WKE

June 2016

ORDER OF SHEETS

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

TOTAL SHEETS = 326

PROJECT ID: 1060-34-87
WITH: N/A

COUNTY: MILWAUKEE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ZOO IC - DUAL LANE ON RAMPS

USH 45 & WATERTOWN PLANK RD

USH 45

MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1060-34-87		

STATE PROJECT NUMBER
1060-34-87

N

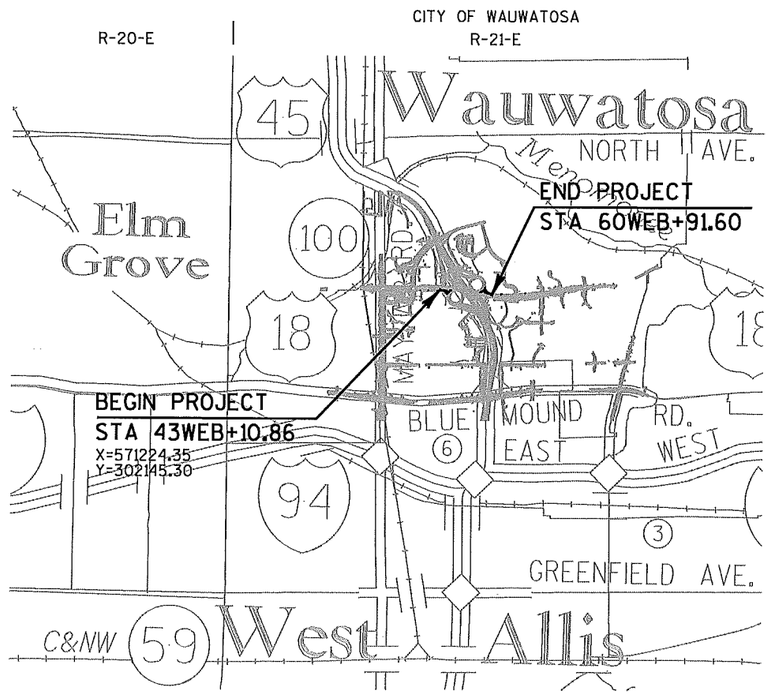
DESIGN DESIGNATION		W. WATERTWON PLANK ROAD	USH 45 AT WATERTOWN PLANK ROAD
A.A.D.T.	2014	= 19,080	= 169,600
A.A.D.T.	2035	= 24,330	= 205,000
D.H.V.	2035	= 2,660	= 6,913 NB/7,091 SB
D.D.		= 38% EB/62% WB	= 49.4% NB/50.6% SB
T.		= 3.50%	= 10% NB/13% SB
DESIGN SPEED		= 40 MPH	= 60 MPH
ESALS		= 3,358,000	= 34,967,000

CONVENTIONAL SYMBOLS

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

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE
- TRANSMISSION TOWER



LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.337 MI.

SIGN STRUCTURES
- S-40-865
- S-40-866
- S-40-867
- S-40-868

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007)

FORWARD 45

ORIGINAL PLANS PREPARED BY
MILWAUKEE, WISCONSIN

WISCONSIN
WILLIAM T. STOECK
35921-006
MILWAUKEE, WI
PROFESSIONAL ENGINEER

3/1/2016 (Date)
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor: FORWARD 45
- Designer: FORWARD 45
- Project Manager: JEFF BOHEN, P.E.
- Regional Examiner:
- Regional Supervisor: WILLIAM S. MOHR, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 3/1/2016 (Signature)

E

UTILITY CONTACTS

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MILWAUKEE COUNTY
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rsimi@mrmcllp.org

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FAX: (262) 547-1103
jwashburn@sewrpc.org

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

PLACE TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED AND FERTILIZE OR SOD ALL AREAS WITHIN 5 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE PLACED WITH 6-INCH TYPICAL DEPTH.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH COMPACTED BACKFILL GRANULAR UNLESS REGULATIONS REQUIRE OTHERWISE. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

WHEN DEFINING THE PAVEMENT STRUCTURE, THE BOTTOM OF THE BASE AGGREGATE DENSE IS CONSIDERED THE SUBGRADE LINE. THE SELECT CRUSHED MATERIAL LAYER IS A SUBGRADE IMPROVEMENT.

SIGNS IN CONFLICT WITH TRAFFIC CONTROL “IN USE” SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

THE CONTRACTOR SHALL PROVIDE A CONCRETE JOINT DETAIL 14 DAYS PRIOR TO PAVING FOR APPROVAL BY THE ENGINEER. 15-FOOT MAXIMUM SPACING FOR LONGITUDINAL JOINTS.

THE CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN REGIONAL PLANNING COMMISSION (JOHN WASHBURN) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY SECTION CORNER MONUMENT.

DESIGN, PLANS, SPECIFICATIONS AND QUANTITIES FOR PERMANENT SIGNING PROVIDED BY WISDOT SE REGION. DESIGN, PLANS, SPECIFICATIONS AND QUANTITIES FOR ALL REMAINING ITEMS PROVIDED BY, OR UNDER THE DIRECT SUPERVISION OF, FORWARD 45.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
PAVING GRADES
FTMS PLANS
CONTOUR MAP
EROSION CONTROL
STORM SEWER
EXISTING UTILITY PLANS
PERMANENT SIGNING
LIGHTING PLANS
PAVEMENT MARKING
TRAFFIC CONTROL
STAGE CONSTRUCTION
DETOURS
FENCING
ALIGNMENT LAYOUT

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EB	EASTBOUND
FE	FIELD ENTRANCE
FL	FLOW LINE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PGL	PROFILE GRADE LINE
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COARSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND

2

2

N

MENOMONEE RIVER

USH 45

SWAN BOULEVARD

CITY OF WAUWATOSA

UNION PACIFIC RR

STH 100

UNDERWOOD CREEK

UNDERWOOD PARKWAY

DISCOVERY PARKWAY

OAK LEAF TRAIL

BEGIN PROJECT 1060-34-87
STA 43WEB+10.86

END PROJECT 1060-34-87
STA 60WEB+91.60

CONSTRUCTION LIMIT
STA 73WWB+25.00

RONALD MCDONALD ACCESS ROAD

R/L WA

R/L WWB

S-40-865

SURVEY MONUMENT DO NOT DISTURB

W. WATERTOWN PLANK ROAD

W. WATERTOWN PLANK ROAD

CONSTRUCTION LIMIT
STA 35WEB+75.00

R/L WEB

S-40-866

R/L WC

EXISTING STORMWATER POND

S-40-868

S-40-867

N. 95TH ST

N. 92ND STREET

N. 87TH STREET

N. 91ST ST

R/L THS

CANADIAN PACIFIC RAILWAY

N. MAYFAIR ROAD

W. INNOVATION DRIVE

STH 100

W. WISCONSIN AVENUE

USH 45

CITY OF WAUWATOSA

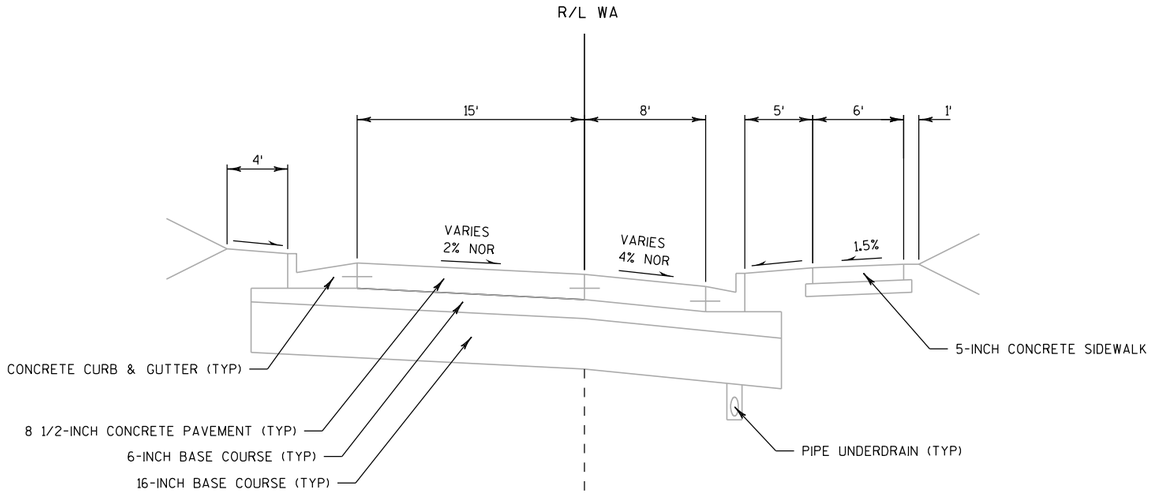
CITY OF MILWAUKEE

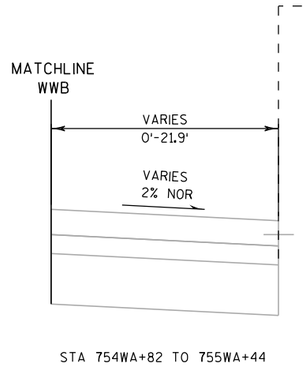
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\020201_po.dgn PLOT DATE : 29-FEB-2016 21:24 PLOT BY : MSCDYB PLOT NAME : 020201_po PLOT SCALE : 800:1

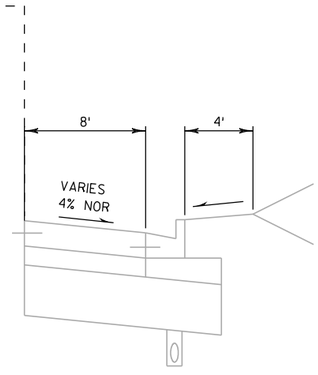
WISDOT/CADDS SHEET 42

2





STA 754WA+82 TO 755WA+44



STA 755WA+68 TO 756WA+23

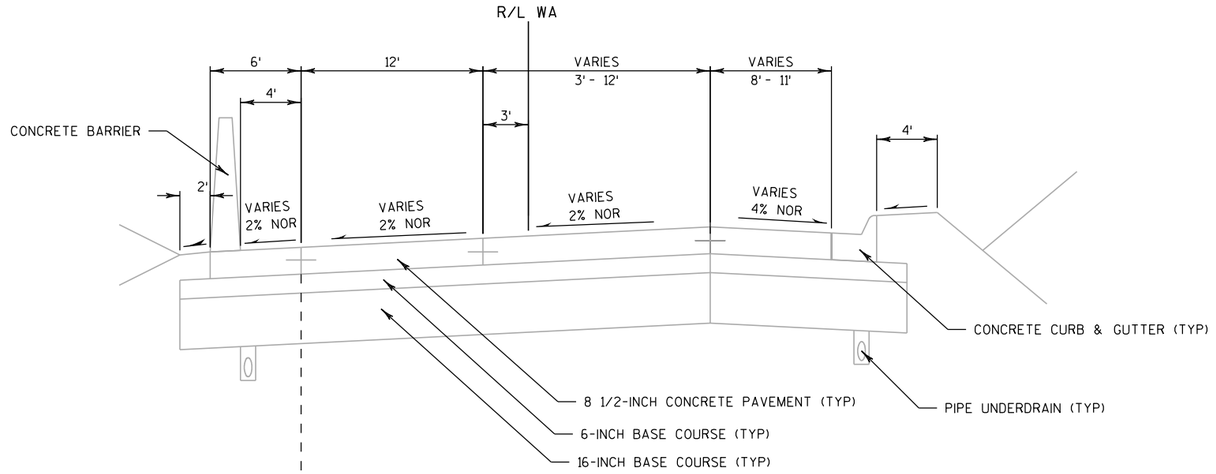
TYPICAL EXISTING SECTION

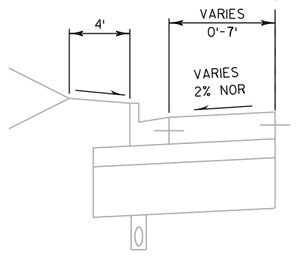
RAMP WA

STA 754WA+82 TO STA 756WA+23

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2





STA 756WA+23 TO 756WA+91

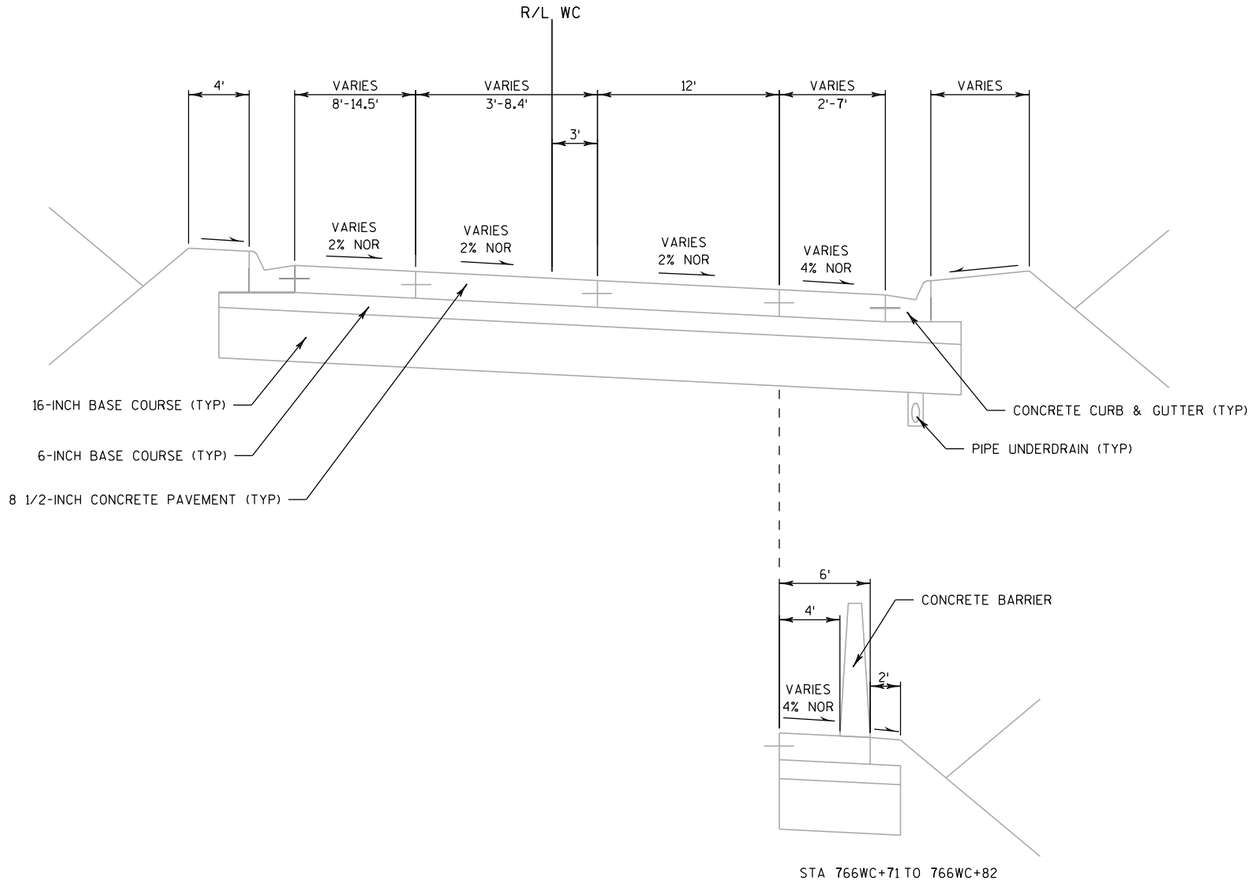
TYPICAL EXISTING SECTION

RAMP WA

STA 756WA+23 TO STA 757WA+33

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



STA 766WC+71 TO 766WC+82

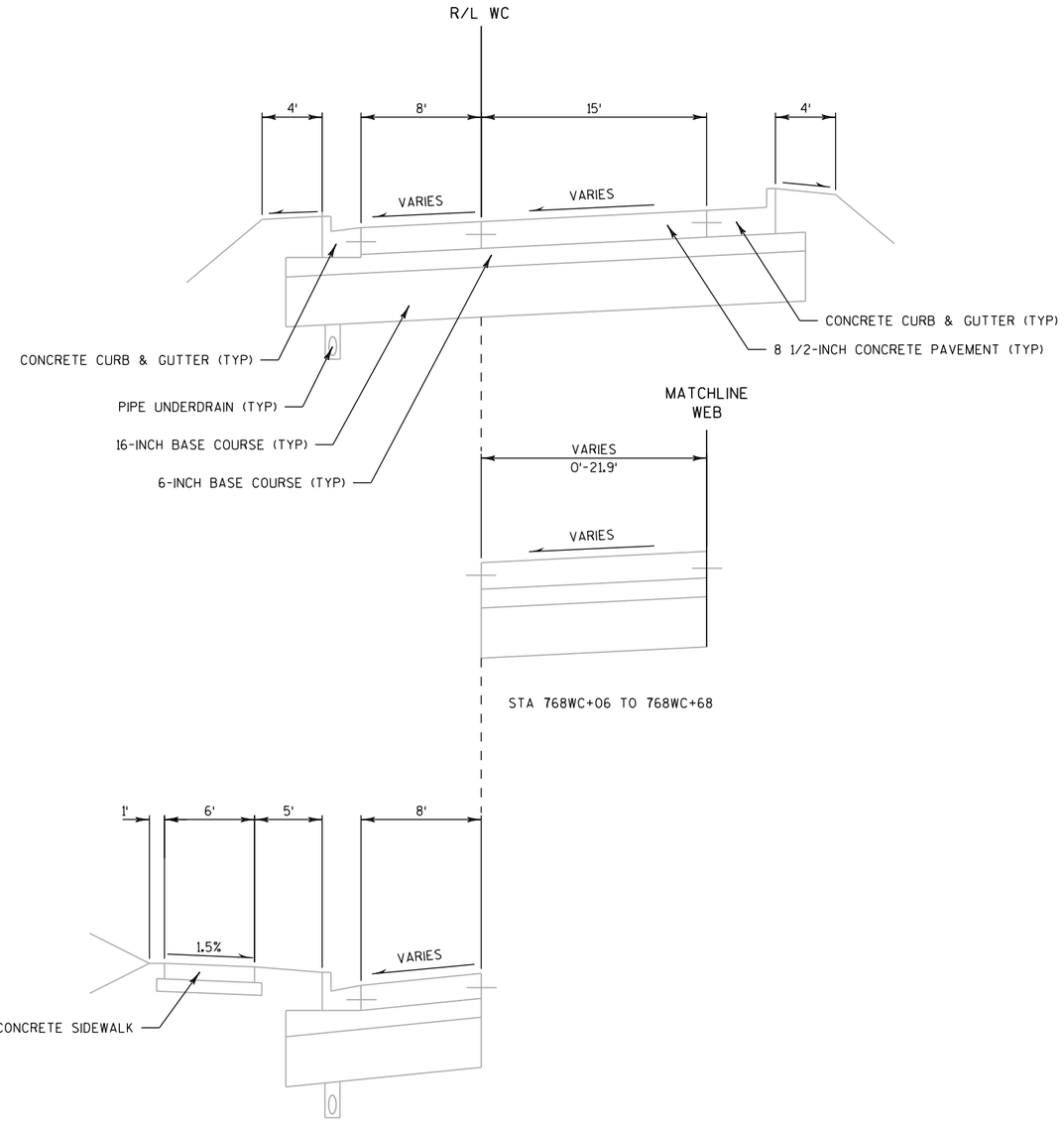
TYPICAL EXISTING SECTION

RAMP WC

STA 766WC+71 TO STA 767WC+31

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



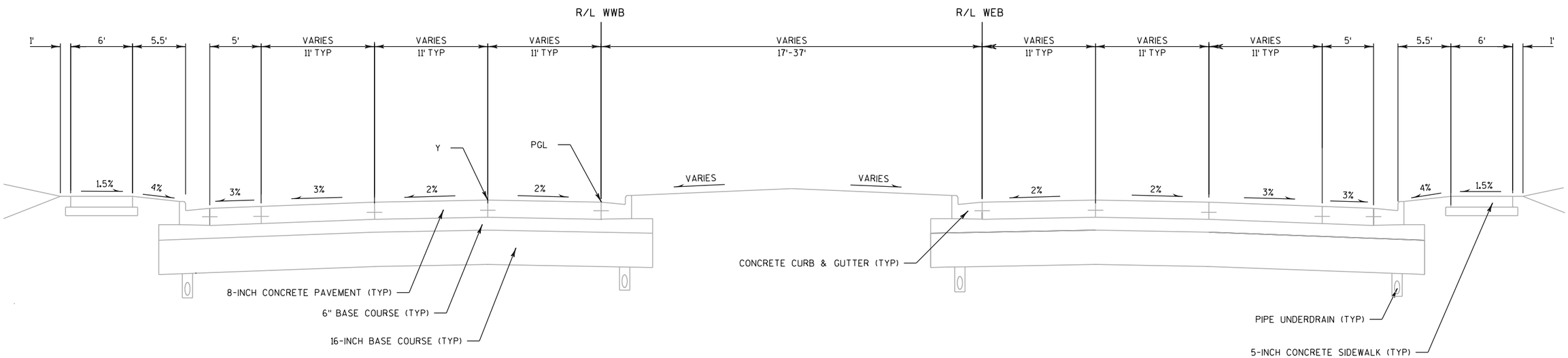
TYPICAL EXISTING SECTION

RAMP WC

STA 767WC+31 TO STA 768WC+68

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



TYPICAL EXISTING SECTION

W. WATERTOWN PLANK ROAD

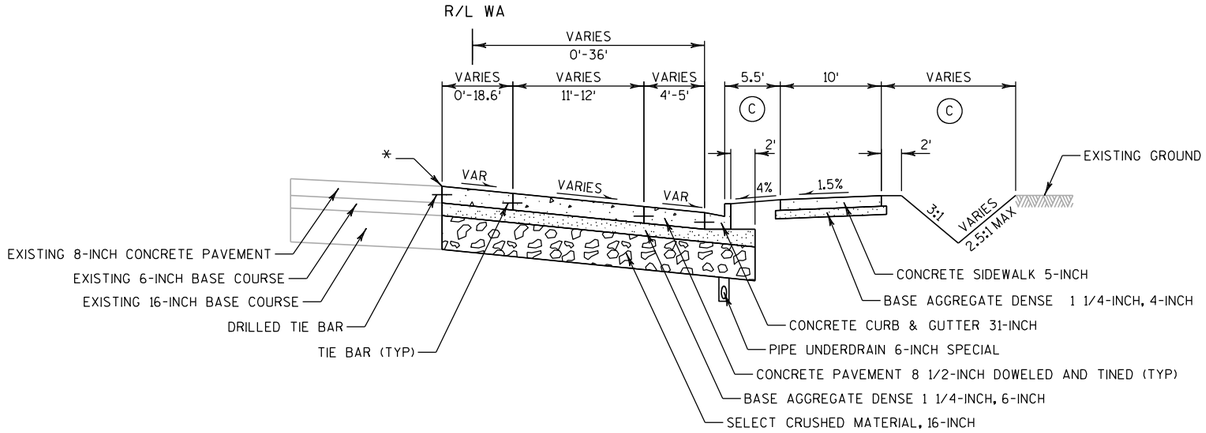
STA 43WEB+00 TO STA 47WEB+00
STA 56WEB+00 TO STA 61WEB+00

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\020301_ts.dgn PLOT DATE : 29-FEB-2016 21:25 PLOT BY : MSCDYB PLOT NAME : 020301_ts4 PLOT SCALE : 10:1

WISDOT/CADDS SHEET 42

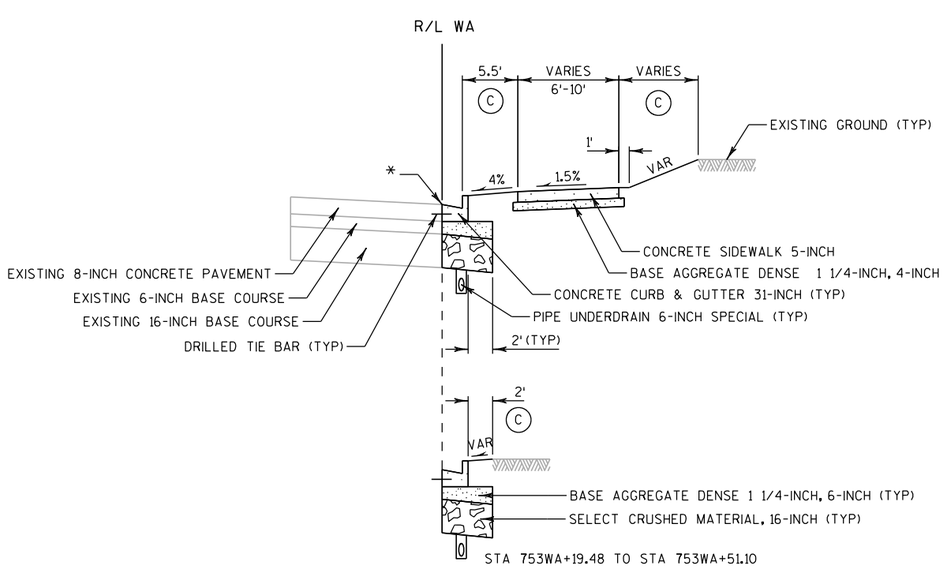
2



TYPICAL FINISHED SECTION

RAMP WA

STA 753WA+81.44 TO STA 755WA+09.12



STA 753WA+19.48 TO STA 753WA+51.10

TYPICAL FINISHED SECTION

RAMP WA

STA 753WA+19.48 TO STA 753WA+81.44

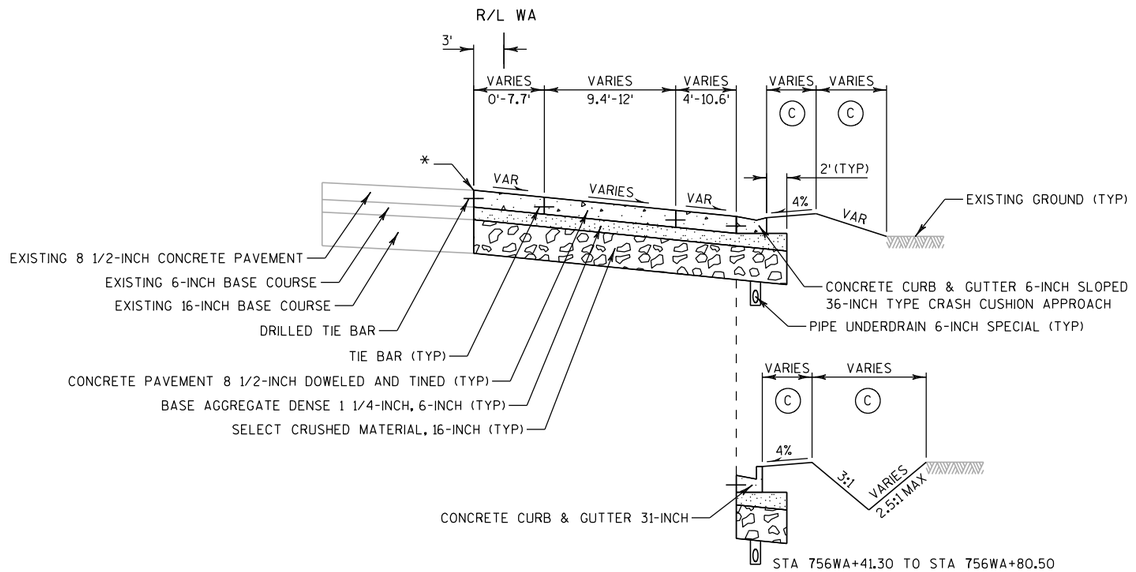
LEGEND

(C) 6" TOPSOIL SPECIAL, SOD LAWN & FERTILIZER TYPE B

* = MATCH EXISTING PAVEMENT
VERIFY ELEVATIONS SHOWN ON CROSS SECTIONS
AND ADJUST AS NECESSARY

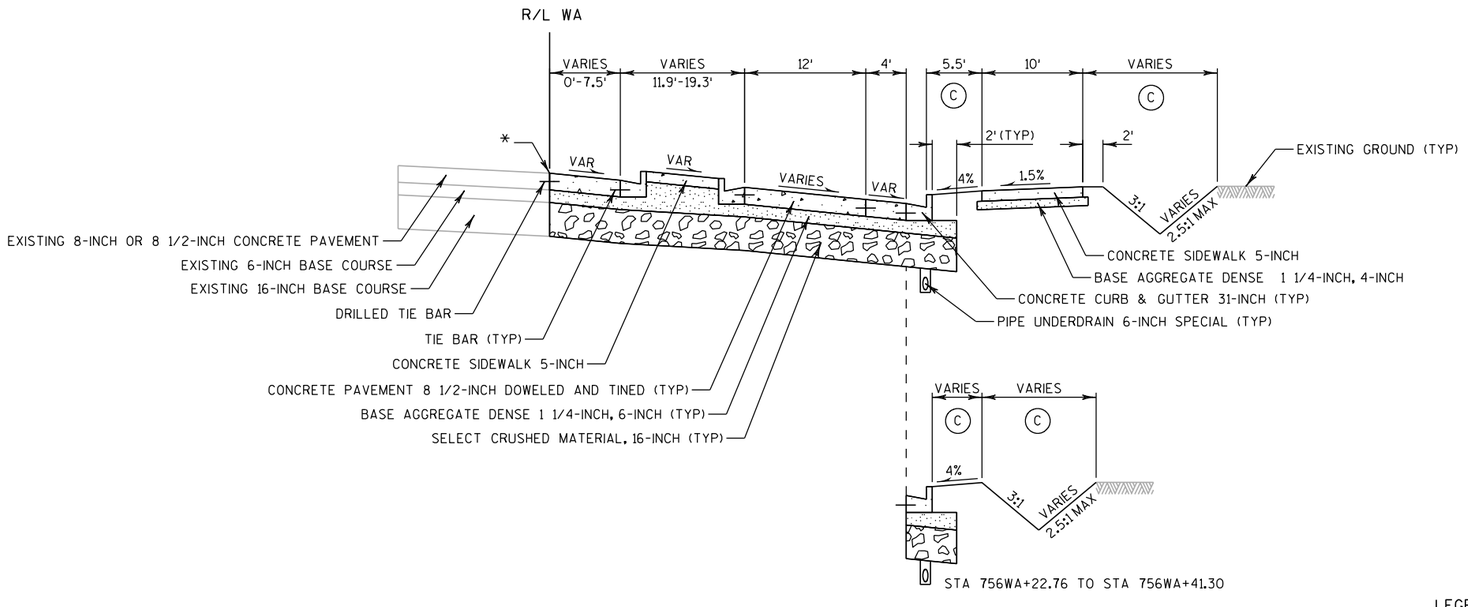
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
RAMP WA

STA 756WA+41.30 TO STA 757WA+32.76



TYPICAL FINISHED SECTION
RAMP WA

STA 755WA+09.12 TO STA 756WA+41.30

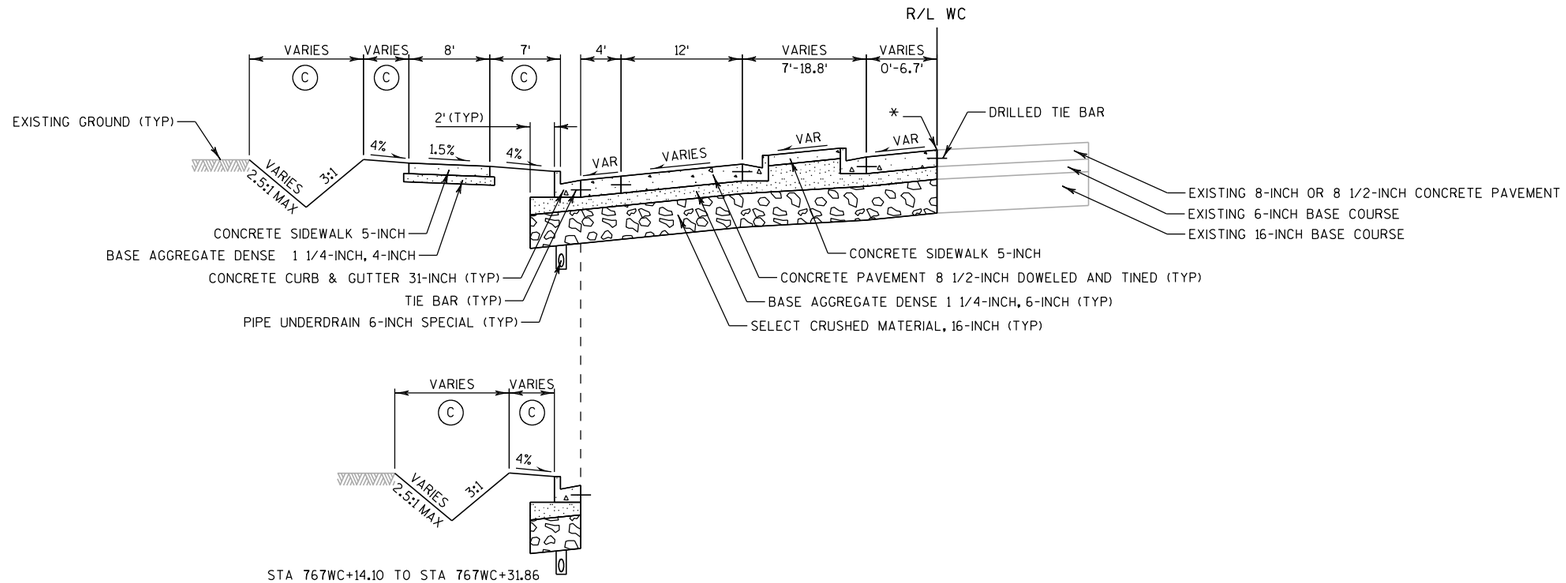
LEGEND

(C) 6" TOPSOIL SPECIAL, SOD LAWN & FERTILIZER TYPE B

* = MATCH EXISTING PAVEMENT
VERIFY ELEVATIONS SHOWN ON CROSS SECTIONS
AND ADJUST AS NECESSARY

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2

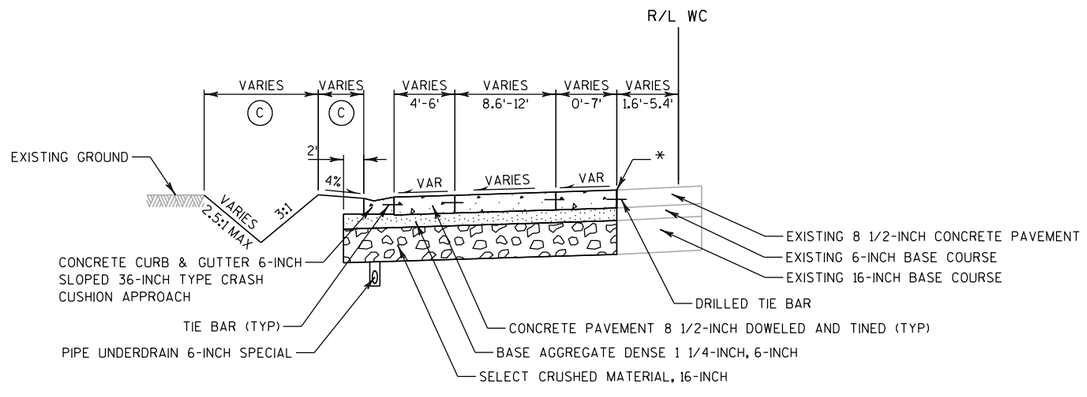


STA 767WC+14.10 TO STA 767WC+31.86

TYPICAL FINISHED SECTION

RAMP WC

STA 767WC+14.10 TO STA 768WC+36.47



TYPICAL FINISHED SECTION

RAMP WC

STA 766WC+70.59 TO STA 767WC+14.10

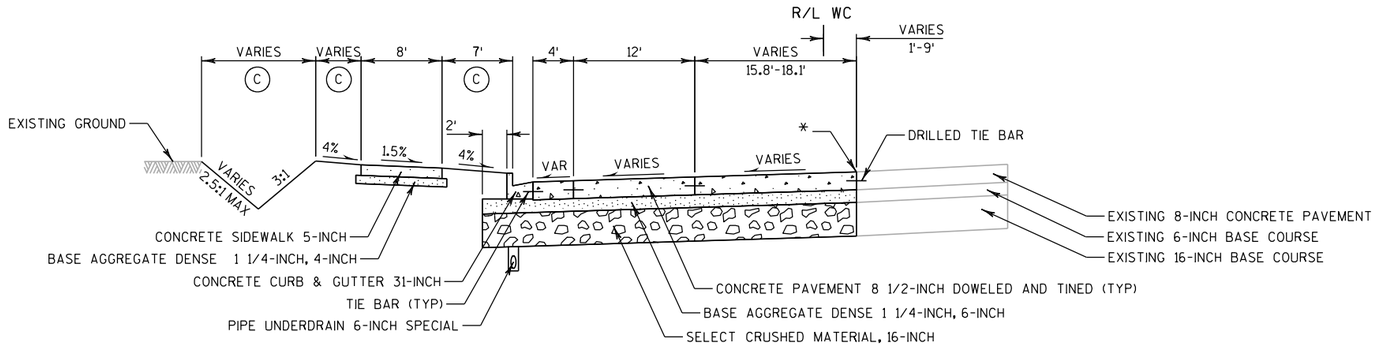
* = MATCH EXISTING PAVEMENT
VERIFY ELEVATIONS SHOWN ON CROSS SECTIONS
AND ADJUST AS NECESSARY

LEGEND

(C) 6" TOPSOIL SPECIAL, SOD LAWN & FERTILIZER TYPE B

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION

RAMP WC

STA 768WC+36.47 TO 768WC+68.17

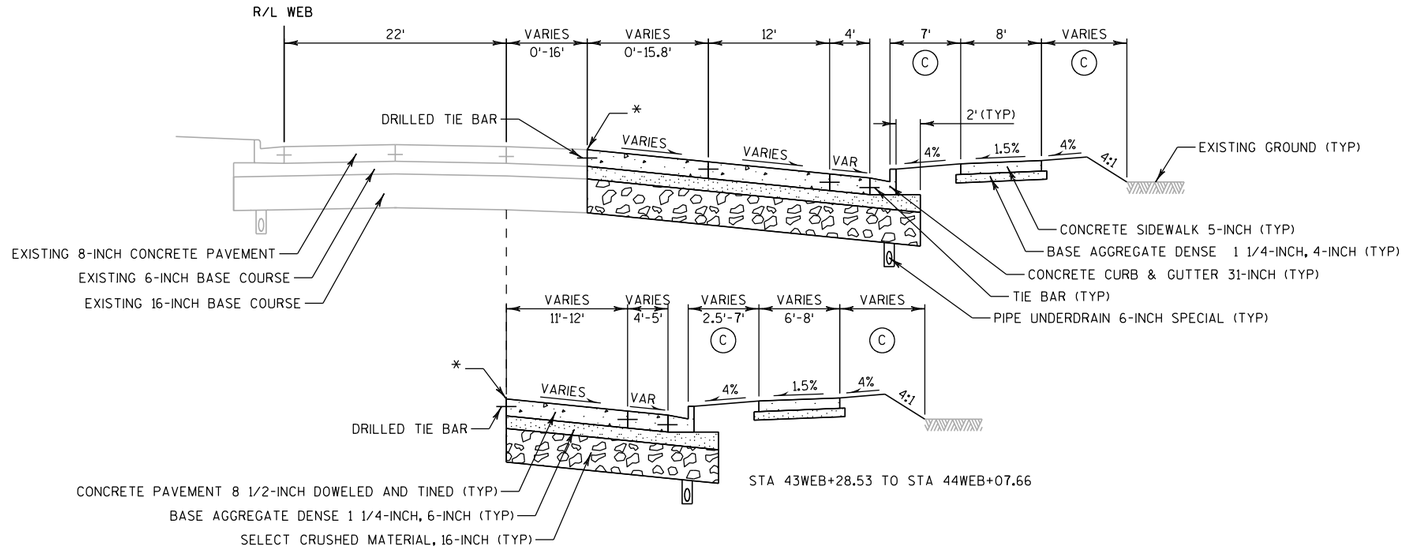
* = MATCH EXISTING PAVEMENT
VERIFY ELEVATIONS SHOWN ON CROSS SECTIONS
AND ADJUST AS NECESSARY

LEGEND

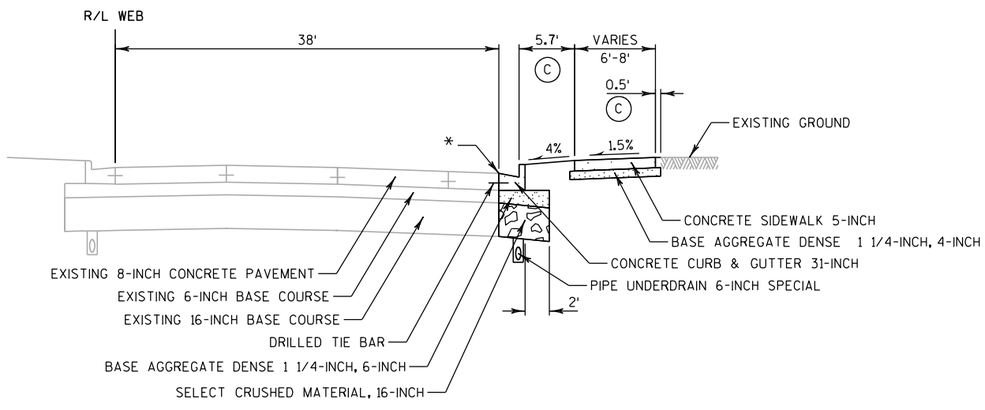
(C) 6" TOPSOIL SPECIAL, SOD LAWN & FERTILIZER TYPE B

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

2



TYPICAL FINISHED SECTION
W. WATERTOWN PLANK ROAD
STA 43WEB+28.53 TO 44WEB+28.59



TYPICAL FINISHED SECTION
W. WATERTOWN PLANK ROAD
STA 43WEB+10.86 TO 43WEB+28.53

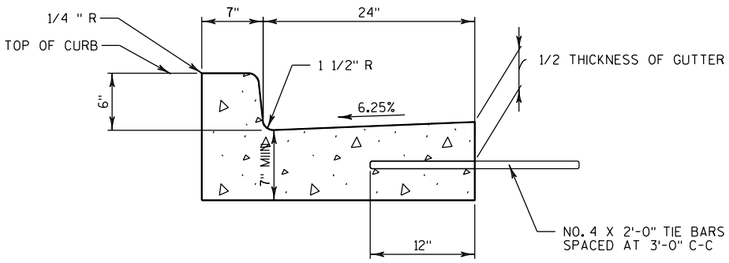
* = MATCH EXISTING PAVEMENT
VERIFY ELEVATIONS SHOWN ON CROSS SECTIONS
AND ADJUST AS NECESSARY

LEGEND

(C) 6" TOPSOIL SPECIAL, SOD LAWN & FERTILIZER TYPE B

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET	E

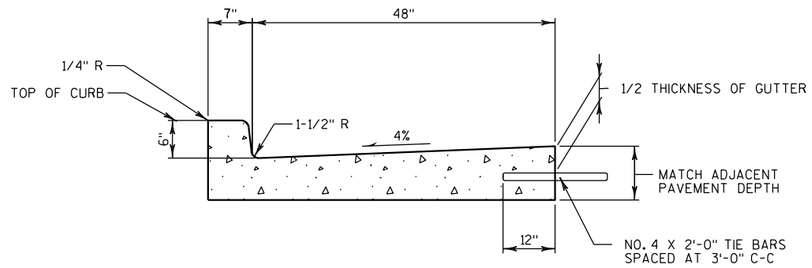
FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\020401_ts.dgn PLOT DATE : 10-MAR-2016 16:57 PLOT BY : MSCJZP PLOT NAME : 020401_ts4 PLOT SCALE : 15:1
WISDOT/CADDS SHEET 42



NOTES

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTER ADJACENT TO NEW CONCRETE PAVEMENT.
2. OMIT TIE BARS WHERE INTEGRAL CURB AND GUTTER IS REQUIRED.
3. SEE STANDARD DETAIL DRAWING FOR DETAILS NOT SHOWN HERE.

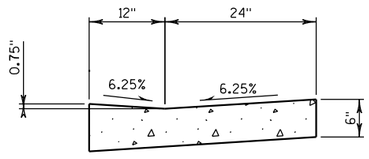
CONCRETE CURB AND GUTTER 31-INCH



NOTE

TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPE A.

CONCRETE CURB AND GUTTER 55-INCH



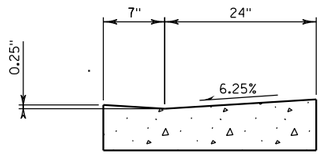
END VIEW

NOTE

PAID FOR AS CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A, MEASURED ALONG FLOW LINE.

CONCRETE CURB & GUTTER 36-INCH TYPE CRASH CUSHION APPROACH

LOCATIONS AS NOTED ON THE PLAN DETAILS



NOTE

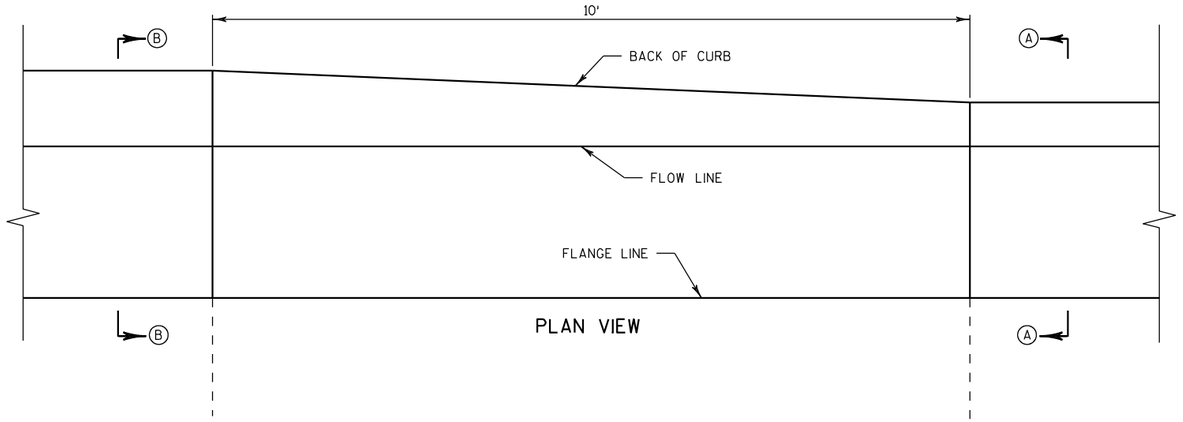
PAID FOR AS CONCRETE CURB AND GUTTER 31-INCH, MEASURED ALONG FLOW LINE.

CONCRETE CURB & GUTTER 31-INCH TYPE DEPRESSED CURB HEAD

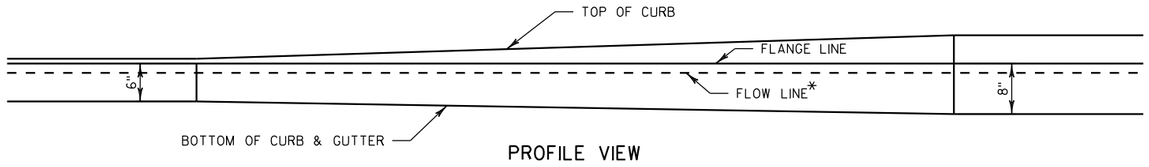
LOCATIONS AS NOTED ON THE PLAN DETAILS

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

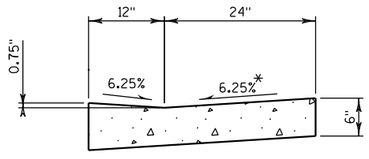
2



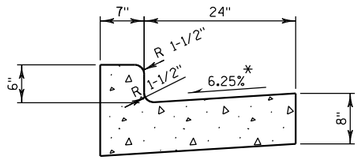
PLAN VIEW



PROFILE VIEW



SECTION B - B



SECTION A - A

* = CURB & GUTTER PAN'S CROSS-SLOPE MAY VARY FROM SHOWN.
SEE PLAN DETAILS FOR LOCATIONS WHERE PAN CROSS-SLOPE VARIES.
FLOW LINE IS ADJUSTED THROUGH LENGTH OF TRANSITION.

CURB & GUTTER TRANSITION
CONCRETE CURB & GUTTER 31-INCH TO
CONCRETE CURB & GUTTER 36-INCH TYPE CRASH CUSHION APPROACH

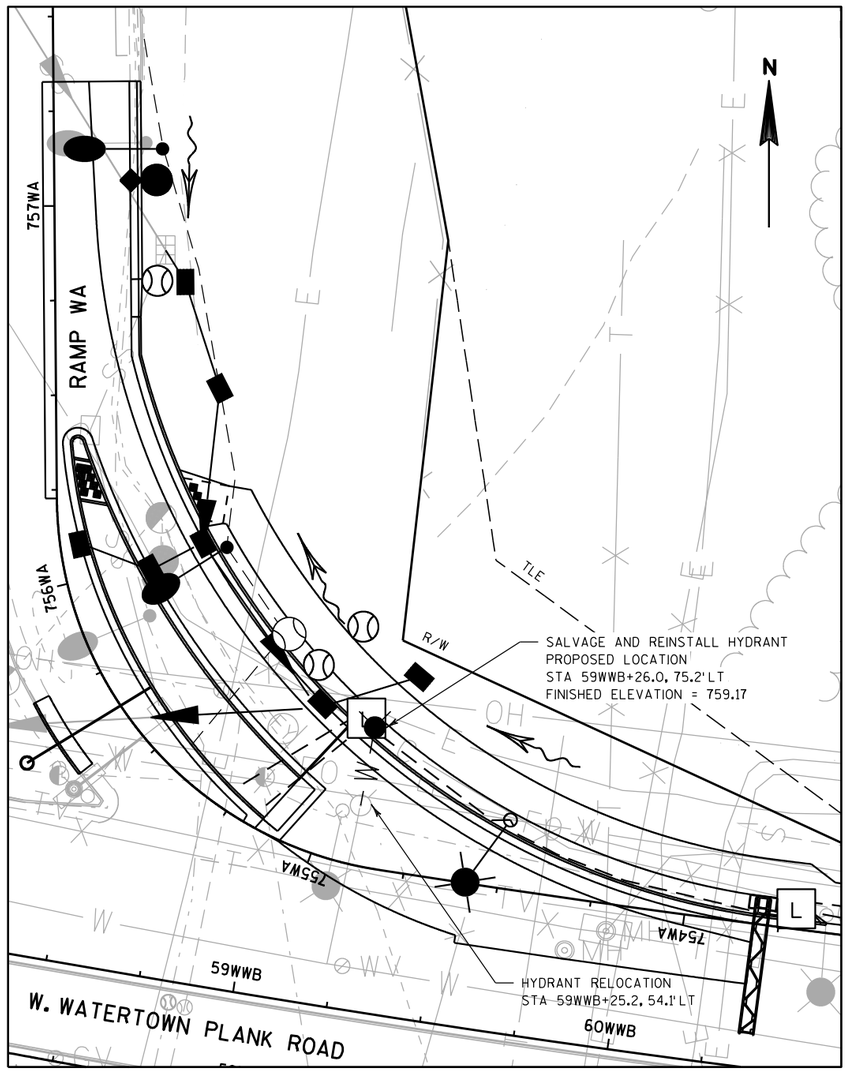
SEE PLAN DETAILS FOR LOCATIONS

NOTES

TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

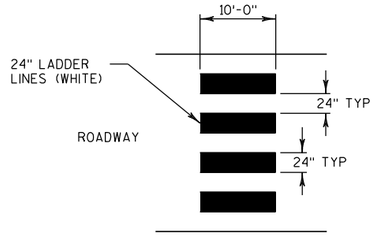
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021001_cd.dgn PLOT DATE : 29-FEB-2016 21:27 PLOT BY : MSCDYB PLOT NAME : 021001_cd1 PLOT SCALE : 2:1
WISDOT/CADDS SHEET 42



HYDRANT RELOCATION

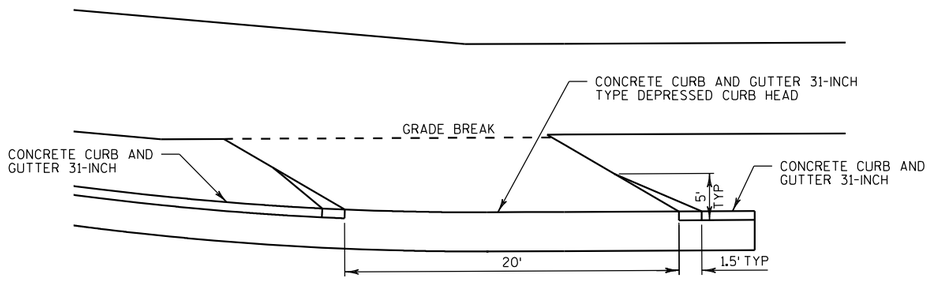
RAMP WA AND W. WATERTOWN PLANK ROAD



NOTE

PAID FOR AS PAVEMENT MARKING CROSSWALK EPOXY 24-INCH.

ZEBRA PATTERN CROSSWALK MARKING



NOTE

SEE CURB RAMP DETAILS FOR INFORMATION AT INDIVIDUAL LOCATIONS.

CURB RAMP BICYCLE

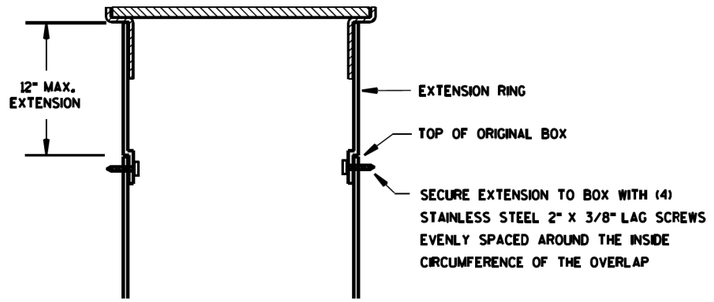
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

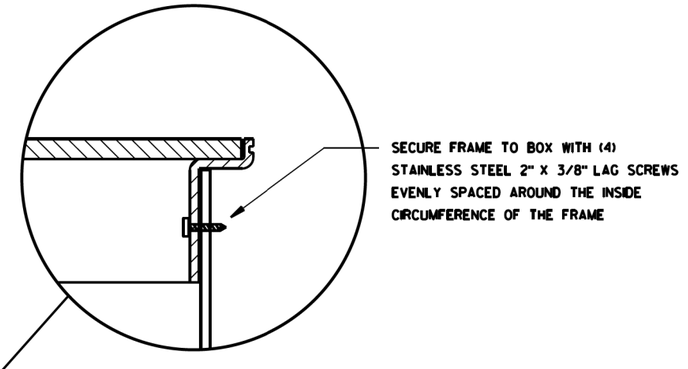
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

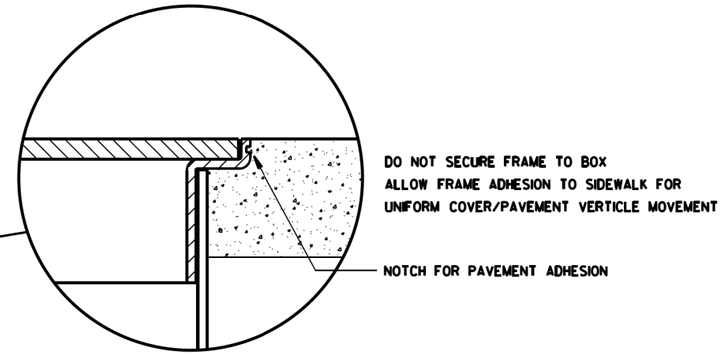


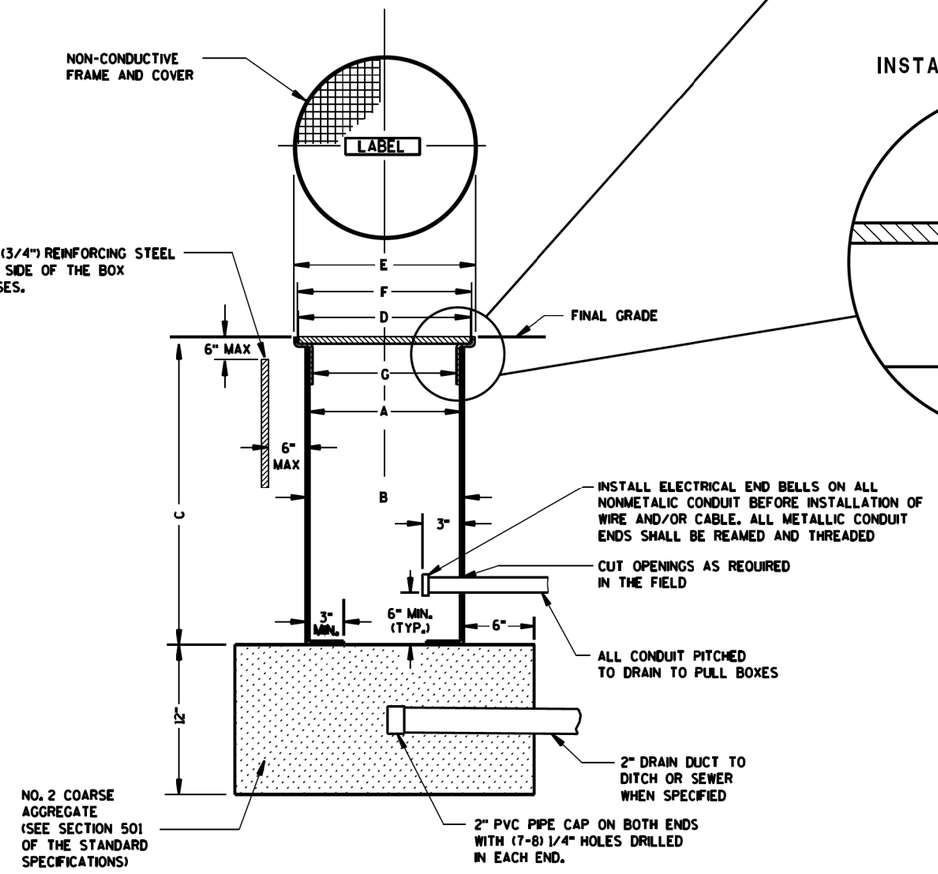
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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

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

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL OR LIGHTING SYSTEMS. "WISDOT COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.

2

N

43WEB

W. WATERTOWN PLANK ROAD

WEB+24.53,45.69' RT
738.79

WEB+15.86,38.01' RT
738.25F

WEB+10.86,38.00' RT
738.23F (MATCH)

WEB+10.86,40.00' RT
738.14G (MATCH)

WEB+15.86,40.00' RT
738.17G

WEB+38.03,38.22' RT
738.39F

WEB+37.93,40.22' RT
738.31G

WEB+70.00,42.26' RT
738.45F

WEB+69.59,44.22' RT
738.33G

WEB+58.00,40.14' RT
738.46F

WEB+57.71,42.12' RT
738.41G

4.5%
4%
4%
5.9%
5.2%
2.5%
6.25%
1%
2%
1.7%
1.5%

WEB+18.53,45.69' RT
738.89

WEB+45.88,45.50' RT
738.79

WEB+51.89,45.67' RT
738.83

WEB+18.53,51.69' RT
738.95

WEB+24.53,51.69' RT
738.91

WEB+51.16,53.64' RT
738.95

WEB+45.18,53.09' RT
738.90

2

N

46WEB

W. WATERTOWN PLANK ROAD

WEB+38.96,38.00' RT
739.91F

WEB+38.96,40.00' RT
739.81G

WEB+33.96,38.00' RT
739.89F

WEB+33.96,40.00' RT
739.77G

WEB+63.96,38.00' RT
740.04F

WEB+63.96,40.00' RT
739.92G

WEB+58.96,38.00' RT
740.01F

WEB+58.96,40.00' RT
739.90G

6.25%
5%
5.5%
6.25%

WEB+30.44,45.50' RT
740.43

WEB+40.05,45.50' RT
740.48

6.1%
6.4%
0.6%
0.6%
1.9%
0.5%
1.5%

WEB+20.05,51.50' RT
740.20

WEB+50.44,45.50' RT
740.54

1.6%
0.6%

WEB+50.44,51.50' RT
740.63

2.3%

WEB+40.05,51.50' RT
740.51

WEB+26.51,59.32' RT
740.15

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

N

WWB+23.63,59.49' LT
758.8

WWB+09.79,51.50' LT
758.39

WWB+99.40,51.50' LT
758.21

WWB+99.40,45.50' LT
758.12

1.5%

1.7%

1.5%

1.3%

1.7%

1.7%

1.5%

WWB+09.79,45.50' LT
758.30

WWB+29.79,51.50' LT
758.65

7.6%

7.6%

6.25%

2%

WWB+90.87,40.00' LT
757.35G

WWB+90.87,38.00' LT
757.39F

WWB+19.40,45.50' LT
758.47

3%

6.25%

WWB+10.87,40.00' LT
757.70G

WWB+10.87,38.00' LT
757.76F

W. WATERTOWN PLANK ROAD

57WWB

N

2

WWB+44.60,55.50' LT
761.23

WWB+47.31,55.50' LT
761.22

WWB+54.32,51.50' LT
761.16

WWB+64.77,51.50' LT
761.14

WWB+44.60,45.50' LT
761.08

1.5%

0.8%

0.2%

1.5%

1.5%

WWB+64.77,45.50' LT
761.05

0.2%

0.2%

6%

WWB+54.32,45.56' LT
761.07

7.1%

6.25%

WWB+34.16,40.03' LT
760.43G

2%

5.5%

6.25%

WWB+34.13,38.00' LT
760.56F

WWB+53.20,40.00' LT
760.46G

WWB+53.20,38.00' LT
760.50F

WWB+73.27,40.00' LT
760.34G

WWB+73.27,38.00' LT
760.45F

WWB+78.32,40.00' LT
760.31G

WWB+78.32,38.00' LT
760.43F

W. WATERTOWN PLANK ROAD

61WWB

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021002_cd.dgn PLOT DATE : 01-MAR-2016 08:33 PLOT BY : MSCDYB PLOT NAME : 021002_cd1 PLOT SCALE : 10:1

WISDOT/CADDS SHEET 42

2

N

RAMP WC

STH 794

WC+49.79,7.52' LT
737.52G

WC+50.00,5.53' LT
737.64F

WC+50.00,19.89' LT
737.06F

WC+50.65,17.96' LT
736.94G

WC+51.44,38.88' LT
736.21G

WC+52.32,36.96' LT
736.33F

WC+43.81,37.38' LT
736.41G

WC+44.83,35.48' LT
736.45F

WC+49.14,45.80' LT
736.85

WC+47.20,43.03' LT
736.79

WC+43.91,53.35' LT
737.00

WC+31.86,50.87' LT
737.04

WC+30.41,45.75' LT
736.94

WC+27.77,32.71' LT
736.75G

WC+21.05,30.62' LT
737.00G

WC+21.98,28.21' LT
737.12F

WC+33.78,15.50' LT
737.42F

WC+34.61,13.63' LT
737.46G

WC+28.55,30.86' LT
736.87F

WC+22.40,11.32' LT
737.67F

WC+23.06,9.43' LT
737.72G

WC+32.87,3.45' LT
737.84F

WC+32.54,5.43' LT
737.79G

WC+22.16,1.98' LT
737.92F

WC+21.96,3.97' LT
737.87G

WC+26.96,17.82' RT
738.37F

WC+27.36,19.78' RT
738.45G

WC+25.33,29.77' RT
738.68

WC+24.19,35.41' RT
738.56

WC+16.33,19.95' RT
738.43G

WC+16.72,21.91' RT
738.51G

WC+13.49,37.91' RT
738.52

WC+15.53,27.79' RT
738.73

6.25%
2%
6.3%
1.5%
0.6%
1.4%
6%
3.9%
2.5%
3.6%
4%
2.3%
0.5%
3.7%

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

2

N

RAMP WA

WA+37.34,19.00' LT
758.25G

WA+38.41,24.90' LT
758.43

WA+37.31,15.00' LT
758.21F

WA+40.11,34.27' LT
758.24

WA+37.06,1.68' RT
757.86F

WA+37.22,3.67' RT
757.82G

WA+33.16,4.05' RT
757.83

WA+32.16,9.57' RT
757.54G

WA+32.94,2.07' RT
757.87F

WA+32.84,11.46' RT
757.62F

WA+29.52,31.96' LT
758.39

WA+20.98,13.83' RT
757.41G

WA+21.86,15.69' RT
757.53F

WA+28.57,26.69' LT
758.50

WA+27.17,19.00' LT
758.33G

WA+27.21,15.01' LT
758.29F

WA+22.35,3.59' RT
757.90F

WA+22.72,5.56' RT
758.78G

WA+10.12,5.39' RT
757.91F

WA+10.40,7.37' RT
757.71G
(DEPRESSED INLET)

756WA

WA+31.80,28.96' RT
757.09F

WA+32.54,30.82' RT
756.97G

WA+25.63,45.58' RT
757.42

WA+24.59,51.36' RT
757.46

WA+17.52,53.49' RT
757.44

WA+27.18,30.87' RT
757.03F

WA+27.97,32.71' RT
756.94G

WA+10.43,43.36' RT
757.27

WA+09.92,44.27' RT
757.29

WA+12.17,35.74' RT
756.81F

WA+13.30,37.61' RT
756.77G

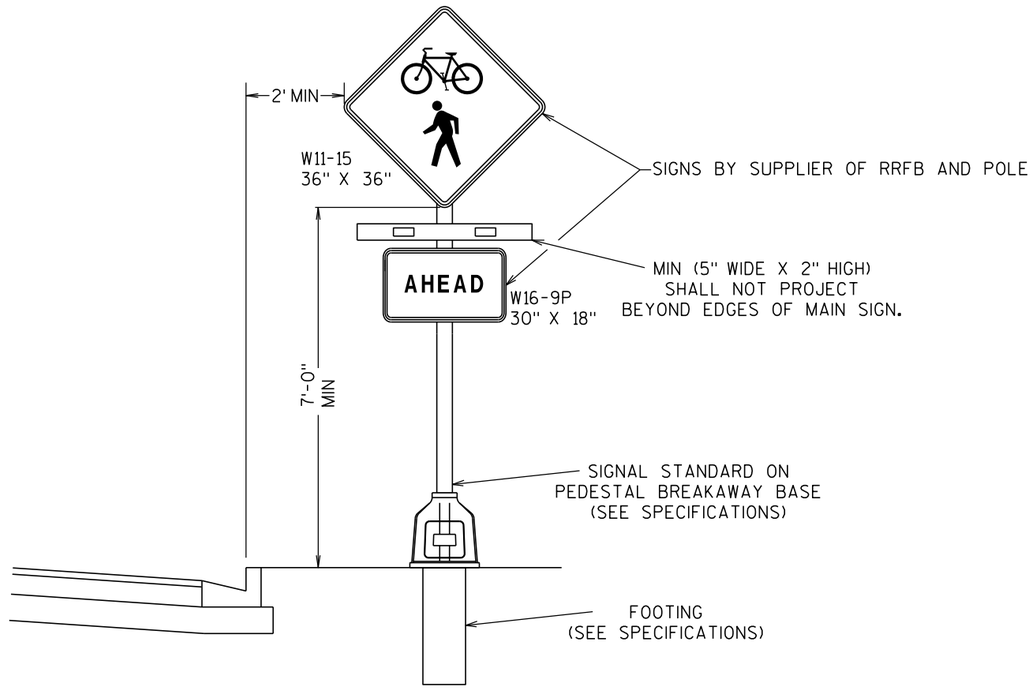
WA+01.95,37.94' RT
756.71F

WA+02.91,39.85' RT
756.59G

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

ADVANCE ASSEMBLY

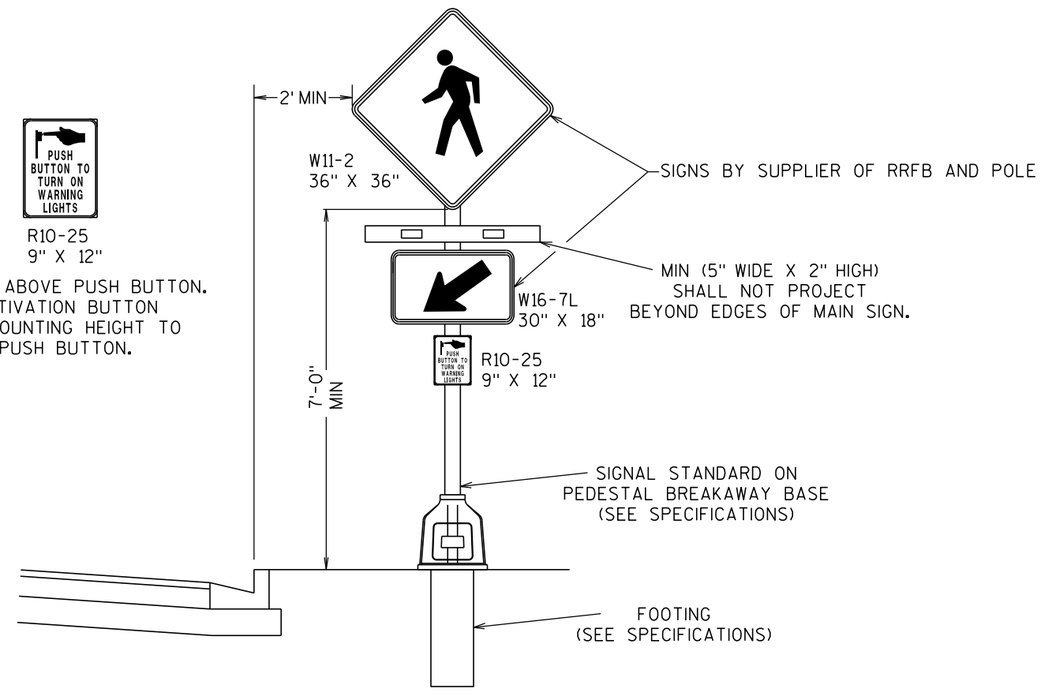


RAPID RECTANGULAR FLASHING BEACON

INTERCONNECT WITH CROSSING
WARNING SIGNS AT CROSSING
TO ACTIVATE SIMULTANEOUSLY

2

AT CROSSING



RAPID RECTANGULAR
FLASHING BEACON

PROJECT NO: 1060-34-87	HWY: WATERTOWN PLANK ROAD	COUNTY: MILWAUKEE	PEDESTRIAN SIGNS FOR RRFB INSTALLATION	SHEET 24	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023403_ps.dgn PLOT DATE : 20-JAN-2016 14:47 PLOT BY : dotshw PLOT NAME : PLOT SCALE : 96.000192:1

2

GENERAL NOTES

1) ALL ITEMS ASSOCIATED WITH FTMS REMOVALS ARE SHOWN IN FTMS PLANS.

2) ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVALS ARE SHOWN IN STORM SEWER STAGING PLANS.

3) ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN IN LIGHTING PLANS.

4) ALL ITEMS ASSOCIATED WITH SIGN STRUCTURE REMOVALS ARE SHOWN IN PERMANENT SIGNING PLANS.

5) FOR ADDITIONAL UTILITY INFORMATION SEE EXISTING UTILITY PLAN.

6) THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

7) REMOVE SIDEWALK AT NEAREST JOINT.

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- I I I I REMOVING CURB AND GUTTER
- X X X SAWING CONCRETE PAVEMENT
- – X – REMOVING FENCE
- X CLEARING AND GRUBBING (I.D.)

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021100_rm.dgn PLOT DATE : 29-FEB-2016 21:29 PLOT BY : MSCDYB PLOT NAME : 021100_rm PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

2

N

SWAN BOULEVARD

W. WATERTOWN PLANK ROAD

W. INNOVATION DRIVE

24WWB 26WWB 28WWB 30WWB 32WWB 34WWB 36WWB 38WWB

24WEB 26WEB 28WEB 30WEB 32WEB 34WEB 36WEB 38WEB

REMOVING CONCRETE SIDEWALK

REMOVING CONCRETE SIDEWALK

SAWING CONCRETE PAVEMENT

SAWING CONCRETE PAVEMENT

MATCHLINE 39WEB+00

BOLLARDS (4)

CANOPY

POST

CANOPY

CANOPY

SIGN

GV

PHONE

ASPHALT

CONCRETE

CONC

ASPHALT

A/C

ASPHALT

CONCRETE PATIO

PIPE

CONC

CONC

CONC

CONC

CONC

WATER TOWER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021101_rm.dgn PLOT DATE : 29-FEB-2016 21:30 PLOT BY : MSCDYB PLOT NAME : 021101_rm PLOT SCALE : 100:1

2

2

N

USH 45 NB

USH 45 SB

W. WATERTOWN PLANK ROAD

RAMP WC

MATCHLINE 39WEB+00

MATCHLINE 54WEB+00

40WWB
40WEB
42WWB
42WEB
44WWB
44WEB
46WWB
46WEB
48WWB
48WEB
50WWB
50WEB
52WWB
52WEB
54WW
54

766WC
765WC

REMOVING PAVEMENT
SAWING CONCRETE PAVEMENT
CLEARING AND GRUBBING (I.D.)
REMOVING CURB AND GUTTER
SAWING CONCRETE PAVEMENT
REMOVING CONCRETE SIDEWALK
SAWING CONCRETE PAVEMENT
REMOVING CURB AND GUTTER
EXISTING TREES TO REMAIN
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
SAWING CONCRETE PAVEMENT
REMOVING CONCRETE SIDEWALK
REMOVING CURB AND GUTTER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021102_rm.dgn PLOT DATE : 31-MAR-2016 10:26 PLOT BY : MSCJZP PLOT NAME : 021102_rm PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

DISCOVERY PARKWAY

RAMP WA

160WA

156WA

154WA

SAWING CONCRETE PAVEMENT

REMOVING CURB AND GUTTER

REMOVING PAVEMENT

REMOVING FENCE

SAWING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING CONCRETE SIDEWALK

SAWING CONCRETE PAVEMENT

REMOVING CURB AND GUTTER

REMOVING CURB AND GUTTER

SAWING CONCRETE PAVEMENT

REMOVING PAVEMENT

SAWING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

SAWING CONCRETE PAVEMENT

SAWING CONCRETE PAVEMENT

REMOVING CURB AND GUTTER

MATCHLINE 54WEB+00

56WWB

56WEB

58WWB

58WEB

60WWB

60WEB

62WEB W. WATERTOWN PLANK ROAD

64WWB

66WWB

66WEB

68WWB

68WEB

MATCHLINE 69WEB+00

USH 45 NB

USH 45 SB

PLAYGROUND

INL

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021103_rm.dgn PLOT DATE : 01-MAR-2016 11:00 PLOT BY : MSCDYB PLOT NAME : 021103_rm PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

DISCOVERY PARKWAY

SAWING CONCRETE PAVEMENT

REMOVING CONCRETE SIDEWALK

W. WATERTOWN PLANK ROAD

70WWB 70WEB 72WWB 72WEB 74WWB 74WEB 76WWB 76WEB 78WWB 78WEB 80WWB 80WEB 82WWB 82WEB 84WWB 84WEB

MATCHLINE 69WEB+00

12THS

N. 92ND STREET

10THS

8THS

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021104_rm.dgn PLOT DATE : 29-FEB-2016 21:30 PLOT BY : MSCDYB PLOT NAME : 021104_rm PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

LEGEND

(CP06) CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED

(CG03) CURB RAMP TYPE 2

(CG07) CURB RAMP TYPE 5

(CG52) CURB RAMP BICYCLE

(CG16) CONCRETE CURB AND GUTTER 31-INCH

(CG22) CONCRETE CURB PEDESTRIAN

(CG24) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A

(CG28) CONCRETE CURB AND GUTTER 6-INCH SLOPED 60-INCH TYPE A

(CG37) CONCRETE CURB & GUTTER 55-INCH

(CG38) CONCRETE CURB AND GUTTER 36-INCH TYPE CRASH CUSHION APPROACH

(CG51) CONCRETE CURB & GUTTER 31-INCH TYPE DEPRESSED CURB HEAD

(CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1

(CM07) CONCRETE SIDEWALK 5-INCH

(SW02) SAWING CONCRETE

NOTE

SEE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION ON CURB RAMP LAYOUT, ELEVATIONS AND GUTTER SLOPE TRANSITIONS.

2

SWAN BOULEVARD

N

W

SIGN

GV

MH

GV

34WWB 35WWB 36WWB 37WWB 38WWB 39WWB 40WWB

W. WATERTOWN PLANK ROAD

34WEB 35WEB MH 36WEB 37WEB 38WEB 39WEB 40WEB

MH

MH

S-40-865

CM07

WEB+08.00
45.50' RT

SW02

SW02

6'

WEB+92.00
51.50' RT

GV

MH

WEB+59.81
45.59' RT

WEB+66.32
45.96' RT

CM07

SW02

6'

SIGN W/MAST

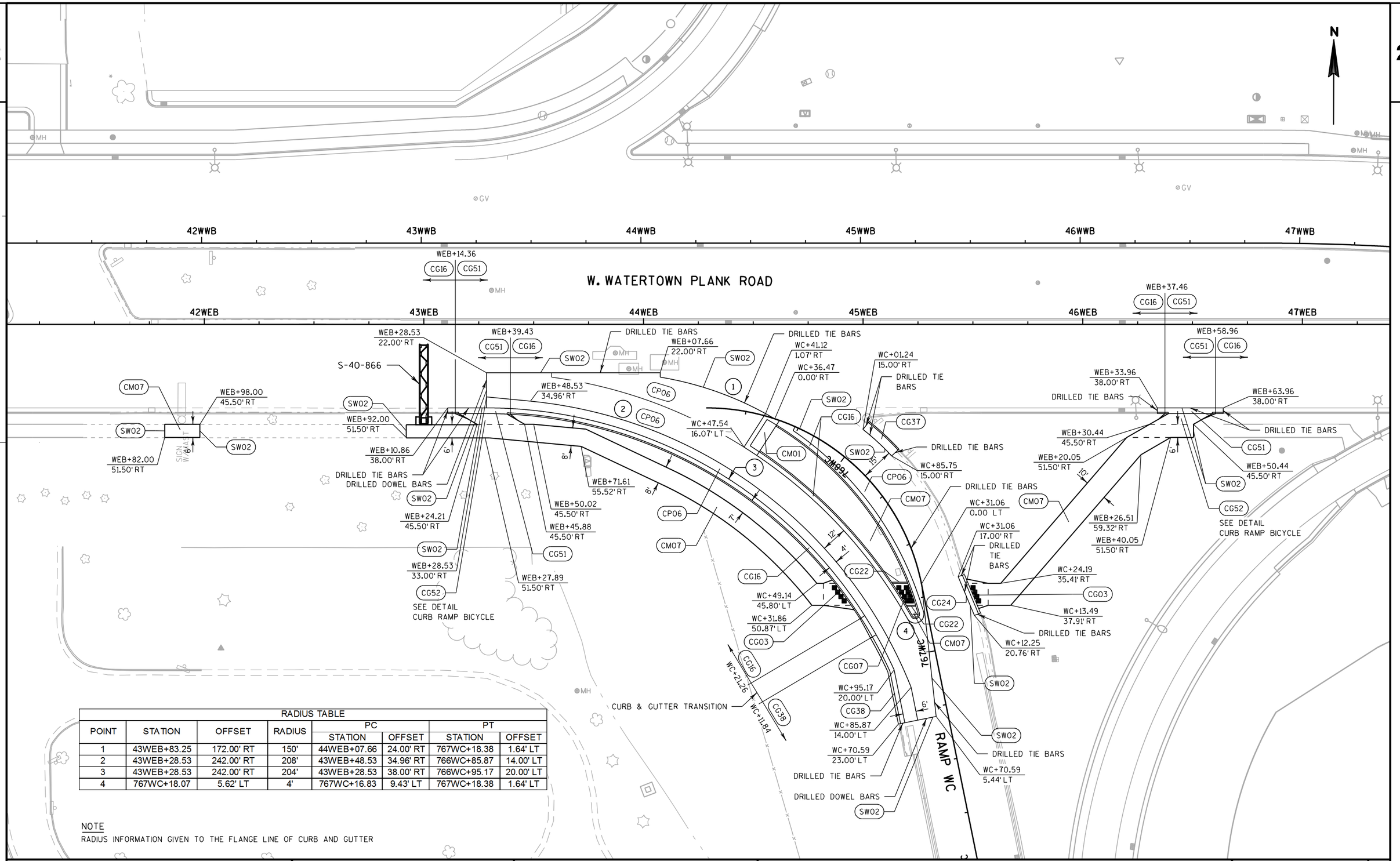
SW02

WEB+50.29
51.57' RT

W. INNOVATION DRIVE

2

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E



RADIUS TABLE							
POINT	STATION	OFFSET	RADIUS	PC		PT	
				STATION	OFFSET	STATION	OFFSET
1	43WEB+83.25	172.00' RT	150'	44WEB+07.66	24.00' RT	767WC+18.38	1.64' LT
2	43WEB+28.53	242.00' RT	208'	43WEB+48.53	34.96' RT	766WC+85.87	14.00' LT
3	43WEB+28.53	242.00' RT	204'	43WEB+28.53	38.00' RT	766WC+95.17	20.00' LT
4	767WC+18.07	5.62' LT	4'	767WC+16.83	9.43' LT	767WC+18.38	1.64' LT

NOTE
RADIUS INFORMATION GIVEN TO THE FLANGE LINE OF CURB AND GUTTER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

2

RADIUS TABLE							
POINT	STATION	OFFSET	RADIUS	PC		PT	
				STATION	OFFSET	STATION	OFFSET
1	754WA+34.20	134.00' RT	150'	754WA+59.01	14.00' LT	756WA+37.06	1.68' RT
2	753WA+78.01	199.00' RT	203'	754WA+01.43	2.71' LT	756WA+96.66	10.96' RT
3	753WA+78.01	199.00' RT	199'	753WA+78.01	0.00' LT	756WA+60.27	20.00' RT
4	756WA+37.38	5.67' RT	4'	756WA+37.06	1.68' RT	756WA+38.62	9.47' RT

NOTE
RADIUS INFORMATION GIVEN TO THE FLANGE LINE OF CURB AND GUTTER

N

RAMP WA

WA+32.76
9.37' RT
DRILLED DOWEL BARS
DRILLED TIE BARS
WA+32.76
23.00' RT
SW02
CG38
WA+32.76
3.00' LT
3'
WA+96.66
10.96' RT
DRILLED TIE BARS
CP06
757WA
CG38
WA+80.50
CURB & GUTTER TRANSITION
CG16
WA+70.50
SW02
WA+42.52
15.00' LT
CP06
WA+60.27
20.00' RT
DRILLED TIE BARS
CM07
CG28
CG22
CG03
CG07
CG03
WA+40.11
34.27' LT
4
WA+24.59
51.36' RT
12'
WA+09.92
44.27' RT
WA+29.52
31.96' LT
CG16
DRILLED TIE BARS
CM07
WA+22.41
15.00' LT
CP06
WA+22.76
3.00' LT
WA+02.30
17.23' RT
CG22
756WA
CG16
DRILLED TIE BARS
10'
CP06
4'
12'
DRILLED TIE BARS
15'
CM07
WA+75.79
15.00' LT
3
5'
CP06
CG37
DRILLED TIE BARS
CP06
2
SW02
WA+57.21
15.00' LT
WA+19.80
0.00' LT
755WA
754WA
CM01
WA+09.12
0.38' LT
1
WA+59.01
16.00' LT
DRILLED TIE BARS
DRILLED TIE BARS
SW02
DRILLED DOWEL BARS
CG16
CG51
WA+81.44
16.00' LT
S-40-868
WA+64.06
WWB+23.63
59.49' LT
WWB+09.79
51.50' LT
CG52
SEE DETAIL
CURB RAMP
BICYCLE
SW02
WWB+99.40
45.50' LT
WWB+29.79
51.50' LT
WWB+19.40
45.50' LT
DRILLED TIE BARS
WWB+85.87
38.00' LT
CG51
SW02
CG51
CG16
DRILLED TIE BARS
WWB+15.87
38.00' LT
DRILLED TIE BARS
WWB+12.37
WWB+89.37
CG16
CG51
WA+61.45
13.50' RT
WA+68.39
17.50' RT
WA+71.07
7.50' RT
WA+81.44
5.00' LT
WA+01.43
2.71' LT
CG52
SEE DETAIL
CURB RAMP BICYCLE
CG51
WA+51.10
13.50' RT
SW02
DRILLED TIE BARS
WA+19.48
0.00' LT
CG51
CG16
WA+41.18
56WWB
57WWB
58WWB
59WWB
60WWB
61WWB
W. WATERTOWN PLANK ROAD
56WEB
57WEB
58WEB
59WEB
60WEB
61WEB
MH
VLV

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

2

2

N

CM07
SW02
WWB+60.38
51.50' LT
SW02
6'
SIGN W/MAST
WWB+21.91
45.50' LT
MH
SIGN W/MAST
63WWB
64WWB
65WWB
66WWB
67WWB
68WWB
63WEB
64WEB
65WEB
66WEB
67WEB
68WEB
W. WATERTOWN PLANK ROAD
SIGN W/MAST
MH
GV
MH
MH
MH
MH
INL
INL

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021204_pd.dgn PLOT DATE : 29-FEB-2016 21:33 PLOT BY : MSCDYB PLOT NAME : 021204_pd PLOT SCALE : 40:1

2

2

DISCOVERY PARKWAY

MH

SIGN

MP

CM07

SW02

SW02

WWB+15.00
51.50' LT

WWB+99.00
45.50' LT

S-40-867

70WWB

71WWB

72WWB

73WWB

74WWB

75WWB

W. WATERTOWN PLANK ROAD

70WEB

71WEB

72WEB

73WEB

74WEB

75WEB

SIGN W/MAST

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021205_pd.dgn PLOT DATE : 29-FEB-2016 21:33 PLOT BY : MSCDYB PLOT NAME : 021205_pd PLOT SCALE : 40:1

2

2

N

MH
MH
MH
GV
GV
MH

43WWB 44WWB 45WWB 46WWB 47WWB 48WWB

W. WATERTOWN PLANK ROAD

43WEB 44WEB 45WEB 46WEB 47WEB 48WEB

MH
MH
MH

738.84 738.94 739.07 739.20 739.12 738.96 738.61
738.49 738.93 738.84 738.53 738.14
738.33 738.56 738.56 738.38 738.22 738.51
738.44 738.44 738.22 737.84 737.64 737.90
737.43 737.11 737.14 737.79
736.93 736.64 736.86 737.52
736.48 736.39 737.06 737.64
736.23 736.54 737.84
736.36 737.62 737.96
737.01 737.38 738.21
737.69 737.81 738.53
738.17 738.30 738.58
738.38
738.24

3.2% 2.9% 3% 3% 3.1% 3.6% 4% 4.3% 4.2%
3.2% 2.9% 3% 3% 3.6% 3.7% 3.8% 4.8% 3.9% 4.8% 4.5% 4.5% 4.1% 4.1% 4.1% 3.9% 3.9% 4.2% 3.5% 3.9% 2.8% 2.8% 2.8% 2.3% 2.3%

MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING

RAMP WC

MH
MH

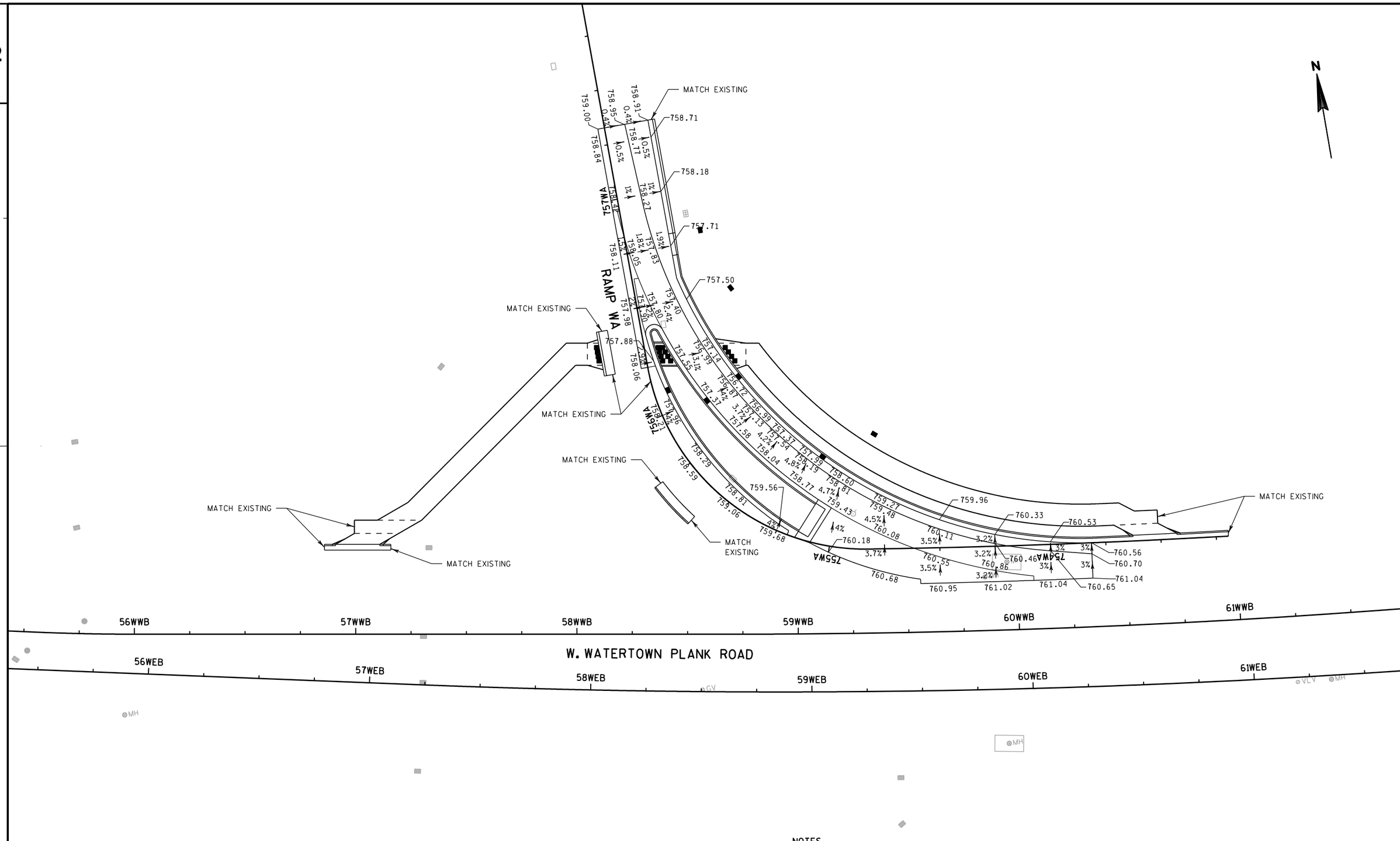
NOTES

EXISTING PAVEMENT GRADES TO BE FIELD VERIFIED BY CONTRACTOR.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVING GRADES	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021301_pg.dgn PLOT DATE : 01-MAR-2016 11:18 PLOT BY : MSCDYB PLOT NAME : 021301_pg PLOT SCALE : 40:1

2


N
MATCH EXISTING
758.71
758.18
757.71
757.50
MATCH EXISTING
757.88
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
MATCH EXISTING
759.56
759.96
760.33
760.53
MATCH EXISTING
760.18
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761.04
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760.95
761.02
761.04
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758.81
758.39
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758.04
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757.13
756.99
756.72
757.07
757.76
757.71
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757.71
757.76
757.83
757.80

2

LEGEND

EXISTING

FTMS CONVENTIONAL SYMBOLS

CCTV CAMERA AND POLE

FTMS FIELD CABINET AND BASE

POLE MOUNTED CABINET

METER BREAKER PEDESTAL

STEEL PULL BOX

STEEL PULL BOX 24"X42"

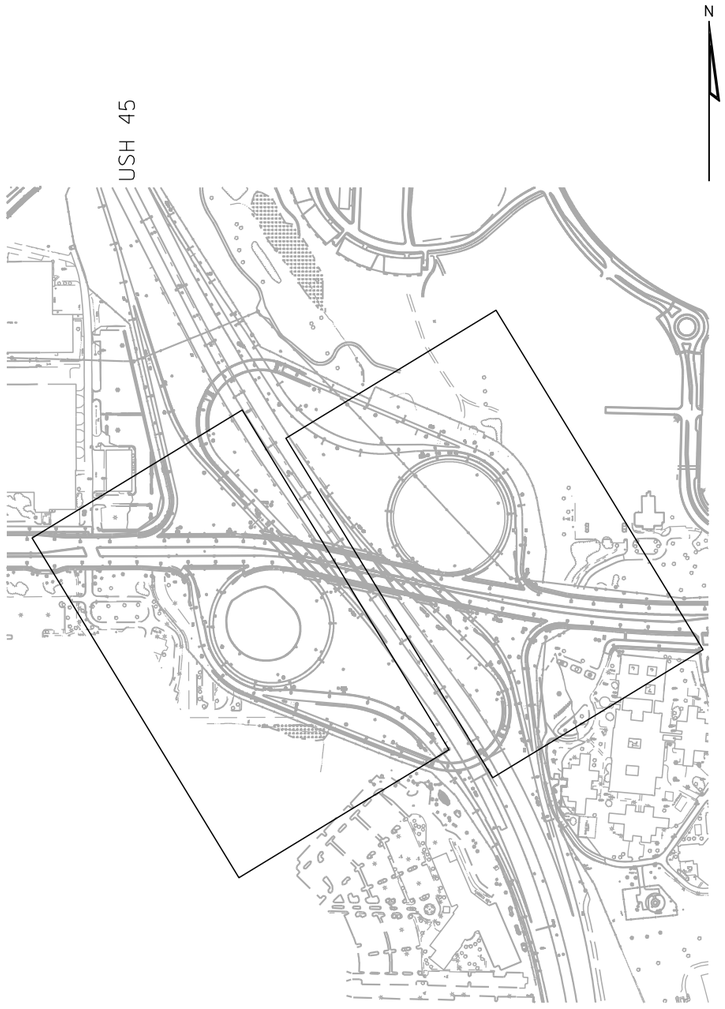
MANHOLE MH

FTMS (ITS) CONDUIT

BREAKER DISCONNECT BOX

COMMUNICATIONS VAULT, TYPE 1 V

MICROWAVE DETECTOR ON TYPE 5 POLE



FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
FY	ADVANCE FLASHER
CV	COMMUNICATIONS VAULT
PB	PULL BOX
MD	MICROWAVE DETECTOR
MH	MANHOLE
SB	SIGN BASE
EX	EXISTING
G	RAMP CLOSURE GATE

FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

2

LEGEND

(1) REMOVE PULL BOX

(2) SALVAGE ADVANCE FLASHER ASSEMBLY

(4) REMOVE CABLE

(10) SALVAGE MICROWAVE DETECTOR ASSEMBLY

(11) REMOVE RAMP GATE ASSEMBLY

NOTES

1. THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.
2. FOR REMOVAL OF LIGHTING, BRIDGE, OR SIGN ITEMS, REFER TO RESPECTIVE REMOVAL PLAN SECTIONS.
3. REMOVALS AND DISCONNECTION OF EQUIPMENT OR UTILITY SERVICES MUST BE PROPOSED TO WISDOT STOC A MINIMUM OF TWO WEEKS PRIOR TO SCHEDULED REMOVAL WORK. UNLESS FTMS REMOVALS WORK IS DEMONSTRATED TO BE CRITICAL TO PROJECT COMPLETION SCHEDULE, STOC MAY DENY PROPOSED SCHEDULE AND REQUIRE THAT LOCATIONS BE MAINTAINED UNTIL REMOVALS ARE NECESSARY.

* REMOVE RAMP GATE CABLE AND FOC ONLY

STAGING NOTE:

1. DO NOT REMOVE FOC UNTIL NEW FOC CONDUIT PATH IS COMPLETE. SEE STAGING NOTE ON FTMS PLANS.

EXCV44WWB
(EXISTING COMMUNICATION VAULT TO REMAIN)
(2) 6-COUNT FOC REMOVED FROM EXCB-RM-0025
REMOVE EXISTING FOC AND REINSTALL IN PROPOSED CONDUIT

EXPB764WC
(EXISTING PULL BOX TO REMAIN)
COIL (1) MD CABLE FROM EXMD767WC
COIL (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE FROM EXFY768WC

EXFY768WC
REMOVE FLASHER CABLE
AND PULL BACK TO EXPB764WC

764WC
766WC
762WC
760WC
758WC
756WC
RAMP WC

EXMD761WC
(EXISTING MICROWAVE DECTECTOR, POLE, AND CABLE TO REMAIN)

EXPB754WG
EXPB761WC
EXPB758WG
EXPB758WC

REMOVE (2) 6-COUNT FOC FROM EXCB-RM-0025
AND PULL BACK TO EXCV44WWB.

EXCB-RM-40-0025

EXG-40-62

EXMD767WC
REMOVE MD CABLE AND
PULL BACK TO EXPB764WC

EXPB768WC

W. WATERTOWN PLANK ROAD

46MWB
46MEB
48MWB
48MEB
50MEB
50MWB

USH 45 SB

N

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	FTMS REMOVAL PLANS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\021416_fm.dgn PLOT DATE : 29-FEB-2016 21:35 PLOT BY : MSCDYB PLOT NAME : 021416_fm PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

USH 45 NB

W. WATERTOWN PLANK ROAD

RAMP WA766WA

EXCV60WWB
(EXISTING COMMUNICATION VAULT TO REMAIN)

EXG-40-63

EXPB756WA-1
(EXISTING PULL BOX TO REMAIN)

REMOVE FLASHER CABLE AND PULL BACK TO EXPB758WA

EXFY756WA

EXPB756WA

EXMD756WA
REMOVE MD CABLE AND PULL BACK TO EXPB758WA

EXCB-RM-40-0105

REMOVE (2) 6-COUNT FOC FROM EXCB-RM-0105

EXPB764WA

EXPB782WA-1

EXMD762WA
(EXISTING MICROWAVE DECTECTOR, POLE, AND CABLE TO REMAIN)

EXPB782WH-1

EXPB782WH-2

EXPB782WH

EXPB762WA

EXPB761WA

EXMB761WA
(EXISTING METER BREAKER PEDESTAL, POWER CABLE TO REMAIN)

EXPB758WA
(EXISTING PULL BOX TO REMAIN)
COIL (1) MD CABLE FROM EXMD756WA
COIL (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE FROM EXFY756WA

LEGEND

(1) REMOVE PULL BOX

(2) SALVAGE ADVANCE FLASHER ASSEMBLY

(4) REMOVE CABLE

(10) SALVAGE MICROWAVE DETECTOR ASSEMBLY

(11) REMOVE RAMP GATE ASSEMBLY

NOTES

1. THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

2. FOR REMOVAL OF LIGHTING, BRIDGE, OR SIGN ITEMS, REFER TO RESPECTIVE REMOVAL PLAN SECTIONS.

3. REMOVALS AND DISCONNECTION OF EQUIPMENT OR UTILITY SERVICES MUST BE PROPOSED TO WISDOT STOC A MINIMUM OF TWO WEEKS PRIOR TO SCHEDULED REMOVAL WORK. UNLESS FTMS REMOVALS WORK IS DEMONSTRATED TO BE CRITICAL TO PROJECT COMPLETION SCHEDULE, STOC MAY DENY PROPOSED SCHEDULE AND REQUIRE THAT LOCATIONS BE MAINTAINED UNTIL REMOVALS ARE NECESSARY.

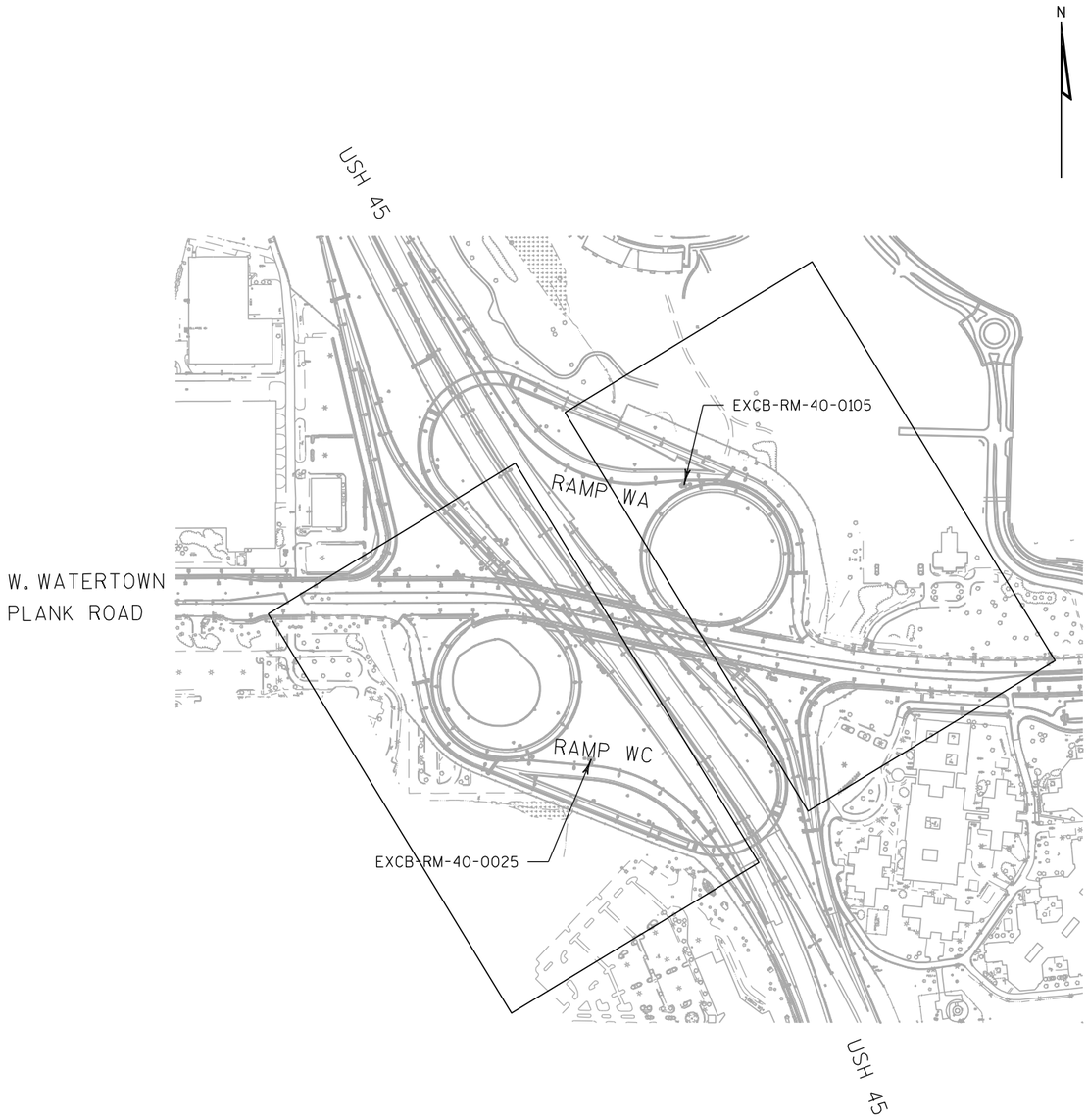
* REMOVE RAMP GATE CABLE AND FOC ONLY

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	FTMS REMOVAL PLANS	SHEET	E

2

LEGEND

	EXISTING	PROPOSED
FTMS CONVENTIONAL SYMBOLS		
CCTV CAMERA AND POLE		
FTMS FIELD CABINET AND BASE		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
STEEL PULL BOX 24" X 36"		
STEEL PULL BOX 24" X 42"		
NON-CONDUCTIVE PULL BOX 24" X 42"		
ANTENNA POLE		
MANHOLE		
ADVANCE FLASHER ASSEMBLY		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
COMMUNICATIONS VAULT, TYPE 1		
DETECTION ZONE		
MICROWAVE DETECTOR ON TYPE 5 POLE		
RAMP METER SIDEMOUNT SIGNAL		

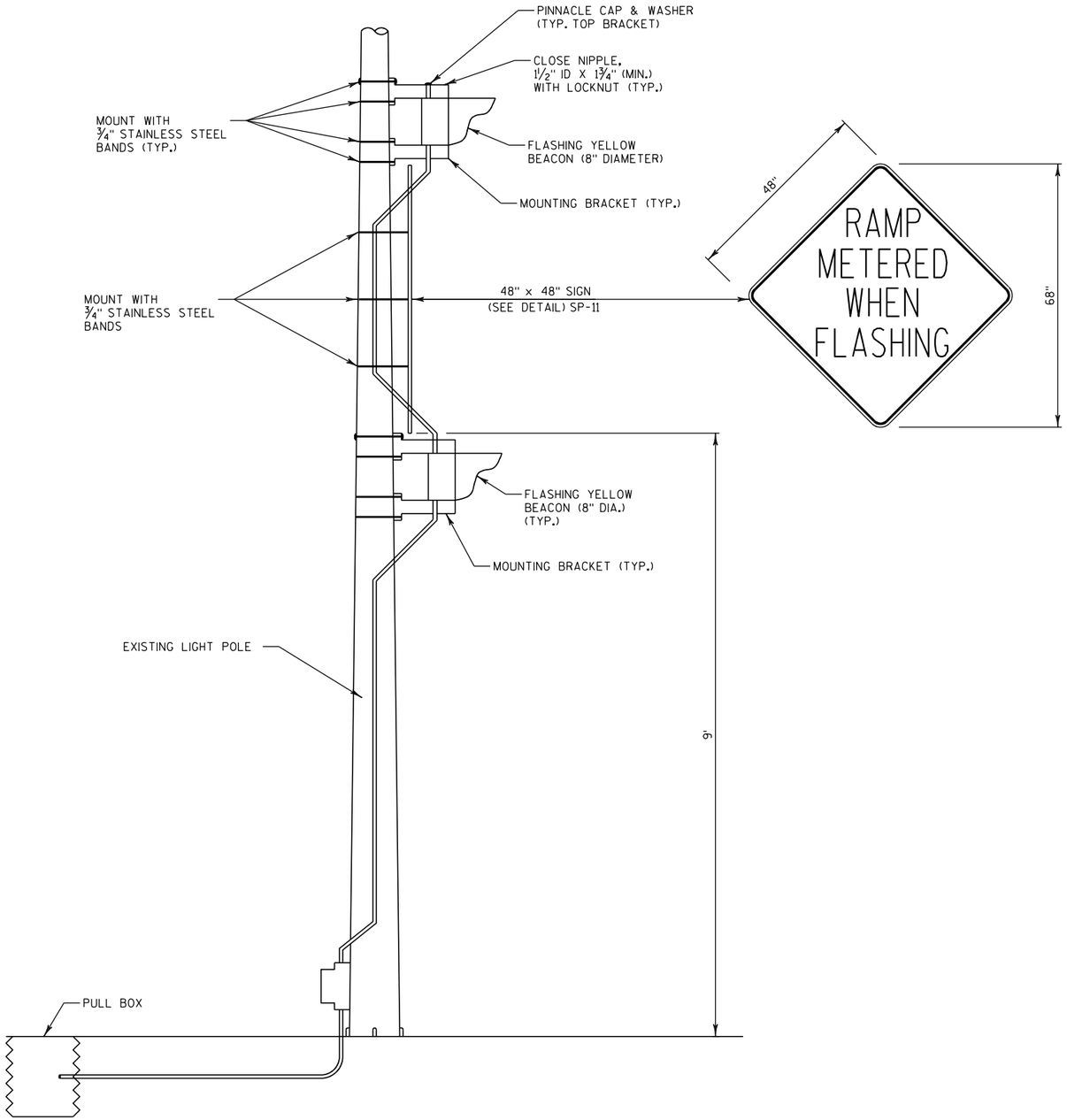


FTMS STANDARD ABBREVIATIONS

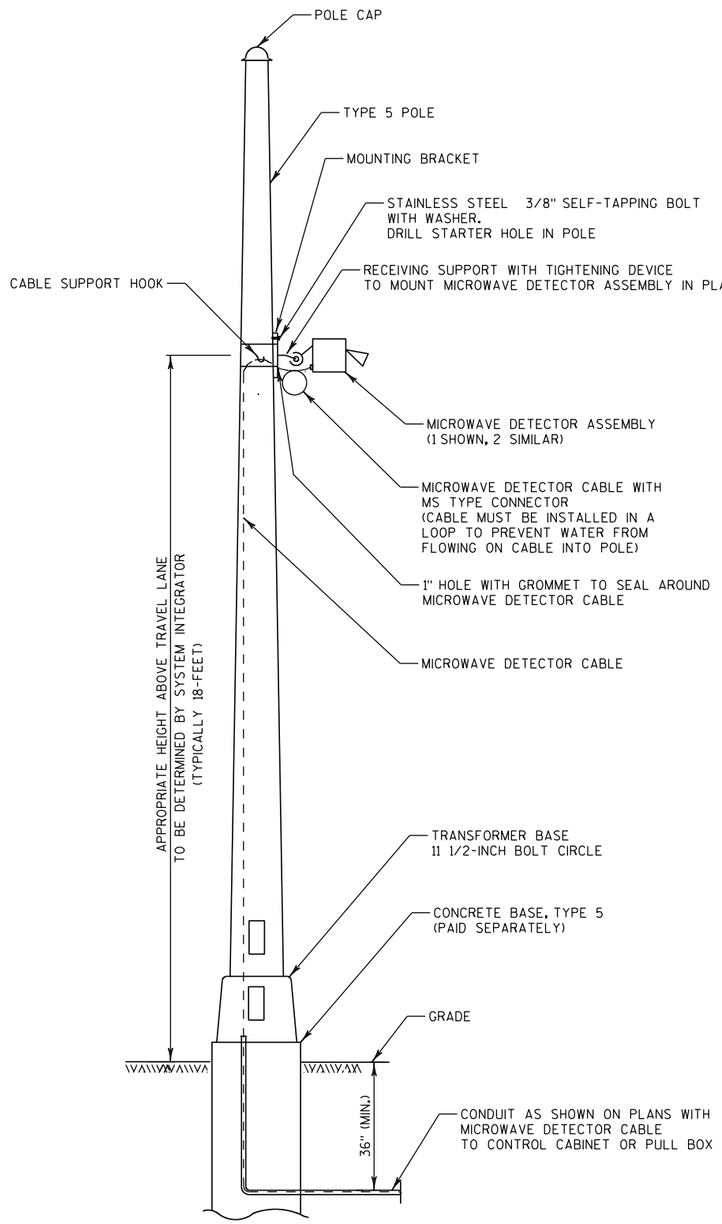
CB	CONTROLLER CABINET
CV	COMMUNICATIONS VAULT
EX	ADVANCE FLASHER (ASSEMBLY)
FY	EXISTING
PB	PULL BOX
MB	METER BREAKER
MD	MICROWAVE DETECTOR
MH	MANHOLE
RM	RAMP METER
G	RAMP CLOSURE GATE

FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATION CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.



ADVANCE FLASHER ASSEMBLY TYPE 2



MICROWAVE DETECTOR INSTALLATION ON TYPE 5 POLE

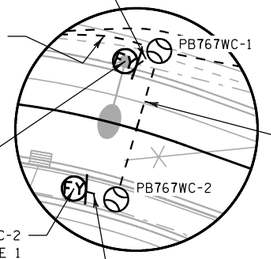
(ALL MATERIAL IS SALVAGED FROM THE PROJECT)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

(3) 3-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND REINSTALL (1) MD CABLE
(1) WITH (2) 2C NO. 12 UF CABLES
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

FYWC-1
ON EXISTING LIGHTING POLE
(1) SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 2

FYWC-2
(1) CONCRETE BASE TYPE 1
(1) INSTALL SALVAGED SIGNAL ASSEMBLY
ADVANCE FLASHER TYPE 1



(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

A DETAIL
NOT TO SCALE

STAGING NOTES:

1. INSTALL PROPOSED FIBER OPTIC CABLE (FOC) CONDUIT BEFORE DISTURBING EXISTING CONDUIT.

2. COMPLETE FOC WORK INCLUDING REMOVAL OF EXISTING FOC, REINSTALLATION OF EXISTING FOC IN NEW AND EXISTING CONDUIT, AND TERMINATING FOC IN EXCB-RM-40-0025 DURING ONE EIGHT-HOUR PERIOD. COORDINATE WITH THE STOC TWO WEEKS IN ADVANCE TO SCHEDULE THE WORK.

3. COMPLETE INSTALLATION OF NEW OR SALVAGED ADVANCE FLASHERS WITHIN TWO WEEKS OF REMOVAL OF EXISTING ADVANCE FLASHERS.

SEE DETAIL A

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (1) MD CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

(2) 3-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (2) 6-COUNT FOC
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

MD768WC
(1) TYPE 5 CONCRETE BASE
(1) INSTALL SALVAGED MICROWAVE DETECTOR

EXPB764WC
(2) INSTALL CONDUIT INTO EXISTING PULL BOX

FYWC-1
PB765WC-1
764WC
IN EXISTING CONDUIT
(1) REINSTALL (2) 6-COUNT FOC
(2) 2C NO. 12 UF GROUNDED CABLES
766WC
PB765WC-2
FYWC-2
EXPB754WG

EXCV44WWB
(1) INSTALL CONDUIT INTO
EXISTING COMMUNICATION VAULT

PB768WC-1
G40-62
(1) 24-FT RAMP GATE
768WC
(3) 3-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (1) MD CABLE
(1) WITH (2) 2C NO. 12 UF CABLES
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE
PB768WC-2
(1) 3-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE
G40-76
(1) 32-FT RAMP GATE
(1) 2-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF
GROUNDED CABLE

IN EXISTING CONDUIT
(1) REINSTALL (2) 6-COUNT FOC
(2) 2C NO. 12 UF GROUNDED CABLES
762WC
EXPB761WC
760WC
EXPB758WG
RAMP WC
IN EXISTING CONDUIT
(1) REINSTALL (2) 6-COUNT FOC
(2) 2C NO. 12 UF GROUNDED CABLES
758WC
EXPB758WC
EXCB-RM-40-0025
(12) F.O. TERMINATIONS
756WC
754WC

W. WATERTOWN PLANK ROAD

42WES
42WMB
44WES
44WMB
46WES
46WMB
48WES
48WMB
50WES
50WMB

USH 45 SB

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

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2

2

EXPB756WA-1
(2) INSTALL CONDUIT INTO EXISTING PULL BOX

(1) 2-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE

(1) 3-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE

G40-77
(1) 37-FT RAMP GATE

(3) 3-INCH CONDUITS SPECIAL
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE

(1) 2-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE

G40-63
(1) 24-FT RAMP GATE

(3) 3-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) REINSTALL MD CABLE
AND (2) 2C NO. 12 UF GROUNDED CABLES

EXCV60WWB
(16) F.O. SPLICES IN
EXISTING SPLICE ENCLOSURE

IN EXISTING CONDUITS
(1) 6-COUNT FOC (S-F)
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

FYWA-2
ON EXISTING LIGHTING POLE
(1) SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 2

SEE DETAIL B

EXTEND (2) 3-INCH NONMETALLIC CONDUITS TO PB755WA
(1) WITH (1) 6-COUNT FOC (S-F)
AND (1) WITH (1) NO. 14 AWG
TRAFFIC SIGNAL WIRE

(1) 3-INCH NONMETALLIC CONDUIT
(1) WITH (1) 2C NO. 12 UF GROUNDED CABLE

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) REINSTALL MD CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

MD768WA
(1) TYPE 5 CONCRETE BASE
(1) INSTALL SALVAGED MICROWAVE DETECTOR

(2) 3-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
AND (1) WITH (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

IN EXISTING CONDUIT
(1) 6-COUNT FOC (S-F)
(1) WITH (2) 2C NO. 12 UF GROUNDED CABLES

EXCB-RM-40-0105
(6) F.O. TERMINATIONS

EXPB764WA

EXPB782WH-1

IN EXISTING CONDUIT
(1) 6-COUNT FOC (S-F)
(1) WITH (2) 2C NO. 12 UF
GROUNDED CABLES

EXPB782WH

IN EXISTING CONDUIT
(1) 6-COUNT FOC (S-F)
(1) WITH (2) 2C NO. 12 UF GROUNDED CABLES

EXPB761WA

IN EXISTING CONDUIT
(1) 6-COUNT FOC (S-F)
(2) 2C NO. 12 UF GROUNDED CABLES

EXPB758WA

W. WATERTOWN PLANK ROAD

RAMP

STAGING NOTES:

1. COMPLETE INSTALLATION OF NEW OR SALVAGED ADVANCE FLASHERS WITHIN TWO WEEKS OF REMOVAL OF EXISTING ADVANCE FLASHERS.

FYWA-1
ON EXISTING LIGHTING POLE
(1) INSTALL SALVAGED SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 2

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

(3) 3-INCH NONMETALLIC CONDUITS
(1) WITH (1) 5C NO. 14 AWG TRAFFIC SIGNAL CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE
(1) WITH (1) REINSTALL MD CABLE
AND (2) 2C NO. 12 UF GROUNDED CABLES

PB758WA

(2) 3-INCH NONMETALLIC CONDUITS
(1) WITH REINSTALL (1) 5C NO. 14 AWG
TRAFFIC SIGNAL CABLE
AND (1) REINSTALL MD CABLE
AND (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

EXPB758WA
(3) INSTALL CONDUIT INTO EXISTING PULL BOX

(2) 3-INCH NONMETALLIC CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
AND (1) WITH (1) NO. 14 AWG TRAFFIC SIGNAL WIRE

B DETAIL
NOT TO SCALE

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	FTMS PLANS	SHEET	E

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2

2

N

USH 45 NB

USH 45 SB

W. WATERTOWN PLANK ROAD

40WWB

40WEB

42WWB

42WEB

44WWB

44WEB

46WWB

46WEB

48WWB

48WEB

50WWB

50WEB

52WWB

52WEB

54WWB

54WEB

MATCHLINE 54WEB+00

RAMP WC

766WC

768WC

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET	E

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2

2

N

DISCOVERY PARKWAY

RAMP WA

160WA

175WA

175NA

175SA

MATCHLINE 54WEB+00

56WWB

56WEB

58WWB

58WEB

60WWB

60WEB

62WWB

62WEB

64WWB

64WEB

66WWB

66WEB

68WWB

68WEB

W. WATERTOWN PLANK ROAD

USH 45 NB

USH 45 SB

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET	E

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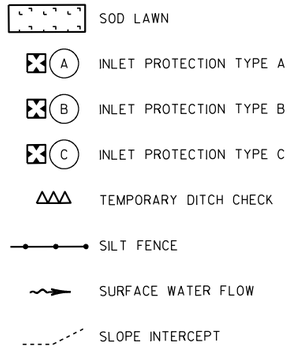
LEGEND



NOTES

PLACE INLET PROTECTION TYPE A AT ALL NEW INLET LOCATIONS DURING GRADING STAGES.

PLACE INLET PROTECTION TYPE B, C, OR D UNDER INLET COVERS LOCATED IN CURB AND GUTTER UNTIL COMPLETION OF THE PROJECT.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

2

2

N

SWAN BOULEVARD

W. WATERTOWN PLANK ROAD

W. INNOVATION DRIVE

24WWB 26WWB 28WWB 30WWB 32WWB 34WWB 36WWB 38WWB

24WEB 26WEB 28WEB 30WEB 32WEB 34WEB 36WEB 38WEB

MATCHLINE 39WEB+00

SOD LAWN

SOD LAWN

BOLLARDS (4)

CANOPY

POST

CANOPY

CANOPY

SIGN

GV

ASPHALT

CONCRETE

ASPHALT

CONC

A/C

CONCRETE PATIO

PIPE

CONC

CONC

CONC

CONC

CONC

WATER TOWER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

2

2

N

USH 45 NB

USH 45 SB

W. WATERTOWN PLANK ROAD

MATCHLINE 39WEB+00

MATCHLINE 54WEB+00

40WWB

42WWB

44WWB

46WWB

48WWB

50WWB

52WWB

54WW

40WEB

42WEB

44WEB

46WEB

48WEB

50WEB

52WEB

54W

SOD LAWN

SOD LAWN

SOD LAWN

SOD LAWN

RAMP WC

766WC

764WC

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

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WISDOT/CADDS SHEET 42

2

2

N

DISCOVERY PARKWAY

RAMP WA

160WA

158WA

156WA

154WA

SOD LAWN

SOD LAWN

SOD LAWN

SOD LAWN

MATCHLINE 54WEB+00

56WWB

56WEB

58WWB

58WEB

60WWB

60WEB

62WWB

62WEB

64WWB

64WEB

66WWB

66WEB

68WWB

68WEB

MATCHLINE 69WEB+00

W. WATERTOWN PLANK ROAD

USH 45 NB

USH 45 SB

PROJECT NO: 1060-34-87 | HWY: USH 45 | COUNTY: MILWAUKEE | EROSION CONTROL | SHEET E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\022003_ec.dgn PLOT DATE : 10-MAR-2016 16:46 PLOT BY : MSCJZP PLOT NAME : 022003_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

DISCOVERY PARKWAY

SOD LAWN

W. WATERTOWN PLANK ROAD

70WWB 72WWB 74WWB 76WWB 78WWB 80WWB 82WWB 84WWB

70WEB 72WEB 74WEB 76WEB 78WEB 80WEB 82WEB 84WEB

MATCHLINE 69WEB+00

12THS

N. 92ND STREET

10THS

8THS

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\022004_ec.dgn PLOT DATE : 29-FEB-2016 21:39 PLOT BY : MSCDYB PLOT NAME : 022004_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

GENERAL DRAINAGE NOTES

LOCATION OF STRUCTURES IN CURB AND GUTTER OR BARRIER SECTION REFER TO CURB AND GUTTER OR BARRIER FLOW LINE. LOCATION OF STRUCTURES NOT IN CURB AND GUTTER SECTION REFER TO CENTER OF STRUCTURE OR AS NOTED ON PLAN.

RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET OR AT CENTER OF MANHOLE. SEE STRUCTURE LOCATION DETAIL.

PLAN LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND IS USED FOR ESTIMATING. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE AND IS USED TO COMPUTE PIPE SLOPE.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND BEST INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

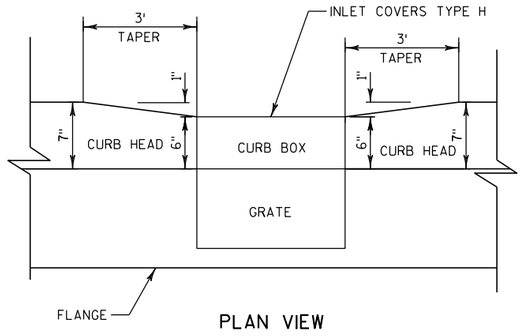
COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. SHEETING SHALL NOT GO THROUGH UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

VERIFY THE EXISTING STORM SEWER SYSTEM CONNECTION LOCATIONS AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

SEE STORM SEWER REMOVAL PLANS FOR REMOVAL OF EXISTING STORM SEWER SYSTEM.

PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

SUPPORTING UTILITIES DURING STORM SEWER CONSTRUCTION IS INCIDENTAL TO STORM SEWER PIPE AND/OR STORM SEWER STRUCTURE.



PLAN VIEW

CURB HEAD TRANSITION FOR INLET COVERS TYPE H

NOTE:
TAPER BACK CURB HEAD EDGE; MAINTAIN FRONT CURB FACE.
PAID FOR AS CONCRETE CURB AND GUTTER 31-INCH.

STORM SEWER REMOVAL LEGEND

REMOVING INLETS

RM REMOVING STORM SEWER

STORM SEWER LEGEND

EXISTING WE*** EXISTING DRAINAGE STRUCTURE

W*** PROPOSED DRAINAGE STRUCTURE

PROPOSED MANHOLE

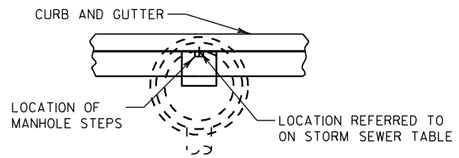
PROPOSED INLET

APRON ENDWALL SALVAGED

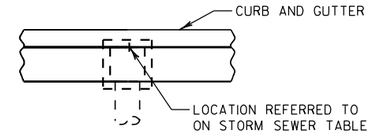
EXISTING PE*** EXISTING STORM SEWER PIPE

P*** PROPOSED STORM SEWER PIPE

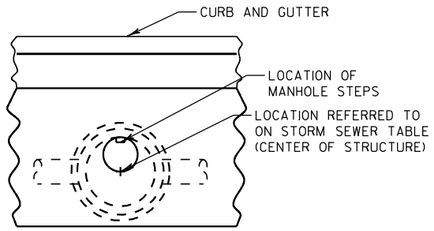
PROPOSED STORM SEWER PIPE PLAN VIEW



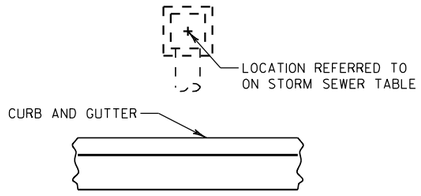
MANHOLE WITH INLET COVER IN CURB AND GUTTER



INLET IN CURB AND GUTTER



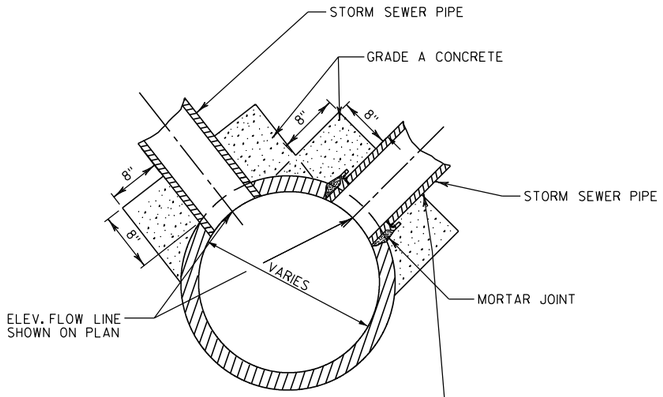
MANHOLE NOT IN CURB AND GUTTER



INLET NOT IN CURB AND GUTTER

NOTE
1) LOCATION OF STRUCTURE MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
2) LOCATION AND SIZE OF STRUCTURE COVER OPENING DEPENDS ON TYPE OF CASTING. CASTING TYPES ARE SHOWN ON THE STORM SEWER TABLE.

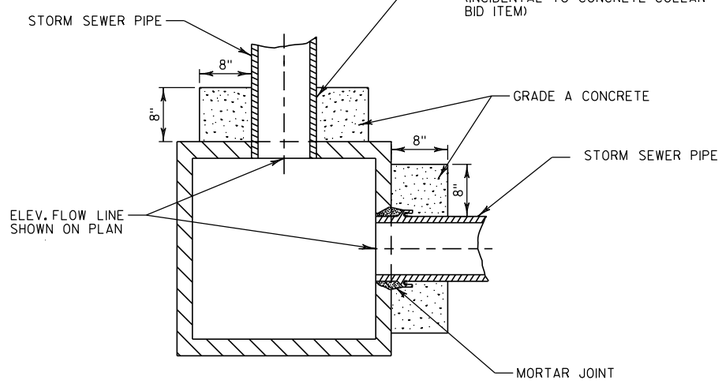
STRUCTURE LOCATION DETAIL



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

CLEAN PIPE AND STRUCTURE SURFACES AND APPLY BONDING AGENT PRIOR TO INSTALLING CONCRETE COLLAR (INCIDENTAL TO CONCRETE COLLAR BID ITEM)



AT STORM SEWER INLET

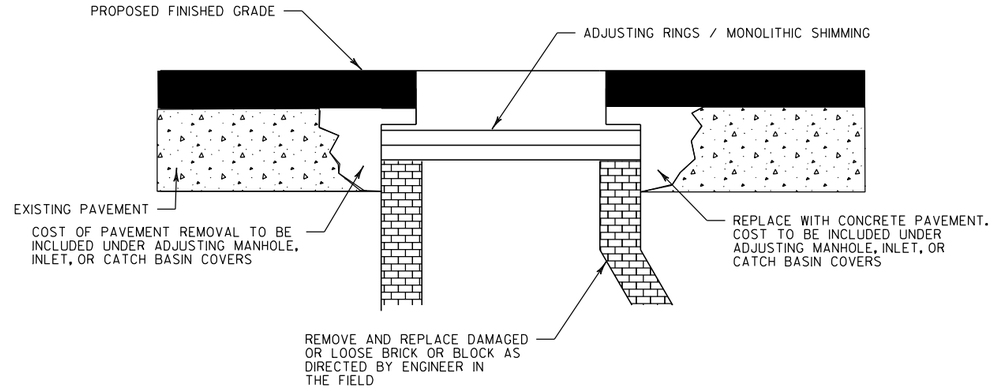
INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

NOTE

CONCRETE COLLAR TO BE PAID AS A BID ITEM WHEN CONNECTING AN EXISTING PIPE TO A NEW STRUCTURE.

CONCRETE COLLAR DETAIL

FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS



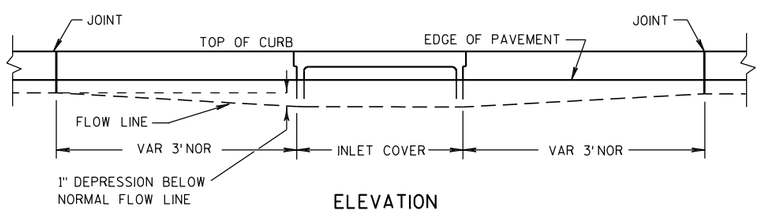
PAVED LOCATION

NOTES

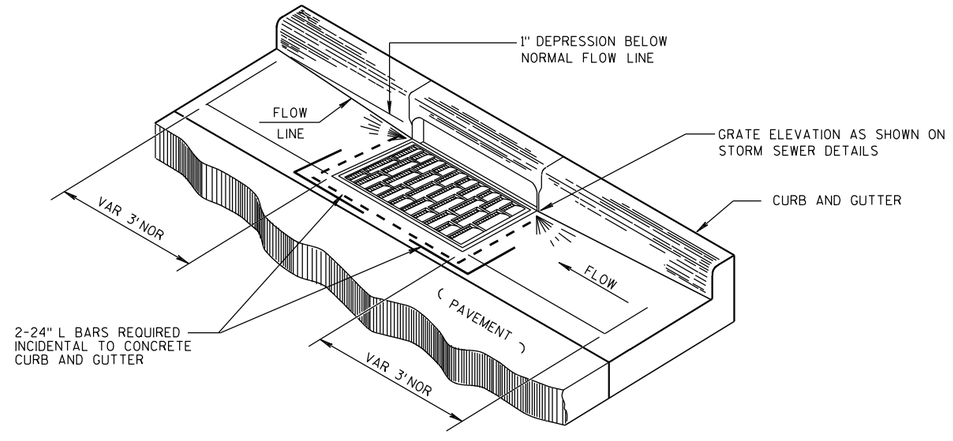
1. IF EXISTING PAVEMENT REMOVAL IS NOT SHOWN IN THE REMOVAL PLANS AND A SAWCUT IS REQUIRED THE SAWCUT IS CONSIDERED INCIDENTAL TO ADJUSTING MANHOLE OR INLET COVERS.

2. ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) OR MONOLITHIC CONCRETE SHIMMING AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE. BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVERS.

ADJUSTING MANHOLE OR INLET COVERS



ELEVATION



CURB AND GUTTER AT DEPRESSED INLETS

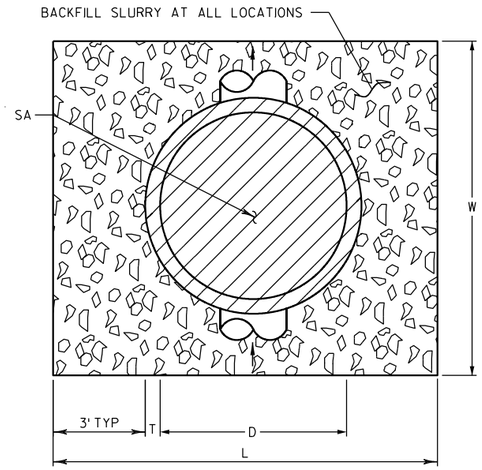
SEE STORM SEWER PLANS FOR LOCATIONS
STRUCTURES: W46

BACKFILL SLURRY STRUCTURES (FOR INFORMATION ONLY)

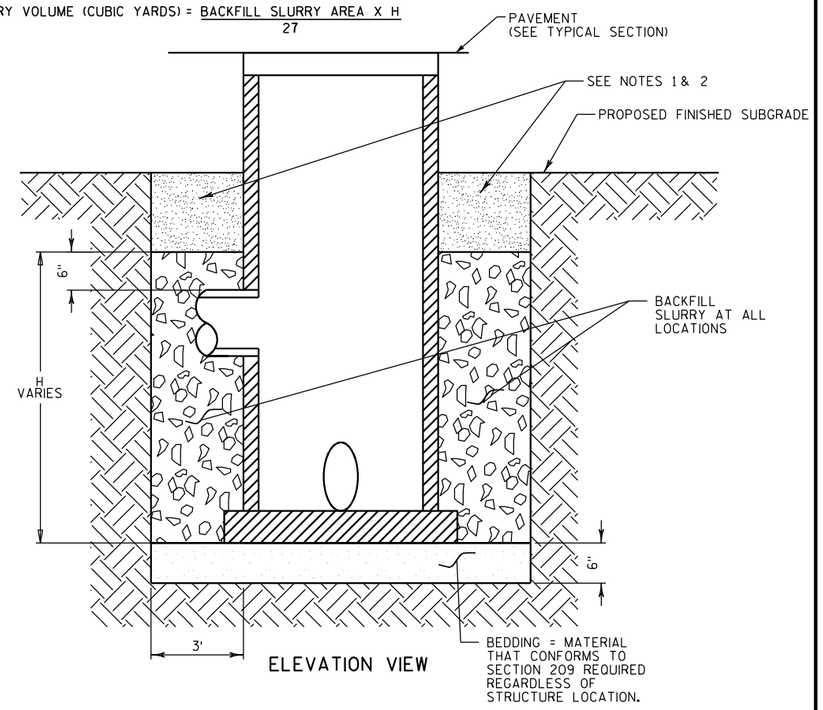
DESCRIPTION	DIAMETER / STR LENGTH D FT	RECTANGULAR STR WIDTH RW FT	WALL THICKNESS T INCH	STRUCTURE EXCAVATION LENGTH L FT	STRUCTURE EXCAVATION WIDTH W FT	STRUCTURE EXCAVATION AREA SF	STRUCTURE AREA SA SF	BACKFILL SLURRY AREA SF
INLETS 4-FT DIAMETER	4	---	5	10.83	10.83	117	18	99
MANHOLES 5-FT DIAMETER	5	---	6	12.00	12.00	144	28	116
MANHOLES 8-FT DIAMETER	8	---	9	15.50	15.50	240	71	169

H = UP TO 6" ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{BACKFILL SLURRY AREA X H}}{27}$



PLAN VIEW



ELEVATION VIEW

NOTES

(1) IF THE STRUCTURE IS OUTSIDE THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 209.

(2) IF THE STRUCTURE IS WITHIN THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

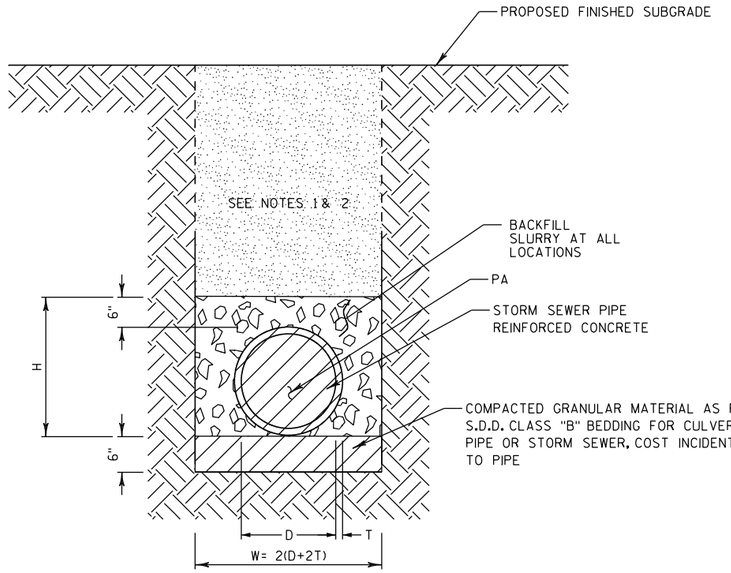
(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE STRUCTURES. NO SEPARATE PAYMENTS WILL BE MADE.

BACKFILL SLURRY DETAIL - STORM SEWER STRUCTURES

BACKFILL SLURRY TRENCHES (FOR INFORMATION ONLY)

PIPE DIAMETER D INCHES	Wall Thickness T Inches	Trench Width W FT	Height of Pipe Zone H (From pipe bottom to 6" above top of pipe)	Area of Pipe Zone SF	Area of Pipe PA SF	Backfill Slurry Area SF
24	3.00	5.00	3.00	15.00	4.91	10.09

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{(PIPE ZONE AREA - PIPE AREA) X PIPE PLAN LENGTH}}{27}$



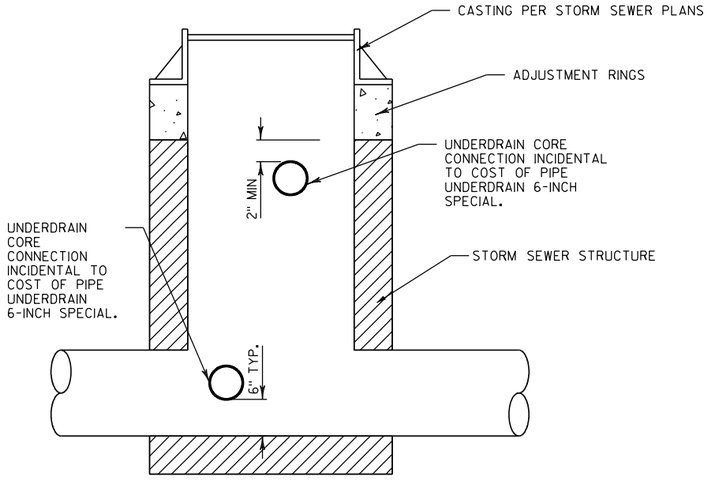
NOTES

(1) IF THE PIPE IS OUTSIDE THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 209.

(2) IF THE PIPE IS WITHIN THE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE PIPE. NO SEPARATE PAYMENTS WILL BE MADE.

BACKFILL SLURRY DETAIL - STORM SEWER TRENCH



SECTION A-A

MINIMUM AND MAXIMUM CORED PIPE UNDERDRAIN 6-INCH SPECIAL UNDERDRAIN CORE LOCATIONS WITH CROSSPIPE.

NOTE

(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE REINFORCED CONCRETE STORM SEWER PIPE.

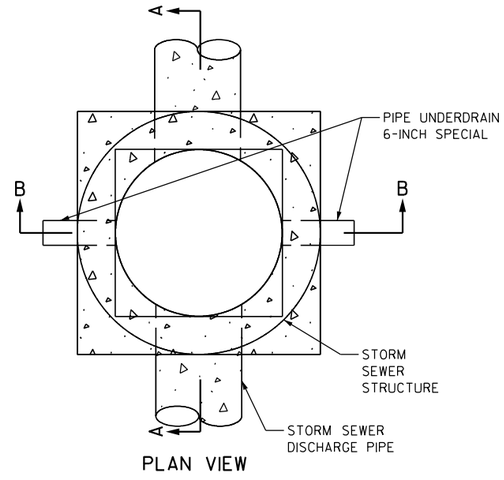
(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)

(3) PIPE UNDERDRAIN 6-INCH SPECIAL SHALL NOT BE ALLOWED IN THE RING OF THE STRUCTURE OF INLETS OR SEWER ACCESS STRUCTURES.

(4) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.

(5) CORE HOLES MAY HAVE 0" CLEARANCE FROM THE INSIDE WALL OF A STRUCTURE.

(6) DIMENSIONS GIVEN ARE FOR TYPICAL PERMANENT CONDITIONS. FOR TEMPORARY CONDITIONS OR WHEN INLET DEPTH IS SHALLOW PROVIDE POSITIVE DRAINAGE. TO BE COORDINATED WITH ENGINEER IN FIELD.



PLAN VIEW

PIPE UNDERDRAIN 6-INCH SPECIAL OUTFALL AT INLET/MANHOLE (ROUND OR SQUARE)

NOTES

1. CONNECTIONS TO INLETS OR MANHOLES SHALL EXTEND PIPE UNDERDRAIN 6-INCH SPECIAL TO THE INSIDE WALL OF STORM SEWER STRUCTURE.

2. PROVIDE UNDERDRAIN PIPE CORED HOLES AT OR BETWEEN ELEVATIONS SHOWN IN SECTION A-A.

3. SEE STORM SEWER PLANS FOR PIPE UNDERDRAIN LOCATIONS.

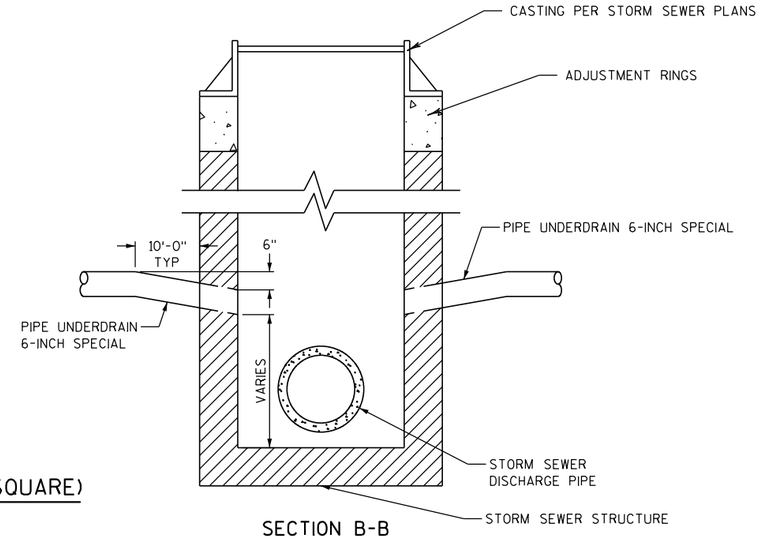
4. PROVIDE POSITIVE DRAINAGE (0.5% MINIMUM GRADE) THROUGH PIPE UNDERDRAIN 6-INCH SPECIAL AND CORE INTO STORM SEWER STRUCTURE.

5. WHEN INLET DEPTH IS SHALLOW, PIPE UNDERDRAIN 6-INCH SPECIAL MAY BE PLACED AT A DEPTH TO PROVIDE POSITIVE DRAINAGE TO BE COORDINATED WITH ENGINEER IN FIELD.

