

E

2	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 AGGREGATE 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 ALL CURB AND GUTTER IS LOW SIDE UNLESS OTHERWISE INDICATED ON PLAN. 7 TRANSVERSE JOINTS IN THE CONCRETE WALK SHALL BE CONSTRUCTED AT INTERVALS EQUAL TO THE WIDTH OF THE CONCRETE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. 8 ALL LONGITUDINAL AND TRANSVERSE JOINTS REQUIRING SEALING SHALL BE SEALED IN ACCORDANCE WITH THE DETAIL. 9 "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. 10 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. 11 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. 12 REPLACE ALL CONCRETE CURB AND GUTTER INDICATED FOR REMOVAL AND REPLACEMENT IN EXISTING LOCATION UNLESS OTHERWISE NOTED ON PLAN. 13 CONSTRUCTION PERMITS FOR CONCRETE WALK & / OR CONCRETE DRIVEWAY WORK HAVE BEEN OBTAINED, WHICH RIGHTS SHALL BE EXTENDED TO THE CONTRACTORS. 14 INLET SCREENS ARE TO BE PLACED BETWEEN THE FRAME AND GRATE OF CATCH BASINS / INLETS TO PREVENT SOIL FROM ENTERING THE SEWERS. 15 ALL CURB AND GUTTER SHOULD HAVE A FLANGE THICKNESS OF 8 INCHES. 16 CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SEWRPC AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.	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
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UTILITIES WITHIN PROJECT LIMITS

CITY OF MILWAUKEE
841 N. BROADWAY, RM 710 MILW.,WI 53202
TONY KOTECKI TEL. (414) 286-2433
UTILITY COORDINATOR

WE ENERGIES (GAS)
5400 N. GREEN BAY AVE., MILW., WI 53209
TOM MINESAL, TEL. 944-5755

WE ENERGIES (ELECTRIC)
KEN FRANECKI
500 S. 116TH ST.
WEST ALLIS, WI 53214
PHONE: 414-944-5531

AT&T WISCONSIN
7721 W. FOND DU LAC AVE. FL.1, MILW., WI 53218
CHARLES CONLEY, TEL. (608) 338-3015

MMSD
260 W. SEEBOTH ST., MILW., WI 53204
ROBERT REBITSKI, TEL. (414) 225-2214

AMERICAN TRANSMISSION COMPANY
RON LATUS
W234 N2000 RIDGEVIEW PARKWAY CT.
WAUKESHA, WI 53188
TEL. (262) 364-9048

TIME WARNER CABLE
CHRISTOPHER CROSBY
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-908-4890

TDS METROCOM
MICHAEL JOHNSON
PHONE: 262-754-3052

AT&T LEGACY
WILLIAM KOENIG
TEL. (608) 628-0575

AT&T MI-TECH
LORI WITTHUHN
TEL. (920) 288-8935

OTHER CONTACTS

MILW. CO. TRANSIT SYSTEM
1942 N. 17TH ST., MILW., WI 53205
DAVE ZIAREK, TEL. (414) 343-1764

STATE OF WISCONSIN DEPT. OF NATURAL RESOURCES
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILW., WI 53212
KRISTINA BETZOLD,
TEL. (414) 263-8517
Kristina.Betzold@Wisconsin.gov

DESIGN CONSULTANT
CITY OF MILWAUKEE
841 N. BROADWAY, RM 902 MILW.,WI 53202
SAMUEL MEDHIN
TEL. (414) 286-0474
samuelmedhin@milwaukee.gov

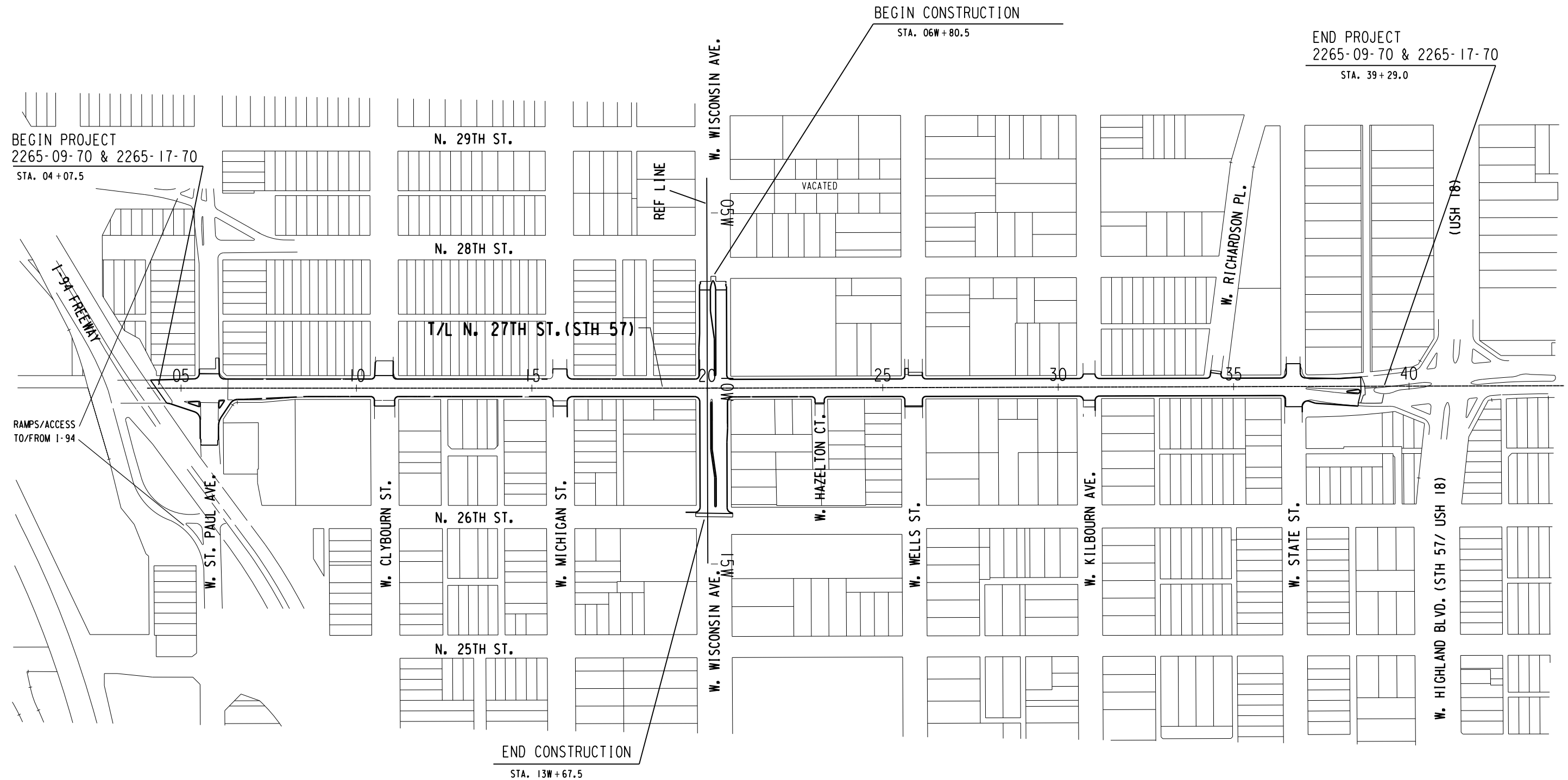
STATE OF WISCONSIN DEPT. OF TRANSPORTATION
141 NW BARSTOW ST. WAUKESHA, WI 53188
MOHAMMAD HOSSAIN, PROJECT MANAGER
TEL. (262) 548-8783

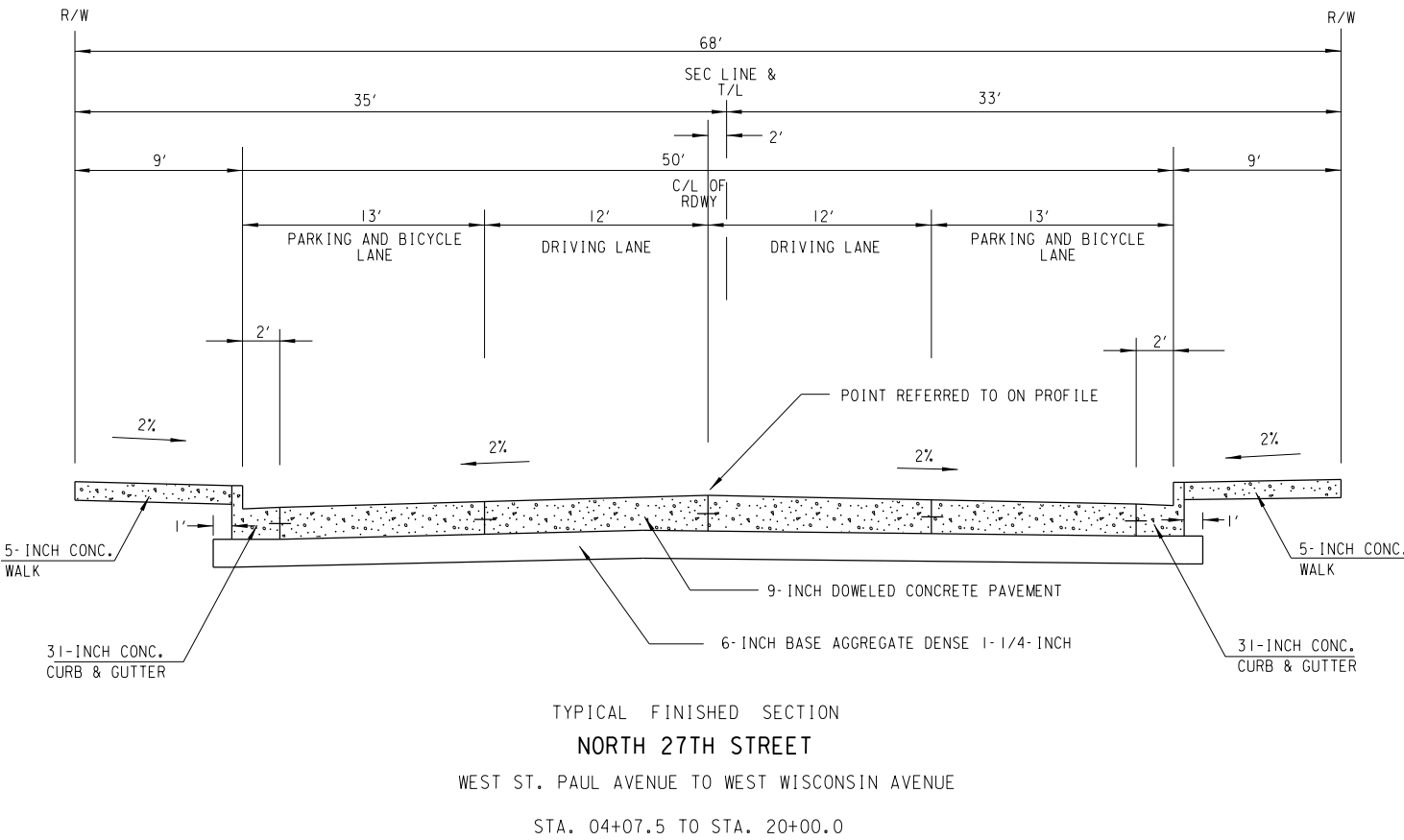
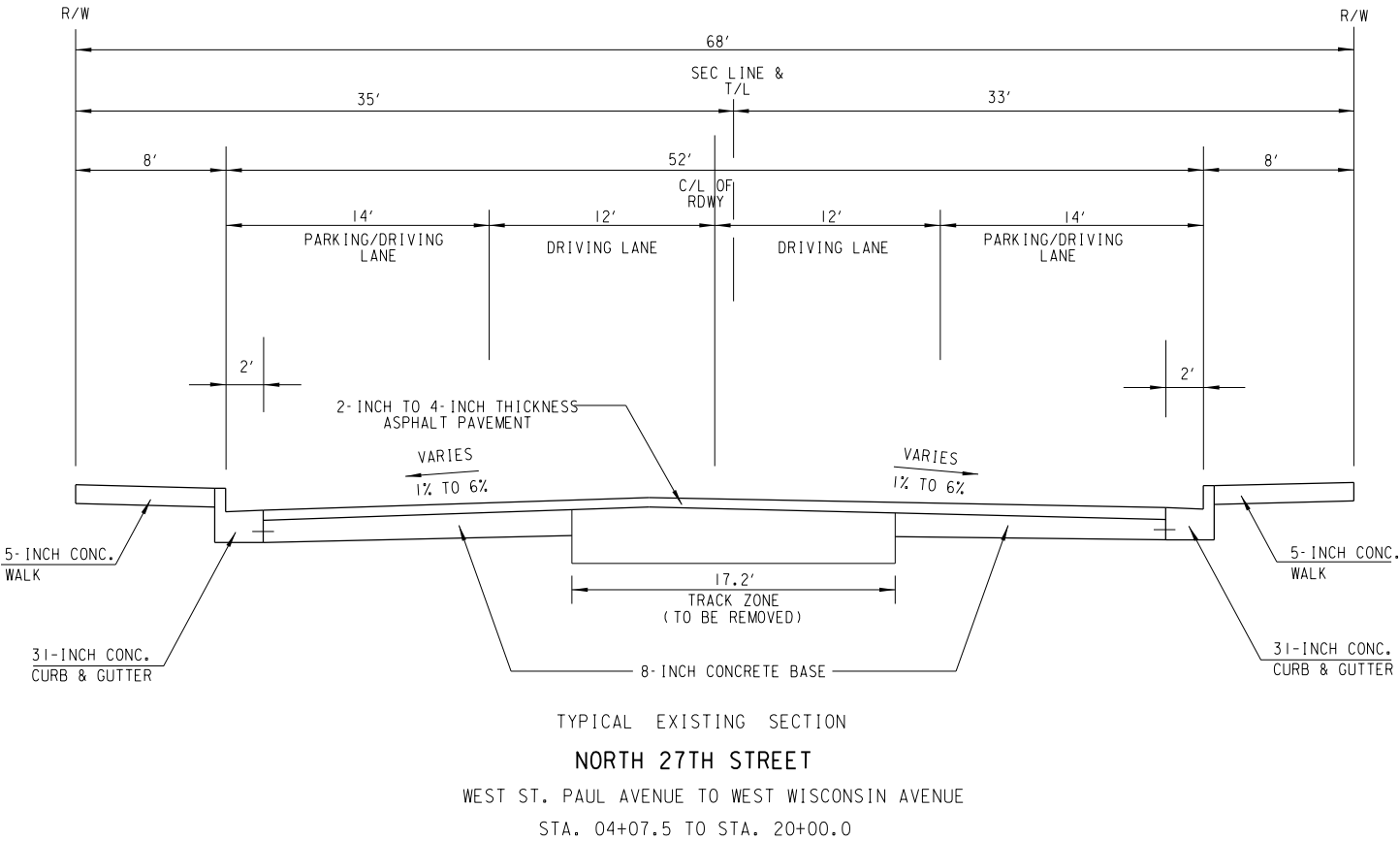
SEWRPC
W239 N1812 ROCKWOOD DR.
KURT BAUER/ DONALD SIMON
P.O. BOX 1607 WAUKESHA, WI 53187-1607
TEL. (262) 547-6721, FAX (262) 547-1103

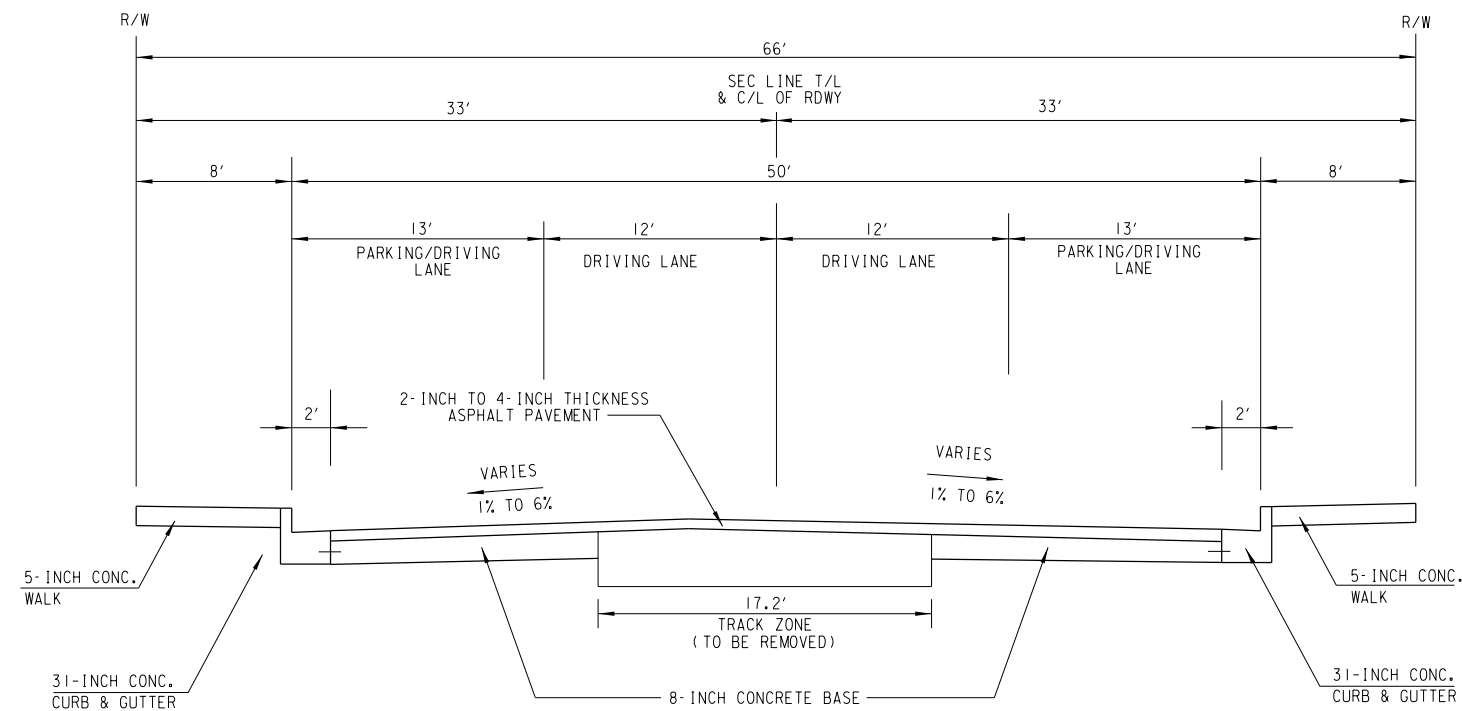


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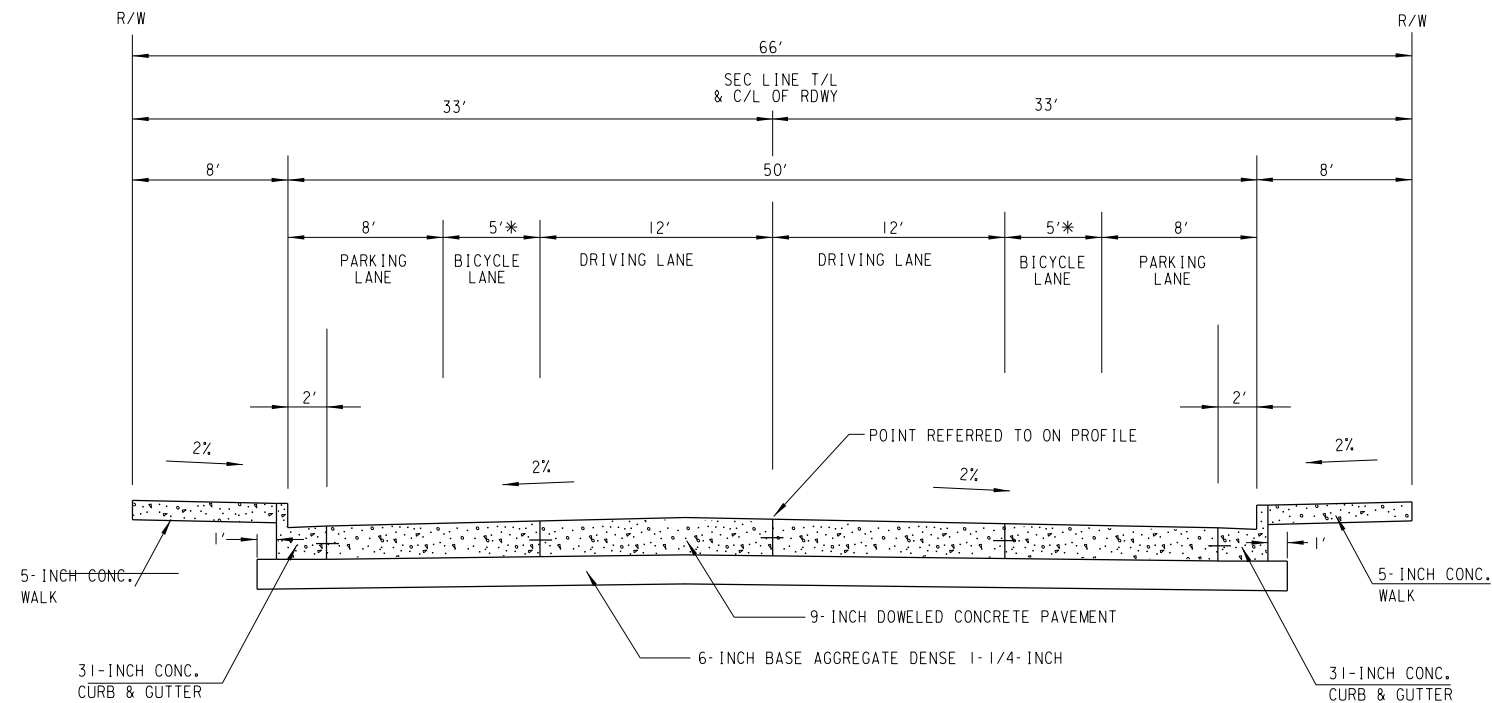
CONSTRUCTION PERMIT LOCATIONS		
NUMBER	STATION	ADDRESS OF PROPERTY
1	6+55 TO 7+30, RT AND 8+12 TO 8+25, RT	418 N 27TH ST
2	6+35 TO 6+62, LT AND 7+00 TO 7+32, LT	405 N 27TH ST
3	8+28 TO 8+60, RT	2601 W CLYBOURN ST
4	9+25 TO 9+50, LT	431 N 27TH ST
5	9+48 TO 9+71, RT	2631-2639 W CLYBOURN ST
6	11+63 TO 11+84, LT	505 N 27TH ST
7	11+80 TO 12+10, RT	510 N 27TH ST
8	12+15 TO 12+40, LT	509-511 N 27TH ST
9	12+40 TO 13+08, LT AND 13+72 TO 13+90, LT	527 N 27TH ST
10	12+60 TO 12+85, RT	528 N 27TH ST
11	14+42 TO 14+98, RT	540 N 27TH ST
12	16+31 TO 16+50, LT AND 16+93 TO 17+17, LT	605 N 27TH ST
13	17+60 TO 18+27, LT	625 N 27TH ST
14	18+81 TO 19+07, LT	2701-2703 W WISCONSIN AVE
15	21+25 TO 22+25, RT	2630 W WISCONSIN AVE
16	22+30 TO 22+76, LT	2708 W WISCONSIN AVE
17	24+48 TO 24+80, RT	760 N 27TH ST
18	27+22 TO 27+63, RT	2632 W WELLS ST
19	28+54 TO 28+78, LT	801-831 N 27TH ST
20	28+78 TO 28+96, LT	839 N 27TH ST
21	29+41 TO 29+82, RT AND 30+06 TO 30+35, RT	848 N 27TH ST
22	29+50 TO 30+54, LT	853 N 27TH ST
23	31+50 TO 31+75, RT AND 32+40 TO 32+54, RT	914 N 27TH ST
24	32+45 TO 32+72, LT	901-917 N 27TH ST
25	32+90 TO 33+55, RT	930 N 27TH ST
26	07W+25 TO 07W+56, RT	2729-2731 W WISCONSIN AVE
27	10W+92 TO 11W+22, LT	2630 W WISCONSIN AVE
28	11W+82 TO 11W+91, LT	2616 W WISCONSIN AVE
29	10W+33 TO 13W+40, RT	2601 W WISCONSIN AVE



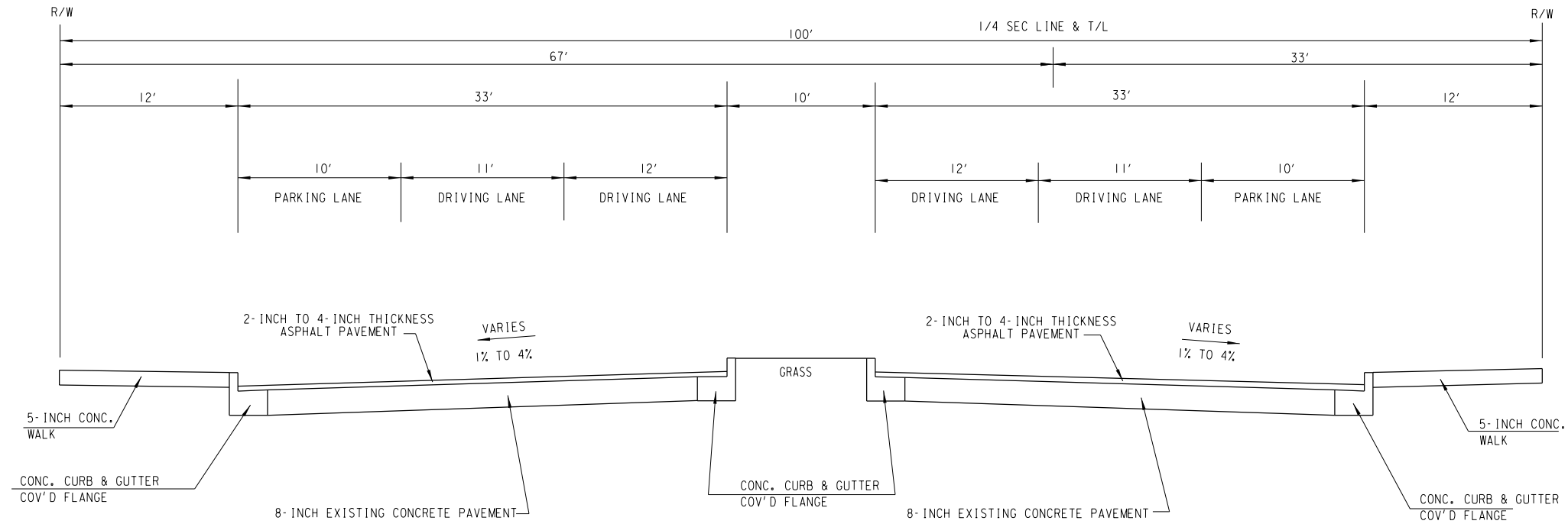




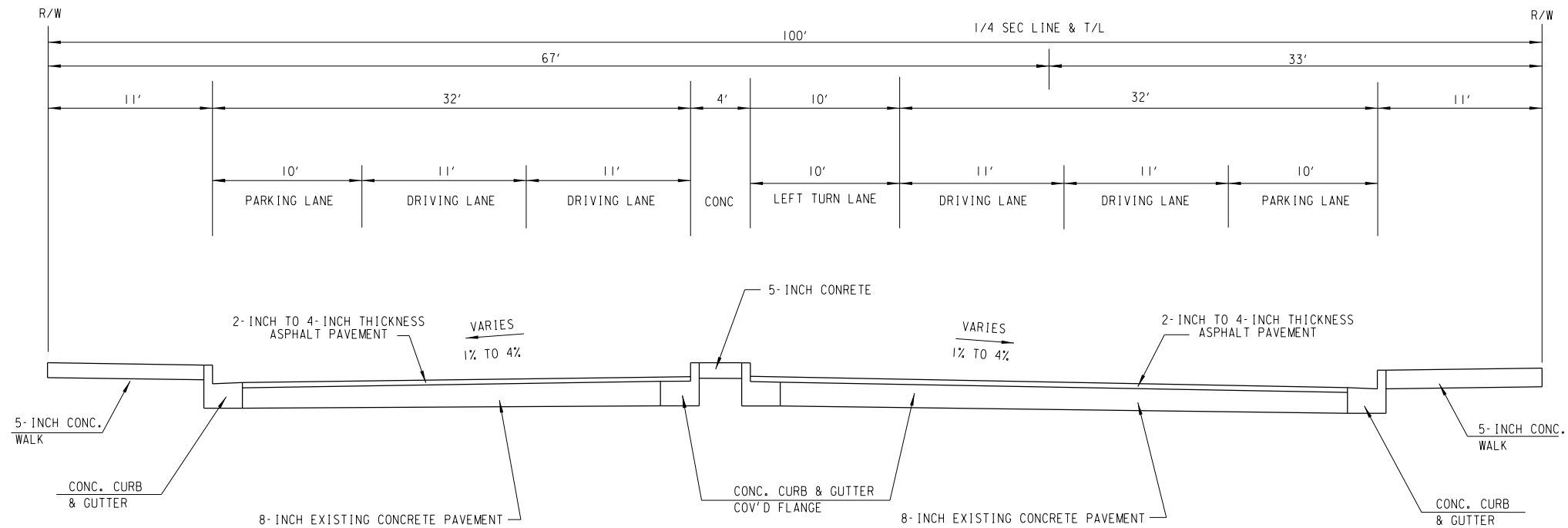
TYPICAL EXISTING SECTION
NORTH 27TH STREET
 WEST WISCONSIN AVENUE TO WEST HIGHLAND BOULEVARD
 STA. 20+00.0 TO STA. 39+29.0



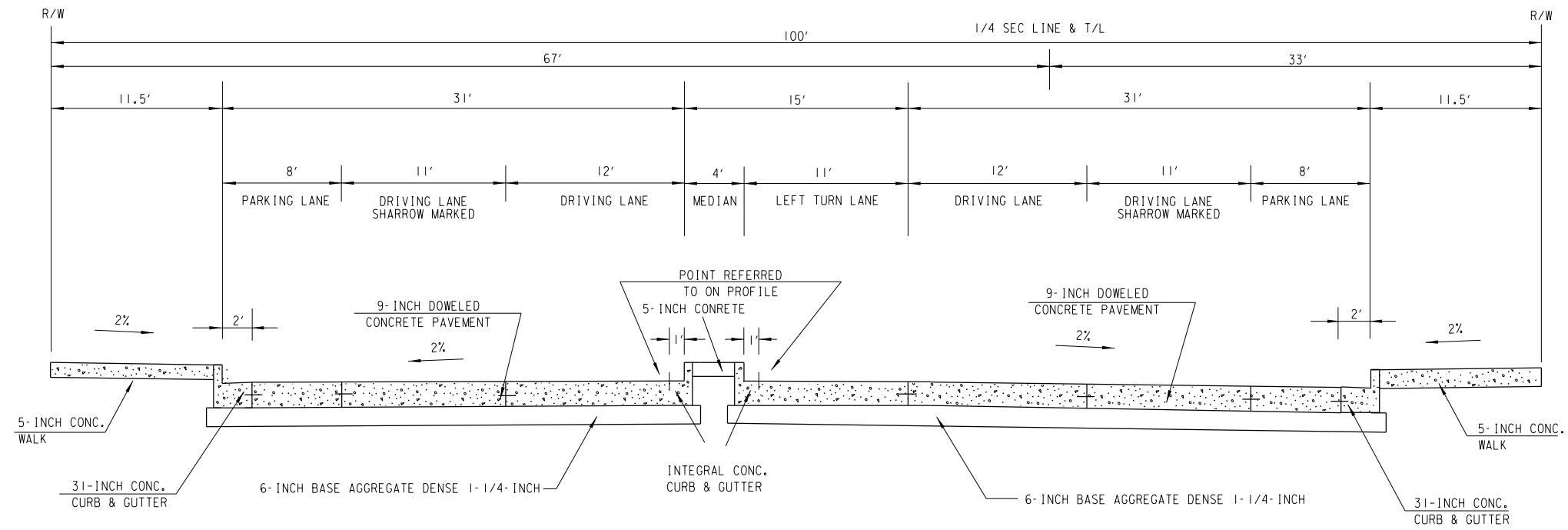
TYPICAL FINISHED SECTION
NORTH 27TH STREET
 WEST WISCONSIN AVENUE TO WEST HIGHLAND BOULEVARD
 STA. 20+00.0 TO STA. 39+29.0
 * BICYCLE LANE SHALL BE MARKED BETWEEN W. HAZELTON CT. & W. RICHARDSON PL.



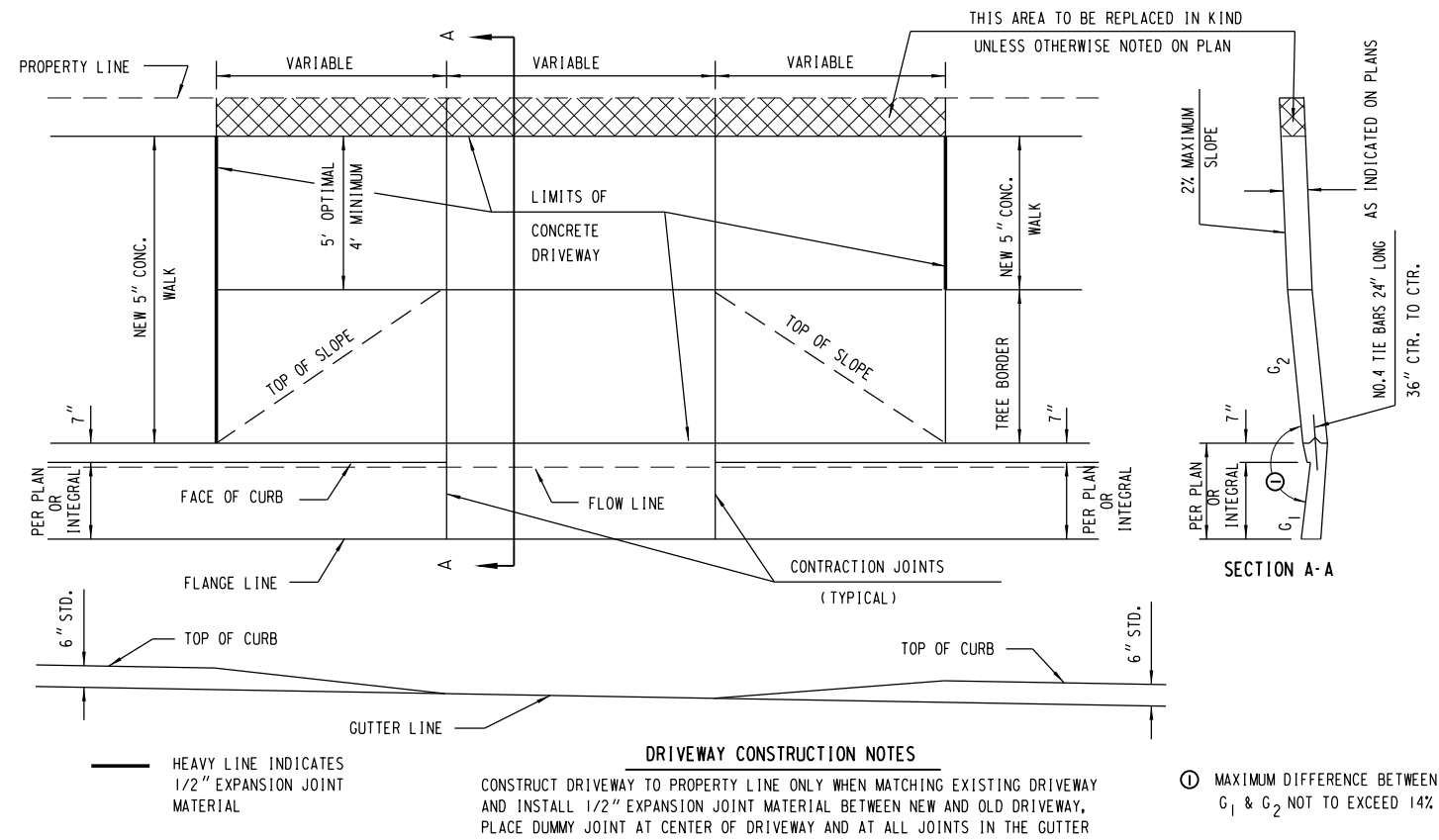
TYPICAL EXISTING SECTION
WEST WISCONSIN AVENUE
 NORTH 27TH STREET TO NORTH 28TH STREET
 STA. 06W+80.5 TO STA. 10W+00.0



TYPICAL EXISTING SECTION
WEST WISCONSIN AVENUE
 NORTH 26TH STREET TO NORTH 27TH STREET
 STA. 10W+00.0 TO STA. 13W+67.5

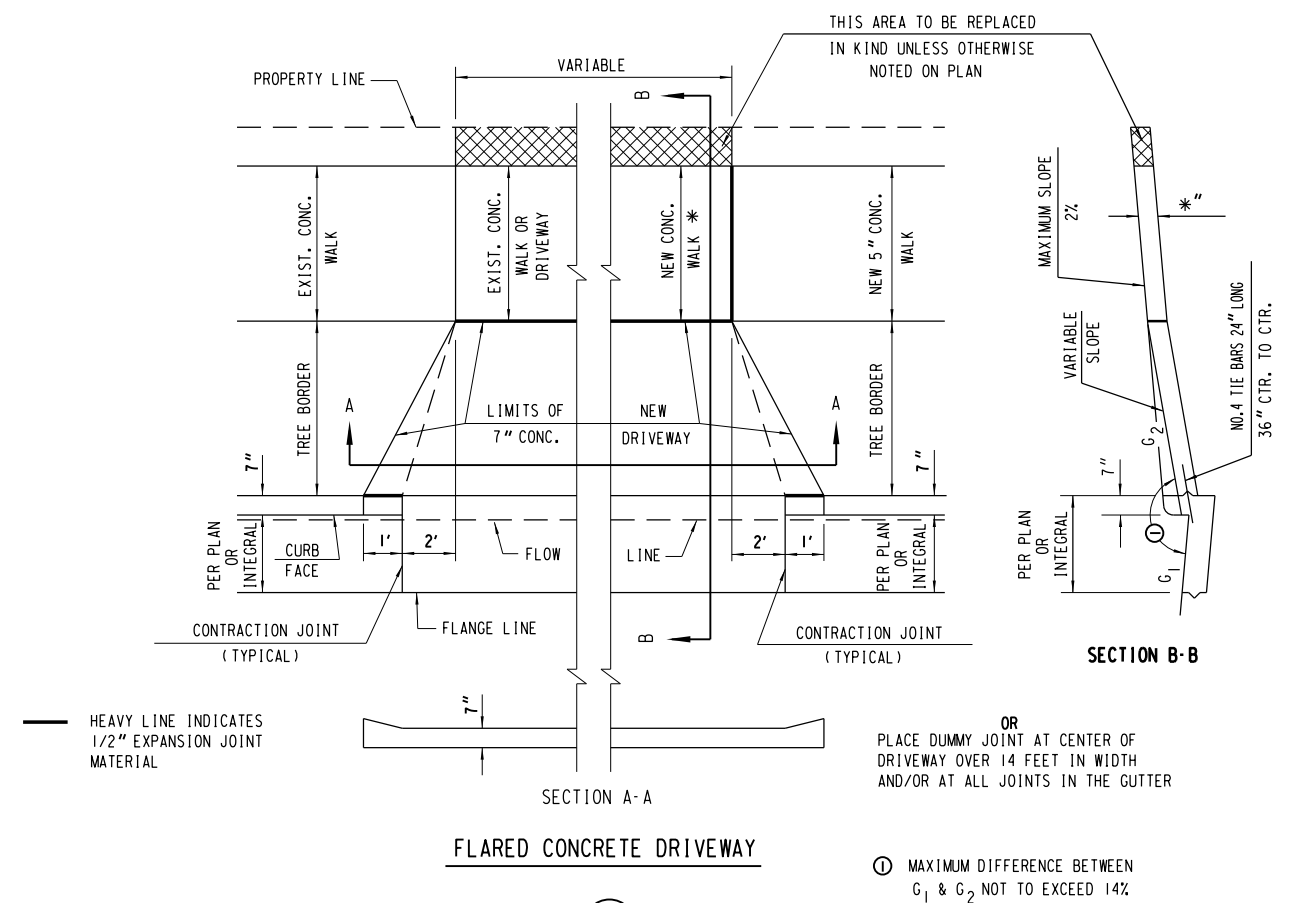


TYPICAL FINISHED SECTION
WEST WISCONSIN AVENUE
NORTH 26TH STREET TO NORTH 28TH STREET
STA. 06W+80.5 TO STA. 13W+67.5



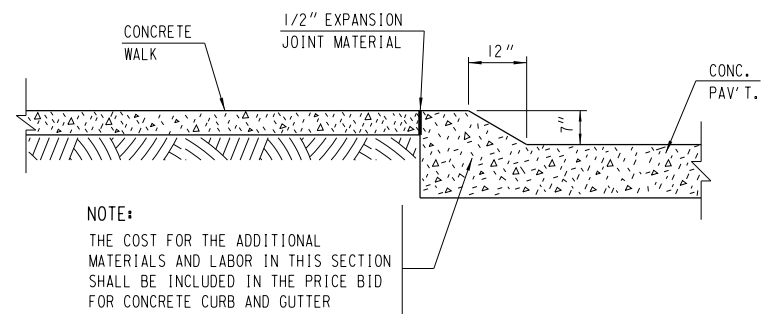
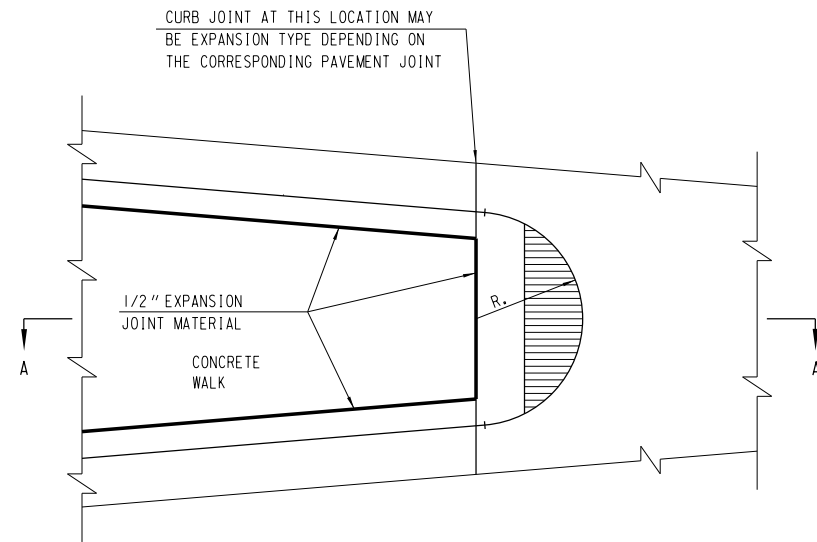
DEPRESSED CONCRETE DRIVEWAY (MODIFIED)

(E) (E2)



FLARED CONCRETE DRIVEWAY

(DD)

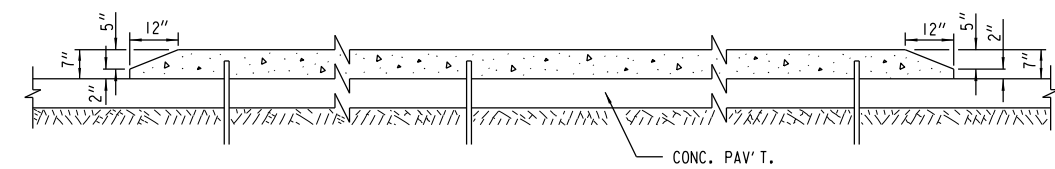
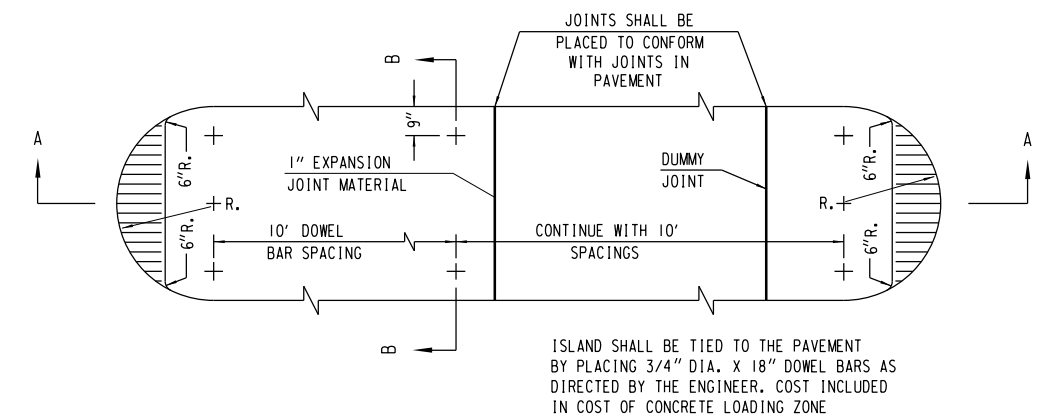


SECTION A - A

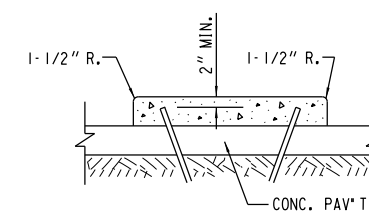
SNOWPLOWABLE MEDIAN ISLAND NOSE

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

(N)



SECTION A - A

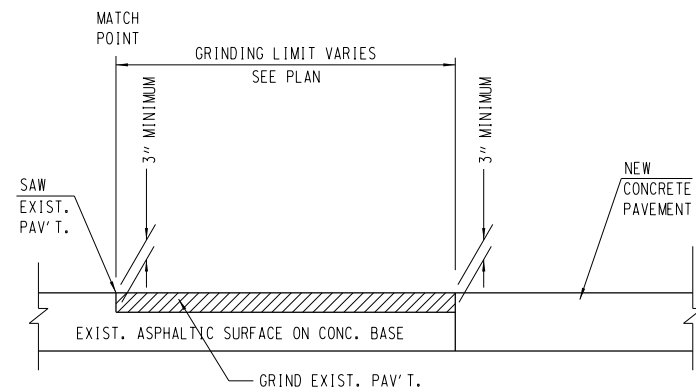


SECTION B - B

NOTE:
SIZE AND LOCATION OF CITY OF MILWAUKEE ELECTRICAL SERVICES BOXOUTS IN CONCRETE ISLANDS ON BASE TO BE DETERMINED IN FIELD AT THE TIME OF CONSTRUCTION

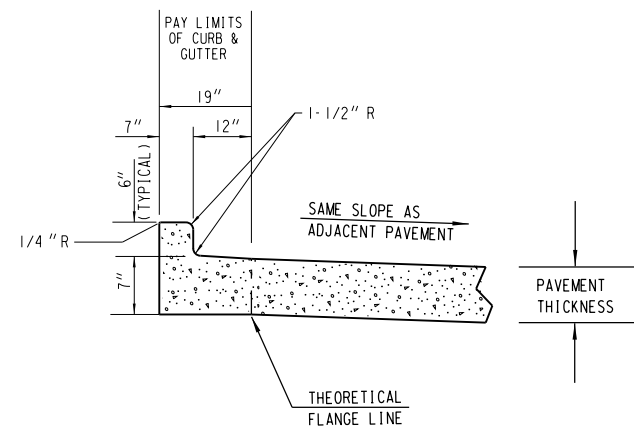
CONCRETE LOADING ZONE
(WITH SNOWPLOWABLE NOSE)

(W)



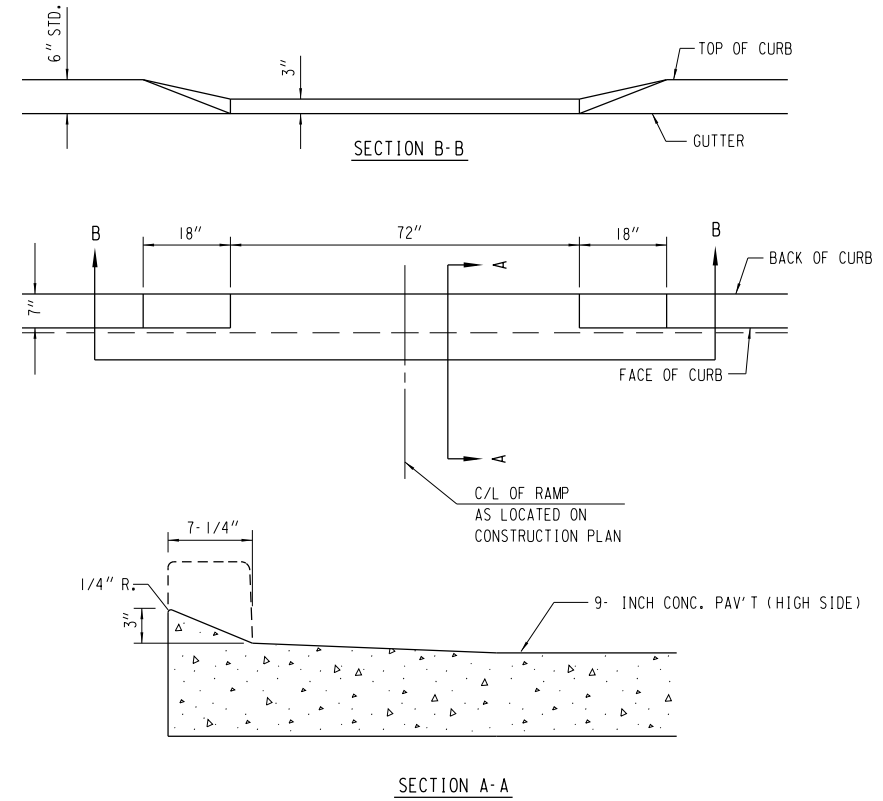
REMOVING ASPHALTIC SURFACE BUTT JOINTS

IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT

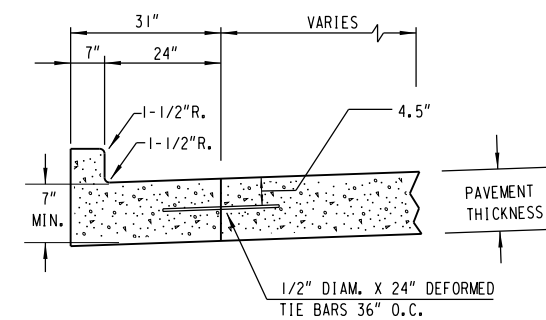


CONCRETE CURB & GUTTER INTEGRAL 19-INCH HIGH SIDE

(BB)

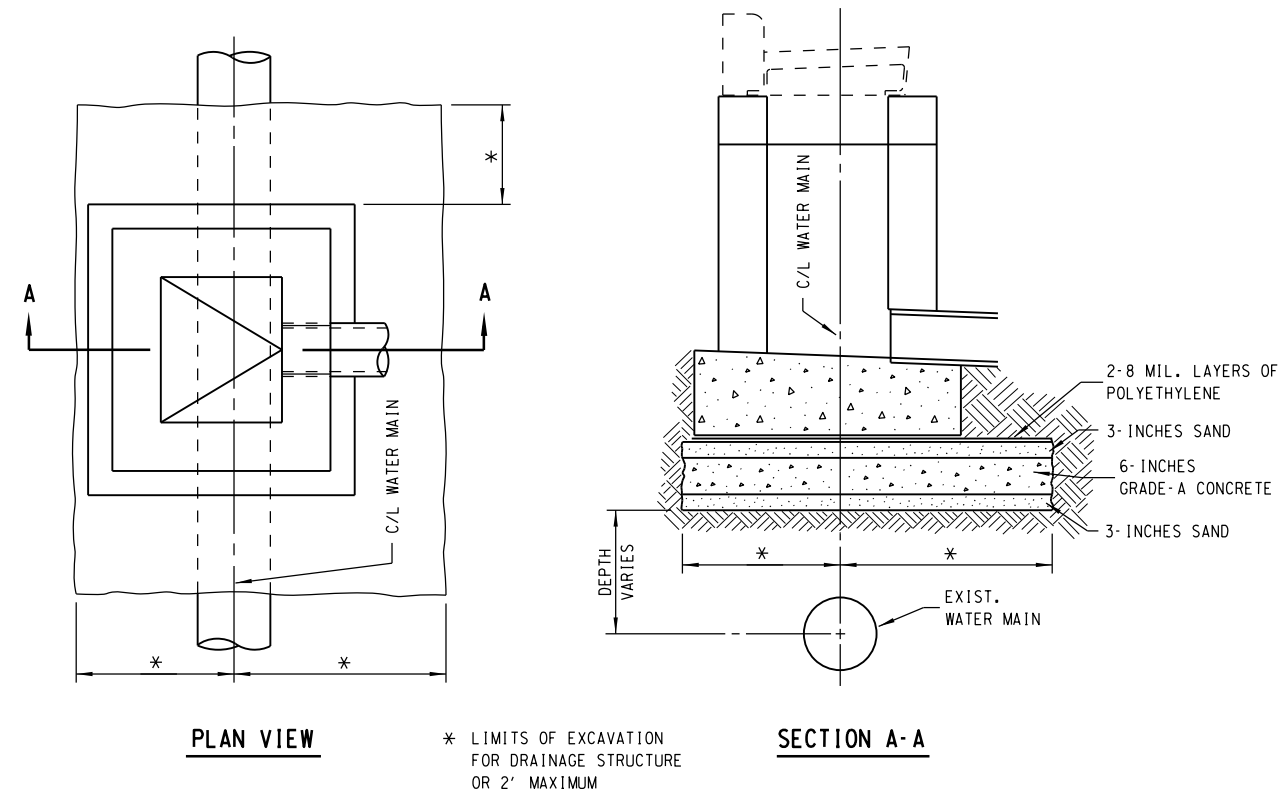


MAINTENANCE RAMP



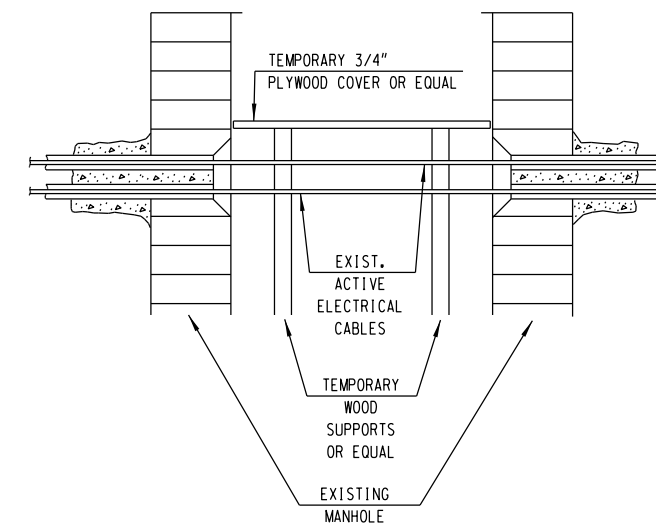
CONCRETE CURB & GUTTER 31-INCH

(B)



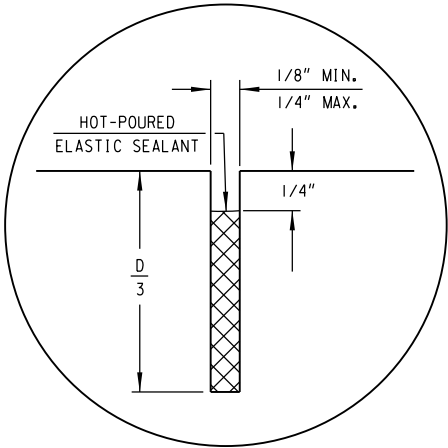
WATER MAIN PROTECTION

ADJUSTING TES MANHOLE FRAMES AND LIDS



BLOCK OR BRICK ROUND MANHOLE

TRANSVERSE DOWELED, REINFORCED CONCRETE PAVEMENT JOINTS



DETAIL "A"

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

GENERAL NOTES

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

CONTRACTION JOINTS

CONTRACTION JOINTS SHALL BE LOCATED AT A UNIFORM SPACING SHOWN IN TABLE. EXCEPTIONS SHALL BE AS DIRECTED BY THE ENGINEER.

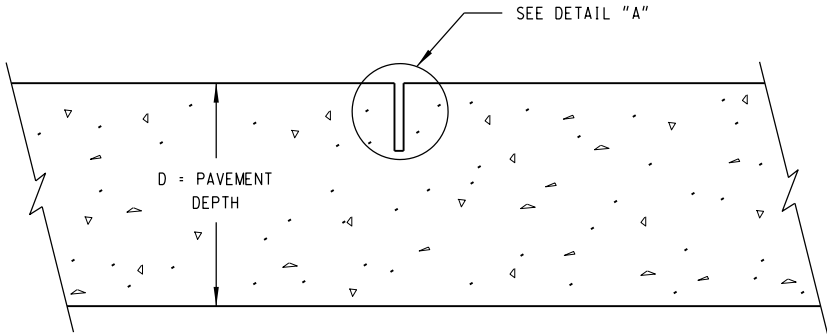
THE SAWCUT SHALL BE TO THE DEPTH OF D/3 AND THE WIDTH OF 1/8 INCH MIN. & 1/4 INCH MAX.

CONSTRUCTION JOINTS

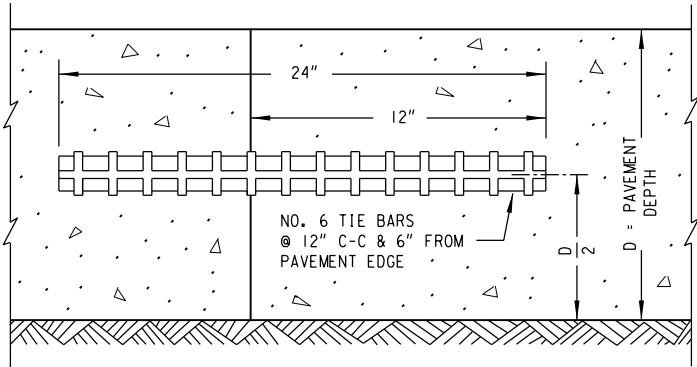
CONSTRUCTION JOINTS MAY BE LOCATED IN ANY PANEL AND BE A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT. CONSTRUCTION JOINTS MAY BE CONSTRUCTED EITHER PARALLEL TO CONTRACTION JOINTS OR AT 90° TO THE CENTERLINE.

TIE BARS MAY BE INSERTED THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN POURED.

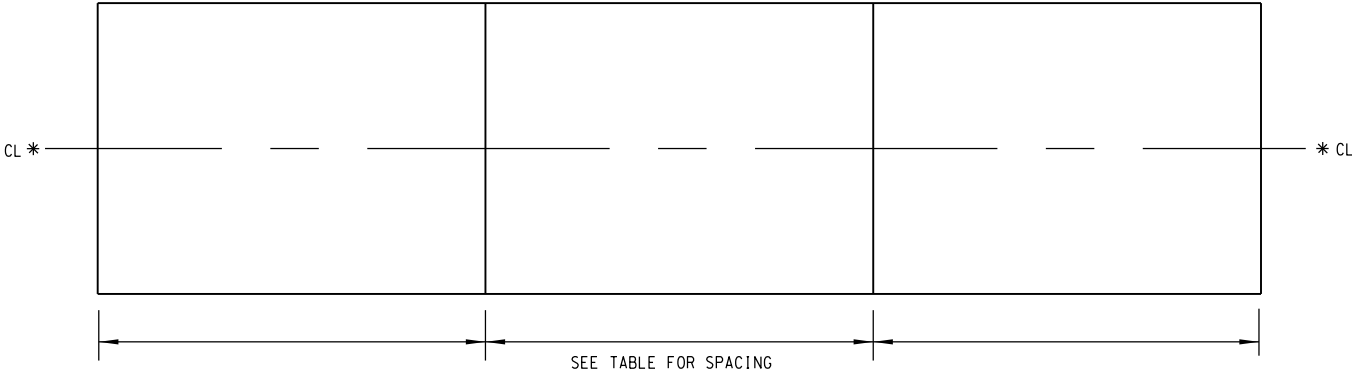
TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



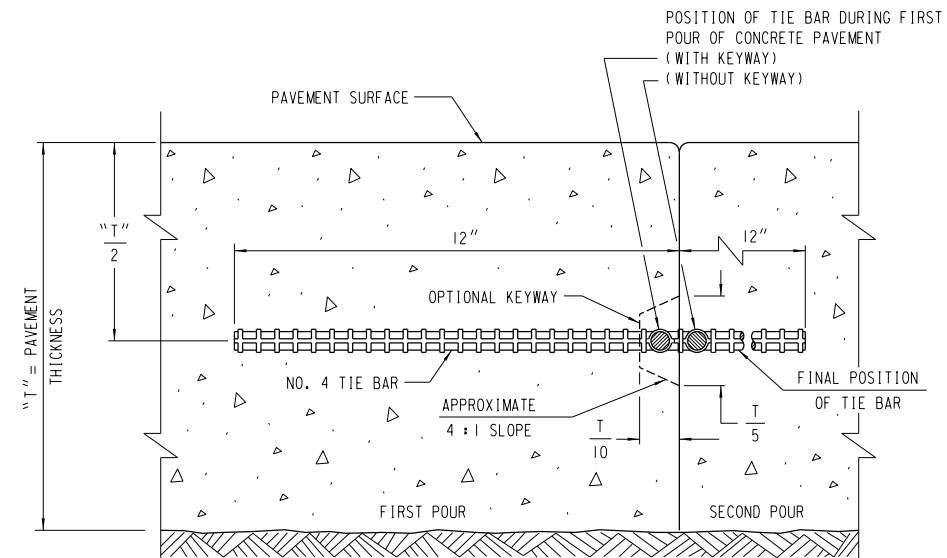
CONTRACTION JOINT



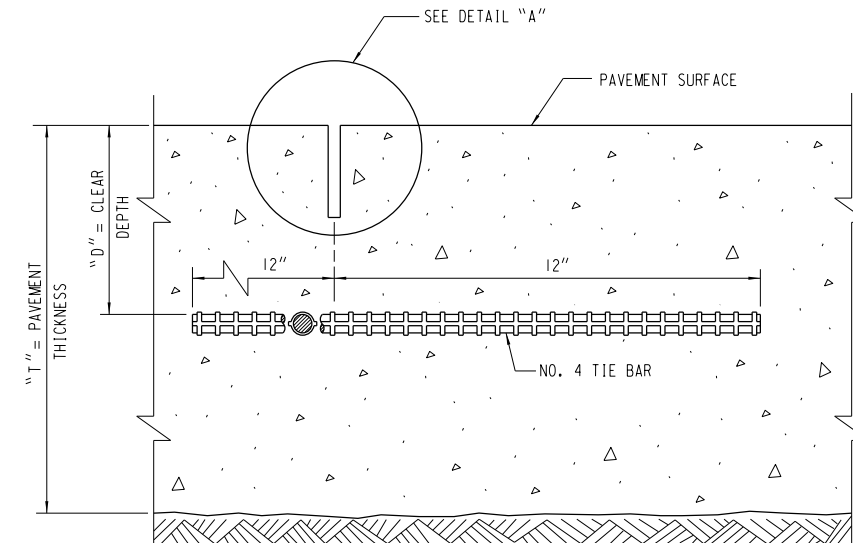
CONSTRUCTION JOINT



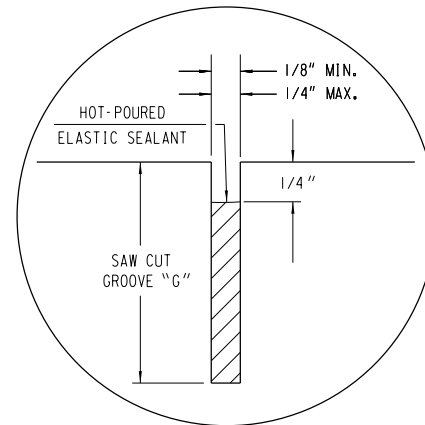
CONTRACTION JOINT LOCATIONS



CONSTRUCTION JOINT



SAWED JOINT

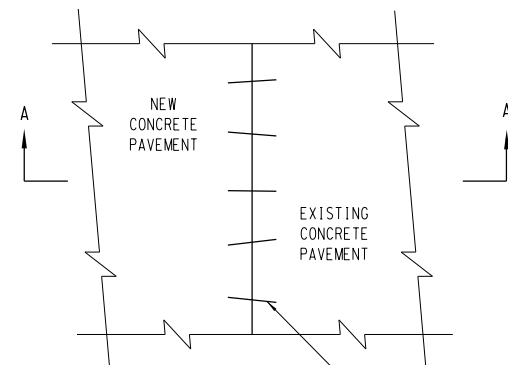


DETAIL "A"

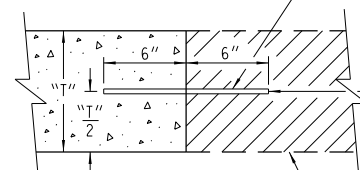
GENERAL NOTES

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

TIE BARS AND PAVEMENT TIES SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



PLAN VIEW

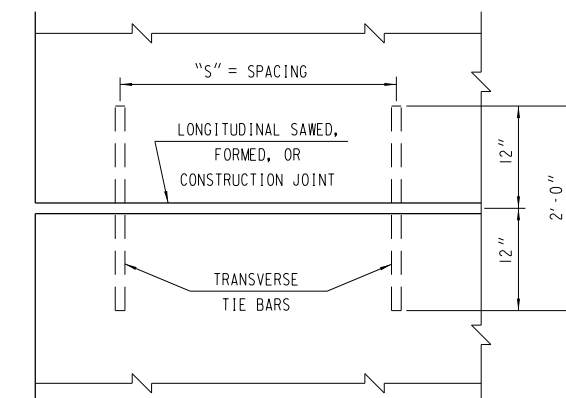
SECTION A-A
PAVEMENT TIES

NO. 6 TIE BARS
SPACED 3'-0" C.-C.
INSTALLED ON 6:1 SKEW
HORIZONTALLY. DIRECTION
OF SKEW ALTERNATING AFTER
EVERY ONE OR TWO BARS.

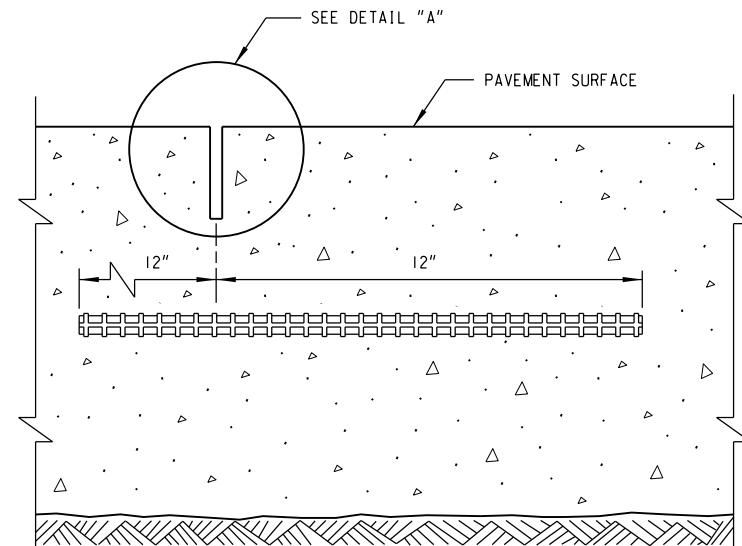
THE HOLE FOR THE BAR SHALL
BE DRILLED TO A DEPTH OF
7" AND TO SUCH A DIAMETER
AS TO PROVIDE A TIGHT
DRIVEN FIT.

EXIST. CONC.
PAVEMENT

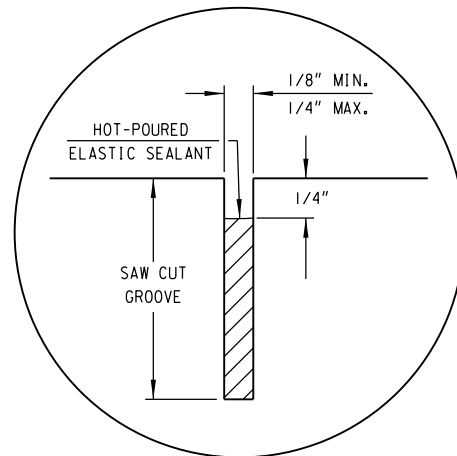
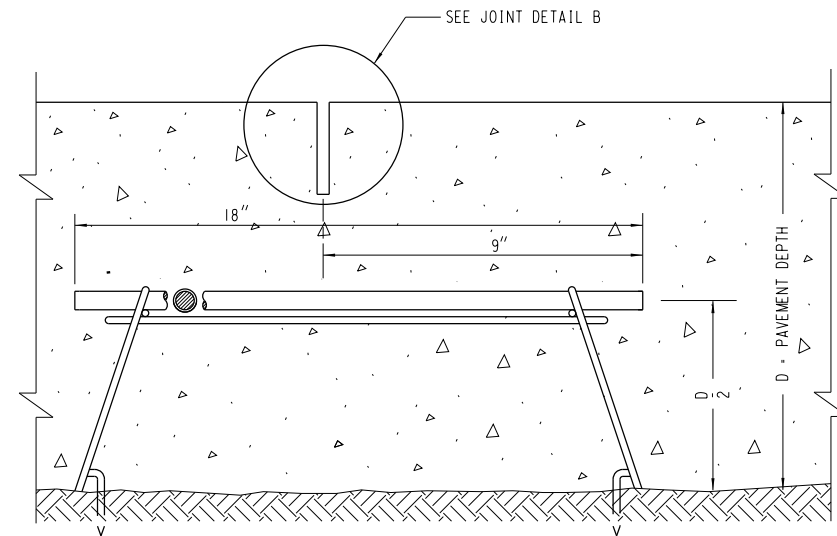
PAVEMENT THICKNESS "T"	CLEAR DEPTH "D"	SAW CUT GROOVE "G"	MAXIMUM TIE BAR SPACING "S"	
			PAVEMENT WIDTH	
			LESS THAN 30'	30' OR MORE
6"	3" ± 1/2"	1-1/2"	48"	42"
7"	3-1/4" ± 1"	1-3/4"	45"	36"
8"	3-3/4" ± 1"	2"	39"	30"
9"	4-1/4" ± 1"	2-1/4"	33"	27"
10"	4-3/4" ± 1"	2-1/2"	30"	24"
11"	5-1/4" ± 1"	2-3/4"	27"	21"
12"	5-3/4" ± 1"	3"	24"	21"

PLAN VIEW
SHOWING LOCATION OF TIE BARS

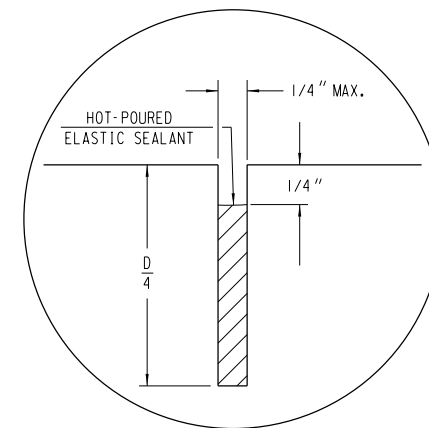
JOINTS WITH HOT POURED SEALANT

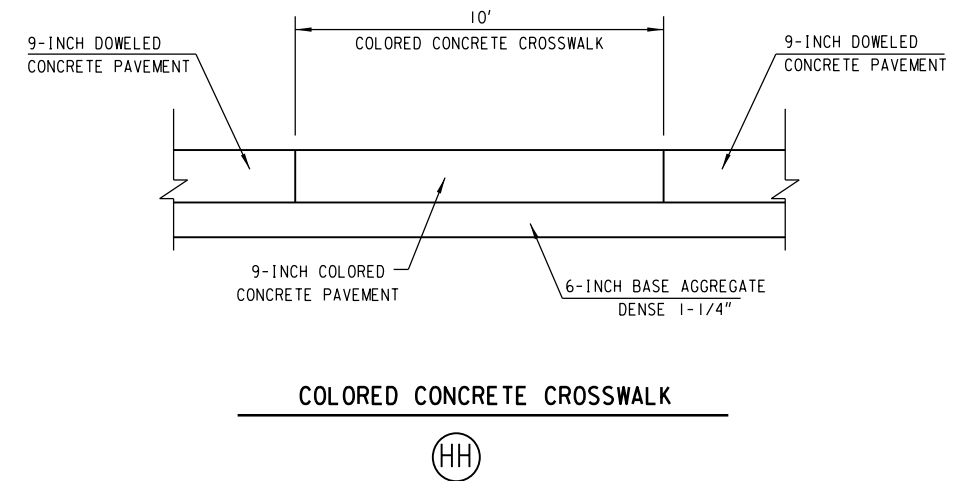
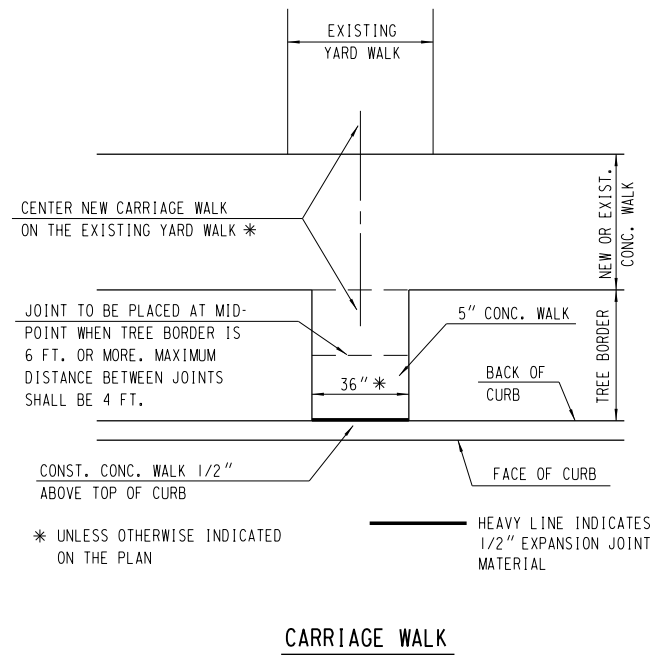
**SAWED JOINT**

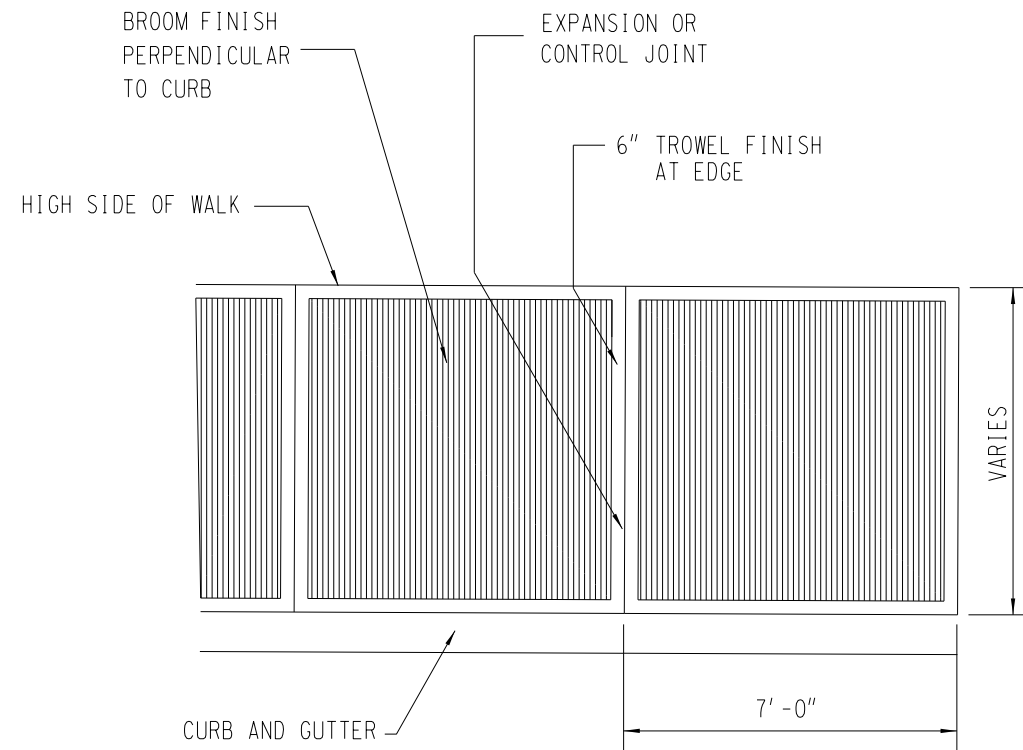
NOTE: DETAIL "A" SHOWN IN S.D.D. "CONCRETE PAVEMENT LONGITUDINAL JOINTS AND PAVEMENT TIES" HAS BEEN REVISED AND SHOWN AS "JOINT DETAIL A".

**JOINT DETAIL "A"****DOWELED CONTRACTION JOINT**

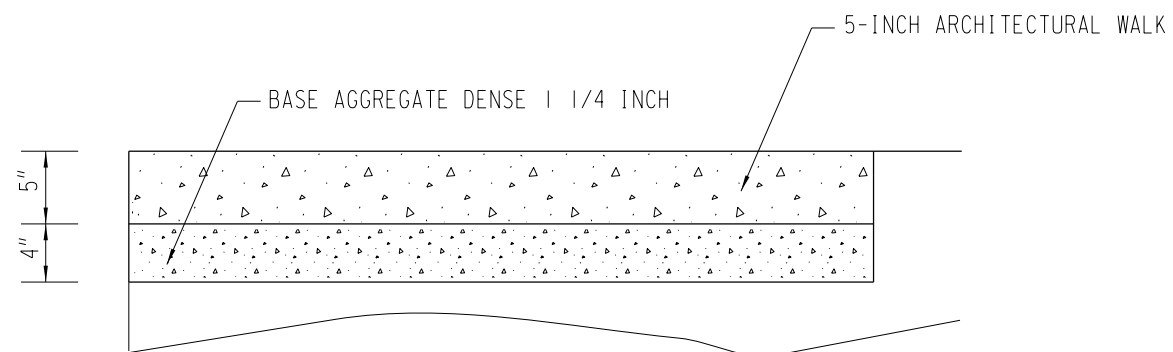
NOTE: "JOINT DETAIL" SHOWN IN S.D.D. "URBAN DOWELED CONCRETE PAVEMENT" HAS BEEN REVISED AND SHOWN AS "JOINT DETAIL B".

**JOINT DETAIL "B"**





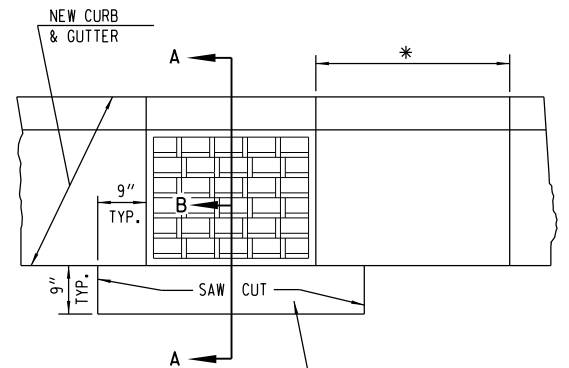
PANEL DETAIL FOR 5-INCH ARCHITECTURAL CONCRETE WALK
NOT TO SCALE



CROSS SECTION FOR 5-INCH ARCHITECTURAL CONCRETE WALK
NOT TO SCALE

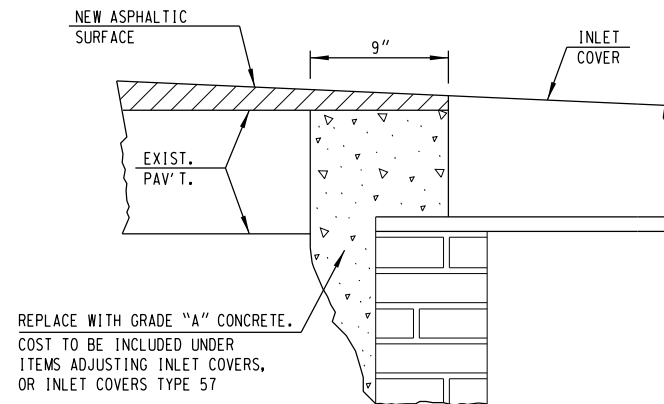
(X)

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



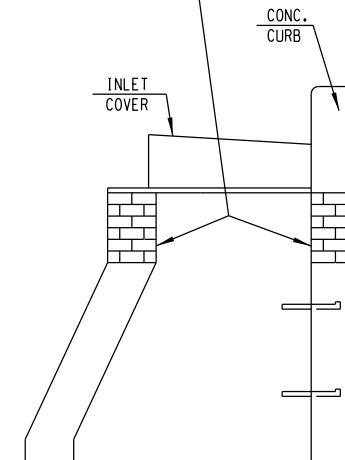
PLAN VIEW

REMOVE & REPLACE PAVEMENT
COST TO BE INCLUDED UNDER
ITEMS ADJUSTING INLET COVERS,
OR INLET COVERS, TYPE 57



SECTION A-B

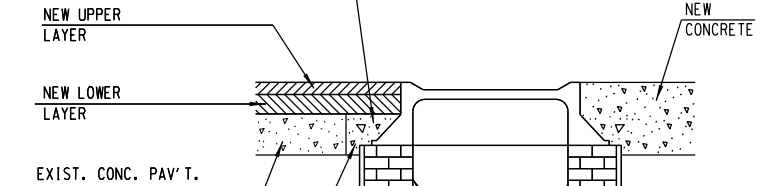
REPLACE WITH GRADE "A" CONCRETE.
COST TO BE INCLUDED UNDER
ITEMS ADJUSTING INLET COVERS,
OR INLET COVERS TYPE 57



SECTION A-A

ADJUSTING INLET COVERS

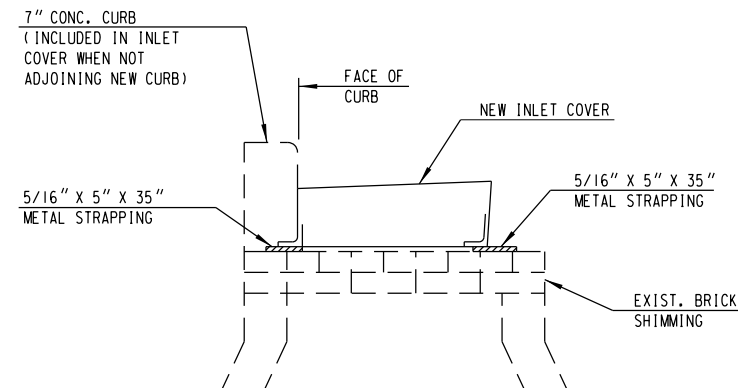
REPLACE WITH CONCRETE BASE
COST TO BE INCLUDED UNDER
ITEMS ADJUSTING MH COVERS,
OR MANHOLE COVERS TYPE 58
OR TYPE 58A TYPE 0



PAVEMENT REMOVAL COST
TO BE INCLUDED UNDER ITEMS
ADJUSTING MANHOLE COVERS
OR MANHOLE COVERS TYPE 58
OR TYPE 58A

REPAIR BY REMOVING & REPLACING DAMAGED
OR LOOSE BRICK OR BLOCK TO DEPTH AS
DIRECTED BY ENGINEER. WORK UNDER
ADJUSTING MANHOLE 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 MANHOLES. DEPTHS OF BRICK-
WORK TO BE REPAIRED, AS INDICATED ON THE
PLAN, ARE ESTIMATES ONLY AND MAY VARY
AT TIME OF CONSTRUCTION.

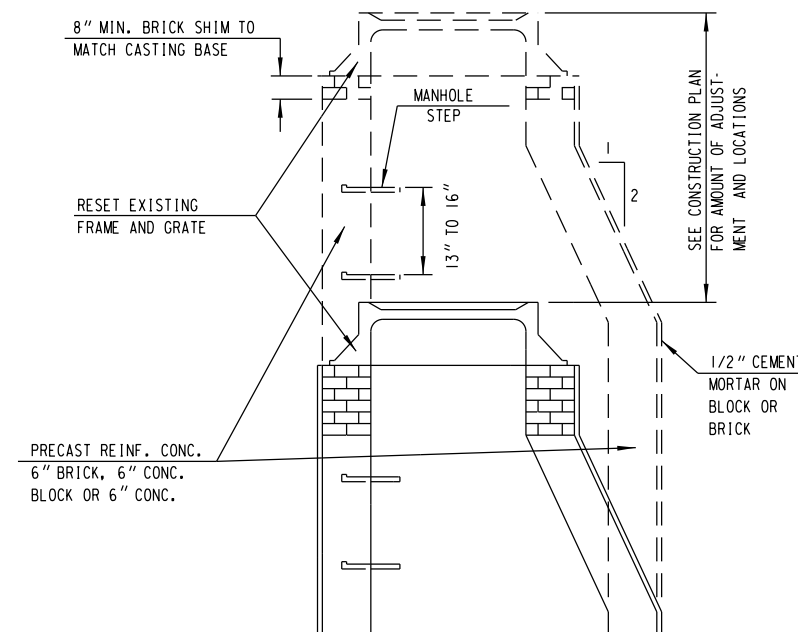
ADJUSTING MANHOLE COVERS OR
MANHOLE COVERS TYPE 58 OR TYPE 58A



NOTES:

1. METAL STRAPPING TO BE 5/16" X 5" X 35" FLAT STEEL, HOT ROLLED (ASTM A36).
2. METAL STRAPPING TO BE PLACED ACROSS EXISTING DRAINAGE STRUCTURE TO SUPPORT NEW COVER. THE METAL STRAPPING SHALL BE SET ON A BED OF MORTAR.
3. PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURE. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.
4. COST OF MATERIALS AND LABOR TO BE INCLUDED IN PRICE BID FOR INLET COVER, TYPE 57.

DETAIL FOR PLACING NEW INLET COVER ON EXISTING
INLET USING METAL STRAPPING MATERIALS



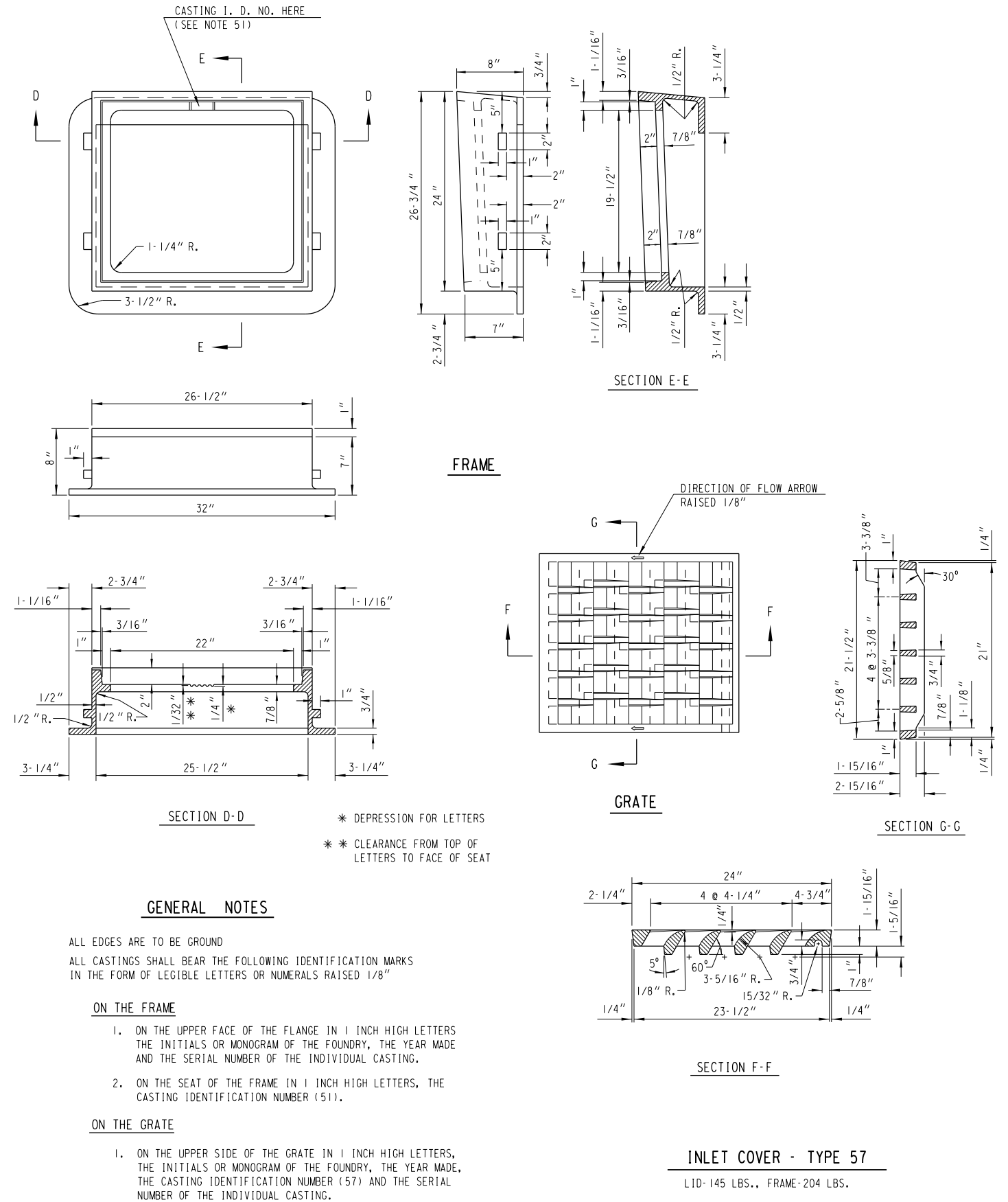
CORBEL MAY BE REVERSED
STRAIGHT SIDE LEANED
SLIGHTLY TO CLEAR CURB HEAD.

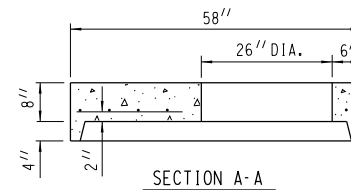
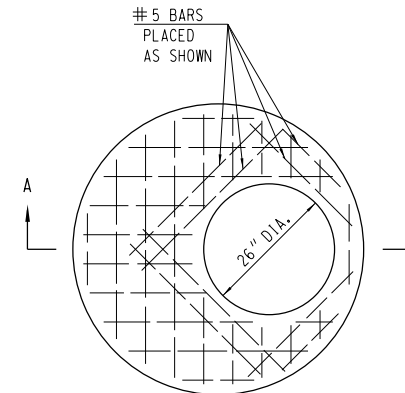
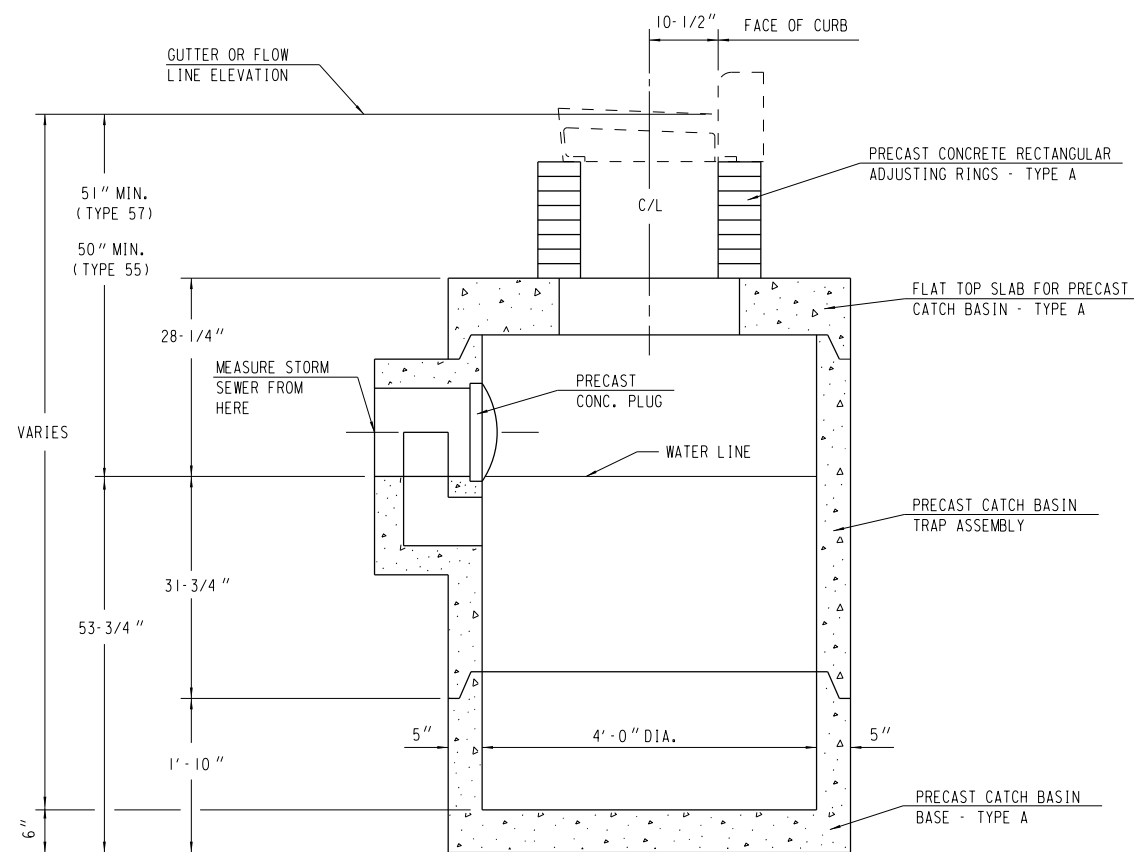
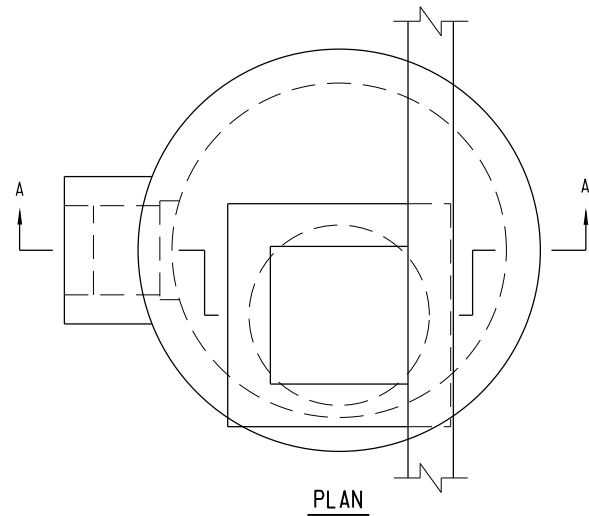
REPAIR BY REMOVING AND REPLACING
DAMAGED OR LOOSE BRICK OR BLOCK
TO THE DEPTH AS SHOWN ON THE
PLAN OR AS DIRECTED BY THE ENGINEER.
DEPTHS AS INDICATED ON PLAN ARE
ESTIMATES ONLY AND MAY VARY AT
TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES
AND INLETS

CONSTRUCTION NOTES

1. LOCATIONS OF STRUCTURES IN CURB & GUTTER SECTIONS REFER TO FACE OF CURB.
2. LOCATIONS OF STRUCTURES NOT IN CURB AND GUTTER SECTIONS REFER TO CENTERLINE OF STRUCTURE.
3. PIPE LENGTHS GIVEN ARE APPROXIMATE OUT TO OUT OF STRUCTURE.
4. GRATE & RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET COVER OR AT CENTERLINE 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.



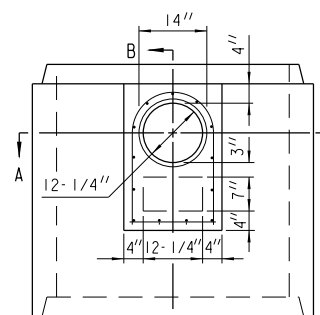
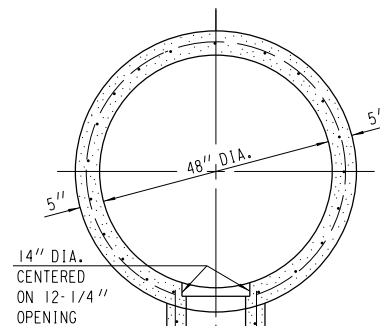


TOP SLAB - TYPE A

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.



TRAP ASSEMBLY

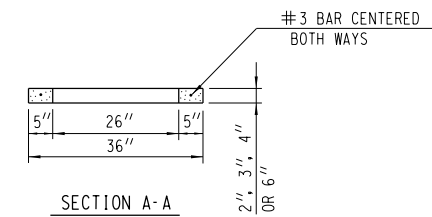
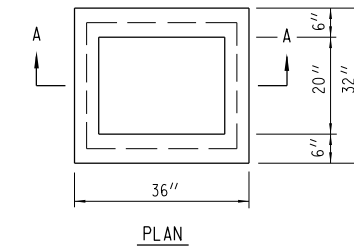
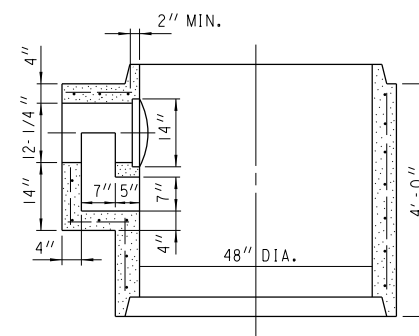
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

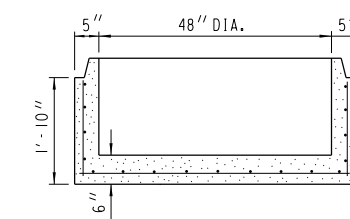
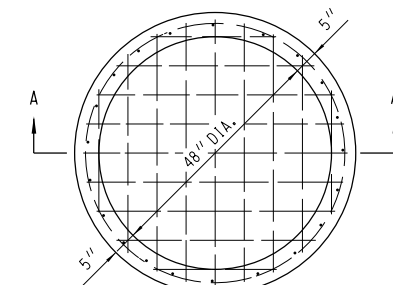
TWO HANDLING HOLES 2 1/4 INCHES IN DIAMETER SHALL BE CAST OR DRILLED IN THE WALL.



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.



BASE - TYPE A

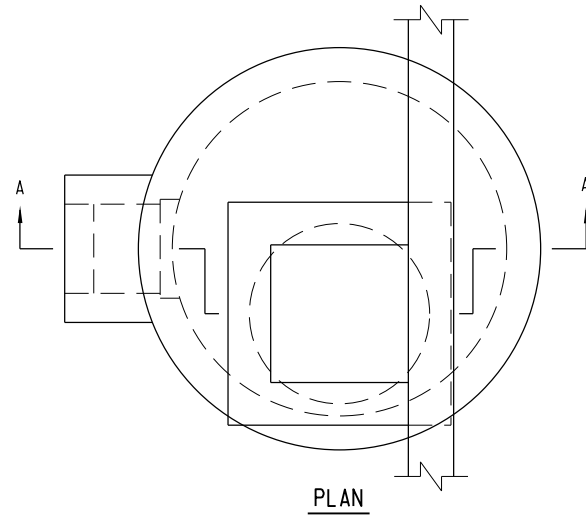
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

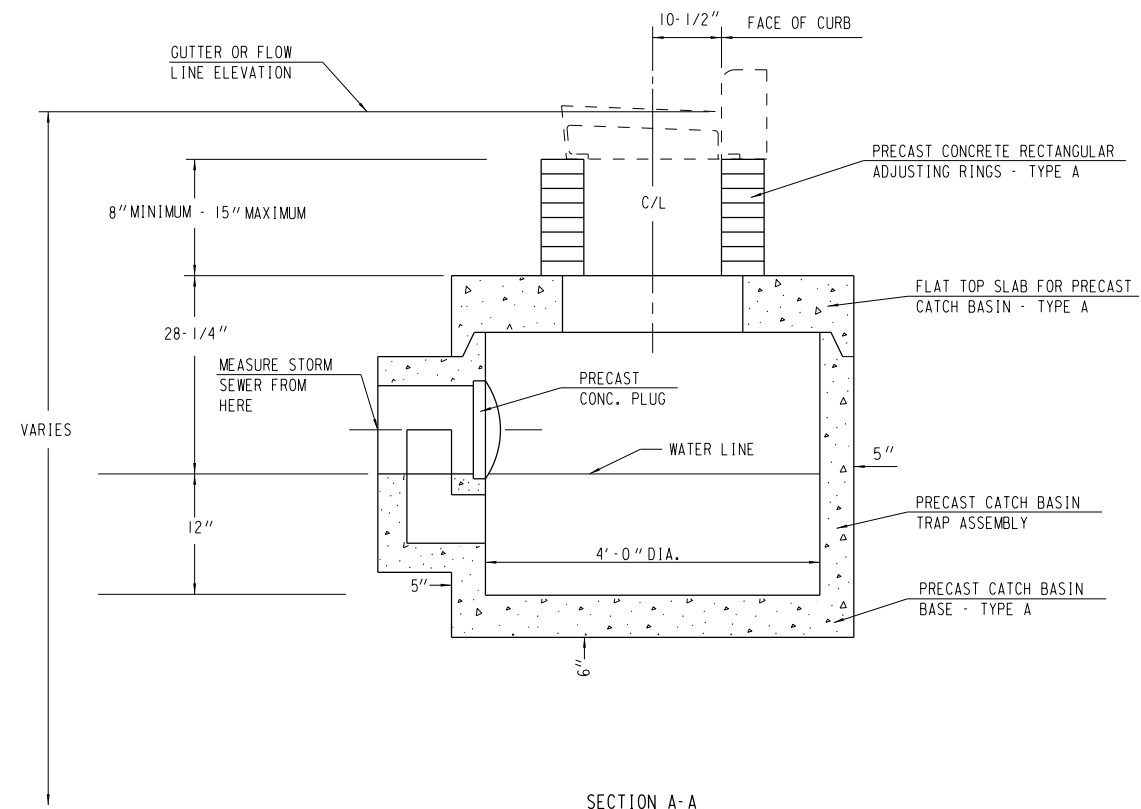
CIRCUMFERENTIAL AND BOTTOM SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

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.



PLAN

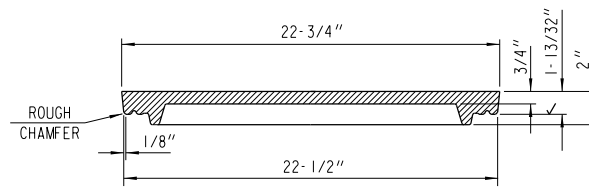


SECTION A-A

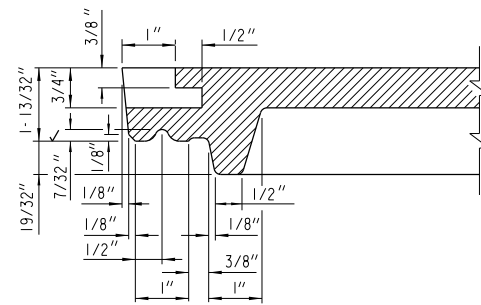
CATCH BASIN - TYPE 44B

GENERAL NOTES

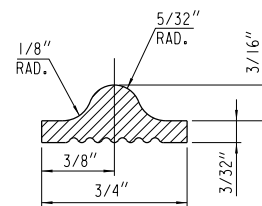
1. REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL 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.



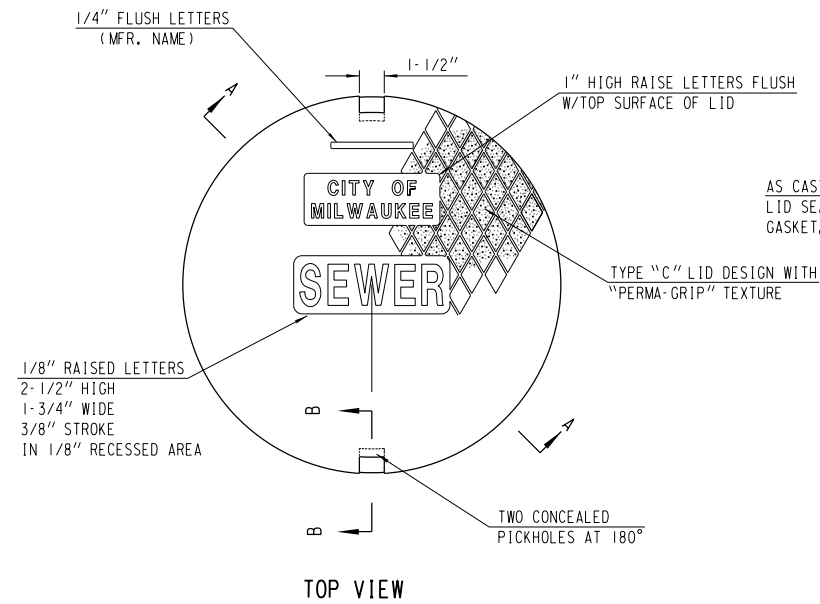
SECTION A-A



SECTION B-B



"T" GASKET DETAIL



TOP VIEW

MANHOLE COVER - TYPE 58-A

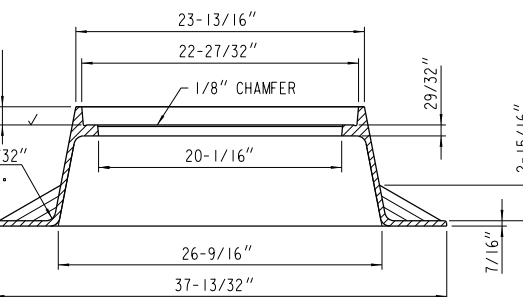
LID - 107 LBS.

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:

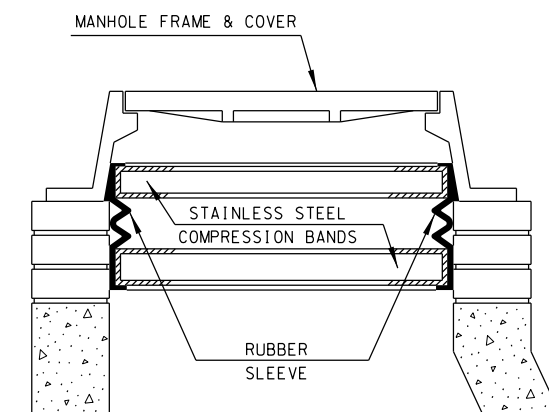
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.

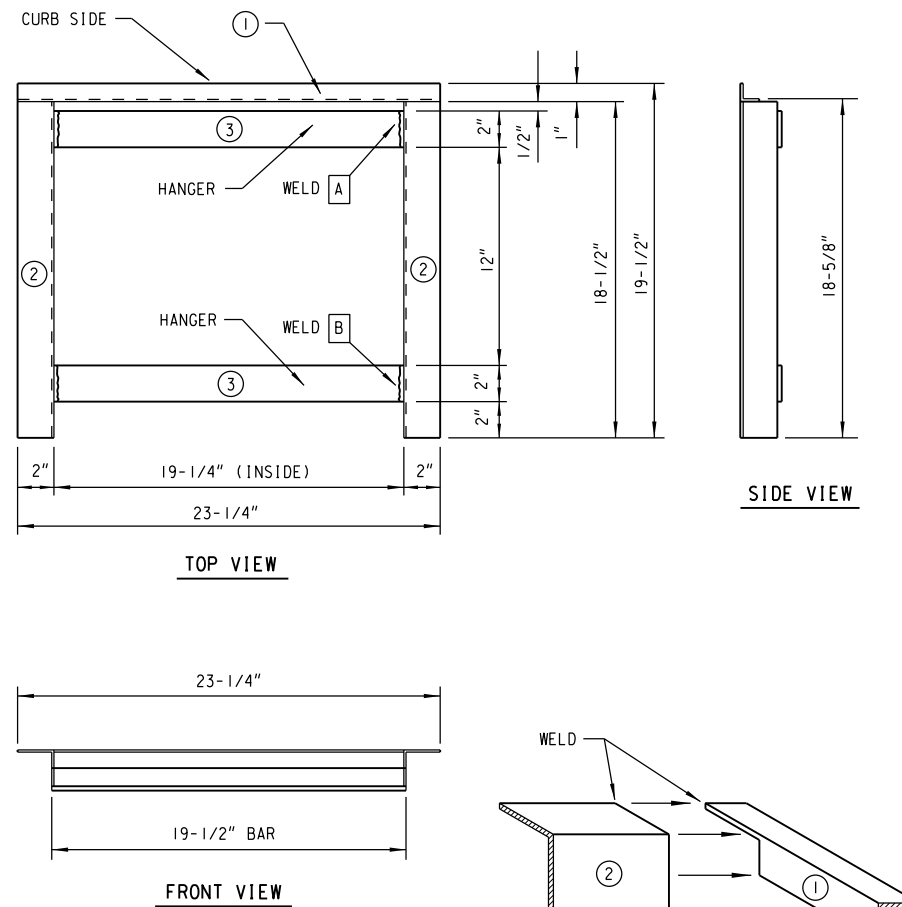
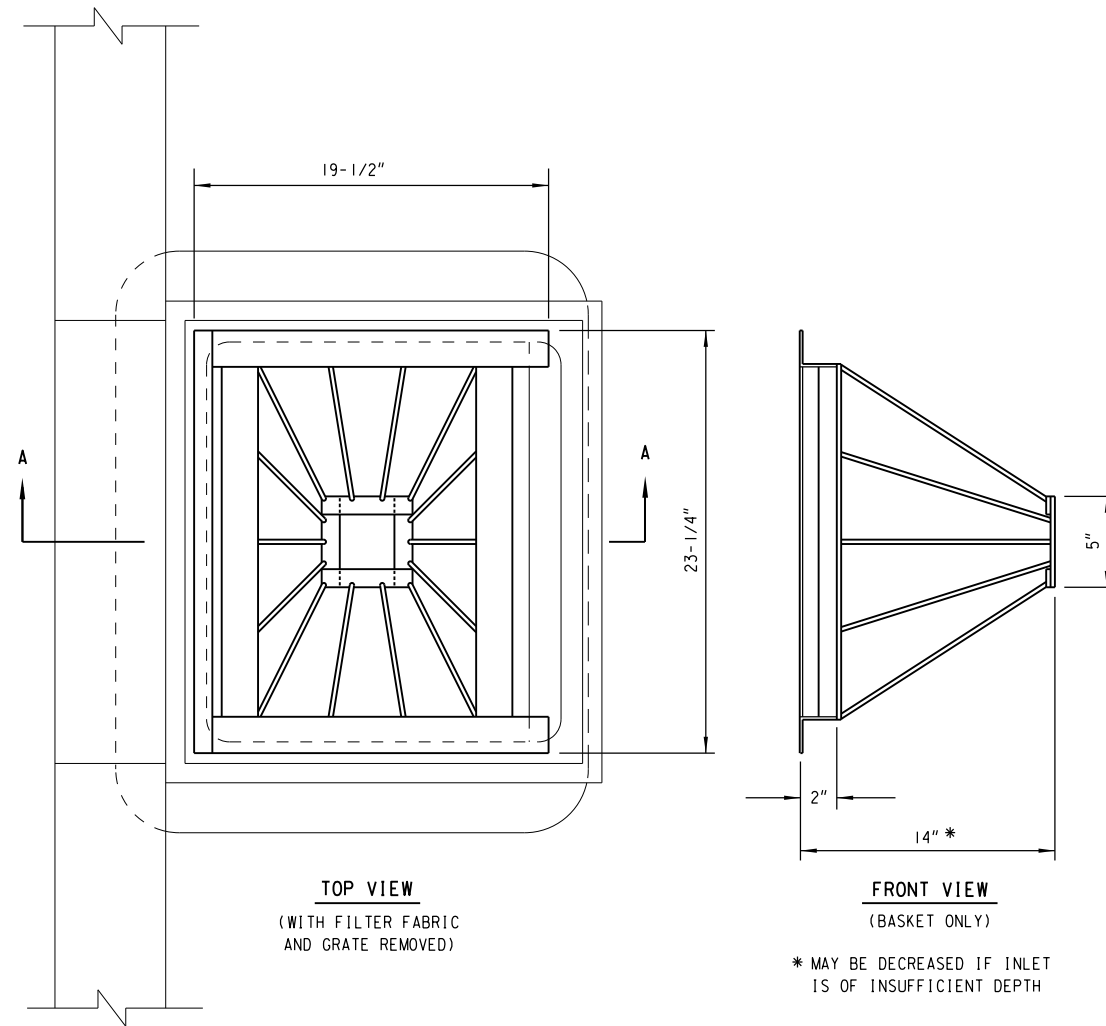


MANHOLE FRAME - TYPE MS21

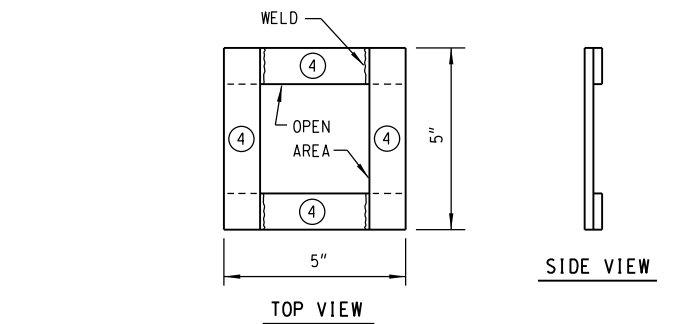
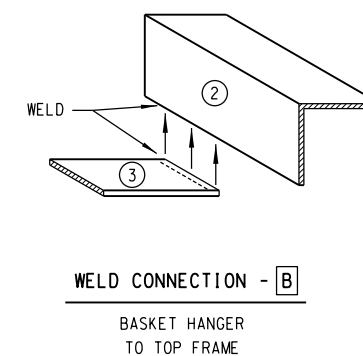
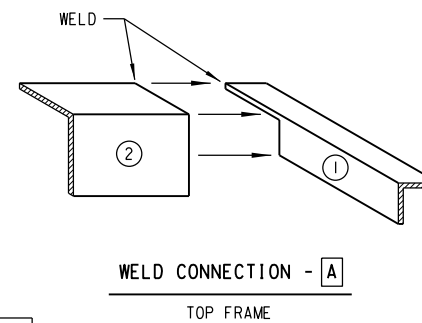
FRAME - 182 LBS.



INTERNAL SANITARY MANHOLE SEAL

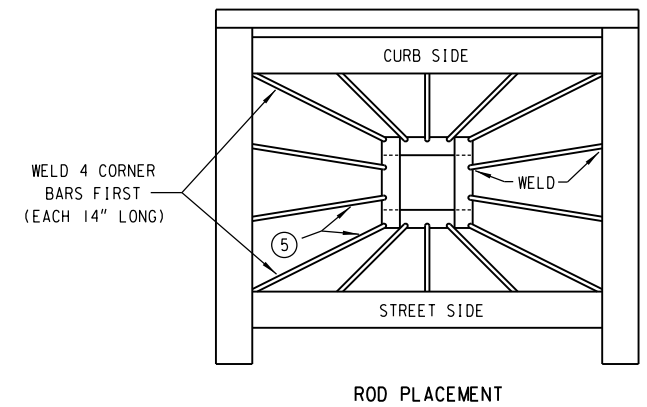


BAR SCHEDULE					
NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
①	ANGLE	1" X 1"	1/8"	23-1/4"	1
②	ANGLE	2" X 2"	1/8"	18-1/2"	2
③	BAR	2"	1/4"	19-1/2"	2

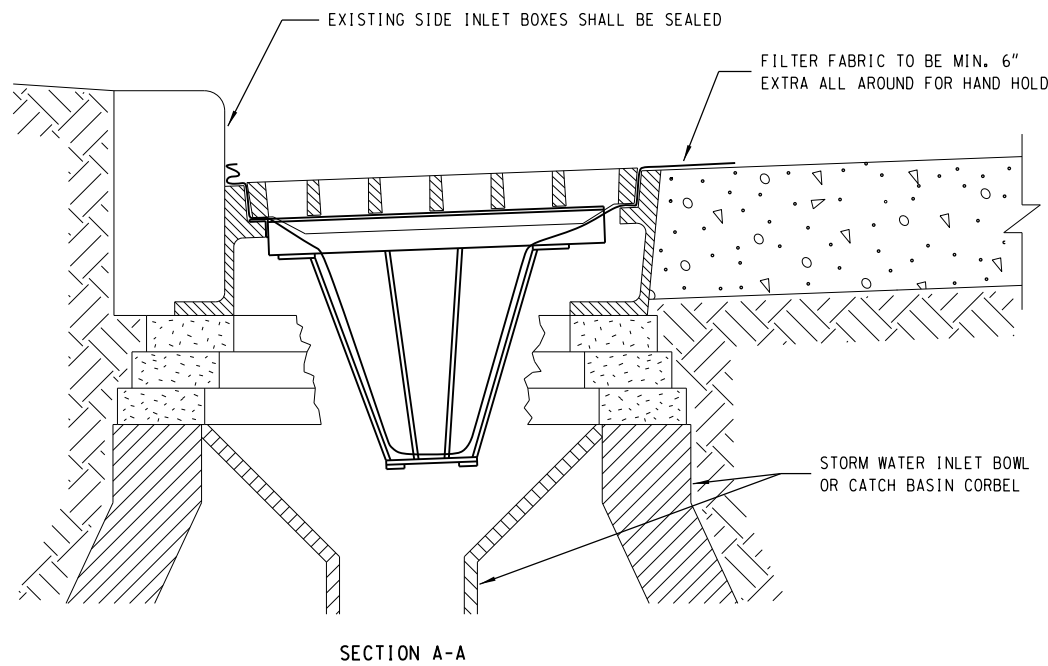


BAR SCHEDULE					
NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
④	BAR	1"	1/4"	5"	4

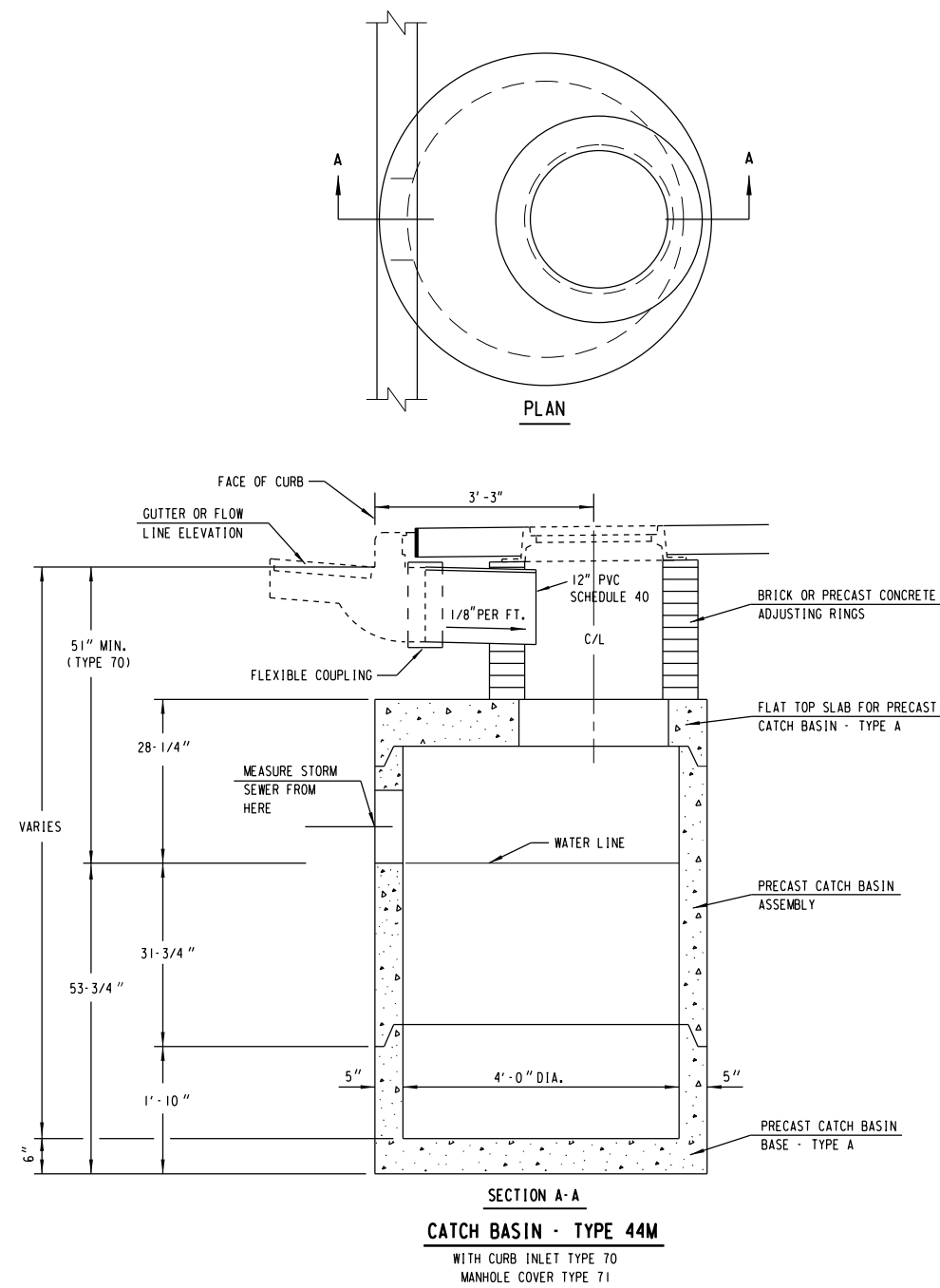
BASKET BOTTOM



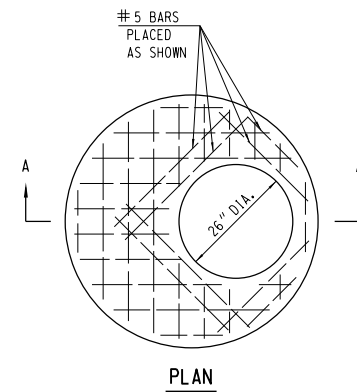
ROD SCHEDULE					
NO.	SHAPE	SIZE	THICKNESS	LENGTH	QUANTITY
⑤	ROD	1/4" MIN.	1/8"	12" TO 14" (CUT TO FIT)	14



TYPE M
INLET / CATCH BASIN BASKET

**GENERAL NOTES**

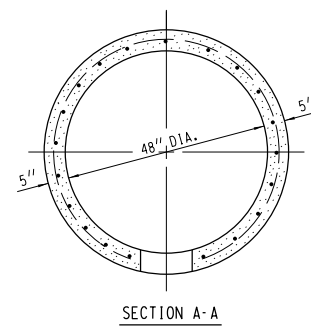
1. REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED STEEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.
2. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL 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 0.04 FT. LOWER THAN ELEVATION INDICATED ON PLAN.
5. FLEXIBLE COUPLING TO BE COMPATIBLE FOR CAST IRON TO PLASTIC CONNECTION.



