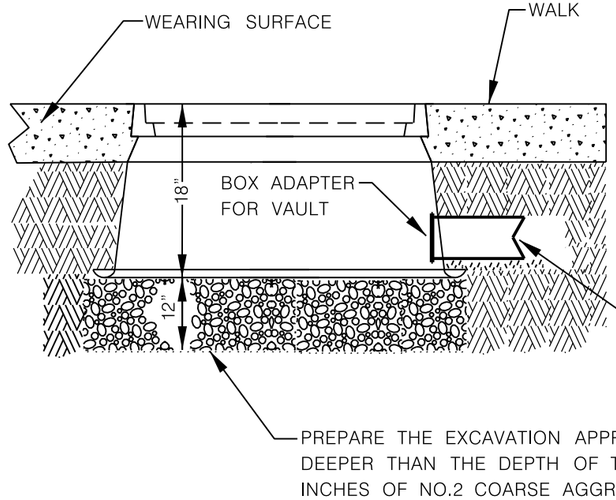
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W / 2 BOLTS
COLOR: GRAY

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

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

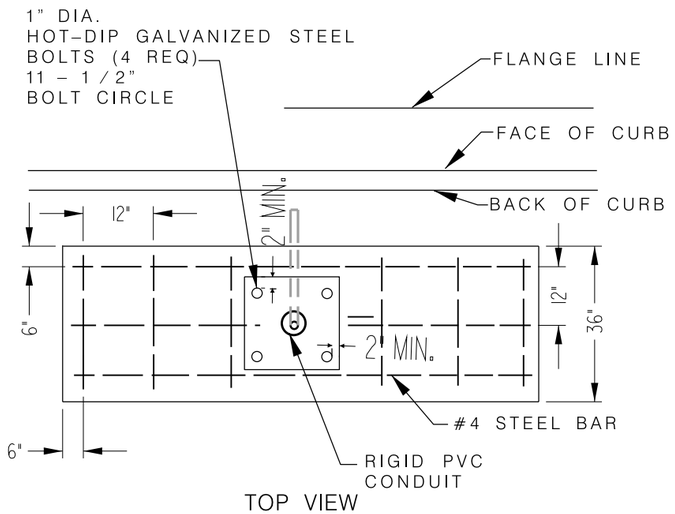
BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





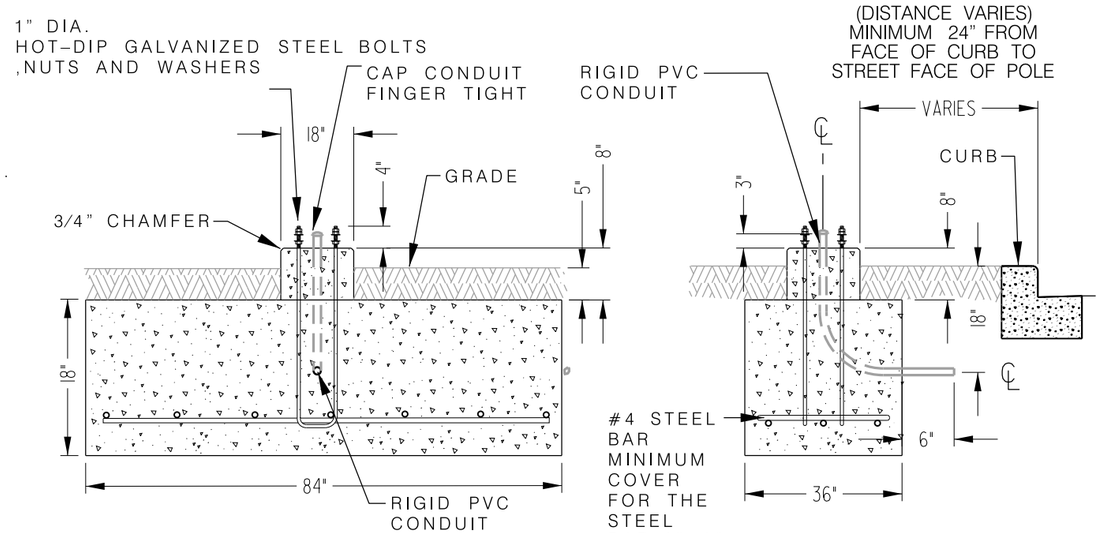
113 DETAIL
TYPICAL VAULT INSTALLATION
IN SIDEWALK
NOT TO SCALE

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



TOP VIEW

CONTACT: DENNIS MILLER
(DPW) @(414)708-4251



FRONT VIEW

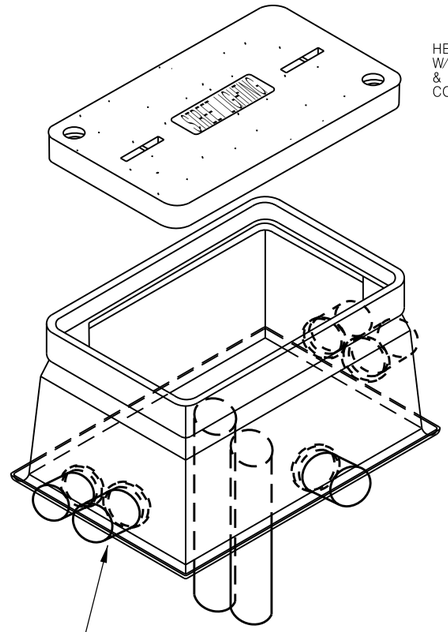
SIDE VIEW

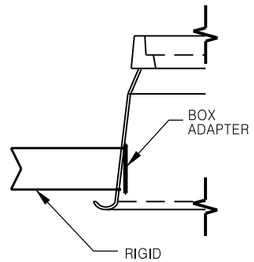
115 DETAIL

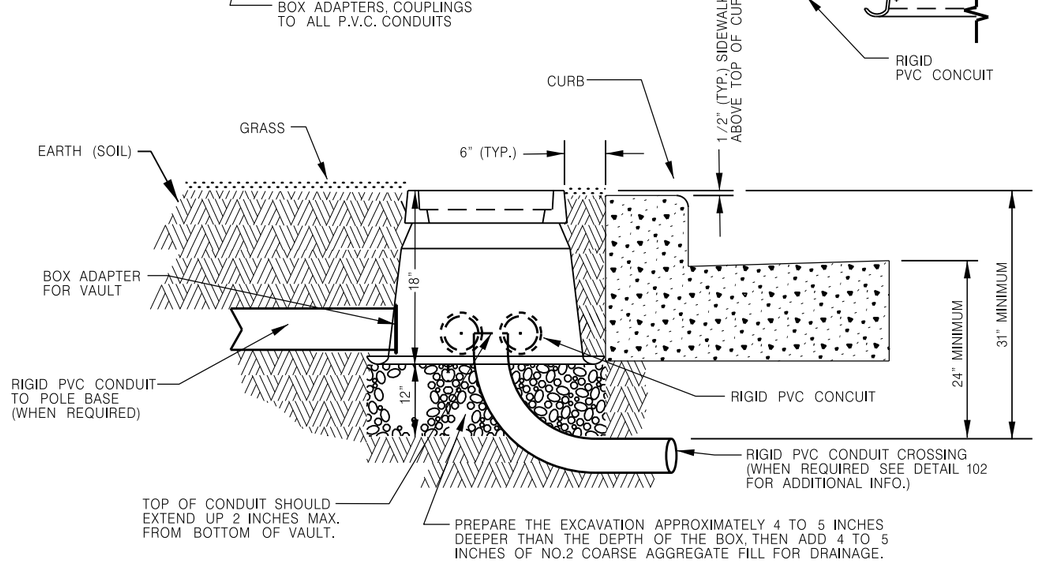
TYPICAL SPREAD FOOTING WITH CURBSIDE CONDUIT FEED

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.







121 DETAIL

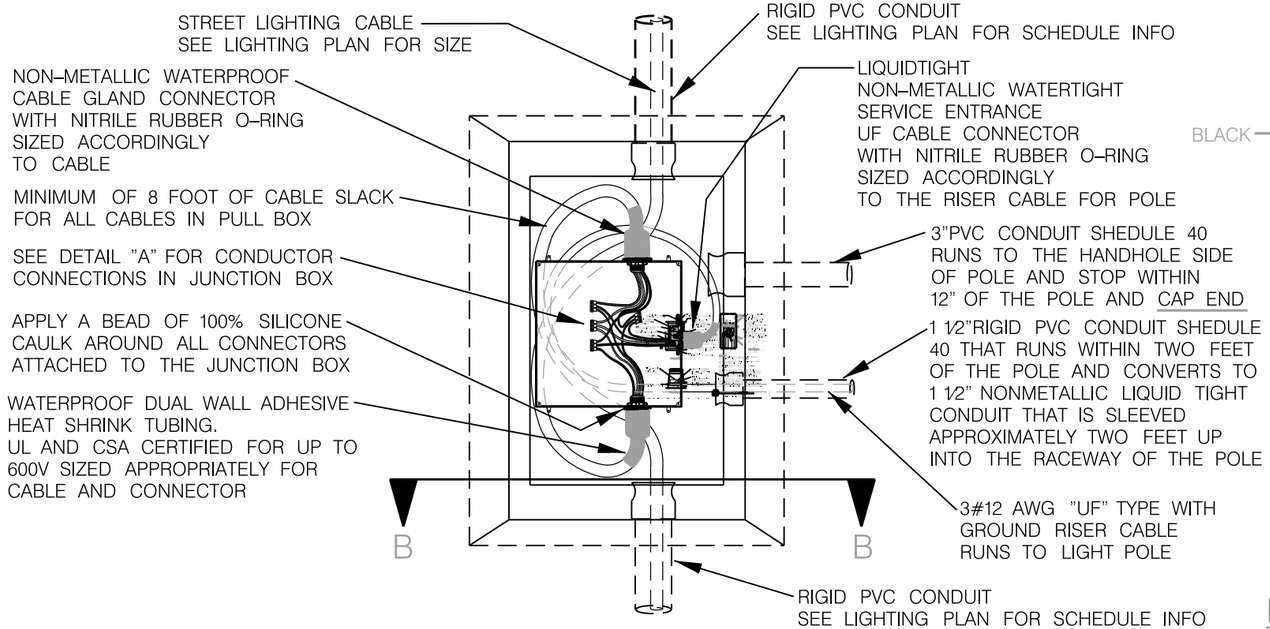
TYPICAL VAULT INSTALLATION IN GRASS AREA

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.

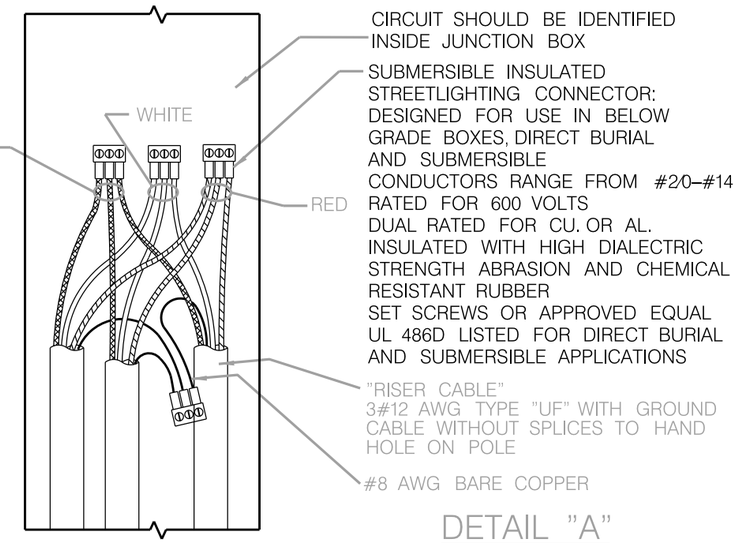
SHEET 8 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 197	E



PLAN VIEW

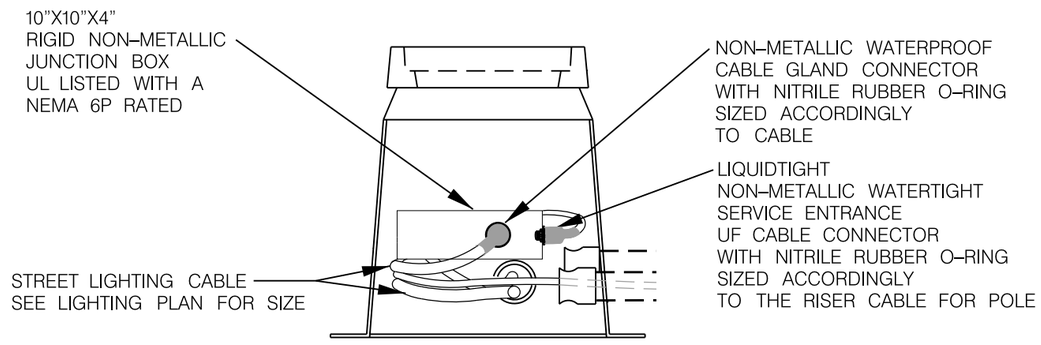
NOT TO SCALE



DETAIL "A"

CONNECTIONS WITHIN PULL BOX

NOT TO SCALE



SECTION "B"

NOT TO SCALE

NOTES:

PULL TAPE (5/8–INCH NYLON 1,800 LBS TENSILE STRENGTH) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS–BUILT DRAWINGS (.PDF FORMAT) FOR ALL THE WORK BEING DONE.

PROVIDE MINIMUM CABLE SLACK FOR PULL BOXES: 8–FT ONE WAY IN OR OUT

PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

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 MANAGERS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.

139 DETAIL

TYPICAL WATERTIGHT JUNCTION BOX SPLICING WITHIN THE PULL BOX

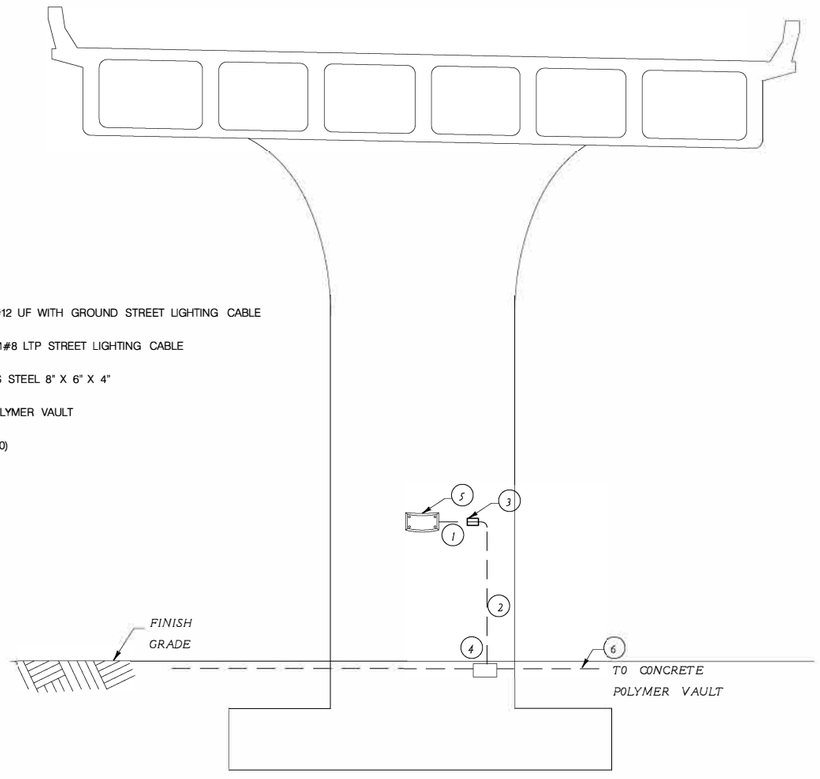
11-DEC-2018 08:41

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

2

LEGEND:

1. 3/4" PVC SCH80 WITH 2 #12 UF WITH GROUND STREET LIGHTING CABLE
2. 2" PVC SCH.80 WITH 3#8\1#8 LTP STREET LIGHTING CABLE
3. JUNCTION BOX, STAINLESS STEEL 8" X 6" X 4"
4. 13"X24"X18" CONCRETE POLYMER VAULT
5. LED WALLPACK (SPV.0060.30)
6. 3" PVC WITH 3#8\1#8 LTP

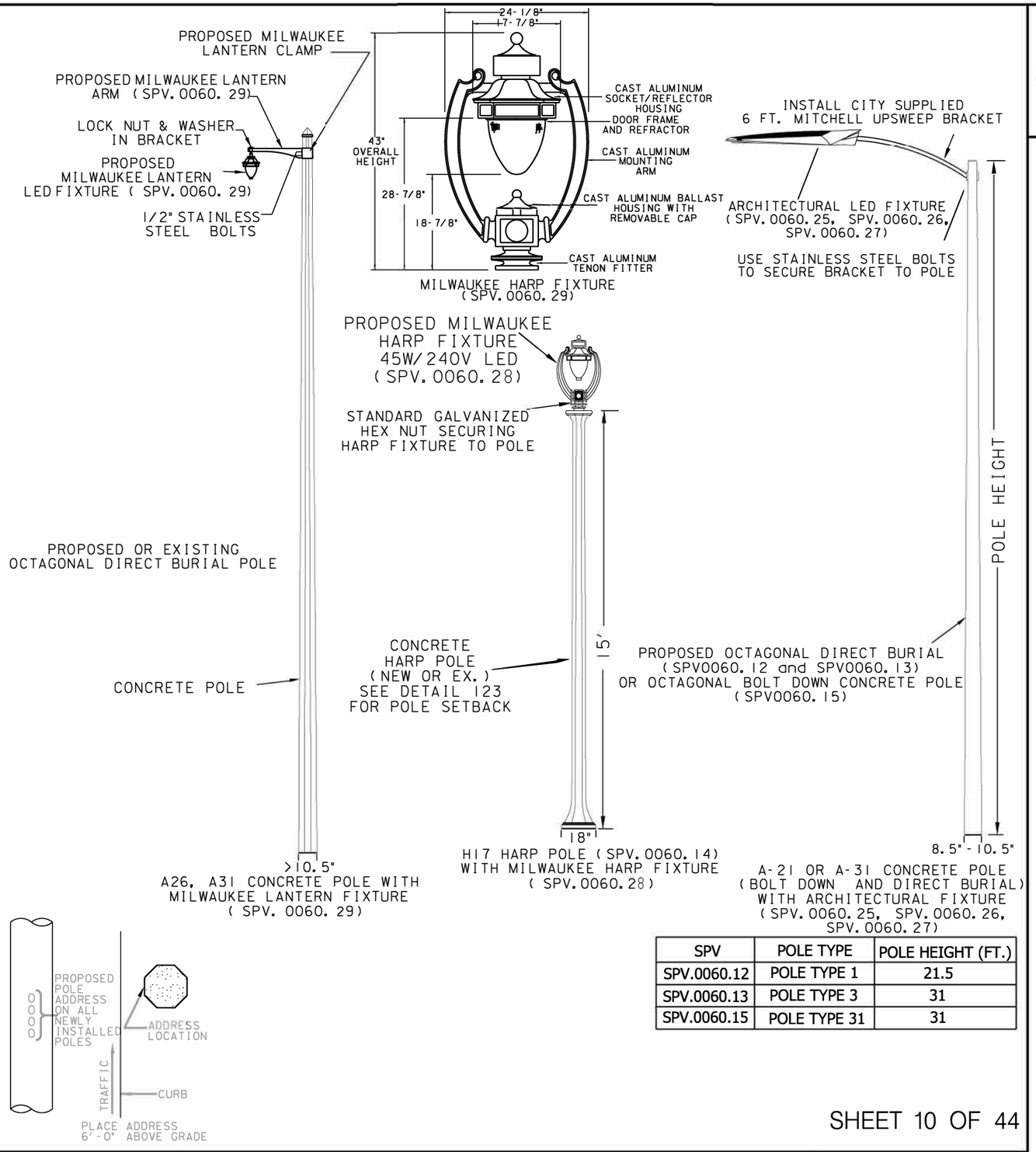


TYPICAL WALL PACK INSTALLATION
DETAIL ON EXISTING STRUCTURE

141 DETAIL

TYPICAL WALL PACK INSTALLATION ON STRUCTURE

NOT TO SCALE



SPV	POLE TYPE	POLE HEIGHT (FT.)
SPV.0060.12	POLE TYPE 1	21.5
SPV.0060.13	POLE TYPE 3	31
SPV.0060.15	POLE TYPE 31	31

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 199	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave - Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn
PLOT DATE : 11-DEC-2018 08:42
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

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 PULL BOX AND HAND HOLE PANE

N

BRIDGE

CONNECT TO EXISTING 2" PVC

108A / 139

2" PVC

#3302 A-31-D6 01+28; 2.5' RT 2-3LED3

3#2/1#8LTP T-37S-D

13"X24"X24" PB 01+24; 04' RT

3" PVC SCH. 80

3#8/1#8LTP T-37S-D

CAP END AT BRIDGE ABUTMENT

3" PVC

13"X24"X24" PB 01+24; 41' RT

WATER

30"

DETAIL I

102

12"

43'

#3280 A-31-D6 02+22; 06' RT 2-3LED3

3#2/1#8LTP T-37S-D

3" PVC SCH. 80

13"X24"X24" PB 02+25; 08' RT

3" PVC

13"X24"X24" PB 03+72; 3' LT

#3258 A-31-D6 03+68; 5' LT 2-3LED3

STO

SAN

LAWN

CONC.

01

02

03

W

CUC

G

8"

12"

WALL 15'

#101 A-21-6 01+53; 68' LT ILED2 B

13"X24"X24" PB 01+53; 65' RT

3" PVC SCH. 80

CAP ENDS 15' S.O.PB

E. OHIO AVE.

STUMP

#3260

#3272

HARP LIGHT

C.W.

LEGEND

- EXISTING STREET LIGHT POLE WITH LED FIXTURE(NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH LED FIXTURE (NEW) AND 2#12 UF W/G RISER CABLE (NEW) PICK UP BRACKET AT 1540 W. CANAL ST.
- POLE INSTALLED ON TRAFFIC PLAN WITH LED FIXTURE (NEW) AND 2#12 UF W/G RISER CABLE (NEW) PICK UP BRACKET AT 1540 W. CANAL ST.
- EXISTING CONCRETE POLE WITH LED LANTERN FIXTURE AND ARM (NEW)
- EXISTING STREET LIGHT POLE WITH 2- LED FIXTURE (NEW)
- CONCRETE POLE INSTALLED BY CONTRACTOR WITH 2-LED FIXTURE (NEW) AND 2-2#12 UF W/G RISER CABLE (NEW) PICK UP BRACKETS AT 1540 W. CANAL ST.
- NEW CONCRETE POLE WITH LED LANTERN FIXTURE AND ARM (NEW) AND 2#12 UF W/G RISER CABLE (NEW)
- EXISTING CONCRETE POLE WITH LED LANTERN FIXTURE AND ARM (NEW)
- EXISTING HARP POLE WITH LED HARP FIXTURE (NEW) AND 2#12 UF RISER CABLE (NEW)
- NEW HARP POLE WITH LED HARP FIXTURE (NEW) AND 2#12 UF W/G RISER CABLE (NEW)
- 13"X24"X24" VAULT (UNLESS SPECIFIED) TO BE INSTALLED, LEAVE 10' CABLE COIL FOR EACH RUN
- -WALLPACK(NEW) AND 2#12 UF W/G RISER CABLE IN 2" SCH.80 PVC (NEW)
- -3" PVC CONDUIT SCH 40 UNLESS SPECIFIED
- STREET LIGHTING CABLE AS SPECIFIED
- B - BLACK CABLE CONNECTION
- R - RED CABLE CONNECTION

- TRAFFIC SIGNAL BASE
- MONOTUBE MAST ARM
- TRAFFIC CONTROL CABINET
- EVP DETECTOR
- xx' ARM - MAST ARM

SCALE, FEET 0 20

SHEET 11 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 200	E

SOUTH CHASE AVENUE

N

3#2/1#8LTP
T-37S-D

DETAIL I
102

13"X24"X24" PB
04+33; 7' LT

13"X24"X24" PB
05+07; 6' RT

#3236
A-31-D6
05+10; 03' LT
3LED3

108A
139

3#2/1#8LTP
T-37S-D

13"X24"X24" PB
06+37; 6' RT

108A
139

#3218
A-31-D6
06+40; 2.5' LT
2-3LED3

04 05 06

3" PVC
SCH. 80

R, B

B, R

ASPH.
DWY.

LAWN

BRICK

10" PINE

24" PINE

#3254

C.W.

STO SAN CUC W G

SCALE, FEET 0 20

SHEET 12 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 201	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:39 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

N

2 2

SEE ALSO TRAFFIC PLANS

3#2/1#8LTP
T-37S-D

#3202
A-31-D6
07+78; 3' LT
2-3LED3

13"X24"X24" PB
07+83; 1' LT

108A
139

DETAIL I
102

3#2/1#8LTP
T-37S-D

#3170
A-31-D6
08+94; 5' RT
2-3LED3

3#2/1#8LTP
T-37S-C

#3156
A-31-D6
10+03; 2.5' LT
2-3LED3

PB3

2-3" PVC
SCH. 80

3" PVC
SCH. 80

#101
A-21-6
08+14; 62' LT
ILED2
B

17"X30"X24" PB
C.W. 8+18; 65' RT

3#2/1#8LTP
T-37S-E

2-3" PVC

3" PVC
SPECIAL

EXISTING
17"X30"X24" PB

2.5" PVC

17"X30"X24" PB
8+53; 65' RT

SEE INSTALLING
CONDUIT INTO EXISTING
MANHOLE SPV.0060.425
SPECIFICATIONS

3#2/1#8LTP
T-37S-D

3#2/1#8LTP
T-37S-C

3#2/1#8LTP
T-37S-B

3#2/1#8LTP
T-37S-A

E. EUCLID AVE.

C.W.
10" PINE
SIGN
CURB
ASPH. DWY.
DRAIN
CONC. DWY
GAS PUMP
FLAG POST
WEP
RAMP
TE
STO SAN CUC W G E
43' 33' 26' 14' 9.25' 136' 18' 9.17' 2'
8" 12" 15" 21" 30"

SCALE, FEET 0 20

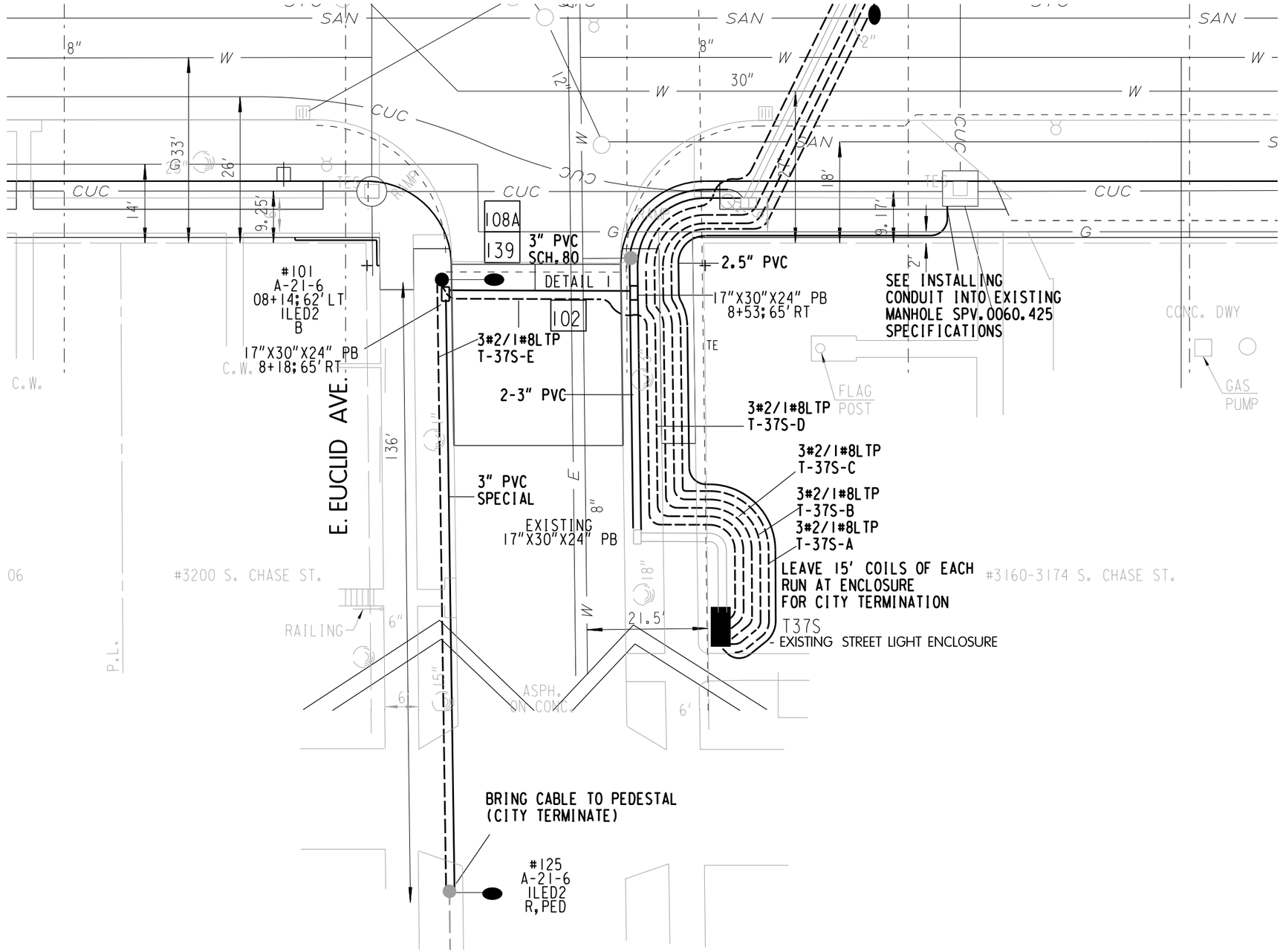
PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 202	E

SHEET 13 OF 44

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn
PLOT DATE : 30-OCT-2018 15:40
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

N



0 20

SHEET 14 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 203	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:40 PLOT BY : elee

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

N

RAILING C.W. CURB SIGN 12" 12" 12" 12" SAN

CONTROL BOX 12" W 19" RAMP

14" 13" 11" 5" 15" 10" 2" 10" 5" LAWN 11 12 13 WEP 12" 8" 12" W

108A 139 #3136 A-31-D6 11+35; 1.5' RT 2-3LED3

3#2/1#8LTP T-37S-B 13"X24"X24" PB 11+31; 4' RT 3#2/1#8LTP T-37S-A

108A 139 #3124 A-31-D6 12+50; 3.4' LT 2-3LED3

3#2/1#8LTP T-37S-C

13"X24"X24" PB 12+47; 2' LT 3#2/1#8LTP T-37S-B 24" 3#2/1#8LTP T-37S-A

3" PVC 3" PVC

STO SAN STO SAN STO SAN STO SAN STO SAN 8" 8"

W W W W W W W W W W

WATER WATER

2" 9" 21" 24" 12" 16" 40' 43' 27' 33' ASPH. 8" ASPH. 10' 10.5'

CUC CUC CUC CUC G G G G G 3" 6"

9" 15" 15" PINE C.W. C.W. C.W. C.W. 2-3" PINE ASPH. PARKING BUMPER C.W. CONC. DWY. BWS BWS BWS ENT. WOOD RAMP

LONG TRAIL GRILL & PUB

SCALE, FEET 0 20

SHEET 15 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 204	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:40 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

SEE ALSO TRAFFIC PLANS

#102
A-31-D6
13+51; 41' LT
AT WALK
3LED5

#3092
A-31-6
14+70; 27' LT
3LED3, R

3#4/1#8LTP
T-37S-A

#3108
TYPE 10 BASE
TYPE 10 POLE
R, B 2-3LED3

3" PVC

3#2/1#8LTP
T-37S-B

3#2/1#8LTP
T-37S-A

#101
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
3LED3, B

3#2/1#8LTP
T-37S-A

#102
A-31-6
10+80; 2' RT
3LED3, R

#3094
TYPE 13 BASE
TYPE 13 POLE
3LED3, B

3" PVC
SCH. 80

3#2/1#8LTP
T-37S-A

3#2/1#8LTP
T-37S-B

POTHOLE TO VERIFY NO CONFLICT WITH 30" MAIN
HYDROEXCAVATE FOR LIGHT POLE INSTALLATION

#3068
A-31-D6
16+20; 26.0' RT
2-3LED3

13"X24"X24"
16+23; 7' RT
R, B

13"X24"X24" PB
15+69; 67' RT

#110
A-31-6
3LED3, R

13"X24"X24" PB
100+98; 40' RT

108A 139

E. OKLAHOMA AVE.

ASPH. PARKING

#117-119 E. OKLAHOMA AVE.

CONC.

14' ALLEY

LAWN

SCALE, FEET 0 20

SHEET 16 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 205	E

SOUTH CHASE AVENUE

N

W. OKLAHOMA AVE.

BRING CABLE TO PEDESTAL (CITY TERMINATE)

#126
A-26-D6
2-3LED3

3#2/1#8L TP
T-37S-C

CONNECT TO EXISTING 3"

108A
139

#116
A-31-D6
13#3; 130' LT
2-3LED3 LT

13"X24"X24" PB
13#4; 129' LT

3#2/1#8LTP
T-37S-C

3#4/1#8LTP
T-37S-C

3LED3

#100
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
3LED3.B

108A
139

SCALE: FEET 0 20

SHEET 17 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 206	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn
PLOT DATE : 11-DEC-2018 07:33
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

3#2/1#8LTP
T-37S-A

12"

3" PVC

3#2/1#8 LTP
T-37S-A

52.5'

5'

18'

108A
139

#119
A-31-6
101+92; 52' RT
3LED3,B

3" PVC
SCH.80

13"X24"X24" PB
101+97; 19' LT

#120
A-31-6
3LED3,R

108A
139

13"X24"X24" PB
101+95; 53' RT

DETAIL I
102

102

P.L.

5'

3#4/1#8 LTP
T-37S-A

17'

3" PVC

12"

C.W.

ABN'D

35'

3"

3#2/1#8 LTP
T-37S-A

2.5"
SCH.40
AT WALK

20"

CONC. DWY.

#125 E. OKLAHOMA AVE.

#126 E. OKLAHOMA AVE.

#131 E. OKLAHOMA AVE.

#132 E. OKLAHOMA AVE.

#138 E. OKLAHOMA AVE.

E. OKLAHOMA AVE.

CONNECT TO EXISTING
2.5" PVC

S. BURRELL ST.

103

#3105
A-21-6
ILED2,R

9'

2"

2.5"

#138
A-26-6
2LED3,B

17"

12"

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

6"

SCALE, FEET 0 20

SHEET 18 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 207	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:42 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

N

3#2/1#8LTP
T-37S-B

POTHOLE TO VERIFY NO CONFLICT WITH 30" MAIN
HYDROEXCAVATE FOR LIGHT POLE INSTALLATION

3#2/1#8LTP
T-37S-B

3#2/1#8LTP
T-37S-B

#3048
A-31-D6
17+62; 17' RT
2-3LED3

108A
139

DETAIL I
102

#3028
A-31-D6
18+54; 26' RT
2-3LED3

108A
139

13"X24"X24" PB
17+64; 19' RT

3" PVC
SCH. 80

13"X24"X24" PB
20+52; 30' RT

3#2/1#8LTP
T-37S-B

3" PVC
SCH. 80

CAP END

13"X24"X24" PB
17+93; 87' RT

3" PVC
SCH. 80

13"X24"X24" PB
20+52; 67' RT

3" PVC
AT WALK

3#4/1#8LTP
T-37S-B
AT WALK

13"X24"X24" PB
18+29; 87' RT

#3028
A-21-6
18+29; 84.5' RT
1LED2,B

108A
139

3#8/1#8LTP
T-37S-B
AT WALK

LEAVE 10' COIL
FOR CITY TERMINATION

E. GAUER CIR.

#3042 TO 3072 S. CHASE AVE.

WENDY'S

#3030
FOWARD DENTAL

SCALE, FEET 0 20

SHEET 19 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 208 E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn PLOT DATE : 30-OCT-2018 15:42 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

20 21 22

#3018
A-31-D6
20+11; 18' RT
2-3LED3

108A
139

B, R

13"X24"X24" PB
20+13; 20' RT

3" PVC
SCH. 80

3#8/1#8LTP
T-37S-B

13"X24"X24" PB
20+76; 18' RT

3" PVC
SCH. 80

3#2/1#8LTP
T-37S-B

DETAIL I
102

POTHOLE TO VERIFY NO CONFLICT WITH 30" MAIN
HYDROEXCAVATE FOR LIGHT POLE INSTALLATION

#2990
A-31-D6
21+58; 25.5' RT
2-3LED3

13"X24"X24" PB
21+60; 29' RT

3" PVC
SCH. 80

13"X24"X24" PB
20+18; 68' RT

#101
A-21-6
3' S.O.CB
20+95; 87' RT
ILED2, R

13"X24"X24" PB
20+95; 89' RT

3" PVC
SCH. 80

DETAIL I
102

CAP END

13"X24"X24" PB
21+33; 93' RT

3#8/1#8LTP
T-37S-B

3" PVC

#114
A-21-6
SAME SETBACK AS WOOD POLE
21+32; 154' RT
ILED2, B

13"X24"X24" PB
21+32; 157' RT

108A
139

E. MANITOBA ST.

COMMUNITY VETERINARY CLINIC

#2990

ASPH. DWY.

ASPH. PARKING

CURB

C.W.

P.L.

SCALE, FEET 0 20

SHEET 20 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 209	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn PLOT DATE : 30-OCT-2018 15:42 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

N

3#2/1#8LTP T-37S-B

3" PVC SCH. 80

DETAIL I 102

13"X24"X24" PB 23+08; 24' RT

#2978 A-31-D6 23+11; 22' RT 2-3LED3

3" PVC SCH. 80

13"X24"X24" PB 24+47; 5.5' LT

3#2/1#8LTP T-37S-B

#2968 A-31-D6 24+52; 1' LT 2-3LED3

3" PVC SCH. 80

DETAIL I 102

3#2/1#8L T-37S-B

108A 139

108A 139

23 24 25

158°38'27"

#2960 TO 2984

SCALE, FEET 0 20

SHEET 21 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 210	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:43 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

N

FRENCH DRAIN
CONC. DWY.
FENCE
WATER
GT
FO
RAM
FOSAN
STO
SAN
CUC
CMB
MMSD
WEP PED.
TES
C.W.

13"X24"X24" PB
25+73; 6'RT
#2940
A-31-D6
25+59; 5.5'LT
2-3LED3
108A
139
102
DETAIL I
3" PVC
SCH. 80
26
27
28
3#2/1#8LTP
T-37S-B
13"X24"X24" PB
26+30; 6'RT
#2926
A-31-D6
27+5; 4.2'LT
2-3LED3
13"X24"X24" PB
27+9; 6'RT
13"X24"X24" PB
28+35; 7'RT
#2916
A-31-D6
28+38; 5'RT
2-3LED3

SEE TRAFFIC PLANS

SCALE, FEET 0 20

SHEET 22 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 211	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:43 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

FENCE
CONC. WALL
FENCE
CONC.
N
14"
9"
13"
8"
13"
4"
TEL PED.
11"
12"
8"
10'
15'
5'
15'
W T
W
W
E
E
W
30"
WEP
WATER
#2906
A-31-D6
29+62; 3' LT
2-3LED3
3#2/1#8LTP
T-37S-B
13"X24"X24" PB
29+86; 3' LT
13"X24"X24" PB
29+65; 11' RT
B&R
#2846
A-31-D6
31+25; 5.5' RT
2-3LED3
MMSD
MMSD
MMSD
30"
29
30
31
STO
STO
STO
STO
27"
27"
SAN
SAN
CMB
CMB
CMB
12"X18"
6"
12"X18"
108A
139
108A
139
DETAIL I
102
3" PVC
SCH. 80
3#2/1#8LTP
T-37S-B
DETAIL I
102
3" PVC
SCH. 80
B&R
13"X24"X24" PB
31+29; 7' RT
W
W
W
W
CMB
CMB
CMB
CMB
12"
15"
18"
15"
1"
4"
4"
9"
9"
6'
10'
5'
RAMP
RAMP
#101
A-21-6
30+38; 64' RT
2LED2, B
13"X24"X24" PB
30+38; 68' RT
13"X24"X24" PB
29+90; 45' RT
3#8/1#8 LTP
T-37S-B
LEAVE 15' COIL
FOR CITY TERMINATION
3" PVC
72" MMSD
MMSD
MMSD
MMSD
E. DAKOTA ST.
14"
ASPH. PARK
#108 TO 118 E. DAKOTA ST.

SCALE, FEET 0 20

SHEET 23 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 212	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn
PLOT DATE : 30–OCT–2018 15:44
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

FENCE

#2832
A-31-D6
32+38.5; 2.5' RT
2-3LED3

3#2/1#8L TP
T-35S-A

13"X24"X24" PB
32+35; 4' RT

108A
139

3" PVC

3#2/1#8L TP
T-35S-A

#2816
A-31-D6
33+62.5; 1' LT
2-3LED3

13"X24"X24" PB
33+59; 2' RT

108A
139

3#2/1#8L TP
T-35S-A

108A
139

#2802
A-31-D6
34+80; 2' LT
2-3LED3

13"X24"X24" PB
34+83; 2; 1' RT

3" PVC
SCH. 80

13"X24"X24" PB
34+83; 2; 40' RT

2"X18"

CMB

MMSD

15"X22"

E. MONTANA ST.

*2836 S. CHASE AVE. *2830 *2826 *2822 *2816 *2812 *2810-2810A *2804

SCALE, FEET 0 20

SHEET 24 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 213	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:44 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

N

#2764
WALLPACK
3' BELOW BRIDGE BEAM
36+88; 5.' LT
OLED3.R

141

3#8/1#8LTP
T-35S-A

13"X24"X24" PB
35+72; 3' RT

13"X24"X24" PB
36+88; 37' LT

3" PVC
SCH. 80

3#2/1#8LTP
T-35S-A

#2762
A-31-D6
37+87; 1.5,' LT
2-3LED3

108A
139

13"X24"X24" PB
35+72; 3' RT

13"X24"X24" PB
36+28; 3' RT

#2784
A-31-D6
36+32; 1.' RT
2-3LED3

108A
139

3" PVC
SCH. 80

13"X24"X24" PB
35+64; 36' RT

13"X24"X24" PB
37+84; 2' RT

13"X24"X24" PB
37+58; 39' LT

#2763
WALLPACK
3' BELOW BRIDGE BEAM
37+58; 44.' LT
OLED3, R

141

#100
A-21-6
35+46; 56' RT
2LED2, B

108A
139

3" PVC
SCH. 80

13"X24"X24" PB
35+9; 2; 64' RT

13"X24"X24" PB
35+44; 57' RT

13"X24"X24" PB
35+35; 91' RT

DETAIL I
102

DETAIL I
102

DETAIL I
102

BRIDGE WALL
BRIDGE SUPPORT
BRIDGE SUPPORT
CONC. SIGN BASE
CONC. DWY
RAMP
RAMP
RAMP
WEP
MMSD
MMSD
MMSD
MMSD
MMSD
MMSD
MMSD
MMSD
MMSD
MMSD
CMB
CMB
CMB
CMB
STO
STO
STO
T
E
W
G
B,R
B,R
15"
8"
12"
12"
18"
18"
18"
72"
42"
42"
72"
30"
30"
96"
24"
27"
16"
8"
3"
9"
4"
9"
8"
8"
40'
28'
32.5'
35
36
37

SCALE, FEET 0 20

SHEET 25 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 214	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:44 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

LIGHT POLE BASE

LIGHT POLE BASE

ASPH. DWY

CURB

CURB

MMSD

MMSD

MMSD

MMSD

MMSD

T

T

T

T

T

36"

17'

17'

8"

13"X24"X24" PB
38+24; 36' LT

3" PVC
SCH. 80

DETAIL 1
102
L02

3#2/1#8LTP
T-35S-A

3#2/1#8LTP
T-35S-A

3#2/1#8LTP
T-35S-A

E

E

E

WEP

W

W

W

W

W

30"

30"

8"

8"

8"

8"

LAWN

C.W.

C.W.

C.W.

STO

STO

STO

STO

STO

24"

12"

12"

3"

G

G

G

G

8

39

40

41

#2746
A-31-D6
39+5; 3' LT
2-3LED3

108A
139

DETAIL 1
102

3" PVC
SCH. 80

13"X24"X24" PB
39+1; 1' RT

13"X24"X24" PB
39+13; 39' RT

#2720
A-31-D6
40+24; 5' LT
2-3LED3

108A
139

13"X24"X24" PB
40+28; 1' LT

DETAIL 1
102

3" PVC
SCH. 80

3#8/1#8LTP
T-35S-A

33'

HANDHOLE BOX

1"

20"
16"

TEL PED.

TEL PED.

SOO RAILROAD CO.

CMB

SEWER EASEMENT

SCALE, FEET 0 20

SHEET 26 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 215	E

SOUTH CHASE AVENUE

2 2

N

LIGHT POLE BASE

SIGN

LIGHT POLE BASE

TRAP DOOR

CAP END 3" PVC

LEAVE 3-20' COIL FOR CITY TERMINATION

2-3" P

12" MMSD

8"

12'

2-3"

12"

MMSD

36"

MMSD

36"

MMSD

5'

16'

STO

RAMP

13"X24"X24" PB
43+78; 44' LT

*SEE ALSO TRAFFIC P

MMSD

5"

T

1"

6"

5"

T

14"

MMSD

24"

MMSD

W

W

8"

2-3"

E

E

E

E

3#2/1#8LTP
T-35S-A

3#2/1#8LTP
T-35S-A

24"

MMSD

MMSD

MMSD

MMSD

72"

MMSD

108A
139

#2702
A-31-D6
41+27; 5.5' RT
2-3LED3

42

13"X24"X24" PB
42+35; 1' RT

43

C.W.

4'

STO

15"

44

2-3"

B,R

B,R

108A
139

#2688
A-31-D6
43+54; 5.' RT
2-3LED3

W

W

W

W

W

W

W

W

13"X24"X24" PB
41+23; 5' RT

3"

G

G

G

G

108A
139

#2696
A-31-D6
42+35; 1.' RT
2-3LED3

MMSD

18"

SAN

30"

2-3"

10"

STUMP

34"

30"

RAMP

40'

33'

T

T

T

T

3"

9'

STO

SAN

18"

2'

STO

SAN

CMB

SCALE, FEET 0 20

SEWER EASEMENT

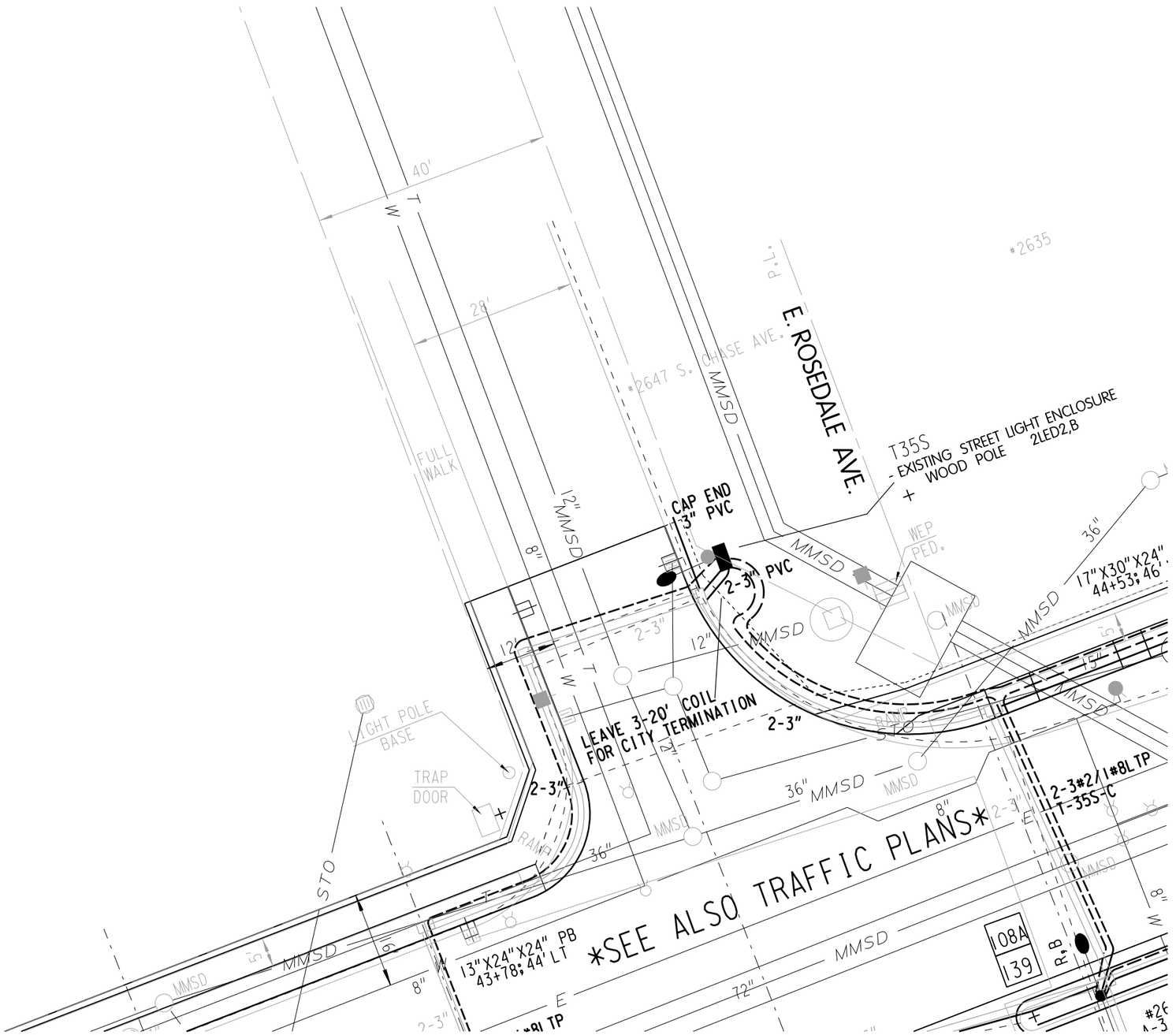
SHEET 27 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 216	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:45 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2



SCALE, FEET 0 20

SHEET 28 OF 44

PROJECT NO: 2060–00–76	S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 217	E

PLOT DATE : 20–DEC–2018 10:22

PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2

AVE.

T35S
- EXISTING STREET LIGHT ENCLOSURE
WOOD POLE 2LED2,B

SOUTH CHASE AVENUE

N

2

VC

WEP PED.

MMSD 30" MMSD 30"

MMSD 36" 17"X30"X24" PB 44+53; 46' LT

3#2/1#8LTP T-35S-D

13"X24"X24 PB 46+93; 36.' LT

BRIDGE WALL

EX.

STO 15" STO 18" STO

LANS*

2-3" 2-3#2/1#8LTP T-35S-C

E E E

MMSD 72" MMSD MMSD 72"

3" PVC SCH. 80

DETAIL I 102

CONNECT TO EXISTING CONDUIT

108A 139

R,B

3#8/1#8LTP T-35S-C

13"X24"X24 PB 45+51; 2' RT

B,R

CONCRETE BRIDGE COLUMN BASE

GUARD RAIL GUARD RAIL

45 46 47

3" PVC

#2662 WE ENERGIES 2-UB, 2-3LED3

#2680 A-31-D6 44+52; 6.' LT 2-3LED3

108A 139 #2646 A-31-D6 46+90; 4.5.' LT 2-3LED3

13"X24"X24 PB 46+93; 4.5.' RT

13"X24"X24 PB 46+93; 4.5.' RT

3" PVC SCH. 80

DETAIL I 102

13"X24"X24 PB 47+41; 36.' RT

W W W W 30"

G 3" G 8"

2-3"

21.5' 24" 28" 37.5' 36.5'

T T

MMSD

BRIDGE

WATER WATER

FENCE

STO STO STO STO STO

SEWER EASEMENT SEWER EASEMENT SEWER EASEMENT

6"

SEW MH MISSING

SCALE, FEET 0 20

SHEET 29 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 218	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave - Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn PLOT DATE : 30-OCT-2018 15:46 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

MMSD

13"X24"X24 PB
46+93; 36.' LT

2.5"PVC

3" PVC
SCH. 80 DETAIL I

CONNECT TO
EXISTING CONDUIT

102

13"X24"X24 PB
48+28; 4.' LT

3#2/1#8LTP
T-35S-D

BRIDGE

48

B,R

3" PVC

P.C. +74.8

49

3#2/1#8LTP
T-35S-D

13"X24"X24" PB
49+10; 5.5.' LT

B,R

TE&ES

3#8/1#8LTP
T-35S-D

50

*SEE ALSO TR

SB2

PB3

RAMP

3#2/1#8LTP
T-35S-C

#2600
A-31BD-6
50+17; 31' RT
3LED3,R

108A
115
139

#2601
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
3LED3,B

N

EX.2.5"PVC

3#2/1#8LTP
T-35S-C

CONNECT TO
EXISTING CONDUIT

108A
139

#2626
A-31-D6
48+28; 1.' LT
2-3LED3

13"X24"X24 PB
48+28; 6.' RT
DETAIL I

102

3" PVC
SCH. 80

CONNECT TO
EXISTING CONDUIT

108A
139

#2612
A-31-D6
49+13; 2.' LT
2-3LED3

3#2/1#8LTP
T-35S-C

W

EX. 2.5"PVC

T

BRIDGE
WALL

STO

15"

6"

8"

10"

MMSD

WATER

30"

3" PVC

13"X24"X24" PB
49+74; 45.' RT

3" PVC
SCH. 80

#2582
A-31-6
49+70; 62.' LT
3LED3,R

13"X24"X24" PB
49+67; 60.' RT

108A
139

3#8/1#8LTP
T-35S-C

3" PVC

115

6"

24"

CMB

3#2/1#8LTP
T-35S-C

108A
139

*2644 S. CHASE AVE.

KINNICKINNIC RIVER

SCALE, FEET 0 20

SHEET 30 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 219	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 20–DEC–2018 10:23 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2

N

S. 1ST ST.

#2600
A-31BD-6
50+17; 31' RT
3LED3,R

#2582
A-31-D6,
50+49; 68, RT
2-3LED3

#2572
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
3LED3,B

#2582
A-31-6
49+70; 62', LT
3LED3,R

#2560
A-31-D6
51+01; 175', RT
2-3LED3

3#2/1#8LTP
T-35S-C

3#8/1#8LTP
T-35S-C

3#6/1#8LTP
T-35S-C

3" PVC

3" PVC SCH. 80

13"X24"X24" PB
49+74; 45, RT

13"X24"X24 PB
51+10; 159, RT

13"X24"X24 PB
49+98; 172, RT

13"X24"X24 PB
49+60; 191, RT

108A
115
139

102

DETAIL 1

LEAVE 15' COIL
FOR CITY TERMINATION

TE&ES
MMSD
CMB
RAMP
STO
KINNICKINNIC RIVER

SCALE, FEET 0 20

SHEET 31 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 220	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn
PLOT DATE : 20–DEC–2018 10:24
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

22'

12"

RAILING

#2571
A-31-6
51+21.31' LT
3LED3.R

3#8/1#8LTP
T-35S-D

108A

2-3"

CMB

E

MMSD

3#2/1#8LTP
T-35S-D

#2548
A-31-D6
53+73.1' LT
2-3LED3

108A
139

53

52

51

13"X24"X24 PB
52+28.6.5' RT

13"X24"X24 PB
53+69.6.' RT

WATER

#2568
A-31-D6,
52+32.4.5.' RT
2-3LED3

108A
139

R,B

162° 38' 30"
P.I.

3#2/1#8LTP
T-35S-C

30"

8"

12-3"

TE&ES

W

T

RAMP

#2572
TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE
3LED3,B

108A
139

SCALE, FEET 0 20

SHEET 32 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 221	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:47 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

#2530
A-21-6
ILED2,
R, PED

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

3#4/1#8L TP
T-35S-C

108A
139

#2515
A-21-6
56+14; 72' LT
ILED2, B

3" PVC
SCH. 80

13"X24"X24 PB
55+80; 55' LT

13"X24"X24 PB
56+14; 68' LT

DETAIL 1

102

RAMP

13"X24"X24 PB
55+51; 34' LT

MMSD

108A
139

#2548
A-31-D6
53+73; 1' LT
2-3LED3

3#2/1#8L TP
T-35S-C

3#4/1#8L TP
T-35S-D

DETAIL 1

102

3" PVC
SCH. 80

3#2/1#8L TP
T-35S-D

3#2/1#8L TP
T-35S-C

CMB

54 55 56

R,B

13"X24"X24 PB
53+69; 6' RT

13"X24"X24" PB
55+54; 3.5' LT

13"X24"X24 PB
55+14; 2' LT. 'RT

#2528
A-31-D6
55+18; 5' LT
2-3LED3

108A
139

3" PVC
SCH. 80

DETAIL 1

102

13"X24"X24 PB
56+36; 3' RT

108A
139

#2512
A-31-D6
56+40; 1' LT
2-3LED3

W

T

TE&ES

SCALE, FEET 0 20

SHEET 33 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 222	E

2

N

S. 3RD ST.

2509 S. 3RD ST.

P.L.

RAILING

R AVE.

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

3#8/1#8LTP
T-35S-C

140'

3#8 4 1#8LTP
T-35S-C

#2547
WE ENERGIES
WP#66-2317
6-0 UB
ILED2
B, PED

38'

26'

6'

22"

24"

G

3"

30"

RAMP

MMSD

CMB

12"

15"

6"

W

3#4/1#8LTP
T-35S-C

3#8/1#8LTP
T-35S-C

18"

29'

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

#2530
A-21-6
ILED2,
R, PED

#2515
A-21-6
56+14; 72' LT
ILED2, B

13"X24"X24 PB
56+14; 68' LT

DETAIL I

102

108A
139

3" PVC
SCH. 80

3#2/1#8LTP
T-35S-C

3#8/1#8LTP
T-35S-D

13"X24"X24 PB
55+80; 55' LT

13"X24"X24 PB
55+51; 34' LT

#2516
A-21-6
57+73; 56' LT
ILED2, R

13"X24"X24 PB
57+48; 34' LT

3" PVC
SCH. 80

3#2/1#8LTP
T-35S-C

3#8/1#8LTP
T-35S-D

13"X24"X24 PB
57+48; 3' LT

#2502
A-31-D6
57+28; 5' LT
2-3LED3

13"X24"X24 PB
56+32; 2' RT

#2512
A-31-D6
56+40; 1' LT
2-3LED3

13"X24"X24 PB
56+36; 3' RT

8"

SAN

STORM

TE&S

SCALE, FEET 0 20

SHEET 34 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 223	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:48 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

SOUTH CHASE AVENUE

W. ARTHUR AVE.

#2516
A-21-6
57+73; 56' LT
ILED2, R

3"X24"X24" PB
57+76; 57' LT

3#8/1#8L TP
T-35S-D

3" PVC SCH. 80

13"X24"X24" PB
57+18; 90' LT

2#8/1#8L TP
T-35S-D

LEAVE 10' COIL
FOR CITY TERMINATION

13"X24"X24" PB
58+18; 90' LT

N

C.W.

RAMP

8" SAN

STO

12"

W

G

MMSD

E

T

3"

20'

9"

13"

WATER

ENT.

COM

RAILING

24 PB
4' LT

3" PVC
SCH. 80

15" CMB

3#8/1#8L TP
T-35S-D

3#2/1#8L TP
T-35S-C

3#2/1#8L TP
T-35S-D

3#2/1#8L TP
T-35S-C

58

59

60

R,B

LAWN

10"

11"

12"

9"

13"X24"X24" PB
57+48; 3' LT

8"

DETAIL I

102

13"X24"X24" PB
58+44; 1' RT

#2484
A-31-D6
58+46; 1.5' LT
2-3LED3

108A
139

3" PVC

13"X24"X24" PB
58+42; 3' RT

#2470
A-31-D6
59+42; 2.5' LT
2-3LED3

13"X24"X24" PB
60+51; 3' RT

13"X24"X24" PB
58+19; 34' RT

3#8/1#8L TP
T-35S-C

3" PVC

LEAVE 20' COIL
HERE FOR STREET LIGHTING
TERMINATION

TE&ES

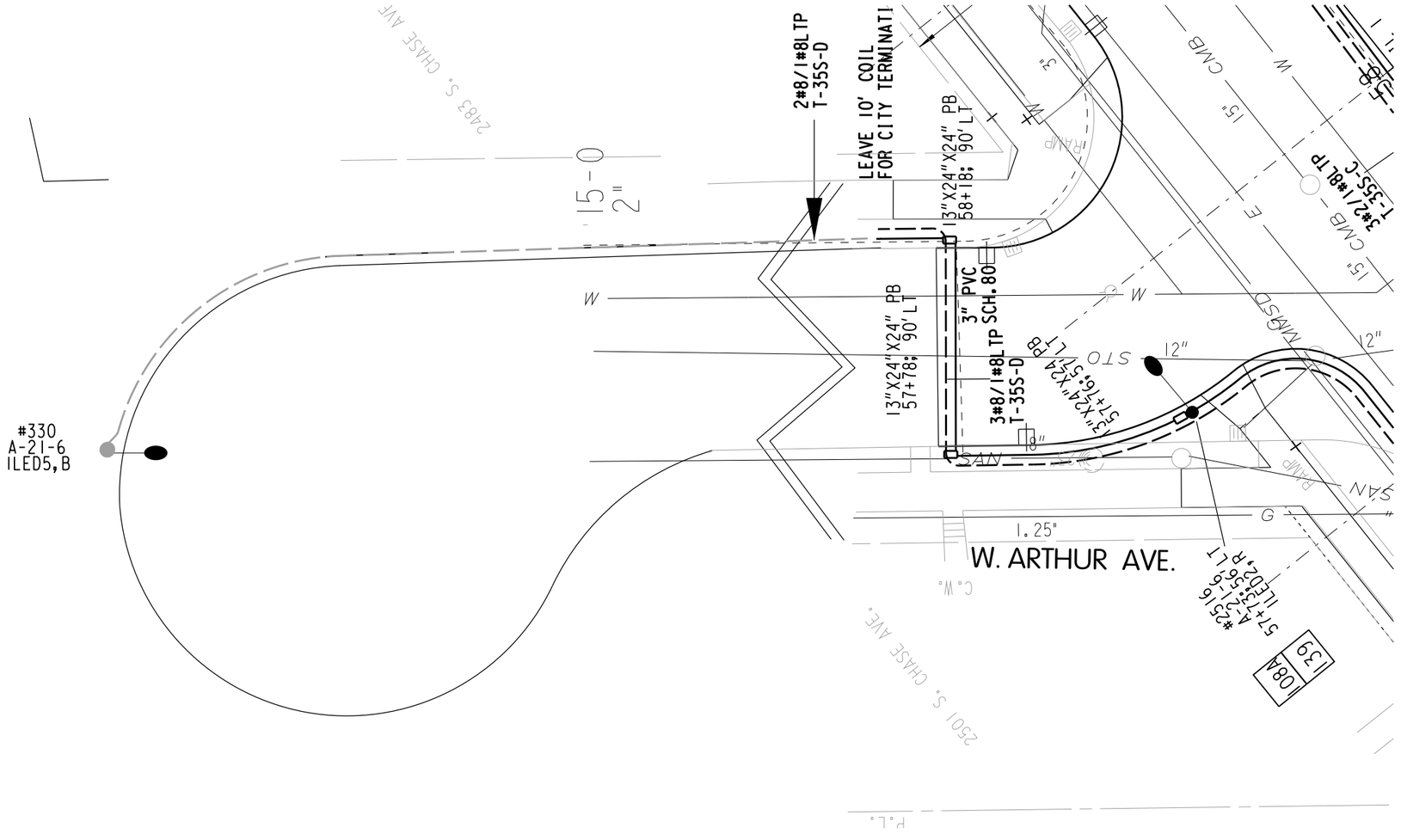
22"

SCALE, FEET 0 20

SHEET 35 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 224	E

2



SCALE, FEET 0 20

SHEET 36 OF 44

PROJECT NO: 2060–00–76	S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 225	E

PLOT DATE : 30–OCT–2018 15:49

PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

2 2

3#2/1#8LTP
T-35S-D

EXISTING 13"X24"X18"
PULL BOX

2-2.5

FENCE FENCE

AO

MMSD

12"

30"

8"

5" 7" 5"

W

MMSD MMSD

E E E

G

42'

3#2/1#8LTP
T-35S-D

CUC

FO

#2452
A-31-D6
62+82; 13'LT
2-3LED3

108A
139

CMB 15"

3#2/1#8LTP
T-35S-C

3#2/1#8LTP
T-35S-D

6"

R, B

DETAIL I

102

61

62

63

89° 45' 42"

90° 00' 00"

21.14

*SEE ALSO TRAFFIC

#2470
A-31-D6
+51; 2.5'LT
2-3LED3

3" PVC
SCH. 80

#2456
A-31-D6
61+61; 3'LT
2-3LED3

13"X24"X24 PB
60+51; 2'RT

108A
139

3#2/1#8LTP
T-35S-C

T T T

STO

3" 12"

W 13" 1" W 13" 8" W 10" 3" W

4"

G G G G

9' 6' 9'

TE&ES TE&ES TE&ES TE&ES

12"

*2450-2458 S. CHASE AVE.

FO RAMP

TES

CUC

DAWN

CMB

MMSD

C.W.

RAMP

13"X24"X24 PB
63+60; 95' RT

30"

SCALE, FEET
0 20

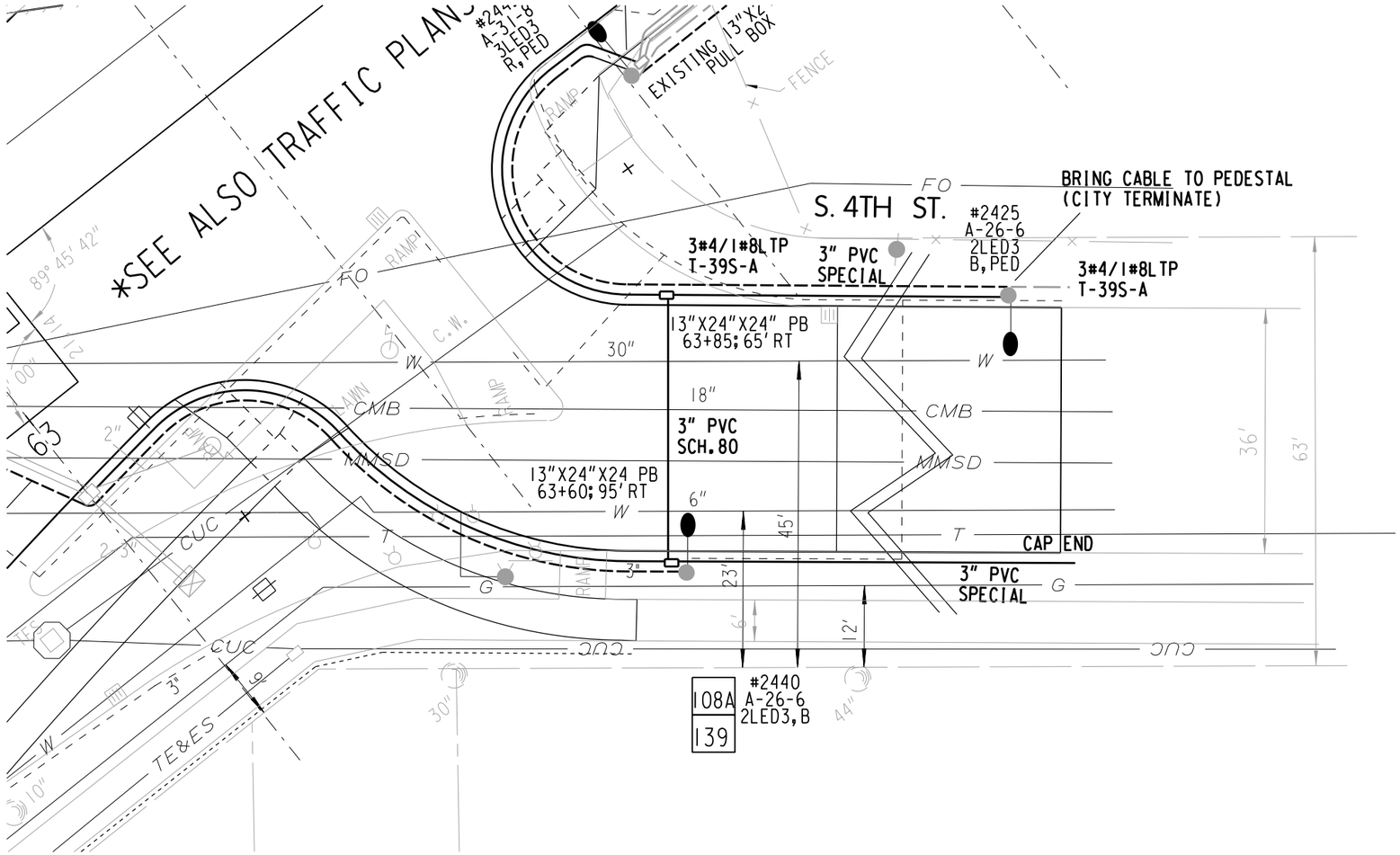
SHEET 37 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 226	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:49 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2



SCALE, FEET 0 20

SHEET 38 OF 44

PROJECT NO: 2060–00–76	S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 227	E

SOUTH CHASE AVENUE

#2441
25-S8-AL
3LED3,R

3#4/1#8LTP
T-35S-D(NEW)
T-39S-A(OLD)

#2431
25-S8-AL
3LED3,B

3#4/1#8LTP
T-35S-D(NEW)
T-39S-A(OLD)

2-2.5"

#2421
25-S8-AL
3LED3,R

3#4/1#8LTP
T-35S-D

E E E E

64 65 66

52' 68'

PLANS*

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

#2442
A-31-8
3LED3
R,PED

RAMP

EXISTING 13"X24"X18"
PULL BOX

FENCE

3#6/1#8LTP
T-39S-A

3#4/1#8LTP
T-39S-A

#2432
25-S8-AL
3LED3,R

3#6/1#8LTP
T-39S-A

2-2.5"

#2420
25-S8-AL
3LED3,B

3#4/1#8LTP
T-39S-A

FREEWAY

30"

3#4/1#8LTP
T-39S-A

S. 4TH ST.

13"X24"X24" PB
63+85.65 RT

3" PVC
SPECIAL

18"

3" PVC
SCH. 80

#2425
A-26-6
2LED3
B,PED

BRING CABLE TO PEDESTAL
(CITY TERMINATE)

3#4/1#8LTP
T-39S-A

45'

CMB

MMSD

12'

3" PVC
SPECIAL

CAP END

36'

N

SCALE, FEET 0 20

SHEET 39 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 228	E

SOUTH CHASE AVENUE

2 2

CAP END

BRING CABLE TO PEDESTAL (CITY TERMINATE)

CAP END

#2429
A-26-6
2LED2
B, PED

3#4/1#8L TP
T-35S-D

CMB

10"

5"

G

108A
139

#2412
A-26-6
67+87; 73' LT
2LED2, R

30"

16"

3#4/1#8L TP
T-35S-D

108A
139

#2516
A-31-6
67+30; 71' LT
3LED3, B

13"X24"X24" PB
67+83; 71' LT

13"X24"X24 PB
67+30; 67' LT

DETAIL 1
102

3" PVC
SCH. 80

13"X24"X24 PB
67+80; 48' LT

13"X24"X24" PB
68+34; 41' LT

6"

3" PVC
SCH. 80

DETAIL 1
102

3#4/1#8L TP
T-35S-D

#2401
A-31-6
69+25; 26' LT
3LED3, R

EXISTING 13"X24"X18"
PULL BOX

3#8/1#8L TP
T-35S-D

RAMP

RAMP

13"X24"X24" PB
68+5; 27' LT

#2408
A-31-6
68+9.5; 27' LT
3LED3, B

108A
139

13"X24"X24" PB
68+77; 32' LT

8"

13"X24"X24 PB
69+21; 26' LT

DETAIL 1
102

108A
139

67 68 69

CMB

3" PVC
SCH. 80

108A
139

#2404
A-31-6
68+78; 28' RT
3LED3, B

30"

3#6/1#8L TP
T-39S-A

2-2.5"

#2412
25-S8-AL
3LED3, R

EXISTING 13"X24"X18"
PULL BOX

13"X24"X24" PB
68+74; 28' RT

3#4/1#8L TP
T-39S-A

RAMP RAMP

S. 5TH ST.

*2413 S. 5TH ST.

*2409 S. 5TH ST.

*2405 S. 5TH ST.

*2403 S. CHASE AVE.

13"X24"X24"
69+98; 64' LT PB

ELEV. 51.32

MMSD

N

SCALE, FEET 0 20

SHEET 40 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 229 E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn PLOT DATE : 30-OCT-2018 15:51 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2

2

13"X24"X24" PB
70+7; 96' LT

#515
A-21-6
1LED2,B

108A
139

DETAIL I
102

13"X24"X24" PB
70+23; 43' LT

13"X24"X24" PB
69+98; 64' LT

3" PVC
SCH. 80

2-3#4/1#8LTP
T-35S-D

N

#2403 S. CHASE AVE.

#2405 S. 5TH ST.

#2409 S. 5TH ST.

P.L.

RAMP

71

70

69

W

6"

3#4/1#8LTP
T-39S-A

ENT.

CONC.
20'
ALLEY

13"X24"X24" PB
70+05; 29' RT

#2337
A-31-ML
70+3; 29' RT
S2LED4,B

#2401
A-31-6
69+25; 26' LT
3LED3,R

3#4/1#8LTP
T-35S-D

13"X24"X24" PB
69+21; 26' LT

DETAIL I
102

C.W.

8"

WEP

S. 5TH ST.

3#4/1#8LTP
T-39S-A

RAMP RAMP

3" PVC CAP END

24'

3" PVC
SCH. 80

13"X24"X24" PB
68+71; 32' LT

DETAIL I
102

178' 32' 53"

E

G

6"

#2337
A-26-6
2LED2,R

108A
139

3" PVC
SCH. 80

3#4/1#8LTP
T-39S-A

13"X24"X24" PB
69+98; 111' RT

CMB

30"

#2404
A-31-6
68+78; 28' RT
3LED3,B

DETAIL I
102

13"X24"X24" PB
69+71; 121' RT

13"X24"X24" PB
69+90; 138' RT

16"

3" PVC

*2323-2337 S. 5TH ST.

SCALE, FEET 0 20

SHEET 41 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 230	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn
PLOT DATE : 30–OCT–2018 15:51
PLOT BY : elee
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

SOUTH CHASE AVENUE

S. 5TH PL.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

*1 S. CHASE AVE.

13"X24"X24" PB 71+18;99'LT

13"X24"X24" PB 71+78;56'LT

13"X24"X24" PB 72+34;44'LT

3" PVC

3#4/1#8LTP T-35S-D

#2322 A-21-6 71+90;43'LT 1LED2,B

108A 139

#2329 A-31-ML 71+15;26'LT S2LED4,R

13"X24"X24" PB 71+38;26'LT

3" PVC SCH. 80 13"X24"X24" PB 71+98;40'LT

DETAIL 102

#2317 A-26-ML S2LED4,B

3#4/1#8LTP T-35S-D

#2311 H17 SOLED4,R

#2305 H17 SOLED4,B

13"X24"X24" PB 73+30;27'LT

13"X24"X24" PB 72+74;27'LT

13"X24"X24" PB 73+88;27'LT

13"X24"X24" PB 73+45;5'RT

#2310 H17 73+45;5'RT SOLED4,B

#2302 H17 73+93;5'RT SOLED4,R

#2306 H17 73+13;13'RT SOLED4,R

#2302 H17 73+52;44'RT SOLED4,R

13"X24"X24" PB 73+05;44'LT

3#8/1#8LTP T-39S-A

3#4/1#8 LTP T-39S-A

DETAIL 1

13"X24"X24" PB 72+98;39'RT

3#6/1#8LTP T-39S-A

13"X24"X24" PB 71+98;28'RT

#2318 A-31-ML 8'FROM ALLEY 71+96;28'RT S2LED4,R

3#4/1#8LTP T-35S-A

13"X24"X24" PB 72+47;28RLT

#2312 H17 SOLED4,B

71 72 73 74

CMB W T RAMP ASPH. PARKING CONC. ALLEY CUC

SCALE, FEET 0 20

SHEET 42 OF 44

PROJECT NO: 2060–00–76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 231	E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060–00–76)\2060–00–76 TEES Conduit.dgn PLOT DATE : 30–OCT–2018 15:51 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

SOUTH CHASE AVENUE

W. LINCOLN AVE.

#525 H-17 SOLED4,B
13"X24"X24" PB 73+23; 111' RT
3" PVC SPECIAL
2.5"

#2306 H-17 SOLED4,R
13"X24"X24" PB 72+98; 39' RT
3#4/1#8 LTP T-39S-A
DETAIL I

#2310 H17 SOLED4,B
13"X24"X24" PB 73+45; 5' RT

#2302 H-17 SOLED4,R
73+52; 44' RT

3#8/1#8LTP T-39S-A
13"X24"X24" PB 73+92; 5' RT

#2305 H17 SOLED4,B
13"X24"X24" PB 73+45; 5' RT
3#4/1#8LTP T-35S-D

13"X24"X24" PB 73+30; 27' LT
13"X24"X24" PB 73+88; 27' LT PB

#2301 A-26-ML S2LED4,R
3#4/1#8LTP T-35S-D

13"X24"X24" PB 74+12; 27' LT

#563 A-26-ML S2LED4,B
13"X24"X24" PB 74+55; 57' LT

#569 H-17 SOLED4,R
3#4/1#8LTP T-35S-D

#573 P POLE-ML S2LED4,B
13"X24"X24" PB 74+80; 90' LT
3" PVC SPECIAL

3" PVC SCH. 80

SEE ALSO TRAFFIC PLANS

BRING CABLE TO PAD FOR CITY TERMINATE
CONNEC TO EXISTING PVC
3" PVC SPECIAL
2.5"

#514 A-26-ML S2LED4,R
3#6/1#8LTP T-39S-A

#524 H-17 SOLED4,B

13"X24"X24" PB 73+73; 146' RT

S. 5TH PL.

*522 W. LINCOLN AVE.

#2274 H-17 SOLED4,R

3#6/1#8LTP T-39S-A

3#4/1#8LTP T-39S-A

#542 TYPE 10 BASE TYPE 10 POLE ML-S2LED4,B

*550 W. LINCOLN AVE.

#548 H-17 SOLED4,R

#556 A-26-ML S2LED4,B

3#4/1#8LTP T-39S-A

3#6/1#8LTP T-39S-A

#2276 H17 OLED4,B

13"X24"X24" PB 75+20; 40' RT

3#4/1#8LTP T-39S-A

3" PVC SPECIAL

13"X24"X24" PB 75+07; 21' LT

#568 H-17 SOLED4,B
2.5"

CONNEC TO EXISTING PVC

#562 A-26-ML S2LED4,R
74+90; 4' LT

*2265-2279 S. CHASE AVE.

B.M. NW BOLT HYD NE CORNER W. LINCOLN AVE. & S. 5TH ST. STA. 74+00 - 127' RT. ELEV. 45.75

SCALE, FEET 0 20

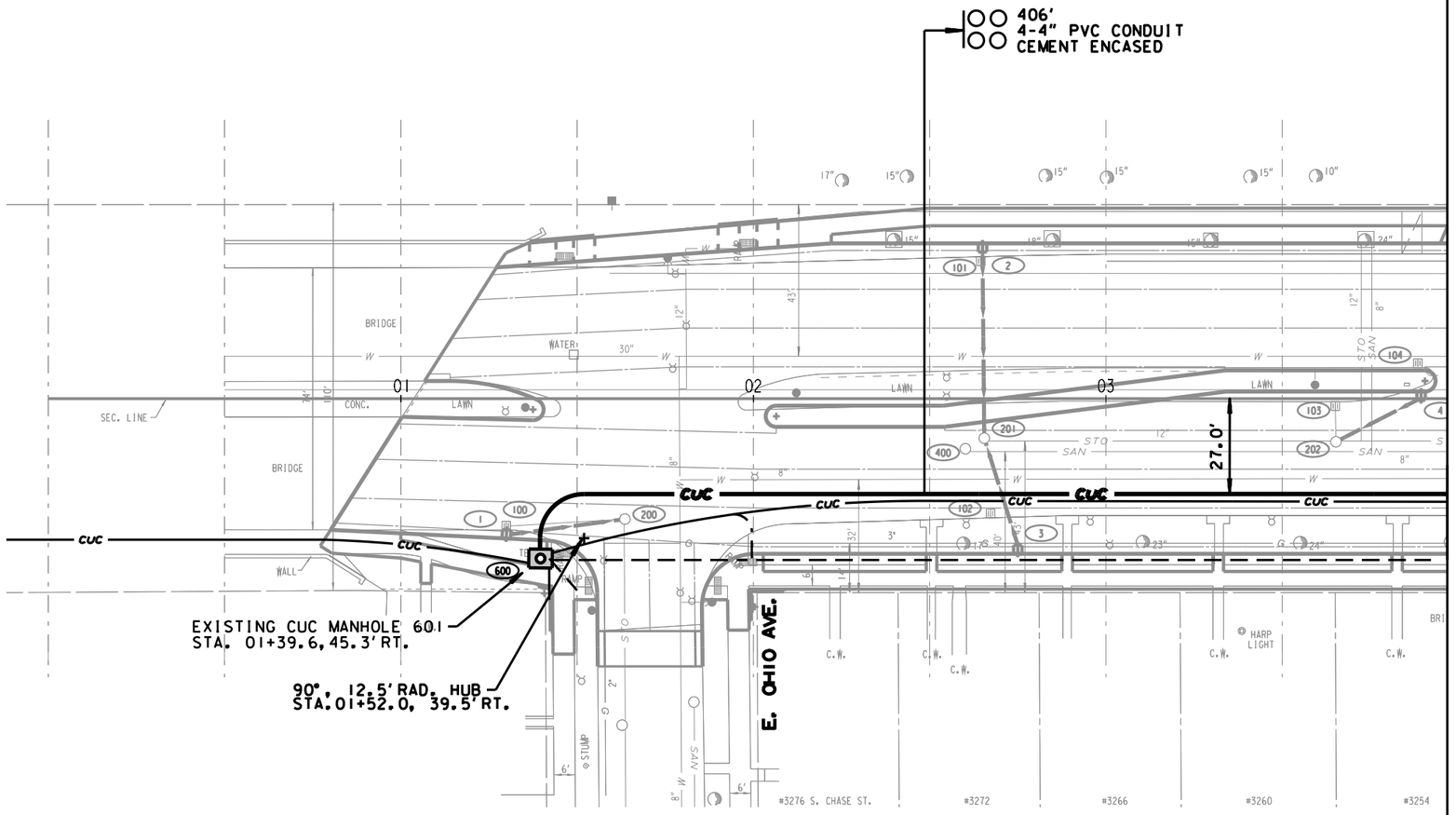
SHEET 43 OF 44

PROJECT NO: 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT DETAILS & PLAN	SHEET 232 E

FILE NAME : W:\bes\pavings\2019work\sChase Ave – Ohio to Lincoln (2060-00-76)\2060-00-76 TEES Conduit.dgn PLOT DATE : 30-OCT-2018 15:52 PLOT BY : elee PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

2

SOUTH CHASE AVENUE



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 1 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 233	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\01-04.DGN

SOUTH CHASE AVENUE

TRANSITION CONDUIT FROM A 2X2 TO 1X4 PACKAGE FOR INSTALLATION INTO MANHOLE. INSTALL PROPOSED DUCTS ON TOP OF EXISTING 1X4 PACKAGE.

4-4" PVC CONDUIT CEMENT ENCASED

378' 4-4" PVC CONDUIT CEMENT ENCASED

PIGGLY WIGGLY GROCERY #123 W. OKLAHOMA AVE.

5° BEND STA. 5+26.5, 29.4' RT.

5° BEND STA. 4+98.4, 27.0' RT.

5° BEND STA. 5+44.0, 29.4' RT.

5° BEND STA. 5+71.1, 27.0' RT.

5° BEND STA. 7+86.0, 27.0' RT.

5° BEND STA. 8+57.0, 33.0' LT.

27.0'

27.0'

33'

EXISTING CUC MANHOLE 601 STA. 05+35.2, 29.4' RT.

ABANDON MANHOLE 602A EXISTING CUC MANHOLE STA. 08+04.6, 45.8' RT.

PROPOSED TRAFFIC PULL BOX INSTALLED BY OTHERS

EXISTING CUC MANHOLE 603 STA. 09+09.2, 45.3' RT.

90°, 5' RAD. HUB STA. 09+02.8, 38.0' RT.

34'-2-4" PVC CONDUIT CEMENT ENCASED

E. EUCLID AVE.

B.M. NW BOLT HYD. E/S S. CHASE AVE. STA. 05+23 - 35' RT. ELEV. 65.31

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 2 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 234	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\04-10.DGN

2

B.M. NW BOLT HYD SW CORNER
S. CHASE AVE. & W. OKLAHOMA AVE.
STA. 12+62 - 40'LT.
ELEV. 60.43

SOUTH CHASE AVENUE

E. OKLAHOMA AVE.

PROPOSED TRAFFIC CONTROL CABINET BY OTHERS

25'-4-4" PVC CONDUIT CEMENT ENCASED
CAP TOP DUCTS

99'-2-4" PVC CONDUIT CEMENT ENCASED

165'-6-4" PVC CONDUIT CEMENT ENCASED

EXISTING CUC MANHOLE 605
STA. 14+17.1, 29.9'LT.

30°, 12.5' RAD. HUB
STA. 13+13.9, 43.2'LT.

52.5°, 12.5' RAD. HUB
STA. 13+49.0, 40.0'LT.

96'-2-4" PVC CONDUIT CEMENT ENCASED

PROPOSED CUC MANHOLE 606
STA. 14+67.4, 34.4 RT.
6' DIAMETER "DOGHOUSE" MANHOLE INSTALL OVER EXISTING CONDUIT

EXISTING CUC MANHOLE 604
STA. 13+43.2, 45.1'RT.

EXISTING CUC MANHOLE 607
STA. 15+16.1, 29.9'LT.

35.5'

36.5'

#115 W. OKLAHOMA AVE. ARBY'S RESTAURANT

537-0701-9
279.50

#3154 #3148 #3142 #3136 #3130 #3124-3126 #3118-3118A #3114-3116 #117-119 E. OKLAHOMA AVE.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 3 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 235	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\10-16.DGN

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 20+55 - 22'LT.
ELEV. 60.62

SOUTH CHASE AVENUE

505'-6-4" PVC CONDUIT
CEMENT ENCASED

PROPOSED CUC MANHOLE 609
4' DIAMETER "DOGHOUSE"
INSTALL OVER EXISTING CONDUIT
STA. 16+36.4, 35.5 RT

PROPOSED CUC MANHOLE 611
4' DIAMETER
STA. 21+45.5, 35.5 RT

ABANDON MANHOLE 608A
EXISTING CUC MANHOLE
STA. 16+36.4, 50.3'RT

ABANDON MANHOLE 610A
EXISTING CUC MANHOLE
STA. 20+86.4, 50.2'RT.

E. GAUER CIR.

E. MANITOBA ST.

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.
STA. 18+40 - 70'RT.
ELEV. 60.97

B.M. NW BOLT HYD NE CORNER
S. CHASE AVE. & E. GAUER CIR.

#3042 TO 3072 S. CHASE AVE.

WENDY'S

#3030
FOWARD DENTAL

#3010

COMMUNITY VETERINARY CLINIC

#2990

213.08
505-1124-100

125
505-1126-211-6

120
505-1126-111-X

52
505-1172-9

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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
⊡	EXISTING TES MANHOLE
—— CUC ——	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 4 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 236	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\16-22.DGN

SOUTH CHASE AVENUE

97'-6-4" PVC CONDUIT
CEMENT ENCASED

PROPOSED CUC MANHOLE 614
4' DIAMETER
STA. 27+00.0, 14.5 RT.

PROPOSED CUC MANHOLE 613
4' DIAMETER
STA.26+98.7, 14.5'RT.

455'-6-4" PVC CONDUIT
CEMENT ENCASED

℄PT.
STA.22+80.8, 35.5'LT.

14'-4-4" PVC
CONDUIT
CEMENT ENCASED

30°, 12.5' RAD. HUB
STA.26+91.1, 33.1'LT.

17'-2-4" PVC
CONDUIT
CEMENT ENCASED
CAP DUCTS

FUTURE TRAFFIC
CONTROL CABINET
BY OTHERS

ABANDON MANHOLE 615A
EXISTING CUC MANHOLE
STA. 27+17.6, 28.0'RT.

EXISTING POLICE
CALL BOX

17'-2-4" PVC
CONDUIT
CEMENT ENCASED

ABANDON MANHOLE 612A
EXISTING CUC MANHOLE
STA. 25+93.3, 28.3'RT.

℄PT.
STA.24+23.07, 14.5'LT.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H.38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 237	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\22-27.DGN

2

SOUTH CHASE AVENUE

506'-6-4" PVC CONDUIT CEMENT ENCASED

B.M. NW BOLT HYD. W/S S. CHASE AVE. STA. 29+15 - 35'LT. ELEV. 51.73

11.25°, 12.5' RAD. HUB STA. 30+12.1, 2.0'LT.

11.25°, 12.5' RAD. HUB STA. 30+41.1, 21.8'LT.

11.25°, 12.5' RAD. HUB STA. 30+69.7, 21.8'LT.

11.25°, 12.5' RAD. HUB STA. 30+98.6, 2.0'LT.

PROPOSED CUC MANHOLE 616 4'DIAMETER STA. 32+08.8, 14.5'RT.

FUTURE TRAFFIC CONTROL CABINET BY OTHERS

EXISTING POLICE CALL BOX

E. DAKOTA ST.

*2929 S. CHASE AVE.

*108 TO 118 E. DAKOTA ST.

*2836 S. CHASE AVE.

*2830

*2826

*2822

SE AVE.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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
▣	EXISTING TES MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 6 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 238	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\27-33.DGN

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 35+02 - 35'LT.
ELEV. 31.61

355'-6-4" PVC CONDUIT
CEMENT ENCASED

℄PT.
STA. 35+57.6, 22.5'RT.

60'-2-4" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS

425'-6-4" PVC CONDUIT
CEMENT ENCASED

SOO RAILROAD CO.

PRIVATE ROADWAY & PARKING EASEMENT

LIGHT POLE BASE

CONC. SIGN BASE

BRIDGE WALL

BRIDGE SUPPORT

19.5'

22.5'

22.5'

℄PT.
STA. 33+29.1, 19.5'RT.

℄PT.
STA. 34+91.8, 19.5'RT.

PROPOSED CUC MANHOLE 617
4' DIAMETER
STA. 35+68.6, 22.5'RT.

13'-2-4" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS

E. MONTANA ST.

SOO RAILROAD CO.

*2822 *2816 *2812 *2810-2810A *2804 *2800-2802 S. CHASE AVE.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE

EXISTING CUC MANHOLE

— CUC — EXISTING CONDUIT

CONDUIT TO BE ABANDONED

SHEET 7 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 239	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\33-39.DGN

SOUTH CHASE AVENUE

B.M. LIGHT POLE BASE
STA. 42+53 - 45' LT.
ELEV. 13.67

420'-6-4" PVC CONDUIT
CEMENT ENCASED

5'-2-4" PVC CONDUIT
CEMENT ENCASED

FUTURE TRAFFIC
CONTROL CABINET
BY OTHERS

EXISTING STREET
LIGHTING ENCLOSURE

82'-4-4" PVC CONDUIT
CEMENT ENCASED
CAP TOP DUCTS
EXTEND TO STREET
LIGHTING ENCLOSURE

11.25°, 12.5' RAD. HUB
STA. 44+40.6, 20.0' LT.

11.25°, 12.5' RAD. HUB
STA. 40+35.8, 23.0' LT.

PROPOSED MANHOLE 618
4' DIAMETER
STA. 39+97.6, 22.5' RT.

PROPOSED MANHOLE CUC 619
4' DIAMETER
STA. 44+21.9, 07.2' RT.

5° BEND
STA. 43+83.4, 10.5' RT.

REPLACE FRAME
& GRATE FOR 1487
NO ADM'07

*2650 TO 2700 S. CHASE AVE.
KLEMENT COMPANY

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 8 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 240	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\39-45.DGN

SOUTH CHASE AVENUE

291'-4-4" PVC CONDUIT CEMENT ENCASED (PROPOSED MANHOLE TO BRIDGE ABUTMENT)

INSTALL AT A DEPTH OF 42" TO TOP OF DUCTS AT THE ABUTMENT AND CAP.

INSTALL AT A DEPTH OF 42" TO TOP OF DUCTS AT THE ABUTMENT AND CAP.

176'-4-4" PVC CONDUIT CEMENT ENCASED (BRIDGE ABUTMENT TO PROPOSED MANHOLE

B.M. NW BOLT HYD. W/S S. CHASE AVE. STA. 51+03 - 35' LT. ELEV. 22.54

5° BEND STA. 45+62.7, 10.5' RT.

PROPOSED MANHOLE 620 4' DIAMETER STA. 50+10.1, 15.1' RT.

PROPOSED TRAFFIC CONTROL CABINET BY OTHERS

℄PT. STA. 51+50, 26.0' RT.

S. 1ST. ST.

*2644 S. CHASE AVE.

KINNICKINNIC RIVER

FUTURE CONDUIT

BRIDGE

CRASH CUSHION

CONCRETE BRIDGE COLUMN BASE

GIRDER 5

GIRDER 4

GIRDER 3

BRIDGE WALL

PED./ BIKE WAY

SEWER EASEMENT

SEWER EASEMENT 20

RESERVED LOT

(MILWAUKEE COUNTY)

RAILING

LAWN

RAMP

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 9 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 241	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\45-50.DGN

SOUTH CHASE AVENUE

B.M. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 51+03 - 35'LT.
ELEV. 22.54

PROPOSED CUC MANHOLE 620
4' DIAMETER
STA. 50+10.1, 15.1'RT.

469'-4-4" PVC CONDUIT
CEMENT ENCASED

498-0711
400.17

*2529-2579 S. CHASE AVE.

16.2'

26.0'

26.0'

CUC

EXISTING TRAFFIC CABINET

39'-2-4" PVC CONDUIT CEMENT ENCASED

CAP DUCT

℄PT.
STA. 51+50, 26.0'RT.

PROPOSED CUC MANHOLE 621
4' DIAMETER
STA. 54+80.3, 26.0'RT.

S. 1ST. ST.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 10 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 242	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\50-56.DGN

2

SOUTH CHASE AVENUE

400'-4-4" PVC CONDUIT
CEMENT ENCASED

W. ARTHUR AVE.

2509 S. 3RD ST. | 2501 S. CHASE AVE. | 2483 S. CHASE AVE. | *2479 | *2475 | *2469 | *2459 S. CHASE AVE.

PROPOSED MANHOLE 622
4' DIAMETER
STA. 58+77.9, 26' RT.

*2450-2458 S. CHASE AVE.

*2454 S. 4TH ST.

*2452 S. 4TH ST.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

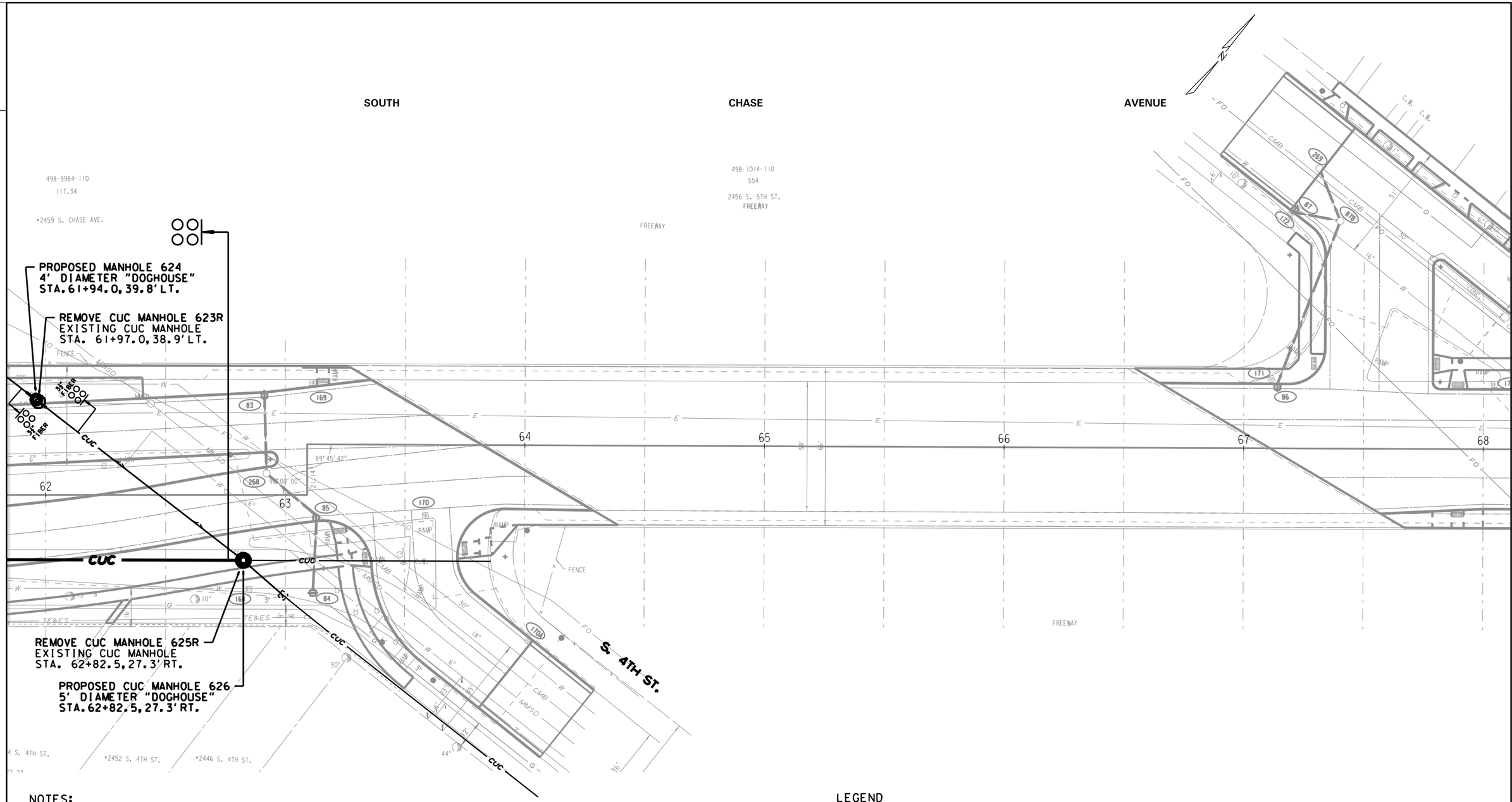
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
▣	EXISTING CUC MANHOLE
— cuc —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 11 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 243	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\56-62.DGN

SOUTH CHASE AVENUE



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
⊡	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

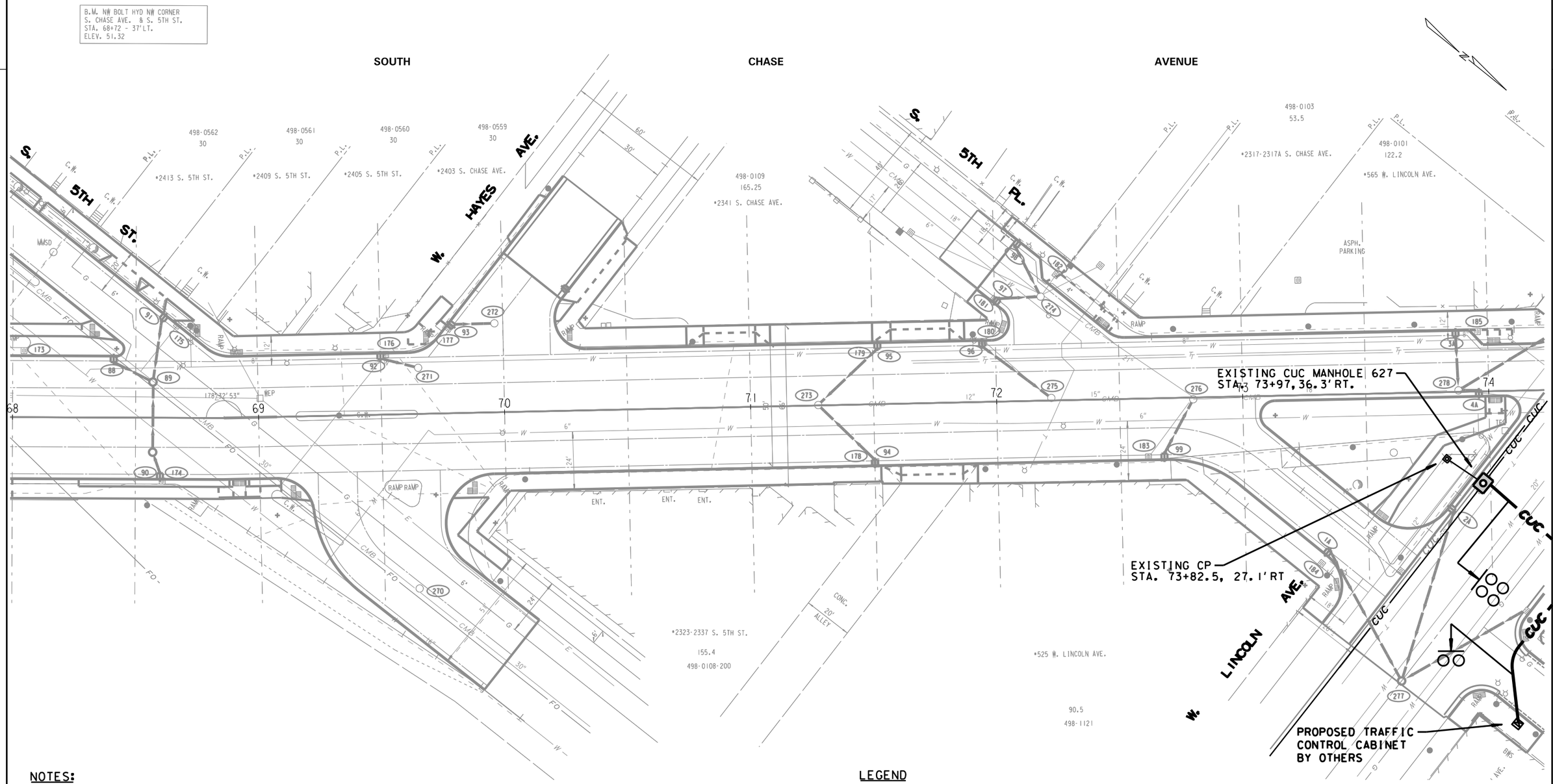
SHEET 12 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 244	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\62-68.DGN

2

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & S. 5TH ST.
STA. 68+72 - 37'LT.
ELEV. 51.32



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

LEGEND

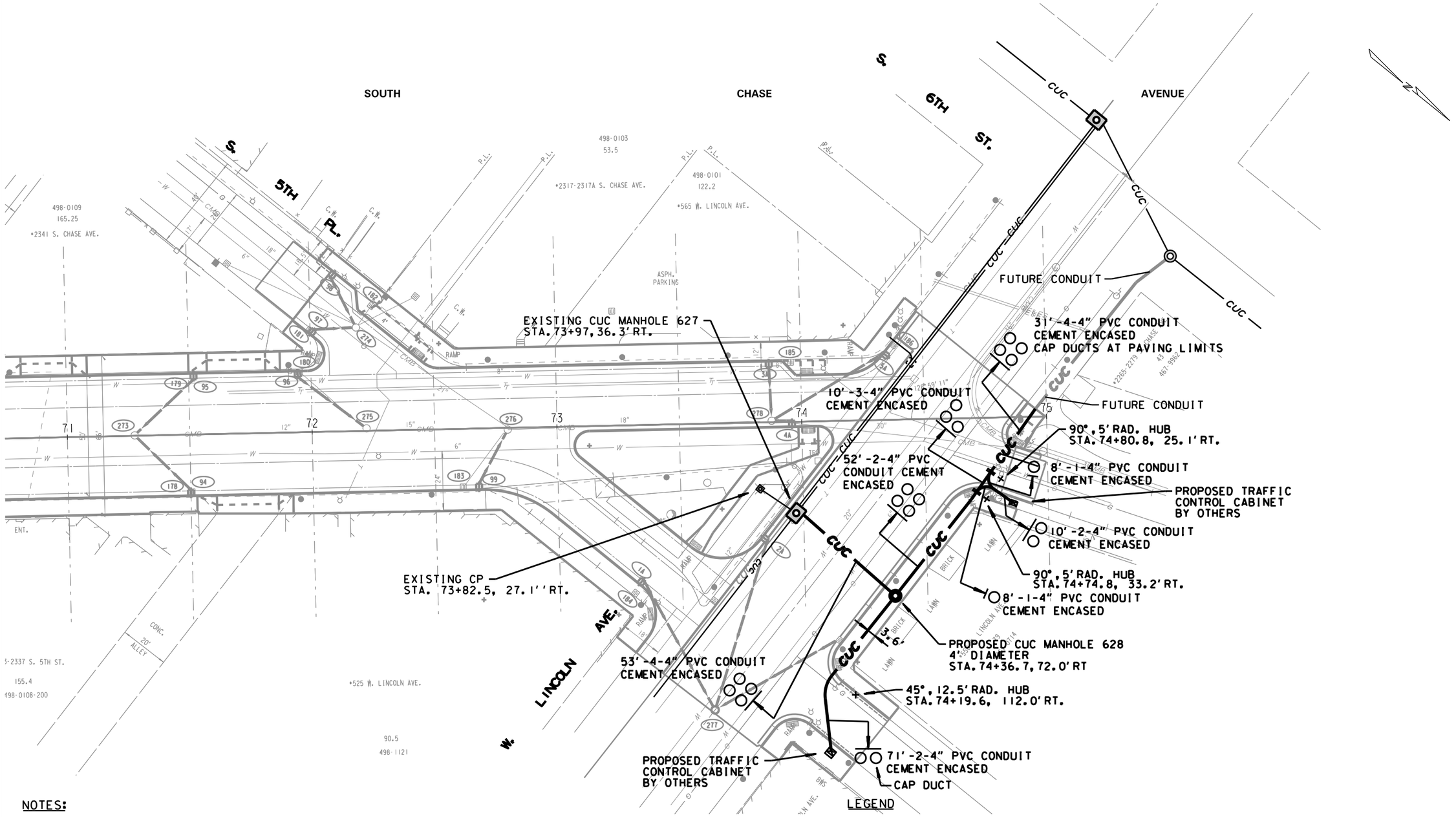
— CUC —	PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
●	PROPOSED CUC MANHOLE
⊡	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 13 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 245	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\68-74.DGN

2



NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) 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 CUC MANHOLE
▣	EXISTING CUC MANHOLE
— CUC —	EXISTING CONDUIT
- - - -	CONDUIT TO BE ABANDONED

SHEET 14 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 246	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\71-75.DGN

2

ABANDON MANHOLE 608A
EXISTING CUC MANHOLE
STA. 16+36.4, 50.3' RT

EXISTING CUC MANHOLE 607
STA. 15+16.1, 29.9' LT.

PROPOSED CUC MANHOLE 606
STA. 14+67.4, 34.4 RT.
6' DIAMETER "DOGHOUSE"
MANHOLE INSTALL OVER
EXISTING CONDUIT

85' - 6-4" PVC CONDUIT
CEMENT ENCASED
CAP DUCTS AT PAVING LIMITS

EXISTING CUC MANHOLE 605
STA. 14+17.1, 29.9' LT.

52.5°, 12.5' RAD. HUB
STA. 13+49.0, 40.0' LT.

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS

30°, 12.5' RAD. HUB
STA. 13+13.9, 43.2' LT.

EXISTING CUC MANHOLE 604
STA. 13+43.2, 45.1' RT.

NOTES:

1) CONSTRUCTION STAKING FOR THE CITY UNDERGROUND CONDUIT (CUC) FACILITIES IS TO BE INCLUDED IN AND PAID FOR UNDER THE BID ITEM 650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS.
2) 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.
3) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
4) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
5) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GRADE AND TOP OF CONDUIT.

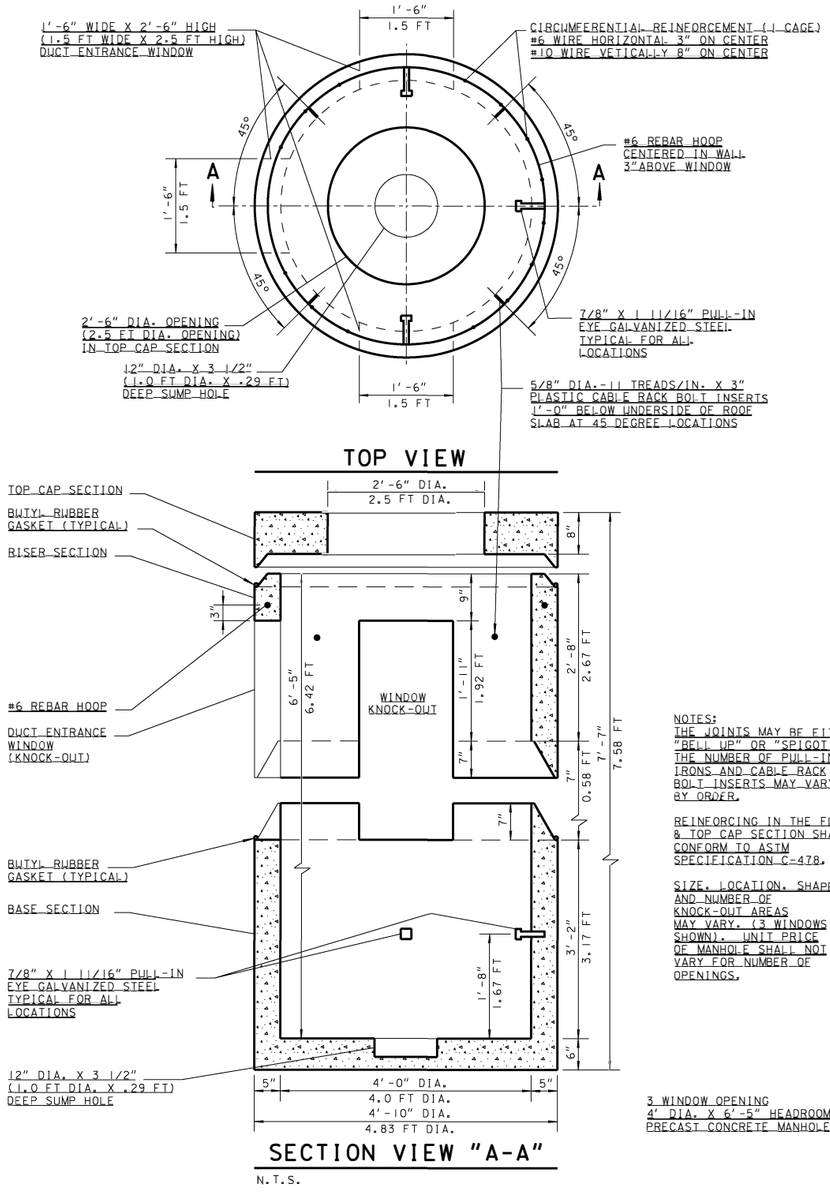
LEGEND

- CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED CUC MANHOLE
- EXISTING CUC MANHOLE
- CUC — EXISTING CONDUIT
- CONDUIT TO BE ABANDONED

SHEET 15 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE CITY UG CONDUIT (CUC)	SCALE FEET 0' 40'	SHEET NO: 247	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\100-106.DGN



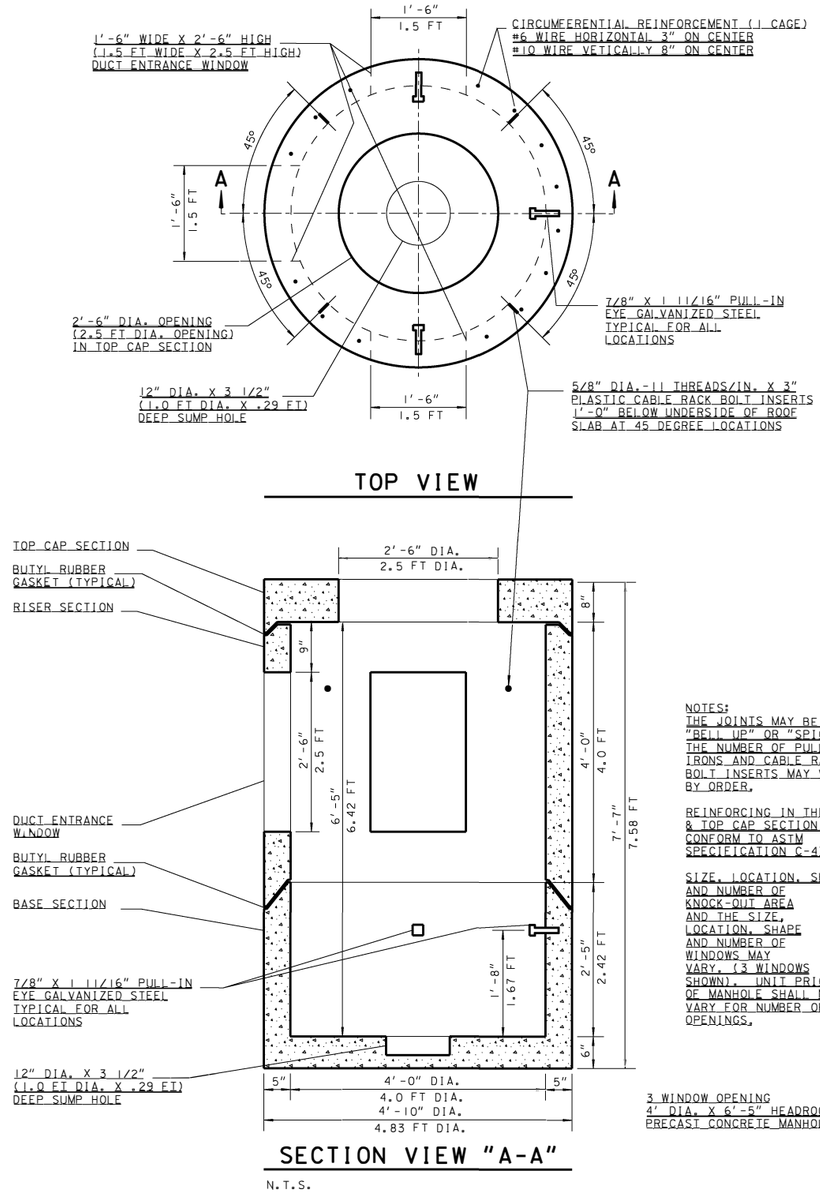
NOTES:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER.

REINFORCING IN THE FLOOR & TOP CAP SECTION SHALL CONFORM TO ASTM SPECIFICATION C-478.

SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREAS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
4' DIA. X 6'-5" HEADROOM
PRECAST CONCRETE MANHOLE

4' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE



NOTES:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER.

REINFORCING IN THE FLOOR & TOP CAP SECTION SHALL CONFORM TO ASTM SPECIFICATION C-478.

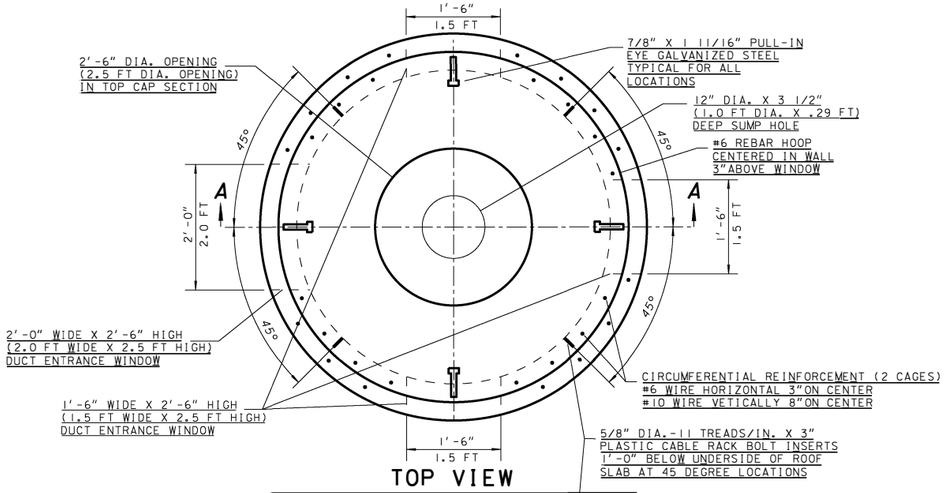
SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREA AND THE SIZE, LOCATION, SHAPE AND NUMBER OF WINDOWS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

3 WINDOW OPENING
4' DIA. X 6'-5" HEADROOM
PRECAST CONCRETE MANHOLE

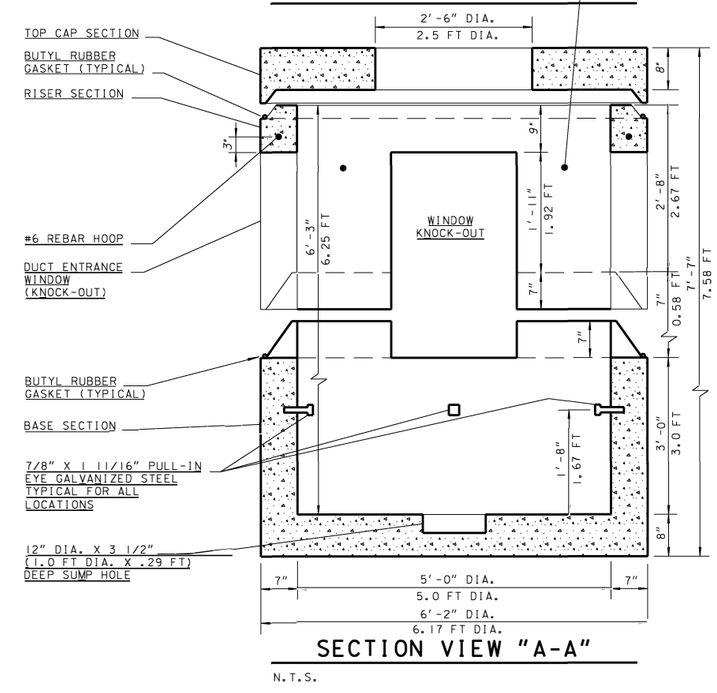
4' DIAMETER STANDARD TYPE CUC MANHOLE

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC) DETAILS	NOT TO SCALE	SHEET NO: 248	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\DETAIL A.DGN



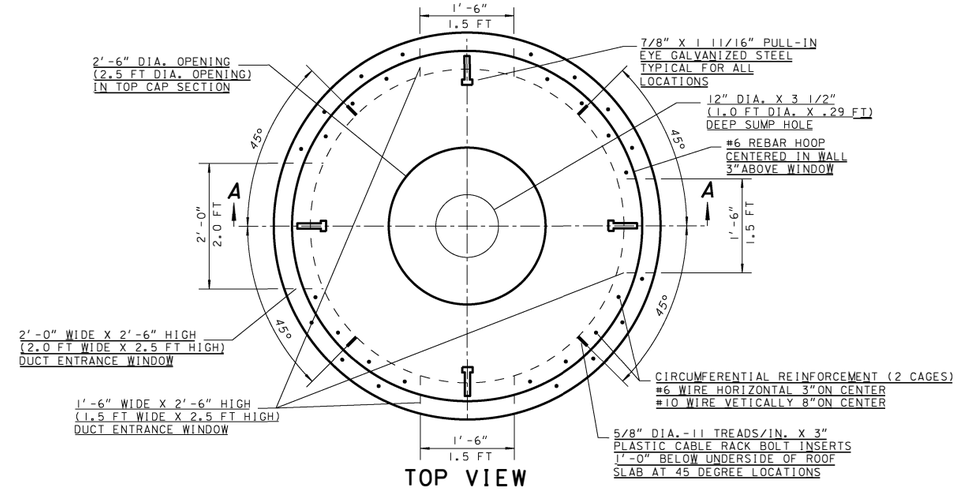
TOP VIEW



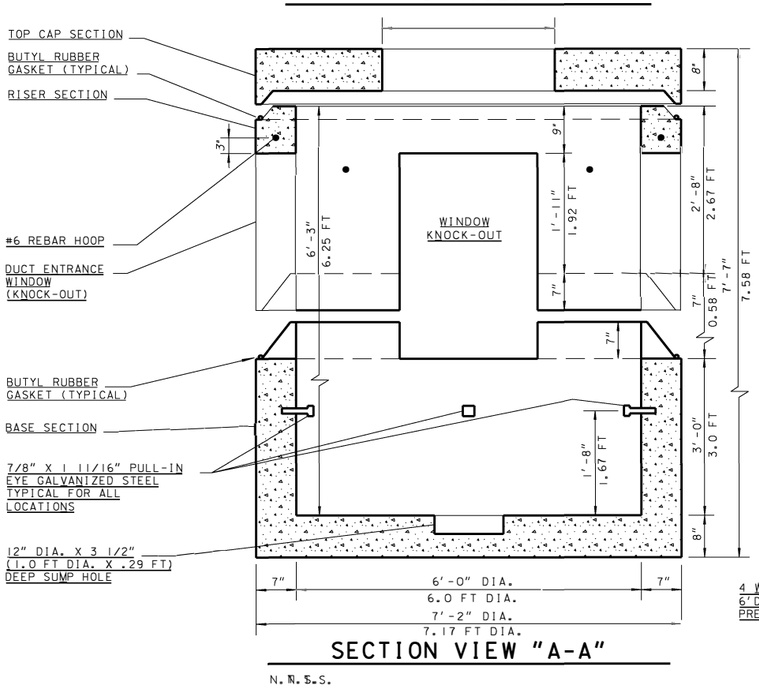
SECTION VIEW "A-A"

N.T.S.

5' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE



TOP VIEW



SECTION VIEW "A-A"

N.T.S.

NOTES:
THE JOINTS MAY BE EITHER "BELL UP" OR "SPIGOT UP". THE NUMBER OF PULL-IN IRONS AND CABLE RACK BOLT INSERTS MAY VARY BY ORDER.

REINFORCING IN THE FLOOR & TOP CAP SECTION SHALL CONFORM TO ASTM SPECIFICATION C-478.

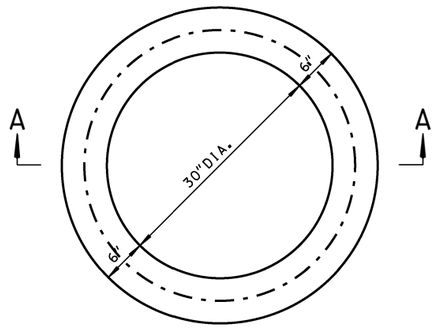
SIZE, LOCATION, SHAPE AND NUMBER OF KNOCK-OUT AREAS MAY VARY. (3 WINDOWS SHOWN). UNIT PRICE OF MANHOLE SHALL NOT VARY FOR NUMBER OF OPENINGS.

4 WINDOW OPENING
6'DIA. X 7'-3" HEADROOM
PRECAST CONCRETE MANHOLE

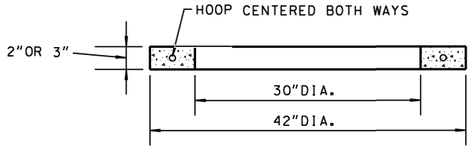
6' DIAMETER "DOGHOUSE" TYPE CUC MANHOLE

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H.38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC)	NOT TO SCALE	SHEET NO: 249	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\DETAIL B.DGN



PLAN



SECTION A-A

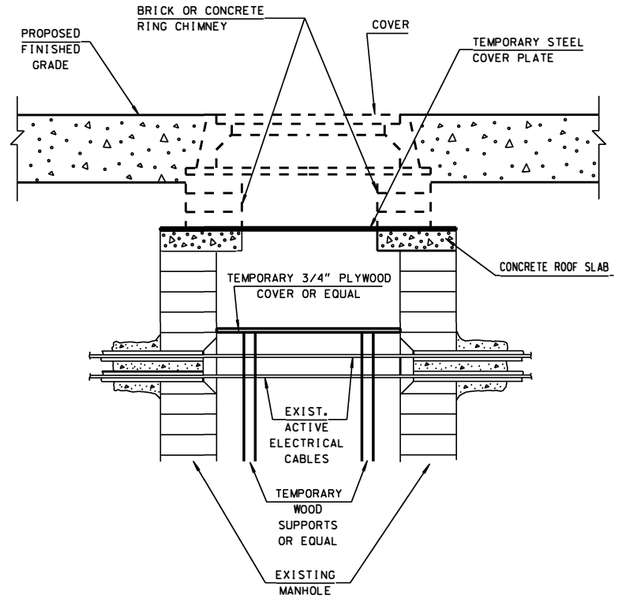
THE ADJUSTING RING SHALL BE 2" OR 3" IN HEIGHT.

THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

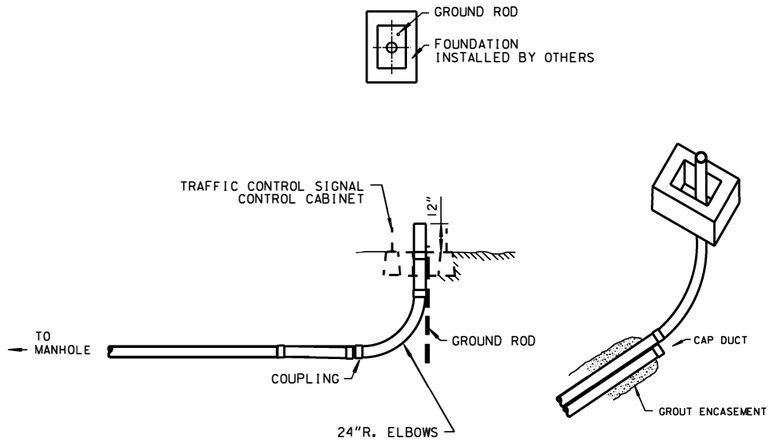
AREA OF CIRCUMFERENTIAL STEEL = 0.07 SQ. INCH PER VERTICAL FOOT WITH A MINIMUM OF .024 SQ. INCH IN ANY ONE RING.

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

CONCRETE ADJUSTING RING

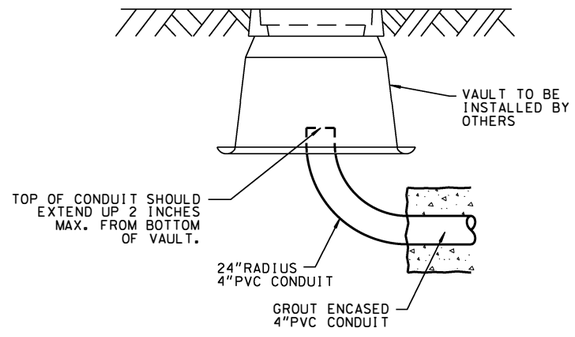


ADJUSTING CUC MANHOLES



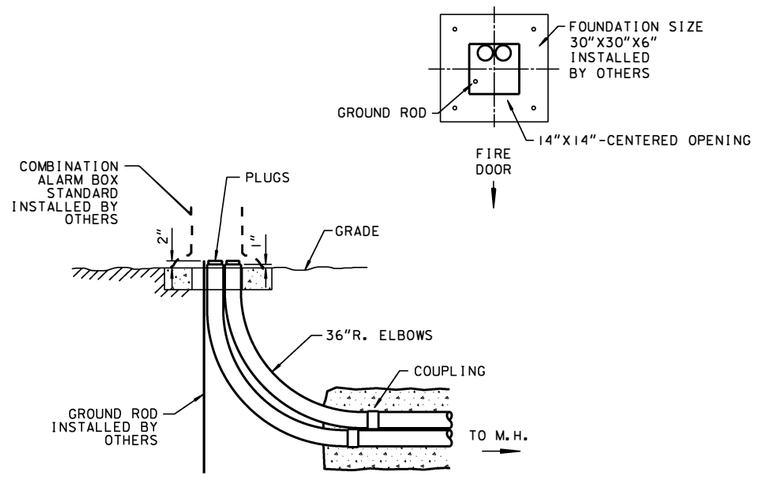
TRAFFIC CONTROL CABINET

FOR REFERENCE ONLY



TYPICAL CONDUIT - VAULT ENTRY

FOR REFERENCE ONLY



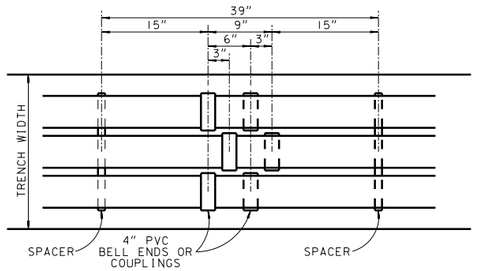
POLICE CALL BOX DETAIL

FOR REFERENCE ONLY

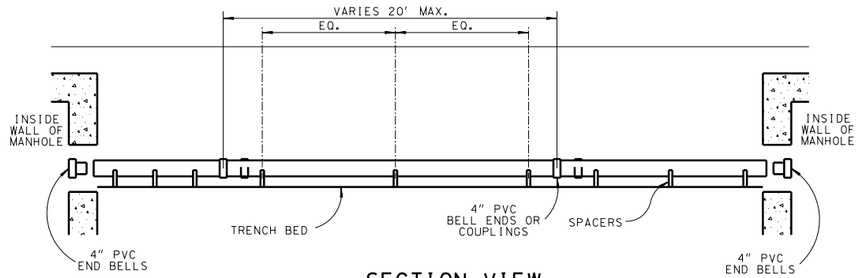
SHEET 18 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H. 38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC) DETAILS	NOT TO SCALE	SHEET NO: 250	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\DETAIL C.DGN



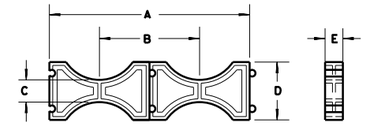
PLAN VIEW
N.T.S.



SECTION VIEW
N.T.S.

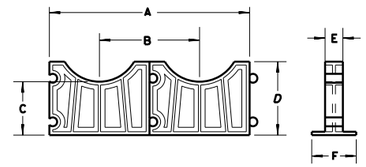
DUCT INSTALLATION DETAIL

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅝"
C	1 ½"	1 ¼"
D	3 ¼"	3 ¼"
E	1"	1"



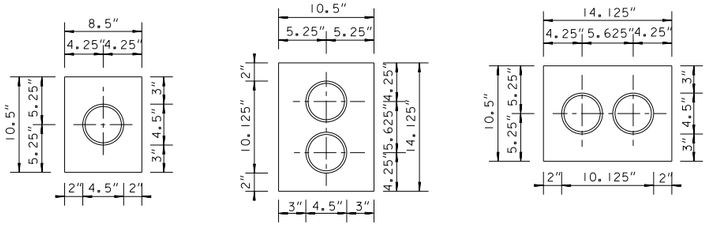
INTERMEDIATE SPACER

COND.	3"	4"
A	10"	11 ¼"
B	5"	5 ⅝"
C	3"	3"
D	3 ⅞"	4 ⅛"
E	1"	1"
F	2 ½"	2 ½"

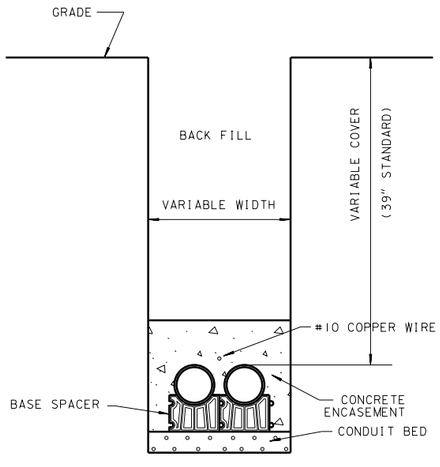


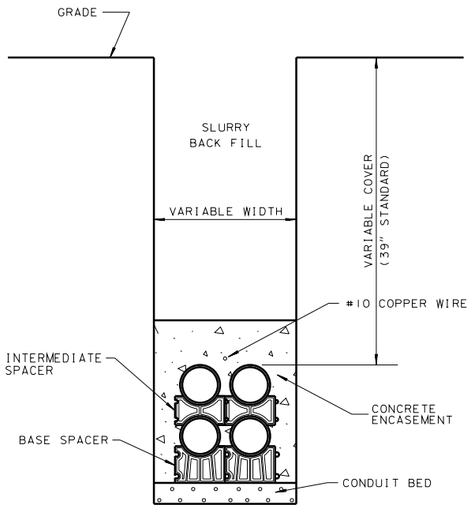
BASE SPACER

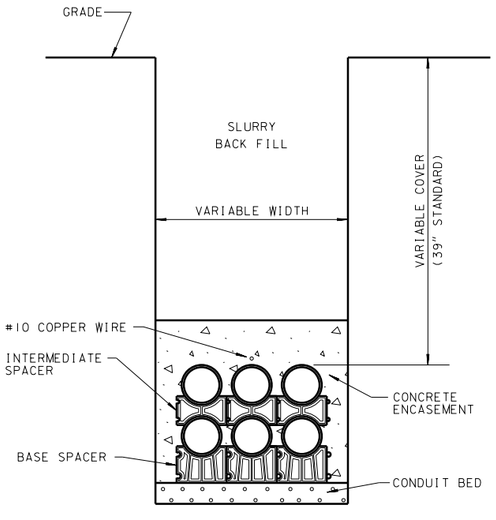
INTERMEDIATE AND BASE SPACER DETAIL



CROSS SECTION VIEW
N.T.S.







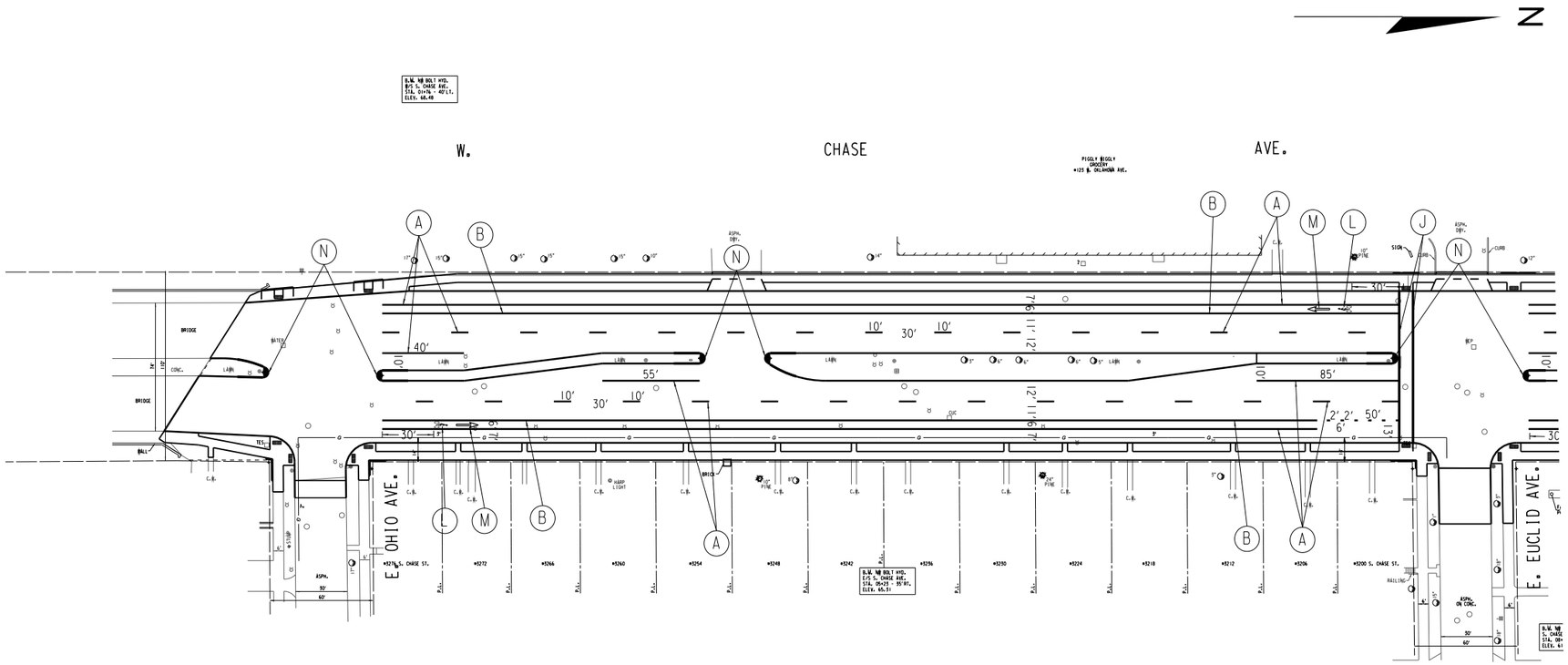
CROSS SECTION VIEW, TYP.
N.T.S.

SHEET 19 OF 19

STATE PROJECT NUMBER 2060-00-76	HWY: U.S.H.38	COUNTY: MILWAUKEE	CITY UG CONDUIT (CUC) DETAILS	NOT TO SCALE	SHEET NO: 251	E

FILENAME: W:\UGD\CONDUIT WORK FILES\UCONDUIT\2017\CHASE\DGN\DETAIL D REVISED.DGN

2



(A) PAVEMENT MARKING, 4-INCH WHITE EPOXY

(B) PAVEMENT MARKING, 6-INCH WHITE EPOXY

(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY

(D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY

(E) PAVEMENT MARKING WORDS "ONLY" EPOXY

(F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY

(G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY

(H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY

(I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY

(J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY

(K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY

(L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY

(M) PAVEMENT MARKING, BIKE ARROWS EPOXY

(N) SEE PLOWABLE ISLAND NOSE DETAIL

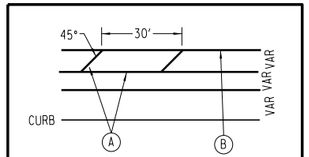
(O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY

(P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY

PLOWABLE ISLAND NOSE DETAIL (TYP.)



CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS



BUFFER LAYOUT DETAIL
40: 1

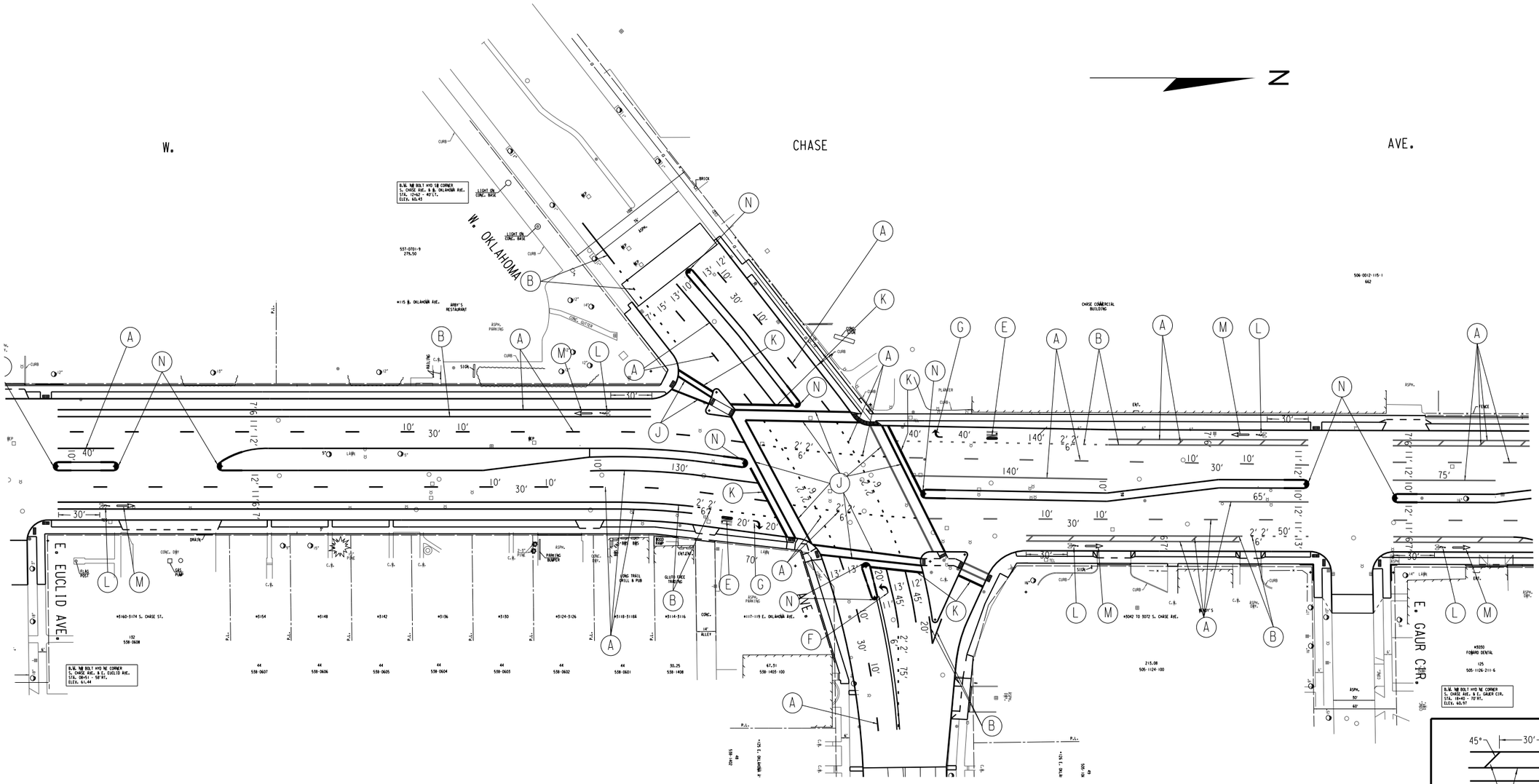
SHEET 1 OF 7

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 252	E

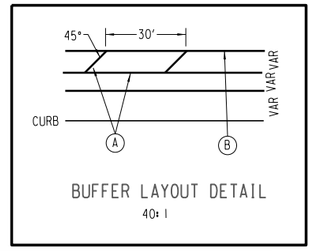
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

REVISED DATE: 10-29-2018 BY CP

2

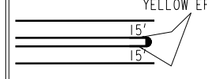


- (A) PAVEMENT MARKING, 4-INCH WHITE EPOXY
- (B) PAVEMENT MARKING, 6-INCH WHITE EPOXY
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY
- (D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY
- (E) PAVEMENT MARKING WORDS "ONLY" EPOXY
- (F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY
- (G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY
- (H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY
- (I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY
- (J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY
- (K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY
- (L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY
- (M) PAVEMENT MARKING, BIKE ARROWS EPOXY
- (N) SEE PLOWABLE ISLAND NOSE DETAIL
- (O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY
- (P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY



BUFFER LAYOUT DETAIL
40: 1

PLOWABLE ISLAND NOSE DETAIL (TYP.)



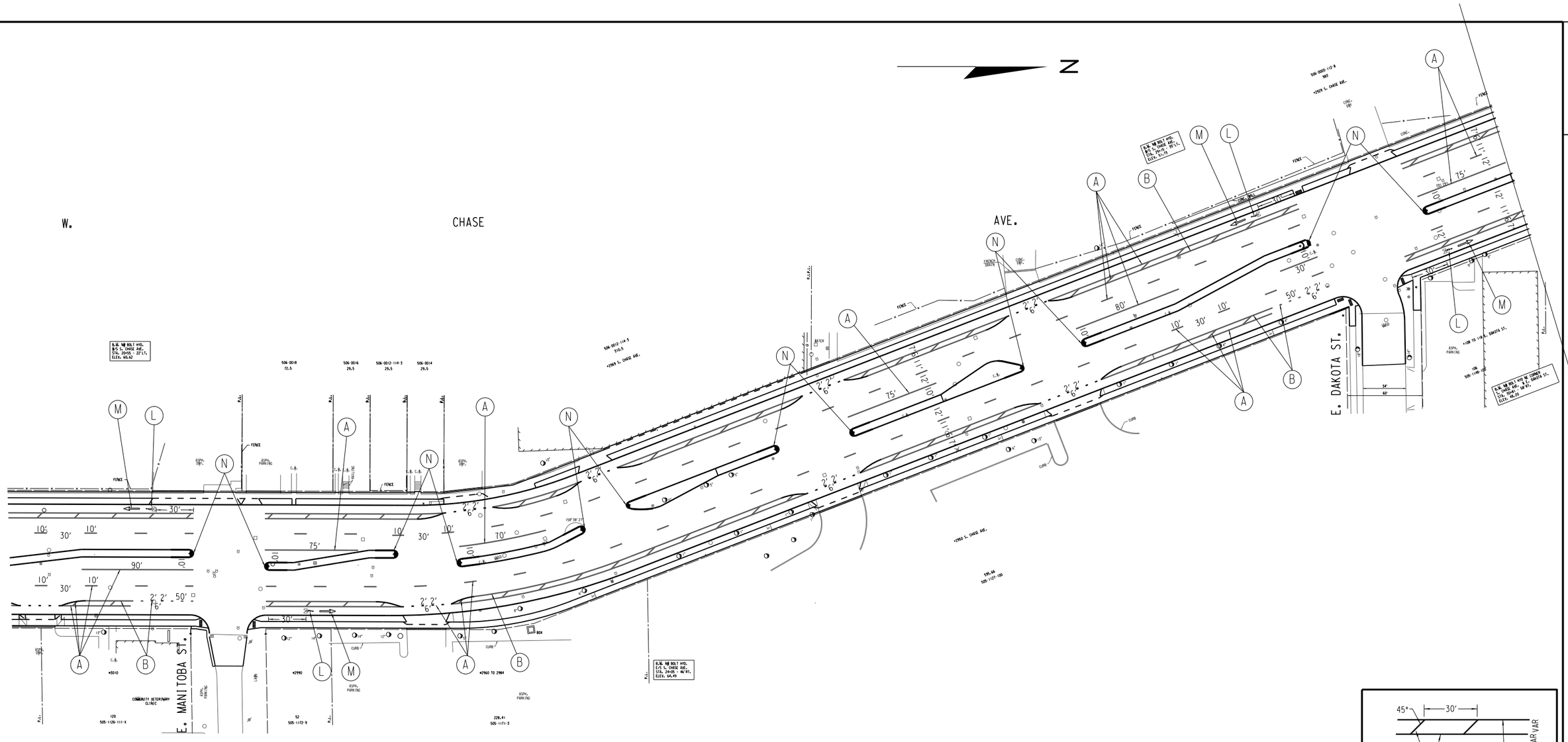
CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS

SHEET 2 OF 7

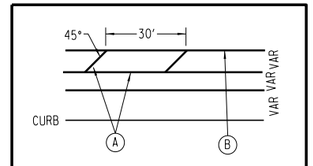
STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 253	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

REVISED DATE: 10-29-2018 BY CP

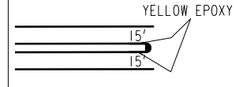


- (A) PAVEMENT MARKING, 4-INCH WHITE EPOXY
- (B) PAVEMENT MARKING, 6-INCH WHITE EPOXY
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY
- (D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY
- (E) PAVEMENT MARKING WORDS "ONLY" EPOXY
- (F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY
- (G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY
- (H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY
- (I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY
- (J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY
- (K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY
- (L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY
- (M) PAVEMENT MARKING, BIKE ARROWS EPOXY
- (N) SEE PLOWABLE ISLAND NOSE DETAIL
- (O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY
- (P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY



BUFFER LAYOUT DETAIL
40: 1

PLOWABLE ISLAND NOSE DETAIL (TYP.)



CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS

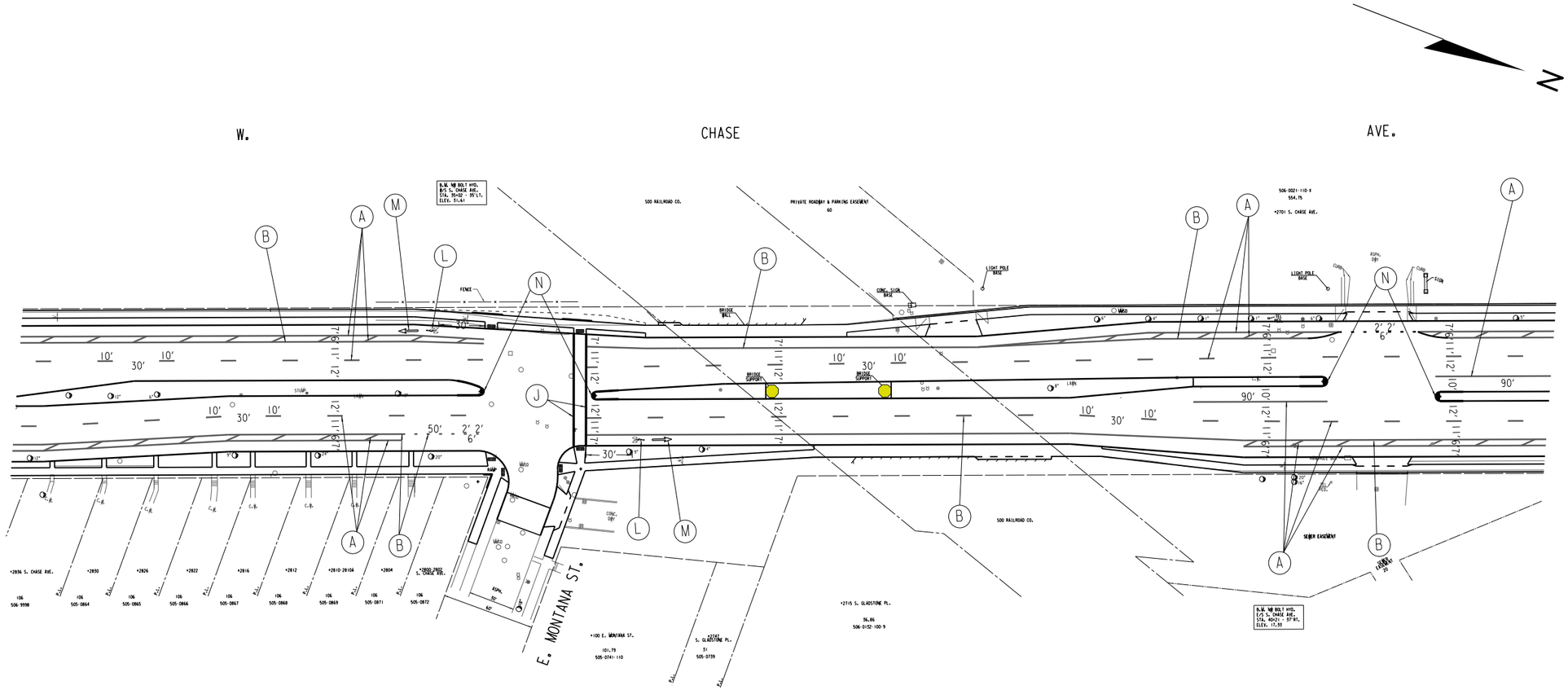
SHEET 3 OF 7

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 254	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

REVISED DATE: 10-29-2018 BY CP

2



(A) PAVEMENT MARKING, 4-INCH WHITE EPOXY

(B) PAVEMENT MARKING, 6-INCH WHITE EPOXY

(C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY

(D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY

(E) PAVEMENT MARKING WORDS "ONLY" EPOXY

(F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY

(G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY

(H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY

(I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY

(J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY

(K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY

(L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY

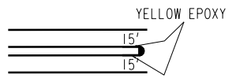
(M) PAVEMENT MARKING, BIKE ARROWS EPOXY

(N) SEE PLOWABLE ISLAND NOSE DETAIL

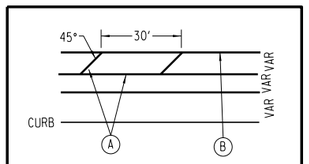
(O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY

(P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY

PLOWABLE ISLAND NOSE DETAIL (TYP.)



CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS



BUFFER LAYOUT DETAIL
40: 1

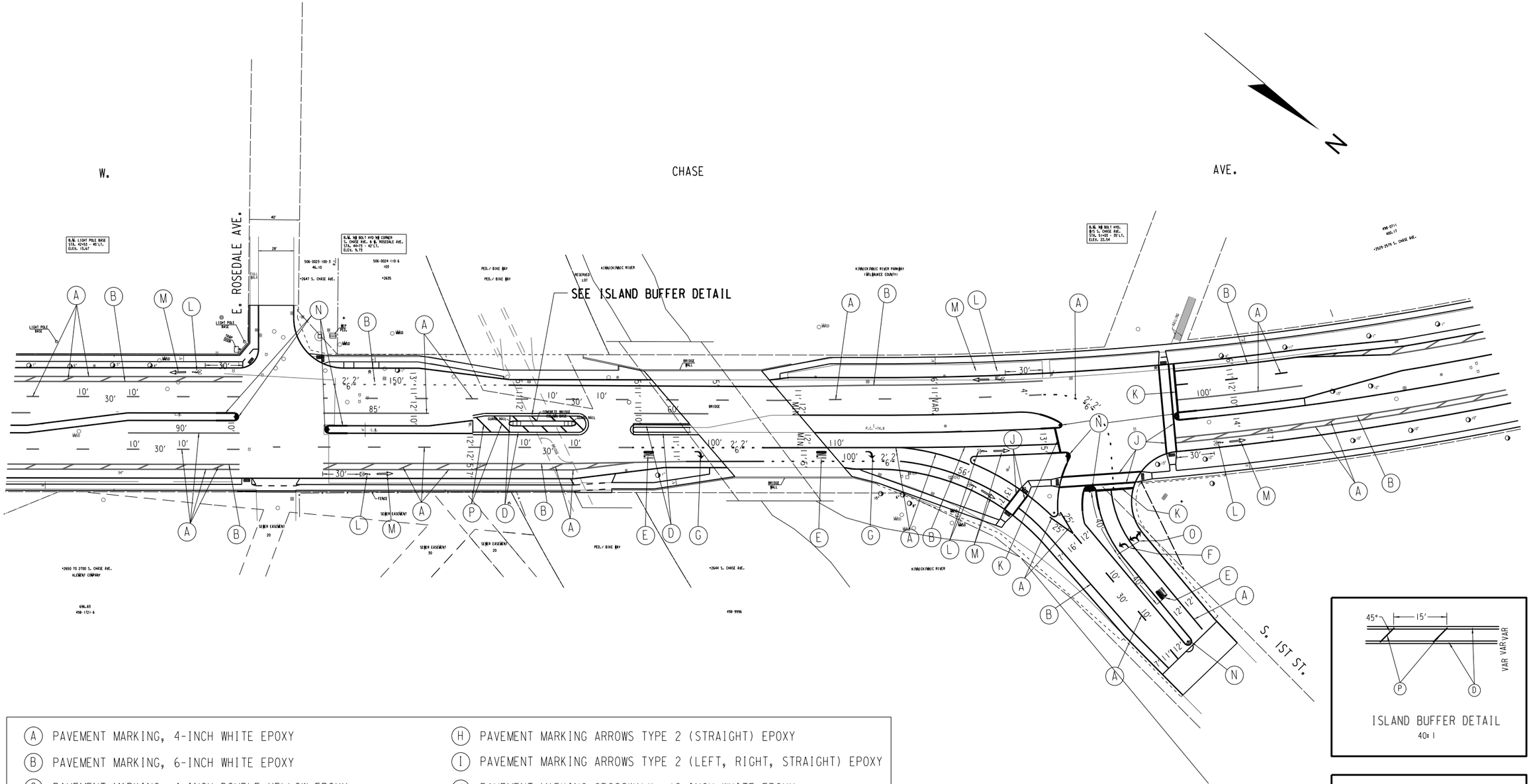
SHEET 4 OF 7

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 255	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

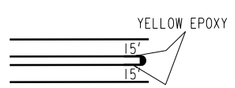
REVISED DATE: 10-29-2018 BY CP

2



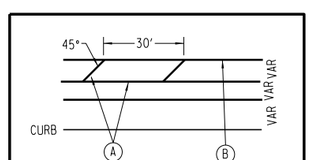
- (A) PAVEMENT MARKING, 4-INCH WHITE EPOXY
- (B) PAVEMENT MARKING, 6-INCH WHITE EPOXY
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY
- (D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY
- (E) PAVEMENT MARKING WORDS "ONLY" EPOXY
- (F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY
- (G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY
- (H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY
- (I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY
- (J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY
- (K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY
- (L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY
- (M) PAVEMENT MARKING, BIKE ARROWS EPOXY
- (N) SEE PLOWABLE ISLAND NOSE DETAIL
- (O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY
- (P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY

PLOWABLE ISLAND NOSE DETAIL (TYP.)



CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS

ISLAND BUFFER DETAIL
40: 1



BUFFER LAYOUT DETAIL
40: 1

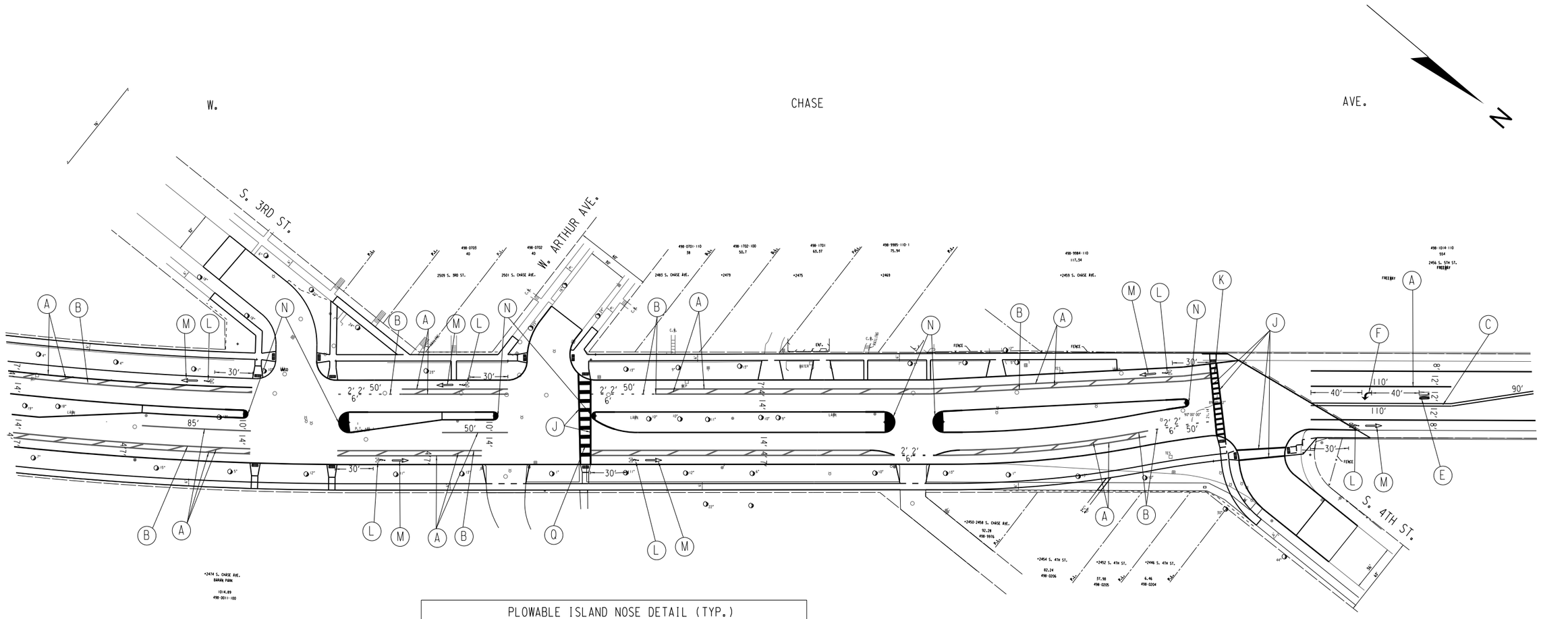
SHEET 5 OF 7

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 256	E

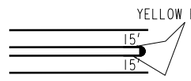
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

REVISED DATE: 10-29-2018 BY CP

2

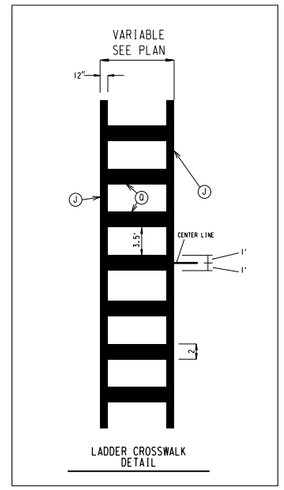


PLOWABLE ISLAND NOSE DETAIL (TYP.)

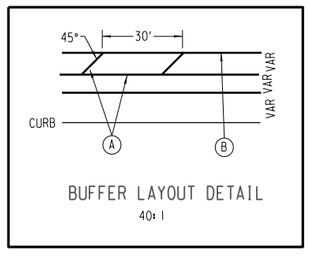


CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS

- (A) PAVEMENT MARKING, 4-INCH WHITE EPOXY
- (B) PAVEMENT MARKING, 6-INCH WHITE EPOXY
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY
- (D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY
- (E) PAVEMENT MARKING WORDS "ONLY" EPOXY
- (F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY
- (G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY
- (H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY
- (I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY
- (J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY
- (K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY
- (L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY
- (M) PAVEMENT MARKING, BIKE ARROWS EPOXY
- (N) SEE PLOWABLE ISLAND NOSE DETAIL
- (O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY
- (P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY
- (Q) PAVEMENT MARKING, CROSSWALK EPOXY LADDER PATTERN 24-INCH



LADDER CROSSWALK DETAIL



BUFFER LAYOUT DETAIL
40: 1

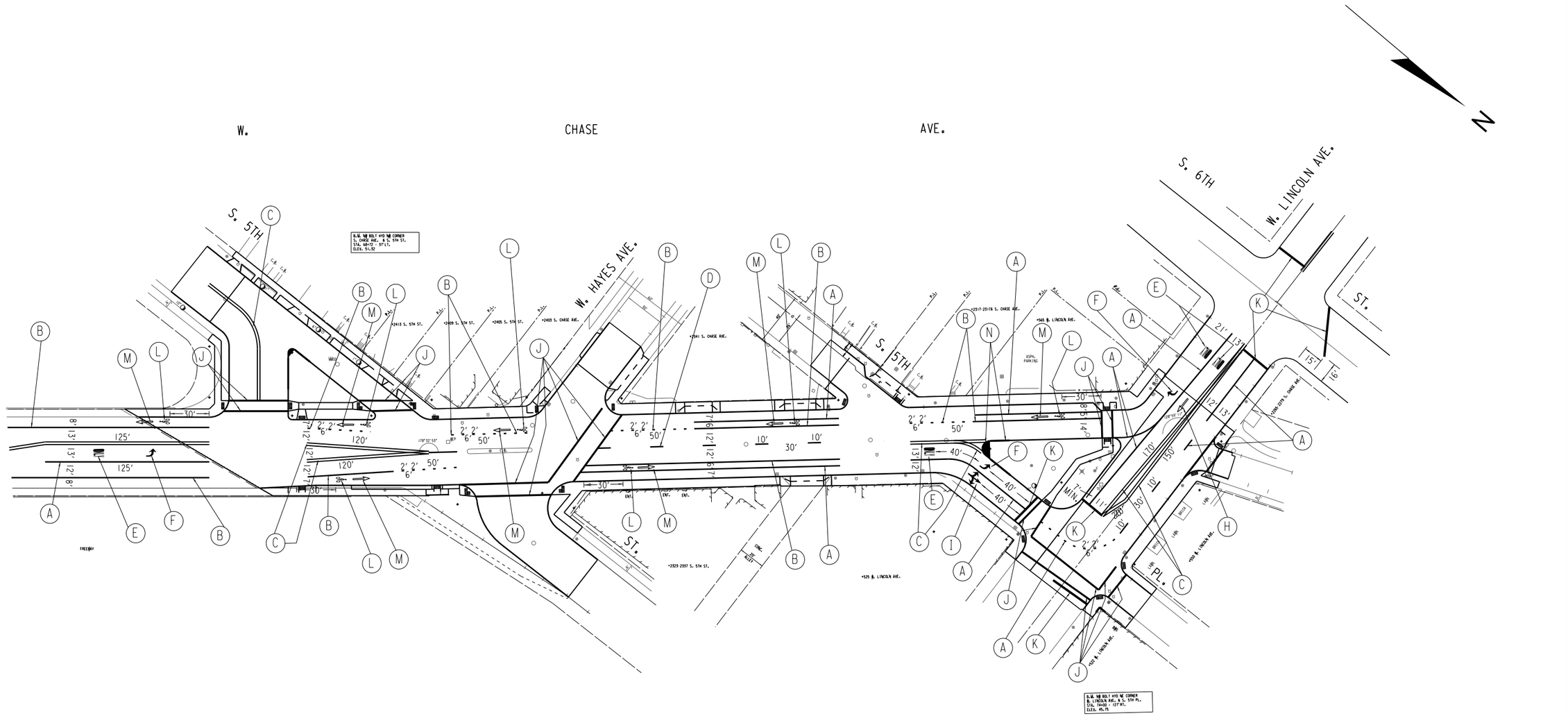
SHEET 6 OF 7

STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 257	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

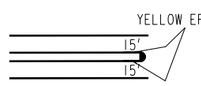
REVISED DATE: 10-29-2018 BY CP

2

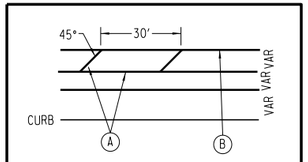


- (A) PAVEMENT MARKING, 4-INCH WHITE EPOXY
- (B) PAVEMENT MARKING, 6-INCH WHITE EPOXY
- (C) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW EPOXY
- (D) PAVEMENT MARKING, 4-INCH YELLOW CENTER LINE EPOXY
- (E) PAVEMENT MARKING WORDS "ONLY" EPOXY
- (F) PAVEMENT MARKING ARROWS, TYPE 2 (LEFT TURN) EPOXY
- (G) PAVEMENT MARKING ARROWS, TYPE 2 (RIGHT TURN) EPOXY
- (H) PAVEMENT MARKING ARROWS TYPE 2 (STRAIGHT) EPOXY
- (I) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT, STRAIGHT) EPOXY
- (J) PAVEMENT MARKING CROSSWALK, 12-INCH WHITE EPOXY
- (K) PAVEMENT MARKING STOPLINE, 24-INCH WHITE EPOXY
- (L) PAVEMENT MARKING, BIKE SYMBOLS EPOXY
- (M) PAVEMENT MARKING, BIKE ARROWS EPOXY
- (N) SEE PLOWABLE ISLAND NOSE DETAIL
- (O) PAVEMENT MARKING ARROWS TYPE 2 (LEFT, RIGHT) EPOXY
- (P) PAVEMENT MARKING, 4-INCH YELLOW EPOXY

PLOWABLE ISLAND NOSE DETAIL (TYP.)