6. ATTACHMENT OF PIPE UNDERDRAIN 6-INCH SPECIAL TO REAR OF INLET IS SATISFACTORY IF REINFORCED CONCRETE STORM SEWER PIPE SIZE RESTRICTS SPACE FOR UNDERDRAIN CORE.

7. COORDINATE LOCATION AND TIMING OF ANY CONNECTIONS BEING MADE TO PIPE UNDERDRAIN 6-INCH SPECIAL FOR RETAINING WALL PIPE UNDERDRAIN STRUCTURES WITH WALL CONTRACTOR.

8. CONNECT PIPE UNDERDRAIN 6-INCH SPECIAL AT STORM SEWER STRUCTURES SUCH THAT ANY SINGLE RUN DOES NOT EXCEED 800 FEET IN LENGTH.

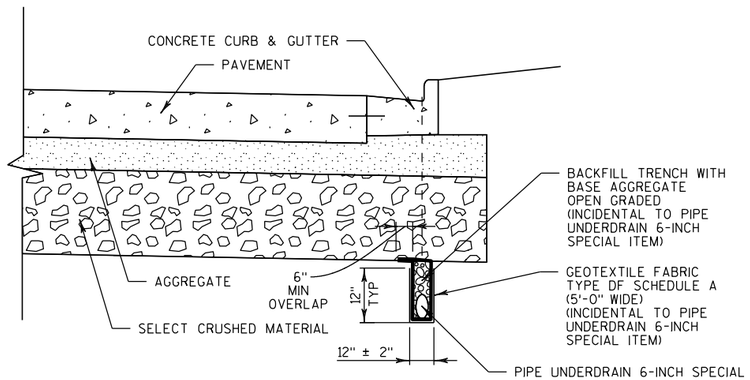


SECTION B-B

TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL

NOTE

(1) TYPICAL ELEVATION OF PIPE UNDERDRAIN 6-INCH SPECIAL SHALL BE PLACED BELOW THE SELECT CRUSHED MATERIAL.



PIPE UNDERDRAIN 6-INCH SPECIAL TRENCH DETAIL - CURB AND GUTTER SECTION

2

2

N

W. WATERTOWN PLANK ROAD

40WWB
40WEB
42WWB
42WEB
44WWB
44WEB
46WWB
46WEB
48WWB
48WEB
50WWB
50WEB
52WWB
52WEB
54WWB
54

USH 45 SB

USH 45 NB

MATCHLINE 54WEB+00

SALVAGE INLET COVERS TYPE H

REMOVING STORM SEWER PIPE (24-INCH)

SALVAGE INLET COVERS TYPE H

REMOVING STORM SEWER PIPE (24-INCH)

SALVAGE INLET COVERS TYPE H

RAMP WC

766WC

766WC

764WC

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	STORM SEWER - REMOVALS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\022401_ss.dgn PLOT DATE : 29-FEB-2016 21:40 PLOT BY : MSCDYB PLOT NAME : 022401_ss PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

DISCOVERY PARKWAY

RAMP WA

160WA

158WA

156WA

154WA

SALVAGE INLET COVERS TYPE X

REMOVING STORM SEWER PIPE (24-INCH)

REMOVING STORM SEWER PIPE (24-INCH)

SALVAGE INLET COVERS TYPE H

MATCHLINE 54WEB+00

W. WATERTOWN PLANK ROAD

56WWB

56WEB

58WWB

58WEB

60WWB

60WEB

62WWB

62WEB

64WWB

64WEB

66WWB

66WEB

68WWB

68WEB

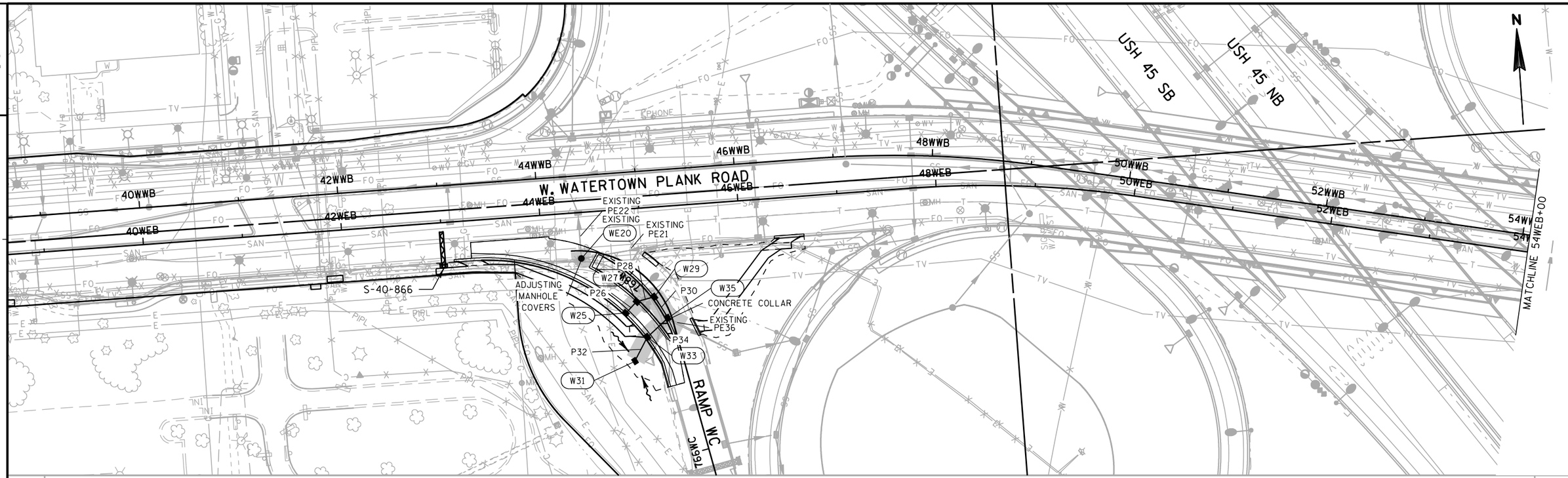
USH 45 NB

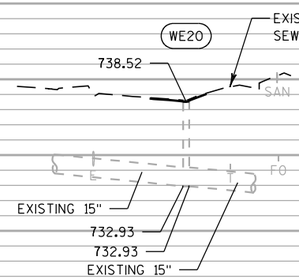
USH 45 SB

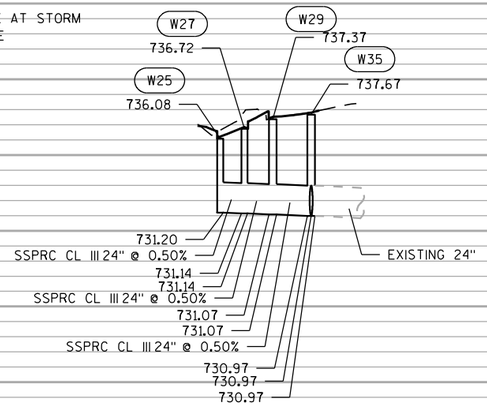
PLAYGROUND

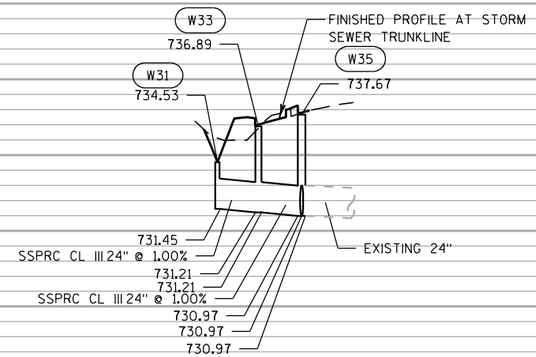
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	STORM SEWER - REMOVALS	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\022402_ss.dgn PLOT DATE : 29-FEB-2016 21:40 PLOT BY : MSCDYB PLOT NAME : 022402_ss PLOT SCALE : 100:1

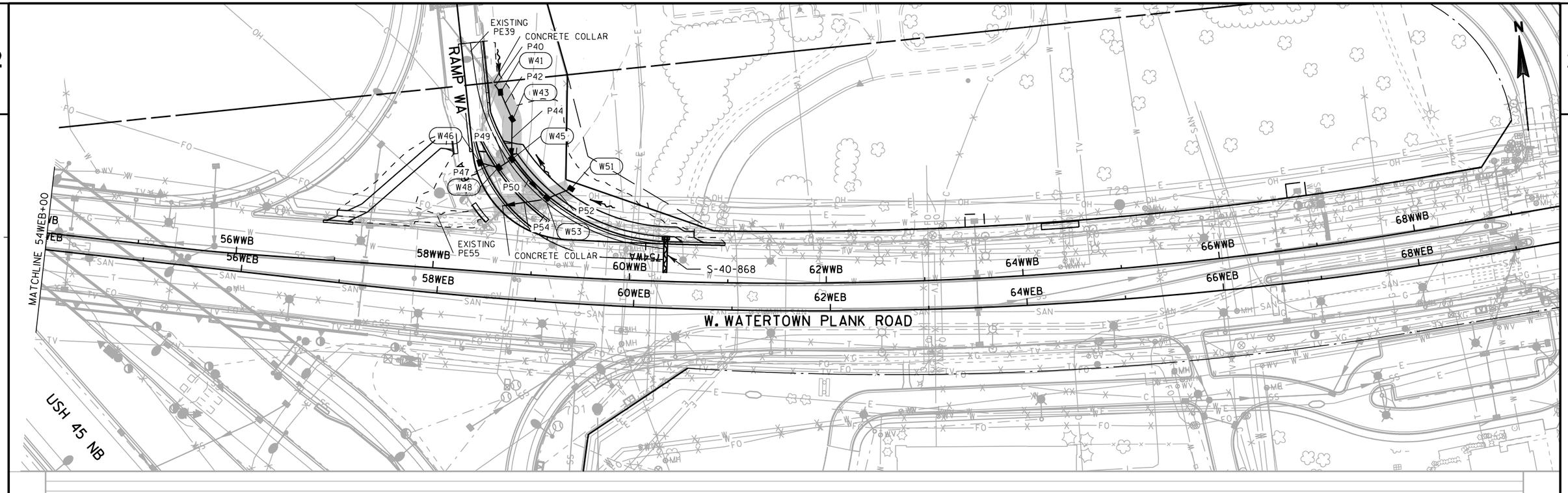


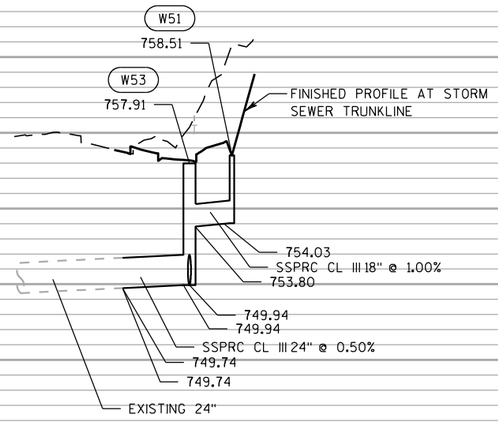


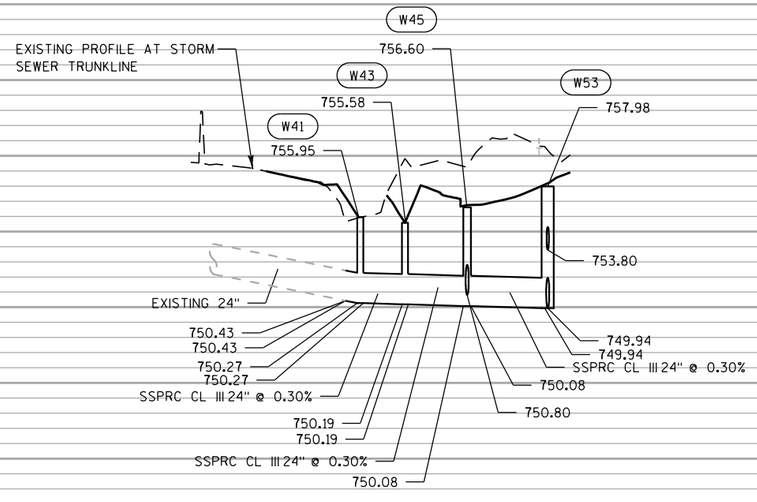


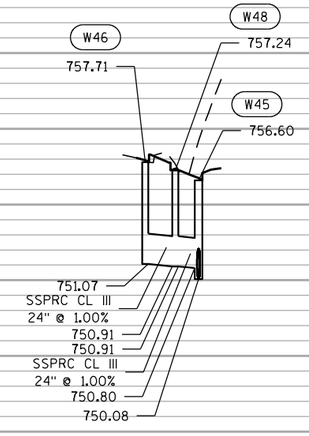


PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	STORM SEWER	SHEET	E









775 770 765 760 755 750 745 740 735 730

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	STORM SEWER	SHEET	E

2

2

N

W. WATERTOWN PLANK ROAD

SWAN BOULEVARD

W. INNOVATION DRIVE

MATCHLINE 39WEB+00

NOTE

THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EXISTING UTILITY PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023001_up.dgn PLOT DATE : 29-FEB-2016 21:42 PLOT BY : MSCDYB PLOT NAME : 023001_up PLOT SCALE : 100:1

2

2

W. WATERTOWN PLANK ROAD

USH 45 NB

USH 45 SB

RAMP WC

MATCHLINE 39WEB+00

MATCHLINE 54WEB+00

NOTE

THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EXISTING UTILITY PLAN	SHEET	E

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WISDOT/CADDS SHEET 42

2

2

N

W. WATERTOWN PLANK ROAD

DISCOVERY PARKWAY

RAMP WA

USH 45 NB

USH 45 SB

MATCHLINE 54WEB+00

MATCHLINE 69WEB+00

NOTE

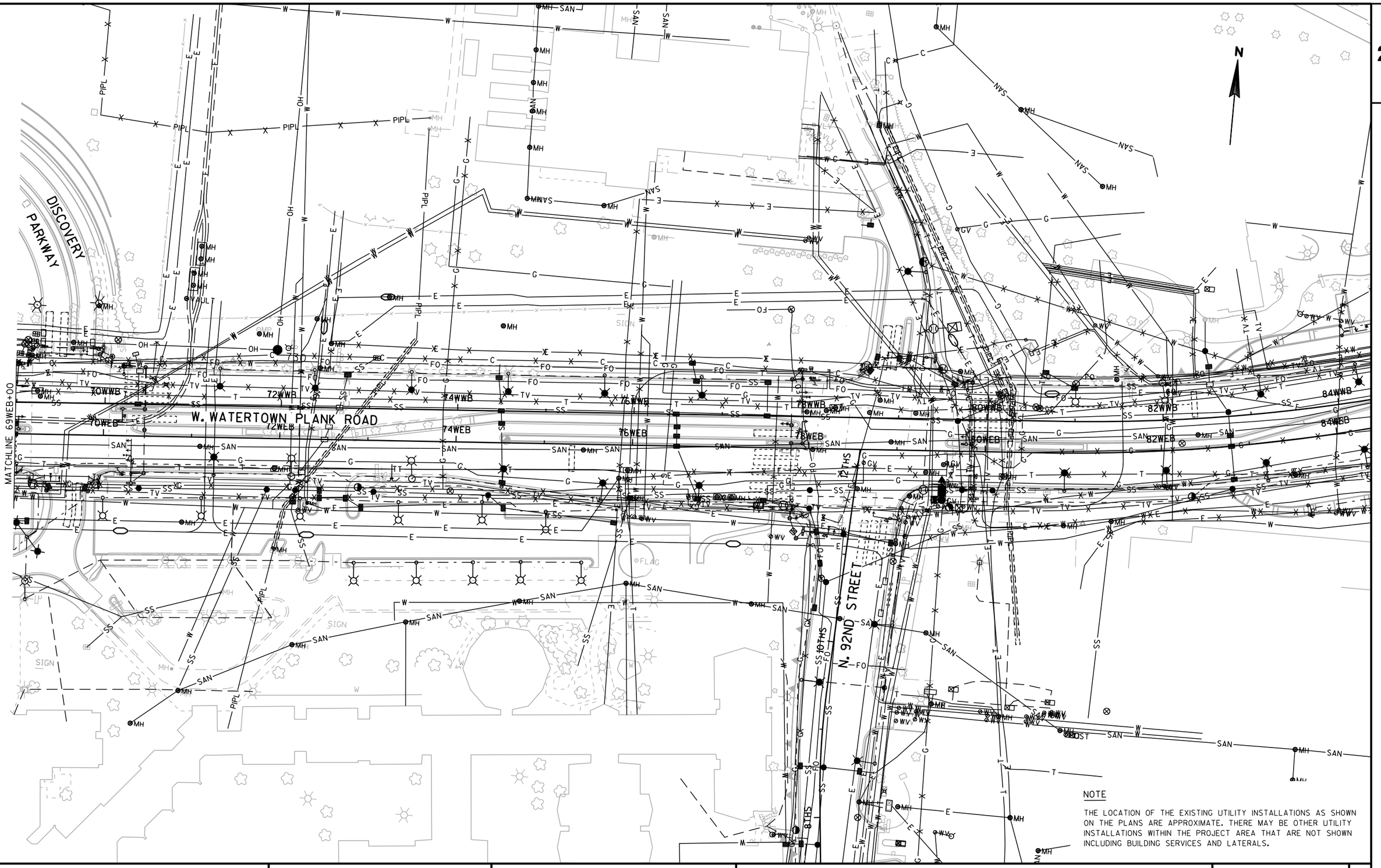
THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EXISTING UTILITY PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023003_up.dgn PLOT DATE : 29-FEB-2016 21:42 PLOT BY : MSCDYB PLOT NAME : 023003_up PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	EXISTING UTILITY PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023004_up.dgn PLOT DATE : 29-FEB-2016 21:42 PLOT BY : MSCDYB PLOT NAME : 023004_up PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

NOTES:

1. FIELD VERIFY. DO NOT PLACE SIGNS BEHIND TREES.

MATCH LINE - SEE SHEET 14

N

SWAN BLVD

WATERTOWN PLANK ROAD

29WWB 30WWB 31WWB 32WWB 33WWB 34WWB

29WEB 30WEB 31WEB 32WEB 33WEB 34WEB

2

NORTH MB3-1 | NORTH M3-1
SOUTH MB3-3 | SOUTH M3-3
41 M1-1 | 45 M1-4
USE RIGHT LANE M4-20R | USE RIGHT LANE M4-20R

REMOVE ON LIGHT POLE

2

SOUTH MB3-3 | NORTH MB3-1
41 M1-1 | 41 M1-1
45 M1-4 | 45 M1-4
USE CENTER LANE MB4-20C | USE RIGHT LANE MB4-20R

JV2-2(2S) ON LIGHT POLE

WATERTOWN PLANK ROAD

REMOVE

41 45
ALL FREEWAY ENTRANCES ON RIGHT-AHEAD

1

41 45
SOUTH CENTER LANE | NORTH RIGHT LANE

TYPE I SIGN ON WOOD POSTS

166NV

165NV

INNOVATION DRIVE

3

NORTH MB3-1 | NORTH M3-1
SOUTH MB3-3 | SOUTH M3-3
41 M1-1 | 45 M1-4
USE RIGHT LANE M4-20R | USE RIGHT LANE M4-20R

REMOVE ON LIGHT POLE

3

SOUTH MB3-3 | NORTH MB3-1
41 M1-1 | 41 M1-1
45 M1-4 | 45 M1-4
USE CENTER LANE MB4-20C | USE RIGHT LANE MB4-20R

JV3-2(2S) ON LIGHT POLE

SHEET 1 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023201_ps.dgn PLOT DATE : 29-FEB-2016 15:08 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

SWAN BLVD

30'

15'

B

(2 CHORD TRUSS
CANTILEVER SIGN BRIDGE)

6

Watertown
Plk Rd

SOUTH
41 45
Milwaukee
Beloit
Madison

7

41 45 NORTH
Fond du Lac

S-40-865
STA. 36WEB+00

N

WATERTOWN PLANK ROAD

34WWB 35WWB 36WWB 37WWB 38WWB 39WWB

15'

50'

34WEB 35WEB 36WEB 37WEB 38WEB 39WEB

WATERTOWN PLANK ROAD

INNOVATION DRIVE

WAYFINDER SIGN
ESTR

5

ALL
NORTHBOUND
SOUTHBOUND
FREEWAY TRAFFIC
ONLY

REMOVE
S-40-964
OVERHEAD SIGN
DO NOT REMOVE
S-40-964 UNTIL
S-40-865 AND SIGNS
ARE IN PLACE

REMOVE
S-40-964
OVERHEAD SIGN
SUPPORT

RAMP 25 M.P.H. 55
W13-3(2M)
ON LIGHT POLE

SPEED LIMIT 35
R2-1(2S)
ESTR
ON LIGHT
POLE

NO PARKING ANY TIME
R7-1D(2S)
ESTR
MOVE
ON LIGHT
POLE

NORTH MB3-1 / SOUTH MB3-3 / 41 M1-1 / USE RIGHT LANE M4-20R
NORTH M3-1 / SOUTH M3-3 / 45 M1-4 / USE RIGHT LANE M4-20R
REMOVE
ON LIGHT
POLE

SOUTH MB3-3 / 41 MB1-1 / 45 M1-4 / USE CENTER LANE MB4-20C
NORTH M3-1 / 41 MB1-1 / 45 M1-4 / USE RIGHT LANE MB4-20R
4
JV3-2(2S)
ON LIGHT
POLE

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 2 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023202_ps.dgn PLOT DATE : 21-MAR-2016 06:34 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2

N

9

Watertown Plk Rd

SOUTH 41 45

Milwaukee
Beloit
Madison

10

41 45 NORTH

Fond du Lac

ONLY

S-40-866
STA 43WEB+00
(2 CHORD TRUSS
CANTILEVER SIGN BRIDGE)

RAMP WD

WATERTOWN PLANK ROAD

40WWB 41WWB 42WWB 43WWB 44WWB 45WWB

40WEB 41WEB 42WEB 43WEB 44WEB 45WEB

WATERTOWN PLANK ROAD

RAMP WC

S-40-866
PLACE AT
STA 43WEB+00

REMOVE
S-40-984
OVERHEAD
SIGN SUPPORT
STA 41WEB+90
DO NOT REMOVE
UNTIL S-40-866 AND
SIGNS ARE IN PLACE

RAMP CLOSED
~~USE~~
ALT ROUTE

R11-54F(2M)
ESTR

BEGIN
RIGHT TURN LANE
YIELD TO BIKES

11

MOVE
R4-4(2S)

Bike Path

32

ON SIGN BRIDGE POLE
MOUNT UNDER 11

41 45

SOUTH NORTH

57

TYPE I
SEE DETAIL
5' MOUNT HEIGHT

13

RAMP CLOSED
~~USE~~
ALT ROUTE

R11-54F(2M)
MOVE
PLACE IN
FRONT OF GATE

8

41 45

Milwaukee
Beloit-Madison
Fond du Lac

ONLY

REMOVE
TYPE I SIGN
S-40-984

44

W11-15(2M)

RAPID RECTANGULAR
FLASHING BEACON

AHEAD

44A

W16-9P(2M)

SEE DETAIL

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 3 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023203_ps.dgn PLOT DATE : 31-MAR-2016 07:04 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

WATERTOWN PLANK ROAD

42WWB 43WWB 44WWB 45WWB 46WWB 47WWB 48WWB

42WEB 43WEB 44WEB 45WEB 46WEB 47WEB 48WEB

34 BIKE LANE
R3-17 (2S)
ON LIGHT POLE

W12-1D(2S)
ESTR

W1-6(2M)
ESTR

WATERTOWN PLANK ROAD

RAMP WC

RAMP CW

46
HERE TO
R1-5R (M)
PLACE 40'
PRIOR TO
CROSSING

59
R1-6 (2M)
2' MOUNT
HEIGHT

Bike Lane 35

48
TWO LANE RAMP
FACING PEDS

45
HERE TO
R1-5L (2M)
PLACE 40' PRIOR
TO CROSSING

47
TWO LANE RAMP
FACING PEDS

33
W11-2 (2M)
RAPID RECTANGULAR FLASHING BEACON
33A
W16-7L (2M)
33B
R10-25
9" X 12"
SEE DETAIL

49
W11-2 (2M)
RAPID RECTANGULAR FLASHING BEACON
49A
W16-7R (2M)
49B
R10-25
9" X 12"
SEE DETAIL

REMOVE
REMOVE

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 4 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

41 45 SOUTH
Milwaukee
Beloit-Madison
TYPE I SIGN
ESTR

41 45 NORTH
Fond du Lac
25 MPH
TYPE I SIGN
ESTR

41 45 SOUTH
Milwaukee
Madison
TYPE I SIGN
ESTR

41 45 NORTH
Fond du Lac
TYPE I SIGN
ESTR

61 RAMP METERED WHEN FLASHING
W3-8 (2M) ON LIGHT POLE

12 RAMP METERED WHEN FLASHING
W3-8 (2M) ON SIGNAL POLE

S-40-58
S-40-59
ON POLE
ESTR
15°

RAMP WF
RAMP WC
RAMP WG
RAMP WH

EXISTING S-40-139 TWO CHORD TRUSS
EXISTING S-40-143 TWO CHORD TRUSS
S-40-980

WATERTOWN PLANK ROAD
USH 45 SB
USH 45 NB

SHEET 5 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\D2_10603445\87\Sign\023205_ps.dgn PLOT DATE : 29-FEB-2016 15:05 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 100:1

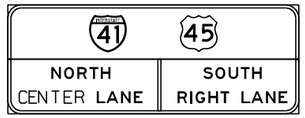
WISDOT/CADDS SHEET 42

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

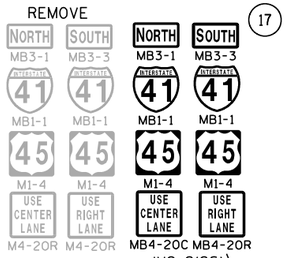
TYPE I SIGN ON WOOD POSTS



18

REMOVE

17

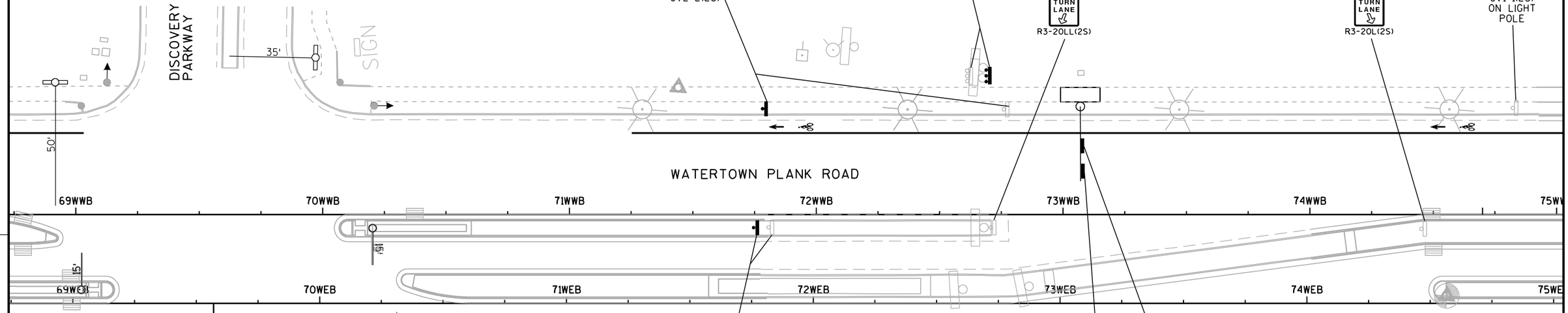


ESTR
BEGIN LEFT TURN LANE
R3-20LL(2S)

ESTR
BEGIN LEFT TURN LANE
R3-20L(2S)

ESTR
JCT
MB2-1
41
M1-1
45
M1-4
JV1-1(2S)
ON LIGHT POLE

N



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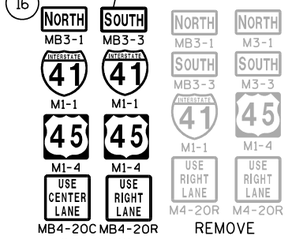
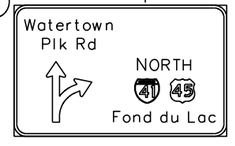


14



15

(2 CHORD TRUSS
CANTILEVER SIGN BRIDGE
S-40-867
STA 73WWB+07)

SHEET 6 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIZE
- ESTR EXISTING SIGN TO REMAIN

2

N

50 W11-15(2M) AHEAD W16-9P(2M) 50A
RAPID RECTANGULAR FLASHING BEACON
SEE DETAIL

19 ALL NORTHBOUND SOUTHBOUND FREEWAY TRAFFIC ONLY
REMOVE S-40-961 OVERHEAD SIGN

REMOVE S-40-961 OVERHEAD SIGN SUPPORT STA 64WWB+50

NORTH MB3-1 / SOUTH MB3-3 INTERSTATE 41 M1-1 / USE RIGHT LANE M4-20R
NORTH M3-1 / SOUTH M3-3 45 M1-4 / USE RIGHT LANE M4-20R
REMOVE

20 NORTH MB3-1 / SOUTH MB3-3 INTERSTATE 41 M1-1 / 45 M1-4 / USE CENTER LANE MB4-20C / USE RIGHT LANE MB4-20R
JV2-2(2S) ON LIGHT POLE

R7-1D(2S) NO PARKING ANY TIME
ESTR ON LIGHT POLE

ESTR S-40-454 DMS CANTILEVER OVERHEAD SIGN SUPPORT STA 67WWB+10

R2-1(2S) SPEED LIMIT 35
ESTR UPRIGHT OF STRUCTURE

R3-17(2S) BIKE LANE
ESTR ON LIGHT POLE

21 NORTH MB3-1 / SOUTH MB3-3 INTERSTATE 41 M1-1 / 45 M1-4 / USE CENTER LANE MB4-20C / USE RIGHT LANE MB4-20R
JV2-2(2S) ON LIGHT POLE

REMOVE

WATERTOWN PLANK ROAD

64WWB 65WWB 66WWB 67WWB 68WWB 69WWB

64WEB 65WEB 66WEB 67WEB 68WEB 69WEB

WATERTOWN PLANK ROAD

12XI 13XI 14XI 15XI

SHEET 7 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023207_ps.dgn PLOT DATE : 21-MAR-2016 06:34 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS 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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

38
INTERSTATE 41 45
Milwaukee
Beloit–Madison
Fond du Lac
ONLY

40 MOVE
RAMP CLOSED
~~USE~~
ALT ROUTE
R11-54F(2M)

REMOVE
S-40-985

REMOVE
S-40-985
OVERHEAD
SIGN SUPPORT
STA 60WWB+10

MOVE
BEGIN
RIGHT TURN LANE
YIELD TO BIKES
R4-4(2S)
26

MOVE
RAMP CLOSED
~~USE~~
ALT ROUTE
R11-54F(2M)
27

RAMP
25
M.P.H.
56
W13-3(2M)
ON LIGHT POLE

Bike
Path
39
MOUNT
UNDER
26

23 MOVE
W1-6(2M)

RAMP WA

755WA

754WA

58WWB 59WWB WATERTOWN PLANK ROAD 60WWB 61WWB 62WWB 63WWB

S-40-868
STA 60WWB+35.8

58WEB 59WEB 60WEB 61WEB 62WEB 63WEB

WATERTOWN PLANK ROAD

RAMP WJ

2 CHORD TRUSS
CANTILEVER SIGN BRIDGE
S-40-868
STA 60WWB+35.8

28
Watertown
Plk Rd
NORTH
41 45
Fond du Lac

29
41 45 SOUTH
Milwaukee
Beloit - Madison
ONLY

INTERSTATE 41 45
NORTH SOUTH
58

TYPE I
SEE DETAIL
5' MOUNT HEIGHT

RAMP WE

SHEET 8 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

REMOVE
W11-2
W16-7R

24
W11-2
RAPID RECTANGULAR FLASHING BEACON
24A
W16-7R
24B
R10-25
9" X 12"
SEE DETAIL

37
W11-2(2M)
RAPID RECTANGULAR FLASHING BEACON
37A
W16-7L(2M)
24" X 12"
37B
R10-25
9" X 12"
SEE DETAIL

T57WA

TWO LANE RAMP
53

54
TWO LANE RAMP

60
R1-6 (2M)
2' MOUNTING HEIGHT

52
R1-5R(2M)
PLACE 40' PRIOR TO CROSSWALK

51
R1-5L(2M)
PLACE 25' IN ADVANCE OF CROSSING

T56WA

36
Bike Lane
BIKE LANE
R3-17 (2S)
ESTR
ON LIGHT POLE

T55WA

T54WA

22
W12-1D
MOVE

56WWB 57WWB 58WWB WATERTOWN PLANK ROAD 59WWB 60WWB 61WWB 62WWB

56WEB 57WEB 58WEB 59WEB 60WEB 61WEB 62WEB

NO PARKING ANY TIME
R7-1D (2S)
ESTR
ON LIGHT POLE

WATERTOWN PLANK ROAD

SHEET 9 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

2

2

RAMP WF

RAMP WC

USH 45 SB

USH 45 NB

RAMP WE

RAMP WJ

RAMP WA

WATERTOWN PLANK ROAD

EXISTING S-40-51

EXISTING S-40-57

EXISTING S-40-142 TWO CHORD TRUSS

S-40-153

ESTR

NORTH 41 45 Fond du Lac

TYPE I SIGN

ESTR

SOUTH 41 45 Milwaukee Madison

TYPE I SIGN

BASKETBALL COURT

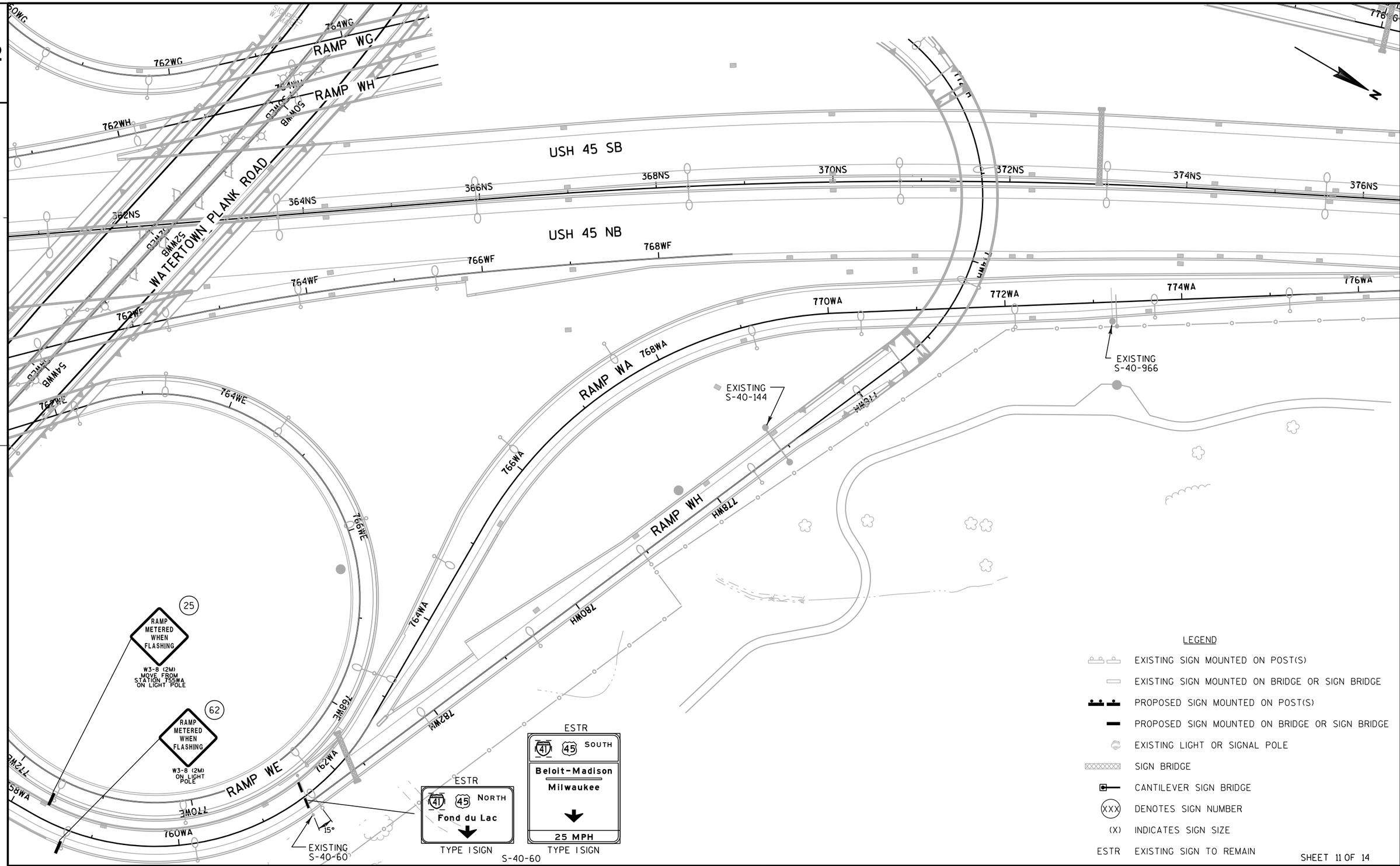
LEGEND

- 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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 10 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 11 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

BIKE LANE
R3-17(2S)
ESTR
ON LIGHT
POLE

WAYFINDER SIGN
ESTR

← 95th St
Discovery Parkway →
NEXT SIGNAL
D1-65(MOD)
ESTR

SPEED LIMIT 35
R2-1(2S)

NO PARKING ANY TIME
R7-1D(2S)

ESTR
ON LIGHT
POLE

WATERTOWN PLANK ROAD

75WWB 76WWB 77WWB 78WWB 79WWB 80WWB

92ND STREET

13THN

75WEB 76WEB 77WEB 78WEB 79WEB 80WEB

WATERTOWN PLANK ROAD

12THS

11THS

92ND STREET

MATCH LINE - SEE SHEET 13

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

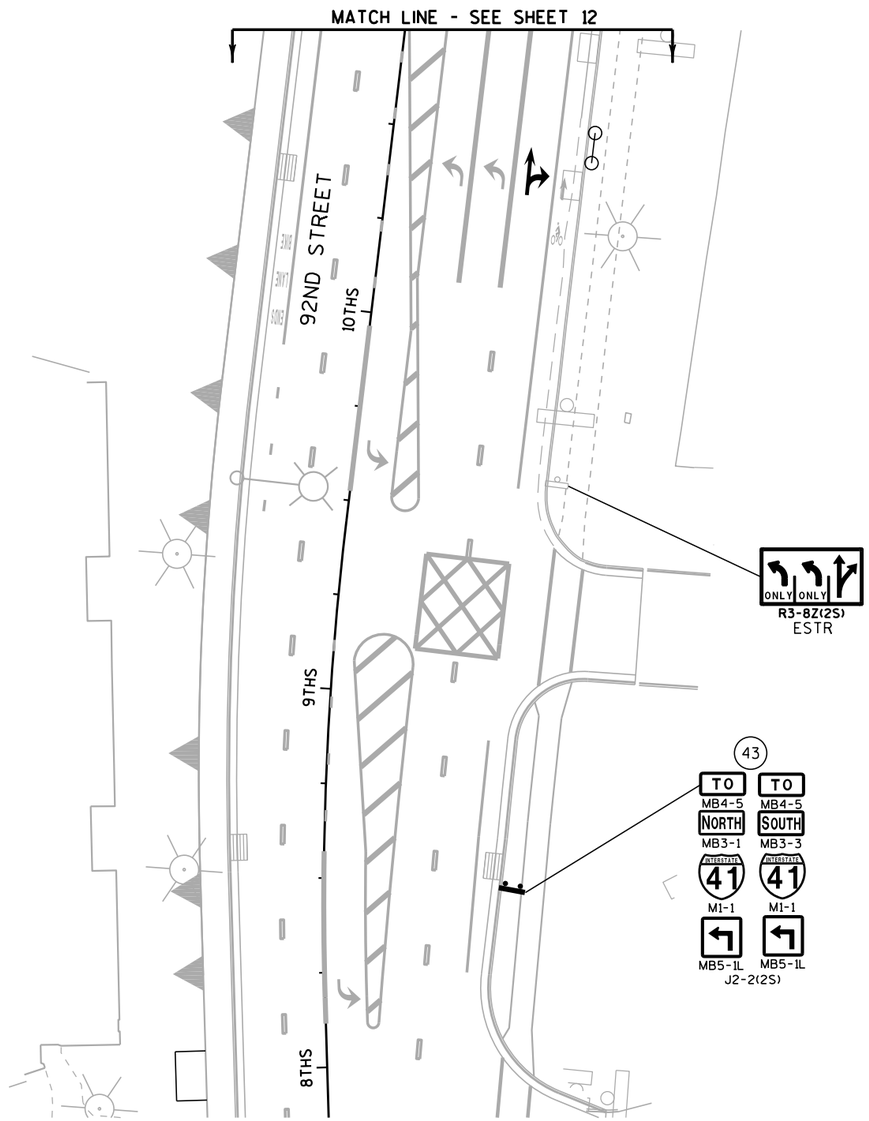
FILE NAME : J:\projects\D2_10603445\87\Sign\023212_ps.dgn PLOT DATE : 21-MAR-2016 06:35 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN



N

2

SHEET 13 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023213_ps.dgn PLOT DATE : 29-FEB-2016 15:06 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

ESTR
ONLY
R3-5R(2M)

ESTR
ONLY
R3-5A(2M)

MATCHLINE 167BV+00
SEE SHEET 1

167BV

168BV

169BV

170BV

171BV

172BV

SWAN BOULEVARD

Watertown Plank Rd
M1-94H(2M)
ON SIGNAL MAST ARM
2001

OVERHEAD SIGN SUPPORT
S-40-638

TO
45
J3-1(2M)
ESTR

ONLY
R3-5L(2M)
ESTR

ONLY
R3-5L(2M)
REMOVE

SOUTH
41
45
41

TRUCKS USE RIGHT LANE
R4-5(4)
ESTR

ONLY
R3-5L(2M)
REMOVE

NORTH
41
45
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
- PROPOSED LIGHT OR SIGNAL POLE ON LIGHT POLE
- XXX — DENOTES SIGN NUMBER
- (XX) — INDICATES SIGN SIZE
- JCT (11) — INDICATES YEAR INSTALLED
- SIGN STRUCTURE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 14 OF 14

PROJECT NO: 1060-34-87	HWY: IH 41 / USH 45	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_10603445\87\Sign\023214_ps.dgn PLOT DATE : 29-FEB-2016 15:06 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 40:1

2

LEGEND - LIGHTING REMOVALS

- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- CABLE IN CONDUIT - SIZE AS NOTED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- XYYZ — EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
  - X - CIRCUIT
  - YY - DISTRIBUTION CENTER
  - Z - POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING PULLBOX

HL-40-WW	
A,C,E,G,J	RED
B,D,F,H,K	BLACK
N,N	WHITE
GND	GREEN OR BARE
A,B,C,D,E, F,G,H,J,K	30A
240/480V 1PHASE ISOLATED NEUTRAL	

HL-40-WW

1 PB-WW-10

1 FWW5
TO BE RELOCATED

RAMP WD

RAMP WG

RAMP WH

USH 45 SB

USH 45 NB

RAMP WC

W. WATERTOWN PLANK ROAD

38WWB 38WEB 40WWB 40WEB 42WWB 42WEB 44WWB 44WEB 46WWB 46WEB 48WWB 48WEB 50WWB 50WEB 52WWB

MATCHLINE 52WWB+00

766WA

766WC

N

WATER TOWER

SIGN

PHONE

2

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVAL - FREEWAY	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023510_lp.dgn PLOT DATE : 29-FEB-2016 21:43 PLOT BY : MSCDYB PLOT NAME : 023510_lp PLOT SCALE : 100:1

2

LEGEND - LIGHTING REMOVALS

- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- CABLE IN CONDUIT - SIZE AS NOTED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- XYYZ — EXISTING SINGLE ARM FREEWAY LIGHTING UNIT
  - X - CIRCUIT
  - YY - DISTRIBUTION CENTER
  - Z - POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING PULLBOX

BWE1 (1) TO BE RELOCATED

AWE1 (1) TO BE RELOCATED

PB-WE-07

HL-40-WE

HL-40-WE	
A,C,E,G	RED
B,D,F,H	BLACK
N,N	WHITE
GND	GREEN OR BARE
A,B,C,D,E,F,G,H	30A
240/480V	1 PHASE
ISOLATED NEUTRAL	

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVAL - FREEWAY	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023511_lp.dgn PLOT DATE : 29-FEB-2016 21:43 PLOT BY : MSCDYB PLOT NAME : 023511_lp PLOT SCALE : 100:1

LEGEND - LIGHTING REMOVALS

- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- CABLE IN CONDUIT - SIZE AS NOTED
- XX DENOTES THE REMOVAL STAGE NUMBER
- XYYZ EXISTING LOCAL ROADWAY LIGHTING UNIT
  X - CIRCUIT
  YY - DISTRIBUTION CENTER
  Z - POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING PULLBOX

N

RAMP WD
RAMP WG
RAMP WH
USH 45 SB
USH 45 NB
RAMP WC
RAMP WC
RAMP WC
766WA
768WA
38WWB
40WWB
42WWB
44WWB
46WWB
48WWB
50WWB
52WWB+00
38WEB
40WEB
42WEB
44WEB
46WEB
48WEB
50WEB
52W
MATCHLINE 52WWB+00
W. WATERTOWN PLANK ROAD
1 SBF15 TO BE RELOCATED SEE NOTE 2
1 PB-SB-18 SEE NOTE 2

NOTES

1. WAUWATOSA DISTRIBUTION CENTER DP
   LOCATED AT 68WEB+24.2, 54.3' RT, SOUTHWEST CORNER OF & WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.

2. WAUWATOSA DISTRIBUTION CENTER SB
   LOCATED AT 34WWB+12.5, 79.5' LT, NORTHEAST CORNER OF SWAN BOULEVARD & WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVAL - LOCAL ROADWAY	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023520_lp.dgn PLOT DATE : 29-FEB-2016 21:44 PLOT BY : MSCDYB PLOT NAME : 023520_lp PLOT SCALE : 100:1

LEGEND - LIGHTING REMOVALS

- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- CABLE IN CONDUIT - SIZE AS NOTED
- (XX) DENOTES THE REMOVAL STAGE NUMBER
- XYYZ — EXISTING LOCAL ROADWAY LIGHTING UNIT
  X - CIRCUIT
  YY - DISTRIBUTION CENTER
  Z - POLE/LUMINAIRE ID NUMBER
- DISTRIBUTION CENTER
- TRANSFORMER
- ELECTRIC METER SOCKET
- EXISTING HANDHOLE
- EXISTING PULLBOX
- EXISTING PULLBOX

RAMP WA
RAMP WE
RAMP WF
W. WATERTOWN PLANK ROAD
USH 45 NB
USH 45 SB
MATCHLINE 52WWB+00
52WWB
52WEB
54WWB
54WEB
56WWB
56WEB
58WWB
58WEB
60WWB
60WEB
62WWB
62WEB
64WWB
64WEB
66WWB
66WEB
758WA
756WA
754WA
PB-DP-03
SEE NOTE 1
DPB5
TO BE RELOCATED
SEE NOTE 1
DPA5
TURN OVER TO CITY OF WAUWATOSA
SEE NOTE 1

N

NOTES

1. WAUWATOSA DISTRIBUTION CENTER DP
   LOCATED AT 68WEB+24.2, 54.3'RT, SOUTHWEST CORNER OF DISCOVERY BOULEVARD & WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.
2. WAUWATOSA DISTRIBUTION CENTER SB
   LOCATED AT 34WWB+12.5, 79.5'LT, NORTHEAST CORNER OF SWAN BOULEVARD & WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - REMOVAL - LOCAL ROADWAY	SHEET	E

2

HL-40-WW	
A,C,E,G,J	RED
B,D,F,H,K	BLACK
N,N	WHITE
GND	GREEN OR BARE
A,B,C,D,E,F,G,H,J,K	30A
240/480V 1PHASE ISOLATED NEUTRAL	

RAMP WD

RAMP WG

RAMP WH

RAMP WC

766WA

38WWB 40WWB 42WWB 44WWB 46WWB 48WWB 50WWB 52WWB

38WEB 40WEB 42WEB 44WEB 46WEB 48WEB 50WEB

W. WATERTOWN PLANK ROAD

EXISTING HL-40-WW

EXISTING PB-WW-01

EXISTING 2"C WITH NEW 4#6, E, N, F, GND FROM HL-40-WW TO FWW5 VIA PB-WW-10A

CONNECT TO BOTH EXISTING 2" CONDUITS AND EXTEND BOTH TO PB-WW-10A

1 STA. 767WC+87.06, 17.34'LT
PB-WW-10A

3"C, 8#6, E, N, F, GND; E, N, F, GND

ONE CKT FROM HL-40-WW AND ONE CKT BACK TO EWW5

1 STA. 767WC+53.5, 42.95'LT
RELOCATED FWW5

2"C, 4#6, E, N, F, GND

4#6, E, N, F, GND TO RELOCATED FWWS VIA PB-WW-10A

EXISTING EWW5 TO REMAIN

EXISTING EWW6 TO REMAIN

MATCHLINE 52WWB+00

SIGN

MH

HW

W

INL

SIGN MAST

LEGEND - FINAL LIGHTING

- CID (CABLE IN DUCT)
- CABLE IN CONDUIT - SIZE AS NOTED
- PROPOSED SINGLE ARM FREEWAY LIGHTING UNIT
- EXISTING FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- XX DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION
- EXISTING/PROPOSED LOCAL LIGHTING
- LUMINAIRE IDENTIFICATION
  STATION - OFFSET
  XYYZ
  LUMINAIRE NUMBER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL - FREEWAY	SHEET	E

2

RAMP WE

160WA RAMP WA

158WA

EXISTING AWE2

4#6, A, N, B, GND
TO AWE2

CONNECT HERE TO EXISTING 2"C

STA. 757WA+14.81, 28.65'RT
RELOCATED BWE1

STA. 755WA+99.2, 43.2'RT
RELOCATED AWE1

STA. 755WA+48.2, 46.73'RT
PB-WE-07A

CONNECT AND EXTEND 2"C TO PB-WE-07A. CONDUIT UNDER WATERTOWN PLANK ROAD IS EXISTING.

156WA

154WA

MATCHLINE 52WWB+00

52WWB
52WEB
54WWB
54WEB
56WWB
56WEB
58WWB
58WEB
60WWB
60WEB
62WWB
62WEB
64WWB
64WEB
66WWB
66WEB

W. WATERTOWN PLANK ROAD

RAMP WF

RAMP WE

4#6, A, N, B, GND
FROM HL-40-WE TO AWE2. FAR NORTH AND FAR SOUTH CONDUITS ARE EXISTING.

EXISTING PB-WE-01

EXISTING HL-40-WE

USH 45 NB

USH 45 SB

SIGN MAST

8WV

HO

N

HL-40-WE	
A,C,E,G	RED
B,D,F,H	BLACK
N,N	WHITE
GND	GREEN OR BARE
A,B,C,D,E,F,G,H	30A
240/480V	1 PHASE
ISOLATED NEUTRAL	

LEGEND - FINAL LIGHTING

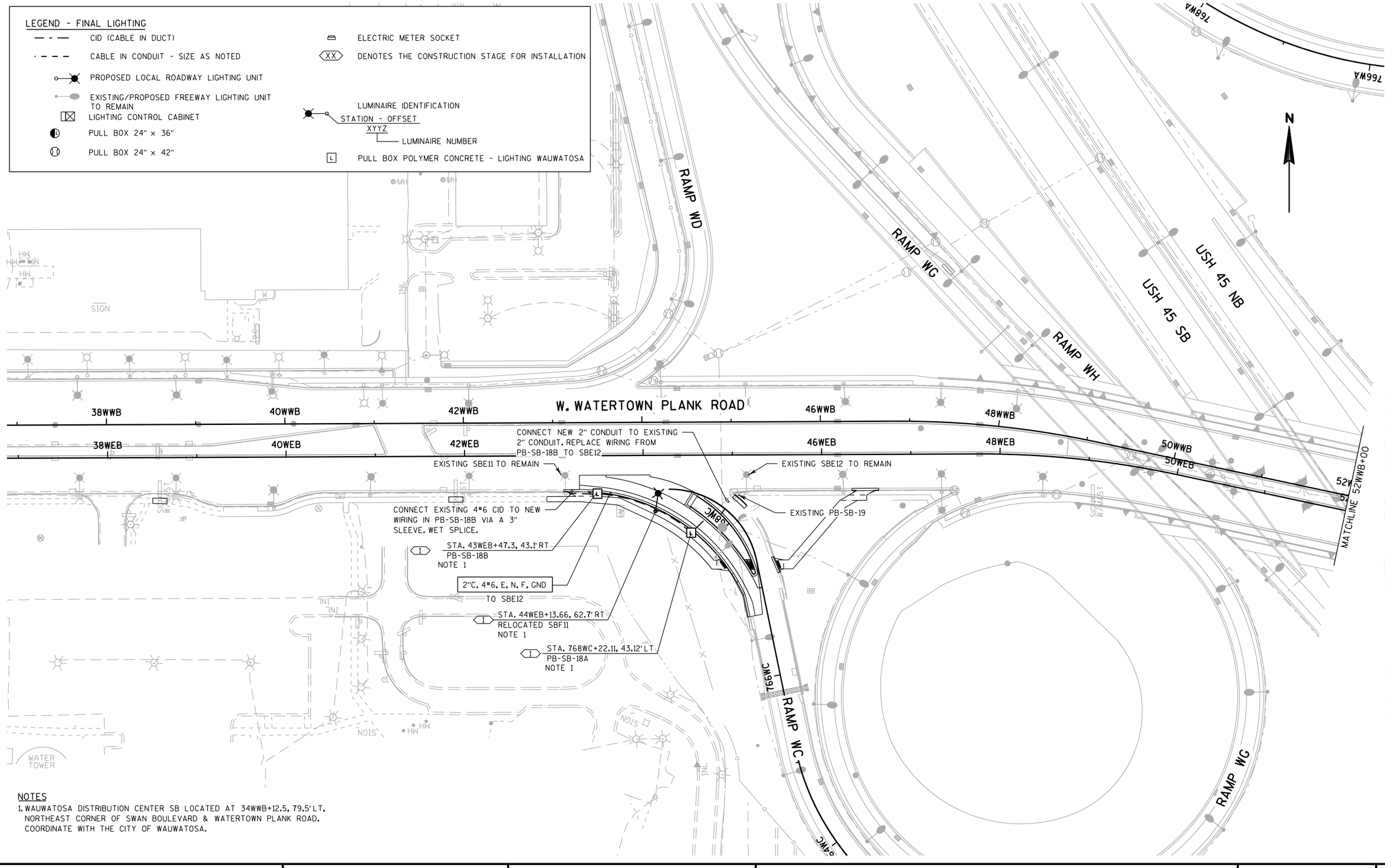
- CID (CABLE IN DUCT)
- CABLE IN CONDUIT - SIZE AS NOTED
- PROPOSED SINGLE ARM FREEWAY LIGHTING UNIT
- EXISTING FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- XX DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION
- EXISTING/PROPOSED LOCAL LIGHTING
- LUMINAIRE IDENTIFICATION: STATION - OFFSET XYYZ, LUMINAIRE NUMBER

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL - FREEWAY	SHEET	E

2

LEGEND - FINAL LIGHTING

- CID (CABLE IN DUCT)
- CABLE IN CONDUIT - SIZE AS NOTED
- PROPOSED LOCAL ROADWAY LIGHTING UNIT
- EXISTING/PROPOSED FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- XX DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION
- LUMINAIRE IDENTIFICATION
  - STATION - OFFSET
    - XYYZ
      - LUMINAIRE NUMBER
- L PULL BOX POLYMER CONCRETE - LIGHTING WAUWATOSA



NOTES

1. WAUWATOSA DISTRIBUTION CENTER SB LOCATED AT 34WWB+12.5, 79.5' LT, NORTHEAST CORNER OF SWAN BOULEVARD & WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL - LOCAL ROADWAY	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\023704_lp.dgn PLOT DATE : 31-MAR-2016 08:24 PLOT BY : MSCDAF PLOT NAME : 023704_lp PLOT SCALE : 100.074776:1

WISDOT/CADDS SHEET 42

LEGEND - FINAL LIGHTING

- CID (CABLE IN DUCT)
- CABLE IN CONDUIT - SIZE AS NOTED
- PROPOSED LOCAL ROADWAY LIGHTING UNIT
- EXISTING/PROPOSED FREEWAY LIGHTING UNIT TO REMAIN
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 36"
- PULL BOX 24" x 42"
- ELECTRIC METER SOCKET
- (XX) DENOTES THE CONSTRUCTION STAGE FOR INSTALLATION
- LUMINAIRE IDENTIFICATION
  - STATION - OFFSET
  - XYYZ
  - LUMINAIRE NUMBER
- [L] PULL BOX POLYMER CONCRETE - LIGHTING WAUWATOSA

N

RAMP WE

RAMP WA

754WA

756WA

MATCHLINE 52WWB+00

52WWB

52WEB

54WWB

54WEB

56WWB

56WEB

58WEB

60WWB

60WEB

62WWB

62WEB

64WWB

64WEB

66WWB

66WEB

W. WATERTOWN PLANK ROAD

RAMP WF

RAMP WE

USH 45 NB

USH 45 SB

CONNECT EXISTING 2" CONDUIT WITH NEW 2" CONDUIT. NEW 4*6, A, N, B, GND FROM PB-DP-02 THRU TO PB-DP-3B. CONDUIT FROM CONNECTIONS TO PB-DP-3B IS 2". WET SPLICE PB-DP-02 AND PB-DP-03B.

STA. 754WA+96.0, 38.2'LT
PB-DP-03A
NOTE 1

STA. 754WA+49.0, 18.12'LT
RELOCATED DPB5
NOTE 1
POLE DPA5 WAS ELIMINATED

STA. 60WWB+45.32, 43.18'LT
PB-DP-03B

EXISTING PB-DP-02 TO REMAIN

EXISTING DPB4 TO REMAIN

EXTEND 2"C. EMPTY TO PB-DP-03A

EXISTING PB-DP-04

CONNECT EXISTING 4*6 CID TO NEW WIRING IN PB-DP-03B- VIA A 3" CONDUIT SLEEVE

NOTES

1. WAUWATOSA DISTRIBUTION CENTER DP IS LOCATED AT 68WEB+24.2, 54.3'RT, AT THE SOUTHWEST CORNER OF DISCOVERY BOULEVARD AND WATERTOWN PLANK ROAD. COORDINATE WITH THE CITY OF WAUWATOSA.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL - LOCAL ROADWAY	SHEET	E

2

LEGEND

	1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
	2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
	4	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
	10	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
	11	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
ONLY	14	PAVEMENT MARKING WORDS EPOXY (WHITE)
	16	PAVEMENT MARKING ARROWS EPOXY TYPE 2 (WHITE)
	17	PAVEMENT MARKING ARROWS EPOXY TYPE 3 (WHITE)
	29	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
	34	PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
	35	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
	61	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (DOT PATTERN WHITE) (2 FT LINE 6 FT SKIP)
	75	PAVEMENT MARKING CONTRAST EPOXY 11-INCH (WHITE)
	111	PAVEMENT MARKING CONTRAST EPOXY 11-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
	121	PAVEMENT MARKING YIELD LINE SYMBOLS EPOXY 18-INCH (WHITE)
	171	PAVEMENT MARKING CROSSWALK EPOXY 24-INCH (WHITE)

NOTE
EXISTING PAVEMENT MARKINGS ARE SHOWN AS GRAY AND SHALL NOT BE REMOVED UNLESS NOTED ON THE PLANS.

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024500_pm.dgn PLOT DATE : 17-MAR-2016 21:38 PLOT BY : MSCDYB PLOT NAME : 024500_pm PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2

2

SWAN BOULEVARD

N

WEB+37
107.4' LT

WEB+25
107.4' LT

PC
WEB+25
68.1' LT

PC
WEB+37
80.1' LT

61

CTR
34WEB+15
68.00' LT

CTR
34WEB+27
80.00' LT

R 90'

R 90'

W. WATERTOWN PLANK ROAD

31WWB 32WWB 33WWB 34WWB 35WWB 36WWB

31WEB 32WEB 33WEB 34WEB 35WEB 36WEB

PT
WEB+27
10.0' RT

MATCHLINE 36WEB+50

11'
11'
11'

2

WEB+45

35

34

5'

WEB+31
10.0' RT

WEB+31
22.0' RT

PT
WEB+15
22.0' RT

W. INNOVATION DRIVE

ONLY

ASPHALT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024501_pm.dgn PLOT DATE : 17-MAR-2016 21:39 PLOT BY : MSCDYB PLOT NAME : 024501_pm PLOT SCALE : 40:1

2

N

37WWB 38WWB 39WWB 40WWB 41WWB 42WWB

W. WATERTOWN PLANK ROAD

37WEB 38WEB 39WEB 40WEB 41WEB 42WEB

MATCHLINE 36WEB+50

MATCHLINE 42WEB+50

WEB+65 WEB+46 WEB+84 WEB+25

11' 11' 11' 5'

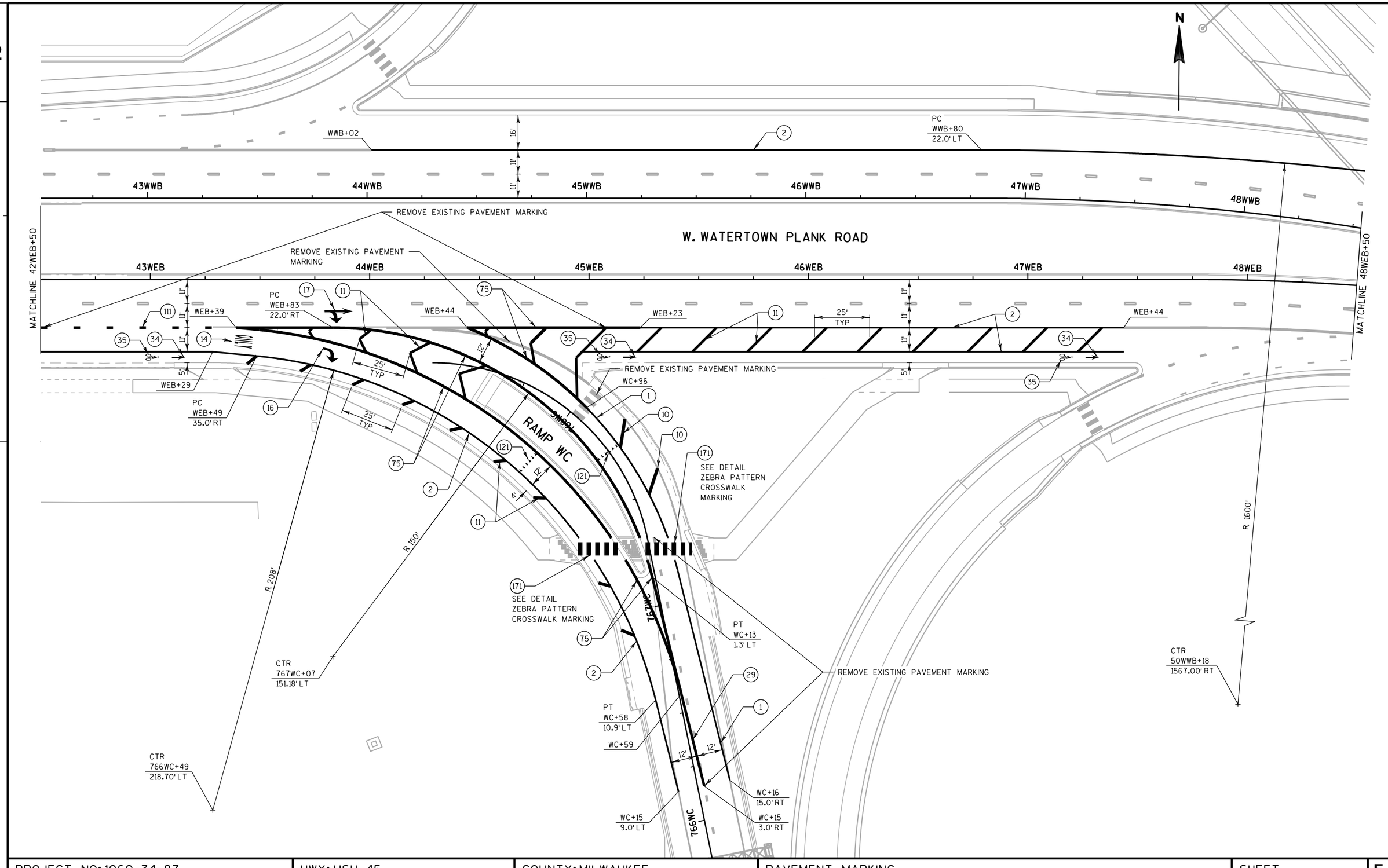
2 35 34 17 16 4 14 111

REMOVE EXISTING PAVEMENT MARKING

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024502_pm.dgn PLOT DATE : 01-MAR-2016 07:31 PLOT BY : MSCDYB PLOT NAME : 024502_pm PLOT SCALE : 40:1

2



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024503_pm.dgn PLOT DATE : 01-MAR-2016 07:31 PLOT BY : MSCDYB PLOT NAME : 024503_pm PLOT SCALE : 40:1

2

N

USH 45 SB

USH 45 NB

PT
WWB+18
33.00' LT

MATCHLINE 48WEB+50

49WWB

49WEB

50WWB

50WEB

51WWB

51WEB

52WWB

52WEB

53WWB

53WEB

54WWB

54WEB

W. WATERTOWN PLANK ROAD

WEB+68

WEB+42

MATCHLINE 54WEB+50

R 1600'

CTR
50WWB+18
1567.00' RT

5'

11'

11'

11'

11'

11'

5'

2

34

35

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024504_pm.dgn PLOT DATE : 01-MAR-2016 07:31 PLOT BY : MSCDYB PLOT NAME : 024504_pm PLOT SCALE : 40:1

2

N

RAMP WA

WA+41

29

WA+96

2

PC
WA+97
11.0' RT

1

151WA

12'

12'

REMOVE EXISTING PAVEMENT MARKING

PC
WA+42
1.4' RT

75

11

171

SEE DETAIL
ZEBRA PATTERN
CROSSWALK MARKING

CTR
753WA+78
199.00' RT

CTR
754WA+34
134.00' RT

R 203'

R 150'

171

SEE DETAIL
ZEBRA
PATTERN
CROSSWALK
MARKING

1

150WA

121

121

12'

12'

75

2

10

REMOVE EXISTING PAVEMENT MARKING

25'
TYP

16

PT
WA+01
2.7' LT

14

REMOVE
EXISTING
PAVEMENT
MARKING

11

34

35

5'

255WA

254WA

WA+81

75

WA+94

25'
TYP

WA+91

REMOVE EXISTING
PAVEMENT MARKING

17

PT
WA+34
16.0' LT

111

2

WWB+09

WWB+21

2

25'
TYP

11'

11'

11'

11'

11'

55WWB

56WWB

57WWB

58WWB

59WWB

MATCHLINE 54WEB+50

W. WATERTOWN PLANK ROAD

55WEB

56WEB

57WEB

58WEB

59WEB

60WEB

MATCHLINE 60WEB+50

11'

11'

16'

REMOVE EXISTING PAVEMENT MARKING

WEB+56

WEB+94

2

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

2

N

34 35 2 34 35 17 16 111 14 34 35

5' 11' 11' 11' 5'

61WWB 62WWB 63WWB 64WWB 65WWB 66W

W. WATERTOWN PLANK ROAD

61WEB 62WEB 63WEB 64WEB 65WEB 66W

MATCHLINE 60WEB+50

MATCHLINE 66WEB+00

REMOVE EXISTING PAVEMENT MARKING

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024506_pm.dgn PLOT DATE : 01-MAR-2016 07:31 PLOT BY : MSCDYB PLOT NAME : 024506_pm PLOT SCALE : 40:1

2

N

DISCOVERY PARKWAY

ONLY

W. WATERTOWN PLANK ROAD

MATCHLINE 66WEB+00

MATCHLINE 71WEB+50

WWB+48

WWB+49

WWB+03

WWB+25

5'

11'

11'

11'

11'

WB

67WWB

68WWB

69WWB

70WWB

71WWB

VEB

67WEB

68WEB

69WEB

70WEB

71WEB

2

16

17

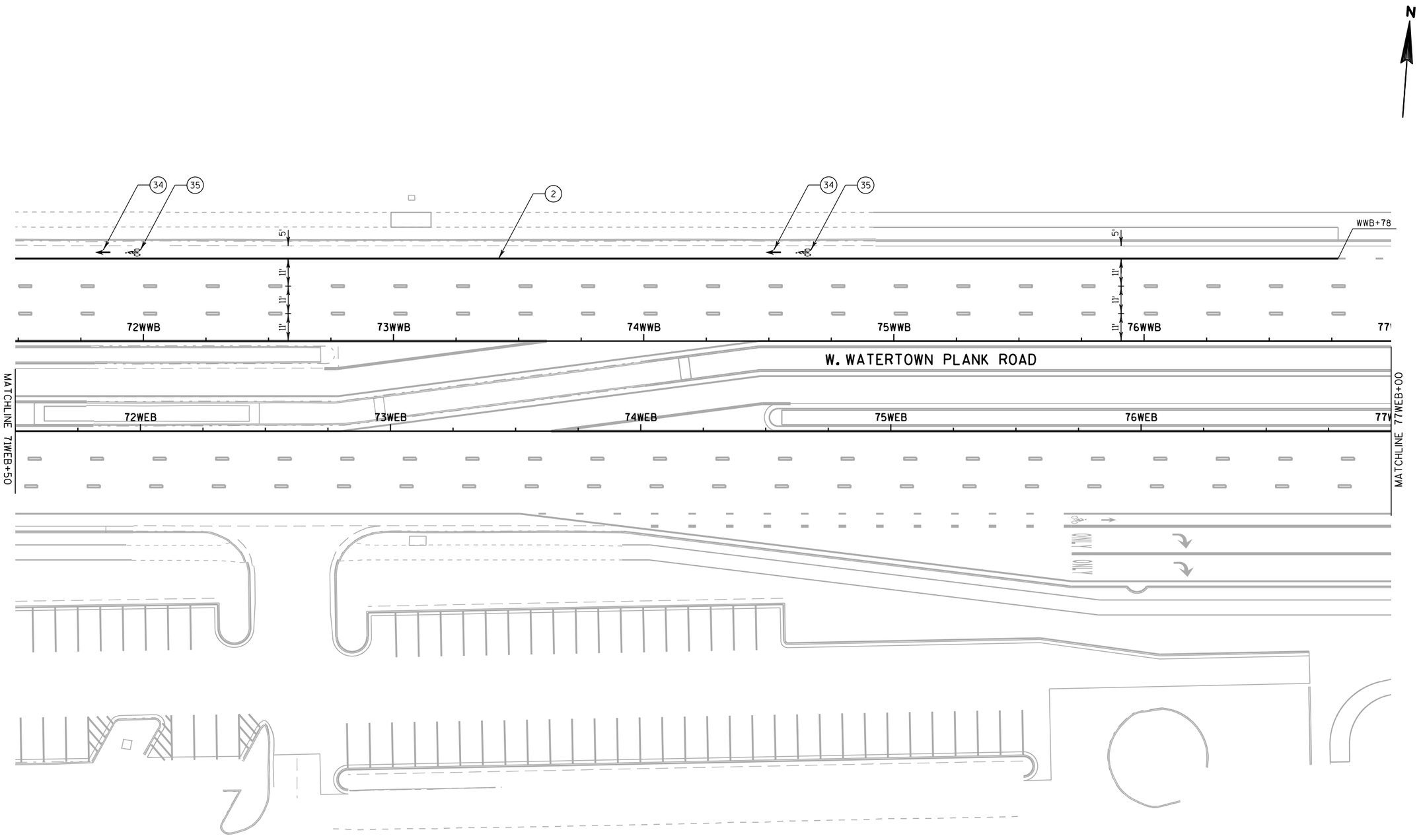
34

35

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024507_pm.dgn PLOT DATE : 17-MAR-2016 21:39 PLOT BY : MSCDYB PLOT NAME : 024507_pm PLOT SCALE : 40:1

2



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\024508_pm.dgn PLOT DATE : 17-MAR-2016 21:39 PLOT BY : MSCDYB PLOT NAME : 024508_pm PLOT SCALE : 40:1

2

N

34

35

PC
WEB+07
53.2' LT

78WWB

79WWB

80WWB

81WWB

82WWB

83WWB

W. WATERTOWN PLANK ROAD

ONLY

ONLY

MATCHLINE 77WEB+00

78WEB

79WEB

80WEB

81WEB

82WEB

83WEB

61

R 98'

12THS

REMOVE EXISTING PAVEMENT MARKING

CTR
77WEB+77
40.00' RT

PT
WEB+74
51.6' RT

WEB+72
69.7' RT

11THS

N. 92ND STREET

ONLY

ONLY

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

GENERAL NOTES FOR TRAFFIC CONTROL

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

2) A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

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

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

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

8) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

9) TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

10) 16" X 16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

11) INSTALL PROPOSED TRAFFIC CONTROL SIGNS ON BOTH OUTSIDE SHOULDER AND MEDIAN SIDE OF ALL DIVIDED ROADWAYS.

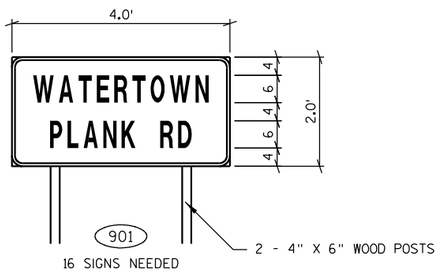
TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK ZONE THIS STAGE

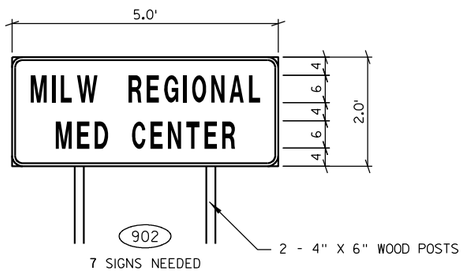
TEMPORARY PAVEMENT MARKING LEGEND

(46) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

2



16 SIGNS NEEDED



7 SIGNS NEEDED

NOTES

1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.

2. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS. FOR SIGNS MOUNTED ON POSTS, USE POSTS FROM FHWA LIST OF ACCEPTED BREAKAWAY SIGN SUPPORTS.

3. POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTION 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.

4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".

5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND PER STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS UNLESS OTHERWISE NOTED.

6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS: 12" CAPS SHALL BE SERIES "D", 6" CAPS SHALL BE SERIES "C".

7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

8. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2 AND 643.2.9.3.

9. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

10. ALL SIGNS NOT MOUNTED WITHIN THE EDGES OF ANOTHER SIGN SHALL HAVE A BORDER & RADIUS OF BORDER AS FOLLOWS:

SIGN AREA
GREATER THAN 150 SQ FEET = 3 INCH BORDER
60 TO 150 SQ FEET = 2 INCH BORDER
LESS THAN 60 SQ FEET = 1 INCH BORDER

RADIUS

SMALLEST OUTSIDE DIMENSION OF SIGN	CORNER RADIUS
GREATER THAN 8 FEET	12 INCH RADIUS
GREATER THAN OR EQUAL TO 6 FEET	9 INCH RADIUS
GREATER THAN OR EQUAL TO 4 FEET	6 INCH RADIUS
LESS THAN 4 FEET	3 INCH RADIUS

(XXX) = FIXED MESSAGE SIGN NUMBER

FIXED MESSAGE SIGNS

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL NOTES AND LEGENDS	SHEET	E

2

2

WORK THIS STAGE

- REMOVALS
- INSTALL STORM SEWER
- CONSTRUCT INSIDE LANE CURB & GUTTER
- CONSTRUCT SIDEWALK

TRAFFIC THIS STAGE

- DAY-TIME LANE CLOSURE OF EASTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)
- NIGHT-TIME CLOSURE OF EASTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)

ROAD WORK AHEAD W20-1A

ROAD WORK AHEAD W20-1A

ROAD WORK 1000 FT W20-1C

W. WATERTOWN PLANK ROAD

18WWB 20WWB 22WWB 24WWB 26WWB 28WWB 30WWB

18WEB 20WEB 22WEB 24WEB 26WEB 28WEB 30WEB

STH 100 MAYFAIR ROAD

MATCHLINE 31WEB+50

TRENCH DRAIN

MH WV INL GUY PHONE ASPHALT CONCRETE CONCRETE PATIO CONC PIPE

N

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026101_s1a.dgn PLOT DATE : 29-FEB-2016 21:45 PLOT BY : MSCDYB PLOT NAME : 026101_s1a PLOT SCALE : 100:1

2

ROAD WORK AHEAD
W20-1A

SWAN BOULEVARD

BOLLARDS (4)

CANOPY
POST
CANOPY
CANOPY

SIGN

N

MATCHLINE 31WEB+50

32WWB 34WWB 36WWB 38WWB 40WWB 42WWB 44WWB 46WWB

32WEB 34WEB 36WEB 38WEB 40WEB 42WEB 44WEB 46WEB

W. WATERTOWN PLANK ROAD

500'

END ROAD WORK
G20-2A
48" X 24"

S-40-865

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

25'
TYP

S-40-866

CWB94

CWB92

RAMP WC

CWB91

END ROAD WORK
G20-2A
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

W. INNOVATION DRIVE

ROAD WORK AHEAD
W20-1A

WATER TOWER

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGNS ON
TYPE III BARRICADE
AT STA 59WEB+65,
RIGHT AND
STA 65WEB+35, RIGHT

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON
TYPE II BARRICADE
AT STA 68WEB+80,
RIGHT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026102_s1a.dgn PLOT DATE : 29-FEB-2016 21:45 PLOT BY : MSCDYB PLOT NAME : 026102_s1a PLOT SCALE : 100:1

2

2

WORK THIS STAGE

- CONSTRUCT PAVEMENT
- CONSTRUCT FOOTING AND COLUMN OF S-40-865 AND S-40-866

TRAFFIC THIS STAGE

- CLOSE RIGHT LANE OF EASTBOUND WATERTOWN PLANK ROAD
- DAY-TIME CLOSURE OF EASTBOUND WATERTOWN PLANK ROAD LANE 2 PERMITTED DURING PAVING OPERATIONS (SEE SPECIAL PROVISIONS)

ROAD WORK AHEAD W20-1A

RIGHT LANE CLOSED AHEAD W20-5A

W04-2R

BEGIN RIGHT TURN LANE R3-20R 24" X 36"

N

W. WATERTOWN PLANK ROAD

STH 100 MAYFAIR ROAD

18WWB 20WWB 22WWB 24WWB 26WWB 28WWB 30WWB

18WEB 20WEB 22WEB 24WEB 26WEB 28WEB 30WEB

MATCHLINE 31WEB+50

+56 (46) 25' TYP

TRENCH DRAIN

MH PHONE WV GUY ASPHALT CONCRETE CONCRETE PATIO PIPE CONC GWT FLAG

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026105_s1b.dgn PLOT DATE : 29-FEB-2016 21:46 PLOT BY : MSCDYB PLOT NAME : 026105_s1b PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

LANE CLOSED
R11-2L
48" X 30"

CENTER LANE CLOSED 500 FT
W20-56D

CENTER LANE CLOSED AHEAD
W20-56A

ROAD WORK AHEAD
W20-1A

500'

500'

500'

25' TYP

SWAN BOULEVARD

LANE CLOSED
R11-2L
48" X 30"

BOLLARDS (4)

CANOPY

POST

CANOPY

SIGN

N

END ROAD WORK
G20-2A
48" X 24"

32WWB

34WWB

36WWB

38WWB

40WWB

42WWB

44WWB

46WWB

W. WATERTOWN PLANK ROAD

500'

MATCHLINE 31WEB+50

32WEB

34WEB

36WEB

38WEB

40WEB

42WEB

44WEB

46WEB

+76

+51

+26

46

50' TYP

+50

+55

+28

25' TYP

S-40-865

S-40-866

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

LANE CLOSED
R11-2L
48" X 30"

SIDEWALK CLOSED
R9-9
24" X 12"

LANE CLOSED
R11-2L
48" X 30"

SIDEWALK CLOSED
R9-9
24" X 12"

LANE CLOSED
R11-2L
48" X 30"

ASPHALT

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

W. INNOVATION DRIVE

WATER TOWER

RAMP WC

168WC

169WC

164WC

END ROAD WORK
G20-2A
48" X 24"

SIDEWALK CLOSED
R9-9
24" X 12"

PLACE SIGNS ON
TYPE III BARRICADE
AT STA 59WEB+65,
RIGHT AND
STA 65WEB+35, RIGHT

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

PLACE SIGN ON
TYPE II BARRICADE
AT STA 68WEB+80,
RIGHT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

2

2

WORK THIS STAGE

- CONSTRUCT OUTSIDE LANE PAVEMENT
- CONSTRUCT OUTSIDE LANE CURB & GUTTER
- CONSTRUCT SIDEWALK

TRAFFIC THIS STAGE

- NO CLOSURES

N

ROAD WORK AHEAD W20-1A

ROAD WORK AHEAD W20-1A

ROAD WORK 1000 FT W20-1C

TRENCH DRAIN

18WWB 20WWB 22WWB 24WWB 26WWB 28WWB 30WWB

18WEB 20WEB 22WEB 24WEB 26WEB 28WEB 30WEB

W. WATERTOWN PLANK ROAD

MATCHLINE 31WEB+50

STH 100 MAYFAIR ROAD

MH PHONE WV GUY FLAG CONCRETE PATIO PIPE CONC ASPHALT GWT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026109_s1c.dgn PLOT DATE : 29-FEB-2016 21:46 PLOT BY : MSCDYB PLOT NAME : 026109_s1c PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

ROAD WORK AHEAD
W20-1A

SWAN BOULEVARD

BOLLARDS (4)

CANOPY
POST
CANOPY
CANOPY

SIGN

N

END ROAD WORK
G20-2A
48" X 24"

MATCHLINE 31WEB+50

32WWB 34WWB 36WWB 38WWB 40WWB 42WWB 44WWB 46WWB

32WEB 34WEB 36WEB 38WEB 40WEB 42WEB 44WEB 46WEB

W. WATERTOWN PLANK ROAD

500'

25' TYP

S-40-865

S-40-866

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"

LANE CLOSED
R11-2L
48" X 30"

ASPHALT

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

W. INNOVATION DRIVE

WATER TOWER

RAMP WC

76SWC

76WC

76NWC

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGNS ON TYPE III BARRICADE AT STA 59WEB+65, RIGHT AND STA 65WEB+35, RIGHT

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 68WEB+80, RIGHT

END ROAD WORK
G20-2A
48" X 24"

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET	E

2

WORK THIS STAGE

- REMOVALS
- INSTALL STORM SEWER
- CONSTRUCT INSIDE LANE CURB & GUTTER
- CONSTRUCT SIDEWALK
- REMOVE S-40-985

TRAFFIC THIS STAGE

- DAY-TIME LANE CLOSURE OF WESTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)
- NIGHT-TIME CLOSURE OF WESTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)

N

RAMP WA

DISCOVERY PARKWAY

W. WATERTOWN PLANK ROAD

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

REMOVE S-40-985

S-40-868

SIDEWALK CLOSED
R9-9
24" X 12"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

500'

MATCHLINE 71WEB+00

R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 34WEB+55, LEFT

R9-9
24" X 12"
PLACE SIGN ON TYPE III BARRICADE AT STA 44WEB+80, LEFT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET E

2

2

N

500'

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

ROAD WORK 500 FT
W20-1D

S-40-867

R9-11
24" X 12"

72WWB
74WWB
76WWB
78WWB
80WWB
82WWB
84WWB
86WWB

72WEB
74WEB
76WEB
78WEB
80WEB
82WEB
84WEB
86WEB

MATCHLINE 71WEB+00

W. WATERTOWN PLANK ROAD

12THS

10THS

N. 92ND STREET

SIGN

FLAG

BOLLARD

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026202_s2a.dgn PLOT DATE : 29-FEB-2016 21:46 PLOT BY : MSCDYB PLOT NAME : 026202_s2a PLOT SCALE : 100:1

2

WORK THIS STAGE

- CONSTRUCT PAVEMENT
- CONSTRUCT FOOTING AND COLUMN OF S-40-867 AND S-40-868

TRAFFIC THIS STAGE

- CLOSE RIGHT LANE OF WESTBOUND WATERTOWN PLANK ROAD
- DAY-TIME CLOSURE OF WEASTBOUND WATERTOWN PLANK ROAD LANE 2 PERMITTED DURING PAVING OPERATIONS (SEE SPECIAL PROVISIONS)

N

RAMP WA

756WA

END ROAD WORK
G20-2A
48" X 24"

DISCOVERY PARKWAY

ROAD WORK AHEAD
W20-1A

S-40-868

SIDEWALK CLOSED
R9-9
24" X 12"

LANE CLOSED
R11-2L
48" X 30"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

56WWB
56WEB
58WWB
58WEB
60WWB
60WEB
62WWB
64WWB
64WEB
66WWB
66WEB
68WWB
68WEB
70WWB
70WEB

+32
25' TYP
+85
+25
+75

500'

W. WATERTOWN PLANK ROAD

46

MATCHLINE 71WEB+00

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 34WEB+55. LEFT

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGN ON TYPE III BARRICADE AT STA 44WEB+80. LEFT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET	E

2

2

N

LANE CLOSED
R11-2L
48" X 30"

S-40-867

46

+50

+95

72WWB
74WWB
76WWB
78WWB
80WWB
82WWB
84WWB
86WWB
72WEB
74WEB
76WEB
78WEB
80WEB
82WEB
84WEB
86WEB

MATCHLINE 71WEB+00

ROADWORK CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"

W04-2R

500'

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

W. WATERTOWN PLANK ROAD

12THS

10THS

N. 92ND STREET

MH
WV
VLV
SIGN
FLAG
BOLLARD
FLOOD

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026206_s2b.dgn PLOT DATE : 29-FEB-2016 21:47 PLOT BY : MSCDYB PLOT NAME : 026206_s2b PLOT SCALE : 100:1

2

2

WORK THIS STAGE
- CONSTRUCT OUTSIDE LANE PAVEMENT
- CONSTRUCT OUTSIDE LANE CURB & GUTTER
- CONSTRUCT SIDEWALK

TRAFFIC THIS STAGE
- NO CLOSURES

N

END ROAD WORK
G20-2A
48" X 24"

RAMP WA

756WA

LANE CLOSED
R11-2L
48" X 30"

S-40-868

SIDEWALK CLOSED
R9-9
24" X 12"

25' TYP

DISCOVERY PARKWAY

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48" X 24"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

56WWB
56WEB
58WWB
58WEB
60WWB
60WEB
62WWB
64WWB
64WEB
66WWB
66WEB
68WWB
68WEB
70WWB
70WEB

W. WATERTOWN PLANK ROAD

MATCHLINE 71WEB+00

500'

END ROAD WORK
G20-2A
48" X 24"

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 34WEB+55, LEFT

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGN ON TYPE III BARRICADE AT STA 44WEB+80, LEFT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET	E

2

N

500'

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

ROAD WORK 500 FT
W20-1D

S-40-867

R9-11
24" X 12"

MATCHLINE 71WEB+00

72WWB
74WWB
76WWB
78WWB
80WWB
82WWB
84WWB
86WWB

72WEB
74WEB
76WEB
78WEB
80WEB
82WEB
84WEB
86WEB

W. WATERTOWN PLANK ROAD

N. 92ND STREET

12THS

10THS

MH
WV
VLV
SIGN
FLAG
BOLLARD
FLOOD

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET	E

2

2

WORK THIS STAGE

- FINISH CONSTRUCTION OF S-40-865 AND S-40-866
- FINISH CONSTRUCTION OF S-40-867 AND S-40-868
- REMOVE S-40-964 AND S-40-984
- REMOVE S-40-961
- CONSTRUCT SIDEWALK

TRAFFIC THIS STAGE

- DAY-TIME LANE CLOSURES OF WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)
- NIGHT-TIME CLOSURE OF EASTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)
- NIGHT-TIME CLOSURE OF WESTBOUND WATERTOWN PLANK ROAD PERMITTED (SEE SPECIAL PROVISIONS)

ROAD WORK AHEAD W20-1A

ROAD WORK AHEAD W20-1A

ROAD WORK 1000 FT W20-1C

W. WATERTOWN PLANK ROAD

STH 100 MAYFAIR ROAD

18WWB 20WWB 22WWB 24WWB 26WWB 28WWB 30WWB

18WEB 20WEB 22WEB 24WEB 26WEB 28WEB 30WEB

MATCHLINE 31WEB+50

TRENCH DRAIN

MH WV PHONE GUY ASPHALT CONCRETE CONCRETE PATIO CONC CONC CONC CONC CONC CONC GV TV

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026301_s3.dgn PLOT DATE : 29-FEB-2016 21:47 PLOT BY : MSCDYB PLOT NAME : 026301_s3 PLOT SCALE : 100:1

2

ROAD WORK AHEAD
W20-1A

SWAN BOULEVARD

BOLLARDS (4)

CANOPY
POST
CANOPY
CANOPY

SIGN

N

MATCHLINE 31WEB+50

32WWB 34WWB 36WWB 38WWB 40WWB 42WWB 44WWB 46WWB

32WEB 34WEB 36WEB 38WEB 40WEB 42WEB 44WEB 46WEB

W. WATERTOWN PLANK ROAD

500'

25' TYP

END ROAD WORK
G20-2A
48" X 24"

S-40-865

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"
REMOVE S-40-964

SIDEWALK CLOSED
R9-9
24" X 12"

SIDEWALK CLOSED
R9-9
24" X 12"
REMOVE S-40-984

S-40-866

LANE CLOSED
R11-2L
48" X 30"

768WC

ASPHALT

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1A

W. INNOVATION DRIVE

WATER TOWER

769WC

RAMP WC

764WC

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGNS ON TYPE II BARRICADE AT STA 59WEB+65, RIGHT AND STA 65WEB+35, RIGHT

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 68WEB+80, RIGHT

END ROAD WORK
G20-2A
48" X 24"

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026302_s3.dgn PLOT DATE : 29-FEB-2016 21:48 PLOT BY : MSCDYB PLOT NAME : 026302_s3 PLOT SCALE : 100:1

2

N

END ROAD WORK
G20-2A
48" X 24"

RAMP WA

756WA

LANE CLOSED
R11-2L
48" X 30"

S-40-868

SIDEWALK CLOSED
R9-9
24" X 12"

25' TYP

50' TYP

500'

56WWB
56WEB
58WWB
58WEB
60WWB
60WEB
62WWB
64WWB
64WEB
66WWB
66WEB
68WWB
68WEB
70WWB
70WEB

W. WATERTOWN PLANK ROAD

DISCOVERY PARKWAY

REMOVE S-40-961

ROAD WORK AHEAD
W20-1A

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"

END ROAD WORK
G20-2A
48" X 24"

MATCHLINE 71WEB+00

SIDEWALK CLOSED AHEAD CROSS HERE
R9-11
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 34WEB+55. LEFT

SIDEWALK CLOSED
R9-9
24" X 12"
PLACE SIGN ON TYPE II BARRICADE AT STA 44WEB+80. LEFT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET E

2

N

500'

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

ROAD WORK 500 FT
W20-1D

S-40-867

R9-11
24" X 12"

MATCHLINE 71WEB+00

72WWB
74WWB
76WWB
78WWB
80WWB
82WWB
84WWB
86WWB

72WEB
74WEB
76WEB
78WEB
80WEB
82WEB
84WEB
86WEB

W. WATERTOWN PLANK ROAD

N. 92ND STREET

12THS

10THS

MH
SIGN
FLAG
BOLLARD
VLV
WV

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\026306_s3.dgn PLOT DATE : 29-FEB-2016 21:48 PLOT BY : MSCDYB PLOT NAME : 026306_s3 PLOT SCALE : 100:1

2

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

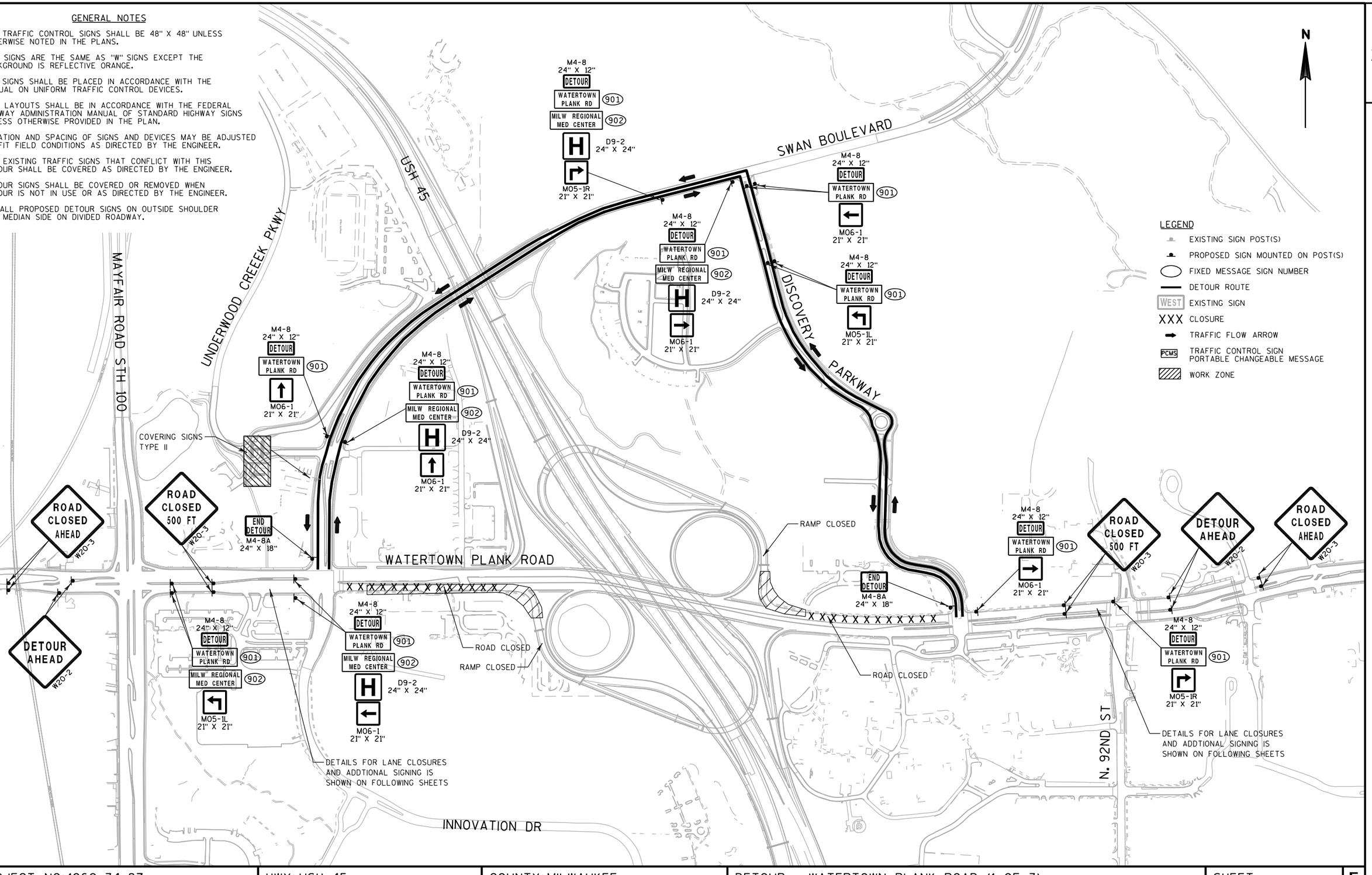
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	DETOUR - WATERTOWN PLANK ROAD (1 OF 3)	SHEET	E

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

LEGEND

- EXISTING SIGN POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- WEST EXISTING SIGN
- XXX CLOSURE
- TRAFFIC FLOW ARROW
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- WORK ZONE
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON TEMPORARY SUPPORT

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

R3-2
24" X 24"

W01-7
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

INSTALL SIGN STRUCTURE S-40-865

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

25' TYP

SWAN BOULEVARD

W. WATERTOWN PLANK ROAD

BOLLARDS

CANOPY

POST

SIGN

WATER TOWER

ASPHALT

CONCRETE

CONC

A/C

PHONE

GUY

MH

WV

INL

N

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	DETOUR - WATERTOWN PLANK ROAD (2 OF 3)	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\027002_dt.dgn PLOT DATE : 29-FEB-2016 21:48 PLOT BY : MSCDYB PLOT NAME : 027002_dt PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

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

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIDE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

LEGEND

- EXISTING SIGN POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- WEST EXISTING SIGN
- XXX CLOSURE
- TRAFFIC FLOW ARROW
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- WORK ZONE
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON TEMPORARY SUPPORT

N

DISCOVERY PARKWAY

LANE CLOSED
R11-2L
48" X 30"

R3-1
24" X 24"

INSTALL SIGN STRUCTURE S-40-867

LANE CLOSED
R11-2L
48" X 30"

50' TYP

245' LANE DROP

W04-2R

LANE CLOSED
R11-2L
48" X 30"

SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" FOR REQUIRED ADVANCE SIGNING

LANE CLOSED
R11-2L
48" X 30"

245' LANE DROP

25' TYP

WATERTOWN PLANK ROAD

ROAD CLOSED
R11-2
48" X 30"

W01-7
48" X 24"

WHEN INSTALLING OVERHEAD SECTION OF S-40-867 TRAFFIC MAY BE ROUTED ALONG TURN LANE. ADJUST TRAFFIC CONTROL DEVICES ACCORDINGLY.

N. 92ND ST

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	DETOUR - WATERTOWN PLANK ROAD (3 OF 3)	SHEET E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\027003_dt.dgn PLOT DATE : 29-FEB-2016 21:48 PLOT BY : MSCDYB PLOT NAME : 027003_dt PLOT SCALE : 100:1

2

2

N

DISCOVERY PARKWAY

RAMP WA

WA+90.20
102.58' RT
MATCH
EXISTING
FENCE

WA+80.61
99.73' RT

WA+96.31
60.28' RT

W. WATERTOWN PLANK ROAD

USH 45 NB

USH 45 SB

LEGEND

FENCE CHAIN LINK 6-FT

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	FENCING	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\027101_fn.dgn PLOT DATE : 01-MAR-2016 11:00 PLOT BY : MSCDYB PLOT NAME : 027101_fn PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

2

N

T 7 N
20 20
20 20
R 21 E

X=571773.24
Y=304820.60

N32°38'50"W

PT WA4

760WA

CURVE WA4

PC WA4

765WA

S89°40'12"W

PT WA3

PI WA3

R/L WA

760WA

CURVE WA3

PC WA3

PI WA4

T 7 N
20 20
29 29
R 21 E

X=571783.02
Y=302159.76

1/4 LINE 2660.86' N0°12'38"W

T 7 N
20 21
29 28
R 21 E

X=574416.80
Y=302173.39

B

N89°44'51"E

SECTION LINE N89°44'51"E 2667.48'

45WWB
45WEB

PC WWB3

PI WWB3

CURVE WWB3

PT WWB3

50WWB
50WEB

SECTION LINE N89°42'13"E 2633.82'

N89°44'51"E

CURVE WEB3

S77°57'37"E

S77°57'37"E

55WWB
55WEB

PC WWB4

CURVE WWB4

PT WWB4

PI WWB4

PT WA2

PCC WA1/WA2

CURVE WA1

PI WA1

PI WA2

CURVE WA2

753WA+19.47 RAMP WA =
60WWB+96.71 W. WATERTOWN PLANK RD WB, 38.0' LT
X = 572990.25
Y = 301977.36

PC WA1

S80°11'53"E

755WA

60WWB
60WEB

R/L WWB

65WWB
65WEB

70WWB
70WEB

N85°49'08"E

N85°49'08"E

PT WWB5

CURVE WWB5

CURVE WEB4

PT WEB4

PC WEB4

PC WWB5

PI WEB4

PI WWB5

R/L WEB

T 7 N
19 20
30 29
R 21 E

X=569115.57
Y=302148.00

PT WC5

CURVE WC5

PI WC5

PC WC5

PC WEB3

PI WEB3

PT WEB3

768WC+68.17 RAMP WC =
44WEB+28.59 W. WATERTOWN
PLANK ROAD EB, 38.0' RT
X = 571342.24
Y = 302107.82

N11°41'30"W

765WC

PT WC4

CURVE WC4

PI WC4

PC WC4

N84°54'24"W

760WC

PT WC3

R/L WC

PI WC3

CURVE WC3

755WC

PCC WC2/WC3

T 7 N
29 29
29 29
R 21 E

X=571800.79
Y=299505.73

1/4 LINE 2654.09' S0°23'1"E

CURVE WC2

PI WC2

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\027201_ad.dgn PLOT DATE : 29-FEB-2016 21:49 PLOT BY : MSCDYB PLOT NAME : 027201_ad PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

N

T 7 N
R 21 E
20 20
29 29

X=571783.02
Y=302159.76

SECTION LINE N89°42'13"E 2633.82'

T 7 N
R 21 E
20 21
29 28

X=574416.80
Y=302173.39

65WWB
65WEB
CURVE WWB5
CURVE WEB4

PT
WWB5

PT
WEB4

R/L WWB

70WWB N85°49'08"E
70WEB
N85°49'08"E

R/L WEB

75WWB
75WEB

T 7 N
R 21 E
29 28
29 28

X=574448.90
Y=299508.94

SECTION LINE S0°41'25"E 2664.64'

SECTION LINE S0°29'37"W 2664.44'

78WEB+58.30 W. WATERTOWN PLANK ROAD EB =
12THS+20.33 N. 92ND STREET
X = 574744.99
Y = 301964.12

R/L THS

PC
THS1

5THS

M 00.00 0N

CURVE THS1

PI
THS1

M 52.20 NS

PC
THS2

CURVE THS2

PI
THS2

10THS

N2°37'24"E

PT
THS1

PT
THS2

1THS+77.67 N. 92ND STREET =
77WEB+92.69 W. WATERTOWN PLANK ROAD EB,
1039.30' RT
X = 574755.33
Y = 300922.80

80WWB
80WEB

PC
WEB5

PC
WWB6

CURVE WEB5

CURVE WWB6

PI
WEB5

PI
WWB6

SECTION LINE N87°51'11"E 2680.36'

T 7 N
R 21 E
21 21
28 28

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET	E

2

CURVE DATA											
CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
WA1	754WA+00.79	572909.46	301986.59	2°24'45"	1°29'01"	81.32	162.61	0.86	3862.00	753WA+19.48	754WA+82.08
WA2	755WA+66.89	572745.35	302012.38	80°35'53"	57°17'45"	84.80	140.67	31.12	100.00	754WA+82.08	756WA+22.76
WA3	761WA+06.79	572740.68	302581.20	89°51'33"	20°25'35"	279.81	439.92	115.70	280.50	758WA+26.98	762WA+66.90
WA4	767WA+89.33	571938.45	302576.58	57°40'57"	11°48'49"	267.09	488.27	68.68	485.00	765WA+22.24	770WA+10.52
WC2	750WC+60.39	572647.27	301085.36	22°58'42"	2°48'31"	414.64	818.14	41.71	2040.00	746WC+45.74	754WC+63.88
WC3	756WC+61.38	572248.96	301550.20	44°18'51"	11°48'49"	197.50	375.11	38.67	485.00	754WC+63.88	758WC+39.00
WC4	763WC+67.15	571526.17	301614.62	73°12'54"	20°25'35"	208.37	358.44	68.93	280.50	761WC+58.78	765WC+17.21
WC5	768WC+12.85	571424.03	302108.18	78°33'39"	57°17'45"	81.79	137.11	29.19	100.00	767WC+31.06	768WC+68.17
THS1	6THS+29.00	574755.33	301374.13	5°52'20"	4°46'29"	61.55	122.99	1.58	1200.00	5THS+67.45	6THS+90.44
THS2	8THS+81.58	574729.48	301625.49	8°29'44"	6°44'26"	63.13	126.03	2.34	850.00	8THS+18.45	9THS+44.48
WEB3	48WEB+87.08	571800.56	302147.84	12°17'33"	5°27'24"	113.07	225.27	6.07	1050.00	47WEB+74.01	49WEB+99.28
WEB4	63WEB+10.66	573193.68	301850.71	16°13'15"	1°23'51"	584.28	1160.74	41.42	4100.00	57WEB+26.39	68WEB+87.13
WEB5	82WEB+50.75	575136.40	301992.73	10°33'38"	2°49'16"	187.70	374.34	8.66	2031.00	80WEB+63.05	84WEB+37.39
WWB3	47WWB+98.32	571710.45	302184.44	12°17'33"	5°22'48"	114.68	228.49	6.16	1065.00	46WWB+83.63	49WWB+12.12
WWB4	55WWB+79.01	572474.82	302021.41	2°14'16"	5°27'24"	20.51	41.01	0.20	1050.00	55WWB+58.50	55WWB+99.51
WWB5	63WWB+51.48	573236.02	301889.90	13°58'59"	1°28'09"	478.28	951.80	29.22	3900.00	58WWB+73.20	68WWB+25.00
WWB6	82WWB+68.04	575152.23	302029.98	10°33'38"	2°51'58"	184.75	368.45	8.52	1999.00	80WWB+83.30	84WWB+51.74

DATE 28APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1060-34-87 QUANTITY
0010	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0020	201.0120	Clearing	ID	11.000	11.000
0030	201.0220	Grubbing	ID	11.000	11.000
0040	204.0100	Removing Pavement	SY	1,168.000	1,168.000
0050	204.0150	Removing Curb & Gutter	LF	219.000	219.000
0060	204.0155	Removing Concrete Sidewalk	SY	536.000	536.000
0070	204.0170	Removing Fence	LF	150.000	150.000
0080	204.0195	Removing Concrete Bases	EACH	12.000	12.000
0090	204.0220	Removing Inlets	EACH	5.000	5.000
0100	204.0245	Removing Storm Sewer (size) 0004. 24-Inch	LF	189.000	189.000
0110	205.0100	Excavation Common	CY	4,846.000	4,846.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,050.000	1,050.000
0130	312.0115	Select Crushed Material	CY	1,008.000	1,008.000
0140	415.0085	Concrete Pavement 8 1/2-Inch	SY	1,519.000	1,519.000
0150	416.0610	Drilled Tie Bars	EACH	399.000	399.000
0160	416.0620	Drilled Dowel Bars	EACH	62.000	62.000
0170	517.1015.S	Concrete Staining Multi-Color (structure) 0001. S-40-865	SF	390.000	390.000
0180	517.1015.S	Concrete Staining Multi-Color (structure) 0002. S-40-866	SF	390.000	390.000
0190	517.1015.S	Concrete Staining Multi-Color (structure) 0003. S-40-867	SF	390.000	390.000
0200	517.1015.S	Concrete Staining Multi-Color (structure) 0004. S-40-868	SF	390.000	390.000
0210	517.1050.S	Architectural Surface Treatment (structure) 0001. S-40-865	SF	240.000	240.000
0220	517.1050.S	Architectural Surface Treatment (structure) 0002. S-40-866	SF	240.000	240.000
0230	517.1050.S	Architectural Surface Treatment (structure) 0003. S-40-867	SF	240.000	240.000
0240	517.1050.S	Architectural Surface Treatment (structure) 0004. S-40-868	SF	240.000	240.000
0250	520.8000	Concrete Collars for Pipe	EACH	3.000	3.000
0260	601.0331	Concrete Curb & Gutter 31-Inch	LF	1,032.000	1,032.000
0270	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	133.000	133.000
0280	601.0600	Concrete Curb Pedestrian	LF	22.000	22.000
0290	602.0410	Concrete Sidewalk 5-Inch	SF	9,886.000	9,886.000
0300	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	128.000	128.000
0310	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	28.000	28.000
0320	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	329.000	329.000
0330	611.0535	Manhole Covers Type J-Special	EACH	1.000	1.000
0340	611.0624	Inlet Covers Type H	EACH	5.000	5.000
0350	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
0360	611.0663	Inlet Covers Type X	EACH	1.000	1.000
0370	611.2005	Manholes 5-FT Diameter	EACH	3.000	3.000
0380	611.2008	Manholes 8-FT Diameter	EACH	1.000	1.000
0390	611.3004	Inlets 4-FT Diameter	EACH	7.000	7.000
0400	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0410	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0420	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0430	611.9710	Salvaged Inlet Covers	EACH	5.000	5.000

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DATE 28APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1060-34-87 QUANTITY
0440	616.0206	Fence Chain Link 6-FT	LF	106.000	106.000
0450	619.1000	Mobilization	EACH	1.000	1.000
0460	620.0300	Concrete Median Sloped Nose	SF	265.000	265.000
0470	623.0200	Dust Control Surface Treatment	SY	3,543.000	3,543.000
0480	624.0100	Water	MGAL	21.000	21.000
0490	628.1504	Silt Fence	LF	76.000	76.000
0500	628.1520	Silt Fence Maintenance	LF	76.000	76.000
0510	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0520	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0530	628.7005	Inlet Protection Type A	EACH	17.000	17.000
0540	628.7010	Inlet Protection Type B	EACH	9.000	9.000
0550	628.7015	Inlet Protection Type C	EACH	47.000	47.000
0560	628.7504	Temporary Ditch Checks	LF	134.000	134.000
0570	628.7570	Rock Bags	EACH	50.000	50.000
0580	629.0210	Fertilizer Type B	CWT	2.600	2.600
0590	631.0300	Sod Water	MGAL	74.700	74.700
0600	631.1000	Sod Lawn	SY	3,313.000	3,313.000
0610	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	28.000	28.000
0620	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	8.000	8.000
0630	636.0100	Sign Supports Concrete Masonry	CY	109.000	109.000
0640	636.1500	Sign Supports Steel Coated Reinforcement HS	LB	18,880.000	18,880.000
0650	637.1220	Signs Type I Reflective SH	SF	960.500	960.500
0660	637.2210	Signs Type II Reflective H	SF	383.750	383.750
0670	637.2230	Signs Type II Reflective F	SF	92.500	92.500
0680	638.2102	Moving Signs Type II	EACH	9.000	9.000
0690	638.2601	Removing Signs Type I	EACH	6.000	6.000
0700	638.2602	Removing Signs Type II	EACH	9.000	9.000
0710	638.3000	Removing Small Sign Supports	EACH	16.000	16.000
0720	641.1200	Sign Bridge Cantilevered (structure) 0001. S-40-865	LS	1.000	1.000
0730	641.1200	Sign Bridge Cantilevered (structure) 0002. S-40-866	LS	1.000	1.000
0740	641.1200	Sign Bridge Cantilevered (structure) 0003. S-40-867	LS	1.000	1.000
0750	641.1200	Sign Bridge Cantilevered (structure) 0004. S-40-868	LS	1.000	1.000
0760	643.0200	Traffic Control Surveillance and Maintenance (project) 0001. 1060-34-87	DAY	145.000	145.000
0770	643.0300	Traffic Control Drums	DAY	5,083.000	5,083.000
0780	643.0410	Traffic Control Barricades Type II	DAY	194.000	194.000
0790	643.0420	Traffic Control Barricades Type III	DAY	1,589.000	1,589.000
0800	643.0705	Traffic Control Warning Lights Type A	DAY	3,178.000	3,178.000
0810	643.0715	Traffic Control Warning Lights Type C	DAY	988.000	988.000
0820	643.0800	Traffic Control Arrow Boards	DAY	66.000	66.000
0830	643.0900	Traffic Control Signs	DAY	3,852.000	3,852.000
0840	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0850	643.1000	Traffic Control Signs Fixed Message	SF	238.000	238.000
0860	643.1050	Traffic Control Signs PCMS	DAY	31.000	31.000
0870	643.2000	Traffic Control Detour (project) 0001. 1060-34-87	EACH	1.000	1.000
0880	643.3000	Traffic Control Detour Signs	DAY	284.000	284.000
0890	646.0106	Pavement Marking Epoxy 4-Inch	LF	6,112.000	6,112.000
0900	646.0600	Removing Pavement Markings	LF	2,002.000	2,002.000

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DATE 28APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1060-34-87 QUANTITY
0910	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	218.000	218.000
0920	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	6.000	6.000
0930	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	6.000	6.000
0940	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	19.000	19.000
0950	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	19.000	19.000
0960	647.0356	Pavement Marking Words Epoxy	EACH	4.000	4.000
0970	647.0526	Pavement Marking Yield Line Symbols Epoxy 18-Inch	EACH	24.000	24.000
0980	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	728.000	728.000
0990	647.0796	Pavement Marking Crosswalk Epoxy 24-Inch	LF	210.000	210.000
1000	647.0955	Removing Pavement Markings Arrows	EACH	1.000	1.000
1010	647.0960	Removing Pavement Markings Symbols	EACH	1.000	1.000
1020	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	3,315.000	3,315.000
1030	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,078.000	1,078.000
1040	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	4,211.000	4,211.000
1050	652.0615	Conduit Special 3-Inch	LF	290.000	290.000
1060	652.0700.S	Install Conduit into Existing Item	EACH	7.000	7.000
1070	653.0905	Removing Pull Boxes	EACH	2.000	2.000
1080	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
1090	654.0105	Concrete Bases Type 5	EACH	7.000	7.000
1100	655.0230	Cable Traffic Signal 5-14 AWG	LF	553.000	553.000
1110	655.0305	Cable Type UF 2-12 AWG Grounded	LF	4,170.000	4,170.000
1120	655.0505	Electrical Wire Traffic Signals 14 AWG	LF	2,359.000	2,359.000
1130	655.0625	Electrical Wire Lighting 6 AWG	LF	7,076.000	7,076.000
1140	662.1024.S	Ramp Closure Gates Hardwired 24-FT	EACH	2.000	2.000
1150	662.1032.S	Ramp Closure Gates Hardwired 32-FT	EACH	1.000	1.000
1160	662.1037.S	Ramp Closure Gates Hardwired 37-FT	EACH	1.000	1.000
1170	670.0100	Field System Integrator 2001. FTMS	LS	1.000	1.000
1180	670.0200	ITS Documentation 2001. FTMS	LS	1.000	1.000
1190	674.0300	Remove Cable	LF	1,450.000	1,450.000
1200	674.0400	Reinstall Cable	LF	706.000	706.000
1210	676.0305	Signal Assembly Advance Flasher Type 2	EACH	2.000	2.000
1220	678.0006	Install Fiber Optic Cable Outdoor Plant 6-CT	LF	3,075.000	3,075.000
1230	678.0300	Fiber Optic Splice	EACH	16.000	16.000
1240	678.0400	Fiber Optic Termination	EACH	18.000	18.000
1250	678.0500	Communication System Testing 2001. FTMS	LS	1.000	1.000
1260	690.0250	Sawing Concrete	LF	1,090.000	1,090.000
1270	715.0502	Incentive Strength Concrete Structures	DOL	2,000.000	2,000.000
1280	SPV.0035	Special 0100. EBS Excavation	CY	68.000	68.000
1290	SPV.0035	Special 0101. EBS Backfill	CY	68.000	68.000
1300	SPV.0060	Special 0001. Traffic Control Local Road Lane Closures	EACH	200.000	200.000
1310	SPV.0060	Special 1002. Pull Box Non-Conductive 24x42 Inch	EACH	12.000	12.000
1320	SPV.0060	Special 1019. Relocating Light Poles, Arms and Luminaires	EACH	6.000	6.000
1330	SPV.0060	Special 1161. Pull Boxes Polymer Concrete Wauwatosa 17x30 Inch	EACH	4.000	4.000
1340	SPV.0060	Special 2001. Ground Rod	EACH	2.000	2.000
1350	SPV.0060	Special 2002. Salvage Microwave Detector Assembly	EACH	2.000	2.000

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DATE 28APR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1060-34-87 QUANTITY
1360	SPV.0060	Special 2003. Install Salvaged Microwave Detector Assembly	EACH	2.000	2.000
1370	SPV.0060	Special 2004. Salvage Advance Flasher Assembly Type 1	EACH	2.000	2.000
1380	SPV.0060	Special 2005. Install Salvaged Advance Flasher Assembly Type 1	EACH	1.000	1.000
1390	SPV.0060	Special 2006. Install Salvaged Advance Flasher Assembly Type 2	EACH	1.000	1.000
1400	SPV.0060	Special 2007. Removing On-Ramp Closure Gate	EACH	2.000	2.000
1410	SPV.0060	Special 5001. Hydrant Relocation	EACH	1.000	1.000
1420	SPV.0075	Special 0002. Pavement Cleanup Project 1060-34-87	HRS	40.000	40.000
1430	SPV.0075	Special 4000. Obstructions Sign Supports Concrete Masonry	HRS	4.000	4.000
1440	SPV.0090	Special 0016. Concrete Gutter And Gutter 55-Inch	LF	41.000	41.000
1450	SPV.0090	Special 0126. Pipe Underdrain 6-Inch Special	LF	640.000	640.000
1460	SPV.0090	Special 0152. Concrete Curb & Gutter 6-Inch Sloped 60-Inch Type A	LF	20.000	20.000
1470	SPV.0090	Special 0310. Pavement Marking Contrast Epoxy 11-Inch	LF	1,655.000	1,655.000
1480	SPV.0105	Special 0001. Removing Overhead Sign Structure S-40-964	LS	1.000	1.000
1490	SPV.0105	Special 0002. Removing Overhead Sign Structure S-40-984	LS	1.000	1.000
1500	SPV.0105	Special 0003. Removing Overhead Sign Structure S-40-961	LS	1.000	1.000
1510	SPV.0105	Special 0004. Removing Overhead Sign Structure S-40-985	LS	1.000	1.000
1520	SPV.0105	Special 0007. Survey Project 1060-34-87	LS	1.000	1.000
1530	SPV.0105	Special 6001. Rectangular Rapid Flash Beacon (RRFB) System 65+00 WWB	LS	1.000	1.000
1540	SPV.0105	Special 6002. Rectangular Rapid Flash Beacon (RRFB) Ramp WA Right	LS	1.000	1.000
1550	SPV.0105	Special 6003. Rectangular Rapid Flash Beacon (RRFB) System Ramp WA Left	LS	1.000	1.000
1560	SPV.0105	Special 6004. Rectangular Rapid Flash Beacon (RRFB) System Station 40+75 WEB	LS	1.000	1.000
1570	SPV.0105	Special 6005. Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Right	LS	1.000	1.000
1580	SPV.0105	Special 6006. Rectangular Rapid Flash Beacon (RRFB) System Ramp WC Left	LS	1.000	1.000
1590	SPV.0180	Special 0200. Topsoil Special	SY	3,313.000	3,313.000

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CLEARING AND GRUBBING ITEMS

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	201.0120 CLEARING ID	201.0220 GRUBBING ID
		RAMPS				
1000	1	RAMP WC				
			768WC+56	39' LT	5	5
			768WC+66	14' LT	2	2
		SUBTOTALS			7	7
		LOCAL ROADS				
		W. WATERTOWN PLANK ROAD				
			43WEB+60	46' RT	4	4
		SUBTOTALS			4	4
		TOTALS			11	11

REMOVING PAVEMENT

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY
		RAMPS					
1000	1	RAMP WC					
			766WC+71	-	43WEB+29	RT/LT	492
		SUBTOTAL					492
		RAMPS					
1000	2	RAMP WA					
			753WA+23	-	757WA+33	RT/LT	676
		SUBTOTAL					676
		TOTAL					1,168

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REMOVING CURB & GUTTER

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0150 REMOVING CURB & GUTTER LF
		RAMPS					
1000	1	RAMP WC					
			767WC+12	21' RT	767WC+31	17' RT	19
			767WC+86	15' RT	768WC+01	15' RT	18
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			43WEB+11	38' RT	43WEB+29	38' RT	17
			46WEB+34	38' RT	46WEB+64	38' RT	30
		SUBTOTAL					84
		RAMPS					
1000	2	RAMP WA					
			753WA+19	0' LT	753WA+81	0' LT	62
			755WA+57	15' LT	755WA+76	15' LT	23
			756WA+22	15' LT	756WA+43	15' LT	20
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			56WWB+86	38' LT	57WWB+16	38' LT	30
		SUBTOTAL					135
		TOTAL					219

REMOVING CONCRETE SIDEWALK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
		RAMPS					
1000	1	RAMP WC					
			767WC+90	-	42WEB+92	RT/LT	135
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			35WEB+92	-	36WEB+08	RT	11
			38WEB+50	-	38WEB+66	RT	11
			41WEB+82	-	41WEB+98	RT	11
			45WEB+05	-	46WEB+50	RT	96
		SUBTOTAL					264
		RAMPS					
1000	2	RAMP WA					
			753WA+51	-	755WA+70	RT	138
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			56WWB+99	-	58WWB+46	LT	98
			64WWB+22	-	64WWB+60	LT	25
			72WWB+99	-	73WWB+15	LT	11
		SUBTOTAL					272
		TOTAL					536

REMOVING FENCE

CATEGORY	STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	204.0170 REMOVING FENCE LF
		RAMPS					
1000	1	RAMP WC					
			768WC+40	79' LT	44WEB+27	92' RT	27
		SUBTOTAL					27
		RAMPS					
1000	2	RAMP WA					
			754WA+87	44' RT	756WA+90	103' RT	123
		SUBTOTAL					123
		TOTAL					150

REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0960 REMOVING PAVEMENT MARKINGS SYMBOLS EACH
		RAMPS						
1000	1	RAMP WC						
			766WC+15	-	767WC+31	58	--	--
			767WC+93	-	768WC+00	216	--	--
			768WC+01	-	768WC+68	154	--	--
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			38WEB+00	-	43WEB+28	264	--	--
			43WEB+28	-	45WEB+08	360	--	--
		SUBTOTALS				1,052	--	--
		RAMPS						
1000	2	RAMP WA						
			753WA+63	-	753WA+81	--	1	1
			754WA+82	-	755WA+61	182	--	--
			755WA+61	-	755WA+69	216	--	--
			756WA+23	-	757WA+41	60	--	--
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			58WWB+51	-	59WWB+32	162	--	--
			59WWB+32	-	64WWB+49	258	--	--
			78WWB+05	-	78WEB+71	72	--	--
		SUBTOTALS				950	1	1
		TOTALS				2,002	1	1

SAWING

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	690.0250 SAWING CONCRETE LF
		RAMPS					
1000	1	RAMP WC					
			766WC+71	-	43WEB+29	RT/LT	336
			767WC+12	-	767WC+31	RT	25
			767WC+86	-	768WC+01	RT	27
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			35WEB+92	-	36WEB+08	RT	12
			38WEB+50	-	38WEB+66	RT	12
			41WEB+82	-	41WEB+98	RT	12
			42WEB+92	-	42WEB+92	RT	6
			43WEB+11	-	43WEB+29	RT	20
			46WEB+34	-	46WEB+64	RT	41
		SUBTOTAL					491
		RAMPS					
1000	2	RAMP WA					
			753WA+19	-	753WA+81	RT/LT	71
			753WA+81	-	757WA+33	RT/LT	402
			755WA+57	-	755WA+76	LT	31
			756WA+22	-	756WA+43	LT	30
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			56WWB+86	-	57WWB+16	LT	41
			64WWB+22	-	64WWB+60	LT	12
			72WWB+99	-	73WWB+15	RT	12
		SUBTOTAL					599
		TOTAL					1,090

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STORM SEWER STRUCTURE REMOVALS

STAGE	ROADWAY	STATION	OFFSET	204.0220 REMOVING INLETS EACH	611.9710 SALVAGED INLET COVERS EACH	COMMENTS
1	**RAMP WC**	767WC+39	8' LT	1	1	TYPE H
1		767WC+61	8' LT	1	1	TYPE H
1		768WC+57	8' LT	---	1	TYPE H
2	**RAMP WA**	755WA+55	7' RT	1	1	TYPE H
2		756WA+39	33' RT	1	---	---
2		756WA+86	9' RT	1	1	TYPE X
	TOTALS			5	5	

STORM SEWER PIPE REMOVALS

STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.0004 REMOVING STORM SEWER 24-INCH LF
1	**RAMP WC**	767WC+39	8' LT	--	767WC+04	29' LT	41
1		767WC+61	8' LT	--	767WC+39	8' LT	20
2	**RAMP WA**	755WA+56	7' RT	--	756WA+39	9' RT	76
2		756WA+39	9' RT	--	756WA+86	33' RT	52
						TOTAL	189

ALL ITEMS CATEGORY 1000

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EARTH WORK SUMMARY

Division	From/To Station	Location	205.0100 Excavation Common (CY) (1)	SPV. 0035.0100 EBS Excavation (CY) (3)	Salvaged/ Unusable Pavement Material (CY)	Available Material (4)	SPV. 0035.0101 EBS Backfill (CY) (3)	Unexpanded Fill (5)	Expanded Fill (6)	Mass Ordinate +/- (7)	Waste	Borrow	Comment:
			Cut (2)				Factor 1.00		Factor 1.10			Item 208.0100	
1	766+71 TO 768+68	RAMP WC	885	12	65	819	12	58	64	756	756	0	
	43+29 TO 46+30	W. WATERTOWN PLANK RD	375	5	85	290	5	222	244	46	46	0	
Division 1 Subtotal Stage 1			1,259	18	150	1,109	18	280	308	801	801	0	
2	753+51 TO 757+33	RAMP WA	3,568	50	176	3,392	50	38	42	3,350	3,350	0	
	57+19 TO 58+41	W. WATERTOWN PLANK RD	18	0	13	5	0	62	68	-63	-63	0	
Division 2 Subtotal Stage 2			3,586	50	189	3,397	50	100	110	3,287	3,287	0	
Total			4,846	68	339	4,507	68	380	418	4,089	4,089	0	

NOTES:

1) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation SPV.00350100 (CY) to be backfilled with EBS Backfill SPV.0035.0101 (CY). EBS Excavation volume assumed as 5% of total roadway area at an average depth of 18-inches, in addition to locations shown in plans. All EBS Excavation to be wasted offsite. EBS Backfill Factor = 1.00.
Actual extents and depths of EBS Excavation will be determined by the engineer in the field.
4) Available Material = Cut - Salvaged/Unusuable Pavement Material
5) The backfill needed to construct the mechanically stabilized earth walls has been estimated. The MSE backfill quantity has been subtracted from the fill volume in all end area calculations. The width of the MSE backfill off of the back of the MSE wall has been estimated as 0.8 times the height of the retaining walls.
6) Expanded Fill. Factor = 1.10 Expanded Fill = Unexpanded Fill * Fill Factor
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 within the Division.
8) A soil expansion factor of 1.1 was used to generate estimated earthwork quantities. Due to potential soil variability, actual quantities may vary. No quantity adjustments will be made for differing soil expansion factors encountered in the field.