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.



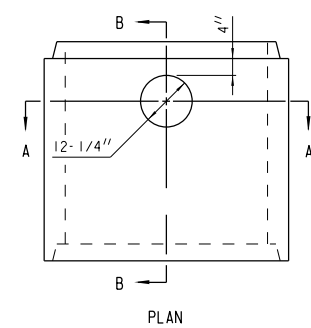
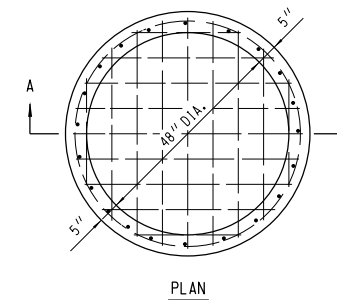
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

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.

**CATCH BASIN ASSEMBLY**

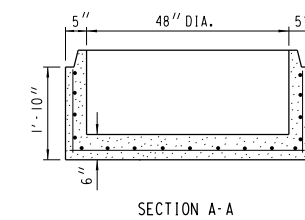
CIRCUMFERENTIAL REINFORCEMENT SHALL CONSIST OF ONE LINE OF STEEL NOT LESS THAN 0.12 SQ. IN. PER LINEAL FOOT, AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

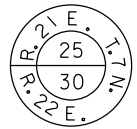
BOTTOM SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.12 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED IN THE CENTER THIRD OF THE SLAB.

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.

**BASE - TYPE A**



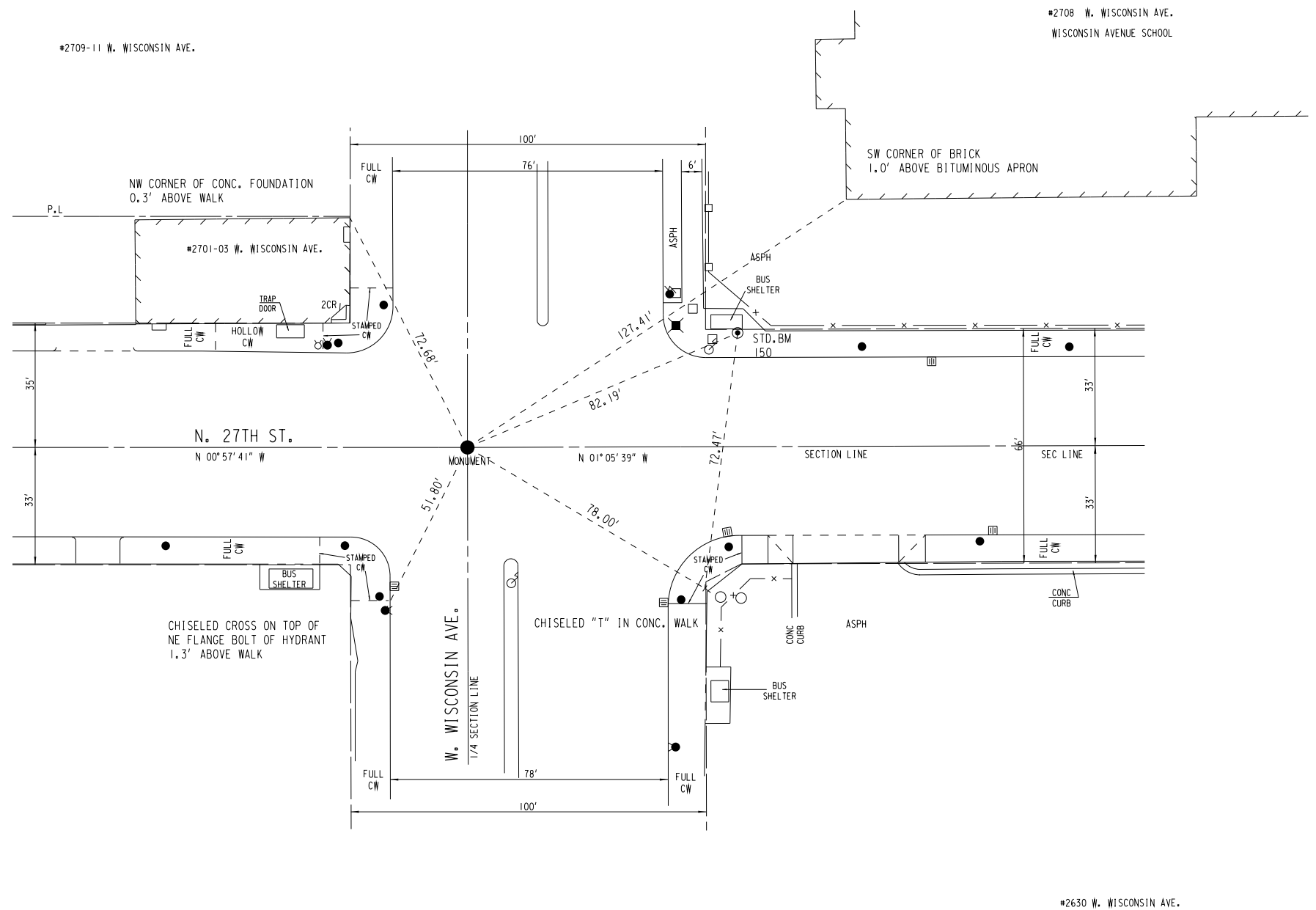
TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/SEWRPC BRASS CAP

STATE PLANE COORDINATES OF CENTER OF SECTION
NORTH: 385,298.31
EAST: 2,548,642.08

SURVEY DATE: AUGUST 19, 1997

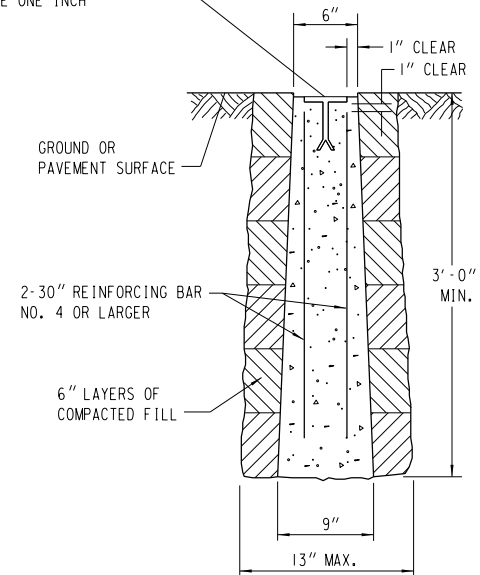


BM: STD #150 NW CORNER
N. 27TH ST. & W. WISCONSIN AVE.
7' W. & 21' N. OF CURBS IN WATER GATE
VALVE BOX ELEV. = 109.836

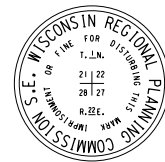


U.S. PUBLIC SURVEY LAND CORNER

N. 27TH ST. & W. WISCONSIN AVE.



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.

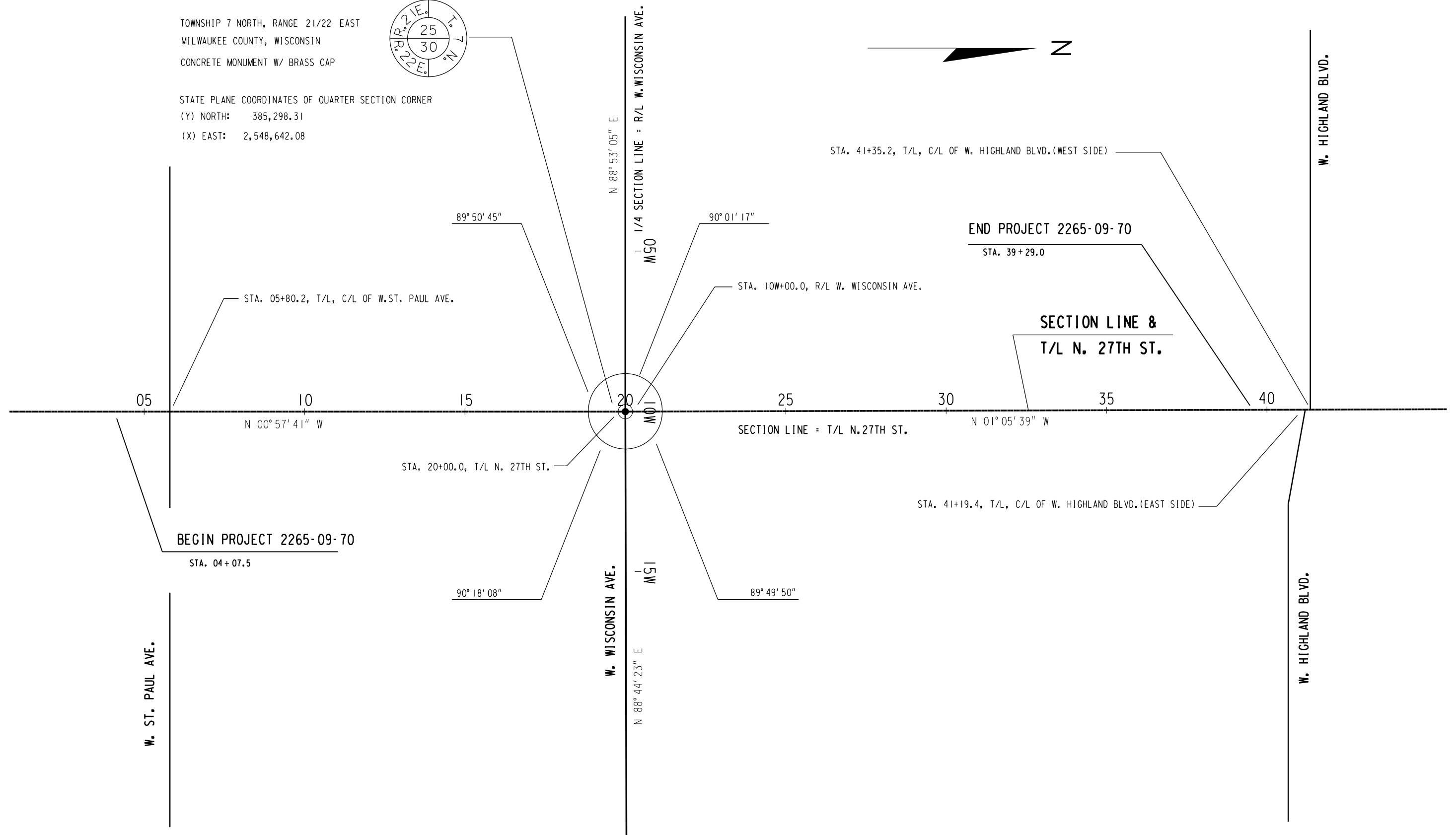
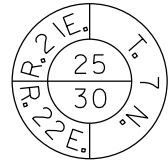
LANDMARK REFERENCE MONUMENTS TO BE REPLACED

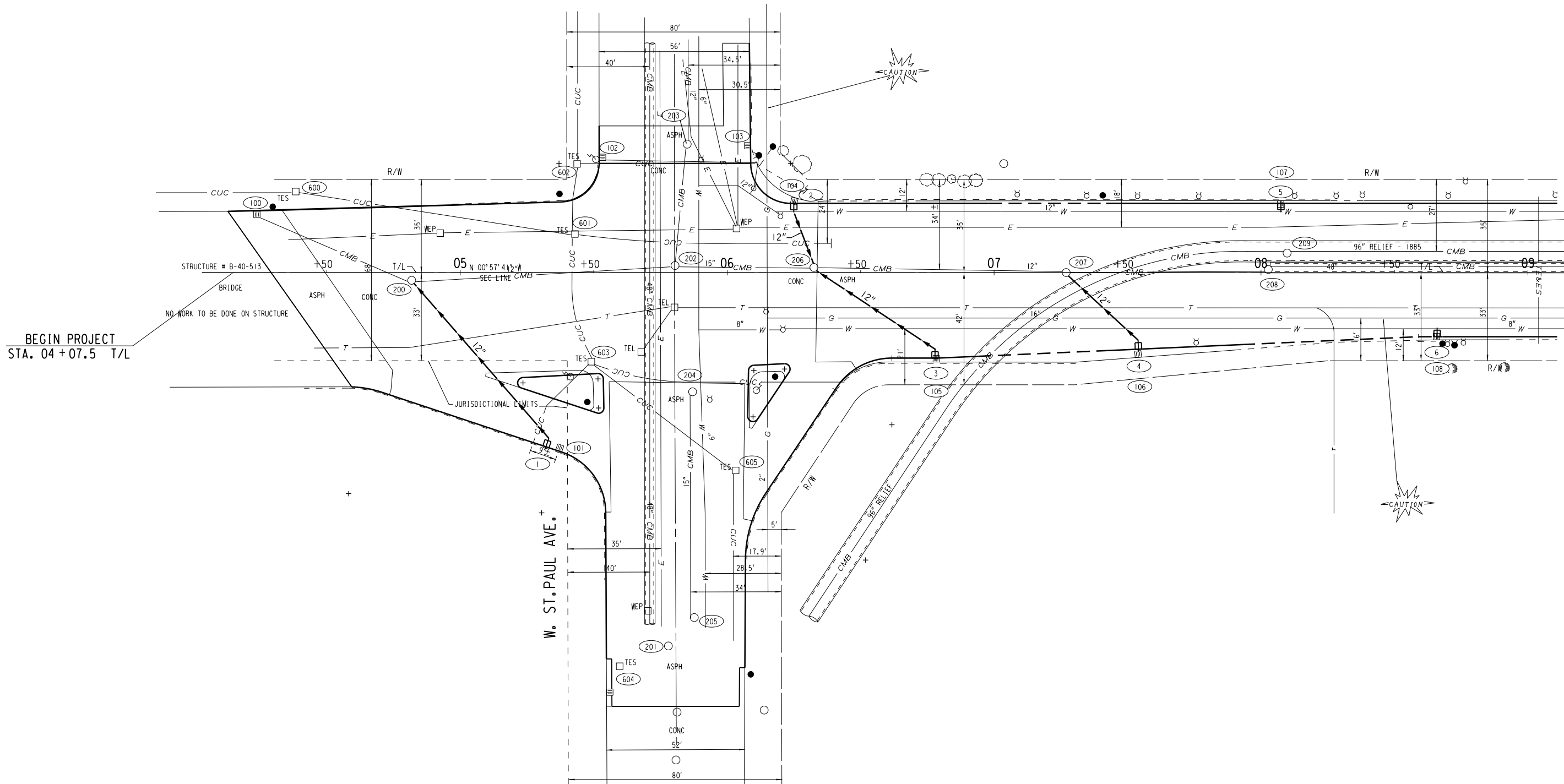
LOCATION	MONUMENT	STATION	REMARKS
N. 27TH ST..			
		20+00.00	SEE SPECIAL PROVISIONS FOR INFORMATION
AT W. WISCONSIN AVE.	I	ON T/L	ON RESTORATION OF MONUMENTS

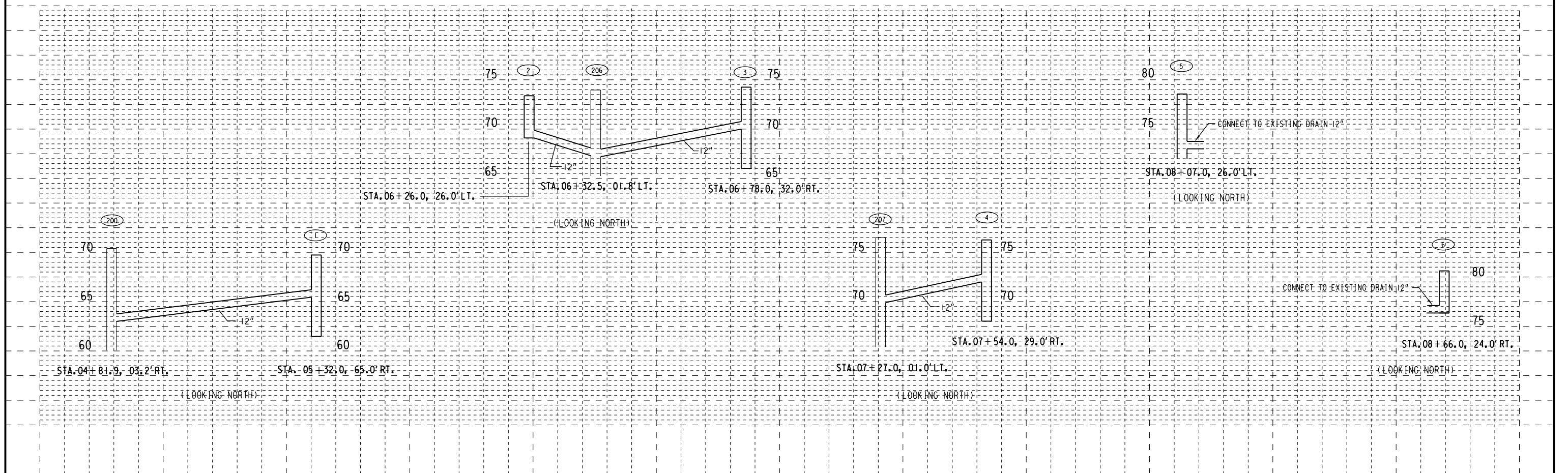
LANDMARK REFERENCE MONUMENT

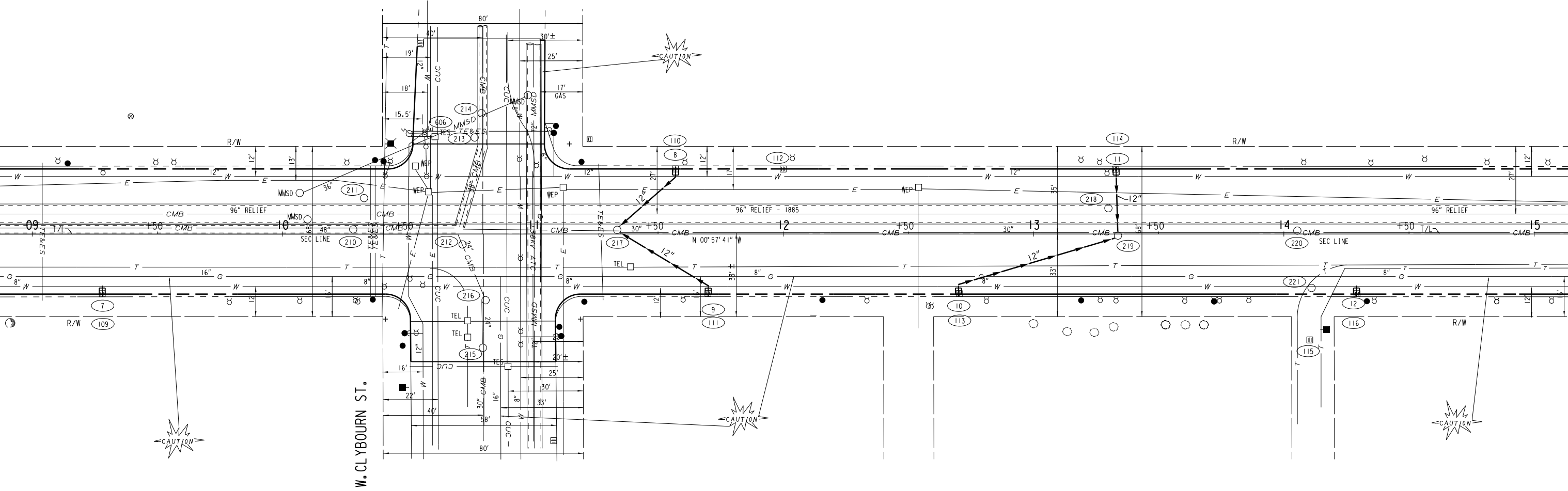
TOWNSHIP 7 NORTH, RANGE 21/22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ BRASS CAP

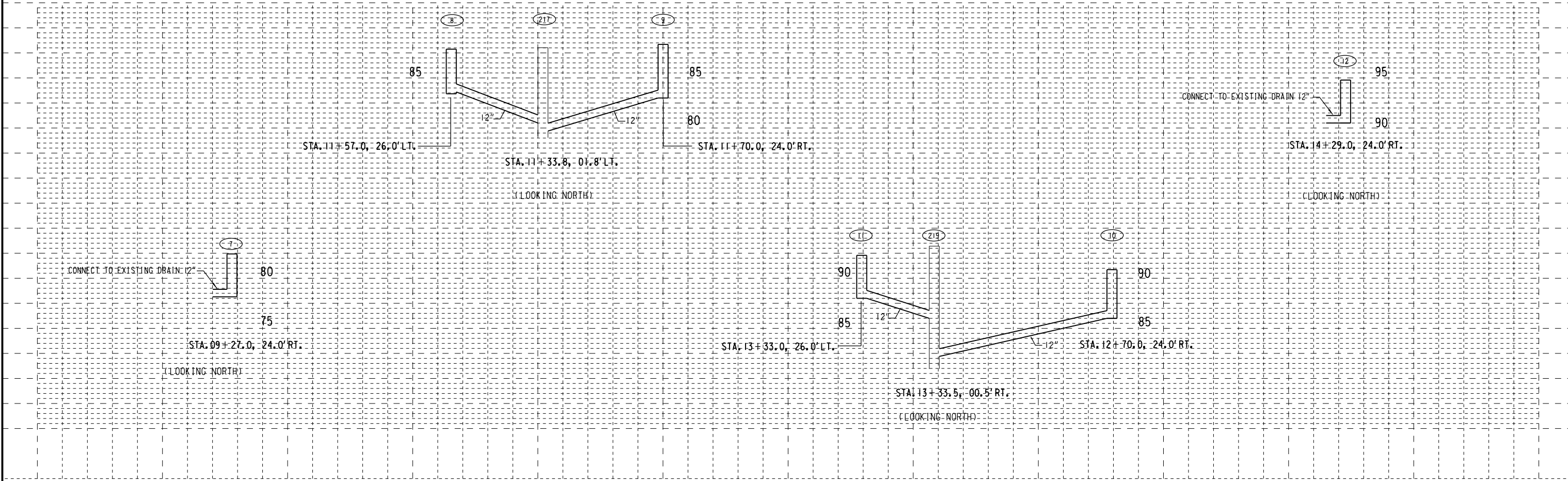
STATE PLANE COORDINATES OF QUARTER SECTION CORNER
(Y) NORTH: 385,298.31
(X) EAST: 2,548,642.08

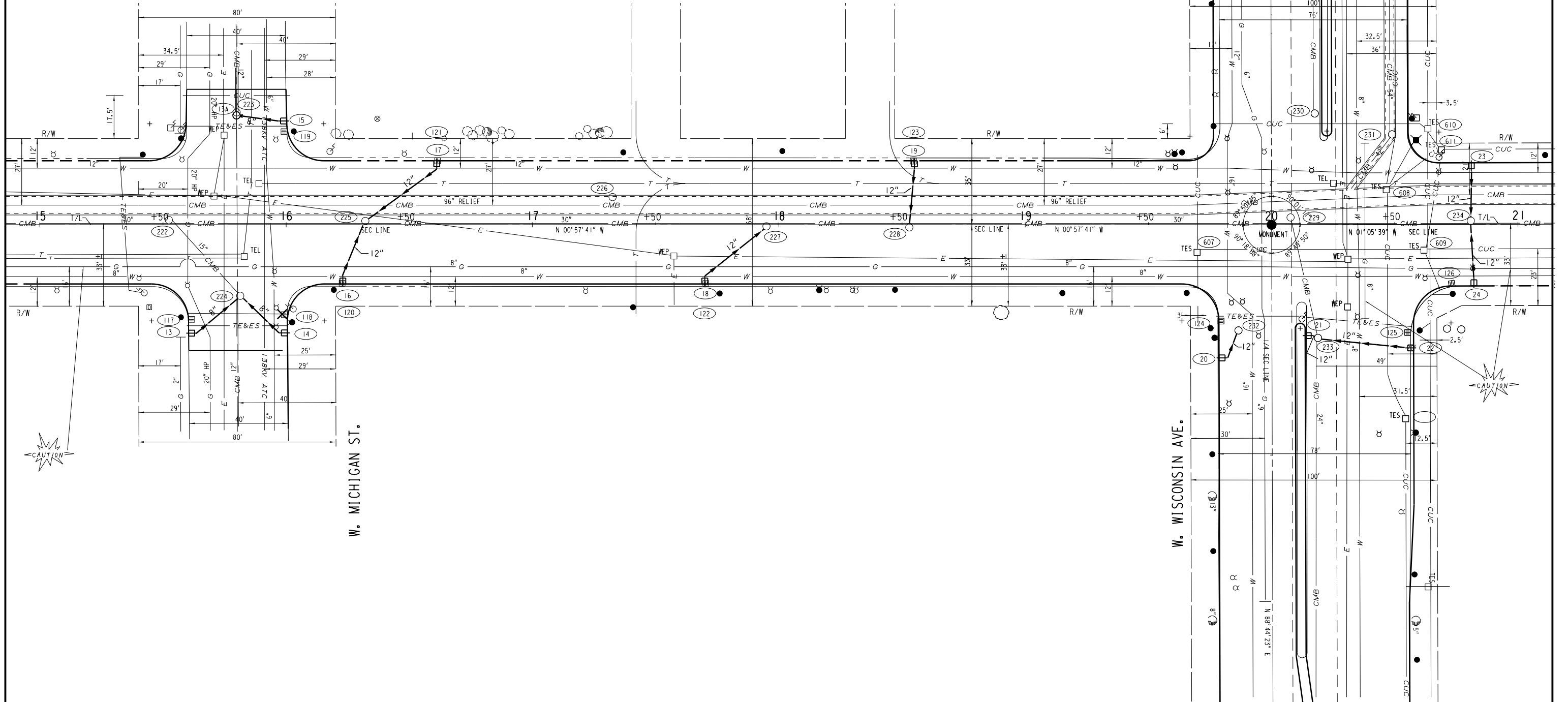




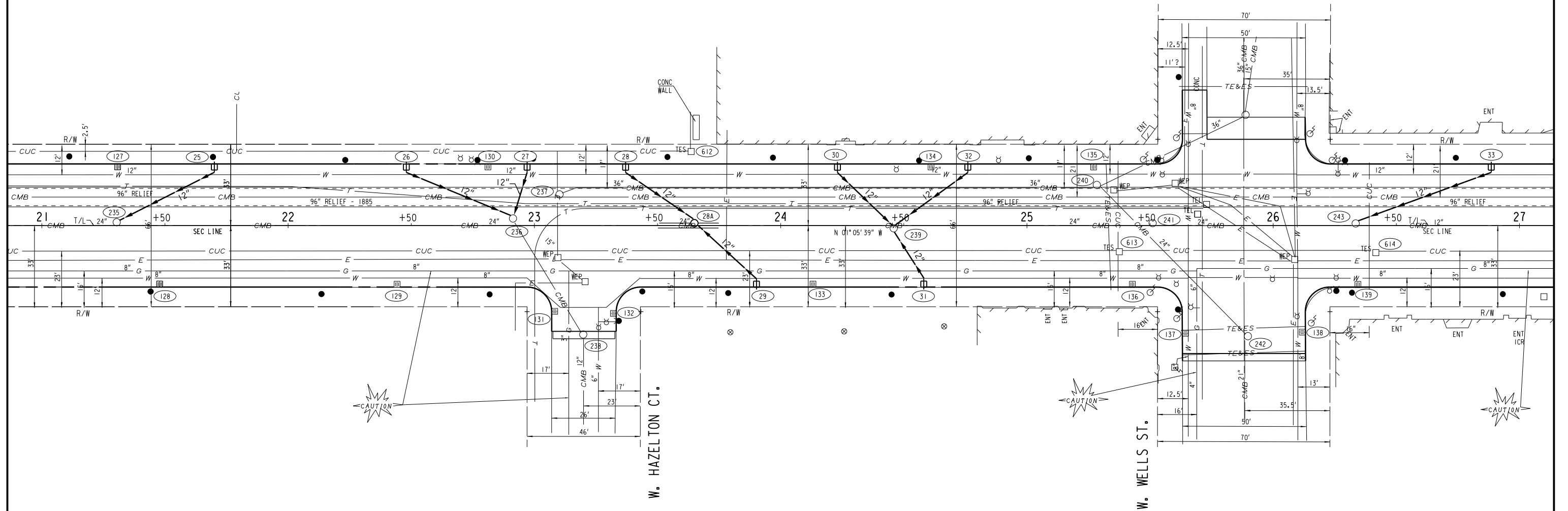


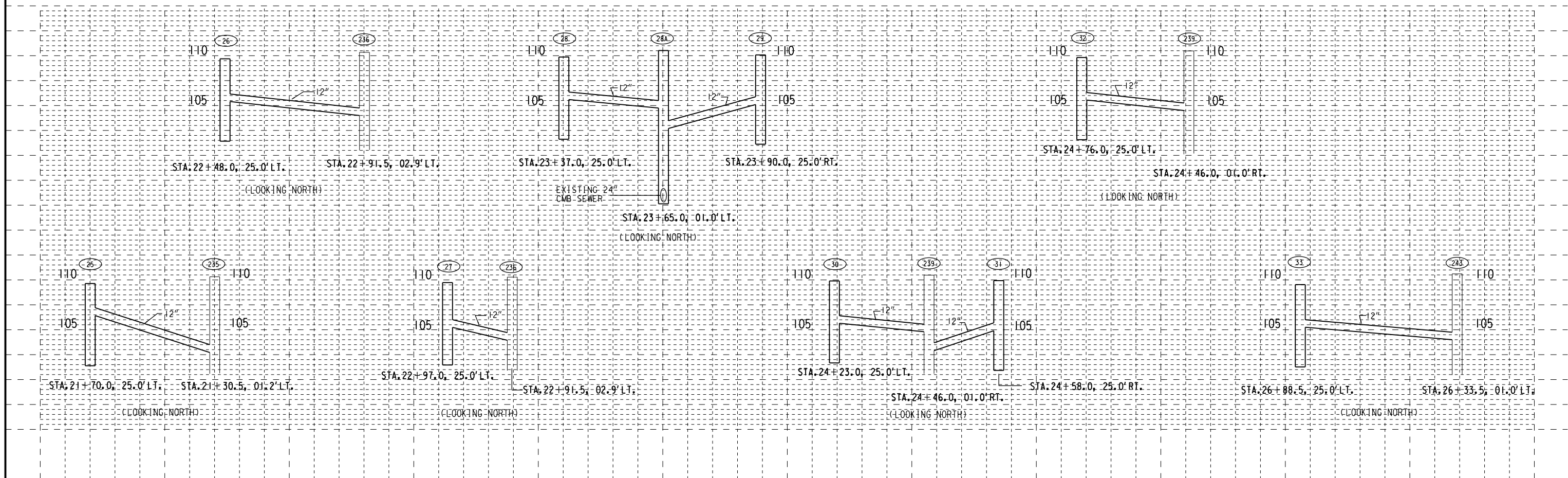


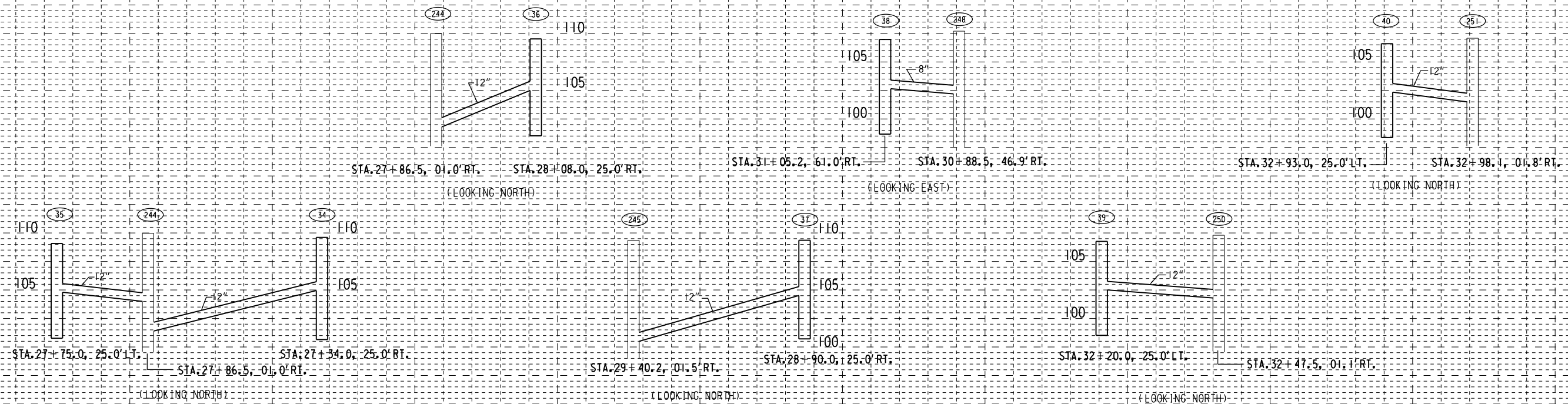








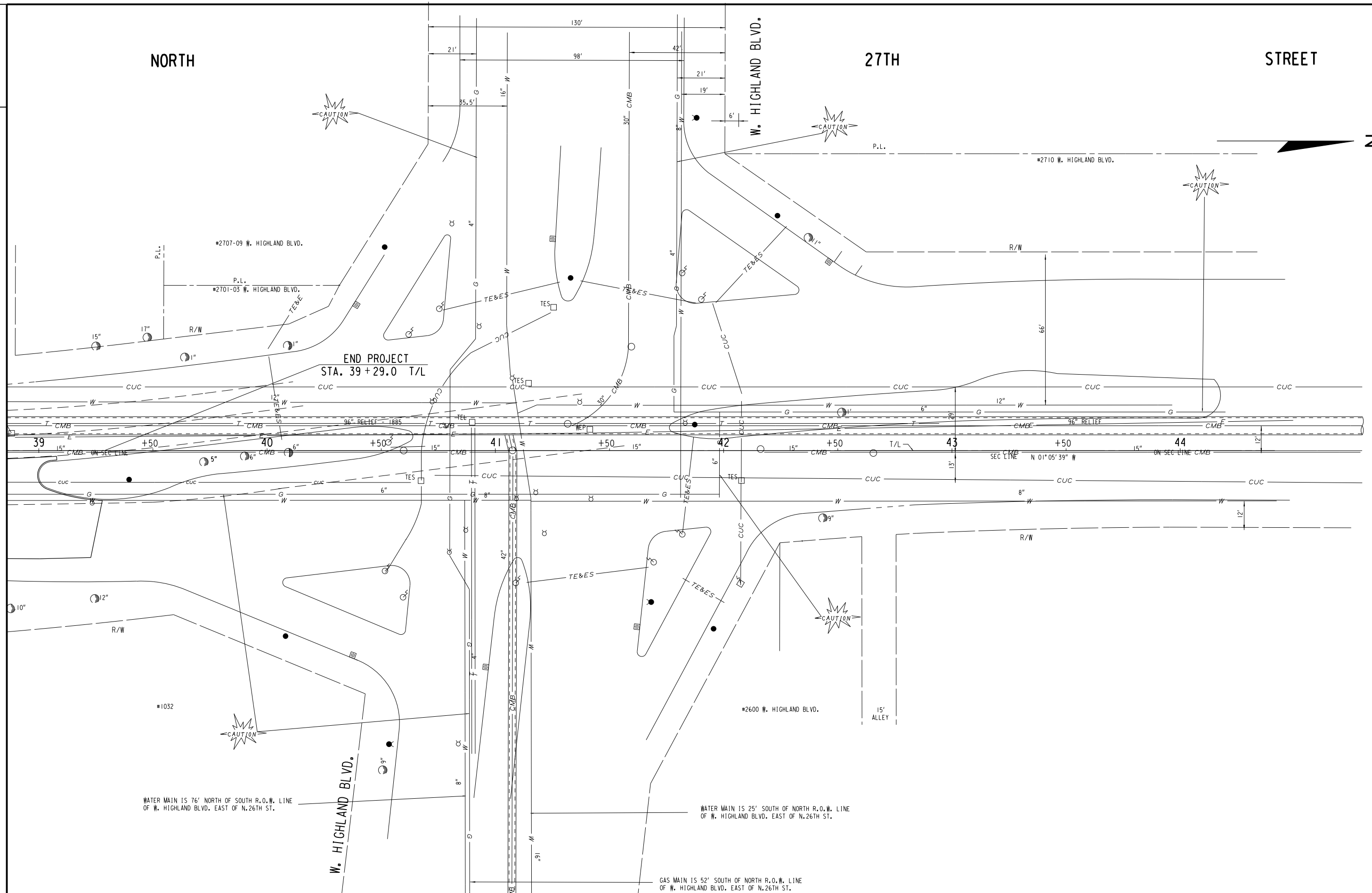




NORTH

27TH

STREET



WEST

WISCONSIN

AVENUE

N

04W

+50

05W

BEGIN CONSTRUCTION
STA. 06W+80.5 T/L

06W

+50

07W

+50

08W

+50

09W

+50

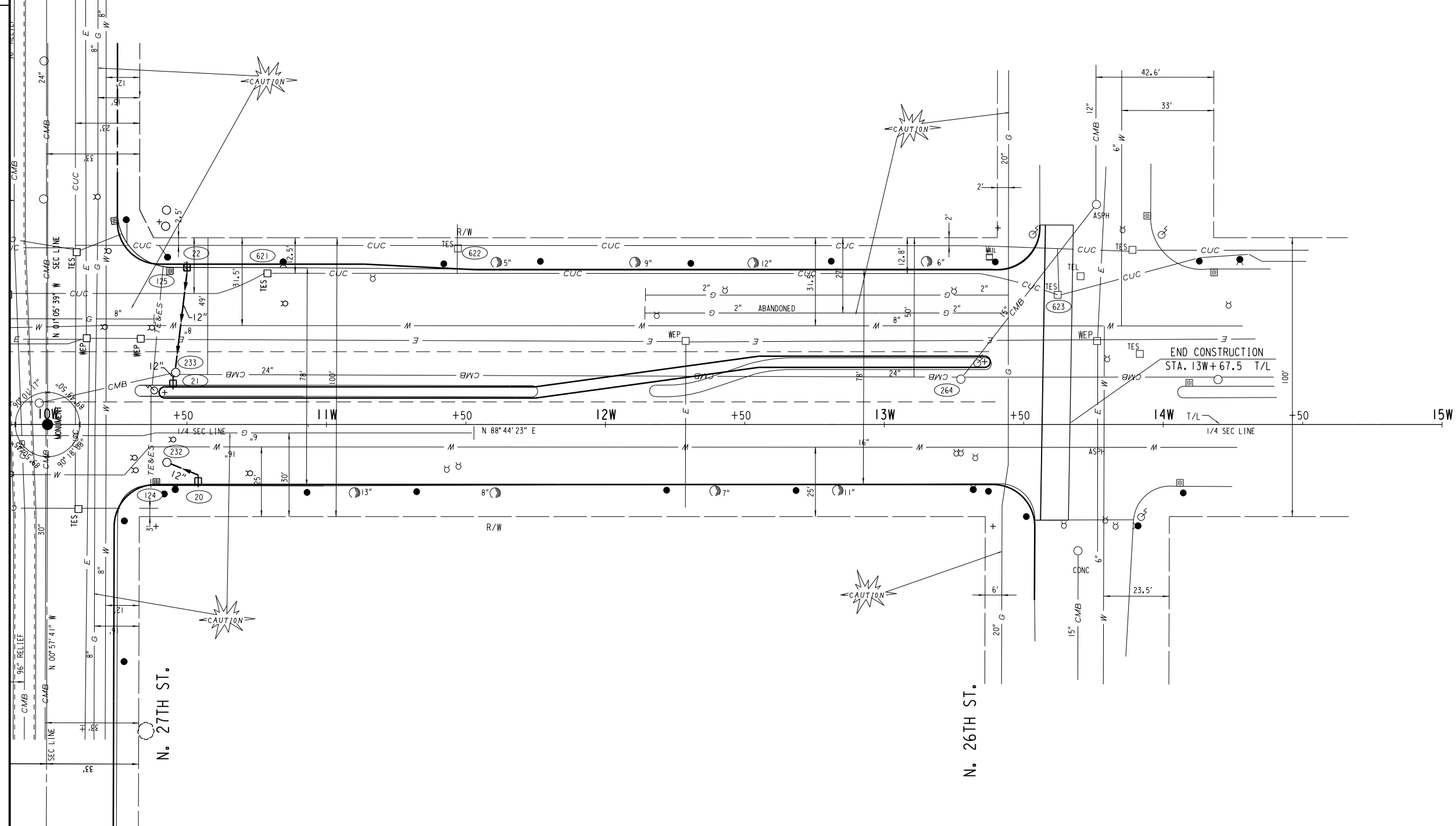
CAUTION

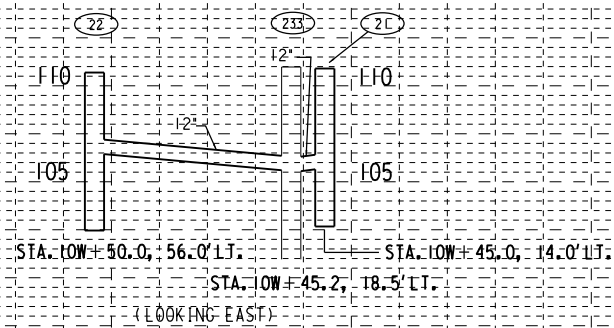
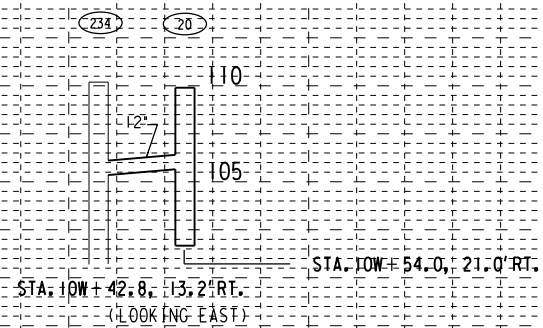
N. 28TH ST.

CAUTION

N. 27TH ST.







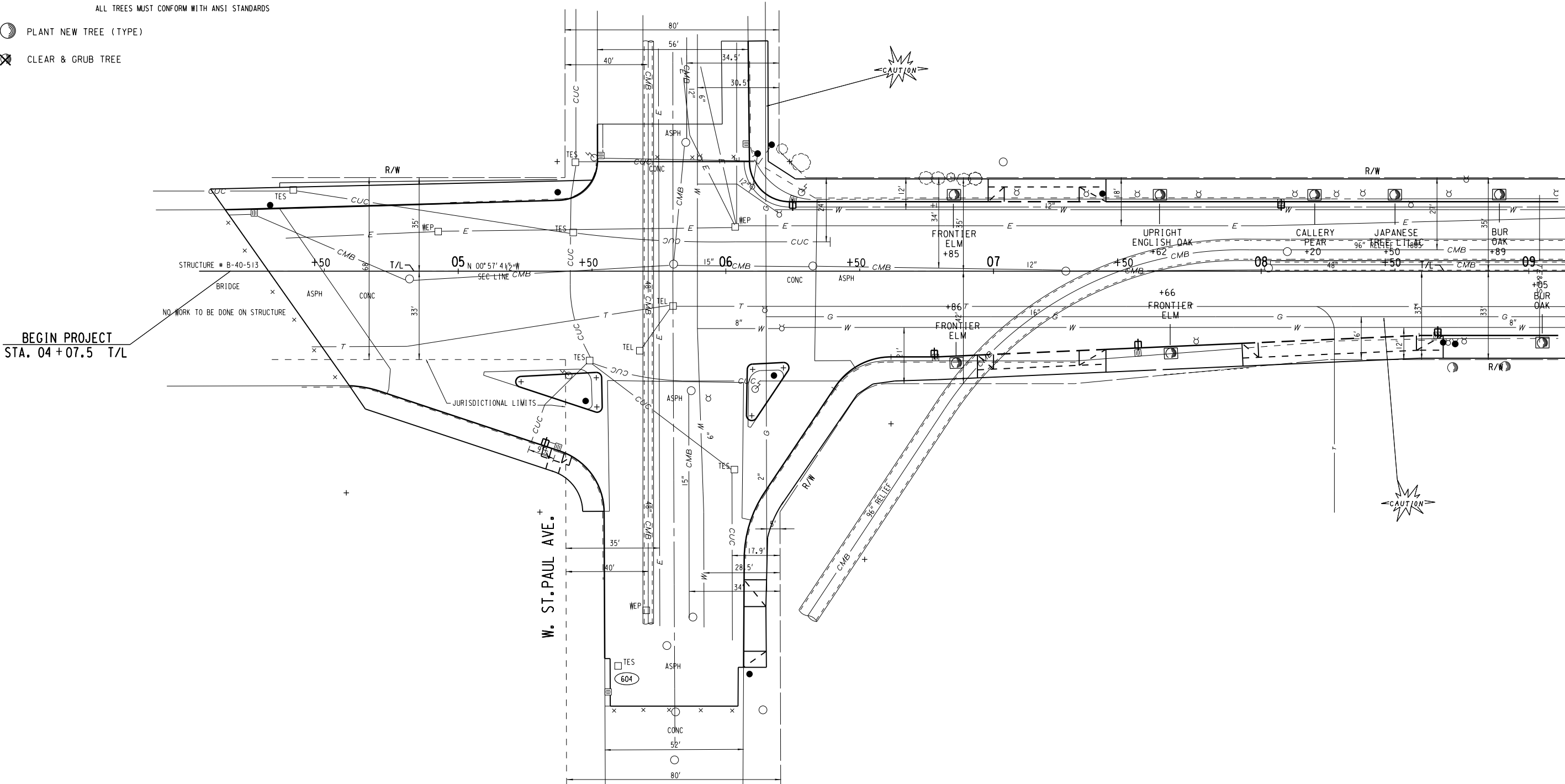
PLANTING DATA CHART													
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD *	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
SHADEMASTER HONEYLOCUST	GLENDITSIA TRIACANTHOS "INERMIS"	3.0" CAL.	B & B	24" MIN	18" MIN	INDEFINITE	36" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY 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
AUTUMN BLAZE MAPLE	ACER FREEMANI "AUTUMN BLAZE"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
FRONTIER ELM	ULMUS PARVIFOLIA "FRONTIER"	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY
JAPANESE TREE 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
UPRIGHT 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
BUR OAK	QUERCUS MACROCARPA	4.0" CAL.	B & B	39" MIN	24" MIN	INDEFINITE	54" MIN	24" MIN	GUY	4-EACH	NONE	48"	SPECIMEN QUALITY

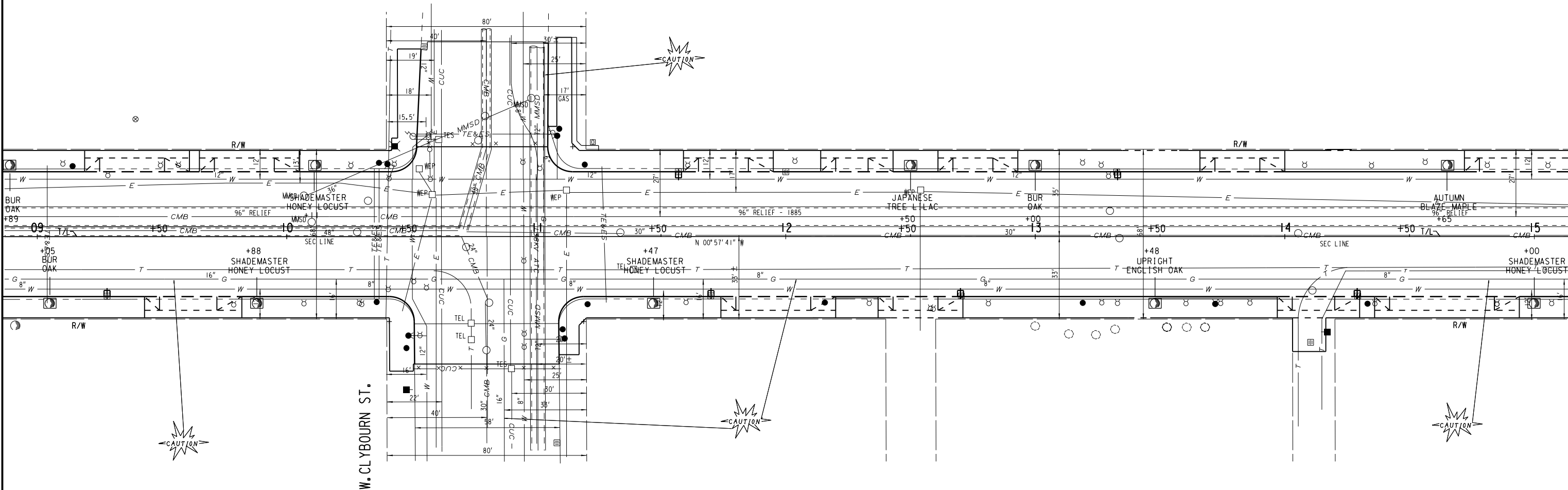
NOTE: ALL PLANTINGS WILL REQUIRE STRUCTURAL SOIL UNDER CONCRETE WALK ON NORTH 27TH STREET FROM WEST ST. PAUL AVE. TO WEST WISCONSIN AVE.
ALL TREES MUST CONFORM WITH ANSI STANDARDS

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



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





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

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	
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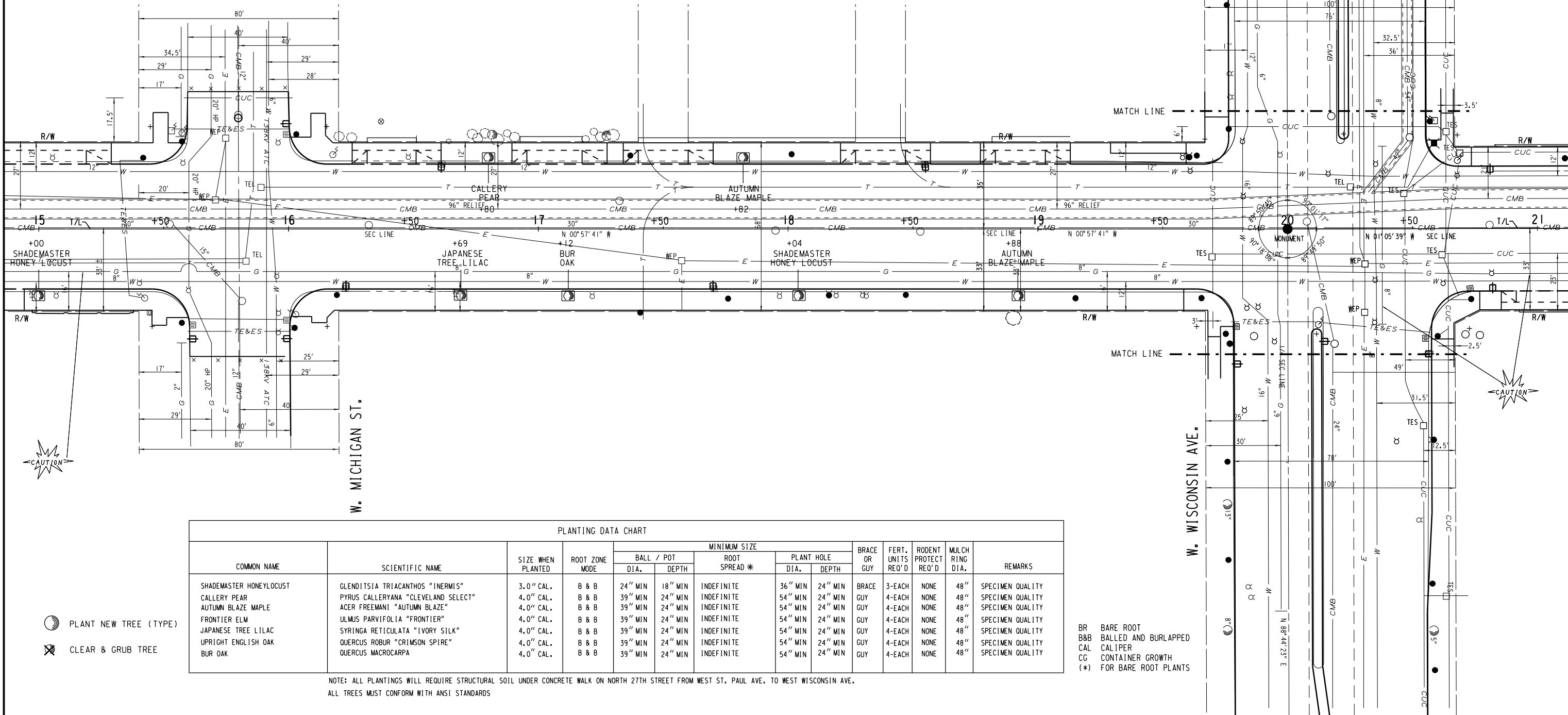
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NOTE: ALL PLANTINGS WILL REQUIRE STRUCTURAL SOIL UNDER CONCRETE WALK ON NORTH 27TH STREET FROM WEST ST. PAUL AVE. TO WEST WISCONSIN AVE.
ALL TREES MUST CONFORM WITH ANSI STANDARDS

NORTH

27TH

STREET

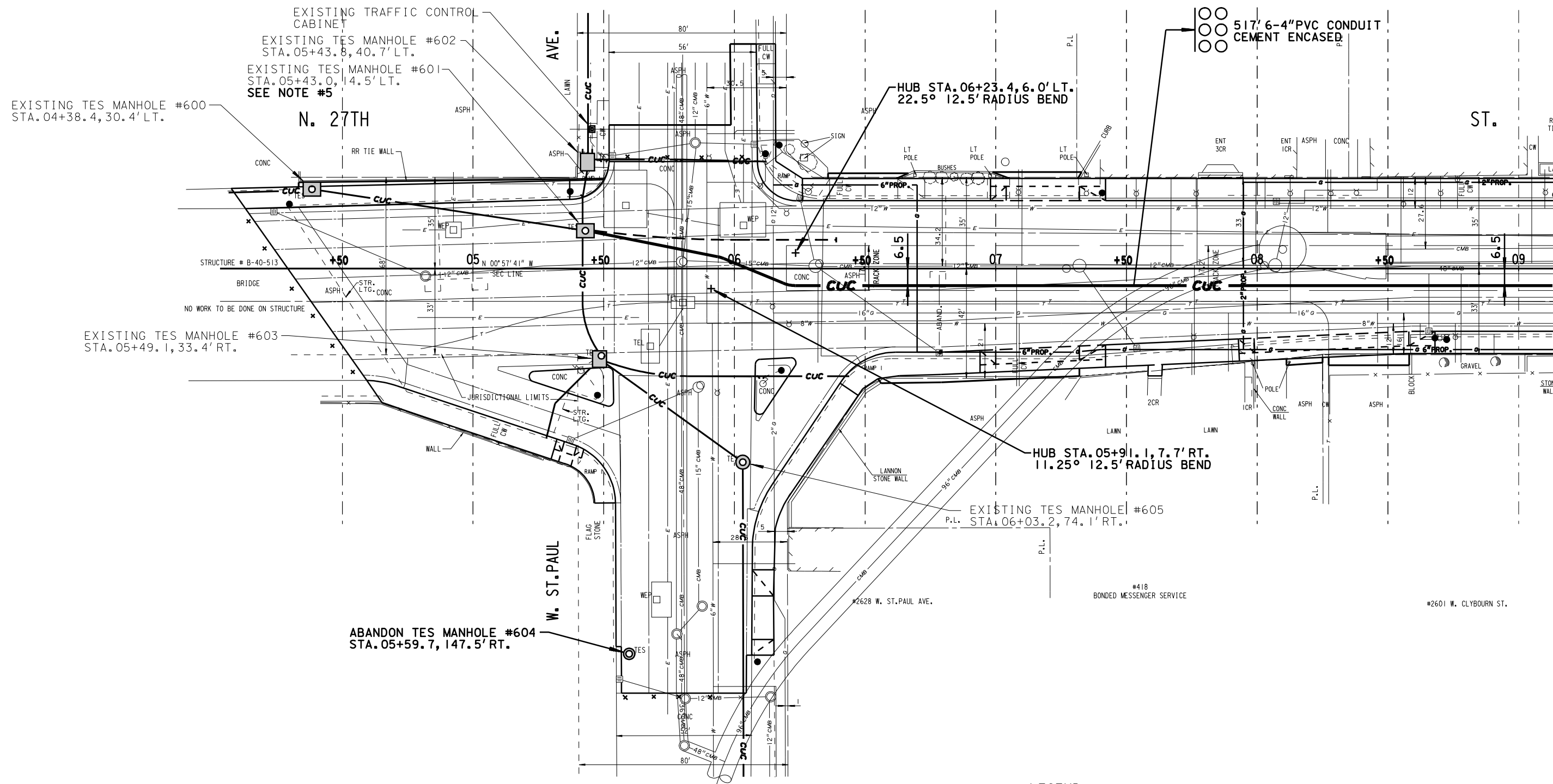


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B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS



NOTES:

- 1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
- 2) THE LOCATION OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- 3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
- 4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
- 5) SAW CUT AND REMOVE EXISTING CONDUIT FROM WALL OF MANHOLE. INSTALL PROPOSED CONDUIT INTO EXISTING MANHOLE STRUCTURE AT THE SAME LOCATION.

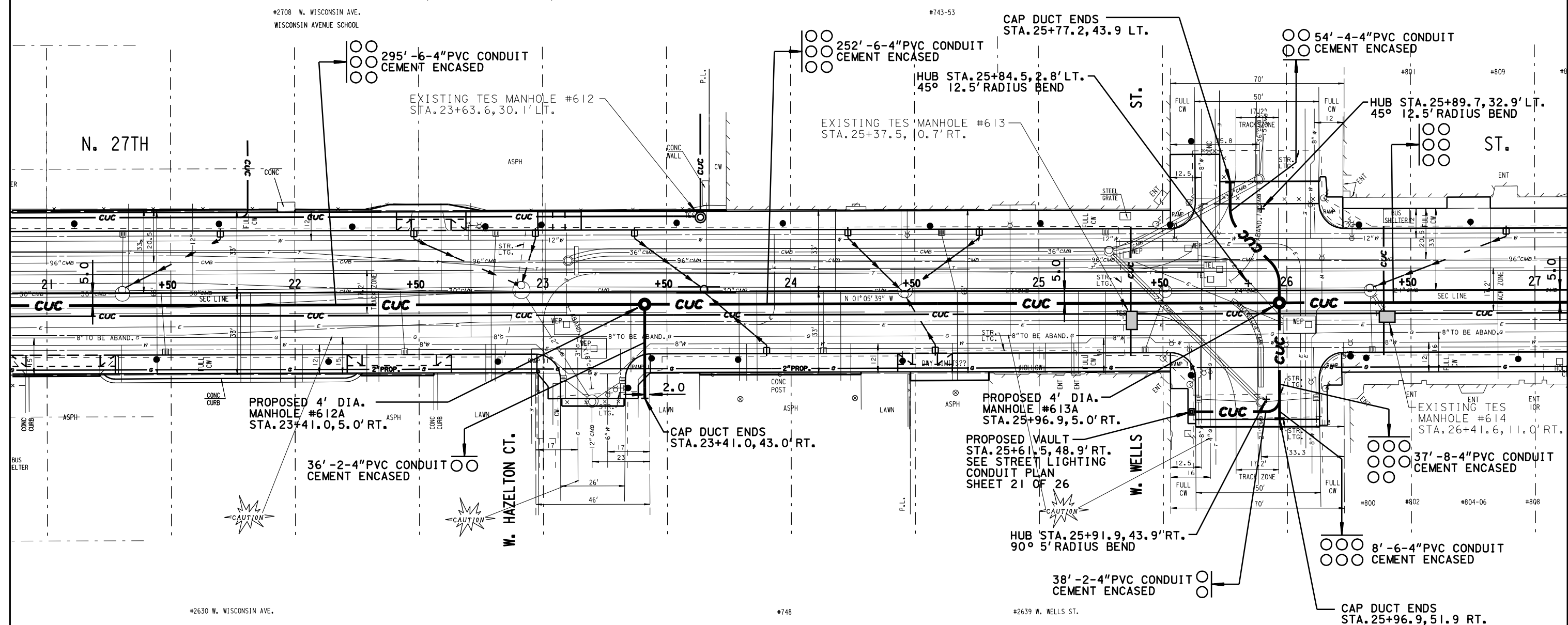
LEGEND

- CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED TES MANHOLE
- CONDUIT TO BE ABANDONED IN PLACE

SHEET 1 OF 11





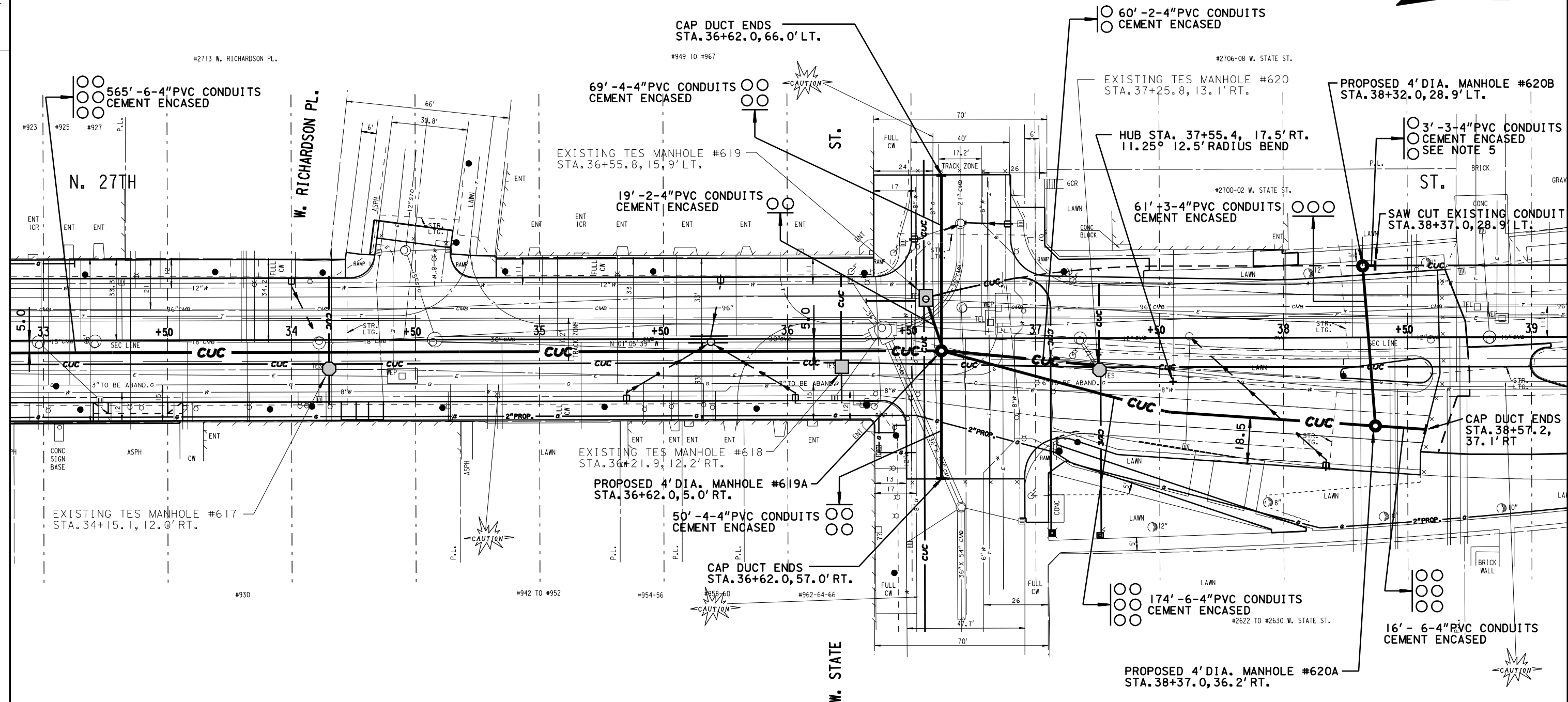
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SHEET 4 OF 11



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- 4) MAINTAIN A MINIMUM DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
- 5) ATTACH PROPOSED 4\"PVC TO THE THREE EXISTING 3\"FIBER DUCT USING APPROPRIATE ADAPTORS. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

- CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.
- PROPOSED TES MANHOLE
- CONDUIT TO BE ABANDONED IN PLACE

SHEET 6 OF 11

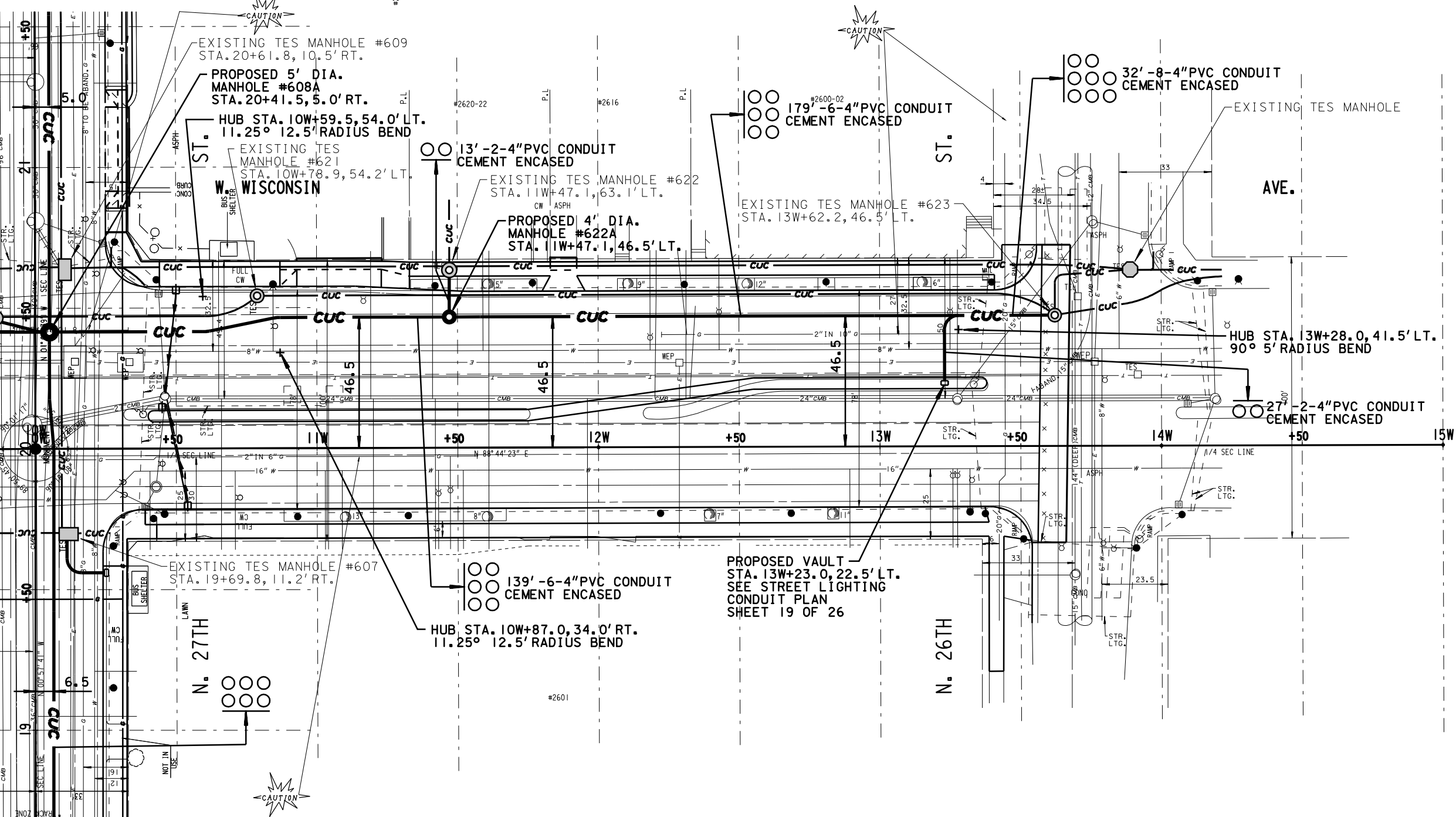


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LEGEND

- **CUC** — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT,
NUMBER OF RUNS AS NOTED.
- PROPOSED TES MANHOLE
- — — — CONDUIT TO BE ABANDONED IN PLACE

SEE SHEET 4 OF 11



SEE SHEET 3 OF 11

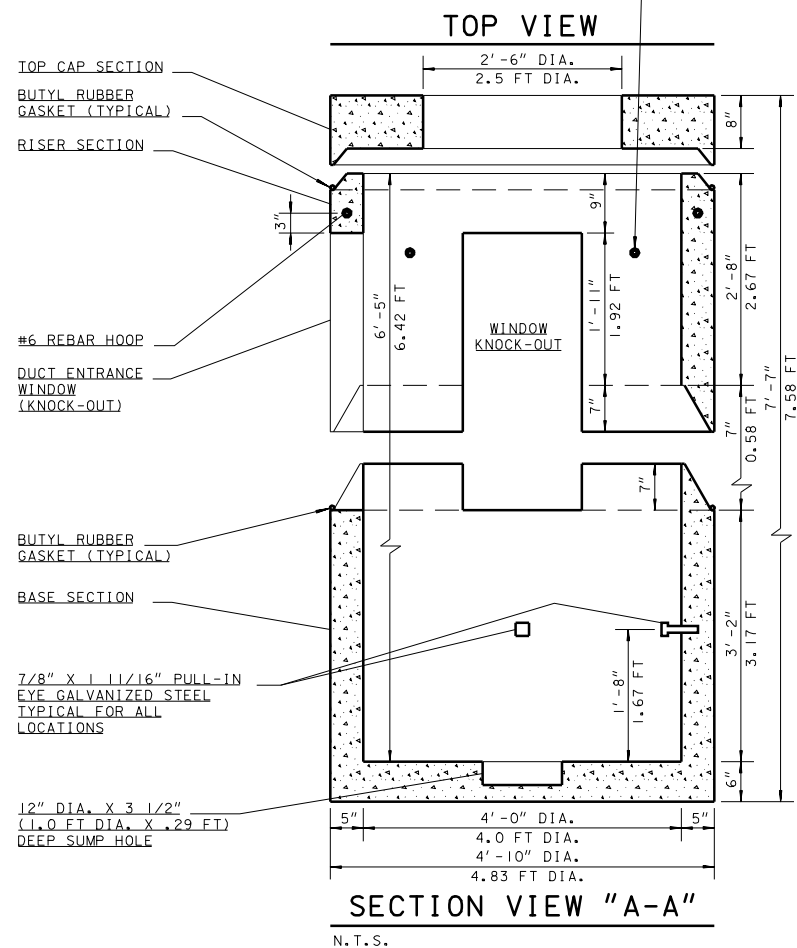
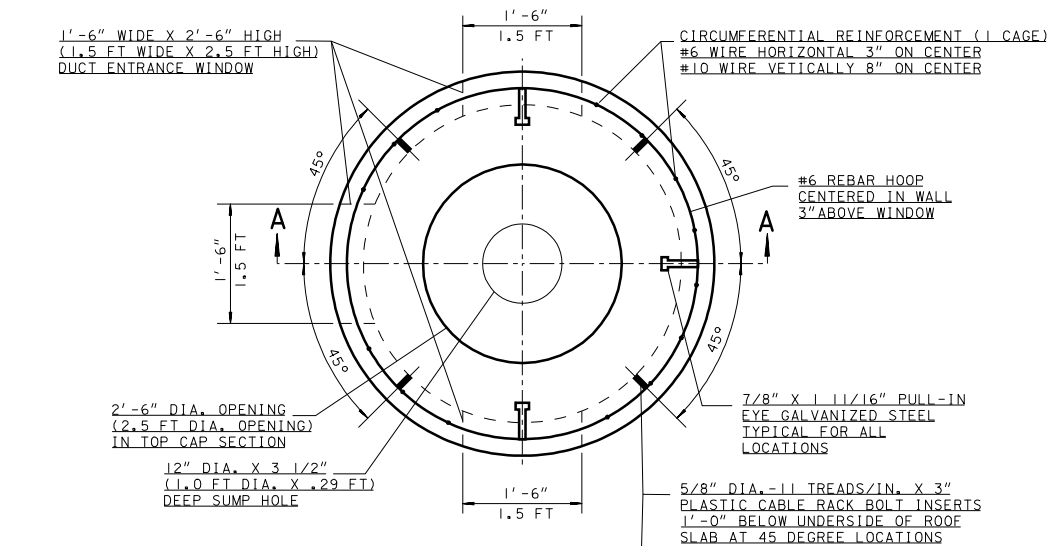
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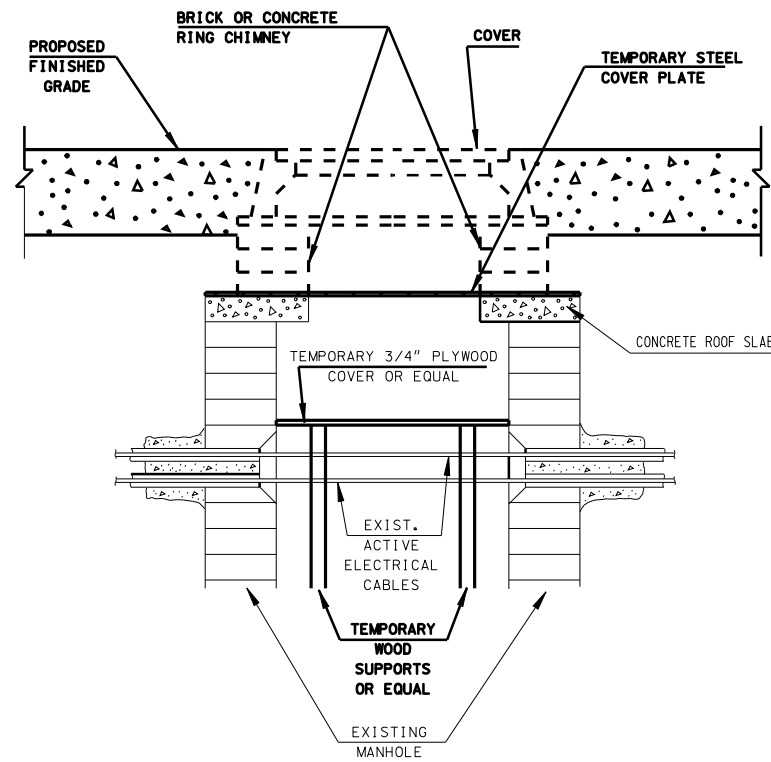
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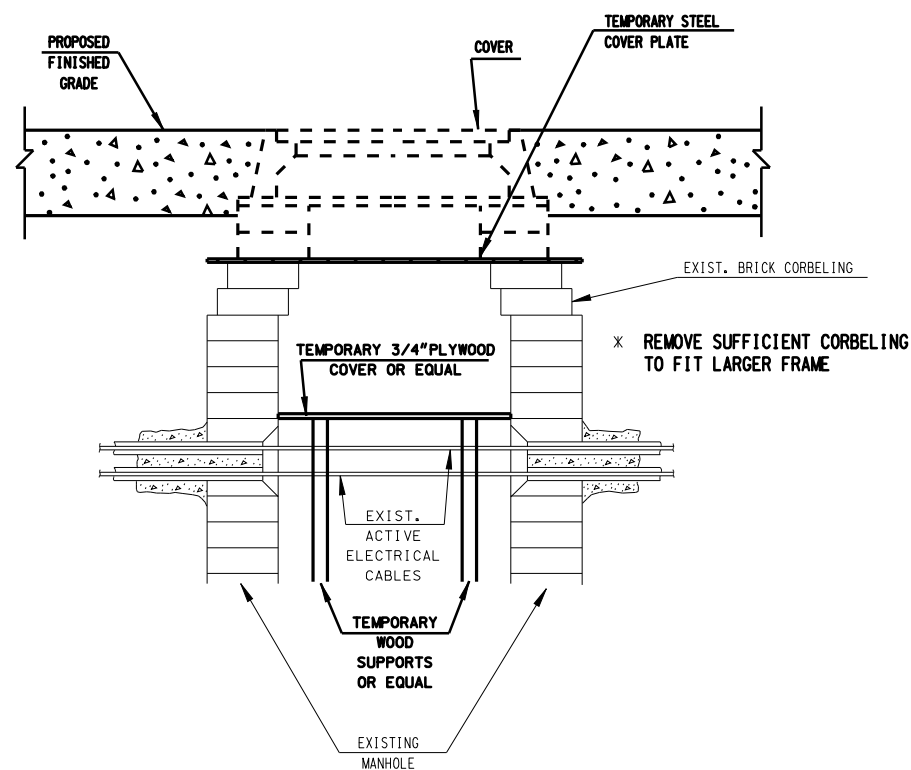
SHEET 8 OF 11



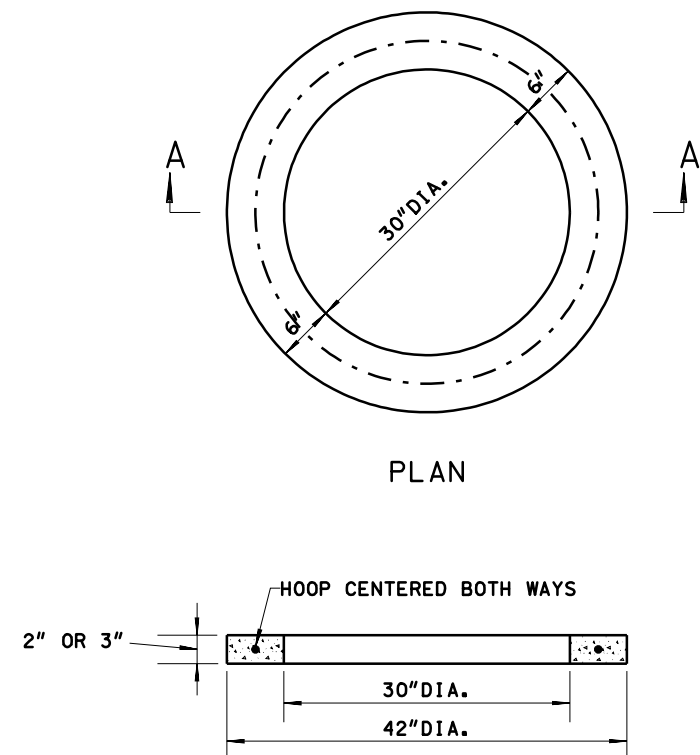
4' DIAMETER "DOGHOUSE" TYPE TES DETAIL



BLOCK OR PRECAST MANHOLE



BRICK ROUND MANHOLE



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 TES MANHOLES

SHEET 9 OF 11

TOP VIEW

1'-6" WIDE X 2'-6" HIGH
(1.5 FT WIDE X 2.5 FT HIGH)
DUCT ENTRANCE WINDOW

1'-6"

1.5 FT

CIRCUMFERENTIAL REINFORCEMENT (1 CAGE)
#6 WIRE HORIZONTAL 3" ON CENTER
#10 WIRE VERTICALLY 8" ON CENTER

45°

1'-6"

1.5 FT

2'-6" DIA. OPENING
(2.5 FT DIA. OPENING)
IN TOP CAP SECTION

7/8" X 1 11/16" PULL-IN
EYE GALVANIZED STEEL
TYPICAL FOR ALL
LOCATIONS

5/8" DIA. -11 THREADS/IN. X 3"
PLASTIC CABLE RACK BOLT INSERTS
1'-0" BELOW UNDERSIDE OF ROOF
SLAB AT 45 DEGREE LOCATIONS

12" DIA. X 3 1/2"
(1.0 FT DIA. X .29 FT)
DEEP SUMP HOLE

SECTION VIEW "A-A"

TOP CAP SECTION

BUTYL RUBBER
GASKET (TYPICAL)

RISER SECTION

DUCT ENTRANCE
WINDOW

BUTYL RUBBER
GASKET (TYPICAL)

BASE SECTION

7/8" X 1 11/16" PULL-IN
EYE GALVANIZED STEEL
TYPICAL FOR ALL
LOCATIONS

12" DIA. X 3 1/2"
(1.0 FT DIA. X .29 FT)
DEEP SUMP HOLE

2'-6" DIA.
2.5 FT DIA.

9"

2'-6" DIA.
2.5 FT DIA.

6'-5"

6.42 FT

4'-0" DIA.
4.0 FT DIA.

4'-10" DIA.
4.83 FT DIA.

5"

5"

8"

4'-0" DIA.
4.0 FT DIA.

7'-7"

7.58 FT

2'-5"

2.42 FT

6"

1'-8"

1.67 FT

NOTE:
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.
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

TOP VIEW

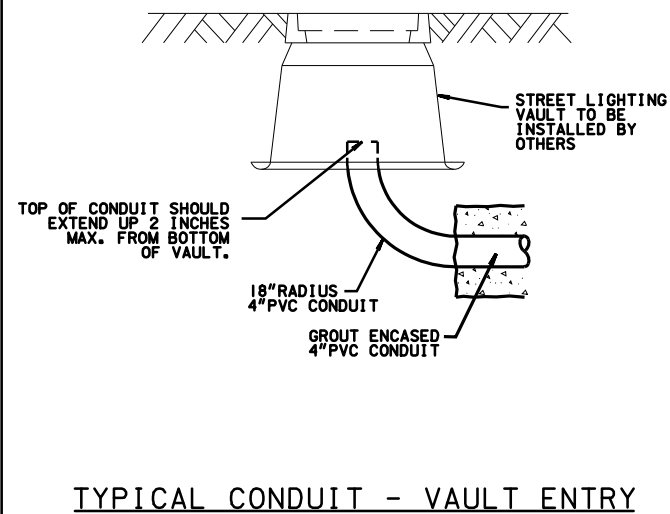
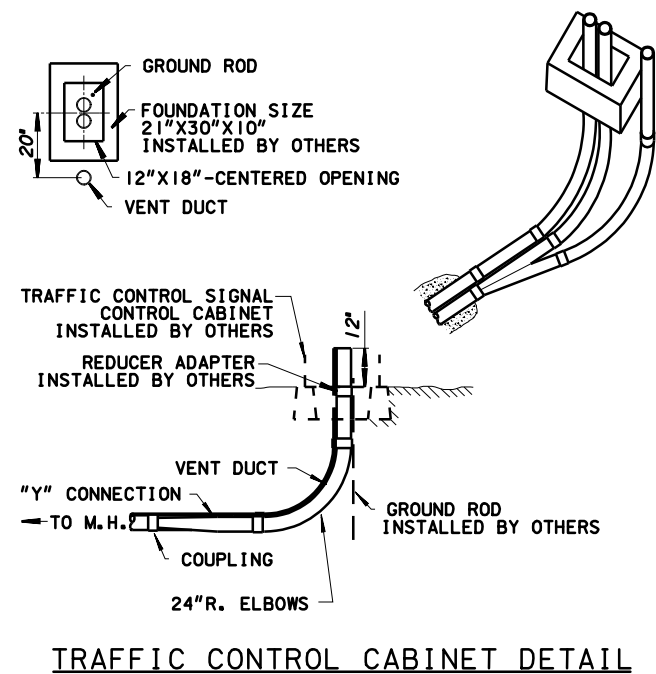
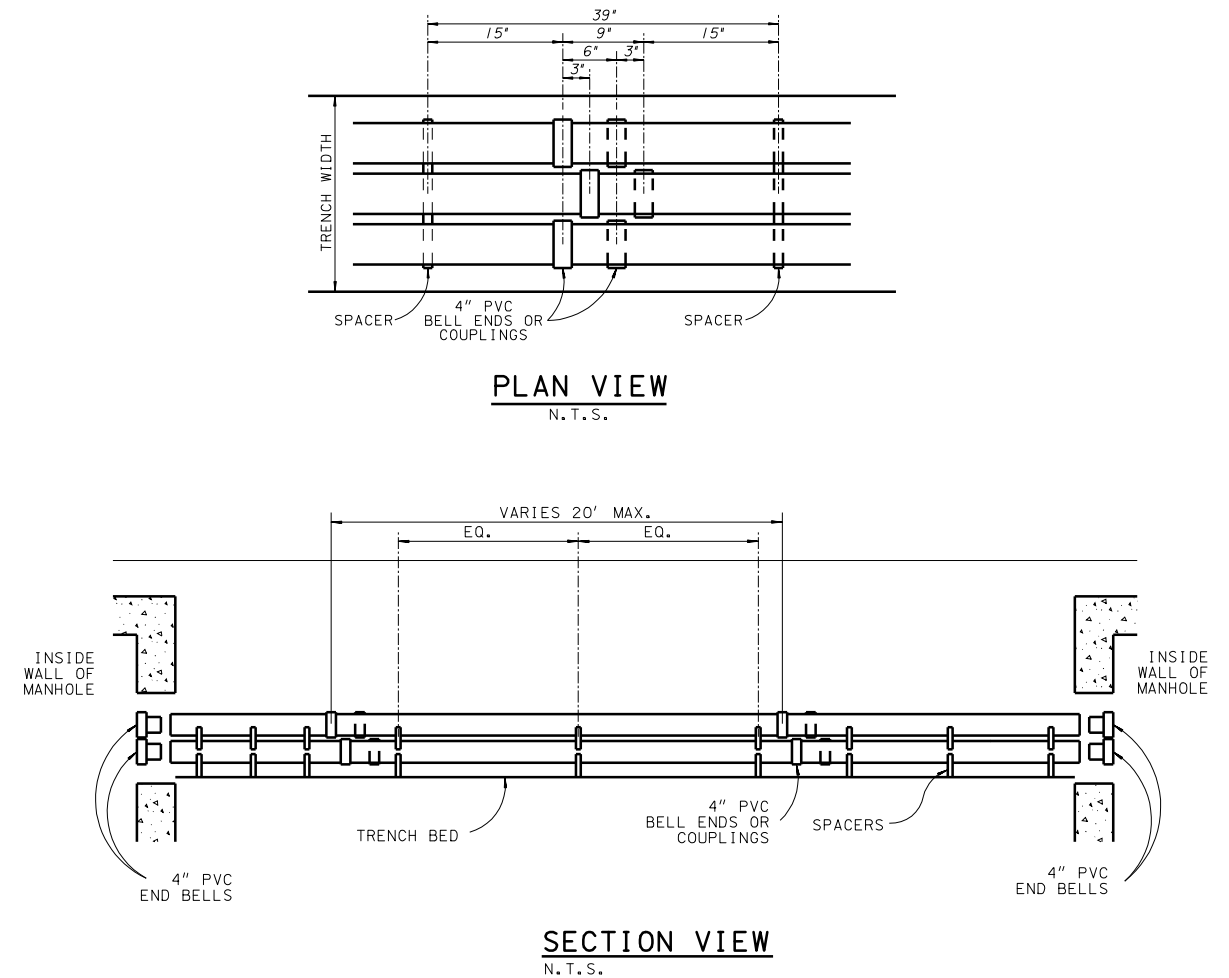
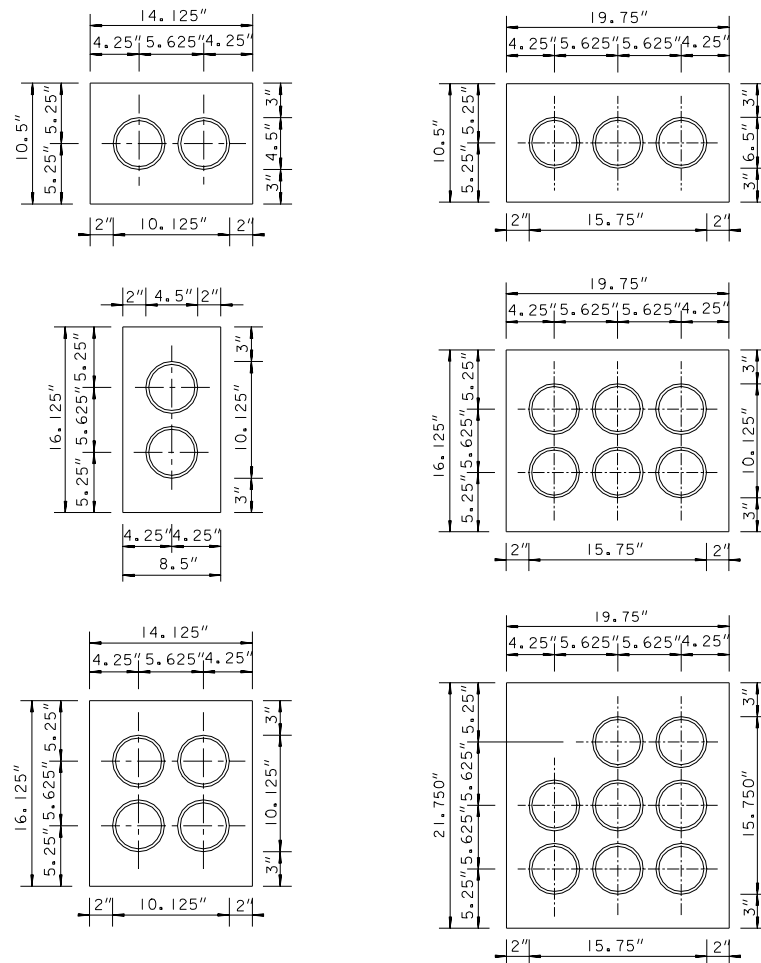
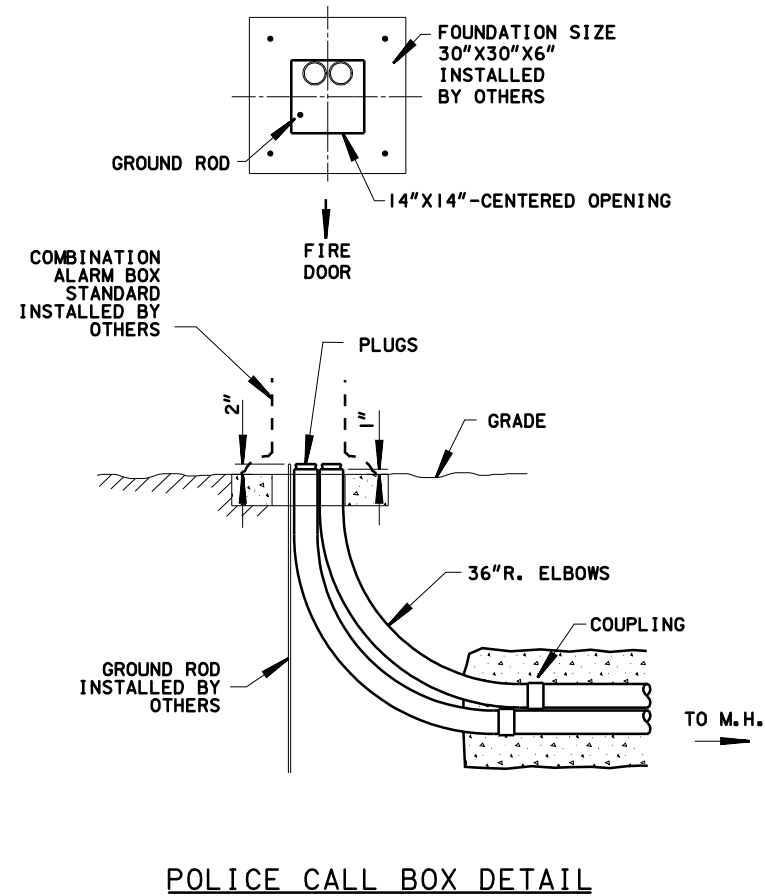
- 2'-6" DIA. OPENING (2.5 FT DIA. OPENING) IN TOP CAP SECTION
- 7/8" X 1 11/16" PULL-IN EYE GALVANIZED STEEL TYPICAL FOR ALL LOCATIONS
- 12" DIA. X 3 1/2" (1.0 FT DIA. X .29 FT) DEEP SUMP HOLE
- CIRCUMFERENTIAL REINFORCEMENT (2 CAGES)
#6 WIRE HORIZONTAL 3" ON CENTER
#10 WIRE VETICALLY 8" ON CENTER
- 5/8" DIA.-11 TREADS/IN. X 3" PLASTIC CABLE RACK BOLT INSERTS 1'-0" BELOW UNDERSIDE OF ROOF SLAB AT 45 DEGREE LOCATIONS
- 2'-0" WIDE X 2'-6" HIGH (2.0 FT WIDE X 2.5 FT HIGH) DUCT ENTRANCE WINDOW

SECTION VIEW "A-A"

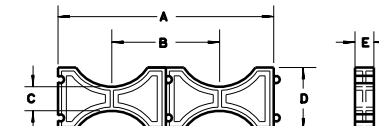
- TOP CAP SECTION
- BUTYL RUBBER GASKET (TYPICAL)
- RISER SECTION
- DUCT ENTRANCE WINDOW
- BUTYL RUBBER GASKET (TYPICAL)
- BASE SECTION
- 7/8" X 1 11/16" PULL-IN EYE GALVANIZED STEEL TYPICAL FOR ALL LOCATIONS
- 12" DIA. X 3 1/2" (1.0 FT DIA. X .29 FT) DEEP SUMP HOLE

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.
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
5' DIA. X 6'-3" HEADROOM
PRECAST CONCRETE MANHOLE

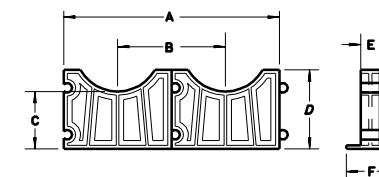


COND.	4"
A	11 1/2"
B	5 7/8"
C	1 1/4"
D	3 1/4"
E	1"



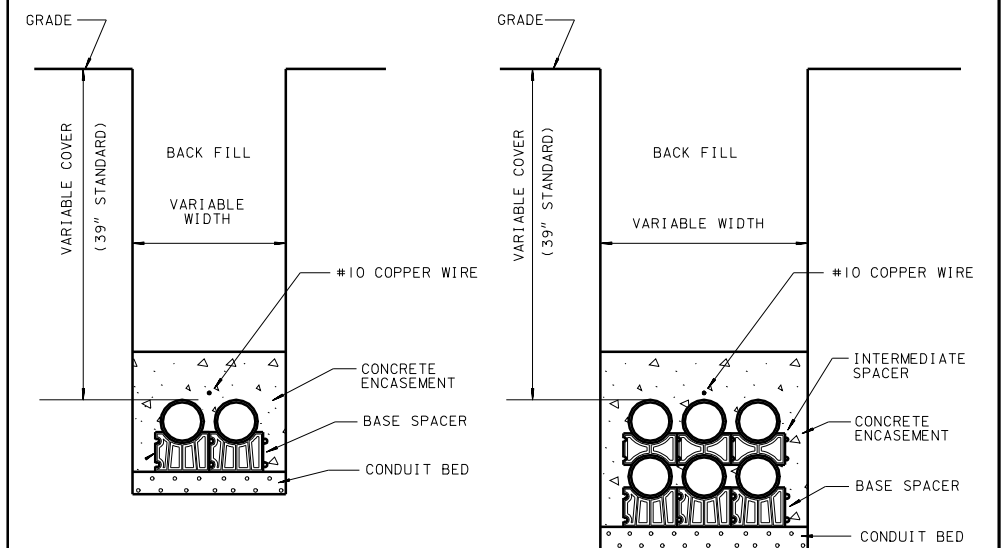
INTERMEDIATE SPACER

COND.	4"
A	11 1/2"
B	5 7/8"
C	3"
D	4 1/4"
E	1"
F	2 7/8"



BASE SPACER

INTERMEDIATE AND BASE SPACER DETAIL



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.

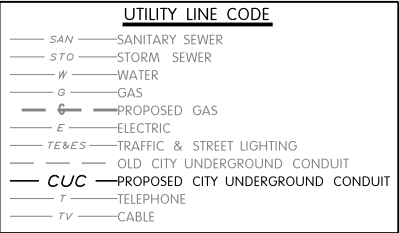
- 1
- DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- 2
- LOCATIONS OF THE PVC CONDUITS WHERE THEY ARE REQUIRED ARE IDENTIFIED IN THE PRINTS. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. 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 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.I. 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.

TRAFFIC & STREET LIGHTING GENERAL NOTES:

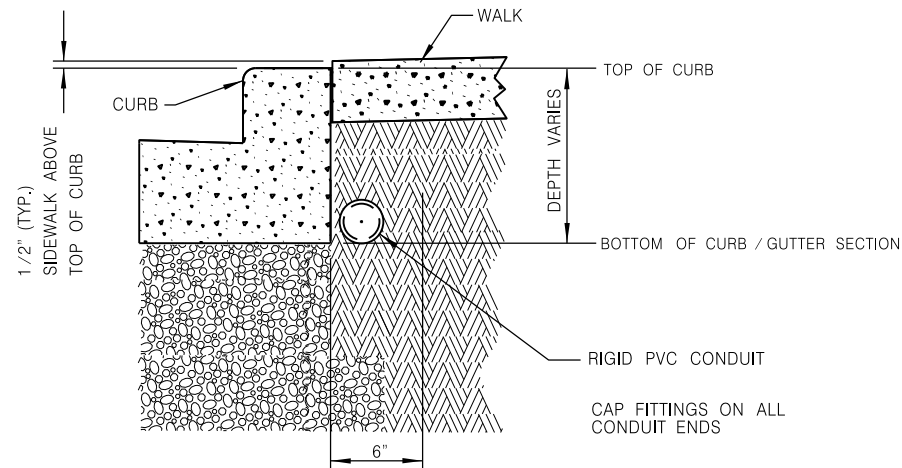
- 20
- COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR STREET LIGHTING - DENNIS MILLER (OFFICE) 414-286-5942 (CELL) 414-708-4251 OR 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 CONCRETE, 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
- CONTRACTOR SHALL FURNISH THREE (3) COPIES OF AS-BUILT DRAWINGS FOR ALL WORK DONE. THE AS-BUILT DRAWINGS SHALL MEET ALL THE REQUIREMENTS LISTED BELOW. SUBMIT DRAWINGS TO THE CITY OF MILWAUKEE CITY ENGINEER OFFICE @ 841 N. BROADWAY, MILWAUKEE, WI., 53202, ATTENTION TO ROBERT BRYSON.

ELECTRICAL AS-BUILT REQUIREMENTS:

- *
- LOCATE AND CLEARLY DIMENSION ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, LIGHT BASES, TRANSFORMER, POLES AND OTHER APPURTENANCES IN TWO (2) 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.
- *
- 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 OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- *
- SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
- *
- DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.



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.



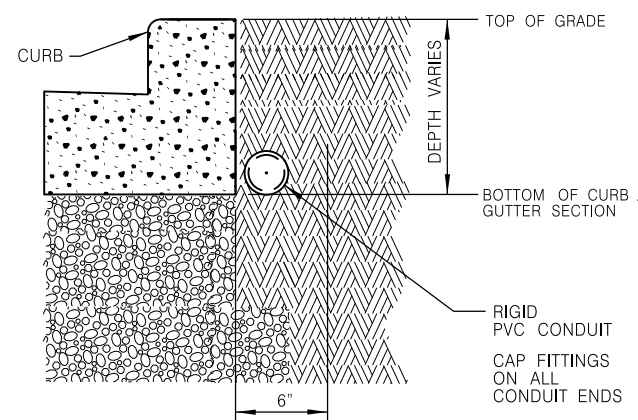
100 DETAIL "A"
TYPICAL CONDUIT INSTALLATION
BEHIND CURB NOT TO SCALE

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

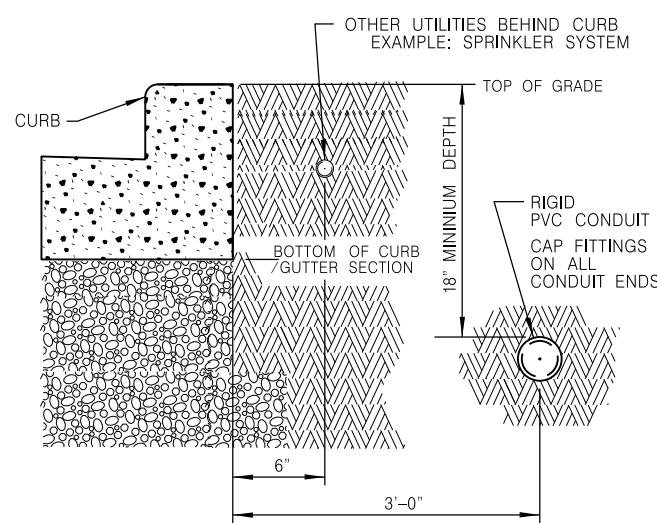
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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

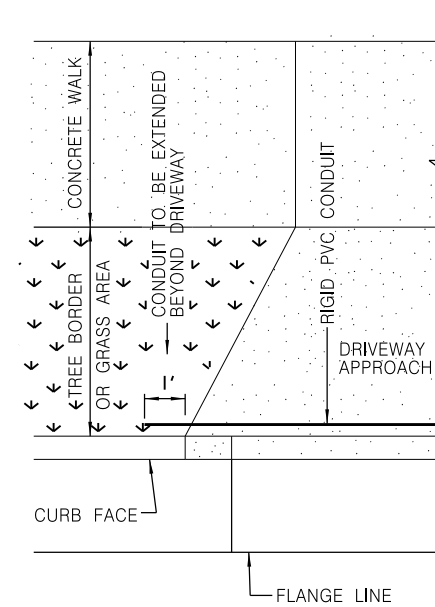


DETAIL "C"

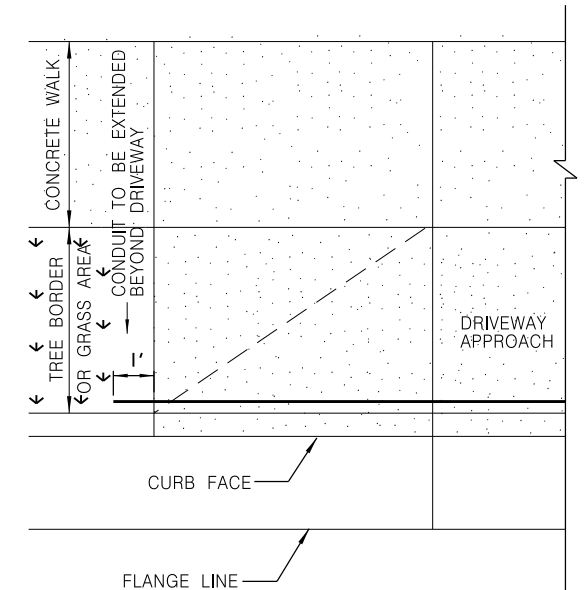


100 DETAIL "B" & "C"
TYPICAL CONDUIT INSTALLATION
BEHIND CURB NOT TO SCALE

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

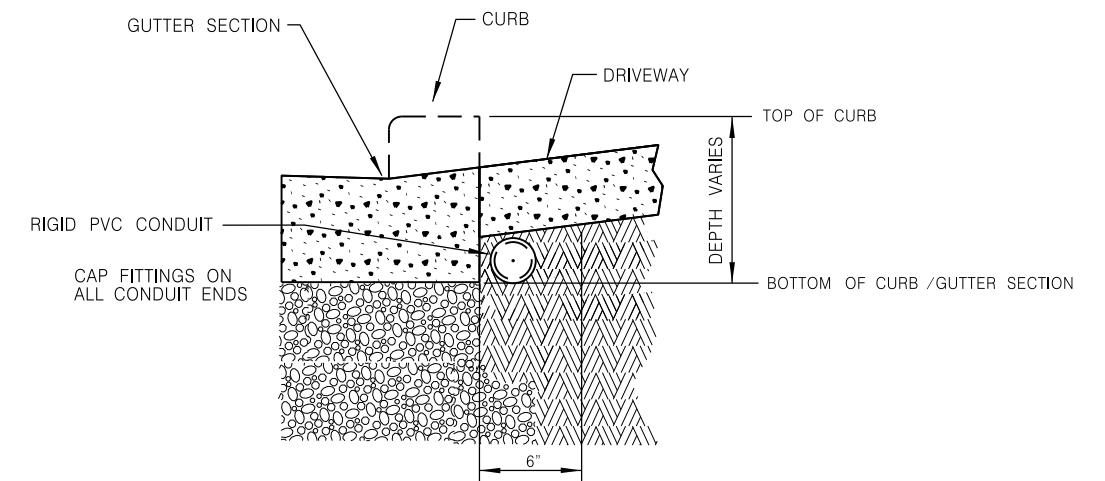


TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



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.

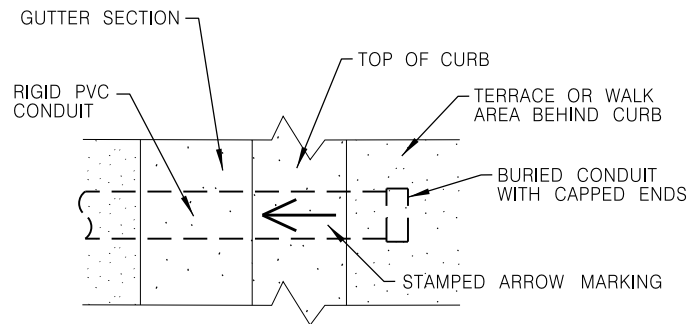


101 DETAIL
TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS NOT TO SCALE

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 24

2

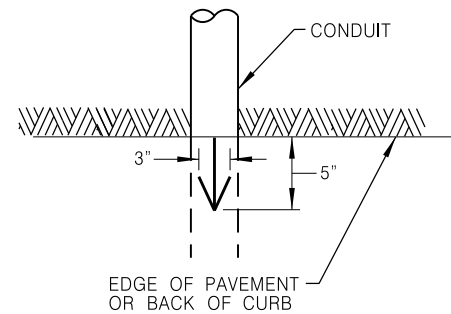


TOP VIEW OF CURB STAMPING

NOT TO SCALE

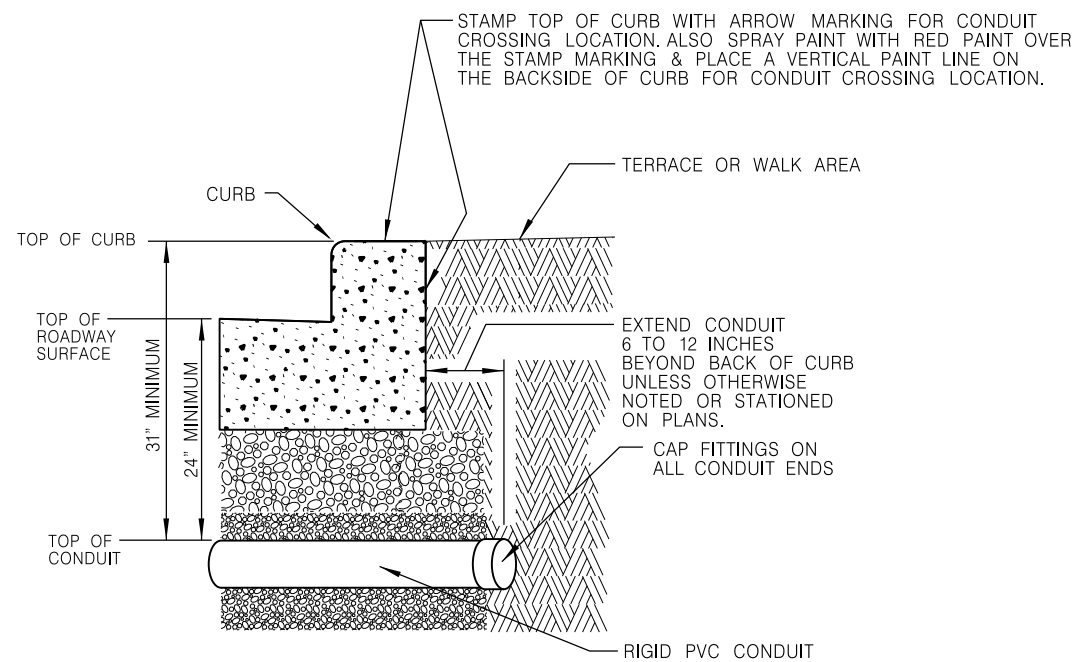
NOTE:

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



102

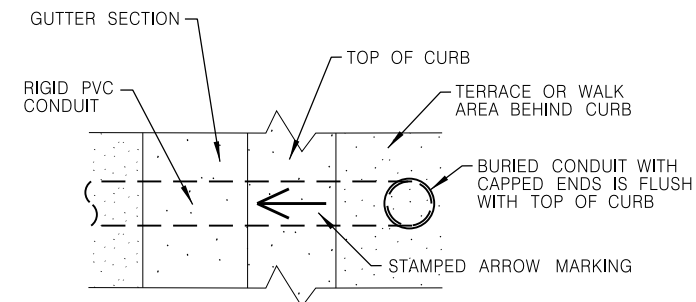
DETAIL VERSION #1

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.

2

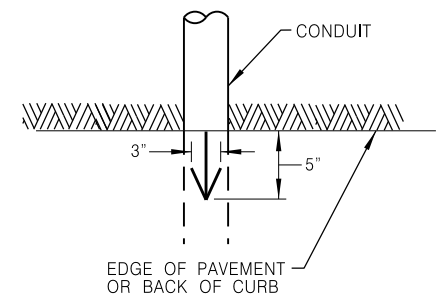


TOP VIEW OF CURB STAMPING

NOT TO SCALE

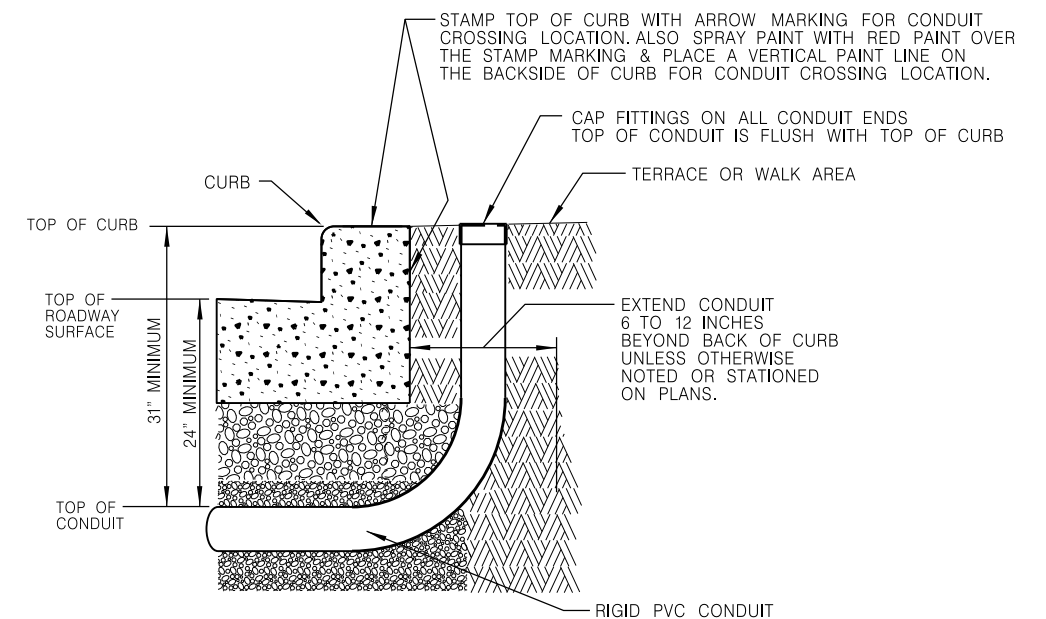
NOTE:

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



102

DETAIL VERSION #2

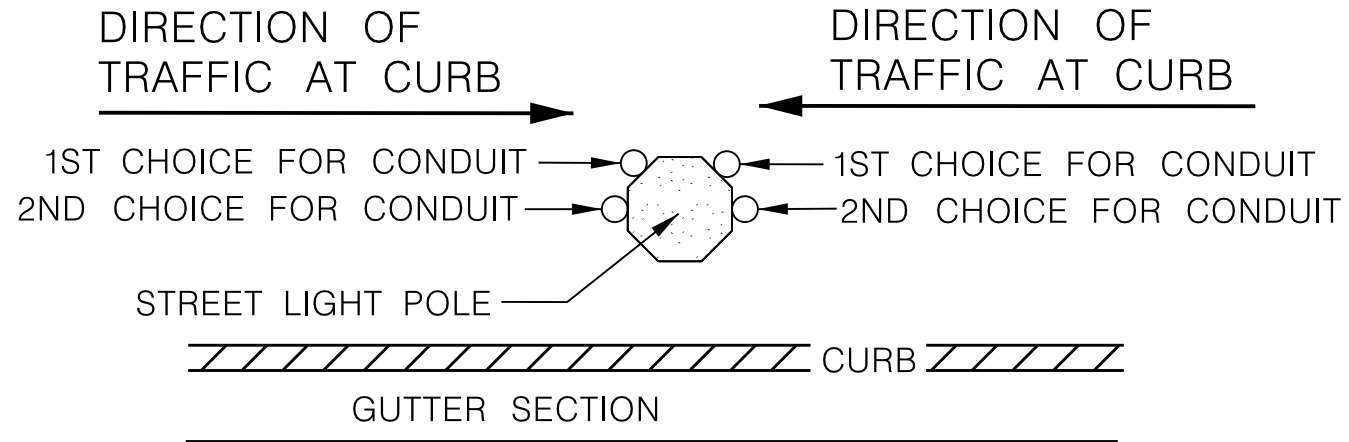
TYPICAL CONDUIT INSTALLATION
FOR CROSSING ROADWAYS

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.