CONTRACTOR TO PAINT PLOWABLE ISLAND NOSE YELLOW FOR THE RADIUS OF THE NOSE PLUS CURB & FACE OF CURB EXTENDED 15' UNLESS OTHERWISE STATED ON PLANS



BUFFER LAYOUT DETAIL
40: 1

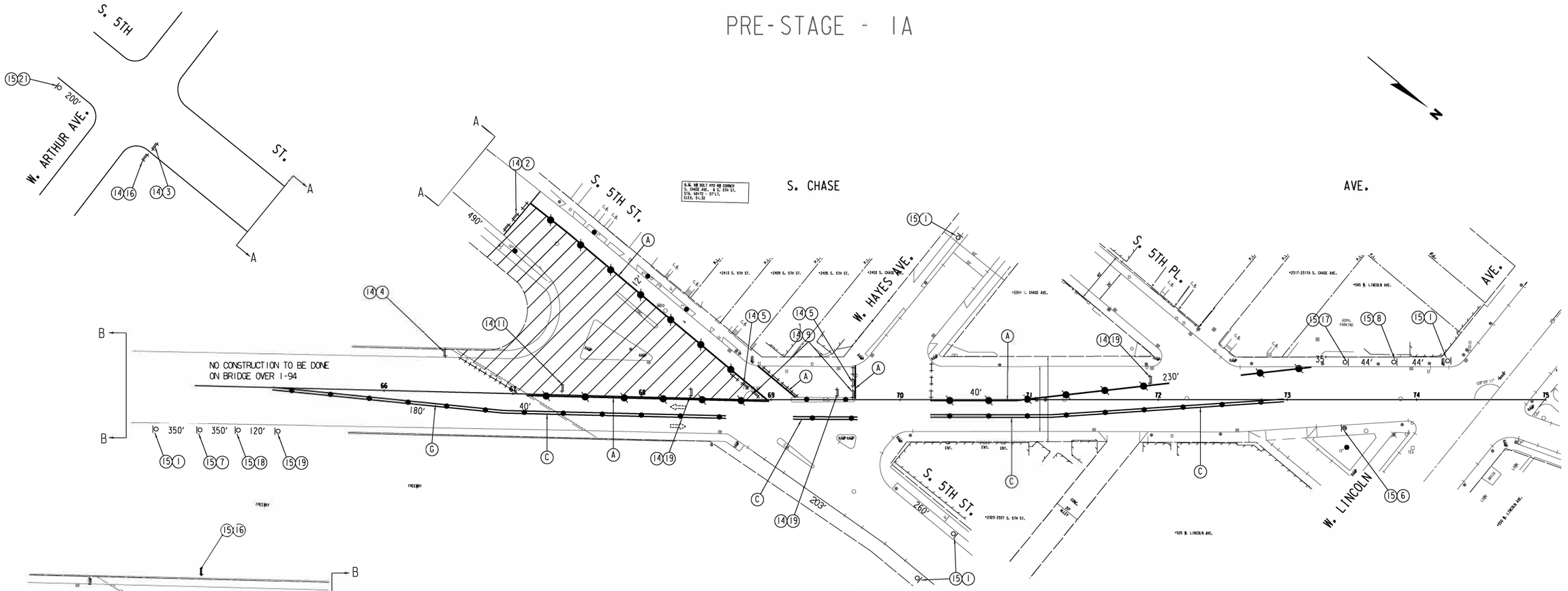
SHEET 7 OF 7

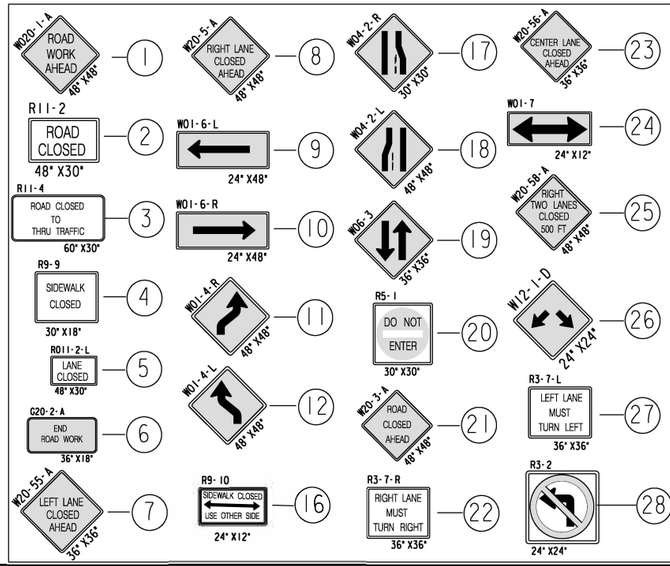
STATE PROJECT NUMBER 2060-00-76	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET	SHEET NO: 258	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\PAVEMARK BUFFER.DGN

REVISED DATE: 10-29-2018 BY CP

PRE-STAGE - 1A





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

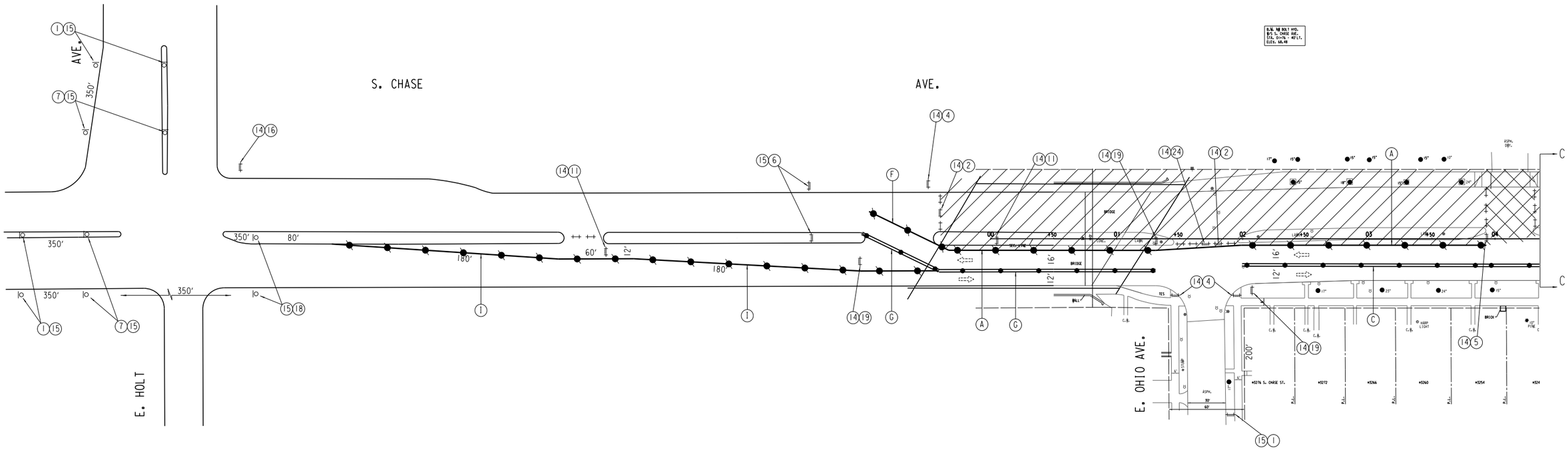
SHEET 1 OF 1

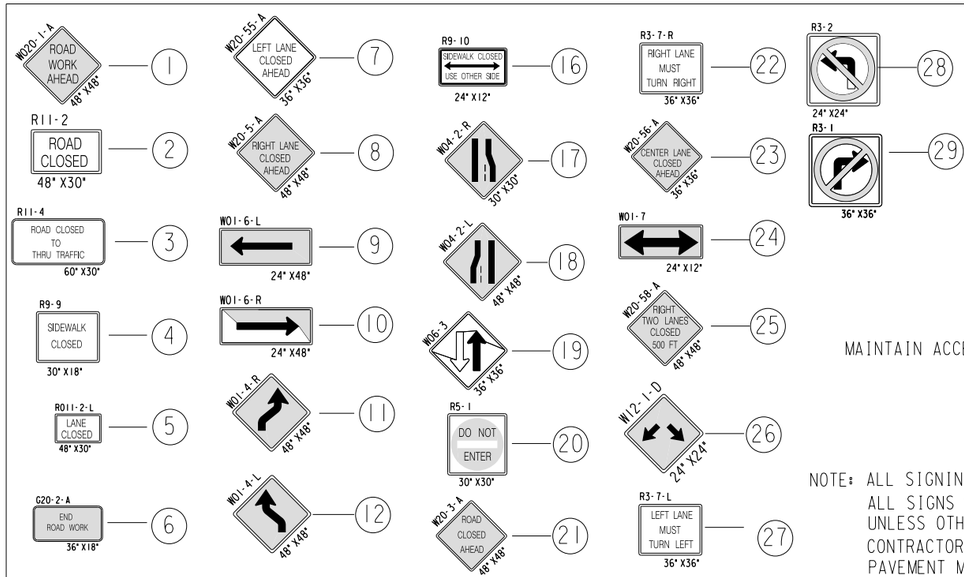
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0 80	SHEET NO: 259

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE I





LEGEND

DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)

SIGNS BANDED TO UTILITY POLE

WORK AREA

MAINTAIN ACCESS DURING CONSTRUCTION

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

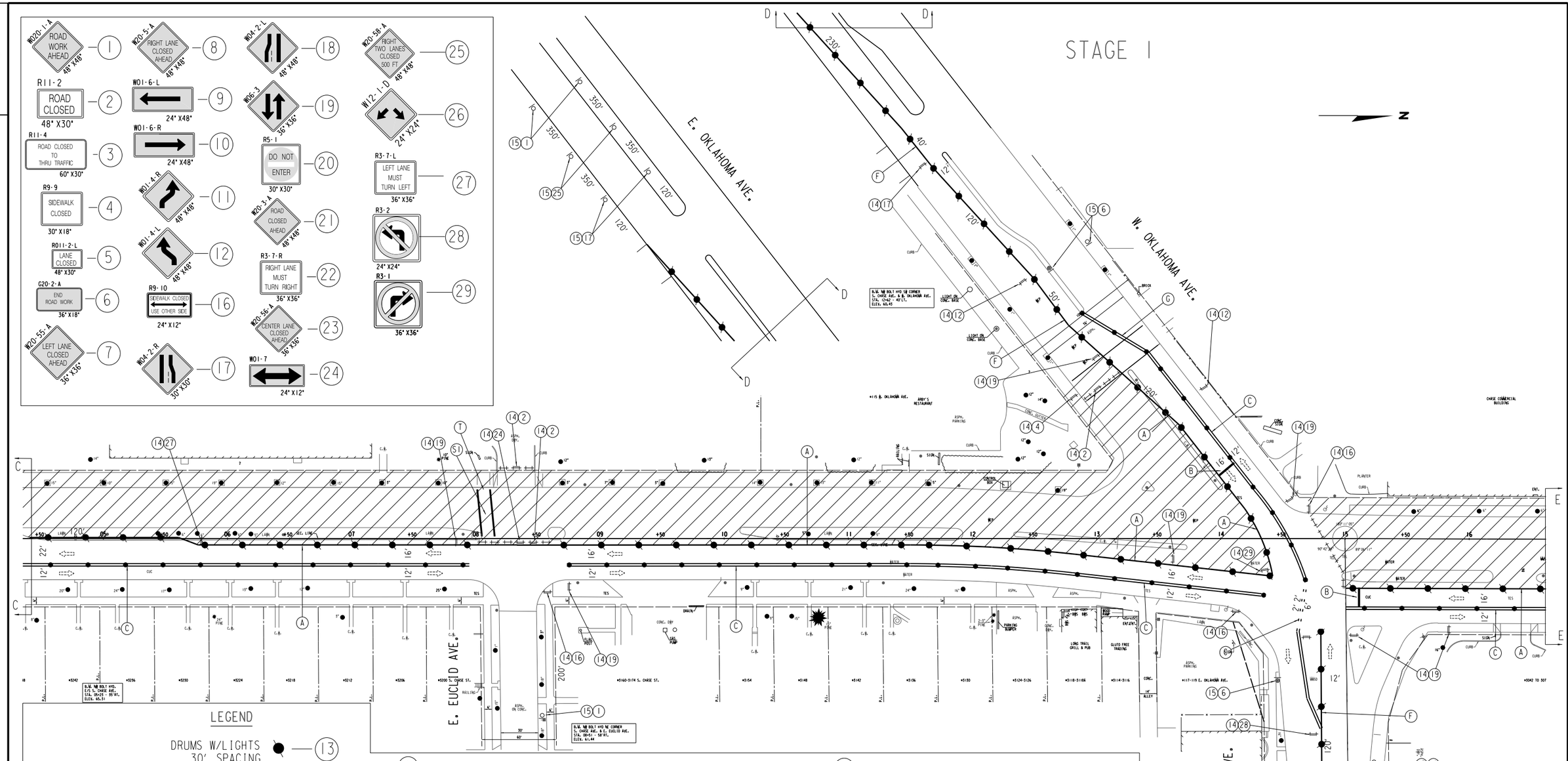
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 260	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

2

STAGE I



LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW

- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

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.

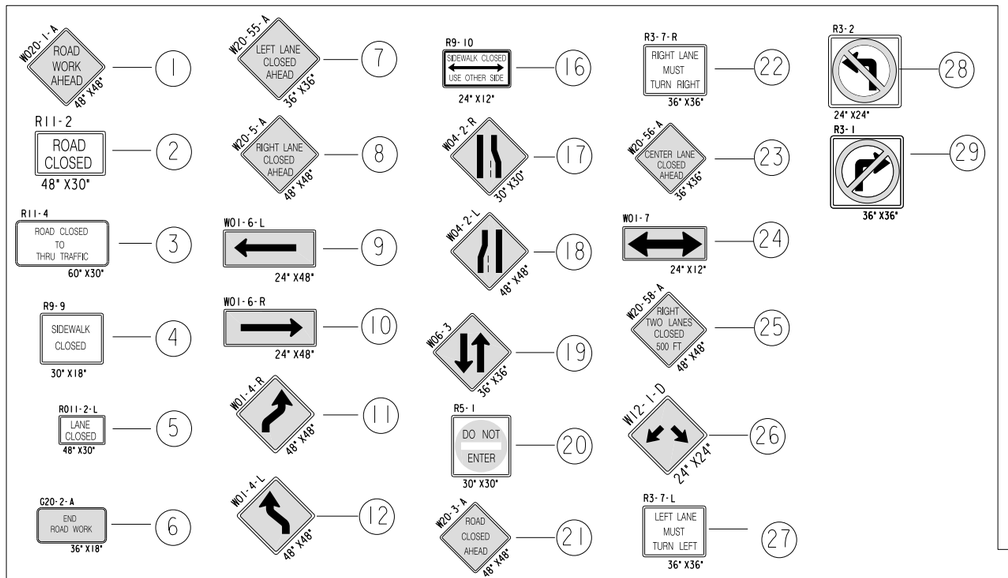
SHEET 2 OF 7

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 261	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 1A

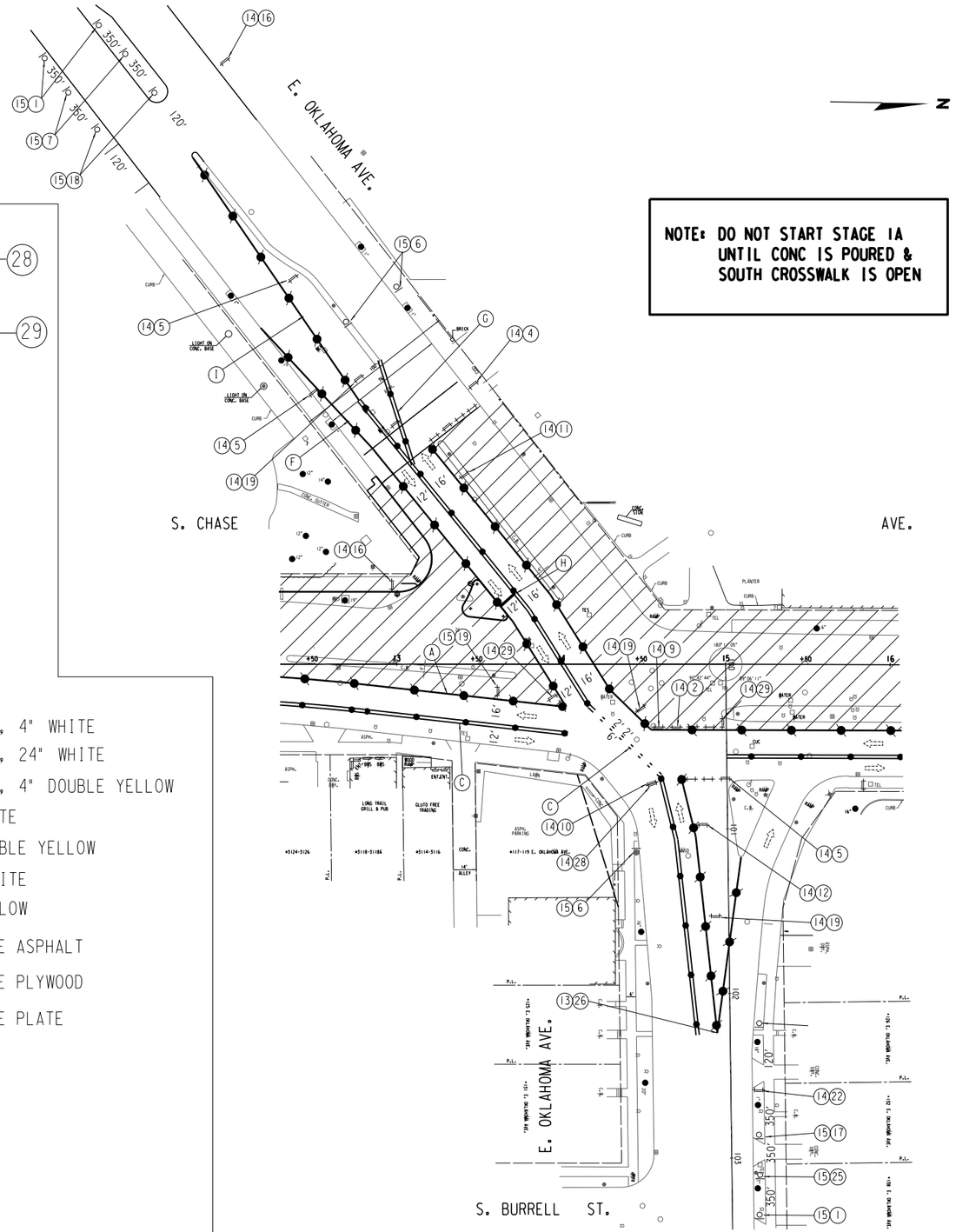


LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

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.



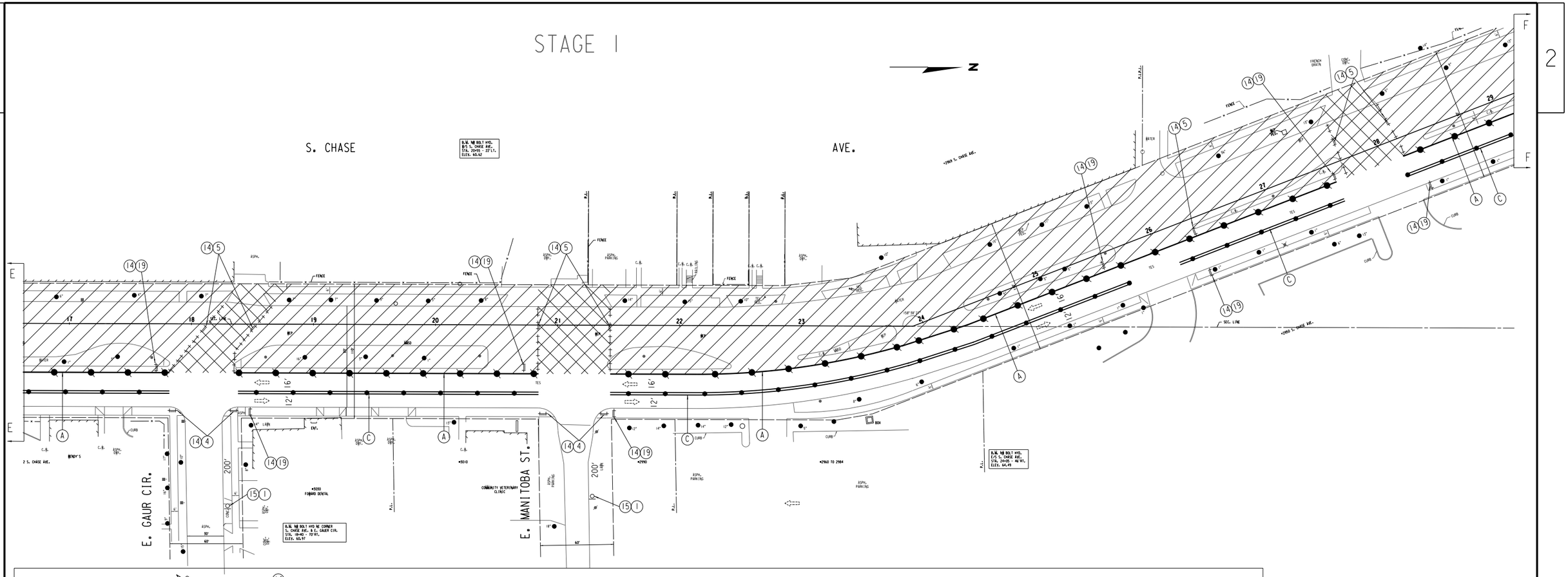
NOTE: DO NOT START STAGE 1A UNTIL CONC IS POURED & SOUTH CROSSWALK IS OPEN

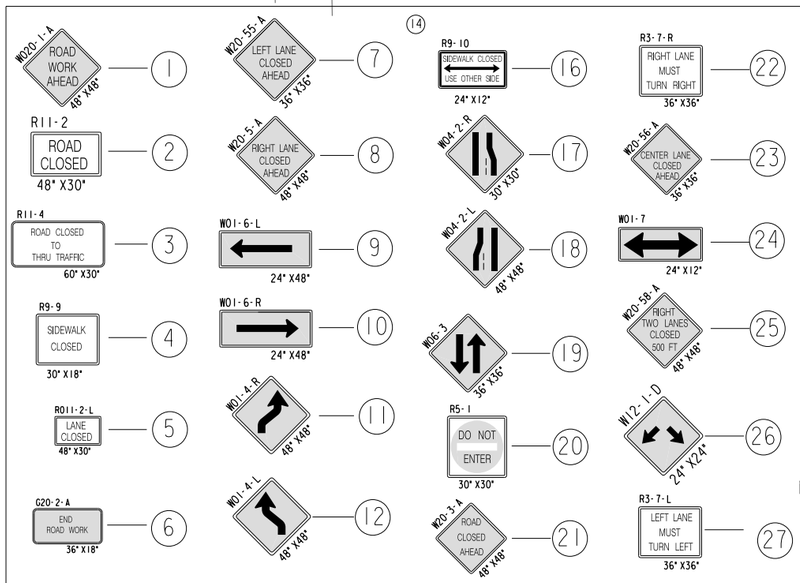
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 262	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 1





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

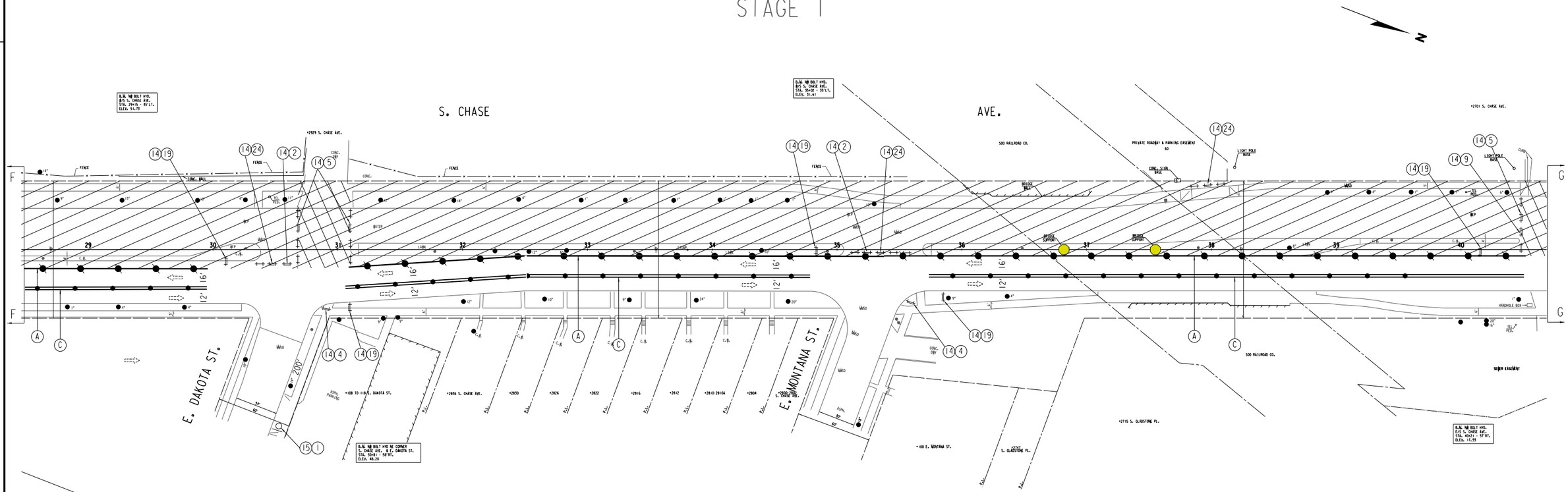
SHEET 4 OF 7

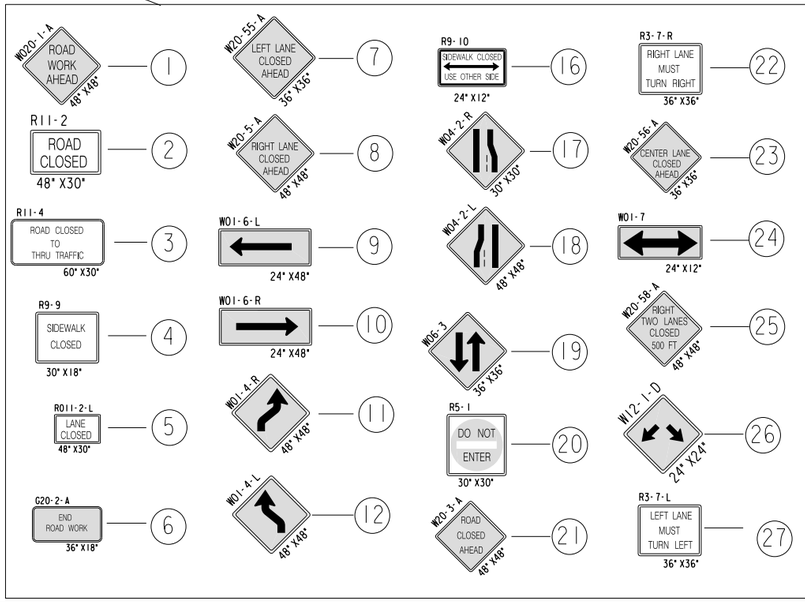
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 263	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 1





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

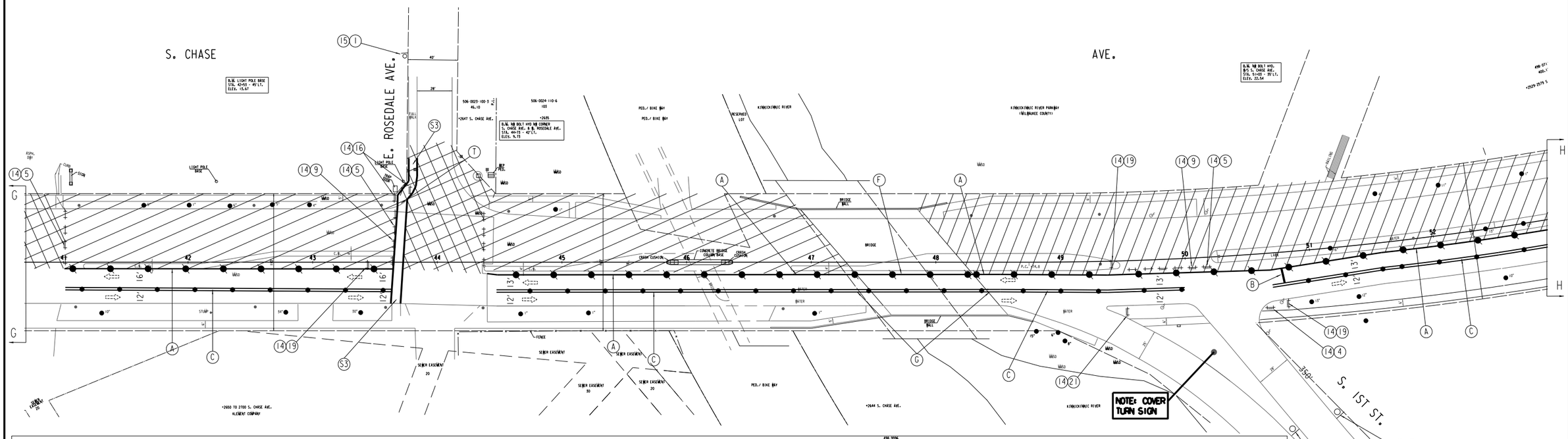
- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

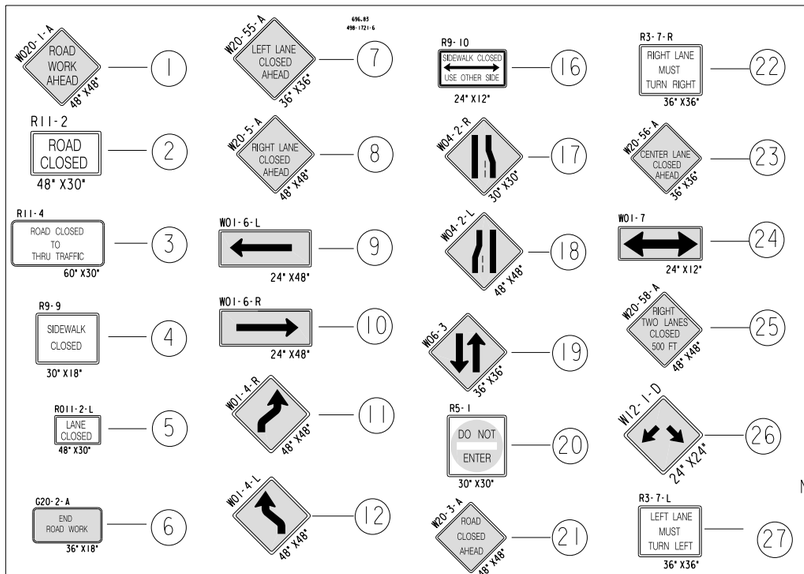
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 264	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE I





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

SHEET 6 OF 7

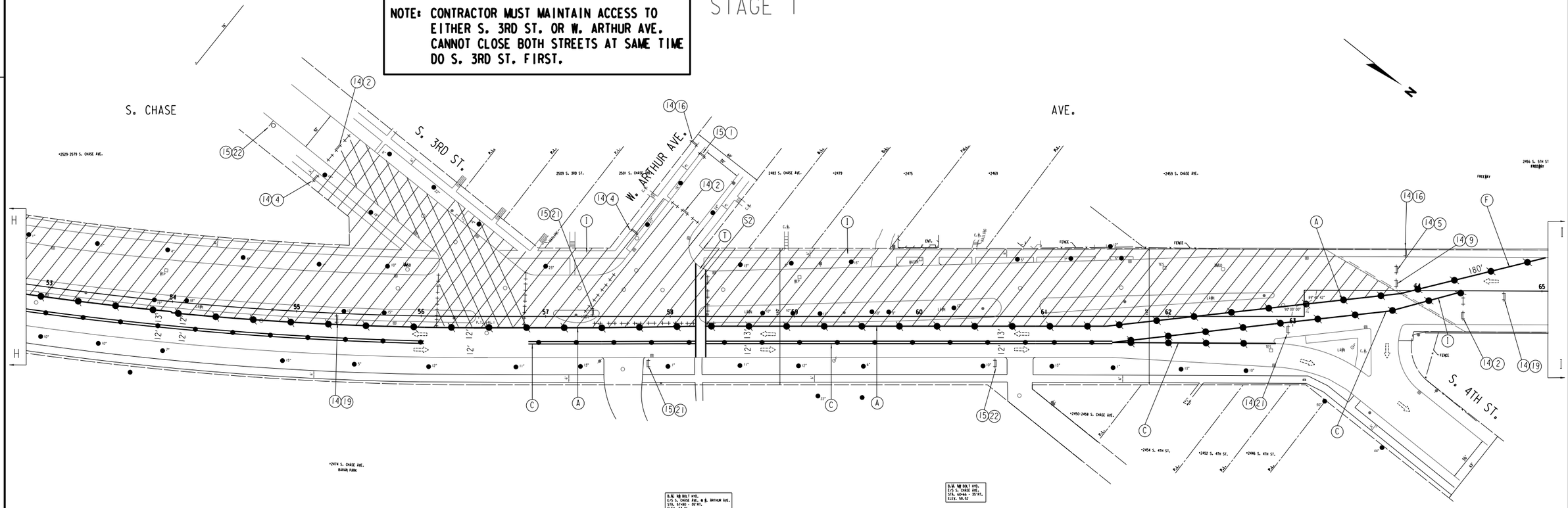
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 265	E

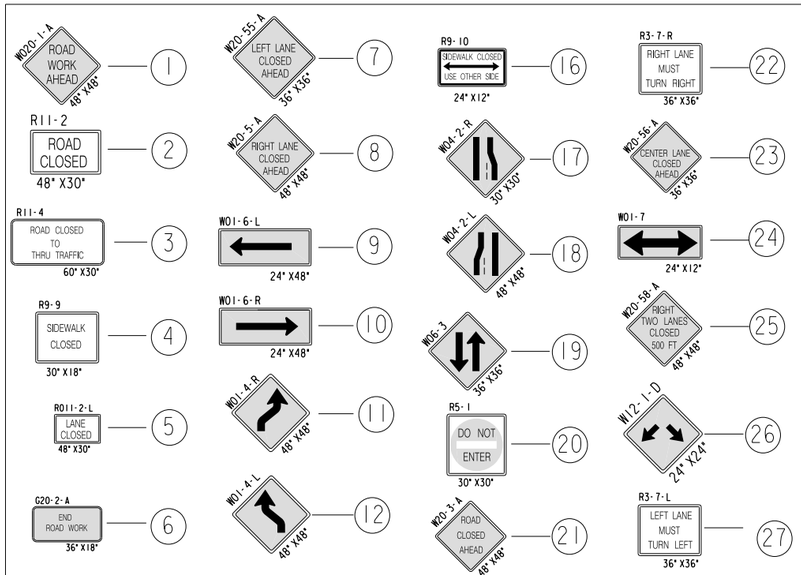
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

NOTE: CONTRACTOR MUST MAINTAIN ACCESS TO EITHER S. 3RD ST. OR W. ARTHUR AVE. CANNOT CLOSE BOTH STREETS AT SAME TIME DO S. 3RD ST. FIRST.

STAGE I



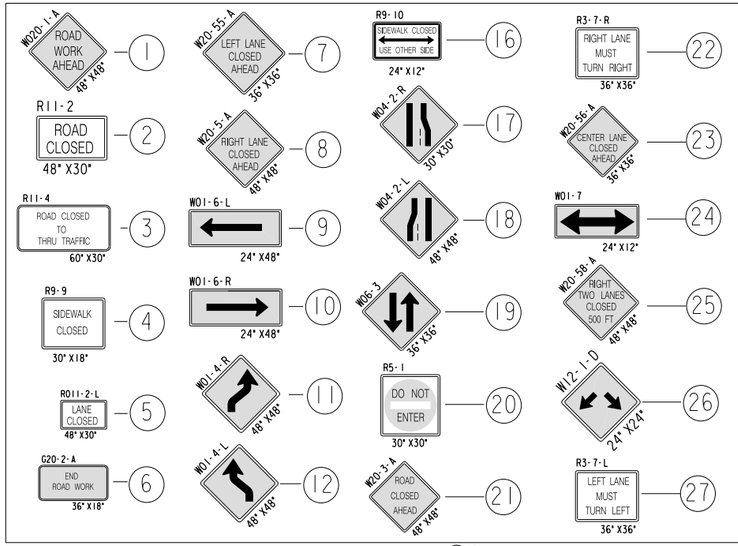


LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP



LEGEND

DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

TYPE III BARRICADES W/ SIGN — (14) + (X)

SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)

SIGNS BANDED TO UTILITY POLE

WORK AREA

MAINTAIN ACCESS DURING CONSTRUCTION

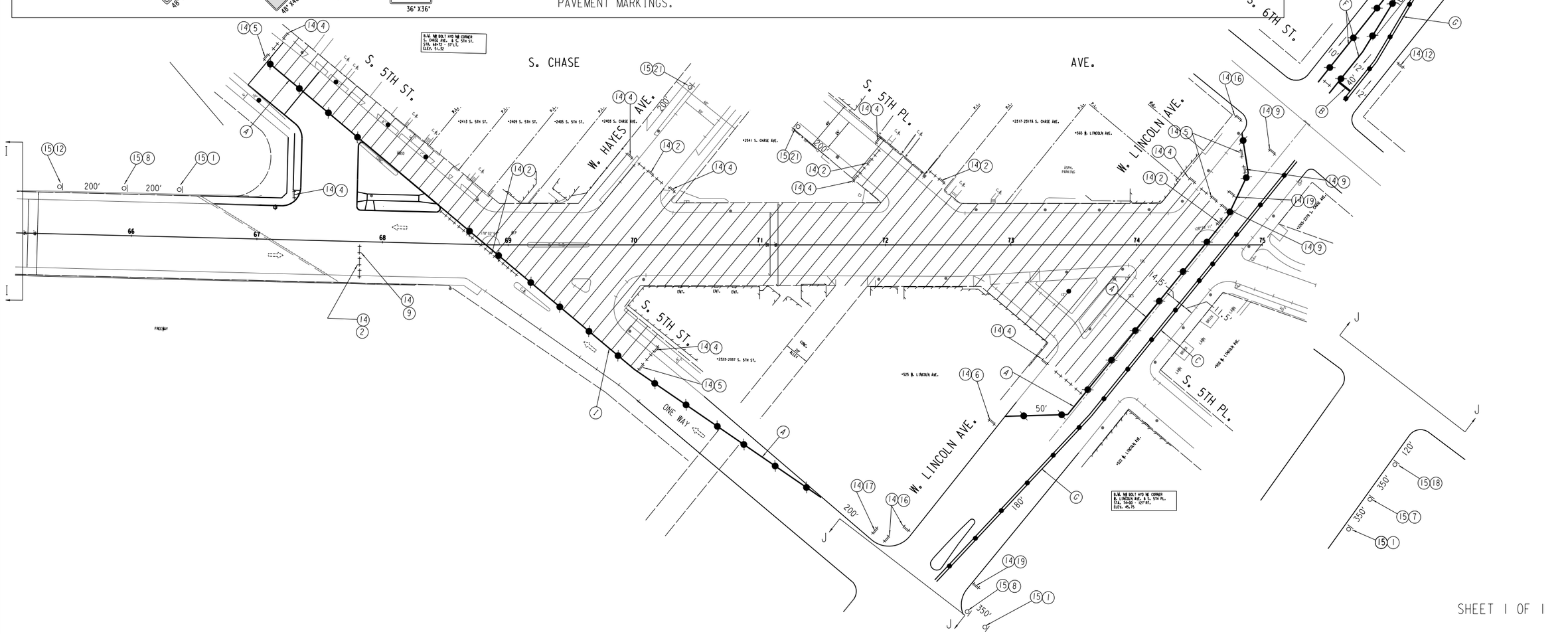
DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

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.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

PRE-STAGE 1B



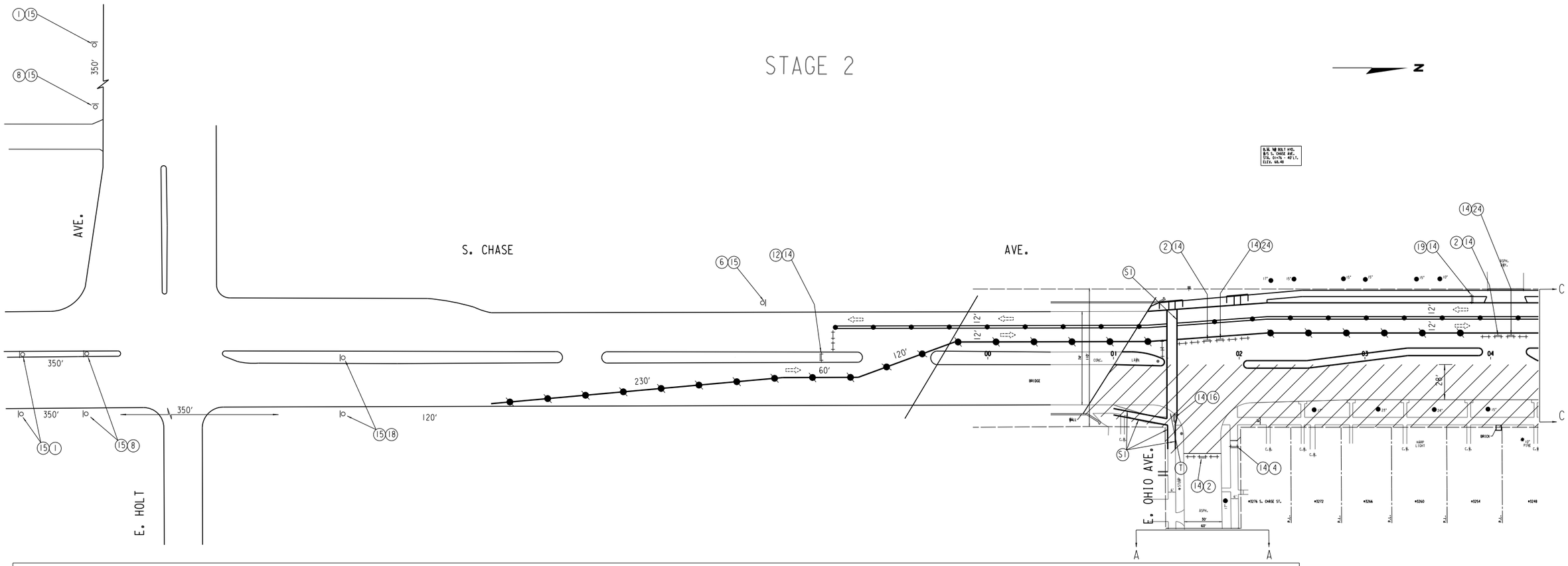
SHEET 1 OF 1

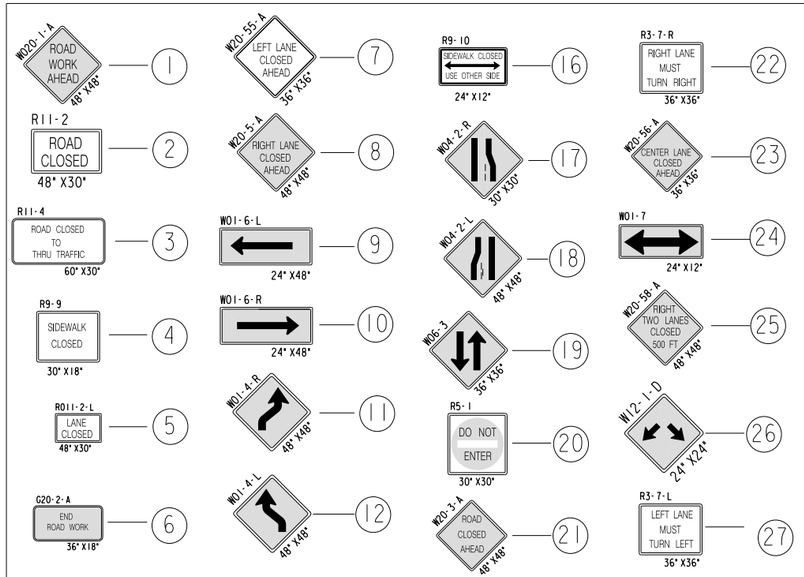
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 267	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 2





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

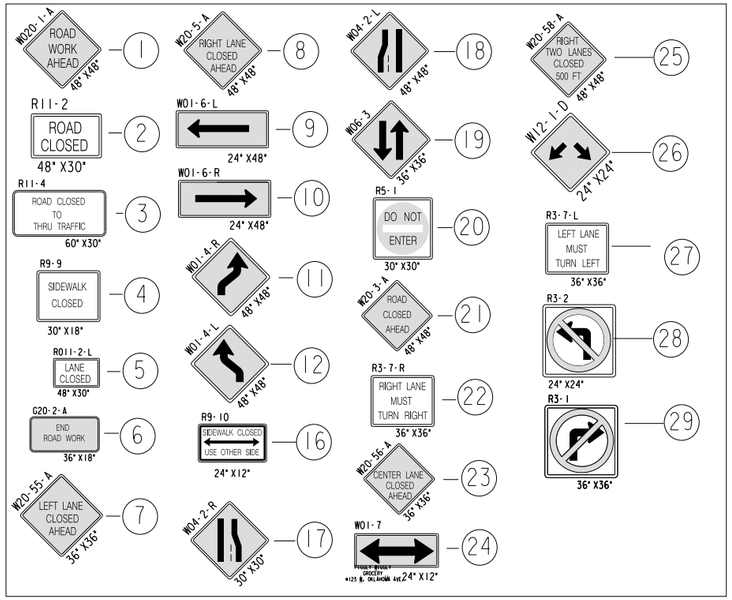
- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

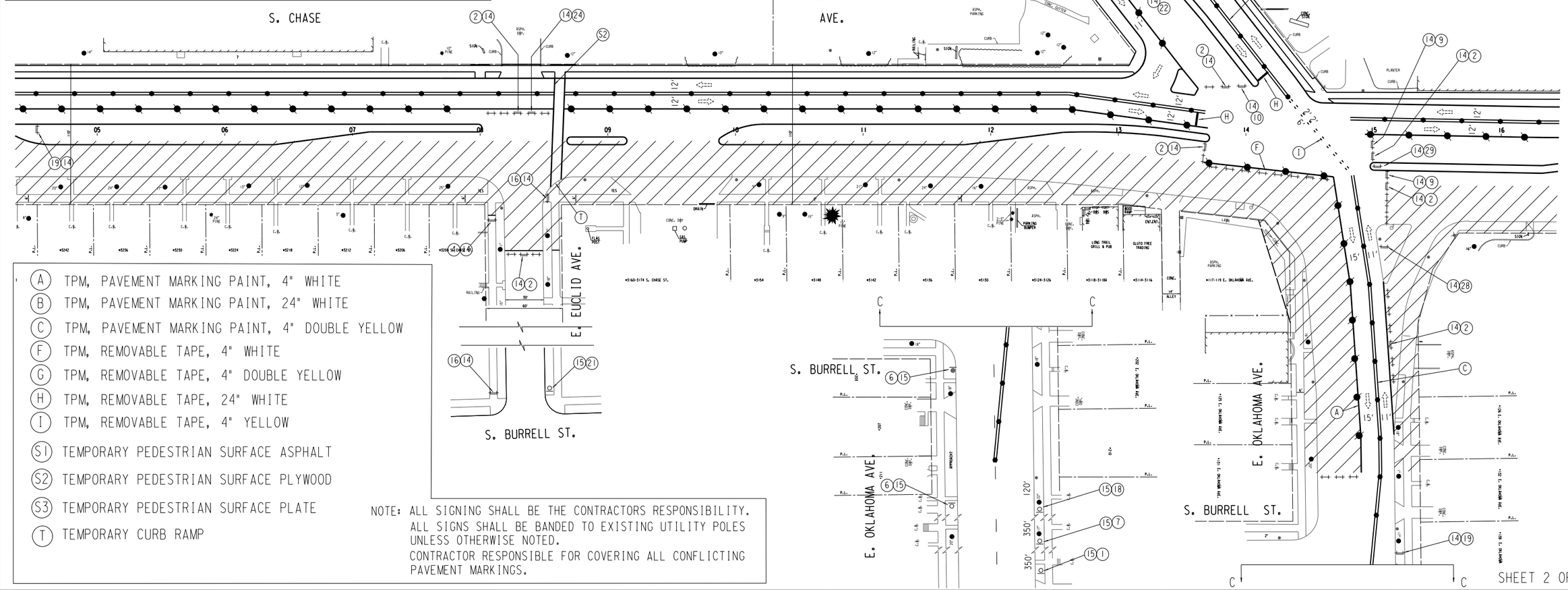
SHEET 1 OF 8

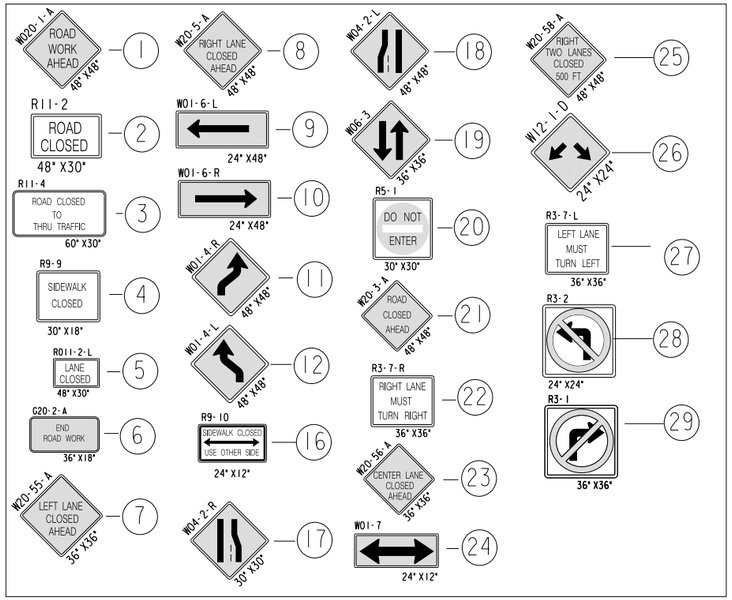
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 268	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

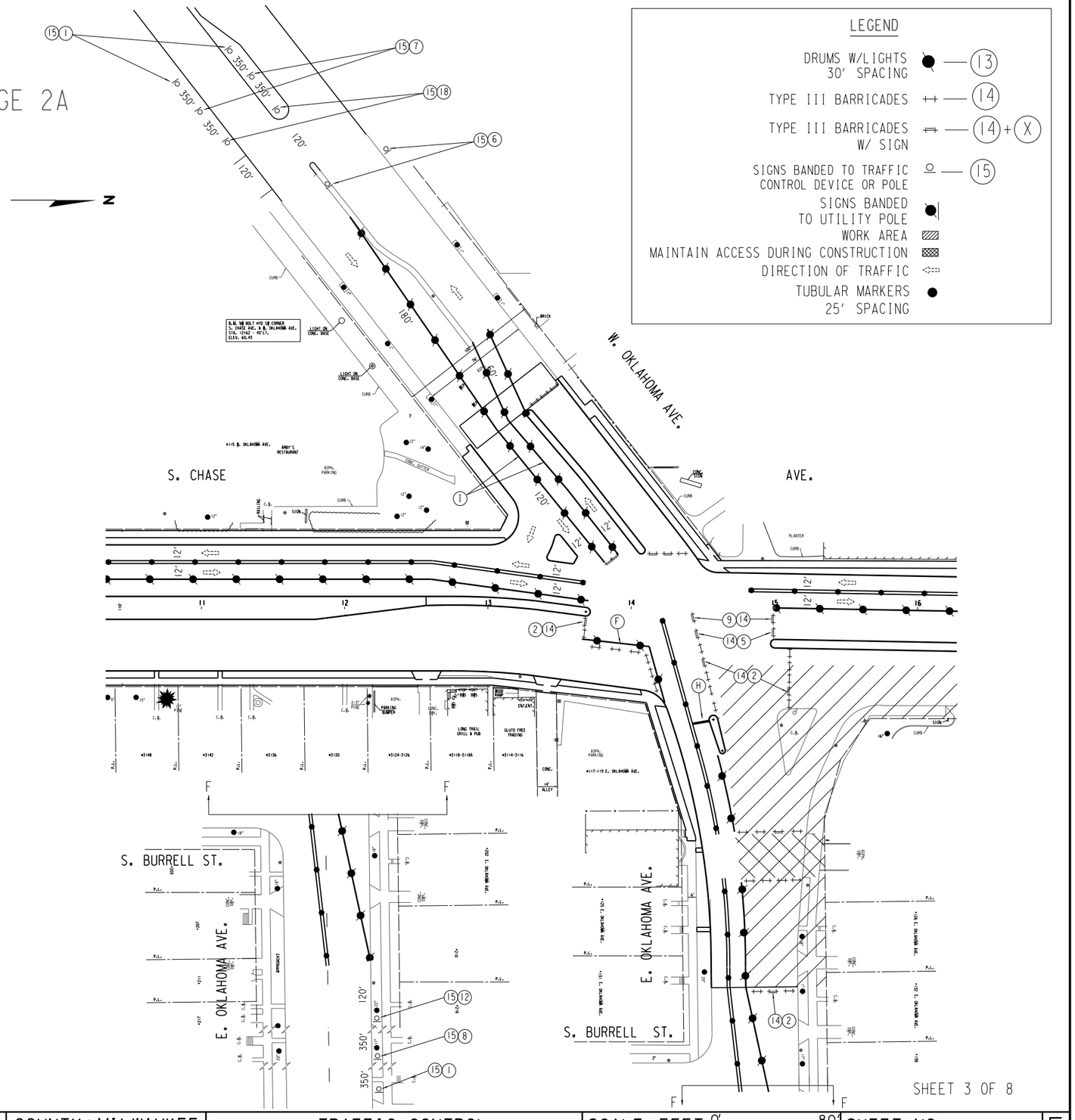
REVISED DATE: 01-25-2018 BY PN


W20-1-A
ROAD WORK AHEAD
48" X48"
1
R11-2
ROAD CLOSED
48" X30"
2
R11-4
ROAD CLOSED TO THRU TRAFFIC
60" X30"
3
R9-9
SIDEWALK CLOSED
30" X18"
4
R011-2-L
LANE CLOSED
48" X30"
5
G20-2-A
END ROAD WORK
36" X18"
6
W20-5-L
LEFT LANE CLOSED AHEAD
36" X36"
7
W20-5-A
RIGHT LANE CLOSED AHEAD
48" X48"
8
W01-6-L
24" X48"
9
W01-6-R
24" X48"
10
W01-4-R
48" X48"
11
W01-4-L
48" X48"
12
R9-10
SIDEWALK CLOSED USE OTHER SIDE
24" X12"
16
W04-2-R
30" X30"
17
W04-2-L
48" X48"
18
W16-3
36" X36"
19
R5-1
DO NOT ENTER
30" X30"
20
W20-3-A
ROAD CLOSED AHEAD
48" X48"
21
R3-7-R
RIGHT LANE MUST TURN RIGHT
36" X36"
22
W20-56-A
CENTER LANE CLOSED AHEAD
36" X36"
23
W01-7
24" X12"
24
W20-58-A
RIGHT TWO LANES CLOSED 500 FT
48" X48"
25
W12-1-D
24" X24"
26
R3-7-L
LEFT LANE MUST TURN LEFT
36" X36"
27
R3-2
24" X24"
28
R3-1
36" X36"
29


STAGE 2
N
W. OKLAHOMA AVE.
S. CHASE
AVE.
E. EUCLID AVE.
S. BURRELL ST.
E. OKLAHOMA AVE.
S. BURRELL ST.
E. OKLAHOMA AVE.
S. BURRELL ST.
LEGEND
DRUMS W/LIGHTS 30' SPACING
TYPE III BARRICADES
TYPE III BARRICADES W/ SIGN
SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
SIGNS BANDED TO UTILITY POLE
WORK AREA
MAINTAIN ACCESS DURING CONSTRUCTION
DIRECTION OF TRAFFIC
TUBULAR MARKERS 25' SPACING
A TPM, PAVEMENT MARKING PAINT, 4" WHITE
B TPM, PAVEMENT MARKING PAINT, 24" WHITE
C TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
F TPM, REMOVABLE TAPE, 4" WHITE
G TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
H TPM, REMOVABLE TAPE, 24" WHITE
I TPM, REMOVABLE TAPE, 4" YELLOW
S1 TEMPORARY PEDESTRIAN SURFACE ASPHALT
S2 TEMPORARY PEDESTRIAN SURFACE PLYWOOD
S3 TEMPORARY PEDESTRIAN SURFACE PLATE
T TEMPORARY CURB RAMP
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.



STAGE 2A



- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

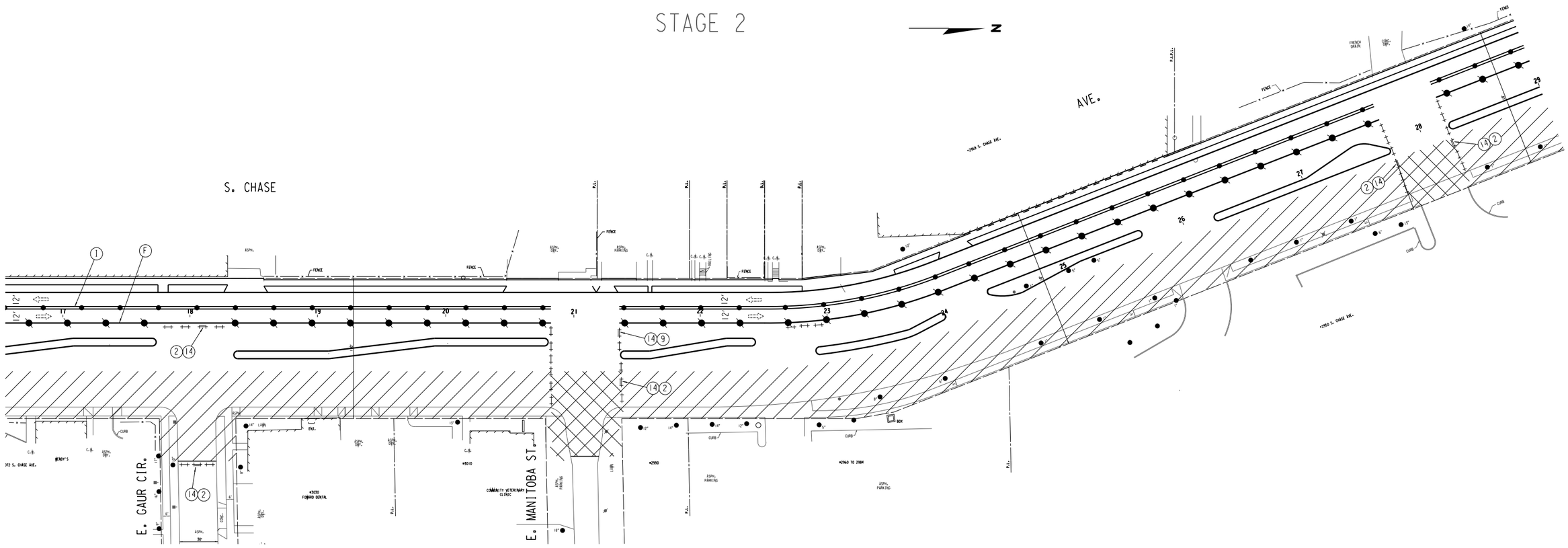
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

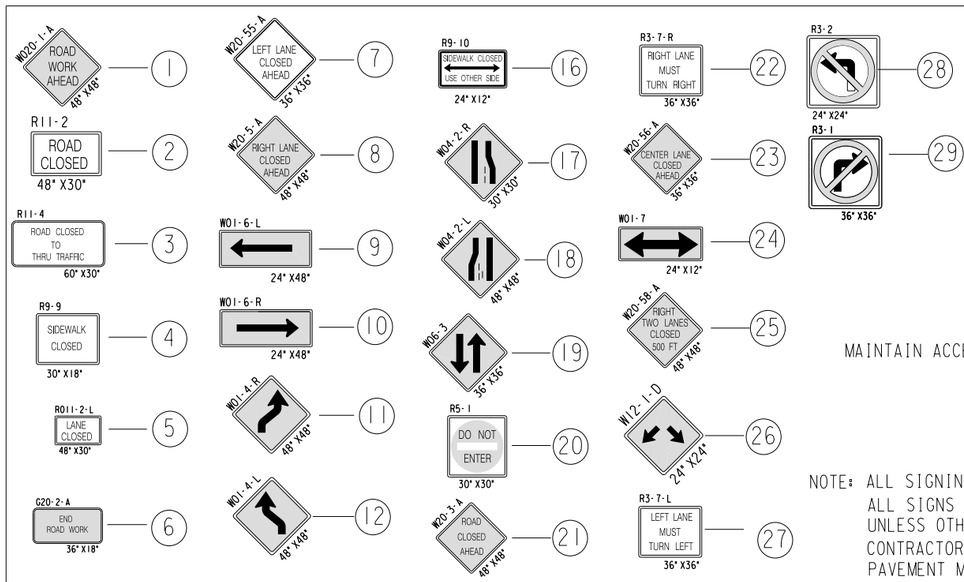
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 270	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 2





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

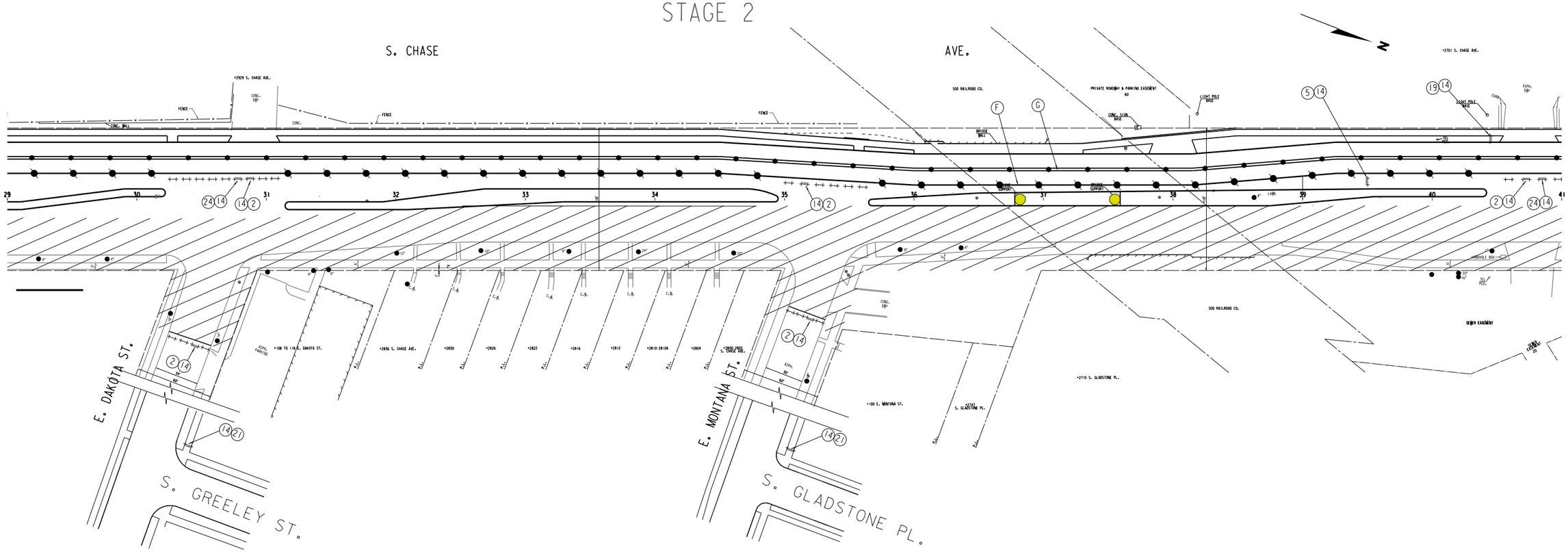
- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

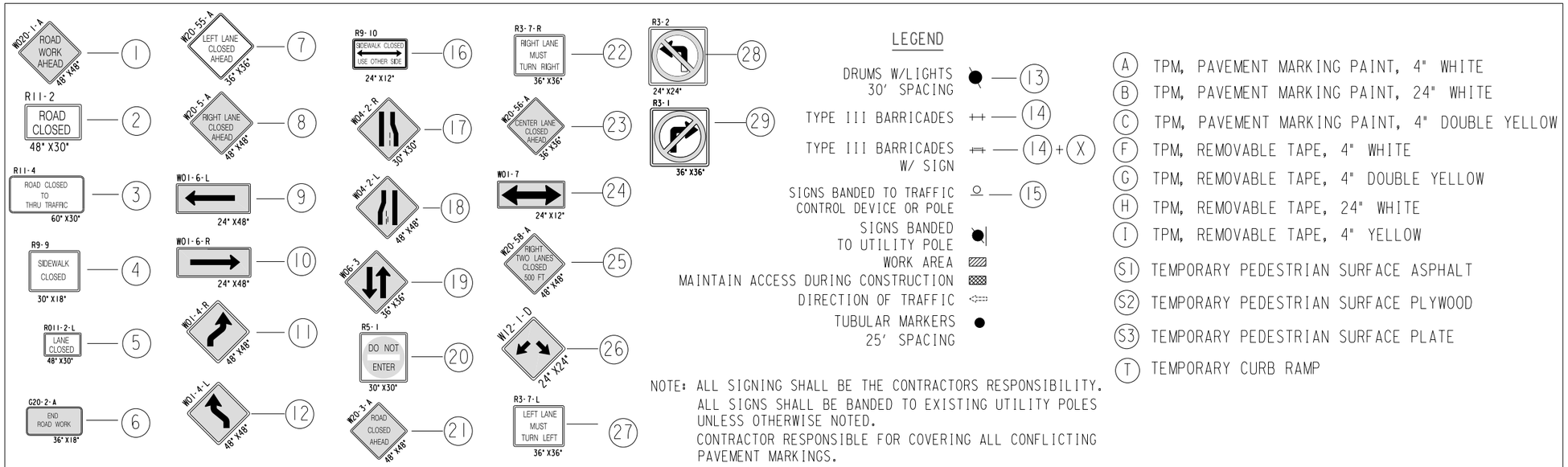
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 271	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 2





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

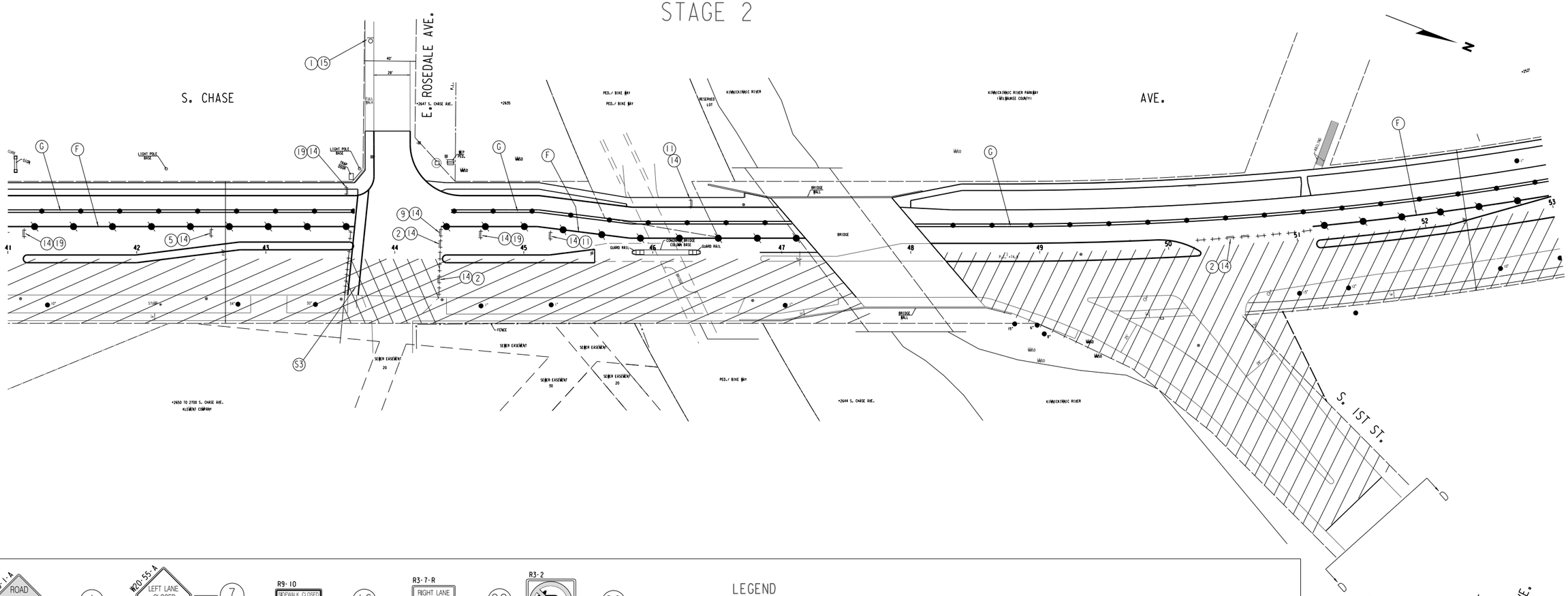
- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

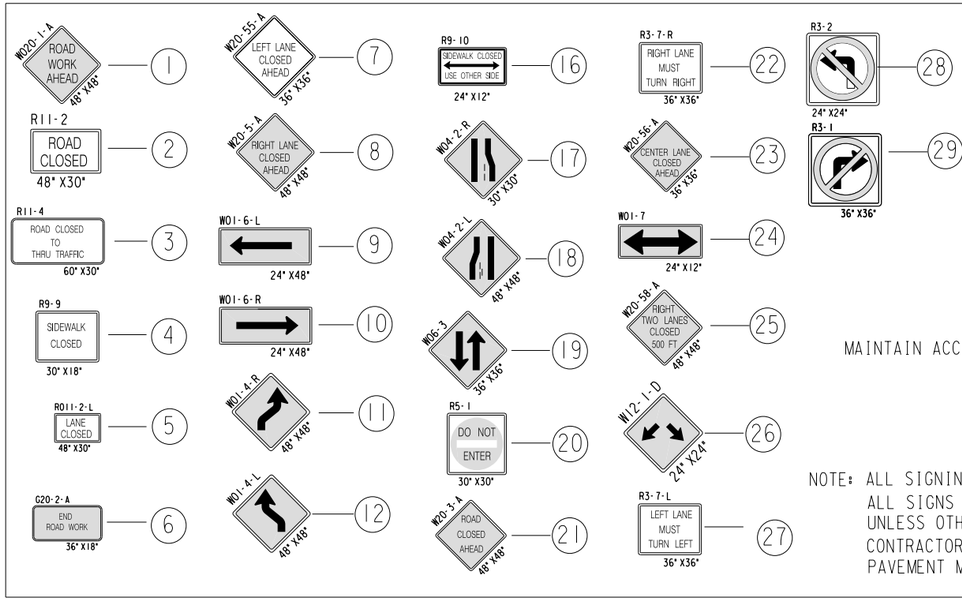
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 272	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 2





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14)+(X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

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.

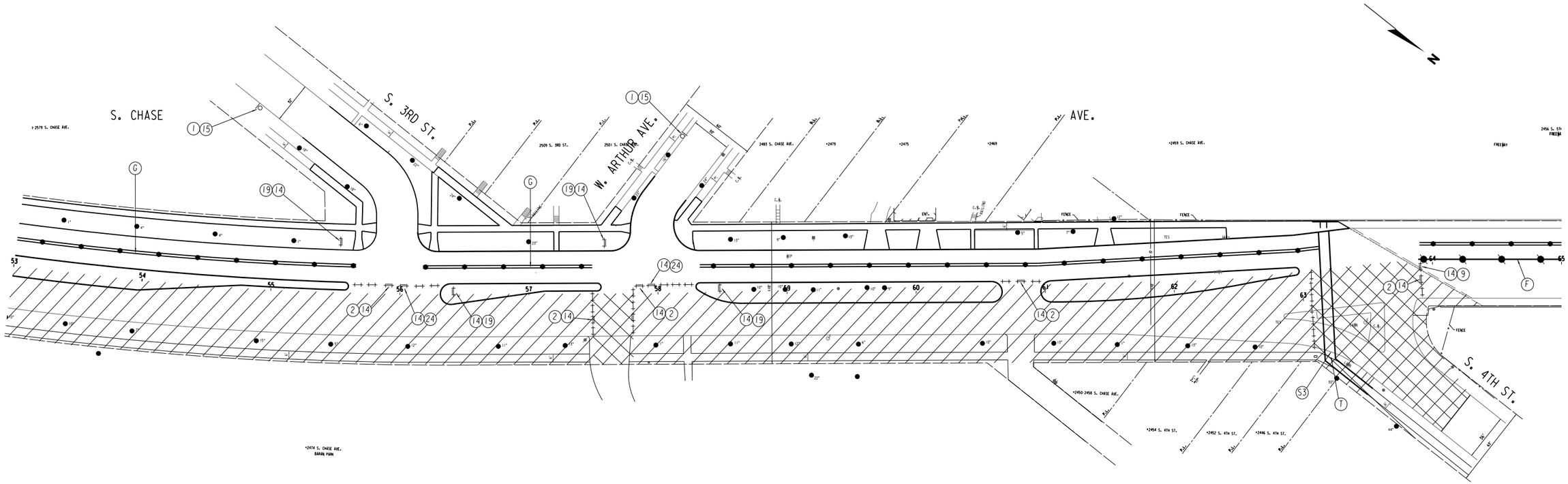
- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

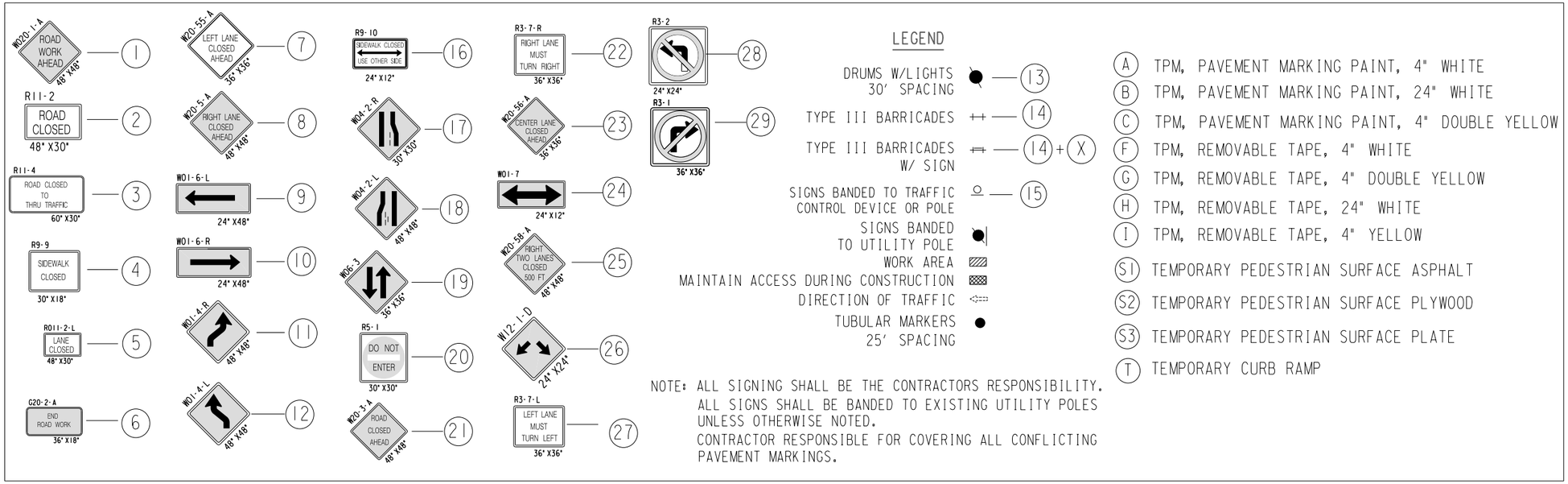
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 273	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

STAGE 2





LEGEND

- DRUMS W/LIGHTS 30' SPACING — (13)
- TYPE III BARRICADES — (14)
- TYPE III BARRICADES W/ SIGN — (14) + (X)
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE — (15)
- SIGNS BANDED TO UTILITY POLE
- WORK AREA
- MAINTAIN ACCESS DURING CONSTRUCTION
- DIRECTION OF TRAFFIC
- TUBULAR MARKERS 25' SPACING

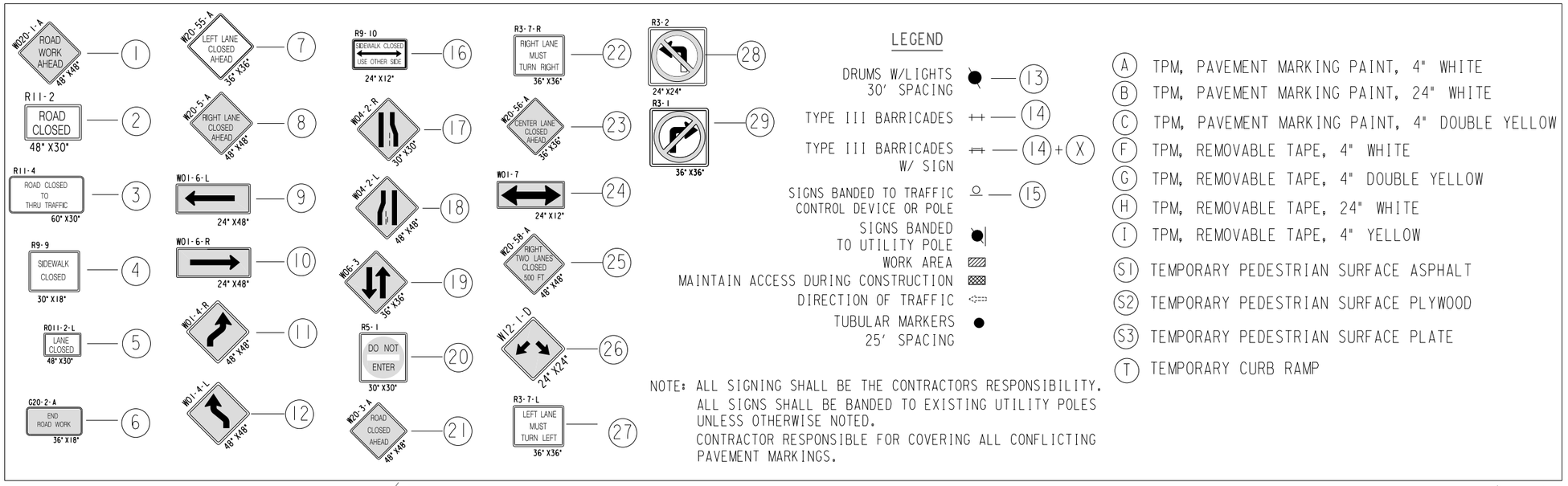
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

- (A) TPM, PAVEMENT MARKING PAINT, 4" WHITE
- (B) TPM, PAVEMENT MARKING PAINT, 24" WHITE
- (C) TPM, PAVEMENT MARKING PAINT, 4" DOUBLE YELLOW
- (F) TPM, REMOVABLE TAPE, 4" WHITE
- (G) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (H) TPM, REMOVABLE TAPE, 24" WHITE
- (I) TPM, REMOVABLE TAPE, 4" YELLOW
- (S1) TEMPORARY PEDESTRIAN SURFACE ASPHALT
- (S2) TEMPORARY PEDESTRIAN SURFACE PLYWOOD
- (S3) TEMPORARY PEDESTRIAN SURFACE PLATE
- (T) TEMPORARY CURB RAMP

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 274	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP



SHEET 8 OF 8

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 275	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\TRAFFIC.DGN

REVISED DATE: 08-02-2018 BY CP

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	858.000	858.000
0004	201.0220	Grubbing	ID	858.000	858.000
0006	204.0100	Removing Pavement	SY	61,060.000	61,060.000
0008	204.0105	Removing Pavement Butt Joints	SY	2,660.000	2,660.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	440.000	440.000
0012	204.0150	Removing Curb & Gutter	LF	250.000	250.000
0014	204.0155	Removing Concrete Sidewalk	SY	12,780.000	12,780.000
0016	204.0195	Removing Concrete Bases	EACH	13.000	13.000
0018	204.0220	Removing Inlets	EACH	27.000	27.000
0020	204.0250	Abandoning Manholes	EACH	5.000	5.000
0022	204.0260	Abandoning Inlets	EACH	55.000	55.000
0024	205.0100	Excavation Common	CY	28,906.000	28,906.000
0026	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	1,640.000	1,640.000
0028	213.0100	Finishing Roadway (project) 01. 2060-00-76	EACH	1.000	1.000
0032	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,600.000	1,600.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	33,345.000	33,345.000
0036	320.0125	Concrete Base 6-Inch	SY	20.000	20.000
0038	415.0070	Concrete Pavement 7-Inch	SY	210.000	210.000
0040	415.0085	Concrete Pavement 8 1/2-Inch	SY	58,189.000	58,189.000
0044	415.0210	Concrete Pavement Gaps	EACH	11.000	11.000
0046	416.0170	Concrete Driveway 7-Inch	SY	690.000	690.000
0048	416.0190	Concrete Driveway 9-Inch	SY	290.000	290.000
0050	416.0270	Concrete Driveway HES 7-Inch	SY	270.000	270.000
0052	416.0290	Concrete Driveway HES 9-Inch	SY	80.000	80.000
0054	416.0610	Drilled Tie Bars	EACH	380.000	380.000
0058	455.0605	Tack Coat	GAL	20.000	20.000
0060	465.0105	Asphaltic Surface	TON	160.000	160.000
0064	601.0150	Concrete Curb Integral Type D	LF	10,780.000	10,780.000
0066	601.0322	Concrete Curb & Gutter 22-Inch	LF	30.000	30.000
0068	601.0331	Concrete Curb & Gutter 31-Inch	LF	16,170.000	16,170.000
0070	601.0600	Concrete Curb Pedestrian	LF	90.000	90.000
0072	602.0410	Concrete Sidewalk 5-Inch	SF	92,450.000	92,450.000
0076	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	740.000	740.000
0078	602.1000	Concrete Loading Zone	SF	135.000	135.000
0086	611.2004	Manholes 4-FT Diameter	EACH	14.000	14.000
0088	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0090	611.3225	Inlets 2x2.5-FT	EACH	12.000	12.000
0094	619.1000	Mobilization	EACH	0.970	0.970
0096	620.0300	Concrete Median Sloped Nose	SF	1,170.000	1,170.000

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0098	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0100	623.0200	Dust Control Surface Treatment	SY	56,610.000	56,610.000
0102	624.0100	Water	MGAL	200.000	200.000
0104	625.0100	Topsoil	SY	14,020.000	14,020.000
0118	629.0210	Fertilizer Type B	CWT	5.000	5.000
0122	631.1000	Sod Lawn	SY	14,020.000	14,020.000
0124	632.0101	Trees (species) (size) (root) 01. Common Baldcypress	EACH	12.000	12.000
0126	632.0101	Trees (species) (size) (root) 02. Upright English Oak	EACH	8.000	8.000
0128	632.0101	Trees (species) (size) (root) 03. Callery Pear	EACH	19.000	19.000
0130	632.0101	Trees (species) (size) (root) 04. Freeman Maple	EACH	22.000	22.000
0132	632.0101	Trees (species) (size) (root) 05. Sunburst Honey Locust	EACH	12.000	12.000
0134	632.0101	Trees (species) (size) (root) 06. Accolade Elm	EACH	14.000	14.000
0136	632.0101	Trees (species) (size) (root) 07. Japanese Tree Lilac	EACH	16.000	16.000
0138	632.0101	Trees (species) (size) (root) 08. Cumulus Serviceberry	EACH	1.000	1.000
0140	632.0101	Trees (species) (size) (root) 09. Kentucky Coffeetree	EACH	8.000	8.000
0142	632.0101	Trees (species) (size) (root) 10. American Hornbeams	EACH	14.000	14.000
0144	632.0101	Trees (species) (size) (root) 11. Concolor Spruce	EACH	1.000	1.000
0146	632.0101	Trees (species) (size) (root) 12. Double Blossom Cherry (Pink Flower)	EACH	3.000	3.000
0148	632.0101	Trees (species) (size) (root) 13. Cleveland Select Pear	EACH	3.000	3.000
0150	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	10.000	10.000
0152	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	1.000	1.000
0154	637.2210	Signs Type II Reflective H	SF	33.500	33.500
0158	638.2602	Removing Signs Type II	EACH	1.000	1.000
0160	638.3000	Removing Small Sign Supports	EACH	1.000	1.000
0162	642.5401	Field Office Type D	EACH	0.970	0.970
0164	643.0300	Traffic Control Drums	DAY	51,213.000	51,213.000
0166	643.0420	Traffic Control Barricades Type III	DAY	49,001.000	49,001.000
0168	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	536.000	536.000
0170	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	536.000	536.000
0176	643.0900	Traffic Control Signs	DAY	30,949.000	30,949.000
0180	643.5000	Traffic Control	EACH	0.970	0.970
0182	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	816.000	816.000
0184	644.1420.S	Temporary Pedestrian Surface Plywood	SF	746.000	746.000
0186	644.1430.S	Temporary Pedestrian Surface Plate	SF	1,360.000	1,360.000
0188	644.1601.S	Temporary Curb Ramp	EACH	6.000	6.000
0190	646.1020	Marking Line Epoxy 4-Inch	LF	18,675.000	18,675.000
0192	646.5020	Marking Arrow Epoxy	EACH	13.000	13.000
0194	646.5120	Marking Word Epoxy	EACH	10.000	10.000
0196	646.5220	Marking Symbol Epoxy	EACH	64.000	64.000

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0198	646.7520	Marking Crosswalk Epoxy Ladder Pattern 24-Inch	LF	156.000	156.000
0200	646.8220	Marking Island Nose Epoxy	EACH	48.000	48.000
0204	649.0105	Temporary Marking Line Paint 4-Inch	LF	25,916.000	25,916.000
0206	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	22,169.000	22,169.000
0208	650.4000	Construction Staking Storm Sewer	EACH	101.000	101.000
0210	650.4500	Construction Staking Subgrade	LF	14,170.000	14,170.000
0214	650.7000	Construction Staking Concrete Pavement	LF	14,170.000	14,170.000
0216	650.8500	Construction Staking Electrical Installations (project) 01. 2060-00-76	LS	1.000	1.000
0220	650.9000	Construction Staking Curb Ramps	EACH	56.000	56.000
0222	650.9910	Construction Staking Supplemental Control (project) 01. 2060-00-76	LS	1.000	1.000
0226	650.9920	Construction Staking Slope Stakes 01. 2060-00-76	LF	7,420.000	7,420.000
0228	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	55.000	55.000
0230	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	365.000	365.000
0232	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	1,220.000	1,220.000
0234	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	11,770.000	11,770.000
0236	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	6,905.000	6,905.000
0240	652.0615	Conduit Special 3-Inch	LF	405.000	405.000
0244	654.0101	Concrete Bases Type 1	EACH	15.000	15.000
0246	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0248	654.0110	Concrete Bases Type 10	EACH	3.000	3.000
0250	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0260	655.0305	Cable Type UF 2-12 AWG Grounded	LF	5,335.000	5,335.000
0266	657.0100	Pedestal Bases	EACH	15.000	15.000
0268	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	1.000	1.000
0272	657.0345	Poles Type 9	EACH	1.000	1.000
0274	657.0350	Poles Type 10	EACH	2.000	2.000
0278	657.0360	Poles Type 13	EACH	1.000	1.000
0282	657.0525	Monotube Arms 25-FT	EACH	3.000	3.000
0284	657.0535	Monotube Arms 35-FT	EACH	3.000	3.000
0286	657.0540	Monotube Arms 40-FT	EACH	2.000	2.000
0290	657.0550	Monotube Arms 50-FT	EACH	1.000	1.000
0308	690.0150	Sawing Asphalt	LF	1,260.000	1,260.000
0310	690.0250	Sawing Concrete	LF	830.000	830.000
0312	715.0415	Incentive Strength Concrete Pavement	DOL	17,520.000	17,520.000
0314	740.0440	Incentive IRI Ride	DOL	5,620.000	5,620.000
0316	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	3,000.000	3,000.000
0318	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	4,500.000	4,500.000
0320	SPV.0045	Special 01. Temporary Crosswalk	DAY	223.000	223.000

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0322	SPV.0060	Special 01. Inlet Covers Type 57	EACH	105.000	105.000
0324	SPV.0060	Special 02. Manhole Covers Type 58A	EACH	109.000	109.000
0326	SPV.0060	Special 03. Catch Basins Type 44A	EACH	32.000	32.000
0328	SPV.0060	Special 04. Catch Basins Type 44B	EACH	2.000	2.000
0330	SPV.0060	Special 05. Catch Basins Type 45A	EACH	48.000	48.000
0332	SPV.0060	Special 06. Inlet Covers Type 55	EACH	1.000	1.000
0334	SPV.0060	Special 07. Inlet Screen Type M	EACH	99.000	99.000
0336	SPV.0060	Special 08. Inlet Screen Type R	EACH	99.000	99.000
0338	SPV.0060	Special 09. Adjusting Water Service Boxes	EACH	125.000	125.000
0340	SPV.0060	Special 10. Adjusting Water Manholes Frame and Lid	EACH	14.000	14.000
0342	SPV.0060	Special 11. Water Main Protection	EACH	26.000	26.000
0344	SPV.0060	Special 12. Poles Type-1	EACH	10.000	10.000
0346	SPV.0060	Special 13. Poles Type-3	EACH	60.000	60.000
0348	SPV.0060	Special 14. Poles Type-6	EACH	4.000	4.000
0350	SPV.0060	Special 15. Poles Type-31	EACH	1.000	1.000
0352	SPV.0060	Special 16. Poles Type 12 Special	EACH	1.000	1.000
0354	SPV.0060	Special 17. Poles Type 13 Special	EACH	4.000	4.000
0356	SPV.0060	Special 18. City Precast Controller Base 36" x 21" x 20"	EACH	2.000	2.000
0358	SPV.0060	Special 19. Pull Boxes 13-Inch X 24-Inch X 24-Inch	EACH	128.000	128.000
0360	SPV.0060	Special 20. Pull Boxes 17-Inch X 30-Inch X 24-Inch	EACH	55.000	55.000
0364	SPV.0060	Special 22. Water Tight Junction Box Splicing	EACH	95.000	95.000
0366	SPV.0060	Special 23. Luminaire Arm Single Member 6 Ft City-Furnished	EACH	124.000	124.000
0368	SPV.0060	Special 24. Remove Luminaire	EACH	41.000	41.000
0370	SPV.0060	Special 25. Luminaire Architectural LED 1	EACH	13.000	13.000
0372	SPV.0060	Special 26. Luminaire Architectural LED 2	EACH	10.000	10.000
0374	SPV.0060	Special 27. Luminaire Architectural LED 3	EACH	129.000	129.000
0376	SPV.0060	Special 28. Luminaire Historic Milwaukee Harp LED 0	EACH	14.000	14.000
0378	SPV.0060	Special 29. Luminaire Historic Milwaukee Lantern LED 2	EACH	11.000	11.000
0380	SPV.0060	Special 30. Luminaire Utility LED 0 Wallpack	EACH	2.000	2.000
0382	SPV.0060	Special 31. Concrete Bases Type 10 Special	EACH	5.000	5.000
0384	SPV.0060	Special 32. Concrete Spread Footing	EACH	1.000	1.000
0388	SPV.0060	Special 34. Utility Line Opening (ULO)	EACH	30.000	30.000
0396	SPV.0060	Special 38. Catmint Blue Wonder	EACH	116.000	116.000
0398	SPV.0060	Special 39. Cloud Nine Switchgrass	EACH	28.000	28.000
0400	SPV.0060	Special 40. Day Lilies	EACH	48.000	48.000
0402	SPV.0060	Special 41. Dwarf Korean Lilac	EACH	24.000	24.000
0404	SPV.0060	Special 42. Signature Bed	EACH	4.000	4.000
0406	SPV.0060	Special 43. Golden American Elderberry	EACH	6.000	6.000

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0408	SPV.0060	Special 44. Hosta Sum & Substance	EACH	18.000	18.000
0410	SPV.0060	Special 45. Hydrangea "Annabelle"	EACH	20.000	20.000
0412	SPV.0060	Special 46. White Cone Flower	EACH	40.000	40.000
0414	SPV.0060	Special 47. Karl Forester Grass	EACH	72.000	72.000
0416	SPV.0060	Special 48. Rose "Knockout Red"	EACH	42.000	42.000
0420	SPV.0060	Special 50. Adjusting CUC Manhole Covers	EACH	6.000	6.000
0422	SPV.0060	Special 51. 4’ Diameter Manhole Type CUC	EACH	8.000	8.000
0424	SPV.0060	Special 52. 4’ Diameter “Doghouse” Manhole Type CUC	EACH	1.000	1.000
0426	SPV.0060	Special 53. 4’ Diameter “Doghouse” Manhole Type CUC, Installed over Conduit	EACH	1.000	1.000
0428	SPV.0060	Special 54. 5’ Diameter “Doghouse” Manhole Type CUC	EACH	1.000	1.000
0430	SPV.0060	Special 55. 6’ Diameter “Doghouse” Manhole Type CUC, Installed over Conduit	EACH	1.000	1.000
0432	SPV.0060	Special 56. Removing CUC Manhole	EACH	2.000	2.000
0434	SPV.0060	Special 57. Installing Conduit Into Existing Manhole	EACH	7.000	7.000
0438	SPV.0060	Special 59. Internal Sanitary Manhole Seals	EACH	22.000	22.000
0440	SPV.0090	Special 01. Storm Sewer Pipe Corrugated PVC 12-Inch	LF	3,648.000	3,648.000
0442	SPV.0090	Special 02. Construction Staking Concrete Sidewalk	LF	12,810.000	12,810.000
0444	SPV.0090	Special 03. Liquidight Flexible Nonmetallic Conduit 1 1/2 - Inch Type B	LF	687.000	687.000
0446	SPV.0090	Special 04. Marking Crosswalk Epoxy 12-Inch	LF	1,705.000	1,705.000
0448	SPV.0090	Special 05. Marking Line Epoxy 6-Inch White	LF	12,145.000	12,145.000
0450	SPV.0090	Special 06. Marking Stop Line Epoxy 24-Inch	LF	370.000	370.000
0452	SPV.0090	Special 07. Fieldstone Boulder Wall	LF	160.000	160.000
0454	SPV.0090	Special 08. Cable Type 3#8/1#8 LTP	LF	1,710.000	1,710.000
0456	SPV.0090	Special 09. Cable Type 3#6/1#8 LTP	LF	450.000	450.000
0458	SPV.0090	Special 10. Cable Type 3#4/1#8 LTP	LF	3,850.000	3,850.000
0460	SPV.0090	Special 11. Cable Type 3#2/1#8 LTP	LF	12,300.000	12,300.000
0462	SPV.0090	Special 12. Cable Type UF 3#12 AWG With Ground	LF	2,800.000	2,800.000
0466	SPV.0090	Special 14. 6-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	3,013.000	3,013.000
0468	SPV.0090	Special 15. 4-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	2,775.000	2,775.000
0470	SPV.0090	Special 16. 3-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	10.000	10.000
0472	SPV.0090	Special 17. 2-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	359.000	359.000
0474	SPV.0090	Special 18. 1-Duct Conduit, Cement Encased, 4-inch Rigid Nonmetallic Conduit DB-60	LF	16.000	16.000
0476	SPV.0090	Special 19. Temporary Pavement Marking Paint 24 Inch White	LF	56.000	56.000

2060-00-76

Line	Item	Item Description	Unit	Total	Qty
0478	SPV.0090	Special 20. Temporary Pavement Marking Tape 24 Inch White	LF	76.000	76.000
0486	SPV.0180	Special 01. Joint Sealing	SY	56,610.000	56,610.000
0488	SPV.0195	Special 01. Management of Solid Waste	TON	3,217.000	3,217.000

REMOVALS

2060-00-76

CATEGORY 0010										
	ITEM NO.	CLEARING	GRUBBING	REMOVING PAVEMENT	REMOVING BUTT JOINTS	REMOVING ASPHALTIC SURFACE BUTT JOINTS	REMOVING CURB & GUTTER	REMOVING CONCRETE SIDEWALK	SAWING ASPHALT	SAWING CONCRETE
	UNIT PAY	201.0120 ID	201.0220 ID	204.0100 SY	204.0105 SY	204.0115 SY	204.0150 LF	204.0155 SY	690.0150 LF	690.0250 LF
LOCATION										
STA 0+77 TO 4+00	LT			1120	0	0	0	350	0	0
STA 4+00 TO 10+00	LT			2440	0	0	0	740	60	10
STA 10+00 TO 16+00	LT			3260	0	160	10	830	0	10
STA 16+00 TO 22+00	LT			1120	0	0	0	540	70	30
STA 22+00 TO 27+00	LT			1610	0	0	0	460	50	190
STA 27+00 TO 33+00	LT			2140	0	0	0	570	0	60
STA 33+00 TO 39+00	LT			1960	0	0	0	500	140	0
STA 39+00 TO 45+00	LT			3050	0	0	0	450	510	30
STA 45+00 to 50+00	LT			1520	0	0	0	370	0	0
STA 50+00 to 56+00	LT			1960	0	50	0	450	0	0
STA 56+00 to 62+00	LT			2730	0	0	0	440	0	10
STA 62+00 TO 66+00	LT			690	0	0	0	80	0	0
STA 66+00 TO 71+00	LT			2410	320	0	0	420	0	80
STA 71+00 TO 75+00	LT			1300	0	0	0	280	0	0
STA 101+59 TO 103+00 (OKLAHOMA)	LT			130	460	0	40	50	20	0
SUBTOTALS (LEFT)				**27440**	**780**	**210**	**50**	**6530**	**850**	**420**
STA 0+77 TO 4+00	RT			1290	0	30	20	240	30	20
STA 4+00 TO 10+00	RT			2350	0	90	0	580	30	100
STA 10+00 TO 16+00	RT			4040	0	0	0	570	30	50
STA 16+00 TO 22+00	RT			4170	0	50	30	450	140	80
STA 22+00 TO 27+00	RT			2610	0	0	0	400	70	0
STA 27+00 TO 33+00	RT			2830	0	0	0	540	0	0
STA 33+00 TO 39+00	RT			2200	0	60	40	570	0	0
STA 39+00 TO 45+00	RT			2220	0	0	0	660	70	0
STA 45+00 to 50+00	RT			1840	0	0	0	380	0	30
STA 50+00 to 56+00	RT			2630	0	0	0	380	0	0
STA 56+00 to 62+00	RT			2130	0	0	0	500	40	0
STA 62+00 TO 66+00	RT			1180	0	0	70	230	0	0
STA 66+00 TO 71+00	RT			1730	0	0	0	210	0	130
STA 71+00 TO 75+00	RT			2050	0	0	0	530	0	0
STA 101+59 TO 103+00 (OKLAHOMA)	RT			350	1880	0	40	10	0	0
SUBTOTALS (RIGHT)				**33620**	**1880**	**230**	**200**	**6250**	**410**	**410**
GRAND TOTALS		**858**	**858**	**61,060**	**2,660**	**440**	**250**	**12,780**	**1,260**	**830**

CONCRETE CONSTRUCTION ITEMS

2060-00-76

ITEM NO. / UNIT PAY / CATEGORY / LOCATION		BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON 0010	*BASE AGGREGATE DENSE 1-1/4-INCH 305.0120 TON 0020	CONCRETE BASE 6-INCH 320.0125 SY 0010	CONCRETE PAVEMENT 7-INCH 415.0070 SY 0010	*CONCRETE PAVEMENT 8.5-INCH 415.0085 SY 0010	*CONCRETE PAVEMENT 8.5-INCH 415.0085 SY 0020	CONCRETE PAVEMENT GAPS 415.0210 EACH 0010	CONCRETE DRIVEWAY 7-INCH 416.0170 SY 0010	CONCRETE DRIVEWAY 9-INCH 416.0190 SY 0010	CONCRETE DRIVEWAY HES 7-INCH 416.0270 SY 0010	CONCRETE DRIVEWAY HES 9-INCH 416.0290 SY 0010	CONCRETE CURB INTEGRAL TYPE D 601.0150 LF 0010	CONCRETE CURB & GUTTER 31-INCH 601.0331 LF 0010	CONCRETE CURB PEDESTRIAN 601.0600 LF 0010	CONCRETE SIDEWALK 5-INCH 602.0410 SF 0010	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA 602.0515 SF 0010	CONCRETE MEDIAN SLOPED NOSE 620.0300 SF 0010
STA 0+77 TO 4+00	LT		490	0	0	0	1150	0	0	0	0	0	200	310	0	2110	20	40
STA 4+00 TO 10+00	LT		1070	0	0	0	2380	1	0	60	0	0	470	600	0	3200	20	10
STA 10+00 TO 16+00	LT		1260	0	0	0	2890	0	0	0	0	0	710	710	0	5460	30	0
STA 16+00 TO 22+00	LT		550	0	0	0	1330	1	50	40	0	0	0	600	0	2400	0	0
STA 22+00 TO 27+00	LT		700	10	0	0	1740	1	0	60	0	0	190	490	0	2220	0	10
STA 27+00 TO 33+00	LT		970	0	0	0	2600	1	0	40	0	0	300	600	0	3270	10	30
STA 33+00 TO 39+00	LT		860	0	0	0	1990	1	50	0	0	0	530	620	20	3570	10	20
STA 39+00 TO 45+00	LT		1000	0	0	0	2680	1	0	0	50	0	520	650	0	4180	20	60
STA 45+00 to 50+00	LT		510	0	0	0	1310	0	0	0	0	0	210	410	0	2440	0	0
STA 50+00 to 56+00	LT		860	0	0	0	2000	0	0	0	0	0	470	690	0	3870	30	10
STA 56+00 to 62+00	LT		810	0	0	0	1800	0	70	0	0	0	550	710	0	4990	50	290
STA 62+00 TO 66+00	LT		180	0	0	0	460	0	0	0	0	0	180	140	0	1180	0	0
STA 66+00 TO 71+00	LT		790	0	0	0	1900	1	60	0	50	0	0	910	0	2940	70	80
STA 71+00 TO 75+00	LT		440	0	0	0	1110	0	30	0	40	0	0	420	0	2740	40	0
STA 101+59 TO 103+00 (OKLAHOMA)	LT		50	0	0	679	100	0	50	0	0	0	0	110	0	20	0	0
SUBTOTALS (LEFT)			**10540**	**10**	**0**	**679**	**25440**	**7**	**310**	**200**	**140**	**0**	**4330**	**7970**	**20**	**44590**	**300**	**550**
STA 0+77 TO 4+00	RT		570	0	0	0	1350	0	0	0	0	0	180	390	0	2400	40	60
STA 4+00 TO 10+00	RT		1120	0	0	0	2530	0	0	0	0	80	390	660	0	3200	40	10
STA 10+00 TO 16+00	RT		1635	0	0	0	3940	1	60	0	0	0	710	760	0	5110	60	0
STA 16+00 TO 22+00	RT		1400	0	70	0	3890	1	90	0	0	0	950	620	0	5380	50	130
STA 22+00 TO 27+00	RT		950	10	0	0	2250	0	0	0	80	0	670	520	0	3130	0	10
STA 27+00 TO 33+00	RT		940	0	140	0	2470	0	0	50	0	0	640	690	20	4100	30	90
STA 33+00 TO 39+00	RT		880	0	0	0	2060	0	40	0	0	0	540	610	20	4190	30	40
STA 39+00 TO 45+00	RT		950	0	0	0	2530	1	40	40	0	0	420	600	0	3800	10	60
STA 45+00 to 50+00	RT		580	0	0	0	1540	1	0	0	50	0	370	420	0	2410	0	0
STA 50+00 to 56+00	RT		1200	0	0	0	2720	0	0	0	0	0	880	830	0	3320	40	0
STA 56+00 to 62+00	RT		720	0	0	0	1650	0	120	0	0	0	420	600	0	2920	20	220
STA 62+00 TO 66+00	RT		340	0	0	0	810	0	0	0	0	0	20	410	0	1770	20	0
STA 66+00 TO 71+00	RT		590	0	0	0	1380	0	0	0	0	0	0	470	20	1990	20	0
STA 71+00 TO 75+00	RT		700	0	0	0	1710	0	30	0	0	0	260	510	10	4080	80	0
STA 101+59 TO 103+00 (OKLAHOMA)	RT		155	0	0	900	340	0	0	0	0	0	0	110	0	60	0	0
SUBTOTALS (RIGHT)			**12730**	**10**	**210**	**900**	**31170**	**4**	**380**	**90**	**130**	**80**	**6450**	**8200**	**70**	**47860**	**440**	**620**
GRAND TOTALS		**1,600**	**23,270**	**20**	**210**	**1,579**	**56,610**	**11**	**690**	**290**	**270**	**80**	**10,780**	**16,170**	**90**	**92,450**	**740**	**1,170**

*Quantities listed elsewhere

MISCELLANEOUS ITEMS

2060-00-76

ITEM NO.		FINSIHING ROADWAY (2060-00-76) 213.0100	DRILLED TIE BARS 416.0610	MOBILIZATION 619.1000	LANDMARK REFERENCE MONUMENTS 621.0100 EACH	DUST CONTROL SURFACE TREATMENT 623.0200	FIELD OFFICE TYPE D (PROJECT) 642.5401	TRAFFIC CONTROL 643.5000	INLET SCREEN TYPE M SPV.0060.07	INLET SCREEN TYPE R SPV.0060.08	ADJUSTING WATER SERVICE BOXES SPV.0060.09	ADJUSTING WATER MANHOLES FRAME AND LID SPV.0060.10	WATER MAIN PROTECTION SPV.0060.11	JOINT SEALING SPV.0180.01 SY
UNIT PAY		EACH	EACH	EACH	EACH	SY	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
CATEGORY		0010	0010	0010	0010	0010	0010	0010	0010	0010	0040	0040	0040	0010
LOCATION														
STA 0+77 TO 4+00	LT				0	1150			1	1				1150
STA 4+00 TO 10+00	LT				0	2380			4	4				2380
STA 10+00 TO 16+00	LT				0.5	2890			6	6				2890
STA 16+00 TO 22+00	LT				0	1330			4	4				1330
STA 22+00 TO 27+00	LT				0	1740			2	2				1740
STA 27+00 TO 33+00	LT				0	2600			2	2				2600
STA 33+00 TO 39+00	LT				0	1990			2	2				1990
STA 39+00 TO 45+00	LT				0	2680			6	6				2680
STA 45+00 to 50+00	LT				0	1310			2	2				1310
STA 50+00 to 56+00	LT				0	2000			3	3				2000
STA 56+00 to 62+00	LT				0	1800			4	4				1800
STA 62+00 TO 66+00	LT				0	460			1	1				460
STA 66+00 TO 71+00	LT				0	1900			7	7				1900
STA 71+00 TO 75+00	LT				0	1110			6	6				1110
STA 101+59 TO 103+00 (OKLAHOMA)	LT				0	100			0	0				100
SUBTOTALS (LEFT)					**0.5**	**25440**			**50**	**50**				**25440**
STA 0+77 TO 4+00	RT				0	1350			3	3				1350
STA 4+00 TO 10+00	RT				0	2530			4	4				2530
STA 10+00 TO 16+00	RT				0.5	3940			8	8				3940
STA 16+00 TO 22+00	RT				0	3890			8	8				3890
STA 22+00 TO 27+00	RT				0	2250			1	1				2250
STA 27+00 TO 33+00	RT				0	2470			3	3				2470
STA 33+00 TO 39+00	RT				0	2060			3	3				2060
STA 39+00 TO 45+00	RT				0	2530			3	3				2530
STA 45+00 to 50+00	RT				0	1540			3	3				1540
STA 50+00 to 56+00	RT				0	2720			4	4				2720
STA 56+00 to 62+00	RT				0	1650			1	1				1650
STA 62+00 TO 66+00	RT				0	810			3	3				810
STA 66+00 TO 71+00	RT				0	1380			1	1				1380
STA 71+00 TO 75+00	RT				0	1710			4	4				1710
STA 101+59 TO 103+00 (OKLAHOMA)	RT				0	340			0	0				340
SUBTOTALS (RIGHT)					**0.5**	**31170**			**49**	**49**				**31170**
GRAND TOTALS		**1**	**380**	**0.97**	**1**	**56,610**	**0.97**	**0.97**	**99**	**99**	**125**	**14**	**26**	**56,610**

CATEGORY / LOCATION		CONSTRUCTION STAKING STORM SEWER 650.4000 EACH 0010	CONSTRUCTION STAKING STORM SEWER 650.4000 EACH 0040	CONSTRUCTION STAKING SUBGRDE 650.4500 LF 0010	CONSTRUCTION STAKING PAVEMENT 650.7000 LF 0010	CONSTRUCTION STAKING CURB RAMPS 650.9000 EACH 0010	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 650.9910 LS 0010	CONSTRUCTION STAKING SLOPE STAKES 650.9920 LF 0010	CONSTRUCTION STAKING CONCRETE SIDEWALK SPV.0090.02 LF 0010
ITEM NO. / UNIT PAY									
STAGE 1									
STA 0+77 TO 4+00	LT			300	300	2			270
STA 4+00 TO 10+00	LT			600	600	2			600
STA 10+00 TO 16+00	LT			720	720	2			470
STA 16+00 TO 22+00	LT			600	600	1			600
STA 22+00 TO 27+00	LT			500	500	0			500
STA 27+00 TO 33+00	LT			600	600	1			600
STA 33+00 TO 39+00	LT			600	600	1			600
STA 39+00 TO 45+00	LT			600	600	2			560
STA 45+00 to 50+00	LT			230	230	0			410
STA 50+00 to 56+00	LT			600	600	2			580
STA 56+00 to 62+00	LT			650	650	3			510
STA 62+00 TO 66+00	LT			210	210	2			130
STA 66+00 TO 71+00	LT			400	400	5			320
STA 71+00 TO 75+00	LT			400	400	4			330
STA 101+59 TO 103+00 (OKLAHOMA)	LT			110	110	0			0
SUBTOTALS (LEFT)				**7120**	**7120**	**27**			**6480**
STAGE 2									
STA 0+77 TO 4+00	RT			300	300	2			260
STA 4+00 TO 10+00	RT			600	600	2			540
STA 10+00 TO 16+00	RT			700	700	2			440
STA 16+00 TO 22+00	RT			600	600	4			530
STA 22+00 TO 27+00	RT			500	500	0			500
STA 27+00 TO 33+00	RT			600	600	2			560
STA 33+00 TO 39+00	RT			600	600	2			600
STA 39+00 TO 45+00	RT			600	600	1			600
STA 45+00 to 50+00	RT			230	230	2			390
STA 50+00 to 56+00	RT			600	600	2			520
STA 56+00 to 62+00	RT			600	600	2			610
STA 62+00 TO 66+00	RT			210	210	2			130
STA 66+00 TO 71+00	RT			400	400	2			250
STA 71+00 TO 75+00	RT			400	400	4			400
STA 101+59 TO 103+00 (OKLAHOMA)	RT			110	110	0			0
SUBTOTALS (RIGHT)				**7050**	**7050**	**29**			**6330**
GRAND TOTALS		**79**	**22**	**14,170**	**14,170**	**56**	**1**	**7,420**	**12,810**

3

CONCRETE CURB & GUTTER 22-INCH

	CONCRETE CURB & GUTTER 22-INCH 601.0322 LF
LOCATION	0010
E GAUER CIRCLE	30
TOTAL	30

CONCRETE LOADING ZONE

	CONCRETE LOADING ZONE 602.1000 SF
LOCATION	0010
OKLAHOMA AVE	135
TOTAL	135

UTILITY LINE OPENING (ULO)

	UTILITY LINE OPENING (ULO) SPV.0060.34 EACH
LOCATION	0010
OKLAHOMA AVE	30
TOTAL	30

LANDSCAPING ITEMS

2060-00-76

CATEGORY 0010		WATER	TOPSOIL	SOD LAWN	FERTILIZER TYPE B
	ITEM NO.	624.0100	625.0100	631.1000	629.0210
	UNIT PAY	MGAL	SY	SY	CWT
	Category	0010	0010	0010	0010
LOCATION					
STA 0+77 TO 4+00			120	120	
STA 4+00 TO 10+00	LT		580	580	
STA 10+00 TO 16+00	LT		530	530	
STA 16+00 TO 22+00	LT		280	280	
STA 22+00 TO 27+00	LT		360	360	
STA 27+00 TO 33+00	LT		480	480	
STA 33+00 TO 39+00	LT		580	580	
STA 39+00 TO 45+00	LT		350	350	
STA 45+00 to 50+00	LT		550	550	
STA 50+00 to 56+00	LT		1240	1240	
STA 56+00 to 62+00	LT		1400	1400	
STA 62+00 TO 66+00	LT		180	180	
STA 66+00 TO 71+00	LT		150	150	
STA 71+00 TO 75+00	LT		0	0	
STA 101+59 TO 103+00 (OKLAHOMA)	LT		20	20	
SUBTOTALS (LEFT)			**6820**	**6820**	
STA 0+77 TO 4+00	RT		120	120	
STA 4+00 TO 10+00	RT		520	520	
STA 10+00 TO 16+00	RT		690	690	
STA 16+00 TO 22+00	RT		250	250	
STA 22+00 TO 27+00	RT		470	470	
STA 27+00 TO 33+00	RT		540	540	
STA 33+00 TO 39+00	RT		430	430	
STA 39+00 TO 45+00	RT		370	370	
STA 45+00 to 50+00	RT		420	420	
STA 50+00 to 56+00	RT		1170	1170	
STA 56+00 to 62+00	RT		1220	1220	
STA 62+00 TO 66+00	RT		310	310	
STA 66+00 TO 71+00	RT		300	300	
STA 71+00 TO 75+00	RT		370	370	
STA 101+59 TO 103+00 (OKLAHOMA)			20	20	
SUBTOTALS (RIGHT)			**7200**	**7200**	
GRAND TOTALS		**200**	**14,020**	**14,020**	**5**

Contaminated Soil

2060-00-76

CATEGORY 0010	ITEM NO. UNIT PAY Category		EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL 205.0501.s TON 0010	MANAGEMENT OF SOLID WASTE SPV.0195.01 TON 0010
LOCATION				
STA 0+77 TO 4+00		LT	0	0
STA 4+00 TO 10+00		LT	0	0
STA 10+00 TO 16+00		LT	0	0
STA 16+00 TO 22+00		LT	557	0
STA 22+00 TO 27+00		LT	0	0
STA 27+00 TO 33+00		LT	0	0
STA 33+00 TO 39+00		LT	0	0
STA 39+00 TO 45+00		LT	0	0
STA 45+00 to 50+00		LT	0	0
STA 50+00 to 56+00		LT	0	0
STA 56+00 to 62+00		LT	0	0
STA 62+00 TO 66+00		LT	0	0
STA 66+00 TO 71+00		LT	88	0
STA 71+00 TO 75+00		LT	413	0
STA 101+59 TO 103+00		LT	0	0
	SUBTOTALS (LEFT)		**1058**	**0**
STA 0+77 TO 4+00		RT	0	0
STA 4+00 TO 10+00		RT	0	0
STA 10+00 TO 16+00		RT	0	413
STA 16+00 TO 22+00		RT	94	0
STA 22+00 TO 27+00		RT	0	0
STA 27+00 TO 33+00		RT	0	1752
STA 33+00 TO 39+00		RT	0	1052
STA 39+00 TO 45+00		RT	488	0
STA 45+00 to 50+00		RT	0	0
STA 50+00 to 56+00		RT	0	0
STA 56+00 to 62+00		RT	0	0
STA 62+00 TO 66+00		RT	0	0
STA 66+00 TO 71+00		RT	0	0
STA 71+00 TO 75+00		RT	0	0
STA 101+59 TO 103+00		RT	0	0
	SUBTOTALS (RIGHT)		**582**	**3217**
	GRAND TOTALS		**1,640**	**3217**

ASPHALT ITEMS

2060-00-76

CATEGORY 0010	ITEM NO. UNIT PAY Category		TACK COAT 455.0605 GAL 0010	ASPHALTIC SURFACE 465.0105 TON 0010
LOCATION				
STA 0+77 TO 4+00				
STA 4+00 TO 10+00		LT	0	0
STA 10+00 TO 16+00		LT	0	0
STA 16+00 TO 22+00		LT	0	30
STA 22+00 TO 27+00		LT	0	0
STA 27+00 TO 33+00		LT	0	0
STA 33+00 TO 39+00		LT	0	0
STA 39+00 TO 45+00		LT	0	0
STA 45+00 to 50+00		LT	0	0
STA 50+00 to 56+00		LT	0	10
STA 56+00 to 62+00		LT	0	0
STA 62+00 TO 66+00		LT	0	0
STA 66+00 TO 71+00		LT	0	10
STA 71+00 TO 75+00		LT	0	0
STA 101+59 TO 103+00 (OKLAHOMA)		LT	10	10
	SUBTOTALS (LEFT)		**10**	**60**
STA 0+77 TO 4+00		RT	0	0
STA 4+00 TO 10+00		RT	0	20
STA 10+00 TO 16+00		RT	0	0
STA 16+00 TO 22+00		RT	0	10
STA 22+00 TO 27+00		RT	0	0
STA 27+00 TO 33+00		RT	0	0
STA 33+00 TO 39+00		RT	0	10
STA 39+00 TO 45+00		RT	0	0
STA 45+00 to 50+00		RT	0	0
STA 50+00 to 56+00		RT	0	0
STA 56+00 to 62+00		RT	0	0
STA 62+00 TO 66+00		RT	0	20
STA 66+00 TO 71+00		RT	0	0
STA 71+00 TO 75+00		RT	0	0
STA 101+59 TO 103+00 (OKLAHOMA)		RT	10	40
	SUBTOTALS (RIGHT)		**10**	**100**
	GRAND TOTALS		**20**	**160**

ESTIMATE OF QUANTITIES

TRAFFIC SIGNALS

Cat 0010

MILWAUKEE COUNTY

Item No.	Std. Bid Item No.	Description	Unit	Quantity
-	204.0195	Removing Concrete Bases	EA	13
-	650.8500	Construction Staking Electrical Installations (Project)	LS	1
-	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	55
-	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	365
-	*652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	75
-	*652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	3,050
-	*652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	3,350
-	654.0101	Concrete Bases Type 1	EA	15
-	654.0102	Concrete Bases Type 2	EA	1
-	654.0110	Concrete Bases Type 10	EA	3
-	654.0113	Concrete Bases Type 13	EA	1
-	657.0100	Pedestal Bases	EA	15
-	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EA	1
-	657.0345	Poles Type 9	EA	1
-	657.0350	Poles Type 10	EA	2
-	657.0360	Poles Type 13	EA	1
-	657.0525	Monotube Arms 25-FT	EA	3
-	657.0535	Monotube Arms 35-FT	EA	3
-	657.0540	Monotube Arms 40-FT	EA	2
-	657.0550	Monotube Arms 50-FT	EA	1
-	SPV.0060.16	Poles Type 12 Special	EA	1
-	SPV.0060.17	Poles Type 13 Special	EA	4
-	SPV.0060.18	City Precast Controller Base 36"x21"x20"	EA	2
-	*SPV.0060.20	Pull Boxes 17-Inch x 30-Inch x 24-Inch	EA	53
-	* SPV.0060.23	Luminaire Arms Single Member 6-FT-City Furnished	EA	8
-	SPV.0060.31	Concrete Bases Type 10 Special	EA	5
-	* SPV.0090.03	1 1/2" Liquid-Tight Flexible Nonmetallic Conduit Type-B	LF	22

* Quantities listed elsewhere

3

3

ESTIMATE OF QUANTITIES; STREET LIGHTING & TRAFFIC SIGNALS

PROJECT ID. 2060-00-76

Cat 0010

MILWAUKEE COUNTY

*Quantities listed elsewhere

	Std.Bid Item No.	Description	Unit	Quantity
-	*652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	1,145
-	*652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	8,720
-	*652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	3,555
-	652.0615	Conduit Special 3-Inch	LF	405
-	655.0305	Cable Type UF 2-12 AWG Grounded	LF	5,335
-	SPV.0060.12	Poles Type-1	EACH	10
-	SPV.0060.13	Poles Type-3	EACH	60
-	SPV.0060.14	Poles Type-6	EACH	4
-	SPV.0060.15	Poles Type-31	EACH	1
-	SPV.0060.19	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH	128
-	*SPV.0060.20	Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH	2
-	SPV.0060.22	Water Tight Junction Box Splicing	EACH	95
-	*SPV.0060.23	Luminaire Arms Single Member 6-Ft-City Furnished	EACH	116
-	SPV.0060.24	Remove Luminaire	EACH	41
-	SPV.0060.25	Luminaire Architectural LED 1	TOTAL	13
-		Type 2 Light Distribution (1LED2)	EACH	12
-		Type 5 Light Distribution (1LED5)	EACH	1
-	SPV.0060.26	Luminaire Architectural LED 2	TOTAL	10
-		Type 2 Light Distribution (2LED2)	EACH	6
-		Type 3 Light Distribution (2LED3)	EACH	4
-	SPV.0060.27	Luminaire Architectural LED 3	TOTAL	129
-		Type 3 Light Distribution (3LED3)	EACH	128
-		Type 5 Light Distribution (3LED5)	EACH	1
-	SPV.0060.28	Luminaire Historic Milwaukee Harp LED 0	EACH	14
-	SPV.0060.29	Luminaire Historic Milwaukee Lantern LED 2	EACH	11
-	SPV.0060.30	Luminaire Utility LED 0 Wallpack	EACH	2
-	SPV.0060.32	Concrete Spread Footing	EACH	1
-	*SPV.0090.03	Liquidtight Flexible Nonmetallic Conduit 1 1/2"	LF	665
-	SPV.0090.08	Electrical Cable Type 3#8/1#8 LTP	LF	1,710
-	SPV.0090.09	Electrical Cable Type 3#6/1#8 LTP	LF	450
-	SPV.0090.10	Electrical Cable Type 3#4/1#8 LTP	LF	3,850
-	SPV.0090.11	Electrical Cable Type 3#2/1#8 LTP	LF	12,300
-	SPV.0090.12	Electrical Cable Type UF 3#12 AWG With Ground	LF	2,800

EARTH WORK SUMMARY

From/To Station	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)				1.20 Factor			
	CY	CY	CY	CY	CY	CY	CY	CY	CY
0+77 to 75+00	24086	4820	27593	1313	1383	1659	-346	27247	346

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 B.A.D. 1 1/4"
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Expanded Fill. Factor = 1.20
7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of mate
8) To be bid as part of base aggregated dense 1-1/4"

	EXCAVATION COMMON	*BASE AGGREGATE DENSE 1-1/4-INCH
ITEM NO.	205.0110	305.0120
UNIT PAY	CY	TON
CATEGORY	0010	0010
LOCATION		
STA 00+77 TO STA 75+00	24,086	675
Undistributed EBS	4,820	9,400
GRAND TOTAL	**28,906**	**10,075**

*Qantities listed elsewhere

New Structures

DRAINAGE STRUCTURES														REMARKS
GROUP CODE	No.	LOCATION		COVERELEV.	NEW STRUCTURE	FRAME & LID	DEPTH (FT)	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	INVER ELEV.			
		STATION	OFFSET								INLET	OUTLET	Slope	
0010	1	1+30	39.7' R	65.58	45A	MS-57	5.08	STO MH @ 1+63.5, 34' R	12	34	62.33	61.48	0.025	
0010	2	2+65	44' L	64.80	45A	MS-57	5.08	STO MH @ 2+66, 11 R	12	55	61.55	60.35	0.022	CAUTION - WATER
0010	3	2+75	44' R	64.74	45A	MS-57	5.08	STO MH @ 2+66, 11 R	12	34	61.49	60.64	0.025	CAUTION - CUC & 8" WM
0010	4	3+90	2' L	64.42	45A	MS-57	5.08	STO MH @ 3+65.5, 12 R	12	28	61.17	60.47	0.025	
0010	5	5+00	44' R	62.46	45A	MS-57	5.08	STO MH @ 5+09, 11' R	12	34	59.21	58.36	0.025	CAUTION - CUC & 8" WM
0010	6	5+00	8' R	63.03	45A	MS-57	5.08	STO MH @ 5+09, 11' R	12	9	59.78	59.75	0.003	
0010	7	5+37	8' L	62.39	4'-0" Dia. MH	MS-57	5.77	STO MH @ 5+09, 11' R	12	34	58.28	57.43	0.025	
0010	8	5+40	44' L	62.43	45A	MS-57	5.08	STO MH @ 5+37, 8' L	12	36	59.18	58.28	0.025	
0010	9	7+74	2' L	61.13	4'-0" Dia. MH	MS-57	6.37	STO MH @ 7+99, 12' R	12	29	56.43	56.00	0.015	
0010	10	7+90	44' L	60.62	45A	MS-57	5.08	STO MH @ 7+74, 2' L	12	45	57.37	56.43	0.021	
0010	11	7+89	44' R	60.22	45A	MS-57	5.08	STO MH @ 7+99, 12' R	12	34	56.97	56.12	0.025	CAUTION - CUC & WATER
0010	12	9+11	2' R	60.64	45A	MS-57	5.08	STO MH @ 9+11, 11' R	12	10	57.39	57.30	0.009	
0010	13	9+11	11' R	60.13	4'-0" Dia. MH	58A	7.33				53.46	53.46		CONSTRUCT NEW MANHOLE
0010	14	10+50	44' L	59.00	45A	MS-57	5.08	STO MH @ 10+31, 28' L	12	25	55.75	55.30	0.018	
0010	15	11+20	44' R	58.53	45A	MS-57	5.08	STO MH @ 11+40, 11' R	12	39	55.28	54.50	0.020	CAUTION - WATER
0010	16	11+86	8' L	58.94	45A	MS-57	5.08	STO MH @ 11+40, 11' R	12	50	55.69	54.60	0.022	
0010	17	12+25	44' R	57.97	45A	MS-57	5.08	STO MH @ 12+66, 12' R	12	52	54.72	53.55	0.023	CAUTION - WATER
0010	18	12+65	2' L	58.34	45A	MS-57	5.08	STO MH @ 12+66, 12' R	12	13	55.09	54.95	0.011	
0010	19	12+94	106.5' L	56.80	45A	MS-57	9.53	STO MH @ 13+47, 100' L	12	54	49.10	47.95	0.021	
0010	20	13+00	44' L	57.61	45A	MS-57	5.08	STO MH @ 13+46.9, 48.5' L	12	44	54.36	52.25	0.048	CAUTION - WATER, ELEC
0010	21	13+37.5	1.5' R	57.75	45A	MS-57	5.08	STO MH @ 13+40, 12' R	12	10	54.50	54.40	0.010	
0010	22	13+46.9	48.5' L	57.60	4'-0" Dia. MH	MS-57	7.14	STO MH @ 13+47,100' L	12	50	52.12	50.95	0.023	CAUTION - ELEC & T/W
0010	23	13+75	52' R	57.26	45A	MS-57	5.08	STO MH @ 13+40, 12' R	12	53	54.01	52.85	0.022	CAUTION - CUC & WATER
0010	24	13+92.5	54.7' L	57.57	45A	MS-57	5.10	STO MH @ 14+8.6, 83.2' L	12	32	54.30	53.50	0.025	CAUTION - CUC
0010	25	14+8.6	83.2' L	56.65	4'-0" Dia. MH	MS-57	4.91	STO MH @ 13+47,100' L	12	64	53.40	51.95	0.023	
0010	26	15+9.8	113' R	56.86	45A	MS-57	5.09	STO MH @ 15+12, 151' R	12	39	53.60	52.60	0.026	CAUTION - TEL
0010	27	15+50	23.8' L	57.17	45A	MS-57	8.63	STO MH @ 15+48, 17' R	12	39	50.20	49.35	0.022	CAUTION - GAS, ELEC, 8" WM, TEL
0010	28	15+50	22.8' R	57.81	45A	MS-57	5.08	STO MH @ 15+48, 17' R	12	5	54.56	54.40	0.032	CAUTION - CUC
0010	29	15+75	65.2' R	56.93	45A	MS-57	9.26	STO MH @ 15+65, 32' R	12	36	49.50	48.55	0.026	CAUTION - CUC, ELEC
0010	30	16+50	30' R	58.20	WISDOT 2'X2.5'	MS-57	2.20	STO MH @ 16+91, 46' R	12	45	56.00	55.00	0.022	CAUTION - WATER MAIN
0010	31	17+00	22' L	57.54	45A	MS-57	10.37	STO MH @ 16+91, 46' R	12	69	49.00	47.55	0.021	CAUTION - 8" WM, ELEC, STR LTG
0010	32	17+96	82' R	58.30	45A	MS-57	5.08	STO MH @18+40, 45' R	12	59	55.05	53.70	0.023	
0010	33	18+22	22' L	57.95	45A	MS-57	9.98	STO MH @ 18+40, 45' R	12	69	49.80	49.30	0.007	CAUTION - ELEC
0010	34	18+25	82' R	58.25	45A	MS-57	5.08	STO MH @ 18+40, 45' R	12	42	55.00	52.50	0.060	
0010	35	18+50	24' R	58.89	WISDOT 2'X2.5'	MS-57	2.24	STO MH @ 18+40, 45' R	12	24	56.65	56.15	0.021	
0010	36	18+75	66' R	58.07	45A	MS-57	5.08	STO MH @ 18+40, 45' R	12	41	54.82	51.25	0.087	
0010	37	19+62.5	22' L	58.27	WISDOT 2'X2.5'	MS-57	3.25	STO MH @ 19+67, 17' L	12	7	55.02	54.95	0.010	CAUTION - WATER
0010	38	20+10	66' R	58.56	45A	MS-57	5.22	STO MH @ 20+20, 44' R	12	24	55.17	54.70	0.020	
0010	39	21+00	83' R	58.50	WISDOT 2'X2.5'	MS-57	2.85	STO MH @ 21+23.5, 84' R	12	23	55.65	55.15	0.022	CORBEL TO SOUTH
0010	40	21+29.5	82' R	58.58	45A	MS-57	5.08	STO MH @ 21+23.5, 84' R	12	6	55.33	55.08	0.042	
0010	41	21+40	17' L	58.96	4'-0" Dia. MH	58A	17.37				43.25	43.83		CONSTRUCT NEW MANHOLE
0010	42	21+45	22' L	58.88	WISDOT 2'X2.5'	MS-57	3.25	STO MH @ 21+40, 17' L	12	7	55.63	55.45	0.026	
0010	43	21+51	66' R	59.03	45A	MS-57	5.08	STO MH @ 21+50, 25' R	12	23	55.78	55.28	0.022	CAUTION- WATER, CUC
0010	44	25+77	44' L	58.27	4'-0" Dia. MH	MS-57	4.91	STO MH @ 26+27, 43' L	12	54	55.02	54.60	0.008	CAUTION - CUC, ELEC
0010	44A	25+62.9	2' L	59.35	WISDOT 2'X2.5'	MS-57	3.00	STO MH@ 25+77, 44' L	12	43	56.35	55.43	0.021	
0010	45	26+96	44' R	54.95	44A	MS-57	7.69	CMB MH @ 27+42, 45' R	12	45	51.70	50.85	0.019	
0010	46	26+98	2' R	56.39	44A	MS-57	7.69	CMB MH @ 27+42, 45' R	12	60	53.14	52.00	0.019	
0010	47	27+71	3' R	54.22	44A	MS-57	8.69	CMB MH @ 27+42, 45' R	12	53	49.97	48.85	0.021	CAUTION - WATER
0010	48	29+22	44' L	50.14	44B	MS-57	4.25	CMB MH @ 29+19, 7' RT	12	50	46.89	46.64	0.005	CAUTION WATER, ELECTRIC

0010	49	30+20	44' R	46.68	WISDOT 2'X2.5'	MS-57	3.00	CMB MH @ 30+22, 32' R	12	8	43.68	43.45	0.029	CAUTION - WATER
0010	50	32+20	44' L	41.58	WISDOT 2'X2.5'	MS-57	1.53	STO MH @ 31+91, 8' R	12	59	40.05	38.85	0.020	CAUTION- TEL. , ELEC. & WATER
0010	51	32+75	40.5' R	39.23	45A	MS-57	5.08	STO MH 33+32, 7.5' R	12	66	35.98	34.65	0.020	CAUTION, 30" WATER MAIN - CORBEL TO WEST
0010	52	34+75	38' R	30.10	45A	MS-57	5.08	STO MH 35+00, 8' R	12	39	26.85	26.10	0.019	CAUTION - 30" WATER MAIN
0010	53	34+93	41' L	29.86	WISDOT 2'X2.5'	MS-57	3.26	STO MH 34+95, 33' L	12	8	26.60	26.35	0.031	CAUTION - ELEC, WATER
0010	54	35+40	72' R	27.77	45A	MS-57	5.08	STO MH 35+53, 67 R	12	16	24.52	24.20	0.020	
0010	146B	37+69	38' L	19.2	4'-0" Dia. MH	58A	4.7				14.50	14.50		REPLACE EXISTING INLET WITH 4FT MH
0010	55	37+70	33' L	18.7	45A	MS-57	5.33	STO MH 37+71, 32' R	12	5	15.20	15.05	0.030	
0010	56	39+00	37' R	16.65	45A	MS-57	5.08	STO MH 38+99, 33' R	12	4	13.40	13.30	0.025	
0010	57	40+35	44' R	14.55	45A	MS-57	5.08	STO MH 40+45, 33' R	12	15	11.30	11.00	0.020	
0010	58	40+38	2' L	14.81	45A	MS-57	5.08	STO MH 40+45, 33' R	12	33	11.56	10.85	0.022	
0010	59	40+45	43.5' L	13.78	45A	MS-57	5.08	STO MH 40+45, 33' L	12	11	10.53	10.30	0.021	CAUTION - WATER
0010	60	43+20	49' R	9.59	4'-0" Dia. MH	MS-57		STO SEWER AT 43+20, 44' R	-	-	4.59	4.59		CONSTRUCT NEW MANHOLE
0010	61	43+57	44' L	8.37	45A	MS-57	5.08	STO MH 44+04, 51' L	12	48	5.12	4.10	0.021	CAUTION - WATER
0010	62	43+64	2' L	9.40	45A	MS-57	5.08	STO MH 43+20, 32' L	12	54	6.15	5.40	0.014	CAUTION - ELEC
0010	63	43+84	93' L	7.85	45A	MS-57	5.08	CB 44+12, 88' L	12	26	4.60	4.25	0.013	
0010	64	44+12	88' L	7.72	45A	MS-57	5.30	STO MH @ 44+03.5, 68' L	12	21	4.25	4.02	0.011	
0010	65	44+84.5	44' L	6.60	-	MS-57	-	-	-	-	-	-		CORBEL TO EAST
0010	66	44+90	44' R	7.75	45A	MS-57	5.08	SMH 44+84.5, 42' R	12	86	4.50	2.70	0.021	
0010	67	46+00	44' R	9.52	45A	MS-57	5.10	SMH 46+00, 34.5 R	12	9	6.25	6.15	0.011	CAUTION TELEPHONE
0010	152A	46+00	34.5' L	9.95	4'-0" Dia. MH	MS-57	4.91	SMH 45+81.5, 37' L	12	17	5.10	4.85	0.015	
0010	68	48+70	35' L	14.8	45A	MS-57	5.08	CB @ 48+70, 35' R	12	68	11.55	10.00	0.023	
0010	69	48+70	35' R	14.7	4'-0" Dia. MH	MS-57	6.36	CB 48+79.5, 41.5 R	12	12	10.00	9.75	0.021	
0010	70	49+55.1	27' R	17.15	44A	MS-57	8.64	SMH 50+14.5, 5.5' R	12	62	12.95	11.65	0.021	
0010	71	50+18	73' R	19.51	44A	MS-57	8.69	SMH 50+12, 60' R	12	14	15.26	14.95	0.022	
0010	72	50+34	33' L	20.50	44A	MS-57	9.05	SMH 50+14.5, 5.5 R	12	46	15.89	14.95	0.020	CAUTION - ELECTRIC AND WATER
0010	73	50+40	85' R	19.6	4'-0" Dia. MH	MS-57	8.96	SMH 50+47, 58' R	12	29	12.30	11.70	0.021	
0010	74	51+11	182.2' R	19.04	44A	MS-57	8.69	SMH 50+40, 85' R	12	123	14.79	12.30	0.020	
0010	75	51+14.8	33' R	24.42	44A	MS-57	8.69	SMH 51+42, 12' R	12	34	20.17	19.45	0.021	
0010	76	53+00	33' R	33.3	44A	MS-57	8.69	SMH 52+93, 13' R	12	20	29.05	28.60	0.022	
0010	77	53+00	33' L	32.75	44A	MS-57	7.54	SMH 52+93, 13' R	12	44	29.65	28.65	0.023	CAUTION -WATER, ELEC
0010	78	55+50	33' L	44.85	44A	MS-57	8.69	SMH 55+81, 22' L	12	33	40.60	39.90	0.021	CAUTION - ELECTRIC
0010	79	56+13.2	55.2' L	47.2	44A	MS-57	8.69	SMH 55+81, 22' L	12	46	42.95	42.00	0.021	CAUTION - ELEC
0010	80	57+89.5	79.5' L	53.32	4'-0" Dia. MH	MS-57	6.83	SMH 57+73, 36' L	12	29	48.15	47.50	0.022	
0010	81	58+17	65' L	53.4	44A	MS-57	8.69	CB 57+89.5, 79.5' L	12	46	49.15	48.15	0.022	
0010	82	58+33.5	33' L	52.59	44A	MS-57	8.69	SMH 58+43, 21' L	12	15	48.34	48.00	0.023	
0010	83	62+91	42' L	53.59	44A	MS-57	13.03	SMH 62+92, 9' L	12	32	45.00	44.30	0.022	
0010	84	63+11.5	62' R	52.8	45A	MS-55	5.08	CB 63+13, 33' R	12	32	49.55	48.85	0.022	CORBEL TO WEST - AWAY FROM WATER
0010	85	63+13	32' R	52.96	4'-0" Dia. MH	MS-57	5.91	SMH 62+92, 9' L	12	28	48.71	48.10	0.022	Trapped MH
0010	86	67+14	26.5' L	50.98	WISDOT 2'X2.5'	MS-57	2.50	MH 67+40, 95' L	12	75	48.48	47.35	0.015	
0010	87	67+19.6	97' L	51.95	WISDOT 2'X2.5'	MS-57	2.50	MH 67+40, 95' L	12	20	49.45	49.05	0.020	CAUTION WATER, FIBER - CORBEL TO EAST
0010	87B	67+40	95' L	52.40	44A	58A	9.74	MH 67+30, 112.5 L	12	24	47.10	46.62	0.020	CONSTRUCT TRAPPED CATCH BASIN WITH MANHOLE LID
0010	88	68+41	25' L	49.82	44A	MS-57	12.96	SM 68+57, 14.5 L	12	18	41.30	40.90	0.022	CAUTION - WATER
0010	89	68+57	14.5' L	50.9	5'-0" DIA. MH	58A	13.45	--			37.45	37.45		NEW MANHOLE
0010	90	68+60	25' R	49.07	WISDOT 2'X2.5'	MS-57	3.25	MH 68+57, 14' R	12	10	45.82	45.57	0.025	CAUTION- WATER, ELECTRIC
0010	90A	68+57	14' R	50.00	44A	58A	14.24	MH 68+57, 14.5' L	12	27	40.20	39.60	0.022	
0010	91	68+63	41' L	49.67	44A	MS-57	12.06	SM 68+57, 14.5 L	12	25	42.05	41.50	0.022	CAUTION - WATER, GAS
0010	92	69+50	25.5' L	49.07	44A	MS-57	8.69	MH 69+65, 19' L	12	16	44.82	44.50	0.020	
0010	93	69+78.1	36.5' L	49.41	44A	MS-57	8.69	MH 69+97, 36' L	12	18	45.16	44.75	0.023	
0010	94	71+50	25' R	47.16	44A	MS-57	8.69	MH 71+27, 1' L	12	33	42.91	42.20	0.022	
0010	95	71+52	25' R	48.21	44A	MS-57	8.69	MH 71+27, 1' L	12	34	43.96	43.45	0.015	
0010	96	71+94	25' L	47.55	44A	MS-57	8.69	MH 72+22, 1' L	12	36	43.30	42.50	0.022	
0010	97	72+00	39' L	47.9	44A	MS-57	8.69	MH 72+19, 42' L	12	18	43.65	43.25	0.022	
0010	98	72+10.4	65' L	48.24	44A	MS-57	8.69	MH 72+19, 42' L	12	24	43.99	43.50	0.020	
0010	99	72+67.7	25' R	46.52	44A	MS-57	8.69	MH 72+80, 1' R	12	26	42.27	41.70	0.022	
0010	1A	73+32.7	65' R	43.81	44A	MS-57	12.25	SMH 72+58, 117' R	12	60	36.00	34.75	0.021	CAUTION WATER, CUC, TEL
0010	2A	73+83	46.5' R	44.92	44A	MS-57	13.61	SMH 72+58, 117' R	12	75	35.75	33.85	0.025	CAUTION CUC, TEL,WATER
0010	3A	73+87	25' L	45.58	44A	MS-57	12.92	SMH 72+85, 1' L	12	22	37.10	36.50	0.027	CAUTION WATER, TEL
0010	4A	73+96	2' R	45.74	44B	MS-57	5.29	SMH 72+85, 1' L	12	7	41.45	41.30	0.021	
0010	4B	74+14.6	90.4' R	43.35	44A	MS-57	8.69	SMH 72+58, 117' R	12	57	39.10	37.96	0.020	
0010	5A	74+34	27' L	45.49	44A	MS-57	13.93	SMH 72+85, 1' L	12	54	36.00	34.90	0.020	CORBEL TO SW - CAUTION WATER, TEL
*103 Inlet Covers Type 57 EACH(SPV.0060.01) 0010														
*6 Manhole Covers type 58A EACH (SPV.0060.02) 0010														
32 Catch Basins Type 44A EACH(SPV.0060.03) 0010														
2 Catch Basins Type 44B EACH(SPV.0060.04) 0010														
48 Catch Basins Type 45A EACH (SPV.0060.05) 0010														
1 Inlet Covers Type 55 EACH (SPV.0060.06) 0010														
3648 LF Storm Sewer Pipe Corrugated PVC 12-Inch (SPV.0090.01) 0010														
14 Manholes 4-FT Diameter EACH (611.2004) 0010														
1 Manhole 5-FT Diameter EACH (611.2005) 0010														
12 Inlet 2x2.5 EACH (611.3225) 0010														

*Quantities Listed Elsewhere

NEW MANHOLE COVERS

GROUP CODE	No	Location STATION	Location OFFSET	PROPOSED ELEVATION	COVER TYPE
0010	200	1+63.5	34' RT	65.76	58A
0010	400	2+60.5	14' RT	65.51	58A
0040	201	2+66	11' RT	65.52	58A
0040	202	3+65.5	12' RT	65.00	58A
0010	203	5+09	11' RT	63.02	58A
0040	401	5+16	15' RT	63.03	58A
0010	204	6+03	39' LT	61.92	58A
0040	205	7+95	38' LT	60.78	58A
0010	402	7+99	12' RT	61.06	58A
0010	206	8+30	11' RT	60.83	58A
0040	403	8+36	15' RT	60.75	58A
0010	404	8+46	38' RT	60.25	58A
0010	207	10+31	28' LT	59.69	58A
0010	208	10+32	12' RT	59.70	58A
0040	405	11+31	36' RT	58.76	58A
0040	209	11+40	11' RT	59.08	58A
0010	406	11+48	14' RT	59.04	58A
0010	407	12+58	32' RT	57.62	58A
0010	210	12+66	12' RT	58.57	58A
0010	211	13+40	12' RT	58.07	58A
0010	212	13+47	100' LT	58.04	58A
0010	213	14+43	11' RT	58.47	58A
0040	214	14+46	46' RT	58.27	58A
0040	408	14+54	15' RT	58.44	58A
0040	409	14+55	4' RT	58.35	58A
0010	410	14+56	37' RT	58.27	58A
0040	215	14+61	11' RT	58.35	58A
0010	411	15+06	53' RT	57.74	58A
0010	216	15+12	151' RT	56.28	58A
0010	217	15+48	17' RT	57.93	58A
0010	412	15+51	55' RT	57.65	58A
0040	413	16+87.5	0'	58.39	58A
0010	218	16+91	46' RT	58.37	58A
0040	414	18+11	56' RT	58.78	58A
0010	219	18+40	45' RT	58.89	58A
0010	220	19+67	17' LT	58.51	58A
0010	415	19+68	0'	59.11	58A
0040	221	20+20	44' RT	59.28	58A
0010	416	20+55	55' RT	59.07	58A
0010	222	21+23.5	84' RT		58A
0010	223	21+40	45' RT	59.77	58A
0010	224	21+50	25' RT	59.85	58A
0040	225	23+15	14' LT	61.15	58A
0010	226	23+15	31' LT	61.04	58A
0010	417	23+44	0.5' LT	61.75	58A
0010	227	24+89	46' RT	61.12	58A
0040	418	25+65	29' LT	59.08	58A
0040	228	26+27	43' LT	57.26	58A
0040	229	26+97	32' RT	55.36	58A
0040	419	27+25	15' LT	55.73	58A
0010	230	27+42	45' RT	54.44	58A
0010	231	29+14	7' RT	51.2	58A
0010	232	30+01	2' RT	48.34	58A
0010	233	30+22	32' RT	47.12	58A
0010	234	30+31	19' RT	47.44	58A
0040	420	30+51	15' RT	47.12	58A
0010	235	30+67	44' RT	45.95	58A
0010	236	31+26.5	9' RT	45.54	58A
0010	237	31+16.5	28' RT	45.38	58A
0040	238	31+91	8' RT	43.47	58A
0040	239	32+59	44' RT	40.52	58A
0010	240	33+32	7.5' RT	37.7	58A
0010	241	35+00	8' RT	30.27	58A
0010	242	35+53	67' RT	28.47	58A
0010	145A	34+95	33' LT	29.94	58A
0010	146C	38+99	33' RT	16.75	58A
0010	147A	40+45	33' RT	14.65	58A
0010	243	40+45	32' LT	13.96	58A
0010	244	43+20	32' LT	9.45	58A
0010	245	44+3.5	68' LT	7.84	58A
0010	246	44+04	51' LT	7.77	58A
0010	247	45+40	37' LT	7.56	58A
0010	248	45+81.5	37' LT	9.7	58A
0010	249	46+63.5	36' LT	13.37	58A
0010	154	48+81	46' RT	15.5	58A
0010	250	50+12	60' RT	20.09	58A
0010	251	50+14.5	5.5' RT	21.18	58A
0010	252	50+47	58.0' RT	22.24	58A
0010	253	51+42	12' RT	26.34	58A
0010	254	52+93	13' RT	33.31	58A
0010	255	54+72	9' RT	41.72	58A
0010	256	55+81	22' LT	46.31	58A
0010	257	56+00	80' LT	48.25	58A
0010	258	56+26.5	60' LT	48.42	58A
0010	259	56+52.5	13' RT	49.2	58A
0010	260	56+67.5	23' LT	49.47	58A
0010	261	57+27	22.5' LT	51.21	58A
0010	262	57+62	42' RT	51.58	58A
0010	263	57+73	36' LT	52.41	58A
0040	421	57+73	62' LT	53.00	58A
0010	264	57+94	21' LT	52.48	58A
0010	264	58+43	21' LT	53.22	58A
0010	266	60+81	22' LT	55.55	58A
0010	267	61+62	23' LT	54.91	58A
0010	268	62+92	9' LT	54.02	58A
0010	269	67+30	117' LT	52.92	58A
0010	270	69+64	71' RT	47.02	58A
0010	271	69+65	19' LT	49.3	58A
0010	272	69+97	36' LT	49.64	58A
0010	273	71+27	1' LT	48.5	58A
0010	274	72+19	42' LT	47.95	58A
0010	275	72+22	1' LT	47.31	58A
0010	276	72+80	1' RT	46.49	58A

	REMARKS
58A	
58A	
58A	

ABANDONING DRAINAGE STRUCTURES				
GROUP CODE	NO.	LOCATION		REMARKS
		STATION	OFFSET	
0010	100	1+30	37' R	Inlet
0010	101	2+65	40' R	Inlet
0010	102	2+68	34' R	Inlet
0010	103	3+65.5	1' R	Inlet
0010	104	3+89	9' L	Inlet
0010	105	5+05	33' R	Inlet
0010	106	5+05	1' R	Inlet
0010	107	5+40	9' L	Inlet
0010	108	5+40	41' L	Inlet
0010	109	7+90	41' L	Inlet
0010	110	7+93	33' R	Inlet
0010	111	7+96	6.5' L	Inlet
0010	112	8+00	1' R	Inlet
0010	113	8+75	33' R	Inlet
0010	114	10+54	41' L	Inlet
0010	115	11+28	33' R	Inlet
0010	116	11+86	1' R	Inlet
0010	117	12+49	32' R	Inlet
0010	118	12+65	1' R	Inlet
0010	119	12+71	36' R	Inlet
0010	121	13+39	6' R	Inlet
0010	122	13+94	100' R	Inlet
0010	123	13+98	53' R	Inlet
0010	125	15+80	68' R	Inlet
0010	126	15+89	18' L	Inlet
0010	127	16+58	31' R	Inlet
0010	128	18+10	18' L	Inlet
0010	130	19+19	24' R	Inlet
0010	131	19+62.5	15' L	Inlet
0010	134	21+46	15' L	Inlet
0010	136	21+84	25' R	Inlet
0010	137	21+93	38' R	Inlet
0010	141	30+22	43' R	Catch Basin
0010	142	32+20	33' L	Catch Basin
0010	143	32+75	32' R	Catch Basin
0010	146	35+44	57' R	Catch Basin
0010	148	43+20	38' R	Catch Basin
0010	150	43+84	70' L	Catch Basin
0010	156	50+35	5' R	Catch Basin
0010	160	55+79	33' L	Catch Basin
0010	161	55+79	4.5' R	Catch Basin
0010	162	55+93	65' L	Catch Basin
0010	163	56+45	65' L	Catch Basin
0010	164	57+70	54' L	Catch Basin
0010	167	61+69	45' L	Catch Basin
0010	168	62+85	40' R	Catch Basin
0010	169	63+11	27' L	Catch Basin
0010	170	63+58.5	31' R	Catch Basin
0010	173	68+04.5	28' L	Catch Basin
0010	175	68+68	38' L	Catch Basin
0010	182	72+26	50' L	Catch Basin
0010	183	72+62	24' L	Catch Basin
0010	184	73+31	69' R	Catch Basin
0010	185	73+97	25' L	Catch Basin
0010	186	74+38	30' L	Catch Basin

55 Abandoning Inlets (204.0260) (0010 - Participating)

REMOVING INLETS			
GROUP CODE	NO.	LOCATION	
		STATION	OFFSET
0010	120	12+99	1' LT
0010	129	18+75	68' RT
0010	132	20+09	68' RT
0010	132A	21+00	84' RT
0010	133	21+29.5	84' RT
0010	135	21+51.5	68' RT
0010	139	26+96	43' RT
0010	140	29+20	33' LT
0010	144	34+78	33' RT
0010	147	40+44	42.5' LT
0010	149	43+57	43' LT
0010	151	44+89.5	44' RT
0010	152	44+84.5	36.5' LT
0010	153	46+00	34.5' RT
0010	157	50+34	33' LT
0010	158	53+00	5' RT
0010	165	58+16	62' LT
0010	166	58+35	36' LT
0010	171	67+12	30' LT
0010	172	67+20	97' LT
0010	174	68+61	27' RT
0010	176	69+52	25.5' LT
0010	177	69+78	35' LT
0010	178	71+50	25' RT
0010	179	71+52	25' LT
0010	180	71+95	25' LT
0010	181	72+00	42' LT

27 Removing Inlets (204.0220)

3

3

ADJUSTING INLETS AND DRAINS													
											INVERT ELEV.		
GROUP CODE	NO.	LOCATION STATION	LOCATION OFFSET	COVER ELEV.	STRUCTURE	FRAME & LID	DEPTH (FT)	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	INLET	OUTLET	REMARKS
0010	170A	64+2.7	80.8' R	51.50	--	MS-57	--	--	-	-	-	-	REPLACING INLET FRAME AND GRATE ONLY
0010	93A	70+24	45.5' L	49.54	--	MS-57	--	--	-	-	-	-	REPLACING INLET FRAME AND GRATE ONLY

2 Inlet Covers Type 57 EACH(SPV.0060.01) 0010
Quantities listed elsewhere

SIGNATURE BED ITEMS

2060-00-76

CATEGORY 0030

	632.0101.01	632.0101.10	632.0101.13	SPV.0060.38	SPV.0060.39	SPV.0060.40	SPV.0060.41	SPV.0060.42	SPV.0060.43	SPV.0060.44	SPV.0060.45	SPV.0060.46	SPV.0060.47	SPV.0060.48	SPV.0090.07
	*COMMON BALD CYPRESS	*AMERICAN HORNBEAMS 3" B&B	CLEVELAND SELECT PEAR 4" CAL, B&B	CATMINT BLUE WONDER #1 CG	CLOUD NINE SWITCHGRASS #1 CG	DAY LILIES #1 CG	DWARF KOREAN LILAC #5 CG	SIGNATURE BED	GOLDEN AMERICAN ELDERBERRY	HOSTA SUM & SUBSTANCE	HYDRANGEA ANNABELLE	White Cone Flower	KARL FORESTER GRASS	ROSE KNOCKOUT RED	FIELDSTONE BOULDER WALL
CATEGORY	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030	0030
LOCATION	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	Each	EACH	Each	EACH	EACH	L.F.
Signature Bed #1		3		24	14		12	1				20		10	
Signature Bed #2			3	48		48		1	6	18			72		
Signature Bed #3		3		24	14		12	1				20		10	
Signature Bed #4	3			20				1			20			22	
TOTALS	**3**	**6**	**3**	**116**	**28**	**48**	**24**	**4**	**6**	**18**	**20**	**40**	**72**	**42**	**160**

* Quantities listed elsewhere

TREE PLANTING

CATEGORY			Category 0010											
ITEM NUMBER			632.0101.01	632.0101.02	632.0101.03	632.0101.04	632.0101.05	632.0101.06	632.0101.07	632.0101.08	632.0101.09	632.0101.10	632.0101.11	632.0101.12	632.9101
DESCRIPTION		LOCATION	*COMMON BALDCYPRESS, B&B, 3" CAL	UPRIGHT ENGLISH OAK, B&B, 3" CAL	CALLERY PEAR, B&B, 3" CAL	FREEMAN MAPLE, B&B, 3.5" CAL	SUNBURST HONEYLOCUST, B&B, 3" CAL	ACCOLADE ELM, B&B, 3" CAL	JAPANESE TREE LILAC, B&B, 2.5" CAL	CUMULUS SERVICEBERRY, B&B, 3" CAL	KENTUCKY COFFEETREE, B&B, 3" CAL	*AMERICAN HORNBEAM, B&B, 3" CAL	CONCOLOR SPRUCE, B&B, 3.5" CAL	DOUBLE BLOSSOM CHERRY (PINK), B&B, 3" CAL	PLANTING SURVEILLANCE AND CARE CYCLES
UNIT PAY			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
STATION TO STATION	STA 1+00 TO 4+00	LT	3									1			
	STA 4+00 TO 10+00	LT			4		5					1			
	STA 10+00 TO 16+00	LT							1		3				
	STA 16+00 TO 22+00	LT		1		3					2	2			
	STA 22+00 TO 27+00	LT				3						1			
	STA 27+00 TO 33+00	LT	2	3	3					1					
	STA 33+00 TO 39+00	LT			1			3	1						
	STA 39+00 TO 45+00	LT	2		1	4		3							
	STA 45+00 TO 50+00	LT				2									
	STA 50+00 TO 56+00	LT				1			1						
	STA 56+00 TO 62+00	LT				1									
	STA 62+00 TO 66+00	LT													
	STA 66+00 to 71+00	LT													
	STA 71+00 to 75+00	LT											1	3	
	STA 101+59 TO 103+00 (OKLAHOMA)	LT													
	STA 1+00 TO 4+00	MEDIAN													
	STA 4+00 TO 10+00	MEDIAN			2				3						
	STA 10+00 TO 16+00	MEDIAN													
	STA 16+00 TO 22+00	MEDIAN													
	STA 22+00 TO 27+00	MEDIAN													
	STA 27+00 TO 33+00	MEDIAN			1										
	STA 33+00 TO 39+00	MEDIAN		3											
	STA 39+00 TO 45+00	MEDIAN													
	STA 45+00 TO 50+00	MEDIAN													
	STA 50+00 TO 56+00	MEDIAN													
	STA 56+00 TO 62+00	MEDIAN					2								
	STA 62+00 TO 66+00	MEDIAN					1								
	STA 66+00 to 71+00	MEDIAN													
	STA 71+00 to 75+00	MEDIAN													
	STA 101+59 TO 103+00 (OKLAHOMA)	MEDIAN													
	STA 1+00 TO 4+00	RT			3				1						
	STA 4+00 TO 10+00	RT				2	3								
	STA 10+00 TO 16+00	RT							3						
	STA 16+00 TO 22+00	RT				2		3	2						
	STA 22+00 TO 27+00	RT			1	3	1								
	STA 27+00 TO 33+00	RT			1			2	4						
	STA 33+00 TO 39+00	RT		1							3				
	STA 39+00 TO 45+00	RT	1			1						3			
	STA 45+00 TO 50+00	RT	1												
	STA 50+00 TO 56+00	RT													
	STA 56+00 TO 62+00	RT			2			3							
	STA 62+00 TO 66+00	RT													
	STA 66+00 to 71+00	RT													
	STA 71+00 to 75+00	RT													
	STA 101+59 TO 103+00 (OKLAHOMA)	RT													
	TOTALS		**9**	**8**	**19**	**22**	**12**	**14**	**16**	**1**	**8**	**8**	**1**	**3**	**10**

*Quantities listed elsewhere

3

TRAFFIC CONTROL SIGNS

2060-00-76

CATEGORY 0010

ITEM	SIZE	DESCRIPTION			PRE-STAGE 1A	PRE-STAGE 1B	STAGE 1	STAGE 1A	STAGE 2	**TOTAL**
W020-1	48"x48"	"ROAD WORK AHEAD"			5	4	15	3	15	**42**
R11-2	48"x30"	"ROAD CLOSED"			1	5	10	1	33	**50**
R11-4	60"X30"	"ROAD CLOSED TO THRU TRAFFIC"			1	0	0	0	0	**1**
R9-9	24"X12"	"SIDEWALK CLOSED"			1	9	13	1	2	**26**
R11-2-L	48"X30"	"LANE CLOSED"			2	3	15	3	3	**26**
G20-2A	36"X18"	"END ROAD WORK"			1	2	3	3	7	**16**
W20-55-A	36"X36"	"LEFT LANE CLOSED AHEAD"			1	1	7	2	4	**15**
W20-5-A	36"X36"	"RIGHT LANE CLOSED AHEAD"			1	2	0	0	6	**9**
W01-6R	24"x48"	"GO LEFT ARROW"			1	3	4	1	5	**14**
W01-6L	24"X48"	"GO RIGHT ARROW"			0	0	0	1	2	**3**
W01-4R	48"X48"	"LANE SHIFT (RIGHT)"			1	0	2	1	2	**6**
W01-4L	48"X48"	"LANE SHIFT (LEFT)"			0	2	2	1	3	**8**
R9-10	24"X12"	"SIDEWALK CLOSED USE OTHER SIDE"			2	2	8	1	4	**17**
W04-2R	48"X48"	"MERGE LEFT"			1	2	3	1	3	**10**
W04-2L	48"X48"	"MERGE RIGHT"			1	1	3	2	7	**14**
W06-3	48"X48"	"TWO-WAY TRAFFIC"			4	3	28	3	17	**55**
R5-51	30"x30"	"DO NOT ENTER"			0	0	0	0	0	**0**
W20-3	48"X48"	"ROAD CLOSED AHEAD"			1	2	4	0	5	**12**
R3-7R	36"x36"	"RIGHT LANE MUST TURN RIGHT"			0	1	3	1	2	**7**
W20-56A	36"x36"	"CENTER LANE CLOSED AHEAD"			0	1	1	0	0	**2**
W1-7	24"x12"	"GO LEFT OR RIGHT DOUBLE ARROW"			0	0	5	0	7	**12**
W20-58-A	48"X48"	"RIGHT TWO LANES CLOSED 500 FT			0	0	2	1	0	**3**
W12-1D	24"x24"	"DOUBLE ARROW"			0	0	0	1	0	**1**
R3-7L	36"x36"	"LEFT LANE MUST TURN LEFT"			0	0	2	0	0	**2**
R1-2	36"x36"	"NO LEFT TURN SYMBOL"			0	0	1	1	2	**4**
R3-1	36"x36"	"NO RIGHT TURN SYMBOL"			0	0	1	2	1	**4**
TRAFFIC CONTROL SIGNS		**643.0900 TRAFFIC CONTROL SIGNS TOTAL**			24 360	43 645	132 14,784	30 600	130 14,560	359 **30,949 DAY**

"W0" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.

NOTE:

SIGN LAYOUT SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTARTION (FHWA) MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE PROVIDED IN THE PLAN.