BASE AGGREGATE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0115 SELECT CRUSHED MATERIAL CY
		RAMPS					
1000	1	RAMP WC					
			766WC+71	-	43WEB+11	424	449
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			35WEB+92	-	36WEB+08	3	--
			38WEB+50	-	38WEB+66	3	--
			41WEB+82	-	41WEB+98	3	--
			45WEB+47	-	46WEB+64	42	--
		SUBTOTALS				475	449
		RAMPS					
1000	2	RAMP WA					
			753WA+19	-	757WA+33	520	559
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			56WWB+86	-	58WWB+12	45	--
			64WWB+22	-	64WWB+60	7	--
			72WWB+99	-	73WWB+15	3	--
		SUBTOTALS				575	559
		TOTALS				1,050	1,008

CONCRETE PAVEMENT

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY
		RAMPS				
1000	1	RAMP WC				
			766WC+71	-	43WEB+29	666
		SUBTOTAL				666
		RAMPS				
1000	2	RAMP WA				
			753WA+81	-	757WA+33	853
		SUBTOTAL				853
		TOTAL				1,519

DRILLED BAR ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
		RAMPS						
1000	1	RAMP WC						
			43WEB+11	-	44WEB+08	RT	41	14
			766WC+71	-	44WEB+08	RT/LT	119	13
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			46WEB+34	-	46WEB+64	RT	18	--
		SUBTOTALS					178	27
		RAMPS						
1000	2	RAMP WA						
			753WA+19	-	754WA+59	RT/LT	58	14
			754WA+59	-	757WA+33	RT/LT	145	21
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			56WWB+86	-	57WWB+16	LT	18	--
		SUBTOTALS					221	35
		TOTALS					399	62

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF
		RAMPS			
1000	1	RAMP WC			
			767WC+22	RT	16
			767WC+28	MEDIAN	32
			767WC+36	LT	16
		SUBTOTAL			64
		RAMPS			
1000	2	RAMP WA			
			756WA+21	RT	16
			756WA+27	MEDIAN	32
			756WA+33	LT	16
		SUBTOTAL			64
		TOTAL			128

CONCRETE CURB & GUTTER

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	601.0600 CONCRETE CURB PEDESTRIAN LF	SPV.0090.0016 CONCRETE CURB & GUTTER 55-INCH LF	SPV.0090.0152 CONCRETE CURB & GUTTER 6-INCH SLOPED 60-INCH TYPE A LF
		RAMPS									
1000	1	RAMP WC									
			766WC+71	-	767WC+21	LT	--	52	--	--	--
			767WC+13	-	767WC+31	RT	--	19	--	--	--
			767WC+13	-	768WC+39	MEDIAN	219	--	11	--	--
			767WC+21	-	43WEB+11	RT/LT	221	--	--	--	--
			767WC+86	-	768WC+01	RT	--	--	--	19	--
		LOCAL ROADS									
		W. WATERTOWN PLANK ROAD									
			46WEB+34	-	46WEB+64	RT	30	--	--	--	--
		SUBTOTALS					470	71	11	19	--
		RAMPS									
1000	2	RAMP WA									
			755WA+57	-	755WA+76	LT	--	--	--	22	--
			756WA+22	-	756WA+43	LT	--	--	--	--	20
			755WA+11	-	756WA+39	MEDIAN	227	--	11	--	--
			753WA+19	-	756WA+71	RT	305	--	--	--	--
			756WA+71	-	757WA+33	RT	--	62	--	--	--
		LOCAL ROADS									
		W. WATERTOWN PLANK ROAD									
			56WWB+86	-	57WWB+16	LT	30	--	--	--	--
		SUBTOTALS					562	62	11	22	20
		TOTALS					1,032	133	22	41	20

CONCRETE SIDEWALK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF
		RAMPS					
1000	1	RAMP WC					
			767WC+17	-	768WC+39	MEDIAN	1,126
			767WC+26	-	42WEB+92	LT	1,839
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			35WEB+92	-	36WEB+08	RT	96
			38WEB+50	-	38WEB+66	RT	97
			41WEB+82	-	41WEB+98	RT	96
			45WEB+47	-	46WEB+60	RT	1,387
		SUBTOTAL					4,641
		RAMPS					
1000	2	RAMP WA					
			753WA+41	-	756WA+30	RT	2,240
			755WA+11	-	756WA+39	MEDIAN	1,205
		LOCAL ROADS					
		W. WATERTOWN PLANK ROAD					
			56WWB+89	-	58WWB+12	LT	1,478
			64WWB+22	-	64WWB+60	LT	228
			72WWB+99	-	73WWB+15	LT	94
		SUBTOTAL					5,245
		TOTAL					9,886

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 1 SF
		RAMPS			
1000	1	RAMP WC			
			768WC+42	LT	129
		SUBTOTAL			129
		RAMPS			
1000	2	RAMP WA			
			755WA+08	RT	136
		SUBTOTAL			136
		TOTAL			265

ADJUSTING DRAINAGE STRUCTURES

STAGE	LOCATION	STATION	OFFSET FT	EXISTING RIM ELEVATION	TO	PROPOSED RIM ELEVATION	611.0535 MANHOLE COVERS TYPE J SPECIAL EACH	611.8110 ADJUSTING MANHOLE COVERS EACH
	RAMP WC							
1		768WC+57	8' LT	738.59	--	738.52	1	1
	TOTALS						1	1

CONCRETE COLLARS FOR PIPE

STAGE	ROADWAY	STATION	OFFSET	520.8000 CONCRETE COLLARS FOR PIPE EACH
	RAMP WC			
1		767WC+38	10' LT	1
	RAMP WA			
2		755WA+57	5' RT	1
2		756WA+87	32' RT	1
	TOTAL			3

3

ALL ITEMS CATEGORY 1000

STORM SEWER STRUCTURES											STORM SEWER PIPES											
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH[1] (FT)	STRUCTURE COMMENTS[2]	PIPE ID	STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH[B] (FT)	PLAN LENGTH[C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS[2]
RAMP WC	---	---	---	---	---	---	---	---	--	---	PE21	---	---	WE20	---	732.93	---	---	---	---	15	EXIST PIPE INTERPOL ELEV
RAMP WC	WE20	1	768WC+57.22	7.7	LT	738.52	---	---	---	ADJUSTING MANHOLE COVERS	PE22	1	WE20	---	732.93	---	---	---	---	---	15	EXIST PIPE INTERPOL ELEV
RAMP WC	W25	1	767WC+69.02	41.3	LT	736.08	INLETS 4-FT DIAMETER	H	4.88	IN - USE SALVAGED INLET COVERS	P26	1	W25	W27	731.20	731.14	0.50	12	16	III	24	IN
RAMP WC	W27	1	767WC+73.09	21.5	LT	736.72	INLETS 4-FT DIAMETER	H	5.58	IN - USE SALVAGED INLET COVERS	P28	1	W27	W29	731.14	731.07	0.50	14	19	III	24	IN
RAMP WC	W29	1	767WC+64.55	8.5	LT	737.37	MANHOLES 5-FT DIAMETER	H	6.30	IN - USE SALVAGED INLET COVERS	P30	1	W29	W35	731.07	730.97	0.50	20	25	III	24	IN
RAMP WC	W31	1	767WC+04.96	47.8	LT	734.53	INLETS MEDIAN 2 GRATE	MS	3.08	OUT	P32	1	W31	W33	731.45	731.21	1.00	24	27	III	24	OUT
RAMP WC	W33	1	767WC+24.10	31.2	LT	736.89	INLETS 4-FT DIAMETER	H	5.68	IN	P34	1	W33	W35	731.21	730.97	1.00	24	29	III	24	IN
RAMP WC	W35	1	767WC+37.73	6.2	LT	737.67	MANHOLES 5-FT DIAMETER	H	6.70	IN - USE SALVAGED INLET COVERS	PE36	---	W35	---	730.97	---	---	---	---	---	24	EXIST PIPE INTERPOL ELEV
RAMP WA	---	---	---	---	---	---	---	---	--	---	PE39	---	---	P40	---	750.43	---	---	---	---	24	EXIST PIPE INTERPOL ELEV
RAMP WA	---	---	---	---	---	---	---	---	--	---	P40	2	PE39	W41	750.43	750.27	2.00	8	10	III	24	OUT
RAMP WA	W41	2	756WA+79.63	34.4	RT	755.95	INLETS 4-FT DIAMETER	X	5.68	OUT	P42	2	W41	W43	750.27	750.19	0.30	26	30	III	24	OUT
RAMP WA	W43	2	756WA+51.44	43.3	RT	755.58	INLETS 4-FT DIAMETER	X	5.39	IN - USE SALVAGED INLET COVERS	P44	2	W43	W45	750.19	750.08	0.30	37	41	III	24	IN
RAMP WA	W45	2	756WA+04.71	39.5	RT	756.60	MANHOLES 5-FT DIAMETER	H	6.52	IN	P50	2	W45	W53	750.08	749.94	0.30	47	53	III	24	IN
RAMP WA	W46	2	756WA+10.28	7.4	RT	757.71	INLETS 4-FT DIAMETER	H	6.64	IN - DEPRESSED INLET	P47	2	W46	W48	751.07	750.91	1.00	16	20	III	24	IN
RAMP WA	W48	2	755WA+97.34	20.2	RT	757.24	INLETS 4-FT DIAMETER	H	6.33	IN	P49	2	W48	W45	750.91	750.80	1.00	11	15	III	24	IN
RAMP WA	W51	2	754WA+78.88	52.0	RT	758.51	INLETS MEDIAN 1 GRATE	MS	4.48	OUT	P52	2	W51	W53	754.03	753.80	1.00	23	28	III	18	OUT
RAMP WA	W53	2	755WA+15.33	39.6	RT	757.98	MANHOLES 8-FT DIAMETER	H	8.04	IN	P54	2	W53	WE55	749.94	749.74	0.50	40	44	III	24	IN
RAMP WA	---	---	---	---	---	---	---	---	--	---	PE55	---	P54	---	749.74	---	---	---	---	---	24	IN - EXIST PIPE INTERPOL ELEV

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[2] IN = PIPE OR STORM STRUCTURE WILL BE WITHIN PROPOSED OR FUTURE TRAVELED WAY.
OUT = PIPE OR STORM STRUCTURE WILL BE OUTSIDE THE PROPOSED OR FUTURE TRAVELED WAY.
WALL = BACKFILL SLURRY PIPE OR STORM STRUCTURE UPTO PROPOSED SUBGRADE

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY.
NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURE SUMMARY

611.2005 MANHOLES 5-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH	611.0663 INLET COVERS TYPE X EACH
3	1	7	1	1	5	3	1

STORM SEWER PIPE SUMMARY

608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF
28	329

ALL ITEMS CATEGORY 1000

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : W:\Cadd\Final\10603381_Z2\Roads\cds\030202_mq_dra.ppt PLOT DATE : 3/1/2016 10:30:31 AM PLOT BY : MSCCEJ PLOT NAME : 030201_mq_dra2 PLOT SCALE : 1:1

EROSION CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH
		RAMPS										
1000	1	RAMP WC										
			766WC+71	-	43WEB+20	RT/LT	54	54	--	--	36	--
		SUBTOTALS					54	54	--	--	36	--
		RAMPS										
1000	2	RAMP WA										
			753WA+81	-	757WA+33	RT	--	--	--	--	60	--
		SUBTOTALS					--	--	--	--	60	--
		UNDISTRIBUTED					22	22	2	4	38	50
		TOTALS					76	76	2	4	134	50

INLET PROTECTION

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH
		RAMPS						
1000	1	RAMP WC						
			766WC+71	-	43WEB+71	6	2	8
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			34WEB+34	-	46WEB+18	--	--	13
		SUBTOTALS				6	2	21
		RAMPS						
1000	2	RAMP WA						
			753WA+81	-	757WA+65	7	5	7
		LOCAL ROADS						
		W. WATERTOWN PLANK ROAD						
			57WWB+30	-	76WWB+70	--	--	9
		SUBTOTALS				7	5	16
		UNDISTRIBUTED				4	2	10
		TOTALS				17	9	47

RESTORATION ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	629.0210 FERTILIZER TYPE B CWT	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY	SPV.0180.0200 TOPSOIL SPECIAL SY
	RAMPS							
1000	RAMP WA							
		753WA+19	-	757WA+33	.7	22.2	988	988
	RAMP WC							
		766WC+71	-	42WEB+92	.5	15.5	689	689
	LOCAL ROADS							
1000	W. WATERTOWN PLANK ROAD							
		35WEB+92	-	41WEB+98	.1	.7	27	27
		45WEB+02	-	46WEB+64	.5	15.9	705	705
		56WWB+86	-	58WWB+57	.4	12.9	572	572
		64WWB+22	-	73WWB+15	.1	.7	30	30
	SUBTOTALS				2.3	67.9	3,011	3,011
	UNDISTRIBUTED				.3	6.8	302	302
	TOTALS				2.6	74.7	3,313	3,313

3

CPM PROGRESS SCHEDULE

CATEGORY	STAGE	LOCATION	108.4400 CPM PROGRESS SCHEDULE EACH
1000	ALL	UNDISTRIBUTED	1
		TOTAL	1

FENCE CHAIN LINK 6-FT

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	616.0206 FENCE CHAIN LINK 6-FT LF
		RAMPS				
1000	2	RAMP WA				
			754WA+96	-	756WA+90	106
		SUBTOTAL				106
		TOTAL				106

MOBILIZATION

CATEGORY	STAGE	LOCATION	619.1000 MOBILIZATION EACH
1000	ALL	PROJECT	1
		TOTAL	1

3

DUST CONTROL SURFACE TREATMENT

CATEGORY	STAGE	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
1000	ALL	PROJECT	3,543
		TOTAL	3,543

WATER

CATEGORY	STAGE	LOCATION	624.0100 WATER MGAL
1000	ALL	PROJECT-BASE AGGREGATE	2
		PROJECT- EXCAVATION	19
		TOTAL	21

HYDRANT RELOCATION

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	SPV.0060.5001 HYDRANT RELOCATION EACH
1000	1	WATERTOWN PLANK ROAD WB			
			59WWB+25.2	54.1' LT	1
		TOTAL			1

PAVEMENT CLEANUP

CATEGORY	STAGE	LOCATION	SPV.0075.0002 PAVEMENT CLEANUP PROJECT 1060-34-87 HRS
1000	ALL	PROJECT	
			40
		TOTAL	40

3

PIPE UNDERDRAIN

CATEGORY	STAGE	ROADWAY	BEGIN STATION	END STRUCTURE	OFFSET	SPV.0090.0126 PIPE UNDERDRAIN 6-INCH SPECIAL LF
		RAMPS				
1000	1	RAMP WC				
			766WC+71	W33	LT	55
			767WC+24	W25	LT	32
			43WEB+11	W25	LT	185
		SUBTOTAL				272
		RAMPS				
1000	2	RAMP WA				
			753WA+19	W53	RT	191
			755WA+15	W45	RT	52
			757WA+33	W45	RT	125
		SUBTOTAL				368
		TOTAL				640

SURVEY PROJECT

CATEGORY	STAGE	LOCATION	SPV.0105.0007 SURVEY PROJECT 1060-34-87 LS
1000	ALL	PROJECT	
			1
		TOTAL	1

3

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION	TO	STATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH 3 FT LINE, 9 FT SKIP WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH 2 FT LINE, 6 FT SKIP WHITE LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH WHITE LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 WHITE EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 WHITE EACH	647.0206 PAVEMENT MARKING ARROWS BIKE LANE EPOXY WHITE EACH	647.0306 PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY WHITE EACH	647.0356 PAVEMENT MARKING WORDS EPOXY WHITE EACH	647.0526 PAVEMENT MARKING YIELD LINE SYMBOLS EPOXY 18-INCH WHITE EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH WHITE LF	647.0796 PAVEMENT MARKING CROSSWALK EPOXY 24-INCH WHITE LF	SPV.0090.0310 PAVEMENT MARKING CONTRAST EPOXY 11-INCH 3 FT LINE, 9 FT SKIP WHITE LF	SPV.0090.0310 PAVEMENT MARKING CONTRAST EPOXY 11-INCH WHITE LF
	RAMPS																				
1000	RAMP WA																				
		753WA+81	-	757WA+41	--	311	185	--	45	1	--	--	--	1	12	38	164	100	--	630
	RAMP WC																				
		43WEB+29	-	766WC+15	--	307	174	--	43	1	--	--	--	1	12	26	151	110	--	623
	SUBTOTALS				--	618	359	--	88	2	--	--	--	2	24	64	315	210	--	1,253
	LOCAL ROADS																				
1000	WATERTOWN PLANK ROAD EB																				
		33WEB+25	-	34WEB+31	--	--	--	49	--	--	--	--	--	--	--	--	--	--	--	--	--
		33WEB+37	-	34WEB+31	--	--	--	43	--	--	--	--	--	--	--	--	--	--	--	--	--
		34WEB+45	-	37WEB+65	--	320	--	--	--	1	1	2	2	--	--	--	--	--	--	--	--
		38WEB+00	-	44WEB+00	35	341	--	--	--	1	2	2	2	1	--	--	--	--	--	135	--
		44WEB+44	-	47WEB+44	--	467	--	--	--	--	--	2	2	--	--	--	175	--	--	--	79
		48WEB+68	-	59WEB+56	--	1,085	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--
		78WEB+07	-	78WEB+72	--	--	--	38	--	--	--	--	--	--	--	--	--	--	--	--	--
	WATERTOWN PLANK ROAD WB																				
		44WWB+02	-	55WWB+09	--	1,113	--	--	--	--	--	2	2	--	--	--	--	--	--	--	--
		56WWB+21	-	59WWB+18	--	459	--	--	--	--	--	2	2	--	--	--	174	--	--	--	82
		59WWB+50	-	69WWB+03	--	763	--	--	--	2	3	4	4	1	--	--	--	--	--	106	--
		71WWB+25	-	77WWB+50	--	552	--	--	--	--	--	3	3	--	--	--	--	--	--	--	--
	SUBTOTALS				35	5,100	--	130	--	4	6	19	19	2	--	--	349	--	241	161	
	TOTALS					6,112			218	6	6	19	19	4	24		728	210		1,655	

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STAGE DURATION DAYS	643.0200.0001 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE 1060-34-87 DAYS	643.0300* TRAFFIC CONTROL DRUMS EACH**	643.0300* TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH**	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420* TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420* TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715* TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715* TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800* TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800* TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 TRAFFIC CONTROL SIGNS DAY
1000	1A		19	19														
		W. WATERTOWN PLANK ROAD			18	342	1	19	5	95	10	190	--	--	--	--	17	323
		SWAN BOULEVARD/INNOVATION DRIVE			--	--	--	--	--	--	--	--	--	--	--	--	3	57
		SUBTOTALS		19		342		19		95		190		--		--		380
	1B		14	14														
		W. WATERTOWN PLANK ROAD			62	868	1	14	9	126	18	252	9	126	1	14	20	280
		SWAN BOULEVARD/INNOVATION DRIVE			28	392	--	--	2	28	4	56	--	--	--	--	10	140
		SUBTOTALS		14		1,260		14		154		308		126		14		420
	1C		14	14														
		W. WATERTOWN PLANK ROAD			11	154	1	14	8	112	16	224	4	56	--	--	17	238
		SWAN BOULEVARD/INNOVATION DRIVE			--	--	--	--	--	--	--	--	--	--	--	--	3	42
		SUBTOTALS		14		154		14		112		224		56		--		280
1000	2A		14	14														
		W. WATERTOWN PLANK ROAD			21	294	1	14	5	70	10	140	--	--	--	--	16	224
		DISCOVERY PARKWAY			--	--	--	--	--	--	--	--	--	--	--	--	2	28
		SUBTOTALS		14		294		14		70		140		--		--		252
	2B		21	21														
		W. WATERTOWN PLANK ROAD			58	1,218	1	21	8	168	16	336	11	231	1	21	19	399
		DISCOVERY PARKWAY			--	--	--	--	--	--	--	--	--	--	--	--	2	42
		SUBTOTALS		21		1,218		21		168		336		231		21		441
	2C		14	14														
		W. WATERTOWN PLANK ROAD			12	168	1	14	8	112	16	224	4	56	--	--	17	238
		DISCOVERY PARKWAY			--	--	--	--	--	--	--	--	--	--	--	--	2	28
		SUBTOTALS		14		168		14		112		224		56		--		266
1000	3		49	49														
		W. WATERTOWN PLANK ROAD			23	1,127	2	98	16	784	32	1,568	8	392	--	--	32	1,568
		SWAN BOULEVARD/INNOVATION DRIVE			--	--	--	--	--	--	--	--	--	--	--	--	3	147
		DISCOVERY PARKWAY			--	--	--	--	--	--	--	--	--	--	--	--	2	98
		SUBTOTALS		49		1,127		98		784		1,568		392		--		1,813
		UNDISTRIBUTED		--		913		39		299		598		172		7		770
		TOTALS		145		4,563		194		1,495		2,990		861		35		3,852

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
**FOR INFORMATION ONLY

3

TRAFFIC CONTROL ITEMS (DETOUR)

CATEGORY	STAGE	LOCATION	DURATION DAYS	643.0300* TRAFFIC CONTROL DRUMS EACH**	643.0300* TRAFFIC CONTROL DRUMS DAYS	643.0420* TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420* TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705* TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715* TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715* TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800* TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800* TRAFFIC CONTROL ARROW BOARDS DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NUMBER OF CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II NUMBER OF SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.2000.0001 TRAFFIC CONTROL DETOUR 1060-34-87 EACH	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH**	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS
1000	1/3	**WATERTOWN PLANK ROAD EB**	3																			
		WATERTOWN PLANK ROAD		40	120	7	21	14	42	14	42	--	--	--	--	--	1	3	--	31	93
		SWAN BOULEVARD/INNOVATION DRIVE		36	108	6	18	12	36	--	--	--	--	6	3	2	--	--	--	4	12
		SUBTOTALS			228		39		78		42		--	6				3	--		105
	2/3	**WATERTOWN PLANK ROAD WB**	3																			
		WATERTOWN PLANK ROAD		48	144	8	24	16	48	20	60	2	6	--	--	--	1	3	--	40	120
		DISCOVERY PARKWAY		16	48	2	6	4	12	--	--	--	--	--	--	--	--	--	--	3	9
		SUBTOTALS			192		30		60		60		6	--				3	--		129
		UNDISTRIBUTED			100		25		50		25		25	4				25	1		50
		TOTALS			520		94		188		127		31	10				31	1		284

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
**FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	STAGE	SIGN NO.	SIGN SIZE W X H FT X FT	NO. OF SIGNS NEEDED	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
1000	DETOUR	901	4.0 X 2.0	16	128.00	WATERTOWN PLANK RD
		902	5.0 X 2.0	7	70.00	MILW REGIONAL MED CENTER
	SUBTOTAL				198.00	
	UNDISTRIBUTED				40.00	
	TOTAL				238.00	

TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES

CATEGORY	STAGE	LOCATION	SPV.0060.0001 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH
1000	ALL	PROJECT	200
		TOTAL	200

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TRAFFIC CONTROL PAVEMENT MARKING

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF
1000	1B					
		W. WATERTOWN PLANK ROAD				
			28WEB+56	-	32WEB+26	370
			34WEB+51	-	37WEB+50	300
			38WEB+55	-	43WEB+28	475
		SUBTOTALS				1,145
1000	2B					
		W. WATERTOWN PLANK ROAD				
			59WWB+32	-	68WWB+85	950
			70WWB+25	-	76WWB+95	670
		SUBTOTALS				1,620
		UNDISTRIBUTED				550
		TOTALS				3,315

FTMS PULL BOXES & COMMUNICATION VAULTS

CATEGORY	ROADWAY	ITEM ID	LOCATION STATION	LOCATION OFFSET	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	SPV.0060.1002* PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
1300	USH 45					
		EXPB764WC	764WC+55	23 ' LT	2	--
		PB765WC-1	765WC+00	27 ' LT	--	1
		PB765WC-2	765WC+00	24' RT	--	1
		PB768WC-1	767WC+92	47 ' LT	--	1
		PB768WC-2	767WC+94	23' RT	--	1
		EXCV44WWB	43WWB+76	99' RT	1	--
		EXPB758WA	759WA+10	23' RT	2	--
		PB758WA	758WA+87	22' RT	--	1
		PB757WA-1	757WA+15	33' RT	--	1
		PB757WA-2	757WA+15	27 ' LT	--	1
		PB756WA	755WA+27	46' RT	--	1
		PB755WA	755WA+17	60' RT	--	1
		PB755WA-1	758WA+27	24 ' LT	--	1
		EXPB756WA-1	755WA+83	24 ' LT	2	--
			TOTALS		7	10

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

FTMS CONDUIT AND TRACER WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
1300	USH 45					
		EXPB764WC - EXCV44WWB	400	--	800	--
		EXPB764WC - PB765WC-1	50	--	150	--
		PB765WC-1 - FYWC-1	15	30	--	--
		PB765WC-1 - PB765WC-2	55	--	--	110
		PB765WC-2 - FYWC-2	20	40	--	--
		PB765WC-1 - PB768WC-1	270	--	810	--
		PB768WC-1 - MD768WC	15	30	--	--
		PB768WC-1 - G40-62	30	30	--	--
		PB768WC-1 - PB768WC-2	70	--	70	--
		PB768WC-2 - G40-76	15	15	--	--
		EXPB758WA - PB755WA	340	--	680	--
		PB755WA - EXCV60WWB	65	--	130	--
		EXPB758WA - PB758WA	30	--	60	--
		PB758WA - FYWA-1	15	30	--	--
		PB758WA - PB757WA-1	215	--	645	--
		PB757WA-1 - MD768WA	30	60	--	--
		PB757WA-1 - PB757WA-2	60	--	--	180
		PB757WA-2 - PB758WA-1	150	--	300	
		PB758WA-1 - FYWA-2	15	30	--	
		PB757WA-2 - EXPB756WA-1	115	--	115	--
		EXPB756WA-1 - G40-77	25	25	--	--
		PB757WA-1 - PB756WA	340	--	340	--
		PB756WA - G40-63	20	20	--	--
		TOTALS		310	4,100	290

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

FTMS CABLE AND WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0505 ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG LF	674.0400 REINSTALL CABLE LF
1300	USH 45					
		EXPB764WC - EXCV44WWB	400	--	409	--
		EXPB764WC - PB765WC-1	50	--	59	106
		PB765WC-1 - FYWC-1	15	21	24	21
		PB765WC-1 - PB765WC-2	55	61	64	--
		PB765WC-2 - FYWC-2	20	26	29	--
		PB765WC-1 - PB768WC-1	270	--	279	270
		PB768WC-1 - MD768WC	15	--	24	15
		PB768WC-1 - PB768WC-2	30	--	39	--
		PB768WC-2 - G40-62	25	--	34	--
		PB768WC-2 - G40-76	50	--	59	--
		EXPB758WA - PB755WA	340	--	349	--
		PB755WA - EXCV60WWB	230	--	239	--
		EXPB758WA - PB758WA	30	36	39	66
		PB758WA - FYWA-1	15	21	24	21
		PB758WA - PB757WA-1	180	186	189	186
		PB757WA-1 - MD768WA	15	--	24	21
		PB757WA-1 - PB757WA-2	60	66	69	--
		PB757WA-2 - FYWA-2	130	136	139	--
		PB757WA-2 - EXPB756WA-1	145	--	154	--
		EXPB756WA-1 - G40-77	25	--	34	--
		PB756WA - G40-63	70	--	79	--
		TOTALS		553	2,359	706

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

FTMS CABLE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF
1300	USH 45			
		EXCB-RM-40-0025 - EXPB758WC	15	65
		EXPB758WC - EXPB761WC	235	285
		EXPB761WC - EXPB758WG	45	95
		EXPB758WG - EXPB754WG	295	345
		EXPB754WG - EXPB764WC	90	140
		EXPB764WC - EXCV44WWB	400	500
		EXCB-RM-40-0105 - EXPB764WA	15	65
		EXPB764WA - EXPB782WH-1	70	120
		EXPB782WH-1 - EXPB782WH	45	95
		EXPB782WH - EXPB761WA	275	325
		EXPB761WA - EXPB758WA	210	260
		EXPB758WA - PB755WA	400	450
		PB755WA - EXCV60WWB	230	330
		TOTALS		3,075

SALVAGE AND INSTALL SALVAGED FTMS POLES AND EQUIPMENT

CATEGORY	ROADWAY	ITEM ID	LOCATION STATION	LOCATION OFFSET	SPV.0060.2002 SALVAGE MICROWAVE DETECTOR ASSEMBLY EACH	SPV.0060.2003 INSTALL SALVAGED MICROWAVE DETECTOR ASSEMBLY EACH	SPV.0060.2004 SALVAGE ADVANCE FLASHER ASSEMBLY TYPE 1 EACH	SPV.0060.2005 INSTALL SALVAGED ADVANCE FLASHER ASSEMBLY TYPE 1 EACH	SPV.0060.2006 INSTALL SALVAGED ADVANCE FLASHER ASSEMBLY TYPE 2 EACH
1300	USH 45								
		EXMD767WC	767WC+58	20 'LT	1	--	--	--	--
		MD768WC	768WC+00	61 'LT	--	1	--	--	--
		EXMD756WA	756WA+00	26 'RT	1	--	--	--	--
		MD756WA	757WA+00	30 'RT	--	1	--	--	--
		EXFY768WC	768WC+13	25 'LT	--	--	1	--	--
		FYWC-2	764WC+84	24 'RT	--	--	--	1	--
		EXFY756WA	755WA+24	26 'RT	--	--	1	--	--
		FYWA-1	758WA+72	22 'RT	--	--	--	--	1
		TOTALS			2	2	2	1	1

FTMS BASES, POLES AND EQUIPMENT

CATEGORY	ROADWAY	ITEM ID	LOCATION	OFFSET	654.0105 CONCRETE BASE TYPE 5 EACH	SPV.0060.2001 GROUND ROD EACH
1300	IH 894					
		MD768WC	768WC+00	61'LT	1	1
		MD756WA	757WA+00	30'RT	1	1
		TOTALS			2	2

FTMS SIGNAL, FLASHER ASSEMBLY

CATEGORY	ROADWAY	ITEM ID	LOCATION	OFFSET	654.0101* CONCRETE BASES TYPE 1 EACH	676.0305 SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 2 EACH
1300	IH 894/IH 94/USH 45					
		FYWC-1	764WC+91	21'LT	--	1
		FYWC-2	764WC+84	24'RT	1	--
		FYWA-2	758WA+43	25'LT	--	1
		TOTALS			1	2

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

FTMS COMMUNICATIONS (CABINETS)

CATEGORY	ROADWAY	ITEM ID	STATION	OFFSET	678.0300 FIBER OPTIC SPICE EACH	678.0400 FIBER OPTIC TERMINATIONS EACH
1300	USH 45					
		EXCB-RM-40-0025	758WC+50	53'RT	--	12
		EXCV60WWB	60WWB+05	122'RT	16	--
		EXCB-RM-40-0105	763WA+73	37'LT	--	6
	TOTALS				16	18

MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0100.2001 FIELD SYSTEM INTEGRATOR (FTMS) LS	670.0200.2001 ITS DOCUMENTATION (FTMS) LS	678.0500.2001 COMMUNICATION SYSTEM TESTING (FTMS) LS
1300				
	USH 45	1	1	1
	TOTALS	1	1	1

3

RAMP CLOSURE GATE HARDWIRED

CATEGORY	ROADWAY	STATION	OFFSET	ITEM ID	662.1024.S 24-FT EACH	662.1032.S 32-FT EACH	662.1037.S 37-FT EACH
1300	USH 45						
		768WC+42	43 'LT	G40-62	1	--	--
		767WC+87	28 'RT	G40-76	--	1	--
		755WA+02	41 'RT	G40-63	1	--	--
		754WA+99	40 'RT	G40-77	--	--	1
	TOTALS				2	1	1

RAMP GATE CABLE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	655.0305 CABLE TYPE UF2-12 AWG GROUNDED LF
1300	IH 894/IH 94/ USH 45			
		G40-62	980	1010
		G40-76	1030	1060
		G40-63	935	1025
		G40-77	1000	1075
		TOTALS		4170

ITS REMOVALS

CATEGORY	ROADWAY	ITEM ID	674.0300* REMOVE CABLE LF
1300	USH 45		
		EXCB-RM-40-0025 - EXPB758WC	15
		EXPB758WC - EXPB761WC	235
		EXPB761WC - EXPB758WG	45
		EXPB758WG - EXPB754WG	295
		EXPB754WG - EXPB764WC	90
		EXPB764WC - EXPB768WC	310
		EXPB768WC - EXCV44WWB	135
		EXPB768WC - EXMD767WC	10
		EXPB768WC - EXFY768WC	20
		EXPB768WC - EXG-40-62	35
		EXCB-RM-40-0105 - EXPB764WA	15
		EXPB764WA - EXPB782WH-1	70
		EXPB782WH-1 - EXPB782WH	45
		EXPB782WH - EXPB761WA	275
		EXPB761WA - EXPB758WA	210
		EXPB758WA - EXPB756WA	305
		EXPB756WA - EXCV60WWB	295
		EXPB756WA - EXMD756WA	15
		EXPB756WA - EXFY756WA	70
		EXPB756WA - EXPB756WA-1	60
		EXPB756WA-1 - EXG-40-63	35
		TOTALS	1,450

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

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ITS REMOVALS

CATEGORY	ROADWAY	ITEM	DESCRIPTION	STATION	OFFSET	204.0195 REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	SPV.0060.2007 REMOVING ON-RAMP CLOSURE GATE EACH
1300	USH 45							
		EXPB768WC	PULL BOX	767WC+67	16' LT	--	1	--
		EXFY768WC	ADVANCE FLASHER	768WC+13	25' LT	1	--	--
		EXG40-62	RAMP GATE	768WC+06	13' LT	1	--	1
		EXMD767WC	MICROWAVE DETECTOR	767WC+58	20' LT	1	--	--
		EXFY756WA	ADVANCE FLASHER	755WA+24	26 'RT	1	--	--
		EXPB756WA	PULL BOX	756WA+15	27 'RT	--	1	--
		EXMD756WA	MICROWAVE DETECTOR	756WA+00	26 'RT	1	--	--
		EXG40-63	RAMP GATE	755WA+55	23' LT	1	--	1
					TOTALS	6	2	2

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

REMOVE OVERHEAD SIGN SUPPORTS - MISC QUANTITIES | CATEGORY CODE 1000 | 1060-34-87 Watertown Plank Road

LOCATION	REMOVING OVERHEAD SIGN SUPPORT S-40-964 SPV.0105.0001 L.S.	REMOVING OVERHEAD SIGN SUPPORT S-40-984 SPV.0105.0002 L.S.	REMOVING OVERHEAD SIGN SUPPORT S-40-961 SPV.0105.0003 L.S.	REMOVING OVERHEAD SIGN SUPPORT S-40-985 SPV.0105.0004 L.S.
Watertown Plank Road EB at STA 38+50	1			
Watertown Plank Road EB at STA 41+90		1		
Watertown Plank Road WB at STA 64+50			1	
Watertown Plank Road WB at STA 60+20				1
TOTAL	1	1	1	1

SHEET: 1 OF 1

PROJECT NO: 1060-34-87	HWY: WATERTOWN PLANK ROAD	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – REMOVE OVERHEAD SIGN SUPPORTS	SHEET:	E

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SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	637.1230 SIGNS TYPE I REFLECTIVE F [SF]	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I [EA]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONN. BOLTS [EA]	SPV.0060.XXX SIGN SUPPORT SPECIAL MOUNTING [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR			
																												POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
1		[41] [45] SOUTH NORTH CENTER LANE RIGHT LANE						3		3			TYPE F SHEETING IN BOTTOM HALF OF SIGN IS INCIDENTAL	16 X 6	96.00				1											
2	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON LIGHT POLE																	
	MB3-3	SOUTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																											
	MB3-1	NORTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																											
3	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON SIGNAL POLE																	
	MB3-3	SOUTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																											
	MB3-1	NORTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																											
4	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON LIGHT POLE																	
	MB3-3	SOUTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																											
	MB3-1	NORTH - BLUE	24 X 12																											
	M1-1	IH 41	24 X 24																											
	M1-4	USH 45	24 X 24																											
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																											
5		ALL NORTHBOUND SOUTHBOUND FREEWAY TRAFFIC [A] ONLY											REMOVE S-40-964 OVERHEAD SIGN SUPPORT						1											
6	E6-53	WATERTOWN PLK RD [A] SOUTH [41] [45] MILWAUKEE BELOIT MADISON											MOUNT ON SIGN BRIDGE S-40-865	13 X 10	130.00															
7	E6-54R (MOD)	[41] [45] NORTH FOND DU LAC [A]											MOUNT ON SIGN BRIDGE S-40-865	9 X 7	63.00															
8		[41] [45] MILWAUKEE BELOIT - MADISON FOND DU LAC ONLY [A]											REMOVE S-40-984 OVERHEAD SIGN SUPPORT						1											
9	E6-53	WATERTOWN PLK RD [A] SOUTH [41] [45] MILWAUKEE BELOIT MADISON											MOUNT ON SIGN BRIDGE S-40-866 I BEAMS INCIDENTAL	13 X 10	130.00															
10	E6-54R (MOD)	[41] [45] NORTH FOND DU LAC ONLY [A]											MOUNT ON SIGN BRIDGE S-40-866 I BEAMS INCIDENTAL	9 X 7.5	67.50															

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SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	637.1230 SIGNS TYPE I REFLECTIVE F [SF]	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I [EA]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONN. BOLTS [EA]	SPV.0060.XXX SIGN SUPPORT SPECIAL MOUNTING [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR			
																												POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
11	R4-4 (2S)	BEGIN RIGHT TURN LANE [A] YIELD TO BIKES							1				MOUNT ON LIGHT POLE																		
12	W3-8 (2M)	RAMP METERED WHEN FLASHING							1				MOUNT ON SIGNAL POLE																		
13	R11-54F (2M)	RAMP CLOSED USE ALT ROUTE FOLDING						2	1	2																					
14	E6-53	WATERTOWN PLK RD [A] NORTH [41] [45] FOND DU LAC											MOUNT ON SIGN BRIDGE S-40-867	13 X 8	104.00																	
15	E6-54 (MOD)	[41] [45] SOUTH MILWAUKEE BELOIT - MADISON [A]											MOUNT ON SIGN BRIDGE S-40-867	10 X 8	80.00																	
16	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON LIGHT POLE																		
	MB3-1	NORTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																												
	MB3-3	SOUTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																												
17	JV2-2 (2S)		48 X 84	28.000			1			1																					
	MB3-1	NORTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																												
	MB3-3	SOUTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																												
18		[41] [45] NORTH SOUTH CENTER LANE RIGHT LANE						3		3			TYPE F SHEETING IN BOTTOM HALF OF SIGN IS INCIDENTAL	16 X 6	96.00					1												
19		ALL NORTHBOUND SOUTHBOUND FREEWAY TRAFFIC [A] ONLY											REMOVE S-40-961 OVERHEAD SIGN SUPPORT							1											
20	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON LIGHT POLE																		
	MB3-1	NORTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																												
	MB3-3	SOUTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																												
21	JV2-2 (2S)		48 X 84	28.000			1						MOUNT ON LIGHT POLE																		
	MB3-1	NORTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20C	USE CENTER LANE - BLUE	24 X 24																												
	MB3-3	SOUTH - BLUE	24 X 12																												
	M1-1	IH 41	24 X 24																												
	M1-4	USH 45	24 X 24																												
	MB4-20R	USE RIGHT LANE - BLUE	24 X 24																												
22	W12-1D	DOUBLE DOWN ARROWS						1	1	1																					
23	W1-6 (2M)	NIGHT ARROW						1	1	1																					
24	W11-2 (2S)	PEDESTRIAN CROSSING	36 X 36		9.000		1	1					SEE RRFB DETAIL FOR MOUNTING																		
24A	W16-7R (2S)	RIGHT DIAGONAL DOWNWARD	30 X 18		3.750							24																			
24B	R10-25 (2S)	PUSH BUTTON TO TURN ON W	9 X 12	0.750								24																			

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	637.1230 SIGNS TYPE I REFLECTIVE F [SF]	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I [EA]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONN. BOLTS [EA]	SPV.0060.XXX SIGN SUPPORT SPECIAL MOUNTING [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR			
																												POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
25	W3-8 (2M)	RAMP METERED WHEN FLASHING							1				MOUNT ON LIGHT POLE																		
26	R4-4 (2S)	BEGIN RIGHT TURN LANE [A] YIELD TO BIKES							1	1																				
27	R11-54F (2M)	RAMP CLOSED USE ALT ROUTE FOLDING						2	1	2																				
28	E6-53	WATERTOWN PLK RD [A] NORTH [41] [45] FOND DU LAC											MOUNT ON SIGN BRIDGE S-40-868 I BEAMS INCIDENTAL	13 X 8	104.00																
29	E6-54R (MOD)	[41] [45] SOUTH MILWAUKEE BELOIT - MADISON ONLY [A]											MOUNT ON SIGN BRIDGE S-40-868 I BEAMS INCIDENTAL	10 X 9	90.00																
30	(NOT USED)																													
31	(NOT USED)																													
32		BIKE PATH [A]	18 X 24	3.000								11	MOUNT ON LIGHT POLE GREEN BACKGROUND, WHITE LETTERS																	
33	W11-2 (2M)	PEDESTRIAN CROSSING	36 X 36		9.000					1			SEE RRFB DETAIL FOR MOUNTING																	
33A	W16-7L (2M)	LEFT DIAGONAL DOWNWARD	30 X 18		3.750							33																		
33B	R10-25 (2M)	PUSH BUTTON TO TURN ON W.	9 X 12	0.750								33																		
34	R3-17 (2S)	BIKE LANE	30 X 24	5.000									MOUNT ON LIGHT POLE																	
35		BIKE LANE [A]	18 X 24	3.000						1			GREEN BACKGROUND, WHITE LETTERS																	
36		BIKE LANE [A]	18 X 24	3.000						1			GREEN BACKGROUND, WHITE LETTERS																	
37	W11-2 (2M)	PEDESTRIAN CROSSING	36 X 36		9.000					1			SEE RRFB DETAIL FOR MOUNTING																	
37A	W16-7L (2M)	LEFT DIAGONAL DOWNWARD	30 X 18		3.750							37																		
37B	R10-25 (2M)	PUSH BUTTON TO TURN ON W.	9 X 12	0.750								37																		
38		[41] [45] MILWAUKEE BELOIT - MADISON FOND DU LAC ONLY [A]											REMOVE S-40-985 OVERHEAD SIGN SUPPORT						1											
39		BIKE PATH [A]	18 X 24	3.000								26	GREEN BACKGROUND, WHITE LETTERS																	
40	R11-54F (2M)	RAMP CLOSED USE ALT ROUTE FOLDING						2	1	2																				
41	D16-1L	SOUTH [41] [45] [A]	72 X 60	30.000									MOUNT ON OVERHEAD SIGN SUPPORT S-40-638 REMOVE THE R3-5L (2M) BRACKETS INCIDENTAL																	
42	D16-1L	NORTH [41] [45] [A]	72 X 60	30.000									MOUNT ON OVERHEAD SIGN SUPPORT S-40-638 REMOVE THE R3-5L (2M) BRACKETS INCIDENTAL																	
43	J2-2 (2S)		69 X 48	23.000							2		SHEET 11 OF 12																	
	MB4-5	TO	24 X 12										USE 2.5 FOOT LONG STUB TO AVOID																	
	M1-1	IH 41	24 X 24										DUCT BANK																	
	MB3-1	NORTH	24 X 12																											
	MB5-1L	LEFT TURN ARROW	21 X 21																											
	MB4-5	TO	24 X 12																											
	M1-1	IH 41	24 X 24																											
	MB3-3	SOUTH	24 X 12																											
	MB5-1L	LEFT TURN ARROW	21 X 21																											

3

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.1220 SIGNS TYPE I REFLECTIVE SH [SF]	637.1230 SIGNS TYPE I REFLECTIVE F [SF]	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I [EA]	638.2101 MOVING SIGNS TYPE I [EA]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CONN. BOLTS [EA]	SPV.0060.XXX SIGN SUPPORT SPECIAL MOUNTING [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR			
																												POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
44	W11-15 (2M)	TRAIL CROSSING	36 X 36		9.000								SEE RRFB DETAIL FOR MOUNTING																		
44A	W16-9P (2M)	AHEAD PLAQUE	30 X 18		3.750							44																		
45	R1-5L (2M)	YIELD HERE TO PEDS LEFT AP	18 X 18	2.250						1			PLACE 25 FT IN ADVANCE OF CROSSWALK																		
46	R1-5R (2M)	YIELD HERE TO PEDS RIGHT A	18 X 18	2.250						1			MOUNT ON LIGHT POLE																		
47		TWO LANE RAMP	12 X 18		1.500						1		MOUNT FACING PEDESTRIANS																		
48		TWO LANE RAMP	12 X 18		1.500						1		MOUNT FACING PEDESTRIANS																		
49	W11-2 (2M)	PEDESTRIAN CROSSING	36 X 36		9.000		1	1					SEE RRFB DETAIL FOR MOUNTING																		
49A	W16-7R (2M)	RIGHT DIAGONAL DOWNWARD	30 X 18		3.750							49																		
49B	R10-25 (2M)	PUSH BUTTON TO TURN ON W.	9 X 12	0.750								49																		
50	W11-15 (2M)	TRAIL CROSSING	36 X 36		9.000								SEE RRFB DETAIL FOR MOUNTING																		
50A	W16-9P (2M)	AHEAD PLAQUE	30 X 18		3.750							50																		
51	R1-5L (2M)	YIELD HERE TO PEDS LEFT AP	18 X 18	2.250						1			PLACE 25 FT IN ADVANCE OF CROSSWALK																		
52	R1-5R (2M)	YIELD HERE TO PEDS RIGHT A	18 X 18	2.250						1			PLACE 25 FT IN ADVANCE OF CROSSWALK																		
53		TWO LANE RAMP	12 X 18		1.500						1		MOUNT FACING PEDESTRIANS																		
54		TWO LANE RAMP	12 X 18		1.500						1		MOUNT FACING PEDESTRIANS																		
55	W13-3 (2M)	RAMP 25 MPH	24 X 30		5.000								MOUNT ON LIGHT POLE																		
56	W13-3 (2M)	RAMP 25 MPH	24 X 30		5.000								MOUNT ON LIGHT POLE																		
57	D1-2	[41] [45] SOUTH NORTH [A] [A]	60 X 48	20.000						2			SHEET 3. 5 FOOT MOUNTING HEIGHT.																		
58	D1-2	[41] [45] NORTH SOUTH [A] [A]	60 X 48	20.000						2			SHEET 4. 5 FOOT MOUNTING HEIGHT.																		
59	R1-6 (2M)	YIELD TO PEDESTRIAN IN CRO	12 X 36	3.000							1		SHEET 4. 2 FOOT MOUNTING HEIGHT.																		
60	R1-6 (2M)	YIELD TO PEDESTRIAN IN CRO	9 X 12	0.750							1		SHEET 9. 2 FOOT MOUNTHING HEIGHT.																		
61	W3-8 (2M)		48 X 48	16.000									SHEET 5. MOUNT ON LIGHT POLE																		
62	W3-8 (2M)		48 X 48	16.000									SHEET 11. MOUNTY ON LIGHT POLE																		
UNDISTRIBUTED				--								--	--	X														--	--	--	--
TOTALS				383.750	92.500	0.000	9	16	9	28	8	--	--		960.500	0.000	0	0	6	0	0	0.0	0	0	0					

3

SHEET: 4 OF 4

PROJECT NO: 1060-34-87	HWY: WATERTOWN PLANK ROAD	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

3

LOCATION	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM 65+00 WWB L.S. SPV.0105.6001	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM Ramp WA Right L.S. SPV.0105.6002	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM Ramp WA Left L.S. SPV.0105.6003	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM Station 40+75 WEB L.S. SPV.0105.6004	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM Ramp WC Right L.S. SPV.0105.6005	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM Ramp WC Left L.S. SPV.0105.6006
65+00 WWB Westbound	1					
Ramp WA Right		1				
Ramp WA Left			1			
40+75 WEB - Eastbound				1		
Ramp WC Right					1	
Ramp WC Left						1
TOTAL	1	1	1	1	1	1

3

SHEET: 1 OF 1

PROJECT NO: 1060-34-87	HWY: WATERTOWN PLANK ROAD	COUNTY: MILWAUKEE	RECTANGULAR RAPID FLASHING BEACON – MISCELLANEOUS QUANTITIES	SHEET:	E

3

LIGHTING AND MISCELLANEOUS - FINAL

CATEGORY	STAGE	DESCRIPTION	LOCATION	REFERENCE	204.0195* REMOVING CONCRETE BASES EACH	654.0105 CONCRETE BASES TYPE 5 EACH	SPV.0060.1002 * PULL BOX NON-CONDUCTIVE 24 x 42-INCH EACH	SPV.0060.1019 RELOCATING LIGHT POLES, ARMS AND LUMINAIRES EACH	SPV.0060.1161 PULL BOXES POLYMER CONCRETE WAUWATOSA 17 x 30-INCH EACH	REMARKS
1100	1	FWW5	STA. 767WC+53.5, 42.95' LT	DOT	1	1	--	1	--	WAS STA. 767WC+75.8, 15.3' LT
		PB-WW-10A	STA. 767WC+87.06, 17.34' LT	DOT	--	--	1	--	--	
		BWE1	STA. 757WA+14.81, 28.65' RT	DOT	1	1	--	1	--	WAS 757WA+16.8. 24.2' RT
		AWE1	STA. 755WA+99.2, 43.2' RT	DOT	1	1	--	1	--	WAS 755WA+83.2, 18.4' RT
		PB-WE-07A	STA. 755WA+48.2, 46.73' RT	DOT	--	--	1	--	--	
		PB-DP-03A	STA. 754WA+96.0, 38.2' LT	WAUWATOSA	--	--	--	--	1	
		PB-DP-03B	STA. 60WWB+45.32, 43.18' LT	WAUWATOSA	--	--	--	--	1	
		DPB5	STA. 754WA+49.0, 18.12' LT	WAUWATOSA	1	1	--	1	--	WAS STA. 59WWB+21.0, 51.9' LT
		DPA5	STA. 60WWB+51.8, 43.2' LT	WAUWATOSA	1	--	--	1	--	TURN OVER TO WAUWATOSA
		PB-SB-18A	STA. 768WC+22.11, 43.12' LT	WAUWATOSA	--	--	--	--	1	
		PB-SB-18B	STA. 43WEB+47.3, 43.1' RT	WAUWATOSA	--	--	--	--	1	
		SBF11	STA. 44WEB+13.66, 62.7' RT	WAUWATOSA	1	1	--	1	--	WAS STA. 44WEB+06.6, 38.2' RT
1100	1			SUBTOTAL	6	5	2	6	4	
1100				TOTALS	6	5	2	6	4	

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

3

LIGHTING - WIRE AND CONDUIT - FINAL

CATEGORY	STAGE	FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 -INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3 -INCH LF	655.0625* ELECTRICAL WIRE LIGHTING 6 AWG LF	REMARKS
1100	1	HL-40-WW	PB-WW-1	EXISTING	--	128	
		PB_WW-1	PB-WW-10A	55	--	1032	190' OF CONDUIT EXISTS
		PB-WW-10A	FWW5	--	40	376	
		PB-WW-10A	EWW5	50	--	844	140' OF CONDUIT EXISTS
		FWW5	EWW6	123	--	520	
		AWE2	BWE1	35	--	688	135' OF CONDUIT EXISTS
		BWE1	AWE1	121	--	512	
		AWE1	PB-WE-07A	35	--	168	
		PB-WE-07A	PB-WE-01	30	--	864	170' OF CONDUIT EXISTS
		PB-WE-01	HL-40-WE	EXISTING	--	168	
		DPB4	PB-DP-03B	--	34	--	3" SLEEVE FOR EXIST CID
		PB-DP-03B	DPB5	34	--	164	
		DPB5	PB-DP-03A	48	--	220	
		PB-DP-03A	PB-DP-04	35	--	--	CONDUIT UNDER WTPR IS EMPTY
		PB-DP-03A	PB-DP-02	36	--	388	40' OF CONDUIT EXISTS
		SBE11	PB-SB-18B	--	37	--	3" SLEEVE FOR EXIST CID
		PB-SB-18B	SBF11	72	--	316	
		SBF11	PB-SB-18A	54	--	244	
		PB-SB-18A	PB-SB-19	40	--	336	35' OF CONDUIT EXISTS
		PB-SB-19	SBE12	EXISTING	--	108	
1100	1		SUBTOTAL	768	111	7076	
1100			TOTAL	768	111	7076	

* = ADDITIONAL QUANTITIES SHOWN ELSEWHERE

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1060-33-23		
FEDERAL PROJECT NUMBER	4.01	

PLAT OF RIGHT-OF-WAY REQUIRED FOR

LOCAL ROADS

(GLENVIEW AVENUE/WATERTOWN PLANK ROAD/SWAN BOULEVARD)

LOCAL ROADS — MILWAUKEE CO.

CONSTRUCTION PROJECT NUMBERS
1060-33-71 1060-33-72 1060-33-73

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
BUILDING	B	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.	**CURVE DATA**	
EASEMENT	EASE.	LONG CHORD	LCH
HIGHWAY EASEMENT	H.E.	LONG CHORD BEARING	LCB
IMAGE	I	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN
PROPERTY LINE	PL		
RECORDED AS	(100')		
REEL	R		

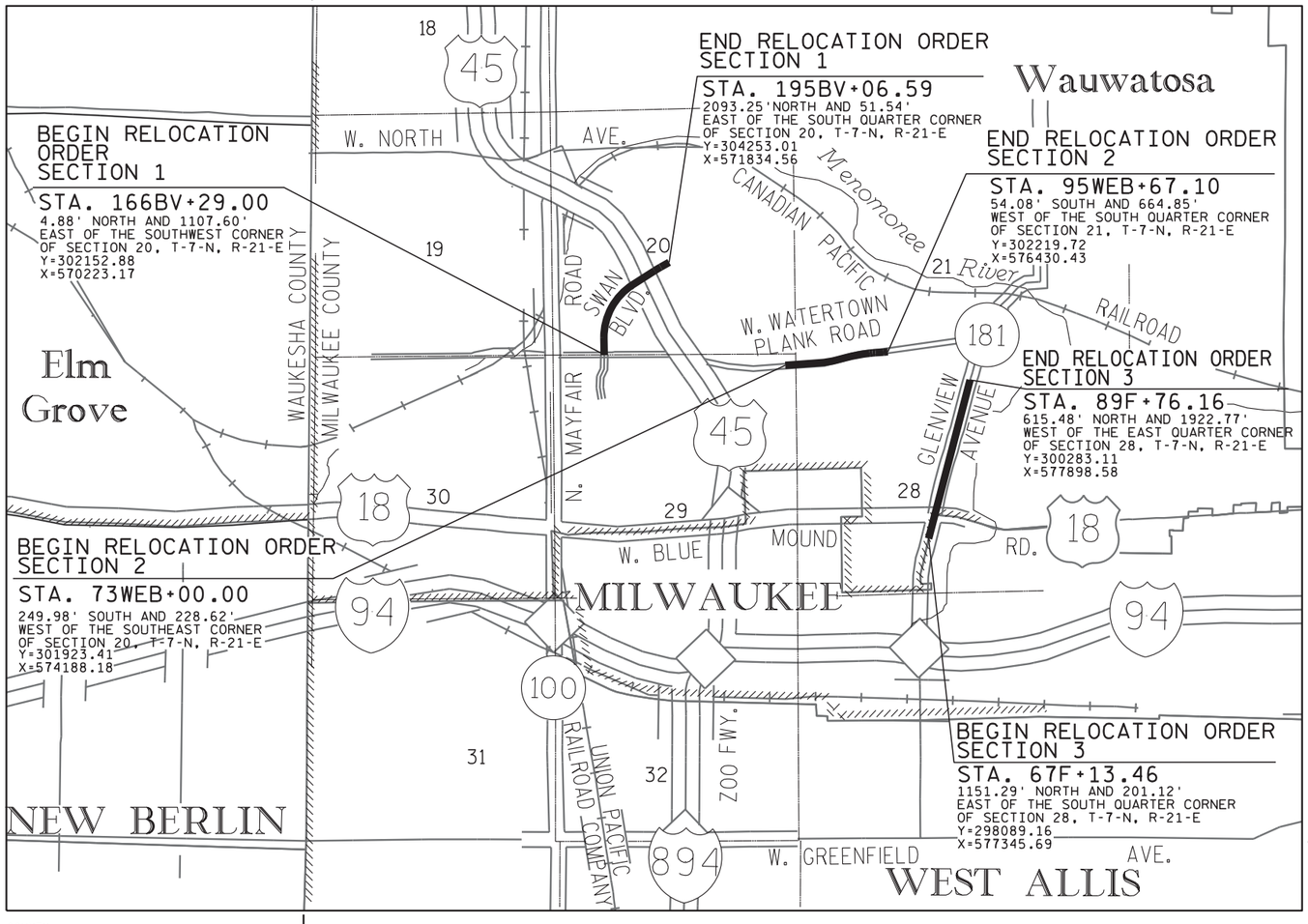
CONVENTIONAL SYMBOLS

- FOUND IRON PIPE/PIN — LP (1" UNLESS NOTED)
- R/W MONUMENT — ●(SET)
- R/W STANDARD — ▲(SET)
- SIGN — ISIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- PERMANENT LIMITED EASEMENT
- R/W BOUNDARY POINT — RWB20
- PARCEL NUMBER — 102
- UTILITY PARCEL NUMBER — 92
- SIGN NUMBER (OFF PREMISE) — 21-1
- BUILDING
- PROPOSED R/W LINE
- EXISTING H.E. LINE
- PROPERTY LINE
- LOT & TIE LINES
- SLOPE INTERCEPTS
- CORPORATE LIMITS
- ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
- ACCESS RESTRICTED (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING CENTERLINE
- PROPOSED REFERENCE LINE
- PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

R-20-E | R-21-E



T-7-N / T-6-N

R-20-E | R-21-E

T-7-N / T-6-N

NOTES;

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4 " REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINTS USED ON PROJECT WERE:
1) MILWAUKEE GPS
2) WAUWATOSA W. GPS

N

LAYOUT
SCALE 0 0.5 MI. 1 MI.

TOTAL NET LENGTH OF REFERENCE LINES = 1.460 MI.

ORIGINAL PLAT PREPARED BY:

WISCONSIN FORWARD 45 — KURT E. KRUGER S-1946 CASCADE, WI — LAND SURVEYOR

Kurt Kruger
August 26,2011

REVISION DATE
FEB. 16, 2012
MAY 4, 2012
AUG. 17, 2012
FEB. 15, 2013
MAY 21, 2013
SEPT. 8, 2014
NOV. 18, 2015

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: August 26,2011 C.E.Andersen (Signature)

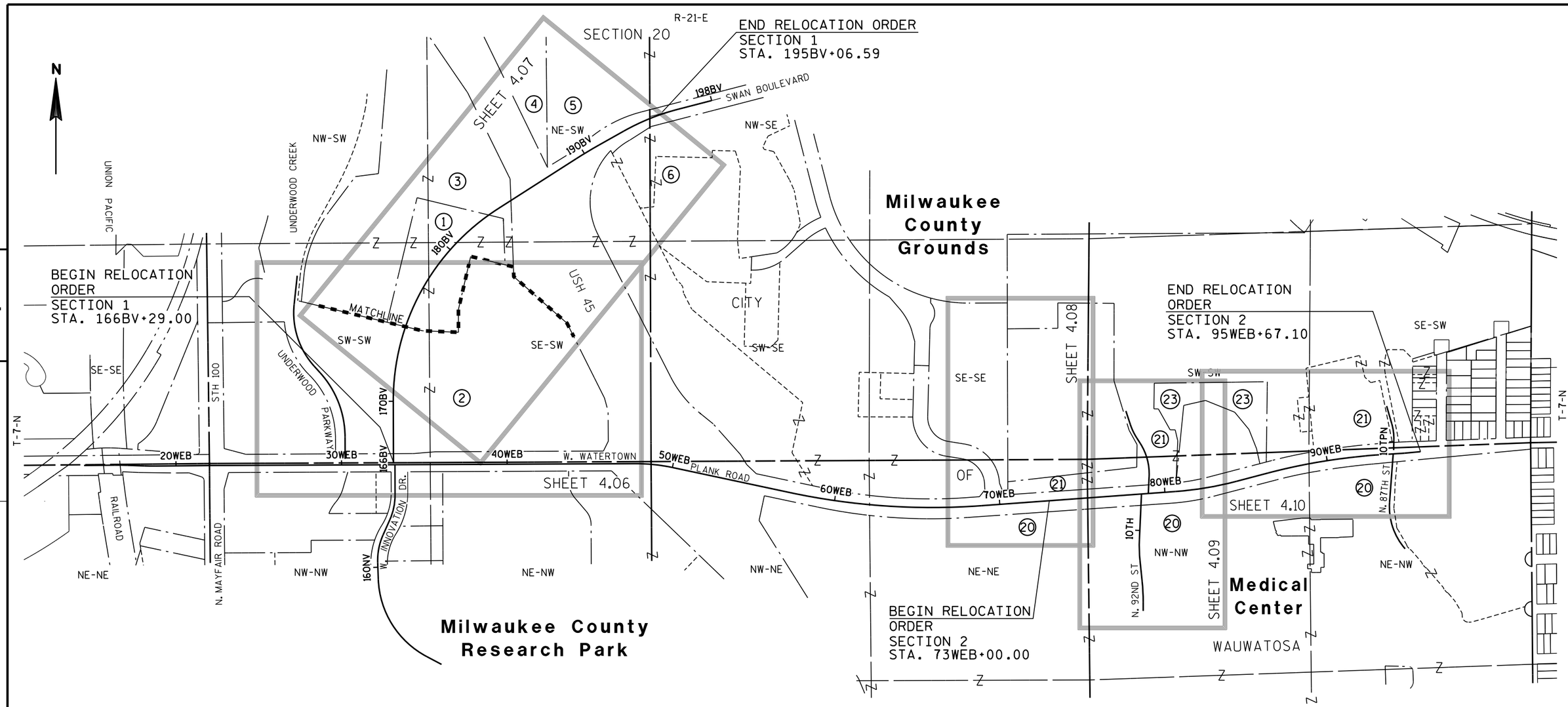
152 E

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

* DENOTES AREA COMPUTED

PROJECT FUNDING I.D.	PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	PARCEL NUMBER
1060-33-23	1(3)	4.07	MILWAUKEE COUNTY	FEE, TLE	8.156	6.192		6.192	1.964	1.964		1(3)
1060-33-23	2(3)	4.06	MILWAUKEE COUNTY	FEE,TLE	37.695	8.288		8.288	29.407	5.502		2(3)
1060-33-23	3(5)	4.07	WISCONSIN LUTHERAN COLLEGE INC.	FEE, PLE, TLE	26.857	0.728		0.728	26.129	0.966	0.083	3(5)
1060-33-23	4(3)	4.07	MILWAUKEE COUNTY	FEE, TLE	52.607	0.048		0.048	52.559	0.096		4(3)
1060-33-23	5(2)	4.07	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	FEE, TLE	67.292	0.283		0.283	67.009	0.155		5(2)
1060-33-23	6(4)	4.07	UWM INNOVATION PARK LLC	TLE	85.643				85.643	0.055		6(4)
1060-33-23	7(4)	4.11	JENNINGS & 84 BLUEMOUND, LLC	FEE,TLE	1.806*	0.011		0.011	1.795	0.030		7(4)
1060-33-23	8(3)	4.11	WISCONSIN LUTHERAN HIGH SCHOOL CONFERENCE	FEE,TLE	11.494	0.005		0.005	11.489	0.048		8(3)
1060-33-23	9(3)	4.11	82 BLUE, LLP	FEE,TLE	2.988	0.012		0.012	2.976	0.064		9(3)
1060-33-23	10(3)	4.11	SNC PROPERTIES, LLC	FEE,TLE	0.449	0.003		0.003	0.446	0.045		10(3)
1060-33-23	11(4)	4.11	MILWAUKEE COUNTY	PLE,TLE	VAST				VAST	0.011	0.054	11(4)
1060-33-23	12(3)	4.11	CALVARY ASSEMBLY OF GOD	FEE,TLE	1.269	0.054		0.054	1.215	0.055		12(3)
1060-33-23	13(3)	4.12	JEFFREY M. & MARY M. SCHICKER	TLE	0.193				0.193	0.008		13(3)
1060-33-23	14(3)	4.12	ANDREW & SUSAN H. SECRIST	TLE	0.193				0.193	0.014		14(3)
1060-33-23	15(3)	4.12	RICHARD J. & CAROL C. MEYER	TLE	0.226				0.226	0.024		15(3)
1060-33-23	16(3)	4.12	ROBERT C. & PATRICIA K. SCHULZ	TLE	0.188				0.188	0.010		16(3)
1060-33-23	17(3)	4.12	DANIEL L. & MARY L. WOEHRER	TLE	0.193				0.193	0.007		17(3)
1060-33-23	18(3)	4.12	CLIFFORD R. & SARA J. KASDORF	TLE	0.193				0.193	0.004		18(3)
1060-33-23	19(3)	4.12	MICHAEL & JACQUELINE PHILLIPS	TLE	0.368				0.368	0.005		19(3)
1060-33-23	20(4)	4.08,4.09,4.10	MILWAUKEE COUNTY	FEE,PLE,TLE	224.870	0.050		0.050	224.820	2.996	0.241	20(4)
1060-33-23	21(6)	4.08,4.09,4.10	MILWAUKEE COUNTY	FEE, PLE, TLE	VAST	1.437		1.437	VAST	1.983	0.113	21(6)
1060-33-23	22(3)	4.12	JERE A. & LINDA M. TRUDEAU	TLE	0.204				0.204	0.007		22(3)
1060-33-23	23(6)	4.09,4.10	RONALD MCDONALD HOUSE CHARITIES OF EASTERN WISCONSIN	FEE,PLE,TLE	3.500	0.018		0.018	3.482	0.408	0.001	23(6)
1060-33-23	24(8)	4.11	FEDERAL NATIONAL MORTGAGE ASSOCIATION (CORPORATION)	FEE	0.164	0.164		0.164	0.000			24(8)
1060-33-23	25(8)	4.11	KENNETH B & NAOMI C STEIN	TLE	0.205					0.021		25(8)
1060-33-23	26(8)	4.11	DAVID M. & MARGARET A. BAUDRY	TLE	0.169					0.012		26(8)
1060-33-23	500(3)	4.06 - 4.11	WE ENERGIES - ELECTRIC	ROR								500(3)
1060-33-23	501(8)	4.06,4.07, 4.09, 4.11	WE ENERGIES - GAS	ROR								501(8)
1060-33-23	502(3)	4.06,4.08 - 4.10	WE ENERGIES - STEAM	ROR								502(3)
1060-33-23	504(7)	4.06-4.11	AT&T WISCONSIN	ROR								504(7)
1060-33-23	506(7)	4.11	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT	MEMORANDOM OF UNDERSTANDING								506(7)
1060-33-23	507(3)	4.08,4.10	TIME WARNER CABLE	ROR								507(3)
1060-33-23	531(3)	4.11	CITY OF WAUWATOSA	ROR								531(3)
1060-33-23	532(3)	4.11	CITY OF WAUWATOSA WATER UTILITY	ROR								532(3)
1060-33-23	541(7)	4.09, 4.10	MILWAUKEE COUNTY -WATER	ROR								541(7)
1060-33-23	543(3)	4.08 - 4.09	MILWAUKEE COUNTY - ELEC/COM	ROR								543(3)
1060-33-23	UA631(3)	4.11,4.12	CITY OF WAUWATOSA	UTILITY AGREEMENT								UA631(3)
1060-33-23	UA632(3)	4.06,4.11,4.12	CITY OF WAUWATOSA WATER UTILITY	UTILITY AGREEMENT								UA632(3)
1060-33-23	UA641(3)	4.11	CITY OF MILWAUKEE - SEWER	UTILITY AGREEMENT								UA641(3)
1060-33-23	UA642(3)	4.11	CITY OF MILWAUKEE - WATER	UTILITY AGREEMENT								UA642(3)
1060-33-23	UA643(5)	4.11	REMOVED									UA643(5)
1060-33-23	UA644(3)	4.11	CITY OF MILWAUKEE - CONDUIT	UTILITY AGREEMENT								UA644(3)



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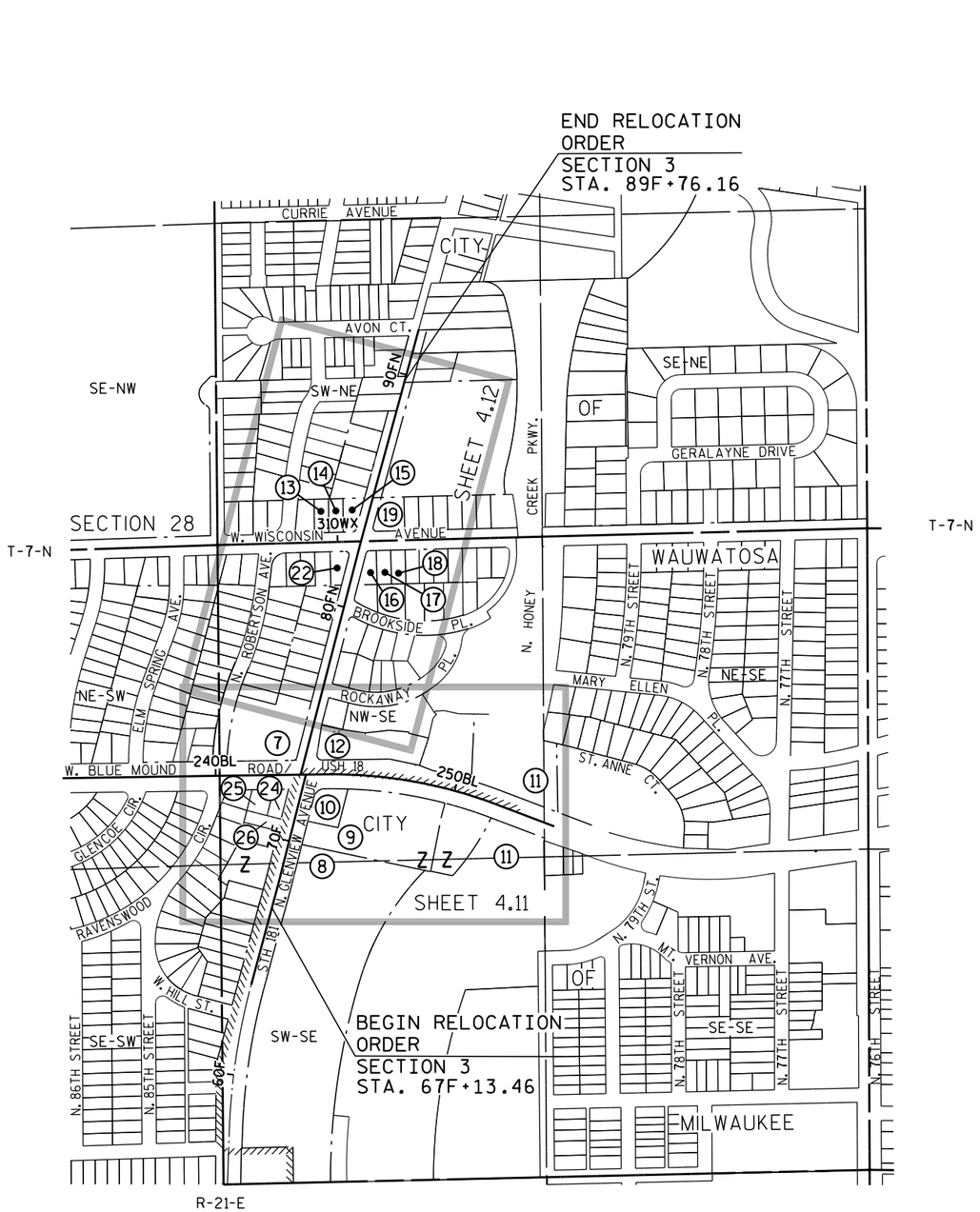
4

SHEET 4.03 OMITTED

REVISION DATE FEB. 16, 2012 FEB. 15, 2013 MAY 4, 2012 MAY 21, 2013 AUG. 17, 2012 SEPT. 8, 2014 NOV. 18, 2015	DATE AUG 26, 2011	NOT TO SCALE	HWY:LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.04
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-73 1060-33-72	PS&E SHEET 154 E

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040404_RL.dgn PLOT DATE : 18-NOV-2015 07:30 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 600:1

R-21-E



REVISION DATE AUG. 17, 2012 SEPT. 8, 2014 FEB. 15, 2013 NOV. 18, 2015 MAY 21, 2013	DATE MAY 4, 2012	NOT TO SCALE	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.05
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-71	PS&E SHEET 155 E

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040405_RL.dgn PLOT DATE : 18-NOV-2015 07:31 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 600:1

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

SWAN BOULEVARD REFERENCE LINE IS THE INSIDE EDGE OF SOUTHBOUND LANE.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

500 WE ENERGIES - ELECTRIC
PARCEL 2 - DOC. NO. 8763938
PARCEL 2 - DOC. NO. 3845014
PARCEL 2 - (NO RECORDED EASEMENT)

501 WE ENERGIES - GAS
PARCEL 2 - DOC. NO. 3814196 UA632 WAUWATOSA WATER UTILITY

502 WE ENERGIES - STEAM
PARCEL 2 - DOC. NO. 7298264

504 AT&T WISCONSIN
PARCEL 2 - DOC. NO. 3575475

C4
L = 336.33
R = 1491.50
LC = 335.61
LCB = N6°17'16"E

C5
L = 292.47
R = 1424.50
LC = 291.96
LCB = S5°42'35"W

C6
L = 84.64
R = 123.50
LC = 82.99
LCB = N70°18'35"E

C7
L = 141.11
R = 127.00
LC = 133.96
LCB = N18°51'26"E

C8
L = 205.28
R = 634.98
LC = 204.39
LCB = S9°30'19"E

C9
L = 425.52
R = 544.98
LC = 414.79
LCB = N22°36'42"W

C10
L = 250.57
R = 516.23
LC = 248.12
LCB = N31°04'28"W

C11
L = 220.59
R = 386.23
LC = 217.61
LCB = N28°37'04"W

C12
L = 74.54
R = 674.98
LC = 74.50
LCB = N41°48'58"W

C13
L = 146.68
R = 150.00
LC = 140.91
LCB = S61°59'07"W

RL SWAN BOULEVARD
PI STA. 177BV+54.31
Y : 303278.19
X : 570219.75
DELTA = 57°34'25"
D = 3°57'05"
T = 796.71'
L = 1457.03
R = 1450.00

RL USH 45
PI STA. 370NS+41.48
Y : 302749.78
X : 571636.09
DELTA = 7°49'18"
D = 0°57'03"
T = 411.88'
L = 822.49
R = 6025.00

RL UNDERWOOD PARKWAY (RELOCATED)
PI STA. 221UD+24.51
Y : 302881.46
X : 569603.70
DELTA = 96°10'23"
D = 26°38'57"
T = 239.51'
L = 360.88
R = 215.00

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	1100-1-23 U03-1(75)	1969	VARIES
USH 45	CSM 7371	2004	VARIES
WATERTOWN PLANK RD	CT-03-1(73)	1967	VARIES
WATERTOWN PLANK RD	O.C. DOC. 3745778	1959	55' SOUTH

SIGN	OWNER	DOCUMENT NO.
2-1	WISCONSIN LUTHERAN COLLEGE, INC.	9145403

REVISION DATE MAY 4, 2012 MAY 21, 2013 AUG. 17, 2012 SEPT. 8, 2014 FEB. 15, 2013 NOV. 18, 2015	DATE FEB. 16, 2012	SCALE, FEET 0 100 200	HWY:	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.06
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-73	PS&E SHEET 156 E

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040406_RP.dgn PLOT DATE : 18-NOV-2015 07:31 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 200:1

RL SWAN BOULEVARD
PI STA. 177+54.31
Y : 303278.19
X : 570219.75
DELTA = 57°34'25"
D = 3°57'05"
T = 796.71'
L = 1457.03
R = 1450.00

RL SWAN BOULEVARD
PI STA.194+70.53
Y : 304248.64
X : 571796.81
DELTA = 13°30'42"
D = 4°24'27"
T = 154.00'
L = 306.57
R = 1300.00

RL SWAN BOULEVARD
PI STA. 190+68.72
Y : 304059.81
X : 571441.99
DELTA = 4°34'38"
D = 2°02'47"
T = 111.90'
L = 223.68
R = 2800.00

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	1100-1-23 U03-1(75)	1969	VARIES
USH 45	CSM 7371	2004	VARIES
SWAN BLVD	CSM 8330	2010	60' SOUTH
SWAN BLVD	CSM 7634	2005	VARIES
SWAN BLVD	CT-03-1(75)	1967	80'

500 WE ENERGIES - ELECTRIC
PARCEL 1 - DOC. NO. 8763938
PARCEL 3 - DOC. NO. 8763938
PARCEL 3 - DOC. NO. 3845014
PARCEL 4 - DOC. NO. 3845014
PARCEL 4 - (NO RECORDED EASEMENT)
PARCEL 5 - DOC. NO. 3845014
PARCEL 6 - DOC. NO. 9332979

501 WE ENERGIES - GAS
PARCEL 1 - DOC. NO. 3814196
PARCEL 1 - (NO RECORDED EASEMENT)

504 AT&T WISCONSIN
PARCEL 1 - (NO RECORDED EASEMENT)
PARCEL 3 - (NO RECORDED EASEMENT)
PARCEL 4 - DOC. NO. 3575475
PARCEL 5 - DOC. NO. 3575475
PARCEL 6 - DOC. NO. 3575475

C4
L = 420.14'
R = 1345.00'
LC = 418.43'
LCB = S29°06'18"W

C5
L = 113.00
R = 803.94
LC = 112.90
LCB = S48°41'15"W

C6
L = 204.62
R = 1355.00
LC = 204.43
LCB = S42°22'48"W

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT. ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS

SWAN BOULEVARD REFERENCE LINE IS THE INSIDE EDGE OF SOUTHBOUND LANE.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

CITY OF WAUWATOSA
MILWAUKEE COUNTY
WISCONSIN LUTHERAN COLLEGE, INC.
MILWAUKEE COUNTY
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
UWM INNOVATION PARK LLC

REVISION DATE	
FEB. 16, 2012	FEB. 15, 2013
MAY 4, 2012	MAY 21, 2013
AUG. 17, 2012	SEPT. 8, 2014
	NOV. 18, 2015

DATE	AUG. 26, 2011
SCALE, FEET	0 100 200
HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23
COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-73
PLAT SHEET	4.07
PS&E SHEET	157

E

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040407_RP.dgn
PLOT DATE : 18-NOV-2015 07:31 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 200:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
WATERTOWN PLANK RD.	O.C. DOC. 5557424	1982	120'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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W. WATERTOWN PLANK ROAD REFERENCE LINE IS THE INSIDE EDGE OF EASTBOUND LANE.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

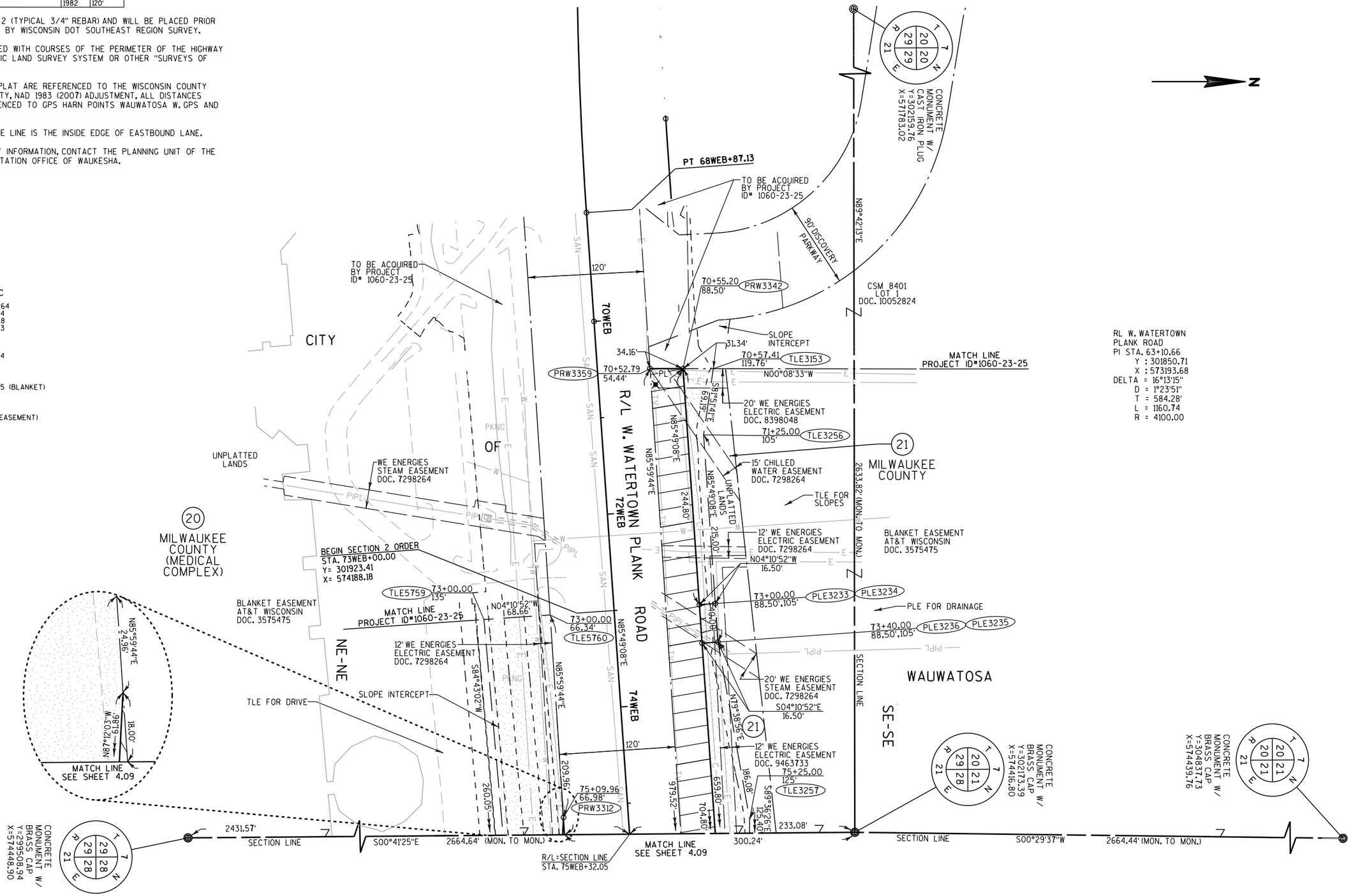
4

(500) WE ENERGIES - ELECTRIC
PARCEL 20 - DOC. NO. 7298264
PARCEL 21 - DOC. NO. 7298264
PARCEL 21 - DOC. NO. 8398048
PARCEL 21 - DOC. NO. 9463733

(502) WE ENERGIES - STEAM
PARCEL 21 - DOC. NO. 7298264

(504) AT&T WISCONSIN
PARCEL 21 - DOC. NO. 3575475 (BLANKET)

(507) TIME WARNER CABLE
PARCEL 21 - (NO RECORDED EASEMENT)



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REVISION DATE		DATE MAY 4, 2012	SCALE, FEET 0 50 100	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.08	
AUG. 17, 2012	SEPT. 8, 2014			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET 158	E
FEB. 15, 2013							
MAY 21, 2013	NOV. 18, 2015						

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040408_RP.dgn PLOT DATE : 18-NOV-2015 07:31 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
WATERTOWN PLANK RD.	O.C. DOC. 5557424	1982	120'
WATERTOWN PLANK RD.	CSM 8503	2012	120'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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W. WATERTOWN PLANK ROAD REFERENCE LINE IS THE INSIDE EDGE OF EASTBOUND LANE.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

C5
L = 238.91
R = 1292.92
LC = 238.57
LCB = S80°42'07"W

C6
L = 445.99
R = 1946.50
LC = 445.01
LCB = N81°49'20"E

C7
L = 110.67
R = 1946.50
LC = 110.66
LCB = S86°45'27"W

C8
L = 244.66
R = 1946.50
LC = 244.50
LCB = N84°47'08"E

C9
L = 19.15
R = 1946.50
LC = 19.15
LCB = S80°54'10"W

C10
L = 2.19
R = 1946.50
LC = 2.19
LCB = N86°03'17"E

RL W. WATERTOWN PLANK ROAD
PI STA. 82+50.75
Y : 301992.73
X : 575136.40
DELTA = 10°33'38"
D = 2°49'16"
T = 187.70'
L = 374.34
R = 2031.00

RL N. 92ND STREET
PI STA.6+29.00
Y : 301374.13
X : 574755.33
DELTA = 5°52'20"
D = 4°46'29"
T = 61.55'
L = 122.99
R = 1200.00

RL N. 92ND STREET
PI STA.8+81.58
Y : 301625.49
X : 574729.48
DELTA = 8°29'44"
D = 6°44'26"
T = 63.13'
L = 126.03
R = 850.00

RL N. 92ND STREET
PI STA.14+33.94
Y : 302178.18
X : 574796.26
DELTA = 35°05'42.00"
D = 20°27'46.00"
T = 88.54'
L = 171.51
R = 280.00

(500) WE ENERGIES - ELECTRIC
PARCEL 20 - DOC. NO. 7298264
PARCEL 21 - (NO RECORD OF EASEMENT)
PARCEL 21 - DOC. NO. 9532345
PARCEL 21 - DOC. NO. 8586952
PARCEL 21 - DOC. NO. 9463733
PARCEL 23 - DOC. NO. 9532345

(501) WE ENERGIES - GAS
PARCEL 20 - DOC. NO. 9539895
PARCEL 20 - (NO RECORDED EASEMENT)

(502) WE ENERGIES - STEAM
PARCEL 20 - DOC. NO. 7298264
PARCEL 21 - DOC. NO. 7298264

(504) AT&T WISCONSIN
PARCEL 20 - DOC. NO. 3575475 (BLANKET)
PARCEL 21 - DOC. NO. 3575475 (BLANKET)
PARCEL 23 - DOC. NO. 3574575 (BLANKET)

(507) TIME WARNER CABLE
PARCEL 21 - (NO RECORDED EASEMENT)

(541) MILWAUKEE COUNTY - WATER
PARCEL 21 - DOC. NO. 10196089

REVISION DATE		DATE MAY 4, 2012	SCALE, FEET 0 50 100	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.09	
AUG. 17, 2012	SEPT. 8, 2014			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET	E
FEB. 15, 2013	NOV. 18, 2015					159	
MAY 21, 2013							

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
WATERTOWN PLANK RD.	O.C. DOC. 5557424	1982	120'
WATERTOWN PLANK RD.	CSM 8503	2012	120'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

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W. WATERTOWN PLANK ROAD REFERENCE LINE IS THE INSIDE EDGE OF EASTBOUND LANE.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

(500) WE ENERGIES - ELECTRIC
PARCEL 20 - DOC. NO. 9463733
PARCEL 21 - DOC. NO. 8339388
PARCEL 21 - DOC. NO. 8244806
PARCEL 21 - (NO RECORDED EASEMENT)
PARCEL 23 - (NO RECORDED EASEMENT)

(502) WE ENERGIES - STEAM
PARCEL 20 - DOC. NO. 7298264
PARCEL 21 - DOC. NO. 7298264

(504) AT&T WISCONSIN
PARCEL 20 - DOC. NO. 3575475 (BLANKET)
PARCEL 21 - DOC. NO. 3575475 (BLANKET)
PARCEL 23 - DOC. NO. 3575475 (BLANKET)

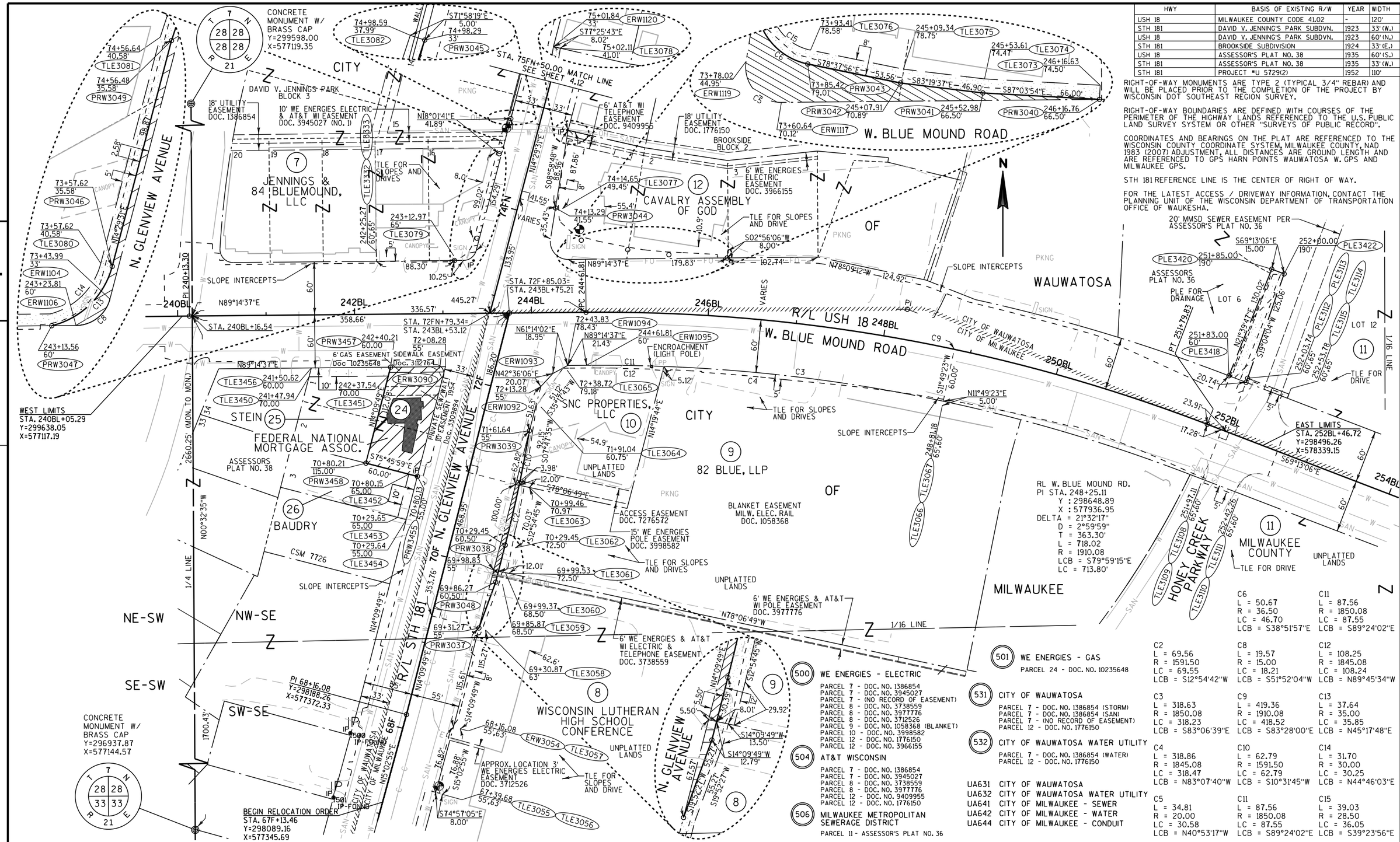
(507) TIME WARNER CABLE
PARCEL 20 - (NO RECORD OF EASEMENT)

(541) MILWAUKEE COUNTY - WATER
PARCEL 21 - DOC. NO. 10196089
PARCEL 23 - DOC. NO. 10196089

C6	C7	C8	C9	C10	C13	C14	C15
L = 445.99	L = 221.06	L = 245.20	L = 579.13	L = 32.22	L = 23.23	L = 234.85	L = 344.86
R = 1946.50	R = 1465.50	R = 2844.26	R = 4734.26	R = 4734.26	R = 1465.50	R = 2724.26	R = 4614.26
LC = 445.01	LC = 220.85	LC = 245.12	LC = 578.76	LC = 32.22	LC = 23.23	LC = 234.78	LC = 344.78
LCB = N81°49'20"E	LCB = N79°34'47"E	LCB = S77°52'41"W	LCB = S83°51'07"W	LCB = S87°33'05"W	LCB = S82°08'46"W	LCB = N77°52'41"E	LCB = N82°29'19"E

REVISION DATE		DATE	SCALE, FEET	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.10	
AUG. 17, 2012	SEPT. 8, 2014	MAY 4, 2012	0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET 160	E
FEB. 15, 2013	NOV. 18, 2015						
MAY 21, 2013							

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040410_RP.dgn PLOT DATE : 18-NOV-2015 07:32 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1



HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 18	MILWAUKEE COUNTY CODE 41.02	-	120'
STH 181	DAVID V. JENNING'S PARK SUBDVN.	1923	33'(W.)
USH 18	DAVID V. JENNING'S PARK SUBDVN.	1923	60'(N.)
STH 181	BROOKSIDE SUBDIVISION	1924	33'(E.)
USH 18	ASSESSOR'S PLAT NO. 38	1935	60'(S.)
STH 181	ASSESSOR'S PLAT NO. 38	1935	33'(W.)
STH 181	PROJECT "U 5729(2)	1952	110'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

STH 181 REFERENCE LINE IS THE CENTER OF RIGHT OF WAY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

501 WE ENERGIES - GAS
PARCEL 24 - DOC. NO. 10235648

531 CITY OF WAUWATOSA
PARCEL 7 - DOC. NO. 1386854 (STORM)
PARCEL 7 - DOC. NO. 1386854 (SAN)
PARCEL 7 - (NO RECORD OF EASEMENT)
PARCEL 12 - DOC. NO. 1776150

532 CITY OF WAUWATOSA WATER UTILITY
PARCEL 7 - DOC. NO. 1386854 (WATER)
PARCEL 12 - DOC. NO. 1776150

UA631 CITY OF WAUWATOSA
UA632 CITY OF WAUWATOSA WATER UTILITY
UA641 CITY OF MILWAUKEE - SEWER
UA642 CITY OF MILWAUKEE - WATER
UA644 CITY OF MILWAUKEE - CONDUIT

500 WE ENERGIES - ELECTRIC
PARCEL 7 - DOC. NO. 1386854
PARCEL 7 - DOC. NO. 3945027
PARCEL 7 - (NO RECORD OF EASEMENT)
PARCEL 8 - DOC. NO. 3738559
PARCEL 8 - DOC. NO. 3977776
PARCEL 8 - DOC. NO. 3712526
PARCEL 9 - DOC. NO. 1058368 (BLANKET)
PARCEL 10 - DOC. NO. 3998582
PARCEL 12 - DOC. NO. 1776150
PARCEL 12 - DOC. NO. 3966155

504 AT&T WISCONSIN
PARCEL 7 - DOC. NO. 1386854
PARCEL 7 - DOC. NO. 3945027
PARCEL 8 - DOC. NO. 3738559
PARCEL 8 - DOC. NO. 3977776
PARCEL 12 - DOC. NO. 9409955
PARCEL 12 - DOC. NO. 1776150

506 MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
PARCEL 11 - ASSESSOR'S PLAT NO. 36

C6	C11
L = 50.67	L = 87.56
R = 36.50	R = 1850.08
LC = 46.70	LC = 87.55
LCB = S38°51'57"E	LCB = S89°24'02"E

C2	C8	C12
L = 69.56	L = 19.57	L = 108.25
R = 1591.50	R = 15.00	R = 1845.08
LC = 69.55	LC = 18.21	LC = 108.24
LCB = S12°54'42"W	LCB = S51°52'04"W	LCB = N89°45'34"W

C3	C9	C13
L = 318.63	L = 419.36	L = 37.64
R = 1850.08	R = 1910.08	R = 35.00
LC = 318.23	LC = 418.52	LC = 35.85
LCB = S83°06'39"E	LCB = S83°28'00"E	LCB = N45°17'48"E

C4	C10	C14
L = 318.86	L = 62.79	L = 31.70
R = 1845.08	R = 1591.50	R = 30.00
LC = 318.47	LC = 62.79	LC = 30.25
LCB = N83°07'40"W	LCB = S10°31'45"W	LCB = N44°46'03"E

C5	C11	C15
L = 34.81	L = 87.56	L = 39.03
R = 20.00	R = 1850.08	R = 28.50
LC = 30.58	LC = 87.55	LC = 36.05
LCB = N40°53'17"W	LCB = S89°24'02"E	LCB = S39°23'56"E

REVISION DATE		DATE	SCALE, FEET	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.11	
AUG. 17, 2012	SEPT. 8, 2014	MAY 4, 2012	0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-71	PS&E SHEET 161	E
FEB. 15, 2013	NOV. 18, 2015						
MAY 21, 2013							

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040411_RP.dgn PLOT DATE : 16-FEB-2016 14:00 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
W. WISCONSIN AVE.	DAVID V. JENNING'S PARK SUBDVN.	1923	80'
STH 181	DAVID V. JENNING'S PARK SUBDVN.	1923	66'
BROOKSIDE PLACE	DAVID V. JENNING'S PARK SUBDVN.	1923	30' (N.)
BROOKSIDE PLACE	BROOKSIDE SUBDIVISION	1924	30' (S.)
ROCKAWAY PLACE	BROOKSIDE SUBDIVISION	1924	60'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

STH 181 REFERENCE LINE IS THE CENTER OF RIGHT OF WAY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

UA631 CITY OF WAUWATOSA
UA632 CITY OF WAUWATOSA WATER UTILITY

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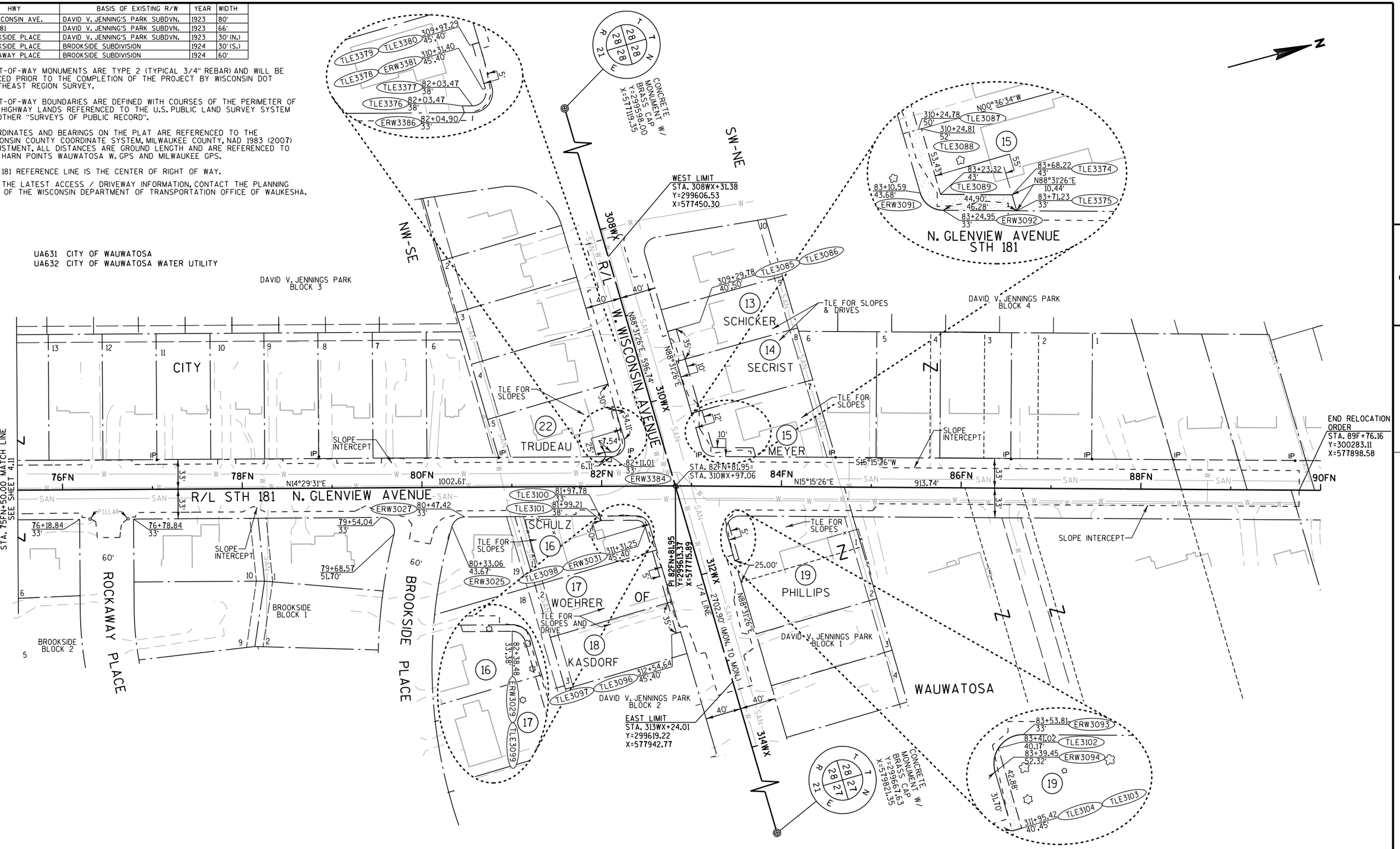


REVISION DATE		DATE	SCALE, FEET	HWY: LOCAL ROADS	STATE R/W PROJECT NUMBER 1060-33-23	PLAT SHEET 4.12	
AUG. 17, 2012	SEPT. 8, 2014	MAY 4, 2012	0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-71	PS&E SHEET 162	E
FEB. 15, 2013	NOV. 18, 2015						
MAY 21, 2013							

FILE NAME : W:\Plats\1060-33-23 (Local Rds)\cds\040412_RP.dgn PLOT DATE : 18-NOV-2015 07:32 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1060-33-25		
FEDERAL PROJECT NUMBER	4.01	

PLAT OF RIGHT-OF-WAY REQUIRED FOR

IH 894/ USH 45

(W. LINCOLN AVE. - STH 100)

IH 894/ USH 45 — MILWAUKEE CO.

CONSTRUCTION PROJECT NUMBER

1060-33-81 1060-33-72 1060-33-77 1060-33-78 1060-33-85

CONVENTIONAL ABBREVIATIONS

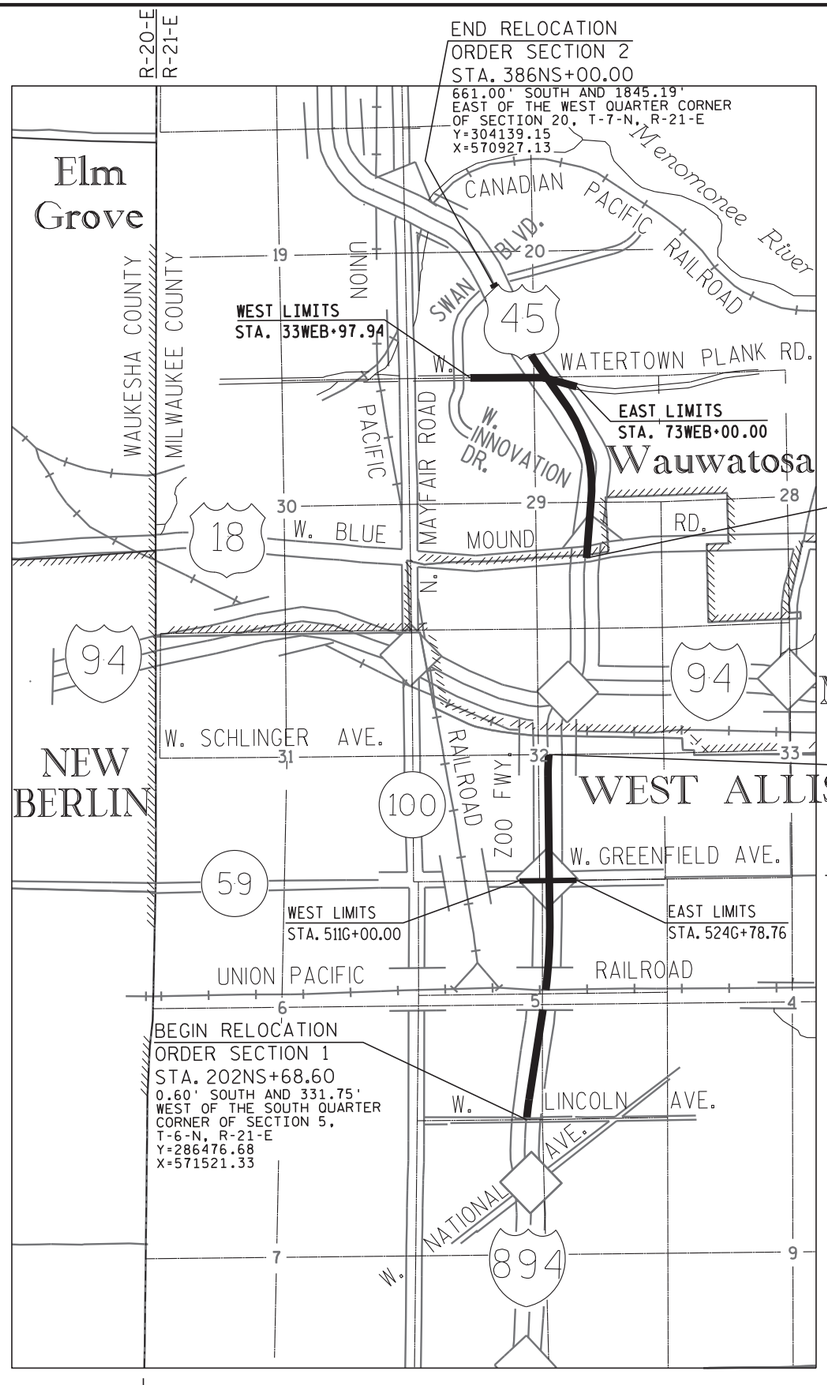
ACCESS POINT/ DRIVEWAY CONNECTION	AP	RECORDED AS	(100')
ACCESS RIGHTS	AR	REEL	R.
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET AL.	RELEASE OF RIGHTS	ROR
BUILDING	B	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
HIGHWAY EASEMENT	H.E.	**CURVE DATA**	
IMAGE	I.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PARKING LOT	PKNG	LENGTH OF CURVE	L
PROPERTY LINE	PL	TANGENT	TAN
PROPOSED RIGHT-OF-WAY	PRW		

CONVENTIONAL SYMBOLS

- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
- R/W MONUMENT
- R/W STANDARD
- SIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- PERMANENT LIMITED EASEMENT
- R/W BOUNDARY POINT (RWB20)
- PARCEL NUMBER (102)
- UTILITY PARCEL NUMBER (92)
- SIGN NUMBER (OFF PREMISE) (21-1)
- BUILDING
- PROPOSED R/W LINE
- EXISTING H.E. LINE
- PROPERTY LINE
- LOT & TIE LINES
- SLOPE INTERCEPTS
- CORPORATE LIMITS
- ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
- ACCESS RESTRICTED (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING CENTERLINE
- PROPOSED REFERENCE LINE
- PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

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



TOTAL NET LENGTH OF REFERENCE LINE= 3.151 MI.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY. RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINTS USED ON PROJECT WERE:
1) MILWAUKEE GPS
2) WAUWATOSA W. GPS

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHEAST REGION OFFICE IN THE CITY OF WAUKESHA.

ORIGINAL PLAT PREPARED BY:

WISCONSIN LAND SURVEYOR
KURT E. KRUGER
S-1946
CASCADE, WI

Kurt Kruger
February 13, 2012

REVISION DATE
May 17, 2012
July 11, 2012
Aug. 15, 2012
Oct. 15, 2012
Dec. 17,2012
May 28, 2013
Aug. 29, 2013
Jan. 17, 2014
Feb. 29, 2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: Feb. 13, 2012 Robert J. Dudbeck (Signature)

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SCHEDULE OF LANDS & INTERESTS REQUIRED

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

* DENOTES AREA COMPUTED

PROJECT FUNDING I.D.	PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	TOTAL REMAINING ACRES	TLE ACRES	HE ACRES	PLE ACRES	PARCEL NUMBER
1060-33-25	1(2)	4.11,4.12	SUMMIT CREDIT UNION	FEE, PLE,TLE	2.248	0.133		0.133	2.115	0.110		0.052	1(2)
1060-33-25	2	4.12	WELLNESS DOCTORS, LLC	FEE,TLE	0.613	0.047		0.047	0.566	0.184			2
1060-33-25	3	4.12	BAKERY SALES DRIVERS UNION LOCAL NO. 344	FEE, TLE	0.618	0.012		0.012	0.606	0.062			3
1060-33-25	4	4.12	DENNIS J. RODY	FEE, TLE	0.230	0.018		0.018	0.212	0.038			4
1060-33-25	5	4.12	DANIEL BISHOP	TLE	0.102				0.102	0.031			5
1060-33-25	6	4.12	FOREST PARK REAL ESTATE CO., LLC	TLE	0.116				0.116	0.007			6
1060-33-25	7	4.12	SHERYL GROENEWOUD & WENDY PETERSON	TLE	0.155				0.155	0.008			7
1060-33-25	8	4.12	STEIGERWALD TRUST	TLE	0.231				0.231	0.009			8
1060-33-25	9	4.12	T & C HOLDINGS, LLC	TLE	0.277				0.277	0.019			9
1060-33-25	10	4.12	PROBUCOLIS ASSOCIATION OF WISCONSIN, ET AL.	TLE	0.591				0.591	0.038			10
1060-33-25	11	4.19	MILWAUKEE COUNTY	FEE, TLE	14.611	6.346		6.346	8.265	0.043			11
1060-33-25	12(2)	4.19	INNOVATION PARTNERS LLC	FEE, TLE	14.350	0.135		0.135	14.215	0.408			12(2)
1060-33-25	13(2)	4.19	MILWAUKEE COUNTY	FEE,PLE,TLE	16.055	0.168		0.168	15.887	0.227		0.001	13(2)
1060-33-25	14(2)	4.19	MILWAUKEE COUNTY	TLE	1.583				1.583	0.058			14(2)
1060-33-25	15(4)	4.20	MILWAUKEE COUNTY	FEE, PLE, TLE	224.820	3.847		3.847	220.973	3.257		0.002	15(4)
1060-33-25	16(4)	4.20,4.21,4.22	UWM INNOVATION PARK LLC	FEE,PLE, TLE	85.643	11.794		11.794	73.849	1.589		0.012	16(4)
1060-33-25	17(6)	4.14	MATHEW RIBBECK	FEE	0.150	0.038		0.038	0.112				17(6)
1060-33-25	18(6)	4.14	DANIEL J. MILTON	FEE	0.174	0.073		0.073	0.101				18(6)
1060-33-25	19(6)	4.14	ZACHARY P. LISKA	FEE	0.138	0.020		0.020	0.118				19(6)
1060-33-25	20(6)	4.14	JOSEPH & SUE ZUNAC	FEE	0.138	0.006		0.006	0.132				20(6)
1060-33-25	21(6)	4.13	RICKY H. & ROSE M. JENSEN	FEE	0.335	0.026		0.026	0.309				21(6)
1060-33-25	22(6)	4.13	GABRIEL & ERENDIRA VIDAL	FEE	0.147	0.012		0.012	0.135				22(6)
1060-33-25	23(3)	4.13	JACOB A. WEST	FEE	0.141	0.009		0.009	0.132				23(3)
1060-33-25	24(3)	4.13	GEORGE D. & EVELYN E. BIEGEL	FEE	0.180	0.004		0.004	0.176				24(3)
1060-33-25	25(3)	4.09	KINLOW, LLC	PLE	3.624				3.624			0.030	25(3)
1060-33-25	26(7)	4.09,4.10	UNION PACIFIC RAILROAD COMPANY	HE	VAST				VAST		1.572		26(7)
1060-33-25	27(6)	4.13	SUSAN C ROWINSKI	FEE	0.357	0.027		0.027	0.330				27(6)
1060-33-25	28(6)	4.13	STEPHEN C & DAWN M MUFFLER	FEE	0.189	0.014		0.014	0.175				28(6)
1060-33-25	29(6)	4.13	BRIAN D BALL	FEE	0.251	0.019		0.019	0.232				29(6)
1060-33-25	30(3)	4.08-4.14	WISCONSIN ELECTRIC POWER COMPANY (WEPCO)	FEE,PLE,TLE	VAST	5.232	2.748	7.980	VAST	3.629		1.133	30(3)
1060-33-25	31(6)	4.13	STEPHEN L SOIK	FEE	0.189	0.014		0.014	0.175				31(6)
1060-33-25	32(6)	4.13	GERALD W SCHMIDT	FEE	0.230	0.018		0.018	0.212				32(6)
1060-33-25	33(6)	4.13	DOLORES R SCHUEPFERLING	FEE	0.210	0.016		0.016	0.194				33(6)
1060-33-25	34(6)	4.13	ALEJANDRO & GRACIELA RODRIGUZ	FEE	0.220	0.017		0.017	0.203				34(6)
1060-33-25	35(6)	4.13	JOSEPH F JANSKY	FEE	0.220	0.017		0.017	0.203				35(6)
1060-33-25	36(6)	4.13	SCOTT KUEHN SR	FEE	0.230	0.018		0.018	0.212				36(6)
1060-33-25	37(6)	4.13	TROY D & CHIHO BENNETT	FEE	0.209	0.016		0.016	0.193				37(6)
1060-33-25	38(6)	4.13	SUSAN M LAUDON	FEE	0.209	0.016		0.016	0.193				38(6)
1060-33-25	39(6)	4.13,4.14	CHRISTOPHER L. MANCHESTER & SHELLY L. ERMI	FEE	0.227	0.018		0.018	0.209				39(6)
1060-33-25	40(6)	4.14	MAYEK TRUST	FEE	0.207	0.016		0.016	0.191				40(6)
1060-33-25	41(6)	4.14	FREDDIE J SIZEMORE	FEE	0.227	0.018		0.018	0.209				41(6)
1060-33-25	42(6)	4.14	GORDHANBHAI B. PATEL a/k/a GORADAHNBHAI B. PATEL	FEE	0.293	0.022		0.022	0.271				42(6)
1060-33-25	43(6)	4.14	JAYANTIBHAI S & MANGU PATEL	FEE	0.292	0.022		0.022	0.270				43(6)
1060-33-25	44(6)	4.14	JASON D & ERIN S STRANKOWSKI	FEE	0.291	0.022		0.022	0.269				44(6)
1060-33-25	45(6)	4.14	THOMAS J & ANGELA MORRIS	FEE	0.362	0.028		0.028	0.334				45(6)
1060-33-25	46(6)	4.14	HEATHER LEIGH SMITH	FEE	0.170	0.014		0.014	0.156				46(6)
1060-33-25	47(6)	4.14	RICHARD H KAEBISCH	FEE	0.171	0.016		0.016	0.155				47(6)
1060-33-25	48(6)	4.14	BEDRASE MOURADIAN	FEE	0.171	0.018		0.018	0.153				48(6)
1060-33-25	49(6)	4.14	DONALD L LESLIE	FEE	0.218	0.026		0.026	0.192				49(6)
1060-33-25	50(6)	4.14	ANTHONY A & PATRICIA A KNAPP	FEE	0.227	0.029		0.029	0.198				50(6)
1060-33-25	51(6)	4.14	DANIEL & LORETTA BUSHEK	FEE	0.207	0.030		0.030	0.177				51(6)
1060-33-25	52(6)	4.14	JULIUS F KALAMARZ	FEE	0.227	0.037		0.037	0.190				52(6)
1060-33-25	53(6)	4.14	WALTER KALAMARZ	FEE	0.293	0.038		0.038	0.255				53(6)
1060-33-25	54(6)	4.14	R & R REALTY LLC	FEE	0.292	0.042		0.042	0.250				54(6)

SCHEDULE OF LANDS & INTERESTS REQUIRED

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* DENOTES AREA COMPUTED

PROJECT FUNDING I.D.	PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	PARCEL NUMBER
1060-33-25	55(7)	4.15	OJIUGO HOLDING COMPANY LLC	TLE	0.480					0.007		55(7)
1060-33-25	56(7)	4.15	S2 REALESTATE 9730 LLC	TLE	0.258					0.010		56(7)
1060-33-25	57(7)	4.15	WINSTON PROPERTIES LLC	TLE	0.363					0.015		57(7)
1060-33-25	58(7)	4.15	DAISY PROPERTIES LLC	TLE	0.114					0.005		58(7)
1060-33-25	59(7)	4.16	MARK J & SHEENA GROSS	TLE	0.185					0.015		59(7)
1060-33-25	60(7)	4.16	DAVID L & SEN DIYA HAMPEL	TLE	0.186					0.008		60(7)
1060-33-25	61(7)	4.16	JON H & JENNIFER C TROMP	TLE	0.182					0.008		61(7)
1060-33-25	62(7)	4.16	DANIEL D & ANGELA M EBELING	TLE	0.182					0.015		62(7)
1060-33-25	63(7)	4.16	BARBARA SCHNEIDER-WOLTER	TLE	0.182					0.015		63(7)
1060-33-25	64(7)	4.16	ROBERT C & RHONDA WAY	TLE	0.182					0.008		64(7)
1060-33-25	65(8)	4.18	BEL MARQUETTE I LLC	FEE,TLE	23.469	0.306		0.306	23.163	0.062		65(8)
1060-33-25	66(7)	4.17	WIN 5 LLC	TLE	0.160					0.007		66(7)
1060-33-25	67(7)	4.17	CAROL A MICHAEL	TLE	0.124					0.005		67(7)
1060-33-25	68(7)	4.17	PAUL MARTIN	TLE	0.174					0.007		68(7)
1060-33-25	69(7)	4.17	GREGORY & DIANE KOSMIDER	TLE	0.176					0.004		69(7)
1060-33-25	70(7)	4.17	MICHAEL & JACQUELINE S. PHILLIPS	TLE	0.165					0.004		70(7)
1060-33-25	71(9)	4.17	ELIMINATED									71(9)
1060-33-25	72(8)	4.14	ALPHA OIKONOMOS LLC	TLE	0.465					0.002		72(8)
1060-33-25	73(7)	4.14	JIMMY R & KATHLEEN M TAXIS	TLE	0.274					0.011		73(7)
1060-33-25	74(7)	4.14	CYNTHIA M. FLEISCHMAN	TLE	0.239					0.009		74(7)
1060-33-25	75(7)	4.14	MARIANNE NARLOCK	TLE	0.119					0.005		75(7)
1060-33-25	76(7)	4.14	ANTHONY W ABBOTT	TLE	0.119					0.005		76(7)
1060-33-25	77(10)	4.14	DAMON M PADOVANO AND CLAIRE T. SCHALLER	TLE	0.236					0.009		77(10)
1060-33-25	78(7)	4.14	MICHAEL J PERSON	TLE	0.110					0.005		78(7)
1060-33-25	79(7)	4.14	JOHN P & ANGELA M ECKERT	TLE	0.110					0.005		79(7)
1060-33-25	80(7)	4.14	MICHAEL L ZEIMET	TLE	0.110					0.005		80(7)
1060-33-25	81(7)	4.14	MARSHALL & DIANE PEEBLES	TLE	0.248					0.010		81(7)
1060-33-25	82(7)	4.14	MARIE F SOKOWLOWSKI	TLE	0.105					0.004		82(7)
1060-33-25	83(7)	4.11	JASON D KEWLEY	FEE,TLE	0.242	0.011		0.011	0.231	0.016		83(7)
1060-33-25	84(7)	4.11	ROSS C HANSEN	TLE	0.242					0.011		84(7)
1060-33-25	112(7)	4.18,4.19	INNOVATION PARTNERS LLC	FEE,TLE	14.215	0.719		0.719	13.496	0.077		112(7)
1060-33-25	115(7)	4.18	MILWAUKEE COUNTY	FEE,TLE	6.340	0.016		0.016	6.324	0.081		115(7)
1060-33-25	116(10)	4.20	UWM INNOVATION PARK LLC	FEE,TLE	25.372	0.046		0.046	25.326	0.081		116(10)
1060-33-25	130(6)	4.11	WISCONSIN ELECTRIC POWER COMPANY (WEPCO)	TLE	VAST				VAST	0.287		130(6)
1060-33-25	500(4)	4.08-4.14,4.19,4.20	WE ENERGIES - ELECTRIC	ROR								500(4)
1060-33-25	501(9)	4.20	WE ENERGIES - GAS	ROR								501(9)
1060-33-25	502	4.19-4.21	WE ENERGIES - STEAM	ROR								502
1060-33-25	504(9)	4.10, 4.13, 4.18, 4.20	AT&T WISCONSIN	ROR								504(9)
1060-33-25	505(6)	4.08-4.14	AMERICAN TRANSMISSION COMPANY	ROR								505(6)
1060-33-25	507(9)	4.19, 4.20	TIME WARNER CABLE	ROR								507(9)
1060-33-25	508(9)	4.09, 4.10	US SPRINT	ROR								508(9)
1060-33-25	509(2)	4.19	VOICESTREAM	ROR								509(2)
1060-33-25	521(10)	4.16, 4.17	CITY OF MILWAUKEE - SEWER	ROR								521(10)
1060-33-25	532(9)	4.20	WAUWATOSA WATER UTILITY	ROR								532(9)
1060-33-25	540(4)	4.19,4.20	MILWAUKEE COUNTY - STORM	ROR								540(4)
1060-33-25	541(9)	4.18-4.20,4.22	MILWAUKEE COUNTY - WATER	ROR								541(9)
1060-33-25	542(9)	4.19	MILWAUKEE COUNTY - SANITARY	ROR								542(9)
1060-33-25	543(9)	4.18-4.20	CITY OF MILWAUKEE- ELEC / COMM	ROR								543(9)
1060-33-25	551	4.11,4.12	CITY OF WEST ALLIS - WATER	ROR								551
1060-33-25	552(9)	4.09-4.12	CITY OF WEST ALLIS - SANITARY	ROR								552(9)
1060-33-25	UA631(9)	4.15, 4.16, 4.18	CITY OF WAUWATOSA	MUNICIPAL UTILITY AGREEMENT								UA631(9)
1060-33-25	UA632(9)	4.15, 4.16, 4.18, 4.20	WAUWATOSA WATER UTILITY	MUNICIPAL UTILITY AGREEMENT								UA632(9)
1060-33-25	UA641(9)	4.15-4.17	CITY OF MILWAUKEE - SEWER	MUNICIPAL UTILITY AGREEMENT								UA641(9)
1060-33-25	UA642(9)	4.15, 4.17	CITY OF MILWAUKEE - WATER	MUNICIPAL UTILITY AGREEMENT								UA642(9)
1060-33-25	UA651(9)	4.10-4.14	CITY OF WEST ALLIS - WATER	MUNICIPAL UTILITY AGREEMENT								UA651(9)
1060-33-25	UA652(9)	4.10-4.14	CITY OF WEST ALLIS - SANITARY	MUNICIPAL UTILITY AGREEMENT								UA652(9)

T-7-N
T-6-N

N

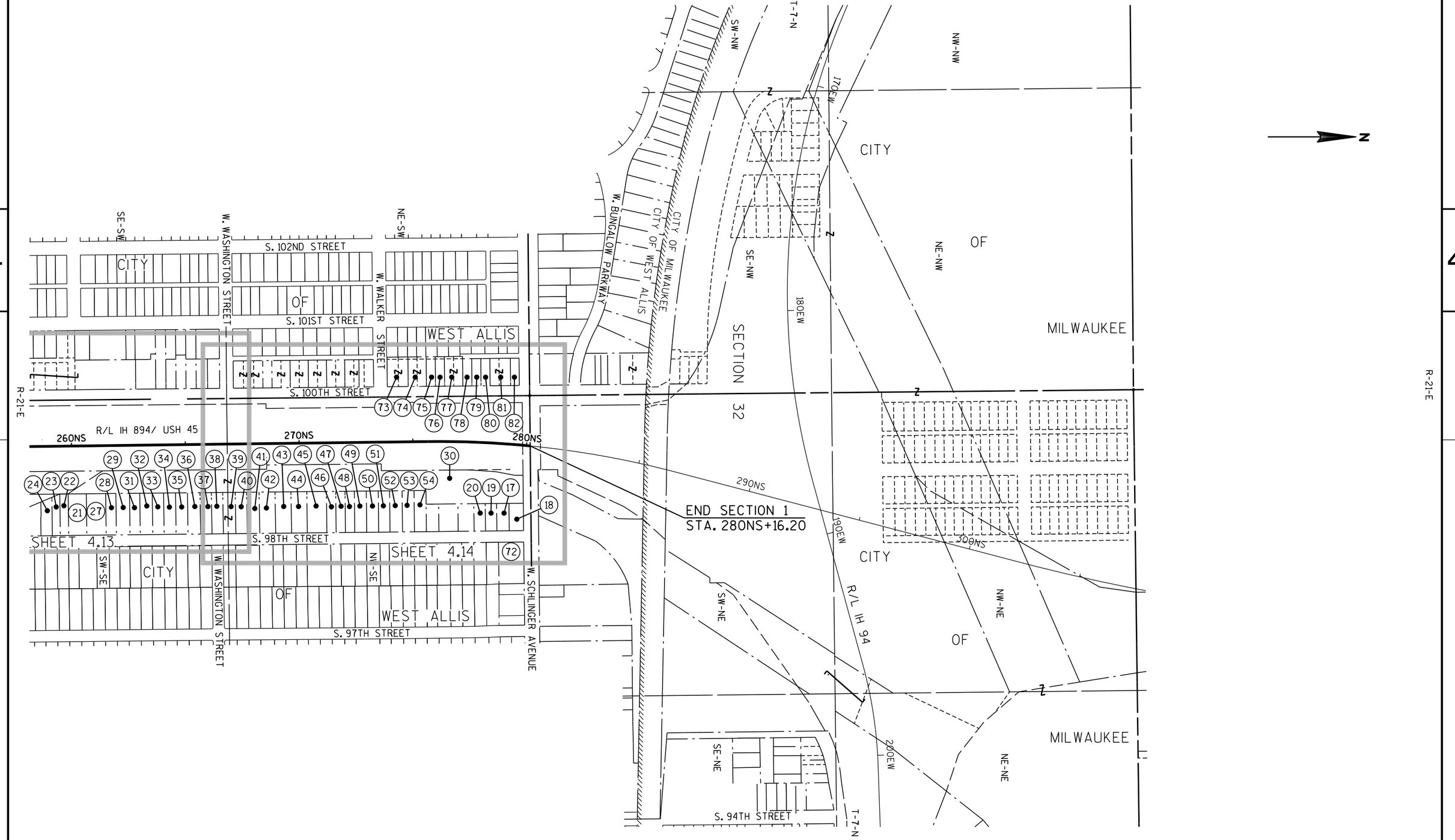
W. LINCOLN AVENUE
W. GRANT STREET
S. 103RD STREET
S. 102ND STREET
SE-SW
NE-SW
UNION PACIFIC RAILROAD COMPANY
SECTION 5
SE-NW
NE-NW
CITY OF WEST ALLIS
STH 59
W. GREENFIELD AVENUE
SE-SW
510C
S. 101ST STREET
S. 100TH STREET
R-21-E
SECTION 32
520C
S. 98TH STREET
SHEET 4.13
SECTION 8
R-21-E
BEGIN SECTION 1
STA. 202NS+68.60
210NS
220NS
230NS
240NS
250NS
260NS
R/L IH 894/USH 45
SHEET 4.08
S. 99TH STREET
BELCHER STREET
SHEET 4.09
CITY
S. 98TH STREET
SW-SE
NW-SE
SHEET 4.10
SHEET 4.11
NW-NE
SW-NE
OF
S. 97TH STREET
SHEET 4.12
WEST ALLIS
SW-SE

T-7-N
T-6-N

REVISION DATE MAY 17, 2012 OCT. 15, 2012 JAN. 17, 2014 JULY 11, 2012 DEC. 17, 2012 FEB. 29, 2016 AUG. 15, 2012 MAY 28, 2013 AUG. 29, 2013	DATE FEB. 13, 2012	SCALE. FEET 0 200 400	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.04
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-77	PS&E SHEET E

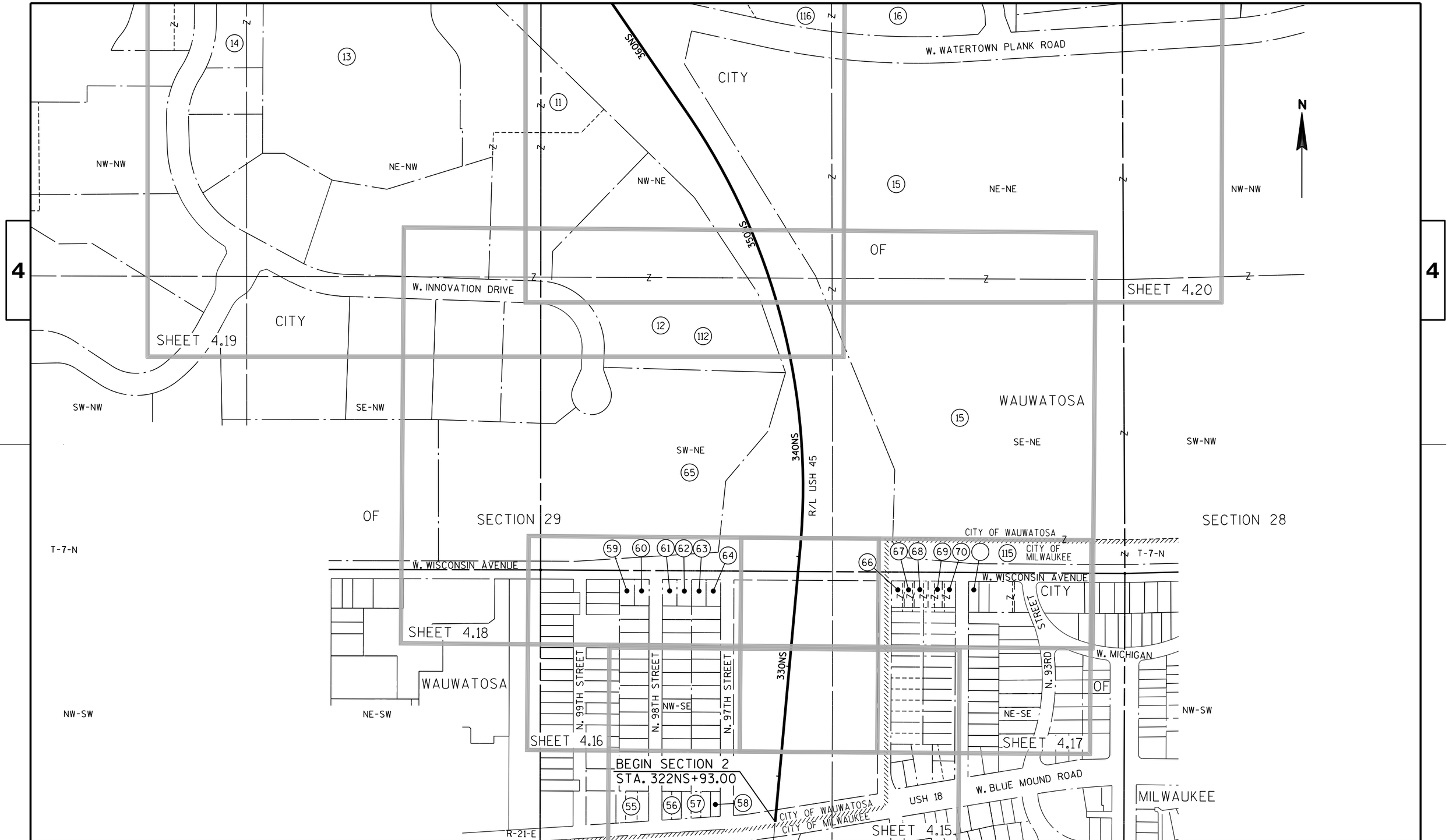
FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040404_RL.dgn PLOT DATE : 29-FEB-2016 11:11 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 400:1

R/W 1060-33-25 4.04



REVISION DATE			DATE MAY 16, 2012	SCALE, FEET 0 200 400	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.05	
JULY 11, 2012	DEC. 17, 2012	FEB. 29, 2016			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E
AUG. 15, 2012	MAY 28, 2013							
OCT. 15, 2012	AUG. 29, 2013							
	JAN. 17, 2014							

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040405_RL.dgn PLOT DATE : 29-FEB-2016 11:11 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 400:1



REVISION DATE MAY 17, 2012 JULY 11, 2012 AUG. 15, 2012 OCT. 15, 2012 DEC. 17, 2012 MAY 28, 2013 AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016	DATE FEB. 13, 2012	SCALE, FEET 0 200 400	HWY: IH 894/USH 45 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-25 CONSTRUCTION PROJECT NUMBER 1060-33-72	PLAT SHEET 4.06 PS&E SHEET E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040406_RL.dgn PLOT DATE : 29-FEB-2016 13:35 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 400.000024:1

R-21-E

N

410NS

400NS

390NS

380NS

370NS

SE-NE

SW-NW

SE-NW

N. MAYFAIR ROAD

SECTION 19

CITY

SHEET 4.22

SECTION 20

T-7-N

T-7-N

4

4

CITY

CANADIAN PACIFIC RAILROAD

STH 100

END SECTION 2
STA. 386NS+00.00

NE-SW

SWAN BOULEVARD

NW-SE

NE-SE

OF

NW-SW

WAUWATOSA

R/L USH 45

OF

NE-SE

16

SHEET 4.21

WAUWATOSA

SE-SE

SW-SW

SE-SW

SW-SE

SE-SE

SHEET 4.20

W. WATERTOWN PLANK ROAD

R-21-E

116

REVISION DATE			DATE MAY 17, 2012	SCALE. FEET 0 200 400	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.07	
JUL. 11, 2012	DEC. 17, 2012	FEB. 29, 2016			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET	E
AUG. 15, 2012	MAY 28, 2013							
OCT. 15, 2012	AUG. 29, 2013							
	JAN. 17, 2014							

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040407_RL.dgn PLOT DATE : 29-FEB-2016 13:36 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 400:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
W. LINCOLN AVE.	MILWAUKEE COUNTY ORDER NO. 147055	1926	110'

500 WE ENERGIES - ELECTRIC
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3867156

505 ATC TRANSMISSION COMPANY
EXISTING RIGHTS IN FEE R/W - DOC. NO. 10050216
PARCEL 30 - DOC. NO. 8013173

RL IH-894/USH 45
PI STA. 199+51.43
Y : 286157.22
X : 571453.33
DELTA = 15°00'44"
D = 1°00'00"
T = 754.93'
L = 1501.21
R = 5729.58

CONCRETE MONUMENT W/ ALUMINUM CAP Y=286472.45 X=569208.89

S89°53'43"W 2644.19' (MON. TO MON.) SECTION LINE

W. LINCOLN AVENUE

S. 102ND STREET

W. GRANT COURT

CITY OF WEST ALLIS

BLOCK 1

LINCOLN CREST

ENCROACHMENT

HIGHWAY EASEMENT

VARIES

SE-SW

OH

1/16TH LINE

SLOPE INTERCEPT

204NS 206NS 208NS R/L IH 894/USH 45 210NS 212NS 214NS 216NS

BEGIN RELOCATION ORDER
STA. 202NS+68.60
Y=286476.67
X=571521.33

PT 206NS+97.71

N09°11'52"E

ACCESS CONTROL PER PROJECT: I-894-7(3)303

STA. 216NS+11.95 MATCHLINE SEE SHEET 4.09

331.76'

PLE FOR WALL

209+92.27 158.88' ERW5819

211+04.61 150.96' PLE5817

PLE5818 209+67.56 172.00'

SLOPE INTERCEPT PROJ. ID# 1060-33-80

WE ENERGIES ELECTRIC RIGHTS DOC. 3867156
ATC TRANSMISSION RIGHTS DOC. 10050216

TLE5825 208+73.70 221.86'

27.98' 112.62' 138.65' S00°28'04"W

S05°09'53"W 248.63'

213+52.63 133.47' ERW5826

S09°34'08"W 491.92'

262.21'

213+57.69 183.28' TLE5824

216+16.82 143.18' TLE5823

S09°34'08"W 227.67'

215.54' 106.29' S18°46'40"E 109.25'

WEPCO 30

ERW5816 204+87.02 312.57'

178.03' S09°32'40"W 96.00'

S04°15'28"E 187.81'

281.97' PL 460.00'

207+77.21 273.11' PRW5814

S00°24'04"W 2656.41' (MON. TO MON.) 1/4 LINE

S04°38'25"W 485.53'

PRW5815 205+88.53 315.83'

HIGHWAY EASEMENT (EXISTING)

ATC TRANSMISSION RIGHTS DOC. 8013173

TLE FOR SLOPES

CONCRETE MONUMENT W/ BRASS CAP Y=286477.28 X=571853.08

N89°22'10"E 2644.90' (MON. TO MON.) SECTION LINE

55'

CONCRETE MONUMENT W/ BRASS CAP Y=286506.39 X=574497.82

CONCRETE MONUMENT W/ BRASS CAP Y=289133.62 X=571871.68

PARK

REALTY SUBDIVISION NO. 3 OF WEST ALLIS

SW-SE

W. BECHER STREET

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE	
AUG. 15, 2012	MAY 28, 2013
OCT. 15, 2012	AUG. 29, 2013
DEC. 17, 2012	JAN. 17, 2014
	FEB. 29, 2016

DATE JULY 11, 2012

SCALE, FEET 0 50 100

HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.08	
COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040408_RP.dgn PLOT DATE : 29-FEB-2016 11:11 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

4

CITY OF WEST ALLIS

LINCOLN CREST BLOCK 1

UNION PACIFIC RAILROAD COMPANY

1/16TH LINE

1/4 LINE

R/L IH 894/USH 45

218NS N09°11'52"E 220NS 222NS 224NS 226NS 228NS

STA. 216NS+11.95
SEE SHEET 4.08

STA. 229NS+57.88
SEE SHEET 4.10

NE-SW

NW-SE

VARIES

SLOPE INTERCEPT

ACCESS CONTROL PER PROJECT: I-894-7(3)303

R/L=1/4 LINE STA. 225NS+42.07

PC 227NS+09.83

WE ENERGIES ELECTRIC RIGHTS
DOC. 3867156
ATC TRANSMISSION RIGHTS
DOC. 10050216

491.92'
227.67'
8'
2245.87'
S00°24'04"W
2656.41' (MON. TO MON.)
S09°34'08"W
S80°25'52"E
8.00'
1569.00'
104.37'
S25°56'34"W
50.07'
S26°56'24"W
157.36'
370.40'
S12°08'46"W
377.04'
443.02'
S09°34'08"W
62.48'
N15°51'37"E
32.92'
30.73'
30'
2615.07' (MON. TO MON.)
2638.70' (MON. TO MON.)
2422.05'
S21°46'38"W
194.27'
190.85'
S89°40'55"W
60'
200.00'
300.08'
330.81'
413.91'
2577.85' (TO R/L)
S89°40'08"W
2025.56'

218+44.54 136.66' TLE5820
TLE5821 218+44.48 144.66'
223+74.21 140.09' TLE5807
224+78.58 140.76' PLE5796
225+26.45 155.47' PLE5795
TLE5806 225+24.90 185.43'
PLE5803 228+93.45 176.06'
TLE5805 228+97.95 206.44'
PLE5833 229+23.62 178.19'
PLE5801 229+50.66 574.93'
PLE5800 229+78.94 570.99'
HE5434 228+60.20 240.84'
HE5437 228+89.33 52.16'
HE5804 229+18.86 145.63'

TLE FOR SLOPES

ATC TRANSMISSION RIGHTS
DOC. 8013173

30 WEPCO

100' WEPCO EASEMENT
DOC. 4596188

PLE FOR DRAINAGE & ACCESS

TLE FOR DRAINAGE & ACCESS

PLE FOR ACCESS

10' WEPCO EASEMENT
DOC. 8124488

S00°20'15"W
72.42'
15.95'
30.00'

MATCHLINE

S. 98TH STREET

W. BECHER STREET

26 HIGHWAY EASEMENT

SECTION 26-1

US SPRINT BLANKET EASEMENT DOC. 6134653

25 KINLOW, LLC

PARCEL 1
CSM 6716
DOC. 7809447

PARCEL 2
CSM 6716

HIGHWAY EASEMENT

CONCRETE MONUMENT W/ BRASS CAP
Y=289133.62
X=571871.68

CONCRETE MONUMENT W/ BRASS CAP
Y=286477.28
X=571853.08

CONCRETE MONUMENT W/ BRASS CAP
Y=289148.87
X=574510.34

RL IH-894/USH 45
PI STA. 236+33.64
Y : 289800.62
X : 572043.29
DELTA = 9°30'54"
D = 0°30'58"
T = 923.81'
L = 1843.37
R = 11100.00

500 WE ENERGIES - ELECTRIC
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3867156
PARCEL 30 DOC. NO. 4596188
PARCEL 25 DOC. NO. 8124488

505 ATC TRANSMISSION COMPANY
EXISTING RIGHTS IN FEE R/W - DOC. NO. 10050216
PARCEL 30 - DOC. NO. 8013173

508 US SPRINT
PARCEL 26 - DOC. 6134653

SIGN	OWNER	DOCUMENT NO.
26-1	CLEAR CHANNEL	NO RECORD

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES

REVISION DATE
AUG. 15, 2012
OCT. 15, 2012
DEC. 17, 2012
MAY 28, 2013
AUG. 29, 2013
JAN. 17, 2014
FEB. 29, 2016

DATE JULY 11, 2012

SCALE, FEET
0 50 100

HWY: IH 894/ USH 45

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-25

CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-85

PLAT SHEET 4.09

PS&E SHEET E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040409_RP.dgn PLOT DATE : 29-FEB-2016 11:11 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES

(500) WE ENERGIES - ELECTRIC
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3867156

(504) AT&T WISCONSIN
PARCEL 26 - DOC. 6472407

(505) ATC TRANSMISSION COMPANY
EXISTING RIGHTS IN FEE R/W - DOC. NO. 10050216
PARCEL 30 - DOC. NO. 8013173

(508) US SPRINT
PARCEL 26 - DOC. 6134653

(552) CITY OF WEST ALLIS - SANITARY
PARCEL 26 - NO RECORDED EASEMENT

UA651 CITY OF WEST ALLIS WATER
UA652 CITY OF WEST ALLIS SEWER

CONCRETE MONUMENT W/ BRASS CAP
Y=289133.62
X=571871.68

MATCHLINE

RL IH-894/USH 45
PI STA. 236+33.64
Y : 289800.62
X : 572043.29
DELTA = 9°30'54"
D = 0°30'58"
T = 923.81'
L = 1843.37
R = 11100.00

STA. 229NS+57.88
SEE SHEET 4.09

STA. 240NS+00.00
SEE SHEET 4.11

CITY OF WEST ALLIS

HIGH RIDGE SUBDIVISION BLOCK 1

W. MAPLE STREET

S. 100TH STREET

SE-NW

SW-NE

WEST ALLIS

1/4 LINE

R/L=1/4 LINE

S00°23'04"W 2389.83' (MON. TO MON.)

S89°40'55"W 2422.05' (MON. TO MON.)

S89°40'08"W 2638.70' (MON. TO MON.)

S89°40'08"W 2413.76'

N89°40'08"E

S89°40'08"W 2577.85' (TO R/L)

S89°40'08"W 2413.76'

S89°40'08"W 1048.83'

S89°40'08"W 928.61'

S21°46'38"W 194.27'

N15°51'37"E 124.96'

N01°19'10"E 537.21'

N12°08'46"E 616.45'

S39°05'33"E 37.56'

S66°55'40"W 127.16'

S56°55'40"W 124.03'

S46°44'25"E 78.58'

S55°20'24"W 77.22'

S04°37'06"E 691.23'

S08°10'24"W 446.30'

N37°43'22"E 88.90'

N00°21'57"E 35.00'

N89°40'08"E 30.00'

N00°21'57"E 65.00'

230+52.59 194.32' HE4200

230+68.88 75.40' HE5436

231+01.76 172.41' HE4199

231+04.39 192.72' TLE5827

231+63.82 198.15' TLE5788

231+38.22 225.18' TLE5808

232+45.42 1146.80' TLE5809

232+82.58 1196.74' TLE5811

232+27.47 1233.35' TLE5813

232+85.67 1226.54' TLE5812

233+14.02 1193.20' TLE5810

236+51.89 129.14' PLE5782

236+30.16 130.32' PLE5792

236+86.88 240.13' PLE5791

236+57.14 256.10' TLE5787

237+09.82 241.84' PLE5783

237+04.59 262.89' PLE5785

237+52.90 255.45' TLE5784

237+04.36 316.24' TLE5786

239+28.02 117.92' PRW5777

120.00'

250.00'

194.27'

60'

30'

20'

22.02'

279.42'

838.65'

388.38'

639.89'

567.42'

599.76'

49.03'

50.00'

20.48'

60.73'

16' ACCESS EASEMENT DOC. 3838078

WE ENERGIES ELECTRIC RIGHTS DOC. 3867156
ATC TRANSMISSION RIGHTS DOC. 10050216

10' AT&T WISCONSIN EASEMENT DOC. 6472407

US SPRINT BLANKET EASEMENT DOC. 6134653

ATC TRANSMISSION RIGHTS DOC. 8013173

HIGHWAY EASEMENT

SLOPE INTERCEPT

SLOPE INTERCEPT PROJ. ID# 1060-33-80

ACCESS CONTROL PER PROJECT: I-894-7(3)303

TLE FOR DRAINAGE

TLE FOR ACCESS

PLE FOR DRAINAGE

PI

230NS

232NS

234NS

236NS

238NS

R/L IH 894/USH 45

OF

VARIES

SUB-STATION

(26) UNION PACIFIC RAILROAD COMPANY

(30) WEPCO

S. 96TH STREET

1/16 LINE

CONCRETE MONUMENT W/ BRASS CAP
Y=289148.87
X=574510.34

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE	
AUG. 15, 2012	MAY 28, 2013
OCT. 15, 2012	AUG. 29, 2013
DEC. 17, 2012	JAN. 17, 2014
	FEB. 29, 2016

DATE JULY 11, 2012

SCALE, FEET 0 50 100

HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.10	
COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-85	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040410_RP.dgn PLOT DATE : 29-FEB-2016 11:11 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
S. 100TH STREET	HIGH RIDGE SUBDIVISION	1917	30'
W. ORCHARD PLACE	QUIT CLAIM DOC. 5505168	1981	60'
S. 98TH STREET	MOUNT TANNER SUBDIVISION	1893	60'

RL IH-894/USH 45
PI STA. 236+33.64
Y : 289800.62
X : 572043.29
DELTA = 9°30'54"
D = 0°30'58"
T = 923.81'
L = 1843.37'
R = 11100.00

500	WE ENERGIES - ELECTRIC EXISTING RIGHTS IN FEE R/W - DOC. NO. 3867156 PARCEL 30 - DOC. NO. 3925942
505	AMERICAN TRANSMISSION COMPANY EXISTING RIGHTS IN FEE R/W - DOC. NO. 10050216 PARCEL 30 - DOC. NO. 8103173 PARCEL 30 - DOC. NO. 10071585 PARCEL 130 - DOC. NO. 8013173
551	CITY OF WEST ALLIS WATER PARCEL 1 - DOC. NO. 5510568
552	CITY OF WEST ALLIS SANITARY PARCEL 1 - DOC. NO. 5510568
UA651	CITY OF WEST ALLIS WATER
UA652	CITY OF WEST ALLIS SANITARY

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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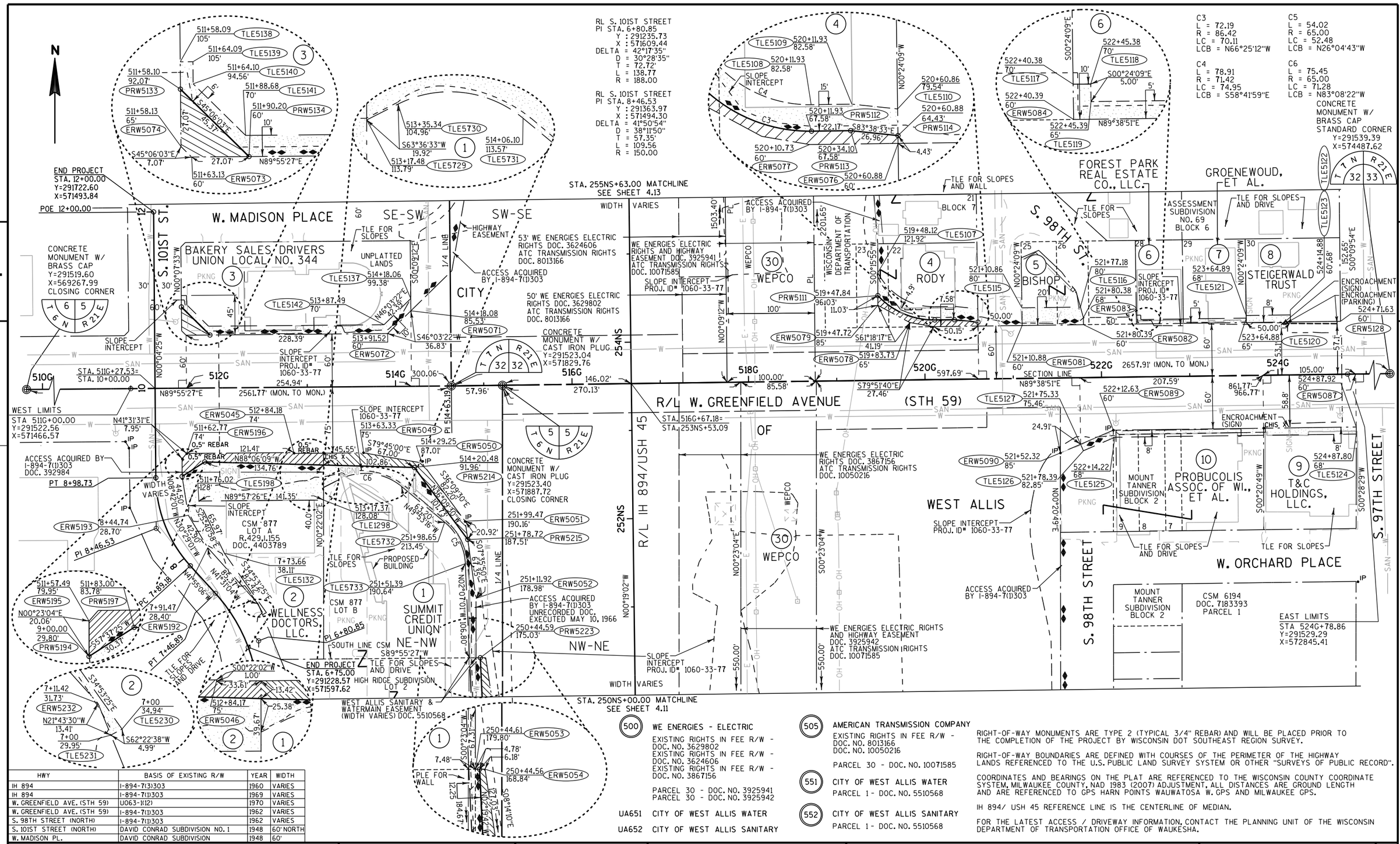
COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT, ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE MAY 17, 2012 JULY 11, 2012 AUG. 15, 2012 OCT. 15, 2012 DEC. 17, 2012 MAY 28, 2013 AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016	DATE FEB. 13, 2012	SCALE. FEET 0 50 100	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.11
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-77 1060-33-81	PS&E SHEET E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040411_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1



HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
W. GREENFIELD AVE. (STH 59)	U063-1(12)	1970	VARIES
W. GREENFIELD AVE. (STH 59)	I-894-7(1)303	1962	VARIES
S. 98TH STREET (NORTH)	I-894-7(1)303	1962	VARIES
S. 101ST STREET (NORTH)	DAVID CONRAD SUBDIVISION NO. 1	1948	60' NORTH
W. MADISON PL.	DAVID CONRAD SUBDIVISION	1948	60'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

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REVISION DATE		
MAY 17, 2012	OCT. 15, 2012	JAN. 17, 2014
JULY 11, 2012	DEC. 17, 2012	FEB. 29, 2016
AUG. 15, 2012	MAY 28, 2013	
	AUG. 29, 2013	

DATE FEB. 13, 2012	SCALE. FEET 0 50 100	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25
		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-77 1060-33-81

PLAT SHEET 4.12
PS&E SHEET
E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040412_RP.dgn
PLOT DATE : 29-FEB-2016 11:12
PLOT BY : MSCKEK
PLOT NAME :
PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(1)303	1969	VARIES
W. WASHINGTON ST.	ROSE HILL SUBDIVISION	1929	60'
W. MADISON PL.	DAVID CONRAD SUBDIVISION	1948	60'

(500) WE ENERGIES - ELECTRIC
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3624606

PARCEL 22 - DOC. NO. 3927622
PARCEL 23 - DOC. NO. 3927621
PARCEL 24 - DOC. NO. 3927620
PARCEL 30 - DOC. NO. 3925941

(505) AMERICAN TRANSMISSION COMPANY
EXISTING RIGHTS IN FEE R/W - DOC. NO. 8013166

PARCEL 30 - DOC. NO. 8013173
PARCEL 30 - DOC. NO. 10071585

(504) AT&T WISCONSIN
PARCEL 22 - DOC. NO. 3927622
PARCEL 23 - DOC. NO. 3927621
PARCEL 24 - DOC. NO. 3927620

UA651 CITY OF WEST ALLIS WATER
UA652 CITY OF WEST ALLIS SANITARY

N

CITY OF WEST ALLIS

W. MADISON PLACE

W. WASHINGTON STREET

DAVID CONRAD SUBDIVISION NO. 1

UNPLATTED LANDS

CSM 1887

PARCEL 2

PARCEL 1

1/16TH LINE

S. 100TH STREET

1/4 LINE

S00°09'12"E

2662.71' (MON. TO MON.)

SE-SW

SW-SE

SLOPE INTERCEPT PROJ. ID# 1060-33-77

ACCESS ACQUIRED BY I-894-7(1)303

HIGHWAY EASEMENT

SLOPE INTERCEPT

24.75'

CONCRETE MONUMENT W/ BRASS CAP
Y=291519.60
X=569267.99
CLOSING CORNER

S89°55'27"W 2662.75'

CONCRETE MONUMENT W/ CAST IRON PLUG
Y=291523.04
X=571829.76
STANDARD CORNER

S89°38'51"W 57.96'

CONCRETE MONUMENT W/ CAST IRON PLUG
Y=291522.40
X=571887.72
CLOSING CORNER

146.02'

R/L W. GREENFIELD AVENUE

R/L=SECTION LINE
STA. 253NS+53.09

S89°38'51"W 2657.91' (MON. TO MON.)

SECTION LINE

2599.95' (MON. TO MON.)