SHEET 3 OF 24

NOTE: CAP FITTINGS ON
CONDUIT ENDS



104

DETAIL

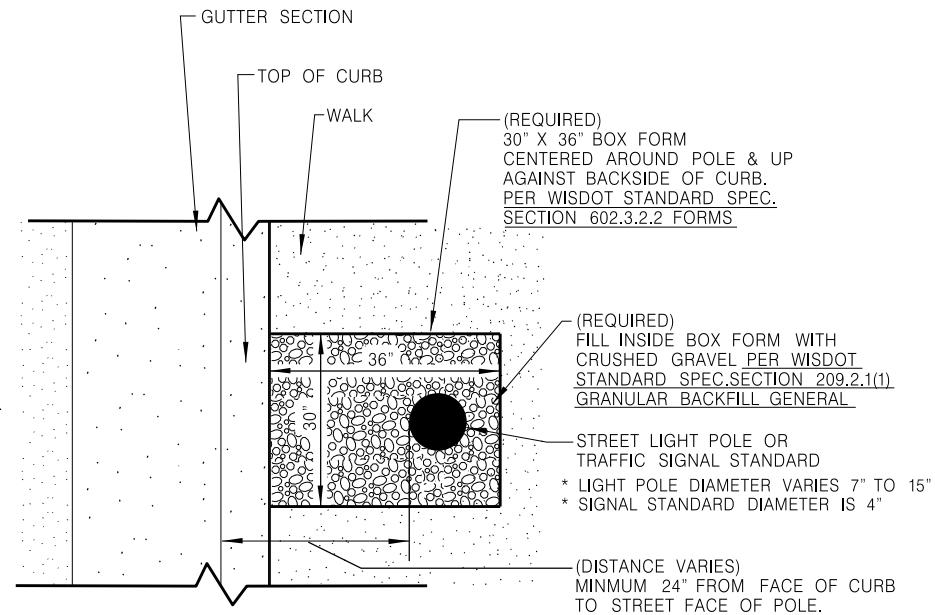
TYPICAL TRAFFIC SIGNAL RISER CONDUIT
LOCATIONS ON STREET LIGHT POLE
DEPENDING ON DIRECTION OF
TRAFFIC AT CURB

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

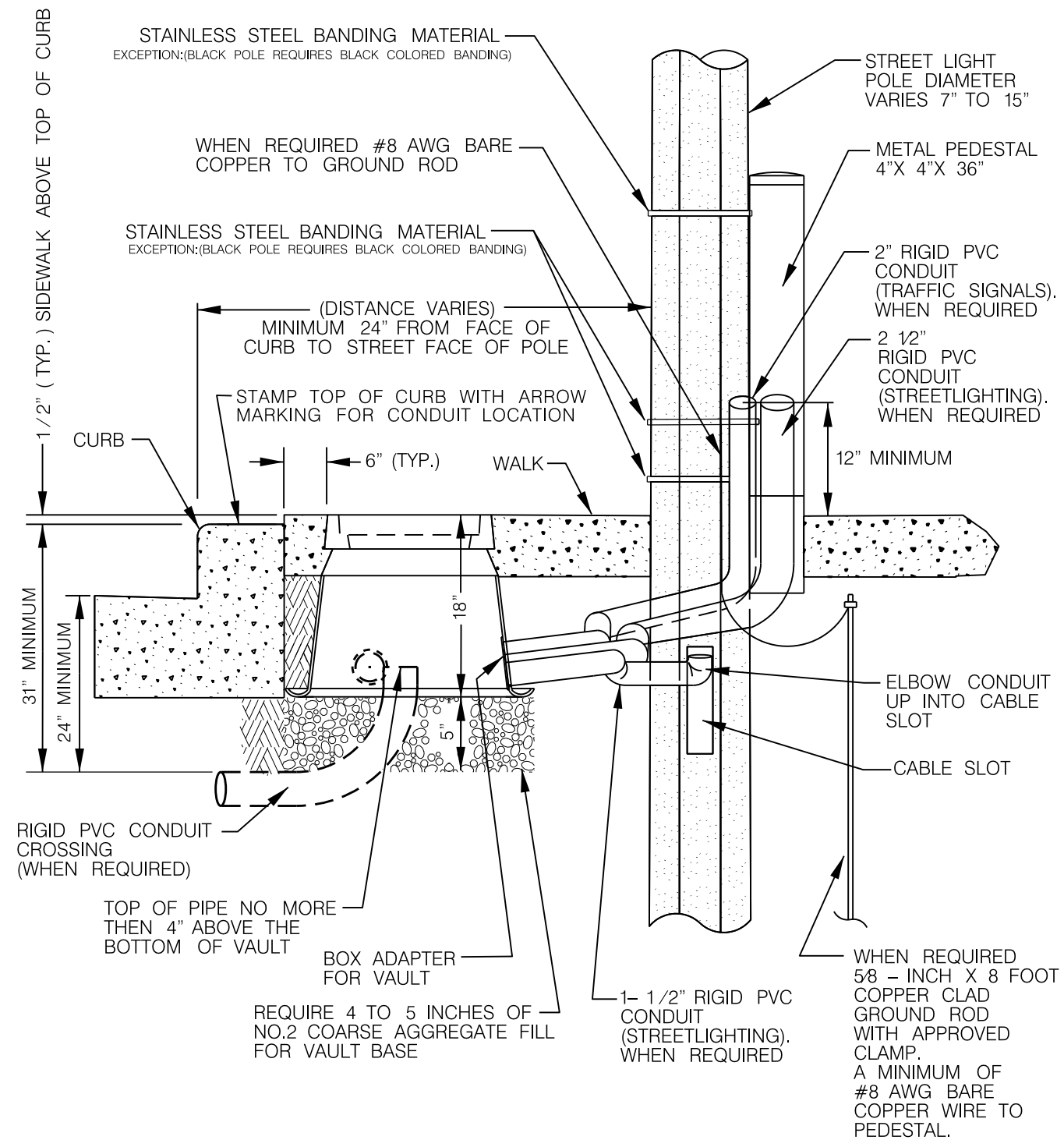
DETAIL

TYPICAL 30" X 36" BOX FORM
AROUND STREET LIGHTING POLE OR
TRAFFIC SIGNAL STANDARD

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 24

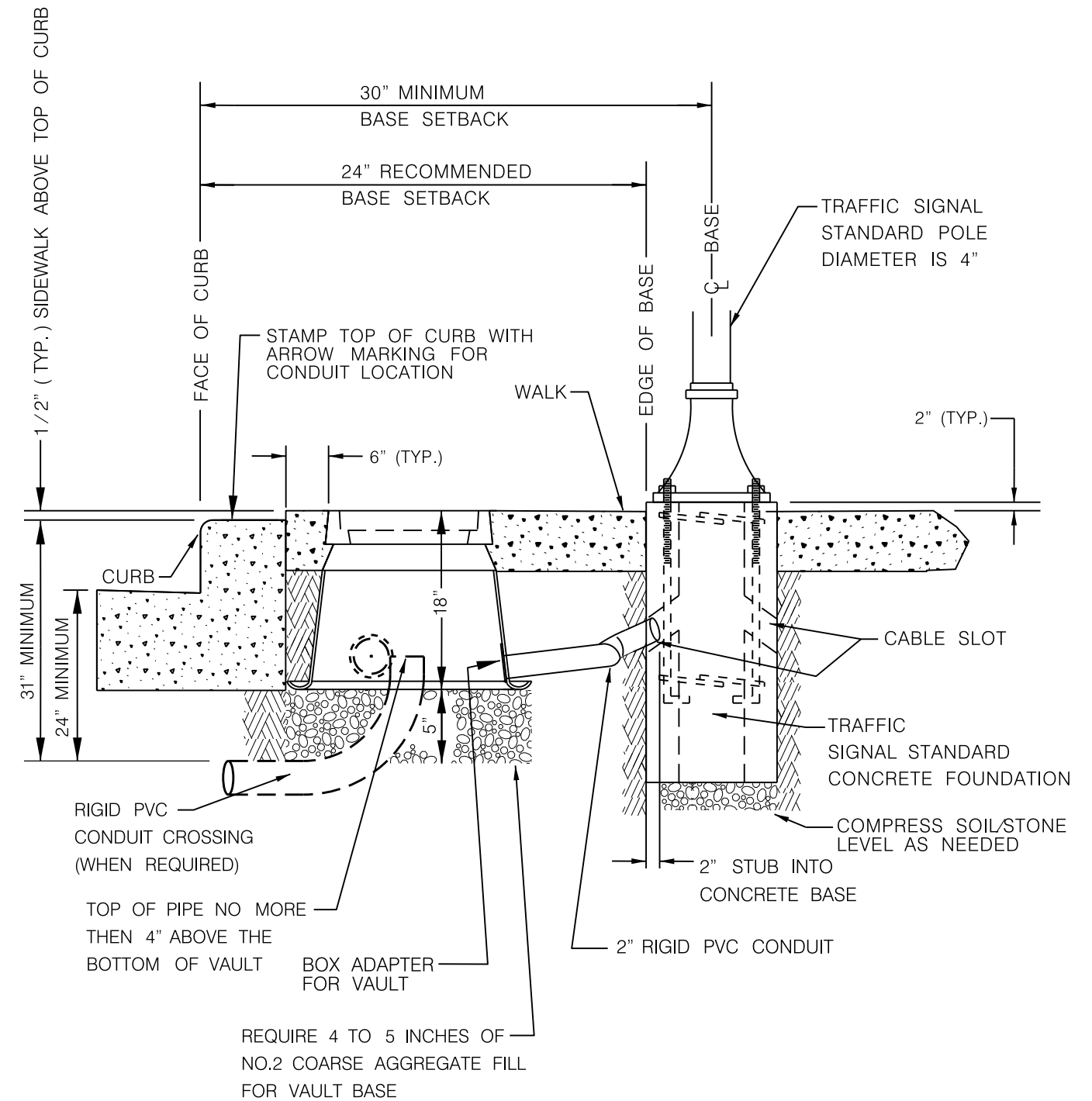


108

DETAIL
TYPICAL CONDUIT INSTALLATION
FROM VAULT TO POLE

NOT TO SCALE

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

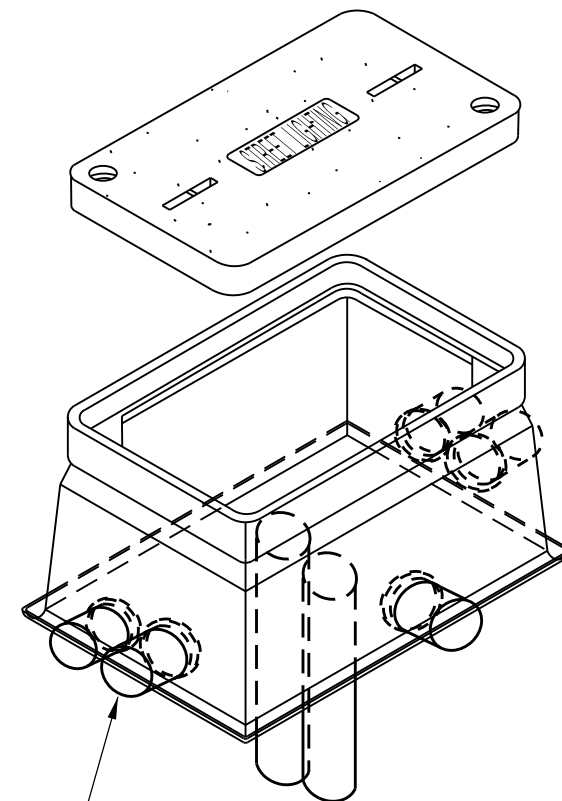


109

DETAIL
TYPICAL CONDUIT INSTALLATION
FROM VAULT TO SIGNAL STANDARD
AND TYPICAL BASE INSTALLATION

NOT TO SCALE

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



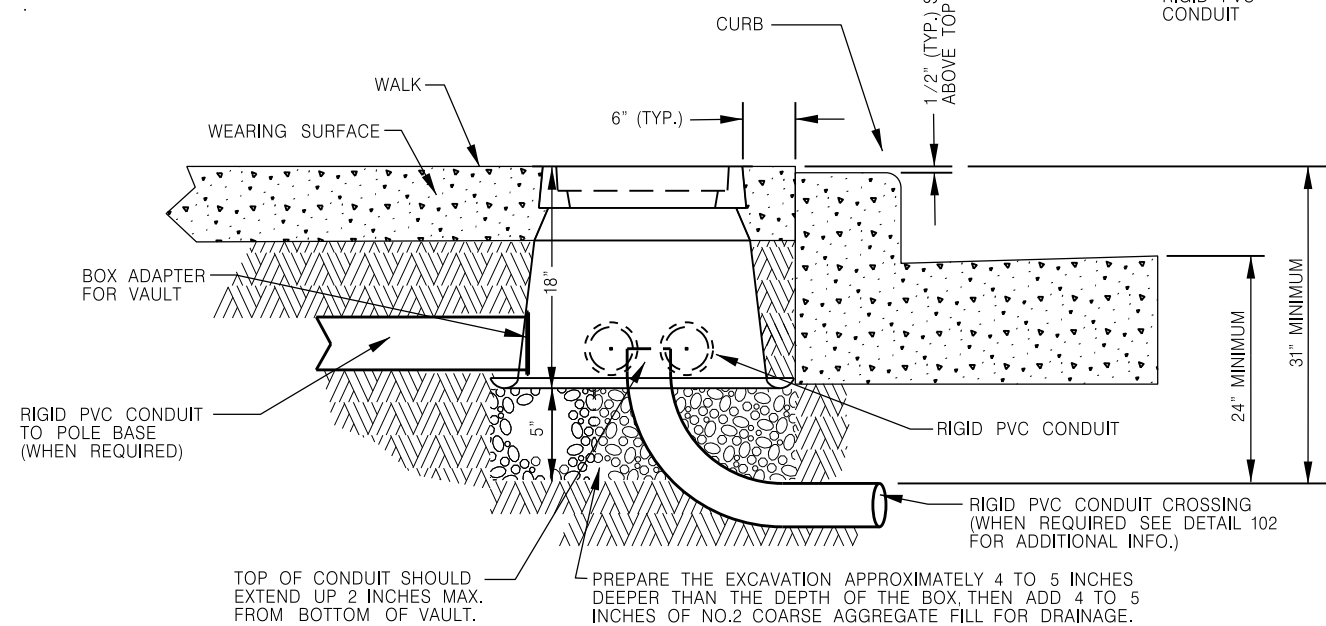
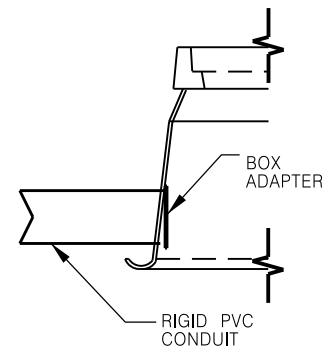
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

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



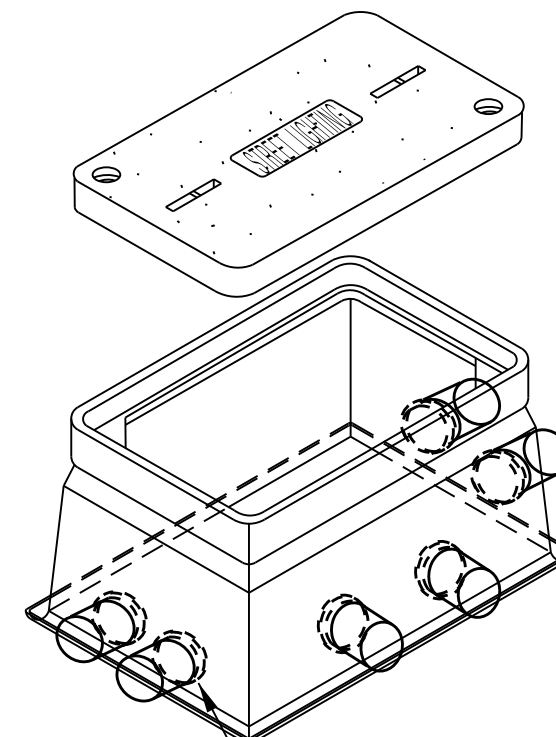
112

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.

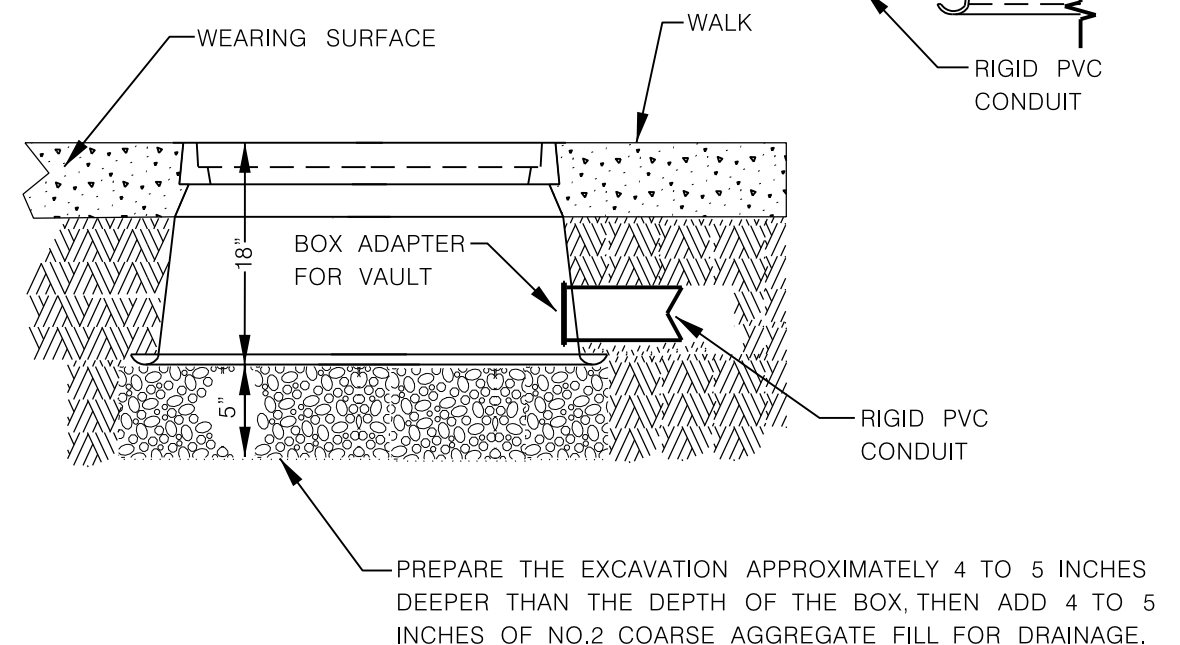
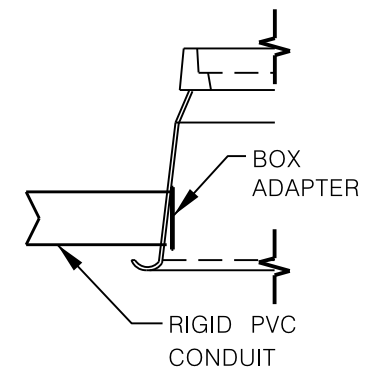


HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W / 2 BOLTS
COLOR: GRAY

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



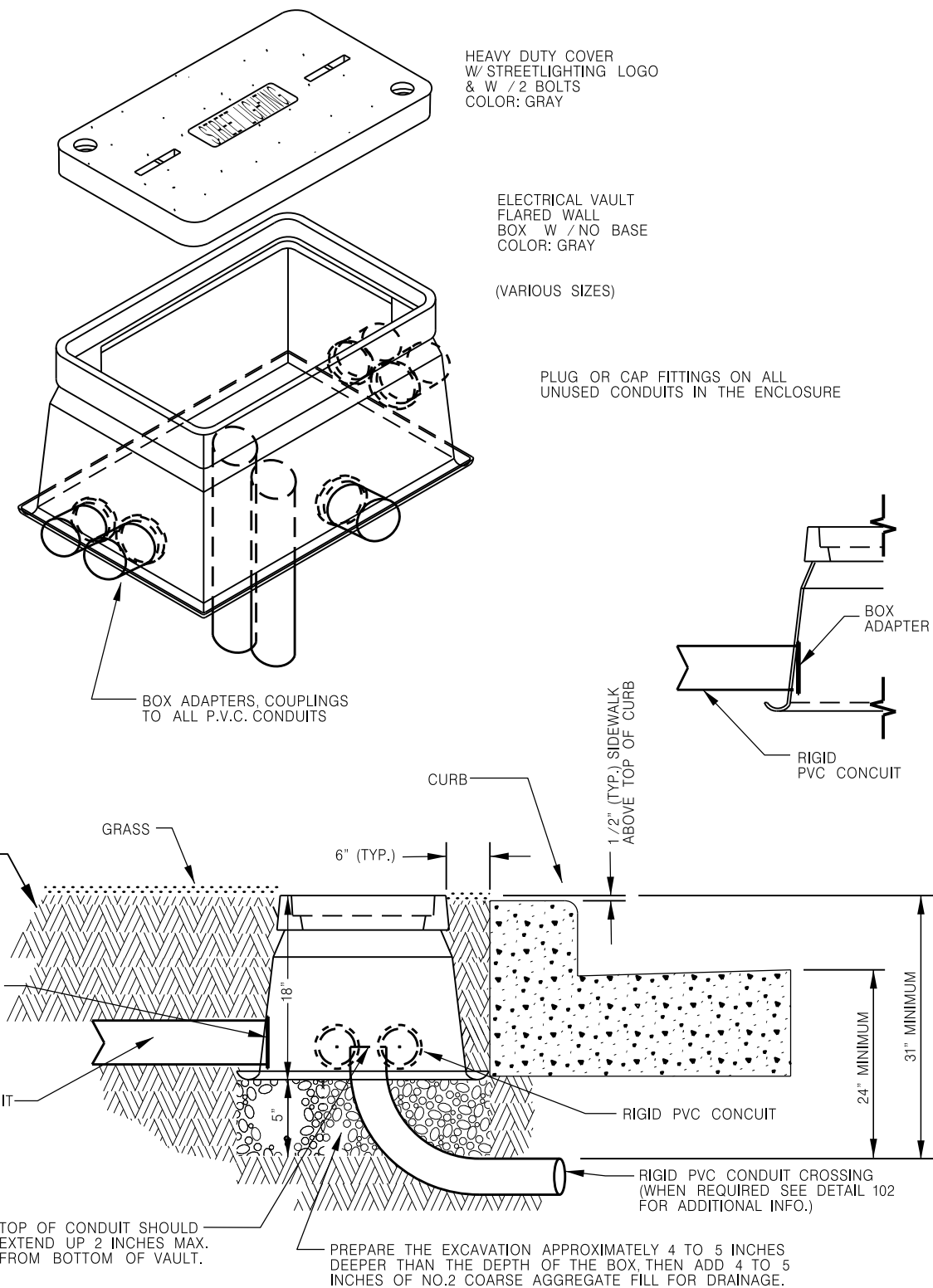
113

DETAIL

TYPICAL VAULT INSTALLATION
IN SIDEWALK

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
SHEET 6 OF 24



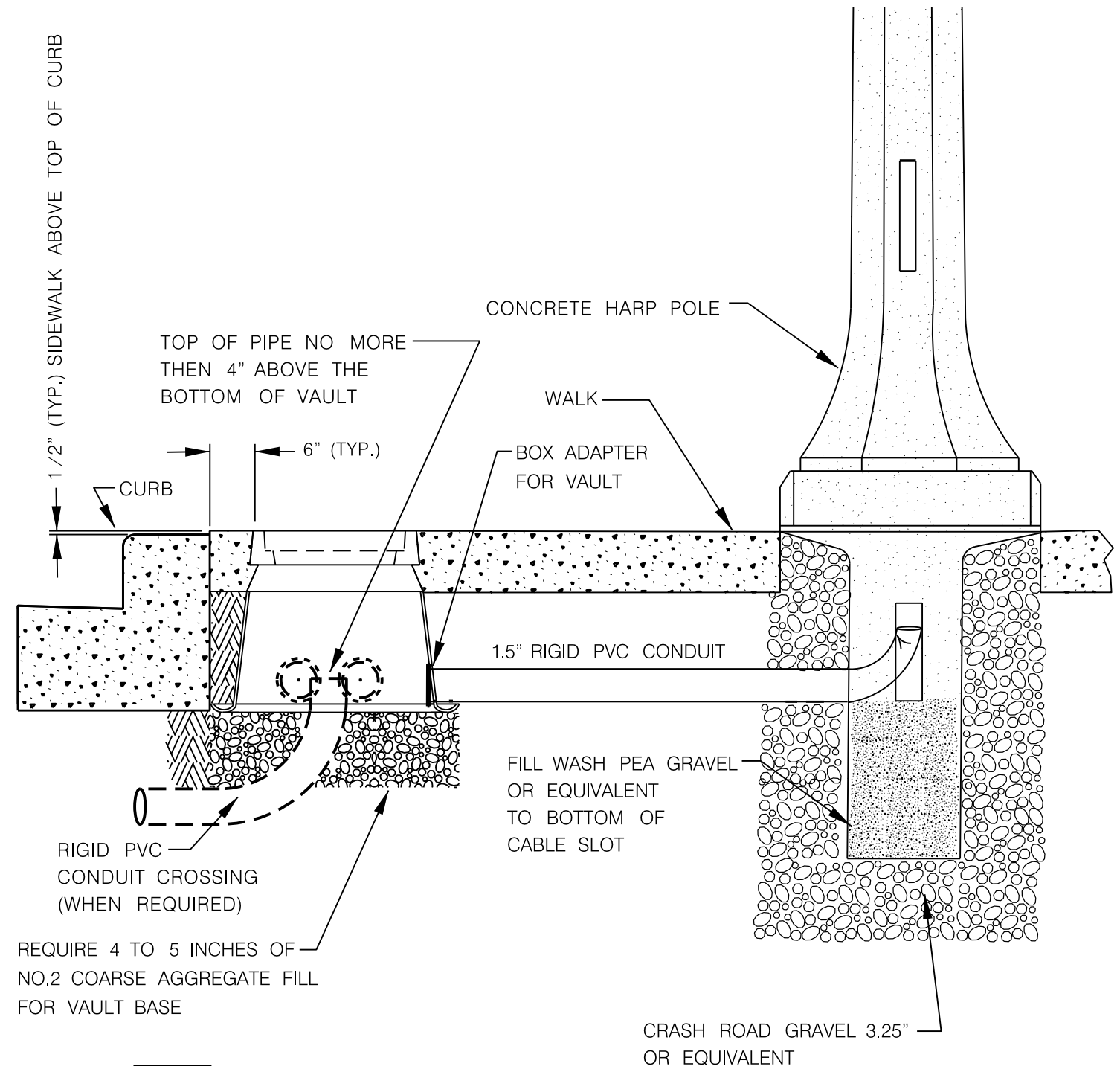
121

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.



123

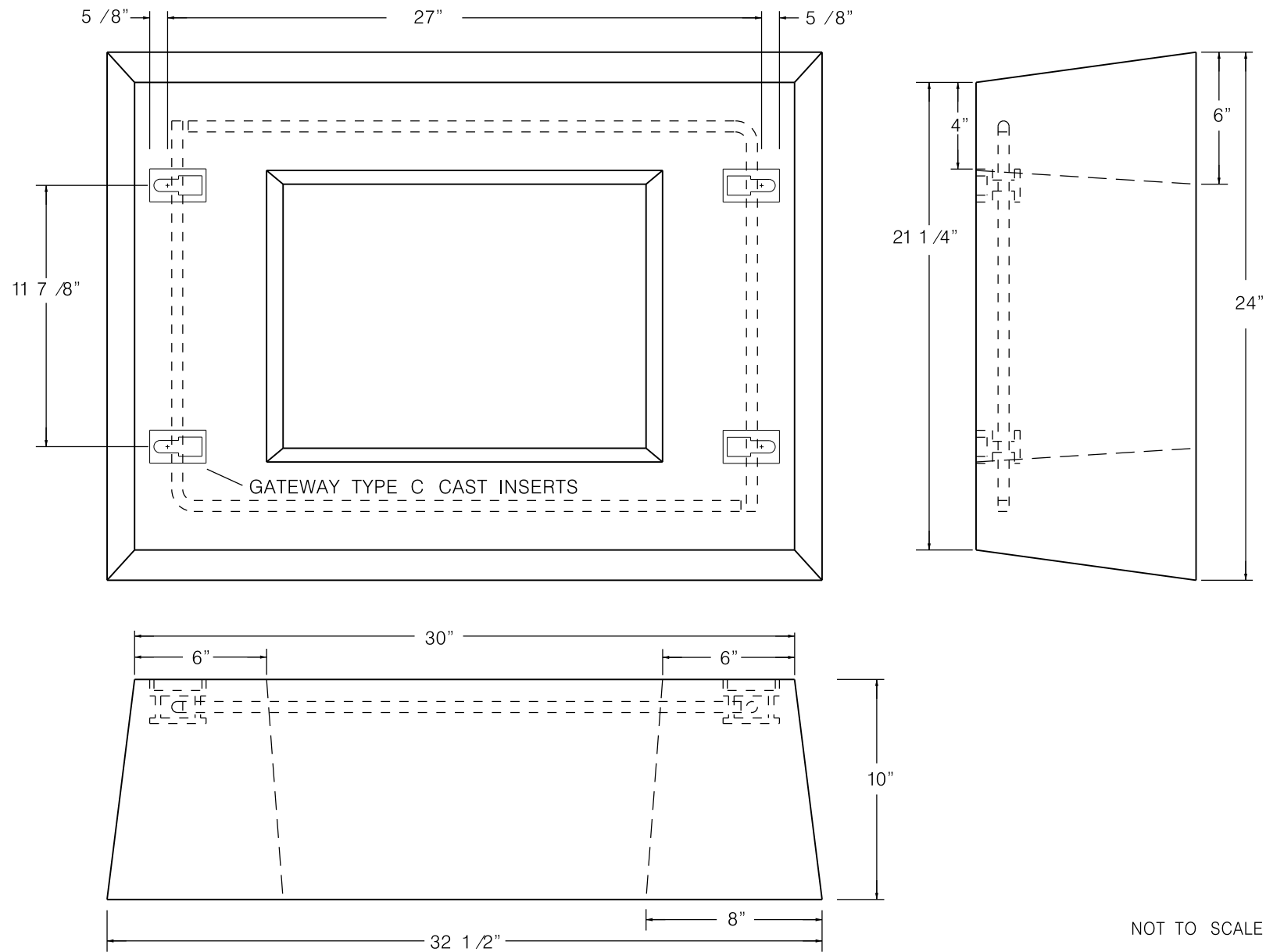
DETAIL

TYPICAL CONDUIT INSTALLATION
FROM VAULT TO CONCRETE HARP POLE

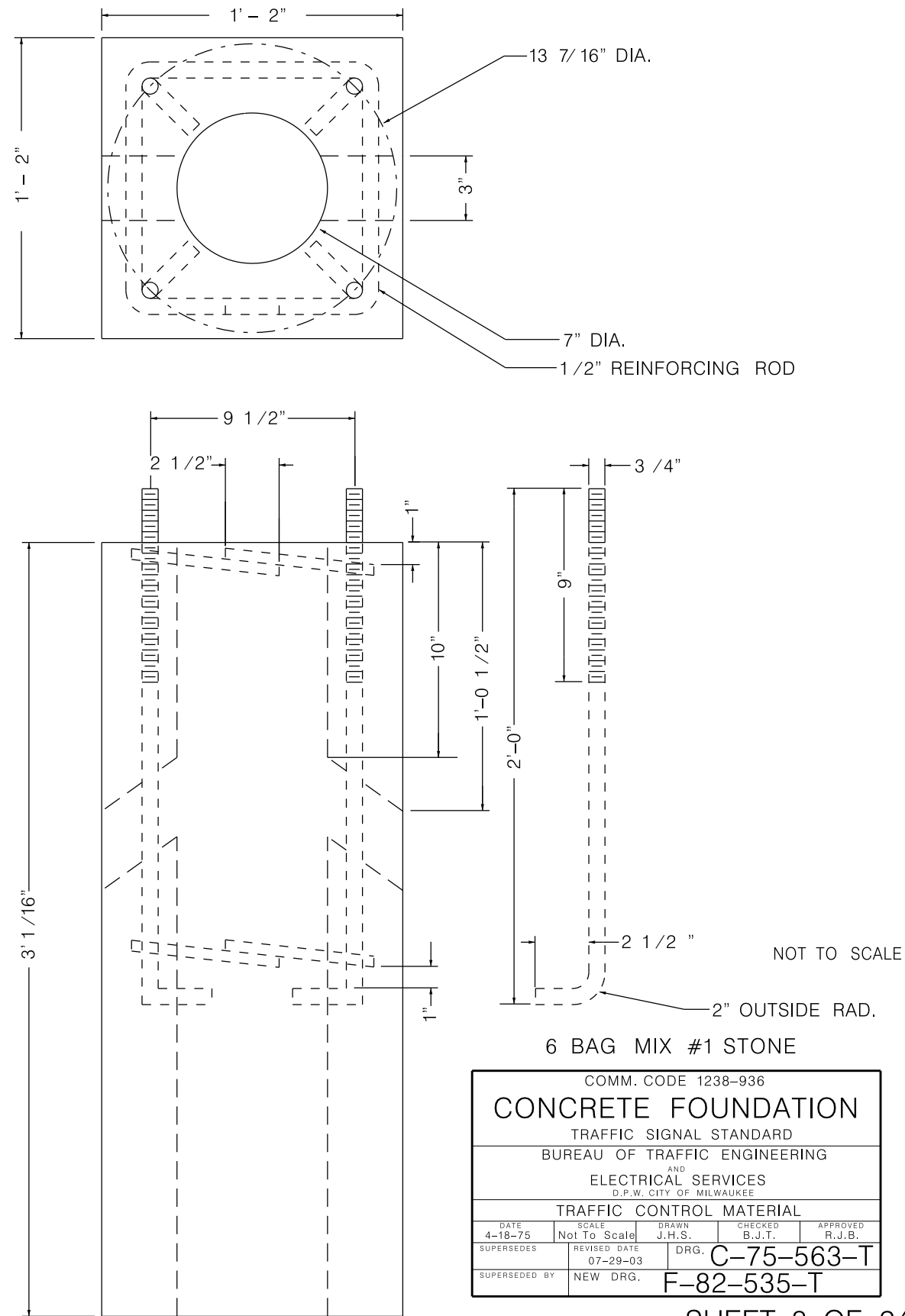
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

SHEET 7 OF 24



6 BAG MIX #1 STONE				
COMM. CODE 1238-927				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL CONTROL CABINET				
BUREAU OF TRAFFIC ENGINEERING				
AND				
ELECTRICAL SERVICES				
D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-22-75	SCALE 1/4" = 1"	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES C-65-546-T	REVISED DATE 01-30-02	DRG. C-75-564-T		
SUPERSEDED BY	NEW DRG.	F-82-536-T		



6 BAG MIX #1 STONE				
COMM. CODE 1238-936				
CONCRETE FOUNDATION				
TRAFFIC SIGNAL STANDARD				
BUREAU OF TRAFFIC ENGINEERING				
AND				
ELECTRICAL SERVICES				
D.P.W. CITY OF MILWAUKEE				
TRAFFIC CONTROL MATERIAL				
DATE 4-18-75	SCALE Not To Scale	DRAWN J.H.S.	CHECKED B.J.T.	APPROVED R.J.B.
SUPERSEDES	REVISED DATE 07-29-03	DRG. C-75-563-T		
SUPERSEDED BY	NEW DRG.	F-82-535-T		

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



2

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR
ADDITIONAL INFORMATION.

2



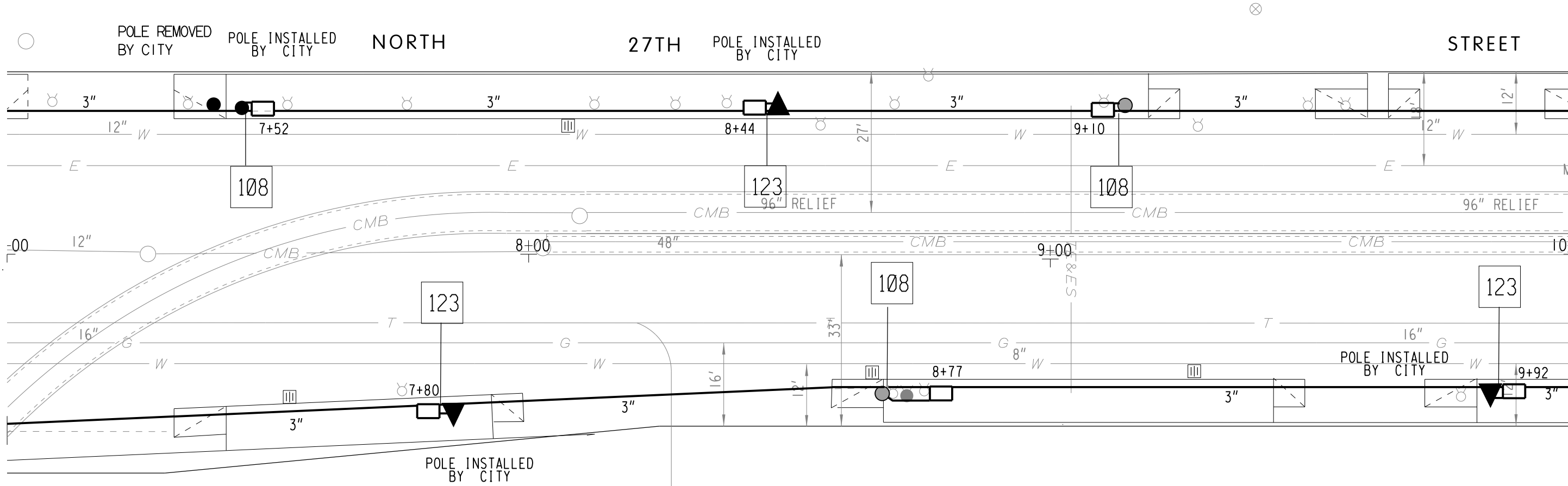
	HARP POLE		PVC CONDUIT
	STREET LIGHT POLE		TRAFFIC SIGNAL BASE TO BE INSTALLED
	TRAFFIC SIGNAL MOUNTED ON LIGHT POLE		MONOTUBE MAST ARM BASE TO BE INSTALLED
	EXISTING SIGNAL STANDARD		MAST ARM
	VAULT TO BE INSTALLED		SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
	TRAFFIC CONTROL CABINET		
	STREET LIGHTING ENCLOSURE		

SCALE, FEET 0 20

SHEET 70

E

NOTE:
COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.
TYPICAL RECTANGULAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.
PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.
ALL POLES WILL BE RELOCATED BY CITY FORCES.
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



□ STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

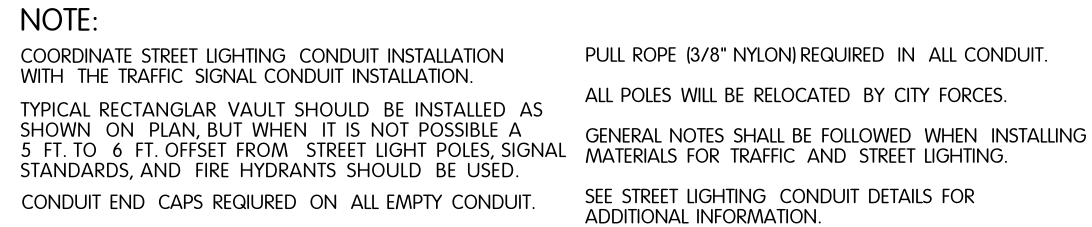
NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

▲	HARP POLE	—	PVC CONDUIT
●	STREET LIGHT POLE	⊗	TRAFFIC SIGNAL BASE TO BE INSTALLED
●	TRAFFIC SIGNAL MOUNTED ON LIGHT POLE	⊕	MONOTUBE MAST ARM BASE TO BE INSTALLED
⊗	EXISTING SIGNAL STANDARD	⊕	MAST ARM
□	VAULT TO BE INSTALLED	XX' ARM	SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
⊗	TRAFFIC CONTROL CABINET		
⊗	STREET LIGHTING ENCLOSURE		

SCALE, FEET 0 20

SHEET 11 OF 24



 STREET LIGHTING VAULT 13" X 24" X 18"
 UNLESS SPECIFIED

LEGEND

- | | | | |
|---|--------------------------------------|---------|--|
| ▲ | HARP POLE | — | PVC CONDUIT |
| ● | STREET LIGHT POLE | ⊗ | TRAFFIC SIGNAL BASE TO BE INSTALLED |
| ● | TRAFFIC SIGNAL MOUNTED ON LIGHT POLE | ⊕ | MONOTUBE MAST ARM BASE TO BE INSTALLED |
| ● | EXISTING SIGNAL STANDARD | | MAST ARM |
| □ | Vault to be installed | XX' ARM | |
| ⊠ | TRAFFIC CONTROL CABINET | 000 | SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION |
| ⊠ | STREET LIGHTING ENCLOSURE | | |

SHEET 12 OF 24

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

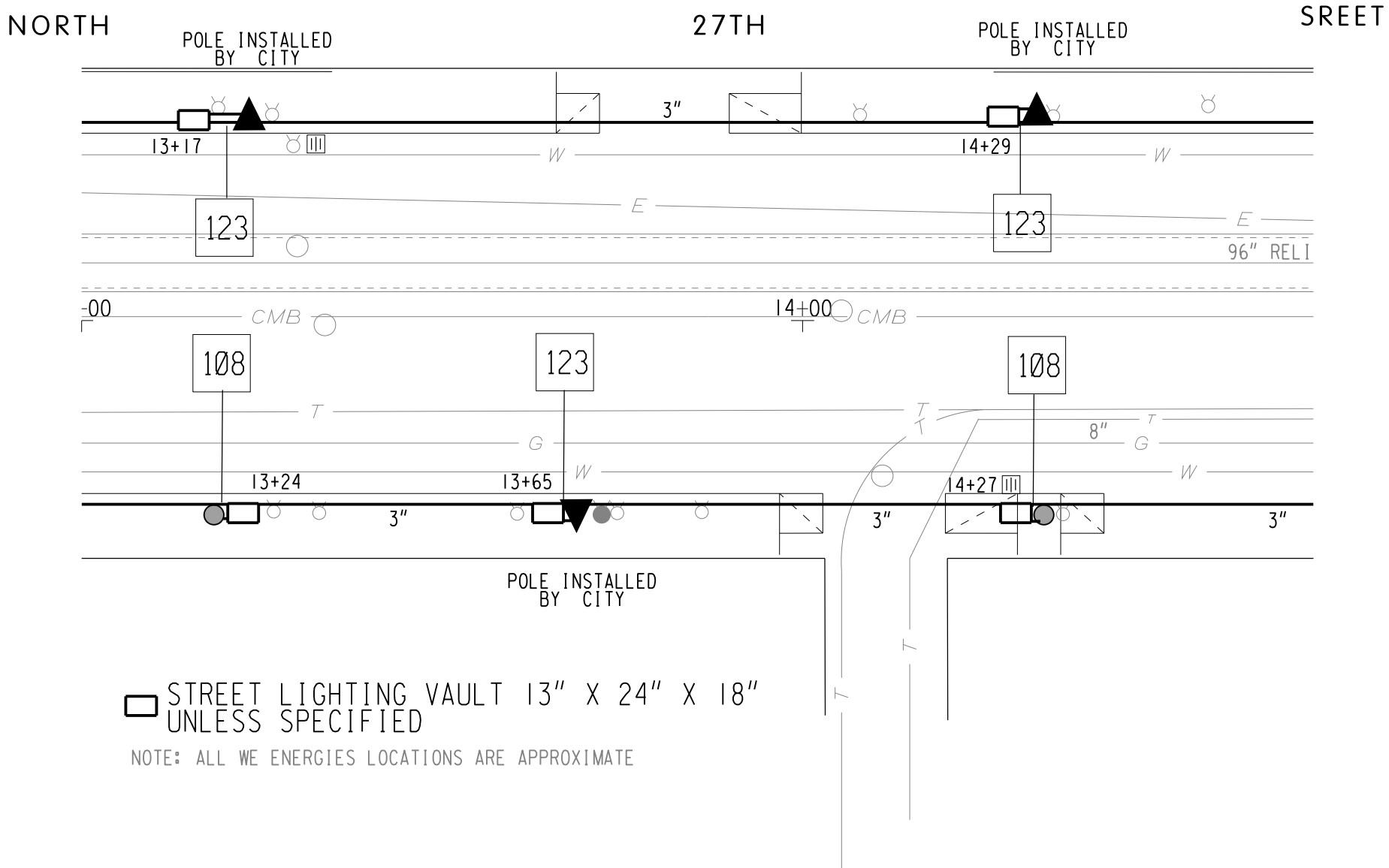
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



STREET LIGHTING VAULT 13" X 24" X 18"
UNLESS SPECIFIED

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

LEGEND

- | | |
|--|--|
| ▲ HARP POLE | — PVC CONDUIT |
| ● STREET LIGHT POLE | ○ TRAFFIC SIGNAL BASE TO BE INSTALLED |
| ● TRAFFIC SIGNAL MOUNTED ON LIGHT POLE | ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED |
| ● EXISTING SIGNAL STANDARD | — MAST ARM |
| □ VAULT TO BE INSTALLED | XX' ARM |
| ⊠ TRAFFIC CONTROL CABINET | SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION |
| ⊞ STREET LIGHTING ENCLOSURE | |

SCALE, FEET 0 20

SHEET 13 OF 24



NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

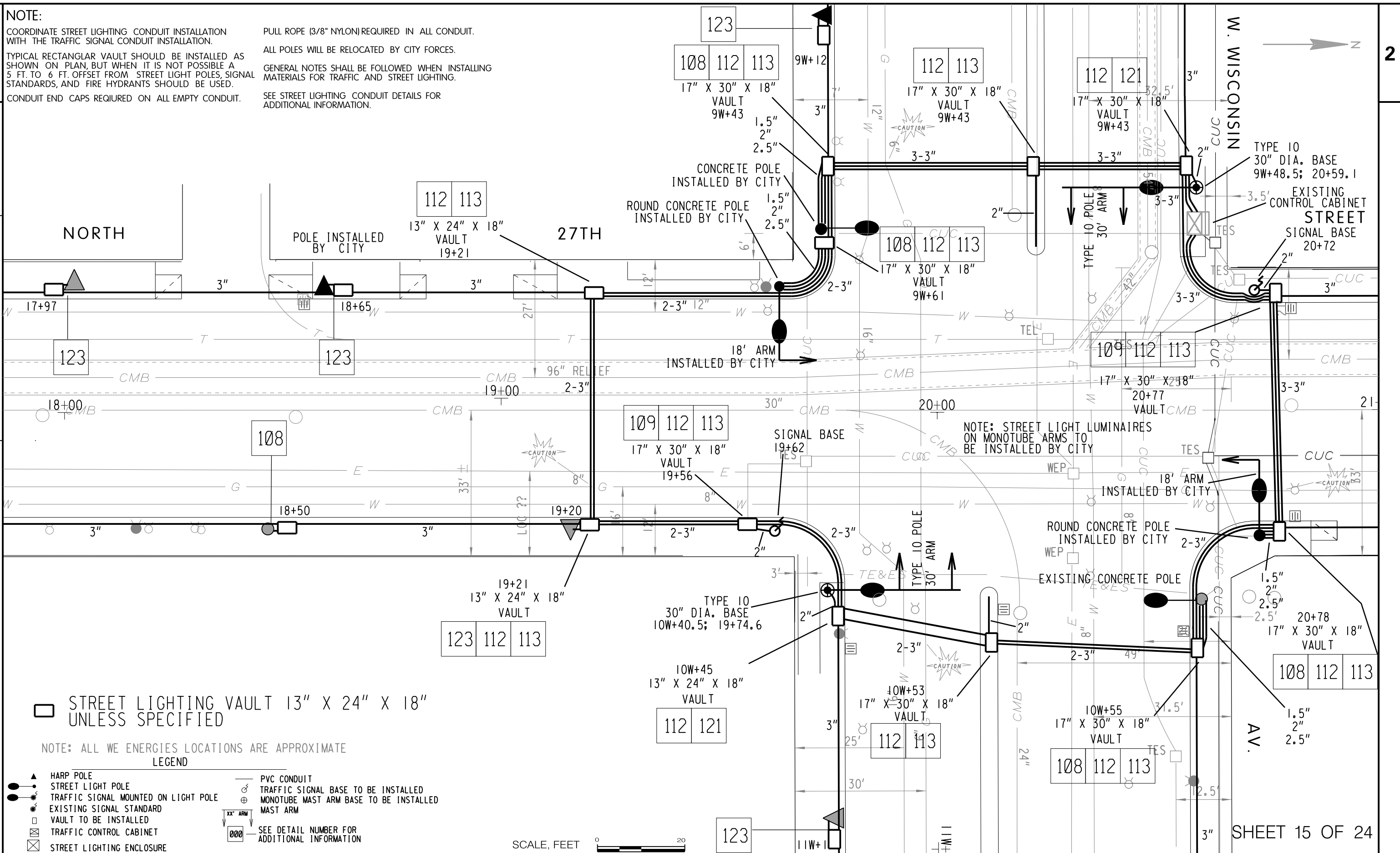
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



PROJECT NO: 2265-09-70

HWY: STH 57

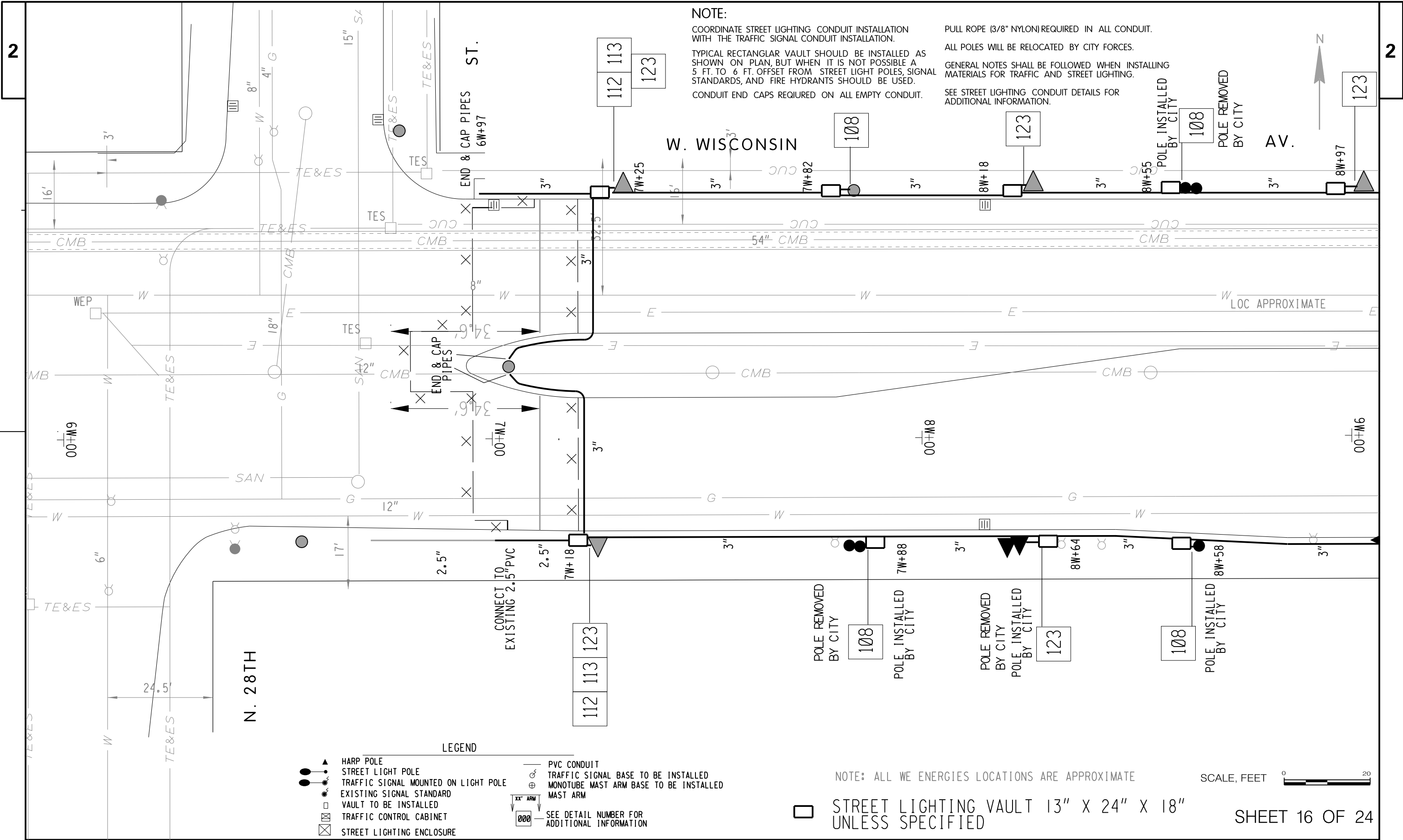
COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET

75

E



NOTE:
COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.
TYPICAL RECTANGULAR VAULT SHOULD BE INSTALLED AS SHOWN ON PLAN, BUT WHEN IT IS NOT POSSIBLE A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS, AND FIRE HYDRANTS SHOULD BE USED.
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.
ALL POLES WILL BE RELOCATED BY CITY FORCES.
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

- LEGEND
- HARP POLE
 - STREET LIGHT POLE
 - TRAFFIC SIGNAL MOUNTED ON LIGHT POLE
 - EXISTING SIGNAL STANDARD
 - VAULT TO BE INSTALLED
 - ⊠ TRAFFIC CONTROL CABINET
 - ⊠ STREET LIGHTING ENCLOSURE
 - PVC CONDUIT
 - ⊕ TRAFFIC SIGNAL BASE TO BE INSTALLED
 - ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED
 - ⊕ MAST ARM
 - ⊕ SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

SCALE, FEET 0 20

STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

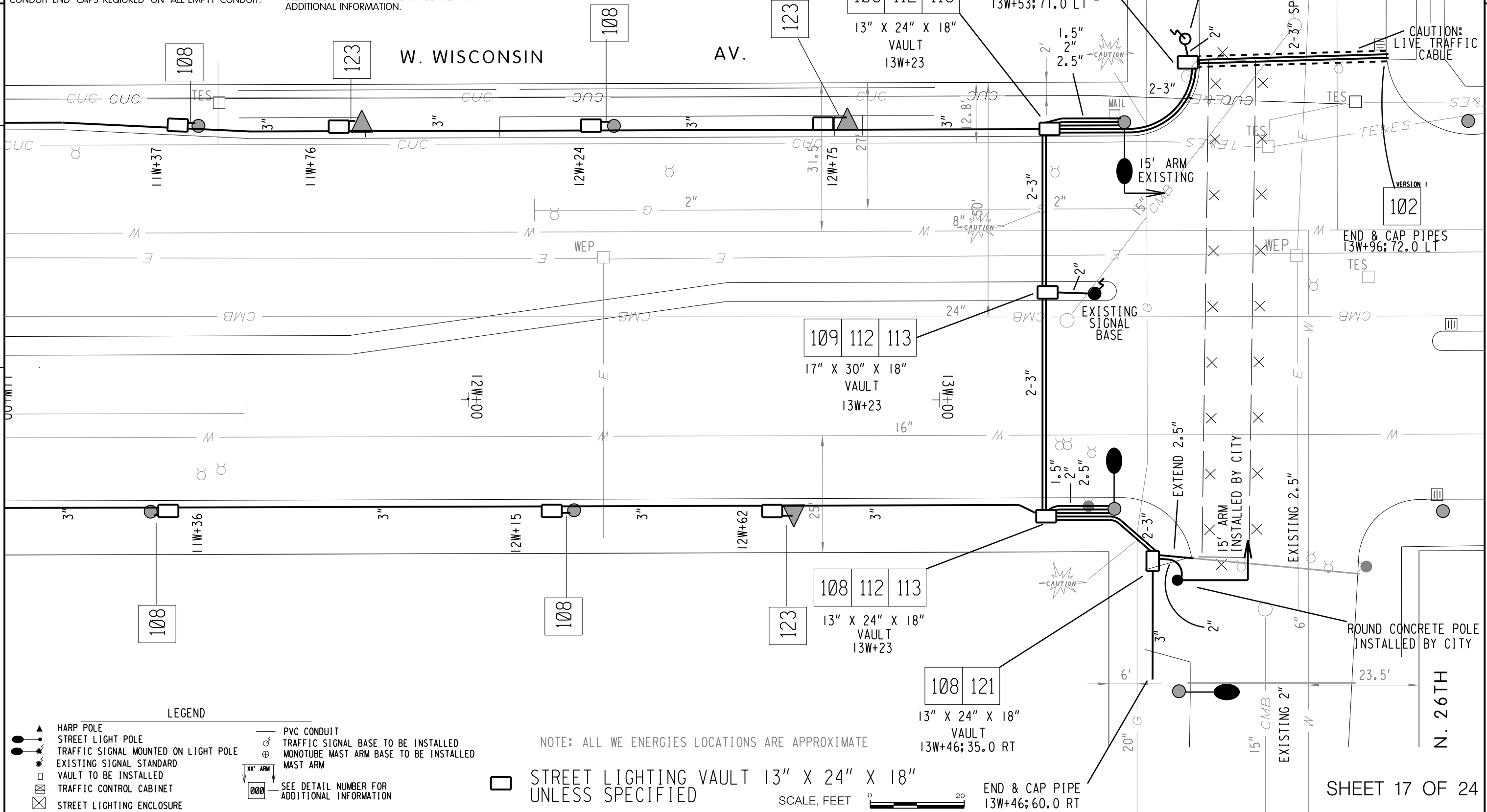
SHEET 16 OF 24

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.
ALL POLES WILL BE RELOCATED BY CITY FORCES.
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING
MATERIALS FOR TRAFFIC AND STREET LIGHTING.
SEE STREET LIGHTING CONDUIT DETAILS FOR
ADDITIONAL INFORMATION.



PROJECT NO: 2265-09-70	HWY: STH 57	COUNTY: MILWAUKEE	STREET LIGHTING CONDUIT PLAN AND DETAILS	SHEET 77	E
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NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

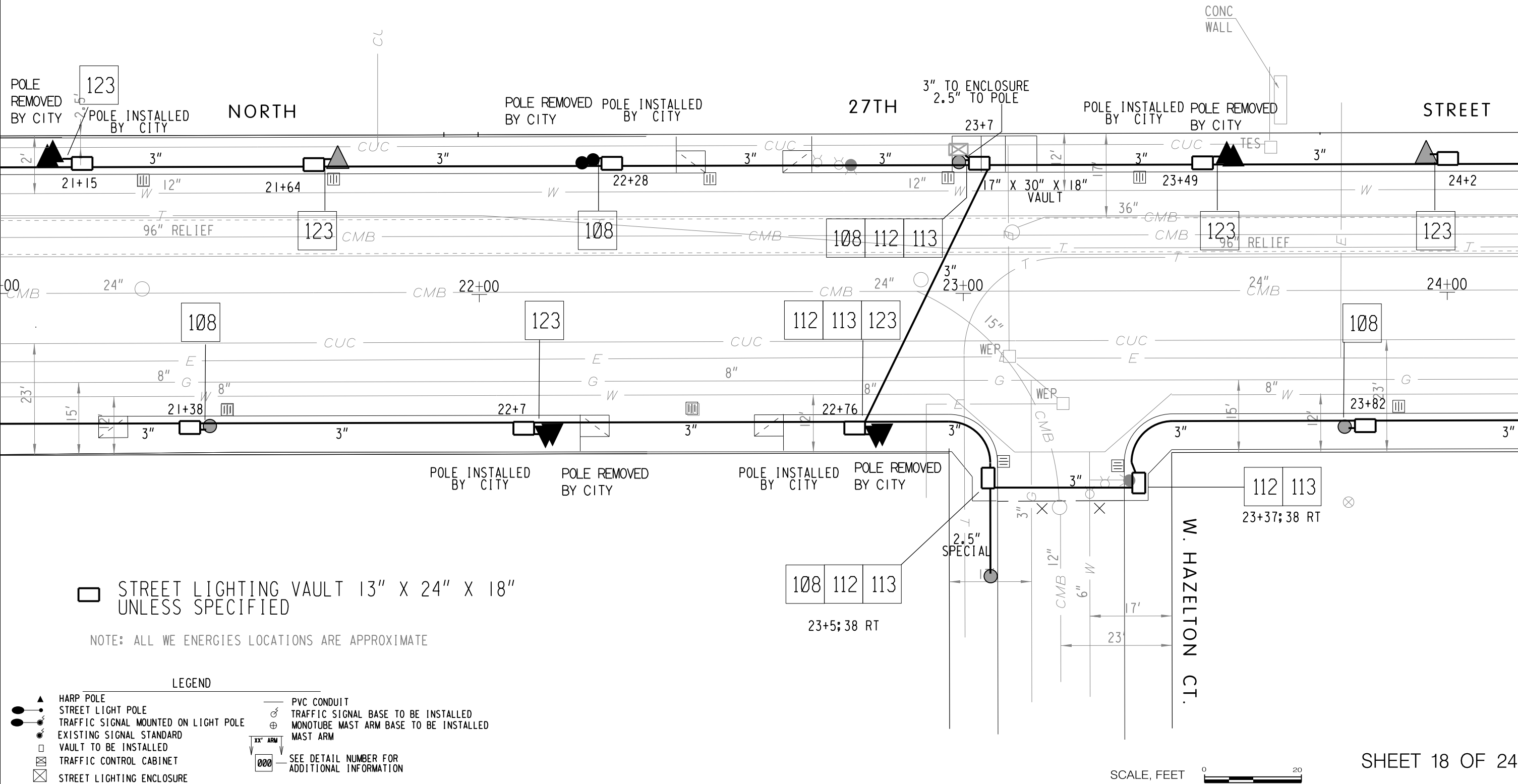
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



PROJECT NO: 2265-09-70

HWY: STH 57

COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET

78

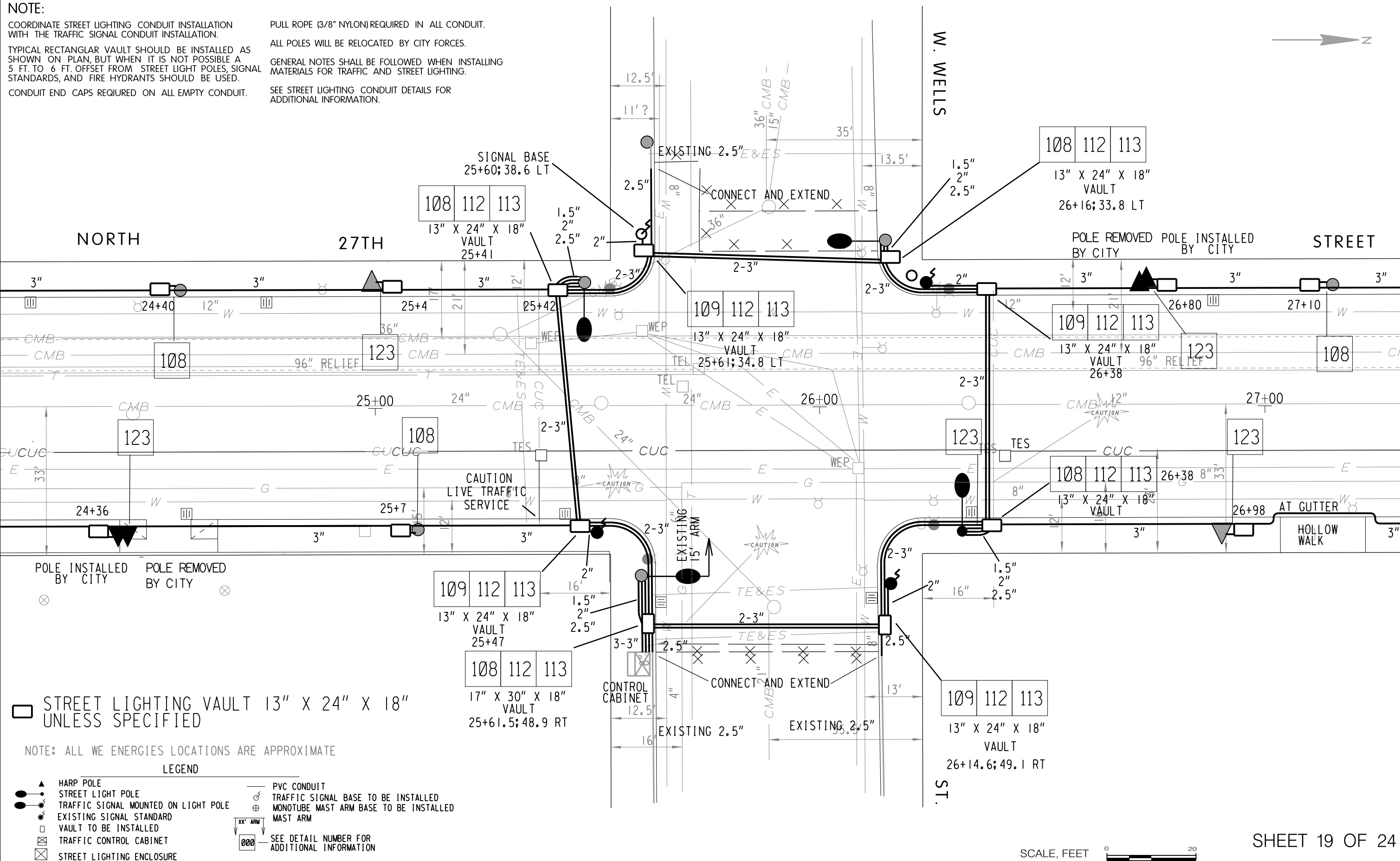
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COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGULAR 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.

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GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING
MATERIALS FOR TRAFFIC AND STREET LIGHTING.
SEE STREET LIGHTING CONDUIT DETAILS FOR
ADDITIONAL INFORMATION.



NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGULAR 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.

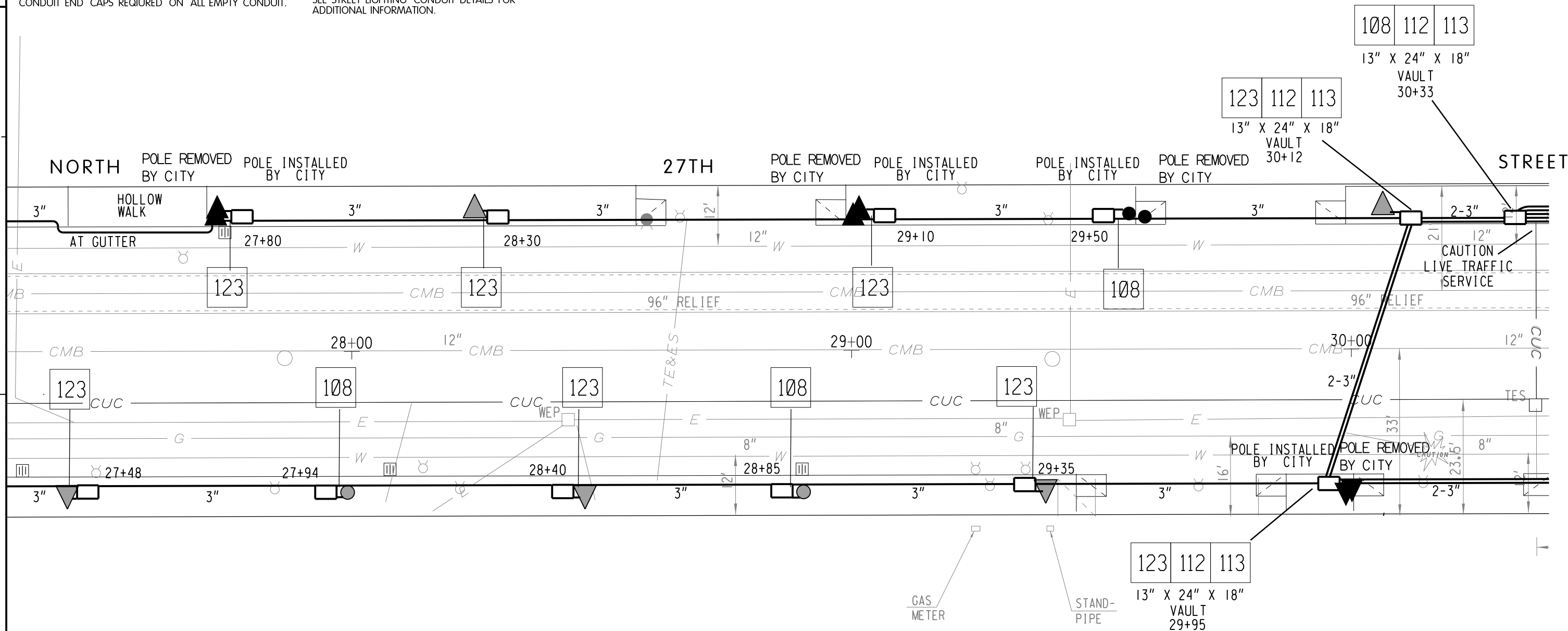
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PULL ROPE (3/8" NYLON) REQUIRED IN ALL CONDUIT.

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- | | |
|--|--|
| ▲ HARP POLE | — PVC CONDUIT |
| ● STREET LIGHT POLE | ⊗ TRAFFIC SIGNAL BASE TO BE INSTALLED |
| ● TRAFFIC SIGNAL MOUNTED ON LIGHT POLE | ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED |
| ● EXISTING SIGNAL STANDARD | — MAST ARM |
| □ VAULT TO BE INSTALLED | ⓪ SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION |
| ⊠ TRAFFIC CONTROL CABINET | |
| ⊡ STREET LIGHTING ENCLOSURE | |

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

□ STREET LIGHTING VAULT 13" X 24" X 18" UNLESS SPECIFIED

SCALE, FEET 0 20

SHEET 20 OF 24

PROJECT NO: 2265-09-70

HWY: STH 57

COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET 80

E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

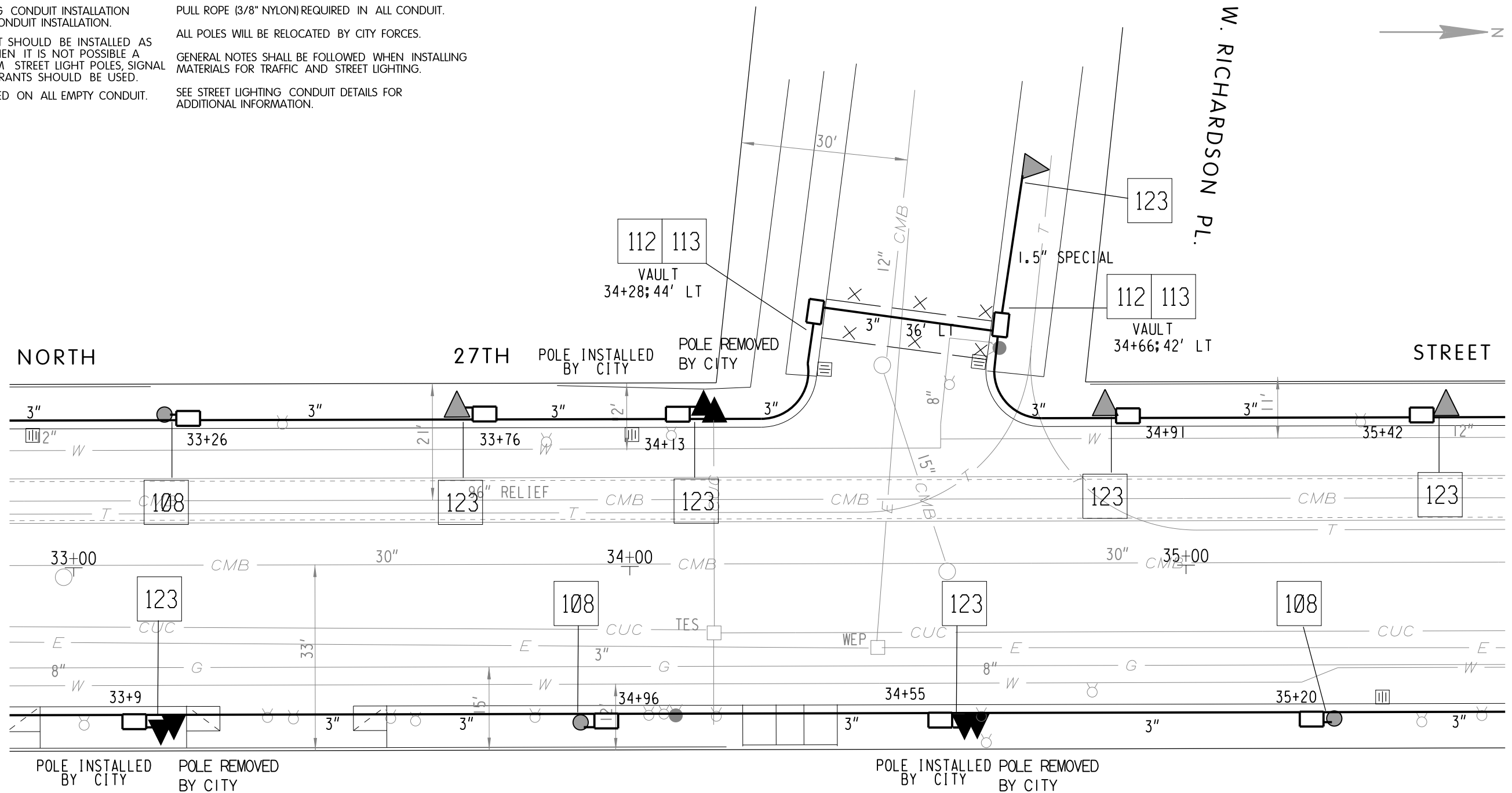
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- | | |
|--|--|
| ▲ HARP POLE | — PVC CONDUIT |
| ● STREET LIGHT POLE | ⊕ TRAFFIC SIGNAL BASE TO BE INSTALLED |
| ● TRAFFIC SIGNAL MOUNTED ON LIGHT POLE | ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED |
| ● EXISTING SIGNAL STANDARD | ⊕ MAST ARM |
| □ VAULT TO BE INSTALLED | xx' ARM |
| ⊗ TRAFFIC CONTROL CABINET | — SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION |
| ⊗ STREET LIGHTING ENCLOSURE | |

NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

□ STREET LIGHTING VAULT 13" X 24" X 18"
UNLESS SPECIFIED

SCALE, FEET 0 20

SHEET 22 OF 24

PROJECT NO: 2265-09-70

HWY: STH 57

COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET 82

E

NOTE:

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

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

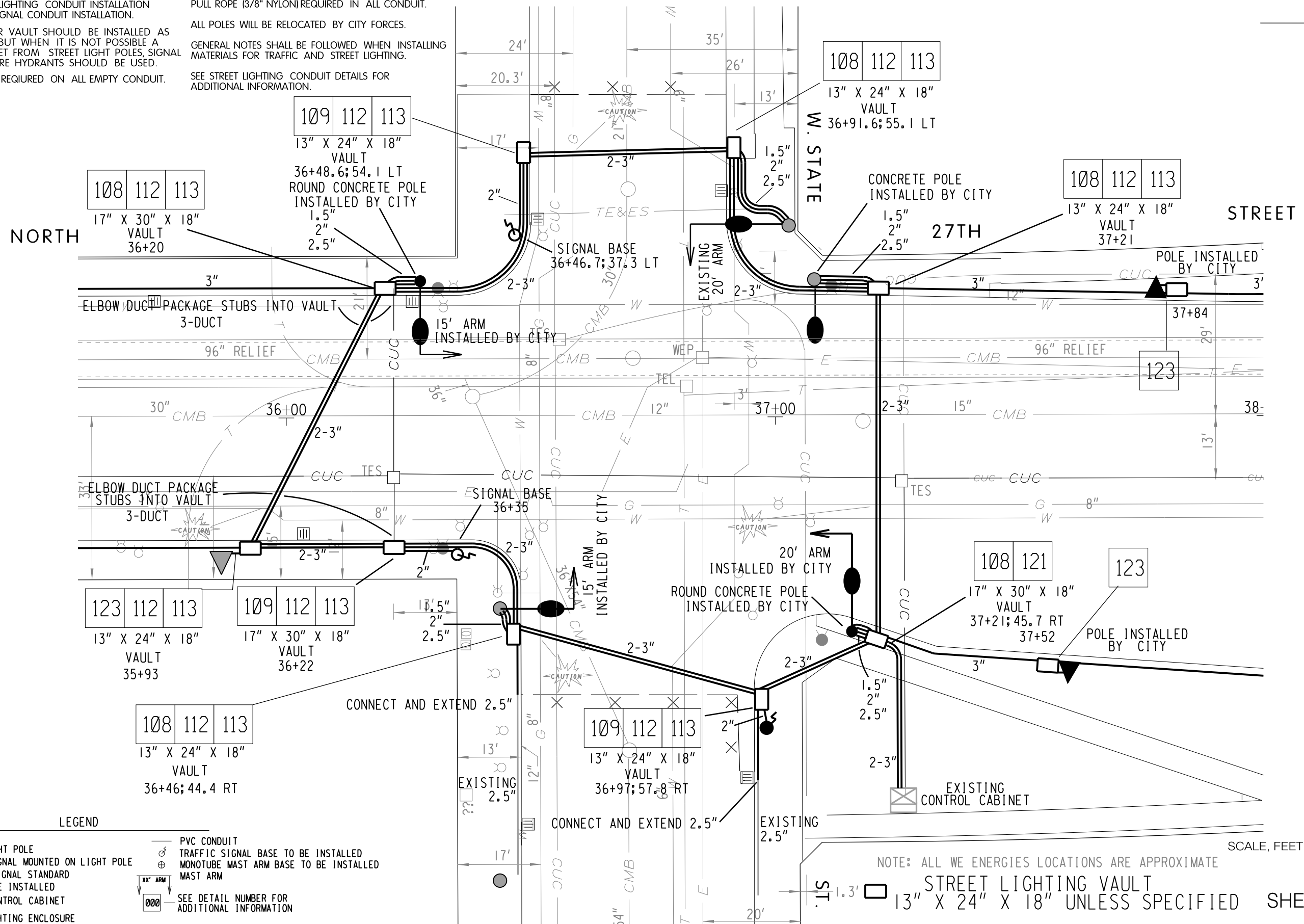
CONDUIT END CAPS REQUIRED ON ALL EMPTY CONDUIT.

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

ALL POLES WILL BE RELOCATED BY CITY FORCES.

GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



LEGEND

- | | |
|--|--|
| ▲ HARP POLE | — PVC CONDUIT |
| ● STREET LIGHT POLE | ⊕ TRAFFIC SIGNAL BASE TO BE INSTALLED |
| ● TRAFFIC SIGNAL MOUNTED ON LIGHT POLE | ⊕ MONOTUBE MAST ARM BASE TO BE INSTALLED |
| ● EXISTING SIGNAL STANDARD | ⊕ MAST ARM |
| □ VAULT TO BE INSTALLED | ⊕ SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION |
| ⊕ TRAFFIC CONTROL CABINET | |
| ⊕ STREET LIGHTING ENCLOSURE | |

PROJECT NO: 2265-09-70

HWY: STH 57

COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET 83

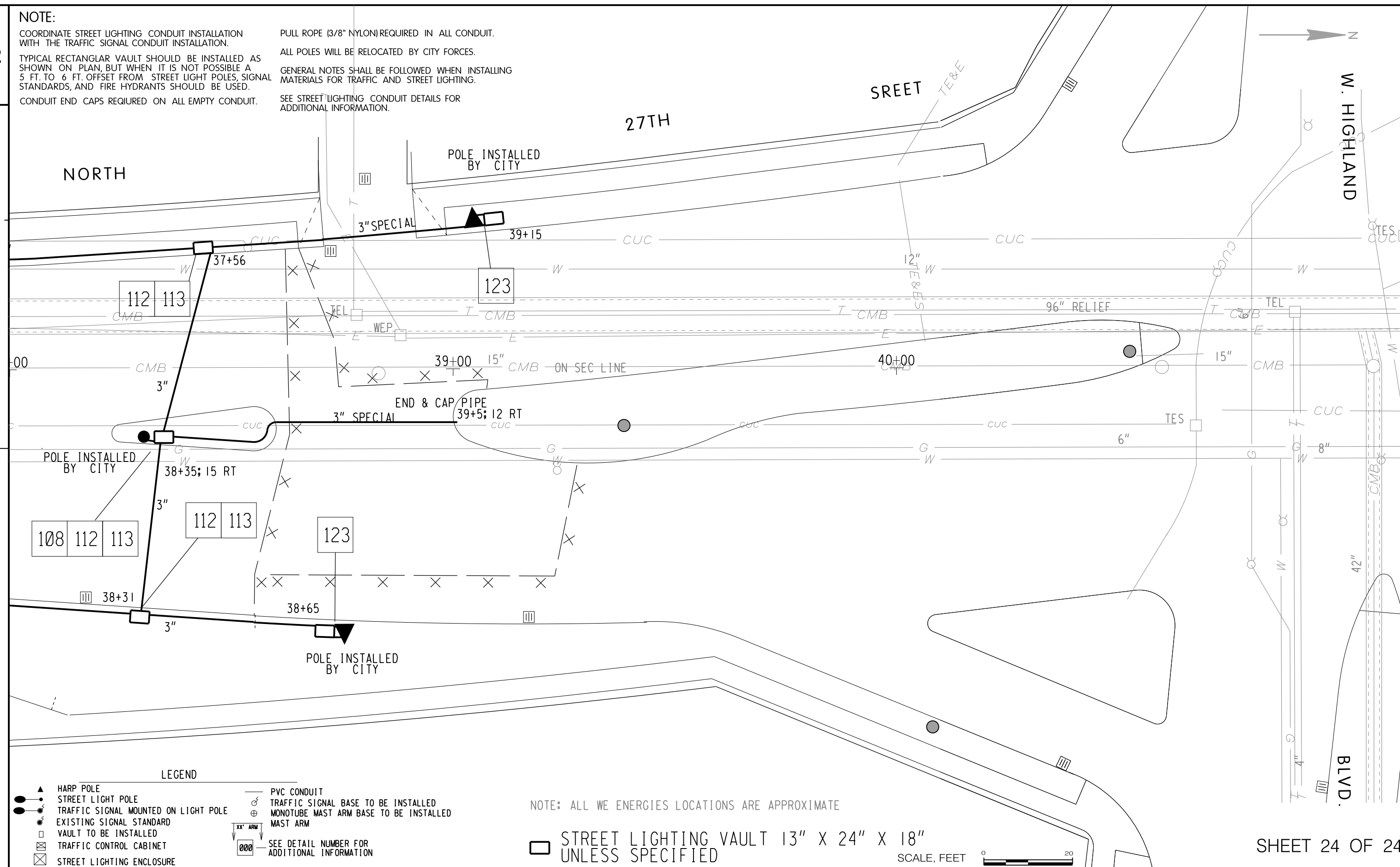
E

COORDINATE STREET LIGHTING CONDUIT INSTALLATION WITH THE TRAFFIC SIGNAL CONDUIT INSTALLATION.

TYPICAL RECTANGULAR 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.

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GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING
MATERIALS FOR TRAFFIC AND STREET LIGHTING.
SEE STREET LIGHTING CONDUIT DETAILS FOR
ADDITIONAL INFORMATION.



NOTE: ALL WE ENERGIES LOCATIONS ARE APPROXIMATE

 STREET LIGHTING VAULT 13" X 24" X 18"
 UNLESS SPECIFIED SCAL

SCALE, FEET 

SHEET 24 OF 24

PROJECT NO: 2265-09-70

HWY: STH 57

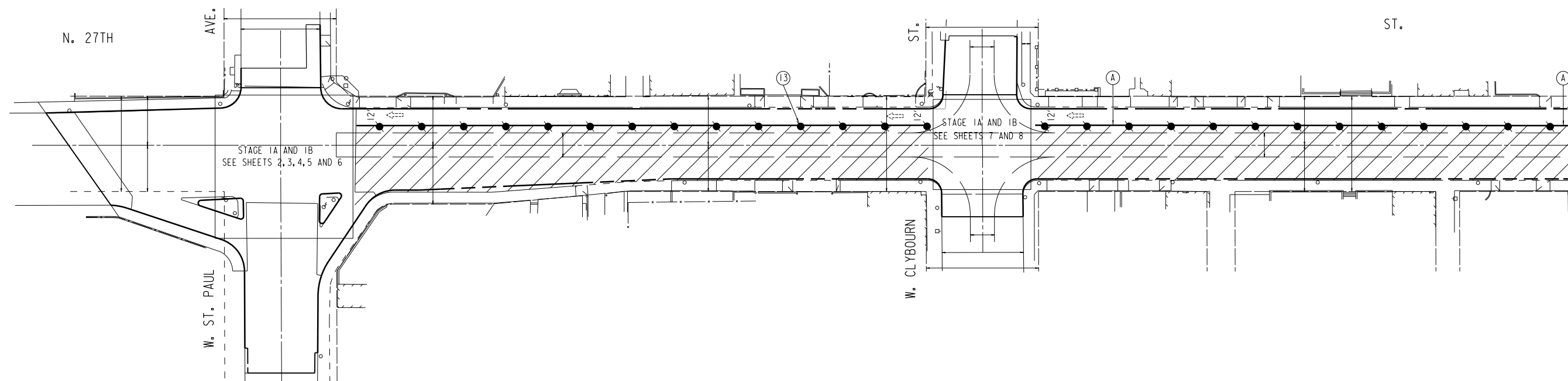
COUNTY: MILWAUKEE

STREET LIGHTING CONDUIT PLAN AND DETAILS

SHEET 84

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STAGE I



LEGEND

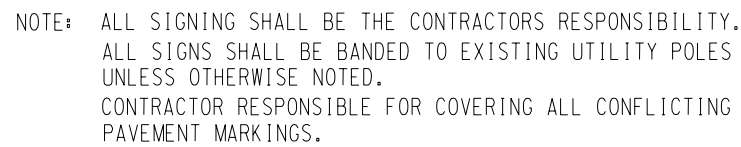
	1		7		25		38		43
	2		8		27		39		44
	3		12		40		45		
	4		23		29		34		
	5				30		35		
	6		24						

(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE

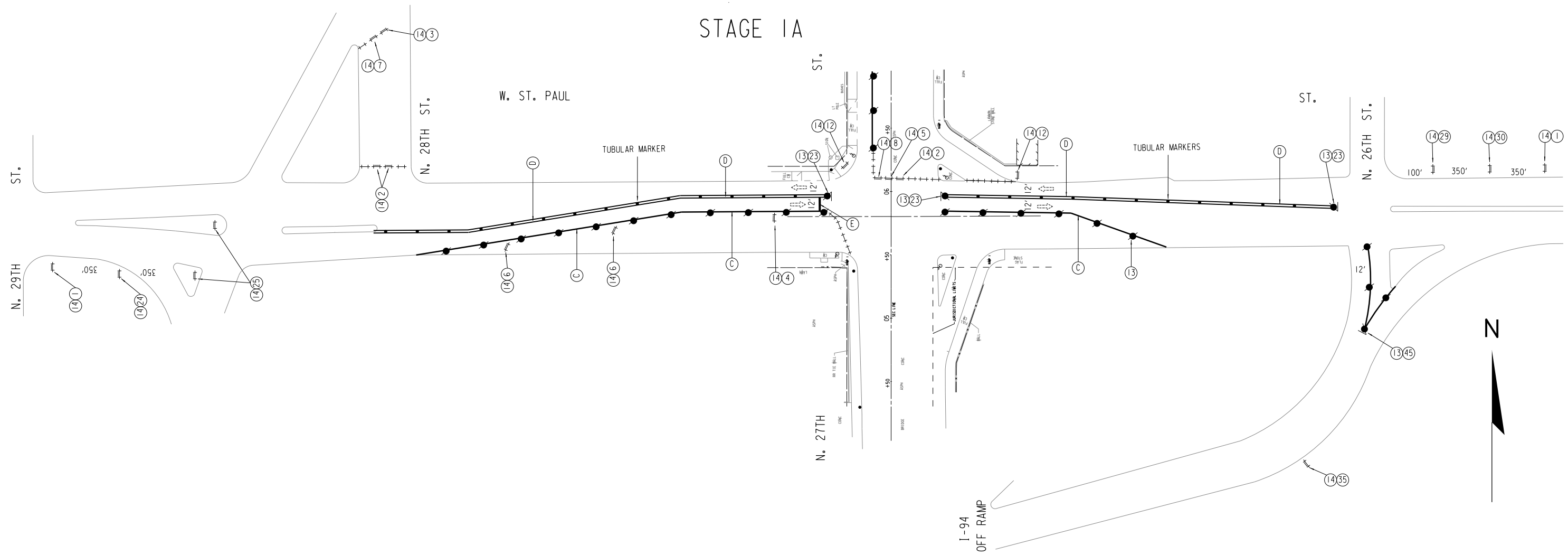
● SIGNS ATTACHED TO DRUM
▨ WORK AREA
⇄ DIRECTION OF TRAFFIC
● TUBULAR MARKERS 25' SPACING

(13) — ● DRUMS W/LIGHTS 30' SPACING
(14) — ++ TYPE III BARRICADES
(14) + (X) — TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANNED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.



STAGE 1A



LEGEND

	1		7		21		27		33		38		41		43
	2		7		22		28		34		39		42		44
	3		8		23		29		35		40		45		
	4		9												
	5		12		24		30		36						
	6		20		25		32		37						

DRUMS W/LIGHTS 30' SPACING ● — 13

TYPE III BARRICADES ++ — 14

TYPE III BARRICADES W/ SIGN ++ — 14 + (X)

SIGNS BANDO TO UTILITY POLE ●

WORK AREA ▨

DIRECTION OF TRAFFIC ⇄

TUBULAR MARKERS 25' SPACING ●

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

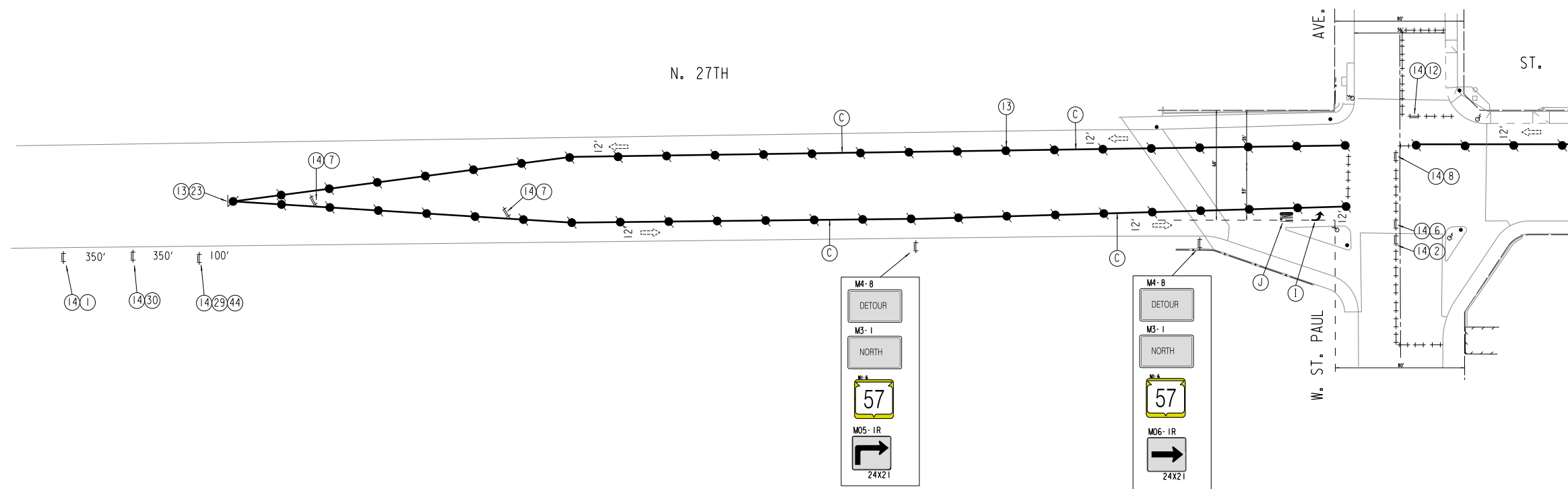
(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDO TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 1B



W020-1
ROAD WORK AHEAD
48" X 48"

1

R11-2
ROAD CLOSED
48" X 30"

2

R11-4
ROAD CLOSED TO THRU TRAFFIC
30" X 48"

3

R6-1R
ONE WAY
24" X 48"

4

W01-7
ONE WAY
24" X 48"

5

W01-6L
ONE WAY
24" X 48"

6

M05-1R
24X21

7

M06-1R
24X21

7

R5-1
DO NOT ENTER
36" X 36"

8

R3-2
36" X 36"

9

R6-1L
ONE WAY
30" X 48"

12

R1-1
STOP
48" X 48"

20

W01-4L
48" X 48"

21

R3-1
36" X 36"

22

R4-7A
KEEP RIGHT
36" X 48"

23

W020-5R
RIGHT LANE CLOSED AHEAD
48" X 48"

24

W04-2R
50" X 30"

25

W020-3
ROAD CLOSED AHEAD
48" X 48"

27

W016-7PR
24" X 12"

28

W04-2L
48" X 48"

29

W020-5L
LEFT LANE CLOSED AHEAD
48" X 48"

30

R3-6L
30" X 36"

32

W020-5
CENTER LANE CLOSED AHEAD
48" X 48"

33

W03-3A
48" X 48"

34

R3-7R
RIGHT LANE MUST TURN RIGHT
36" X 36"

35

W013-1
20 M.P.H.
24" X 12"

36

R3-8B
30" X 48"

37

W01-5L
48" X 48"

38

W01-5R
48" X 48"

39

R3-7L
LEFT LANE MUST TURN LEFT
36" X 36"

40

W016-7PL
24" X 12"

41

W01-4DL
48" X 48"

43

W020-2
DETOUR AHEAD
48" X 48"

44

W012-1
48" X 48"

45

R011-2
LANE CLOSED
48" X 30"

42

DRUMS W/LIGHTS
30' SPACING

13

TYPE III BARRICADES
W/ SIGN

14

SIGNS BANDED TO UTILITY POLE

14 + X

WORK AREA

14

DIRECTION OF TRAFFIC

14

TUBULAR MARKERS 25' SPACING

14

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

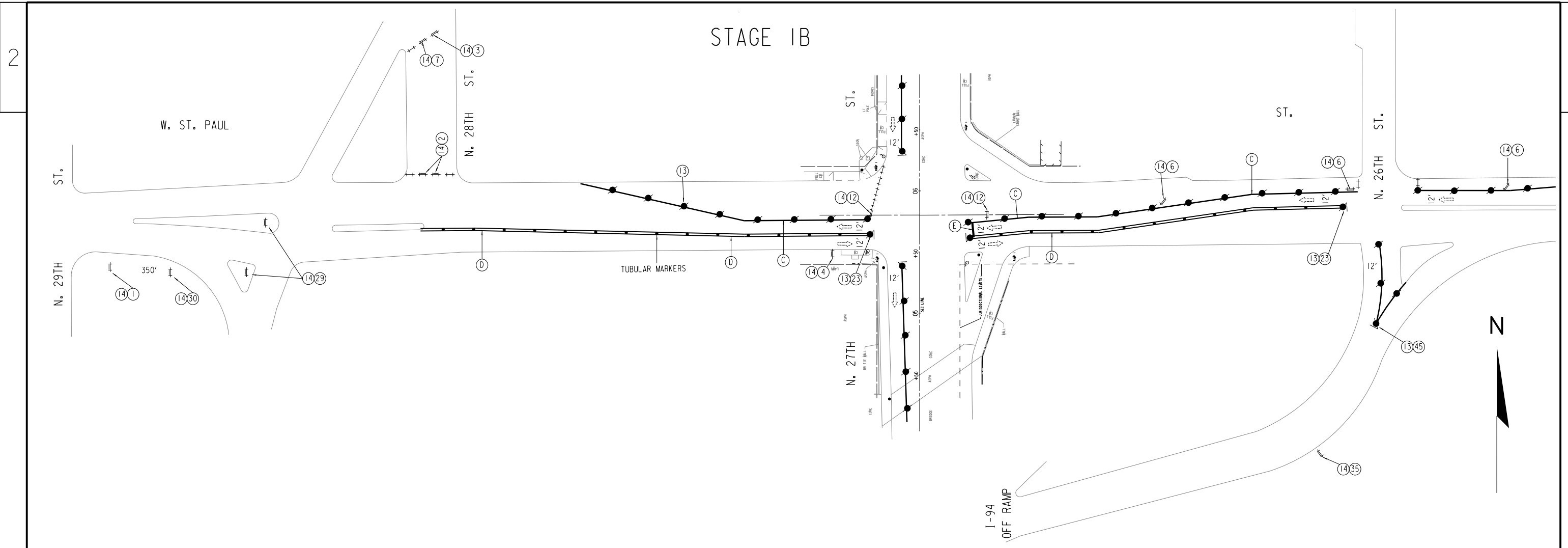
(H) TPM, 8" WHITE

(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

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.



LEGEND

W020-1 ROAD WORK AHEAD 48" X 48"	1	W05-1R 24X21	7	W01-4L 48" X 48"	21	W020-3 ROAD CLOSED AHEAD 48" X 48"	27	W020-5 CENTER LANE CLOSED AHEAD 48" X 48"	33	W01-3L 48" X 48"	38	W016-7PL 24" X 12"	41	W01-4R 48" X 48"	43
R11-2 ROAD CLOSED 48" X 30"	2	W06-1R 24X21	7	R3-1 36" X 36"	22	W016-7PR 24" X 12"	28	W03-3A 48" X 48"	34	W01-3R 48" X 48"	39	R011-2 LANE CLOSED 48" X 30"	42	W020-2 DETOUR AHEAD 48" X 48"	44
R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X 48"	3	R5-1 DO NOT ENTER 36" X 36"	8	R4-7A KEEP RIGHT 36" X 48"	23	W04-2L 48" X 48"	29	R3-7R RIGHT LANE MUST TURN RIGHT 36" X 36"	35	R3-7L LEFT LANE MUST TURN LEFT 36" X 36"	40			W012-1 48" X 48"	45
R6-1R ONE WAY 24" X 48"	4	R3-2 36" X 36"	9												
W01-7 24" X 48"	5	R6-1L ONE WAY 30" X 48"	12	W020-5R RIGHT LANE CLOSED AHEAD 48" X 48"	24	W04-2R 30" X 30"	25	W013-1 20 M.P.H. 24" X 12"	36						
W01-6L 24" X 48"	6	R1-1 STOP 48" X 48"	20			R3-6L 30" X 36"	32								
								R3-8B 30" X 48"	37						

DRUMS W/LIGHTS 30' SPACING ● (13)

TYPE III BARRICADES ++ (14)

TYPE III BARRICADES W/ SIGN ++ (14) + (X)

SIGNS BANDO TO UTILITY POLE ●

WORK AREA ▨

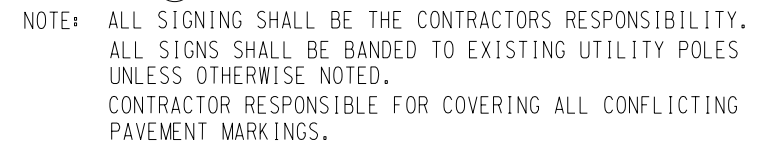
DIRECTION OF TRAFFIC ⇄

TUBULAR MARKERS 25' SPACING ●

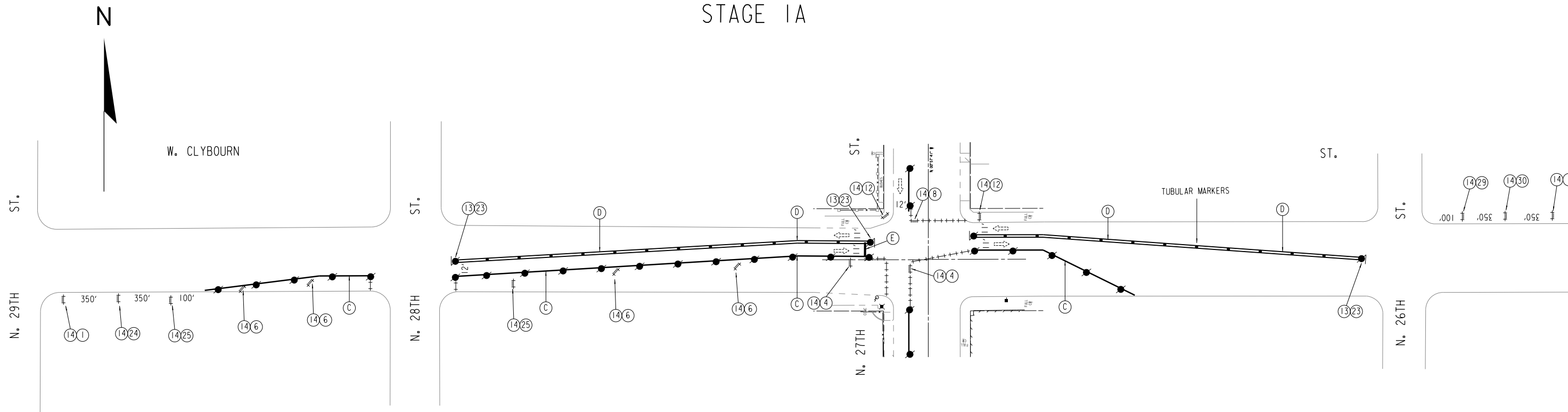
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDO TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

N



STAGE 1A

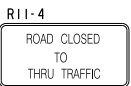




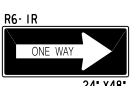
W020-1
ROAD WORK AHEAD
48" X 48"



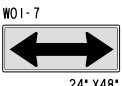
R11-2
ROAD CLOSED
48" X 30"



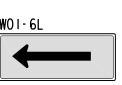
R11-4
ROAD CLOSED TO THRU TRAFFIC
30" X 48"



R6-1R
ONE WAY
24" X 48"



W01-7
TWO WAY TRAFFIC
24" X 48"



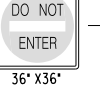
W01-6L
ONE WAY
24" X 48"



M05-1R
RIGHT TURN
24X21



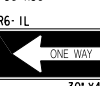
M06-1R
LEFT TURN
24X21



R5-1
DO NOT ENTER
36" X 36"



R3-2
NO LEFT TURN
36" X 36"



R6-1L
ONE WAY
30" X 48"



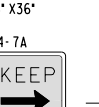
R1-1
STOP
48" X 48"



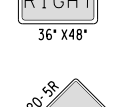
W01-4L
LEFT TURN
48" X 48"



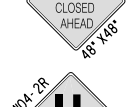
R3-1
NO RIGHT TURN
36" X 36"



R4-7A
KEEP RIGHT
36" X 48"



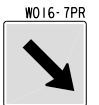
W020-5R
RIGHT LANE CLOSED AHEAD
48" X 48"



W04-2R
RIGHT LANE CLOSED AHEAD
30" X 30"



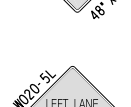
W020-3
ROAD CLOSED AHEAD
48" X 48"



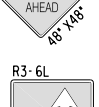
W016-7PR
RIGHT TURN
24" X 12"



W04-2L
LEFT LANE CLOSED AHEAD
48" X 48"



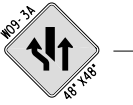
W020-5L
LEFT LANE CLOSED AHEAD
48" X 48"



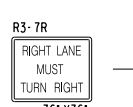
R3-6L
LEFT TURN
30" X 36"



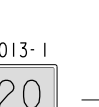
W020-5
CENTER LANE CLOSED AHEAD
48" X 48"



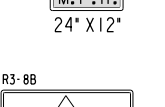
W03-3A
RIGHT TURN
48" X 48"



R3-7R
RIGHT LANE MUST TURN RIGHT
36" X 36"



W013-1
20 M.P.H.
24" X 12"



R3-8B
RIGHT TURN
30" X 48"



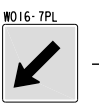
W01-3L
LEFT TURN
48" X 48"



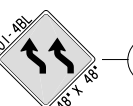
W01-5R
RIGHT TURN
48" X 48"



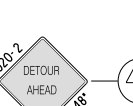
R3-7L
LEFT LANE MUST TURN LEFT
36" X 36"



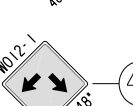
W016-7PL
LEFT TURN
24" X 12"



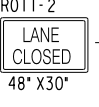
W01-4R
RIGHT TURN
48" X 48"



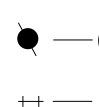
W020-2
DETOUR AHEAD
48" X 48"



W020-1
DETOUR AHEAD
48" X 48"



R011-2
LANE CLOSED
48" X 30"



R011-2
LANE CLOSED
48" X 30"



DRUMS W/LIGHTS
30' SPACING



TYPE III BARRICADES



TYPE III BARRICADES W/ SIGN



SIGNS BANDED TO UTILITY POLE



WORK AREA



DIRECTION OF TRAFFIC



TUBULAR MARKERS 25' SPACING

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

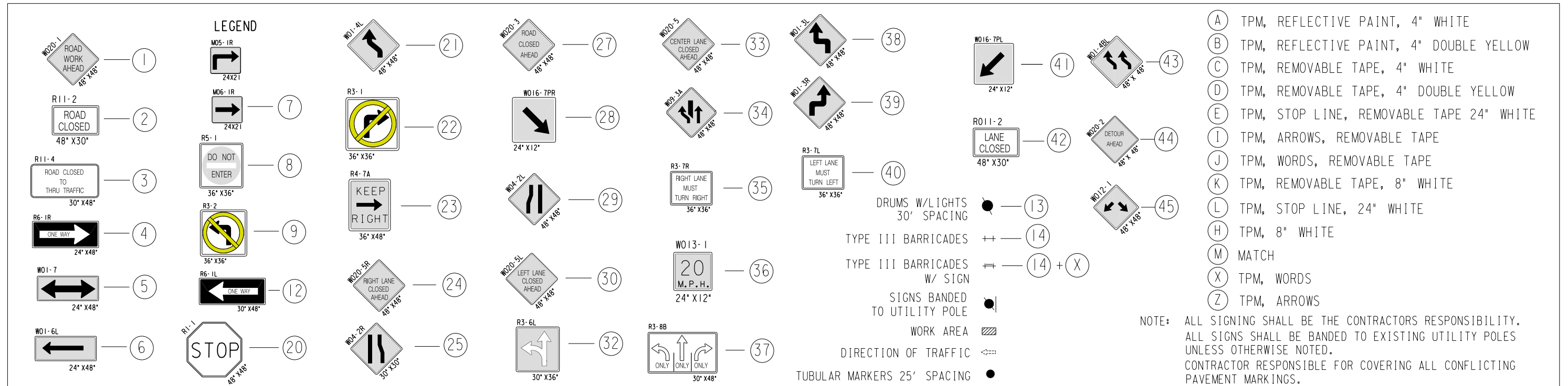
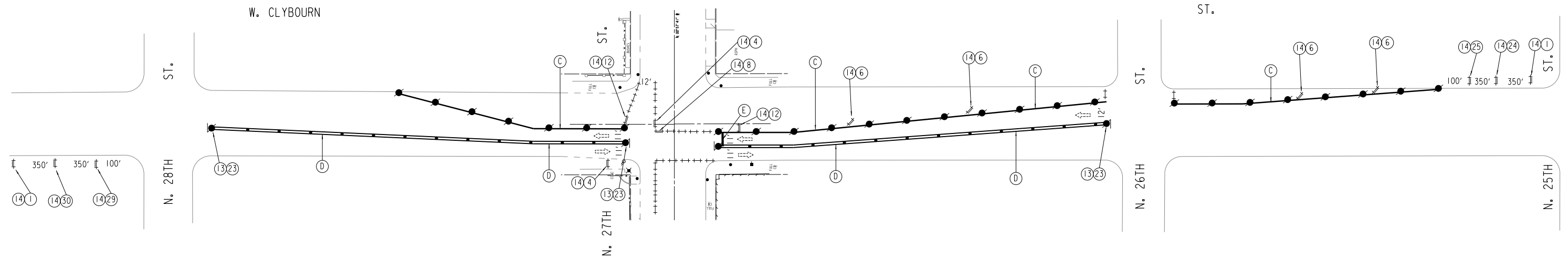
(M) MATCH

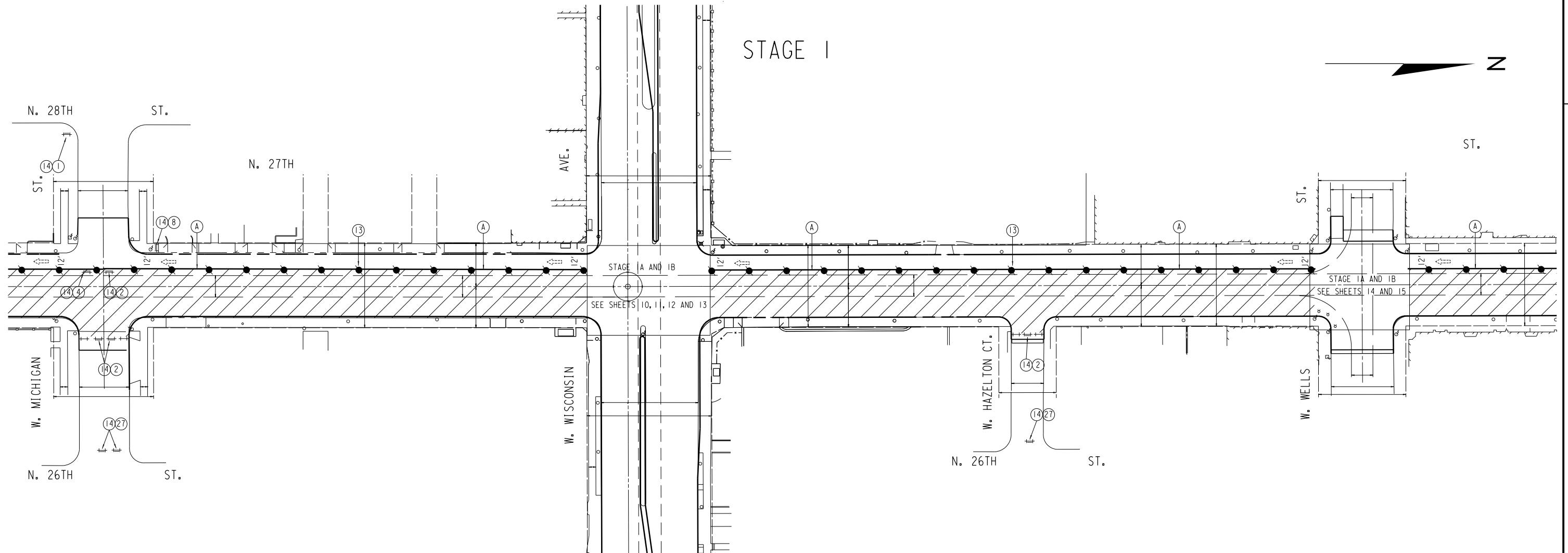
(X) TPM, WORDS

(Z) TPM, ARROWS

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 1B





LEGEND

1	7	25	38	43
2	8	27	39	44
3	12	29	40	45
4	23	29	34	24X21
5	24	30	35	
6				

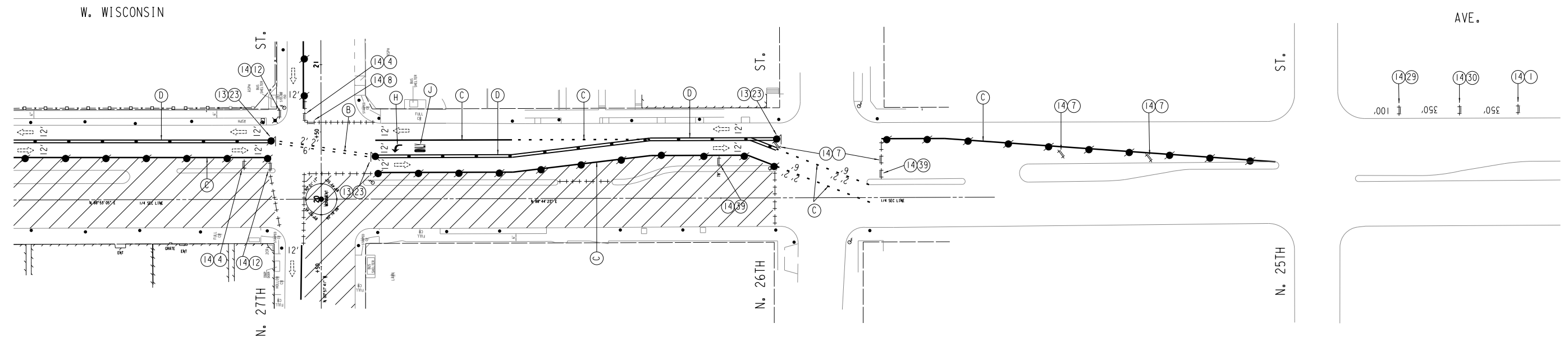
(A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE

● SIGNS ATTACHED TO DRUM
▨ WORK AREA
⇄ DIRECTION OF TRAFFIC
● TUBULAR MARKERS 25' SPACING

(13) — ● DRUMS W/LIGHTS 30' SPACING
(14) — ++ TYPE III BARRICADES
(14) + (X) — ⇄ TYPE III BARRICADES W/ SIGN

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
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 1A



LEGEND

W020-1 ROAD WORK AHEAD 48" X 48" — 1

R11-2 ROAD CLOSED 48" X 30" — 2

R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X 48" — 3

R6-1R ONE WAY 24" X 48" — 4

W01-7 ONE WAY 24" X 48" — 5

W01-6L ONE WAY 24" X 48" — 6

M05-1R 24X21 — 7

M06-1R 24X21 — 8

R5-1 DO NOT ENTER 36" X 36" — 9

R3-2 36" X 36" — 10

R6-1L ONE WAY 30" X 48" — 12

R1-1 STOP 48" X 48" — 20

W01-4L 48" X 48" — 21

R3-1 36" X 36" — 22

R4-7A KEEP RIGHT 36" X 48" — 23

W020-5R ROAD CLOSED AHEAD 48" X 48" — 27

W016-7PR 24" X 12" — 28

W020-2L 48" X 48" — 29

W020-5L 48" X 48" — 30

R3-6L 30" X 36" — 32

W020-5L 48" X 48" — 33

W020-5L 48" X 48" — 34

R3-7R 36" X 36" — 35

W013-1 24" X 12" — 36

R3-8B 30" X 48" — 37

W01-3L 48" X 48" — 38

W01-3R 48" X 48" — 39

R3-7L 36" X 36" — 40

W016-7PL 24" X 12" — 41

R011-2 LANE CLOSED 48" X 30" — 42

W01-4R 48" X 48" — 43

W020-2 48" X 48" — 44

W012-1 48" X 48" — 45

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS Banded TO UTILITY POLE — 15

WORK AREA — 16

DIRECTION OF TRAFFIC — 17

TUBULAR MARKERS 25' SPACING — 18

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

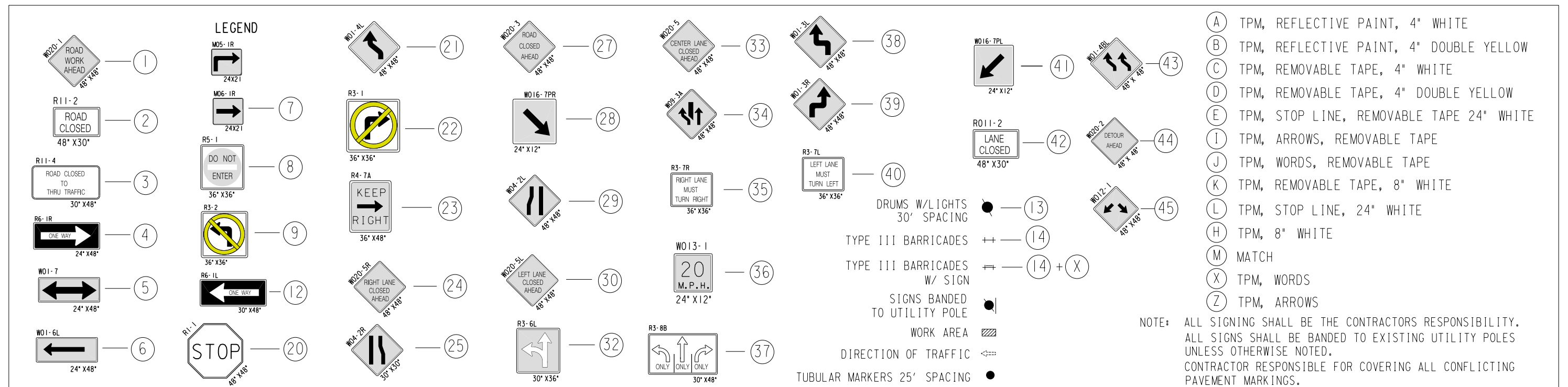
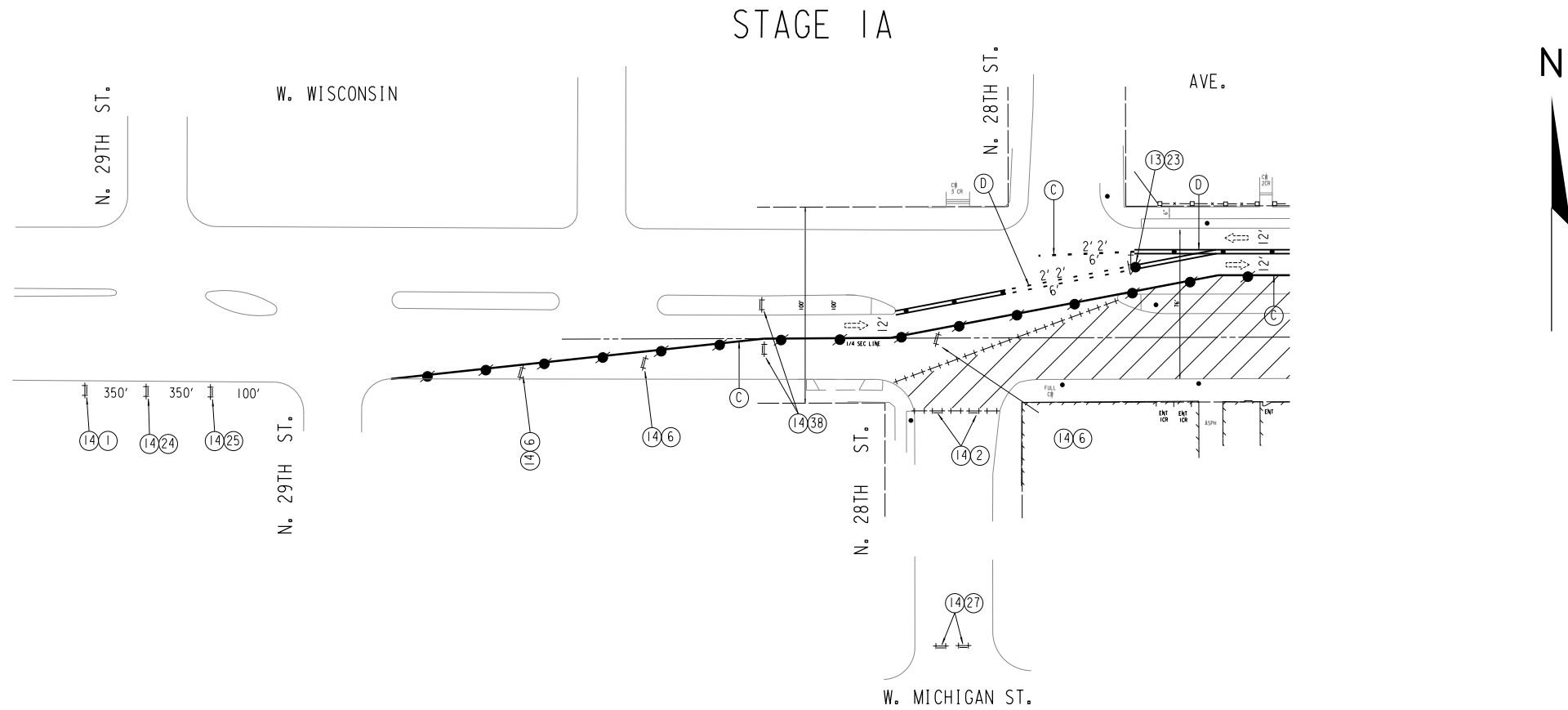
(H) TPM, 8" WHITE

(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

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.

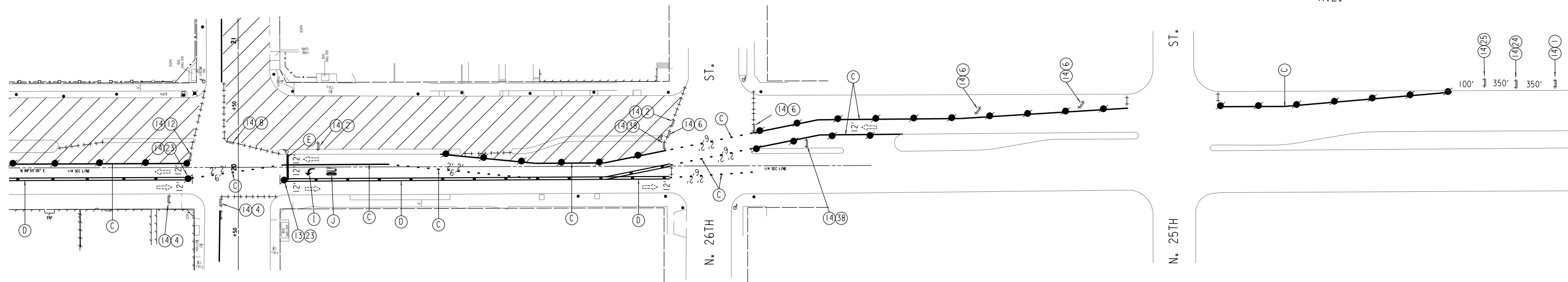


STAGE 1B

N

W. WISCONSIN

AVE.