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

3

TRAFFIC CONTROL ITEMS

2060-00-76

CATEGORY 0010

	ITEMS	PRE-STAGE 1A		PRE-STAGE 1B		STAGE 1		STAGE 1A		STAGE 2		STAGE 2A		TOTAL	
		EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY		
#	**TRAFFIC CONTROL DRUMS (643.0300)**	21	315	42	630	197	22,064	34	680	237	26,544	49	980	**51,213**	DAY
##	**TRAFFIC CONTROL BARRICADES TYPE III (643.0420)**	26	390	49	735	196	21,952	21	420	222	24,864	32	640	**49,001**	DAY
	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS (643.0500)	25	EACH	21	EACH	194	EACH	17	EACH	252	EACH	27	EACH	**536**	EACH
	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES (643.0600)	25	EACH	21	EACH	194	EACH	17	EACH	252	EACH	27	EACH	**536**	EACH
###	*TEMPORARY PAVEMENT MARKING ITEMS:*														
####	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE (649.0150)	0		285		856		780		4,910		700		7,531	LF
####	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW (649.0150)	360		1,040		1,258		400		9,850		1,730		14,638	LF
	TOTAL REMOVABLE TAPE 4-INCH (649.0150)	360		1,325		2,114		1,180		14,760		2,430		**22,169**	LF
	TEMPORARY MARKING LINE REMOVABLE PAINT 4-INCH, WHITE (649.0105)	746		500		6,156		0		2,170		0		9,572	LF
	TEMPORARY MARKING LINE REMOVABLE PAINT 4-INCH, YELLOW (649.0105)	1,000		0		11,036		728		3,580		0		16,344	LF
	TOTAL TEMPORARY PAVEMENT MARKING PAINT 4-INCH (649.0105	1,746		500		17,192		728		5,750		0		**25,916**	LF

\# ALL DRUMS HAVE ONE STEADY BURNING YELLOW LIGHT (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 (25) FEET

\### ALL TEMPORARY PAVEMENT MARKINGS MUST BE REMOVED PRIOR TO FINAL ACCEPTANCE OF PROJECT

SOME ITEMS FROM STAGE 1 AND 2 ARE USED IN 1A AND 2A

PEDESTRIAN ACCOMODATIONS ITEMS

STAGE	CATEGORY 0010 644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT (SF)	CATEGORY 0010 644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD (SF)	CATEGORY 0010 644.1430.S TEMPORARY PEDESTRIAN SURFACE PLATE (SF)	CATEGORY 0010 644.1601.S TEMPORARY CURB RAMP (EACH)	CATEGORY 0010 SPV.0045.01 TEMPORARY CROSSWALK (DAY)
STAGE 1	200	296	480	3	
STAGE 2	616	450	880	3	
	816	**746**	**1,360**	**6**	**223**

TEMPORARY PAVEMENT MARKING

LOCATION	TEMPORARY PAVEMENT MARKING PAINT 24-INCH WHITE SPV.0090.19 LF 0010	TEMPORARY PAVEMENT MARKING TAPE 24-INCH WHITE SPV.0090.20 LF 0010
UNDISTRIBUTED	56	76
TOTAL	56	76

3

2060-00-76

PAVEMENT MARKING QUANTITIES				
GROUP CODE	ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
0010	646.1020	MARKING LINE EPOXY 4-INCH	LF	18,675
0010	646.5020	MARKING ARROW EPOXY	EACH	13
0010	646.5120	MARKING WORD EPOXY	EACH	10
0010	646.5220	MARKING SYMBOL EPOXY	EACH	64
0010	646.7520	MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH	LF	156
0010	646.8220	MARKING ISLAND NOSE EPOXY	EACH	48
0010	SPV.0090.04	MARKING CROSSWALK EPOXY 12-INCH	LF	1705
0010	SPV.0090.05	MARKING LINE EPOXY 6-INCH WHITE	LF	12,145
0010	SPV.0090.06	MARKING STOP LINE EPOXY 24-INCH	LF	370

ALL CATEGORY 0010 (PARTICIPATING)

CITY UNDERGROUND CONDUIT

LOCATION			CATEGORY 0010													
			204.025 ABANDONING MANHOLES EACH	SPV.0060.50 ADJUSTING CUC MANHOLE COVERS EACH	SPV.0060.51 4' DIAMETER MANHOLE TYPE CUC EACH	SPV.0060.52 4' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC EACH	SPV.0060.53 4' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC INSTALLED OVER CONDUIT EACH	SPV.0060.54 5' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC EACH	SPV.0060.55 6' DIAMETER "DOGHOUSE" MANHOLE TYPE CUC INSTALLED OVER CONDUIT EACH	SPV.0060.56 REMOVING CUC MANHOLE EACH	SPV.0060.57 INSTALLING CONDUIT INTO EXISTING MANHOLE EACH	SPV.0090.14 6-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.15 4-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.16 3-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.17 2-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.18 1-DUCT CONDUIT CEMENT ENCASED DB-60 LF
MANHOLE 600	-	STA 01+39.6, 45.3 RT		1							1					
MANHOLE 600	TO	MANHOLE 601											406			
MANHOLE 601	-	STA 05+35.2, 29.4 RT		1							2					
MANHOLE 601	TO	MANHOLE 603											378			
MANHOLE 602A	-	STA 08+04.6, 45.8 RT	1													
MANHOLE 603	-	STA 09+09.2, 45.3 RT		1							2					
MANHOLE 603	TO	PROPOSED TRAFFIC PULL BOX													34	
MANHOLE 604	-	STA 13+43.2, 45.1 RT		1							1					
MANHOLE 604	TO	STA 13+13.9, 43.2 LT													96	
STA 13+23.6, 51.2 LT	TO	PROPOSED TRAFFIC CABINET											25			
STA 13+23.6, 51.2 LT	TO	MANHOLE 605													99	
MANHOLE 605	-	STA 14+17.1, 29.9 LT		1							1					
MANHOLE 606	-	STA 13+13.9, 43.2 LT		1					1							
MANHOLE 606	TO	EAST PAVING LIMITS										85				
MANHOLE 606	TO	MANHOLE 608										165				
MANHOLE 607A	-	STA 16+36.4, 50.3 RT	1													
MANHOLE 608	-	STA 16+36.4, 35.5 RT					1									
MANHOLE 608	TO	MANHOLE 610										505				
MANHOLE 609A	-	STA 20+86.4, 50.2 RT	1													
MANHOLE 610	-	STA 21+45.5, 35.5 RT			1											
MANHOLE 610	TO	MANHOLE 612										455				
MANHOLE 611A	-	STA 25+93.3, 28.3 RT	1													
MANHOLE 612	-	STA 26+98.7, 14.5 RT			1											
MANHOLE 612	TO	MANHOLE 613										97				
MANHOLE 613	TO	STA 27+03.0, 30.4 RT			1								14			
STA 27+03.3, 30.4 RT	TO	POLICE CALL BOX													17	
STA 27+03.3, 30.4 RT	TO	TRAFFIC CONTROL CABINET													25	
MANHOLE 613	TO	MANHOLE 615										506				
MANHOLE 614A	-	STA 27+17.6, 28.0 RT	1													
MANHOLE 615	-	STA 32+08.8, 14.5 RT			1											
MANHOLE 615	TO	MANHOLE 616										355				
MANHOLE 615	-	STA 35+68.6, 22.5 RT			1											
MANHOLE 616	TO	2' BEYOND WEST CURB													60	
MANHOLE 616	TO	2' BEYOND EAST CURB													13	
MANHOLE 616	TO	MANHOLE 617										425				
MANHOLE 617	-	STA 39+97.6, 22.5 RT														
MANHOLE 617	TO	MANHOLE 618										420				
MANHOLE 618	TO	FUTURE TRAFFIC CABINET											85			
FUTURE TRAFFIC CABINET		EXISTING STREET LIGHTING ENCLOSURE													5	
MANHOLE 618	TO	BRIDGE ABUTMENT											291			
BRIDGE ABUTMENT	TO	MANHOLE 619											176			
MANHOLE 619	-	STA 50+10.1, 15.1 RT			1											
MANHOLE 619	TO	MANHOLE 620											469			
MANHOLE 620	-	STA 54+80.3, 26.0 RT			1											
MANHOLE 620	TO	MANHOLE 621											400			
MANHOLE 621	-	STA 58+77.9, 26.0 RT			1											
MANHOLE 621	TO	MANHOLE 625											395			
MANHOLE 622R	-	STA 61+97.0, 38.9 RT								1						
MANHOLE 623	-	STA 61+94.0, 39.8 RT				1										
MANHOLE 624R	-	STA 62+82.5, 27.3 RT								1						
MANHOLE 625	-	STA 62+82.5, 27.3 RT						1								
MANHOLE 626	-	STA 73+97.0, 36.3 RT														
MANHOLE 626	TO	MANHOLE 627											53			
MANHOLE 627	-	STA 74+36.7, 72.0 RT														
MANHOLE 627	TO	PROPOSED TRAFFIC CABINET														
MANHOLE 627	TO	STA 74+70.8, 30.2 RT											52			
STA 74+70.8, 30.2 RT	TO	STA 74+26.8, 22.1 RT												10		
STA 74+70.8, 30.2 RT	TO	STA 74+77.8, 29.1 RT														8
STA 74+77.8, 29.1 RT	TO	PROPOSED TRAFFIC CABINET													10	
STA 74+77.8, 29.1 RT	TO	STA 74+26.8, 22.1 RT														8
STA 74+26.8, 22.1 RT	TO	PAVING LIMITS											31			
TOTAL			5	6	8	1	1	1	1	2	7	3013	2775	10	359	16

TYPE II PERMANENT SIGNING AND REMOVALS

STH 38 2060-00-76

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REMOVING SMALL SIGN SUPPORTS (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	J4-1(2S)		24 X 36	6.000					MOUNT UP HIGH ON SIGNAL POLE
	M3-3		24 X 12						
	M1-6	STH 38	24 X 24						
2	J4-1(2S)		24 X 36	6.000	1	1			MOUN UP HIGH ON SIGNAL POLE
	M3-1		24 X 12						
	M6-1	STH 38	24 X 24						
3	J4-1(2S)		24 X 36	6.000					MOUNT ON LIGHT POLE
	M3-3		24 X 12						
	M1-6	STH 38	24 X 24						
4	J3-1(2S)		24 X 57	9.500					MOUNT ON SIGNAL POLE
	M3-3		24 X 12						
	M1-6		24 X 24						
	M6-2		21 X 21						
5	J4-1(2S)		24 X 12	6.000					MOUNT ON LIGHT POLE
	M3-1		24 X 12						
	M1-6	STH 38	24 X 24						
	undistributed						1		
totals				33.500	1	1	1		

3

SHEET 1 OF 1

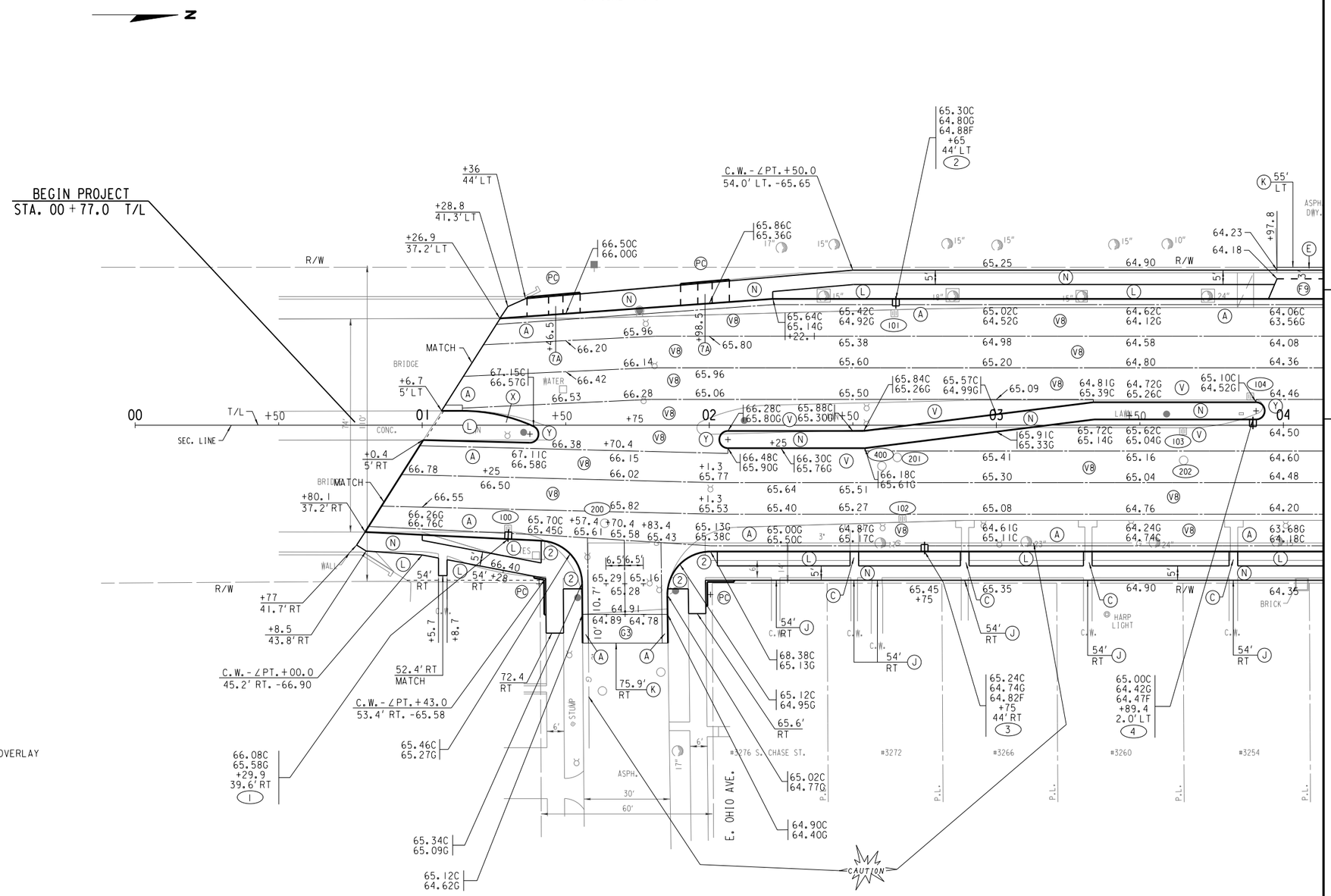
PROJECT NO: 2060-00-76	HWY: STH 38	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

SOUTH CHASE AVENUE

B.W. NW BOLT HYD.
W/S S. CHASE AVE.
STA. 01+76 - 40'LT.
ELEV. 68.48

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

N



SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

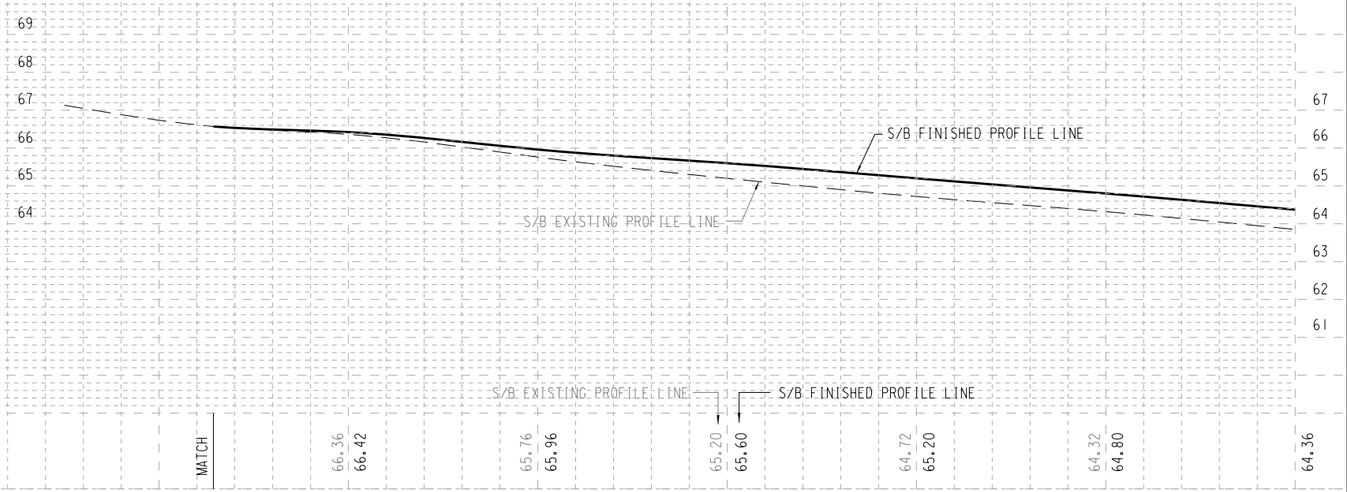
(2) CONST. CURB RAMP TYPE 2
(7A) CONST. CURB RAMP TYPE 7A
(A) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. CARRIAGE WALK
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(J) SAW CONCRETE
(K) SAW ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(PC) CONST. CONC. CURB PREDESTRIAN
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 302	E

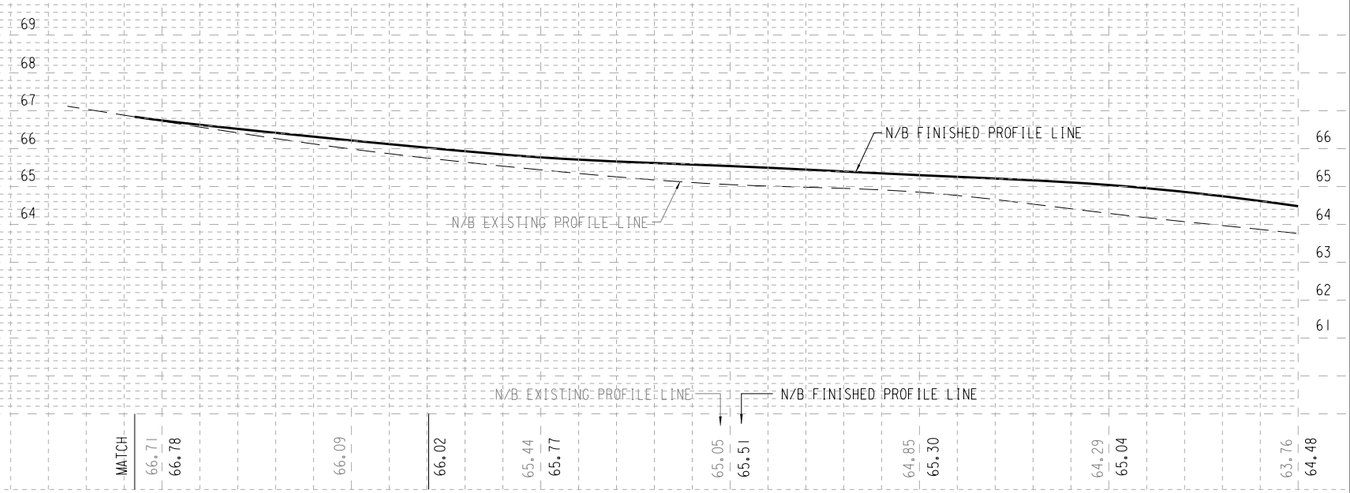
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\01-04.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 303	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\01-04.DGN

REVISED DATE: 05-05-2017 BY PN

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

N

PIGGLY WIGGLY GROCERY #123 W. OKLAHOMA AVE.

62.93C 62.43G 62.51F +40 44'LT (8)

61.12C 60.62G 60.70F +90 44'LT (10)

61.22C 60.64G +11 2.0'RT (12)

55'LT (K) ASPH. DWY. +97.8 +26.3 (E)

54'LT (J) C.W.

61.15 61.10 SIGN CURB +17.4 (K) 55'LT ASPH. DWY. +47.1 CURB 60.80 60.76

10" PINE 14" 12" 13"

R/W 63.88 63.50 63.11 63.10 62.75 62.40 62.00 61.63 60.54 60.27 R/W 60.00

5' 5' 5' 5' 5' 5'

(F9) (L) (N) (L) (N) (3M) (L) (F) (L) (3) (L) (N)

64.06C 63.56G (A) 63.66C 63.16G (V8) 63.25C 62.75G (108) 62.85C 62.35G 62.50C 62.00G (204) (A) 62.15C 61.65G (V8) 61.75C 61.25G 61.55C 61.05G 61.40C 60.90G (A) (109) (205) +00 61.06C 60.56G 60.92C 60.42G 60.62C 60.12G +62.5 60.36C 59.86G (V8) 60.09C 59.59G (A) 59.82C 59.32G

64.08 63.68 63.27 62.87 62.52 62.17 61.77 61.57 61.42 61.00 60.78 60.63 60.38 (V8) 60.11 59.90

64.36 +25 64.15 63.90 63.49 63.09 62.74 62.37 (V8) 62.05 61.85 61.70 61.27 60.98 60.90 60.66 60.39 60.12

(V8) 64.46 64.30 (Y) 64.17G 64.75C 63.78G (V) 63.37G 63.95C (7) (107) 62.97G 63.55C (V) 62.62G 63.20C 62.27G 62.85C 61.93G 62.51C 61.73G 62.31C 61.58G 62.16C (V) (111) 61.95C 61.37G 61.10 WEP 61.01 60.78 (V8) 60.51 60.48C 59.90G 59.92F 60.01

(Y) (V8) 64.38 (Y) +50 (L) LAWN 10 T/L +50 6" 6" +50 5" LAWN +50 SEC. LINE (L) +25 (N) +50 LAWN (N) (Y) (V8) +25 60.97 +50 60.83G 61.41C (V) 61.28C 60.70G (V8) +50 60.76C 60.18G (Y) (L)

04 05 06 07 08 09 10

64.50 +25 64.22 (X) 64.91C 64.33G 64.38C 63.80G (106) 63.19 (203) (401) 63.34C 62.76G 63.09C 62.51G (V) 62.89C 62.31G 62.27 62.78C 62.20G 62.38C 61.80G 61.97 (V8) 62.28C 61.70G 61.83C 61.25G (V) 61.04 60.82 (112) 61.00 60.91 (Y) +63.9 (N) (Y) 60.63 (Y) (L)

64.60 (V8) 64.48 64.10 63.84 63.90 62.90 62.66 62.38 (V8) 62.08 61.58 61.47 61.70C 61.22G (402) +3.8 60.96 (206) 60.70 (403) 60.74 60.62 61.32C 60.74G (V) 61.42C 60.84G (13) 61.35C 60.78G 60.59 60.47 (V8) 60.64C 60.06G 60.44C 59.86G

64.20 (V8) 63.82 63.51 62.98 CUC 62.72 62.48 62.17 61.86 61.34 60.66 +33.8 60.50 60.32 60.69 60.39 60.19 (V8) 59.92 59.69

63.68G 64.18C (A) 63.30G 63.80C (V8) 62.99G 63.49C (105) (A) 62.21G 62.71C 61.96G 62.46C (V8) 61.65G 62.15C (A) 61.34G 61.84C 60.84G 61.34C (A) 60.12F 60.00G 60.25C (110) 60.17 +33.8 60.12 13' 13' (404) 59.86F 59.74G 59.99C (113) 59.93G 60.43C (A) 59.67G 60.17C (V8) 59.67G 59.67C

(L) 5' 5' (N) 5' 5' (N) 5' 5' (3) (L) 5' (N) 60.46 (HES) (F9) 60.10 (L) 5' (N) 5'

64.35 BRICK 64.00 (C) 63.65 R/W (C) 62.90 (C) 62.40 (C) (N) 5' (C) R/W (PC) 63' RT 59.81 59.68 59.78 (G3) 59.2 59.14 (A) 59.27 (A) 59.57 59.50 59.63 60.40 +75 60.65 MATCH CONC. DWY DRAIN 59.90 R/W 59.98

10" PINE 8" C.W. 24" PINE C.W. 3" 60.05C 59.88G 59.79C 59.62G

(J) 54' RT (J) 54' RT (J) 54' RT (J) 54' RT (J) 54' RT (J) 54' RT (J) 54' RT (J) 54' RT 59.95C 59.70G 59.61C 59.44G FLAG POST +18.3 GAS PUMP +87.1

63.61C 63.03G 63.07F +00 8.0'RT (6) 62.96C 62.46G 62.54F +00 44'RT (5) 59.40C 58.90G 71.5'RT 59.26C 58.76G 71.5'RT

61.71C 61.13G 61.17F +75 2.0'LT (9) 60.80C 60.22G 60.30F +89 44'RT (11) 58.59C 58.26G 84'RT 90.6' RT 91.9' (K) RT 58.45C 58.12G 84'RT

3254 #3248 #3242 #3236 #3230 #3224 #3218 #3212 #3206 #3200 S. CHASE ST. #3160-3174 S. CHASE ST.

P.I. P.I. P.I. P.I. P.I. P.I. P.I. P.I. P.I. P.I. P.I.

B.W. NW BOLT HYD. E/S S. CHASE AVE. STA. 05+23 - 35'RT. ELEV. 65.31

CAUTION

RAILING E. EUCLID AVE. 6' 15' ASPH. ON CONC. 6' 30' 60' 8" 8"

B.W. NW BOLT HYD NE CORNER S. CHASE AVE. & E. EUCLID AVE. STA. 08+51 - 58'RT. ELEV. 61.44

CAUTION

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

(2) CONST. CURB RAMP TYPE 2
(3) CONST. CURB RAMP TYPE 3
(3M) CONST. CURB RAMP TYPE 3M
(A) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. CARRIAGE WALK
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY

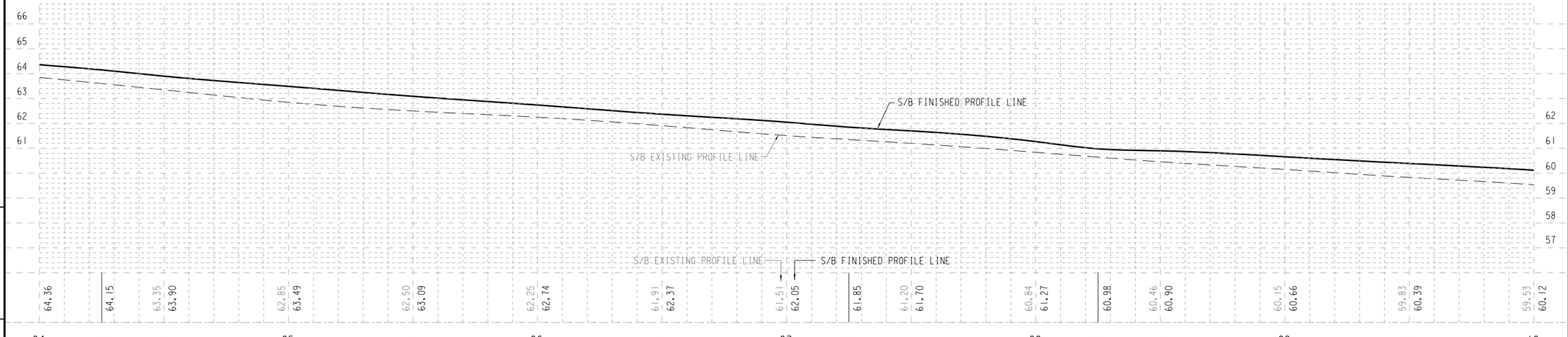
(J) SAW CONCRETE
(K) SAW ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(PC) CONST. CONC. CURB PREDESTRIAN
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 304	E

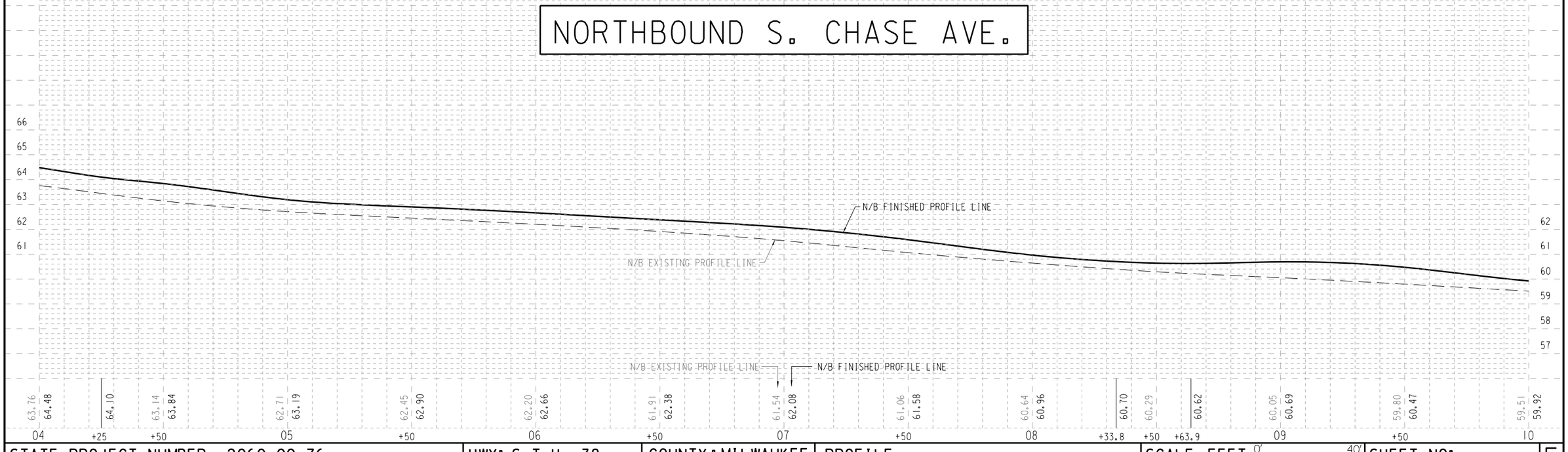
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\04-10.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



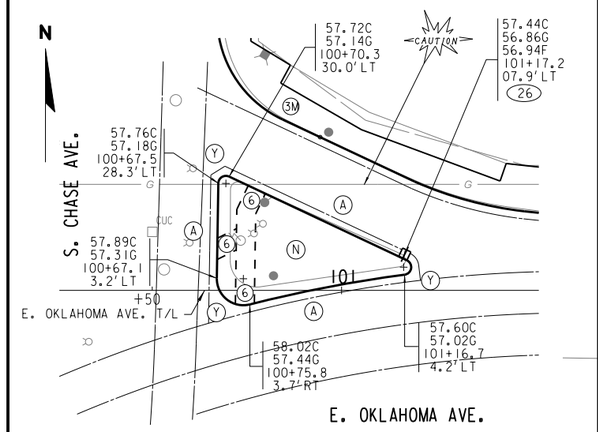
NORTHBOUND S. CHASE AVE.



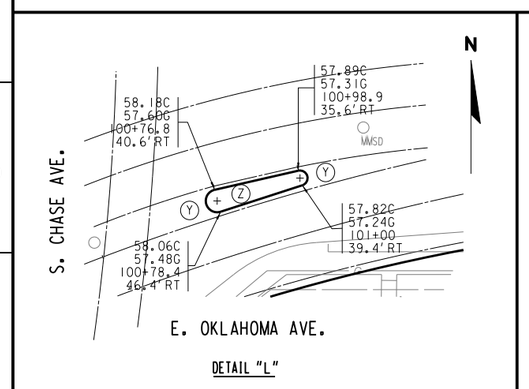
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 305 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\04-10.DGN

REVISED DATE: 04-04-2017 BY DLF



DETAIL "K"



DETAIL "L"

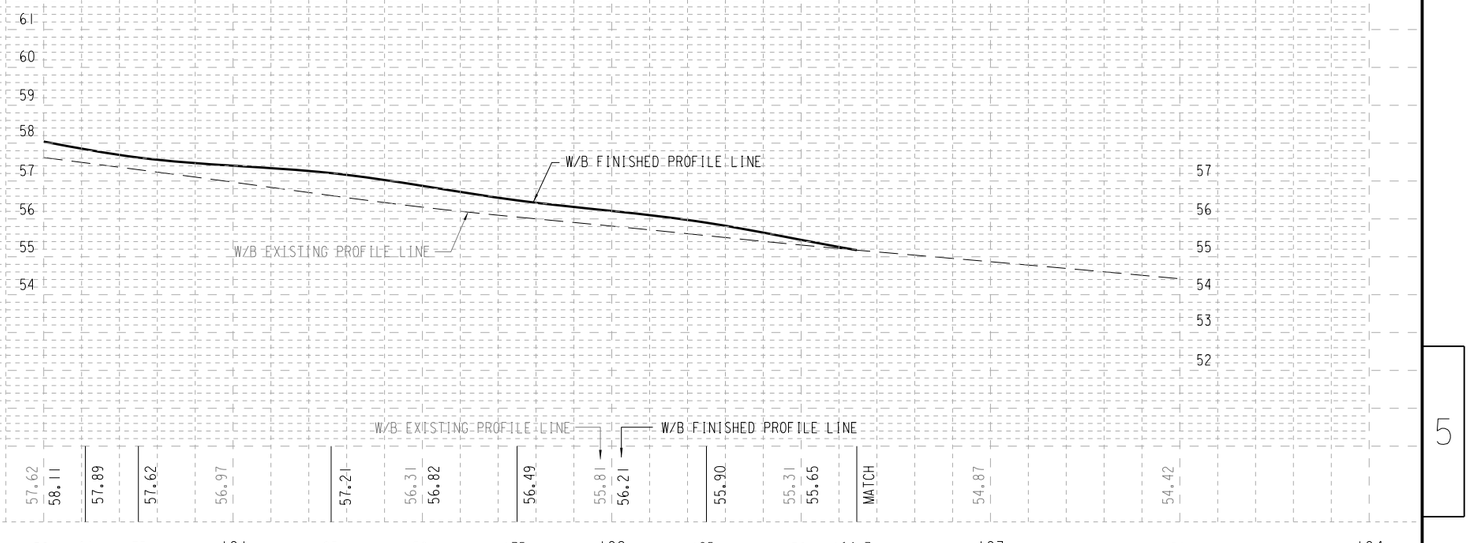
(I)	CONST. CURB RAMP TYPE I
(3M)	CONST. CURB RAMP TYPE 3M
(6)	CONST. CURB RAMP TYPE 6
(A)	CONST. CONC. CURB & GUTTER 31-INCH
(C)	CONST. CARRIAGE WALK
(D)	CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E)	REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F)	CONST. CONC. DRIVEWAY FLARED (7-IN.)
(G3)	REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(K)	SAW ASPHALT
(N)	CONST. 5" CONC. SIDEWALK
(R)	SAW FULL DEPTH AT BASE OF CONC. STEP
(V8)	CONST. 8.5" CONC. PAVEMENT
(Y)	CONCRETE MEDIAN SLOPE NOSE
(Z)	CONST. CONC. LOADING ZONE WITH 7-INCH. FACE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 306 E

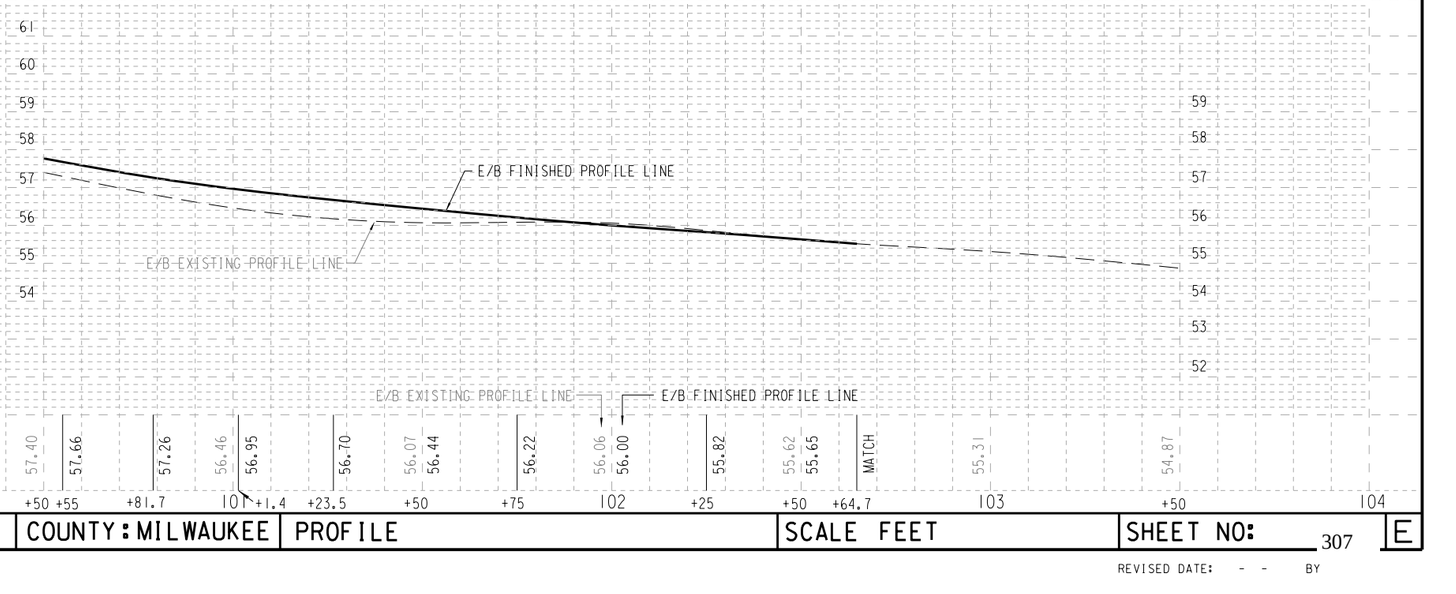
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\100-106.DGN

REVISED DATE: 12-11-2018 BY AA

WESTBOUND E. OKLAHOMA AVE.



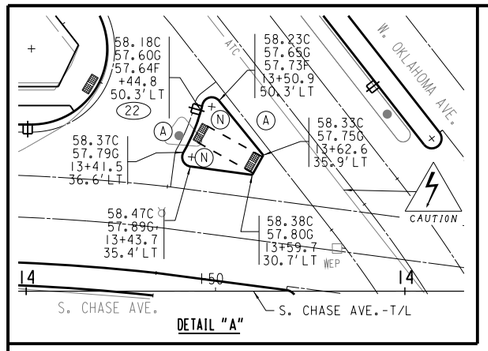
EASTBOUND E. OKLAHOMA AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 307	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\100-106.DGN

REVISED DATE: - - BY



DETAIL "A"

B.W. NW BOLT HYD SW CORNER
S. CHASE AVE. & W. OKLAHOMA AVE.
STA. 12+62 - 40' LT.
ELEV. 60.43

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE DETAIL "A"

SEE CONST. DETAILS FOR GRADE INFORMATION AND LOCATION

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE EAST OKLAHOMA AVENUE PLAN SHEET (STA. 100+00.0 TO STA. 102+64.7)

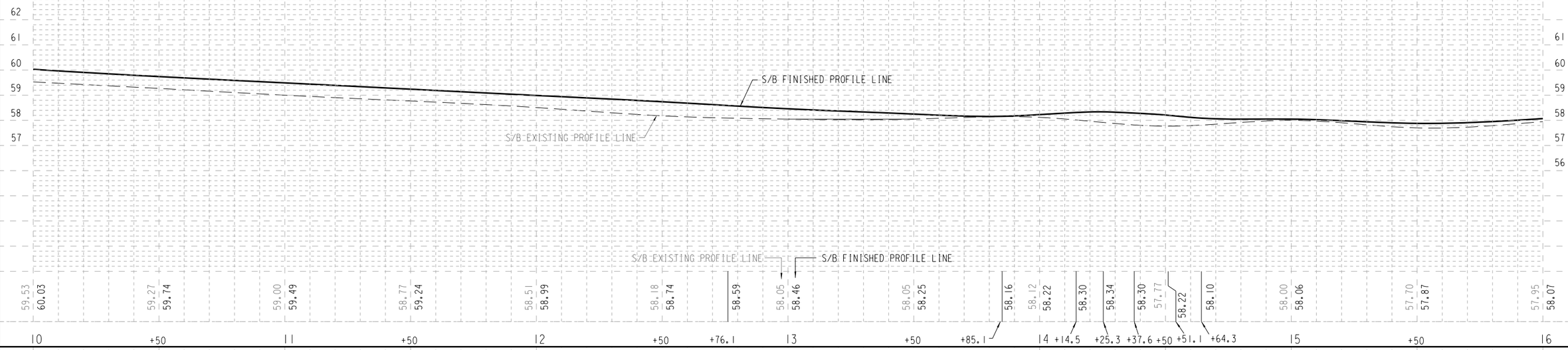
- (I) CONST. CURB RAMP TYPE I
- (6) CONST. CURB RAMP TYPE 6
- (3M) CONST. CURB RAMP TYPE 3M
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. CARRIAGE WALK
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
- (J) SAW CONCRETE
- (K) SAW ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8.5" CONC. PAVEMENT
- (Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 308 E

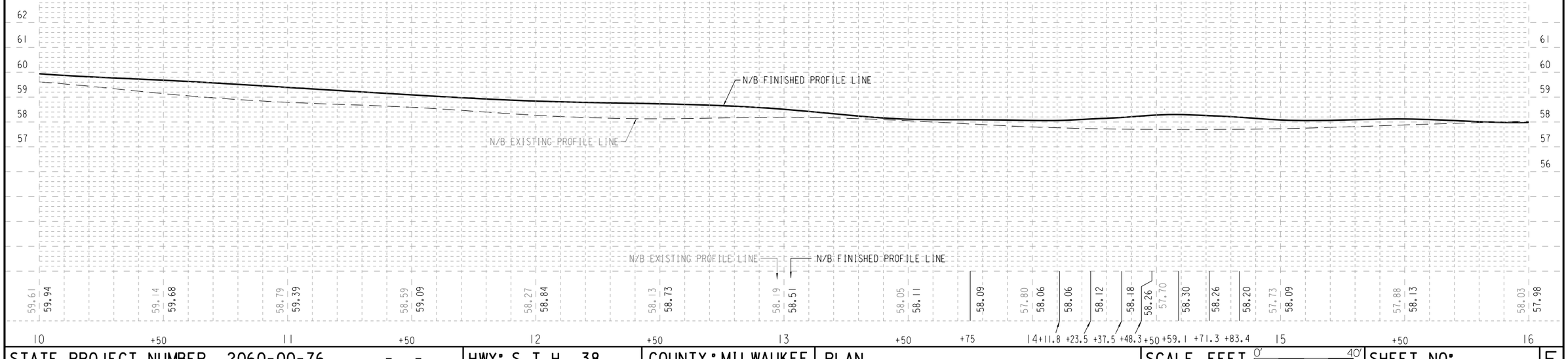
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\10-16.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 309

FILENAME: W:\SDR\CHASE_ OH10_LINCOLN\10 YG.DGN

SOUTH

CHASE

AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.M. NW BOLT HYD. W/S S. CHASE AVE. STA. 20+55 - 22'LT. ELEV. 60.62

N

CHASE COMMERCIAL BUILDING

SECTION HAS VARIABLE FACE

MATCH ASPH.

C.W. - ℄PT. +63.2 33.0' LT.

C.W. - ℄PT. +63.2 32.0' LT.

FENCE

P.L.

C.W.

R/W

ENT.

CURB

SIGN

TEL

WATER

WMSD

ATC

TES

C.W.

ASPH. DWY.

ASPH. PARKING

LAWN

CONC.

CONC. DWY.

WENDY'S

#3042 TO 3072 S. CHASE AVE.

#3030 FOWARD DENTAL

COMMUNITY VETERINARY CLINIC

#3010

#2990

E. GAUER CIRCLE

E. MANITOBA ST.

138KV

CAUTION

FIBER OPTIC

B.M. NW BOLT HYD NE CORNER S. CHASE AVE. & E. GAUER CIR. STA. 18+40 - 70'RT. ELEV. 60.97

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

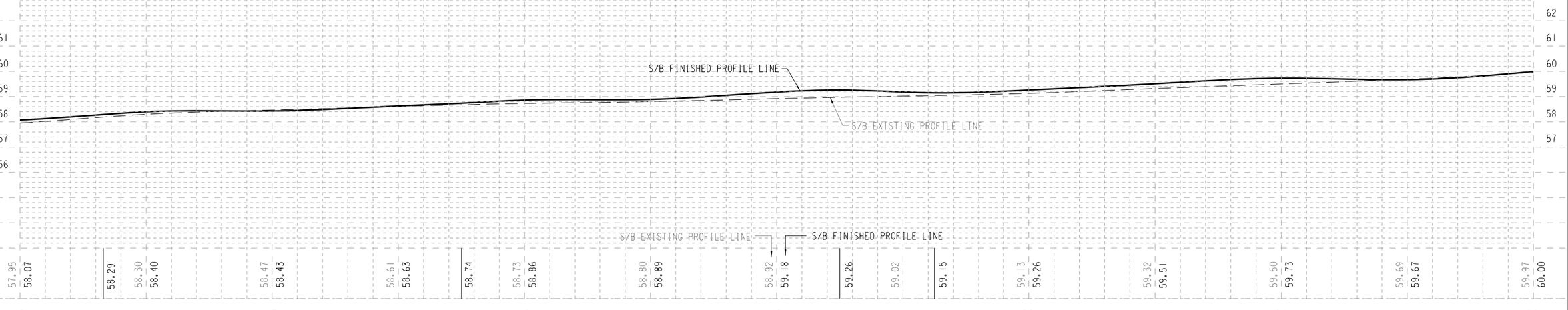
(2) CONST. CURB RAMP TYPE 2
(3) CONST. CURB RAMP TYPE 3
(4B) CONST. CURB RAMP TYPE 4B I
(A) CONST. CONC. CURB & GUTTER 31-INCH
(BC) CONST. CONC. CURB & GUTTER 22-INCH (COV. FLG.)
(C) CONST. CARRIAGE WALK
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(J) SAW CONCRETE
(K) SAW ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(PC) CONST. CONC. CURB PREDESTRIAN
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V7) CONST. 7" CONC. PAVEMENT
(V8) CONST. 8.5" CONC. PAVEMENT
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 310	E

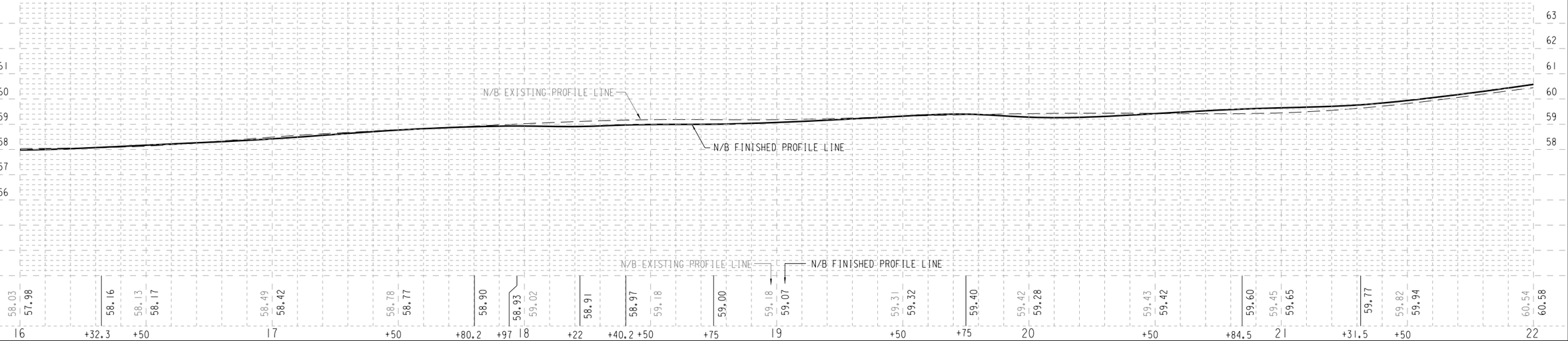
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\16-22.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 311 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\16-22.DGN

SOUTH CHASE AVENUE

N

*2969 S. CHASE AVE.

*2950 S. CHASE AVE.

SEC. LINE

C.W. -∠PT. +86.2
32.0' LT. -60.82

C.W. -∠PT. +41.2
38.4' LT. -61.58

CURVE "CW-1"

C.W. -E/S
P.C.
22+76.0-76.0' RT.

C.W. -E/S
P.T.
23+71.0B-54.0' RT.

∠PT.
23+91.26-T/L

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 24+05 - 46'RT.
ELEV. 64.49

*2960 TO 2984

C.W.-CURVE DATA					
CURVE	RADIUS	PC	PT	INT. ANG.	CHORD
CW-1	250'	22+99.00, 76.00' RT.	23+71.00B, 54.00' RT.	26° 52' 45.0"	95.50'

B-BACK STATION
E/S-EAST SIDE

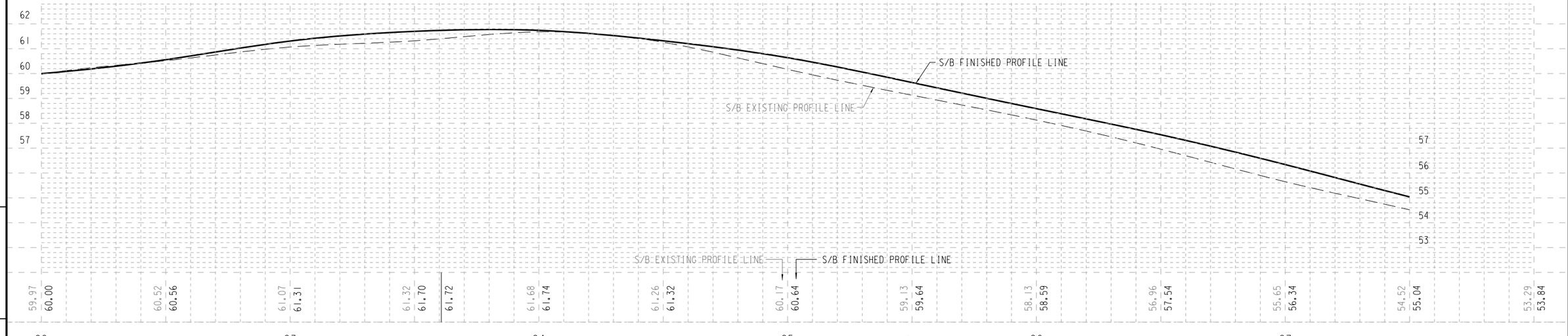
(A) CONST. CONC. CURB & GUTTER 31-INCH
(D9) CONST. CONC. DRIVEWAY DEPRESSED (9-INCH MODIFIED)
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
(J) SAW CONCRETE
(K) SAW ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(NV) REMOVE AND PLACE V.T. CONC. ON V.T. CRUSHED STONE BASE
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 312	E

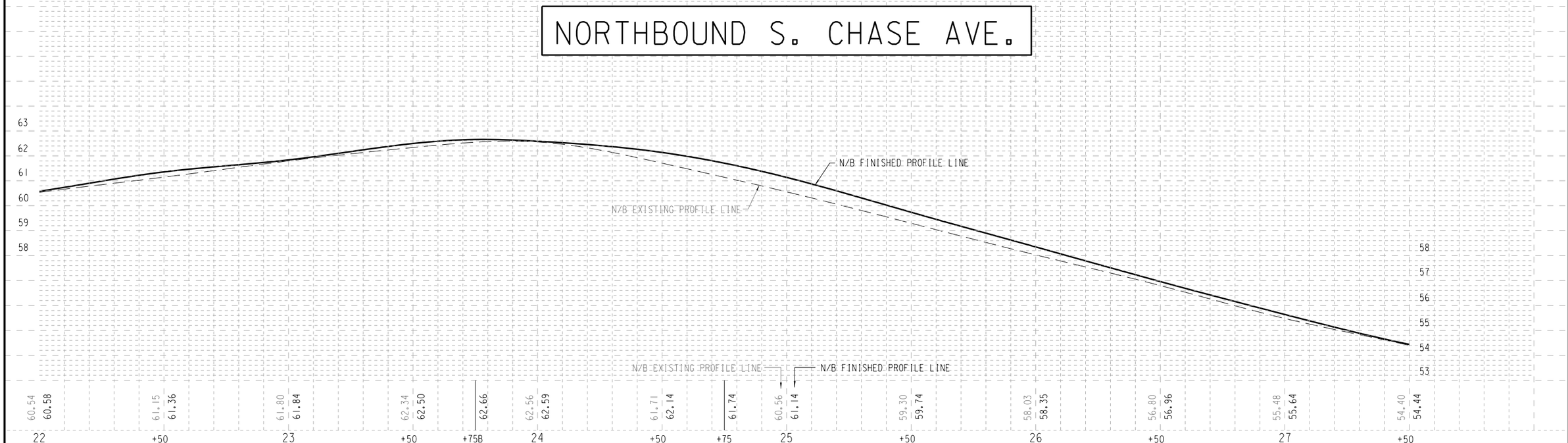
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\22-27.DGN

REVISED DATE: 11-19-2018 BY SB

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 313	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\22-27.DGN

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.M. NW BOLT HYD. W/S S. CHASE AVE. STA. 29+15 - 35'LT. ELEV. 51.73

B.M. NW BOLT HYD NE CORNER S. CHASE AVE. & E. DAKOTA ST. STA. 30+81 - 58'RT. ELEV. 48.20

*2929 S. CHASE AVE.

*108 TO 118 E. DAKOTA ST.

*2836 S. CHASE AVE.

*2830

*2826

*2822

E. DAKOTA ST.

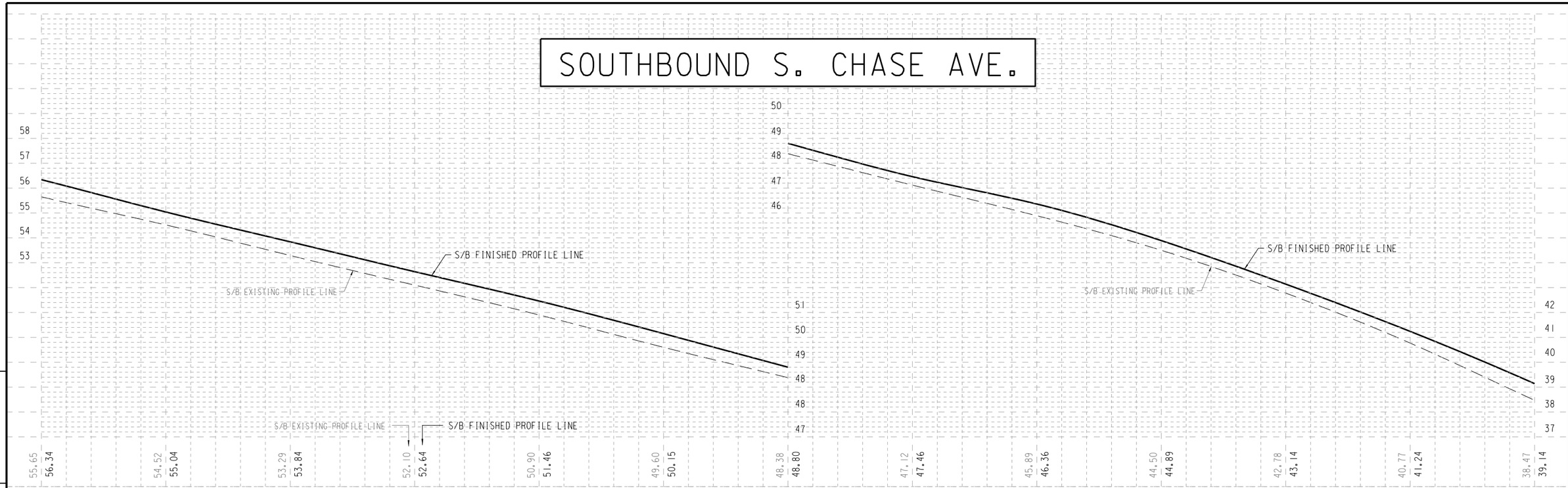
- (2) CONST. CURB RAMP TYPE 2
- (7M) CONST. CURB RAMP TYPE 7M
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. CARRIAGE WALK
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
- (J) SAW CONCRETE
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (P) REMOVE & PLACE VT ASPH. SURFACE ON VT CR STONE BASE
- (PC) CONST. CONC. CURB PREDESTRIAN
- (TM) CONST. TERRACE MOUND (SEE CONSTRUCTION DETAIL)
- (V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
- (V7) CONST. 7" CONC. PAVEMENT
- (V8) CONST. 8.5" CONC. PAVEMENT
- (Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 314 E

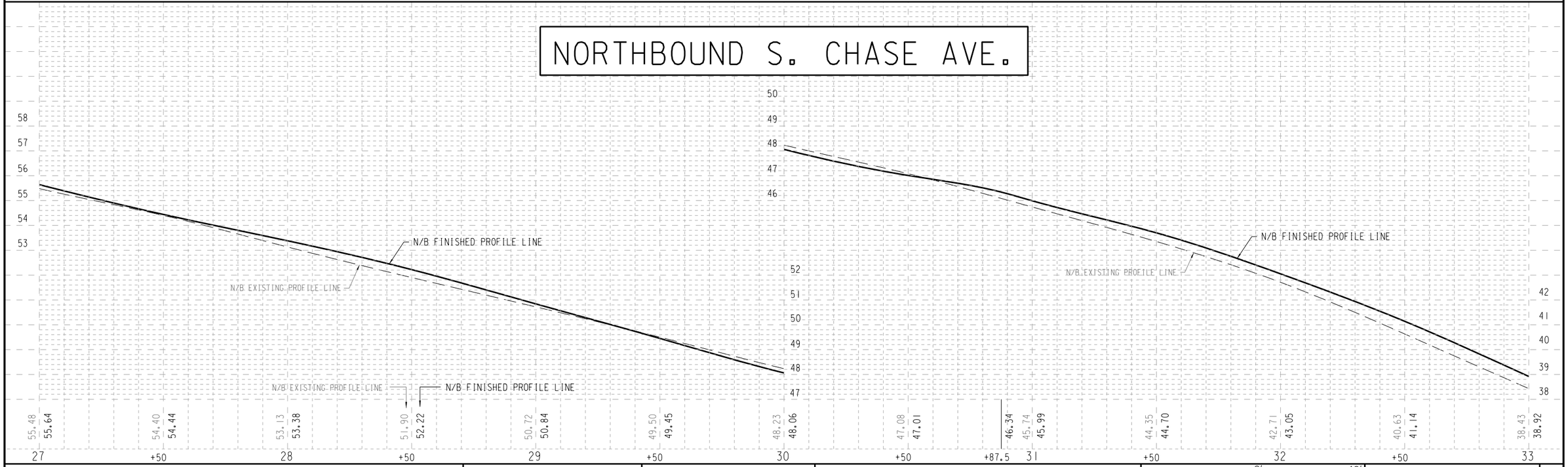
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\27-33.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO:

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\27-33.DGN

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.W. NW BOLT HYD. W/S S. CHASE AVE. STA. 35+02 - 35'LT. ELEV. 31.61

C.W. - ∠PT. +50.0 54.0' LT. -32.60

C.W. - ∠PT. +00.0 43.0' LT. -25.65

C.W. - ∠PT. +30.5 43.0' LT. -20.50

C.W. - ∠PT. +49.0 54.0' LT. -17.95

SOO RAILROAD CO.

PRIVATE ROADWAY & PARKING EASEMENT

BRIDGE WALL

BRIDGE SUPPORT

CONC. SIGN BASE

LIGHT POLE BASE

CONC. DWY

STUMP

FENCE

LAWN

ASPH.

R/W

WMSD

*2822 *2816 *2812 *2810-2810A *2804 *2800-2802 S. CHASE AVE.

*100 E. MONTANA ST.

*2747 S. GLADSTONE PL.

*2715 S. GLADSTONE PL.

E. MONTANA ST.

(2) CONST. CURB RAMP TYPE 2
(3) CONST. CURB RAMP TYPE 3
(A) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. CARRIAGE WALK
(E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY

(K) SAW ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(PC) CONST. CONC. CURB PREDESTRIAN
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(Y) CONCRETE MEDIAN SLOPE NOSE

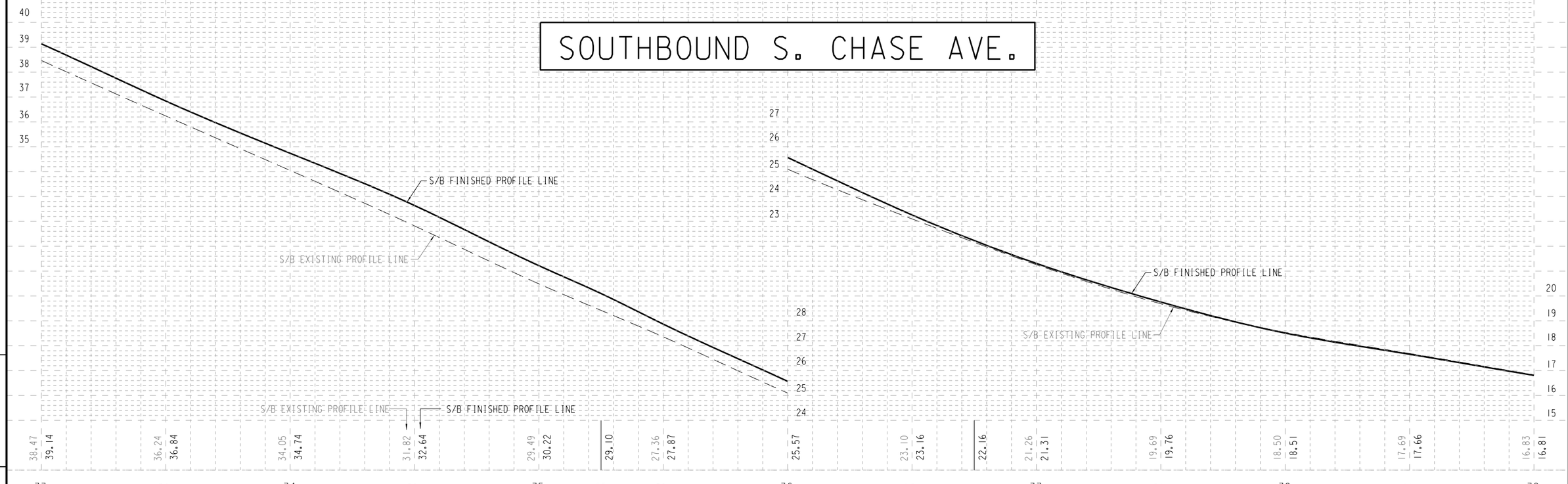
SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 316 E

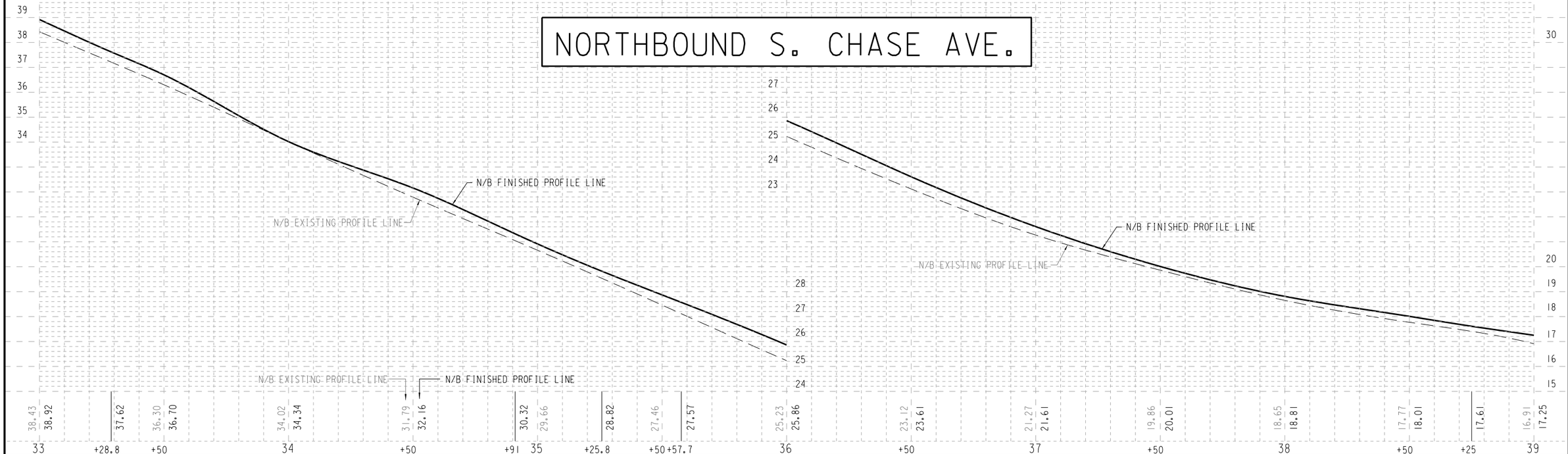
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\33-39.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 317 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\33-39.DGN

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

B.M. LIGHT POLE BASE
STA. 42+53 - 45'LT.
ELEV. 13.67

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & W. ROSEDALE AVE.
STA. 44+73 - 42'LT.
ELEV. 9.73

B.M. NW BOLT HYD.
E/S S. CHASE AVE.
STA. 40+21 - 37'RT.
ELEV. 17.33

*2701 S. CHASE AVE.

*2647 S. CHASE AVE.

*2635

*2650 TO 2700 S. CHASE AVE.
KLEMENT COMPANY

W. ROSEDALE AVE.

SEWER EASEMENT

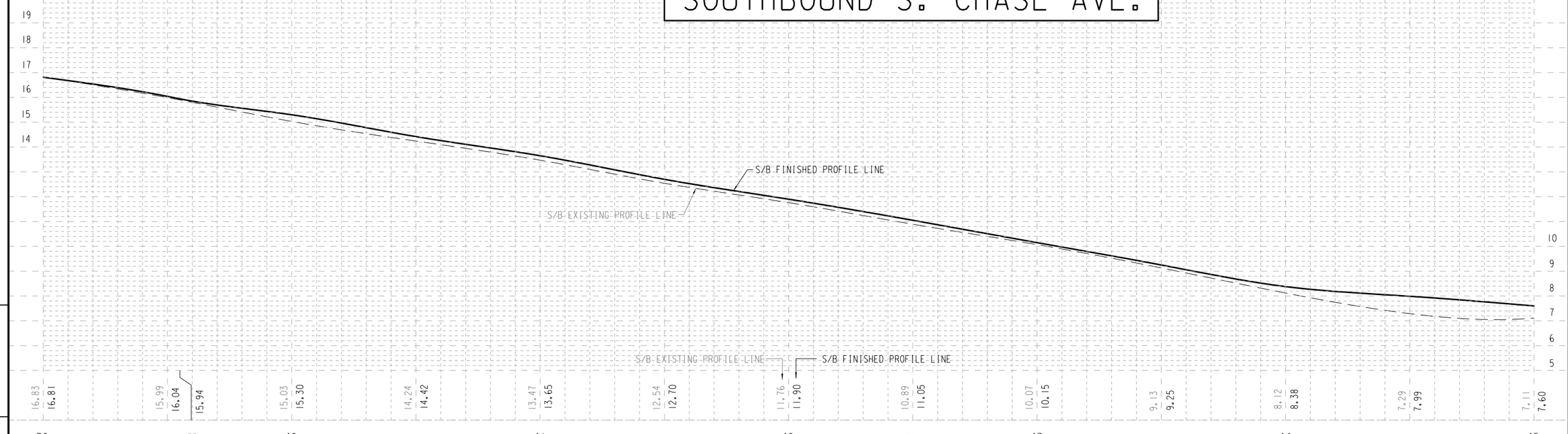
- (I) CONST. CURB RAMP TYPE I
- (3M) CONST. CURB RAMP TYPE 3M
- (4BI) CONST. CURB RAMP TYPE 4BI
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (E2) REMOVE & PLACE 2"ASPH. SURFACE ON VT CONC BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (F9) CONST. CONC. DRIVEWAY FLARED (9-IN.)
- (J) SAW CONCRETE
- (K) SAW ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (PC) CONST. CONC. CURB PREDESTRIAN
- (V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8.5" CONC. PAVEMENT
- (Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 318	E

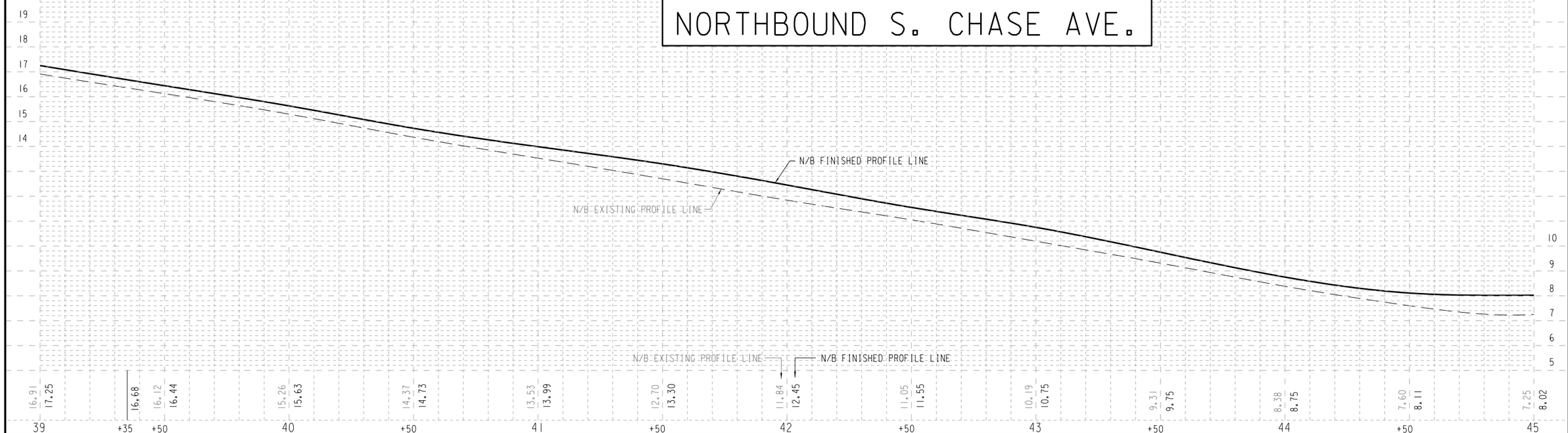
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\39-45.DGN

REVISED DATE: 10-16-2018 BY SB

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 319 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\39-45.DGN

SOUTH CHASE AVENUE

KINNICKINNIC RIVER

KINNICKINNIC RIVER PARKWAY (MILWAUKEE COUNTY)

PED./ BIKE WAY

RESERVED LOT

END CONSTRUCTION STA. 47+27.8 T/L

C.W.-∠PT.+12.0 54.0' LT., 7.70

C.W.-∠PT.+79.8 42.6' LT.

C.W.-∠PT.+39.4 53.0' LT., 15.80

C.W.-P.C. 2493.01' R. +74.8-53.0' LT.

CURB ∠PT.+7.5 -37' LT. 15.74C-15.24G

+85.3 42.4' LT

+91.5 42' LT

+15.5 7' LT

+27.5 7' RT

+64.1 42.1' RT

+57.6 42' RT

BEGIN CONSTRUCTION STA. 48+21.5 T/L

*2644 S. CHASE AVE.

C.W.-∠PT.+00.0 52.0' RT., 14.84

∠PT.+57.9 36.0' RT 15.29C 14.75G 14.80F

P.C. 180' R. +76.5-36.0' RT

P.T. 180' R. +5.8-99.2' RT

S. 1ST ST.

BRIDGE WALL

BRIDGE

CONCRETE BRIDGE COLUMN

CRASH CUSHION

WATER

MMSD

SEWER EASEMENT

CAUTION

SEE DETAIL "B"

SEE DETAIL "C"

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONSTRUCTION PLANS FOR S. 1ST STREET PLAN

DETAIL "B"

DETAIL "C"

S. CHASE AVE. - T/L

GUARD RAIL

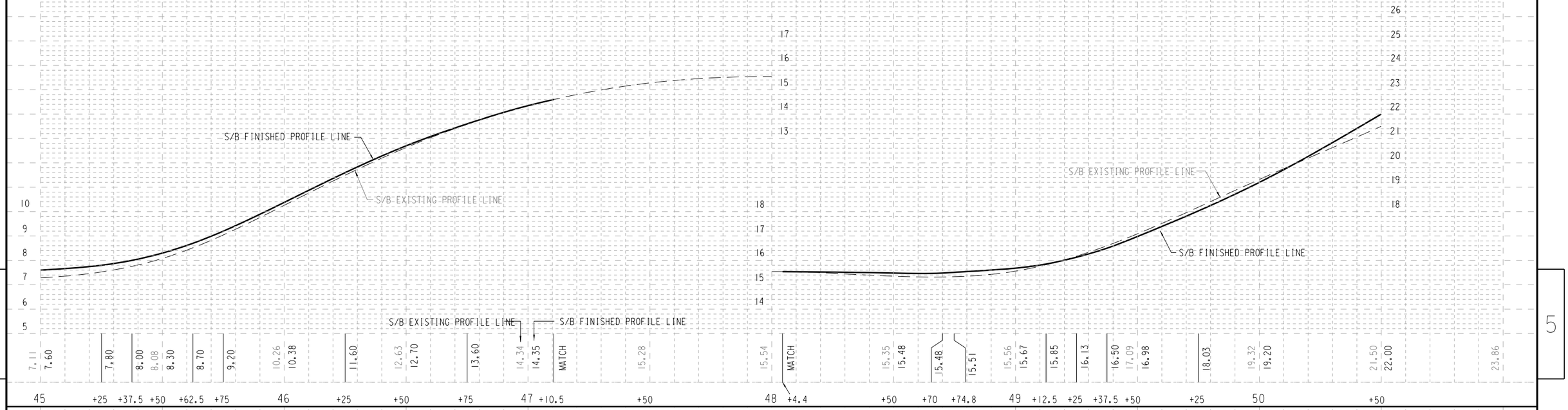
- (6) CONST. CURB RAMP TYPE 6
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (J) SAW CONCRETE
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (TM) CONST. TERRACE MOUND
- (V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8.5" CONC. PAVEMENT
- (Y) CONCRETE MEDIAN SLOPE NOSE
- (X) CONST. MAINTENANCE RAMP

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 320	E

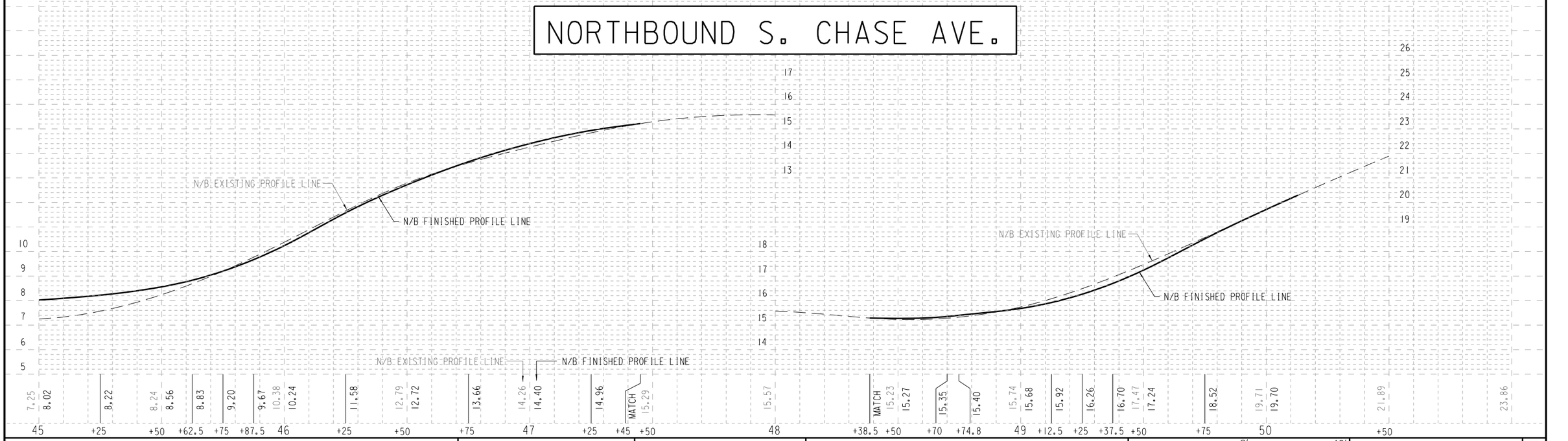
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\45-50.DGN

REVISED DATE: 08-27-2018 BY DB

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 321	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\45-50.DGN

REVISED: 07-26-2018 SB

SOUTH CHASE AVENUE

B.M. NW BOLT HYD. W/S S. CHASE AVE. STA. 51+03 - 35'LT. ELEV. 22.54

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE CONSTRUCTION PLANS FOR S. 1ST STREET PLAN

S. 3RD ST.

S. 1ST ST.

S. CHASE AVE.

*2529-2579 S. CHASE AVE.

2493.01' R.

2599.01' R.

CARRIAGE WALKS
MAINTENANCE RAMPS
CONSTUCTION NOTES
DROP STATUS TERMINATORS

(2) CONST. CURB RAMP TYPE 2
(3) CONST. CURB RAMP TYPE 3
(A) CONST. CONC. CURB & GUTTER 31-INCH
(G2) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 2" MIN. ASPH. OVERLAY
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(Y) CONCRETE MEDIAN SLOPE NOSE

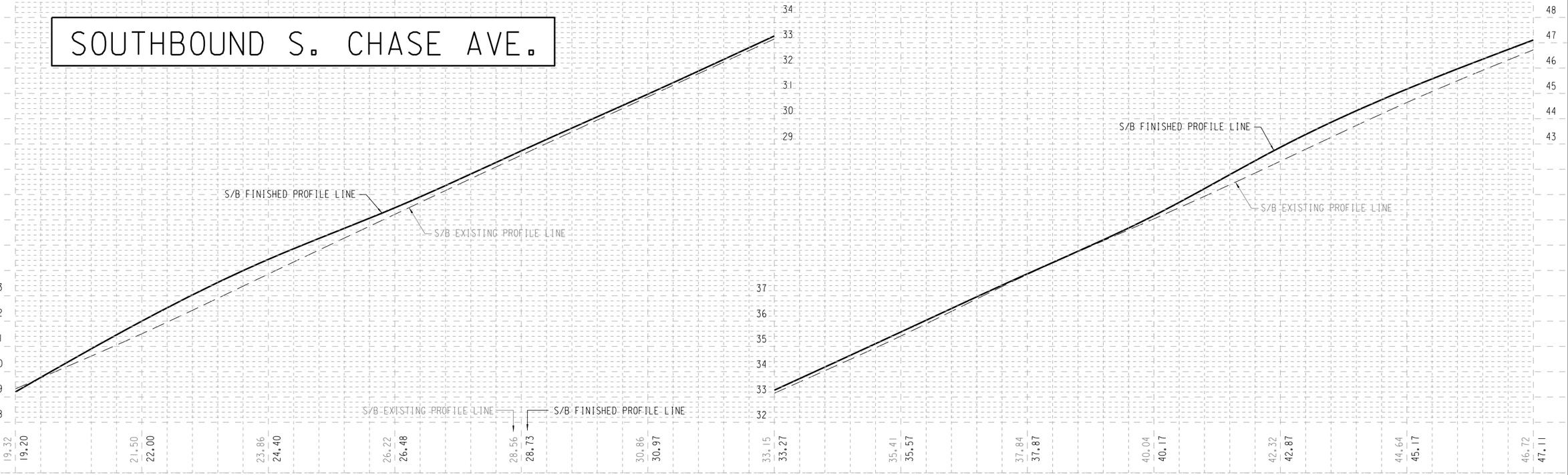
DETAIL "D"

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 322	E

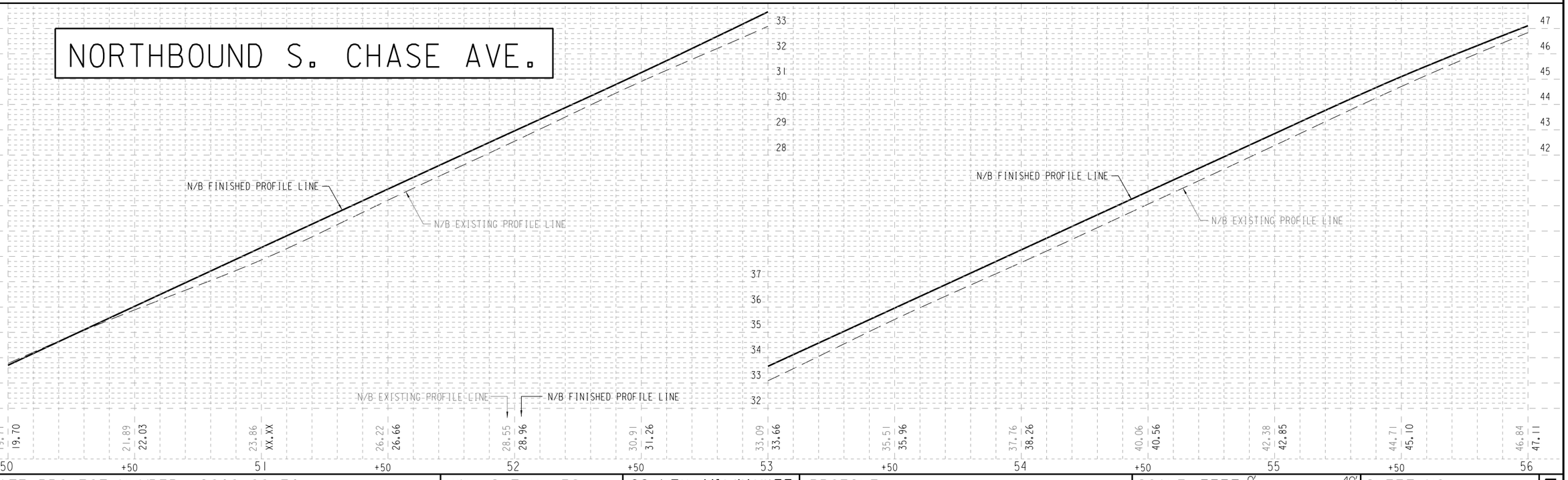
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\50-56.DGN

REVISED DATE: 07-27-2018 BY SB

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 323 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\50-56.DGN

SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

S. 3RD ST.

2509 S. 3RD ST. 2501 S. CHASE AVE. 2483 S. CHASE AVE. *2479 *2475 *2469 *2459 S. CHA

W. ARTHUR AVE.

SEE DETAIL "E"

*2450-2458 S. CHASE AVE.

*2454 S. 4TH ST.

C.W. - P.C. 833'R. +74.8 - 53.0' LT., 55.87

B.W. NW BOLT HYD. E/S S. CHASE AVE. @ W. ARTHUR AVE. STA. 57+80 - 35'RT. ELEV. 53.96

B.W. NW BOLT HYD. E/S S. CHASE AVE. STA. 60+66 - 35'RT. ELEV. 58.52

DETAIL "E"

S. CHASE AVE.

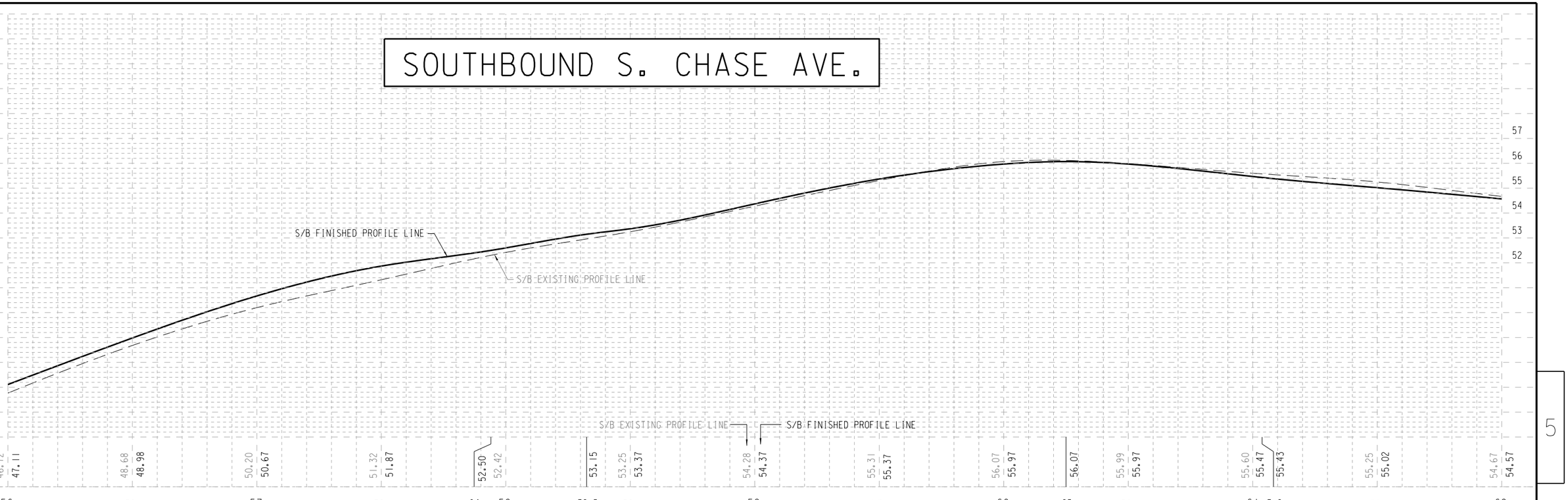
- (2) CONST. CURB RAMP TYPE 2
- (2M) CONST. CURB RAMP TYPE 2M
- (3) CONST. CURB RAMP TYPE 3
- (7B) CONST. CURB RAMP TYPE 7B
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. CARRIAGE WALK
- (E) REMOVE & PLACE 3"ASPH. SURFACE ON VT CONC. BASE
- (E2) REMOVE & PLACE 2"ASPH. SURFACE ON VT CONC BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
- (J) SAW CONCRETE
- (K) SAW ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (N) CONST. 5" CONC. SIDEWALK
- (TM) CONST. TERRACE MOUND
- (V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
- (V8) CONST. 8.5" CONC. PAVEMENT
- (X) CONST. MAINTENANCE RAMP
- (Y) CONCRETE MEDIAN SLOPE NOSE

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 324 E

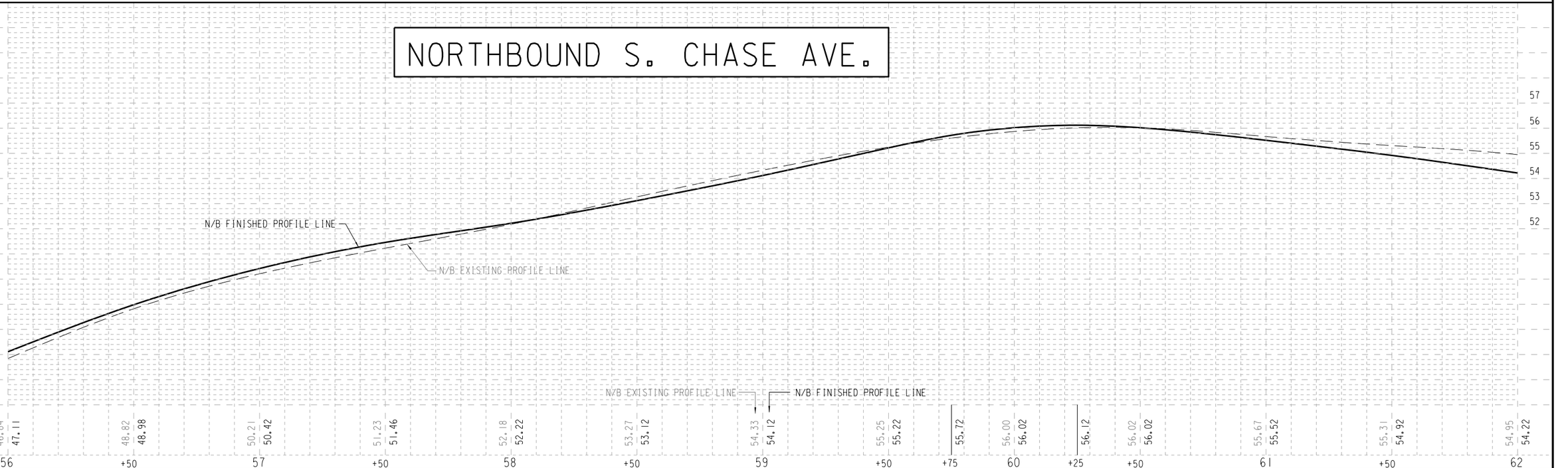
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\56-62.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.

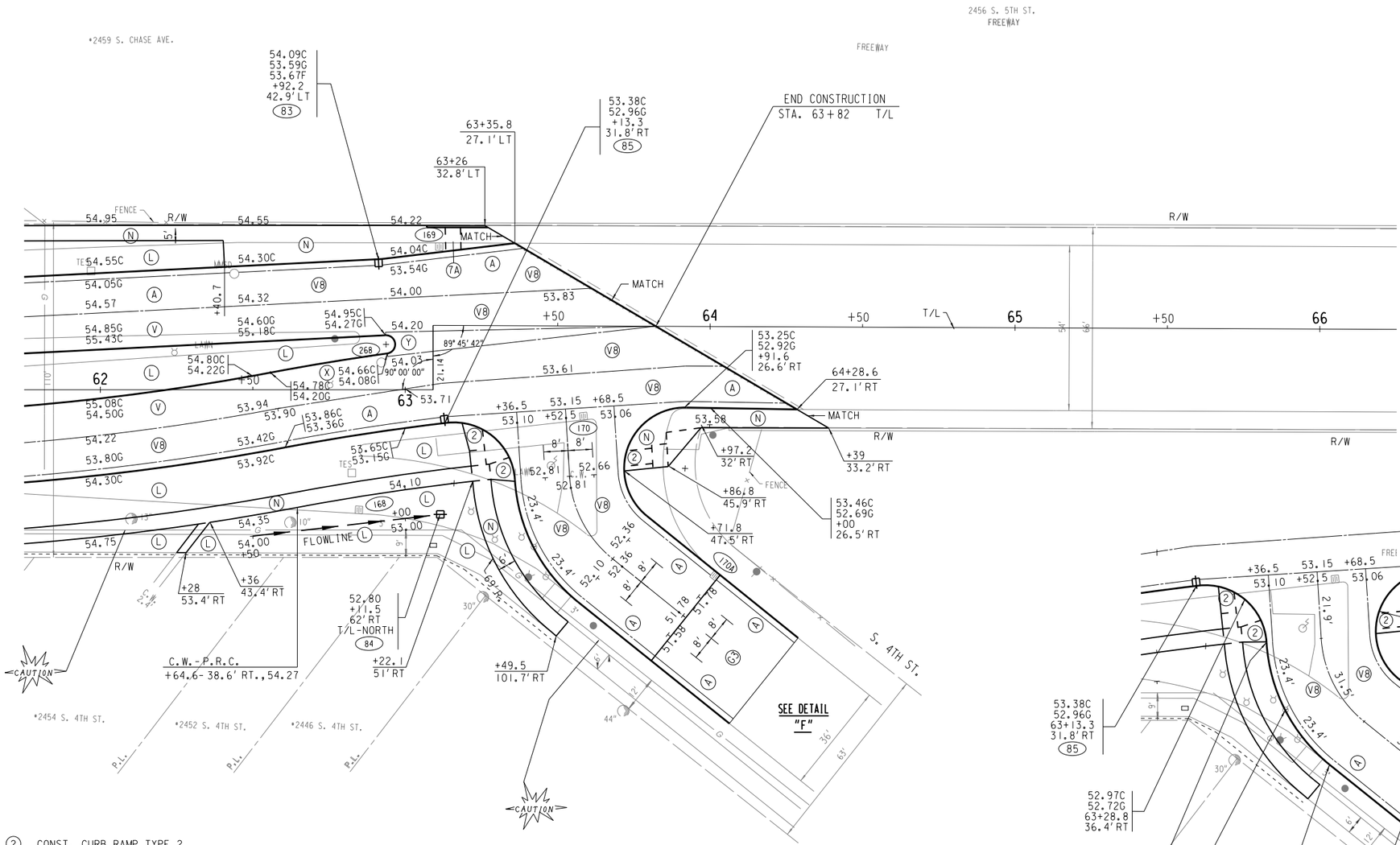


STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 325 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\56-62.DGN

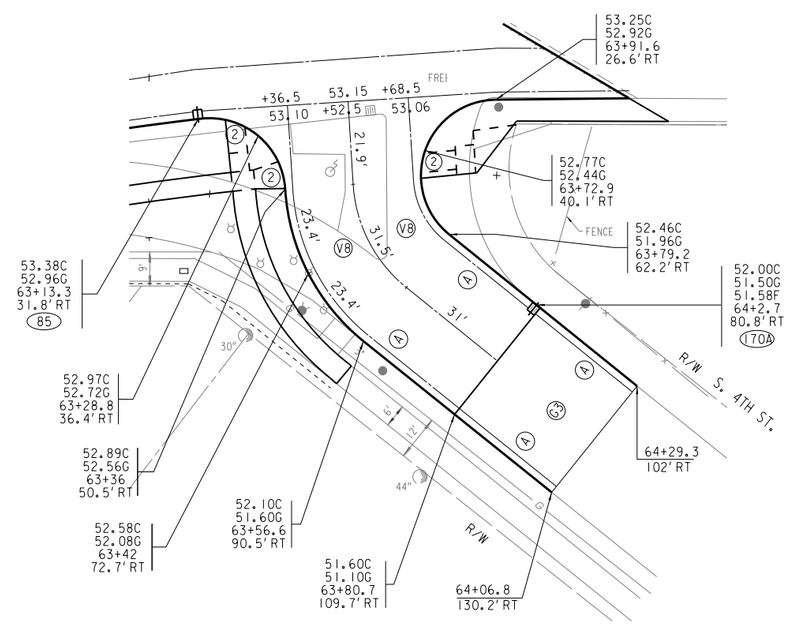
SOUTH CHASE AVENUE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS



(2) CONST. CURB RAMP TYPE 2
(7A) CONST. CURB RAMP TYPE 7A
(A) CONST. CONC. CURB & GUTTER 31-INCH
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(V) CONST. 8.5" CONC. PAVEMENT WITH INTEGRAL CURB
(V8) CONST. 8.5" CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONCRETE MEDIAN SLOPE NOSE

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS



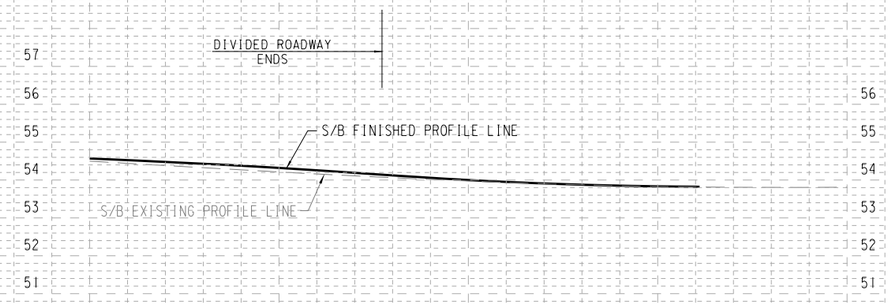
DETAIL "F"

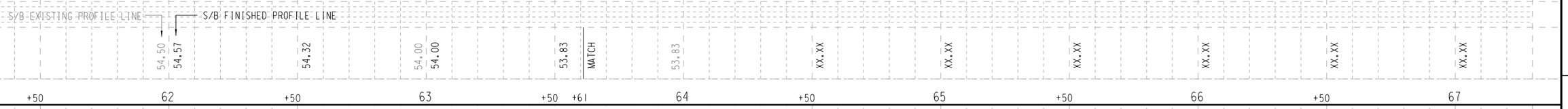
STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 326	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\62-66.DGN

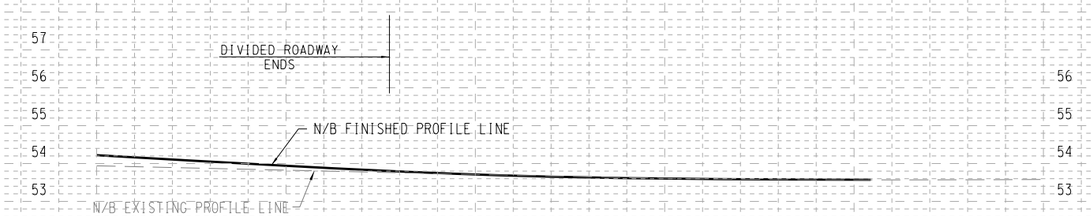
REVISED DATE: 04-16-2018 BY JH

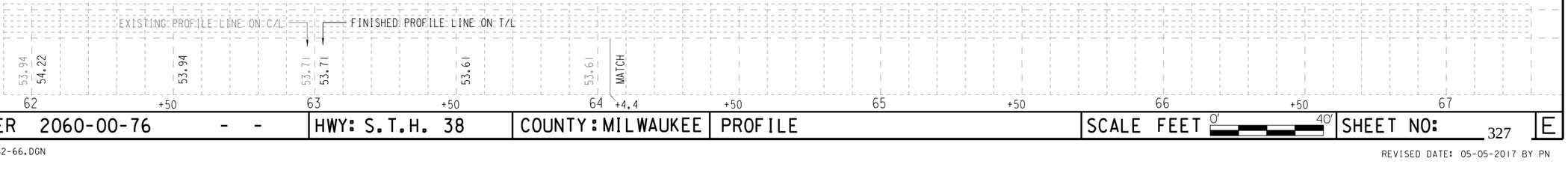
SOUTHBOUND S. CHASE AVE.





NORTHBOUND S. CHASE AVE.





STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 327 E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\62-66.DGN

REVISED DATE: 05-05-2017 BY PN

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

SOUTH CHASE AVENUE

S. 5TH ST.

W. HAYES AVE.

B.M. NW BOLT HYD NW CORNER
S. CHASE AVE. & S. 5TH ST.
STA. 68+72 - 37'LT.
ELEV. 51.32

BEGIN CONSTRUCTION
STA. 67+00.0 T/L

SEE DETAIL "G"

DETAIL "G"

FREEWAY

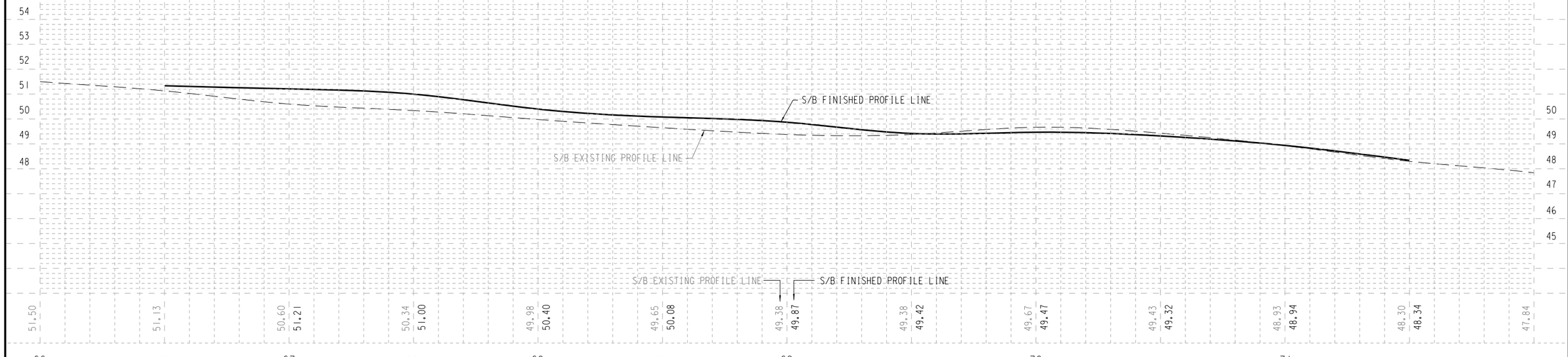
(2)	CONST. CURB RAMP TYPE 2
(2M)	CONST. CURB RAMP TYPE 2M
(3)	CONST. CURB RAMP TYPE 3
(4BI)	CONST. CURB RAMP TYPE 4BI
(6)	CONST. CURB RAMP TYPE 6
(7A)	CONST. CURB RAMP TYPE 7A
(A)	CONST. CONC. CURB & GUTTER 31-INCH
(C)	CONST. CARRIAGE WALK
(D)	CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(F)	CONST. CONC. DRIVEWAY FLARED (7-IN.)
(G2)	REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 2" MIN. ASPH. OVERLAY
(G3)	REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY
(J)	SAW CONCRETE
(N)	CONST. 5" CONC. SIDEWALK
(V8)	CONST. 8.5" CONC. PAVEMENT
(X)	CONST. MAINTENANCE RAMP
(Y)	CONCRETE MEDIAN SLOPE NOSE
(TM)	CONST. TERRACE MOUND

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 328	E

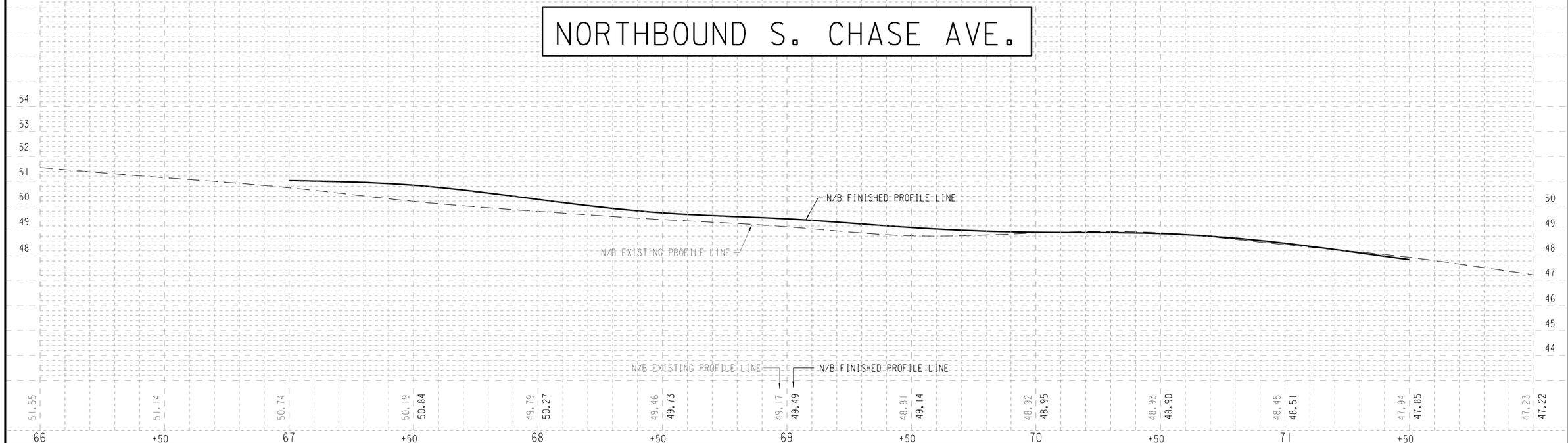
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\66-71.DGN

REVISED DATE: 12-11-2018 BY AA

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.



STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 329	E

FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\66-71.DGN

REVISED DATE: 05-07-2017 BY PN

SOUTH CHASE AVENUE

CAUTION

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMPS

S. 5TH PL.

S. 6TH ST.

*2341 S. CHASE AVE.

*2317-2317A S. CHASE AVE.

*565 W. LINCOLN AVE.

*525 W. LINCOLN AVE.

*522 W. LINCOLN AVE.

*2265-2279 S. CHASE AVE.

ASPH. PARKING

LAWN

BRICK

CONC. 20' ALLEY

5TH ST.

RAMP

SAWS

TES

END PROJECT
STA. 75+00.0 T/L

SEE DETAIL "H" ON NEXT PLAN

SEE DETAIL "J"

71+94.3
78.4' LT

71+77.7
58.5' LT

73+30.4
92.9' RT

73+78.3
131.7' RT

74+19
139.2' RT

74+33.2
122.2' RT

74+47.5
44.1' LT

74+92.6
6' LT

74+97.5
15.6' RT

74+99.5
18.5' RT

48.63C
48.13G
48.21F
+52
25' LT
95

48.05C
47.55C
47.63G
+94.6
25' LT
96

47.42C
47.09G
72+46
27.3' LT

47.42C
47.00G
+52.4
25' LT

45.99C
45.49G
45.57F
+33.9
27.2' LT
5A

46.02C
45.77G
+98
19' LT

46.08C
45.58G
45.66F
+87
25' LT
3A

46.00C
45.67G

45.61C
45.44G
45.52F
74+84.9
3.4' RT

46.02C
45.52G
45.60F
+67.7
25' RT
99

47.66C
47.16G
47.24F
+50
25' RT
94

46.74C
46.26G
+12.5

45.19C
44.69G
+97.8
35.7' RT

44.50C
44.00G
+25.8
59.4'

44.31C
43.81G
43.89F
+32.4
65' RT
1A

44.20C
43.70G
+35.4
86.7' RT

44.81C
44.56G
74+60
34.1' RT

44.74G
74+76.8
29.4' RT

74+93.7
35.5' RT

43.77C
43.36G
74+14.6
90.4' RT
4B

43.40C
43.15G
74+14.3
106.4' RT

43.21C
43.04G
73+86.5
125.1' RT

43.21C
43.04G
74+0.8
123.8' RT

45.58C
45.33G
74+87.4
12.1' RT

46.30C
45.72G
45.80F
74+00
2' RT

46.32C
45.74G
45.82F
+96
2' RT
4A

46.55C
45.97G
46.05F
73+50
2' RT

46.79C
46.29F
46.21G
73+13.1
2' RT

46.10C
45.68G
45.76F
74+6.6
2' RT

46.39C
45.81G
45.77F
73+9.2
12.6' RT

46.23C
45.65G
45.61F
73+13.9
16.6' RT

46.00C
45.42G
45.50F
74+11.3
11.8' RT

45.50C
44.92G
45.00F
+83
46.5' RT
2A

44.60G
73+53.8
50.3' RT

45.34C
44.76G
73+68.6
54.9' RT

DETAIL "J"

(I) CONST. CURB RAMP TYPE I
(IA) CONST. CURB RAMP TYPE IA
(3) CONST. CURB RAMP TYPE 3
(4A) CONST. CURB RAMP TYPE 4AI
(6) CONST. CURB RAMP TYPE 6
(A) CONST. CONC. CURB & GUTTER 31-INCH
(AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH-SIDE)
(BC) CONST. CONC. CURB & GUTTER 22-INCH (COV. FLG.)
(C) CONST. CARRIAGE WALK
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(F) CONST. CONC. DRIVEWAY FLARED (7-IN.)
(G2) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 2" MIN. ASPH. OVERLAY
(G3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3" MIN. ASPH. OVERLAY

(J) SAW CONCRETE
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(N) CONST. 5" CONC. SIDEWALK
(T) SAW FULL DEPTH AT OR NEAR BUILDING, OR WALL
(V8) CONST. 8.5" CONC. PAVEMENT

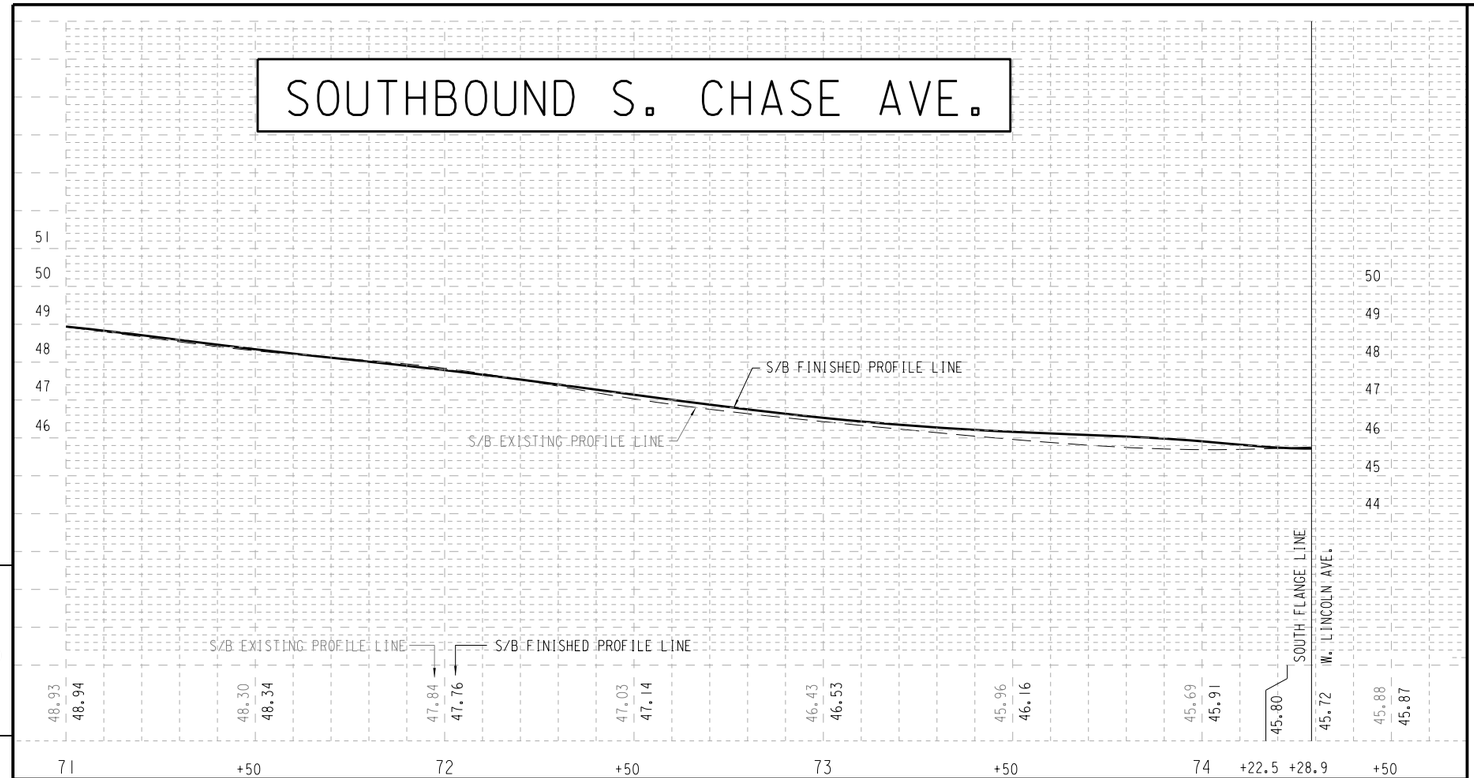
B.M. NW BOLT HYD NE CORNER
W. LINCOLN AVE. & S. 5TH PL.
STA. 74+00 - 127' RT.
ELEV. 45.75

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 330	E

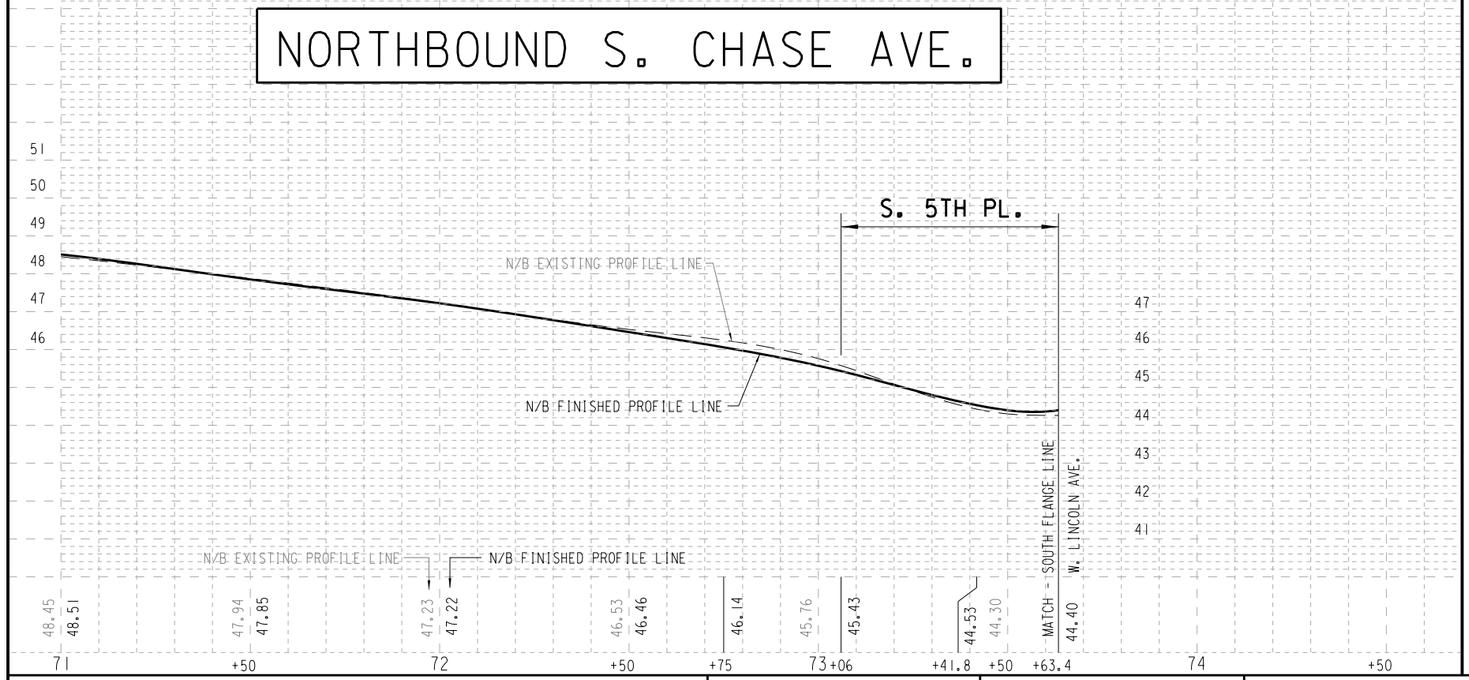
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\71-75.DGN

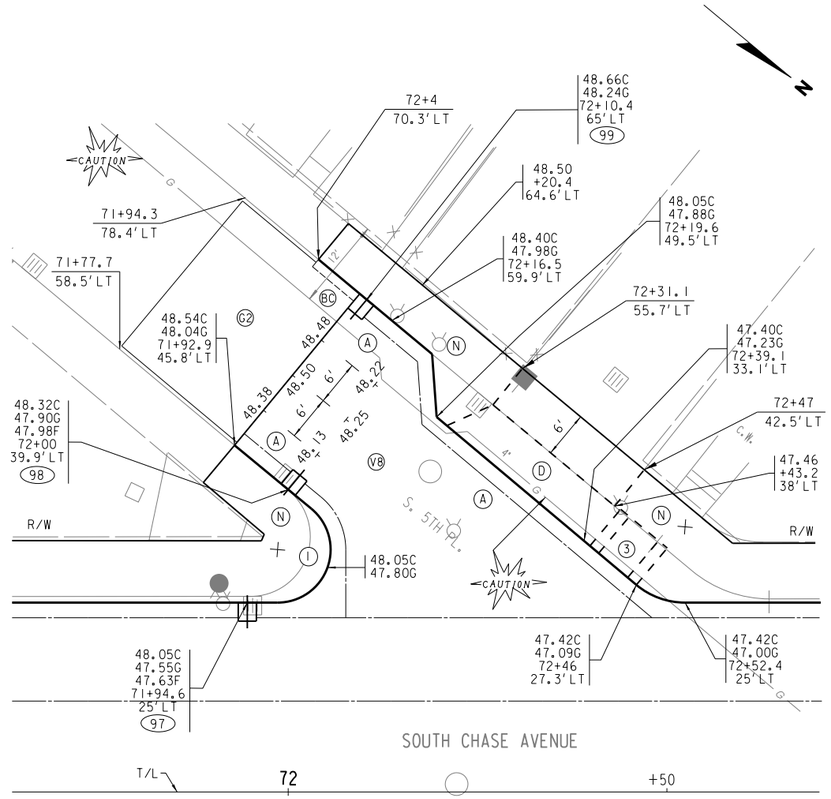
REVISED DATE: 04-16-2018 BY JH

SOUTHBOUND S. CHASE AVE.



NORTHBOUND S. CHASE AVE.





(A) CONST. CONC. CURB & GUTTER 31-INCH
(BC) CONST. CONC. CURB & GUTTER 22-INCH (COV. FLG.)
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(N) CONST. 5" CONC. SIDEWALK
(V8) CONST. 8.5" CONC. PAVEMENT

DETAIL "H"

STATE PROJECT NUMBER 2060-00-76 - -	HWY: S.T.H. 38	COUNTY: MILWAUKEE	PROFILE	SCALE FEET	SHEET NO: 331	E

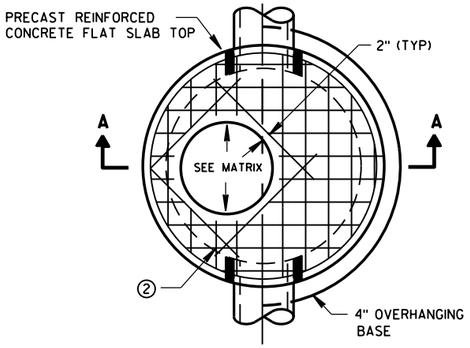
FILENAME: W:\SPR\CHASE_ OHIO_LINCOLN\71-75.DGN

REVISED DATE: 05-26-2017 BY PN

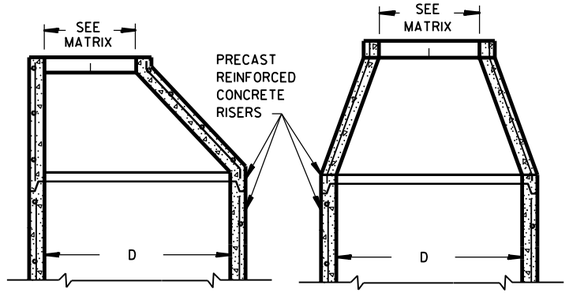
Standard Detail Drawing List

08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D18-02	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
09B02-10	CONDUIT
09B04-11	PULL BOX
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09E08-08A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-08B	TYPE 10 POLE 15'-30' 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
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-04	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-04	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C29-05A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-05	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

6

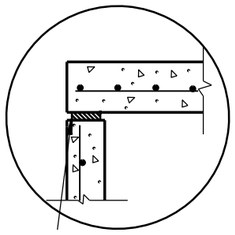


PLAN VIEW CIRCULAR OPENING

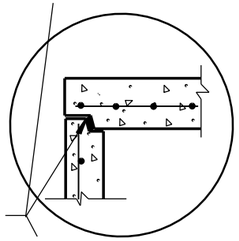


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

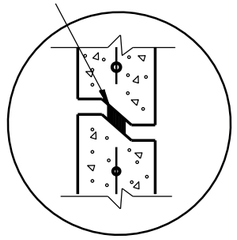


TOP WITH PLAIN END JOINT



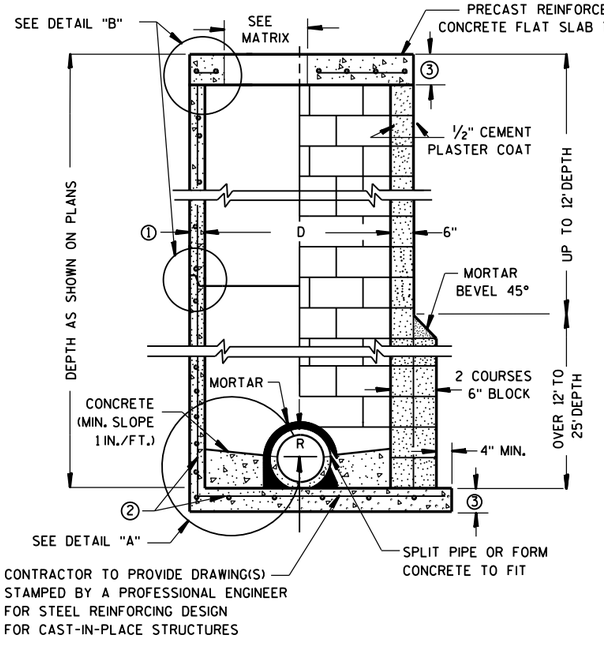
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



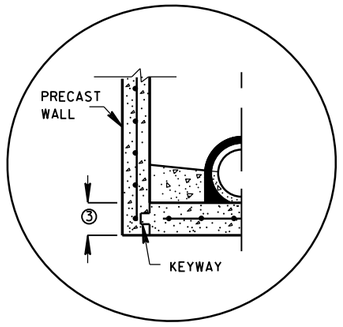
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

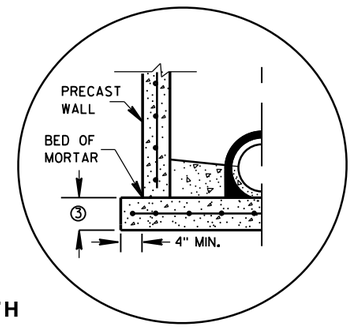


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

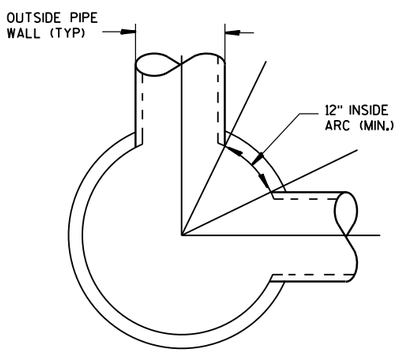


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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 FOUNDATION 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.

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

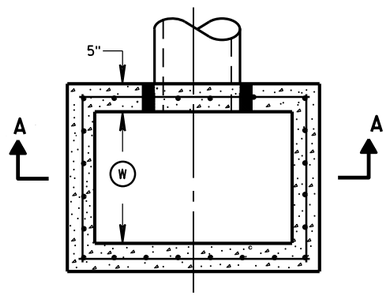
APPROVED

Sept., 2016
DATE

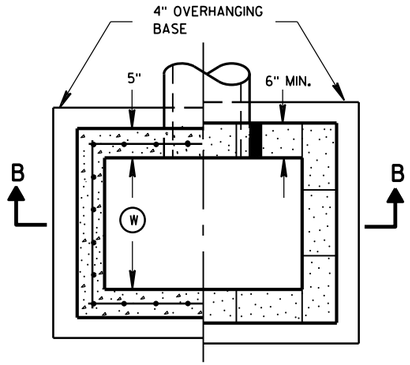
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

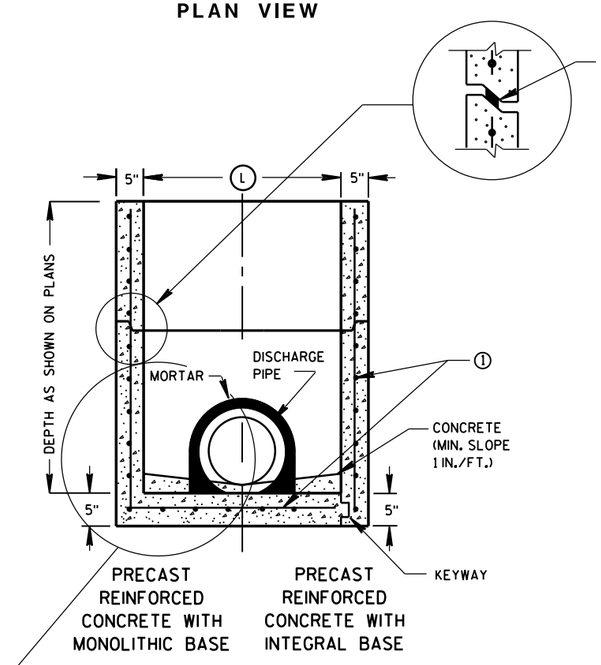
6
S.D.D. 8 B 9-2



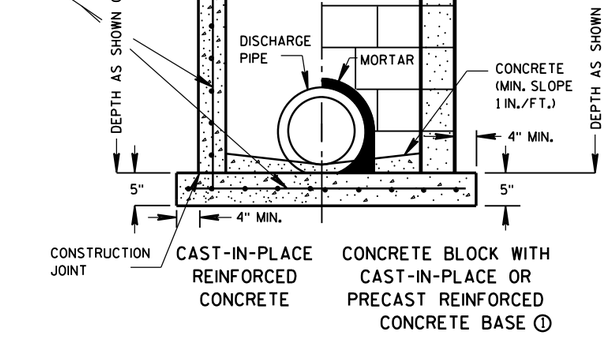
PLAN VIEW



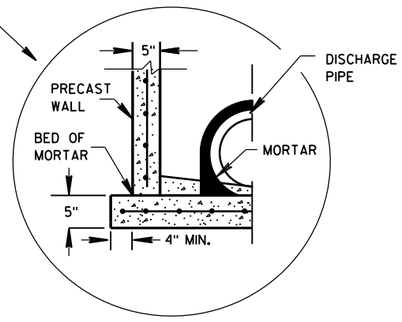
PLAN VIEW



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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

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

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 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.

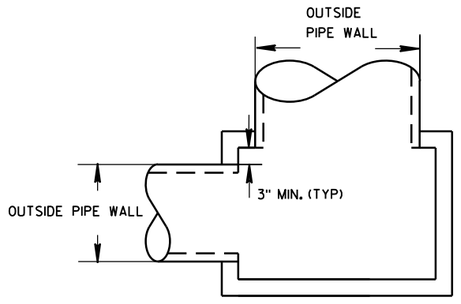
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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



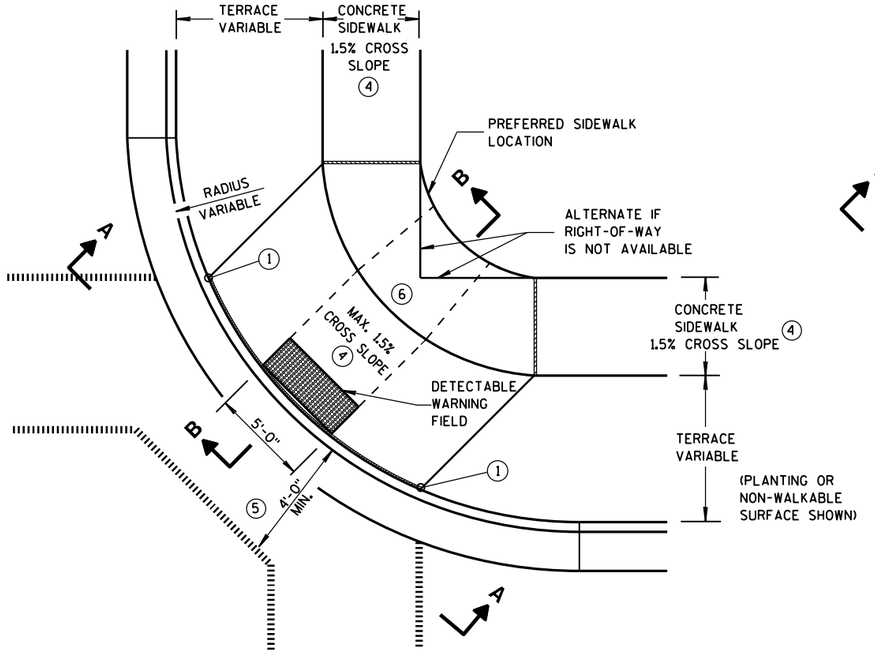
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT
UNIT SUPERVIS
FHWA

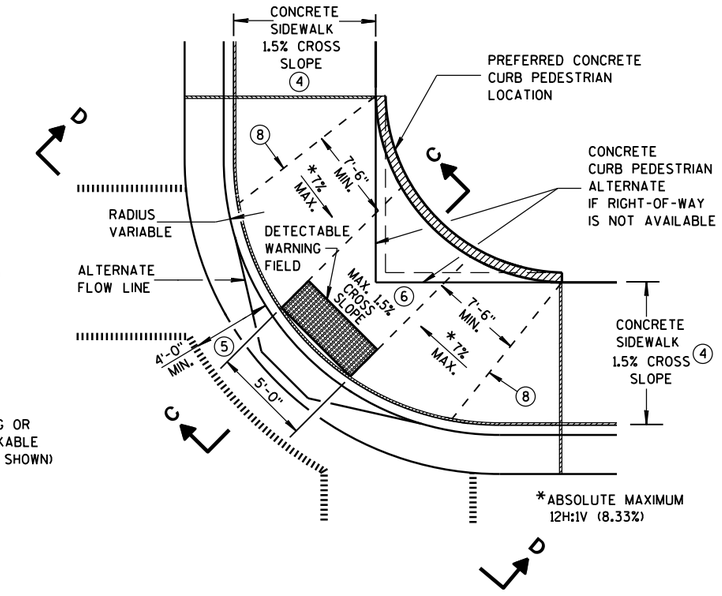
6
S.D.D. 8 C 7-2



PLAN VIEW

TYPE 1 RAMP

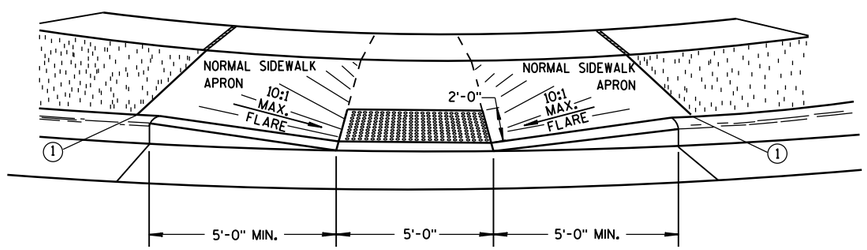
(CENTER OF CORNER RADIUS)



PLAN VIEW

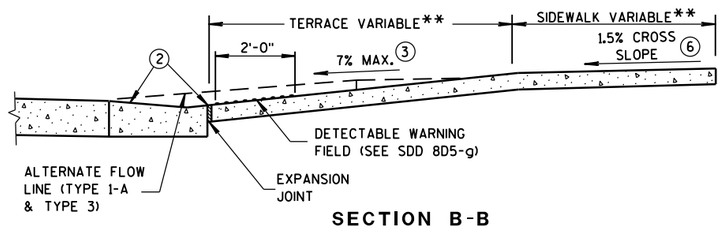
TYPE 1-A RAMP

(NO TERRACE)

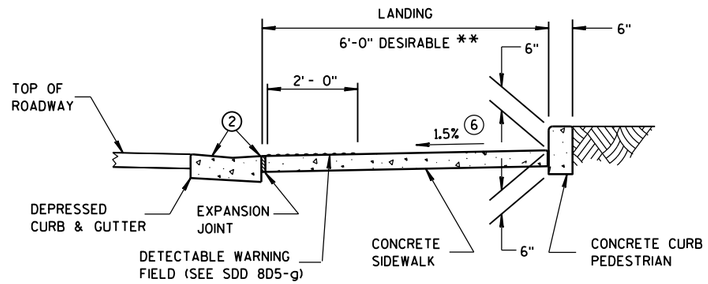


VIEW A-A

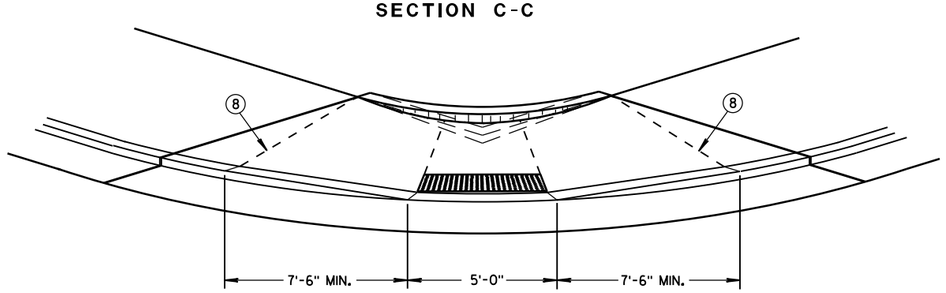
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

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

TYPE 1 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

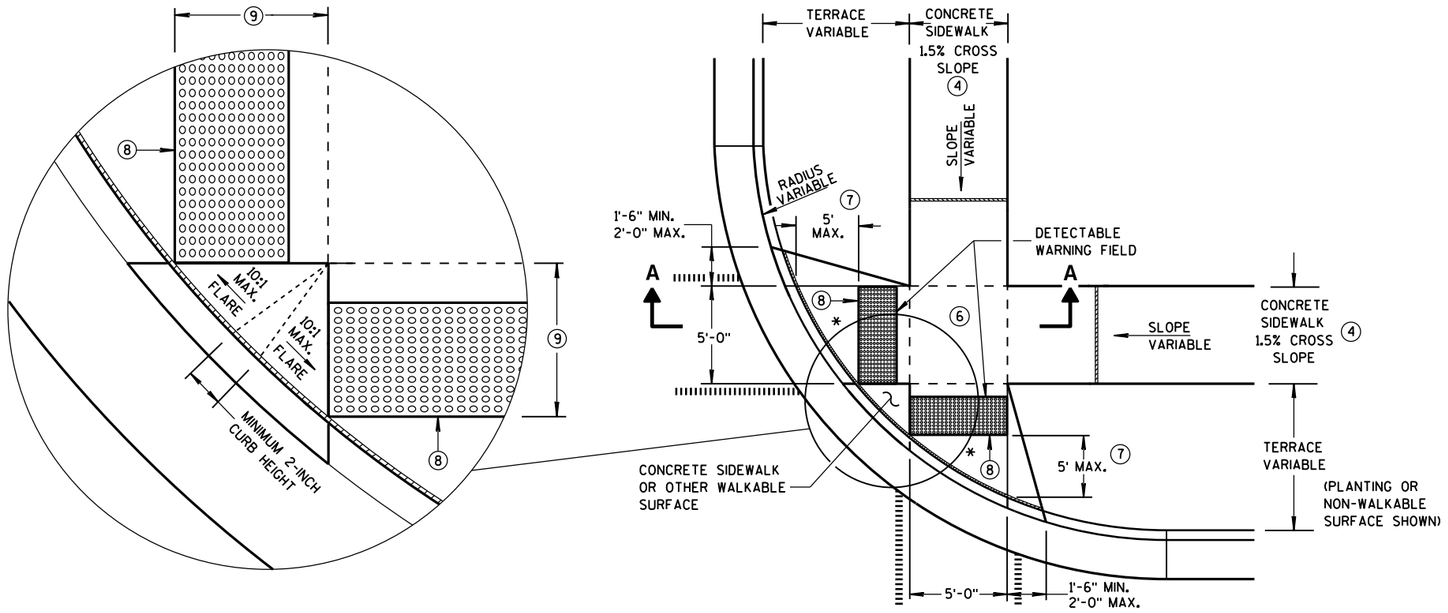
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

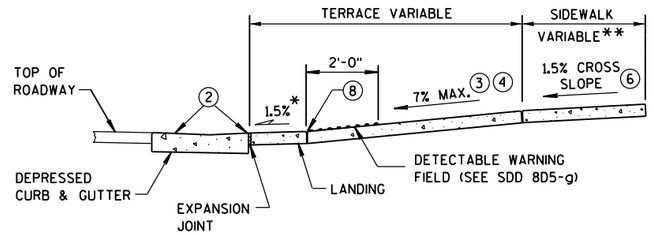
6

S.D.D. 8 D 5-19a



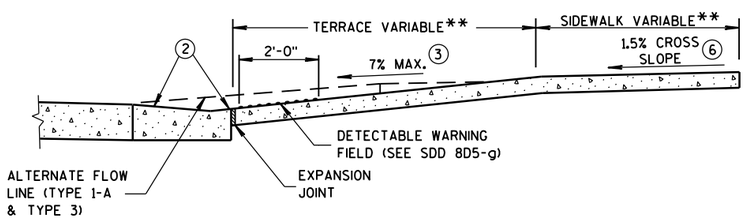
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

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

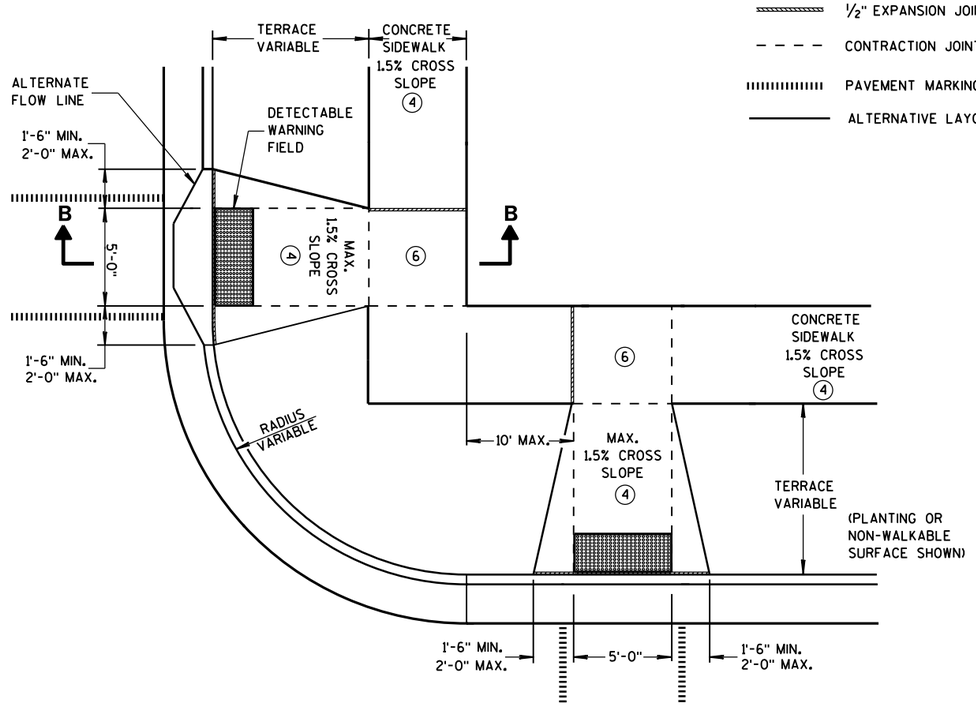


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(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

6

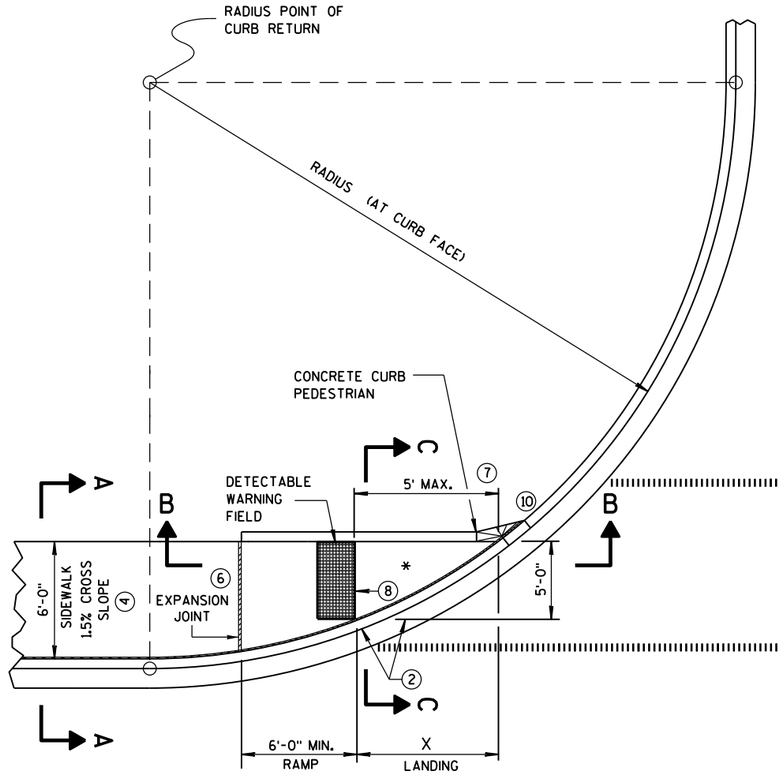
S.D.D. 8 D 5-19b

6

S.D.D. 8 D 5-19b

CURB RAMPS TYPES 2 AND 3

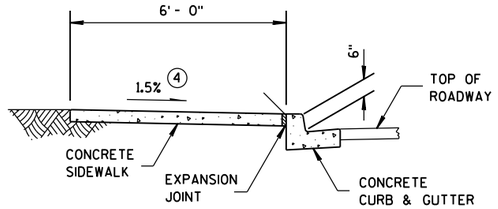
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

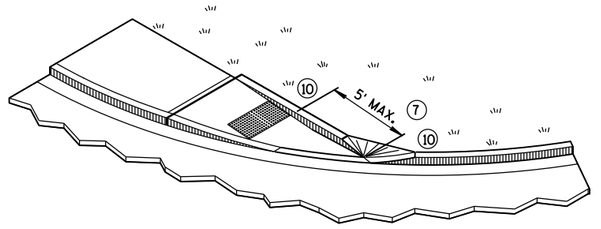
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

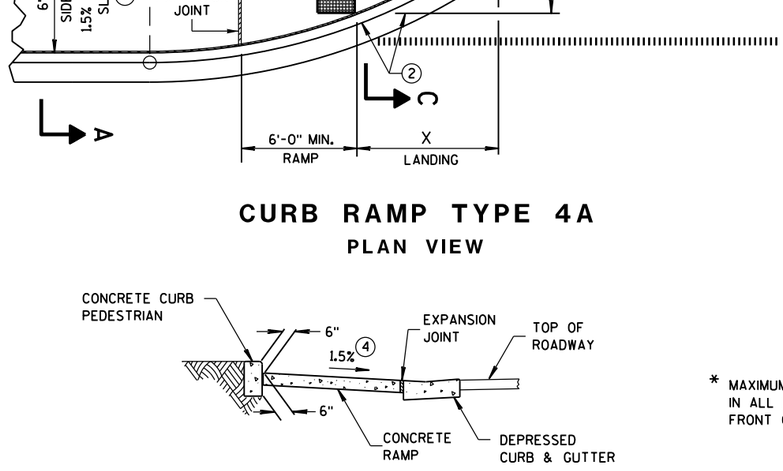
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

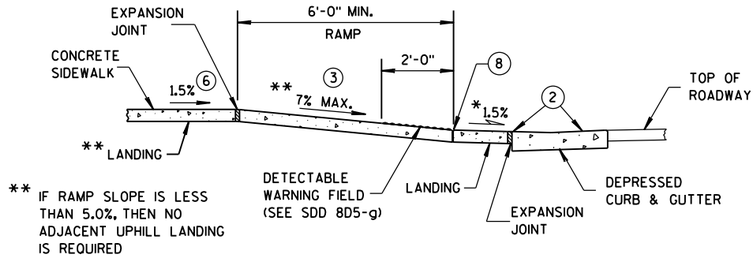
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



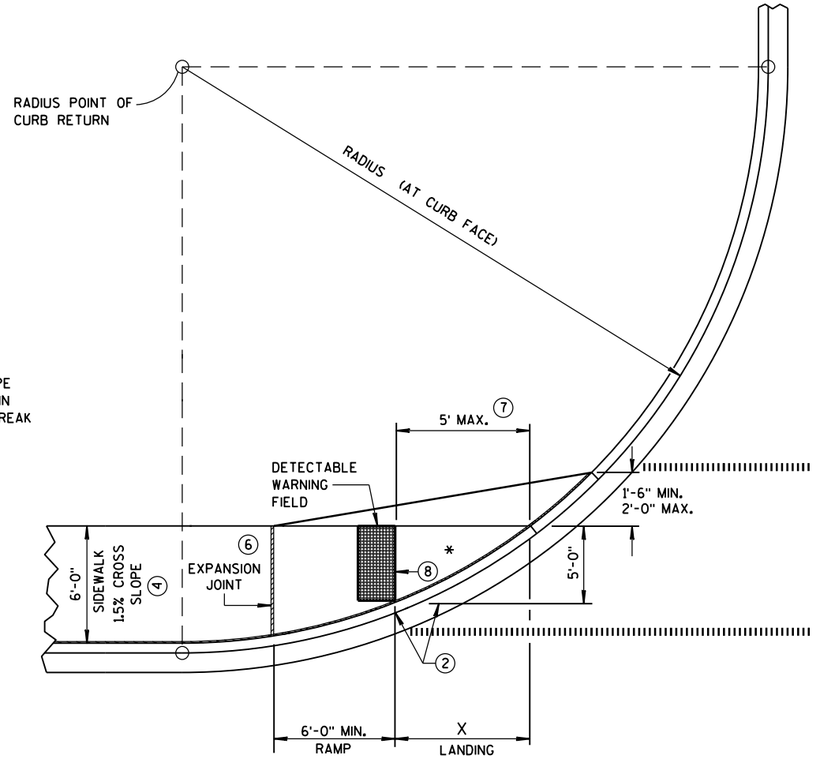
SECTION C-C FOR TYPE 4A



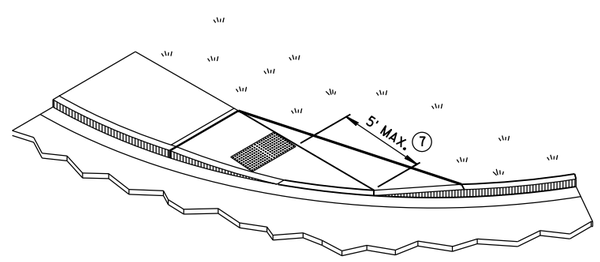
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

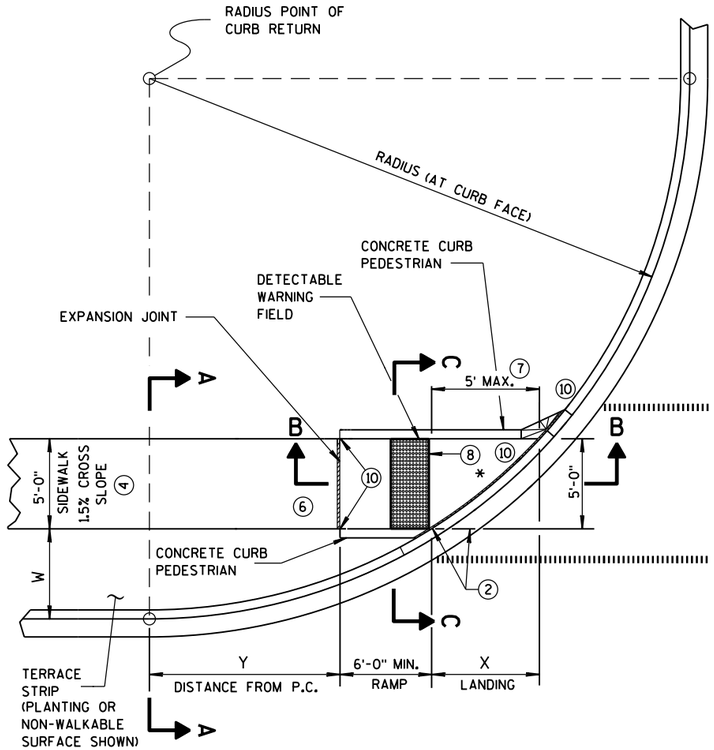
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

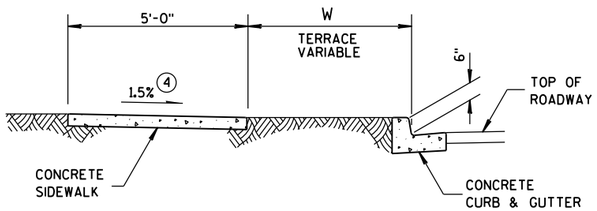
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

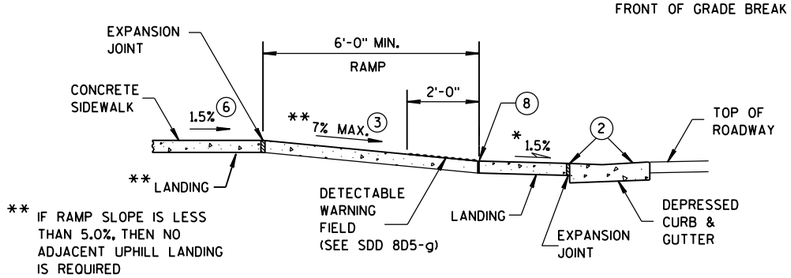
S.D.D. 8 D 5-19c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



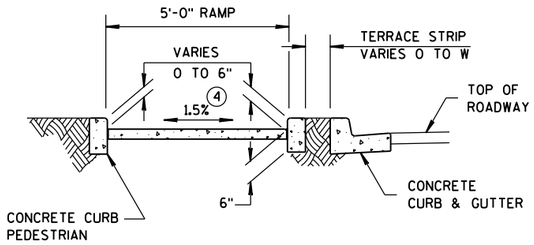
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

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

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

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



SECTION C-C FOR TYPE 4B

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

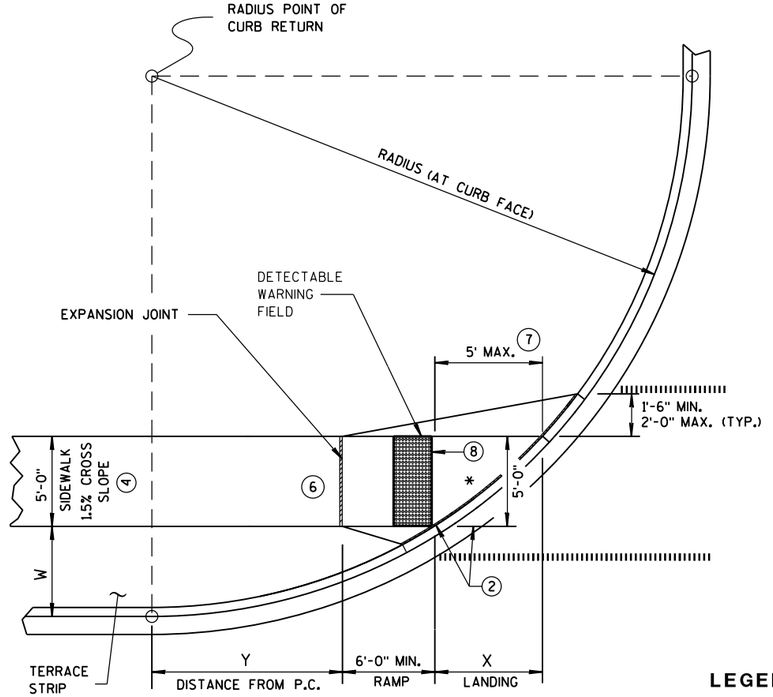
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

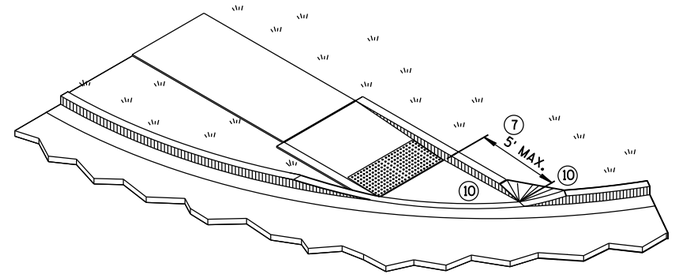
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

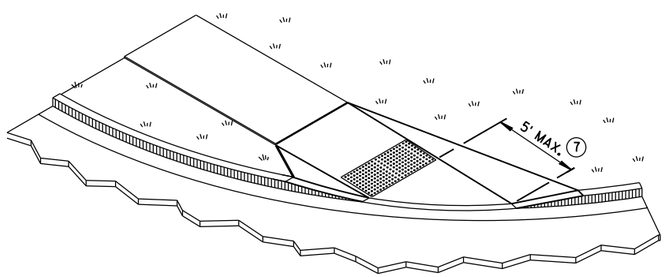
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

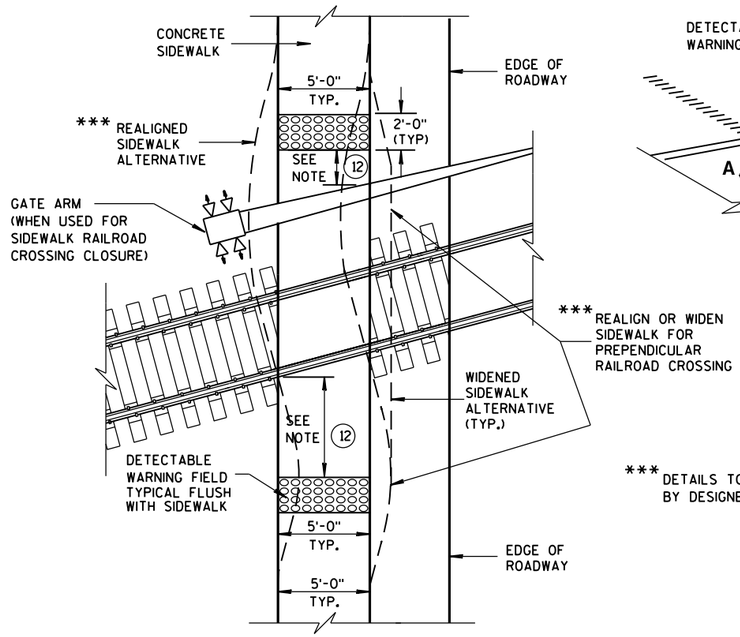
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

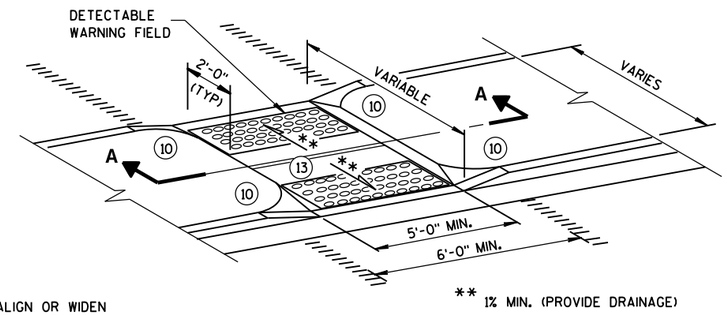
6

S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

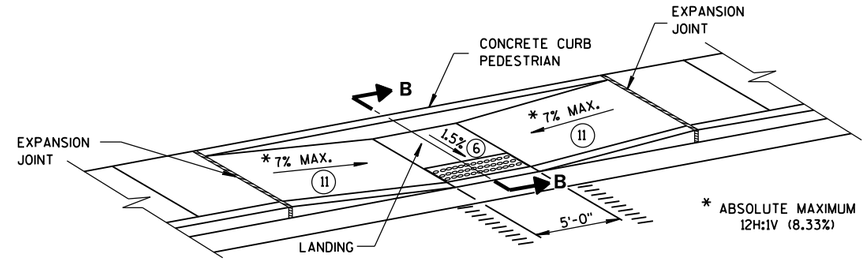
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

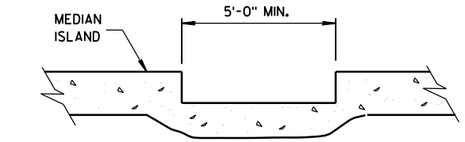
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

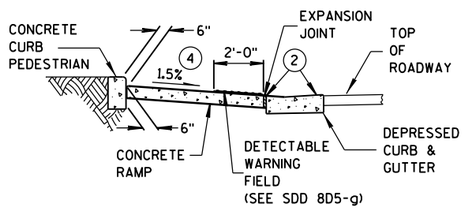
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

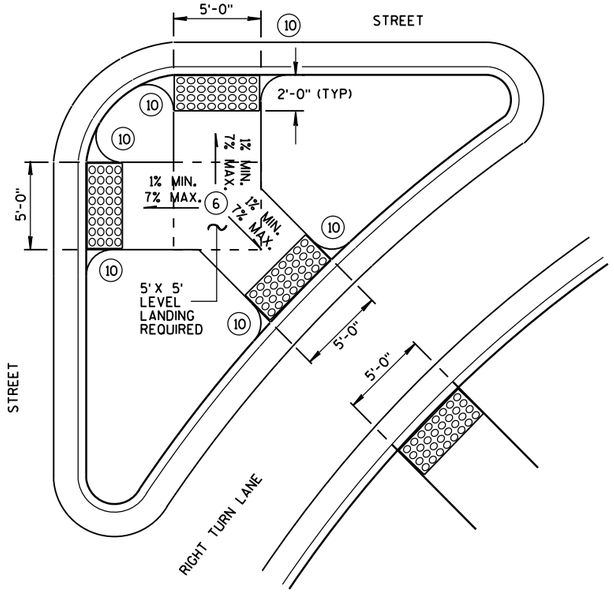


SECTION A-A

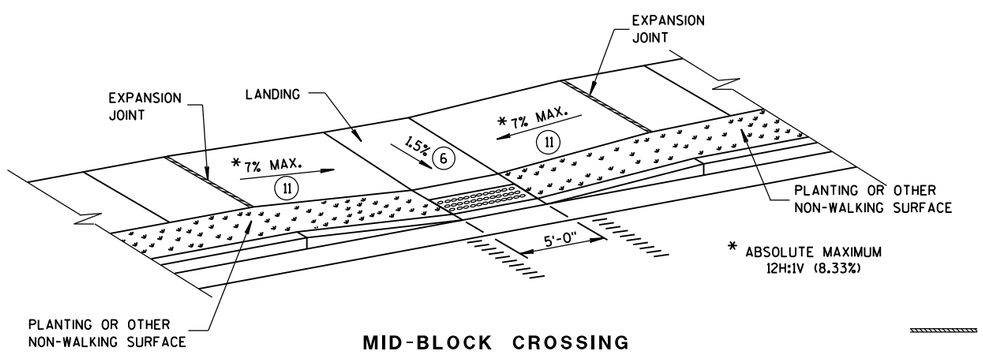


SECTION B-B

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

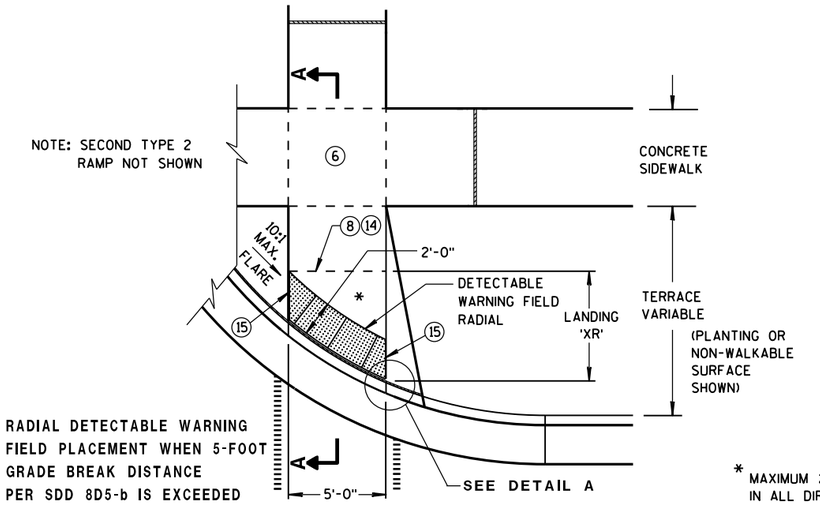
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

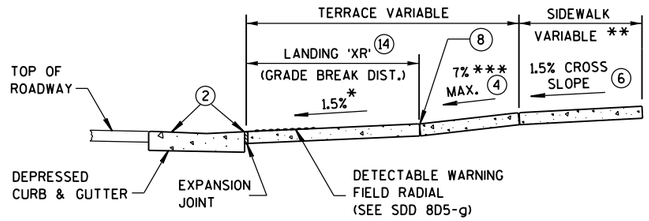
6

S.D.D. 8 D 5-19e



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

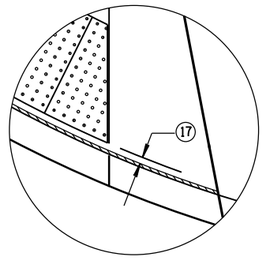
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



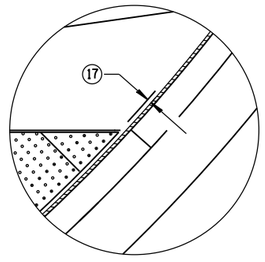
** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

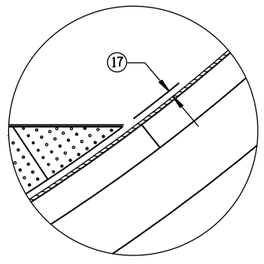
SECTION A-A



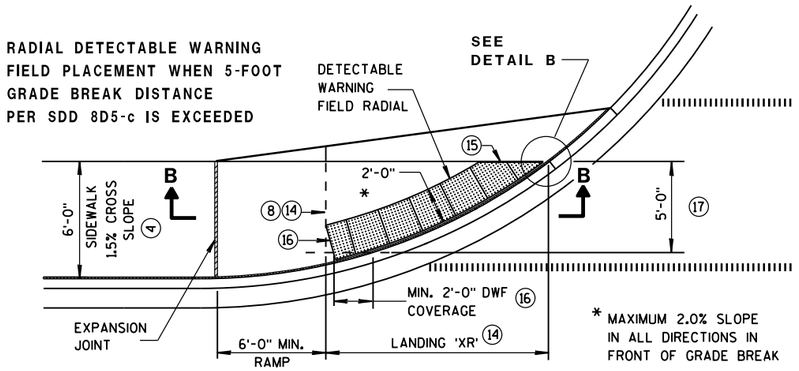
DETAIL A



DETAIL C

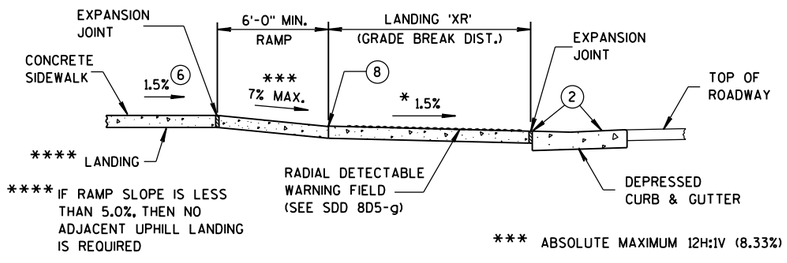


DETAIL B



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

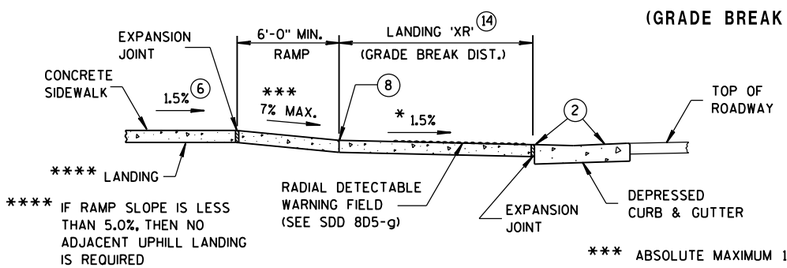
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

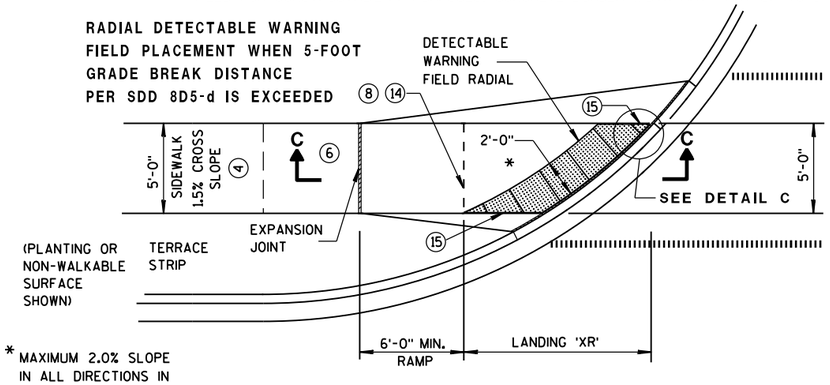
SECTION B-B FOR TYPE 4A1



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1



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

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

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

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

(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

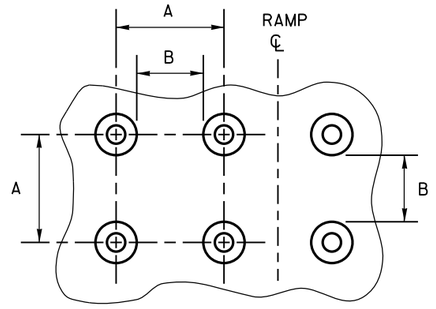
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

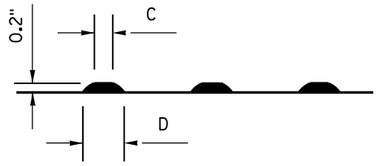
S.D.D. 8 D 5-19f

	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

GENERAL NOTES

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

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

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

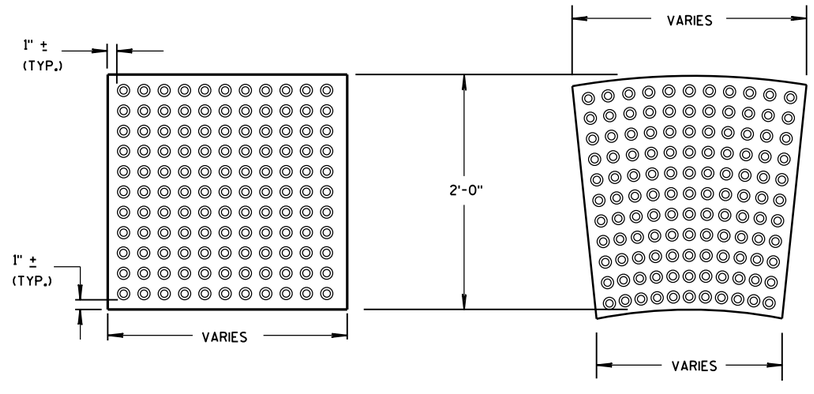
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

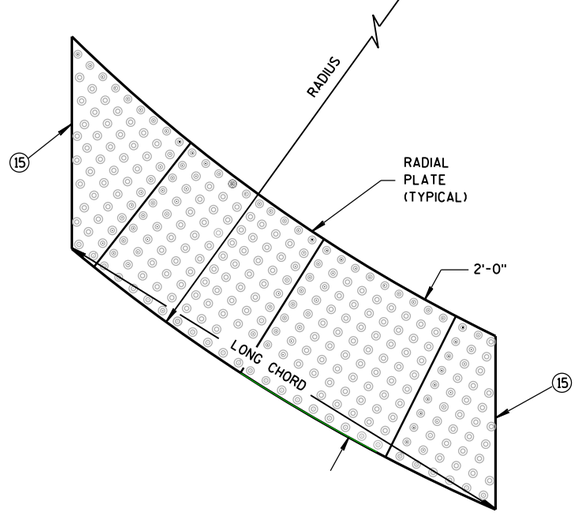


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

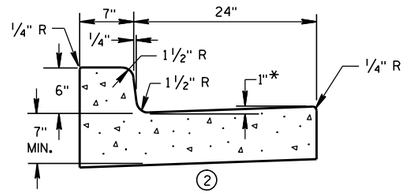
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

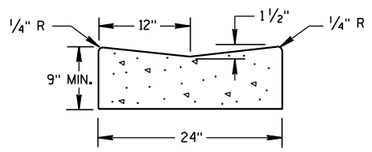
S.D.D. 8 D 5-19g

6

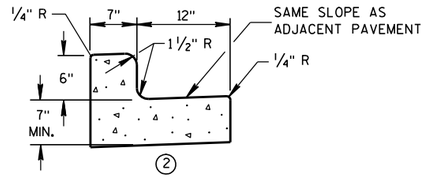
S.D.D. 8 D 5-19g



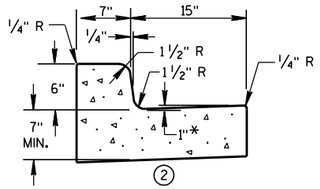
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

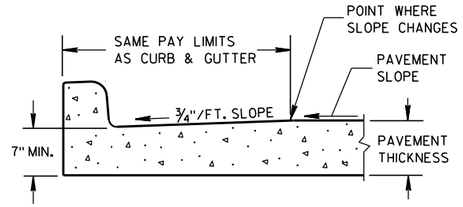


① CONCRETE CURB & GUTTER 19"



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.