S89°41'31"W 37.20'

CONCRETE MONUMENT W/ BRASS CAP
Y=291539.59
X=574524.82
CLOSING CORNER

CONCRETE MONUMENT W/ CAST IRON PLUG
Y=291539.39
X=574487.62
STANDARD CORNER

STA. 255NS+63.00 MATCHLINE SEE SHEET 4.12

STA. 266NS+84.20 MATCHLINE SEE SHEET 4.14

254NS 256NS 258NS 260NS 262NS 264NS 266NS

VARIES

287.75'

NO0°19'02"W

R/L IH 894/USH 45

53' WE ENERGIES ELECTRIC RIGHTS DOC. 3624606
ATC TRANSMISSION RIGHTS DOC. 8013166

WE ENERGIES ELECTRIC RIGHTS AND HIGHWAY EASEMENT DOC. 3925941
ATC TRANSMISSION RIGHTS DOC. 10071585

ATC TRANSMISSION RIGHTS DOC. 8013173

ERW5096 261+35.15 110.75'

1503.40'

NO0°09'12"W

100'

UNPLATTED LANDS

ERW5093 259+81.38 210.31'

S00°09'12"E 36.70'

S22°22'28"E 37.73'

2201.65'

S22°25'24"E 52.34'

PRW5769 258+62.47 244.08'

S13°59'16"E 9.71'

S09°13'49"E 23.17'

259+29.31 227.82'

PRW5768

79.75'

N89°38'51"E

S00°09'12"E

CITY OF WEST ALLIS

WEPCO

SLOPE INTERCEPT

ASSESSMENT SUBDIVISION NO. 69 BLOCK 7

WEST VIDAL

BIEGEL

JENSEN

ROWINSKI

MUFFLER

BALL

SOIK

SCHMIDT

SCHUEPFERLING

RODRIGUZ

JANSKY

KUEHN

BENNETT

LAUDON

ERMI

CSM 4497 LOT 2

CSM 4497 LOT 1 R.1665, I.1062 DOC. 5738951

S89°38'51"W

S89°21'58"W

POOL

A/C

ACCESS ACQUIRED BY WI DOT

ERW5772 259+45.93 210.21'

PRW5064 259+52.20 224.23'

6.34' SHED

15.00'

7.90'

30.44'

18.88'

16.83'

49.91'

14'

WE ENERGIES ELECTRIC & AT&T WISCONSIN EASEMENT (WESTERLY PART OF PARCEL 22) DOC. 3927622

6' WE ENERGIES ELECTRIC & AT&T WISCONSIN EASEMENT DOC. 3927621

6' WE ENERGIES & AT&T WISCONSIN EASEMENT DOC. 3927620

S. 98TH STREET

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE	
AUG. 15, 2012	AUG. 29, 2013
OCT. 15, 2012	JAN. 17, 2014
DEC. 17, 2012	FEB. 29, 2016
MAY 28, 2013	

DATE JULY 11, 2012

SCALE, FEET 0 50 100

HWY: IH 894/USH 45

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-25

CONSTRUCTION PROJECT NUMBER 1060-33-81

PLAT SHEET 4.13

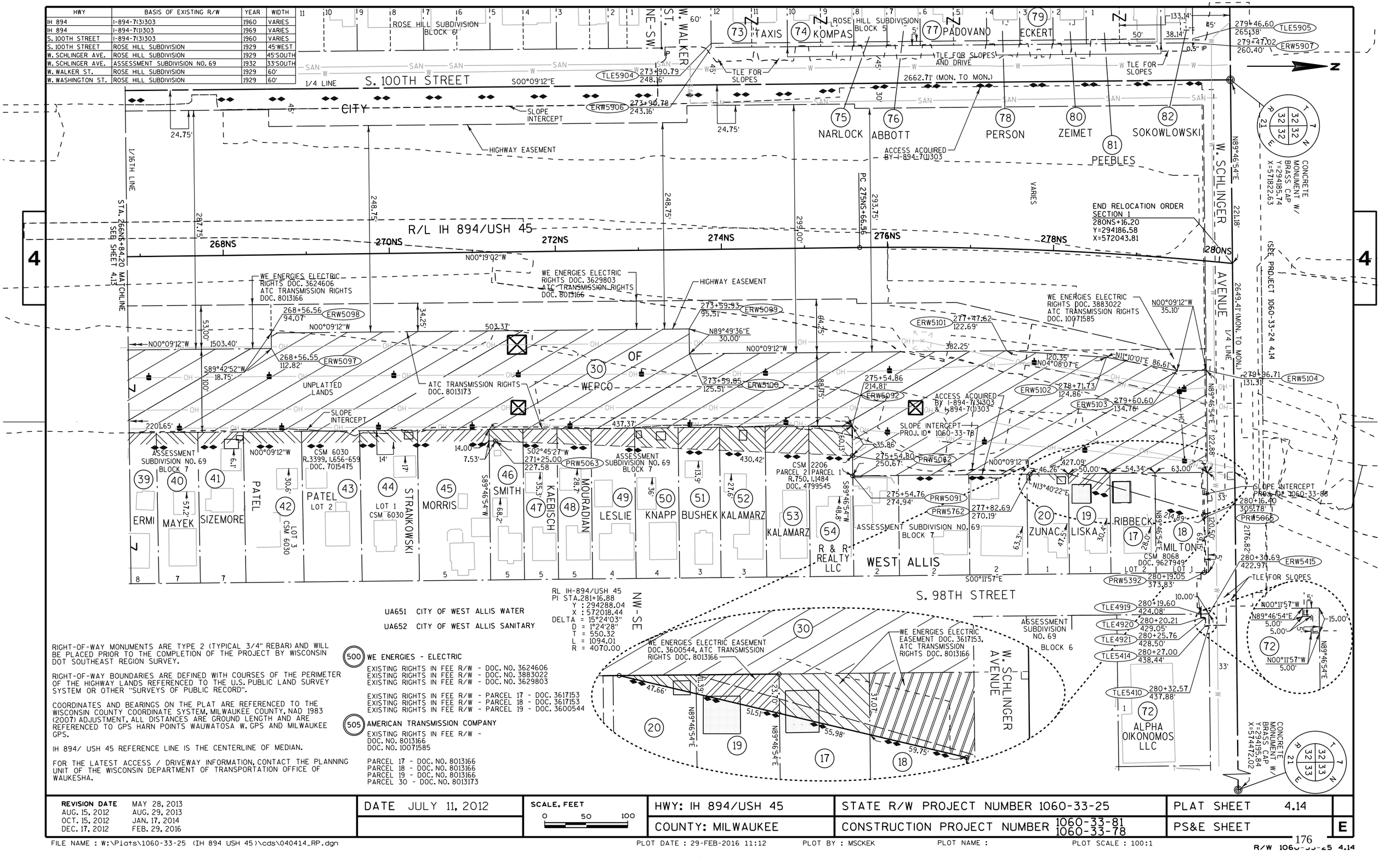
PS&E SHEET

E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040413_RP.dgn

PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
S. 100TH STREET	I-894-7(3)303	1960	VARIES
S. 100TH STREET	ROSE HILL SUBDIVISION	1929	45'WEST
W. SCHLINGER AVE.	ROSE HILL SUBDIVISION	1929	45'SOUTH
W. SCHLINGER AVE.	ASSESSMENT SUBDIVISION NO. 69	1932	33'SOUTH
W. WALKER ST.	ROSE HILL SUBDIVISION	1929	60'
W. WASHINGTON ST.	ROSE HILL SUBDIVISION	1929	60'



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IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

(500) **WE ENERGIES - ELECTRIC**

EXISTING RIGHTS IN FEE R/W - DOC. NO. 3624606
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3883022
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3629803

EXISTING RIGHTS IN FEE R/W - PARCEL 17 - DOC. 3617153
EXISTING RIGHTS IN FEE R/W - PARCEL 18 - DOC. 3617153
EXISTING RIGHTS IN FEE R/W - PARCEL 19 - DOC. 3600544

(505) **AMERICAN TRANSMISSION COMPANY**

EXISTING RIGHTS IN FEE R/W -
DOC. NO. 8013166
DOC. NO. 10071585

PARCEL 17 - DOC. NO. 8013166
PARCEL 18 - DOC. NO. 8013166
PARCEL 19 - DOC. NO. 8013166
PARCEL 30 - DOC. NO. 8013173

REVISION DATE	
AUG. 15, 2012	MAY 28, 2013
OCT. 15, 2012	AUG. 29, 2013
DEC. 17, 2012	JAN. 17, 2014
	FEB. 29, 2016

DATE JULY 11, 2012

SCALE. FEET 0 50 100

HWY: IH 894/USH 45

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-25

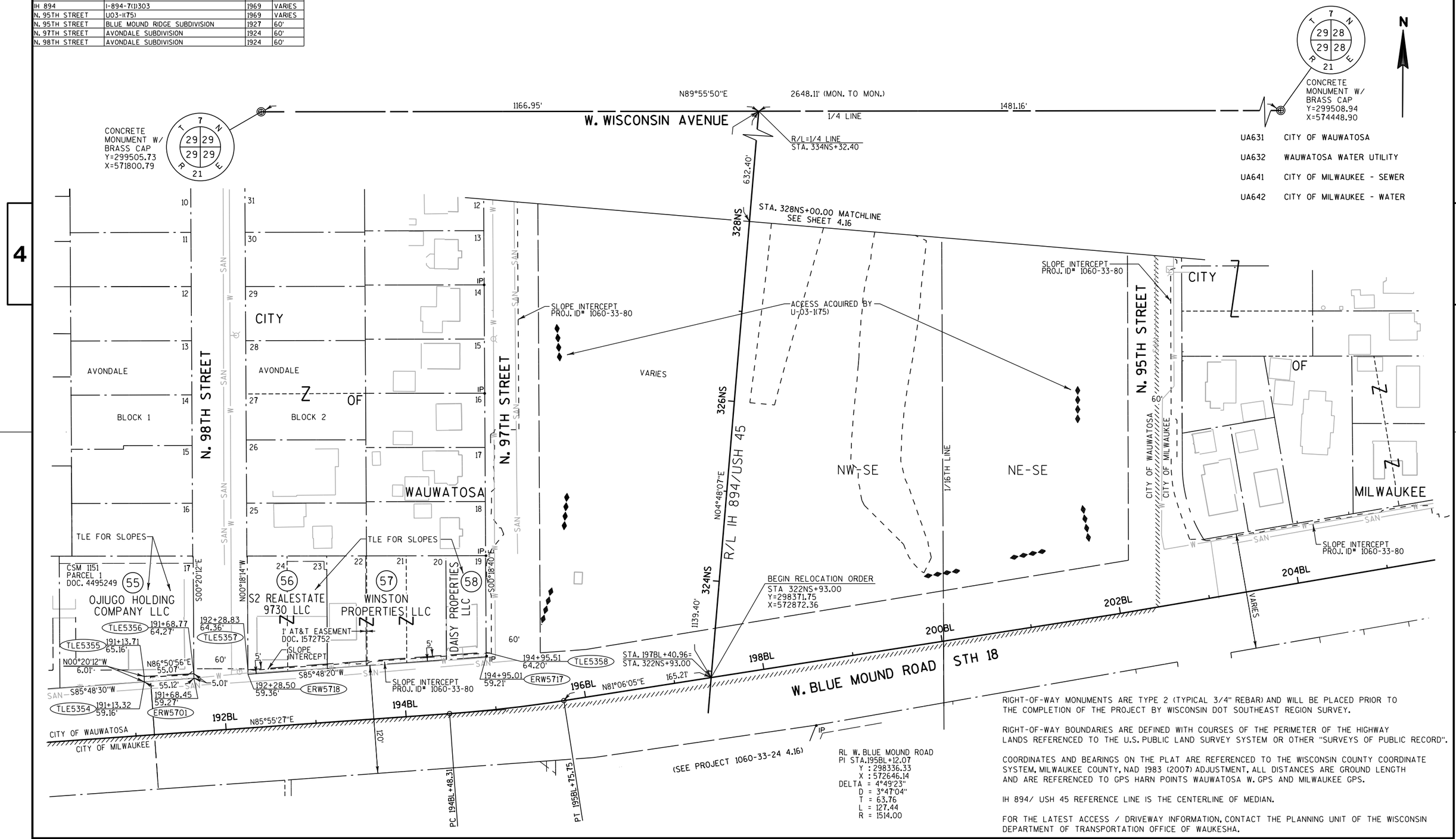
CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-78

PLAT SHEET 4.14

PS&E SHEET E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040414_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
N. 95TH STREET	U03-1(75)	1969	VARIES
N. 95TH STREET	BLUE MOUND RIDGE SUBDIVISION	1927	60'
N. 97TH STREET	AVONDALE SUBDIVISION	1924	60'
N. 98TH STREET	AVONDALE SUBDIVISION	1924	60'



RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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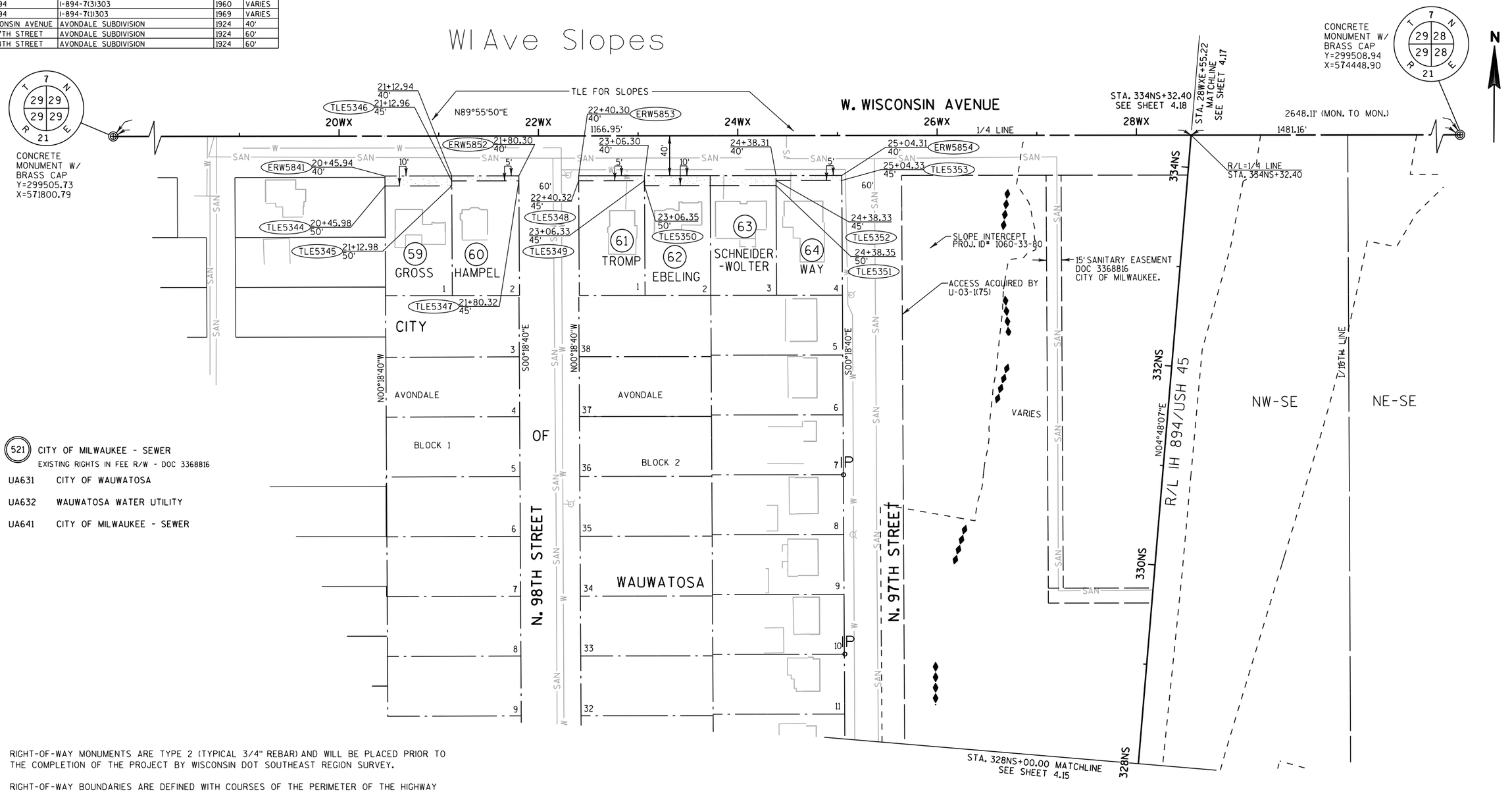
REVISION DATE	DATE	SCALE: FEET	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.15	
AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016	MAY 28, 2013	0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040415_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
WISCONSIN AVENUE	AVONDALE SUBDIVISION	1924	40'
N. 97TH STREET	AVONDALE SUBDIVISION	1924	60'
N. 98TH STREET	AVONDALE SUBDIVISION	1924	60'

WI Ave Slopes



521 CITY OF MILWAUKEE - SEWER
EXISTING RIGHTS IN FEE R/W - DOC 3368816

UA631 CITY OF WAUWATOSA

UA632 WAUWATOSA WATER UTILITY

UA641 CITY OF MILWAUKEE - SEWER

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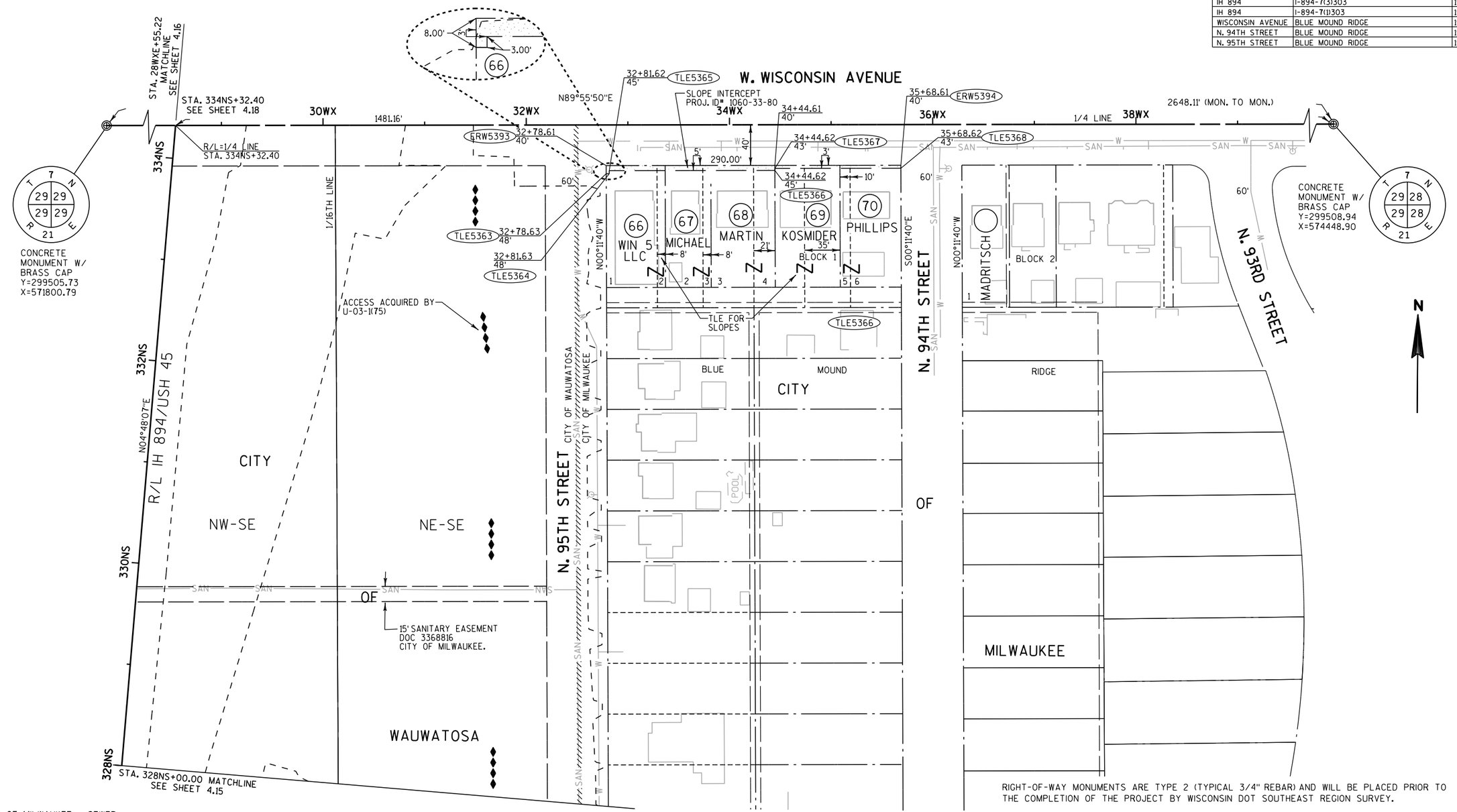
REVISION DATE AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016	DATE MAY 28, 2013	SCALE. FEET 0 50 100	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.16	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040416_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 894	I-894-7(3)303	1960	VARIES
IH 894	I-894-7(1)303	1969	VARIES
WISCONSIN AVENUE	BLUE MOUND RIDGE	1927	40'
N. 94TH STREET	BLUE MOUND RIDGE	1927	60'
N. 95TH STREET	BLUE MOUND RIDGE	1927	60'



(521) CITY OF MILWAUKEE - SEWER
EXISTING RIGHTS IN FEE R/W - DOC 3368816

UA641 CITY OF MILWAUKEE - SEWER

UA642 CITY OF MILWAUKEE - WATER

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY, NAD 1983 (2007) ADJUSTMENT. ALL DISTANCES ARE GROUND LENGTH AND ARE REFERENCED TO GPS HARN POINTS WAUWATOSA W. GPS AND MILWAUKEE GPS.

IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE	DATE MAY 28, 2013	SCALE. FEET 0 50 100	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.17	
AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040417_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 100:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	U 03-1(75) / 1100-1-23	1969	VARIES
WISCONSIN AVENUE	U 03-1(75) / 1100-1-23	1969	VARIES
WISCONSIN AVENUE	QCD DOC. 3745776	1959	40'NORTH

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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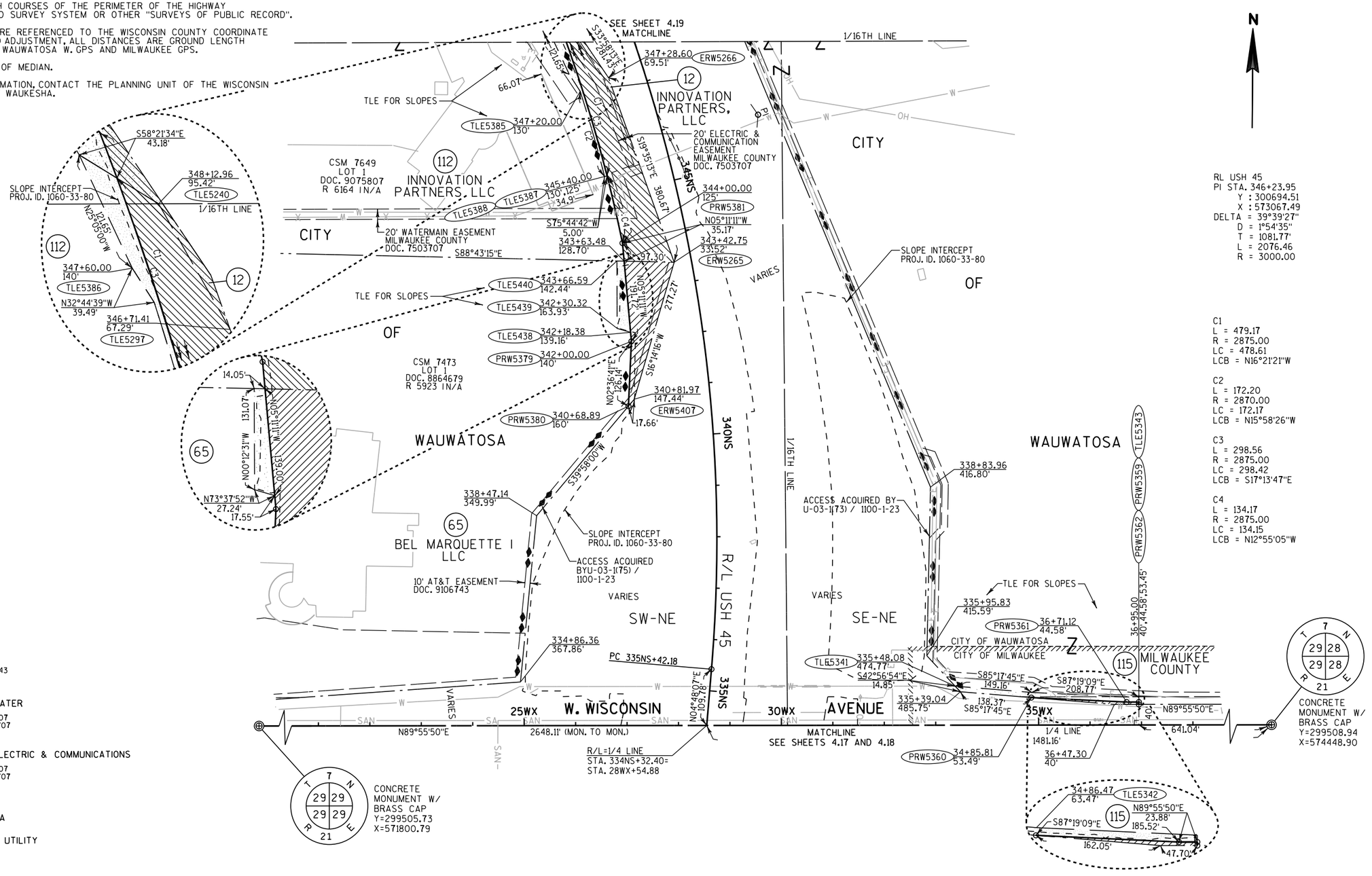
USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.



RL USH 45
PI STA. 346+23.95
Y : 300694.51
X : 573067.49
DELTA = 39°39'27"
D = 1°54'35"
T = 1081.77'
L = 2076.46
R = 3000.00

C1
L = 479.17
R = 2875.00
LC = 478.61
LCB = N16°21'21"W

C2
L = 172.20
R = 2870.00
LC = 172.17
LCB = N15°58'26"W

C3
L = 298.56
R = 2875.00
LC = 298.42
LCB = S17°13'47"E

C4
L = 134.17
R = 2875.00
LC = 134.15
LCB = N12°55'05"W

504 AT&T WISCONSIN
PARCEL 65 - DOC. NO. 9106743

541 MILWAUKEE COUNTY - WATER
PARCEL 12 - DOC. NO. 7503707
PARCEL 112 - DOC. NO. 7503707

543 MILWAUKEE COUNTY - ELECTRIC & COMMUNICATIONS
PARCEL 12 - DOC. NO. 7503707
PARCEL 112 - DOC. NO. 7503707

UA631 CITY OF WAUWATOSA

UA632 WAUWATOSA WATER UTILITY

REVISION DATE	DATE MAY 28, 2013	SCALE. FEET	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.18	
AUG. 29, 2013 JAN. 17, 2014 FEB. 29, 2016		0 100 200	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040418_RP.dgn PLOT DATE : 29-FEB-2016 11:12 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 200:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	1100-1-23 U03-1(75)	1969	VARIES
WATERTOWN PLANK RD	CT-03-1(73)	1967	VARIES
WATERTOWN PLANK RD	O.C. DOC. 3745778	1959	55' SOUTH

CONCRETE MONUMENT W/ ALUMINUM CAP Y=302148.00 X=569115.57

R/W ACQUIRED BY 1060-33-22

CONCRETE MONUMENT W/ CAST IRON PLUG Y=302159.76 X=571783.02

CONCRETE MONUMENT W/ BRASS CAP Y=302173.39 X=574416.80

RL USH 45
PI STA. 346+23.95
Y : 300694.51
X : 573067.49
DELTA = 39°39'27"
D = 1°54'35"
T = 1081.77'
L = 2076.46
R = 3000.00

RL W. WATERTOWN PLANK RD.
PI STA. 48+87.08
Y : 302147.84
X : 571800.56
DELTA = 12°17'33"
D = 5°27'24"
T = 113.07'
L = 225.27
R = 1050.00

C3
L = 182.59
R = 318.45
LC = 180.09
LCB = N52°03'32"W

C4
L = 86.75
R = 123.00
LC = 84.96
LCB = N20°26'33"W

C5
L = 115.68
R = 164.00
LC = 113.30
LCB = N20°26'20"W

C6
L = 46.44
R = 2875.00
LC = 46.44
LCB = N20°40'03"W

C7
L = 298.56
R = 2875.00
LC = 298.42
LCB = S17°13'47"E

35WEB R/L W. WATERTOWN PLANK ROAD 40WEB 45WEB 50WEB

SECTION LINE 2667.48' (MON. TO MON.) N89°44'51"E

SEE SHEET 4.21 MATCH LINE 2633.82' (MON. TO MON.) N89°42'13"E SECTION LINE R/L=SECTION LINE STA. 363NS+24.13

SEE SHEET 4.20 MATCH LINE 919.37' R/L USH 45 360NS 355NS

PC 47WEB+74.01 PI 48WEB+87.08 PT 49WEB+99.28

362NS+30.17= 51WEB+92.13 N34°51'19"W VARIES

WEST LIMIT STA. 33WEB+97.94 Y= 302141.27 X= 570311.44

100'x60' RETAINING WALL EASEMENT DOC. 7503707

INGRESS EGRESS DOC. 07298264

TLE FOR SLOPES

20' MILWAUKEE COUNTY ELECTRIC & COMMUNICATION EASEMENT DOC. 7503707

15' ACCESS & 8' UTILITY EASEMENT VOICESTREAM DOC. 8003101

TLE FOR SLOPES AND DRIVE

PLE FOR SIGN BRIDGE

SLOPE INTERCEPT PROJ. ID. 1060-33-72

STEAM MAIN

20' WE ENERGIES STEAM EASEMENT DOC. 7298264

20' WE ENERGIES STEAM EASEMENT DOC. 7298264

10' WE ENERGIES ELECTRIC EASEMENT DOC. 5061222

20' MILWAUKEE COUNTY SANITARY SEWER EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY ELECTRIC EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY ELECTRIC EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY STORM SEWER EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY ELECTRIC & COMMUNICATION EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY ELECTRIC EASEMENT DOC. 7731650

20' MILWAUKEE COUNTY WATERMAIN EASEMENT DOC. 7503707

15' CHILLED WATER EASEMENT DOC. 7298264

20' MILWAUKEE COUNTY WATERMAIN EASEMENT DOC. 7503707

20' MILWAUKEE COUNTY ELECTRIC & ACCESS EASEMENT DOC. 7298264

20' WE ENERGIES ELECTRIC EASEMENT DOC. 8919688

20' MILWAUKEE COUNTY WATERMAIN EASEMENT DOC. 7503707

15' CHILLED WATER EASEMENT DOC. 7298264

20' MILWAUKEE COUNTY ELECTRIC & COMMUNICATION EASEMENT DOC. 7503707

ACCESS ACQUIRED BY U-03-1(75)/1100-1-23

TLE FOR SLOPES AND DRAINAGE

SLOPE INTERCEPT PROJ. ID. 1060-33-80

SLOPE INTERCEPT PROJ. ID. 1060-33-72

MATCH LINE SEE SHEET 4.18

LOT 9 CSM 7648 DOC. 9075806

LOT 10 CSM 7908 DOC. 9419817

LOT 3 CSM 6650 DOC. 7731650

LOT 8 CSM 7648

LOT 1 CSM 7649 DOC. 9075807

MILWAUKEE COUNTY

INNOVATION PARTNERS, LLC

WAUWATOSA

CITY OF

UNPLATTED LANDS

NE-NW NW-NE NW-NW SW-NE SE-NW

1/16TH LINE 1/4 LINE

500	WE ENERGIES - ELECTRIC PARCEL 11 - (NO RECORD OF EASEMENT) PARCEL 11 - DOC. NO. 5061222 (10' ELEC) PARCEL 12 - DOC. NO. 8919688 (20' ELEC) PARCEL 13 - (NO RECORD OF EASEMENT)
502	WE ENERGIES - STEAM PARCEL 11 - DOC. NO. 7298264 (20' STEAM) PARCEL 13 - DOC. NO. 7298264 (20' STEAM)
507	TIME WARNER CABLE PARCEL 11 - (NO RECORD OF EASEMENT)
509	VOICESTREAM PARCEL 13 - DOC. NO. 8003101 (8' UTIL)
540	MILWAUKEE COUNTY - STORM PARCEL 11 - DOC. NO. 7503707 (20' STO)
541	MILWAUKEE COUNTY - WATER PARCEL 11 - DOC. NO. 7503707 (20' WAT) PARCEL 11 - DOC. NO. 7503707 (VARIABLE WIDTH WAT) PARCEL 12 - DOC. NO. 7503707 (VARIABLE WIDTH WAT) PARCEL 112 - DOC. NO. 7503707 (VARIABLE WIDTH WAT)
542	MILWAUKEE COUNTY - SANITARY PARCEL 11 - DOC. NO. 7503707 (20' SAN)
543	MILWAUKEE COUNTY - ELECTRIC & COMMUNICATIONS PARCEL 11 - DOC. NO. 7503707 (20' ELEC) PARCEL 11 - DOC. NO. 7503707 (20' ELEC & COMM) PARCEL 12 - DOC. NO. 7503707 (20' ELEC & COMM) PARCEL 12 - DOC. NO. 7731650 (20' ELEC) PARCEL 14 - DOC. NO. 7503707 (20' ELEC & COMM) PARCEL 112 - DOC. NO. 7298264 (20' ELEC) PARCEL 112 - DOC. NO. 7503707 (20' ELEC & COMM) PARCEL 112 - DOC. NO. 7731650 (20' ELEC)

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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IH 894/ USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

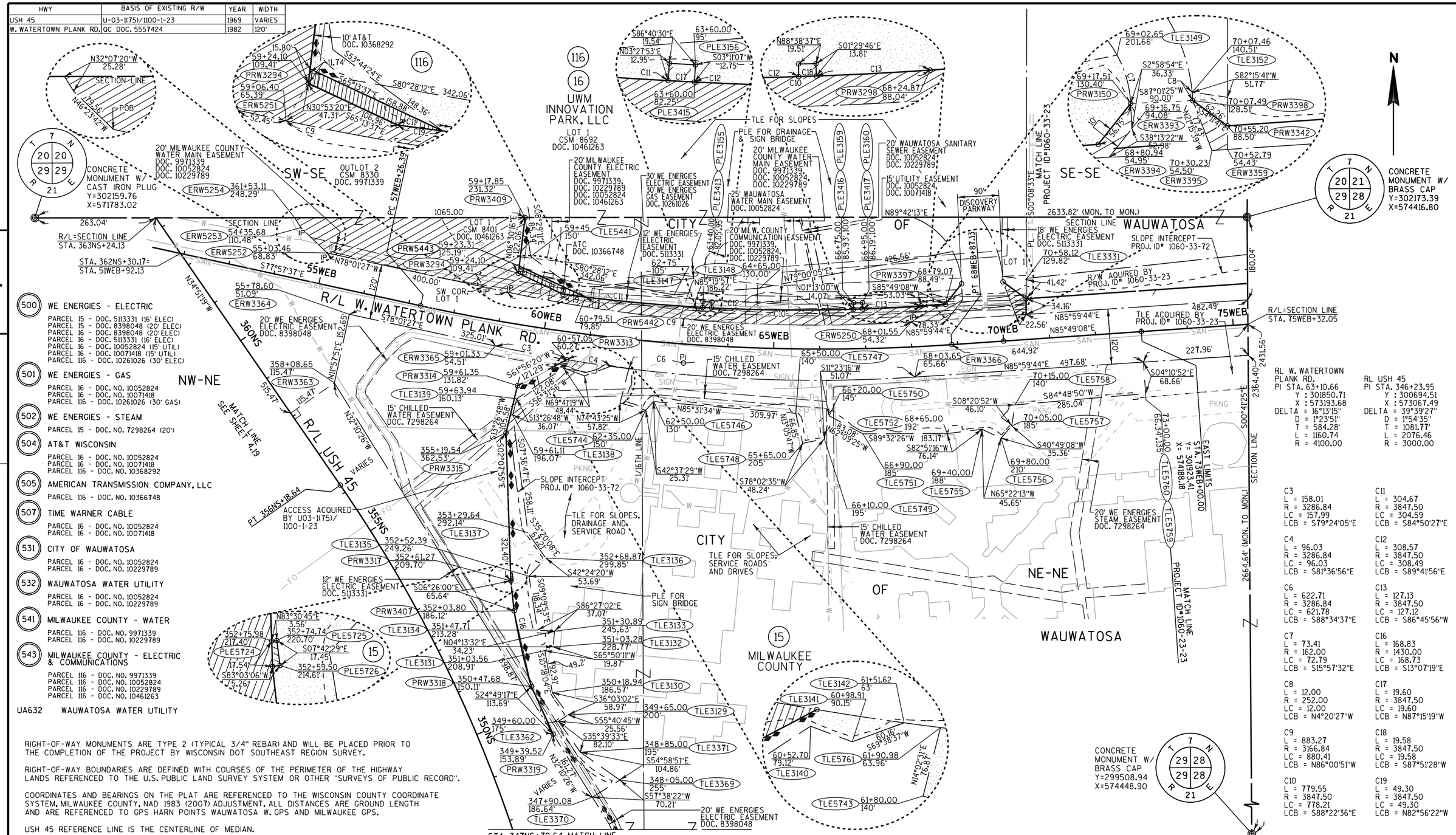
CONCRETE MONUMENT W/ SEWRPC BRASS CAP Y=299505.73 X=571800.79

REVISION DATE		
MAY 17, 2012	OCT. 15, 2012	JAN. 17, 2014
JUL. 11, 2012	DEC. 17, 2012	FEB. 29, 2016
AUG. 15, 2012	MAY 28, 2013	
	AUG. 29, 2013	

DATE FEB. 13, 2012	SCALE, FEET 0 100 200	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.19	
		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET	E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040419_RP.dgn PLOT DATE : 29-FEB-2016 11:13 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 200:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	U-03-1(75)/1100-1-23	1969	VARIES
W. WATERTOWN PLANK RD.	OC DOC. 5557424	1982	120'



REVISION DATE	DEC. 17, 2012	FEB. 29, 2016	DATE MAY 17, 2012	SCALE, FEET 0 100 200	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.20	
JUL. 11, 2012	MAY 28, 2013				COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72 1060-34-87	PS&E SHEET	E
AUG. 15, 2012	AUG. 29, 2013							
OCT. 15, 2012	JAN. 17, 2014							

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	U 03-1(75) / 1100-1-23	1969	VARIES

4

4

RL USH 45
PI STA. 370+41.48
Y : 302749.78
X : 571636.09
DELTA = 7°49'18"
D = 0°57'03"
T = 411.88'
L = 822.49
R = 6025.00

C2
L = 286.16
R = 682.20
LC = 284.07
LCB = N39°04'14"W

C3
L = 353.02
R = 355.50
LC = 338.69
LCB = S38°42'46"E

SEE SHEET 4.22
STA. 378NS+67.92 MATCH LINE

CONCRETE MONUMENT W/ BRASS CAP
Y=304820.60
X=571773.24

1/16TH LINE

VARIES

590.66'

ACCESS ACQUIRED BY U-03-1(75)/ 1100-1-23

N27°02'02"W

N27°03'16"W

375NS PT 374NS+52.09

R/L USH 45

370NS PI

CITY

373+41.28 PRW5423
498.86'

373+09.59 PRW5424
509.13'

881.31'

N27°02'26"W

CSM 8401
DOC. 10052824
LOT 4

CSM 8330
DOC. 9971339
OUTLOT 2

16 ALT
DOC 10277226
DATE: JULY 25, 2013

2660.86' (MON. TO MON.)

N00°12'38"W

372+87.66 PRW5425
510.66'

372+48.18 PRW5426
496.64'

N27°02'26"W
209.67'

371+28.82 PRW5427
491.85'

OF

WAUWATOSA

16 ALT

S41°49'27"E
30.80'

S32°51'26"E
20.13'

S07°36'02"E
38.81'

PRW3320 372+13.59
195.71'

SLOPE INTERCEPT
PROJ. ID# 1060-33-72

N49°56'32"W

ACCESS ACQUIRED BY U-03-1(75)/ 1100-1-23

S67°09'38"E

371.91'
N27°03'16"W

946.02'

845.24'

629.92'

20' WE ENERGIES STEAM EASEMENT
DOC. 7298264

16 UWM INNOVATION PARK, LLC
CSM 8401
DOC. 10052824
LOT 1

1/16TH LINE

363+94.15 PRW5428
728.65'

363+94.15 PRW3321
728.65'

S22°50'22"W
9.00'

1/4 LINE

IP

368+30.97
169.32'
ERW5258

PRW3292 363+89.34
721.05'

CSM 8401
LOT 2

C2

VARIES

R/L=SECTION LINE
STA. 367NS+89.94

PC 366NS+29.60

365+41.97
193.47'
ERW5257

100.00'
N51°05'15"W

360+51.42 PRW3293
743.83'

S0°15'53"E 200.38'

CONCRETE MONUMENT W/ BRASS CAP
Y=302173.39
X=574416.80

364+45.96
221.43'
ERW5256

N41°38'45"W

246.15'

365NS

N34°51'19"W

R/L=SECTION LINE
STA. 363NS+24.13

N32°12'10"W
48.48'

361+53.11
248.29'

ERW5255 362+01.53
250.53'

ERW5254
500.47'

358+69.21 PRW3409
660.45'

413.04'

263.04'

N89°44'51"E 2667.48' (MON. TO MON.)
SECTION LINE

N89°42'13"E 2633.82' (MON. TO MON.)

1568.82'
SECTION LINE

MATCH LINE
SEE SHEET 4.19

MATCH LINE
SEE SHEET 4.20

502 WE ENERGIES - STEAM
PARCEL 16 - DOC. NO. 7298264

CONCRETE MONUMENT W/ ALUMINUM CAP
Y=302148.00
X=569115.57

CONCRETE MONUMENT W/ CAST IRON PLUG
Y=302159.76
X=571783.02

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USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

REVISION DATE		
JUL. 11, 2012	DEC. 17, 2012	FEB. 29, 2016
AUG. 15, 2012	MAY 28, 2013	
OCT. 15, 2012	AUG. 29, 2013	
	JAN. 17, 2014	

DATE MAY 17, 2012

SCALE, FEET
0 100 200

HWY: IH 894/USH 45
COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-25
CONSTRUCTION PROJECT NUMBER 1060-33-72

PLAT SHEET 4.21
PS&E SHEET

E

FILE NAME : W:\Plats\1060-33-25 (IH 894 USH 45)\cds\040421_RP.dgn PLOT DATE : 29-FEB-2016 11:13 PLOT BY : MSCKEK PLOT NAME : PLOT SCALE : 200:1

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
USH 45	U 03-1(75) / 1100-1-23	1969	VARIES
SWAN BLVD.	CSM 8330	2010	60' SOUTH
SWAN BLVD.	CSM 7634	2005	VARIES
SWAN BLVD.	CT-03-1(75)	1967	80'

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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USH 45 REFERENCE LINE IS THE CENTERLINE OF MEDIAN.

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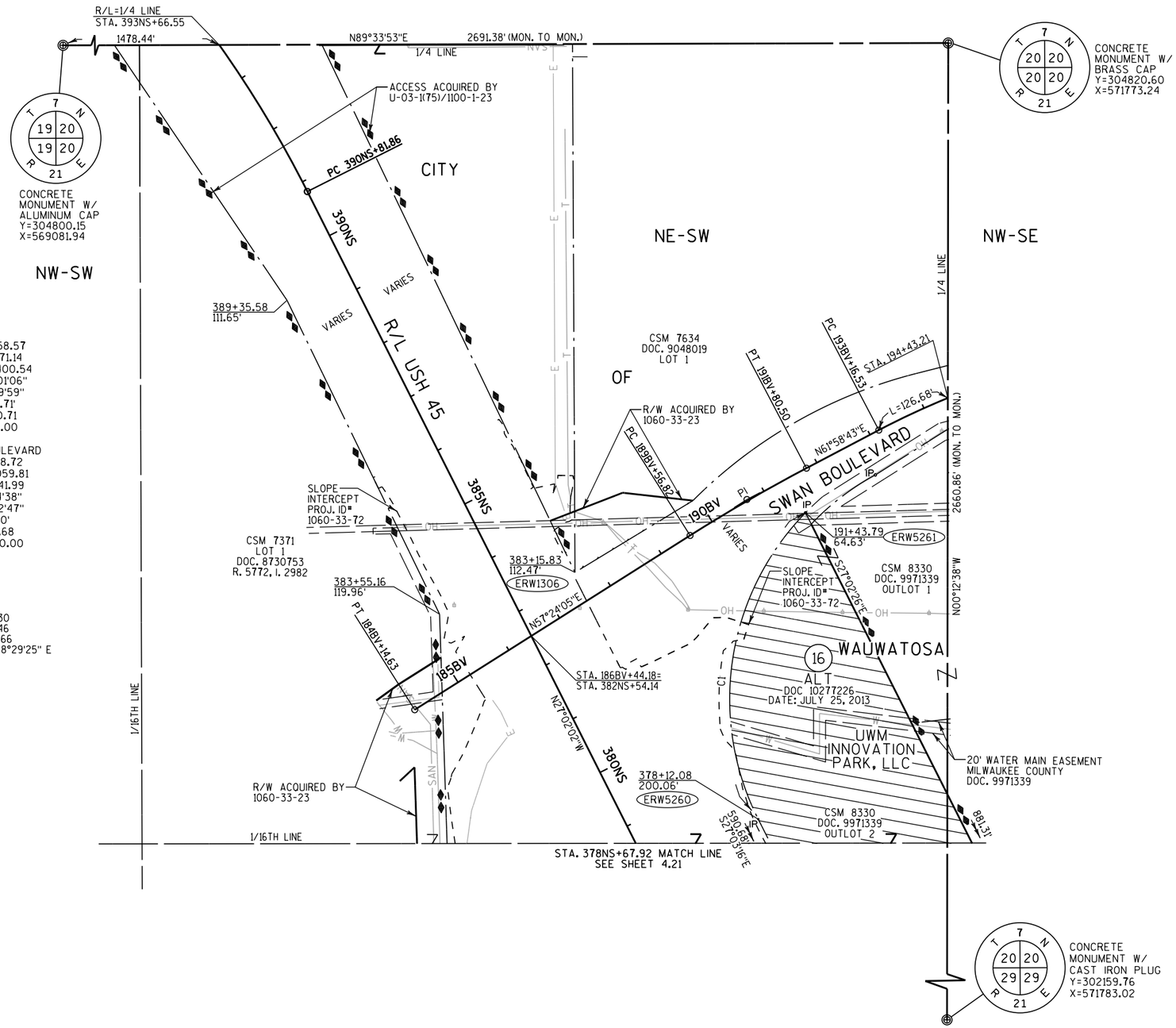
RL USH 45
PI STA. 397+58.57
Y : 305171.14
X : 570400.54
DELTA = 39°01'06"
D = 2°59'59"
T = 676.71'
L = 1300.71
R = 1910.00

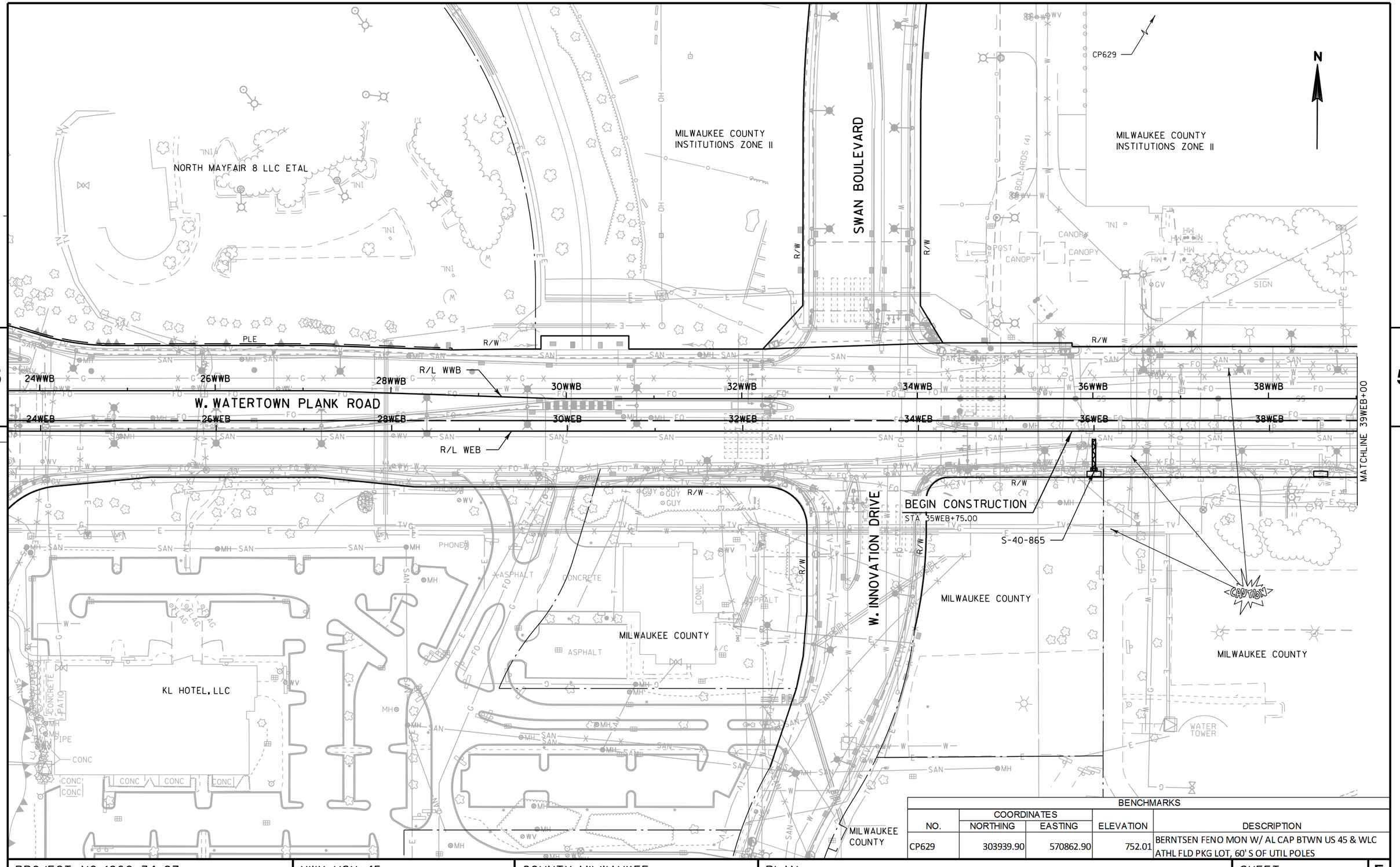
RL SWAN BOULEVARD
PI STA. 190+68.72
Y : 304059.81
X : 571441.99
DELTA = 4°34'38"
D = 2°02'47"
T = 111.90'
L = 223.68
R = 2800.00

C1
L = 550.30
R = 443.46
LC = 515.66
LCB = N 8°29'25" E

(541) MILWAUKEE COUNTY - WATER
PARCEL 16 - DOC. NO. 9971339 (20' WM)



REVISION DATE			DATE MAY 17, 2012	SCALE, FEET 0 100 200	HWY: IH 894/USH 45	STATE R/W PROJECT NUMBER 1060-33-25	PLAT SHEET 4.22	
JUL. 11, 2012	DEC. 17, 2012	FEB. 29, 2016						
AUG. 15, 2012	MAY 28, 2013				COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-72	PS&E SHEET	E
OCT. 15, 2012	AUG. 29, 2013							
	JAN. 17, 2014							



5

5

BENCHMARKS				
NO.	COORDINATES NORTHING	COORDINATES EASTING	ELEVATION	DESCRIPTION
CP629	303939.90	570862.90	752.01	BERNTSEN FENO MON W/ AL CAP BTWN US 45 & WLC ATHL FLD PKG LOT, 60' S OF UTIL POLES

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\050601_pn.dgn PLOT DATE : 29-FEB-2016 21:50 PLOT BY : MSCDYB PLOT NAME : PLOT SCALE : 100:1

MILWAUKEE COUNTY
INSTITUTIONS ZONE II

BEGIN PROJECT
STA 43WEB+10.86

MATCHLINE 39WEB+00

W. WATERTOWN PLANK ROAD

40WWB
40WEB
42WWB
42WEB
44WWB
44WEB
46WWB
46WEB
48WWB
48WEB
50WWB
50WEB
52WWB
52WEB
54WW
54

R/L WWB
R/L WEB
R/W
PLE
S-40-866
SLOPE INTERCEPT
CAUTION

MILWAUKEE COUNTY

165WC
RAMP WC
R/L WC
166WC
R/W
164WC

USH 45 NB
USH 45 SB

BM777
BM778
BM779
BM780

MATCHLINE 54WEB+00

N

5

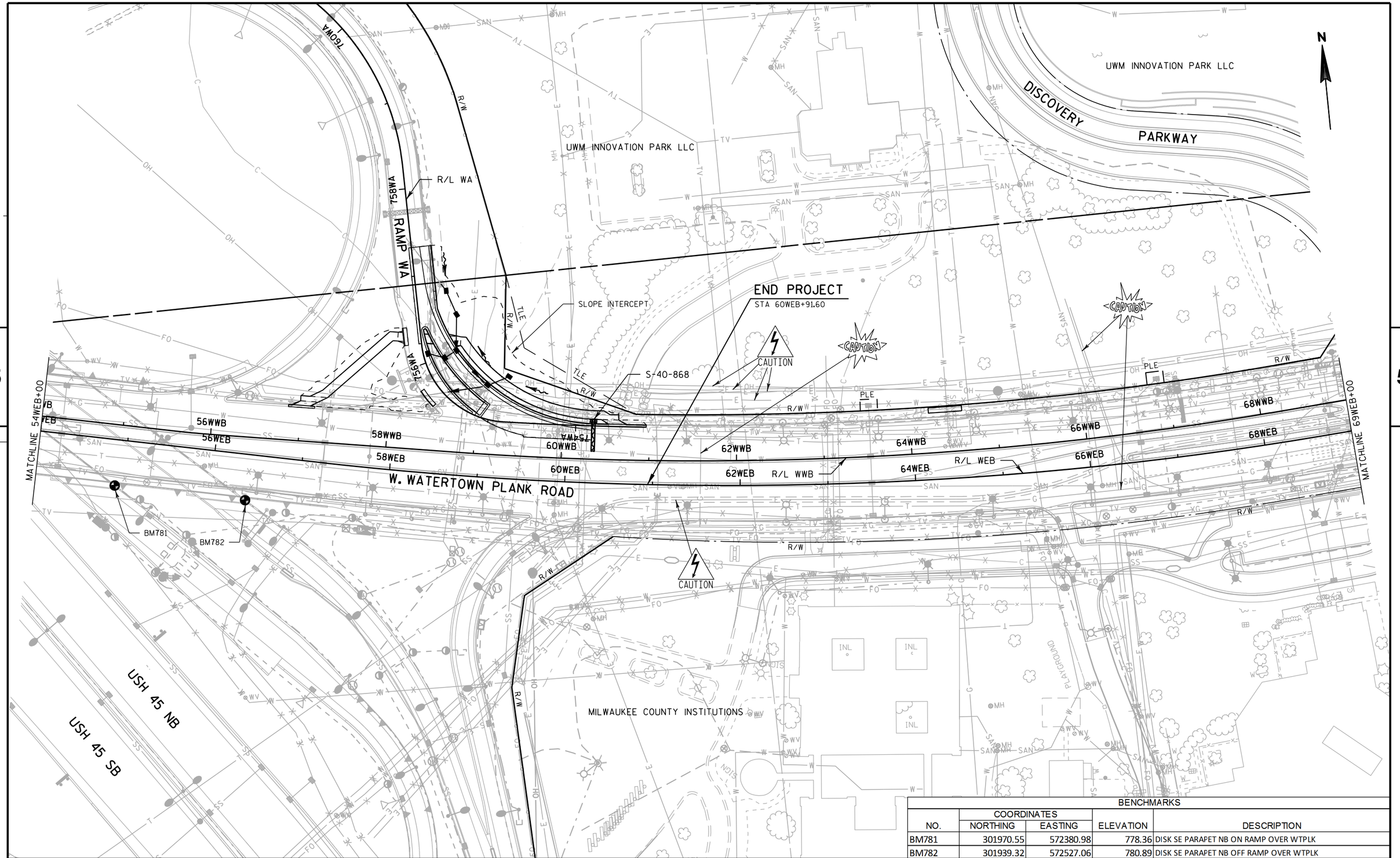
5

BENCHMARKS				
	COORDINATES			
NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM777	302228.57	571731.98	767.90	DISK NW PARAPET SB OFF RAMP OVER WTPLK
BM778	302217.38	571805.56	769.73	DISK NW PARAPET SB ON RAMP OVER WTPLK
BM779	302190.18	571932.00	771.78	DISK NW PARAPET SB I-41 OVER WTPLK
BM780	301996.64	572258.93	773.45	DISK SE PARAPET NB I-41 OVER WTPLK

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\050602_pn.dgn PLOT DATE : 29-FEB-2016 21:50 PLOT BY : MSCDYB PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 44



BENCHMARKS				
NO.	COORDINATES NORTHING	COORDINATES EASTING	ELEVATION	DESCRIPTION
BM781	301970.55	572380.98	778.36	DISK SE PARAPET NB ON RAMP OVER WTPLK
BM782	301939.32	572527.06	780.89	DISK SE PARAPET NB OFF RAMP OVER WTPLK

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\050603_pn.dgn PLOT DATE : 29-FEB-2016 21:50 PLOT BY : MSCDYB PLOT NAME : PLOT SCALE : 100:1

UWM INNOVATION PARK LLC

WISCONSIN ELECTRIC POWER COMPANY

DISCOVERY PARKWAY

END CONSTRUCTION
STA 73WWB+25.00

CAUTION

S-40-867

PLE

R/W

70WWB
72WWB
74WWB
76WWB
78WWB
80WWB
82WWB
84WWB

70WEB
72WEB
74WEB
76WEB
78WEB
80WEB
82WEB
84WEB

R/L WWB

R/L WEB

R/L THS

W. WATERTOWN PLANK ROAD

MATCHLINE 69WEB+00

12TH ST

10TH ST

8TH ST

N. 92ND STREET

BM782

BM781

MILWAUKEE COUNTY

MILWAUKEE COUNTY

N

5

5

BENCHMARKS				
	COORDINATES			
NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM781	301970.55	572380.98	778.36	DISK SE PARAPET NB ON RAMP OVER WTPLK
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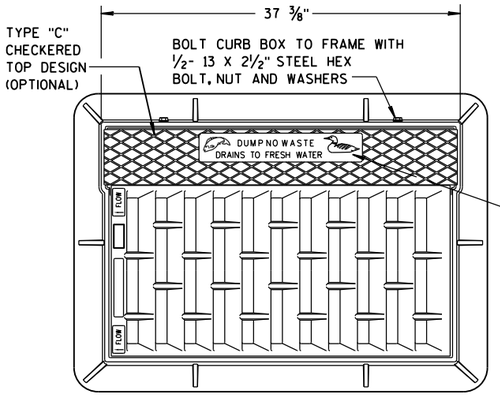
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	PLAN	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\050604_pn.dgn PLOT DATE : 29-FEB-2016 21:50 PLOT BY : MSCDYB PLOT NAME : PLOT SCALE : 100:1

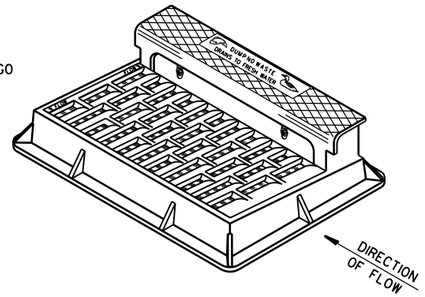
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09H06-02	SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 1
10A01-03	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A05-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C20-01	YIELD MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D35-02A	RAMP GATE HARD WIRED
15D35-02B	RAMP GATE HARD WIRED
15D35-02C	RAMP GATE HARD WIRED
15D35-02D	RAMP GATE HARD WIRED
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

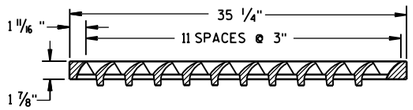
6

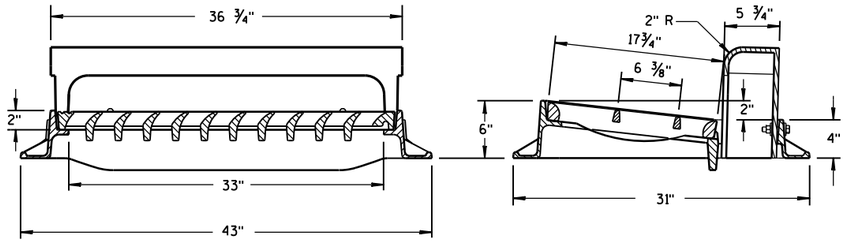


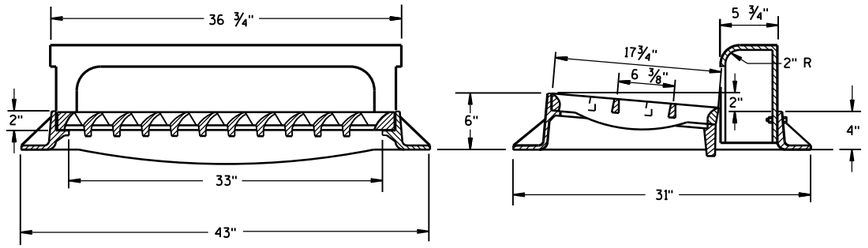
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

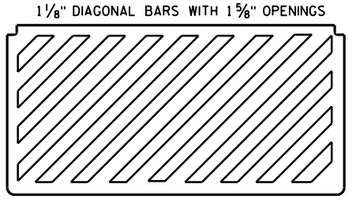






TYPE "H"

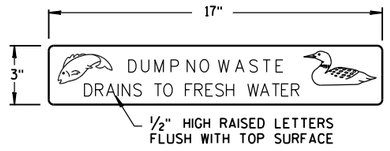
NOTE: EITHER CASTING IS ACCEPTABLE



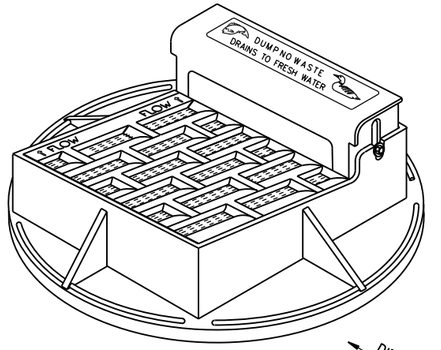
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

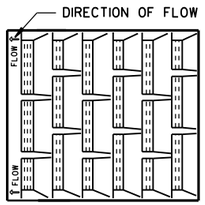
NOTE:
GRATE IS REVERSIBLE.

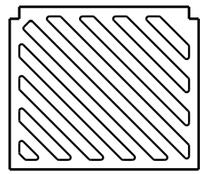
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

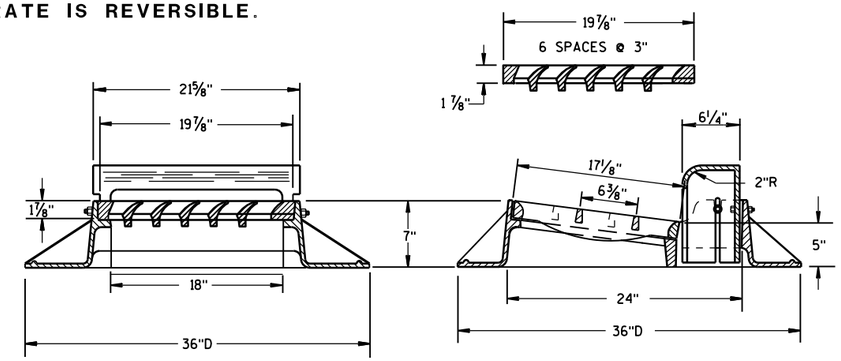




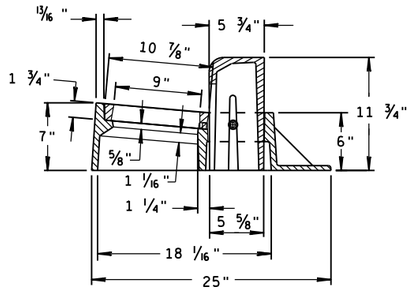
SPECIAL GRATE FOR TYPE "A" COVER

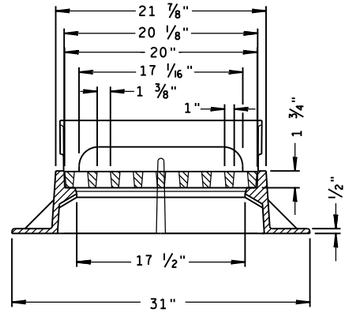
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

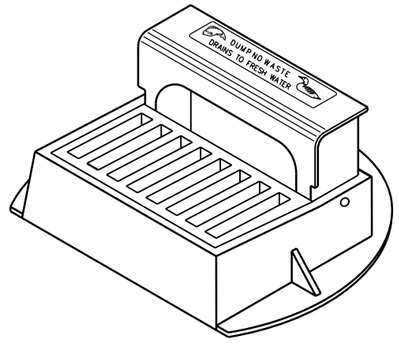


TYPE "A"





TYPE "Z"



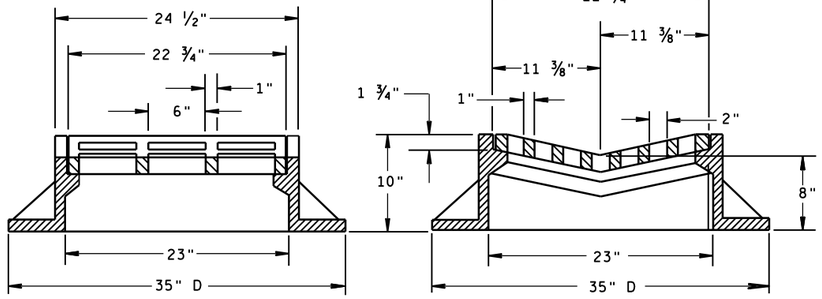
INLET COVERS
TYPE A, H, A-S, H-S & Z

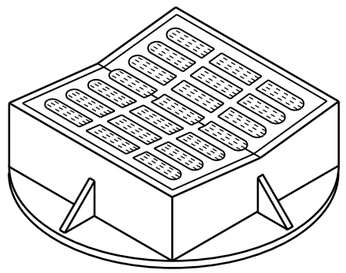
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

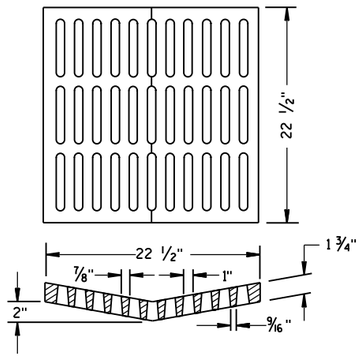
6

S.D.D. 8 A 5-19a



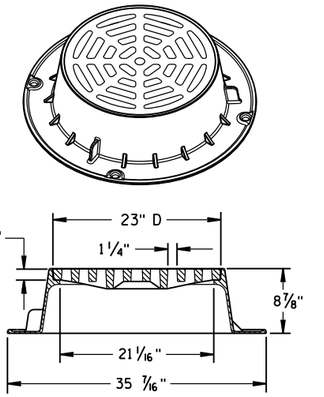


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

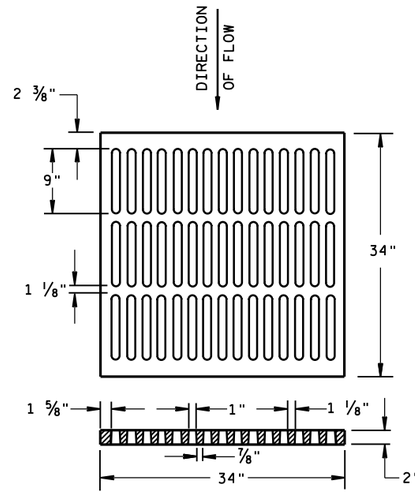
NOTE: EITHER CASTING IS ACCEPTABLE

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.

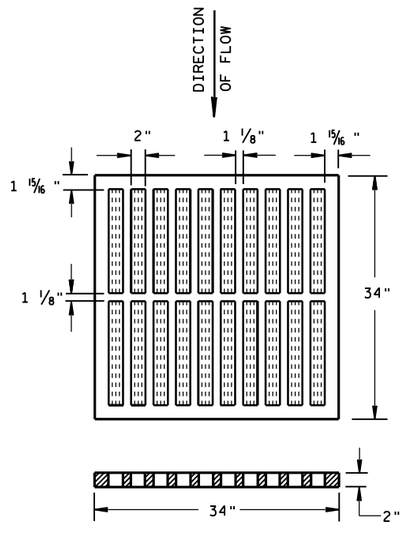
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



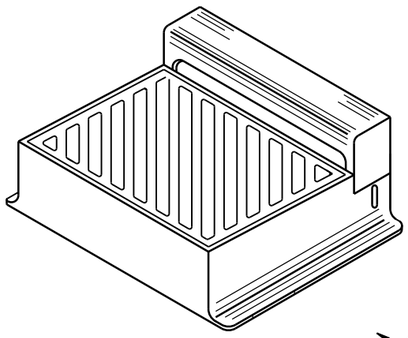
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

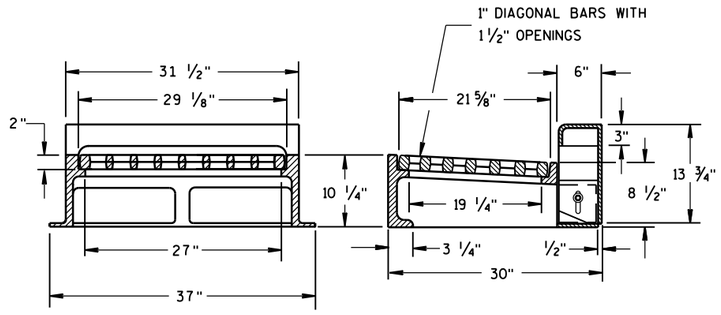


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

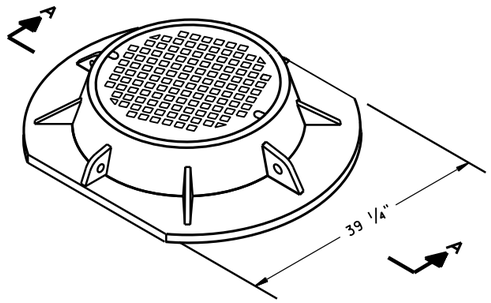
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

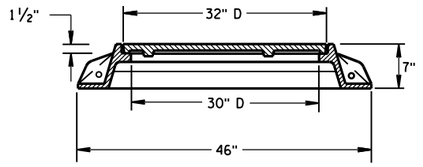
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

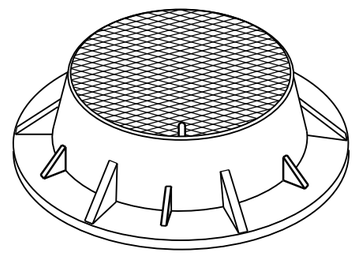
6

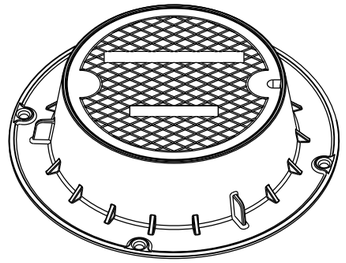
S.D.D. 8 A 5-19b

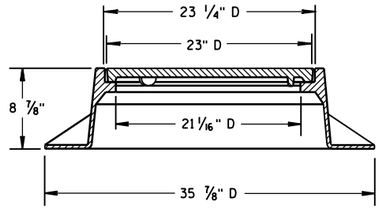


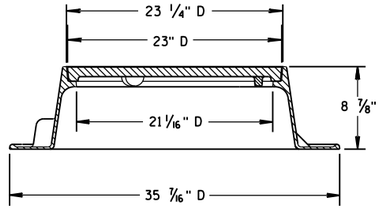


SECTION A-A
TYPE "K"









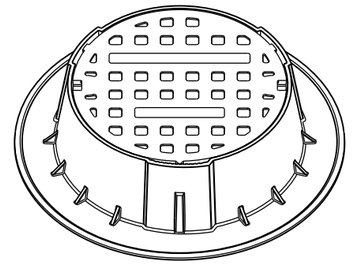
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

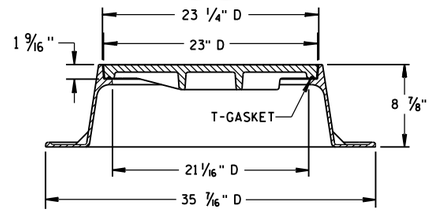
GENERAL NOTES

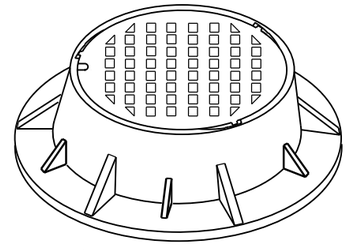
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

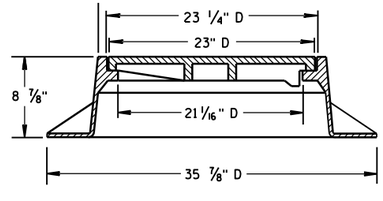
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

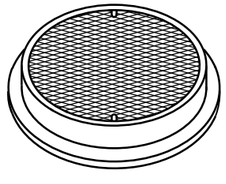


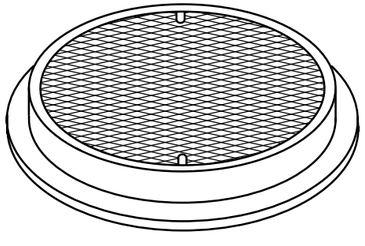


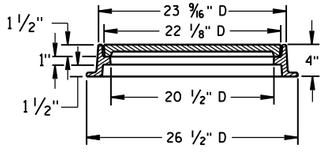




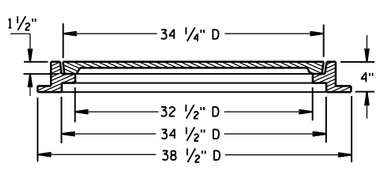
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



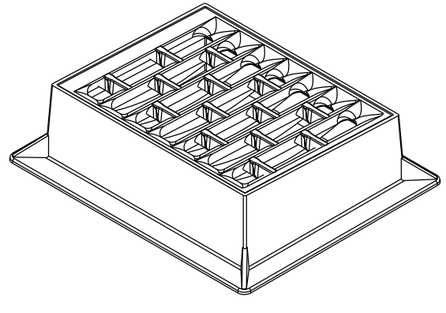


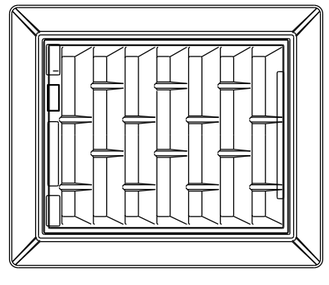


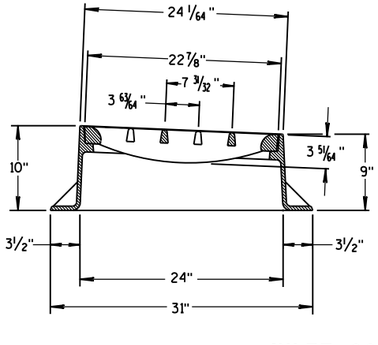
TYPE "L"

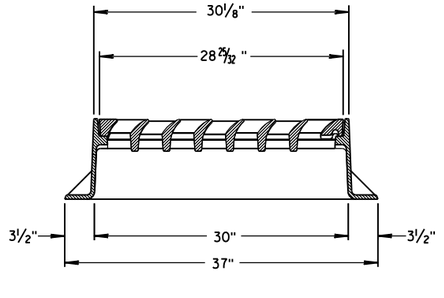


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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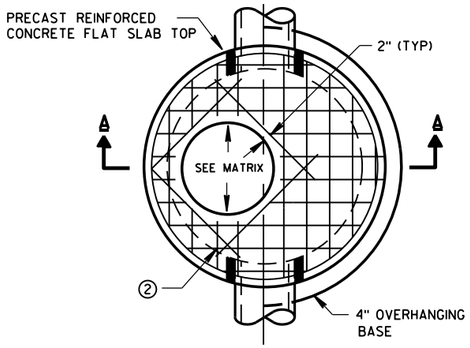
11/27/2013
DATE
FHWA

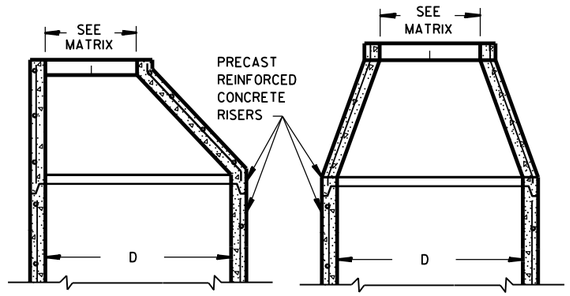
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

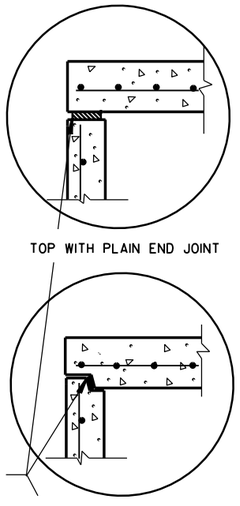


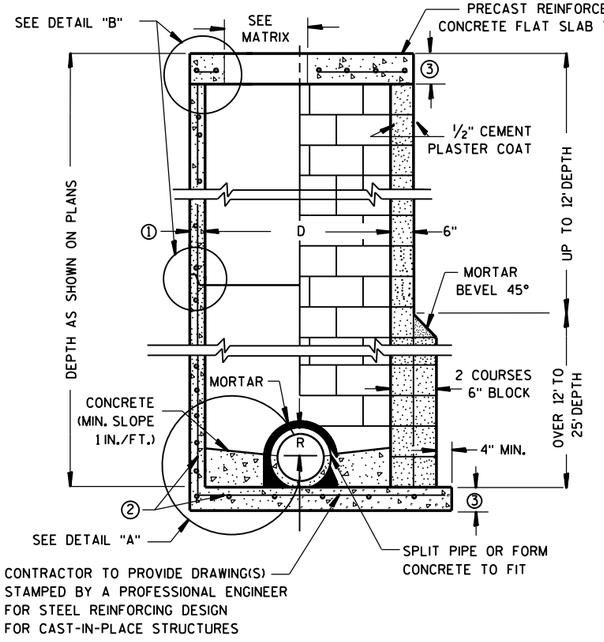
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

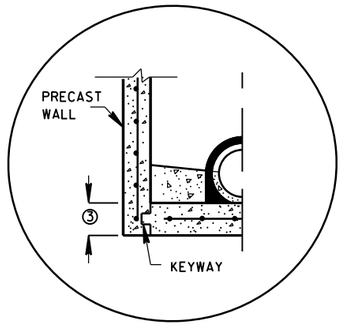
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



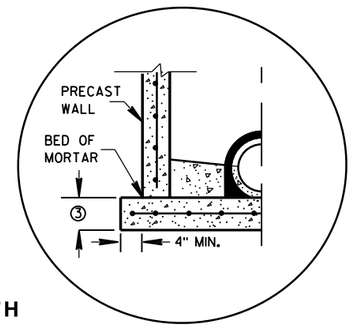


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

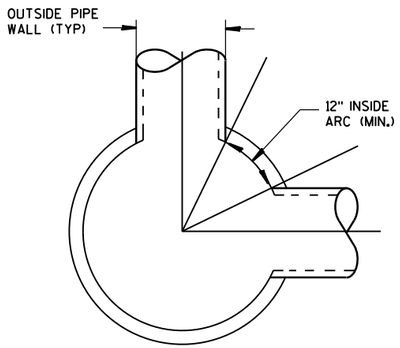


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

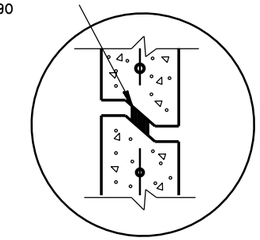


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

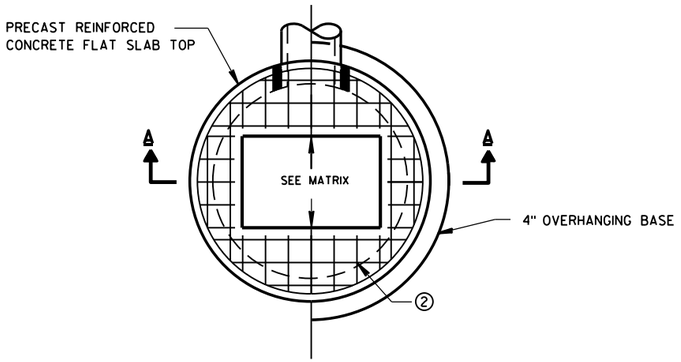
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

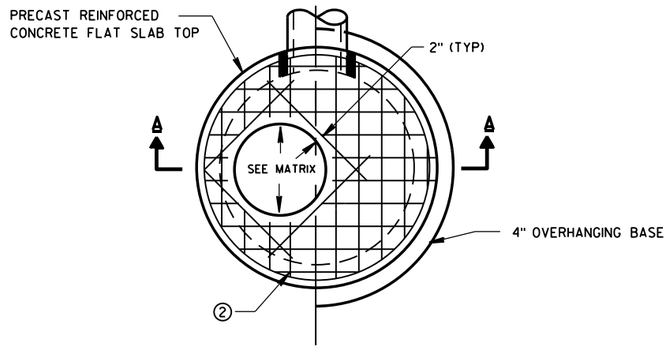
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

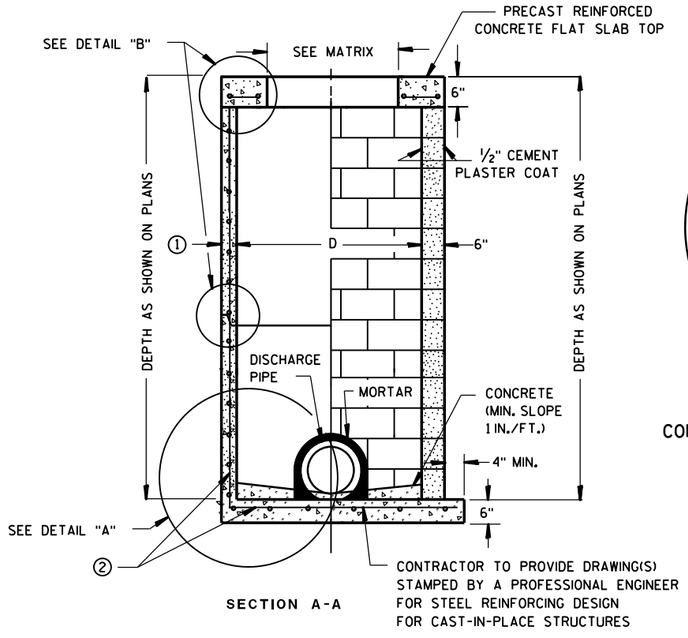
6
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

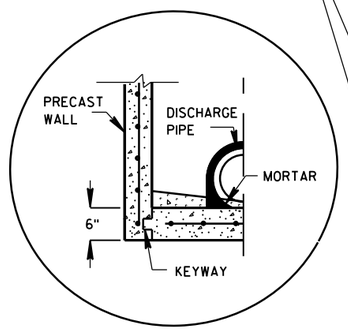


SECTION A-A

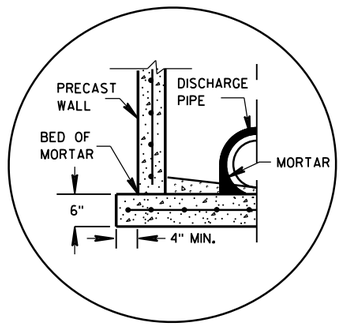
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

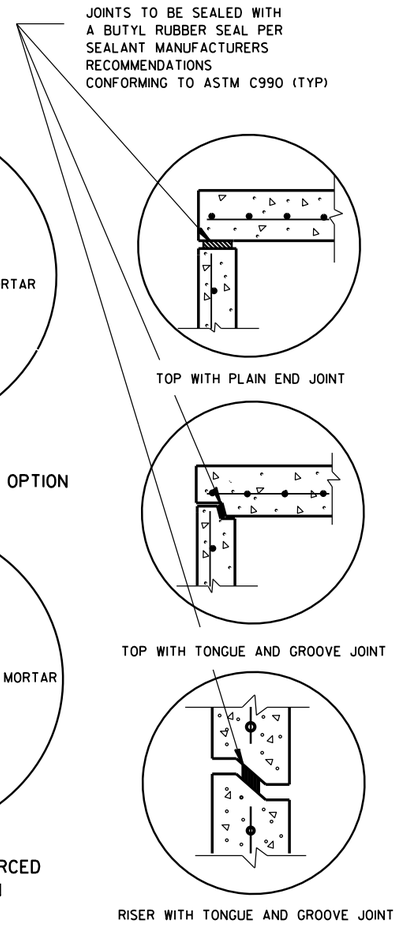


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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

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

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

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

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

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

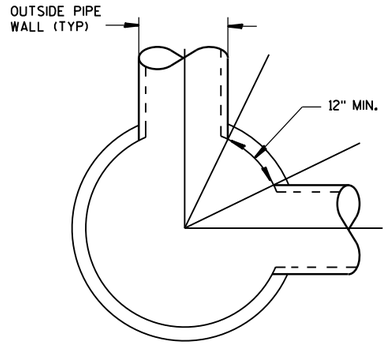
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

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

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

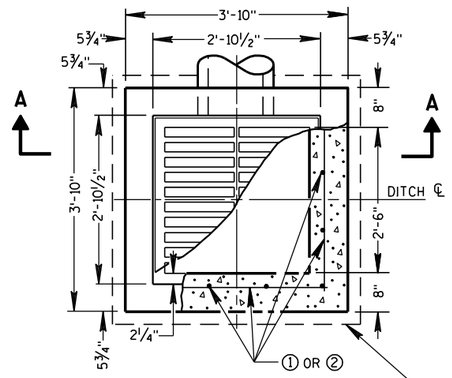
INLETS 3-FT AND 4-FT DIAMETER

6

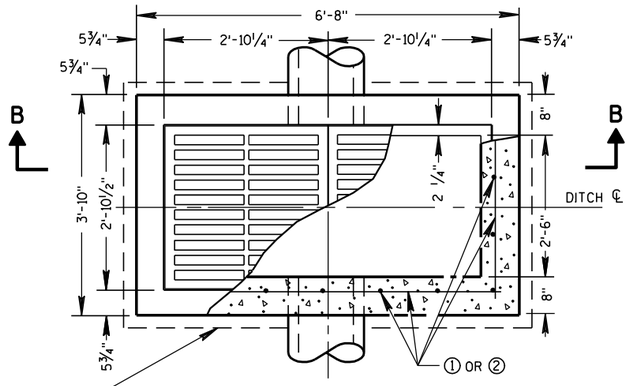
S.D.D. 8 C 6-1

6

S.D.D. 8 C 6-1

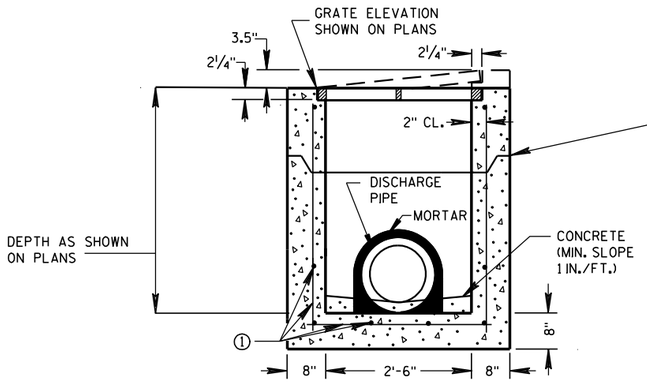


PLAN VIEW

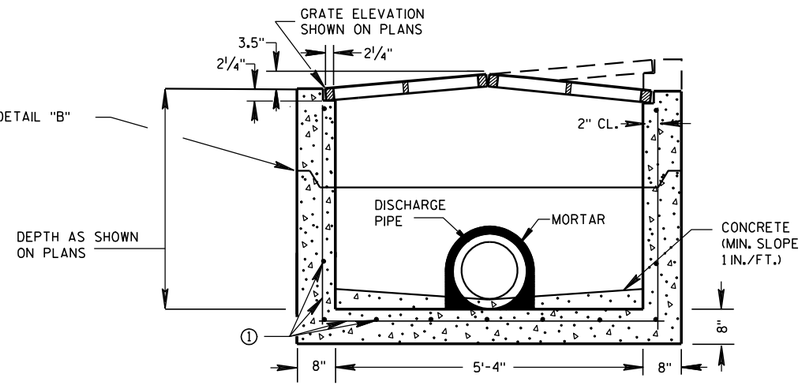


PLAN VIEW

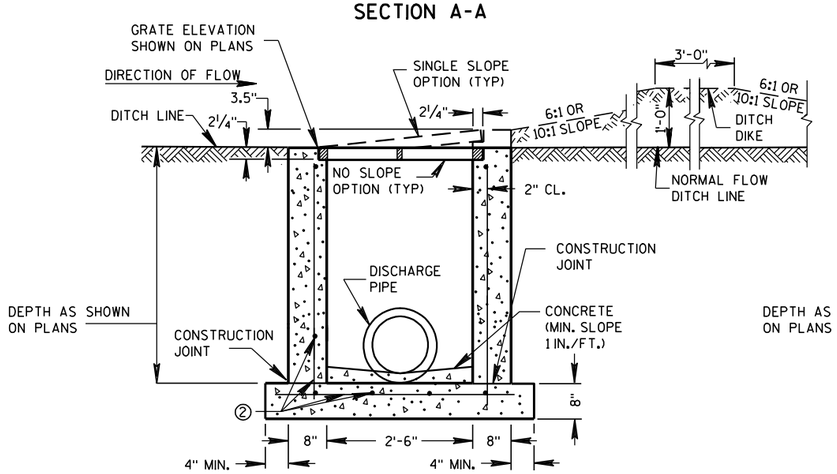
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



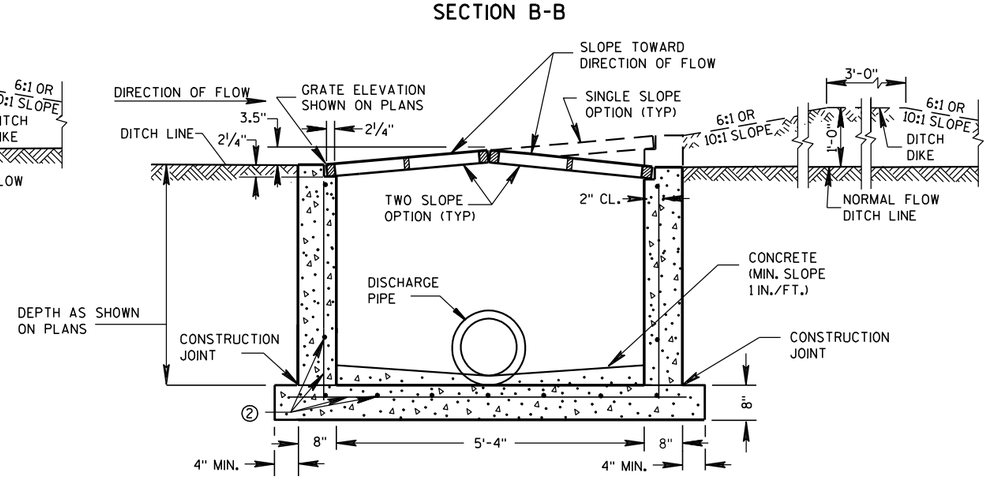
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

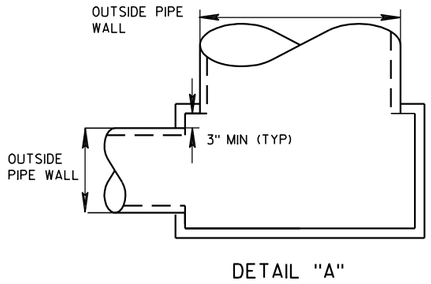
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

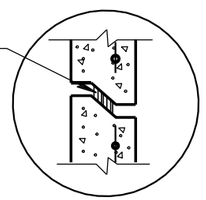
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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6/5/2012 — DATE
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FHWA

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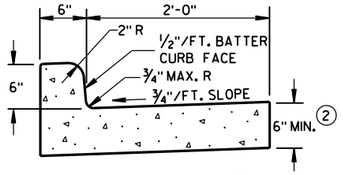
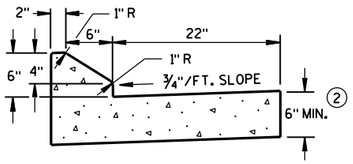
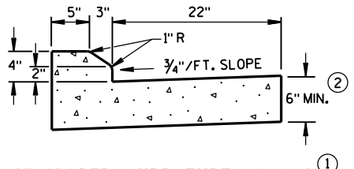
S.D.D. 8 C 8-1



TYPES A & D ①

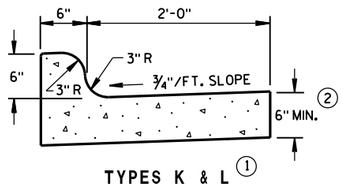


6" SLOPED CURB TYPES G & J ①

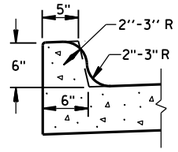


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

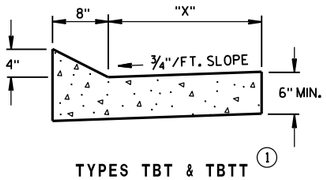


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

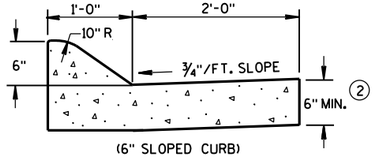
CONCRETE CURB & GUTTER 30"



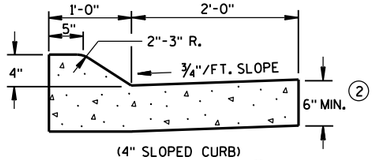
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

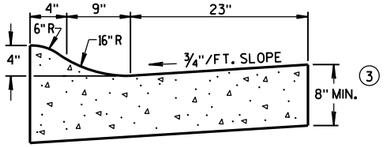


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

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.

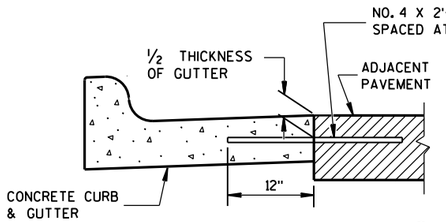
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

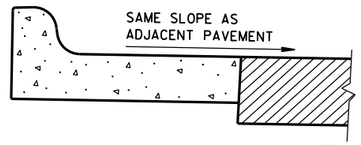
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

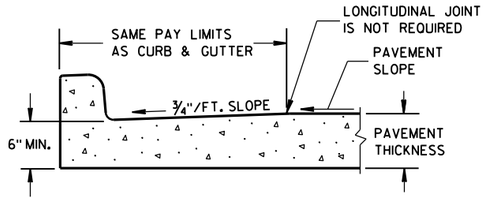
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



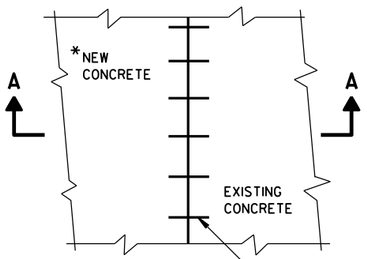
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

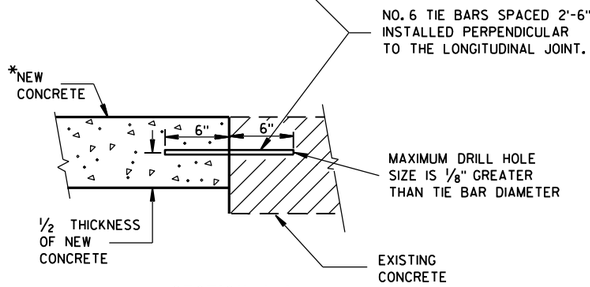


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



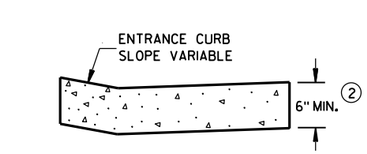
PLAN VIEW

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

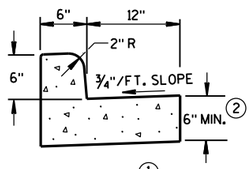


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

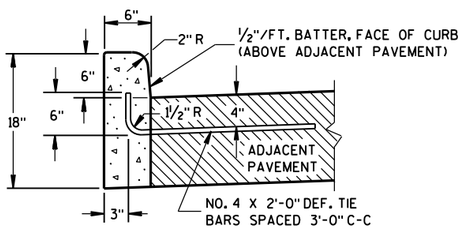


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

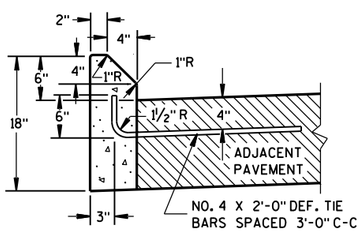


① TYPES A & D

CONCRETE CURB & GUTTER 18"

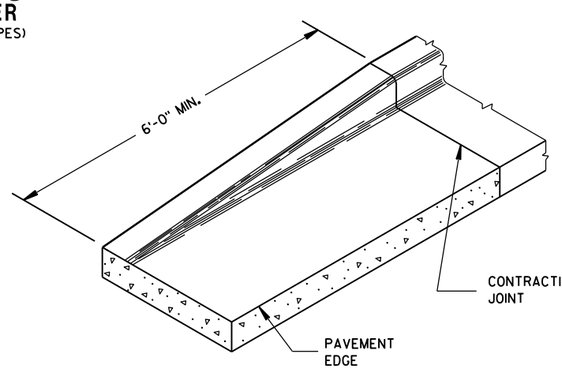


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

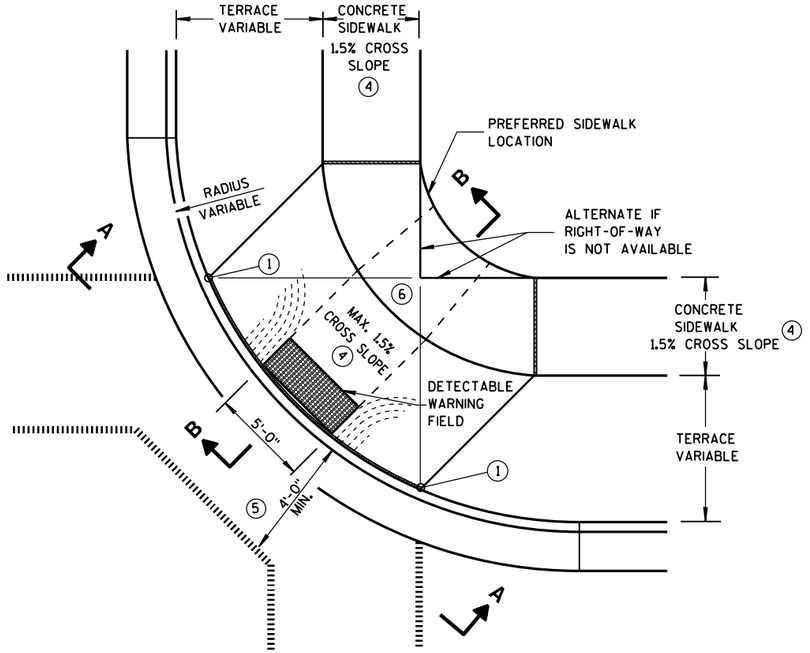
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

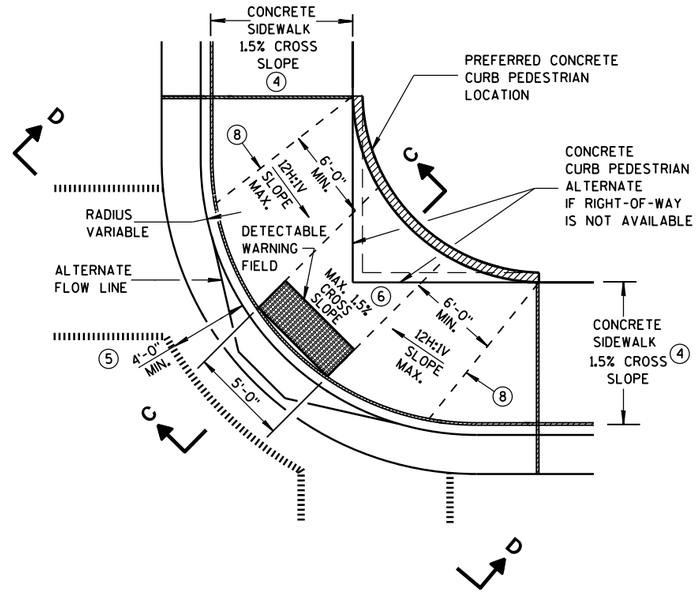
S.D.D. 8 D 1-18



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

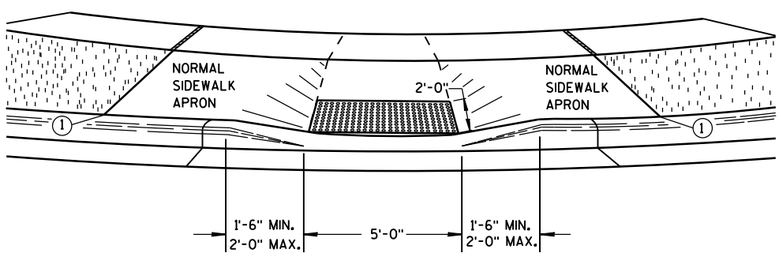
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

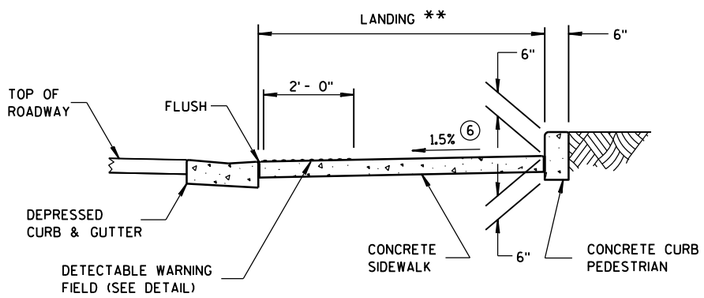
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

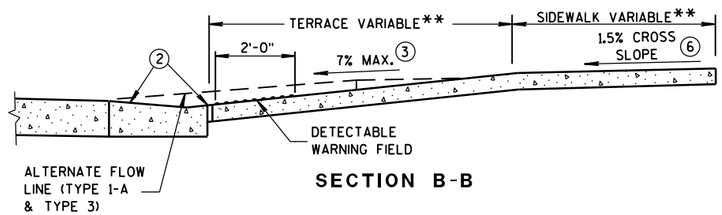
** WIDTH SHOWN ELSEWHERE IN THE PLANS



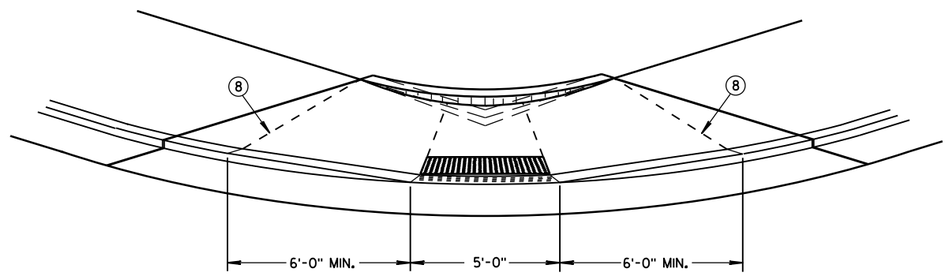
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



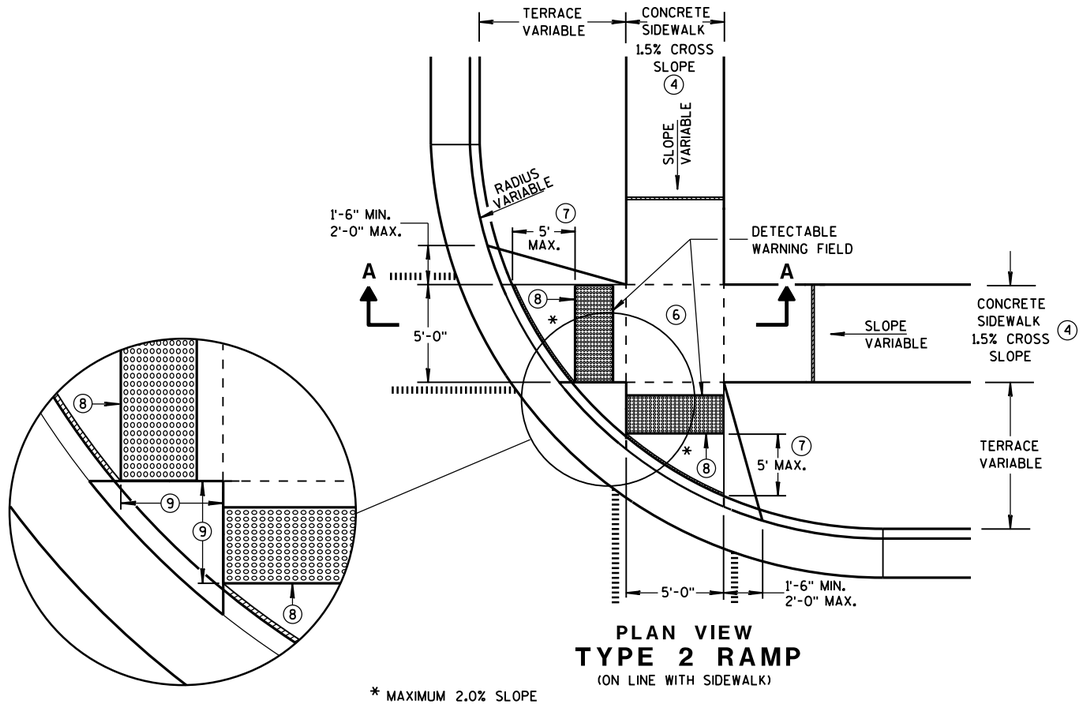
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

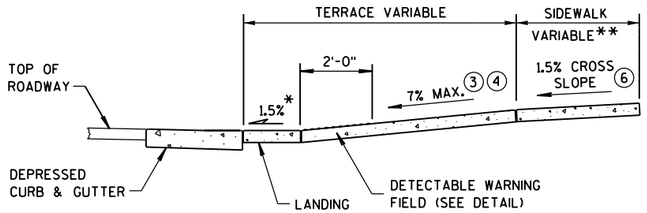
6

S.D.D. 8 D 5-16a



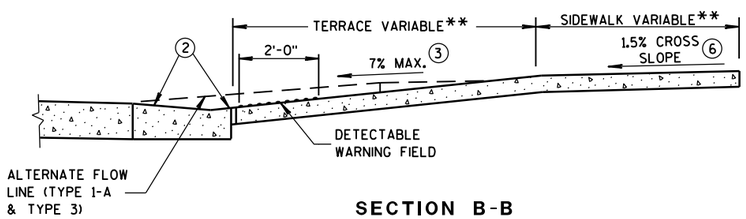
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

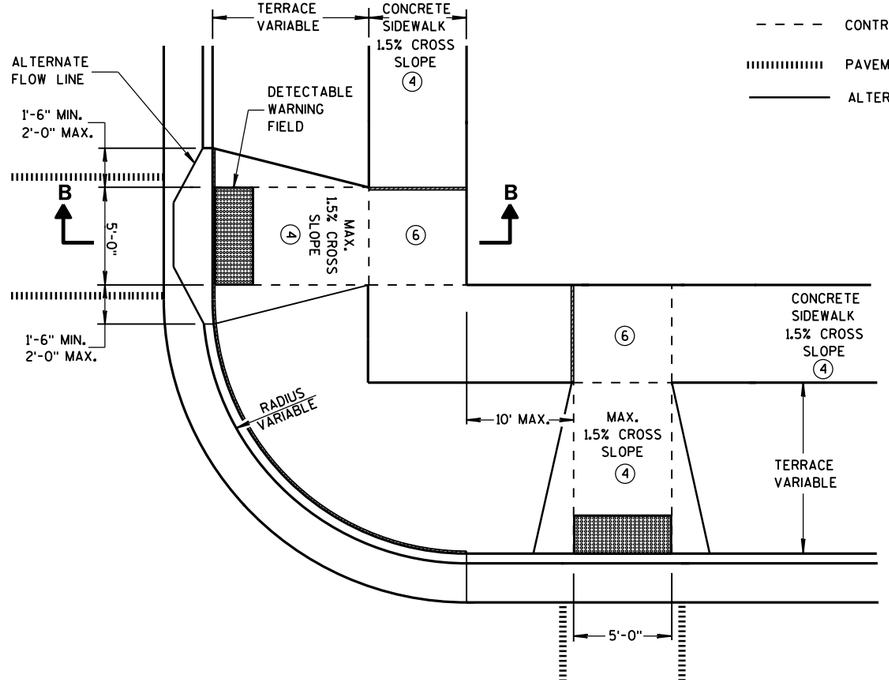
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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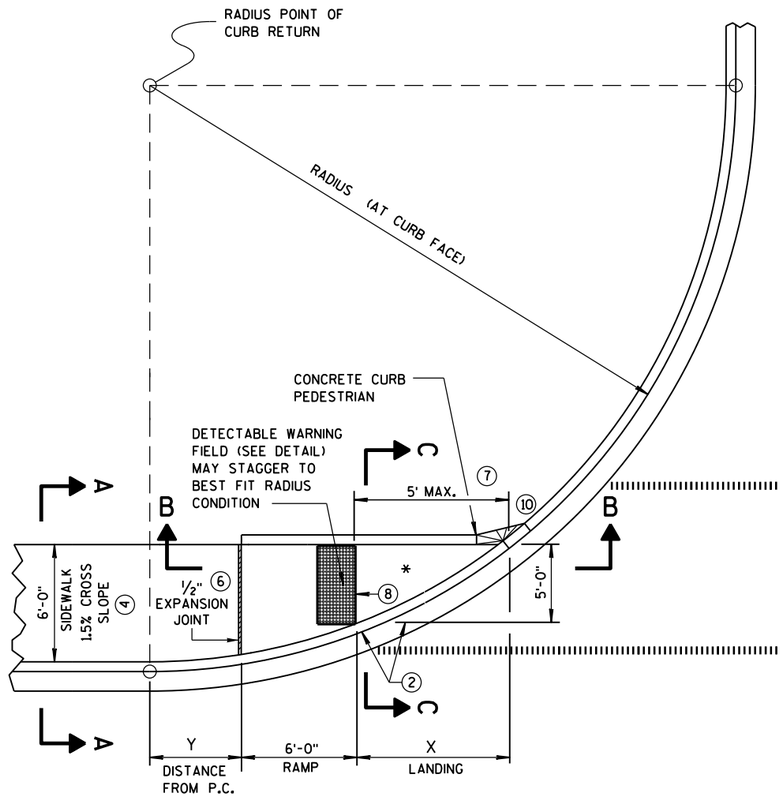
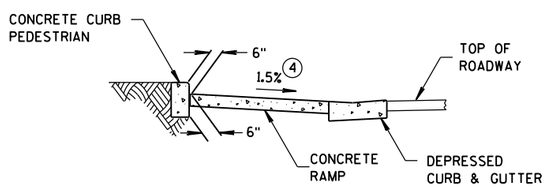
S.D.D. 8 D 5-16b



CURB RAMP TYPE 4A
PLAN VIEW

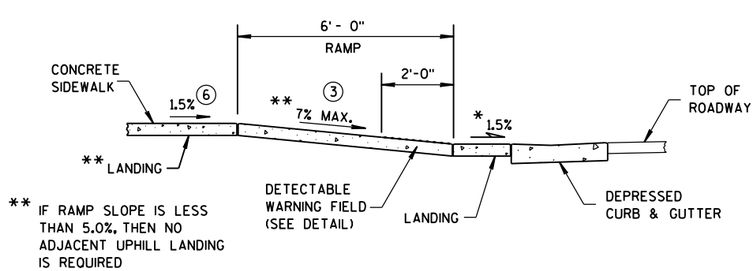
RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

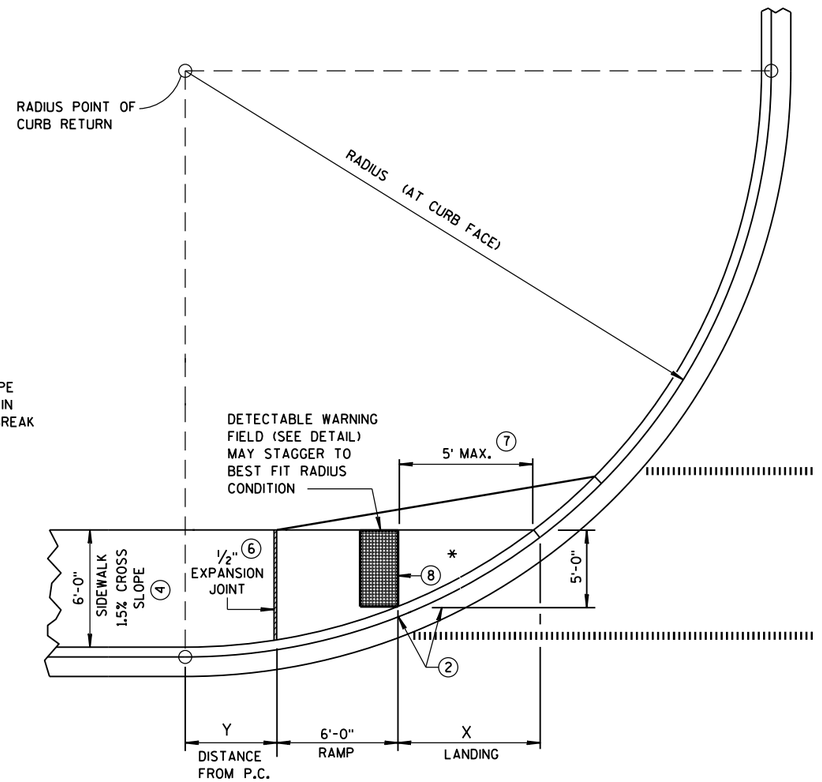
SECTION A-A FOR TYPE 4A



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

SECTION B-B FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

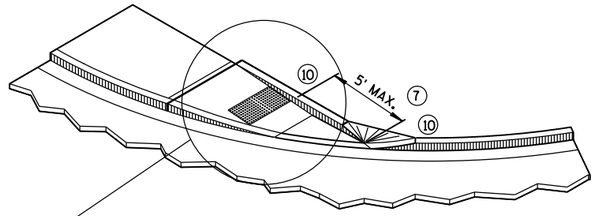
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

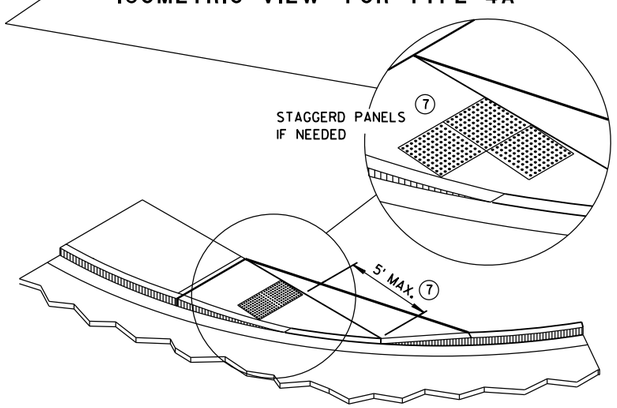
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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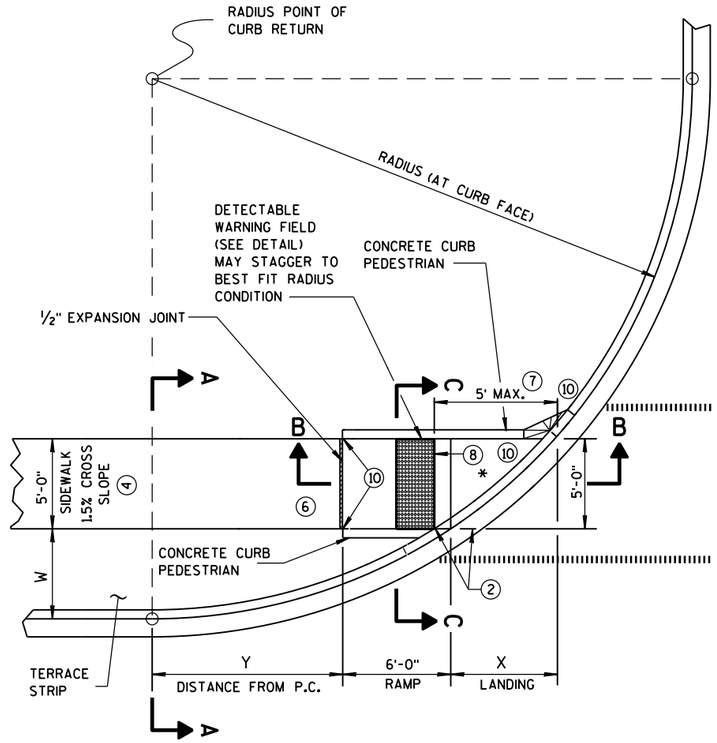
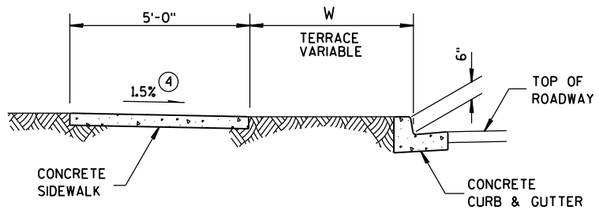
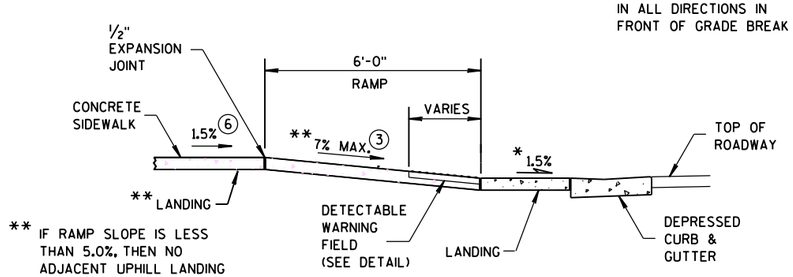
S.D.D. 8 D 5-16c



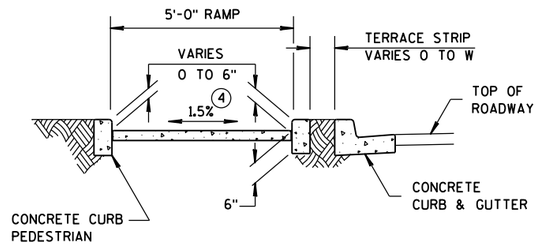
CURB RAMP TYPE 4B
PLAN VIEW



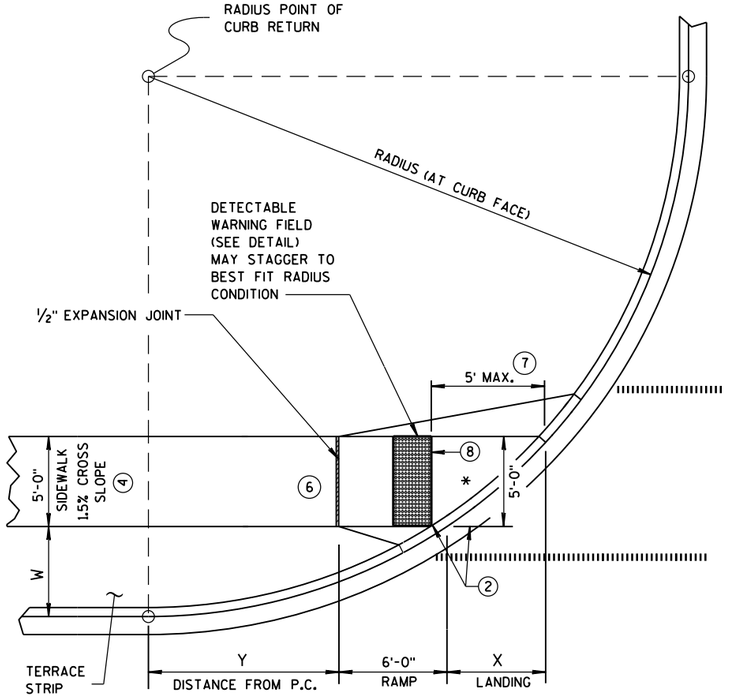
SECTION A-A FOR TYPE 4B



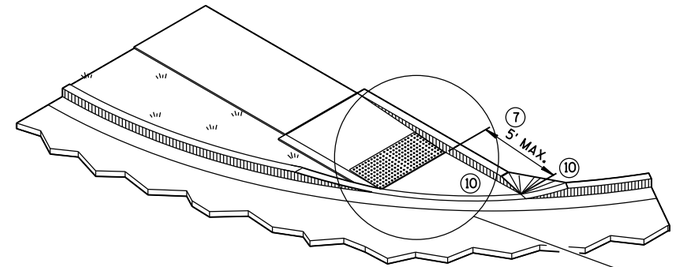
SECTION B-B FOR TYPE 4B



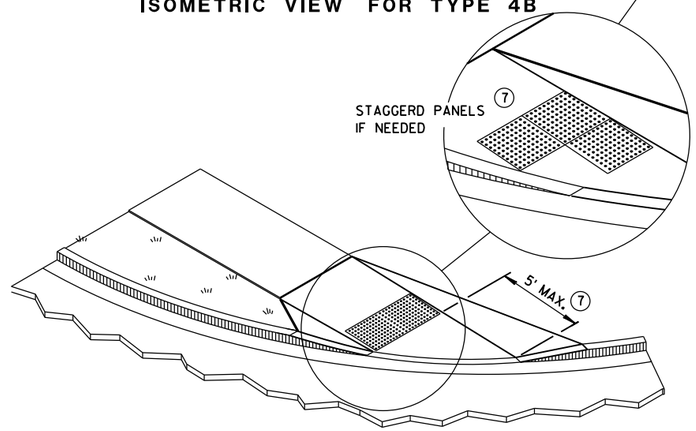
SECTION C-C FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

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'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 8 D 5-16d

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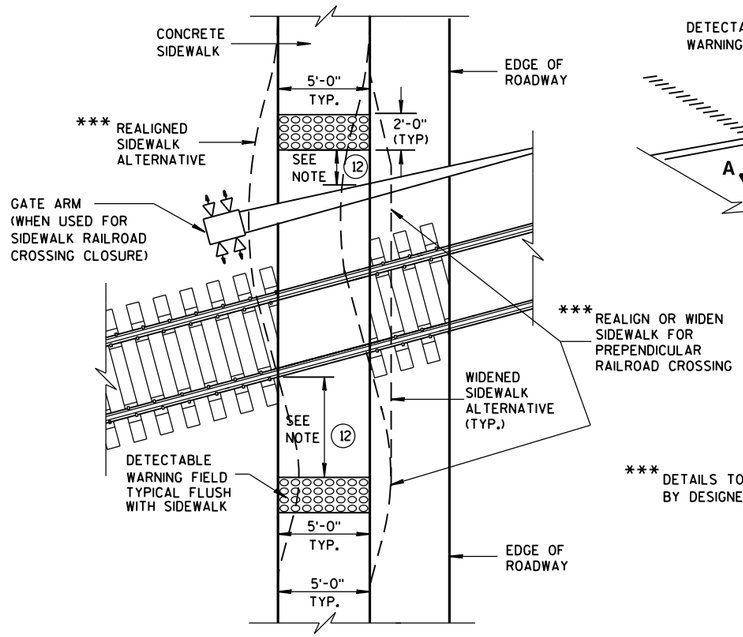
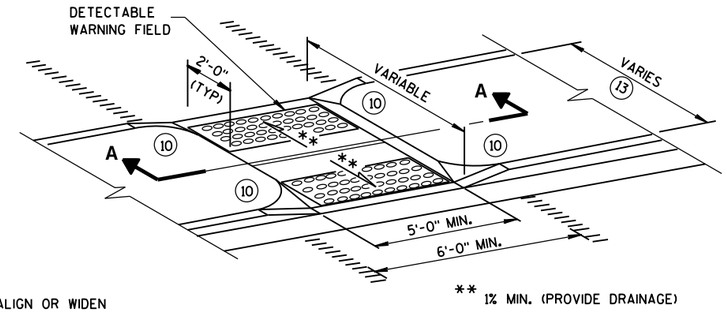
S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

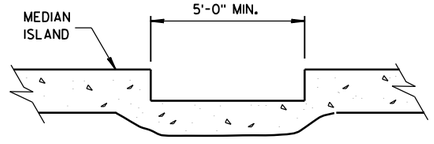
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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

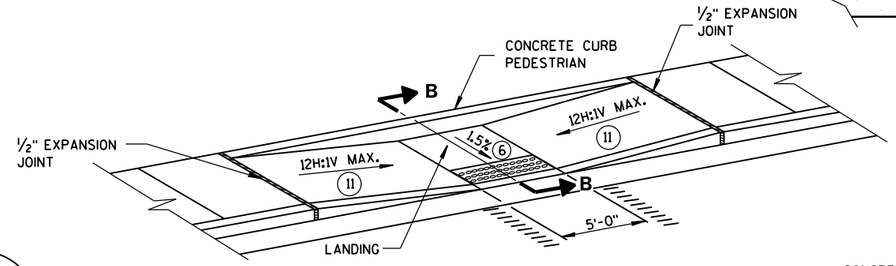
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



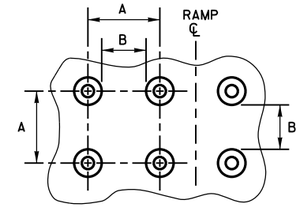
SECTION A-A



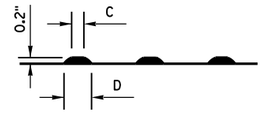
MID-BLOCK CROSSING
TYPE 7A

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

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

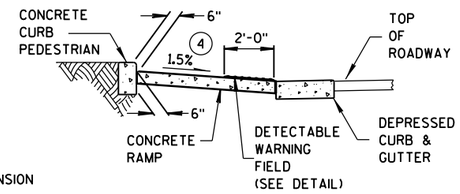


PLAN VIEW

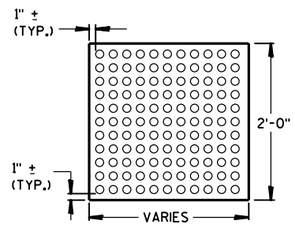


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



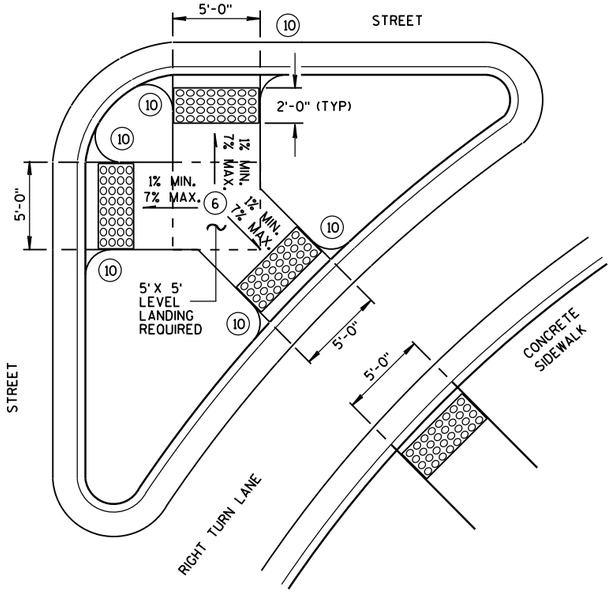
SECTION B-B



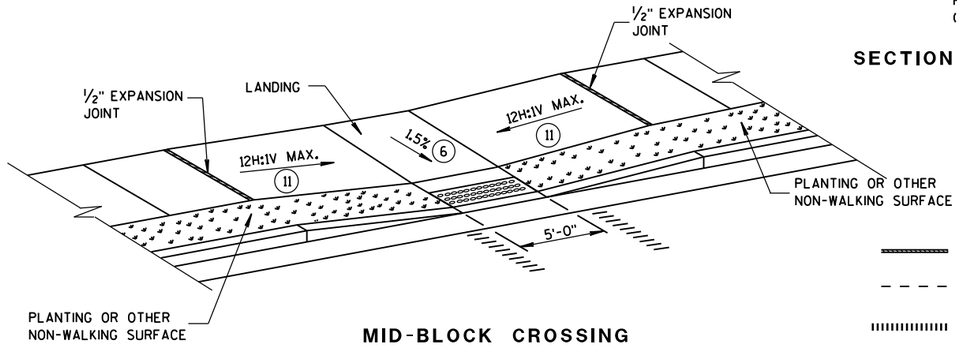
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 D 5-16e

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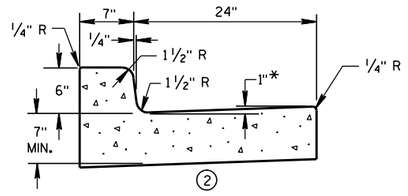
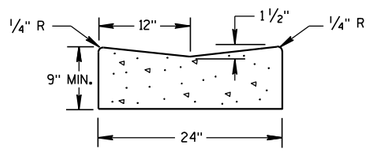
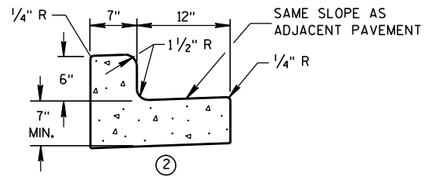
S.D.D. 8 D 5-16e



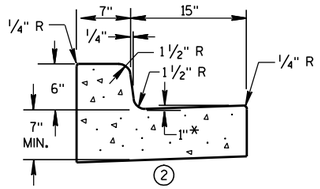
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

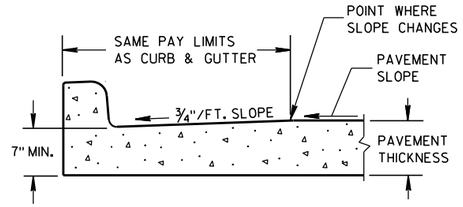


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

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

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

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

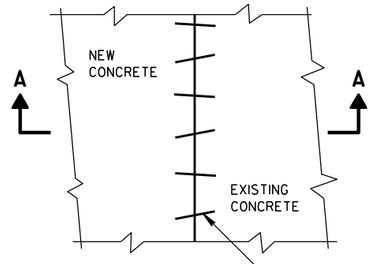
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

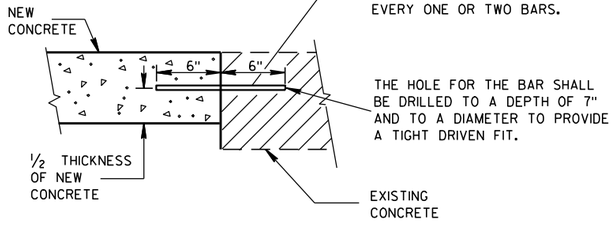
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

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

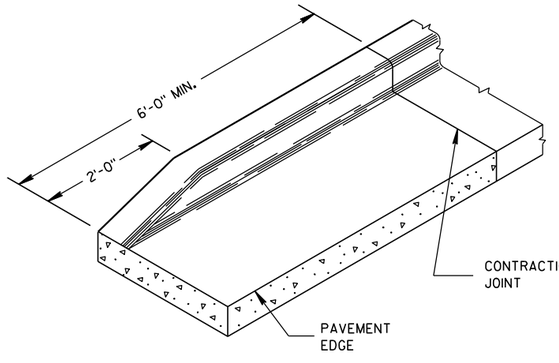
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



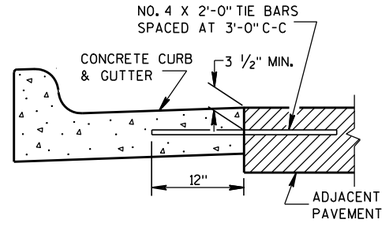
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

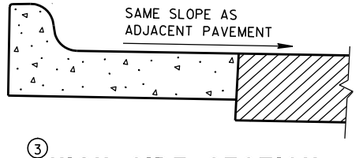
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

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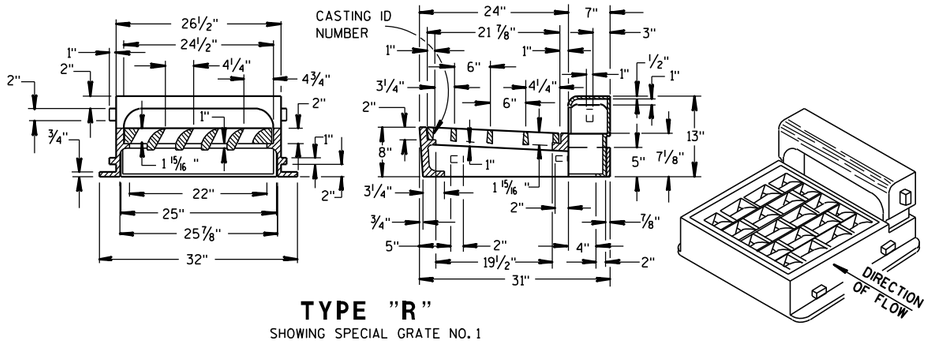
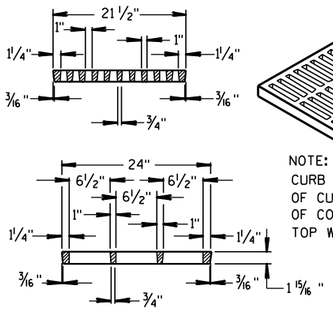
S.D.D. 8 D 16-10

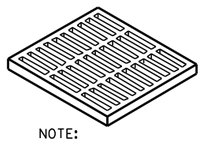
INLET COVERS



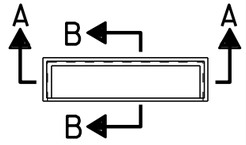
TYPE "R"

SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)

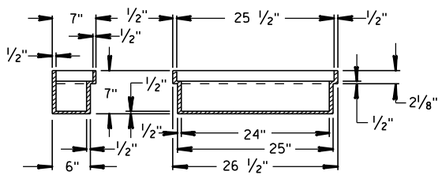




(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.



NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



GRATE FOR TYPE "R" INLET COVER

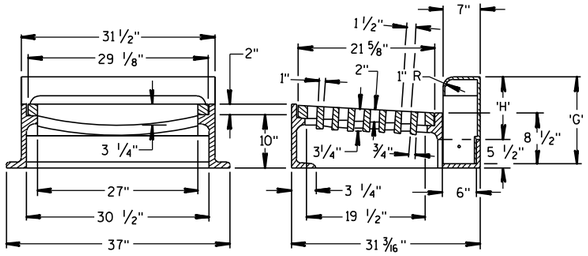
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SECTION B-B SECTION A-A

SPECIAL CURB PLUG "P"

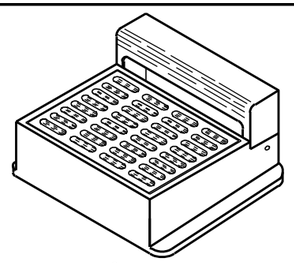
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

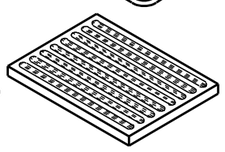
'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB



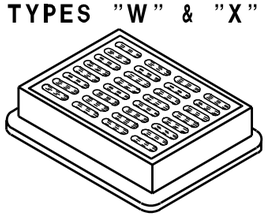
TYPE "W"

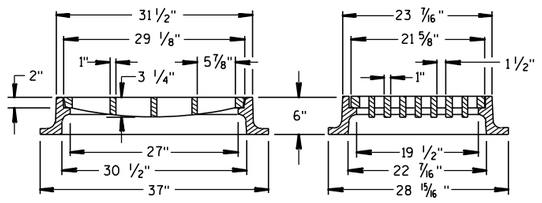
(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.





ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"

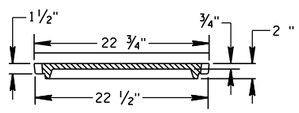




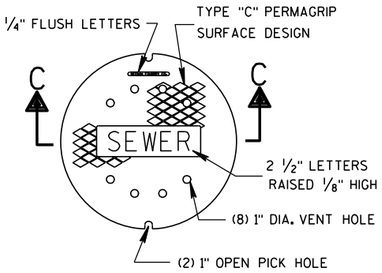
TYPE "X"

(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C



TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

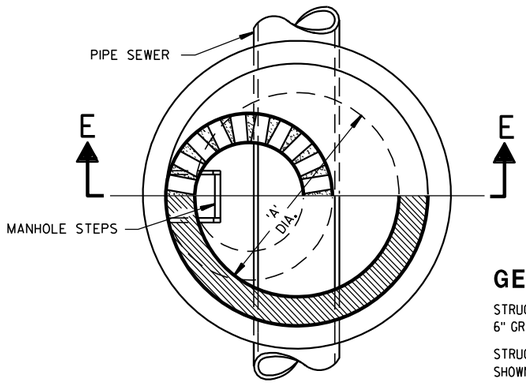
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

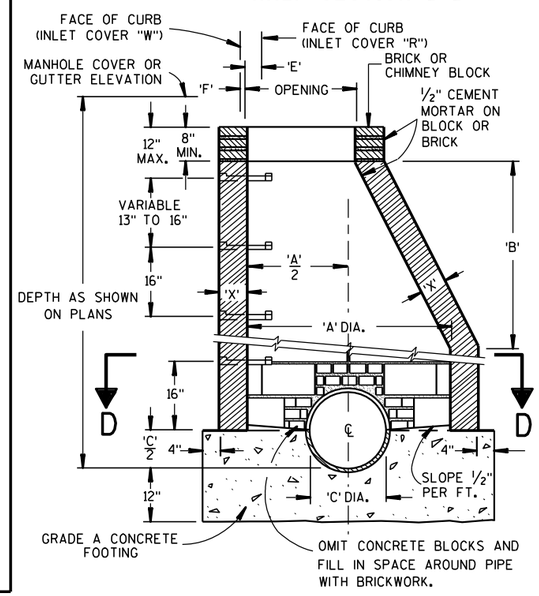
MANHOLE



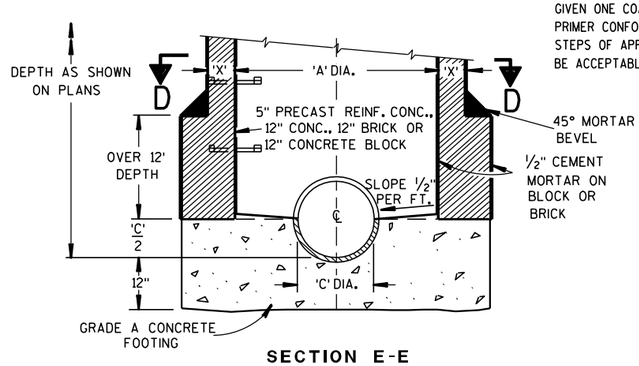
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

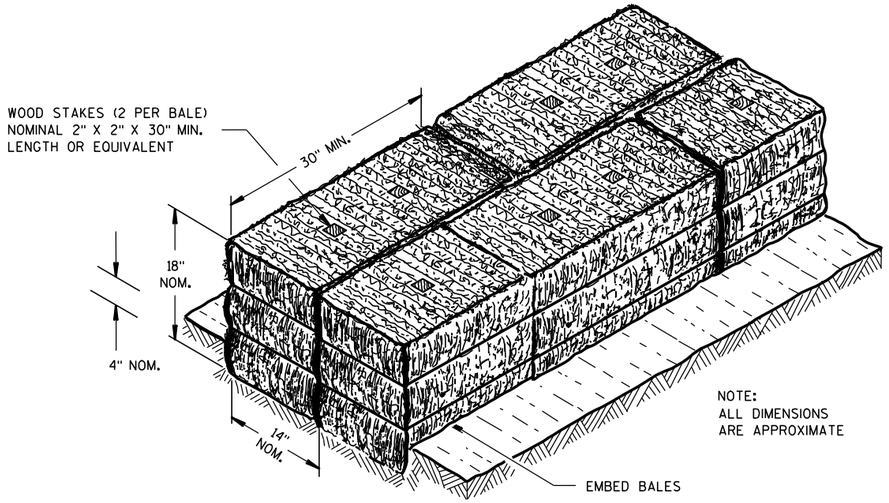
STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

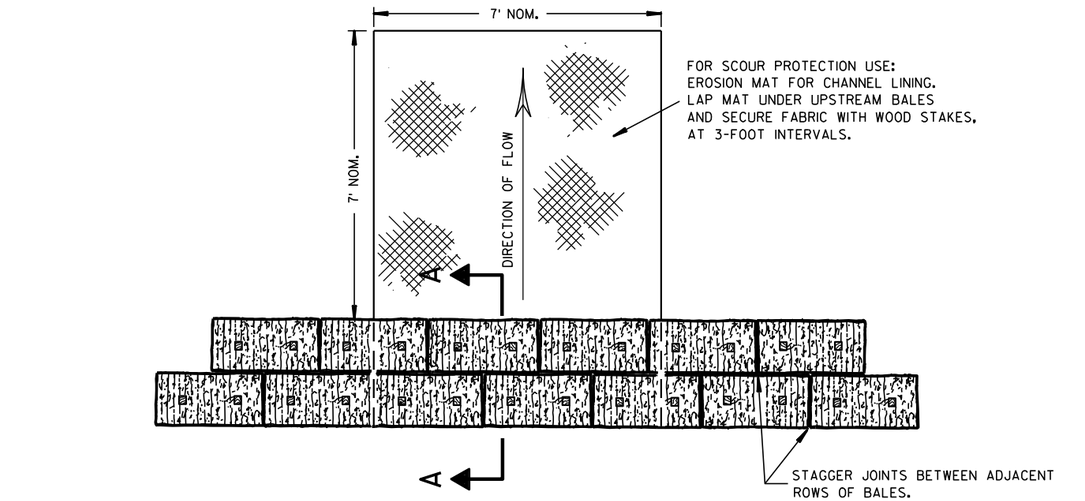
MANHOLES, MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

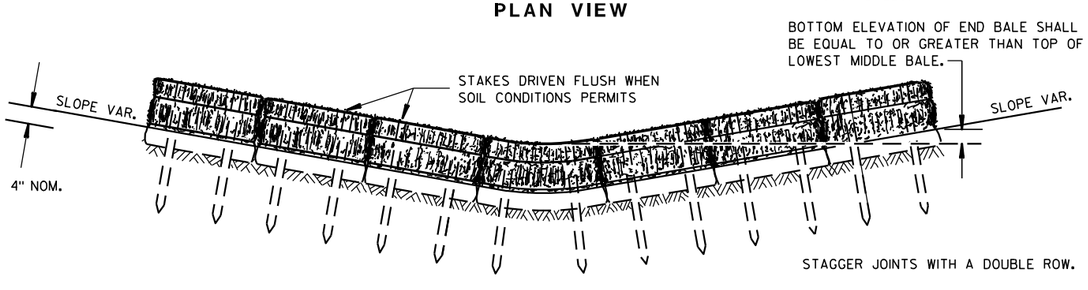
APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA



SECTION A-A



PLAN VIEW



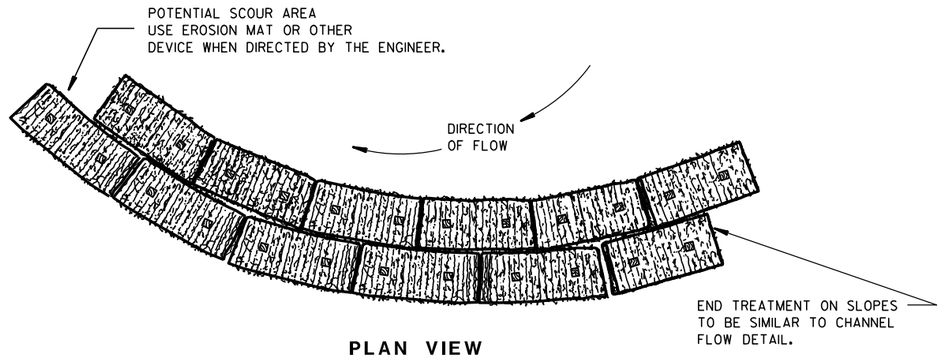
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

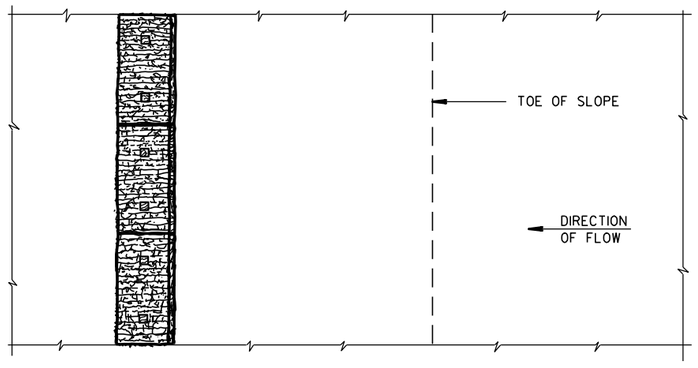
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

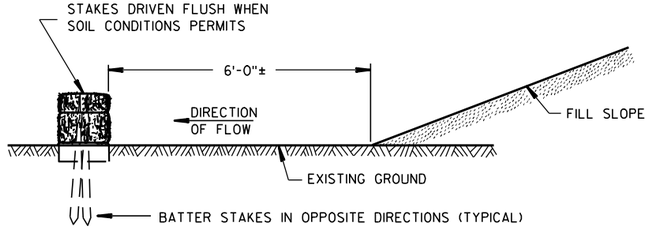


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

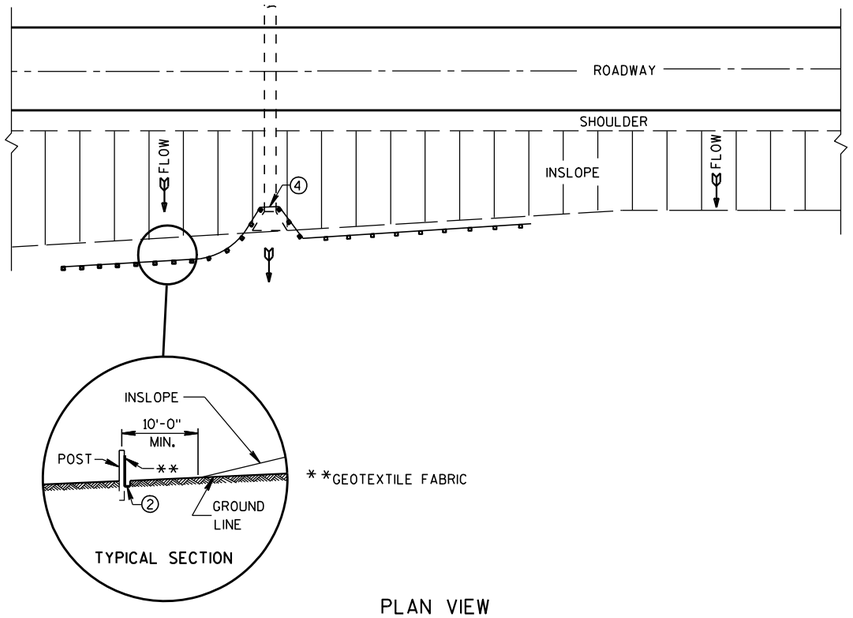
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

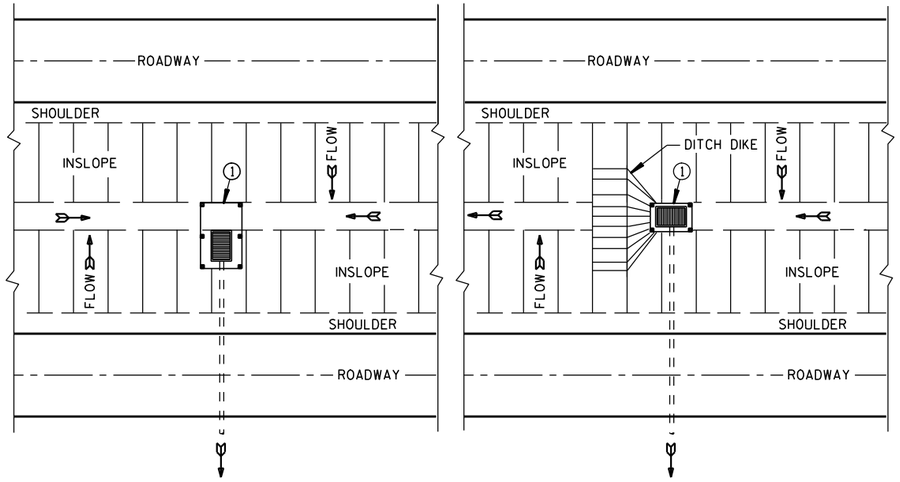
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



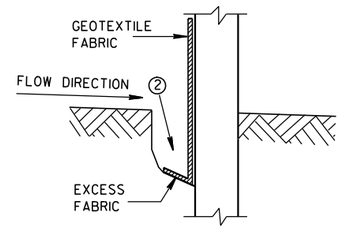
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

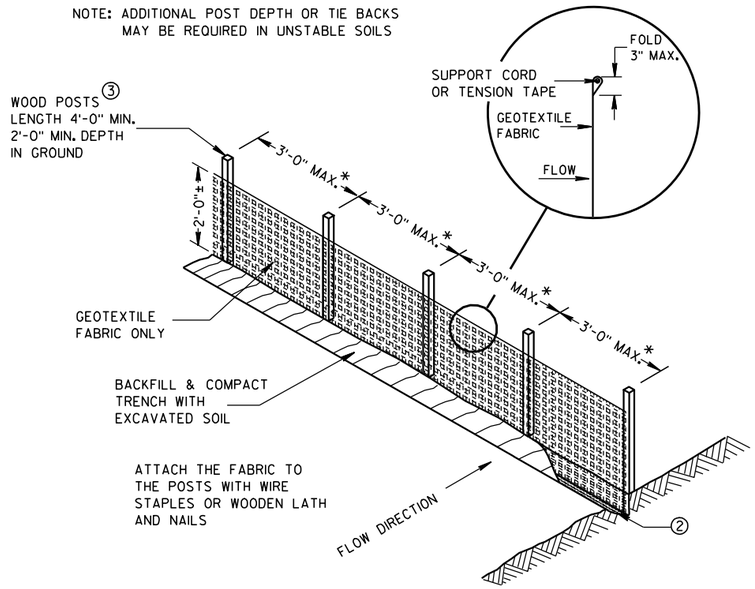
GENERAL NOTES

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

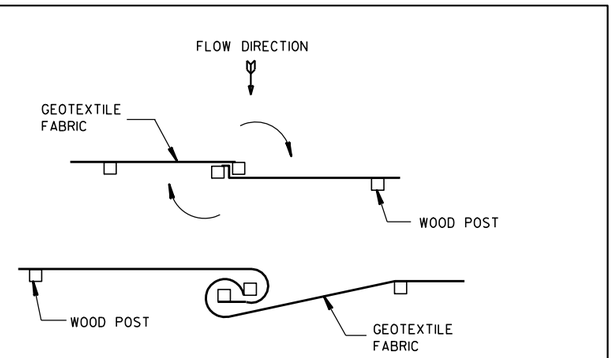
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



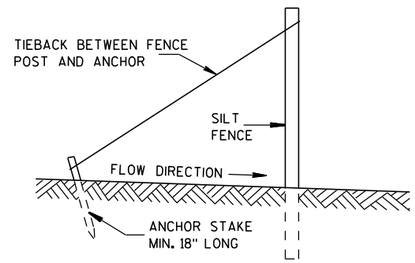
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

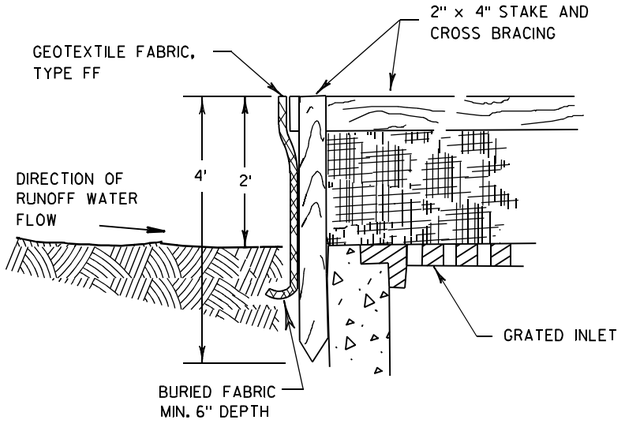
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

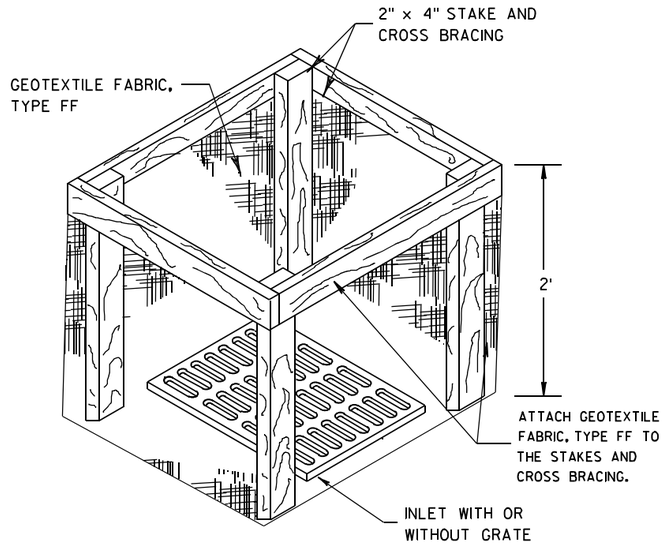
6

S.D.D. 8 E 9-6

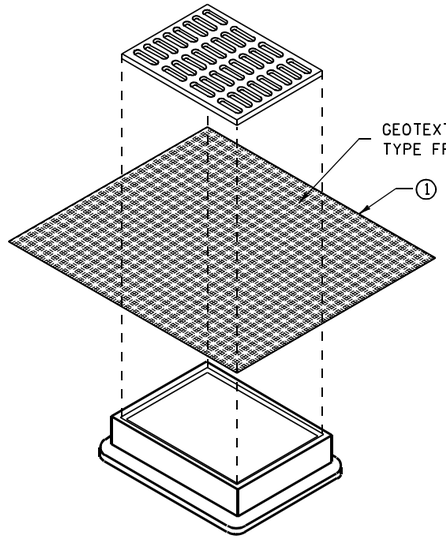
6

S.D.D. 8 E 9-6



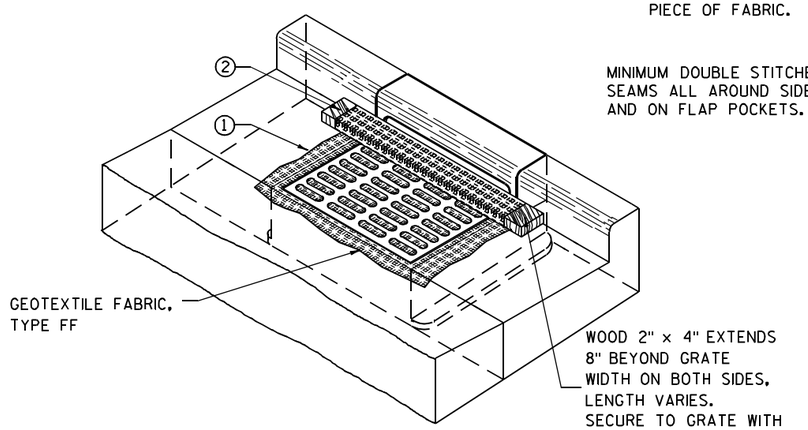


INLET PROTECTION, TYPE A

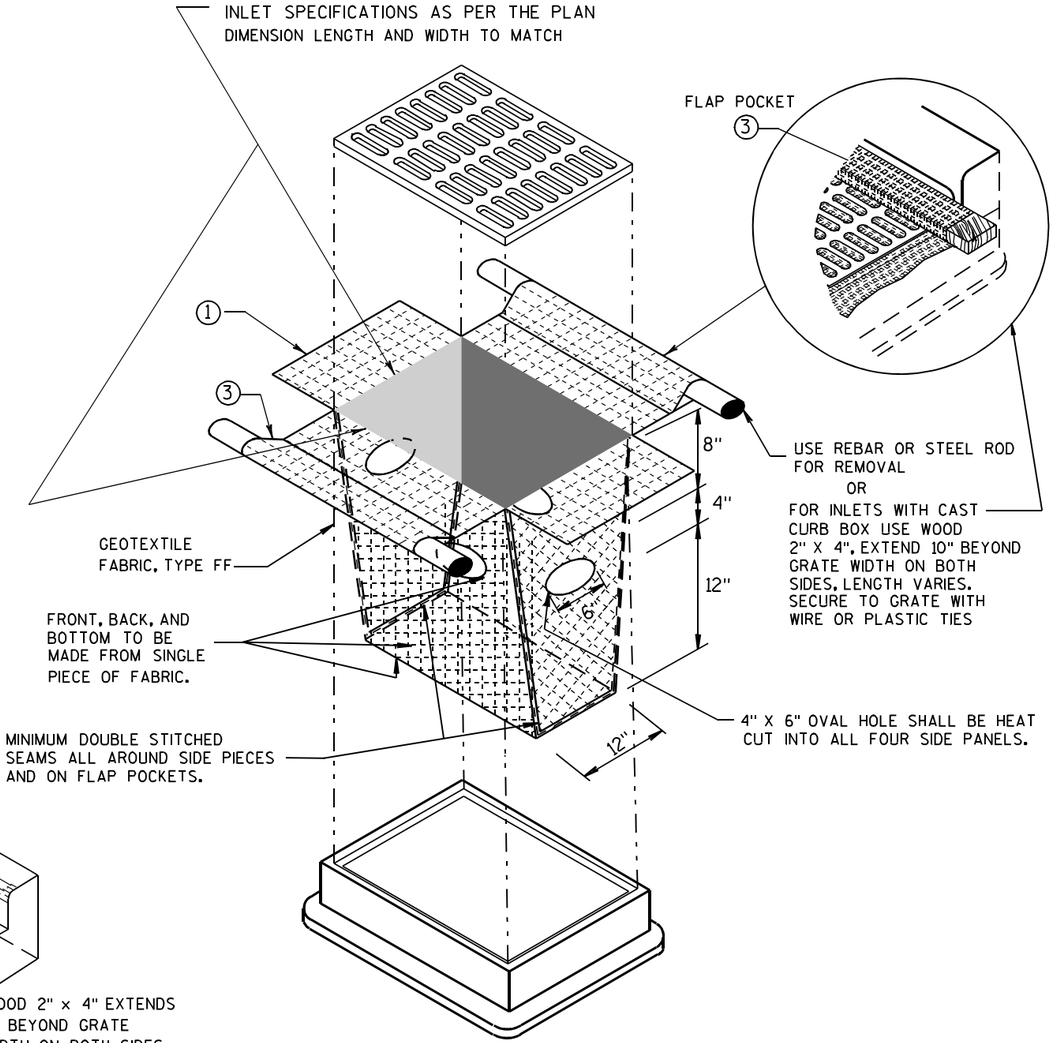


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2

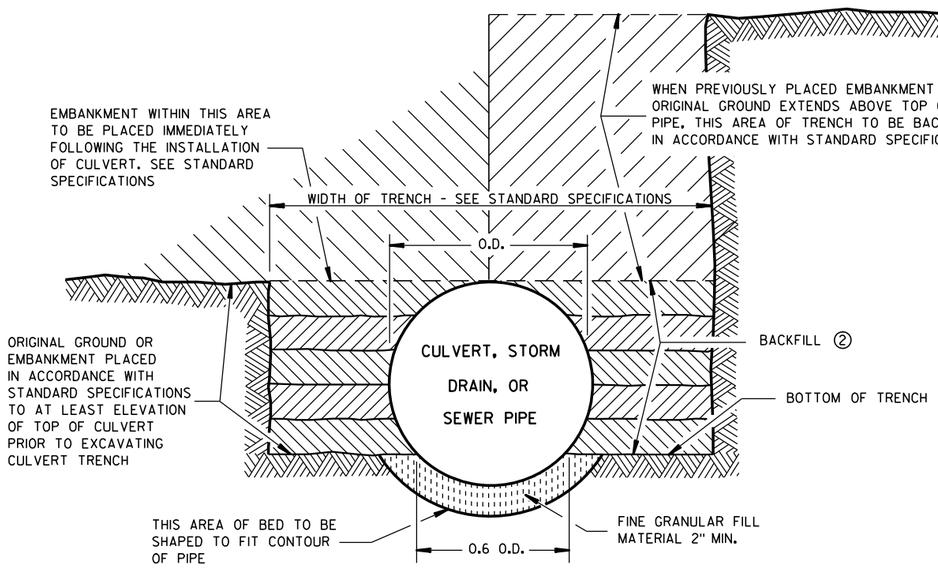
GENERAL NOTES

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

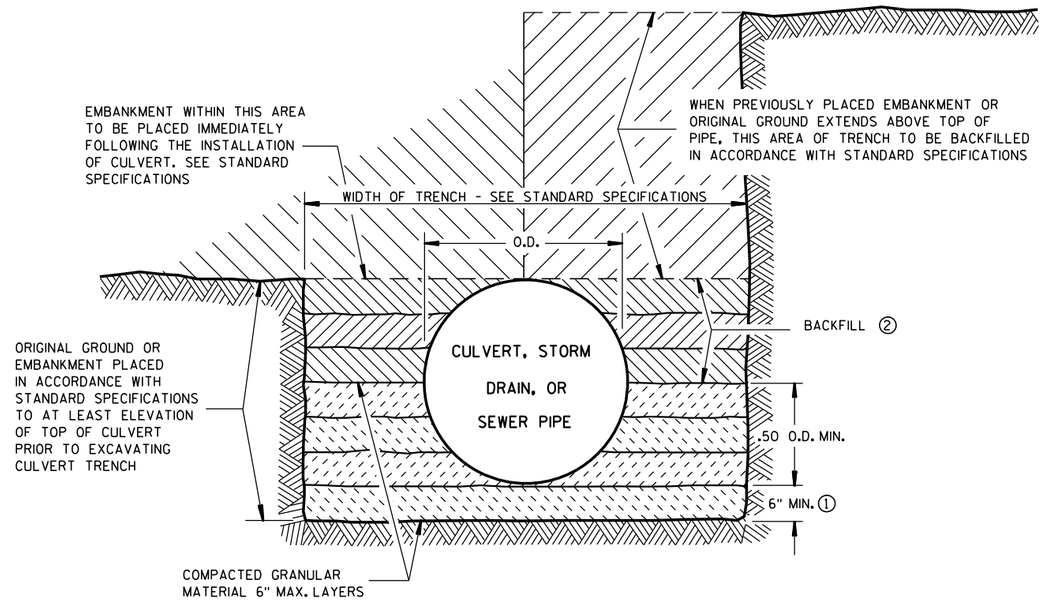
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

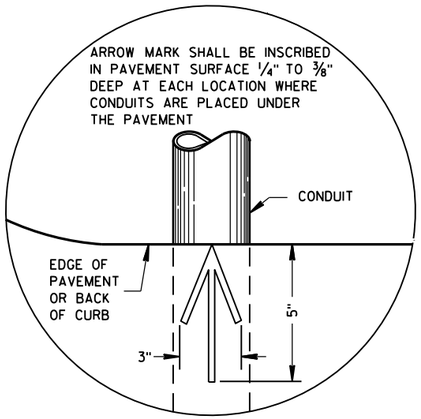
CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

6

S.D.D. 8 F 5-1

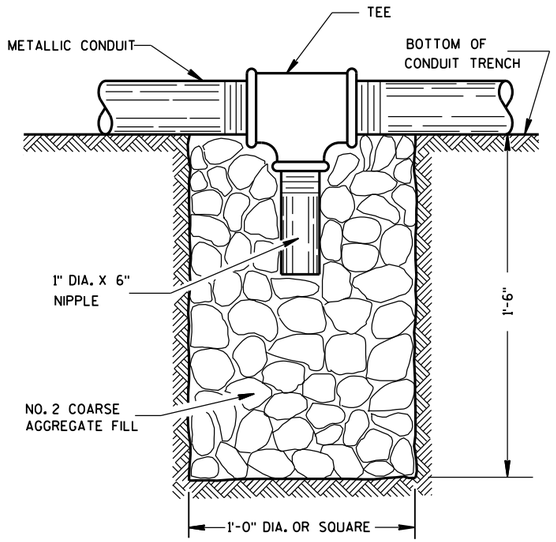
6

S.D.D. 8 F 5-1



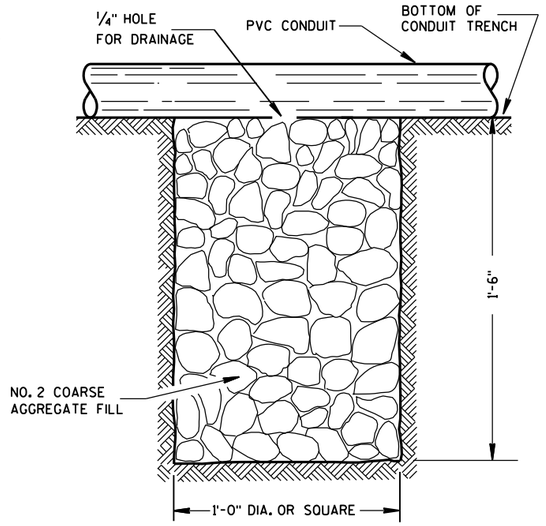
PLAN VIEW

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 EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

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

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

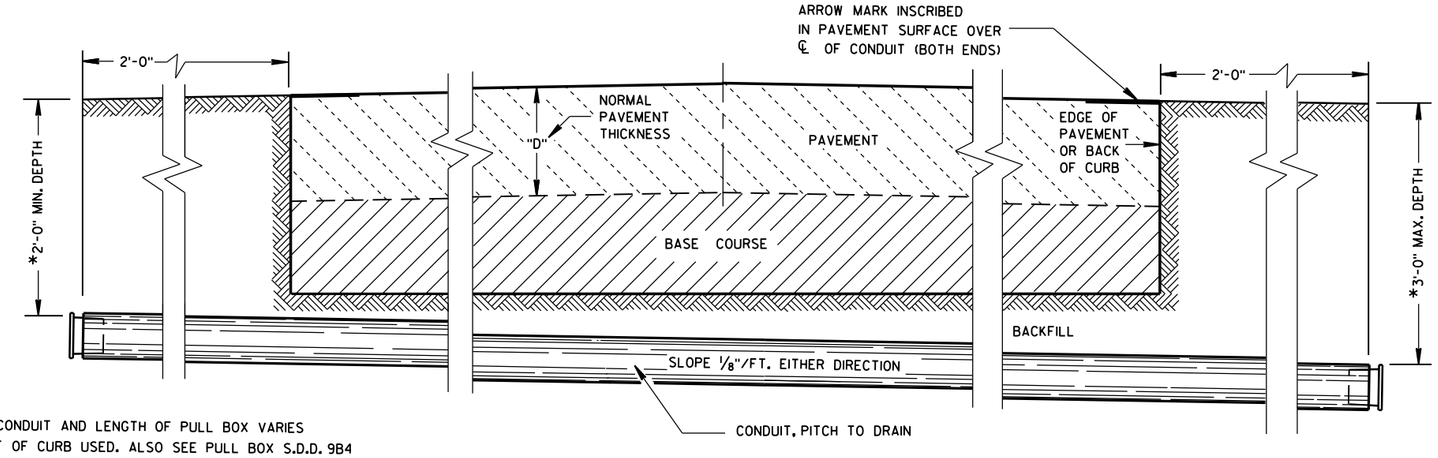
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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

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



*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
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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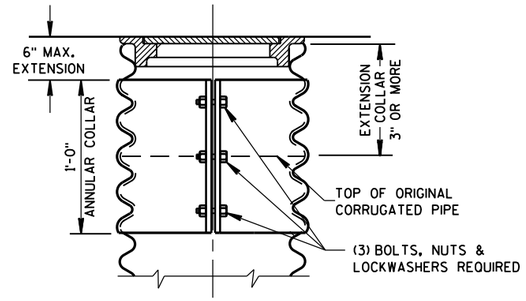
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

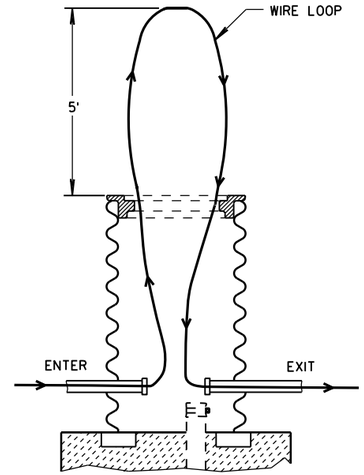
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

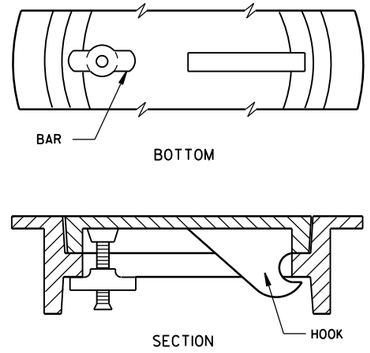
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

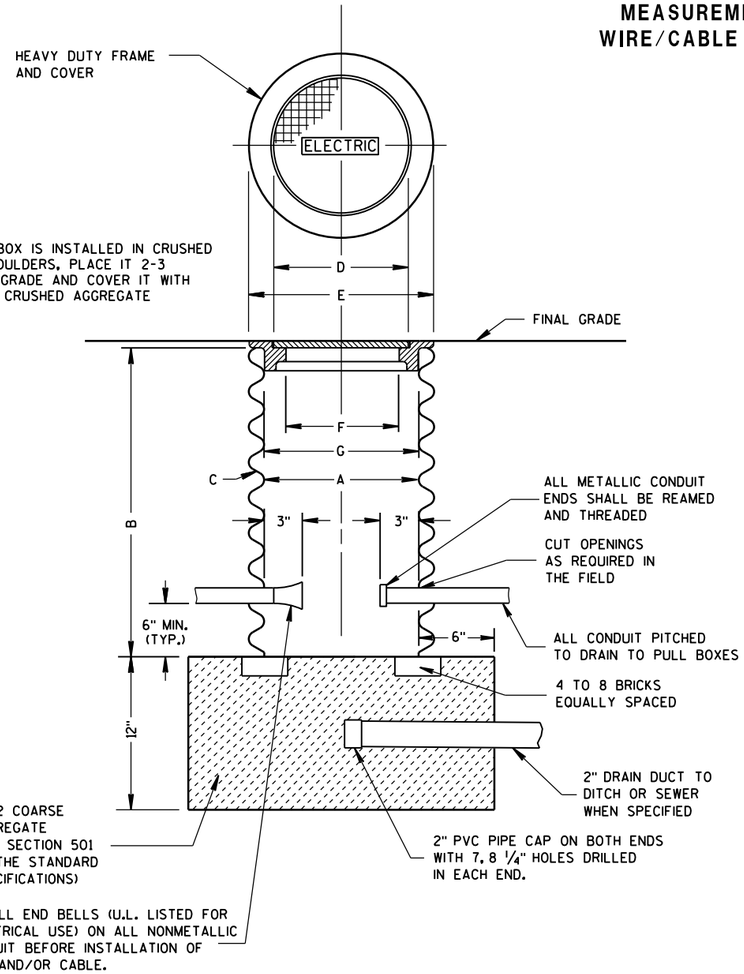


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



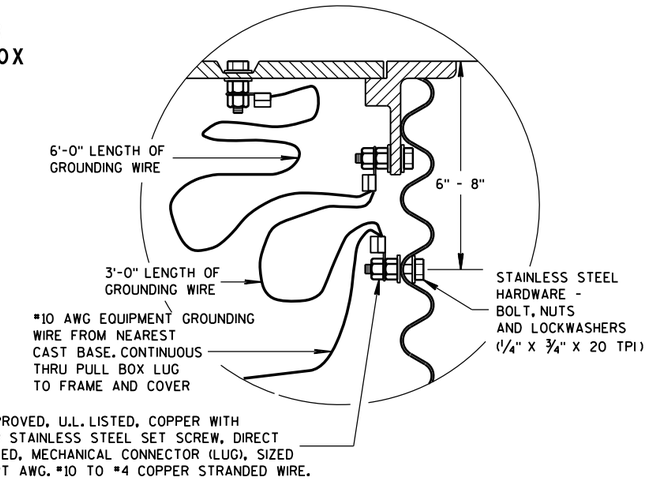
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

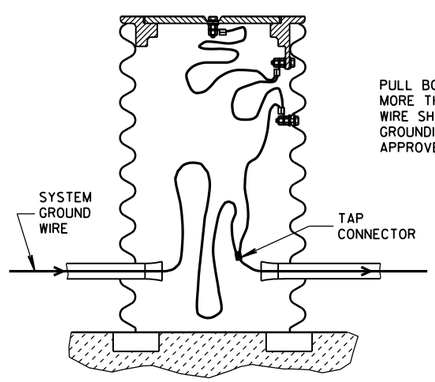
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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

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

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



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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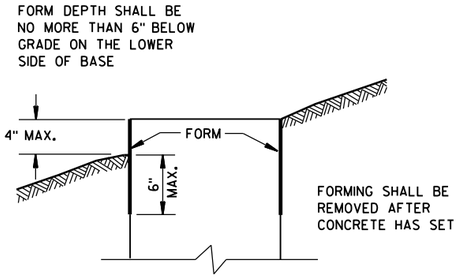


FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

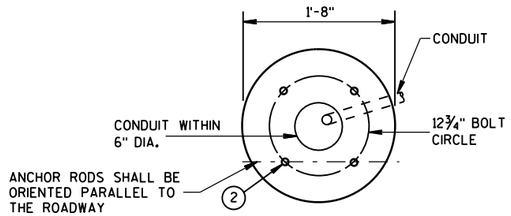
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

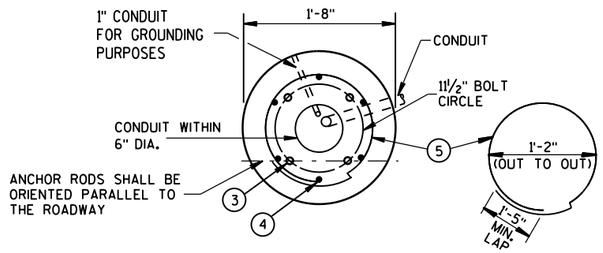
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

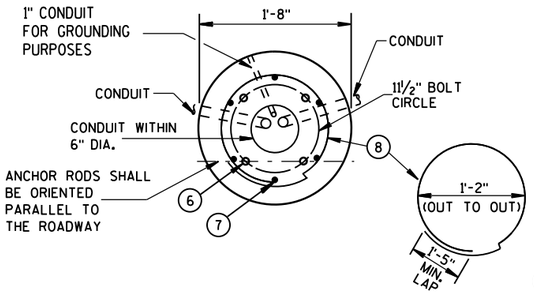
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

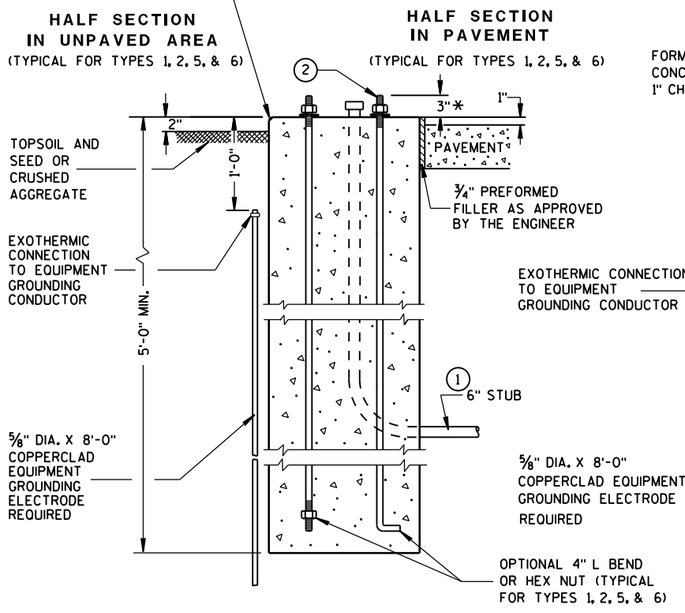
(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

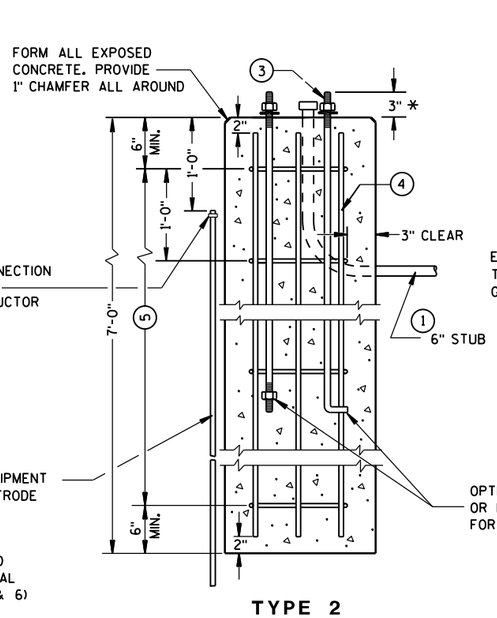
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



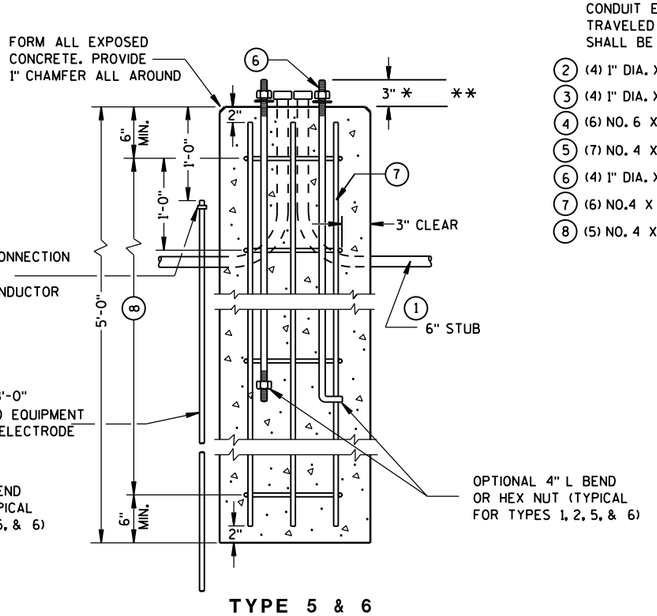








TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

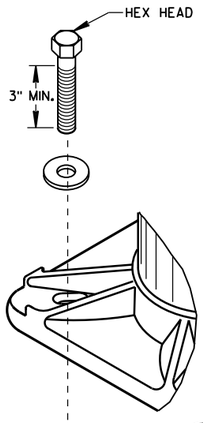
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

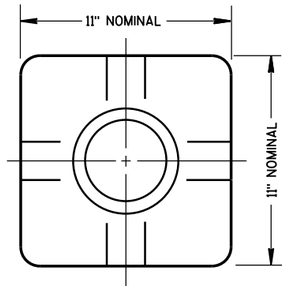
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

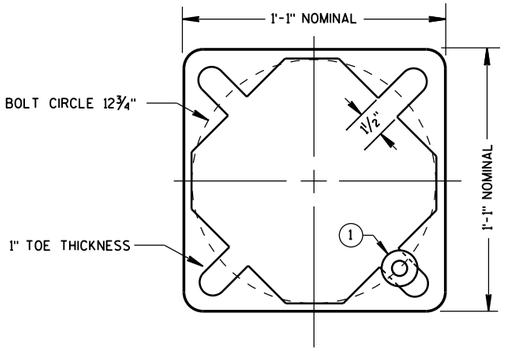
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

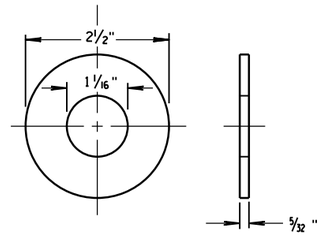




TOP VIEW
(PEDESTAL BASE)

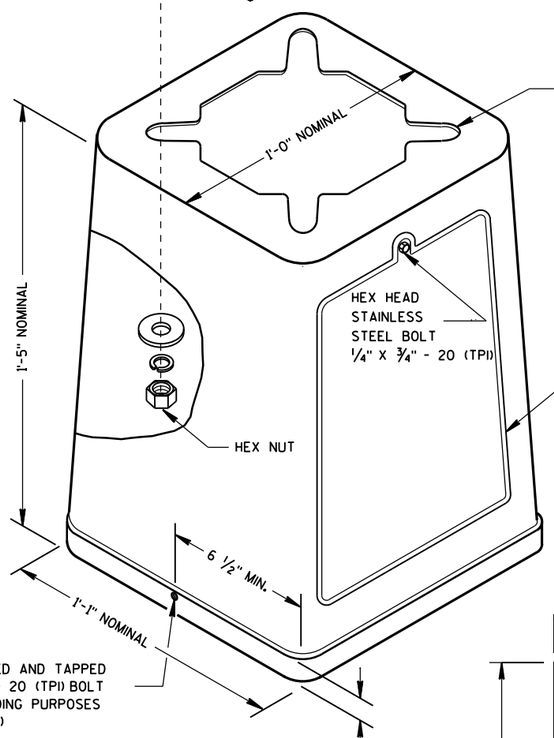


BOTTOM VIEW
(PEDESTAL BASE)

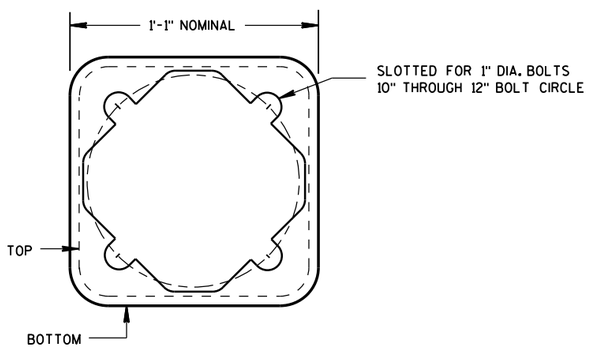


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

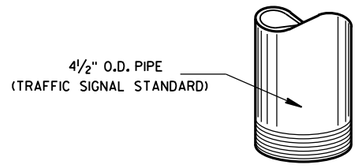
PEDESTAL BASE WASHER (1)

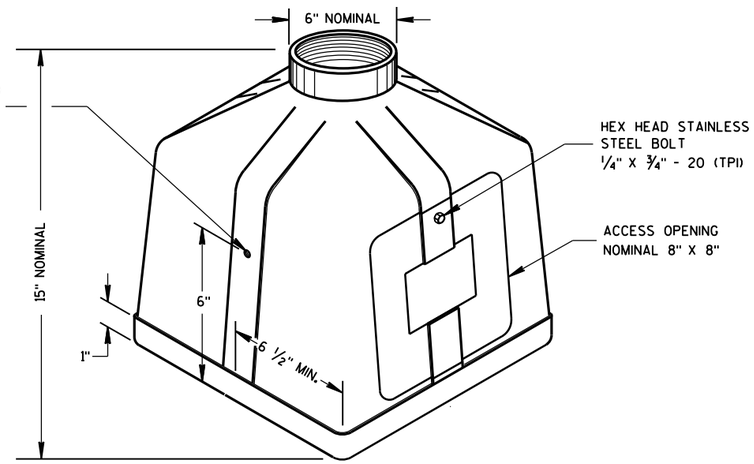


ISOMETRIC VIEW

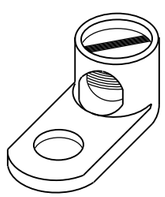


BOTTOM VIEW
(TRANSFORMER BASE)



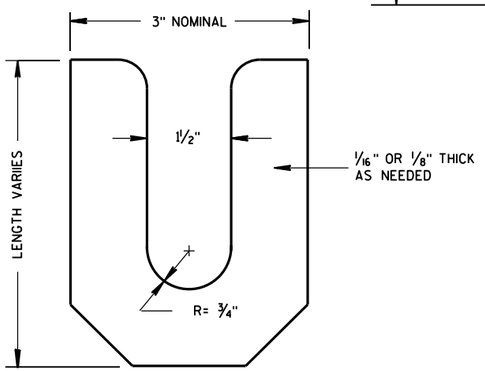


ISOMETRIC VIEW
PEDESTAL BASE



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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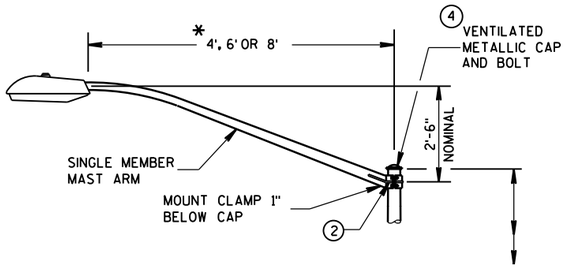
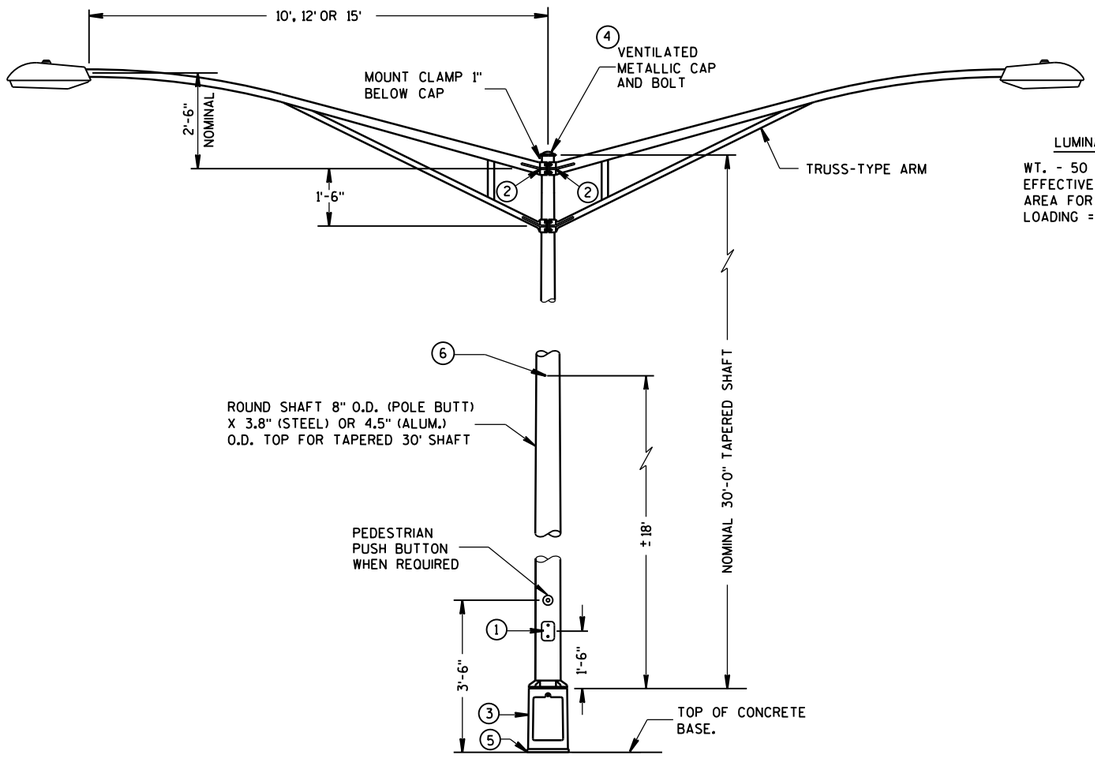
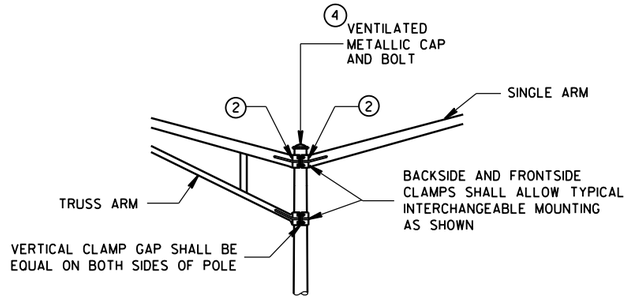
*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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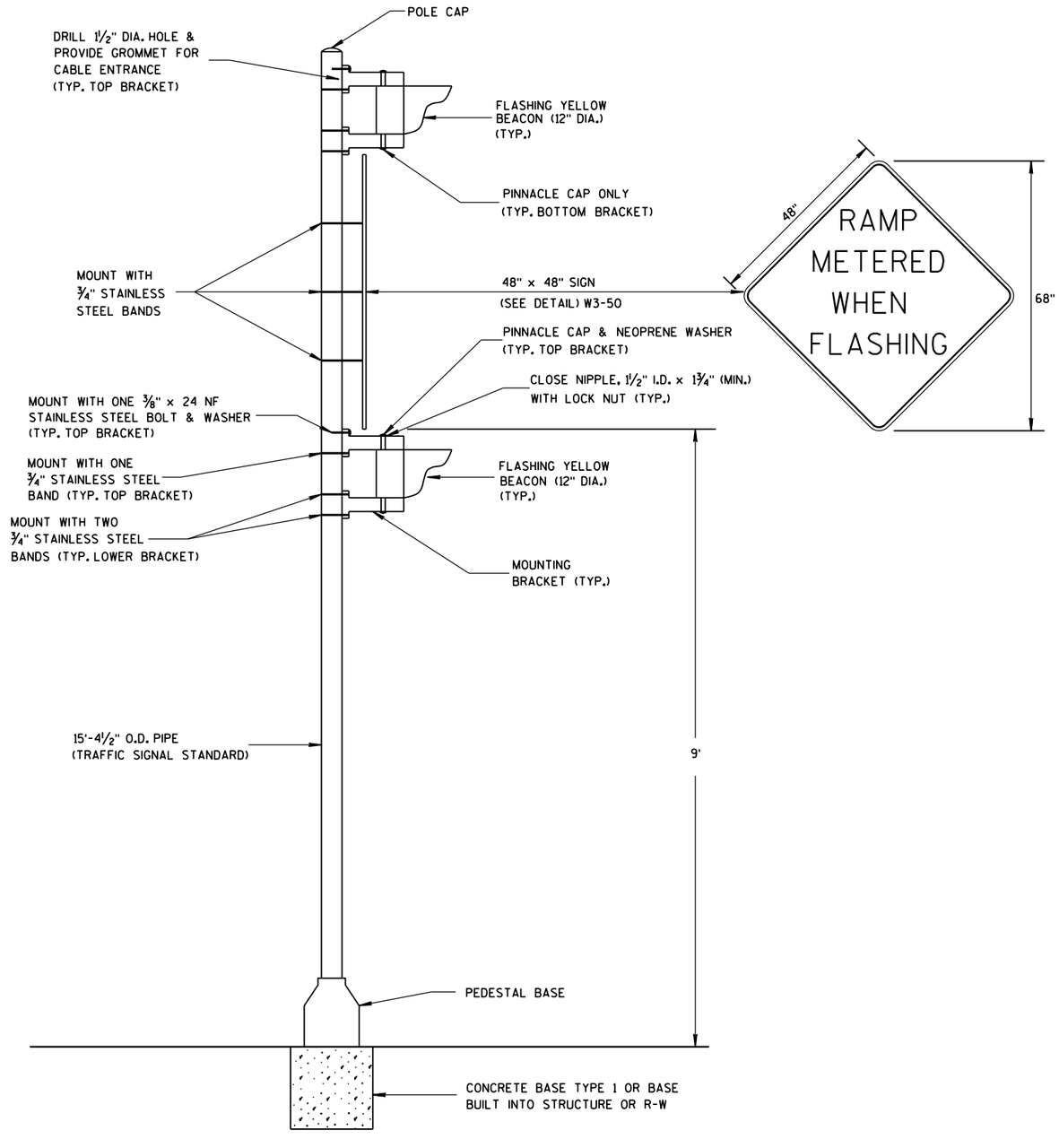
S.D.D. 9 E 1-14d



SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 1

SIGNAL ASSEMBLY ADVANCE FLASHER TYPE 1	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June, 2015 (DATE)	/S/ Ahmet Demirbilek (STATE ELECTRICAL)
FHWA	

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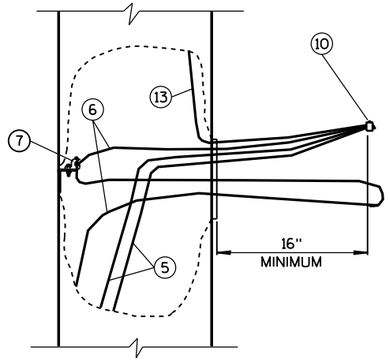
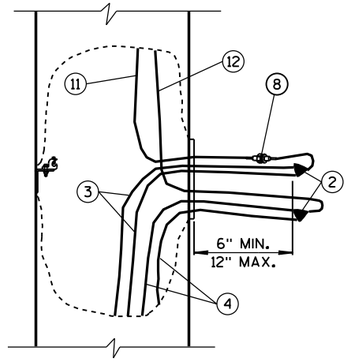
S.D.D. 9 H 6-2

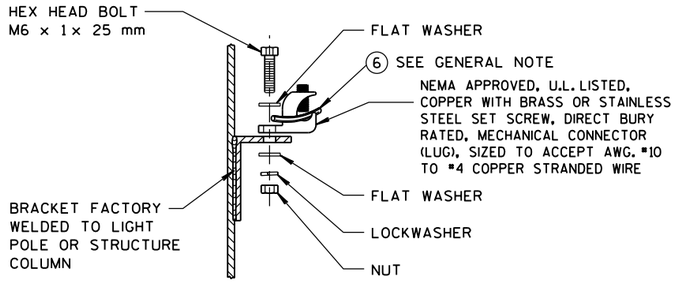


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



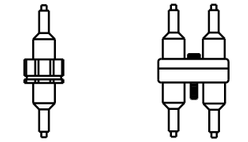
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



1 POLE (1P) 2 POLE (2P)

FUSE ASSEMBLIES

GENERAL NOTES

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

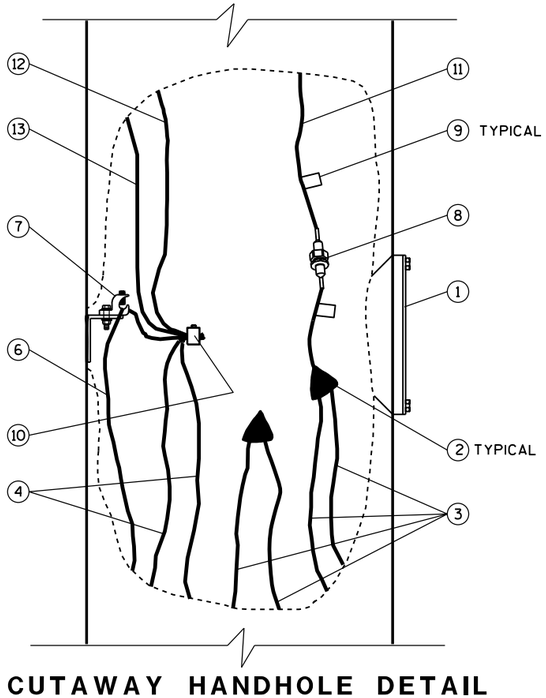
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

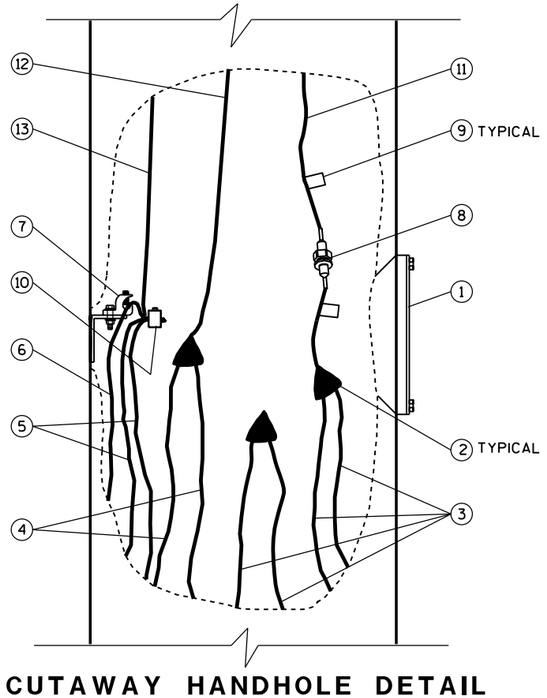
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

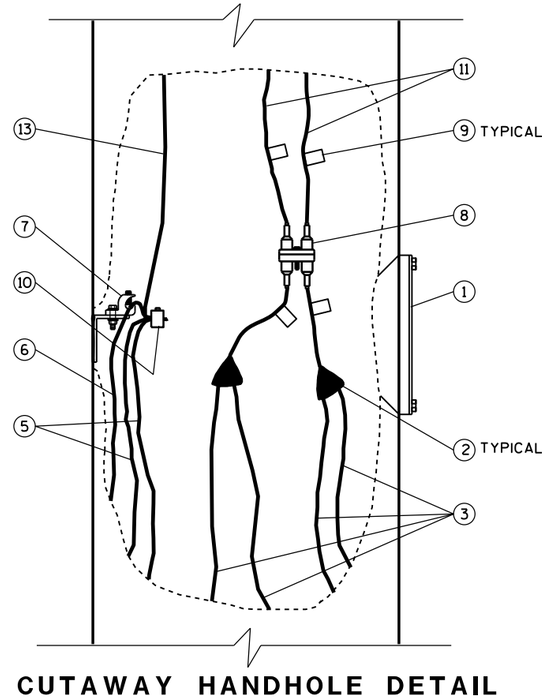
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HANDHOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-Φ



CUTAWAY HANDHOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-Φ SHOWN; 3-Φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-Φ SHOWN; 3-Φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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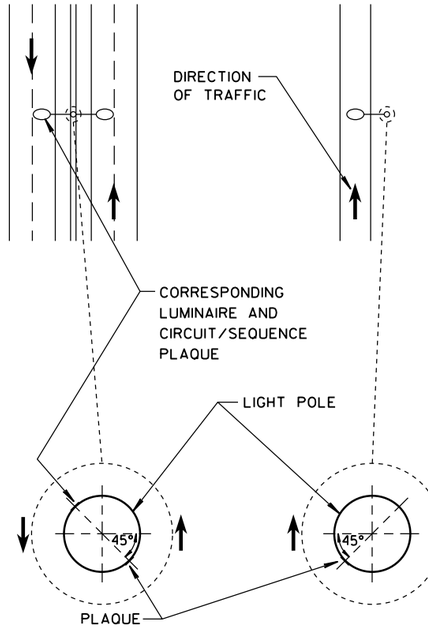
S.D.D. 10 A 1-3



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

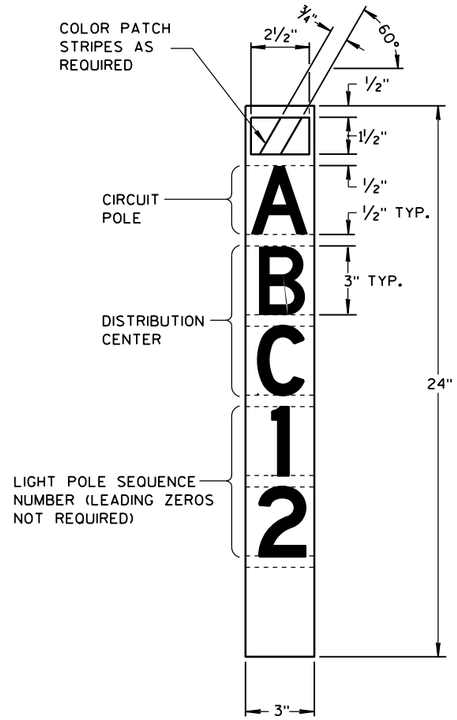
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

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S.D.D. 10 A 2-3

IDENTIFICATION PLAQUES LIGHT POLES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 10 A 2-3

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

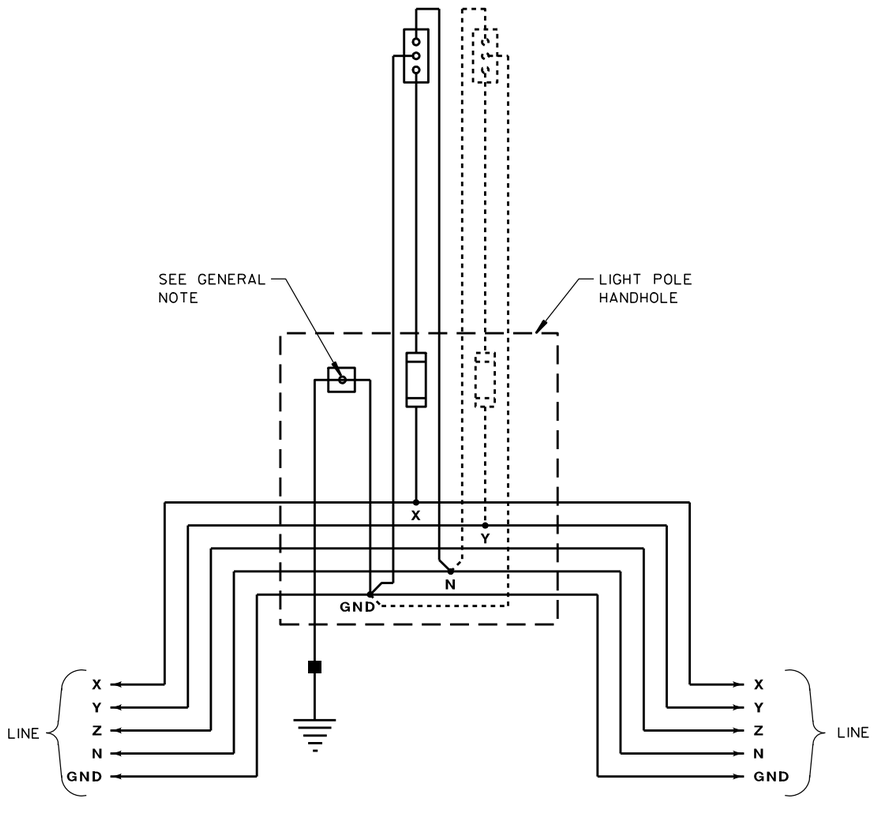
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

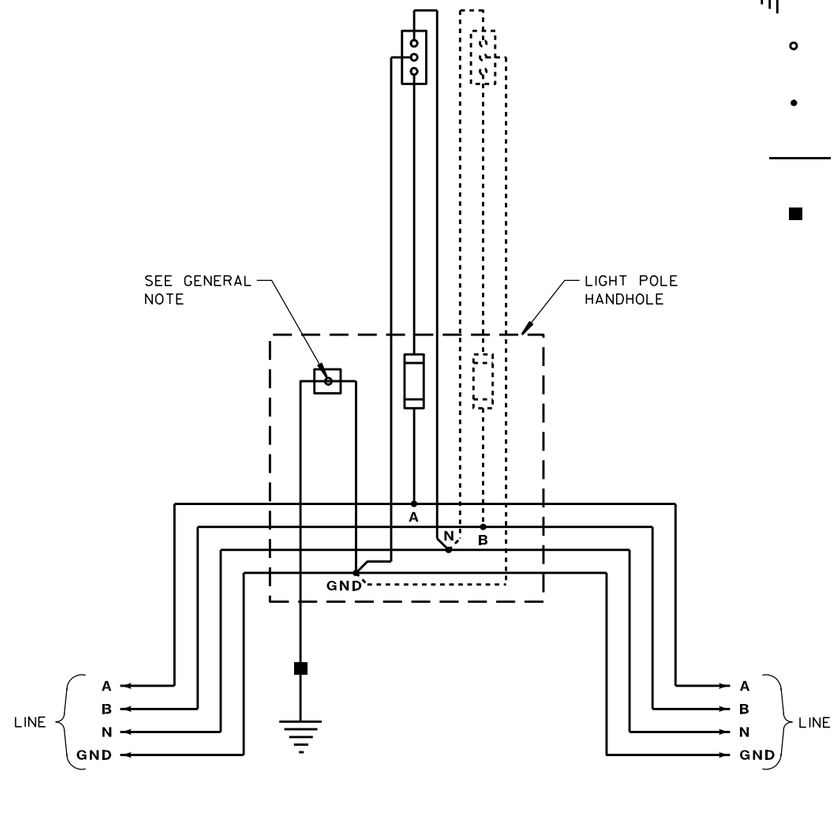
LINE VOLTAGE	BALLAST WATTAGE	
φ-GROUND	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin
STATE ELECTRICAL ENGI
FHWA
HWYS

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S.D.D. 10 A 5-2

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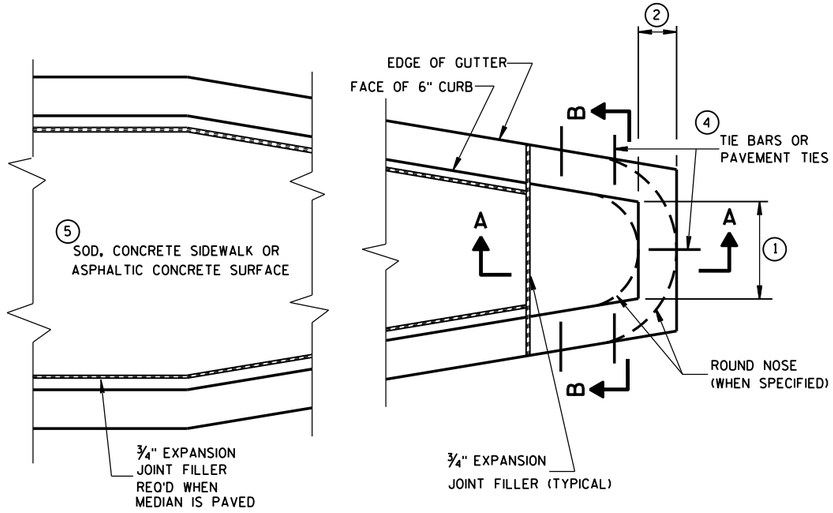
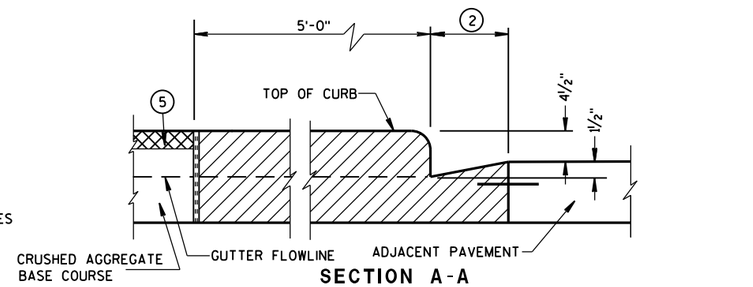
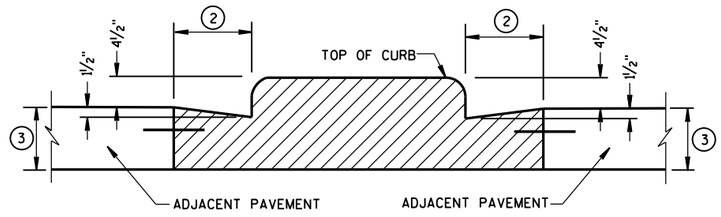
S.D.D. 10 A 5-2







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

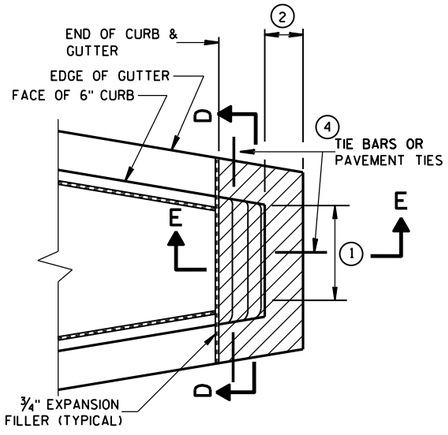
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

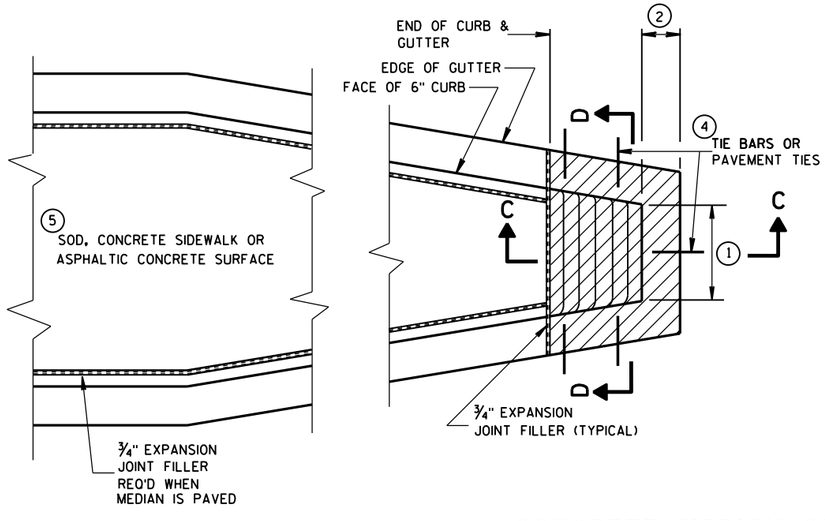
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

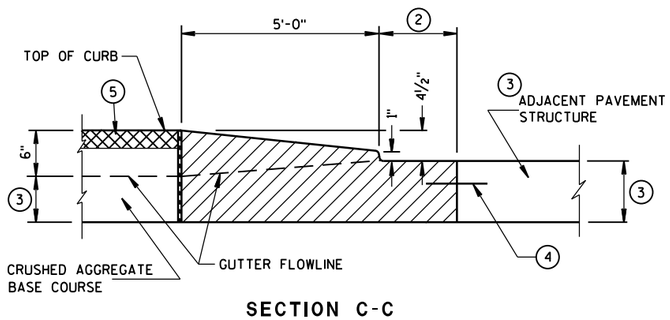
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

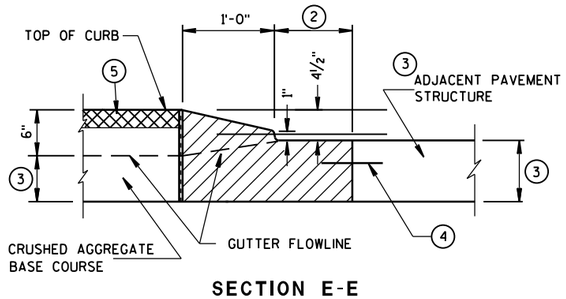
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



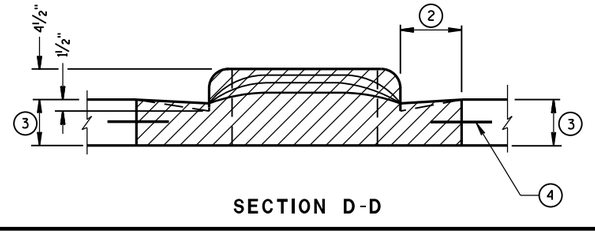






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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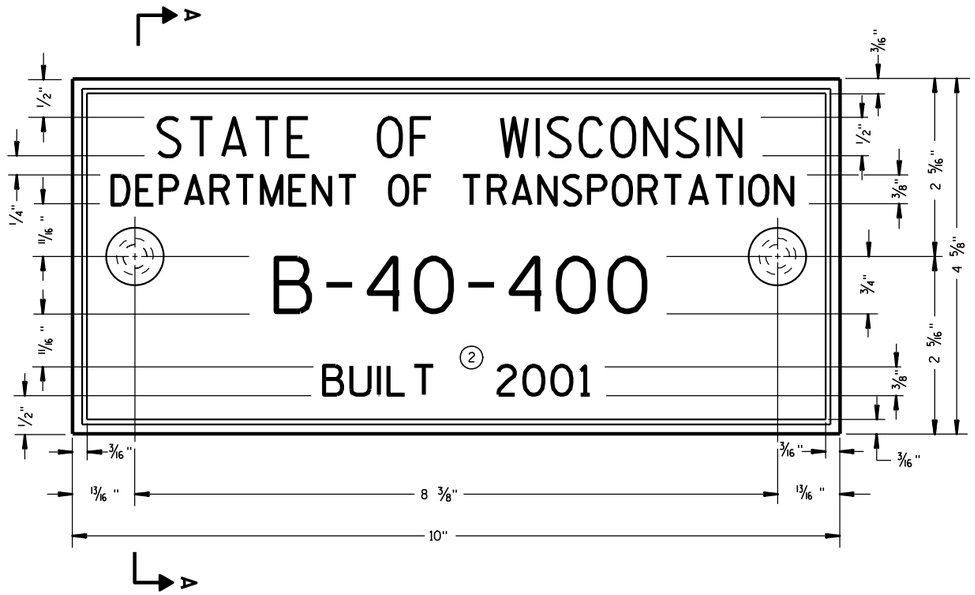
S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

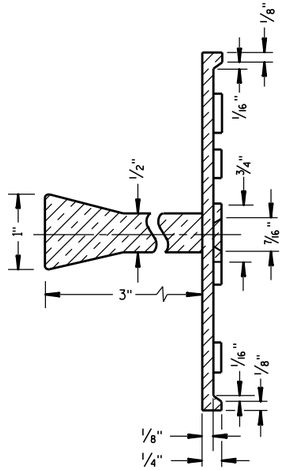
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

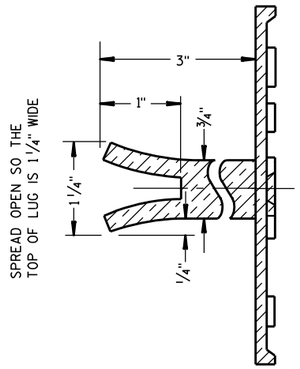
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

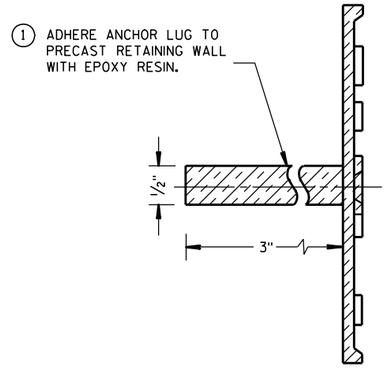
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

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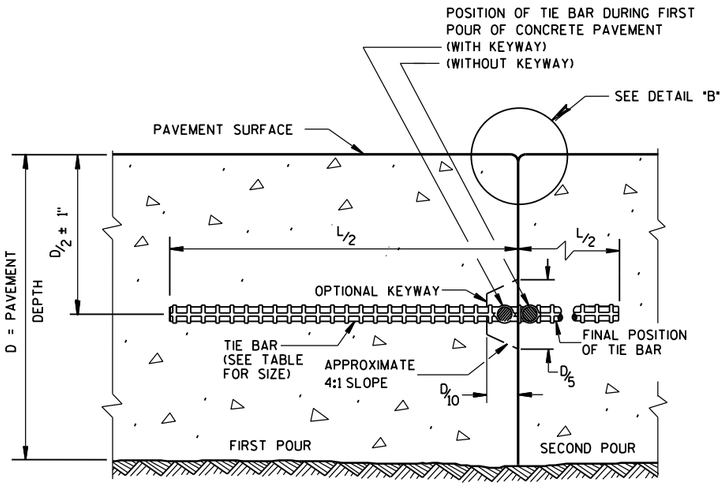
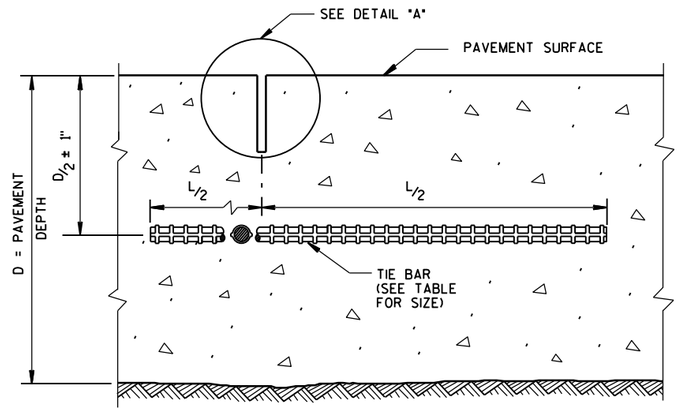
S.D.D. 12 A 3-10



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

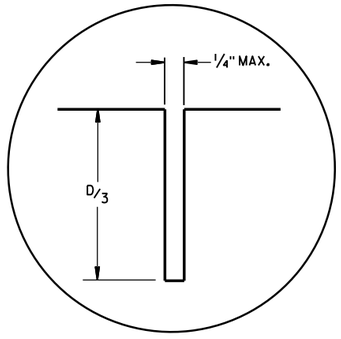
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

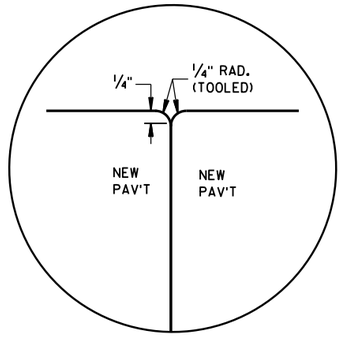
PLAN VIEW

SECTION A-A

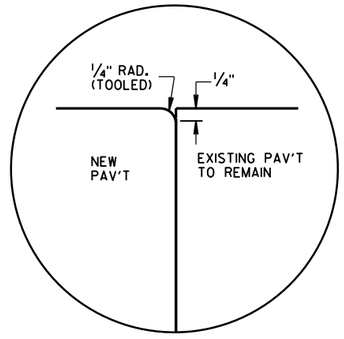
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



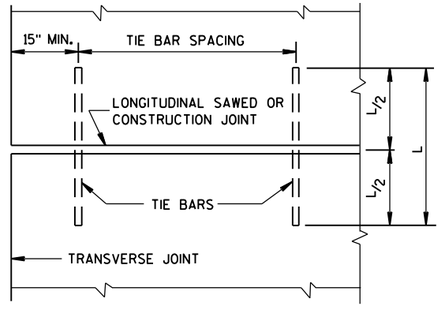
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

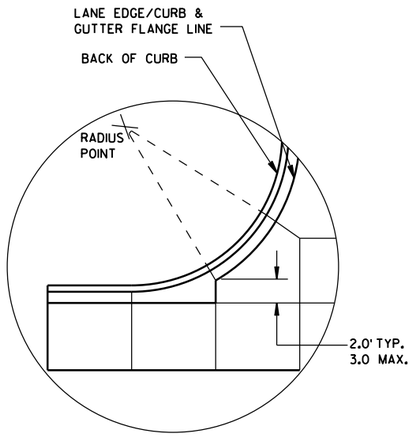
CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

S.D.D. 13 C 1-18



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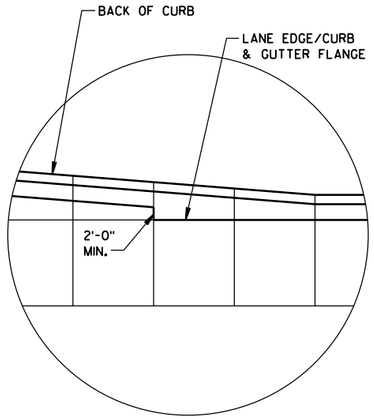

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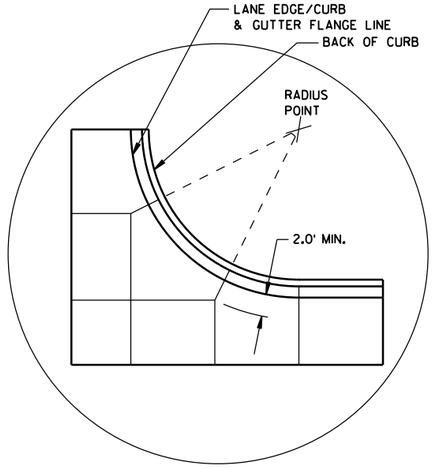

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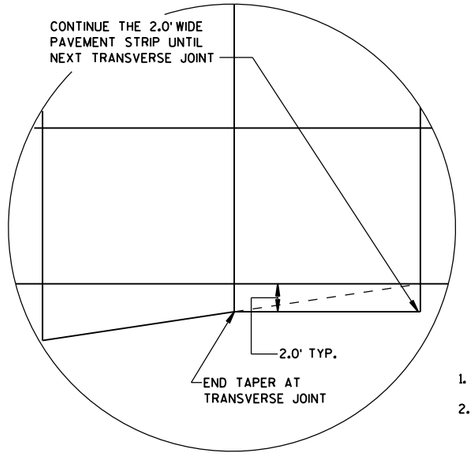


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

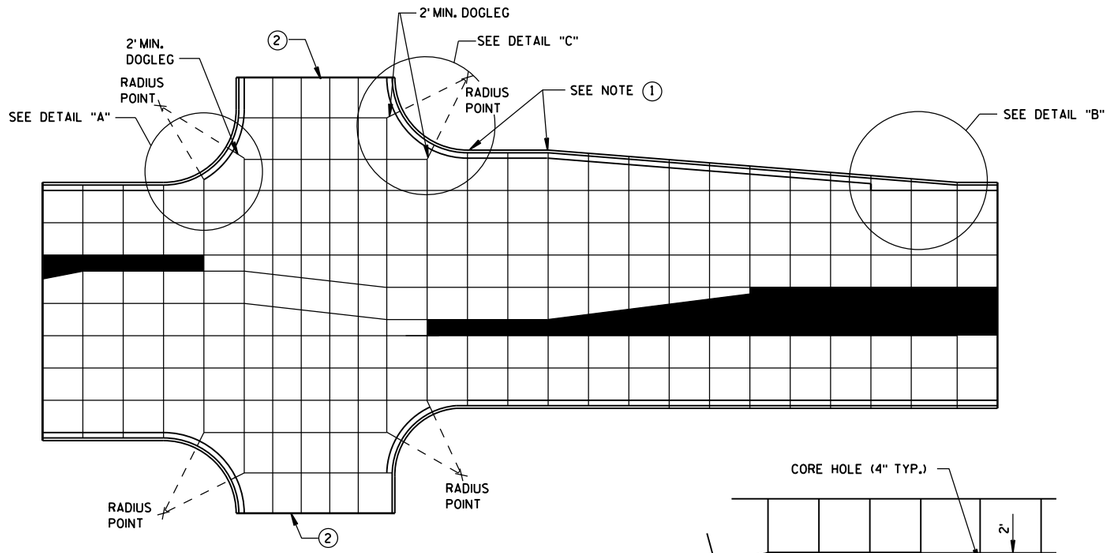
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

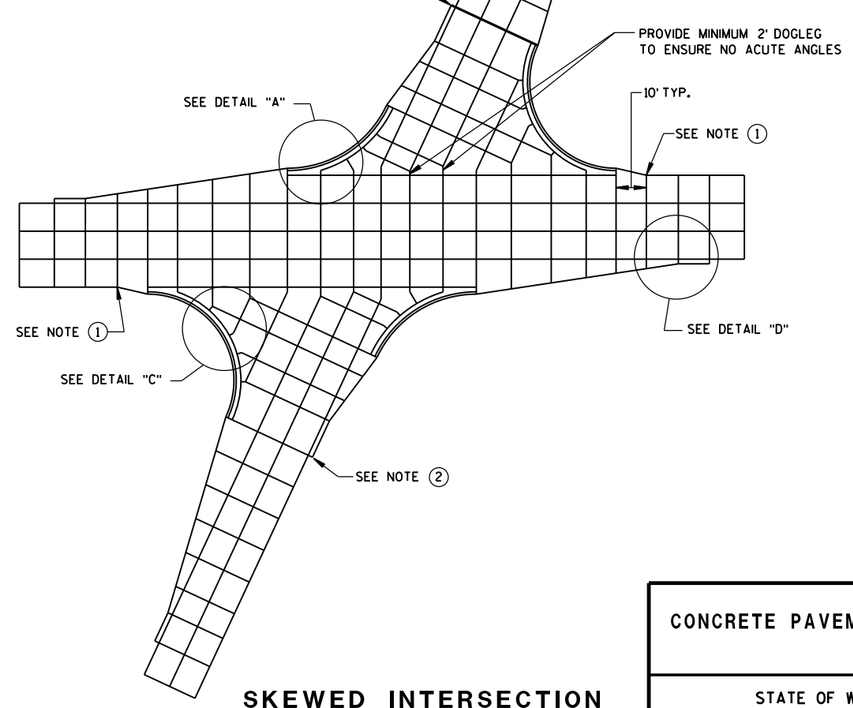
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



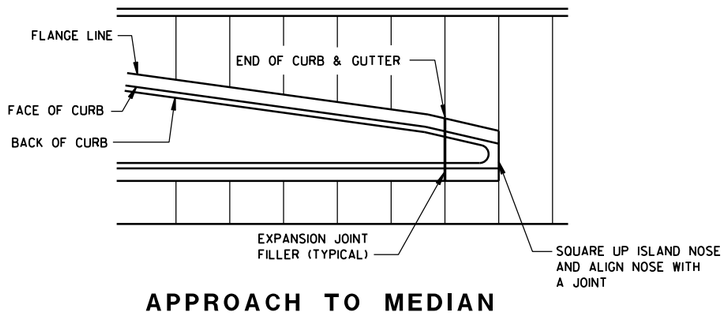
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

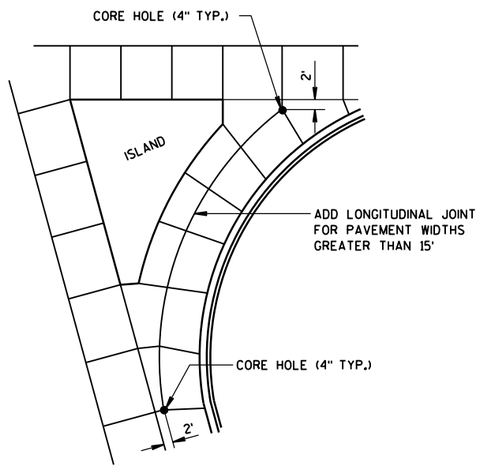
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

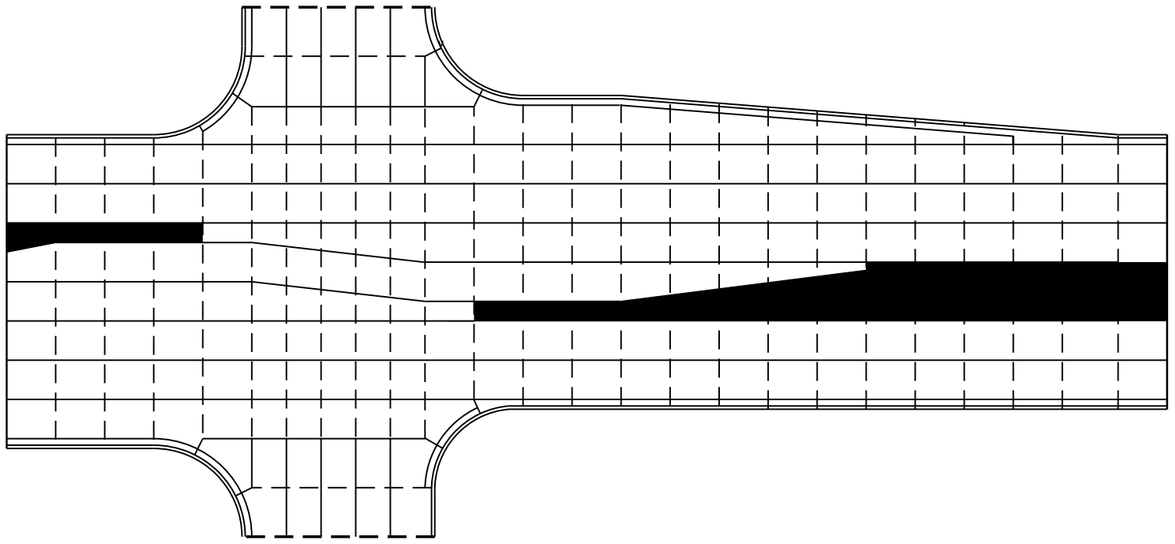
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

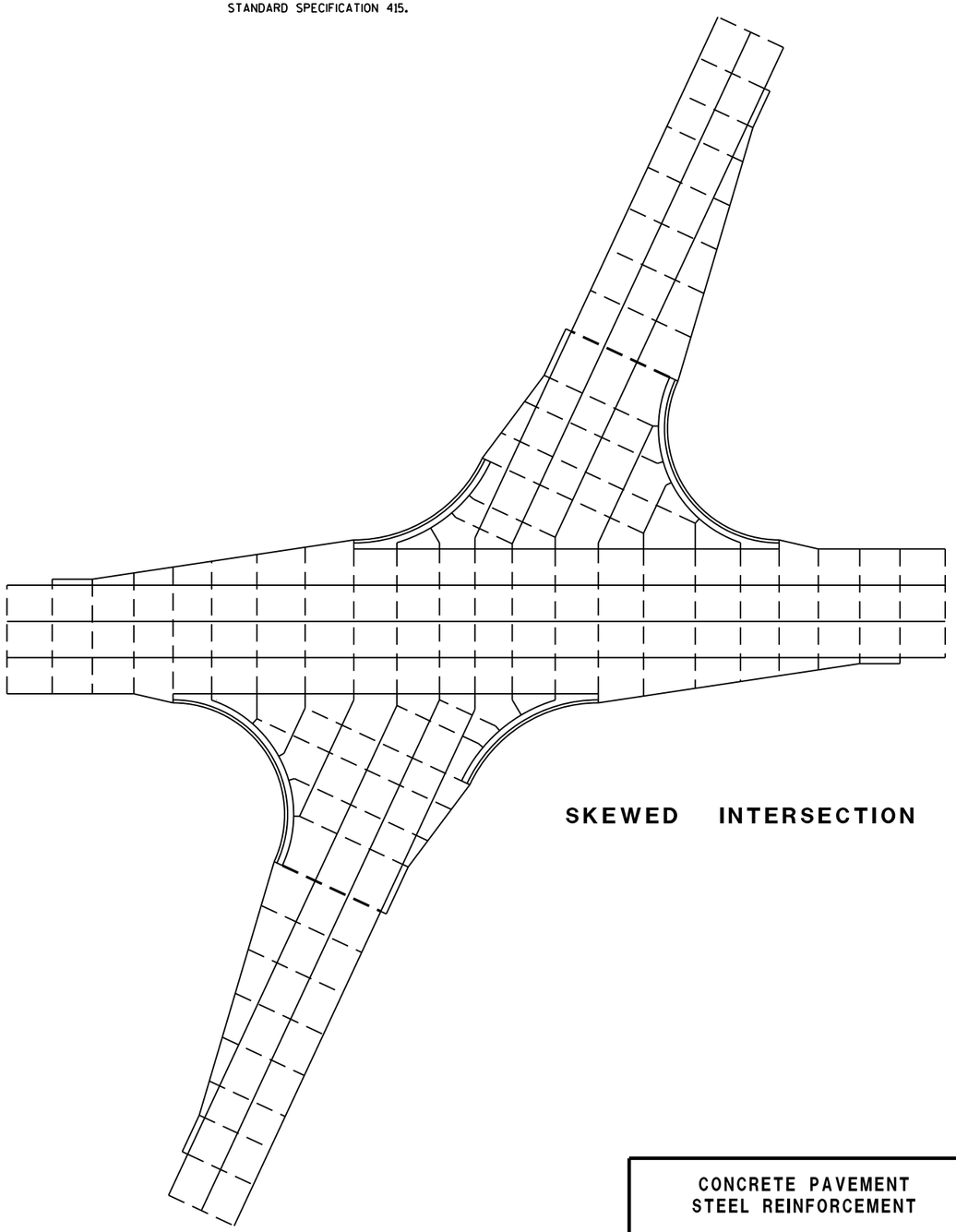
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

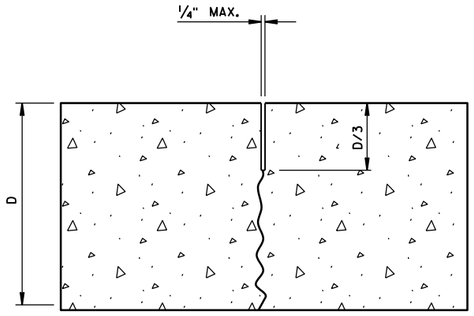
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

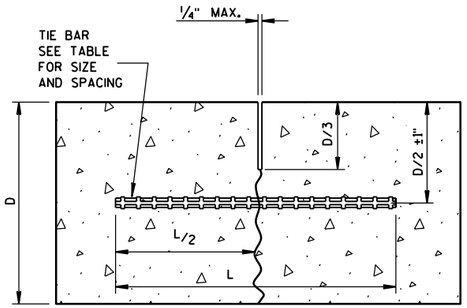
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

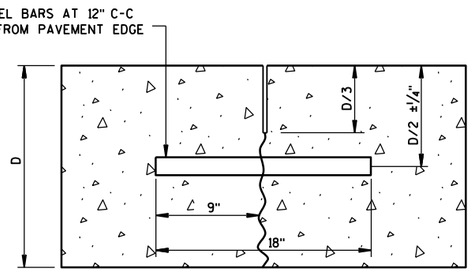
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

GENERAL NOTES

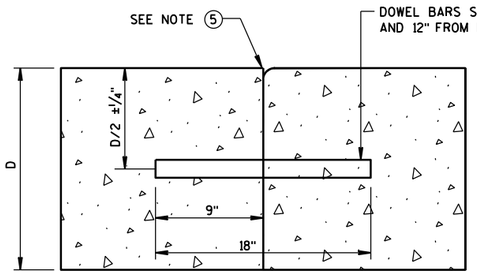
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



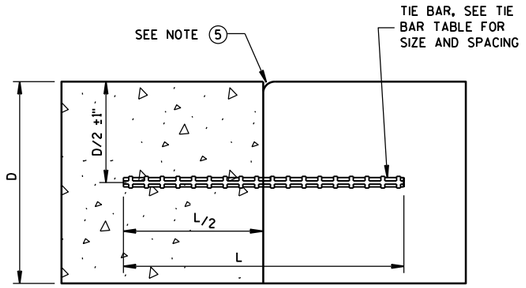
DOWELED-TRANSVERSE

CONTRACTION JOINTS

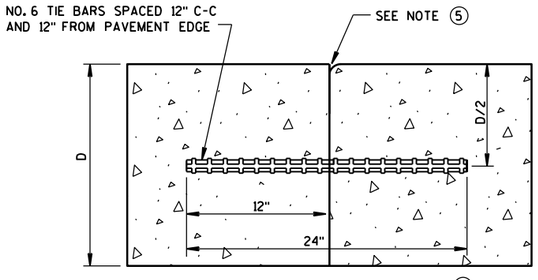
SEE NOTE (2)



DOWELED TRANSVERSE (3)

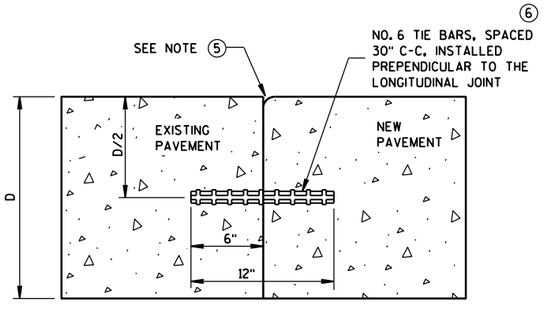


TIED LONGITUDINAL



TIED TRANSVERSE (3)

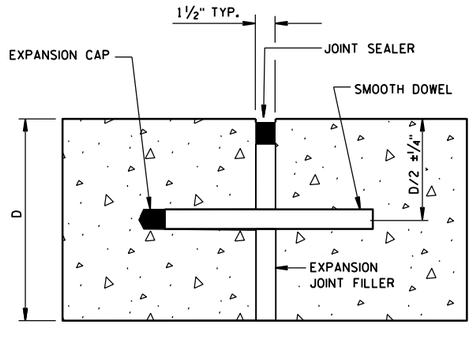
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

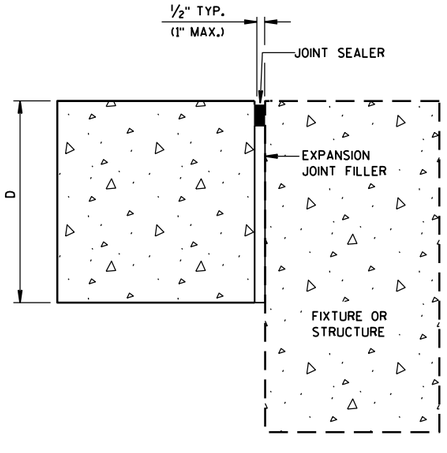
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

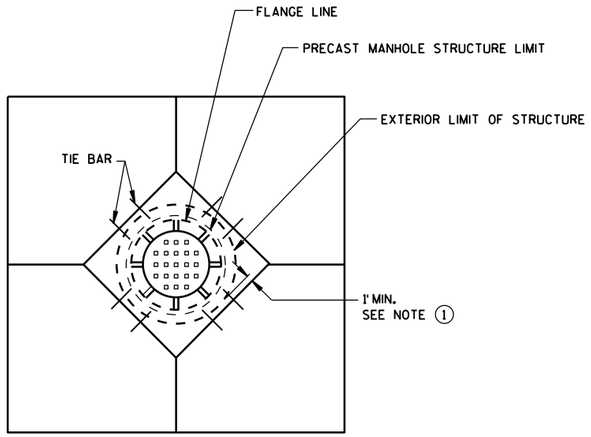
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

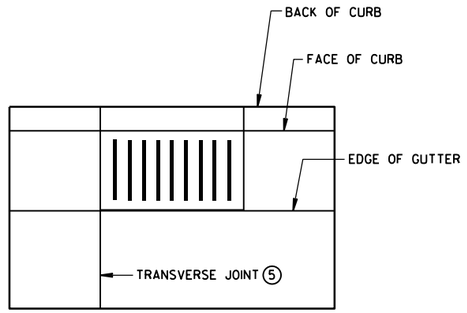
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

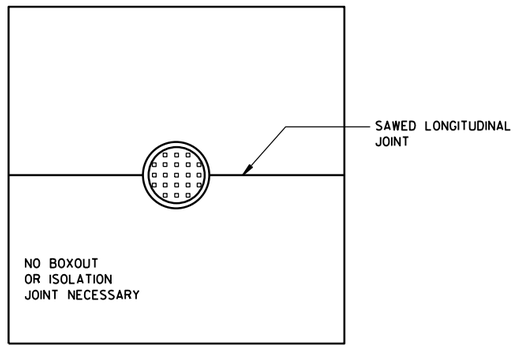
S.D.D. 13 C 18-3c



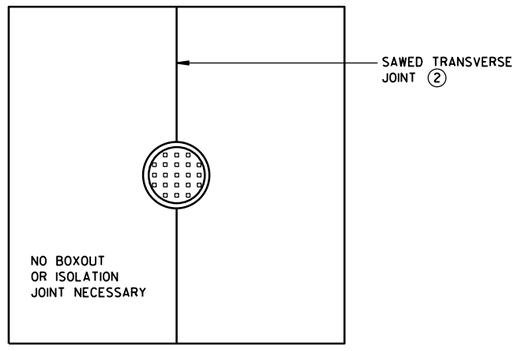
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



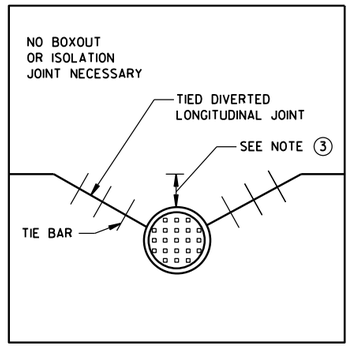
INLET WITH TRANSVERSE JOINT



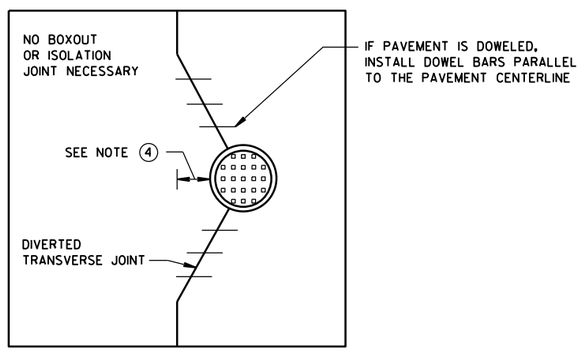
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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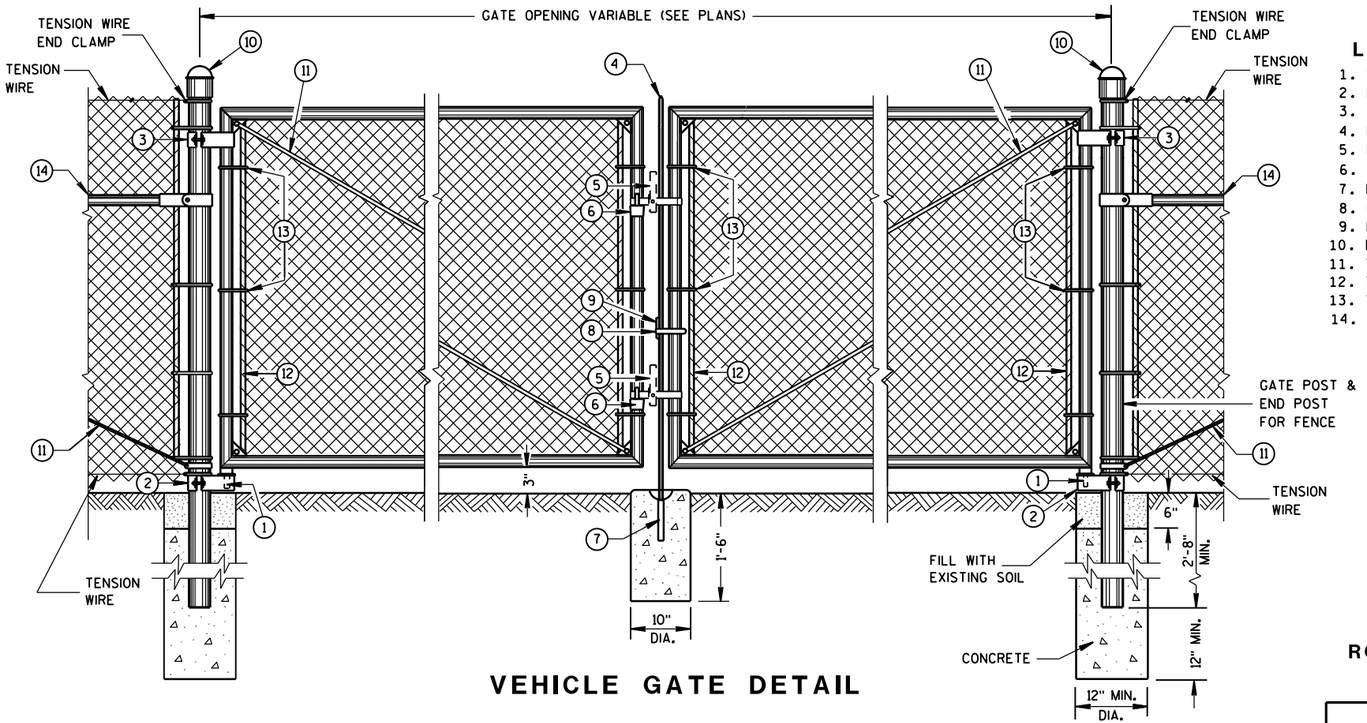
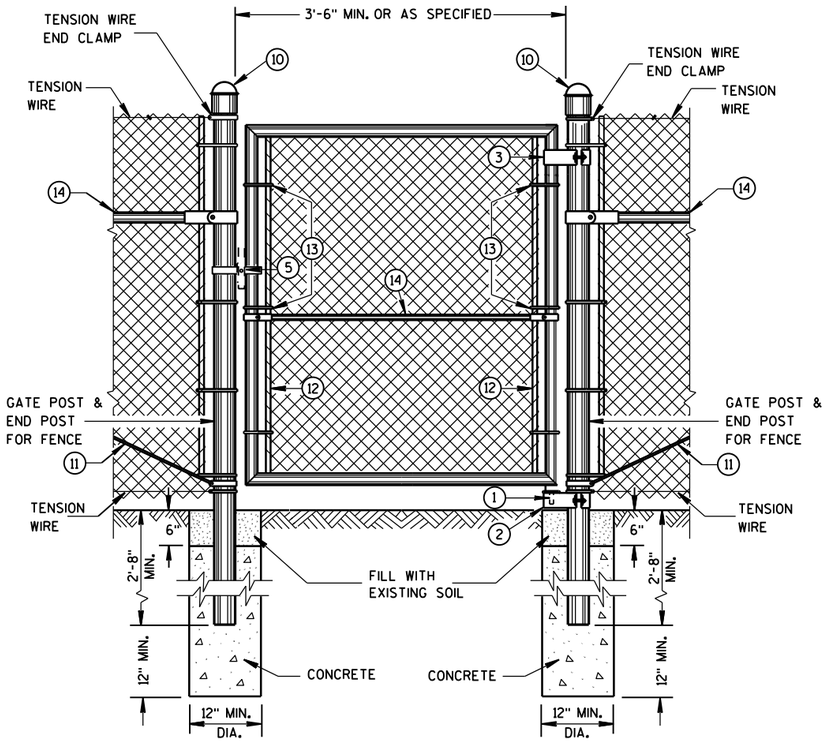
S.D.D. 13 C 18-3d



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

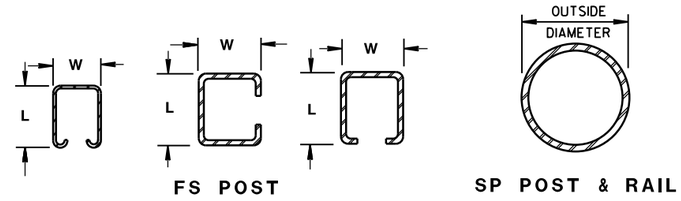
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

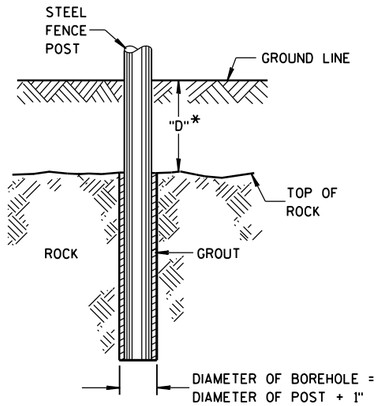
** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

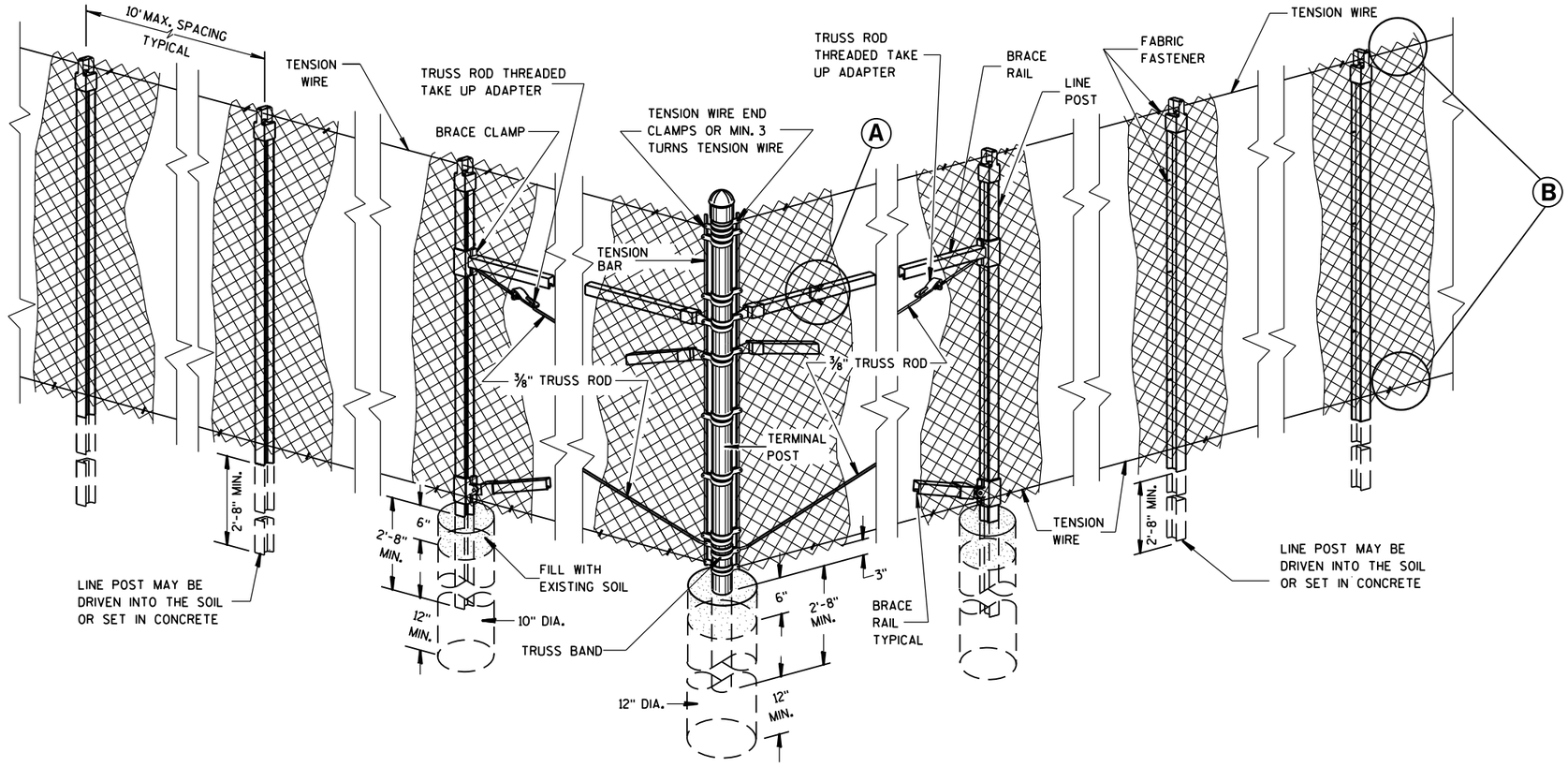
6

S.D.D. 15 B 3-15a

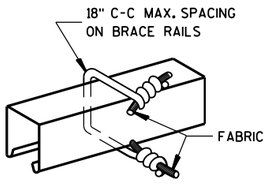


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



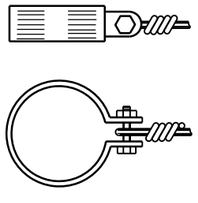
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



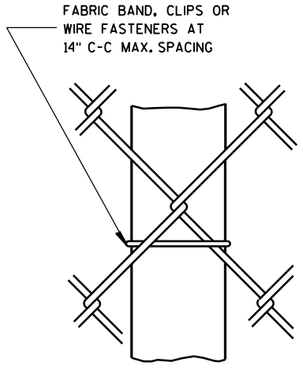
BRACE RAIL

FABRIC FASTENER

Ⓐ



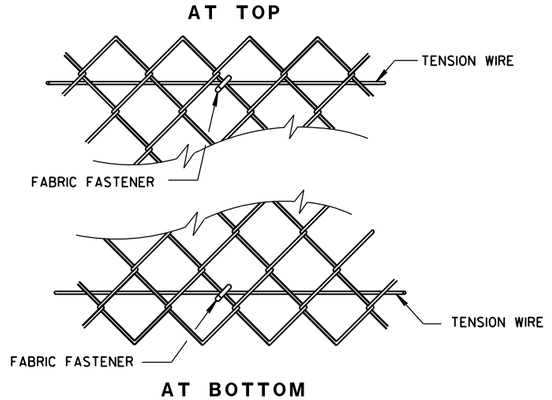
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

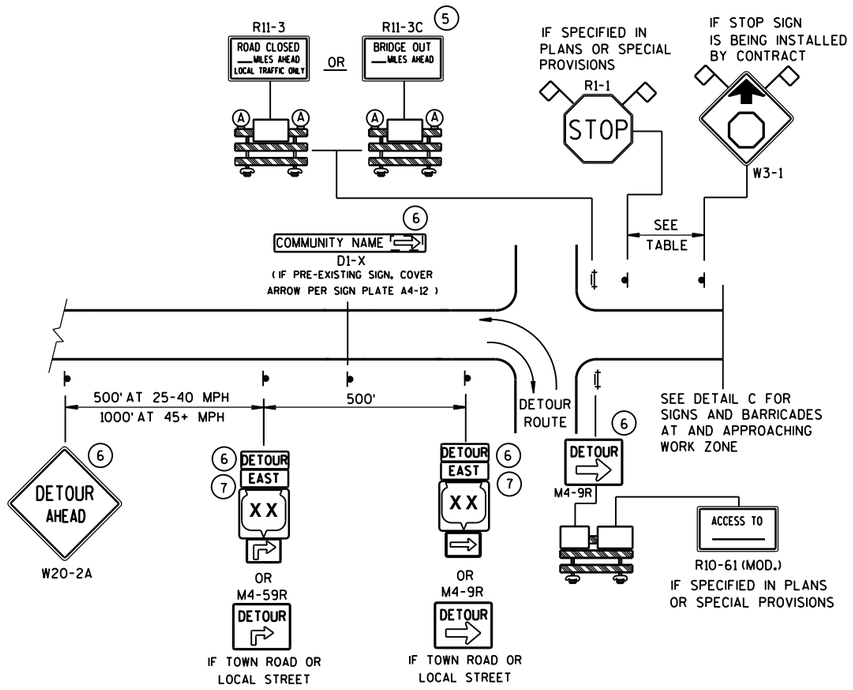
225

6

S.D.D. 15 B 3-15b

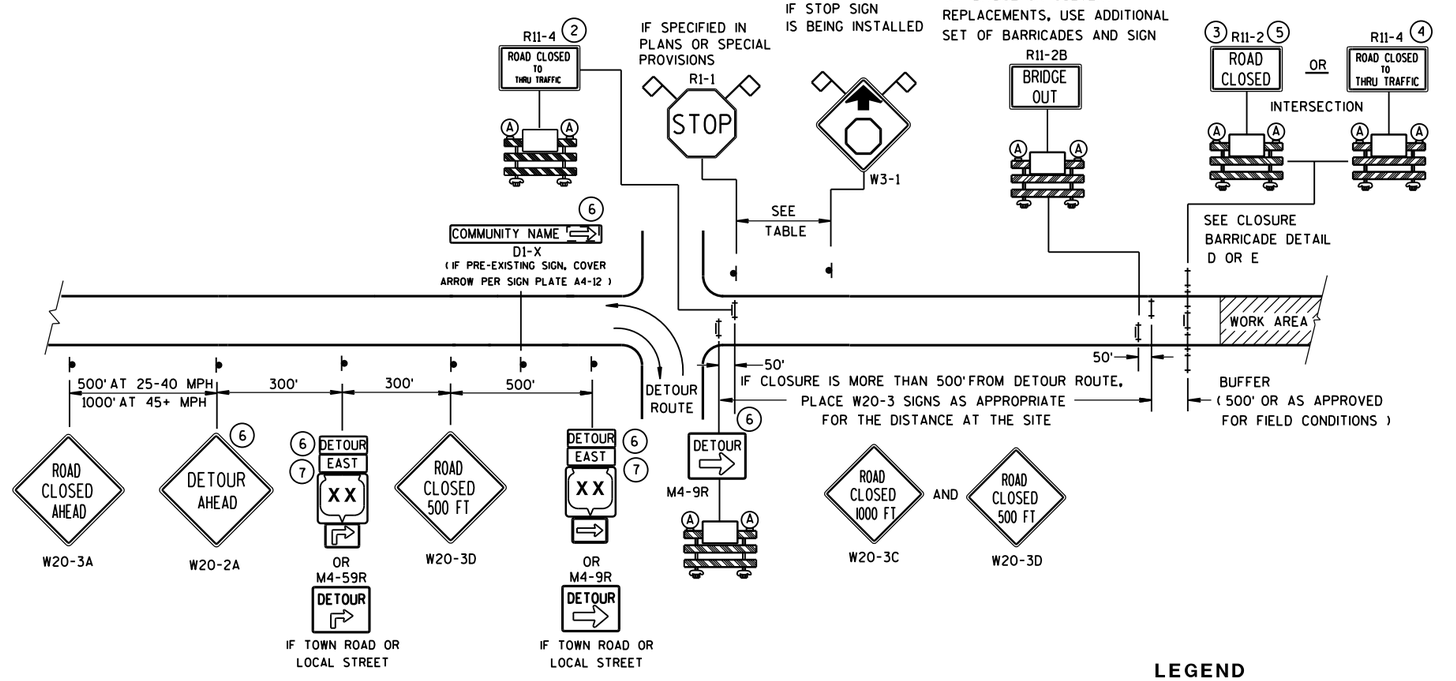
6

S.D.D. 15 B 3-15b



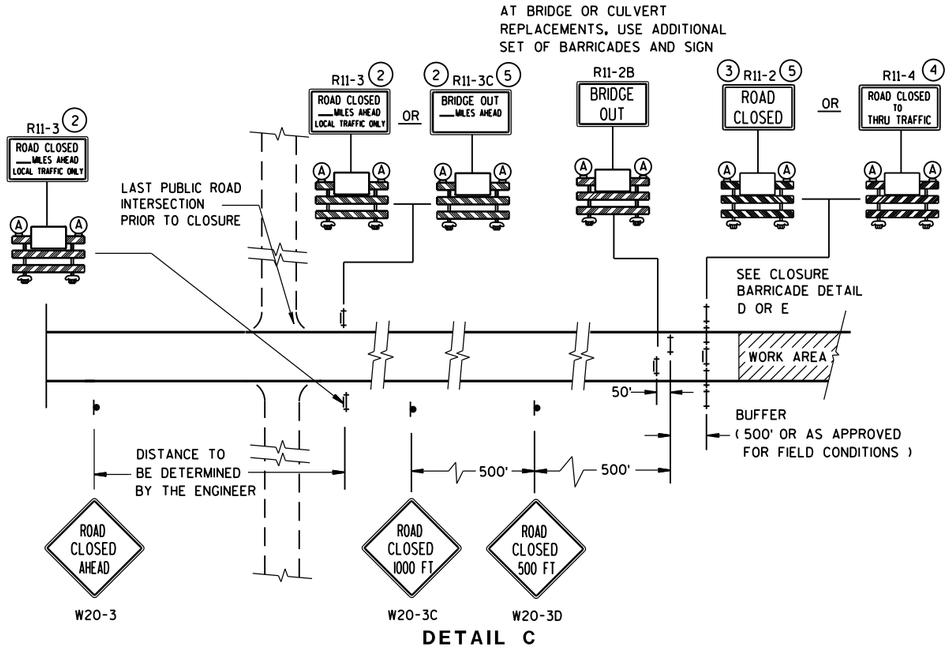
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

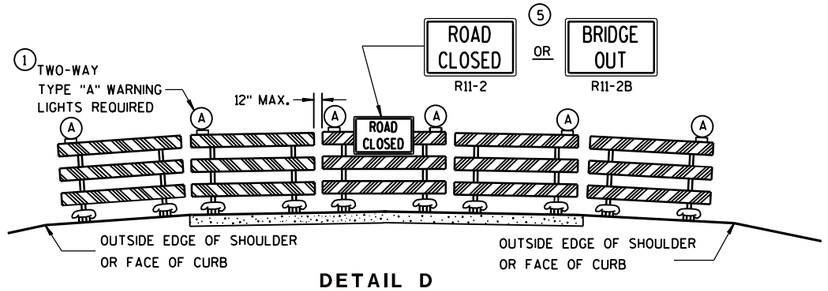
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 2-6a

6

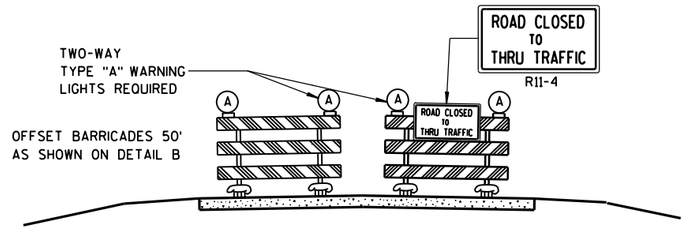
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO 227 FIC
SAFETY ENGI

FHWA

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

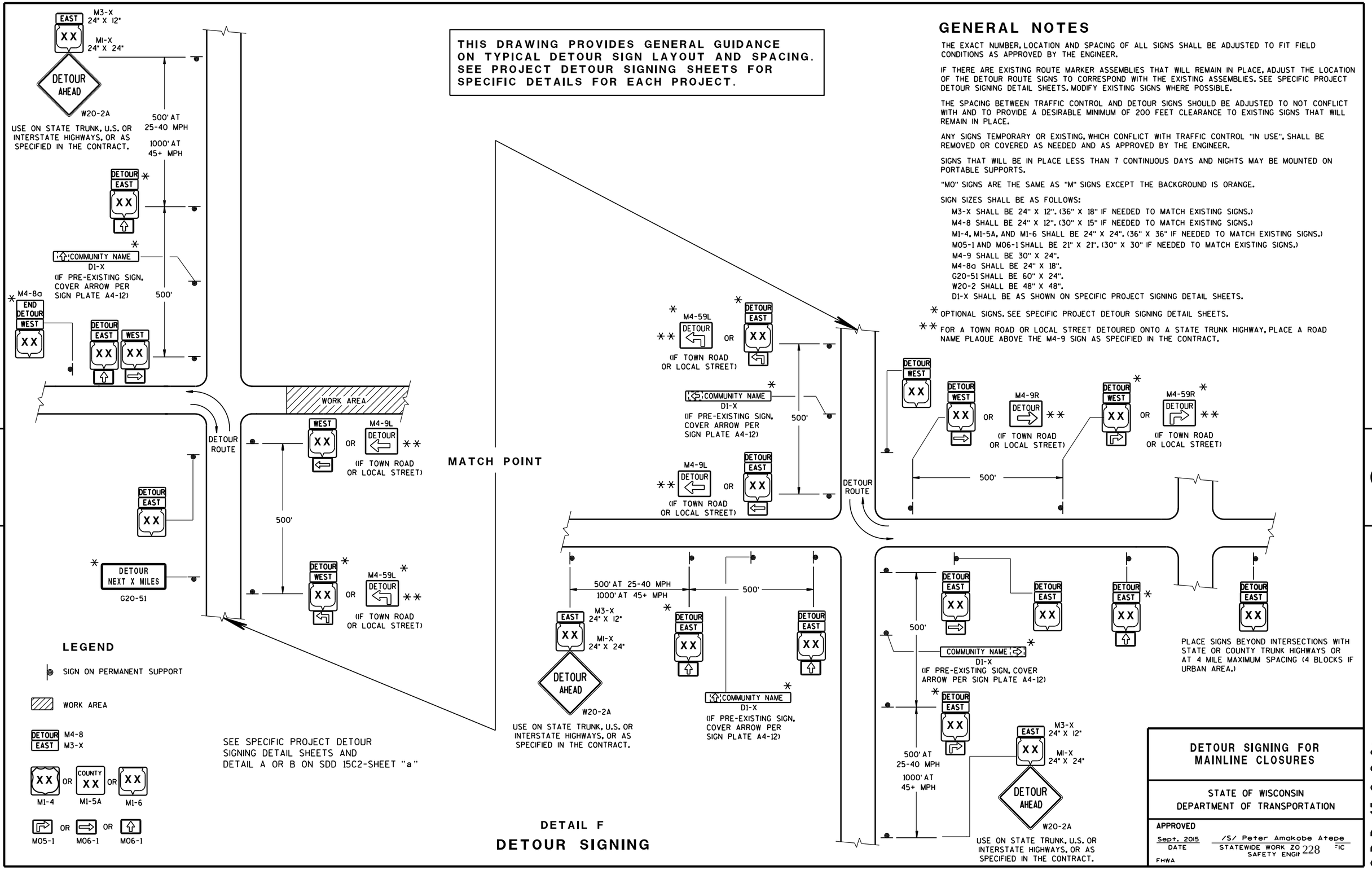
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

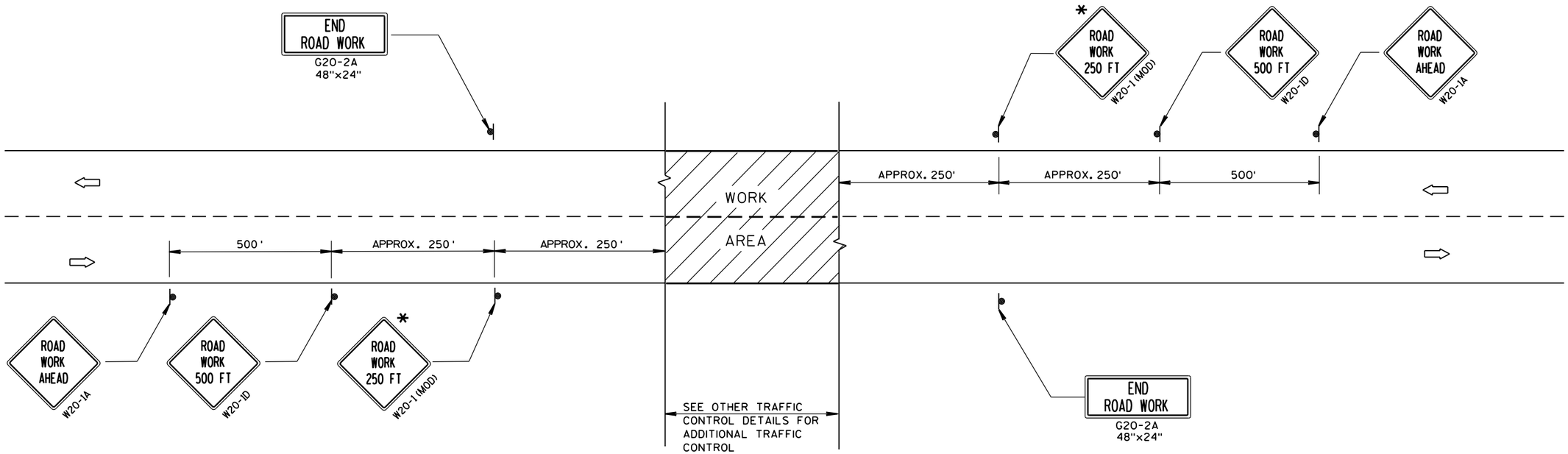
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI

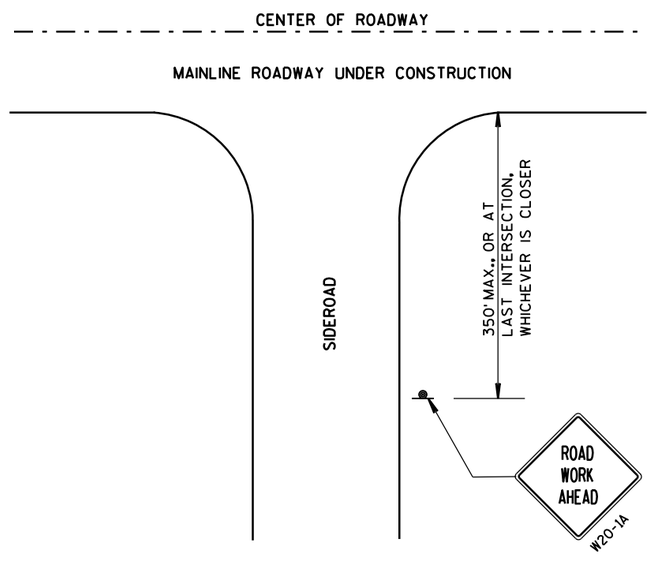
FHWA

6

S.D.D. 15 C 2-6c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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

LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 C 5-3

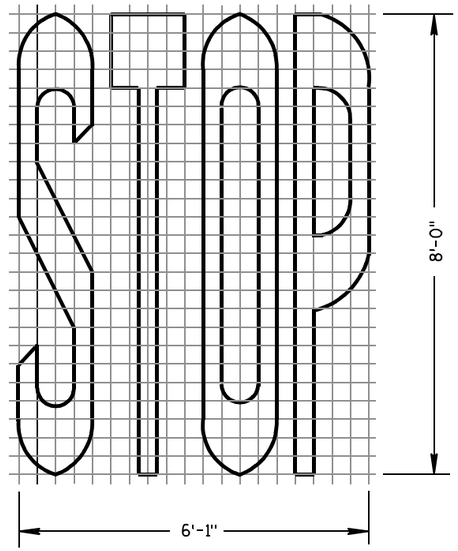
6

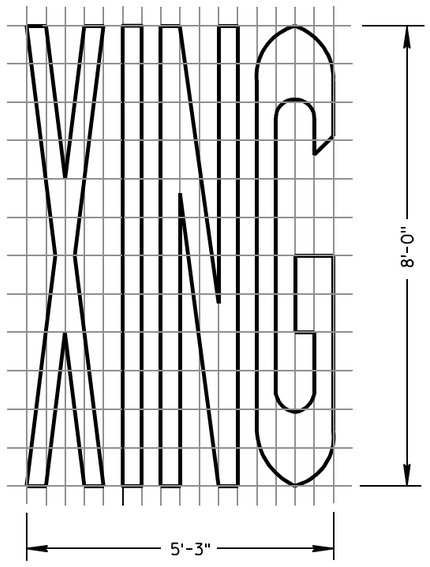
S.D.D. 15 C 5-3

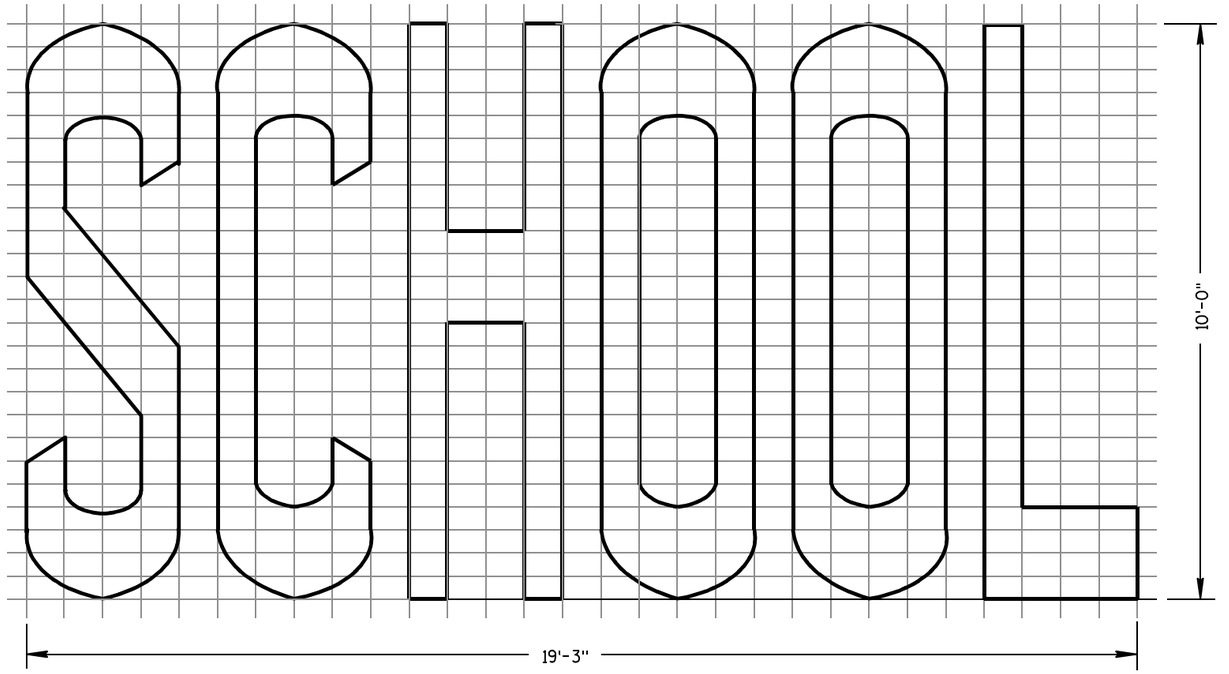
GENERAL NOTES

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.

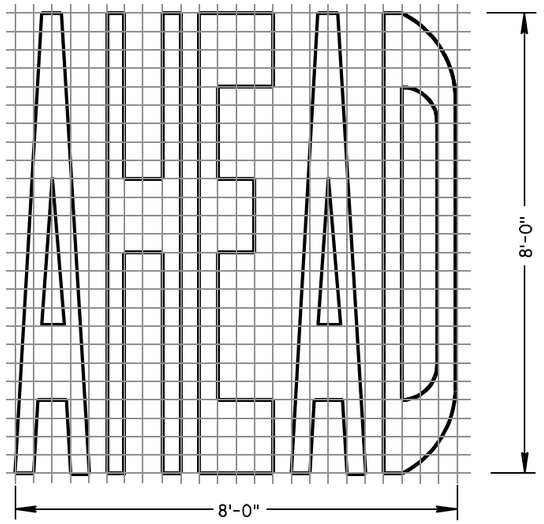
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

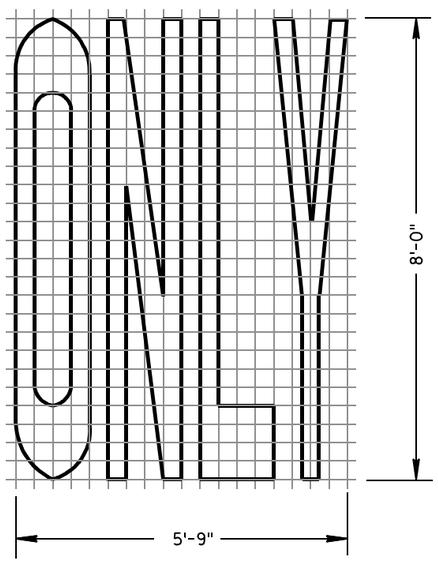


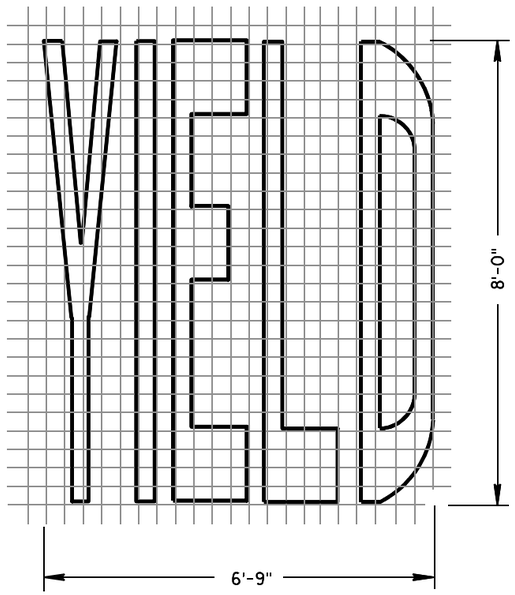


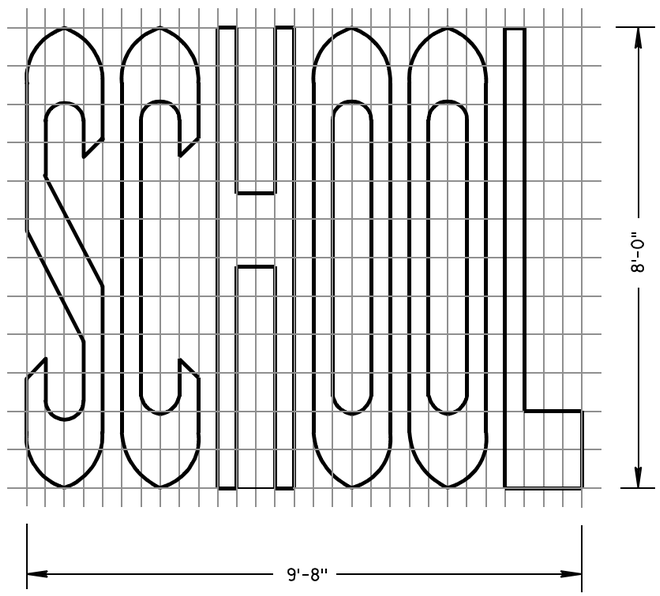


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12b

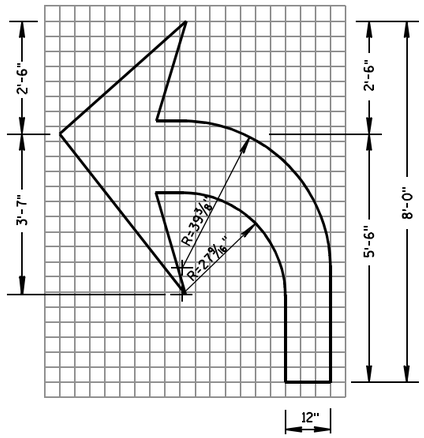
6

S.D.D. 15 C 7-12b

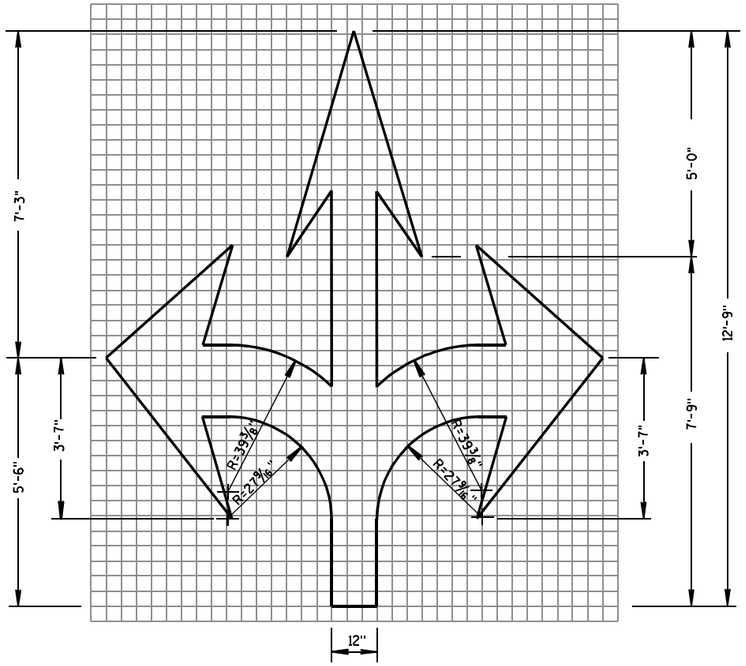
GENERAL NOTES

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 2



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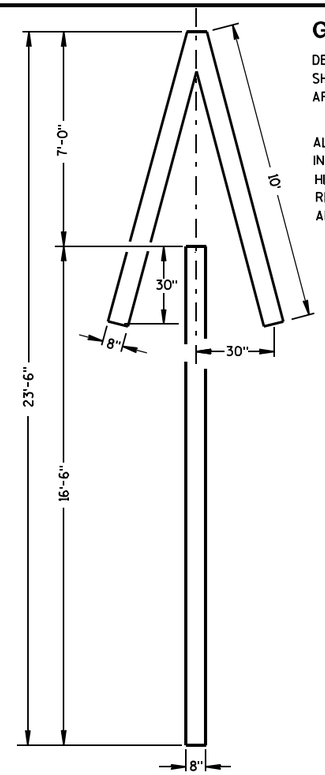

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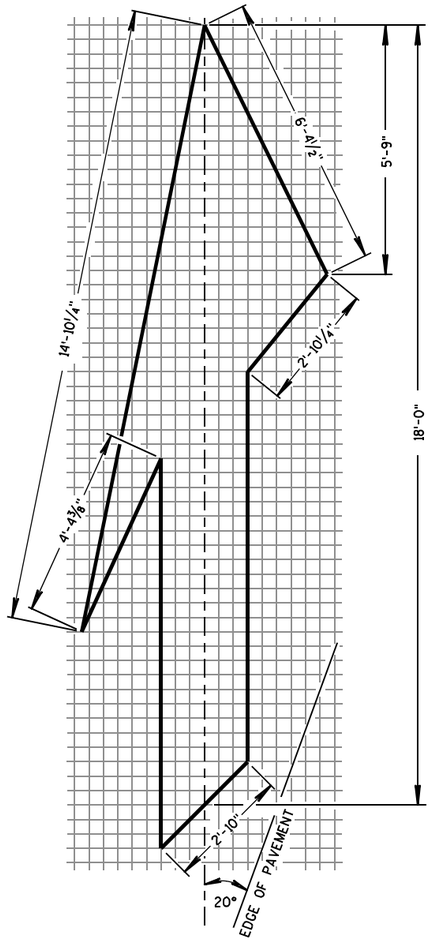
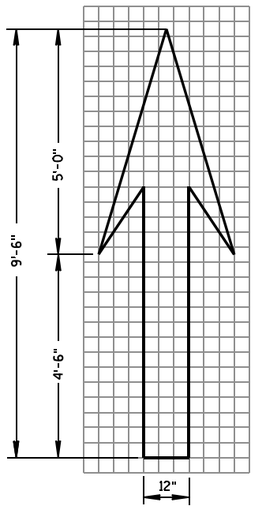
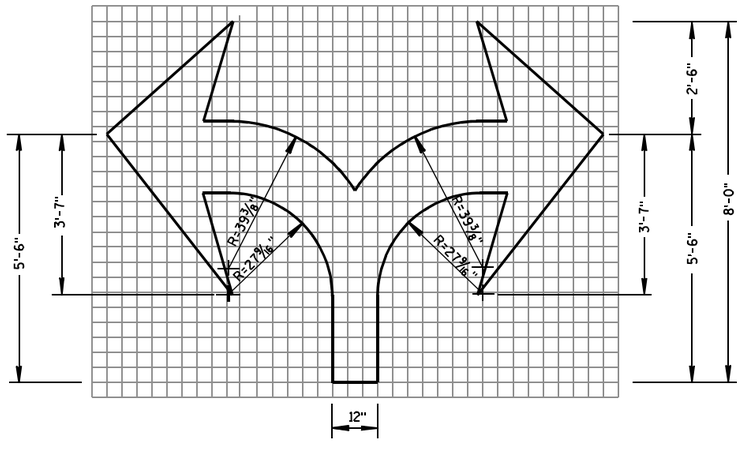


TYPE 5 LANE DROP ARROW



TYPE 1



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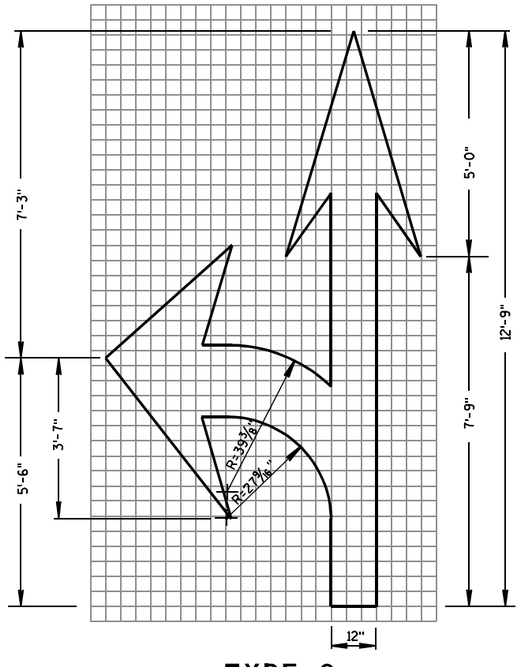


TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

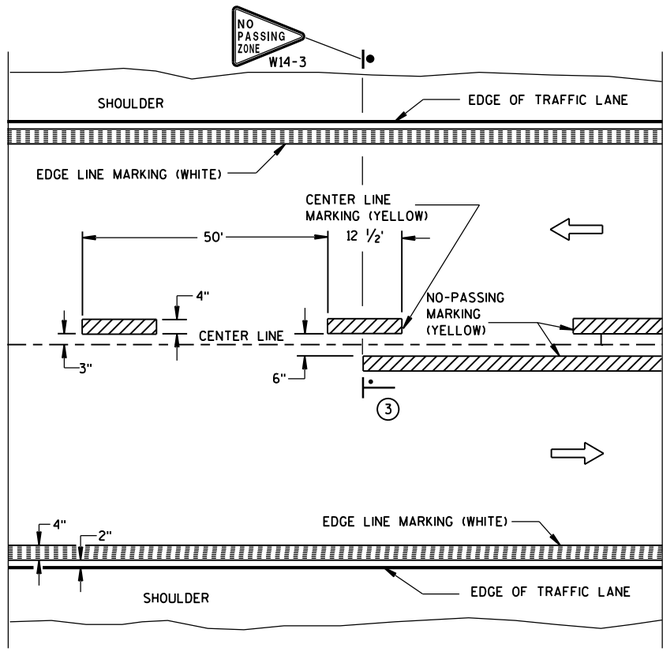
FHWA

6

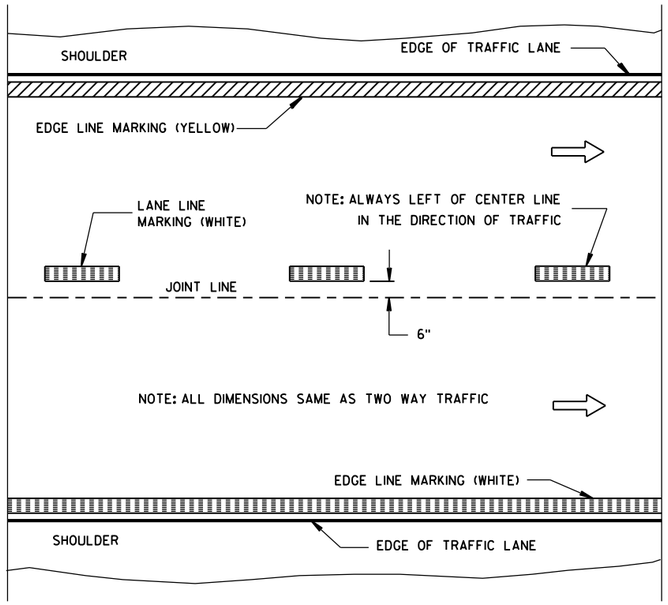
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

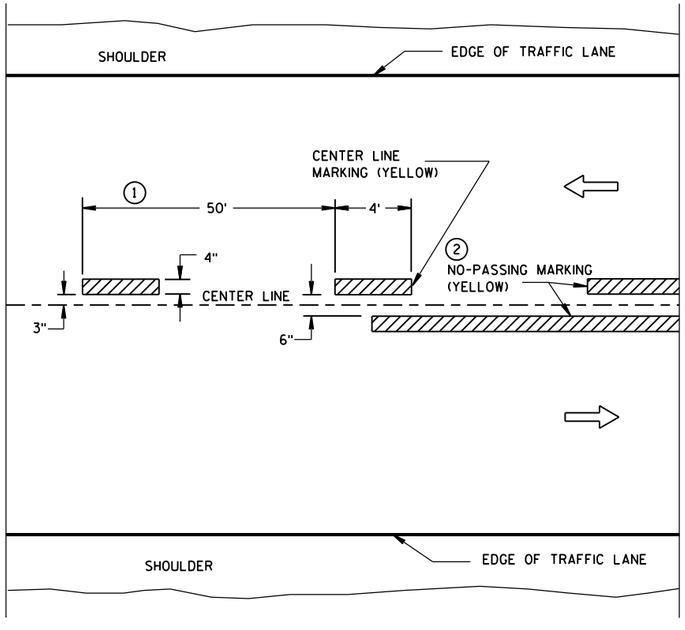


TWO WAY TRAFFIC

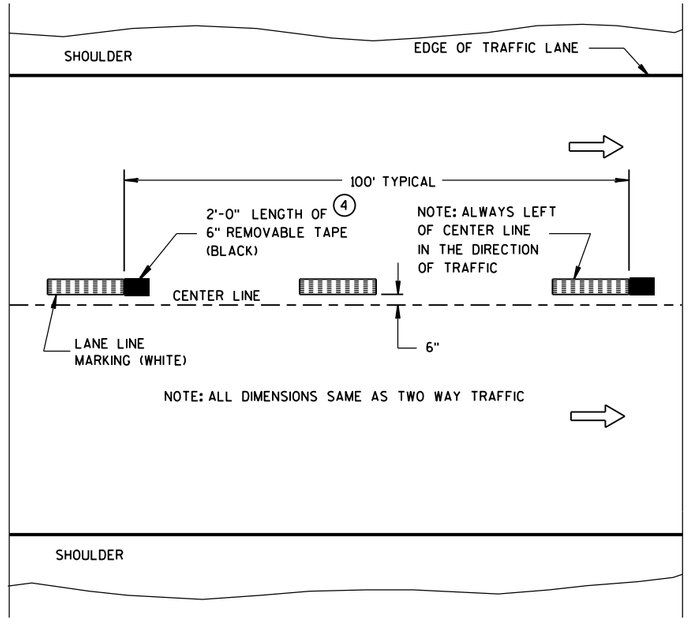


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

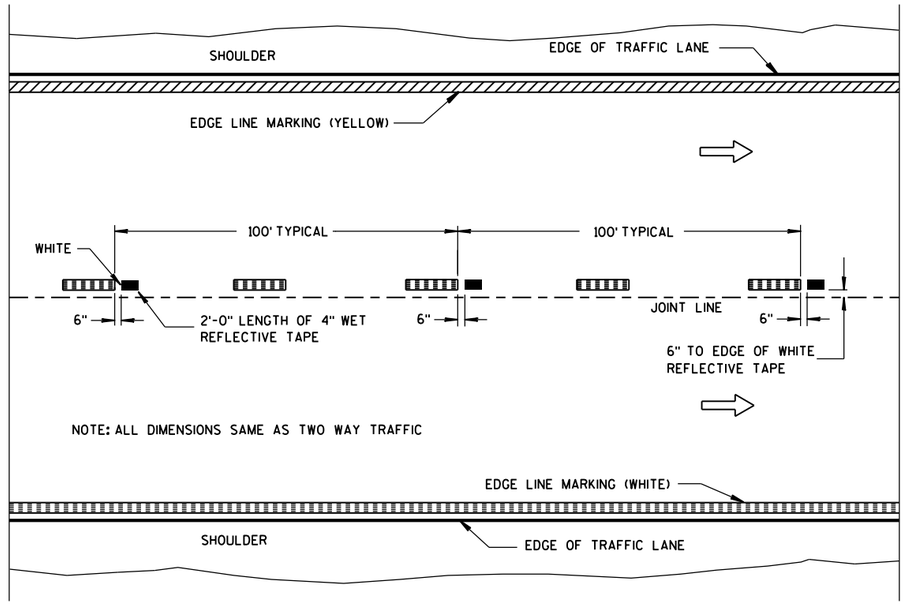
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

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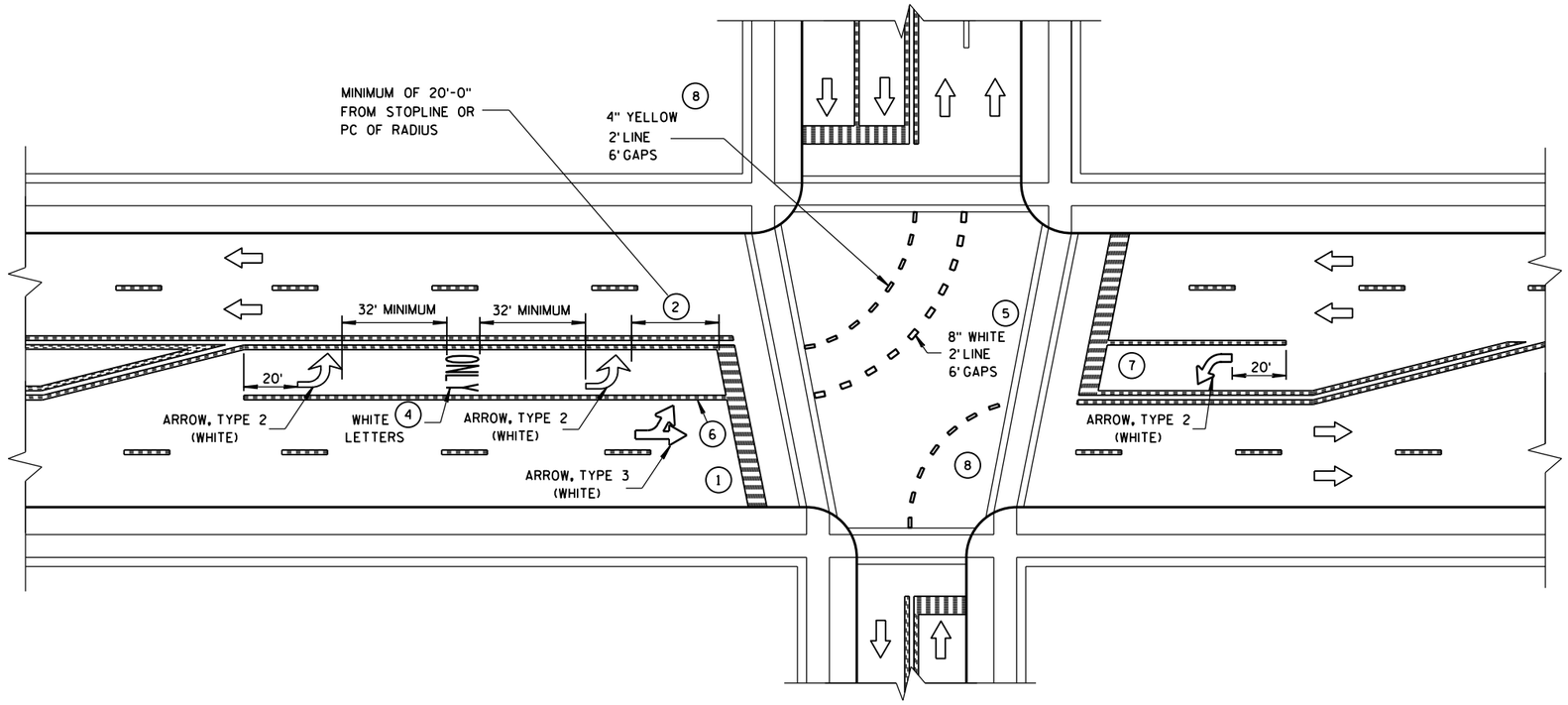
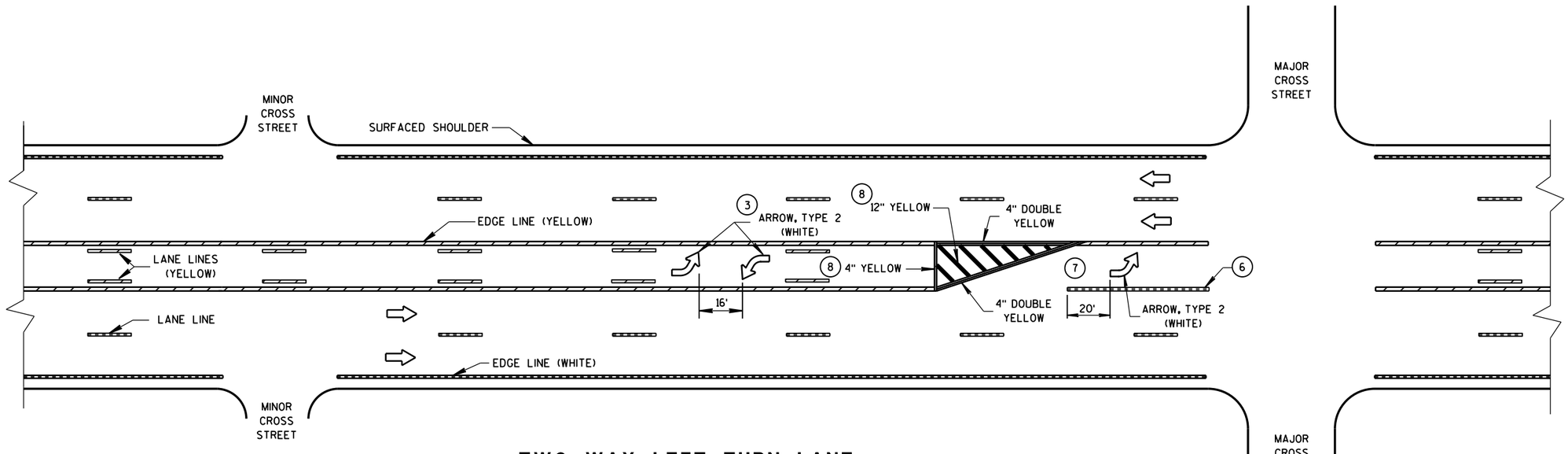
S.D.D. 15 C 8-16a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-16e

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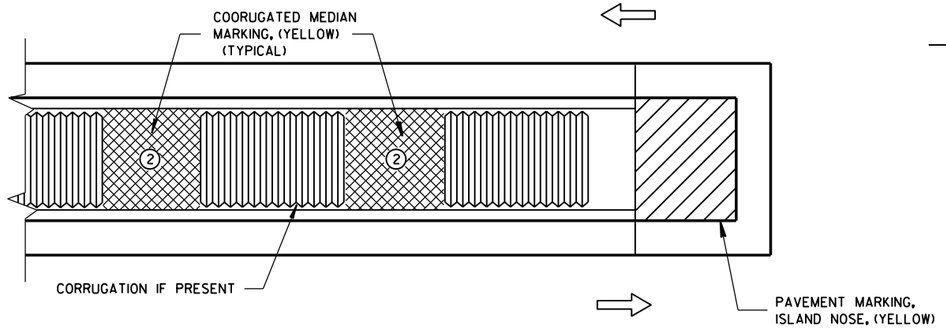
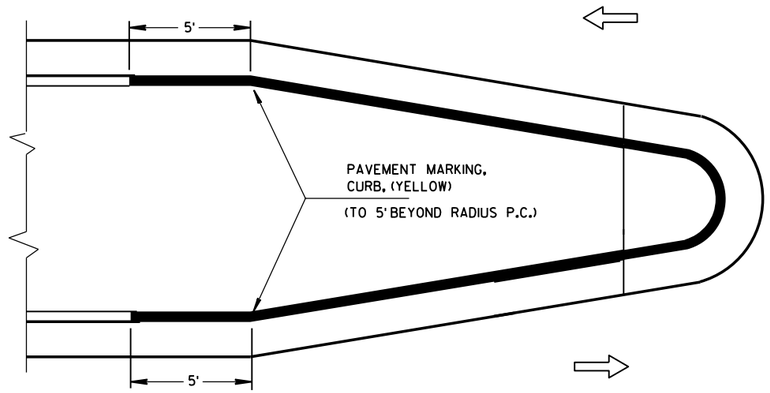
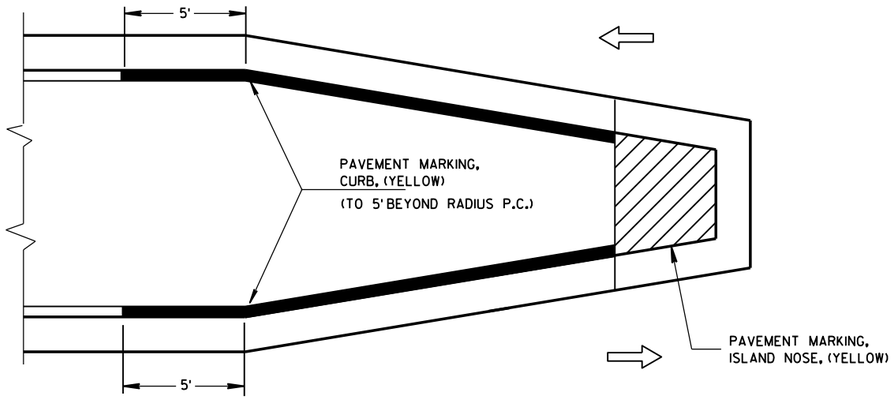
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

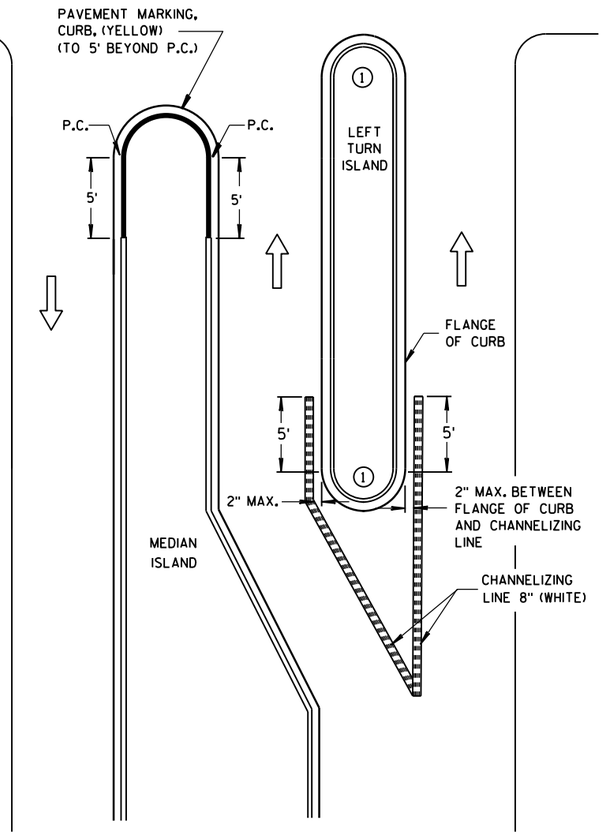


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

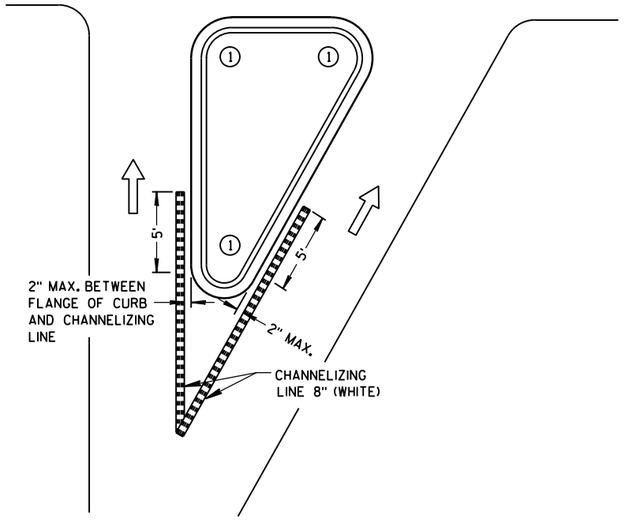


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

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

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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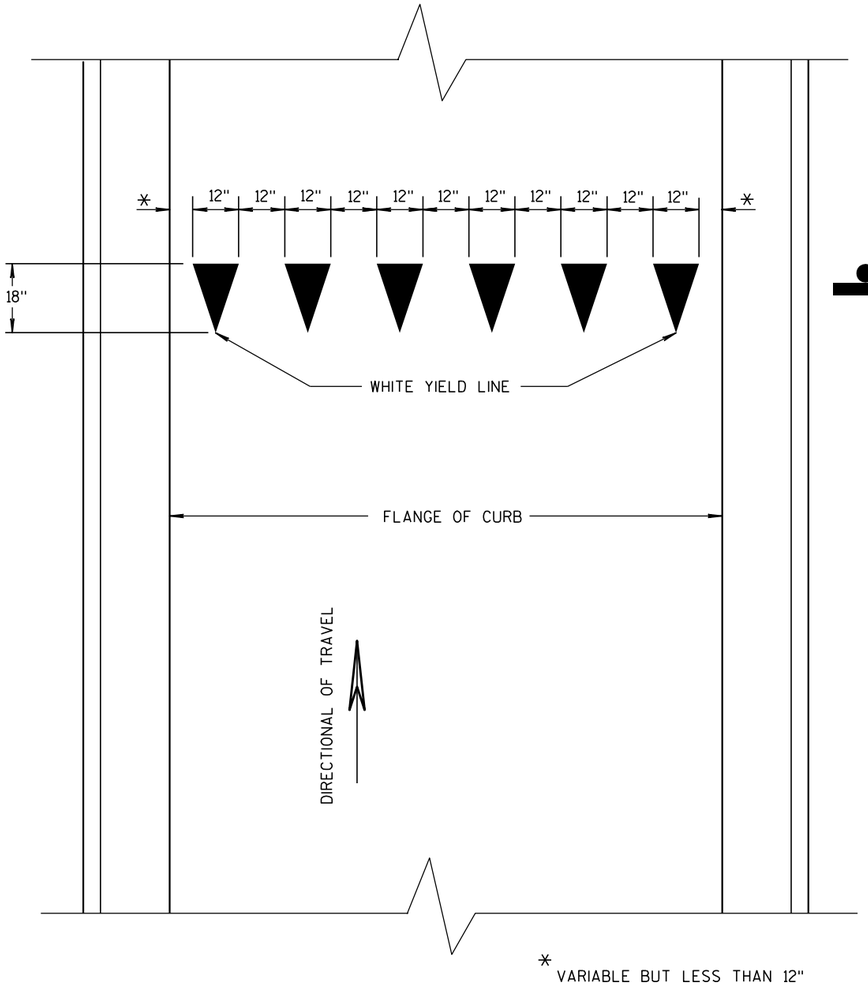
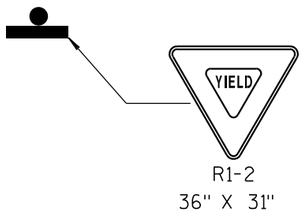
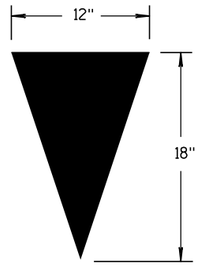
S.D.D. 15 C 8-16f



YIELD LINE



R1-2
36" X 31"



YIELD TRIANGLE

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S.D.D. 15 C 20-1

S.D.D. 15 C 20-1

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/28/05
DATE

/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER

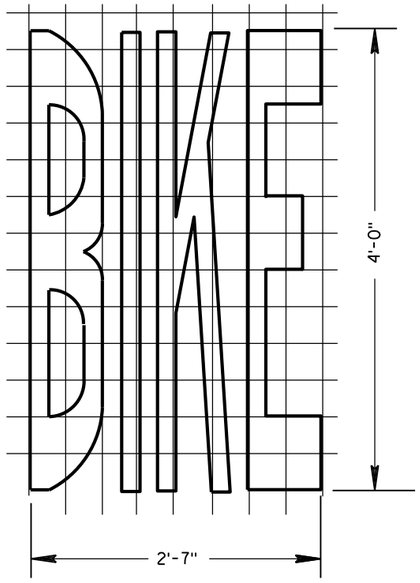
235

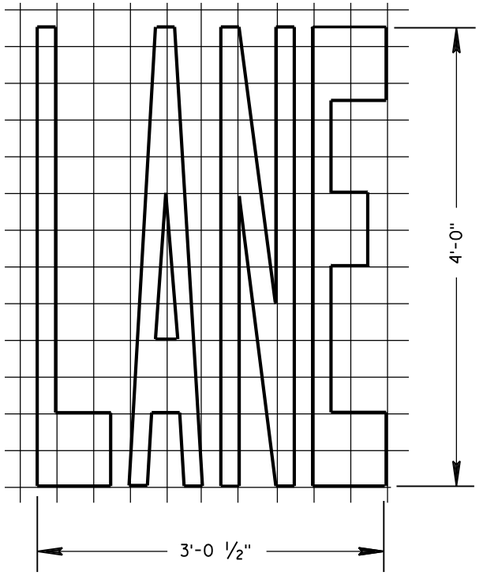
FHWA

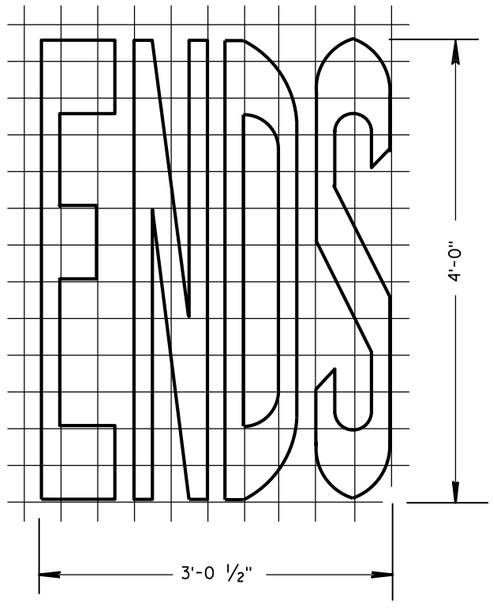
GENERAL NOTES

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.

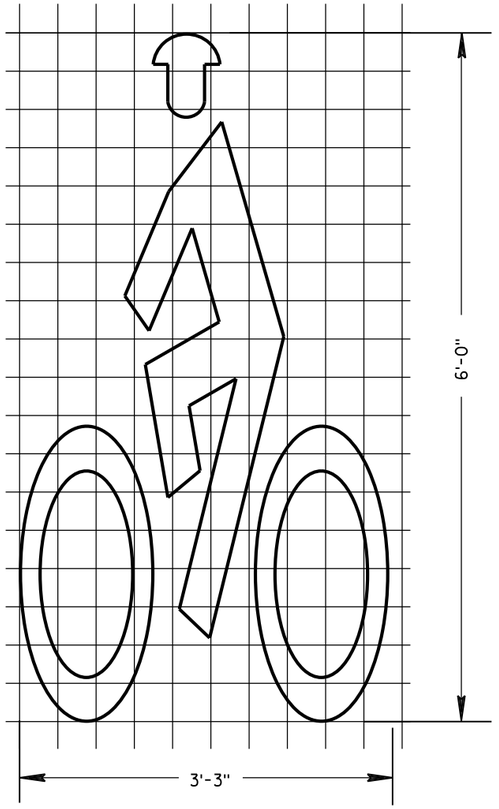
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



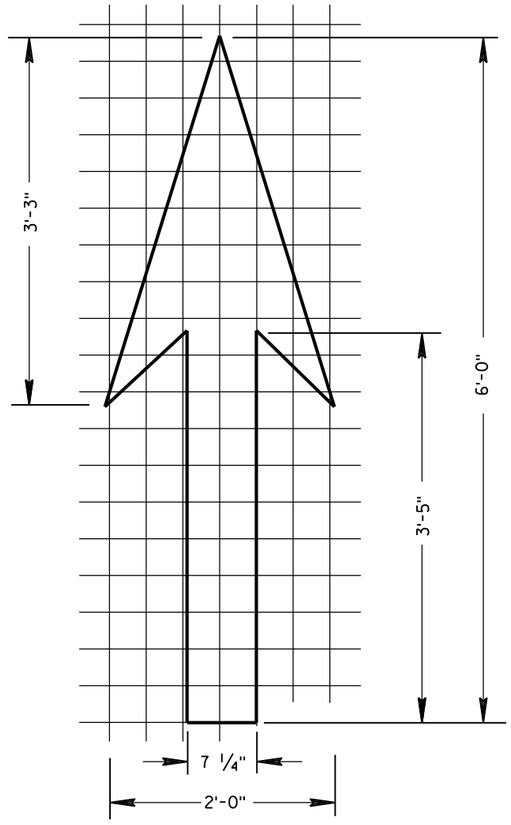




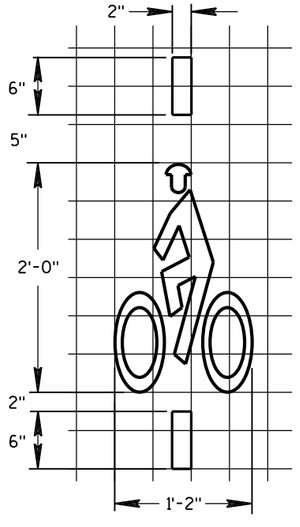
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3e

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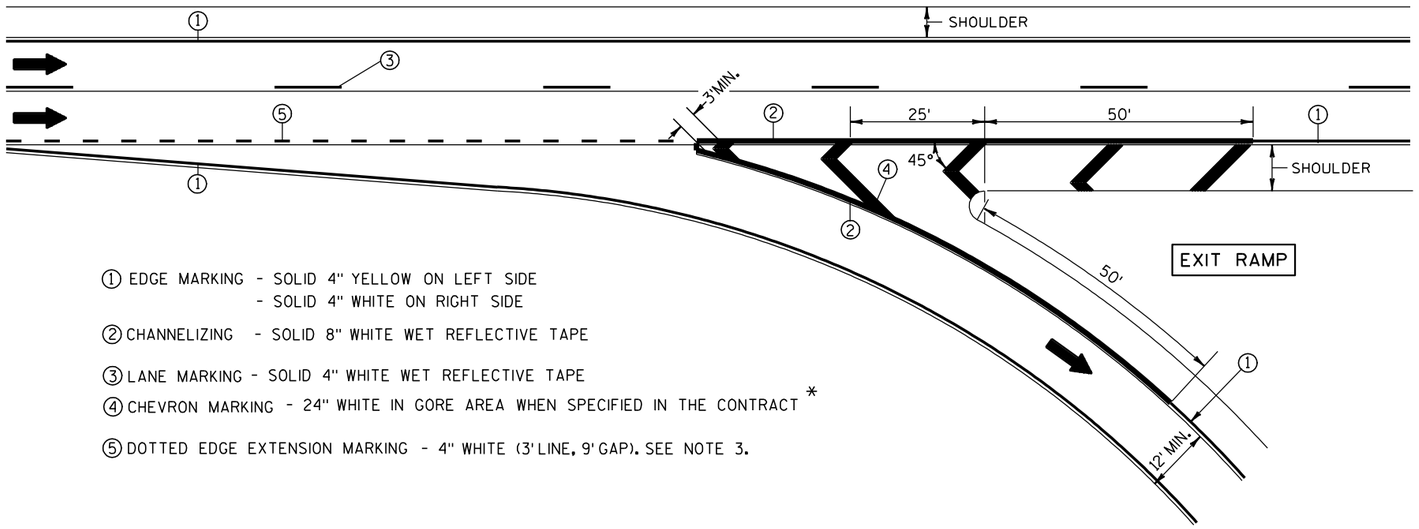
S.D.D. 15 C 29-3e



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

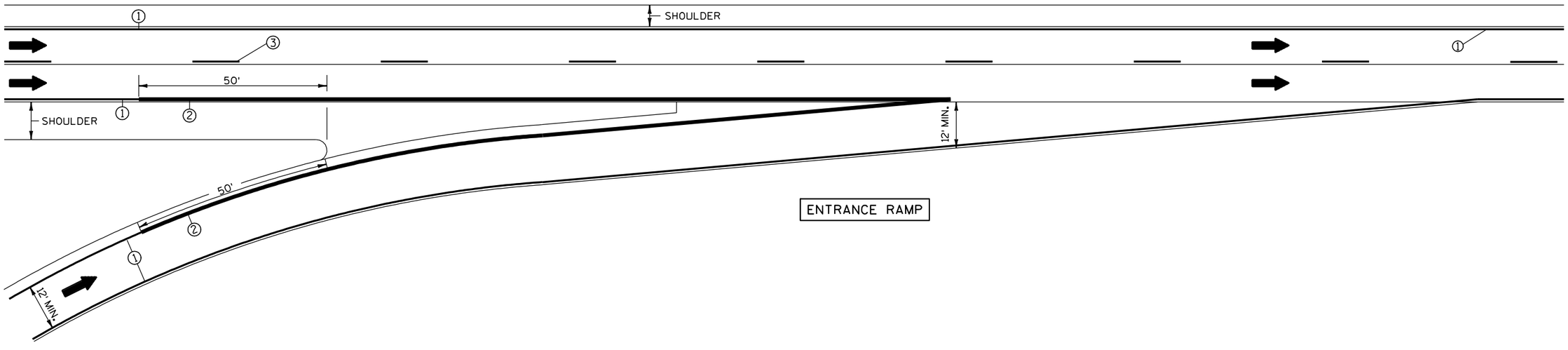
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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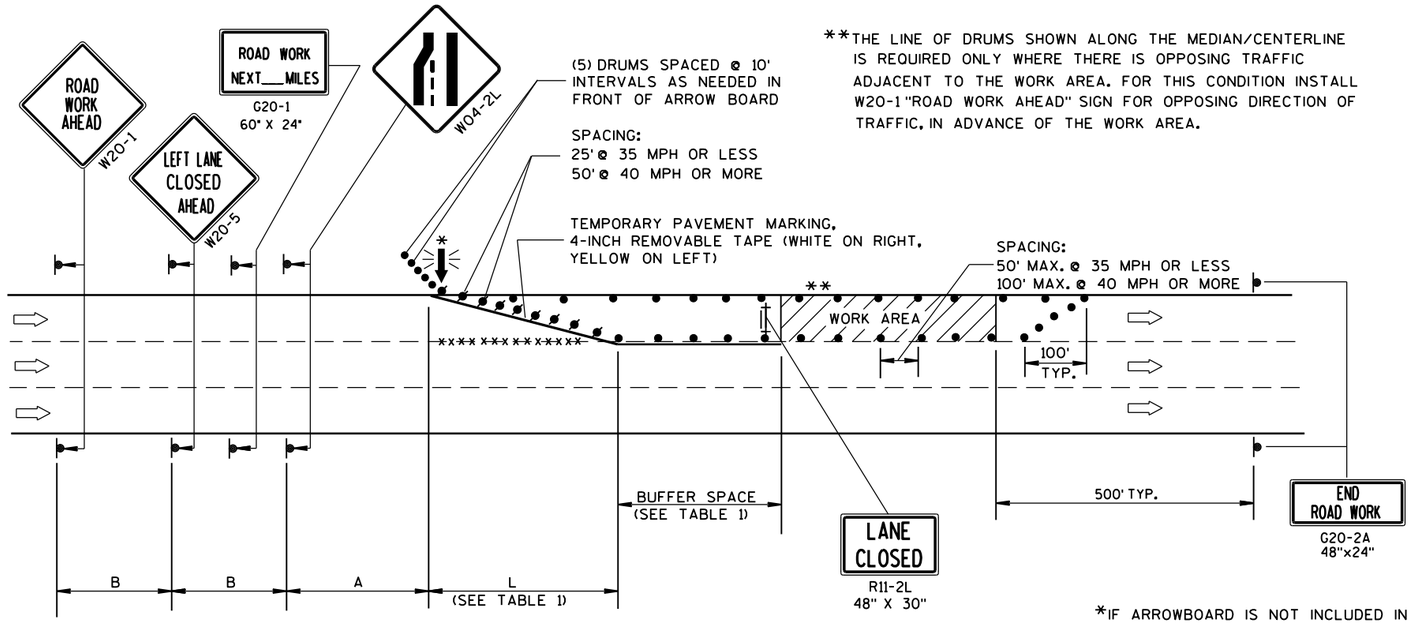
S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

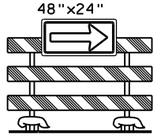


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 20-3

6

S.D.D. 15 D 20-3

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

DIRECTION OF TRAFFIC

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

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

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

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

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

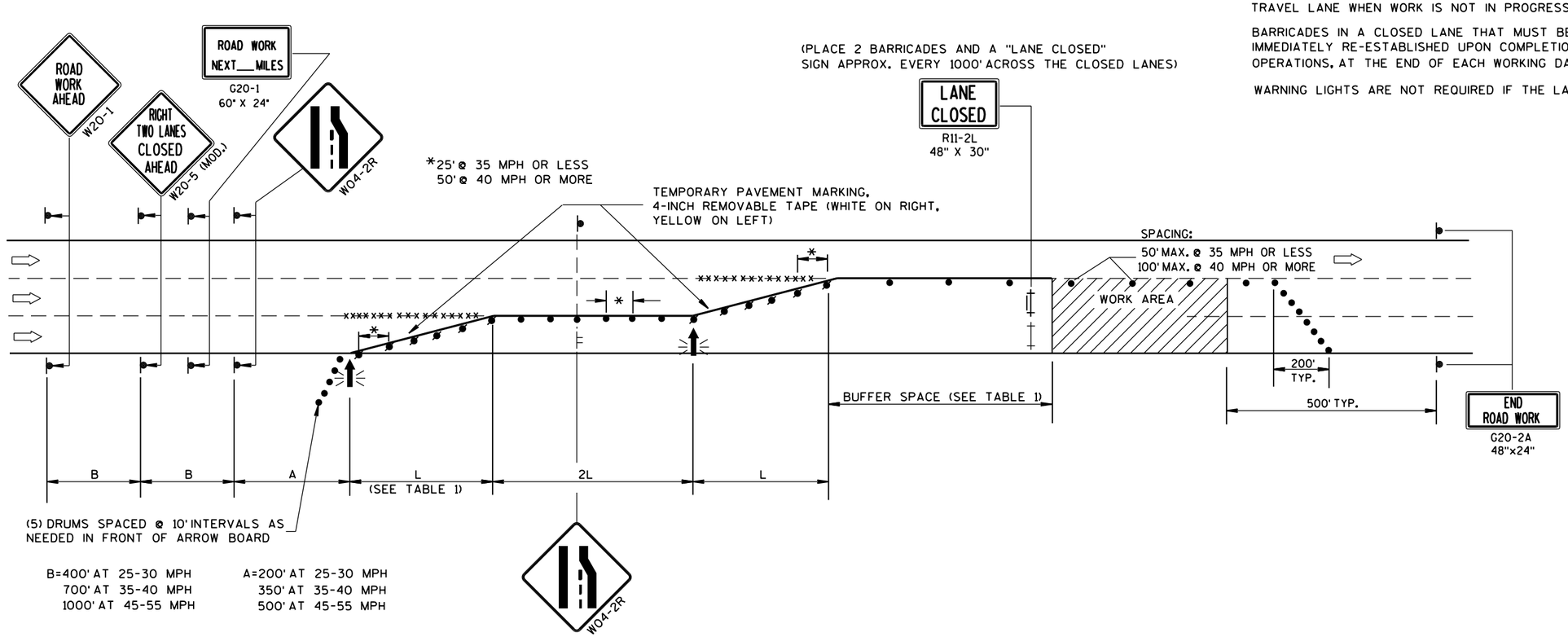
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

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

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

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



B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

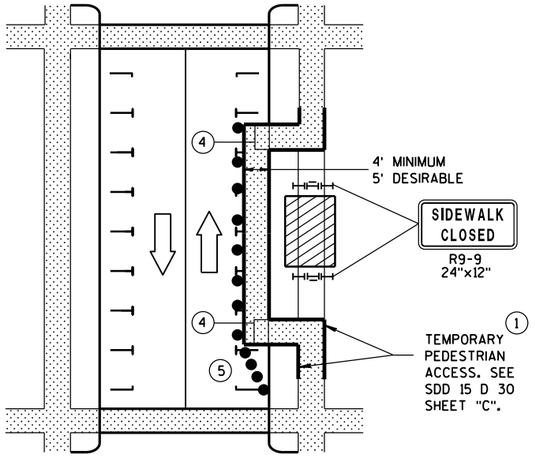
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

S.D.D. 15 D 22-2

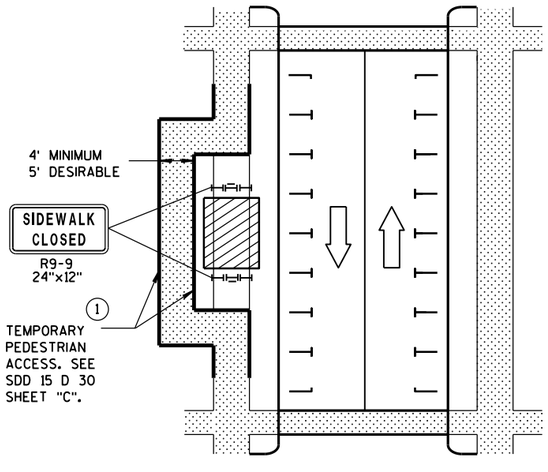
S.D.D. 15 D 22-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

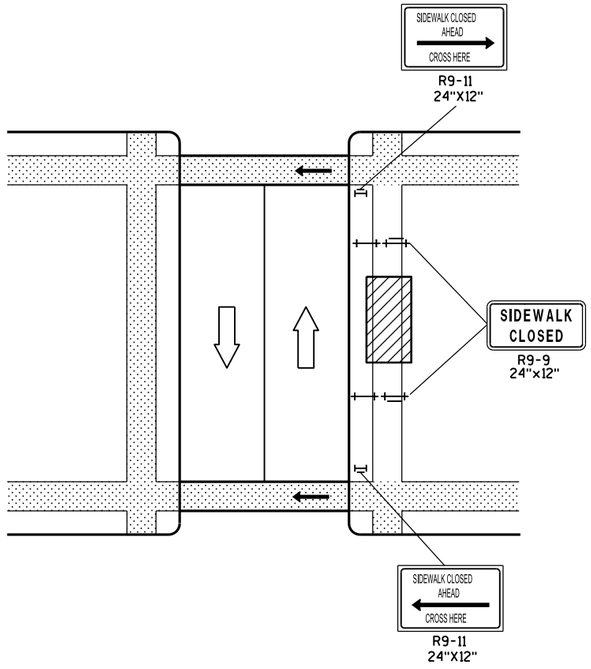


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

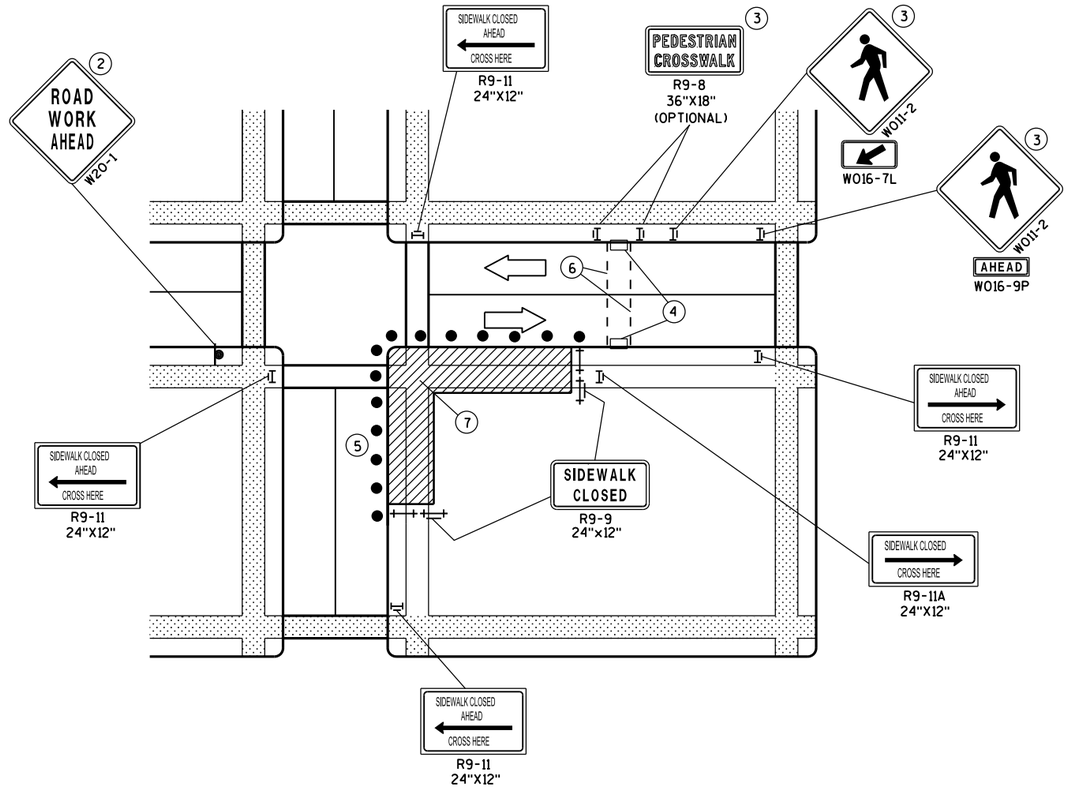
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

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

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

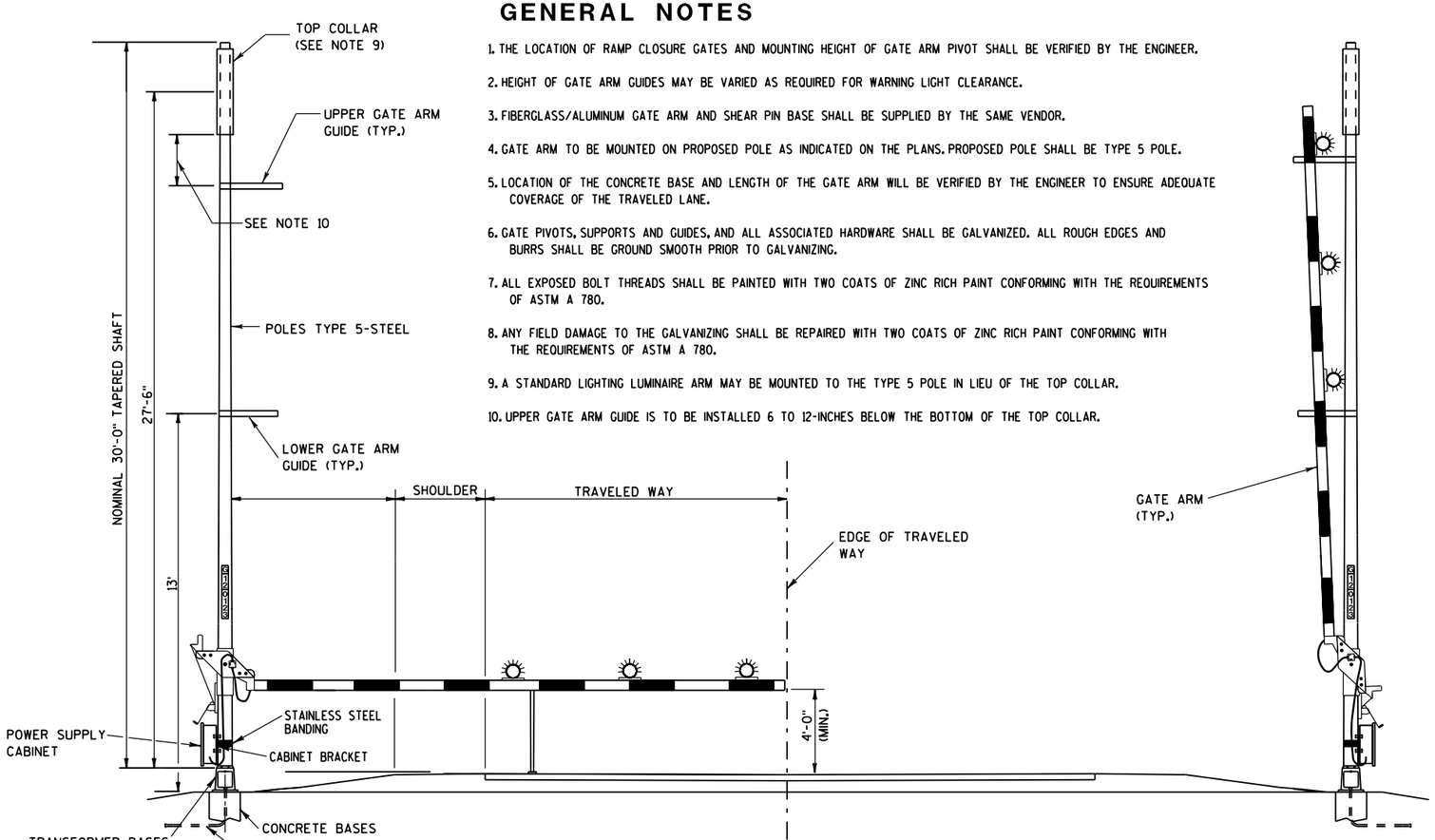
S.D.D. 15 D 30-2a

6

S.D.D. 15 D 30-2a

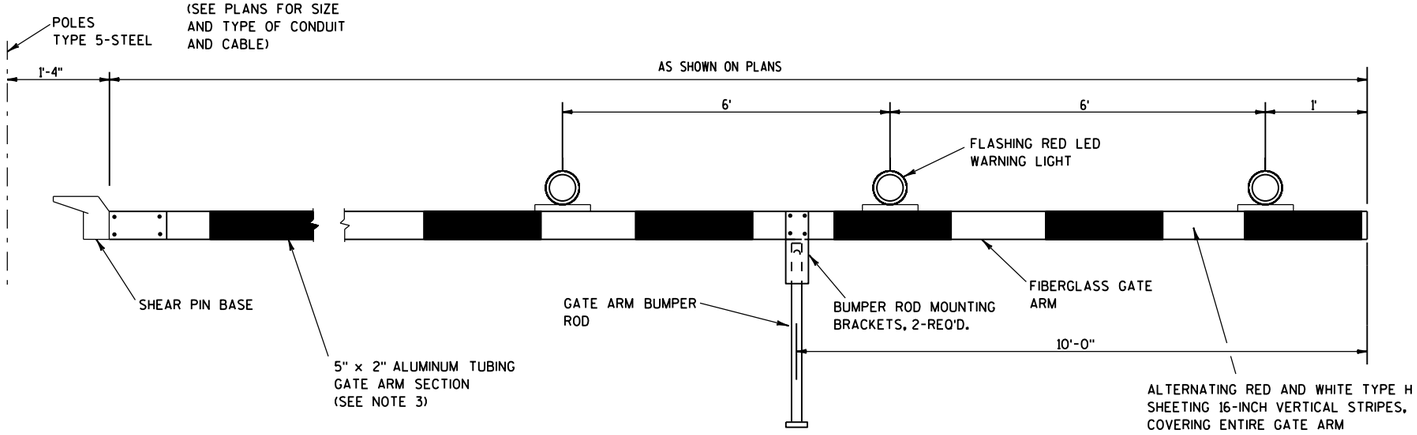
GENERAL NOTES

1. THE LOCATION OF RAMP CLOSURE GATES AND MOUNTING HEIGHT OF GATE ARM PIVOT SHALL BE VERIFIED BY THE ENGINEER.
2. HEIGHT OF GATE ARM GUIDES MAY BE VARIED AS REQUIRED FOR WARNING LIGHT CLEARANCE.
3. FIBERGLASS/ALUMINUM GATE ARM AND SHEAR PIN BASE SHALL BE SUPPLIED BY THE SAME VENDOR.
4. GATE ARM TO BE MOUNTED ON PROPOSED POLE AS INDICATED ON THE PLANS. PROPOSED POLE SHALL BE TYPE 5 POLE.
5. LOCATION OF THE CONCRETE BASE AND LENGTH OF THE GATE ARM WILL BE VERIFIED BY THE ENGINEER TO ENSURE ADEQUATE COVERAGE OF THE TRAVELED LANE.
6. GATE PIVOTS, SUPPORTS AND GUIDES, AND ALL ASSOCIATED HARDWARE SHALL BE GALVANIZED. ALL ROUGH EDGES AND BURRS SHALL BE GROUND SMOOTH PRIOR TO GALVANIZING.
7. ALL EXPOSED BOLT THREADS SHALL BE PAINTED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
8. ANY FIELD DAMAGE TO THE GALVANIZING SHALL BE REPAIRED WITH TWO COATS OF ZINC RICH PAINT CONFORMING WITH THE REQUIREMENTS OF ASTM A 780.
9. A STANDARD LIGHTING LUMINAIRE ARM MAY BE MOUNTED TO THE TYPE 5 POLE IN LIEU OF THE TOP COLLAR.
10. UPPER GATE ARM GUIDE IS TO BE INSTALLED 6 TO 12-INCHES BELOW THE BOTTOM OF THE TOP COLLAR.

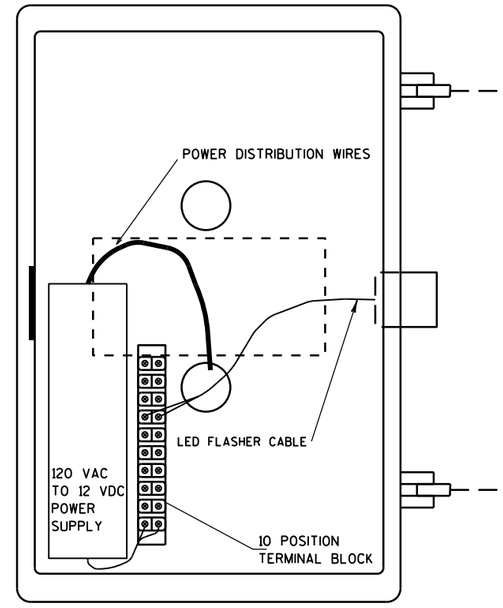


TYPICAL LOWERED POSITION

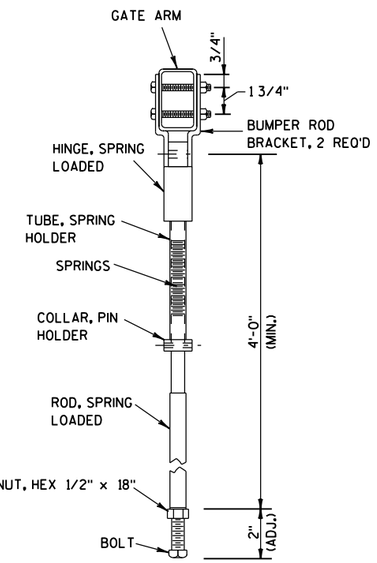
TYPICAL RAISED POSITION



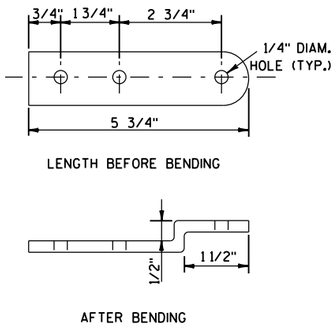
GATE DETAIL
(HARDWIRE POWER OPTION)



POWER SUPPLY CABINET



GATE ARM BUMPER ROD DETAIL

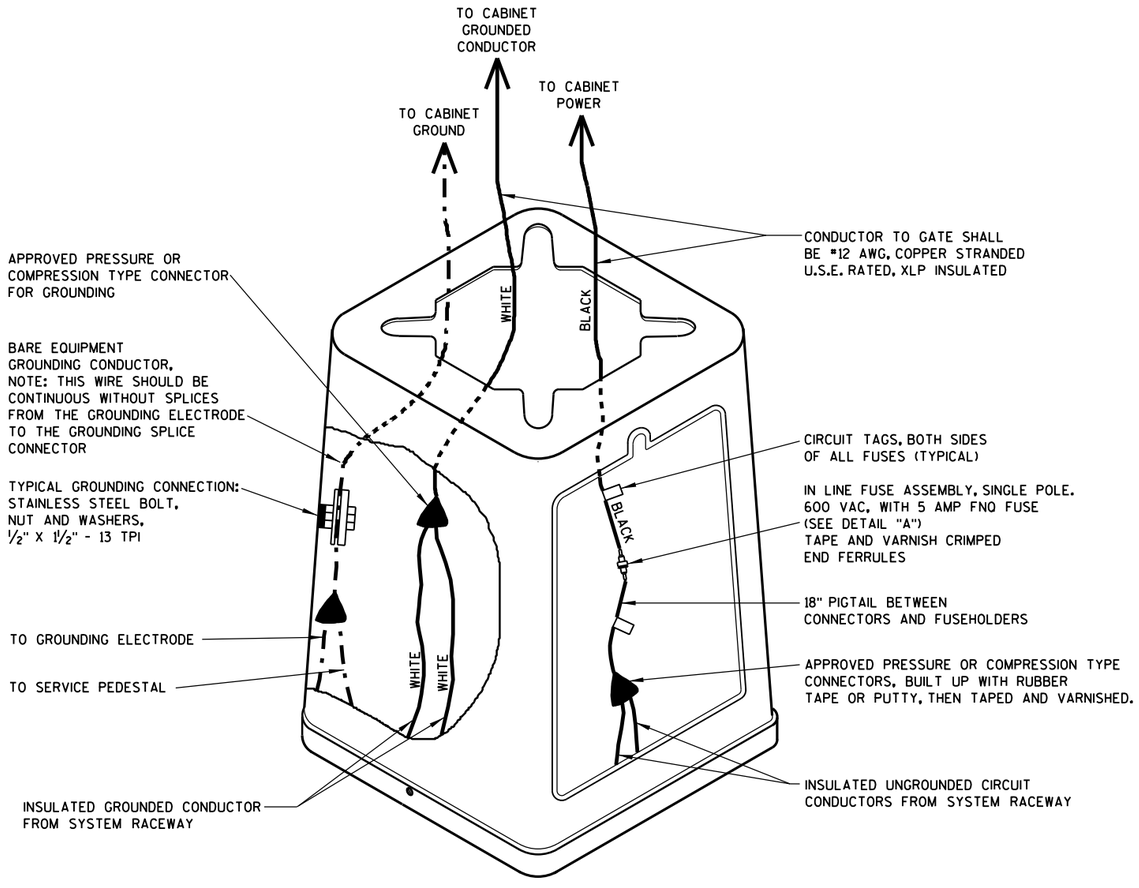


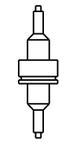
BUMPER ROD MOUNTING
BRACKET DETAIL

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 15 D 35-2a





DETAIL "A"
SINGLE POLE

6

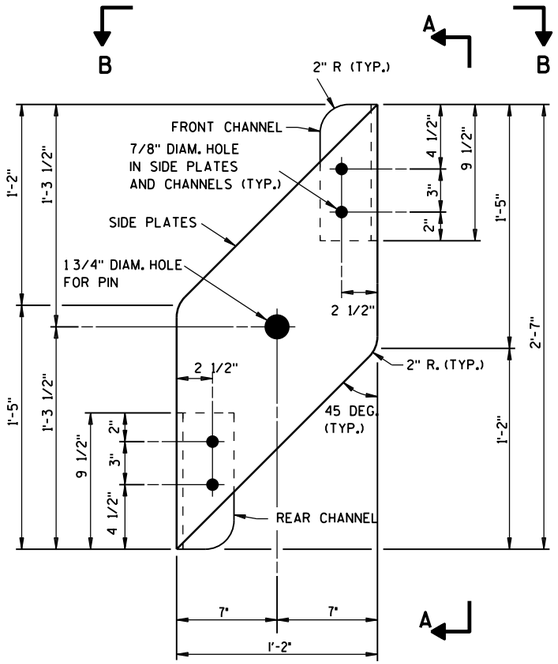
6

S.D.D. 15 D 35-2b

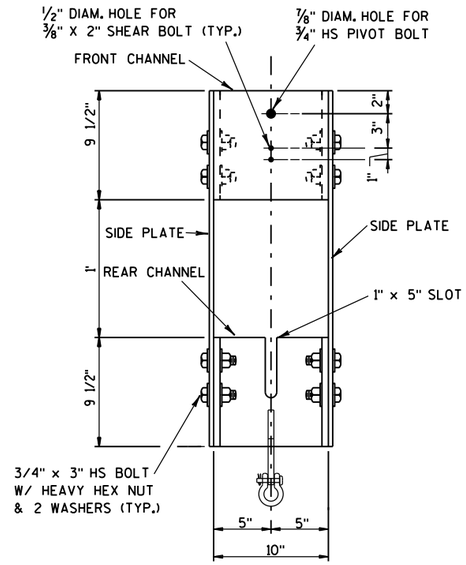
S.D.D. 15 D 35-2b

RAMP GATE
HARD WIRED

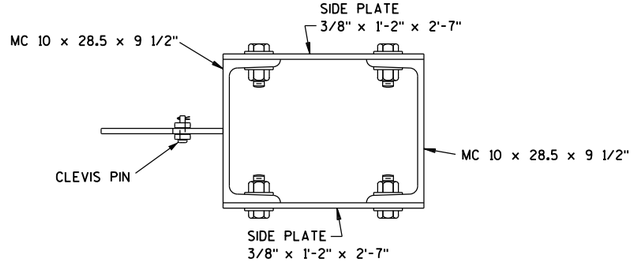
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



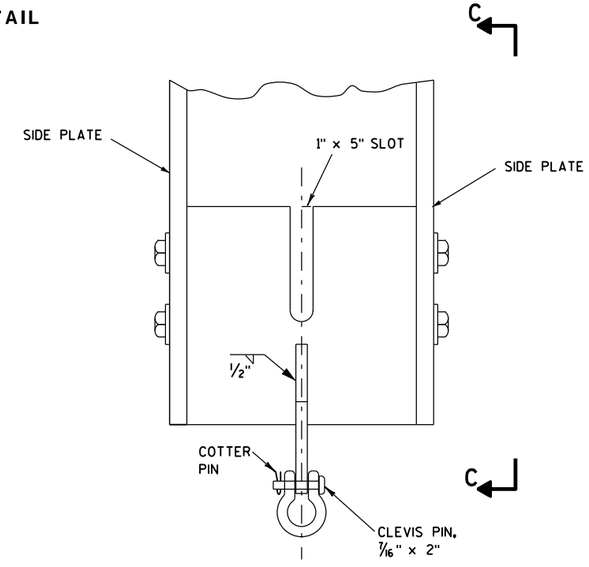
SIDE PLATE DETAIL



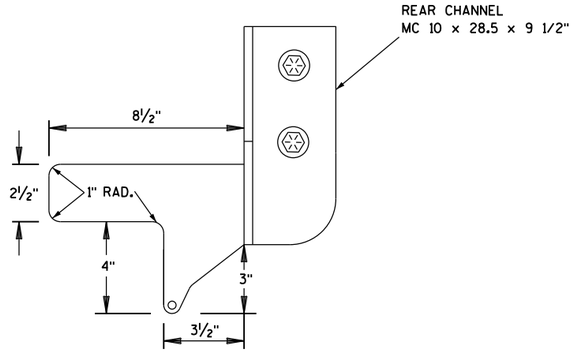
SECTION A-A



SECTION B-B



YOKE ASSEMBLY DETAIL



SECTION C-C

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 35-2c

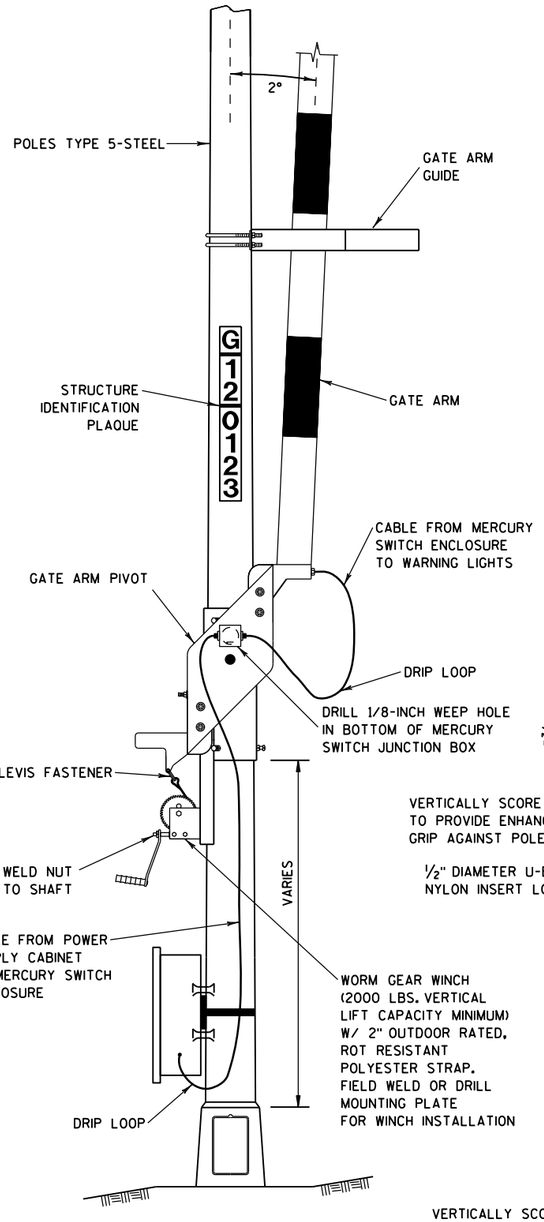
GENERAL NOTES

1. WHEN THE GATE IS FULLY RAISED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE OUTSIDE OF THE REAR CHANNEL.

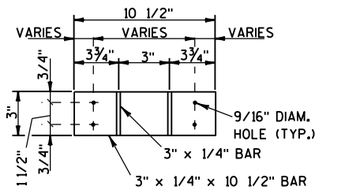
2. WHEN THE GATE IS FULLY LOWERED, THE NUT AND WASHER SHALL BE PLACED SNUGLY AGAINST THE INSIDE OF THE REAR CHANNEL.

3. ANTI-SEIZE LUBRICATING MATERIAL SHALL BE USED ON ALL BOLT THREADS BEFORE INSTALLATION.

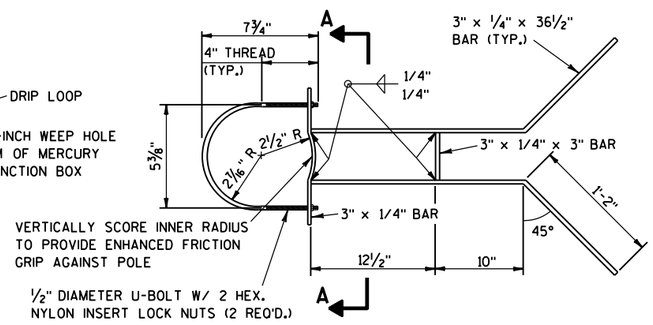
4. ALL BOLTS SHALL BE GALVANIZED AND CONFORM TO ASTM A307, GRADE A, UNLESS DESIGNATED AS HS (HIGH STRENGTH), WHICH SHALL CONFORM TO ASTM A325. BOLTS OF ½" NOMINAL DIAMTER OR LESS MAY BE STAINLESS STEEL.



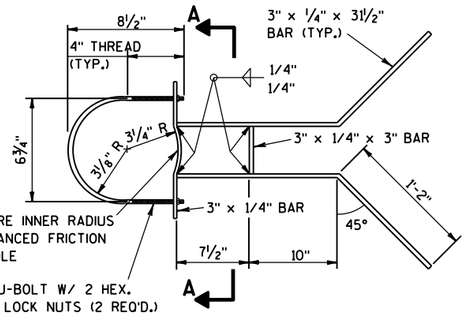
GATE PIVOT ASSEMBLY



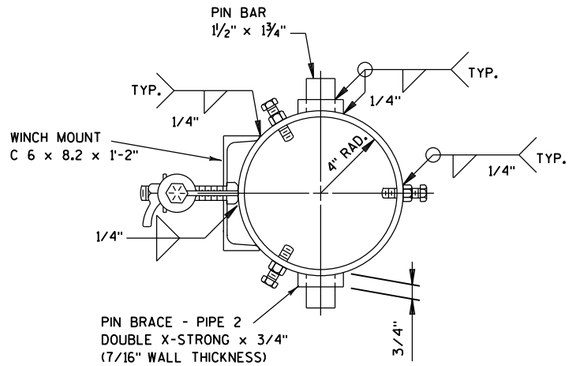
SECTION A-A
U-BOLTS NOT SHOWN



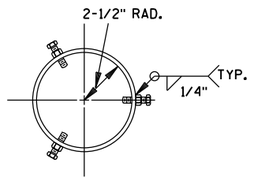
UPPER GATE ARM GUIDE DETAIL



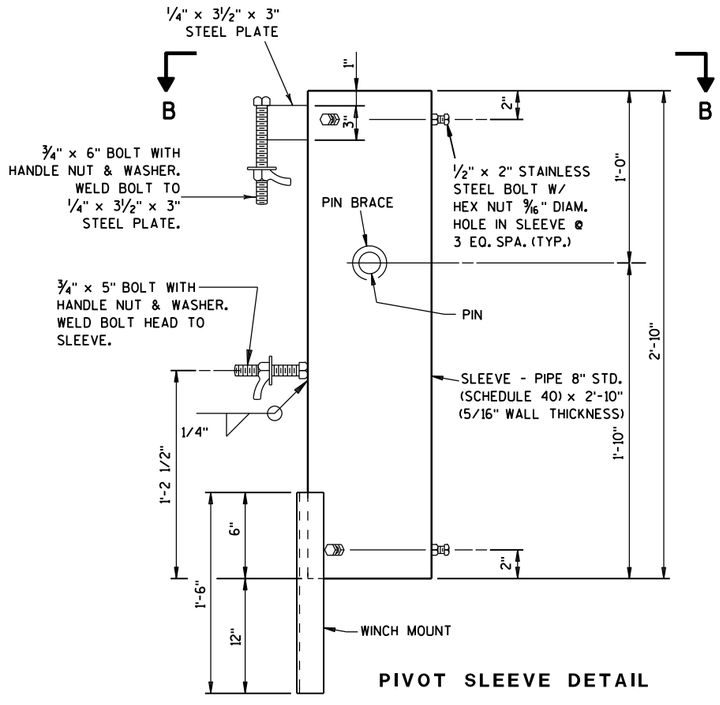
LOWER GATE ARM GUIDE DETAIL



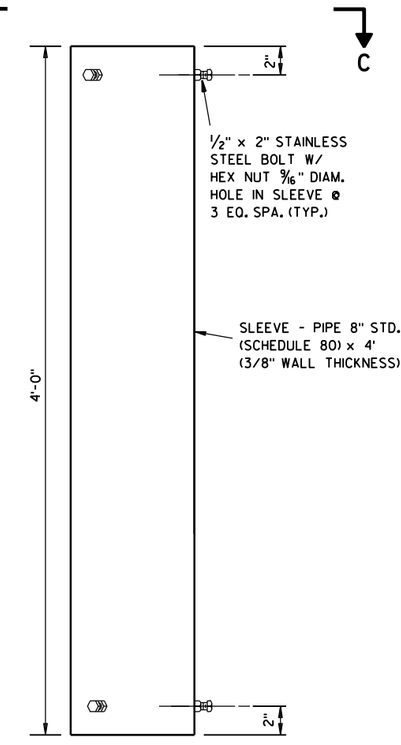
SECTION B-B



SECTION C-C



PIVOT SLEEVE DETAIL



TOP COLLAR

6

6

S.D.D. 15 D 35-2d

S.D.D. 15 D 35-2d

RAMP GATE
HARD WIRED

STATE OF WISCONSIN
DEPARTMENT OF TRANSTORTATION

APPROVED
11/2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
244
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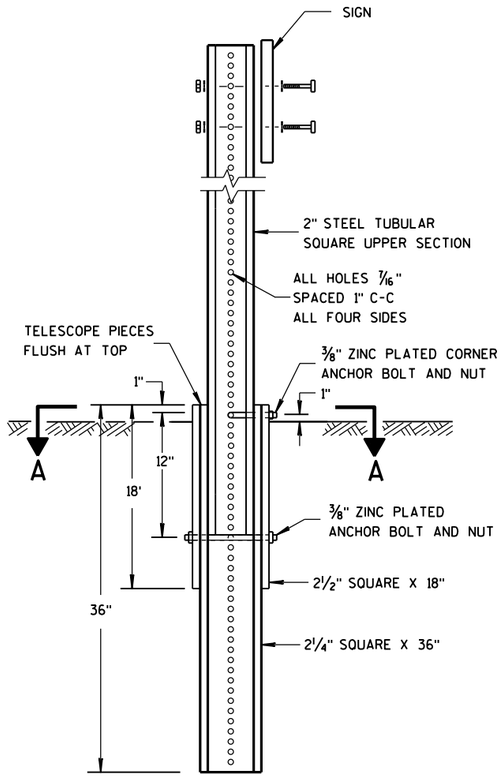
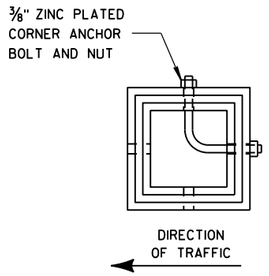
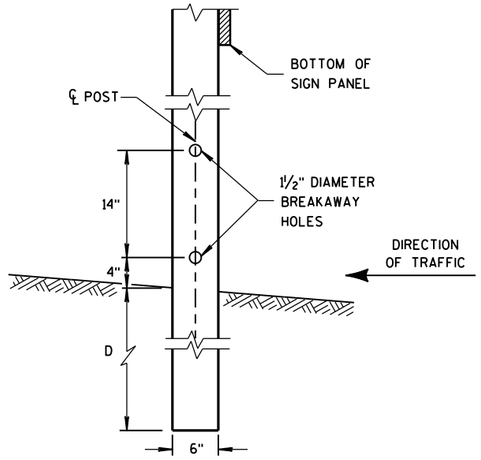
FHWA



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



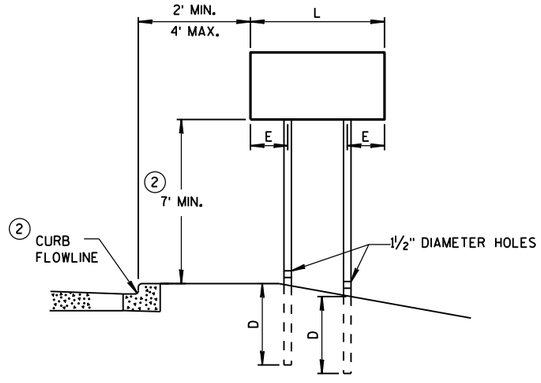
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

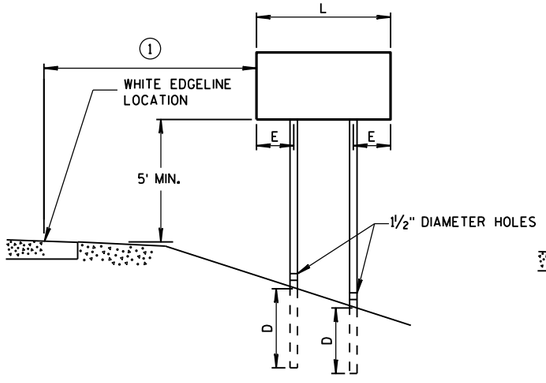
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

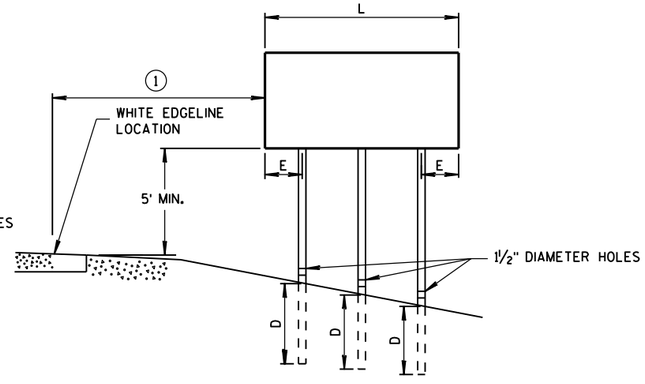
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

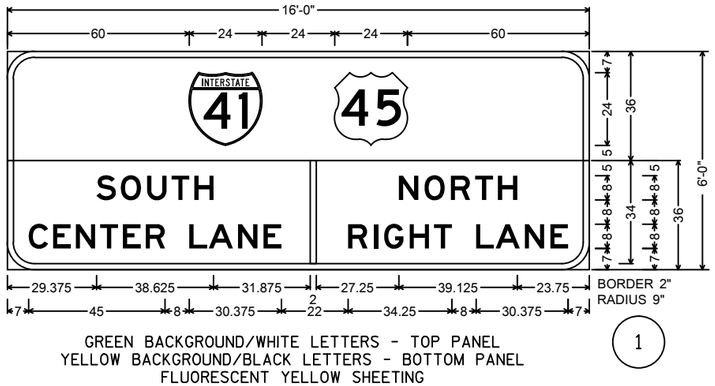
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

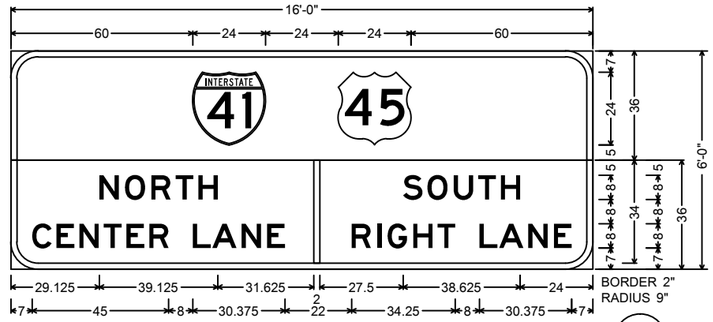
6

S.D.D. 15 D 38-1a



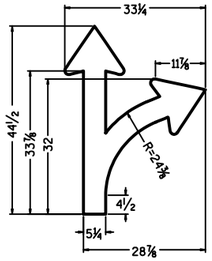
1

GREEN BACKGROUND/WHITE LETTERS - TOP PANEL
YELLOW BACKGROUND/BLACK LETTERS - BOTTOM PANEL
FLUORESCENT YELLOW SHEETING



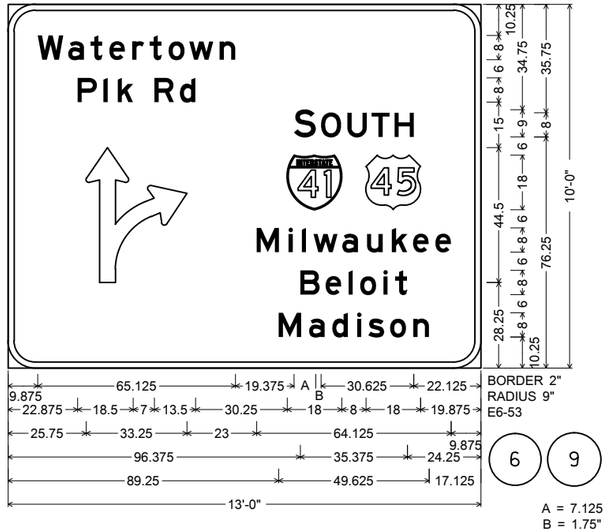
18

GREEN BACKGROUND/WHITE LETTERS - TOP PANEL
YELLOW BACKGROUND/BLACK LETTERS - BOTTOM PANEL
FLUORESCENT YELLOW SHEETING



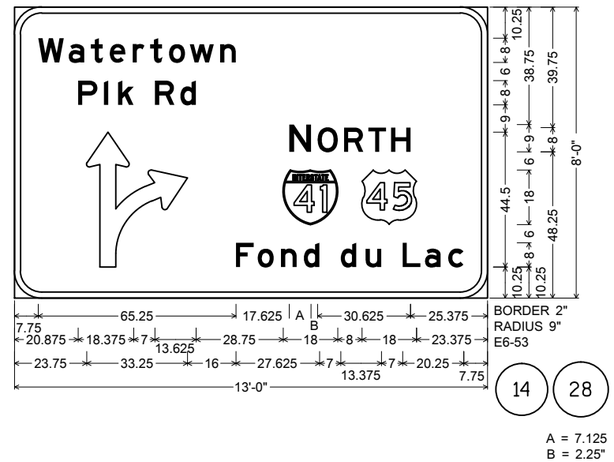
GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE "TYPE SH REFLECTIVE SHEETING".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E".
6. TYPE I SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E MODIFIED". ALL LOWER CASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E MODIFIED". ALL CAP WORDS ARE "SERIES E".
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.



6 9

A = 7.125
B = 1.75"

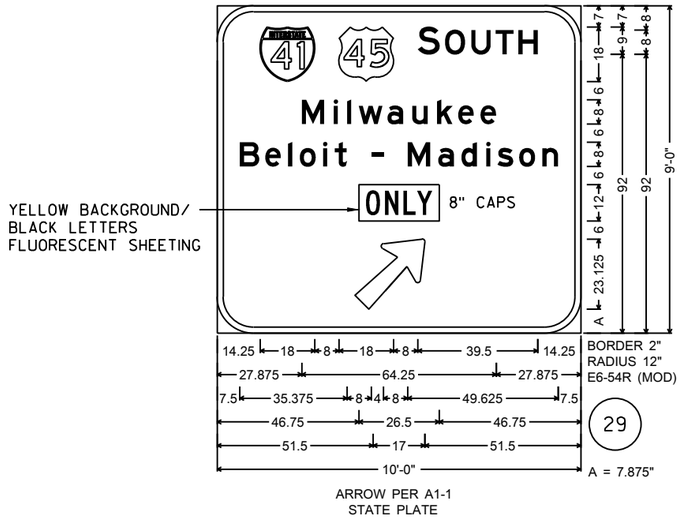


14 28

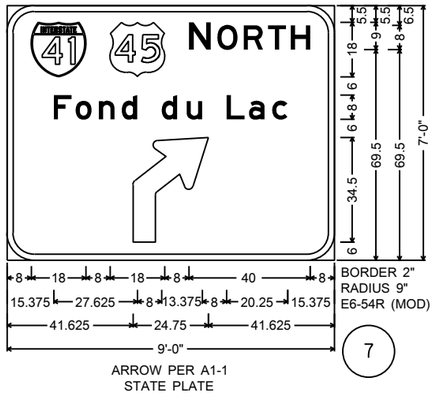
A = 7.125
B = 2.25"

SHEET 1 OF 3

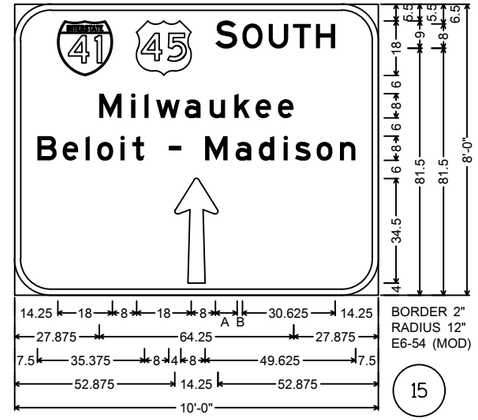
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I SIGNS	SHEET 246	E



ARROW PER A1-1
STATE PLATE



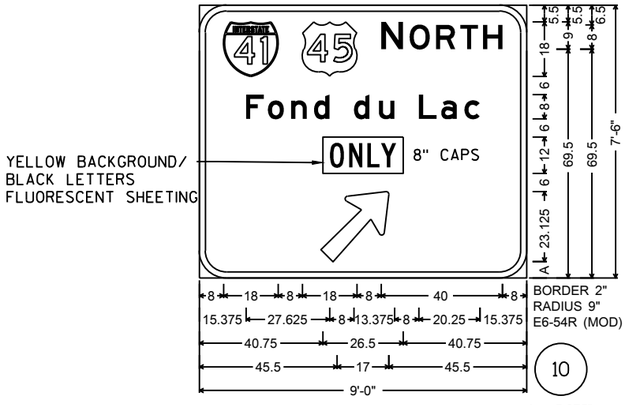
ARROW PER A1-1
STATE PLATE



TYPE A ARROW,
PER A1-1
STATE PLATE

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE "TYPE SH REFLECTIVE SHEETING".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E".
6. TYPE I SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E MODIFIED". ALL LOWER CASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E MODIFIED". ALL CAP WORDS ARE "SERIES E".
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.

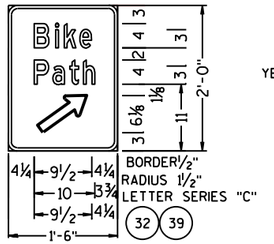


ARROW PER A1-1
STATE PLATE

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I SIGNS	SHEET 247	E

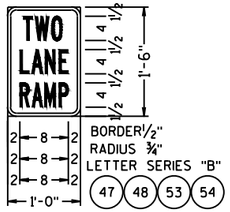
FILE NAME : J:\PROJECTS\D2_10603445\87\SIGN\070101_MS.DWG
LAYOUT NAME - 070101_MS (2)
PLOT DATE : 2/18/2016 8:12 AM PLOT BY : DODGE, BRIAN M PLOT NAME :
WISDOT/CADDS SHEET

GREEN BACKGROUND
WHITE COPY



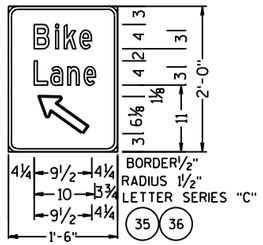
TYPE II SIGN

YELLOW BACKGROUND
BLACK COPY
(FY)

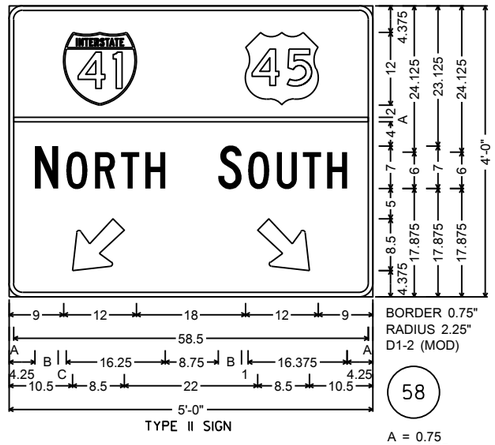


TYPE II SIGN

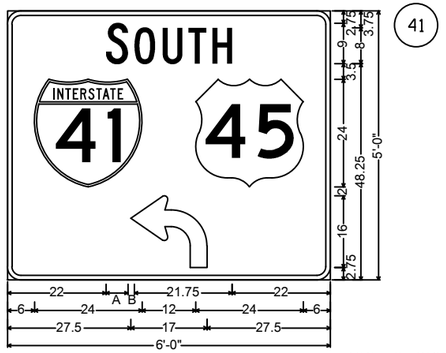
GREEN BACKGROUND
WHITE COPY



TYPE II SIGN



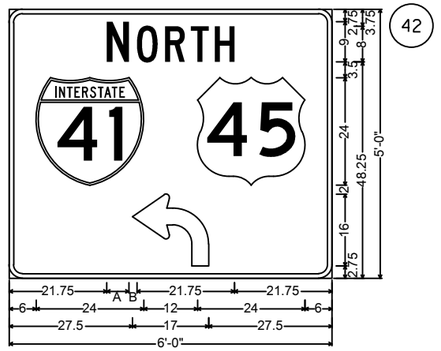
TYPE II SIGN



EXISTING
S-40-638

TYPE II SIGN
A = 4.875"
B = 1.375"

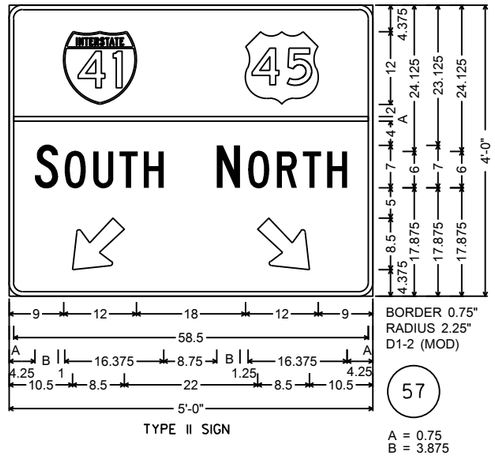
NOTE:
ARROW SIMILAR TO
R3-50 STATE PLATE
ARROW



EXISTING
S-40-638

TYPE II SIGN
A = 4.875"
B = 1.875"

NOTE:
ARROW SIMILAR TO
R3-50 STATE PLATE
ARROW



TYPE II SIGN

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
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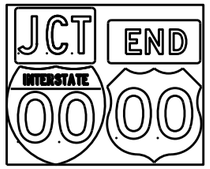
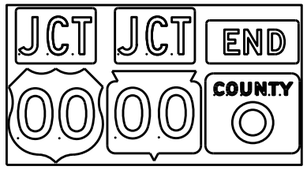
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.

TYPICAL ASSEMBLIES

J1-1

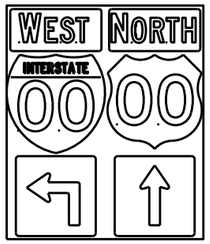


J1-2

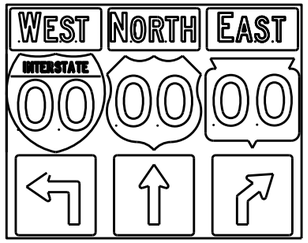


J1-3

J2-1



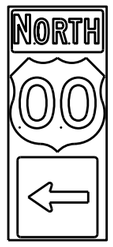
J2-2



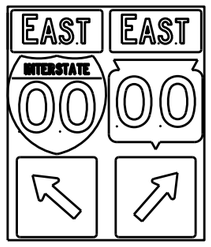
J2-3

JV

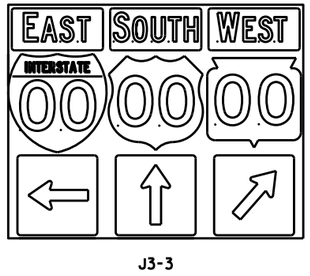
(Typical Vertical J-Assembly
See Note 10 and 11)



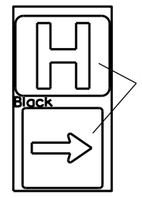
J3-1



J3-2

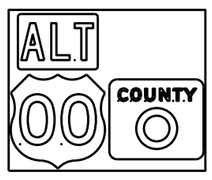


J3-3

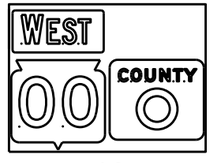


JH-1

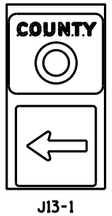
J4-1



J4-2



J4-2



J13-1

J12-1

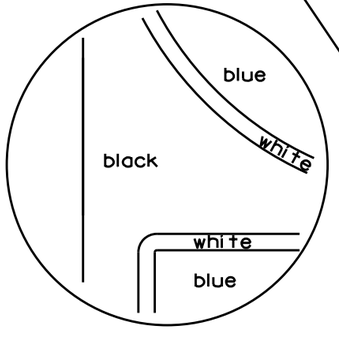
J32-1

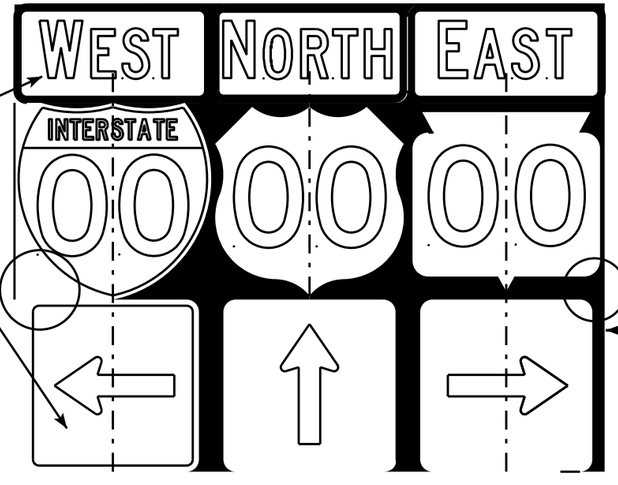
J33-1

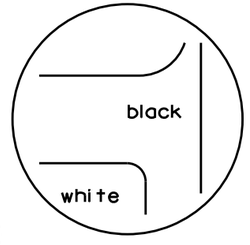
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

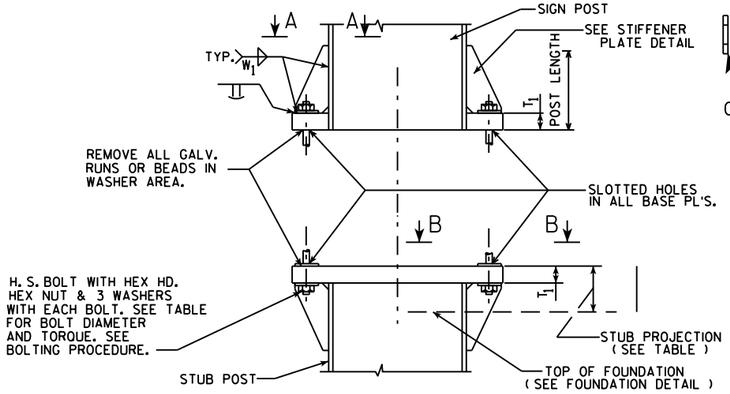
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

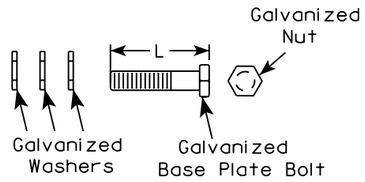
DATE 2/06/14 PL... A2-1S.8

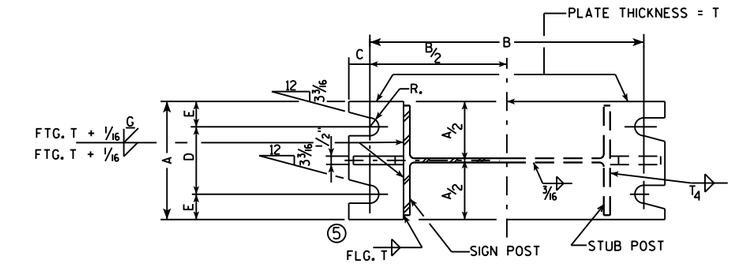
PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

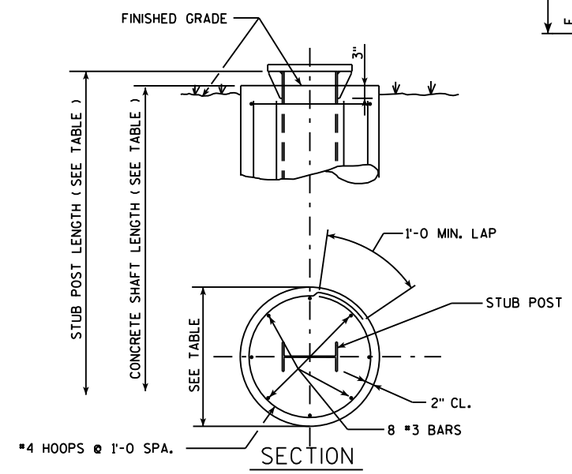


SIGN POST AND STUB POST ELEVATION

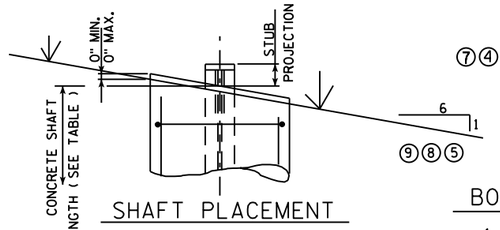




SECTION A-A SECTION B-B



SECTION



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

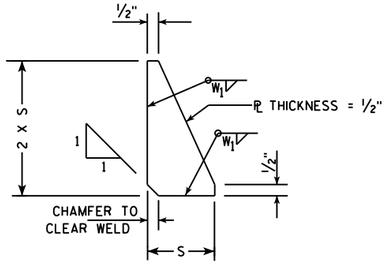
GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & 1/2 WIND[4]	140

[4] 25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1 1/2 T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

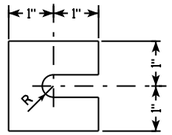
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123. (9)
THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
FURNISH STEEL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 635 OF THE STANDARD SPECIFICATIONS.



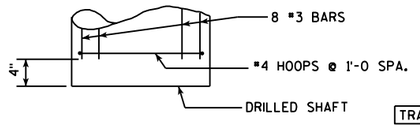
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



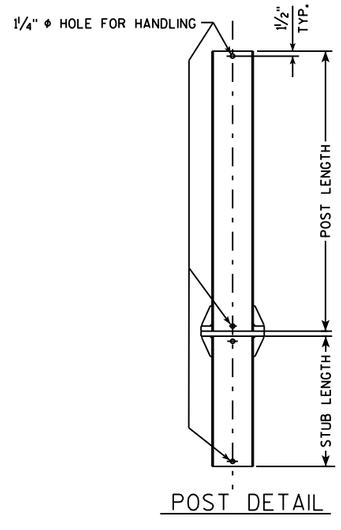
FOUNDATION DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

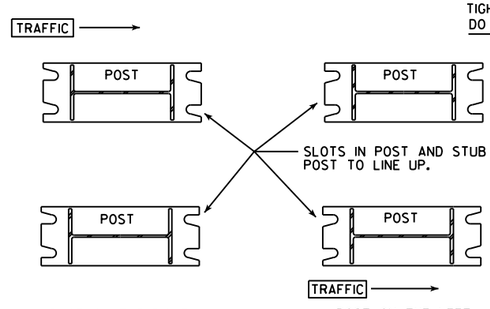
(7)

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3

(7)



POST DETAIL



POST SLOT ORIENTATION (7)

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

BASE CONNECTION DATA TABLE / FOUNDATION DATA

L	X	TYPE	DIMENSION / POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	K	
3 3/4	(4)	A	W10"X12.0 #/FT.	3/4" Φ @ 75#-FT.	5 1/4"	1'-0 3/8"	7/8"	3 1/2"	7/8"	1"	3/16"	5/16"	13/32"	2 1/8"	3'-6	3"	2'-0 Φ	5'-0	76.0#	(4)
4 3/4	(4)	B	W12"X16.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4"	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	13/32"	3"	5'-6	3"	2'-0 Φ	7'-0	146.5#	(4)
5		C	W12"X19.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4"	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	13/32"	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#	
5		D	W12"X22.0 #/FT.	7/8" Φ @ 85#-FT.	5 1/2"	1'-4 1/4"	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	13/32"	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#	
5	(3)	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4 1/4"	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0#	(3)

(2)

(1) (6) (1)

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/15 PLATE NO. A3-1.16

(10)	1-21-14	LUBRICATION OF BASE BOLTS
(9)	4-26-11	REMOVE NON-GALVANIZED
(8)	10-30-96	NOT GALVANIZED/GALVANIZED
(7)	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
(6)	8-24-87	BASE CONN. WELD
(5)	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
(4)	10-19-79	POST A & B, A572 GR. 50, & K
(2)	11-28-78	"K" (3) 4-23-79 TYPE "E"
(1)	5-4-78	T_1 , T_2 & W_1
NO.	DATE	REVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC.	DRAWN BY	PLANS CK'D.
2011	JPH	

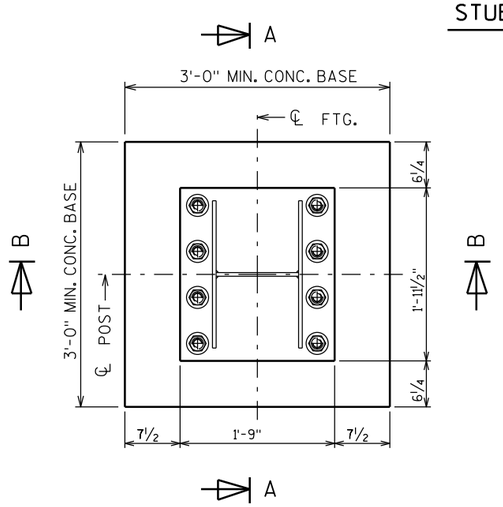
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

SHEET 250

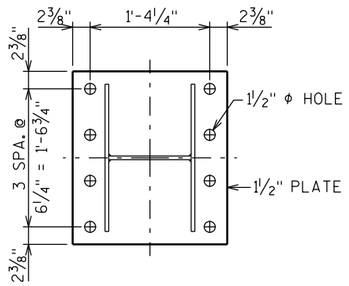
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 01-DEC-2015 18:20 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000

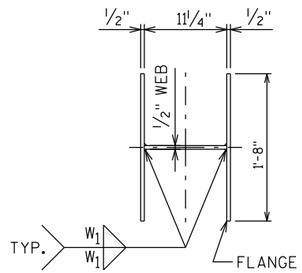
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



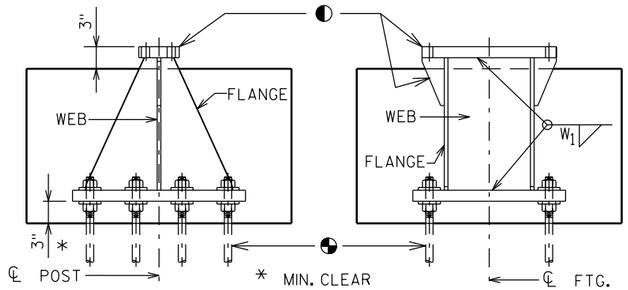
BASE PLATE



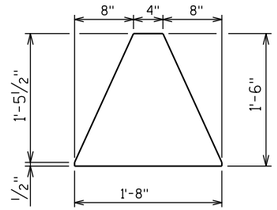
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



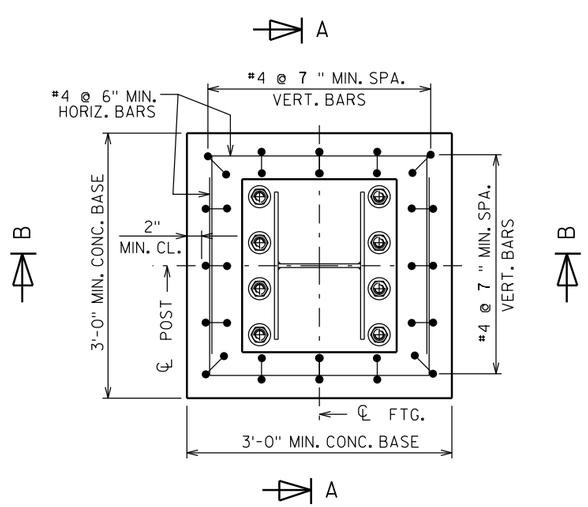
FLANGE

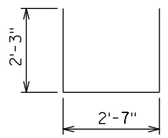
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

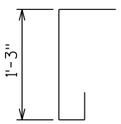
CONCRETE BASE SECTION





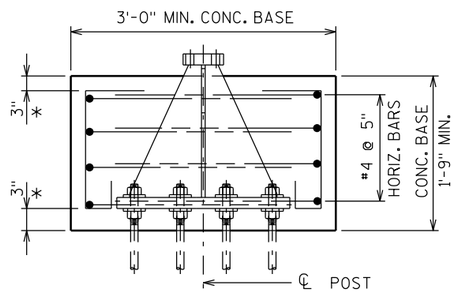
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



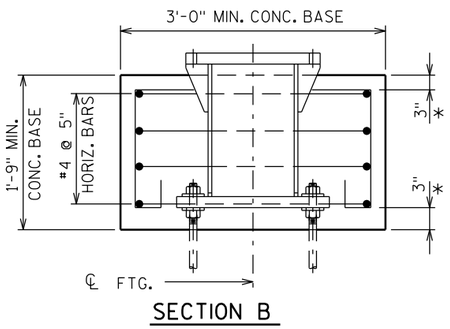
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42

VERITCAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
10 ft.	25 Sq. Ft	30 Sq. Ft	35 Sq. Ft	40 Sq. Ft	45 Sq. Ft	50 Sq. Ft	55 Sq. Ft	60 Sq. Ft	65 Sq. Ft	70 Sq. Ft	75 Sq. Ft	80 Sq. Ft	85 Sq. Ft	90 Sq. Ft	95 Sq. Ft	100 Sq. Ft	105 Sq. Ft	110 Sq. Ft	115 Sq. Ft	120 Sq. Ft	125 Sq. Ft	130 Sq. Ft	135 Sq. Ft	140 Sq. Ft	145 Sq. Ft	150 Sq. Ft	155 Sq. Ft	160 Sq. Ft
11 ft.	27.5 Sq. Ft	33 Sq. Ft	38.5 Sq. Ft	44 Sq. Ft	49.5 Sq. Ft	55 Sq. Ft	60.5 Sq. Ft	66 Sq. Ft	71.5 Sq. Ft	77 Sq. Ft	82.5 Sq. Ft	88 Sq. Ft	93.5 Sq. Ft	99 Sq. Ft	104.5 Sq. Ft	110 Sq. Ft	115.5 Sq. Ft	121 Sq. Ft	126.5 Sq. Ft	132 Sq. Ft	137.5 Sq. Ft	143 Sq. Ft	148.5 Sq. Ft	154 Sq. Ft	159.5 Sq. Ft	165 Sq. Ft	170.5 Sq. Ft	176 Sq. Ft
12 ft.	30 Sq. Ft	36 Sq. Ft	42 Sq. Ft	48 Sq. Ft	54 Sq. Ft	60 Sq. Ft	66 Sq. Ft	72 Sq. Ft	78 Sq. Ft	84 Sq. Ft	90 Sq. Ft	96 Sq. Ft	102 Sq. Ft	108 Sq. Ft	114 Sq. Ft	120 Sq. Ft	126 Sq. Ft	132 Sq. Ft	138 Sq. Ft	144 Sq. Ft	150 Sq. Ft	156 Sq. Ft	162 Sq. Ft	168 Sq. Ft	174 Sq. Ft	180 Sq. Ft	186 Sq. Ft	192 Sq. Ft
13 ft.	32.5 Sq. Ft	39 Sq. Ft	45.5 Sq. Ft	52 Sq. Ft	58.5 Sq. Ft	65 Sq. Ft	71.5 Sq. Ft	78 Sq. Ft	84.5 Sq. Ft	91 Sq. Ft	97.5 Sq. Ft	104 Sq. Ft	110.5 Sq. Ft	117 Sq. Ft	123.5 Sq. Ft	130 Sq. Ft	136.5 Sq. Ft	143 Sq. Ft	149.5 Sq. Ft	156 Sq. Ft	162.5 Sq. Ft	169 Sq. Ft	175.5 Sq. Ft	182 Sq. Ft	188.5 Sq. Ft	195 Sq. Ft	201.5 Sq. Ft	208 Sq. Ft
14 ft.	35 Sq. Ft	42 Sq. Ft	49 Sq. Ft	56 Sq. Ft	63 Sq. Ft	70 Sq. Ft	77 Sq. Ft	84 Sq. Ft	91 Sq. Ft	98 Sq. Ft	105 Sq. Ft	112 Sq. Ft	119 Sq. Ft	126 Sq. Ft	133 Sq. Ft	140 Sq. Ft	147 Sq. Ft	154 Sq. Ft	161 Sq. Ft	168 Sq. Ft	175 Sq. Ft	182 Sq. Ft	189 Sq. Ft	196 Sq. Ft	203 Sq. Ft	210 Sq. Ft	217 Sq. Ft	224 Sq. Ft
15 ft.	37.5 Sq. Ft	45 Sq. Ft	52.5 Sq. Ft	60 Sq. Ft	67.5 Sq. Ft	75 Sq. Ft	82.5 Sq. Ft	90 Sq. Ft	97.5 Sq. Ft	105 Sq. Ft	112.5 Sq. Ft	120 Sq. Ft	127.5 Sq. Ft	135 Sq. Ft	142.5 Sq. Ft	150 Sq. Ft	157.5 Sq. Ft	165 Sq. Ft	172.5 Sq. Ft	180 Sq. Ft	187.5 Sq. Ft	195 Sq. Ft	202.5 Sq. Ft	210 Sq. Ft	217.5 Sq. Ft	225 Sq. Ft	232.5 Sq. Ft	240 Sq. Ft
16 ft.	40 Sq. Ft	48 Sq. Ft	56 Sq. Ft	64 Sq. Ft	72 Sq. Ft	80 Sq. Ft	88 Sq. Ft	96 Sq. Ft	104 Sq. Ft	112 Sq. Ft	120 Sq. Ft	128 Sq. Ft	136 Sq. Ft	144 Sq. Ft	152 Sq. Ft	160 Sq. Ft	168 Sq. Ft	176 Sq. Ft	184 Sq. Ft	192 Sq. Ft	200 Sq. Ft	208 Sq. Ft	216 Sq. Ft	224 Sq. Ft	232 Sq. Ft	240 Sq. Ft	248 Sq. Ft	256 Sq. Ft
17 ft.	42.5 Sq. Ft	51 Sq. Ft	59.5 Sq. Ft	68 Sq. Ft	76.5 Sq. Ft	85 Sq. Ft	93.5 Sq. Ft	102 Sq. Ft	110.5 Sq. Ft	119 Sq. Ft	127.5 Sq. Ft	136 Sq. Ft	144.5 Sq. Ft	153 Sq. Ft	161.5 Sq. Ft	170 Sq. Ft	178.5 Sq. Ft	187 Sq. Ft	195.5 Sq. Ft	204 Sq. Ft	212.5 Sq. Ft	221 Sq. Ft	229.5 Sq. Ft	238 Sq. Ft	246.5 Sq. Ft	255 Sq. Ft	263.5 Sq. Ft	272 Sq. Ft
18 ft.	45 Sq. Ft	54 Sq. Ft	63 Sq. Ft	72 Sq. Ft	81 Sq. Ft	90 Sq. Ft	99 Sq. Ft	108 Sq. Ft	117 Sq. Ft	126 Sq. Ft	135 Sq. Ft	144 Sq. Ft	153 Sq. Ft	162 Sq. Ft	171 Sq. Ft	180 Sq. Ft	189 Sq. Ft	198 Sq. Ft	207 Sq. Ft	216 Sq. Ft	225 Sq. Ft	234 Sq. Ft	243 Sq. Ft	252 Sq. Ft	261 Sq. Ft	270 Sq. Ft	279 Sq. Ft	288 Sq. Ft
19 ft.	47.5 Sq. Ft	57 Sq. Ft	66.5 Sq. Ft	76 Sq. Ft	85.5 Sq. Ft	95 Sq. Ft	104.5 Sq. Ft	114 Sq. Ft	123.5 Sq. Ft	133 Sq. Ft	142.5 Sq. Ft	152 Sq. Ft	161.5 Sq. Ft	171 Sq. Ft	180.5 Sq. Ft	190 Sq. Ft	199.5 Sq. Ft	209 Sq. Ft	218.5 Sq. Ft	228 Sq. Ft	237.5 Sq. Ft	247 Sq. Ft	256.5 Sq. Ft	266 Sq. Ft	275.5 Sq. Ft	285 Sq. Ft	294.5 Sq. Ft	304 Sq. Ft
20 ft.	50 Sq. Ft	60 Sq. Ft	70 Sq. Ft	80 Sq. Ft	90 Sq. Ft	100 Sq. Ft	110 Sq. Ft	120 Sq. Ft	130 Sq. Ft	140 Sq. Ft	150 Sq. Ft	160 Sq. Ft	170 Sq. Ft	180 Sq. Ft	190 Sq. Ft	200 Sq. Ft	210 Sq. Ft	220 Sq. Ft	230 Sq. Ft	240 Sq. Ft	250 Sq. Ft	260 Sq. Ft	270 Sq. Ft	280 Sq. Ft	290 Sq. Ft	300 Sq. Ft	310 Sq. Ft	320 Sq. Ft
21 ft.	52.5 Sq. Ft	63 Sq. Ft	73.5 Sq. Ft	84 Sq. Ft	94.5 Sq. Ft	105 Sq. Ft	115.5 Sq. Ft	126 Sq. Ft	136.5 Sq. Ft	147 Sq. Ft	157.5 Sq. Ft	168 Sq. Ft	178.5 Sq. Ft	189 Sq. Ft	199.5 Sq. Ft	210 Sq. Ft	220.5 Sq. Ft	231 Sq. Ft	241.5 Sq. Ft	252 Sq. Ft	262.5 Sq. Ft	273 Sq. Ft	283.5 Sq. Ft	294 Sq. Ft	304.5 Sq. Ft	315 Sq. Ft	325.5 Sq. Ft	336 Sq. Ft

Type "A" (2 Posts)
1.2 CY Conc.
68 LBs Bar Steel

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

7

7

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/03/10 PLATE NO. A3-2.2

PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A32.DGN PLOT DATE : 05-MAR-2010 10:10 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

VERTICAL DIMENSION ⇨

HORIZONTAL DIMENSION ⇩

Type "A" (2 Posts) 1.2 CY Conc. 68 LBs Bar Steel

⇩ \ ⇨	2.5 ft.	3 ft.	3.5 ft.	4 ft.	4.5 ft.	5 ft.	5.5 ft.	6 ft.	6.5 ft.	7 ft.	7.5 ft.	8 ft.	8.5 ft.	9 ft.	9.5 ft.	10 ft.	10.5 ft.	11 ft.	11.5 ft.	12 ft.	12.5 ft.	13 ft.	13.5 ft.	14 ft.	14.5 ft.	15 ft.	15.5 ft.	16 ft.
22 ft.	55 Sq. Ft	66 Sq. Ft	77 Sq. Ft	88 Sq. Ft	99 Sq. Ft	110 Sq. Ft	121 Sq. Ft	132 Sq. Ft	143 Sq. Ft	154 Sq. Ft	165 Sq. Ft	176 Sq. Ft	187 Sq. Ft	198 Sq. Ft	209 Sq. Ft	220 Sq. Ft	231 Sq. Ft	242 Sq. Ft	253 Sq. Ft	264 Sq. Ft	275 Sq. Ft	286 Sq. Ft	297 Sq. Ft	308 Sq. Ft	319 Sq. Ft	330 Sq. Ft	341 Sq. Ft	352 Sq. Ft
23 ft.	57.5 Sq. Ft	69 Sq. Ft	80.5 Sq. Ft	92 Sq. Ft	103.5 Sq. Ft	115 Sq. Ft	126.5 Sq. Ft	138 Sq. Ft	149.5 Sq. Ft	161 Sq. Ft	172.5 Sq. Ft	184 Sq. Ft	195.5 Sq. Ft	207 Sq. Ft	218.5 Sq. Ft	230 Sq. Ft	241.5 Sq. Ft	253 Sq. Ft	264.5 Sq. Ft	276 Sq. Ft	287.5 Sq. Ft	299 Sq. Ft	310.5 Sq. Ft	322 Sq. Ft	333.5 Sq. Ft	345 Sq. Ft	356.5 Sq. Ft	368 Sq. Ft
24 ft.	60 Sq. Ft	72 Sq. Ft	84 Sq. Ft	96 Sq. Ft	108 Sq. Ft	120 Sq. Ft	132 Sq. Ft	144 Sq. Ft	156 Sq. Ft	168 Sq. Ft	180 Sq. Ft	192 Sq. Ft	204 Sq. Ft	216 Sq. Ft	228 Sq. Ft	240 Sq. Ft	252 Sq. Ft	264 Sq. Ft	276 Sq. Ft	288 Sq. Ft	300 Sq. Ft	312 Sq. Ft	324 Sq. Ft	336 Sq. Ft	348 Sq. Ft	360 Sq. Ft	372 Sq. Ft	384 Sq. Ft
25 ft.	62.5 Sq. Ft	75 Sq. Ft	87.5 Sq. Ft	100 Sq. Ft	112.5 Sq. Ft	125 Sq. Ft	137.5 Sq. Ft	150 Sq. Ft	162.5 Sq. Ft	175 Sq. Ft	187.5 Sq. Ft	200 Sq. Ft	212.5 Sq. Ft	225 Sq. Ft	237.5 Sq. Ft	250 Sq. Ft	262.5 Sq. Ft	275 Sq. Ft	287.5 Sq. Ft	300 Sq. Ft	312.5 Sq. Ft	325 Sq. Ft	337.5 Sq. Ft	350 Sq. Ft	362.5 Sq. Ft	375 Sq. Ft	387.5 Sq. Ft	400 Sq. Ft
26 ft.	65 Sq. Ft	78 Sq. Ft	91 Sq. Ft	104 Sq. Ft	117 Sq. Ft	130 Sq. Ft	143 Sq. Ft	156 Sq. Ft	169 Sq. Ft	182 Sq. Ft	195 Sq. Ft	208 Sq. Ft	221 Sq. Ft	234 Sq. Ft	247 Sq. Ft	260 Sq. Ft	273 Sq. Ft	286 Sq. Ft	299 Sq. Ft	312 Sq. Ft	325 Sq. Ft	338 Sq. Ft	351 Sq. Ft	364 Sq. Ft	377 Sq. Ft	390 Sq. Ft	403 Sq. Ft	416 Sq. Ft
27 ft.	67.5 Sq. Ft	81 Sq. Ft	94.5 Sq. Ft	108 Sq. Ft	121.5 Sq. Ft	135 Sq. Ft	148.5 Sq. Ft	162 Sq. Ft	175.5 Sq. Ft	189 Sq. Ft	202.5 Sq. Ft	216 Sq. Ft	229.5 Sq. Ft	243 Sq. Ft	256.5 Sq. Ft	270 Sq. Ft	283.5 Sq. Ft	297 Sq. Ft	310.5 Sq. Ft	324 Sq. Ft	337.5 Sq. Ft	351 Sq. Ft	364.5 Sq. Ft	378 Sq. Ft	391.5 Sq. Ft	405 Sq. Ft	418.5 Sq. Ft	432 Sq. Ft
28 ft.	70 Sq. Ft	84 Sq. Ft	98 Sq. Ft	112 Sq. Ft	126 Sq. Ft	140 Sq. Ft	154 Sq. Ft	168 Sq. Ft	182 Sq. Ft	196 Sq. Ft	210 Sq. Ft	224 Sq. Ft	238 Sq. Ft	252 Sq. Ft	266 Sq. Ft	280 Sq. Ft	294 Sq. Ft	308 Sq. Ft	322 Sq. Ft	336 Sq. Ft	350 Sq. Ft	364 Sq. Ft	378 Sq. Ft	392 Sq. Ft	406 Sq. Ft	420 Sq. Ft	434 Sq. Ft	448 Sq. Ft
29 ft.	72.5 Sq. Ft	87 Sq. Ft	101.5 Sq. Ft	116 Sq. Ft	130.5 Sq. Ft	145 Sq. Ft	159.5 Sq. Ft	174 Sq. Ft	188.5 Sq. Ft	203 Sq. Ft	217.5 Sq. Ft	232 Sq. Ft	246.5 Sq. Ft	261 Sq. Ft	275.5 Sq. Ft	290 Sq. Ft	304.5 Sq. Ft	319 Sq. Ft	333.5 Sq. Ft	348 Sq. Ft	362.5 Sq. Ft	377 Sq. Ft	391.5 Sq. Ft	406 Sq. Ft	420.5 Sq. Ft	435 Sq. Ft	449.5 Sq. Ft	464 Sq. Ft
30 ft.	75 Sq. Ft	90 Sq. Ft	105 Sq. Ft	120 Sq. Ft	135 Sq. Ft	150 Sq. Ft	165 Sq. Ft	180 Sq. Ft	195 Sq. Ft	210 Sq. Ft	225 Sq. Ft	240 Sq. Ft	255 Sq. Ft	270 Sq. Ft	285 Sq. Ft	300 Sq. Ft	315 Sq. Ft	330 Sq. Ft	345 Sq. Ft	360 Sq. Ft	375 Sq. Ft	390 Sq. Ft	405 Sq. Ft	420 Sq. Ft	435 Sq. Ft	450 Sq. Ft	465 Sq. Ft	480 Sq. Ft
31 ft.	77.5 Sq. Ft	93 Sq. Ft	108.5 Sq. Ft	124 Sq. Ft	139.5 Sq. Ft	155 Sq. Ft	170.5 Sq. Ft	186 Sq. Ft	201.5 Sq. Ft	217 Sq. Ft	232.5 Sq. Ft	248 Sq. Ft	263.5 Sq. Ft	279 Sq. Ft	294.5 Sq. Ft	310 Sq. Ft	325.5 Sq. Ft	341 Sq. Ft	356.5 Sq. Ft	372 Sq. Ft	387.5 Sq. Ft	403 Sq. Ft	418.5 Sq. Ft	434 Sq. Ft	449.5 Sq. Ft	465 Sq. Ft	480.5 Sq. Ft	496 Sq. Ft
32 ft.	80 Sq. Ft	96 Sq. Ft	112 Sq. Ft	128 Sq. Ft	144 Sq. Ft	160 Sq. Ft	176 Sq. Ft	192 Sq. Ft	208 Sq. Ft	224 Sq. Ft	240 Sq. Ft	256 Sq. Ft	272 Sq. Ft	288 Sq. Ft	304 Sq. Ft	320 Sq. Ft	336 Sq. Ft	352 Sq. Ft	368 Sq. Ft	384 Sq. Ft	400 Sq. Ft	416 Sq. Ft	432 Sq. Ft	448 Sq. Ft	464 Sq. Ft	480 Sq. Ft	496 Sq. Ft	512 Sq. Ft
33 ft.	82.5 Sq. Ft	99 Sq. Ft	115.5 Sq. Ft	132 Sq. Ft	148.5 Sq. Ft	165 Sq. Ft	181.5 Sq. Ft	198 Sq. Ft	214.5 Sq. Ft	231 Sq. Ft	247.5 Sq. Ft	264 Sq. Ft	280.5 Sq. Ft	297 Sq. Ft	313.5 Sq. Ft	330 Sq. Ft	346.5 Sq. Ft	363 Sq. Ft	379.5 Sq. Ft	396 Sq. Ft	412.5 Sq. Ft	429 Sq. Ft	445.5 Sq. Ft	462 Sq. Ft	478.5 Sq. Ft	495 Sq. Ft	511.5 Sq. Ft	528 Sq. Ft
34 ft.	85 Sq. Ft	102 Sq. Ft	119 Sq. Ft	136 Sq. Ft	153 Sq. Ft	170 Sq. Ft	187 Sq. Ft	204 Sq. Ft	221 Sq. Ft	238 Sq. Ft	255 Sq. Ft	272 Sq. Ft	289 Sq. Ft	306 Sq. Ft	323 Sq. Ft	340 Sq. Ft	357 Sq. Ft	374 Sq. Ft	391 Sq. Ft	408 Sq. Ft	425 Sq. Ft	442 Sq. Ft	459 Sq. Ft	476 Sq. Ft	493 Sq. Ft	510 Sq. Ft	527 Sq. Ft	544 Sq. Ft
35 ft.	87.5 Sq. Ft	105 Sq. Ft	122.5 Sq. Ft	140 Sq. Ft	157.5 Sq. Ft	175 Sq. Ft	192.5 Sq. Ft	210 Sq. Ft	227.5 Sq. Ft	245 Sq. Ft	262.5 Sq. Ft	280 Sq. Ft	297.5 Sq. Ft	315 Sq. Ft	332.5 Sq. Ft	350 Sq. Ft	367.5 Sq. Ft	385 Sq. Ft	402.5 Sq. Ft	420 Sq. Ft	437.5 Sq. Ft	455 Sq. Ft	472.5 Sq. Ft	490 Sq. Ft	507.5 Sq. Ft	525 Sq. Ft	542.5 Sq. Ft	560 Sq. Ft
36 ft.	90 Sq. Ft	108 Sq. Ft	126 Sq. Ft	144 Sq. Ft	162 Sq. Ft	180 Sq. Ft	198 Sq. Ft	216 Sq. Ft	234 Sq. Ft	252 Sq. Ft	270 Sq. Ft	288 Sq. Ft	306 Sq. Ft	324 Sq. Ft	342 Sq. Ft	360 Sq. Ft	378 Sq. Ft	396 Sq. Ft	414 Sq. Ft	432 Sq. Ft	450 Sq. Ft	468 Sq. Ft	486 Sq. Ft	504 Sq. Ft	522 Sq. Ft	540 Sq. Ft	558 Sq. Ft	576 Sq. Ft

Type "B" (2 Posts)
1.6 CY Conc.
98 LBs Bar Steel

Type "C" (2 Posts)
1.8 CY Conc.
100 LBs Bar Steel

Type "D" (2 Posts)
1.8 CY Conc.
112 LBs Bar Steel

Type "C" (3 Posts)
2.7 CY Conc.
150 LBs Bar Steel

Type "D" (3 Posts)
2.7 CY Conc.
168 LBs Bar Steel

STEEL POST SIZE

"A" - W10" x 12"
"B" - W12" x 16"
"C" - W12" x 19"
"D" - W12 x 22"

DETERMINATION OF HIGH STRENGTH STRUCTURAL STEEL SIGN SUPPORT TYPE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

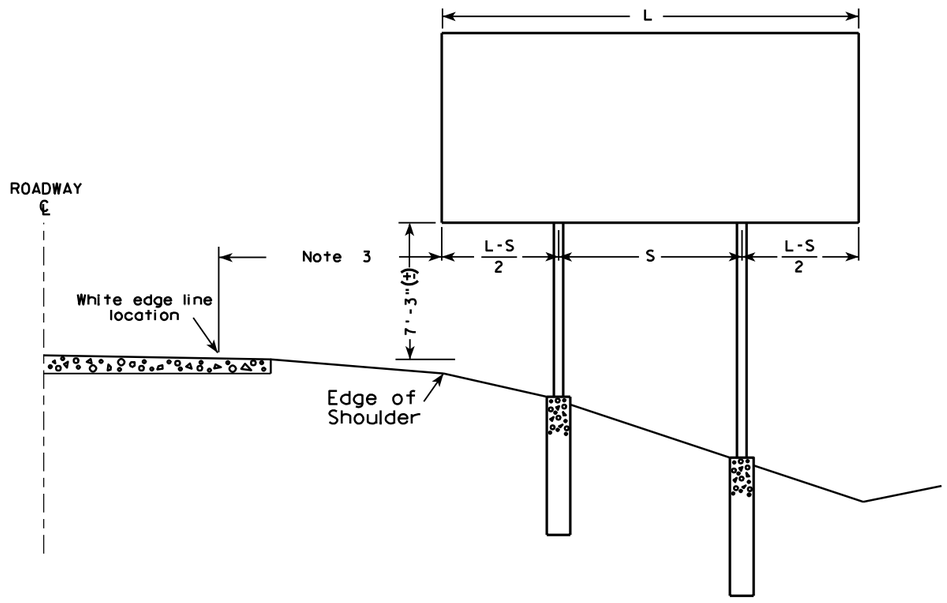
DATE 3/5/10 PLATE NO. A3-3.2

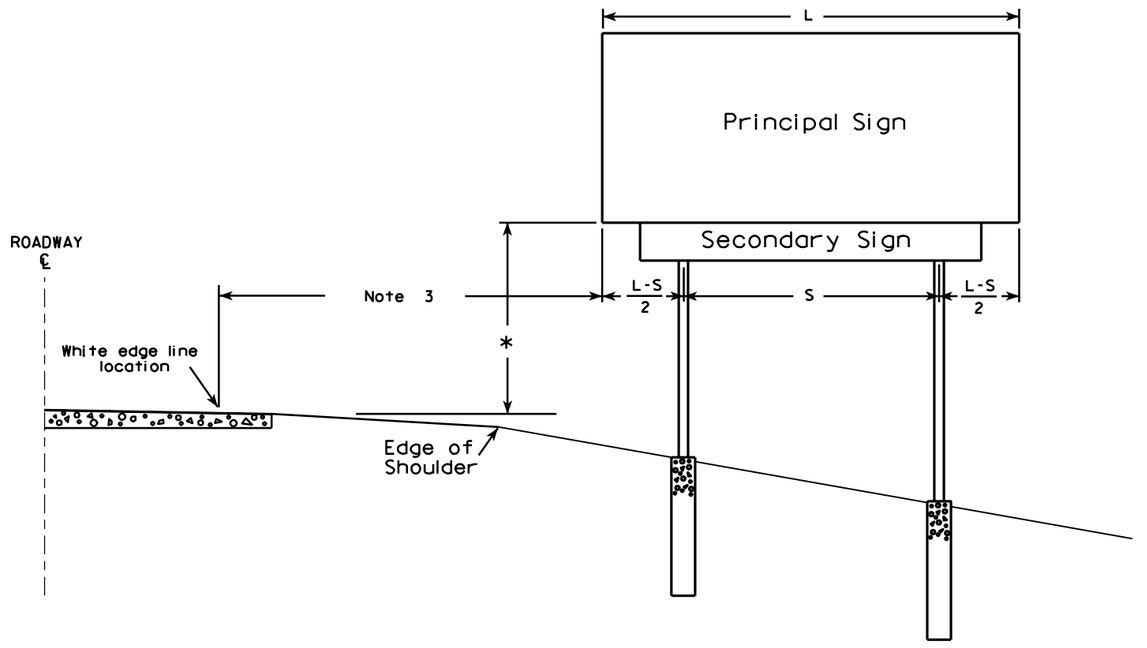
PROJECT NO: | SHEET NO: E

FILE NAME : C:\users\PROJECTS\tr_stdplate\A33.DGN PLOT DATE : 05-MAR-2010 10:07 PLOT BY : ditjph

7

7





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

TYPICAL INSTALLATION
OF TYPE I SIGNS

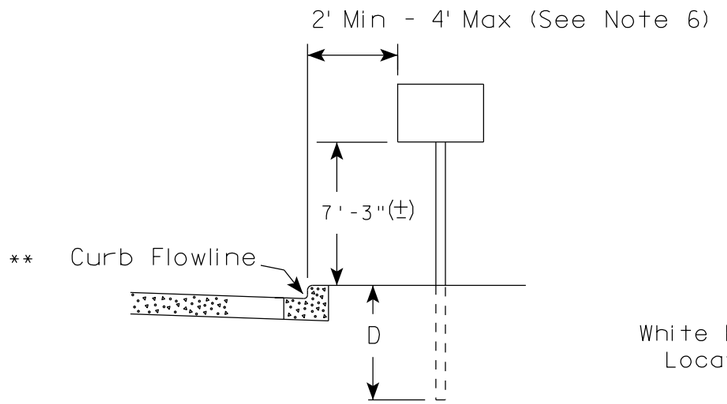
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

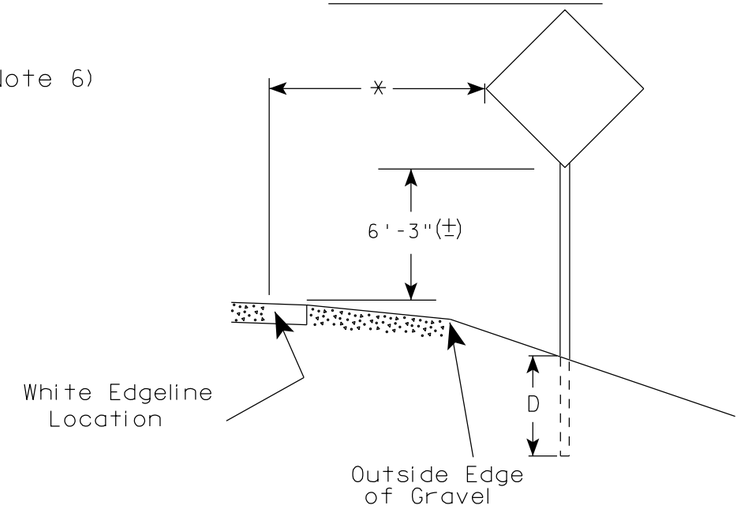
DATE 4/02/08 PLATE NO. A4-1.9

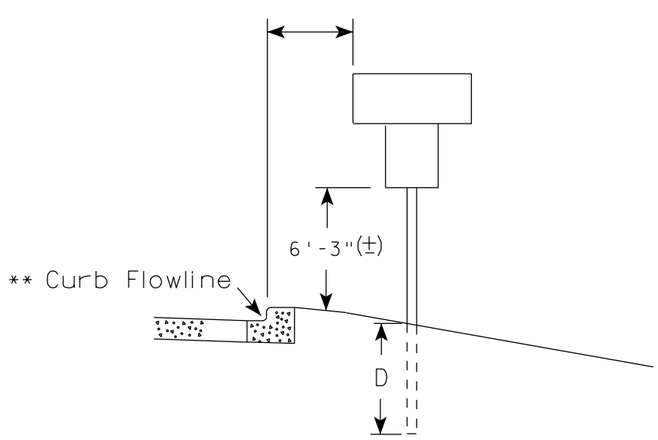
PROJECT NO:				SHEET NO: 254	E

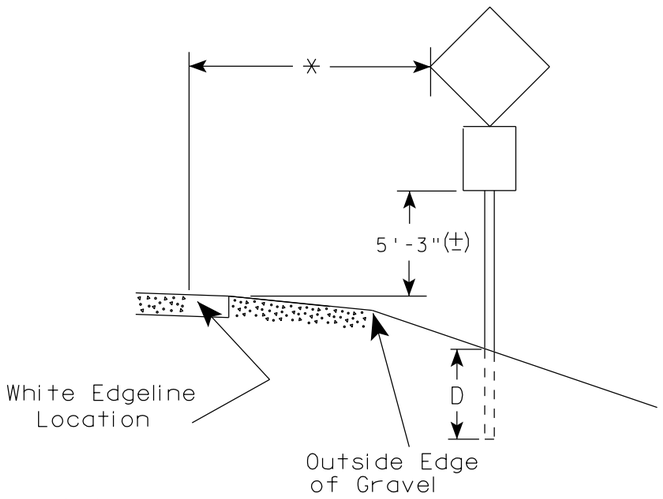
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

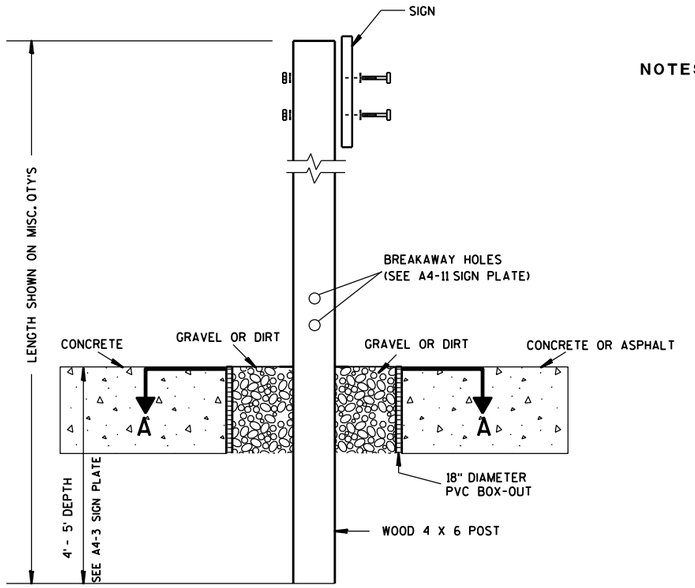
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

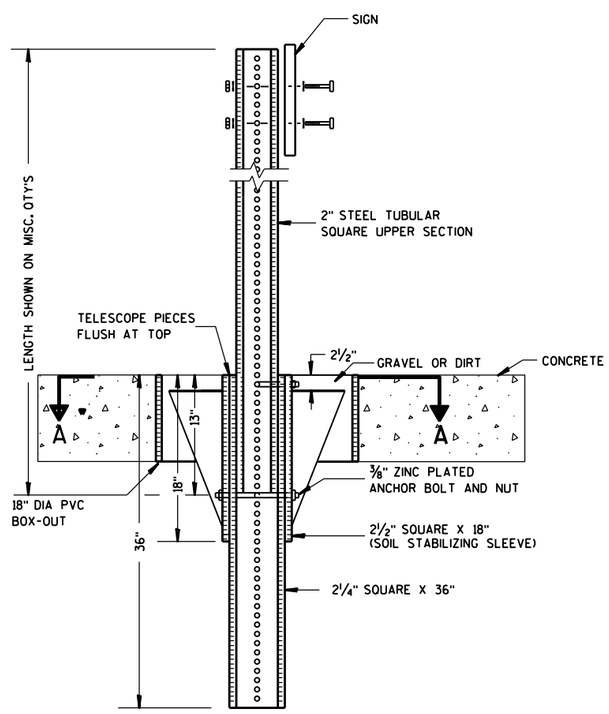
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 23-JUL-2015 15:21 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42



ELEVATION VIEW

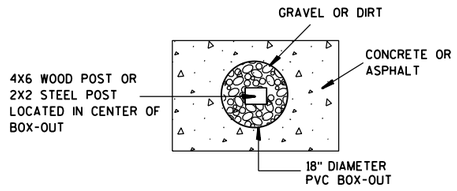
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

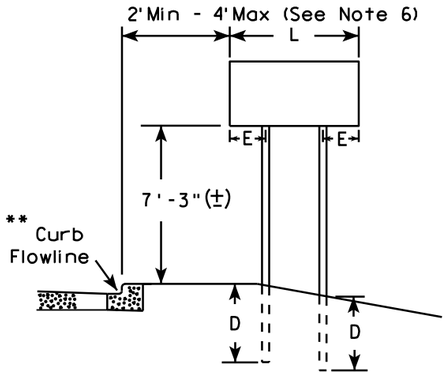
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

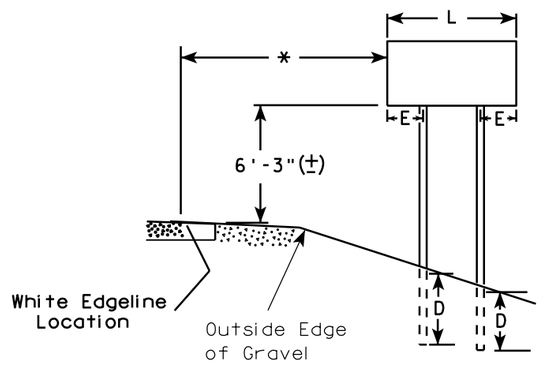
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

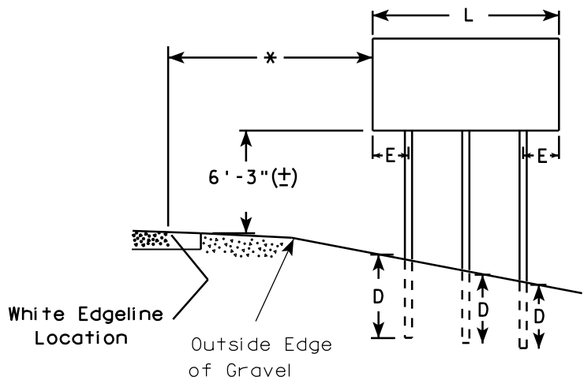
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

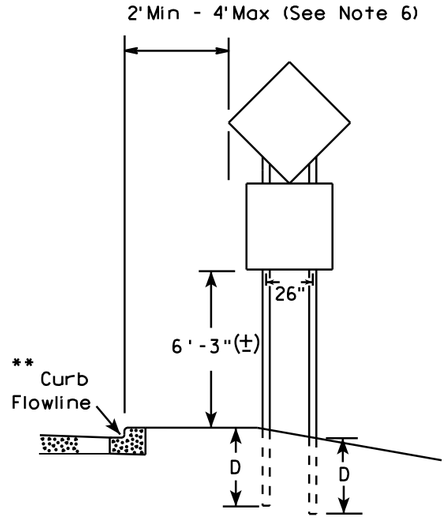
URBAN AREA



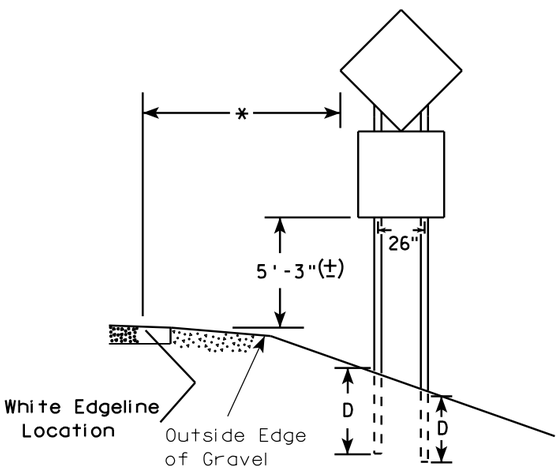
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

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

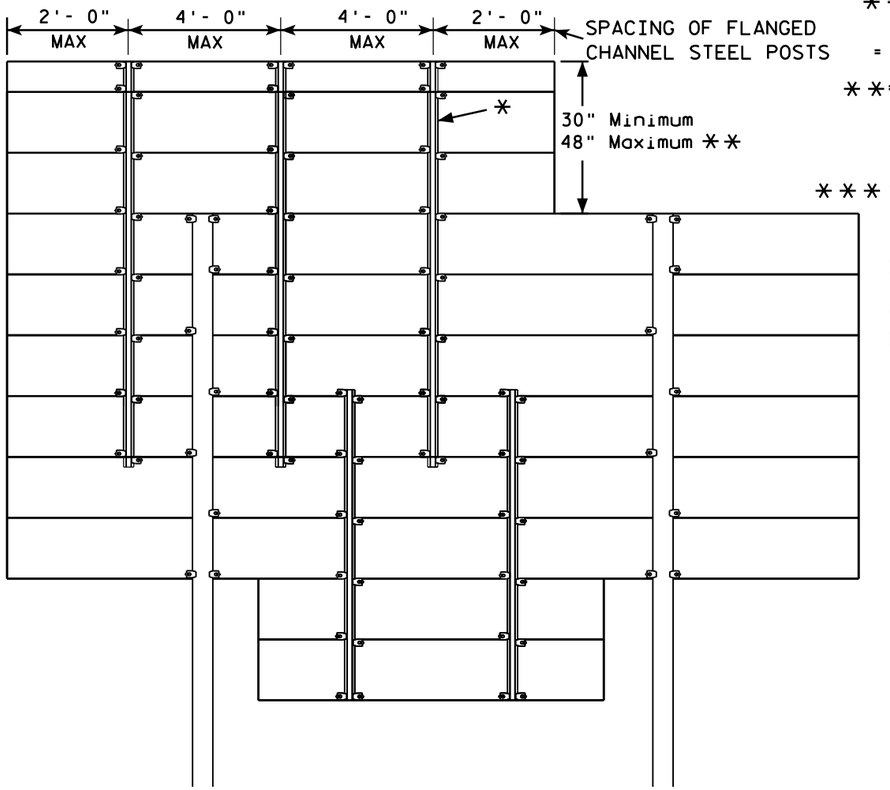
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 257 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

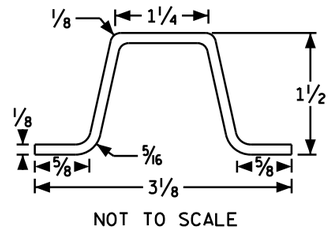


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

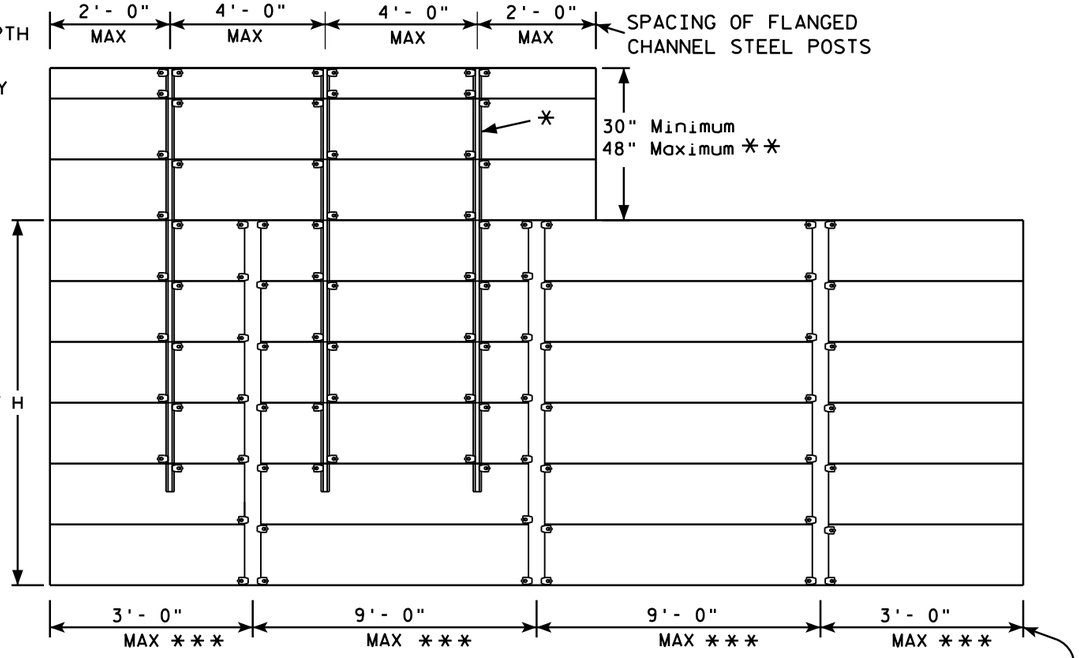
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

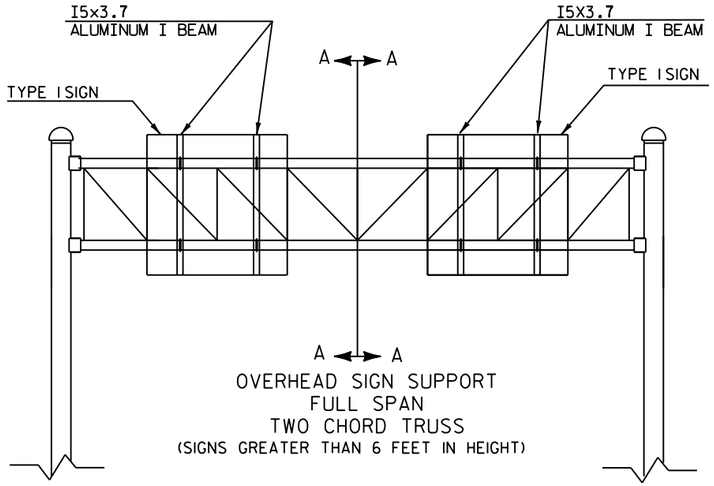
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

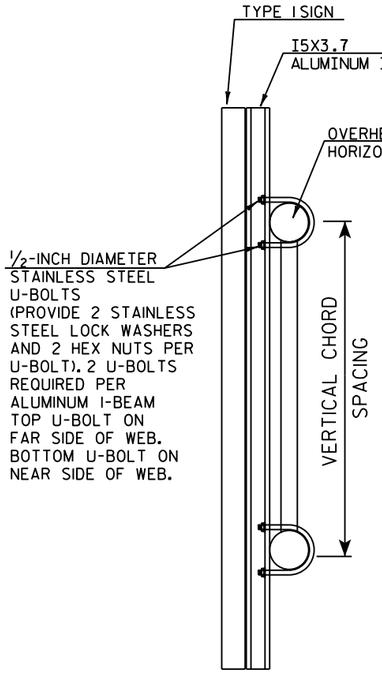
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 258 A4-6.12

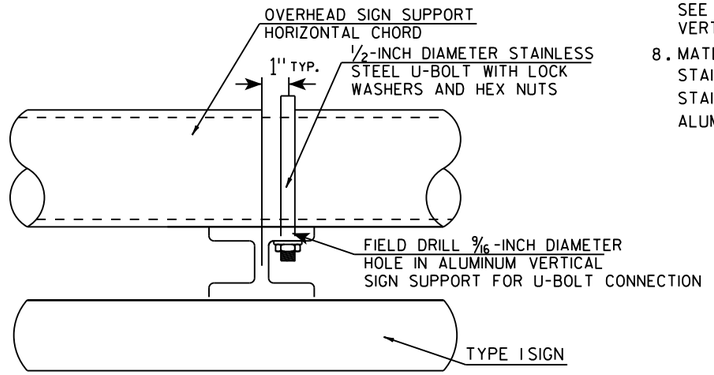
PROJECT NO: | SHEET NO: E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



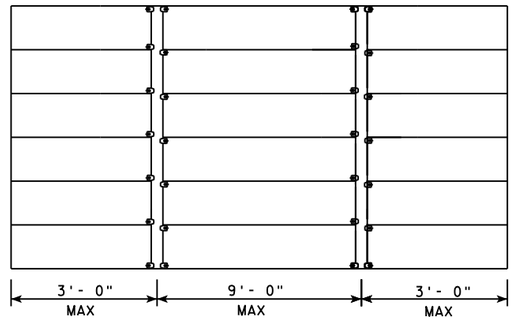
CUT SECTION A-A



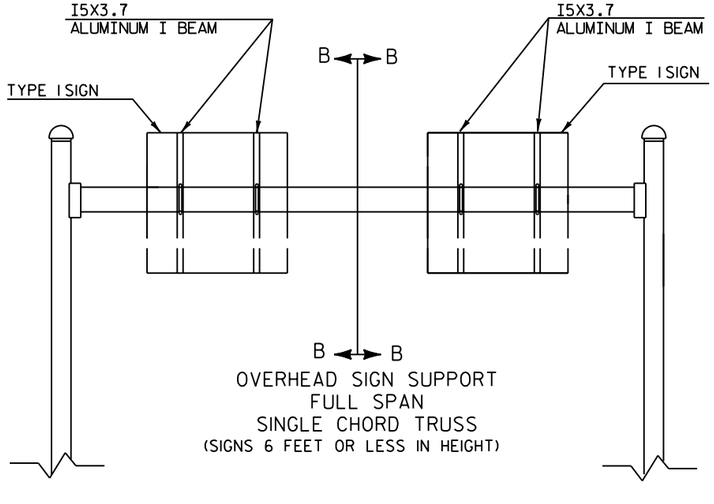
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

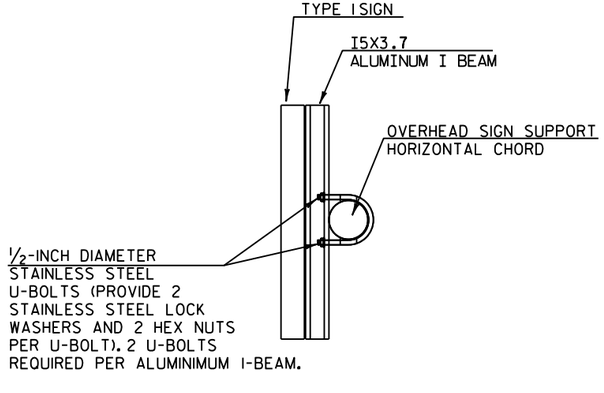
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



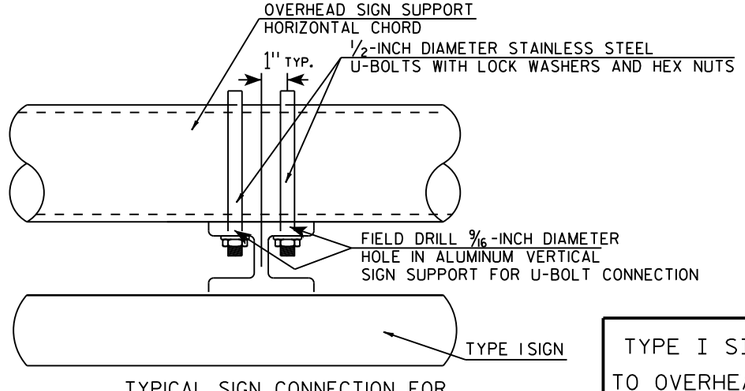
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

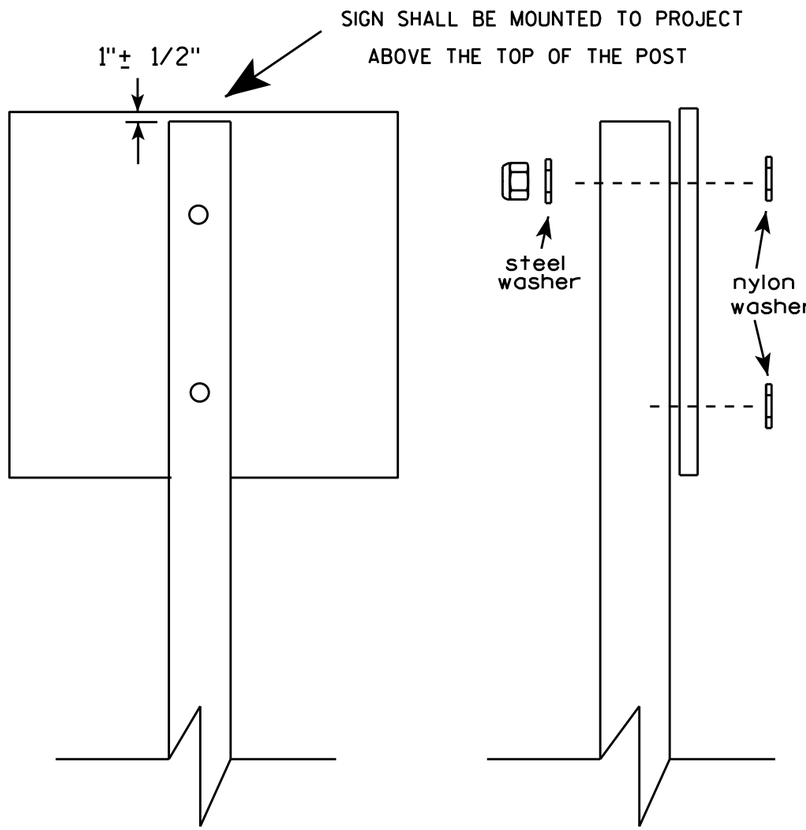
WISCONSIN DEPT OF TRANSPORTATION

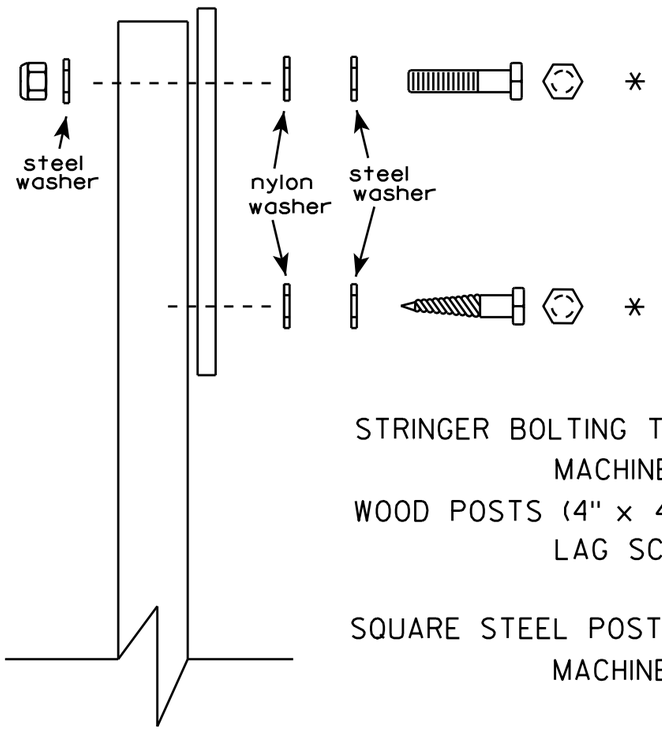
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000





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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/8" X 1-3/4" Length w/ nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

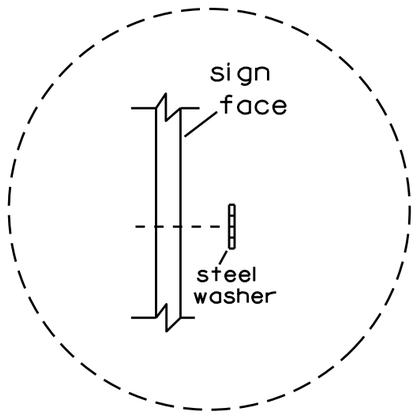
SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON 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

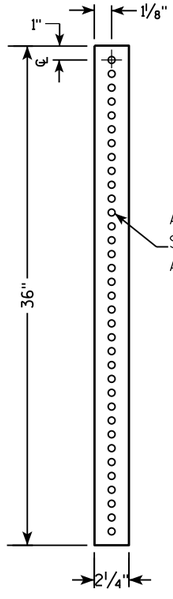
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/16 PLATE NO. A4-8.8

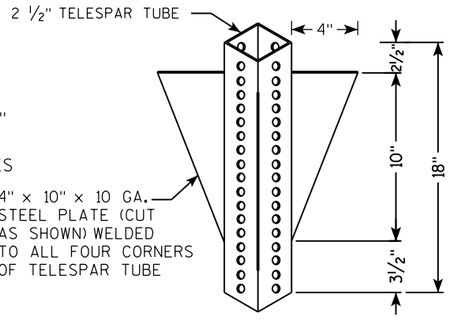
PROJECT NO: SHEET NO: E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

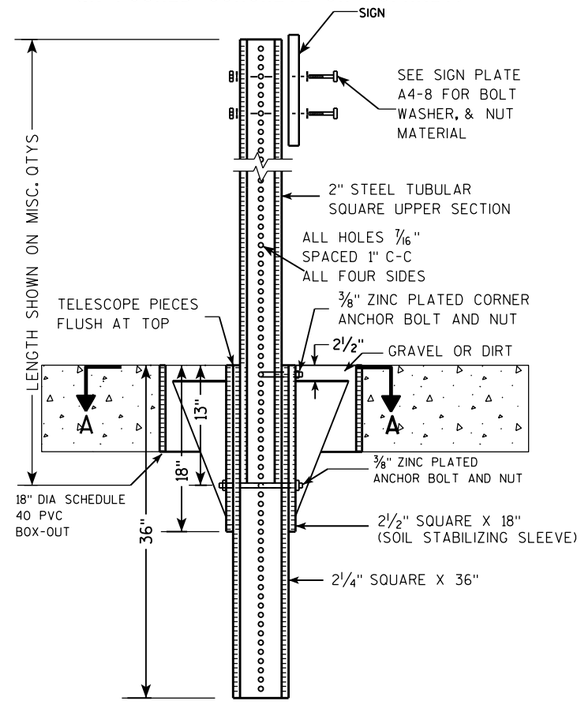
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



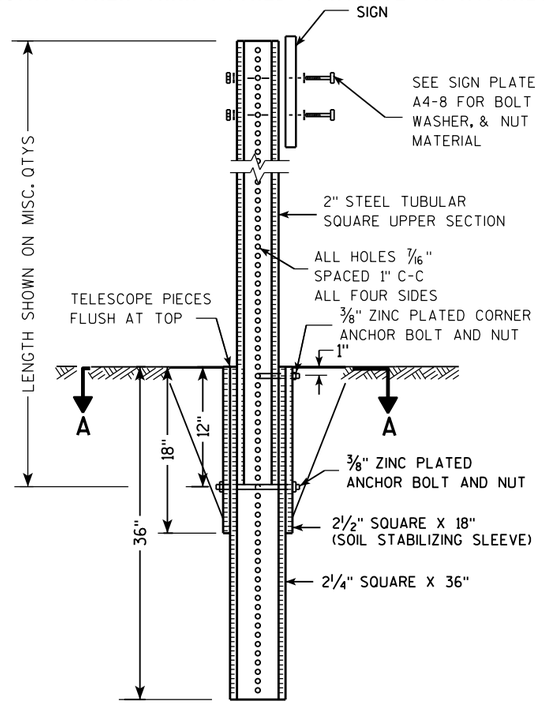
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

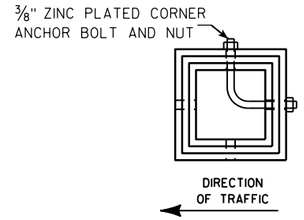


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

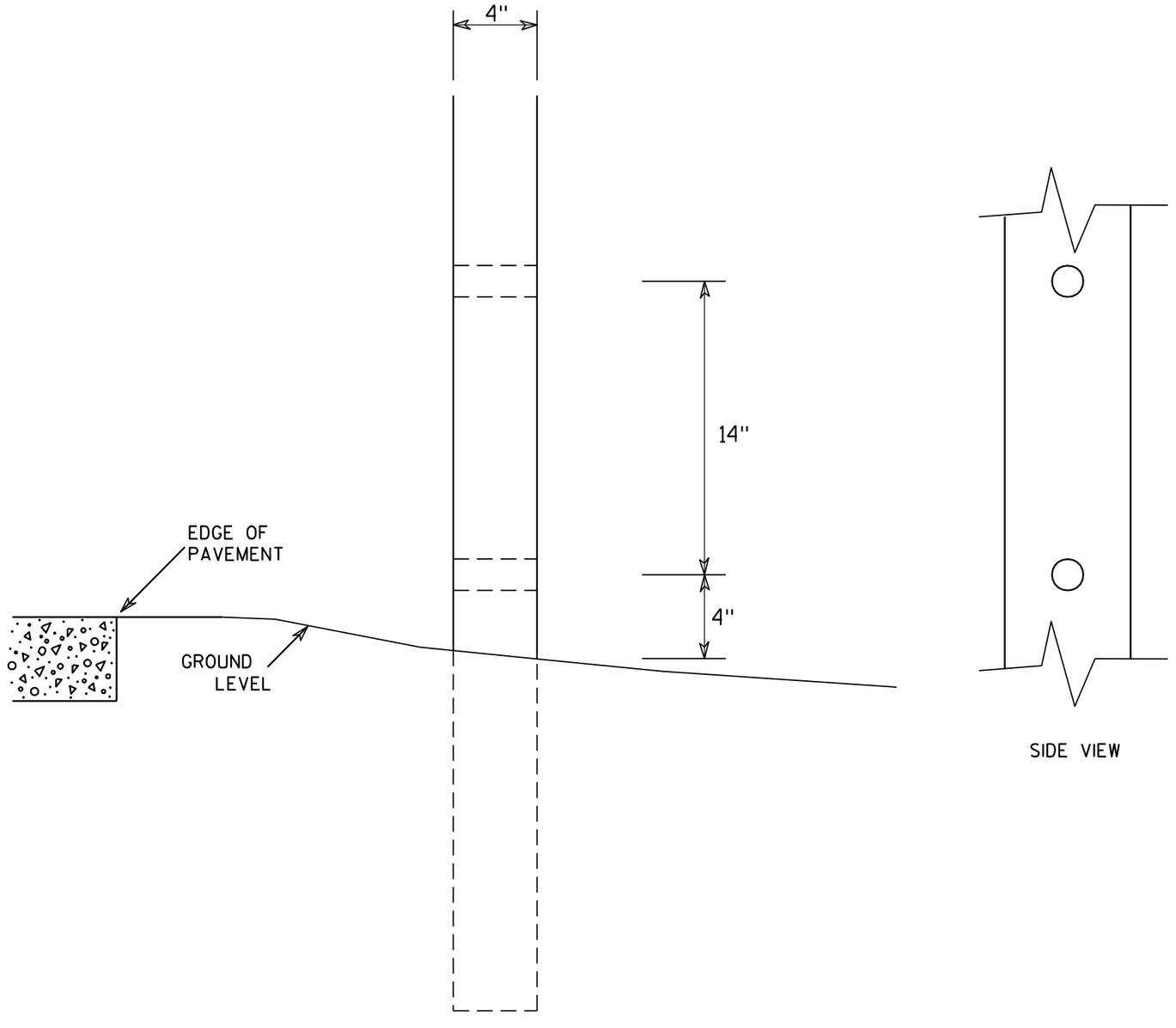
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

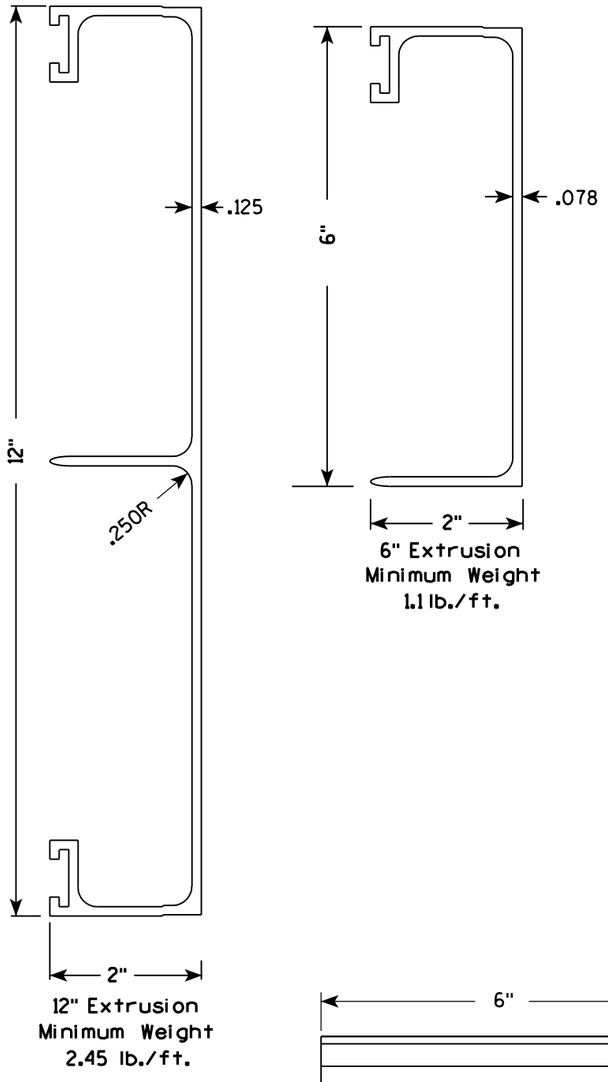
WISCONSIN DEPT OF TRANSPORTATION

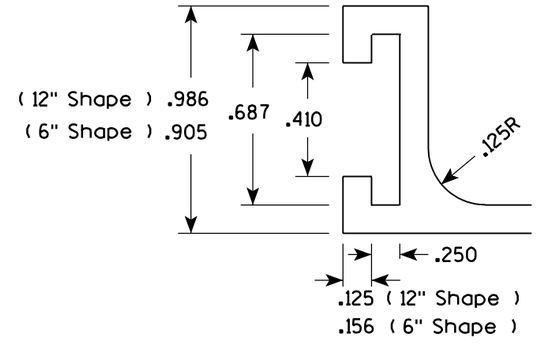
APPROVED Chester J Spang for State Traffic Engineer

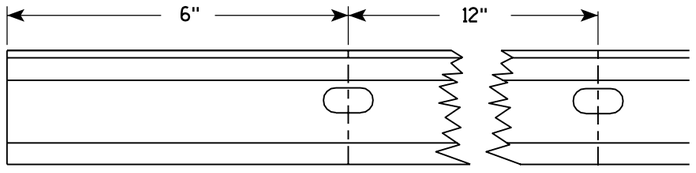
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 262	E

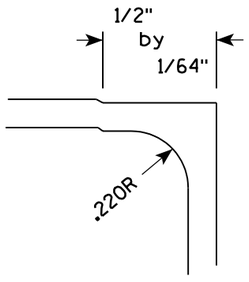
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

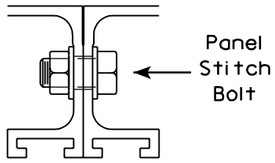


Hardware

STITCH BOLT, WASHER & NUT

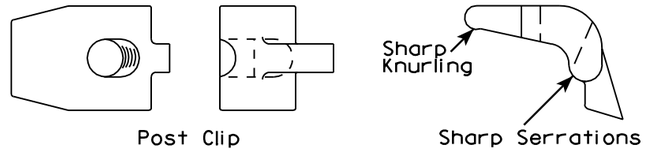
The hardware includes:

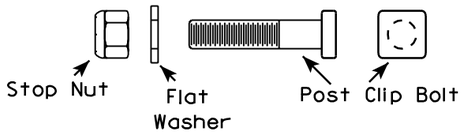
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

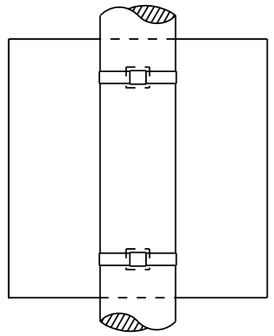
DATE 11/18/99 PLATE NO. A5-2.9

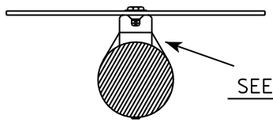
PROJECT NO:

SHEET NO: 263 E

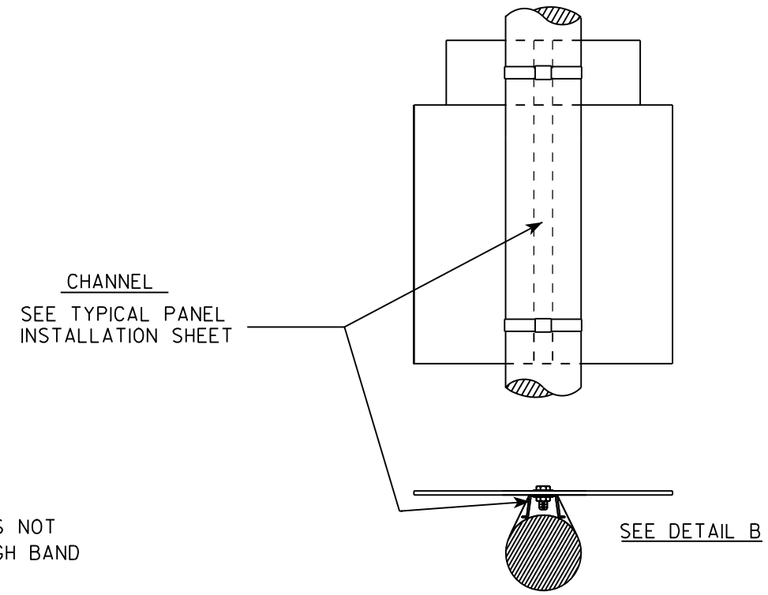
BANDING

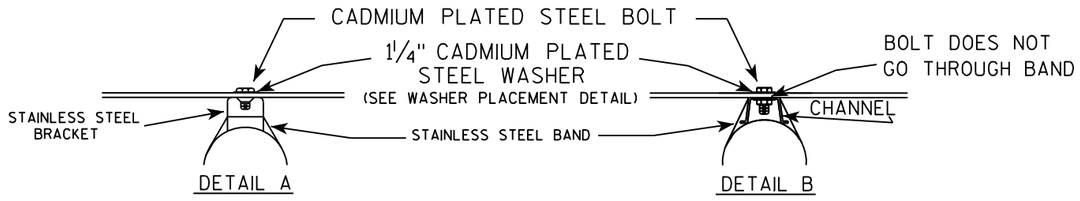
SINGLE SIGN



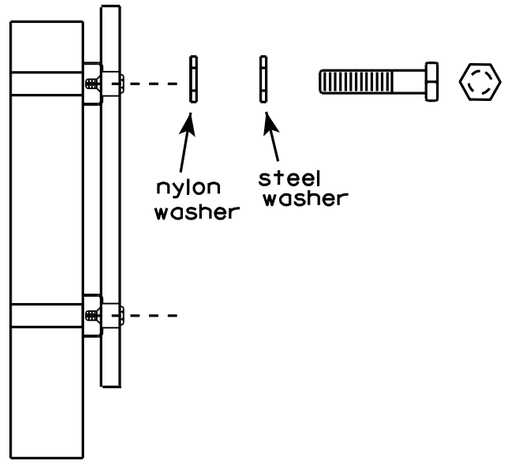


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

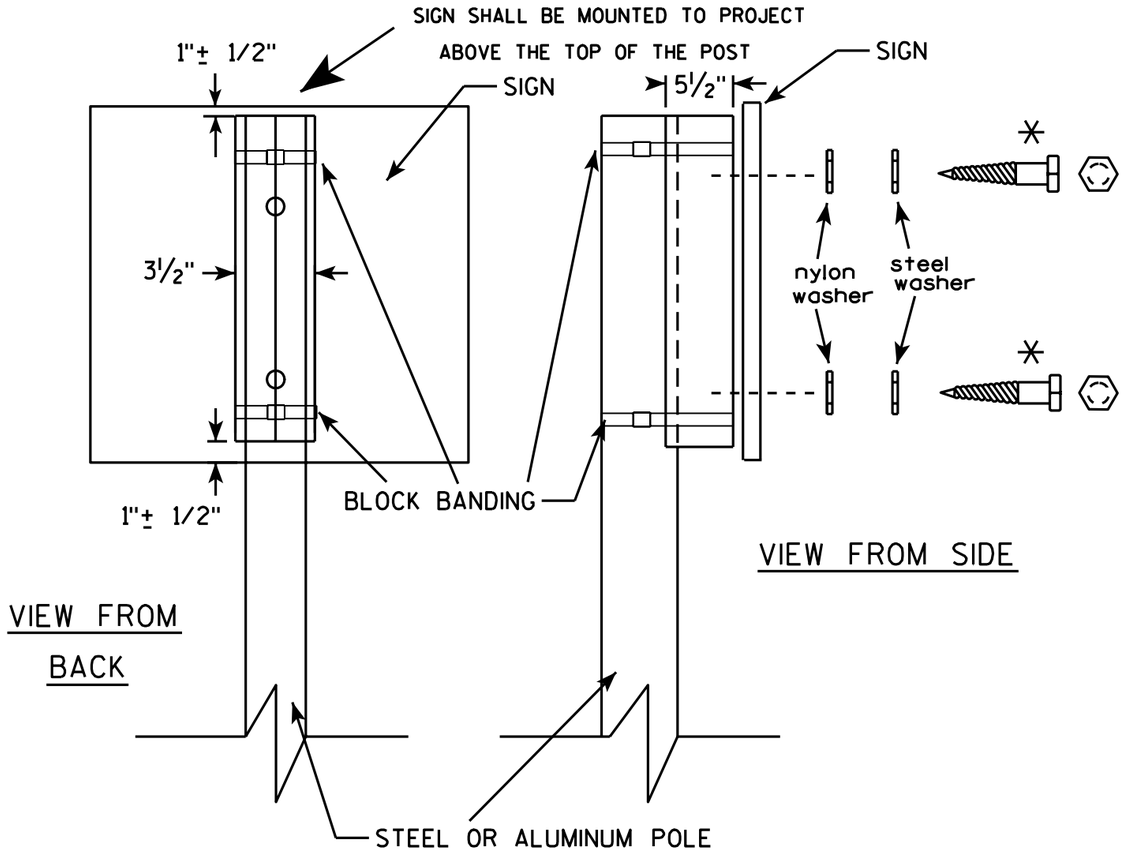
STANDARD SIGN
SIGN BANDING DETAILS

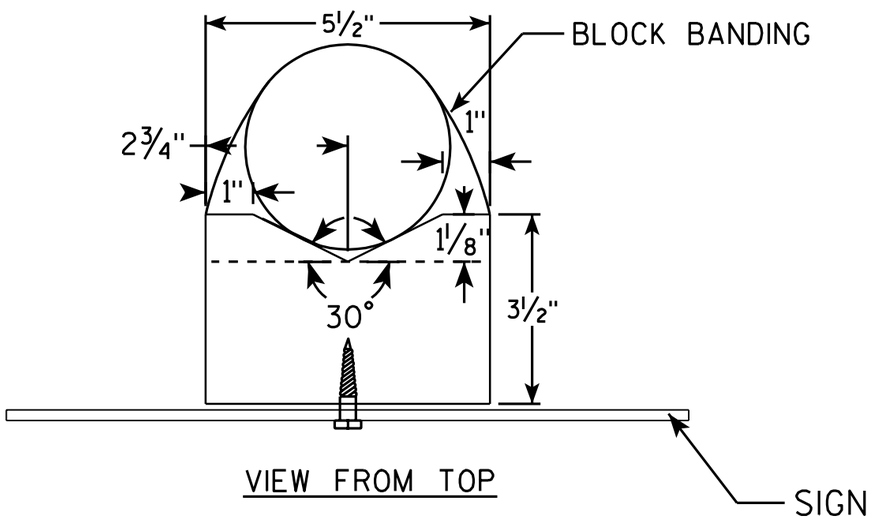
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 264	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

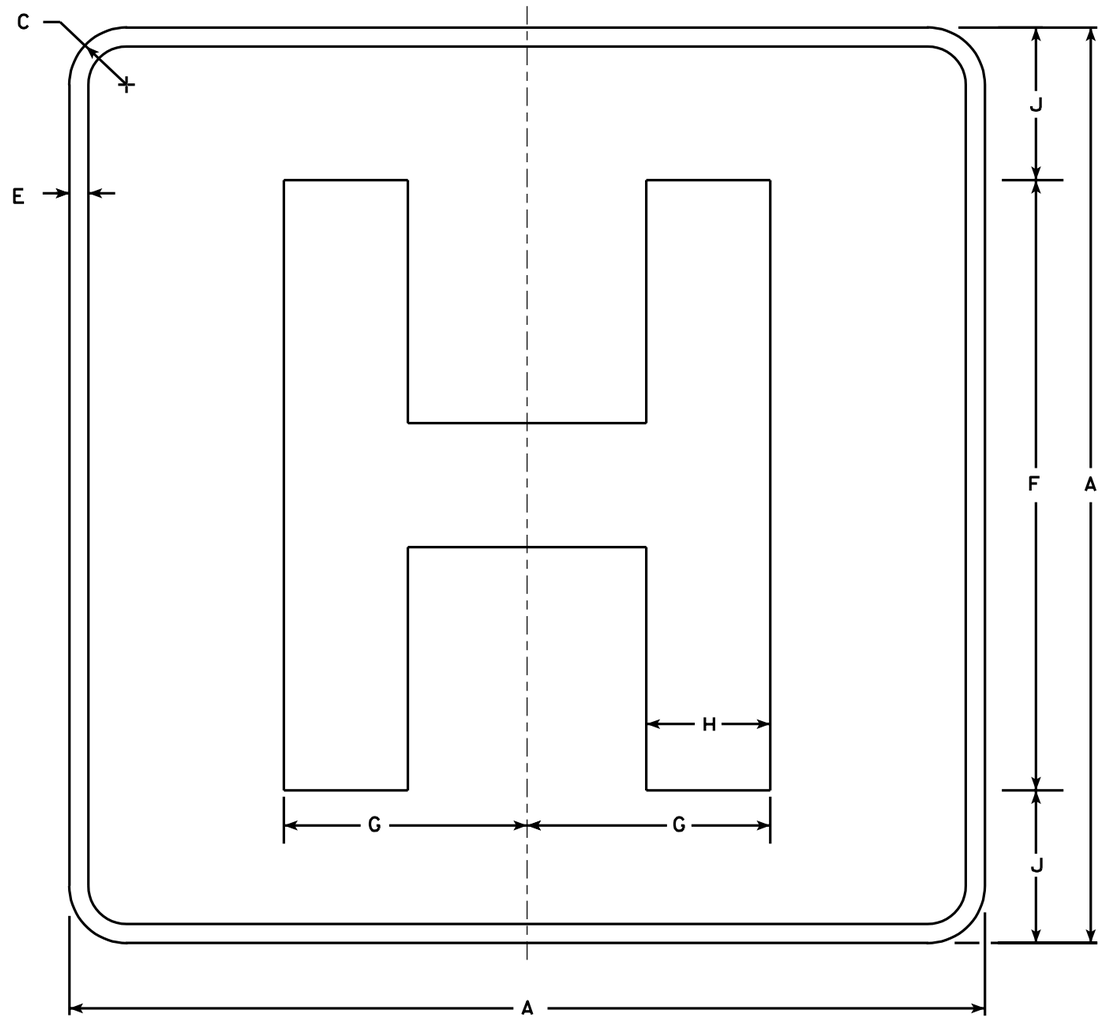
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 265 E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

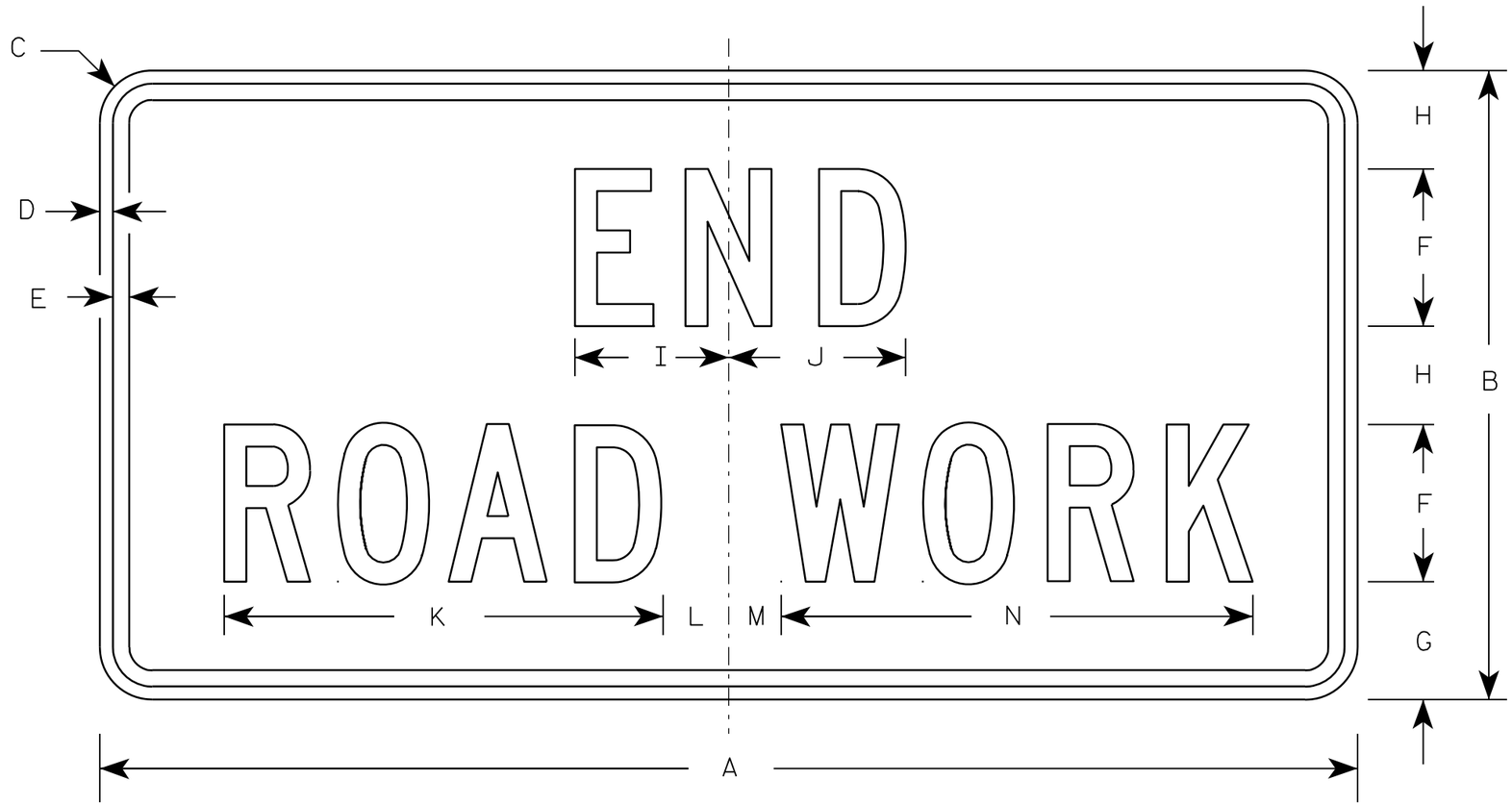
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

SHEET NO: 266 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

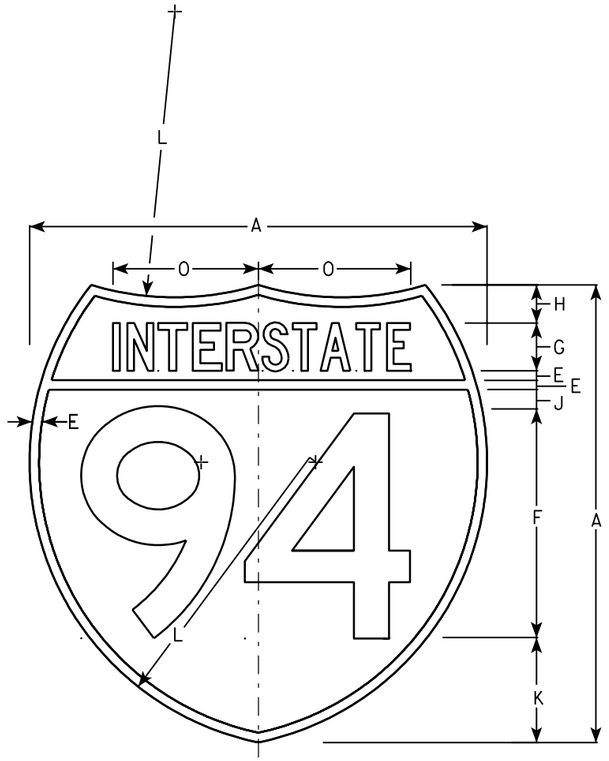
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

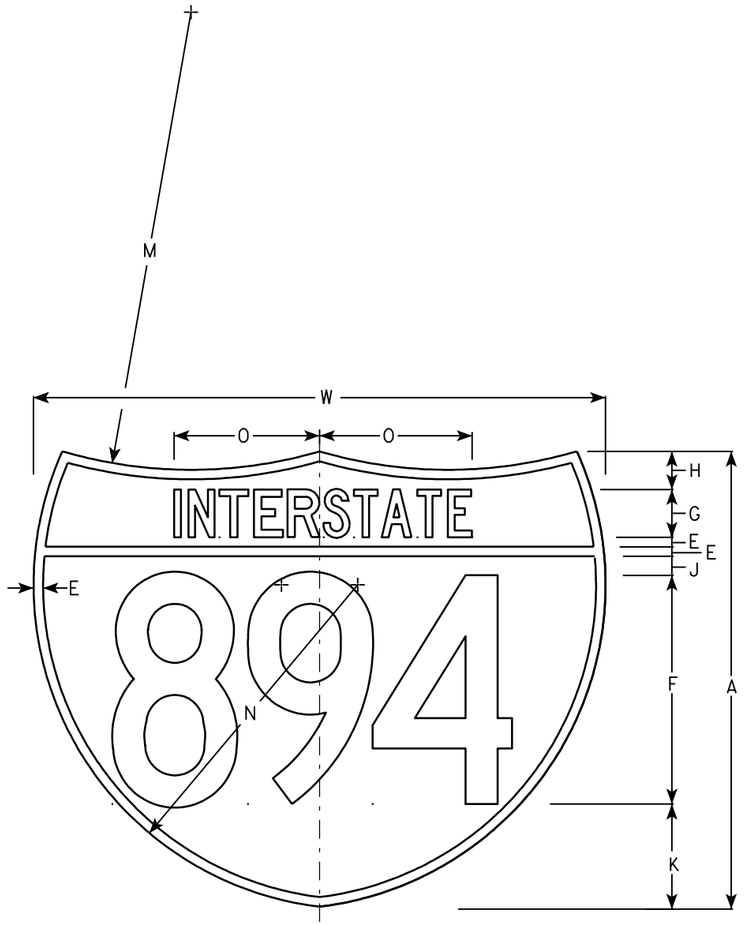
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 267	E



M1-1



M1-1A

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 & ajust 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
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

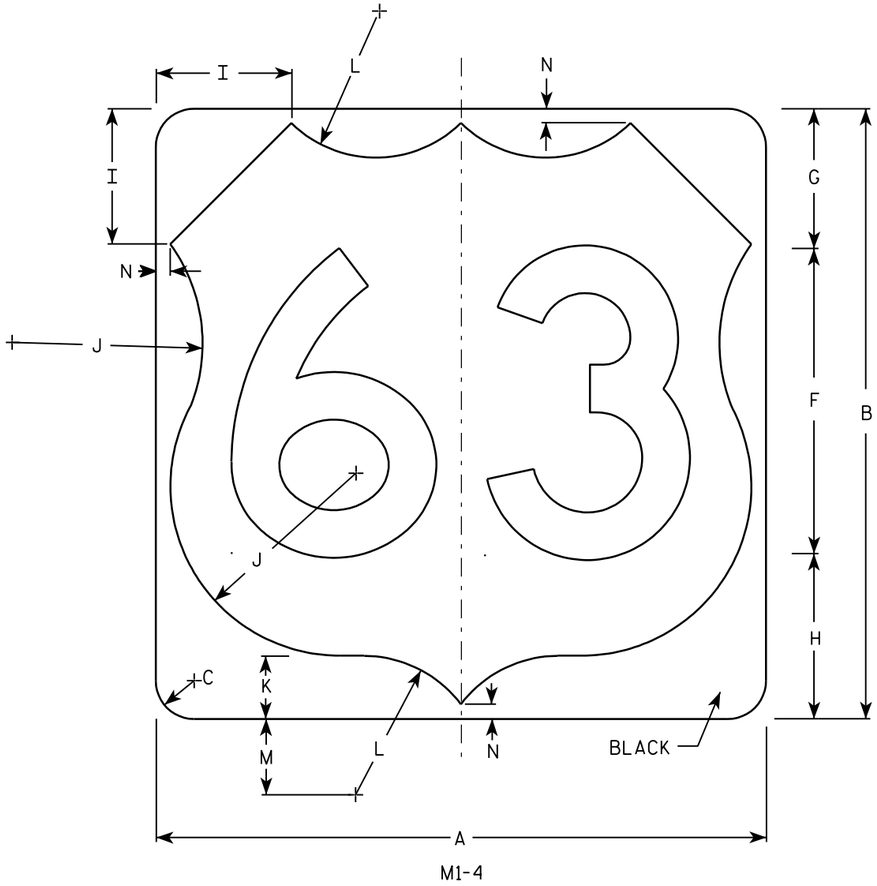
APPROVED Matthew R Rauch
for State Traffic Engineer

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

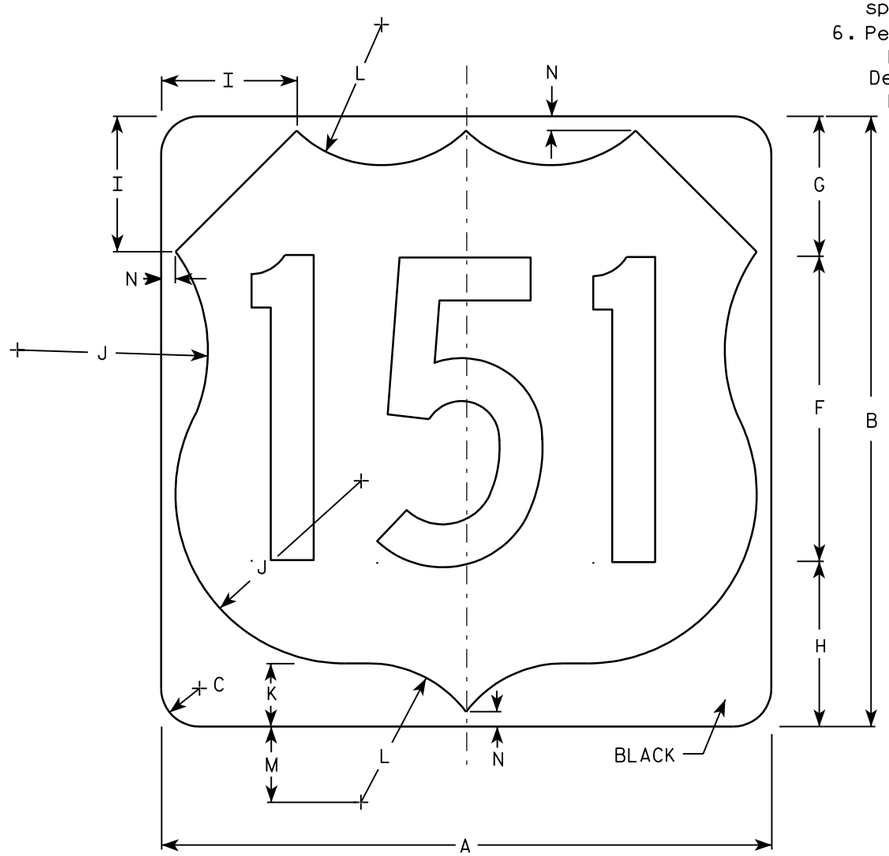
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 268	E

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 numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

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 m2
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

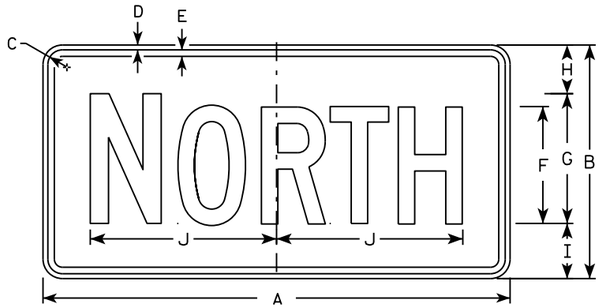
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

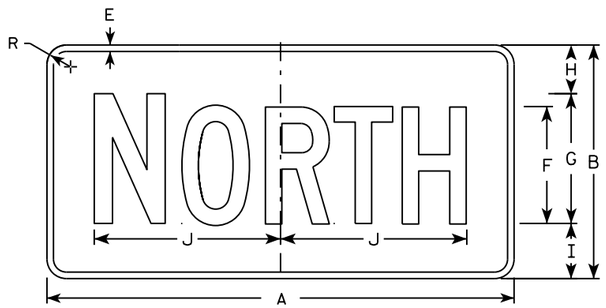
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 269	E



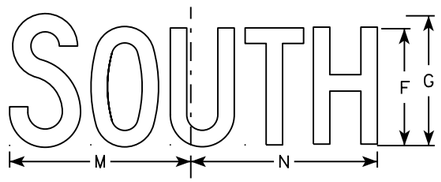
M3-1
MM3-1
MP3-1



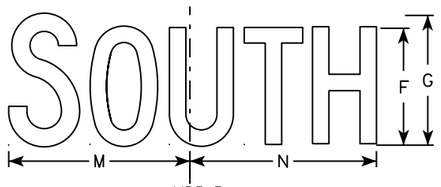
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

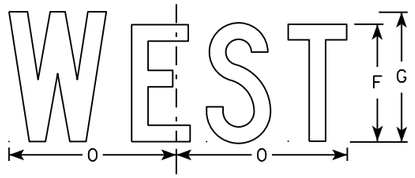
MB3-2
MK3-2
MN3-2



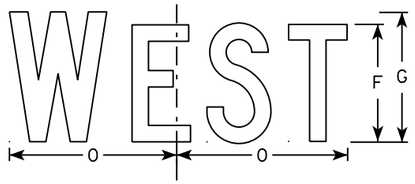
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

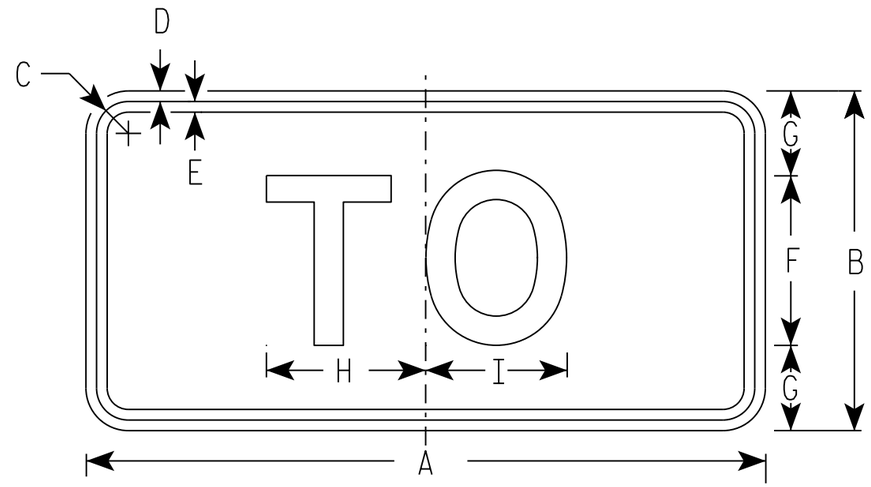
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

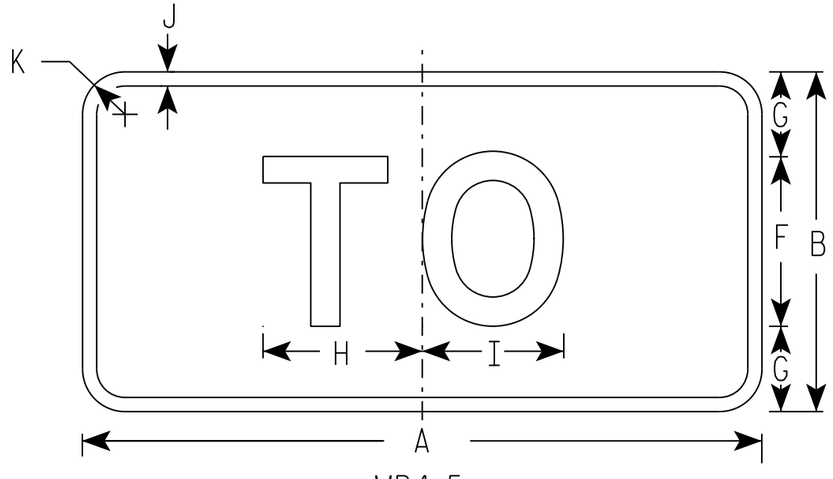
DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-5
MM4-5
MP4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

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

STANDARD SIGN
M4-5

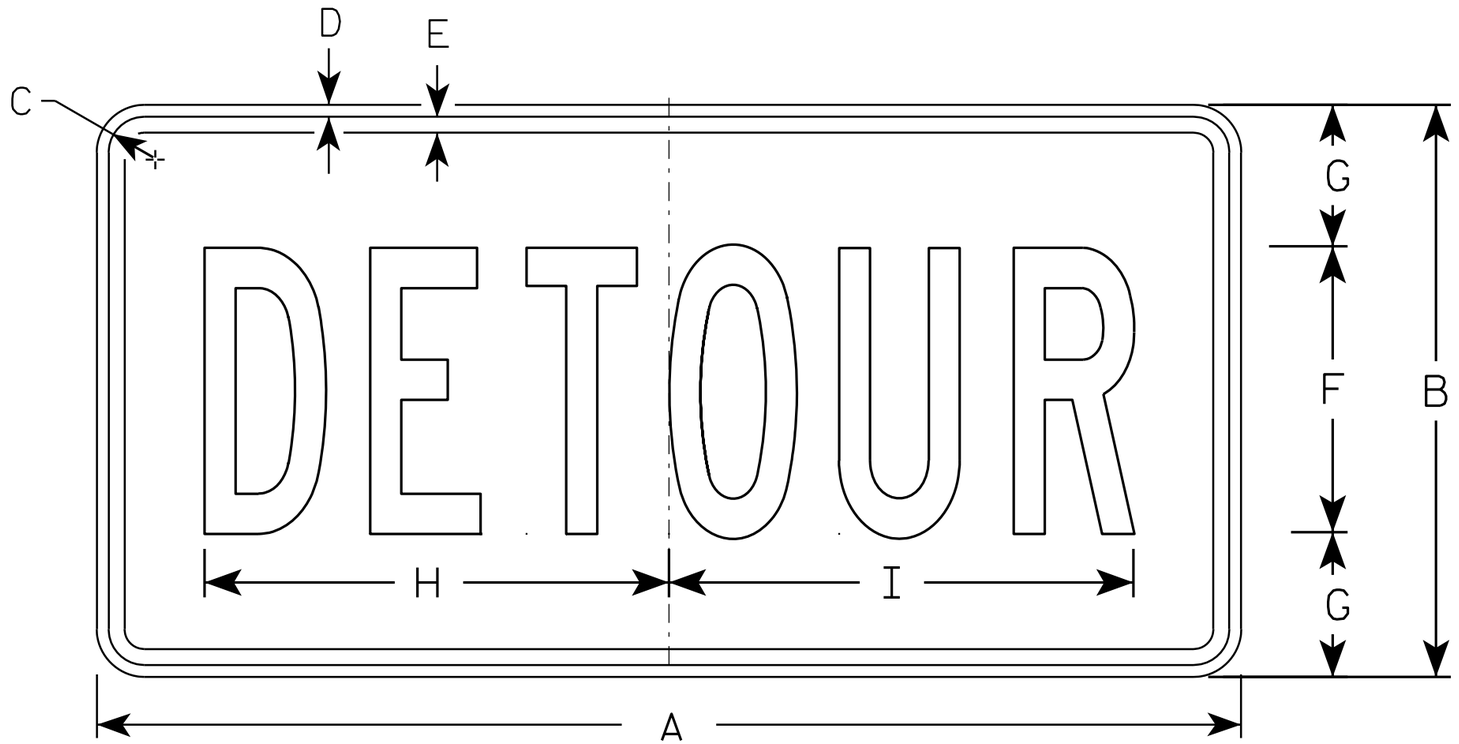
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 271 M4-5.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

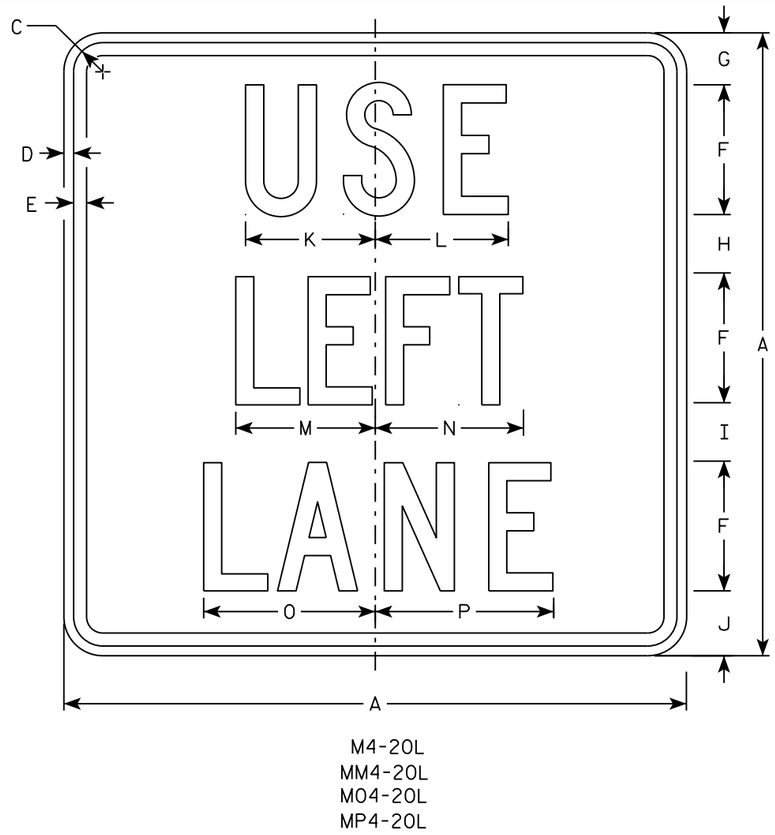
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

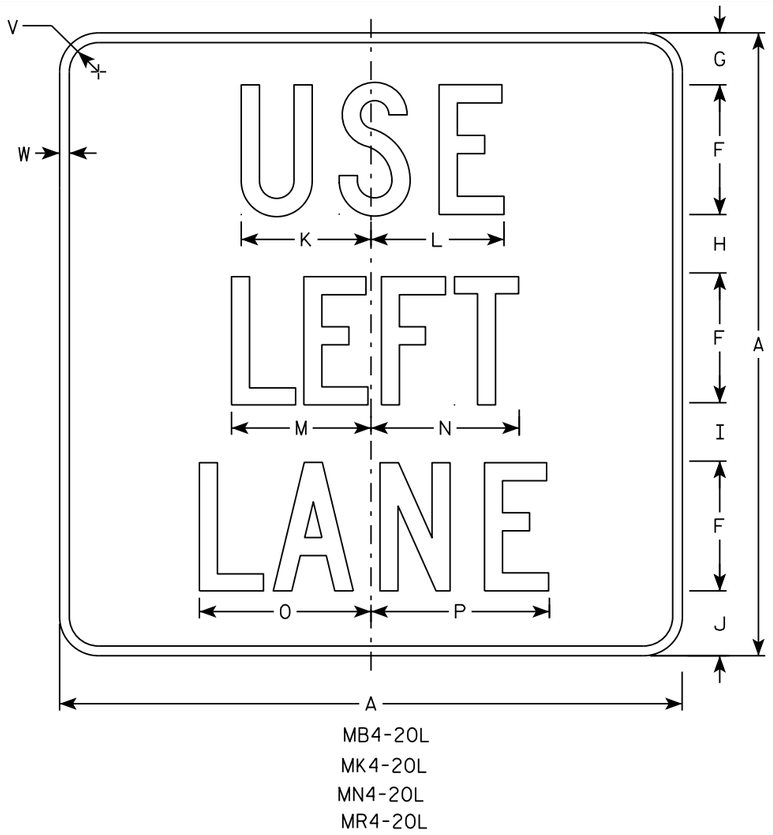
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

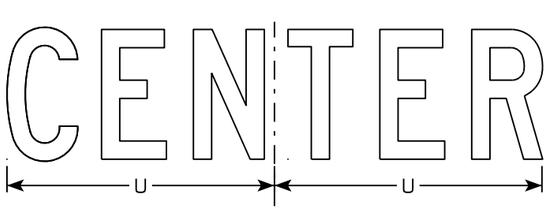
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 272	E



M4-20L
MM4-20L
M04-20L
MP4-20L



MB4-20L
MK4-20L
MN4-20L
MR4-20L



M4-20C
MB4-20C
MK4-20C
MM4-20C
MN4-20C
M04-20C
MP4-20C
MR4-20C

M4-20R
MB4-20R
MK4-20R
MM4-20R
MN4-20R
M04-20R
MP4-20R
MR4-20R

NOTES

1. Sign is Type II - Type H except as Shown
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. M4-20 Background - White
   Message - Black
   MB4-20 Background - Blue
   Message - White
   MK4-20 Background - Green
   Message - White
   MM4-20 Background - White
   Message - Green
   MN4-20 Background - Brown
   Message - White
   M04-20 Background - Orange - Type F Reflective
   Message - Black
   MP4-20 Background - White
   Message - Blue
   MR4-20 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	5 3/8	5 3/4	6 5/8	6 7/8			7	7 5/8	10 1/4	1 1/2	1/2				4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	8	8 5/8	9 7/8	10 1/4			10 3/8	11 3/8	14 3/8	1 7/8	1/2				9.0
4																											
5																											

STANDARD SIGN
M4-20

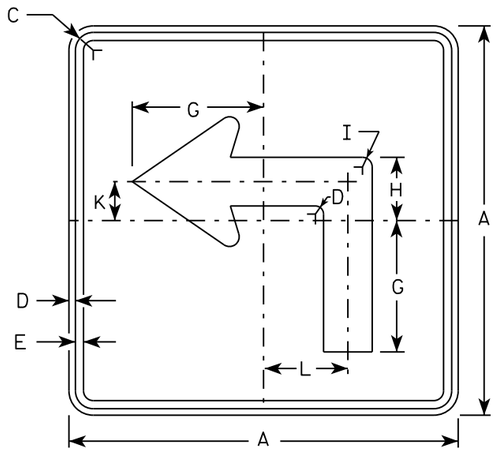
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

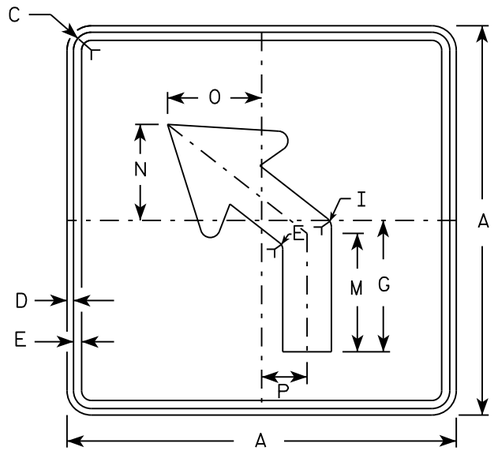
DATE 10/15/15 PLATE NO M4-20.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

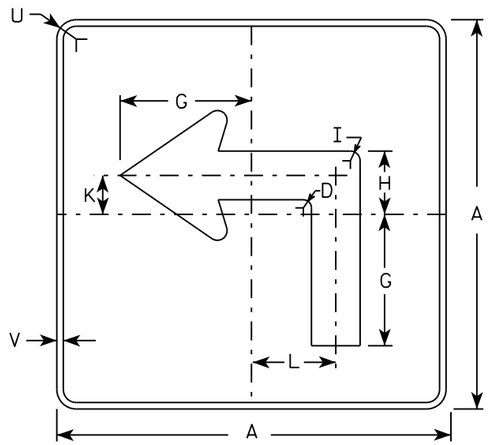
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M420.DGN PLOT DATE : 01-DEC-2015 18:03 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



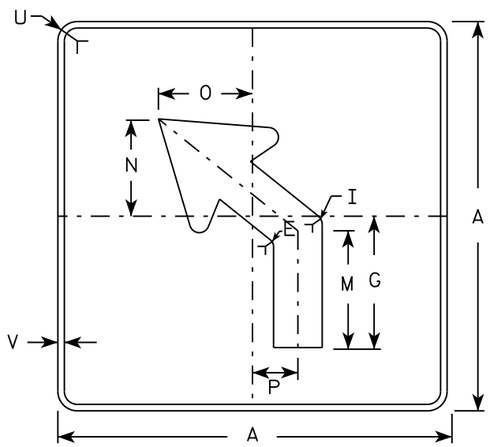
M5-1L
MM5-1L
MO5-1L
MP5-1L



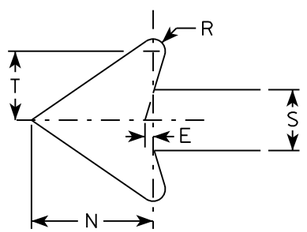
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	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
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
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
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

STANDARD SIGN
M5-1 & M5-2

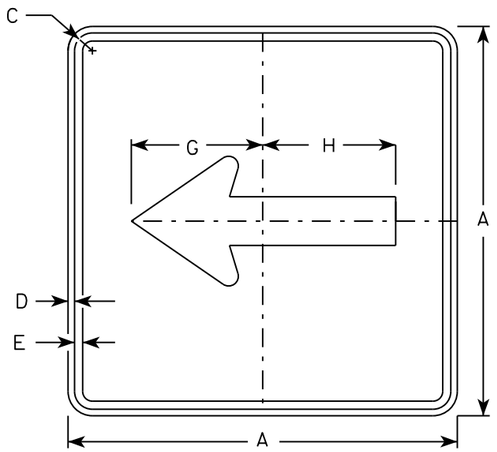
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

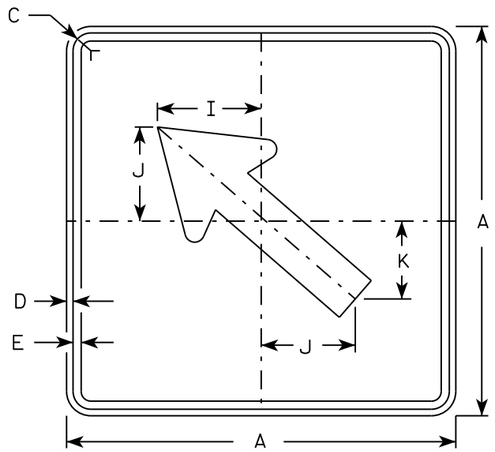
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



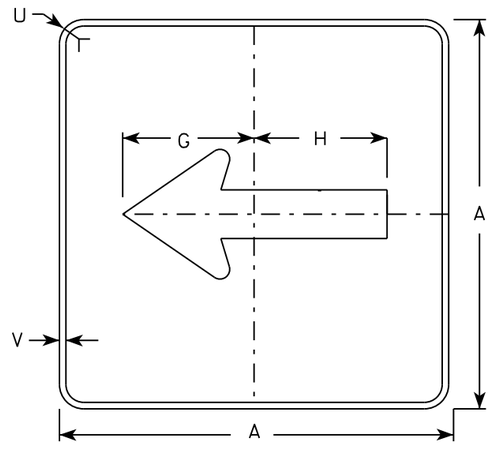
M6-1
MM6-1
MO6-1
MP6-1



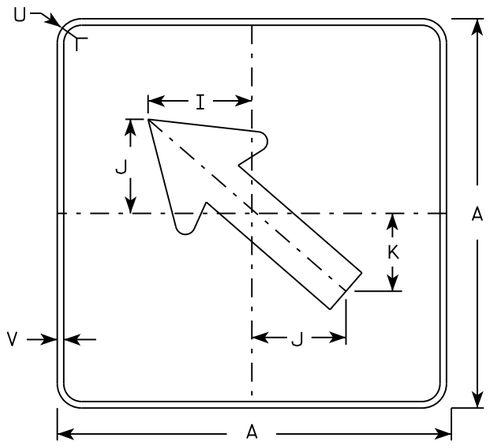
M6-2
MM6-2
MO6-2
MP6-2

NOTES

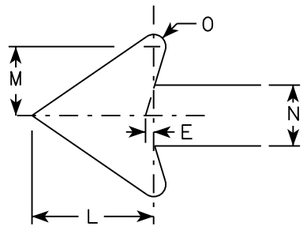
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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

STANDARD SIGN
M6-1 & M6-2
SERIES

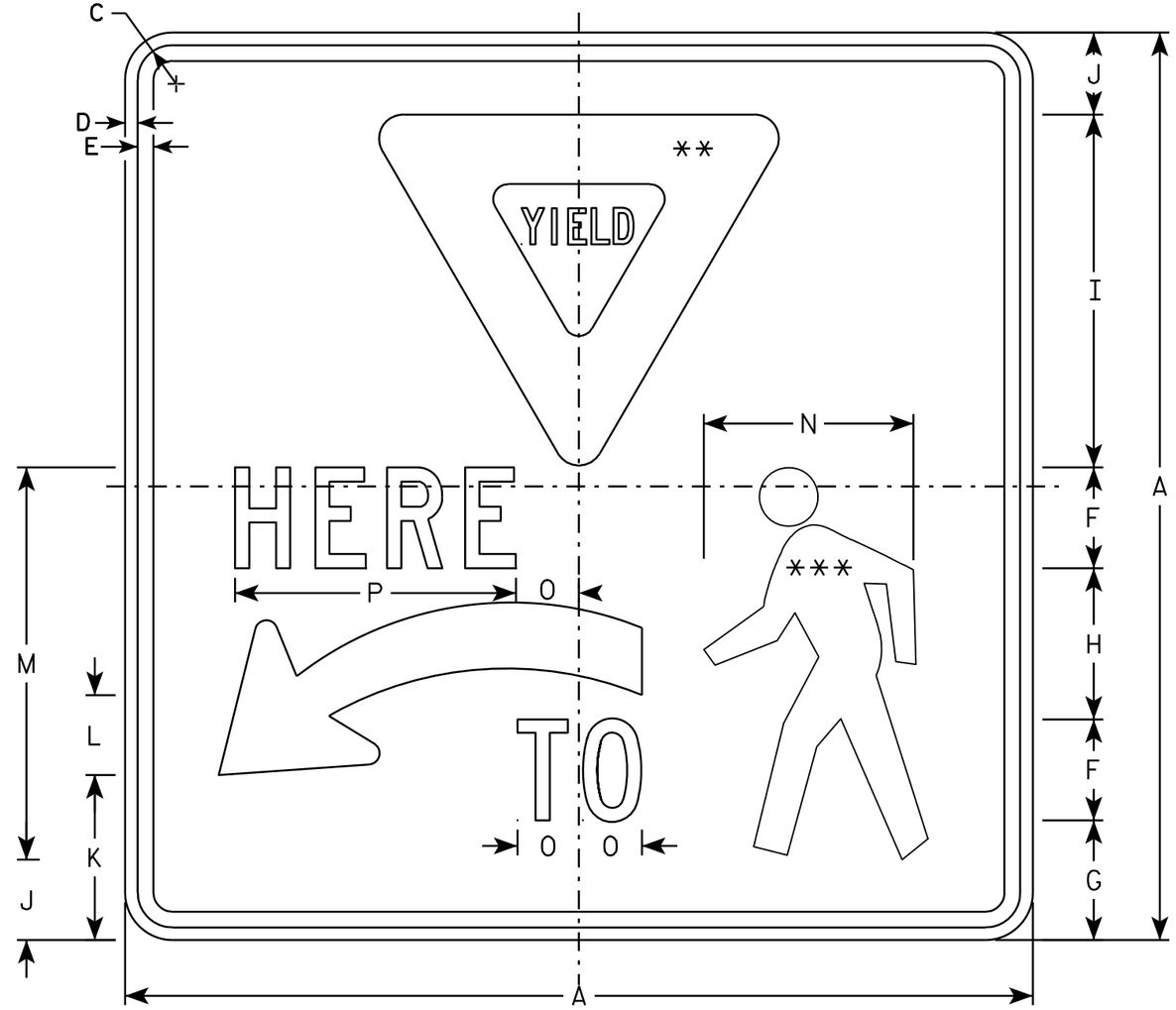
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATI 275 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



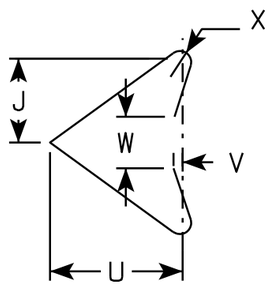
R1-5L

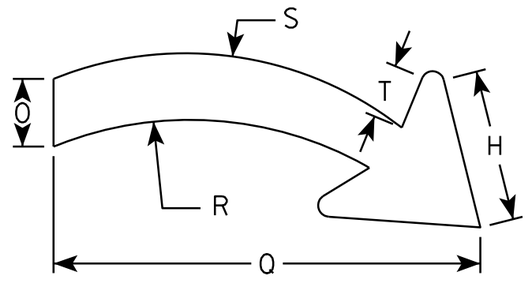
NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT





Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
2M	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
3	30		1 3/8	1/2	5/8	3	4	5 3/8	12	2 3/4	5 1/2	2 5/8	13	6 7/8	1 7/8	8 3/8	14	23 3/4	23	1 3/4	4 3/8	1/4	1 3/4	3/4			6.25
4	36		1 3/8	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
5																											

STANDARD SIGN
R1-5L

WISCONSIN DEPT OF TRANSPORTATION

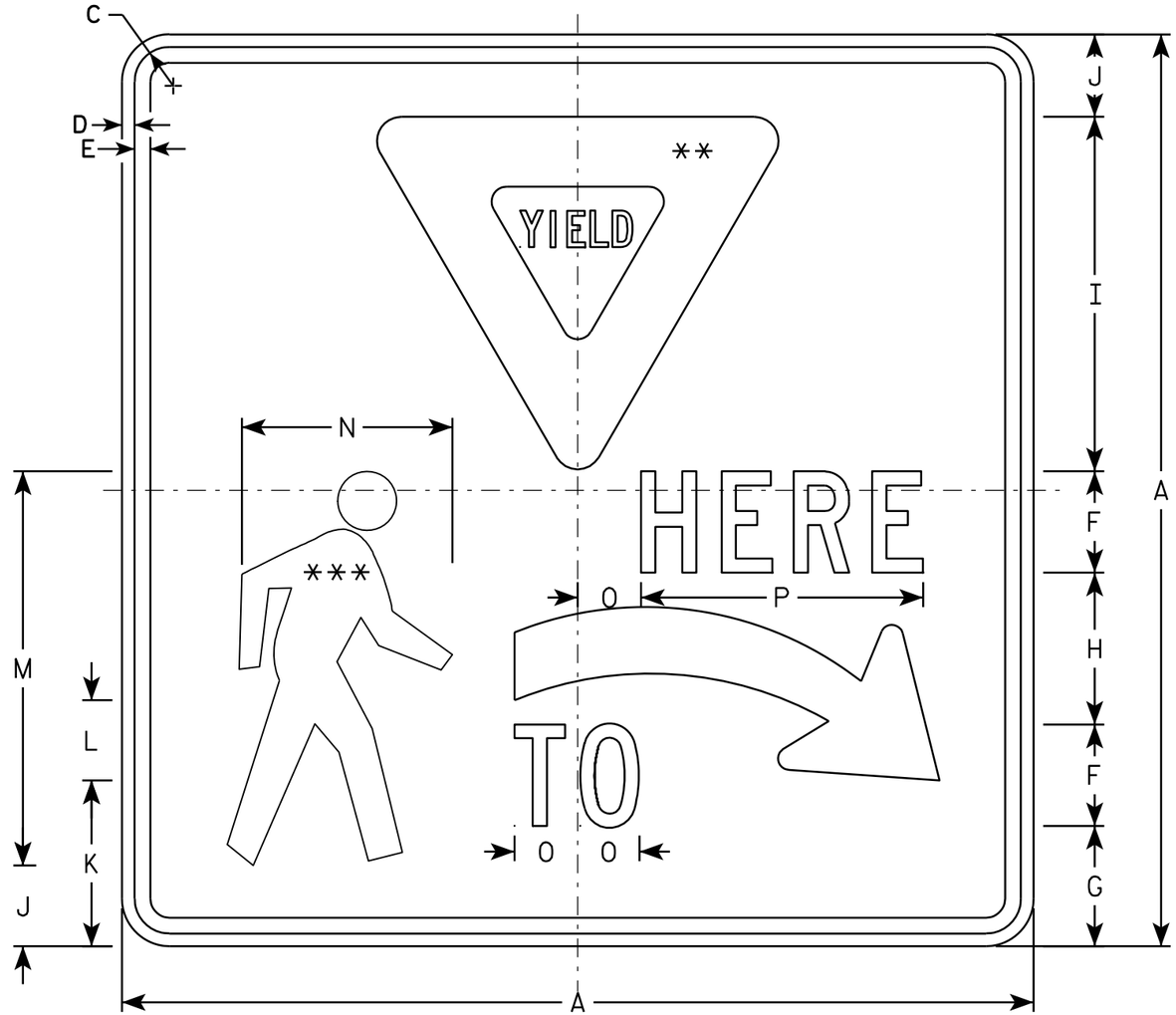
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-5L.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 276 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R15L.DGN PLOT DATE : 03-DEC-2010 09:07 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42



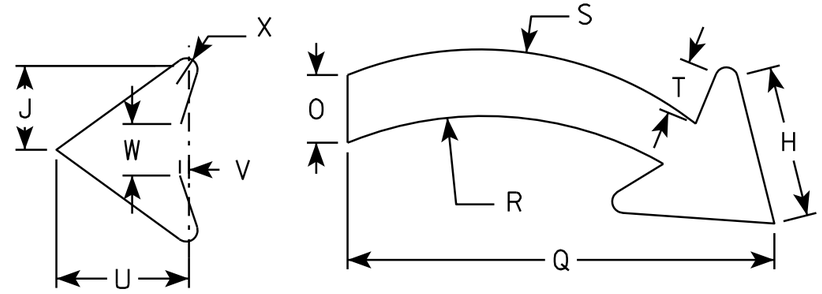
R1-5R

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
2M	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
3	30		1 3/8	1/2	5/8	3	4	5 3/8	12	2 3/4	5 1/2	2 5/8	13	6 7/8	1 7/8	8 3/8	14	23 3/4	23	1 3/4	4 3/8	1/4	1 3/4	3/4			6.25
4	36		1 3/8	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
5																											

STANDARD SIGN
R1-5R

WISCONSIN DEPT OF TRANSPORTATION

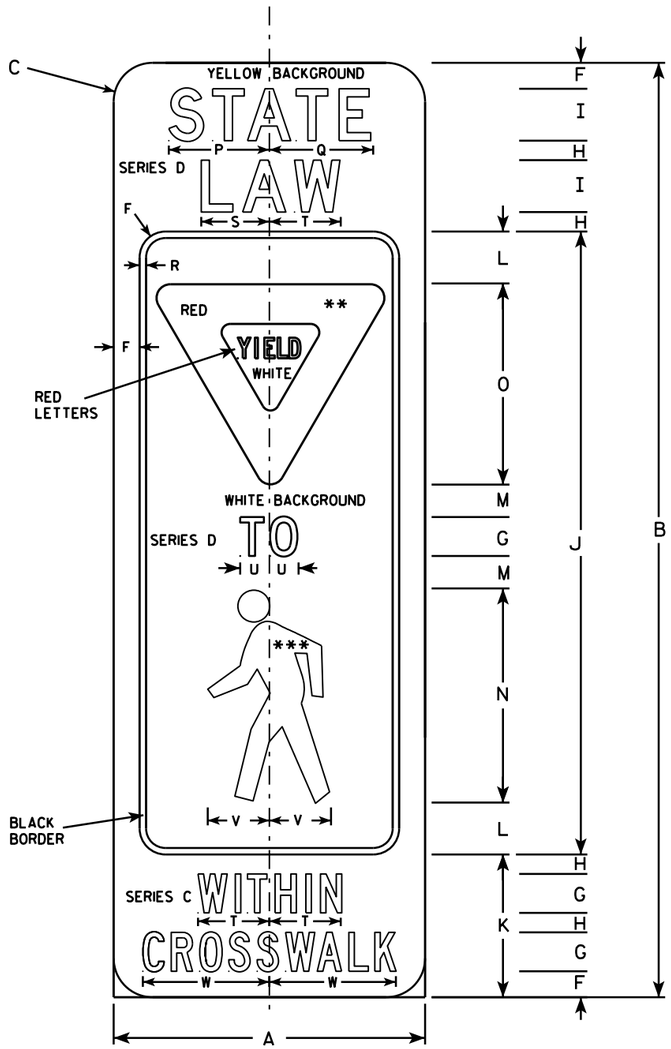
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-5R.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 277 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R15R.DGN PLOT DATE : 03-DEC-2010 09:17 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42



R1-6

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - YELLOW
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - AS SHOWN AND IN TABLE
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 ½			1	1 ½C	¾	2 D	24	5 ½	2	1 ¼	8 ¼	7 ¾	3 ⅞	4	¼	2 ⅝	2 ¾	1 ⅛	2 ⅜	4 ⅞				3.0
2M	12	36	1 ½			1	1 ½C	¾	2 D	24	5 ½	2	1 ¼	8 ¼	7 ¾	3 ⅞	4	¼	2 ⅝	2 ¾	1 ⅛	2 ⅜	4 ⅞				3.0
3																											
4																											
5																											

STANDARD SIGN
R1-6

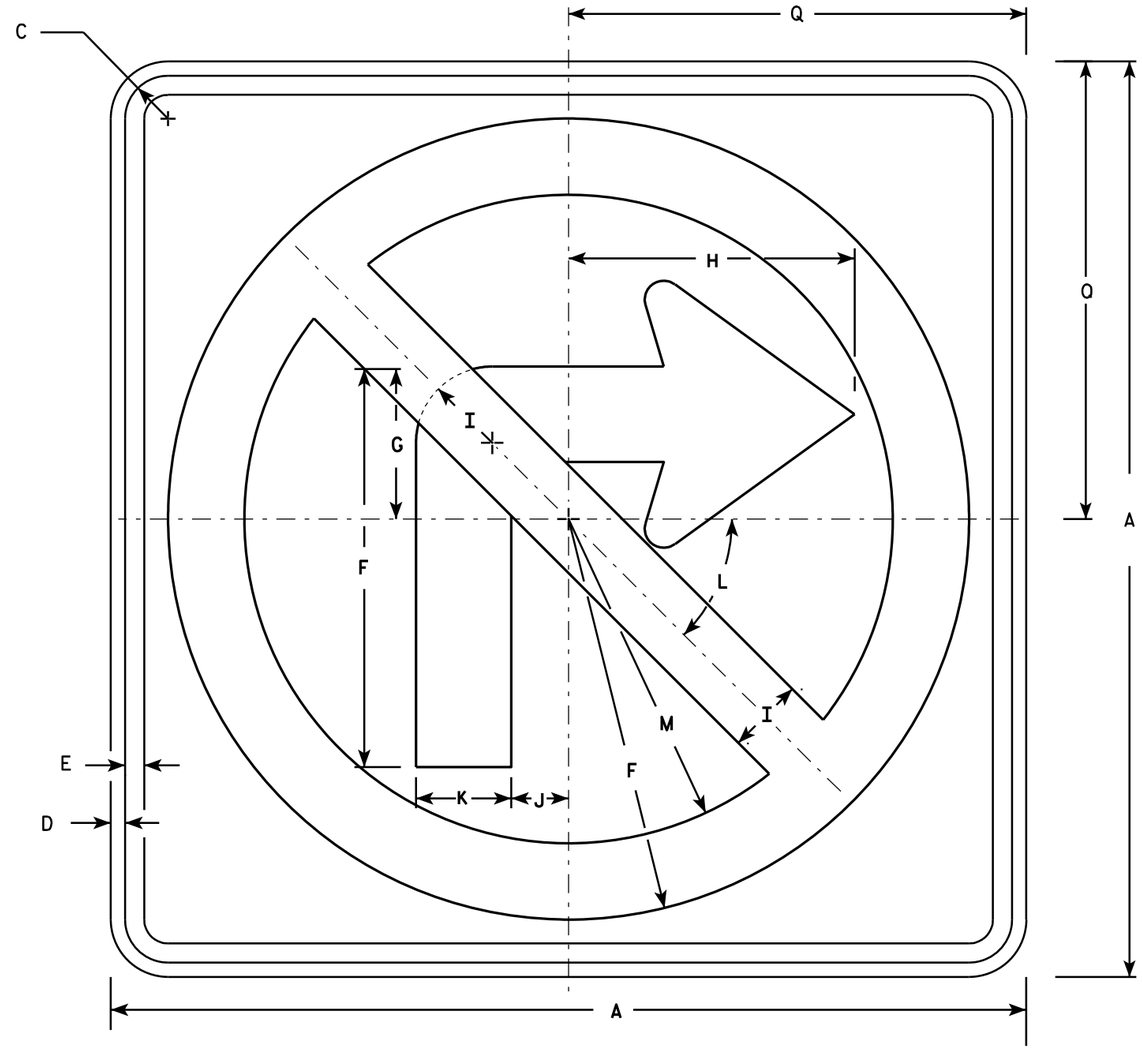
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/29/14 PLATE NO. R1-6.3

PROJECT NO:

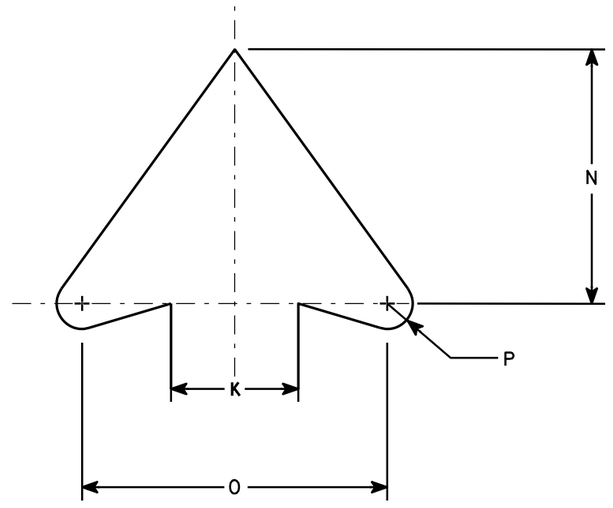
SHEET NO: E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

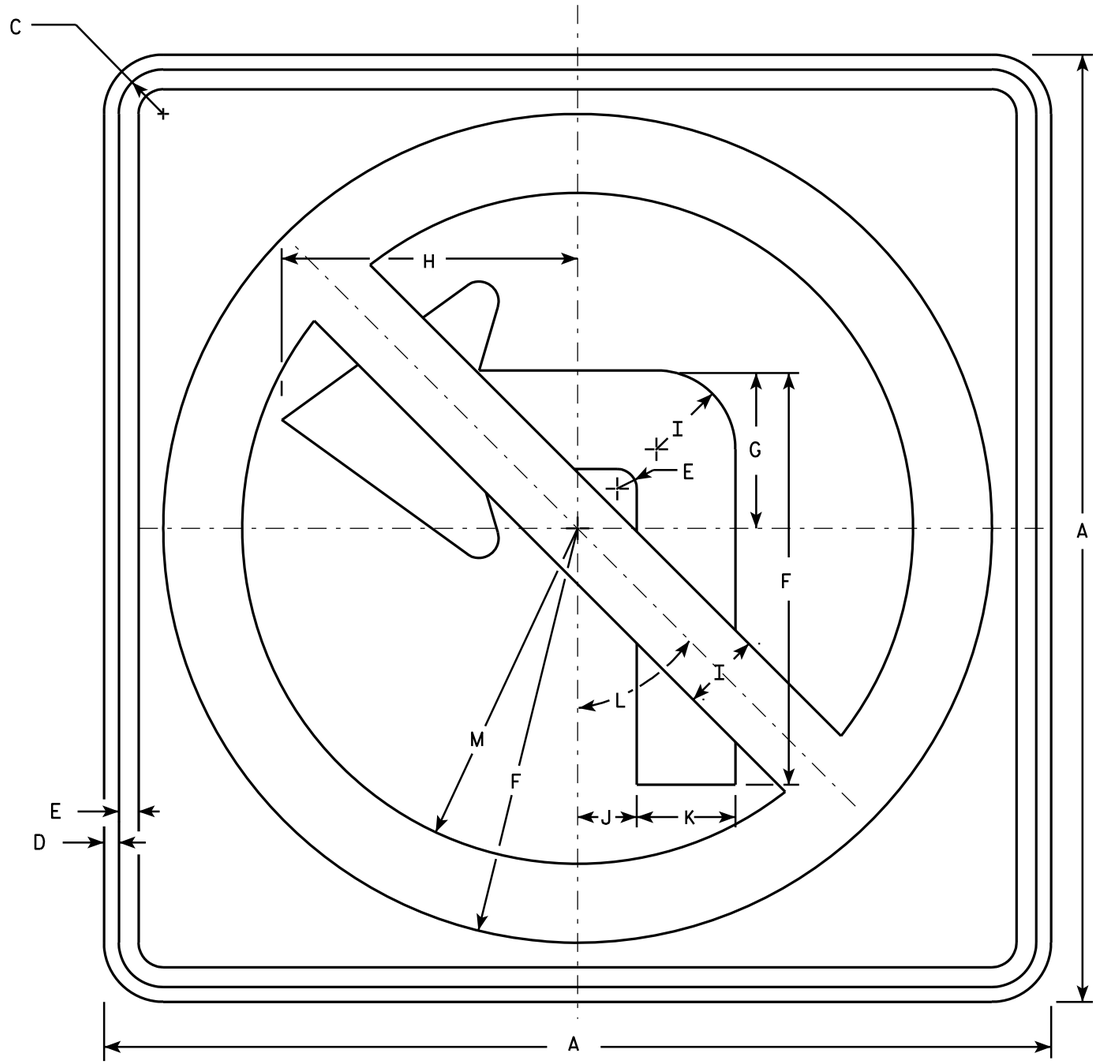
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

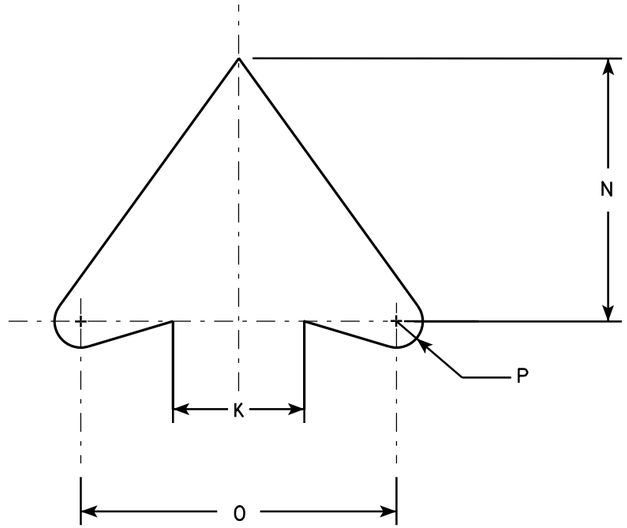
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 279	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

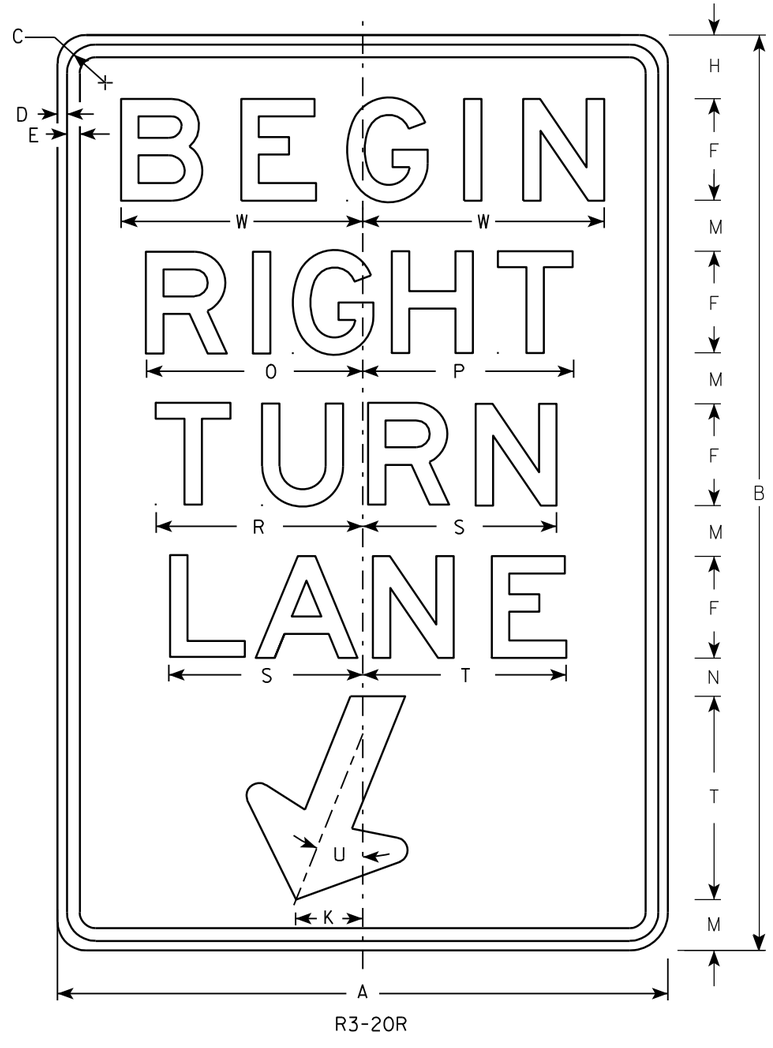
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

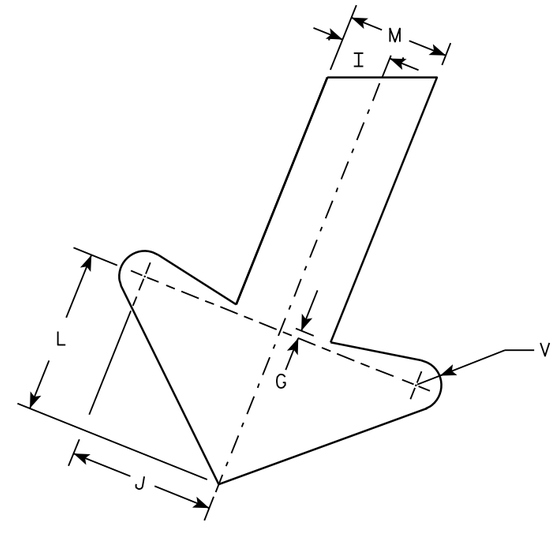
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 280	E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

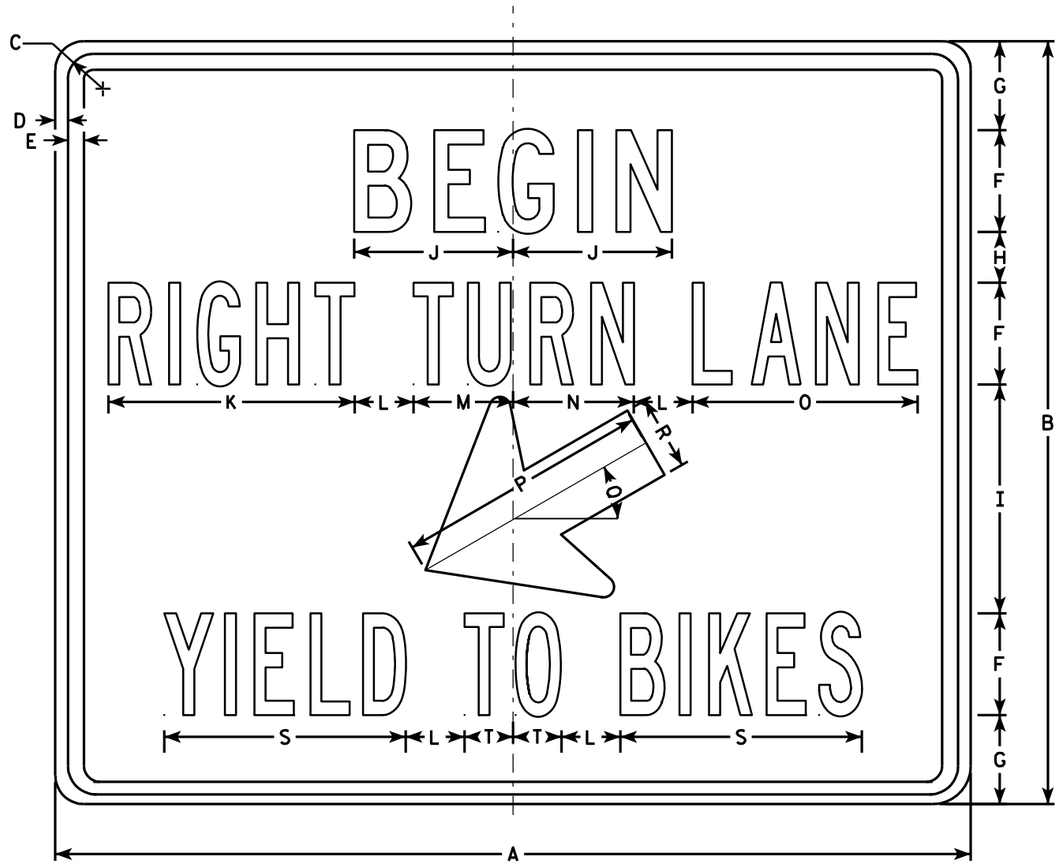
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 281 | E



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

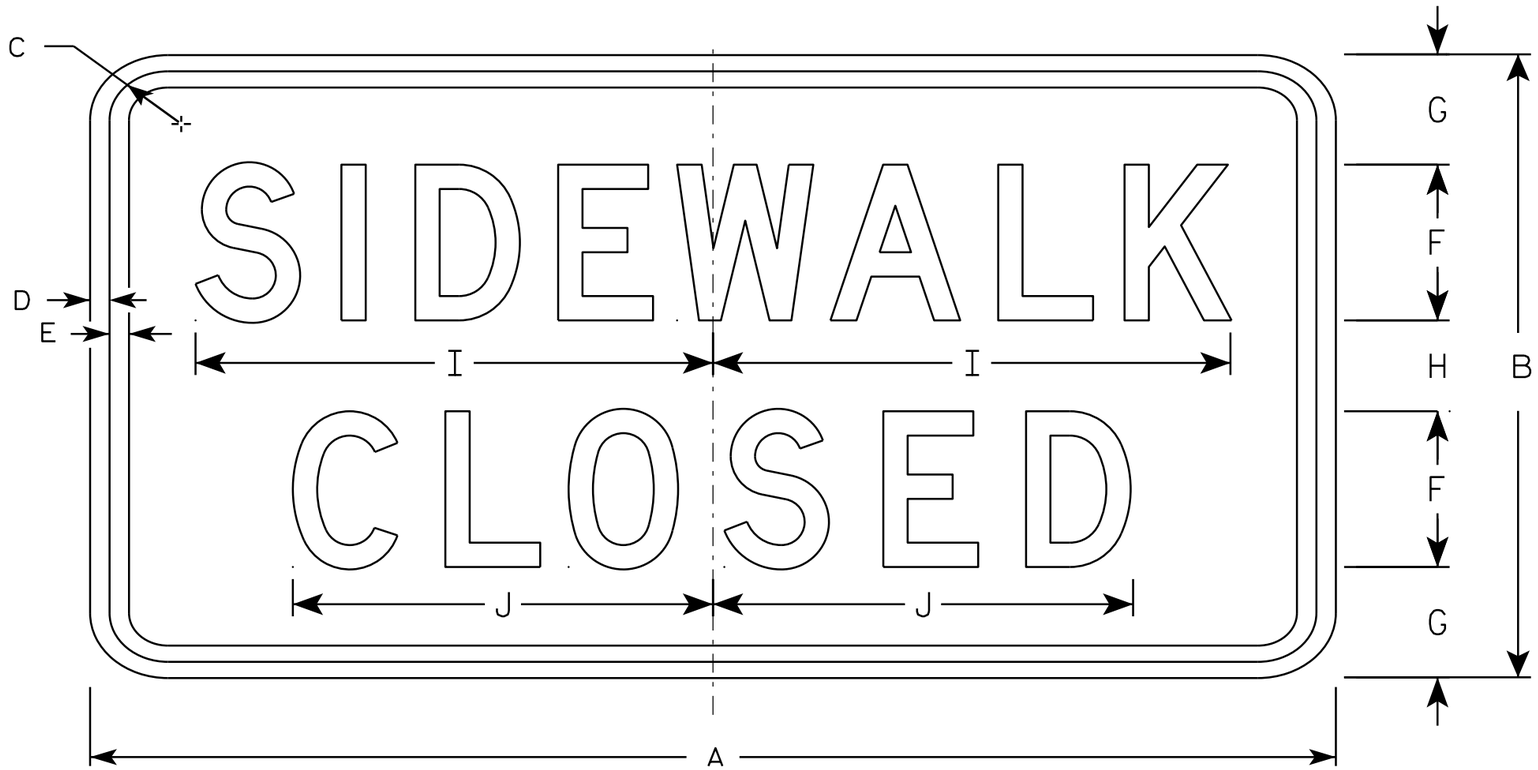
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 282 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R44.DGN PLOT DATE : 25-MAR-2011 13:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



R9-9

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

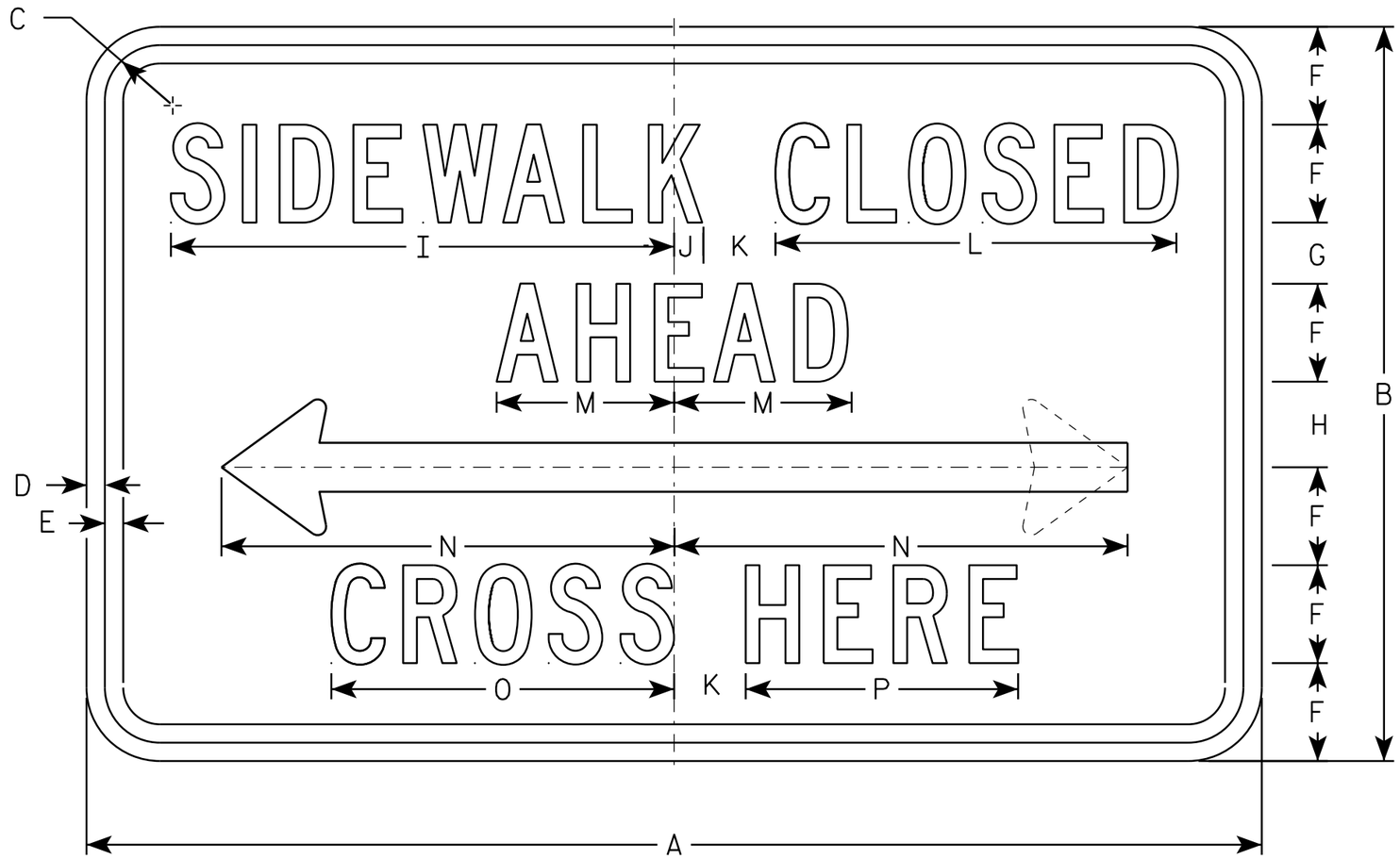
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE 283 R9-9.6

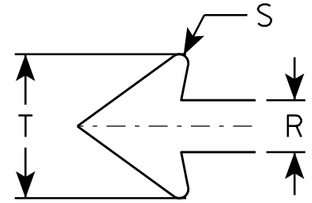
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



R9-11

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C except Size 1 is Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 1/2	1 1/4	3	16 3/8	7 1/4	18 1/2	14	11 1/8		2	3/8	5 1/2							10.0
4																											
5																											

STANDARD SIGN
R9-11

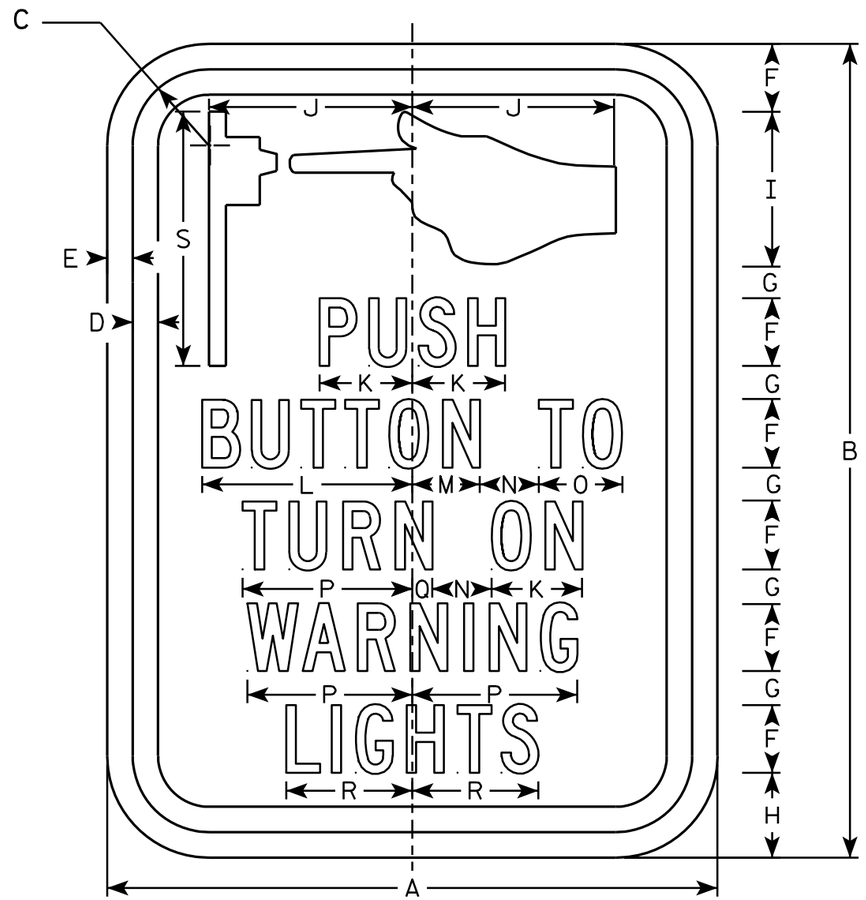
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE No. R9-11.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R911.DGN PLOT DATE : 10-MAR-2016 14:57 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837529:1.000000
WISDOT/CADDS SHEET 42



R10-25

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Size (1) comes as a decal only.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	6	9	1 1/8	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

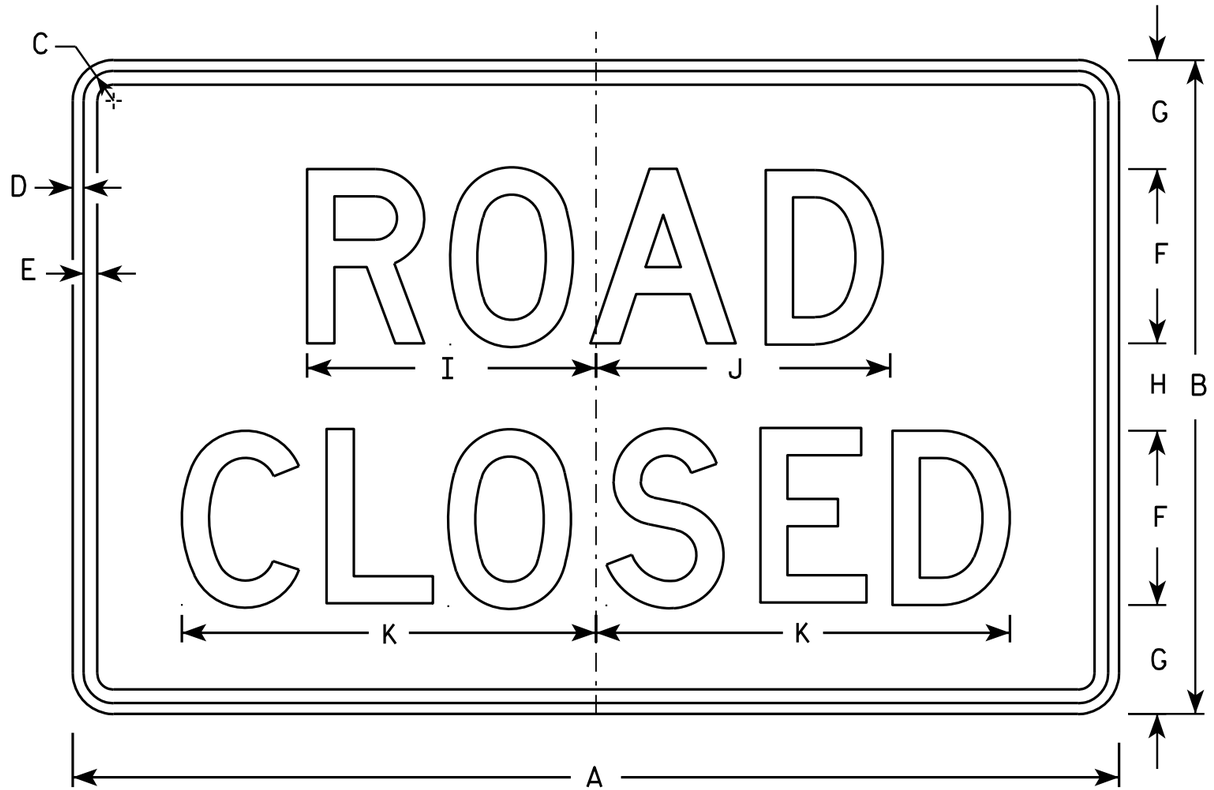
STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. R10-25.1

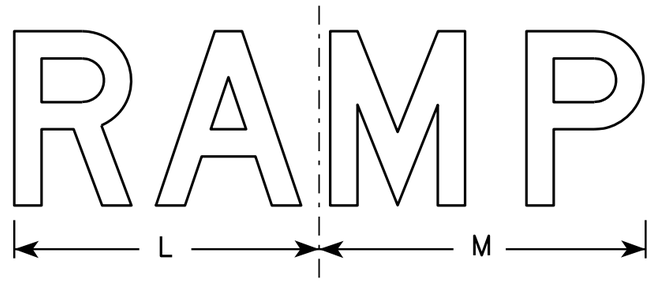
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 285	E



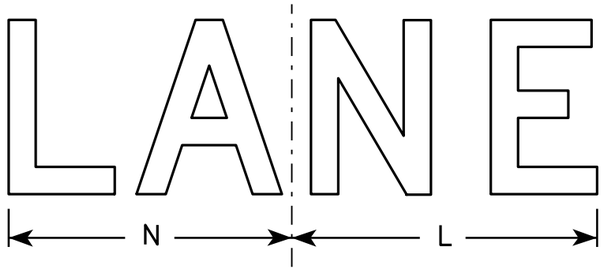
R11-2

NOTES

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

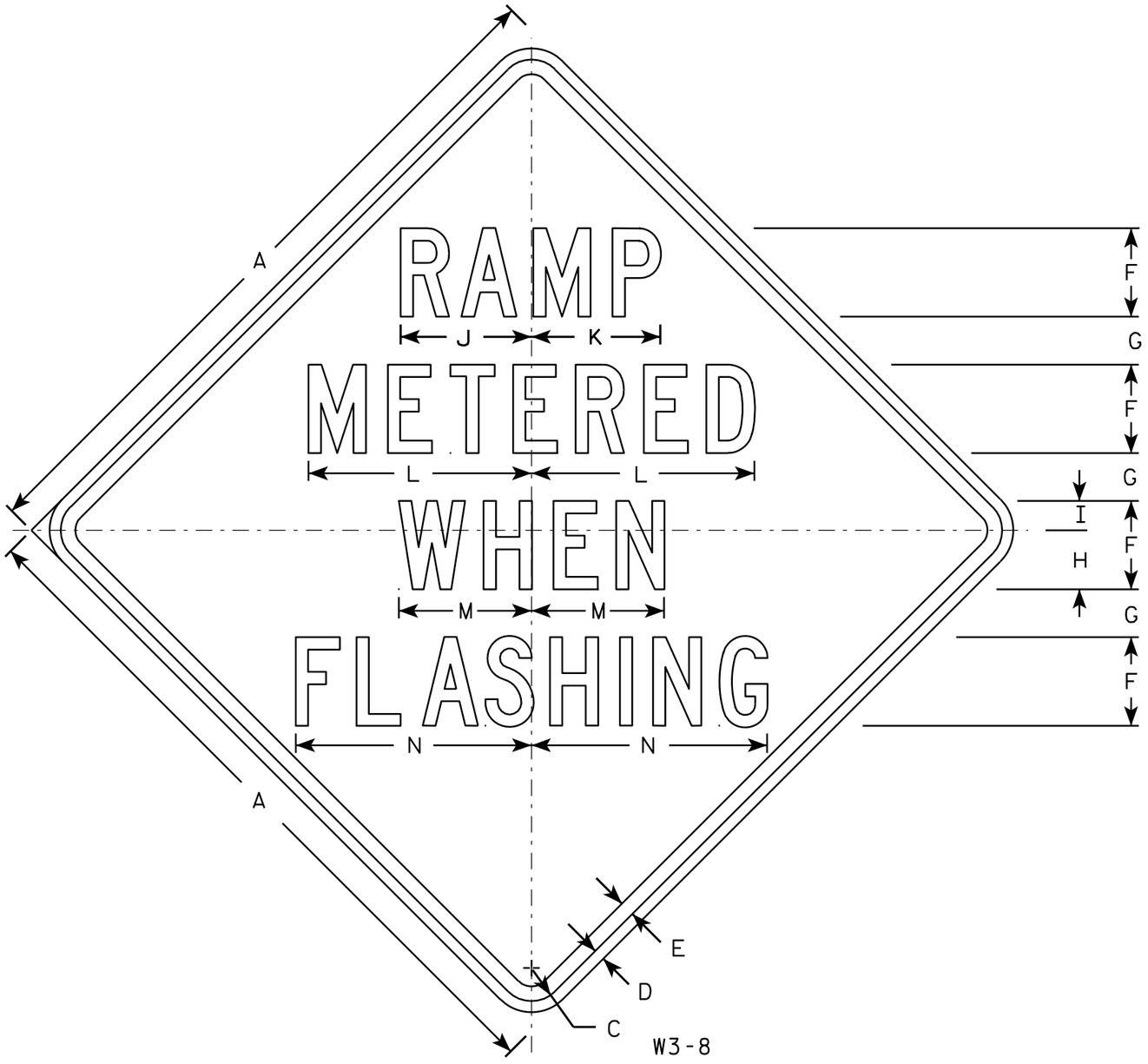
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 286	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
2M	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
3	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
4	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0
5	48		2 1/4	3/4	1	6	3 3/4	4	2	8 7/8	8 3/4	15 1/8	9	16													16.0

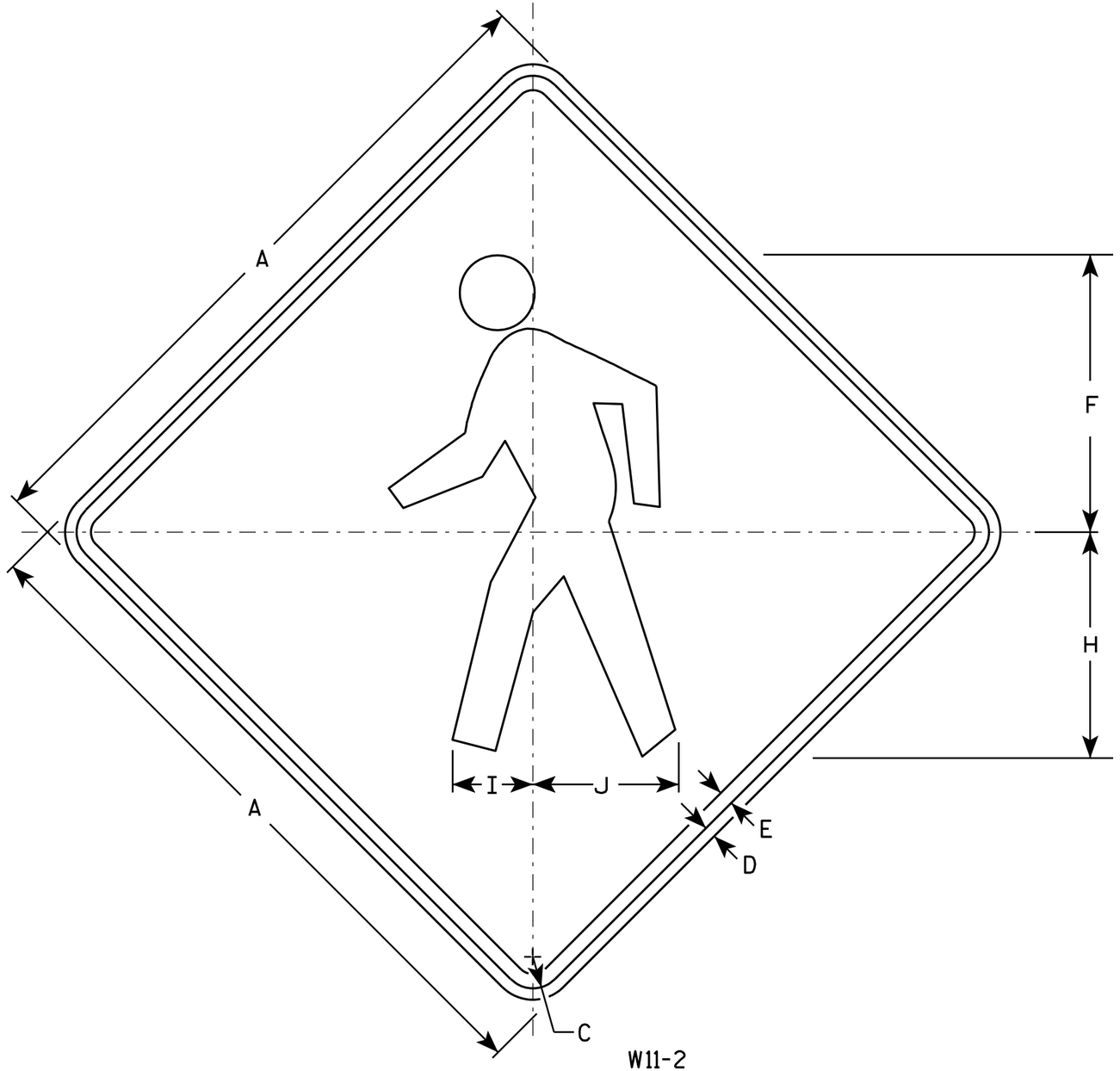
STANDARD SIGN
W3-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W3-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 287	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

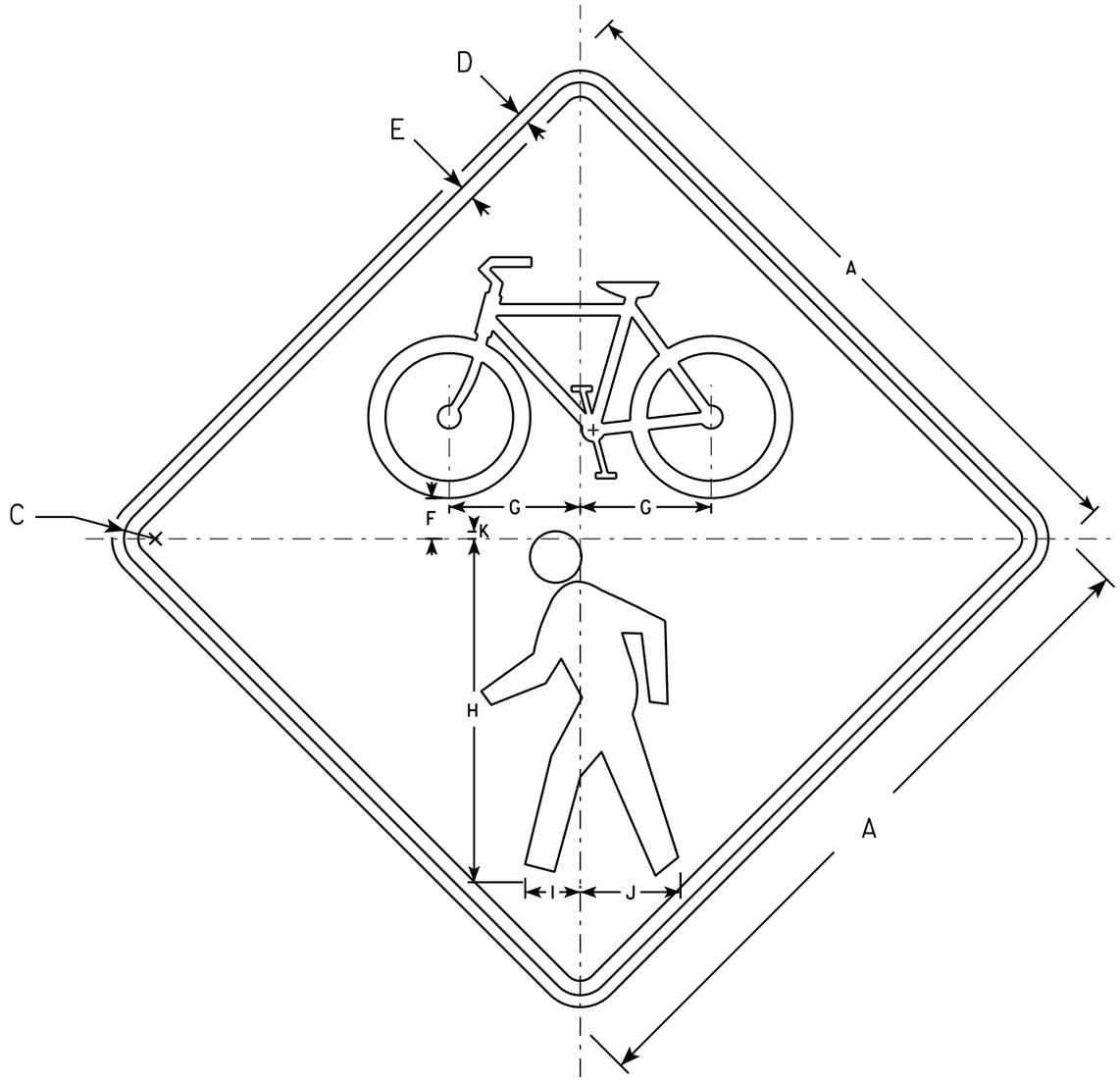
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 288	E



W11-15

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 3/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																16.0
4	48		2 1/4	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN
W11-15

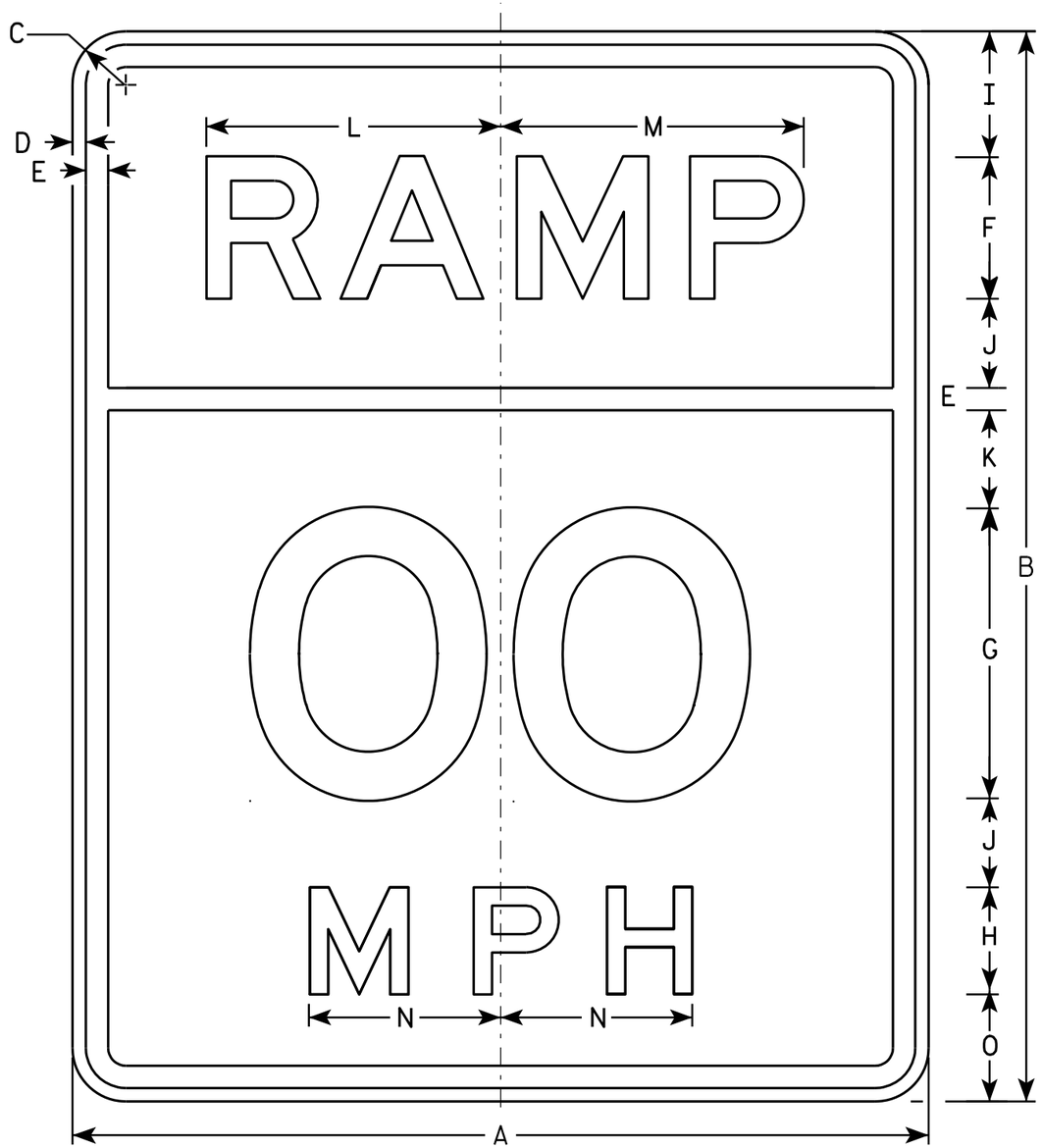
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/13/14 PLATE NO. W11-15.4

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W1115.DGN PLOT DATE : 13-FEB-2014 10:54 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.783368:1.000000
WISDOT/CADDS SHEET 42



W13-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

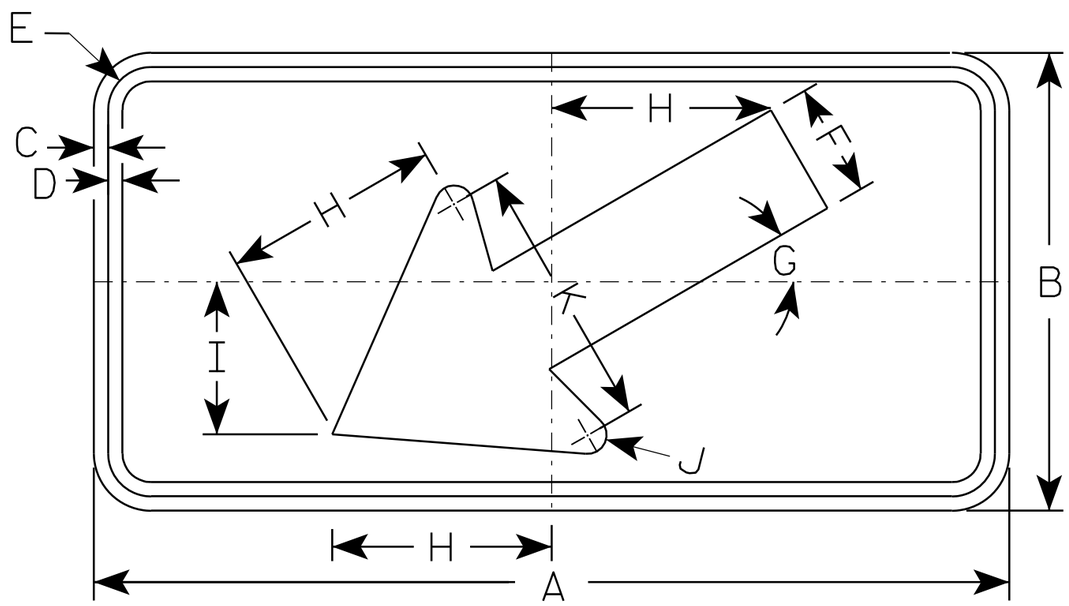
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 290 | E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

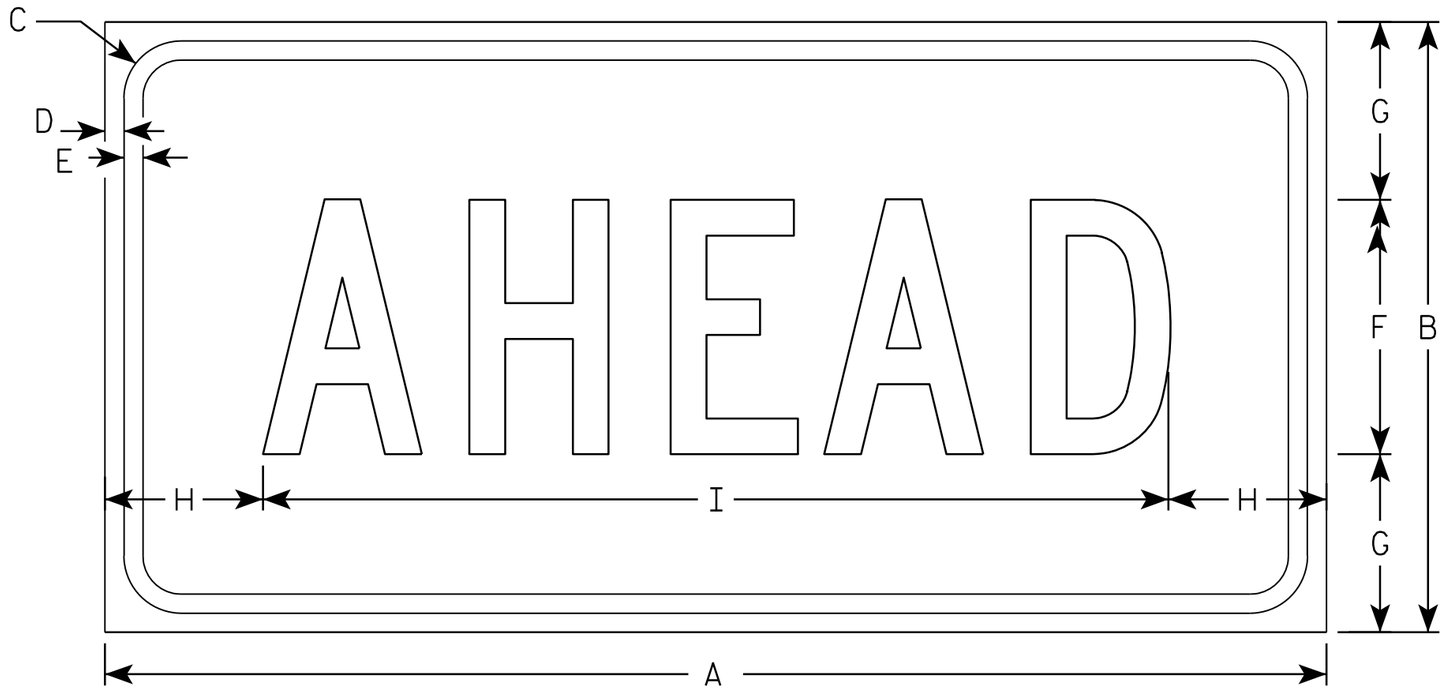
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 291	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

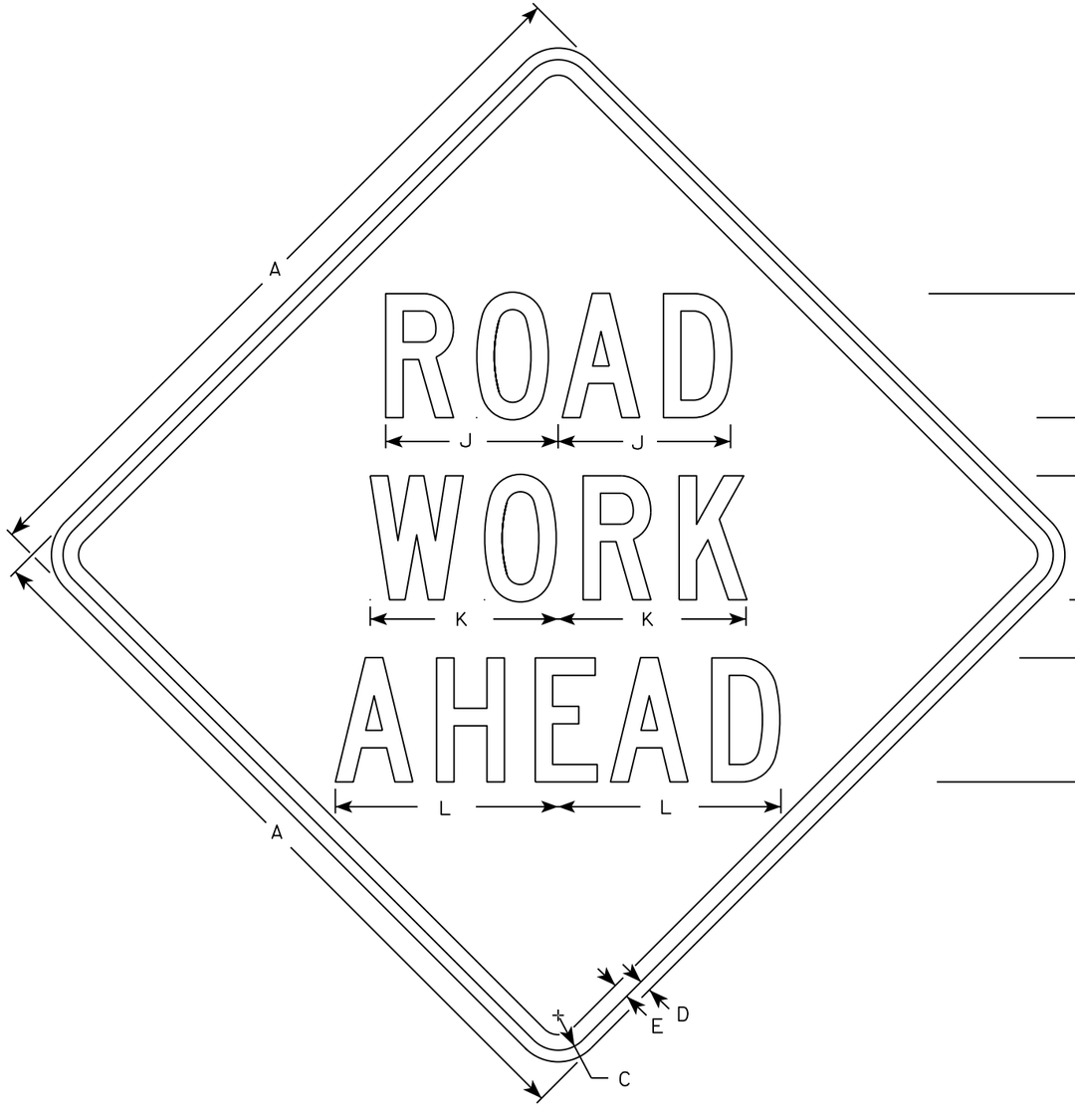
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

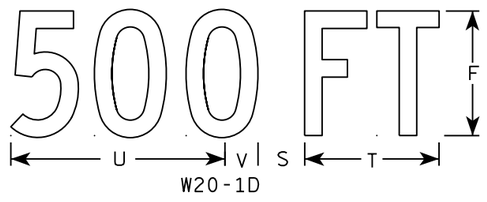
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

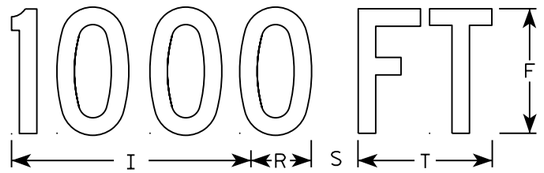
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 292	E



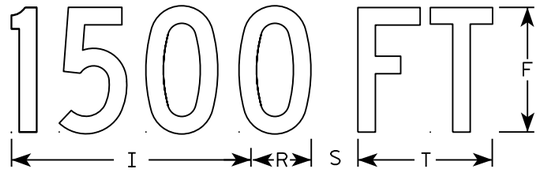
W20-1A



W20-1D

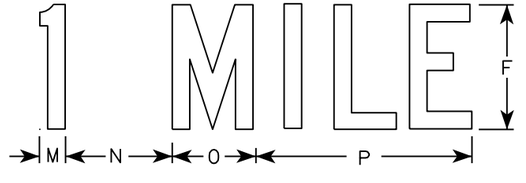


W20-1C

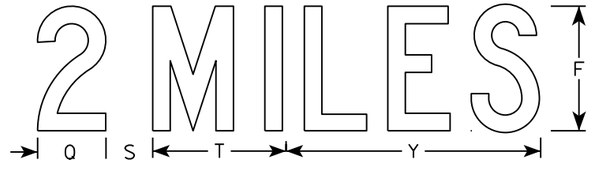


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

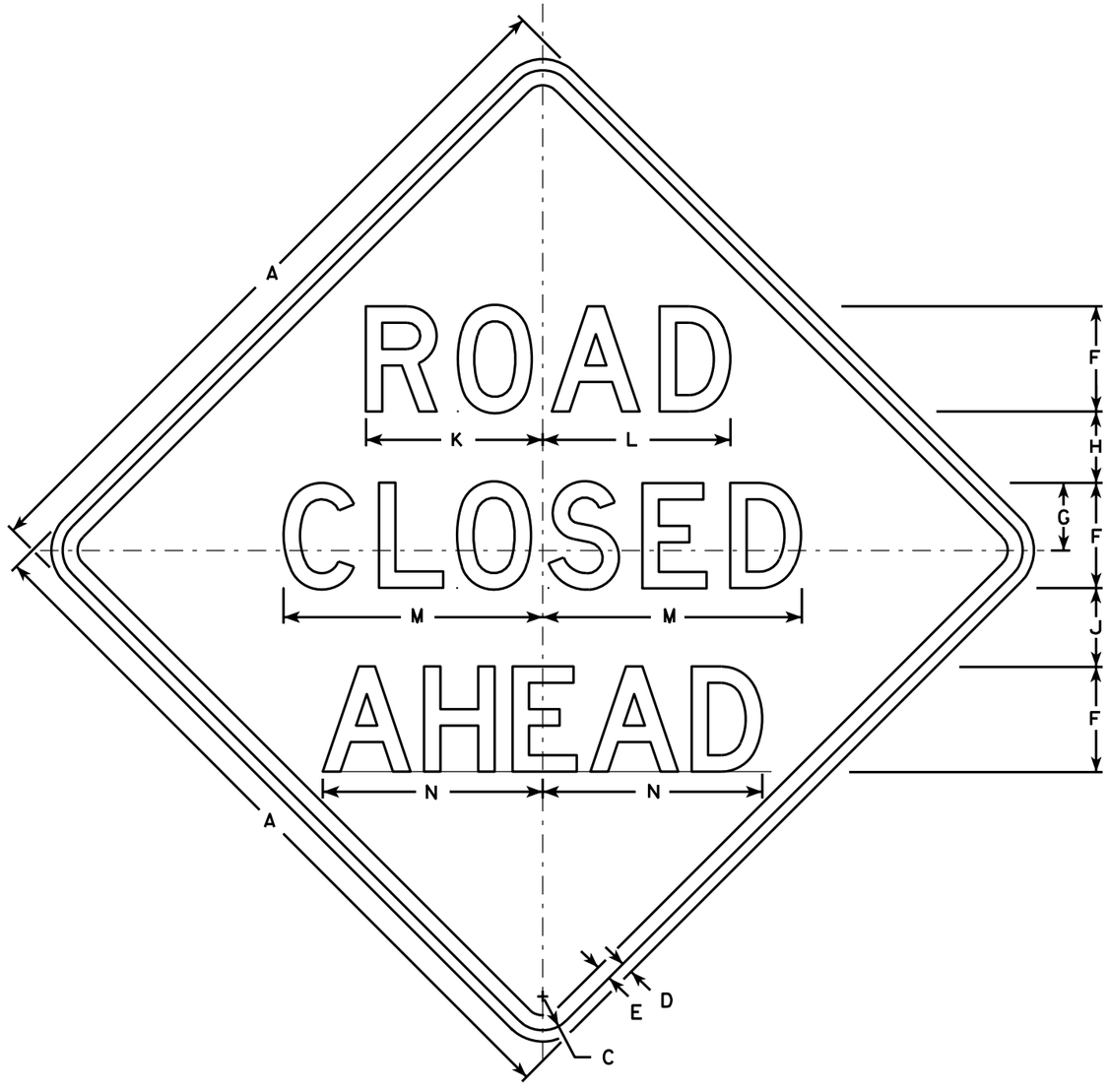
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

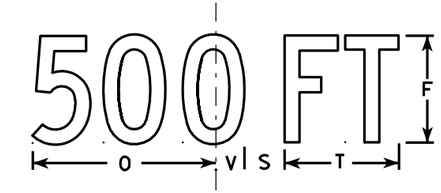
PROJECT NO:

SHEET NO: E

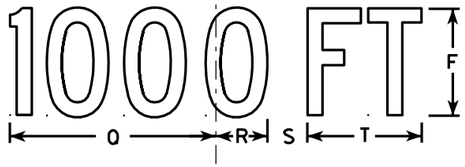
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



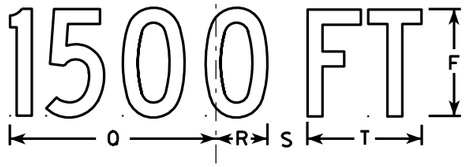
W20-3A



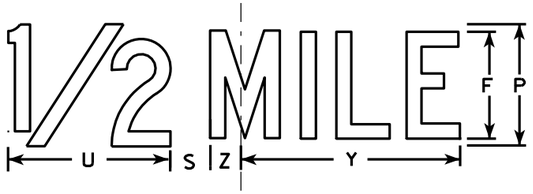
W20-3D



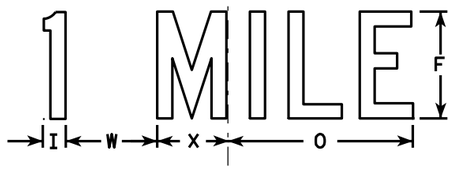
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

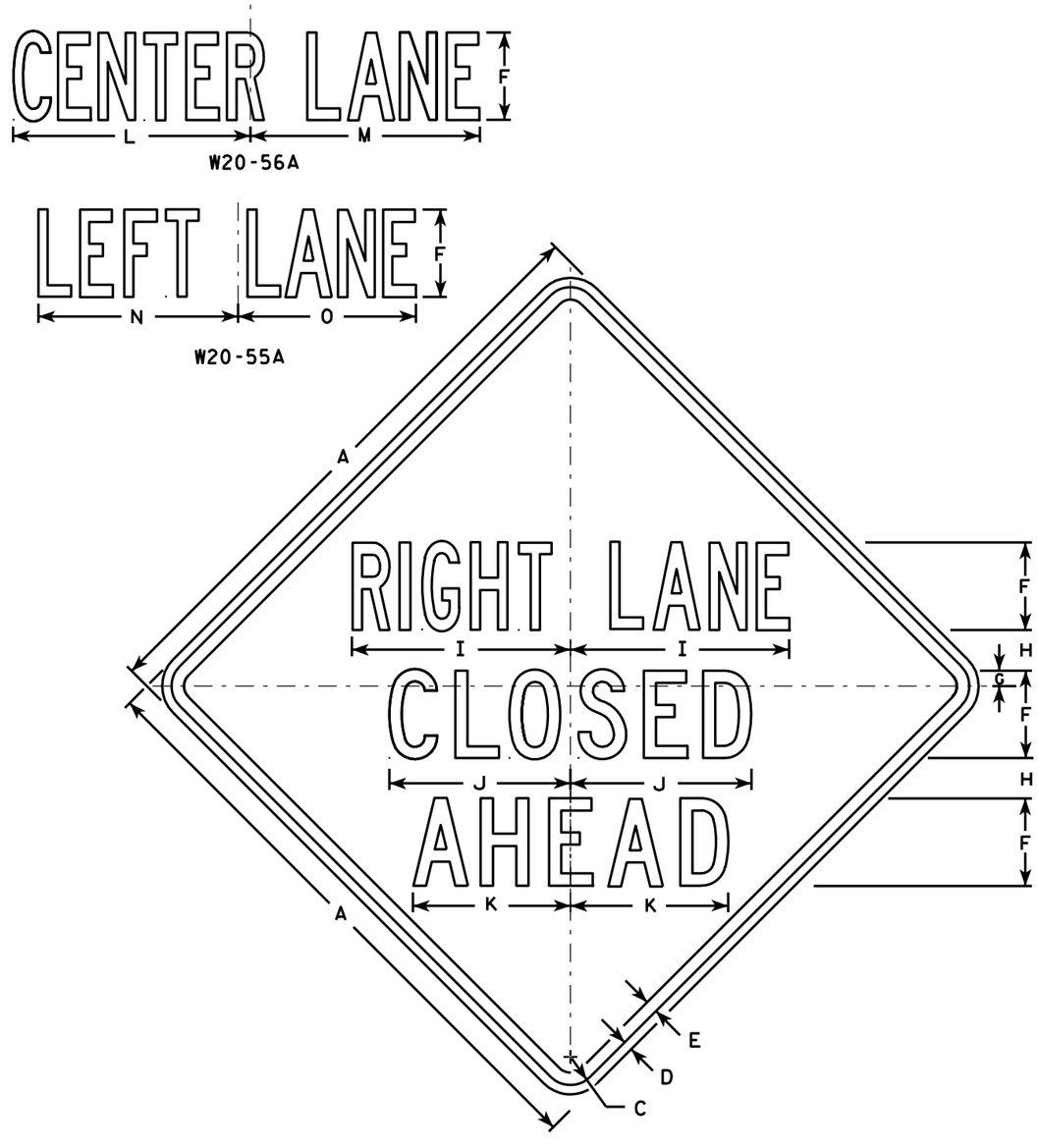
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 294 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000

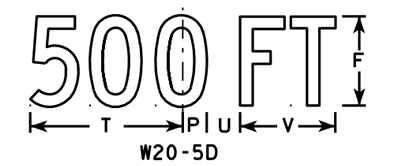
WISDOT/CADDS SHEET 42

7

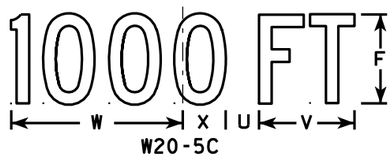
7



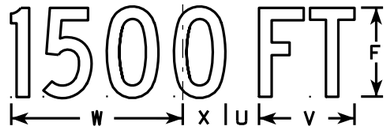
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

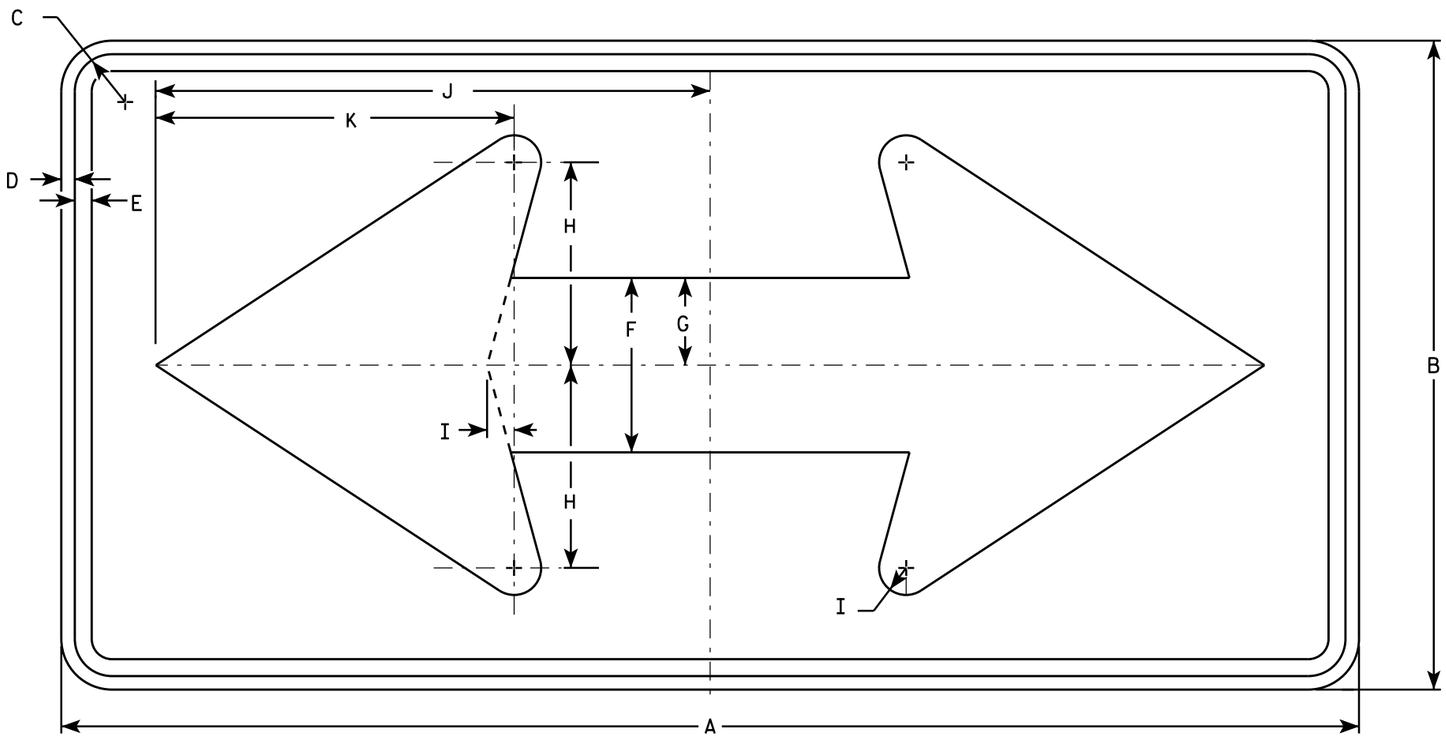
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 295 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

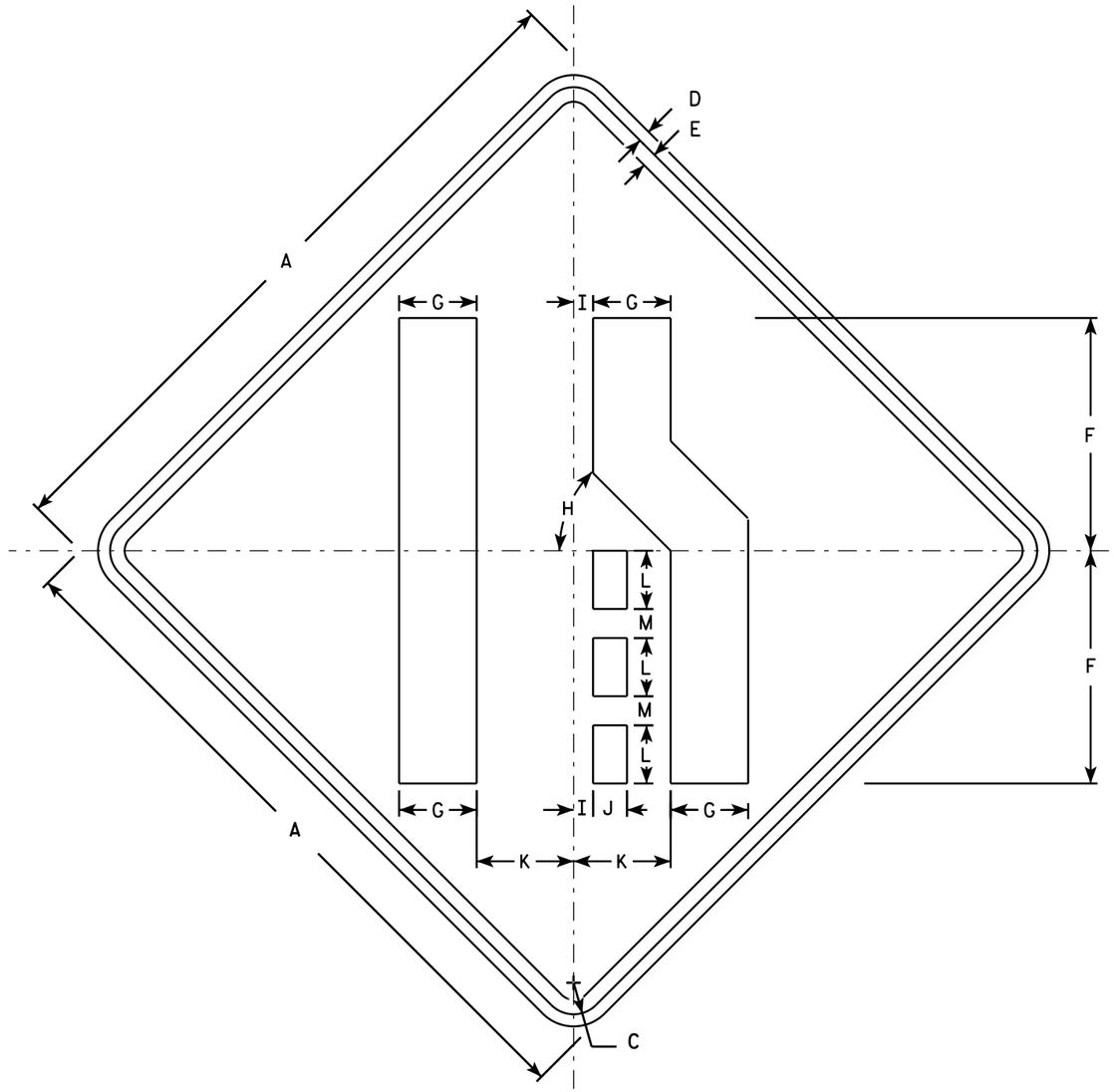
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1296 W01-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 297 W04-2.1

PROJECT NO: | SHEET NO: E

STATE PROJECT NUMBER
1060-34-87

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE CANTILEVER NAME PLATES SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SIGN BRIDGE CANTILEVERED S-40-XXX". LOCATE THE NAME PLATE ON THE ROADWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE NAME PLATE IN ACCORDANCE WITH S.D.D. 12 A 3-10.

CENTER SIGNS VERTICALLY ON TRUSS.

COORDINATES ON THIS PLAN ARE REFENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

STEEL ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554 GRADE 55, ASTM A563A HEAVY HEX NUTS AND ASTM F436 WASHERS.

ALL STRUCTURAL STEEL MEMBERS , PLATES, ANCHOR RODS, H.S. BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED PER SECTION 641 OF THE STANDARD SPECIFICATIONS.

ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS IF THE UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. A4-6 OF THE SIGN PLATE MANUAL FOR INSTRUCTION ON CENTERING THE SIGN VERTICALLY ON THE TRUSS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SHOW SIGNS ON SHOP DRAWINGS.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO TRAFFIC OPS SE REGION: MR TOM HEYDEL, WIS DOT, 141 NW BARSTOW ST, WAUKESHA, WI 53187 AND THE PROJECT ENGINEER FOR APPROVAL.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE SUPPORT BASES. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE.

MATERIAL PROPERTIES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL
REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

STRUCTURAL ANGLES,
PLATE AND BARS - ASTM A709 GRADE 36 ---- fy = 36,000 psi

STEEL COLUMN &
PIPE CHORDS - API SPEC 5L GRADE X42 ------ fy = 42,000 psi ☆

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

ANCHOR BOLTS - ASTM F1554---------- fy = 55,000 psi

STRUCTURAL MEMBERS GALVANIZED---------- ASTM A123

HARDWARE GALVANIZED ---------- ASTM A153 CLASS C

☆ ALTERNATE MATERIAL FOR CHORD LESS THAN 10" DIAMETER MAY BE API SPEC 5L GRADE X46 Fy = 46,000 psi AND GRADE X52 Fy = 52,000 psi, ASTM A500 GRADE B Fy = 42,000 psi, GRADE C Fy = 46,000 psi, OR ASTM A53 GRADE B Fy = 35,000 psi. (ASTM A53 GRADE B REQUIRES FULL ANALYSIS OF THE STRUCTURE).

FOUNDATION DATA

ALLOWABLE SHAFT END BEARING PRESSURE = 5500 PSF

ALLOWABLE SKIN FRICTION = 650 PSF

SOIL COHESION = 0 PSF

SOIL FRICTION ANGLE = 30°

DESIGN DATA

STRUCTURE NO.	DESIGN SIGN AREA	MAX. SIGN DEPTH
S-40-865	264 SF	12'-0"
S-40-866	264 SF	12'-0"
S-40-867	264 SF	12'-0"
S-40-868	264 SF	12'-0"

DESIGNED ACCORDING TO AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 2013 6TH EDITION & INTERIM REVISIONS.

DEAD LOAD - WT. OF SIGN, SUPPORTING STRUCTURE, CATWALK, AND RAILINGS.
ICE LOAD - 3 PSF TO ONE FACE OF SIGN & AROUND SURFACE OF MEMBERS.
WIND PRESSURE - 90 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
I. DEAD	100
II. DEAD + WIND	133
III. DEAD + ICE + 1/2 WIND	133
IV. FATIGUE CATEGORY I WITHOUT GALLOPING	**

NOTE: WIND LOAD FOR GROUP 3 LOADING SHALL NOT BE LESS THAN 25 PSF.

** SEE SECTION 11 OF "THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTUAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 6TH EDITION FOR FATIGUE LOADS AND STRESS RANGE LIMITS

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. S-40-865 GENERAL PLAN & ELEVATION
3. S-40-866 GENERAL PLAN & ELEVATION
4. S-40-867 GENERAL PLAN & ELEVATION
5. S-40-868 GENERAL PLAN & ELEVATION
6. COLUMN & FOOTING DETAILS (1 OF 2)
7. COLUMN & FOOTING DETAILS (2 OF 2)
8. COLUMN & FOOTING DETAILS (3 OF 3)
9. GALVANIZED STEEL CANTILEVER SIGN TRUSS
10. GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

WISCONSIN
KARL E. SCHMID
E-30812
MILWAUKEE, WI
PROFESSIONAL ENGINEER

3/1/2016

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

FORWARD 45

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 03/21/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

S-40-865/866/867/868

WATERTOWN PLANK RD CANTILEVER SIGN STRUCTURES

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	WAUWATOSA

DESIGN SPEC.
AASHTO STD SPECS FOR HIGHWAY SIGNS 6TH ED

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ASW	EKM	EKM	KES

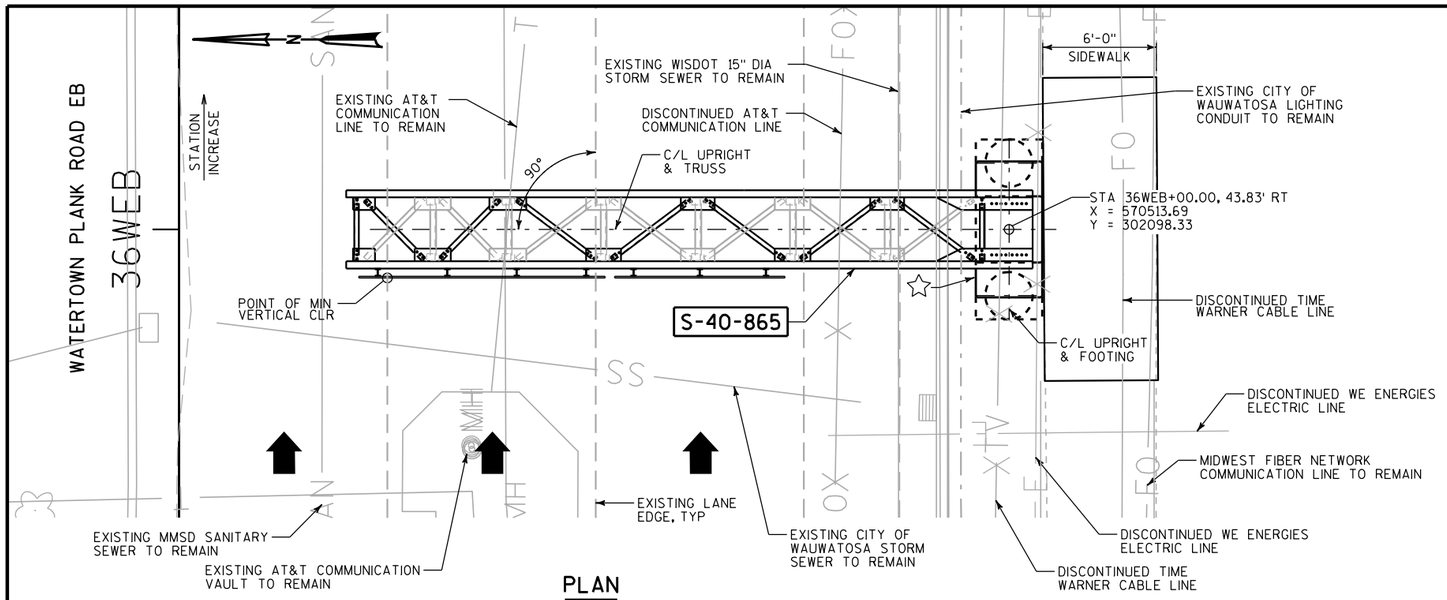
GENERAL NOTES & DESIGN DATA

SHEET 1 OF 10

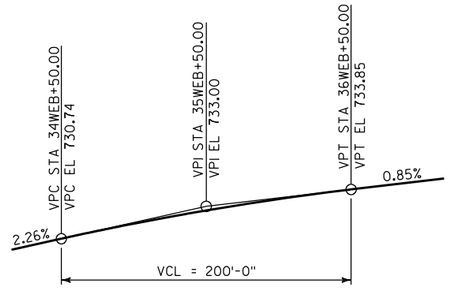
8

8

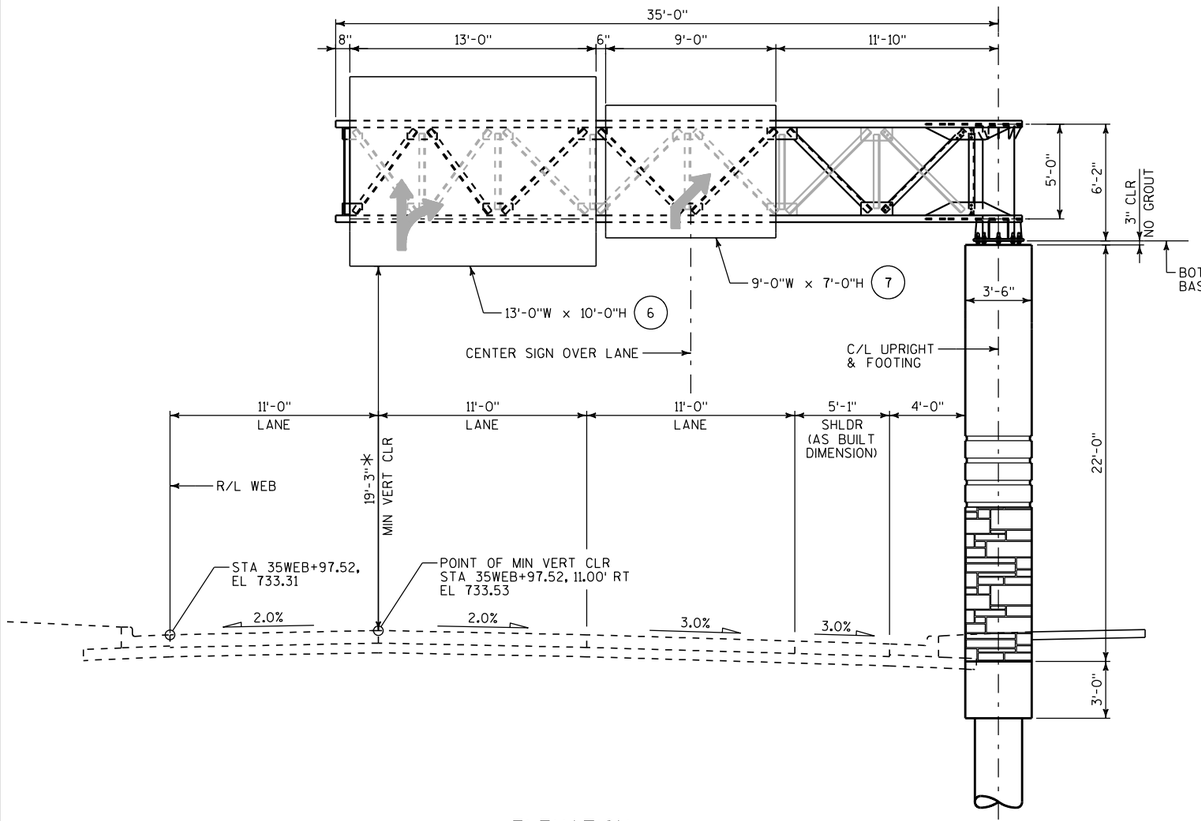
STATE PROJECT NUMBER
1060-34-87



PLAN

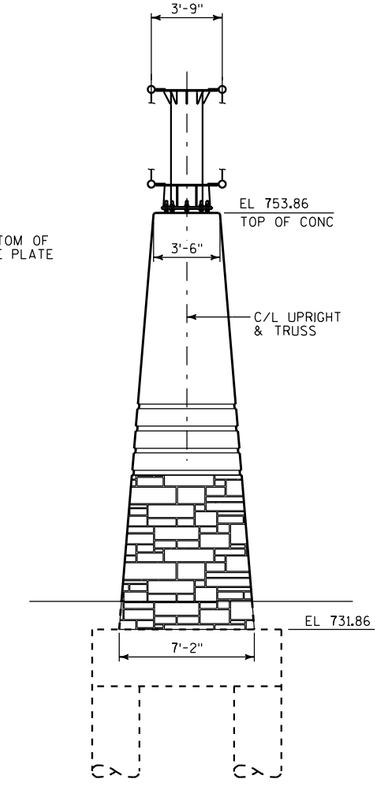


EXST PROFILE GRADE LINE R/L WEB



ELEVATION

S-40-865 - STA 36WEB+00.00
(LOOKING EAST AT FRONT FACE OF SIGNS)



END VIEW

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
517.1015.S.0001	CONCRETE STAINING MULTI-COLOR S-40-865	SF	390
517.1050.S.0001	ARCHITECTURAL SURFACE TREATMENT S-40-865	SF	240
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	27
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	4,710
641.1200.0001	SIGN BRIDGE CANTILEVERED S-40-865◑	LS	1
SPV.0075.4000	OBSTRUCTIONS SIGN SUPPORTS CONCRETE MASONRY	HRS	1

ALL ITEMS ARE CATEGORY 4000

LEGEND

✳ INCLUDES AN ADD'T 1'-0" OF CLEARANCE FOR FUTURE MAX SIGN DEPTH OF 12'-0"

◯ TYPE I SIGN NUMBERS (SEE PERMANENT SIGNING PLANS)

◑ THIS LUMP SUM BID ITEM INCLUDES HORIZONTAL TRUSS, VERTICAL STEEL COLUMN AND ANCHOR ASSEMBLIES.

☆ NAME PLATE LOCATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

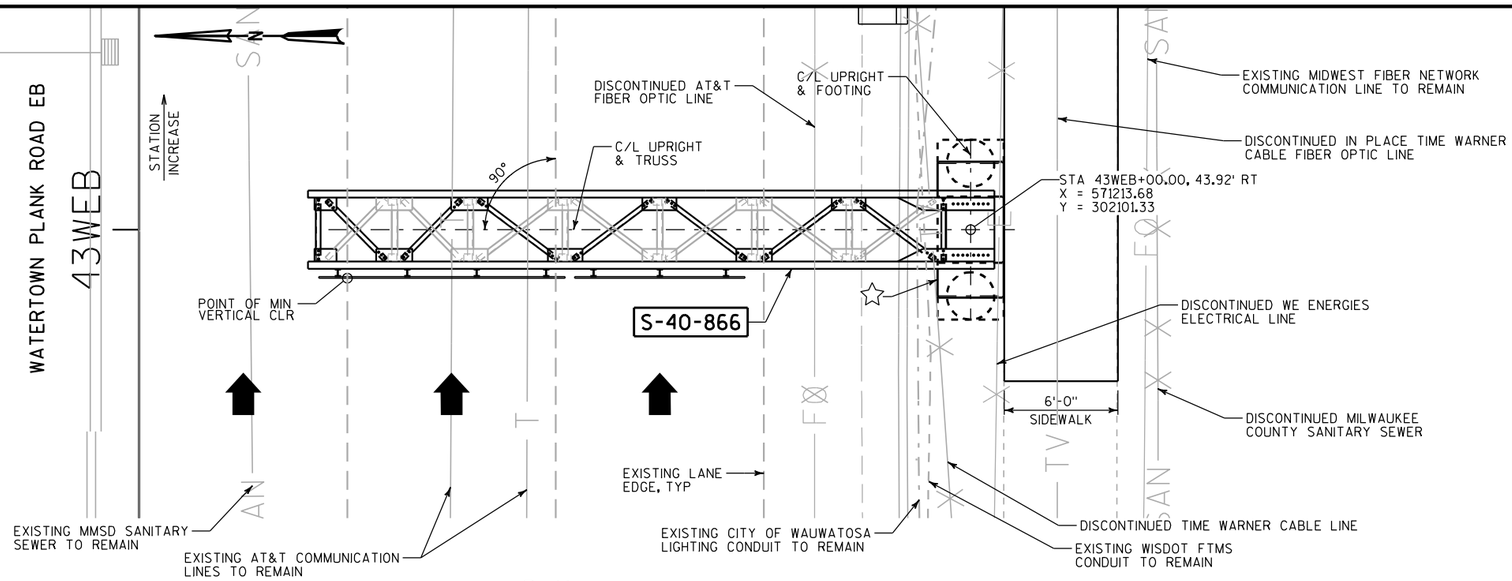
S-40-865
GENERAL PLAN
& ELEVATION

SHEET 2 OF 10

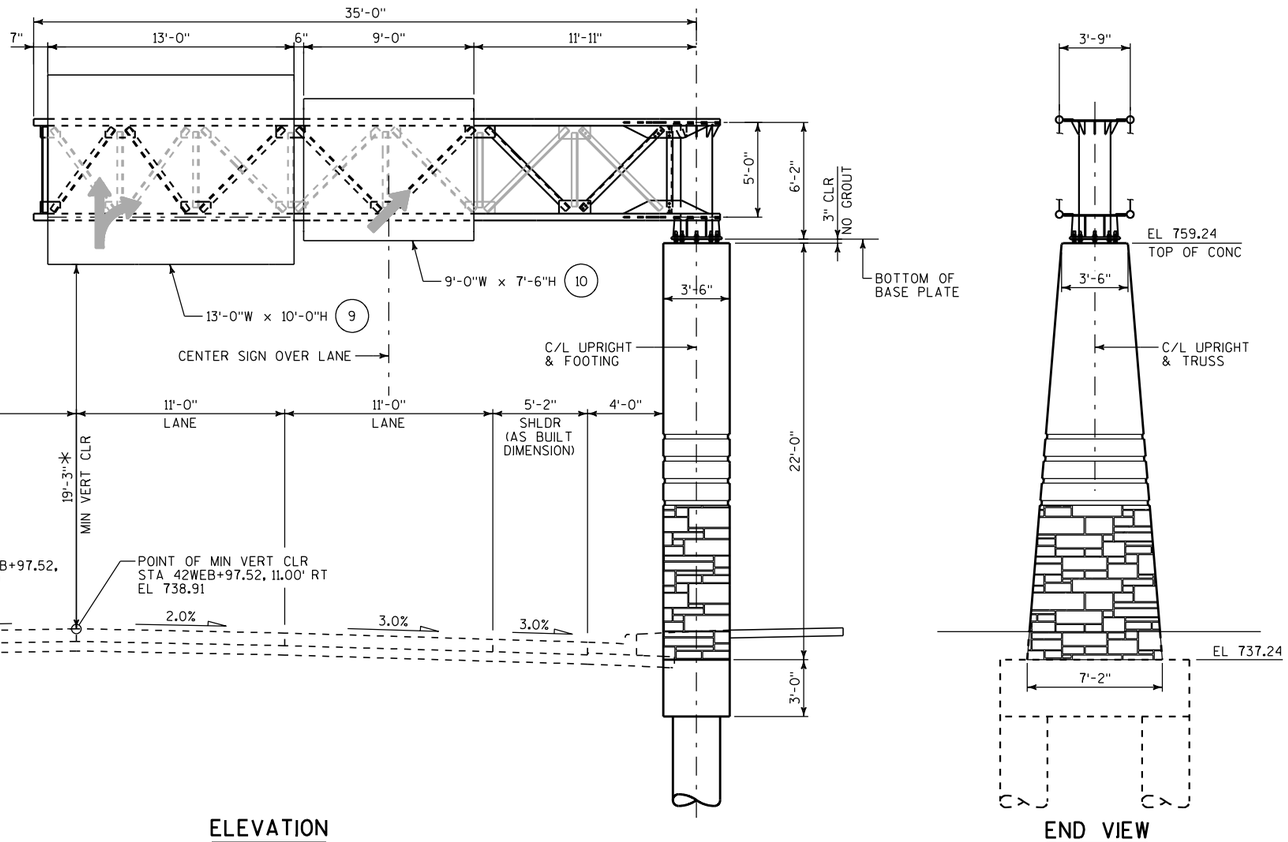
8

8

STATE PROJECT NUMBER
1060-34-87



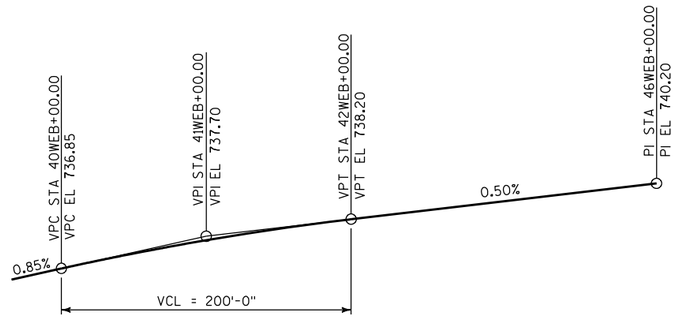
PLAN



ELEVATION

S-40-866 - STA 43WEB+00.00
(LOOKING EAST AT FRONT FACE OF SIGNS)

END VIEW



EXST PROFILE GRADE LINE R/L WEB

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
517.1015.S.0002	CONCRETE STAINING MULTI-COLOR S-40-866	SF	390
517.1050.S.0002	ARCHITECTURAL SURFACE TREATMENT S-40-866	SF	240
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	27
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	4,710
641.1200.0002	SIGN BRIDGE CANTILEVERED S-40-866◑	LS	1
SPV.0075.4000	OBSTRUCTIONS SIGN SUPPORTS CONCRETE MASONRY	HRS	1

ALL ITEMS ARE CATEGORY 4010

LEGEND

✳ INCLUDES AN ADD'T 1'-0" OF CLEARANCE FOR FUTURE MAX SIGN DEPTH OF 12'-0"

◯ TYPE I SIGN NUMBERS (SEE PERMANENT SIGNING PLANS)

◑ THIS LUMP SUM BID ITEM INCLUDES HORIZONTAL TRUSS, VERTICAL STEEL COLUMN AND ANCHOR ASSEMBLIES.

☆ NAME PLATE LOCATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

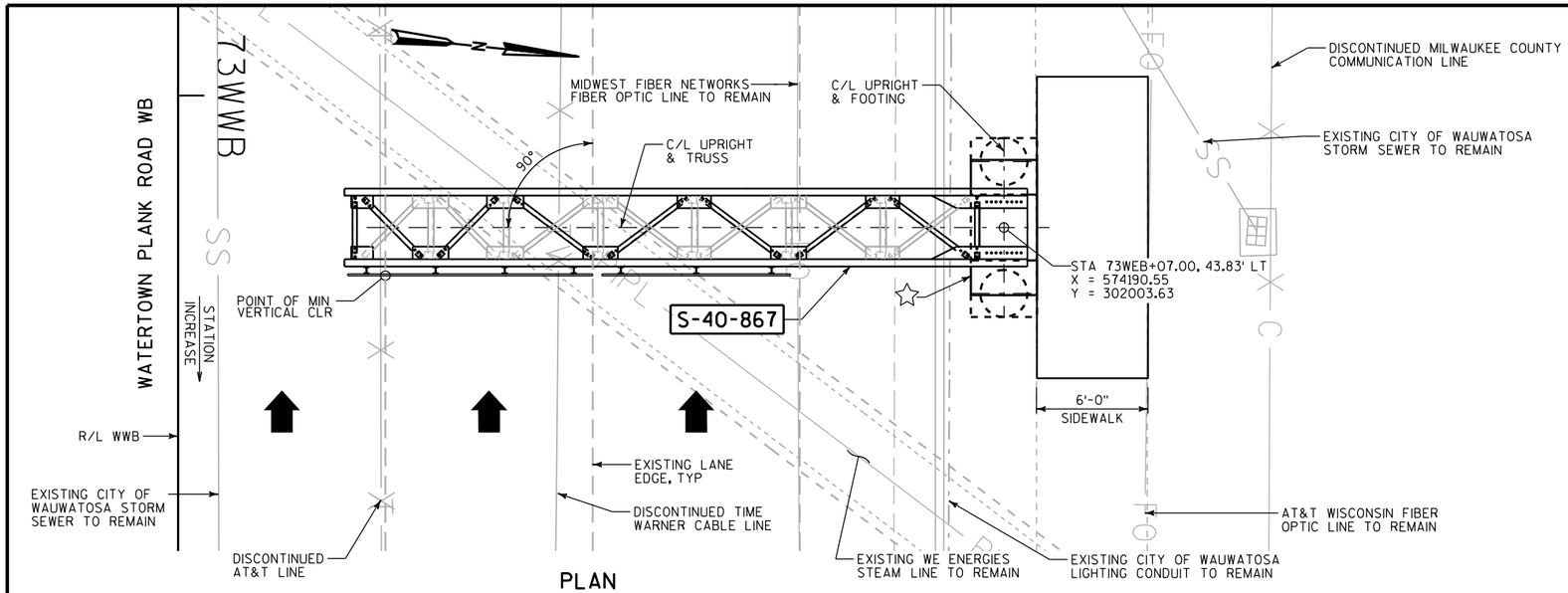
DRAWN BY EKM | PLANS CK'D. KES

S-40-866
GENERAL PLAN
& ELEVATION

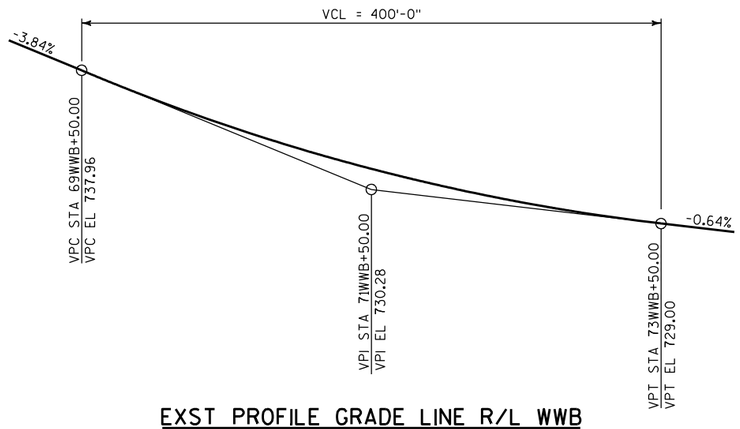
SHEET 3 OF 10

FILE NAME : W:\Cadd\Final\10603487_WPR\Structures\S-40-865\cds\080103_gp.dgn PLOT DATE : 01-MAR-2016 10:15 PLOT BY : msckes PLOT NAME : 080103_gp PLOT SCALE : 8:1

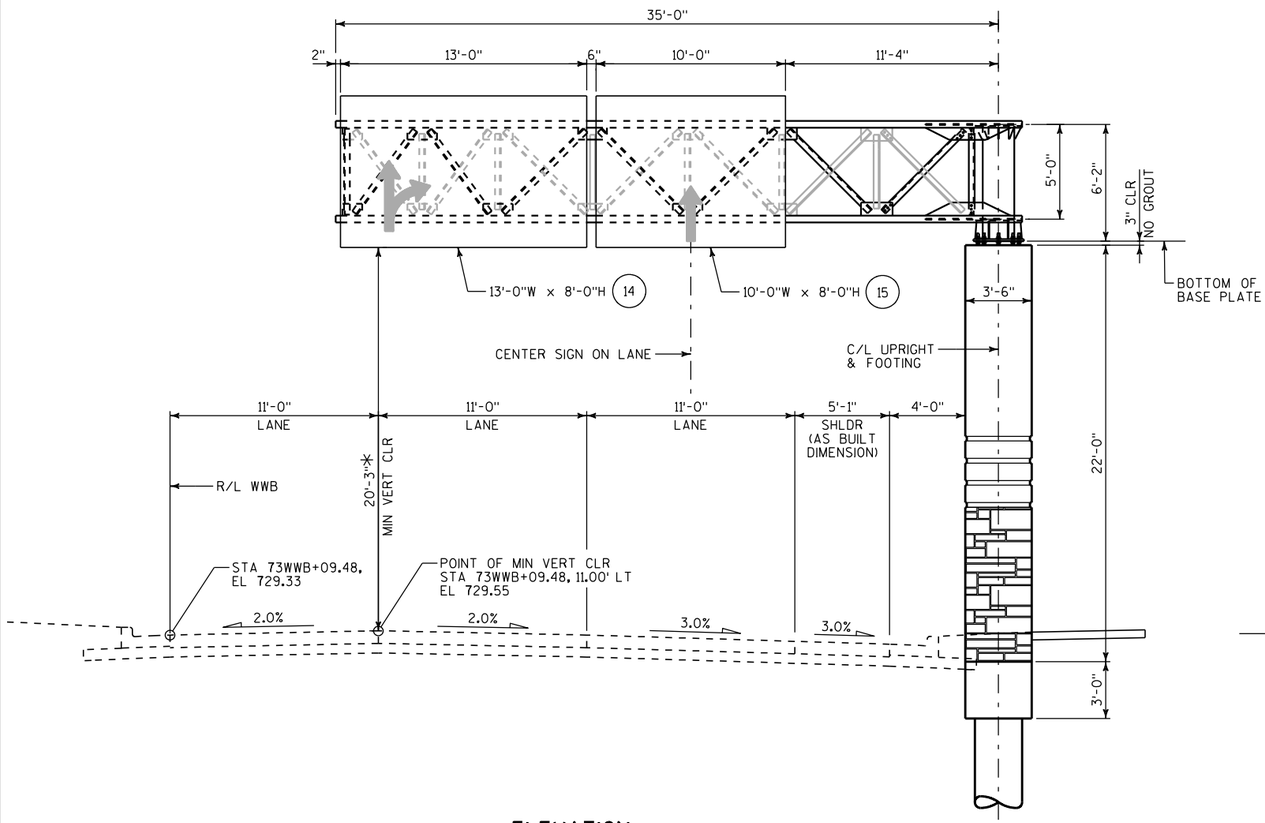
STATE PROJECT NUMBER
1060-34-87



PLAN

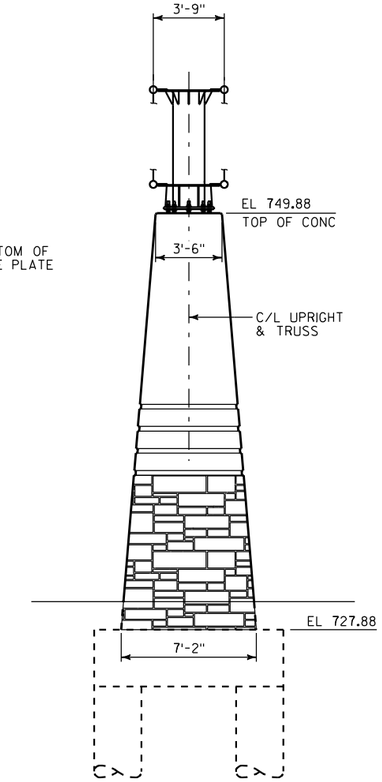


EXST PROFILE GRADE LINE R/L WWB



ELEVATION

S-40-867 - STA 73WWB+07.00
(LOOKING WEST AT FRONT FACE OF SIGNS)



END VIEW

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
517.1015.S.0003	CONCRETE STAINING MULTI-COLOR S-40-867	SF	390
517.1050.S.0003	ARCHITECTURAL SURFACE TREATMENT S-40-867	SF	240
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	27
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	4,710
641.1200.0003	SIGN BRIDGE CANTILEVERED S-40-867◑	LS	1
SPV.0075.4000	OBSTRUCTIONS SIGN SUPPORTS CONCRETE MASONRY	HRS	1

ALL ITEMS ARE CATEGORY 4020

LEGEND

✳ INCLUDES AN ADD'T 2'-0" OF CLEARANCE FOR FUTURE MAX SIGN DEPTH OF 12'-0"

◯ TYPE I SIGN NUMBERS (SEE PERMANENT SIGNING PLANS)

◑ THIS LUMP SUM BID ITEM INCLUDES HORIZONTAL TRUSS, VERTICAL STEEL COLUMN AND ANCHOR ASSEMBLIES.

☆ NAME PLATE LOCATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

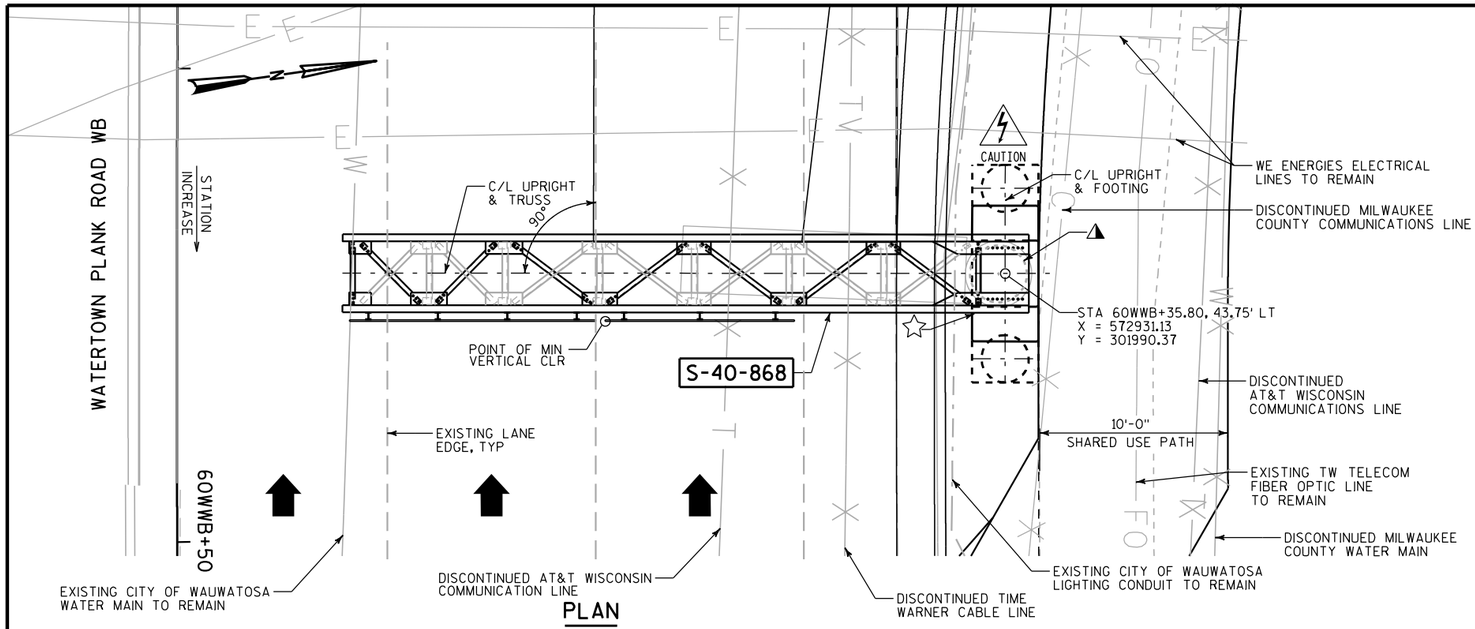
DRAWN BY EKM | PLANS CK'D. KES

S-40-867
GENERAL PLAN
& ELEVATION

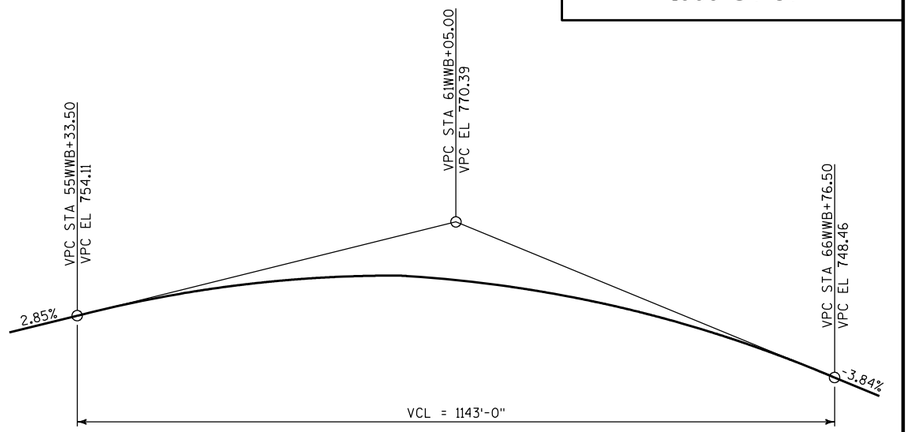
SHEET 4 OF 10

STATE PROJECT NUMBER

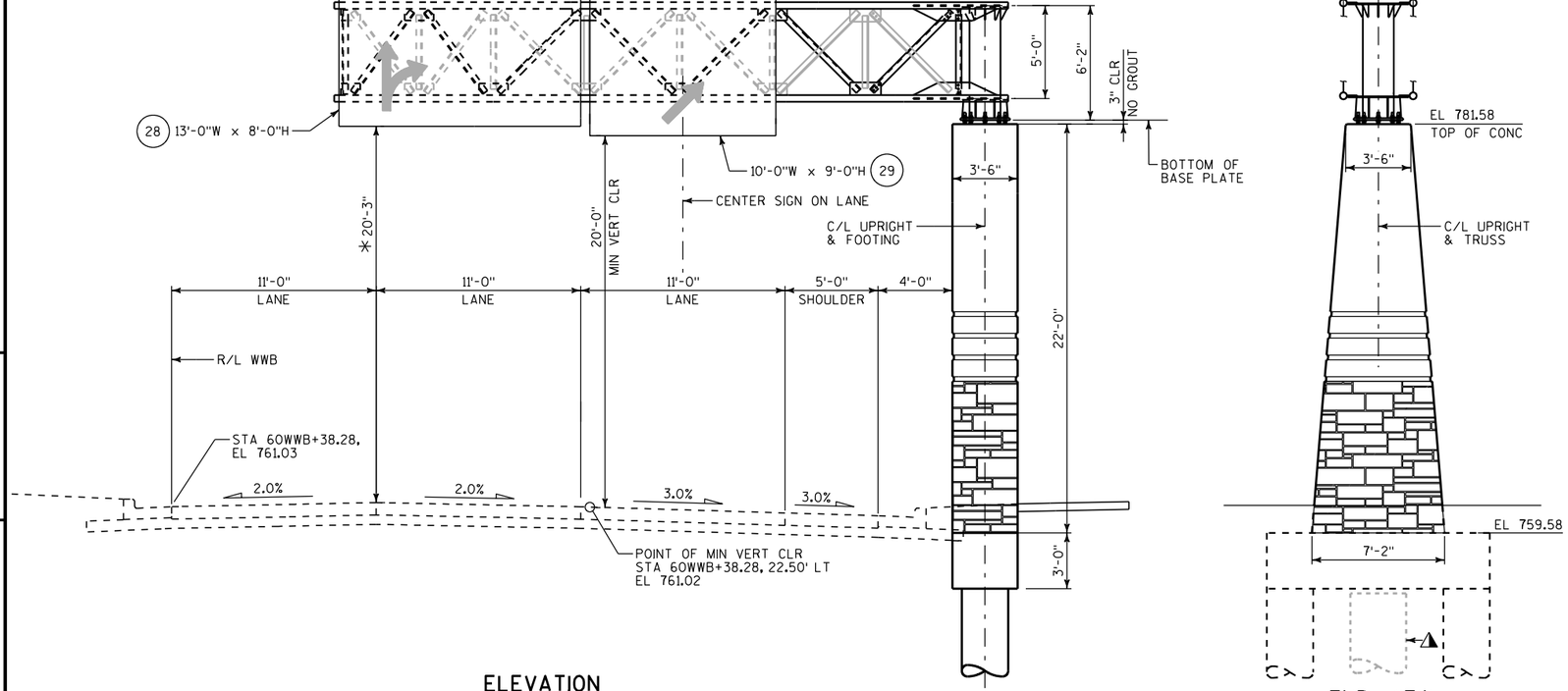
1060-34-87



PLAN



EXST PROFILE GRADE LINE R/L WWB



ELEVATION

S-40-868 - STA 60WWB+35.80
(LOOKING WEST AT FRONT FACE OF SIGNS)

END VIEW

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	TOTAL
517.1015.S.0004	CONCRETE STAINING MULTI-COLOR S-40-868	SF	390
517.1050.S.0004	ARCHITECTURAL SURFACE TREATMENT S-40-868	SF	240
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28
636.1500	SIGN SUPPORTS STEEL COATED REINFORCEMENT HS	LB	4,750
641.1200.0004	SIGN BRIDGE CANTILEVERED S-40-868◑	LS	1
SPV.0075.4000	OBSTRUCTIONS SIGN SUPPORTS CONCRETE MASONRY	HRS	1

ALL ITEMS ARE CATEGORY 4030

LEGEND

✳ INCLUDES AN ADD'T 2'-0" OF CLEARNACE FOR FUTURE MAX SIGN DEPTH OF 12'-0"

◯ TYPE I SIGN NUMBERS (SEE PERMANENT SIGNING PLANS)

◑ THIS LUMP SUM BID ITEM INCLUDES HORIZONTAL TRUSS, VERTICAL STEEL COLUMN AND ANCHOR ASSEMBLIES.

☆ NAME PLATE LOCATION

◭ EXISTING SIGN STRUCTURE S-40-985 & CONCRETE SHAFT FOUNDATION TO BE REMOVED TO EL 756.3. NOT A SIGN STRUCTURE BID ITEM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

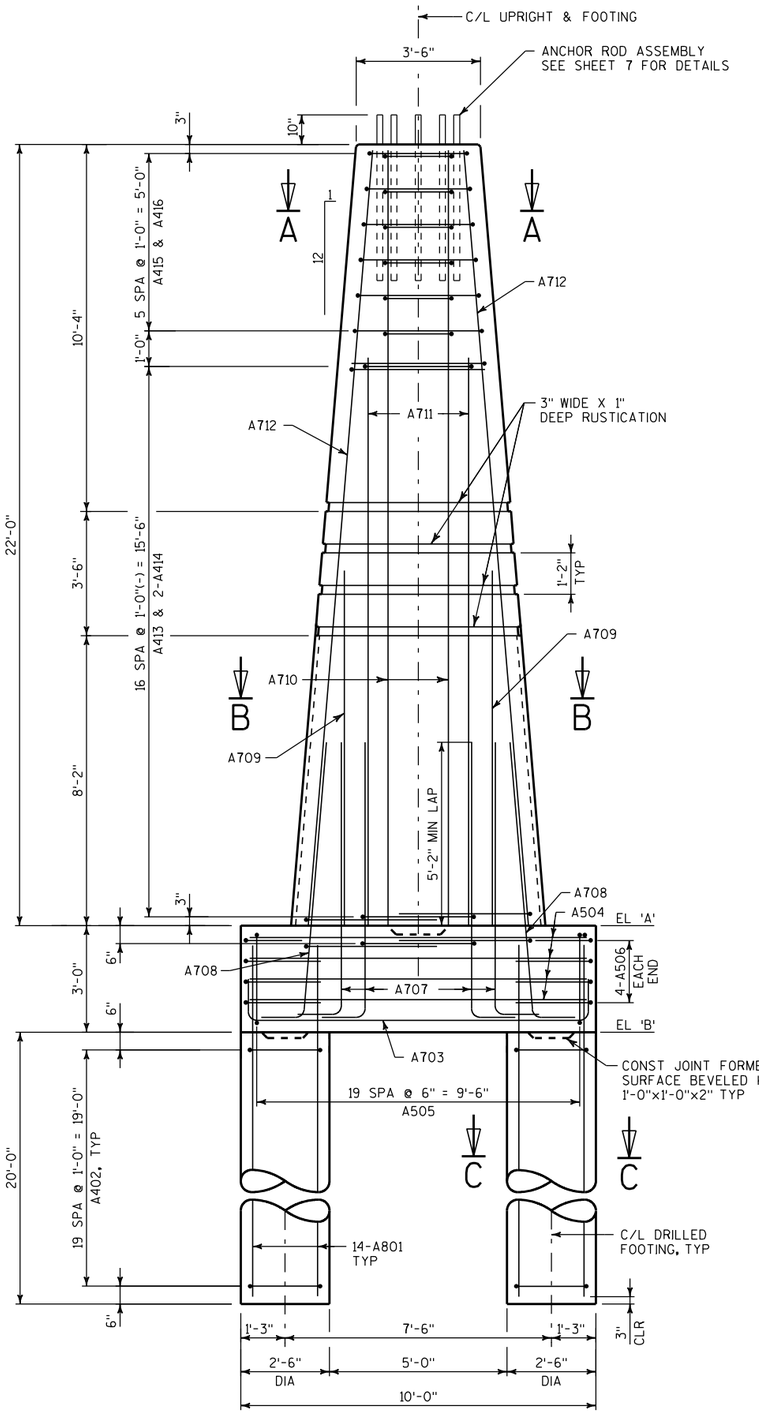
DRAWN BY EKM | PLANS CK'D. KES

S-40-868
GENERAL PLAN
& ELEVATION

SHEET 5 OF 10

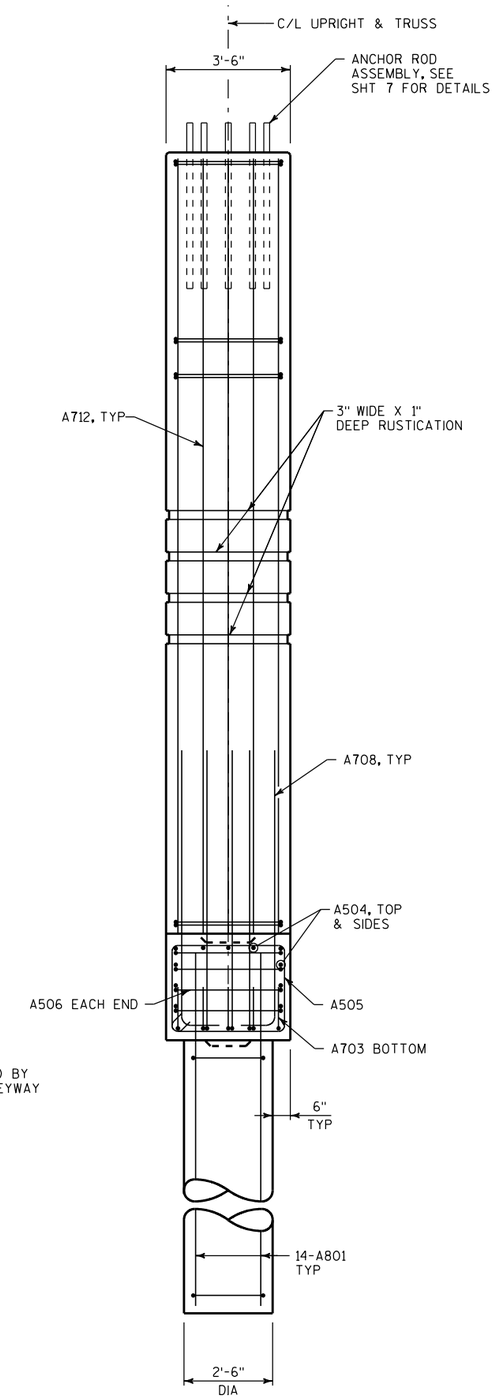
FILE NAME : W:\Cadd\Final\10603487_WPR\Structures\S-40-865\cds\080105_gp.dgn
PLOT DATE : 01-MAR-2016 10:15
PLOT BY : msckes
PLOT NAME : 080105_gp
PLOT SCALE : 8:1

STATE PROJECT NUMBER
1060-34-87



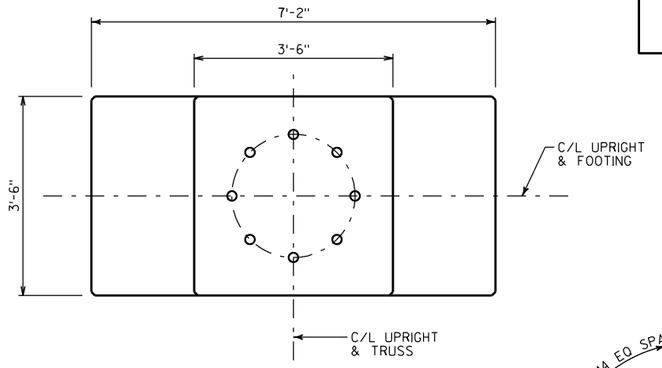
COLUMN & FOOTING ELEVATION

(S-40-865, S-40-866 & S-40-867)

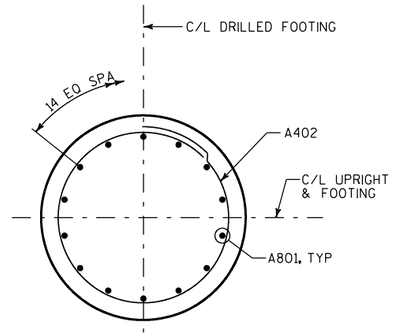


COLUMN & FOOTING END VIEW

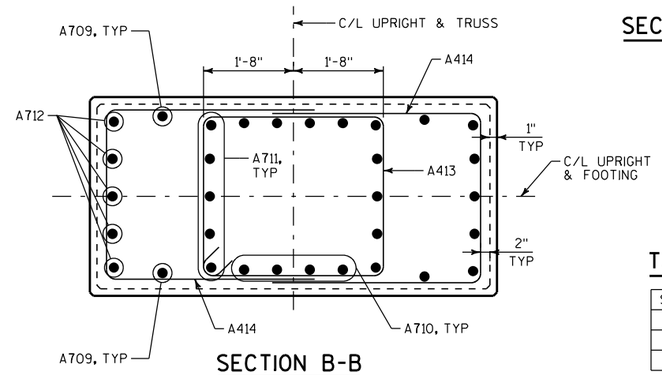
(S-40-865, S-40-866 & S-40-867)



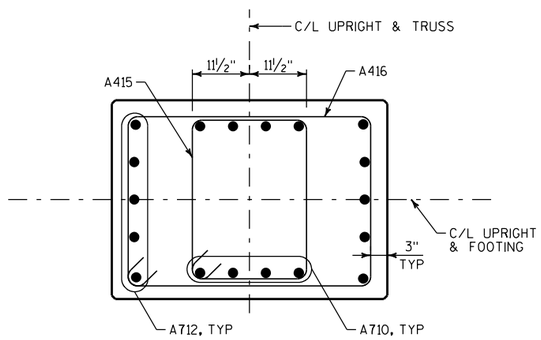
PLAN



SECTION C-C



SECTION B-B



SECTION A-A

TABLE OF ELEVATIONS

STRUCTURE #	EL 'A'	EL 'B'
S-40-865	731.86	728.86
S-40-866	737.24	734.24
S-40-867	727.88	724.88

NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR FOR FOOTING AND 2" CLEAR FOR CONCRETE COLUMN UNLESS OTHERWISE NOTED.

SEE SHEET 8 FOR REINFORCEMENT BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

COLUMN & FOOTING DETAILS (1 OF 3)

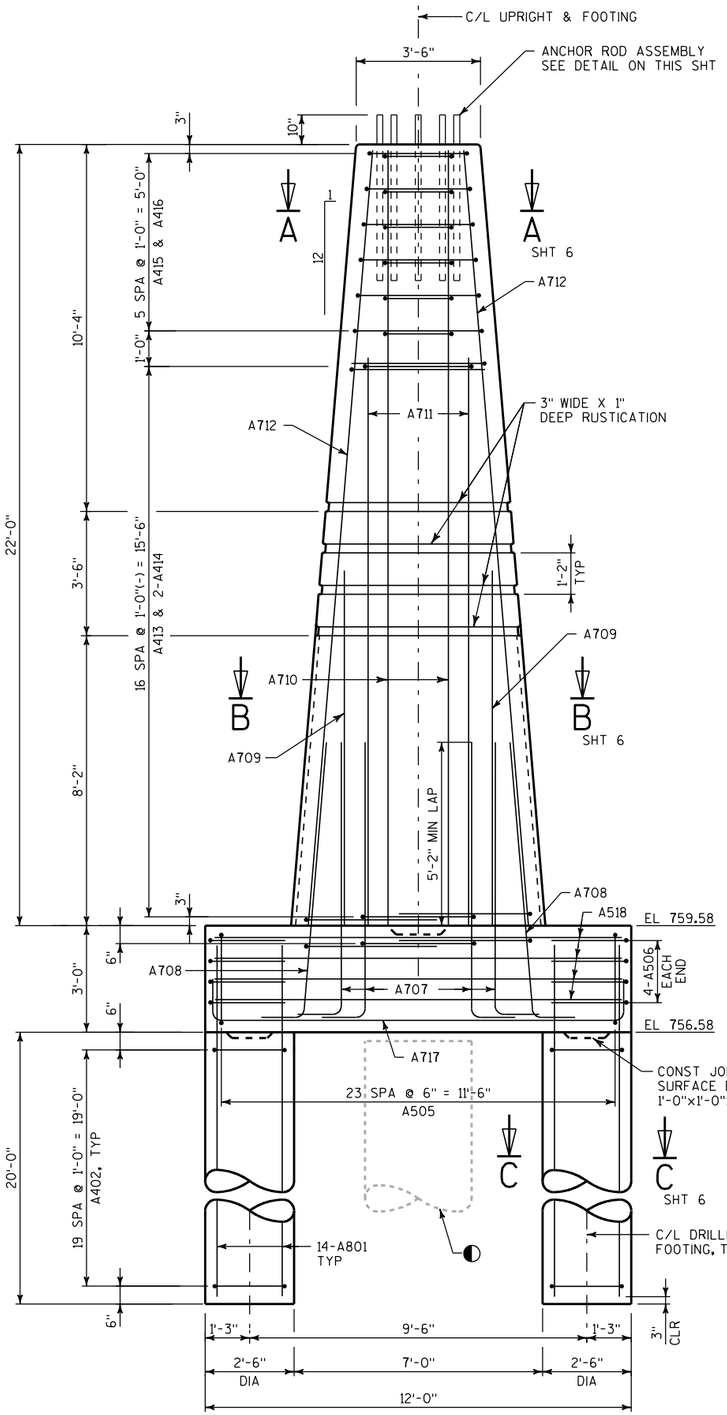
SHEET 6 OF 10

8

8

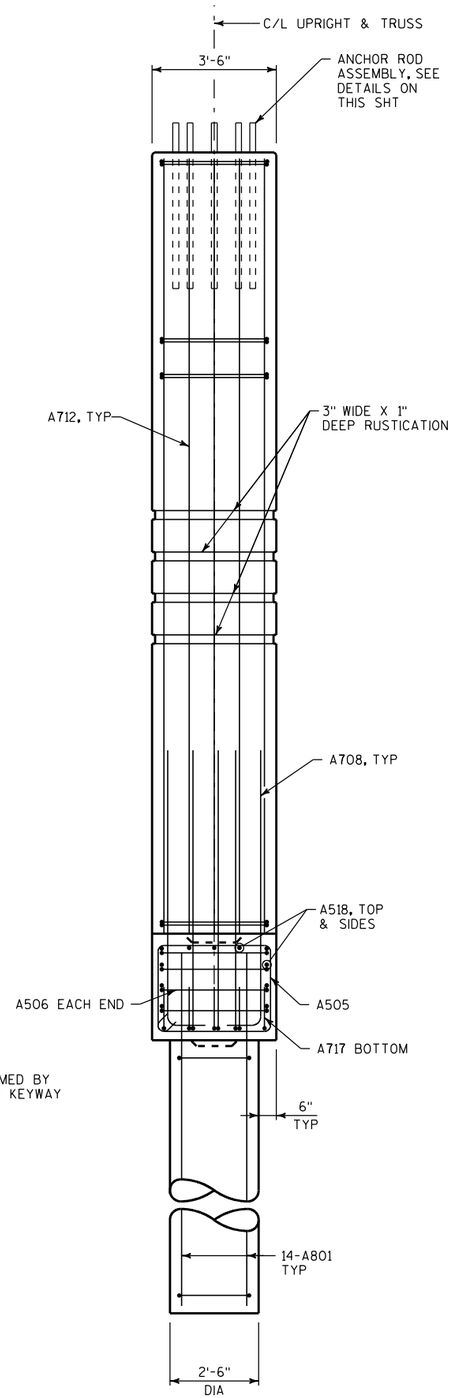
FILE NAME : W:\Cadd\Final\10603487_WPR\Structures\S-40-865\cds\080201_fd.dgn PLOT DATE : 01-MAR-2016 10:15 PLOT BY : msckes PLOT NAME : 080201_fd PLOT SCALE : 5.333333:1

STATE PROJECT NUMBER
1060-34-87



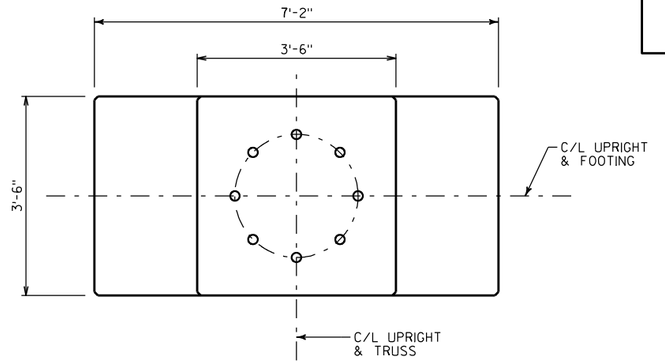
COLUMN & FOOTING ELEVATION

(S-40-868 ONLY)

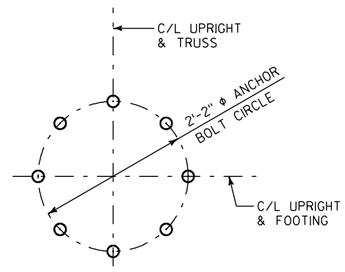


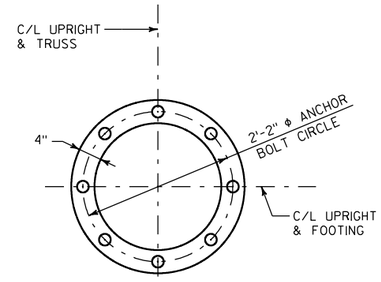
COLUMN & FOOTING END VIEW

(S-40-868 ONLY)

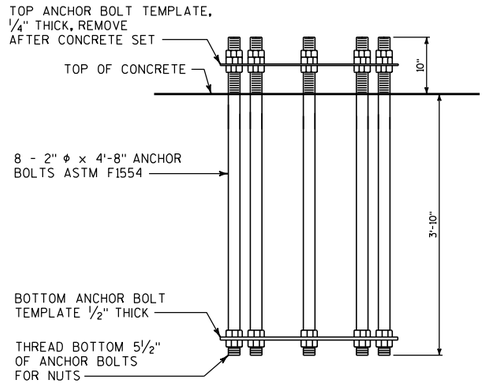


PLAN





TOP VIEW OF TOP & BOTTOM TEMPLATES



ANCHOR BOLT DETAILS

NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR FOR FOOTING AND 2" CLEAR FOR CONCRETE COLUMN UNLESS OTHERWISE NOTED.

CENTER ANCHOR ROD ASSSEMBLY TO MISS BAR STEEL REINFORCEMENT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED ON THE PLAN. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURE IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR ROD.

SEE SHEET 8 FOR REINFORCMENT BILL OF BARS.

LEGEND

◐ EXISTING 3'-0" DIAMETER CONCRETE SHAFT TO BE REMOVED TO EL 756.3, NOT A SIGN STRUCTURE BID ITEM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

COLUMN & FOOTING DETAILS (2 OF 3)

SHEET 7 OF 10

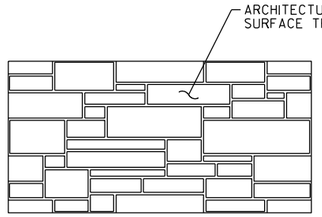
8

8

STATE PROJECT NUMBER
1060-34-87

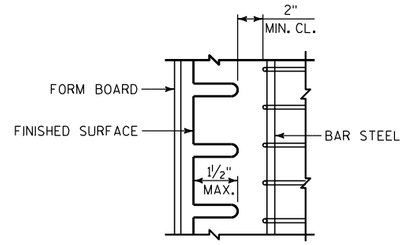
CONCRETE STAINING SCHEDULE

MARK	COLOR
A	PLAIN CONCRETE ON ALL FOUR COLUMN FACES SHALL BE STAINED FS 595B #36424 (UTTERLY BEIGE)
B	ALL SURFACES OF THE RUSTICATION BANDS SHALL BE STAINED FS 595B #33522 (LATTE)
C	ALL ARCHITECTURAL SURFACE TREATMENT FORMLINER AREAS SHALL BE STAINED IN A RANDOMLY MIXED COLOR ARRANGEMENT TO ACHIEVE A TEXTURED LOOK AS DIRECTED BY THE DEPARTMENT. APPLY A MULTI-COLOR STAIN FS 595B #36424 (UTTERLY BEIGE) AS THE BASE COLOR AND FS 595B #33522 (LATTE) & FS 595B #33564 (WHOLE WHEAT) AS THE ACCENT COLORS. EACH STONE FACE THAT RECEIVES THE ACCENT COLORS SHOULD HAVE THE PROTRUDING PORTIONS OF THE FACE (APPROXIMATELY 70%-80%) STAINED TO HIGHLIGHT THE STONE TEXTURE.



RANDOM SPLITEDGE ASHLAR PATTERN
STONE HEIGHT = 4"-15"
MAXIMUM RELIEF = 1½"
STONE LENGTH = 5"-20"

FORMLINER DETAILS



SECTION THRU FORMLINER

BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO.◐ REQ'D	NO.✳ REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A801	X	28	28	22'-4"			DRILLED FOOTING - VERTICAL
A402	X	40	40	7'-9"	X		DRILLED FOOTING - TRANSVERSE TIE
A703	X	5	-	11'-7"	X		FOOTING - LONGITUDINAL - BOTTOM
A504	X	11	-	9'-7"			FOOTING - LONGITUDINAL - TOP AND SIDES
A505	X	20	24	12'-0"	X		FOOTING - VERTICAL - STIRRUPS
A506	X	8	8	5'-8"	X		FOOTING - HORIZONTAL - EACH END
A707	X	22	22	9'-0"	X		FOOTING - VERTICAL DOWEL
A708	X	10	10	9'-0"	X		FOOTING - VERTICAL DOWEL - SIDES
A709	X	4	4	10'-0"			COLUMN - VERTICAL
A710	X	8	8	21'-10"			COLUMN - VERTICAL
A711	X	10	10	16'-0"			COLUMN - VERTICAL
A712	X	10	10	21'-11"			COLUMN - VERTICAL - SIDES
A413	X	18	18	13'-2"	X		COLUMN - TIES - CORE
A414	X	36	36	10'-2"	X		COLUMN - TIES - SIDE
A415	X	6	6	10'-4"	X		COLUMN - TIES - CORE TOP
A416	X	6	6	13'-4"	X	◭	COLUMN - TIES - SIDE TOP
A717	X	-	5	13'-7"	X		FOOTING - LONGITUDINAL - BOTTOM
A518	X	-	11	11'-7"			FOOTING - LONGITUDINAL - TOP AND SIDES

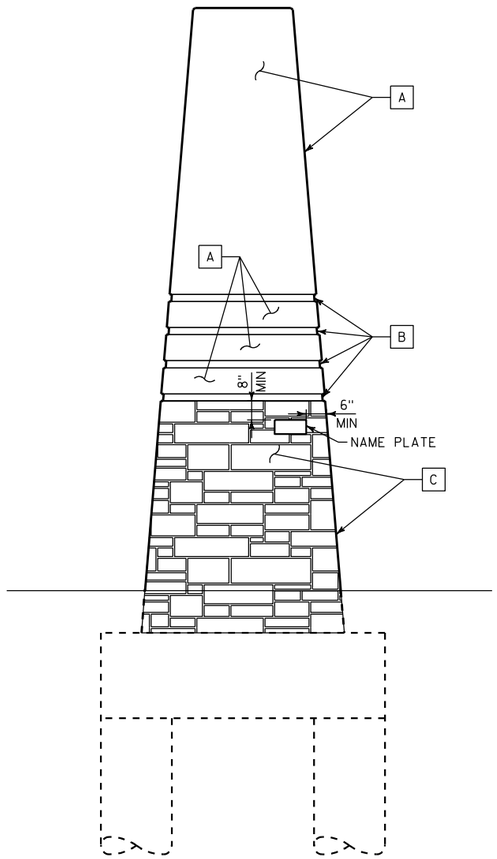
◭ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

◐ NO. OF BARS REQ'D IS SHOWN FOR ONLY ONE SIGN STRUCTURE (THREE TOTAL SETS OF BARS REQ'D FOR S-40-865, S-40-866 & S-40-867)

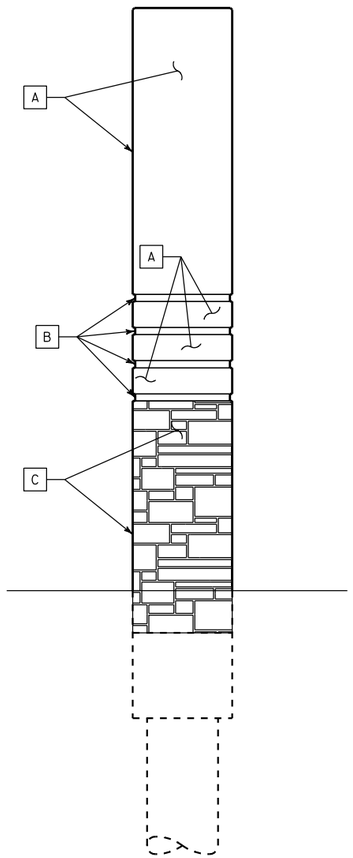
✳ NO. OF BARS REQ'D IS SHOWN FOR ONLY ONE SIGN STRUCTURE (ONE SET OF BARS REQ'D FOR S-40-868)

BAR SERIES TABLE

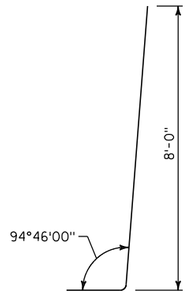
BAR MARK	NO. REQ'D.	LENGTH
A416	1 SERIES OF 6	12'-6" TO 14'-2"



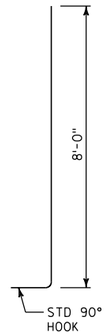
ELEVATION VIEW



END VIEW



A708



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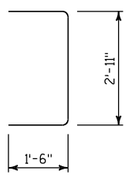

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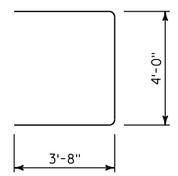

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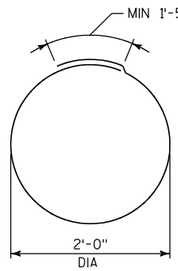

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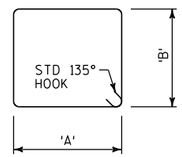
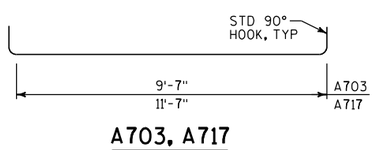


A505, A413, A415, A416

BAR MARK	DIM. 'A'	DIM. 'B'
A505	3'-1"	3'-0"
A413	3'-4"	3'-0"
A415	1'-11"	3'-0"
A416	3'-0" TO 3'-10"	3'-0"



A703, A717

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

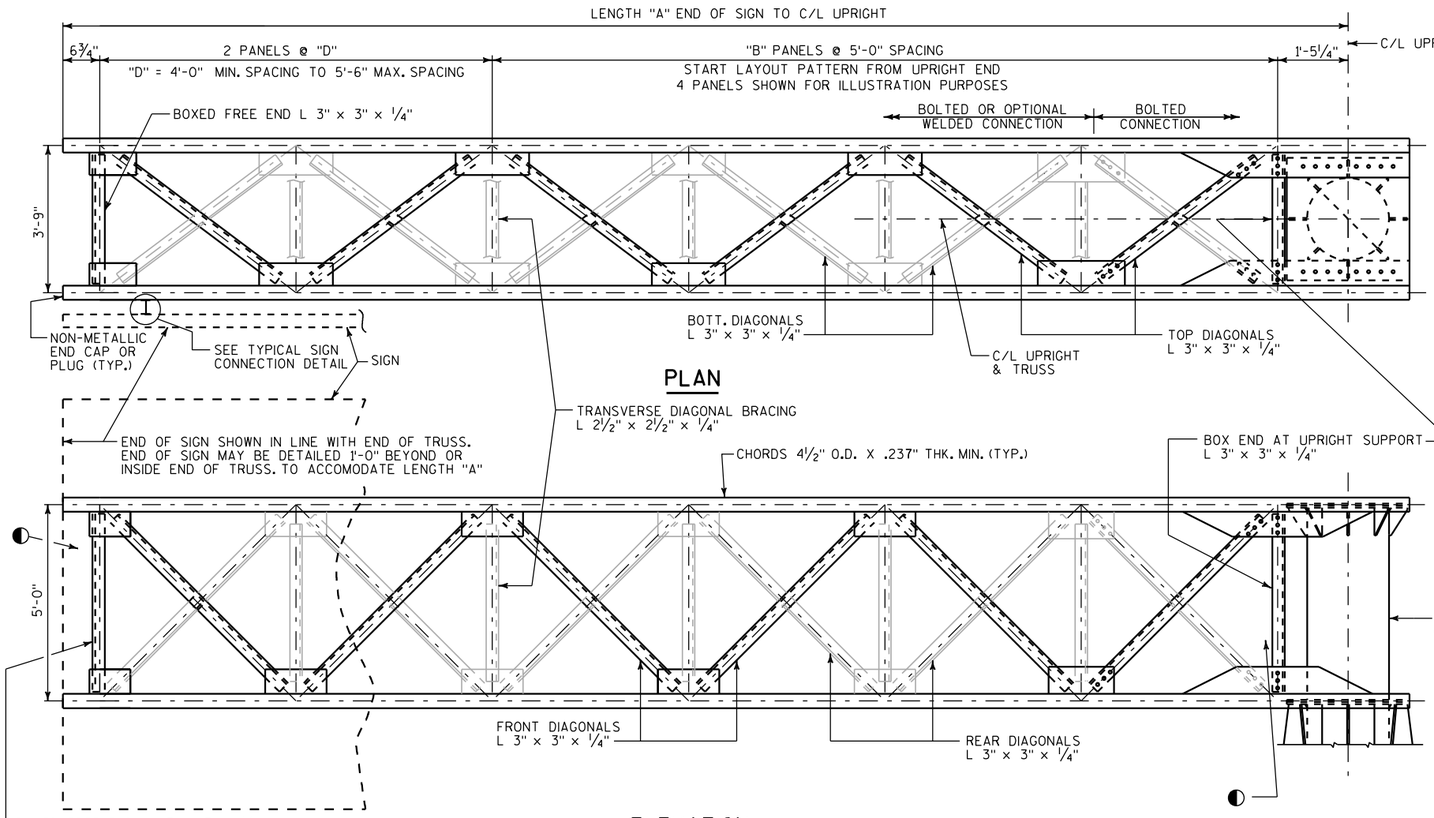
COLUMN & FOOTING DETAILS (3 OF 3)

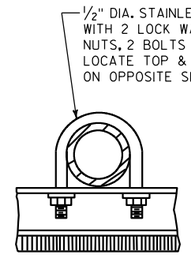
SHEET 8 OF 10

8

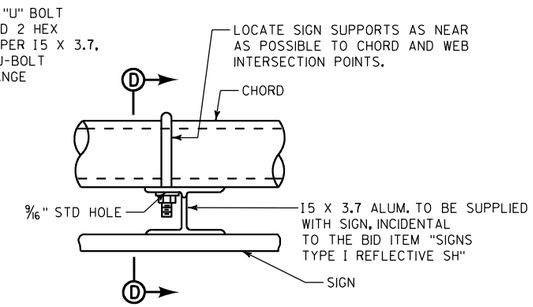
8

STATE PROJECT NUMBER
1060-34-87

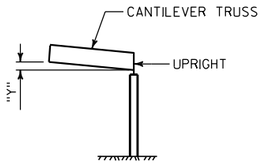




SECTION D-D



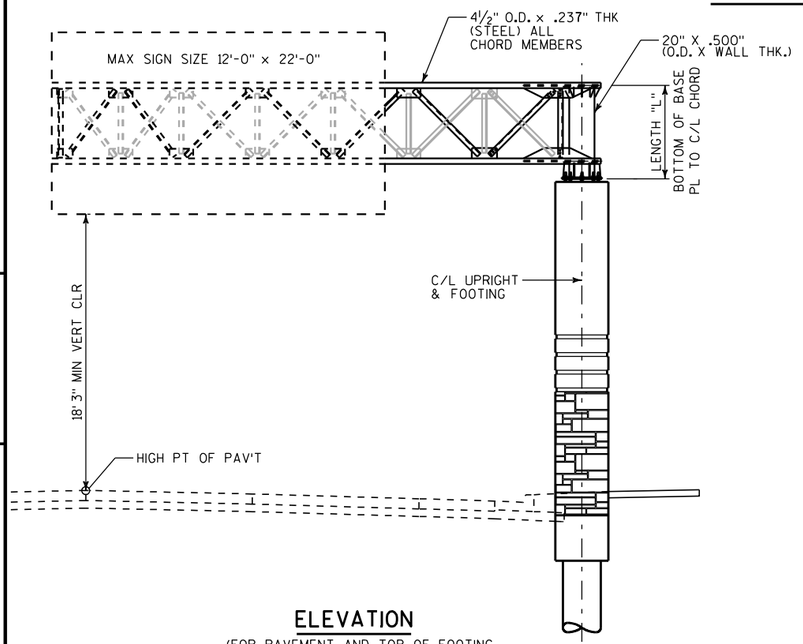
TYPICAL SIGN CONNECTION



CAMBER DIAGRAM

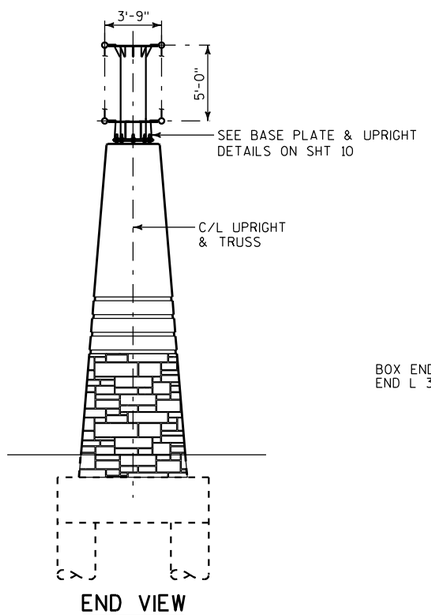
TABLE OF DIMENSIONS

STRUCTURE	"A"	"L"	"B"	"D"	"Y"
S-40-865	35'-0"	6'-2"	5	4'-0"	1¼"
S-40-866	35'-0"	6'-2"	5	4'-0"	1¼"
S-40-867	35'-0"	6'-2"	5	4'-0"	1¼"
S-40-868	35'-0"	6'-2"	5	4'-0"	1¼"



ELEVATION

(FOR PAVEMENT AND TOP OF FOOTING ELEVATIONS, SEE SHEETS 2 THRU 5)



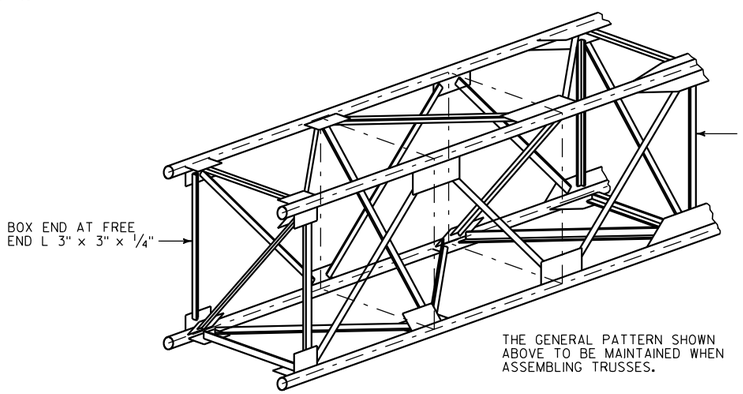
END VIEW

LEGEND

◐ SEE CANTILEVER SIGN TRUSS DETAILS SHEET FOR CONNECTION OF TRANSVERSE DIAGONAL BRACING AT UPRIGHT SUPPORT AND FREE END

NOTES

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS SHOWN IN THE "CAMBER DIAGRAM". DO NOT RAKE VERTICAL UPRIGHT BY ADJUSTMENT OF THE LEVELING NUTS.



THE GENERAL PATTERN SHOWN ABOVE TO BE MAINTAINED WHEN ASSEMBLING TRUSSES.

TYPICAL TRUSS SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

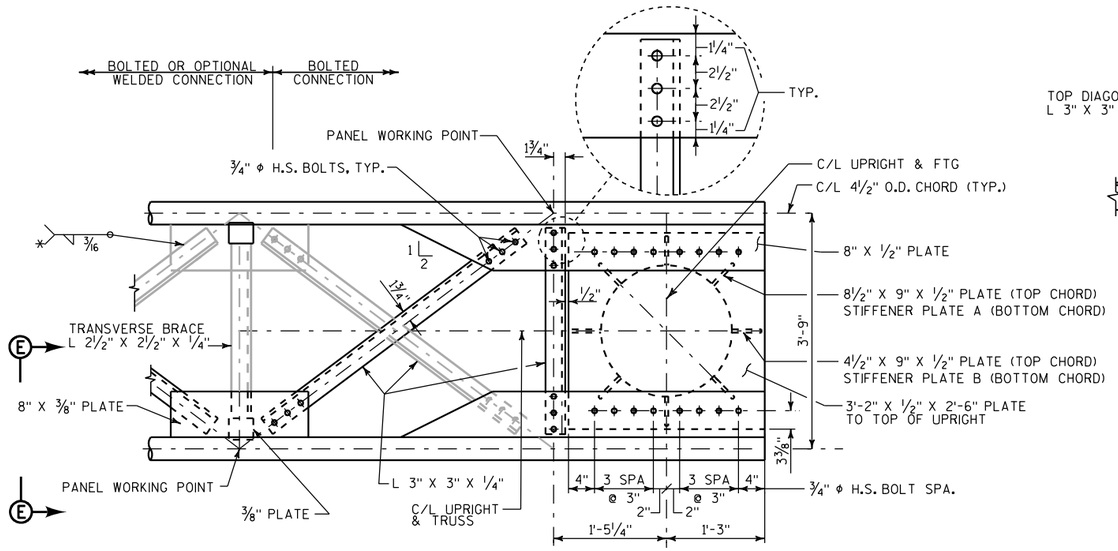
GALVANIZED STEEL CANTILEVER SIGN TRUSS

SHEET 9 OF 10

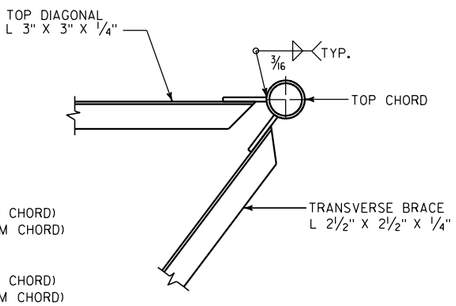
8

8

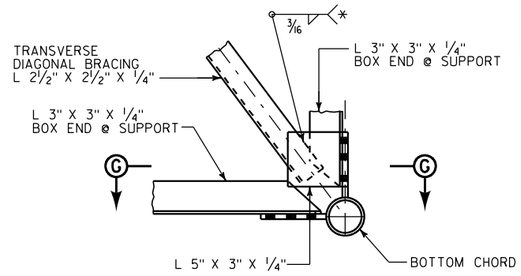
STATE PROJECT NUMBER
1060-34-87



PLAN TRUSS TO UPRIGHT

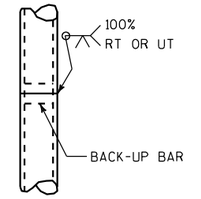


SECTION E-E



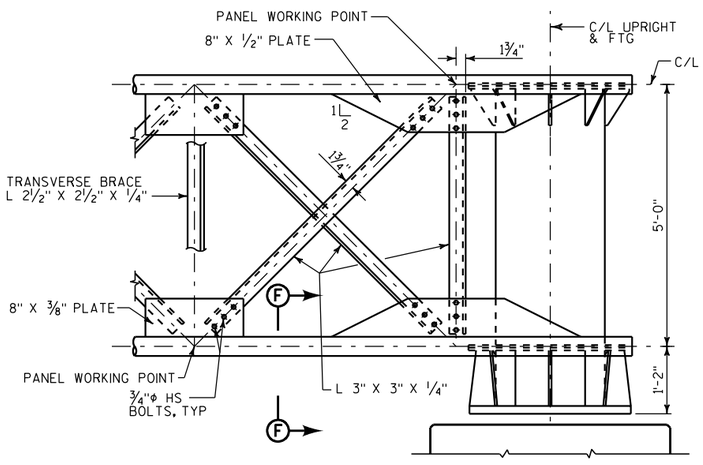
SECTION F-F

* ANGLE	WELD LENGTH (MIN.)
L 2½" X 2½" X ¼"	7"
L 3" X 3" X ¼"	8"

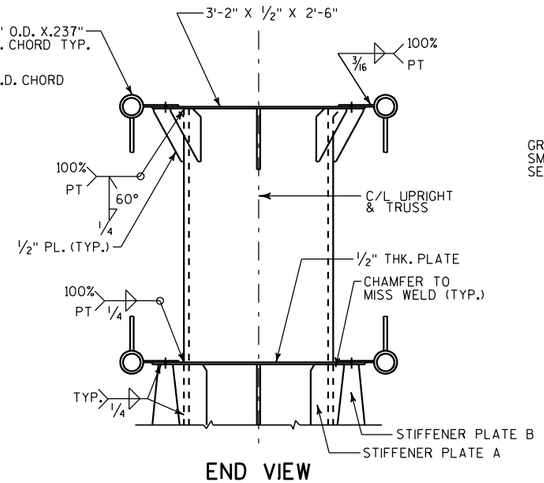


SEPARATE OPTIONAL SPLICE FROM GUSSET PLATES BY 6" MIN.

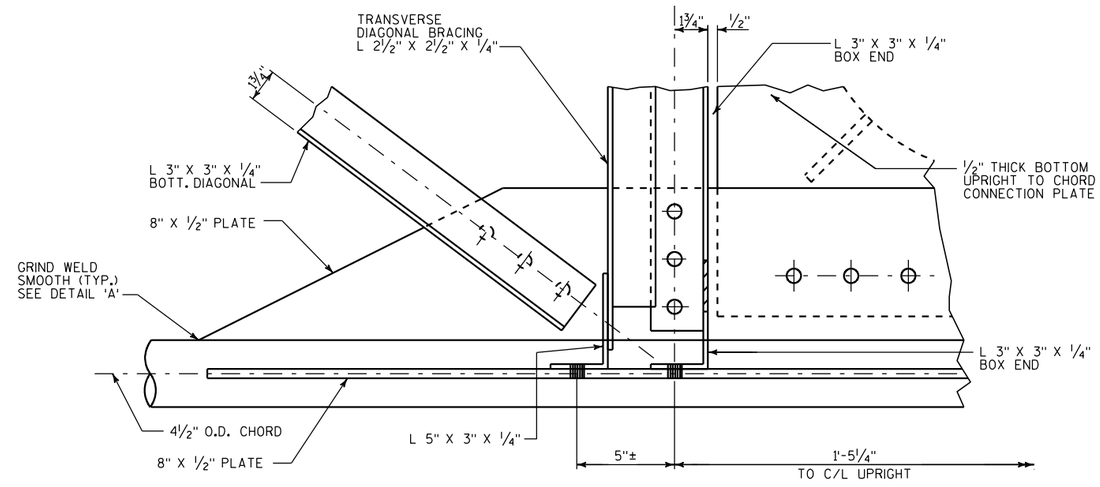
OPTIONAL COLUMN OR CHORD SPLICE DETAIL



ELEVATION TRUSS TO UPRIGHT

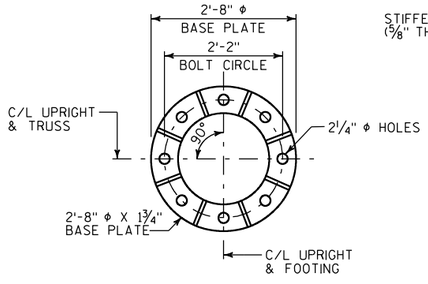


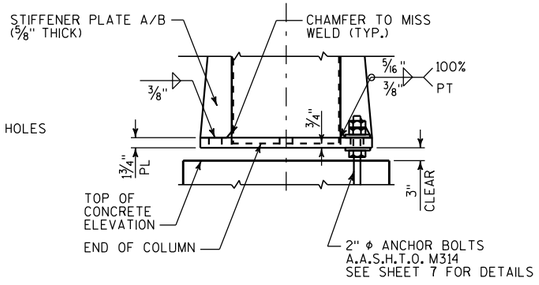
END VIEW TRUSS TO UPRIGHT



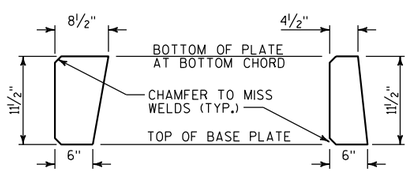
SECTION G-G

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)





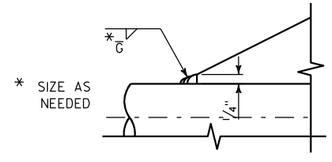
BASE PLATE DETAILS



STIFFENER PLATE A

STIFFENER PLATE B

(SEE "PLAN TRUSS TO UPRIGHT" FOR LOCATIONS)



DETAIL 'A'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S-40-865/866/867/868

DRAWN BY EKM | PLANS CK'D. KES

GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

SHEET 10 OF 10

Division 1 WC

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/ Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.1	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
766+71 AH	76670.60	0.00	49.48	0.00	3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
767+00	76700.00	29.40	11.26	0.00	35.60	0.00	33.07	0.00	21.29	0.00	33.07	23.42	0.00	0.00	9.65
767+50	76750.00	50.00	150.17	0.00	1.42	0.00	149.47	0.00	34.28	0.00	182.54	61.12	0.00	0.00	121.42
768+00	76800.00	50.00	162.53	0.00	0.17	0.00	289.54	0.00	1.47	0.00	472.08	62.74	0.00	0.00	409.34
768+50	76850.00	50.00	165.31	0.00	0.27	0.00	303.56	0.00	0.41	0.00	775.63	63.19	0.00	0.00	712.44
768+68 BK	76868.17	18.17	158.74	0.00	1.66	0.00	109.04	0.00	0.65	0.00	884.67	63.90	0.00	0.00	820.77
					Column totals		884.67	0.00	58.09	0.00					

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

Division 1 WEB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/ Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.1	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
43+29 AH	4328.54	0.00	58.92	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43+50	4350.00	21.46	64.53	0.00	3.12	0.00	49.06	0.00	1.28	0.00	49.06	1.40	0.00	0.00	47.66
44+00	4400.00	50.00	118.02	0.00	1.43	0.00	169.03	0.00	4.21	0.00	218.09	6.04	0.00	0.00	212.05
44+29 BK	4428.59	28.59	158.22	0.00	1.85	0.00	146.25	0.00	1.74	0.00	364.34	7.95	0.00	0.00	356.39
45+25 AH	4525.00	0.00	0.00	0.00	20.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45+50	4550.00	25.00	5.40	0.00	37.73	0.00	2.50	0.00	26.74	0.00	2.50	29.41	0.00	0.00	-26.91
45+75	4575.00	25.00	0.00	0.00	129.03	0.00	2.50	0.00	77.20	0.00	5.00	114.34	0.00	0.00	-109.34
46+00	4600.00	25.00	0.23	0.00	49.54	0.00	0.11	0.00	82.67	0.00	5.11	205.28	0.00	0.00	-200.17
46+30 BK	4630.44	30.44	8.96	0.00	0.67	0.00	5.18	0.00	28.30	0.00	10.29	236.41	0.00	0.00	-226.12
Column totals							374.63	0.00	222.14	0.00					

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

(CONTINUED ON NEXT PAGE)

Division 2 WA

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged/ Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.0	Cumulative Vol (CY) Expanded Fill 1.1	Cumulative Vol (CY) Expanded EBS Backfill 1.3 Note 4	Cumulative Vol (CY) Reduced EBS In Fill 0.8 Note 5	Mass Ordinate Note 6
753+51 AH	75351.10	0.00	18.81	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
753+81	75381.44	30.34	21.72	0.00	0.00	0.00	22.77	0.00	0.02	0.00	22.77	0.02	0.00	0.00	22.75
753+81	75381.44	0.00	58.53	0.00	0.06	0.00	0.00	0.00	0.00	0.00	22.77	0.02	0.00	0.00	22.75
754+00	75400.00	18.56	71.74	0.00	0.05	0.00	44.77	0.00	0.04	0.00	67.55	0.06	0.00	0.00	67.49
754+50	75450.00	50.00	193.62	0.00	0.00	0.00	245.70	0.00	0.05	0.00	313.25	0.11	0.00	0.00	313.14
755+00	75500.00	50.00	360.06	0.00	0.00	0.00	512.67	0.00	0.00	0.00	825.92	0.11	0.00	0.00	825.81
755+50	75550.00	50.00	473.94	0.00	0.00	0.00	772.22	0.00	0.00	0.00	1598.14	0.11	0.00	0.00	1598.03
756+00	75600.00	50.00	486.44	0.00	0.00	0.00	889.24	0.00	0.00	0.00	2487.38	0.11	0.00	0.00	2487.27
756+50	75650.00	50.00	259.73	0.00	16.54	0.00	690.90	0.00	15.31	0.00	3178.28	16.96	0.00	0.00	3161.32
757+00	75700.00	50.00	69.38	0.00	4.79	0.00	304.73	0.00	19.75	0.00	3483.01	38.68	0.00	0.00	3444.33
757+33 BK	75732.75	32.75	71.22	0.00	0.23	0.00	85.27	0.00	3.04	0.00	3568.28	42.03	0.00	0.00	3526.25
Column totals							3568.28	0.00	38.21	0.00					

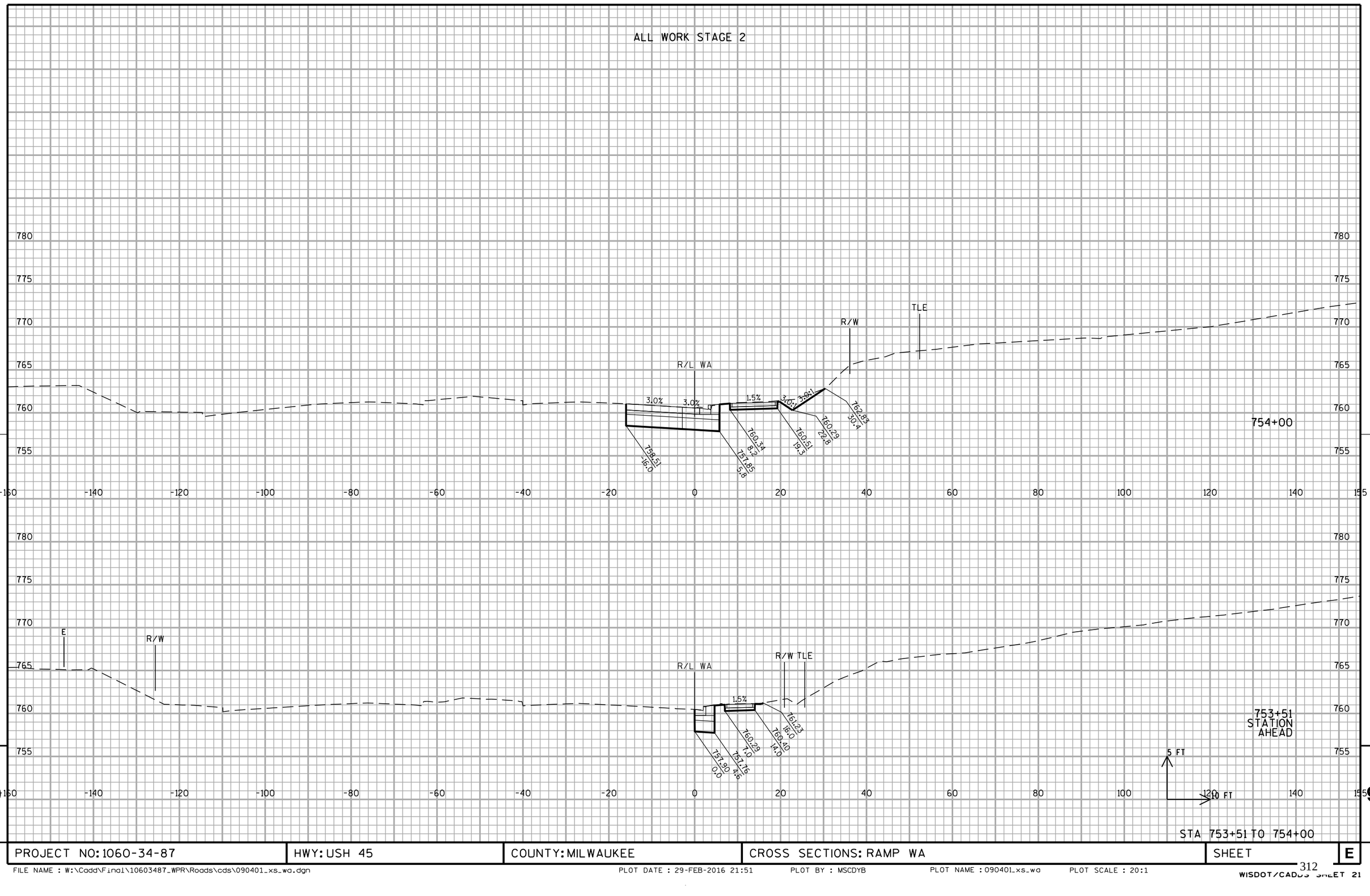
Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

Division 2 WWB

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Expanded EBS Backfill	Reduced EBS In Fill	
											1.0	1.1	1.3	0.8	
							Note 1	Note 2	Note 3				Note 4	Note 5	Note 6
57+19 AH	5719.41	0.00	7.21	0.00	7.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57+50	5750.00	30.59	4.59	0.00	10.60	0.00	6.68	0.00	10.06	0.00	6.68	11.07	0.00	0.00	-4.38
57+70	5770.00	20.00	3.25	0.00	30.36	0.00	2.90	0.00	15.17	0.00	9.59	27.75	0.00	0.00	-18.17
58+00	5800.00	30.00	6.53	0.00	7.44	0.00	5.43	0.00	21.00	0.00	15.02	50.85	0.00	0.00	-35.83
58+25	5825.00	25.00	0.00	0.00	15.18	0.00	3.02	0.00	10.47	0.00	18.04	62.37	0.00	0.00	-44.33
58+41 BK	5841.00	16.00	0.00	0.00	2.32	0.00	0.00	0.00	5.19	0.00	18.04	68.08	0.00	0.00	-50.03
		Column totals					18.04	0.00	61.89	0.00					

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

ALL WORK STAGE 2



STA 753+51 TO 754+00

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WA	SHEET	E

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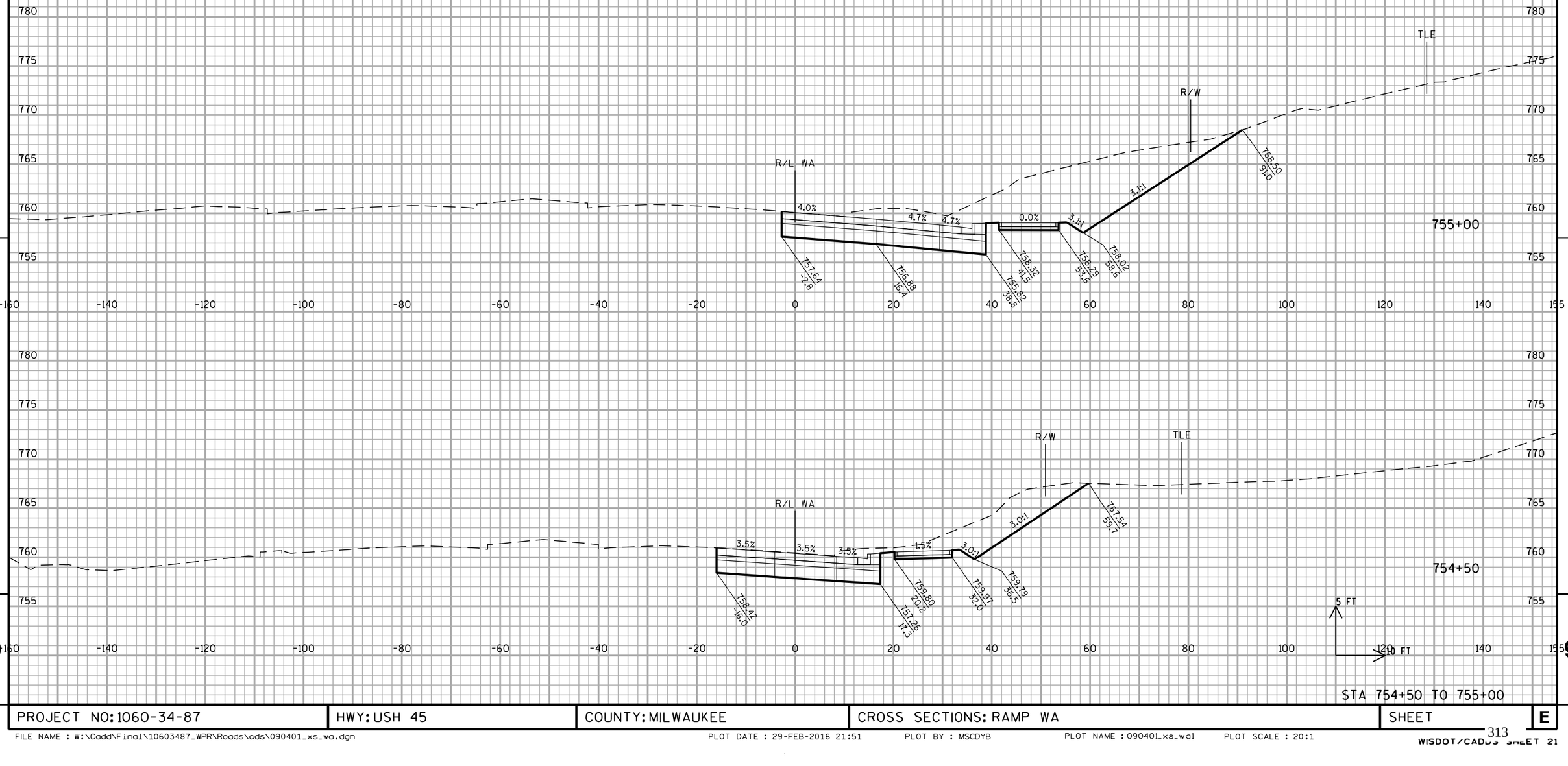
ALL WORK STAGE 2



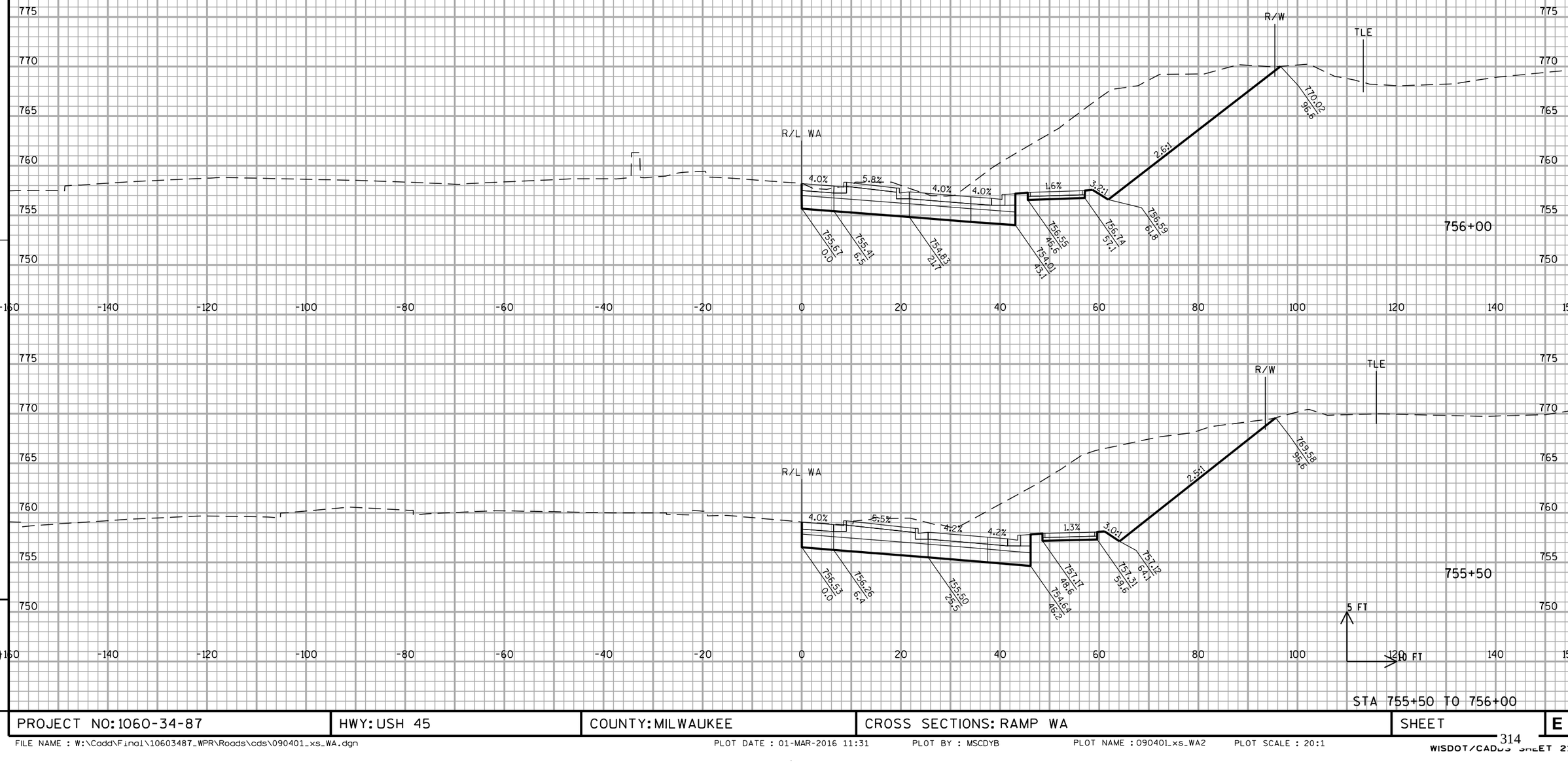
STA 754+50 TO 755+00

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WA	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090401_xs_wa.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090401_xs_wa1 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 2



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WA	SHEET	E

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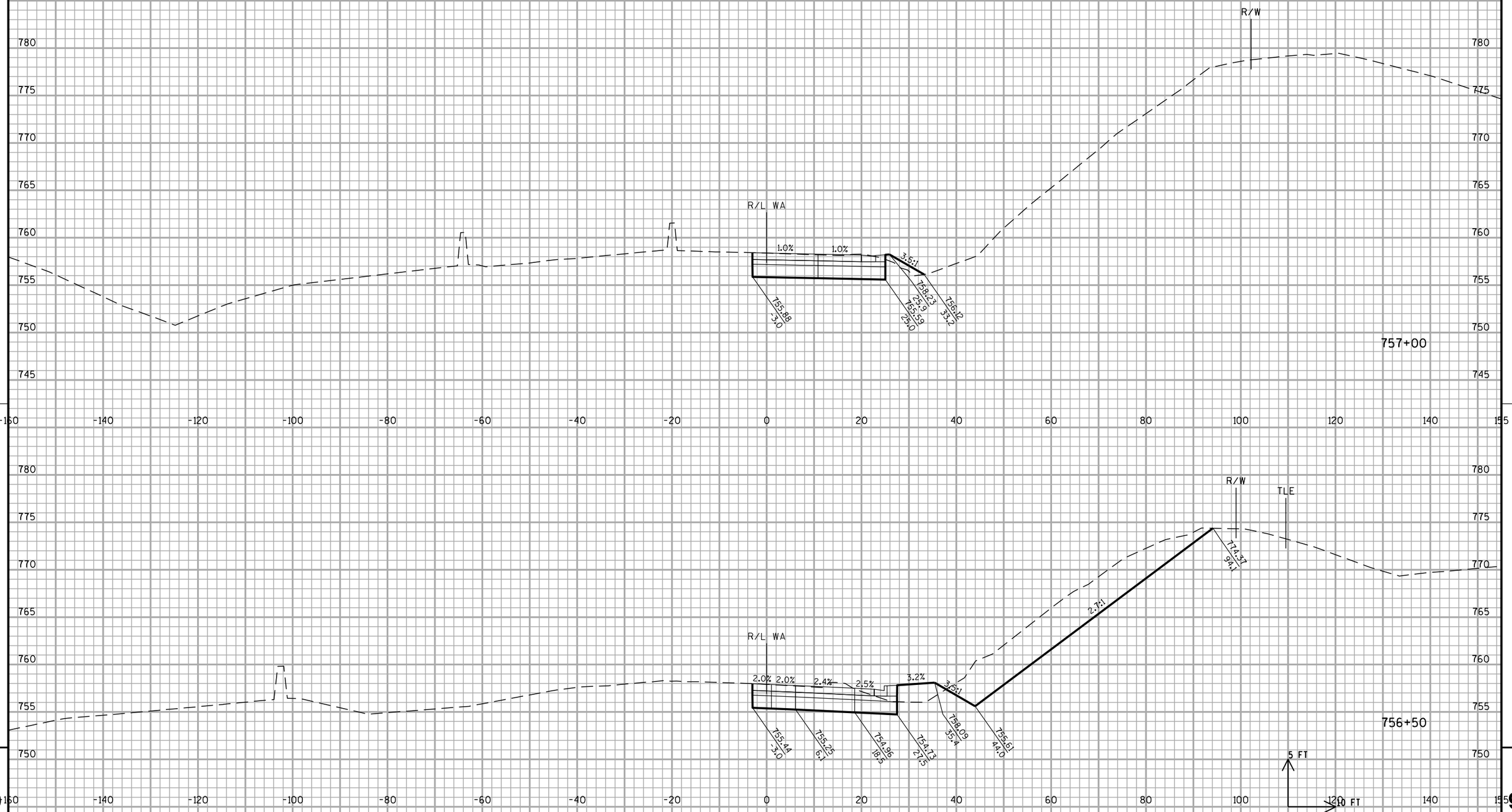
ALL WORK STAGE 2



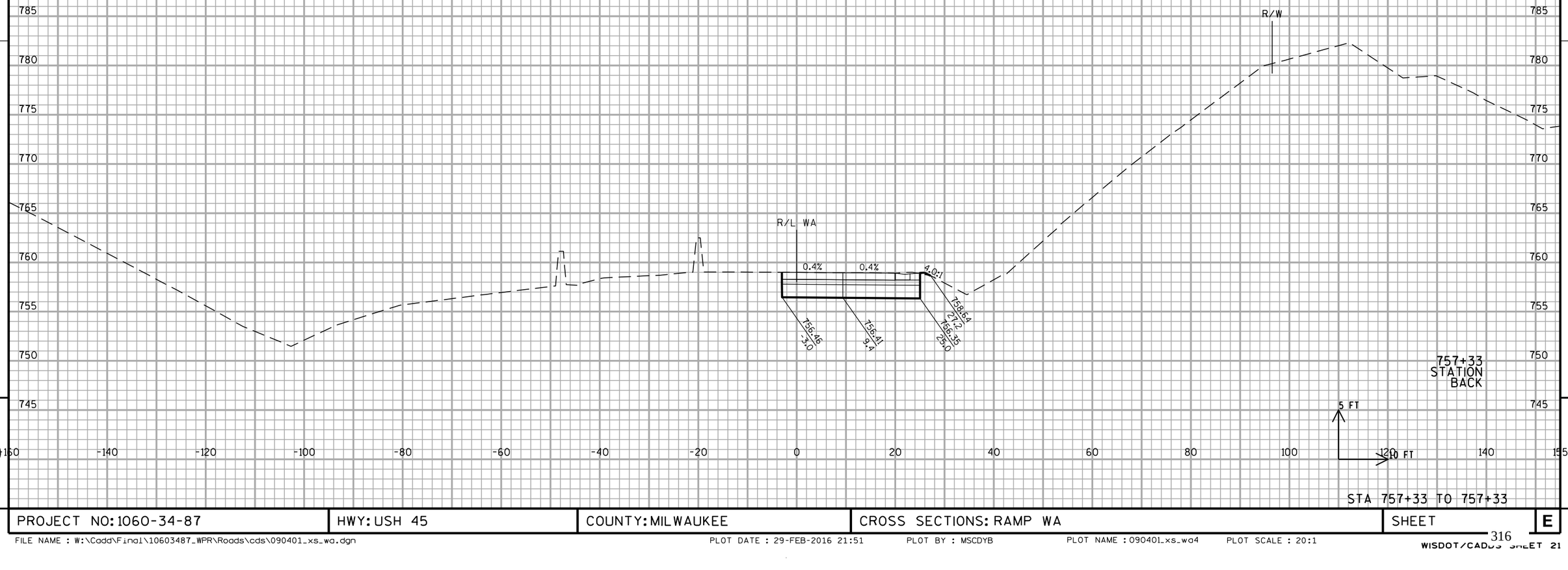
STA 756+50 TO 757+00

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WA	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090401_xs_wa.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090401_xs_wa3 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 2



STA 757+33 TO 757+33

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WA	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090401_xs_wa.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090401_xs_wa4 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

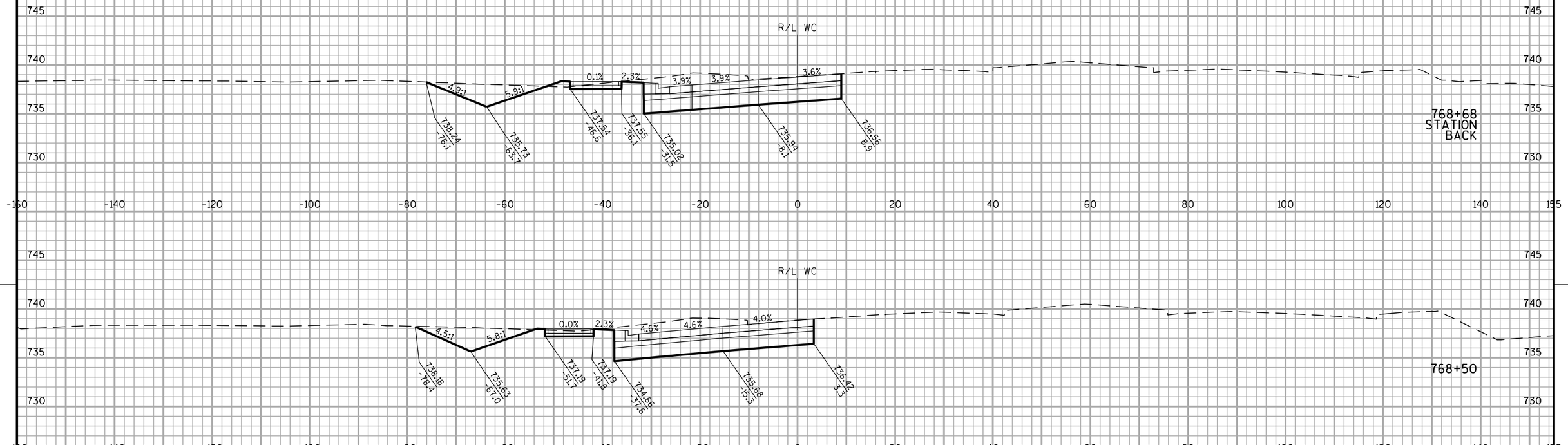
ALL WORK STAGE 1

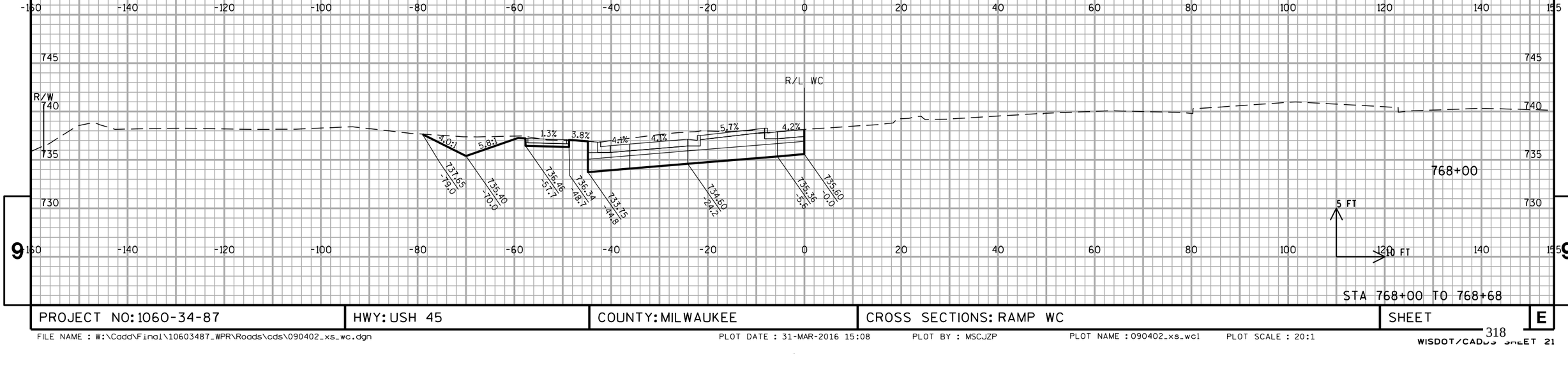
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WC	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090402_xs_wc.dgn PLOT DATE : 31-MAR-2016 15:08 PLOT BY : MSCJZP PLOT NAME : 090402_xs_wc PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 1





STA 768+00 TO 768+68

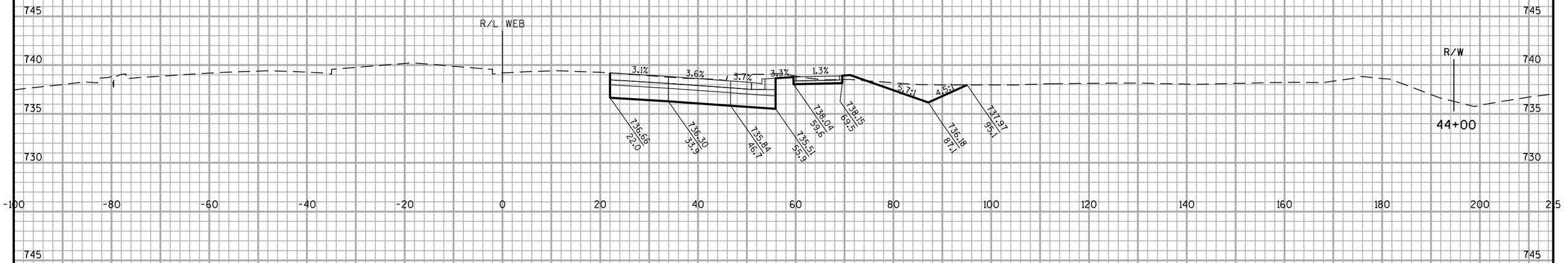
PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: RAMP WC	SHEET	E

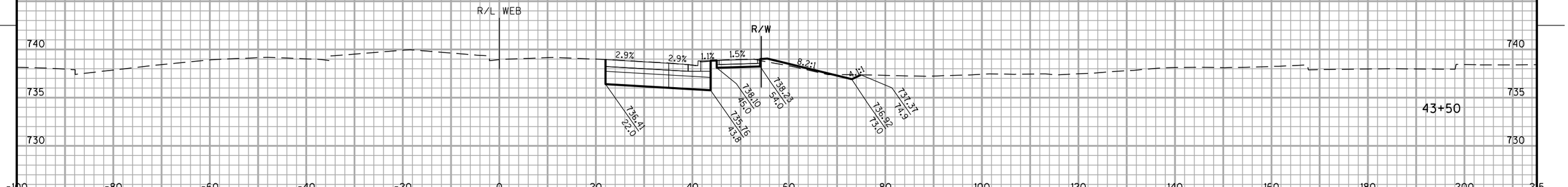
9 9

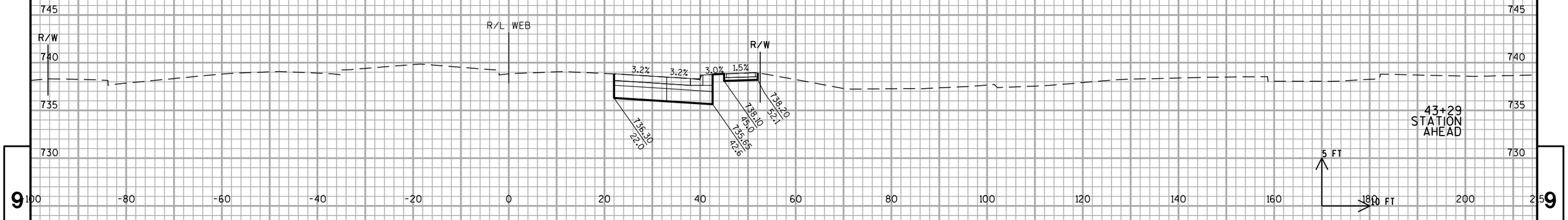
FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090402_xs_wc.dgn PLOT DATE : 31-MAR-2016 15:08 PLOT BY : MSCJZP PLOT NAME : 090402_xs_wc1 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 1







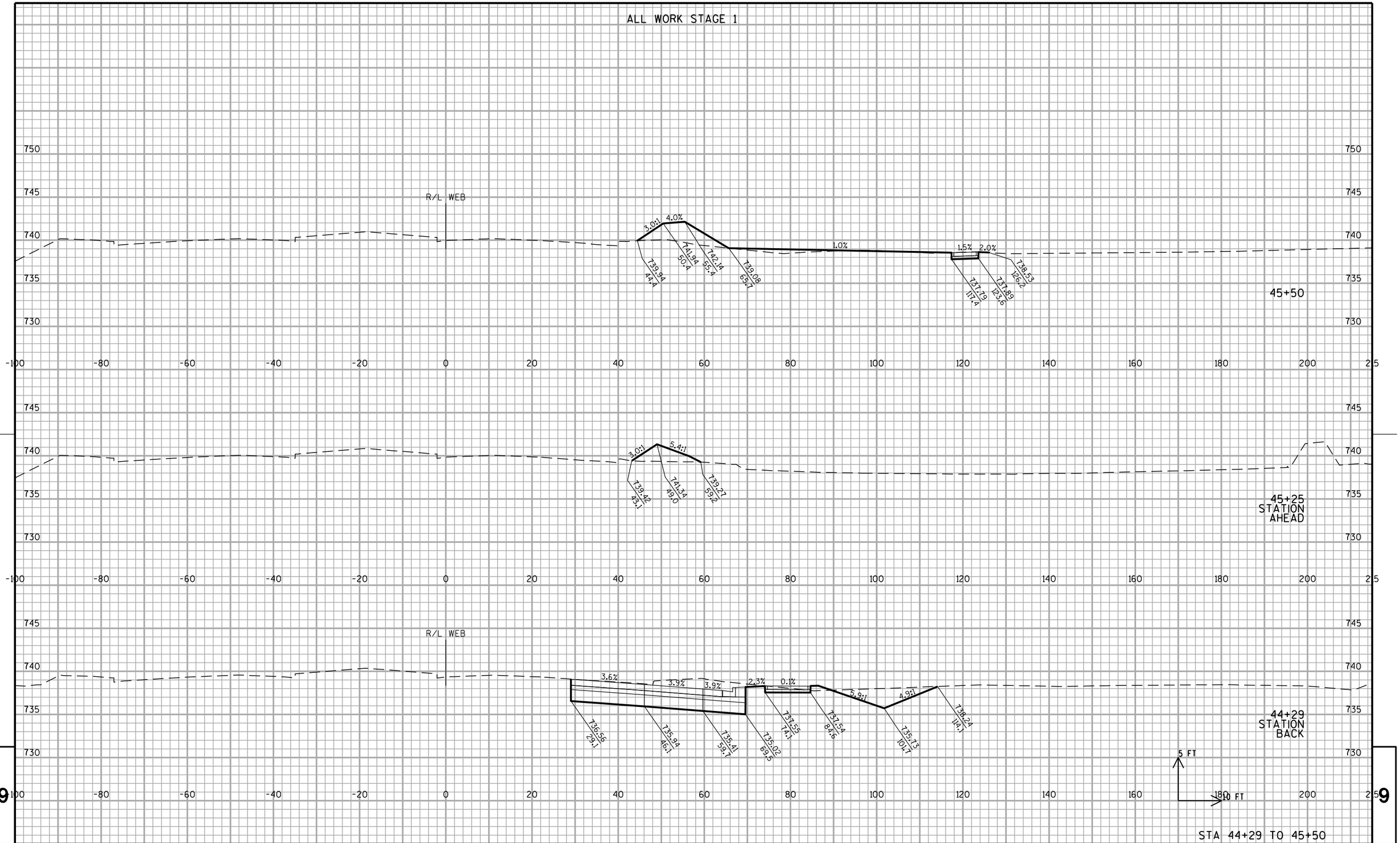
STA 43+29 TO 44+00

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - EASTBOUND	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090501_xs_web.dgn PLOT DATE : 31-MAR-2016 15:08 PLOT BY : MSCJZP PLOT NAME : 090501_xs_web PLOT SCALE : 20:1

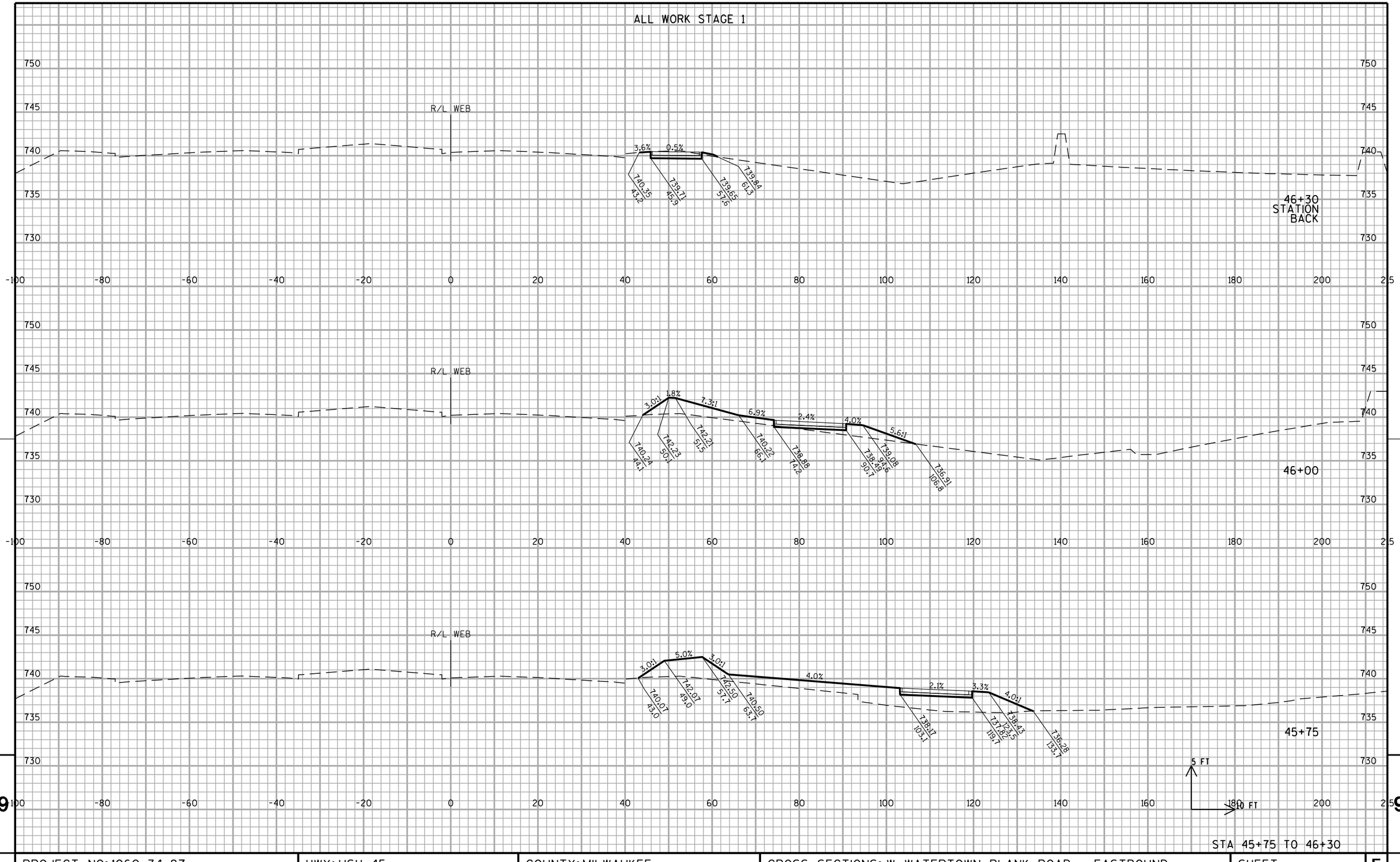
WISDOT/CADDS SHEET 21

ALL WORK STAGE 1



PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - EASTBOUND	SHEET	E

ALL WORK STAGE 1

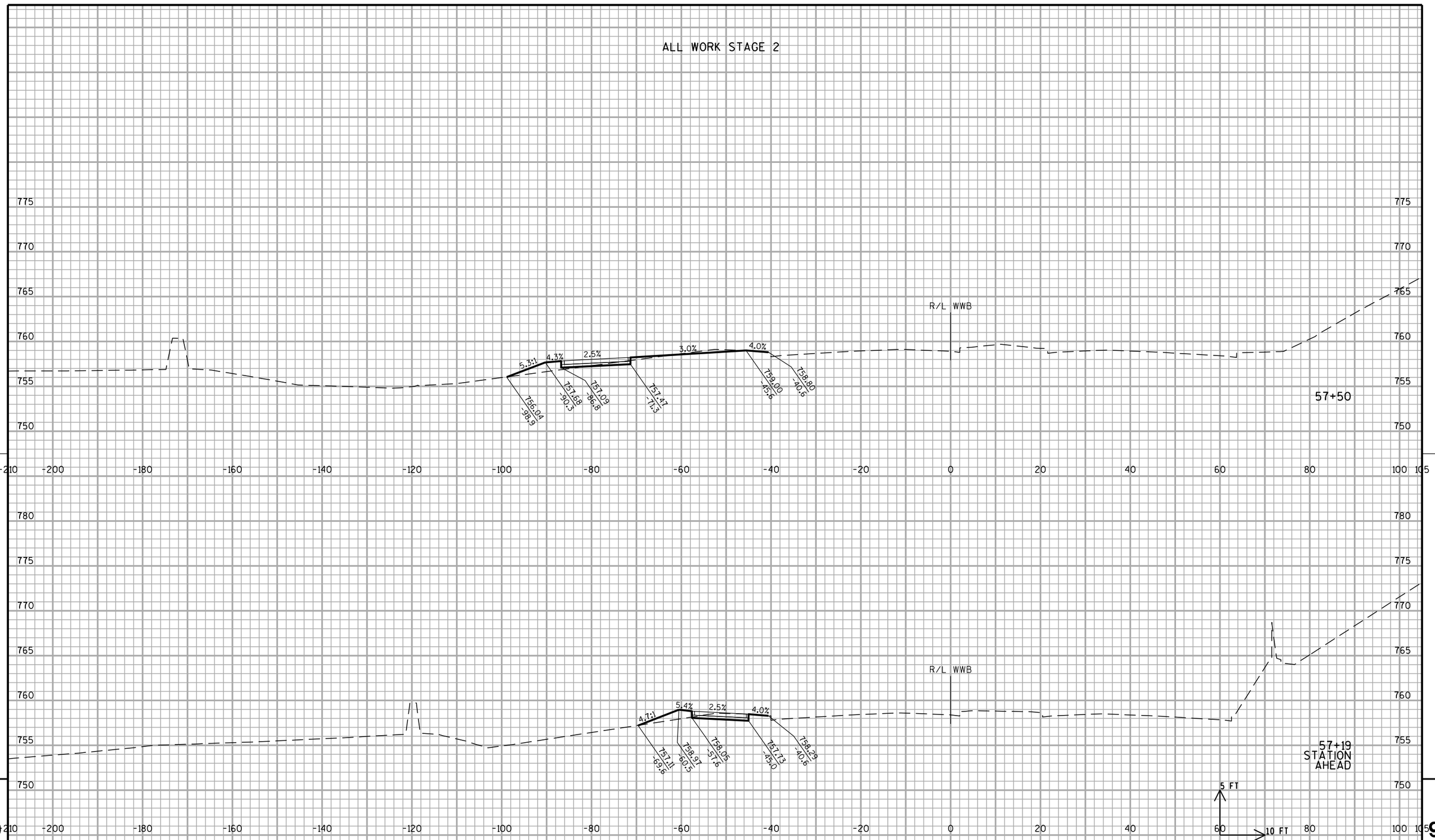


PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - EASTBOUND	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090501_xs_web.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090501_xs_web2 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 2



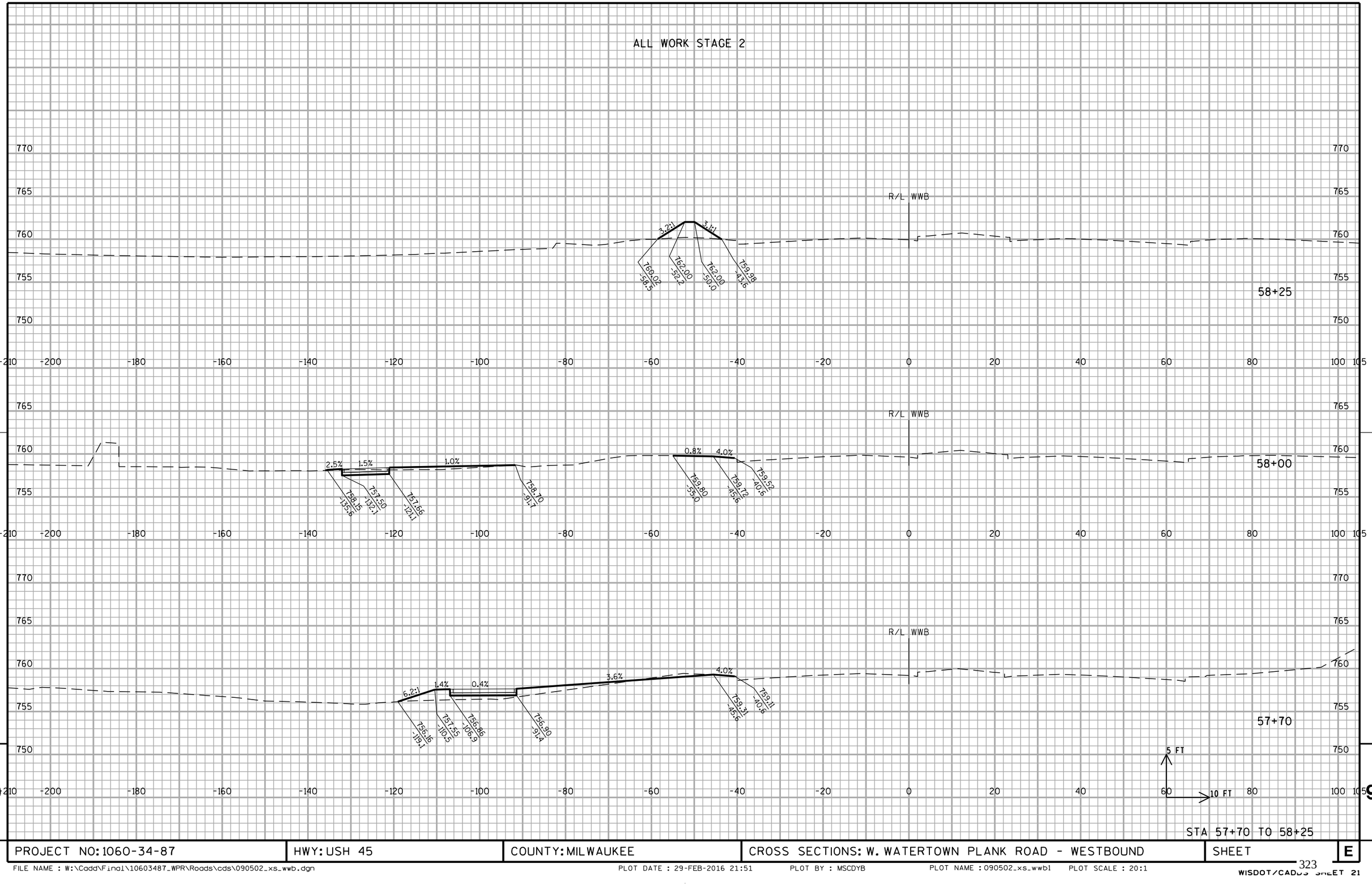
STA 57+19 TO 57+50

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - WESTBOUND	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090502_xs_wwb.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090502_xs_wwb PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 2



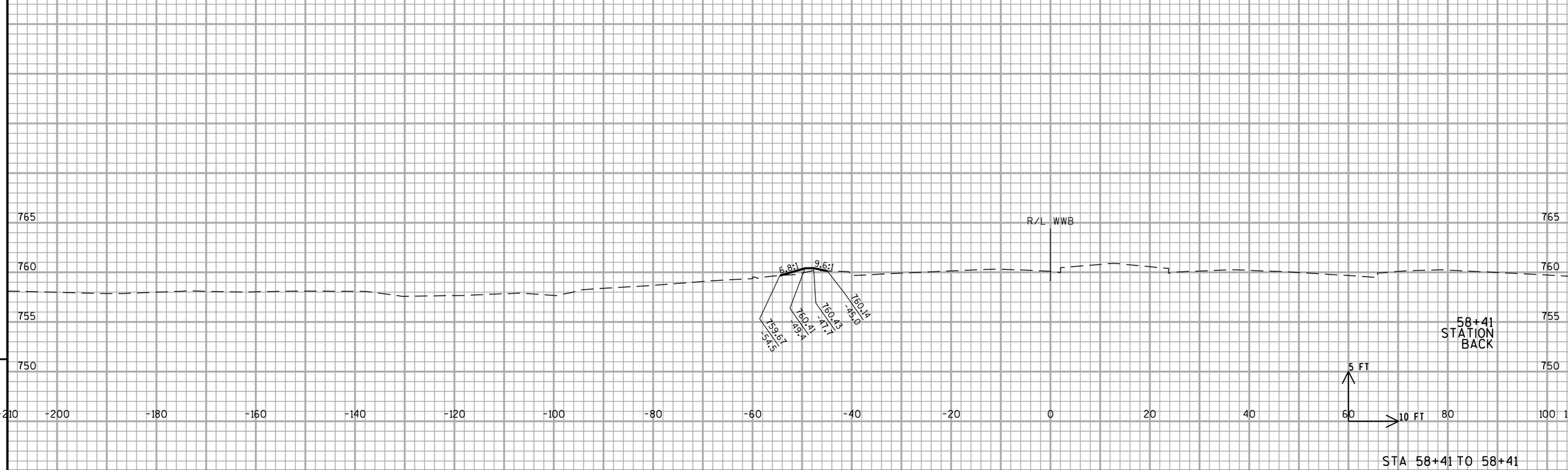
STA 57+70 TO 58+25

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - WESTBOUND	SHEET	E

FILE NAME : W:\Cadd\Final\10603487_WPR\Roads\cds\090502_xs_wwb.dgn PLOT DATE : 29-FEB-2016 21:51 PLOT BY : MSCDYB PLOT NAME : 090502_xs_wwb1 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK STAGE 2



STA 58+41 TO 58+41

PROJECT NO: 1060-34-87	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: W. WATERTOWN PLANK ROAD - WESTBOUND	SHEET	E

Notes

Wisconsin Department of Transportation

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