LEGEND

	1		7		21		27		33		38		41		43
	2		7		22		28		34		39		42		44
	3		8		23		29		35		40		42		45
	4		9		24		30		36		32		42		
	5		12		24		30		37						
	6		20		25		32								

DRUMS W/LIGHTS 30' SPACING

TYPE III BARRICADES

TYPE III BARRICADES W/ SIGN

SIGNS BANDED TO UTILITY POLE

WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

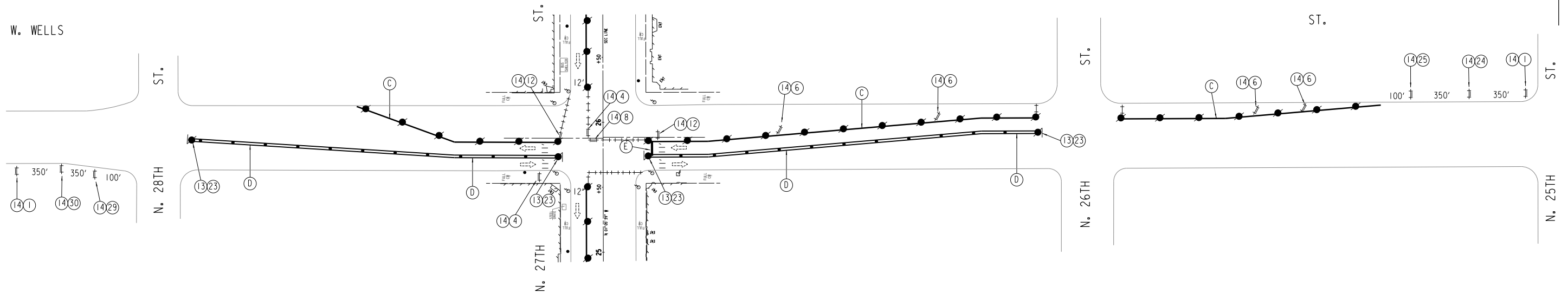
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

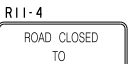
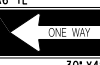
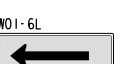
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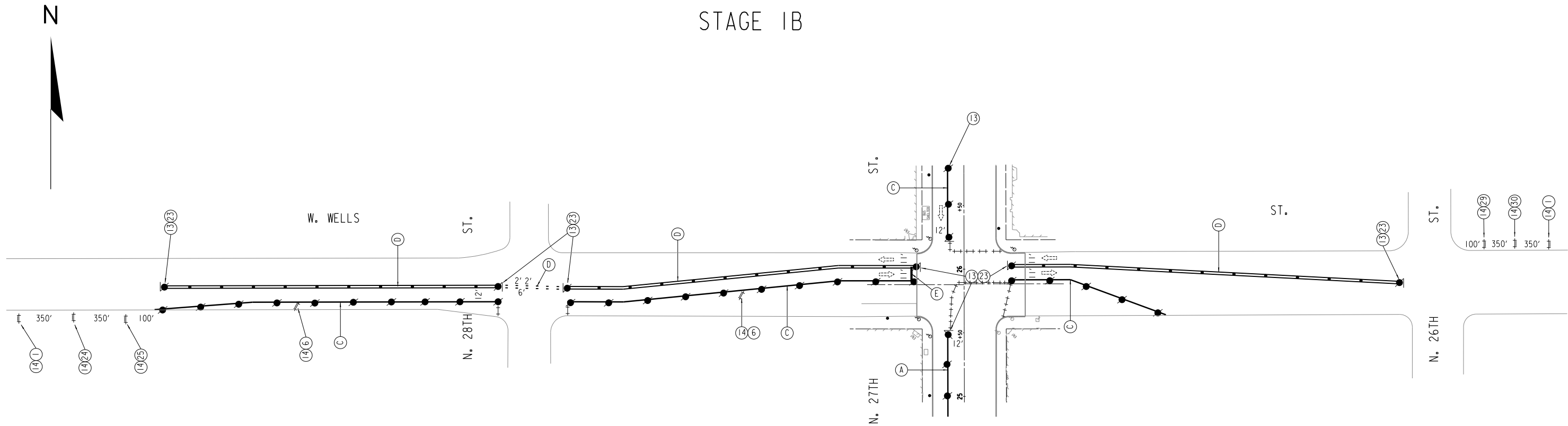
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE Banded TO EXISTING UTILITY POLES
UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING
PAVEMENT MARKINGS.

STAGE 1A



LEGEND	
 1	 7
 2	 8
 3	 9
 4	 12
 5	 20
 6	 21
 22	 23
 27	 24
 28	 25
 33	 29
 38	 30
 39	 32
 40	 37
 41	 38
 42	 36
 44	 37
 45	 43
DRUMS W/LIGHTS 30' SPACING  13	
TYPE III BARRICADES 30' SPACING  14	
TYPE III BARRICADES W/ SIGN  14 + (X)	
SIGNS BANDO TO UTILITY POLE  15	
WORK AREA  16	
DIRECTION OF TRAFFIC  17	
TUBULAR MARKERS 25' SPACING  18	

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDO TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.



W020-1

ROAD WORK AHEAD

48" X 48"

1

R11-2

ROAD CLOSED

48" X 30"

2

R11-4

ROAD CLOSED TO THRU TRAFFIC

30" X 48"

3

R6-1R

ONE WAY

24" X 48"

4

W01-7

ONE WAY

24" X 48"

5

W01-6L

ONE WAY

24" X 48"

6

M05-1R

24X21

7

M06-1R

24X21

7

R5-1

DO NOT ENTER

36" X 36"

8

R3-2

36" X 36"

9

R6-1L

ONE WAY

30" X 48"

12

R1-1

STOP

48" X 48"

20

W01-4L

48" X 48"

21

R3-1

36" X 36"

22

R4-7A

KEEP RIGHT

36" X 48"

23

W020-5R

48" X 48"

24

W04-2R

50" X 30"

25

W020-3

ROAD CLOSED AHEAD

48" X 48"

27

W016-7PR

24" X 12"

28

W04-2L

48" X 48"

29

W020-5L

48" X 48"

30

R3-6L

30" X 36"

32

W020-5

CENTER LANE CLOSED AHEAD

48" X 48"

33

W09-3A

48" X 48"

34

R3-7R

RIGHT LANE MUST TURN RIGHT

36" X 36"

35

W013-1

20 M.P.H.

24" X 12"

36

R3-8B

30" X 48"

37

W01-3L

48" X 48"

38

W01-3R

48" X 48"

39

R3-7L

LEFT LANE MUST TURN LEFT

36" X 36"

40

W016-7PL

24" X 12"

41

W01-4BL

48" X 48"

43

W020-2

48" X 48"

44

W012-1

48" X 48"

45

R011-2

LANE CLOSED

48" X 30"

42

DRUMS W/LIGHTS

30' SPACING

13

TYPE III BARRICADES

W/ SIGN

14

SIGNS BANDED TO UTILITY POLE

14 + X

WORK AREA

14

DIRECTION OF TRAFFIC

14

TUBULAR MARKERS 25' SPACING

14

LEGEND

(A)

TPM, REFLECTIVE PAINT, 4" WHITE

(B)

TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C)

TPM, REMOVABLE TAPE, 4" WHITE

(D)

TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E)

TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I)

TPM, ARROWS, REMOVABLE TAPE

(J)

TPM, WORDS, REMOVABLE TAPE

(K)

TPM, REMOVABLE TAPE, 8" WHITE

(L)

TPM, STOP LINE, 24" WHITE

(H)

TPM, 8" WHITE

(M)

MATCH

(X)

TPM, WORDS

(Z)

TPM, ARROWS

NOTE:

ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

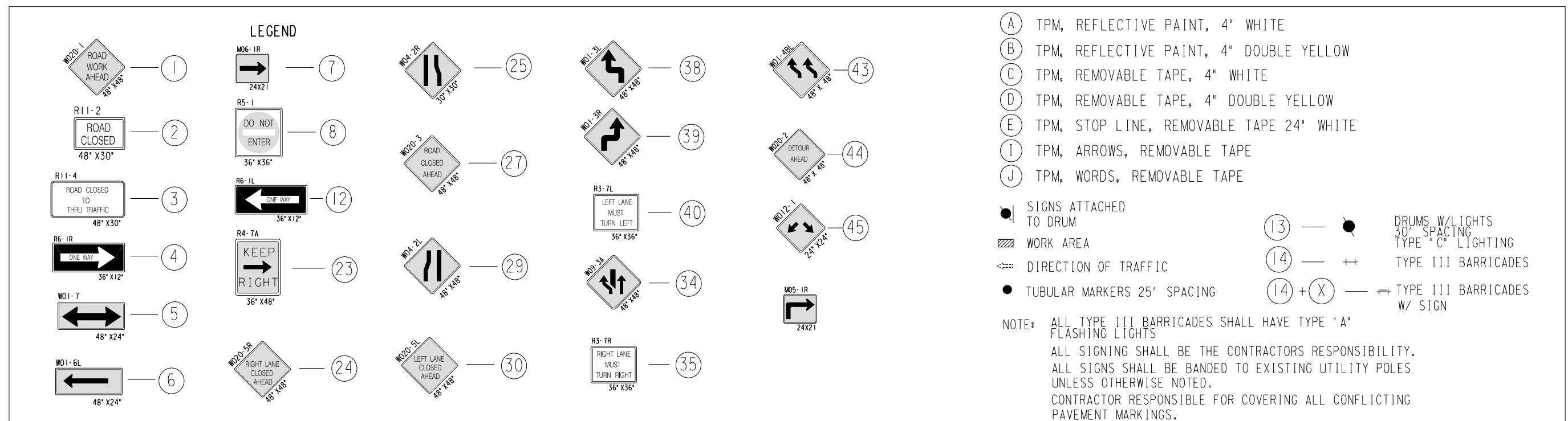
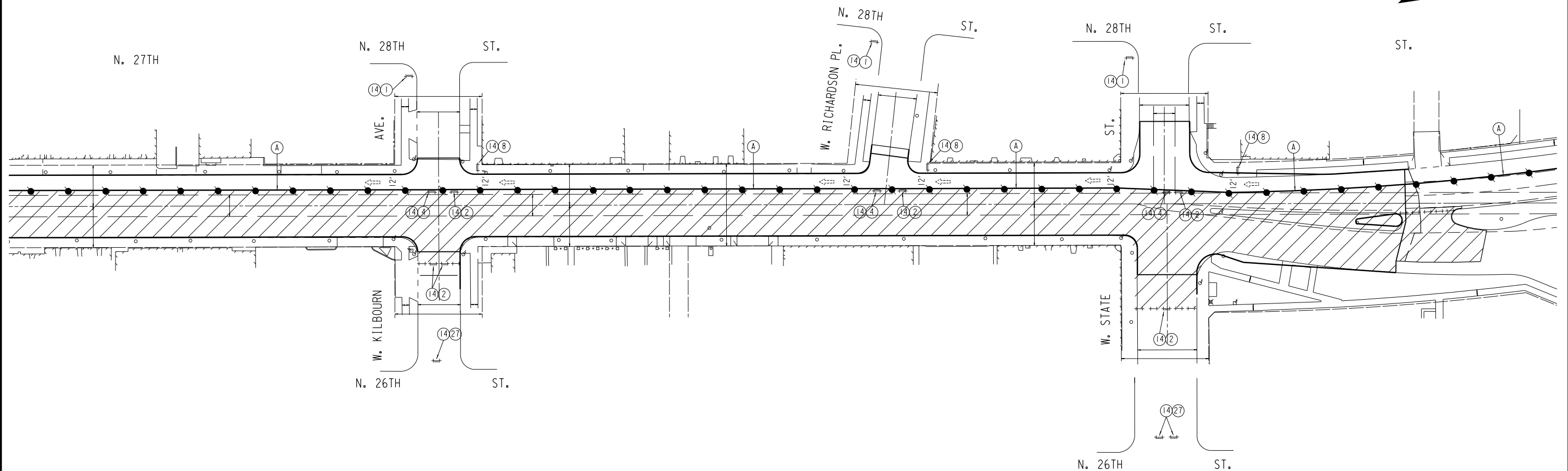
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

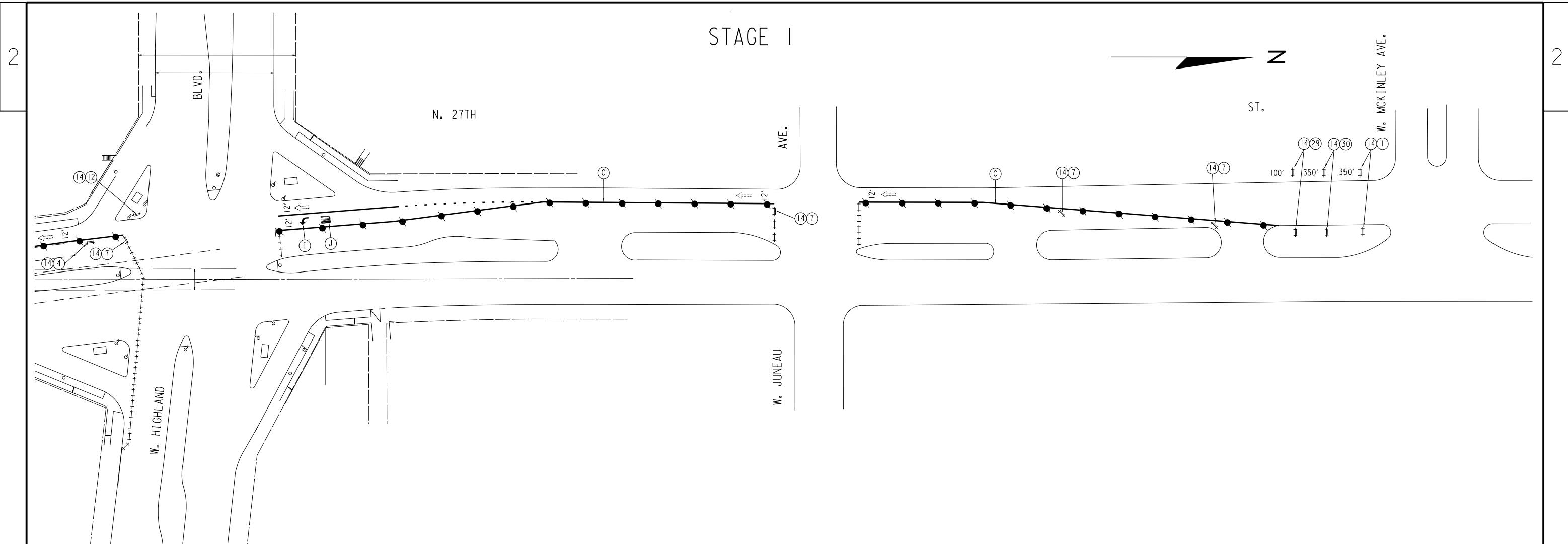
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FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN

SHEET 15 OF 32

STAGE I

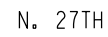




LEGEND			

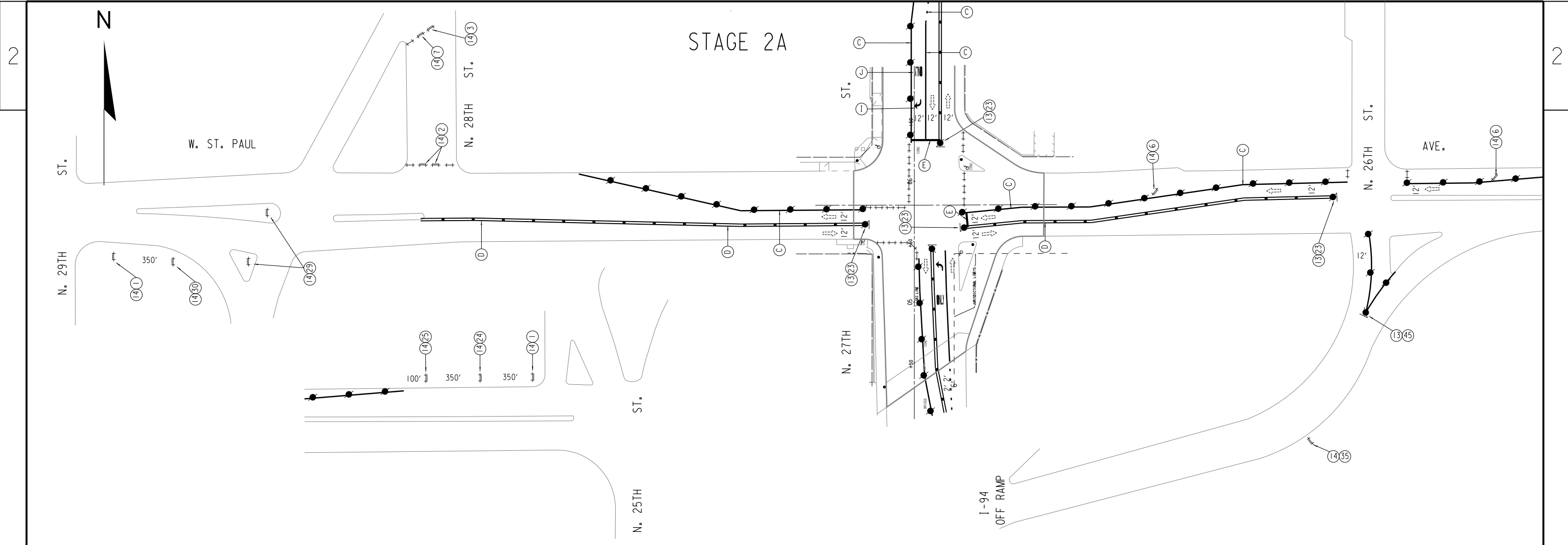
(A) TPM, REFLECTIVE PAINT, 4" WHITE	(13) — DRUMS W/LIGHTS 30' SPACING
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW	(14) — ++ TYPE III BARRICADES
(C) TPM, REMOVABLE TAPE, 4" WHITE	(14) + (X) — TYPE III BARRICADES W/ SIGN
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW	
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE	
(I) TPM, ARROWS, REMOVABLE TAPE	
(J) TPM, WORDS, REMOVABLE TAPE	
SIGNS ATTACHED TO DRUM	
WORK AREA	
DIRECTION OF TRAFFIC	
TUBULAR MARKERS 25' SPACING	

NOTE: ALL TYPE III BARRICADES SHALL HAVE TYPE "A" FLASHING LIGHTS
 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, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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.



LEGEND

W020-1 ROAD WORK AHEAD 48" X 48" ①

R11-2 ROAD CLOSED 48" X 30" ②

R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X 48" ③

R6-1R ONE WAY 24" X 48" ④

W01-7 24" X 48" ⑤

W01-6L 24" X 48" ⑥

W01-6R 24" X 48" ⑦

R5-1 DO NOT ENTER 36" X 36" ⑧

R3-2 36" X 36" ⑨

R6-1L ONE WAY 30" X 48" ⑫

R1-1 STOP 48" X 48" ⑳

W01-4L 48" X 48" ㉑

R3-1 36" X 36" ㉒

R4-7A KEEP RIGHT 36" X 48" ㉓

W020-5R RIGHT LANE CLOSED AHEAD 48" X 48" ㉔

W04-2R 30" X 30" ㉕

W020-3 ROAD CLOSED AHEAD 48" X 48" ㉗

W016-7PR 24" X 12" ㉘

W04-2L 48" X 48" ㉙

W020-5L LEFT LANE CLOSED AHEAD 48" X 48" ㉚

R3-6L 30" X 36" ㉛

W020-5 CENTER LANE CLOSED AHEAD 48" X 48" ㉜

W03-7A 48" X 48" ㉝

R3-7R RIGHT LANE MUST TURN RIGHT 36" X 36" ㉞

W013-1 20 M.P.H. 24" X 12" ㉟

R3-8B 30" X 48" ㊱

W01-3L 48" X 48" ㊲

W01-3R 48" X 48" ㊳

R3-7L LEFT LANE MUST TURN LEFT 36" X 36" ㊴

DRUMS W/LIGHTS 30' SPACING ㊵

TYPE III BARRICADES W/ SIGN ㊶

SIGNS BANDED TO UTILITY POLE ㊷

WORK AREA ㊸

DIRECTION OF TRAFFIC ㊹

TUBULAR MARKERS 25' SPACING ㊺

W016-7PL 24" X 12" ㊻

R011-2 LANE CLOSED 48" X 30" ㊼

W020-2 DETOUR AHEAD 48" X 48" ㊽

W012-1 48" X 48" ㊾

① TPM, REFLECTIVE PAINT, 4" WHITE

② TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

③ TPM, REMOVABLE TAPE, 4" WHITE

④ TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

⑤ TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

⑥ TPM, ARROWS, REMOVABLE TAPE

⑦ TPM, WORDS, REMOVABLE TAPE

⑧ TPM, REMOVABLE TAPE, 8" WHITE

⑨ TPM, STOP LINE, 24" WHITE

⑩ TPM, 8" WHITE

⑪ MATCH

⑫ TPM, WORDS

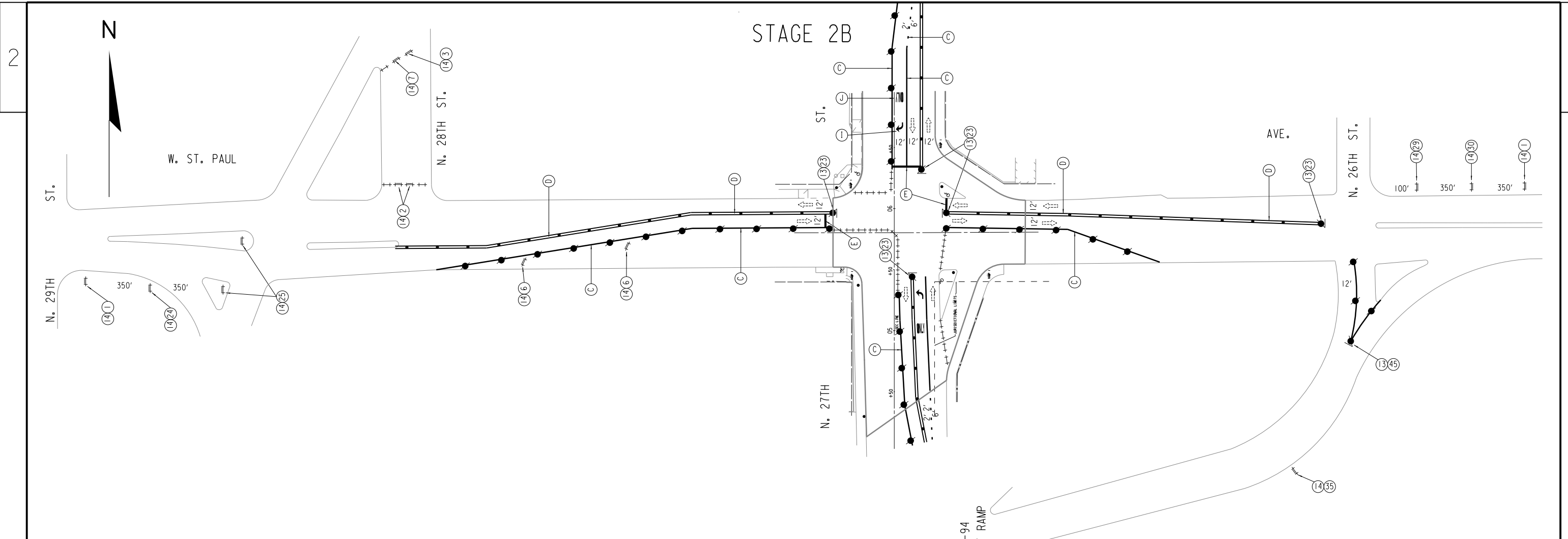
⑬ TPM, ARROWS

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 2265-09-70 2265-17-70 HWY: S.T.H. 57 COUNTY: MILWAUKEE TRAFFIC CONTROL SCALE FEET 0' 80' SHEET NO: 103 E

SHEET 19 OF 32

FILE NAME: W:\SPR\ 27N STPAUL HIGH\TRAFFIC.DGN



LEGEND

W020-1
ROAD WORK AHEAD
48" X 48"
①

R11-2
ROAD CLOSED
48" X 30"
②

R11-4
ROAD CLOSED TO THRU TRAFFIC
30" X 48"
③

R6-1R
ONE WAY
24" X 48"
④

W01-7
24" X 48"
⑤

W01-6L
24" X 48"
⑥

W01-6R
24" X 48"
⑦

R5-1
DO NOT ENTER
36" X 36"
⑧

R3-2
36" X 36"
⑨

R6-1L
ONE WAY
30" X 48"
⑫

R1-1
STOP
48" X 48"
⑫

W01-4L
48" X 48"
⑫

R3-1
36" X 36"
⑫

R4-7A
KEEP RIGHT
36" X 48"
⑫

W020-5R
RIGHT LANE CLOSED AHEAD
48" X 48"
⑫

W04-2R
50" X 30"
⑫

W020-3
ROAD CLOSED AHEAD
48" X 48"
⑫

W016-7PR
24" X 12"
⑫

W04-2L
48" X 48"
⑫

W020-5L
LEFT LANE CLOSED AHEAD
48" X 48"
⑫

R3-6L
30" X 36"
⑫

W020-5
CENTER LANE CLOSED AHEAD
48" X 48"
⑫

W05-2A
48" X 48"
⑫

R3-7R
RIGHT LANE MUST TURN RIGHT
36" X 36"
⑫

W013-1
20 M.P.H.
24" X 12"
⑫

R3-8B
30" X 48"
⑫

W01-3L
48" X 48"
⑫

W01-5R
48" X 48"
⑫

R3-7L
LEFT LANE MUST TURN LEFT
36" X 36"
⑫

DRUMS W/LIGHTS 30' SPACING
⑫

TYPE III BARRICADES
⑫

TYPE III BARRICADES W/ SIGN
⑫

SIGNS BANDED TO UTILITY POLE
⑫

WORK AREA
⑫

DIRECTION OF TRAFFIC
⑫

TUBULAR MARKERS 25' SPACING
⑫

W016-7PL
24" X 12"
⑫

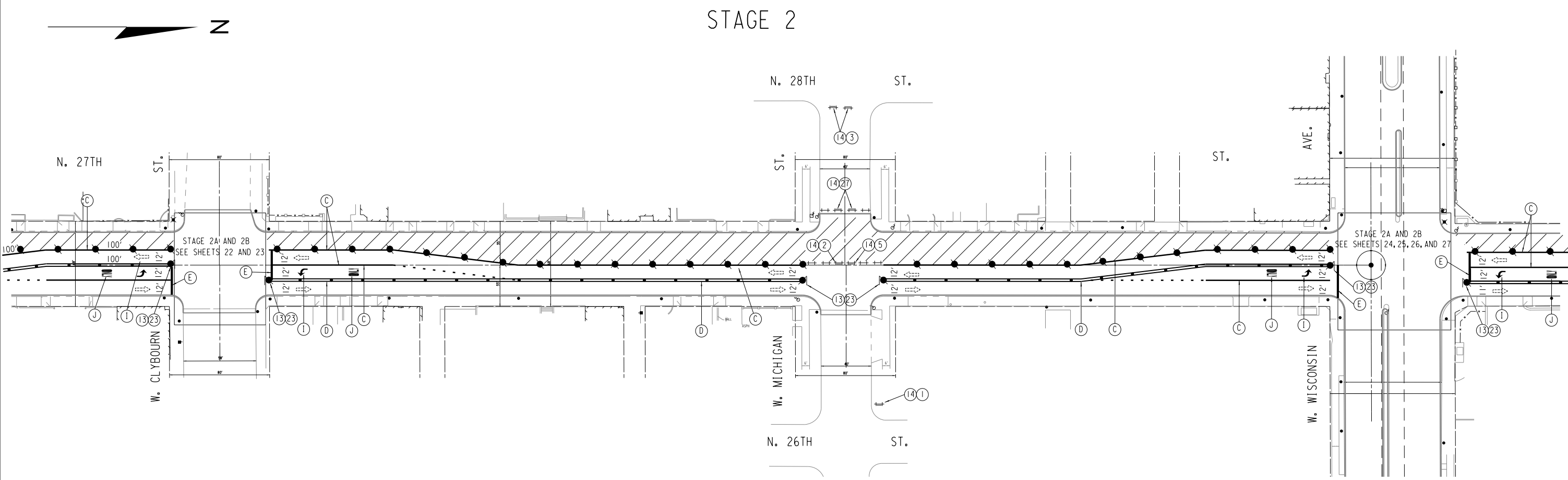
R011-2
LANE CLOSED
48" X 30"
⑫

W020-2
DETOUR AHEAD
48" X 48"
⑫

W012-1
48" X 48"
⑫

① TPM, REFLECTIVE PAINT, 4" WHITE
② TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
③ TPM, REMOVABLE TAPE, 4" WHITE
④ TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
⑤ TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
⑥ TPM, ARROWS, REMOVABLE TAPE
⑦ TPM, WORDS, REMOVABLE TAPE
⑧ TPM, REMOVABLE TAPE, 8" WHITE
⑨ TPM, STOP LINE, 24" WHITE
⑩ TPM, 8" WHITE
⑪ MATCH
⑫ TPM, WORDS
⑬ TPM, ARROWS

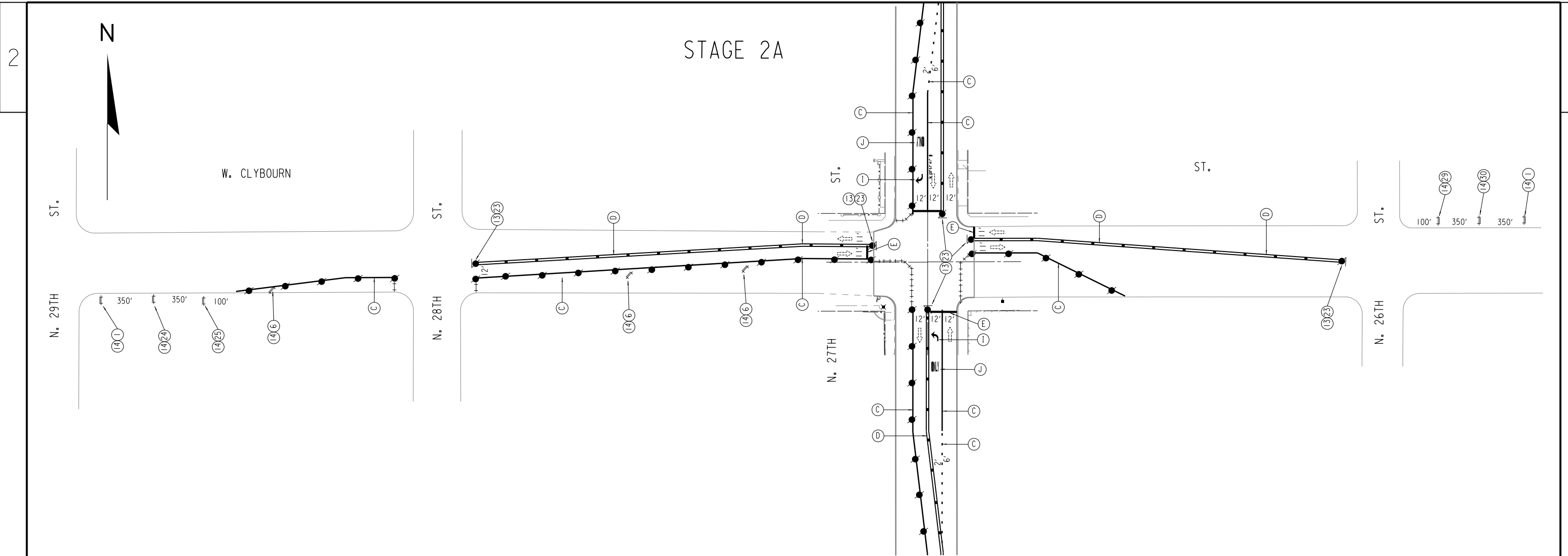
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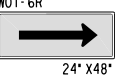
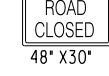
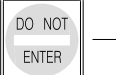
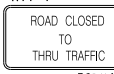
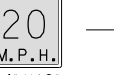
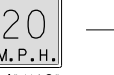
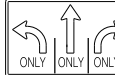
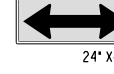
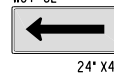
LEGEND

	1		21		27		33		38		41		43
	2		7		22		28		34		42		44
	3		8		23		29		35		42		45
	4		9		24		36		40		13		
	5		12		30		14 + X				14		
	6		20		25								
					32								
					37								

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.



LEGEND

 1	 7	 22	 28	 33	 38	 41	 43
 2	 8	 23	 29	 34	 39	 42	 44
 3	 9	 24	 30	 35	 40	 36	 45
 4	 12	 25	 32	 36	 37	 13	
 5				 14		 14 + (X)	
 6	 20			 14 + (X)		 14	
				 14		 14	

DRUMS W/LIGHTS 30' SPACING

TYPE III BARRICADES

TYPE III BARRICADES W/ SIGN

SIGNS Banded TO UTILITY POLE

WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

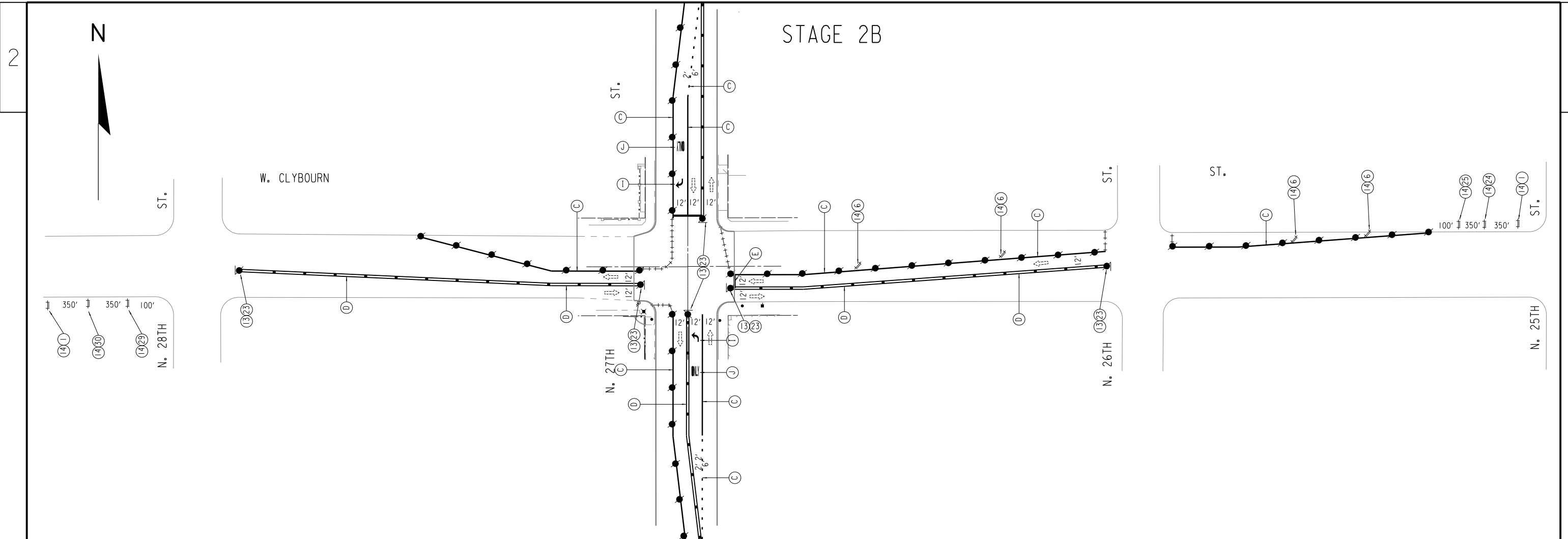
(H) TPM, 8" WHITE

(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

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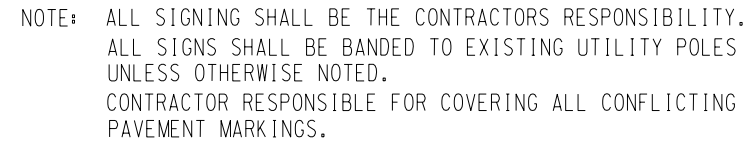
LEGEND

	1		21		27		33		38		41		43
	2		7		28		34		39		42		44
	3		8		29		35		40		45		
	4		9		23		30		36				
	5		12		24		25		32		37		
	6		20										

DRUMS W/LIGHTS 30' SPACING		13
TYPE III BARRICADES		14
TYPE III BARRICADES W/ SIGN		14 + X
SIGNS BANDED TO UTILITY POLE		
WORK AREA		
DIRECTION OF TRAFFIC		
TUBULAR MARKERS 25' SPACING		

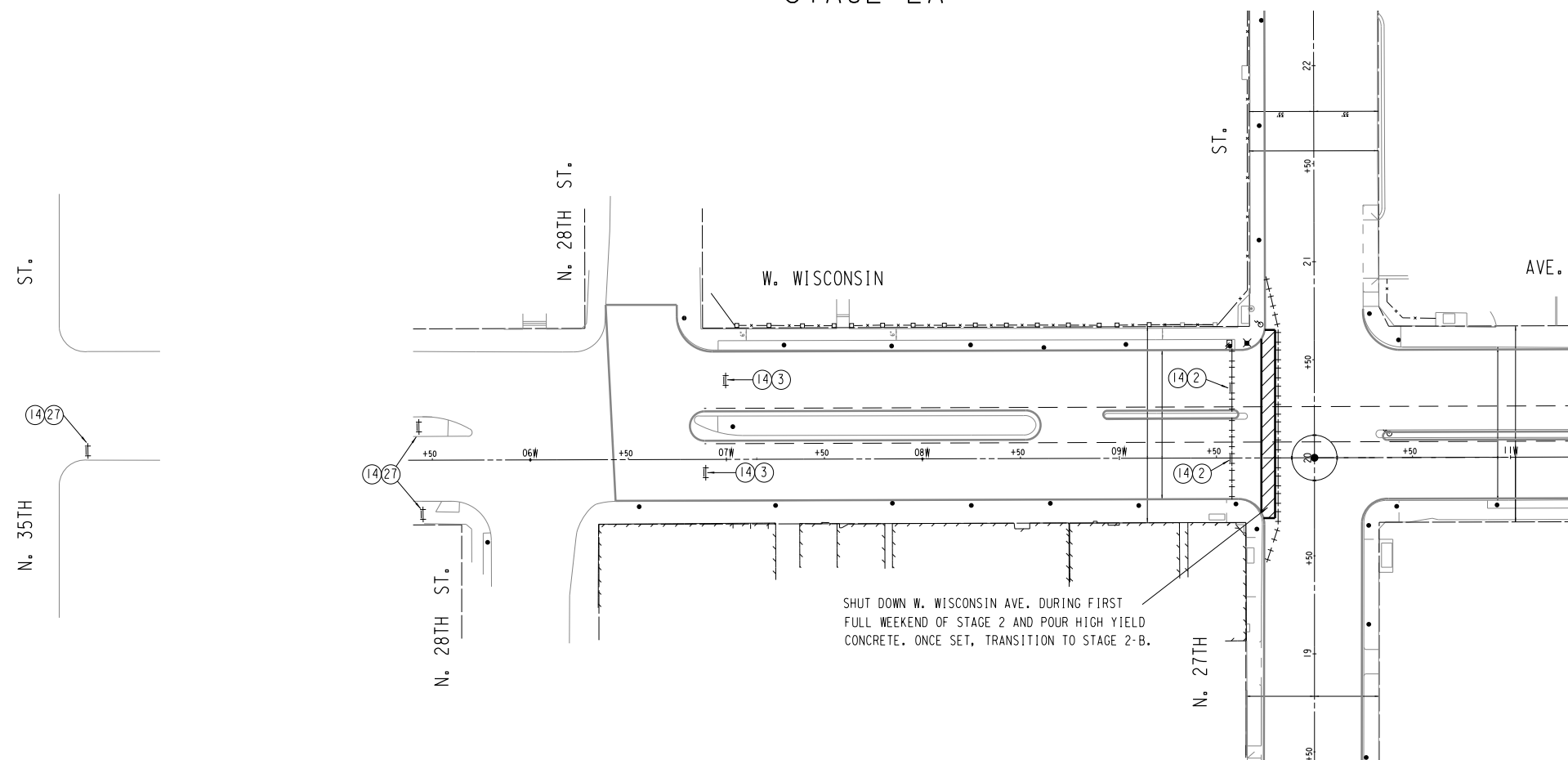
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N



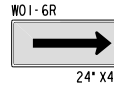
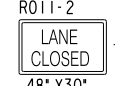
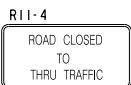
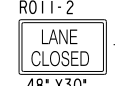
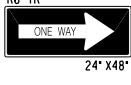
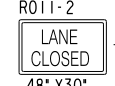
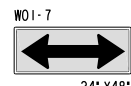
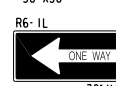
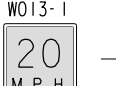
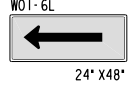
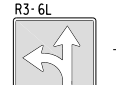
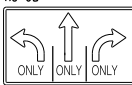
STAGE 2A

N



SHUT DOWN W. WISCONSIN AVE. DURING FIRST FULL WEEKEND OF STAGE 2 AND POUR HIGH YIELD CONCRETE. ONCE SET, TRANSITION TO STAGE 2-B.

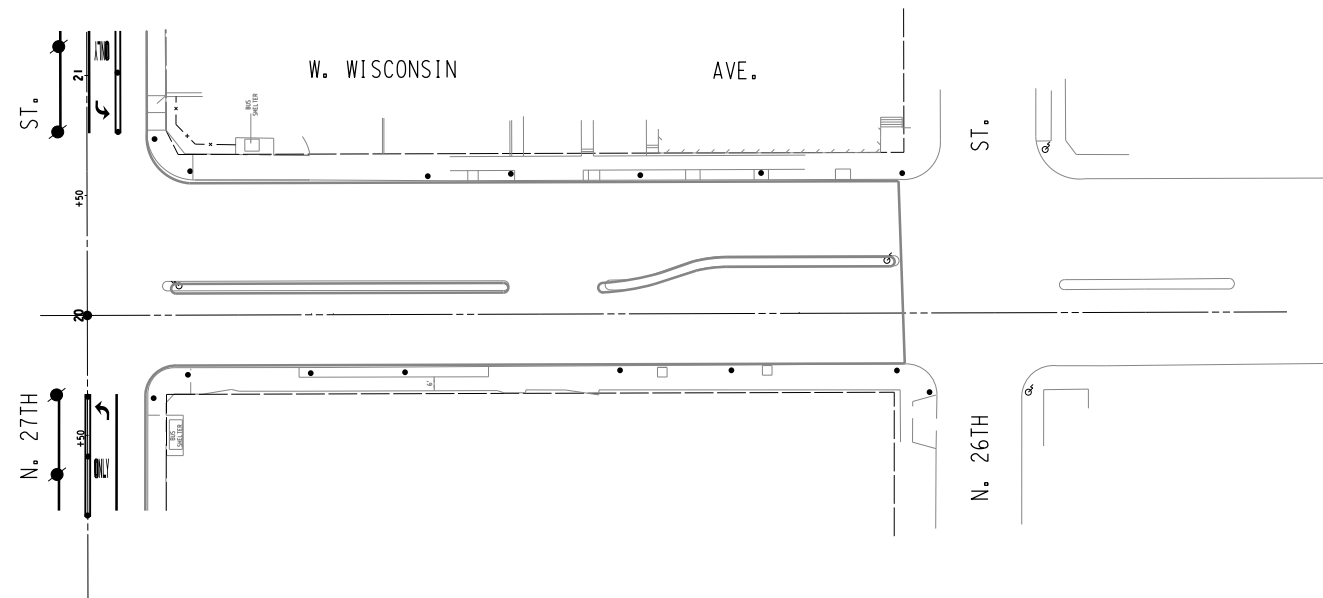
LEGEND

 — 1	 — 21	 — 27	 — 33	 — 38	 — 41	 — 43
 — 2	 — 7	 — 22	 — 28	 — 39	 — 42	 — 44
 — 3	 — 8	 — 9	 — 29	 — 35	 — 42	 — 45
 — 4	 — 9	 — 23	 — 29	 — 40	 — 42	
 — 5	 — 12	 — 24	 — 30	 — 36		
 — 6	 — 20	 — 25	 — 32	 — 37	 — 13	
					 — 14	
					 — 14 + (X)	
					 — 13	
					 — 13	
					 — 13	
					 — 13	

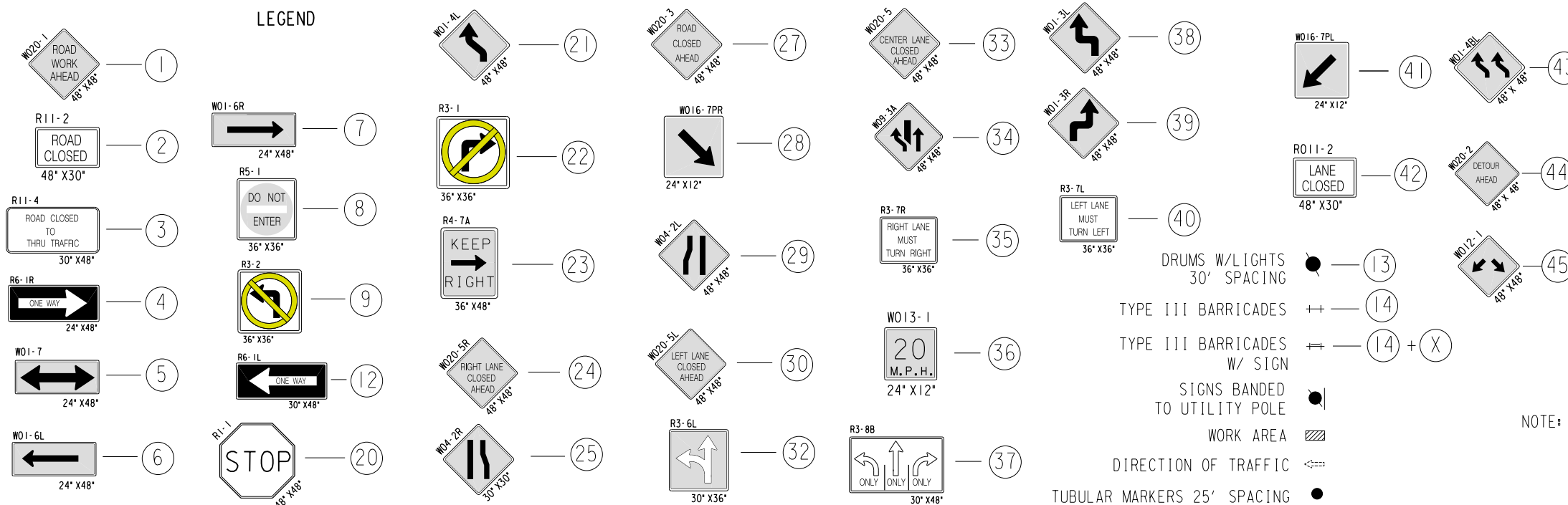
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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STAGE 2B



LEGEND



- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, 24" WHITE
- (H) TPM, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS
- (Z) TPM, ARROWS

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UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING
PAVEMENT MARKINGS.

SHEET 26 OF 32

STATE PROJECT NUMBER 2265-09-70 2265-17-70

HWY: S.T.H. 57

COUNTY: MILWAUKEE

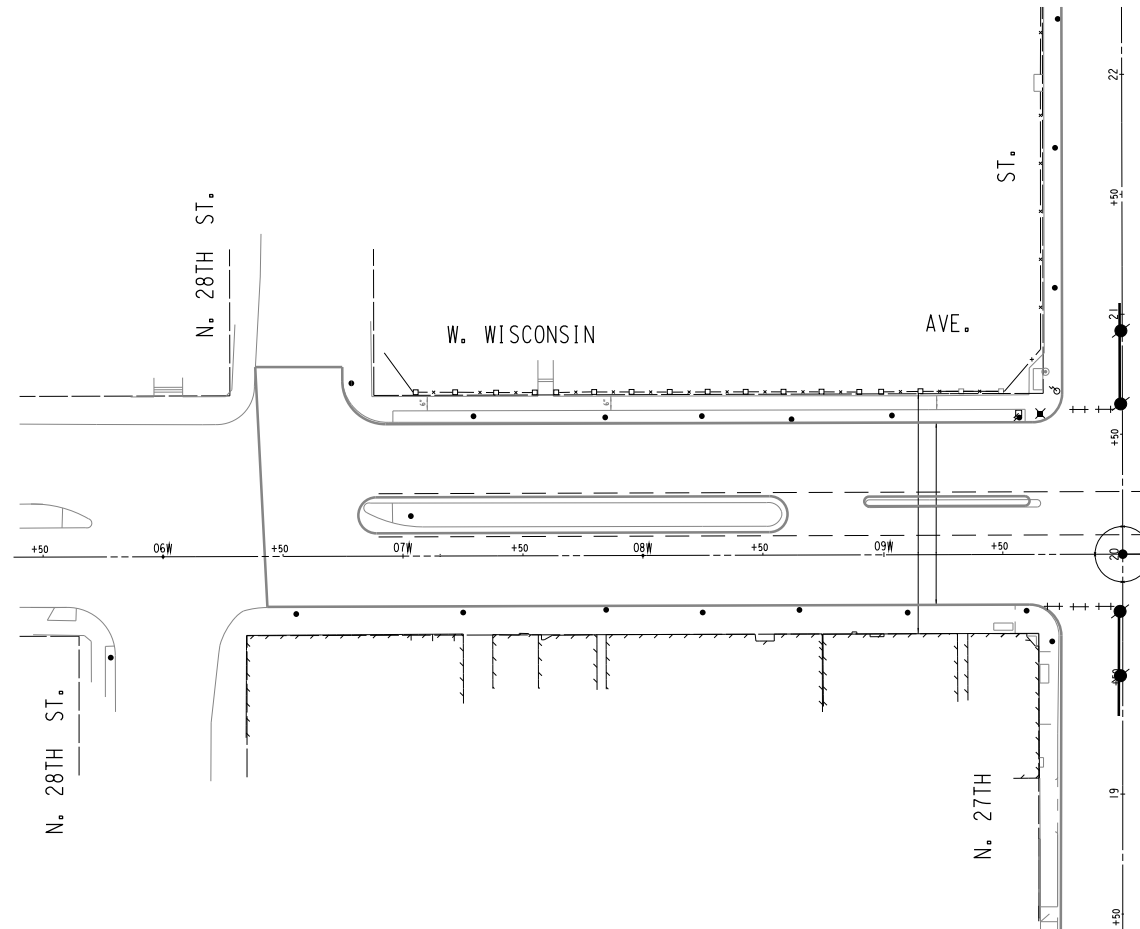
TRAFFIC CONTROL

SCALE FEET 0' 80'

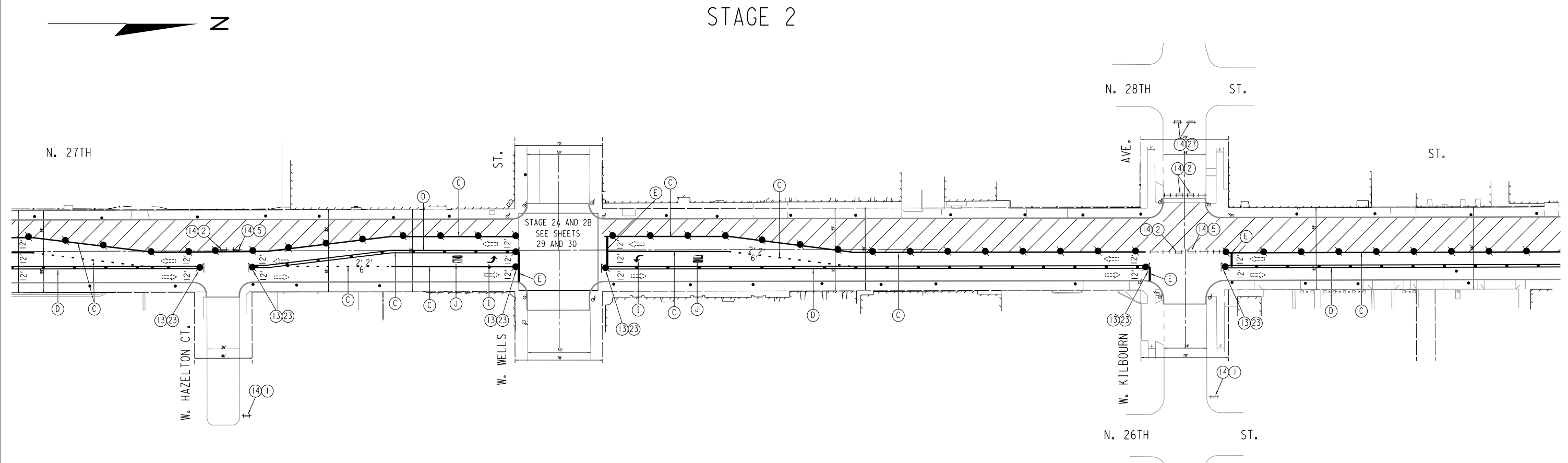
SHEET NO: 110

E

N



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.



LEGEND

W020-1 ROAD WORK AHEAD 48" X 48" — 1

R11-2 ROAD CLOSED 48" X 30" — 2

R11-4 ROAD CLOSED TO THRU TRAFFIC 30" X 48" — 3

R6-1R ONE WAY 24" X 48" — 4

W01-7 24" X 48" — 5

W01-6L 24" X 48" — 6

W01-6R 24" X 48" — 7

R5-1 DO NOT ENTER 36" X 36" — 8

R3-2 36" X 36" — 9

R6-1L ONE WAY 30" X 48" — 12

R1-1 STOP 48" X 48" — 20

W01-4L 48" X 48" — 21

R3-1 36" X 36" — 22

R4-7A KEEP RIGHT 36" X 48" — 23

W020-5R RIGHT LANE CLOSED AHEAD 48" X 48" — 24

W04-2R 48" X 48" — 25

W020-3 ROAD CLOSED AHEAD 48" X 48" — 27

W016-7PR 24" X 12" — 28

W04-2L 48" X 48" — 29

W020-5L LEFT LANE CLOSED AHEAD 48" X 48" — 30

R3-6L 30" X 36" — 32

W020-5 CENTER LANE CLOSED AHEAD 48" X 48" — 33

W03-3A 48" X 48" — 34

R3-7R RIGHT LANE MUST TURN RIGHT 36" X 36" — 35

W013-1 20 M.P.H. 24" X 12" — 36

R3-8B 30" X 48" — 37

W01-3L 48" X 48" — 38

W01-3R 48" X 48" — 39

R3-7L LEFT LANE MUST TURN LEFT 36" X 36" — 40

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + X

SIGNS BANDED TO UTILITY POLE — 14

WORK AREA — 14

DIRECTION OF TRAFFIC — 14

TUBULAR MARKERS 25' SPACING — 14

W016-7PL 24" X 12" — 41

R011-2 LANE CLOSED 48" X 30" — 42

W020-2 DETOUR AHEAD 48" X 48" — 44

W012-1 48" X 48" — 45

W01-4R 48" X 48" — 43

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

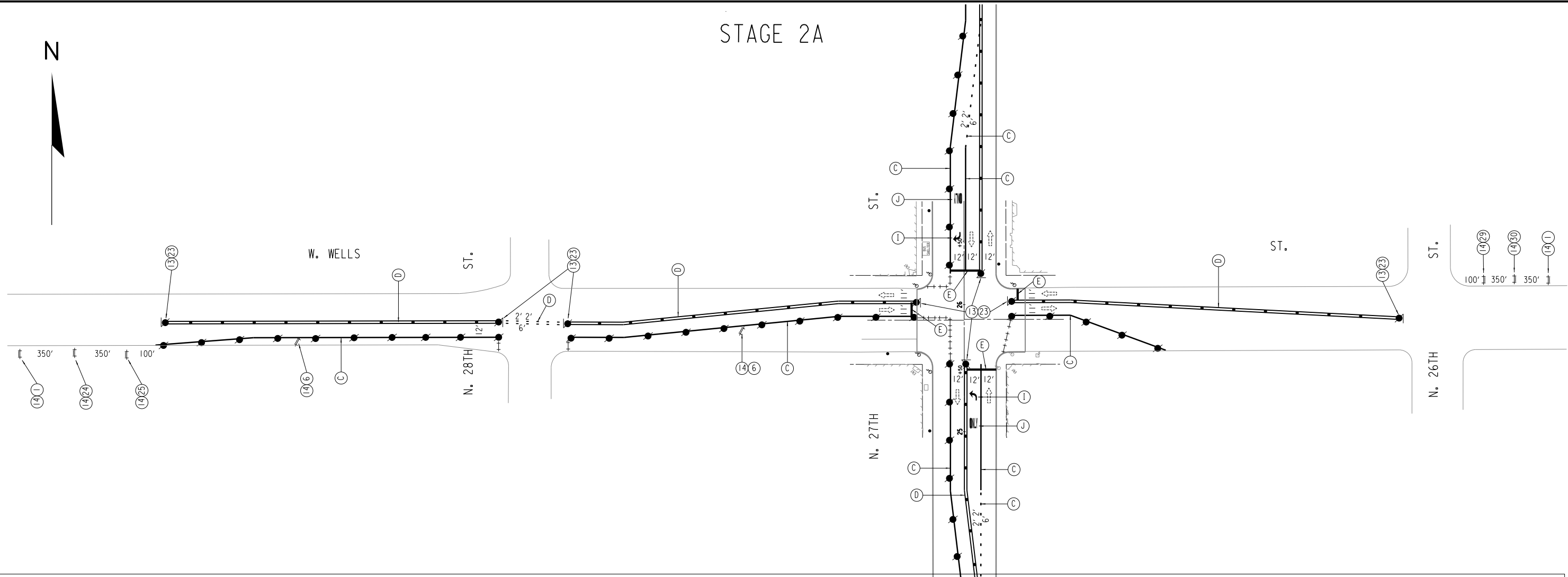
(M) MATCH

(X) TPM, WORDS

(Z) TPM, ARROWS

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STAGE 2A

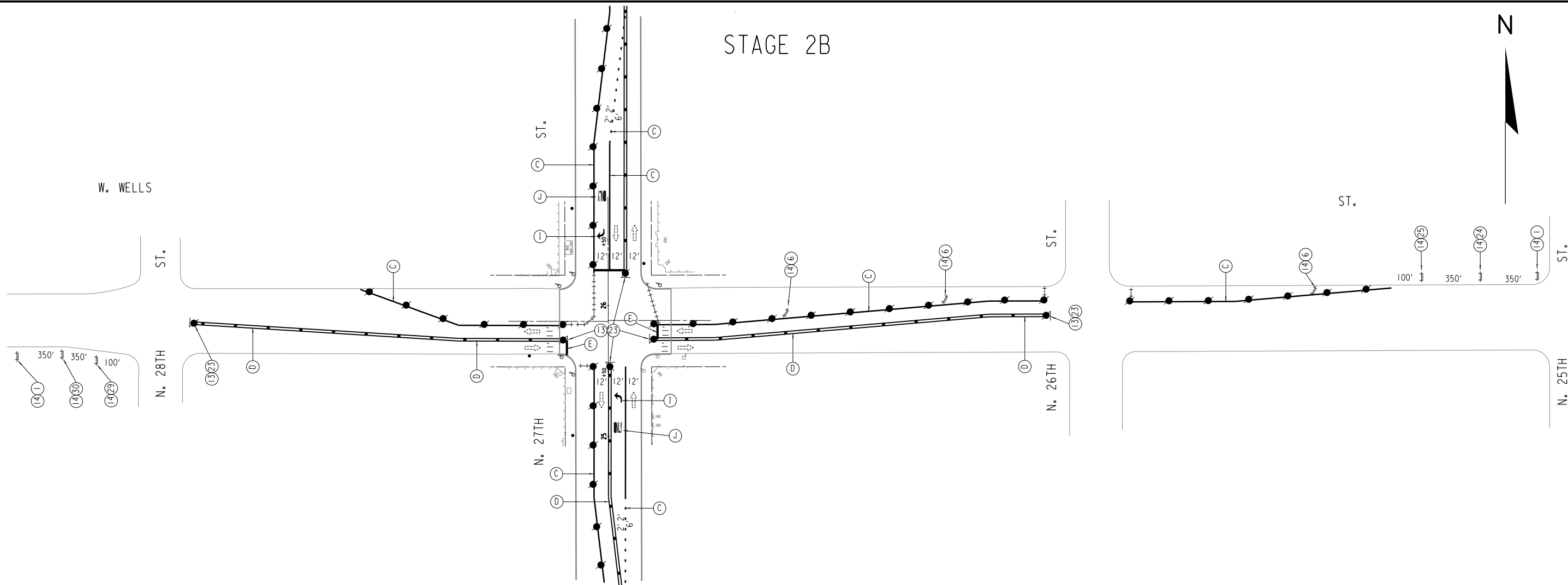


LEGEND

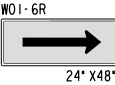
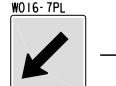
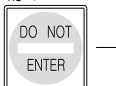
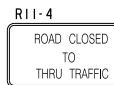
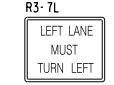
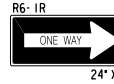
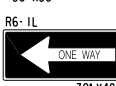
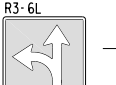
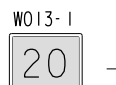
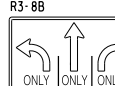
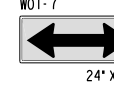
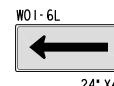
	1		21		27		33		38		41		43
	2		7		22		28		34		42		44
	3		8		23		29		35		45		
	4		9						40				
	5		12		24		30		36				
	6		20		25		32		37				

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
 - (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
 - (C) TPM, REMOVABLE TAPE, 4" WHITE
 - (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
 - (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
 - (I) TPM, ARROWS, REMOVABLE TAPE
 - (J) TPM, WORDS, REMOVABLE TAPE
 - (K) TPM, REMOVABLE TAPE, 8" WHITE
 - (L) TPM, STOP LINE, 24" WHITE
 - (H) TPM, 8" WHITE
 - (M) MATCH
 - (X) TPM, WORDS
 - (Z) TPM, ARROWS
- 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 2B



LEGEND

 — 1	 — 7	 — 22	 — 28	 — 33	 — 38	 — 41	 — 43
 — 2	 — 8	 — 23	 — 29	 — 34	 — 39	 — 42	 — 44
 — 3	 — 9	 — 24	 — 30	 — 35	 — 40	 — 45	
 — 4	 — 12	 — 25	 — 32	 — 36	 — 37		
 — 5	 — 20						
 — 6							

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + (X)

SIGNS BANNED TO UTILITY POLE — 14

WORK AREA — 14

DIRECTION OF TRAFFIC — 14

TUBULAR MARKERS 25' SPACING — 14

(A) TPM, REFLECTIVE PAINT, 4" WHITE

(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW

(C) TPM, REMOVABLE TAPE, 4" WHITE

(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW

(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE

(I) TPM, ARROWS, REMOVABLE TAPE

(J) TPM, WORDS, REMOVABLE TAPE

(K) TPM, REMOVABLE TAPE, 8" WHITE

(L) TPM, STOP LINE, 24" WHITE

(H) TPM, 8" WHITE

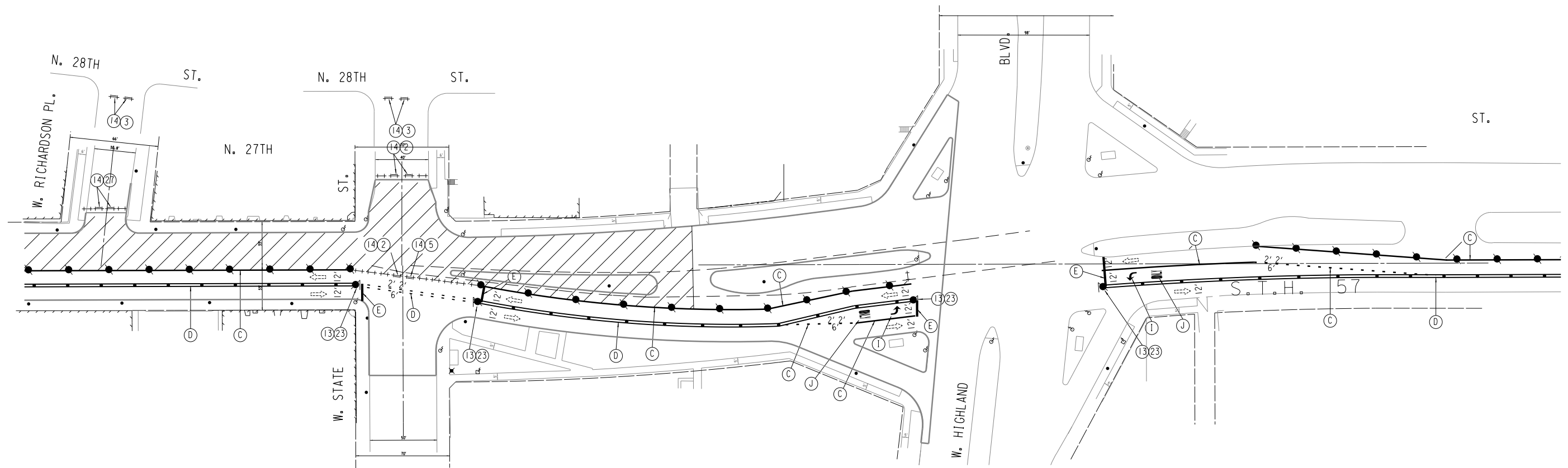
(M) MATCH

(X) TPM, WORDS

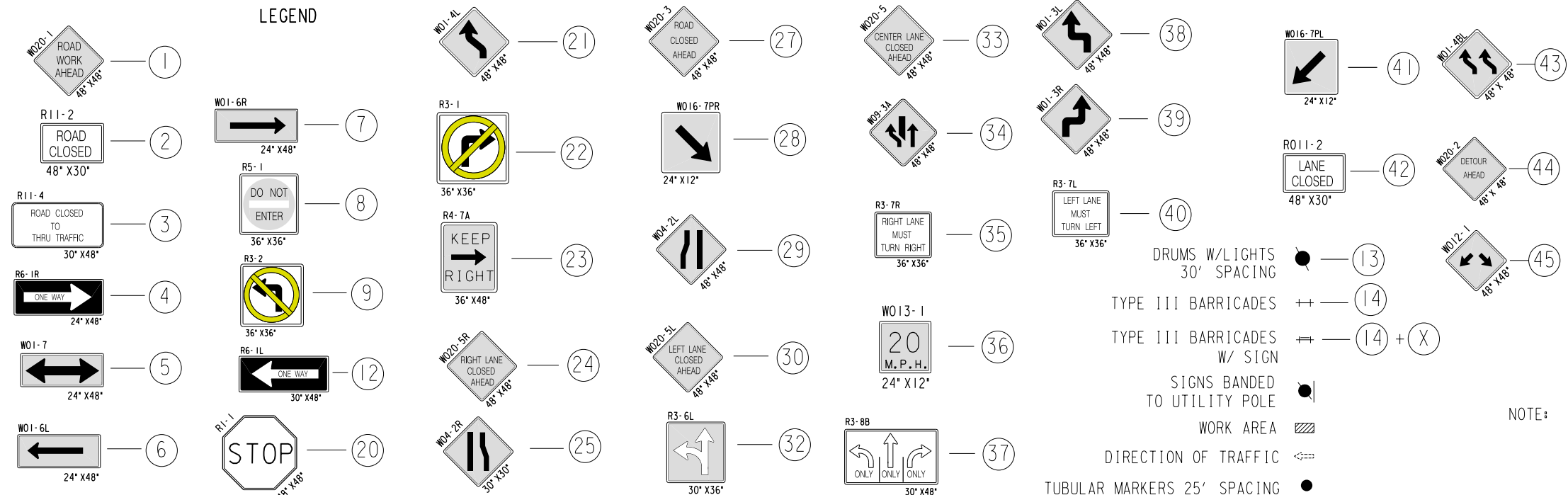
(Z) TPM, ARROWS

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANNED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STAGE 2



LEGEND



- (A) TPM, REFLECTIVE PAINT, 4" WHITE
(B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
(C) TPM, REMOVABLE TAPE, 4" WHITE
(D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
(E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
(I) TPM, ARROWS, REMOVABLE TAPE
(J) TPM, WORDS, REMOVABLE TAPE
(K) TPM, REMOVABLE TAPE, 8" WHITE
(L) TPM, STOP LINE, 24" WHITE
(H) TPM, 8" WHITE
(M) MATCH
(X) TPM, WORDS
(Z) TPM, ARROWS

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 31 OF 32

STATE PROJECT NUMBER 2265-09-70 2265-17-70

HWY: S.T.H. 57

COUNTY: MILWAUKEE

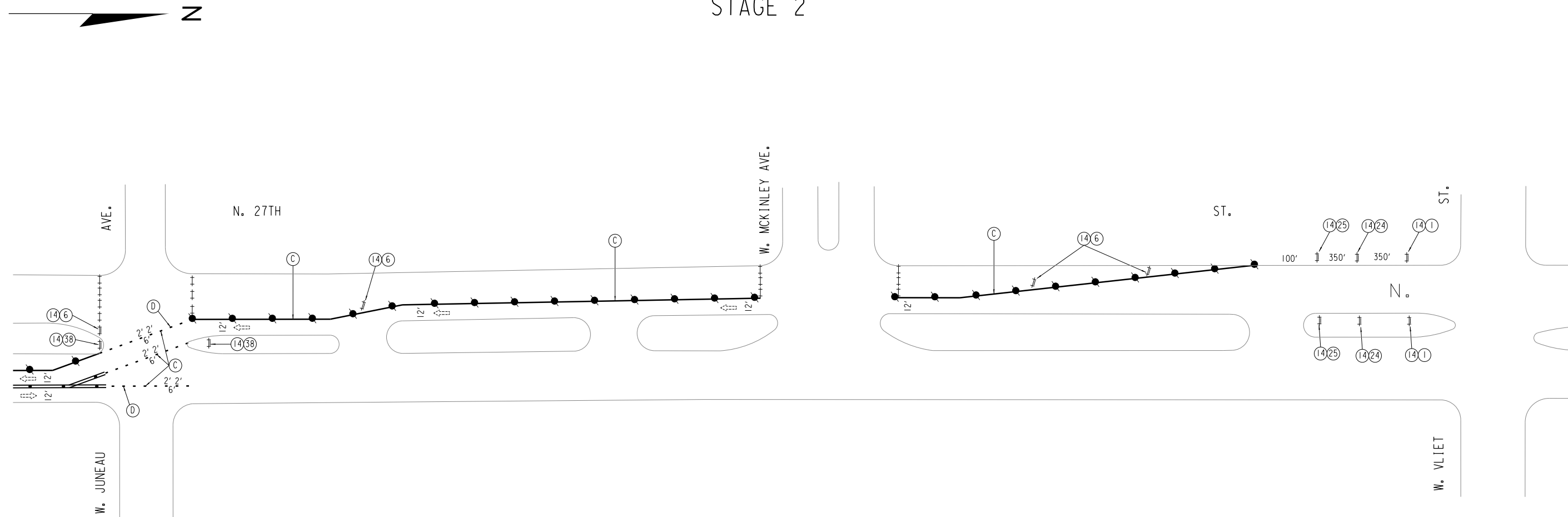
TRAFFIC CONTROL

SCALE FEET 0' 80'

SHEET NO: 115

E

STAGE 2



LEGEND

— 1	— 21	— 27	— 33	— 38	— 41	— 43
— 2	— 7	— 28	— 34	— 39	— 42	— 44
— 3	— 8	— 29	— 35	— 40		
— 4	— 9	— 23	— 36			
— 5	— 12	— 24	— 30			
— 6	— 20	— 25	— 32			
		— 37				

DRUMS W/LIGHTS 30' SPACING — 13

TYPE III BARRICADES — 14

TYPE III BARRICADES W/ SIGN — 14 + (X)

SIGNS Banded TO UTILITY POLE — 14

WORK AREA — 14

DIRECTION OF TRAFFIC — 14

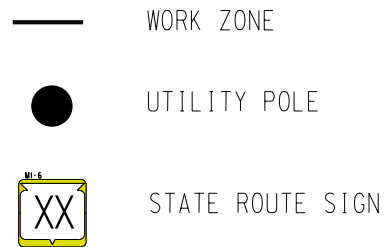
TUBULAR MARKERS 25' SPACING — 14

- (A) TPM, REFLECTIVE PAINT, 4" WHITE
 - (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
 - (C) TPM, REMOVABLE TAPE, 4" WHITE
 - (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
 - (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
 - (I) TPM, ARROWS, REMOVABLE TAPE
 - (J) TPM, WORDS, REMOVABLE TAPE
 - (K) TPM, REMOVABLE TAPE, 8" WHITE
 - (L) TPM, STOP LINE, 24" WHITE
 - (H) TPM, 8" WHITE
 - (M) MATCH
 - (X) TPM, WORDS
 - (Z) TPM, ARROWS
- 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.

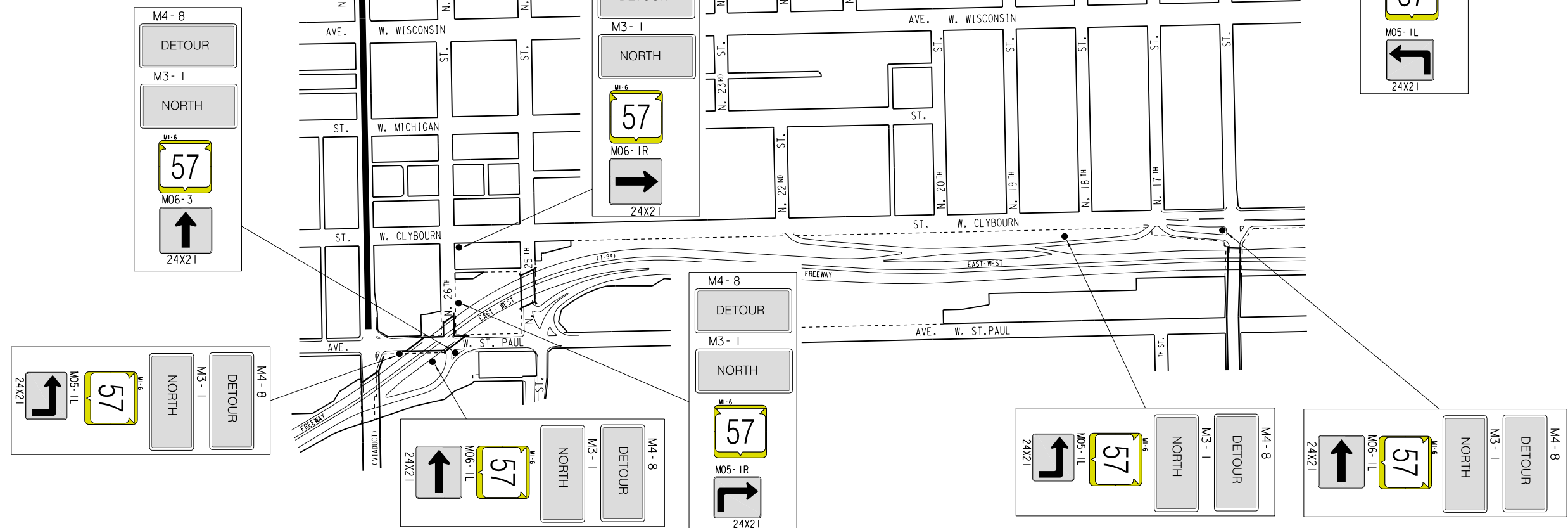
DETOUR

N

LEGEND



NOTE: ALL SIGNING SHALL BE THE
CONTRACTORS RESPONSIBILITY.



REVISED ON 01/18/2013

STATE PROJECT NUMBER 2265-17-70

- -

HWY: S.T.H. 57

COUNTY: MILWAUKEE

DETOUR

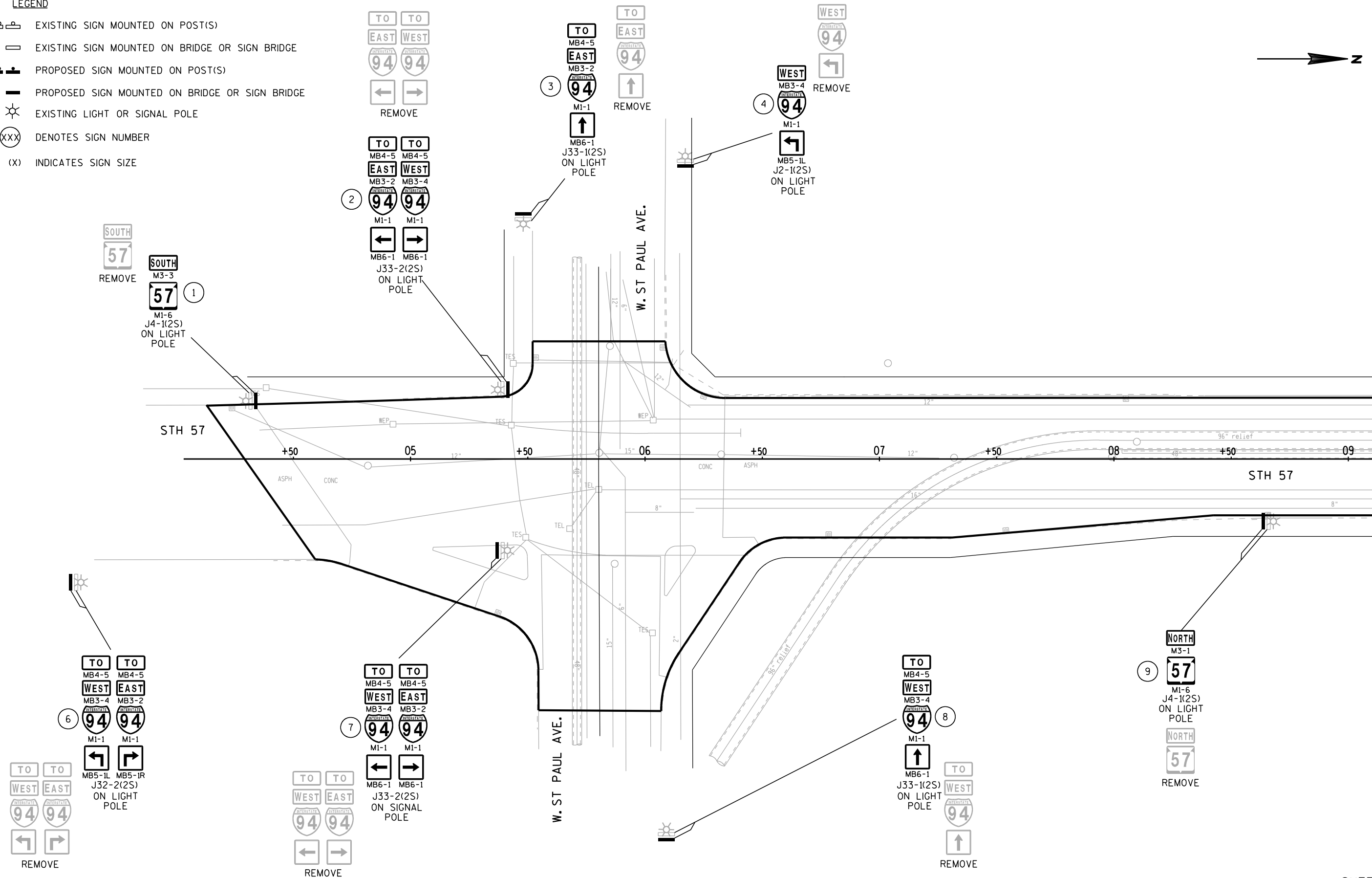
SCALE FEET

SHEET NO: 117

E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
PROPOSED SIGN MOUNTED ON POST(S)
PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
EXISTING LIGHT OR SIGNAL POLE
DENOTES SIGN NUMBER
(X) INDICATES SIGN SIZE



SHEET 1 OF 9

PROJECT NO:2265-09-70

HWY:STH 57

COUNTY:MILWAUKEE

PERMANANT SIGNING PLAN

SHEET

E

FILE NAME : j:\projects\022650957\SIGN\023101_ps.dgn

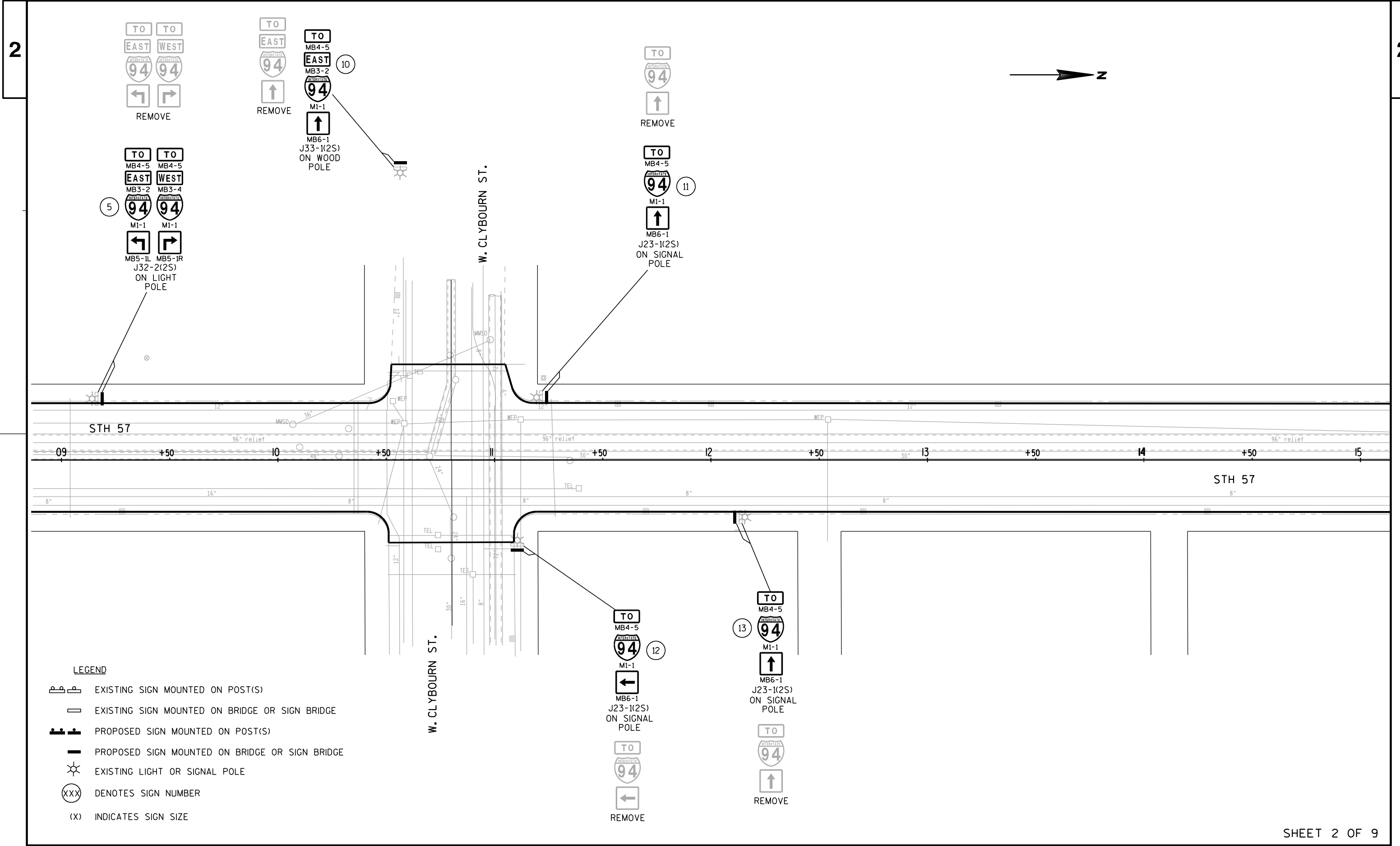
PLOT DATE : 19-SEP-2012 06:05

PLOT BY : MSCMWB

PLOT NAME :

PLOT SCALE : 40:1

118
WISDOT/CAD/CAD SHEET 42

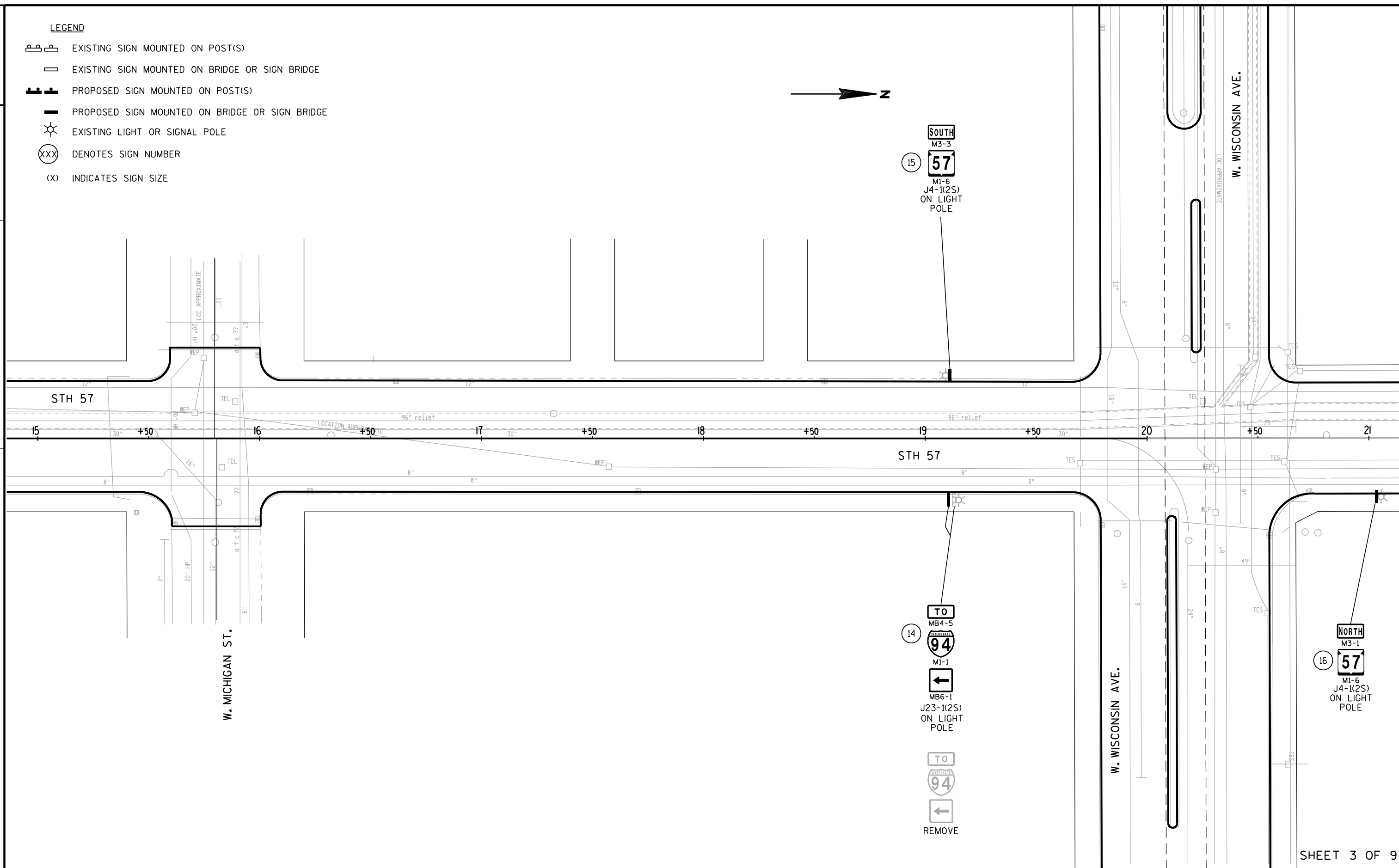


2

2

LEGEND

- | | |
|---|--|
|  | EXISTING SIGN MOUNTED ON POST(S) |
|  | EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE |
|  | PROPOSED SIGN MOUNTED ON POST(S) |
|  | PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE |
|  | EXISTING LIGHT OR SIGNAL POLE |
|  | DENOTES SIGN NUMBER |
| (X) | INDICATES SIGN SIZE |



SHEET 3 OF 9

PROJECT NO: 2265-09-70

HWY:STH 57

COUNTY: MILWAUKEE

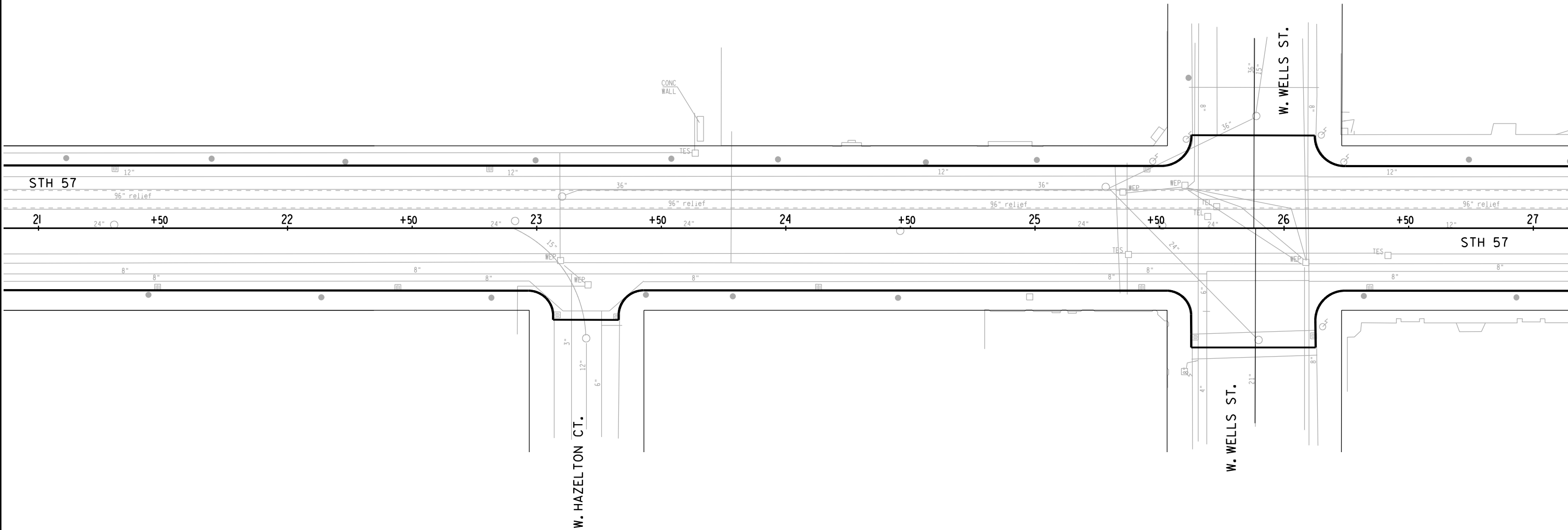
PERMANANT SIGNING PLAN

SHEET

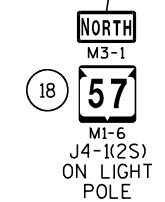
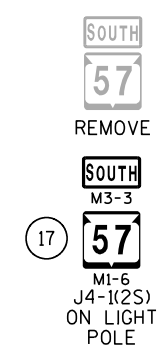
E

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  EXISTING LIGHT OR SIGNAL POLE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE

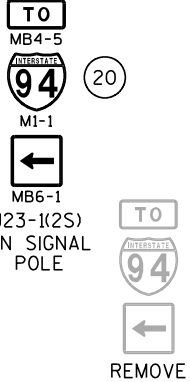
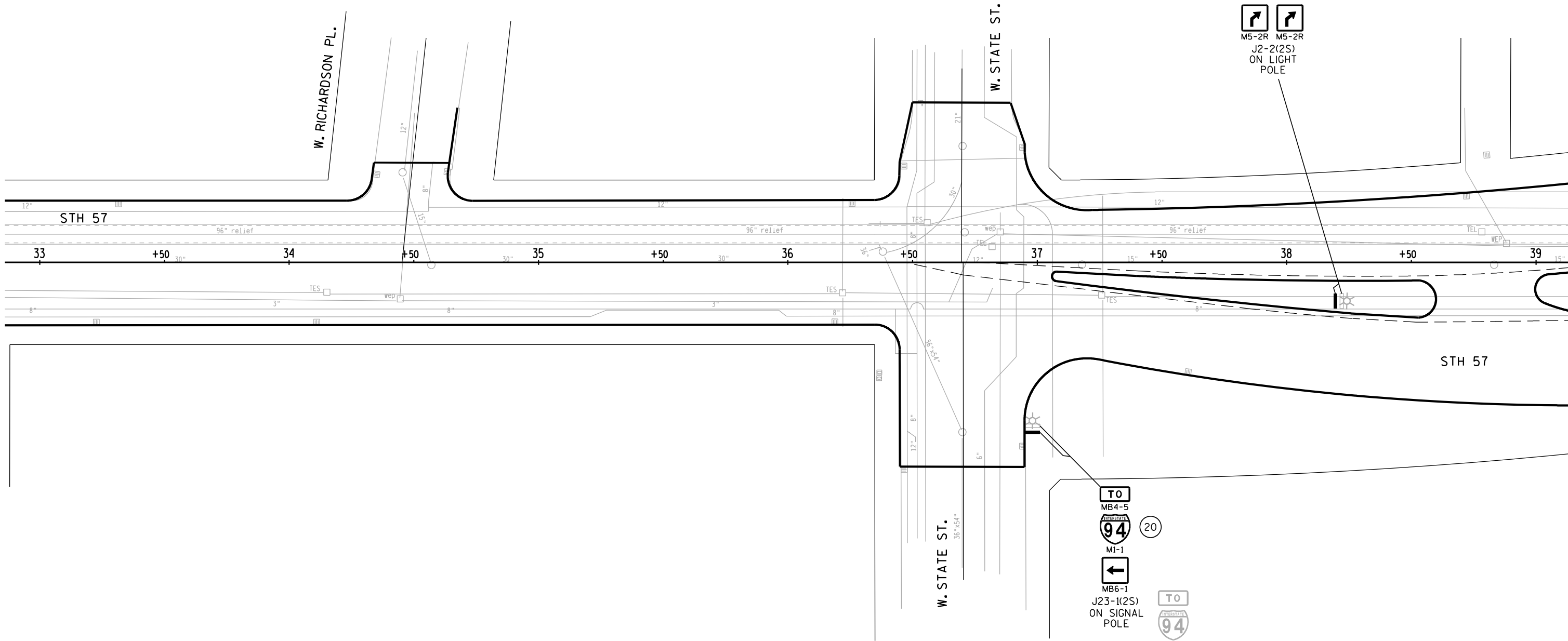
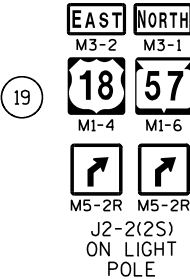


	EXISTING SIGN MOUNTED ON POST(S)
	EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
	PROPOSED SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
	EXISTING LIGHT OR SIGNAL POLE
	DENOTES SIGN NUMBER
	INDICATES SIGN SIZE



LEGEND

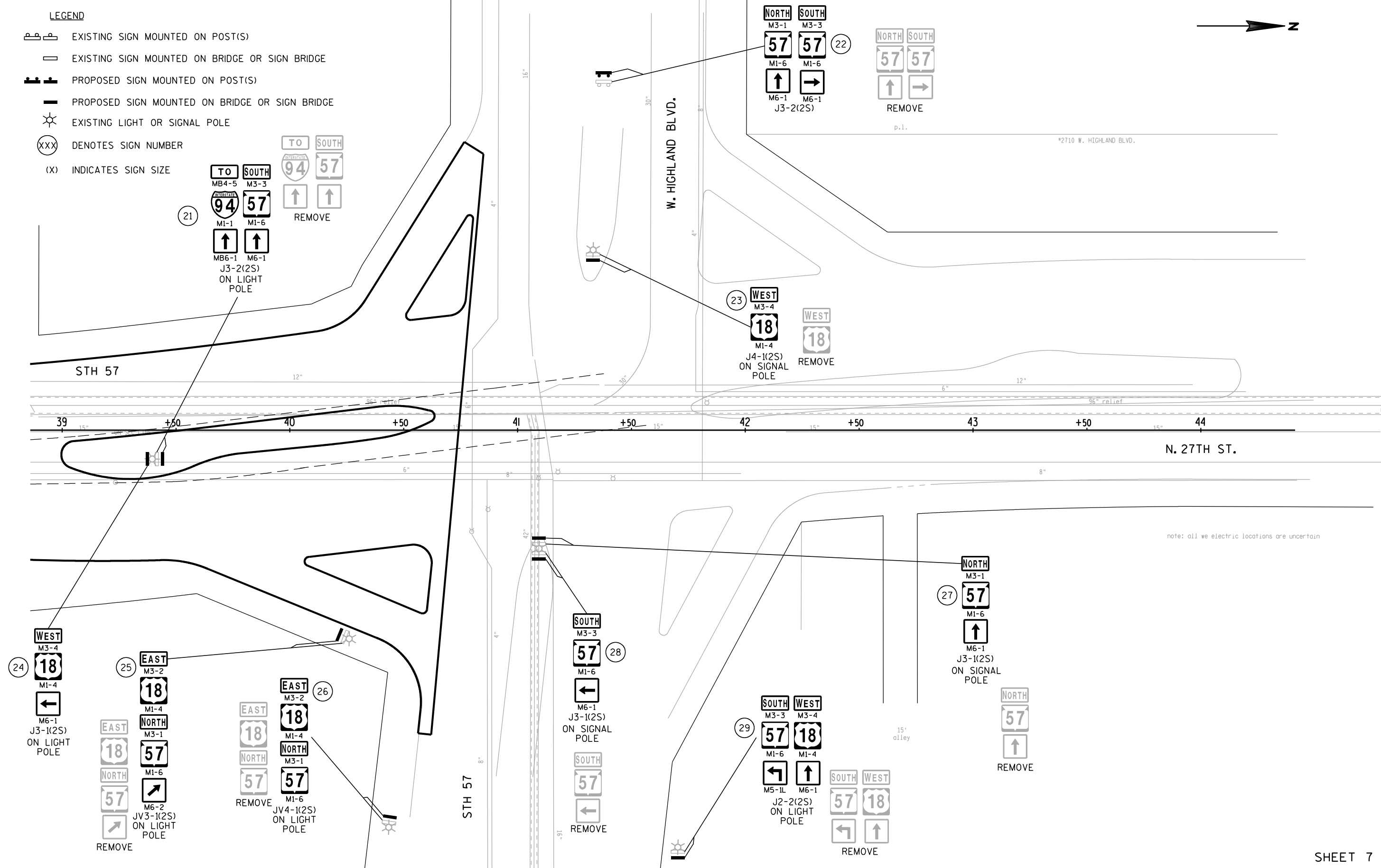
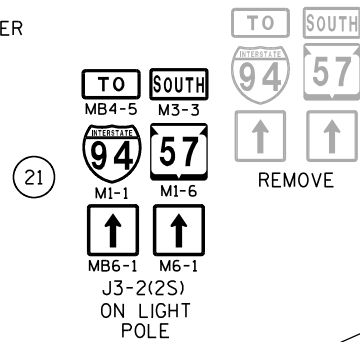
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE



SHEET 6 OF 9

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
PROPOSED SIGN MOUNTED ON POST(S)
PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
EXISTING LIGHT OR SIGNAL POLE
DENOTES SIGN NUMBER
(X) INDICATES SIGN SIZE



SHEET 7 OF 9

PROJECT NO:2265-09-70

HWY:STH 57

COUNTY:MILWAUKEE

PERMANANT SIGNING PLAN

SHEET

E

FILE NAME : j:\projects\02_22650957\SIGN\023107_ps.dgn

PLOT DATE : 19-SEP-2012 06:06

PLOT BY : MSCMWB

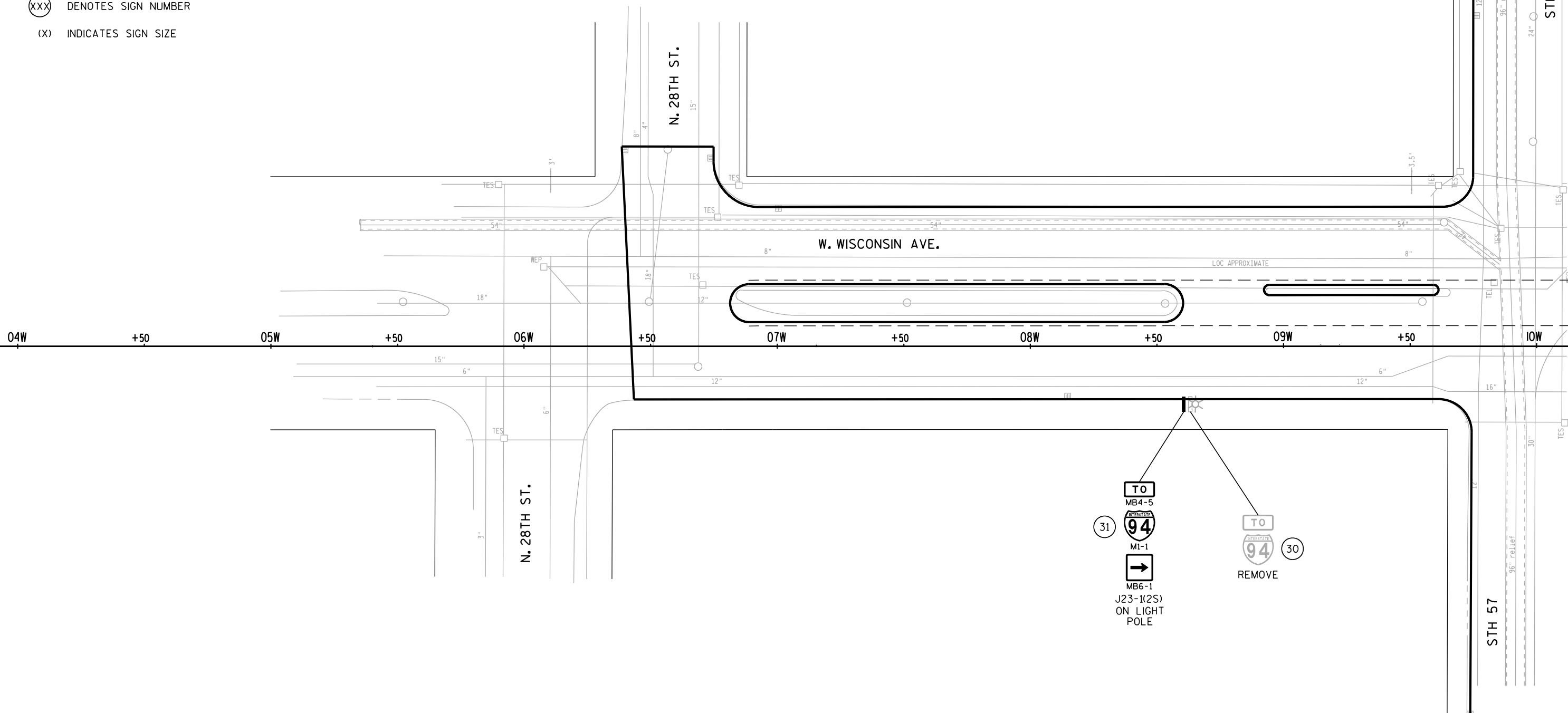
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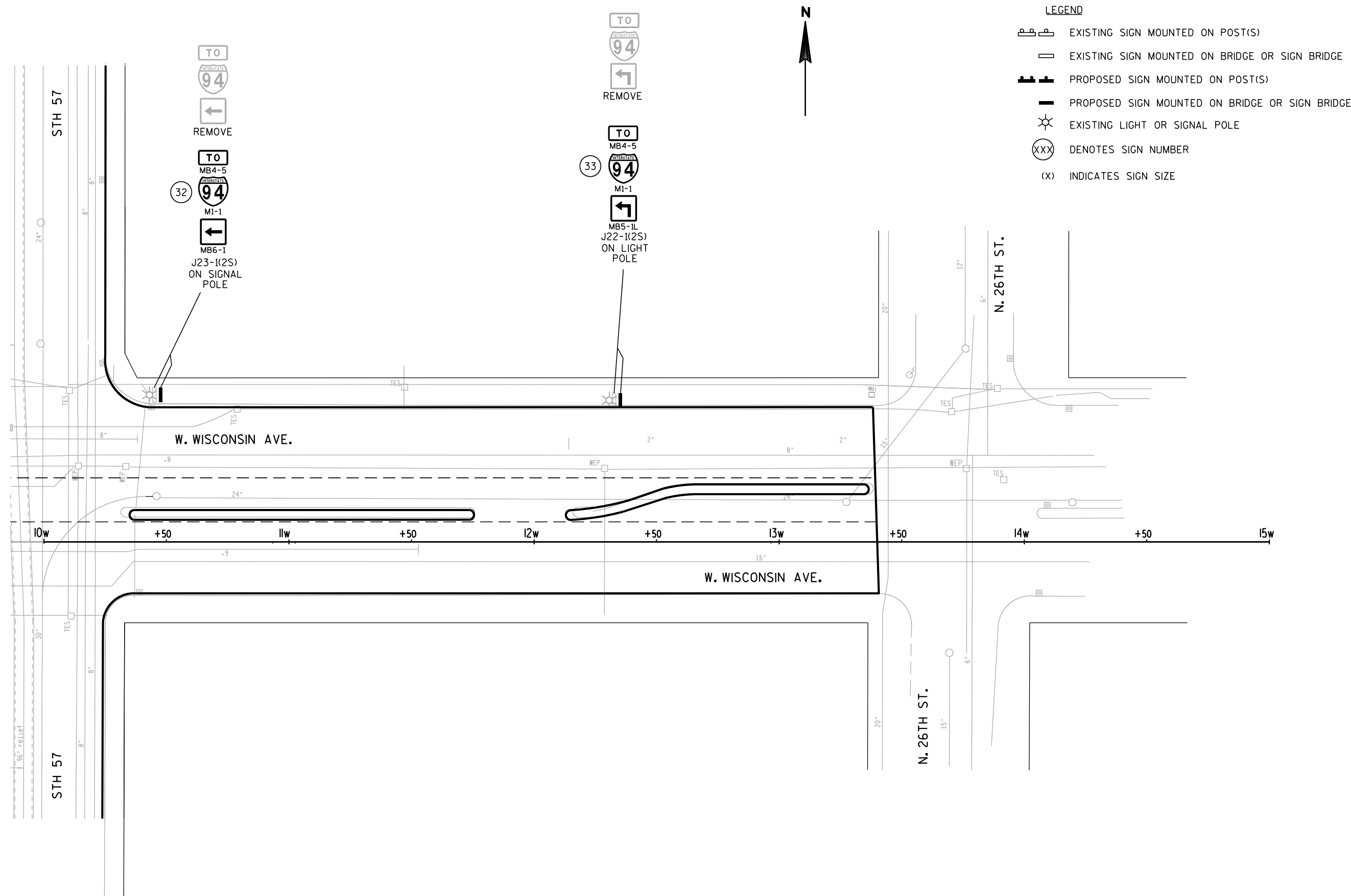
PLOT SCALE : 40:1

124
WISDOT/CAD/CSS SHEET 42

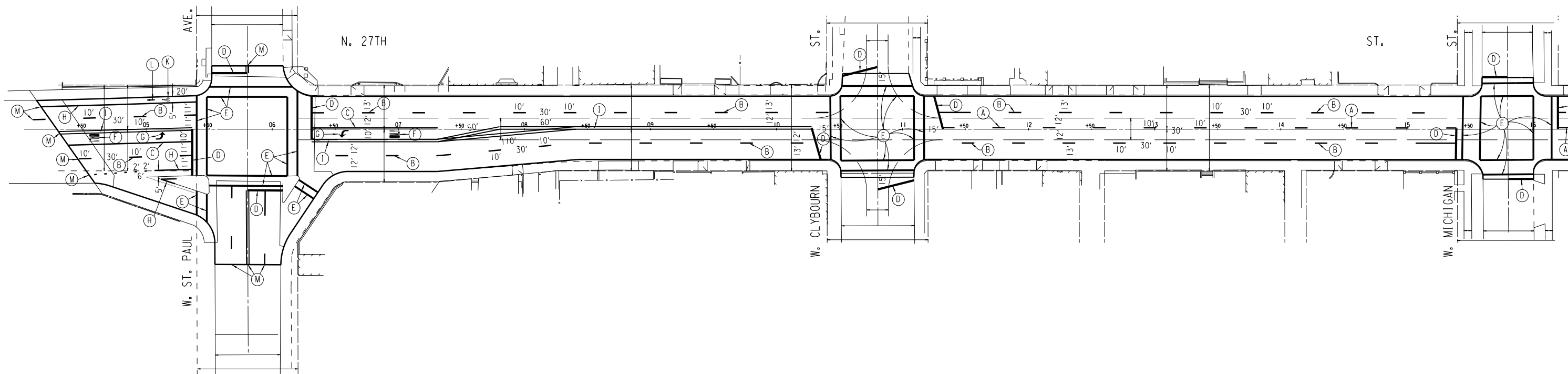
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE





PAVEMENT MARKING

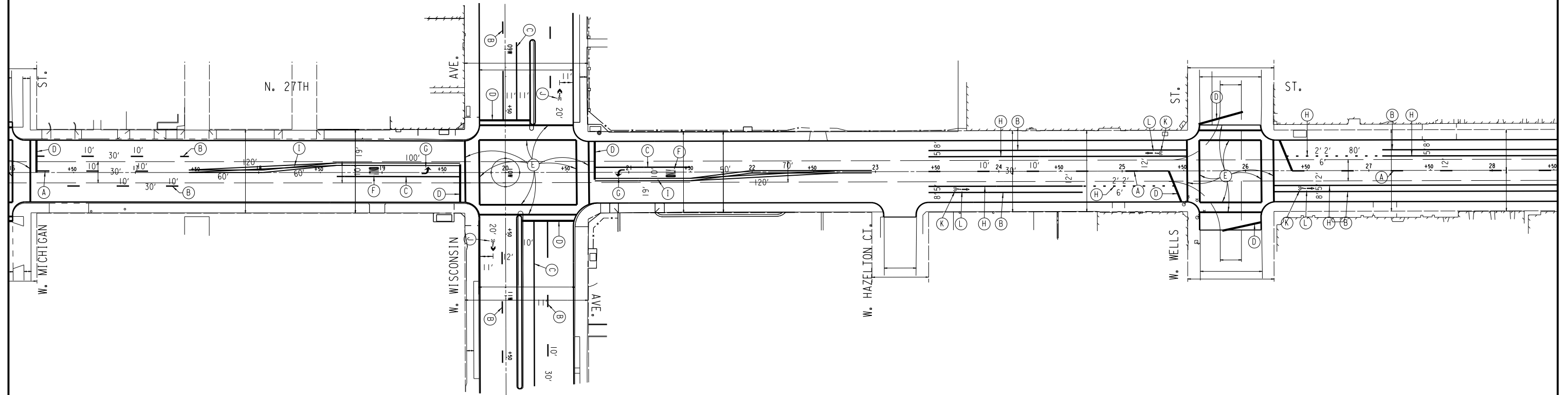


- (A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
- (B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
- (C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
- (D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
- (E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
- (F) PAVEMENT MARKING WORDS EPOXY
- (G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
- (H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
- (I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
- (J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
- (L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- (M) MATCH

SHEET 1 OF 6



PAVEMENT MARKING



- (A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
- (B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
- (C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
- (D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
- (E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
- (F) PAVEMENT MARKING WORDS EPOXY
- (G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
- (H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
- (I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
- (J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
- (L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- (M) MATCH

SHEET 2 OF 6

STATE PROJECT NUMBER: 2265-09-70 2265-17-70

HWY: S.T.H. 57

COUNTY: MILWAUKEE

PAVEMENT MARKING

SCALE FEET

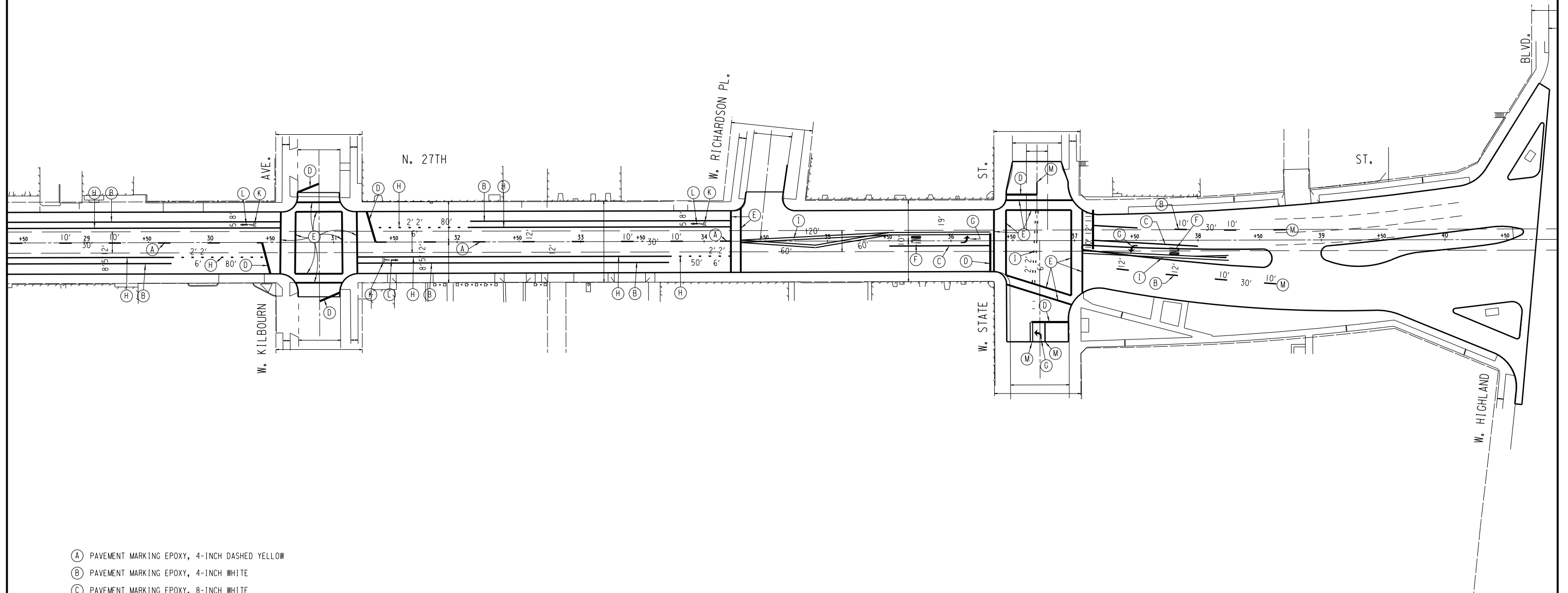


SHEET NO:

128

E

PAVEMENT MARKING



- (A) PAVEMENT MARKING EPOXY, 4-INCH DASHED YELLOW
- (B) PAVEMENT MARKING EPOXY, 4-INCH WHITE
- (C) PAVEMENT MARKING EPOXY, 8-INCH WHITE
- (D) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
- (E) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
- (F) PAVEMENT MARKING WORDS EPOXY
- (G) PAVEMENT MARKING ARROWS EPOXY, TYPE 2 (LEFT TURN)
- (H) PAVEMENT MARKING EPOXY, 6-INCH WHITE
- (I) PAVEMENT MARKING EPOXY, 4-INCH DOUBLE YELLOW
- (J) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (K) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
- (L) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- (M) MATCH

SHEET 3 OF 6

STATE PROJECT NUMBER: 2265-09-70 2265-17-70

HWY: S.T.H. 57

COUNTY: MILWAUKEE

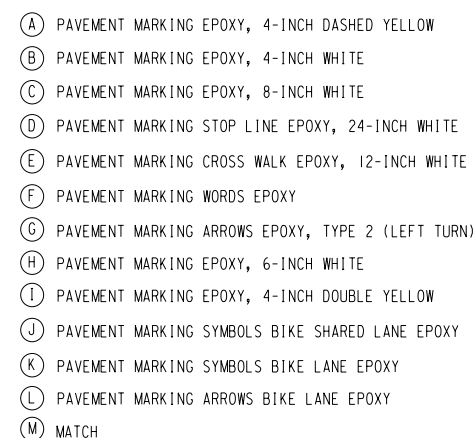
PAVEMENT MARKING

SCALE FEET 0' 80'

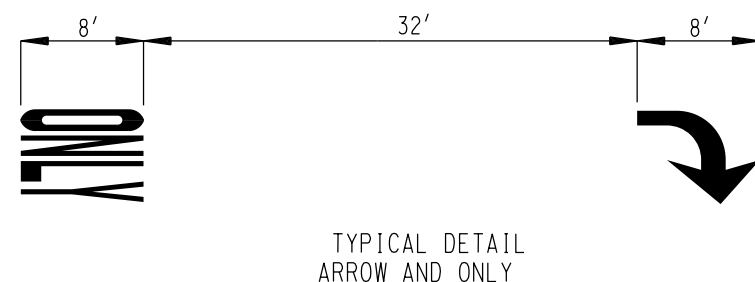
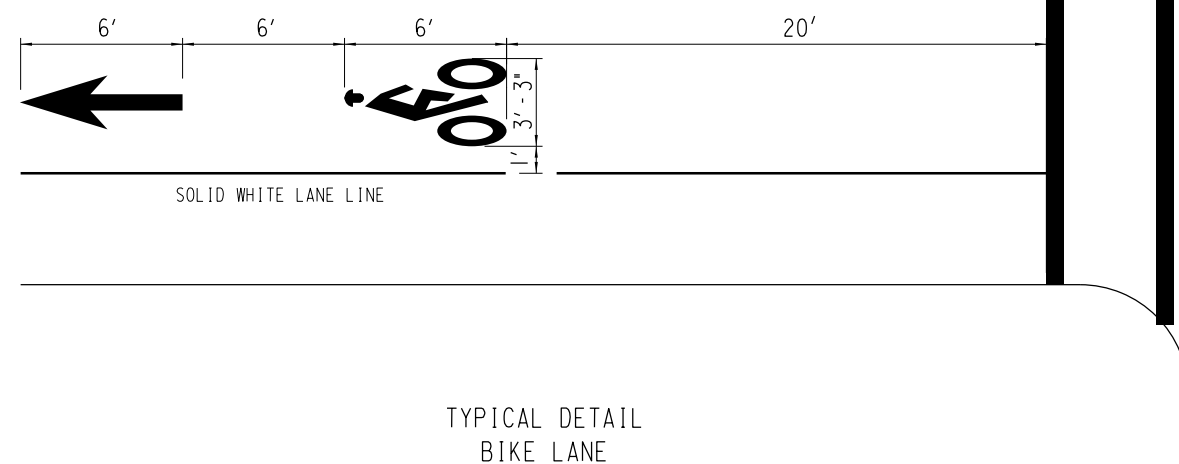
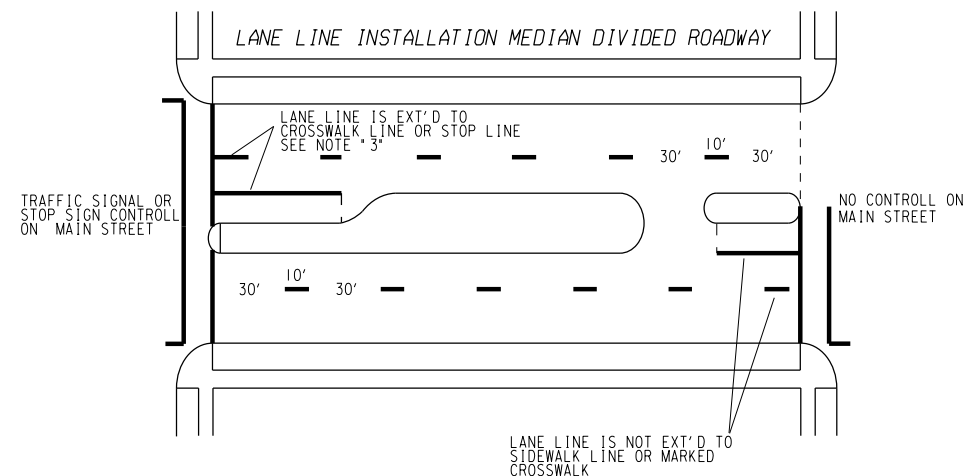
SHEET NO: 129

E

1



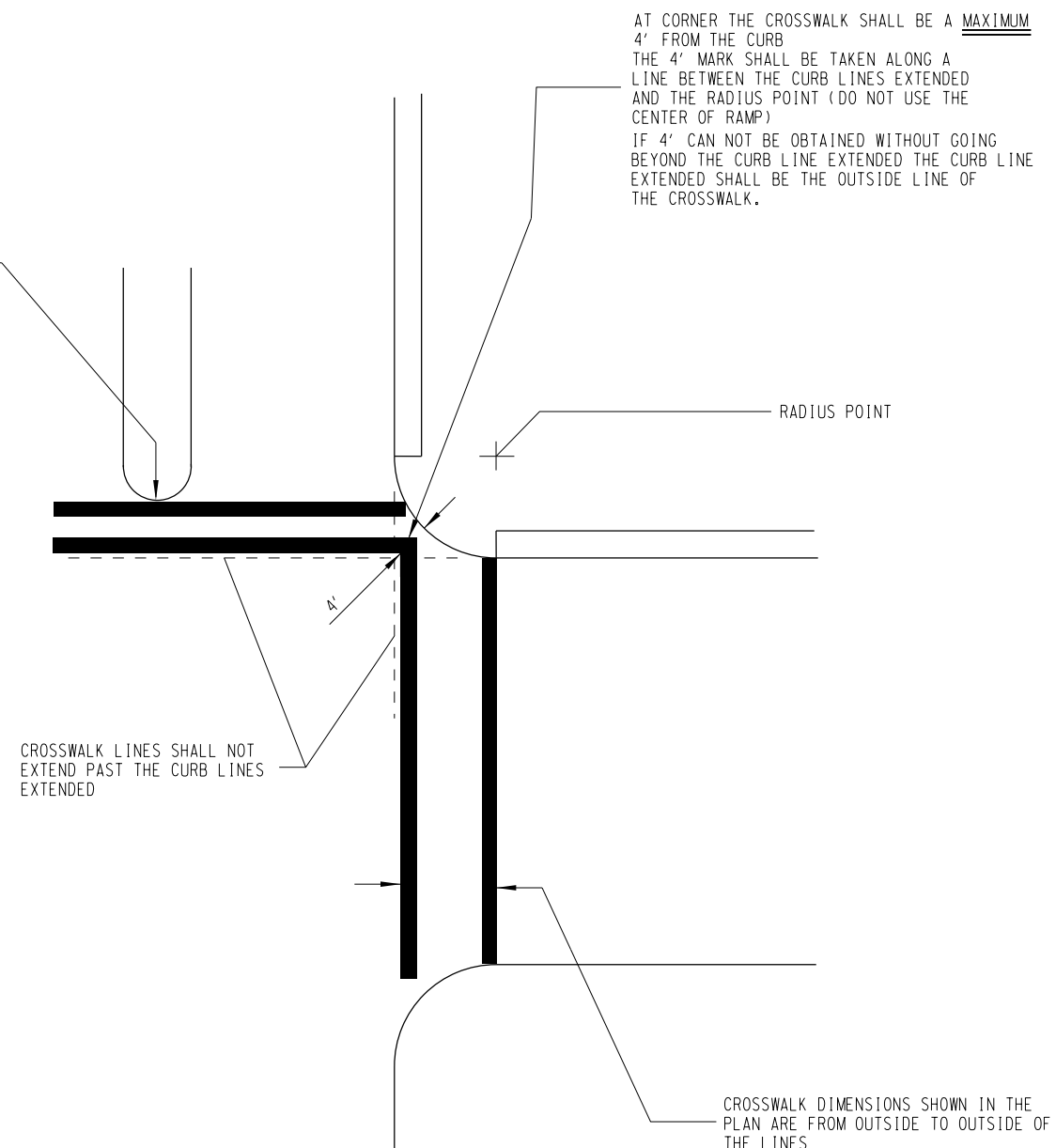
SHEET 4 OF 6

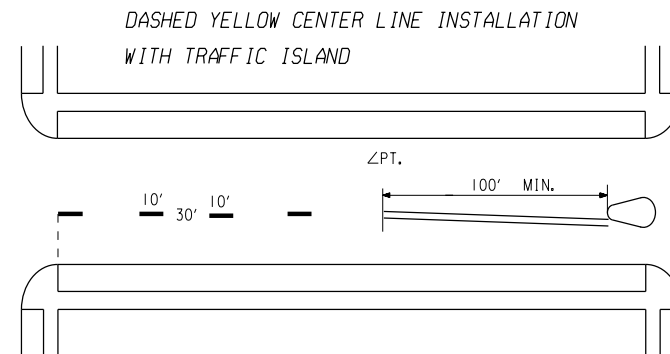
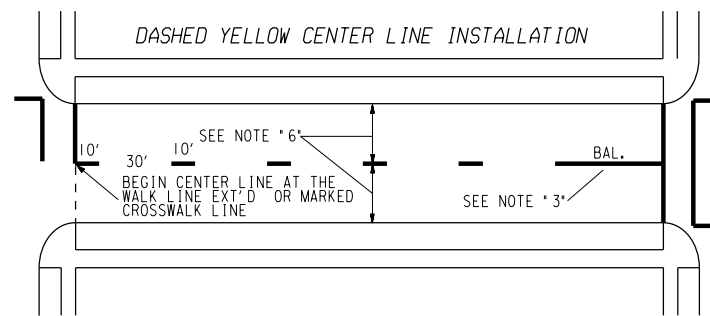


PAVEMENT MARKING NOTES

1. DASHED YELLOW CENTER LINES AND WHITE LANE LINES ARE 10 FEET LONG WITH A 30 FOOT GAP.
2. ALL DASHED CENTER LINES AND LANE LINES ARE 4 INCHES WIDE. ALL DOUBLE YELLOW CENTER LINES HAVE A 4 INCH SPACE BETWEEN TWO 4 INCH LINES.
3. AT CONTROLLED INTERSECTION IF LANE LINE IS LESS THAN 10 FEET, THE PRECEEDING LINE IS EXTENDED TO THE STOP LINE OR CROSSWALK LINE. THIS BALANCE LINE SHOULD NOT EXCEED 49 FEET. THIS POLICY APPLIES TO LANE LINES ONLY AT TRAFFIC SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTIONS AND CENTER LINES AT ALL LOCATIONS.
4. ALL DIMENSIONS ARE FROM THE FACE OF THE CURB TO THE CENTER OF THE MARKING UNLESS OTHERWISE NOTED.
5. TEMPORARY PAVEMENT MARKINGS MUST BE PLACED ON THE PAVEMENT IF PERMANENT MARKINGS ARE NOT INSTALLED AFTER THE COMPLETION OF PAVING.