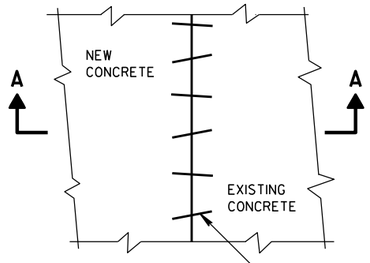
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

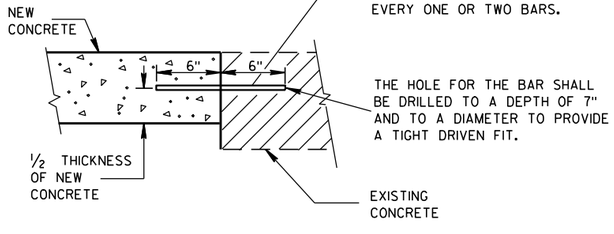
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

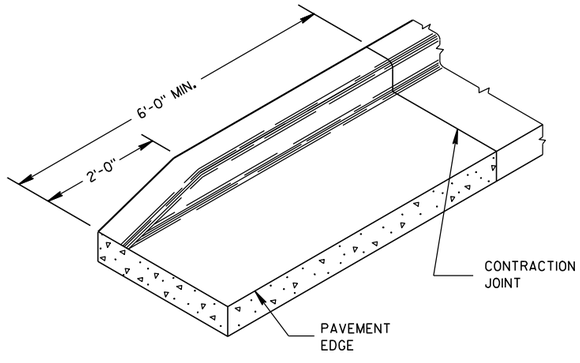
EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

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.

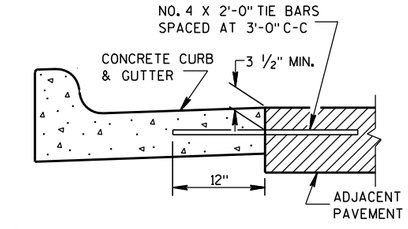


SECTION A-A

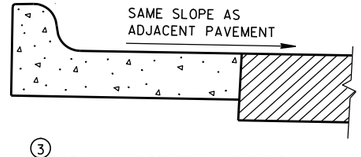
PAVEMENT TIES



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

342

ENT

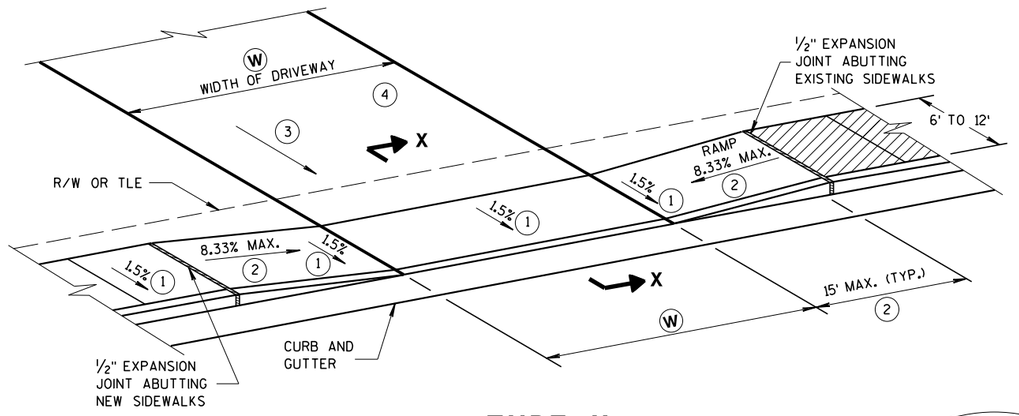
FHWA

6

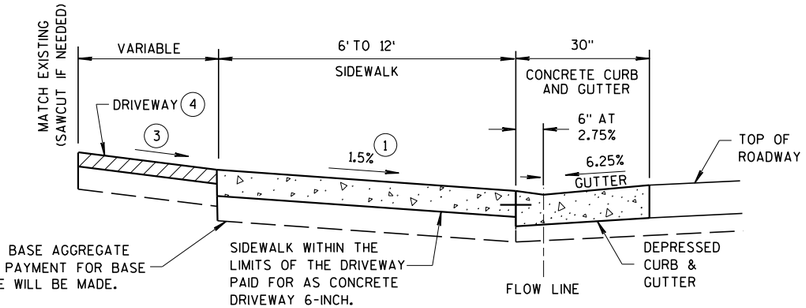
S.D.D. 8 D 16-10

6

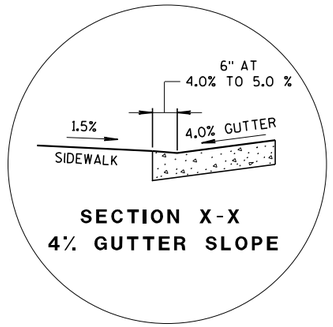
S.D.D. 8 D 16-10



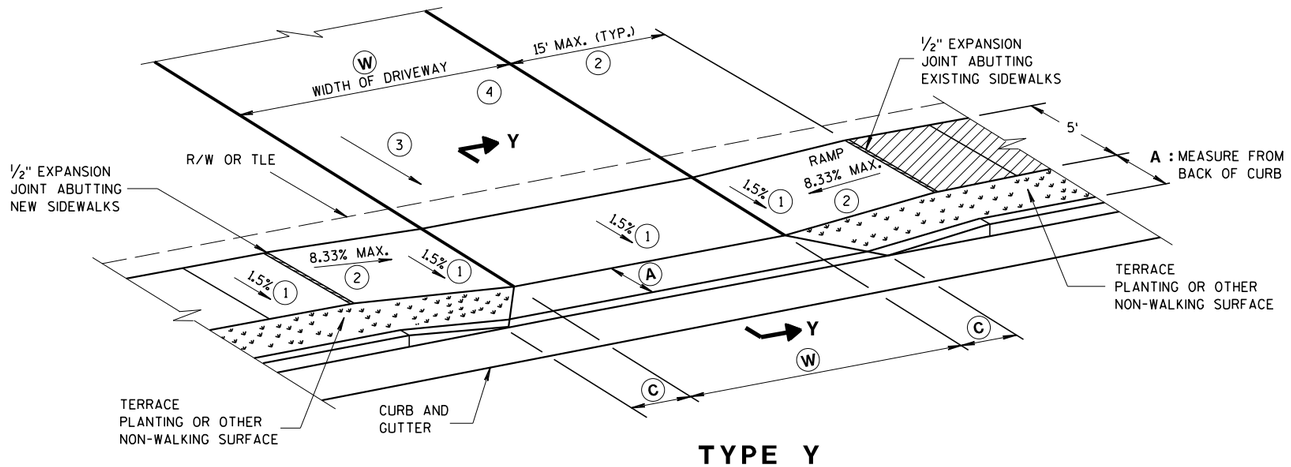
TYPE X
SIDEWALK ABUTS CURB & GUTTER
TERRACE VARIES 0 TO 3 FEET



SECTION X-X



SECTION X-X
4% GUTTER SLOPE



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

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

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

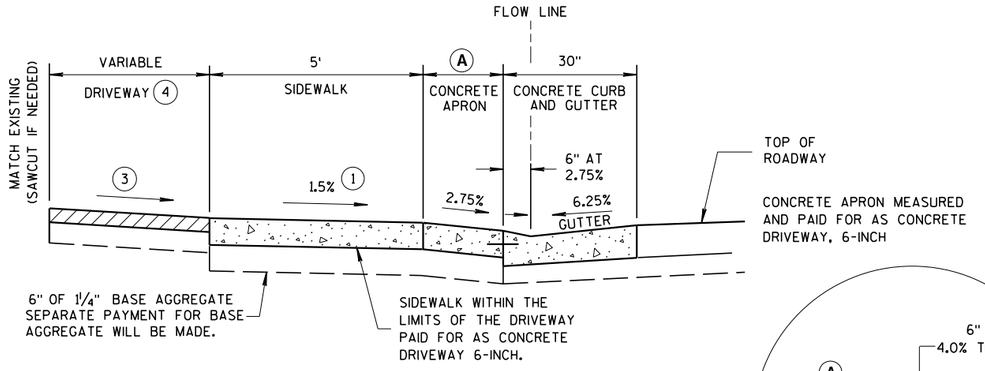
(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

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

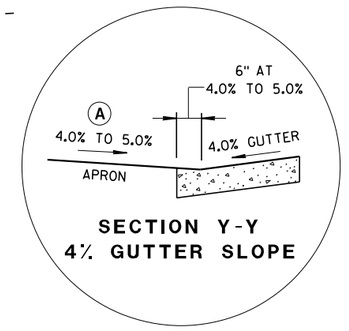
(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES)

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



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y-Y



SECTION Y-Y
4% GUTTER SLOPE

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

TABLE Y

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

NOT TO SCALE

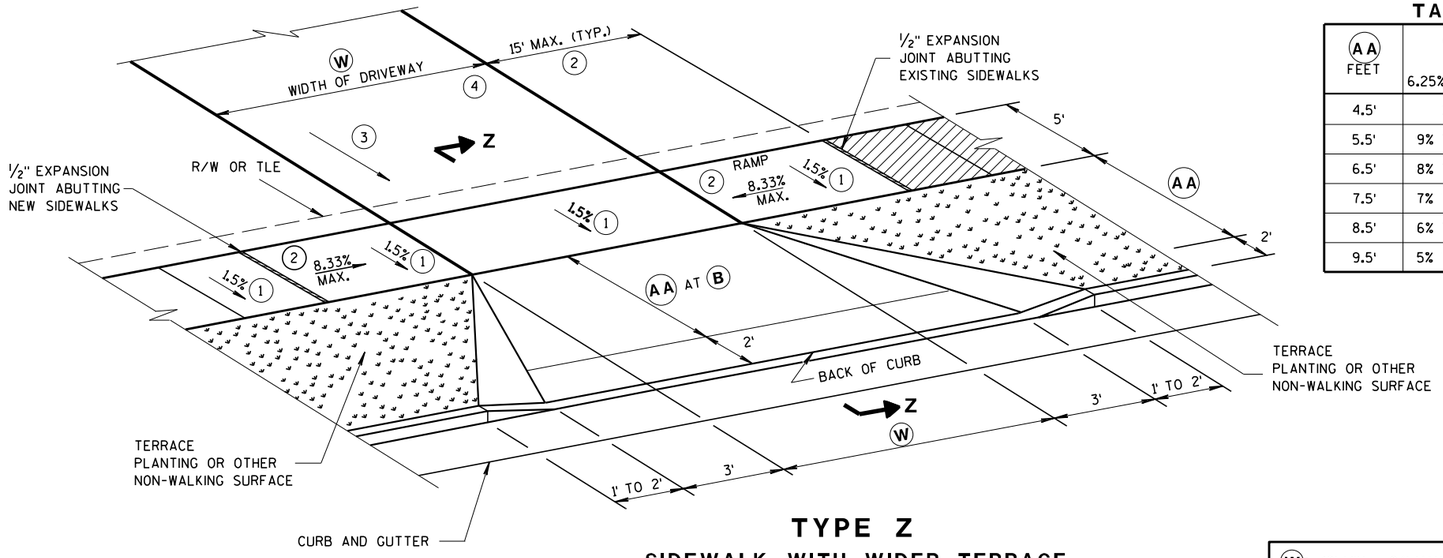
DRIVEWAY AND SIDEWALK RAMPS
TYPES X & Y

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 8 D 18-2

6



TYPE Z

SIDEWALK WITH WIDER TERRACE

TERRACE VARIES 7 TO 12 FEET

TABLE Z

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

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

GENERAL NOTES

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

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

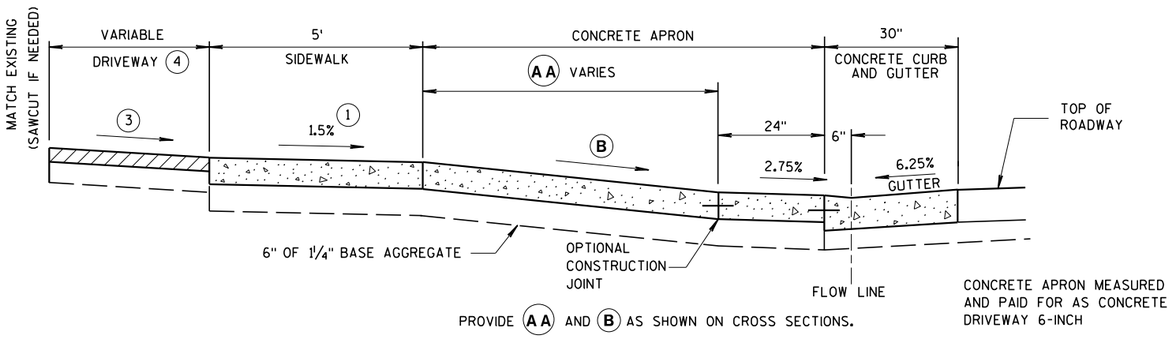
OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5% ± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

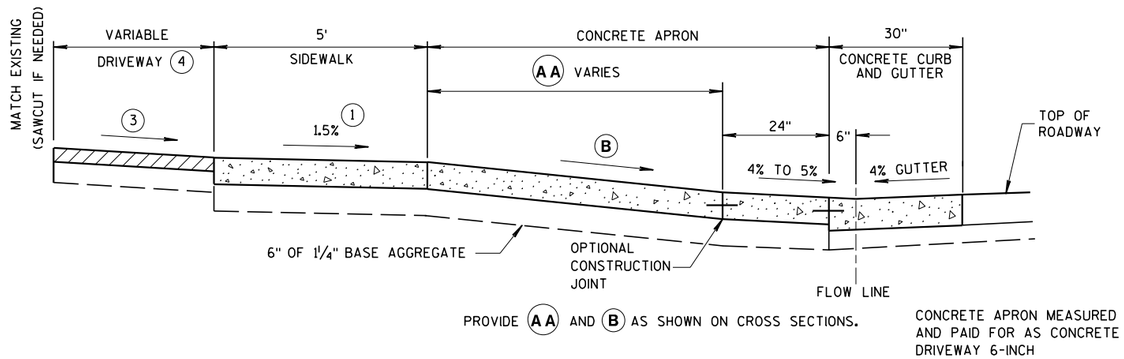
(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

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

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



6.25% GUTTER SLOPE



4% GUTTER SLOPE

NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS FOR **B** VALUES NOT SHOWN IN TABLE Z.

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

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER

(URBAN AND SUBURBAN)

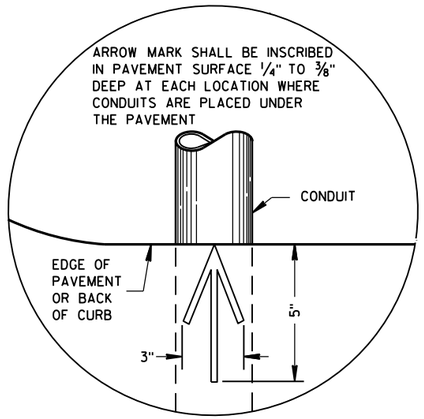
NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

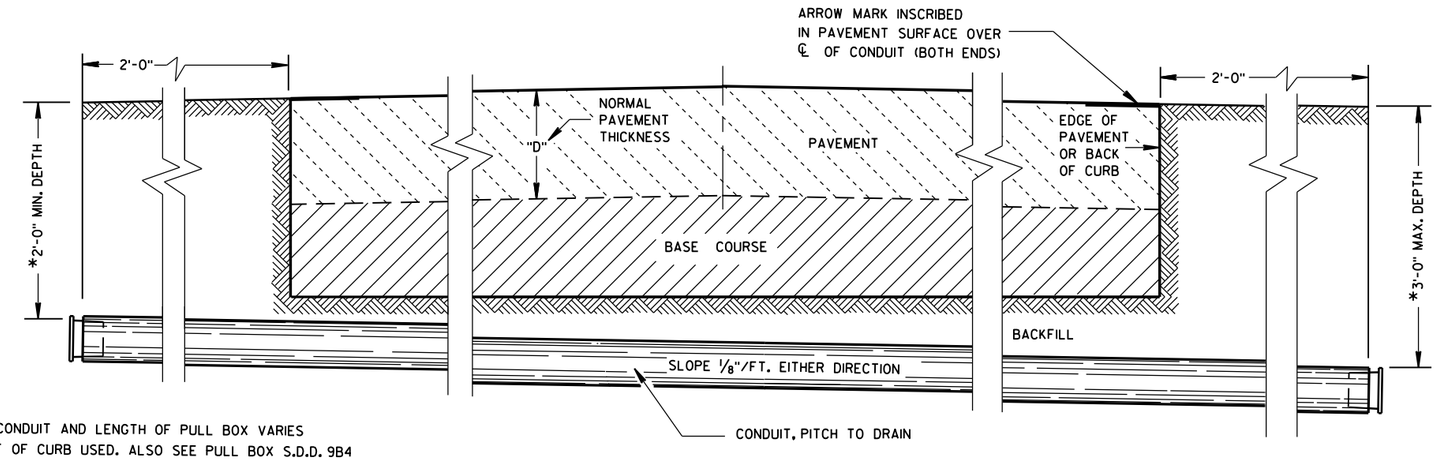
APPROVED
March 2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

6
S.D.D. 8 D 19-2



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 345
FHWA

6

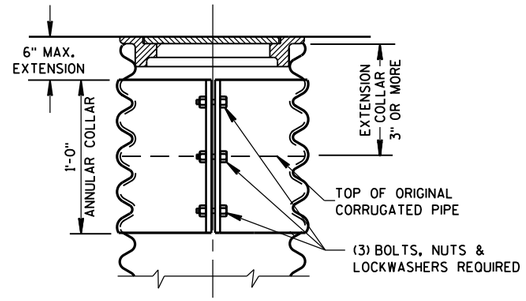
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

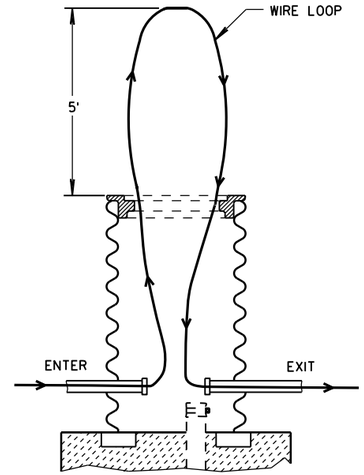
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

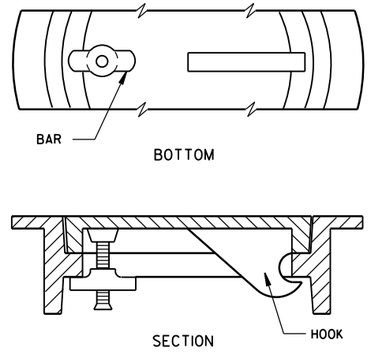
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

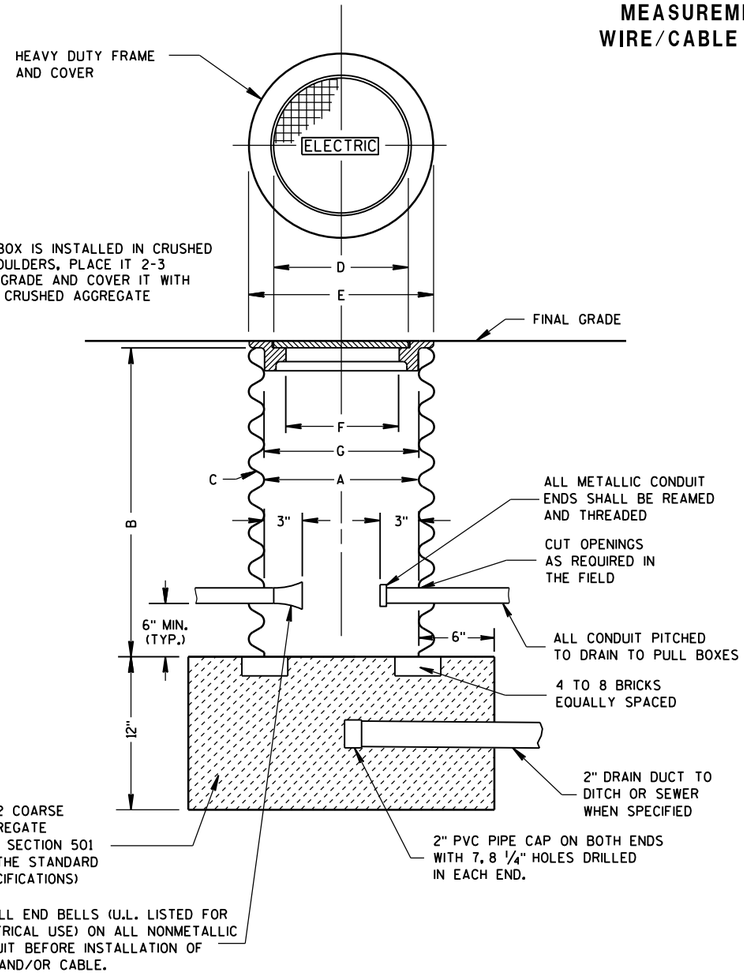


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



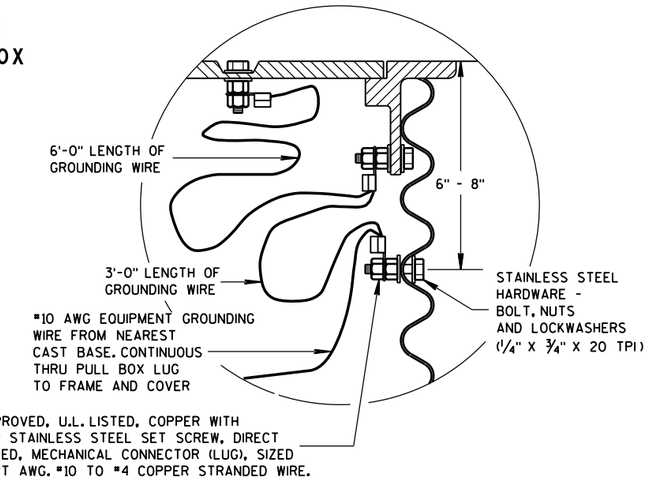
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

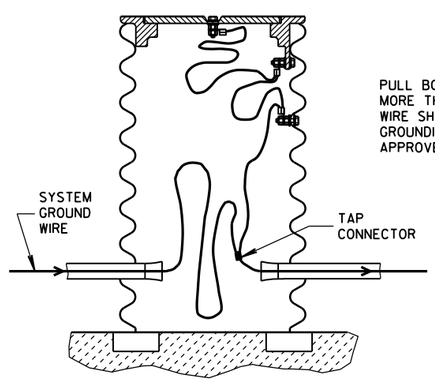
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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

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

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



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 4-11

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

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

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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

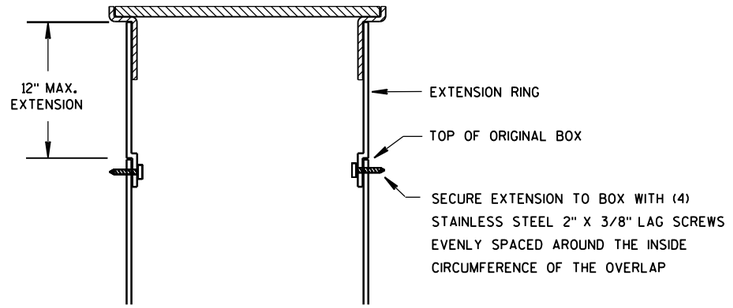
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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

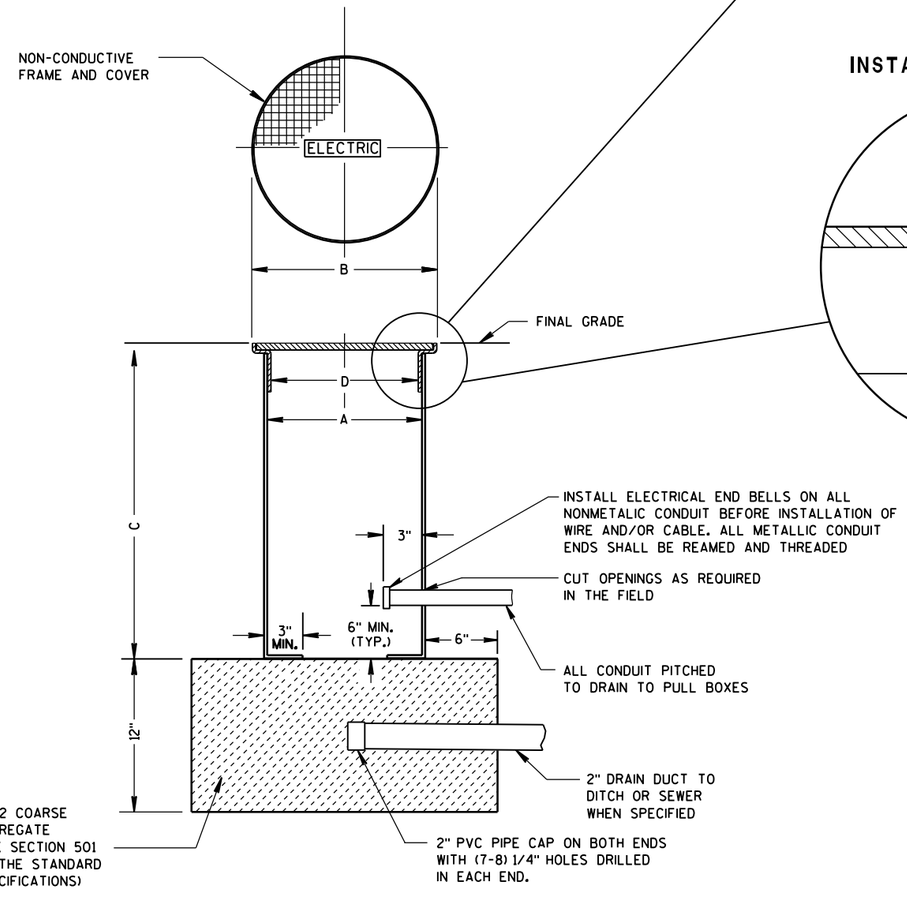
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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

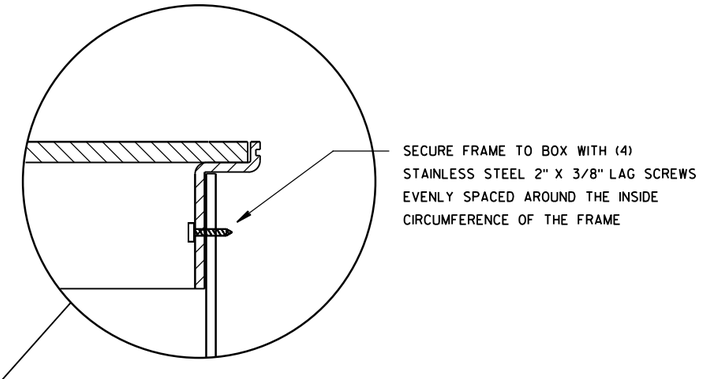


BOX EXTENSION

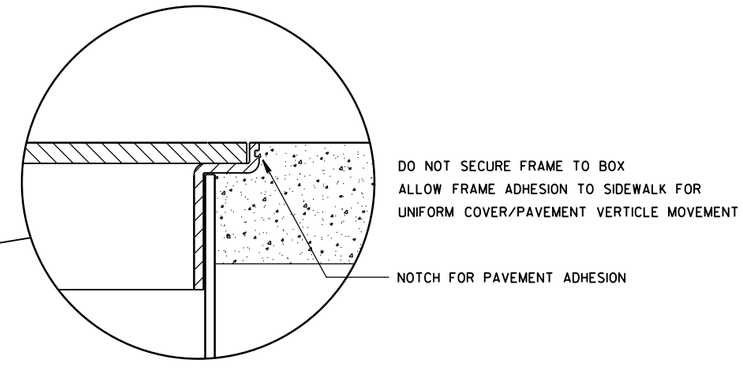


NON-CONDUCTIVE PULL BOX

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



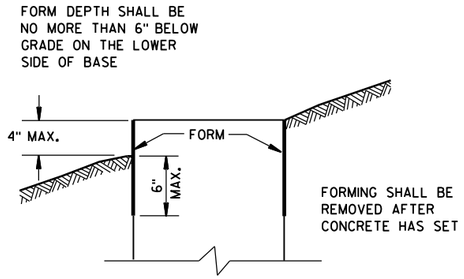
PULL BOX NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 16-1



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.

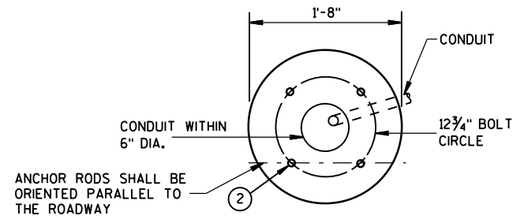
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

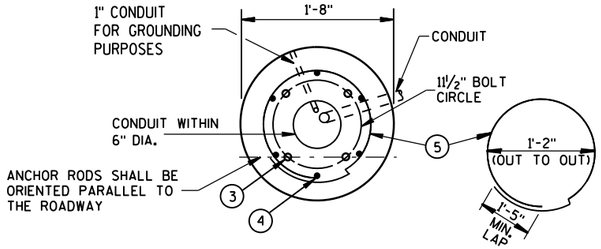
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

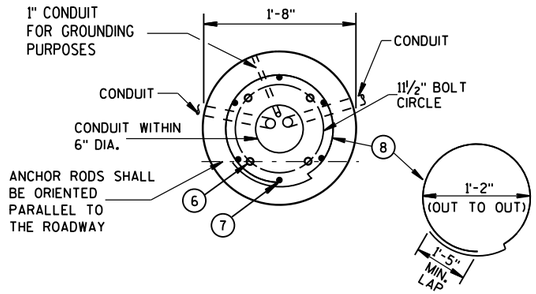
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

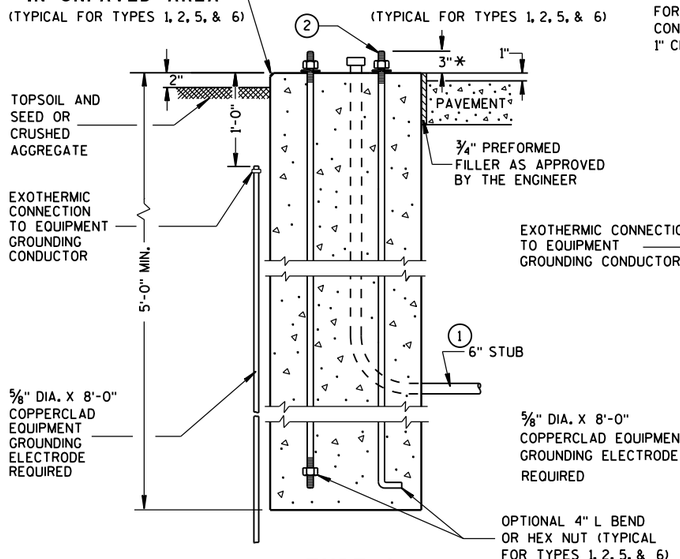




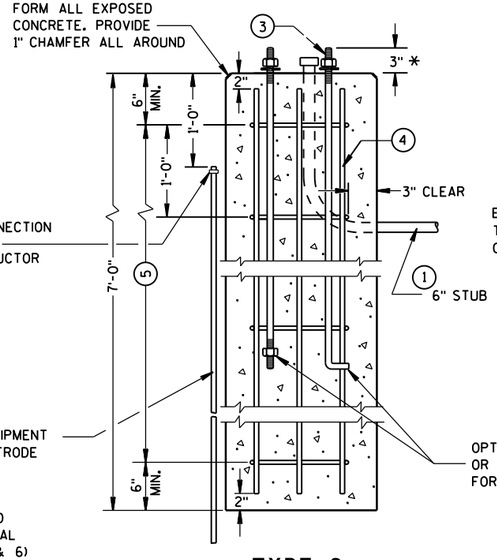


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

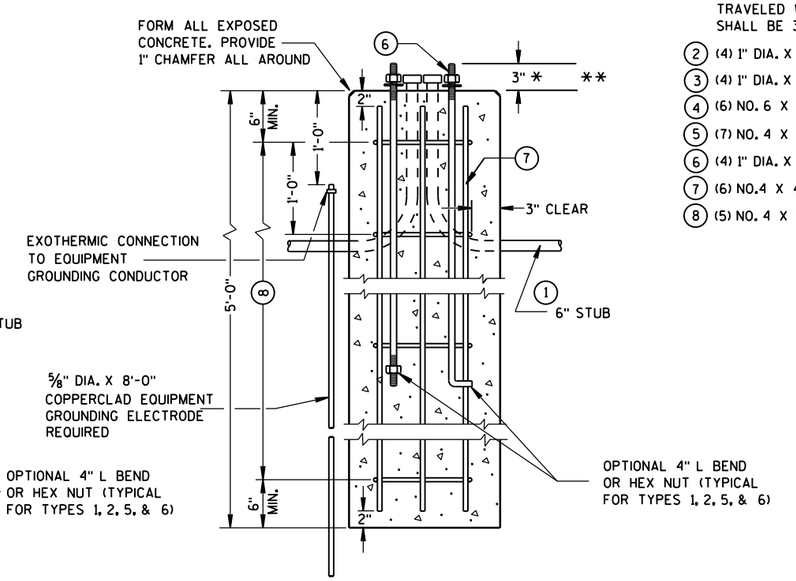
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



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 348

FHWA

6

S.D.D. 9 C 2-7

6

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.

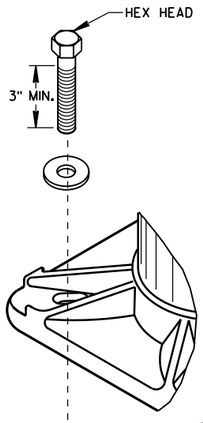
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

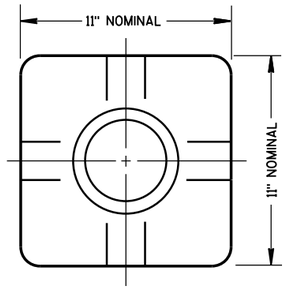
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

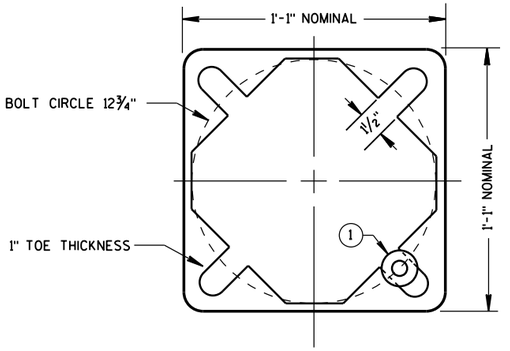
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

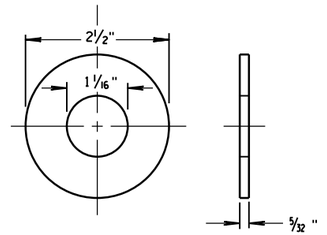




TOP VIEW
(PEDESTAL BASE)

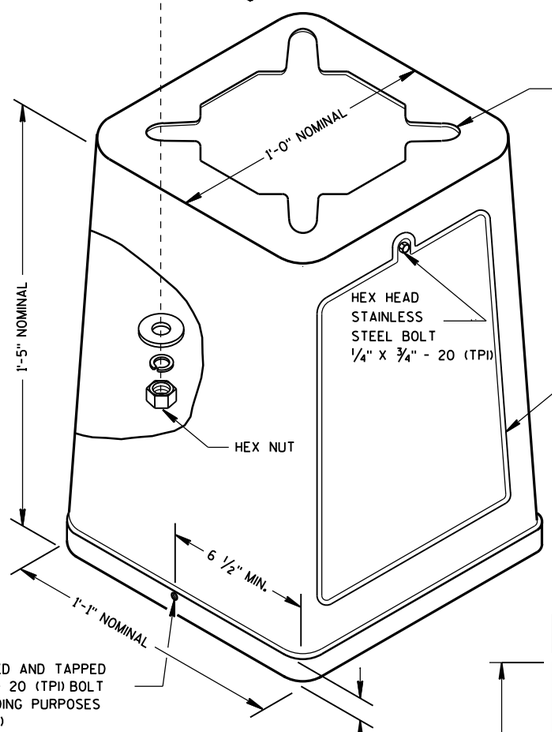


BOTTOM VIEW
(PEDESTAL BASE)

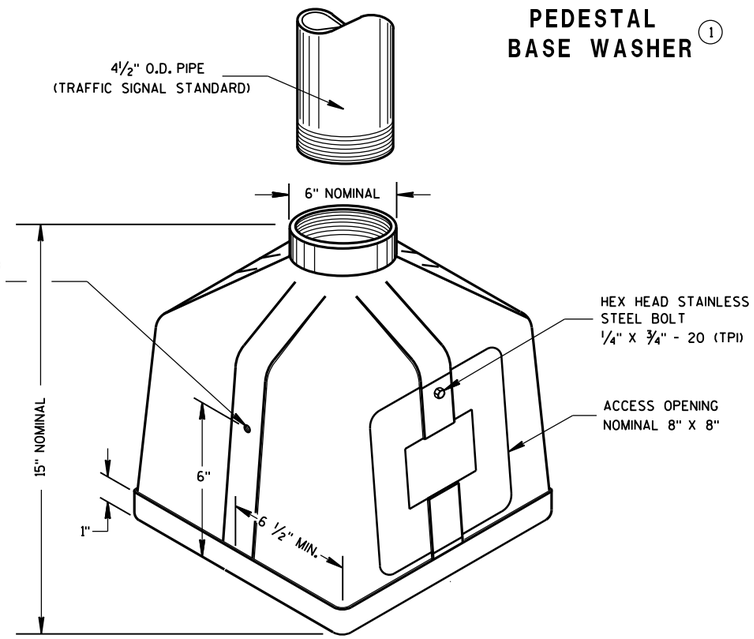


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

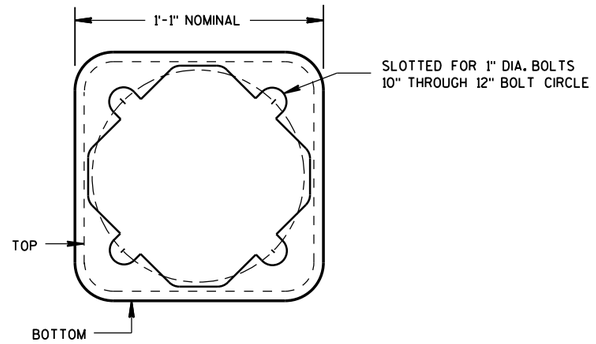


ISOMETRIC VIEW

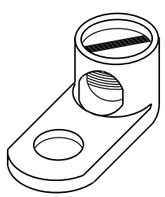


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

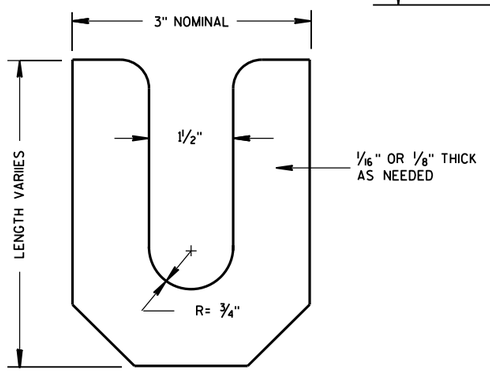


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 C 3-4

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).

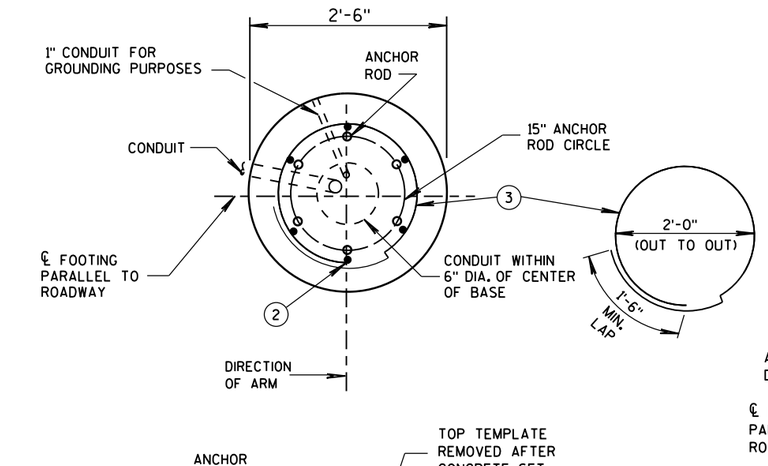
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

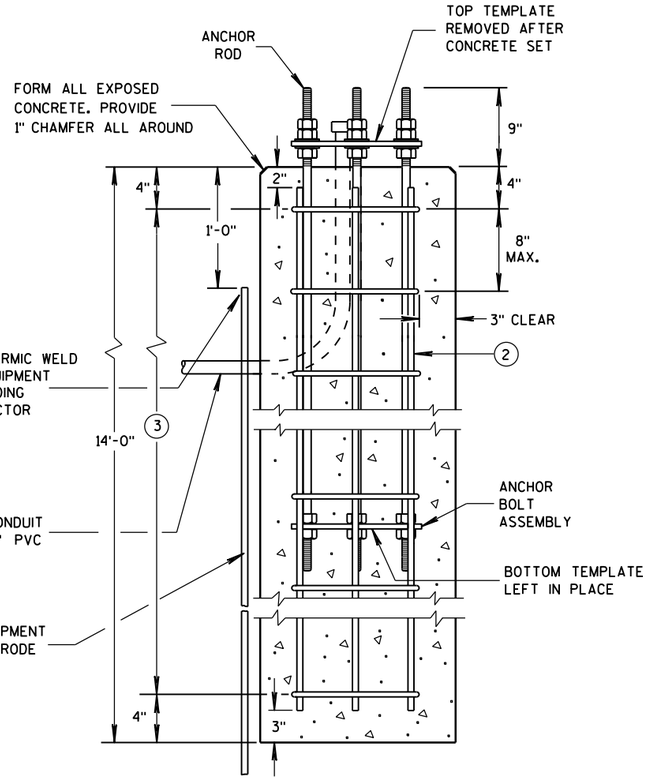
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

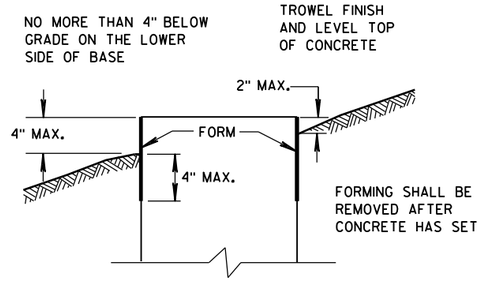
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATION)	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



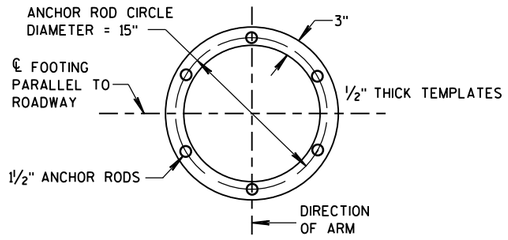


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

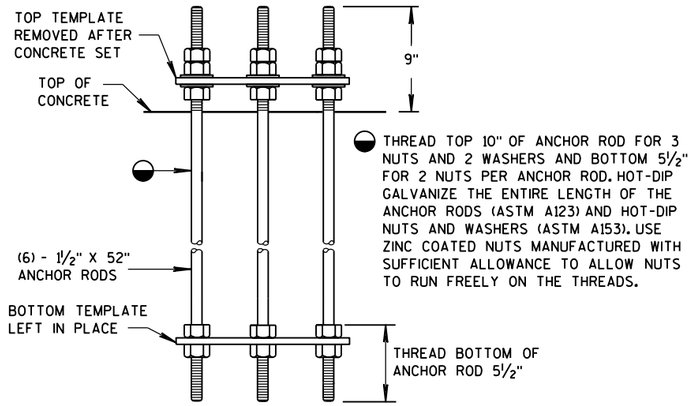
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	172
LBS. OF VERTICAL BAR STEEL	122

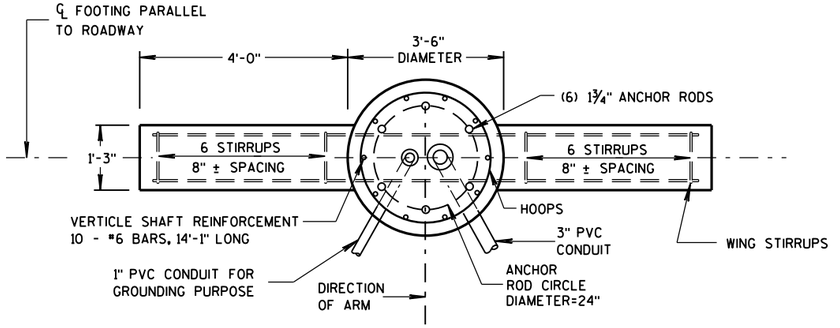
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

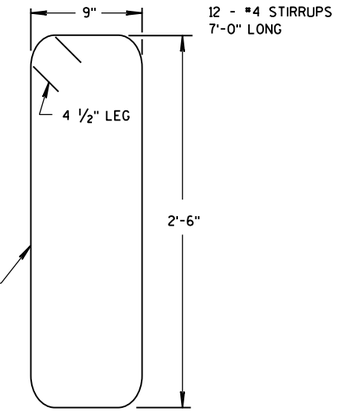
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

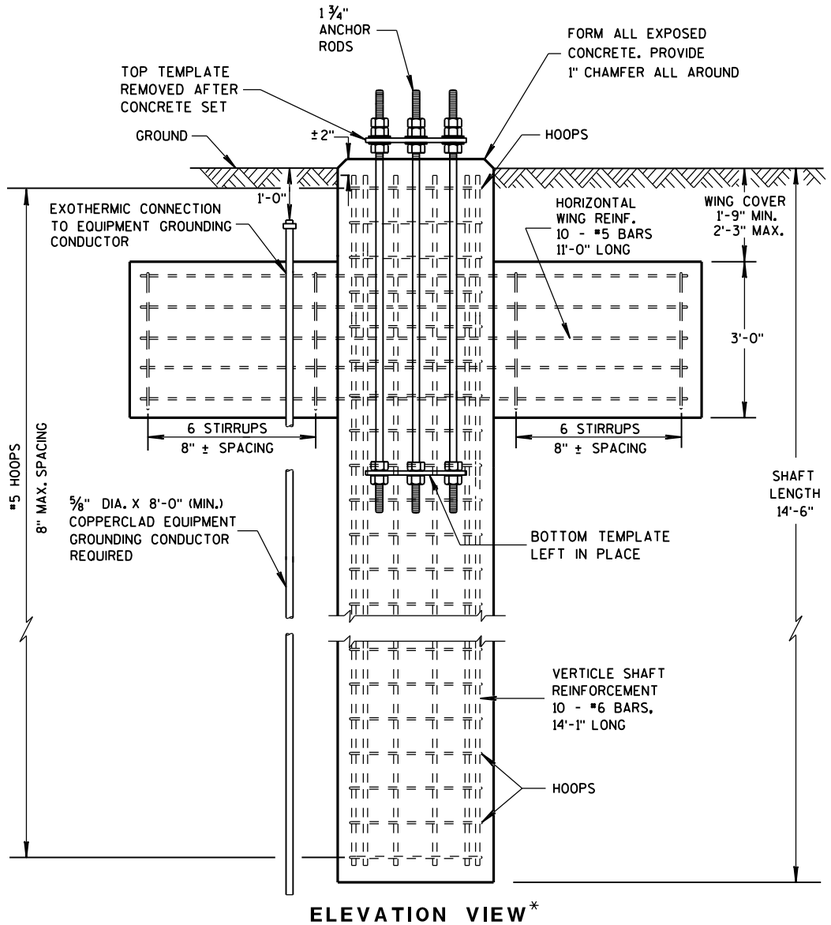
S.D.D. 9 C 11-10



PLAN VIEW

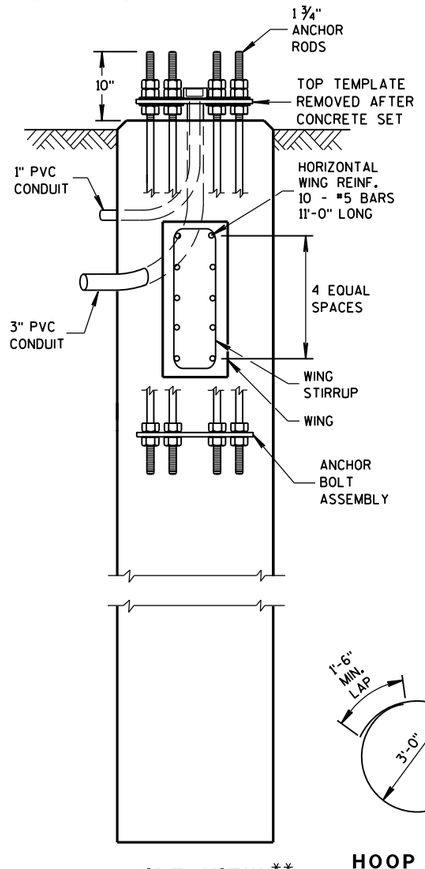


WING STIRRUP



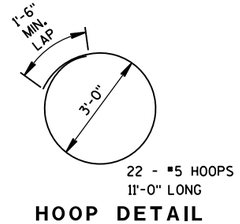
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

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



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 & OVER HEIGHT (OH) POLES)

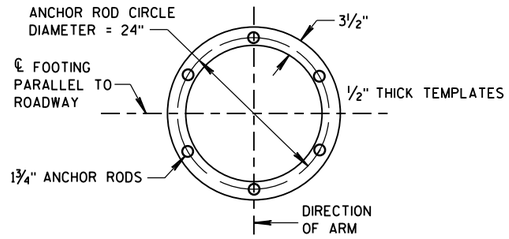
CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

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.

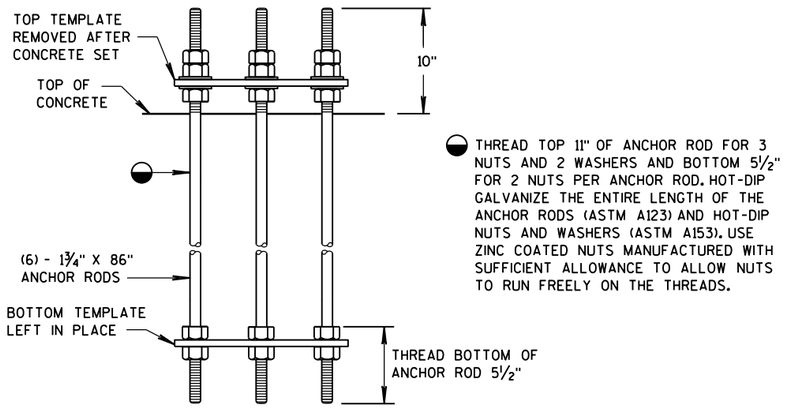
CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 C 12-9a

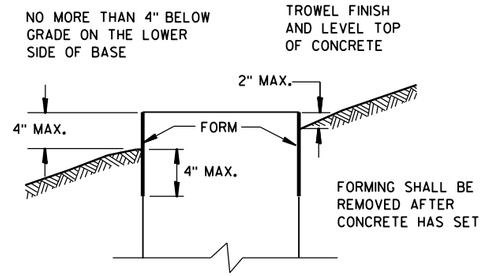


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

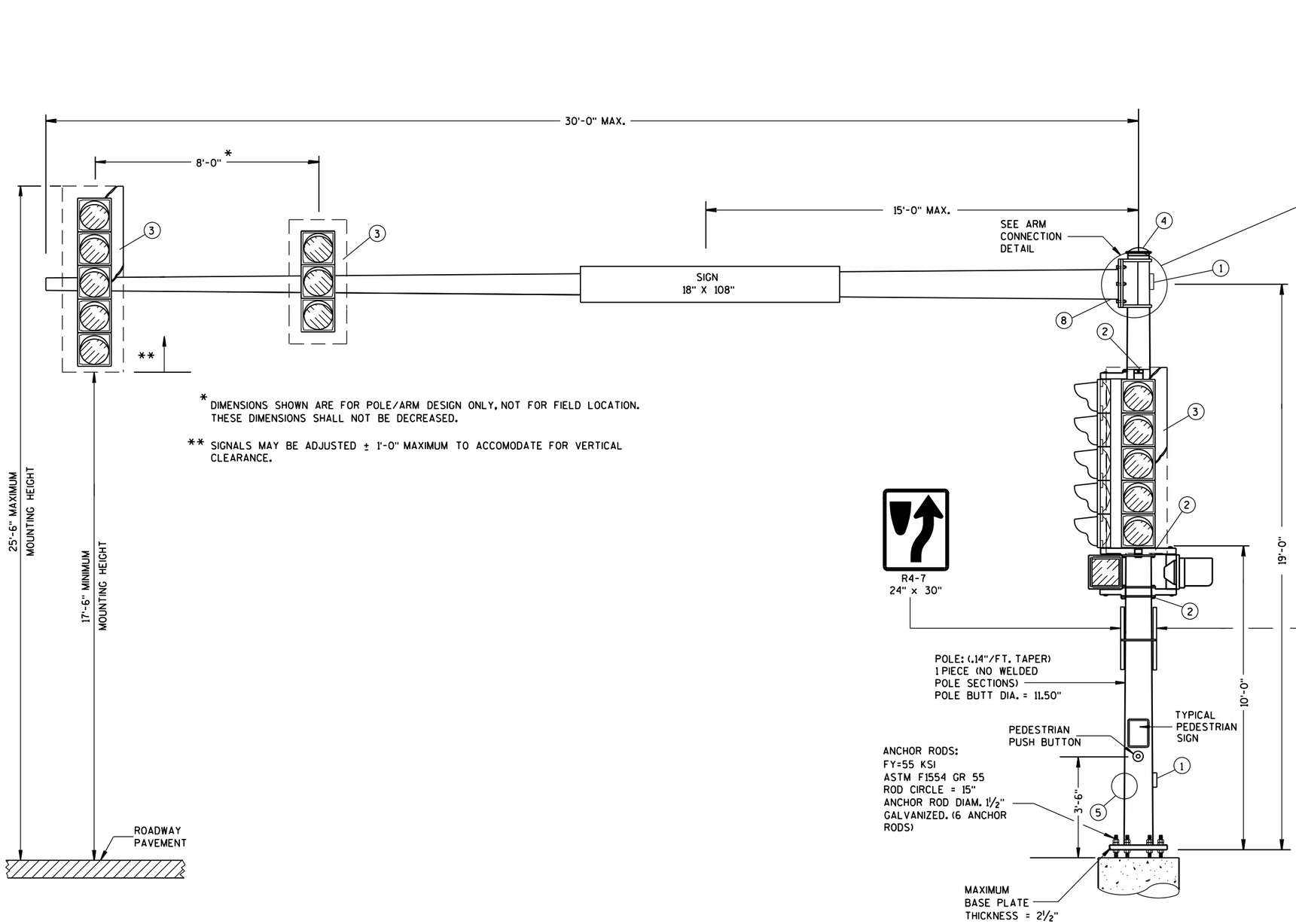
CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

S.D.D. 9 C 12-9b

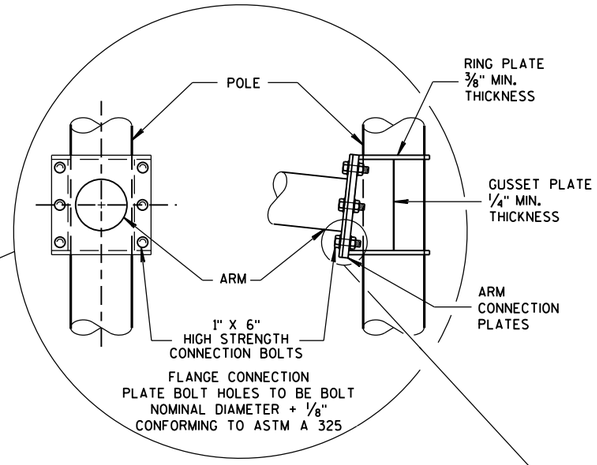
6

S.D.D. 9 C 12-9b

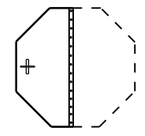


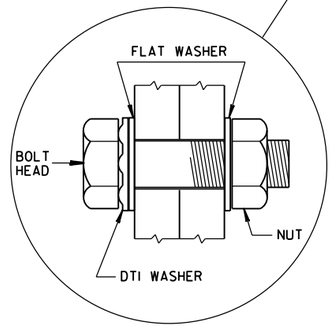
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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

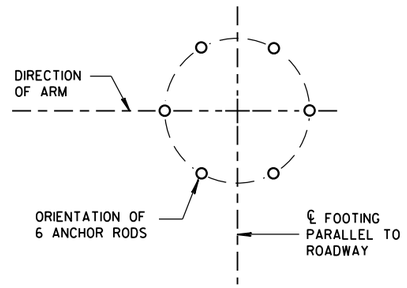


6 BOLT ARM CONNECTION DETAIL





RECOMMENDED
BOLT ASSEMBLY
DETAIL



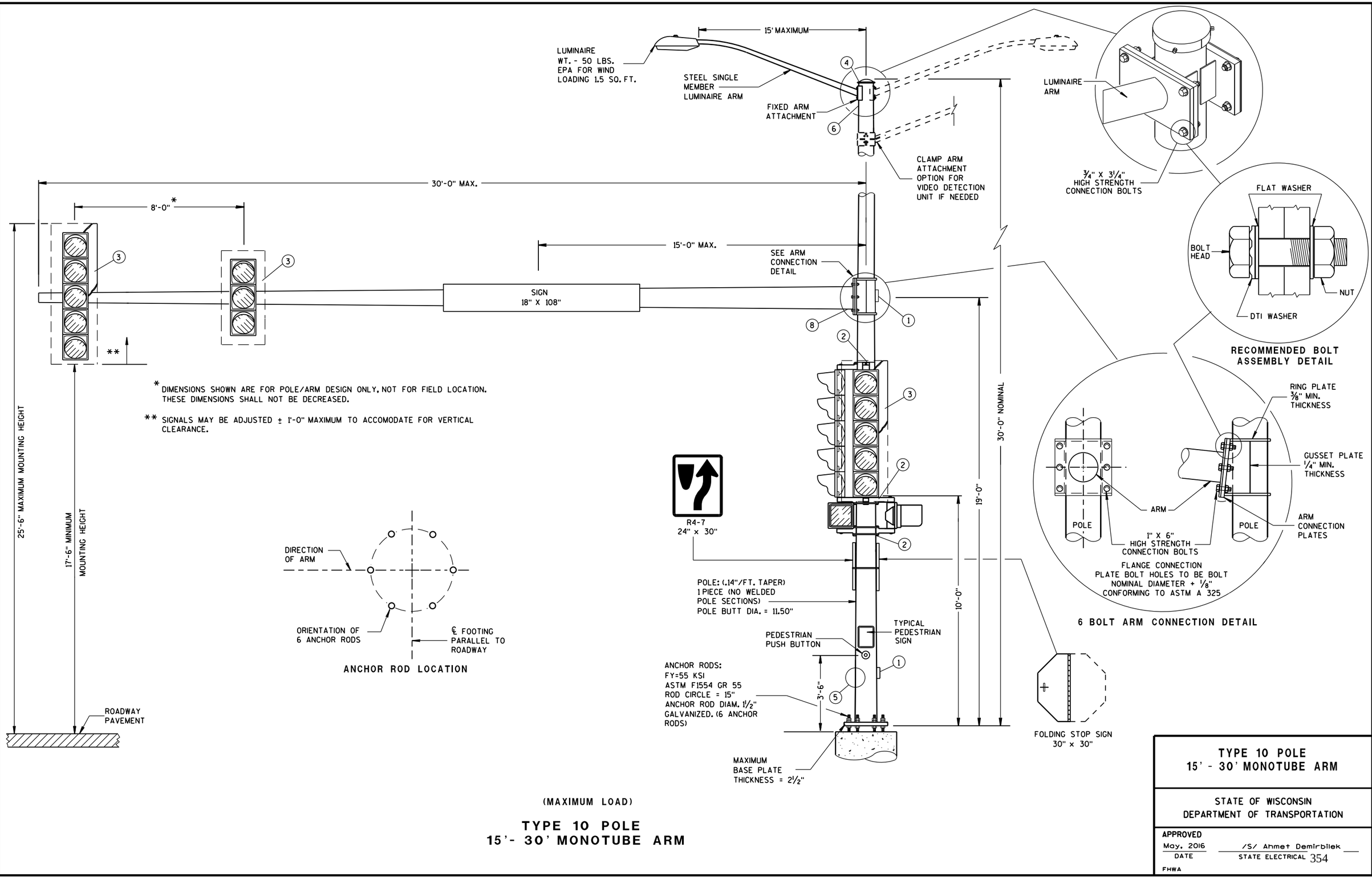
ANCHOR ROD LOCATION

(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

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

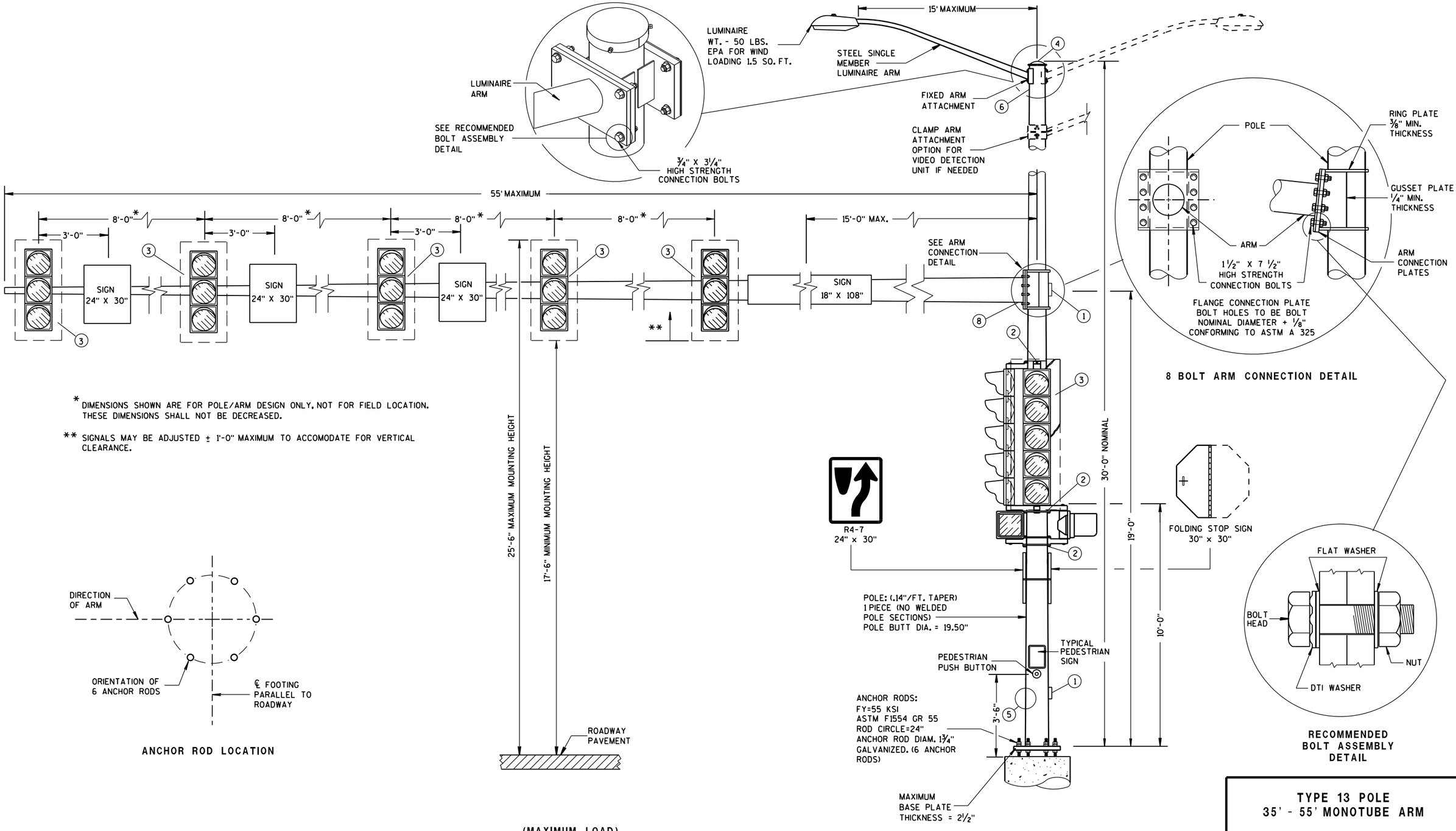
TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 354
FHWA

6

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 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 355
FHWA

6

S.D.D. 9 E 8-8d

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.

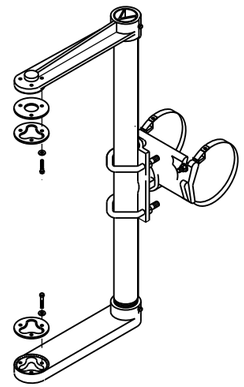
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

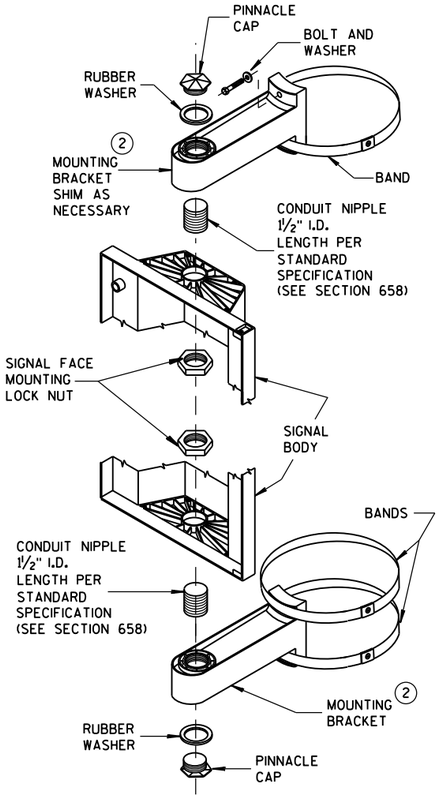
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

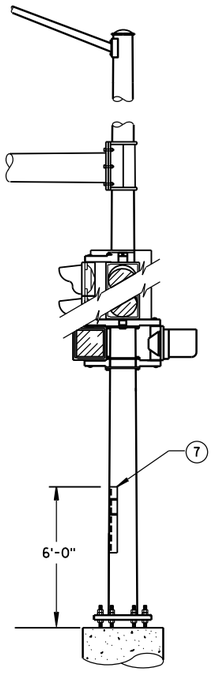


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

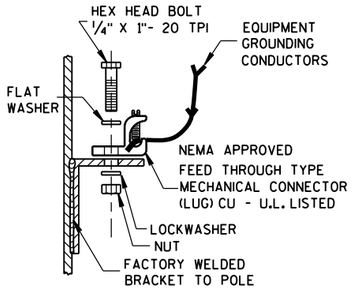
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

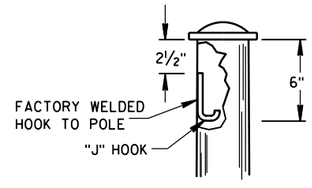


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



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 356

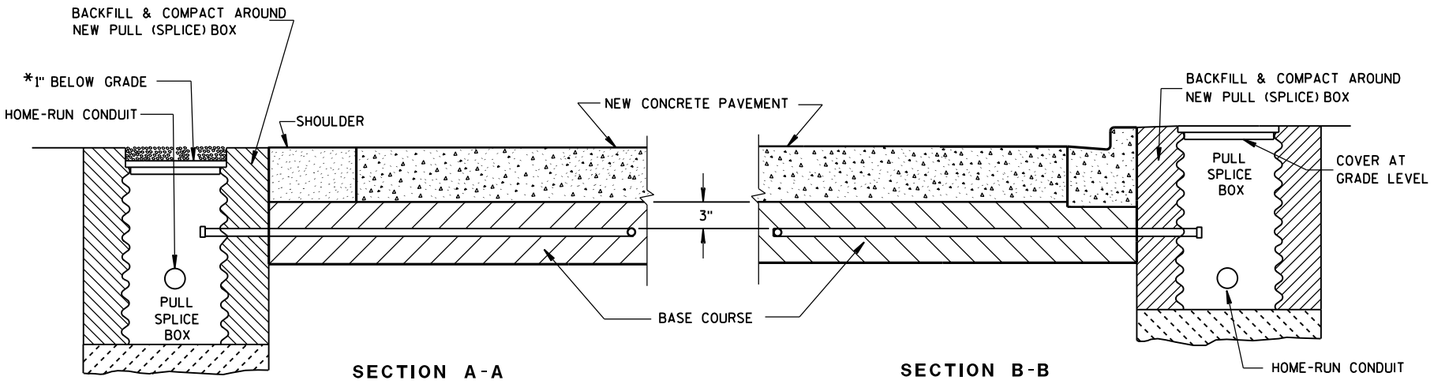
FHWA

6

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

6

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



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

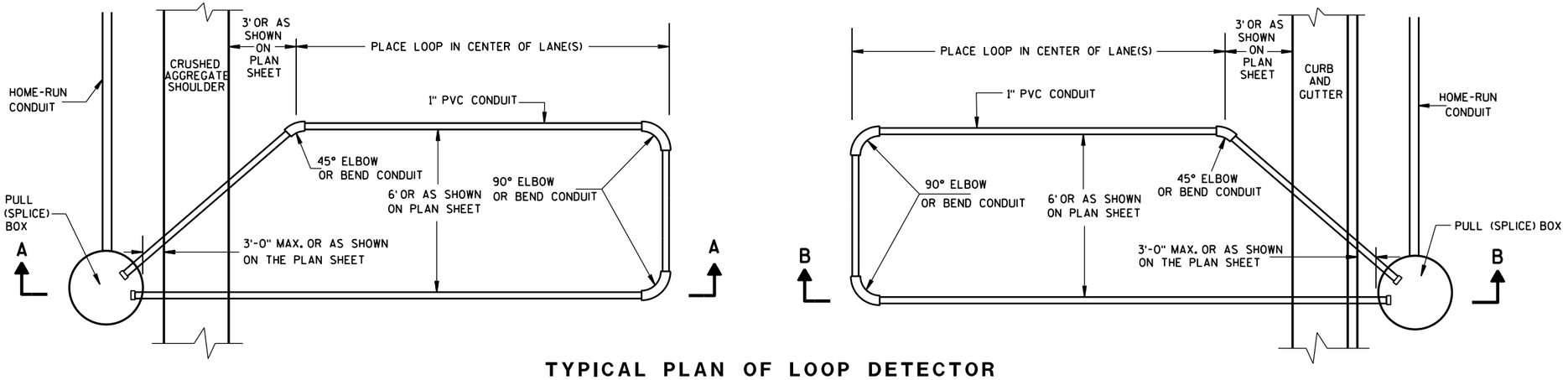
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

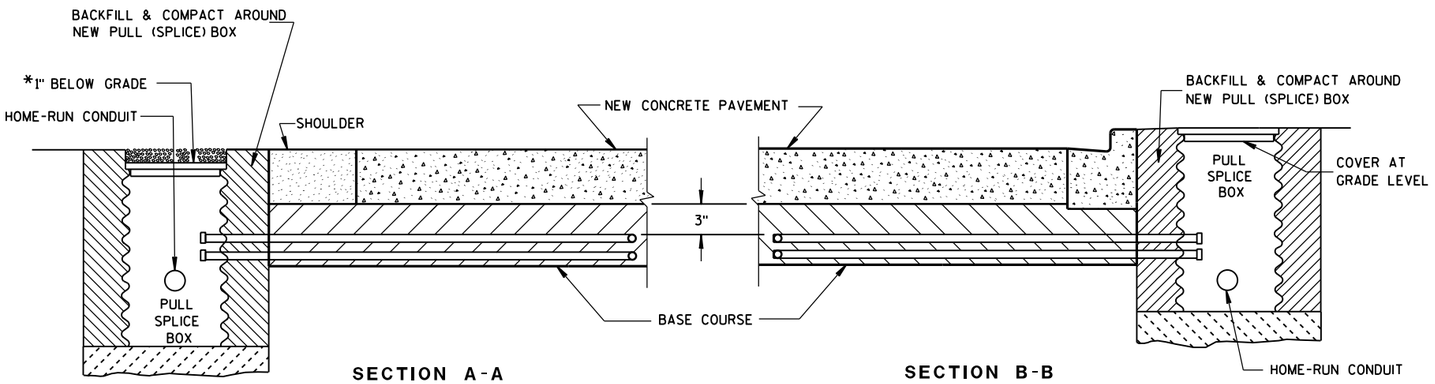
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 357
FHWA

6

S.D.D. 9 F 15-4a

6

S.D.D. 9 F 15-4a



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

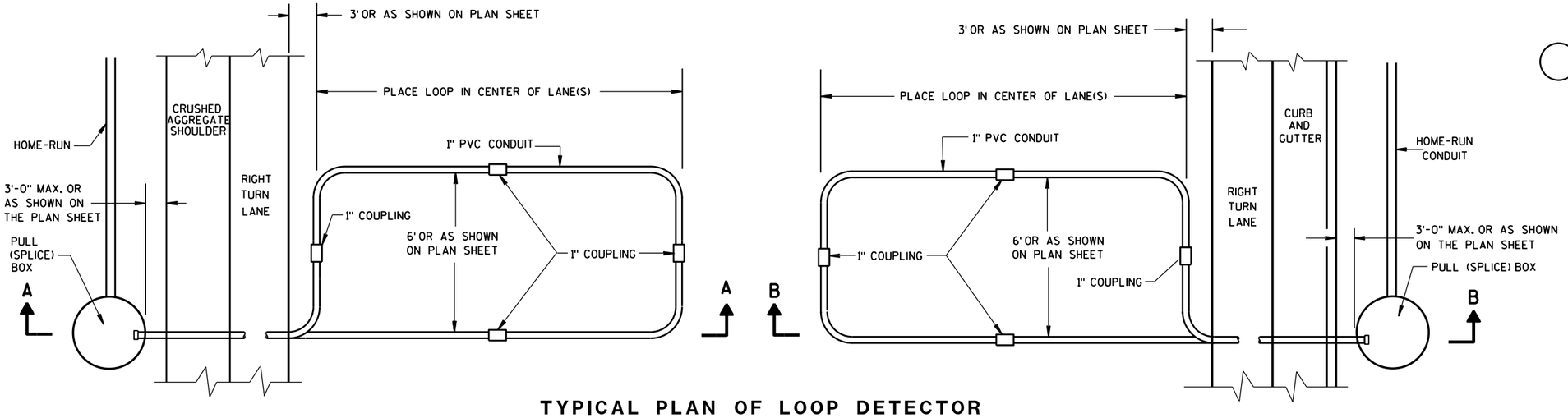
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

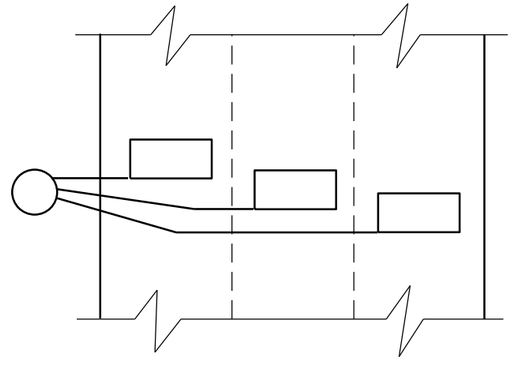
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

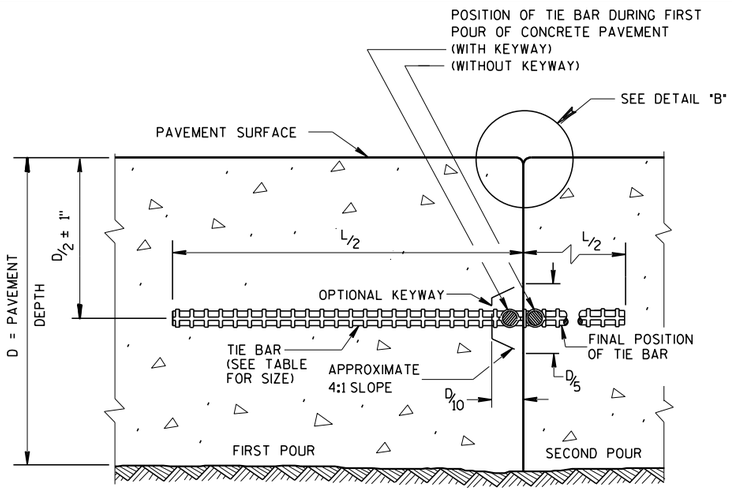
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 358
FHWA

6

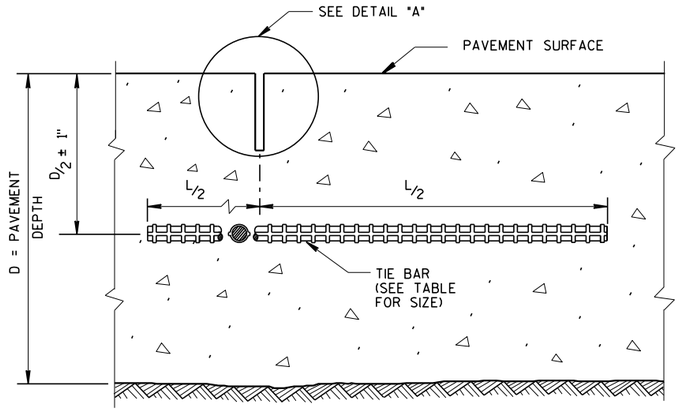
S.D.D. 9 F 15-4b

6

S.D.D. 9 F 15-4b



CONSTRUCTION JOINT



SAWED JOINT

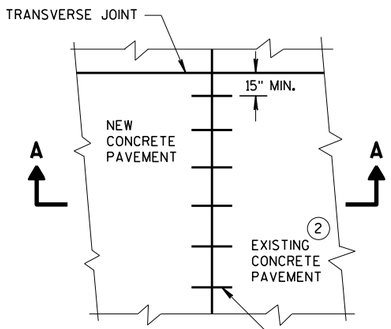
GENERAL NOTES

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

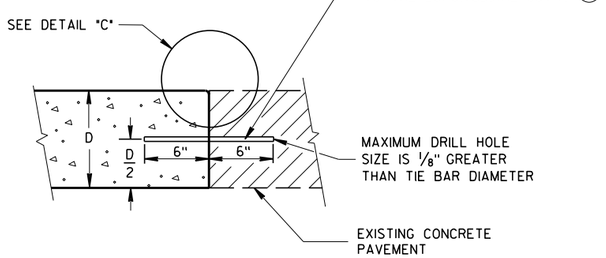
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

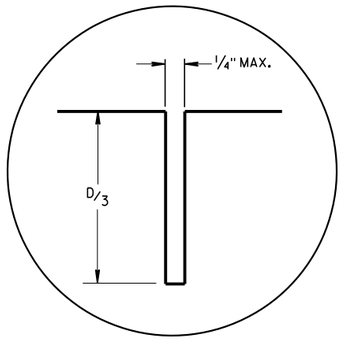


PLAN VIEW

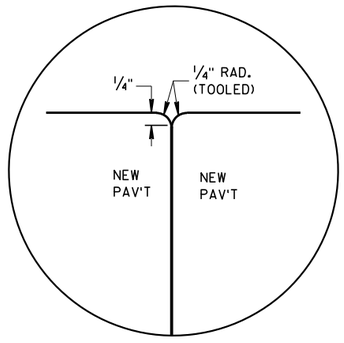


SECTION A-A

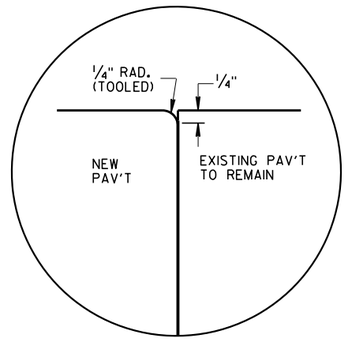
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



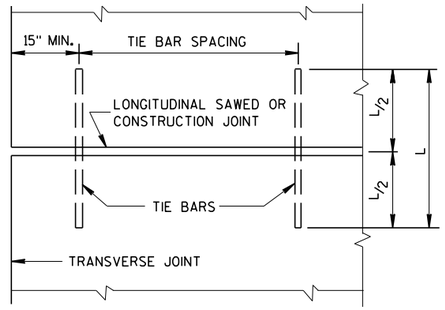
DETAIL "C"

TIE BAR TABLE

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

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

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



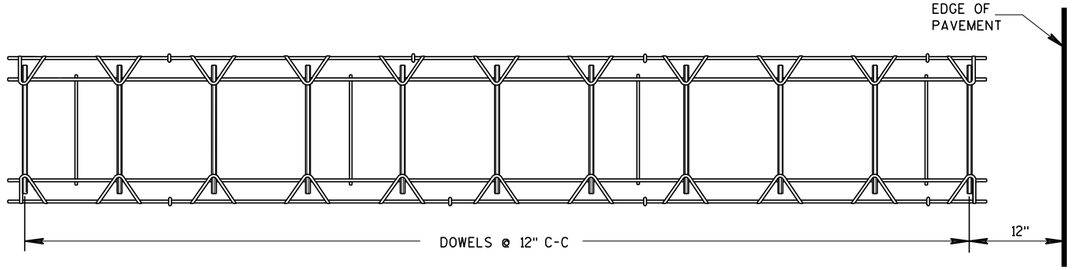
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPE
FHWA

6
S.D.D. 13 C 1-19

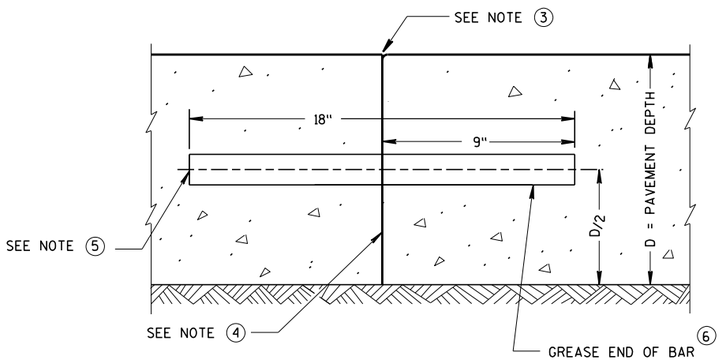


PLAN VIEW

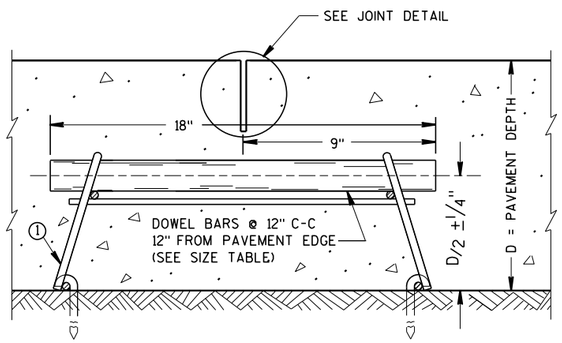


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



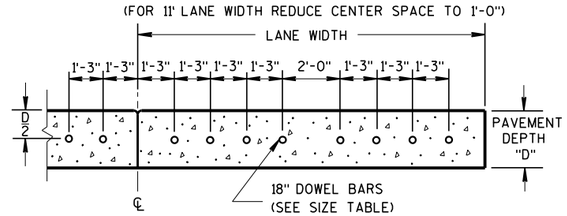
TRANSVERSE CONSTRUCTION JOINT



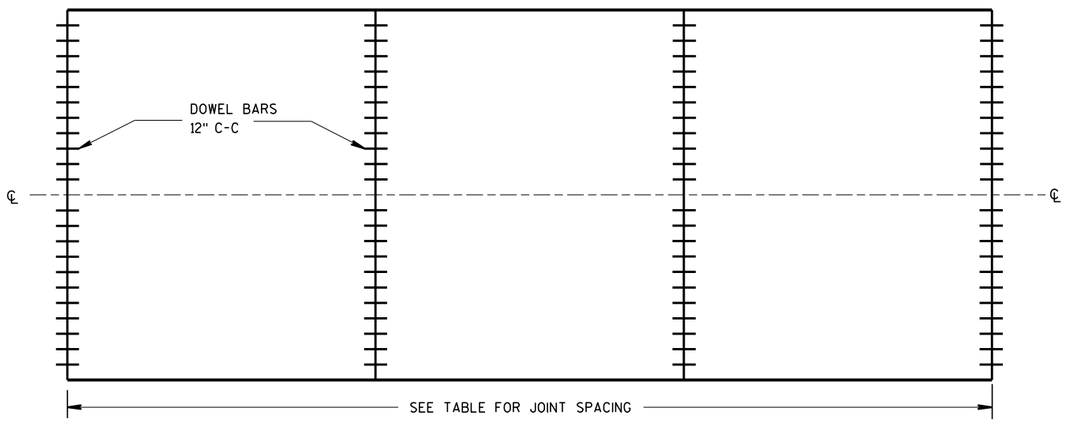
DOWELED CONTRACTION JOINT

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.

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.

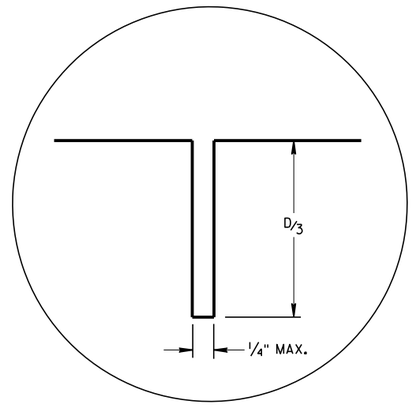
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUP 360

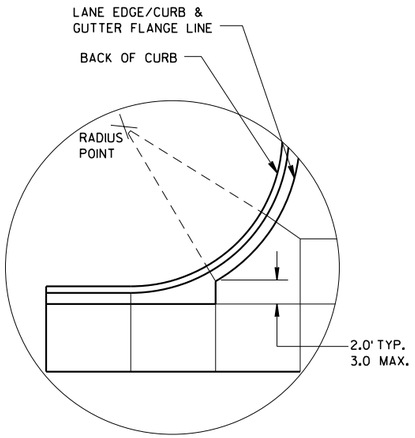
FHWA

6

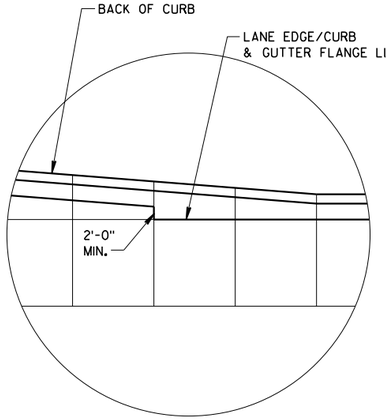
S.D.D. 13 C 13-9

6

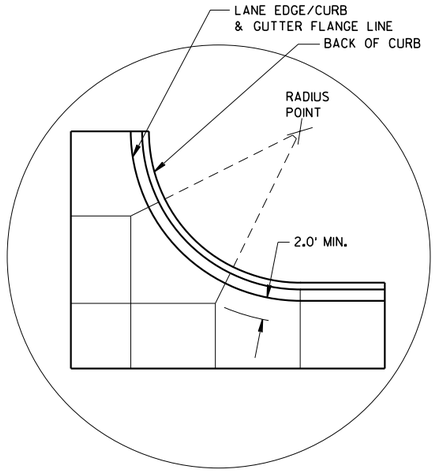
S.D.D. 13 C 13-9



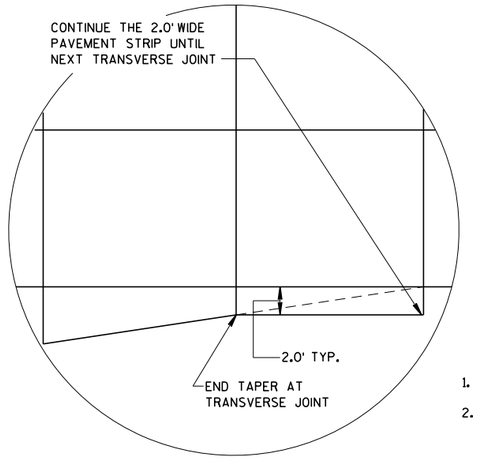
DETAIL "A"



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.

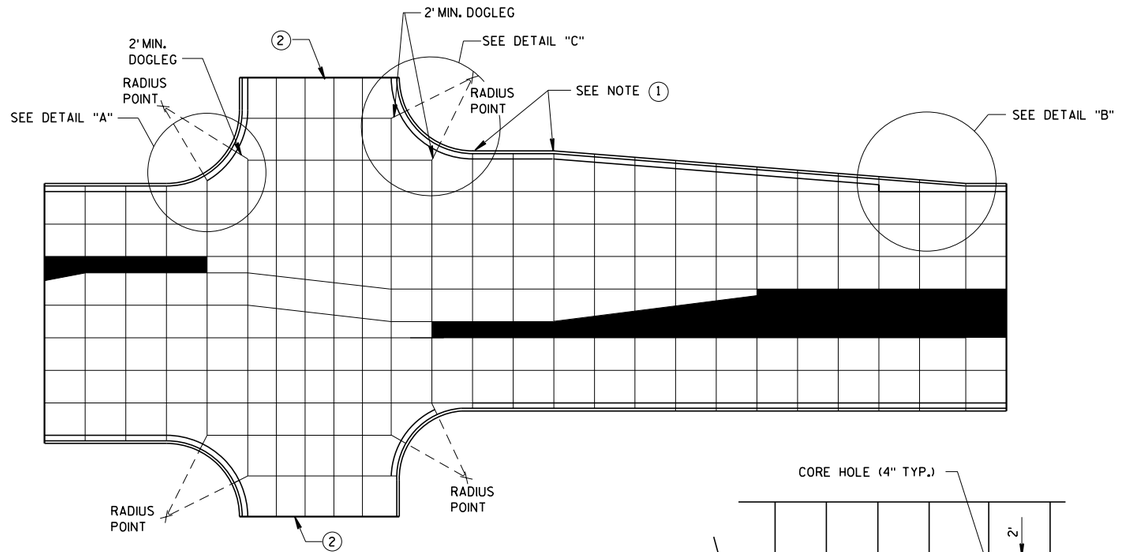
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

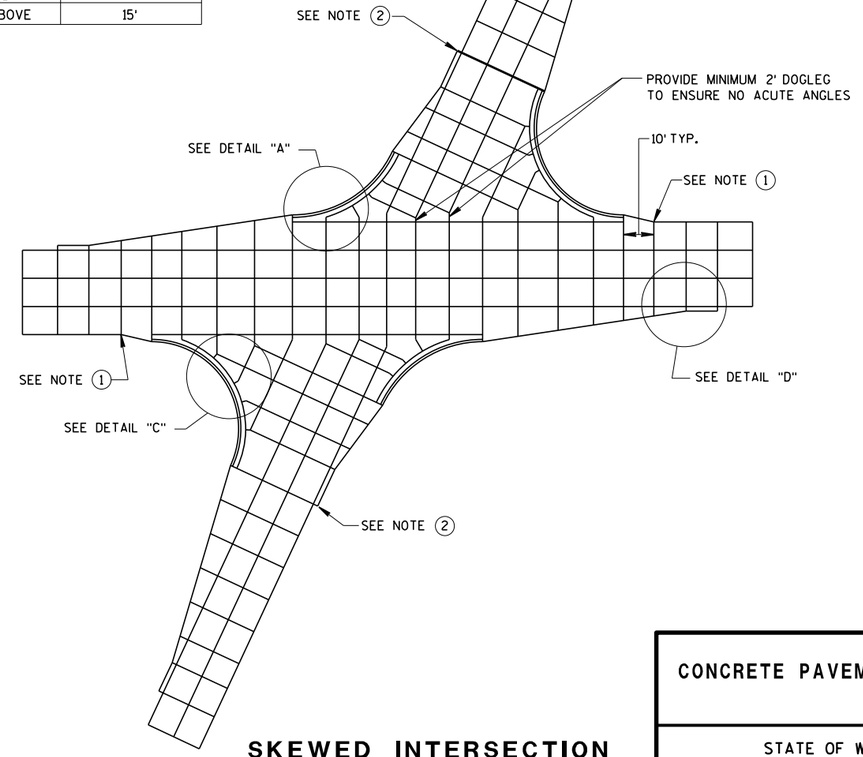
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



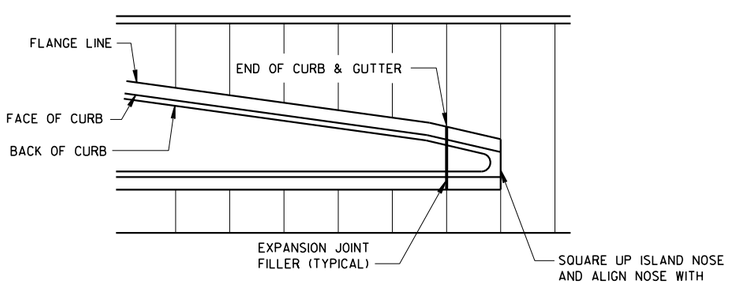
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

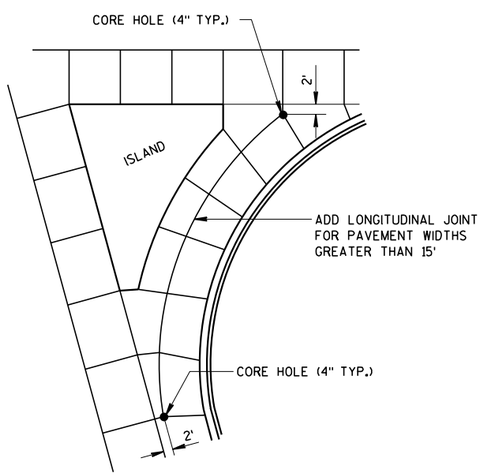
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

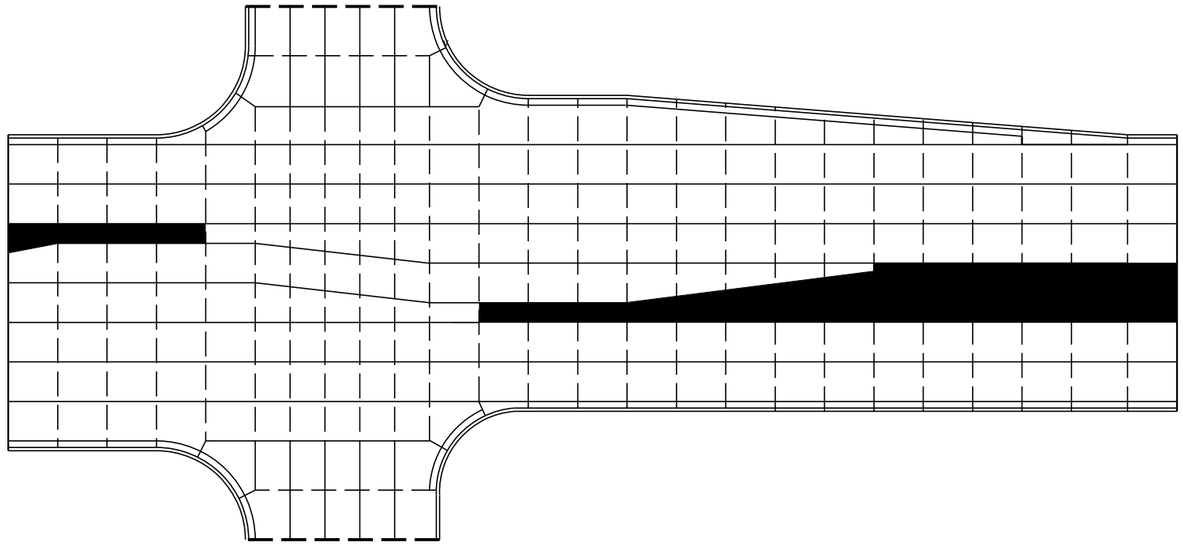
6
S.D.D. 13 C 18-6a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

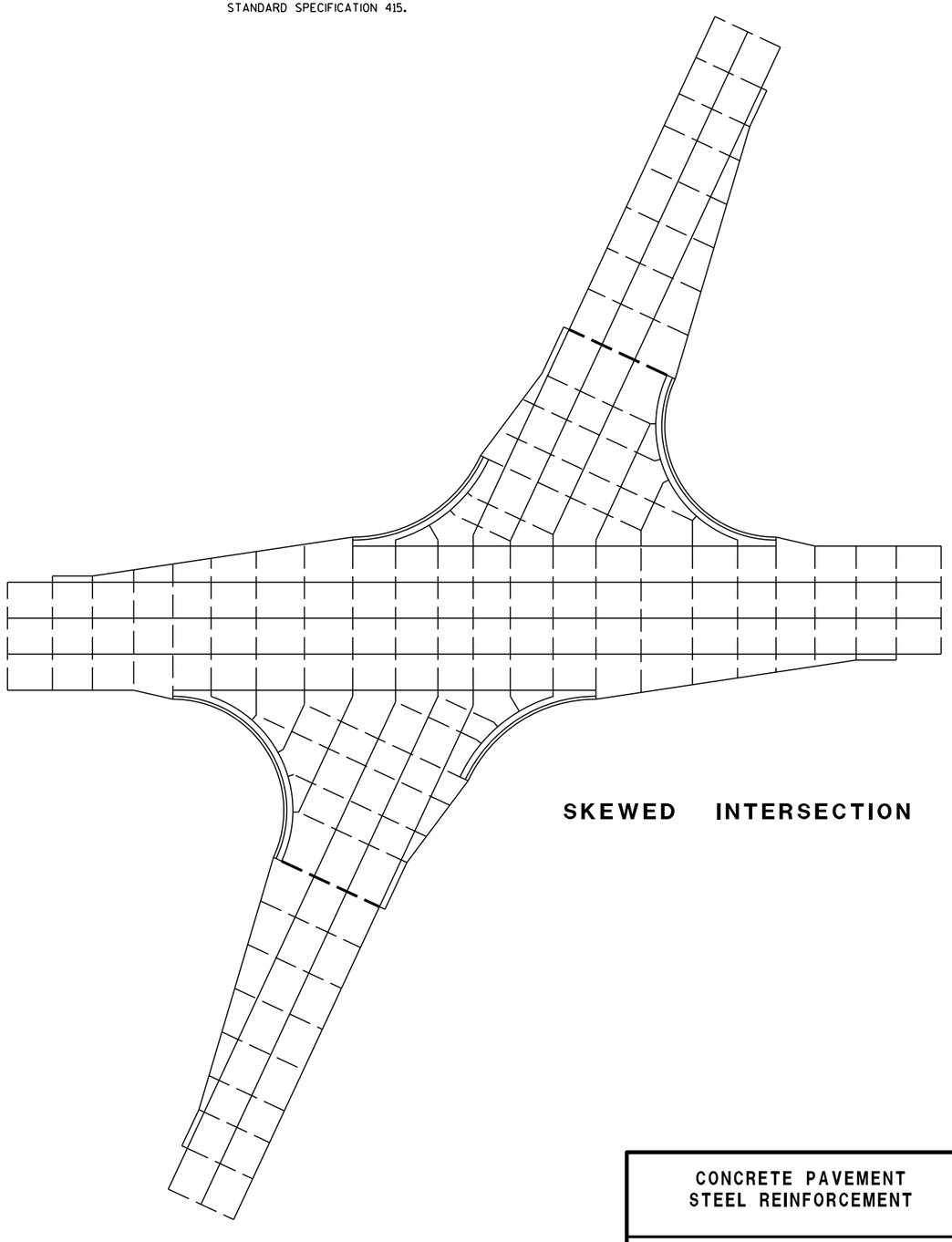
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

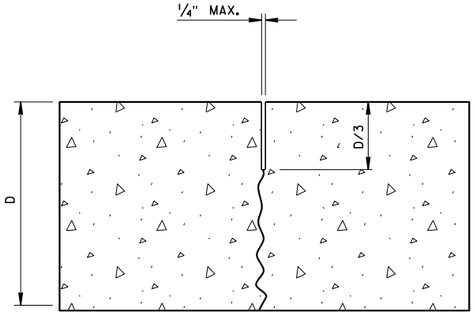
6

S.D.D. 13 C 18-6b

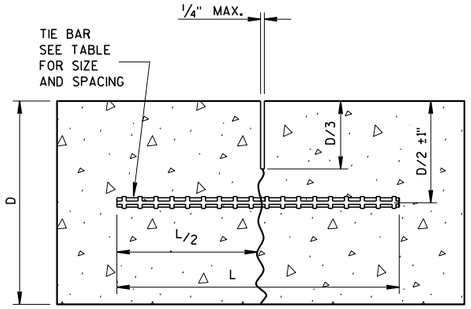
S.D.D. 13 C 18-6b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

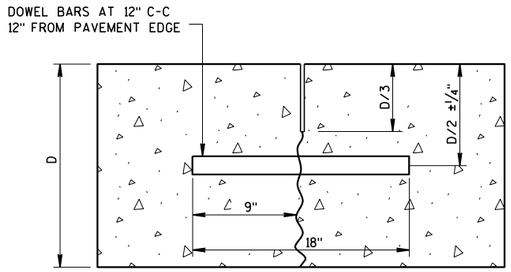
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* 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

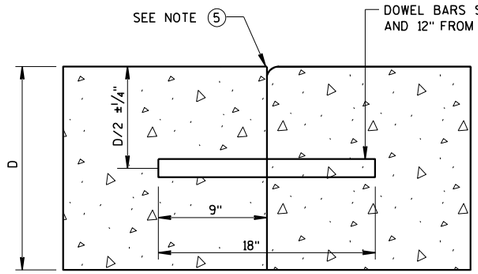
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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.



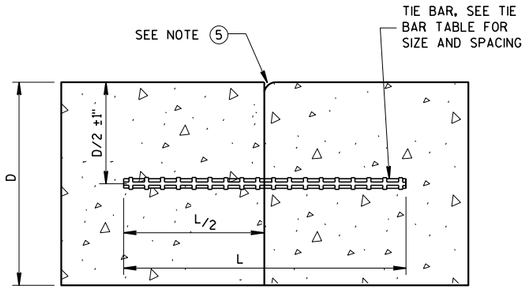
DOWELED-TRANSVERSE

CONTRACTION JOINTS

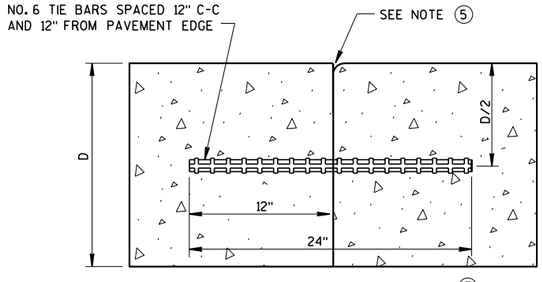
SEE NOTE (2)



DOWELED TRANSVERSE (3)

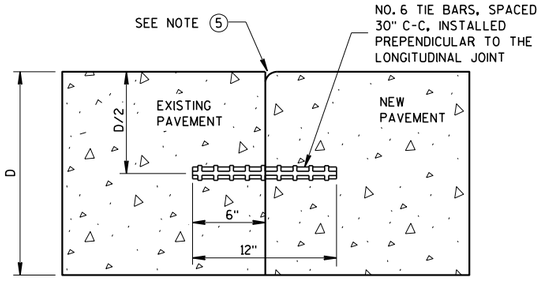


TIED LONGITUDINAL



TIED TRANSVERSE (3)

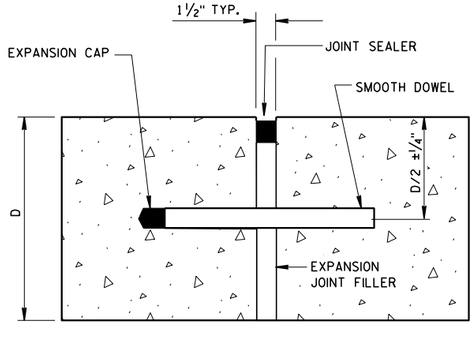
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

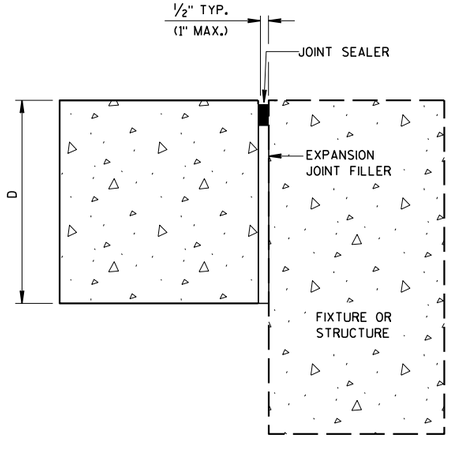
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

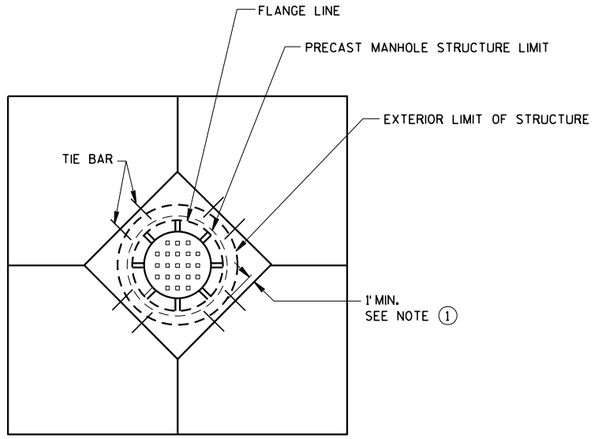
S.D.D. 13 C 18-6c

CONCRETE PAVEMENT
JOINT TYPES

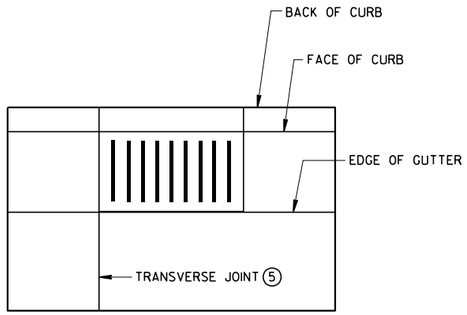
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

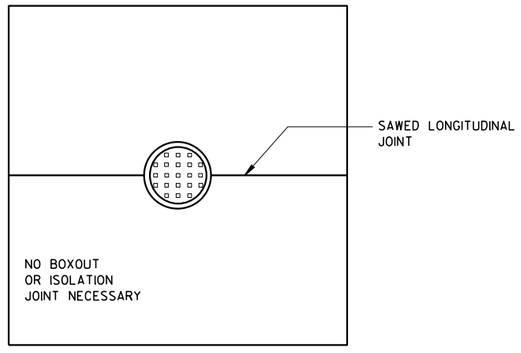
S.D.D. 13 C 18-6c



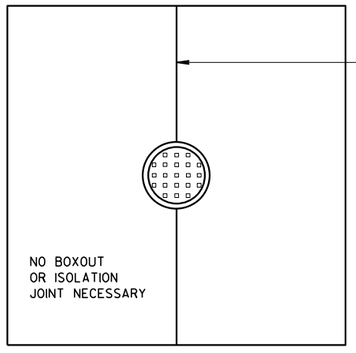
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



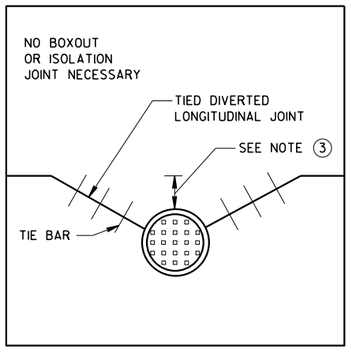
INLET WITH TRANSVERSE JOINT



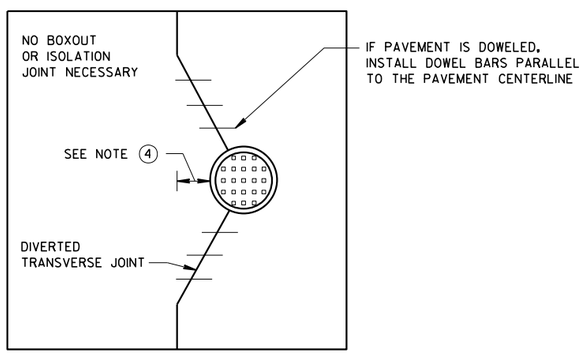
MANHOLE WITH LONGITUDINAL JOINT



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.

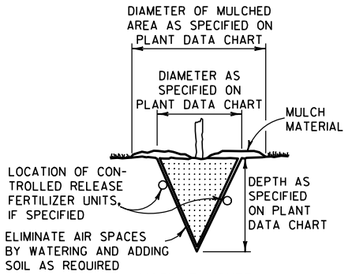
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

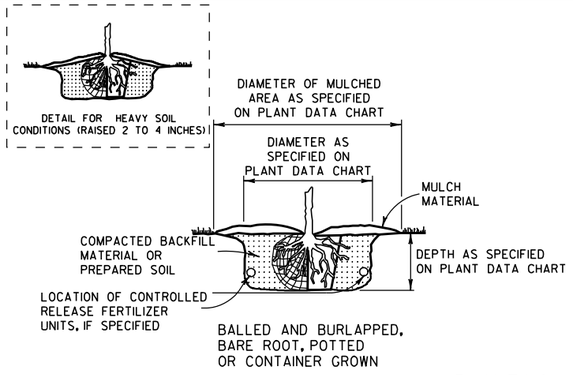
APPROVED
March 2018
DATE
/S/ Peter Kamp P.E.
PAVEMENT SUPT
FHWA

6

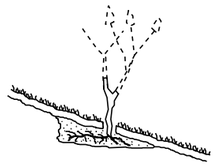
S.D.D. 13 C 18-6d



MACHINE MOVED

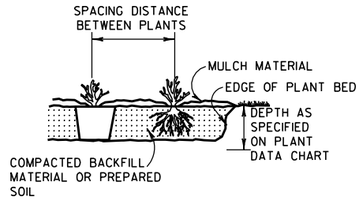


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



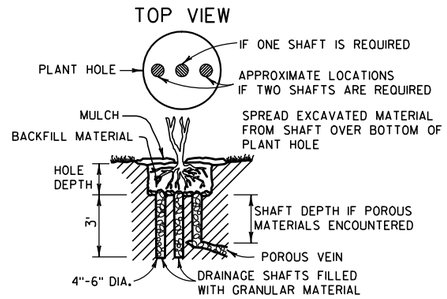
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

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



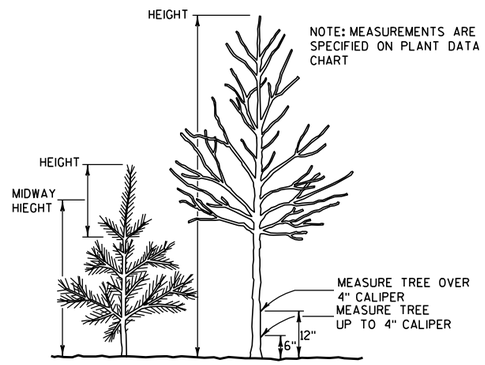
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

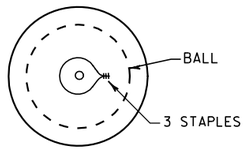


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

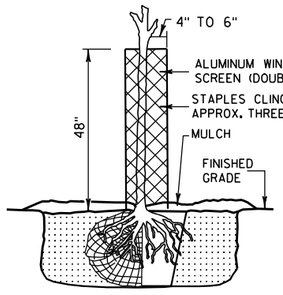
DRAINING



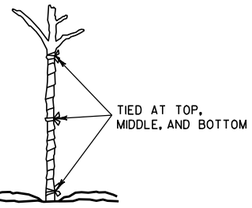
MEASURING



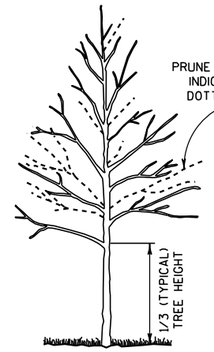
TOP VIEW



RODENT PROTECTION



WRAPPING

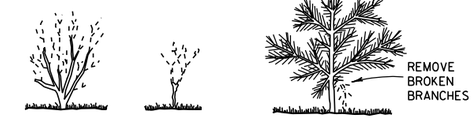


TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

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

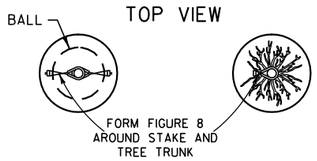


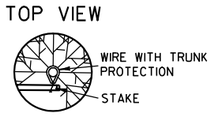
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

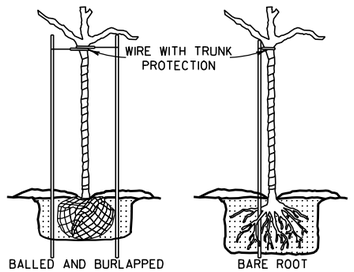
SUMAC

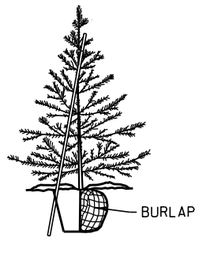
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



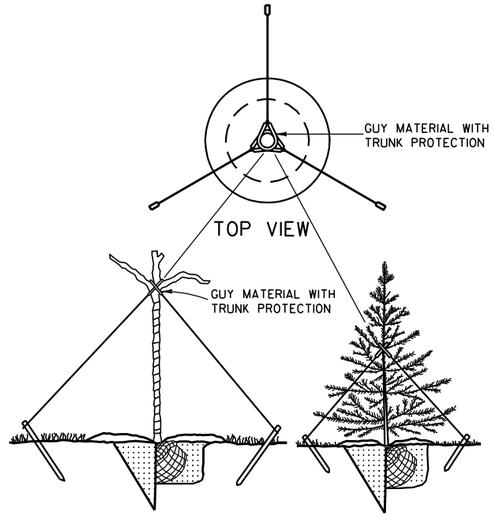




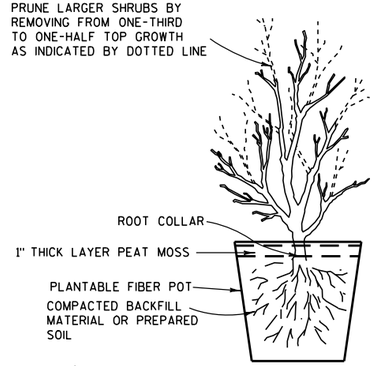


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE 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.

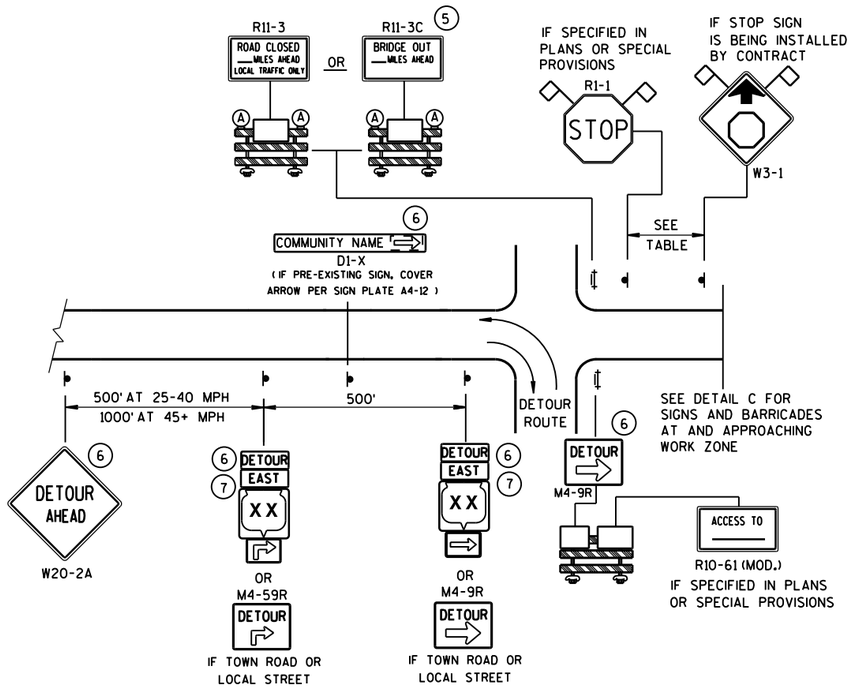
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

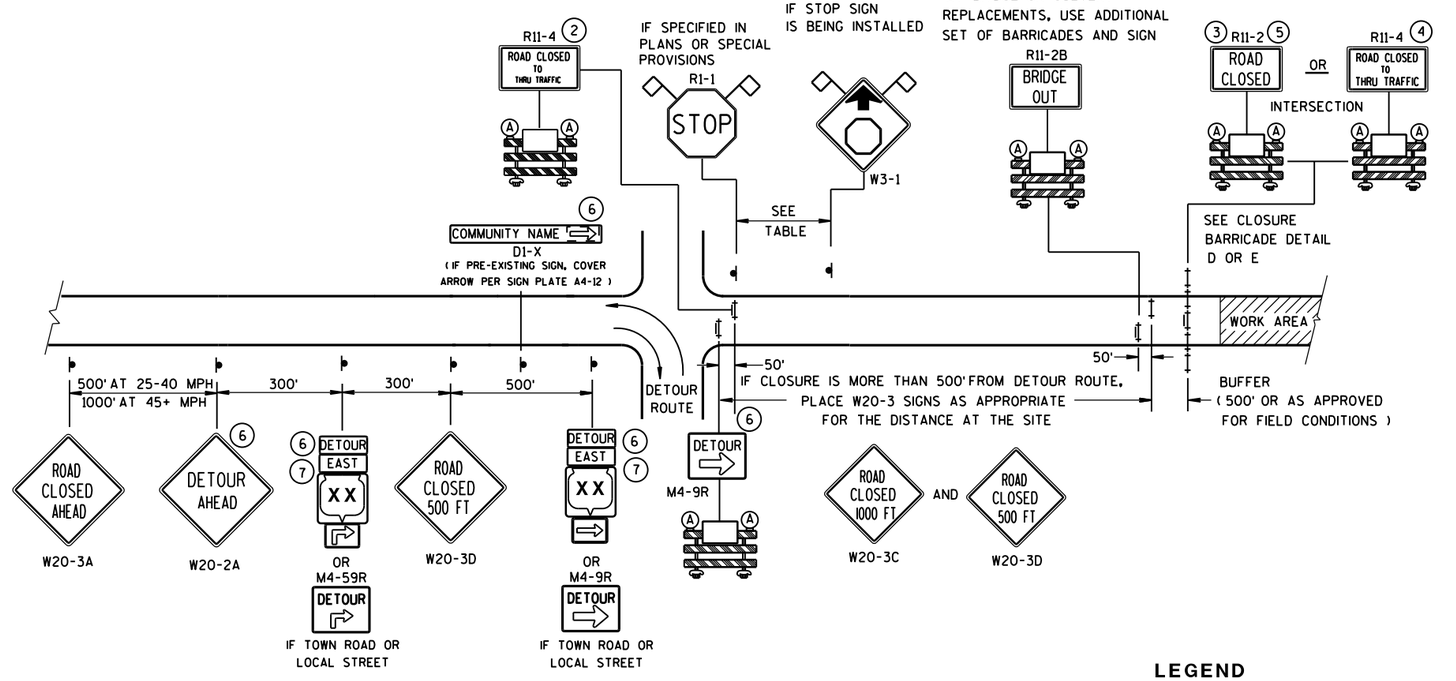
6

S.D.D. 14 A 2-1



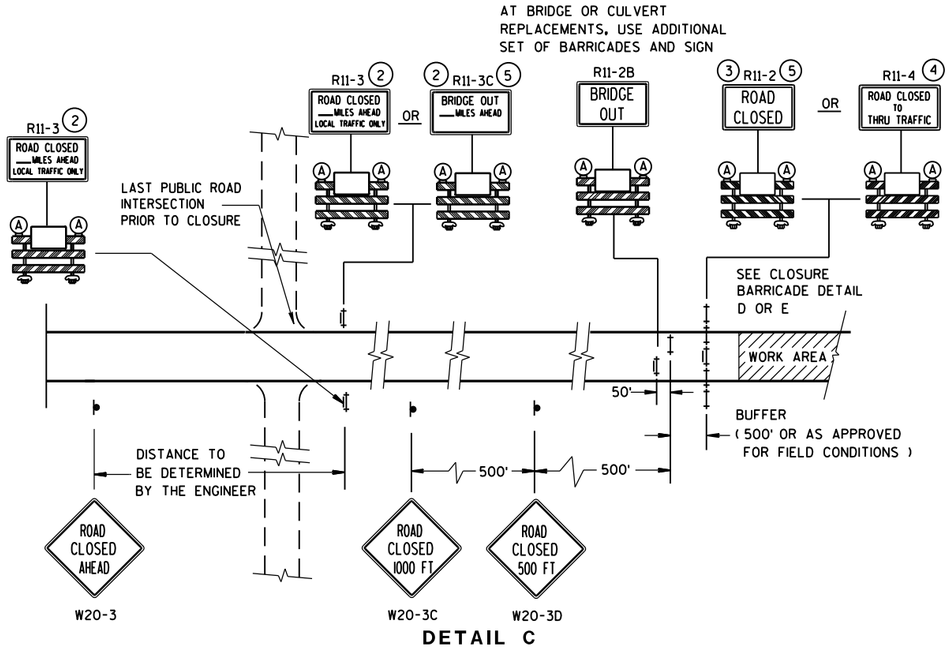
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)

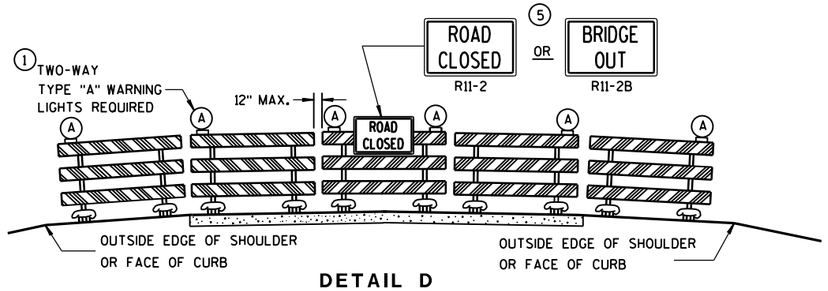
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

S.D.D. 15 C 2-6a

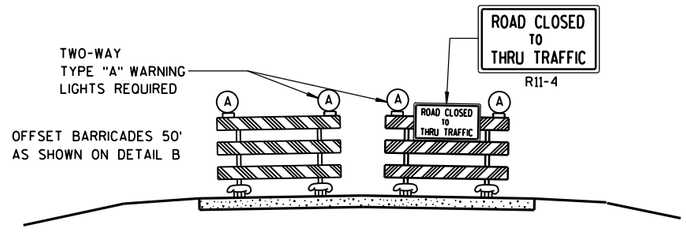
S.D.D. 15 C 2-6a



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

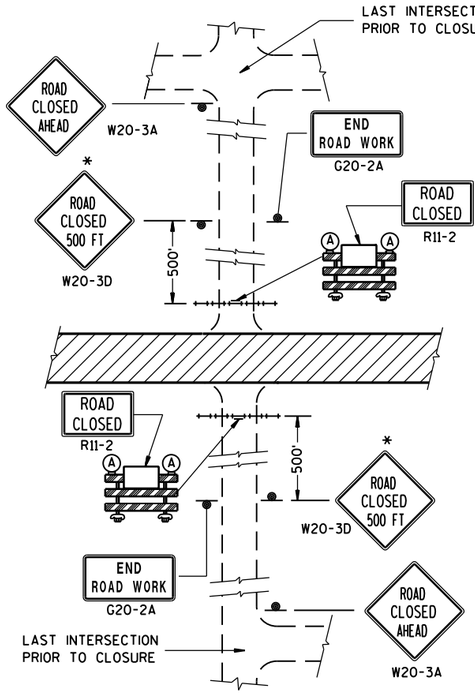
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FIC

FHWA

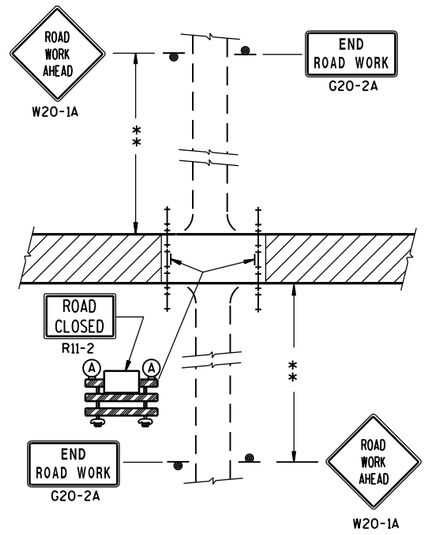
6

S.D.D. 15 C 2-6b



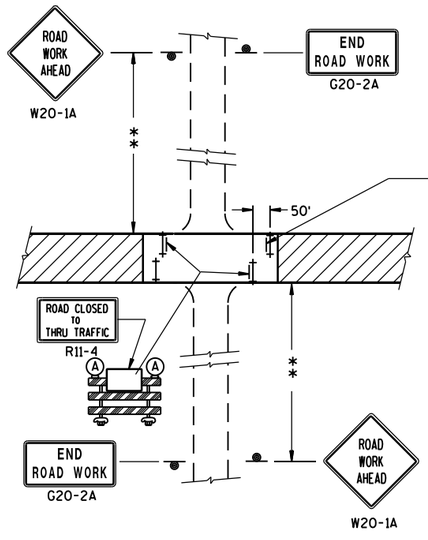
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

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

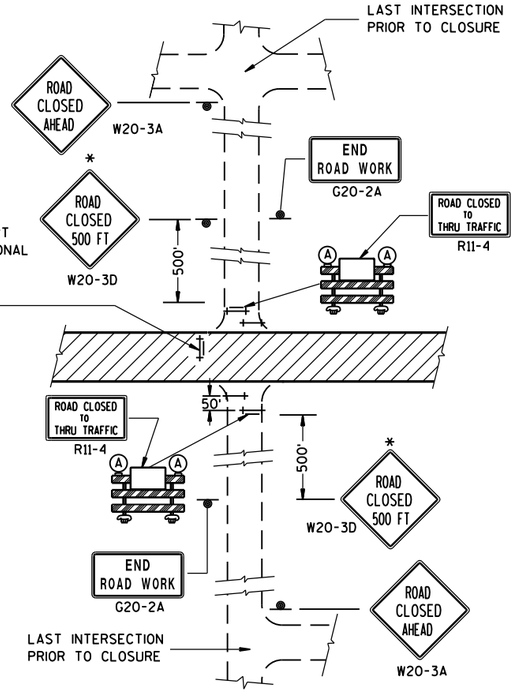


FOR BRIDGE OR CULVERT REPLACEMENT, USE ADDITIONAL SIGN ON BARRICADE



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

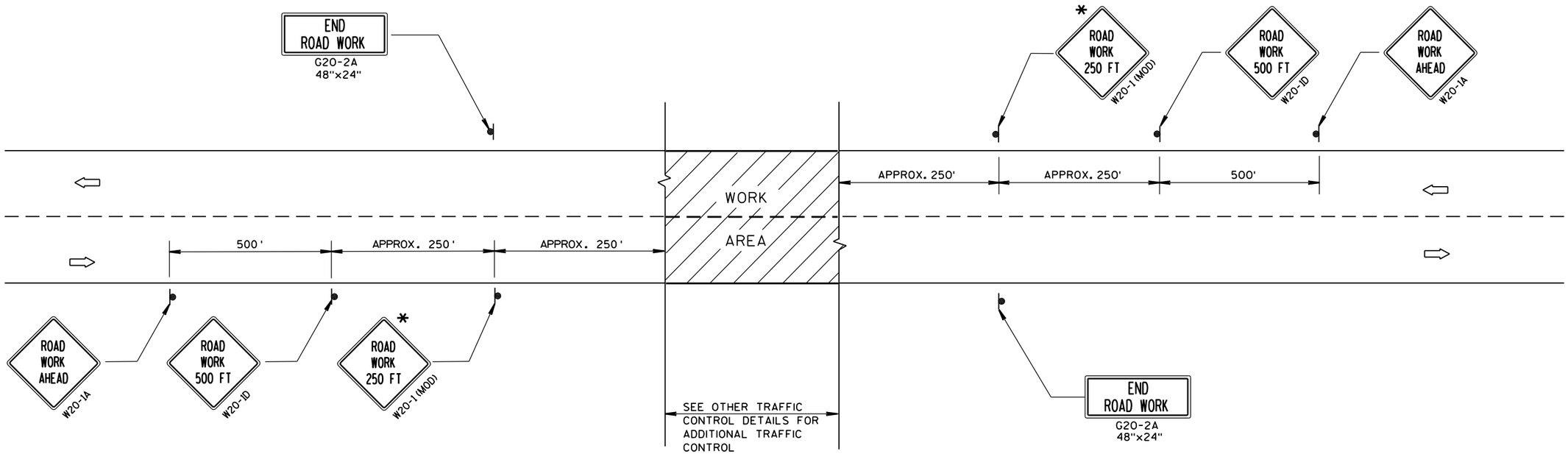
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 3-4

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.

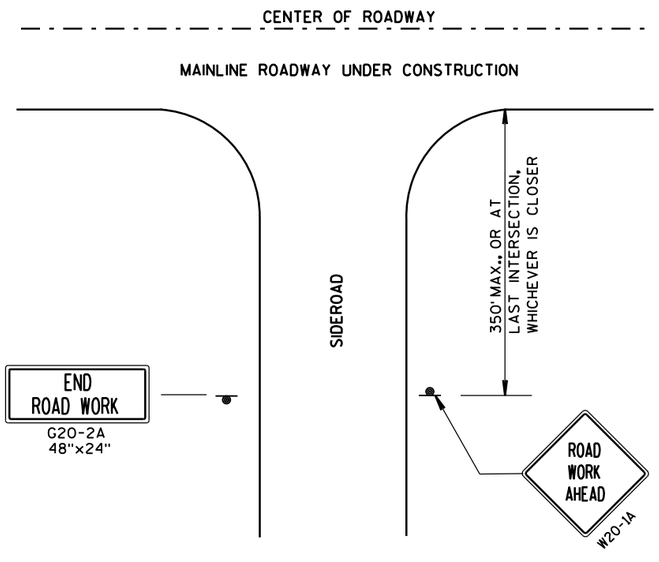
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

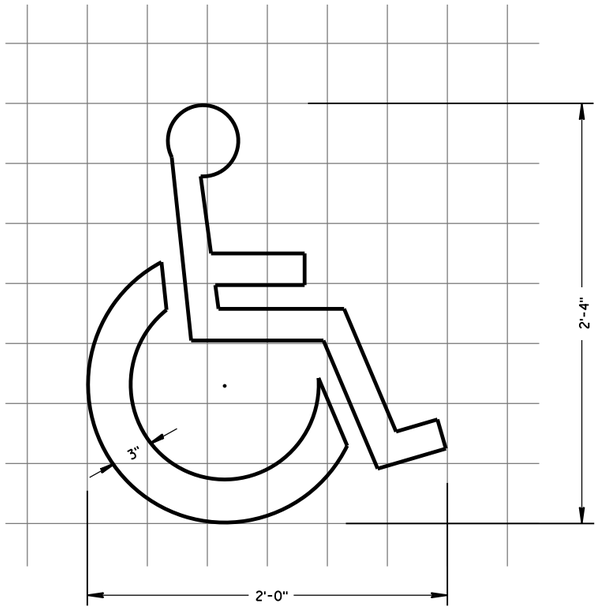
APPROVED
Sept. 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

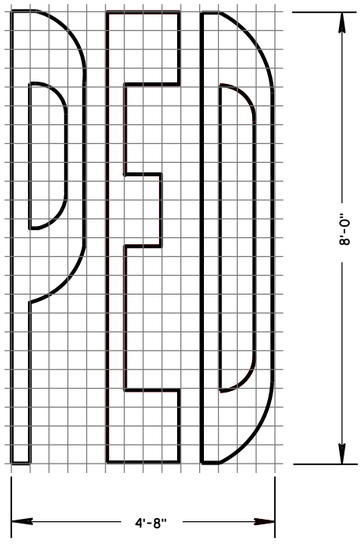
S.D.D. 15 C 5-4

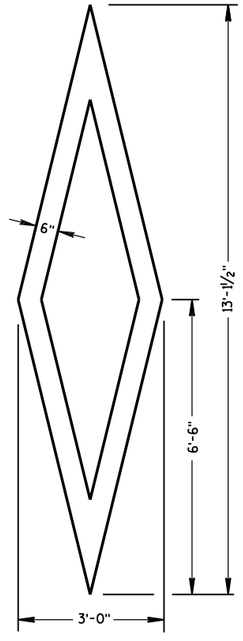
GENERAL NOTES

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



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-14a

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

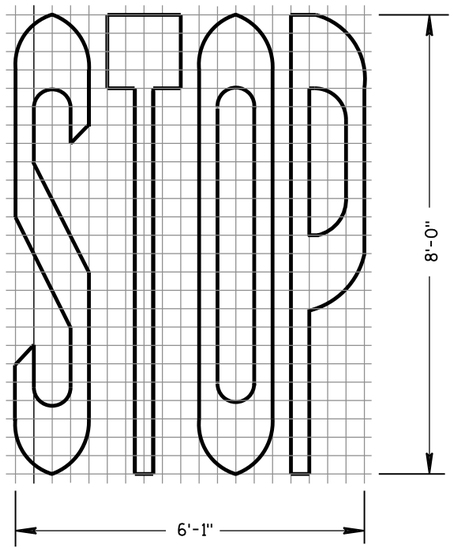
June 2017 — DATE

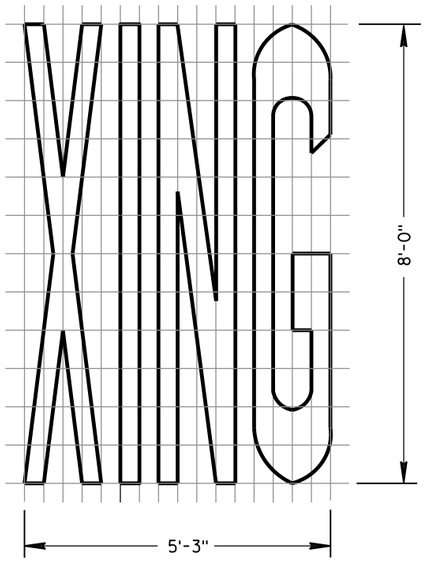
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

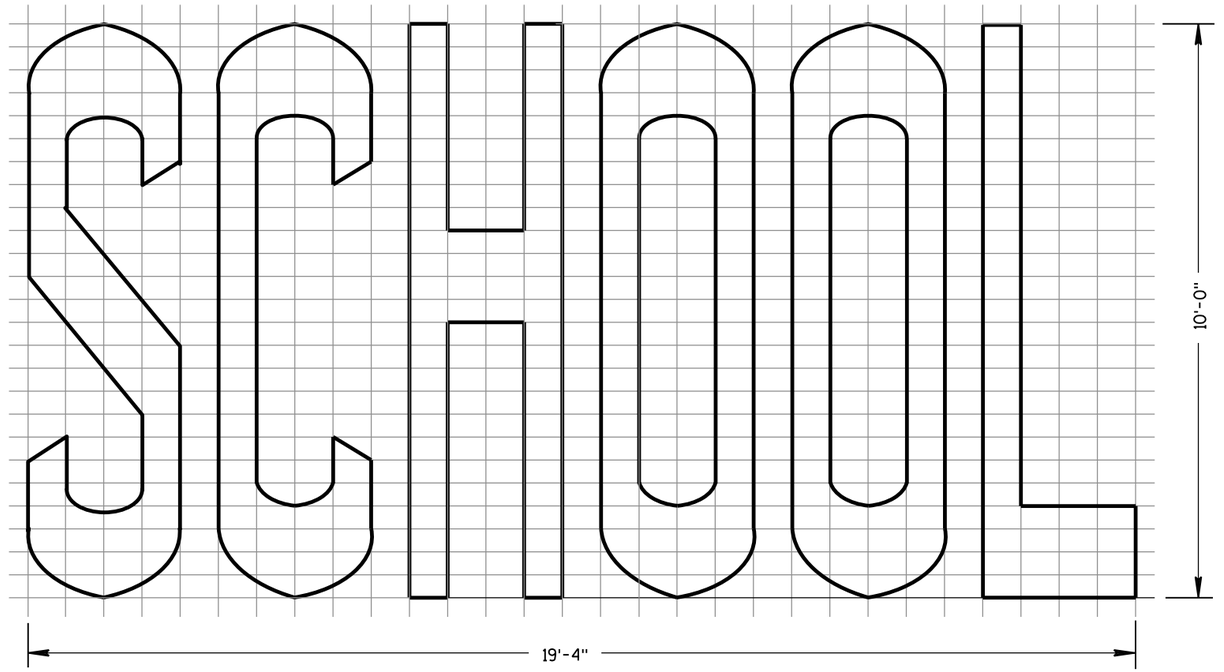
FHWA

GENERAL NOTES

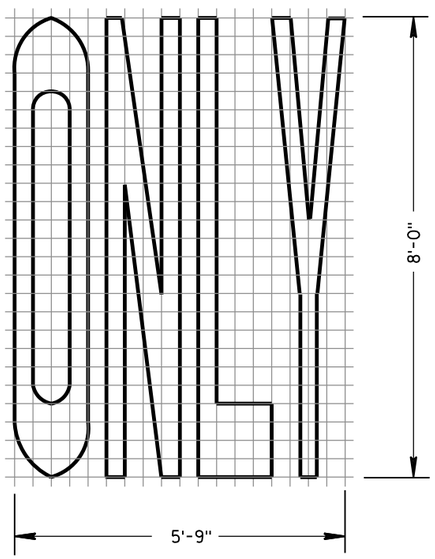
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

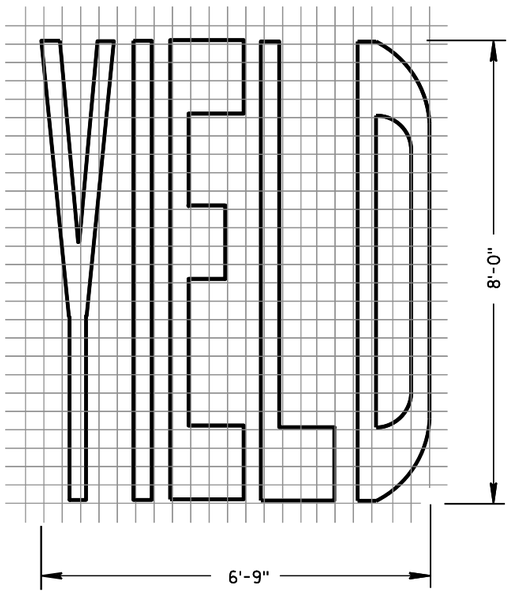


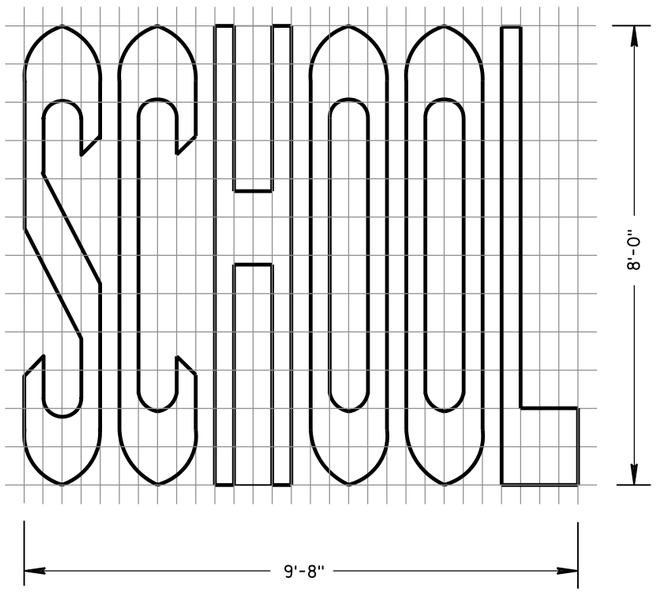




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

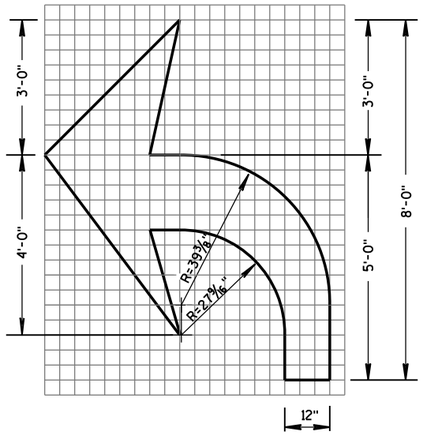
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK
EER
FHWA

6

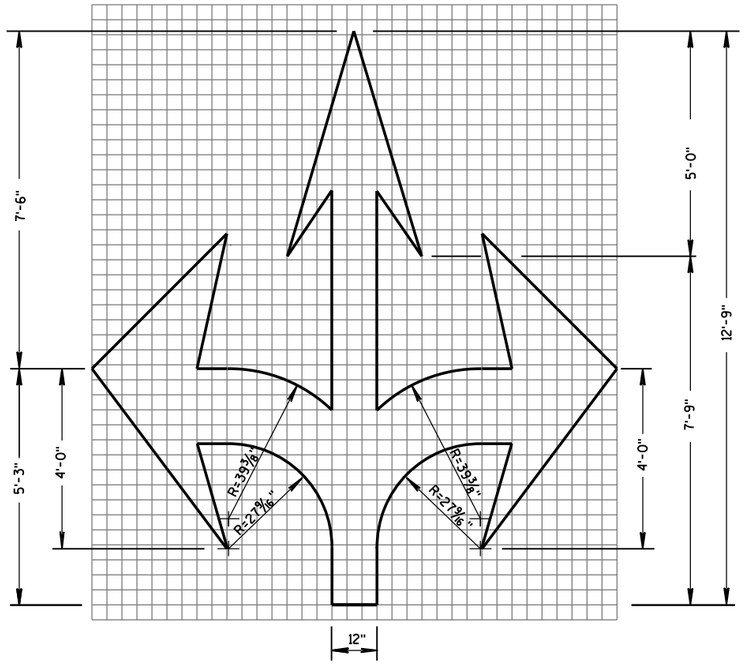
S.D.D. 15 C 7-14b

GENERAL NOTES

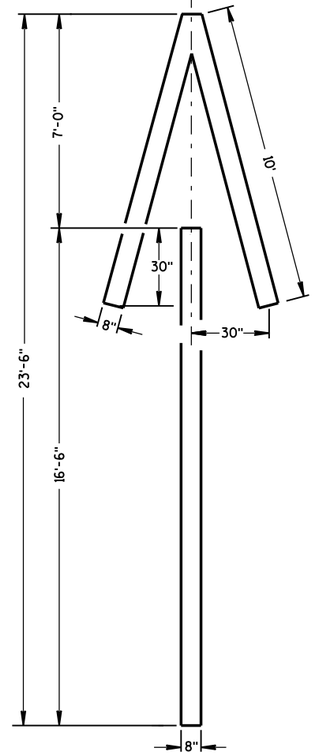
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



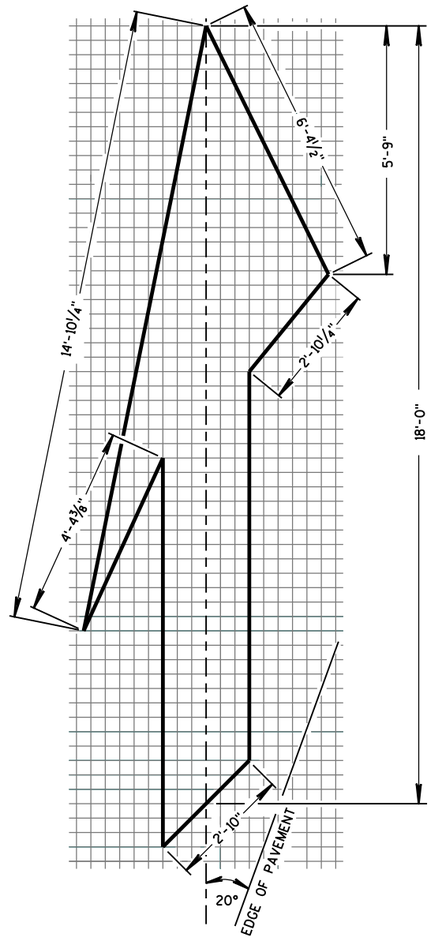
TYPE 2



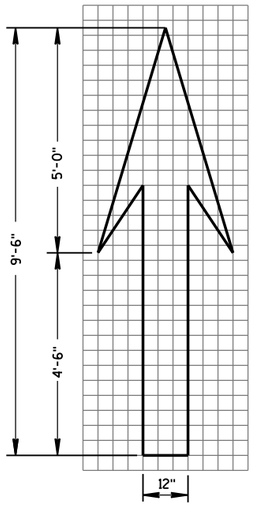
TYPE 6



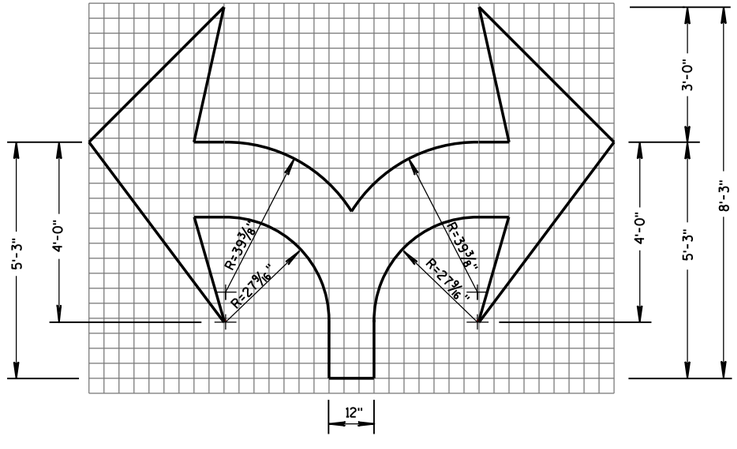
TYPE 4



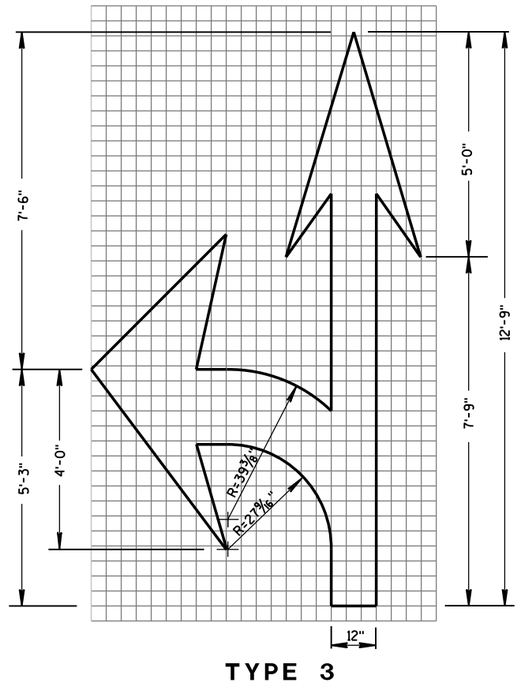
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

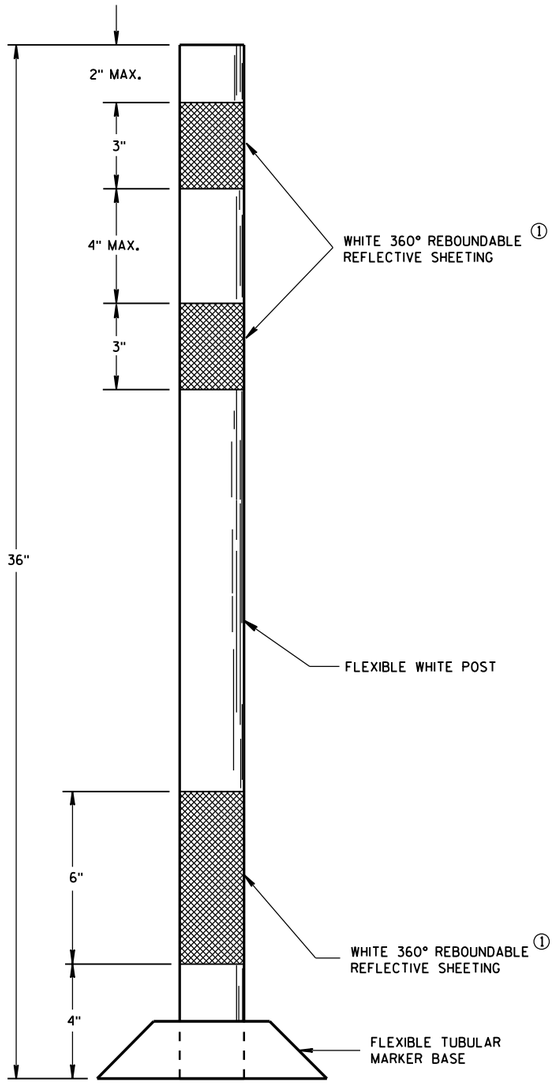
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

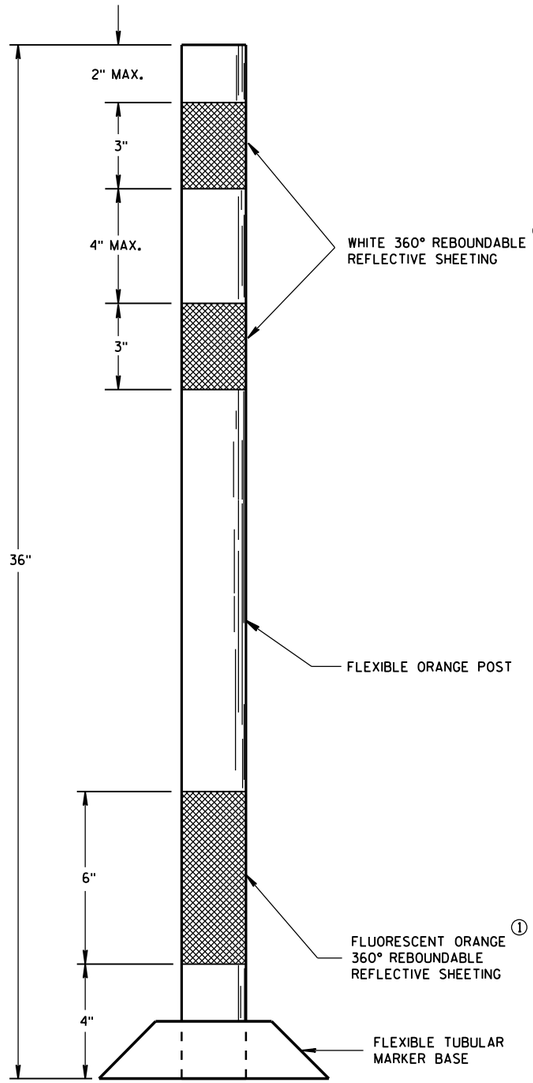
S.D.D. 15 C 7-14c

6

S.D.D. 15 C 7-14c



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, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

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

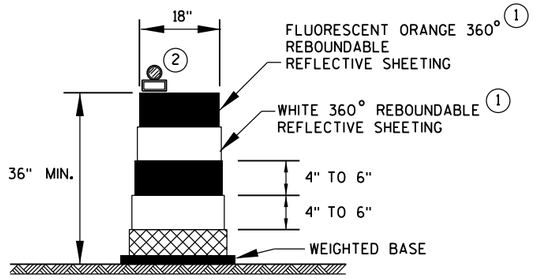
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

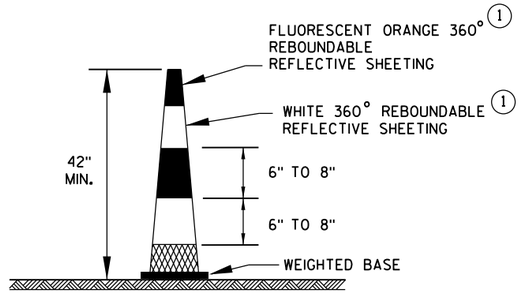
APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
FHWA

6

S.D.D. 15 C 11-7a



DRUM

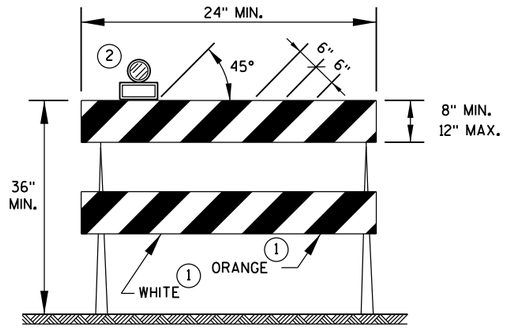


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

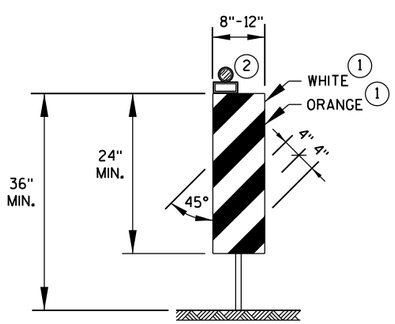
GENERAL NOTES

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



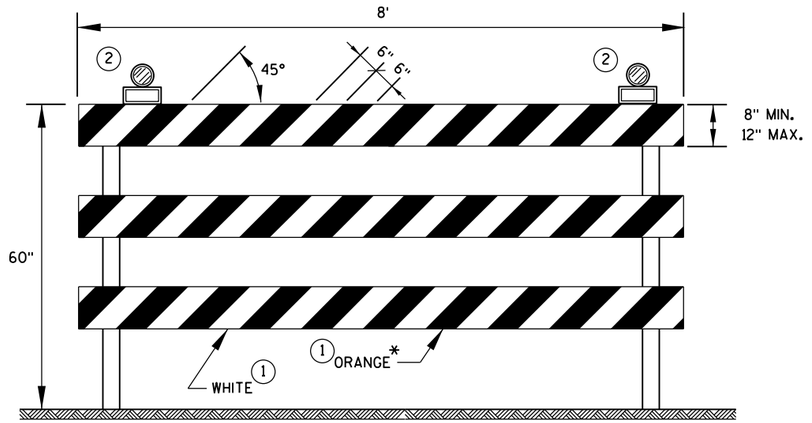
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

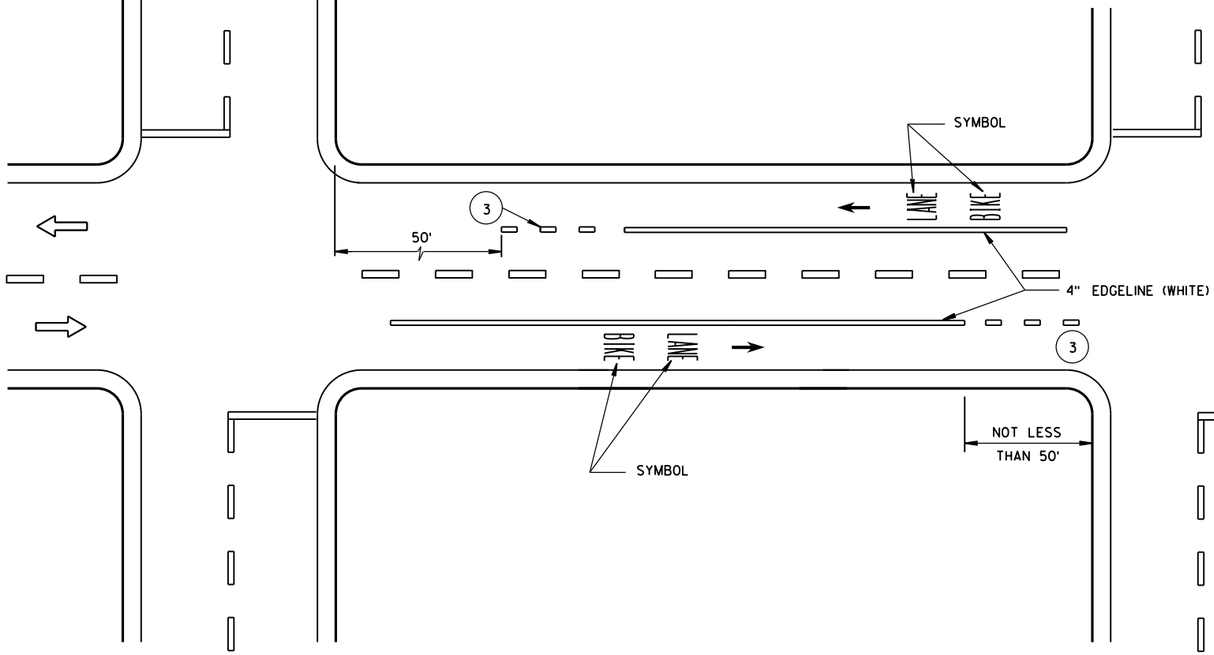
June 2017 — DATE

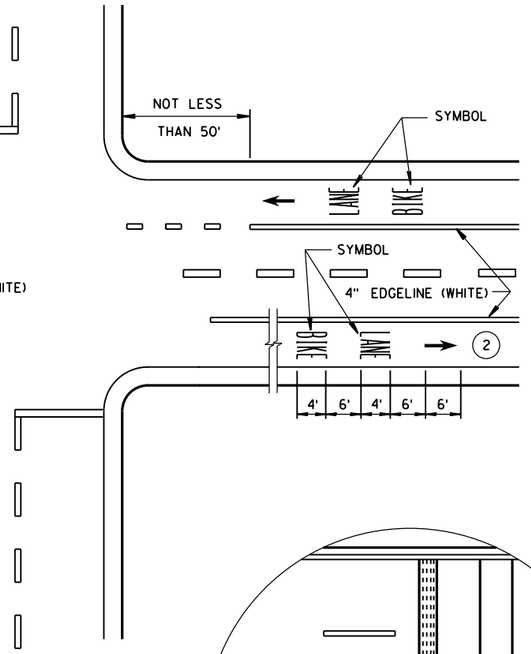
/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

6

S.D.D. 15 C 11-7b



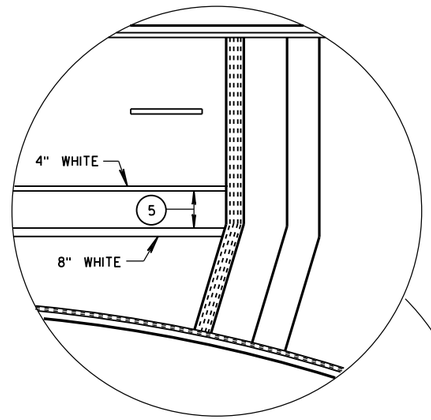


DESIGNATED BICYCLE LANE
NO PARKING

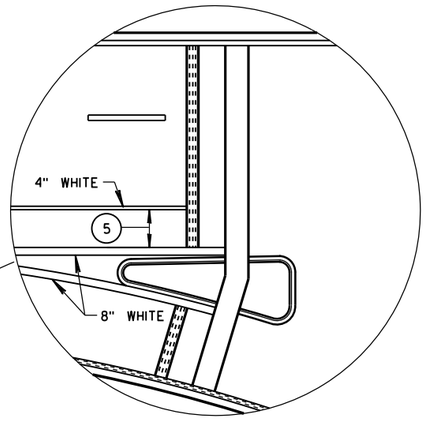
GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET 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. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

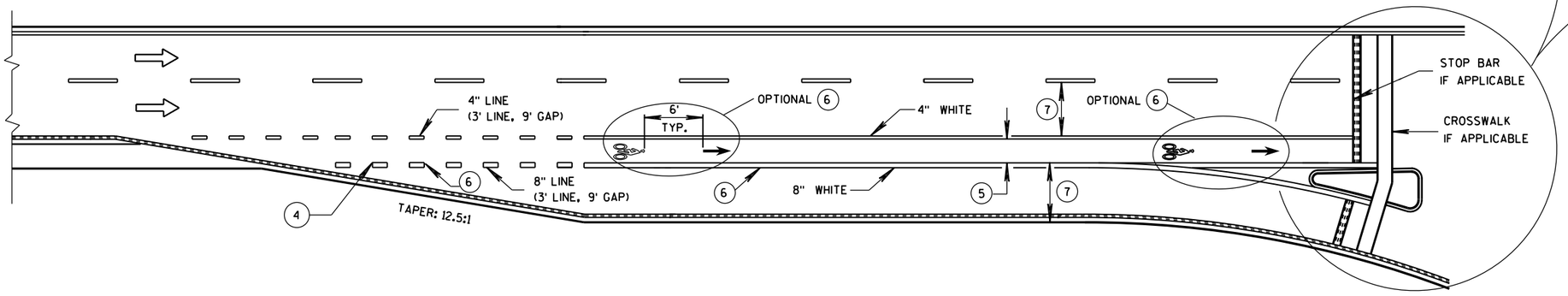
⇨ DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

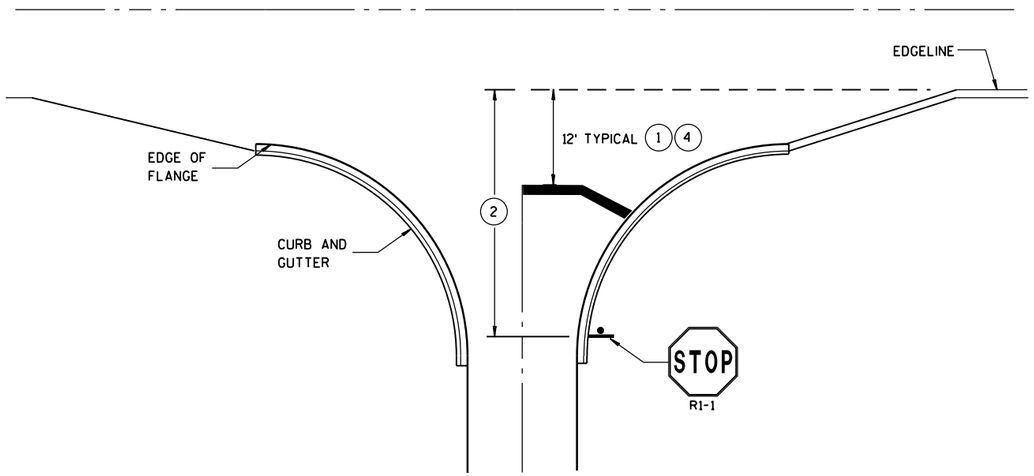
BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	375

6

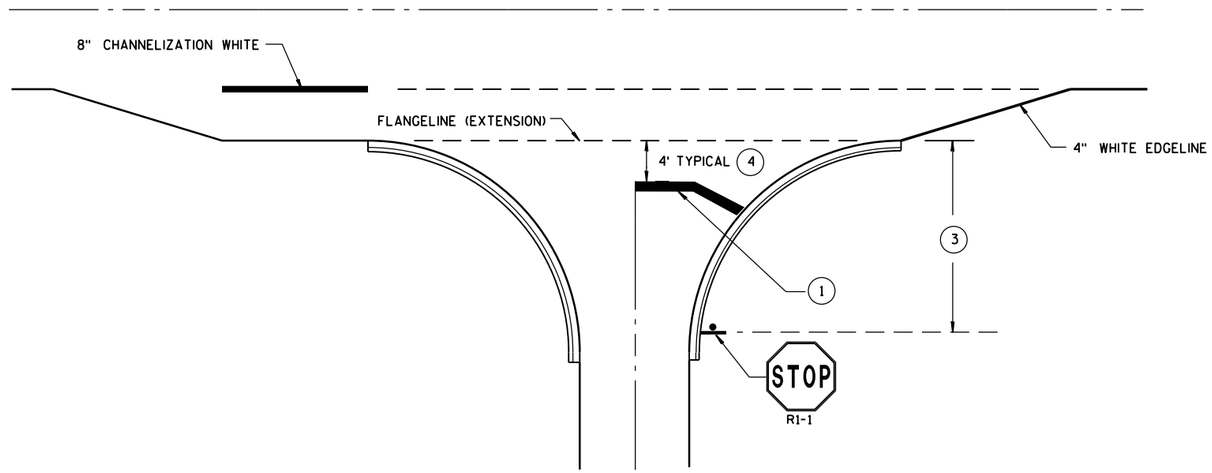
S.D.D. 15 C 29-5a

6

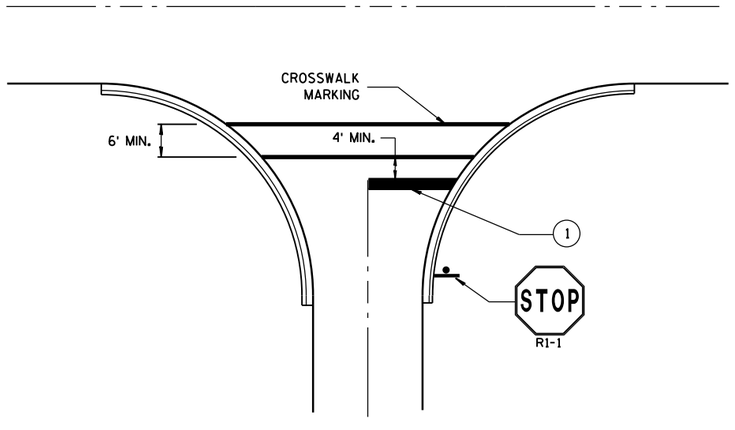
S.D.D. 15 C 29-5a



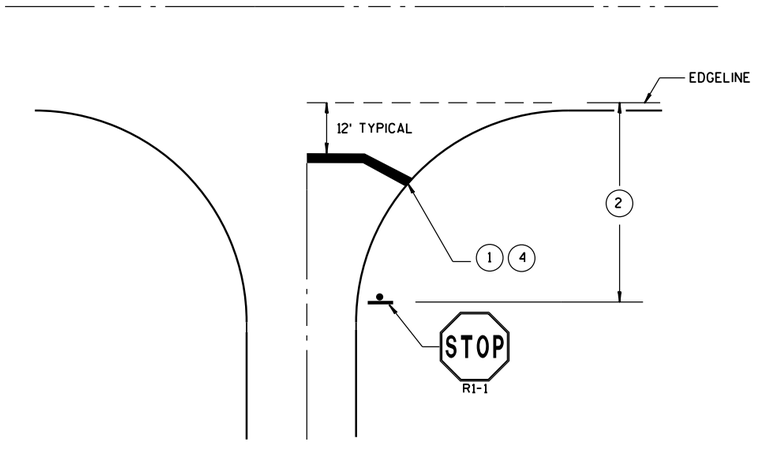
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

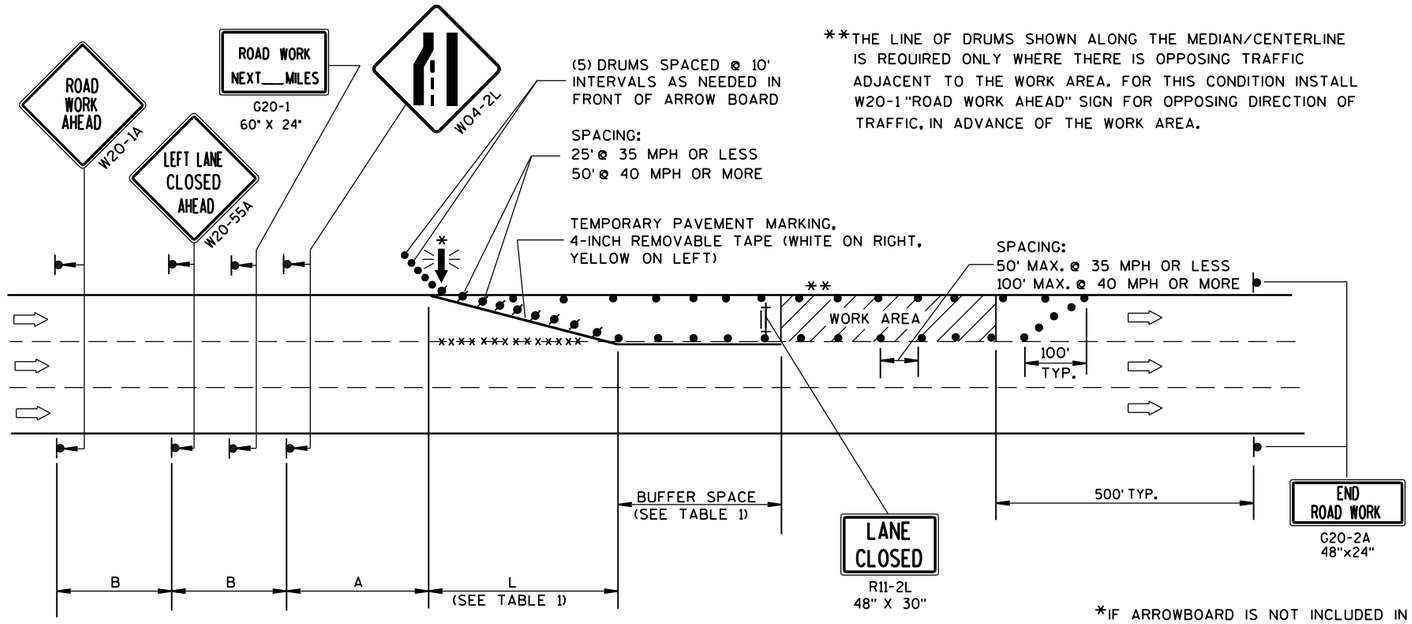
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR ENGINEER

FHWA

6

S.D.D. 15 C 33-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

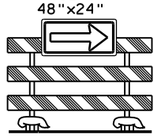


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

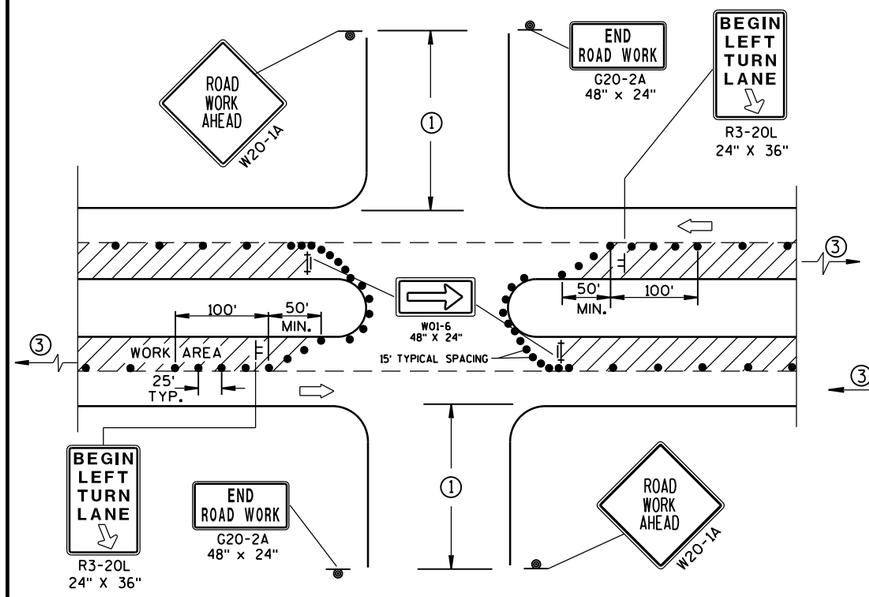
IC

6

S.D.D. 15 D 20-4

6

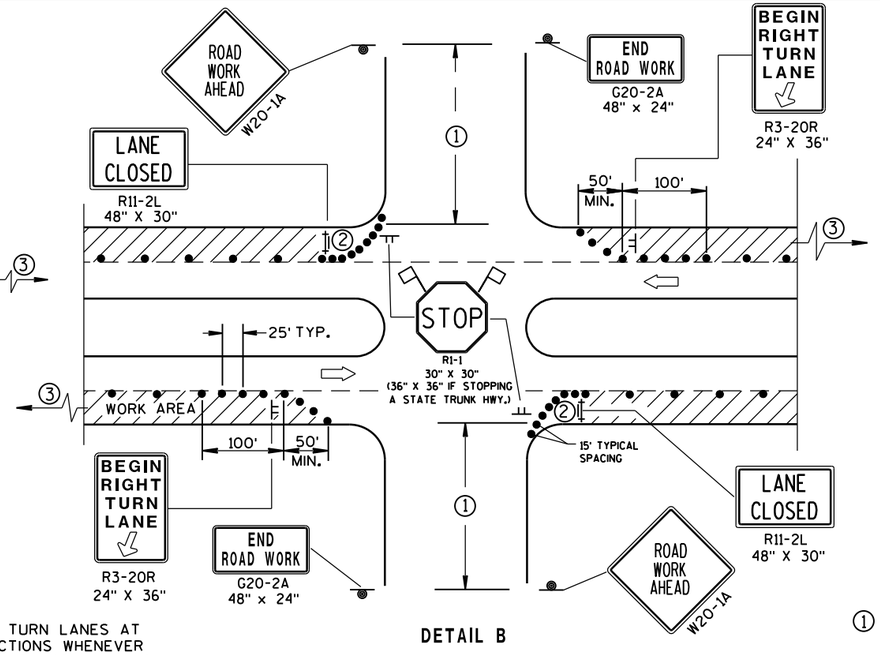
S.D.D. 15 D 20-4



DETAIL A

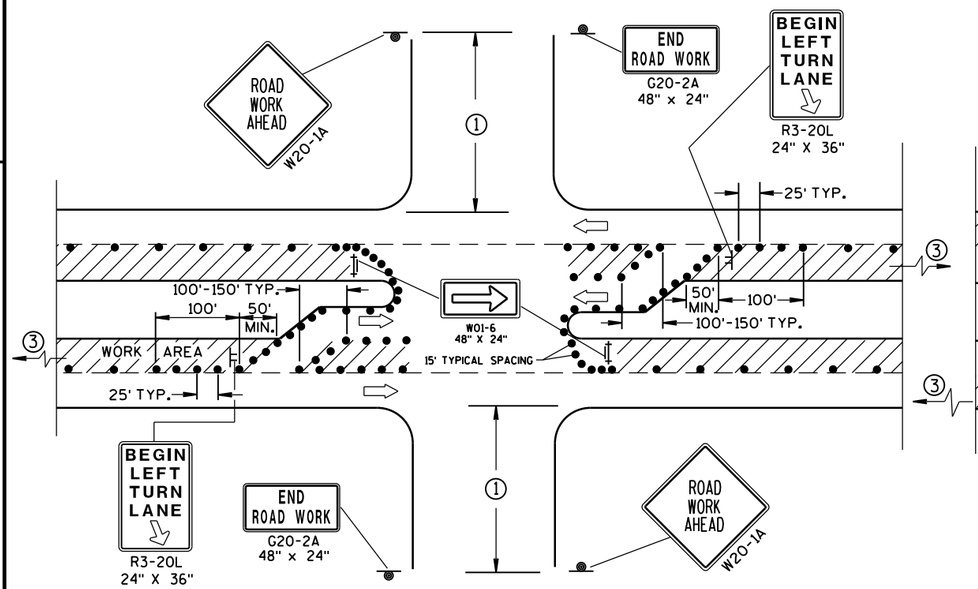
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



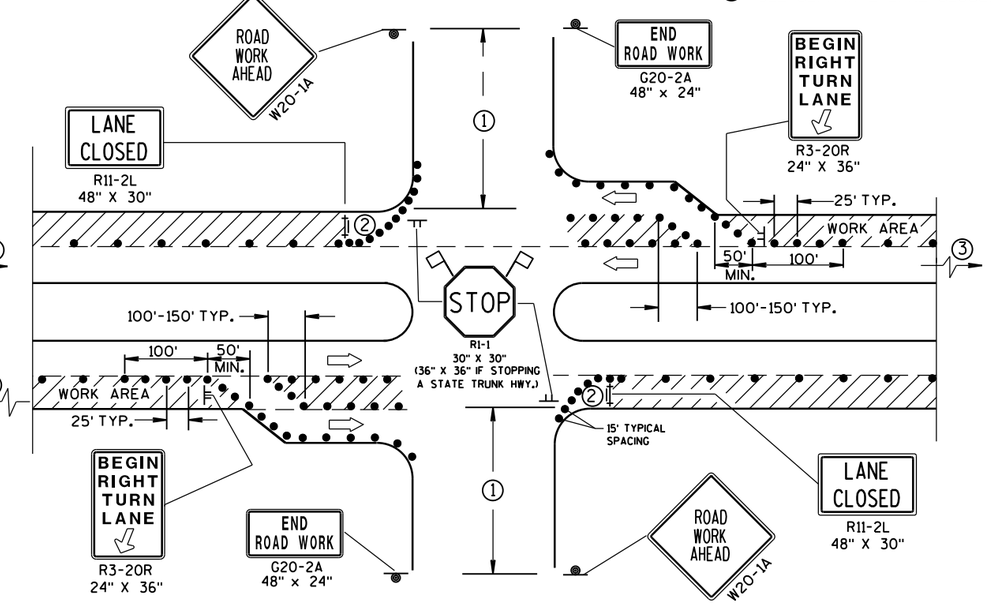
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

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



DETAIL D

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

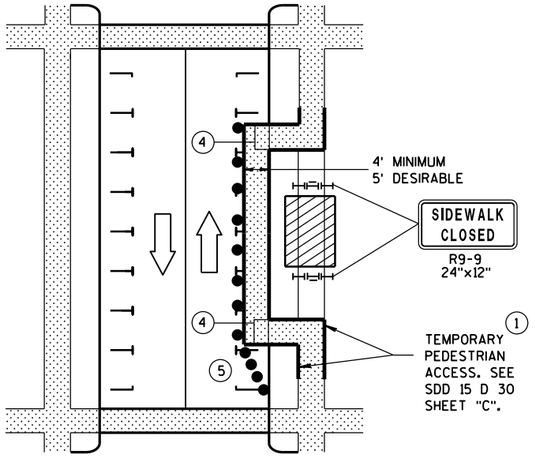
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENG
FHWA

6

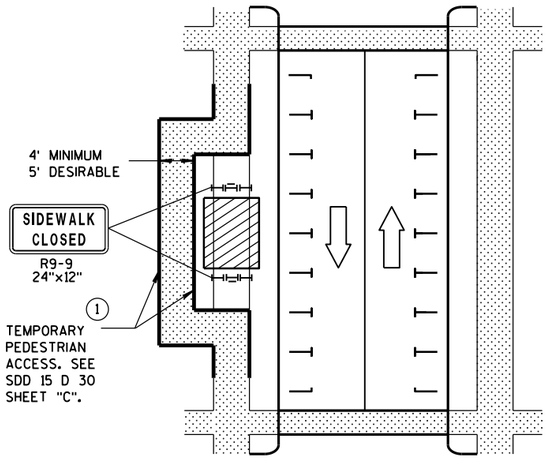
S.D.D. 15 D 21-5

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

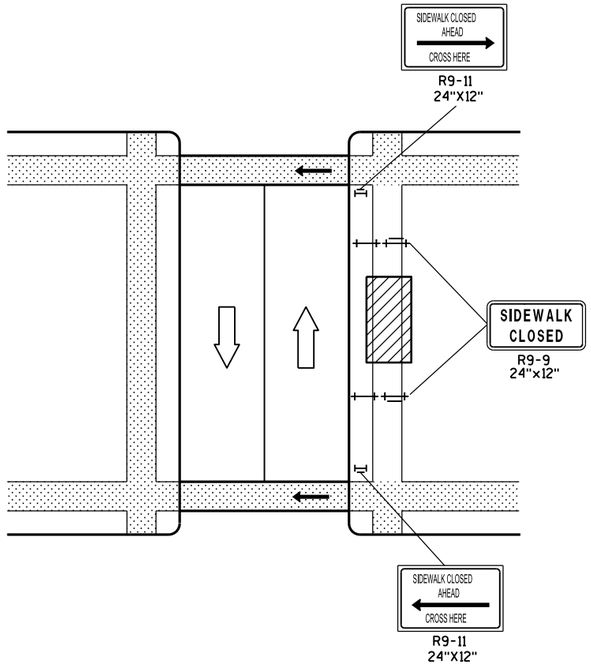


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

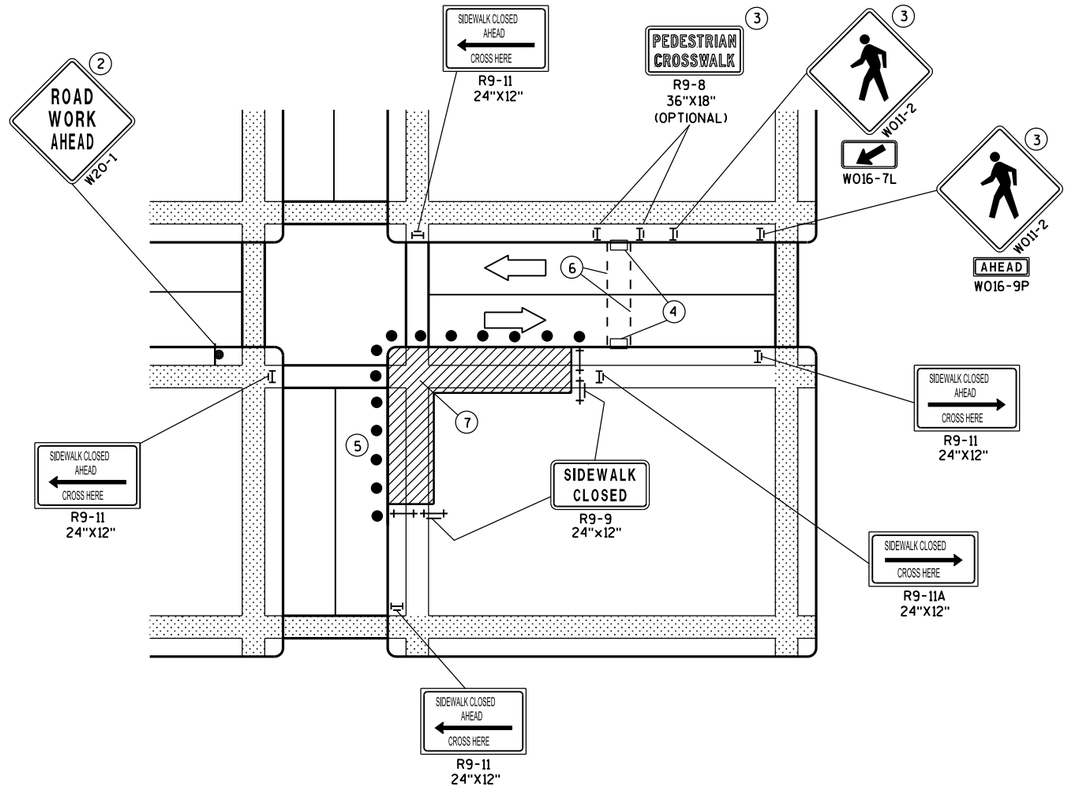
NOTE: LAYOUT SAME AS ABOVE.



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.

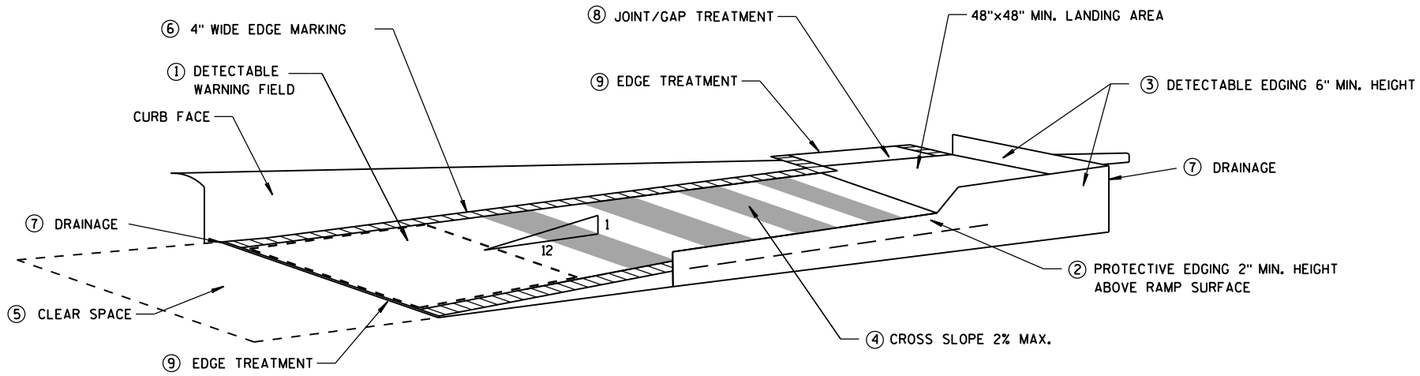
(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

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.

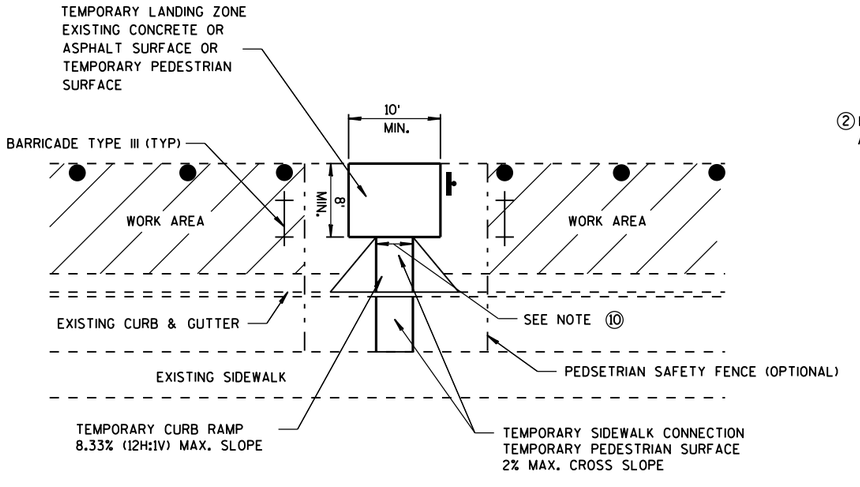
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

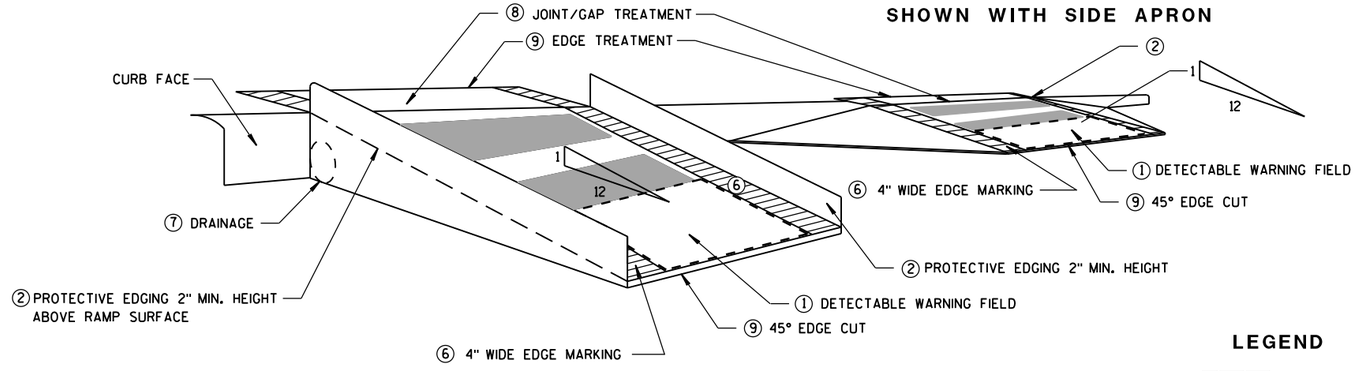
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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 ZO SAFETY ENGI IC

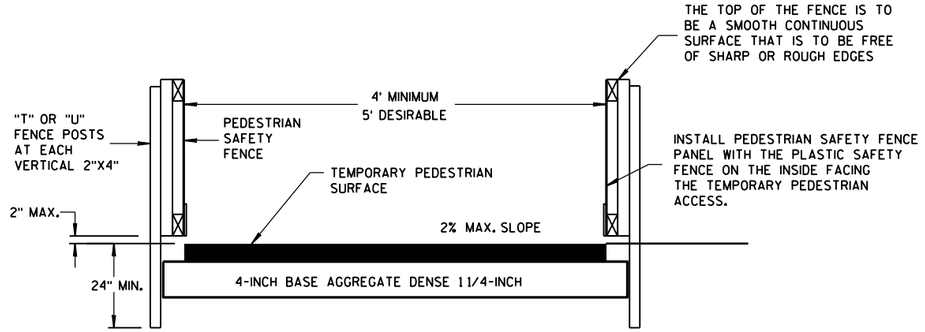
FHWA

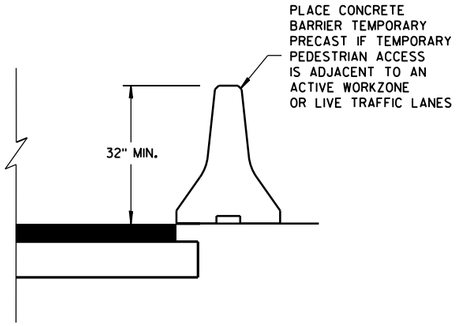
6

S.D.D. 15 D 30-3b

6

S.D.D. 15 D 30-3b

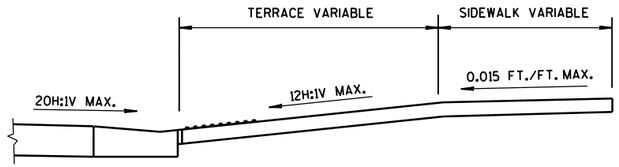




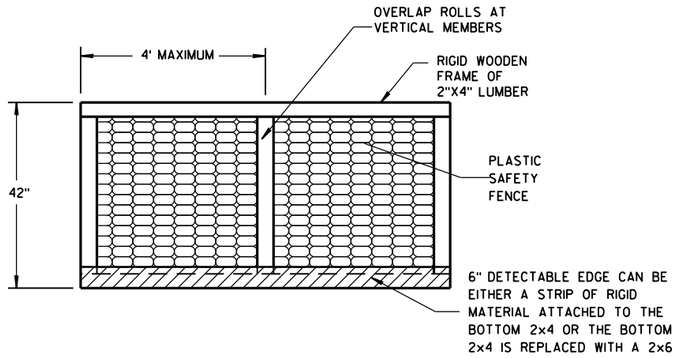
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

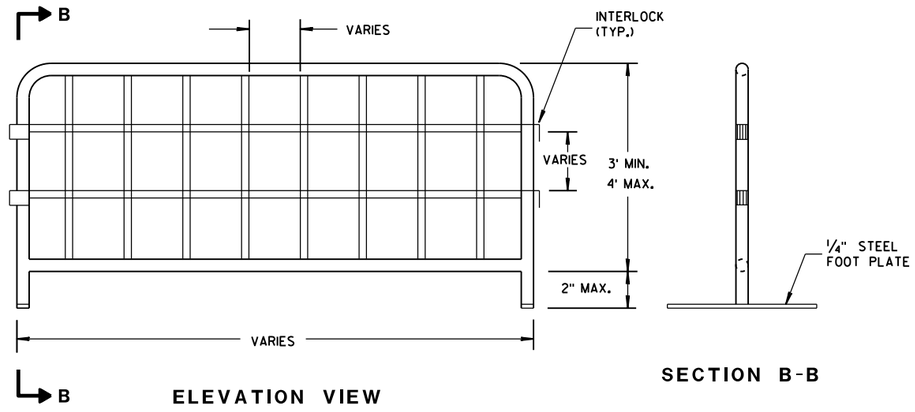
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



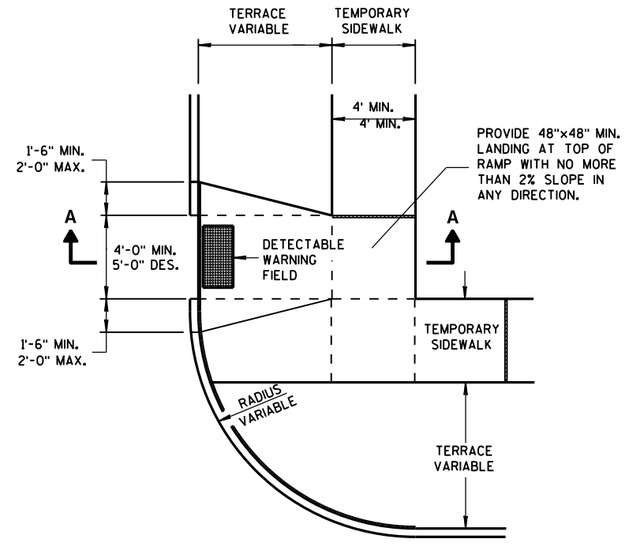
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

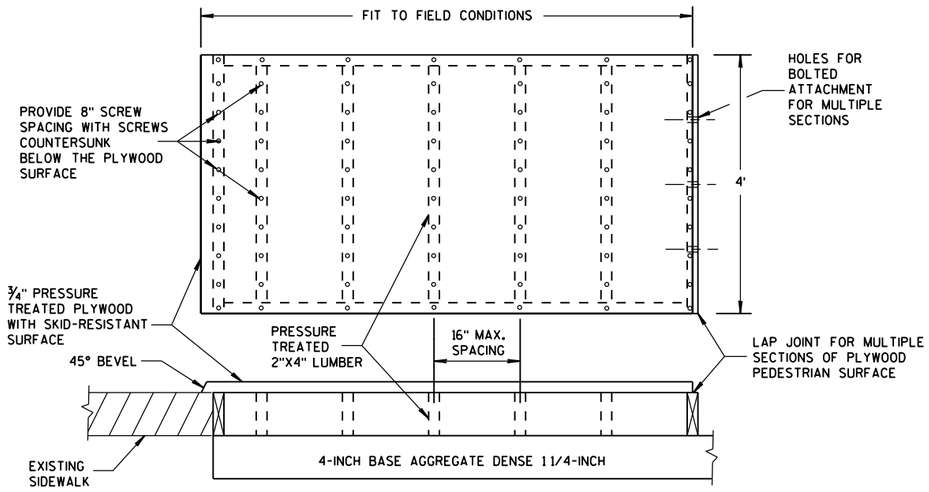
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



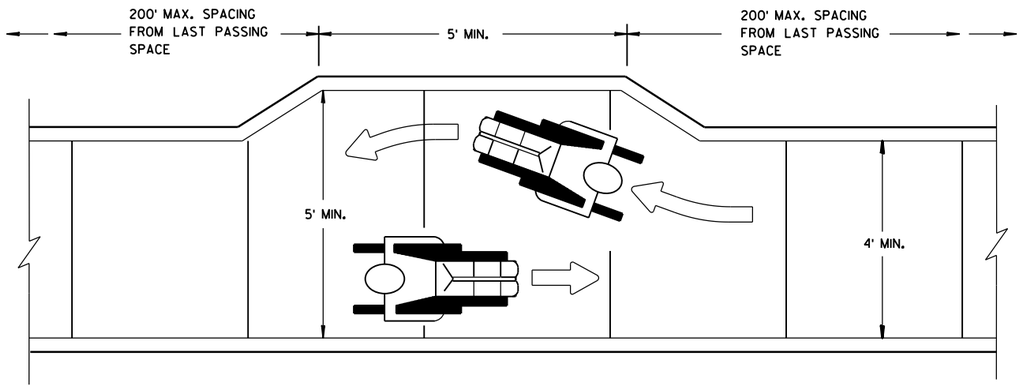
PLAN VIEW

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

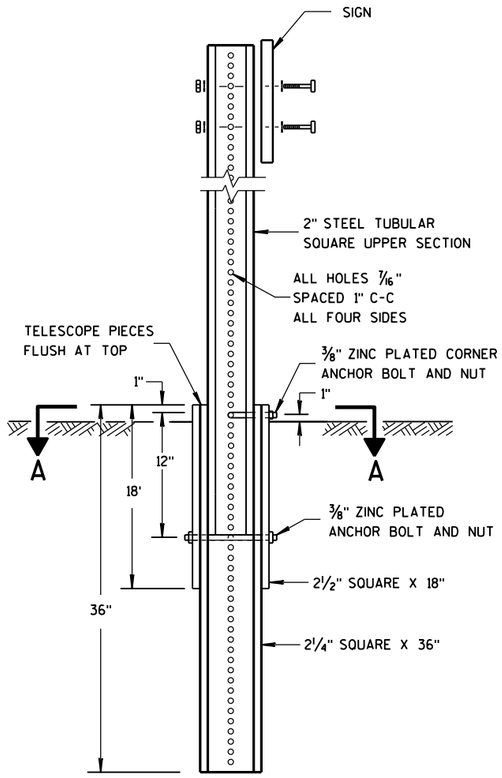
APPROVED
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

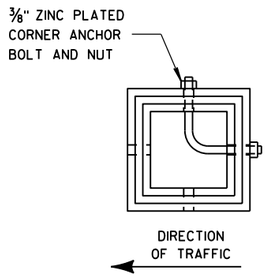
S.D.D. 15 D 30-3c

6

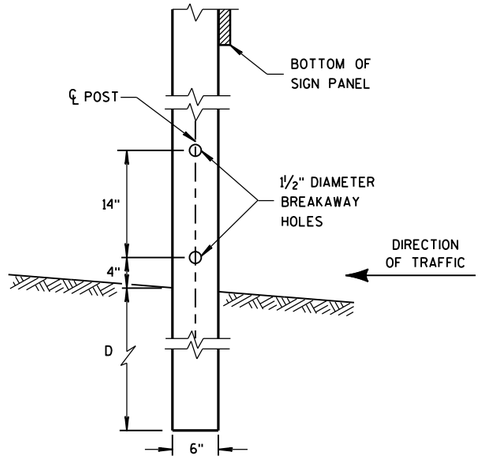
S.D.D. 15 D 30-3c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



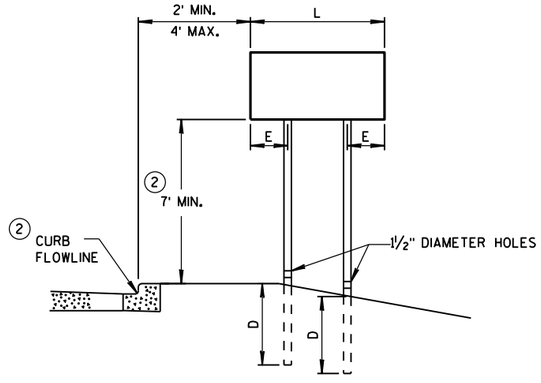
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

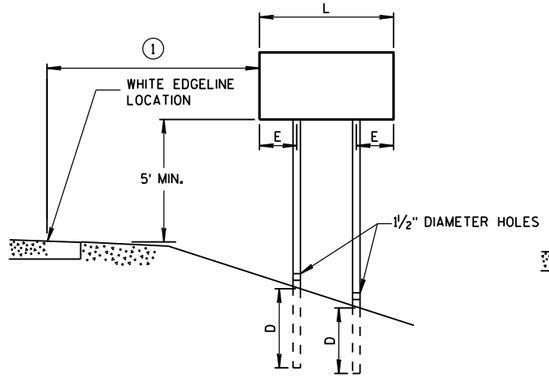
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

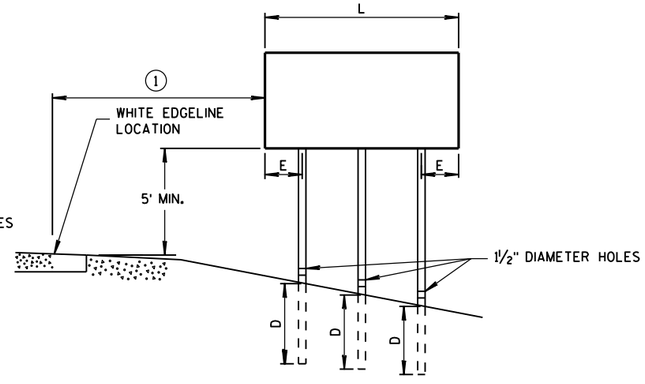
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

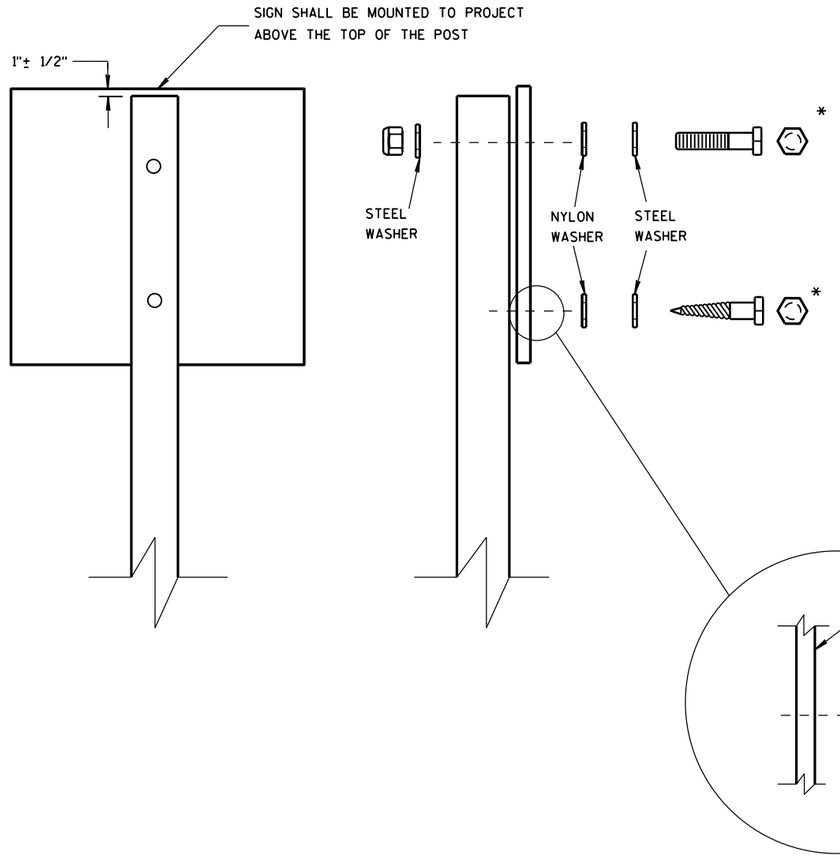
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

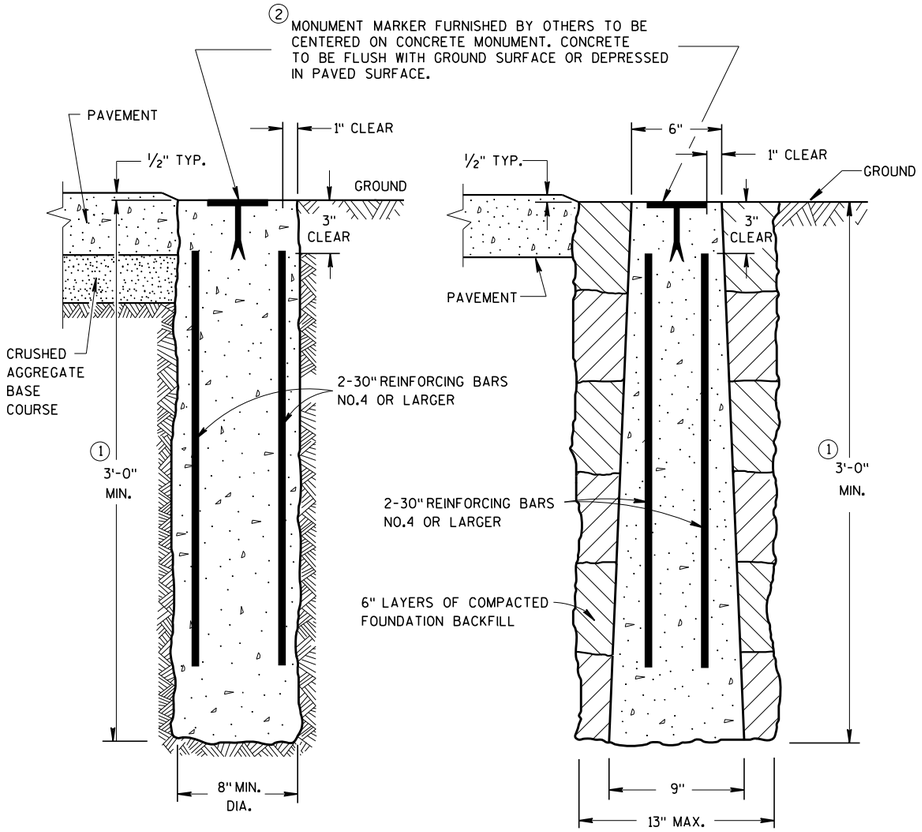
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

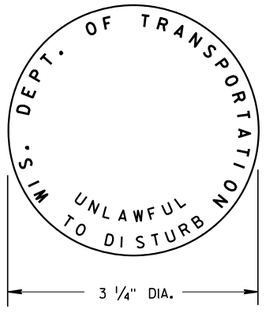


CAST-IN-PLACE

PRECAST

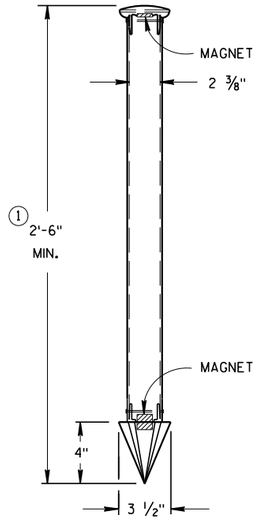
CONCRETE MONUMENTS

TYPE A



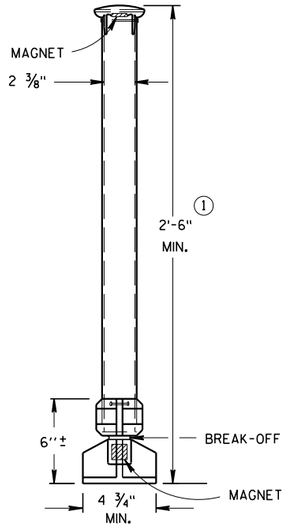
② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C", & "D"



TYPE C

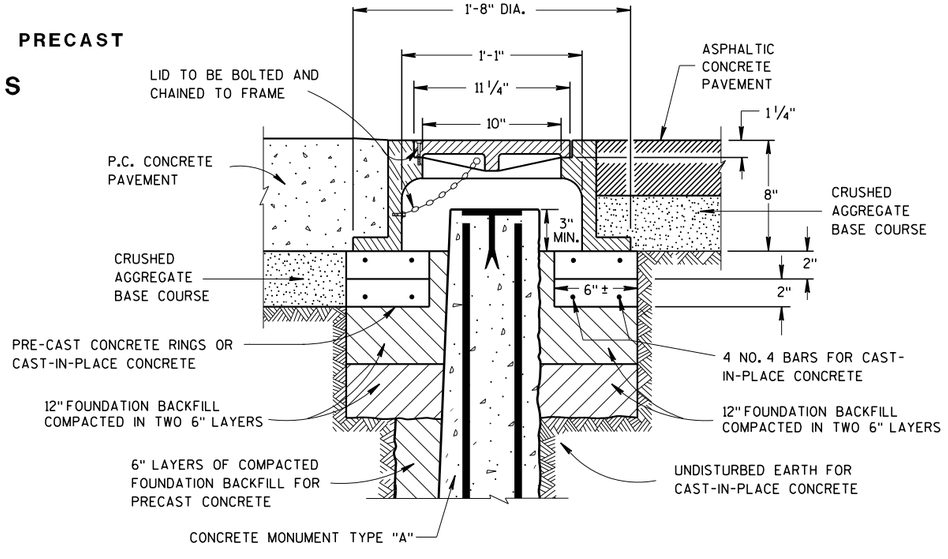
DRIVE-IN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)

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.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

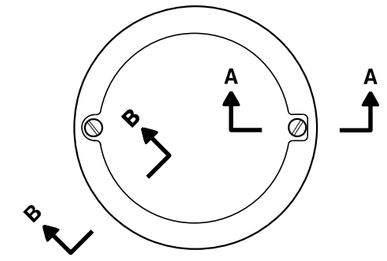
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

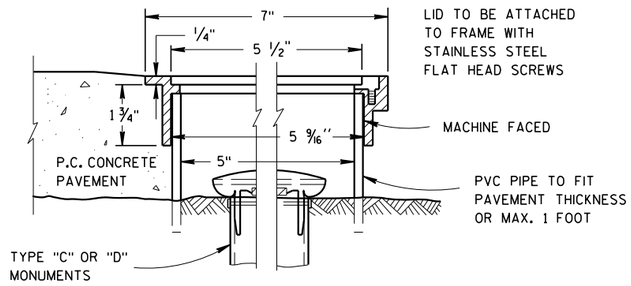
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Raymond A. Kumagai — CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

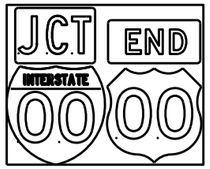
6

S.D.D. 16 A 1-7

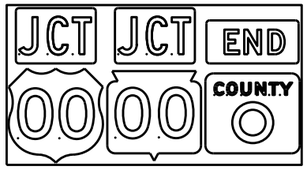
TYPICAL ASSEMBLIES



J1-1



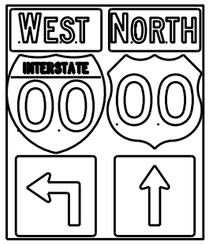
J1-2



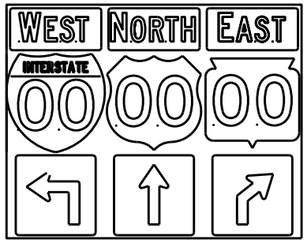
J1-3



J2-1



J2-2

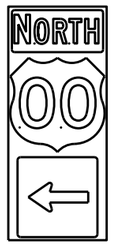


J2-3

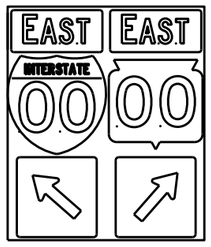


JV

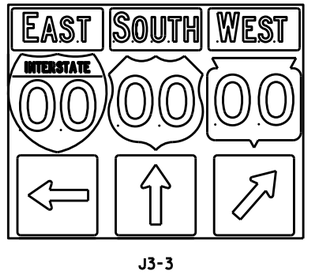
(Typical Vertical J-Assembly
See Note 10 and 11)



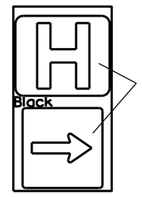
J3-1



J3-2



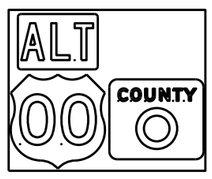
J3-3



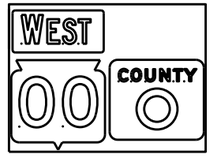
JH-1



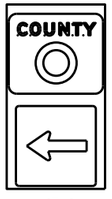
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

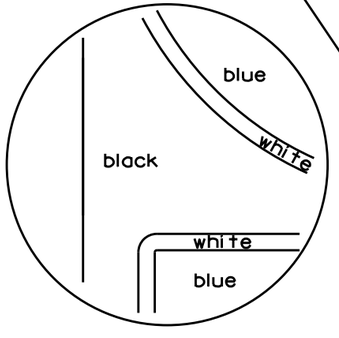


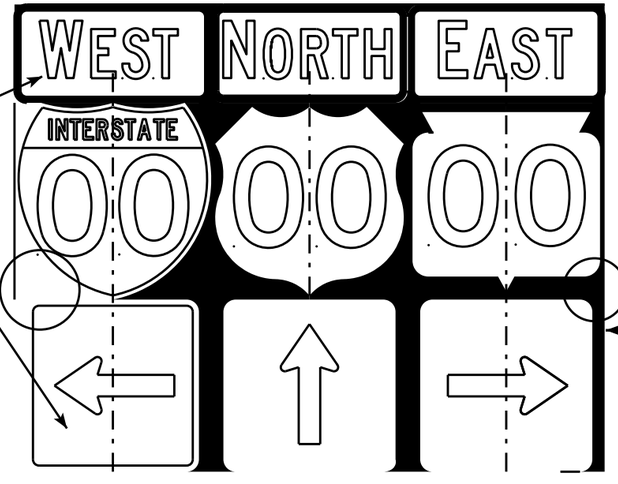
J23-1

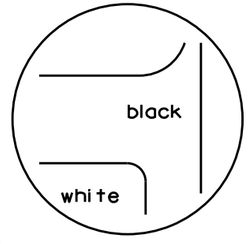


J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

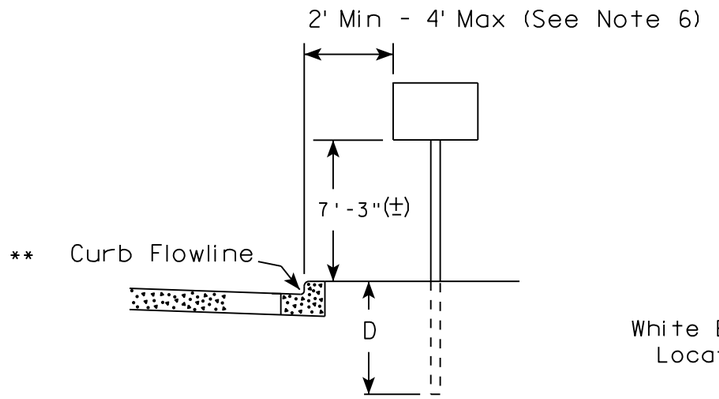
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

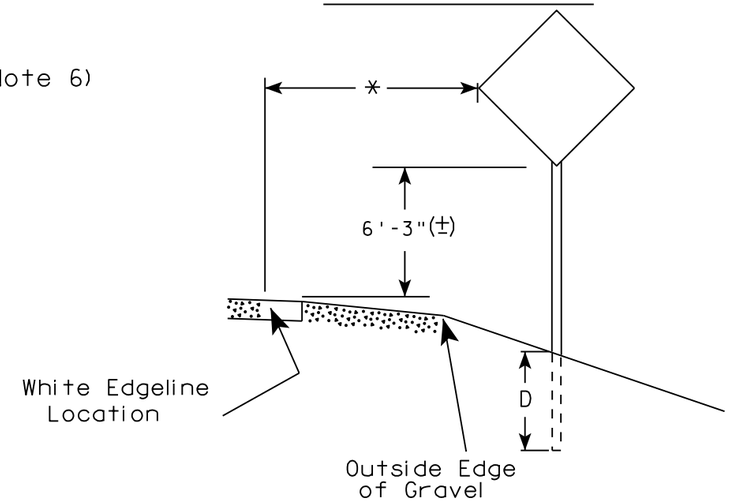
PROJECT NO: | SHEET NO: E

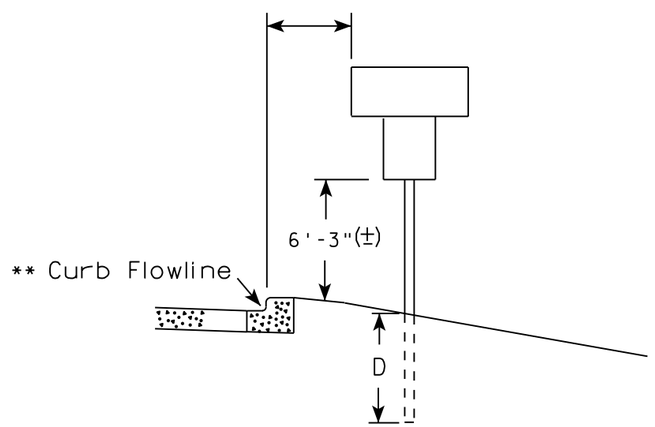
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

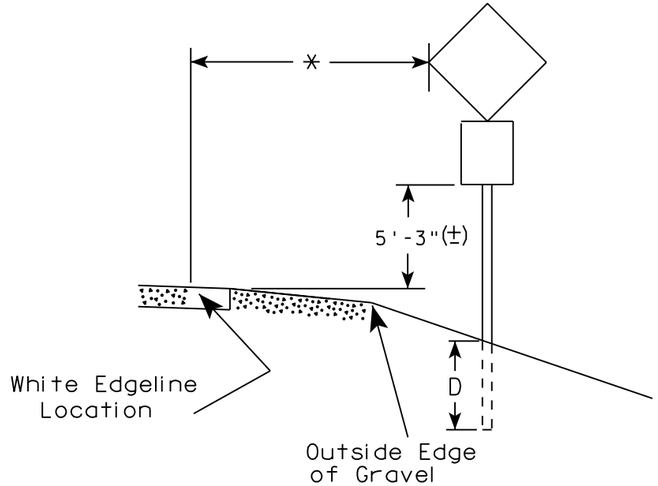
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

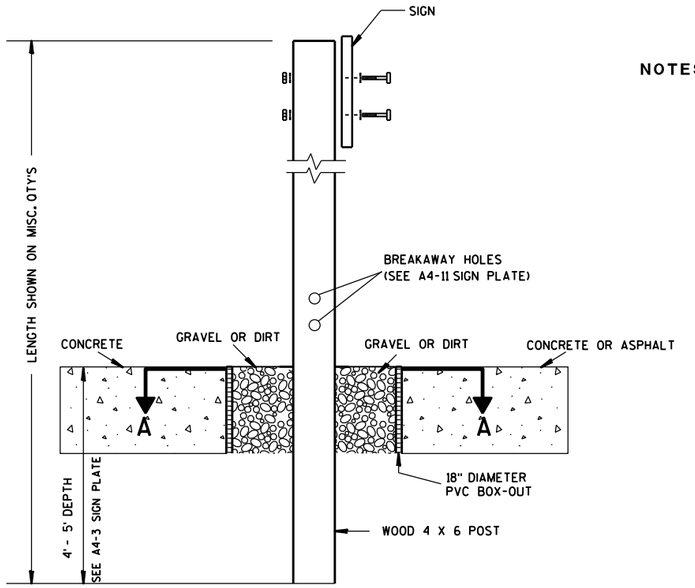
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7 7

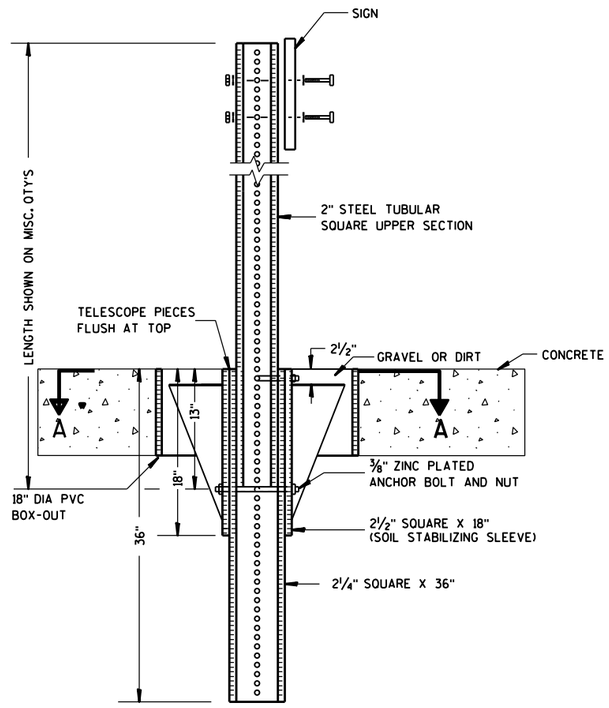
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 386	E



ELEVATION VIEW

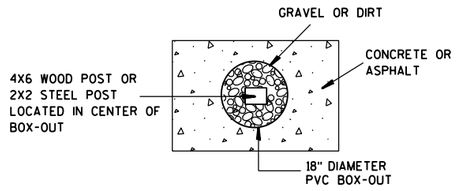
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

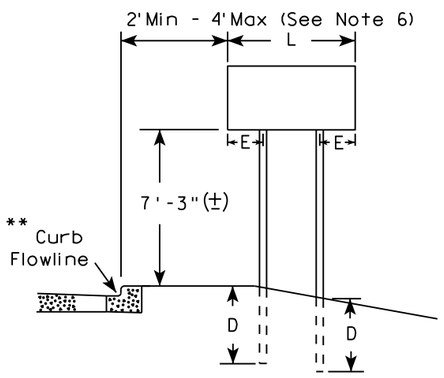
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

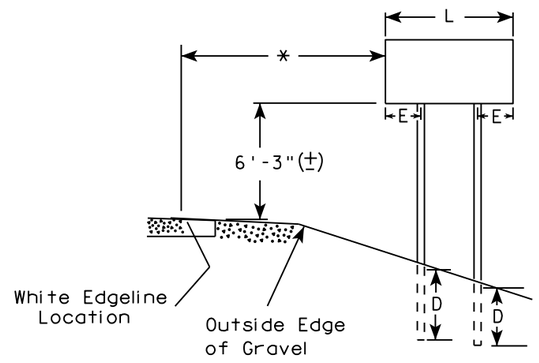
DATE 1/27/14 PLATE NO. A4-3B.1

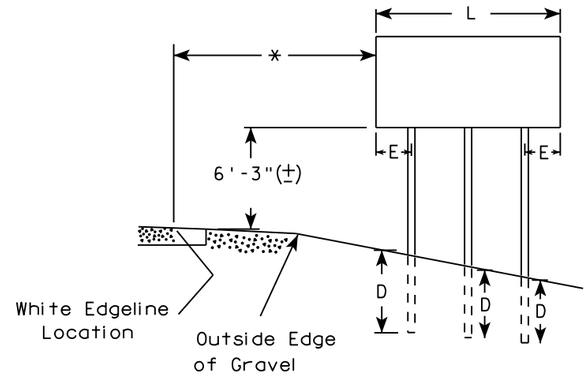
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

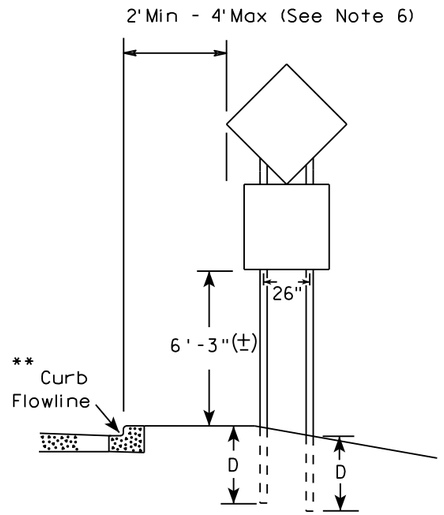
URBAN AREA



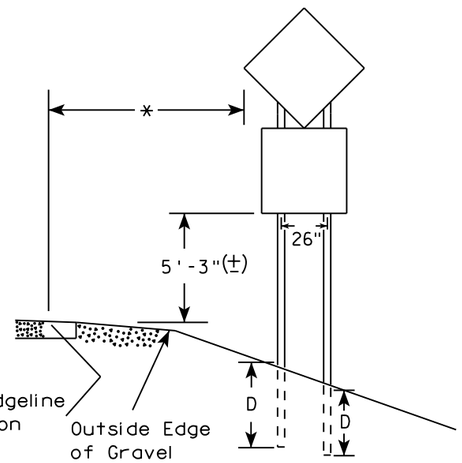
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

***

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

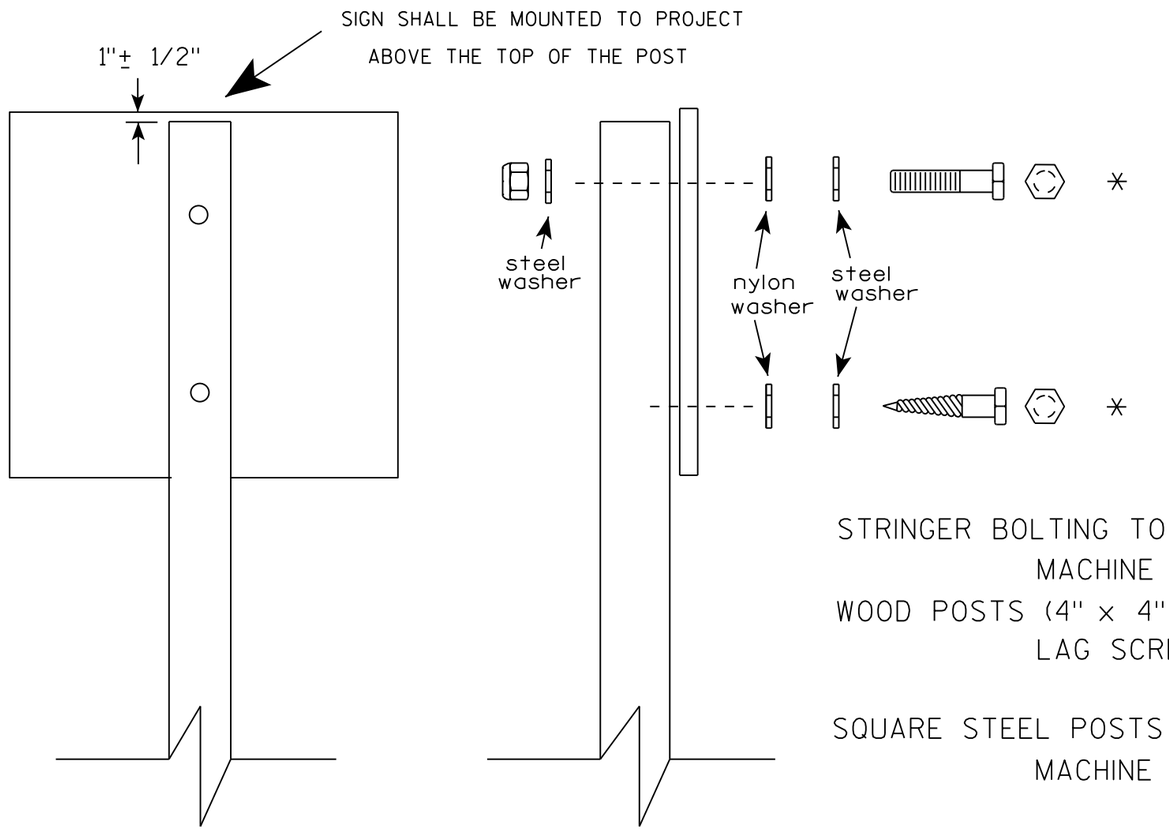
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 388 | E



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

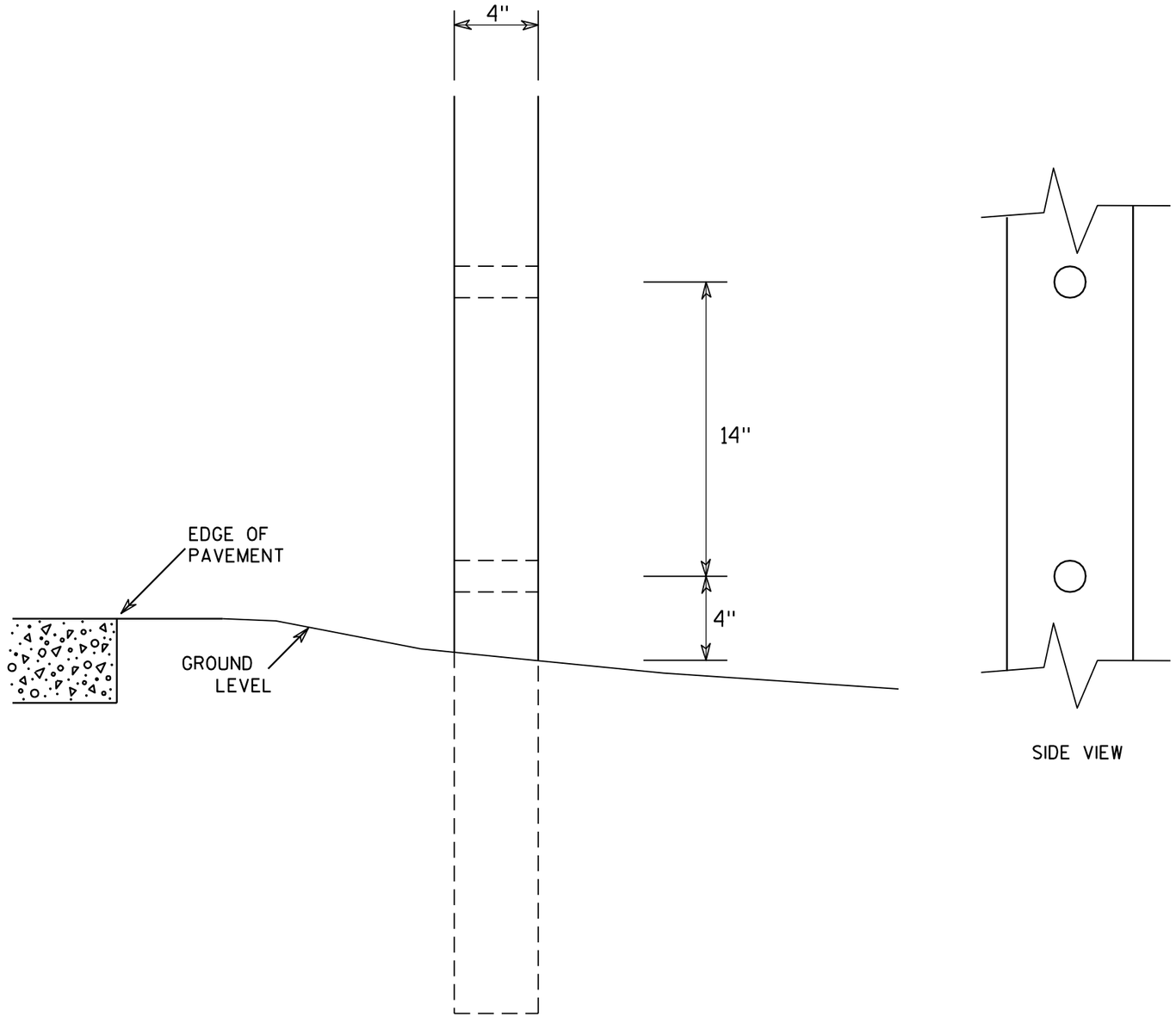
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

7

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

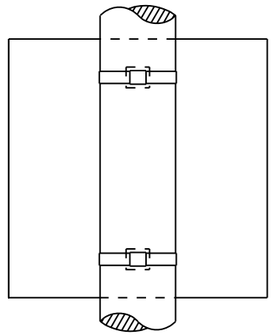
APPROVED Chester J Spang for State Traffic Engineer

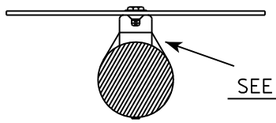
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 390	E

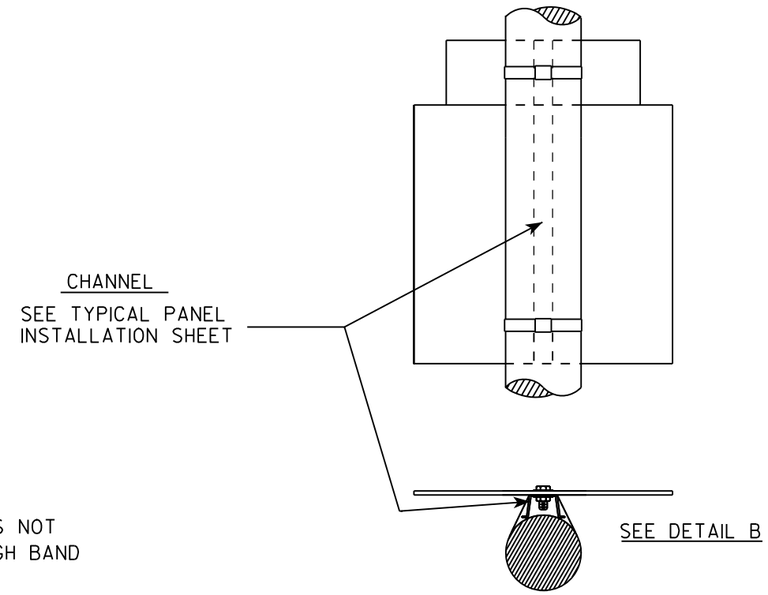
BANDING

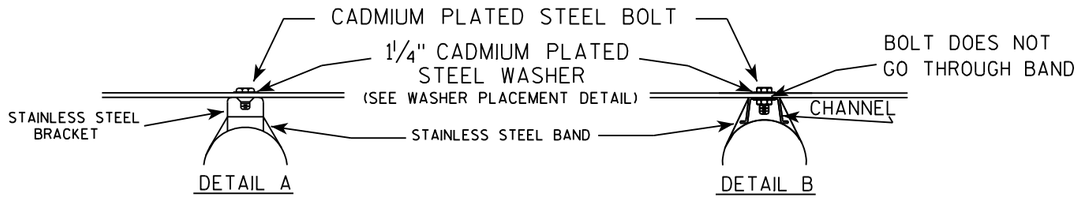
SINGLE SIGN



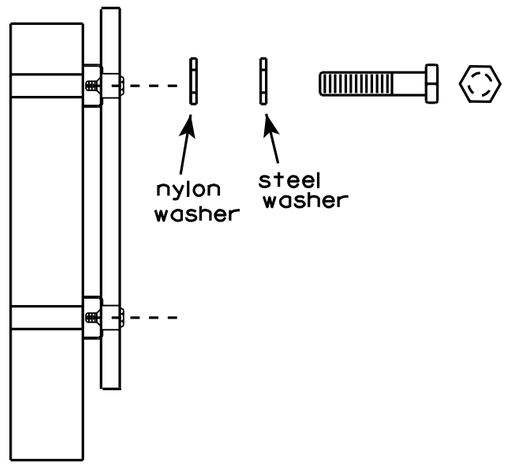


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

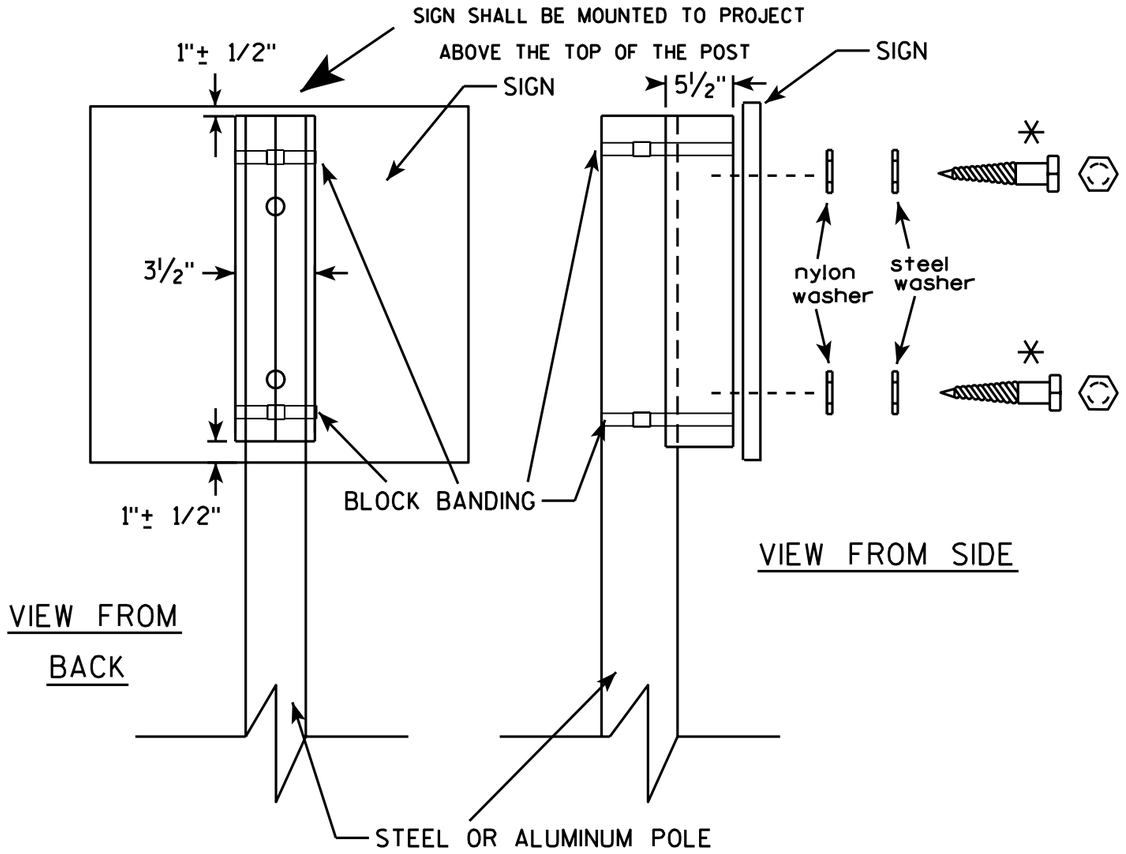
STANDARD SIGN
SIGN BANDING DETAILS

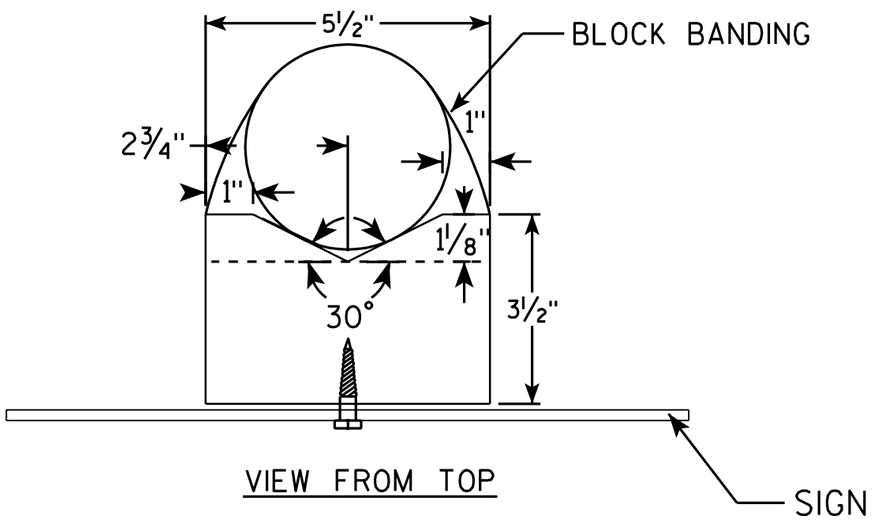
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 391	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

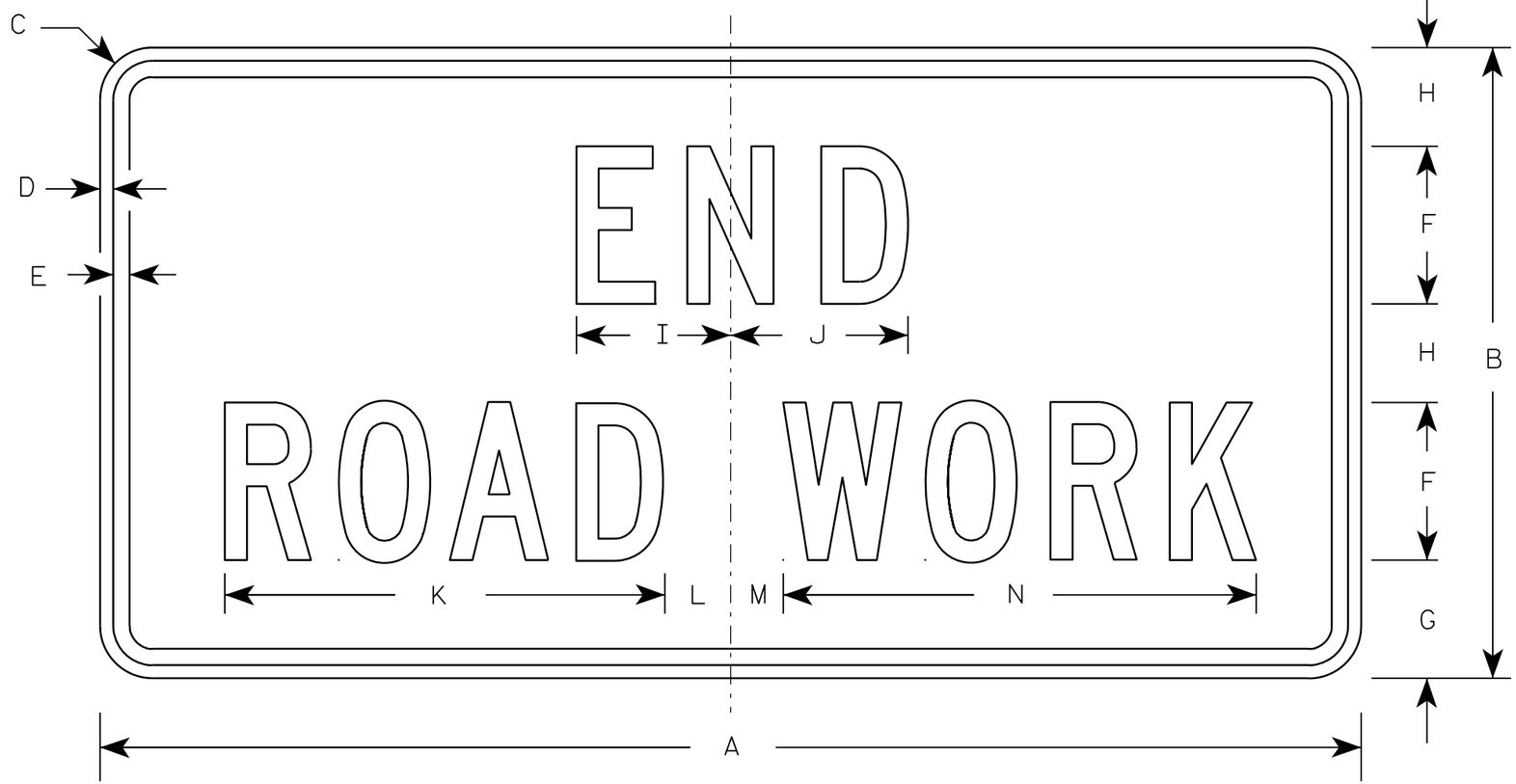
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 392 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

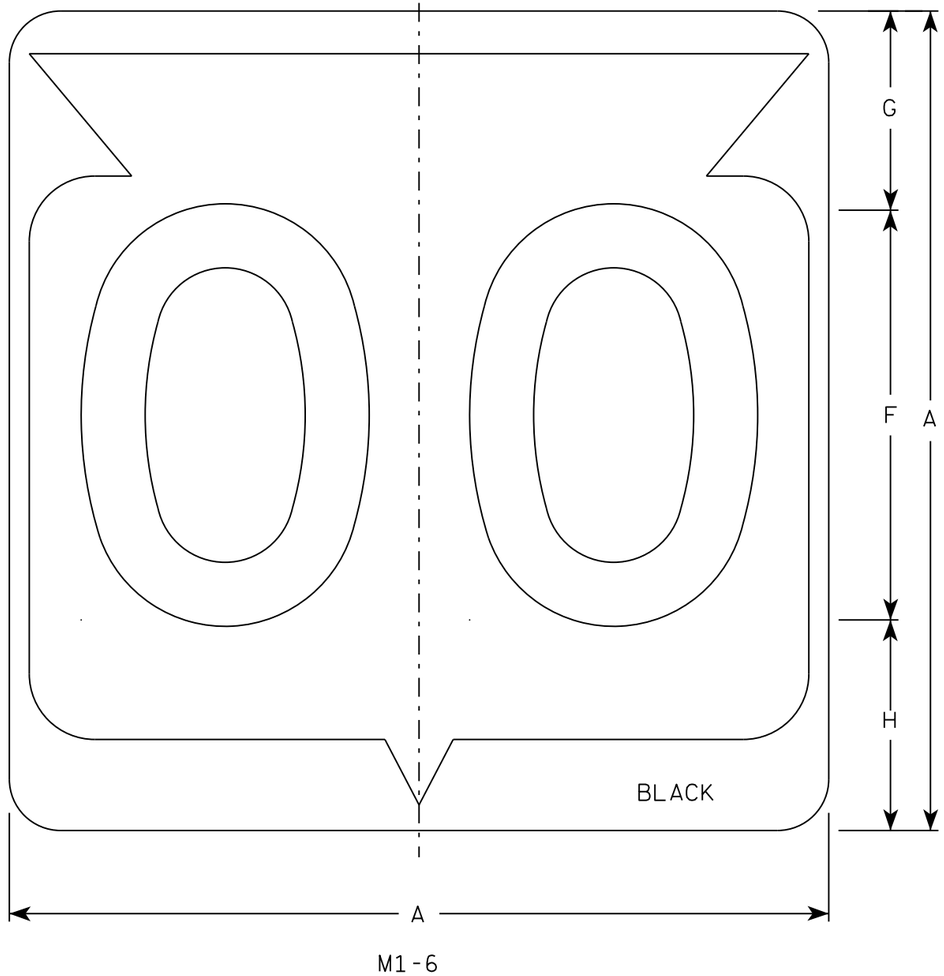
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

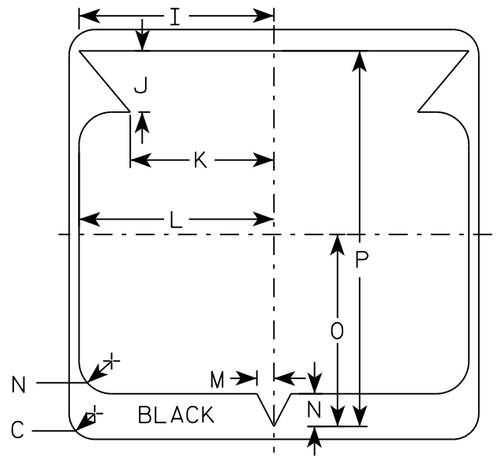
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 393	E



M1-6

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

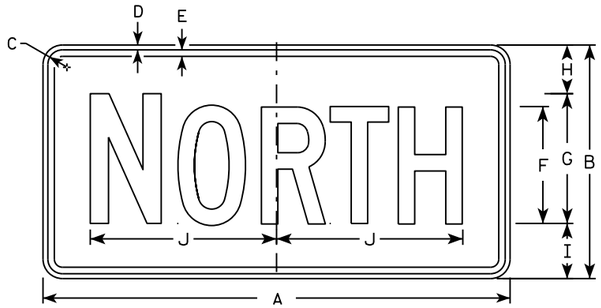
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

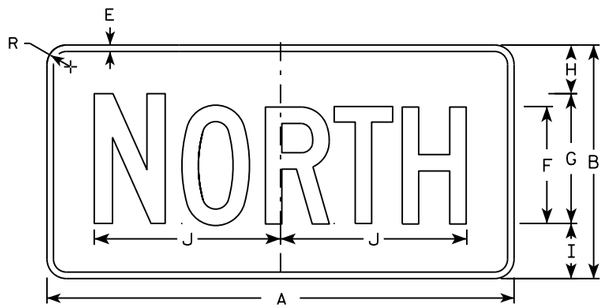
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 394 | E



M3-1
MM3-1
MP3-1



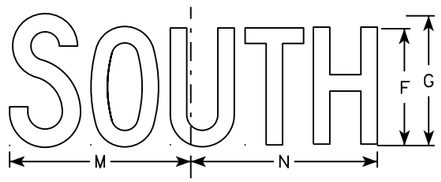
MB3-1
MK3-1
MN3-1



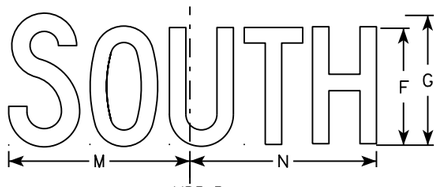
M3-2
MM3-2
MP3-2



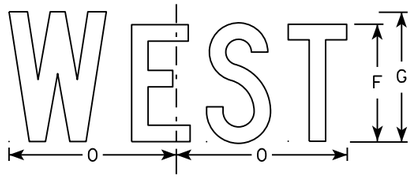
MB3-2
MK3-2
MN3-2



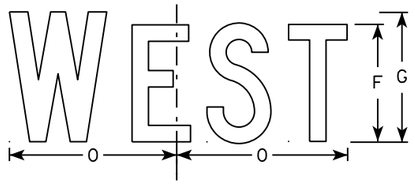
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

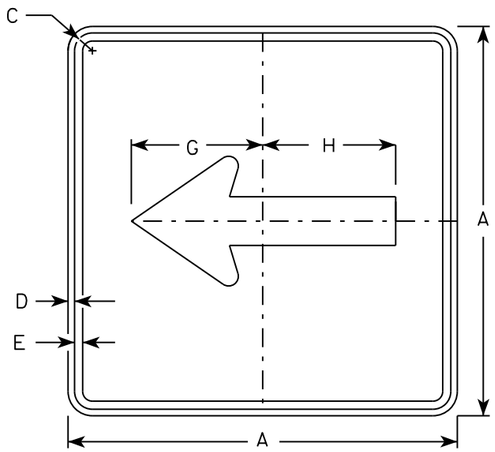
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

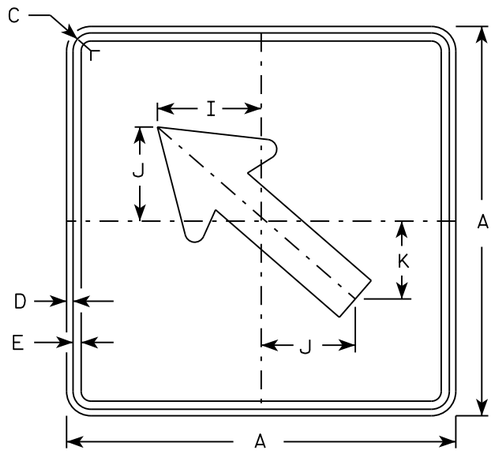
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



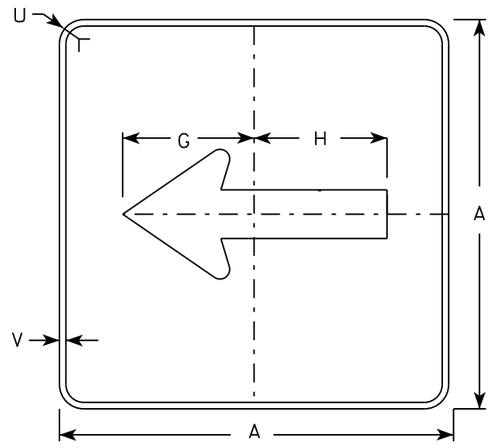
M6-1
MM6-1
MO6-1
MP6-1



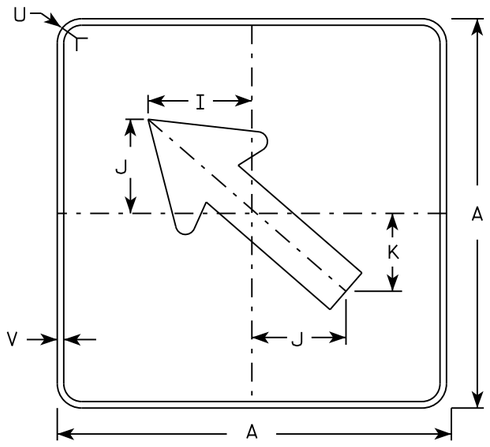
M6-2
MM6-2
MO6-2
MP6-2

NOTES

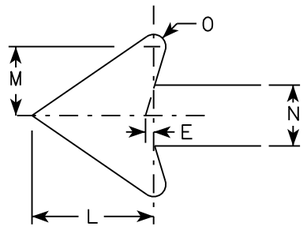
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

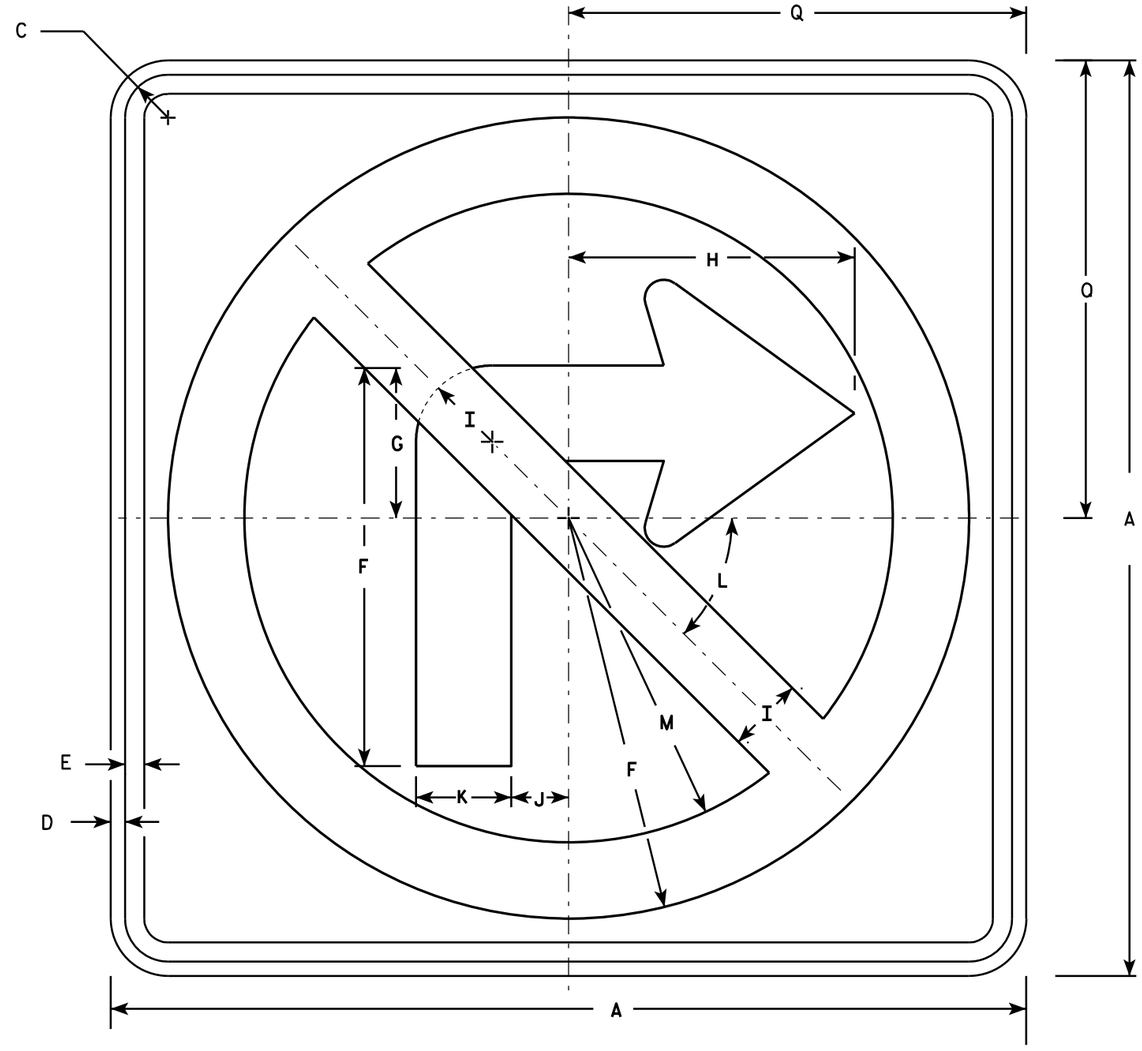
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 396 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

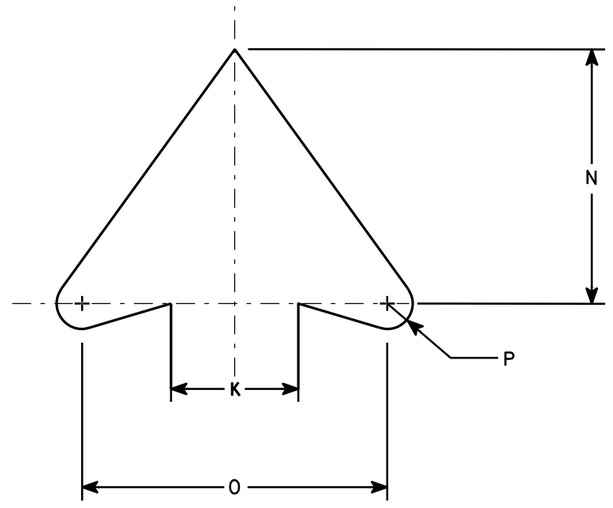
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

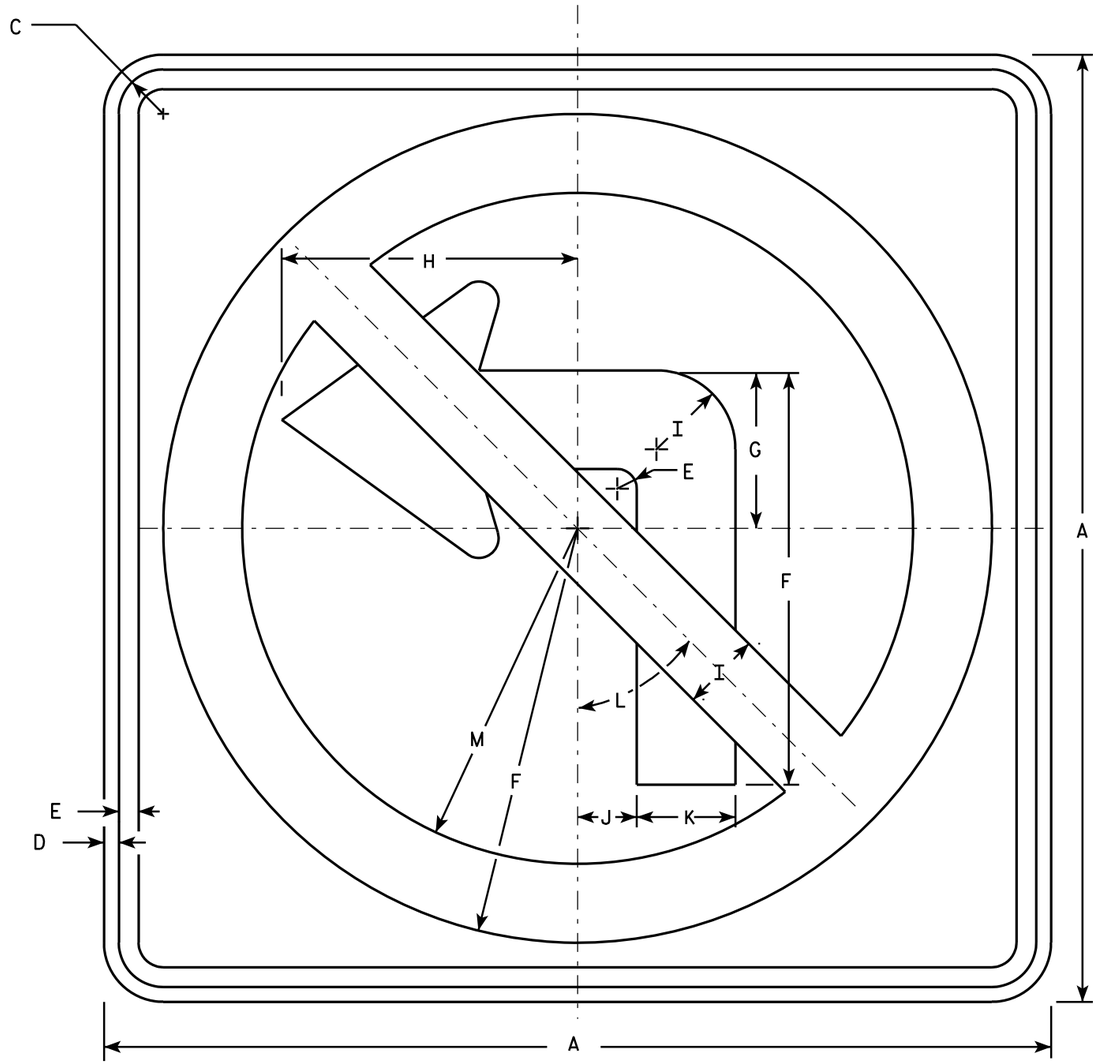
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

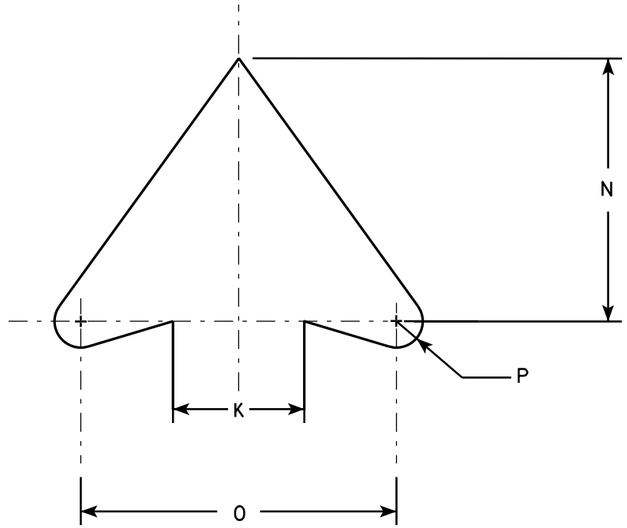
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 397	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

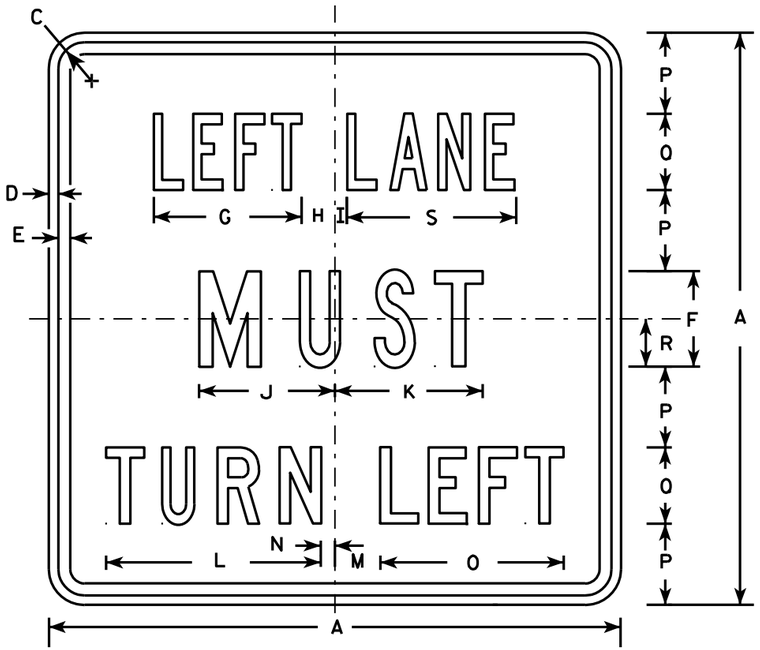
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

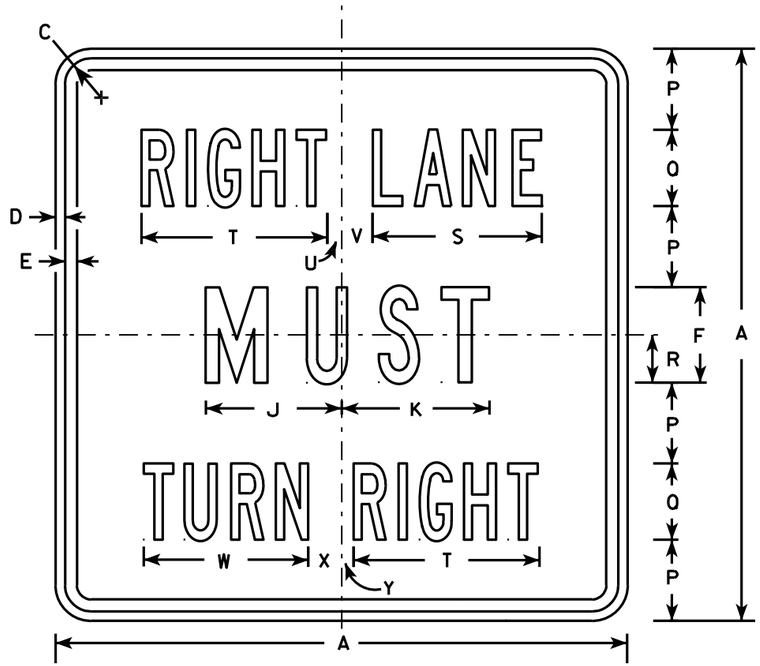
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 398 | E



R3-7L



R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

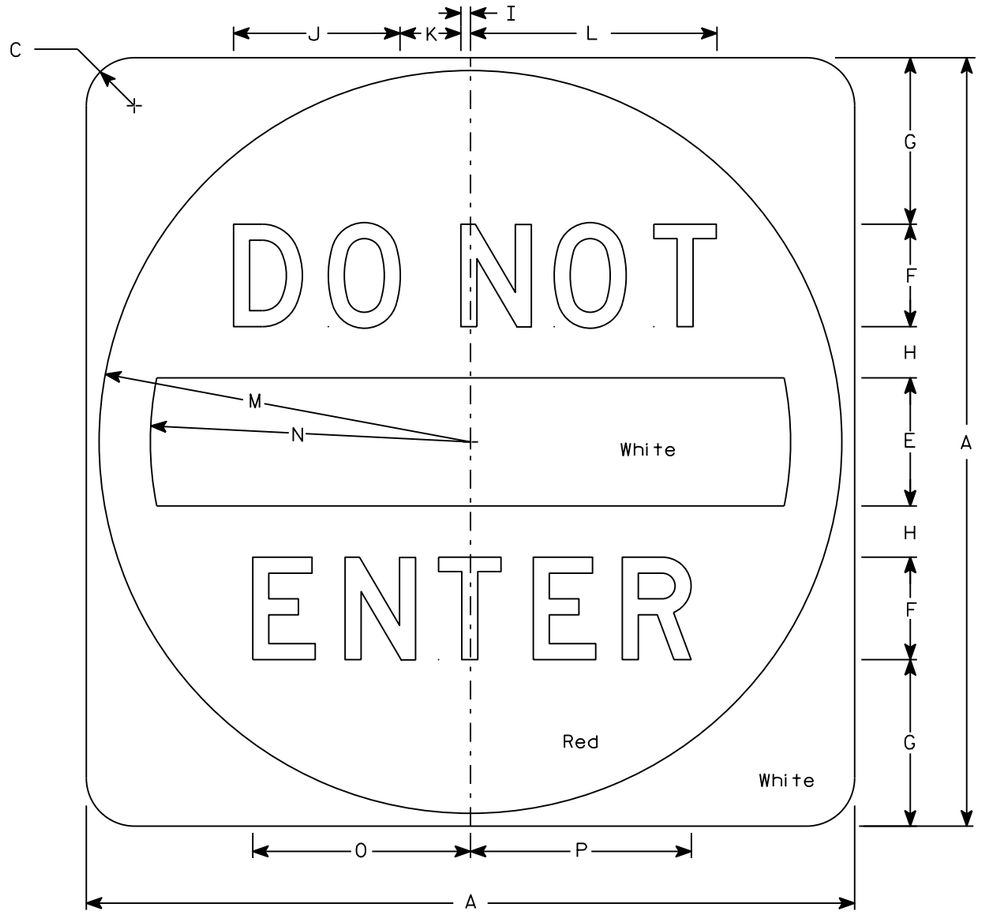
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 399 | E



R5-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

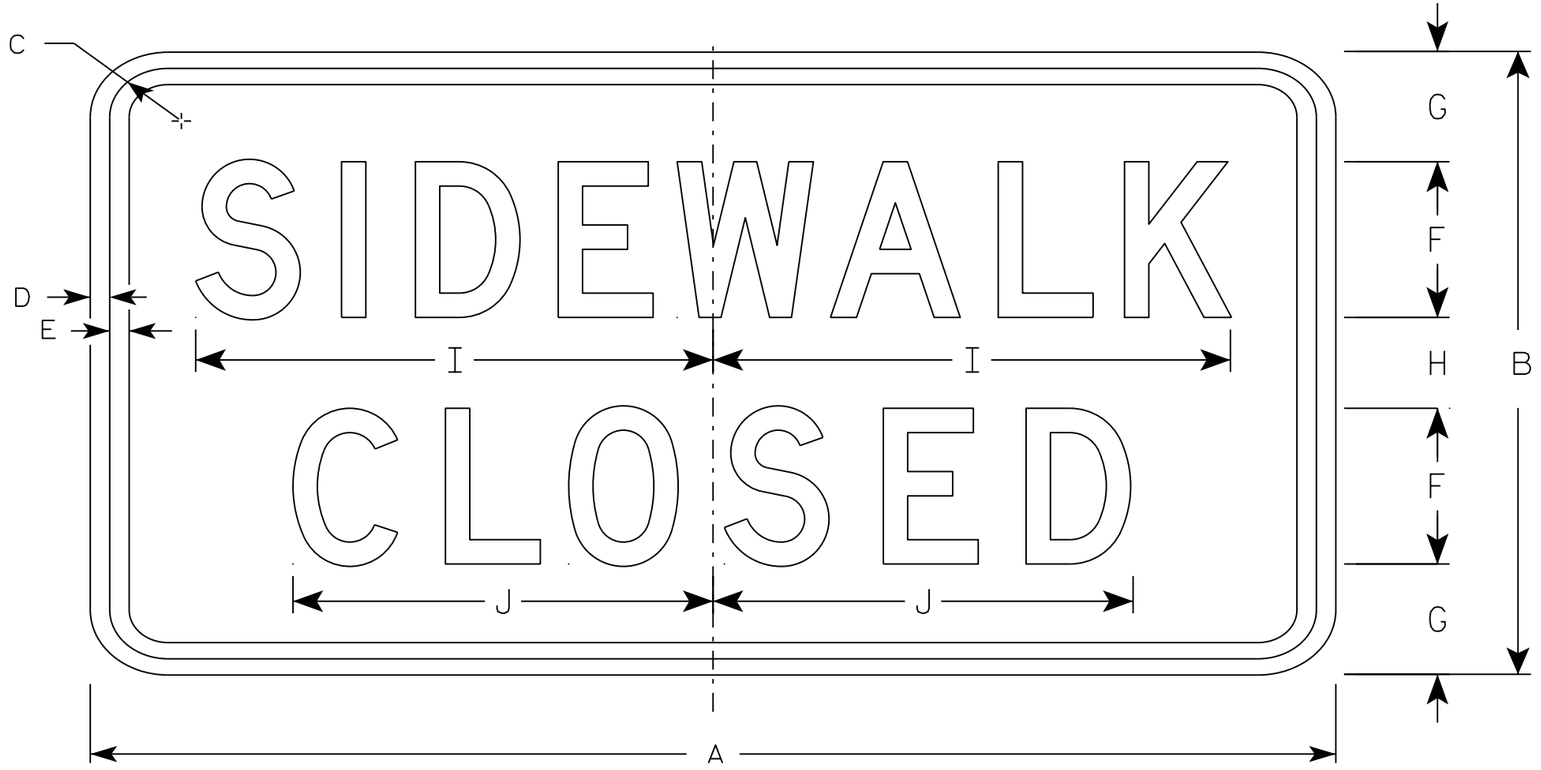
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 400 | E



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.

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

STANDARD SIGN
R9-9

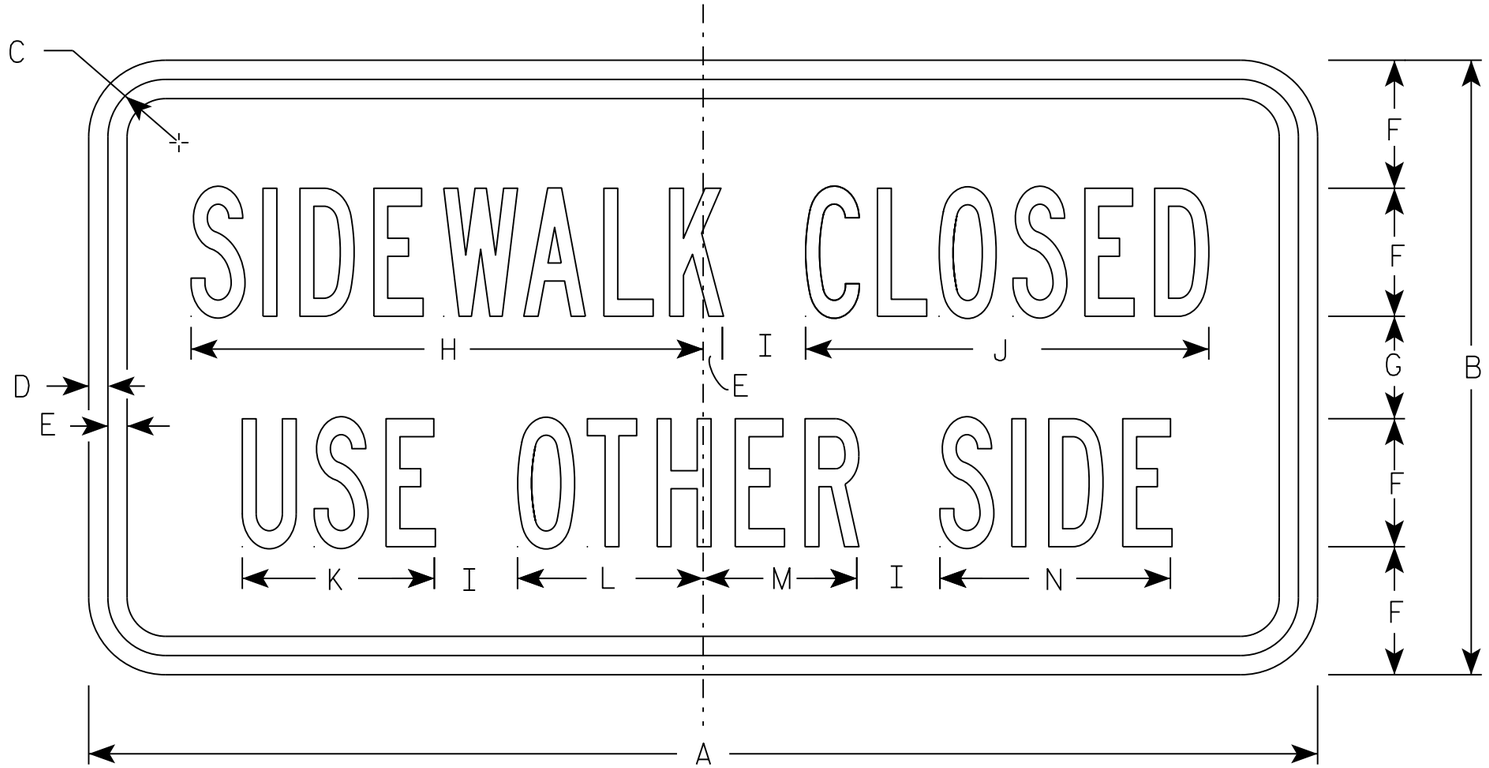
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE 401 R9-9.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R99.DGN PLOT DATE : 11-AUG-2016 11:33 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 2.918761:1.000000



R9-10

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for sidewalks. Use Size 3 for paths and trails.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2M	24	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
3	30	15	1 1/8	3/8	1/2	3	2 3/4	12	2	9 1/2	4 1/2	4 3/8	3 5/8	5 3/8													3.125
4																											
5																											

STANDARD SIGN
R9-10

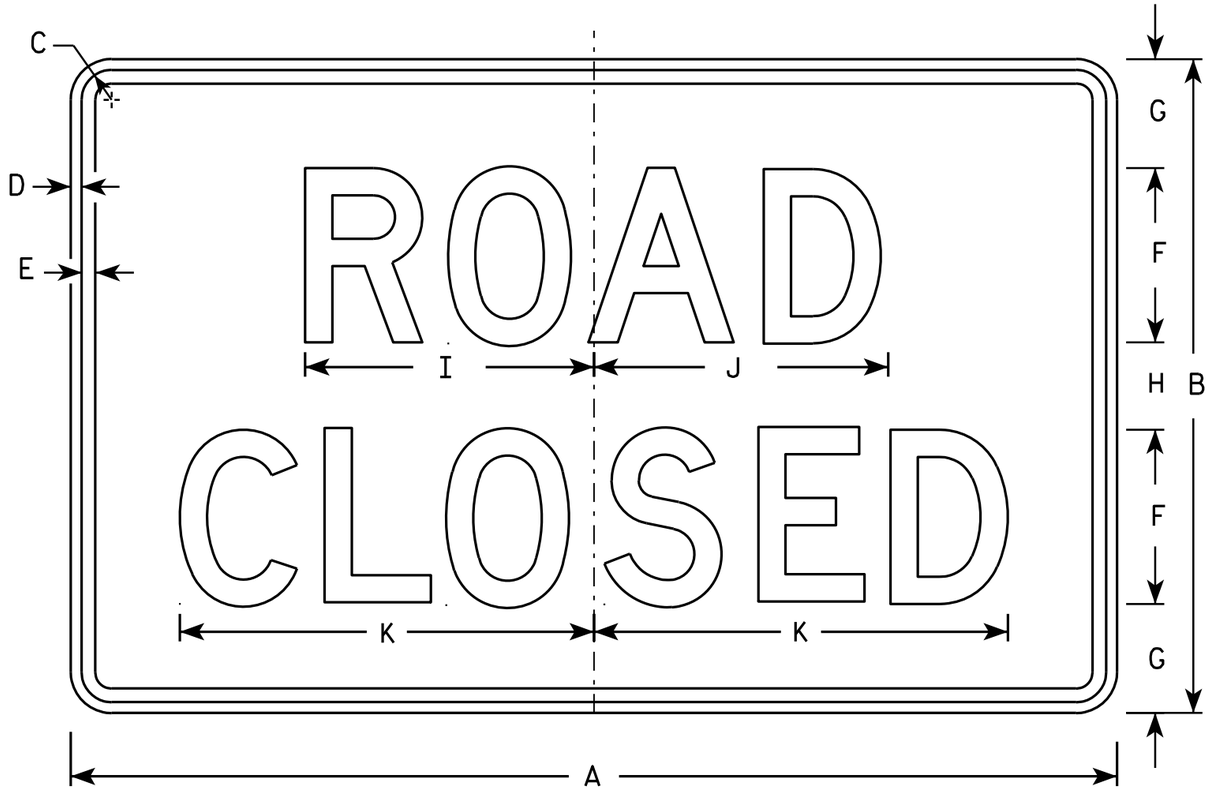
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-10.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 402 E

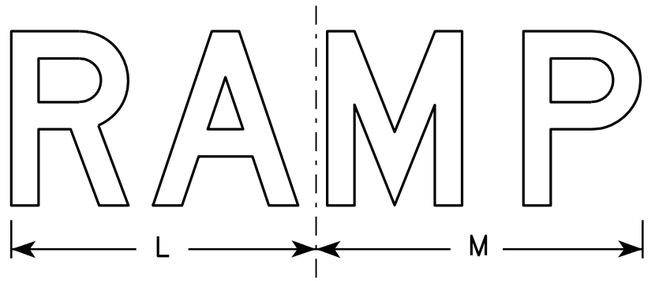
7



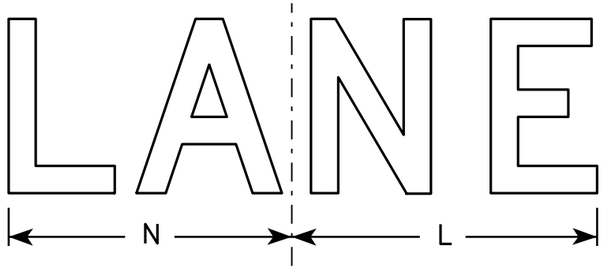
R11-2

NOTES

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

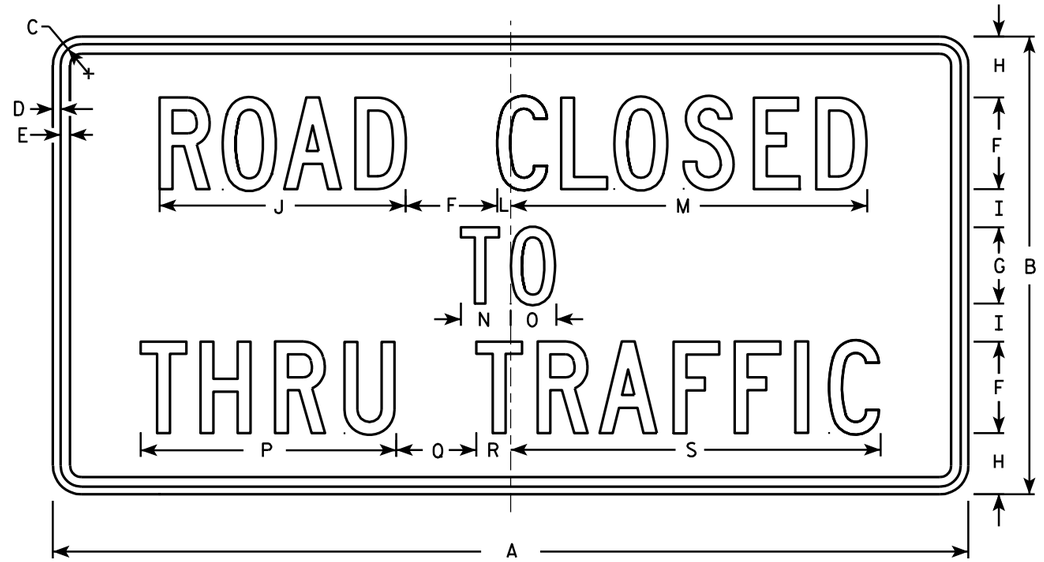
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 403	E



R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

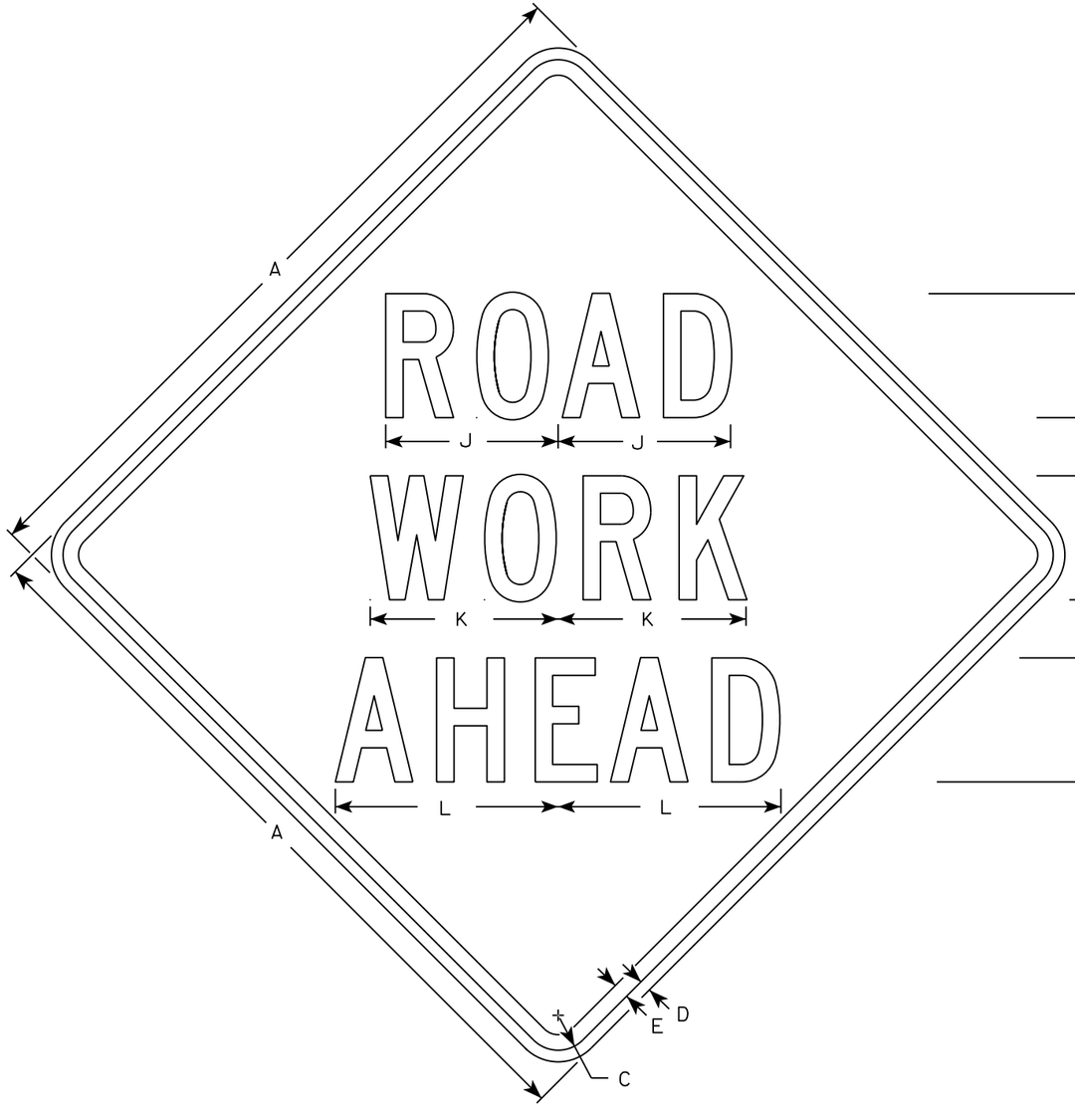
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

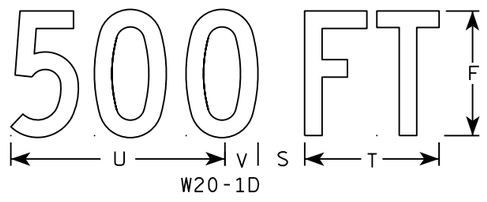
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

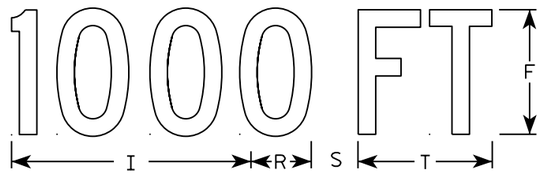
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 404 | E



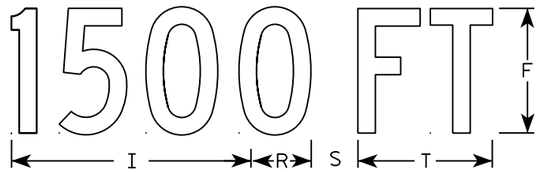
W20-1A



W20-1D



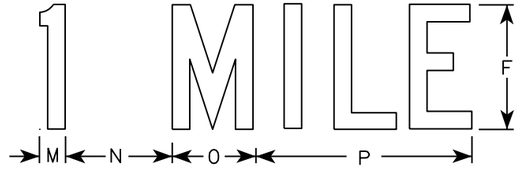
W20-1C



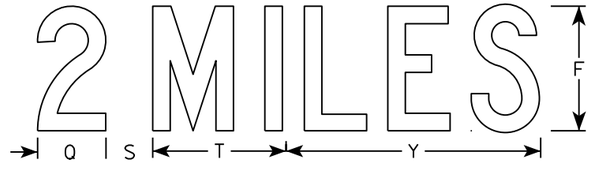
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

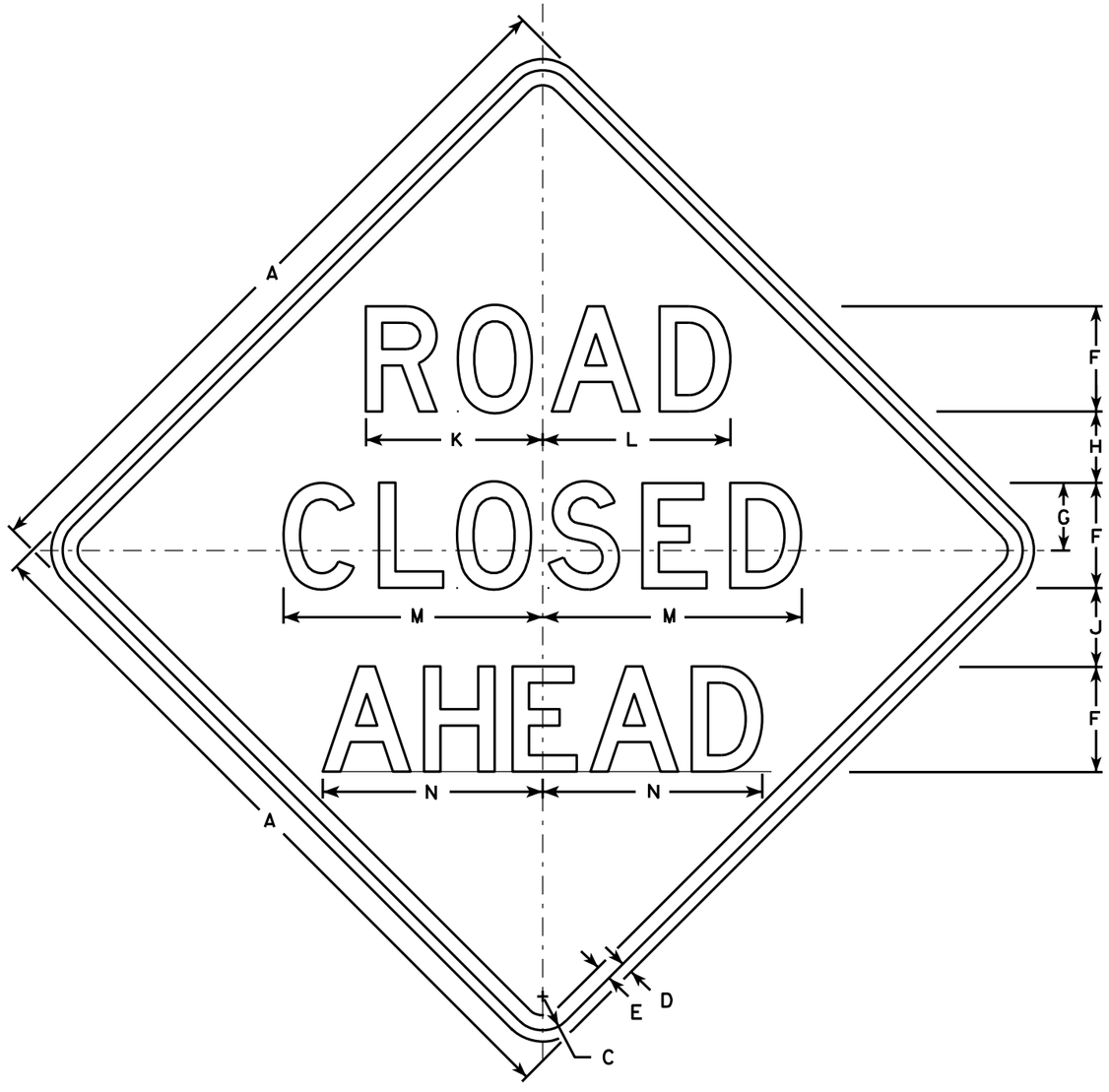
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

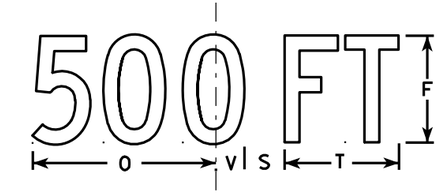
PROJECT NO:

SHEET NO: E

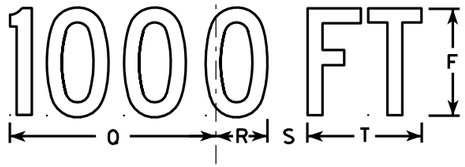
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



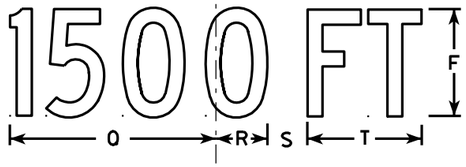
W20-3A



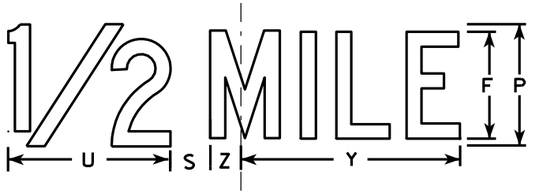
W20-3D



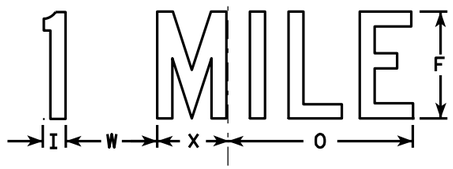
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

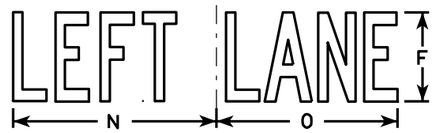
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

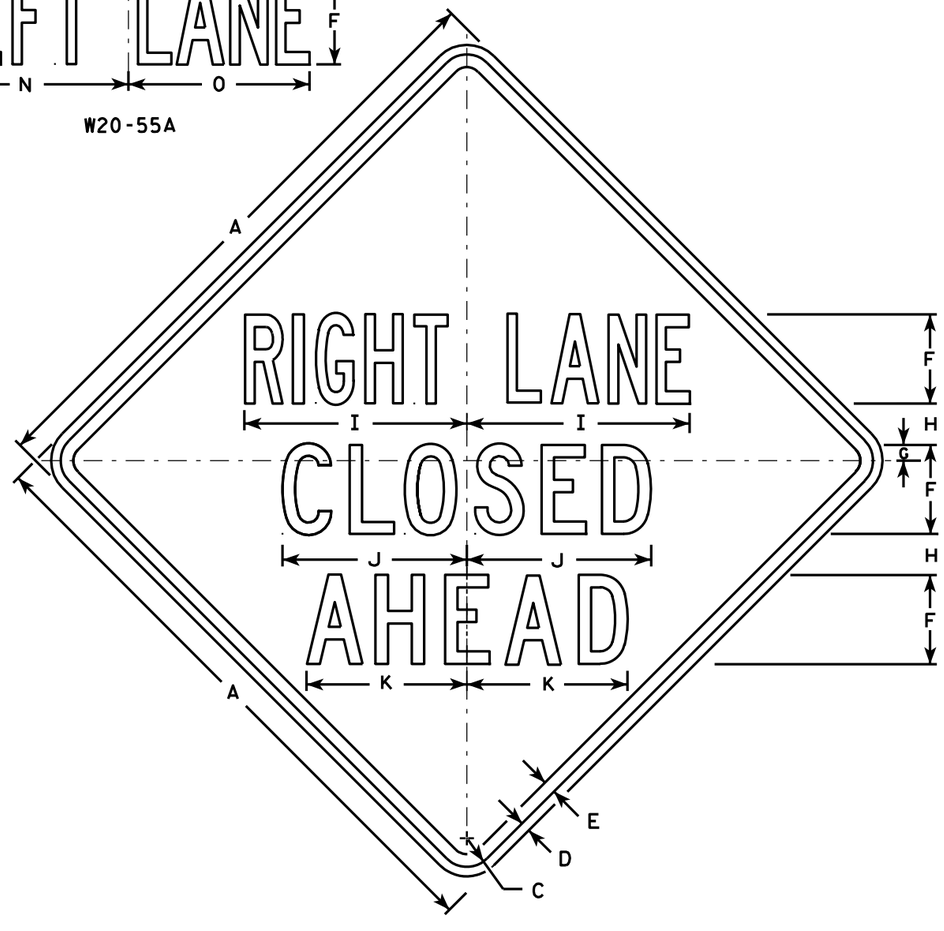
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 406 | E



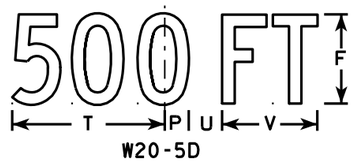
W20-56A



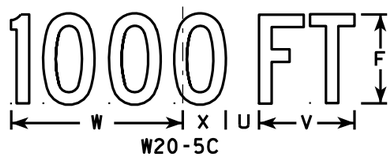
W20-55A



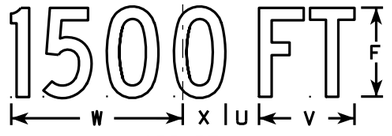
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

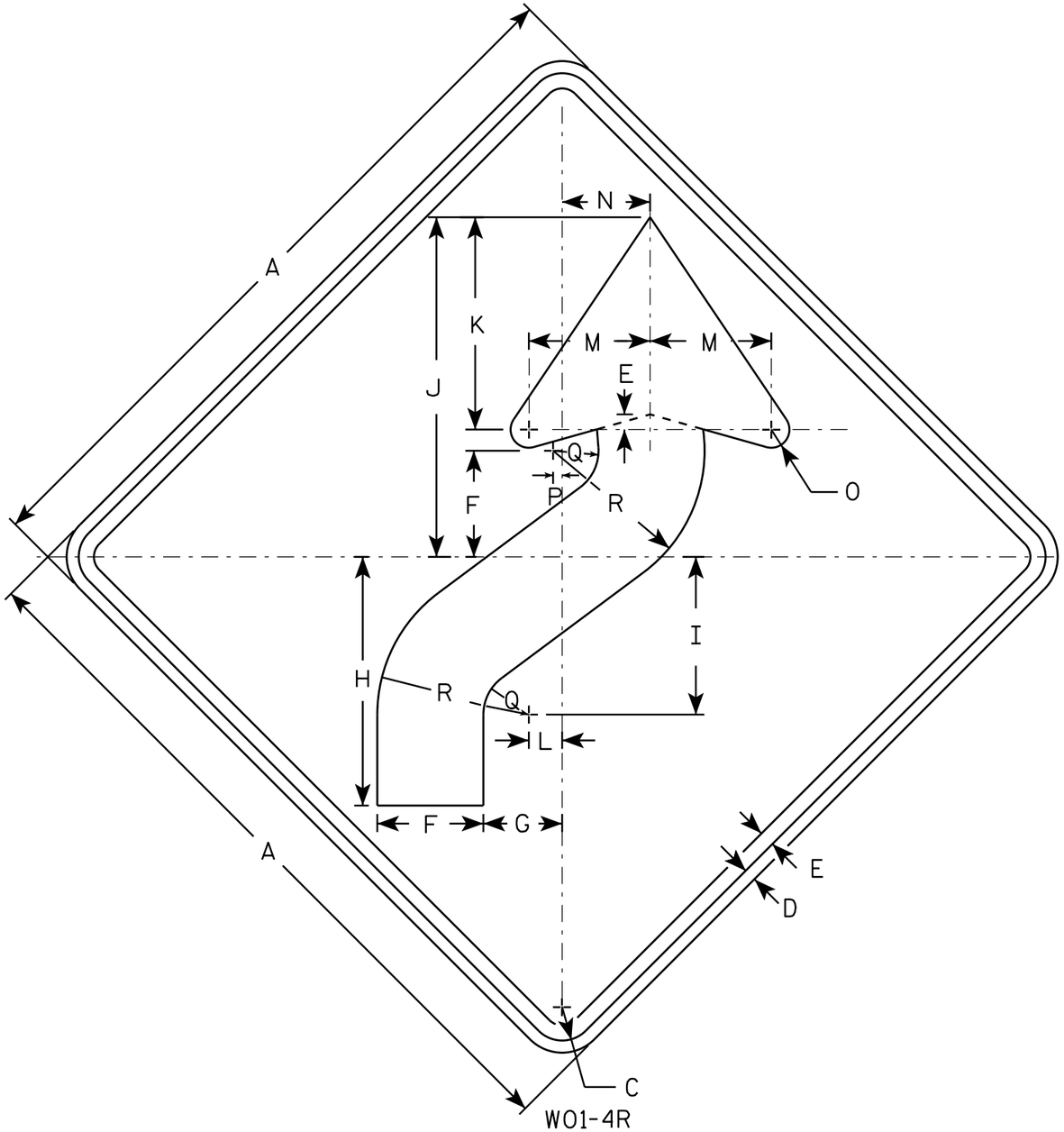
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 407 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

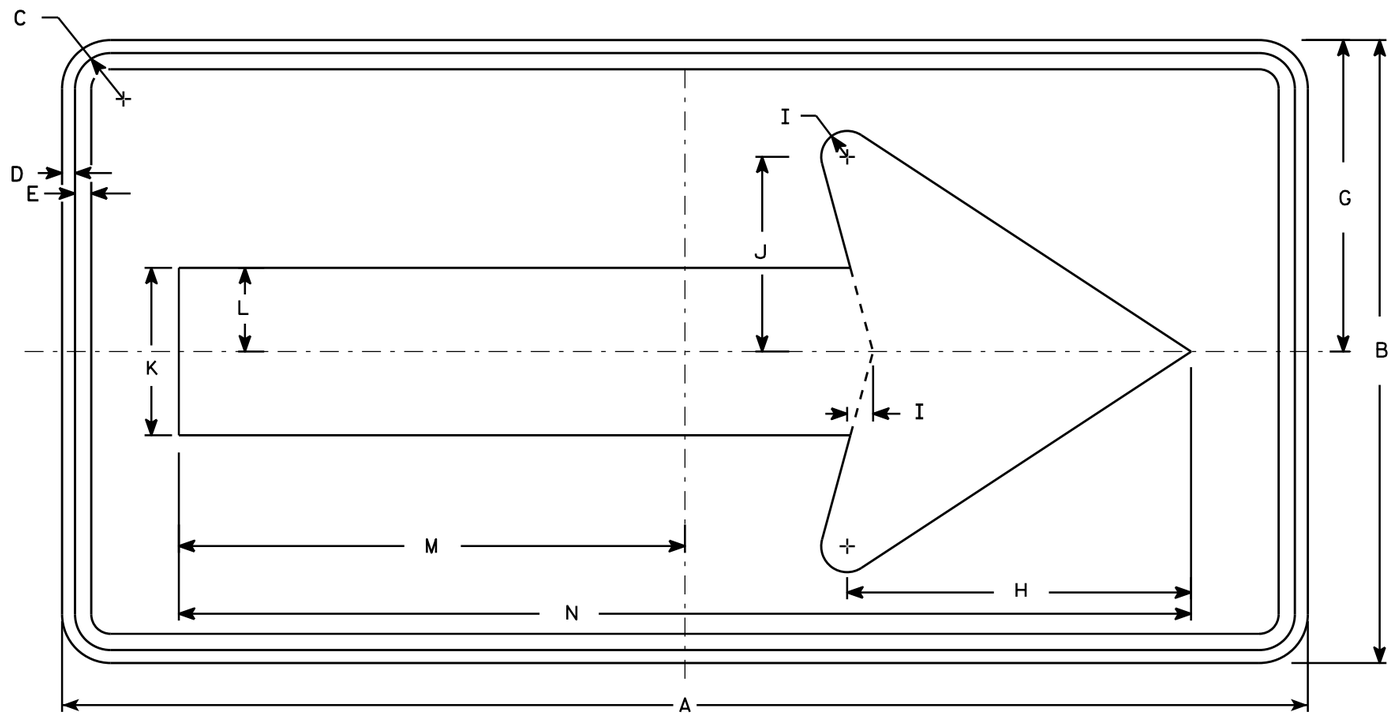
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN
W01-6

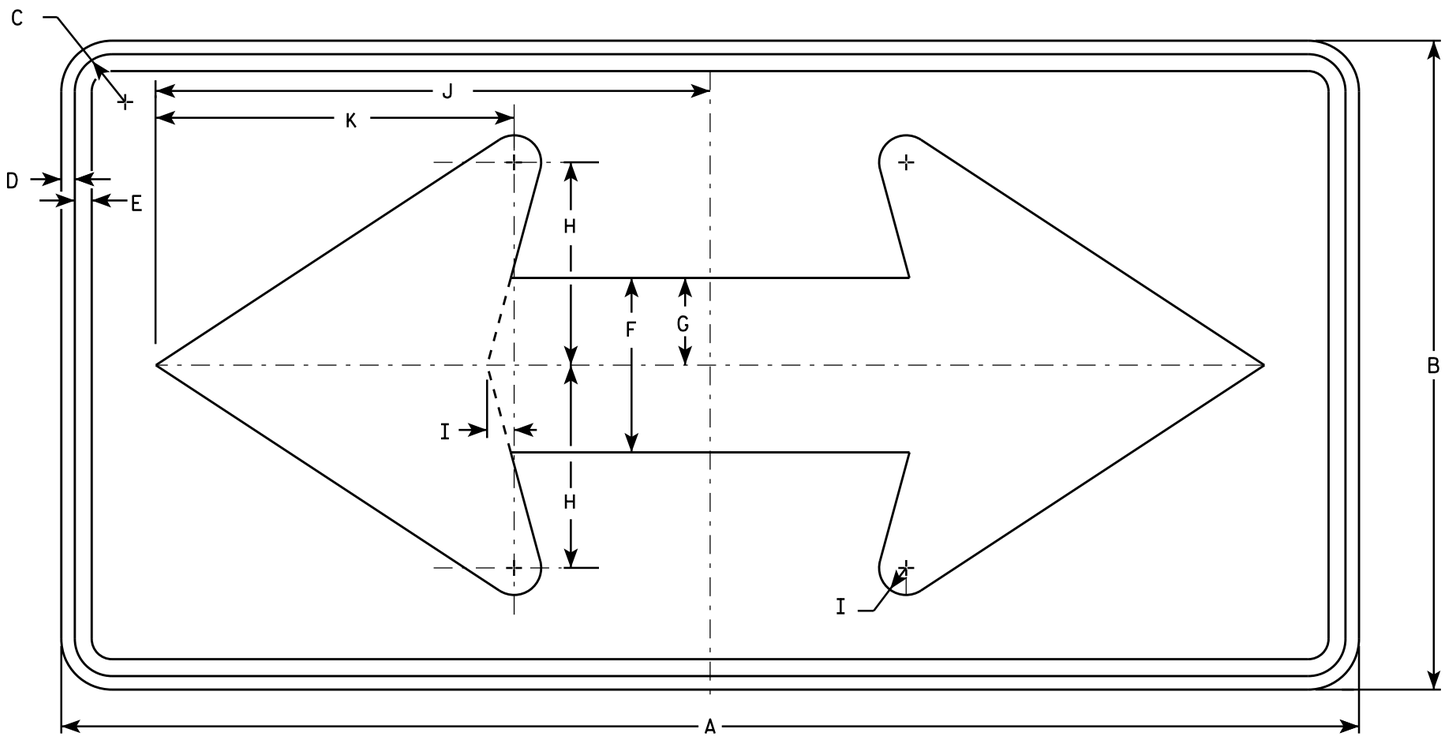
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W01-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

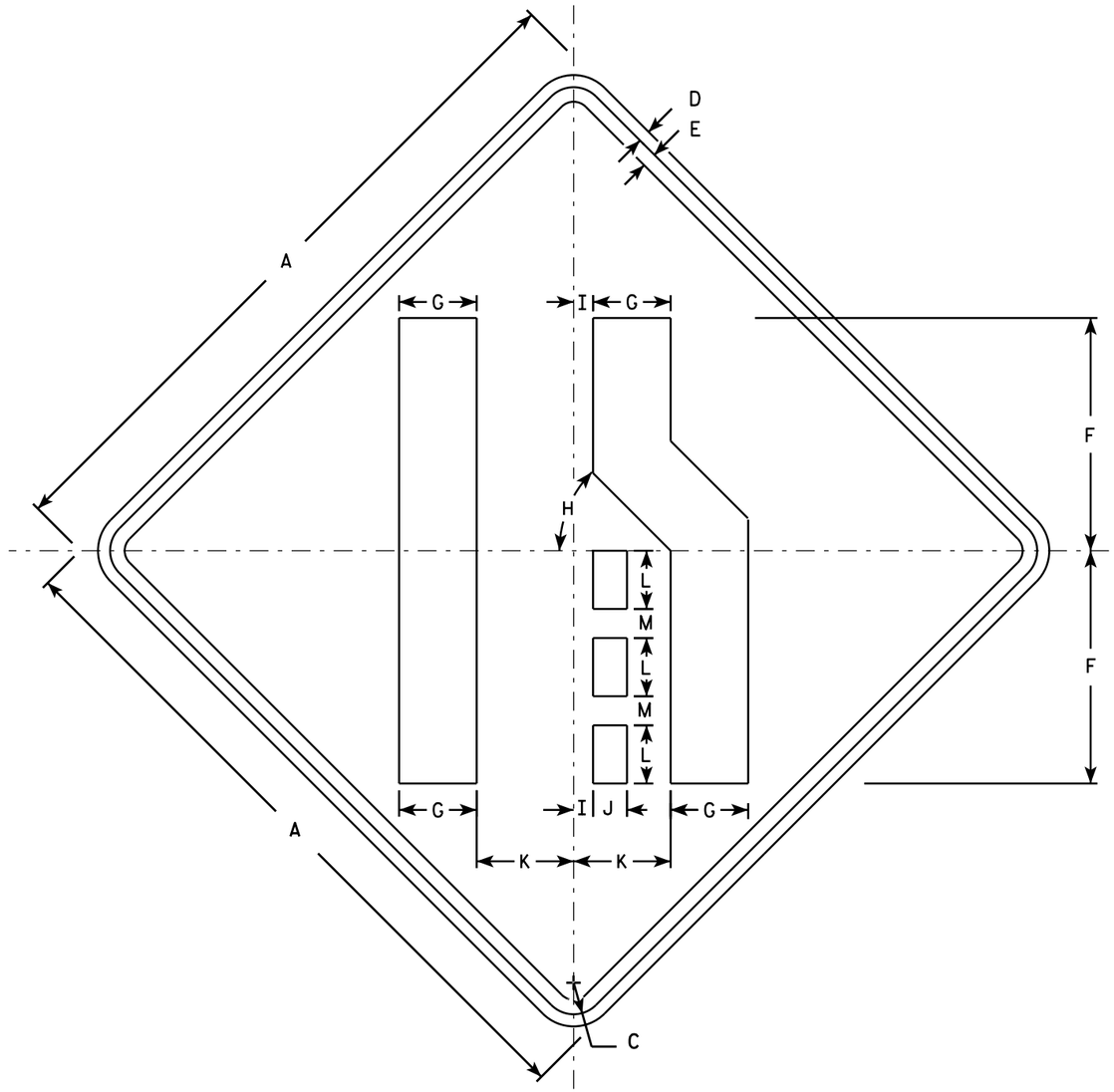
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1410 W01-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

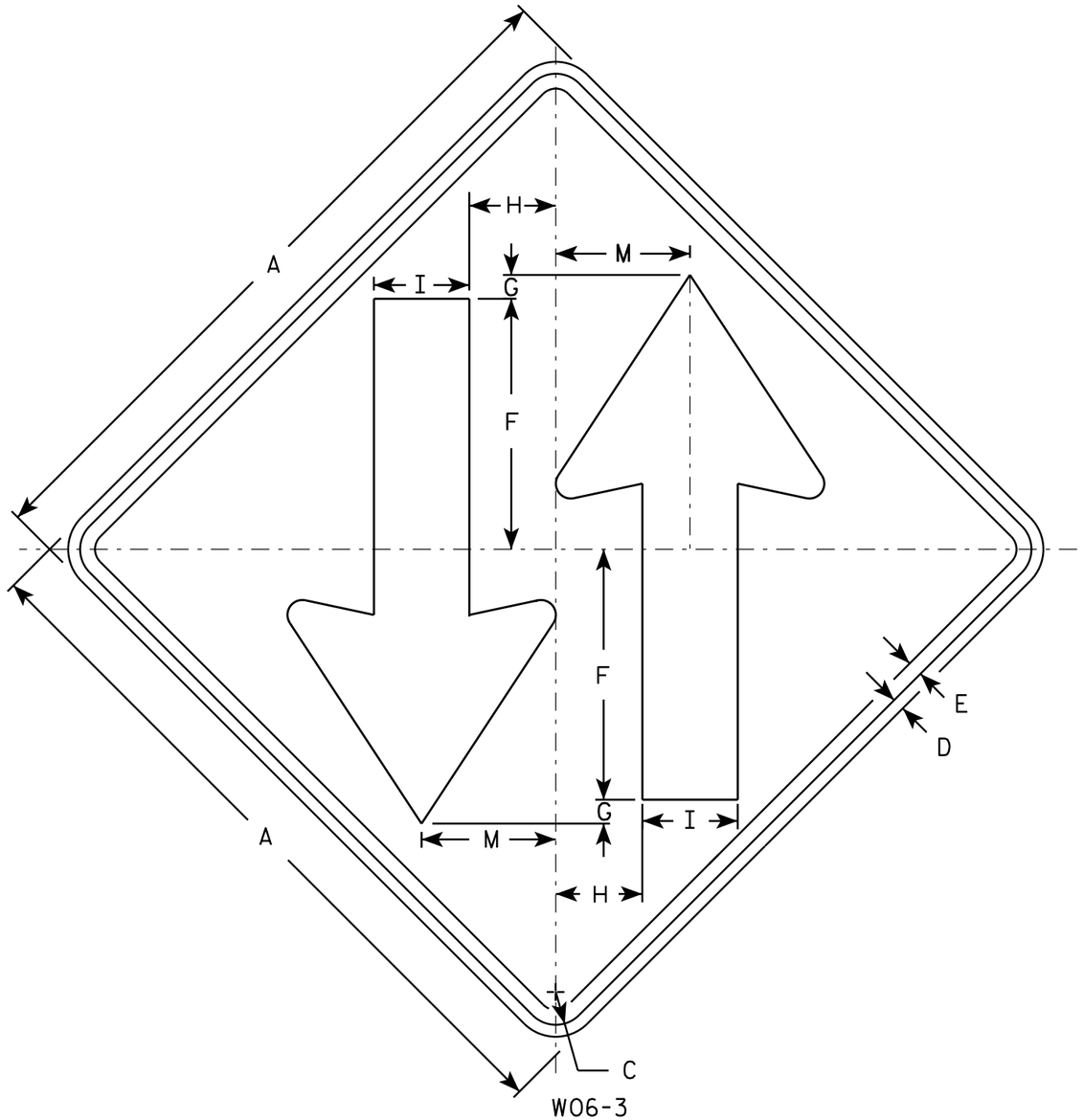
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 411 W04-2.1

PROJECT NO:

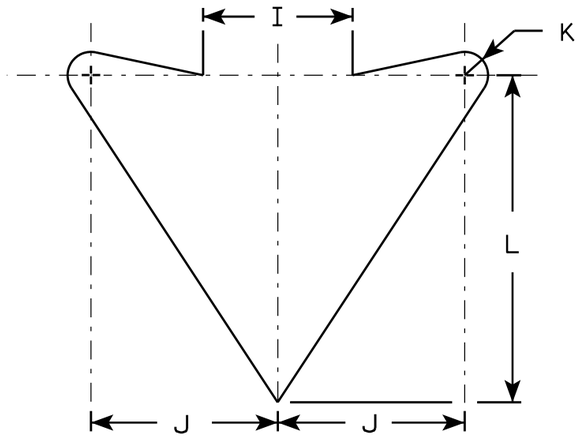
SHEET NO: E



W06-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

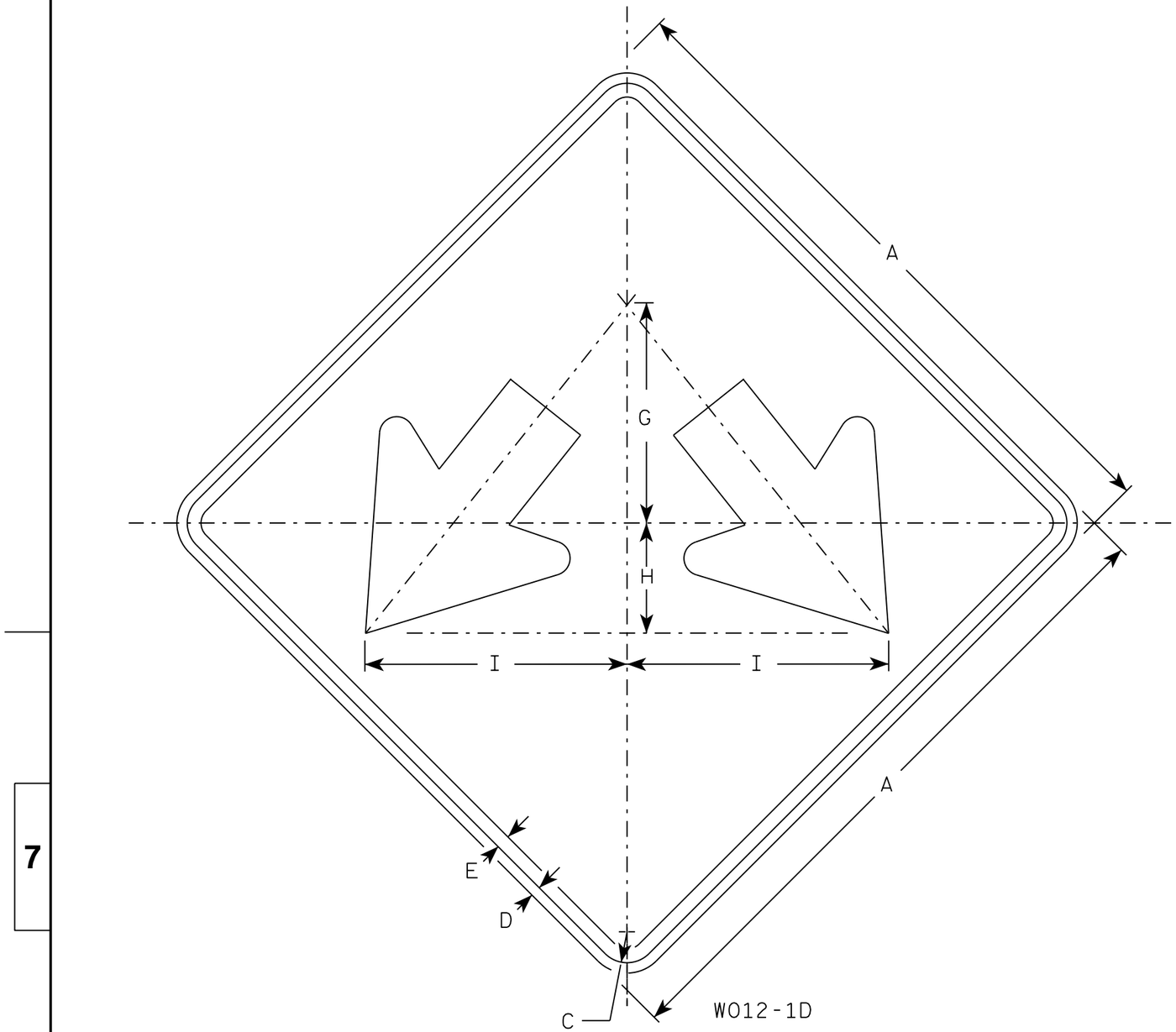
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 412 W06-3.1

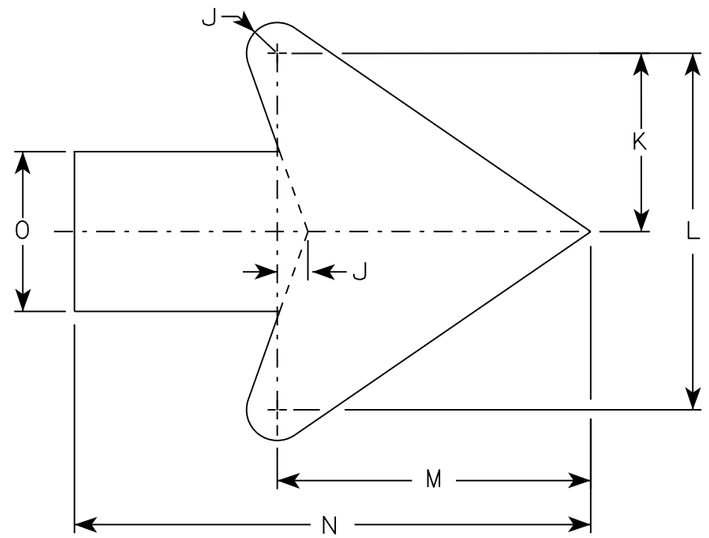
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W012-1D

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO W012-1D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\W0121D.DGN PLOT DATE : 11-AUG-2016 11:28 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.621375:1.000000

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
0+50	0	0		
1+00	2	0	0.54	0.05
1+50	6	0	1.05	0.19
2+00	1	0	1.05	0.37
2+50	0	43	0.76	0.40
3+00	0	10	0.76	0.58
3+50	0	20	0.80	0.73
4+00	0	40	0.80	0.73
4+50	0	40	0.85	0.73
5+00	0	25	0.88	0.67
5+50	0	16	1.13	0.65
6+00	0	12	1.13	0.64
6+50	0	5	0.82	0.56
7+00	0	10	0.74	0.61
7+50	0	6	0.69	0.61
8+00	0	8	1.01	0.63
8+50	0	34	1.01	0.84
9+00	0	50	0.57	0.84
9+50	0	47	0.51	0.80
10+00	0	30	0.58	0.80
10+50	0	33	0.58	0.84
11+00	0	27	0.58	0.84
11+50	0	26	0.58	0.87
12+00	0	27	0.57	0.74
12+50	0	31	0.64	0.63
13+00	0	17	0.64	0.63
13+50	34	0	0.82	0.43
14+00	58	0	0.42	0.59
14+50	0	29	0.42	0.59
15+00	0	27	0.62	0.59
15+50	0	1	0.62	0.34
16+00	0	5	0.62	0.34
16+50	23	0	0.55	0.39
17+00	22	0	0.74	0.39
17+50	28	0	0.74	0.19
18+00	21	0	0.54	0.50
18+50	24	0	0.46	0.50
19+00	26	0	0.46	0.43
19+50	22	0	0.73	0.43
20+00	28	0	0.76	0.39
20+50	19	0	0.76	0.41
21+00	1	0	0.73	0.45
21+50	15	0	0.74	0.45
22+00	35	0	0.74	0.19
22+50	24	0	0.66	0.43
23+00	9	0	0.93	0.43
23+50	14	0	0.93	0.54
SUB-TOTAL	412	619		

24+00	10	0	0.48	0.54
24+50	0	7	0.62	0.83
25+00	0	30	0.62	0.83
25+50	0	38	0.43	0.79
26+00	0	29	0.43	0.79
26+50	0	21	0.50	0.65
27+00	0	21	0.50	0.75
27+50	0	11	0.42	0.78
28+00	0	23	0.33	0.78
28+50	0	30	0.37	0.74
29+00	0	18	0.41	0.79
29+50	0	5	0.54	0.79
30+00	13	0	0.69	0.62
30+50	14	0	0.69	0.55
31+00	0	22	0.47	0.65
31+50	0	24	0.54	0.67
32+00	0	13	0.67	0.62
32+50	0	14	0.67	0.47
33+00	0	19	0.69	0.71
33+50	0	17	0.66	0.71
34+00	0	10	0.75	0.72
34+50	0	14	0.75	0.70
35+00	0	23	0.75	0.83
35+50	0	28	0.75	0.74
36+00	0	21	0.55	0.60
36+50	0	11	0.53	0.59
37+00	9	0	0.62	0.45
37+50	17	0	0.62	0.30
38+00	26	0	0.62	0.12
38+50	32	0	0.67	0.20
39+00	20	0	0.67	0.30
39+50	14	0	0.57	0.38
40+00	11	0	0.57	0.38
40+50	0	7	0.39	0.71
41+00	0	13	0.52	0.71
41+50	0	7	0.59	0.62
42+00	2	0	0.65	0.65
42+50	3	0	0.68	0.65
43+00	0	3	0.68	0.57
43+50	0	5	0.58	0.58
44+00	0	19	0.57	0.58
44+50	0	25	0.49	0.56
45+00	0	32	0.63	1.54
SUB-TOTAL	171	560		

45+50	0	21	0.73	0.87
46+00	17	0	0.99	0.43
46+50	24	0	0.99	0.15
47+00	14	0	0.48	0.10
47+50	7	0	0.49	0.10
48+00	0	0		
48+50	23	0	0.60	0.00
49+00	36	0	0.67	0.02
49+50	35	0	1.05	0.50
50+00	26	0	1.05	0.50
50+50	24	0	0.84	0.61
51+00	24	0	0.78	0.61
51+50	0	12	0.51	0.41
52+00	0	13	0.54	0.70
52+50	0	13	0.63	0.71
53+00	0	15	0.63	0.89
53+50	0	19	0.48	0.89
54+00	0	16	0.56	0.78
54+50	0	12	0.56	0.78
55+00	0	17	0.59	0.51
55+50	0	20	0.62	0.51
56+00	0	38	0.80	0.58
56+50	0	26	0.81	0.75
57+00	0	21	0.81	0.75
57+50	0	37	0.55	0.62
58+00	0	28	0.46	0.55
58+50	4	0	0.63	0.83
59+00	13	0	0.63	0.83
59+50	18	0	0.63	0.05
60+00	20	0	0.49	0.09
60+50	20	0	0.56	0.20
61+00	29	0	0.65	0.20
61+50	43	0	0.86	0.00
62+00	55	0	0.86	0.00
62+50	43	0	0.66	0.40
63+00	0	0	0.56	0.88
63+50	50	0	0.72	0.79
64+00	53	0	0.63	0.00
64+50	4	0	0.34	0.00
67+00	1	0	0.07	0.00
67+50	0	24	0.77	0.97
68+00	0	76	0.77	0.97
68+50	0	47	0.26	0.58
69+00	0	13	0.37	0.39
69+50	0	6	0.60	0.68
70+00	32	0	0.60	0.68
70+50	36	0	0.53	0.00
71+00	18	0	0.55	0.05
71+50	20	0	0.61	0.09
72+00	11	0	0.61	0.37
72+50	0	5	0.15	0.37
73+00	7	0	0.53	0.16
73+50	19	0	0.59	0.16
74+00	4	0	0.59	0.18
74+50	0	1	0.09	0.18
75+00	0	0		
TOTAL	1313	1659		

9

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

WKE MARCH 2019

PROJECT ID: 2110-00-72

WTH::2060-00-76-

COUNTY: MILWAUKEE

ORDER OF SHEETS

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

TOTAL SHEETS = 120

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

W. LINCOLN AVENUE

INTERSECT WITH 43RD ST & 27TH ST

LOCAL STREET

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2110-00-72	WISC 2019160	1

STATE PROJECT NUMBER
2110-00-72



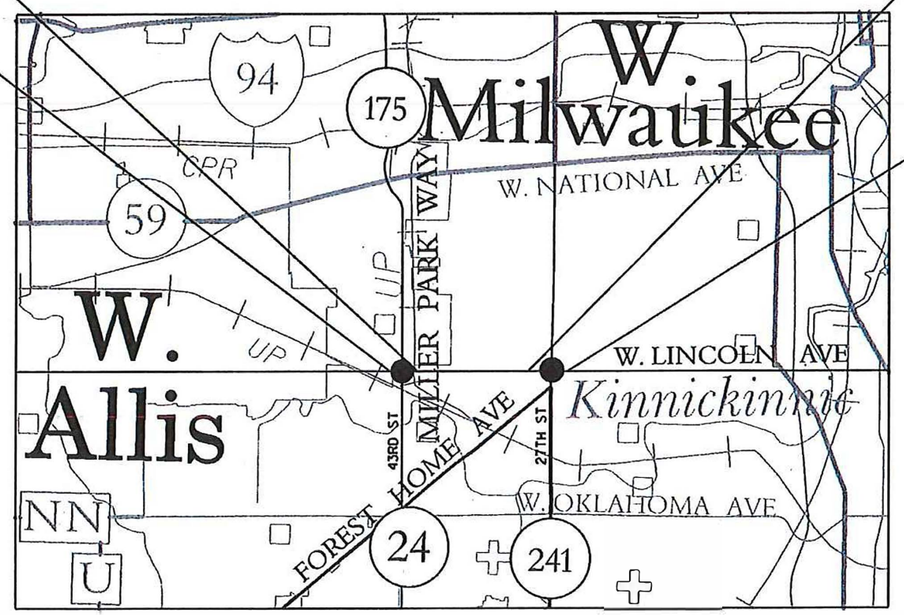
16

N

END CONSTRUCTION
15+74.56

BEGIN CONSTRUCTION
BEGIN PROJECT
13+67.60
X=590,298.7770
Y=286,625.3667

R-21-E



T-6-N

BEGIN CONSTRUCTION
52+40.03

END CONSTRUCTION
END PROJECT
53+70.61

DESIGN DESIGNATION

	43RD ST & LINCOLN AVE		27TH ST & LINCOLN AVE	
	43RD ST	LINCOLN AVE	27TH ST	LINCOLN AVE
A.A.D.T. (2018)	= 19,990	16,830	24,300	14,370
A.A.D.T. (2038)	= 22,000	18,600	26,875	15,880
D.H.V.	= N/A	N/A	N/A	N/A
D.D.	= 51/49	51/49	51/49	51/49
T.	= 4.5%	4.5%	4.5%	4.5%
DESIGN SPEED	= 35 MPH	35 MPH	35 MPH	35 MPH
ESALS	= N/A	N/A	N/A	N/A

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)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

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

ACCEPTED FOR THE CITY OF MILWAUKEE
10/30/18 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES®
126 N. JEFFERSON STREET
MILWAUKEE, WISCONSIN 53202
(414) 271-0171

WISCONSIN
BHUPENDRA B. BISTA
E - 34675
NEW BERLIN
WI
PROFESSIONAL ENGINEER
10/29/2018

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: STRAND ASSOCIATES, INC.
Designer: STRAND ASSOCIATES, INC.
Management Consultant: ---
C.O. Examiner:

APPROVED FOR THE DEPARTMENT
DATE: 10/30/18 Joan T. Bonack

E

2

GENERAL NOTES

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

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.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES. MAINTAIN ALL EROSION CONTROL MEASURES UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE REVIEWED BY THE ENGINEER IN THE FIELD.

REMOVING SIGNS SHALL BE PAID FOR AS REMOVING SIGNS TYPE II.

COORDINATE WITH VILLAGE OF WEST MILWAUKEE TO REPLACE OR RELOCATE STREET SIGNS LOCATED WITHIN VILLAGE LIMITS.

COORDINATE WITH CITY OF MILWAUKEE TO REPLACE OR RELOCATE STREET SIGNS LOCATED WITHIN CITY LIMITS.

RESTORE DISTURBED AREAS WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.

REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

RADIUS DIMENSIONS FOR CURB AND GUTTER ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.

CITY OF MILWAUKEE PREPARED STREET LIGHT DETAILS (SHEET 1 OF 6 TO 6 OF 6) AND STREET LIGHTING PLAN (SHEET 1 OF 1 TO 2 OF 2).