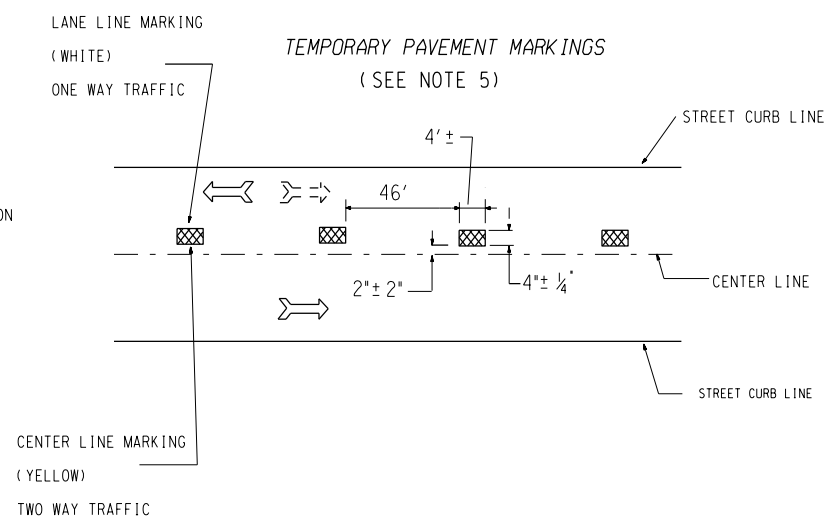
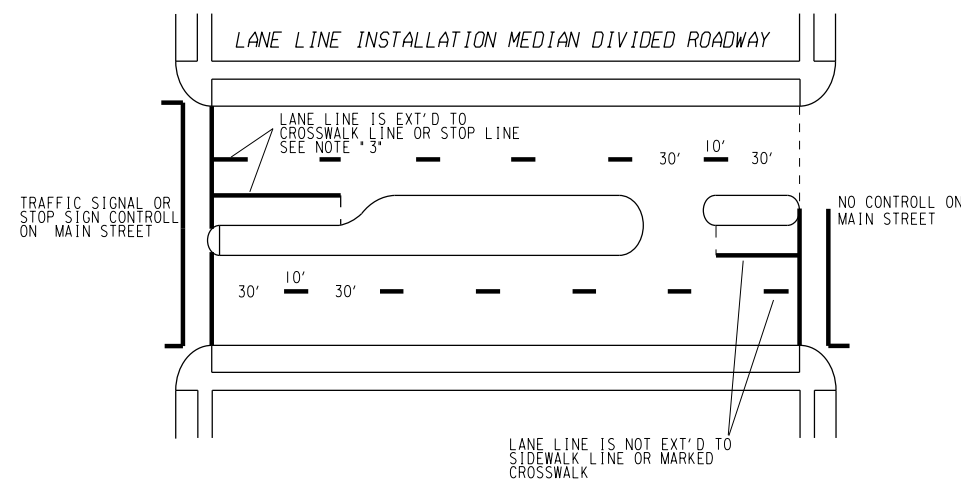
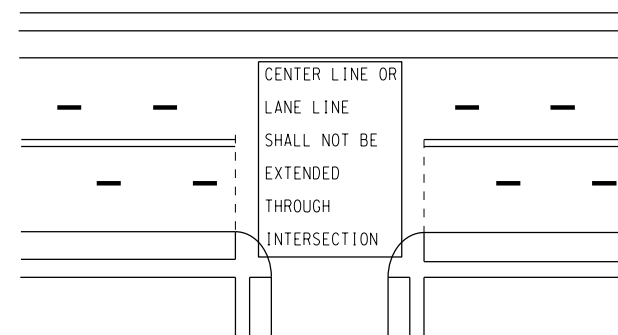
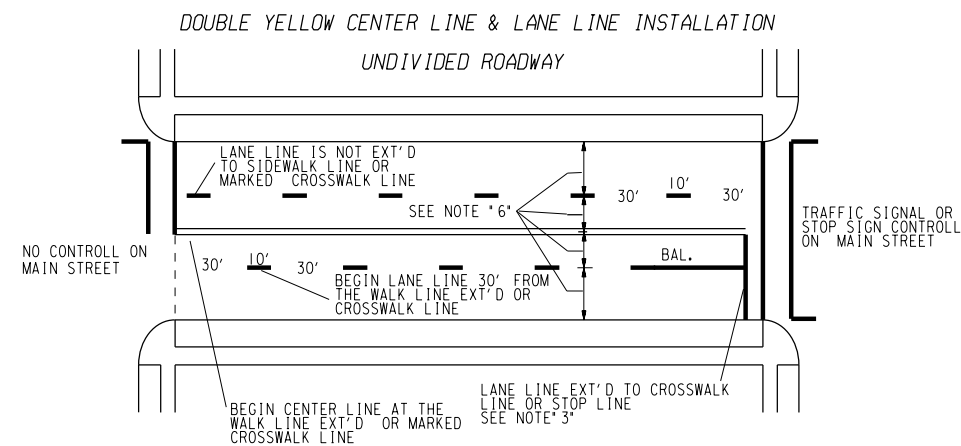
MEDIAN NOSE MUST REMAIN OUTSIDE THE DESIGNATED CROSSWALK AREA.





PAVEMENT MARKING NOTES

1. DASHED YELLOW CENTER LINES AND WHITE LANE LINES ARE 10 FEET LONG WITH A 30 FOOT GAP.
2. ALL DASHED CENTER LINES AND LANE LINES ARE 4 INCHES WIDE. ALL DOUBLE YELLOW CENTER LINES HAVE A 4 INCH SPACE BETWEEN TWO 4 INCH LINES.
3. AT CONTROLLED INTERSECTION IF LANE LINE IS LESS THAN 10 FEET, THE PRECEDING LINE IS EXTENDED TO THE STOP LINE OR CROSSWALK LINE. THIS BALANCE LINE SHOULD NOT EXCEED 49 FEET. THIS POLICY APPLIES TO LANE LINES ONLY AT TRAFFIC SIGNALIZED OR STOP SIGN CONTROLLED INTERSECTIONS AND CENTER LINES AT ALL LOCATIONS.
4. ALL DIMENSIONS ARE FROM THE FACE OF THE CURB TO THE CENTER OF THE MARKING UNLESS OTHERWISE NOTED.
5. TEMPORARY PAVEMENT MARKINGS MUST BE PLACED ON THE PAVEMENT IF PERMANENT MARKINGS ARE NOT INSTALLED AFTER THE COMPLETION OF PAVING.



3

DATE 21MAR13		E S T I M A T E O F Q U A N T I T I E S			2265-17-70 QUANTITY
LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	
0010	201.0120	CLEARING	ID	7.000	7.000
0020	201.0220	GRUBBING	ID	7.000	7.000
0030	204.0100	REMOVING PAVEMENT	SY	27,800.000	27,800.000
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	780.000	780.000
0050	204.0150	REMOVING CURB & GUTTER	LF	270.000	270.000
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	6,350.000	6,350.000
0070	204.0200	REMOVING RAILROAD TRACK	LF	13,900.000	13,900.000
0080	204.0210	REMOVING MANHOLES	EACH	1.000	1.000
0090	204.0215	REMOVING CATCH BASINS	EACH	18.000	18.000
0100	204.0250	ABANDONING MANHOLES	EACH	1.000	1.000
0110	204.0255	ABANDONING CATCH BASINS	EACH	20.000	20.000
0120	205.0100	EXCAVATION COMMON	CY	10,200.000	10,200.000
0130	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	160.000	160.000
0140	213.0100	FINISHING ROADWAY (PROJECT) 01. 2265-09-70	EACH	1.000	1.000
0150	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	9,550.000	9,550.000
0160	320.0125	CONCRETE BASE 6-INCH	SY	290.000	290.000
0170	415.0070	CONCRETE PAVEMENT 7-INCH	SY	25.000	25.000
0180	415.0090	CONCRETE PAVEMENT 9-INCH	SY	24,930.000	24,930.000
0190	415.0210	CONCRETE PAVEMENT GAPS	EACH	17.000	17.000
0200	415.1090	CONCRETE PAVEMENT HES 9-INCH	SY	74.000	74.000
0210	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	310.000	310.000
0220	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	810.000	810.000
0230	416.0290	CONCRETE DRIVEWAY HES 9-INCH	SY	110.000	110.000
0240	416.0610	DRILLED TIE BARS	EACH	300.000	300.000
0250	440.4410.S	INCENTIVE IRI RIDE	DOL	4,000.000	4,000.000
0260	455.0605	TACK COAT	GAL	30.000	30.000
0270	465.0105	ASPHALTIC SURFACE	TON	190.000	190.000
0280	601.0150	CONCRETE CURB INTEGRAL TYPE D	LF	560.000	560.000
0290	601.0322	CONCRETE CURB & GUTTER 22-INCH	LF	40.000	40.000
0300	601.0331	CONCRETE CURB & GUTTER 31-INCH	LF	8,070.000	8,070.000
0310	602.0410	CONCRETE SIDEWALK 5-INCH	SF	45,340.000	45,340.000
0320	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	304.000	304.000
0330	602.1000	CONCRETE LOADING ZONE	SF	700.000	700.000
0340	611.2004	MANHOLES 4-FT DIAMETER	EACH	1.000	1.000
0350	611.2005	MANHOLES 5-FT DIAMETER	EACH	2.000	2.000
0360	619.1000	MOBILIZATION	EACH	1.000	1.000
0370	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	1.000	1.000
0380	623.0200	DUST CONTROL SURFACE TREATMENT	SY	25,200.000	25,200.000
0390	625.0100	TOPSOIL	SY	1,080.000	1,080.000
0400	631.1000	SOD LAWN	SY	1,080.000	1,080.000
0410	632.0101	TREES (SPECIES, ROOT, SIZE) 01. FRONTIER ELM, B&B, 3" CAL	EACH	3.000	3.000
0420	632.0101	TREES (SPECIES, ROOT, SIZE) 02. UPRIGHT ENGLISH OAK B&B, 4" CAL	EACH	2.000	2.000
0430	632.0101	TREES (SPECIES, ROOT, SIZE) 03. CALLERY PEAR, B&B, 4" CAL	EACH	2.000	2.000
0440	632.0101	TREES (SPECIES, ROOT, SIZE) 04. JAPANESE TREE LILAC, B&B, 4" CAL	EACH	3.000	3.000
0450	632.0101	TREES (SPECIES, ROOT, SIZE) 05. BUR OAK, B&B, 4" CAL	EACH	4.000	4.000
0460	632.0101	TREES (SPECIES, ROOT, SIZE) 06. AUTUMN BLAZE MAPLE, B&B, 4" CAL	EACH	3.000	3.000

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DATE 21MAR13		E S T I M A T E O F Q U A N T I T I E S				2265-17-70 QUANTITY
LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70 QUANTITY	
0470	632.0101	TREES (SPECIES, ROOT, SIZE) 07. SHADEMASTER HONEYLOCUST, B&B, 4" CAL	EACH	5.000	5.000	
0480	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	52.000	52.000	
0490	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	2.000	2.000	
0500	637.0202	SIGNS REFLECTIVE TYPE II	SF	387.000	387.000	
0510	638.2602	REMOVING SIGNS TYPE II	EACH	28.000	28.000	
0520	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	2.000	2.000	
0530	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000	
0540	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2265-09-70	EACH	1.000	1.000	
0550	643.0300	TRAFFIC CONTROL DRUMS	DAY	51,957.000	51,957.000	
0560	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	47,336.000	47,336.000	
0570	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	94,672.000	94,672.000	
0580	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	51,957.000	51,957.000	
0590	643.0900	TRAFFIC CONTROL SIGNS	DAY	21,713.000	21,713.000	
0600	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	6,208.000	6,208.000	
0610	646.0116	PAVEMENT MARKING EPOXY 6-INCH	LF	1,696.000	1,696.000	
0620	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	932.000	932.000	
0630	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	6.000	6.000	
0640	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	6.000	6.000	
0650	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	6.000	6.000	
0660	647.0336	PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY	EACH	4.000	4.000	
0670	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	5.000	5.000	
0680	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	909.000	909.000	
0690	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	3,509.000	3,509.000	
0700	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	3,217.000	3,217.000	
0710	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	51,092.000	51,092.000	
0720	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	190.000	190.000	
0730	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	499.000	499.000	
0740	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	22.000	22.000	
0750	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE	EACH	21.000	21.000	
0760	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	5,070.000	5,070.000	
0770	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	5,070.000	5,070.000	
0780	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2265-09-70	LS	1.000	1.000	
0790	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	520.000	520.000	
0800	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	515.000	515.000	
0810	652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF	390.000	390.000	
0820	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	12,720.000	12,720.000	
0830	652.0610	CONDUIT SPECIAL 2 1/2-INCH	LF	60.000	60.000	
0840	652.0615	CONDUIT SPECIAL 3-INCH	LF	120.000	120.000	
0850	652.0690	CONDUIT SPECIAL (INCH) 01. 1 1/2 INCH	LF	25.000	25.000	
0860	654.0110	CONCRETE BASES TYPE 10	EACH	6.000	6.000	
0870	690.0150	SAWING ASPHALT	LF	2,080.000	2,080.000	
0880	690.0250	SAWING CONCRETE	LF	1,670.000	1,670.000	
0890	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	5,575.000	5,575.000	

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DATE 21MAR13		E S T I M A T E O F Q U A N T I T I E S				2265-17-70	
LINE	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2265-09-70	2265-17-70	
NUMBER				QUANTITY	QUANTITY	QUANTITY	
0900	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	700.000	700.000		
0910	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	750.000	750.000		
0920	SPV.0060	SPECIAL 01. INLET COVERS TYPE 57	EACH	70.000	70.000		
0930	SPV.0060	SPECIAL 02. MANHOLE COVERS TYPE 58A	EACH	67.000	67.000		
0940	SPV.0060	SPECIAL 03. INLET TYPE 44A	EACH	32.000	32.000		
0950	SPV.0060	SPECIAL 04. INLET TYPE 44B	EACH	16.000	16.000		
0960	SPV.0060	SPECIAL 05. ADJUSTING TES MANHOLE COVERS	EACH	33.000	33.000		
0970	SPV.0060	SPECIAL 06. INLET SCREEN TYPE M	EACH	120.000	120.000		
0980	SPV.0060	SPECIAL 07. INLET SCREEN TYPE R	EACH	48.000	48.000		
0990	SPV.0060	SPECIAL 08. ADJUSTING WATER BOXES	EACH	149.000	149.000		
1000	SPV.0060	SPECIAL 09. WATER MAIN PROTECTION	EACH	15.000	15.000		
1010	SPV.0060	SPECIAL 10. TRAFFIC VAULT POLYMER CONCRETE 13"X24" X 18"	EACH	139.000	139.000		
1020	SPV.0060	SPECIAL 11. TRAFFIC VAULT POLYMER CONCRETE 17"X30" X 18"	EACH	20.000	20.000		
1030	SPV.0060	SPECIAL 12. INSTALL TRAFFIC SIGNAL BASE	EACH	17.000	17.000		
1040	SPV.0060	SPECIAL 13. MONOTUBE POLES TYPE 10	EACH	6.000	6.000		
1050	SPV.0060	SPECIAL 14. MONOTUBE ARMS 25-FEET	EACH	2.000	2.000		
1060	SPV.0060	SPECIAL 15. MONOTUBE ARMS 30-FEET	EACH	4.000	4.000		
1070	SPV.0060	SPECIAL 16. SAWING CONCRETE ENCASED DUCT	EACH	1.000	1.000		
1080	SPV.0060	SPECIAL 17. INSTALLING CONDUIT INTO EXISTING MANHOLE	EACH	8.000	8.000		
1090	SPV.0060	SPECIAL 18. 4' DIAMETER TES MANHOLE	EACH	8.000	8.000		
1100	SPV.0060	SPECIAL 19. 4' DIAMETER "DOGHOUSE" TES MANHOLE	EACH	2.000	2.000		
1110	SPV.0060	SPECIAL 20. 5' DIAMETER TES MANHOLE	EACH	1.000	1.000		
1120	SPV.0090	SPECIAL 01. STORM SEWER PIPE CORRUGATED 8" PVC	LF	131.000	131.000		
1130	SPV.0090	SPECIAL 02. STORM SEWER PIPE CORRUGATED 12' " PVC	LF	1,416.000	1,416.000		
1140	SPV.0090	SPECIAL 03. CONSTRUCTION STAKING CONCRETE SIDEWALK	LF	6,720.000	6,720.000		
1150	SPV.0090	SPECIAL 04. CONCRETE CURB & GUTTER INTEGRAL 19 INCH HIGH SIDE	LF	500.000	500.000		
1160	SPV.0090	SPECIAL 05. 2-DUCT CONDUIT CEMENT ENCASED DB-60	LF	412.000	412.000		
1170	SPV.0090	SPECIAL 06. 3-DUCT CONDUIT CEMENT ENCASED DB-60	LF	64.000	64.000		
1180	SPV.0090	SPECIAL 07. 4-DUCT CONDUIT CEMENT ENCASED DB-60	LF	287.000	287.000		
1190	SPV.0090	SPECIAL 08. 6-DUCT CONDUIT CEMENT ENCASED DB-60	LF	3,841.000	3,841.000		
1200	SPV.0090	SPECIAL 09. 8-DUCT CONDUIT CEMENT ENCASED DB-60	LF	106.000	106.000		
1210	SPV.0090	SPECIAL 10. 10-DUCT CONDUIT CEMENT ENCASED DB-60	LF	37.000	37.000		
1220	SPV.0090	SPECIAL 11. EXTRA HES (9-BAG MIX) CONCRETE CURB & GUTTER	LF	60.000	60.000		
1230	SPV.0165	SPECIAL 01. COLORED CONCRETE SIDEWALK 5 INCH	SF	780.000	780.000		
1240	SPV.0180	SPECIAL 01. JOINT SEALING	SY	25,100.000	25,100.000		
1250	SPV.0180	SPECIAL 02. COLORED CONCRETE PAVEMENT 9 INCH	SY	284.000		284.000	
1260	SPV.0180	SPECIAL 03. ARCHTECTURAL CONCRETE SIDEWALK	SY	3,686.000	3,686.000		

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DATE 21MAR13			E S T I M A T E O F Q U A N T I T I E S			
LINE					2265-09-70	2265-17-70
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	QUANTITY
1270	SPV.0180	SPECIAL 04. EXTRA HES (9-BAG MIX) 9"	SY	167.000	167.000	
		CONCRETE PAVEMENT GAP				
1280	SPV.0180	SPECIAL 05. EXTRA HES (9-BAG MIX) 9"	SY	40.000	40.000	
		CONCRETE DRIVEWAY				

2265-09-70		<u>REMOVALS</u>								
CATEGORY 0010		CLEARING	GRUBBING	REMOVING	REMOVING	REMOVING	REMOVING	REMOVING	SAWING	SAWING
ITEM NO.		201.0120	201.0220	204.0100	ASPHALTIC	CURB & GUTTER	CONCRETE	R.R. TRACKS	ASPHALT	CONCRETE
UNIT PAY		ID	ID	SY	SURFACE	204.0150	204.0155	204.0200	690.0150	690.0250
LOCATION					BUTT JOINTS	LF	SY	LF	LF	LF
STA 4+50 TO 9+00	LT	0	0	1520	204.0115	60	370	580	140	0
STA 9+00 TO 15+00	LT	0	0	1840	204.0115	80	550	1520	160	50
STA 15+00 TO 21+00	LT	7	7	4030	204.0115	30	940	1200	580	40
STA 21+00 TO 27+00	LT	0	0	1760	204.0115	0	450	1360	170	320
STA 27+00 TO 33+00	LT	0	0	1760	204.0115	0	450	1200	220	330
STA 33+00 TO 38+65	LT	0	0	1860	204.0115	10	340	1120	80	230
SUBTOTALS (LEFT)		7	7	12770	560	180	3100	6980	1350	970
STA 4+50 TO 9+00	RT	0	0	2750	0	0	400	580	120	0
STA 9+00 TO 15+00	RT	0	0	1850	0	0	500	1430	130	100
STA 15+00 TO 21+00	RT	0	0	4730	120	60	1090	1200	140	40
STA 21+00 TO 27+00	RT	0	0	1920	20	0	420	1390	150	250
STA 27+00 TO 33+00	RT	0	0	1760	60	30	450	1200	130	120
STA 33+00 TO 38+65	RT	0	0	2020	20	0	390	1120	60	190
SUBTOTALS (RIGHT)		0	0	15030	220	90	3250	6920	730	700
GRAND TOTALS		7	7	27800	780	270	6350	13900	2080	1670

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2265-09-70																				
CONCRETE CONSTRUCTION ITEMS																				
ITEM NO.	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CONCRETE	CURB RAMP	CONCRETE	CONCRETE	CONCRETE	ARCHITECTURAL	BASE	BASE	CONCRETE
UNIT PAY	BASE 6-INCH	PAVEMENT	PAVEMENT	PAVEMENT	DRIVEWAY	DRIVEWAY	DRIVEWAY	DRIVEWAY	CURB	CURB &	CURB &	SIDEWALK	DETECTABLE	LOADING	GUTTER	GUTTER	CONCRETE	AGGREGATE	AGGREGATE	PAVEMENT
	320.0125	415.0070	415.0090	415.1090	416.0170	416.0270	416.0290	601.0150	601.0322	601.0331	602.0410	602.0505	602.1000	SPV.0090.04	SPV.0165.01	SPV.0180.03	305.0120	305.0120	415.0090	
CATEGORY	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0030	0030	0030	0020	0010	0020
LOCATION																				
STA 4+50 TO 9+00	LT	30	0	1200	0	0	40	0	0	510	3190	16	0	0	0	319	60	491	148	
STA 9+00 TO 15+00	LT	40	0	1480	0	0	220	0	0	640	3040	16	0	0	0	304	68	556	183	
STA 15+00 TO 21+00	LT	40	0	3060	74	100	90	0	170	1100	6140	32	0	290	370	230	146	1195	376	
STA 21+00 TO 27+00	LT	20	0	1430	0	0	20	0	20	570	3900	16	0	0	0	390	65	532	176	
STA 27+00 TO 33+00	LT	30	0	1400	0	40	60	0	0	580	3310	16	0	0	0	331	64	524	173	
STA 33+00 TO 38+65	LT	0	0	1500	0	0	0	0	0	580	3300	32	0	0	0	330	74	606	185	
SUBTOTALS (LEFT)		160	0	10070	74	140	430	0	190	0	3980	22880	128	0	290	370	1904	477	3903	1241
STA 4+50 TO 9+00	RT	30	0	2285	0	0	30	110	0	0	550	2440	24	410	0	0	244	104	851	281
STA 9+00 TO 15+00	RT	40	25	1455	0	120	80	0	0	0	550	2920	16	0	0	0	292	66	540	179
STA 15+00 TO 21+00	RT	10	0	3647	0	0	70	0	370	0	1270	7660	64	0	210	410	302	171	1399	447
STA 21+00 TO 27+00	RT	40	0	1535	0	0	80	0	0	40	560	3370	32	0	0	0	337	72	589	189
STA 27+00 TO 33+00	RT	10	0	1405	0	20	120	0	0	0	590	3050	16	0	0	0	305	65	532	173
STA 33+00 TO 38+65	RT	0	0	1803	0	30	0	0	0	0	570	3020	24	290	0	0	302	85	696	220
SUBTOTALS (RIGHT)		130	25	12130	0	170	380	110	370	40	4090	22460	176	700	210	410	1782	563	4607	1489
GRAND TOTALS		290	25	22,200	74	310	810	110	560	40	8,070	45,340	304	700	500	780	3,686	1,040	8,510	2,730

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2265-09-70 (CONTINUED)

ITEM NO.	EXTRA HES	EXTRA HES	EXTRA HES
UNIT PAY	(9-BAG MIX)	(9-BAG MIX)	(9-BAG MIX)
	CONC. CURB	CONCRETE	CONCRETE
	AND GUTTER	PAVEMENT	DRIVEWAY
	SPV.0090.11	SPV.0180.04	SPV.0180.05
CATEGORY	LF	SY	SY
LOCATION	0010	0010	0010
STA 4+50 TO 9+00	LT	0	0
STA 9+00 TO 15+00	LT	0	0
STA 15+00 TO 21+00	LT	0	0
STA 21+00 TO 27+00	LT	0	0
STA 27+00 TO 33+00	LT	0	0
STA 33+00 TO 38+65	LT	0	0
SUBTOTALS (LEFT)		0	0
STA 4+50 TO 9+00	RT	30	27
STA 9+00 TO 15+00	RT	0	0
STA 15+00 TO 21+00	RT	0	0
STA 21+00 TO 27+00	RT	0	0
STA 27+00 TO 33+00	RT	30	13
STA 33+00 TO 38+65	RT	0	0
SUBTOTALS (RIGHT)		60	40
GRAND TOTALS		60	40

2265-17-70

ITEM NO.	COLORED
UNIT PAY	CONCRETE
	PAVEMENT
	9-INCH
	SPV.0180.02
CATEGORY	SY
LOCATION	0010
STA 4+50 TO 9+00	LT
STA 9+00 TO 15+00	LT
STA 15+00 TO 21+00	LT
STA 21+00 TO 27+00	LT
STA 27+00 TO 33+00	LT
STA 33+00 TO 38+65	LT
SUBTOTALS (LEFT)	142
STA 4+50 TO 9+00	RT
STA 9+00 TO 15+00	RT
STA 15+00 TO 21+00	RT
STA 21+00 TO 27+00	RT
STA 27+00 TO 33+00	RT
STA 33+00 TO 38+65	RT
SUBTOTALS (RIGHT)	142
GRAND TOTALS	284

2265-09-70

MISCELLANEOUS ITEMS

CATEGORY		ITEM NO.	EXCAV. HAUL & DISPOSAL OF PETRO CONTAM. SOIL	FINSIHING ROADWAY (PROJECT)	CONCRETE PAVEMENT GAPS	DRILLED TIE BARS	MOBILIZATION	LANDMARK REFERENCE MONUMENTS	DUST CONTROL SURFACE TREATMENT	FIELD OFFICE TYPE B (PROJECT)	INLET SCREEN TYPE M	INLET SCREEN TYPE R	JOINT SEALING
LOCATION		UNIT PAY	205.0501.S TON	213.0100 EACH	415.0210 EACH	416.0610 EACH	619.100 EACH	621.0100 EACH	623.0200 SY	642.5001 EACH	SPV.0060.06 EACH	SPV.0060.07 EACH	SPV.0180.01 SY
			0010	0010	0010	0010	0010	0010	0010	0010	0010	0010	0040
STAGE 1													
STA 4+50 TO 9+00	RT				3	38			1370				
STA 9+00 TO 15+00	RT	19			1	0			1680				
STA 15+00 TO 21+00	RT				3	37			3520				UNDISTRIBUTED
STA 21+00 TO 27+00	RT				2	17			1620				
STA 27+00 TO 33+00	RT	48			2	11			1590				
STA 33+00 TO 38+65	RT	71			1	32			1700				
SUBTOTALS (LEFT)			138		12	135		0	11,480				
STAGE 2													
STA 4+50 TO 9+00	LT					32			2590				
STA 9+00 TO 15+00	LT				4	20			1650				
STA 15+00 TO 21+00	LT	22				49		1	4110				
STA 21+00 TO 27+00	LT					25			1750				UNDISTRIBUTED
STA 27+00 TO 33+00	LT				1	11			1590				
STA 33+00 TO 38+65	LT					28			2030				
SUBTOTALS (RIGHT)			22		5	165		1	13,720				
GRAND TOTALS			160	1	17	300	1	1	25,200	1	120	48	25,100

EARTH WORK SUMMARY

From/To Station	Location	Excavation Common (1) (item # 205.0100)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow (8)
		Cut (2)	EBS Excavation (3)				1.20 Factor			
		CY	CY	CY	CY	CY	CY	CY	CY	CY
4+28 TO 38+65	N. 27th St/W. Wisconsin Ave.	10200	0	6178	4007	324	389	3618	9796	0

- 1) No EBS is anticipated, if EBS is required it will be paid as Excavation Common, Item Number 205.0100. Excavation Common is the sum of the Cut and EBS Excavation columns.
- 2) Salvaged/Unusable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusable 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 material.
- 8) To be bid as part of Base Aggregate Dense 1-1/4"

See Section 9 of Plan for Cut & Fill Quantities

2265-09-70				
ASPHALT ITEMS				
CATEGORY 0010	ITEM NO. UNIT PAY	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	
LOCATION				
	STA 4+50 TO 9+00	LT	0	20
	STA 9+00 TO 15+00	LT	10	40
	STA 15+00 TO 21+00	LT	10	40
	STA 21+00 TO 27+00	LT	0	10
	STA 27+00 TO 33+00	LT	0	10
	STA 33+00 TO 38+65	LT	0	10
	SUBTOTALS (LEFT)	20	130	
	STA 4+50 TO 9+00	RT	0	10
	STA 9+00 TO 15+00	RT	0	10
	STA 15+00 TO 21+00	RT	10	20
	STA 21+00 TO 27+00	RT	0	10
	STA 27+00 TO 33+00	RT	0	10
	STA 33+00 TO 38+65	RT	0	0
	SUBTOTALS (RIGHT)	10	60	
	GRAND TOTALS	30	190	

2265-09-70			
WATER ITEMS			
	ITEM NO. UNIT PAY	ADJUSTING WATER BOX SPV.0060.08 EACH 0040	WATER MAIN PROTECTION SPV.0060.09 EACH 0040
CATEGORY LOCATION			
STA 4+28 TO STA 38+65		149	15

CONSTRUCTION STAKING ROADWAY ITEMS						
2265-09-70						
CATEGORY	ITEM NO	UNIT PAY	CONSTRUCTION			
			CONSTRUCTION	STAKING	CONSTRUCTION	
			STAKING	CONCRETE	STAKING	CONCRETE
			SUBGRADE	PAVEMENT	SIDEWALK	
			650.4500	650.7000	SPV.0090.03	
			LF	LF	LF	
			0010	0010	0010	
LOCATION						
STA 4+50 TO STA 9+00	LT		250	250	460	
STA 9+00 TO STA 15+00	LT		300	300	520	
STA 15+00 TO STA 21+00	LT		760	760	970	
STA 21+00 TO STA 27+00	LT		300	300	530	
STA 27+00 TO STA 33+00	LT		300	300	500	
STA 33+00 TO STA 38+65	LT		280	280	270	
SUBTOTALS (LEFT)			2190	2190	3250	
STA 4+50 TO STA 9+00	RT		250	250	460	
STA 9+00 TO STA 15+00	RT		300	300	520	
STA 15+00 TO STA 21+00	RT		1450	1450	1050	
STA 21+00 TO STA 27+00	RT		300	300	480	
STA 27+00 TO STA 33+00	RT		300	300	510	
STA 33+00 TO STA 38+65	RT		280	280	450	
SUBTOTALS (RIGHT)			2880	2880	3470	
GRAND TOTALS			5070	5070	6720	

PROJECT NO:	2265-09-70 2265-17-70	HWY: STH 57	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET:	142
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MISCELLANEOUS LANDSCAPING ITEMS

2265-09-70

CATEGORY 0010

ITEM NO.	TOPSOIL	SOD LAWN
625.0100	631.1000	
UNIT PAY	SY	SY

LOCATION

STA 4+50 TO STA 9+00	LT	0	0
STA 9+00 TO STA 15+00	LT	30	30
STA 15+00 TO STA 21+00	LT	220	220
STA 21+00 TO STA 27+00	LT	0	0
STA 27+00 TO STA 33+00	LT	10	10
STA 33+00 TO STA 38+65	LT	20	20
SUBTOTALS (LEFT)		280	280
STA 4+50 TO STA 9+00	RT	40	40
STA 9+00 TO STA 15+00	RT	10	10
STA 15+00 TO STA 21+00	RT	540	540
STA 21+00 TO STA 27+00	RT	10	10
STA 27+00 TO STA 33+00	RT	30	30
STA 33+00 TO STA 38+65	RT	170	170
SUBTOTALS (RIGHT)		800	800
GRAND TOTALS		1080	1080

2265-09-70

3

PAVEMENT MARKING QUANTITIES				
GROUP CODE	ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
0010	646.0106	PAVEMENT MARKING EPOXY 4 - INCH	L.F	6208
0010	646.0116	PAVEMENT MARKING EPOXY 6 - INCH	L.F	1696
0010	646.0126	PAVEMENT MARKING EPOXY 8 - INCH	L.F	932
0010	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE II	EACH	6
0010	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	6
0010	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	6
0010	647.0336	PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY	EACH	4
0010	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	5
0010	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24 - INCH	L.F	909
0010	647.0776	PAVEMENT MARKING CROSSWALK EPOXY - 12 INCH	L.F	3509

3

2265-09-70

Traffic Control Quantities

Items		Stage 1		Stage 2		Total
		(Each)	* (Days)	(Each)	* (Days)	
(1)643.0300	Traffic Control, Drums	477	29,097	381	22,860	51,957
(2)643.0420	Traffic Control, Barricades, Type III	476	29,036	305	18,300	47,336
643.0705	Traffic Control, Warning Lights, Type "A" (Flashing)	952	58,072	610	36,600	94,672
643.0715	Traffic Control, Warning Lights, Type "C" (Steady)	477	29,097	381	22,860	51,957
643.0900	Traffic Control, Signs	233	14,213	125	7,500	21,713
(3) Temporary Pavement Marking						
649.0200	Temporary Pavement Marking Reflective Paint 4"		3,217	0		3,217
649.0400	Temporary Pavement Marking Removable Tape 4"	22,904		28,188		51,092
649.1400	Temporary Pavement Marking Stop Line Removable Tape 24"	94		405		499
649.1800	Temporary Pavement Marking Arrows Removable Tape	9		13		22
649.2000	Temporary Pavement Marking Words Removable Tape	11		10		21
649.0701	Temporary Pavement Marking 8"	190		0		190
(1) All Drums have one steady burning yellow light (2) All Type III Barricades have 2 flashing yellow lights (3) When placing temporary pavement marking removable tape, the tape shall be sliced or cut across its width every 25 feet. This will limit ravelling.						

Items	Stage 1		Stage 2	
(1) W020-1	22		17	
(6) W01-6L	38		20	
(7) W01-6R	20		1	
(8) R5-1	11		0	
(9) R3-2	0		0	
(12) R6-1L	12		0	
(20) R1-1	0		0	
(21) W01-4L	0		0	
(22) R3-1	0		0	
(23) R4-7A	29		44	
(24) W020-5R	7		6	
(25) W04-2R	8		7	
(27) W020-3	0		4	
(28) W016-7PR	0		0	
(29) W04-2L	13		9	
(30) W020-5L	12		9	
(32) R3-6L	0		0	
(33) W020-5	0		0	
(34) W09-3A	0		2	
(35) R3-7R	1		2	
(36) W13-1	0		0	
(37) R3-8B	0		0	
(38) W01-3L	4		2	
(39) W01-3R	2		0	
(40) R3-7L	1		0	
(41) W016-7PL	0		0	
(42) R011-2	0		0	
(43) W01-4BL	1		0	
(44) W020-2	2		0	
(45) W012-1	0		2	
Specialty Signs	50		0	
	233		125	

Item No	Description	Unit	Quantity
652.0220	Conduit Rigid Nonmetallic Schedule 40 1½-inch	LF	520
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-inch	LF	515
652.0230	Conduit Rigid Nonmetallic Schedule 40 2½-inch	LF	390
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-inch	LF	12,720
652.0610	Conduit Special 2½-inch	LF	60
652.0615	Conduit Special 3-inch	LF	120
652.0690	Conduit Special 1½-inch	LF	25
654.0110	Concrete Bases Type 10	Each	6
SPV.0060.10	Traffic Vault Polymer Concrete 13" x 24" x 18"	Each	139
SPV.0060.11	Traffic Vault Polymer Concrete 17" x 30" x 18"	Each	20
SPV.0060.12	Install Traffic Signal Base	Each	17
SPV.0060.13	Monotube Poles Type 10	Each	6
SPV.0060.14	Monotube Arms 25-FT	Each	2
SPV.0060.15	Monotube Arms 30-FT	Each	4

ALL ITEMS ARE CATEGORY 0010

NEW MANHOLE COVERS				
GROUP CODE	NO.	LOCATION	PROP. ELEV.	REMARKS
0010	200	STA 4 + 81.8 - 2.5 ' RT	72.03	
0010	201	STA 5 + 77.9 - 139.0' RT	65.64	
0010	202	STA 5 + 80.5 - 2.5' LT	72.86	
0010	203	STA 05 + 84.9 - 48.1 ' LT	73.99	
0010	204	STA 05 + 87.5 - 44.5 ' RT	71.80	
0010	205	STA 5 + 87.5 - 129.8' RT	66.11	
0010	206	STA 06 + 32.5 - 1.8 ' LT	73.96	
0010	207	STA 07 + 27.0 - 0.1 ' LT	76.52	
0010	208	STA 08 + 2.9 - 1.0 ' LT	78.84	
0010	209	STA 08 + 9.9 - 7.3 ' LT	78.98	
0010	210	STA 10 + 28.9 - 1.5 ' LT	85.96	
0010	211	STA 10 + 33.2 - 14.1 ' LT	85.86	
0010	212	STA 10 + 72.1 - 3.9 ' RT	86.80	
0010	213	STA 10 + 77.5 - 38.2 ' LT	86.70	
0010	214	STA 10 + 79.5 - 48.1' LT	86.61	
0010	215	STA 10 + 80.5 - 45.0 ' RT	86.63	
0010	216	STA 10 + 81.5 - 26.2 ' RT	86.74	
0010	217	STA 11 + 33.8 - 1.8 ' LT	88.02	
0010	218	STA 13 + 29.5 - 10.5 ' LT	92.78	REPAIR 3" OF BRICKWORK
0010	219	STA 13 + 33.5 - 0.5 ' RT	93.21	
0010	220	STA 14 + 05.1 - 1.2 ' LT	94.99	
0010	221	STA 14 + 11.0 - 21.5 ' RT	94.52	
0010	222	STA 15 + 52.2 - 1.8 ' LT	98.58	
0010	224	STA 15 + 81.2 - 28.9 ' RT	98.57	
0010	225	STA 16 + 32.0 - 1.4 ' LT	99.74	
0010	226	STA 17 + 32.5 - 11.1 ' LT	102.49	
0010	227	STA 17 + 95.2 - 0.5 ' RT	104.53	
0010	228	STA 18 + 53.0 - 1.0 ' RT	106.27	
0010	229	STA 20 + 07.5 - 2.8 ' LT.	110.22	
0010	230	STA 20 + 17.1 - 44.9 ' LT.	109.86	
0010	231	STA 20 + 48.2 - 36.5 ' LT.	109.42	
0010	232	STA 19 + 86.9 - 42.2 ' RT.	110.19	
0010	233	STA 20 + 18.5 - 45.3 ' RT.	110.98	

REMOVING MANHOLES			
GROUP CODE	NUMBER	STATION	OFFSET
0010	223	15 + 79.8	45.7 ' LT

0010 REMOVING MANHOLES (204.0210) 1

NEW MANHOLE COVERS				
0010	234	STA 20 + 80.9 - 1.2 ' LT	110.27	
0010	235	STA 21 + 30.5 - 1.2 ' LT	110.28	
0010	236	STA 22 + 91.5 - 2.5 ' LT	110.34	
0010	237	STA 23 + 10.1 - 12.6 ' LT	110.18	
0010	238	STA 23 + 19.8 - 43.9 ' RT	111.70	
0010	239	STA 24 + 46.0 - 1.0 ' RT	110.48	
0010	240	STA 25 + 28.1 - 16.5 ' LT	110.34	
0010	241	STA 25 + 51.0 - 0.9' LT	110.76	
0010	242	STA 25 + 89.5 - 44.2 ' RT	110.95	
0010	243	STA 26 + 33.5 - 1.0 ' LT	110.61	
0010	244	STA 27 + 86.5 - 1.0 ' RT	109.97	
0010	245	STA 29 + 40.2 - 1.5 ' RT	109.36	
0010	246	STA 30 + 43.5 - 0.1 ' RT	108.37	
0010	247	STA 30 + 87.5 - 12.1 ' LT	107.98	
0010	248	STA 30 + 88.5 - 46.9 ' RT	107.70	
0010	249	STA 31 + 51.0 - 1.0 ' RT	107.88	
0010	250	STA 32 + 47.5 - 1.1 ' RT	107.30	
0010	251	STA 32 + 98.1 - 1.8 ' RT	107.08	
0010	252	STA 33 + 20.5 - 1.5 ' RT	107.09	
0010	253	STA 34 + 11.2 - 0.5 ' RT	106.88	
0010	254	STA 34 + 45.5 - 36.1 ' LT.	106.86	
0010	255	STA 34 + 57.5 - 1.1 ' RT	106.91	
0010	256	STA 36 + 38.1 - 4.1 ' LT	106.15	
0010	257	STA 36 + 70.0 - 46.8' LT	106.43	REPAIR 3" OF BRICKWORK
0010	258	STA 36 + 71.1 - 11.9 ' LT	106.50	
0010	259	STA 37 + 17.9 - 0.8 ' RT	106.09	
0010	260	STA 37 + 62.1 - 0.5' LT	105.70	
0010	261	STA 38 + 59.5 - 0.7' RT	105.37	
0010	262	STA 07W + 51.0 - 16.9 ' LT	108.55	
0010	263	STA 08W + 52.5 - 16.5 ' LT	108.75	REPAIR 6" OF BRICKWORK
0010	264	STA 13W + 26.8 - 16.0 ' LT	116.23	

0010 MANHOLE COVERS TYPE 58A (SPV.0060.02) 64

PLACING NEW INLET COVERS TYPE 57					
GROUP CODE	NO.	LOCATION	PROP. ELEV	COVER TYPE	REMARKS
0010	100	04 + 23.8 - 23.0' LT.	70.90	57	
0010	102	05 + 52.2 - 42.8 ' LT.	72.95	57	
0010	103	06 + 08.8 - 47.5 ' LT.	73.17	57	REPAIR 9" OF BRICKWORK
0010	115	STA 14 + 10.1 - 42.2 ' RT.	94.91	57	
0010	127	21 + 31.0 - 24.9 ' LT.	109.53	57	
0010	128	21 + 47.9 - 24.8 ' RT.	110.20	57	
0010	129	22 + 44.1 - 24.9 ' RT.	110.04	57	
0010	131	23 + 07.0 - 34.5 ' RT.	110.75	57	
0010	132	23 + 33.1 - 35.5 ' RT	110.74	57	REPAIR 3" OF BRICKWORK
0010	137	25 + 63.0 - 43.1 ' RT.	110.25	57	
0010	138	26 + 13.0 - 42.9 ' RT	110.32	57	REPAIR 3" OF BRICKWORK
0010	141	28 + 17.4 - 24.5 ' LT.	109.02	57	
0010	143	30 + 44.2 - 24.2 ' LT.	107.75	57	
0010	144	30 + 48.8 - 25.1 ' RT.	107.82	57	
0010	146	31 + 80.0 - 24.8 ' RT.	107.20	57	
0010	148	33 + 22.6 - 24.9 ' RT.	106.37	57	
0010	150	34 + 11.0 - 24.9 ' RT.	106.36	57	
0010	151	34 + 34.0 - 35.2 ' LT.	106.25	57	
0010	152	34 + 64.8 - 36.0 ' LT.	106.51	57	
0010	154	36 + 25.8 - 24.8 ' LT.	105.67	57	REPAIR 3" OF BRICKWORK
0010	158	08W + 14.5 - 20.9 ' RT.	107.58	57	
0010	159	08W + 15.0 - 54.5 ' LT.	107.48	57	

0010

INLET COVERS TYPE 57 (SPV.0060.01)

22

3

ABANDONING CATCH BASINS			
GROUP CODE	NO.	LOCATION	REMARKS
0010	112	12 + 00.0 - 26.8 ' LT.	
0010	117	15 + 60.5 - 38.7 ' RT.	
0010	118	16 + 00.5 - 36.7 ' RT.	
0010	119	16 + 00.0 - 37.9 ' LT.	
0010	124	19 + 78.2 - 39.0 ' RT	
0010	125	20 + 55.5 - 43.5 ' RT.	
0010	126	20 + 73.1 - 24.8 ' RT.	
0010	130	22 + 81.2 - 24.8 ' LT.	
0010	133	24 + 13.1 - 24.5 ' RT.	
0010	134	24 + 60.0 - 24.8 ' LT.	
0010	135	25 + 27.0 - 24.9 ' LT.	
0010	136	25 + 42.7 - 24.9 ' RT.	
0010	139	26 + 34.2 - 24.8 ' RT.	
0010	140	27 + 72.4 - 24.8 ' RT.	
0010	142	29 + 45.0 - 24.5 ' LT.	
0010	145	31 + 05.0 - 52.0 ' RT.	
0010	147	32 + 48.2 - 24.9 ' LT.	
0010	149	33 + 31.5 - 24.6 ' LT.	
0010	153	36 + 19.0 - 24.9 ' RT.	
0010	157	37 + 60.5 - 45.0 ' RT.	

0010	ABANDONING CATCH BASINS (204.0255)	20
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REMOVING CATCH BASINS			
GROUP CODE	NO.	LOCATION	REMARKS
0010	101	05 + 36.5 - 66.8 ' RT.	
0010	104	06 + 25.5 - 27.9 ' LT.	
0010	105	06 + 78.2 - 33.4 ' RT.	
0010	106	07 + 54.0 - 31.8 ' RT.	
0010	107	08 + 07.1 - 26.6' LT.	
0010	108	08 + 65.8 - 25.0' RT.	
0010	109	09 + 27.9 - 24.9 ' RT.	
0010	110	11 + 56.9 - 26.8 ' LT.	
0010	111	11 + 69.9 - 25.0 ' RT.	
0010	113	12 + 70.5 - 24.9 ' RT.	
0010	114	13 + 32.8 - 27.0 ' LT.	
0010	116	14 + 29.1 - 25.0 ' RT.	
0010	120	16 + 22.6 - 25.0 ' RT.	
0010	121	16 + 61.5 - 26.8 ' LT.	
0010	122	17 + 70.5 - 25.1 ' RT.	
0010	123	18 + 54.5 - 26.9 ' LT.	
0010	155	36 + 46.0 - 38.5 ' LT.	
0010	156	36 + 95.2 - 46.2 ' LT.	

0010	REMOVING CATCH BASINS (204.0215)	18
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New Structures																
STRUCTURES								PVC PIPE, STORM SEWER								REMARKS
GROUP CODE	No.	LOCATION		COVER ELEV.	STRUCT.	FRAME & LID	DEPTH	CONNECTION STRUCTURE		SIZE (IN)	LENGTH (FT)	INVERT ELEV.				
		STATION	OFFSET					FROM	TO			INLET	OUTLET	Slope		
0010	1	5 + 32.1	65.0' RT.	69.73	44A	57	8.26	1	200	12	79	65.45	63	3.10%	Protect & Support Telephone Conduit	
0010	2	6 + 26.1	25.8' LT.	73.38	44B	57	4.28	2	206	8	23	70.25	68	9.78%	Build trap, Protect & Support 12" WM, Electric Conduit, TE&ES	
0010	3	6 + 78.5	32.0' RT.	74.25	44A	57	8.23	3	206	12	57	70	67.2	4.91%	Protect & Support 8" WM, 16" Gas, Telephone Conduit	
0010	4	7 + 53.8	28.9' RT.	76.26	44A	57	8.24	4	207	12	39	72	69.9	5.38%	Protect & Support 8" WM, 16" Gas, Telephone Conduit	
0010	5	8 +07.5	25.8' LT.	78.56	44B	57	5.56	5	Use existing drains	12	5	73.00			Build Trap, New CB at this point- Would like to keep if possible	
0010	6	8 + 66.0	24.0' RT.	80.62	44B	57	4.27	6	Use existing drains	8	5	77.35			Build Trap, Protect & Support 8" Water Main	
0010	7	9 +27.0	24.0' RT.	82.43	44B	57	4.28	7	Use existing drains	8	5	79.15			Build Trap, Protect & Support 8" Water Main	
0010	8	11 + 57.0	25.5' LT.	87.87	44B	57	4.27	8	217	8	32	84.3	80.5	11.88%	Build Trap, Protect & Support 12" Water Main, Electrical Conduit	
0010	9	11 + 70.0	24.0' RT.	88.35	44B	57	5.35	9	217	8	44	84.7	79.7	11.36%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main	
0010	10	12 + 70.0	24.0' RT.	90.86	44B	57	4.86	10	219	8	67	87.3	82.2	7.61%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main	
0010	11	13 + 33.0	25.9' LT.	92.29	44B	57	4.29	11	219	8	25	88.8	85.2	14.40%	Build Trap, Protect Combined MH, 12" Water Main, Electrict Conduit	
0010	12	14 + 29.0	24.0' RT.	94.79	44B	57	4.29	12	Use existing drains	12	5	91.5			Build Trap, Existing Drain Built on Sewer PF 213-88 in 2010	
0010	13	15 +60.5	44.0 ' RT.	97.69	44A	57	10.27	13	224	8	25	91.4	90	5.60%	Protect & Support Electric, 20" HP Gas Main	
0010	13A	15+79.8	44.5' LT.	98.56	4ft Dia.	58A	11.58	13A				86.98	86.98		New 4'-0" Combined MH	
0010	14	16 + 00.2	44.0' RT.	98.07	44A	57	8.25	14	224	8	24	93.8	92	7.50%	Protect & Support 6" WM, Light Pole, 138 KV Electric	
0010	15	16 + 00.0	42.0' LT.	98.20	44A	57	8.23	15	13A	8	19	93.95	92.6	7.11%	Protect & Support 6" WM, Light Pole, 138 KV Electric	
0010	16	16 +23.0	24.0' RT.	98.88	44B	57	4.88	16	225	8	26	95	91.25	14.44%	Build Trap, Protect & Support 8" Gas Main, 8" Water Main	
0010	17	16 + 61.0	25.5' LT.	99.68	44B	57	4.28	17	225	8	37	96.4	92.5	10.54%	With Trap, Protect & Support 12" Water Main, Electric Conduit	
0010	18	17 + 70.0	24.0' RT.	103.13	44B	57	4.33	18	227	8	34	99.5	95	13.24%	With Trap, Protect & Support 8" Gas Main, 8" Water Main, Electric Conduit	
0010	19	18 + 55.0	25.8' LT.	105.40	44B	57	4.25	19	228	8	26	102.25	100	8.65%	With Trap, Protect & Support 12" Water Main	
0010	20	19 + 79.0	54.0' RT.	109.90	44A	57	8.23	20	232	12	14	105.65	105.35	2.14%	Protect 6" Gas, 12" WM	
0010	21	20 + 14.0	45.2' RT.	110.90	44A	57	8.23	21	233	12	3	106.65	106.55	3.33%		
0010	22	20 + 55.6	50.5' RT.	110.69	44A	57	8.23	22	233	12	37	106.44	105.60	2.27%	Protect TE&ES, 8" WM, Electric Conduit	
0010	23	20 + 81.0	24.9' LT.	109.44	44A	57	8.32	23	234	12	22	105.1	104	5.00%	Protect & Support 12" Water Main, Telephone	
0010	24	20 + 82.0	24.8' RT.	110.30	44A	57	8.98	24	234	12	25	105.3	103	9.20%	Protect & Support 8" Water Main, 8" Gas, Electric, TE&ES	
0010	25	21 + 70.0	24.9' LT.	109.62	44A	57	8.25	25	235	12	46	105.35	102.7	5.76%	Protect & Support 12" Water Main, Telephone	
0010	26	22 + 48.0	24.9' LT.	109.69	44A	57	8.27	26	236	12	52	105.4	104	2.69%	Protect & Support 12" Water Main, Telephone	
0010	27	22 + 97.0	24.9' LT.	109.79	44A	57	8.27	27	236	12	22	105.5	104	6.82%	Protect & Support 12" Water Main, Telephone	
0010	28	23 + 37.0	24.9' LT.	109.87	44A	57	8.25	28	28A	12	36	105.6	104.75	2.36%	Protect 12" Water Main	
0010	28A	23 + 65.0	1.0' LT.	110.52	5ft Dia.	58A	15.83	28A				94.69	94.69		New 5'-0" Combined MH. Invert Estimated From As-Built Sewer Plan File 213-90	
0010	29	23 + 90.0	24.9' RT.	110.08	44A	57	8.96	29	28A	12	35	105.1	102.8	6.57%	Protect & Support 8" Water Main, 8" Gas., Electrical, TE&ES	
0010	30	24 + 23.0	24.6' LT.	109.90	44A	57	8.23	30	239	12	34	105.65	104.8	2.50%	Protect 12" Water Main, Telephone	
0010	31	24 + 58.0	24.8 ' RT.	109.93	44A	57	9.01	31	239	12	24	104.9	102.9	8.33%	Protect & Support 8" Water Main, 8" Gas, Telephone, TE&ES	
0010	32	24 + 76.0	24.5' LT.	109.82	44A	57	8.25	32	239	12	39	105.55	104.5	2.69%	Protect 12" Water Main, Telephone	
0010	33	26 + 88.5	24.5 ' LT.	109.53	44A	57	8.26	33	243	12	59	105.25	104	2.12%	Protect & Support 12" Water Main	
0010	34	27 + 34.0	24.8' RT.	109.61	44A	57	8.64	34	244	12	57	104.95	101.4	6.23%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC	
0010	35	27 + 75.0	24.6' LT.	109.13	44A	57	8.31	35	244	12	28	104.8	104	2.86%	Protect & Support 12" Water Main	
0010	36	28 + 08.0	24.8' RT.	109.52	44A	57	8.5	36	244	12	31	105	101.8	10.32%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC	
0010	37	28 + 90.0	24.8' RT.	109.17	44A	57	8.65	37	245	12	56	104.5	100.5	7.14%	Protect & Support 8" Water Main, 8" Gas, Electric, CUC	
0010	38	31 + 05.2	61.0' RT.	106.97	44A	57	8.3	38	248	8	22	102.65	102.2	2.05%	Protect 6" Water Main	
0010	39	32 + 20.0	24.8 ' LT.	106.76	44A	57	8.24	39	250	12	37	102.5	101.8	1.89%	Protect 12" Water Main	
0010	40	32 + 93.0	24.8 ' LT.	106.60	44A	57	8.23	40	251	12	26	102.35	101.5	3.27%	Protect & Support 12" Water Main, Telephone Conduit	
0010	41	34 + 00.0	24.5 ' LT.	106.27	44A	57	8.25	41	253	12	27	102	101.35	0.024074	Protect & Support 12" Water Main, Telephone Conduit	
0010	42	35 + 35.0	24.8' RT.	105.62	44A	57	8.6	42	42A	12	41	101	98.4	0.063415	Protect & Support 12" Water Main	
0010	42A	35+ 69.0	1.0' RT.	106.21	5 ft Dia.	58A	13.32	42A				92.89	92.89		New 5'-0" Combined MH	
0010	43	35 + 73.0	24.8' LT.	105.76	44A	57	8.24	43	42A	12	25	101.5	100.95	0.022	Protect & Support 12" Water Main	
0010	44	36 + 03.0	24.9' RT.	105.48	44A	57	8.61	44	42A	12	41	100.85	98.25	0.063415	Protect 8" WM, Electric, TE&ES Conduit & MH, 3" Gas	
0010	45	36 + 50.1	40.2' LT.	105.97	44B	57	4.27	45	257	8	21	102.7	99.8	0.1381	With Trap, Protect 8" Water Main, 8" Gas Main, TE&ES	
0010	46	36 + 90.1	46.2 ' LT.	105.98	44B	57	4.28	46	257	8	20	102.7	101.2	0.075	Protect 6" Water Main	
0010	47	38 + 17.0	52.8' RT.	104.46	44A	57	8.34	47	260	12	68	100.1	98.9	0.017647	Protect 8" WM, TE&ES Conduit, 3" Gas	
0010	48	08W + 75.0	19.9 ' LT.	108.85	44B	57	4.25	48	263	12	22	105.60	104.00	7.27%		

48 Type 57 Covers (SPV.0060.01) (0010 - Participating)
3 Type 58A Covers (SPV.0060.02) (0010 - Participating)
32 Type 44A Catch Basins (SPV.0060.03) (0010 - Participating)
131 LF STORM SEWER PIPE CORRUGATED PVC 8" (SPV.0090.01) (0010 - PARTICIPATING)
1,416 LF STORM SEWER PIPE CORRUGATED PVC 12" (SPV.0090.02) (0010 - PARTICIPATING)
1 Mahole 4-FT Diameter (611.2004) (0010-Participating)
2 Maholes 5-FT Diameter (611.2005) (0010-Participating)
16 Type 44B Inlets (SPV.0060.04) (0010-Participating)

3

TREE PLANTING									
CATEGORY		LOCATION	0030						
ITEM NUMBER			632.0101.01	632.0101.02	632.0101.03	632.0101.04	632.0101.05	632.0101.06	632.0101.07
DESCRIPTION			FRONTIER ELM, B&B, 3" CAL	UPRIGHT ENGLISH OAK, B&B, 4" CAL	CALLERY PEAR, B&B, 4" CAL	JAPANESE TREE LILAC, B&B, 4" CAL	BUR OAK, B&B, 4" CAL	AUTUMN BLAZE MAPLE, B&B, 4" CAL	SHADEMASTER HONEYLOCUST, B&B, 4" CAL
UNIT PAY			EACH	EACH	EACH	EACH	EACH	EACH	EACH
STATION TO STATION	STA 4+50 TO 9+00	LT	1	1	1	1	1		
	STA 9+00 TO 15+00	LT				1	1	1	1
	STA 15+00 TO 21+00	LT			1			1	
	STA 21+00 TO 27+00	LT							
	STA 27+00 TO 33+00	LT							
	STA 33+00 TO 38+65	LT							
	STA 4+50 TO 9+00	RT	2						
	STA 9+00 TO 15+00	RT		1			1		3
	STA 15+00 TO 21+00	RT				1	1	1	1
	STA 21+00 TO 27+00	RT							
	STA 27+00 TO 33+00	RT							
	STA 33+00 TO 38+65	RT							
	TOTALS			3	2	2	3	4	3

3

CITY UNDERGROUND CONDUIT															
LOCATION	CATEGORY 0010							LOCATION	CATEGORY 0010						
	ABANDON MANHOLES	ADJUSTING TES MANHOLE COVERS	SAWING CONCRETE ENCASED DUCT	INSTALLING CONDUIT INTO EXISTING MANHOLE	4' DIAMETER TES MANHOLE	4' DIAMETER "DOGHOUSE" TES MANHOLE	5' DIAMETER TES MANHOLE		2-DUCT CONDUIT CEMENT ENCASED DB-60	3-DUCT CONDUIT CEMENT ENCASED DB-60	4-DUCT CONDUIT CEMENT ENCASED DB-60	6-DUCT CONDUIT CEMENT ENCASED DB-60	8-DUCT CONDUIT CEMENT ENCASED DB-60	10-DUCT CONDUIT CEMENT ENCASED DB-60	
	204.0250 EACH	SPV.0060.05 EACH	SPV.0060.16 EACH	SPV.0060.17 EACH	SPV.0060.18 EACH	SPV.0060.19 EACH	SPV.0060.20 EACH		SPV0090.05 LF	SPV0090.06 LF	SPV0090.07 LF	SPV0090.08 LF	SPV0090.09 LF	SPV0090.10 LF	
MANHOLE 600 - STA 04 + 38.4, 30.4 LT	1	1 NEW COVER						MH 601 to MH 606A				517			
MANHOLE 601 - STA 05 + 43.0, 14.5 LT		1 NEW COVER		1				MH 606A to STA 10 + 68.4, 34.9 LT				42			
MANHOLE 602 - STA 05 + 43.8, 40.7 LT		1 NEW COVER						STA 10 + 68.4, 34.9 LT to MH 606	8						
MANHOLE 603 - STA 05 + 49.1, 33.4 RT		1 NEW COVER						STA 10 + 68.4, 34.9 LT to STA 10 + 68.4, 77.9 LT			43				
MANHOLE 604 - STA 05 + 59.7, 147.5 RT								MH 606A to STA 10 + 63.5, 51.0 RT			41				
MANHOLE 605 - STA 06 + 03.2, 74.1 RT		1 NEW COVER						MH 606A to STA 10 + 71.0, 8.0 RT					6		
MANHOLE 606 - STA 10 + 60.9, 38.9 LT		1 NEW COVER			1			STA 10 + 71.0, 8.0 RT to MH 606B	17						
MANHOLE 606A - STA 10 + 63.0, 8.0 RT		1					1	STA 10 + 71.0, 8.0 RT to MH 606C				455			
MANHOLE 606B - STA 10 + 89.9, 8.5 RT		1					1	MH 606C to TRAFFIC CONTROL CABINET	45						
MANHOLE 606C - STA 15 + 45.7, 6.5 RT		1				1		MH 606C to MH 608A				492			
MANHOLE 607 - STA 19 + 69.8, 11.2 RT		1 NEW COVER			1			MH 607 TO PROPOSED VAULT	23						
MANHOLE 608 - STA 20 + 46.6, 14.1 LT		1 NEW COVER			1			MH 608A to MH 608	15						
MANHOLE 608A - STA 20 + 41.5, 5.0 RT		1						MH 608A to MH 612A				295			
MANHOLE 609 - STA 20 + 61.8, 10.5 RT		1 NEW COVER						MH 612A to STA 23 +41.0, 43.0 RT	36						
MANHOLE 610 - STA 20 + 63.5, 38.8 LT		1 NEW COVER			1			MH 612A to MH 613A				252			
MANHOLE 611 - STA 20 + 69.0, 30.2 LT		1 NEW COVER						MH 613A to STA 25 + 77.2, 43.9 LT			54				
MANHOLE 612 - STA 23+ 63.6, 30.1 LT		1 NEW COVER						MH 613A to STA 25 + 96.9, 43.9 RT					37		
MANHOLE 612A - STA 23+ 41.0, 5.0 RT						1		STA 25 + 96.9, 43.9 RT to PROPOSED VAULT	38						
MANHOLE 613 - STA 25 + 37.5, 10.7 RT		1 NEW COVER						STA 25 + 96.9, 43.9 RT to STA 25 + 96.9, 51.9 RT				8			
MANHOLE 613A - STA 25 + 96.9, 5.0 RT		1				1		MH 613A to MH615A				492			
MANHOLE 614 - STA 26 + 41.6, 11.0 RT		1 NEW COVER						MH 615A to PROPOSED VAULT	66						
MANHOLE 615 - STA 30 + 36.8, 11.0 RT		1 NEW COVER						MH 615A to STA 30 + 93.0, 37.0 RT			30				
MANHOLE 615A - STA 30 + 93.0, 5.0 RT		1				1		MH 615A to MH 619A				565			
MANHOLE 616 - STA 31 + 21.2, 11.5 RT		1 NEW COVER						MH 619A to MH 619	19						
MANHOLE 617 - STA 34 + 15.1, 12.0 RT		1 NEW COVER						MH 619A to STA 36 + 62.0, 66.0 LT			69				
MANHOLE 618 - STA 36 + 21.9, 12.2 RT		1 NEW COVER						MH 619A to STA 36 + 62.0, 57.0 RT			50				
MANHOLE 619 - STA 36 + 55.8, 15.9 LT		1 NEW COVER			1			MH 619A to MH 620	60						
MANHOLE 619A - STA 36 + 62.0, 5.0 RT		1				1		MH619A to MH 620A				174			
MANHOLE 620 - STA 37 + 25.8, 13.1 RT		1 NEW COVER			1			MH 620A to STA 38 + 57.2, 37.1 RT				16			
MANHOLE 620A - STA 38 + 37.0, 36.2 RT		1				1		MH 620A to MH 620B		61					
MANHOLE 620B - STA 38 + 32.0, 28.9 LT		1		1		1		MH 620B to STA 38+37.0, 28.9 LT		3					
MANHOLE 621 - STA 10W + 78.9, 54.2 LT		1 NEW COVER						MH 608A to STA 09W + 65.5, 41.5 LT						37	
MANHOLE 622 - STA 11W + 47.1, 63.1 LT		1 NEW COVER			1			STA 09W + 65.5, 41.5 LT to MH 610	23						
MANHOLE 622A - STA 11W + 47.1, 46.5 LT		1				1		STA 09W + 65.5, 41.5 LT to STA 09W + 35.0, 41.5 LT					31		
MANHOLE 623 - STA 13W + 62.2, 46.5 LT		1 NEW COVER						STA 09W + 35.0, 41.5 LT to POLICE CALL BOX	22						
							STA 09W + 35.0, 41.5 LT to STA 07W + 20.0. 41.5 LT				215				
							MH 608A to MH 622A				139				
							MH 622A to MH 622	13							
							MH 622A TO STA 13W + 28.0, 46.5 LT				179				
							STA 13W + 28.0, 46.5 LT to PROPOSED VAULT	27							
							STA 13W + 28.0, 46.5 LT to MH 623					32			
TOTAL	1	33	1	8	8	2	1	TOTAL	412	64	287	3841	106	37	
STATE PROJECT NUMBER 2265-09-70 2265-17-70			HWY: STH 57		COUNTY: MILWAUKEE			MISCELLANEOUS QUANTITIES - CITY UNDERGROUND CONDUIT (TES)				SHEET: 152		E	

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

PLOT SCALE : 1:1

3

TYPE II PERMANENT SIGNING -									2265-09-70 STH 57	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]			SIGNS REFLC TYPE II [SF]	REM SIGNS TYPE II (EA)	REM SMALL SIGN SUP (EA)	POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
1	J4-1(2S)	--	24	x	36	6.000	1	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
2	J33-2(2S)	--	48	x	72	24.000	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	24	x	21					
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
3	J33-1(2S)	--	24	x	69	11.500	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
4	J2-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB5-1L	(ARROW)	21	x	21					
5	J32-2(2S)	--	48	x	69	23.000	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB5-1L	(ARROW)	21	x	21					
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB5-1R	(ARROW)	21	x	21					
6	J32-2(2S)	--	48	x	69	23.000	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB5-1L	(ARROW)	21	x	21					
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
7	J33-2(2S)	--	48	x	69	23.000	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					

TYPE II PERMANENT SIGNING -									2265-09-70 STH 57	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]			637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
8	J33-1(2S)	--	24	x	69	11.500	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-4	WEST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
9	J4-1(2S)	--	24	x	36	6.000	1	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
10	J33-1(2S)	--	24	x	69	11.500	1	--	--	--
	MB4-5	TO	24	x	12					
	MB3-2	EAST	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
11	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
12	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
13	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
14	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
15	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
16	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
17	J4-1(2S)	--	24	x	36	6.000	1	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
18	J4-1(2S)	--	24	x	36	6.000	--	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					

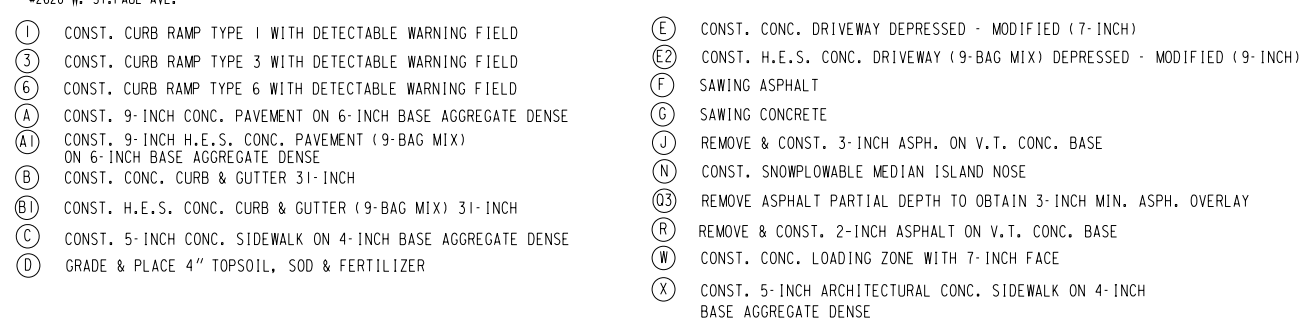
TYPE II PERMANENT SIGNING -									2265-09-70 STH 57
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION	
19	J2-2(2S)	--	48 x 57	19.000	1	--	--	--	
	M3-2	EAST	24 x 12						
	M1-4	18	24 x 24						
	M5-2R	(ARROW)	21 x 21						
	M3-1	NORTH	24 x 12						
	M1-6	57	24 x 24						
	M5-2R	(ARROW)	21 x 21						
20	J23-1(2S)	--	24 x 57	9.500	1	--	--	--	
	MB4-5	TO	24 x 12						
	M1-1	94	24 x 24						
	MB6-1	(ARROW)	21 x 21						
21	J3-2(2S)	--	48 x 57	19.000	1	--	--	--	
	MB4-5	TO	24 x 12						
	M1-1	94	24 x 24						
	MB6-1	(ARROW)	21 x 21						
	M3-3	SOUTH	24 x 12						
	M1-6	57	24 x 24						
	M6-1	(ARROW)	24 x 21						
22	J3-2(2S)	--	48 x 57	19.000	1	2	2	--	
	M3-1	NORTH	24 x 12						
	M1-6	57	24 x 24						
	M6-1	(ARROW)	24 x 21						
	M3-3	SOUTH	24 x 12						
	M1-6	57	24 x 24						
	M6-1	(ARROW)	21 x 21						
23	J4-1(2S)	--	24 x 36	6.000	1	--	--	--	
	M3-4	WEST	24 x 12						
	M1-4	18	24 x 24						
24	J3-1(2S)	--	24 x 57	9.500	--	--	--	--	
	M3-4	WEST	24 x 12						
	M1-4	18	24 x 24						
	M6-1	(ARROW)	21 x 21						
25	JV3-1(2S)	--	24 x 93	15.500	1	--	--	--	
	M3-2	EAST	24 x 12						
	M1-4	18	24 x 24						
	M3-1	NORTH	24 x 12						
	M1-6	57	21 x 21						
	M6-2	(ARROW)	24 x 21						

3

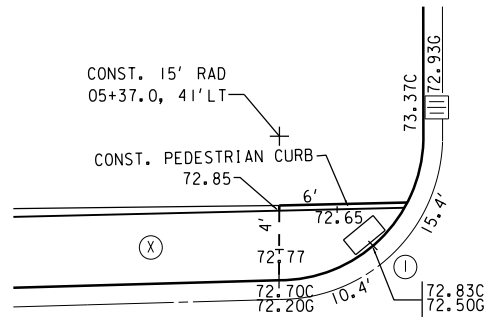
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TYPE II PERMANENT SIGNING -									2265-09-70 STH 57	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]			637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0816 POSTS TUBULAR STEEL 2"x2"x16' [EA]	REMARKS / NEW SIGN LOCATION
26	JV4-1(2S)	--	24	x	72	12.000	1	--	--	--
	M3-2	EAST	24	x	12					
	M1-4	18	24	x	24					
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
27	J3-1(2S)	--	24	x	57	9.500	1	--	--	--
	M3-1	NORTH	24	x	12					
	M1-6	57	24	x	24					
	M6-1	(ARROW)	21	x	21					
28	J3-1(2S)	--	24	x	57	9.500	1	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
	M6-1	(ARROW)	21	x	21					
29	J2-2(2S)	--	48	x	57	19.000	1	--	--	--
	M3-3	SOUTH	24	x	12					
	M1-6	57	24	x	24					
	M5-1L	(ARROW)	21	x	21					
	M3-4	WEST	24	x	12					
	M1-4	18	24	x	24					
30	J23-1	--	--	x	--	--	1	--	--	
	MB4-5	TO	--	x	--					
	M1-1	94	--	x	--					
31	J23-1(2S)	--	24	x	57	9.500	--	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
32	J23-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB6-1	(ARROW)	21	x	21					
33	J22-1(2S)	--	24	x	57	9.500	1	--	--	--
	MB4-5	TO	24	x	12					
	M1-1	94	24	x	24					
	MB5-1L	(ARROW)	21	x	21					
TOTALS						387.000	28	2	2	--

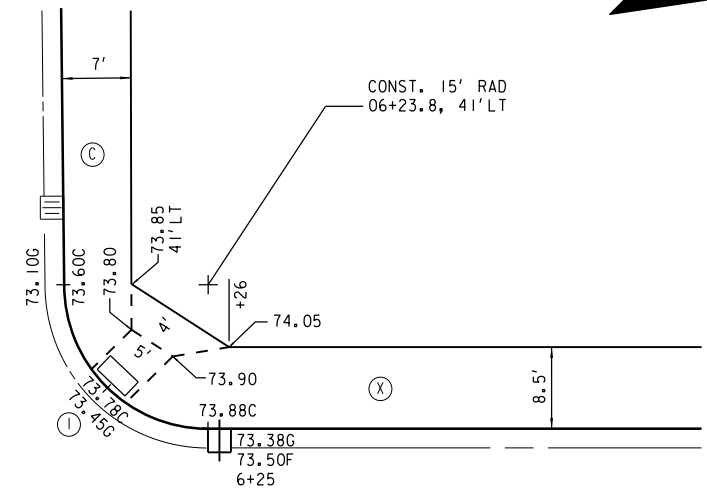
STREET



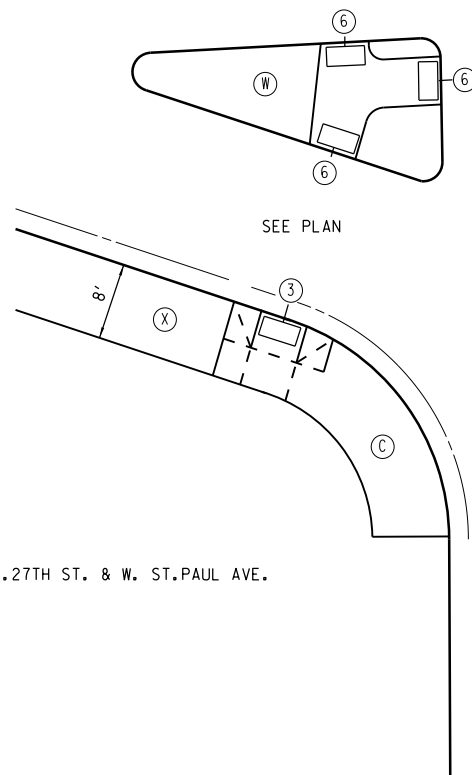
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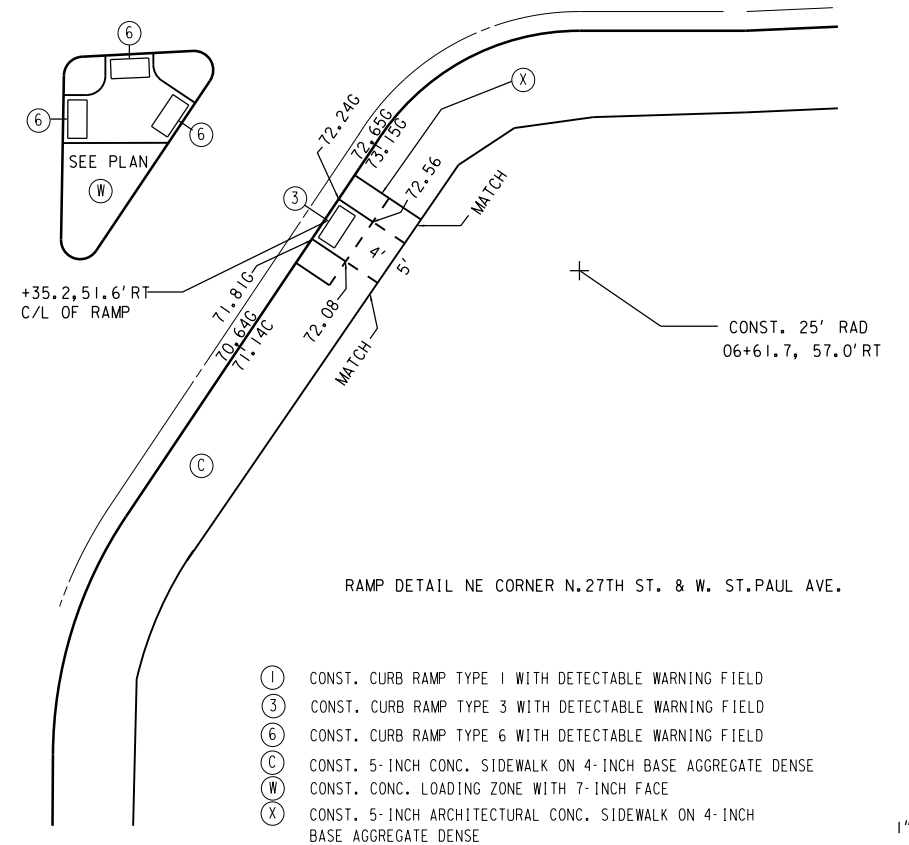
RAMP DETAIL SW CORNER N. 27TH ST. & W. ST. PAUL AVE.



RAMP DETAIL NW CORNER N. 27TH ST. & W. ST. PAUL AVE.



RAMP DETAIL SE CORNER N. 27TH ST. & W. ST. PAUL AVE.

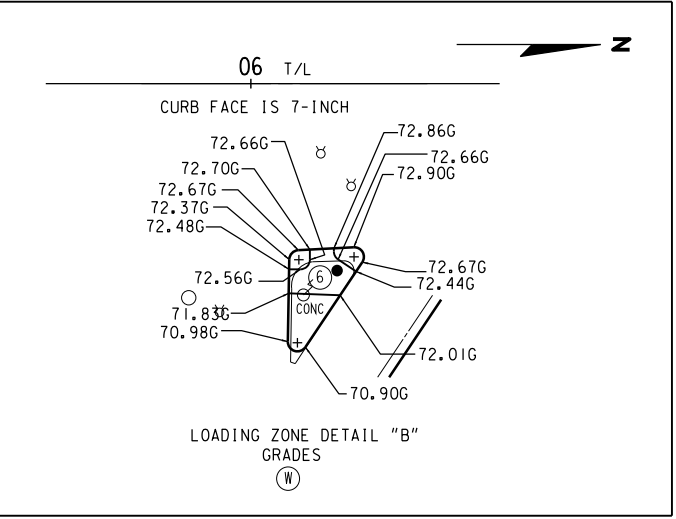
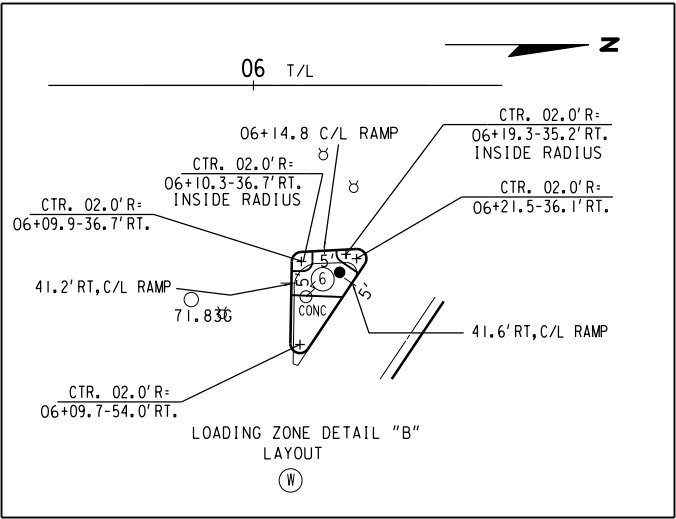


- ① CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
- ③ CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
- ⑥ CONST. CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD
- Ⓒ CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- Ⓦ CONST. CONC. LOADING ZONE WITH 7-INCH FACE
- ⓧ CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE

NORTH

27TH

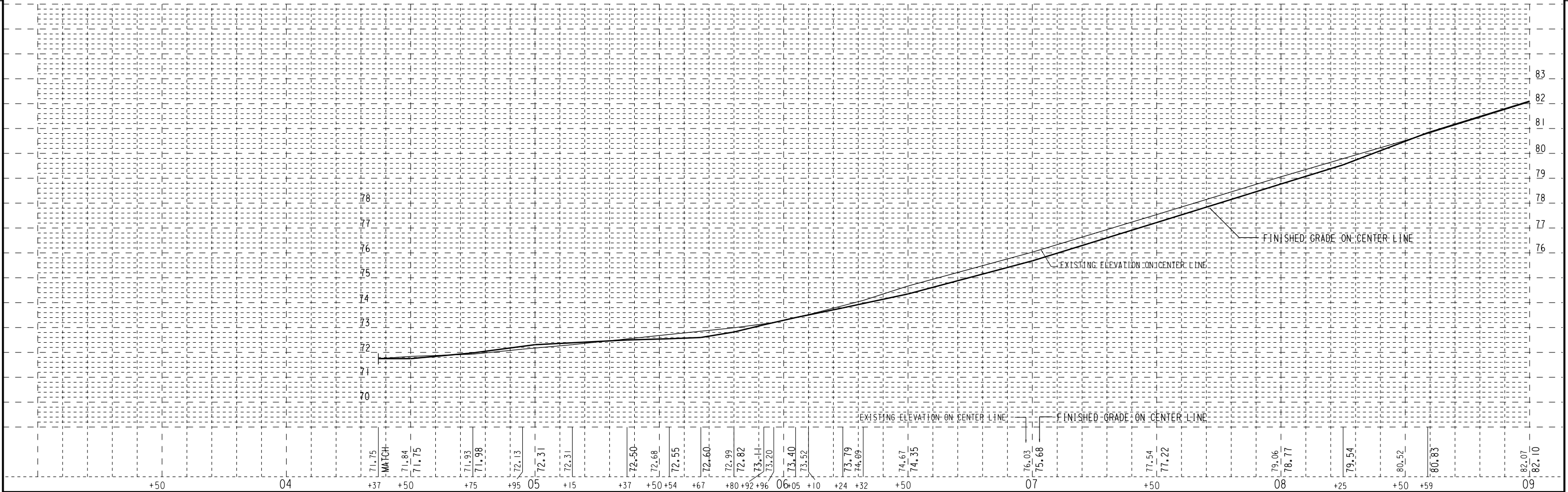
STREET



- 6 CONST. CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD
- W CONST. CONC. LOADING ZONE WITH 7-INCH FACE

5

5

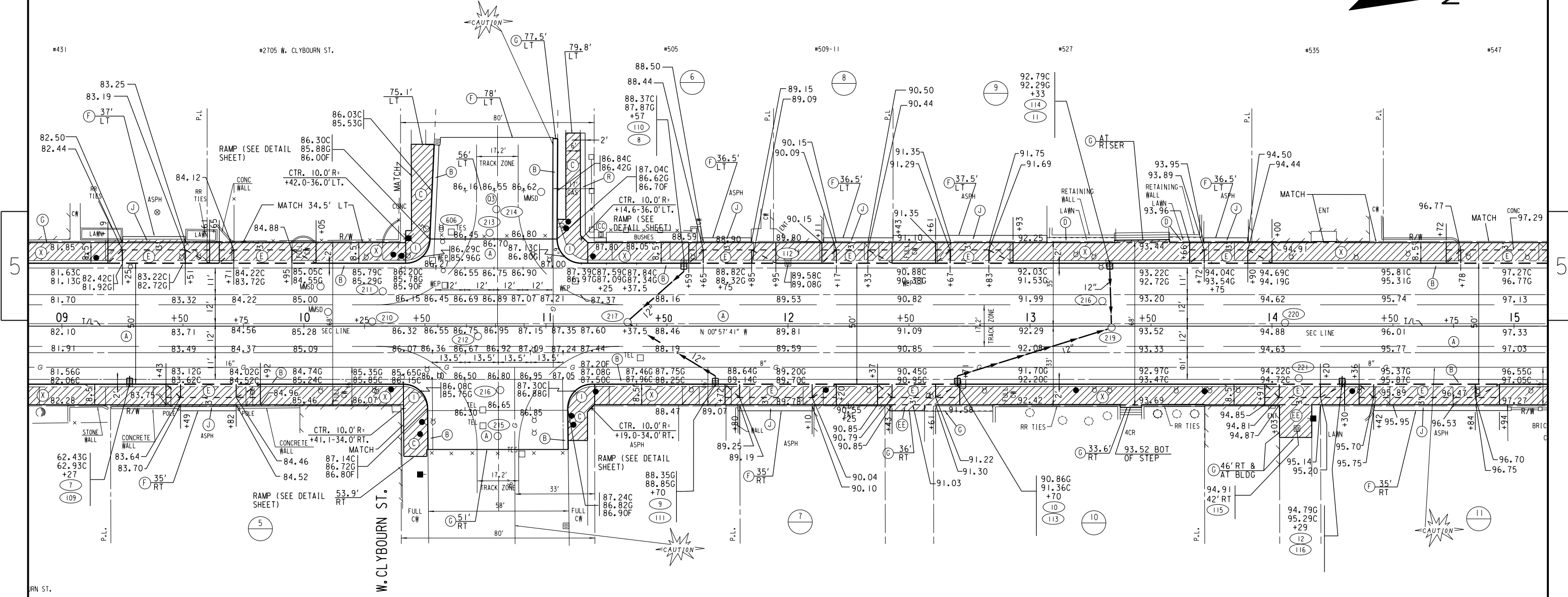


NORTH

27TH

STREET

B.M. N. W. BOLT HYD. SW CORNER
N. 27TH ST. & W. CLYBOURN ST.
STA. 10 + 41.29' LT.
ELEV. = 87.20

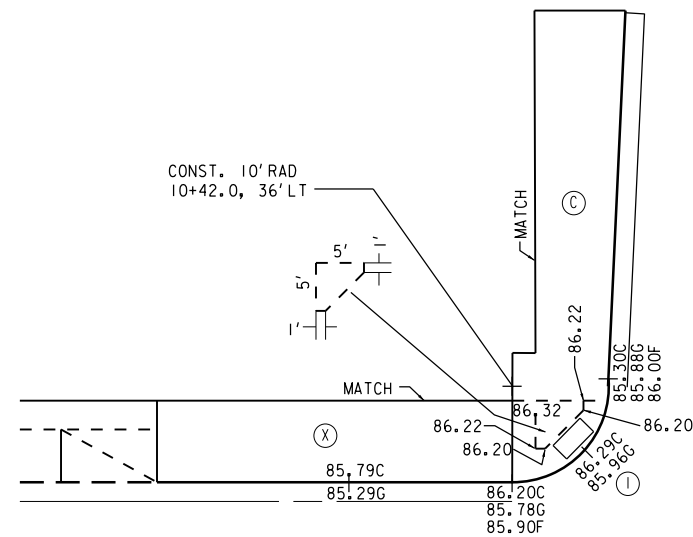


- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
- (B) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)

- (F) SAWING ASPHALT
- (G) SAWING CONCRETE
- (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
- (O3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
- (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
- (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (EE) CONST. 7-INCH CONC. ALLEY PAVEMENT

B.M. N. W. BOLT HYD. EAST SIDE
N. 27TH ST. @ #536
STA. 13 + 72.27' RT.
ELEV. = 95.98

5



RAMP DETAIL SW CORNER N.27TH ST. & W. CLYBOURN ST.

NORTH

1" = 20'

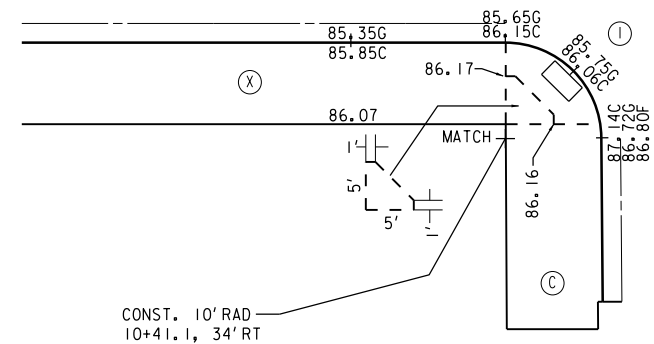
27TH

STREET



CLYBOURN

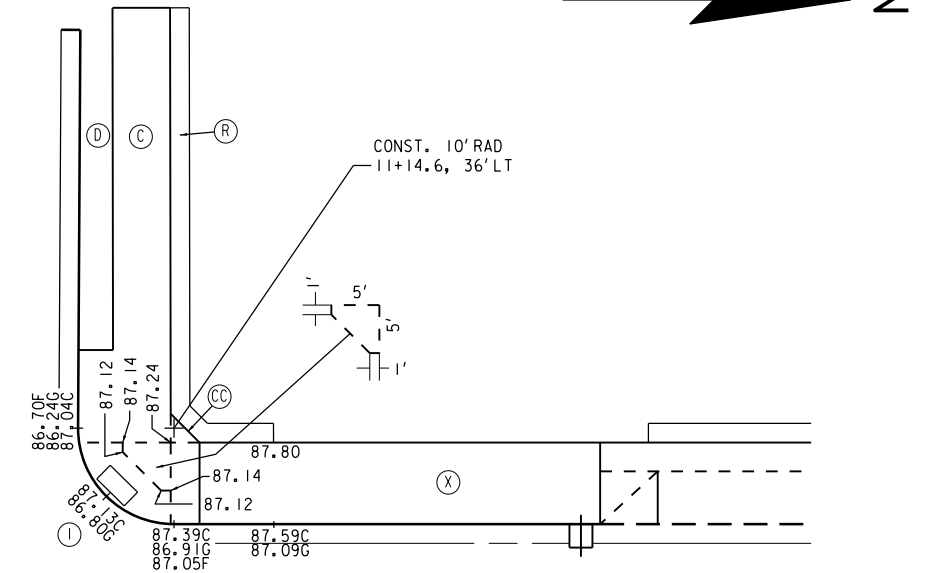
WEST



RAMP DETAIL SE CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'

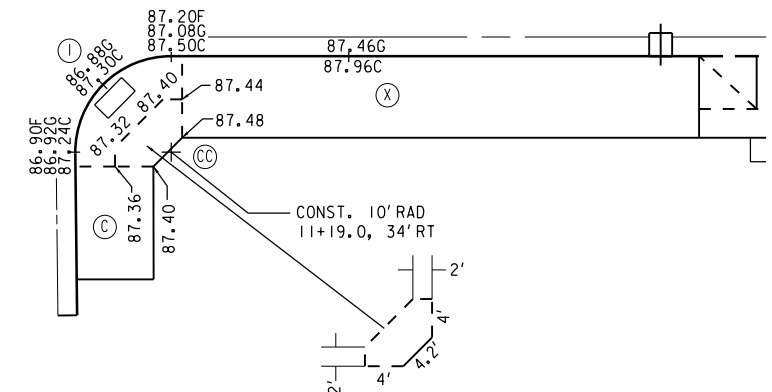
- ① CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- ② CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- ③ GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- ④ CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
- ⑤ REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
- ⑥ CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE



RAMP DETAIL NW CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'

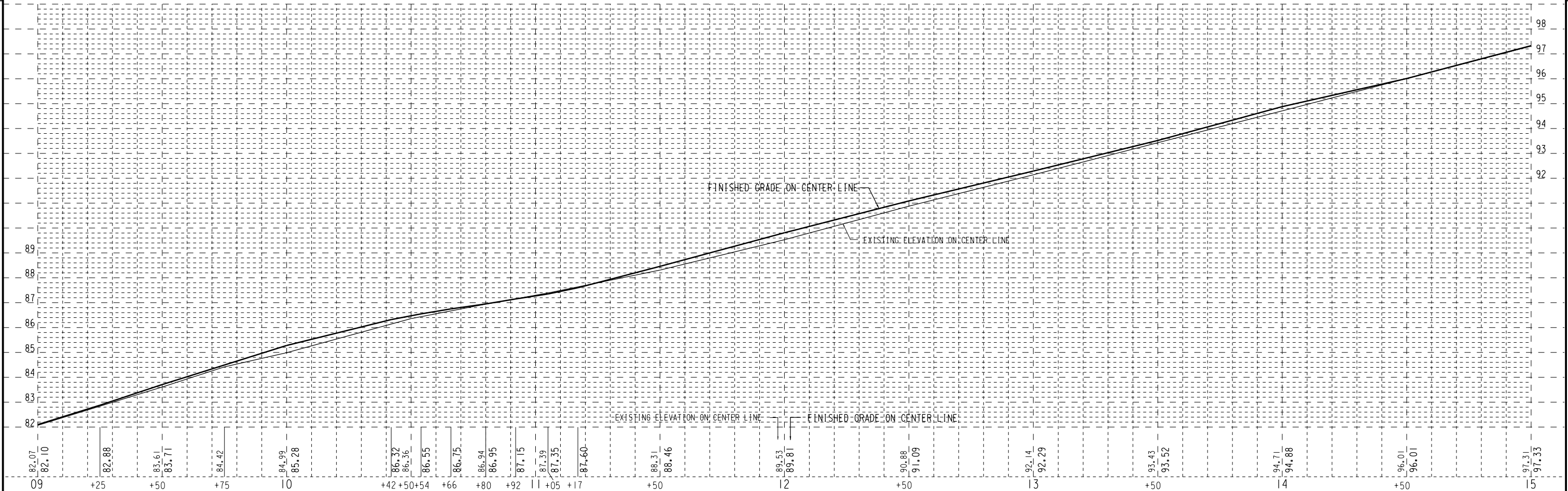
STREET



RAMP DETAIL NE CORNER N.27TH ST. & W. CLYBOURN ST.

1" = 20'

NORTH 27TH STREET



NORTH

27TH

STREET

N

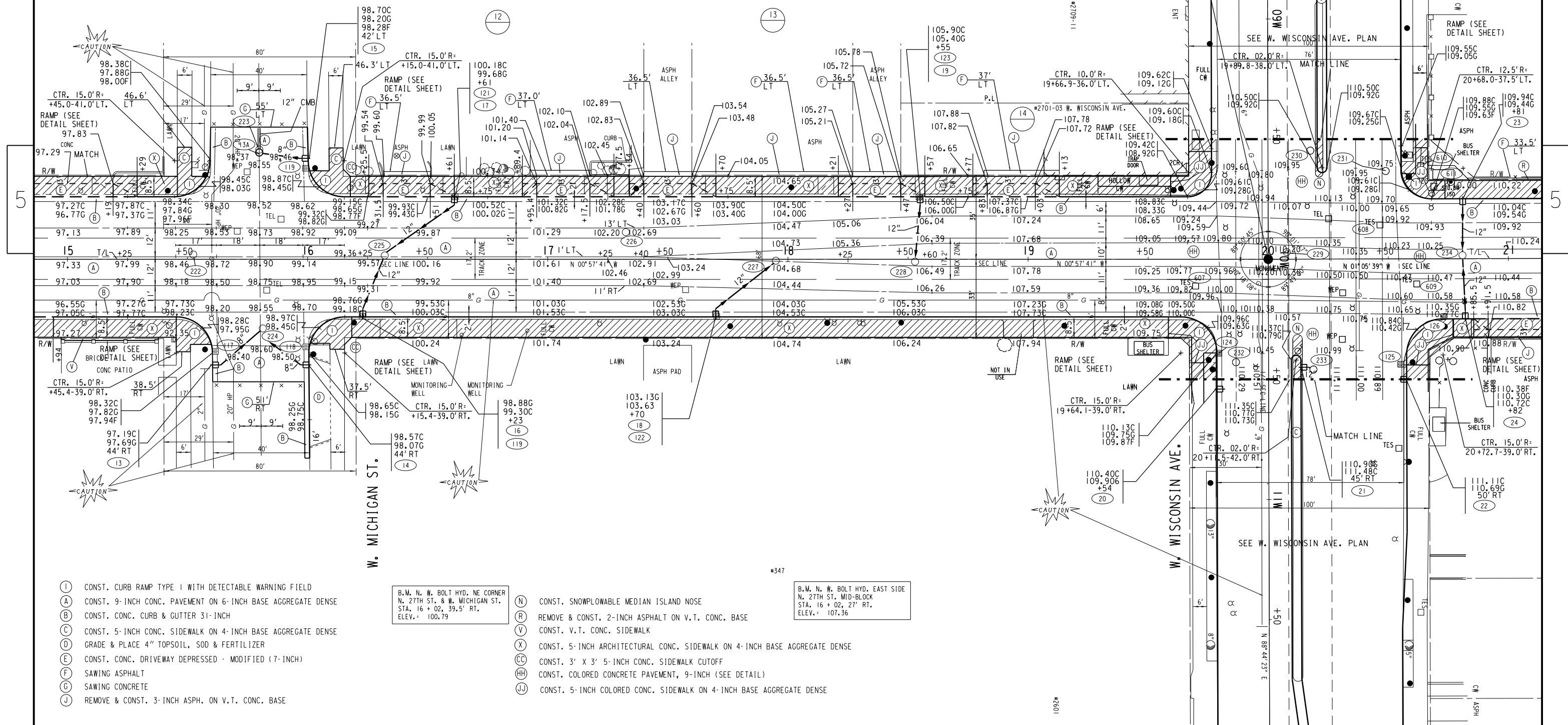
REPLACE LANDMARK REFERENCE MONUMENT
STA. 20+00.00 N. 27TH ST.
STA. 10W+00.00 W. WISCONSIN AVE.



#547

#605

#625



- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
- (B) CONST. CONC. CURB & GUTTER 31-INCH
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (F) SAWING ASPHALT
- (G) SAWING CONCRETE
- (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE

B.M. N. W. BOLT HYD. NE CORNER
N. 27TH ST. & W. MICHIGAN ST.
STA. 16 + 02, 39.5' RT.
ELEV. = 100.79

- (N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
- (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
- (V) CONST. V.T. CONC. SIDEWALK
- (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
- (HH) CONST. COLORED CONCRETE PAVEMENT, 9-INCH (SEE DETAIL)
- (JJ) CONST. 5-INCH COLORED CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE

B.M. N. W. BOLT HYD. EAST SIDE
N. 27TH ST. MID-BLOCK
STA. 16 + 02, 27' RT.
ELEV. = 107.36

STATE PROJECT NUMBER 2265-09-70 2265-17-70 HWY: STH 57

COUNTY: MILWAUKEE

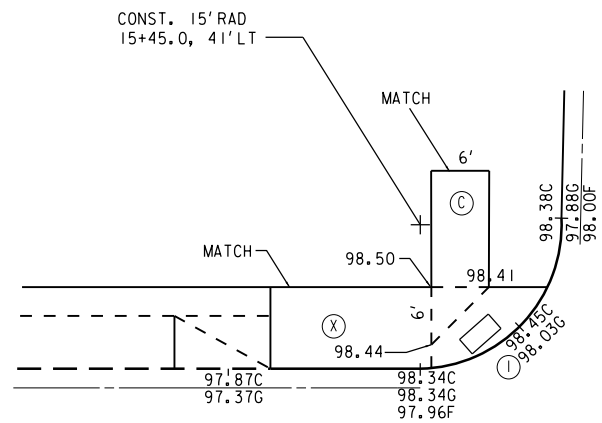
PLAN AND PROFILE

SCALE FEET 0' 40'

SHEET NO: 163

E

5



RAMP DETAIL SW CORNER N.27TH ST. & W. MICHIGAN ST.

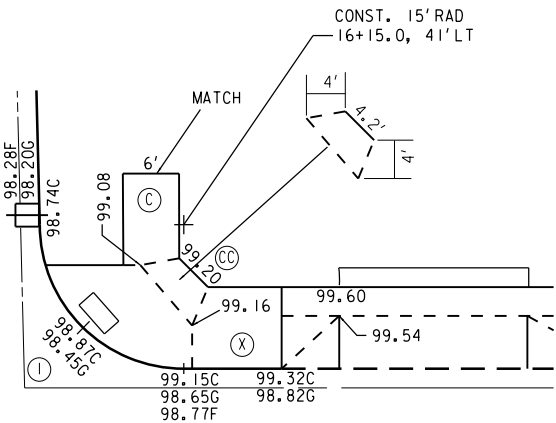
1" = 20'

NORTH

STREET

MICHIGAN

27TH

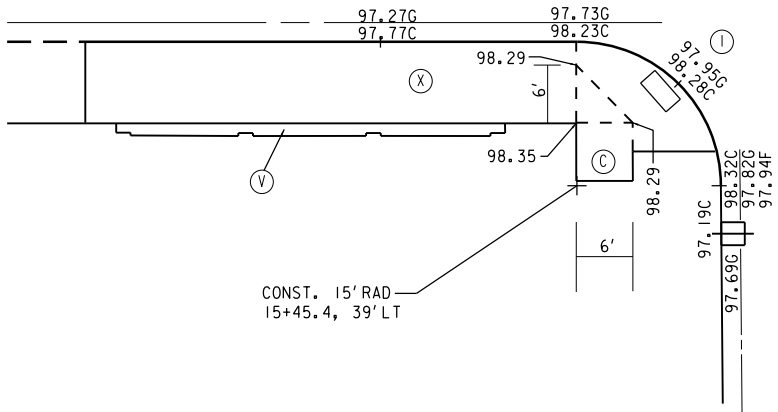


RAMP DETAIL NW CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'

STREET

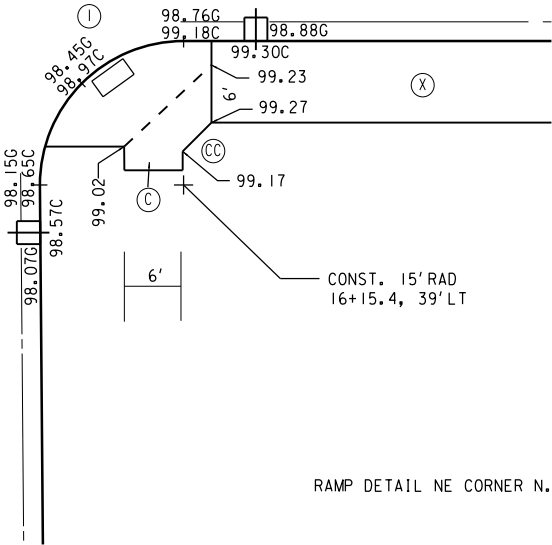
- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (V) CONST. V.T. CONC. SIDEWALK
- (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF



RAMP DETAIL SE CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'

WEST



RAMP DETAIL NE CORNER N.27TH ST. & W. MICHIGAN ST.

1" = 20'


$$1'' = 20'$$

NORTH


$$1'' = 20'$$

27TH


$$1'' = 20'$$

☐ (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
☐ (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
☒ (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
☐ (JJ) CONST. 5-INCH COLORED CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE


$$1'' = 20'$$

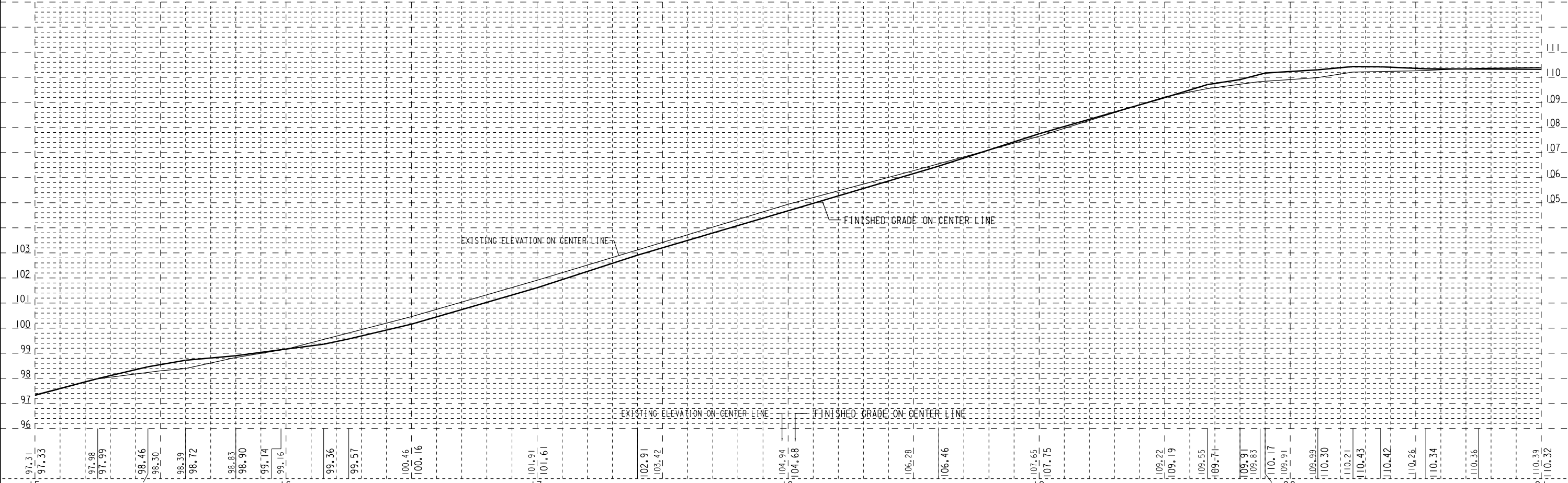
NORTH

27TH

STREET

5

5



NORTH

27TH

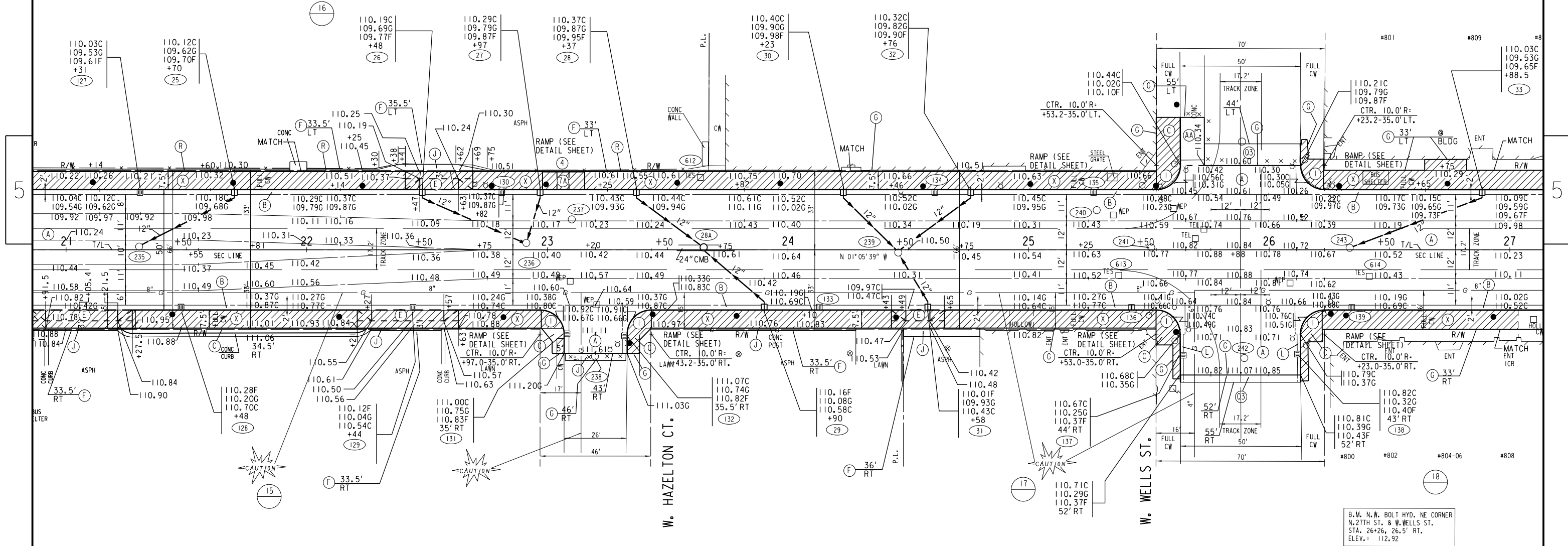
STREET

BM: STD #150 NW CORNER
N. 27TH ST. & W. WISCONSIN AVE.
7' W. & 21' N. OF CURBS
IN WATER VALVE BOX, STA. 20+76, 32' LT.
ELEV. = 109.836



#2708 W. WISCONSIN AVE.
WISCONSIN AVENUE SCHOOL

#743-53



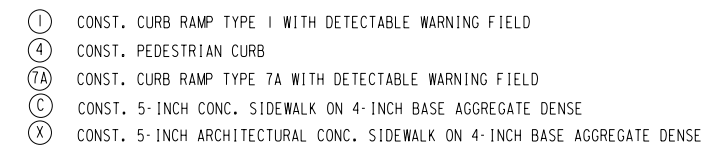
#2630 W. WISCONSIN AVE.

#748

#2639 W. WELLS ST.

B.M. N.W. BOLT HYD. NE CORNER
N. 27TH ST. & W. WELLS ST.
STA. 26+26, 26.5' RT.
ELEV. = 112.92

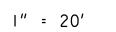
- | | | |
|---|---|---|
| (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD | (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE | (L) CONST. CONC. CURB & GUTTER 22-INCH |
| (4) CONST. PEDESTRIAN CURB | (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH) | (Q3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY |
| (7A) CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD | (F) SAWING ASPHALT | (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE |
| (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE | (G) SAWING CONCRETE | (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE |
| (B) CONST. CONC. CURB & GUTTER 31-INCH | (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE | (AA) CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE WITH INTEGRAL CURB |


$$1'' = 20'$$

STREET



WEST HAZELTON COURT



FILE NAME: W:\SPR\27 N STPAUL HIGH 21-27.DGN



NORTH

$$1'' = 20'$$


STREET

$$1'' = 20'$$


WELLS

WEST

$$1'' = 20'$$

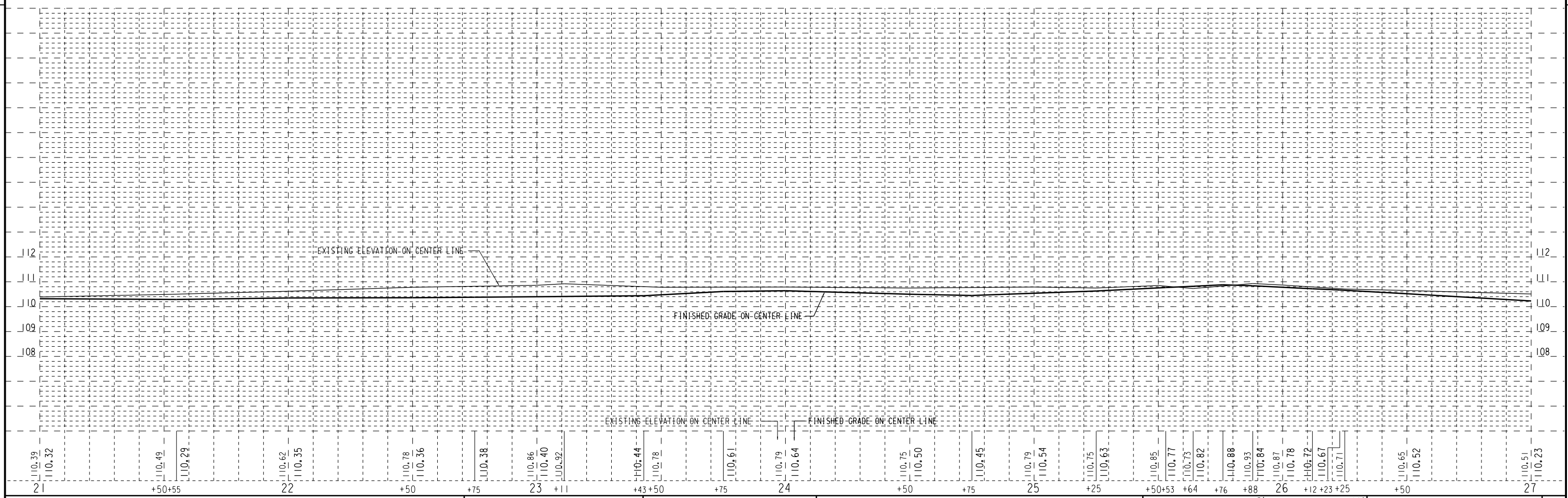
$$1'' = 20'$$

FILE NAME: W:\SPR\27 N STPAUL HIGH 21-27.DGN

NORTH 27TH STREET

5

5



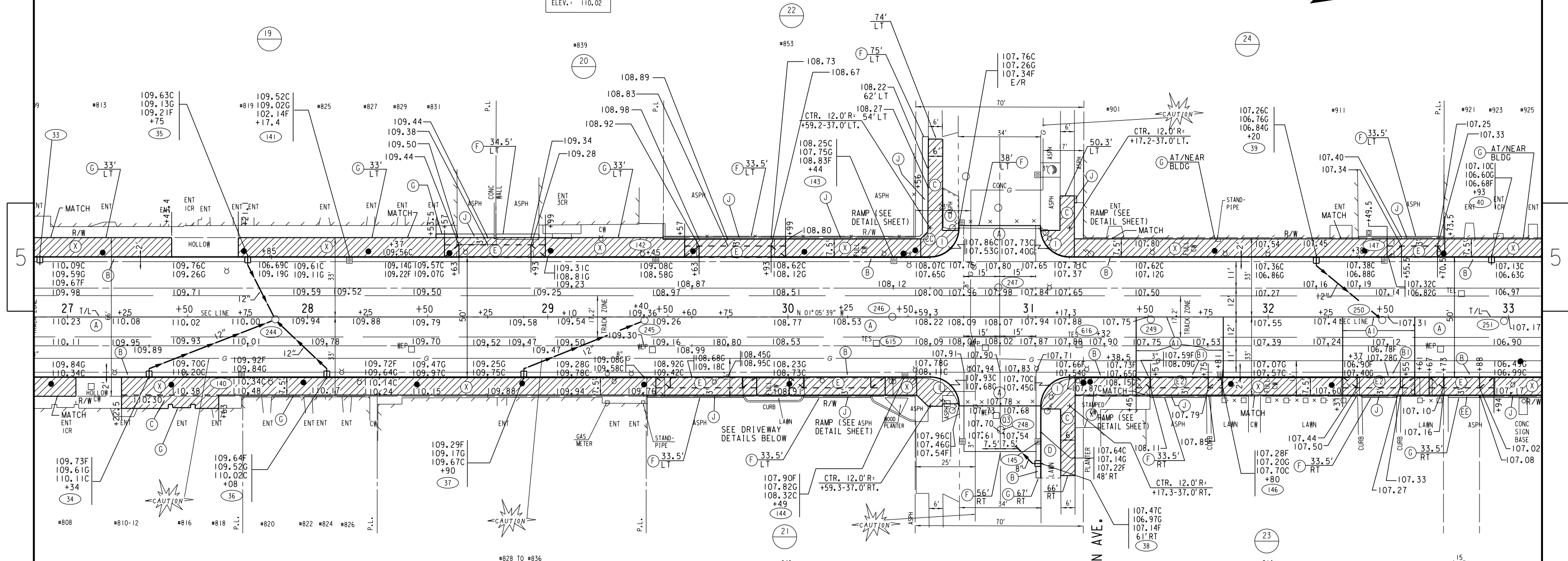
NORTH

27TH

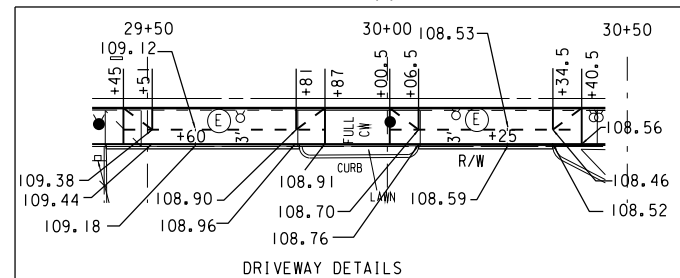
STREET

B.M. NE CORNER
1ST CONC. STEP
#839 N. 27TH ST.
ELEV. = 110.02

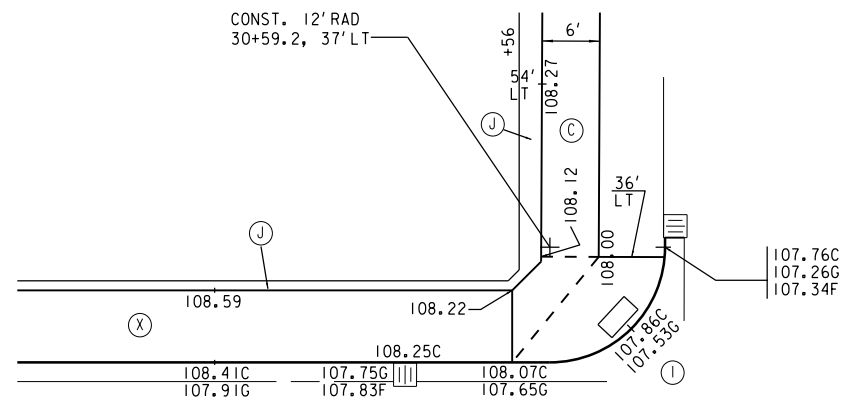
N



- (I) CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
- (A1) CONST. 9-INCH H.E.S. CONC. PAVEMENT (9-BAG MIX) ON 6-INCH BASE AGGREGATE DENSE
- (B) CONST. CONC. CURB & GUTTER 31-INCH
- (B1) CONST. H.E.S. CONC. CURB & GUTTER (9-BAG MIX) 31-INCH
- (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (E2) CONST. H.E.S. CONC. DRIVEWAY (9-BAG MIX) DEPRESSED - MODIFIED (9-INCH)
- (F) SAWING ASPHALT



- (G) SAWING CONCRETE
- (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
- (J3) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
- (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- (CC) CONST. 3' X 3' 5-INCH CONC. SIDEWALK CUTOFF
- (EE) CONST. 7-INCH CONC. ALLEY PAVEMENT



- ☐ I CONST. CURB RAMP TYPE I WITH DETECTABLE WARNING FIELD
- ☐ C CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
- ☐ F SAWING ASPHALT
- ☐ J REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE
- ☒ X CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE

RAMP DETAIL SW CORNER N.27TH ST. & W. KILBOURN AVE.