A CONSTRUCTION PERMIT HAS BEEN OBTAINED FOR WORK ALONG THE REMY BATTERY PROPERTY (STA 13+85 TO STA 14+15, RT)

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
CURB RAMP DETAILS
INTERSECTION DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING AND PAVEMENT MARKING
STREET LIGHTING
TRAFFIC SIGNALS
TRAFFIC CONTROL
ALIGNMENT DETAILS
CONTROL POINT DATA SHEET

CONTACTS

CITY OF MILWAUKEE

SAMUEL MEHDIN, P.E.
841 NORTH BROADWAY
ROOM 902
MILWAUKEE, WI 53202
(414) 286-0474
E-MAIL: smedhi@milwaukee.gov

VILLAGE OF WEST MILWAUKEE

LEN ROECKER, P.E.
16745 W BLUEMOUND ROAD *200
BROOKFIELD, WI 53005
(262) 317-3383
Len.Roecker@rasmithnational.com

DESIGN CONSULTANT

BHUPENDRA BISTA, P.E.
STRAND ASSOCIATES, INC.
126 N. JEFFERSON STREET
SUITE 350
MILWAUKEE, WI 53202
(414) 271-0771
E-MAIL: bhupendra.bista@strand.com

WISDNR REGION

KRISTINA BETZOLD
DNR SOUTHEAST REGION
2300 N. DR. MARTIN LUTHER KING JR. DR
MILWAUKEE, WI 53212
PH: (414) 263-8517
kristina.betzold@wisconsin.gov

MILWAUKEE COUNTY TRANSIT SYSTEM - ROUTES

MELANIE FLYNN
1942 N. 17TH STREET
MILWAUKEE, WI 53205
(414) 343-1764
MFLYNN@MCTS.ORG

MILWAUKEE COUNTY TRANSIT SYSTEM - BUS STOPS

ANDY TILLMAN
1942 N. 17TH STREET
MILWAUKEE, WI 53205
(414) 343-1728
ATILLMAN@MCTS.ORG

UTILITY CONTACTS

* AT&T WISCONSIN

MARK EDER
2005 PEWAUKEE RD.
WAUKESHA, WI 53188
(262) 896-7434
ME1754@ATT.COM

* MIDWEST FIBER NETWORK

CHERI GRAINGER
6070 NORTH FLINT ROAD
GLENDALE, WI 53209
(414) 459-3550

* CITY OF MILWAUKEE (LIGHTING)

MARK MACRAE
1540 WEST CANAL STREET
MILWAUKEE, WI 53233
(414) 286-5942

MMSD

LARRY ANDERSON
260 WEST SEEBOTH ST
MILWAUKEE, WI 53204
(414) 255-2241

* CITY OF MILWAUKEE (COMMUNICATIONS)

BRYAN PAWLAK
1440 WEST CANAL STREET
MILWAUKEE, WI 53233
(414) 286-3686

* TIME WARNER CABLE

STEVEN CRAMER
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
(414) 277-4045
WIS.ENGINEERING@TWCABLE.COM

* CITY OF MILWAUKEE (UNDERGROUND CONDUIT)

KAREN ROGNEY
1440 WEST CANAL STREET
MILWAUKEE, WI 53233
(414) 286-3243

* WE ENERGIES ELECTRIC

ALEX DANTINNE
500 S 116TH STREET
WEST ALLIS, WI 53214
(920) 621-6903
alex.dantinne@we-energies.com

* CITY OF MILWAUKEE (TRAFFIC SIGNALS)

ALFONZO NICHOLS JR
1540 WEST CANAL STREET
MILWAUKEE, WI 53233
(414) 286-5941

* WE ENERGIES GAS

NATHAN RUSCH
245 SAND DRIVE
WEST BEND, WI 53095
(262) 338-7637
nathan.rusch@we-energies.com

*DENOTES DIGGERS HOTLINE MEMBER

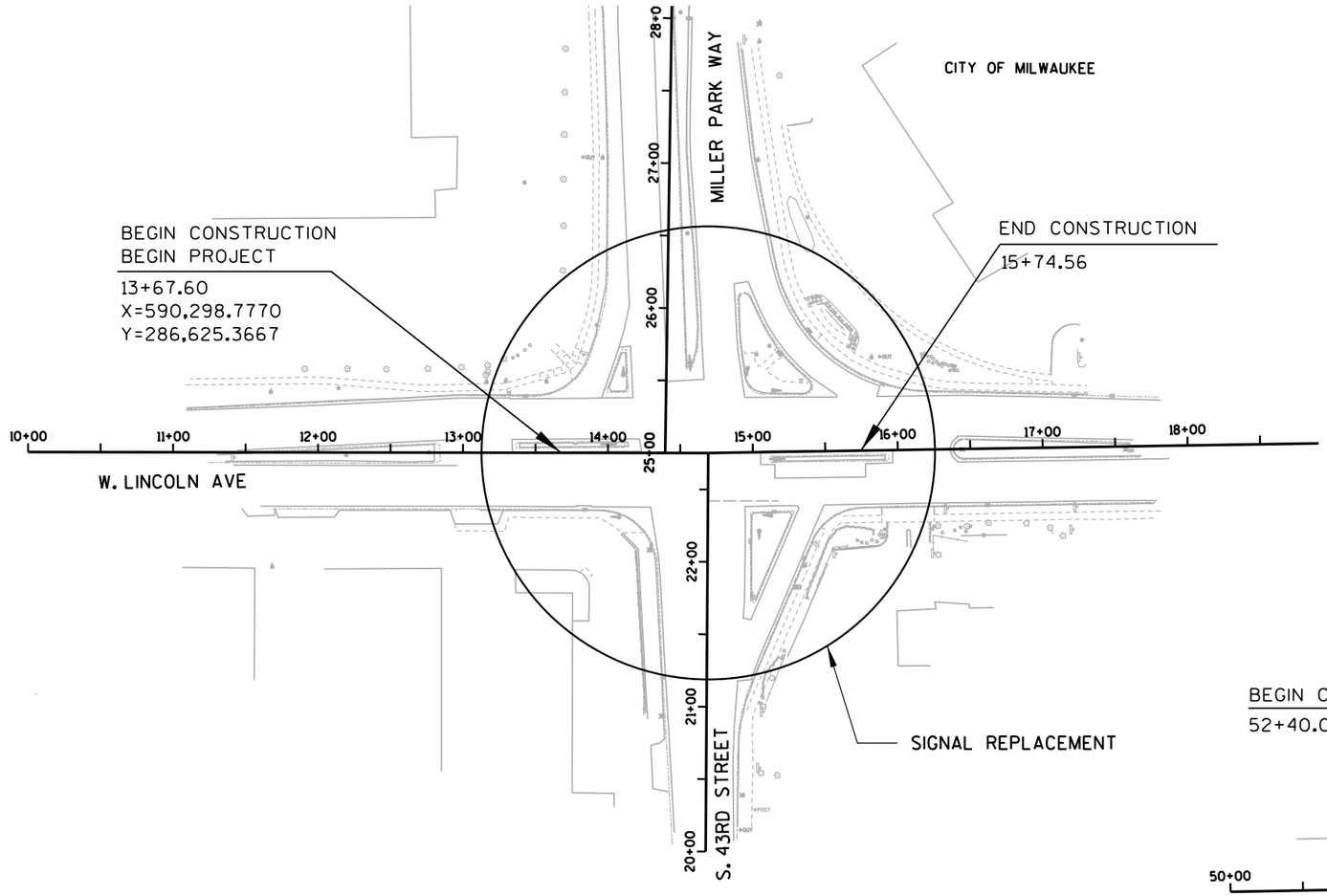
* CITY OF MILWAUKEE (SEWER)

ZAFAR YOUSUF
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-2467

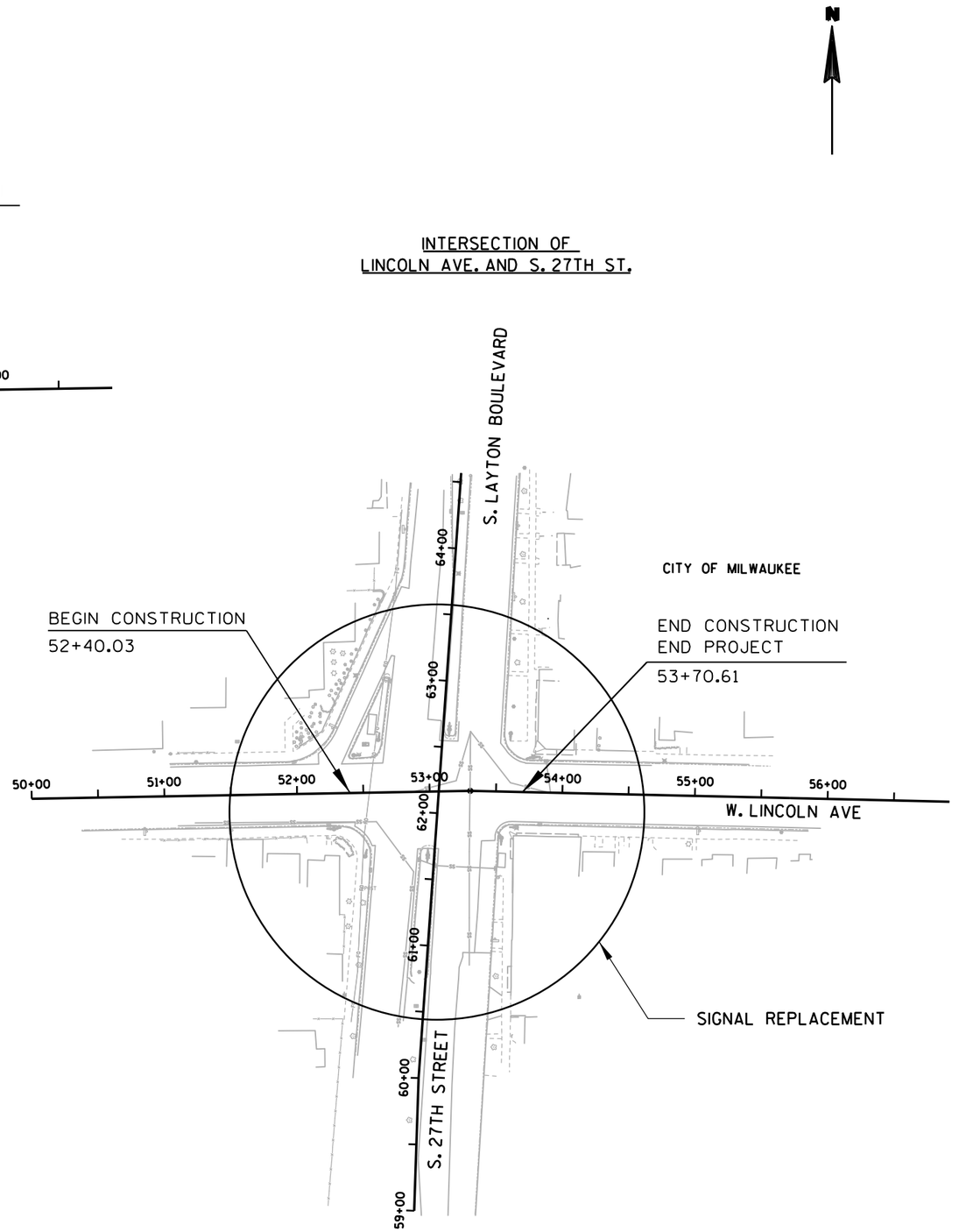
* CITY OF MILWAUKEE (WATER)

DAVE GOLDAPP
841 N BROADWAY
MILWAUKEE, WI 53202
(414) 286-6301

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



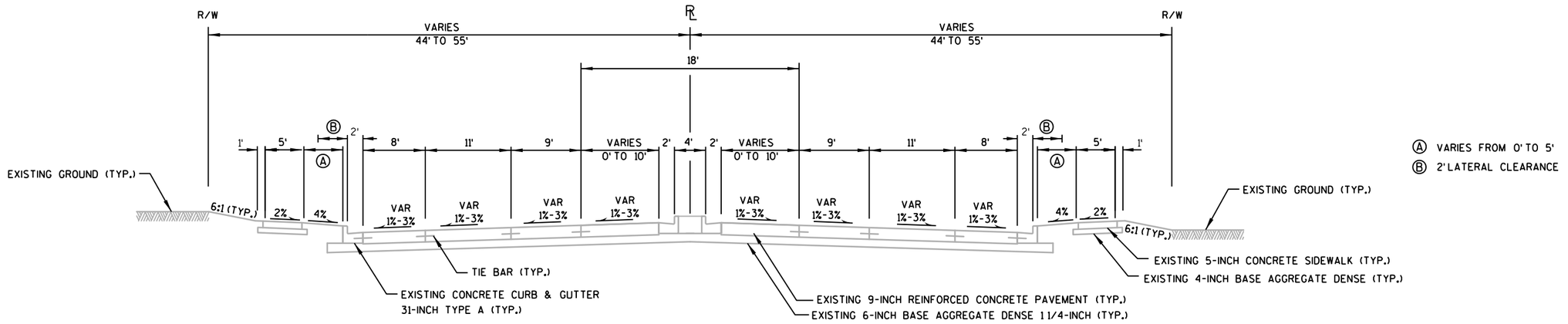
INTERSECTION OF
LINCOLN AVE. AND S. 43RD ST.



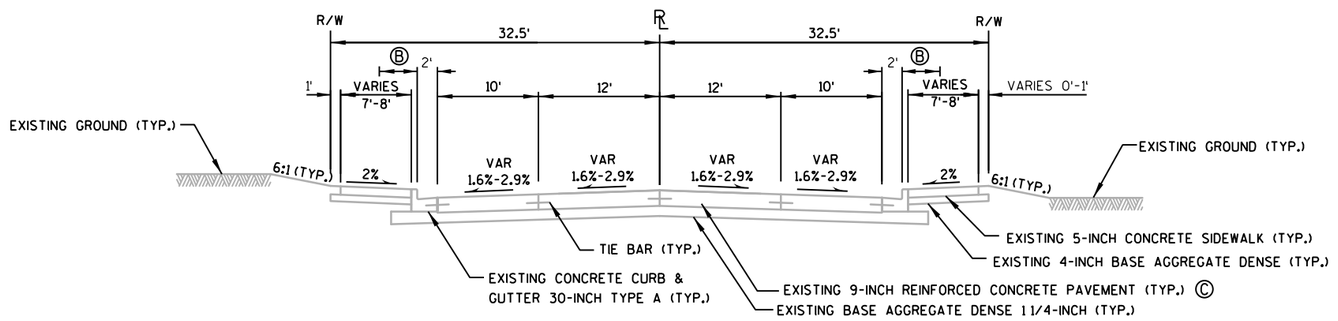
2

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\020201_po.DGN
PLOT DATE : 4/18/2018
PLOT BY : _username_
PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$
WISDOT/CADDS SHEET 42

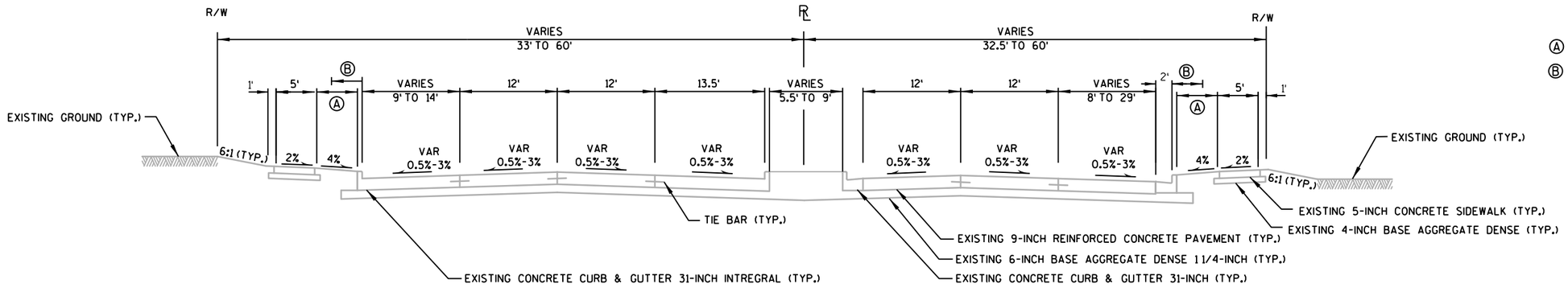


TYPICAL EXISTING SECTION
LINCOLN AVE
STA. 11+50 TO 17+50



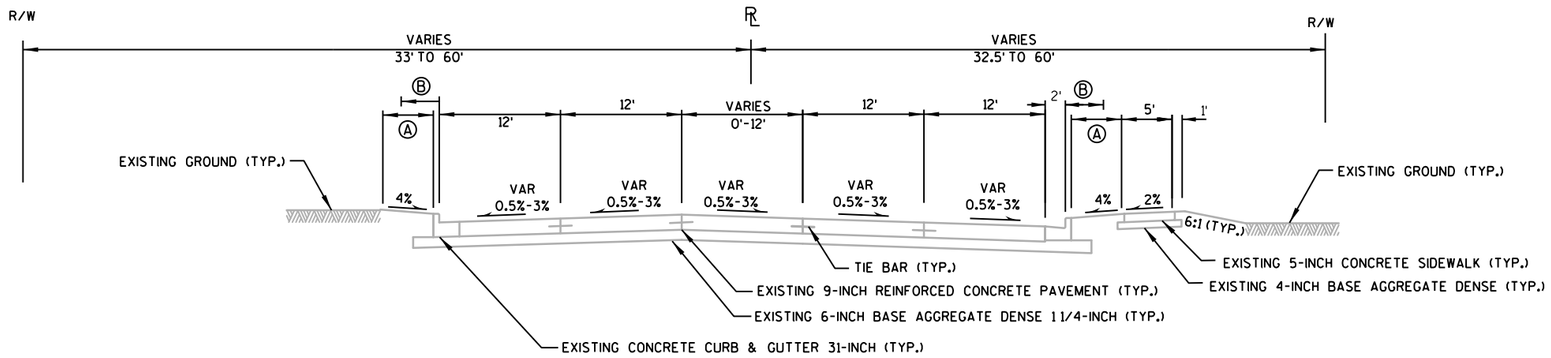
TYPICAL EXISTING SECTION
LINCOLN AVE
STA. 50+00 TO 56+19

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SHEET 4	E



TYPICAL EXISTING SECTION
43RD STREET

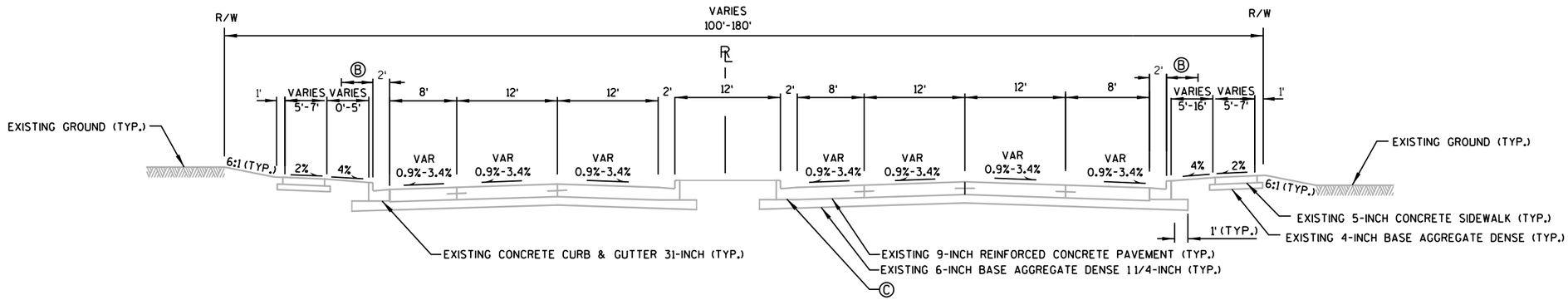
STA. 25+00 TO 27+00



TYPICAL EXISTING SECTION
43RD STREET

STA. 20+50 TO 22+50

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SHEET 5	E



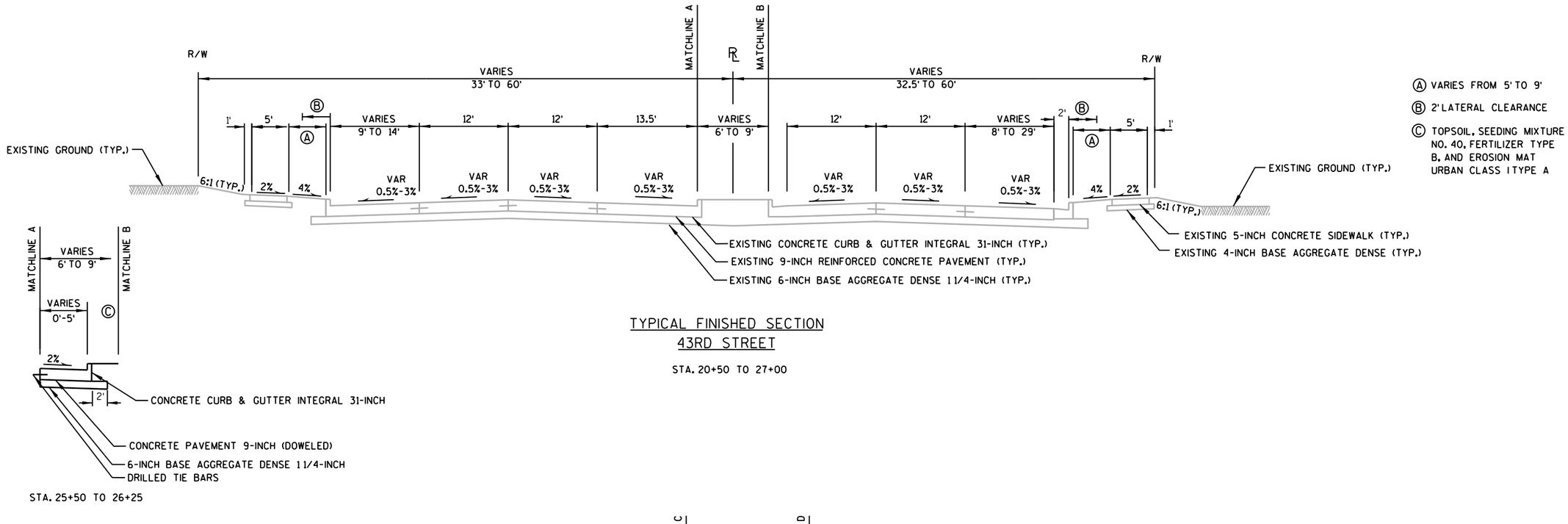
TYPICAL EXISTING SECTION
27TH STREET

STA. 60+00 TO 64+00

Ⓑ 2' LATERAL CLEARANCE

Ⓒ EXISTING CONCRETE CURB & GUTTER INTEGRAL 31-INCH IN NORTH MEDIAN
EXISTING CONCRETE CURB & GUTTER 31-INCH IN SOUTH MEDIAN

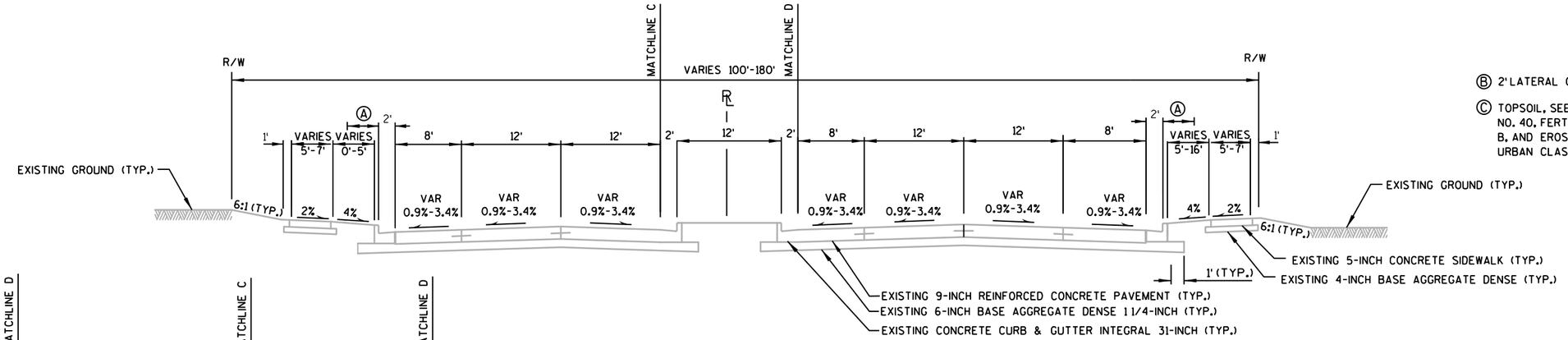
PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL EXISTING SECTION	SHEET 6	E



TYPICAL FINISHED SECTION
43RD STREET

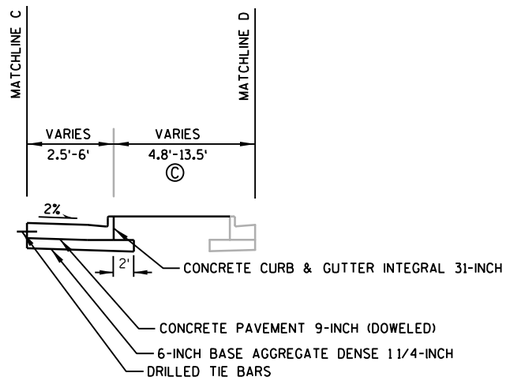
STA. 20+50 TO 27+00

STA. 25+50 TO 26+25

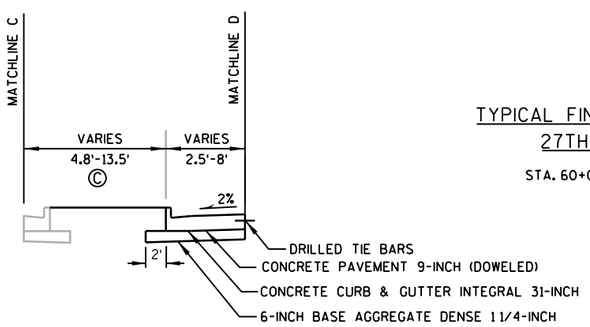


TYPICAL FINISHED SECTION
27TH STREET

STA. 60+00 TO 64+00

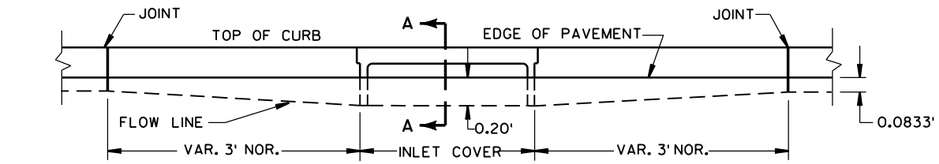


STA. 62+55 TO 63+01

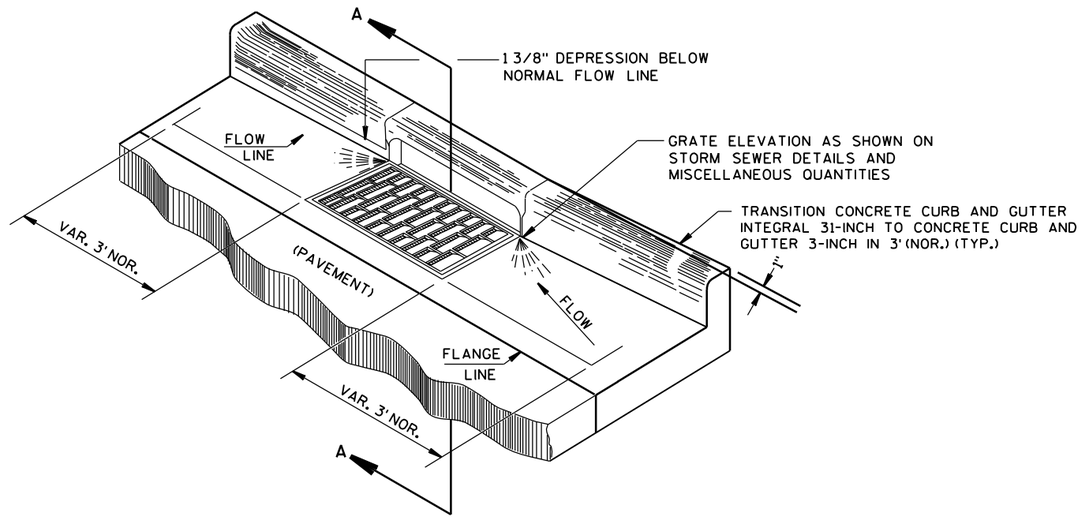


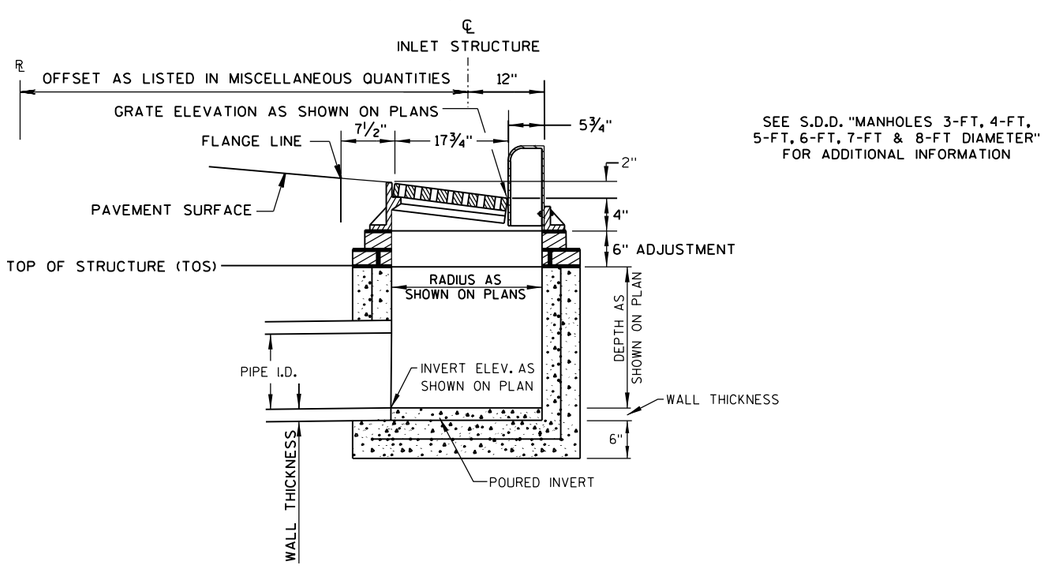
STA. 60+93 TO 61+77

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TYPICAL FINSIHED SECTION	SHEET 7	E



ELEVATION



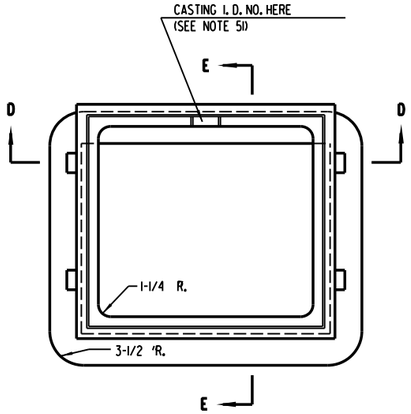


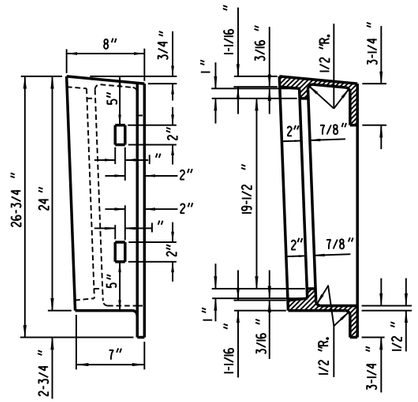
SEE S.D.D. "MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT & 8-FT DIAMETER" FOR ADDITIONAL INFORMATION

SECTION A-A

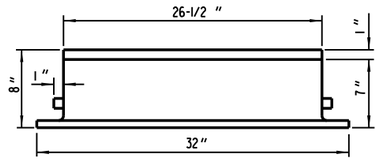
DETAIL OF CONCRETE CURB AND GUTTER 31-INCH AT INLETS

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 8	E

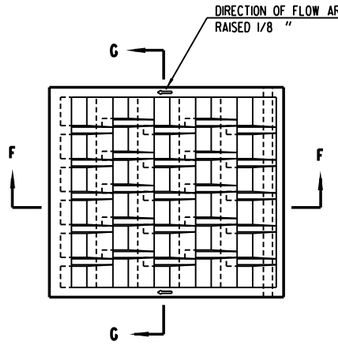




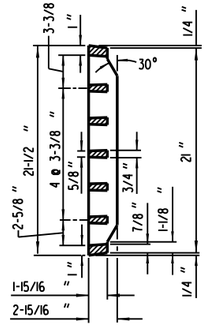
SECTION E-E



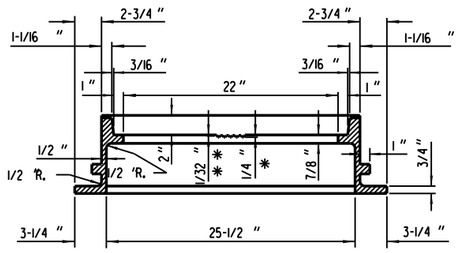
FRAME



GRATE



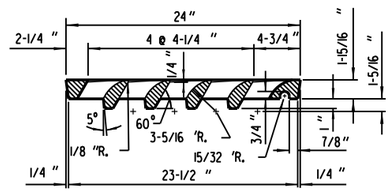
SECTION G-G



SECTION D-D

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT



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 1INCH 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 1INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (5I).

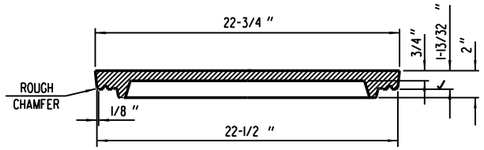
ON THE GRATE

1. ON THE UPPER SIDE OF THE GRATE IN 1INCH 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.

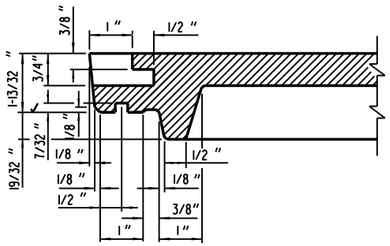
INLET COVER - TYPE 57

LID-145 LBS., FRAME-204 LBS.

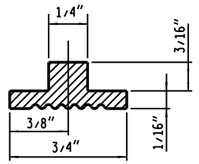
PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

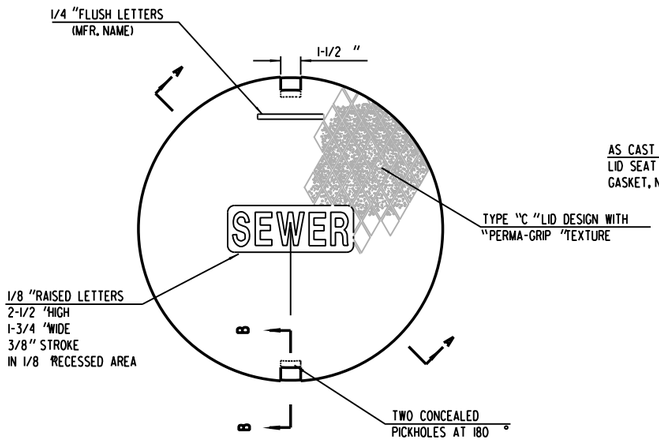


SECTION A-A

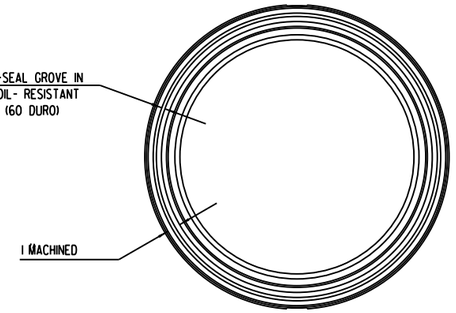


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

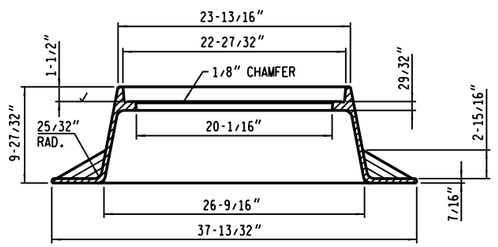
LID - 107 LBS.

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.



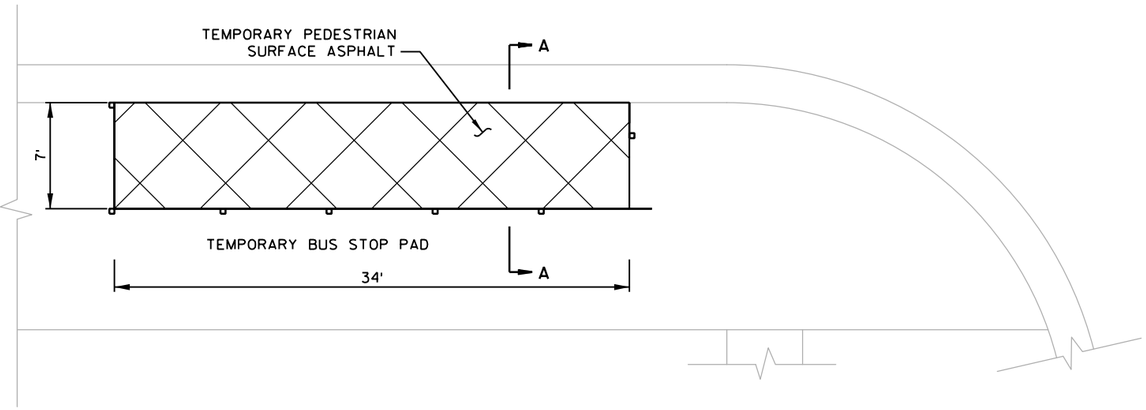
MANHOLE FRAME - TYPE MS21

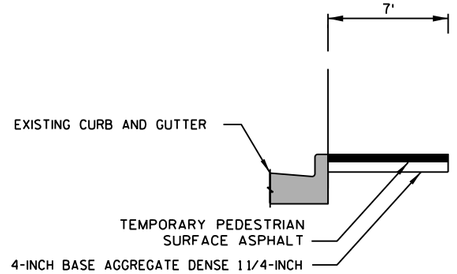
FRAME - 182 LBS.

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL: MANHOLE COVER	SHEET	E

NOTE:

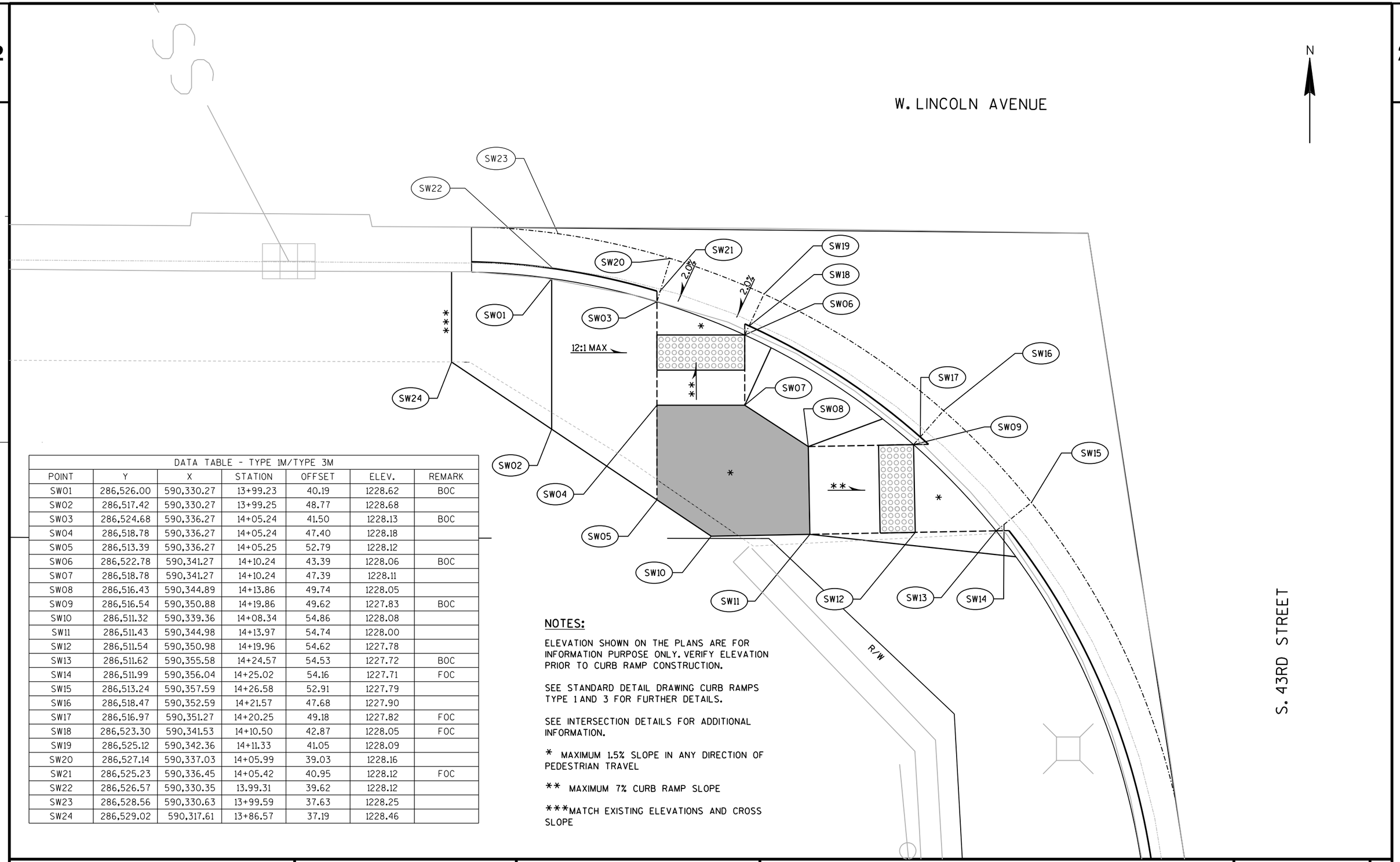
SEE SDD "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATION" FOR TEMPORARY PEDESTRIAN ACCESS, PEDESTRIAN SAFETY FENCE, AND ANY OTHER APPLICABLE ADDITIONAL DETAILS.





SECTION A - A

TEMPORARY BUS STOP DETAIL



DATA TABLE - TYPE 1M/TYPE 3M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
SW01	286,526.00	590,330.27	13+99.23	40.19	1228.62	BOC
SW02	286,517.42	590,330.27	13+99.25	48.77	1228.68	
SW03	286,524.68	590,336.27	14+05.24	41.50	1228.13	BOC
SW04	286,518.78	590,336.27	14+05.24	47.40	1228.18	
SW05	286,513.39	590,336.27	14+05.25	52.79	1228.12	
SW06	286,522.78	590,341.27	14+10.24	43.39	1228.06	BOC
SW07	286,518.78	590,341.27	14+10.24	47.39	1228.11	
SW08	286,516.43	590,344.89	14+13.86	49.74	1228.05	
SW09	286,516.54	590,350.88	14+19.86	49.62	1227.83	BOC
SW10	286,511.32	590,339.36	14+08.34	54.86	1228.08	
SW11	286,511.43	590,344.98	14+13.97	54.74	1228.00	
SW12	286,511.54	590,350.98	14+19.96	54.62	1227.78	
SW13	286,511.62	590,355.58	14+24.57	54.53	1227.72	BOC
SW14	286,511.99	590,356.04	14+25.02	54.16	1227.71	FOC
SW15	286,513.24	590,357.59	14+26.58	52.91	1227.79	
SW16	286,518.47	590,352.59	14+21.57	47.68	1227.90	
SW17	286,516.97	590,351.27	14+20.25	49.18	1227.82	FOC
SW18	286,523.30	590,341.53	14+10.50	42.87	1228.05	FOC
SW19	286,525.12	590,342.36	14+11.33	41.05	1228.09	
SW20	286,527.14	590,337.03	14+05.99	39.03	1228.16	
SW21	286,525.23	590,336.45	14+05.42	40.95	1228.12	FOC
SW22	286,526.57	590,330.35	13.99.31	39.62	1228.12	
SW23	286,528.56	590,330.63	13+99.59	37.63	1228.25	
SW24	286,529.02	590,317.61	13+86.57	37.19	1228.46	

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 1 AND 3 FOR FURTHER DETAILS.

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 7% CURB RAMP SLOPE

*** MATCH EXISTING ELEVATIONS AND CROSS SLOPE

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL: SW QUADRANT	SHEET 12	E

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 6 FOR FURTHER DETAILS.

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

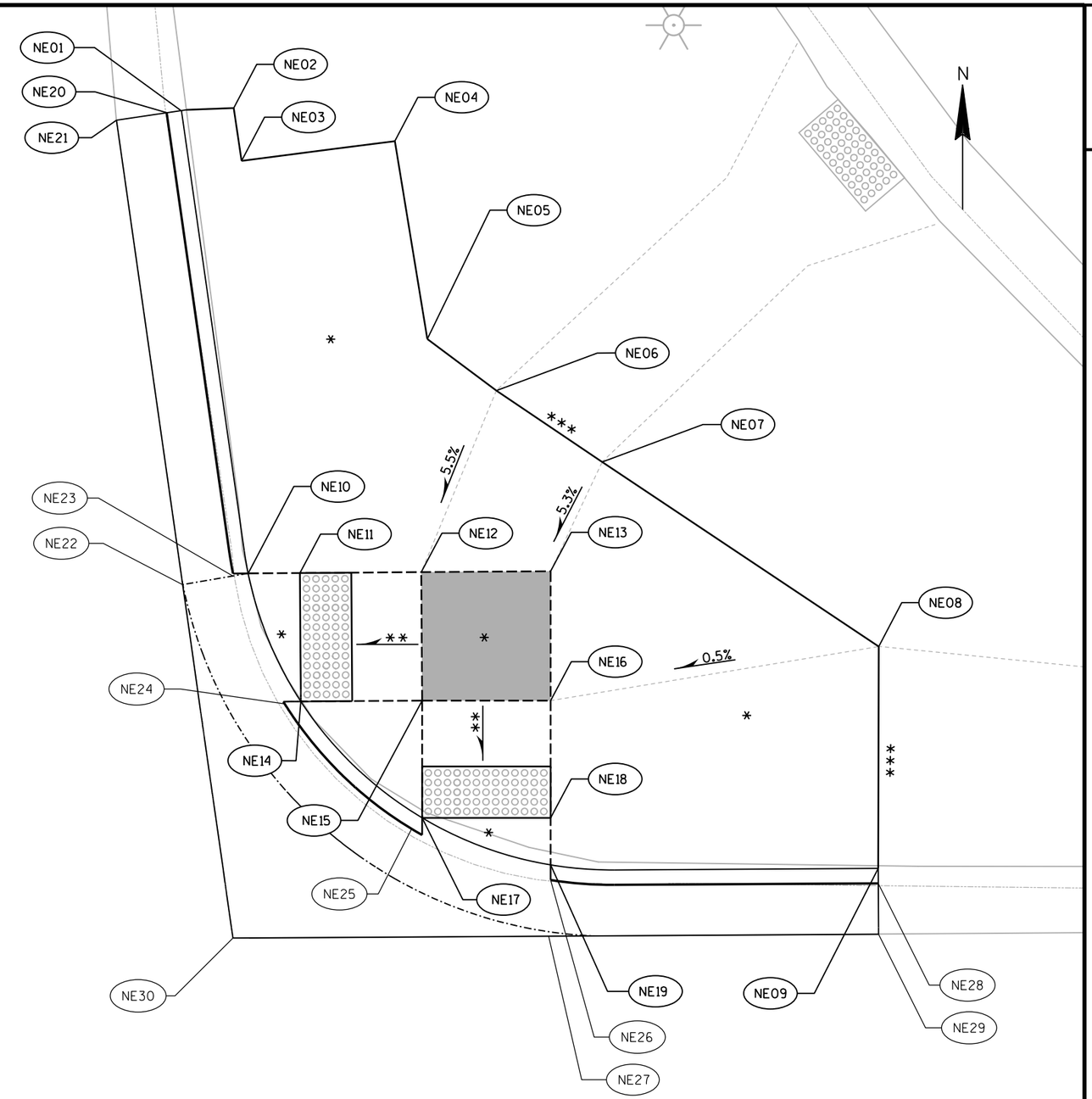
* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 7% CURB RAMP SLOPE

***MATCH EXISTING ELEVATIONS AND CROSS SLOPE

MILLER PARK WAY

DATA TABLE - TYPE 6M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
NE01	286,636.64	590,423.62	14+93.65	-70.17	1227.05	BOC
NE02	286,636.73	590,425.66	14+95.68	-70.23	1227.14	
NE03	286,634.67	590,425.97	14+95.96	-68.17	1227.14	
NE04	286,635.45	590,431.93	15+01.93	-68.85	1227.27	
NE05	286,627.74	590,433.20	15+03.08	-61.12	1227.24	
NE06	286,625.74	590,435.88	15+05.73	-59.07	1227.18	
NE07	286,622.95	590,440.00	15+09.81	-56.23	1227.08	
NE08	286,615.78	590,450.77	15+20.46	-48.88	1226.83	
NE09	286,607.14	590,450.75	15+20.30	-40.25	1226.55	BOC
NE10	286,618.62	590,426.22	14+95.96	-52.11	1226.55	BOC
NE11	286,618.64	590,428.24	14+97.97	-52.10	1226.67	
NE12	286,618.67	590,432.96	15+02.70	-52.06	1226.76	
NE13	286,618.71	590,438.00	15+07.73	-52.01	1226.83	
NE14	286,613.64	590,428.27	14+97.93	-47.10	1226.59	BOC
NE15	286,613.67	590,433.00	15+02.65	-47.06	1226.71	
NE16	286,613.67	590,438.00	15+07.65	-46.98	1226.76	
NE17	286,609.11	590,433.00	15+02.58	-42.49	1226.52	BOC
NE18	286,609.11	590,438.00	15+07.58	-42.41	1226.48	
NE19	286,607.28	590,438.00	15+07.55	-40.58	1226.46	BOC
NE20	286,636.55	590,423.05	14+93.07	70.09	1226.55	
NE21	286,636.26	590,421.09	14+91.11	69.83	1226.63	
NE22	286,618.19	590,423.67	14+93.40	51.72	1226.72	
NE23	286,618.50	590,425.65	14+95.39	52.00	1226.64	FOC
NE24	286,613.55	590,427.64	14+97.30	47.01	1226.58	FOC
NE25	286,608.68	590,432.59	15+02.16	42.07	1226.51	FOC
NE26	286,606.70	590,437.90	15+07.45	40.01	1226..45	FOC
NE27	286,604.50	590,437.92	15+07.43	37.81	1226.53	
NE28	286,606.56	590,450.75	15+20.29	39.66	1226.15	FOC
NE29	286,604.58	590,450.76	15+20.27	37.68	1226.23	
NE30	286,602.15	590,424.94	14+95.14	37.93	1226.79	



2

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 6 FOR FURTHER DETAILS.

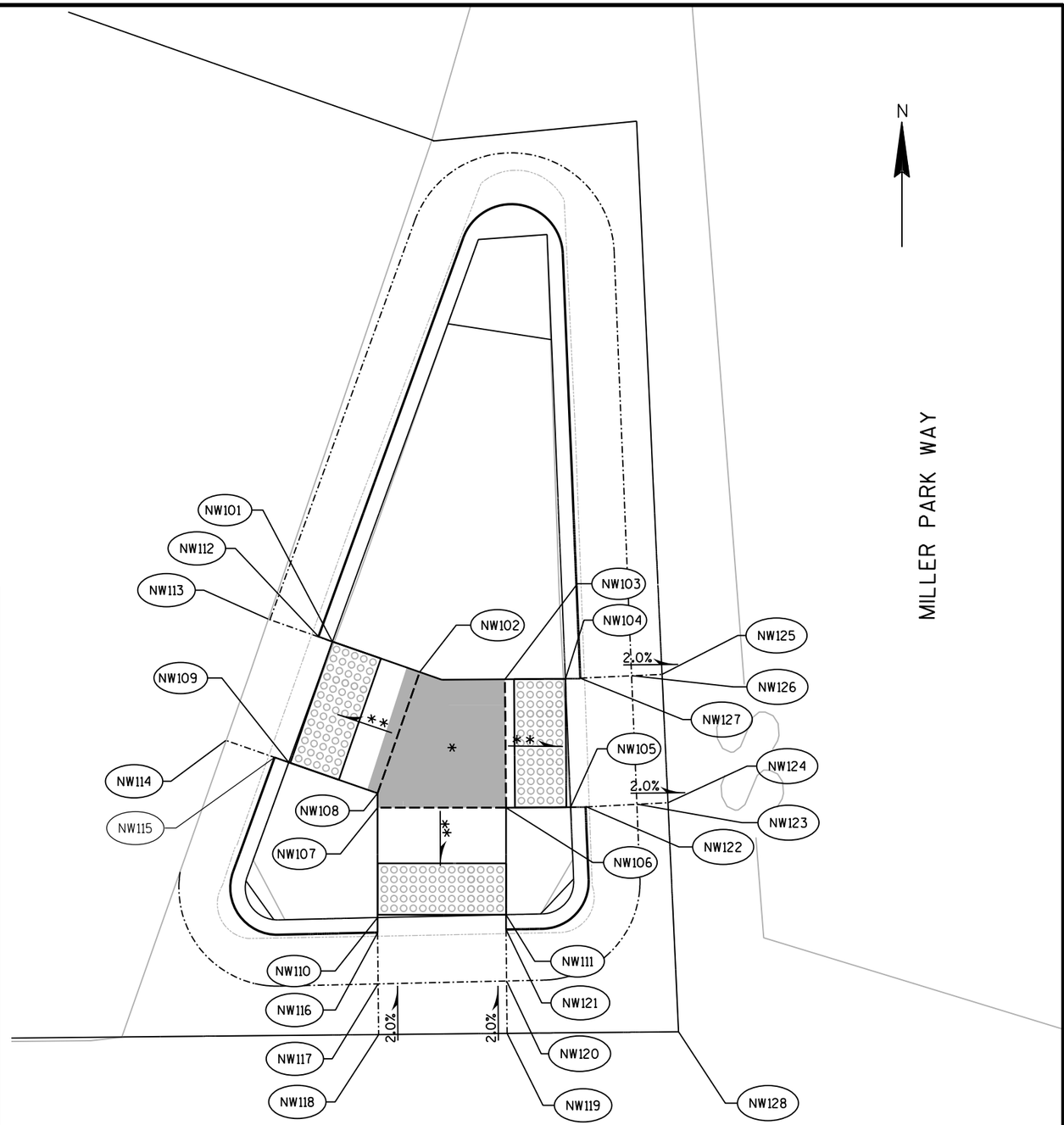
SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 8.33% CURB RAMP SLOPE (RETROFIT PROJECT)

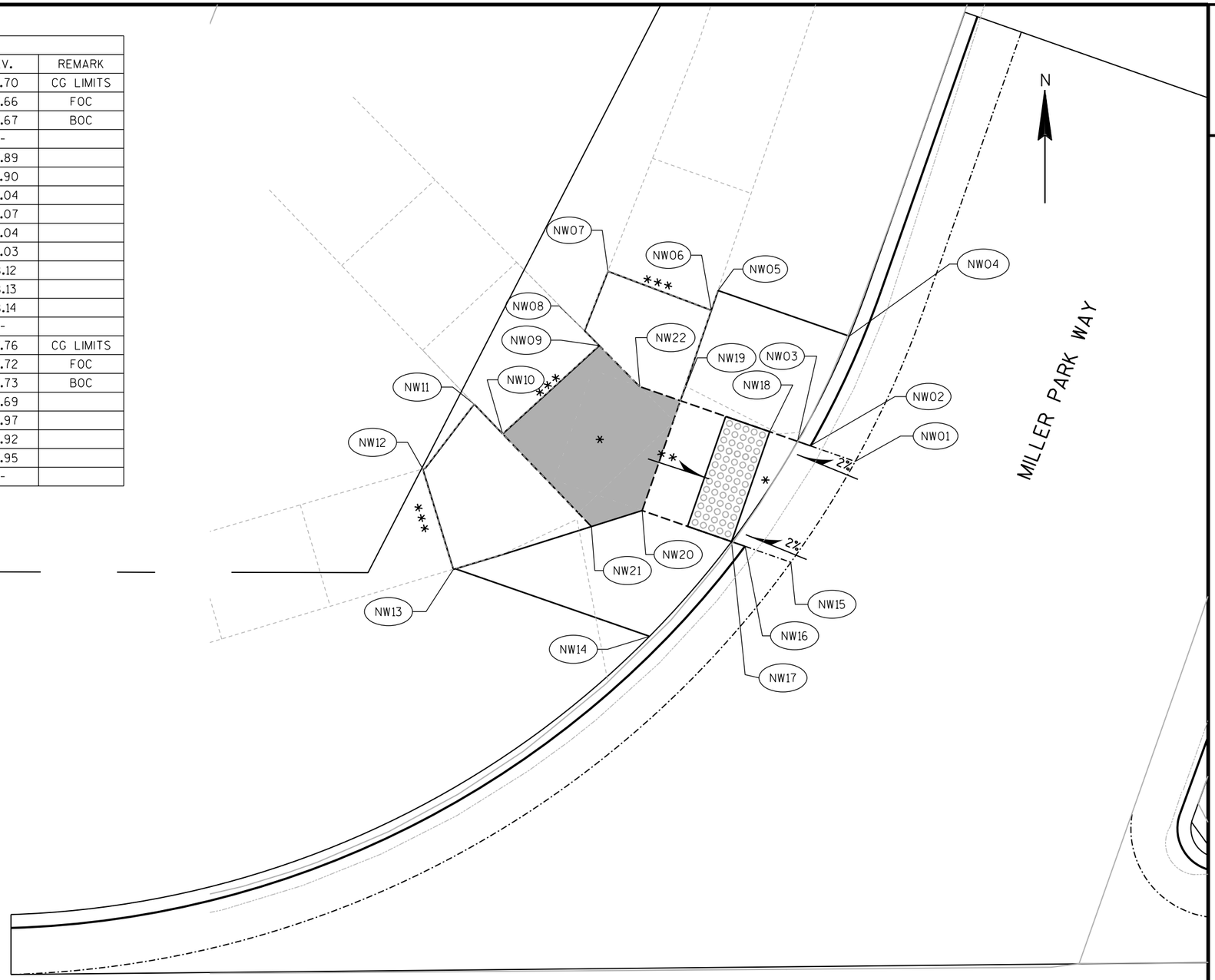
***MATCH EXISTING ELEVATIONS AND CROSS SLOPE

DATA TABLE - TYPE 6M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
NW101	286,619.46	590,335.08	14+03.91	-53.28	1227.78	BOC
NW102	286,618.28	590,338.48	14+07.31	-52.10	1227.93	
NW103	286,618.00	590,341.80	14+10.63	-51.83	1227.89	
NW104	286,618.02	590,344.15	14+12.98	-51.85	1227.72	BOC
NW105	286,613.02	590,344.35	14+13.20	-46.85	1227.79	BOC
NW106	286,613.00	590,341.83	14+10.68	-46.83	1227.96	
NW107	286,613.00	590,336.83	14+05.68	-46.82	1228.01	
NW108	286,613.56	590,336.83	14+05.68	-47.38	1228.00	
NW109	286,614.76	590,333.37	14+02.21	-48.58	1227.98	BOC
NW110	286,608.72	590,336.83	14+05.68	-42.54	---	BOC
NW111	286,608.83	590,341.83	14+10.68	-42.66	---	BOC
NW112	286,619.66	590,334.53	14+03.37	53.47	1227.87	FOC
NW113	286,620.34	590,332.57	14+01.41	54.15	1227.79	
NW114	286,615.62	590,330.93	13+99.77	49.43	1227.89	
NW115	286,614.96	590,332.83	14+01.67	48.77	1227.97	FOC
NW116	286,608.14	590,336.84	14+05.69	41.96	1227.83	FOC
NW117	286,606.14	590,336.86	14+05.71	39.96	1227.91	CG LIMITS
NW118	286,604.17	590,336.88	14+05.73	37.98	1227.95	
NW119	286,604.21	590,341.88	14+10.73	38.03	1227.87	
NW120	286,606.25	590,341.86	14+10.71	40.08	1227.83	CG LIMITS
NW121	286,608.25	590,341.84	14+10.69	42.08	1227.75	FOC
NW122	286,613.05	590,344.93	14+13.78	46.87	1227.76	FOC
NW123	286,613.14	590,346.93	14+15.77	46.97	1227.68	CG LIMITS
NW124	286,613.20	590,348.14	14+16.98	47.02	1227.66	
NW125	286,618.19	590,347.91	14+16.75	52.02	1227.59	
NW126	286,618.14	590,346.72	14+15.56	51.97	1227.61	CG LIMITS
NW127	286,618.05	590,344.73	14+13.56	51.87	1227.69	FOC
NW128	286,604.28	590,348.55	14+17.41	38.11	1227.77	



PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL: NW QUADRANT ISLAND	SHEET 14	E

DATA TABLE - TYPE 1M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
NW01	286,625.66	590,317.25	13+86.08	-59.45	1227.70	CG LIMITS
NW02	286,626.35	590,315.35	13+84.17	-60.14	1227.66	FOC
NW03	286,626.52	590,314.77	13+83.60	-60.31	1227.67	BOC
NW04	286,631.04	590,317.00	13+85.82	-64.83	---	
NW05	286,633.00	590,311.36	13+80.18	-66.79	1227.89	
NW06	286,632.16	590,311.07	13+79.89	-65.94	1227.90	
NW07	286,633.83	590,306.63	13+75.45	-67.61	1228.04	
NW08	286,631.27	590,305.62	13+74.44	-65.05	1228.07	
NW09	286,630.64	590,306.25	13+75.07	-64.41	1228.04	
NW10	286,626.84	590,302.10	13+70.93	-60.61	1228.03	
NW11	286,628.12	590,300.88	13+69.70	-61.89	1228.12	
NW12	286,625.33	590,298.67	13+67.49	-59.10	1228.13	
NW13	286,621.02	590,299.98	13+68.81	-54.79	1228.14	
NW14	286,618.15	590,308.41	13+77.25	-51.93	---	
NW15	286,621.33	590,314.49	13+83.32	-55.12	1227.76	CG LIMITS
NW16	286,622.02	590,312.52	13+81.35	-55.80	1227.72	FOC
NW17	286,622.21	590,311.94	13+80.77	-56.00	1227.73	BOC
NW18	286,626.94	590,313.58	13+82.40	-60.72	1227.69	
NW19	286,628.27	590,309.74	13+78.56	-62.05	1227.97	
NW20	286,623.55	590,308.10	13+76.93	-57.33	1227.92	
NW21	286,622.86	590,305.91	13+74.74	-56.64	1227.95	
NW22	286,628.88	590,307.99	13+76.82	-62.66	---	



R/W

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 1 FOR FURTHER DETAILS.

SLOPE BETWEEN BACK OF CURB AND FLOW LINE NOT TO EXCEED 4%

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 7% CURB RAMP SLOPE

*** MATCH EXISTING ELEVATIONS AND CROSS SLOPE

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL: NW QUADRANT	SHEET 15	E

DATA TABLE - TYPE 1M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
SE101	286,500.06	590,470.50	15+38.36	67.13	1226.42	
SE102	286,498.46	590,474.36	15+42.19	68.79	1226.66	
SE103	286,496.57	590,478.92	15+46.72	70.76	1226.75	
SE104	286,501.14	590,480.94	15+48.81	66.21	1226.42	
SE105	286,503.05	590,476.35	15+44.25	64.24	1226.34	
SE106	286,504.75	590,472.24	15+40.17	62.47	1226.05	BOC
SE107	286,509.26	590,474.44	15+42.44	58.00	1226.02	BOC
SE108	286,507.64	590,478.34	15+46.31	59.68	1226.29	
SE109	286,505.72	590,482.95	15+50.90	61.67	1226.37	
SE110	286,509.85	590,484.82	15+52.83	57.57	1226.45	
SE111	286,512.20	590,480.39	15+48.44	55.15	1226.37	
SE112	286,513.50	590,477.26	15+45.33	53.80	1226.39	BOC
SE113	286,517.88	590,500.96	15+69.10	49.80	1226.28	
SE114	286,522.72	590,500.92	15+69.13	44.95	1226.17	
SE115	286,504.64	590,472.52	15+40.45	62.59	1226.05	
SE116	286,504.95	590,471.78	15+39.72	62.26	1226.04	FOC
SE117	286,505.73	590,469.96	15+37.91	61.45	1226.12	
SE118	286,510.33	590,471.92	15+39.94	56.88	1226.10	
SE119	286,510.27	590,472.05	15+40.07	56.94	1226.09	CG LIMITS
SE120	286,509.49	590,473.90	15+41.92	57.77	1226.01	FOC
SE121	286,513.32	590,487.35	15+55.42	54.14	1226.41	
SE122	286,516.07	590,491.04	15+59.15	51.45	1226.37	
SE123	286,517.59	590,495.45	15+63.58	49.99	1226.33	
SE124	286,522.39	590,494.64	15+62.84	45.18	1226.26	
SE125	286,520.43	590,488.78	15+56.96	47.05	1226.30	
SE126	286,516.83	590,483.85	15+51.97	50.58	1226.34	

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 1 FOR FURTHER DETAILS.

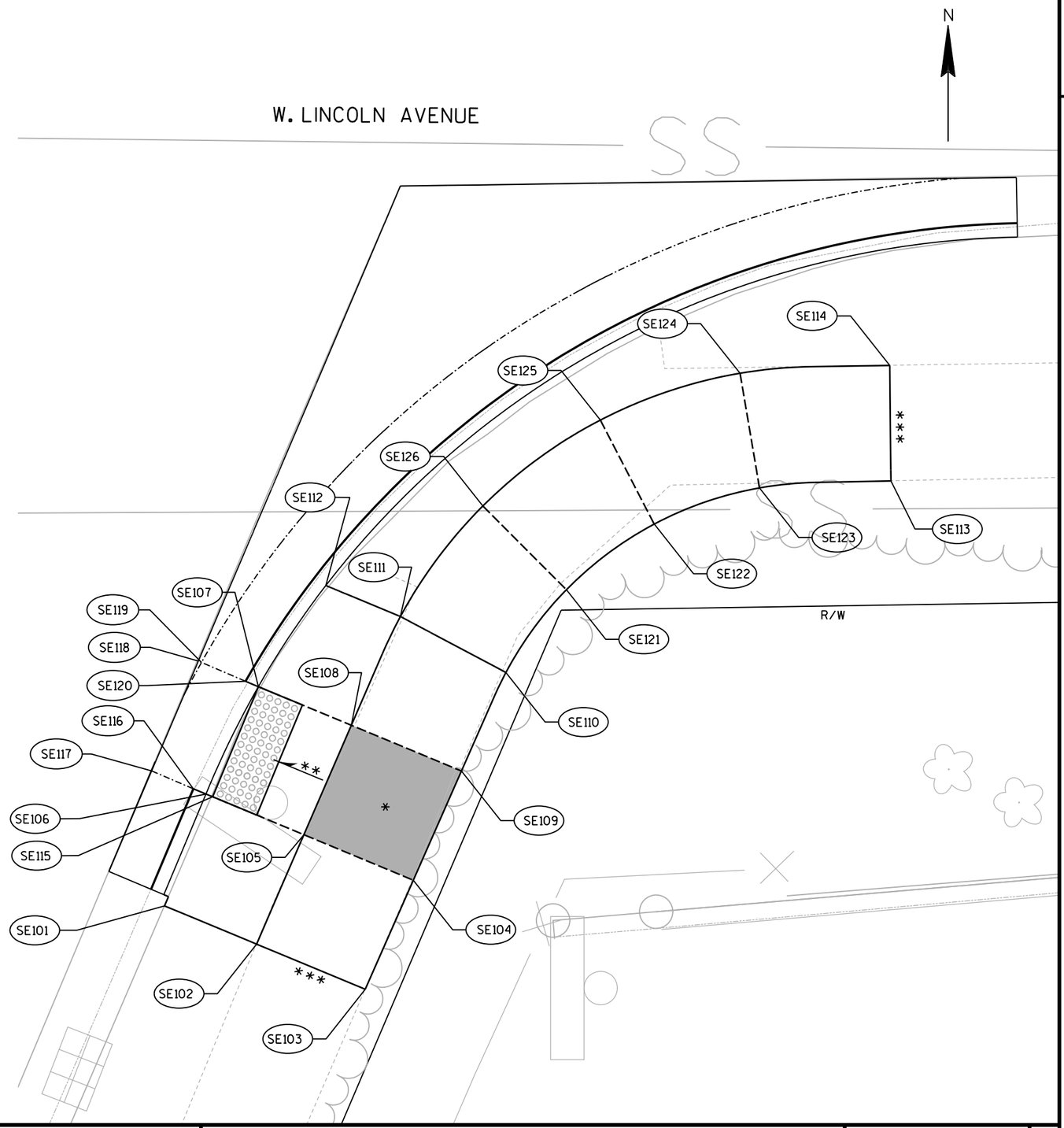
SLOPE BETWEEN BACK OF CURB AND FLOW LINE NOT TO EXCEED 4%

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 7% CURB RAMP SLOPE

*** MATCH EXISTING ELEVATIONS AND CROSS SLOPE



PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL: SE QUADRANT	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021005_cd_se curb ramp.dgn PLOT DATE : 12/19/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

DATA TABLE - TYPE 6M						
POINT	Y	X	STATION	OFFSET	ELEV.	REMARK
SE01	286,524.75	590,433.00	15+01.26	41.85	1226.75	BOC
SE02	286,524.85	590,438.00	15+06.26	41.84	1226.67	BOC
SE03	286,518.03	590,430.43	14+98.58	48.53	1226.85	BOC
SE04	286,518.08	590,433.00	15+01.15	48.53	1226.95	
SE05	286,518.17	590,438.00	15+06.15	48.51	1226.90	
SE06	286,518.44	590,452.33	15+20.48	48.47	1226.48	
SE07	286,517.07	590,455.61	15+23.74	49.88	1226.36	BOC
SE08	286,512.48	590,453.64	15+21.70	54.45	1226.39	BOC
SE09	286,513.42	590,451.38	15+19.45	53.47	1226.54	
SE10	286,513.17	590,438.10	15+06.17	53.51	1226.97	
SE11	286,513.08	590,433.10	15+01.17	53.53	1226.90	
SE12	286,513.03	590,430.44	14+98.51	53.53	1226.84	BOC
SE13	286,513.03	590,429.86	14+97.93	53.52	1226.82	FOC
SE14	286,513.02	590,427.86	14+95.93	53.49	1226.90	CG LIMITS
SE15	286,513.02	590,425.94	14+94.01	53.46	1226.94	
SE16	286,518.02	590,425.93	14+94.08	48.46	1226.95	
SE17	286,518.02	590,427.85	14+96.00	48.49	1226.91	CG LIMITS
SE18	286,518.03	590,429.85	14+98.00	48.52	1226.83	FOC
SE19	286,525.33	590,432.99	15+01.25	41.27	1226.73	FOC
SE20	286,527.33	590,432.95	15+01.25	39.27	1226.81	CG LIMITS
SE21	286,529.25	590,432.92	15+01.24	37.35	1226.85	
SE22	286,529.34	590,437.92	15+06.24	37.33	1226.77	
SE23	286,527.43	590,437.95	15+06.25	39.25	1226.73	CG LIMITS
SE24	286,525.43	590,437.99	15+06.25	41.25	1226.65	FOC
SE25	286,516.85	590,456.15	15+24.27	50.12	1226.34	FOC
SE26	286,516.09	590,457.91	15+26.02	50.90	1226.42	
SE27	286,511.49	590,455.94	15+23.98	55.46	1226.45	
SE28	286,512.25	590,454.18	15+22.23	54.68	1226.37	FOC
SE29	286,513.33	590,446.38	15+14.45	53.49	1226.59	
SE30	286,518.33	590,446.29	15+14.43	48.49	1226.54	
SE31	286,518.42	590,451.28	15+19.43	48.47	1226.49	

NOTES:

ELEVATION SHOWN ON THE PLANS ARE FOR INFORMATION PURPOSE ONLY. CONTRACTOR SHALL VERIFY ELEVATION PRIOR TO CURB RAMP CONSTRUCTION.

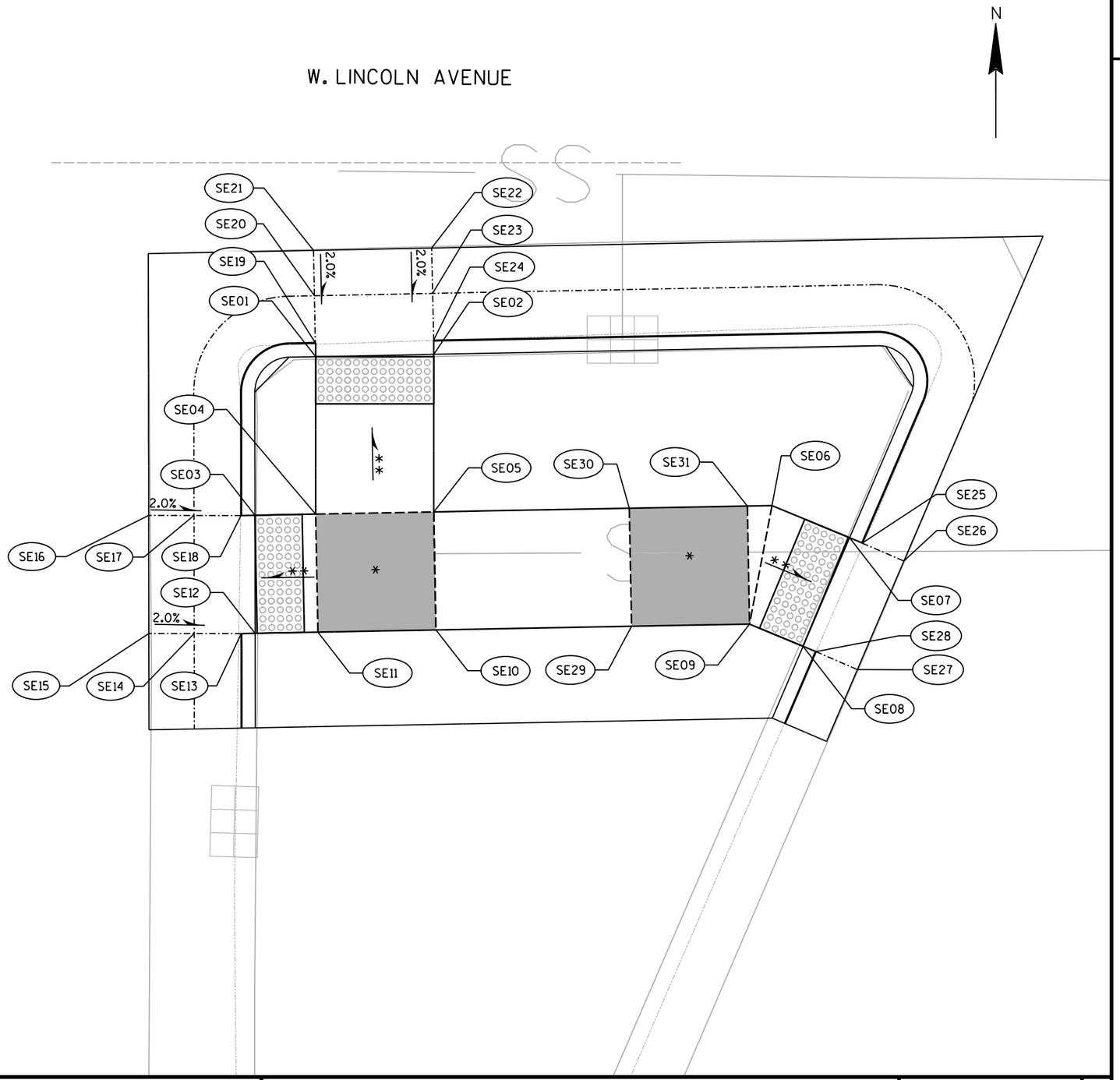
SEE STANDARD DETAIL DRAWING CURB RAMPS TYPE 6 FOR FURTHER DETAILS.

SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION.

* MAXIMUM 1.5% SLOPE IN ANY DIRECTION OF PEDESTRIAN TRAVEL

** MAXIMUM 7% CURB RAMP SLOPE

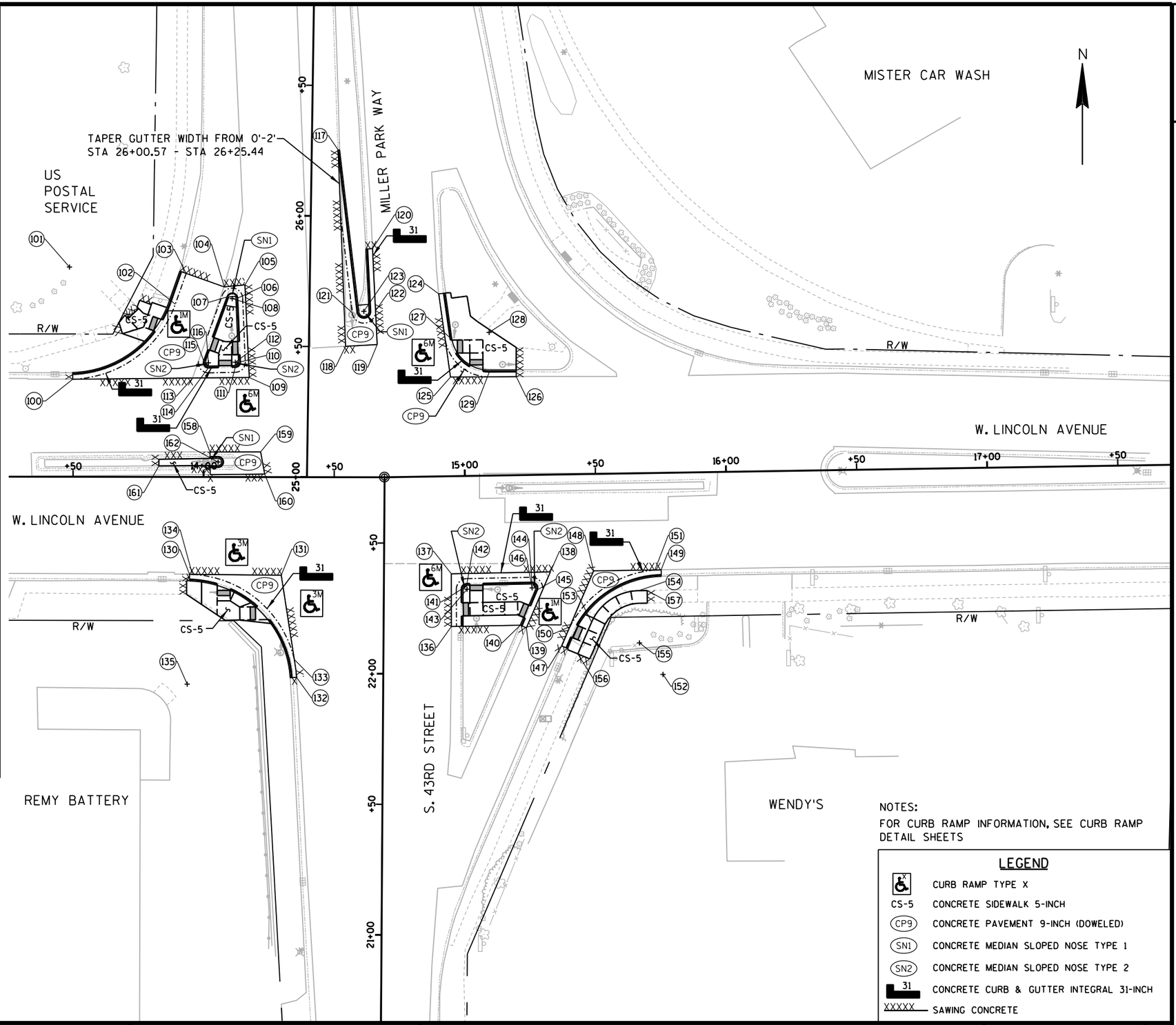
***MATCH EXISTING ELEVATIONS AND CROSS SLOPE



PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CURB RAMP DETAIL: SE QUADRANT ISLAND	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021006_cd_se pork chop.dgn PLOT DATE : 12/19/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

POINT	Y	X	STATION	OFFSET	REMARKS
100	286,603.61	590,280.97	13+49.83	37.35' LT	END RADIUS, MATCH EXIST. CONCRETE
101	286,646.55	590,279.72	13+48.52	80.28' LT	R = 43'
102	286,632.30	590,320.24	25+65.41	51.37' LT	END RADIUS
103	286,644.11	590,324.39	25+77.28	47.39' LT	MATCH EXIST. CONCRETE
104	286,638.96	590,339.05	25+72.35	32.66' LT	MATCH EXIST. CONCRETE
105	286,639.72	590,346.92	25+73.23	24.80' LT	MATCH EXIST. CONCRETE
106	286,634.58	590,344.05	25+68.04	27.60' LT	END RADIUS (FOC)
107	286,635.18	590,340.17	25+68.58	31.48' LT	END RADIUS (FOC)
108	286,634.50	590,342.05	25+67.93	29.59' LT	R = 2'(FOC)
109	286,604.28	590,348.55	25+37.81	22.64' LT	MATCH EXIST. CONCRETE
110	286,610.19	590,345.05	25+43.67	26.23' LT	END RADIUS (FOC)
111	286,608.29	590,343.26	25+41.74	27.99' LT	END RADIUS (FOC)
112	286,610.12	590,343.22	25+43.57	28.06' LT	R = 1.83'(FOC)
113	286,604.08	590,326.92	13+95.78	37.88' LT	MATCH EXIST. CONCRETE
114	286,608.05	590,332.97	14+01.82	41.87' LT	END RADIUS (FOC)
115	286,610.51	590,331.21	14+00.06	44.32' LT	END RADIUS (FOC)
116	286,609.88	590,332.93	14+01.78	43.70' LT	R = 1.83'(FOC)
117	286,691.41	590,382.57	26+25.44	10.08' RT	MATCH EXIST. CONCRETE
118	286,616.19	590,385.44	25+50.27	14.06' RT	MATCH EXIST. CONCRETE
119	286,616.89	590,397.56	25+51.15	26.17' RT	MATCH EXIST. CONCRETE
120	286,653.63	590,395.76	25+87.86	23.83' RT	MATCH EXIST. CONCRETE
121	286,629.06	590,387.96	25+63.18	16.40' RT	END RADIUS
122	286,629.81	590,396.93	25+64.06	25.35' RT	END RADIUS
123	286,629.59	590,392.43	25+63.78	20.86' RT	R = 2.5'
124	286,636.26	590,421.09	25+70.87	49.42' RT	MATCH EXIST. CONCRETE
125	286,604.43	590,425.63	14+95.14	37.93' LT	MATCH EXIST. CONCRETE
126	286,604.58	590,450.76	15+20.27	37.69' LT	MATCH EXIST. CONCRETE
127	286,619.41	590,425.49	25+54.09	54.07' RT	END RADIUS (FOC)
128	286,621.54	590,440.38	15+10.16	54.81' LT	R = 15'(FOC)
129	286,606.50	590,440.47	15+10.02	39.77' LT	END RADIUS (FOC)
130	286,528.97	590,325.70	13+94.66	37.23' RT	MATCH EXIST. CONCRETE
131	286,528.58	590,360.82	14+29.79	37.57' RT	MATCH EXIST. CONCRETE
132	286,489.51	590,366.66	21+98.39	33.19' LT	MATCH EXIST. CONCRETE
133	286,496.32	590,365.80	22+05.20	34.10' LT	END RADIUS
134	286,528.91	590,326.79	13+95.75	37.28' RT	END RADIUS
135	286,486.88	590,324.79	13+93.81	79.32' RT	R = 42'
136	286,508.94	590,425.94	22+18.22	25.96' RT	MATCH EXIST. CONCRETE
137	286,529.11	590,425.91	22+38.39	25.80' RT	MATCH EXIST. CONCRETE
138	286,529.85	590,463.81	15+32.14	37.24' RT	MATCH EXIST. CONCRETE
139	286,508.45	590,454.64	22+17.92	54.66' RT	MATCH EXIST. CONCRETE
140	286,509.44	590,452.34	22+18.89	52.35' RT	MATCH EXIST. CONCRETE SIDEWALK
141	286,523.22	590,429.84	22+32.53	29.76' RT	END RADIUS (FOC)
142	286,525.31	590,431.88	22+34.63	31.79' RT	END RADIUS (FOC)
143	286,523.23	590,431.92	22+32.55	31.84' RT	R = 2'(FOC)
144	286,525.79	590,456.79	22+35.28	56.69' RT	END RADIUS (FOC)
145	286,522.90	590,458.74	22+32.39	58.66' RT	END RADIUS (FOC)
146	286,523.71	590,456.83	22+33.20	56.74' RT	R = 2'(FOC)
147	286,501.51	590,468.16	22+11.07	68.23' RT	MATCH EXIST. CONCRETE
148	286,530.24	590,480.39	15+48.72	37.11' RT	MATCH EXIST. CONCRETE
149	286,530.61	590,506.22	15+74.56	37.15' RT	MATCH EXIST. CONCRETE
150	286,508.90	590,471.31	22+18.48	71.32' RT	END RADIUS
151	286,530.58	590,503.87	15+72.21	37.15' RT	END RADIUS
152	286,490.62	590,506.98	22+00.44	107.11' RT	R = 40'
153	286,510.63	590,479.63	22+20.27	79.64' RT	END RADIUS (FOS)
154	286,522.67	590,497.69	15+65.90	44.95' RT	END RADIUS (FOS)
155	286,502.68	590,497.98	22+12.44	98.04 RT	R = 20'(FOS)
156	286,498.46	590,474.36	22+08.06	74.44' RT	MATCH EXIST. CONCRETE SIDEWALK
157	286,522.72	590,500.92	15+69.13	44.95' RT	MATCH EXIST. CONCRETE SIDEWALK
158	286,575.77	590,333.51	14+02.41	9.58' LT	MATCH EXIST. CONCRETE
159	286,575.80	590,352.93	14+21.82	9.65' LT	MATCH EXIST. CONCRETE
160	286,567.29	590,354.46	14+23.37	1.14' LT	MATCH EXIST. CONCRETE
161	286,570.42	590,313.98	13+82.88	4.20' LT	MATCH EXIST. CONCRETE SIDEWALK
162	286,571.93	590,336.61	14+05.51	5.75' LT	R = 2'(FOC)



NOTES:
FOR CURB RAMP INFORMATION, SEE CURB RAMP DETAIL SHEETS

LEGEND

X	CURB RAMP TYPE X
CS-5	CONCRETE SIDEWALK 5-INCH
CP9	CONCRETE PAVEMENT 9-INCH (DOWELED)
SN1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
SN2	CONCRETE MEDIAN SLOPED NOSE TYPE 2
31	CONCRETE CURB & GUTTER INTEGRAL 31-INCH
XXXXX	SAWING CONCRETE

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	INTERSECTION DETAILS: LINCOLN AVE./43RD ST.	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021201_pd.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

US POSTAL SERVICE

MISTER CAR WASH

N

MILLER PARK WAY

WE ENERGIES ELECTRIC

CITY OF MILWAUKEE ELECTRIC

TIME WARNER CABLE
WE ENERGIES ELECTRIC

CITY OF MILWAUKEE SEWER

AT&T WISCONSIN

CITY OF MILWAUKEE WATER

W. LINCOLN AVENUE

WE ENERGIES GAS

S. 43RD STREET

RBI DISTRIBUTING

REMY BATTERY

WENDY'S

CAUTION

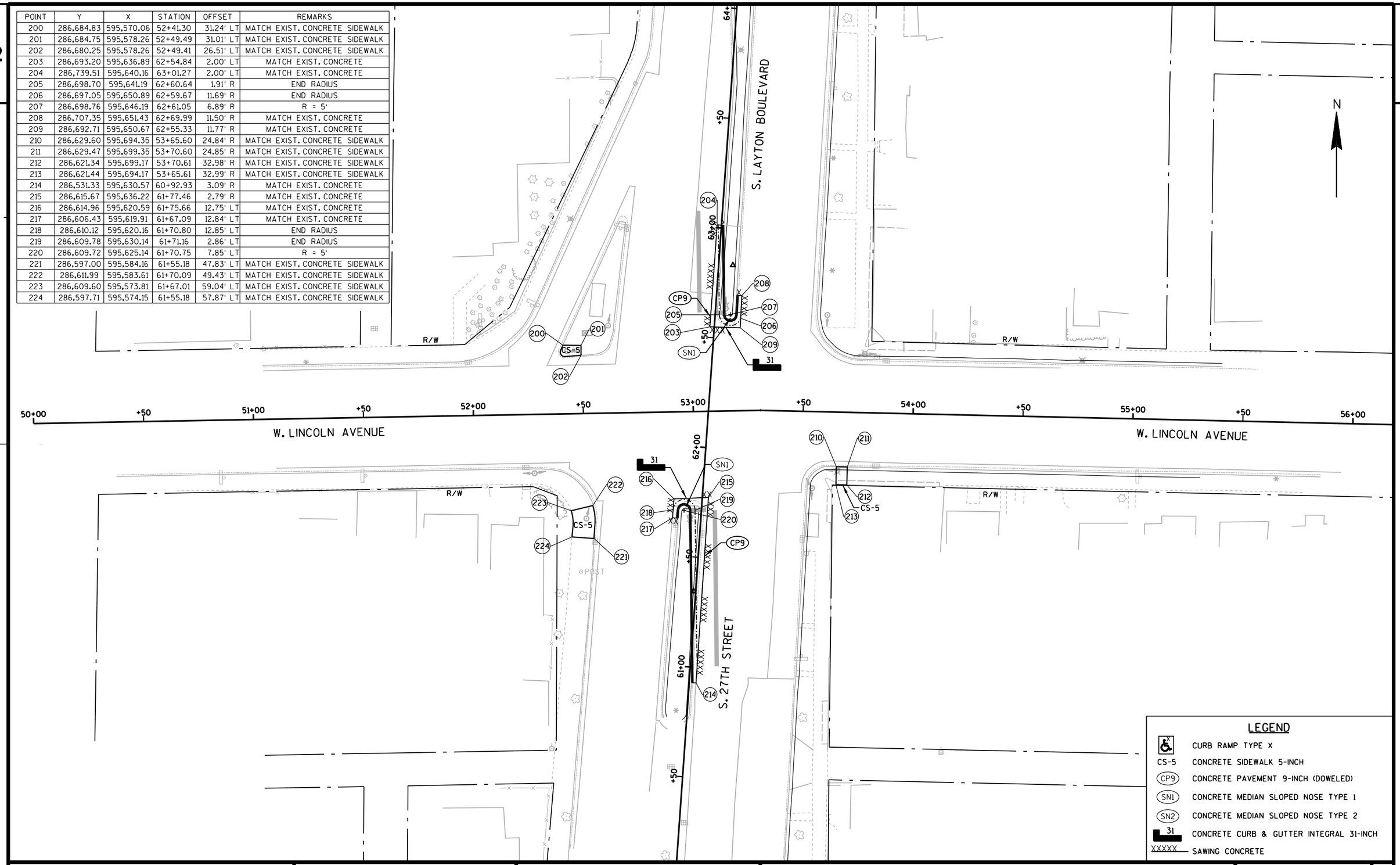
45'

40'

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	INTERSECTION DETAILS: LINCOLN AVE./43RD ST. UTILITIES	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021201_utility_pd.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

POINT	Y	X	STATION	OFFSET	REMARKS
200	286,684.83	595,570.06	52+41.30	31.24' LT	MATCH EXIST. CONCRETE SIDEWALK
201	286,684.75	595,578.26	52+49.49	31.01' LT	MATCH EXIST. CONCRETE SIDEWALK
202	286,680.25	595,578.26	52+49.41	26.51' LT	MATCH EXIST. CONCRETE SIDEWALK
203	286,693.20	595,636.89	62+54.84	2.00' LT	MATCH EXIST. CONCRETE
204	286,739.51	595,640.16	63+01.27	2.00' LT	MATCH EXIST. CONCRETE
205	286,698.70	595,641.19	62+60.64	1.91' R	END RADIUS
206	286,697.05	595,650.89	62+59.67	11.69' R	END RADIUS
207	286,698.76	595,646.19	62+61.05	6.89' R	R = 5'
208	286,707.35	595,651.43	62+69.99	11.50' R	MATCH EXIST. CONCRETE
209	286,692.71	595,650.67	62+55.33	11.77' R	MATCH EXIST. CONCRETE
210	286,629.60	595,694.35	53+65.60	24.84' R	MATCH EXIST. CONCRETE SIDEWALK
211	286,629.47	595,699.35	53+70.60	24.85' R	MATCH EXIST. CONCRETE SIDEWALK
212	286,621.34	595,699.17	53+70.61	32.98' R	MATCH EXIST. CONCRETE SIDEWALK
213	286,621.44	595,694.17	53+65.61	32.99' R	MATCH EXIST. CONCRETE SIDEWALK
214	286,531.33	595,630.57	60+92.93	3.09' R	MATCH EXIST. CONCRETE
215	286,615.67	595,636.22	61+77.46	2.79' R	MATCH EXIST. CONCRETE
216	286,614.96	595,620.59	61+75.66	12.75' LT	MATCH EXIST. CONCRETE
217	286,606.43	595,619.91	61+67.09	12.84' LT	MATCH EXIST. CONCRETE
218	286,610.12	595,620.16	61+70.80	12.85' LT	END RADIUS
219	286,609.78	595,630.14	61+71.16	2.86' LT	END RADIUS
220	286,609.72	595,625.14	61+70.75	7.85' LT	R = 5'
221	286,597.00	595,584.16	61+55.18	47.83' LT	MATCH EXIST. CONCRETE SIDEWALK
222	286,611.99	595,583.61	61+70.09	49.43' LT	MATCH EXIST. CONCRETE SIDEWALK
223	286,609.60	595,573.81	61+67.01	59.04' LT	MATCH EXIST. CONCRETE SIDEWALK
224	286,597.71	595,574.15	61+55.18	57.87' LT	MATCH EXIST. CONCRETE SIDEWALK



PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	INTERSECTION DETAILS: LINCOLN AVE./27TH ST.	SHEET E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021202_pd.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

S. LAYTON BOULEVARD

S. 27TH STREET

W. LINCOLN AVENUE

W. LINCOLN AVENUE

WE ENERGIES GAS

CITY OF MILWAUKEE WATER

CITY OF MILWAUKEE ELECTRIC

CITY OF MILWAUKEE SEWER

WE ENERGIES GAS

CITY OF MILWAUKEE SEWER

MIDWEST FIBER NETWORKS LLC

WE ENERGIES GAS

CITY OF MILWAUKEE WATER

AT&T WISCONSIN

WE ENERGIES GAS

WE ENERGIES GAS

CITY OF MILWAUKEE SEWER

CITY OF MILWAUKEE SEWER

WE ENERGIES GAS

TIME WARNER CABLE
WE ENERGIES ELECTRIC

CAUTION

40'

25'

35'

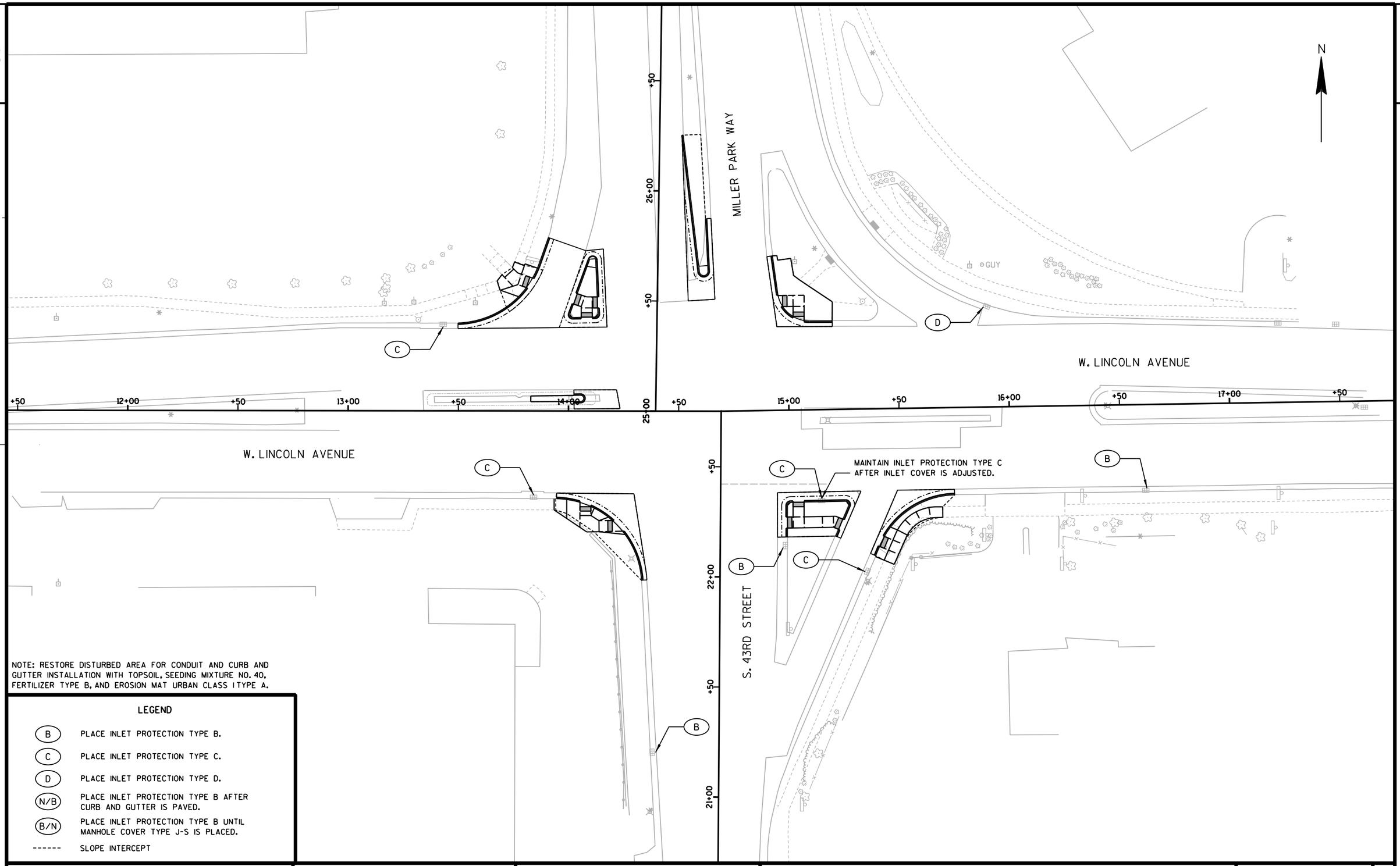
25'

50+00 +50 51+00 +50 52+00 +50 53+00 +50 54+00 +50 55+00 +50 56+00

64+00 +50 63+00 +50 62+00 +50 61+00 +50

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	INTERSECTION DETAILS: LINCOLN AVE./27TH ST. UTILITIES	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\021202_utility_pd.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



NOTE: RESTORE DISTURBED AREA FOR CONDUIT AND CURB AND GUTTER INSTALLATION WITH TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A.

LEGEND

(B)	PLACE INLET PROTECTION TYPE B.
(C)	PLACE INLET PROTECTION TYPE C.
(D)	PLACE INLET PROTECTION TYPE D.
(N/B)	PLACE INLET PROTECTION TYPE B AFTER CURB AND GUTTER IS PAVED.
(B/N)	PLACE INLET PROTECTION TYPE B UNTIL MANHOLE COVER TYPE J-S IS PLACED.
------	SLOPE INTERCEPT

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL: LINCOLN AVE./43RD ST.	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\022001_ec.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

S. LAYTON BOULEVARD

64+00 +50 63+00 +50

50+00 +50 51+00 +50 52+00 +50 53+00 +50 54+00 +50 55+00 +50 56+00

W. LINCOLN AVENUE

W. LINCOLN AVENUE

62+00 +50 61+00 +50

S. 27TH STREET

POST

B N/B B/N

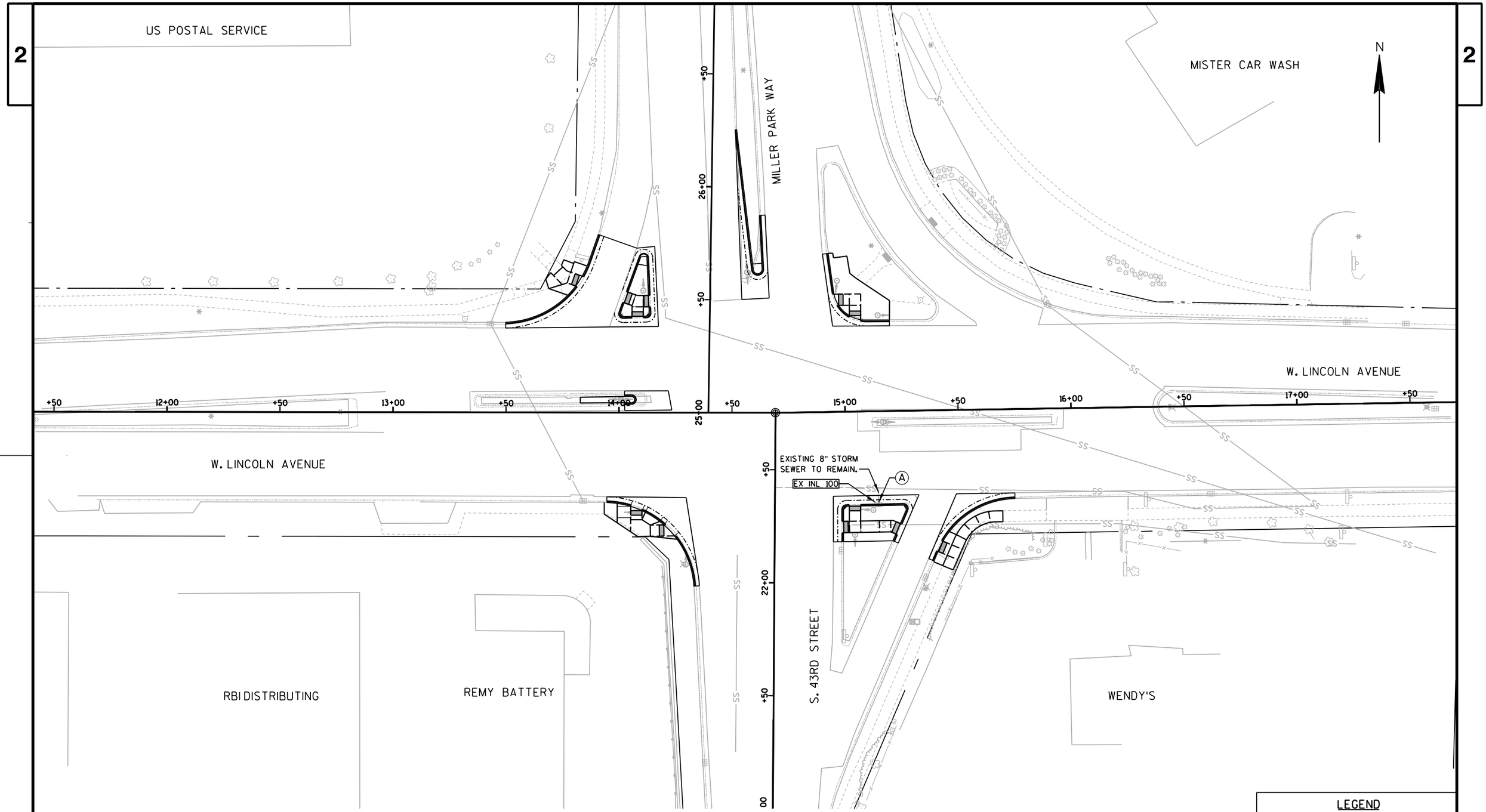
NOTE: RESTORE DISTURBED AREA FOR CONDUIT AND CURB AND GUTTER INSTALLATION WITH TOPSOIL, SEEDING MIXTURE NO. 40, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A.

LEGEND

B	PLACE INLET PROTECTION TYPE B.
C	PLACE INLET PROTECTION TYPE C.
D	PLACE INLET PROTECTION TYPE D.
N/B	PLACE INLET PROTECTION TYPE B AFTER CURB AND GUTTER IS PAVED.
B/N	PLACE INLET PROTECTION TYPE B UNTIL MANHOLE COVER TYPE J-S IS PLACED.
------	SLOPE INTERCEPT

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	EROSION CONTROL: LINCOLN AVE./27TH ST.	SHEET E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\022002_ec.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



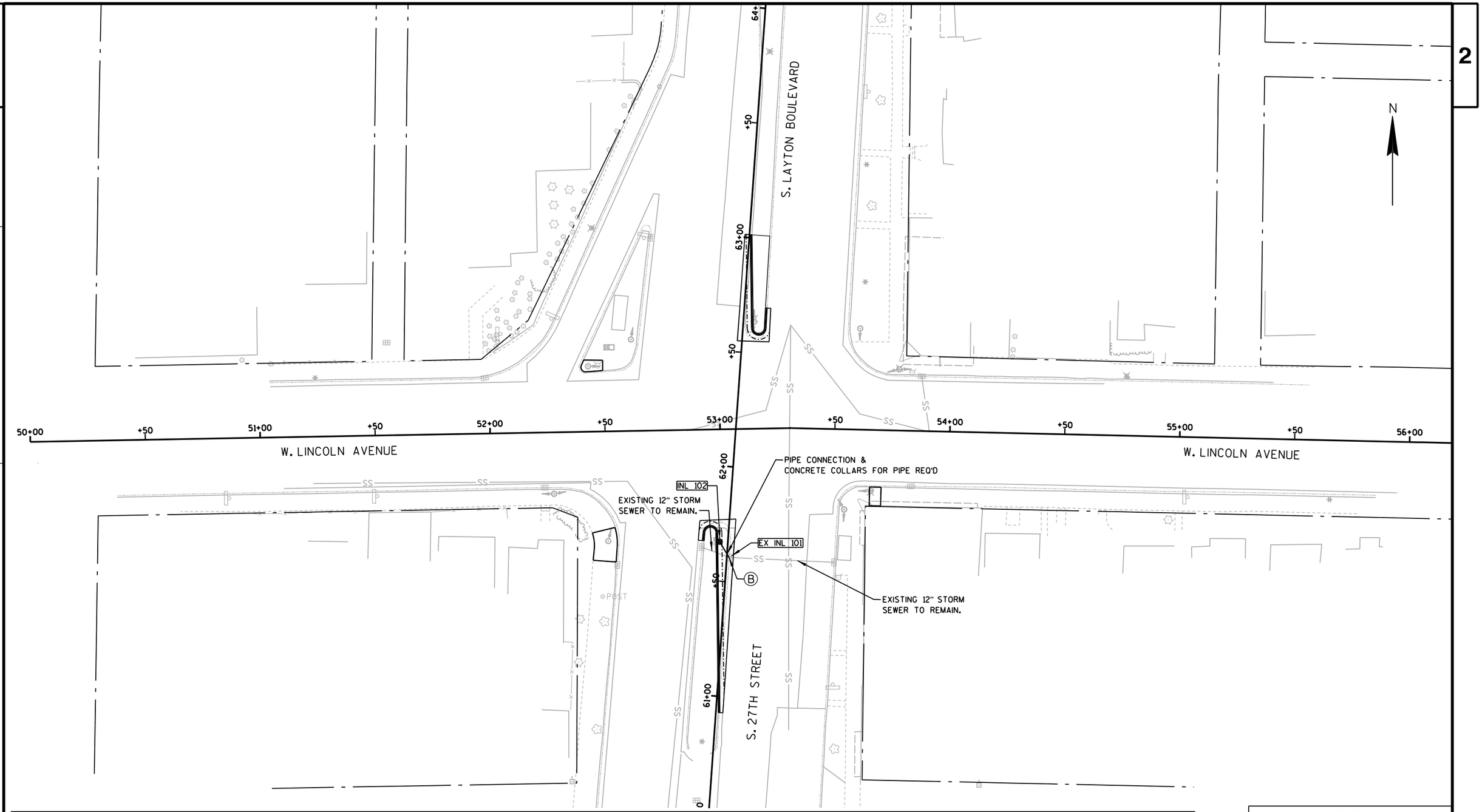
STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	CB TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
EX INL 100	15+14.26	41.3	'RT	-	-	-	-	-	-	1226.51	-	-	-	-	-	-	-	ADJUSTING INLET COVERS REQ'D

LEGEND

- (A) ADJUSTING INLET COVERS
- (B) RECONSTRUCTING MANHOLES
- PROPOSED STORM SEWER

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER: LINCOLN AVE./43RD ST.	SHEET 24	E

2

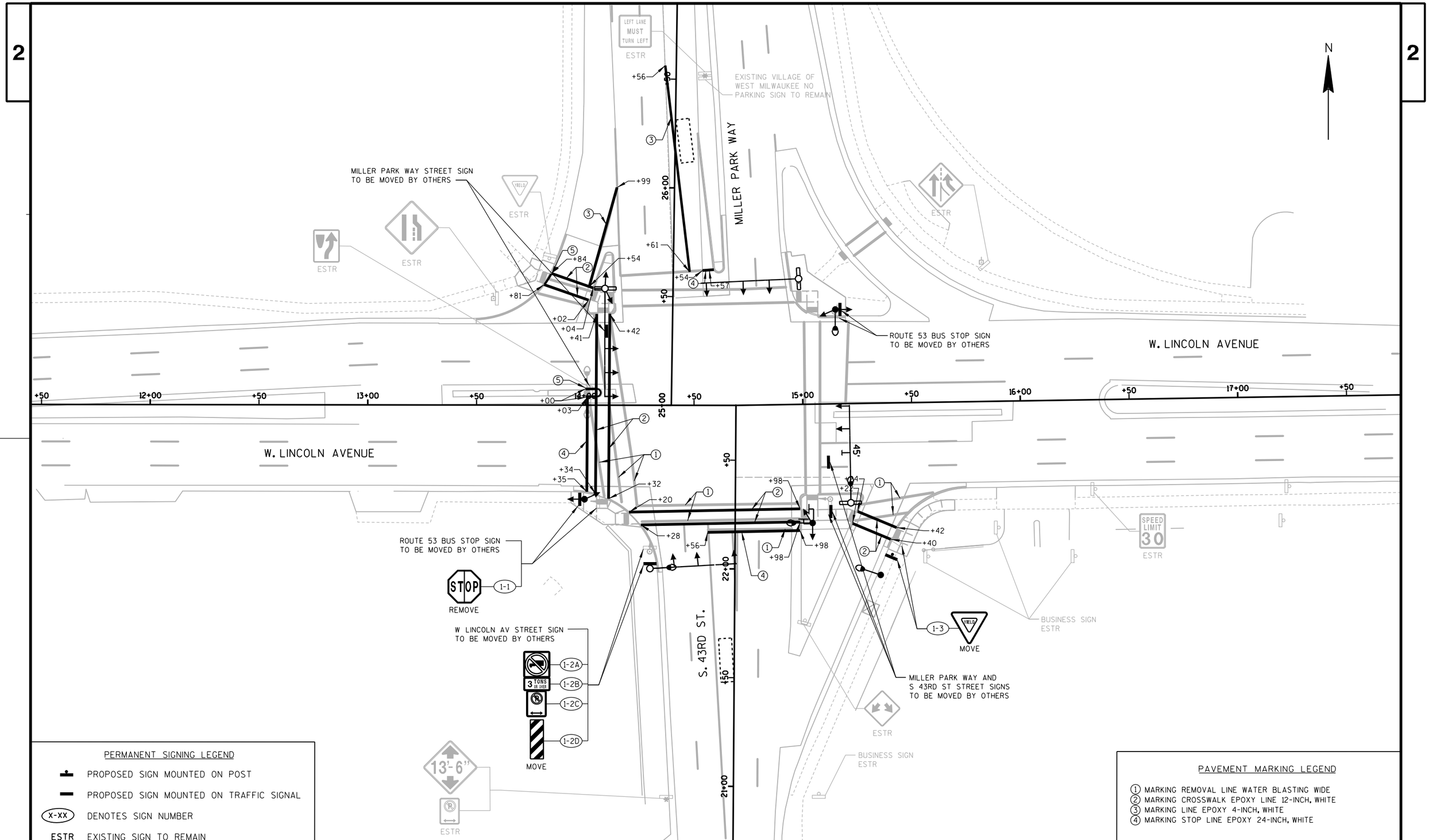


STRUCT NO.	STATION	OFFSET		C-C (FT)	TO STRUCT	INLET TYPE	COVER	CB TYPE	COVER	RIM/ GRATE ELEV.	T.O.S. ELEV.	DEPTH (FT)	DISCHARGE PIPE SIZE (IN)	DISCHARGE PIPE INLET ELEV.	DISCHARGE PIPE DISCHARGE ELEV.	DISCHARGE PIPE LENGTH (FT)	DISCHARGE PIPE SLOPE (%)	REMARKS
EX INL 101	61+60.52	1.1	'RT	-	-	-	-	4-FT	58A	1237.26	-	-	-	-	-	-	-	RECONSTRUCTING MANHOLES REQ'D. FLAT SLAB TOP REQ'D
INL 102	61+67.09	3.5	'LT	8.0	EX INL 101	-	57	3-FT	-	1237.39	1236.22	5.24	12	1232.98	1232.82	8	2.00%	FLAT TOP 2X2-FT OPENING REQ'D

LEGEND

- Ⓐ ADJUSTING INLET COVERS
- Ⓑ RECONSTRUCTING MANHOLES
- PROPOSED STORM SEWER

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	STORM SEWER: LINCOLN AVE./27TH ST.	SHEET 25	E



PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 26	E

2

N

NO LOITERING ON MEDIAN SIGN
TO BE MOVED BY OTHERS

S. LAYTON BOULEVARD

SPEED LIMIT 25
ESTR

ESTR

ESTR

EXISTING ROUTE
27 BUS STOP
SIGN TO REMAIN

YIELD
ESTR

NO TURN ON RED
2-1
MOVE

SPEED LIMIT 30
2 HOUR PARKING 7:00AM TO 7:00PM
ESTR

BUSINESS SIGN
ESTR

2-2A
2-2B
3 TONS OR OVER
MOVE

2-3A
2-3B
3 TONS OR OVER
MOVE

EXISTING S LAYTON BD
STREET SIGN TO REMAIN

EXISTING ROUTE 53 BUS
STOP SIGN TO REMAIN

NO TURN ON RED
ESTR

BUS STOP
ESTR

64+00
+50
63+00
+07
+61
+61
+62
+50

50+00 +50 51+00 +50 52+00 +50 53+00 +50 54+00 +50 55+00 +50 56+00

W. LINCOLN AVENUE

W. LINCOLN AVENUE

62+00
+71
+72
+72
+50
61+00
+01
+50

BUS STOP
ESTR

EXISTING ROUTE 53 BUS
STOP SIGN TO REMAIN

EXISTING KEEP THE CHANGE-
DON'T SUPPORT PANHANDLING
SIGN TO REMAIN

W LINCOLN AV
STREET SIGN TO BE
MOVED BY OTHERS

NO LOITERING ON MEDIAN SIGN
TO BE MOVED BY OTHERS

KEEP THE CHANGE- DON'T
SUPPORT PANHANDLING SIGN
TO BE MOVED BY OTHERS

EXISTING ROUTE 27 BUS
STOP SIGN TO REMAIN

CURB LANE
BICYCLES & PARKING ONLY
ESTR

BUS STOP
ESTR

JCT
24
241
ESTR

S. 27TH STREET

PERMANENT SIGNING LEGEND

- PROPOSED SIGN MOUNTED ON POST
- PROPOSED SIGN MOUNTED ON TRAFFIC SIGNAL
- X-XX DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

1. MARKING REMOVAL LINE WATER BLASTING WIDE
2. MARKING CROSSWALK EPOXY LINE 12-INCH, WHITE
3. MARKING LINE EPOXY 4-INCH, WHITE
4. MARKING STOP LINE EPOXY 24-INCH, WHITE

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 27	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.

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.

23 CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

24 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.

25 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.

26 Provide three sets 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, or record all changes in Red ink Only on the As-Let (Design) paper drawings. The City will reject as-builts with incomplete or incorrect content or not conforming to CMM standards.

As-Built Guidelines:

< 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 Manager
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

UTILITY LINE CODE

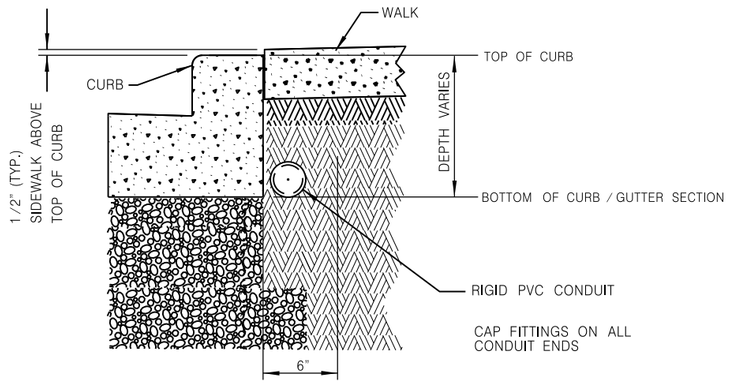
SAN	SANITARY SEWER
STO	STORM SEWER
W	WATER
G	GAS
G	PROPOSED GAS
E	ELECTRIC
TE&ES	TRAFFIC & STREET LIGHTING
	OLD CITY UNDERGROUND CONDUIT
CUC	PROPOSED CITY UNDERGROUND CONDUIT
T	TELEPHONE
TV	CABLE

SHEET 1 OF 6

PROJECT NO: 2110–00–72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 28	E

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

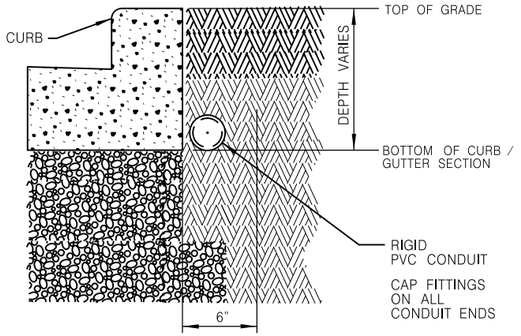
NOT TO SCALE

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

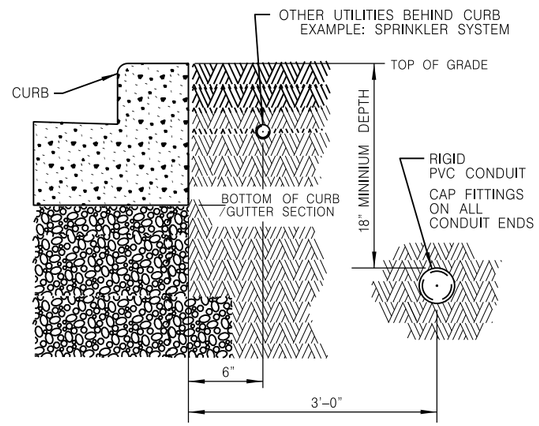
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



DETAIL "C"

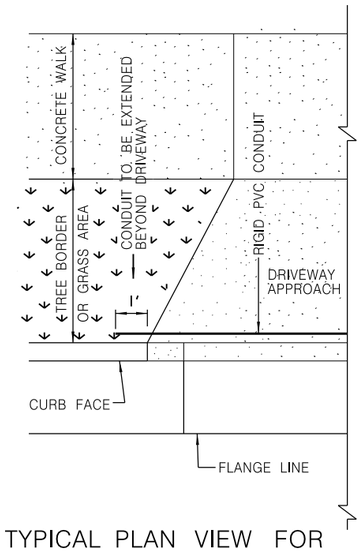


100 DETAIL "B" & "C"

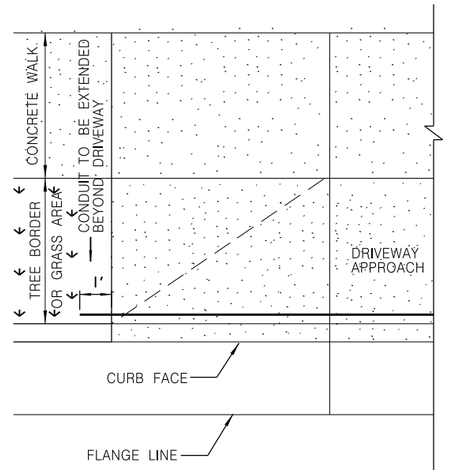
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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.

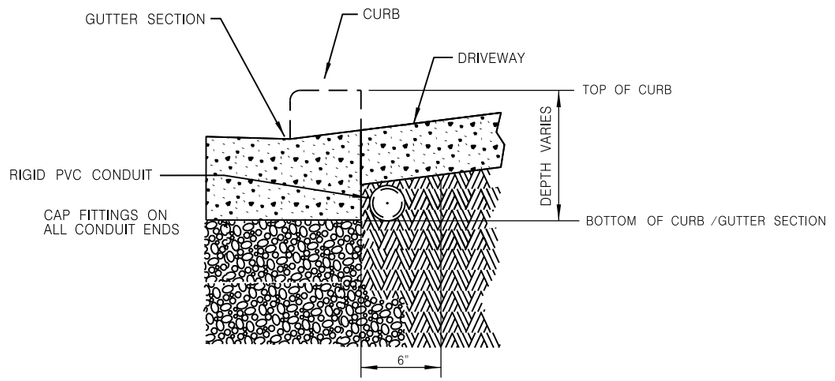


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



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

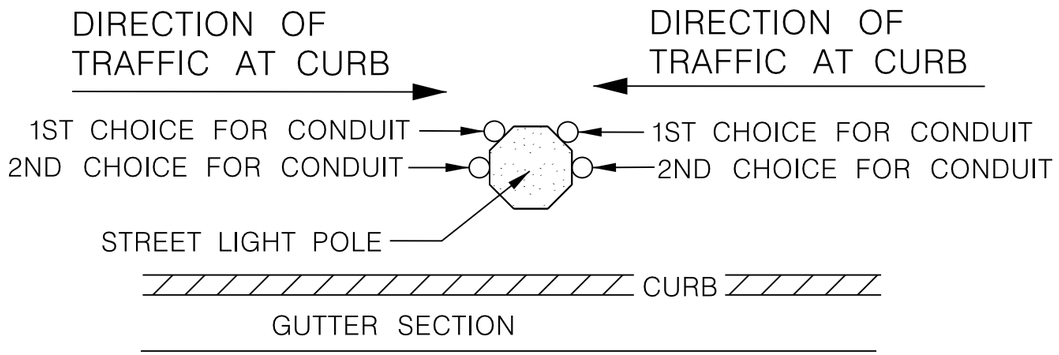
NOT TO SCALE

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

SHEET 2 OF 6

PROJECT NO: 2110-00-72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 29	E

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

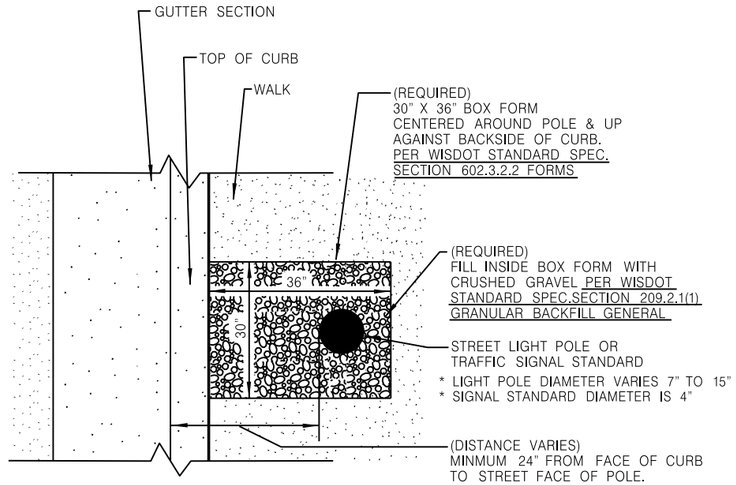
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

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.

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

THE CONTRACTOR IS REQUIRED TO FILL IN THE FORMED OUT AREA OPENING IN THE CONCRETE WALK WITH CRUSHED GRAVEL, AFTER POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.
(AS SHOWN IN ADJACENT DETAIL)

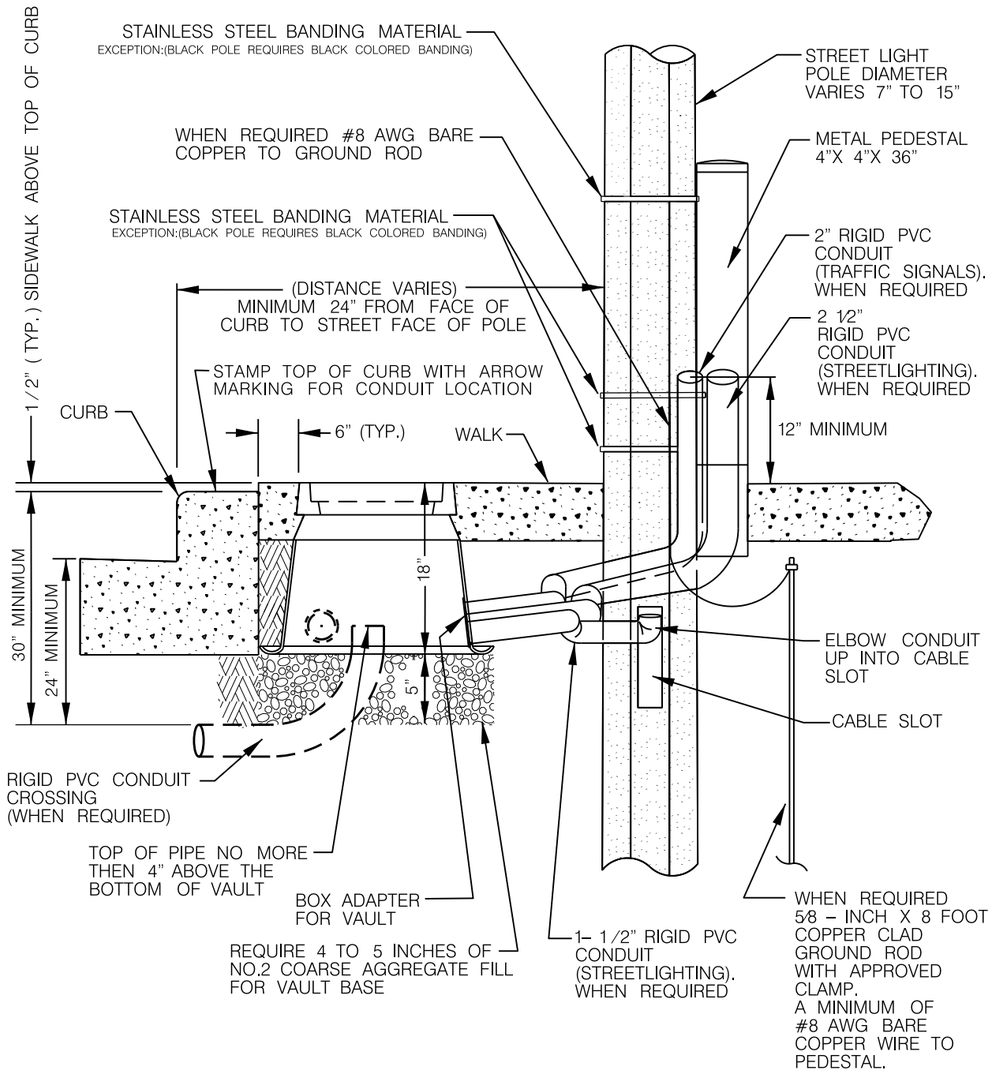


105 DETAIL

TYPICAL 30" X 36" BOX FORM AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

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

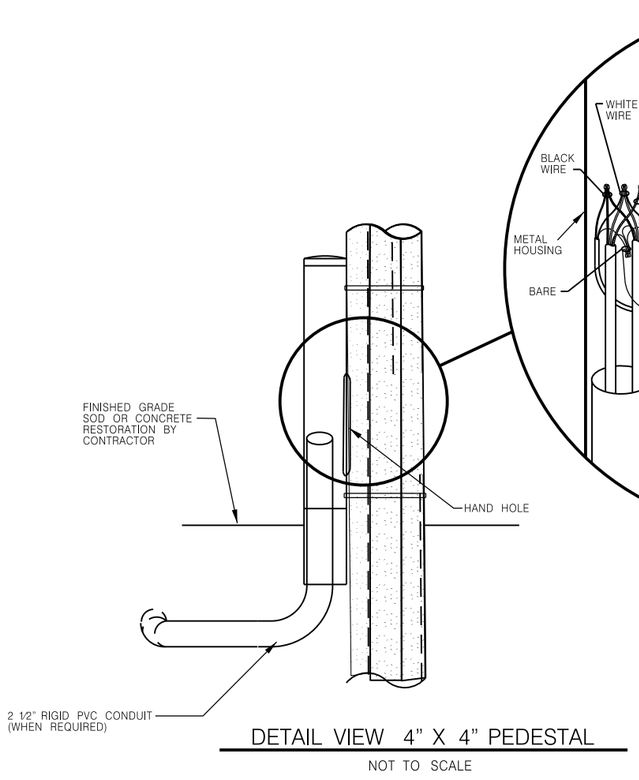
NOT TO SCALE



108 DETAIL

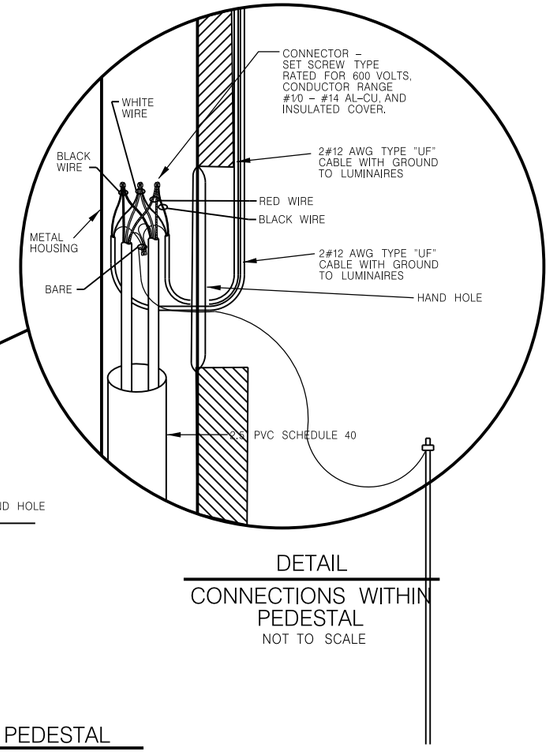
TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

NOT TO SCALE



DETAIL VIEW 4" X 4" PEDESTAL

NOT TO SCALE



DETAIL

CONNECTIONS WITHIN PEDESTAL

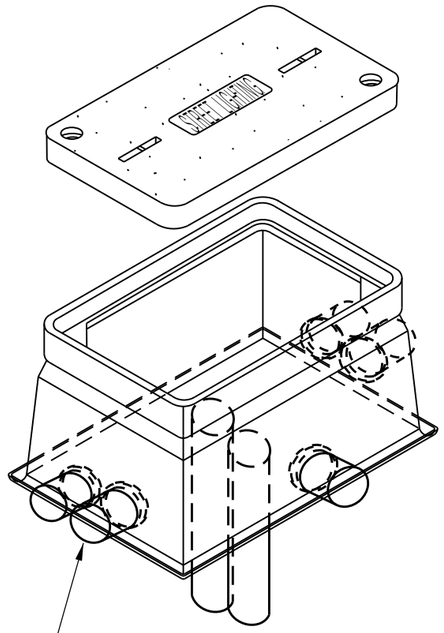
NOT TO SCALE

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

SHEET 4 OF 6

PROJECT NO: 2110-00-72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 31	E

2



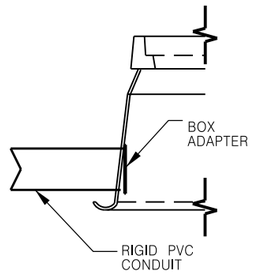
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

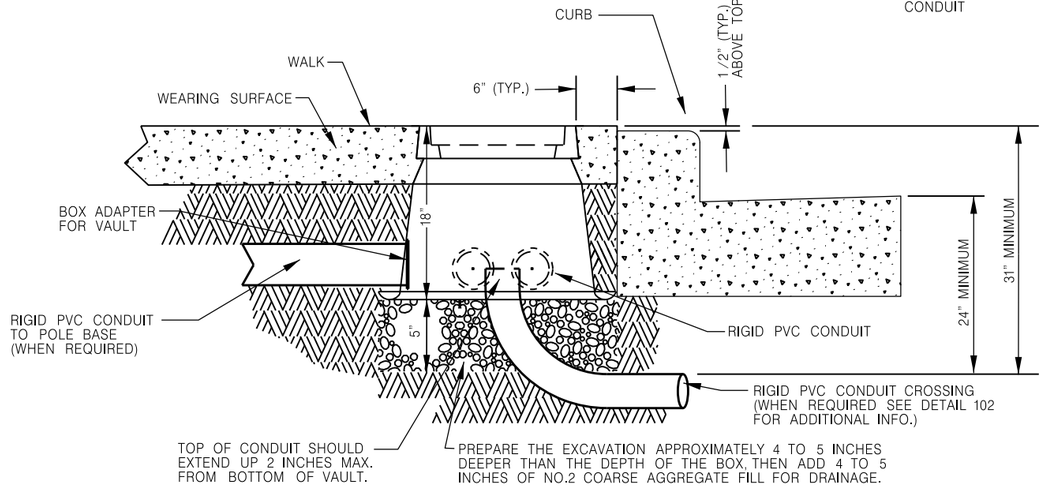
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS





112 DETAIL

TYPICAL VAULT INSTALLATION IN WALK

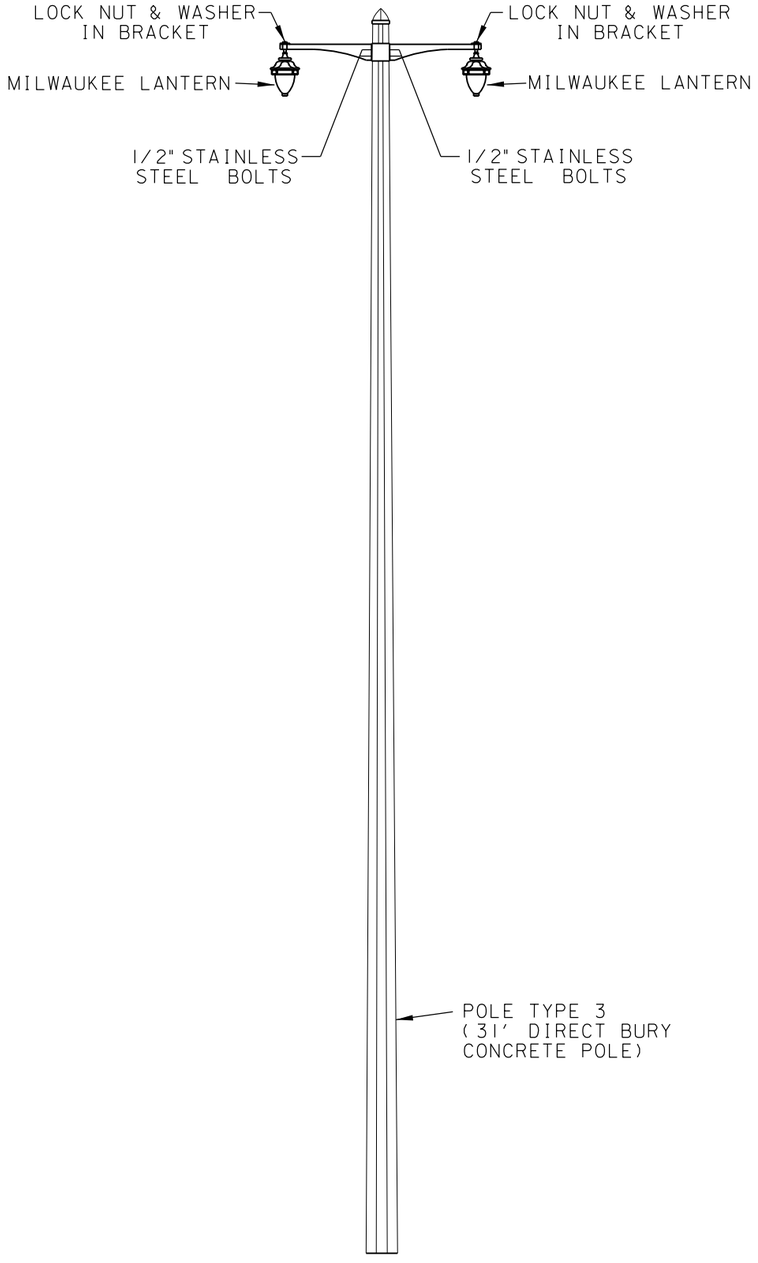
NOT TO SCALE

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

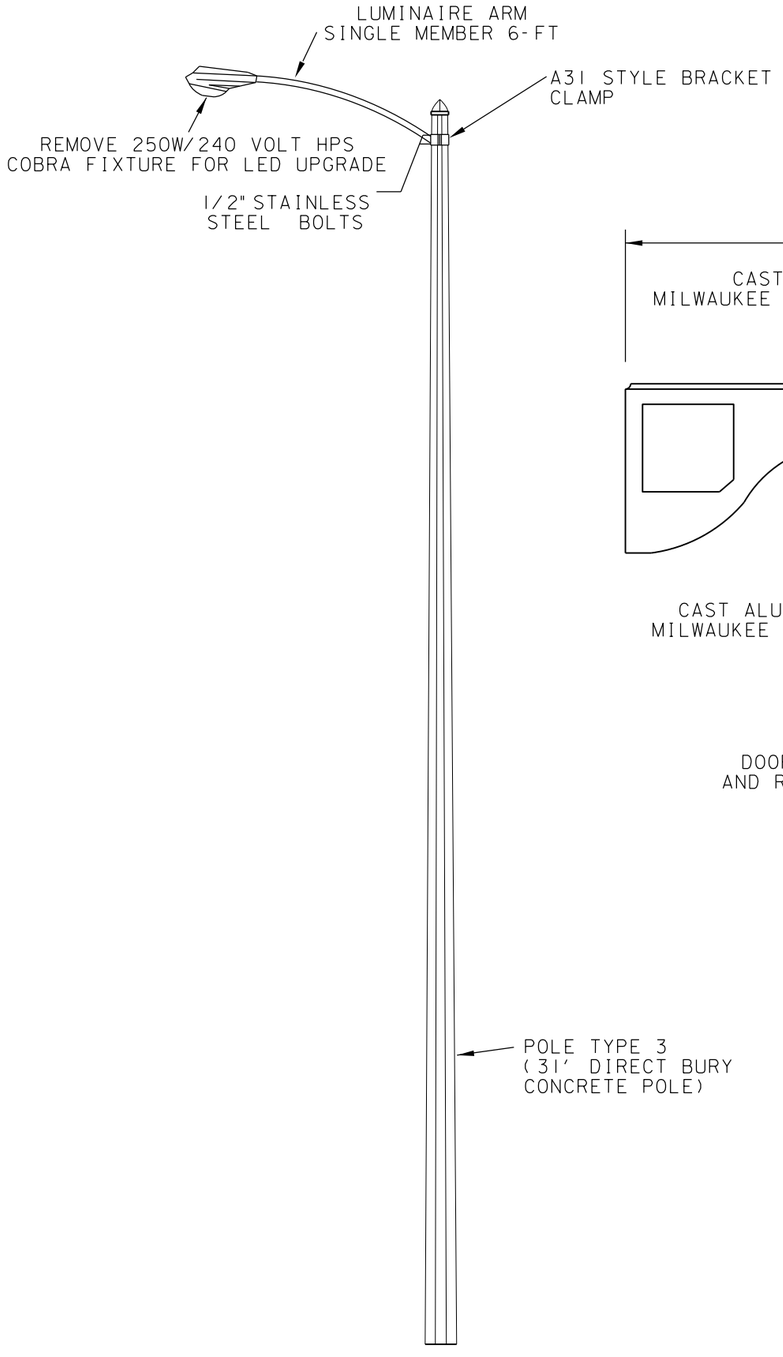
SHEET 5 OF 6

PROJECT NO: 2110-00-72	HWY: LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 32	E

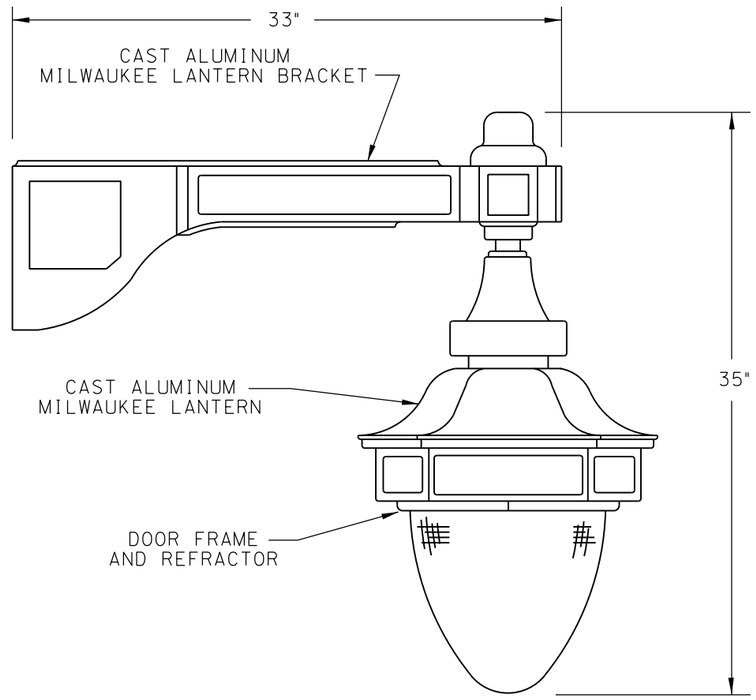
2



CONCRETE POLE PROFILE



CONCRETE POLE PROFILE



LUMINAIRE
HISTORIC MILWAUKEE
LANTERN LED 2

SHEET 6 OF 6

PROJECT NO: 2110–00–72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING DETAILS	SHEET 33	E

2

NOTES:

1. STAINLESS 1/4 X 20 X 1" CARRIAGE BOLT FOR GROUNDING IN BACK PANEL 1/2" DIA. AREA FREE OF PAINT AROUND BOLT.

2. EXTERNAL DIMPLES TO PROVIDE BACK PANEL CLEARANCE TO POLE FOR OPENING AND CLOSING UPPER PANEL.

3. RECESSED CUP PREMITS RECESSING 5/16 HEX HEAD LOCKING BOLT. THIS BOLT FITS PRESENT CITY OF MILWAUKEE TOOLING, LOCKING BOLT IS HELD IN PLACE WITH RETAING RING. THIS BOLT MAY BE REPLACED BY A SECURITY BOLT IF DESIRED.

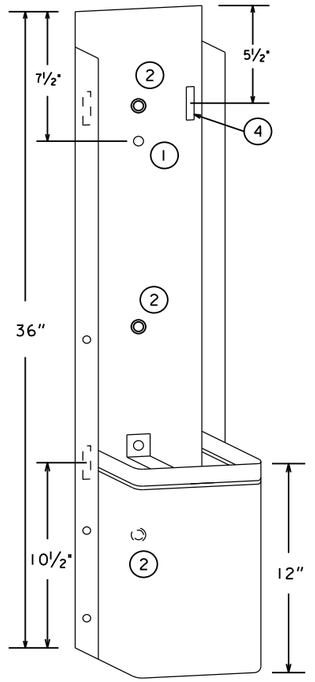
4. 1/4 X 1-1/4" SLOT (4) FOR BANDING ACCESS.

5. DOGLEG SLOT PREVENTS PULLING COVER OUTWARD WHILE LOCKED.

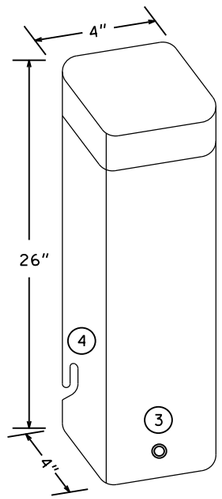
6. HORIZONITAL SLOT PREVENTS PULLING COVER UPWARD WHILE LOCKED.

7. SHOULDER RIVETS PROVIDE FOR SECURITY IN UNIT WHEN USED IN CONJUNCTION WITH ITEMS 5 & 6.

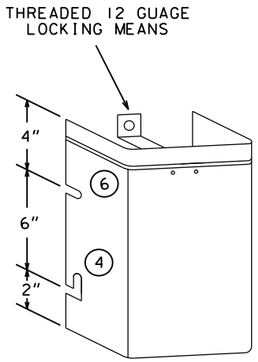
NOT TO SCALE



BACK PANEL WITH LOWER INSTALLED



UPPER FRONT REMOVED



LOWER REMOVED

METAL PEDESTAL CABINET 4-INCH X 4-INCH X 36-INCH
(DRAWING B-04-07)

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.

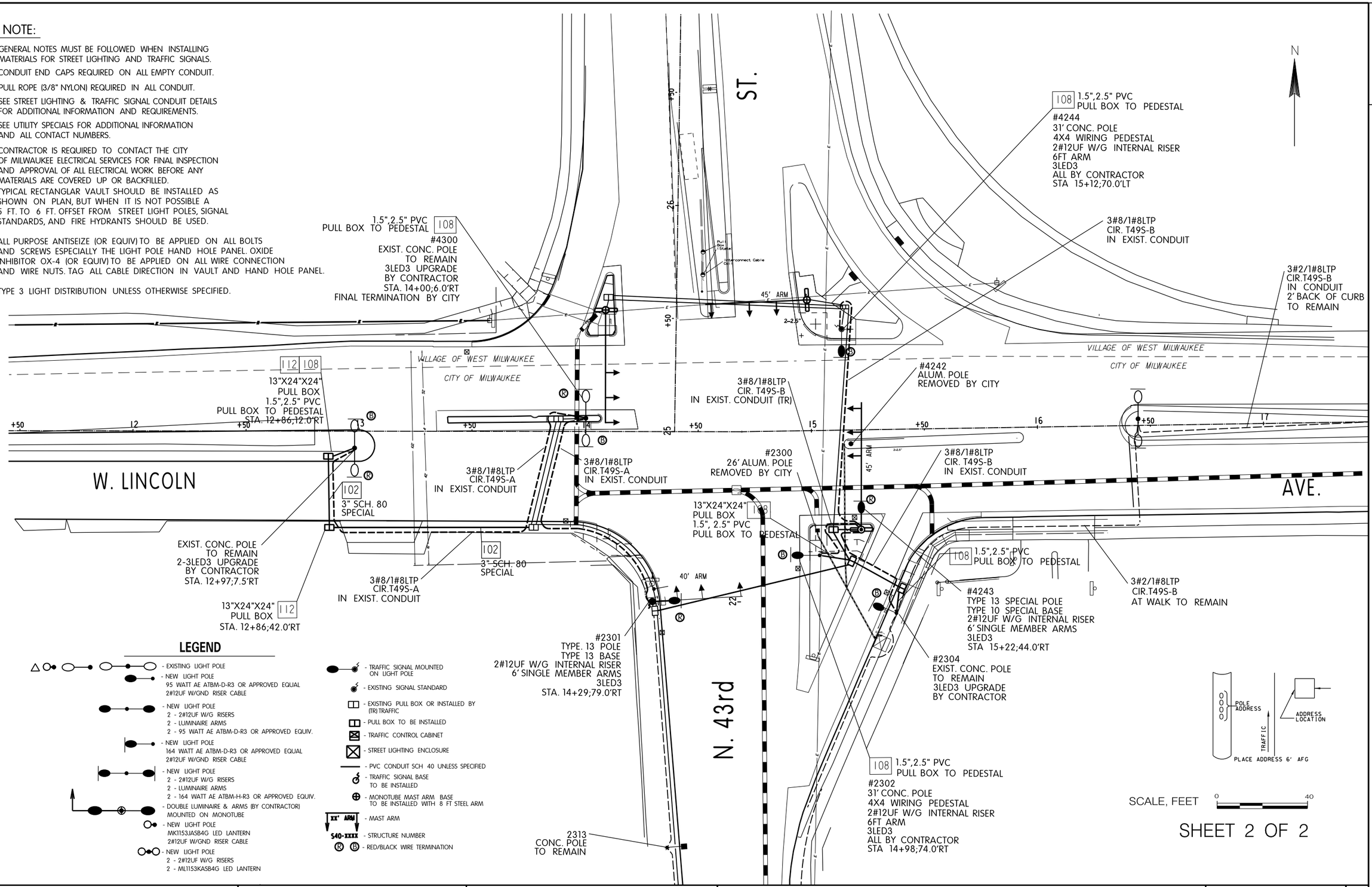
SEE UTILITY SPECIALS FOR ADDITIONAL INFORMATION AND ALL CONTACT NUMBERS.

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.

TYPE 3 LIGHT DISTRIBUTION UNLESS OTHERWISE SPECIFIED.



LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 95 WATT AE ATBM-D-R3 OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 95 WATT AE ATBM-D-R3 OR APPROVED EQUIV.
- NEW LIGHT POLE 164 WATT AE ATBM-D-R3 OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 164 WATT AE ATBM-H-R3 OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE MK1153JASB4G LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - ML1153KASB4G LED LANTERN
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- EXISTING PULL BOX OR INSTALLED BY (TR) TRAFFIC
- PULL BOX 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
- S40-XXXX — STRUCTURE NUMBER
- (K) (B) — RED/BLACK WIRE TERMINATION

SHEET 2 OF 2

PROJECT NO: 2110–00–72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 35	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.

TYPE 3 LIGHT DISTRIBUTION UNLESS OTHERWISE SPECIFIED.

N

3" PVC. SCH. 40 SPECIAL (BY CONTRACTOR)
EXISTING 2200V PRIMARY (PROTECT & ADJUST) (WILL BE DE-ENERGIZED)
PULL BOX
CAPPED END (BY CONTRACTOR)
BOXOUT (BY CONTRACTOR) 105
2.5" PVC CAPPED 12" AFG (BY CONTRACTOR) 108
TRANSFORMER (BY CITY)
1.5" PVC TO CABLE SLOT (BY CONTRACTOR) 108
EXISTING 31' CONC. POLE (PROTECT & ADJUST)
DETAIL-B

EXIST. CONC. POLE TO REMAIN

112 108
13"X24"X24" PULL BOX
1.5",2.5" PVC PULL BOX TO PEDESTAL
STA 53+18;159.0'LT

3#2/1#8LTP CIR.SF MULTI-B IN CONDUIT

100
3" PVC. SCH. 40 SPECIAL

#2278 112 108
31' CONC. POLE
4X4 WIRING PEDESTAL
2-2#12UF W/G INTERNAL RISER
2-MK1153KASB4G LED LANTERN
ALL BY CONTRACTOR
STA 53+18;50.0'LT

3#2/1#8LTP CIR.SF MULTI-B IN CONDUIT

#2271 EXIST. CONC. POLE TO REMAIN

EXIST. CONC. POLE WITH PEDESTAL REMOVED BY CITY

CIR.SF-7 IN CUC

CIR.SF-8 IN CUC

EXIST. CONC. POLE AT31R-2ML, PED REMOVED BY CITY

#2700
TYPE 10 POLE
TYPE 10 BASE
2#12UF W/G INTERNAL RISER
6' SINGLE MEMBER ARM
3LED3
ALL BY CONTRACTOR
STA. 52+42;28.5'LT

TYPE 10 SPECIAL BASE
TYPE 12 SPECIAL POLE

3#2/1#8LTP CIR.SF MULTI-B IN CONDUIT

#2638 112 108
CONCRETE POLE TO REMAIN
3LED3
UPGRADE BY CONTRACTOR
STA 53+78; 26.0'LT

3#2/1#8LTP CIR.SF MULTI-B IN CONDUIT (EXISTING)

POLE ADDRESS
ADDRESS LOCATION
TRAFFIC
PLACE ADDRESS 6' AFG

#2724 EXIST. CONC. POLE TO REMAIN

EXIST. ISO. XFMR

EXIST. ISO. XFMR

1.5",2.5" PVC PULL BOX TO PEDESTAL

40' ARM

W. LINCOLN

AVE.

2#12UF SEC. CIR. SF-8

3#8/1#8LTP CIR.SF MULTI-B IN CONDUIT

#2735 EXIST. CONC. POLE TO REMAIN

1#8 CONCENTRIC CIR. SF-8 (2200V SERIES) SPLICE BY CITY

#2709 CONCRETE POLE TO REMAIN

PROTECT& ADJUST

#2641 CONCRETE POLE, 6.6A ISO. XFMR (PROTECT & ADJUST)

#2641
TYPE 10 POLE
TYPE 10 BASE
6' SINGLE MEMBER ARM
2#12UF W/G INTERNAL RISER
3LED3
ALL BY CONTRACTOR
STA. 53+67;28.5'RT

EXIST. CONC. POLE AT31R-2ML, PED REMOVED BY CITY

105 BOXOUT
#2300
31' CONC. POLE
INSTALLED BY CONTRACTOR
STA 52+95.5;57.0'RT
2-2#12UF W/G INTERNAL RISER
250W/6.6A 2-COIL EPOXY COATED ISO. XFMR.
2-250W HPS LANTERNS BY CITY
INSTALLED BY CITY

TYPE 10 SPECIAL BASE
TYPE 13 SPECIAL POLE

250W/6.6A 2-COIL EPOXY COATED ISO. XFMR INSTALLED AND CONNECTED BY CITY

35' ARM

100
3" PVC. SPECIAL SCH. 40 CAP END IN BOXOUTS

1.5",2.5" PVC TO POLE

100
3" PVC. SCH. 40 SPECIAL

1#8 CONCENTRIC IN NEW CONDUIT CIR. SF-7 SPLICE IN MH BY CITY

112 13"X24"X24" PULL BOX
1.5" PVC TO CABLE SLOT
STA 52+946.5;130.0'RT

105 BOXOUT
#2310
31' CONC. POLE
TO REMAIN IN SERVICE
1#8 CONC. PRIMARY
INSTALLED, TERMINATED
BY CITY

250W/6.6A 2-COIL EPOXY COATED ISO. XFMR BY CITY

N. 27th

2200V PRIMARY INSTALLATION (BY CITY)
31' CONC. POLE (BY CONTRACTOR)
TRANSFORMER (BY CITY)
CAPPED END (BY CONTRACTOR)
BOXOUT (BY CONTRACTOR) 105
1.5" PVC TO CABLE SLOT (BY CONTRACTOR) 108 112
2.5" PVC CAPPED 12" AFG (BY CONTRACTOR) 108 112
PULL BOX
DETAIL-A
3" PVC. SCH. 40 SPECIAL (BY CONTRACTOR)

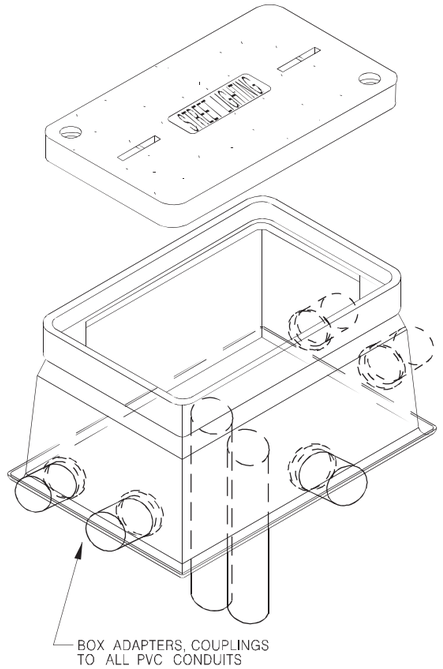
LEGEND

- EXISTING LIGHT POLE
- NEW LIGHT POLE 95 WATT AE ATBM-D-R3 OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 95 WATT AE ATBM-D-R3 OR APPROVED EQUIV.
- NEW LIGHT POLE 164 WATT AE ATBM-D-R3 OR APPROVED EQUAL 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - LUMINAIRE ARMS 2 - 164 WATT AE ATBM-H-R3 OR APPROVED EQUIV.
- DOUBLE LUMINAIRE & ARMS (BY CONTRACTOR) MOUNTED ON MONOTUBE
- NEW LIGHT POLE MK1153KASB4G LED LANTERN 2#12UF W/GND RISER CABLE
- NEW LIGHT POLE 2 - 2#12UF W/G RISERS 2 - ML1153KASB4G LED LANTERN
- TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
- EXISTING SIGNAL STANDARD
- EXISTING PULL BOX OR INSTALLED BY (TR) TRAFFIC
- PULL BOX 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
- S40-XXXX - STRUCTURE NUMBER
- (R) (B) - RED/BLACK WIRE TERMINATION

SCALE, FEET 0 40

SHEET 1 OF 2

PROJECT NO: 2110–00–72	HWY: W. LINCOLN AVE.	COUNTY: MILWAUKEE	STREET LIGHTING PLAN	SHEET 36	E

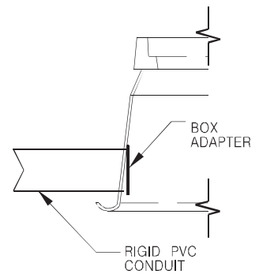


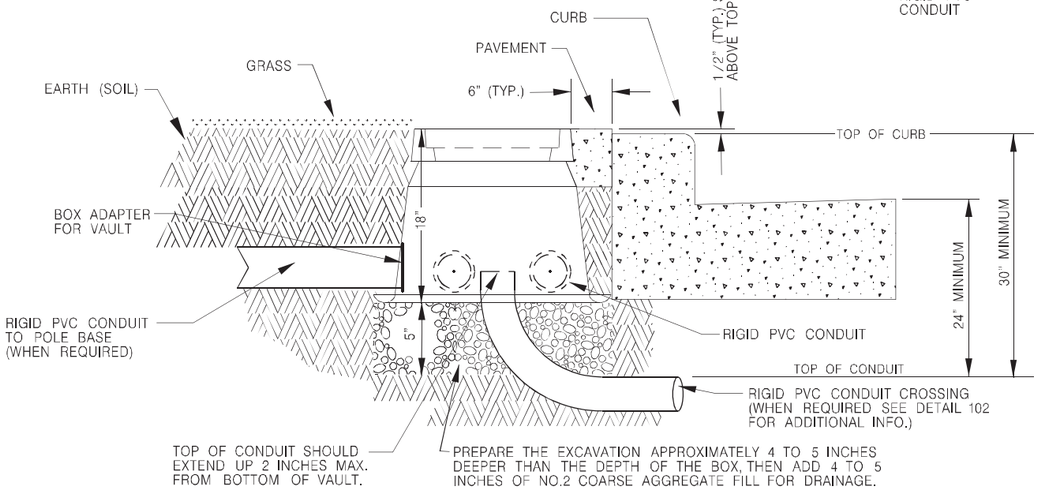
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

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

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE



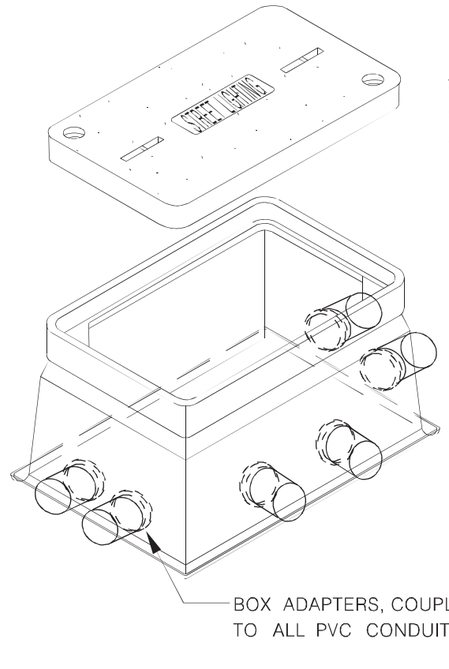


112 DETAIL

NOT TO SCALE

TYPICAL VAULT INSTALLATION IN EITHER PAVEMENT OR GRASS AREAS

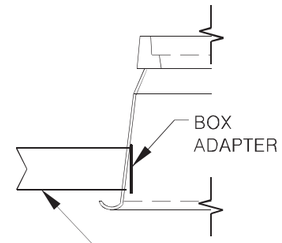
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

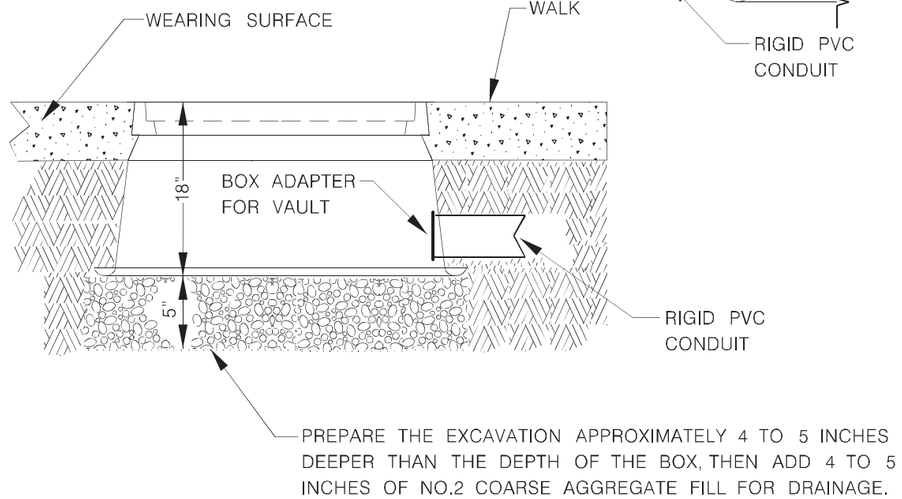


HEAVY DUTY COVER
W/ STREET LIGHTING LOGO
& W /2 BOLTS
COLOR: GRAY

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

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE





113 DETAIL

TYPICAL VAULT INSTALLATION IN SIDEWALK

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

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).

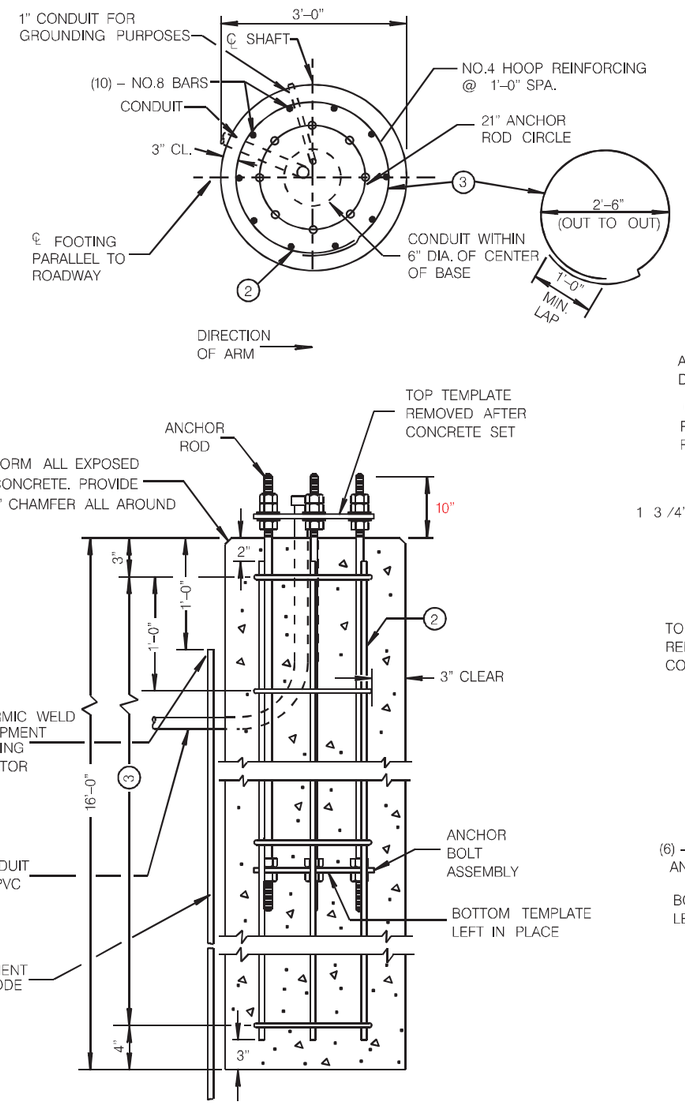
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(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.

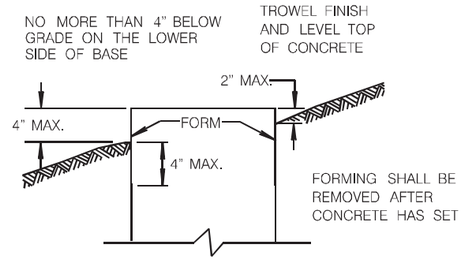
(2) (10) NO. 8 X 15'-7" BAR STEEL REINFORCEMENT.

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

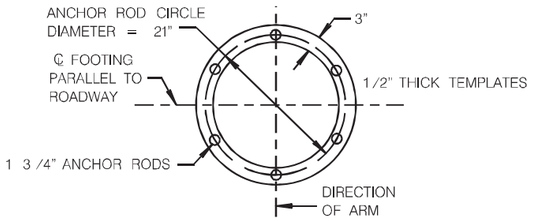
CONCRETE MASONRY	fc = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy = 60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy = 55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy = 36,000 p.s.i.



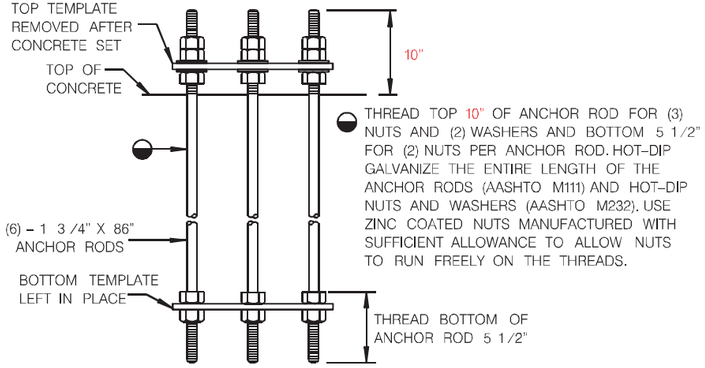
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

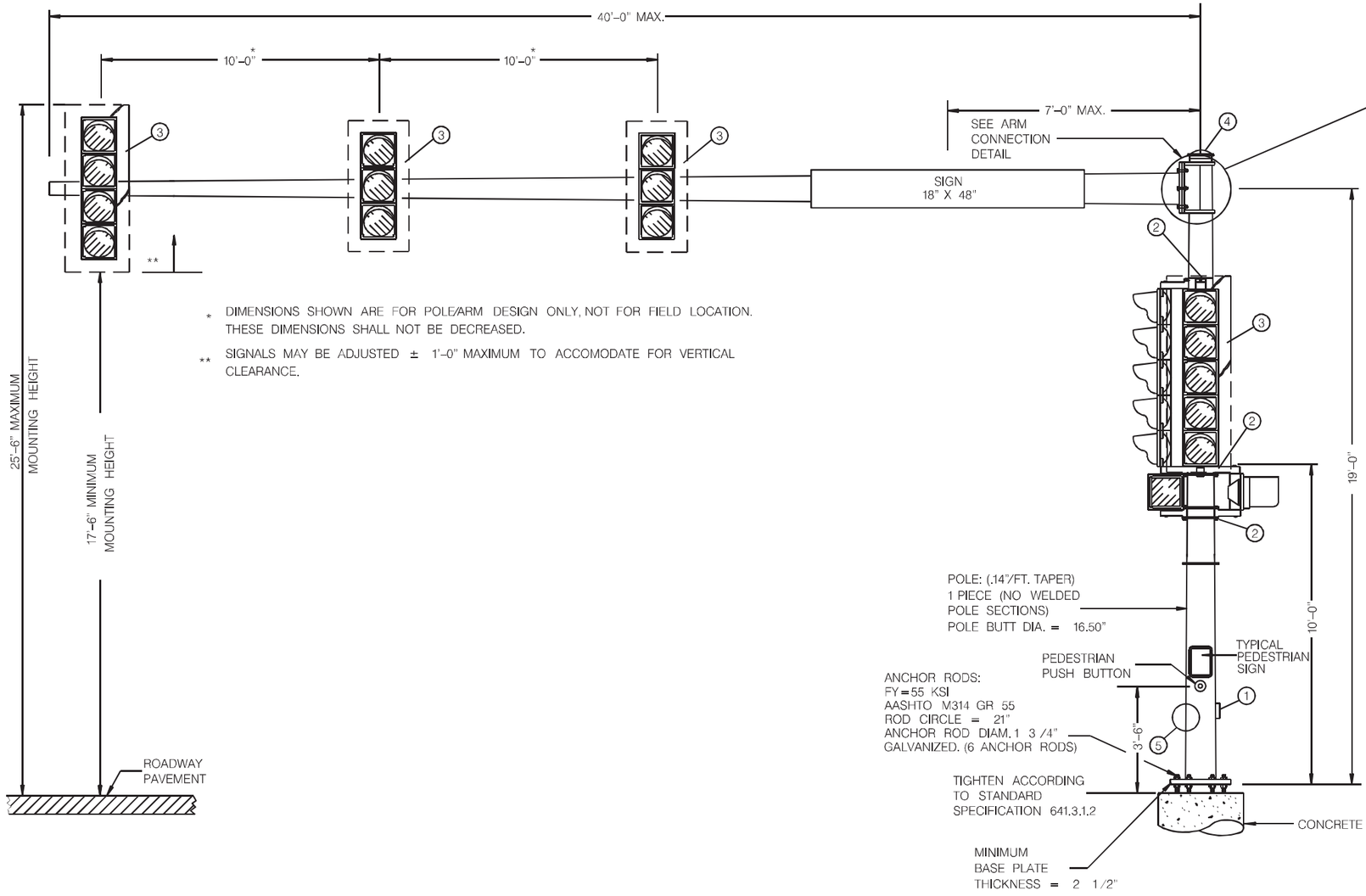
ANCHOR ASSEMBLY

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

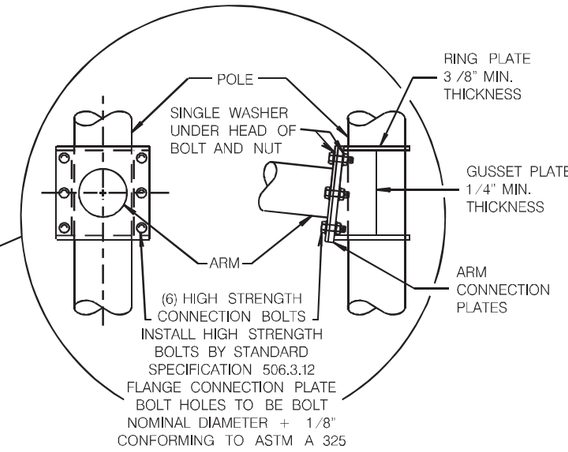
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

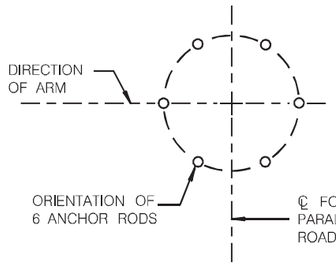


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

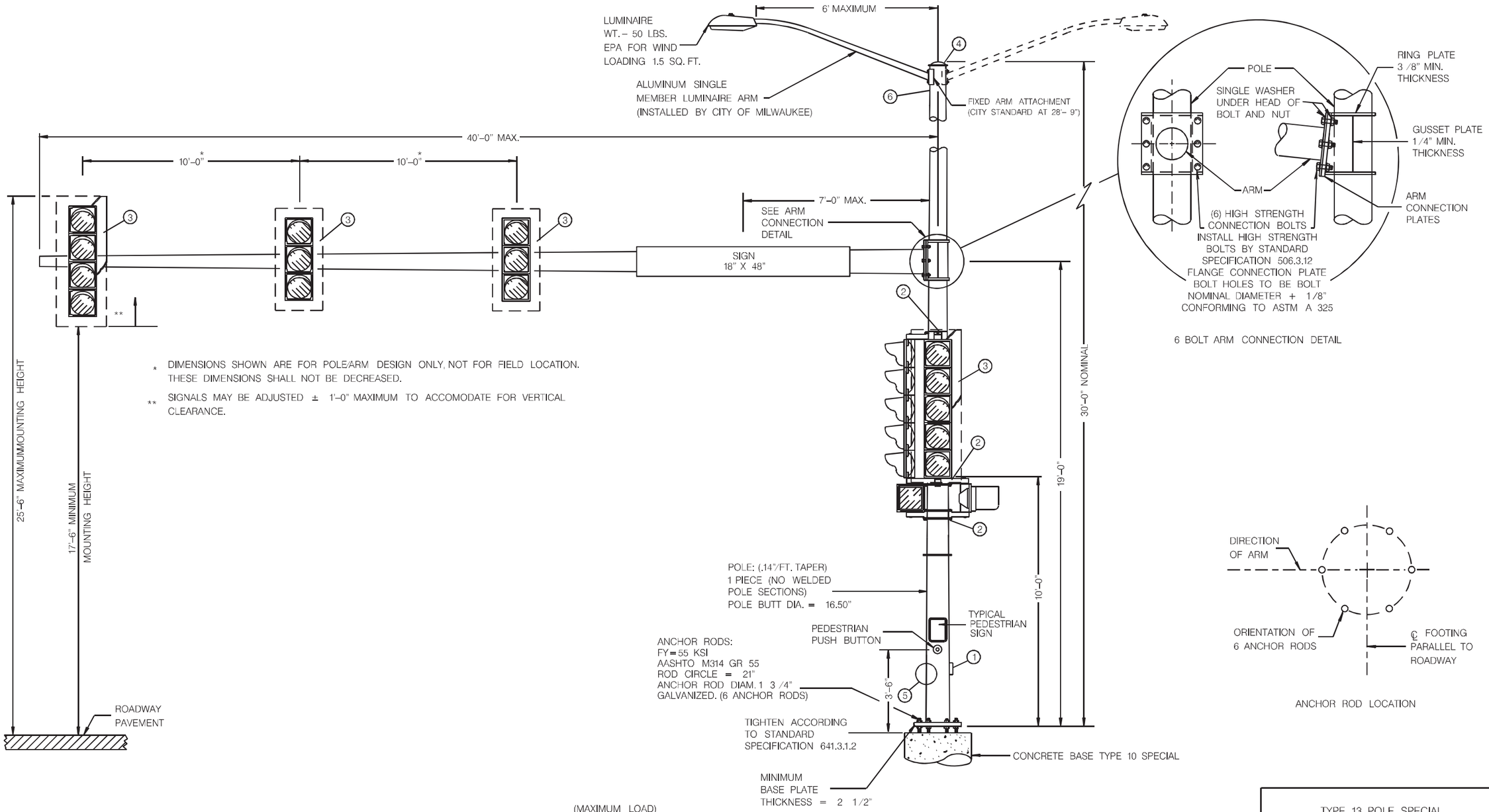
TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 12 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

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

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 39	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.

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

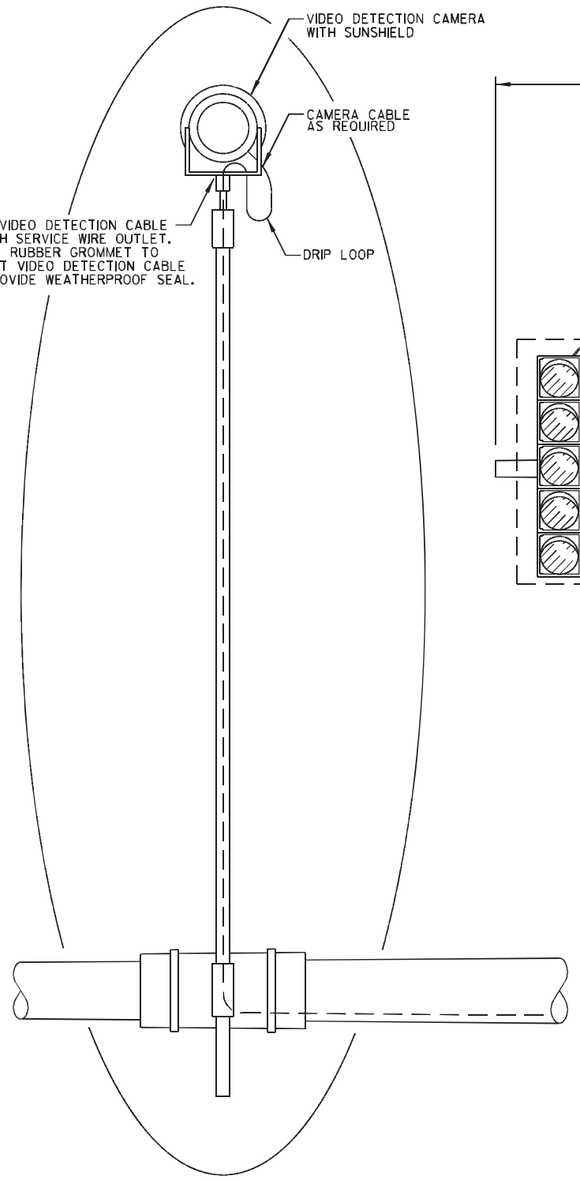
TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

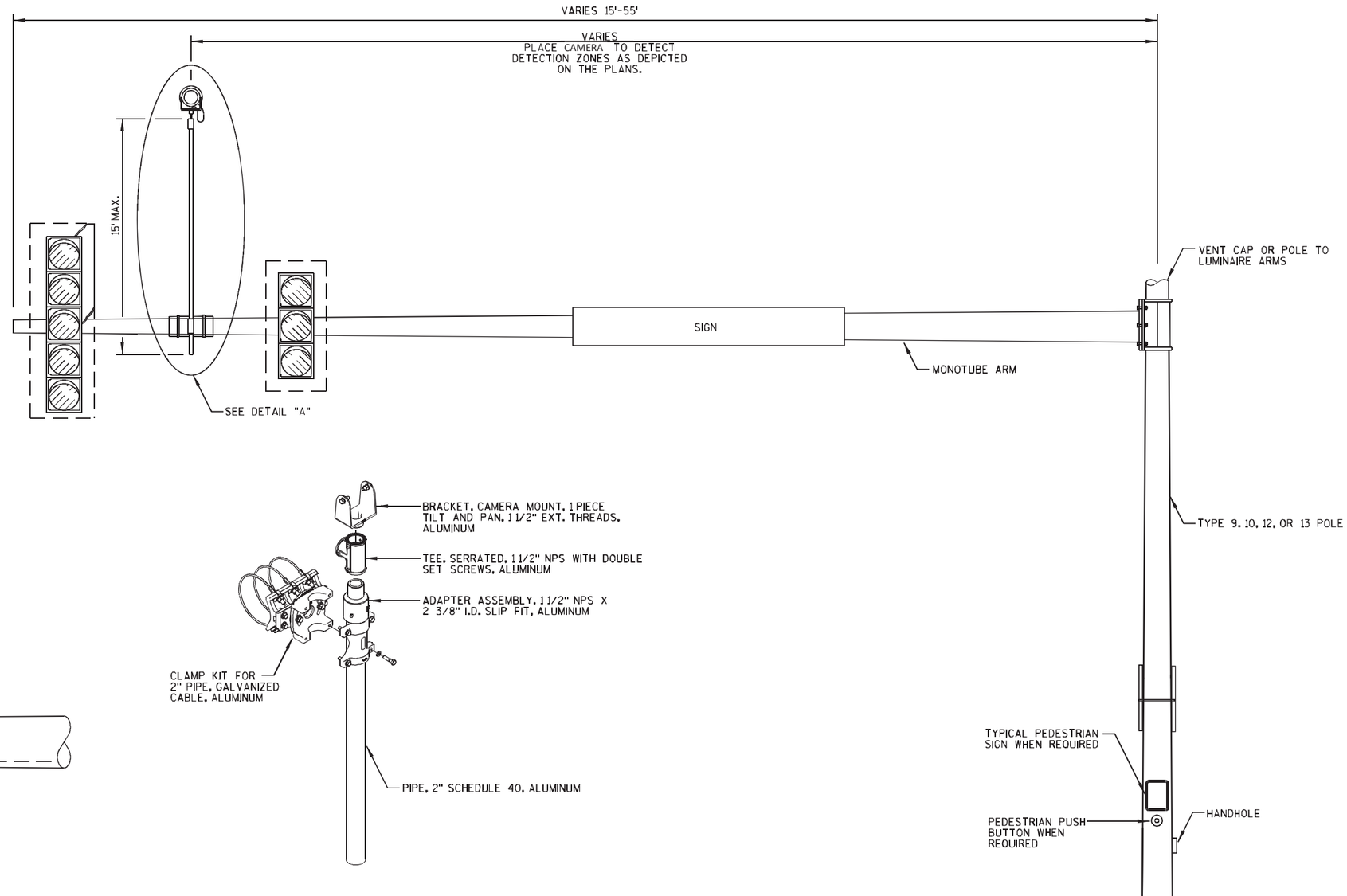
REVISED: DECEMBER 2014 (DATE) 2013 AASHTO (REVISION)

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 40	E

2



DETAIL "A"



EXTENSION ARM

VIDEO DETECTION MOUNTING DETAIL (MAST ARM MOUNT)

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET	E

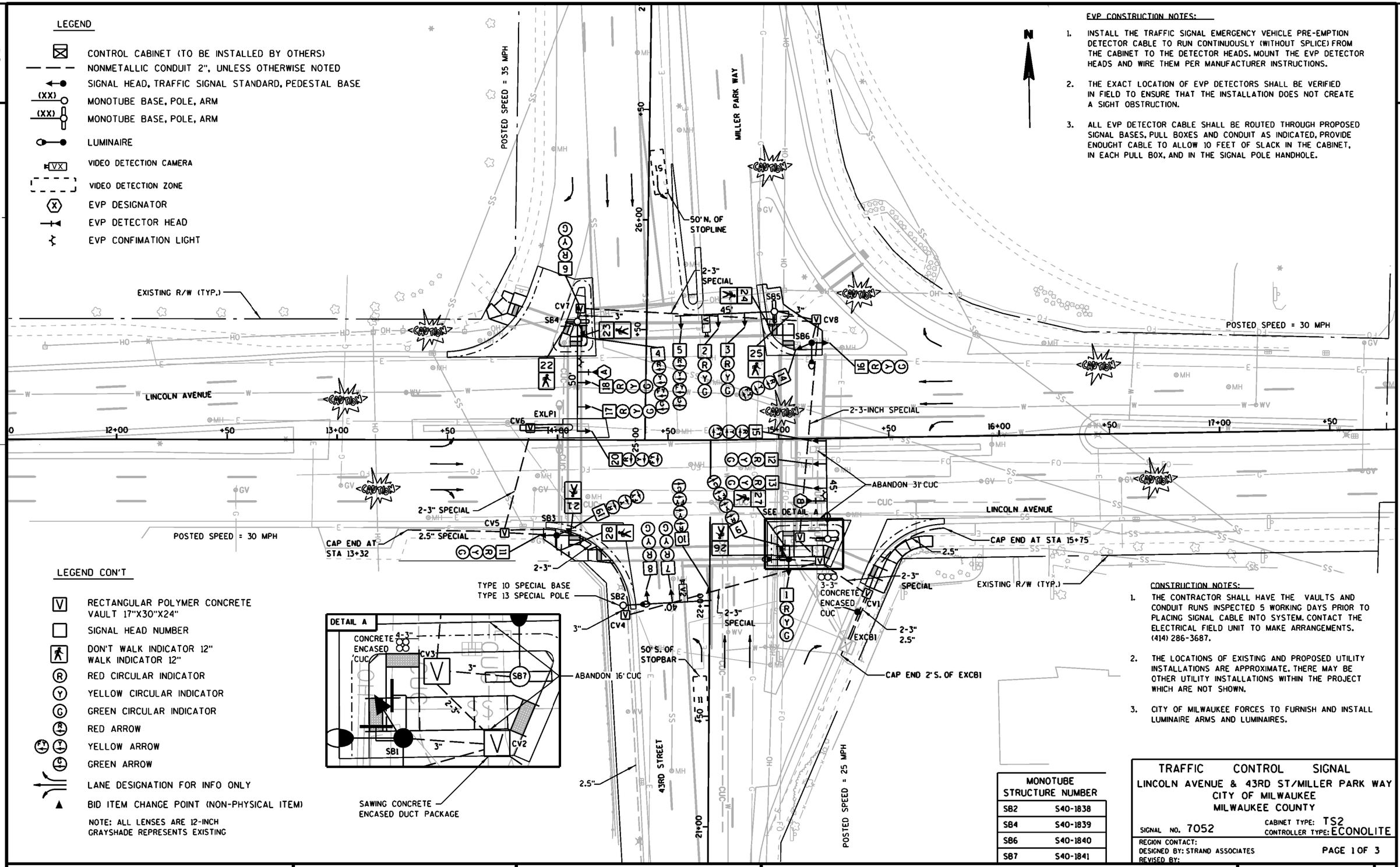
FILE NAME : S:\MIL\4300--4399\4390\001\Data\Traffic\Traffic Signal Detail.dgn PLOT DATE : 8/8/2017 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET (TO BE INSTALLED BY OTHERS)
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, ARM
- (XX) MONOTUBE BASE, POLE, ARM
- LUMINAIRE
- VIDEO DETECTION CAMERA
- VIDEO DETECTION ZONE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIMATION LIGHT

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICE) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE EXACT LOCATION OF EVP DETECTORS SHALL BE VERIFIED IN FIELD TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH PROPOSED SIGNAL BASES, PULL BOXES AND CONDUIT AS INDICATED, PROVIDE ENOUGHT CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.



LEGEND CON'T

- RECTANGULAR POLYMER CONCRETE VAULT 17"X30"X24"
- SIGNAL HEAD NUMBER
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- BID ITEM CHANGE POINT (NON-PHYSICAL ITEM)

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE VAULTS AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 286-3687.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. CITY OF MILWAUKEE FORCES TO FURNISH AND INSTALL LUMINAIRE ARMS AND LUMINAIRES.

MONOTUBE STRUCTURE NUMBER	
SB2	S40-1838
SB4	S40-1839
SB6	S40-1840
SB7	S40-1841

TRAFFIC CONTROL SIGNAL
LINCOLN AVENUE & 43RD ST/MILLER PARK WAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. 7052 CABINET TYPE: TS2 CONTROLLER TYPE: ECONOLITE

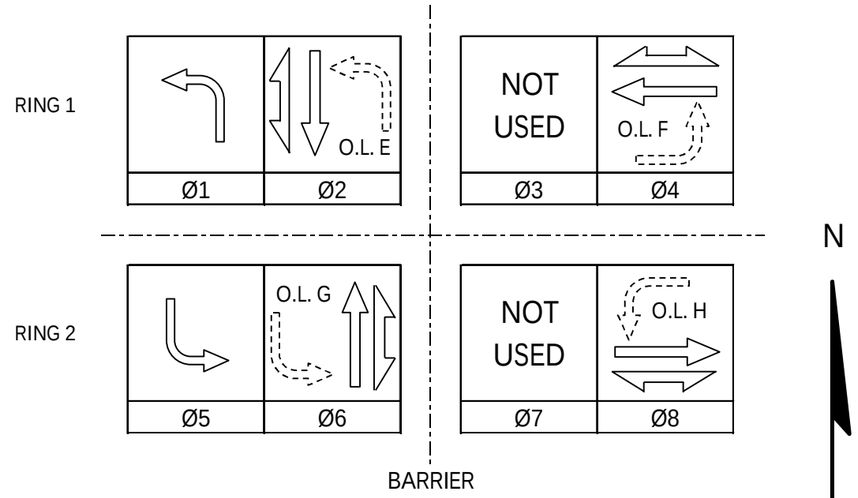
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\024100_sp.dgn PLOT DATE : 10/31/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R ←
Ø2	6,7,8	R
Ø3		
Ø4	16,17,18	R
Ø5	9,10	R ←
Ø6	1,2,3	R
Ø7		
Ø8	11,12,13	R
Ø2P	21,22	
Ø4P	23,24	
Ø6P	25,26	
Ø8P	27,28	
OLE	4,5	-
OLF	14,15	-
OLG	9,10	-
OLH	19,20	-



CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	← →	→ ←		
PHASE	4+8	8+4		

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

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11							
CALLED PHASE	1							
CALL OPTION	X							
DELAY TIME								
EXTENTION OPTION	X							
EXTEND TIME								
USE ADDED INITIAL								
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	51							
CALLED PHASE	5							
CALL OPTION	X							
DELAY TIME								
EXTENTION OPTION	X							
EXTEND TIME	X							
USE ADDED INITIAL								
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								PLAN LOOP DETECTOR*(S)
								CALLED PHASE
								CALL OPTION
								DELAY TIME
								EXTENTION OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

GENERAL NOTES:

1. THE CITY OF MILWAUKEE IS TO MAKE ALL PROGRAMMING CHANGES.
2. THE CITY OF MILWAUKEE IS TO BE PRESENT AT THE CONTROLLER CABINET WITH THE CONTRACTOR WHEN THE SIGNALS SWITCH FROM TEMPORARY TO PERMANENT

LINCOLN AVE & 43RD ST/MILLER PARK WAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO: 7052	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/1/2018	PAGE NO. 2 OF 3

PROJECT ID:	2375-08-70
INTERSECTION:	LINCOLN AVE & 43RD ST/MILLER PARK WAY

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

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

Equipment grounding conductor 10 AWG Green XLP	
From	TO
EXCB1	SB1
SB1	SB2
SB2	SB3
SB3	EXLP1
EXSB1	SB7
SB7	SB6
SB6	SB5
SB5	SB4

VIDEO DETECTION CABLE	
From	To
CB1	SB5 (V1)
CB1	SB2 (V2)

EVP CABLE	
From	To
CB1	SB4 (HEAD A)
CB1	SB7 (HEAD B)

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*At the signal
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

TRAFFIC CONTROL SIGNAL
LINCOLN AVENUE & 43RD ST/MILLER PARK WAY
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. 7052

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES
REVISED BY:

PAGE 3 OF 3

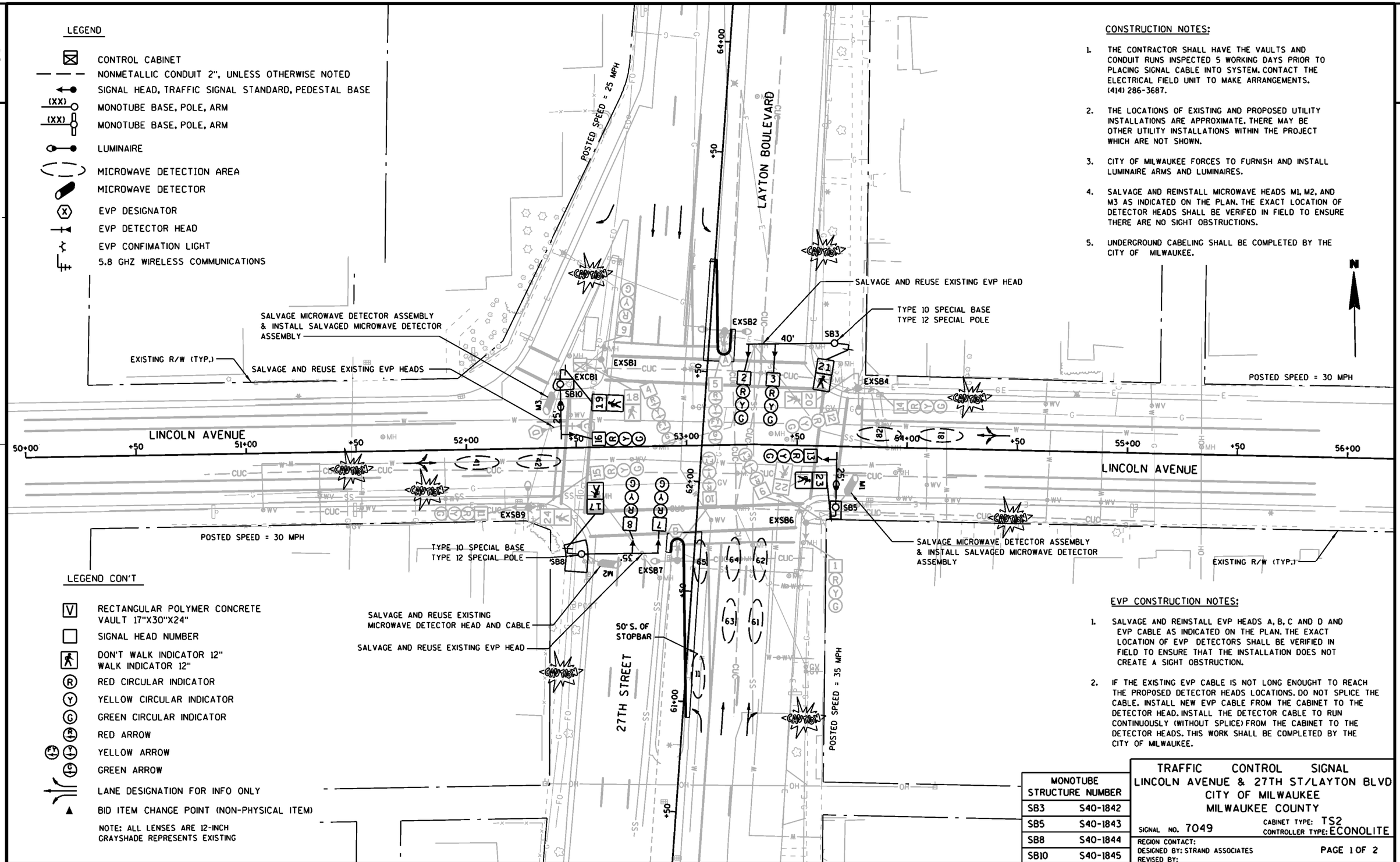
PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET 44	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, ARM
- (XX) MONOTUBE BASE, POLE, ARM
- LUMINAIRE
- MICROWAVE DETECTION AREA
- MICROWAVE DETECTOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- EVP CONFIMATION LIGHT
- 5.8 GHZ WIRELESS COMMUNICATIONS

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE VAULTS AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 286-3687.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. CITY OF MILWAUKEE FORCES TO FURNISH AND INSTALL LUMINAIRE ARMS AND LUMINAIRES.
4. SALVAGE AND REINSTALL MICROWAVE HEADS M1, M2, AND M3 AS INDICATED ON THE PLAN. THE EXACT LOCATION OF DETECTOR HEADS SHALL BE VERIFED IN FIELD TO ENSURE THERE ARE NO SIGHT OBSTRUCTIONS.
5. UNDERGROUND CABELING SHALL BE COMPLETED BY THE CITY OF MILWAUKEE.



LEGEND CON'T

- RECTANGULAR POLYMER CONCRETE VAULT 17"X30"X24"
- SIGNAL HEAD NUMBER
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LANE DESIGNATION FOR INFO ONLY
- BID ITEM CHANGE POINT (NON-PHYSICAL ITEM)

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

EVP CONSTRUCTION NOTES:

1. SALVAGE AND REINSTALL EVP HEADS A, B, C AND D AND EVP CABLE AS INDICATED ON THE PLAN. THE EXACT LOCATION OF EVP DETECTORS SHALL BE VERIFIED IN FIELD TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
2. IF THE EXISTING EVP CABLE IS NOT LONG ENOUGHT TO REACH THE PROPOSED DETECTOR HEADS LOCATIONS. DO NOT SPLICE THE CABLE. INSTALL NEW EVP CABLE FROM THE CABINET TO THE DETECTOR HEAD. INSTALL THE DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICE) FROM THE CABINET TO THE DETECTOR HEADS. THIS WORK SHALL BE COMPLETED BY THE CITY OF MILWAUKEE.

MONOTUBE STRUCTURE NUMBER	
SB3	S40-1842
SB5	S40-1843
SB8	S40-1844
SB10	S40-1845

TRAFFIC CONTROL SIGNAL
LINCOLN AVENUE & 27TH ST/LAYTON BLVD
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. 7049
CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

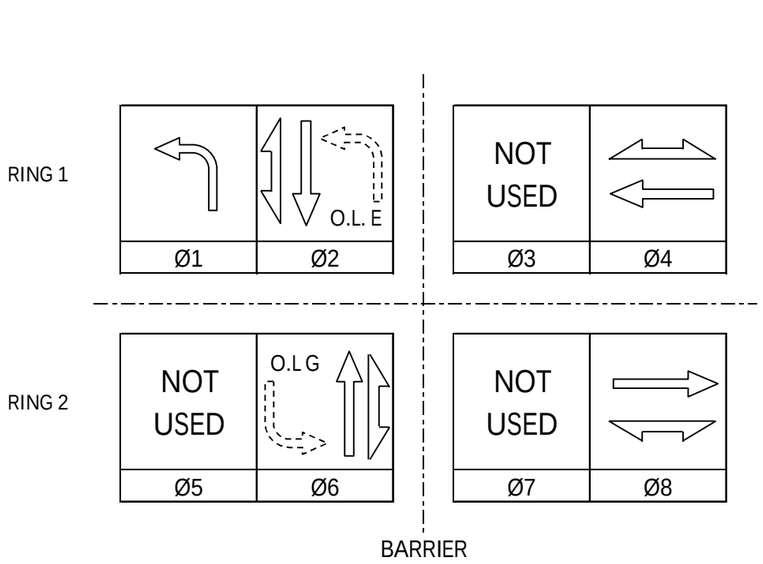
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\024200_sp.dgn PLOT DATE : 10/31/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

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





CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	↑ ↓	↰ ↑	← →	→ ←
PHASE	2+6	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	11	41	61	63	65	82											PLAN LOOP DETECTOR*(S)
CALLED PHASE	1	4	6	6		8											CALLED PHASE
CALL OPTION	X	X	X	X		X											CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X		X											EXTENTION OPTION
EXTEND TIME	X	X	X	X		X											EXTEND TIME
USE ADDED INITIAL																	USE ADDED INITIAL
CROSS SWITCH PHASE					2												CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	12	42	62	64	81												PLAN LOOP DETECTOR*(S)
CALLED PHASE	1	4	6	6	8												CALLED PHASE
CALL OPTION	X	X	X	X	X												CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X	X												EXTENTION OPTION
EXTEND TIME	X	X	X	X	X												EXTEND TIME
USE ADDED INITIAL																	USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

GENERAL NOTES:

1. THE CITY OF MILWAUKEE IS TO MAKE ALL PROGRAMMING CHANGES.
2. THE CITY OF MILWAUKEE IS TO BE PRESENT AT THE CONTROLLER CABINET WITH THE CONTRACTOR WHEN THE SIGNALS SWITCH FROM TEMPORARY TO PERMANENT

LINCOLN AVE. & 27TH ST./LAYTON BLVD.
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO: 7049	CABINET TYPE: TS2
	CONTROLLER TYPE: ECONOLITE
DATE: 5/1/2018	PAGE NO. 2 OF 2

THIS PAGE INTENTIONALLY LEFT BLANK

TRAFFIC CONTROL SIGNAL
LINCOLN AVENUE & 27TH ST/LAYTON BLVD
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. 7052

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\024202_sp.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

SEE S.D.D. "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY"

MILLER PARK WAY

SEE CONSTRUCTION DETAIL FOR TEMPORARY BUS STOP

GUY

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

W. LINCOLN AVENUE

+50 12+00 +50 13+00 +50 14+00 +50 25+00 +50 15+00 +50 16+00 +50 17+00 +50

W. LINCOLN AVENUE

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

SEE CONSTRUCTION DETAIL FOR TEMPORARY BUS STOP

+50 26+00 +50 +50 22+00 +50 21+00

S. 43RD STREET

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

WORK ZONE

TEMPORARY BUS STOP LOCATION

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: LINCOLN AVE./43RD ST.	SHEET E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\026001_tc.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

N

S. LAYTON BOULEVARD

64+00

+50

63+00

+50

SEE S.D.D. "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY"

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

50+00 +50 51+00 +50 52+00 +50 53+00 +50 54+00 +50 55+00 +50 56+00

W. LINCOLN AVENUE

W. LINCOLN AVENUE

62+00

+50

POST

61+00

+50

S. 27TH STREET

SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

SEE S.D.D. "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" AND "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY"

WORK ZONE

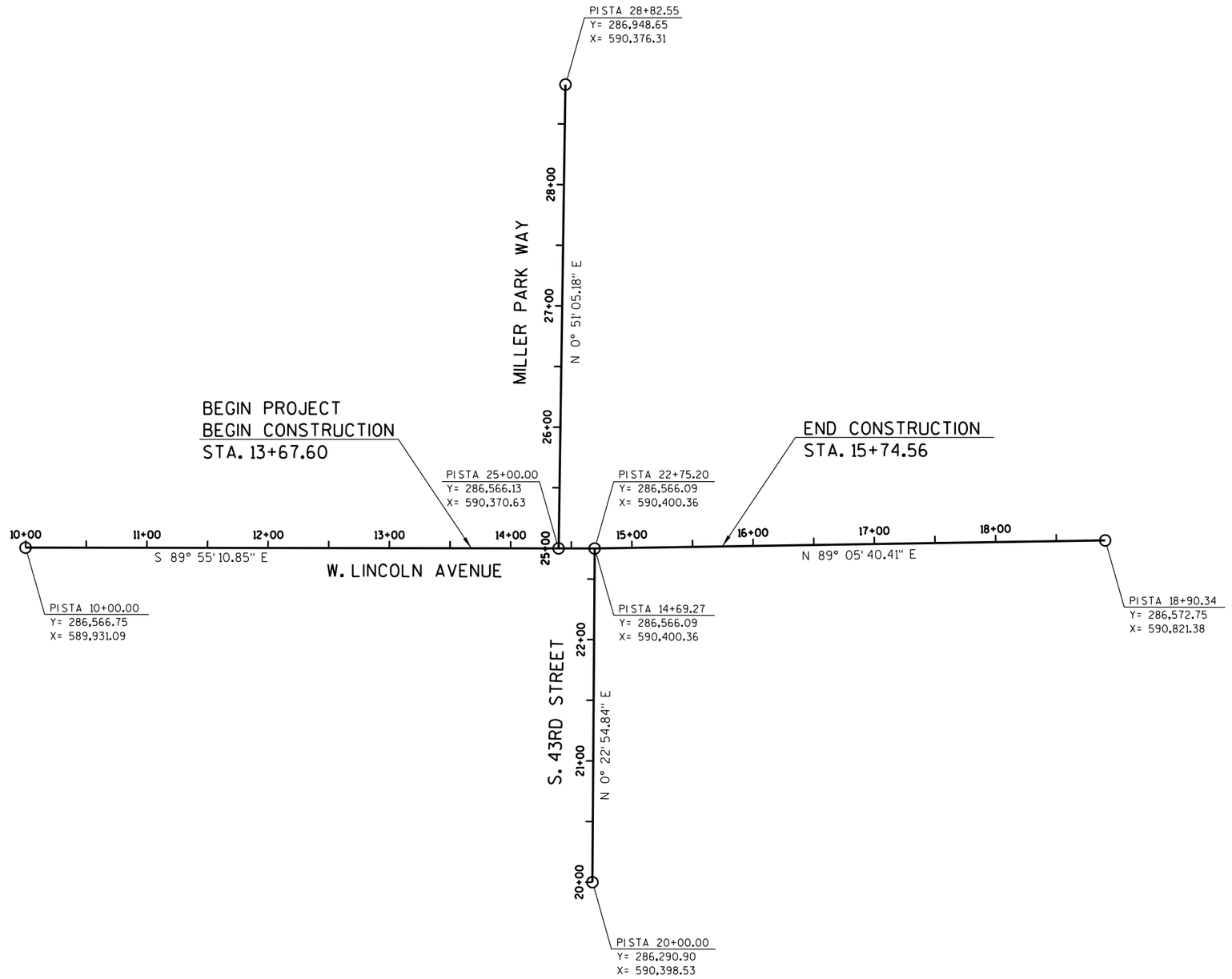
TEMPORARY BUS STOP LOCATION

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	TRAFFIC CONTROL: LINCOLN AVE./27TH ST.	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\026002_tc.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

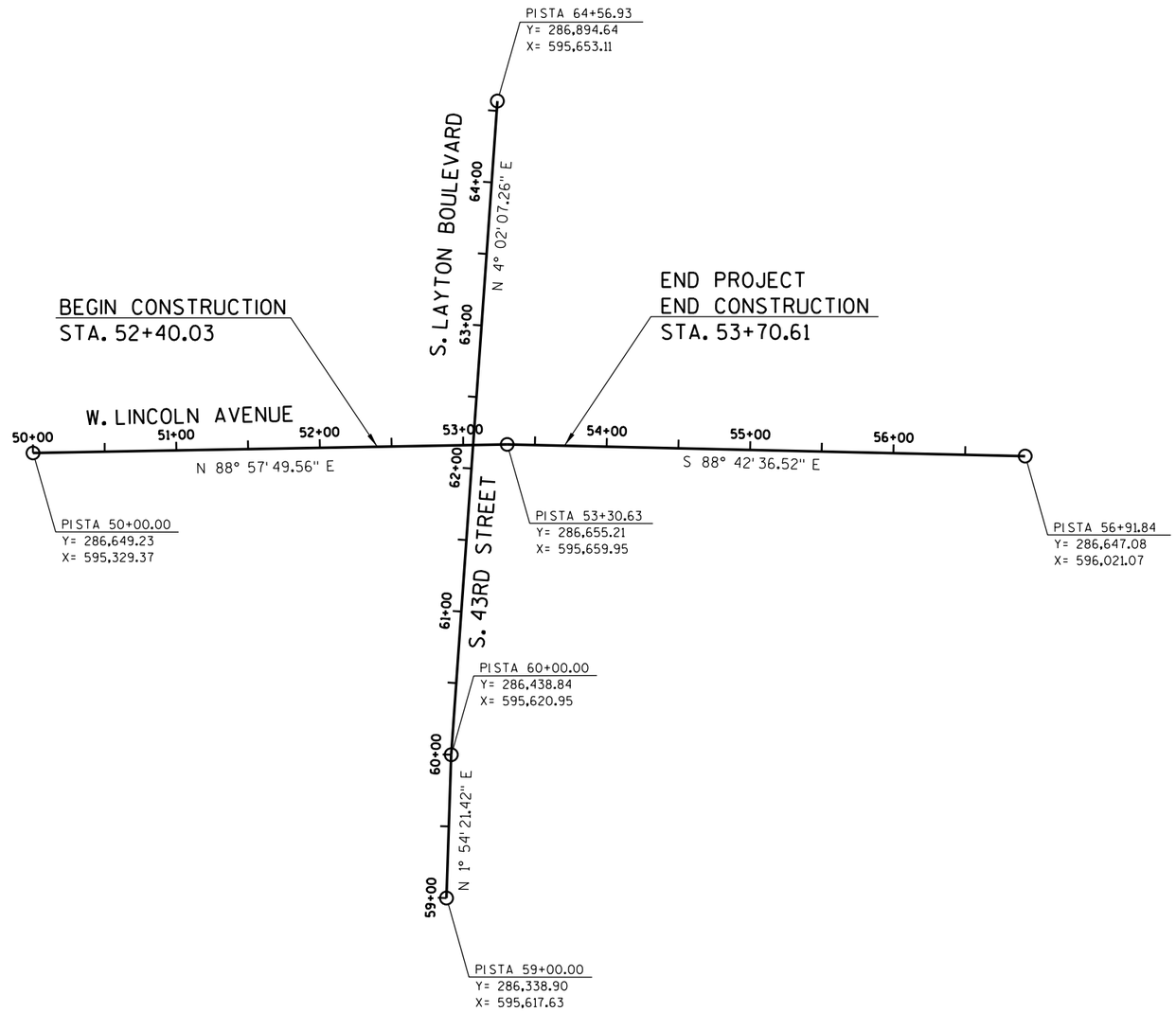
N

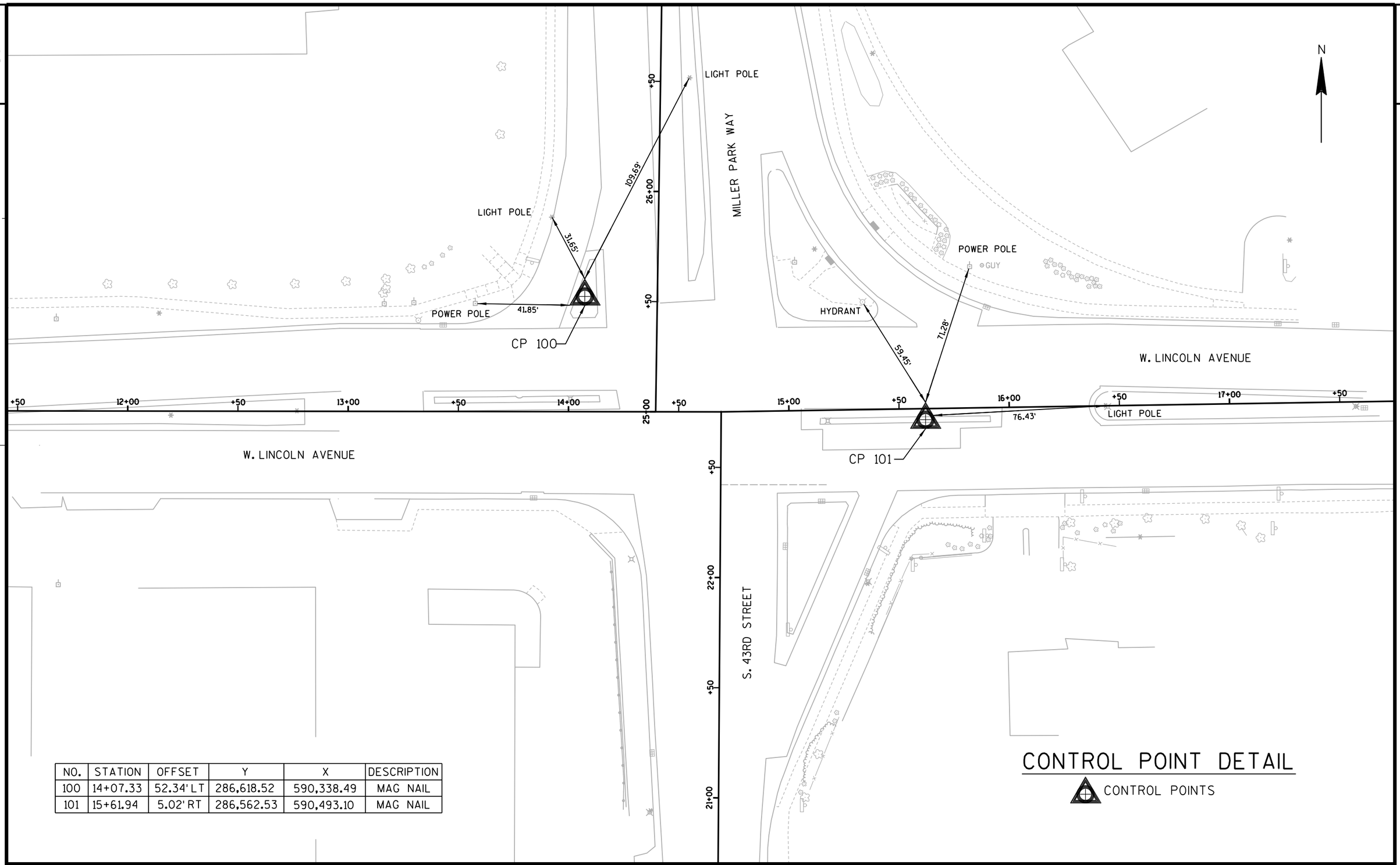


PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 50	E

2

N


PI STA 64+56.93
Y= 286,894.64
X= 595,653.11
S. LAYTON BOULEVARD
64+00
N 4° 02' 07.26" E
63+00
BEGIN CONSTRUCTION
STA. 52+40.03
END PROJECT
END CONSTRUCTION
STA. 53+70.61
W. LINCOLN AVENUE
50+00
51+00
52+00
53+00
54+00
55+00
56+00
N 88° 57' 49.56" E
S 88° 42' 36.52" E
62+00
S. 43RD STREET
PI STA 53+30.63
Y= 286,655.21
X= 595,659.95
PI STA 50+00.00
Y= 286,649.23
X= 595,329.37
PI STA 56+91.84
Y= 286,647.08
X= 596,021.07
61+00
PI STA 60+00.00
Y= 286,438.84
X= 595,620.95
60+00
N 1° 54' 21.42" E
59+00
PI STA 59+00.00
Y= 286,338.90
X= 595,617.63



NO.	STATION	OFFSET	Y	X	DESCRIPTION
100	14+07.33	52.34' LT	286,618.52	590,338.49	MAG NAIL
101	15+61.94	5.02' RT	286,562.53	590,493.10	MAG NAIL

CONTROL POINT DETAIL

CONTROL POINTS

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONTROL POINT DATA: LINCOLN AVE./43RD ST.	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\027203_cp.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

N

S. LAYTON BOULEVARD

64+00 +50 63+00 +50 62+00 +50

50+00 +50 51+00 +50 52+00 +50 53+00 +50 54+00 +50 55+00 +50 56+00

W. LINCOLN AVENUE

W. LINCOLN AVENUE

SIGN

53.09'

LIGHT POLE

66.43'

44.84'

LIGHT POLE

CP 200

POST

CP 201

HYDRANT

53.01'

55.17'

SIGN

61+00

54.36'

LIGHT POLE

S. 27TH STREET

NO.	STATION	OFFSET	Y	X	DESCRIPTION
200	62+83.43	6.53' RT	286,721.12	595,647.41	MAG NAIL
201	61+34.37	0.82' LT	286,572.94	595,629.59	MAG NAIL

CONTROL POINT DETAIL

CONTROL POINTS

PROJECT NO: 2110-00-72	HWY: LOCAL STREET	COUNTY: MILWAUKEE	CONTROL POINT DATA: LINCOLN AVE./27TH ST.	SHEET	E

FILE NAME : S:\MIL\4300--4399\4390\001\Micros\PLAN\027204_cp.dgn PLOT DATE : 4/18/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2110-00-72

Line	Item	Item Description	Unit	Total	Qty
0006	204.0100	Removing Pavement	SY	364.000	364.000
0014	204.0155	Removing Concrete Sidewalk	SY	210.000	210.000
0030	213.0100	Finishing Roadway (project) 02. 2110-00-72	EACH	1.000	1.000
0034	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	226.000	226.000
0042	415.0090	Concrete Pavement 9-Inch	SY	235.000	235.000
0054	416.0610	Drilled Tie Bars	EACH	485.000	485.000
0056	416.0620	Drilled Dowel Bars	EACH	98.000	98.000
0062	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0072	602.0410	Concrete Sidewalk 5-Inch	SF	1,965.000	1,965.000
0074	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	120.000	120.000
0080	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	8.000	8.000
0082	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0084	611.1003	Catch Basins 3-FT Diameter	EACH	1.000	1.000
0092	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0094	619.1000	Mobilization	EACH	0.030	0.030
0096	620.0300	Concrete Median Sloped Nose	SF	125.000	125.000
0104	625.0100	Topsoil	SY	320.000	320.000
0106	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0108	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0110	628.2006	Erosion Mat Urban Class I Type A	SY	322.000	322.000
0112	628.7010	Inlet Protection Type B	EACH	16.000	16.000
0114	628.7015	Inlet Protection Type C	EACH	5.000	5.000
0116	628.7020	Inlet Protection Type D	EACH	2.000	2.000
0118	629.0210	Fertilizer Type B	CWT	0.200	0.200
0120	630.0140	Seeding Mixture No. 40	LB	5.000	5.000
0156	638.2102	Moving Signs Type II	EACH	10.000	10.000
0158	638.2602	Removing Signs Type II	EACH	1.000	1.000
0162	642.5401	Field Office Type D	EACH	0.030	0.030
0164	643.0300	Traffic Control Drums	DAY	2,150.000	2,150.000
0166	643.0420	Traffic Control Barricades Type III	DAY	170.000	170.000
0172	643.0705	Traffic Control Warning Lights Type A	DAY	340.000	340.000
0174	643.0715	Traffic Control Warning Lights Type C	DAY	900.000	900.000
0176	643.0900	Traffic Control Signs	DAY	810.000	810.000
0178	643.0920	Traffic Control Covering Signs Type II	EACH	1.000	1.000
0180	643.5000	Traffic Control	EACH	0.030	0.030
0182	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	480.000	480.000
0190	646.1020	Marking Line Epoxy 4-Inch	LF	260.000	260.000
0202	646.9210	Marking Removal Line Water Blasting Wide	LF	374.000	374.000
0208	650.4000	Construction Staking Storm Sewer	EACH	1.000	1.000

2110-00-72

Line	Item	Item Description	Unit	Total	Qty
0212	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	529.000	529.000
0214	650.7000	Construction Staking Concrete Pavement	LF	507.000	507.000
0218	650.8500	Construction Staking Electrical Installations (project) 02. 2110-00-72	LS	1.000	1.000
0220	650.9000	Construction Staking Curb Ramps	EACH	12.000	12.000
0224	650.9910	Construction Staking Supplemental Control (project) 02. 2110-00-72	LS	1.000	1.000
0228	652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	100.000	100.000
0230	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	62.000	62.000
0232	652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	168.000	168.000
0234	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	395.000	395.000
0238	652.0610	Conduit Special 2 1/2-Inch	LF	44.000	44.000
0240	652.0615	Conduit Special 3-Inch	LF	1,012.000	1,012.000
0242	652.0700.S	Install Conduit into Existing Item	EACH	6.000	6.000
0244	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
0246	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
0248	654.0110	Concrete Bases Type 10	EACH	2.000	2.000
0250	654.0113	Concrete Bases Type 13	EACH	3.000	3.000
0252	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,313.000	1,313.000
0254	655.0260	Cable Traffic Signal 12-14 AWG	LF	930.000	930.000
0256	655.0280	Cable Traffic Signal 19-14 AWG	LF	1,255.000	1,255.000
0258	655.0290	Cable Traffic Signal 21-14 AWG	LF	500.000	500.000
0260	655.0305	Cable Type UF 2-12 AWG Grounded	LF	530.000	530.000
0262	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	834.000	834.000
0264	655.0900	Traffic Signal EVP Detector Cable	LF	1,015.000	1,015.000
0266	657.0100	Pedestal Bases	EACH	1.000	1.000
0268	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	2.000	2.000
0270	657.0310	Poles Type 3	EACH	2.000	2.000
0274	657.0350	Poles Type 10	EACH	2.000	2.000
0276	657.0355	Poles Type 12	EACH	2.000	2.000
0278	657.0360	Poles Type 13	EACH	1.000	1.000
0280	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	1.000	1.000
0282	657.0525	Monotube Arms 25-FT	EACH	2.000	2.000
0284	657.0535	Monotube Arms 35-FT	EACH	1.000	1.000
0286	657.0540	Monotube Arms 40-FT	EACH	2.000	2.000
0288	657.0545	Monotube Arms 45-FT	EACH	2.000	2.000
0290	657.0550	Monotube Arms 50-FT	EACH	1.000	1.000
0292	657.0806	Luminaire Arms Steel 6-FT	EACH	4.000	4.000
0294	658.0173	Traffic Signal Face 3S 12-Inch	EACH	22.000	22.000
0296	658.0174	Traffic Signal Face 4S 12-Inch	EACH	4.000	4.000

2110-00-72

Line	Item	Item Description	Unit	Total	Qty
0298	658.0412	Pedestrian Signal Face 12-Inch	EACH	12.000	12.000
0300	658.5069	Signal Mounting Hardware (location) 01. Lincoln Avenue & 43rd St	LS	1.000	1.000
0302	658.5069	Signal Mounting Hardware (location) 02. Lincoln Avenue & 27th St	LS	1.000	1.000
0304	674.0300	Remove Cable	LF	60.000	60.000
0306	674.0400	Reinstall Cable	LF	60.000	60.000
0310	690.0250	Sawing Concrete	LF	907.000	907.000
0312	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
0322	SPV.0060	Special 01. Inlet Covers Type 57	EACH	1.000	1.000
0324	SPV.0060	Special 02. Manhole Covers Type 58A	EACH	1.000	1.000
0346	SPV.0060	Special 13. Poles Type-3	EACH	4.000	4.000
0352	SPV.0060	Special 16. Poles Type 12 Special	EACH	2.000	2.000
0354	SPV.0060	Special 17. Poles Type 13 Special	EACH	1.000	1.000
0358	SPV.0060	Special 19. Pull Boxes 13-Inch X 24-Inch X 24-Inch	EACH	4.000	4.000
0362	SPV.0060	Special 21. Pull Boxes 17 Inch x 30 Inch x 18 Inch	EACH	8.000	8.000
0366	SPV.0060	Special 23. Luminaire Arm Single Member 6 Ft City-Furnished	EACH	4.000	4.000
0368	SPV.0060	Special 24. Remove Luminaire	EACH	6.000	6.000
0378	SPV.0060	Special 29. Luminaire Historic Milwaukee Lantern LED 2	EACH	2.000	2.000
0382	SPV.0060	Special 31. Concrete Bases Type 10 Special	EACH	3.000	3.000
0386	SPV.0060	Special 33. Pipe Connection	EACH	1.000	1.000
0388	SPV.0060	Special 34. Utility Line Opening (ULO)	EACH	8.000	8.000
0390	SPV.0060	Special 35. Salvage Microwave Detector Assembly	EACH	3.000	3.000
0392	SPV.0060	Special 36. Install Salvaged Microwave Detector Assembly	EACH	3.000	3.000
0394	SPV.0060	Special 37. Sawing Concrete-Encased Duct Package	EACH	1.000	1.000
0418	SPV.0060	Special 49. Metal Pedestal Cabinet 4-Inch x 4-Inch x 36-Inch	EACH	3.000	3.000
0436	SPV.0060	Special 58. Luminaire Utility LED 3	EACH	12.000	12.000
0446	SPV.0090	Special 04. Marking Crosswalk Epoxy 12-Inch	LF	396.000	396.000
0450	SPV.0090	Special 06. Marking Stop Line Epoxy 24-Inch	LF	98.000	98.000
0454	SPV.0090	Special 08. Cable Type 3#8/1#8 LTP	LF	700.000	700.000
0460	SPV.0090	Special 11. Cable Type 3#2/1#8 LTP	LF	700.000	700.000
0464	SPV.0090	Special 13. Concrete Curb & Gutter Integral 31-Inch	LF	529.000	529.000
0480	SPV.0105	Special 01. Remove and Reinstall EVP Equipment, Lincoln Avenue & 43rd St	LS	1.000	1.000
0482	SPV.0105	Special 02. Remove and Reinstall EVP Equipment, Lincoln Avenue & 27th St	LS	1.000	1.000
0484	SPV.0105	Special 03. Video Vehicle Detection System, Lincoln Avenue & 43rd St	LS	1.000	1.000

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	204.0155 SY
0010	13+50 - 14+50	LT	45
	13+50 - 14+50	RT	30
	14+50 - 15+50	LT	45
	14+50 - 15+50	RT	65
	52+25 - 52+75	LT	5
	52+25 - 52+75	RT	15
	53+50 - 54+00	RT	5
		TOTAL	210

REMOVING PAVEMENT

CATEGORY	STATION - STATION	LOCATION	204.0100 SY
0010	13+50 - 14+50	LT	156
	13+50 - 14+50	RT	44
	14+50 - 15+50	LT	20
	14+50 - 15+50	RT	60
	25+50 - 26+50	RT	31
	60+50 - 62+00	LT & RT	29
	62+50 - 63+50	LT & RT	23
		TOTAL	364

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 EACH
0010	2110-00-72	1

BASE AGGREGATE DENSE

CATEGORY	STATION - STATION	LOCATION	305.0120 1 1/4-INCH CURB RAMP TON	305.0120 1 1/4-INCH ROADWAY TON
0010	13+50 - 14+50	LT	4	65
	13+50 - 14+50	RT	5	20
	14+50 - 15+50	LT	--	20
	14+50 - 15+50	RT	6	40
	25+50 - 26+50	RT	--	20
	52+25 - 52+75	LT	1	--
	52+25 - 52+75	RT	4	--
	53+50 - 54+00	RT	1	--
	60+50 - 62+00	LT & RT	--	25
	62+50 - 63+50	LT & RT	--	15
		TOTALS	21	205
		TOTAL	226	

CONCRETE PAVEMENT 9-INCH

CATEGORY	STATION - STATION	LOCATION	415.0090 SY
0010	13+50 - 14+50	LT	113
	13+50 - 14+50	RT	28
	14+50 - 15+50	LT	5
	14+50 - 15+50	RT	26
	25+50 - 26+50	RT	20
	52+25 - 52+75	LT	0
	52+25 - 52+75	RT	0
	53+50 - 54+00	RT	0
	60+50 - 62+00	LT & RT	28
	62+50 - 63+50	LT & RT	15
		TOTAL	235

DRILLED TIE BARS AND DOWEL BARS

CATEGORY	STATION - STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
0010	13+50 - 14+50	LT	55	35
	13+50 - 14+50	RT	60	4
	14+50 - 15+50	LT	45	4
	14+50 - 15+50	RT	110	10
	25+50 - 26+50	RT	90	15
	60+50 - 62+00	LT & RT	75	15
	62+50 - 63+50	LT & RT	50	15
		TOTALS	485	98

CURB AND GUTTER ITEMS

CATEGORY	STATION - STATION	LOCATION	SPV.0090.13 CONCRETE CURB & GUTTER INTEGRAL 31-INCH LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	13+50 - 14+50	LT	114	114
	13+50 - 14+50	RT	60	60
	14+50 - 15+50	LT	49	49
	14+50 - 15+50	RT	102	102
	25+50 - 26+50	RT	81	81
	60+50 - 62+00	LT & RT	78	78
	62+50 - 63+50	LT & RT	45	45
		TOTALS	529	529

CURB RAMP ITEMS

CATEGORY	STATION	LOCATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH
0010	13+50 - 14+50	LT	40	4
	13+50 - 14+50	RT	20	2
	14+50 - 15+50	LT	20	2
	14+50 - 15+50	RT	40	4
		TOTALS	120	12

CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	602.0410 5-INCH SF
0010	13+50 - 14+50	LT	410
	13+50 - 14+50	RT	260
	14+50 - 15+50	LT	430
	14+50 - 15+50	RT	640
	52+25 - 52+75	LT	45
	52+25 - 52+75	RT	140
	53+50 - 54+00	RT	40
		TOTAL	1,965

STORM SEWER SUMMARY

CATEGORY	FROM STRUCTURE	TO STRUCTURE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	SPV.0060.33 PIPE CONNECTION EACH
0010	INL 102	EX INL 101	8	1	1
		TOTALS	8	1	1

STORM SEWER ITEMS

CATEGORY	STRUCT. ID#	STATION	LOCATION	611.1003 CATCH BASINS 3-FT DIAMETER EACH	SPV.0060.02 MANHOLE COVERS TYPE 58A EACH	SPV.0060.01 INLET COVERS TYPE 57 EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
0010	EX INL 101	61+61	1' RT	---	1	---	---
	INL 102	61+67	4' LT	1	---	1	1
			TOTALS	1	1	1	1

ADJUSTING INLET COVERS

CATEGORY	STATION	LOCATION	611.8115 EACH
0010	15+14	41' RT	1
		TOTAL	1

RECONSTRUCTING MANHOLES

CATEGORY	STRUCT. NO.	STATION	LOCATION	611.0420 EACH
0010	EX INL 101	61+61	1' RT	1
			TOTAL	1

MOBILIZATION

CATEGORY	PROJECT	619.1000 EACH
0010	2110-00-72	1

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION	LOCATION	620.0300 SF	REMARKS
0010	13+50 - 14+50	LT	45	TYPES 1 & 2
	14+50 - 15+50	RT	5	TYPE 2
	25+50 - 26+50	RT	25	TYPE 1
	60+50 - 62+00	LT	25	TYPE 1
	62+50 - 63+50	LT & RT	25	TYPE 1
		TOTAL	125	

MOBILIZATIONS EROSION CONTROL

CATEGORY	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	3	3

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH	REMARKS
0100	13+43	39' LT	--	1	--	EXISTING INLET
	13+84	39' RT	--	1	--	EXISTING INLET
	21+20	30' LT	1	--	--	EXISTING INLET
	22+14	30' RT	1	--	--	EXISTING INLET
	15+14	41' RT	--	1	--	EXISTING INLET
	22+03	67' RT	--	1	--	EXISTING INLET
	15+91	46' LT	--	--	1	EXISTING INLET
	16+61	39' RT	1	--	--	EXISTING INLET
	51+98	24' LT	1	--	--	EXISTING INLET
	52+23	24' RT	1	--	--	EXISTING INLET
	53+84	24' RT	1	--	--	EXISTING INLET
	53+87	24' LT	1	--	--	EXISTING INLET
	61+54	47' LT	1	--	--	EXISTING INLET
	61+60	1' RT	1	--	--	EXISTING INLET
	61+62	47' RT	1	--	--	EXISTING INLET
	61+64	11' LT	1	--	--	EXISTING INLET
	61+67	4' LT	1	--	--	PROPOSED INLET
	62+97	43' LT	1	--	--	EXISTING INLET
	UNDISTRIBUTED		3	1	1	
		TOTALS	16	5	2	

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB
0010	13+50 - 14+50	LT	40	42	0.03	1
	13+50 - 14+50	RT	30	29	0.02	1
	14+50 - 15+50	LT	25	24	0.02	--
	14+50 - 15+50	RT	15	17	0.01	--
	25+50 - 26+50	RT	40	40	0.03	1
	52+25 - 52+75	RT	6	6	0.00	--
	60+50 - 62+00	LT & RT	75	73	0.05	1
	62+50 - 63+50	LT & RT	25	27	0.02	--
	UNDISTRIBUTED		64	64	0.04	1
	TOTALS		320	322	0.20	5

FIELD OFFICE TYPE D

CATEGORY	PROJECT	642.5401 EACH
0010	2110-00-72	1

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 EACH
0010	2110-00-72	1

TEMPORARY PEDESTRIAN SURFACE ASPHALT

CATEGORY	STATION	LOCATION	644.1410.S SF	REMARKS
0010	12+70	RT	240	WEST OF 43RD ST
	16+55	LT	240	EAST OF 43RD ST
		TOTAL	480	

TRAFFIC CONTROL

CATEGORY	LOCATION	DURATION (DAYS)	643.0300 DRUMS EACH	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.0920 COVERING SIGNS TYPE II EACH
0010	LINCOLN AVENUE/S. 43RD STREET	20	70	1,400	4	80	8	160	30	600	21	420	1
	LINCOLN AVENUE/S. 27TH STREET	15	50	750	6	90	12	180	20	300	26	390	0
		TOTALS		2,150		170		340		900		810	1

PAVEMENT MARKING ITEMS

CATEGORY	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH WHITE LF	SPV.0090.04 MARKING CROSSWALK EPOXY 12-INCH WHITE LF	SPV.0090.06 MARKING STOP LINE EPOXY 24-INCH WHITE LF
0010	13+50 - 14+70	LT	47	126	--
	13+50 - 14+70	RT	--	176	56
	14+70 - 15+50	RT	--	94	26
	25+50 - 26+50	RT	96	--	5
	60+50 - 62+00	LT & RT	71	--	7
	62+50 - 63+50	LT & RT	46	--	4
	TOTALS		260	396	98

MARKING REMOVAL LINE WATER BLASTING WIDE

CATEGORY	STATION - STATION	LOCATION	646.9210 LF
0010	13+50 - 14+70	LT	57
	13+50 - 14+70	RT	203
	14+70 - 15+50	RT	114
		TOTAL	374

SIGNING SUMMARY

CATEGORY	SIGN NO.	APPROX. STA.	LOC.	SIGN CODE	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	REMARKS
0010	1-1	14+00	RT	R1-1F	STOP (FOLDING)	---	1	SIGN MOUNTED ON SIGNAL POLE
	1-2A	22+00	LT	R5-2	NO TRUCKS SYMBOL	1	---	SIGN MOUNTED ON SIGNAL POLE
	1-2B	22+00	LT	R5-2A	TONS OR OVER	1	---	SIGN MOUNTED ON SAME POLE AS 1-2A
	1-2C	22+00	LT	R7-1D	NO PARKING ANY TIME - DOUBLE ARROW	1	---	SIGN MOUNTED ON SAME POLE AS 1-2A
	1-2D	22+00	LT	W5-52R	CLEARANCE STRIPER DOWN LEFT	1	---	SIGN MOUNTED ON SAME POLE AS 1-2A
	1-3	22+03	RT	R1-2	YIELD	1	---	---
	2-1	52+43	LT	R10-11B	NO TURN ON RED	1	---	SIGN MOUNTED ON SIGNAL POLE
	2-2A	62+68	RT	R5-2	NO TRUCKS SYMBOL	1	---	SIGN MOUNTED ON SIGNAL POLE
	2-2B	62+68	RT	R5-2A	TONS OR OVER	1	---	SIGN MOUNTED ON SIGNAL POLE
	2-3A	62+66	RT	R5-2	NO TRUCKS SYMBOL	1	---	SIGN MOUNTED ON SIGNAL POLE
	2-3B	62+66	RT	R5-2A	TONS OR OVER	1	---	SIGN MOUNTED ON SIGNAL POLE
					TOTAL	10	1	

CONSTRUCTION STAKING CONCRETE PAVEMENT

CATEGORY	STATION	LOCATION	650.7000 LF
0010	13+50 - 14+50	LT	115
	13+50 - 14+50	RT	69
	14+50 - 15+50	LT	30
	14+50 - 15+50	RT	120
	25+50 - 26+50	RT	50
	60+50 - 62+00	LT & RT	77
	62+50 - 63+50	LT & RT	46
		TOTAL	507

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

CATEGORY	PROJECT	650.9910 LS
0010	2110-00-72	1

SAWING CONCRETE

CATEGORY	STATION	LOCATION	690.0250 LF
0010	13+50 - 14+50	LT	250
	13+50 - 14+50	RT	86
	14+50 - 15+50	LT	71
	14+50 - 15+50	RT	180
	25+50 - 26+50	RT	125
	60+50 - 62+00	LT & RT	115
	62+50 - 63+50	LT & RT	80
		TOTAL	907

TRAFFIC SIGNAL CONDUIT SUMMARY

CATEGORY	INTERSECTION	FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	* 652.0230 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0610 CONDUIT SPECIAL 2 1/2-INCH LF	* 652.0615 CONDUIT SPECIAL 3-INCH LF	* 652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	EXCB1	CV1	--	25	50	--	--	--
		CV1	CV2	--	--	--	--	52	--
		CV2	CV3	--	--	28	--	--	--
		CV2	CV4	--	--	--	--	180	--
		CV4	CV5	--	--	155	--	--	--
		CV5	CV6	--	--	--	--	98	--
		CV3	CV8	--	--	46	--	150	--
		CV8	CV7	--	--	50	--	82	--
		CV1	STA 15+75	--	43	--	--	--	--
		CV2	SB1	--	--	14	--	--	--
		CV3	SB7	--	--	13	--	--	--
		CV4	SB2	--	--	4	--	--	--
		CV5	SB3	24	--	--	--	--	--
		CV5	STA 13+32	--	--	--	44	--	--
		CV6	EXLP1	13	--	--	--	--	--
		CV8	SB6	11	--	--	--	--	--
		CV8	SB5	--	--	19	--	--	--
		CV7	SB4	--	--	6	--	--	--
		EXCB1	S. of EXCB1	4	--	--	--	--	1
		SUBTOTAL (LINCOLN AVE. & 43RD/MILLER PARK WAY)		52	68	385	44	562	1
	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	UNDISTRIBUTED		10	--	10	--	--	--
			TOTALS	62	68	395	44	562	1

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL PULL BOX SUMMARY

CATEGORY	INTERSECTION	PULL BOX NO.	LOCATION** STATION	LOCATION** OFFSET	SPV.0060.21 17 INCH X 30 INCH X 18 INCH PULL BOXES EACH	* 652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	CV1	15+39.2	70.8RT	1	--
		CV2	15+17.8	55.6RT	1	1
		CV3	15+08.9	44.6RT	1	--
		CV4	21+95.6	38.0LT	1	--
		CV5	13+75.9	42.1RT	1	--
		CV6	13+87.5	5.4LT	1	--
		CV7	14+10.3	59.5LT	1	--
		CV8	15+17.9	54.0LT	1	--
				TOTALS	8	1

* ADDITIONAL QUANTITIES LISTED ELSEWHERE
**FINAL LOCATION TO BE DETRMINED BY THE ENGINEER IN THE FIELD

CONCRETE BASES

CATEGORY	INTERSECTION	SB NO.	STATION	LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	SPV.0060.31 CONCRETE BASES TYPE 10 SPECIAL EACH	SPV.0060.34 UTILITY LINE OPENING (ULO) EACH	652.0700.S * INSTALL CONDUIT INTO EXISTING ITEM EACH
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	SB1	15+03.7	54.6RT	--	1	--	--	--	--	--
		SB2	21+99.9	39.1LT	--	--	--	--	1	1	--
		SB3	13+99.7	43.2RT	1	--	--	--	--	--	--
		SB4	14+09.0	53.7LT	--	--	--	1	--	1	--
		SB5	14+99.0	57.8LT	--	--	--	1	--	1	--
		SB6	15+15.6	43.4LT	--	1	--	--	--	--	--
		SB7	15+21.4	45.6RT	--	--	--	1	--	1	--
	SUBTOTALS (LINCOLN AVE. & 43RD/MILLER PARK WAY)				2	--	3	1	4	--	
	LINCOLN AVE.& 27TH ST./LAYTON BLVD	SB3	53+65.9	46.7LT	--	--	--	--	1	1	1
		SB5	53+68.1	27.6RT	--	--	1	--	--	1	1
		SB8	52+51.5	48.2RT	--	--	--	--	1	1	1
		SB10	52+43.3	28.9LT	--	--	1	--	--	1	1
	SUBTOTALS (LINCOLN AVE. & 27TH/LAYTON-BLVD.)				--	2	--	2	4	4	
				TOTA	1	2	2	3	3	8	4

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL CABLE SUMMARY

CATEGORY	INTERSECTIONS	FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG LF	655.0290 CABLE TRAFFIC SIGNAL 21-14 AWG LF
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	EXCB1	SB1	--	--	115	--
		SB1	HEAD 1	19	--	--	--
		SB1	HEAD 9	22	--	--	--
		SB1	HEAD 26	14	--	--	--
		SB1	HEAD 27	14	--	--	--
		EXCB1	SB2	--	210	--	--
		SB2	HEAD 7	47	--	--	--
		SB2	HEAD 8	36	--	--	--
		SB2	HEAD 10	65	--	--	--
		EXCB1	SB3	--	325	--	--
		SB3	HEAD 11	19	--	--	--
		SB3	HEAD 19	19	--	--	--
		SB3	HEAD 21	14	--	--	--
		SB3	HEAD 28	14	--	--	--
		EXCB1	SB4	--	--	375	--
		SB4	HEAD 4	22	--	--	--
		SB4	HEAD 6	19	--	--	--
		SB4	HEAD 17	64	--	--	--
		SB4	HEAD 18	53	--	--	--
		SB4	HEAD 20	75	--	--	--
		SB4	HEAD 22	14	--	--	--
		SB4	HEAD 23	14	--	--	--
		EXCB1	SB5	--	--	265	--
		SB5	HEAD 2	50	--	--	--
		SB5	HEAD 3	39	--	--	--
		SB5	HEAD 5	67	--	--	--
		SB5	HEAD 24	14	--	--	--
		SB5	HEAD 25	14	--	--	--
		EXCB1	SB6	--	255	--	--
		SB6	HEAD 14	19	--	--	--
		SB6	HEAD 16	19	--	--	--
		EXCB1	SB7	--	140	--	--
		SB7	HEAD 12	58	--	--	--
		SB7	HEAD 13	47	--	--	--
		SB7	HEAD 15	67	--	--	--
	SUBTOTALS (LINCOLN AVE. & 43RD/MILLER PARK WAY)			938	930	755	---
	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	SB3	HEAD 2	64	--	--	--
		SB3	HEAD 3	52	--	--	--
		SB3	HEAD 21	14	--	--	--
		SB5	HEAD 13	47	--	--	--
		SB5	HEAD 23	14	--	--	--
		SB8	HEAD 7	60	--	--	--
		SB8	HEAD 8	48	--	--	--
		SB8	HEAD 17	14	--	--	--
		SB10	HEAD 16	48	--	--	--
		SB10	HEAD 19	14	--	--	--
		UNDISTRIBUTED		--	--	500	500
	SUBTOTALS (LINCOLN AVE. & 27TH/LAYTON BLVD.)			375	--	500	500
			TOTALS	1,313	930	1,255	500

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

CATEGORY	INTERSECTION	FROM	TO	655.0515 LF
0010	LINCOLN AVE. & 43RD ST./MILLER PARK	EXCB1	SB1	115
		SB1	SB2	140
		SB2	SB3	140
		SB1	SB7	73
		SB7	SB6	155
		SB6	SB5	46
		SB5	SB4	165
			TOTAL	834

TRAFFIC SIGNAL EVP DETECTOR CABLE

CATEGORY	INTERSECTION	LOCATION FROM	LOCATION TO	655.0900 LF
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WA	CB1	SB4 (HEAD A)	352
		CB1	SB7 (HEAD B)	163
		SUBTOTAL (LINCOLN AVE. & 43RD/MILLER PARK WAY)		515
	LINCOLN AVE. & 27TH ST./LAYTON BLVD.	UNDISTRIBUTED		500
			TOTAL	1,015

TRAFFIC SIGNAL FACES SUMMARY

CATEGORY	INTERSECTION	SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH EACH
0010	LINCOLN AVE. & 43RD ST./MILLER PARK W	1	SB1	1	--	--
		2	SB5	1	--	--
		3	SB5	1	--	--
		4	SB4	--	1	--
		5	SB5	--	1	--
		6	SB4	1	--	--
		7	SB2	1	--	--
		8	SB2	1	--	--
		9	SB1	--	1	--
		10	SB2	--	1	--
		11	SB3	1	--	--
		12	SB7	1	--	--
		13	SB7	1	--	--
		14	SB6	1	--	--
		15	SB7	1	--	--
		16	SB6	1	--	--
		17	SB4	1	--	--
		18	SB4	1	--	--
		19	SB3	1	--	--
		20	SB4	1	--	--
		21	SB3	--	--	1
		22	SB4	--	--	1
		23	SB4	--	--	1
		24	SB5	--	--	1
		25	SB5	--	--	1
		26	SB1	--	--	1
		27	SB1	--	--	1
		28	SB3	--	--	1
	SUBTOTALS (LINCOLN AVE. & 43RD/MILLER PARK			16	4	8
	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	2	SB3	1	--	--
		3	SB3	1	--	--
		7	SB8	1	--	--
		8	SB8	1	--	--
		13	SB5	1	--	--
		16	SB10	1	--	--
		17	SB8	--	--	1
		19	SB10	--	--	1
		21	SB3	--	--	1
		23	SB5	--	--	1
	SUBTOTALS (LINCOLN AVE. & 27TH/LAYTON BLVD.)			6	--	4
	TOTALS			22	4	12

TRAFFIC SIGNAL MOUNTING HARDWARE

CATEGORY	LOCATION	658.5069.01 LS
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	1

CATEGORY	LOCATION	658.5069.02 LS
0010	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	1

REMOVE AND REINSTALL CABLE SUMMARY

CATEGORY	INTERSECTION	FROM	TO	674.0300 REMOVE CABLE LF	674.0400 REINSTALL CABLE LF
0010	LINCOLN AVE.& 27TH ST./LAYTON BLVD	SB3	CV	20	20
		SB5	CV	20	20
		SB8	CV	10	10
		SB10	CV	10	10
		TOTALS		60	60

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

CATEGORY	PROJECT	650.8500 LS
0010	2110-00-72	1

TRAFFIC SIGNAL BASES, POLES, MONOTUBE ARMS, PUSH BUTTONS, AND LUMINAIRES

CATEGORY	INTERSECTION	SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH	657.0310 POLES TYPE 3 EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0350 POLES TYPE 10 EACH	657.0355 POLES TYPE 12 EACH	657.0360 POLES TYPE 13 EACH	SPV.0060.16 POLES TYPE 12 SPECIAL EACH	SPV.0060.17 POLES TYPE 13 SPECIAL EACH	657.0525 MONOTUBE ARMS 25-FT EACH	657.0535 MONOTUBE ARMS 35-FT EACH	657.0540 MONOTUBE ARMS 40-FT EACH	657.0545 MONOTUBE ARMS 45-FT EACH	657.0550 MONOTUBE ARMS 50-FT EACH
0010	LINCOLN AVE. & 43RD ST./MILLER PARK WAY	SB1	--	1	1	--	--	--	--	--	--	--	--	--	--	--
		SB2	--	--	--	--	--	--	--	--	1	--	--	1	--	--
		SB3	1	--	--	1	--	--	--	--	--	--	--	--	--	--
		SB4	--	--	--	--	--	1	--	--	--	--	--	--	--	1
		SB5	--	--	--	--	--	1	--	--	--	--	--	--	1	--
		SB6	--	1	1	--	--	--	--	--	--	--	--	--	--	--
		SB7	--	--	--	--	--	--	1	--	--	--	--	--	1	--
	SUBTOTALS (LINCOLN AVE. &		1	2	2	1	--	2	1	--	1	--	--	1	2	1
	LINCOLN AVE.& 27TH ST./ LAYTON BLVD.	SB3	--	--	--	--	--	--	--	1	--	--	--	1	--	--
		SB5	--	--	--	--	1	--	--	--	--	1	--	--	--	--
		SB8	--	--	--	--	--	--	--	1	--	--	1	--	--	--
		SB10	--	--	--	--	1	--	--	--	--	1	--	--	--	--
	SUBTOTALS (LINCOLN AVE. & 27TH/LAYTON BLVD.)		--	--	--	--	2	--	--	2	--	2	1	1	--	--
	TOTALS		1	2	2	1	2	2	1	2	1	2	1	2	2	1

SALVAGE MICROWAVE DETECTOR ASSEMBLY

CATEGORY	LOCATION	SPV.0060.35 EACH
0010	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	3

INSTALL SALVAGED MICROWAVE DETECTOR ASSEMBLY

CATEGORY	LOCATION	SPV.0060.36 EACH
0010	LINCOLN AVE.& 27TH ST./LAYTON BLVD.	3

SAWING CONCRETE-ENCASED DUCT PACKAGE

CATEGORY	LOCATION	SPV.0060.37 EACH
0010	LINCOLN AVE. & 43RD ST	1

REMOVE AND REINSTALL EVP EQUIPMENT

CATEGORY	LOCATION	SPV.0105.01 LS	SPV.0105.02 LS
0010	LINCOLN AVENUE & 43RD ST	1	---
	LINCOLN AVENUE & 27TH ST	---	1

VIDEO VEHICLE DETECTION SYSTEM

CATEGORY	LOCATION	SPV.0105.03 LS
0010	LINCOLN AVENUE & 43RD ST	1

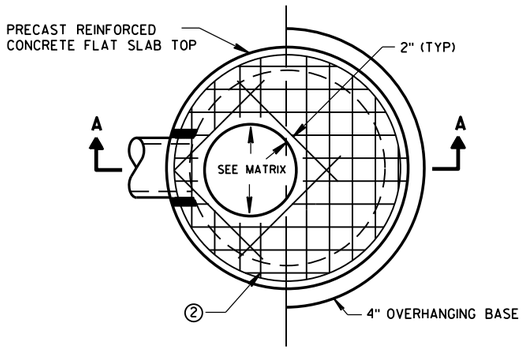
LOCATION	CAT 10 CONDUIT RIGID NON-METALLIC SCHEDULE 40 1 1/2-INCH 652.0220 LF	CAT 10 CONDUIT RIGID NON-METALLIC SCHEDULE 40 2 1/2-INCH * 652.0230 LF	CAT 10 CONDUIT SPECIAL 3 INCH * 652.0615 LF	CAT 10 CABLE TYPE UF 2*12 AWG GROUNDED 655.0305 LF	CAT 10 LUMINAIRE ARMS STEEL 6-FT 657.0806 EACH	CAT 10 PULL BOXES 13 INCH X 24 INCH X 24 INCH SPV.0060.19 EACH	CAT 10 POLES TYPE 3 SPV.0060.13 EACH	CAT 10 METAL PEDESTAL CABINET 4-INCH x 4-INCH x 36-INCH SPV.0060.53 EACH
N. 27TH ST.	50	50	300	250	2	2	2	1
N. 43RD ST.	50	50	150	280	2	2	2	2
PROJECT TOTAL	100	100	450	530	4	4	4	3

*ADDITONAL QUANTITY LISTED ELSEWHERE

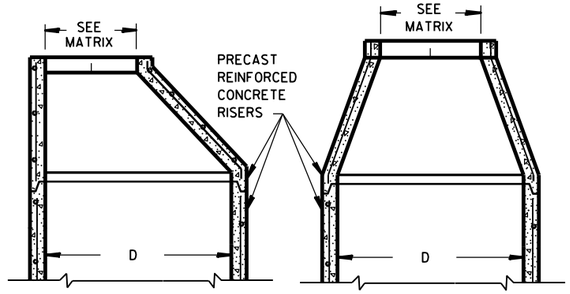
LOCATION	CAT 10 LUMINAIRE UTILITY LED 3 SPV.0060.64 EACH	CAT 10 REMOVE LUMINAIRE SPV.0060.24 EACH	CAT 10 LUMINAIRE ARMS SINGLE MEMBER 6 FT CITY FURNISHED SPV.0060.23 EACH	CAT 10 LUMINAIRE HISTORIC MILWAUKEE LANTERN LED 2 SPV.0060.29 EACH	CAT 10 CABLE TYPE 3*8/1*8 LTP SPV.0090.08 LF	CAT 10 CABLE TYPE 3*2/1*8 LTP SPV.0090.11 LF
N. 27TH ST.	3	1	2	2	200	350
N. 43RD ST.	9	5	2	--	500	350
PROJECT TOTAL	12	6	4	2	700	700

Standard Detail Drawing List

08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
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
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C27-02B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

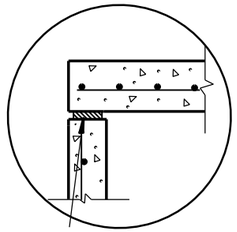


PLAN VIEW CIRCULAR OPENING

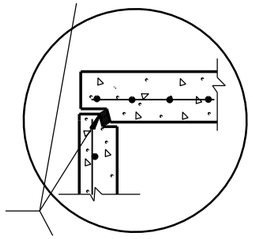


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

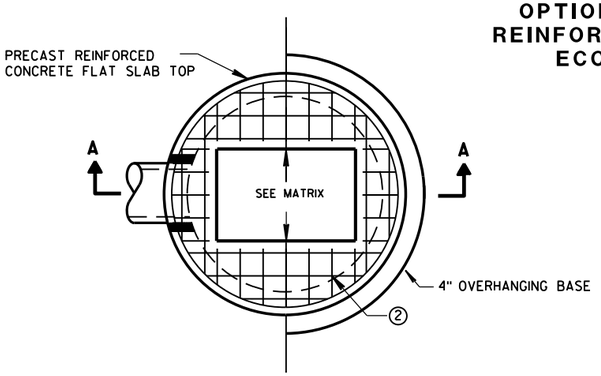
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



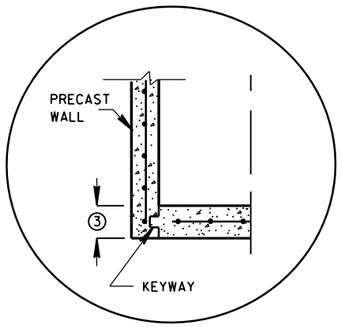
TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

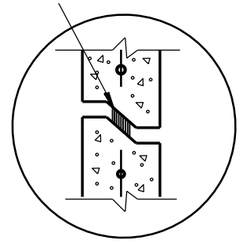


PLAN VIEW RECTANGULAR OPENING



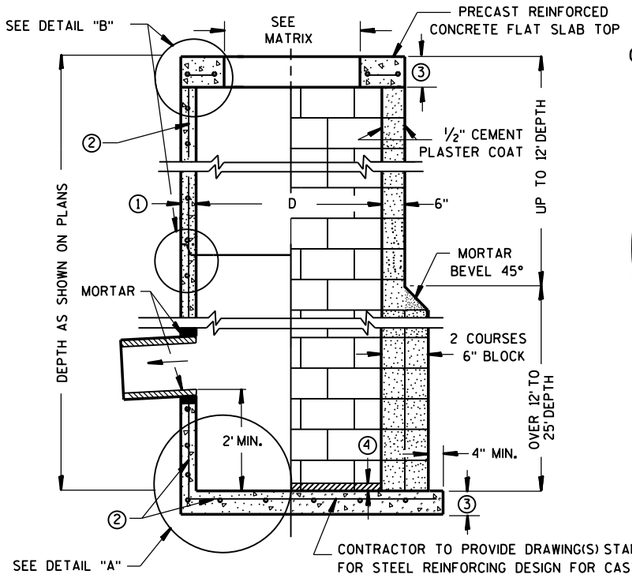
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



RISER WITH TONGUE AND GROOVE JOINT

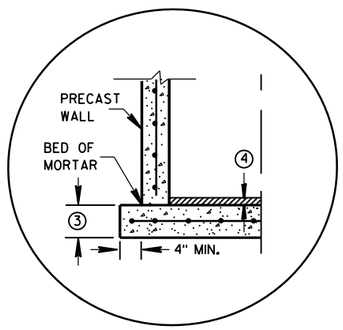
DETAIL "B"



SECTION A-A

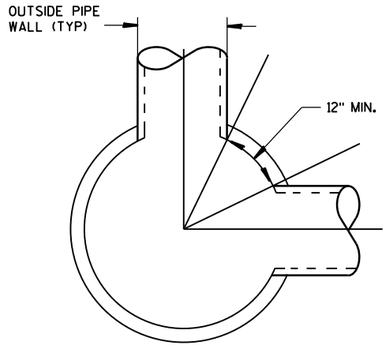
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

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

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, 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 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS 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".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

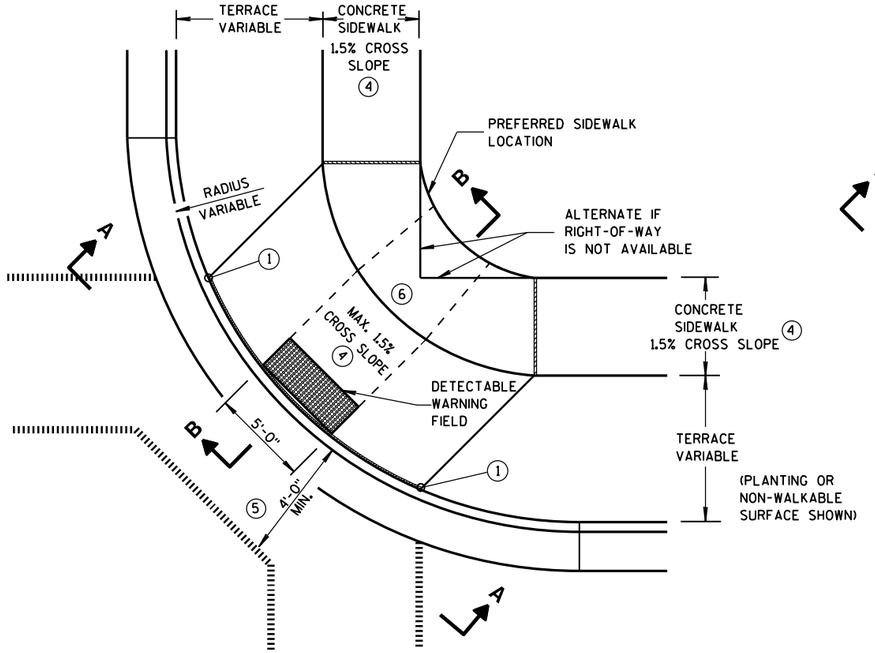
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI
FHWA

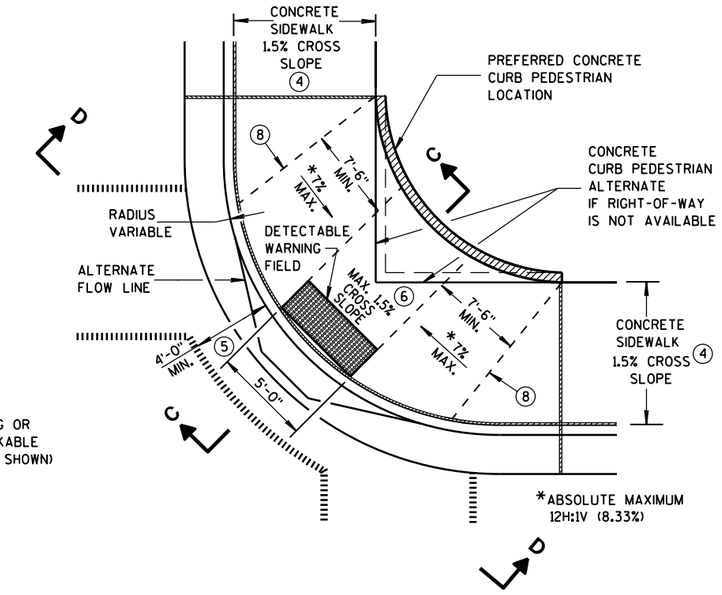
S.D.D. 8 A 8-2



PLAN VIEW

TYPE 1 RAMP

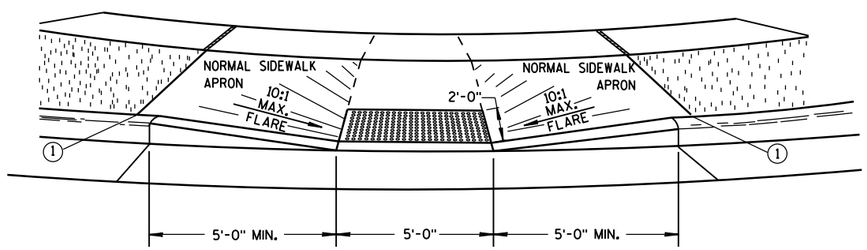
(CENTER OF CORNER RADIUS)



PLAN VIEW

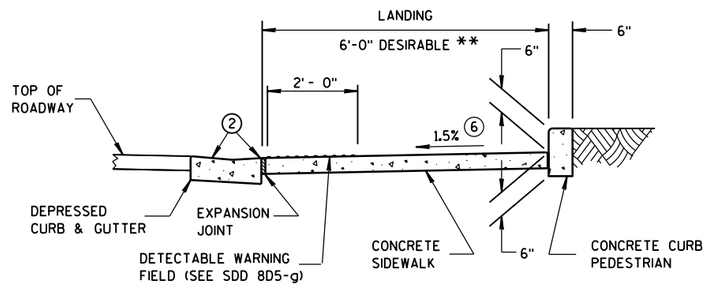
TYPE 1-A RAMP

(NO TERRACE)

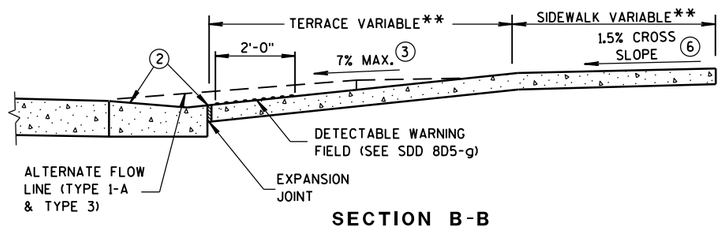


VIEW A-A

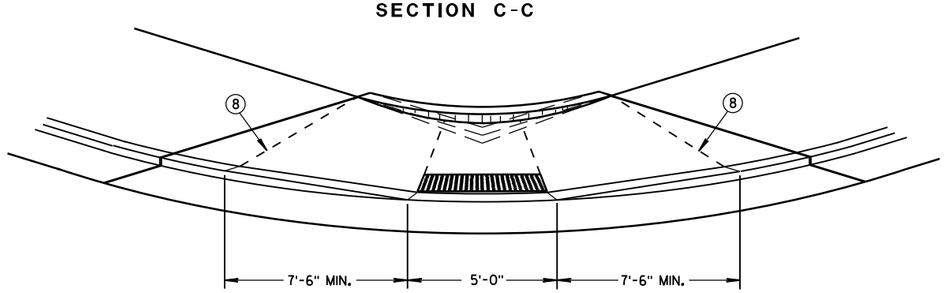
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION C-C



SECTION B-B



VIEW D-D

GENERAL NOTES

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

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

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

TYPE 1 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

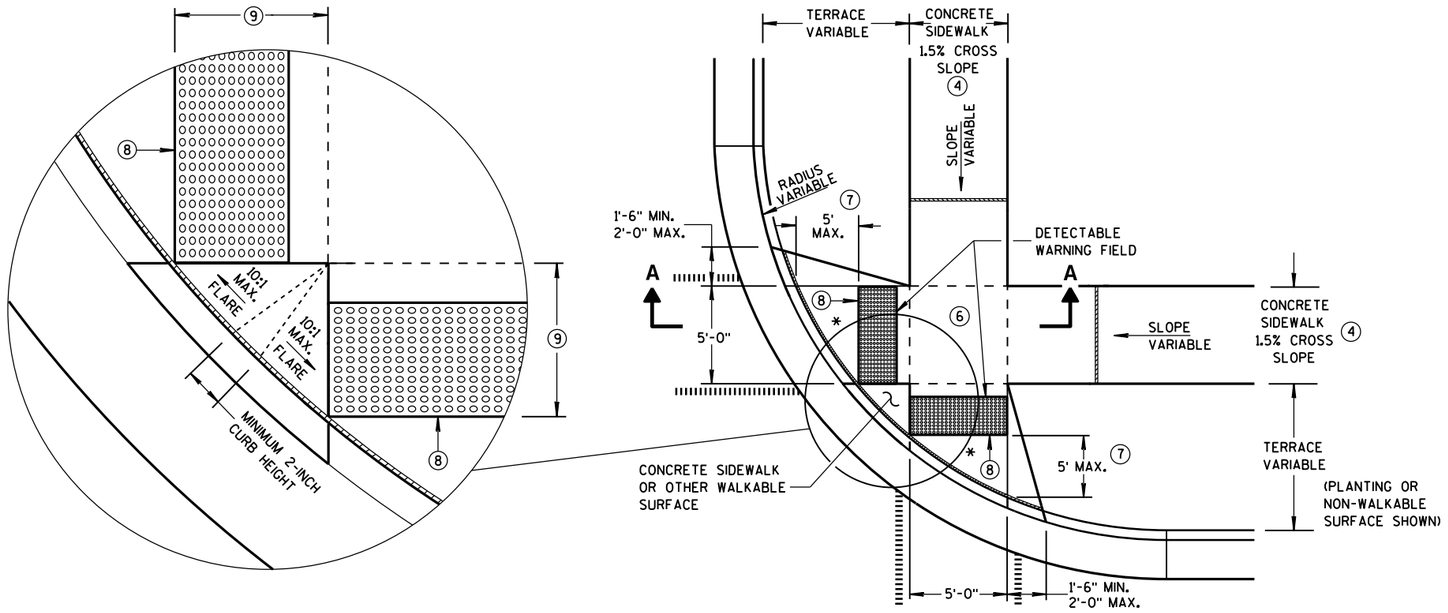
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

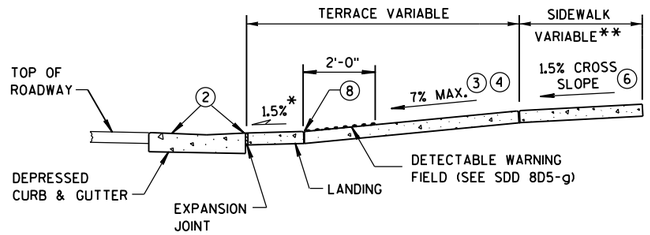
6

S.D.D. 8 D 5-19a



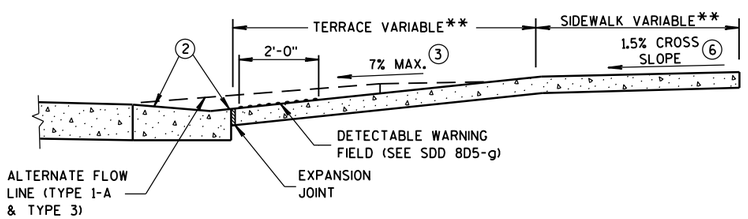
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

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

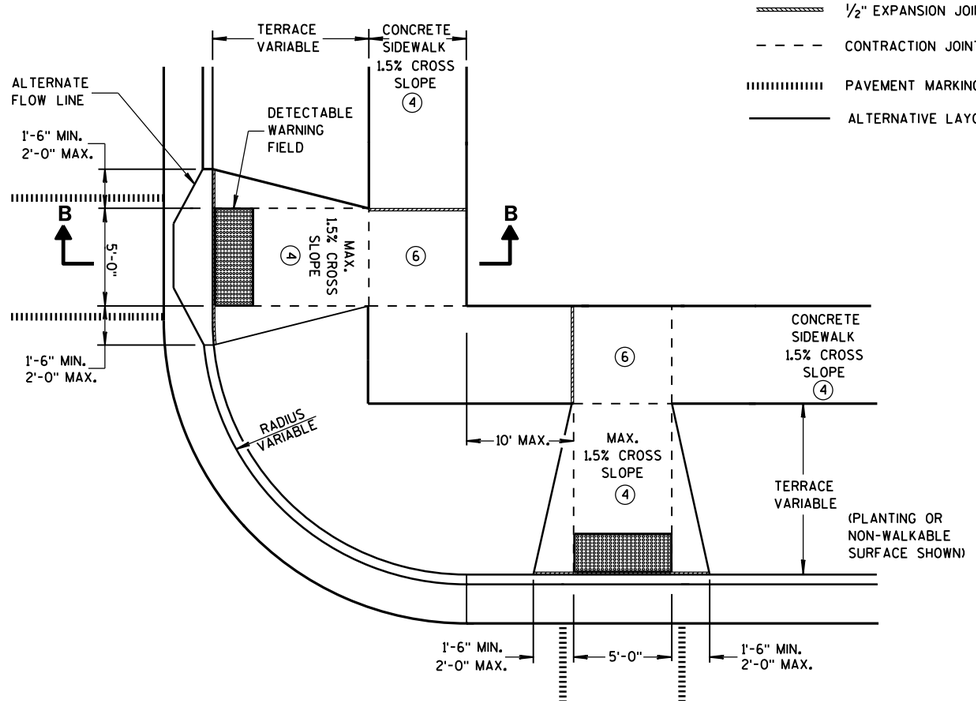


SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(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

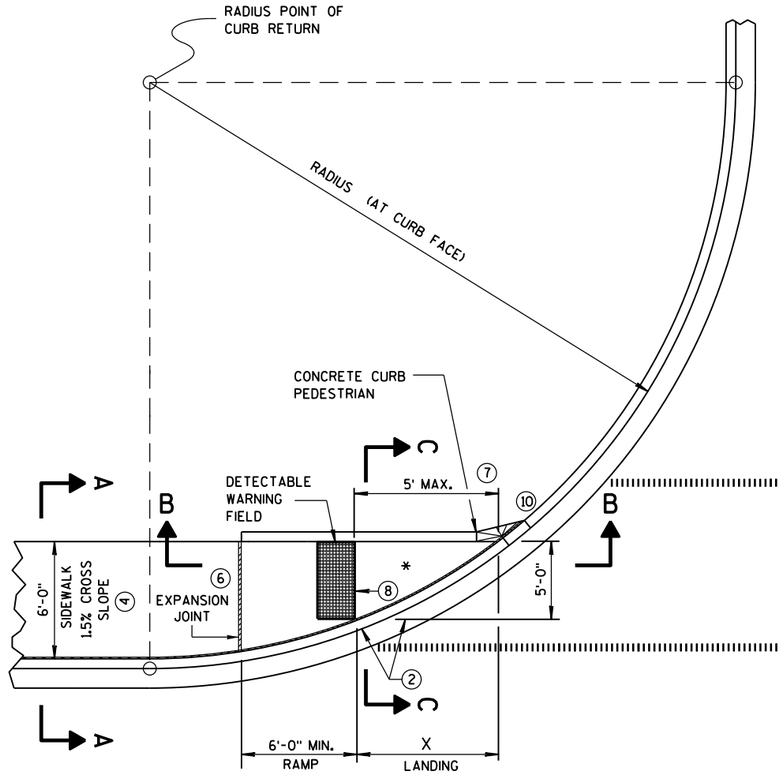
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

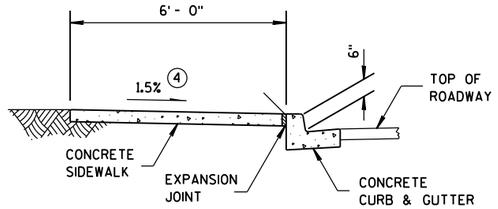
S.D.D. 8 D 5-19b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

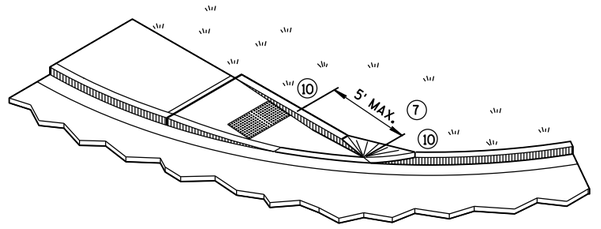
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

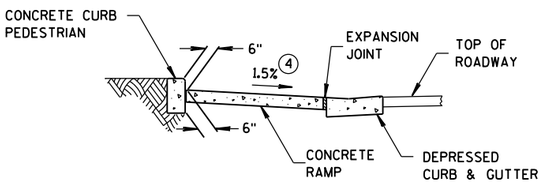
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

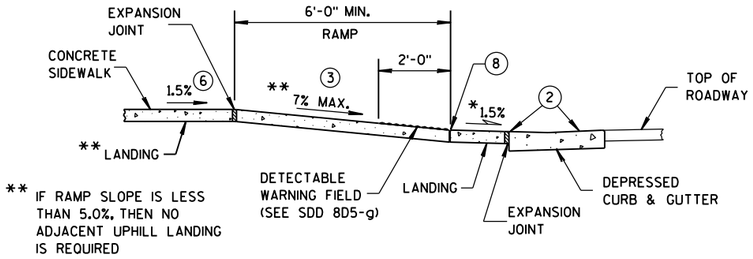


ISOMETRIC VIEW FOR TYPE 4A



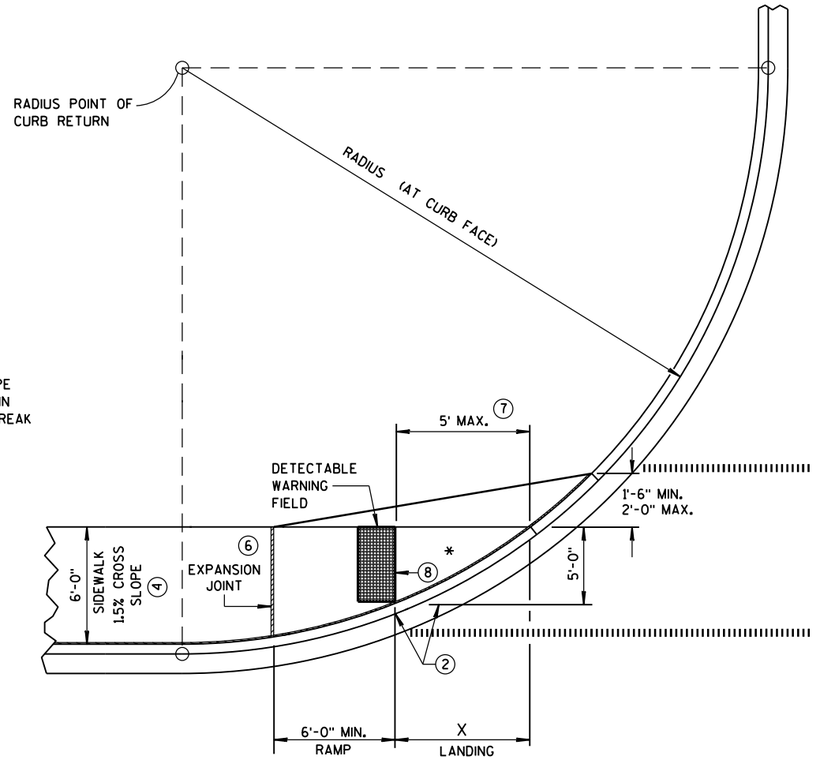
SECTION C-C FOR TYPE 4A

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

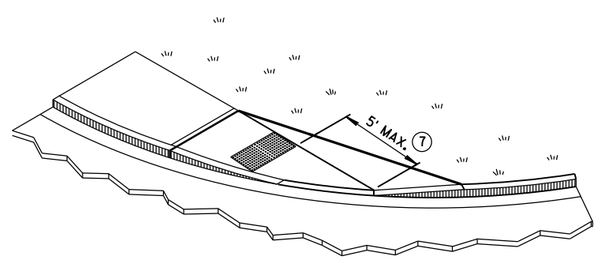


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

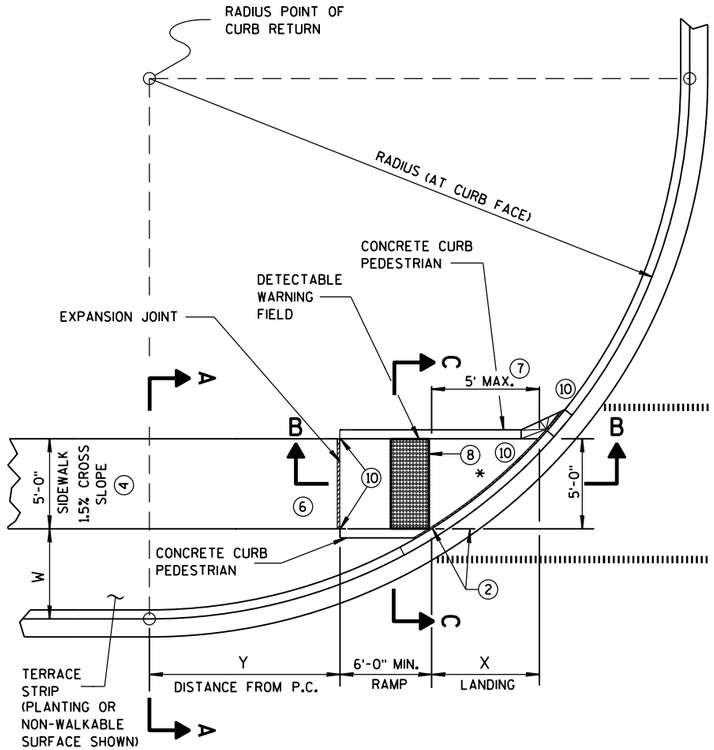
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

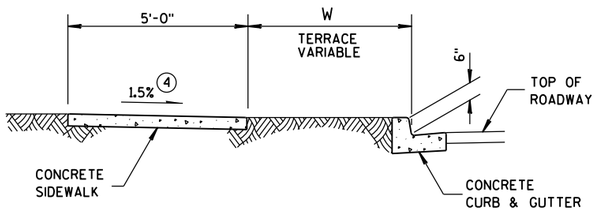
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

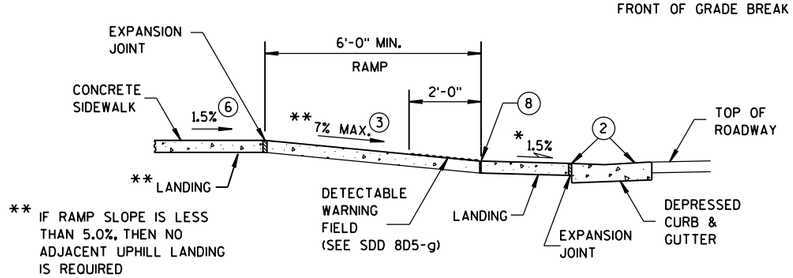
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B

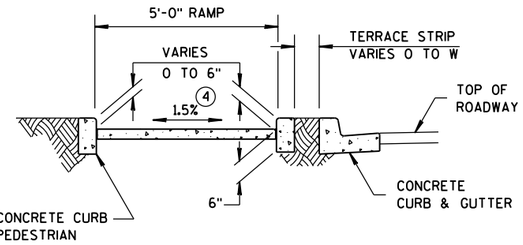


* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10¼"	0'-5"	2'-1"	1'-4½"	1'-5"	2'-1"	0'-10"	2'-7½"	0'-3¼"	3'-0¼"						
15 FEET	4'-6¾"	2'-1¾"	3'-9"	3'-5¼"	3'-1¼"	4'-6"	2'-6¾"	5'-4½"	2'-1"	6'-1"	1'-8"	6'-8½"	1'-3¼"	7'-2½"	0'-10¾"	7'-7¼"
20 FEET	5'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-7"	3'-3"	8'-6½"	2'-10"	9'-4½"	2'-5½"	10'-1¼"	2'-1¼"	10'-9"
30 FEET			6'-9¼"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"	4'-5½"	13'-7¾"	4'-0¾"	14'-8½"	3'-8½"	15'-8¼"
40 FEET									6'-1¾"	15'-8½"	5'-8"	17'-2"	5'-3"	18'-5¾"	4'-10¾"	19'-8¼"
50 FEET															5'-10¼"	23'-2"

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



SECTION C-C FOR TYPE 4B

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

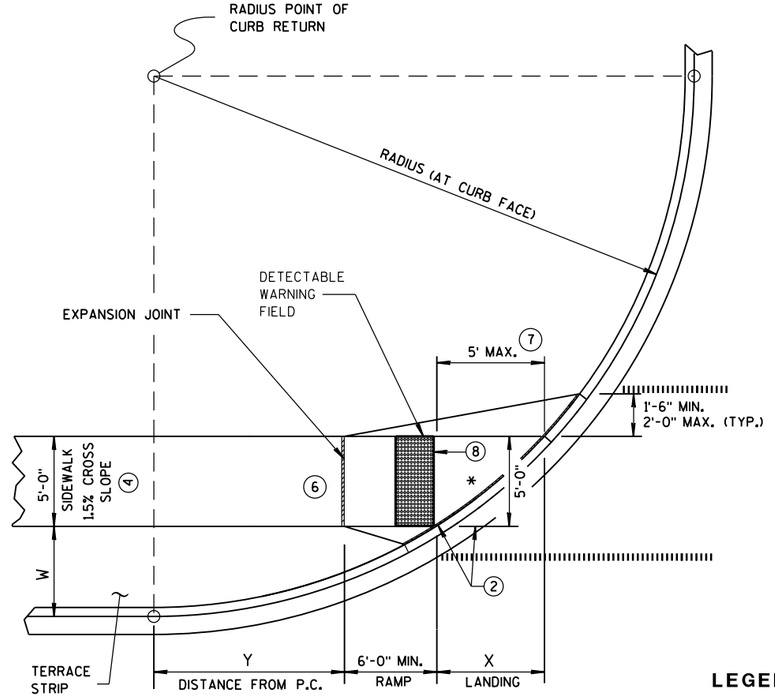
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

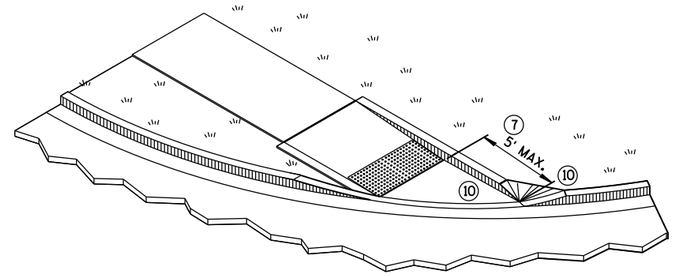
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

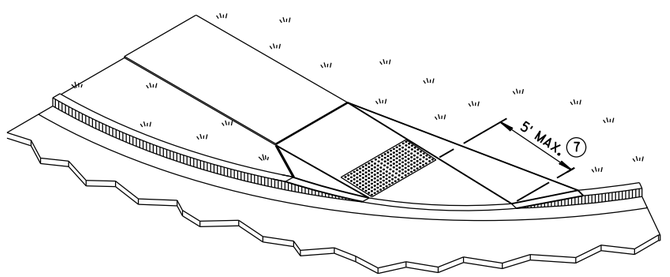
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

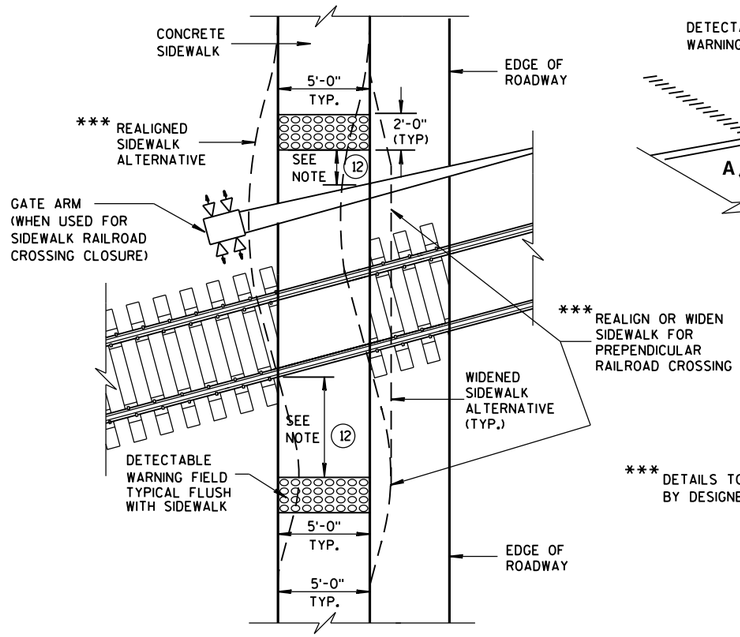
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

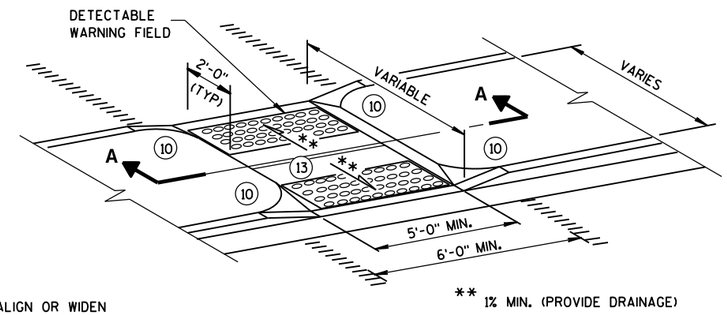
6

S.D.D. 8 D 5-19d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

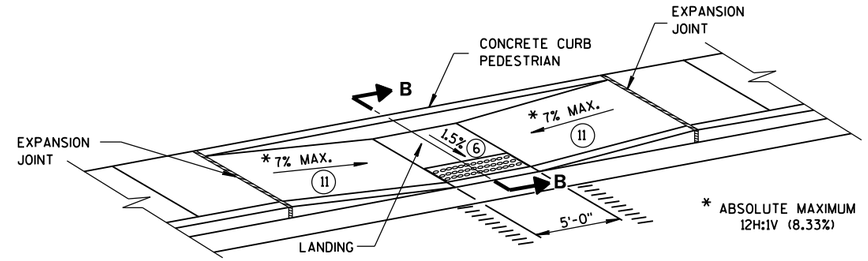
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

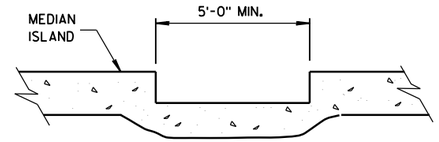
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

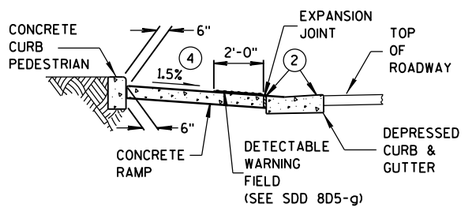
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.



MID-BLOCK CROSSING
TYPE 7A

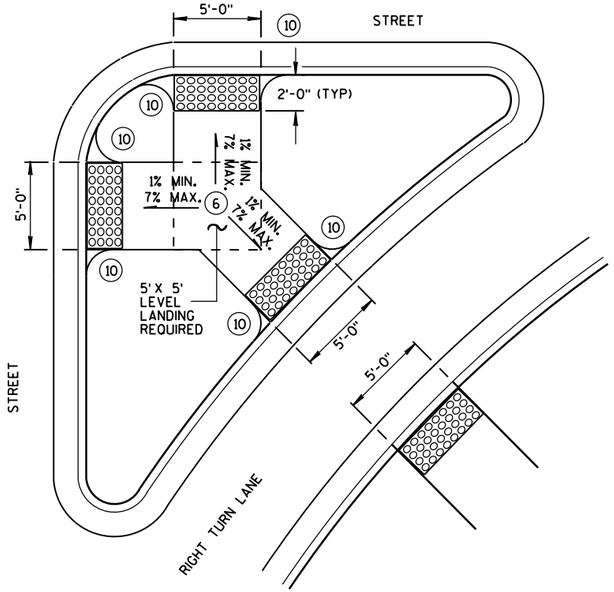


SECTION A-A

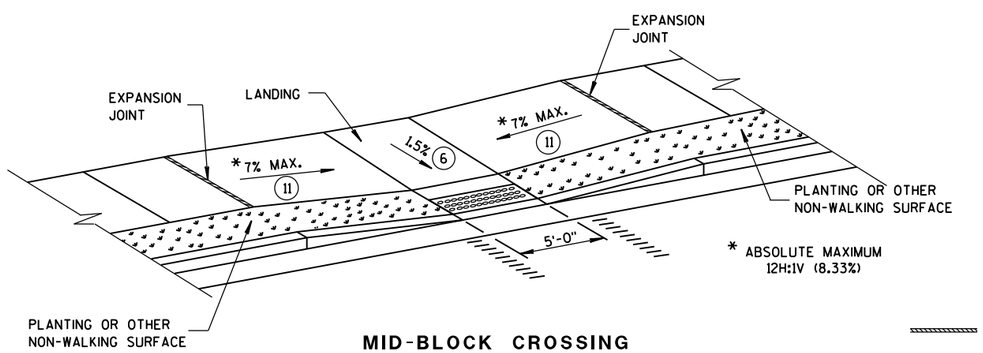


SECTION B-B

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

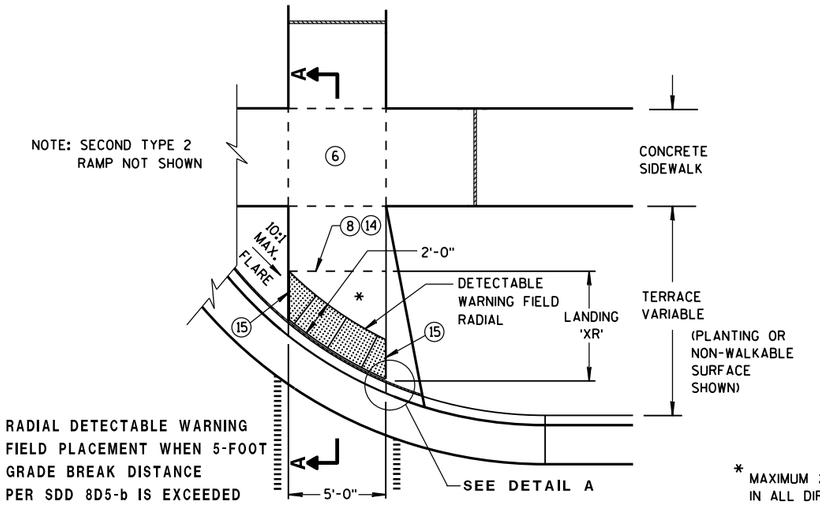
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

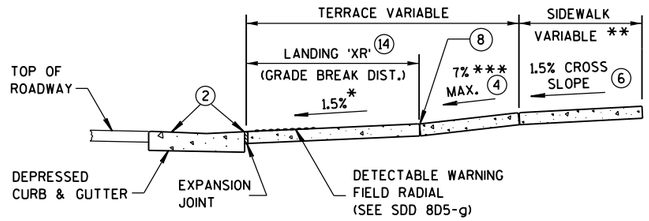
6

S.D.D. 8 D 5-19e



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

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



** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION A-A

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

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

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

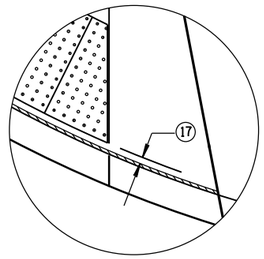
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

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

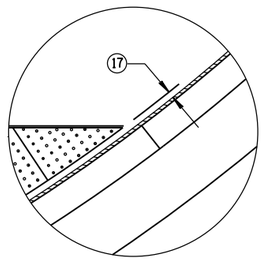
(16) USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

(17) A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

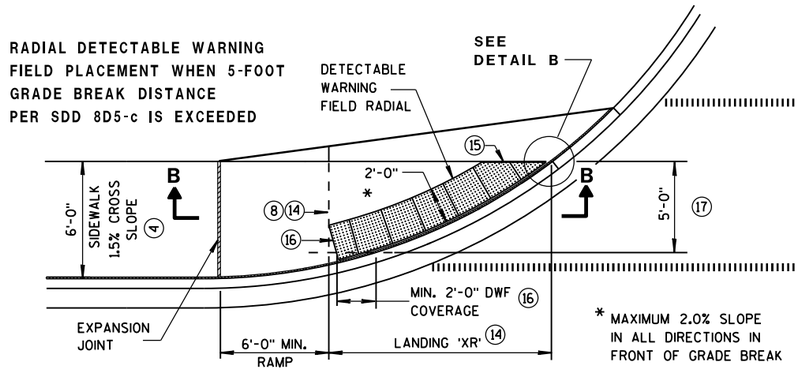


DETAIL A

DETAIL C

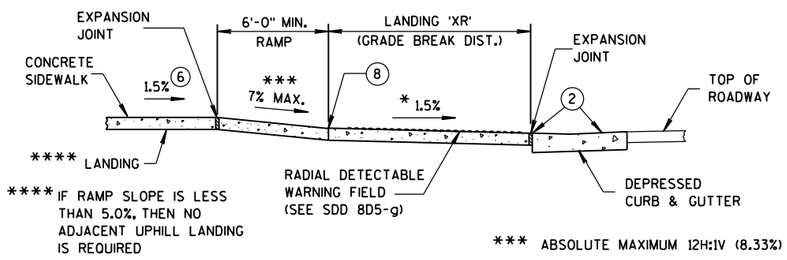


DETAIL B



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

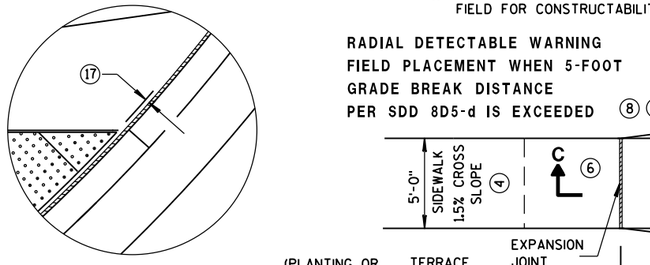
CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

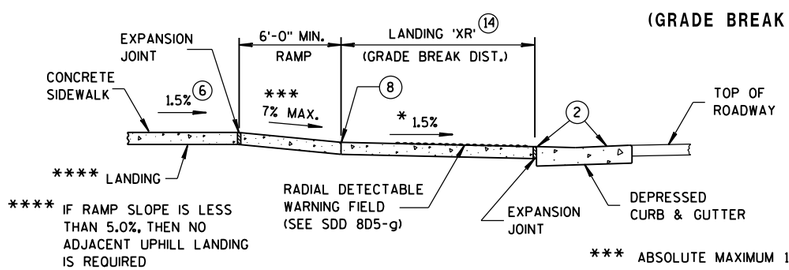
*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION B-B FOR TYPE 4A1



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

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



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

*** ABSOLUTE MAXIMUM 12H:1V (8.33%)

SECTION C-C FOR TYPE 4B1

CURB RAMPS
RADIAL DETECTABLE WARNING FIELD APPLICATIONS

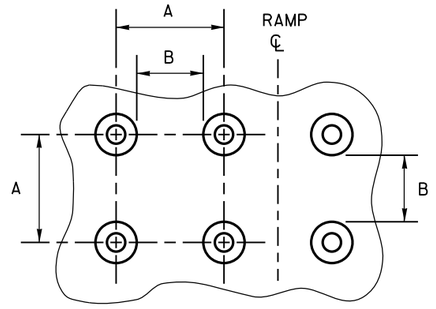
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

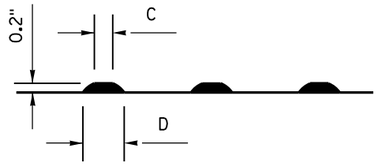
S.D.D. 8 D 5-19f

	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

GENERAL NOTES

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

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

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

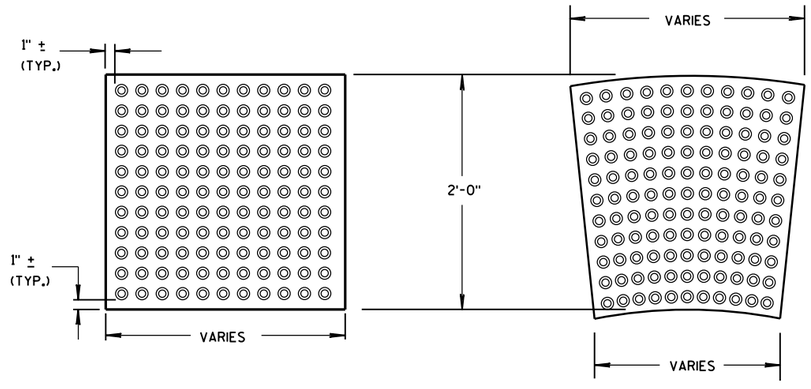
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

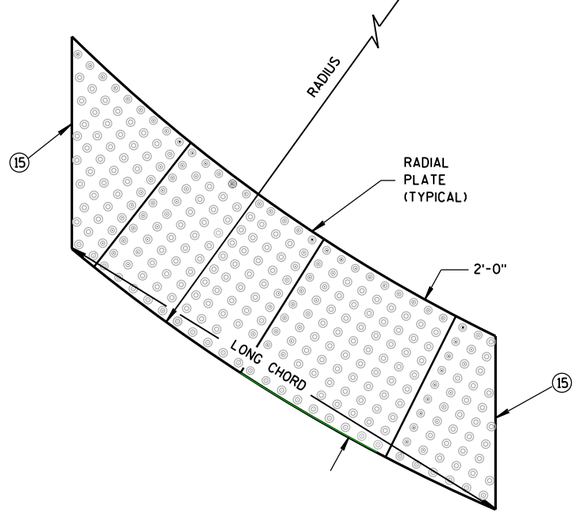


RECTANGULAR PLATES

RADIAL PLATES

DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW



RADIAL DETECTABLE WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

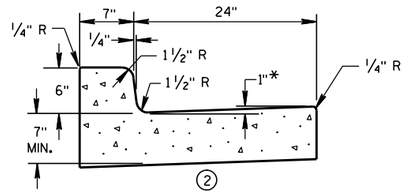
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

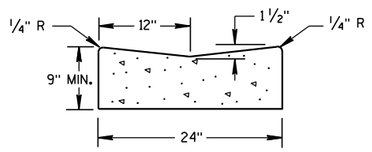
S.D.D. 8 D 5-19g

6

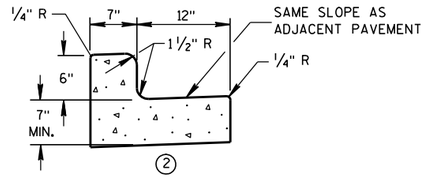
S.D.D. 8 D 5-19g



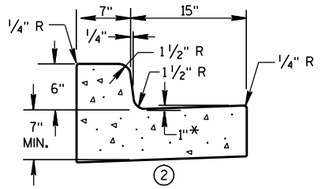
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

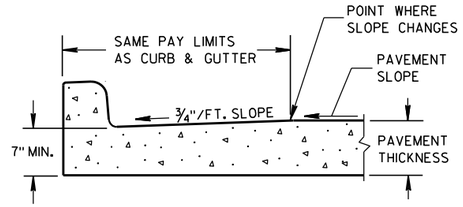


① CONCRETE CURB & GUTTER 19"



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.

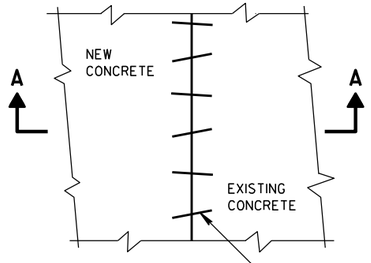
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

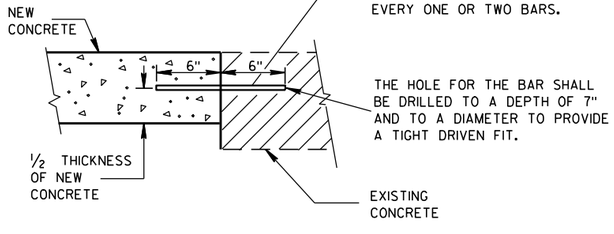
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

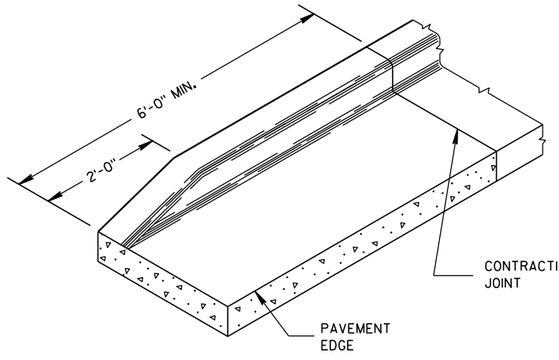
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



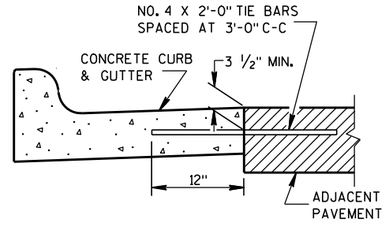
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

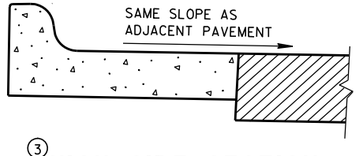
PAVEMENT TIES



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

74

ENT

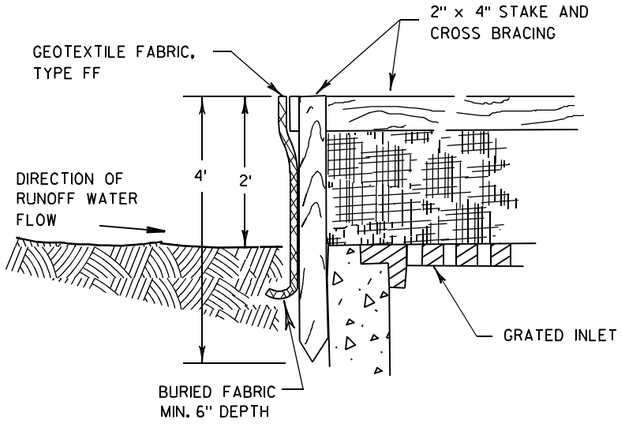
FHWA

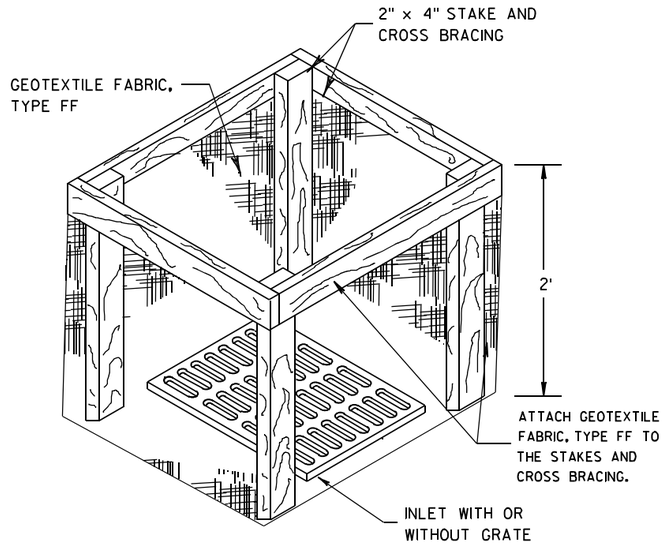
6

S.D.D. 8 D 16-10

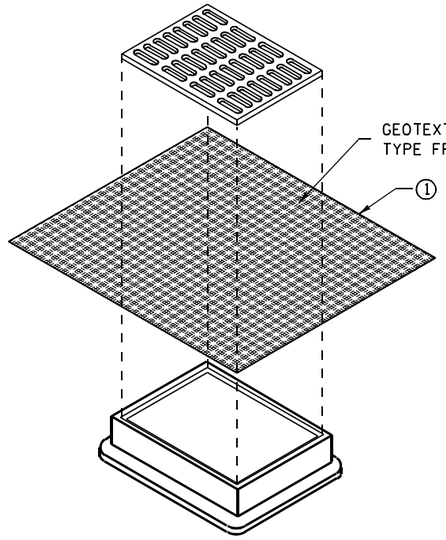
6

S.D.D. 8 D 16-10



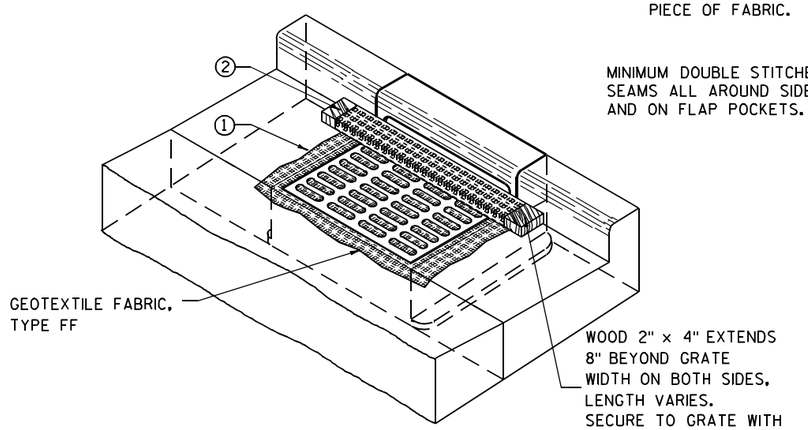


INLET PROTECTION, TYPE A

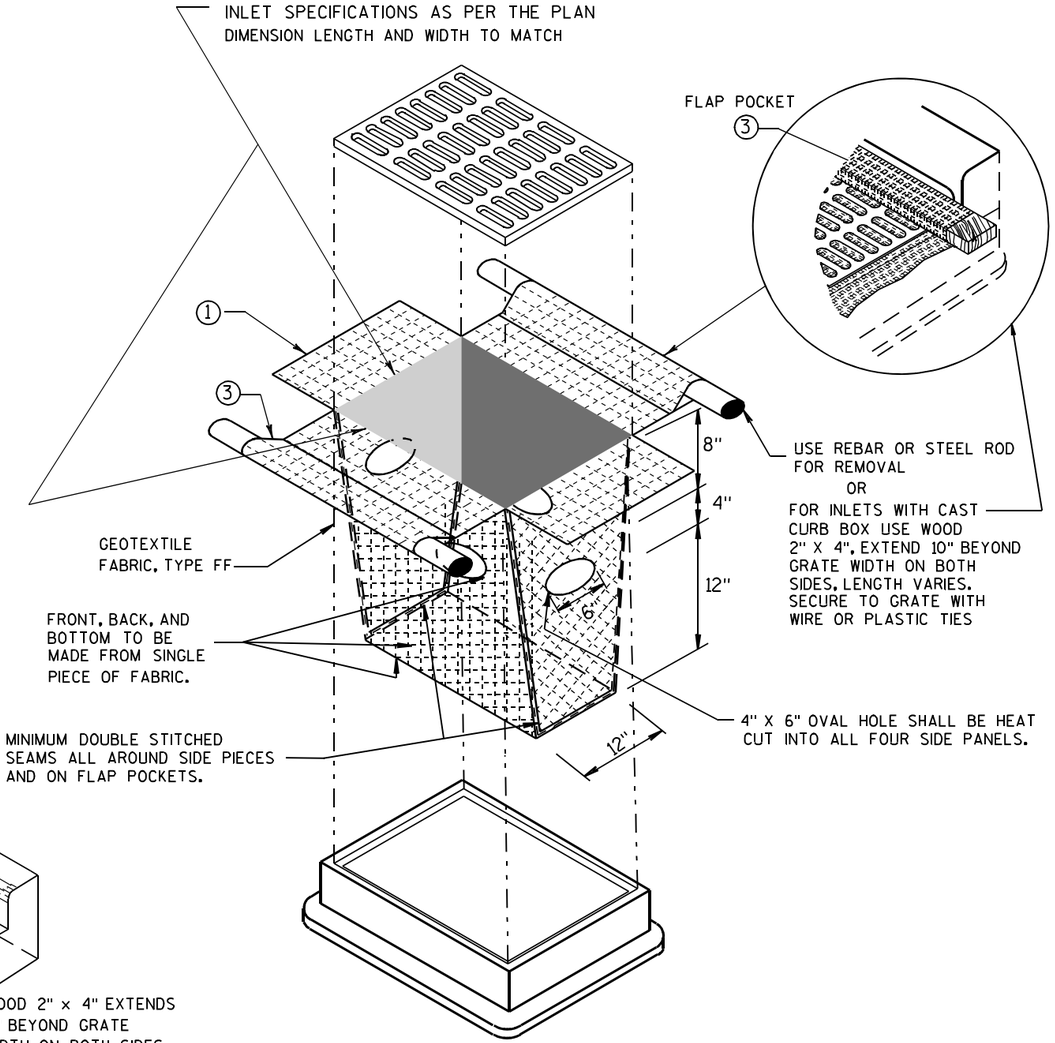


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

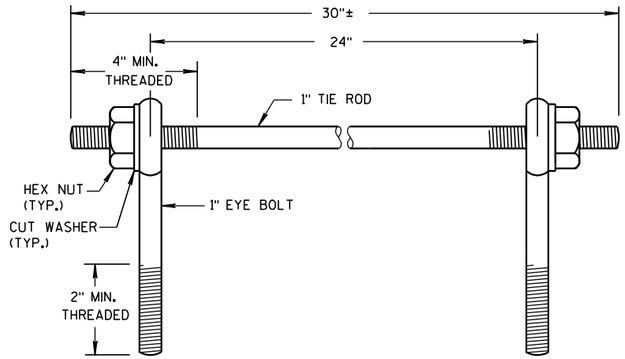
FHWA

6

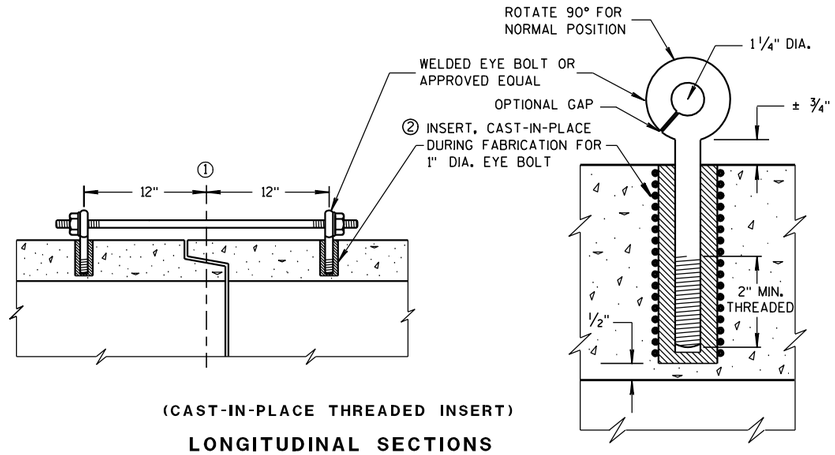
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

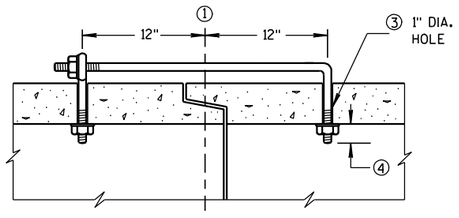
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

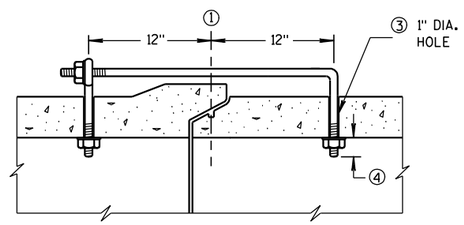
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

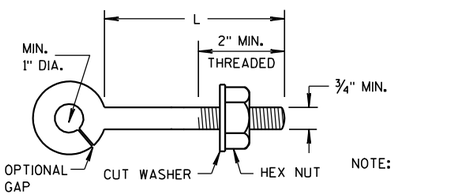


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

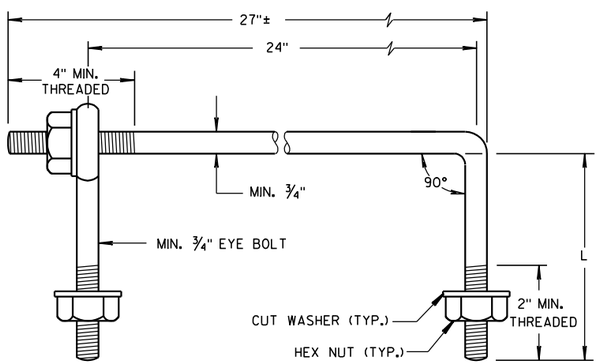
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

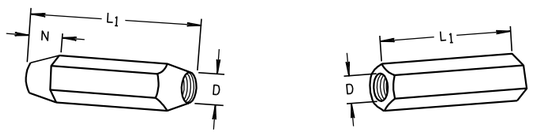
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

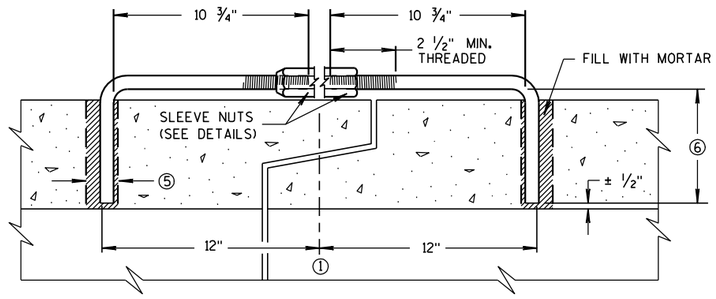
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

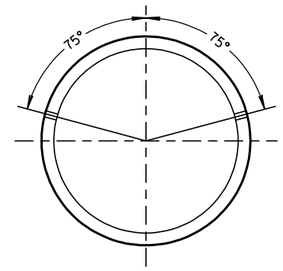
SLEEVE NUTS



LONGITUDINAL SECTION

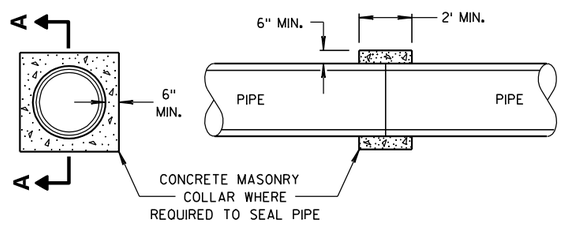
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

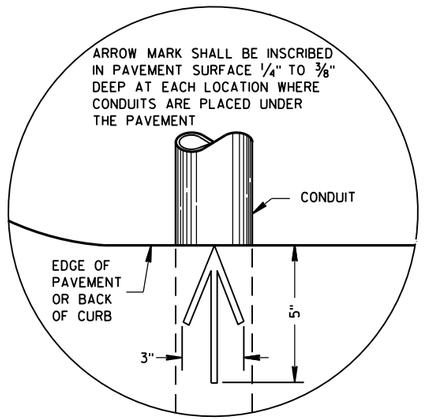
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

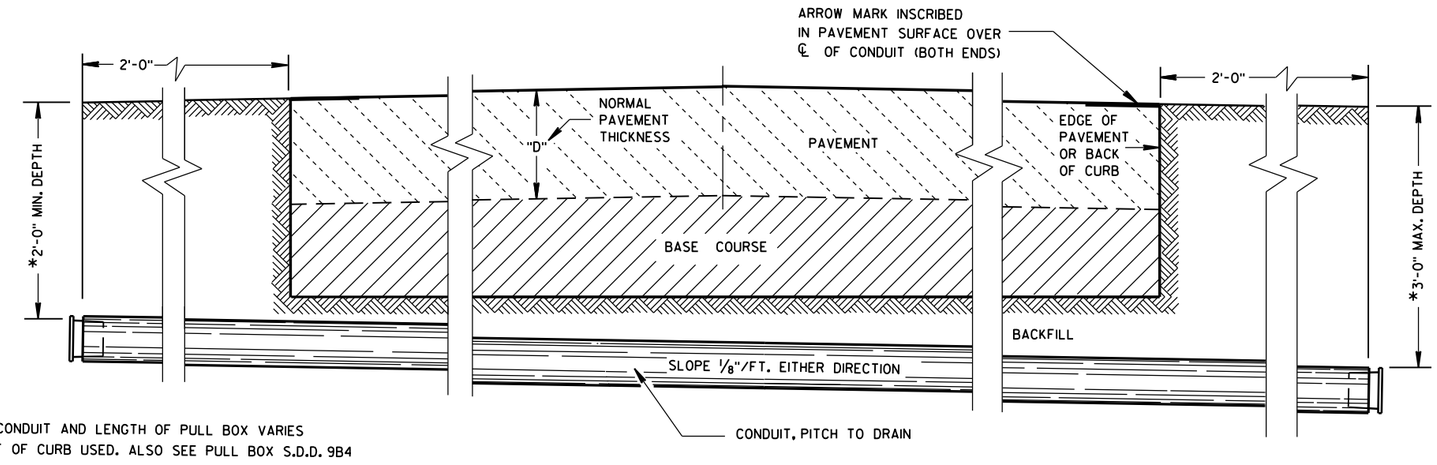
6

S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

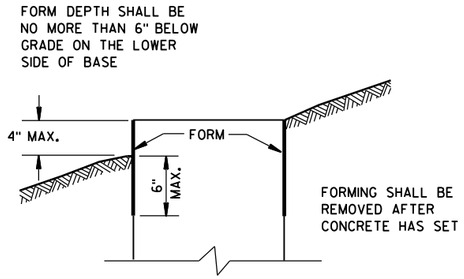
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 77
FHWA

6

S.D.D. 9 B 2-10



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.

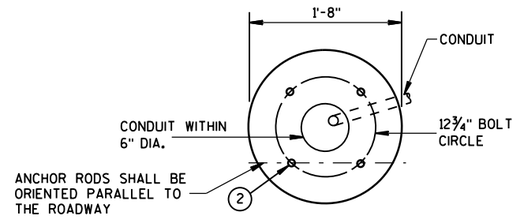
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

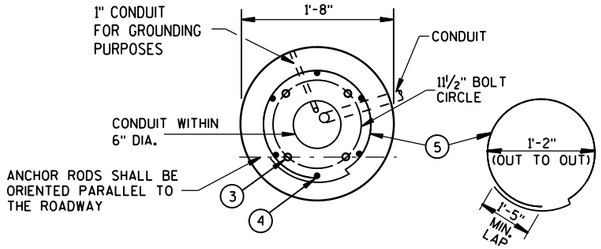
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

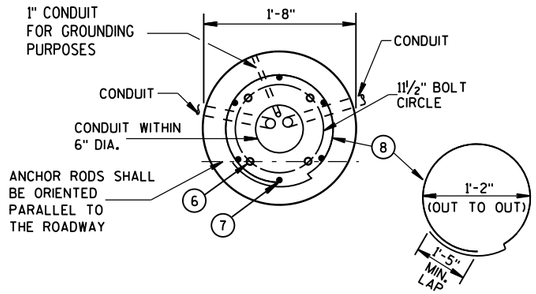
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

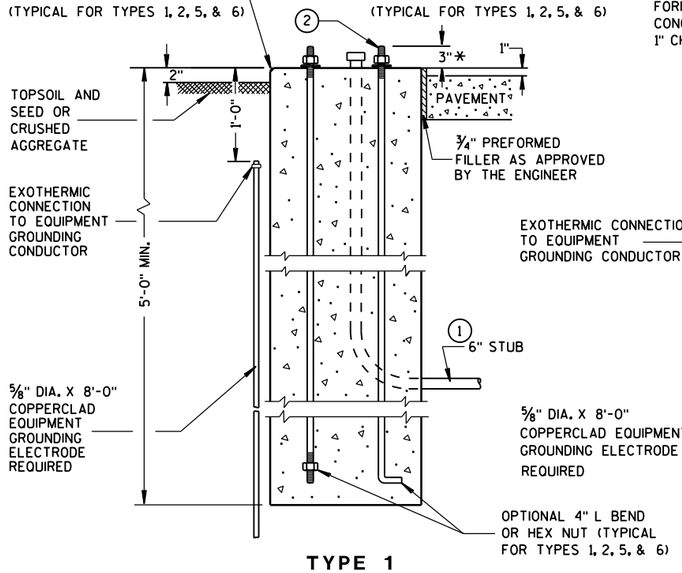




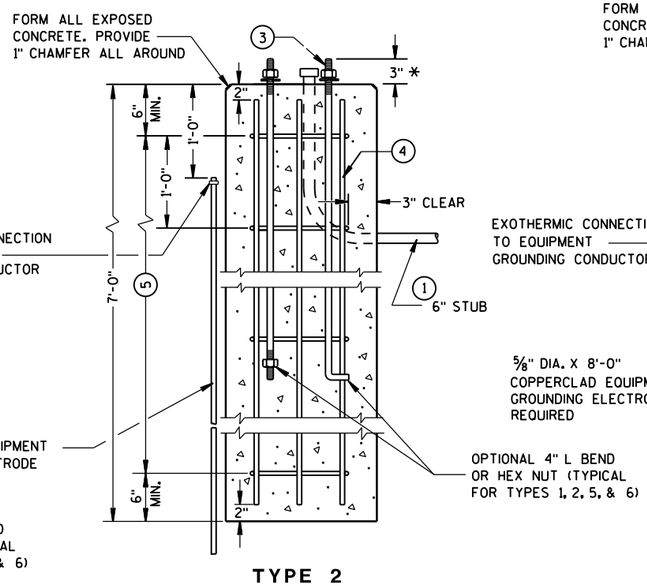


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

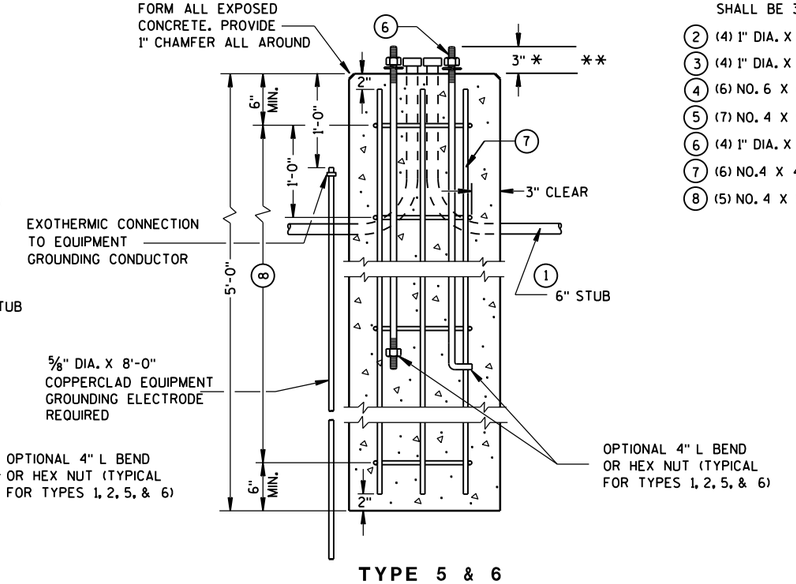
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



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

6

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.

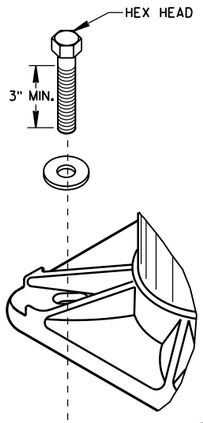
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

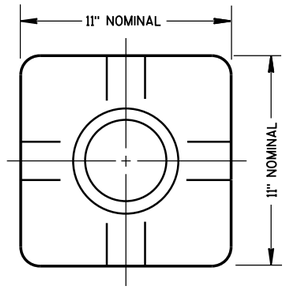
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

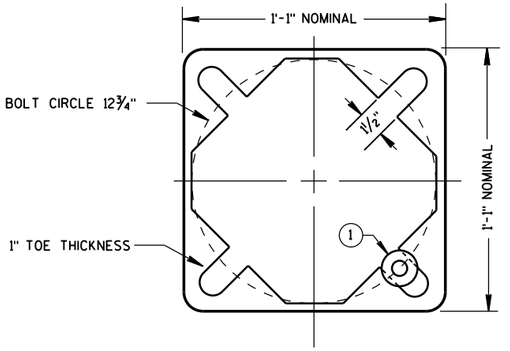
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

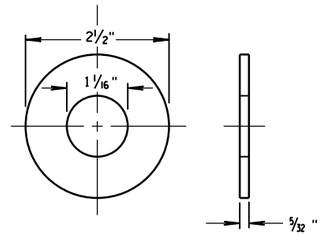




TOP VIEW
(PEDESTAL BASE)

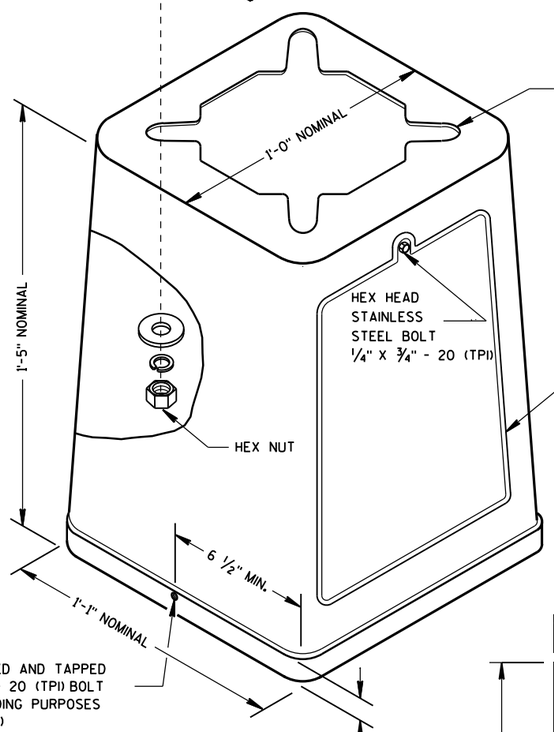


BOTTOM VIEW
(PEDESTAL BASE)

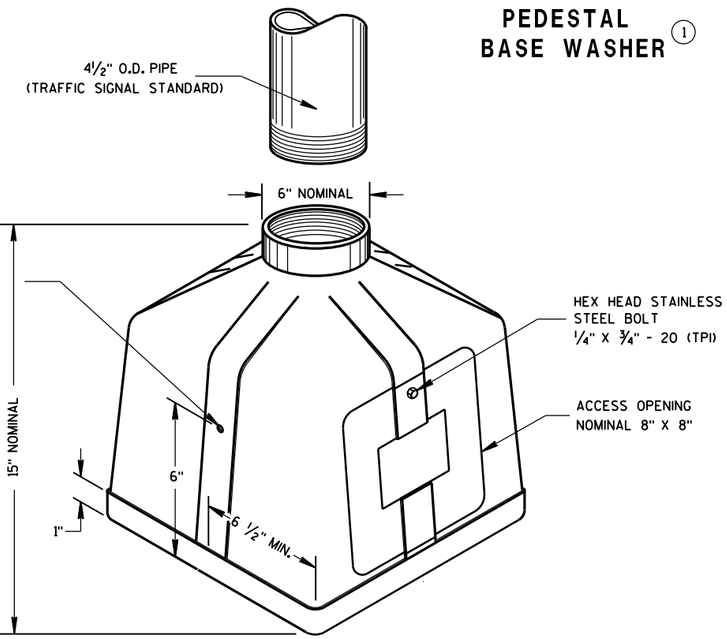


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

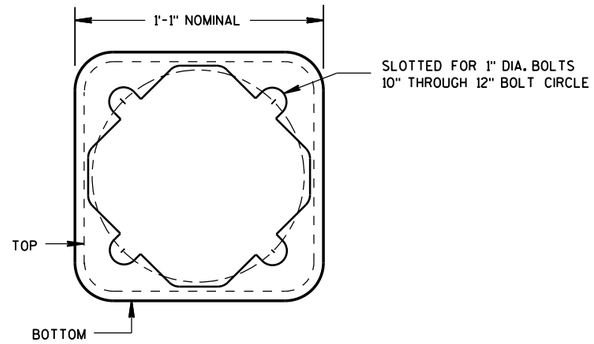


ISOMETRIC VIEW

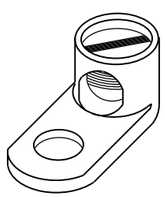


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

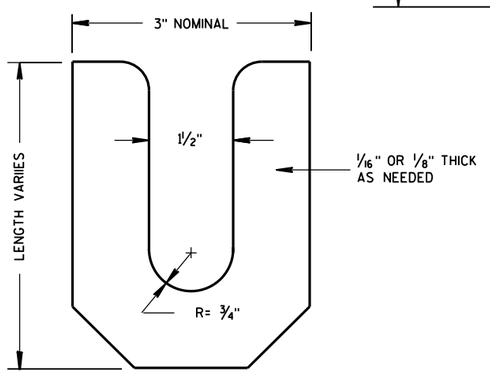


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 C 3-4

6

S.D.D. 9 C 3-4

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).

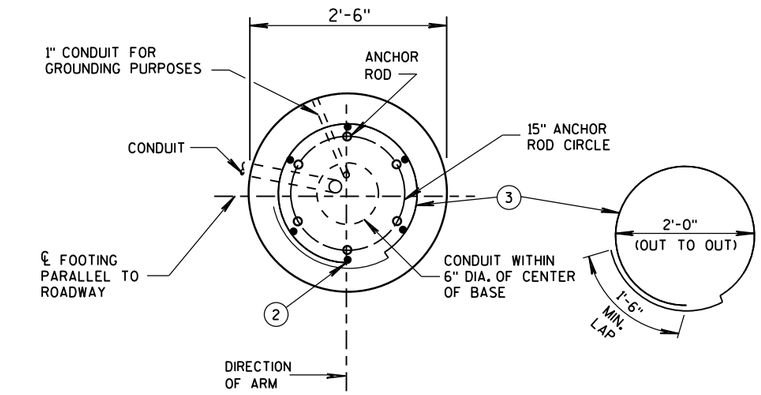
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

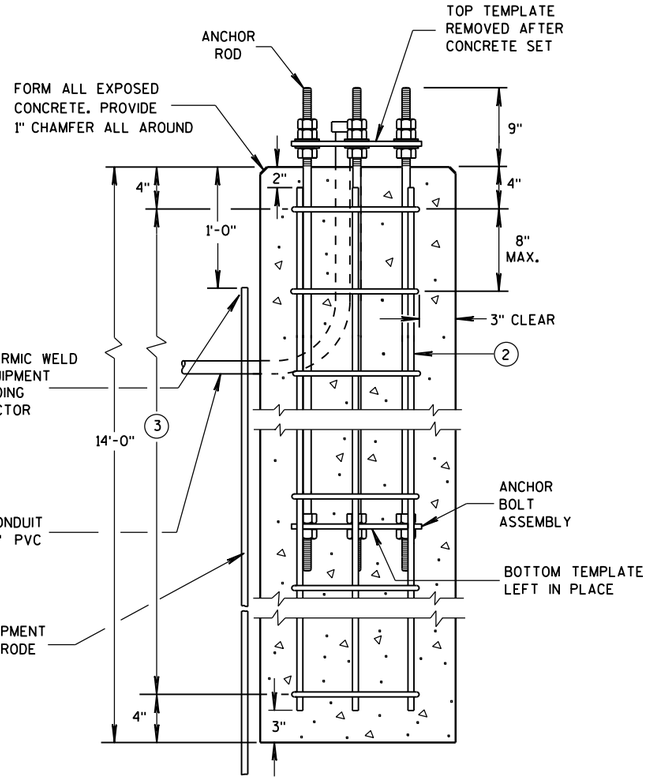
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 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.