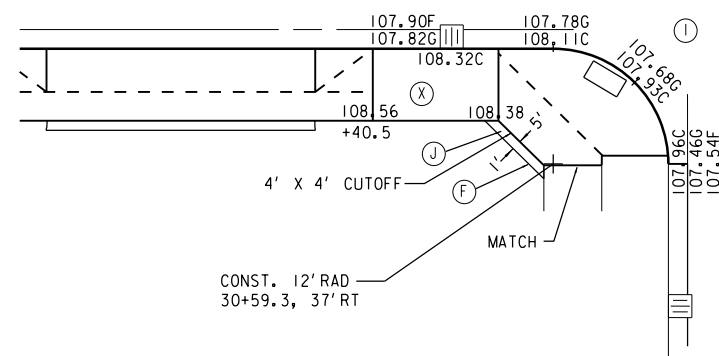
$$1'' = 20'$$

NORTH

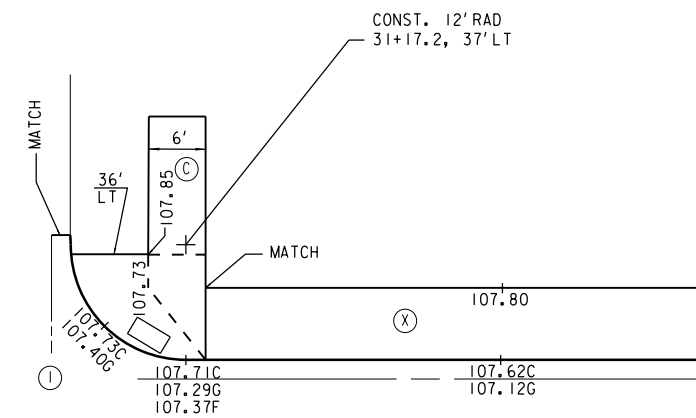
27TH

KILBOURN

WEST



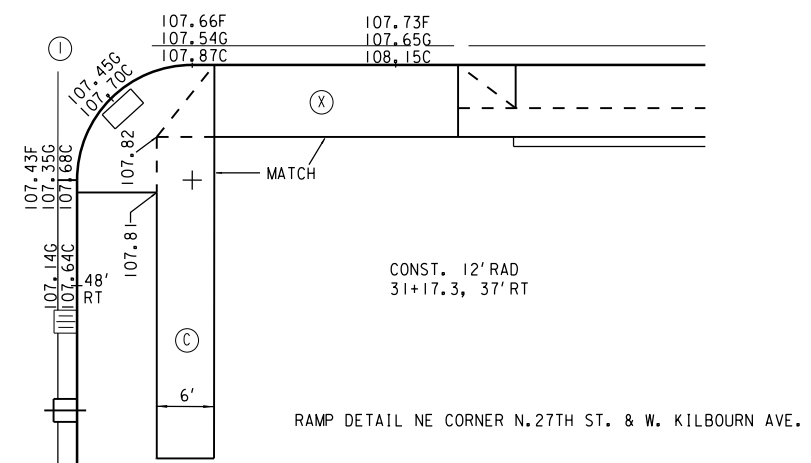
RAMP DETAIL SE CORNER N.27TH ST. & W. KILBOURN AVE.

$$1'' = 20'$$


RAMP DETAIL NW CORNER N.27TH ST. & W. KILBOURN AVE.

$$1'' = 20'$$

STREET



RAMP DETAIL NE CORNER N.27TH ST. & W. KILBOURN AVE.

$$1'' = 20'$$

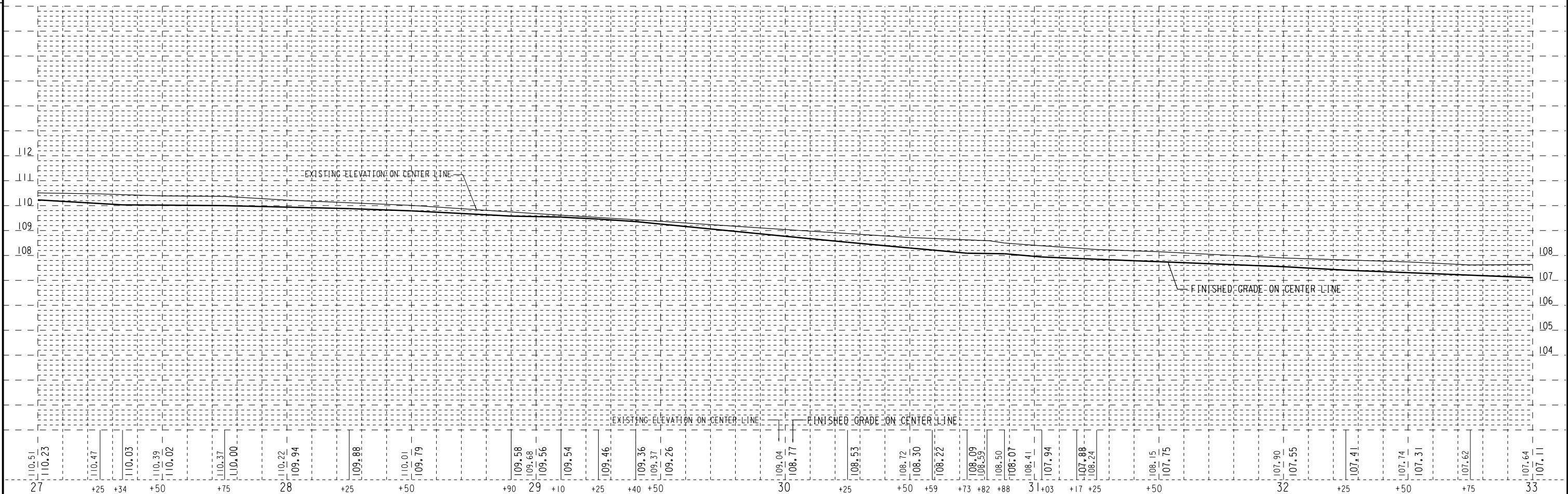
NORTH

27TH

STREET

5

5

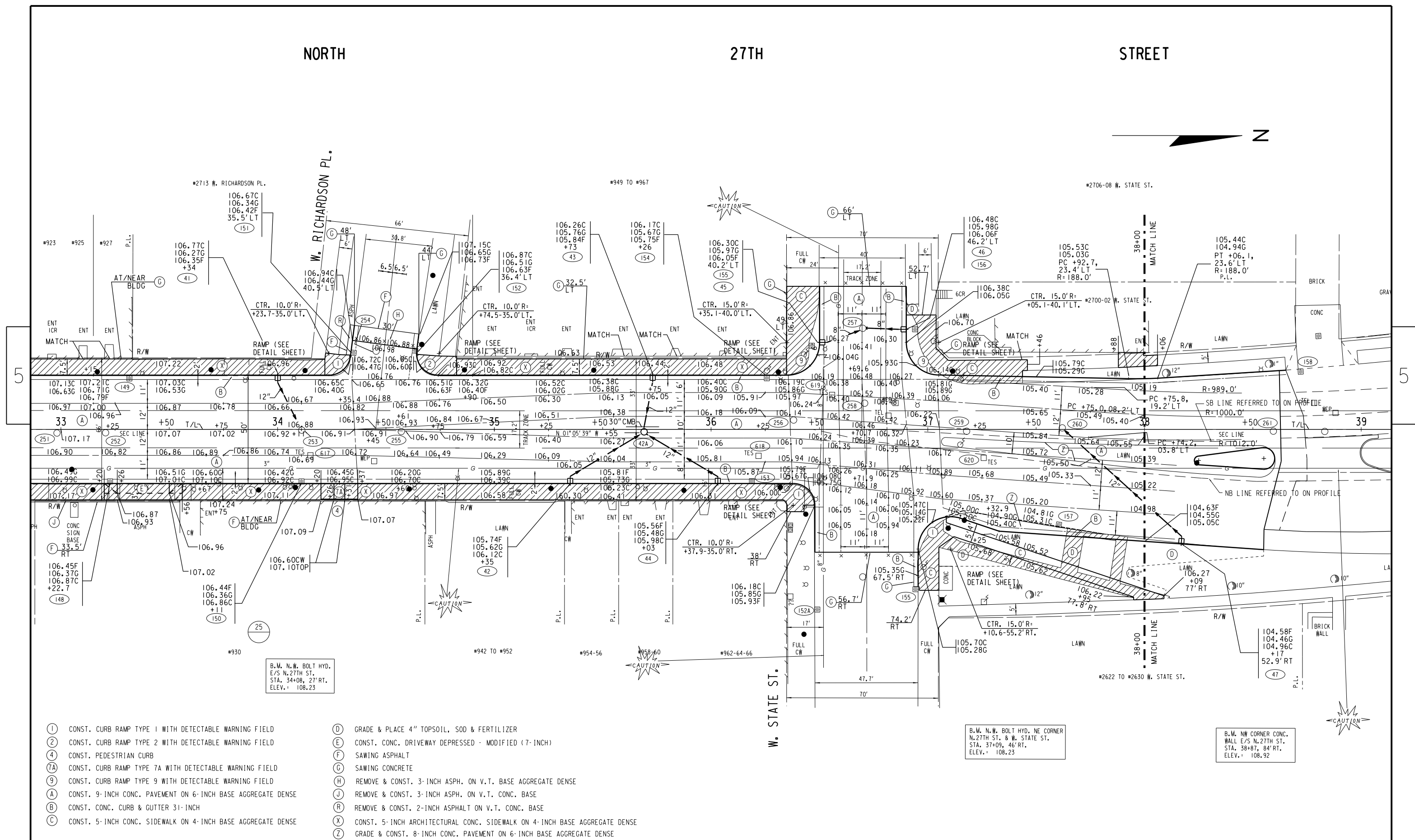


NORTH

27TH

STREET

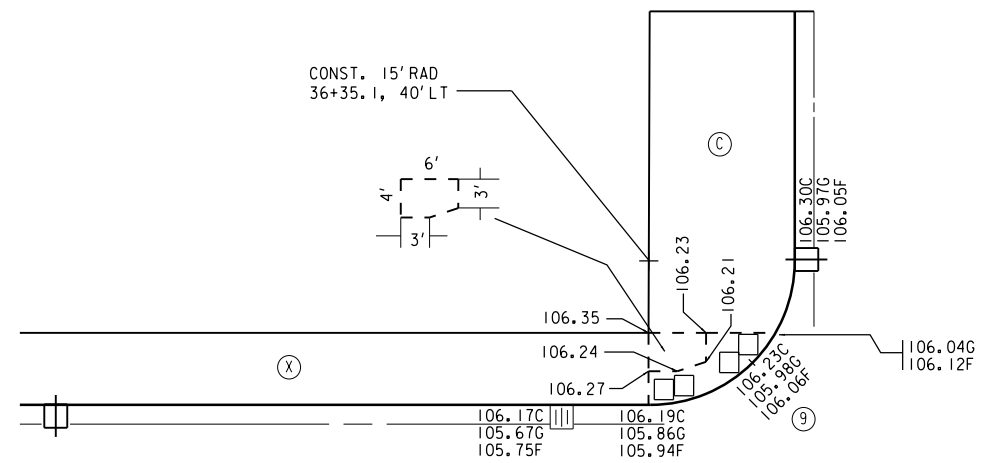
N



- | | |
|---|---|
| (1) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD | (D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER |
| (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD | (E) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH) |
| (4) CONST. PEDESTRIAN CURB | (F) SAWING ASPHALT |
| (7A) CONST. CURB RAMP TYPE 7A WITH DETECTABLE WARNING FIELD | (G) SAWING CONCRETE |
| (9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD | (H) REMOVE & CONST. 3-INCH ASPH. ON V.T. BASE AGGREGATE DENSE |
| (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE | (J) REMOVE & CONST. 3-INCH ASPH. ON V.T. CONC. BASE |
| (B) CONST. CONC. CURB & GUTTER 31-INCH | (R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE |
| (C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE | (X) CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE |
| | (Z) GRADE & CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE |

B.M. N.W. BOLT HYD. NE CORNER
N. 27TH ST. & W. STATE ST.
STA. 37+09, 46' RT.
ELEV. = 108.23

B.M. NW CORNER CONC.
WALL E/S N. 27TH ST.
STA. 38+87, 84' RT.
ELEV. = 108.92



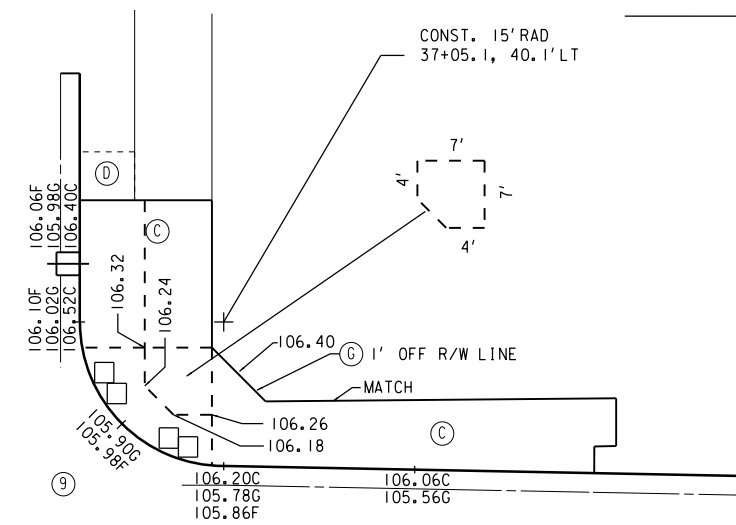
RAMP DETAIL SW CORNER N.27TH ST. & W. STATE ST.

$$1'' = 20'$$

STREET

STATE

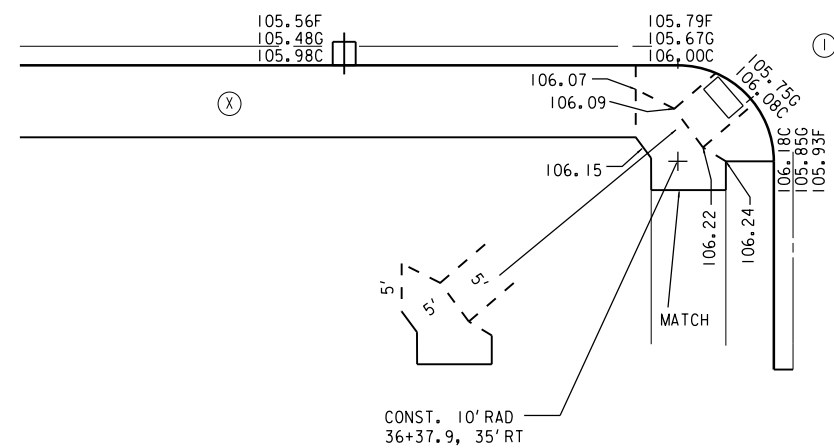
27TH



RAMP DETAIL NW CORNER N.27TH ST. & W. STATE ST.

$$1'' = 20'$$

STREET

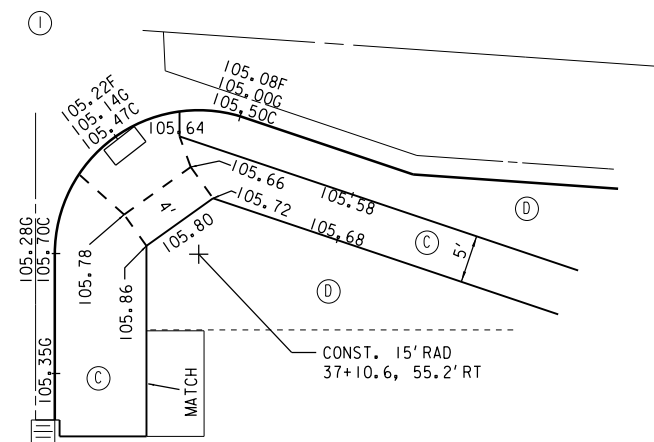


RAMP DETAIL SE CORNER N.27TH ST. & W. STATE ST.

$$1'' = 20'$$

WEST

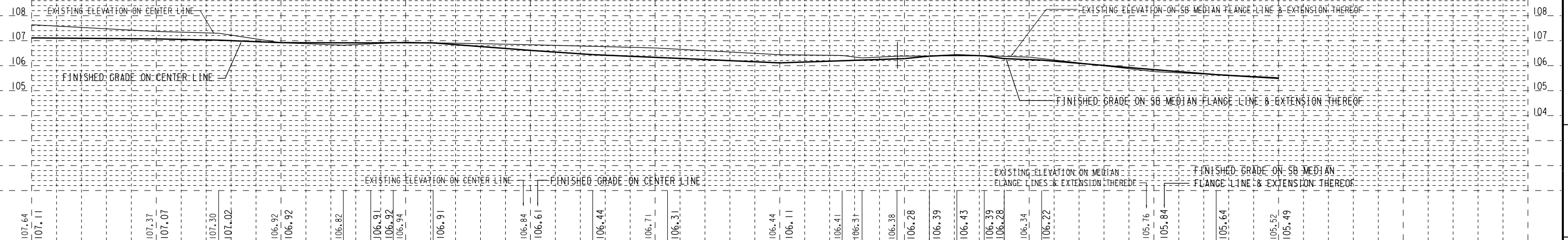
- | | |
|---|---|
| ① | CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD |
| ⑨ | CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD |
| ③ | CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE |
| ④ | GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER |
| ⑥ | SAWING CONCRETE |
| ⑩ | CONST. 5-INCH ARCHITECTURAL CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE |



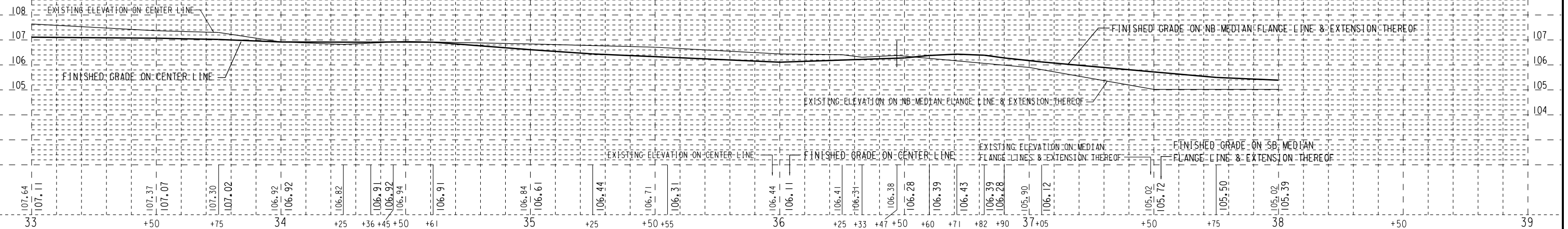
RAMP DETAIL NE CORNER N.27TH ST. & W. STATE ST.

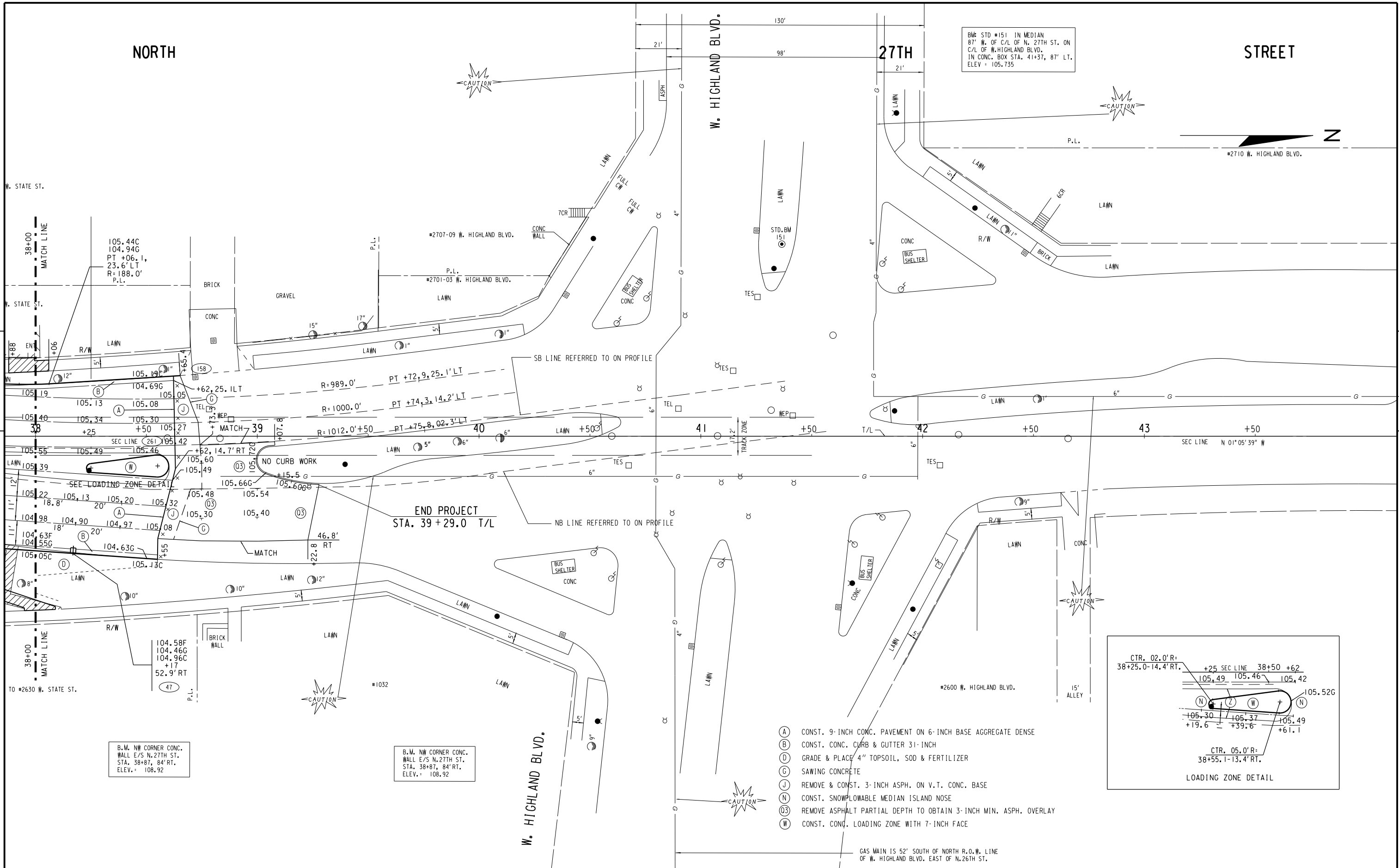
$$1'' = 20'$$

SOUTHBOUND N. 27TH ST.



NORTHBOUND N. 27TH ST.



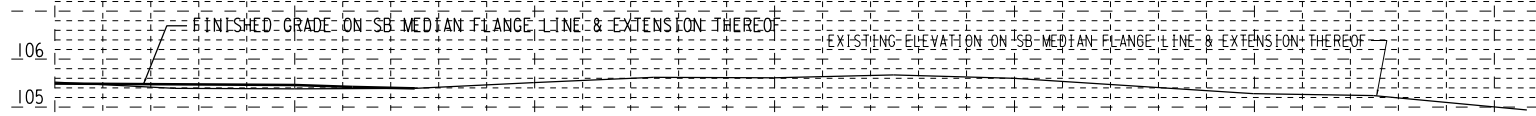


NORTH

SOUTHBOUND N. 27TH ST.

27TH

STREET



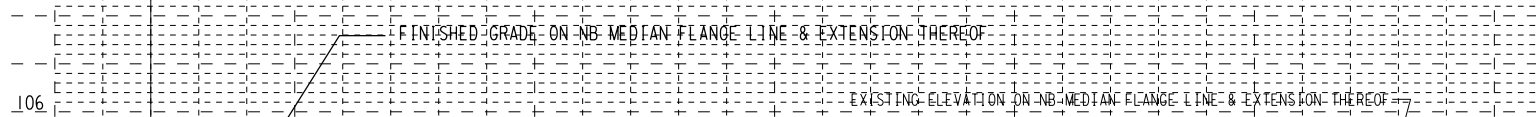
106
105
104
103
102

FINISHED GRADE ON SB MEDIAN
FLANGE LINE & EXTENSION THEREOF

EXISTING ELEVATION ON MEDIAN
FLANGE LINES & EXTENSION THEREOF

105.52 105.49 105.39 105.38 105.46 105.42 105.39 MATCH 105.51 105.62 105.61 105.67 105.60 105.28 105.24 104.94

NORTHBOUND N. 27TH ST.



106
105
104
103
102

FINISHED GRADE ON SB MEDIAN
FLANGE LINE & EXTENSION THEREOF

EXISTING ELEVATION ON MEDIAN
FLANGE LINES & EXTENSION THEREOF

105.02 105.39 105.30 105.37 105.27 105.49 105.48 105.42 105.54 105.58 MATCH 105.60 105.31 104.95 104.80 104.76

WEST

WISCONSIN

AVENUE

WISCONSIN AVENUE SCHOOL
#2708 W. WISCONSIN AVE.

BM: STD #150 NW CORNER
N. 27TH ST. & W. WISCONSIN AVE.
7' W. & 21' N. OF CURBS
IN WATER VALVE BOX. STA. 20+76.32' LT.
ELEV = 109.836

N

5

5

04W

+50

05W

+50

06W

+50

07W

+50

08W

+50

09W

+50

09W

+50

BEGIN CONSTRUCTION
STA. 06W+80.5 T/L

1/4 SEC LINE

T/L

T/L

1/4 SEC LINE

SEE N. 27TH ST. 10W

10W

N. 28TH ST.

N. 27TH ST.

- (A) CONST. 9-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE
(B) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. 5-INCH CONC. SIDEWALK ON 4-INCH BASE AGGREGATE DENSE
(D) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(F) SAWING ASPHALT
(H) REMOVE & CONST. 3-INCH ASPH. ON V.T. BASE AGGREGATE DENSE

- (N) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(03) REMOVE ASPHALT PARTIAL DEPTH TO OBTAIN 3-INCH MIN. ASPH. OVERLAY
(R) REMOVE & CONST. 2-INCH ASPHALT ON V.T. CONC. BASE
(AA) CONST. 8-INCH CONC. PAVEMENT ON 6-INCH BASE AGGREGATE DENSE WITH INTEGRAL CURB
(BB) CONST. CONC. CURB & GUTTER 19-INCH (HIGH SIDE)
(JJ) REMOVE & CONST. 3-INCH ASPHALT ON 8-INCH CONC. BASE

STATE PROJECT NUMBER 2265-09-70 2265-17-70 HWY: STH 57

COUNTY: MILWAUKEE

PLAN AND PROFILE

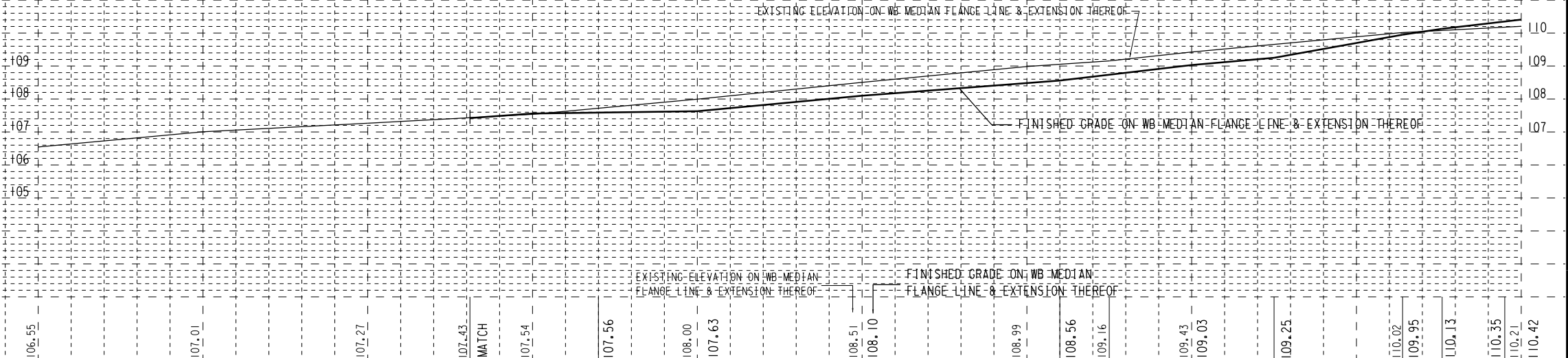
SCALE FEET 0' 40'

SHEET NO: 180

E

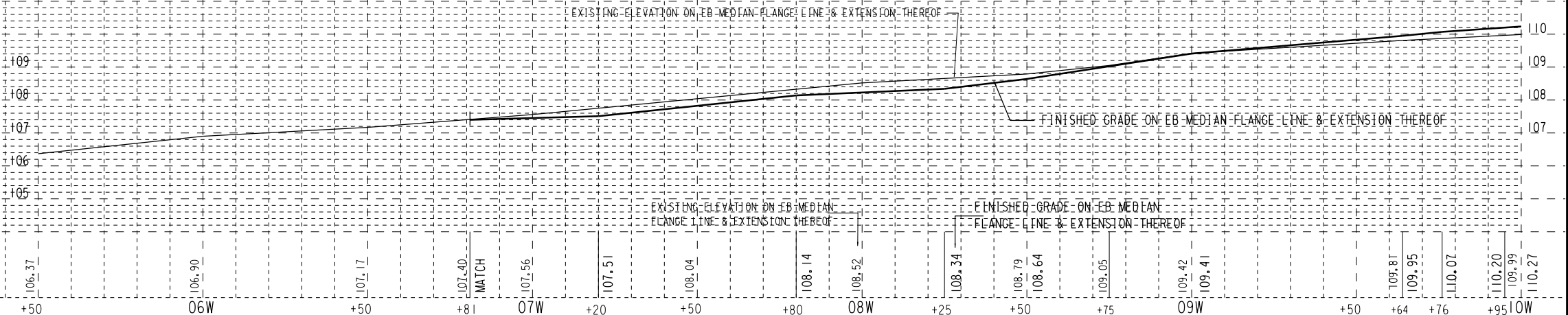
WESTBOUND W. WISCONSIN AVE.

5



5

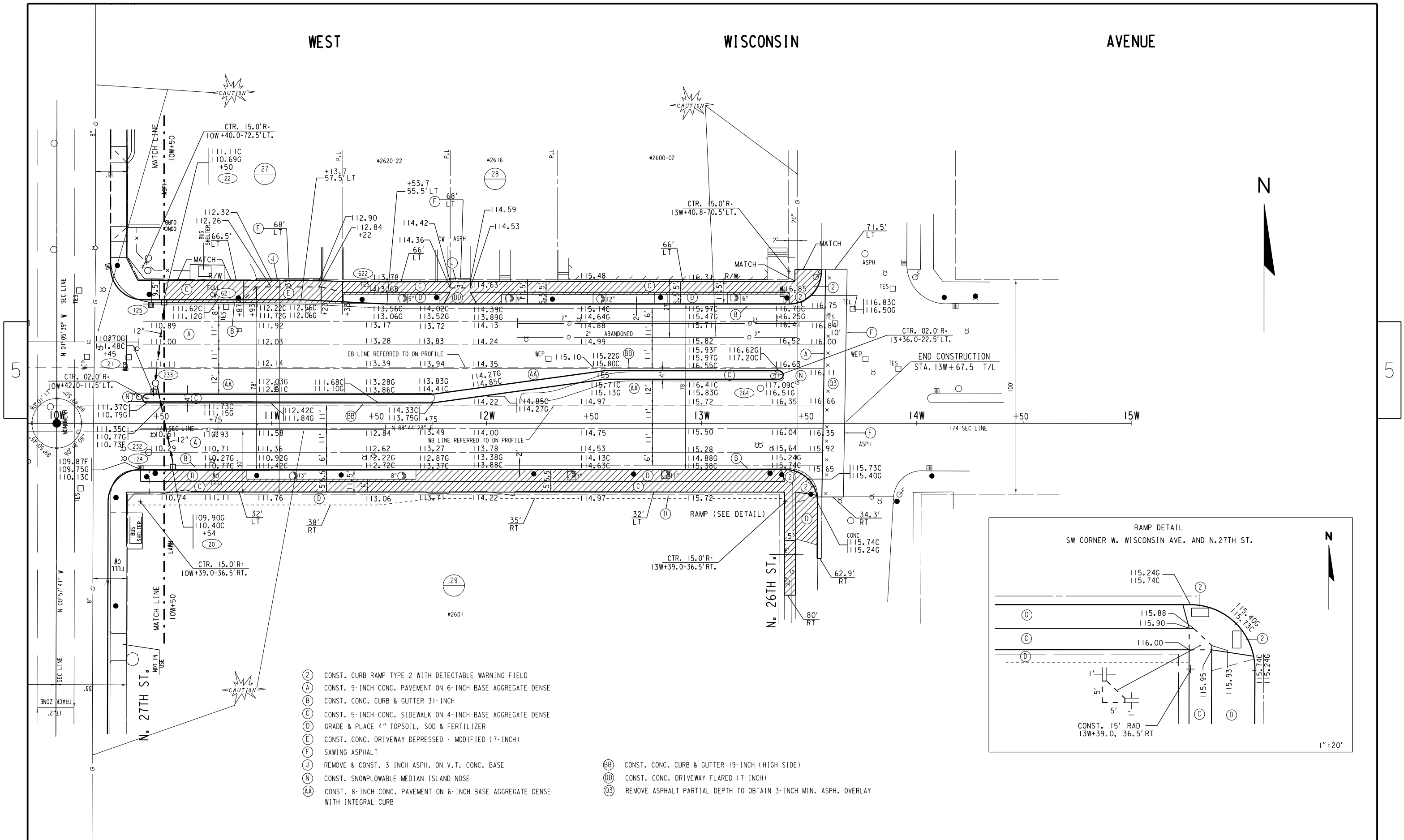
EASTBOUND W. WISCONSIN AVE.



WEST

WISCONSIN

AVENUE



STATE PROJECT NUMBER 2265-09-70 2265-17-70 HWY: STH 57

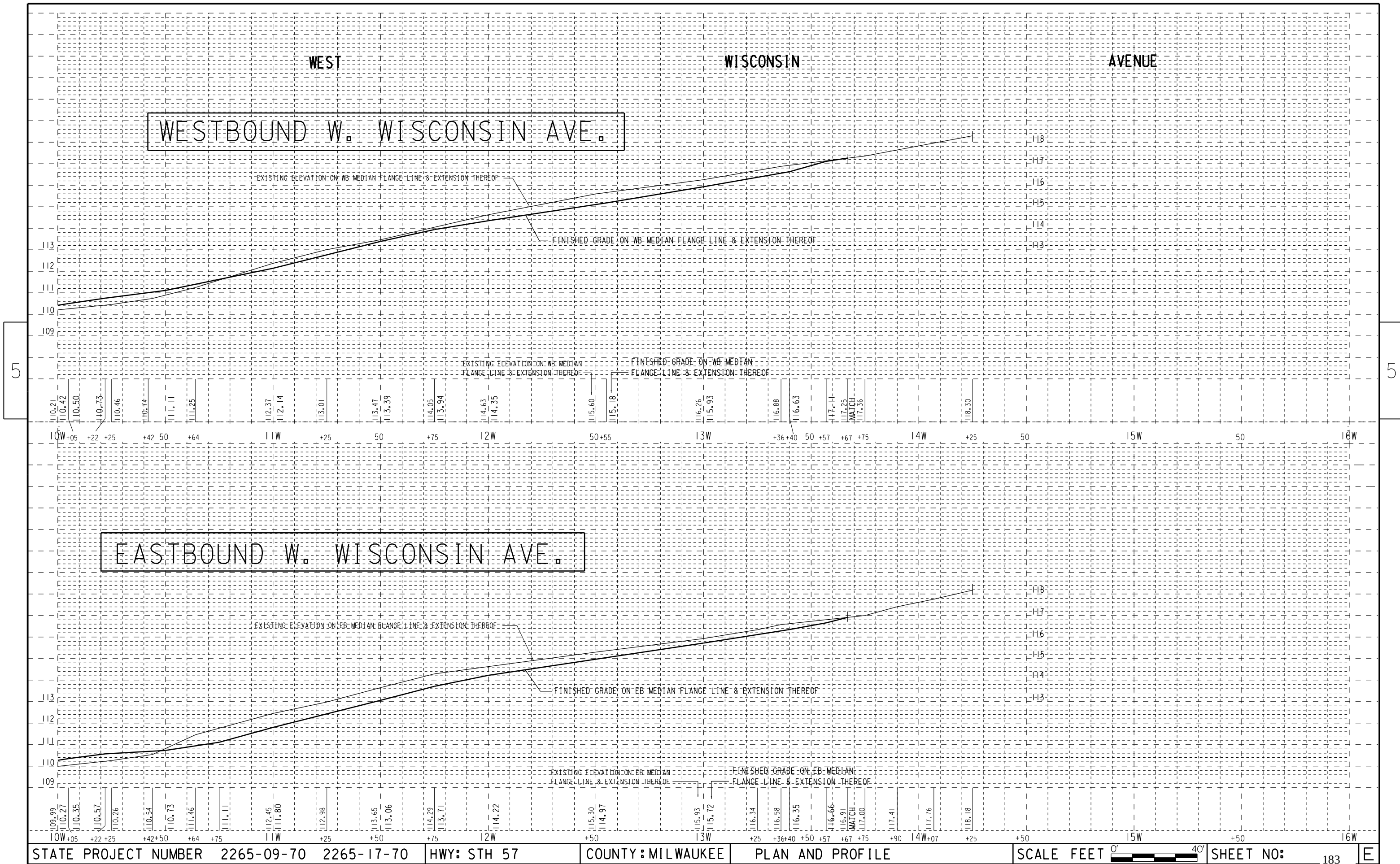
COUNTY: MILWAUKEE

PLAN AND PROFILE

SCALE FEET 0' 40' SHEET NO:

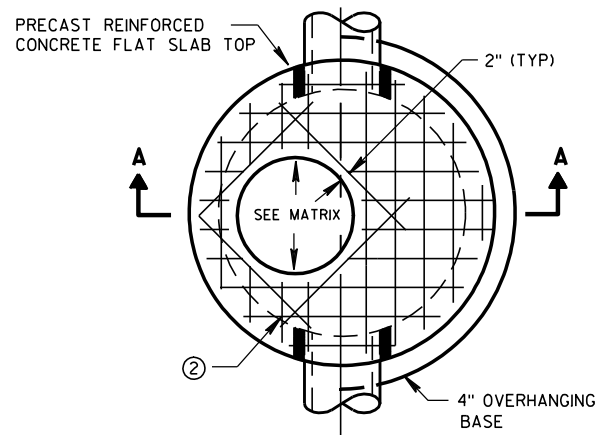
182

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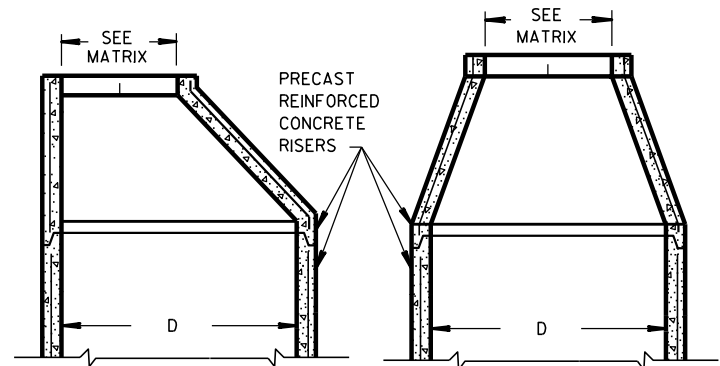


Standard Detail Drawing List

08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
09B02-07	CONDUIT
09C11-02	CONCRETE BASE TYPE 10
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C29-02A	BICYCLE LANE MARKING
15C29-02B	BICYCLE LANE MARKING
15C29-02C	URBAN BICYCLE LANE MARKING
15C29-02D	URBAN BICYCLE LANE MARKING
15C29-02E	PAVEMENT MARKING FOR BIKE LANES
15C29-02F	PAVEMENT MARKING FOR SHARED LANE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

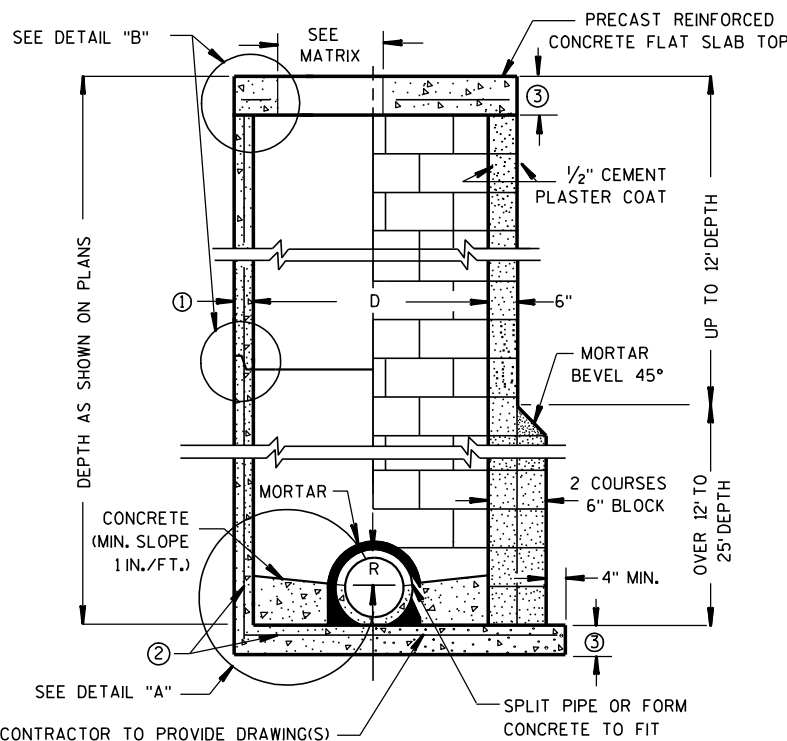


PLAN VIEW CIRCULAR OPENING



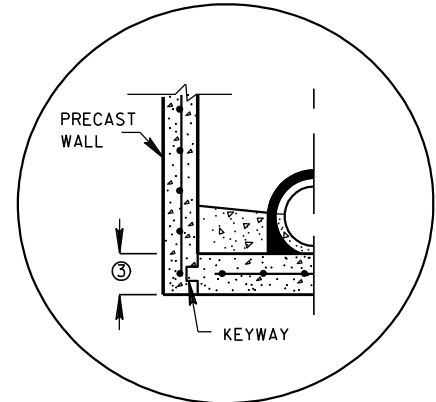
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

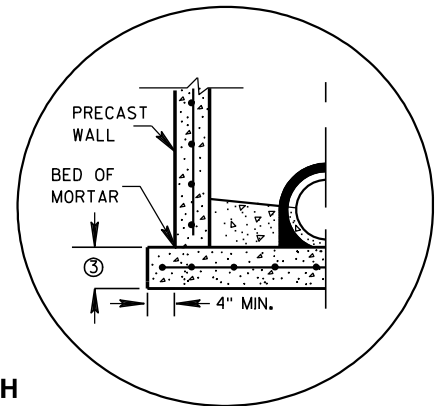


CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

PRECAST REINFORCED CONCRETE BLOCK WITH CONCRETE WITH MONOLITHIC BASE CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②



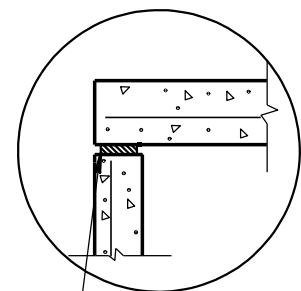
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



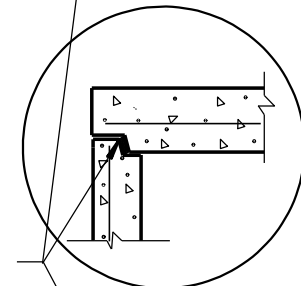
SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

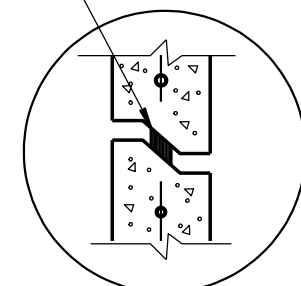
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)



TOP WITH PLAIN END JOINT

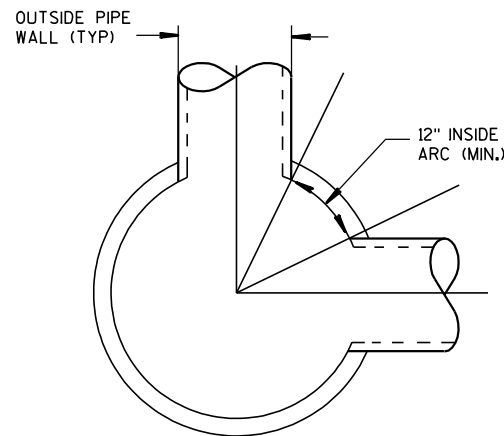


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" 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 PERMITTED 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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

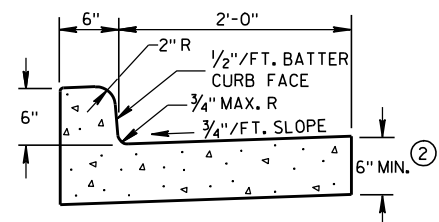
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

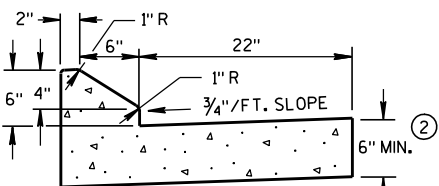
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER 185

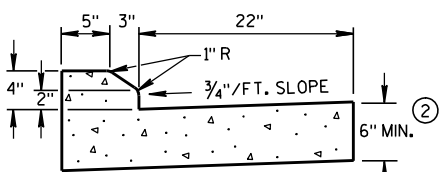
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER



TYPES A & D ①

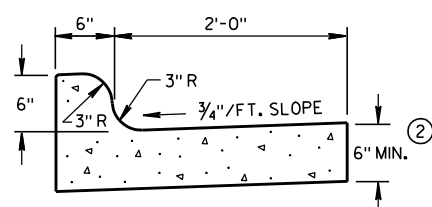


6" SLOPED CURB TYPES G & J ①

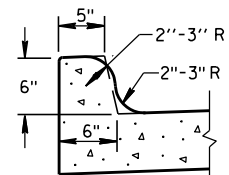
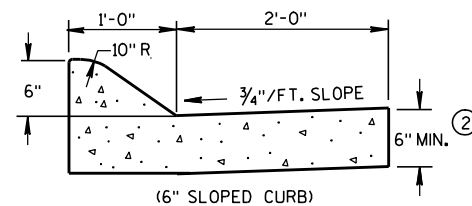


4" SLOPED CURB TYPES G & J ①

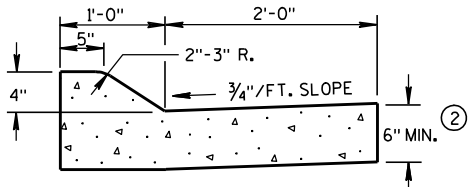
CONCRETE CURB & GUTTER 30"



TYPES K & L ①

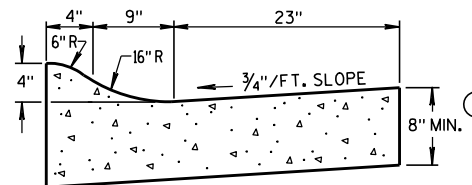
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

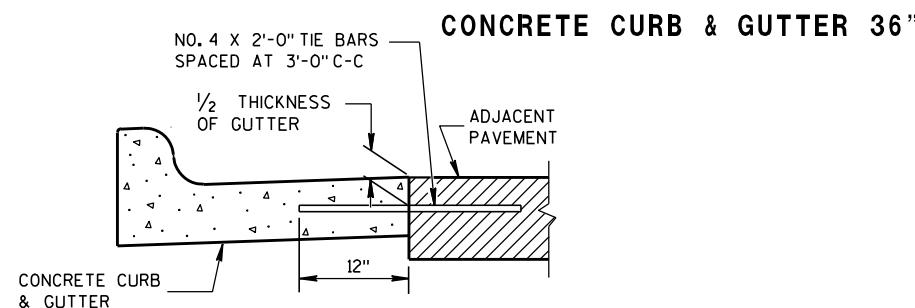


(4" SLOPED CURB)

TYPES A & D ①

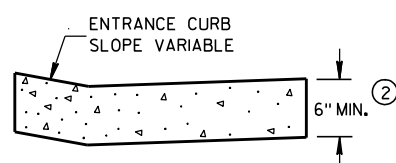


4" SLOPED CURB TYPES R & T ① ④



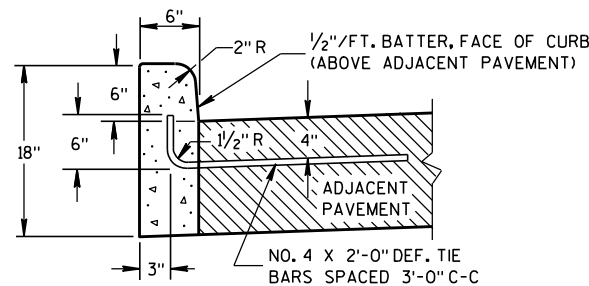
CONCRETE CURB & GUTTER 36"

TYPICAL TIE BAR LOCATION ①



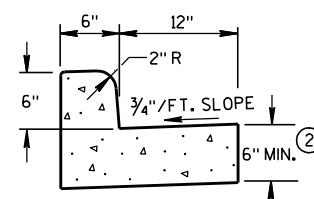
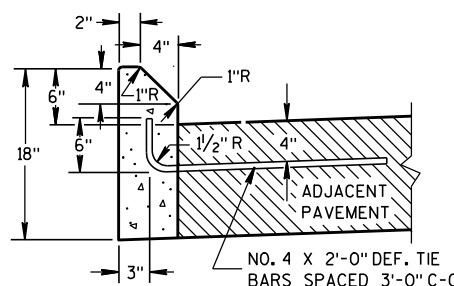
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

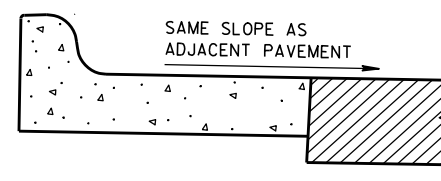
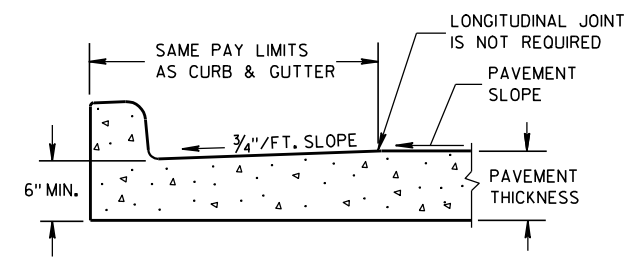
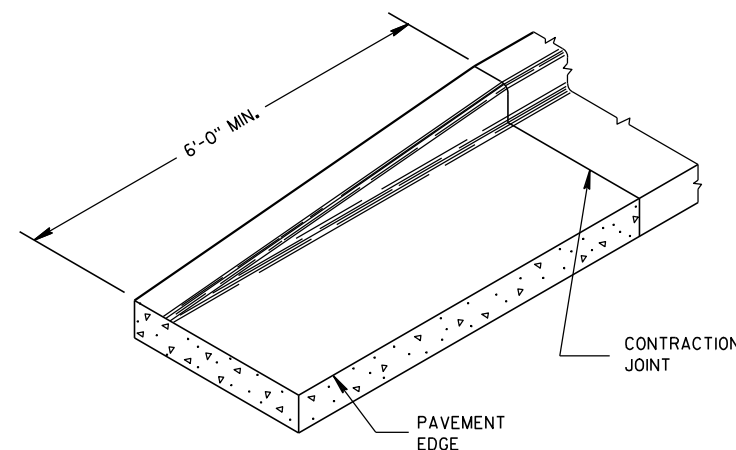
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

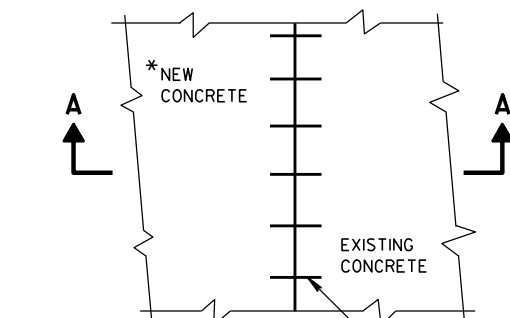
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

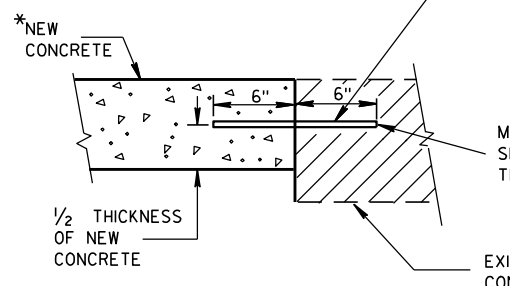
REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER



PLAN VIEW

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

EXISTING
CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

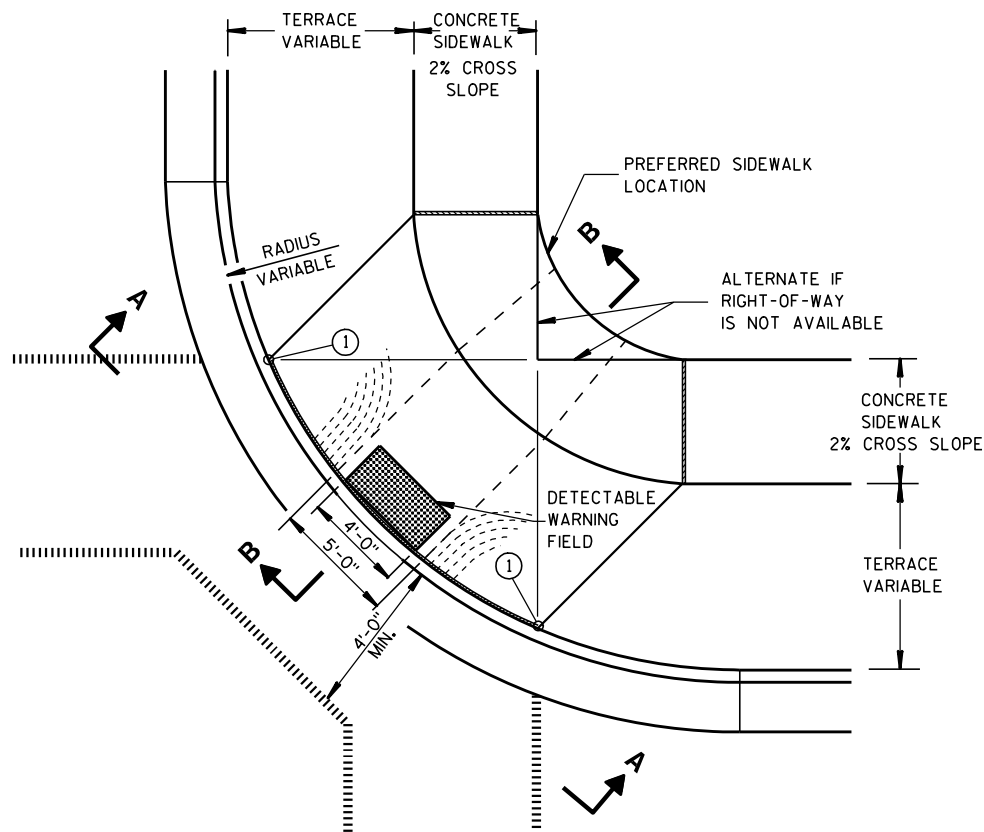
9/4/08

DATE

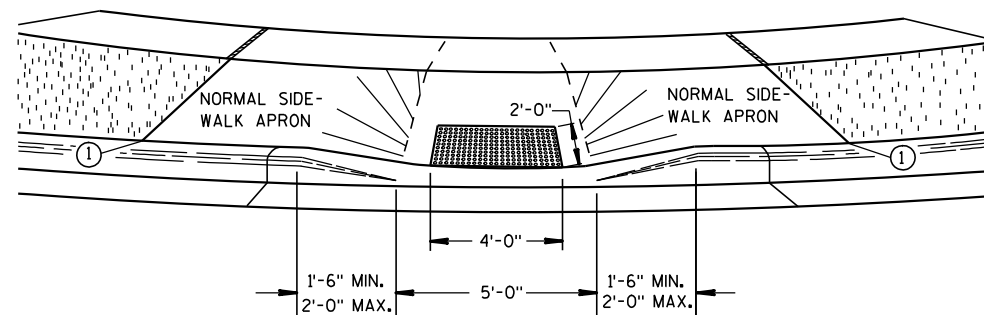
FHWA

/S/ Jerry H. 7-
ROADWAY STANDARDS 186
ENGINEER

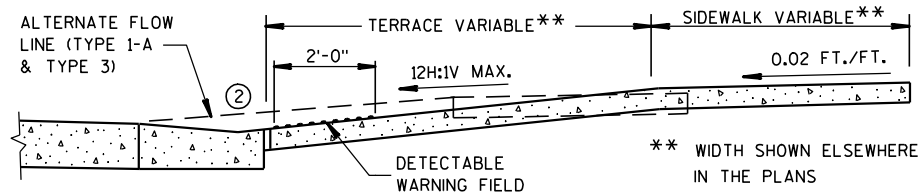
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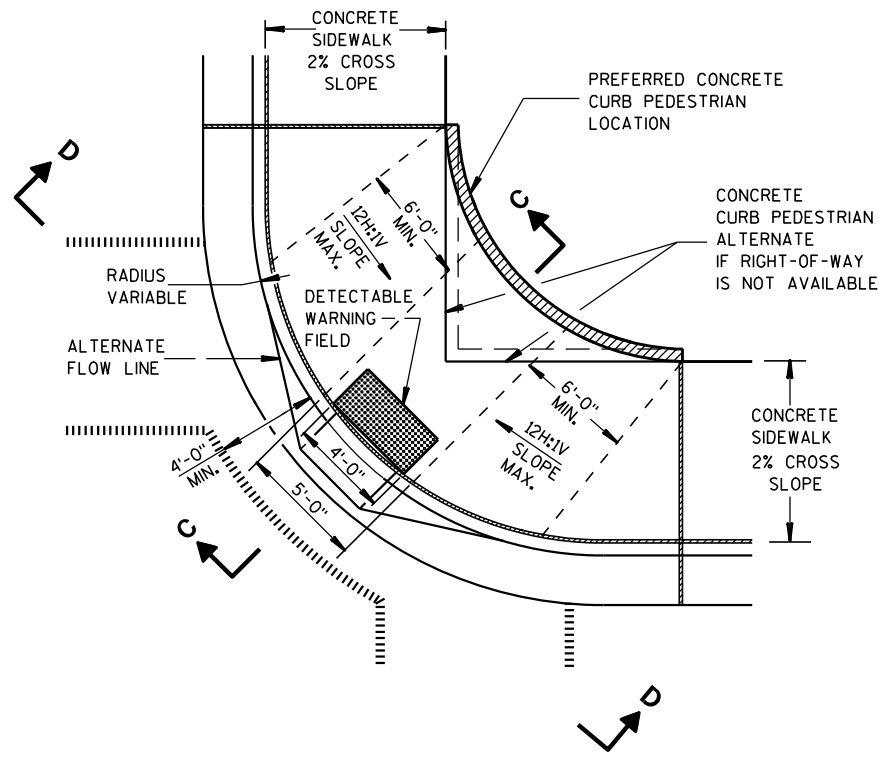
PLAN VIEW
TYPE 1 RAMP
(CENTER OF CORNER RADIUS)



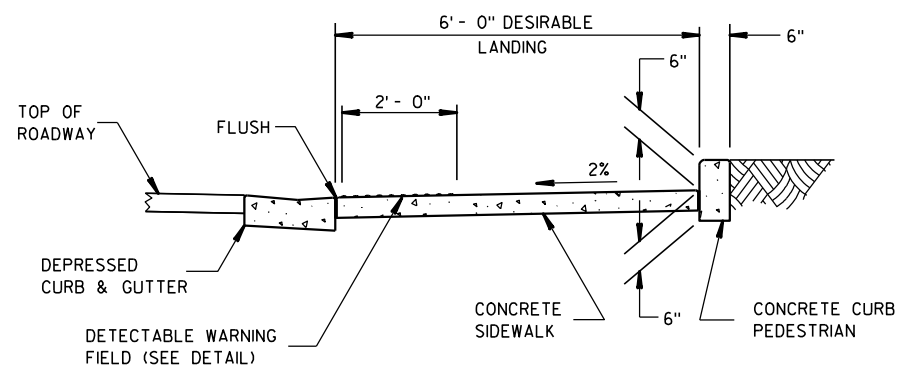
VIEW A-A



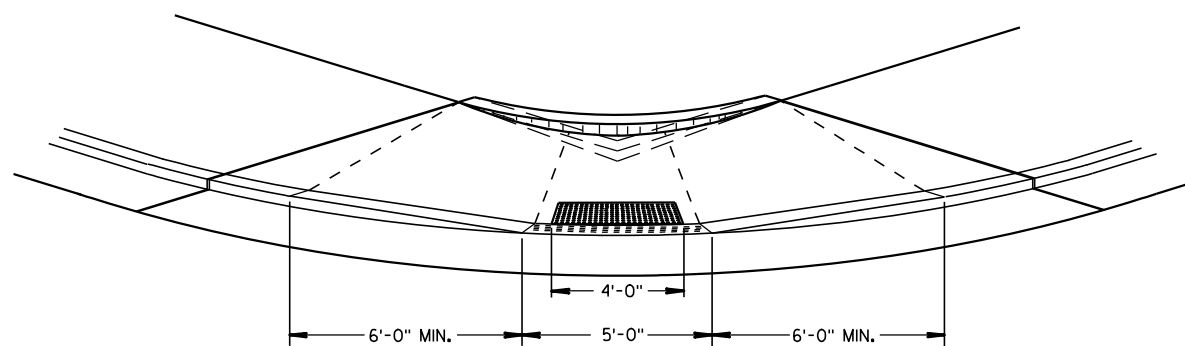
SECTION B-B



PLAN VIEW
TYPE 1-A RAMP
(NO TERRACE)



SECTION C-C



VIEW D-D

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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".

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

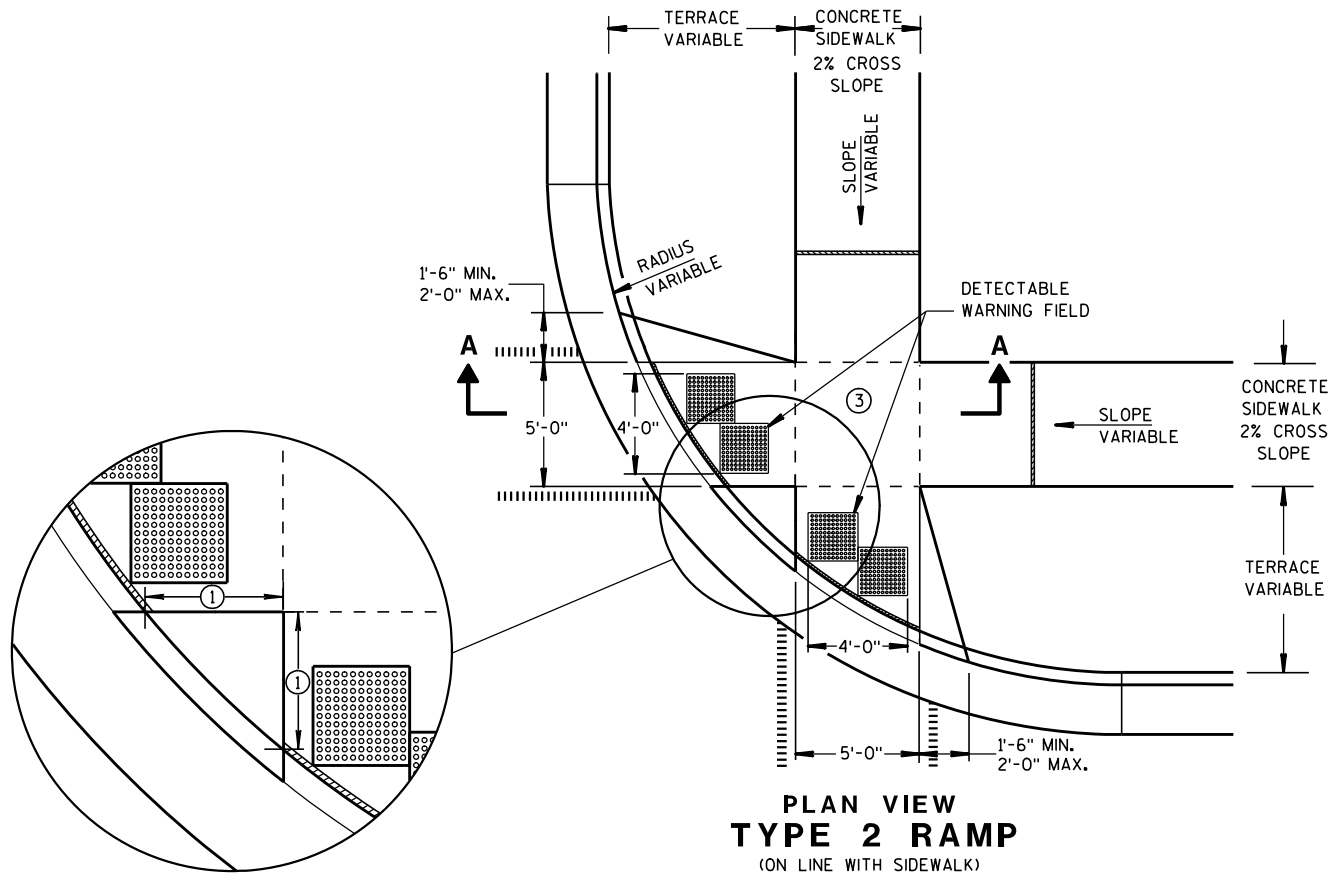
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

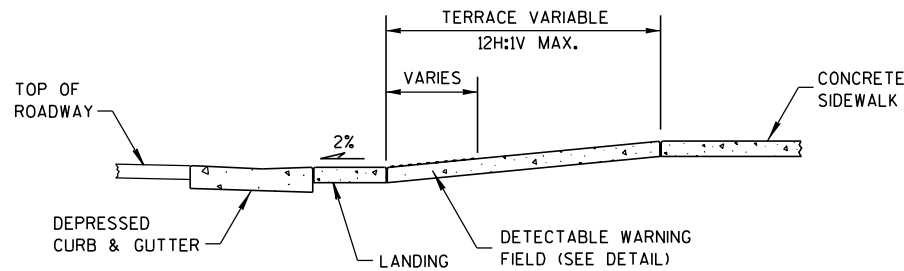
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

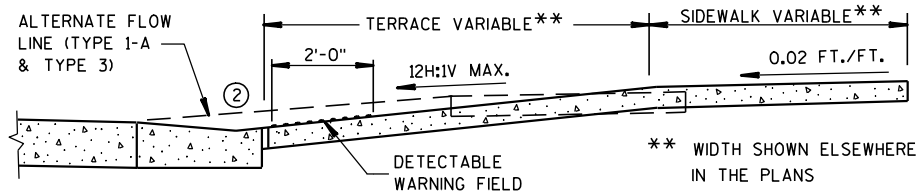
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

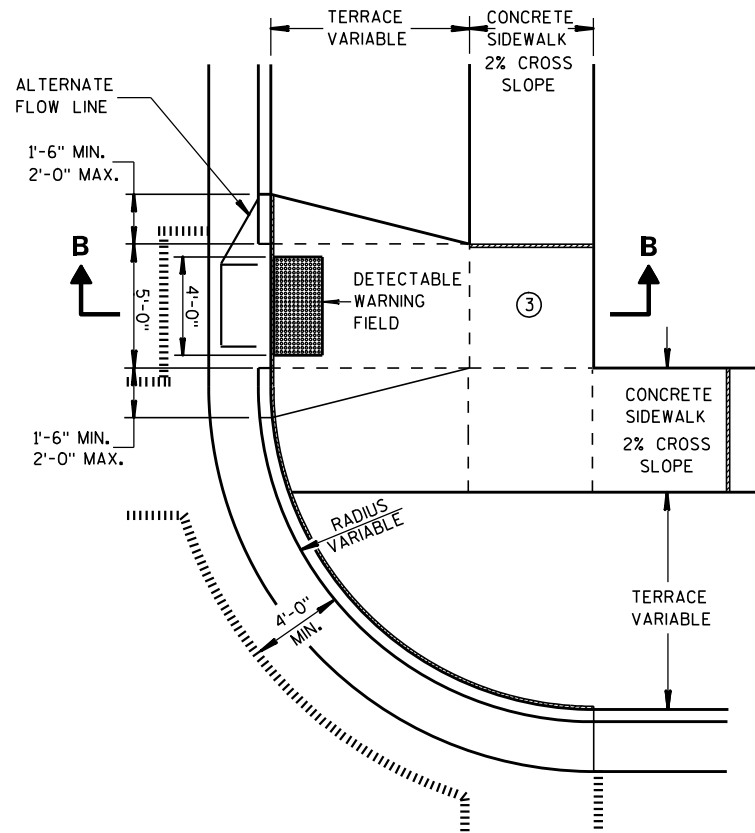
GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

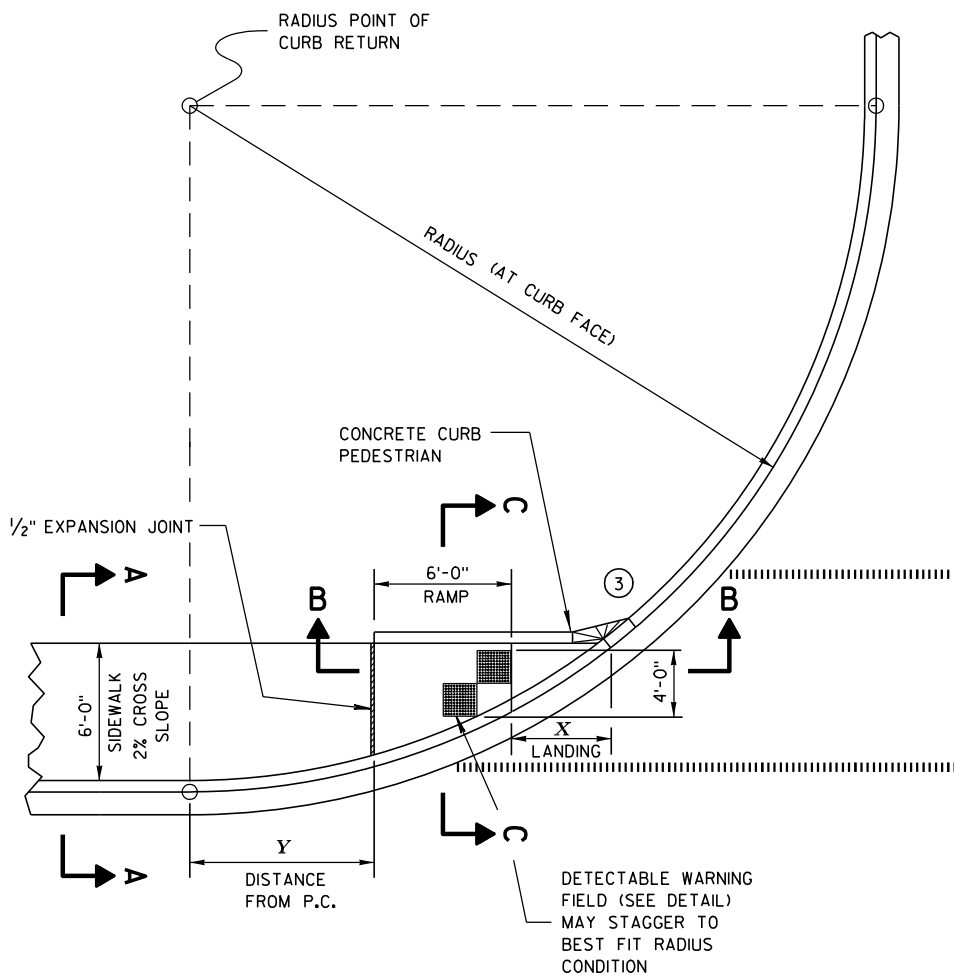
- ===== 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



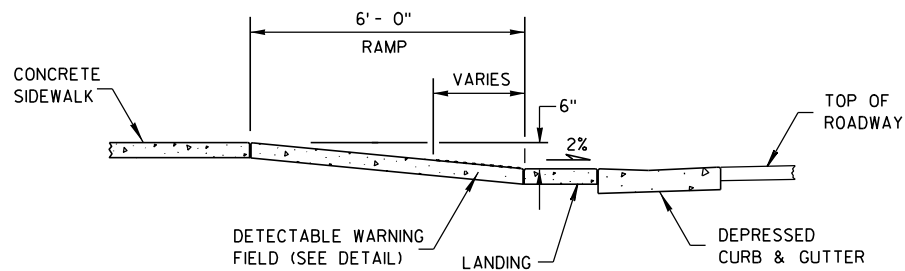
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

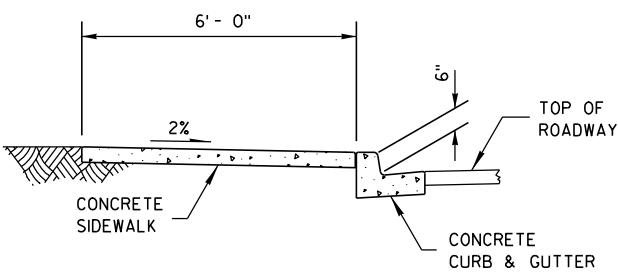
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



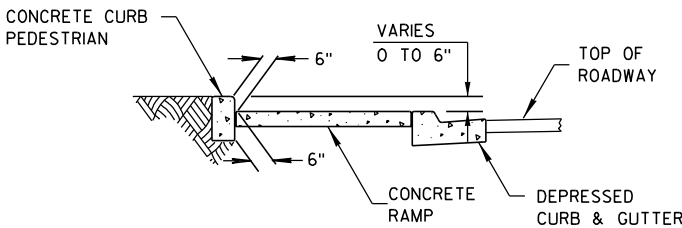
CURB RAMP TYPE 4A
PLAN VIEW



SECTION B-B



SECTION A-A



SECTION C-C

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 $\frac{3}{4}$ "	2'-7 $\frac{1}{4}$ "
30 FEET	7'-11 $\frac{3}{4}$ "	4'-8 $\frac{1}{4}$ "
40 FEET	9'-5 $\frac{1}{4}$ "	6'-5"
50 FEET	10'-8 $\frac{3}{4}$ "	7'-11 $\frac{1}{4}$ "
60 FEET	11'-10 $\frac{1}{4}$ "	9'-3 $\frac{1}{2}$ "

INTERMEDIATE RADII CAN BE INTERPOLATED

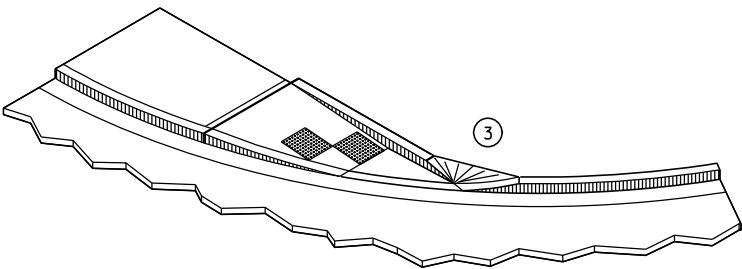
GENERAL NOTES

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

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.



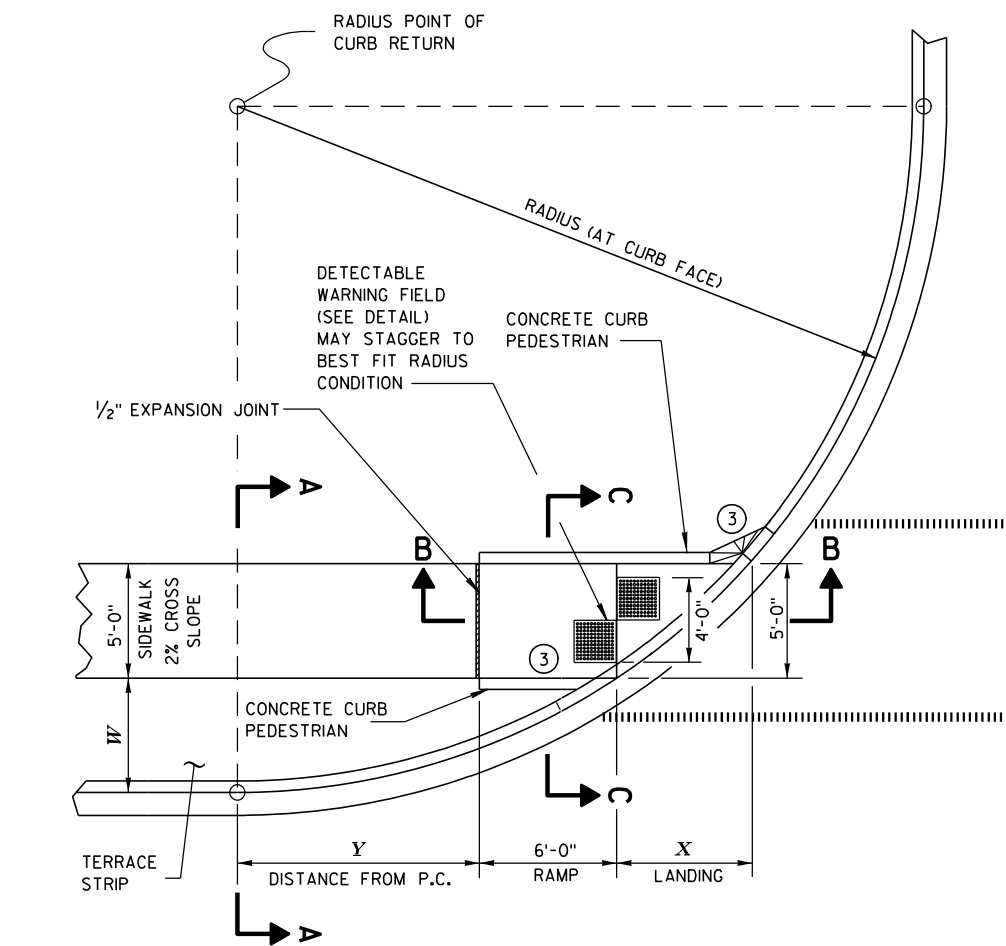
ISOMETRIC VIEW

LEGEND

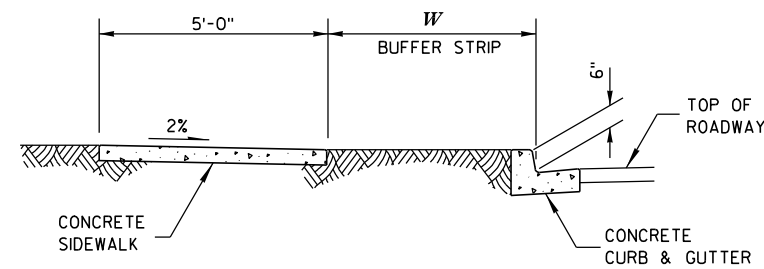
- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
..... PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

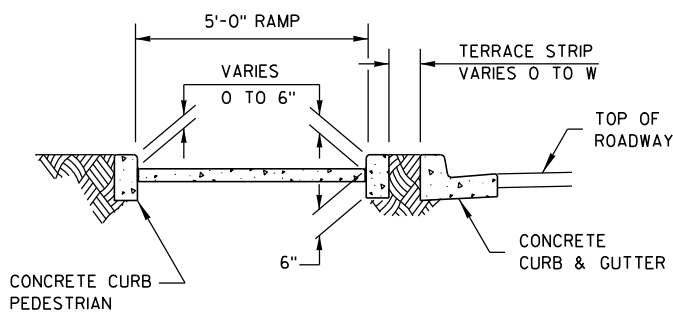
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



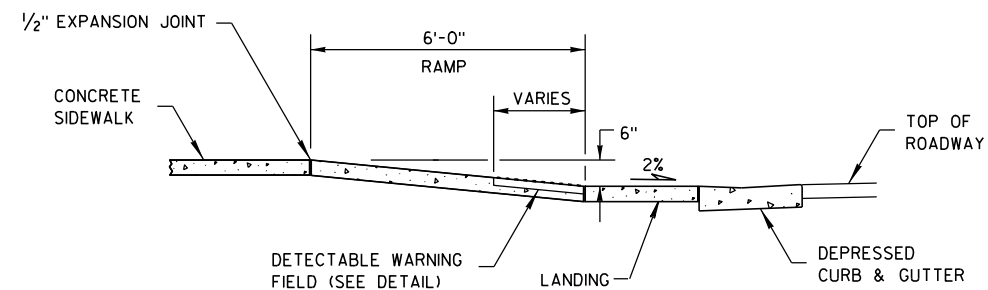
**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A



SECTION C-C



SECTION B-B

GENERAL NOTES

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

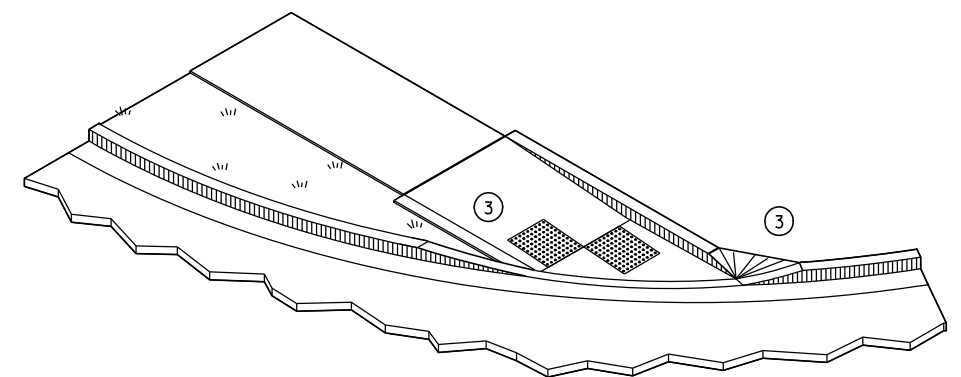
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3 1/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3 1/4"	11'-3 1/4"	9'-1 1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3 1/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1 1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1 1/2"	17'-1 1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



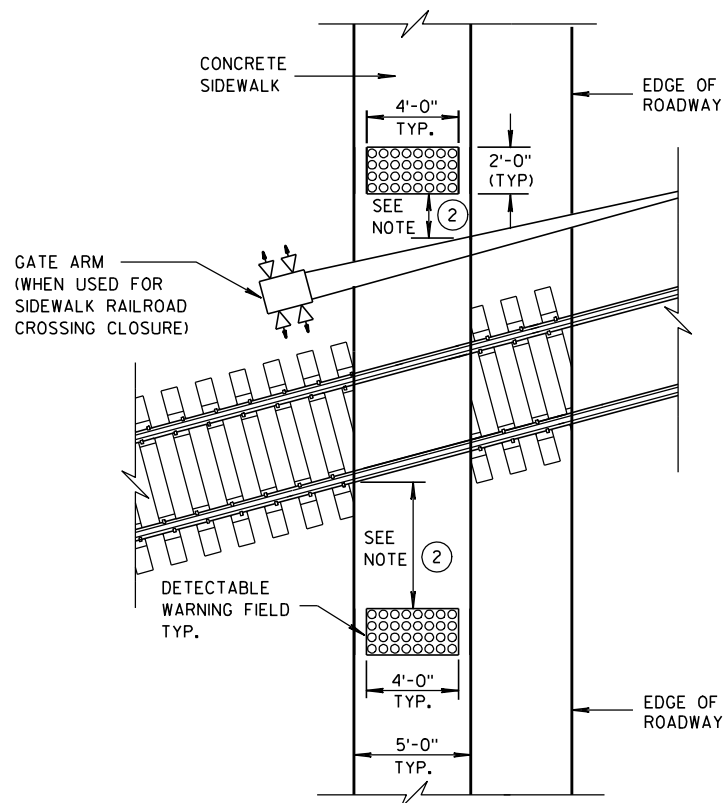
ISOMETRIC VIEW

LEGEND

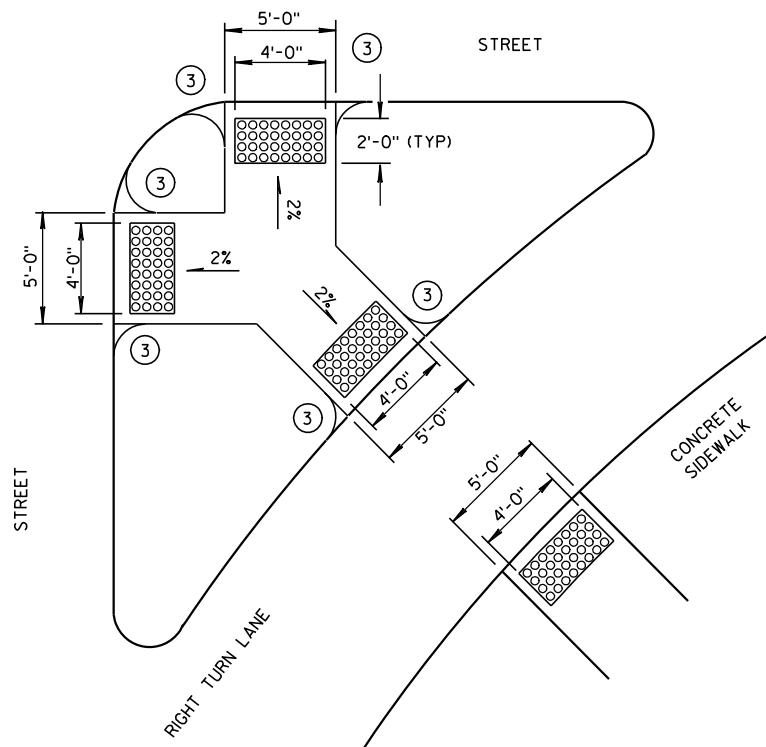
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4B**

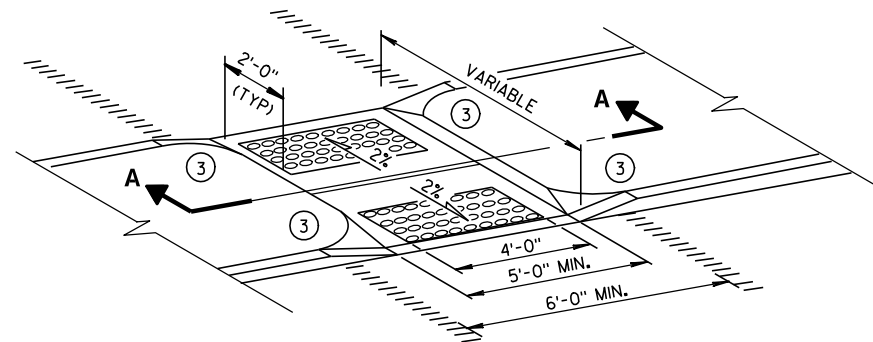
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



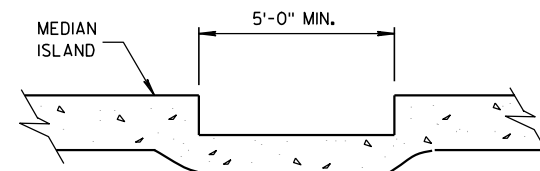
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



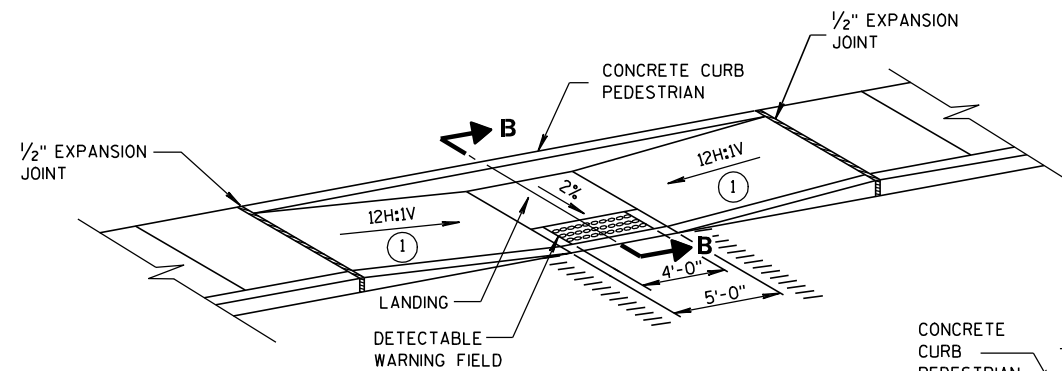
TYPE 6
DETECTABLE WARNING AT ISLANDS



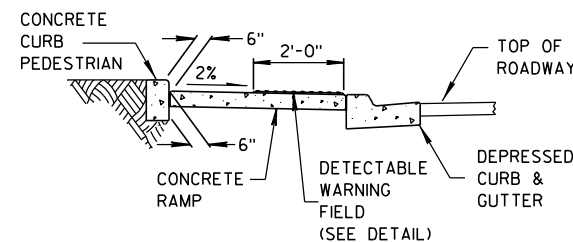
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



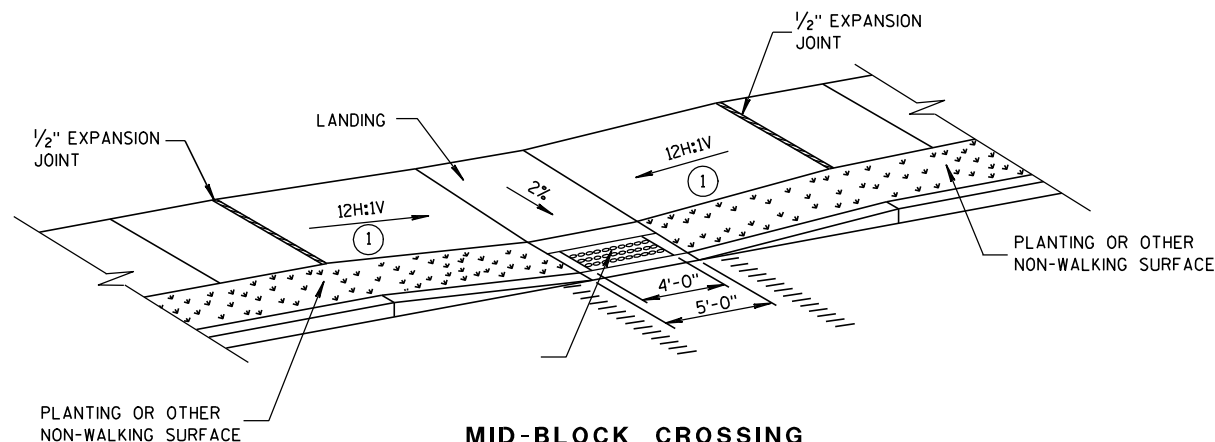
SECTION A-A



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

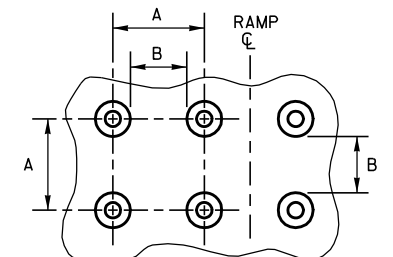
GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- 1 SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 2 THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. 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.
- 3 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

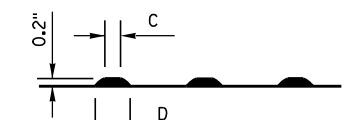
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

	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.

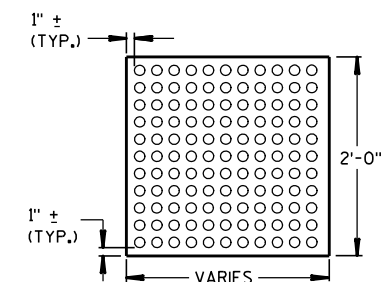


ELEVATION VIEW

TRUNCATED DOMES

DETECTABLE WARNING

PATTERN DETAIL



PLAN VIEW

DETECTABLE WARNING

FIELD (TYPICAL)

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

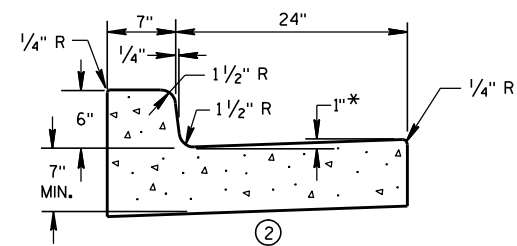
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

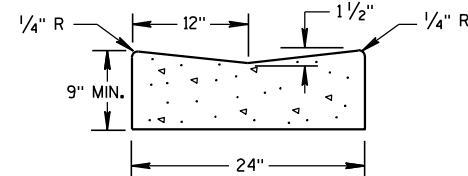
2-9-10
DATE

FHWA

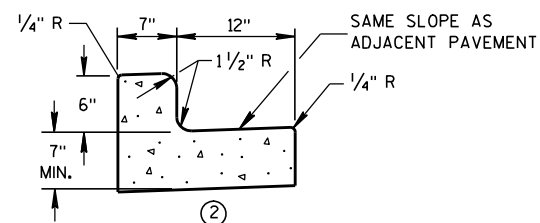
/s/ Jerry H. Zogg
ROADWAY STANDARDS 191 ENT
ENGINEER



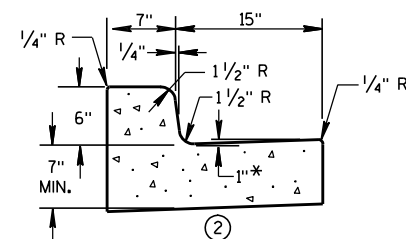
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

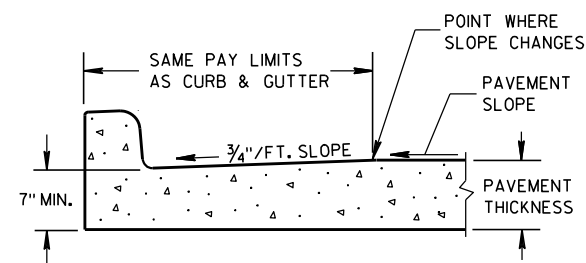


① CONCRETE CURB & GUTTER 19"

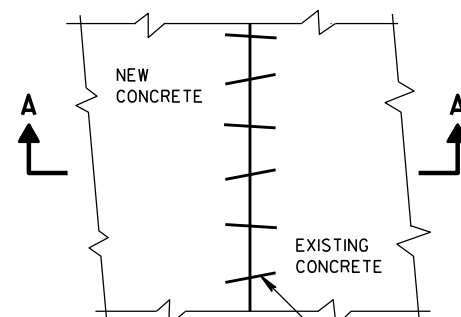


① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



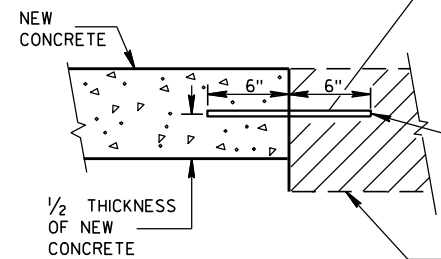
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

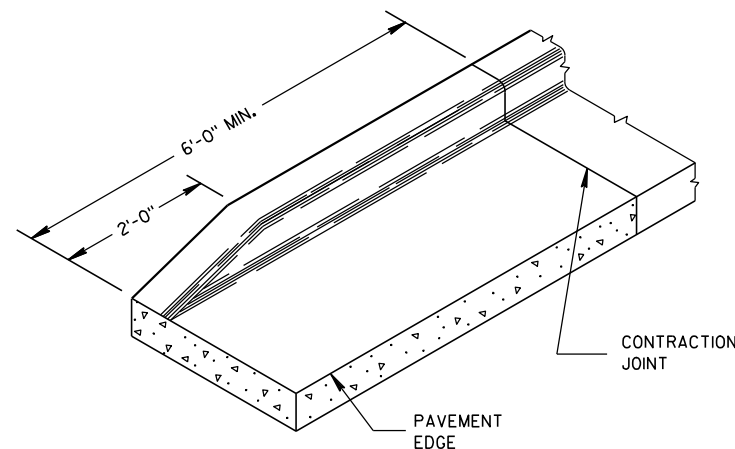
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



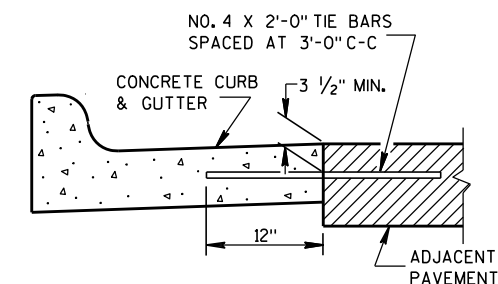
SECTION A-A
PAVEMENT TIES

THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

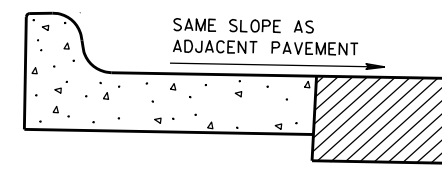
EXISTING CONCRETE



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION
(TYPICAL FOR ALL 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" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.

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

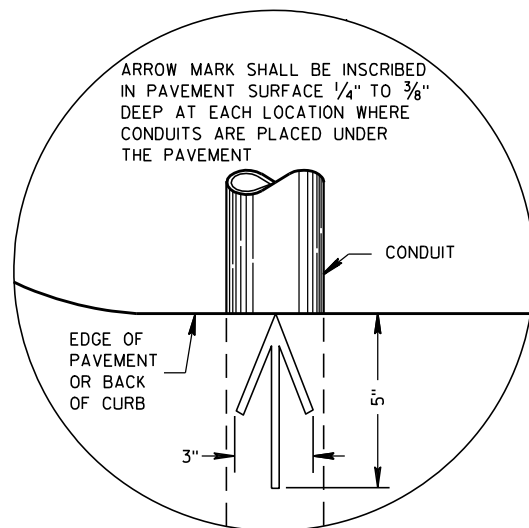
FHWA

/S/ Jerry Zonn

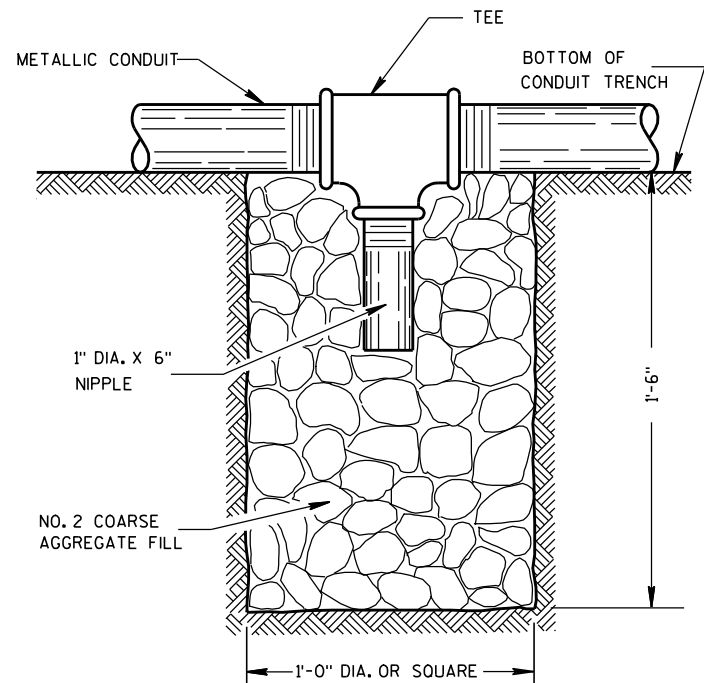
ROADWAY STANDARDS 192

ENGINEER

ENT

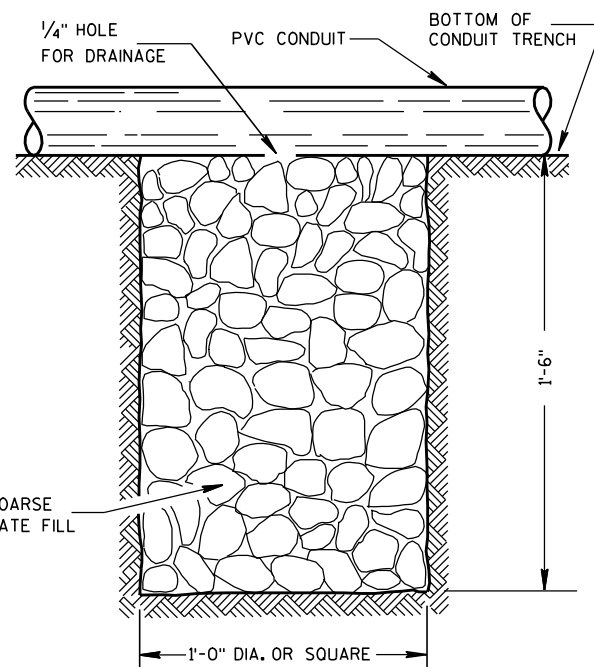


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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 EMERSON 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.

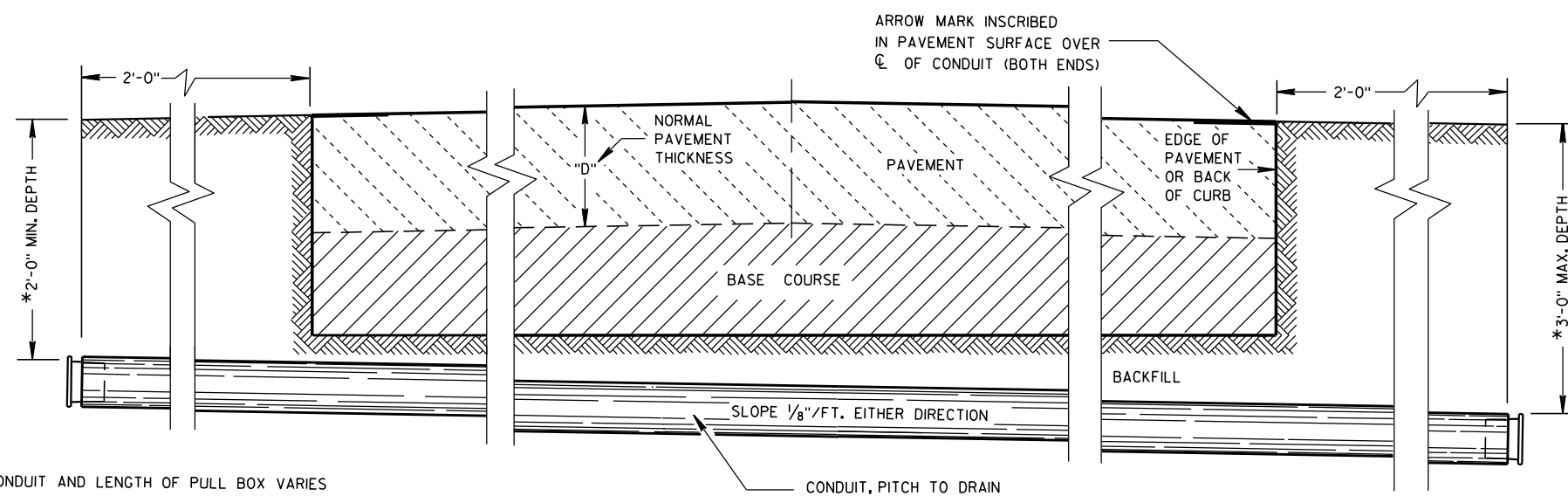
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

POLY ROPE OR A PULL 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.



*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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03

DATE

FHWA

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGR 193 HWYS

6

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2



S.D.D. 9 C 11-2

S.D.D. 9 C 11-2



S.D.D. 9 C 11-2



S.D.D. 9 C 11-2

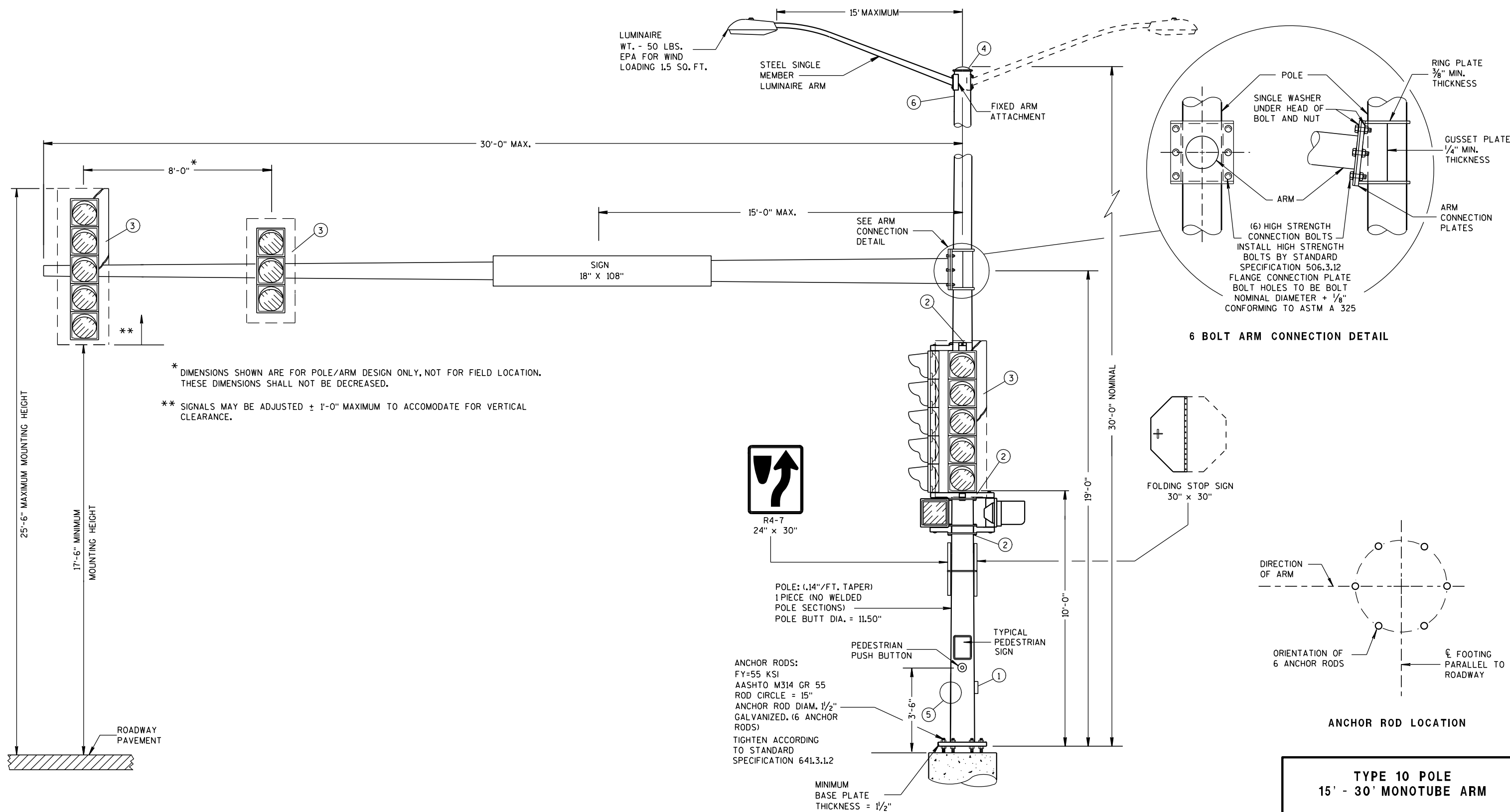


S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2



(MAXIMUM LOAD)
**TYPE 10 POLE
15' - 30' MONOTUBE ARM**

**TYPE 10 POLE
15' - 30' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011

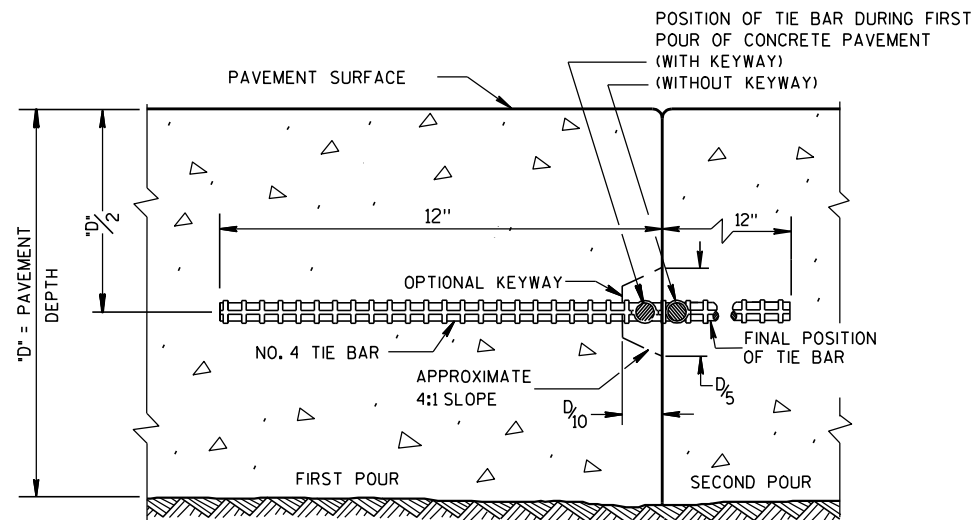
DATE

FHWA

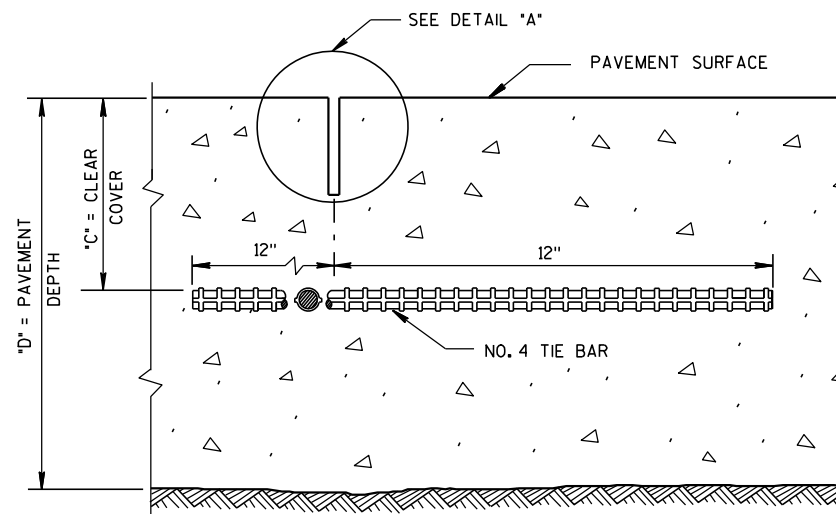
/S/ Thomas J. Coarion

STATE ELECTRICAL ENGR 195

HWYS



CONSTRUCTION JOINT



SAWED JOINT

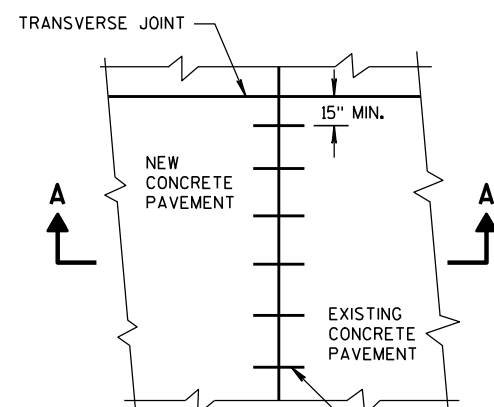
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

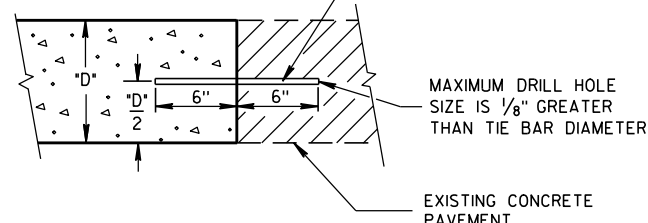
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

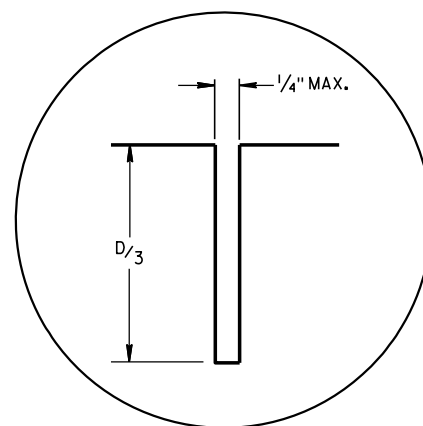


PLAN VIEW

NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①

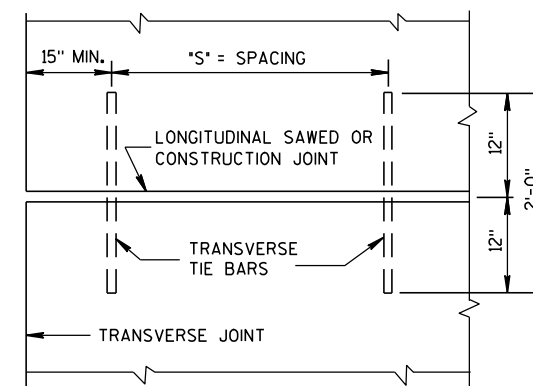


**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"



**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

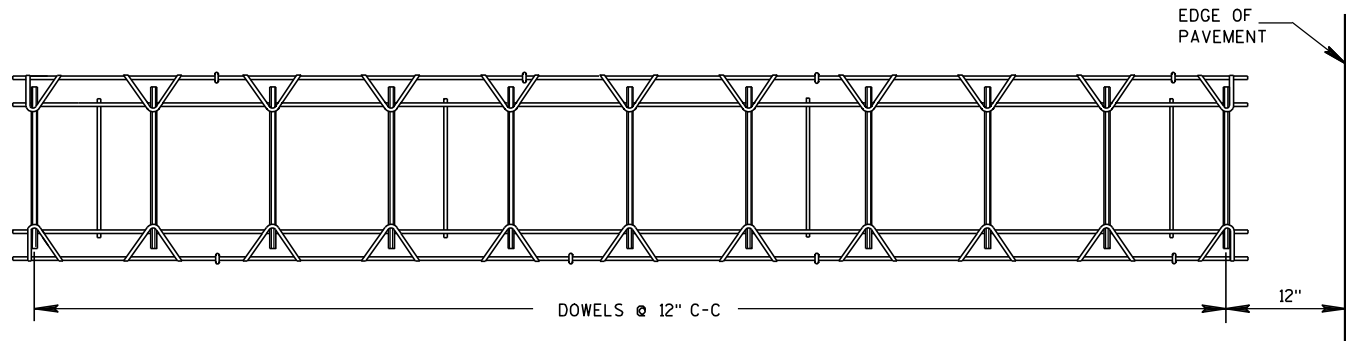
APPROVED

10-5-2010
DATE

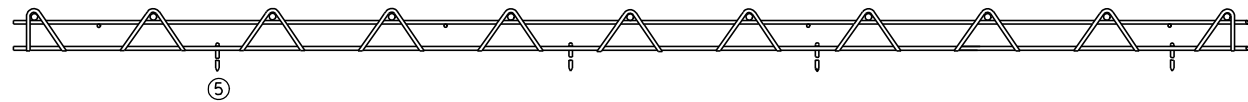
FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & Di 196

INEER



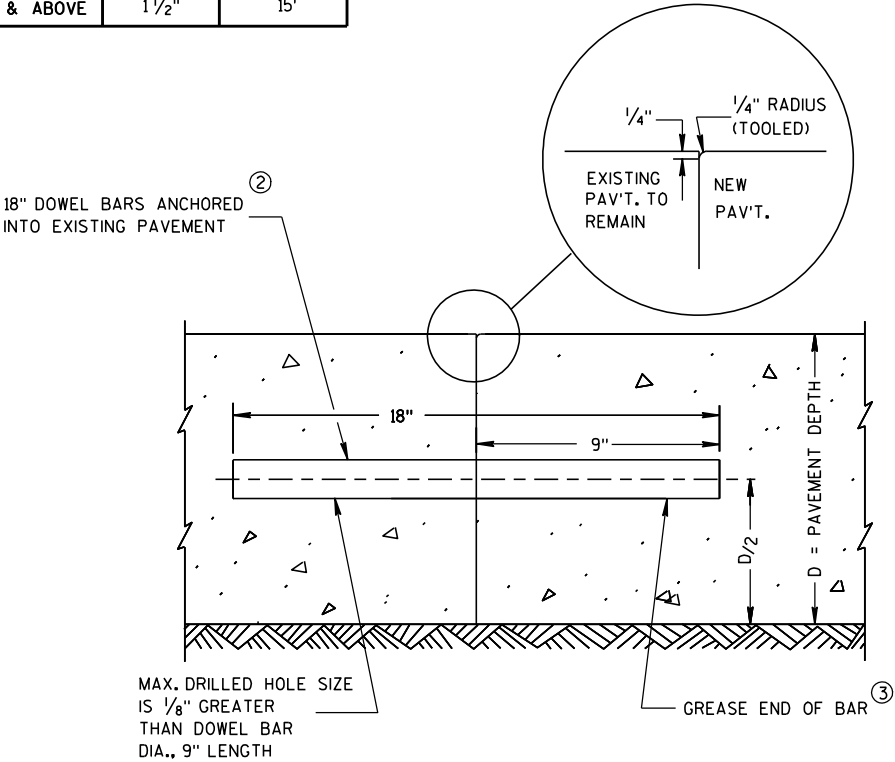
PLAN VIEW



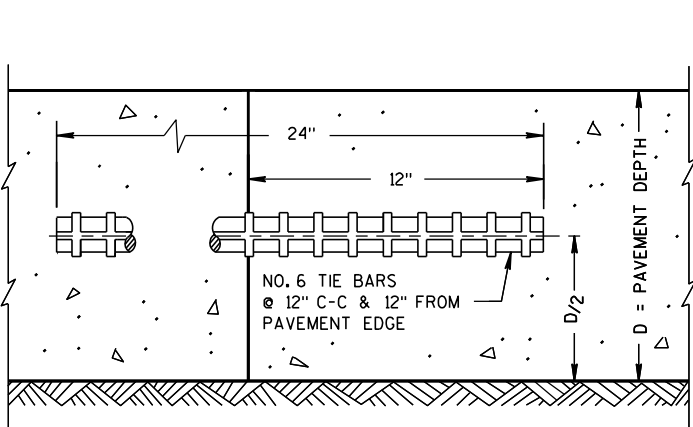
SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

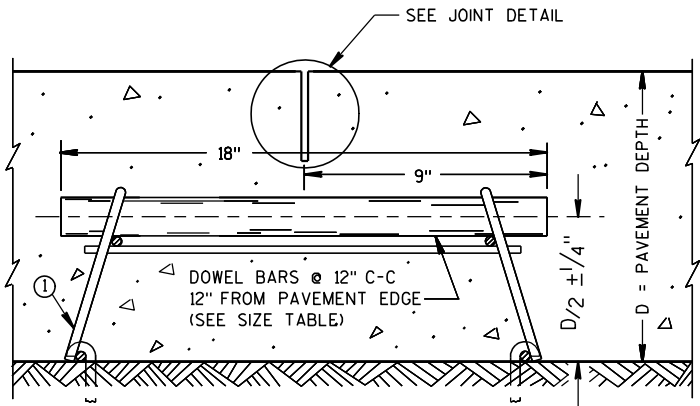
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



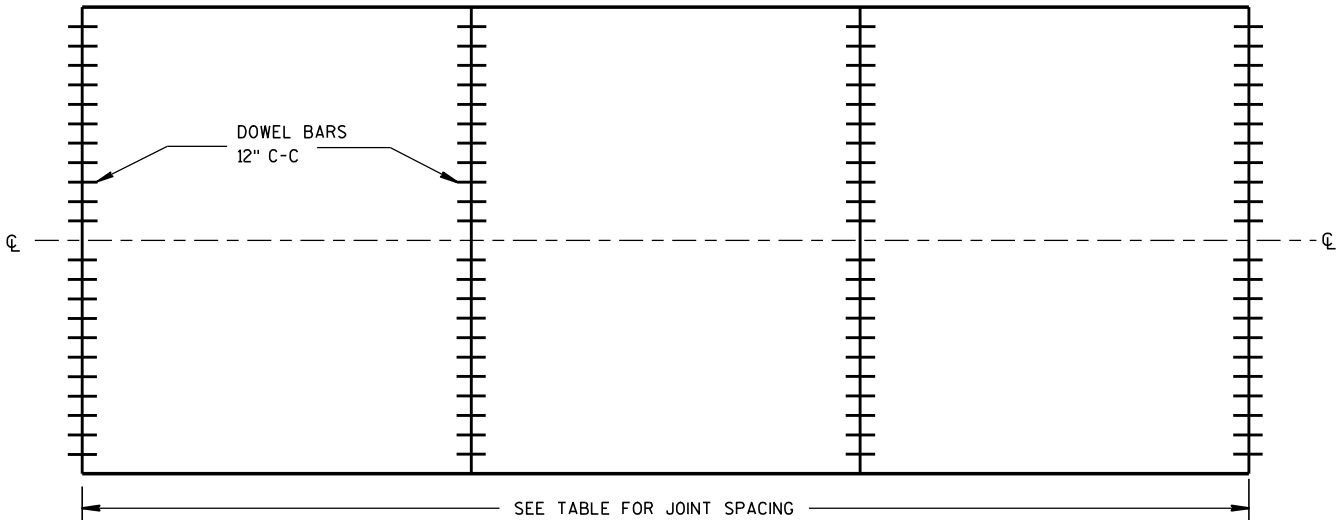
TRANSVERSE CONTRACTION JOINTS ABUTTING
EXISTING PAVEMENT
DOWEL BAR DETAIL



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

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

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, CENTER THE DOWEL ASSEMBLY ACROSS THE LANES. LOCATE THE INNER AND OUTER MOST DOWEL BARS SO THAT THE CENTER OF THE BARS ARE A MINIMUM OF 6 INCHES AND A MAXIMUM OF 12 INCHES FROM THE LONGITUDINAL JOINT AND THE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

① THE ENGINEER MAY APPROVE THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. THE CONTRACTOR MAY USE MECHANICAL DOWEL BAR INSERTERS INSTEAD OF DOWEL ASSEMBLIES.

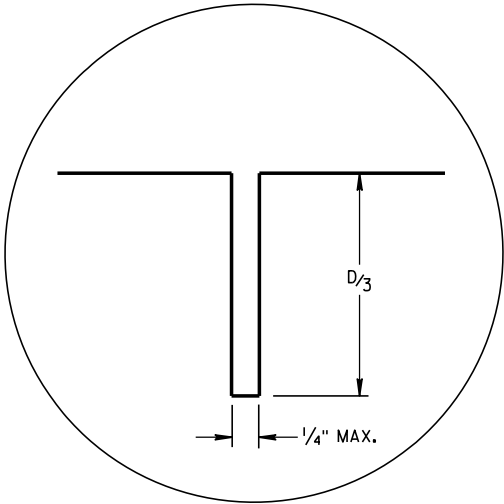
② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

③ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

⑤ 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.



JOINT DETAIL

URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

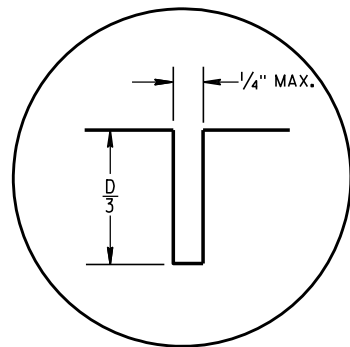
12/11/2009
DATE

FHWA

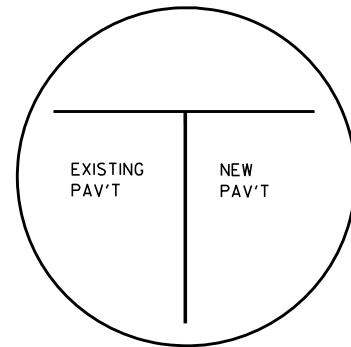
/S/ Deb Bischoff
PAVEMENT POLICY & DE

197

NEER

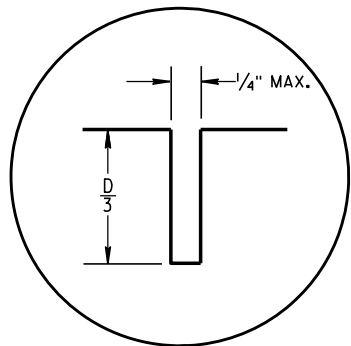


C1

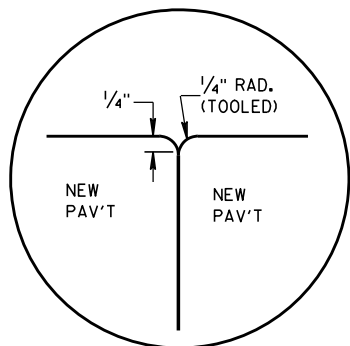


C2

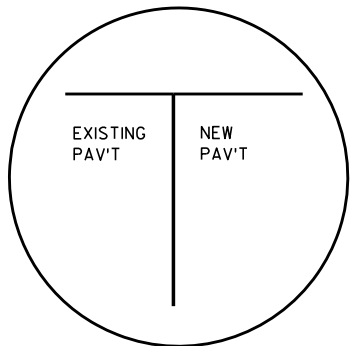
TRANSVERSE JOINTS



L1

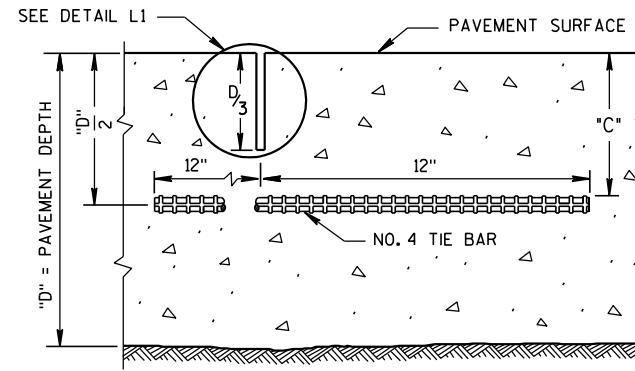


L2

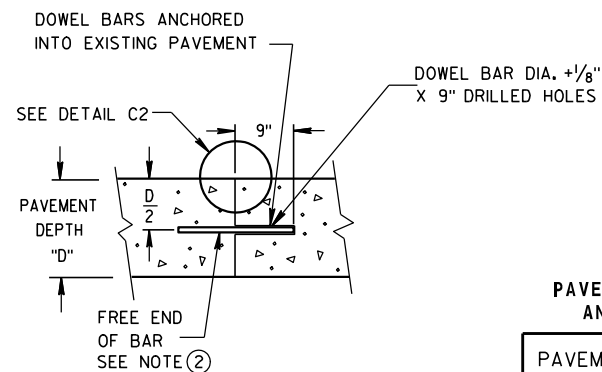


L3

LONGITUDINAL JOINTS



SECTION C-C
SAWED JOINT



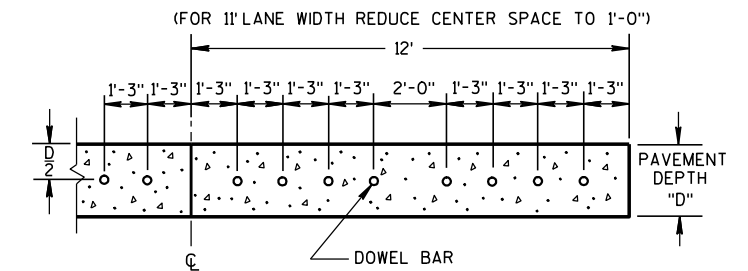
SECTION D-D

GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- ① INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.
- ② APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



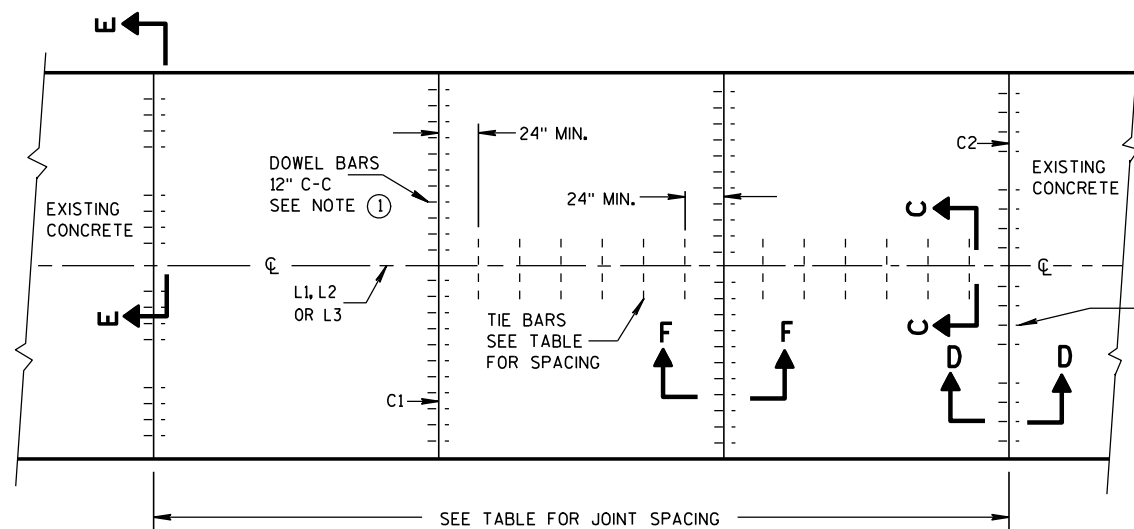
SECTION E-E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

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

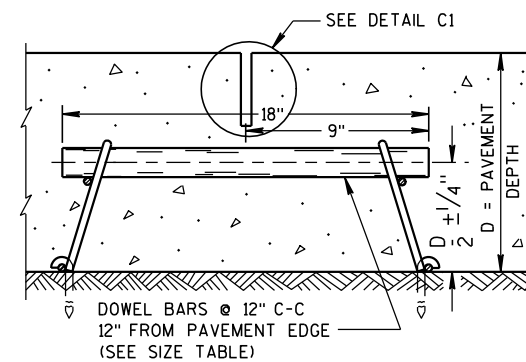
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"



PLAN VIEW
CONCRETE BASE
CONTRACTION JOINT LOCATIONS

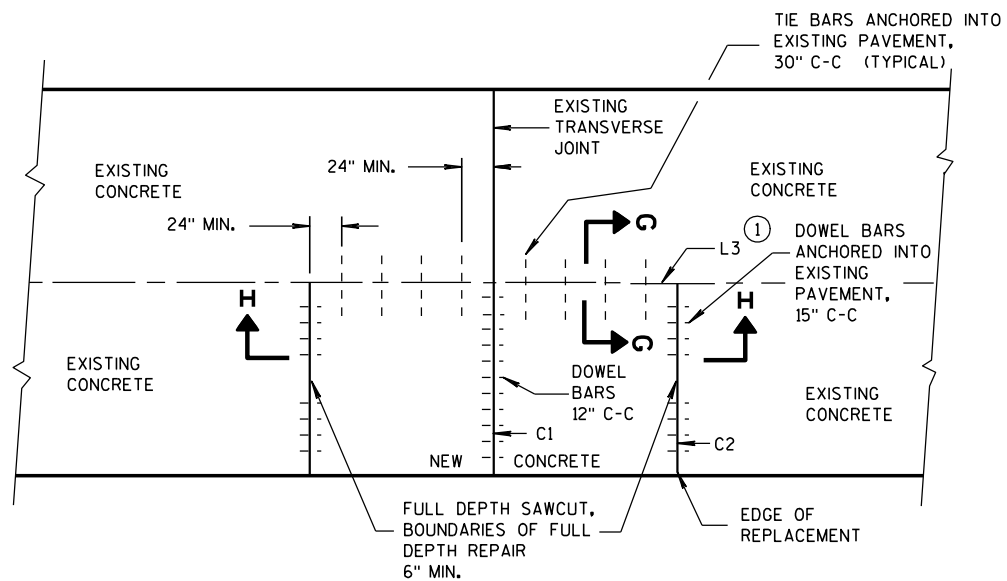
DOWEL BARS
ANCHORED
INTO EXISTING
PAVEMENT,
15" C-C



SECTION F-F
CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

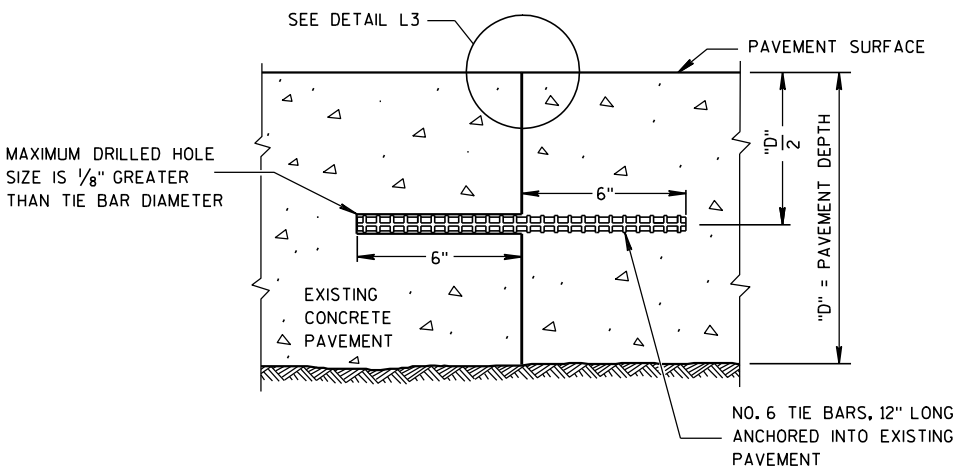


PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

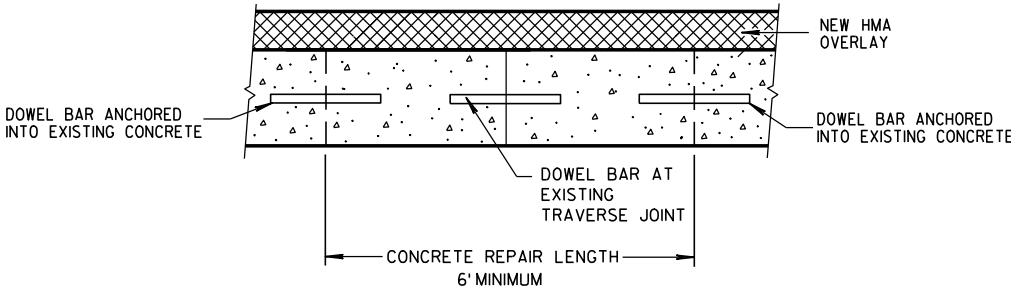
GENERAL NOTES

- ① USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

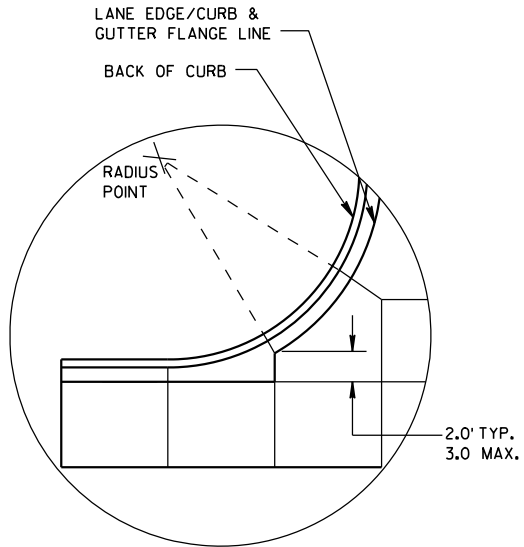


SECTION H-H

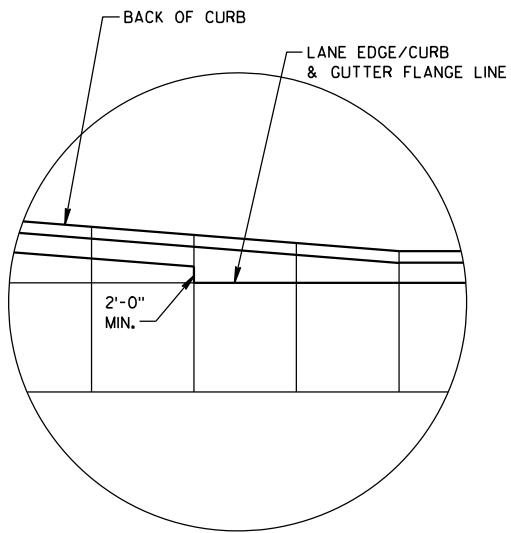
CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

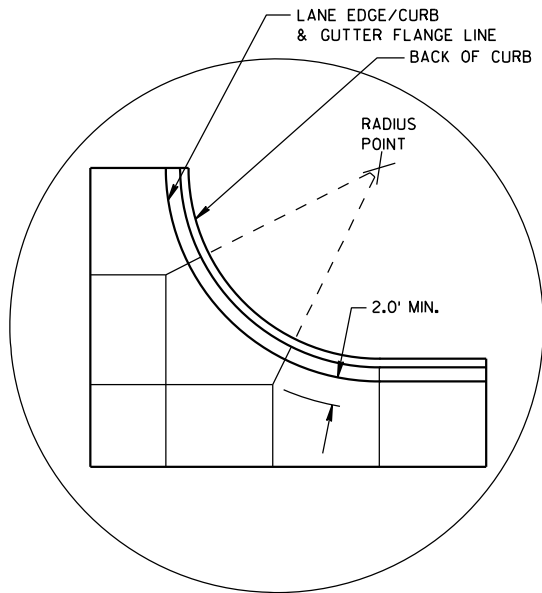
APPROVED
12-11-2009 /S/ Deb Bischoff
DATE PAVEMENT POLICY & D 199 ENGINEER
FHWA



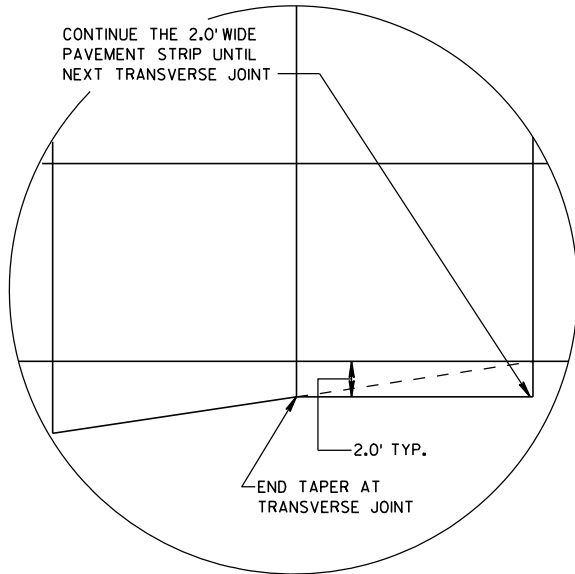
DETAIL "A"



DETAIL "B"



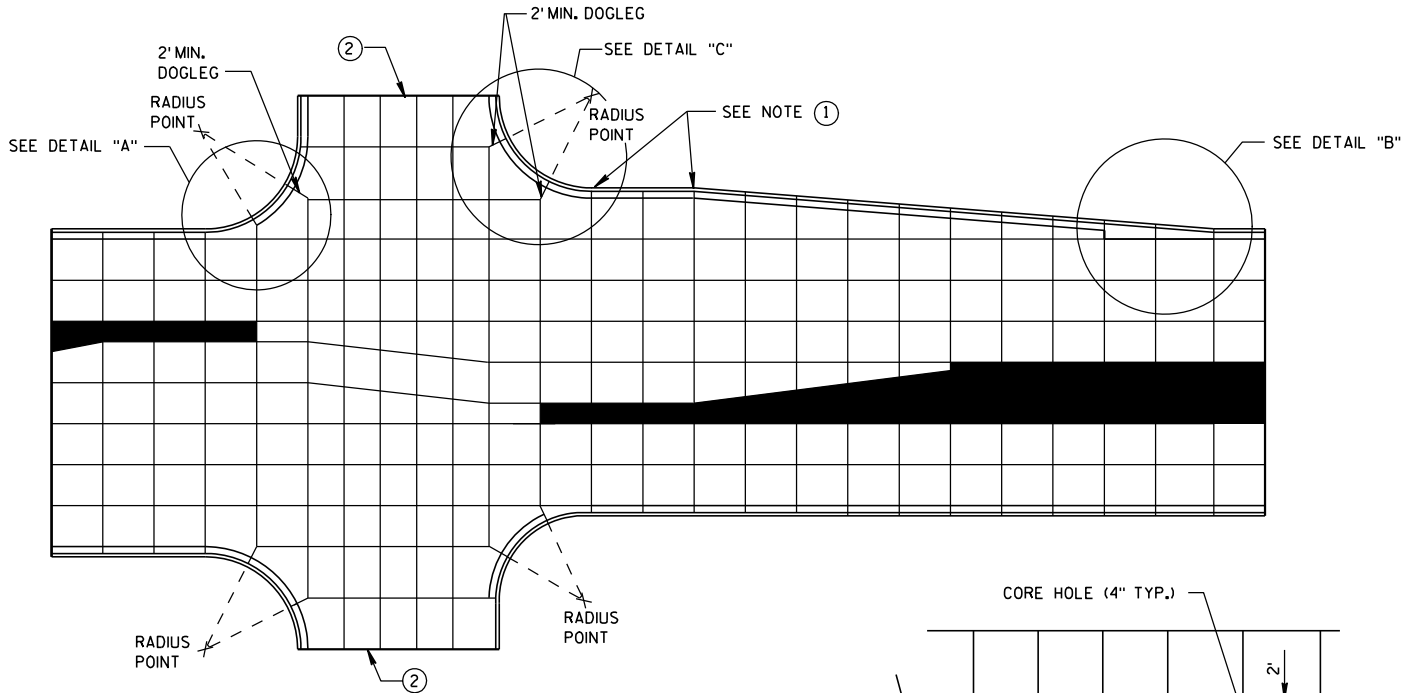
DETAIL "C"



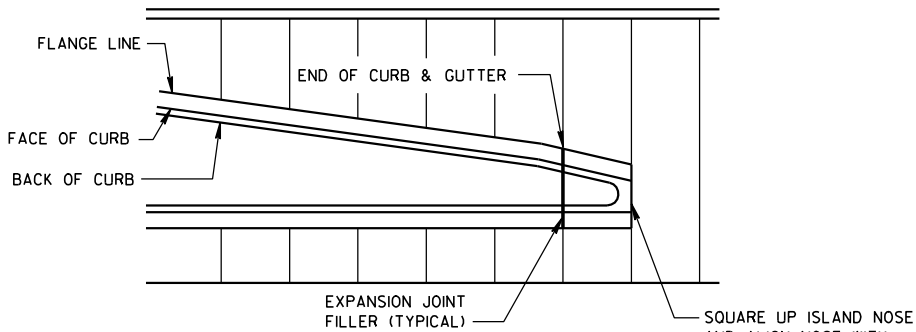
DETAIL "D"

GENERAL NOTES

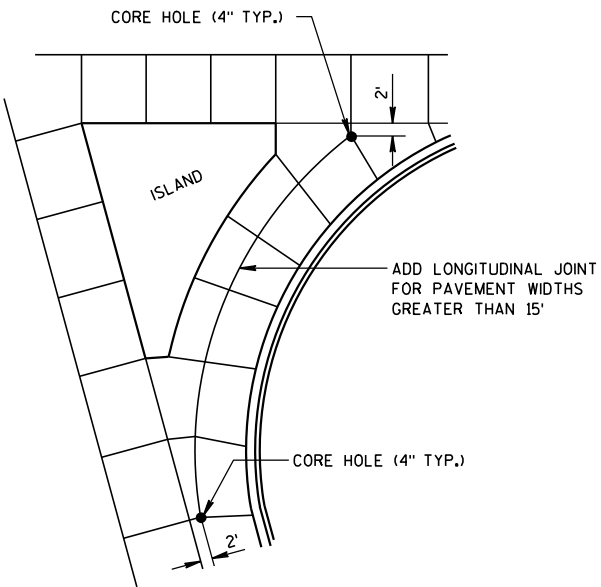
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER 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



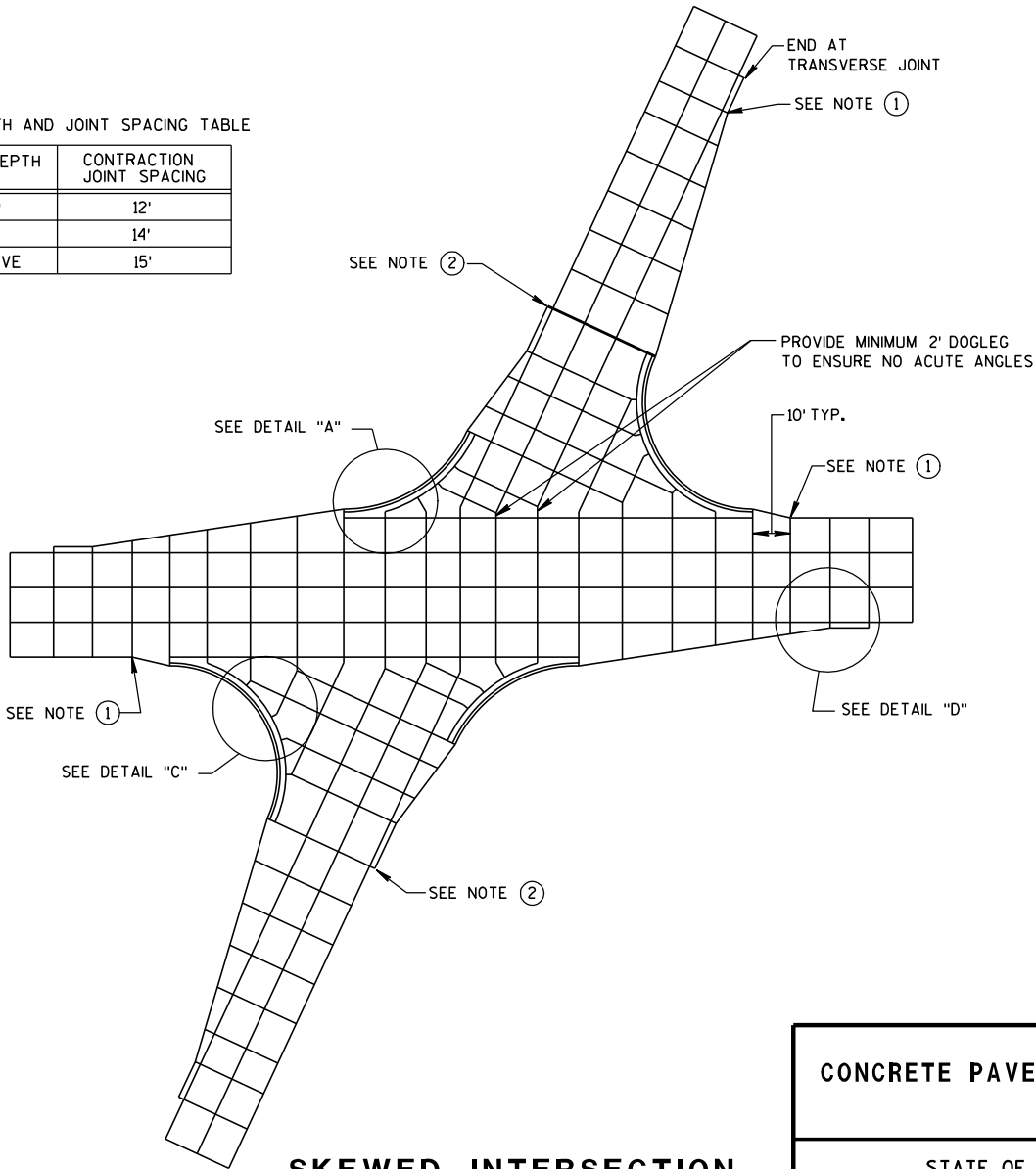
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



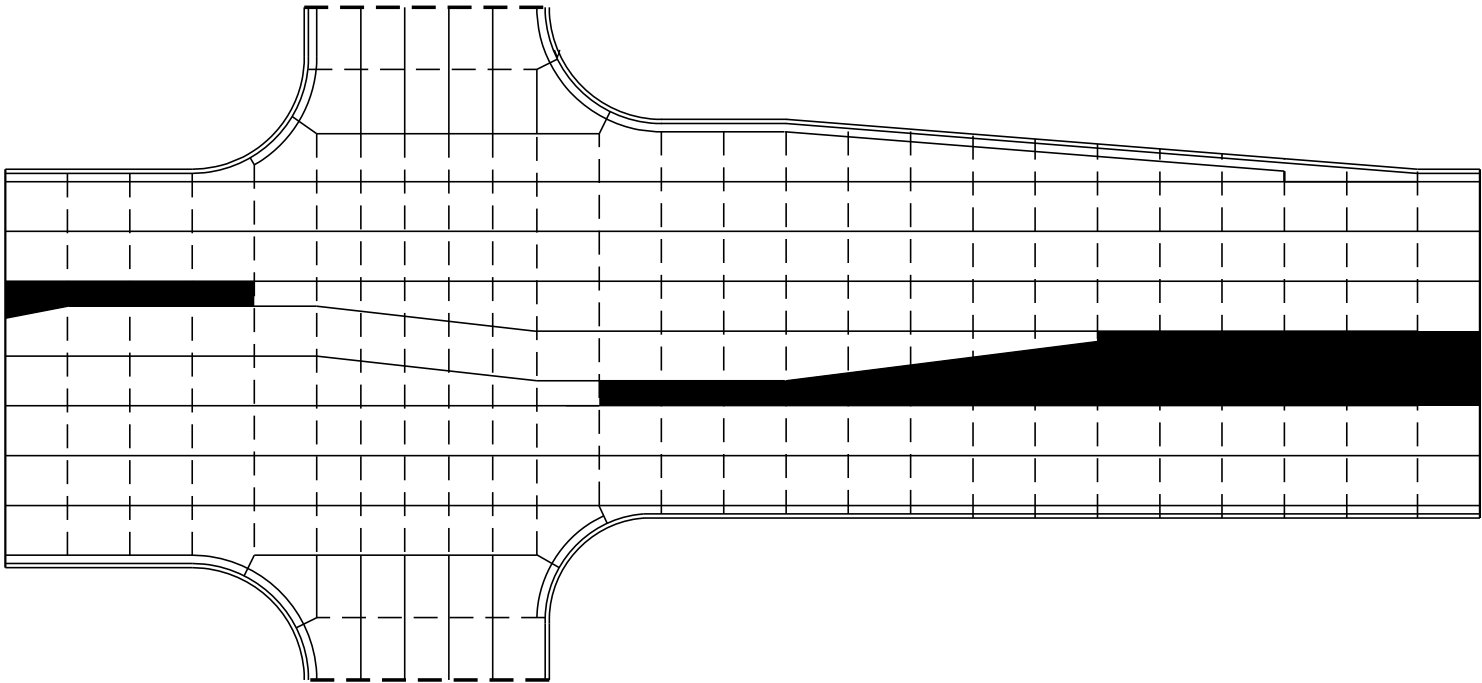
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

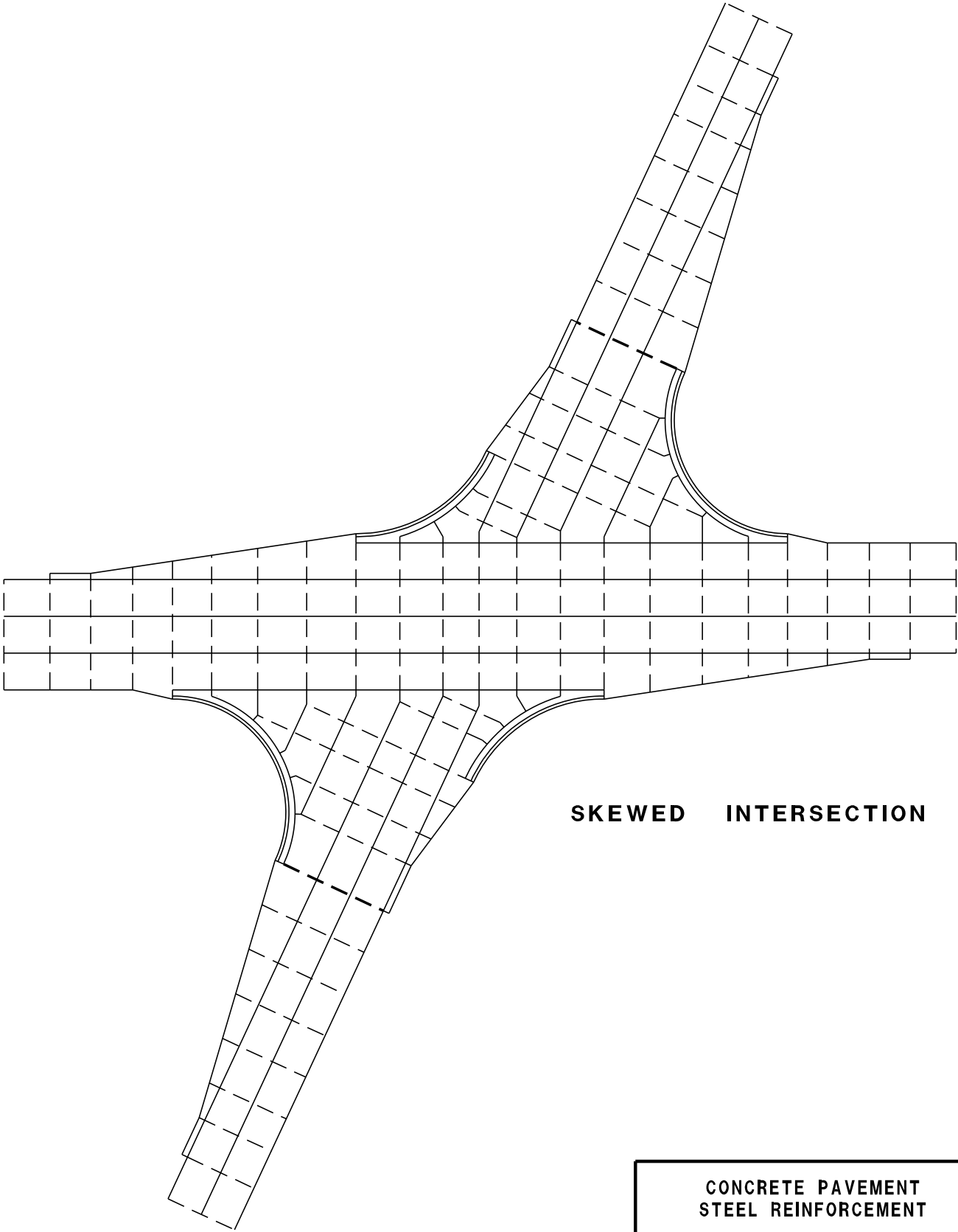
- POTENTIAL DOWELED EXPANSION JOINT
- - - DOWELED JOINT
- _____ TIED JOINT



STANDARD INTERSECTION

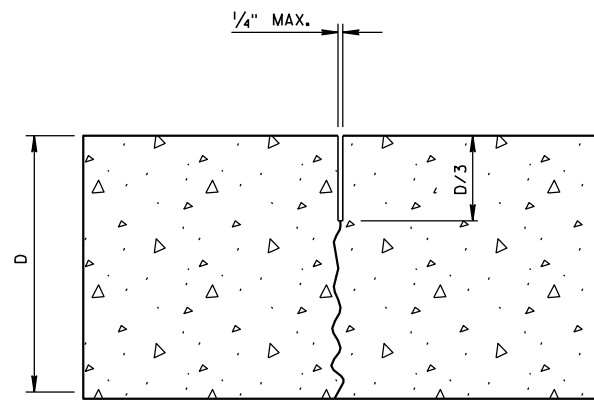
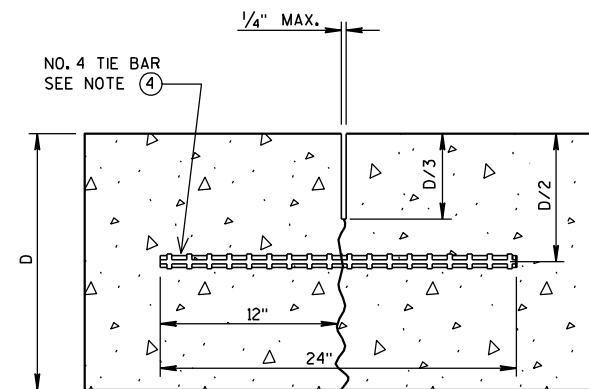
GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

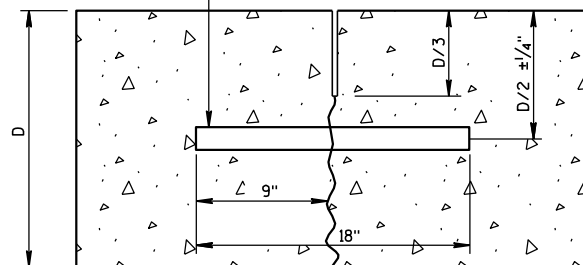


SKewed INTERSECTION

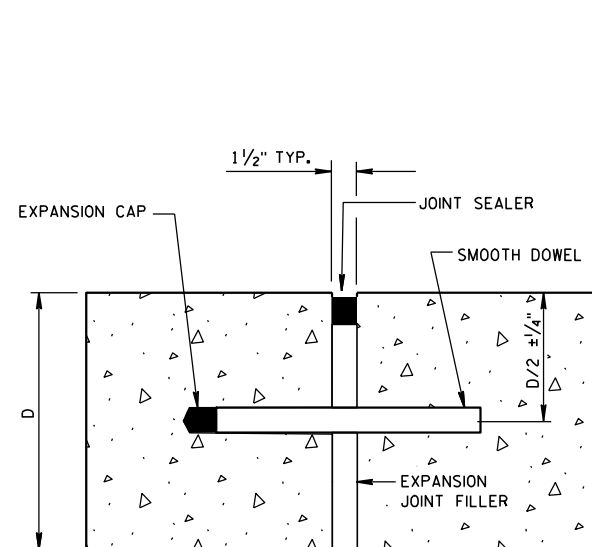
CONCRETE PAVEMENT STEEL REINFORCEMENT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 201

**UNDOWELED-TRANSVERSE****TIED LONGITUDINAL**

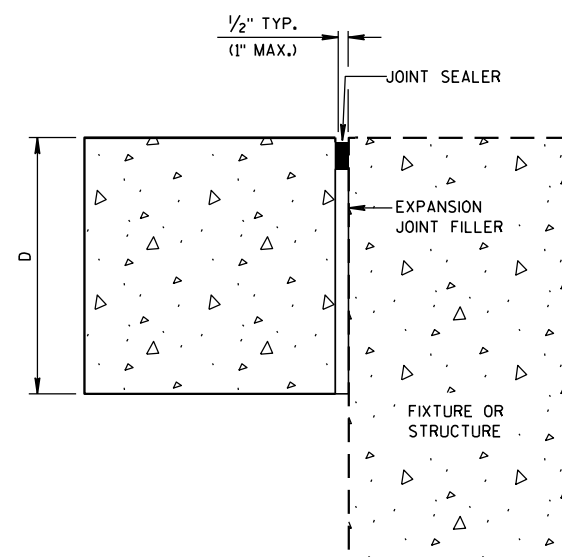
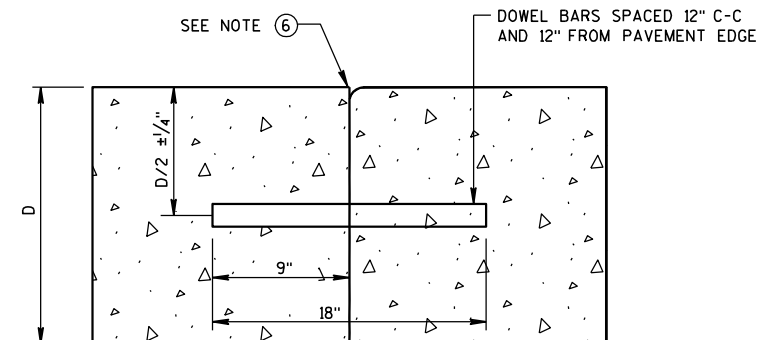
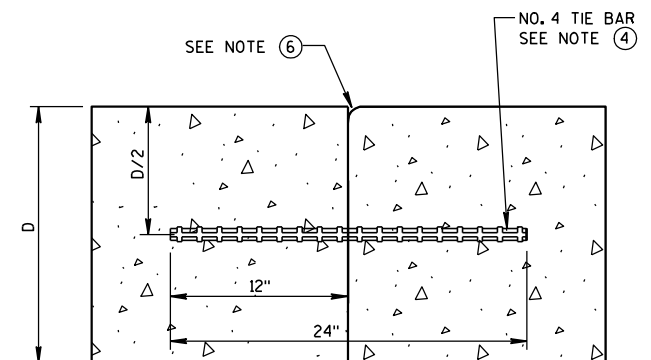
DOWEL BARS AT 12" C-C
12" FROM PAVEMENT EDGE

**DOWELED-TRANSVERSE****CONTRACTION JOINTS**

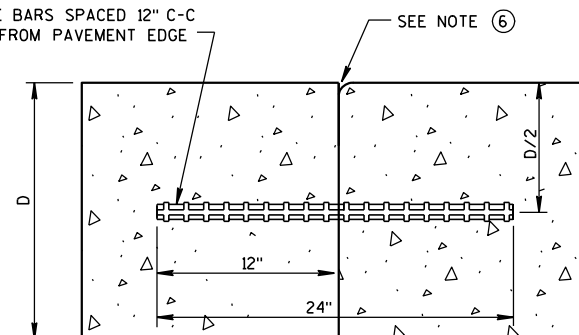
SEE NOTE ②

**DOWELED-TRANSVERSE**

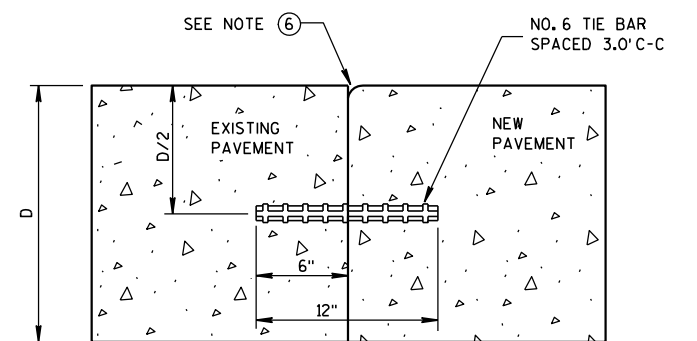
SEE NOTE ①

**UNTIED-LONGITUDINAL****EXPANSION JOINTS****DOWELED TRANSVERSE****TIED LONGITUDINAL**

NO. 6 TIE BARS SPACED 12" C-C
AND 12" FROM PAVEMENT EDGE

**TIED TRANSVERSE**

SEE NOTE ③

**TIED LONGITUDINAL TO EXISTING****CONSTRUCTION JOINTS**

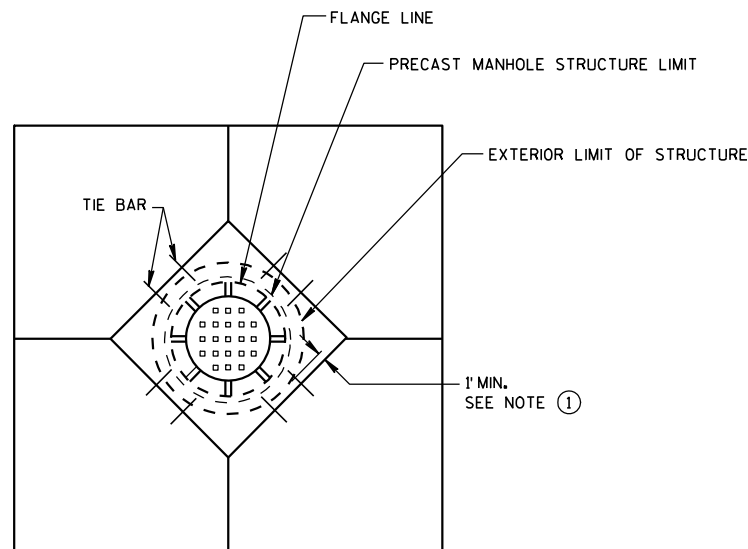
SEE NOTE ⑤

**CONCRETE PAVEMENT
JOINT TYPES**

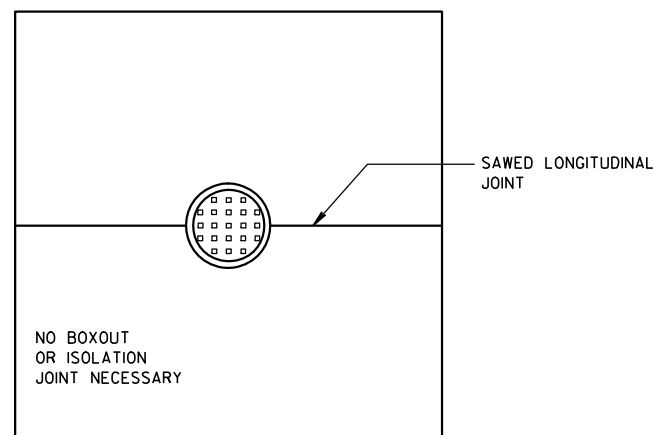
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

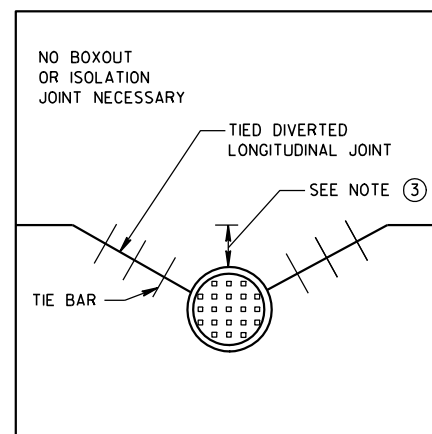
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 4 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



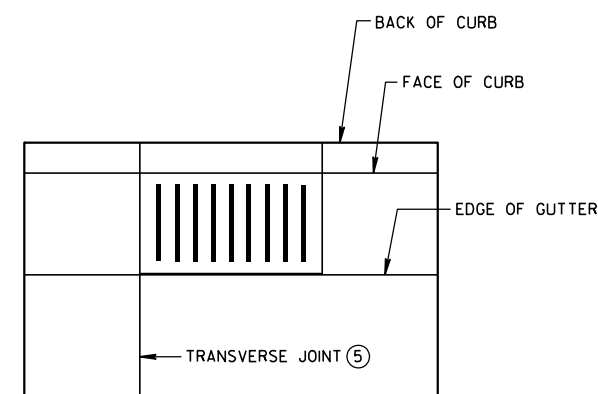
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



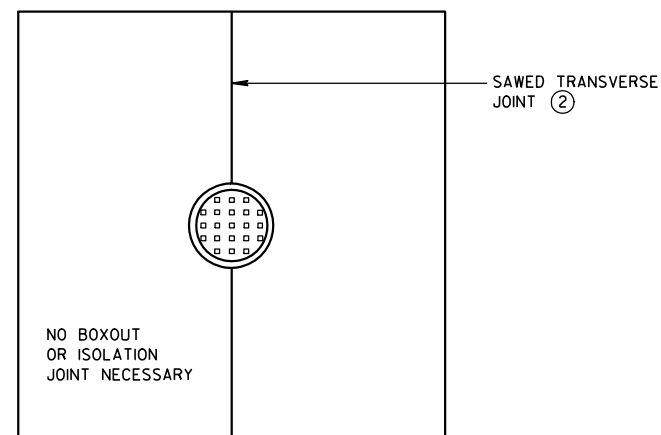
**MANHOLE WITH
LONGITUDINAL JOINT**



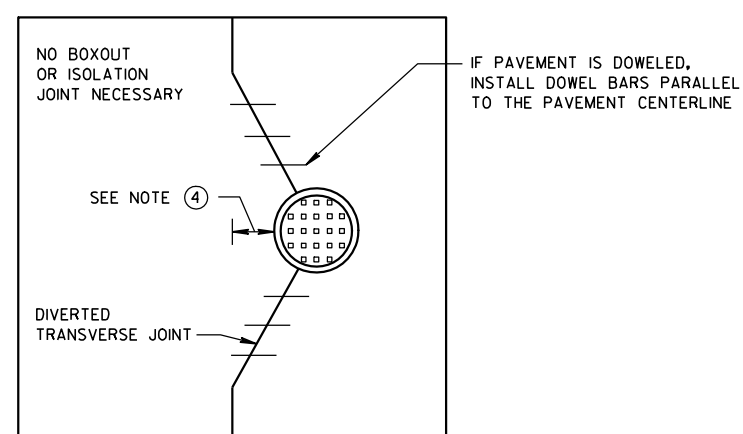
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE 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 GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND 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

10-5-2010

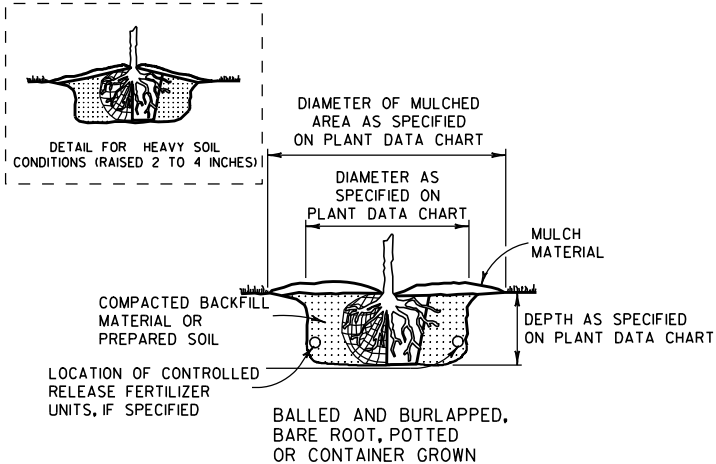
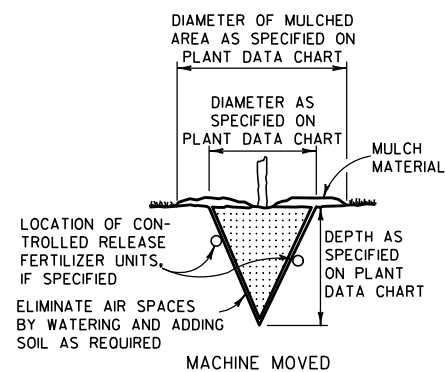
DATE

FHWA

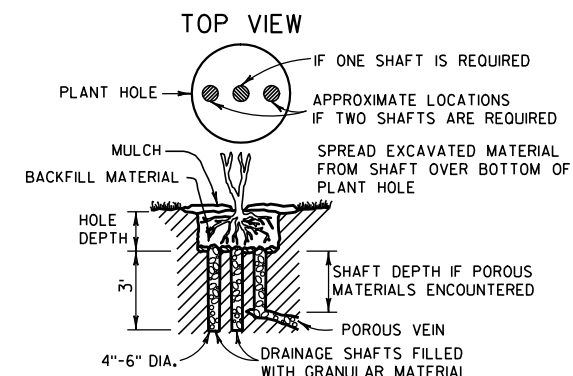
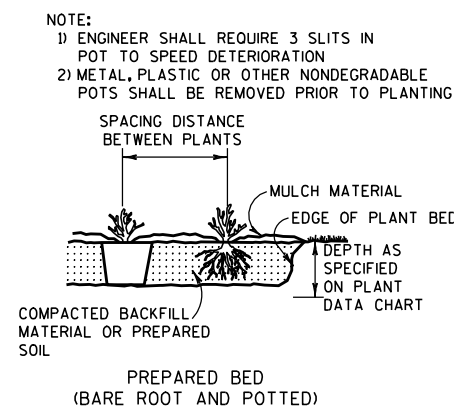
/S/ Deb Bischoff

PAVEMENT POLICY & D 203

ENGINEER



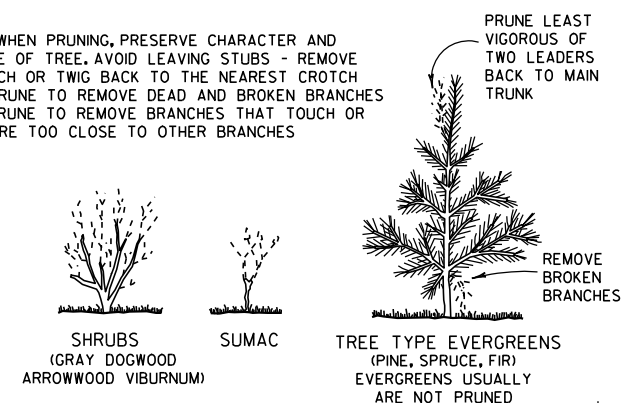
ACCOMMODATE ROOTS
(SMOOTH AND STAGHORN SUMAC)



NOTE:
DRAINAGE SHAFT AS SPECIFIED ON
PLANT DATA CHART

DRAINING

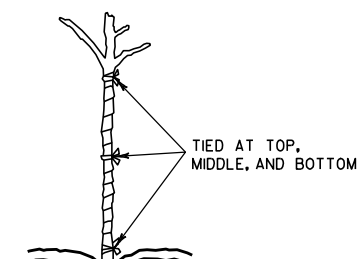
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



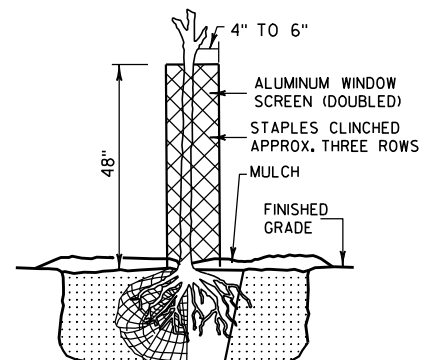
PRUNING

PLANTING

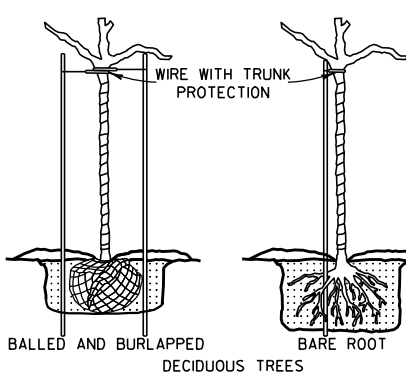
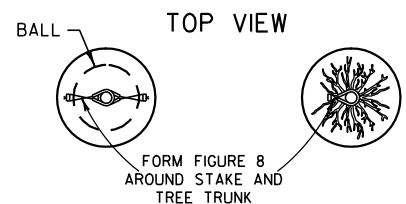
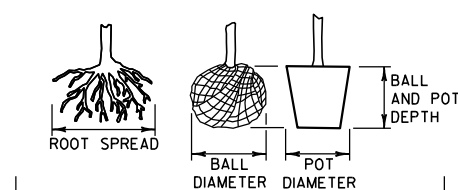
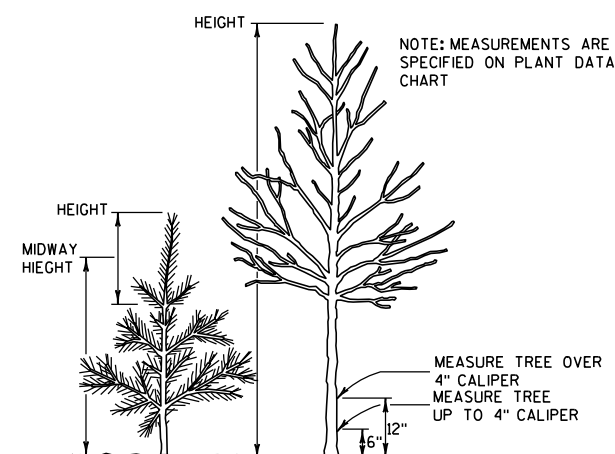
WRAPPING



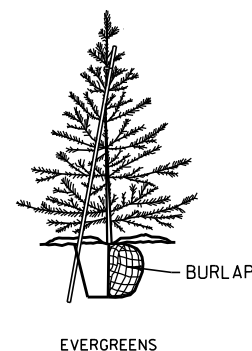
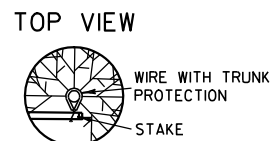
TOP VIEW



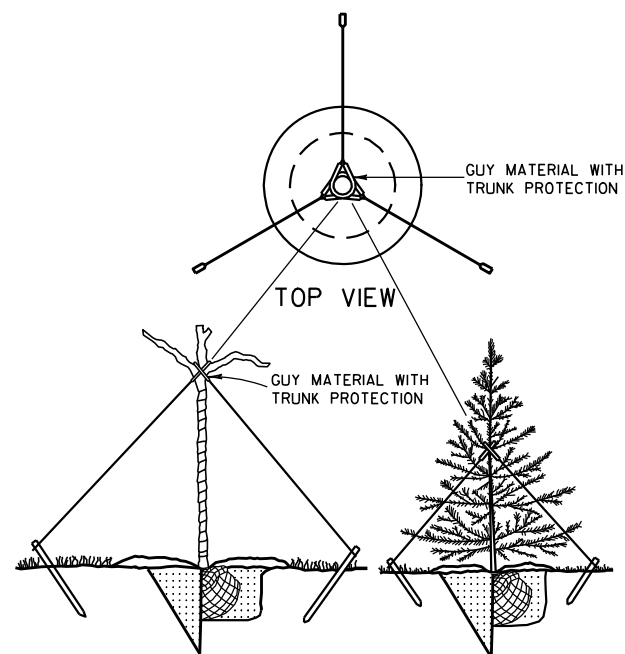
RODENT PROTECTION



BRACING

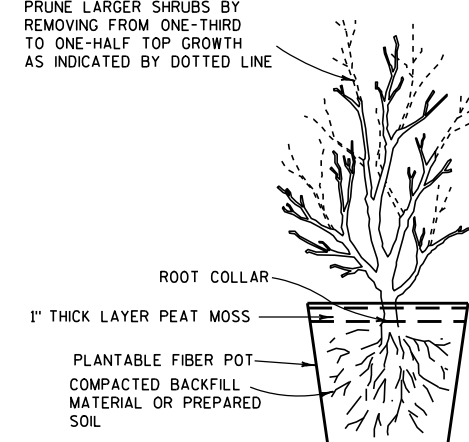


NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



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. Rhinehart

CHIEF METHODS DEVELOPER

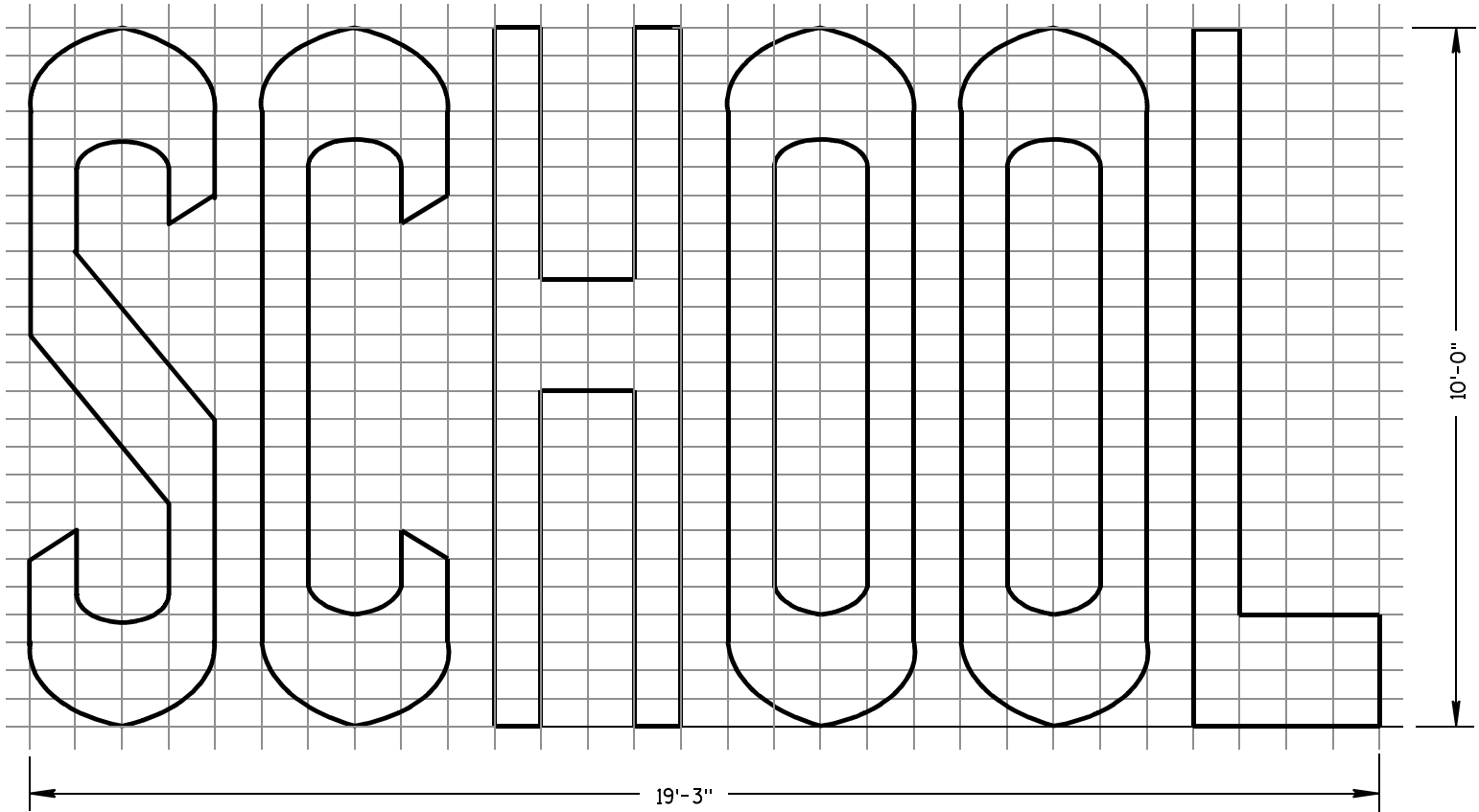
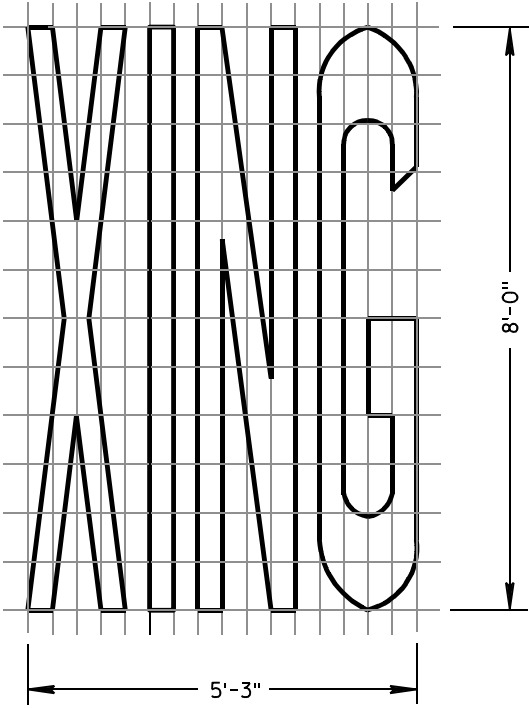
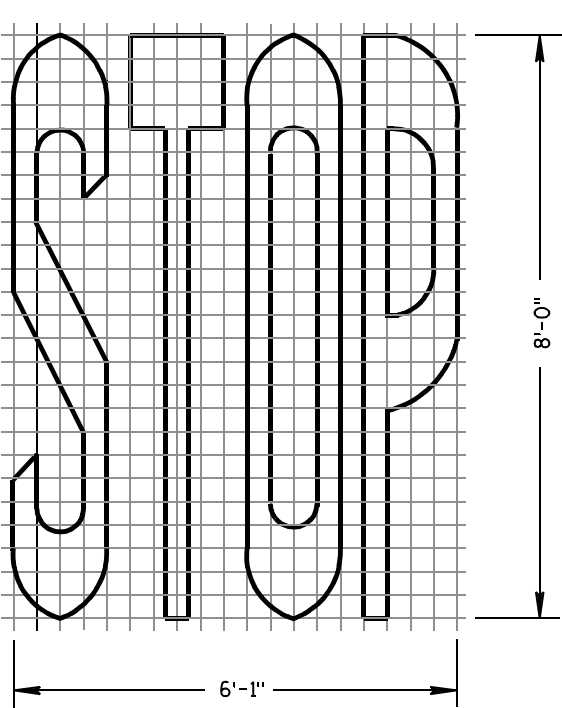
FHWA

SINER

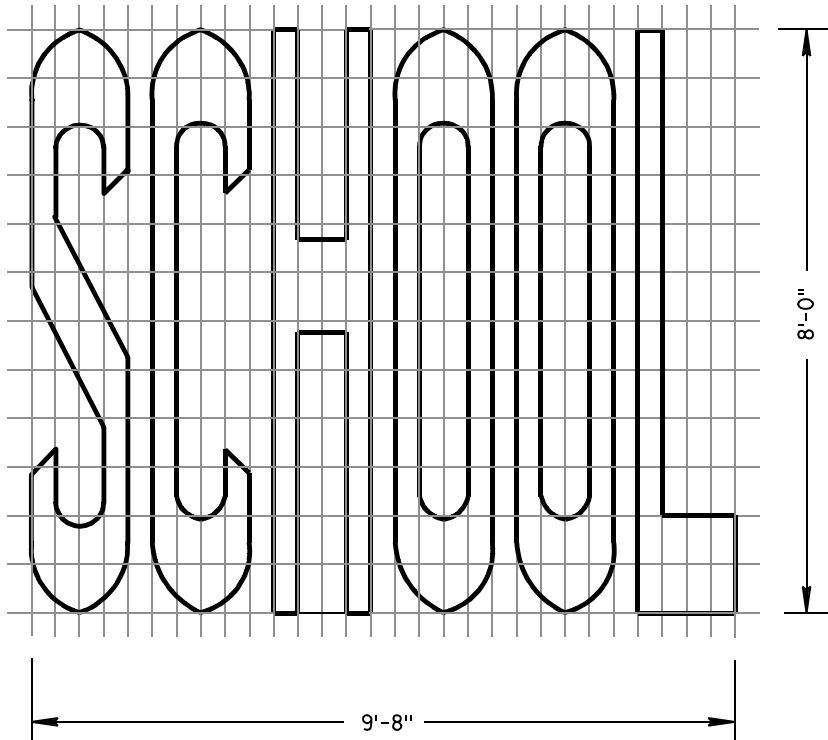
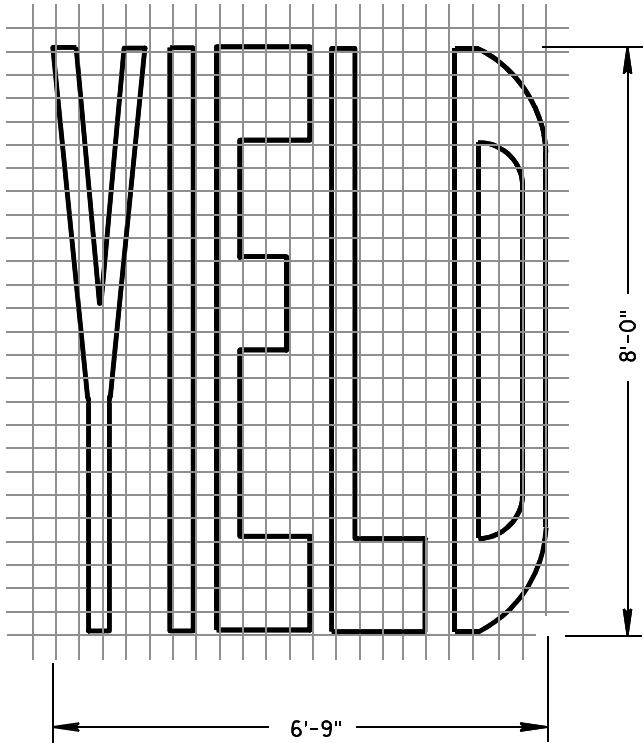
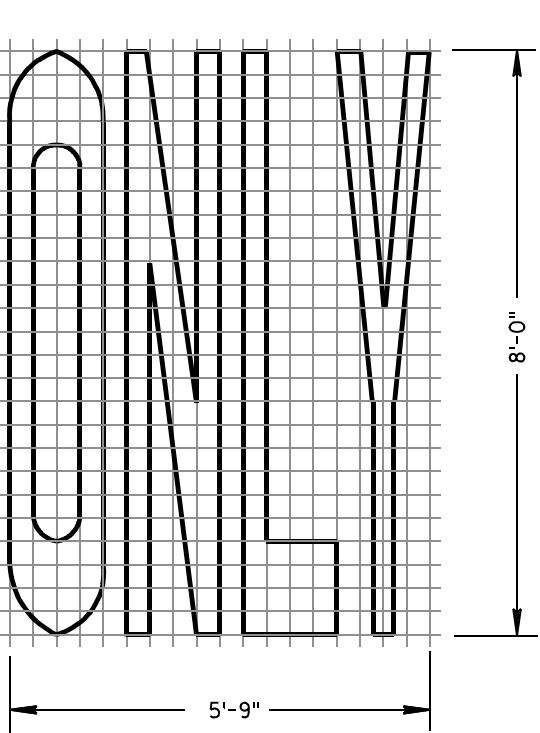
GENERAL NOTES

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.

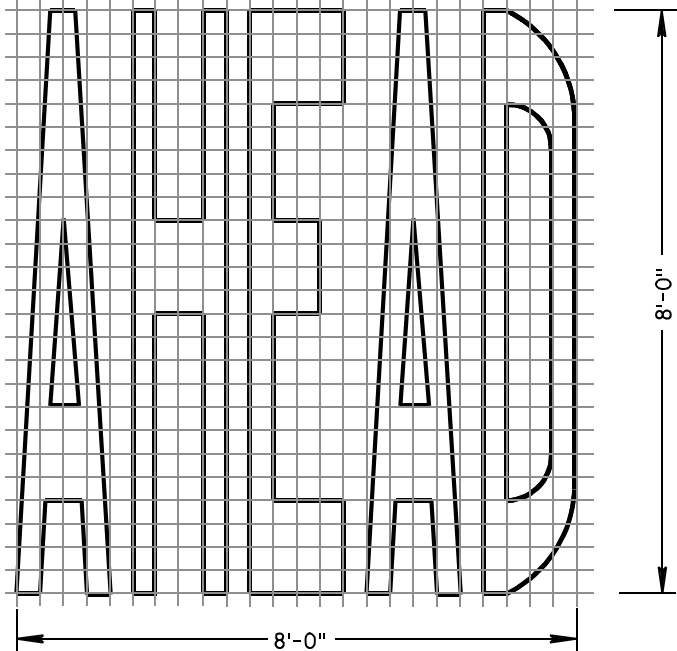
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

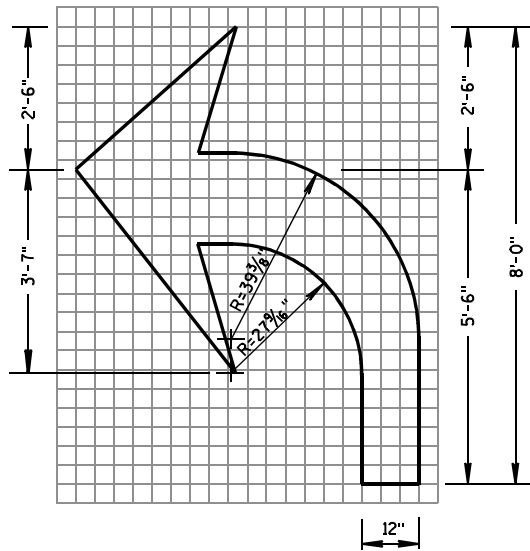
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

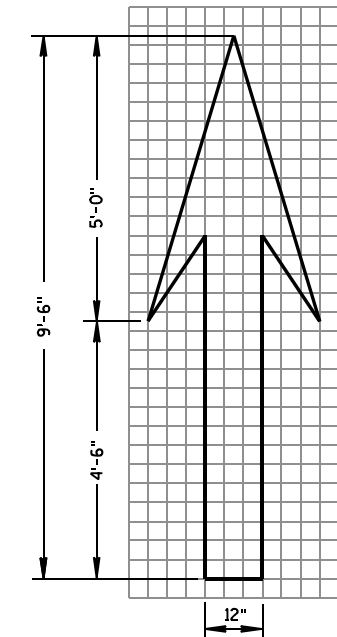
7-1-11
DATE

/S/ Thomas N. Nothmann
STATE TRAFFIC ENGINEER 205 IGN

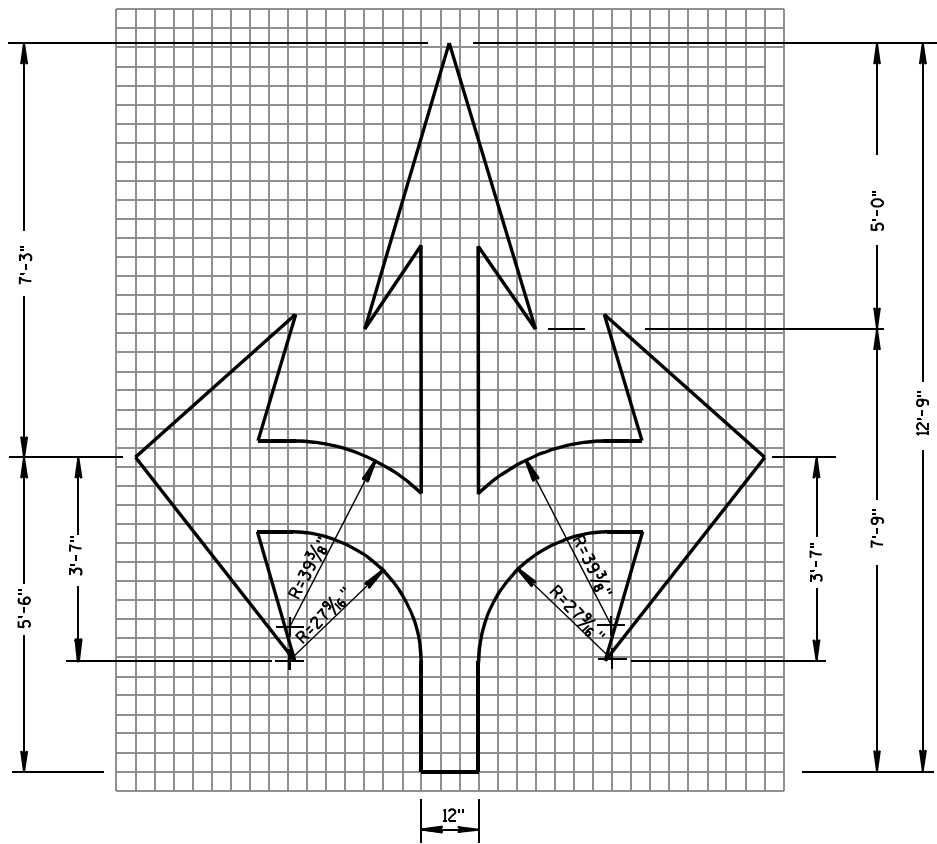
FHWA



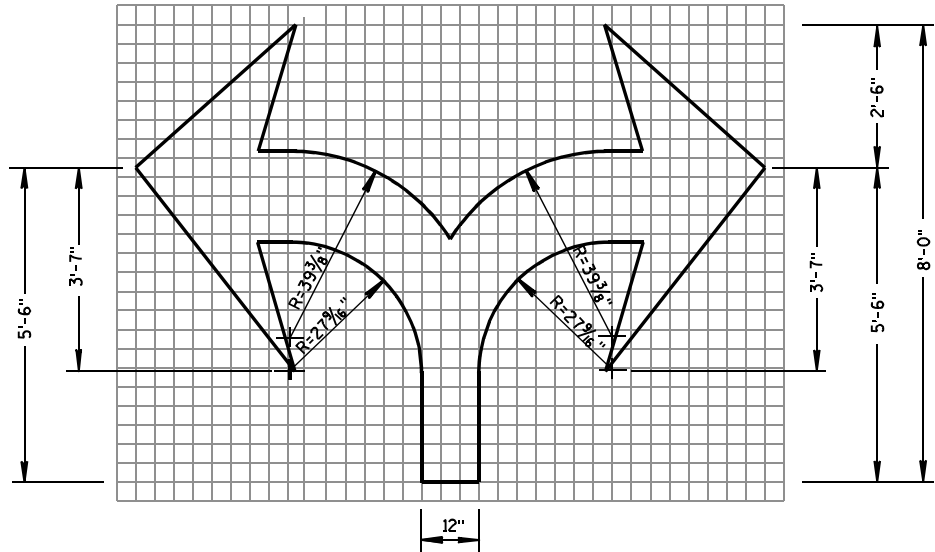
TYPE 2



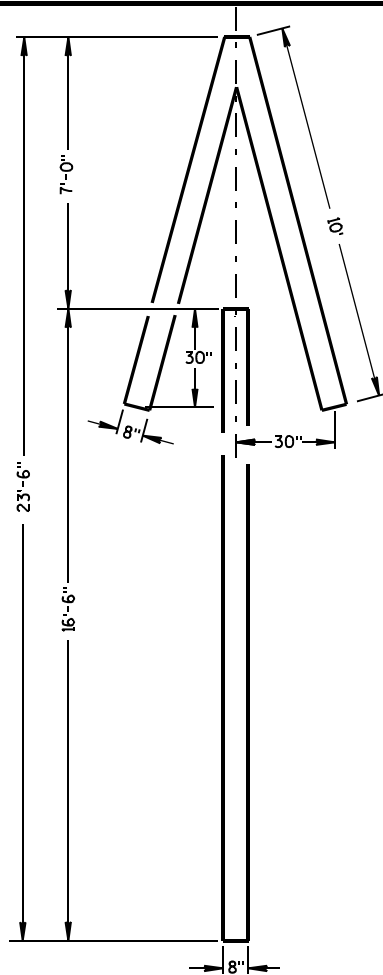
TYPE 1



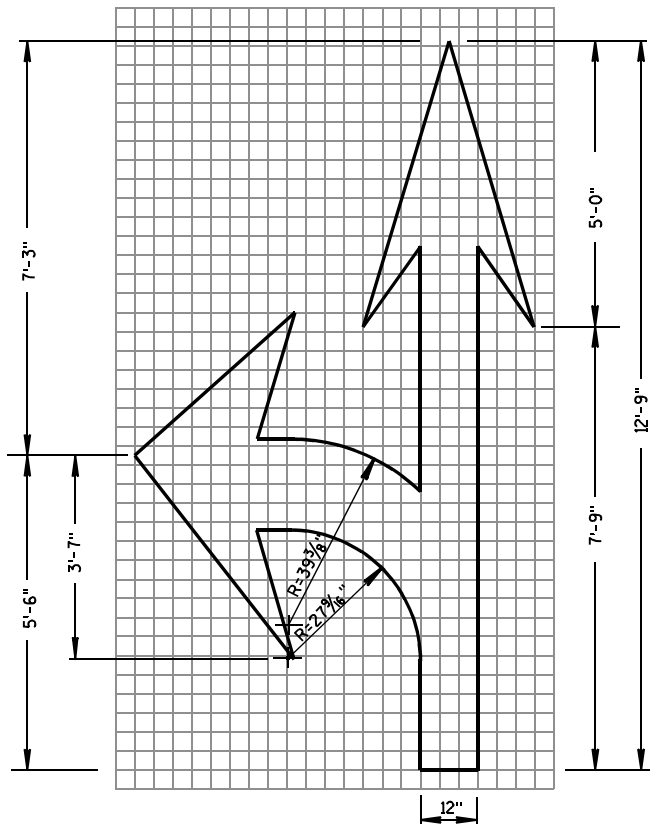
TYPE 6



TYPE 7



TYPE 4

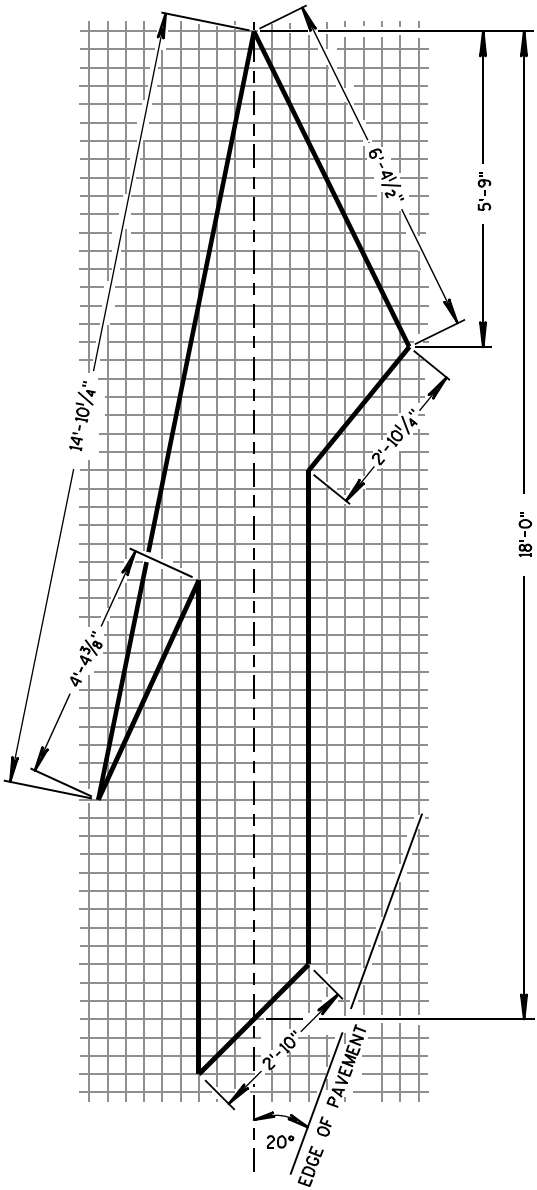


TYPE 3

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.

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

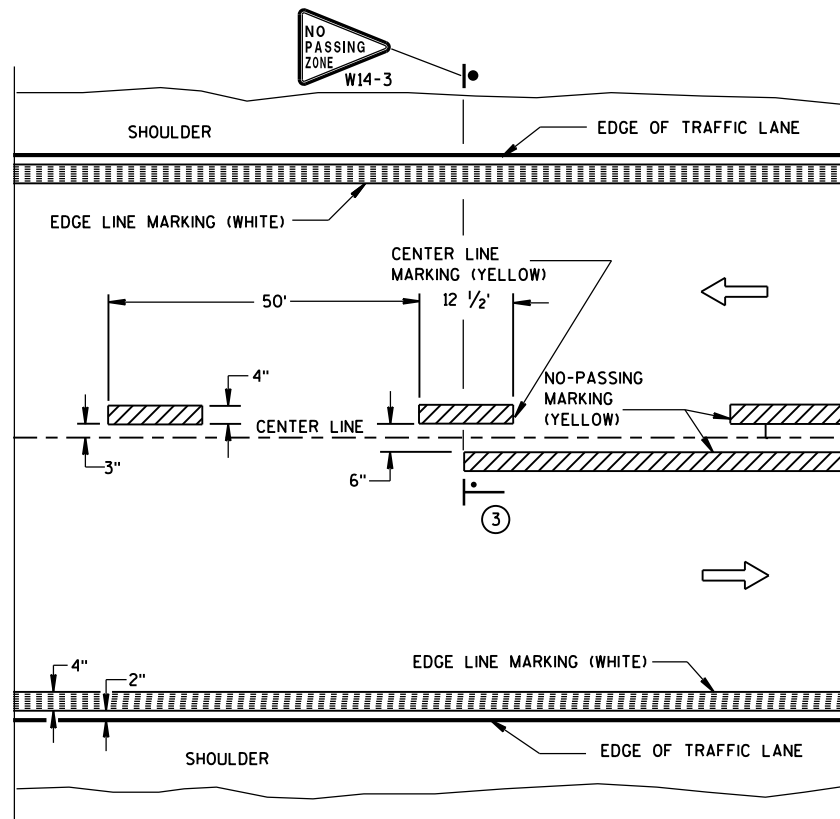
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

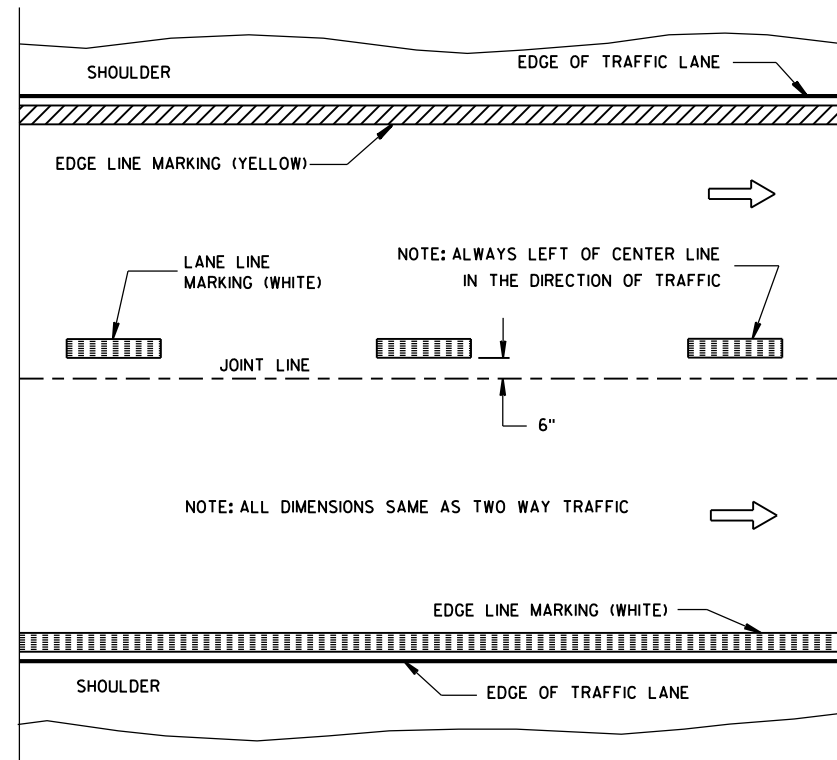
7/1/11
DATE

/S/ Thomas N. Nathahn
STATE TRAFFIC ENGINE 206 SIGN

FHWA

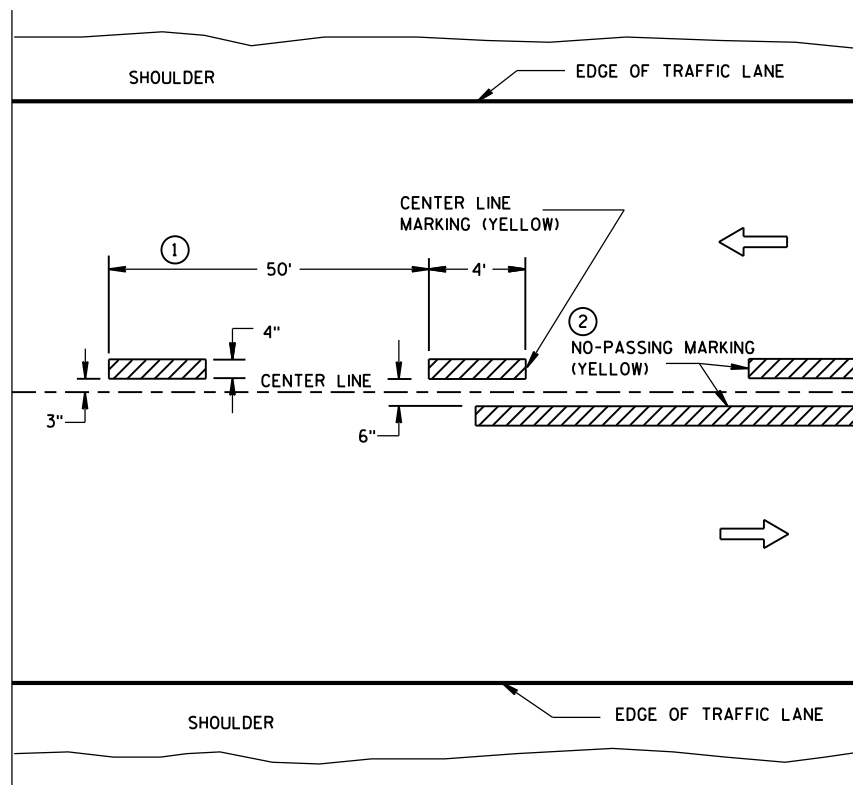


TWO WAY TRAFFIC

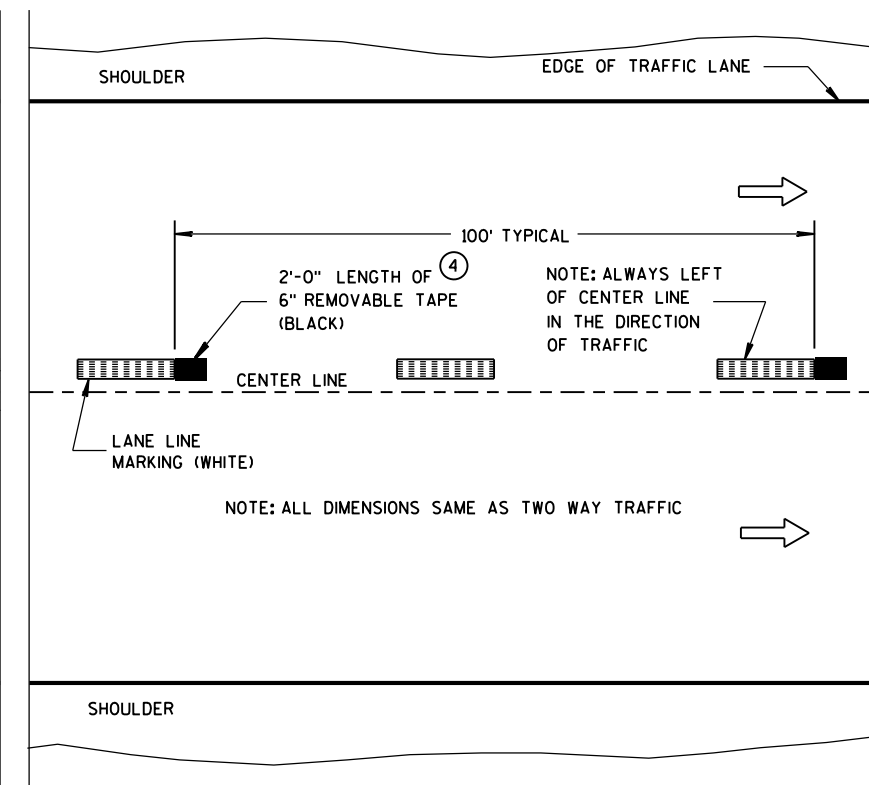


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

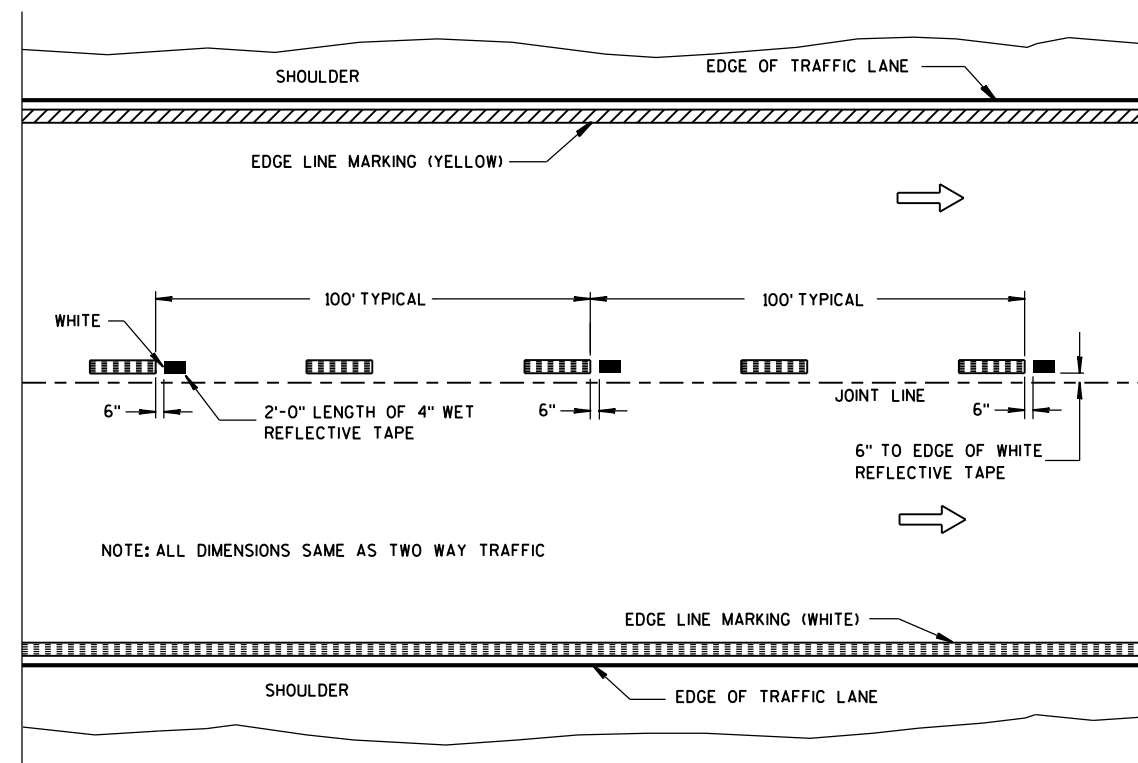
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

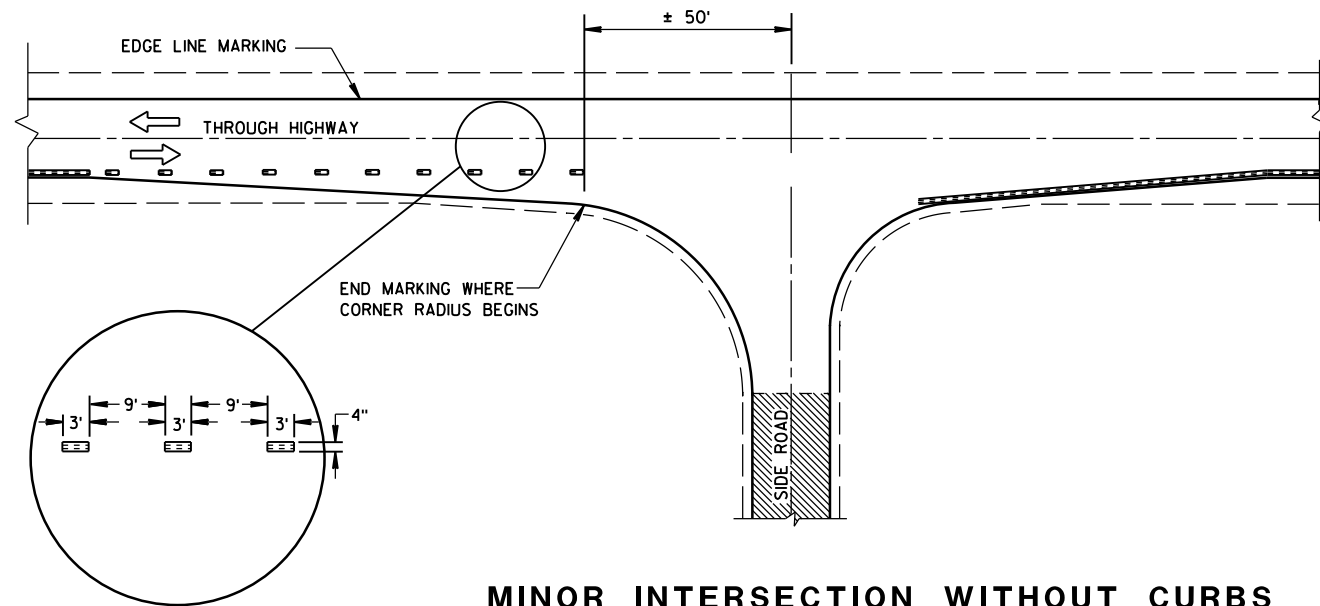
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

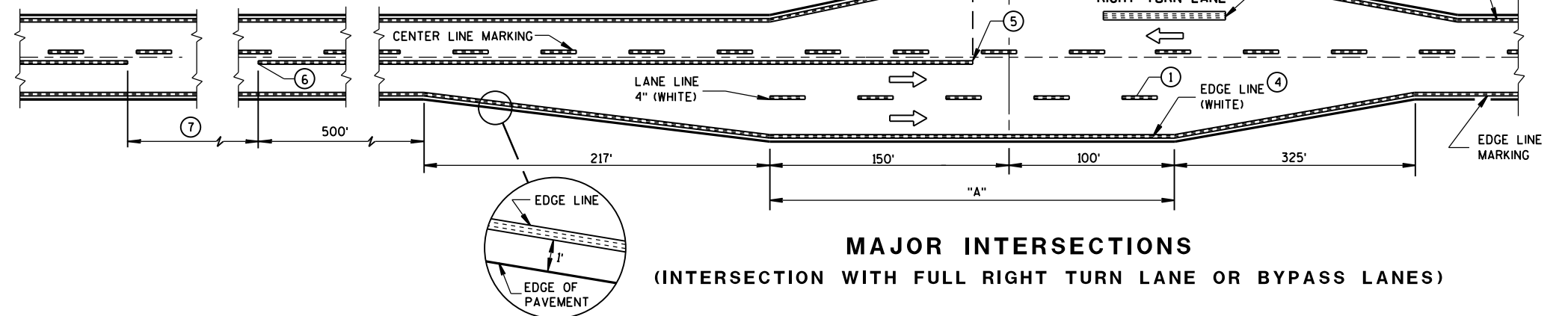
APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 207 :SIGN
FHWA



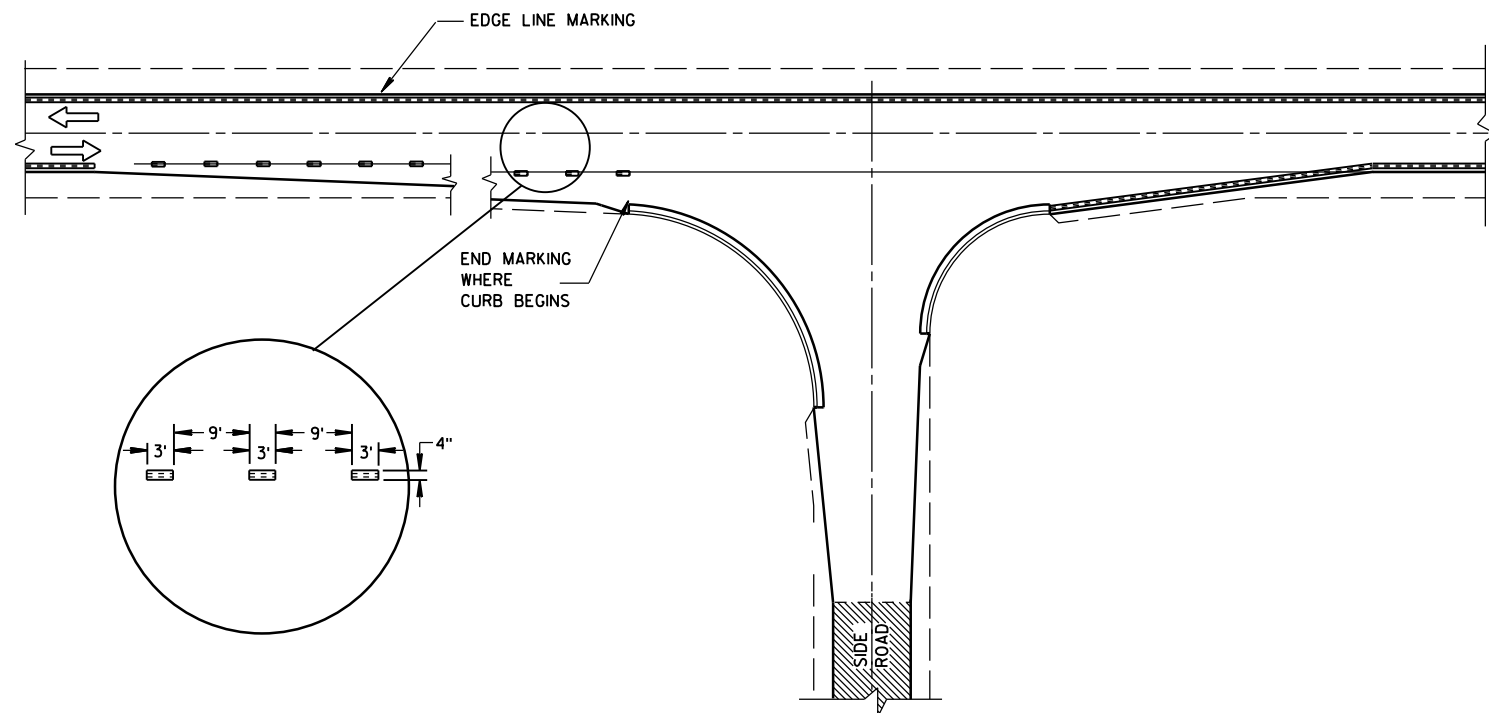
MINOR INTERSECTION WITHOUT CURBS

⑦

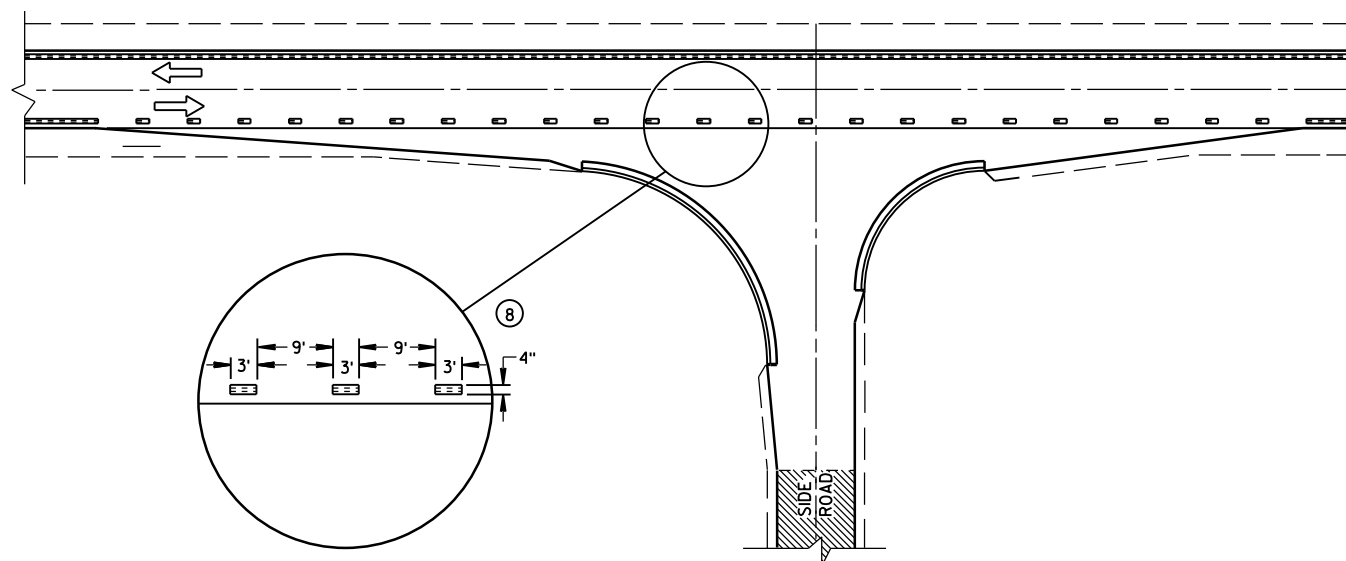
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



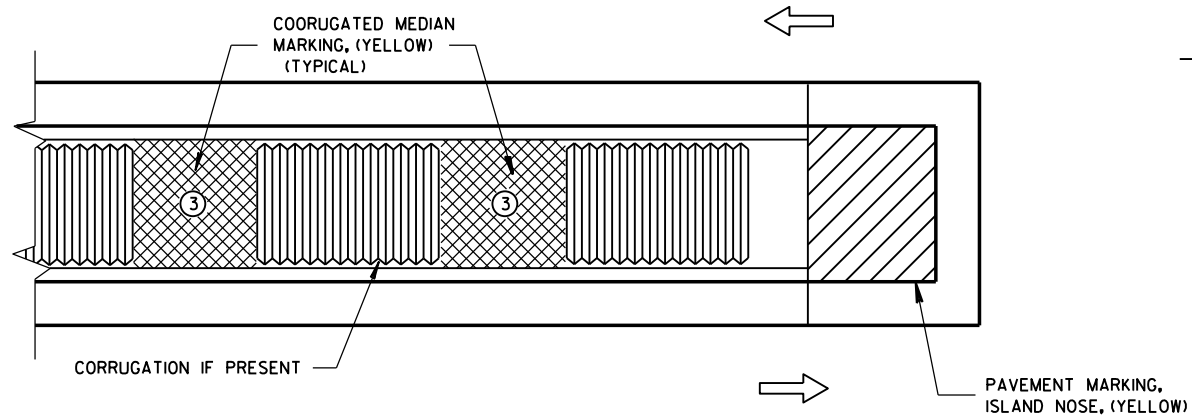
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

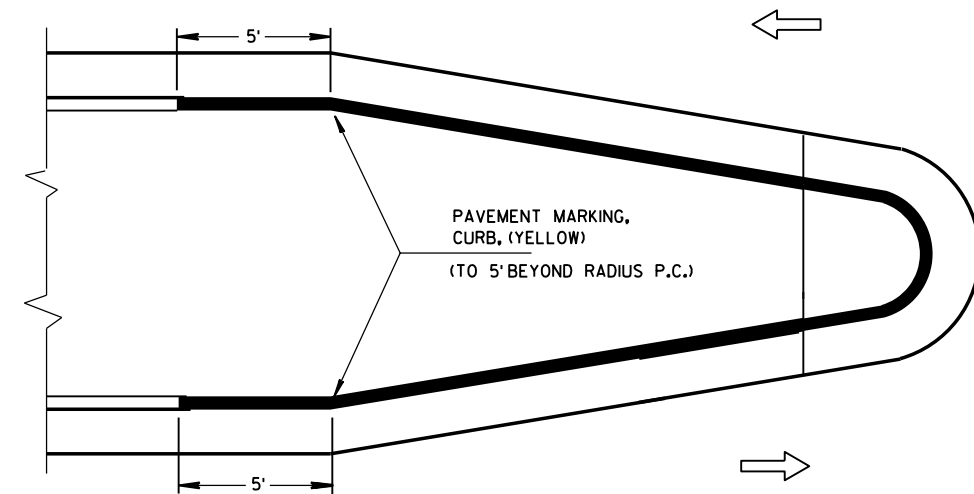
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

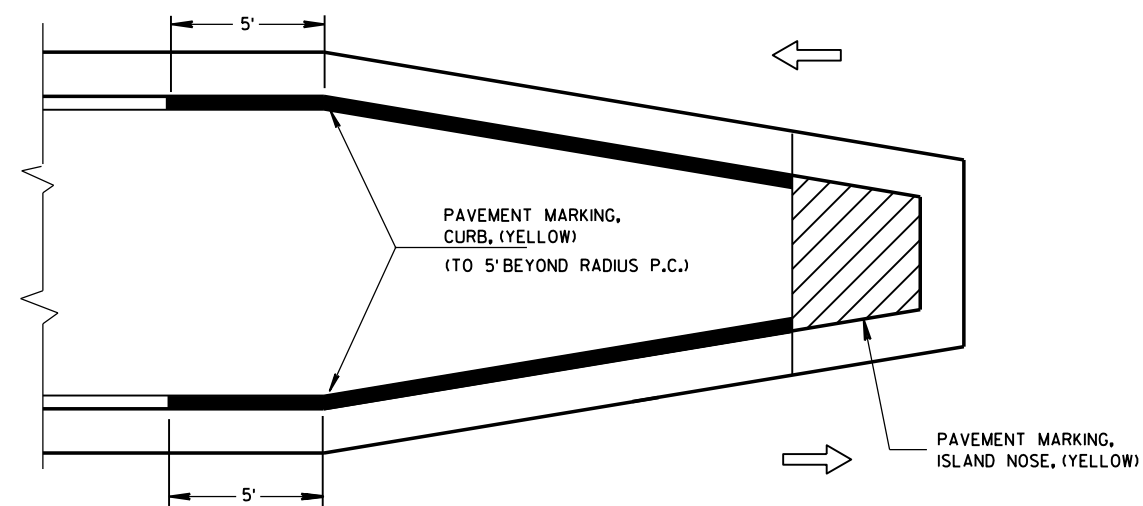
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

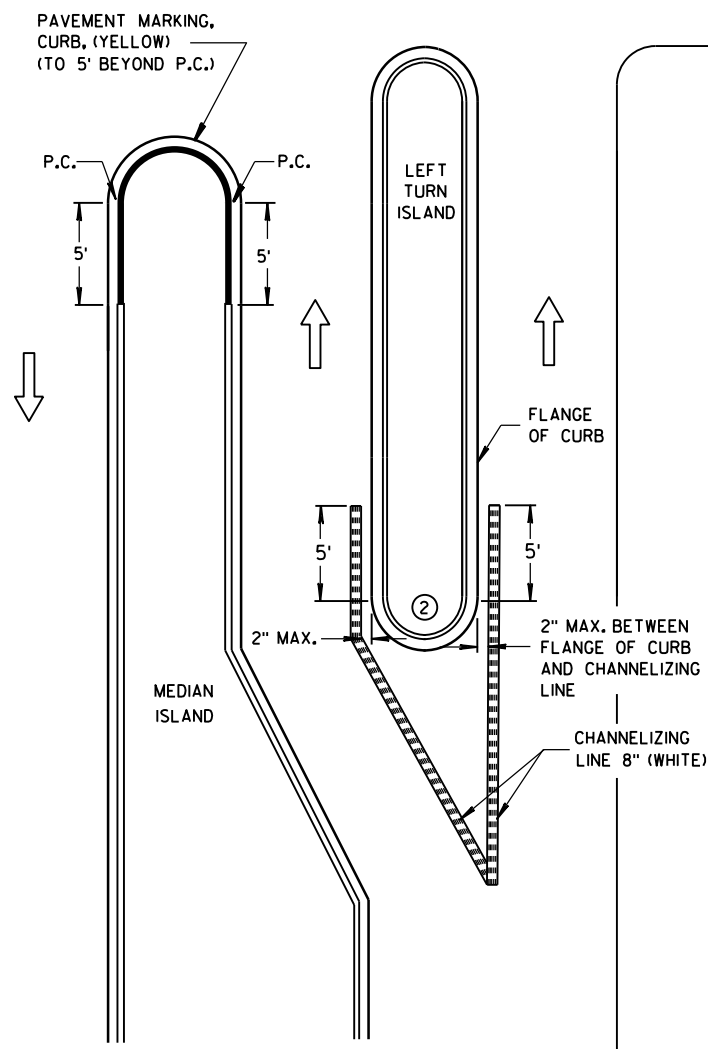


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

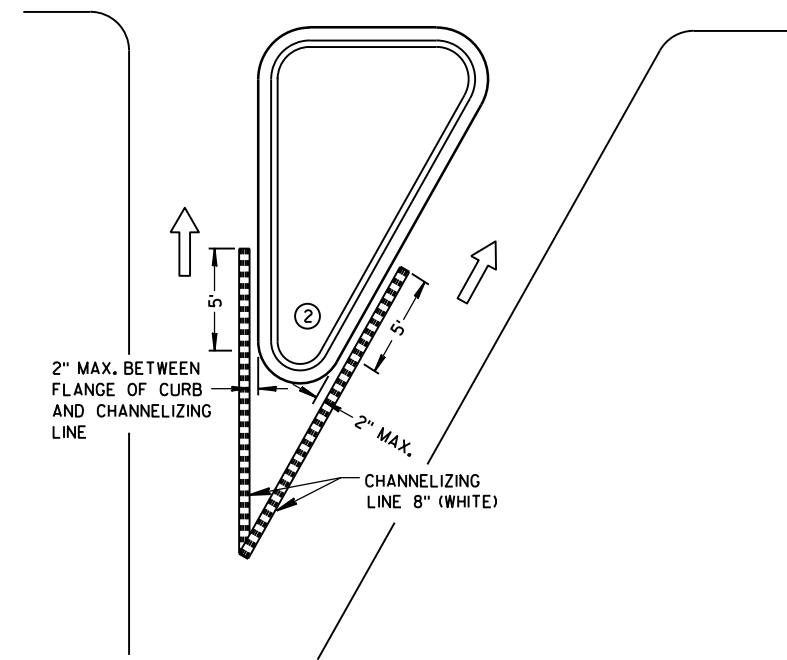
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

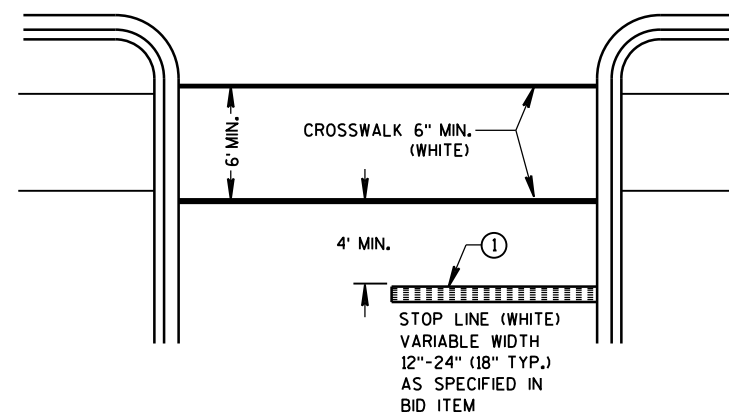
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



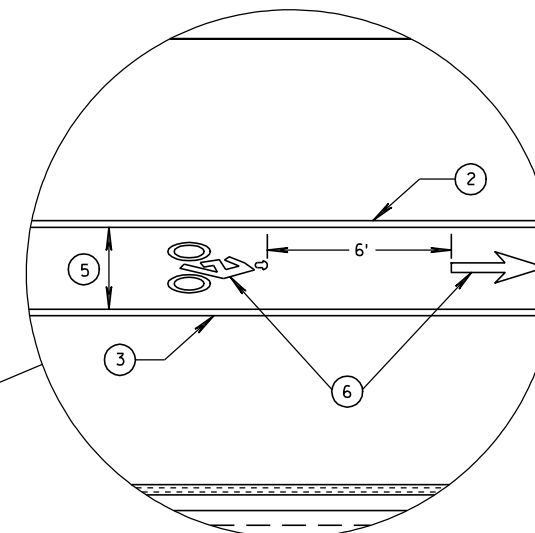
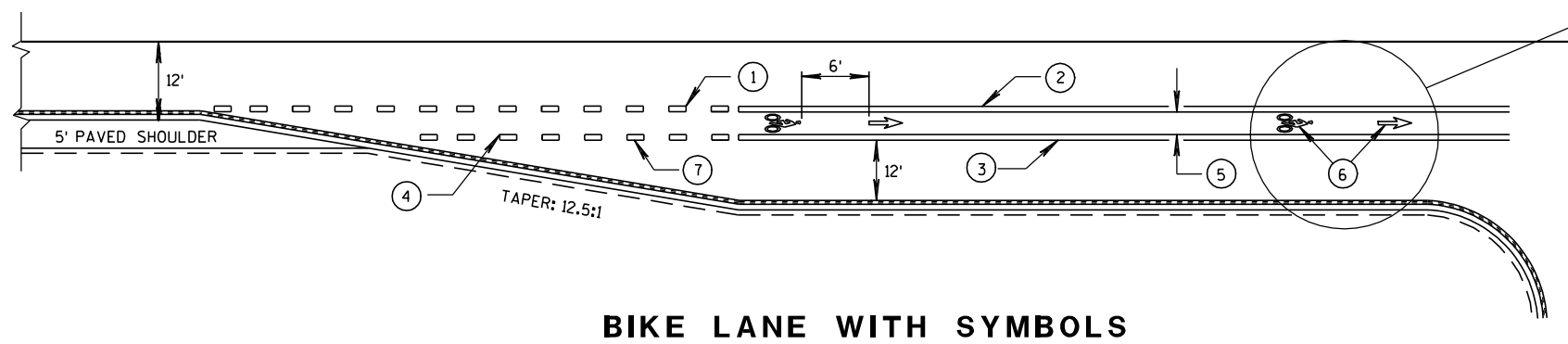
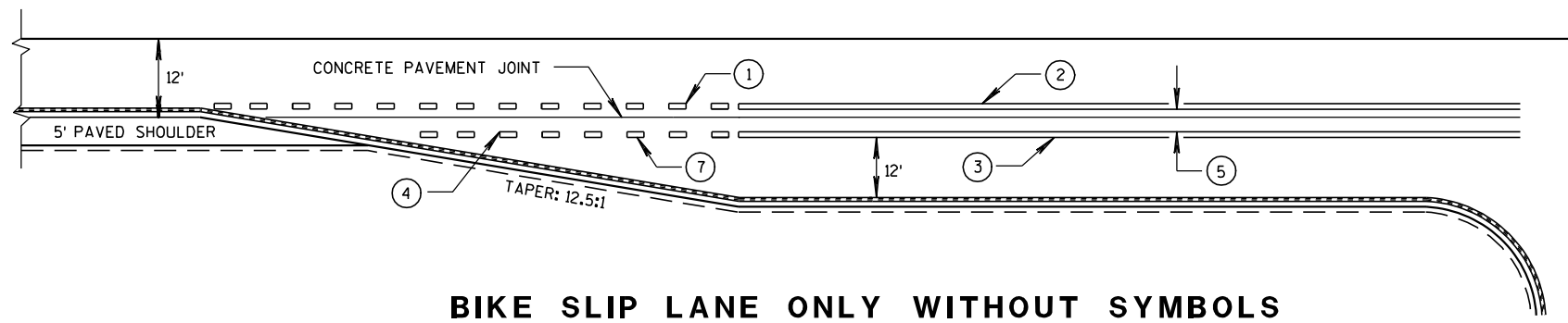
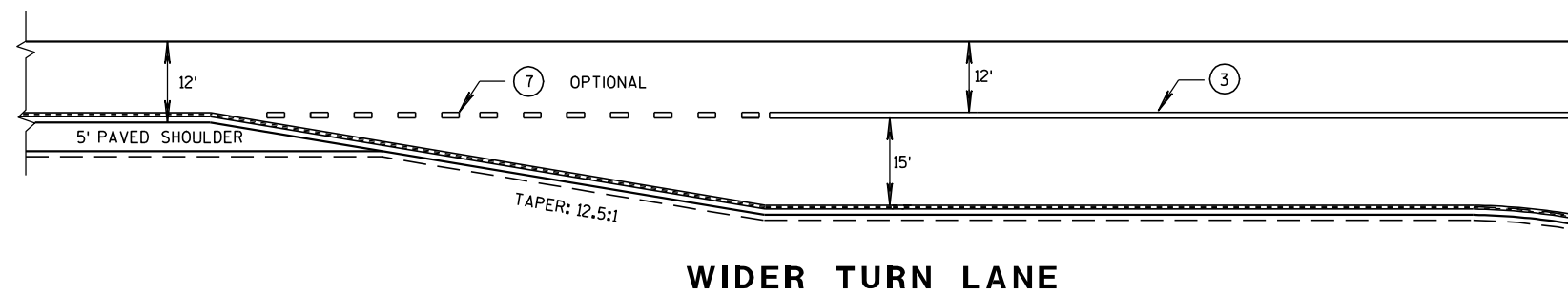
STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- ① 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
- ② 4-INCH, WHITE.
- ③ 8-INCH, WHITE.
- ④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
2 LANE (3' LEFT, 2' RIGHT OF JOINT).
4 LANE (2' LEFT, 3' RIGHT OF JOINT).
BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4',
5' AT ≥ 45 MPH.
- ⑥ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ⑦ 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.



GENERAL NOTES

- ① 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.

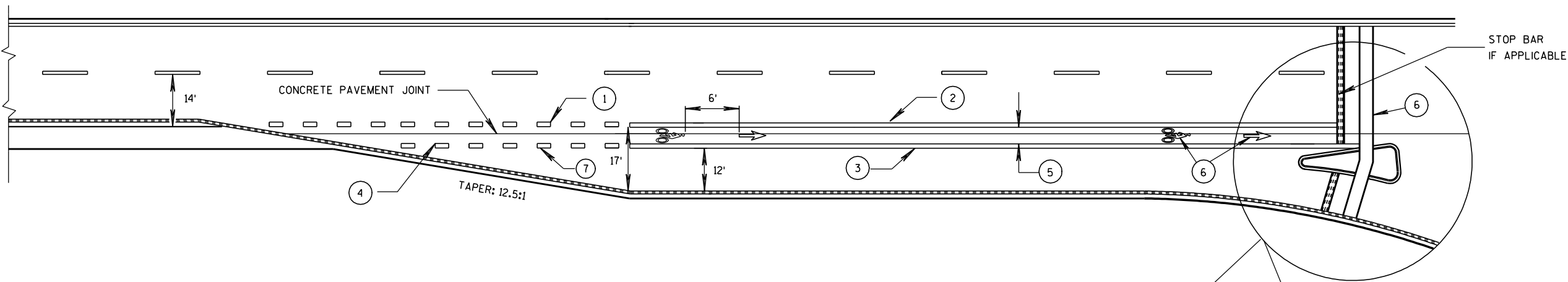
② 4-INCH, WHITE.

③ 8-INCH, WHITE.

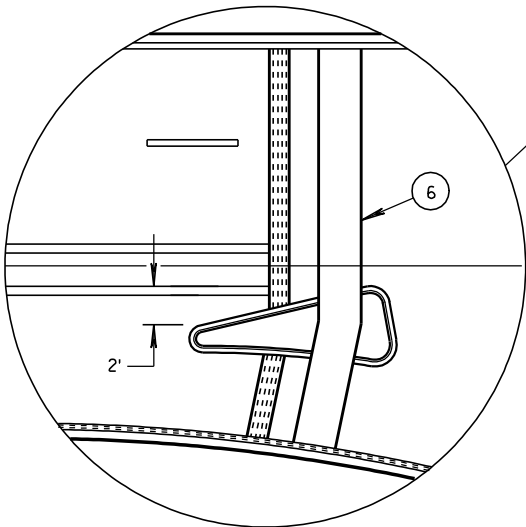
④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
2 LANE (3' LEFT, 2' RIGHT OF JOINT).
4 LANE (2' LEFT, 3' RIGHT OF JOINT).
BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4',
5' AT ≥ 45 MPH.

⑥ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

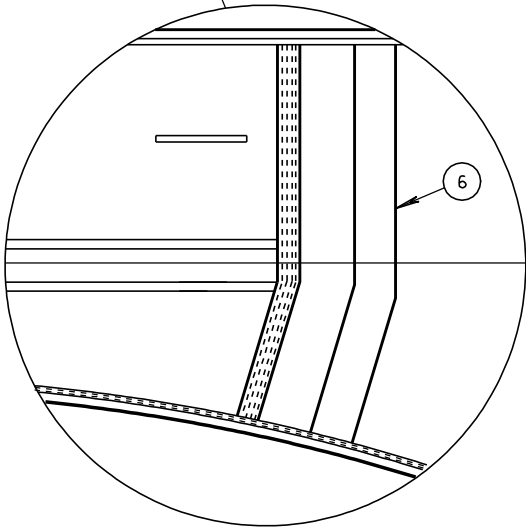
⑦ 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE



4 LANE DIVIDED WITH ISLAND

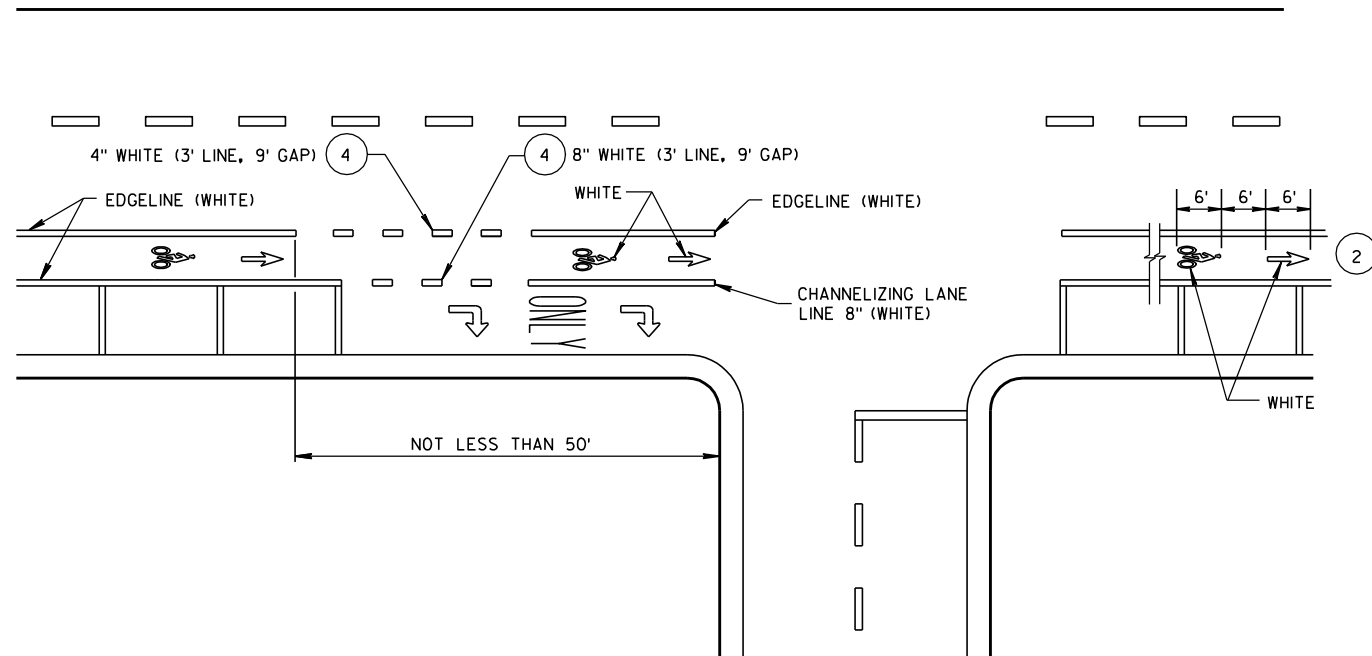


4 LANE DIVIDED WITHOUT ISLAND

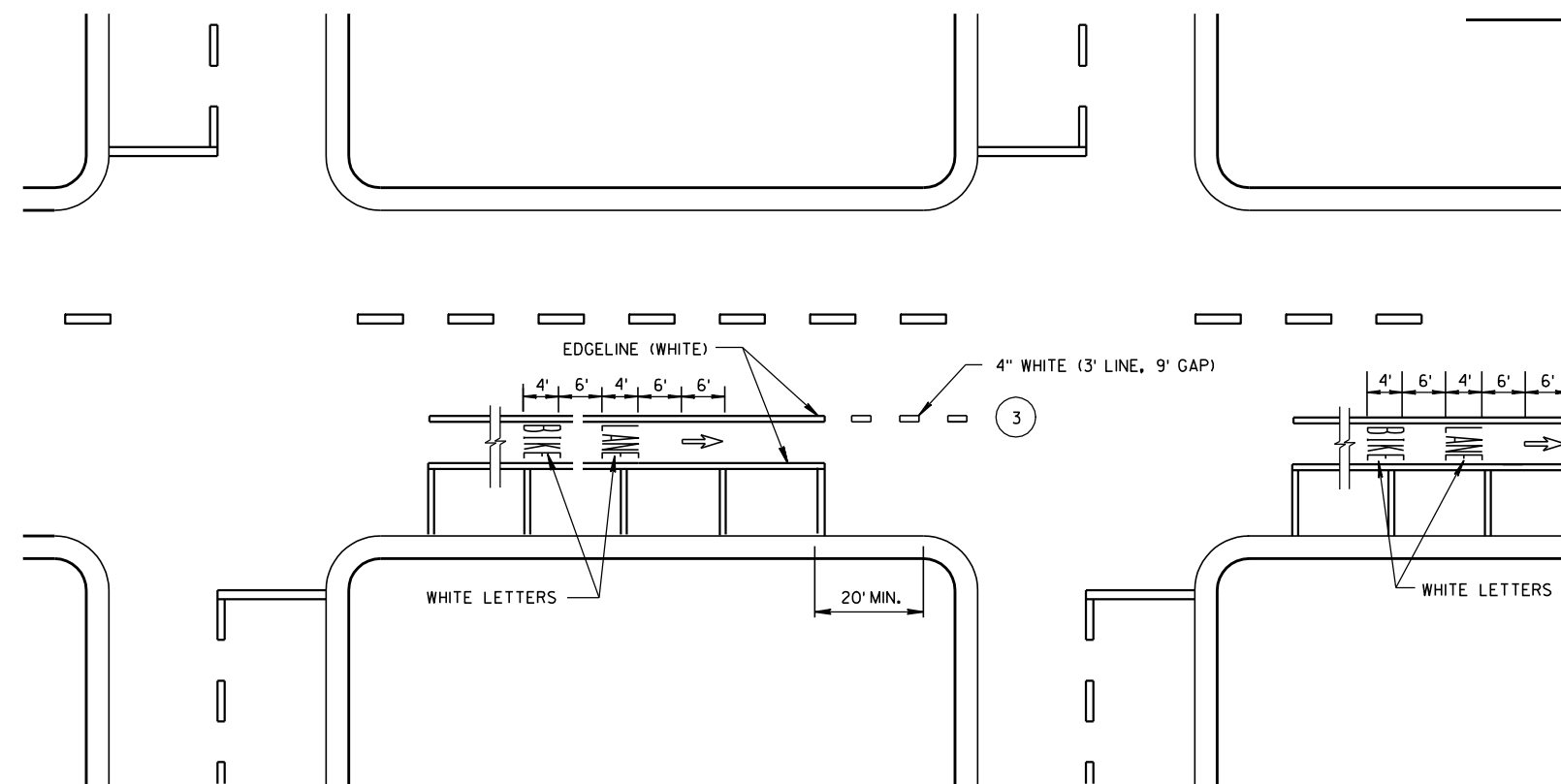
BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

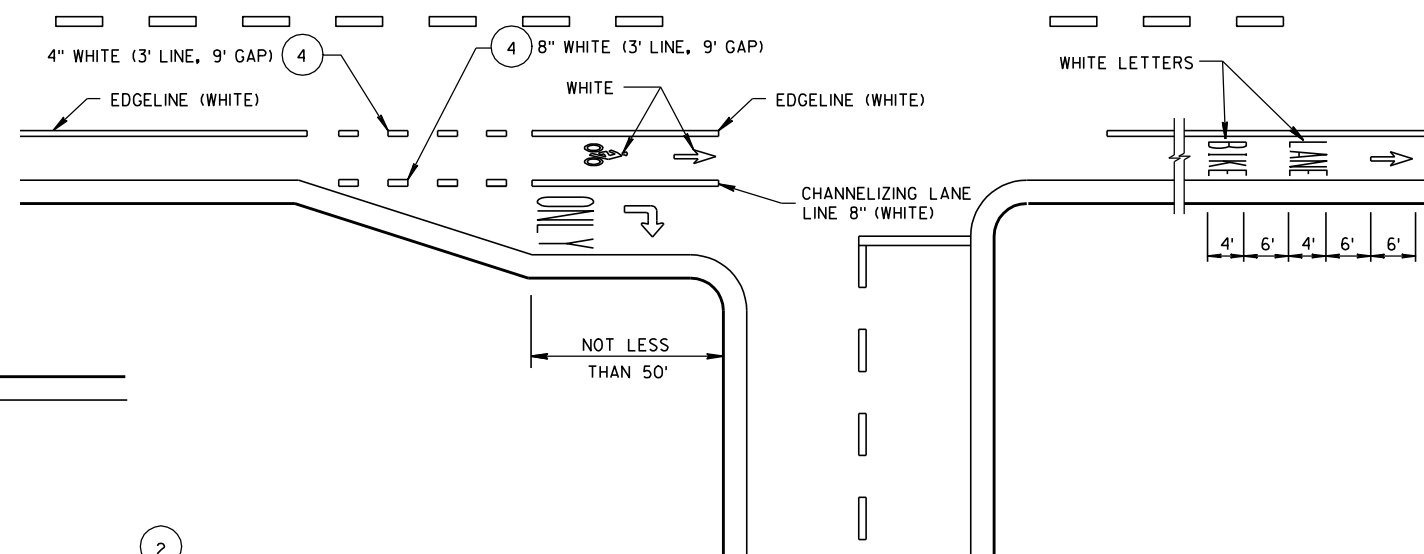
APPROVED
2/6/2012 DATE /S/ Thomas N. Neumann SIGN
STATE TRAFFIC ENGINE 211
FHWA



DESIGNATED BICYCLE LANE



DESIGNATED BICYCLE LANE WITH PARKING, NO RIGHT TURN LANE



DESIGNATED BICYCLE LANE NO PARKING, RIGHT TURN LANE

GENERAL NOTES

- ① DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- ② THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
- ③ DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- ④ WHEN SPECIFIED IN THE CONTRACT.

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/6/2012
DATE

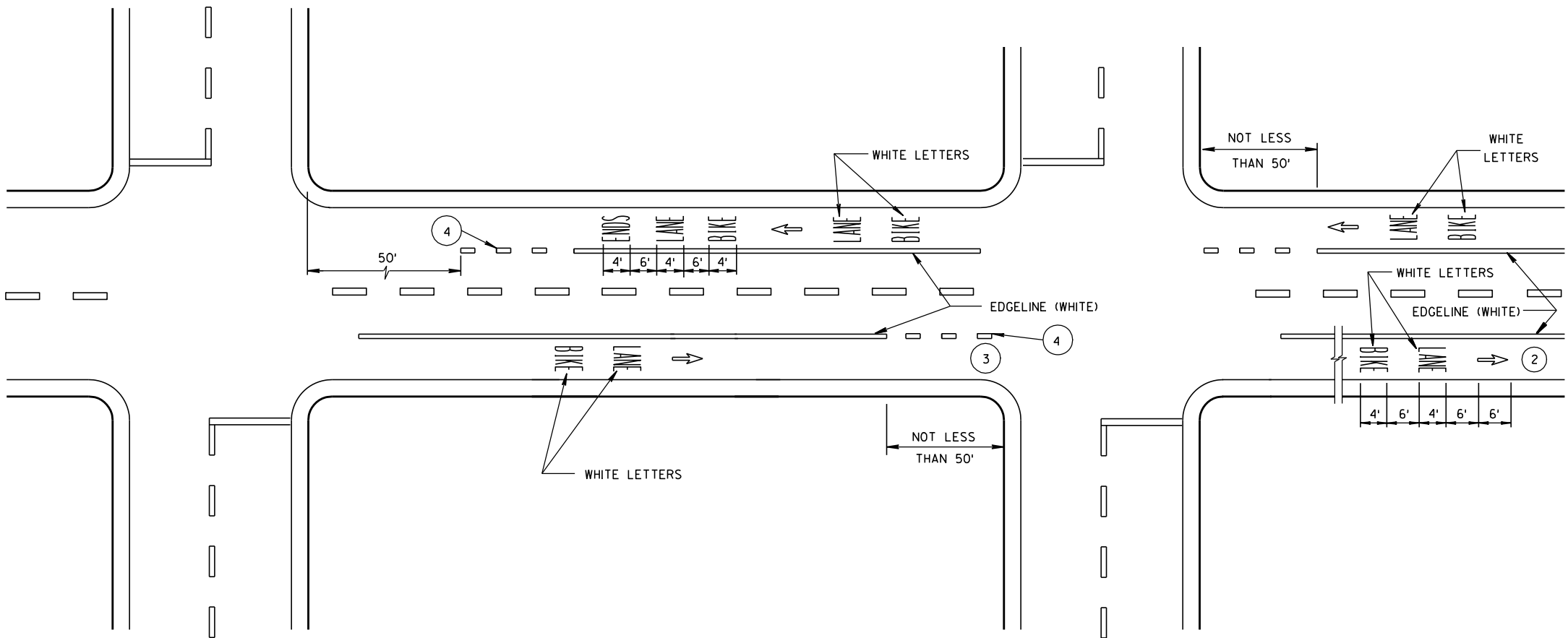
DATE

FHWA

/S/ Thomas N. Neumann

STATE TRAFFIC ENGINE 212 SIGN

SIGN



DESIGNATED BICYCLE LANE
NO PARKING

GENERAL NOTES

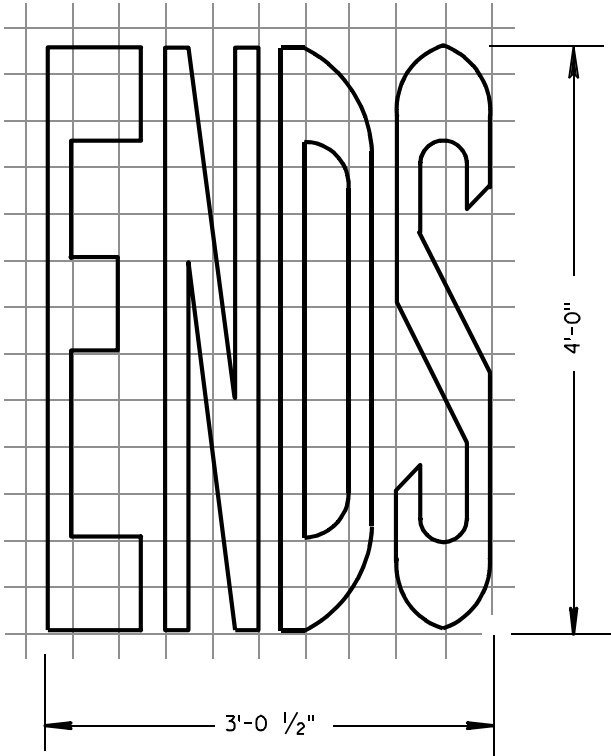
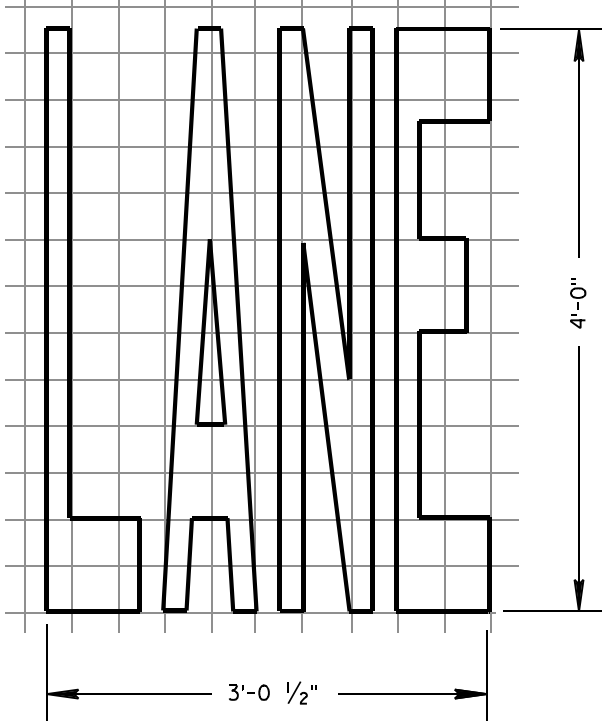
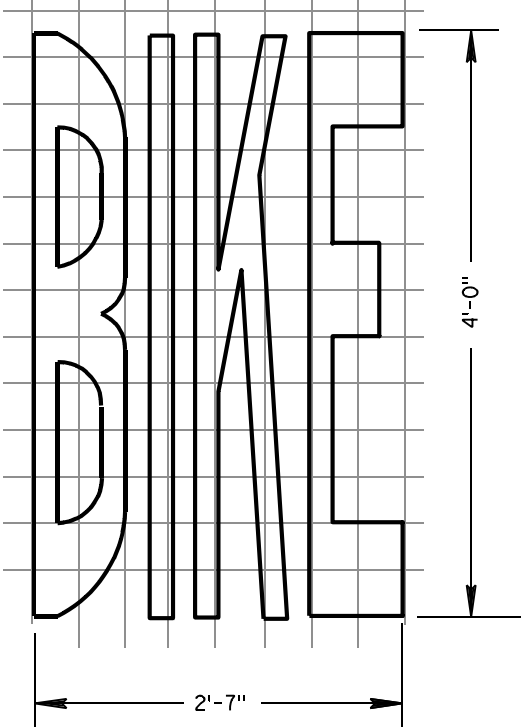
- 1 DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- 2 THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
- 3 DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- 4 3' LINE, 9' GAP - 4" WIDE, WHITE.

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2/6/2012 DATE	/S/ Thomas N. N STATE TRAFFIC ENGINEER 213 SIGN
FHWA	

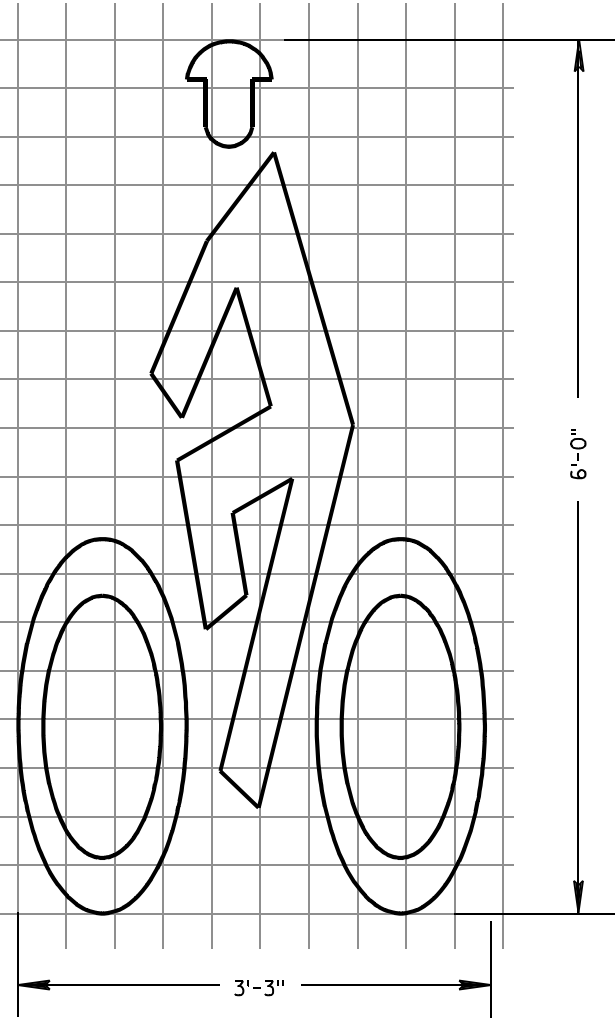
GENERAL NOTES

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.

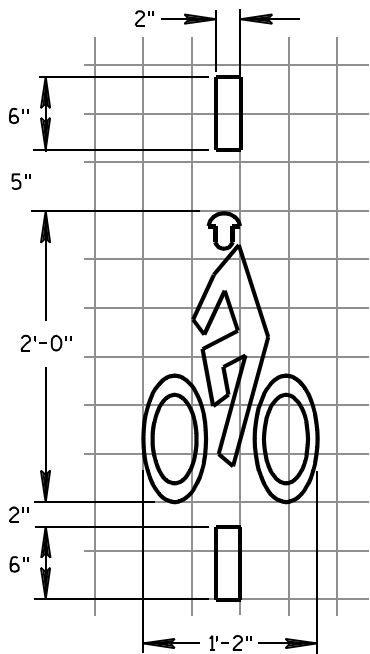
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



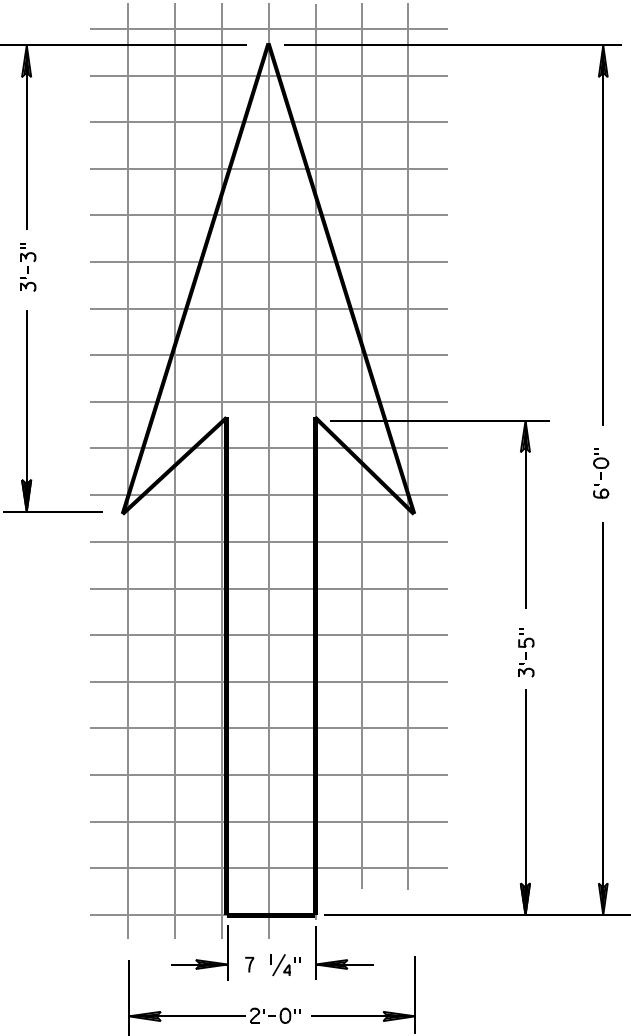
BIKE LANE WORDS



BIKE LANE SYMBOL

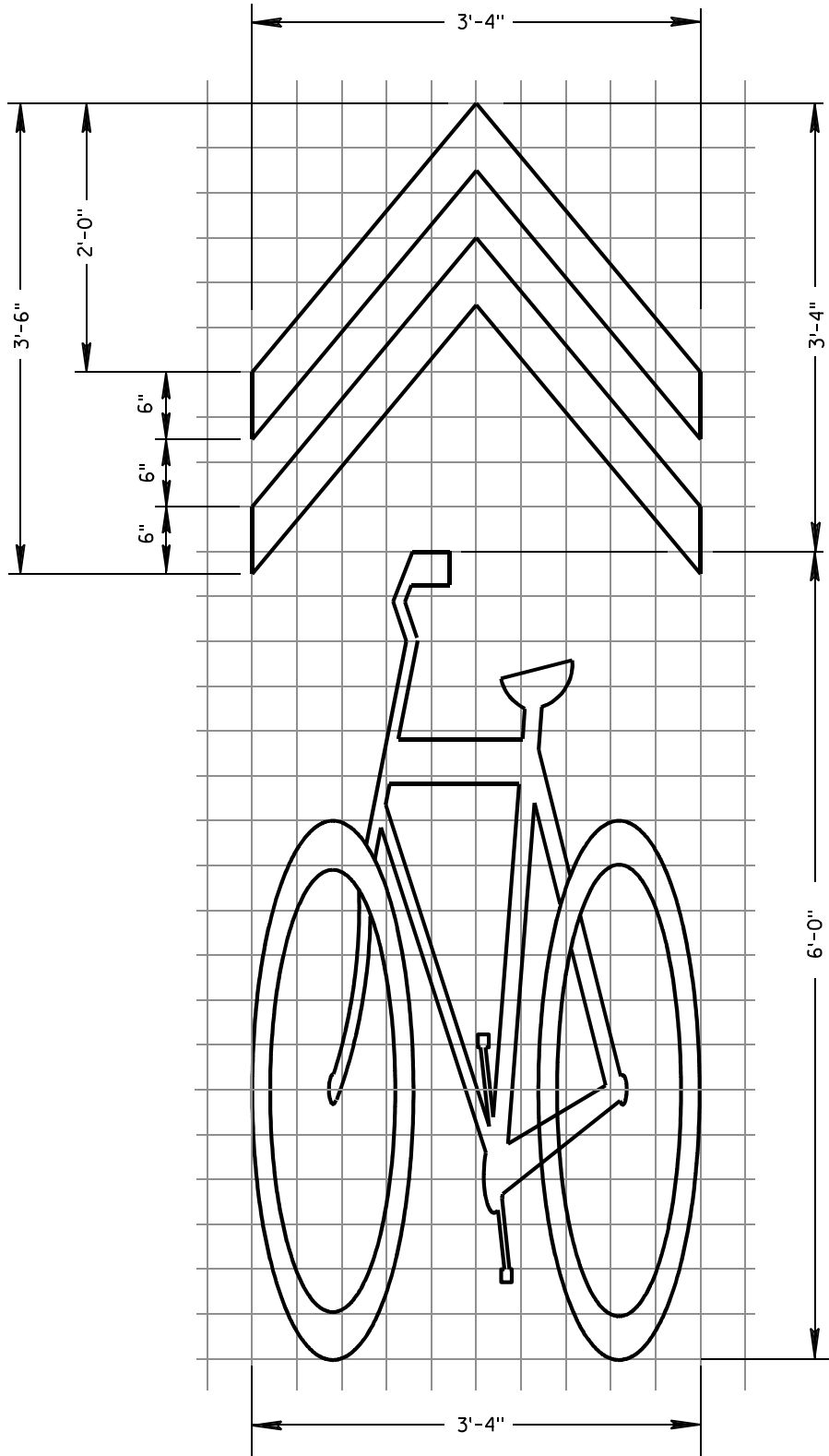


BICYCLE DETECTOR
PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-6-2012 DATE	/S/ Thomas N. Neuhoff STATE TRAFFIC ENGINEER 214 GN FHWA

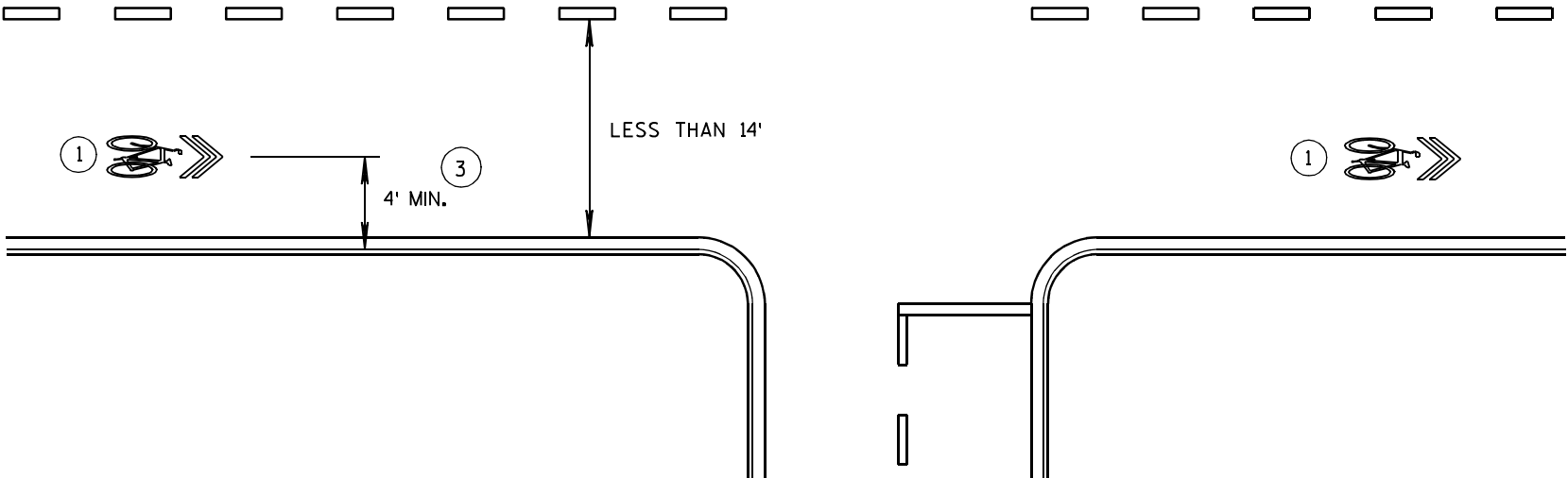


BIKE SYMBOL FOR SHARED LANE

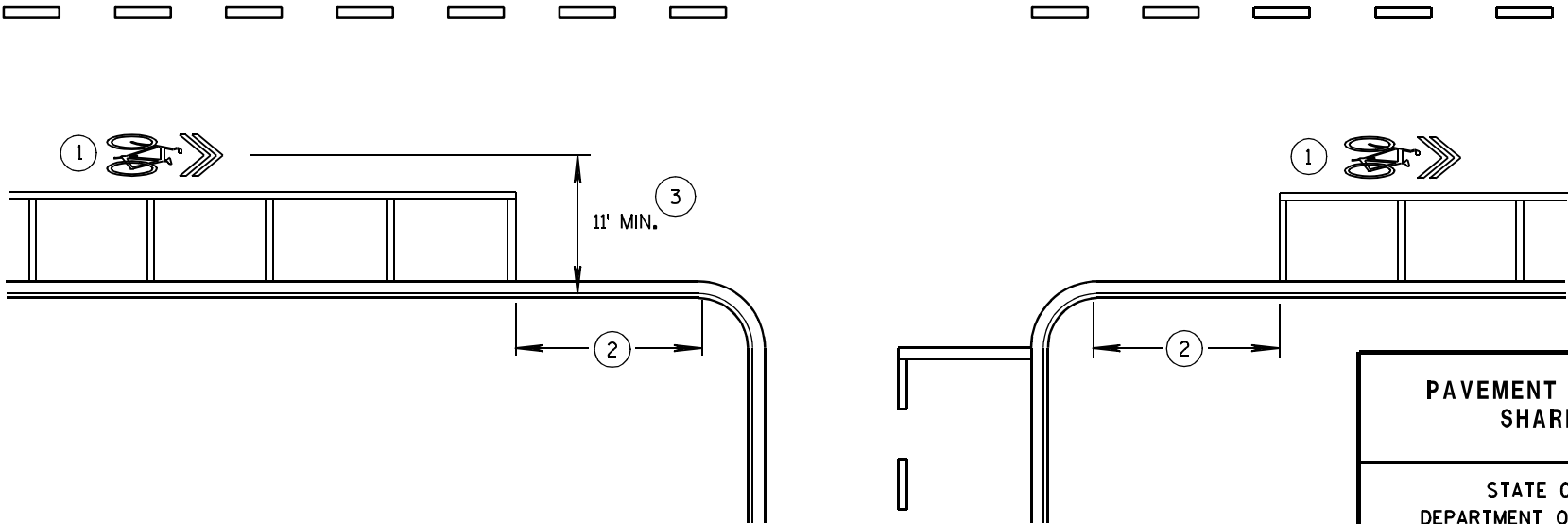
GENERAL NOTES

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

- ① SPACED A MAXIMUM OF 250 FEET.
- ② 20 FOOT MINIMUM FROM CURB RADIUS.
- ③ OR TO EDGE OF PAVEMENT WITHOUT CURB.

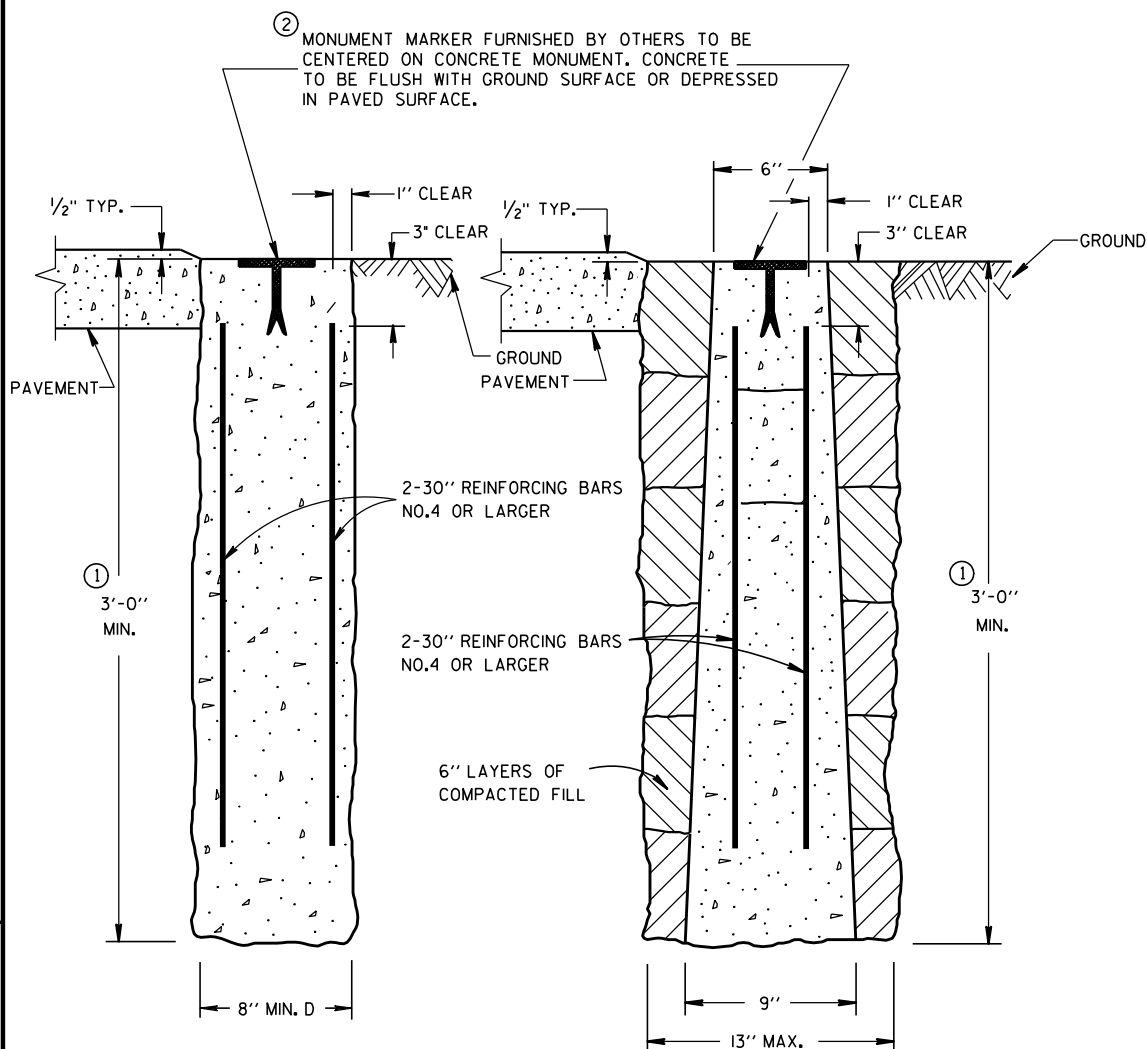


WITHOUT PARKING



WITH PARKING

PAVEMENT MARKING FOR SHARED LANE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-6-2012 DATE	/S/ Thomas N. Neumann STATE TRAFFIC ENGINEER 215 IGN
FHWA	

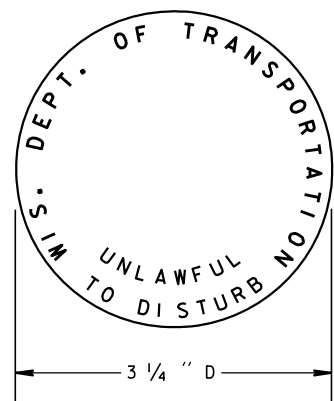


CAST-IN-PLACE

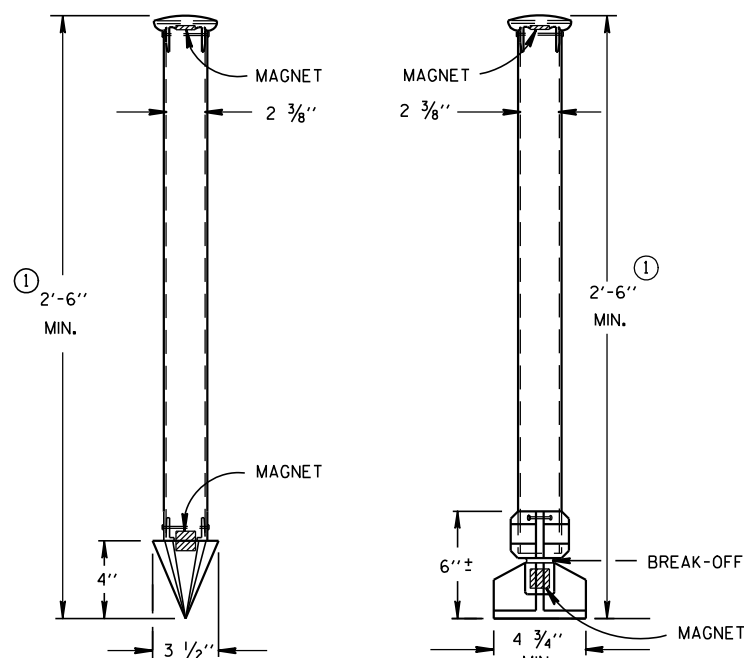
PRECAST

CONCRETE MONUMENTS

TYPE A



② WIS DOT MONUMENT MARKER LOGO
FOR TYPES "A", "C" & "D"



TYPE C

TYPE D

DRIVE-IN MONUMENT

BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

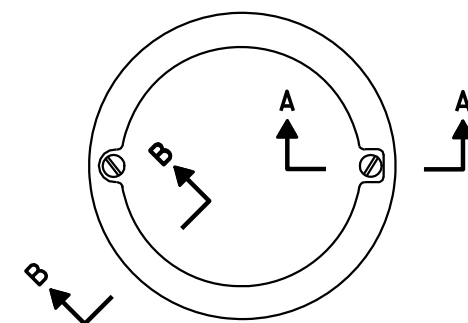
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

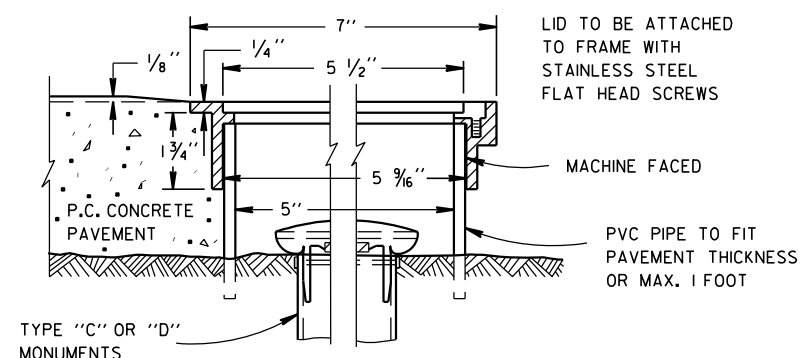
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

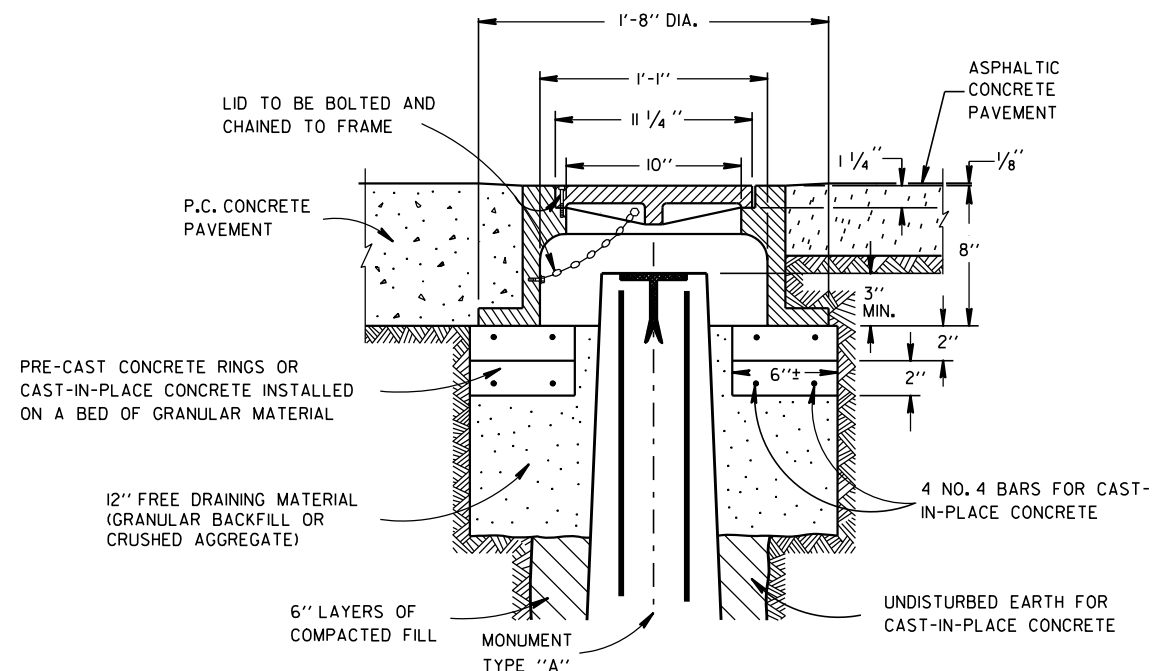


TOP VIEW



SECTION B-B SECTION A-A
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)

LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999

DATE

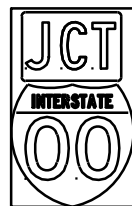
FHWA

/S/ Rory L. Rhinehart

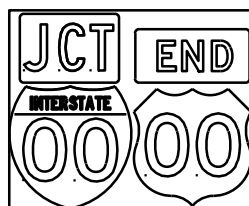
CHIEF ROADWAY DEVELOPER

NEER

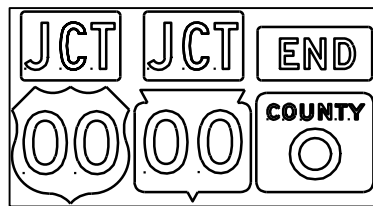
TYPICAL ASSEMBLIES



J1-1



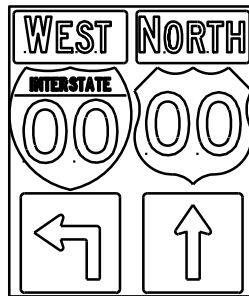
J1-2



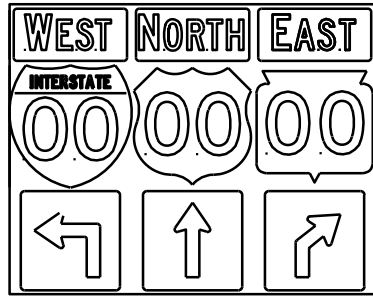
J1-3



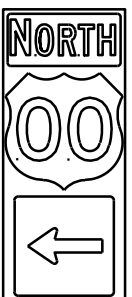
J2-1



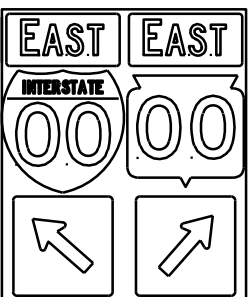
J2-2



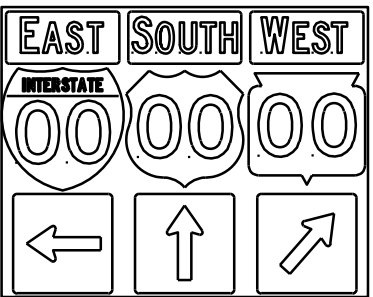
J2-3



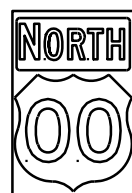
J3-1



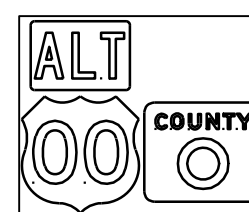
J3-2



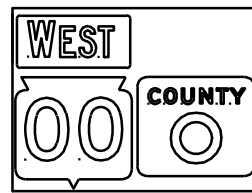
J3-3



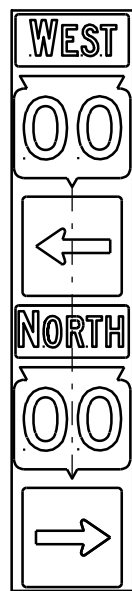
J4-1



J4-2

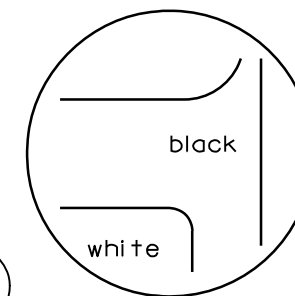
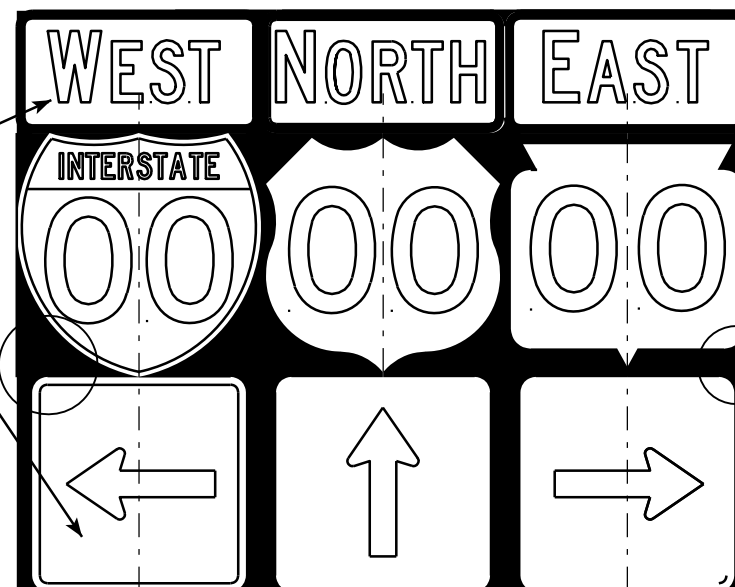
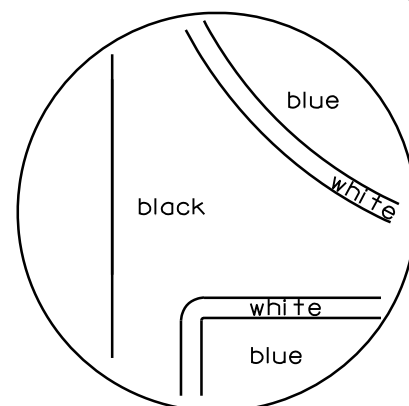


J4-2

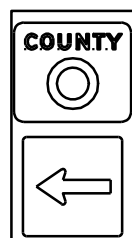


JV

[blue background with interstate]



[black background]



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- 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.
- 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.
- 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.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (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.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 10/21/09

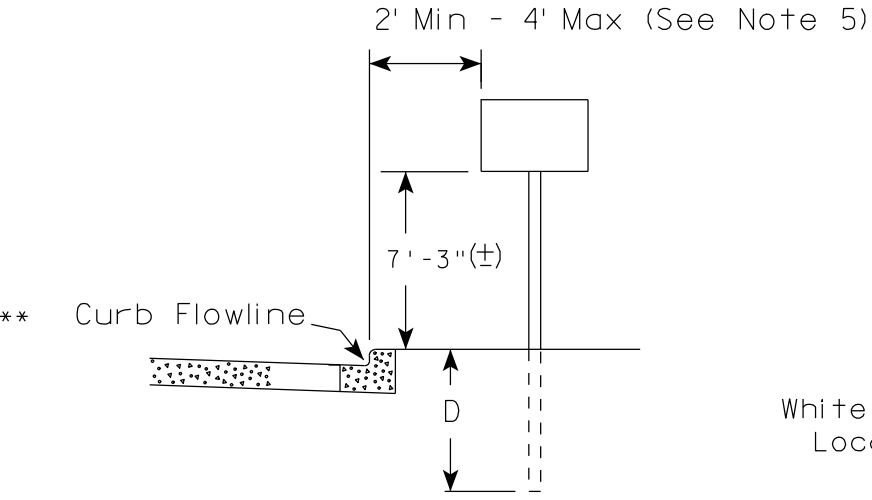
PLATE NO. A2-1S.6

PROJECT NO:

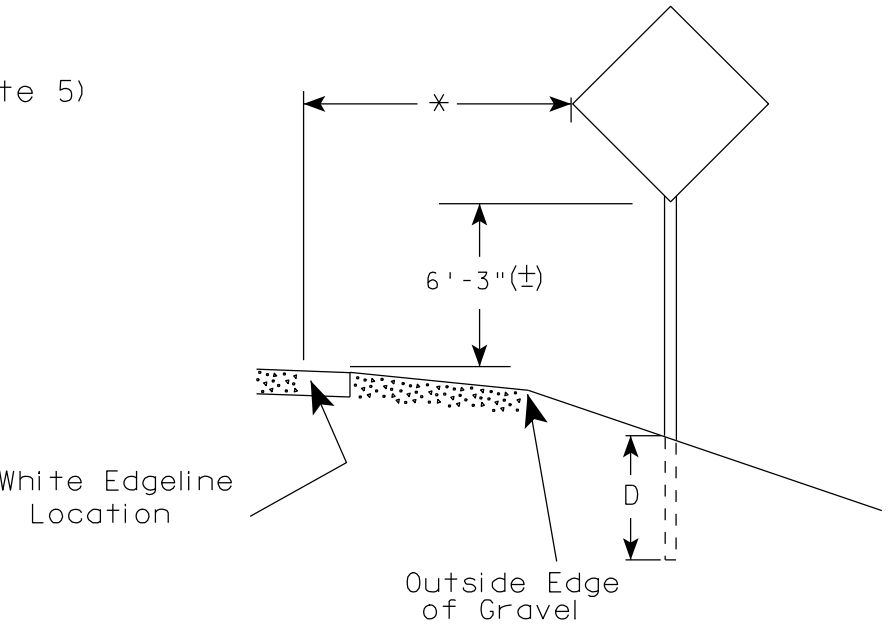
SHEET NO: 217

E

URBAN AREA

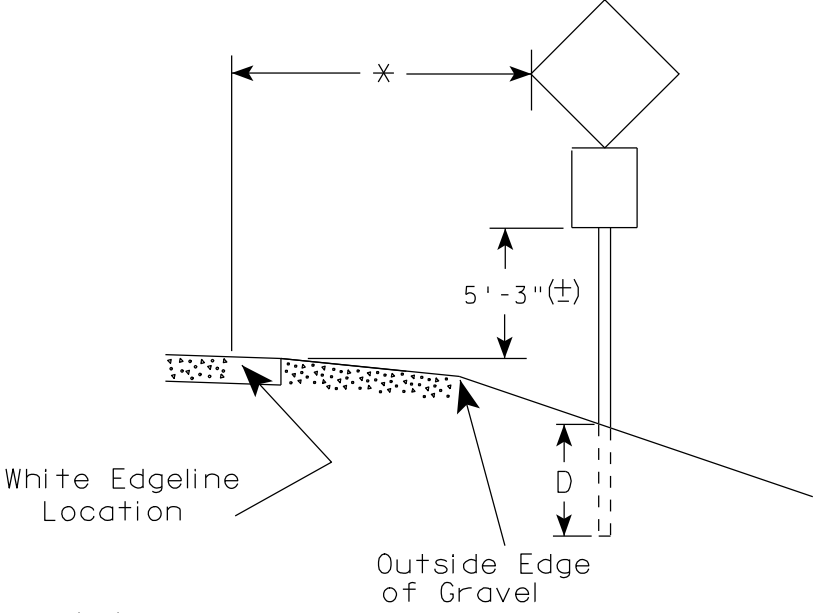
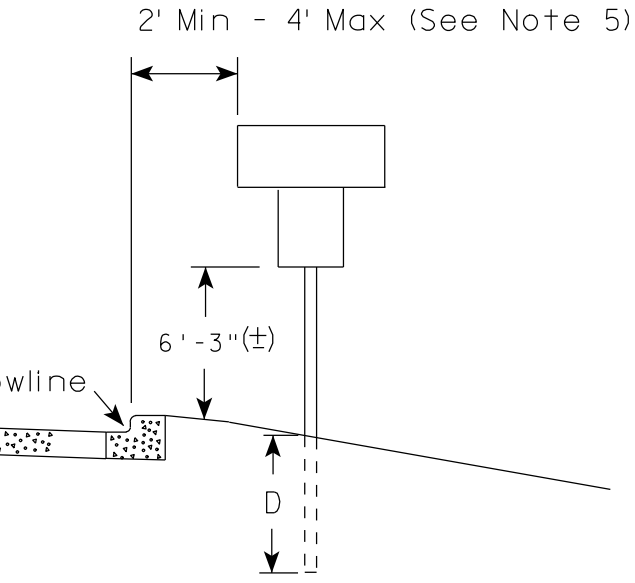


RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. 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. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
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 stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed 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), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).



POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

GENERAL NOTES

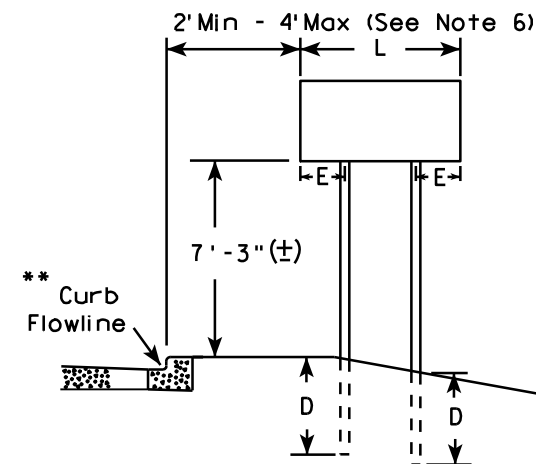
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- 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) & End of Road Markers (W5-56 & W5-56A) 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.

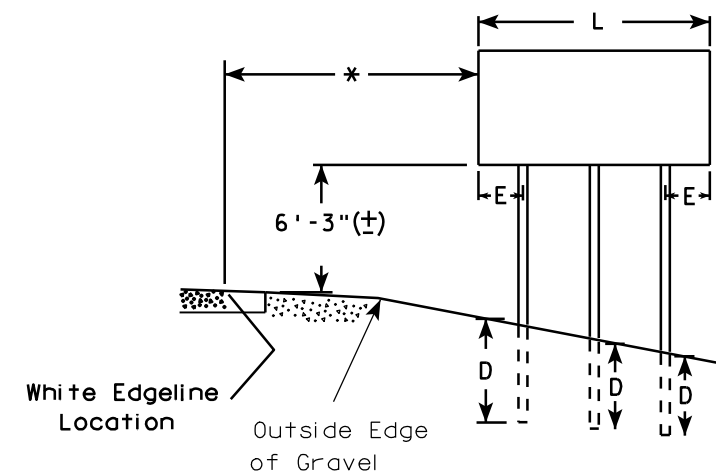
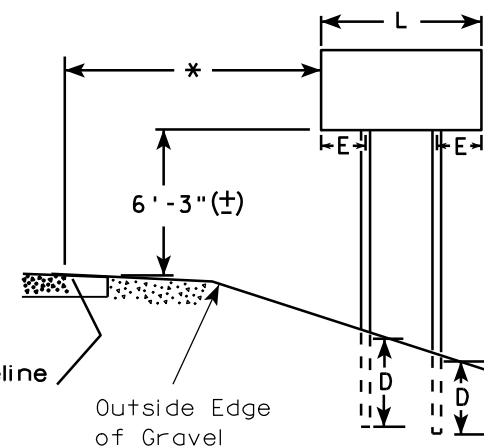
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

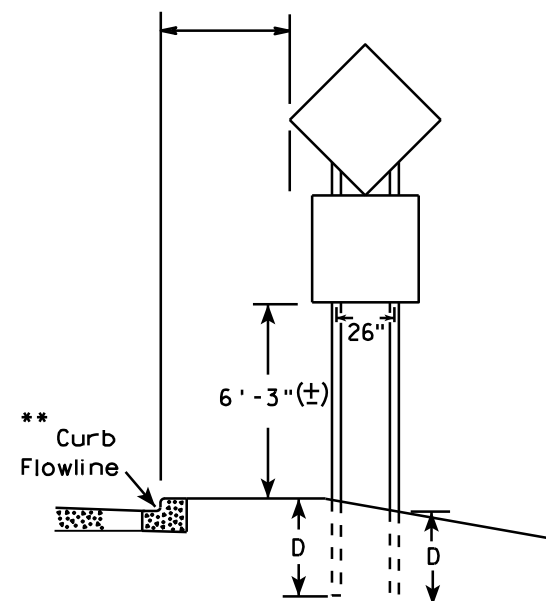
URBAN AREA



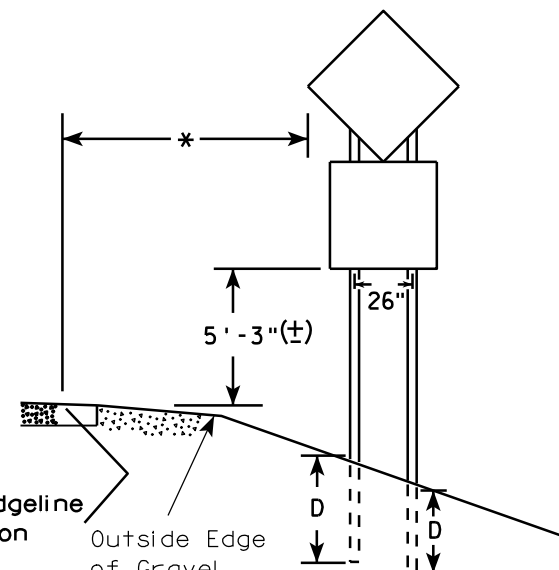
RURAL AREA (See Note 3)



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



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 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

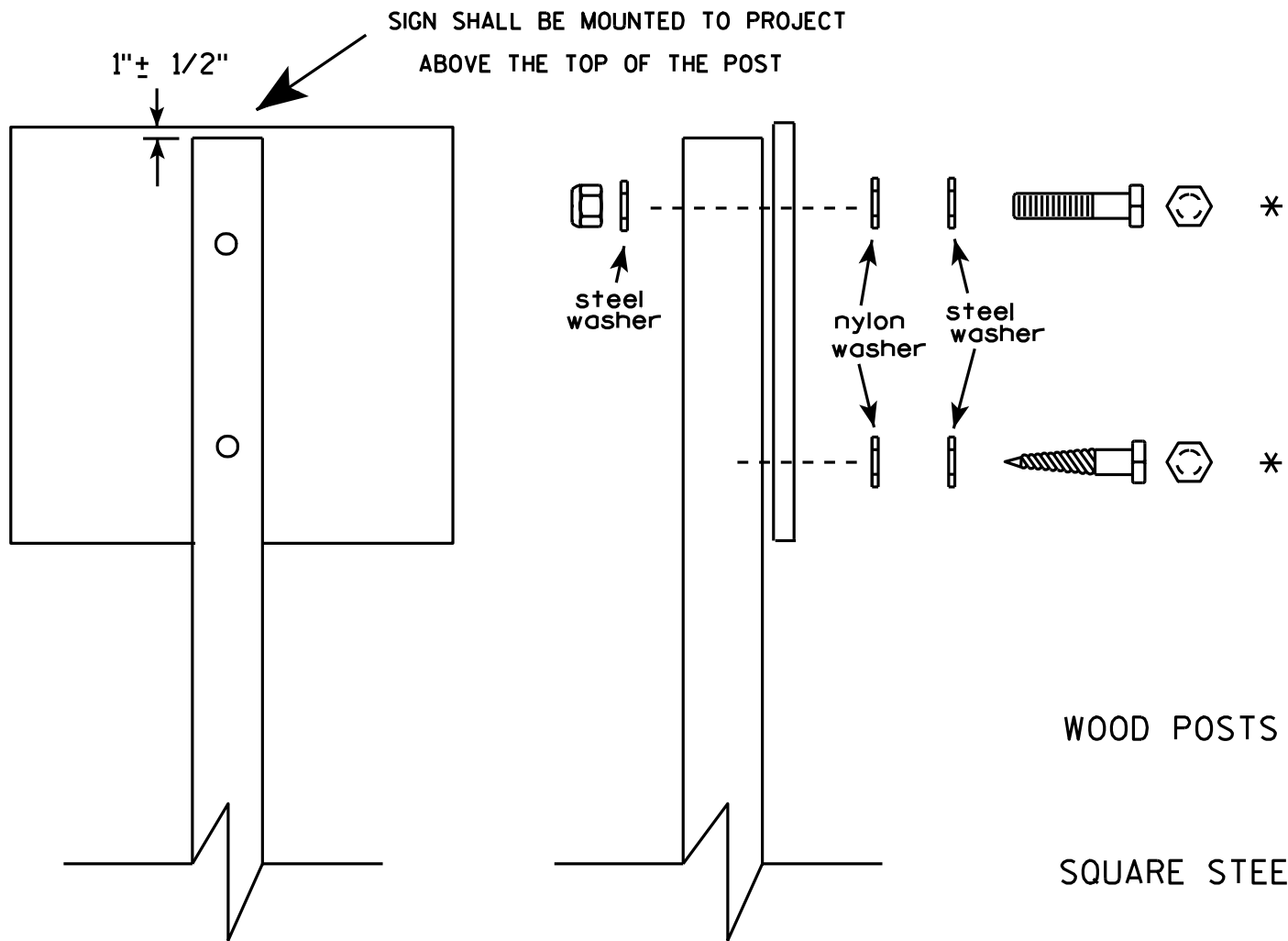
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 219

E

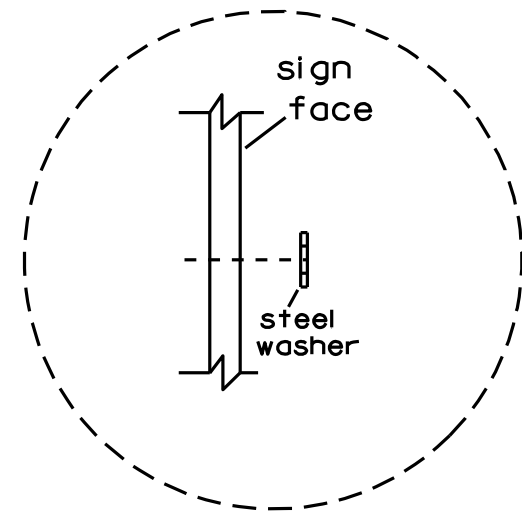


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

- 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.

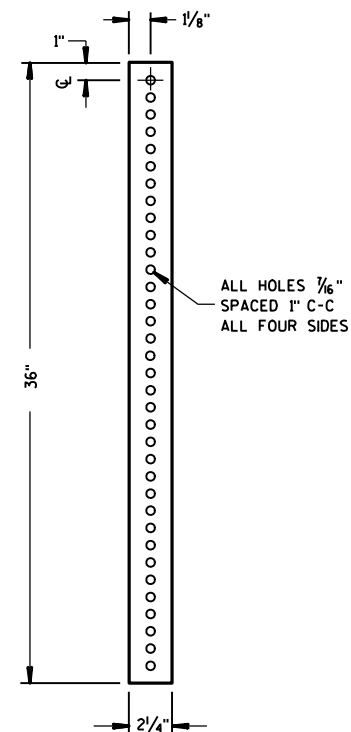


Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



LENGTH SHOWN ON MISC. OTYS

TELESCOPE PIECES FLUSH AT TOP

18" DIA PVC BOX-OUT

36"

18"

13"

18"

2 1/4" SQUARE X 36"

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

3/8" ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES

SEE SIGN PLATE A4-B FOR BOLT WASHER, & NUT MATERIAL

SIGN

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

1"

12"

18"

36"

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

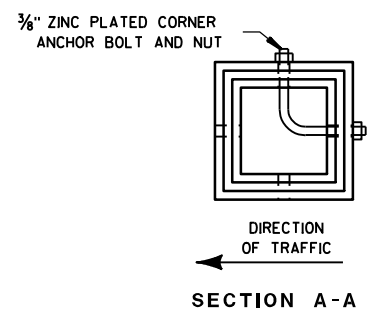
$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

$2\frac{1}{2}$ " SQUARE X 18" (SOIL STABILIZING SLEEVE)

$2\frac{1}{4}$ " SQUARE X 36"

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL



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 5/30/12 PLATE NO. A4-9.7

PROJECT NO:

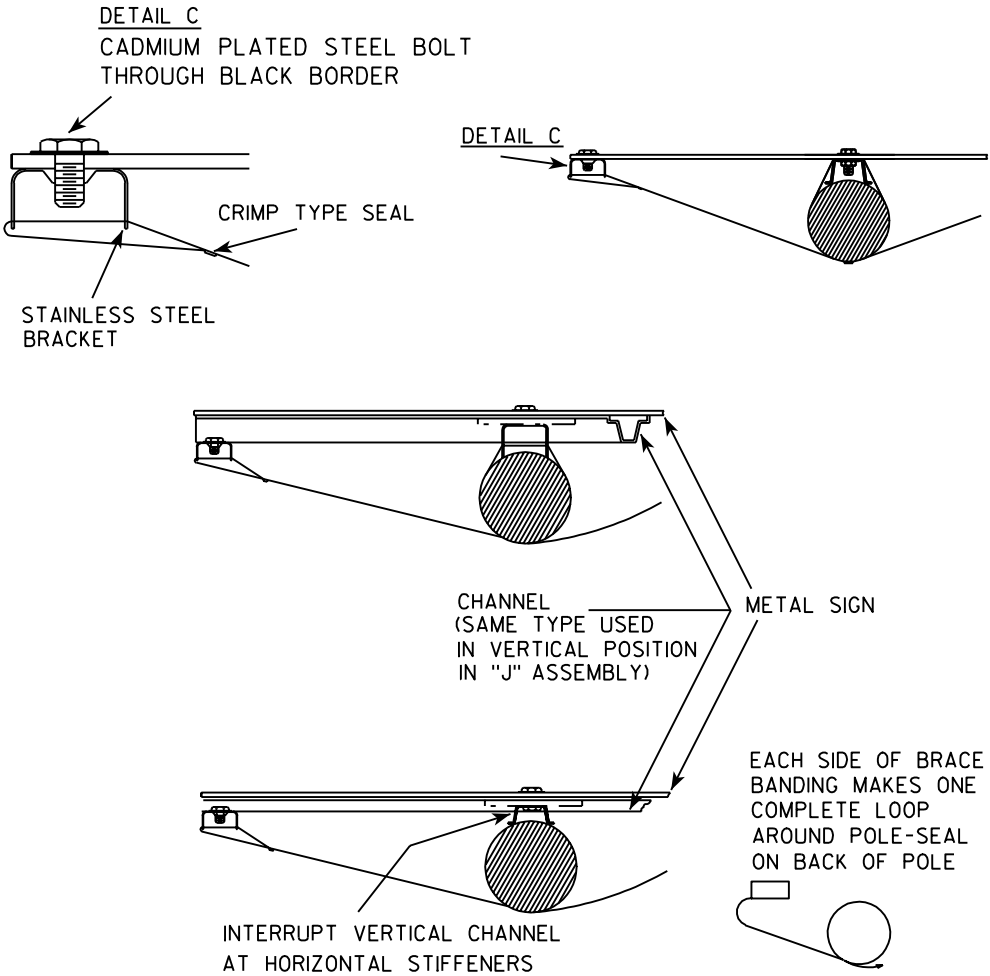
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COUNTY:

SHEET NO: 221

E

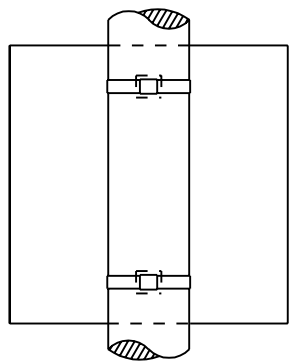
BRACE BANDING



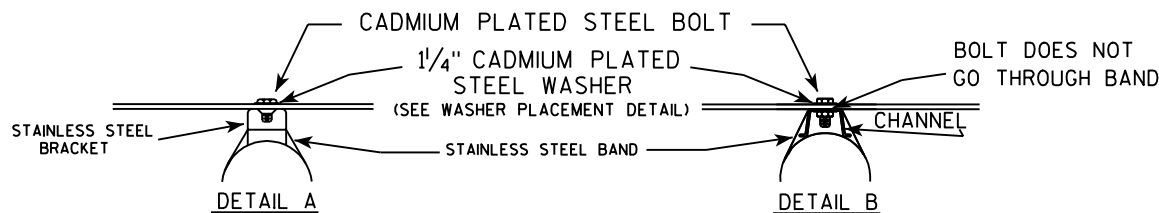
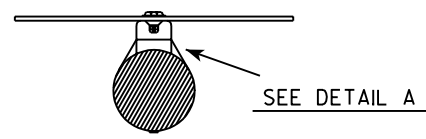
BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

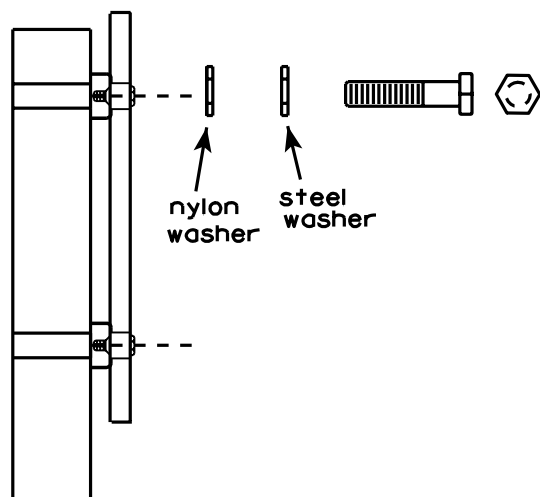
SINGLE SIGN



BRACKET BANDING

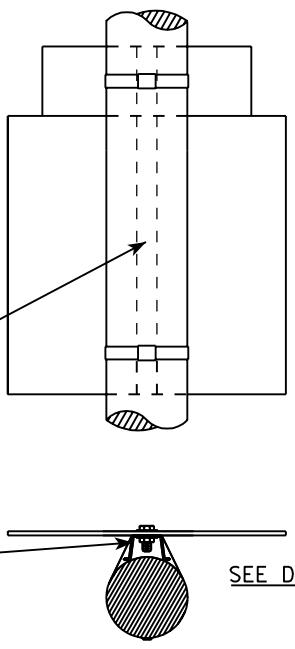


WASHER PLACEMENT



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

"J" ASSEMBLY



GENERAL NOTES

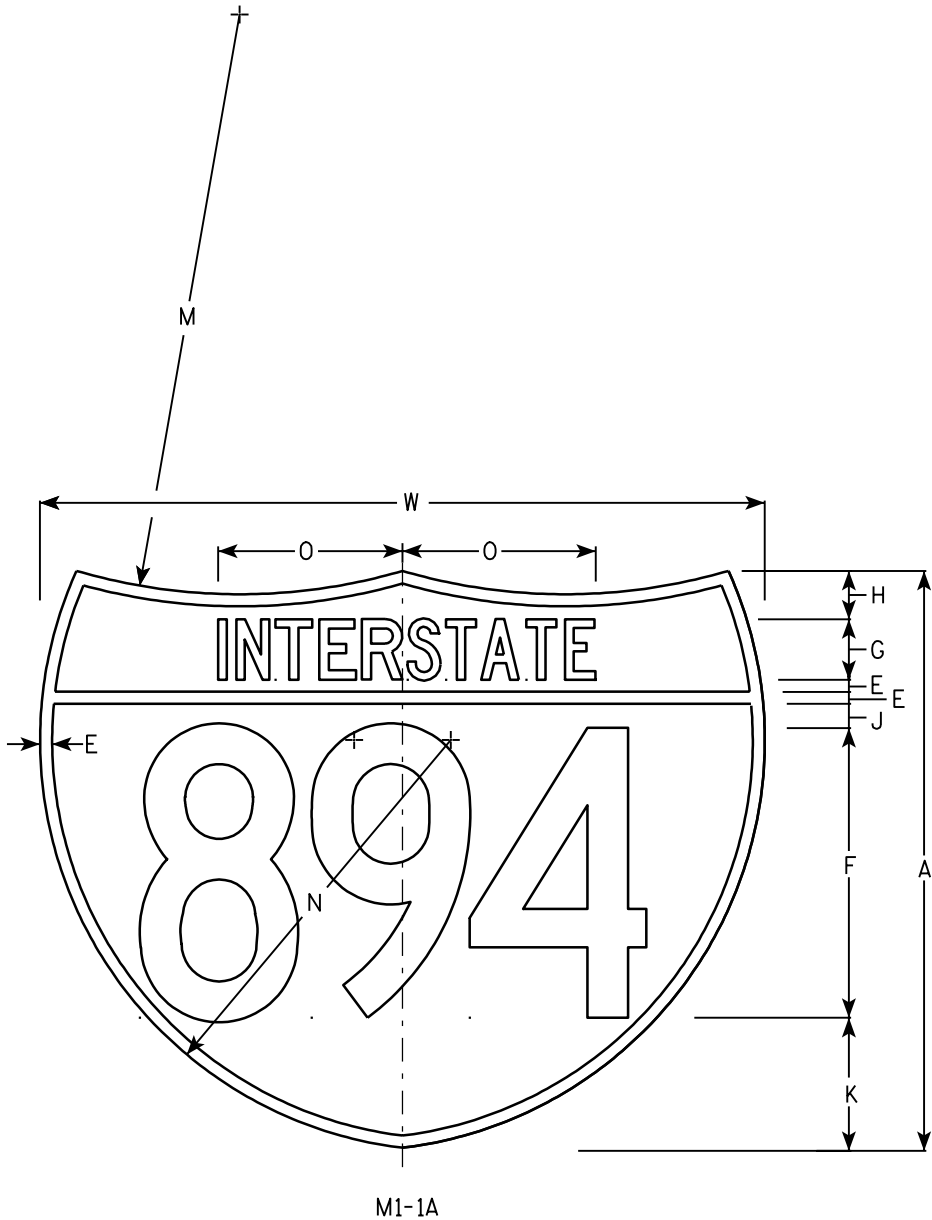
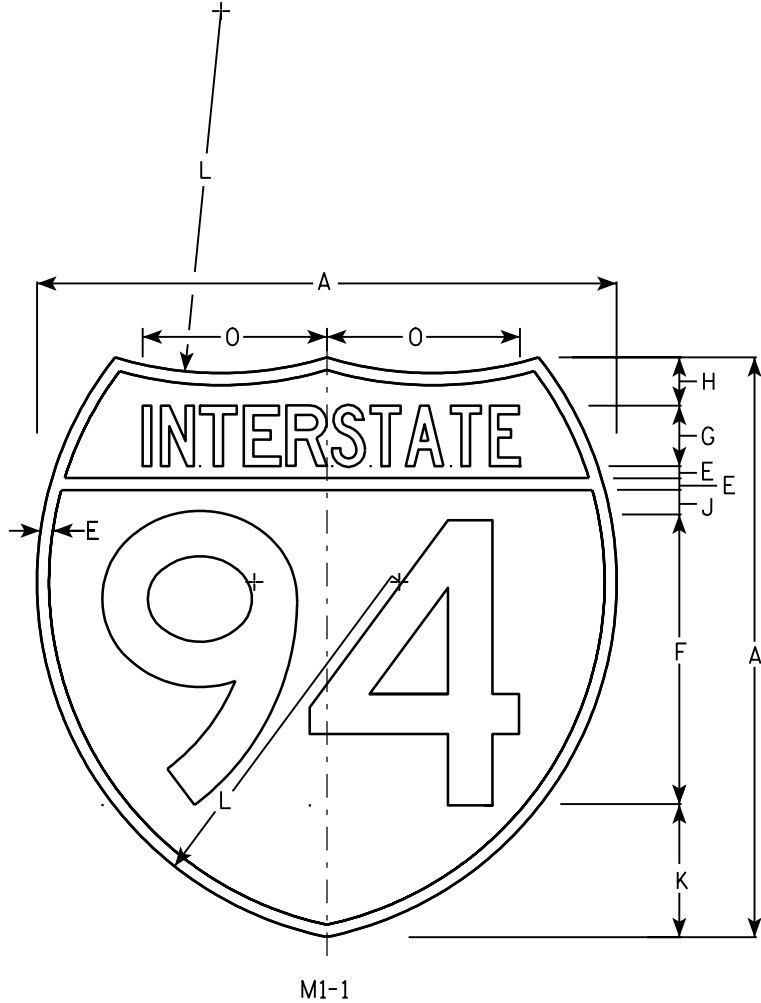
1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All 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 11/08/05 PLATE NO. A5-9.2



NOTES

- 1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Top Red - Bottom Blue (See Note 6)
Message - White - See Note 6
- 3. Message Series - See note 5
- 4. Substitute appropriate numerals & adjust spacing as per plate A10-1.
- 5. M1-1 - Numerals - D
Interstate - C
M1-1A - All copy - C
- 6. Permanent Signs
Message - Type H Reflective
Detour or other temporary signs
Background - Reflective
Message - Reflective

Metric equivalent for these signs are:

SIZE	M1 - 1	SIZE	M1 - 1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	Area sq. ft.	Area sq. ft.	Area m ²	Area m ²
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

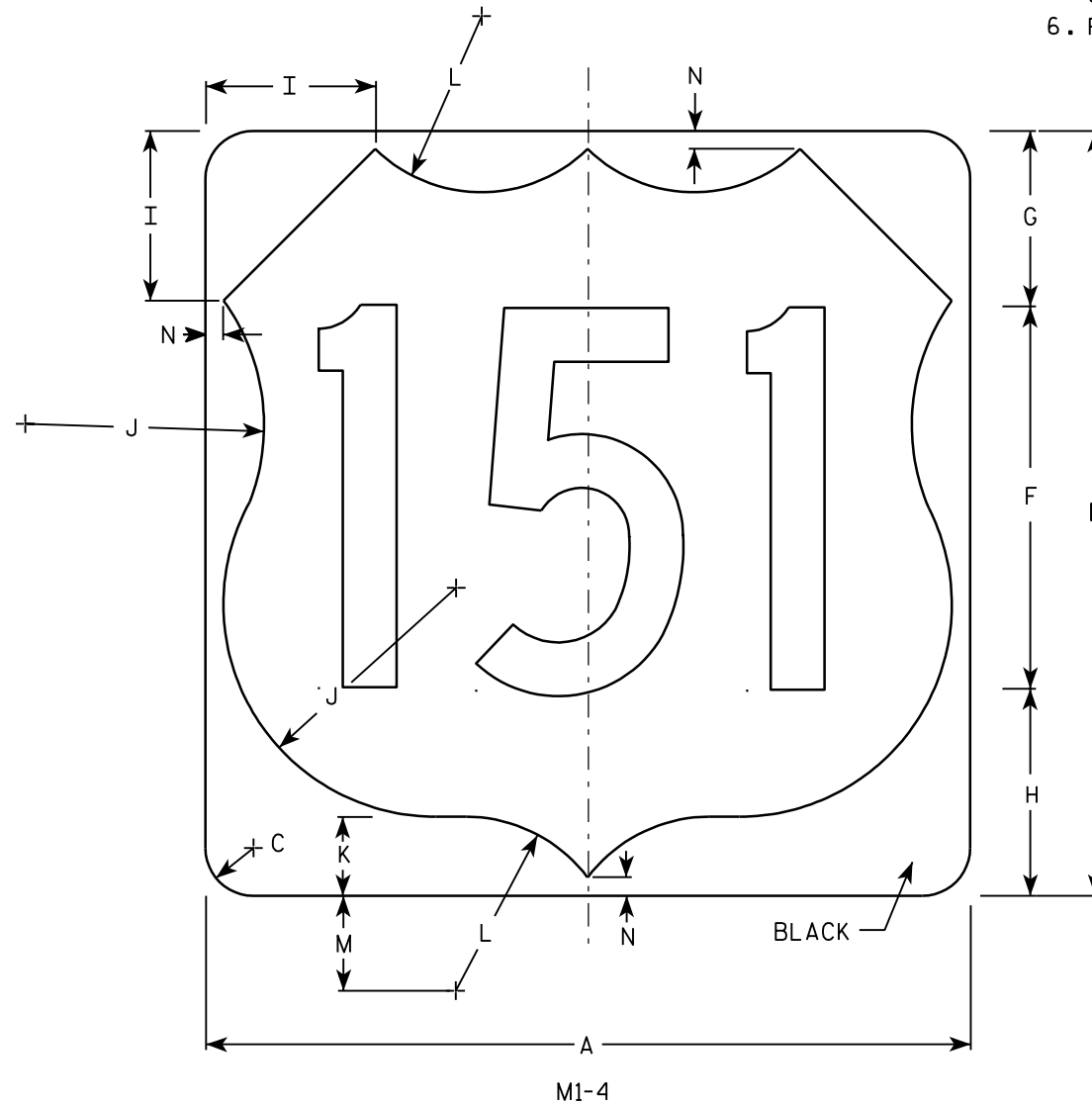
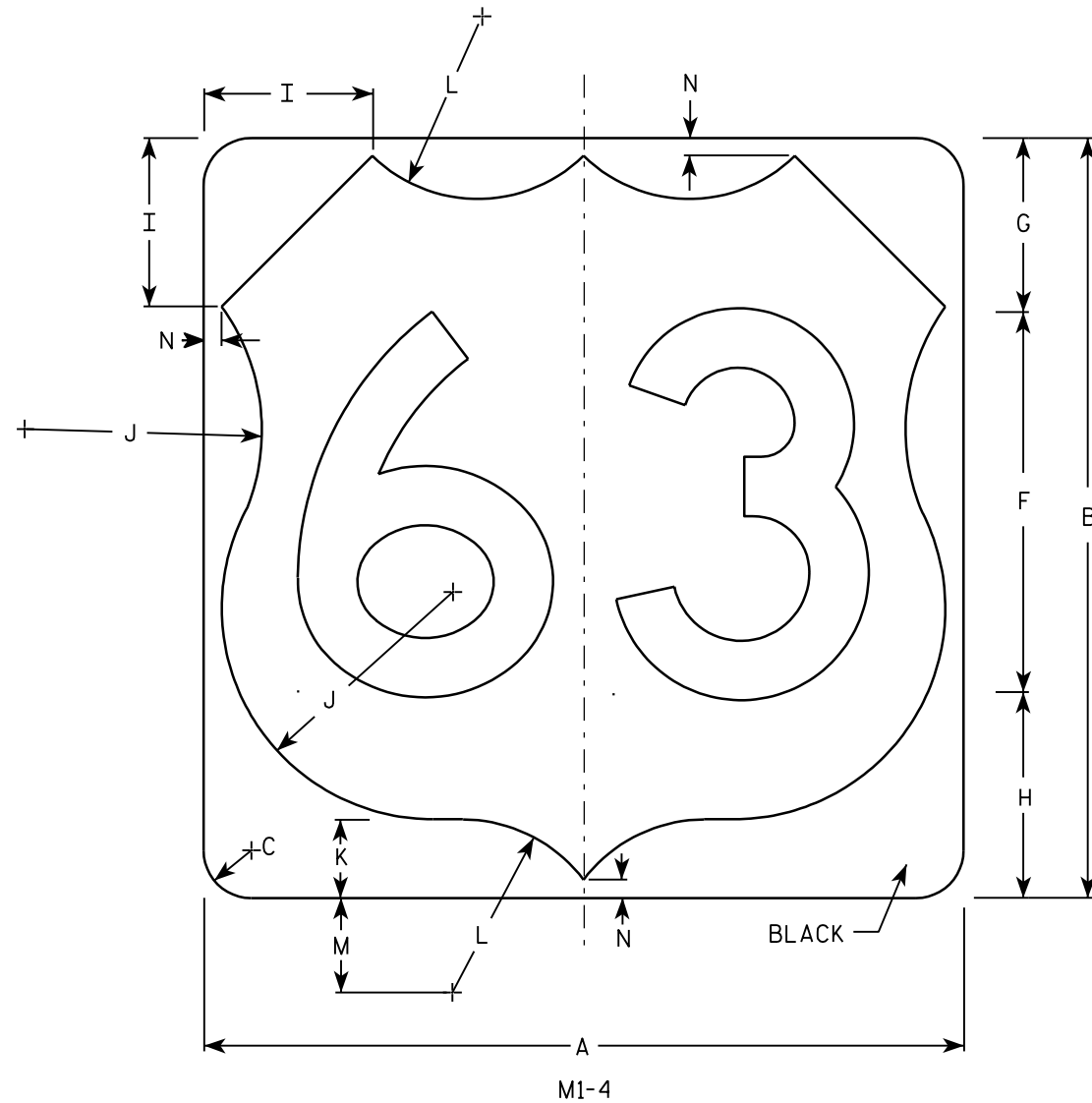
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

NOTES

1. Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
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. Substitute appropriate numerals and adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



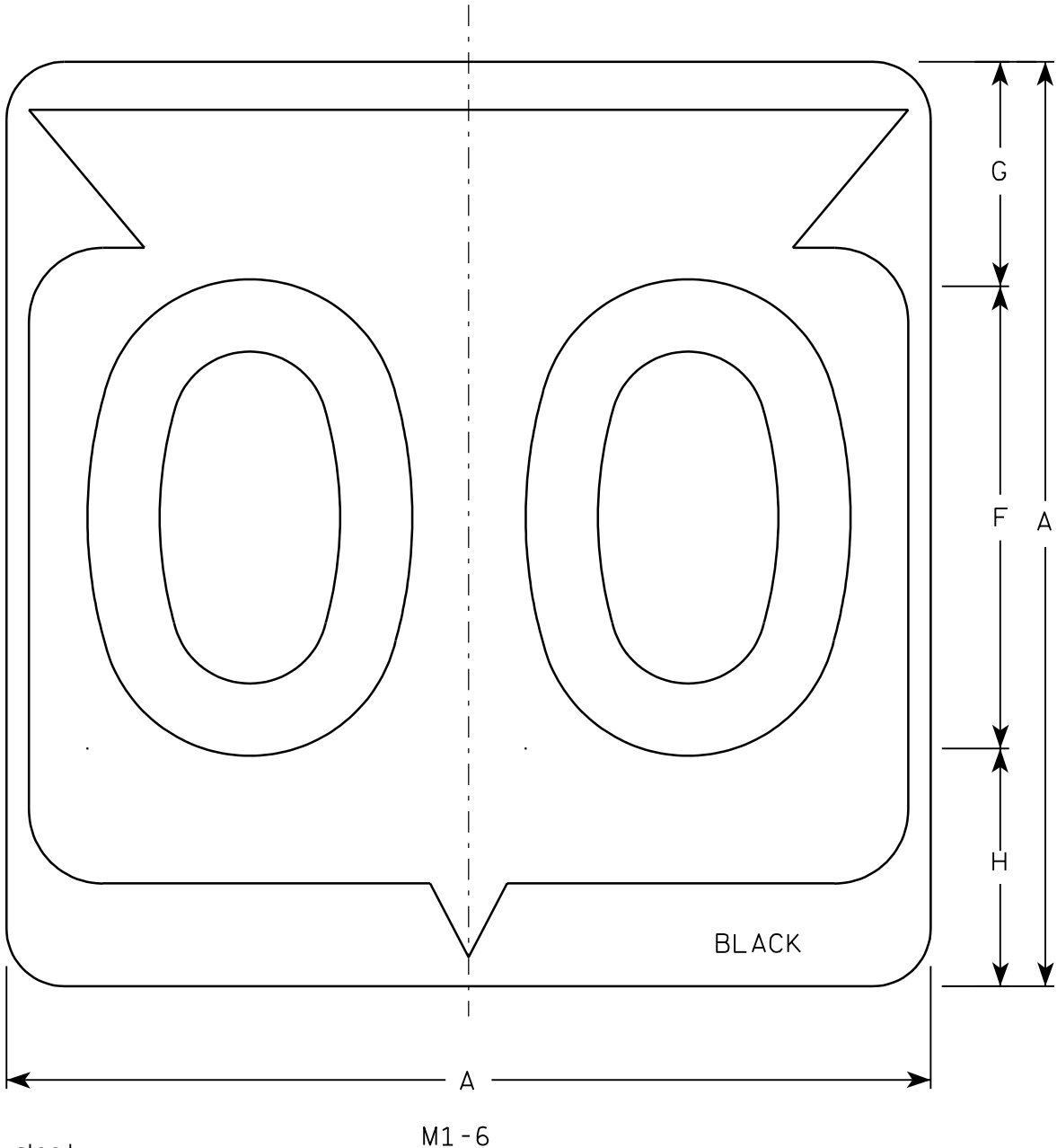
Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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	Areq sq. ft.	Areq m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: 224 E

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
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	.36
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	.81
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	.81
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	.81

PROJECT NO:

HWY:

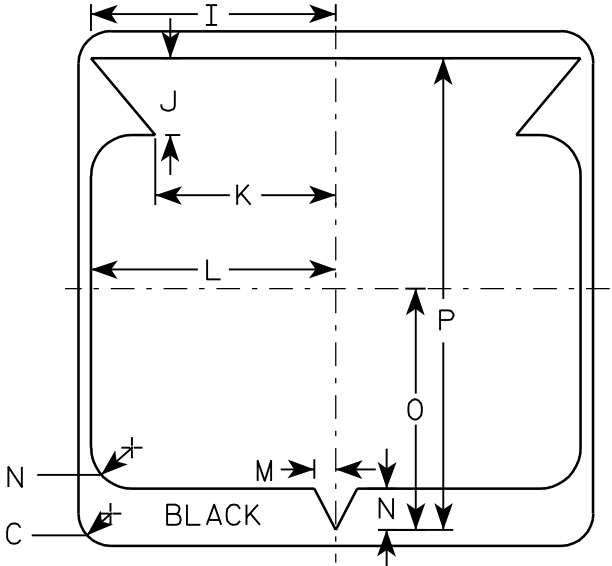
COUNTY:

SHEET NO: 225

E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
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. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

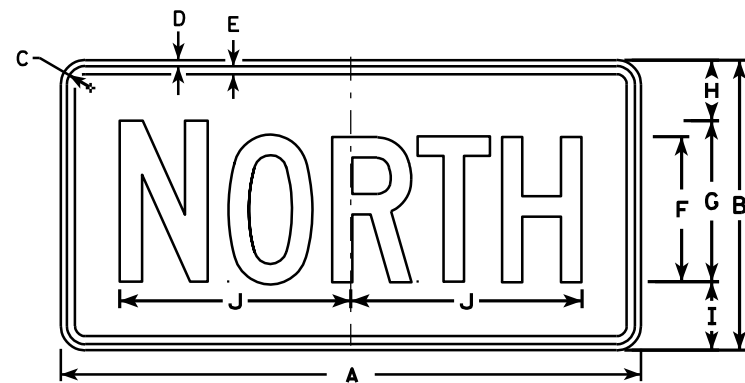
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

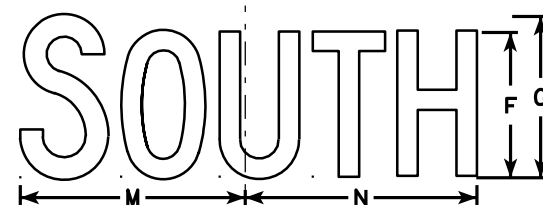
PLATE NO. M1-6.9



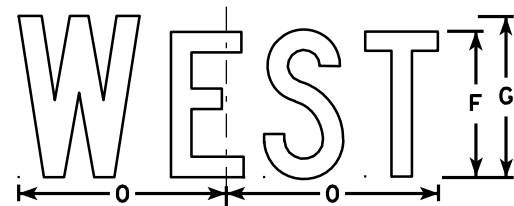
M3-1
MK3-1
M03-1



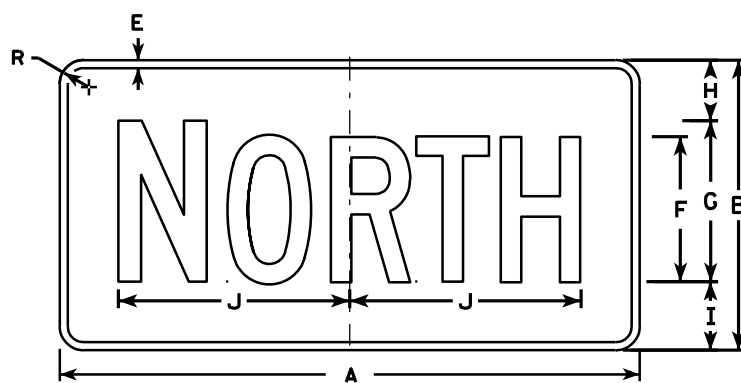
M3-2
MK3-2
M03-2



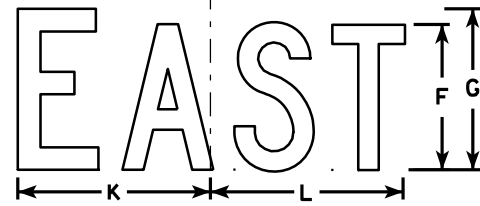
M3-3
MK3-3
M03-3



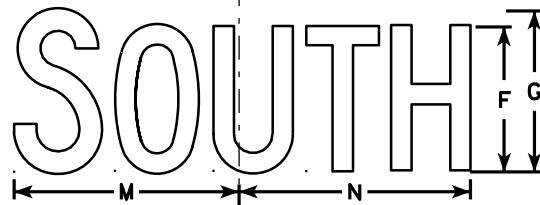
M3-4
MK3-4
M03-4



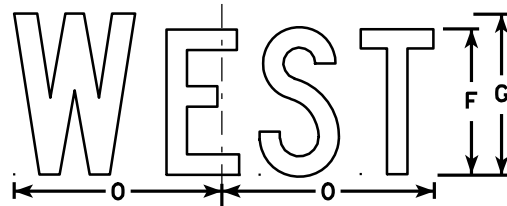
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
(Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective
(Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
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

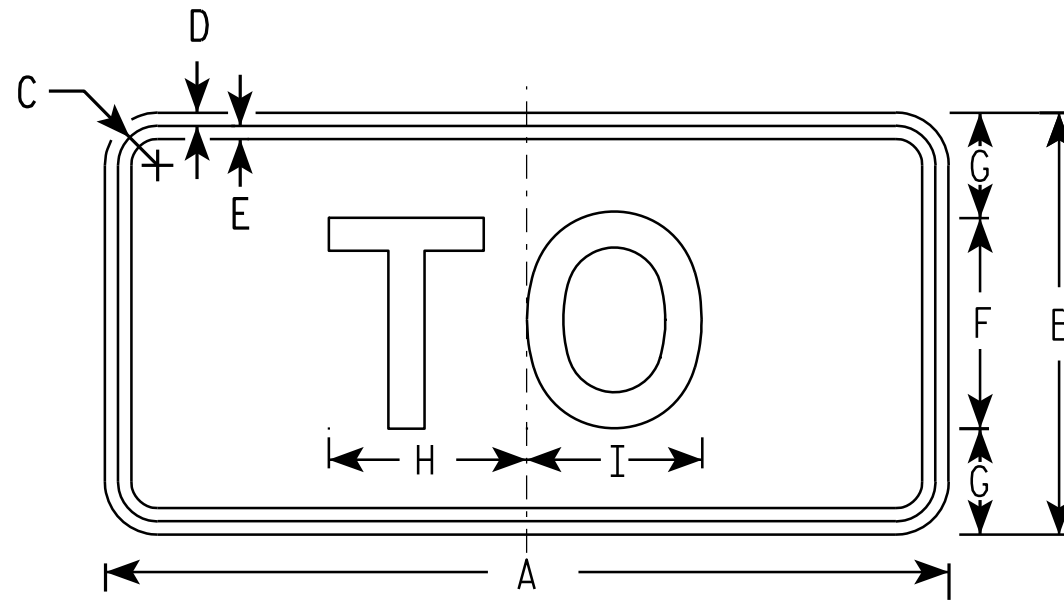
PROJECT NO: HWY: COUNTY: SHEET NO: 226 E

STANDARD SIGNS M3-1 thru M3-4 SERIES

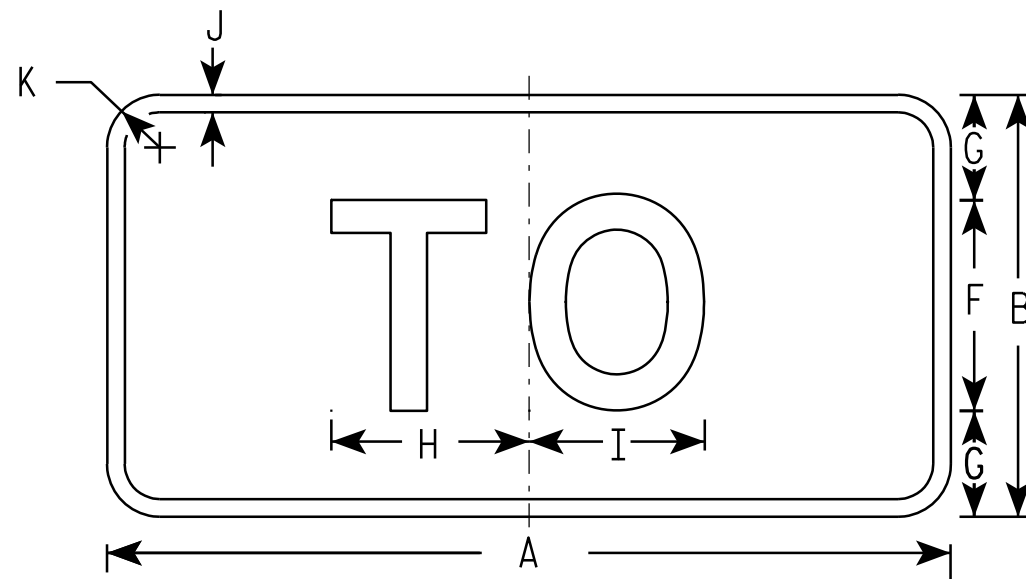
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

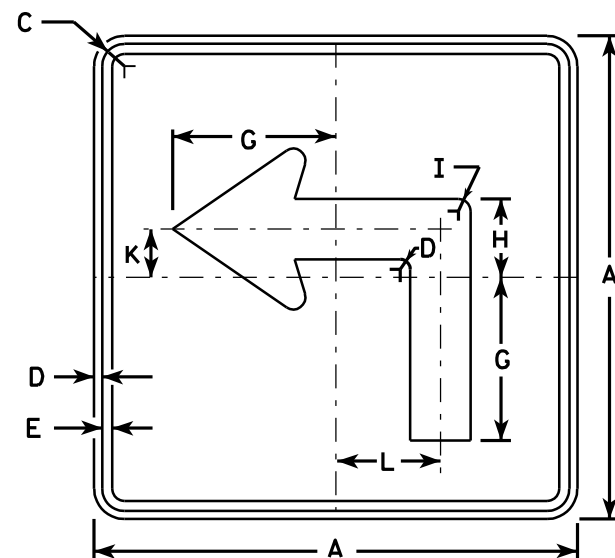
NOTES

- Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 5
Message - See note 5
- Message Series - E
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M4-5 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB4-5 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG4-5 Background - Green
Message - White - Type H Reflective
MK4-5 Background - Green
Message - White - Type H Reflective
MM4-5 Background - White - Type H Reflective
Message - Green
MN4-5 Background - Brown
Message - White - Type H Reflective

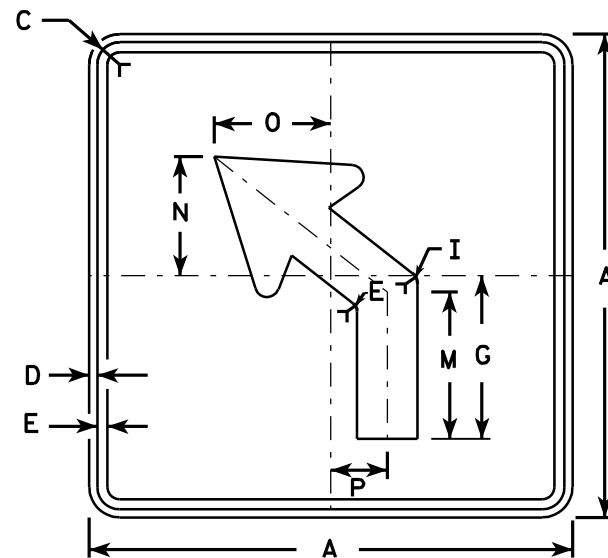
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

PROJECT NO: HWY: COUNTY: SHEET NO: 227 E

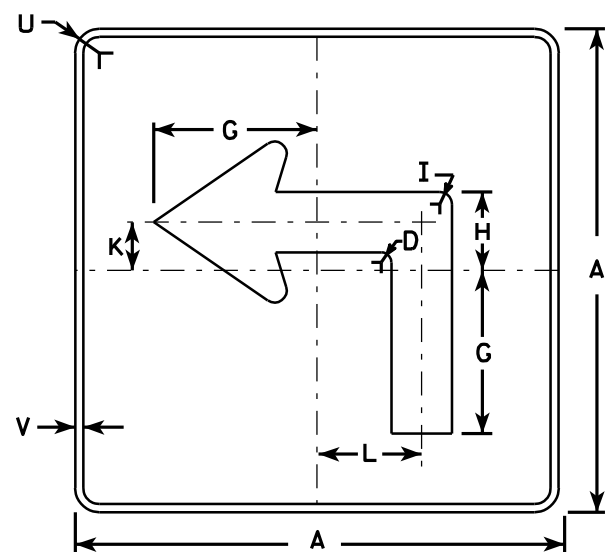
STANDARD SIGN M4 - 5	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 11/10/10	PLATE NO. M4-5.6



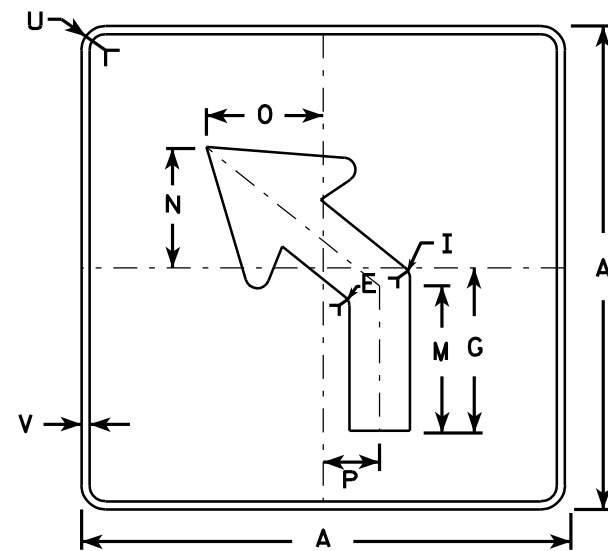
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



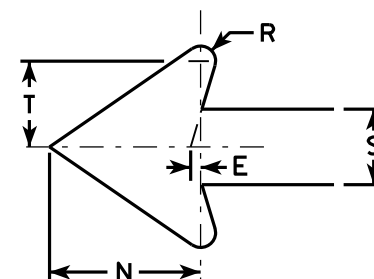
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 228	E
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NOTES

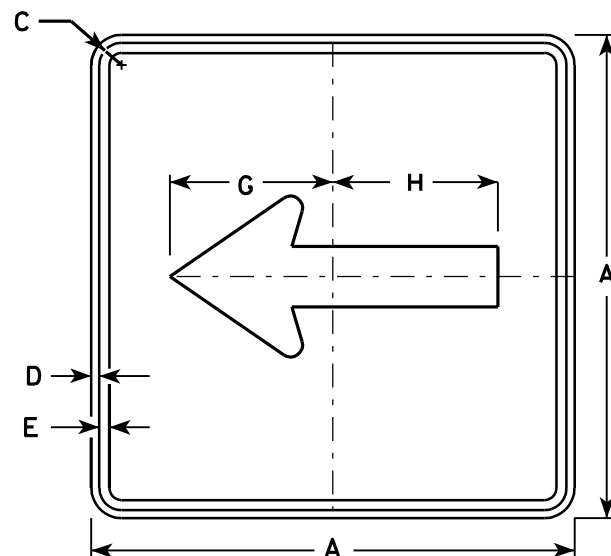
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
MO5-1 and MO5-2 Background - Orange - Reflective
Message - Black
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

STANDARD SIGN
M5-1 & M5-2

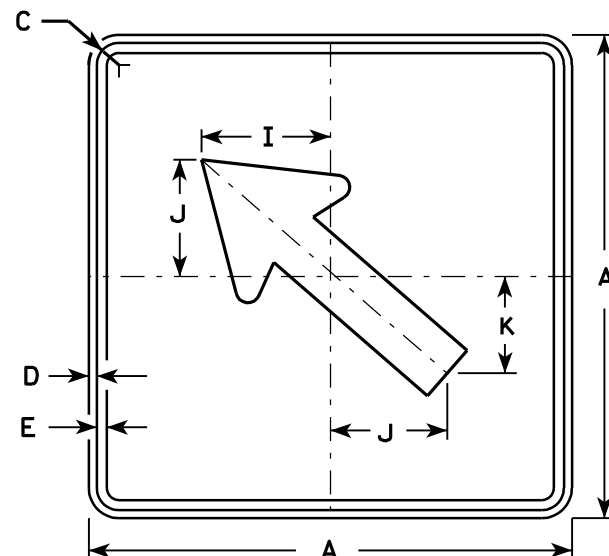
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

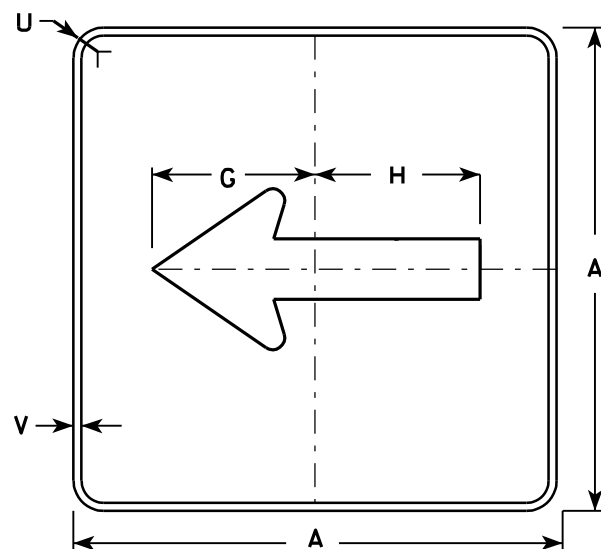
DATE 3/16/10 PLATE NO. M5-1.11



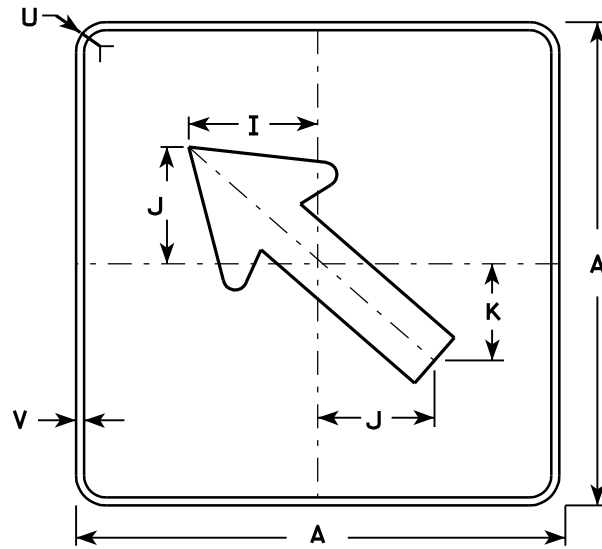
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



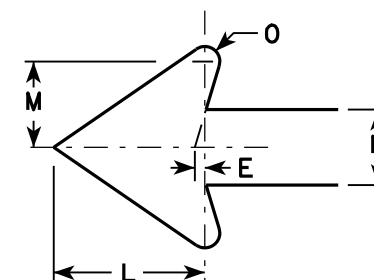
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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																												
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	0.28
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	0.56
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	0.56
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	0.56

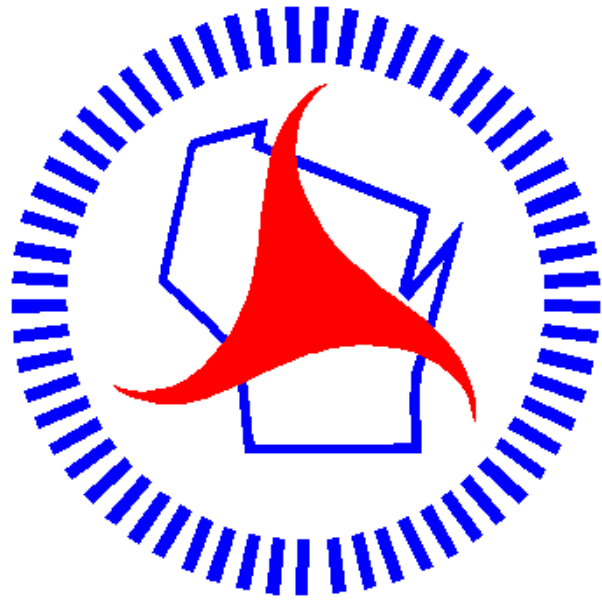
PROJECT NO: HWY: COUNTY: SHEET NO: 229 E

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
4+ 28	0	0		
4+ 50	13	0	0.46	
5+ 00	37	2	0.37	0.25
5+ 50	61	7	0.54	0.71
6+ 00	86	17	0.43	0.73
6+ 50	123	10	0.65	0.23
7+ 00	60	2	0.73	0.37
7+ 50	62	2	0.70	0.17
8+ 00	54	4	0.67	0.46
8+ 50	49	7	0.50	0.65
9+ 00	34	7	0.58	0.14
9+ 50	30	4	0.32	0.28
10+ 00	16	6	0.17	0.31
10+ 50	8	12	0.18	0.65
11+ 00	68	11	0.81	0.18
11+ 50	40	4	0.80	0.28
12+ 00	26	1	0.19	0.16
12+ 50	20	2	0.63	0.21
13+ 00	28	2	0.31	0.16
13+ 50	27	1	0.36	0.02
14+ 00	29	1	0.48	0.17
14+ 50	31	1	0.45	0.00
15+ 00	35	1	0.40	0.23
15+ 50	27	1	0.70	0.09
16+ 00	83	2	1.39	0.24
16+ 50	59	1	0.67	0.02
17+ 00	63	1	0.94	0.12
17+ 50	59	1	0.67	0.12
18+ 00	47	1	0.60	0.09
18+ 50	41	1	0.50	0.20
19+ 00	37	2	0.62	0.33
19+ 50	29	2	0.44	0.18

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
20+ 00	484	108	1.35	0.63
20+ 50	419	59	1.37	0.88
21+ 00	57	7	1.36	0.37
21+ 50	35	0	1.44	0.03
22+ 00	39	1	1.32	0.15
22+ 50	49	2	1.42	0.16
23+ 00	57	1	1.42	0.16
23+ 50	51	2	1.20	0.16
24+ 00	43	2	1.32	0.06
24+ 50	40	1	1.50	0.12
25+ 00	49	1	1.36	0.03
25+ 50	66	4	1.40	0.31
26+ 00	33	1	1.80	0.16
26+ 50	38	1	1.43	0.11
27+ 00	43	0	1.42	0.00
27+ 50	52	0	1.37	0.00
28+ 00	53	0	1.39	0.00
28+ 50	45	0	1.35	0.06
29+ 00	40	0	1.38	0.06
29+ 50	33	1	1.30	0.08
30+ 00	40	0	1.48	0.07
30+ 50	51	0	1.36	0.09
31+ 00	55	3	1.13	0.46
31+ 50	58	3	1.38	0.07
32+ 00	58	0	1.52	0.05
32+ 50	58	0	1.33	0.02
33+ 00	58	0	1.39	0.04
33+ 50	51	0	1.29	0.08
34+ 00	41	1	1.35	0.12
34+ 50	36	3	1.23	0.36
35+ 00	49	1	1.37	0.05
35+ 50	65	1	1.33	0.11
36+ 00	65	1	1.35	0.06
36+ 50	59	0	1.50	0.00
37+ 00	63	0	1.50	0.11
37+ 50	34	0	1.44	0.23
38+ 00	25	2	1.18	0.18
38+ 62	33	2	1.34	0.06
TOTAL	4007	324		

EARTHWORK SUMMARY	
EXCAVATION COMMON (205.0100)	10,200 C.Y.
(INCLUDES 6170 C.Y. PAV'T. REMOVAL)	
FILL (INCLUDING 20% SHRINKAGE)	324 C.Y.
WASTE	9,876 C.Y.

Notes



Wisconsin Department of Transportation

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