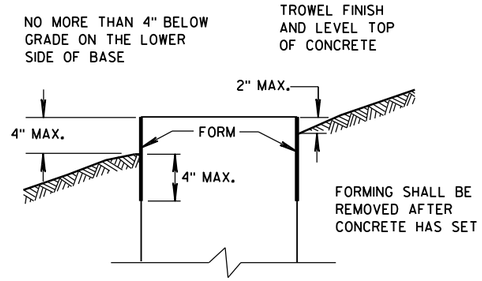




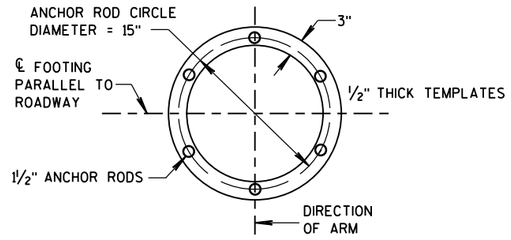
CONCRETE BASE TYPE 10

(FOR TYPE 9 & 10 & OVER HEIGHT (OH) POLES)

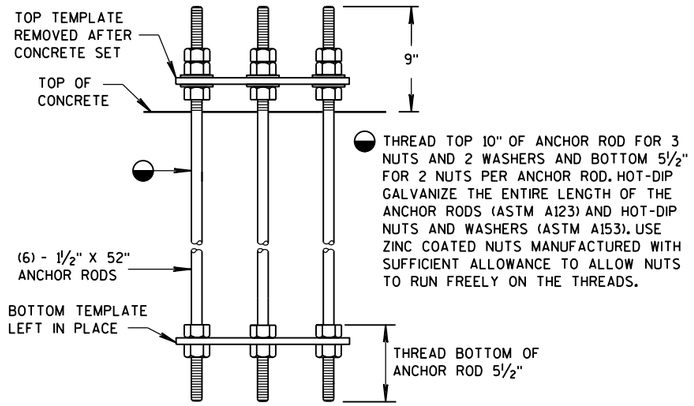
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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	172
LBS. OF VERTICAL BAR STEEL	122

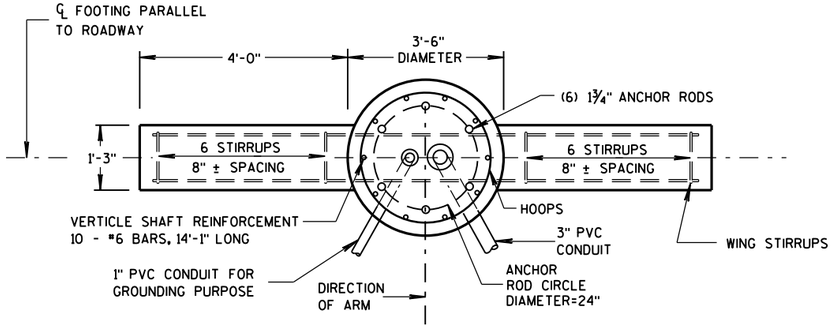
CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

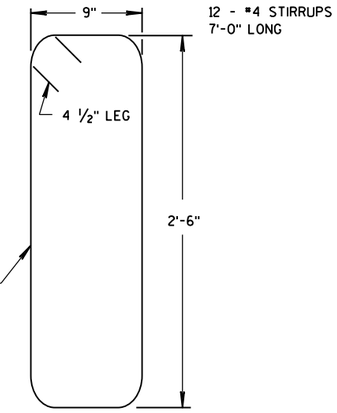
APPROVED
May 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

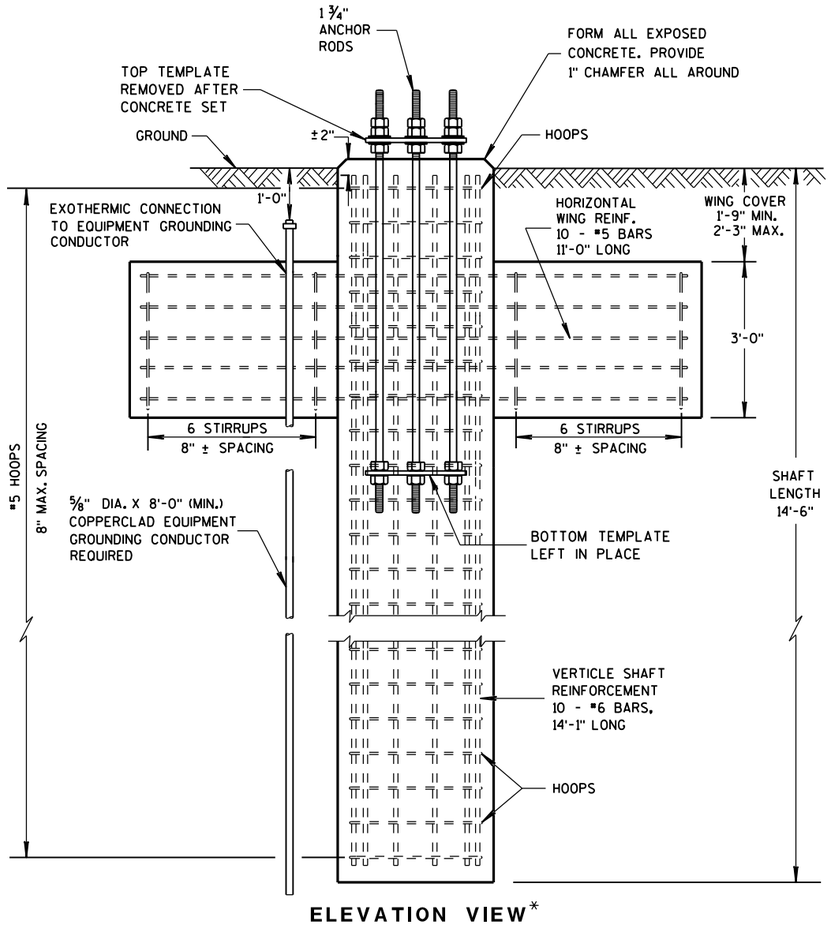
S.D.D. 9 C 11-10



PLAN VIEW

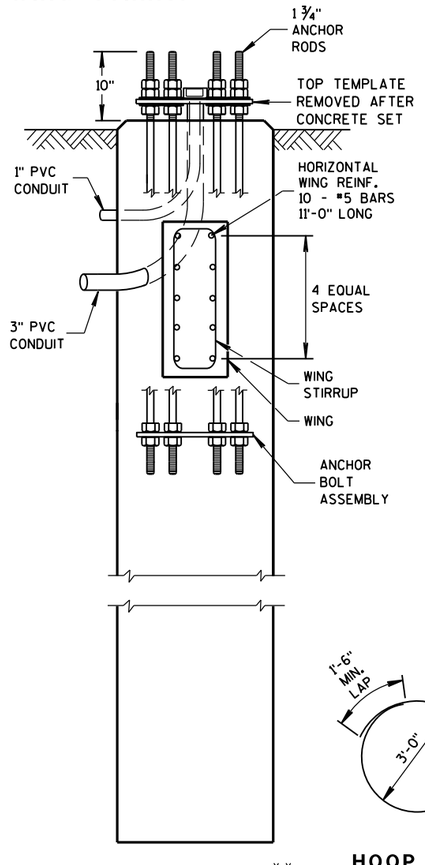


WING STIRRUP



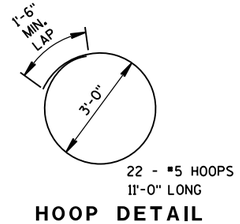
ELEVATION VIEW*

* CONDUITS ARE NOT SHOWN ON THIS VIEW FOR CLARITY



SIDE VIEW**

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



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 & OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 635 LBS.

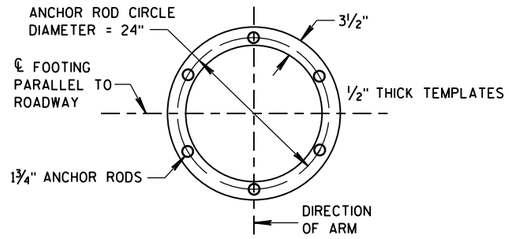
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

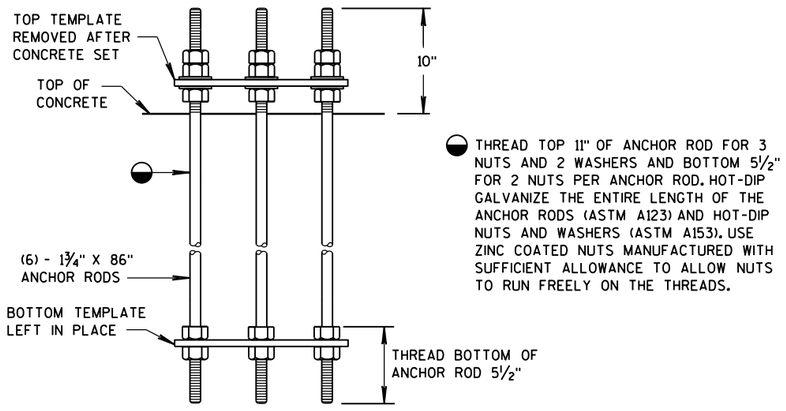
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

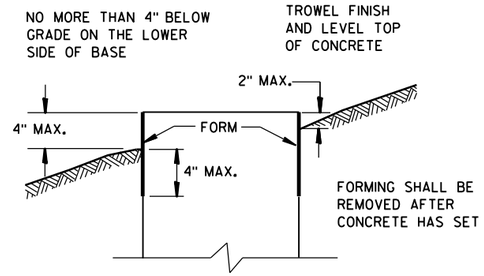


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY

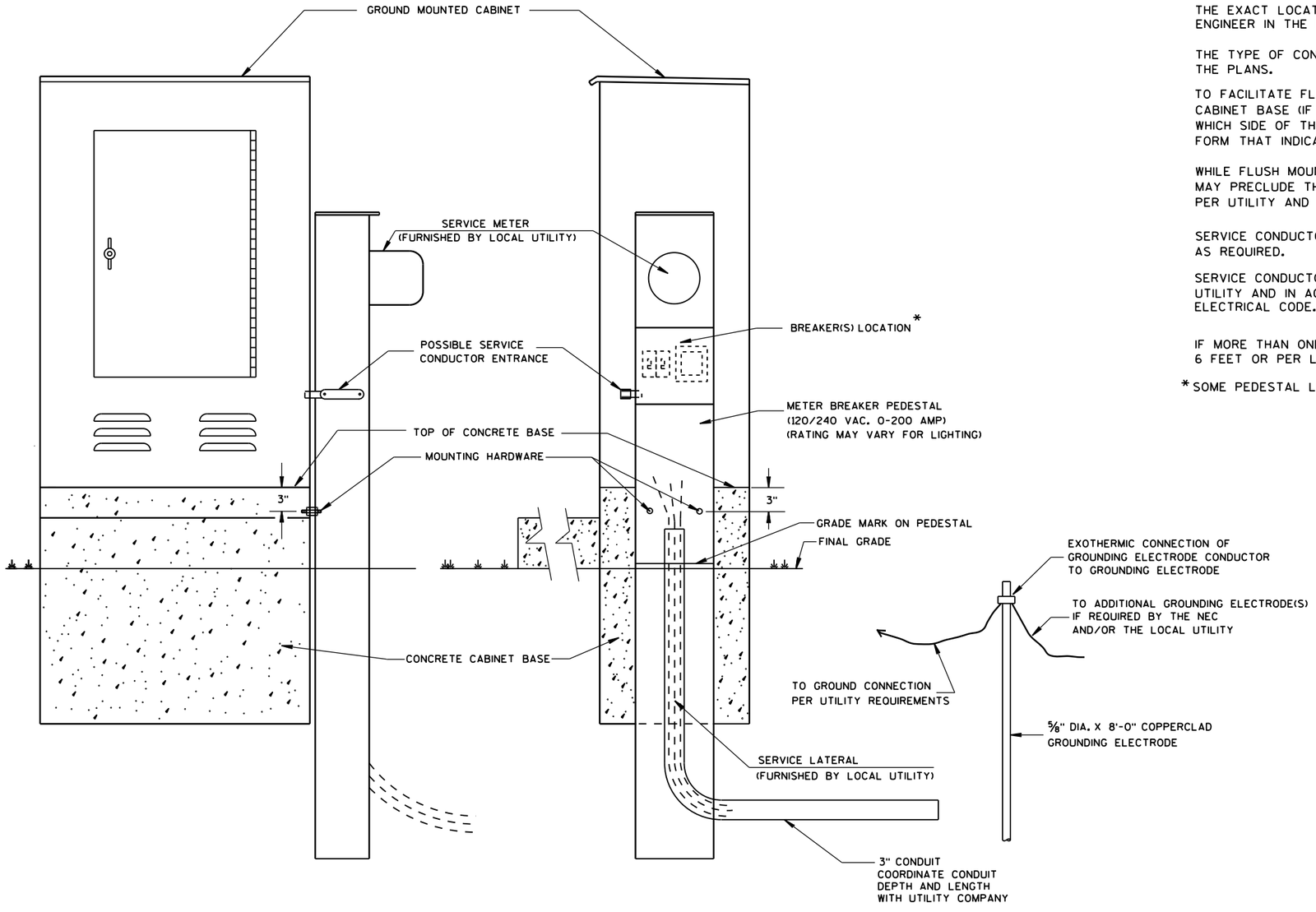


FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2017 DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL

6

S.D.D. 9 C 12-9b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

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

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

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

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

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

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

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

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-5

6

S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

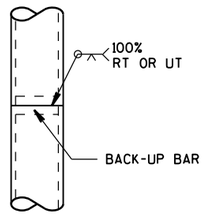
/S/ Ahmet Demirbilek
STATE ELECTRICAL

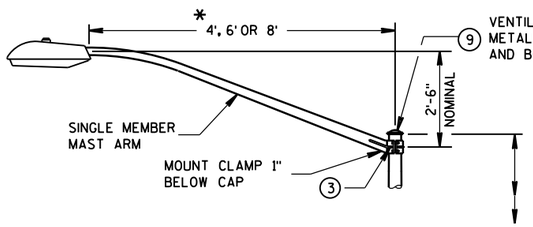
FHWA

FOR MANUFACTURERS USE ONLY

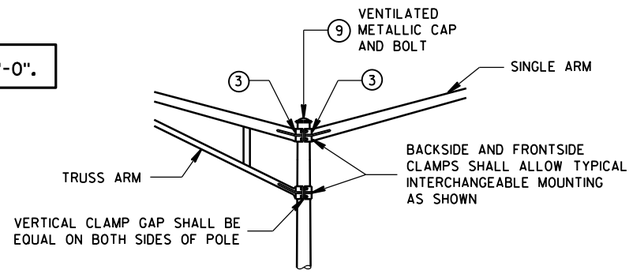
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

*RISE FOR 4' ARM SHALL BE 2'-0".





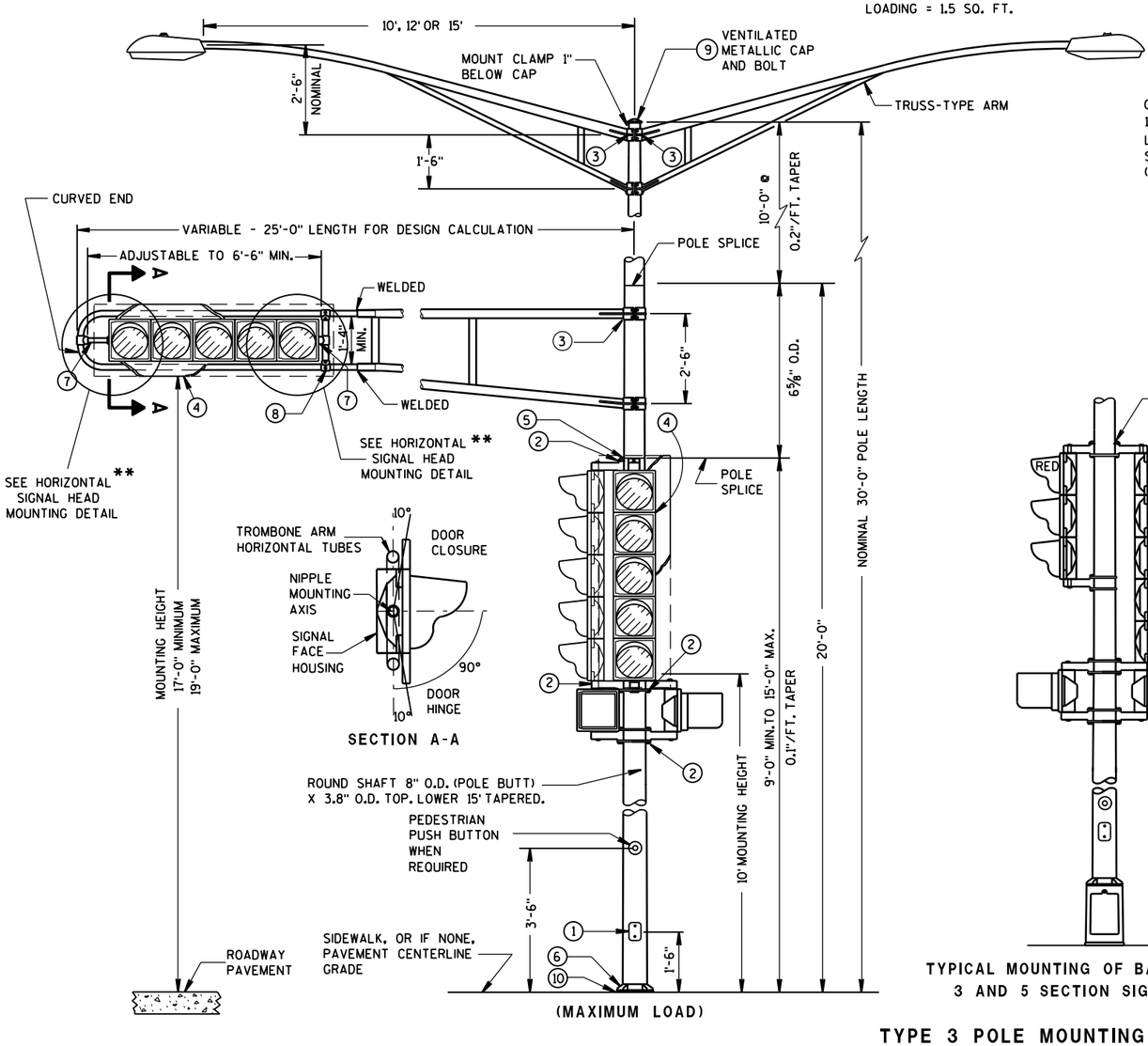
POLE SPLICE DETAIL

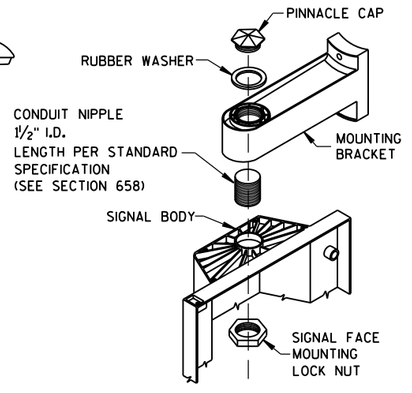


INTERCHANGEABLE MOUNTING DETAIL

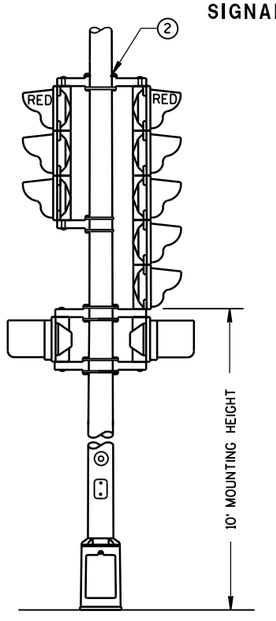
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

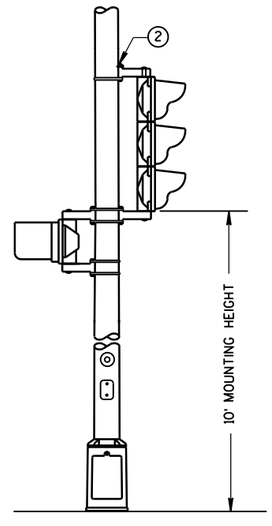




SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK
3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

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

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

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 MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

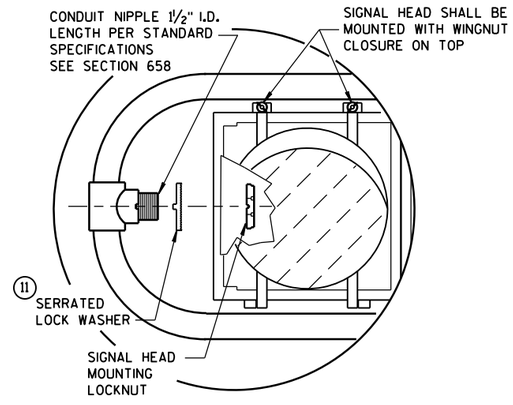
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL**

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

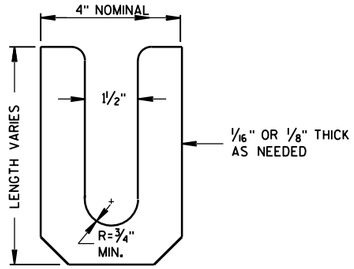
TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

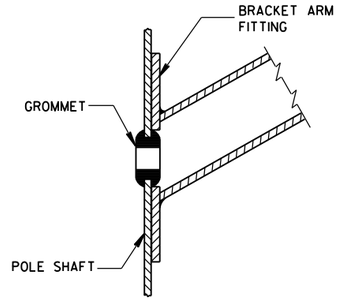
6

S.D.D. 9 E 1-14b

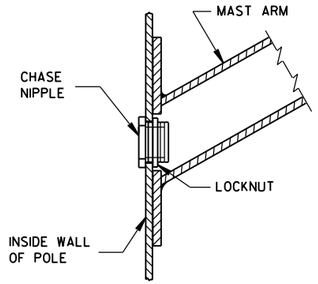


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

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

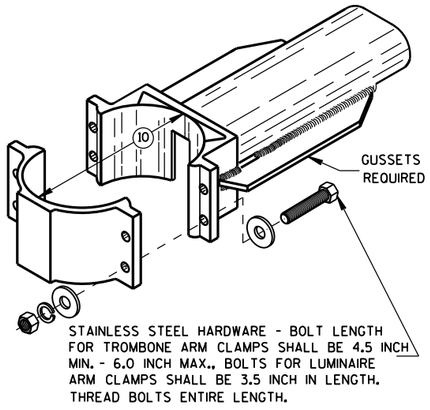
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

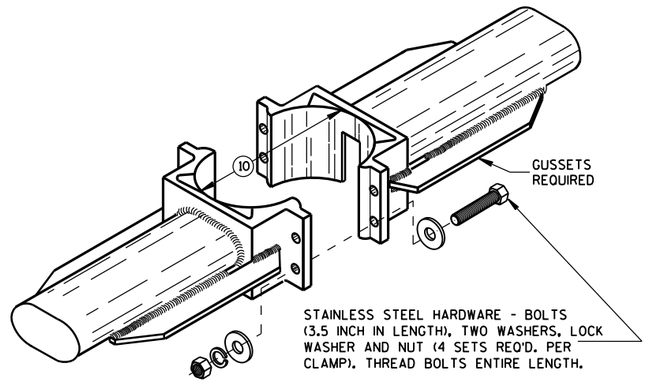
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

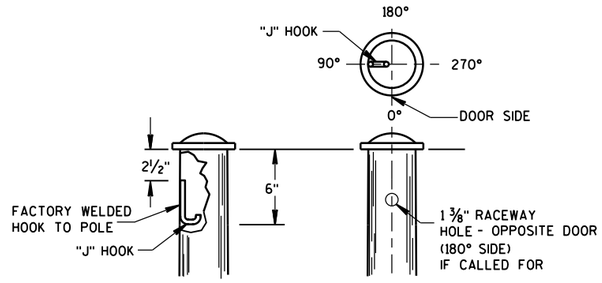
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



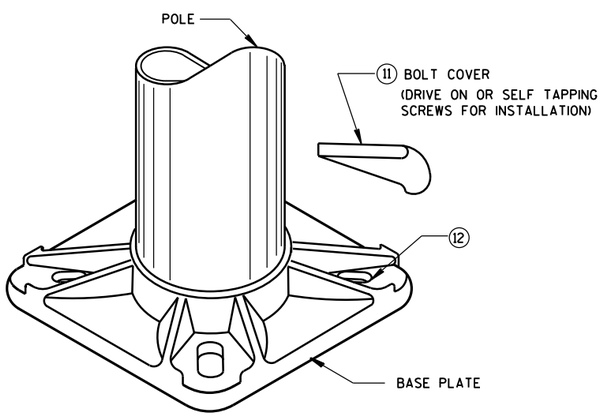
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



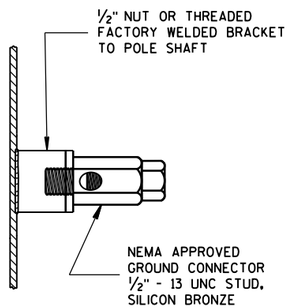
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

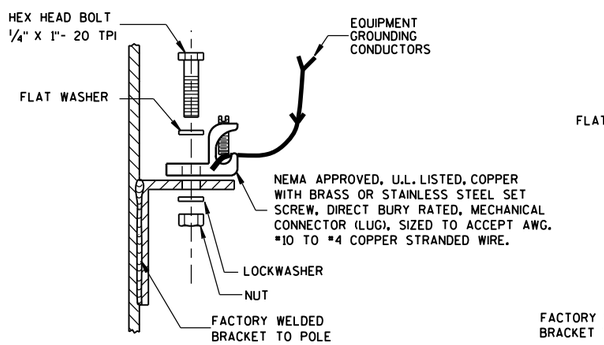


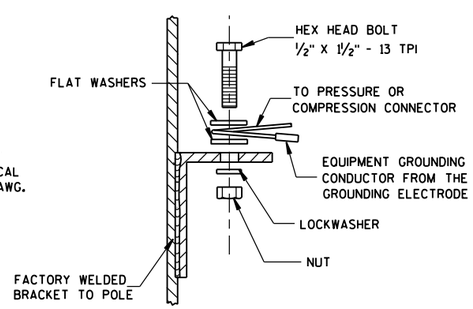
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

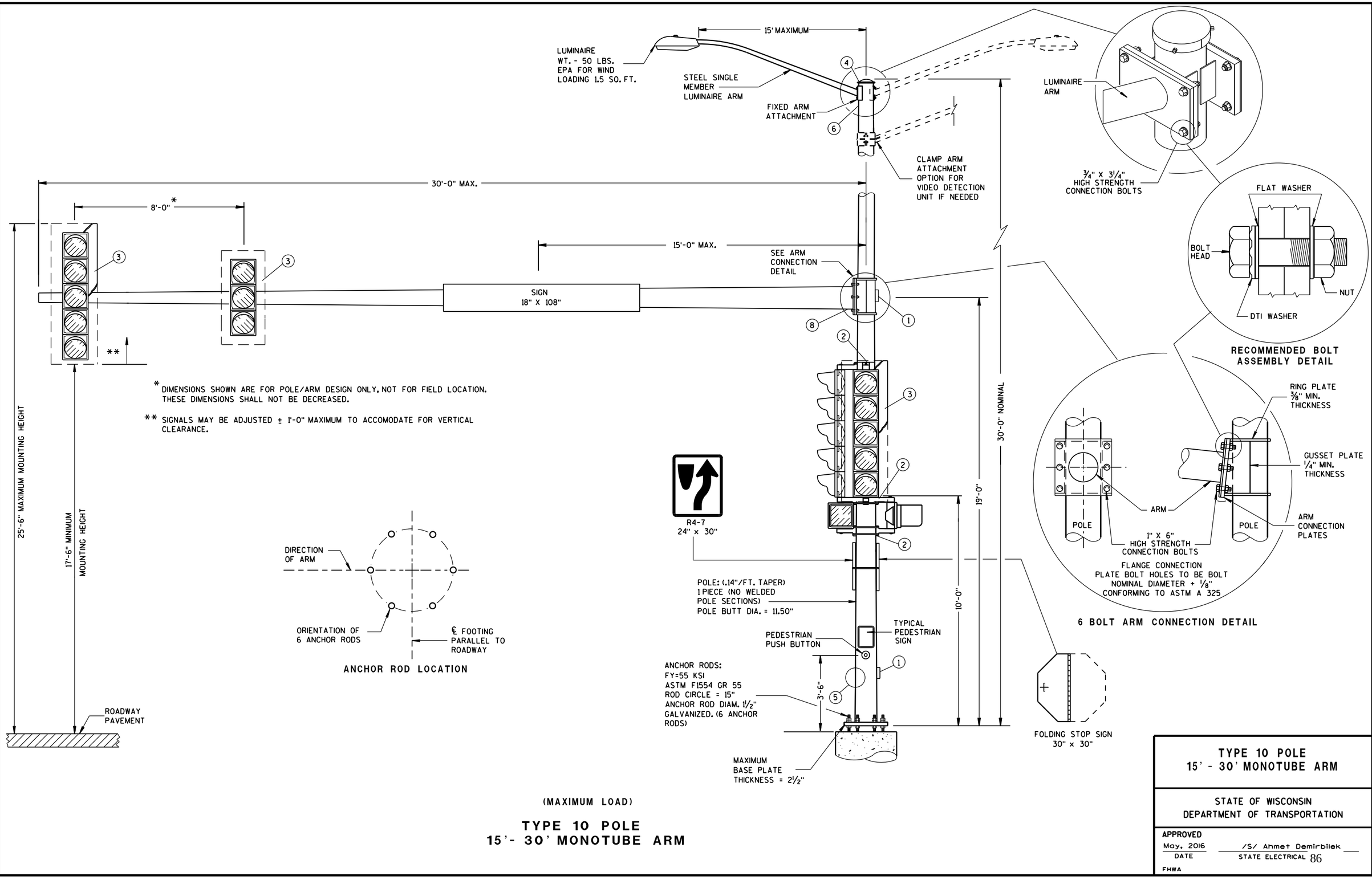
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6
S.D.D. 9 E 1-14g



* 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)

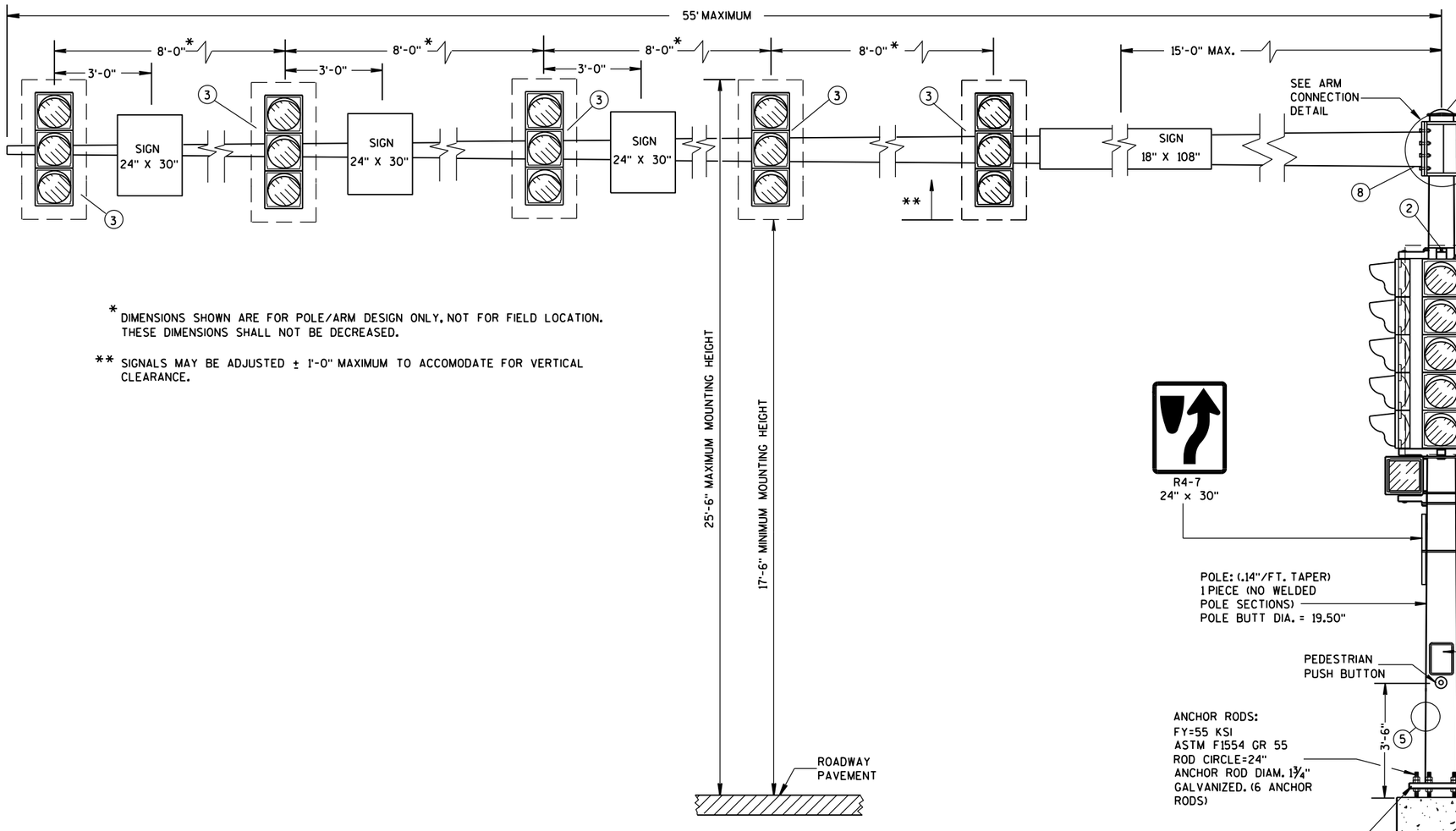
TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

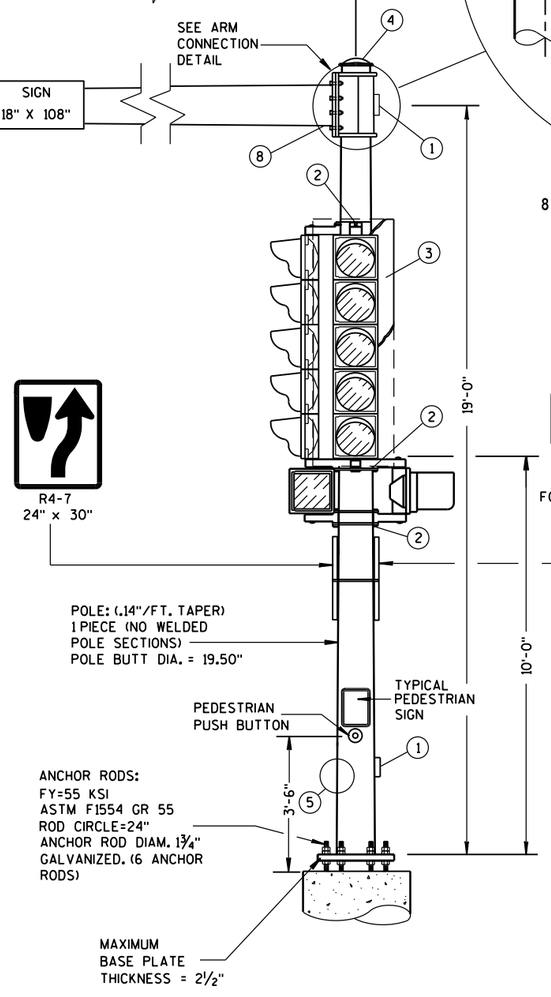
APPROVED
May, 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

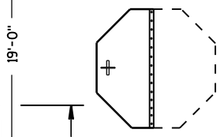
6
S.D.D. 9 E 8-8b

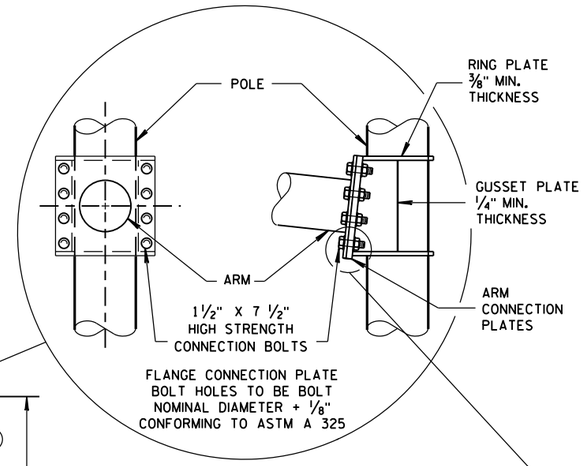


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

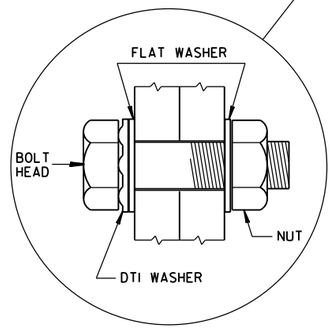
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



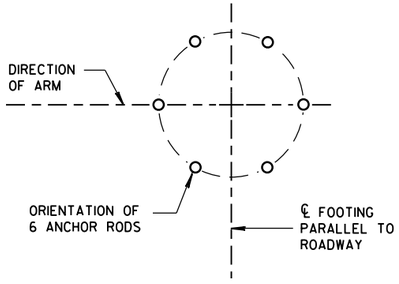




8 BOLT ARM CONNECTION DETAIL



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

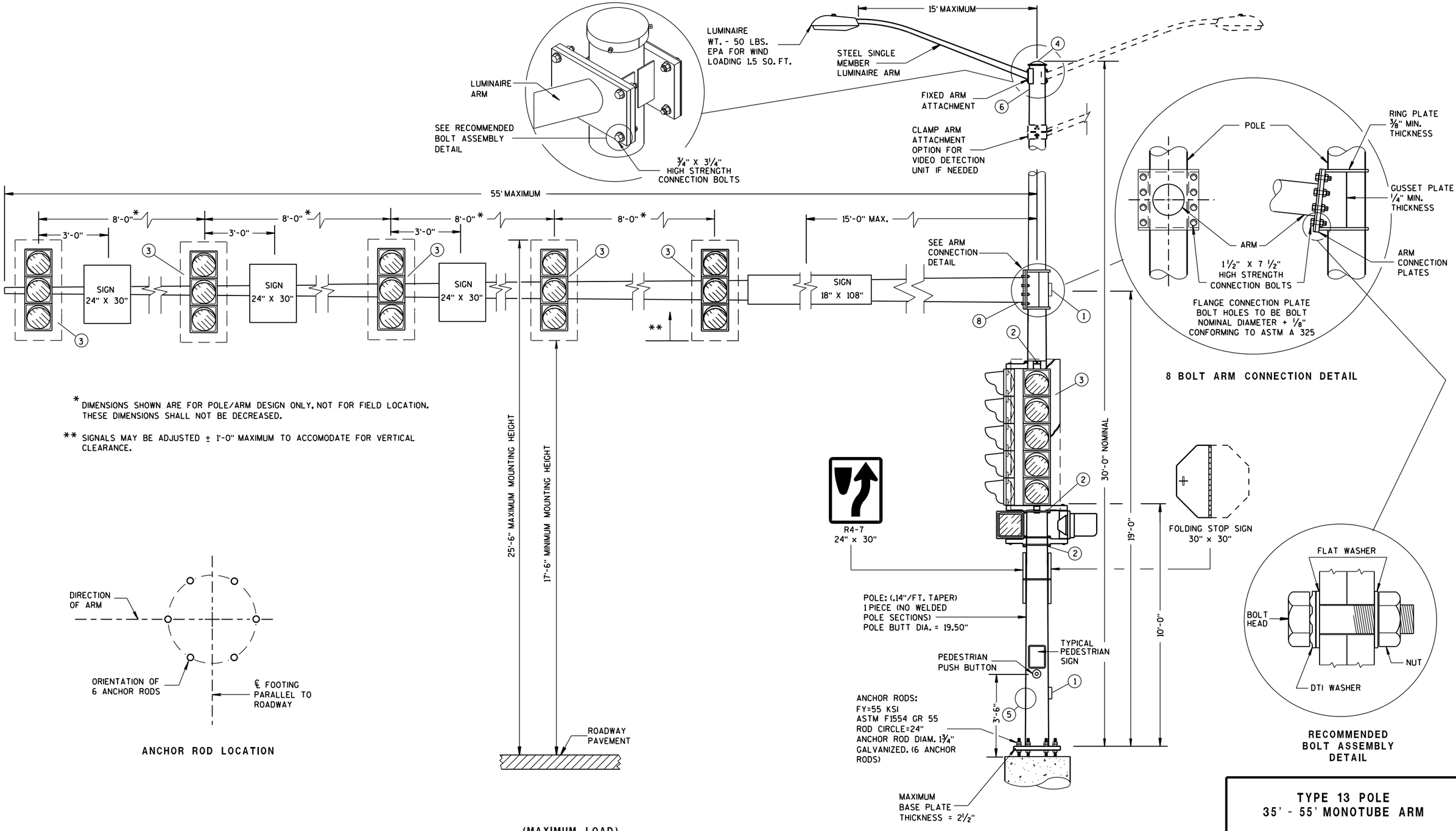
APPROVED
May, 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

6

S.D.D. 9 E 8-8c



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

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

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 9 E 8-8d

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.

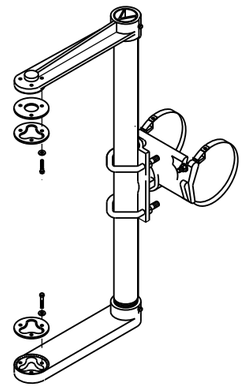
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

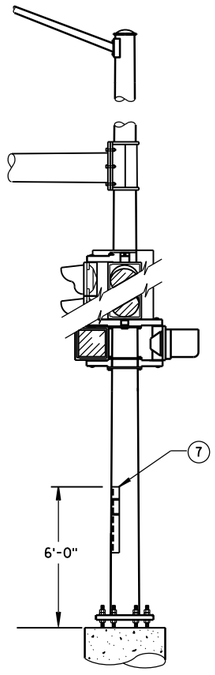
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

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

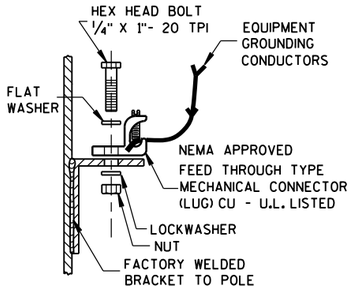


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

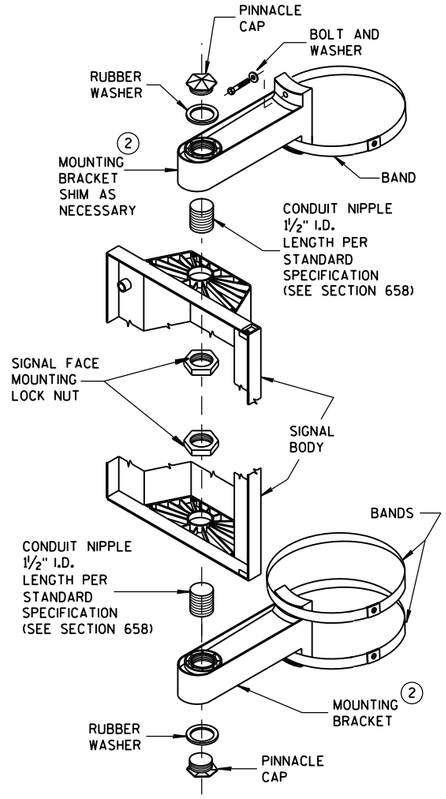


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

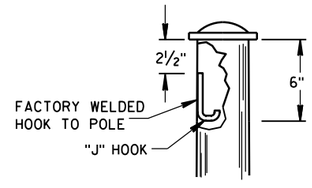


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

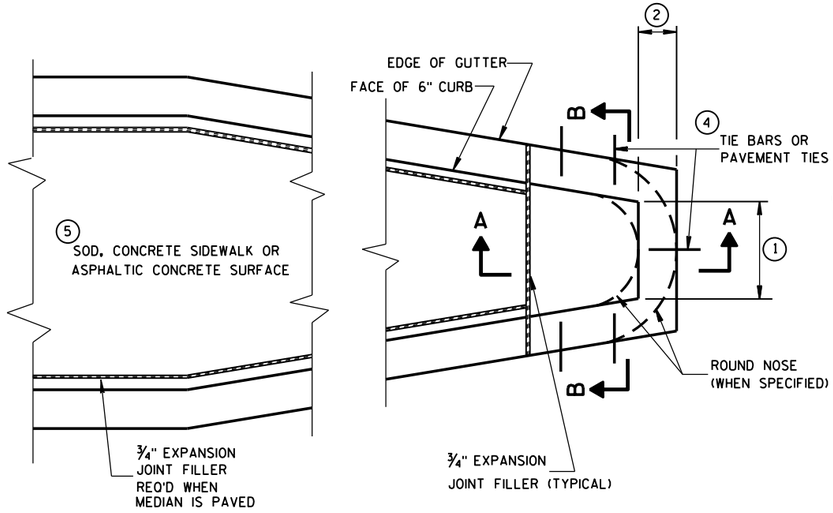
GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

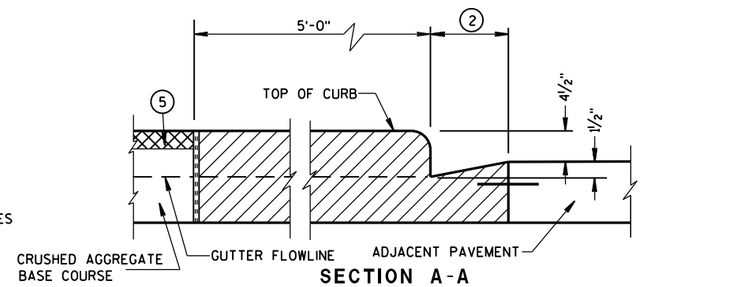
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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





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.

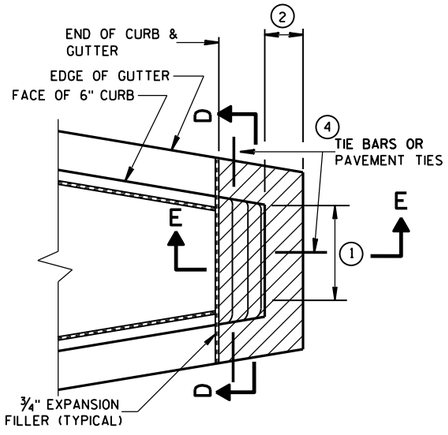
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

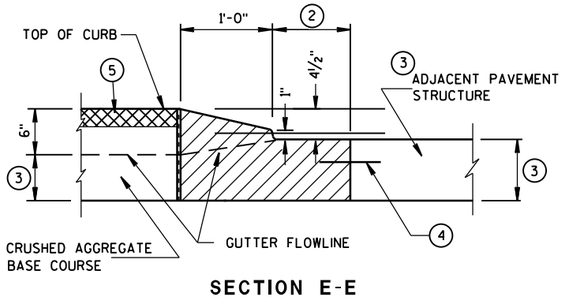
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

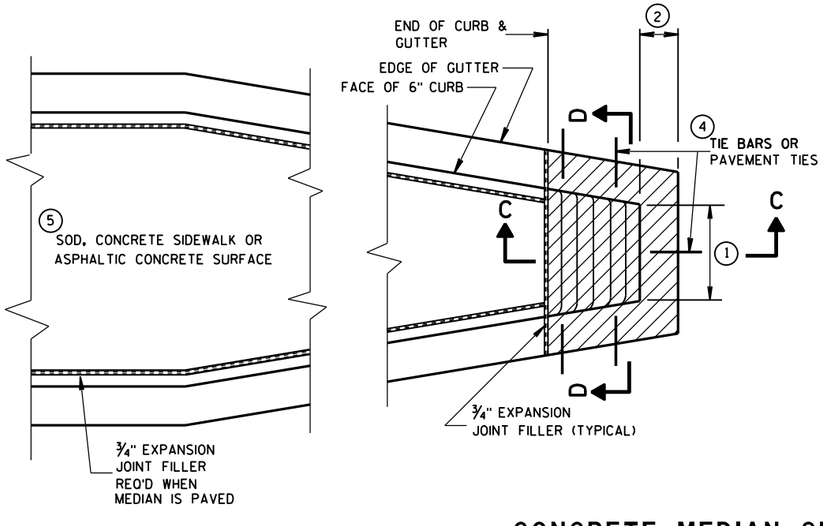
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

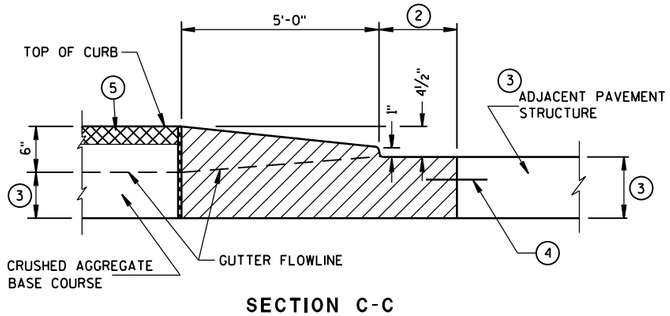




SECTION E-E

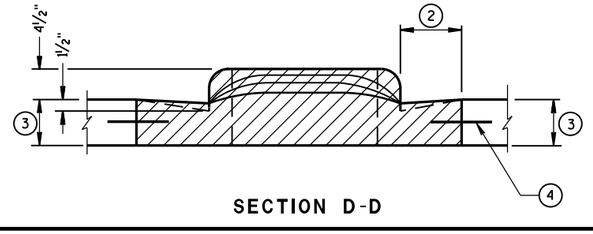
CONCRETE MEDIAN SLOPED NOSE TYPE 2





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

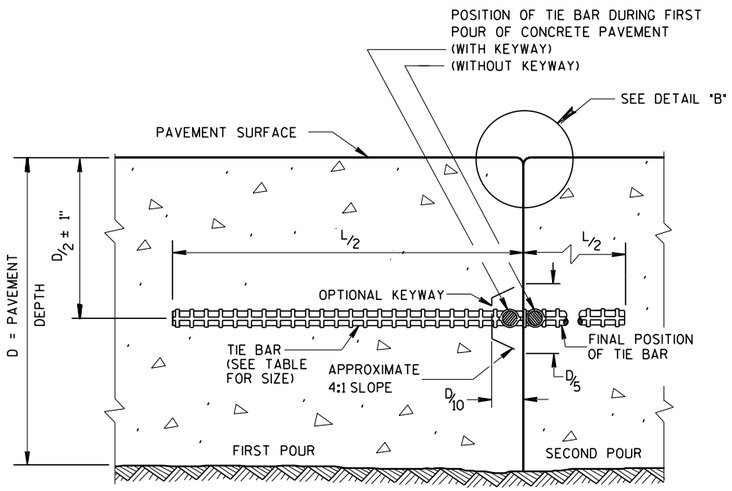
FHWA

6

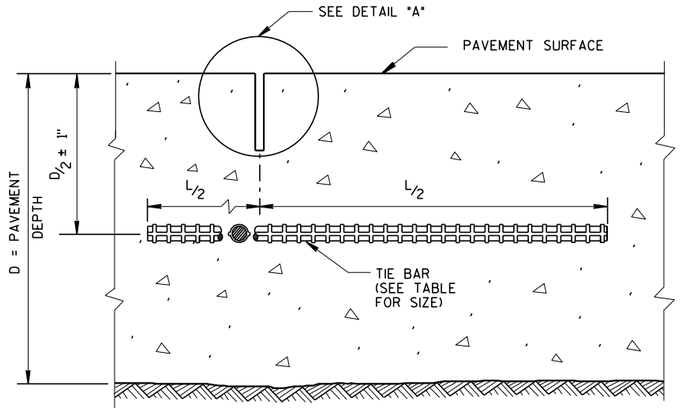
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

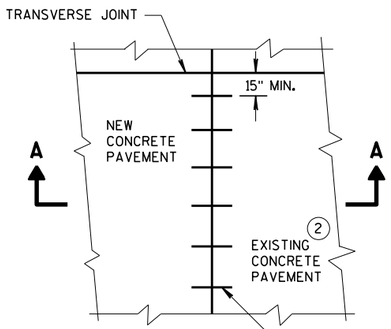
GENERAL NOTES

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

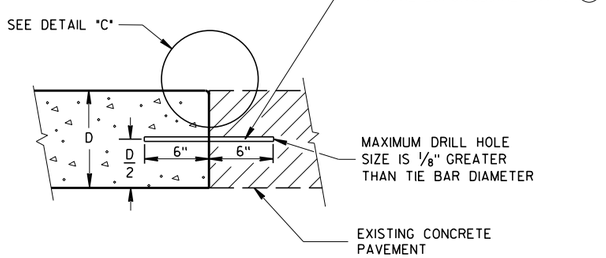
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

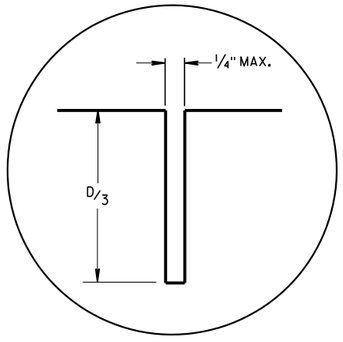


PLAN VIEW

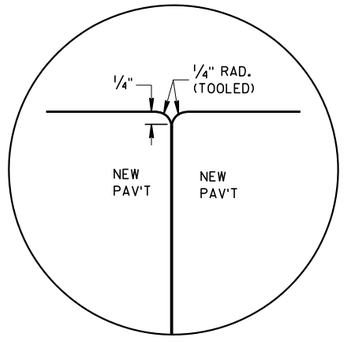


SECTION A-A

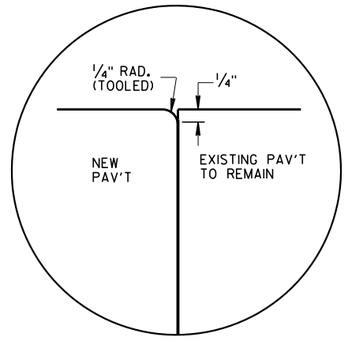
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



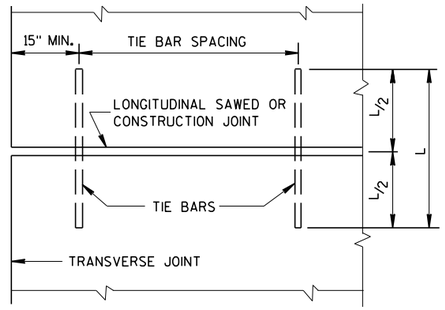
DETAIL "C"

TIE BAR TABLE

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

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

** CONFORM TO 15" 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

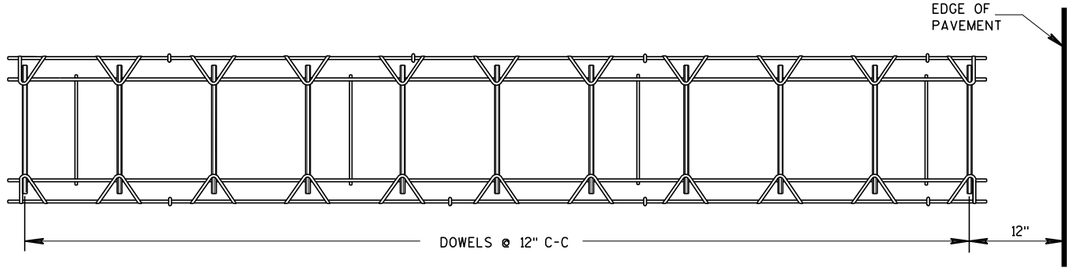
APPROVED
March 2018 — DATE
/S/ Peter Kemp — PAVEMENT SUPE
FHWA

6

S.D.D. 13 C 1-19

6

S.D.D. 13 C 1-19

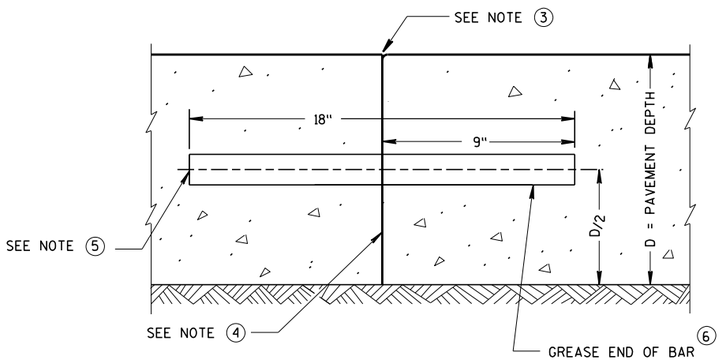


PLAN VIEW

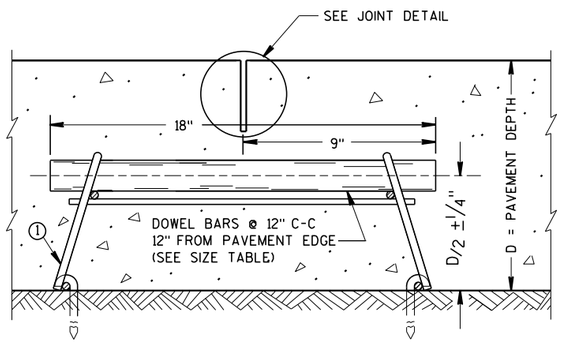


SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



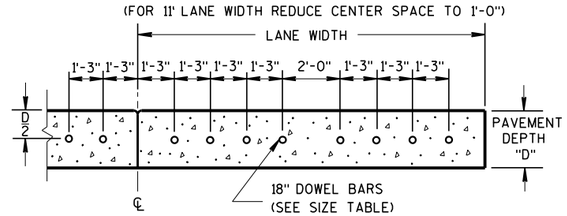
TRANSVERSE CONSTRUCTION JOINT



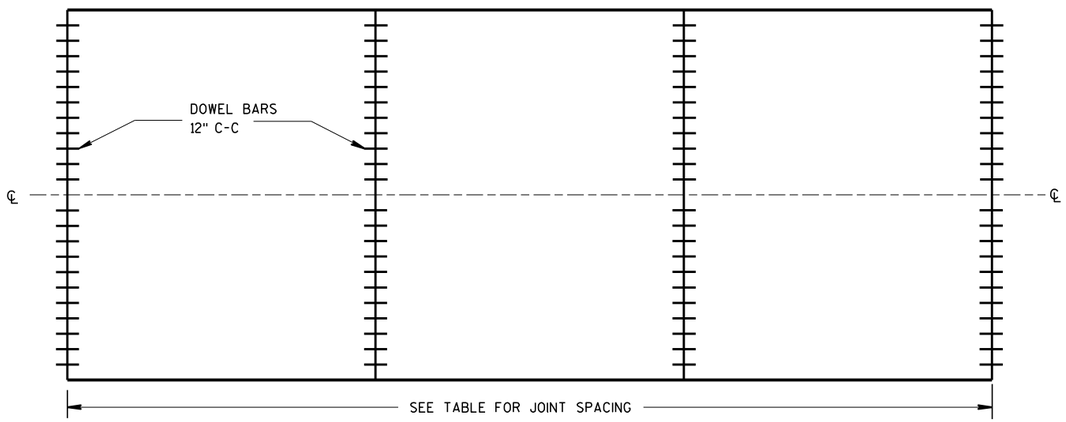
DOWELED CONTRACTION JOINT

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.

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.

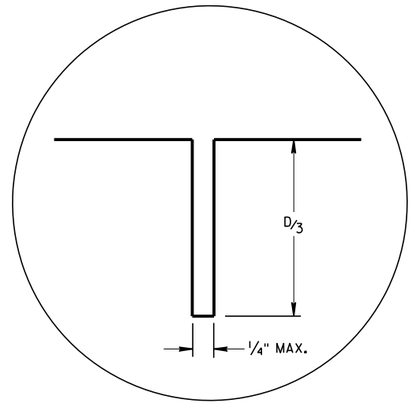
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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

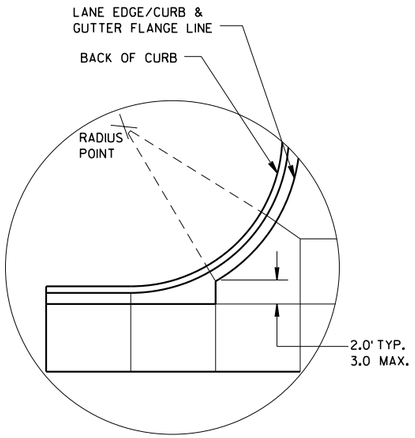
APPROVED
March 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUP

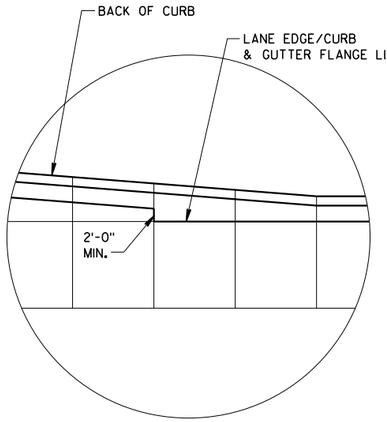
FHWA

6

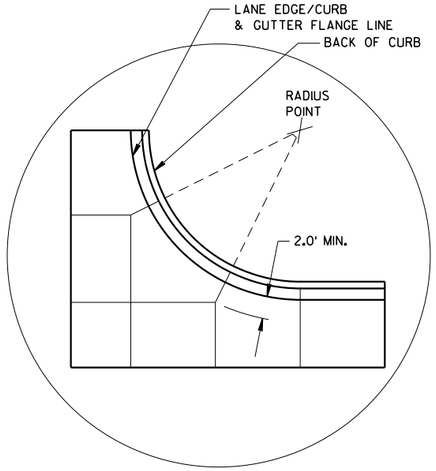
S.D.D. 13 C 13-9



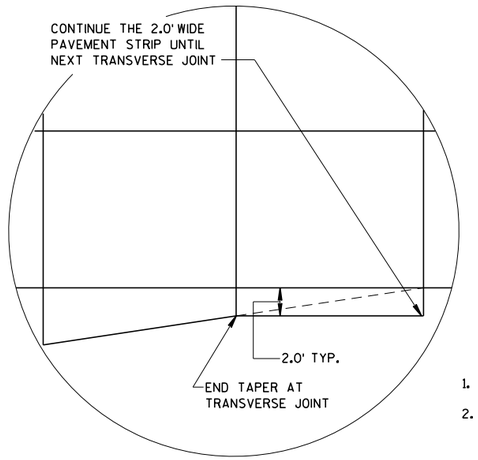
DETAIL "A"



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.

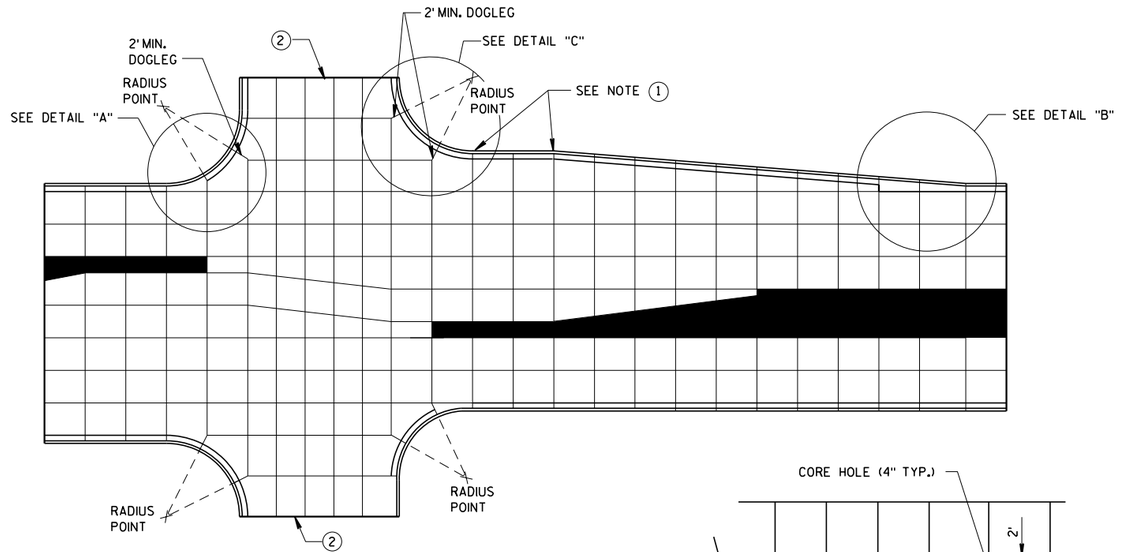
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

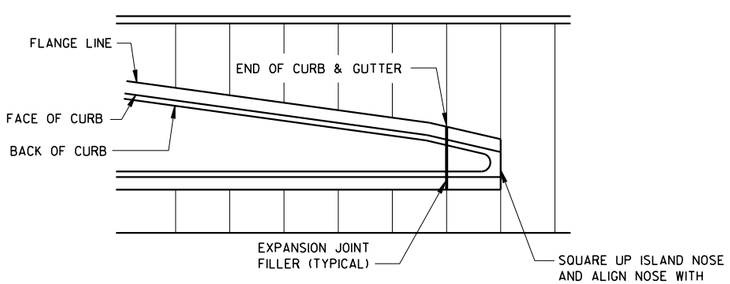


STANDARD INTERSECTION

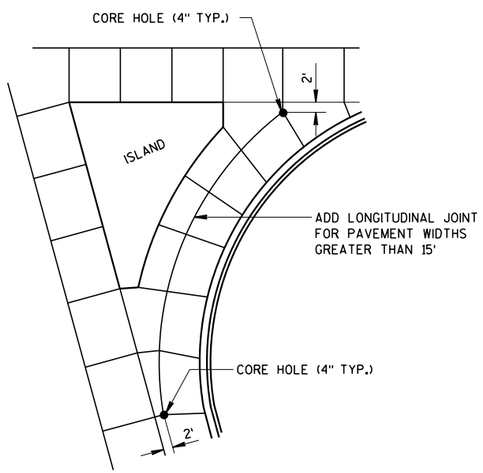
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

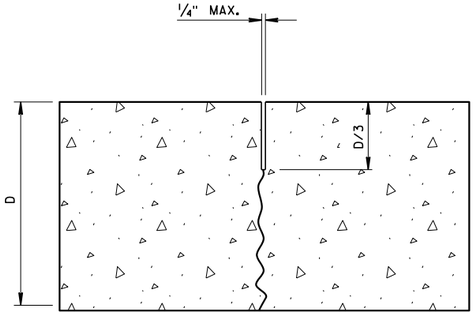
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

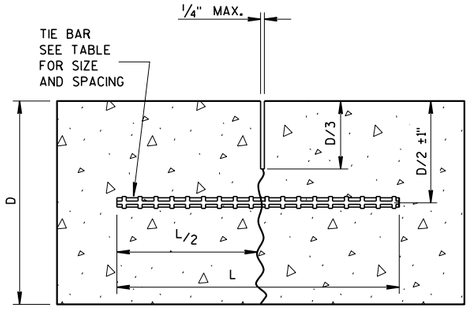
S.D.D. 13 C 18-6a

6

S.D.D. 13 C 18-6a



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

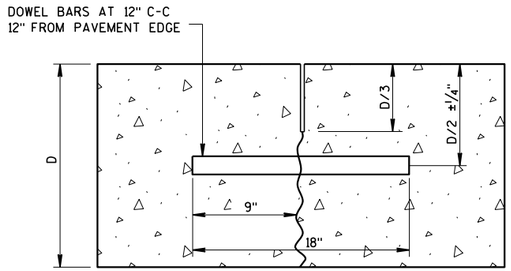
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

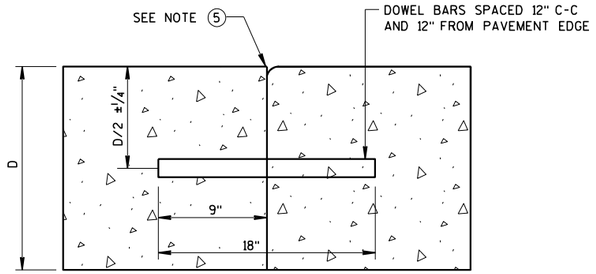
** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

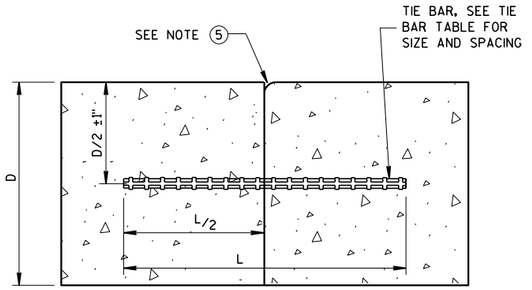
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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



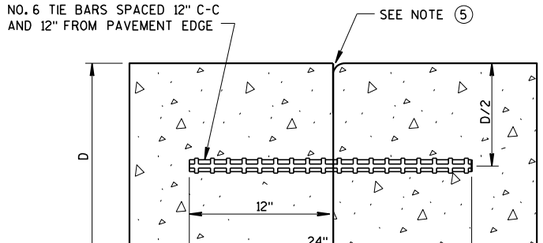
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL

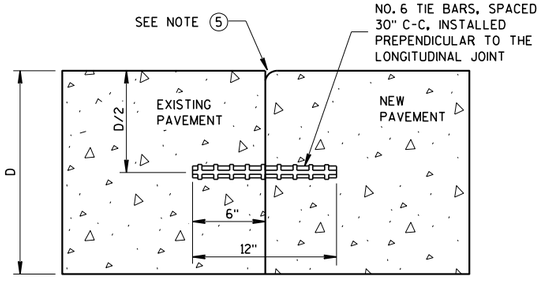
CONTRACTION JOINTS

SEE NOTE (2)



TIED TRANSVERSE (3)

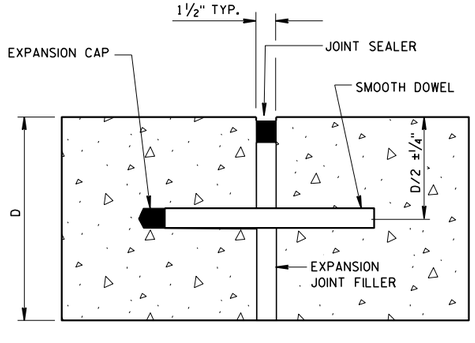
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

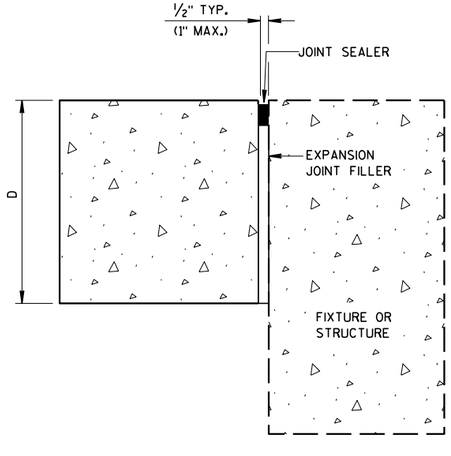
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

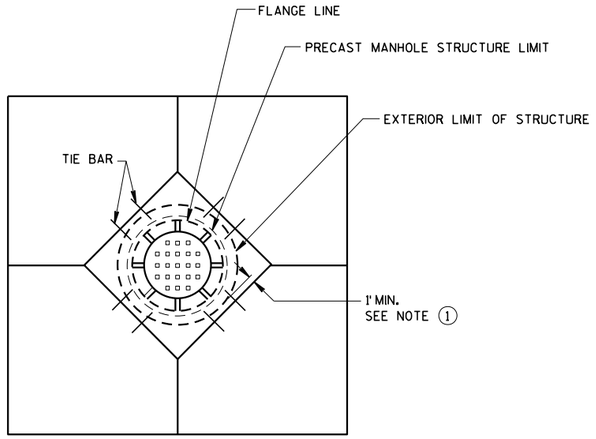
6

S.D.D. 13 C 18-6c

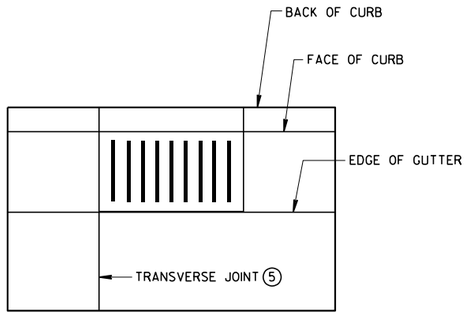
CONCRETE PAVEMENT
JOINT TYPES

6

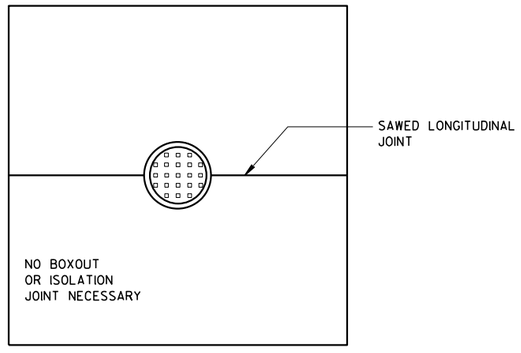
S.D.D. 13 C 18-6c



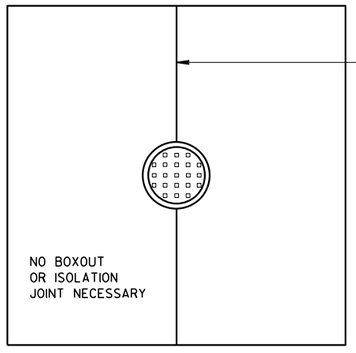
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



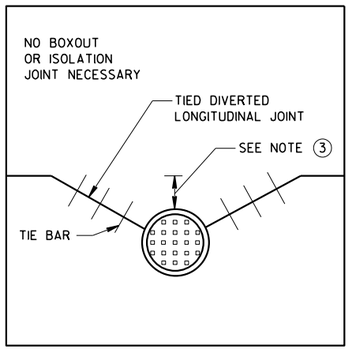
INLET WITH TRANSVERSE JOINT



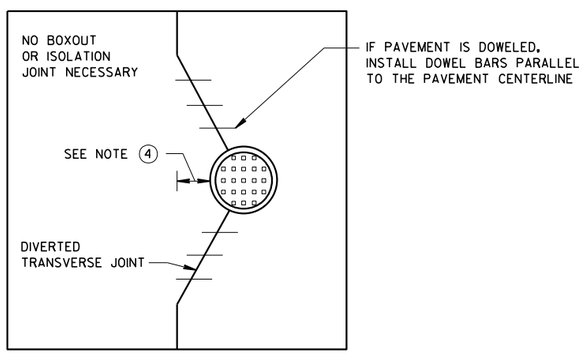
MANHOLE WITH LONGITUDINAL JOINT



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.

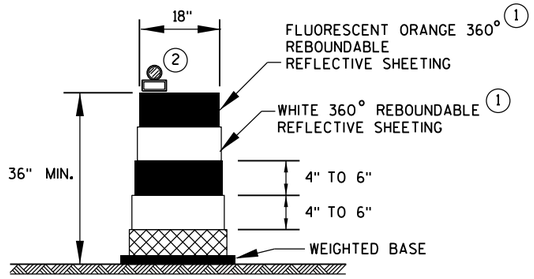
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

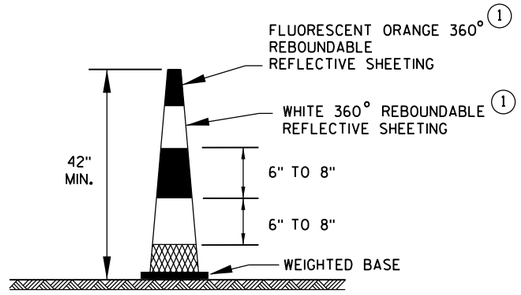
APPROVED
March 2018 — DATE
/S/ Peter K[illegible] P.E. — PAVEMENT SUPT
FHWA

6

S.D.D. 13 C 18-6d



DRUM

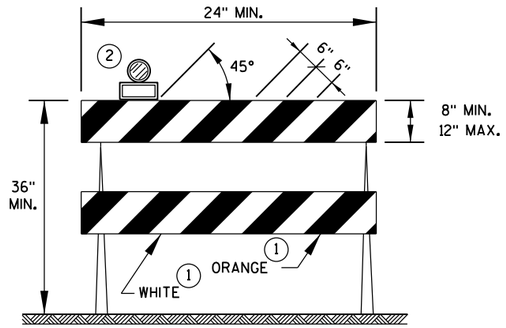


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

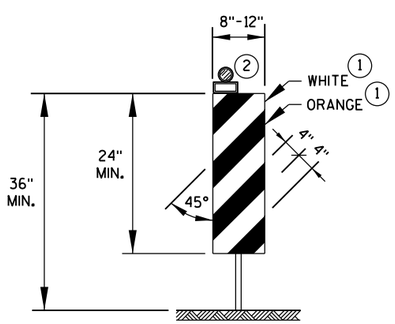
GENERAL NOTES

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



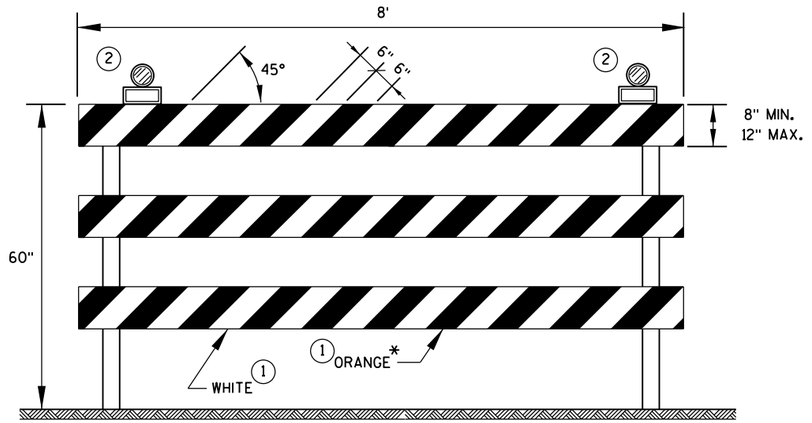
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

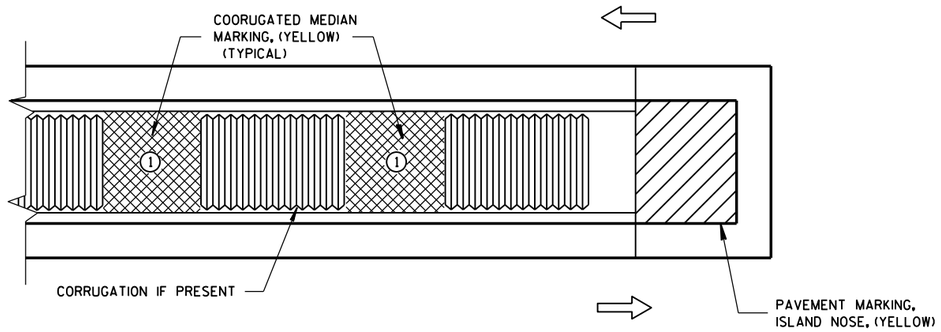
FHWA

6

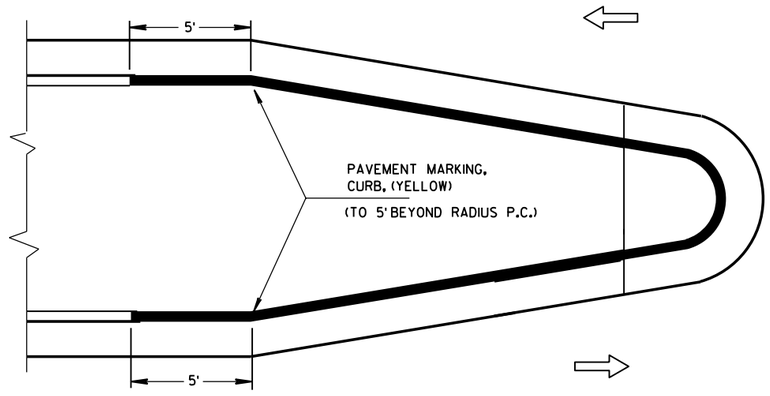
S.D.D. 15 C 11-7b

6

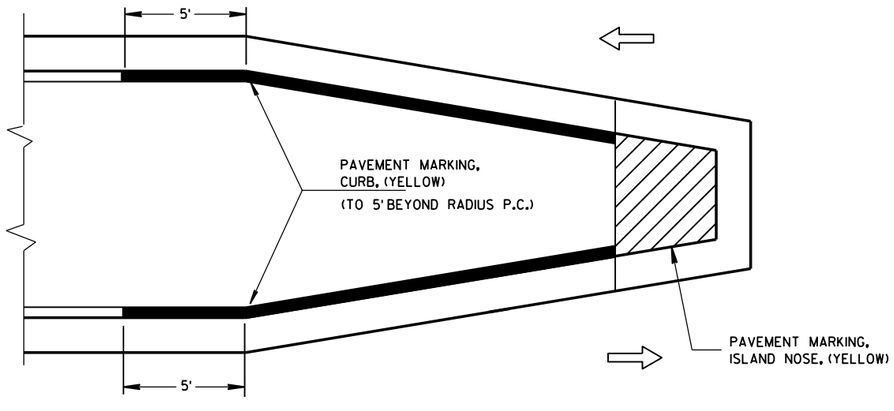
S.D.D. 15 C 11-7b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

(1) WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Matthew Rauch
STATE SIGNING AND MARK 97 EER

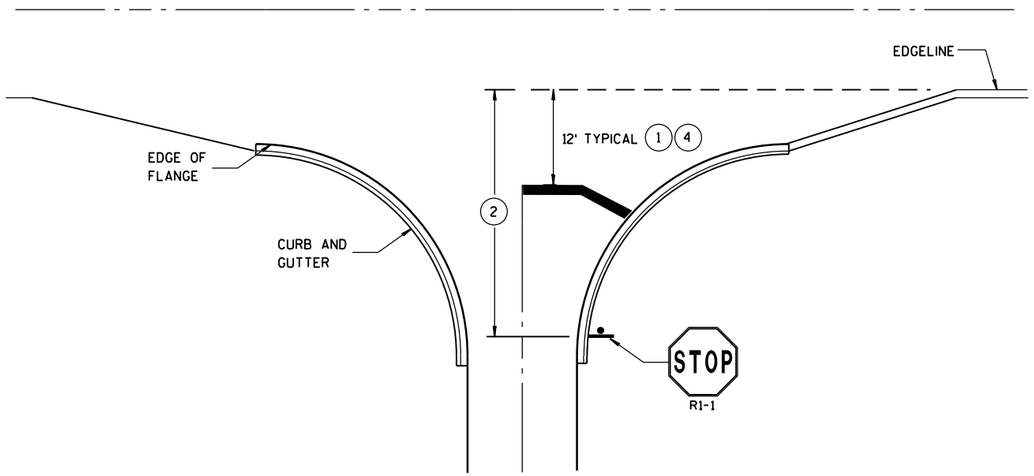
FHWA

6

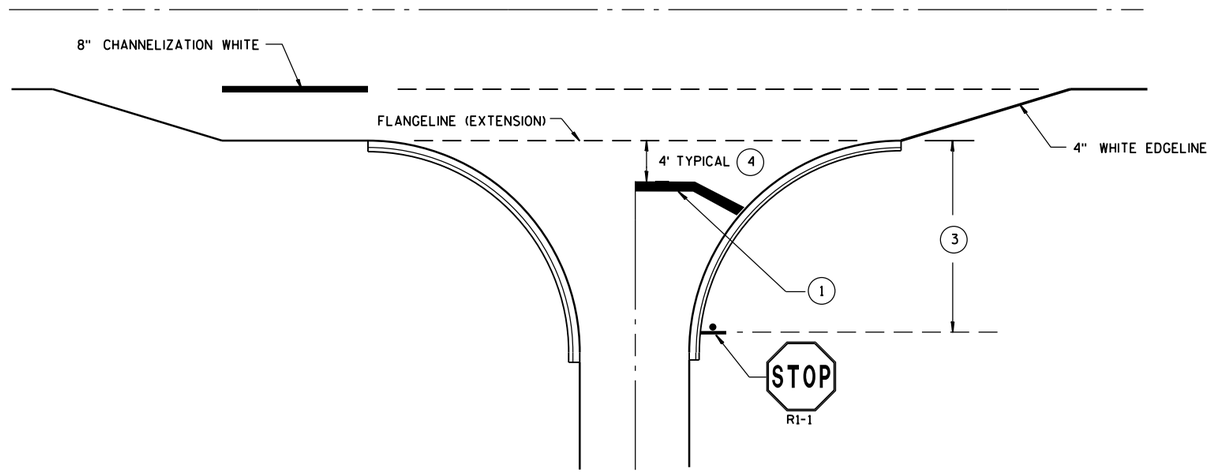
S.D.D. 15 C 27-2b

6

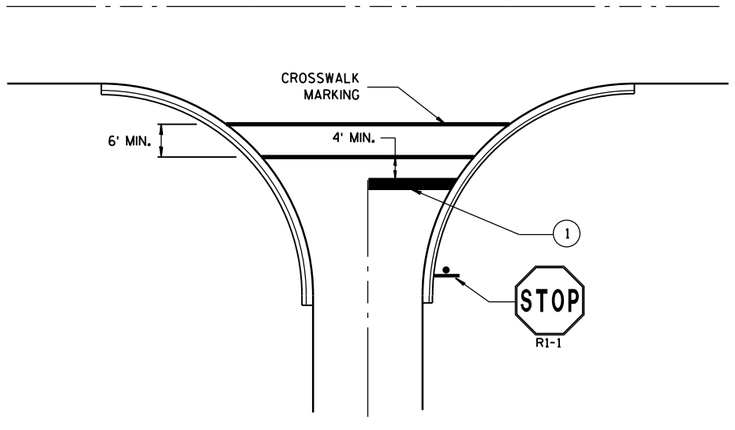
S.D.D. 15 C 27-2b



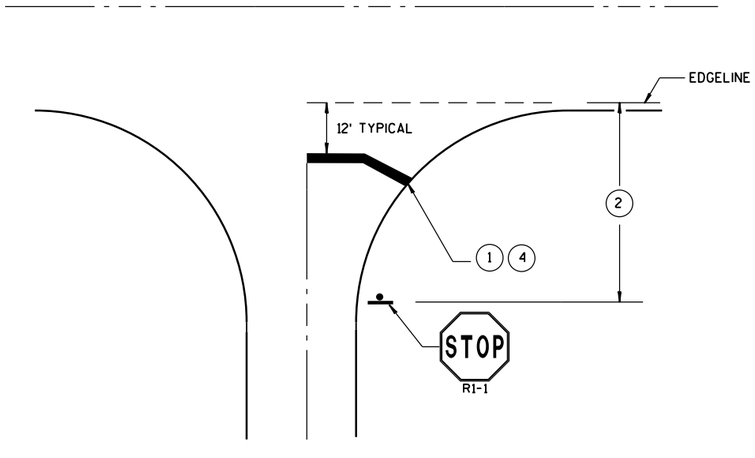
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

(1) 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

(2) IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.

(3) IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.

(4) MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

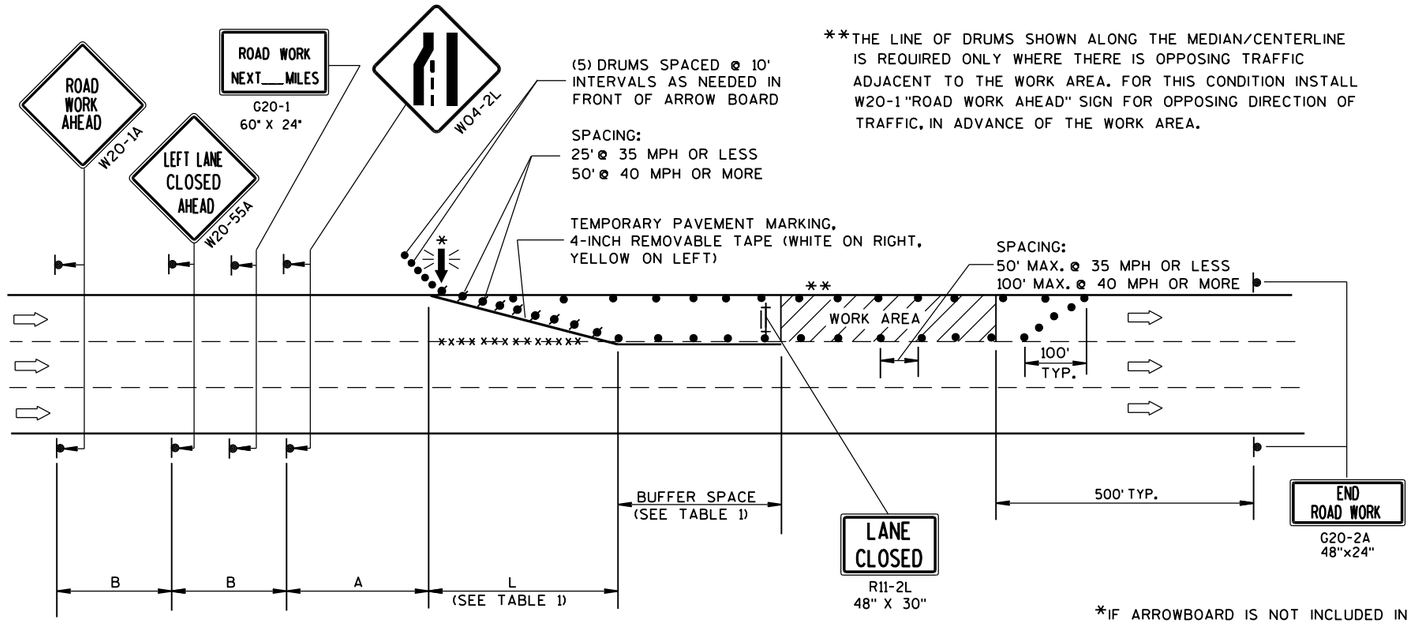
Sept., 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]NEER

FHWA

6

S.D.D. 15 C 33-3



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

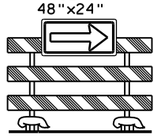


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

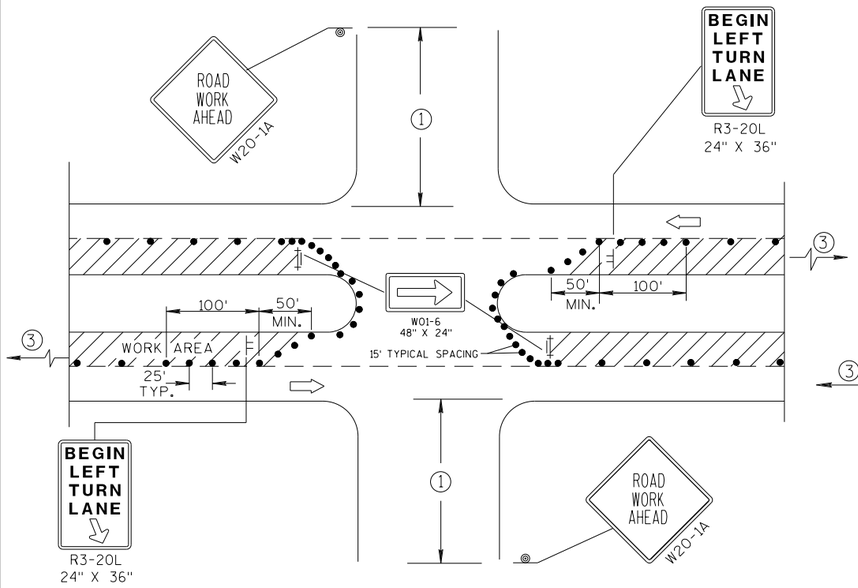
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER — IC

6

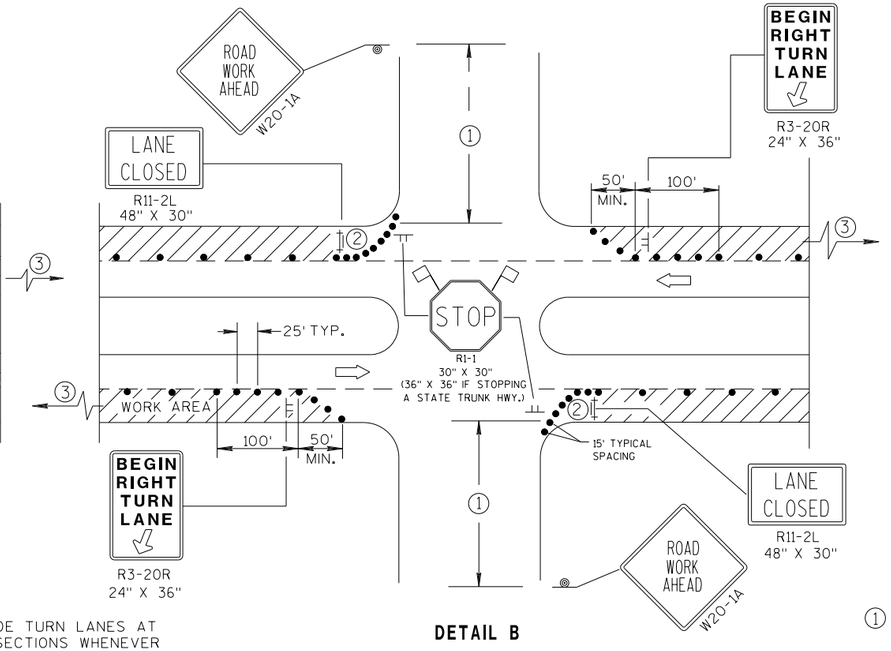
S.D.D. 15 D 20-4



DETAIL A

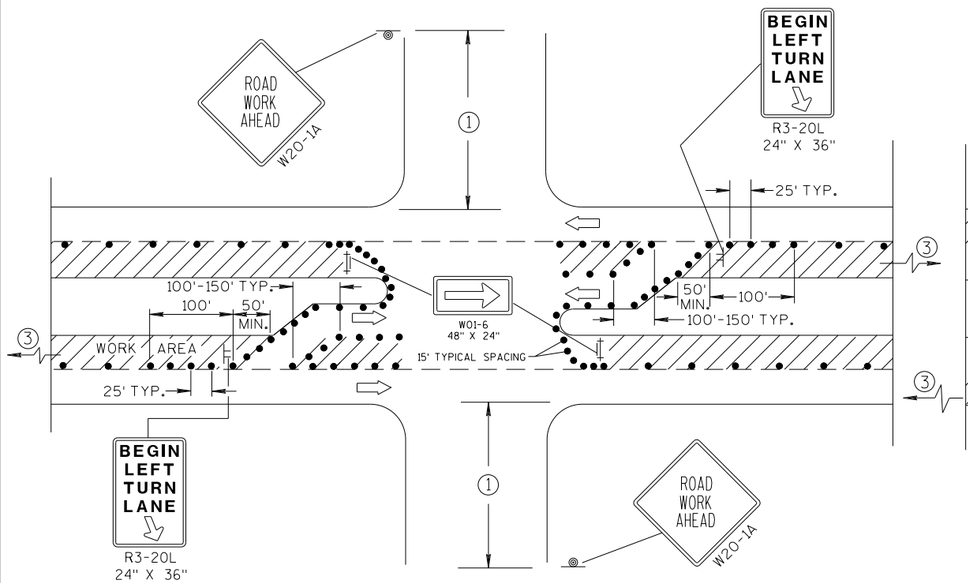
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



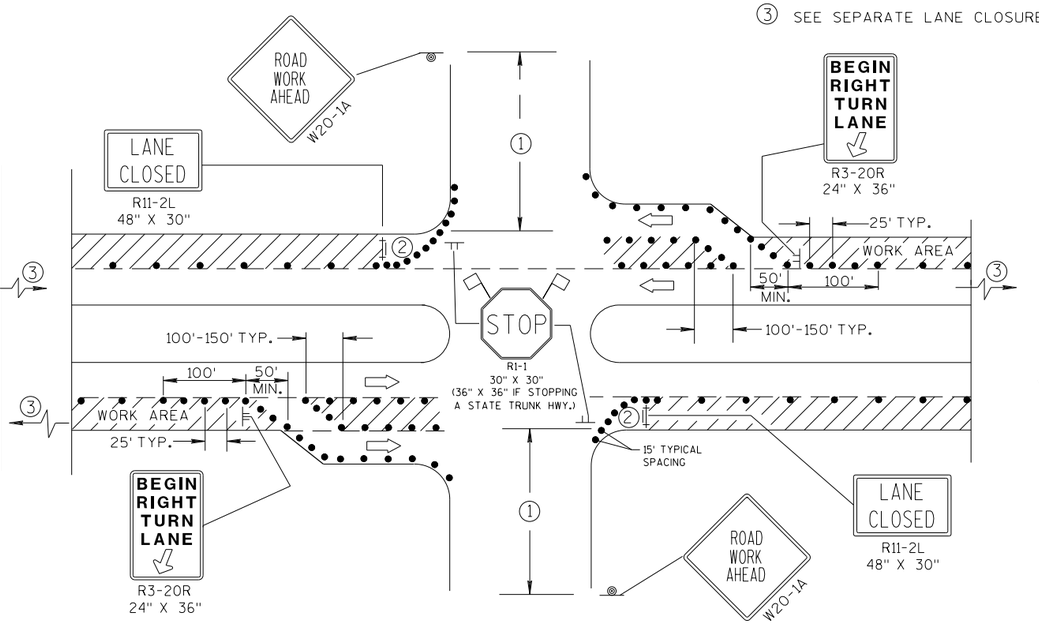
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

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



DETAIL D

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

6

S.D.D. 15 D 21-6

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.

ALL SIGNS ARE 48" X 48" 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 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.

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

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

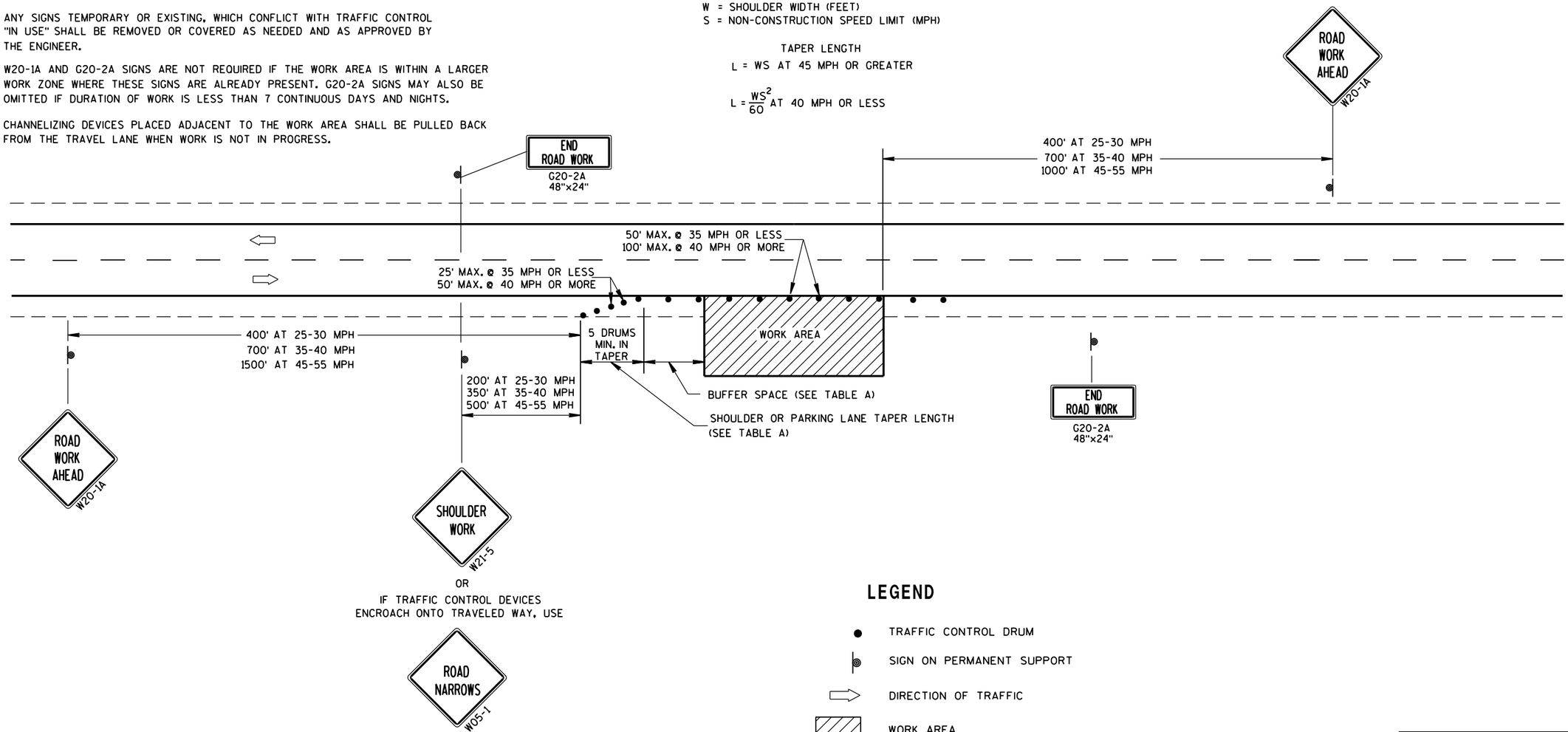
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible] FIC

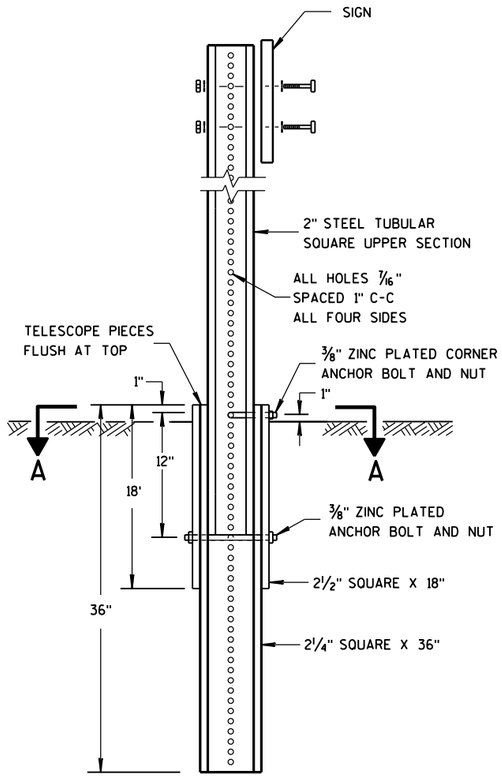
FHWA

6

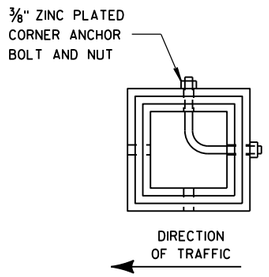
S.D.D. 15 D 28-3

6

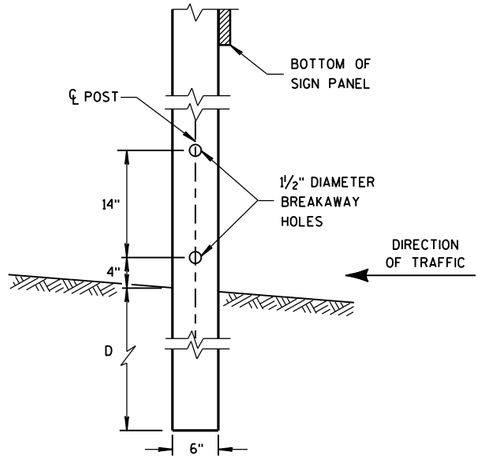
S.D.D. 15 D 28-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



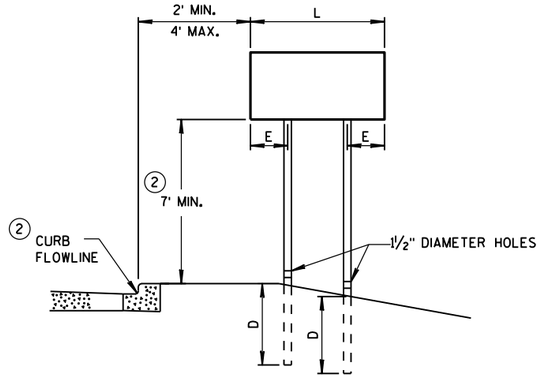
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

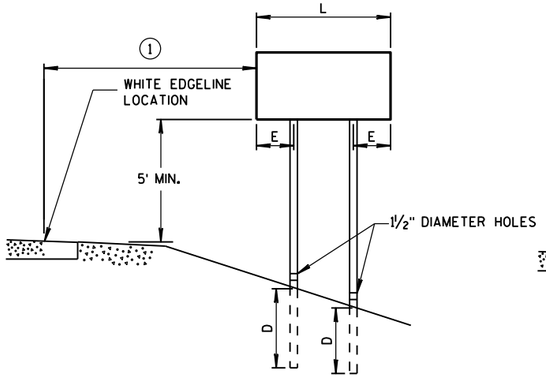
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

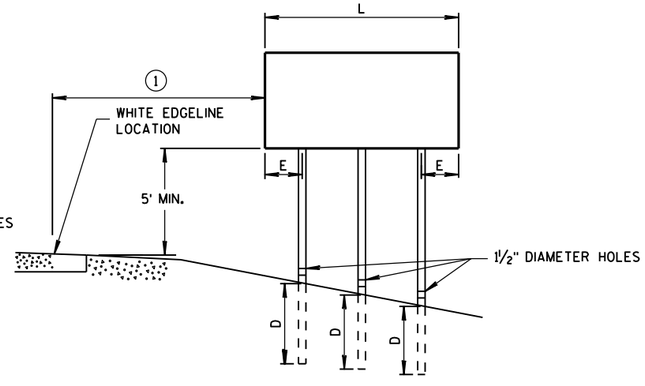
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

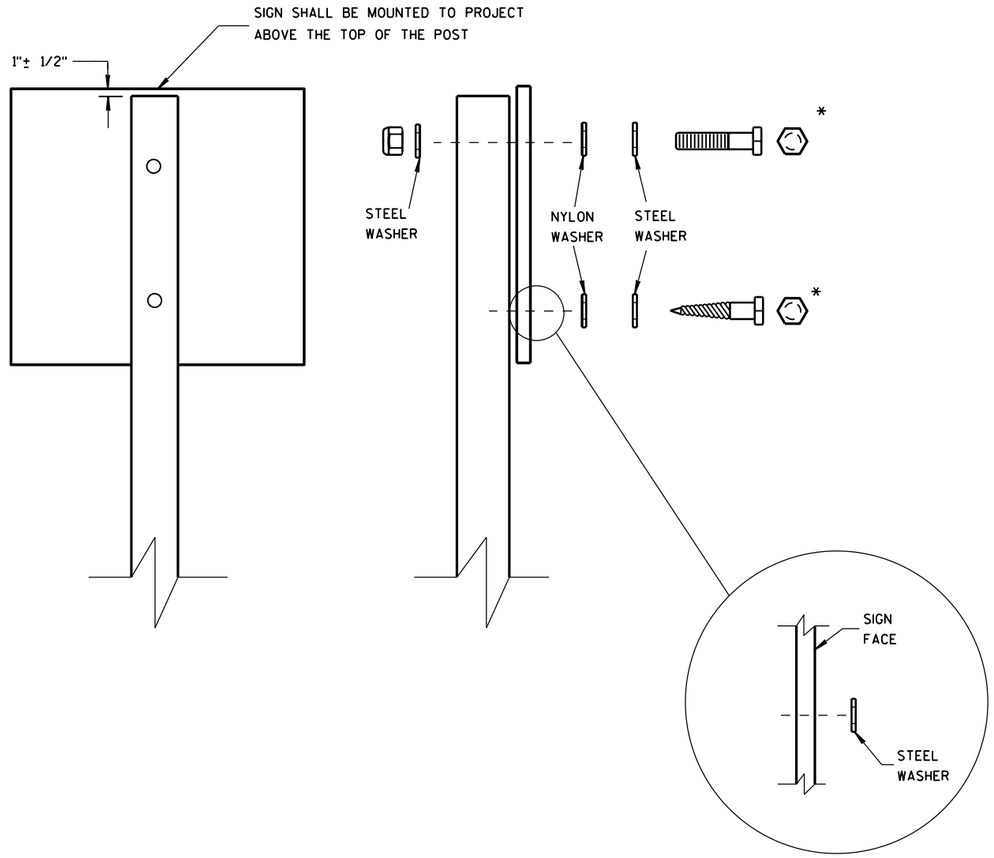
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

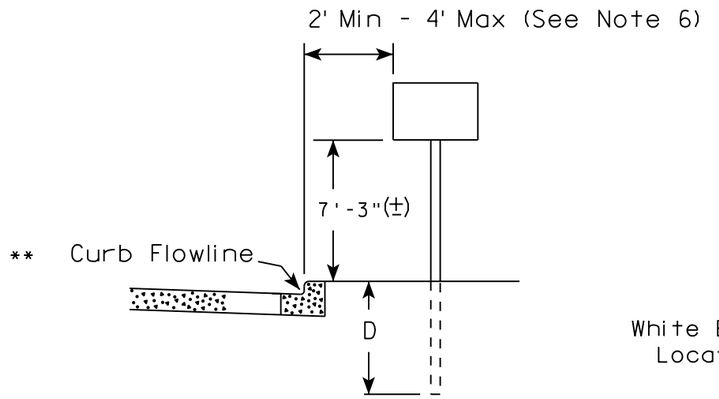
APPROVED

June 2017
DATE

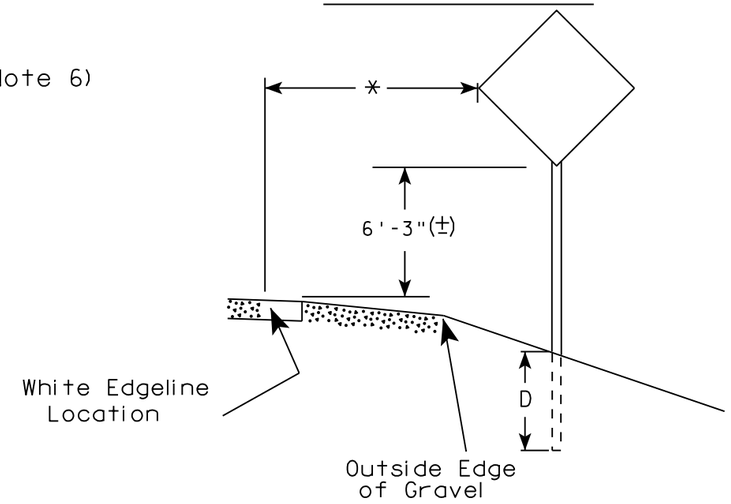
/S/ Andrew Heldtke
WORK ZONE ENG

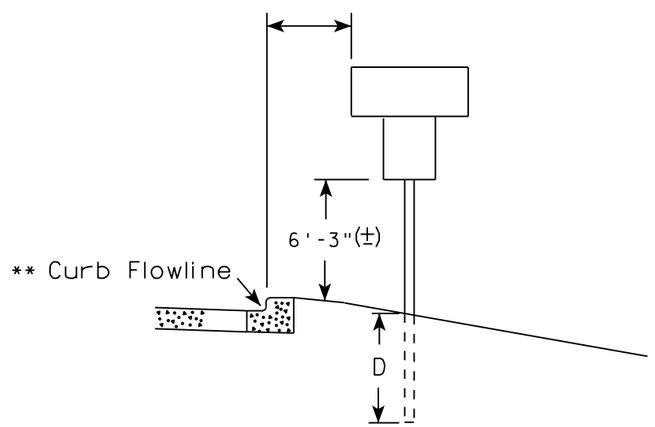
FHWA

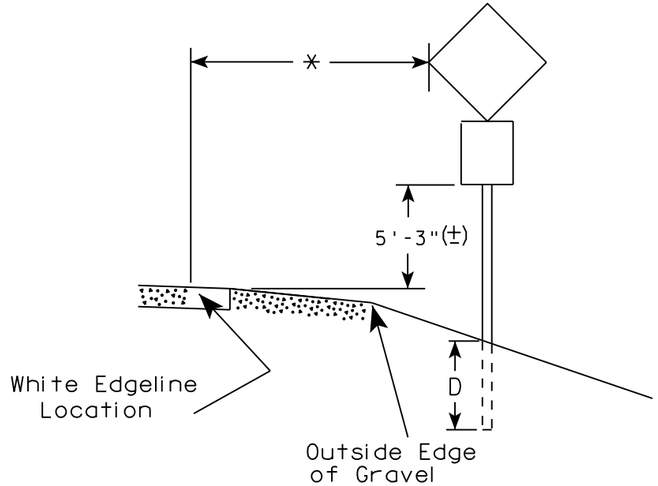
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

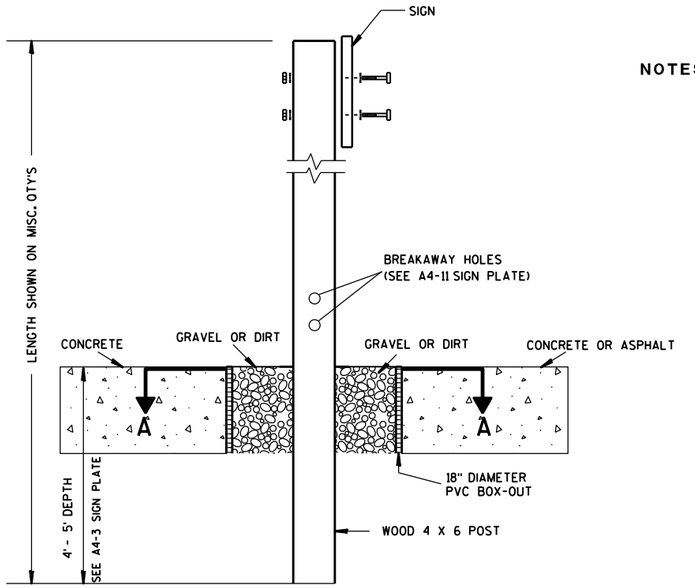
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

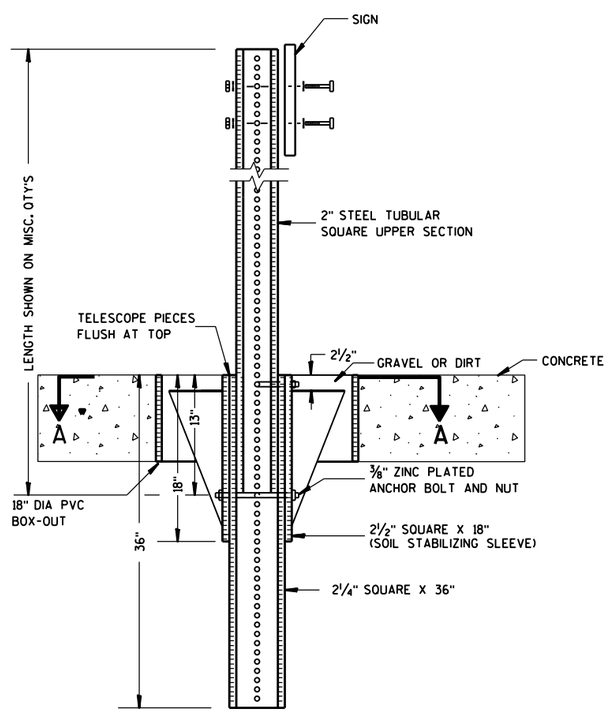
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



ELEVATION VIEW

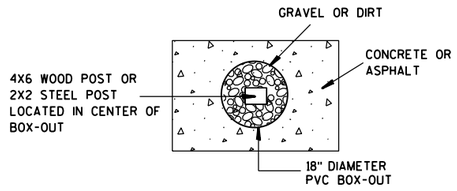
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

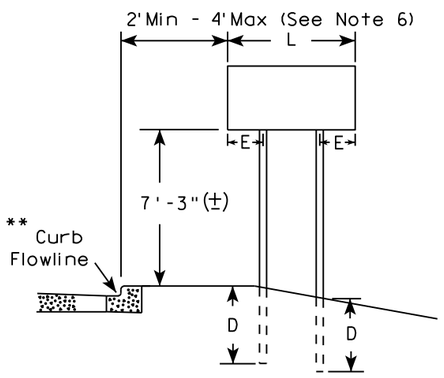
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

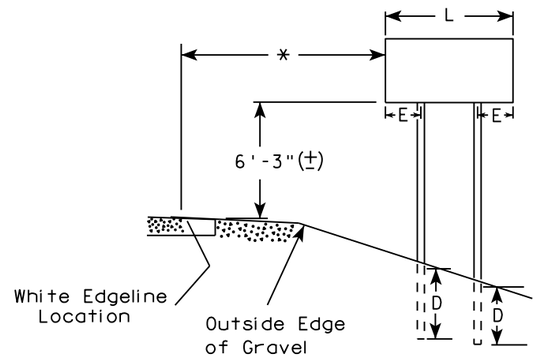
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

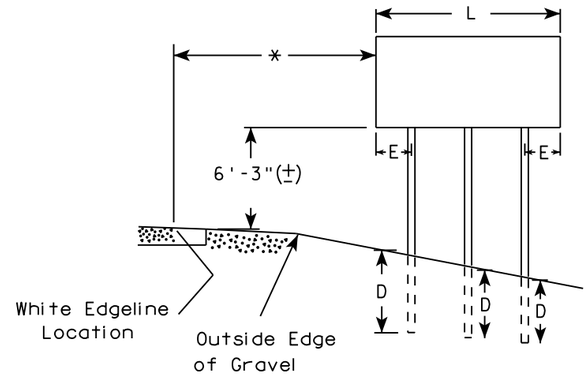
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

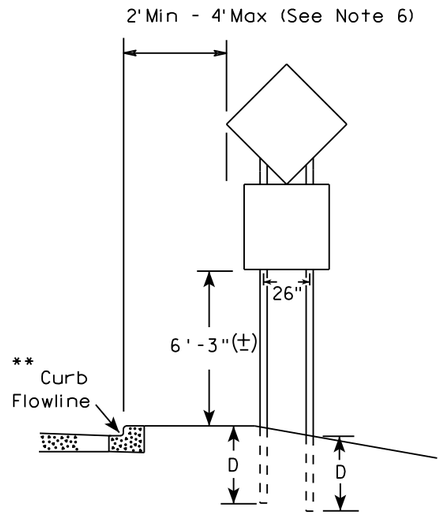
URBAN AREA



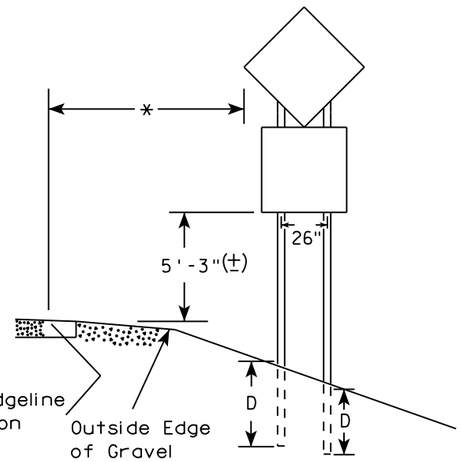
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

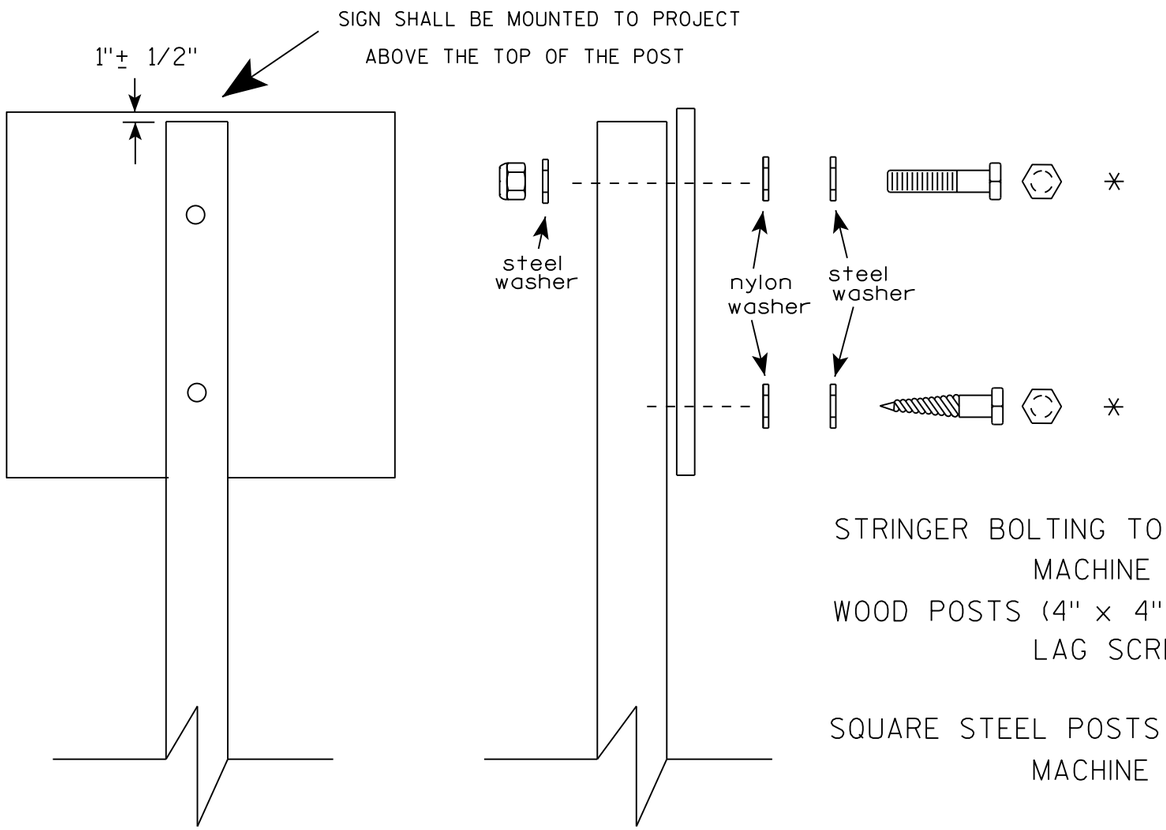
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

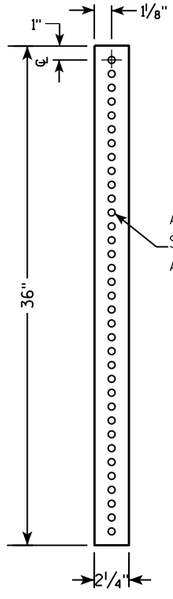
PROJECT NO:

SHEET NO: E

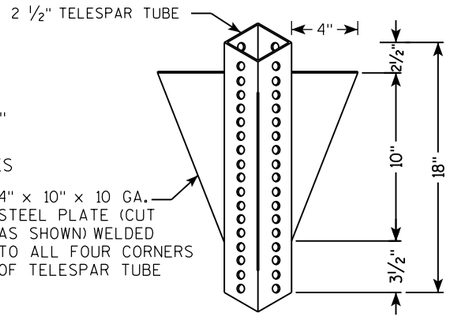
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

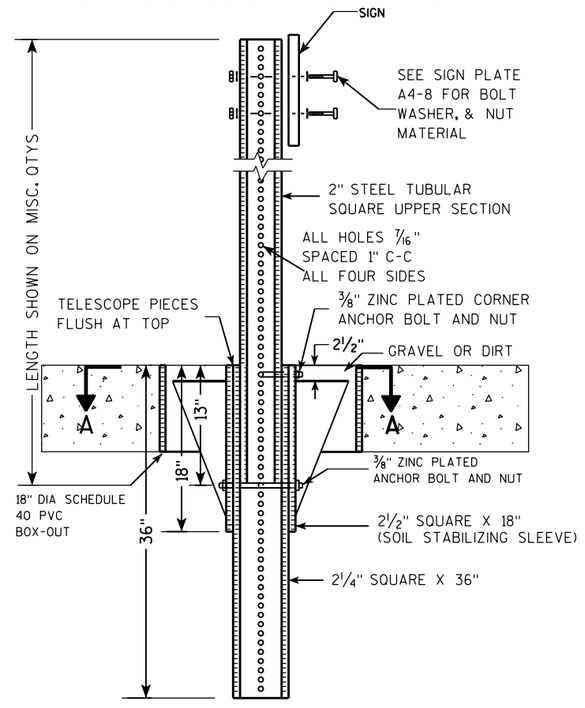
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



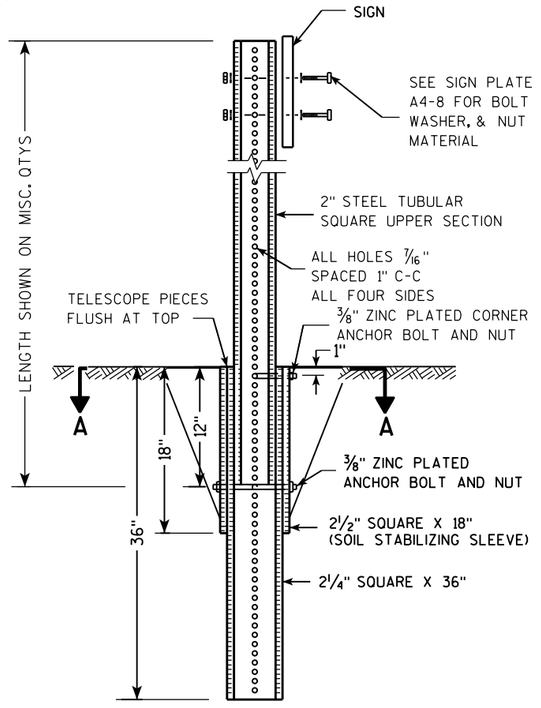
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

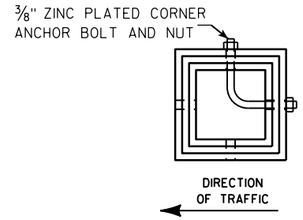


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

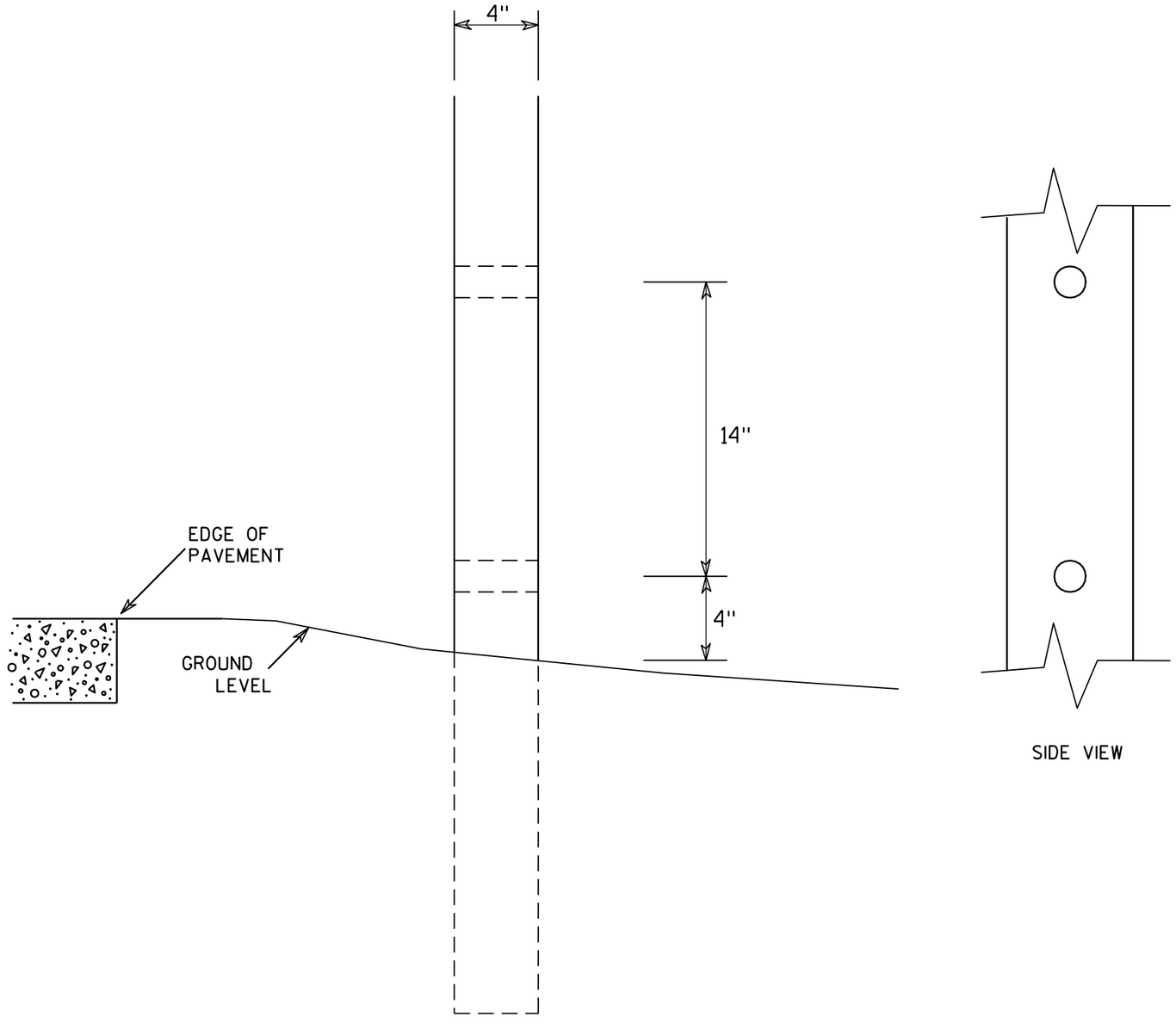
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

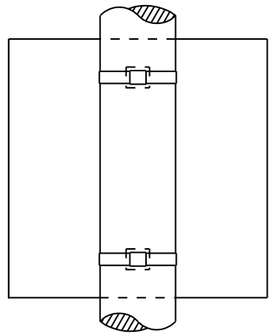
APPROVED Chester J Spang for State Traffic Engineer

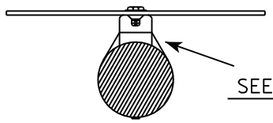
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E

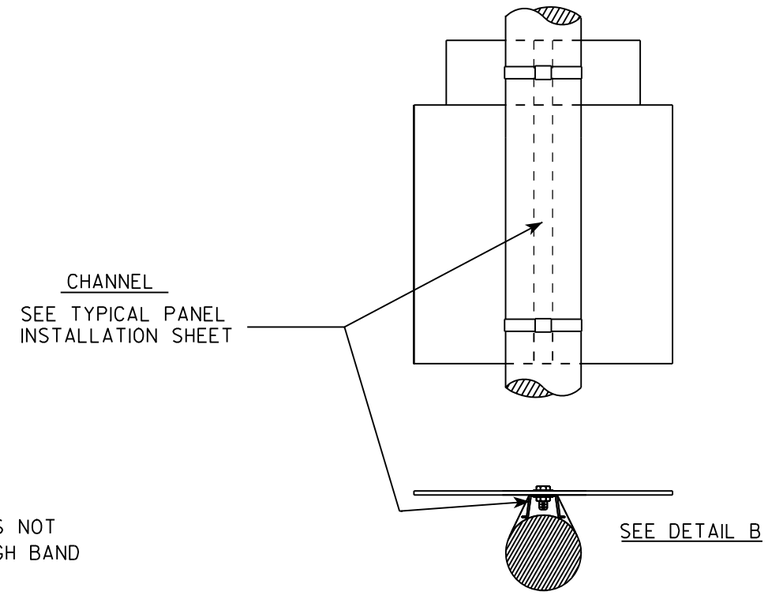
BANDING

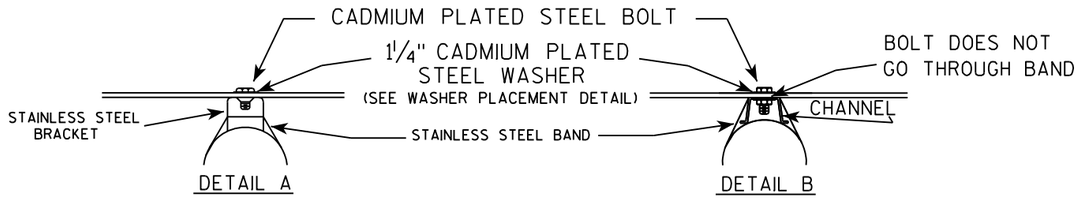
SINGLE SIGN



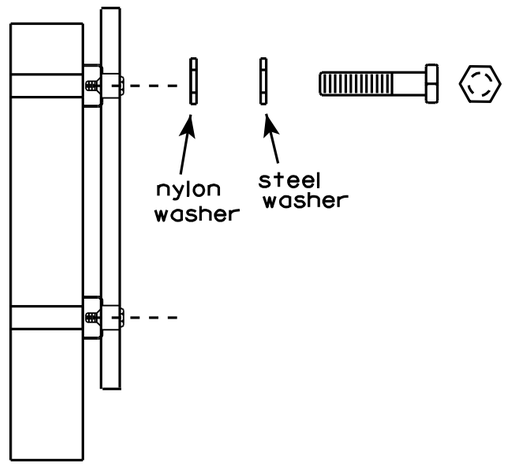


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

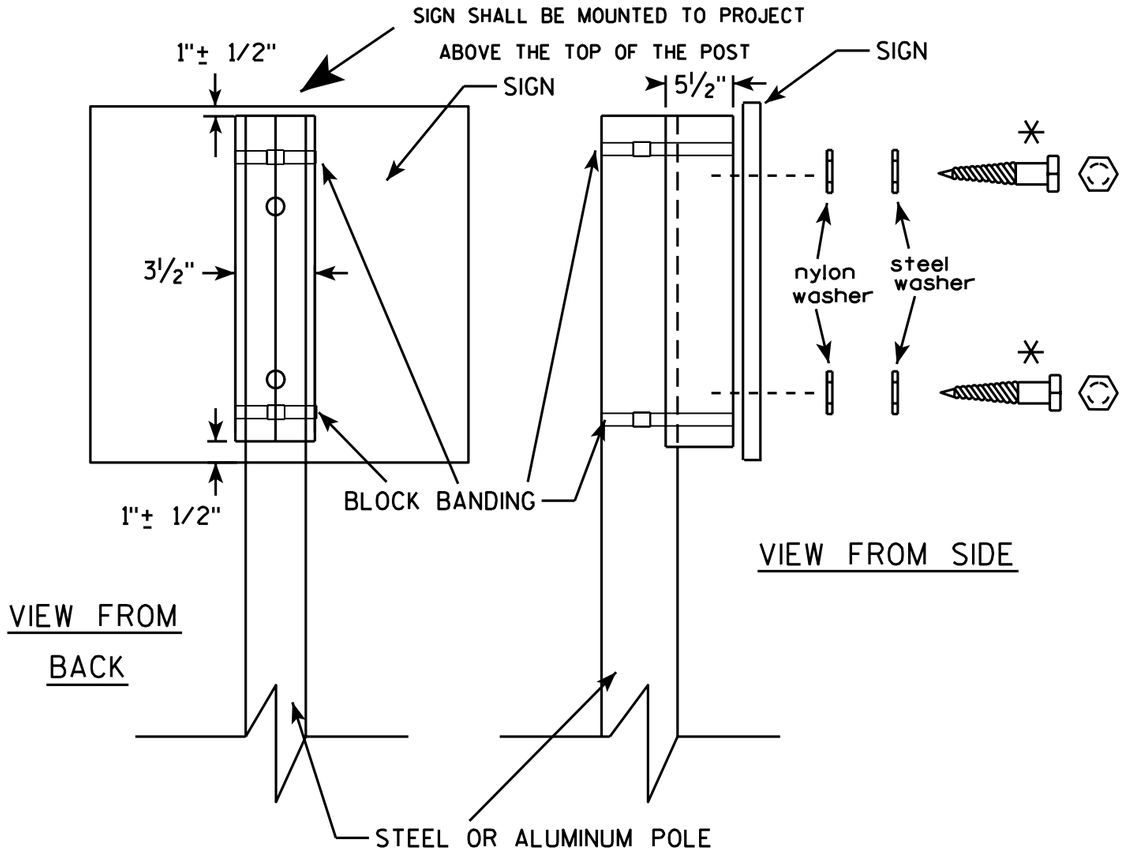
STANDARD SIGN
SIGN BANDING DETAILS

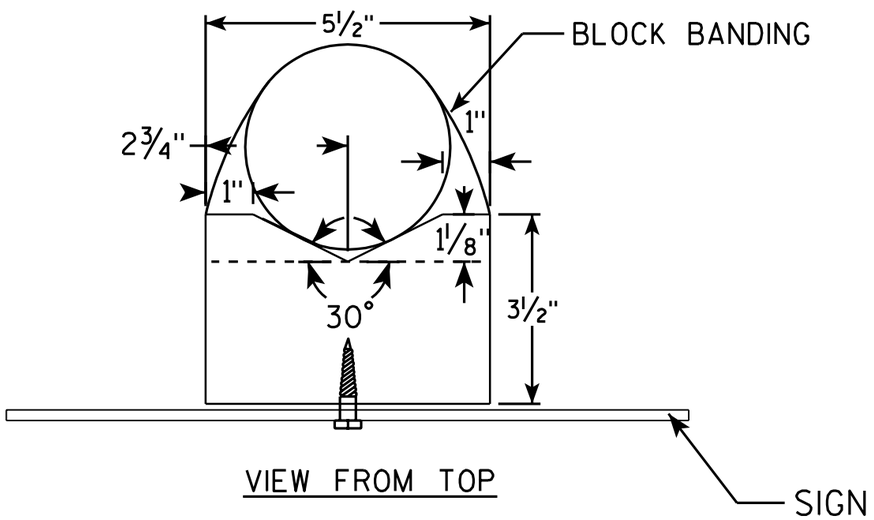
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

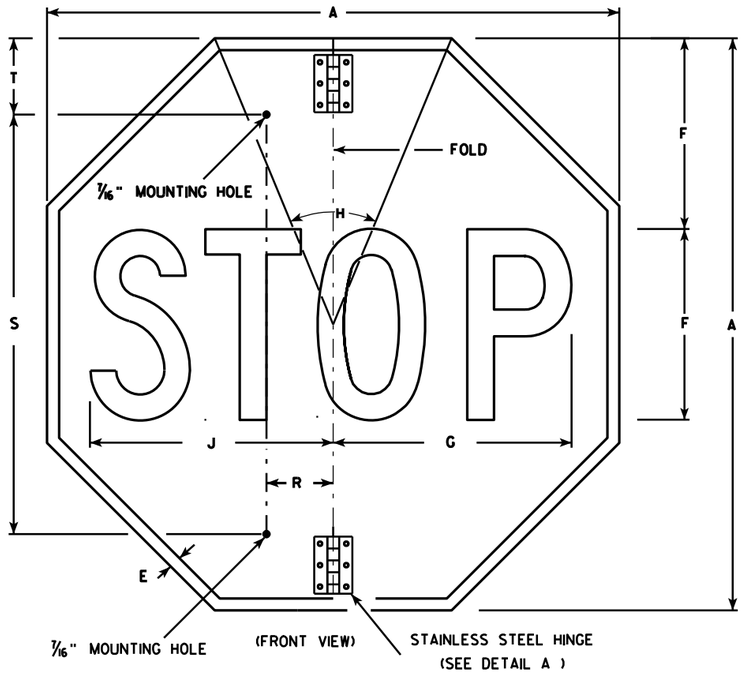
DATE 7/12/07 PLATE NO. A5-10.1

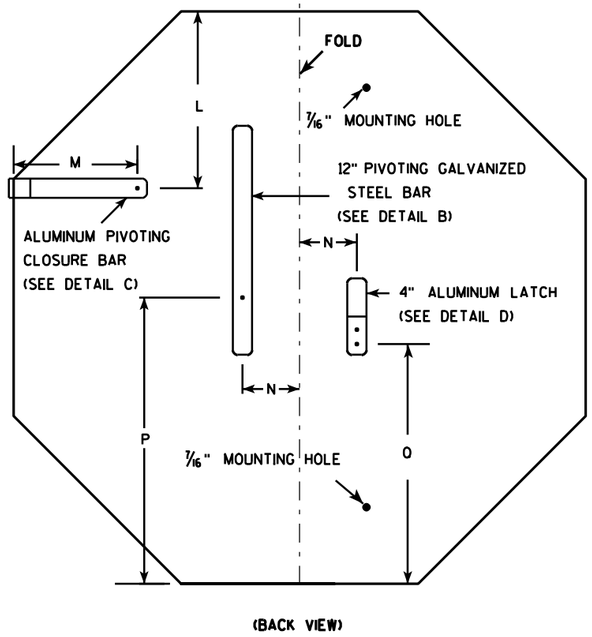
PROJECT NO:

SHEET NO: 111 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

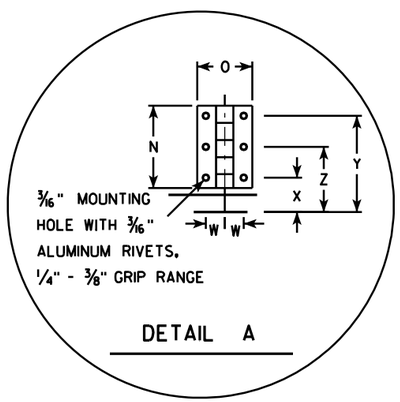
WISDOT/CADDS SHEET 42



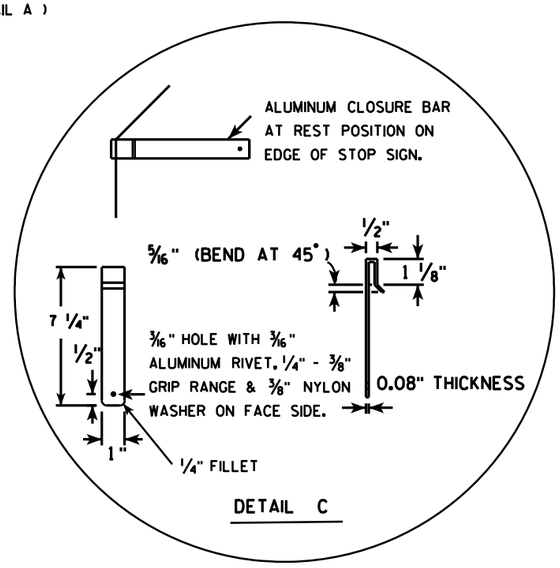


NOTES

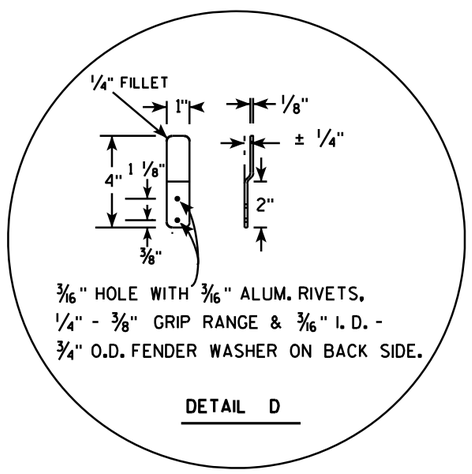
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



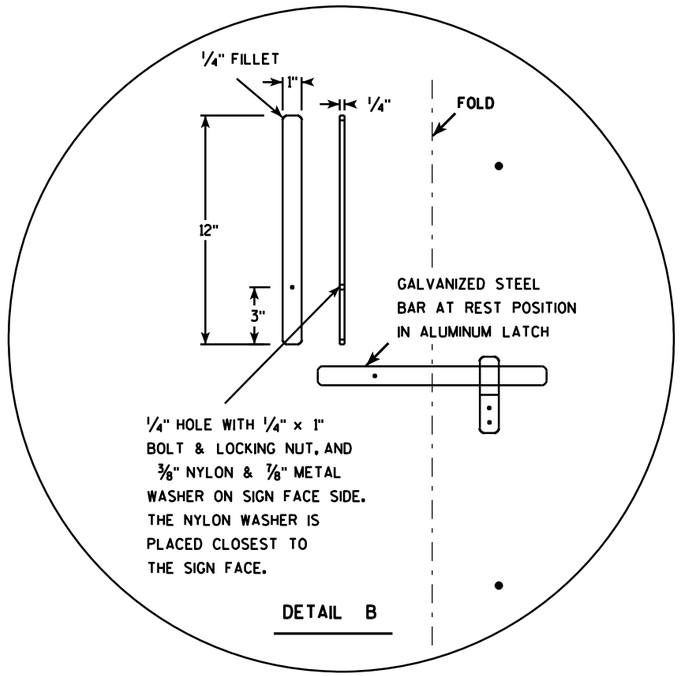
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

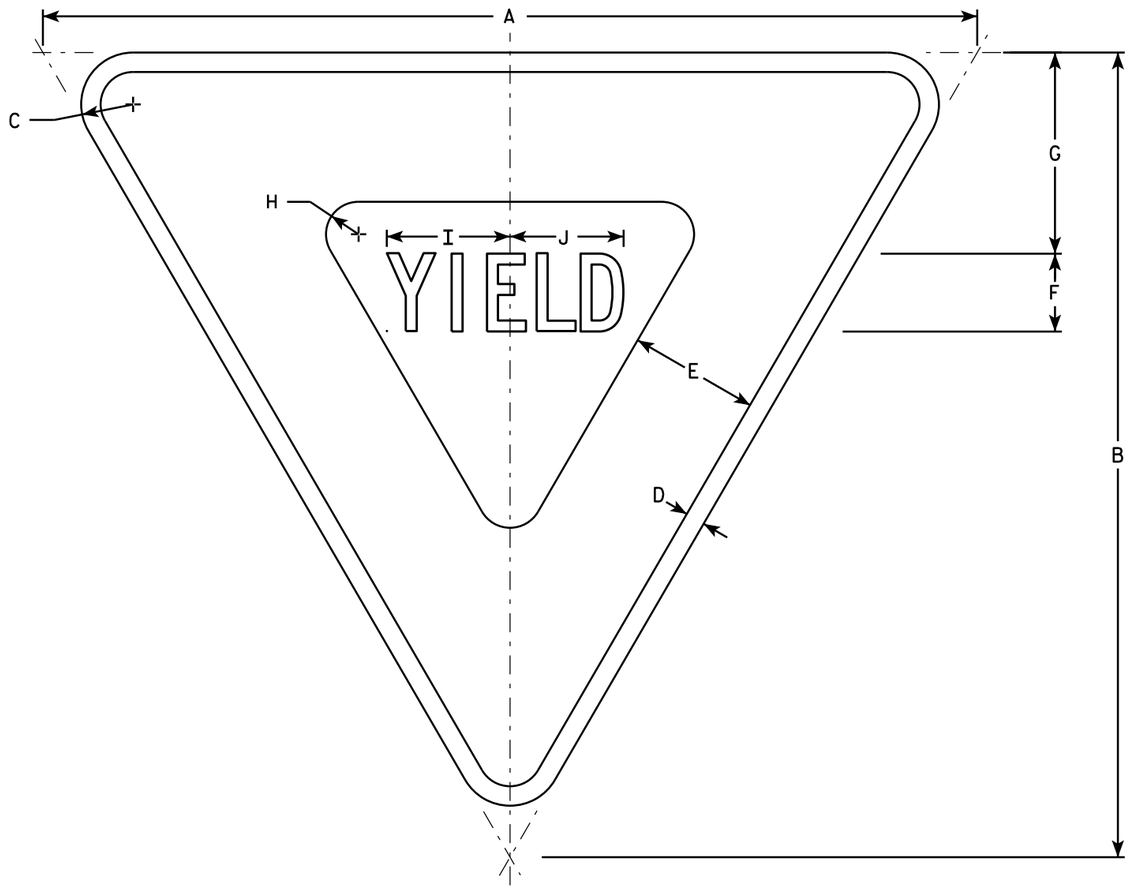
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

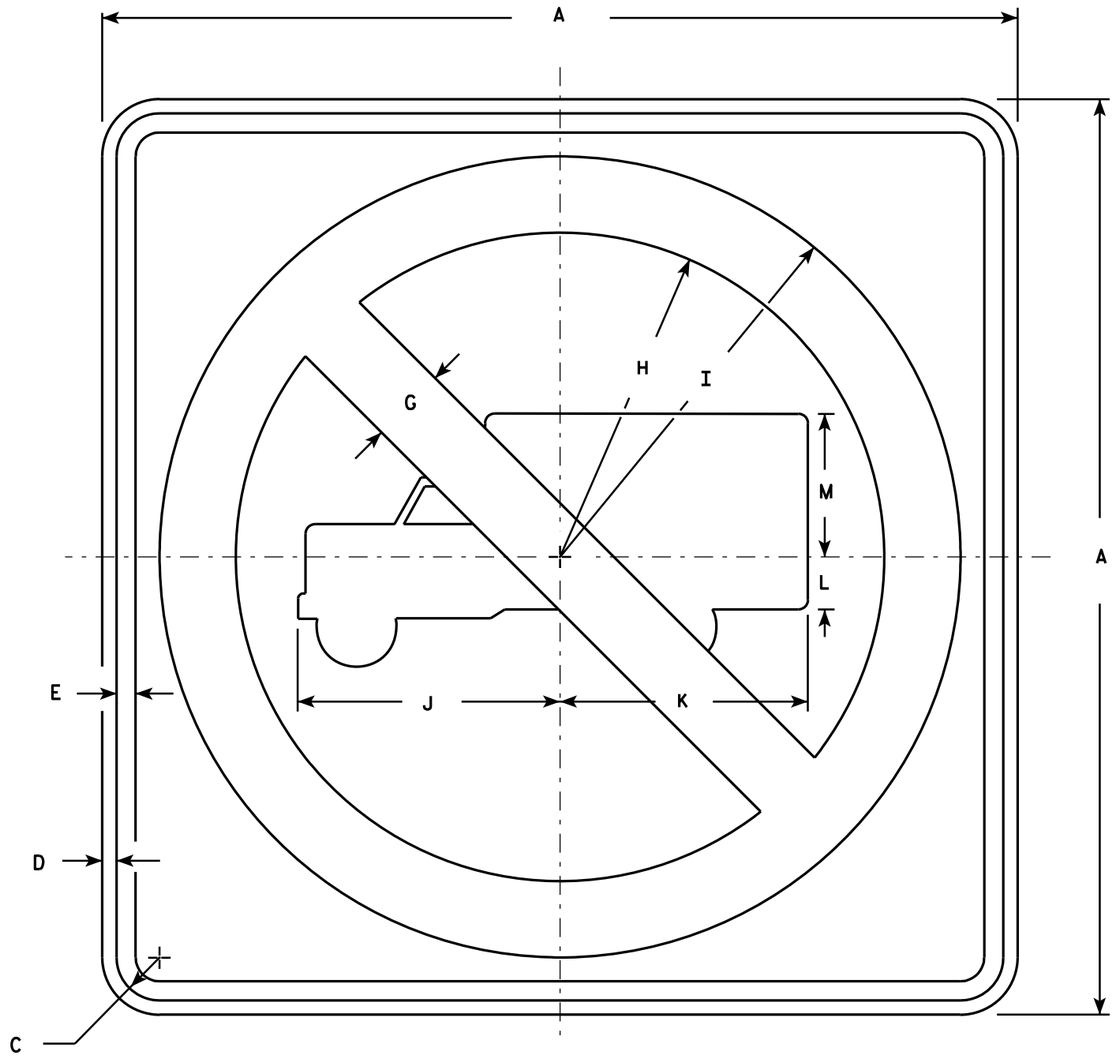
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R5-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

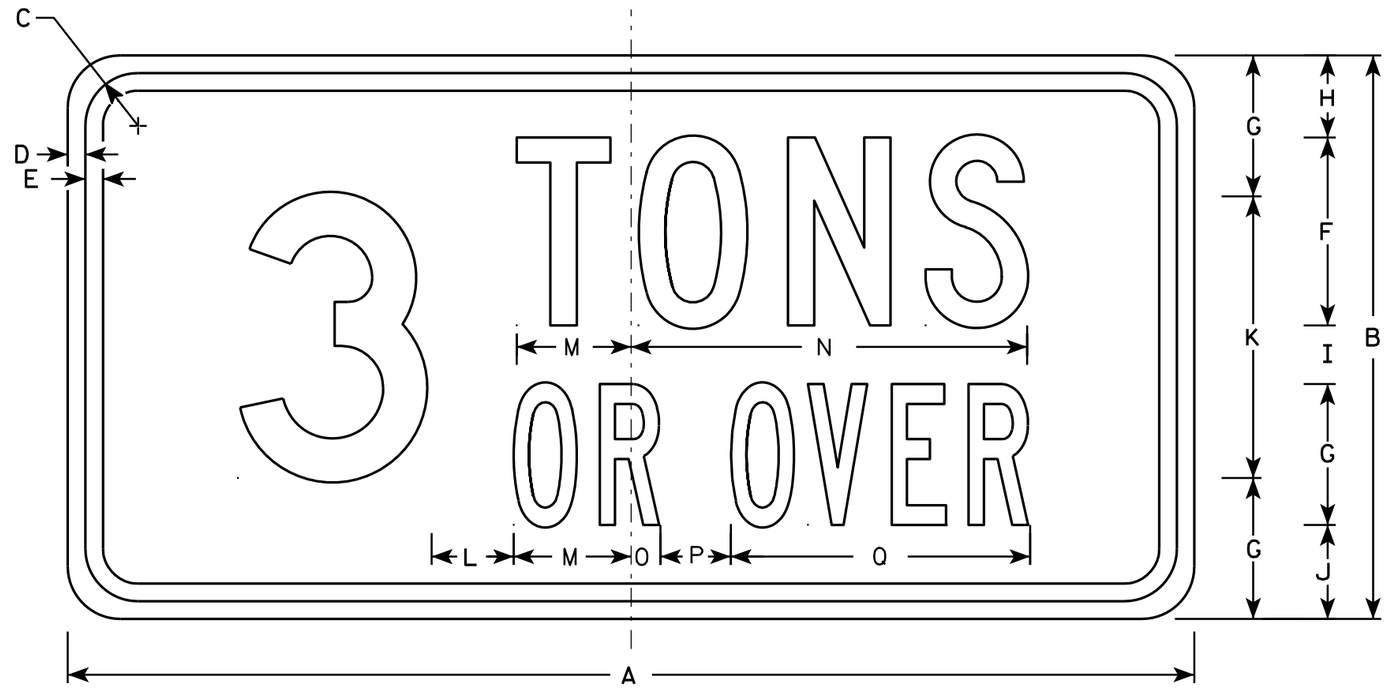
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



R5-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series "C"
   Line 2 is Series "B"
   Numeral is Series "D"
6. Substitute appropriate numerals.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
2M	24	12	1 1/8	3/8	3/8	4	3	1 3/4	1 1/4	2	6	1 3/4	2 1/2	8 1/2	5/8	1 1/2	6 3/8										2.0
3	30	15	1 1/8	3/8	1/2	5	4	2 1/8	1 3/8	2 1/2	7	2 1/4	3 1/8	10 1/2	1	2 3/8	8 1/2										2.25
4	36	18	1 1/8	3/8	1/2	6	5	2 5/8	1 3/8	3	9	2 1/2	3 3/4	12 5/8	1 3/8	3 1/8	10 1/2										4.5
5	48	24	1 3/8	3/8	5/8	8	6	3 1/2	2 1/2	4	12	3 1/2	4 7/8	16 7/8	1 1/4	3	12 3/4										8.0

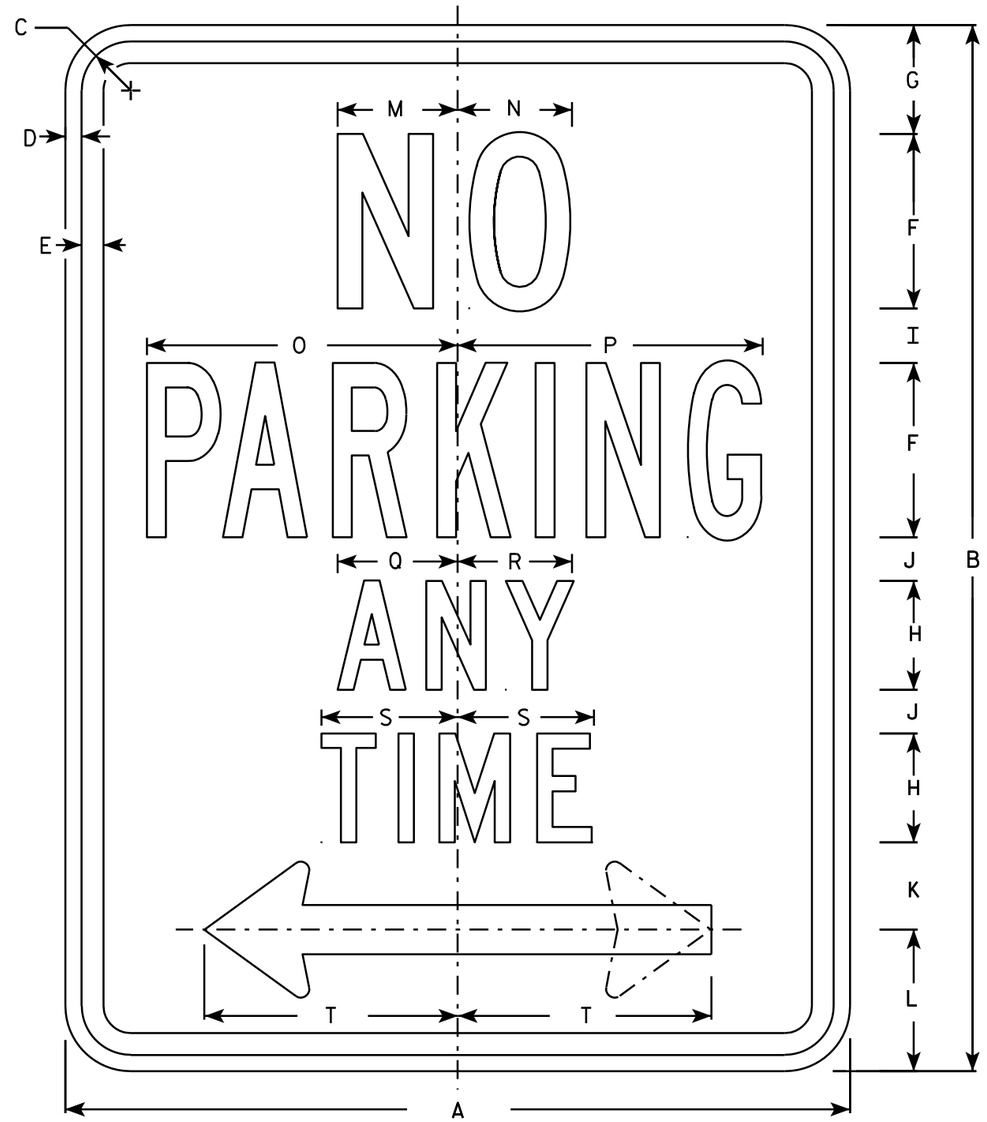
STANDARD SIGN
R5-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2A.7

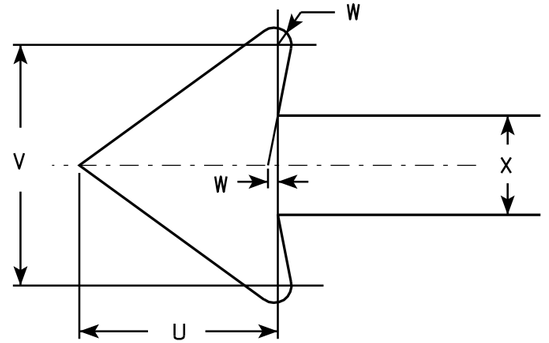
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 115 | E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

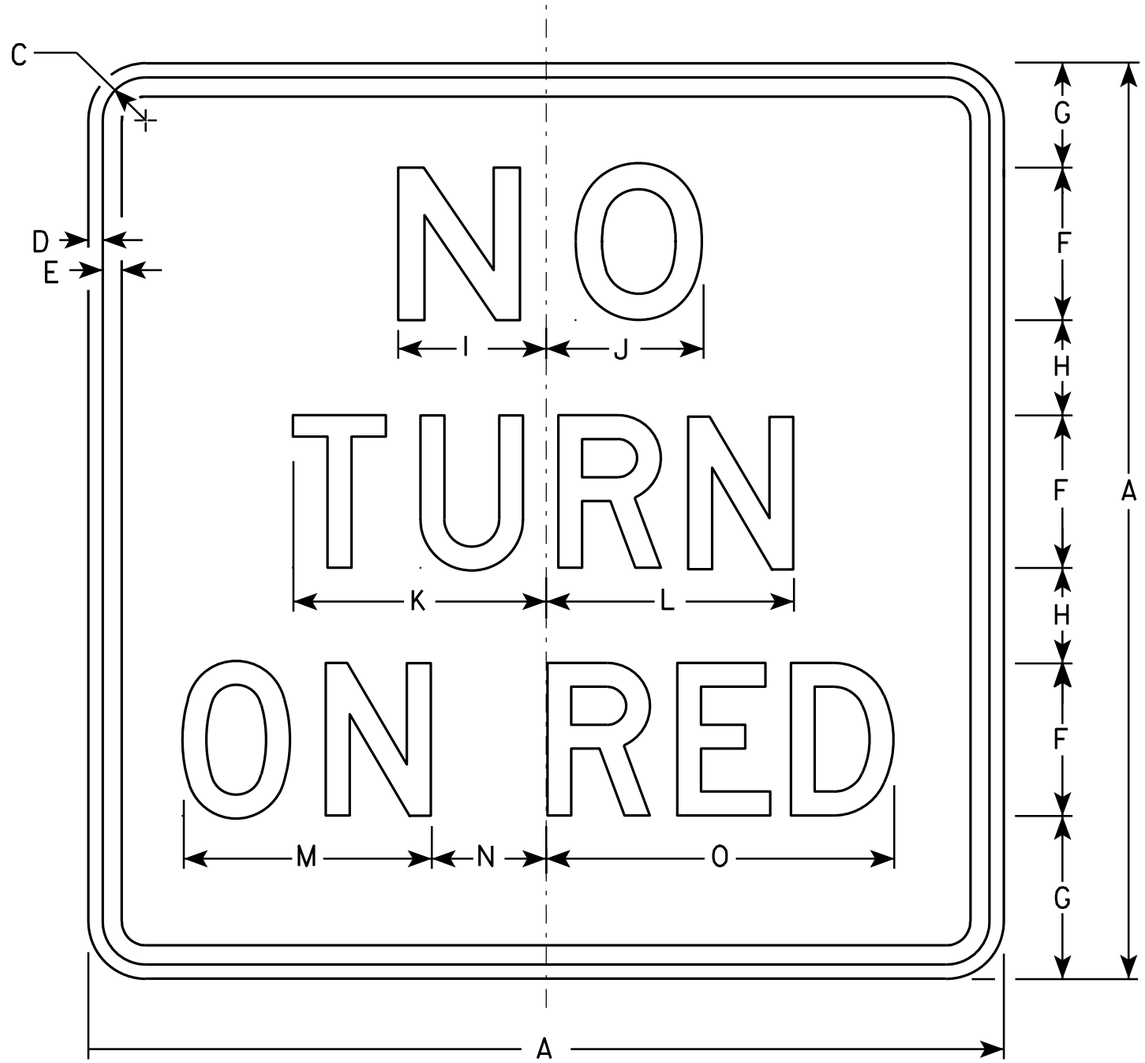
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 116 | E



R10-11B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
   Lines 2 and 3 are Series D.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	3	2 3/4	1 3/4	3	3 1/8	5	4 7/8	5 1/4	1 7/8	7 1/8												2.25
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
3	30		1 3/8	1/2	5/8	5	4 1/2	3	4 7/8	5 1/4	8 1/4	8 1/8	7 3/4	4 1/8	11 7/8												6.25
4																											
5																											

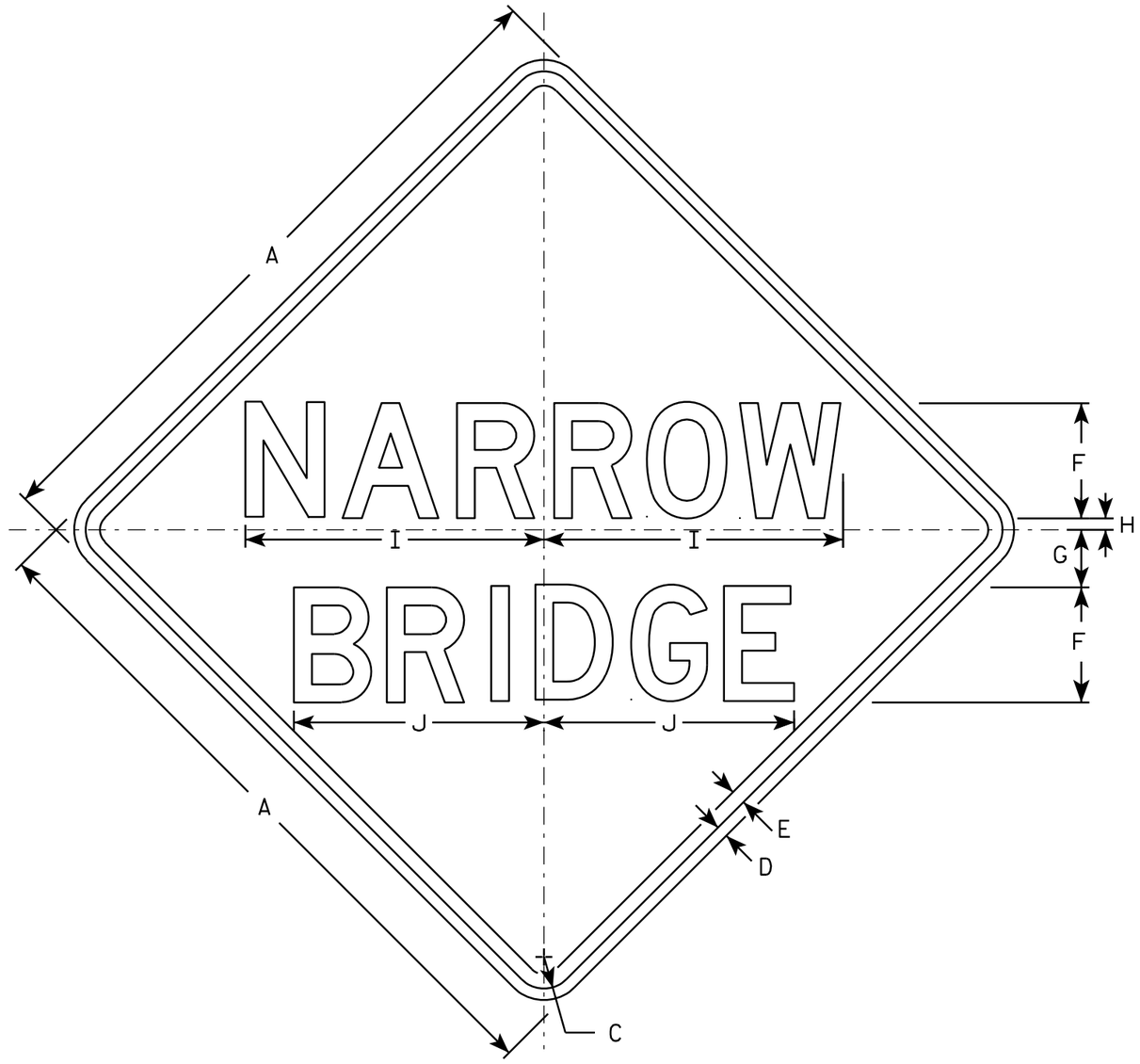
STANDARD SIGN
R10-11B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11B.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E



W5-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	2 1/2	1/2	13	10 7/8																	6.25
2S	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
2M	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
3	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
4	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
5																											

STANDARD SIGN
W5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov