

WKE
PROJECT ID: 1060-35-80
WITH: N/A

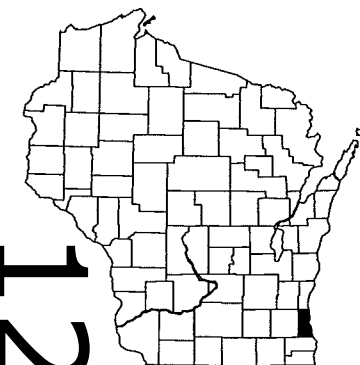
COUNTY: MILWAUKEE

JULY 2014

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 = 90



12

DESIGN DESIGNATION

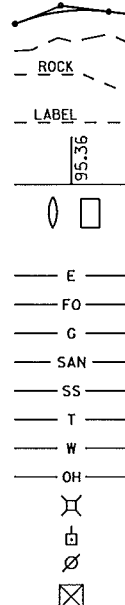
	USH 45	BLUEMOUND ROAD
A.A.D.T. 2013	= 147,800	= 28,580
A.A.D.T. 2035	= 190,100	= 39,310
D.H.V. 2035	= 5,828 NB / 6,438 SB	= 4,760
D.D.	= 47.5% NB / 52.5% SB	= 60% EB / 40% WB
T.	= 10% NB / 13% SB	= 3.5%
DESIGN SPEED	= 60 MPH	= 40 MPH
ESALS	= -	= -

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

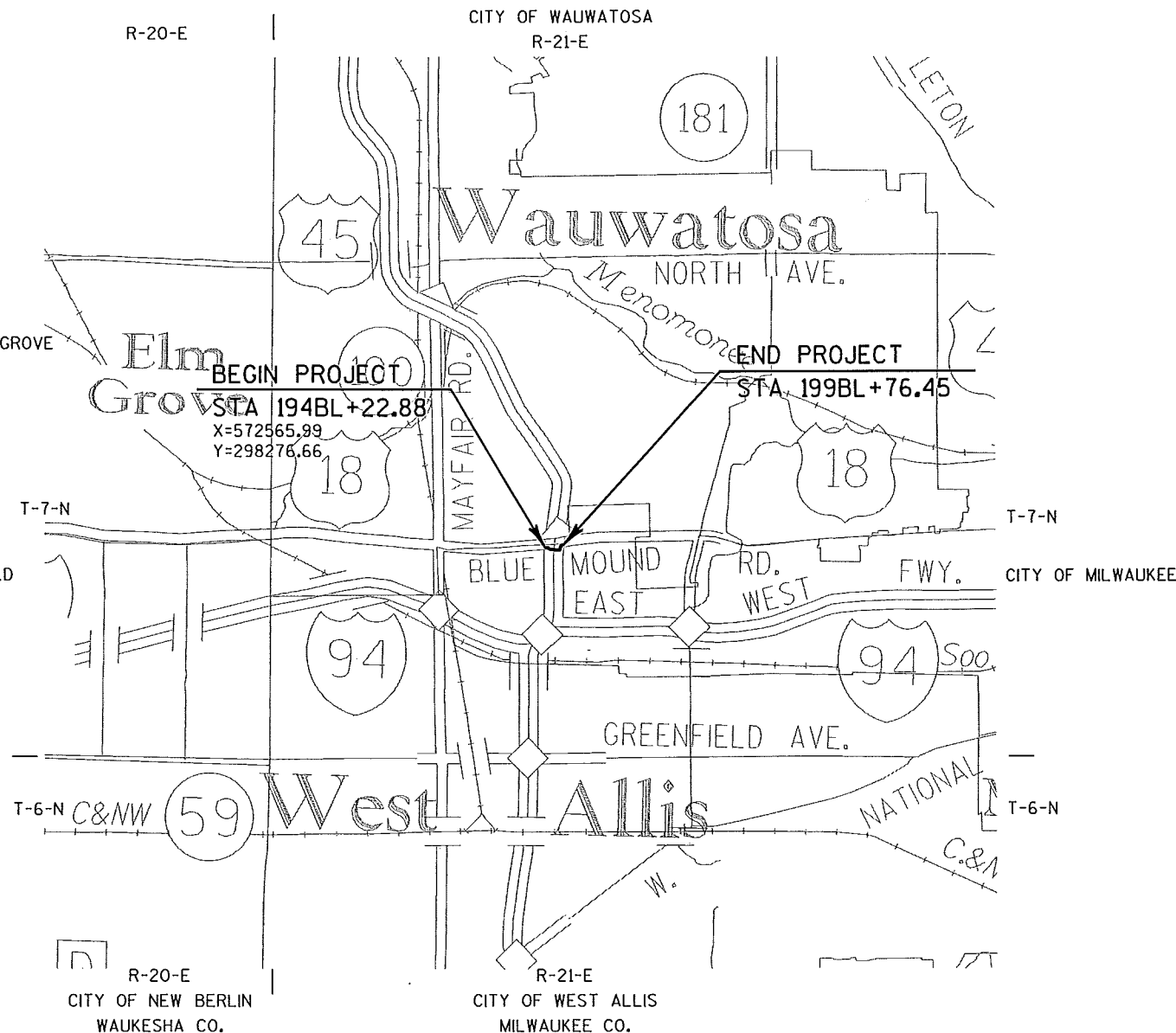
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
SPECIAL DITCH	---
GRADE ELEVATION	---
CULVERT (Profile View)	---
UTILITIES	---
ELECTRIC	---
FIBER OPTIC	---
GAS	---
SANITARY SEWER	---
STORM SEWER	---
TELEPHONE	---
WATER	---
OVERHEAD ELECTRIC	---
UTILITY PEDESTAL	---
POWER POLE	---
TELEPHONE POLE	---
TRANSMISSION TOWER	---



CITY OF BROOKFIELD

R-20-E

CITY OF WAUWATOSA
R-21-E



TOTAL NET LENGTH OF CENTERLINE = 0.105 MI.

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)

STATE PROJECT

1060-35-80

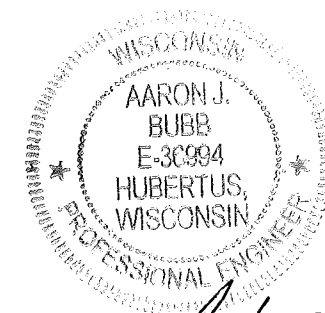
FEDERAL PROJECT

PROJECT

CONTRACT



ORIGINAL PLANS PREPARED BY
MILWAUKEE, WISCONSIN



1-14-14
(Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	FORWARD 45
Designer	FORWARD 45
Project Manager	JEFF BOHEN
Regional Examiner	
Regional Supervisor	WILLIAM MOHR
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1-14-14
(Signature)

E

UTILITY CONTACTS

AT&T WISCONSIN

MR. JAY BULANEK
7721 W. FOND DU LAC AVENUE
MILWAUKEE, WI 53218
PHONE: (414) 535-7407
jb5175@att.com

MILWAUKEE , CITY OF - CABLE

MR. BRIAN PAWLAK
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286- 5970
brian.pawlak@milwaukee.gov

MILWAUKEE , CITY OF - CONDUIT

MRS. KAREN ROGNEY
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286- 3243
karen.rogney@milwaukee.gov

MILWAUKEE , CITY OF - LIGHTING

MR. DENNIS MILLER
841 N. BROADWAY, ROOM 920
MILWAUKEE, WI 53202
PHONE: (414) 286- 5942
dennis.miller@milwaukee.gov

MILWAUKEE , CITY OF - SEWER

MR. JASON BARMAN
841 N. BROADWAY, ROOM 821
MILWAUKEE, WI 53202
PHONE: (414) 286-3267
jason.barman@milwaukee.gov

MILWAUKEE , CITY OF - WATER

MR. DAVE GOLDAPP
841 N. BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: (414) 286-6301
dave.goldapp@milwaukee.gov

MILWAUKEE COUNTY - STORM

MR. TOM TRAVIA
2711 WEST WELLS STREET, SUITE 200
MILWAUKEE, WI 53208
PHONE: (414) 339-0408
thomas.travia@milwcnty.com

TIME WARNER CABLE

MR. LUKAS LACROSSE
1320 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 908-4766
CELL: (414) 430-9321
lukas.lacrosse@twcable.com

TW TELECOM

MR. BRAHIM GADDOUR, OSP
ENGINEERING DEPT.
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 908-1027
CELL: (414) 704-1026
brahim.gaddour@twtelecom.com

WE ENERGIES - ELECTRIC

SEND ALL CORRESPONDENCE TO:
MR. DAN SANDE
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-4578
dan.sande@we-energies.com

CONSTRUCTION FIELD CONTACT:

MR. JASON CHAPIN
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5575
CELL: (414) 587-0655
jason.chapin@we-energies.com

WE ENERGIES - GAS

SEND ALL CORRESPONDENCE TO:
MR. DAN SANDE
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-4578
dan.sande@we-energies.com

CONSTRUCTION FIELD CONTACT:

MRS. AMY PLATO
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 385-6149
CELL: (414) 335-7543
amy.plato@we-energies.com

WISDOT LIGHTING

MR. ERIC PEREA
141 NW BARSTOW
WAUKESHA, WI 53187
PHONE: (262) 574-5422
eric.perea@dot.wi.gov

WISDOT SIGNALS

DUTY ENGINEER
141 NW BARSTOW STREET
WAUKESHA, WI 53187
PHONE: (414) 750-2605

ELECTRICAL FIELD UNIT
935 S. 60TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 266-1170

WISDOT STOC

MR. JEFFREY MADSON
433 W ST. PAUL AVE, SUITE 300
MILWAUKEE, WI 53203
PHONE: (414) 225-3723
jeffrey.madson@dot.wi.gov

STATE AGENCIES

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES

MS. KRISTINA BETZOLD
2300 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 507-4946
kristina.betzold@wisconsin.gov

WISCONSIN DEPARTMENT OF
TRANSPORTATION

MS. KARLA LEITHOFF, WETLAND ECOLOGIST
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
PHONE: (262) 548-6709
karla.leithoff@dot.wi.gov

WISCONSIN DEPARTMENT OF
TRANSPORTATION

MR. JEFF BOHEN - PROJECT MANAGER
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
PHONE: (262) 750-2928
jeff.bohen@dot.wi.gov

WISCONSIN DEPARTMENT OF
TRANSPORTATION

MR. GREGORY BERRY- UTILITY COORDINATOR
141 NW BARSTOW STREET
WAUKESHA, WI 53187-0798
CELL: (414) 750-7828
gregory.berry@dot.wi.gov

OTHER AGENCIES

MILWAUKEE COUNTY DPW

MR. GREG HEISEL, HWY MAINT.
10190 W. WATERTOWN PLANK ROAD
MILWAUKEE, WI 53226
PHONE: (414) 257-6566
greg.heisel@milwcnty.com

MILWAUKEE COUNTY TRANSIT

MR. DAVE ZIAREK
COORDINATOR OF STREET SUPERVISION
MILWAUKEE COUNTY TRANSIT SYSTEM
1942 N. 17TH STREET
MILWAUKEE, WI 53205
PHONE: (414) 343-1764
dziarek@mcts.org

WAUWATOSA, CITY OF

MR. BILL WEHRLEY, CITY ENGINEER
7725 W. NORTH AVENUE
WAUWATOSA WI 53213
PHONE: (414) 479-8929
wwehrley@wauwatosa.net

MILWAUKEE, CITY OF

MR. JEFF POLENSKE, CITY ENGINEER
841 N. BROADWAY, ROOM 701
MILWAUKEE, WI 53202
PHONE: (414) 286-3701
FAX: (414) 286-5994
jeffrey.polenske@milwaukee.gov

MILWAUKEE COUNTY ZOO

MR. KARL HACKBARTH
10001 W. BLUEMOUND ROAD
MILWAUKEE, WI 53226
PHONE: (414) 256-5413
karl.hackbarth@milwcnty.com

SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION

MR. KURT BAUER
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 547-6721 EXT. 260
FAX: (262) 547-1103
kbauer@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.



GENERAL NOTES

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

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.

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

SAWCUT CONCRETE PAVEMENT AT THE MATCHLINES SHOWN ON THE REMOVAL PLANS OR AS DIRECTED BY THE ENGINEER.

FOR BENCHMARK INFORMATION, SEE THE ALIGNMENT LAYOUT SURVEY CONTROL SHEET.

REMOVAL OF TEMPORARY EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND EROSION MAT TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN 5 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN 14 CALENDAR DAYS, SEED THOSE AREAS.

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

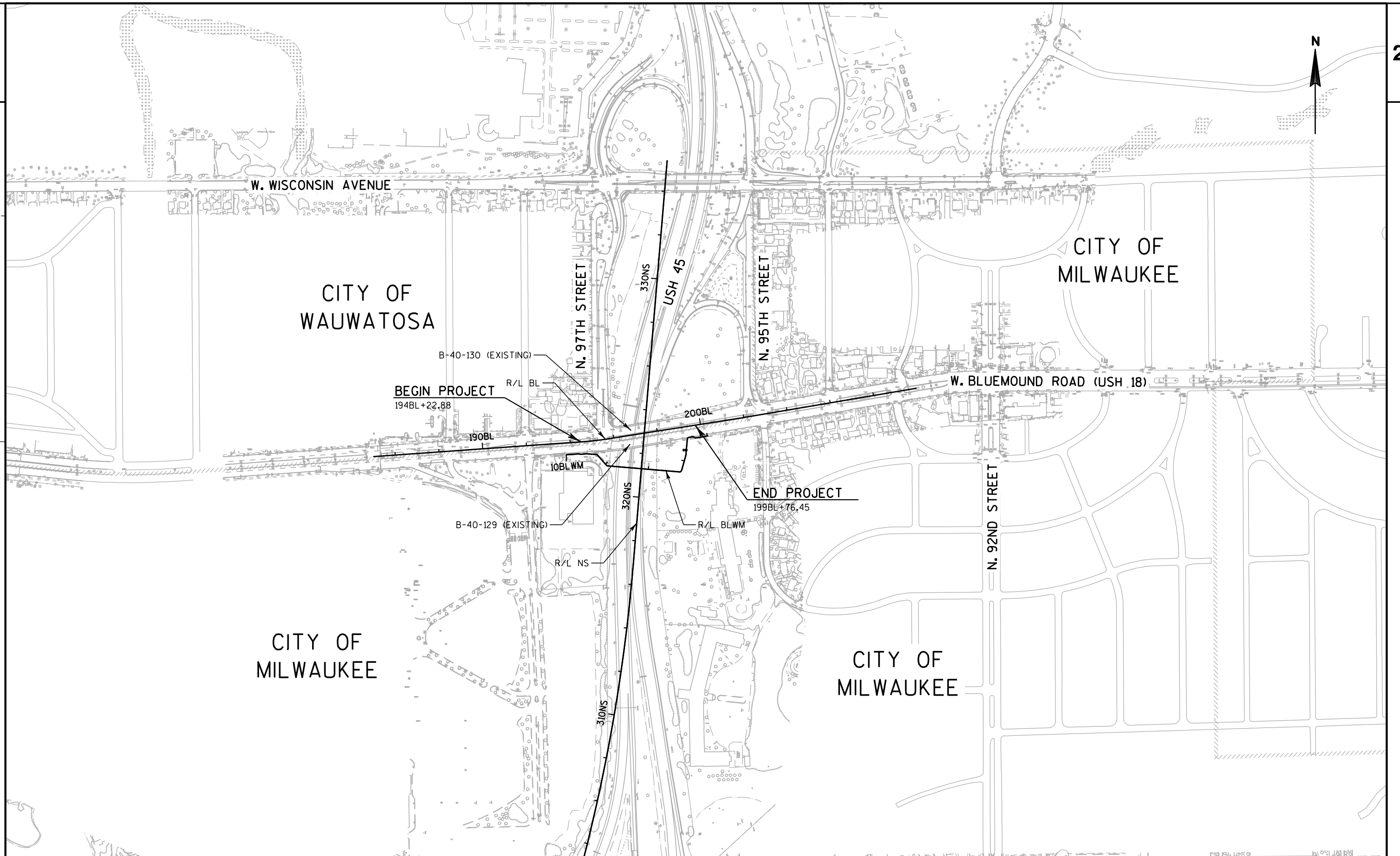
EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

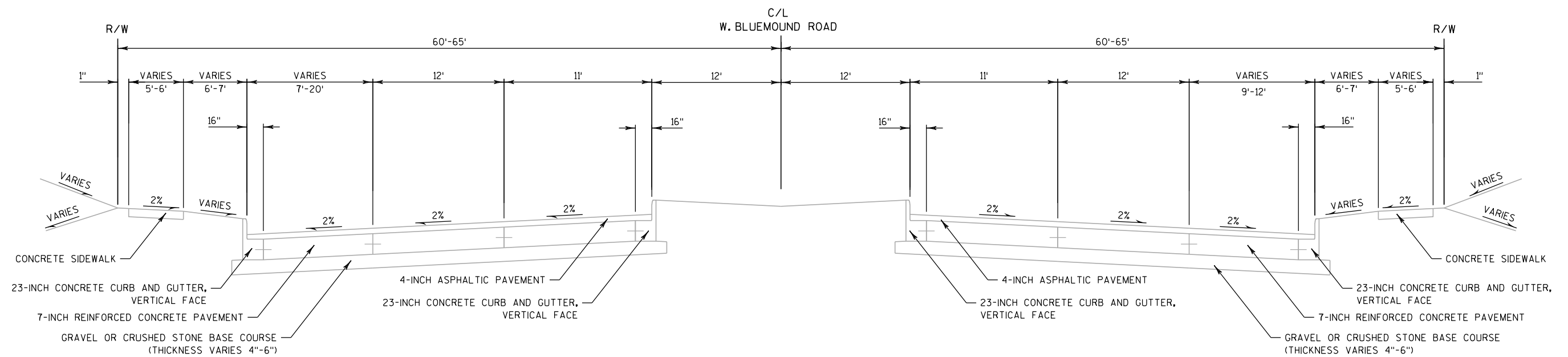
ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
 - REMOVAL PLAN
 - PLAN DETAILS
- EROSION CONTROL AND RESTORATION PLAN
 - WATER MAIN PLAN
 - EXISTING UTILITY PLAN
 - TRAFFIC CONTROL
 - STAGE CONSTRUCTION
 - ALIGNMENT LAYOUT

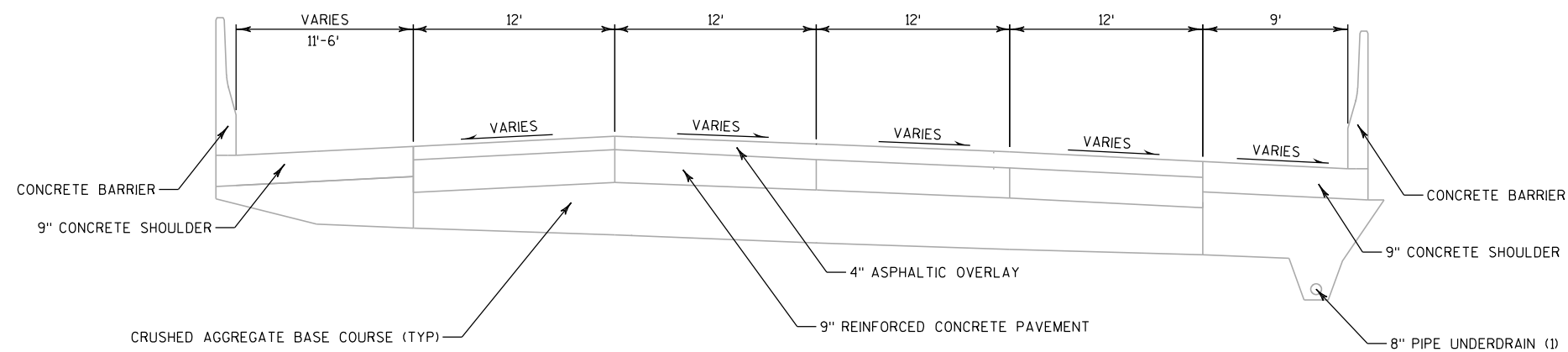
STANDARD ABBREVIATIONS

AGG	AGGREGATE
ASPH	ASPHALTIC
BAD	BASE AGGREGATE DENSE
BL	BLUEMOUND ROAD ALIGNMENT
BLWM	BLUEMOUND ROAD WATER MAIN ALIGNMENT
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CIWM	CAST IRON WATER MAIN
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CONTROL POINT
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
DIWM	DUCTILE IRON WATER MAIN
EB	EASTBOUND
FE	FIELD ENTRANCE
FL	FLOW LINE
HE	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
IE	INVERT ELEVATION
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
PL	PROPERTY LINE
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
RJDI	RESTRAINED JOINT DUCTILE IRON
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
STOC	STATE TRAFFIC OPERATIONS CENTER
SS	STORM SEWER
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
WM	WATER MAIN





TYPICAL EXISTING SECTION
W. BLUEMOUND ROAD
STA 191BL+20.45 TO STA 205BL+35.19



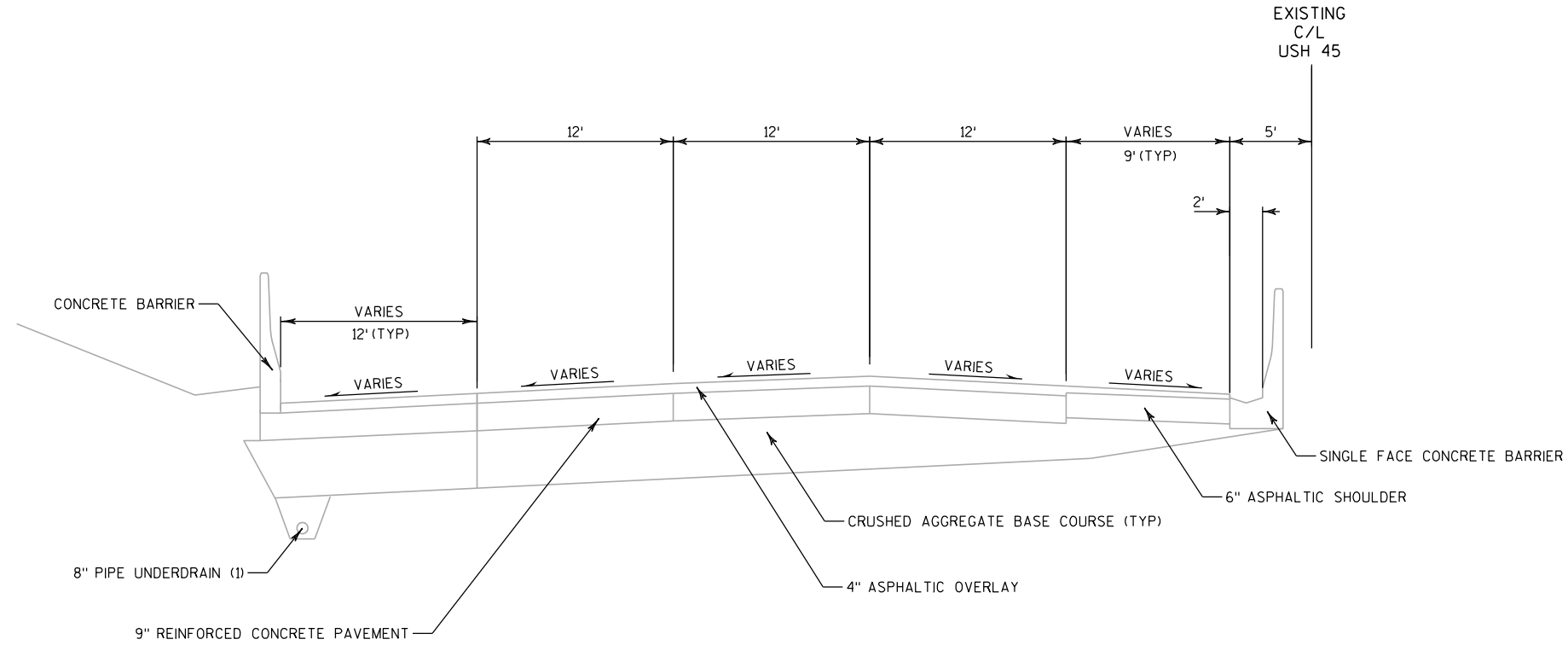
TYPICAL EXISTING SECTION

USH 45 NB

STA 320NS+00 TO STA 325NS+00

NOTES

(1) PIPE UNDERDRAIN LOCATION IS APPROXIMATE. NO OFFSET SHOWN IN AS BUILT PLANS.



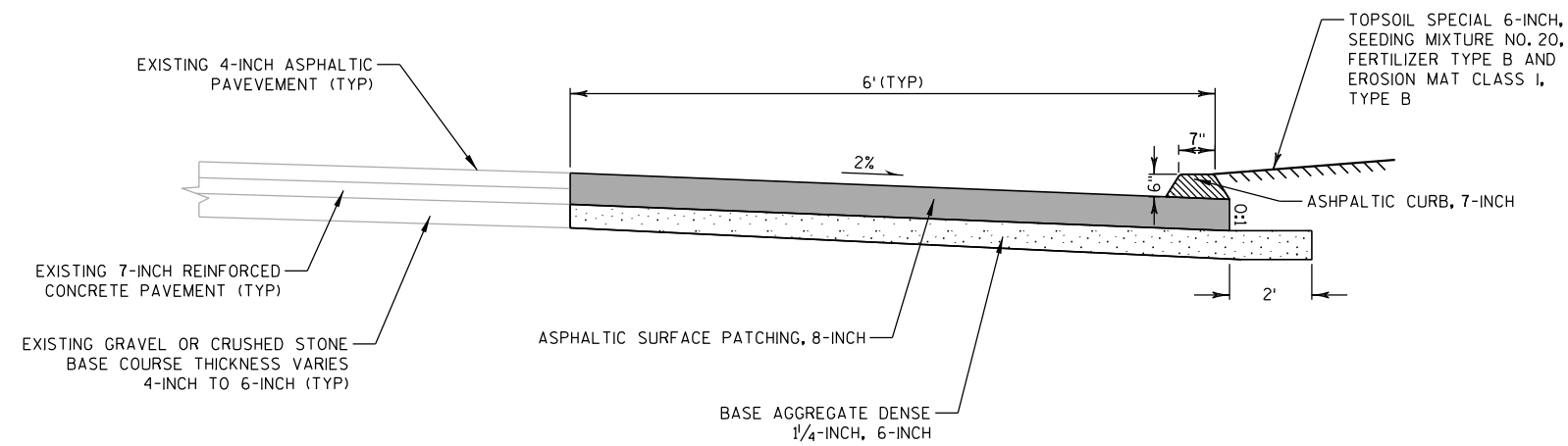
TYPICAL EXISTING SECTION

USH 45 SB

STA 306NS+68 TO STA 352NS+66

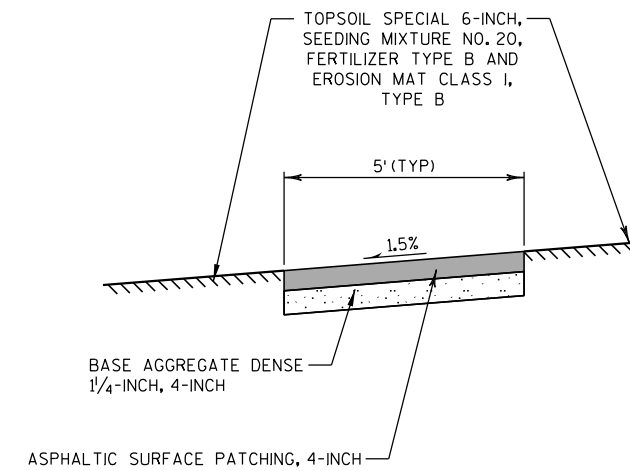
NOTES

(1) PIPE UNDERDRAIN LOCATION IS APPROXIMATE. NO OFFSET SHOWN IN AS BUILT PLANS.



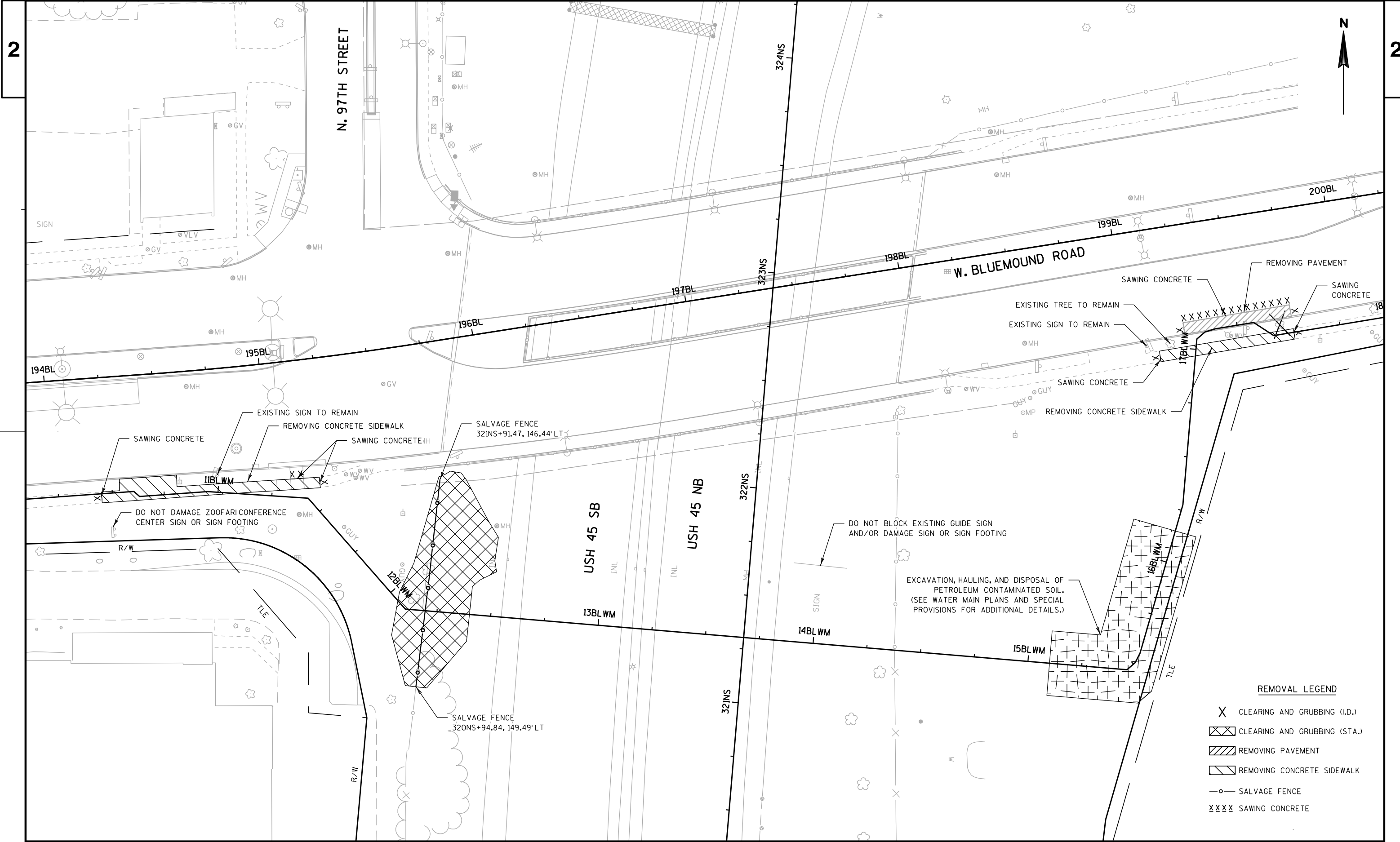
PAVEMENT REPAIR

W. BLUEMOUND ROAD
STA 199BL+26.28 TO STA 199BL+76.34
(NOT TO SCALE)



SIDEWALK REPAIR

W. BLUEMOUND ROAD
STA 194BL+22.88 TO STA 195BL+21.50
STA 199BL+13.40 TO STA 199BL+76.40
(NOT TO SCALE)

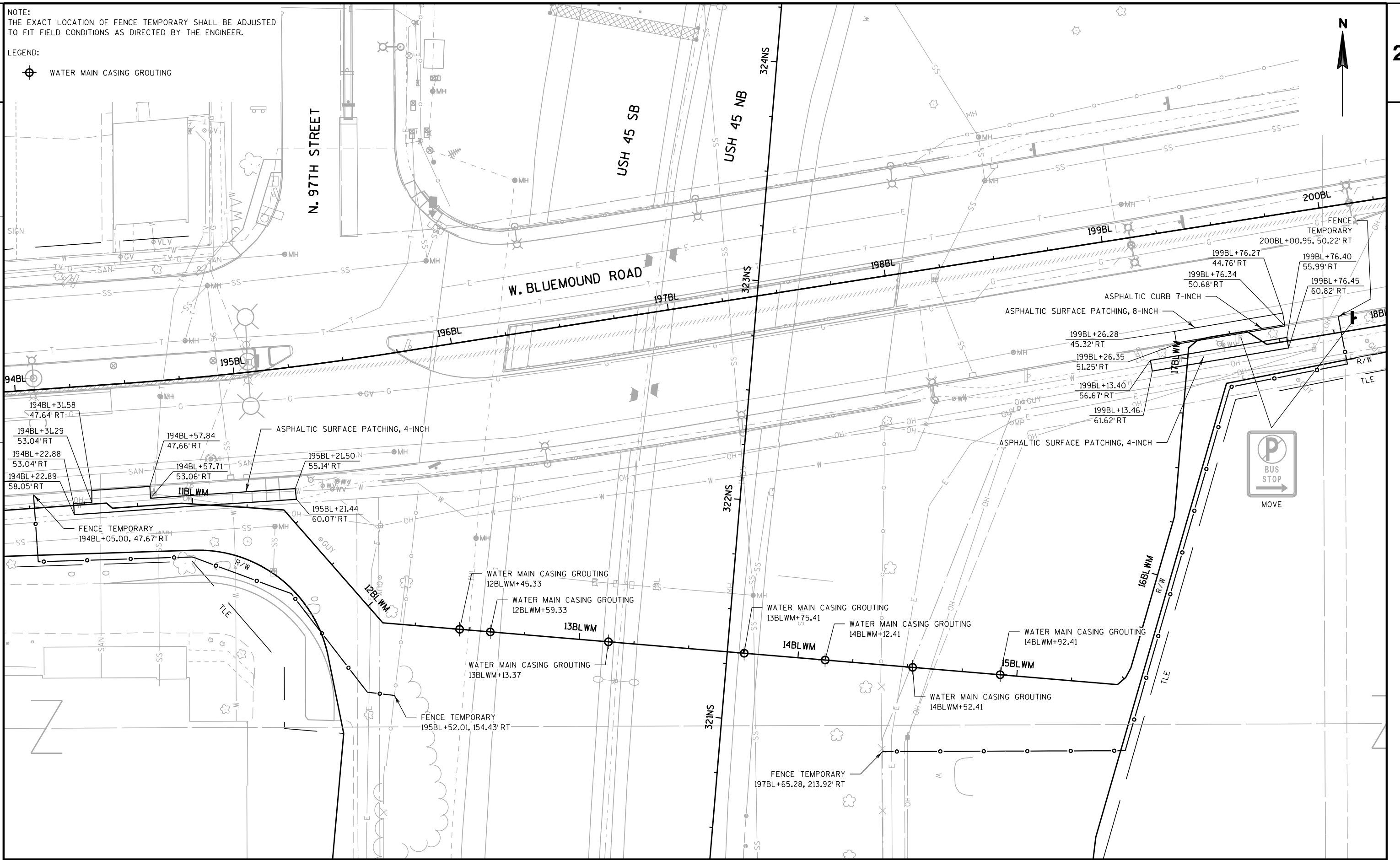


REMOVAL LEGEND	
X	CLEARING AND GRUBBING (I.D.)
XXXX	CLEARING AND GRUBBING (STA.)
XXXX	REMOVING PAVEMENT
XXXX	REMOVING CONCRETE SIDEWALK
—○—	SALVAGE FENCE
XXXX	SAWING CONCRETE

2

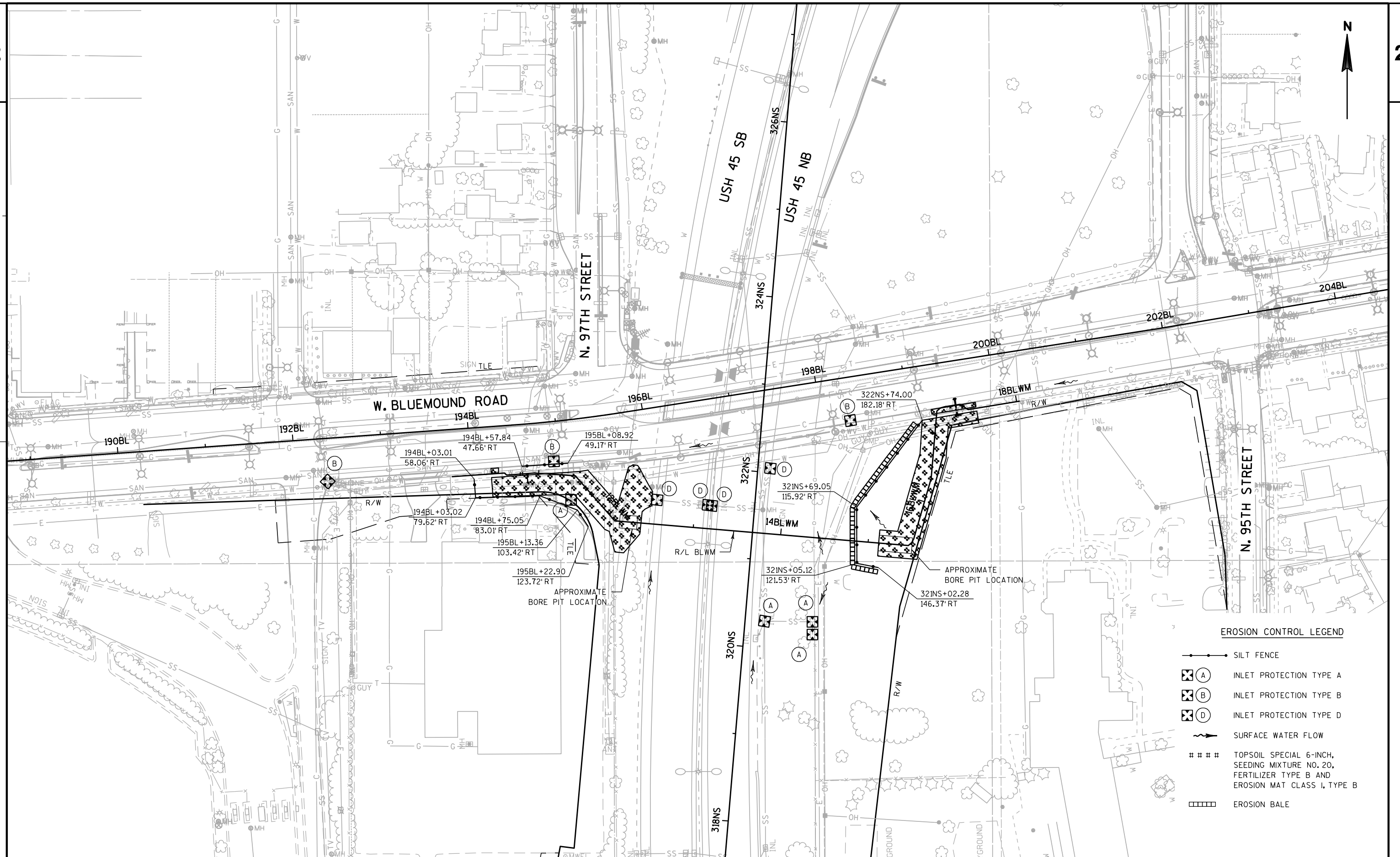
⊕ WATER MAIN CASING GROUTING

2 |



三

10
WISDOT/CADL3 SHEET 42



EROSION CONTROL LEGEND

- SILT FENCE
- ⊗ (A) INLET PROTECTION TYPE A
- ⊗ (B) INLET PROTECTION TYPE B
- ⊗ (D) INLET PROTECTION TYPE D
- SURFACE WATER FLOW
- #### TOPSOIL SPECIAL 6-INCH, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B AND EROSION MAT CLASS I, TYPE B
- EROSION BALE

PROJECT NO:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

EROSION CONTROL AND RESTORATION PLAN

SHEET

E

ESTIMATE OF QUANTITIES

FURNISH PIPE AND INSTALL
DUCTILE IRON PUSH-ON RUBBER GASKET JOINT (SPV.0090.5020)
10 FT. - 6" HYDRANT BRANCH
DUCTILE IRON PUSH-ON RUBBER GASKET JOINT (SPV.0090.5021)
15 FT. - 6" WATER MAIN
DUCTILE IRON PUSH-ON RUBBER GASKET JOINT (SPV.0090.5022)
171 FT. - 16" WATER MAIN
DUCTILE IRON RESTRAINED JOINT (SPV.0090.5024)
71 FT. - 16" WATER MAIN
STEEL CASING PIPE WITH DUCTILE IRON RESTRAINED JOINT
(SPV.0090.5023)
275 FT. - STEEL CASING W/ 16" WATER MAIN

INSTALL (FURNISHED BY CITY)
1-HYDRANT 7.5 (SPV.0060.5021)

FURNISH AND INSTALL
2 - 6" VALVE
1 - 16" B.F. VALVE (M.J.)

WATER MAIN ABANDONMENTS
1 - HYDRANT / MINOR (SPV.0060.5020)

FITTINGS SHOWN ON THIS CONSTRUCTION PLAN
THAT WILL BE FURNISHED BY CONTRACTOR
2 - AT 16x6
1 - B16-11 1/4
1 - B16-22 1/2
2 - B6-45
2 - B16-45
2 - V6
1 - BVF 16
3 - VB-DD
1 - VALVE BOX 18" EXT.
2 - VALVE BOX 24" EXT.
1 - SL6
1 - SL16 (DP)
1 - C16 (TEMP)
1 - P6 (TEMP)
1 - 2" AV (TEMP)
1 - H (7.5) (HYDRANT FURNISHED BY CITY)

GENERAL NOTES
SEE GENERAL NOTES ON PLAN FILE NO. 2014002 (SHEET 1 OF 2)

ELEVATION NOTE
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO
NAVD 88(2007). TO CONVERT TO CITY OF MILWAUKEE
DATUM, SUBTRACT 580.29 FROM ELEVATIONS SHOWN.

MILWAUKEE WATER WORKS COORDINATION
THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MR.
JAY LLOYD, (414) 708-9012, ONE MONTH PRIOR TO
MAKING WET CONNECTIONS AT BOTH LOCATIONS ON
W. BLUEMOUND ROAD. THE INITIAL CONTACT WITH MR.
LLOYD IS TO PROVIDE HIM INFORMATION OF THE
CONTRACTOR'S PLANNED TIMING.

ANOTHER NOTIFICATION IS REQUIRED TO WORKING DAYS
PRIOR TO EITHER WET CONNECTION TO CONFIRM THE
SCHEDULE.

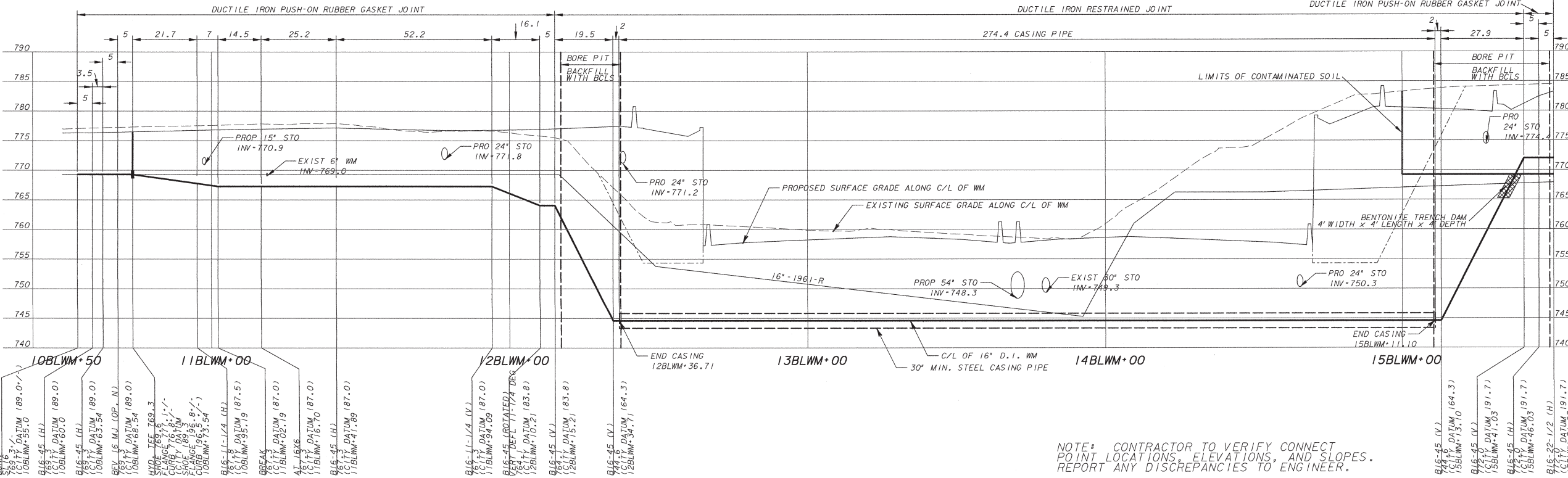
RESTRAINED JOINT PIPE AND FITTINGS NOTES
MATERIAL TESTING DONE BY CITY WILL REMOVE
AT LEAST ONE WELDED END FROM A RESTRAINED
PIPE PIECE. CONTRACTOR TO PROVIDE ENOUGH
PIPE FOR TESTING AND INSTALLATION.

CONTRACTOR TO USE MANUFACTURER RECOMMENDED
RESTRAINT METHODS FOR ALL FIELD CUT
RESTRAINED JOINT PIPE.

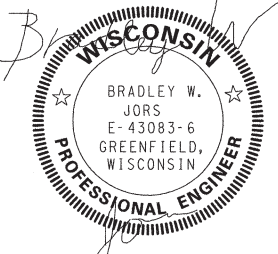
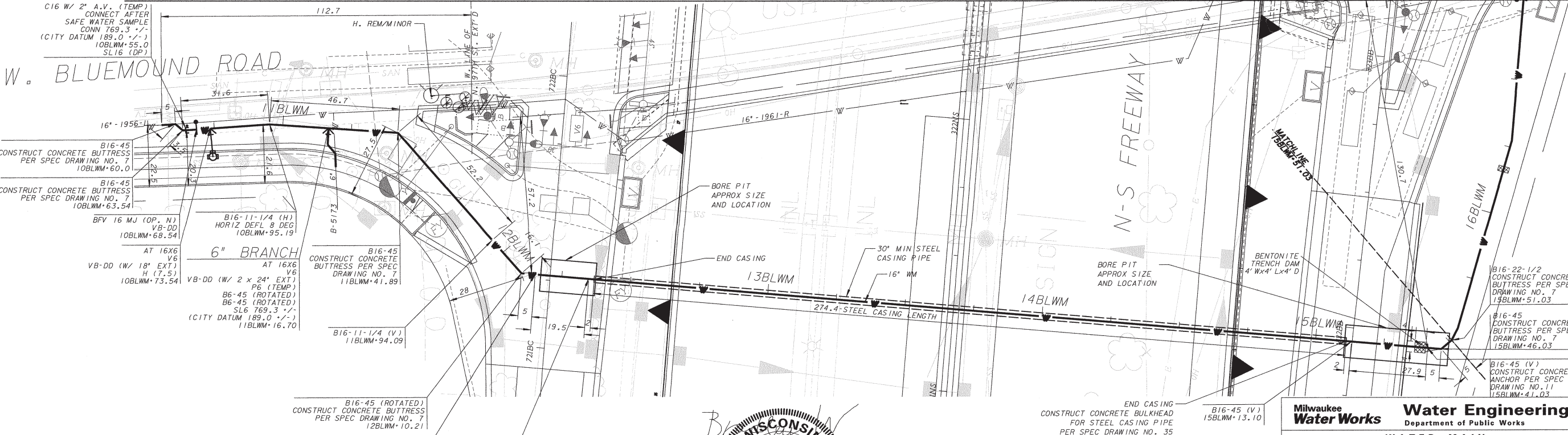
CONTRACTOR TO FOLLOW MANUFACTURER'S
RECOMMENDATIONS FOR ASSEMBLY AND INSTALLATION
OF ALL RESTRAINED JOINT PIPE AND FITTINGS.

CITY OF MILWAUKEE RESIDENT / BUSINESS NOTIFICATION
SEE CITY OF MILWAUKEE
RESIDENT / BUSINESS NOTIFICATION NOTES ON PLAN
FILE NO. 2014002 (SHEET 1 OF 2)

PLAN LINE & UTILITY LEGEND				
GAS	G	SANITARY SEWER	SAN	STREET LIGHTING
ELECTRIC	E	STORM SEWER	STO	CITY UNDERGROUND CONDUIT
TELEPHONE	T	COMBINED SEWER	CMB	PROPOSED CURB / PMT
CABLE TELEVISION	TV	WATER MAIN	W	PAVING LIMITS
FIBER OPTICS	FO	WATER SERVICE	W	STRUCTURE / BUILDING
PROPOSED UTILITY		PRESSURE DISTRICT		FENCE
POWER POLES ○-CONCRETE □-ALUMINUM ●-WOOD WATER MAIN VALVES -GATE +BUTTERFLY W-SERVICE				
UTILITIES ⊠-TRAFFIC SIGNAL ⊠-TRAFFIC CONTROL BOX ⊠-GAS VALVE HYDRANTS ⊠-1 NOZZLE ⊠-3 NOZZLE				



NOTE: CONTRACTOR TO VERIFY CONNECT
POINT LOCATIONS, ELEVATIONS, AND SLOPES.
REPORT ANY DISCREPANCIES TO ENGINEER.



CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND
BEFORE YOU DIG. WISCONSIN STATUTE 182.0715 REQUIRES
MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

STATE MUNICIPAL AGREEMENT COVERS ONLY CONTRACTOR CONSTRUCTION COSTS; WT410140502		
NO.	BY	REVISION

Milwaukee Water Works		Water Engineering	
Department of Public Works		WATER MAIN	
IN		W. BLUEMOUND ROAD	
FROM		300' WEST OF N. 95th STREET	
TO		N. 97th STREET	
SCALE		APPROVED	
HORIZONTAL 1"=20'		DATE	
VERTICAL 1"=10'		3-19-14	
1/4" SEC. NO. 409		MAINS DESIGN ENGINEER	
PLAN DATE 3/19/2014		3-20-14	
DRAWN BY B. JORS		CHIEF DESIGN ENGINEER	
CHECKED BY G. GOVERNATORI		3/20/14	
SURVEY BY FORWARD 45		SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
PROGRAM NO. 2014-501		CONTRACT NO. STATE	
WORK ORDER WT410140501		C.C. FILE NO. 131236	
O.N. & PROJECT NO. STA 12		ADOPTED 01-22-2014	
SHEET NO. 2 OF 2		PLAN FILE NO. 2014003	

ESTIMATE OF QUANTITIES

FURNISH PIPE AND INSTALL
(DUCTILE IRON PUSH-ON RUBBER GASKET JOINT) (SPV.0090.5020)
12 FT. - 6" HYDRANT BRANCH
(DUCTILE IRON PUSH-ON RUBBER GASKET JOINT) (SPV.0090.5022)
198 FT. - 16" WATER MAIN

INSTALL (FURNISHED BY CITY)
1-HYDRANT 8.0 (SPV.0060.5021)

FURNISH AND INSTALL
1 - 6" VALVE
1 - 16" B.F. VALVE (MJ)

WATER MAIN ABANDONMENTS
1 - HYDRANT / MINOR (SPV.0060.5020)
1 - VALVE ABANDONMENT
565 FT. - 16" WATER MAIN

FITTINGS SHOWN ON THIS CONSTRUCTION PLAN
THAT WILL BE FURNISHED BY CONTRACTOR

- 1 - AT 16x6
- 3 - B16-11 1/4
- 1 - V6
- 1 - BVF 16
- 2 - V6-DD
- 3 - B16-45
- 1 - B16-22 1/2
- 2 - VALVE BOX 24" EXT.
- 1 - SL16 (DP)
- 1 - C16 (TEMP)
- 1 - 2" AV (TEMP)
- 1 - H (8.0) (HYDRANT FURNISHED BY CITY)

GENERAL NOTES

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MILWAUKEE "WATER MAIN INSTALLATION SPECIFICATIONS", DATED JANUARY 2, 1997. ADDITIONALLY, ALL WORK SHALL BE DONE IN ACCORDANCE WITH "THE MILWAUKEE WATER WORKS STANDARD PLAN NOTES REGARDING WATER MAIN CONSTRUCTION", WHICH ARE ATTACHED AND MADE A PART OF THESE WATER MAIN PLANS AND CONTRACT DOCUMENTS. NOTES 4, 6, 16 THROUGH 18, AND 21 SHALL NOT APPLY TO THIS PROJECT.

THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED TO COMPLETE THIS PROJECT, EXCEPT HYDRANTS FURNISHED BY CITY.
ALL MATERIALS WILL REQUIRE INSPECTION BY THE CITY.

NOTIFY MR. STEVE BRENGOSZ AT 414-708-2808 OR MR. MARK SCHELLER AT 414-286-2497, FOR MATERIALS INSPECTION AND THE CITY OF MILWAUKEE'S CONSTRUCTION SECTION AT 414-286-2497, FOR INSTALLATION INSPECTION, FOUR DAYS PRIOR TO STARTING CONSTRUCTION.

THE MILWAUKEE WATER WORKS WILL SHUT OFF THE WATER MAIN TO BE ALTERED AND PROVIDE TEMPORARY HOSE CONNECTIONS TO AFFECTED SERVICES AS REQUIRED. PLEASE CONTACT MR. STEVEN CIANCIOLO OF THE CONSTRUCTION SECTION AT 414-708-3887, THREE (3) DAYS PRIOR, TO SCHEDULE THE NECESSARY SHUT-OFFS AND/OR CONNECTIONS.

ELEVATION NOTE

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88(2007). TO CONVERT TO CITY OF MILWAUKEE DATUM, SUBTRACT 580.29 FROM ELEVATIONS SHOWN.

MILWAUKEE WATER WORKS COORDINATION

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING MR. JAY LLOYD, (414) 708-9012, ONE MONTH PRIOR TO MAKING WET CONNECTIONS AT BOTH LOCATIONS ON W. BLUEMOUND ROAD. THE INITIAL CONTACT WITH MR. LLOYD IS TO PROVIDE HIM INFORMATION OF THE CONTRACTOR'S PLANNED TIMING.

ANOTHER NOTIFICATION IS REQUIRED 10 WORKING DAYS PRIOR TO EITHER WET CONNECTION TO CONFIRM THE SCHEDULE.

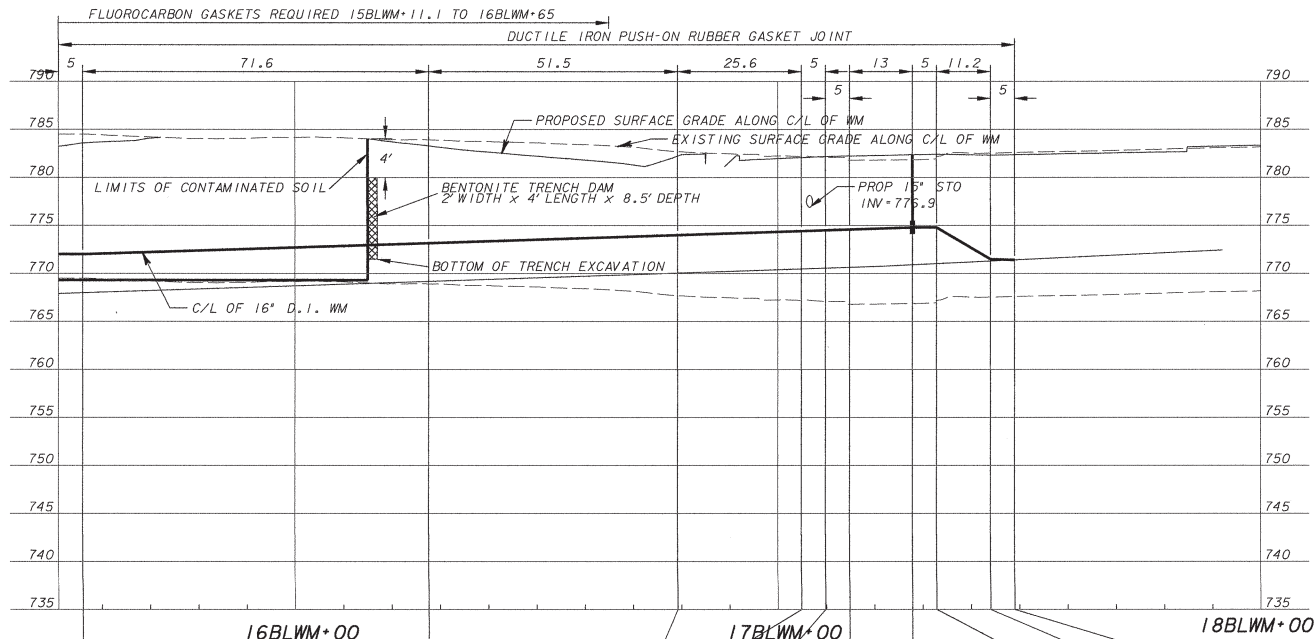
CITY OF MILWAUKEE RESIDENT / BUSINESS NOTIFICATION

WITHIN TEN (10) BUSINESS DAYS OF THE AWARD OF THIS CONTRACT, THE CONTRACTOR SHALL MAIL A NOTICE OF THE WATER MAIN PROJECT TO THE CITY OF MILWAUKEE CONSTRUCTION SECTION (CONTACT: 414-286-2497) AT 841 N. BROADWAY, ROOM 710, MILWAUKEE, WI 53202 FOR REVIEW AND APPROVAL.

WITHIN FIVE (5) BUSINESS DAYS OF APPROVAL, THE CONTRACTOR SHALL MAIL THE PROJECT NOTICE TO ALL AFFECTED AREA RESIDENTS AND BUSINESSES AND INCLUDE ANY INFORMATION DEEMED NECESSARY FOR THE SUCCESSFUL PERFORMANCE OF THE WATER MAIN WORK.

IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL NOTICES ARE CONVEYED TO THE PUBLIC REGARDING THIS PROJECT.

CONTRACT WORK SHALL NOT START PRIOR TO COMPLETING THE NOTICE REQUIREMENT. ANY DELAY AS A RESULT OF NON-COMPLIANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.



B16-11-1/4 (H)
CITY DATUM 191.7
15BLWM+56.03

B16-11-1/4
CITY DATUM 192.9
16BLWM+27.64

BVF 16 MJ (OP. W)
CITY DATUM 193.7
16BLWM+29.17

B16-45 (H)
CITY DATUM 194.1
17BLWM+04.80

B16-22-1/2 (H)
CITY DATUM 194.2
17BLWM+09.80

B16-11-1/4 (H)
CITY DATUM 194.3
17BLWM+14.80

HYD. TEE 774.8
CITY DATUM 194.8
17BLWM+14.80

SLUG 205.5
CITY DATUM 194.8
17BLWM+21.80

B16-45 (ROTATED)
VERT. DEFL 16.5 DEG
CITY DATUM 194.5
17BLWM+32.80

B16-45 (ROTATED)
VERT. DEFL 16.5 DEG
CITY DATUM 194.5
17BLWM+32.80

CONN
CITY DATUM 191.1
17BLWM+48.97

B16-45 (ROTATED)
HORIZ DEFL 42.5 DEG
CONSTRUCT CONCRETE BUTTRESS
PER SPEC DRAWING NO. 7
17BLWM+32.80

255.9 TO W. LINE
OF N. 95TH ST.

C16 W/ 2" A.V. (TEMP)
CONNECT AFTER
SAFE WATER SAMPLE
SL16 (DP)
17BLWM+48.97

B16-45 (ROTATED)
HORIZ DEFL 42.5 DEG
CONSTRUCT CONCRETE BUTTRESS
PER SPEC DRAWING NO. 7
17BLWM+43.97

B16-11-1/4
HORIZ DEFL 8.3 DEG
17BLWM+14.80

B16-22-1/2
CONSTRUCT CONCRETE BUTTRESS
PER SPEC DRAWING NO. 7
17BLWM+09.80

B16-45
CONSTRUCT CONCRETE BUTTRESS
PER SPEC DRAWING NO. 7
17BLWM+04.80

BVF 16 MJ (OP. W)
VB-DD (W/ 24" EXT)
16BLWM+29.17

B16-11-1/4
16BLWM+27.64

B16-11-1/4
15BLWM+56.03

BENTONITE
TRENCH DAM
4' W (TRENCH WIDTH)
X 2' L X 8.5' D

PLAN LINE & UTILITY LEGEND

GAS	○	SANITARY SEWER		SAN	STREET LIGHTING	
ELECTRIC	—	STORM SEWER		STO	CITY UNDERGROUND CONDUIT	— CUC
TELEPHONE	—	COMBINED SEWER		CMB	PROPOSED CURB / P/MT	
CABLE TELEVISION	—	WATER MAIN		W	PAVING LIMITS	— X — X — X — X
FIBER OPTICS	—	WATER SERVICE		W	STRUCTURE / BUILDING	
PROPOSED UTILITY	FO	PRESSURE DISTRICT	=====		FENCE	— X
POWER POLES ○ CONCRETE ○ ALUMINUM ○ WOOD WATER MAIN VALVES + GATE + BUTTERFLY W-SERVICE						
UTILITIES ⊗ TRAFFIC SIGNAL ⊗ TRAFFIC CONTROL BOX ⊗ GAS VALVE		HYDRANTS ⊗-1 NOZZLE ⊗-3 NOZZLE				



CALL DIGGERS HOTLINE
1-800-242-8511

TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND
BEFORE YOU DIG. WISCONSIN STATUTE 182.0115 REQUIRES
MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE



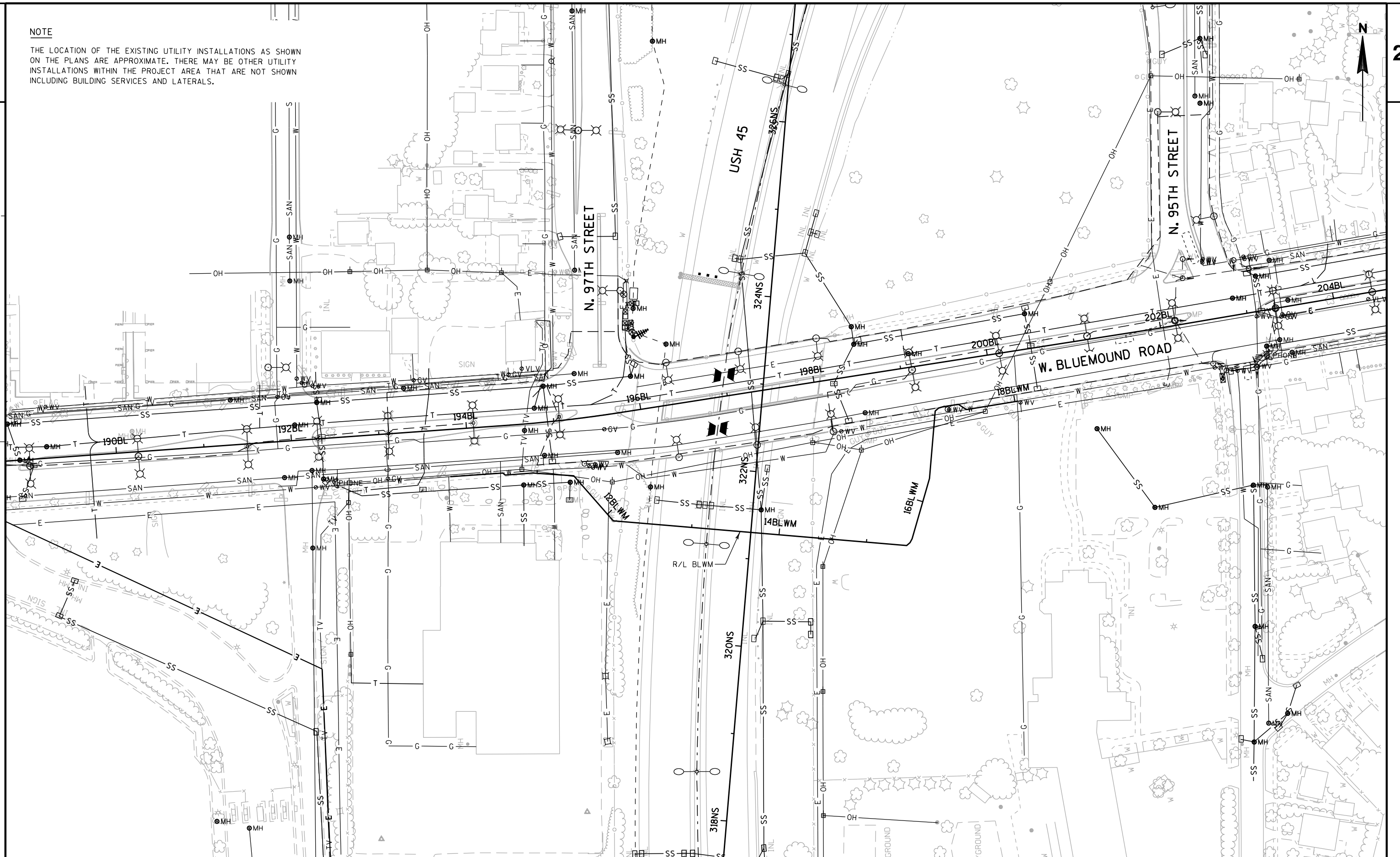
STATE MUNICIPAL AGREEMENT COVERS ONLY
CONTRACTOR CONSTRUCTION COSTS; WT410140502

NO.	BY	REVISION	DATE

Milwaukee Water Works		Water Engineering	
Department of Public Works		Department of Public Works	
WATER MAIN			
IN W. BLUEMOUND ROAD			
FROM 300' WEST OF N. 95th STREET			
TO N. 97th STREET			
SCALE HORIZONTAL 1"=20' VERTICAL 1"=10'		APPROVED DATE 3-19-14 3-20-14 3/20/14	
1/4 SEC. NO. 409		CHIEF DESIGN ENGINEER	
PLAN DATE 3/19/2014		DESIGN ENGINEER	
DRAWN BY B. JORS		SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
CHECKED BY G. GOVERNATORI		CONTRACT NO. STATE	
SURVEY BY FORWARD 45		C.C. FILE NO. 131236	
PROGRAM NO. 2014-501		WORK ORDER WT410140501	
O.N. & PROJECT NO. STA 13		ADOPTED 01-22-2014	
SHEET NO. 1 OF 2		PLAN FILE NO. 2014002	

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:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

EXISTING UTILITY PLAN

SHEET

E

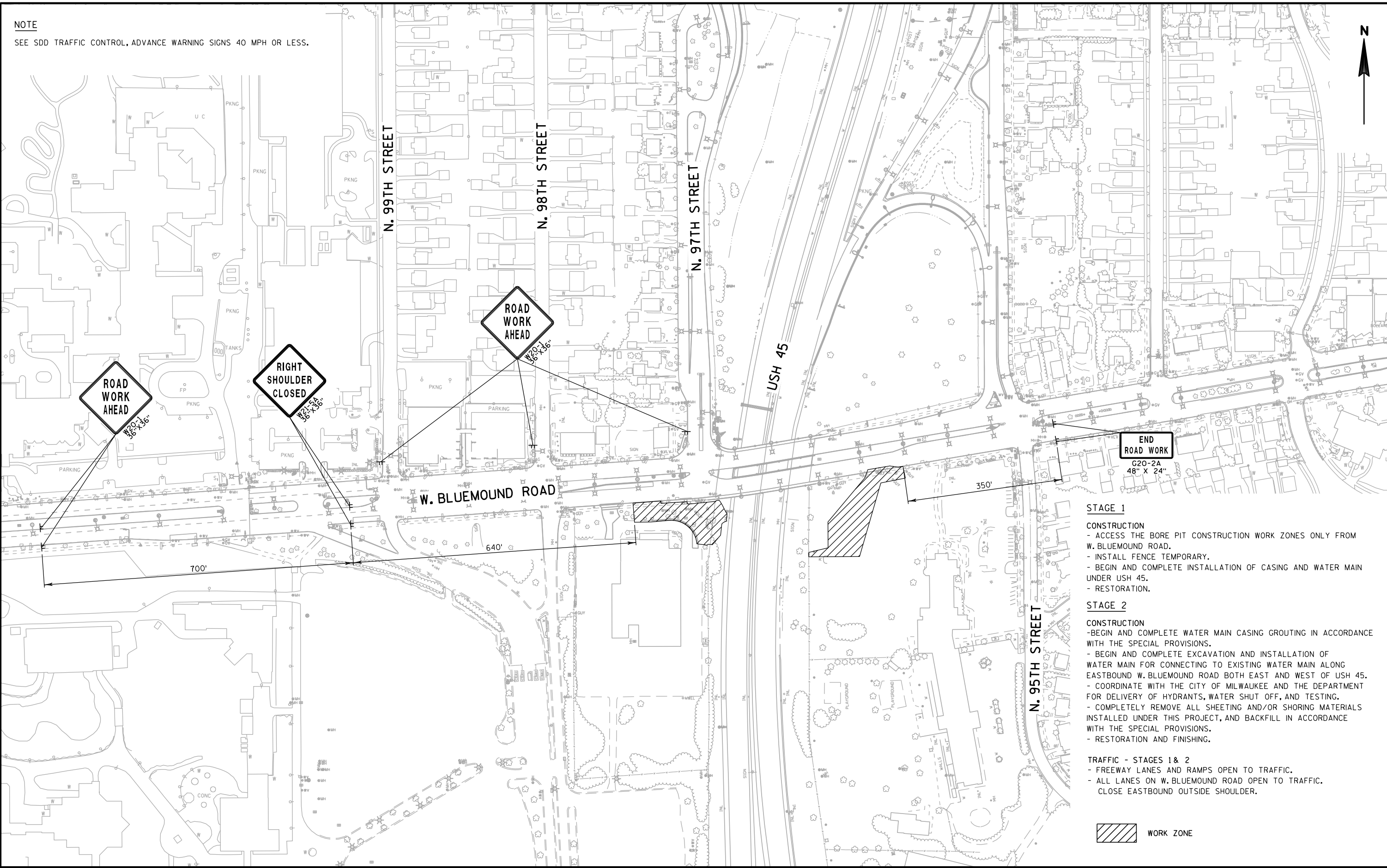
GENERAL NOTES FOR TRAFFIC CONTROL

- 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) AT ALL TIMES, MAINTAIN ACCESS TO THE MILWAUKEE COUNTY ZOO AND ZOOFARI CONFERENCE CENTER.

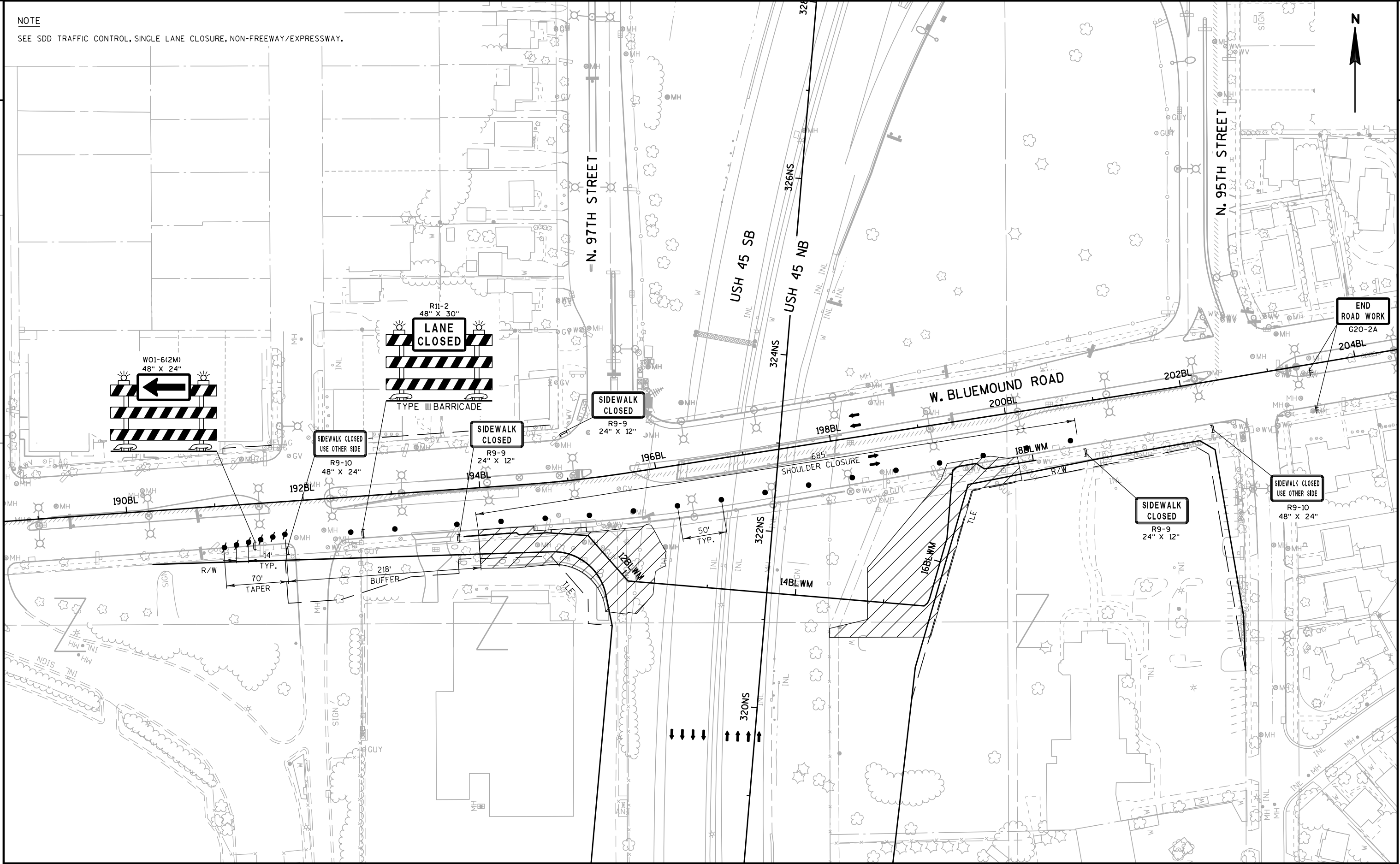
STAGING LEGEND

-  TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
-  TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
-  TRAFFIC CONTROL BARRICADE TYPE II WITH LIGHTS TYPE A AND ATTACHED SIGN
-  SIGN ON TEMPORARY SUPPORT
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
-  TRAFFIC CONTROL DRUM
-  TRAFFIC FLOW ARROW
-  WORK ZONE THIS STAGE
-  TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
-  TRAFFIC CONTROL ARROW BOARD
-  16"x16" ORANGE FLAGS (INCIDENTAL)

NOTE
SEE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS.



NOTE
SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY.



NOTE
COORDINATE WITH WATERTOWN PLANK ROAD PROJECT 1060-33-72
FOR TRAFFIC CONTROL SIGNS LOCATED WITHIN THEIR WORK ZONE
AND COVERING SIGNS IN CONFLICT WITH NIGHTTIME CLOSURE.

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

500'

N. 97TH STREET

2685'

ROAD
WORK
AHEAD
W20-1

RIGHT LANE
CLOSED
1500 FT
W20-5

USH 45
1500'

RIGHT LANE
CLOSED
1/2 MILE
W20-5

N. 95TH STREET

STAGE 2A**CONSTRUCTION**

- INSTALL WATER MAIN CASING GROUTING AT USH 45 SB OUTSIDE SHOULDER.

TRAFFIC

- ALL NORTHBOUND FREEWAY LANES AND RAMPS OPEN TO TRAFFIC.
- DURING NIGHTTIME HOURS, CLOSE USH 45 SOUTHBOUND AUXILIARY
LANE AND SHOULDER SOUTH OF W. WISCONSIN AVE.
- ALL LANES ON W. BLUEMOUND ROAD OPEN TO TRAFFIC.
CLOSE EASTBOUND OUTSIDE SHOULDER.



WORK ZONE



WORK ZONE BY OTHERS

PROJECT NO: 1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

TRAFFIC CONTROL STAGE 2A OVERVIEW & ADVANCE SIGNING

SHEET

E

FILE NAME : W:\Cadd\Final\10603580_BWM\Roads\cds\026010_s2a.dgn

PLOT DATE : 15-JAN-2014 11:43

PLOT BY : MSCD15

PLOT NAME : 026010_s2a

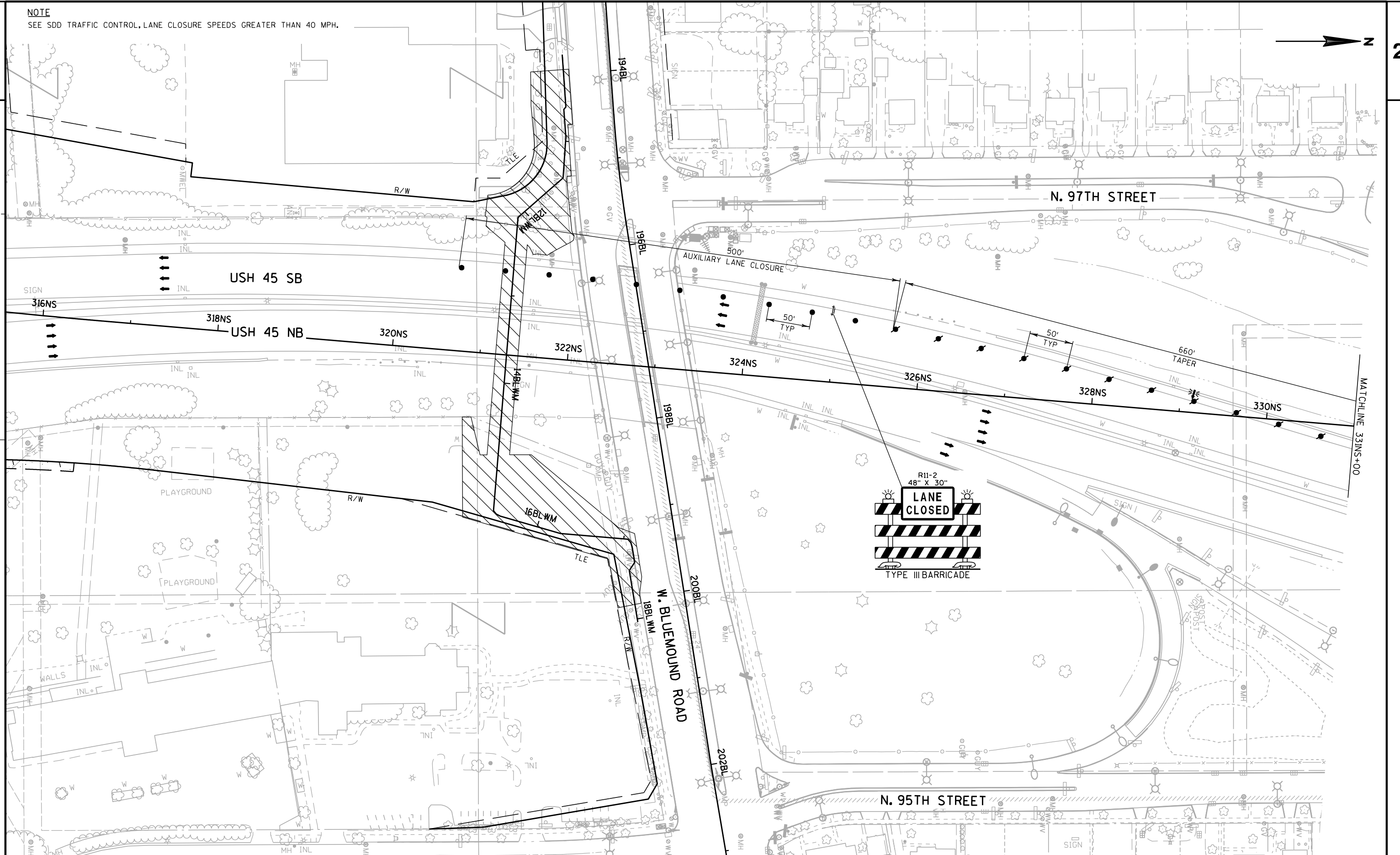
PLOT SCALE : 400:1

18
WISDOT/CAD/CDS SHEET 42

NOTE
SEE SDD TRAFFIC CONTROL, LANE CLOSURE SPEEDS GREATER THAN 40 MPH.

2

2



PROJECT NO:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

STAGE 2A TRAFFIC CONTROL - NIGHTTIME CLOSURE

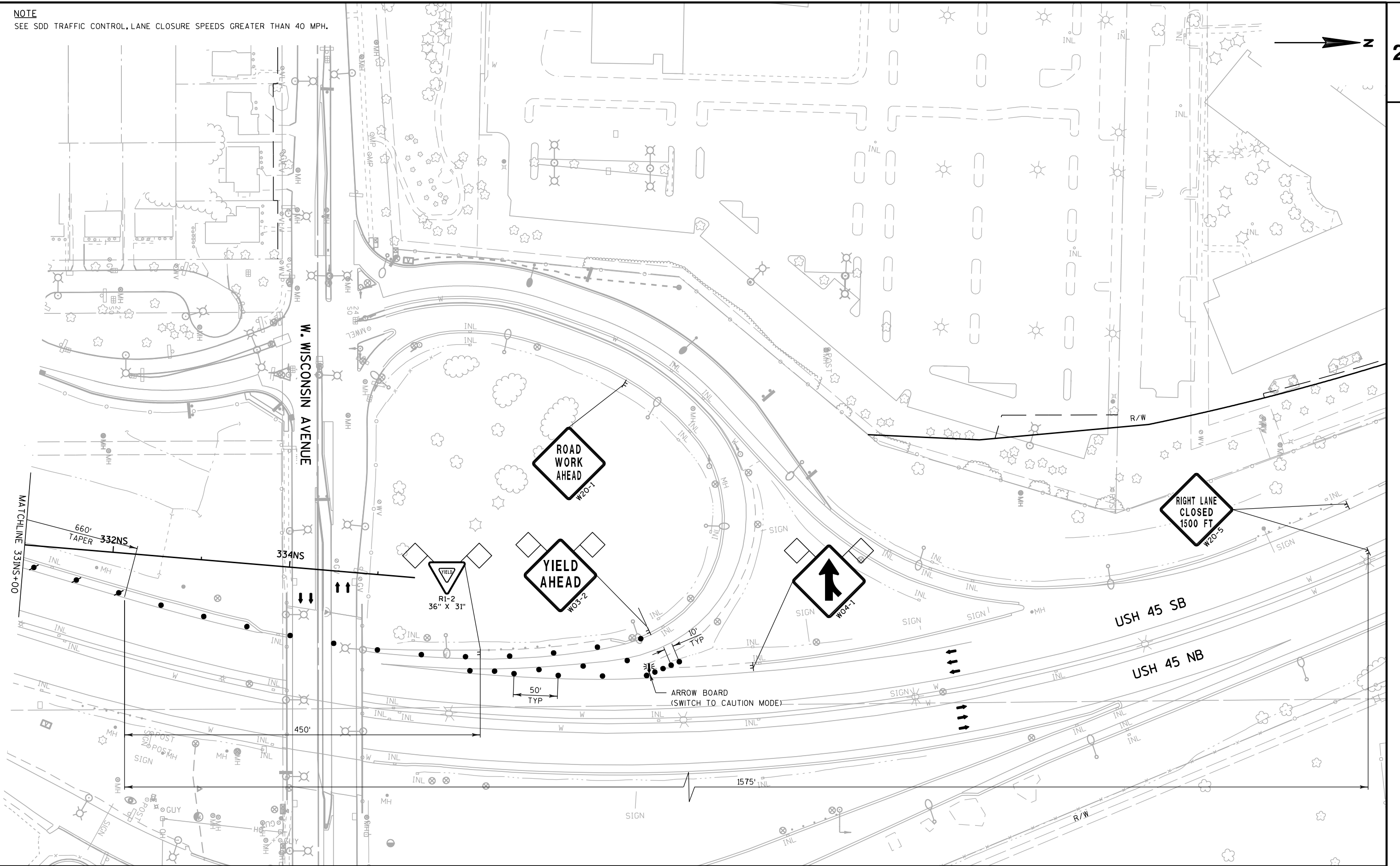
SHEET

E

NOTE
SEE SDD TRAFFIC CONTROL, LANE CLOSURE SPEEDS GREATER THAN 40 MPH.

2

2



PROJECT NO:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

STAGE 2A TRAFFIC CONTROL - NIGHTTIME CLOSURE

SHEET

E

FILE NAME : W:\Cadd\Final\10603580_BWM\Roads\cds\026013_s2a.dgn

PLOT DATE : 15-JAN-2014 11:44

PLOT BY : MSCD15

PLOT NAME : 026013_s2a

PLOT SCALE : 100:1

WISDOT/CAD/CDS SHEET 42

NOTE
COORDINATE WITH WATERTOWN PLANK ROAD PROJECT 1060-33-72
FOR TRAFFIC CONTROL SIGNS LOCATED WITHIN THEIR WORK ZONE
AND COVERING SIGNS IN CONFLICT WITH NIGHTTIME CLOSURE.

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

500'

N. 97TH STREET

2060'

ROAD
WORK
AHEAD

LEFT LANE
CLOSED
1500 FT

USH 45

575'

N. 95TH STREET



LEFT LANE
CLOSED
1/2 MILE

W. WATERTOWN PLANK ROAD

STAGE 2B

CONSTRUCTION

- INSTALL WATER MAIN CASING GROUTING AT USH 45 SB INSIDE SHOULDER.

TRAFFIC

- ALL NORTHBOUND FREEWAY LANES AND RAMPS OPEN TO TRAFFIC.
- DURING NIGHTTIME HOURS, CLOSE USH 45 SOUTHBOUND FREEWAY INSIDE LANE AND SHOULDER.
- ALL LANES ON W. BLUEMOUND ROAD OPEN TO TRAFFIC. CLOSE EASTBOUND OUTSIDE SHOULDER.



WORK ZONE



WORK ZONE BY OTHERS

PROJECT NO:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

TRAFFIC CONTROL STAGE 2B OVERVIEW & ADVANCE SIGNING

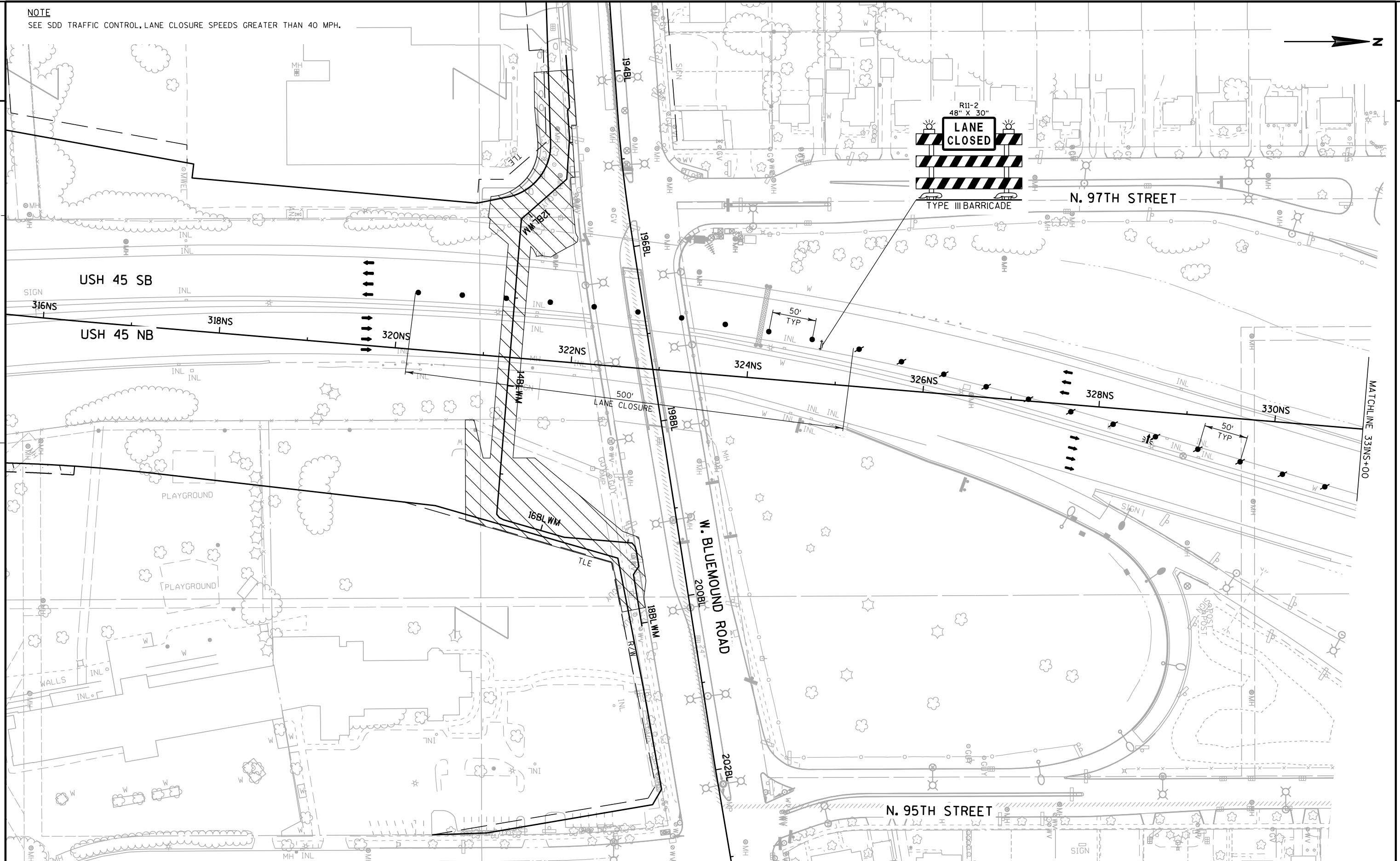
SHEET

E

NOTE
SEE SDD TRAFFIC CONTROL, LANE CLOSURE SPEEDS GREATER THAN 40 MPH.

2

2



PROJECT NO:1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

STAGE 2B TRAFFIC CONTROL - NIGHTTIME CLOSURE

SHEET

E

FILE NAME : W:\Cadd\Final\10603580_BWM\Roads\cds\026021_s2b.dgn

PLOT DATE : 15-JAN-2014 11:47

PLOT BY : MSCD15

PLOT NAME : 026021.s2b

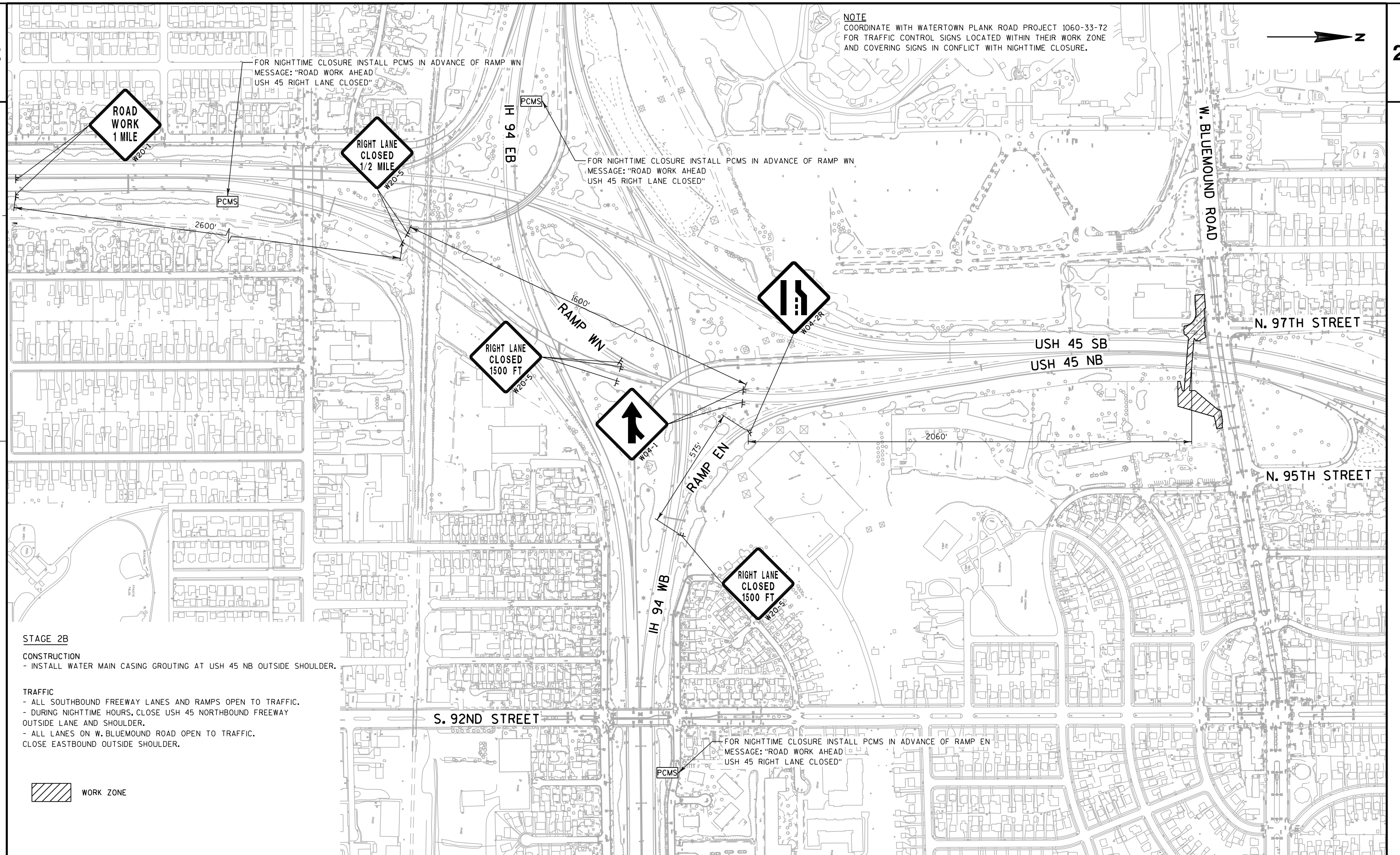
PLOT SCALE : 100:1

WISDOT/CAD/CDS SHEET 42

2

2



**STAGE 2B****CONSTRUCTION**

- INSTALL WATER MAIN CASING GROUTING AT USH 45 NB OUTSIDE SHOULDER.

TRAFFIC

- ALL SOUTHBOUND FREEWAY LANES AND RAMPS OPEN TO TRAFFIC.
- DURING NIGHTTIME HOURS, CLOSE USH 45 NORTHBOUND FREEWAY OUTSIDE LANE AND SHOULDER.
- ALL LANES ON W. BLUEMOUND ROAD OPEN TO TRAFFIC.
- CLOSE EASTBOUND OUTSIDE SHOULDER.

2

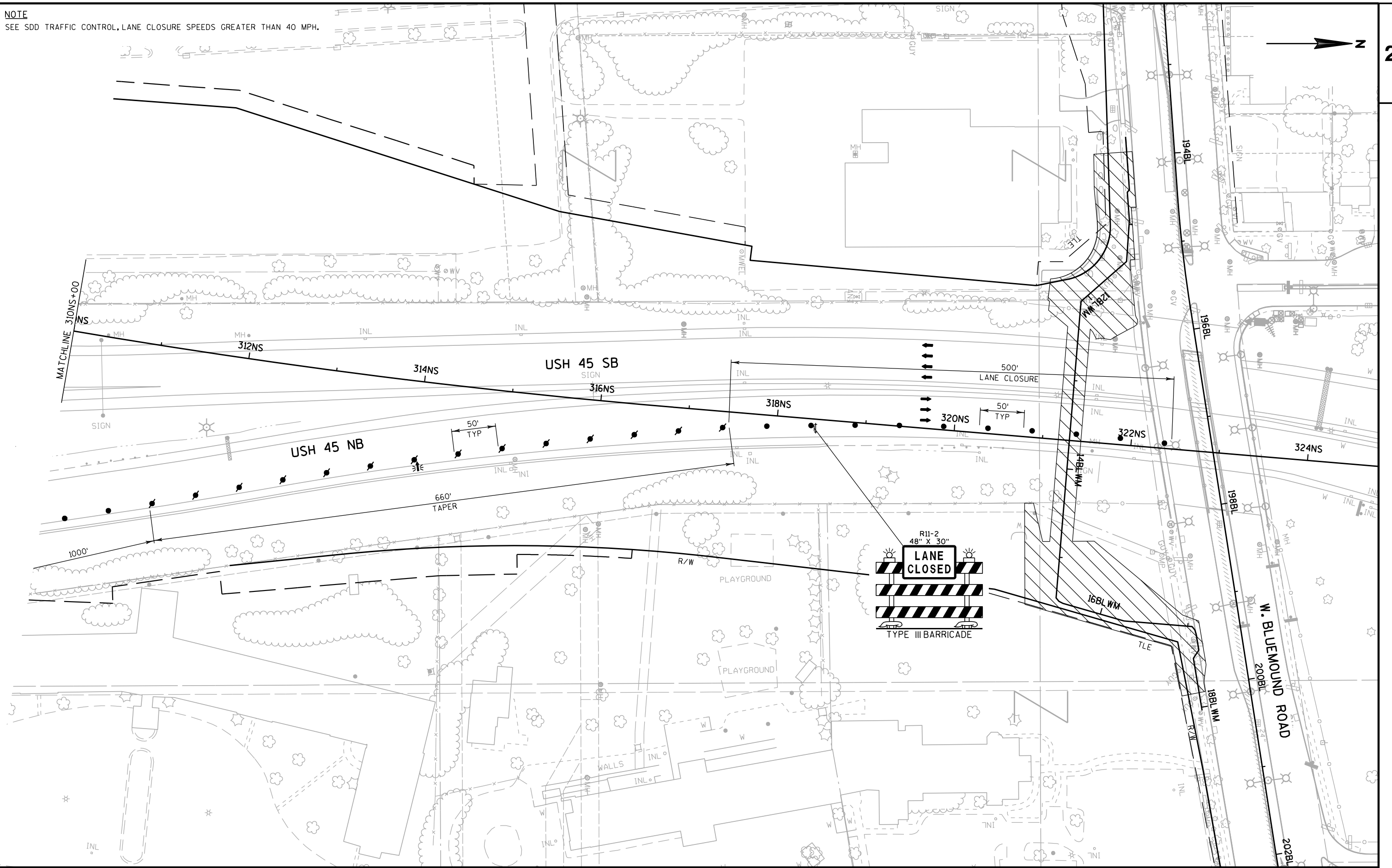
2



NOTE
SEE SDD TRAFFIC CONTROL, LANE CLOSURE SPEEDS GREATER THAN 40 MPH.

2

2



PROJECT NO:1060-35-80

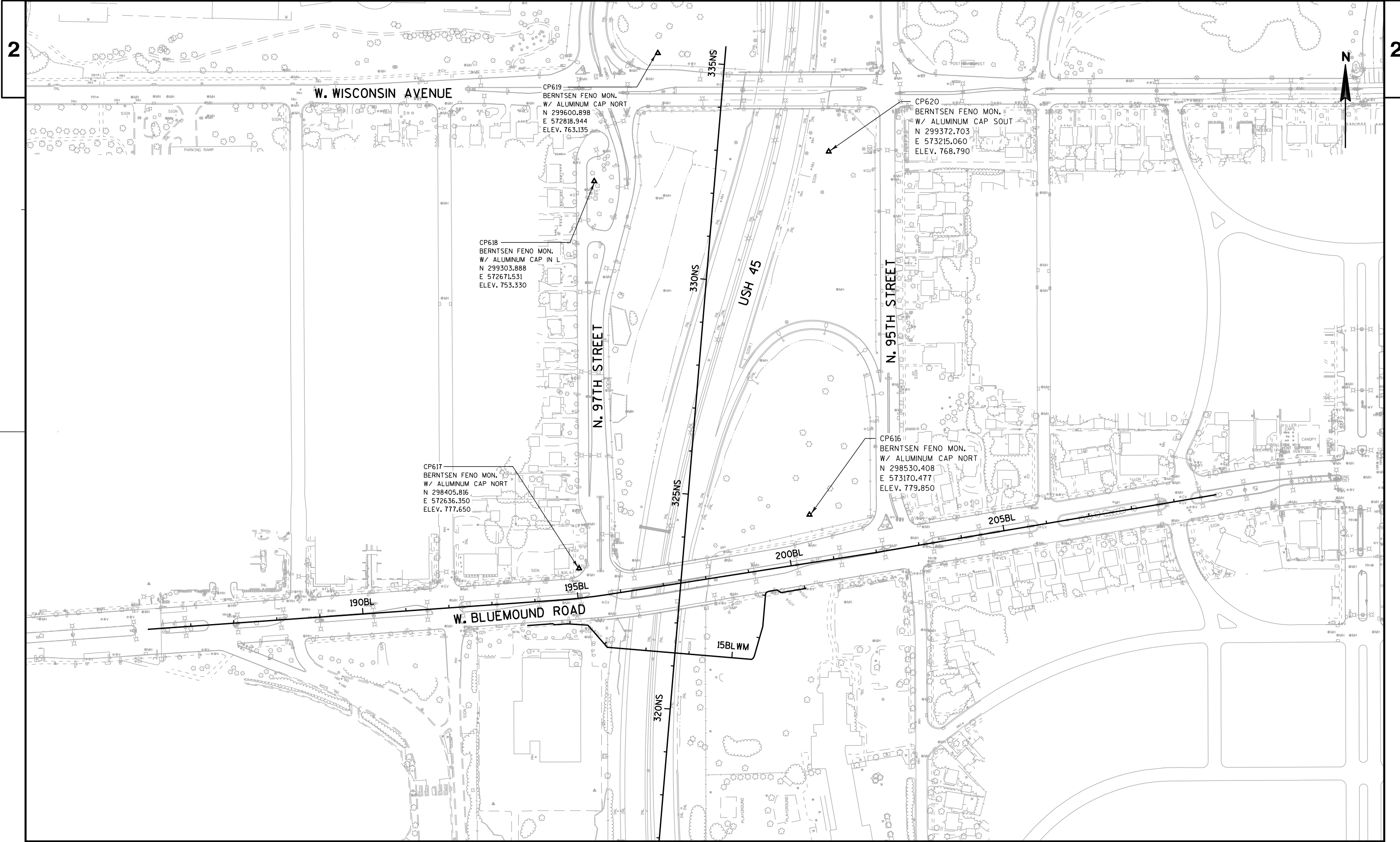
HWY: USH 18

COUNTY: MILWAUKEE

STAGE 2C TRAFFIC CONTROL - NIGHTTIME CLOSURE

SHEET

E



3

DATE 28APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE					1060-35-80
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	108.4400	CPM PROGRESS SCHEDULE	EACH	1.000	1.000
0020	201.0105	CLEARING	STA	1.000	1.000
0030	201.0120	CLEARING	ID	8.000	8.000
0040	201.0205	GRUBBING	STA	1.000	1.000
0050	201.0220	GRUBBING	ID	8.000	8.000
0060	204.0100	REMOVING PAVEMENT	SY	29.000	29.000
0070	204.0155	REMOVING CONCRETE SIDEWALK	SY	106.000	106.000
0080	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL FINISHING ROADWAY (PROJECT) 0001. 1060-35-80	TON	880.000	880.000
0090	213.0100		EACH	1.000	1.000
0100	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	19.000	19.000
0110	465.0110	ASPHALTIC SURFACE PATCHING	TON	40.000	40.000
0120	465.0310	ASPHALTIC CURB	LF	50.000	50.000
0130	616.0406	FENCE CHAIN LINK SALVAGED 6-FT	LF	97.000	97.000
0140	616.0600.S	FENCE TEMPORARY	LF	577.000	577.000
0150	619.1000	MOBILIZATION	EACH	1.000	1.000
0160	623.0200	DUST CONTROL SURFACE TREATMENT	SY	33.000	33.000
0170	624.0100	WATER	MGAL	10.000	10.000
0180	628.1104	EROSION BALES	EACH	107.000	107.000
0190	628.1504	SILT FENCE	LF	471.000	471.000
0200	628.1520	SILT FENCE MAINTENANCE	LF	471.000	471.000
0210	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0220	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0230	628.2004	EROSION MAT CLASS I TYPE B	SY	1,826.000	1,826.000
0240	628.7005	INLET PROTECTION TYPE A	EACH	4.000	4.000
0250	628.7010	INLET PROTECTION TYPE B	EACH	3.000	3.000
0260	628.7020	INLET PROTECTION TYPE D	EACH	4.000	4.000
0270	628.7560	TRACKING PADS	EACH	2.000	2.000
0280	628.7570	ROCK BAGS	EACH	20.000	20.000
0290	629.0210	FERTILIZER TYPE B	CWT	1.200	1.200
0300	630.0120	SEEDING MIXTURE NO. 20	LB	28.500	28.500
0310	638.2102	MOVING SIGNS TYPE II	EACH	1.000	1.000
0320	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	1.000	1.000
0330	643.0100	TRAFFIC CONTROL (PROJECT) 0001. 1060-35-80	EACH	1.000	1.000
0340	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,190.000	1,190.000
0350	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	284.000	284.000
0360	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	114.000	114.000
0370	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	872.000	872.000
0380	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	408.000	408.000
0390	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	14.000	14.000
0400	643.0900	TRAFFIC CONTROL SIGNS	DAY	936.000	936.000
0410	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	8.000	8.000
0420	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	17.000	17.000
0430	690.0250	SAWING CONCRETE	LF	88.000	88.000
0440	SPV.0035	SPECIAL 0010. WATER MAIN CASING GROUTING	CY	315.000	315.000
0450	SPV.0060	SPECIAL 0001. EXPOSING EXISTING UTILITY, UNPAVED AREA	EACH	5.000	5.000
0460	SPV.0060	SPECIAL 0002. EXPOSING EXISTING UTILITY, PAVED AREA	EACH	2.000	2.000
0470	SPV.0060	SPECIAL 0020. TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE	EACH	6.000	6.000
0480	SPV.0060	SPECIAL 5020. REMOVING HYDRANT	EACH	2.000	2.000
0490	SPV.0060	SPECIAL 5021. INSTALLING HYDRANT	EACH	2.000	2.000

3

3

DATE 28APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE				1060-35-80	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0500	SPV.0060	SPECIAL 5022. BENTONITE TRENCH DAM	EACH	2.000	2.000
0510	SPV.0075	SPECIAL 0010. BOULDER OBSTRUCTION	HRS	3.000	3.000
0520	SPV.0090	SPECIAL 5020. DUCTILE IRON HYDRANT	LF	22.000	22.000
0530	SPV.0090	BRANCH 6-INCH SPECIAL 5021. DUCTILE IRON WATER MAIN	LF	15.000	15.000
0540	SPV.0090	6-INCH SPECIAL 5022. DUCTILE IRON WATER MAIN	LF	369.000	369.000
0550	SPV.0090	16-INCH PUSH-ON RUBBER GASKET JOINT SPECIAL 5023. STEEL CASING W/ DUCTILE	LF	275.000	275.000
		IRON 16-INCH CARRIER			
0560	SPV.0090	SPECIAL 5024. DUCTILE IRON WATER MAIN	LF	71.000	71.000
0570	SPV.0105	16-INCH RESTRAINED JOINT SPECIAL 0010. SURVEY PROJECT	LS	1.000	1.000
0580	SPV.0105	(1060-35-80) SPECIAL 0011. PAVEMENT CLEANUP	LS	1.000	1.000
0590	SPV.0135	(1060-35-80) SPECIAL 0010. VIBRATION MANITORING	MON	2.000	2.000
0600	SPV.0180	SPECIAL 0010. TOPSOIL SPECIAL	SY	1,826.000	1,826.000

3

CPM PROGRESS SCHEDULE

CATEGORY	LOCATION	108.4400 EACH
1000	PROJECT	1
TOTAL		1

REMOVING PAVEMENT

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	204.0100 SY	NOTES
1000	W. BLUEMOUND ROAD EB	199BL+26		199BL+76	RT	29	EAST CONNECTION
TOTAL						29	

REMOVING CONCRETE SIDEWALK

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	204.0155 SY
1000	W. BLUEMOUND ROAD EB	194BL+28	-	195BL+21	RT	72
		199BL+13	-	199BL+76	RT	34
TOTAL						106

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	205.0501.S TON
1000	W. BLUEMOUND ROAD	15BLWM+10	-	15BLWM+50	15' LT - 15' RT	530
		15BLWM+50	-	16BLWM+15	20' LT - 10' RT	350
TOTALS						880

CLEARING AND GRUBBING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
1000	USH 45 SB	320NS+95	-	321NS+96	LT	1	1	--	--
	W. BLUEMOUND ROAD EB	199BL+70		53' RT	--	--	--	8	8
TOTALS						1	1	8	8

FINISHING ROADWAY PROJECT ID 1060-35-80

CATEGORY	LOCATION	213.0100.0001 EACH
1000	PROJECT	1
TOTAL		1

3

AGGREGATE UNIT WEIGHTS USED	
Base Aggregate Dense	2.1 TONS/CY

BASE AGGREGATE ITEMS

							305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
CATEGORY	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	
1000	W. BLUEMOUND ROAD WB						
		194BL+23	RT	-	195BL+14	RT	8.0
		199BL+25	RT	-	199BL+76	RT	3.8
		199BL+26	RT	-	199BL+76	RT	7.4
TOTAL							19

FENCING ITEMS

							616.0406 FENCE CHAIN LINK SALVAGED 6-FT LF	616.0600.S FENCE TEMPORARY LF
CATEGORY	ROADWAY	FROM STATION	OFFSET	TO STATION	OFFSET			
1000	USH 45 SB							--
		320NS+95	149' LT	321NS+91	146' LT		97	--
	W. BLUEMOUND ROAD							
		194BL+05	48' RT	195BL+52	154' RT		--	218
		197BL+65	214' RT	200BL+01	50' RT		--	359
TOTALS							97	577

ASPHALTIC ITEMS

				465.0110 ASPHALTIC SURFACE PATCHING TON	465.0310 ASPHALTIC CURB LF	REMARKS
CATEGORY	ROADWAY	STATION	TO	STATION		
1000	W. BLUMOUND ROAD WB					
		194BL+23	-	194BL+14	17	-- SIDEWALK
		199BL+25	-	199BL+76	8	-- SIDEWALK
		199BL+26	-	199BL+76	15	-- PAVEMENT
		199BL+26	-	199BL+76	--	50 CURB
TOTALS					40	50

PERMANENT SIGNING ITEMS

		638.2102 MOVING SIGNS TYPE II EACH		638.4000 MOVING SMALL SIGN SUPPORTS EACH			
CATEGORY	ROADWAY	LOCATION	EACH	EACH	REMARKS		
1000							
W. BLUEMOUND ROAD	199BL+56, 52.40' RT		1	1	NO PARKING - BUS STOP		
TOTALS			1	1			

WATER MAIN CASING GROUTING

		SPV.0035.0010
CATEGORY	LOCATION	CY
1000	BLWM	315
TOTALS		315

3

CATEGORY	LOCATION	STATION	TO	STATION	OFFSET	EROSION	SILT	SILT	MOBILIZATIONS	EMERGENCY	MAT	TRACKING	ROCK
						BALES	FENCE	FENCE	EROSION	EROSION	CLASS I	PADS	BAGS
						EACH	LF	LF	CONTROL	CONTROL	TYPE B	EACH	EACH
									EACH	EACH	SY		
1000	W. BLUEMOUND ROAD												
		194BL+03	-	194BL+03	RT	--	22	22	--	--	--	--	--
		194BL+03	-	194BL+75	RT	--	74	74	--	--	--	--	--
		194BL+75	-	195BL+13	RT	--	46	46	--	--	--	--	--
		195BL+13	-	195BL+23	RT	--	23	23	--	--	--	--	--
		194BL+23	-	195BL+57	RT	--	--	--	--	--	453	--	--
		194BL+23	-	194BL+32	RT	--	--	--	--	--	5	--	--
		199BL+25	-	199BL+76	RT	--	--	--	--	--	30	--	--
			-			--	--	--	--	--	--	--	--
	USH 45	321NS+02	-	321NS+05	RT	10	25	25	--	--	--	--	--
		321NS+05	-	321NS+69	RT	26	64	64	--	--	--	--	--
		321NS+69	-	322NS+74	RT	50	124	124	--	--	--	--	--
		320NS+95	-	321NS+96	RT	--	--	--	--	--	313	--	--
		321NS+21	-	322NS+77	RT	--	--	--	--	--	660	--	--
						--	--	--	--	--	--	--	--
		SUBTOTALS				85	377	377	--	--	1,461	--	--
	UNDISTRIBUTED					21	94	94	2	1	365	2	20
	TOTALS					107	471	471	2	1	1,826	2	20

ROUND ROAD

<u>W. BLUEMOUND ROAD</u>		
194BL+23	-	195BL+57
		453
194BL+23	-	194BL+32
		5
199BL+25	-	199BL+76
		30
<u>USH 45</u>		
320NS+95	-	321NS+96
		313
321NS+21	-	322NS+77
		660
SUBTOTALS		1,461
<u>UNDISTRIBUTED</u>		365
TOTAL		1,826

EACH

CATEGORY	LOCATION	EACH	EACH	EACH
1000	<u>USH 45</u>	3	--	4
	<u>W. BLUEMOUND ROAD</u>	1	3	--
<u>TOTALS</u>		4	3	4

CATEGORY	ROADWAY	STATION	TO	STATION	FERTILIZER	SEEDING
					TYPE B	MIXTURE NO.20
					CWT	LB
1000						
	<u>W. BLUEMOUND ROAD</u>					
		194BL+23	-	195BL+57	0.3	12
		194BL+23	-	194BL+32	0.0	
		199BL+25	-	199BL+76	0.0	1
	<u>USH 45</u>					
		320NS+95	-	321NS+96	0.2	8
		321NS+21	-	322NS+77	0.4	1
				SUBTOTALS	0.9	23
	<u>UNDISTRIBUTED</u>				0.2	6
	<u>TOTALS</u>				1.2	28.5

FROM TO

CATEGORY	ROADWAY	FROM		TO		CONCRETE	REMARKS
		STATION	OFFSET	STATION	OFFSET	LF	
1000	<u>W. BLUEMOUND ROAD WB</u>	194BL+23	58'RT	194BL+23	53'RT	5	SIDEWALK
		195BL+09	54'RT	195BL+14	55'RT	6	SIDEWALK
		195BL+22	55'RT	195BL+21	60'RT	5	SIDEWALK
		199BL+25	61'RT	199BL+25	57'RT	5	SIDEWALK
		199BL+76	61'RT	199BL+76	56'RT	5	SIDEWALK
		199BL+26	51'RT	199BL+26	45'RT	6	PAVEMENT
		199BL+26	45'RT	199BL+76	45'RT	50	PAVEMENT
		199BL+76	45'RT	199BL+76	51'RT	6	PAVEMENT
		TOTAL					88

PROJECT NO: 1060-35-80

HWY: USH 18

COUNTY: MILWAUKEE

MISCELLANEOUS QUANTITIES

SHEET:

E

3

3

MOBILIZATION <table><tr><th colspan="2">CATEGORY LOCATION</th><th>619.1000 EACH</th></tr><tr><td>1000</td><td>PROJECT</td><td>1</td></tr><tr><td colspan="2">TOTAL</td><td>1</td></tr></table>			CATEGORY LOCATION		619.1000 EACH	1000	PROJECT	1	TOTAL		1	EXPOSING EXISTING UTILITY <table><tr><th colspan="2">CATEGORY LOCATION</th><th>SPV.0060.0001 UNPAVED AREA EACH</th><th>SPV.0060.0002 PAVED AREA EACH</th></tr><tr><td>1000</td><td>UNDISTRIBUTED</td><td>5</td><td>2</td></tr><tr><td colspan="2">TOTALS</td><td>5</td><td>2</td></tr></table>			CATEGORY LOCATION		SPV.0060.0001 UNPAVED AREA EACH	SPV.0060.0002 PAVED AREA EACH	1000	UNDISTRIBUTED	5	2	TOTALS		5	2	SURVEY PROJECT <table><tr><th colspan="2">CATEGORY LOCATION</th><th>SPV.0105.0010 SURVEY PROJECT 1060-35-80 LS</th></tr><tr><td>1000</td><td>PROJECT</td><td>1</td></tr><tr><td colspan="2">TOTAL</td><td>1</td></tr></table>			CATEGORY LOCATION		SPV.0105.0010 SURVEY PROJECT 1060-35-80 LS	1000	PROJECT	1	TOTAL		1
CATEGORY LOCATION		619.1000 EACH																																				
1000	PROJECT	1																																				
TOTAL		1																																				
CATEGORY LOCATION		SPV.0060.0001 UNPAVED AREA EACH	SPV.0060.0002 PAVED AREA EACH																																			
1000	UNDISTRIBUTED	5	2																																			
TOTALS		5	2																																			
CATEGORY LOCATION		SPV.0105.0010 SURVEY PROJECT 1060-35-80 LS																																				
1000	PROJECT	1																																				
TOTAL		1																																				
WATER <table><tr><th colspan="2">CATEGORY LOCATION</th><th>624.0100 MGAL</th></tr><tr><td>1000</td><td>PROJECT</td><td>10</td></tr><tr><td colspan="2">TOTAL</td><td>10</td></tr></table>			CATEGORY LOCATION		624.0100 MGAL	1000	PROJECT	10	TOTAL		10	VIBRATION MONITORING <table><tr><th colspan="2">CATEGORY LOCATION</th><th>SPV.0135.0010 VIBRATION MONITORING MONTH</th></tr><tr><td>1000</td><td>UNDISTRIBUTED</td><td>2</td></tr><tr><td colspan="2">TOTALS</td><td>2</td></tr></table>			CATEGORY LOCATION		SPV.0135.0010 VIBRATION MONITORING MONTH	1000	UNDISTRIBUTED	2	TOTALS		2	PAVEMENT CLEANUP PROJECT 1060-35-80 <table><tr><th colspan="2">CATEGORY LOCATION</th><th>SPV.0105.0011 LS</th></tr><tr><td>1000</td><td>PROJECT</td><td>1</td></tr><tr><td colspan="2">TOTAL</td><td>1</td></tr></table>			CATEGORY LOCATION		SPV.0105.0011 LS	1000	PROJECT	1	TOTAL		1			
CATEGORY LOCATION		624.0100 MGAL																																				
1000	PROJECT	10																																				
TOTAL		10																																				
CATEGORY LOCATION		SPV.0135.0010 VIBRATION MONITORING MONTH																																				
1000	UNDISTRIBUTED	2																																				
TOTALS		2																																				
CATEGORY LOCATION		SPV.0105.0011 LS																																				
1000	PROJECT	1																																				
TOTAL		1																																				
DUST CONTROL SURFACE TREATMENT <table><tr><th colspan="2">CATEGORY LOCATION</th><th>623.0200 SY</th></tr><tr><td>1000</td><td>PROJECT</td><td>33</td></tr><tr><td colspan="2">TOTAL</td><td>33</td></tr></table>			CATEGORY LOCATION		623.0200 SY	1000	PROJECT	33	TOTAL		33	BOULDER OBSTRUCTION <table><tr><th colspan="2">CATEGORY LOCATION</th><th>SPV.0075.0010 HOURS</th></tr><tr><td>1000</td><td>UNDISTRIBUTED</td><td>3</td></tr><tr><td colspan="2">TOTAL</td><td>3</td></tr></table>			CATEGORY LOCATION		SPV.0075.0010 HOURS	1000	UNDISTRIBUTED	3	TOTAL		3															
CATEGORY LOCATION		623.0200 SY																																				
1000	PROJECT	33																																				
TOTAL		33																																				
CATEGORY LOCATION		SPV.0075.0010 HOURS																																				
1000	UNDISTRIBUTED	3																																				
TOTAL		3																																				

3

TRAFFIC CONTROL ITEMS

		643.0100.0001	643.0300		643.0410		643.0420		643.0705		643.0715		643.0800		643.0900		643.0920	643.1050	SPV.0060.0020	
		TRAFFIC CONTROL (PROJECT) 1060-35-80	TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE II		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL WARNING LIGHTS TYPE C		TRAFFIC CONTROL ARROW BOARDS		TRAFFIC CONTROL SIGNS		TRAFFIC COVERING SIGNS TYPE II	TRAFFIC CONTROL SIGNS PCMS	TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE	
CATEGORY	LOCATION	STAGE DURATION	EACH	EACH**	DAYS	EACH**	DAYS	EACH**	DAYS	EACH**	DAYS	EACH**	DAYS	EACH**	DAYS	EACH**	DAYS	EACH	DAYS	EACH
1000	ADVANCED SIGNING	54	--	--	--	--	--	--	--	--	--	--	--	--	--	16	864	2	5	--
	W. BLUEMOUND ROAD		--	17	918	5	270	2	108	14	756	6	324				--	--	--	
SUBTOTALS			--	17	918	5	270	2	108	14	756	6	324	--	--	--	864	2	5	--
UNDISTRIBUTED *			1	--	272	--	14	--	6	--	116	--	84	--	14	--	72	6	12	6
TOTALS			1		1,190		284		114		872		408		14		936	8	17	6

*FOR NIGHT TIME FREEWAY LANE CLOSURES

** FOR INFORMATION ONLY

3

WATERMAIN ITEMS

		SPV.0060.5020		SPV.0060.5021		SPV.0060.5022		SPV.0090.5020		SPV.0090.5021		SPV.0090.5022		SPV.0090.5023		SPV.0090.5024	
		REMOVING HYDRANT EACH		INSTALLING HYDRANT EACH		BENTONITE TRENCH DAM EACH		DUCTILE IRON HYDRANT BRANCH 6-INCH LF		DUCTILE IRON WATERMAIN 6-INCH LF		DUCTILE IRON WATER MAIN 16-INCH PUSH-ON RUBBER GASKET JOINT LF		STEEL CASING W/ DUCTILE IRON 16-INCH CARRIER LF		DUCTILE IRON WATER MAIN 16-INCH RESTRAINED JOINT LF	
CATEGORY	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET											
7060	W. BLUEMOUND ROAD																
		10BLWM+55	--		12BLWM+15	--	--	--	--	--	--	161	--	--	--	--	--
		12BLWM+15	--		12BLWM+37	--	--	--	--	--	--	--	--	--	--	30	--
		10BLWM+74	--		--	--	--	1	--	10	--	--	--	--	--	--	--
		11BLWM+17	--		11BLWM+20	14.04' RT	--	--	--	--	15	--	--	--	--	--	--
		11BLWM+42	18.50' LT		--	--	1	--	--	--	--	--	--	--	--	--	--
		12BLWM+37	--		15BLWM+11	--	--	--	--	--	--	--	275	--	--	--	--
		15BLWM+11	--		15BLWM+41	--	--	--	--	--	--	--	--	--	--	41	--
		15BLWM+36	2' LT		15BLWM+36	2' RT	--	--	1	--	--	--	--	--	--	0	--
		15BLWM+41	--		17BLWM+49	--	--	--	--	--	--	208	--	--	--	--	--
		16BLWM+16	2' LT		16BLWM+16	2' RT	--	--	1	--	--	--	--	--	--	--	--
		17BLWM+20	3.72' RT		--	--	1	--	--	--	--	--	--	--	--	--	--
		17BLWM+28	--		--	--	--	1	--	12	--	--	--	--	--	--	--
TOTALS							2	2	2	22	15	369	275	71			

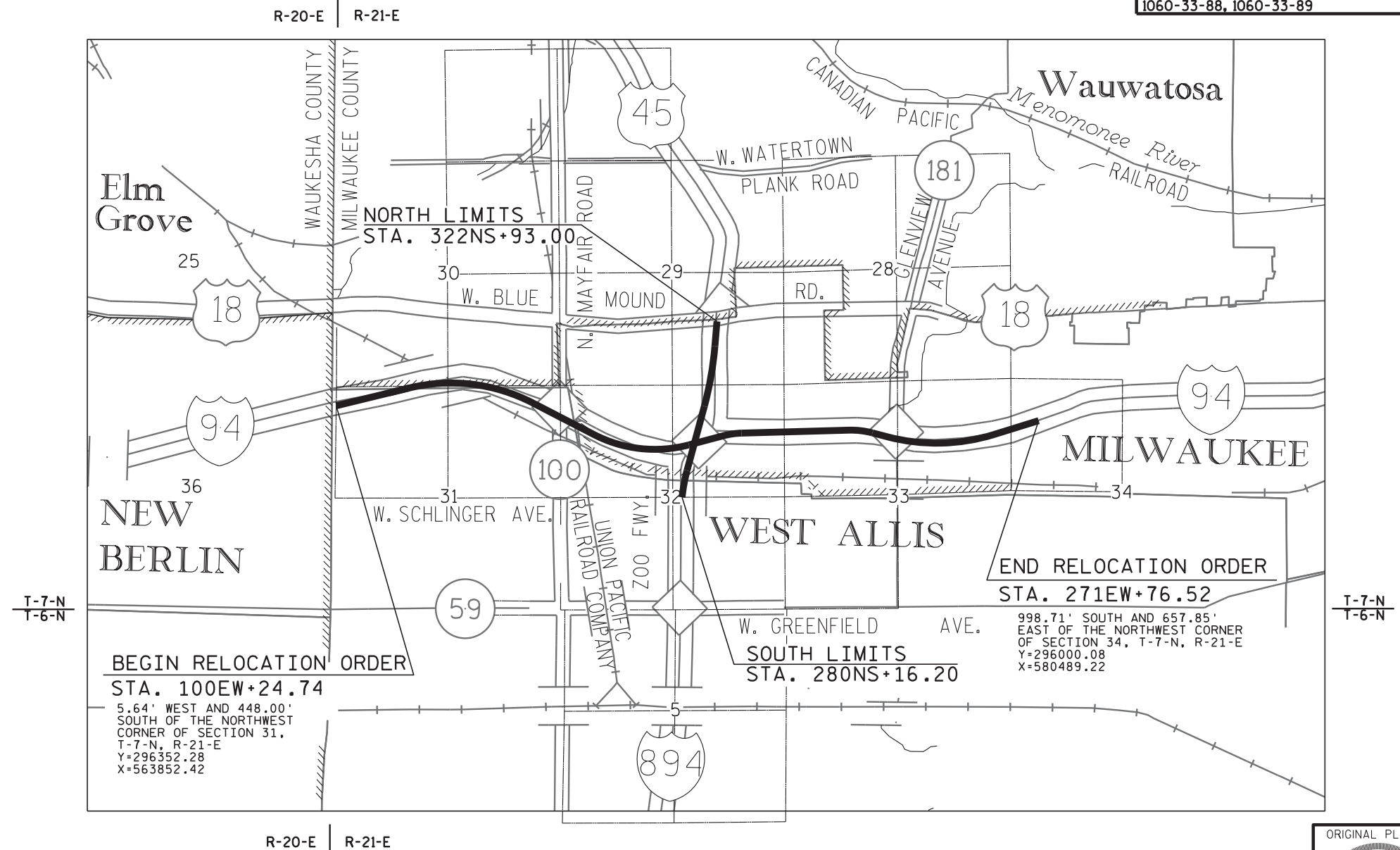
R/W PROJECT NUMBER 1060-33-24	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	
PLAT OF RIGHT-OF-WAY REQUIRED FOR IH 94 (S. 124TH STREET - S. 70TH STREET) IH 94 MILWAUKEE CO.		
CONSTRUCTION PROJECT NUMBER 1060-33-75, 1060-33-78, 1060-33-81, 1060-33-86, 1060-33-88, 1060-33-89		

<u>CONVENTIONAL</u>		<u>ABBREVIATIONS</u>	
ACCESS POINT/	AP	REFERENCE LINE	R/L
DRIVEWAY CONNECTION		RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET. AL.	SECTION	SEC.
BUILDING	B	STATION	STA.
CENTERLINE	C/L	TEMPORARY LIMITED EASEMENT	TLE
CERTIFIED SURVEY MAP	CSM	VOLUME	V.
CORNER	COR.		
DOCUMENT	DOC.		
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		

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

CONVENTIONAL UTILITY SYMBOLS

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



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

SCALE 0 0.5 MI. 1 MI.

TOTAL NET LENGTH OF REFERENCE LINE= 3.248 MI.

REVISION DATE
MAY 23 2012
JULY 11, 2012
SEPTEMBER 28, 2012
DECEMBER 17, 2012
APRIL 17, 2013
AUGUST 29, 2013
JANUARY 17, 2014

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT
DATE: Feb. 29, 2012 Robert J. Duffek
(Signature)

ORIGINAL PLAT PREPARED BY:

The seal is circular with a double-lined border. The outer ring contains the text "WISCONSIN" at the top and "LAND SURVEYOR" at the bottom, separated by two five-pointed stars. The center of the seal contains the text "KURT E. KRUGER", "S-1946", and "CASCADE, WI".

The shield is white with a black border. At the top, the word "FORWARD" is written in a curved banner. In the center, the number "45" is displayed in a large, bold, black font.

Kurt Kruger
February 29, 2012

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

4

PROJECT FUNDING I.D.	PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES)			TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	HE ACRES	PARCEL NUMBER
						NEW	EXISTING	TOTAL					
1060-33-24	1	4.18	JOSEPH R. McGAVER	FEE	0.446	0.446		0.446	0.000				1
1060-33-24	2(4)	4.13,4.14	UNION PACIFIC RAILROAD COMPANY	HE,TLE	VAST				VAST	10.262		1.329	2(4)
1060-33-24	3(2)	4.13	MILWAUKEE COUNTY	FEE	0.468	0.468		0.468	0.000				3(2)
1060-33-24	4(2)	4.13,4.14	MILWAUKEE COUNTY	TLE	VAST				VAST	0.170			4(2)
1060-33-24	5(6)	4.11-4.15	WISCONSIN DEPARTMENT OF NATURAL RESOURCES	HE,PLE,TLE	VAST				VAST	0.375	1.843	1.036	5(6)
1060-33-24	6(2)	4.14	GUIFFRE V, LLC	PLE	4.930				4.930		0.223		6(2)
1060-33-24	7(2)	4.14	FMC610, LLC	PLE	1.806*				1.806		0.079		7(2)
1060-33-24	8(2)	4.14	WAREHOUSE INVESTMENTS, CO.	PLE	4.651				4.651		0.112		8(2)
1060-33-24	10(4)	4.20,4.21	PETTIT NATIONAL ICE CENTER	FEE,PLE,TLE	9.586	0.111		0.111	9.475	0.374	0.146		10(4)
1060-33-24	11(4)	4.21-4.23	WISCONSIN STATE FAIR BOARD	FEE,PLE,TLE	36.210	1.945		1.945	34.265	0.986	0.125		11(4)
1060-33-24	12(4)	4.23	KEITH C. VOGEL	TLE	0.078				0.078	0.003			12(4)
1060-33-24	13(4)	4.23	NICHOLAS R. JULGA	TLE	0.158				0.158	0.008			13(4)
1060-33-24	14(4)	4.23	FEDERAL HOME LOAN MORTGAGE CORPORATION	TLE	0.090				0.090	0.014			14(4)
1060-33-24	15(4)	4.20	MILWAUKEE COUNTY	FEE,PLE,TLE	3.468	0.178		0.178	3.290	0.203	0.731		15(4)
1060-33-24	16(6)	4.19,4.20	THE ESTATE OF THE ARCHDIOCESE OF MILWAUKEE	FEE	15.839	1.251		1.251	14.588				16(6)
1060-33-24	17(6)	4.17	MARY E. DUNLAP	FEE	0.184	0.007		0.007	0.177				17(6)
1060-33-24	18(7)	4.17	HYAESUNG MIN KIM	FEE,TLE	0.309	0.001		0.001	0.308	0.029			18(7)
1060-33-24	19(7)	4.17	KEITH L. STAMM & SHARON L. STAMM HW	FEE,TLE	0.096	0.001		0.001	0.095	0.006			19(7)
1060-33-24	20(7)	4.17	TAMARA W WEISS	FEE,TLE	0.091	14SqFt		14SqFt	0.091	0.006			20(7)
1060-33-24	21(7)	4.17	AGNES & CHARLES F BURKHALTER	TLE	0.088				0.088	0.006			21(7)
1060-33-24	22(7)	4.17,4.18	JACQUELINE L. SYDLO	TLE	0.085				0.085	0.006			22(7)
1060-33-24	23(8)	4.18	PAUL E. & LISA M REGALADO	TLE	0.099				0.099	0.007			23(8)
1060-33-24	24(8)	4.18	JESSICA M. THIELEN	TLE	0.088				0.088	0.006			24(8)
1060-33-24	25(7)	4.18	MEGAN HANSBURG	TLE	0.096				0.096	0.009			25(7)
1060-33-24	26(7)	4.18	KAAN SAMLANESOUK	TLE	0.091				0.091	0.008			26(7)
1060-33-24	27(7)	4.18	CONSETTA TORGERSON	TLE	0.176				0.176	0.015			27(7)
1060-33-24	28(7)	4.18	THOMAS N. & GEORGIA L. DOLLHOPF	TLE	0.080				0.080	0.008			28(7)
1060-33-24	29(6)	4.18	FRANCISCA GARZA-KRAUSE	TLE	0.076				0.076	0.005			29(6)
1060-33-24	30(3)	4.12-4.17	WISCONSIN ELECTRIC POWER COMPANY (WEPCO)	FEE,TLE	VAST	17.689	14.558	32.247	VAST	0.192			30(3)
1060-33-24	31(7)	4.18	JAMES J. & KIMBERLY R. ZEMAN	TLE	0.096				0.096	0.009			31(7)
1060-33-24	32(7)	4.18	WI HOUSING ECONOMIC DEVELOPMENT AUTHORITY	TLE	0.088				0.088	0.007			32(7)
1060-33-24	33(7)	4.18	KOSTA PAGOULATOS	TLE	0.127				0.127	0.011			33(7)
1060-33-24	34(6)	4.18	ROCCO J ADORNATO ET AL	TLE	0.241				0.241	0.013			34(6)
1060-33-24	35(6)	4.18	MELINDA & ELLY SMYCZEK	TLE	0.182				0.182	0.009			35(6)
1060-33-24	36(6)	4.18	JESSE J. HOUTLER	TLE	0.200				0.200	0.009			36(6)
1060-33-24	37(6)	4.18	BENJAMIN R. KOEHLER	TLE	0.200				0.200	0.003			37(6)
1060-33-24	38(7)	4.18	DENNIS F. & JUDITH M. MILLER	TLE	0.091				0.091	0.008			38(7)

4

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)			TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	HE ACRES	PARCEL NUMBER
						NEW	EXISTING	TOTAL					
1060-33-24	39(7)	4.18	FAITH UNITED METHODIST CHURCH, INC	TLE	0.201				0.201	0.016			39(7)
1060-33-25	40(6)	4.18	FAITH UNITED METHODIST CHURCH, INC	TLE	0.294				0.294	0.003			40(6)
1060-33-24	41(6)	4.18	DANIEL J GLEASON	FEE, TLE	0.161	0.007		0.007	0.154	0.011			41(6)
1060-33-24	42(6)	4.18	JACOB & KATHLEEN E SCEPANSKI	FEE, TLE	0.121	0.009		0.009	0.112	0.012			42(6)
1060-33-24	43(6)	4.18	JENNIFER L FEATHER	FEE, TLE	0.121	0.005		0.005	0.116	0.005			43(6)
1060-33-24	44(7)	4.18	PETER A KORNACKI & CRYSTAL GANS	FEE, PLE, TLE	0.121	0.002		0.002	0.119	0.006	0.002		44(7)
1060-33-24	45(7)	4.18	BRIANNA E SIEVERT	PLE, TLE	0.121				0.121	0.008	0.003		45(7)
1060-33-24	46(7)	4.18	JAYESHKUMAR B PATEL	TLE	0.143				0.143	0.012			46(7)
1060-33-24	47(7)	4.18	KEVIN W & ANGELA GLASESKE	PLE, TLE	0.143				0.143	0.024	0.008		47(7)
1060-33-24	48(6)	4.18	PRESTON L & RUTH S MCLEAN	TLE	0.337				0.337	0.034			48(6)
1060-33-24	49(7)	4.18	RUSSELL STEINKE	TLE	0.141				0.141	0.063			49(7)
1060-33-24	50(6)	4.18	RICHARD J BATTIOLA & DANIEL J BATTIOLA	FEE, TLE	0.460	0.039		0.039	0.421	0.029			50(6)
1060-33-24	51(7)	4.18, 4.19	GENEVA EXCHANGE FUND I, LLC	FEE, PLE, TLE	3.161	0.084		0.084	3.077	0.177	0.275		51(7)
1060-33-24	52(7)	4.19	GENEVA OFFICE EXCHANGE V, LLC, ET AL	FEE, PLE, TLE	6.945	0.537		0.537	6.408	0.496	0.060		52(7)
1060-33-24	53(7)	4.19	GENEVA HC2X XXII LLC	FEE, PLE, TLE	7.662	0.886		0.886	6.776	0.426	0.083		53(7)
1060-33-24	54(7)	4.18, 4.19	JAMES BLACK	TLE	0.176				0.176	0.014			54(7)
1060-33-24	55(6)	4.19	ROBERT M. & SABINE M. KOSANKE	TLE	0.200				0.200	0.003			55(6)
1060-33-25	56(7)	4.18	THOMAS A & KAREN L THIELKE	TLE	0.088				0.088	0.007			56(7)
1060-33-24	57(6)	4.19	JOHN M. HUBATCH	TLE	0.130				0.130	0.003			57(6)
1060-33-24	58(6)	4.19	AUGUST F. & JUDITH R. DASCENZO	TLE	0.115				0.115	0.003			58(6)
1060-33-24	60(7)	4.19	DEAN & PEGGY KUSIK	TLE	0.153				0.153	0.005			60(7)
1060-33-24	61(6)	4.19	BRANDON T LINDEMAN	TLE	0.103				0.103	18SqFt			61(6)
1060-33-24	62(6)	4.19	MARK R. MONTY	TLE	0.200				0.200	0.002			62(6)
1060-33-24	64(6)	4.19	GREG S .MATZEK	TLE	0.093				0.093	0.002			64(6)
1060-33-24	65(6)	4.19	JOHN GRIEB	TLE	0.093				0.093	0.002			65(6)
1060-33-24	66(7)	4.19	FREDRICK J MELK	TLE	0.182				0.182	0.002			66(7)
1060-33-24	67(6)	4.20	ERIC R. GERMERSHAUSEN	TLE	0.080				0.080	12Sqft			67(6)
1060-33-24	68(6)	4.19	DAWN SCHLECHTA	TLE	0.103				0.103	0.002			68(6)
1060-33-24	69(7)	4.17	WISCONSIN BELL INC	PLE, TLE	7.554				7.554	0.027	0.130		69(7)
1060-33-24	70(7)	4.20, 4.21	TRUSTEES OF MILWAUKEE BOY SCOUT FUND	FEE, TLE	1.227	0.177		0.177	1.050	0.070			70(7)
1060-33-24	71(7)	4.20	CITY OF MILWAUKEE, FIRE-HOUSE	TLE	0.799				0.799	0.030			71(7)
1060-33-24	72(7)	4.21	GEBHARD LIMITED PARTNERSHIP	TLE	0.230				0.230	0.041			72(7)
1060-33-24	73(6)	4.10	JHF INVESTMENTS II, LLC	PLE	1.182				1.182		0.193		73(6)

REVISION DATE AUG. 29, 2013 JAN. 17, 2014	DATE APR. 17, 2013		HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.03	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	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)			TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	HE ACRES	PARCEL NUMBER
						NEW	EXISTING	TOTAL					
1060-33-24	74(6)	4.12	AMERICAN TRANSMISSION COMPANY	FEE	16.797	0.329		0.329	16.468				74(6)
1060-33-24	75(6)	4.16	MOTHS FAMILY LTD PTN	FEE, PLE	6.399	0.029		0.029	6.370		0.235		75(6)
1060-33-24	76(6)	4.16	WISCONSIN MONTESSORI SOCIETY INC	FEE, PLE	4.792	0.452		0.452	4.340		0.095		76(6)
1060-33-24	77(8)	4.16	ST THERESE CONGREGATION	FEE, TLE	4.231	0.936		0.936	3.295	0.121			77(8)
1060-33-24	78(7)	4.15	SHIRLEY KEWAN	FEE, TLE	1.819	0.005		0.005	1.814	0.011			78(7)
1060-33-24	79(6)	4.10	MILWAUKEE COUNTY	PLE	39.558				39.558		0.346		79(6)
1060-33-24	80(7)	4.19	MARK W. & MARIA MCCUTCHIN	TLE	0.132				0.132	0.010			80(7)
1060-33-24	81(7)	4.20	AMY M ROCA , SCOTT A WILLIAMS	TLE	0.171				0.171	0.011			81(7)
1060-33-24	82(7)	4.20	CITY OF MILWAUKEE	FEE, TLE	0.546	0.053		0.053	0.493	0.054			82(7)
1060-33-24	83(7)	4.20	JOSEPH T RYERSON & SON, INC	TLE	15.403				15.403	0.015			83(7)
1060-33-24	84(7)	4.20	PUBLIC STORAGE INC	FEE, TLE	3.815	0.001		0.001	3.814	0.007			84(7)
1060-33-24	85(7)	4.17	EDWARD G DIESCH	TLE	0.138				0.138	0.006			85(7)
1060-33-24	86(7)	4.18	KEVIN F HUGHES	TLE	0.143				0.143	0.015			86(7)
1060-33-24	87(7)	4.18	STEPHANIE L SHANNON	PLE, TLE	0.121				0.121	0.008	0.003		87(7)
1060-33-24	104(8)	4.13-4.16	MILWAUKEE COUNTY	FEE, HE, PLE, TLE	175.776	8.056		8.056	167.720	0.919	0.686	0.037	104(8)
1060-33-24	110(7)	4.20	PETTIT NATIONAL ICE CENTER	FEE, TLE	9.475	0.021		0.021	9.454	0.023			110(7)
1060-33-24	111(7)	4.20	WISCONSIN STATE FAIR BOARD	FEE, TLE	34.265	0.008		0.008	34.257	0.023			111(7)
1060-33-24	130(5)	4.14, 4.15	WISCONSIN ELECTRIC POWER COMPANY (WEPCO)	FEE, TLE	VAST	1.246		1.246	VAST	5.35			130(5)
1060-33-24	500(8)	4.11-4.22	WE ENERGIES - ELECTRIC	ROR									500(8)
1060-33-24	501(7)	4.14, 4.20, 4.21	WE ENERGIES - GAS	ROR									501(7)
1060-33-24	504(8)	4.14, 4.16, 4.18-4.22	AT&T WISCONSIN	ROR									504(8)
1060-33-24	505(7)	4.12-4.17	AMERICAN TRANSMISSION COMPANY	ROR									505(7)
1060-33-24	506(8)	4.10, 4.13-4.15, 4.20, 4.21	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT	ROR									506(8)
1060-33-24	508(2)	4.13, 4.14	US SPRINT	ROR									508(2)
1060-33-24	510(8)	4.14	ELIMINATED										510(8)
1060-33-24	511(8)	4.19, 4.20	GREYWOLF - PRIVATE SEWER										511(8)
1060-33-24	521(7)	4.16, 4.18 - 4.21	CITY OF MILWAUKEE - SEWER	ROR									521(7)
1060-33-24	522(7)	4.15-4.17, 4.19-4.21	CITY OF MILWAUKEE - WATER	ROR									522(7)
1060-33-24	523(8)	4.20	CITY OF MILWAUKEE - CABLE										523(8)
1060-33-24	524(8)	4.20	CITY OF MILWAUKEE - CONDUIT										524(8)
1060-33-24	531(7)	4.11	CITY OF WAUWATOSA	ROR									531(7)
1060-33-24	540(7)	4.14	MILWAUKEE COUNTY - STORM	ROR									540(7)
1060-33-24	541(7)	4.14	MILWAUKEE COUNTY - WATER	ROR									541(7)

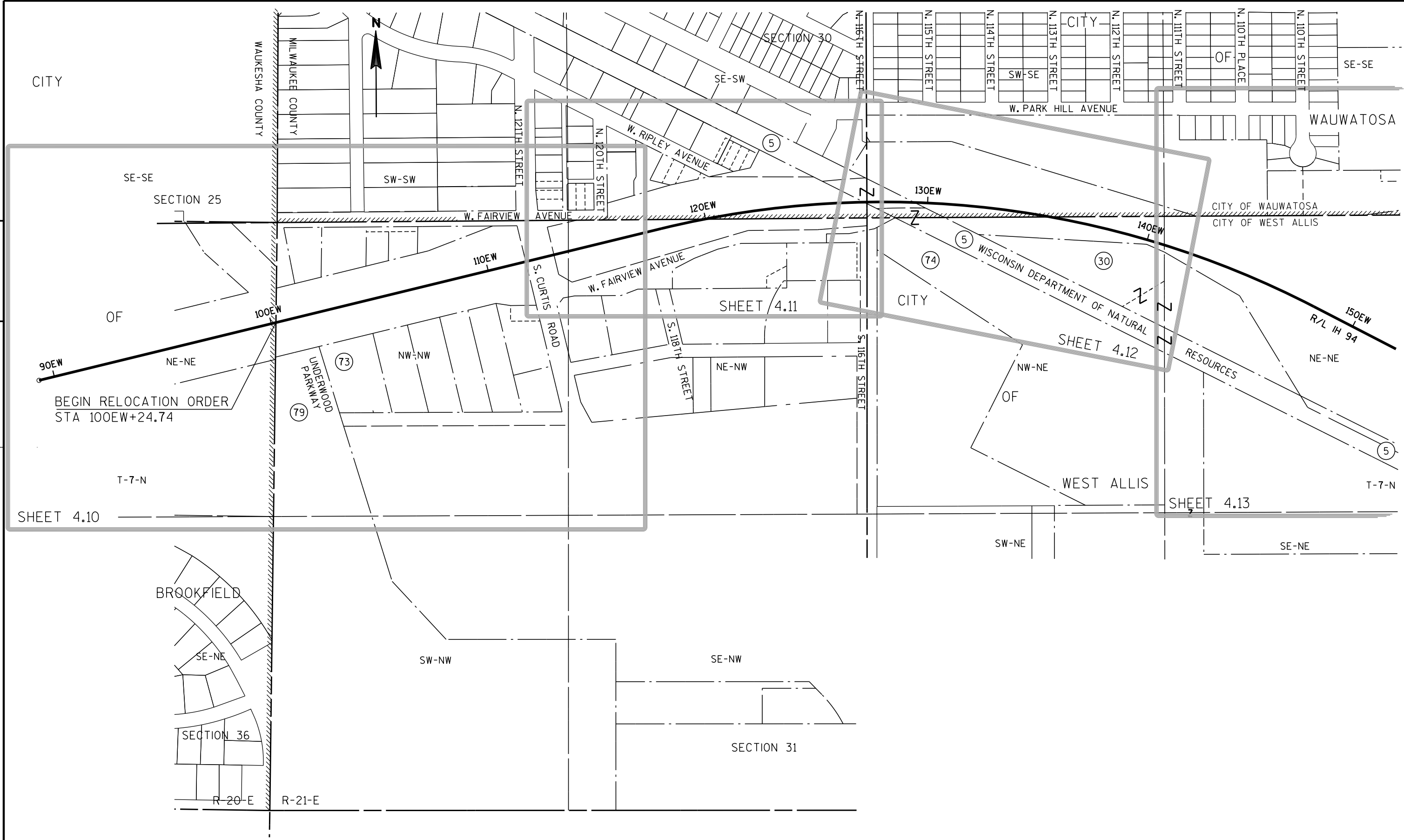
SCHEDULE OF LANDS & INTERESTS REQUIRED

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. NUMBER	PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES)			TOTAL REMAINING ACRES	TLE ACRES	PLE ACRES	HE ACRES	PARCEL NUMBER
1060-33-24	542(7)	4.14	MILWAUKEE COUNTY - SANITARY	ROR									542(7)
1060-33-24	543(7)	4.14	MILWAUKEE COUNTY ELECTRIC & COMMUNICATIONS	ROR									543(7)
1060-33-24	553(3)	4.14	CITY OF WEST ALLIS - STORM	ROR									553(3)
1060-33-24	UA631(7)	4.11	CITY OF WAUWATOSA	UTILITY AGREEMENT									UA631(7)
1060-33-24	UA641(8)	4.16-4.23	CITY OF MILWAUKEE - SEWER	UTILITY AGREEMENT									UA641(8)
1060-33-24	UA642(8)	4.16-4.23	CITY OF MILWAUKEE - WATER	UTILITY AGREEMENT									UA642(8)
1060-33-24	UA643(8)	4.18-4.23	CITY OF MILWAUKEE - CABLE	UTILITY AGREEMENT									UA643(8)
1060-33-24	UA644(8)	4.18-4.23	CITY OF MILWAUKEE - CONDUIT	UTILITY AGREEMENT									UA644(8)
1060-33-24	UA652(7)	4.11	CITY OF WEST ALLIS - SANITARY	UTILITY AGREEMENT									UA652(7)

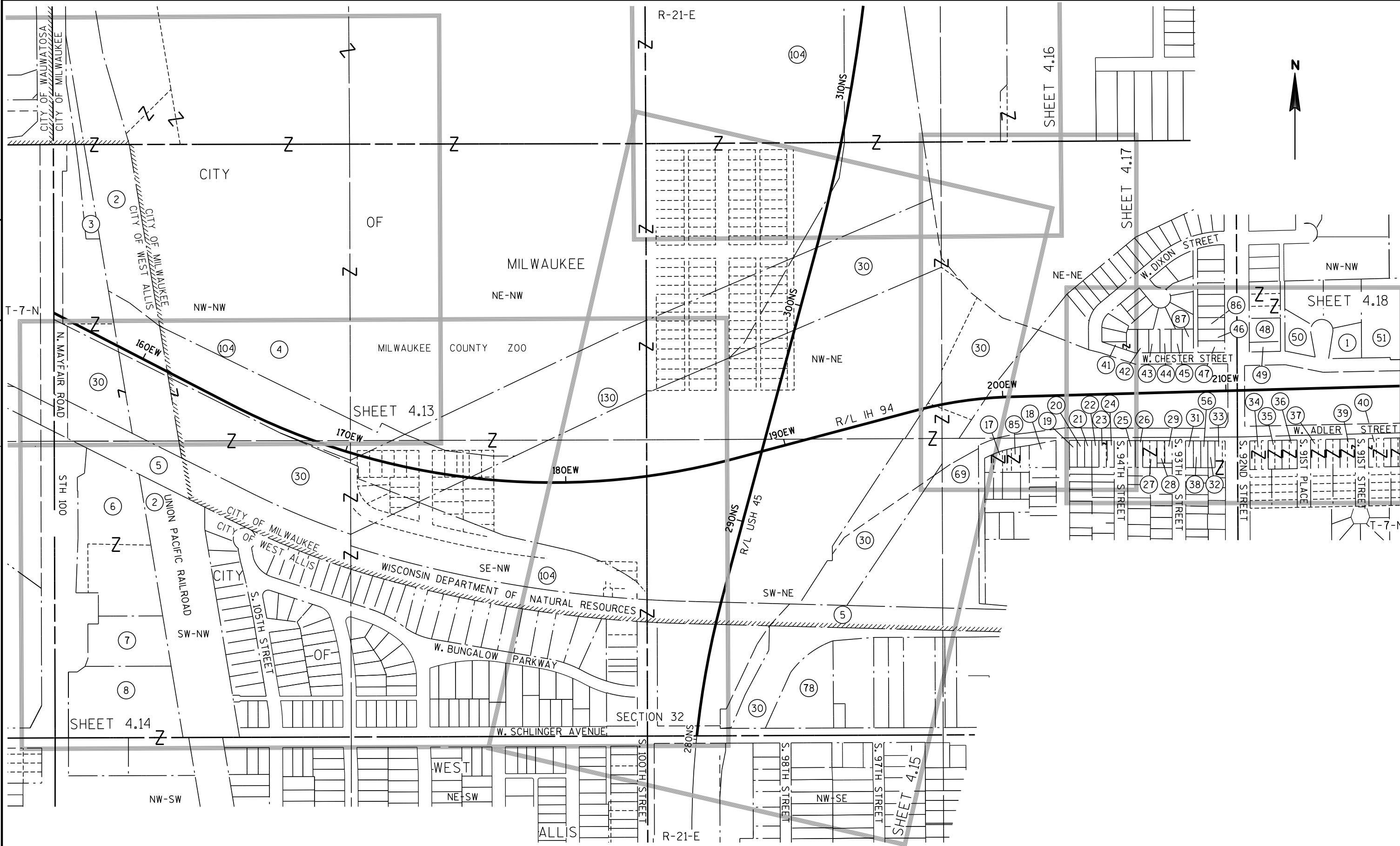
REVISION DATE JAN. 17, 2014	DATE AUG. 29, 2013		HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.05	E
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	



REVISION DATE JULY 11, 2012 SEP. 28, 2012 DEC. 17, 2012	APR. 17, 2013 AUG. 29, 2013 JAN. 17, 2014	DATE MAY 23, 2012		SCALE, FEET 0 200 400	HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.06	E
					COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	

4

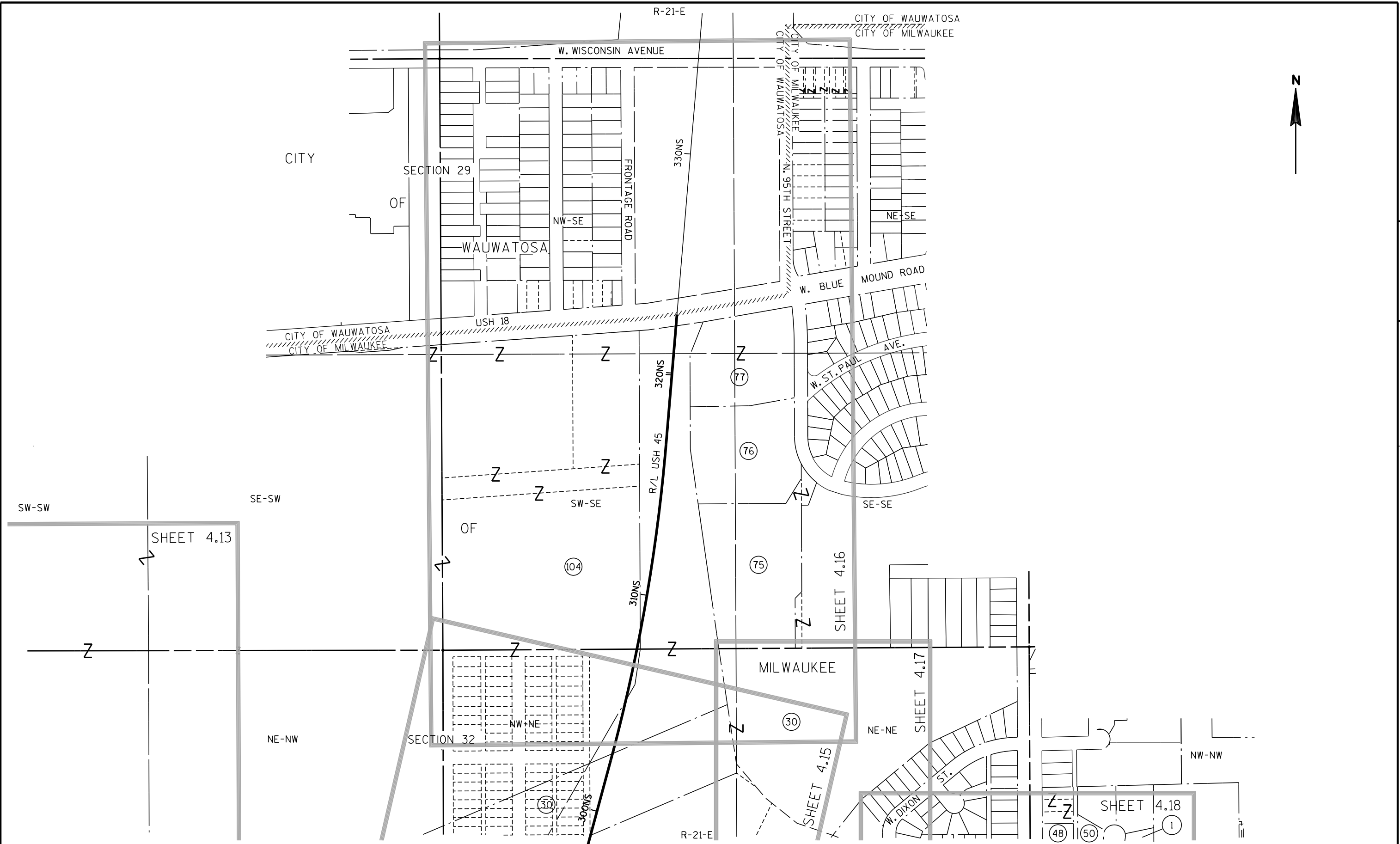
4



REVISION DATE MAY 23, 2012 JULY 11, 2012 SEP. 28, 2012	DATE FEB. 29, 2012	SCALE, FEET 0 200 400	HWY: IH 94 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-24 CONSTRUCTION PROJECT NUMBER 1060-33-81	PLAT SHEET 4.07	
					PS&E SHEET	E

4

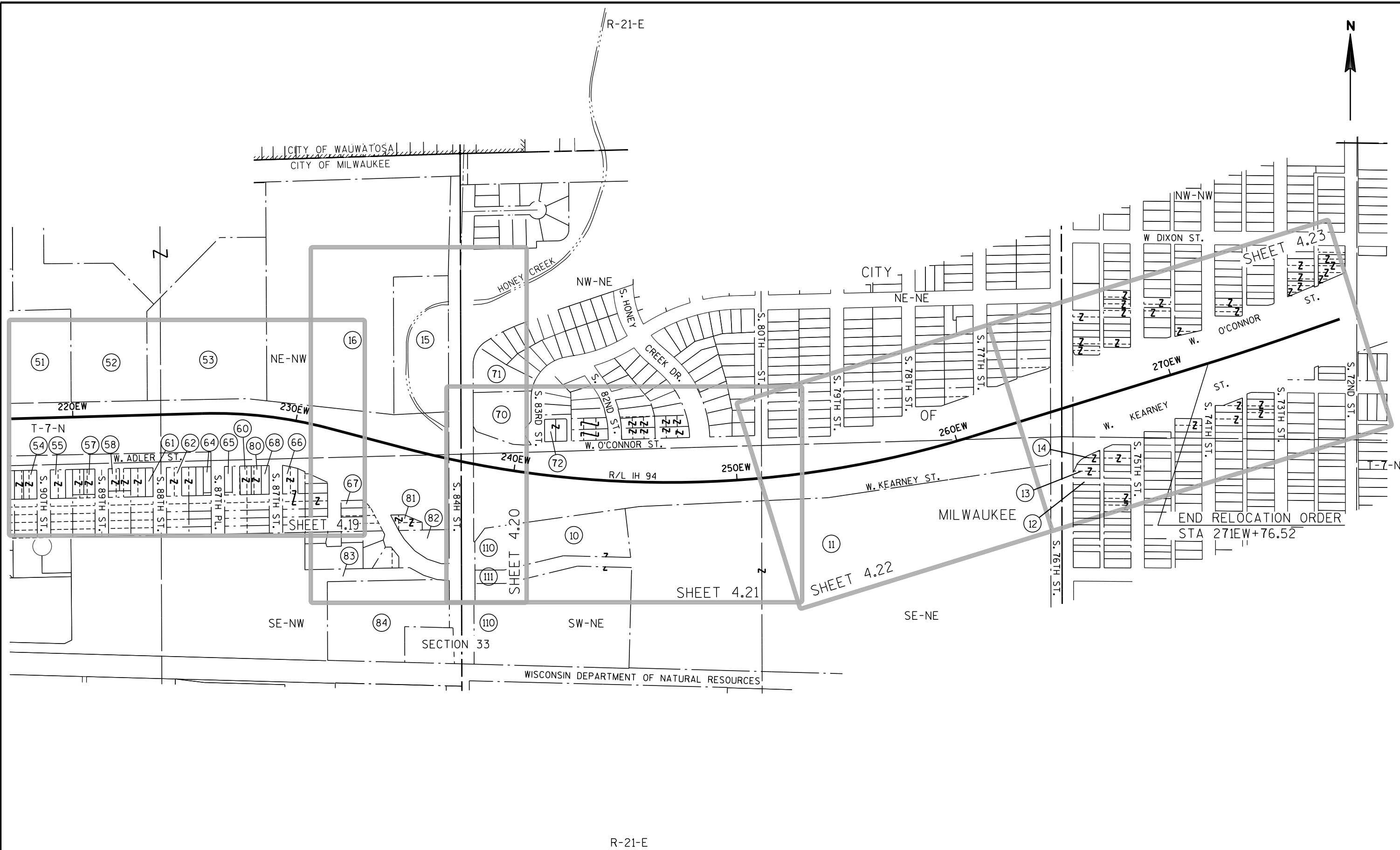
4



REVISION DATE MAY 23, 2012 JULY 11, 2012 SEP. 28, 2012	DEC. 17, 2012 APR. 17, 2013 AUG. 29, 2013 JAN. 17, 2014	DATE FEB. 29, 2012	SCALE, FEET 	HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.08	E
				COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET 4.12	

4

4



REVISION DATE MAY 23, 2012 JULY 11, 2012 SEP. 28, 2012	DATE FEB. 29, 2012	SCALE, FEET 0 200 400	HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.09	E
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	I94-4(25)301	1956	VARIES
UNDERWOOD PARKWAY	--	--	NONE
S. CURTIS ROAD	CSM 2099	--	45'
S. CURTIS ROAD	CSM 3085	1977	45'

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.

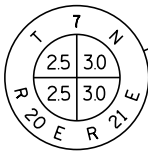
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

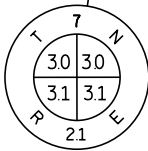
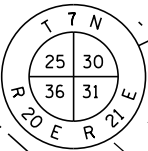
FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE OF WAUKESHA.

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

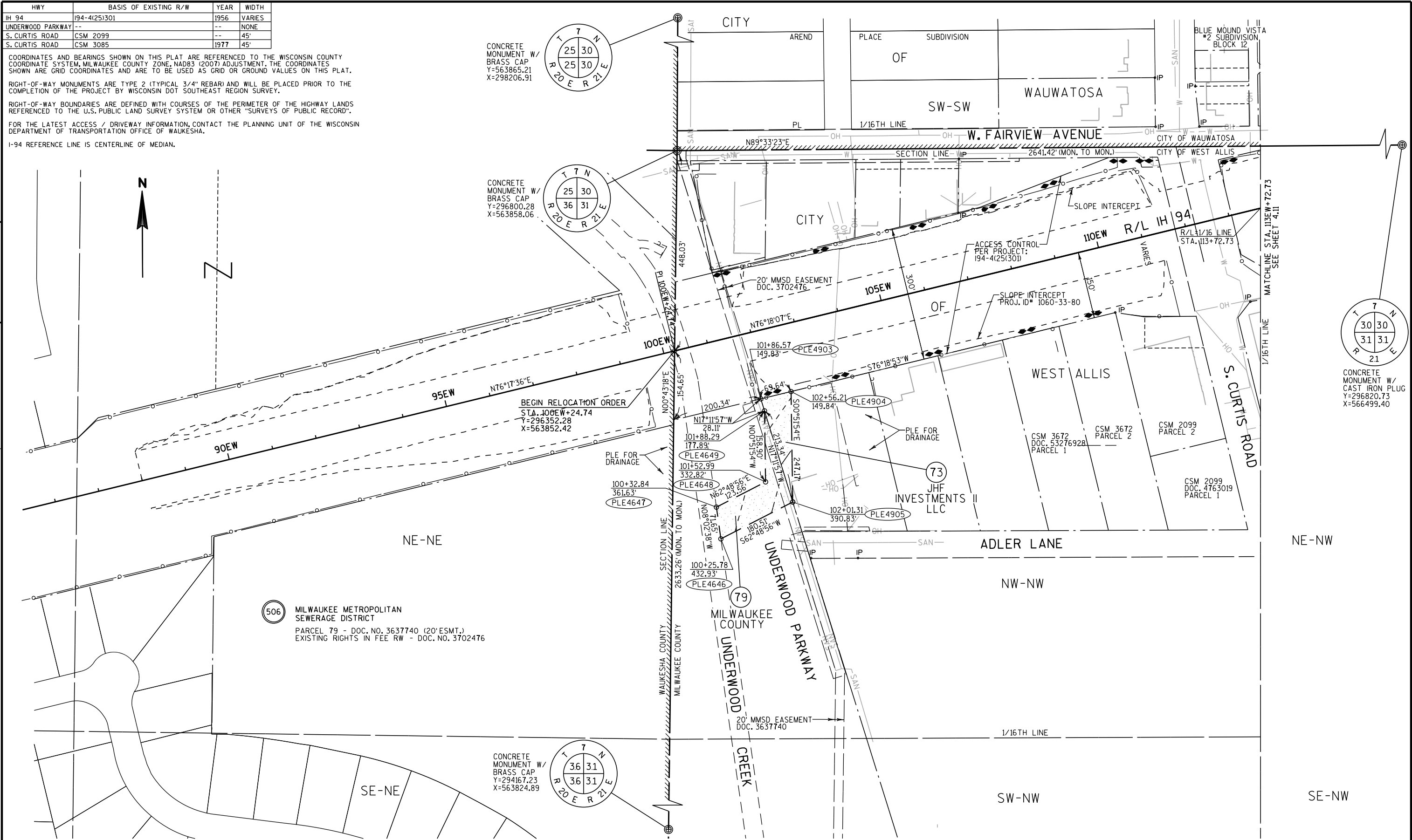
CONCRETE
MONUMENT W/
BRASS CAP
Y=563865.21
X=298206.91



CONCRETE
MONUMENT W/
BRASS CAP
Y=296800.28
X=563858.06



CONCRETE
MONUMENT W/
CAST IRON PLUG
Y=296820.73
X=566499.40



REVISION DATE AUG. 29, 2013 JAN. 17, 2014	DATE APR. 17, 2013	SCALE, FEET 0 100 200	HWY: IH 94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.10	E
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81	PS&E SHEET	

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	I94-4(25)301	1956	VARIES
IRPLEY STREET	BLUE MOUND VISTA	UNRECORDED	70'
116TH STREET	CSM 6954	2001	45' EAST
116TH STREET	PLAT OF SURVEY	1992	30' WEST
118TH STREET	CSM 3085	1977	60'
120TH STREET	CSM 4049	1980	60'
FAIRVIEW	BLUE MOUND VISTA 2	UNRECORDED	45' NORTH
FAIRVIEW	I94-4-(25) 301	1956	VARIES

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.

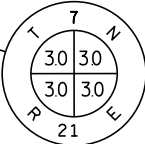
RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

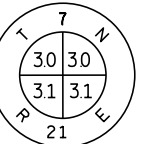
I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

RL IH-94
PI STA. 133+71.51
Y : 297144.82
X : 567103.99
DELTA = 41°01'00"
D = 1°19'57"
T = 1608.42'
L = 3078.28'
R = 4300.00'

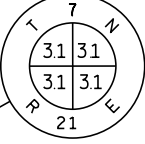
C1
L = 193.46
R = 3889.72
LC = 193.44
LCB = S85°28'41"W



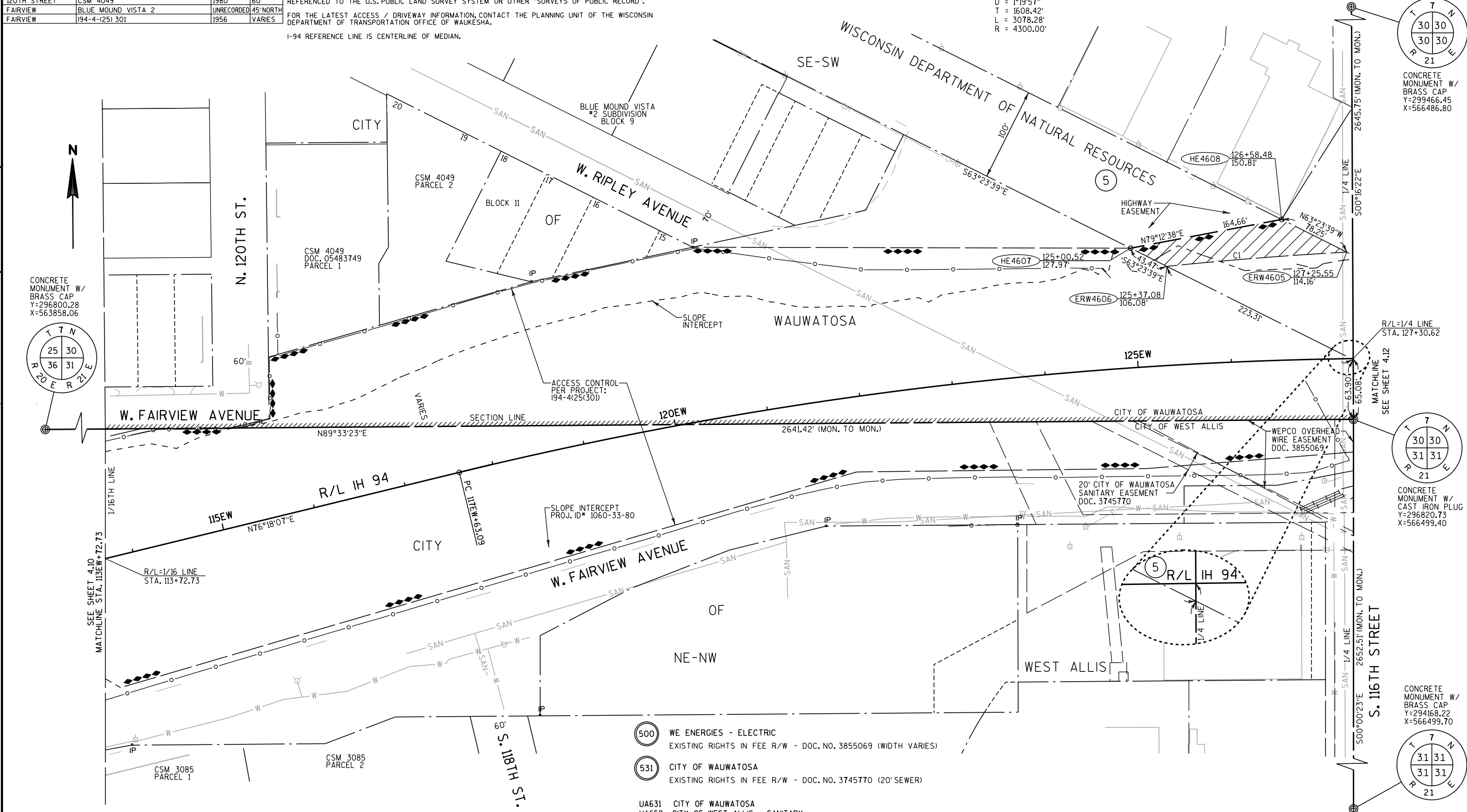
CONCRETE
MONUMENT W/
BRASS CAP
Y=299466.45
X=566486.80



CONCRETE
MONUMENT W/
CAST IRON PLUG
Y=296820.73
X=566499.40



CONCRETE
MONUMENT W/
BRASS CAP
Y=294168.22
X=566499.70



- 500 WE ENERGIES - ELECTRIC
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3855069 (WIDTH VARIES)
- 531 CITY OF WAUWATOSA
EXISTING RIGHTS IN FEE R/W - DOC. NO. 3745770 (20' SEWER)
- UA631 CITY OF WAUWATOSA
- UA652 CITY OF WEST ALLIS - SANITARY

REVISION DATE AUG. 29, 2013 JAN. 17, 2014	DATE APR. 17, 2013	SCALE, FEET 0 50 100	HWY: IH 94 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-24 CONSTRUCTION PROJECT NUMBER 1060-33-81	PLAT SHEET 4.11 PS&E SHEET	E
---	--------------------	-------------------------	---------------------------------	---	-------------------------------	---

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(25)301	1960	VARIES
116TH STREET	194-4(25)301	1960	45'(EAST)

- 505 AMERICAN TRANSMISSION COMPANY
PARCEL 30 - DOC. NO. 8013173
- 500 WE ENERGIES - ELECTRIC
PARCEL 74 - NO RECORDED EASEMENT

RL IH-94
PI STA. 133+71.51
Y : 297144.82
X : 567103.99
DELTA = 41°01'00"
D = 1°19'57"
T = 1608.42'
L = 3078.28'
R = 4300.00'

C1
L = 217.57
R = 3749.72
LC = 217.53
LCB = N89°14'18"E

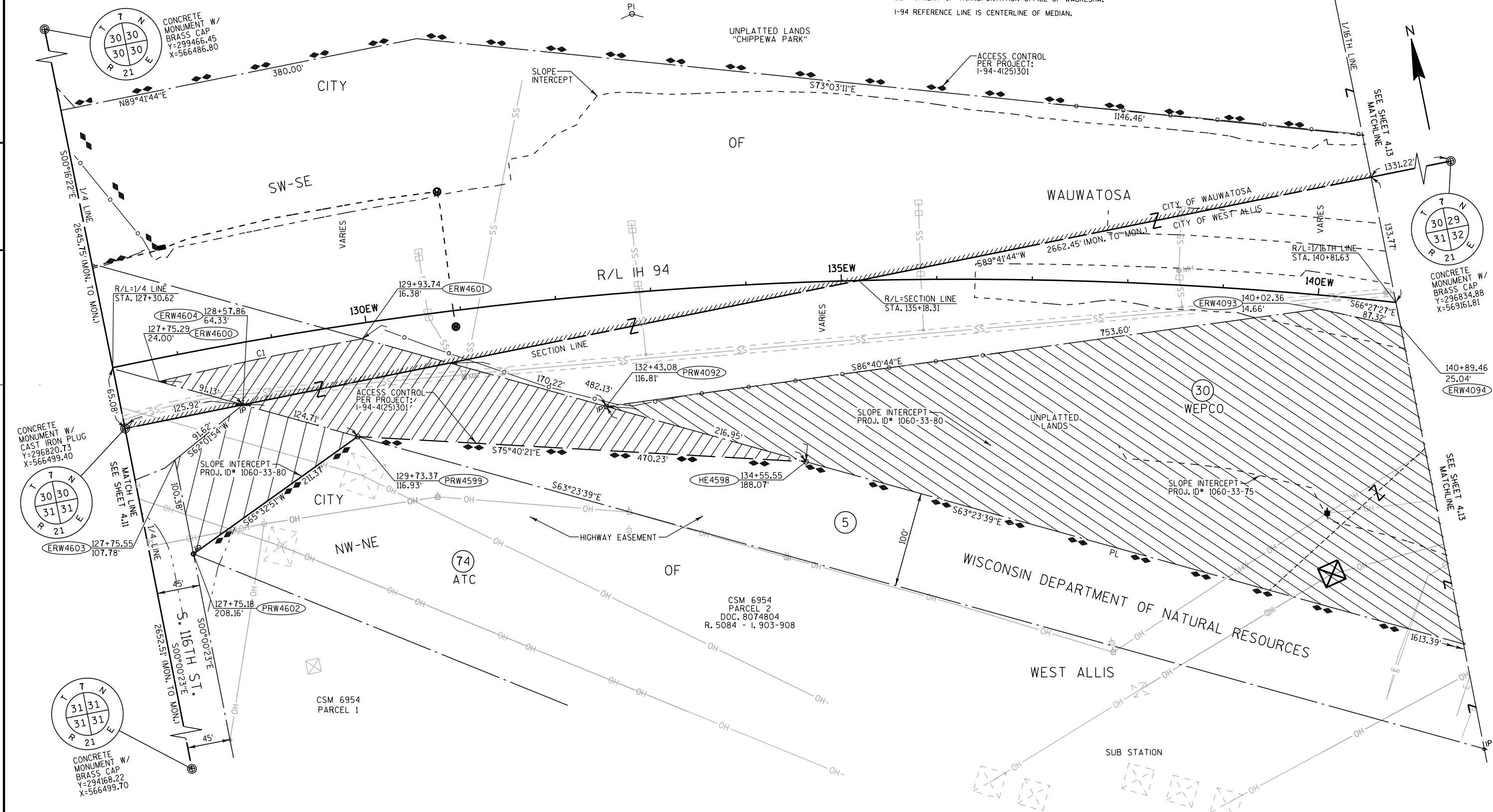
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

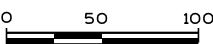
I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.



REVISION DATE APR. 17, 2013
JULY 11, 2012 AUG. 29, 2013
SEP. 28, 2012 JAN. 17, 2014
DEC. 17, 2012

DATE MAY 23, 2012

SCALE, FEET



HWY: IH 94

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-24

CONSTRUCTION PROJECT NUMBER 1060-33-81

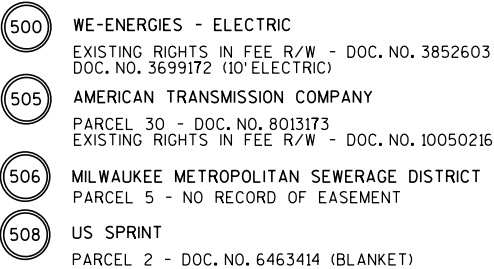
PLAT SHEET 4.12

PS&E SHEET

E

RAILROAD REFERENCE LINE IS CENTERLINE OF WEST RAILS.

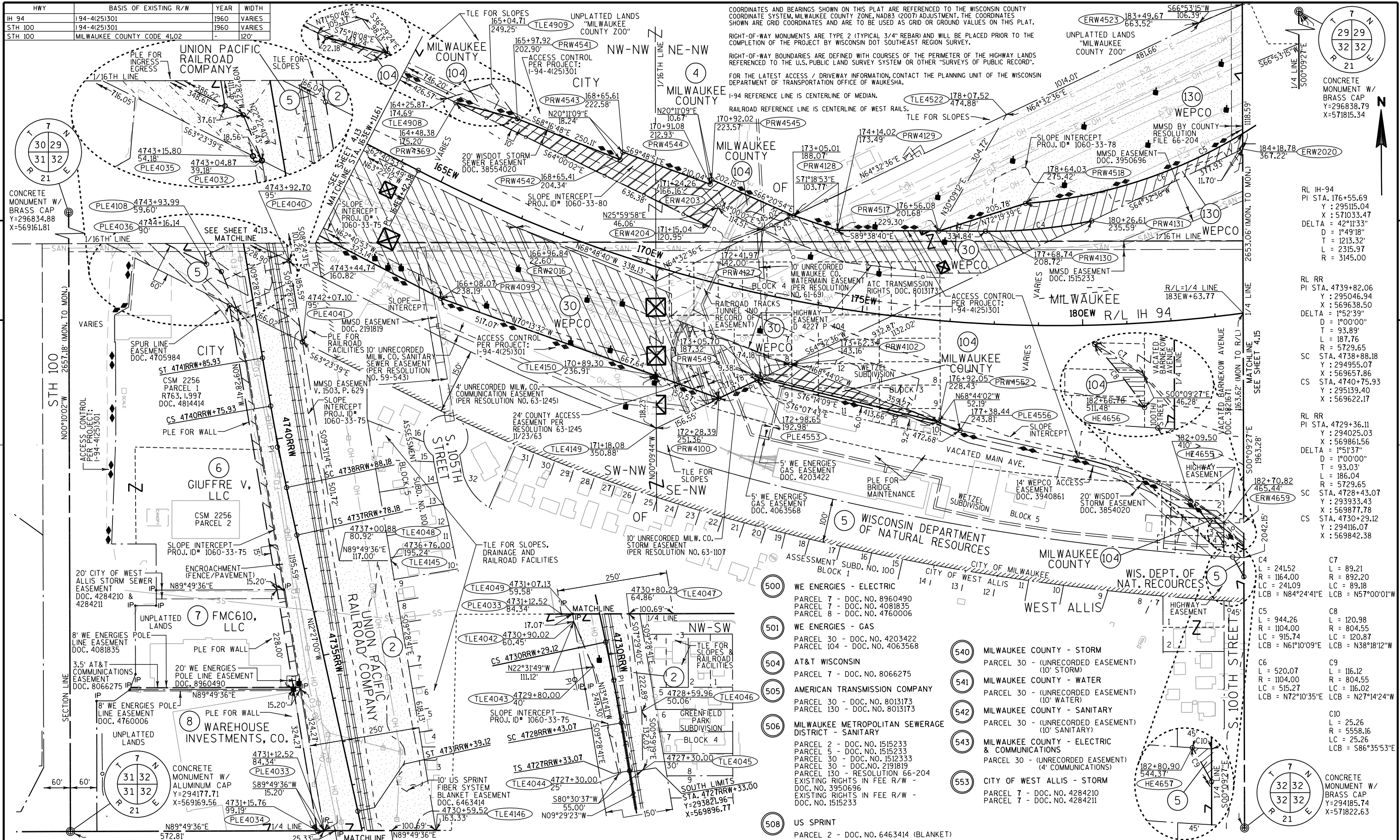
SIGN	OWNER	DOCUMENT NO.
2-1	LAMAR	NO RECORD
2-2	CLEAR CHANNEL	NO RECORD
2-3	CLEAR CHANNEL	NO RECORD



RL IH-94	RL RR
PI STA. 1337+71.51	PI STA. 4754+09.89
Y : 297144.82	Y : 296455.31
X : 567103.99	X : 569400.32
DELTA = 41°01'00"	DELTA = 1°52'39"
D = 1°19'57"	D = 1°00'00"
T = 1608.42"	T = 93.89'
L = 3078.28'	L = 187.76
R = 4300.00'	R = 5729.65
	SC STA. 4753+16.00
	Y : 296362.56
	X : 569418.08
	CS STA. 4755+03.75
	Y : 296548.48
	X : 569392.01

REVISION DATE APR. 17, 2013 JULY 11, 2012 SEP. 28, 2012 DEC. 17, 2012	APR. 17, 2013 AUG. 29, 2013 JAN. 17, 2014	DATE MAY 23, 2012	SCALE, FEET 	HWY: IH-94	STATE R/W PROJECT NUMBER 1060-33-24	PLAT SHEET 4.13	
				COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-75	PS&E SHEET	E

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(25)301	1960	VARIES
STH 100	194-4(25)301	1960	VARIES
STH 100	MILWAUKEE COUNTY CODE 41.02	-	120'



REVISION DATE JULY 11, 2012 SEP. 28, 2012 DEC. 17, 2012	APR. 17, 2013 AUG. 29, 2013 JAN. 17, 2014	DATE MAY 23, 2012	SCALE, FEET 0 100 200	HWY: IH 94 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-24 CONSTRUCTION PROJECT NUMBER 1060-33-81 1060-33-75	PLAT SHEET 4.14 PS&E SHEET E
--	---	----------------------	--------------------------	---------------------------------	---	---------------------------------

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(41)301	1960	VARIES
IH 94	194-4(25)301	1956	VARIES
W. SCHLINGER AVE.	RESOLUTION #17977 (DOC. 4837728)	1974	66'

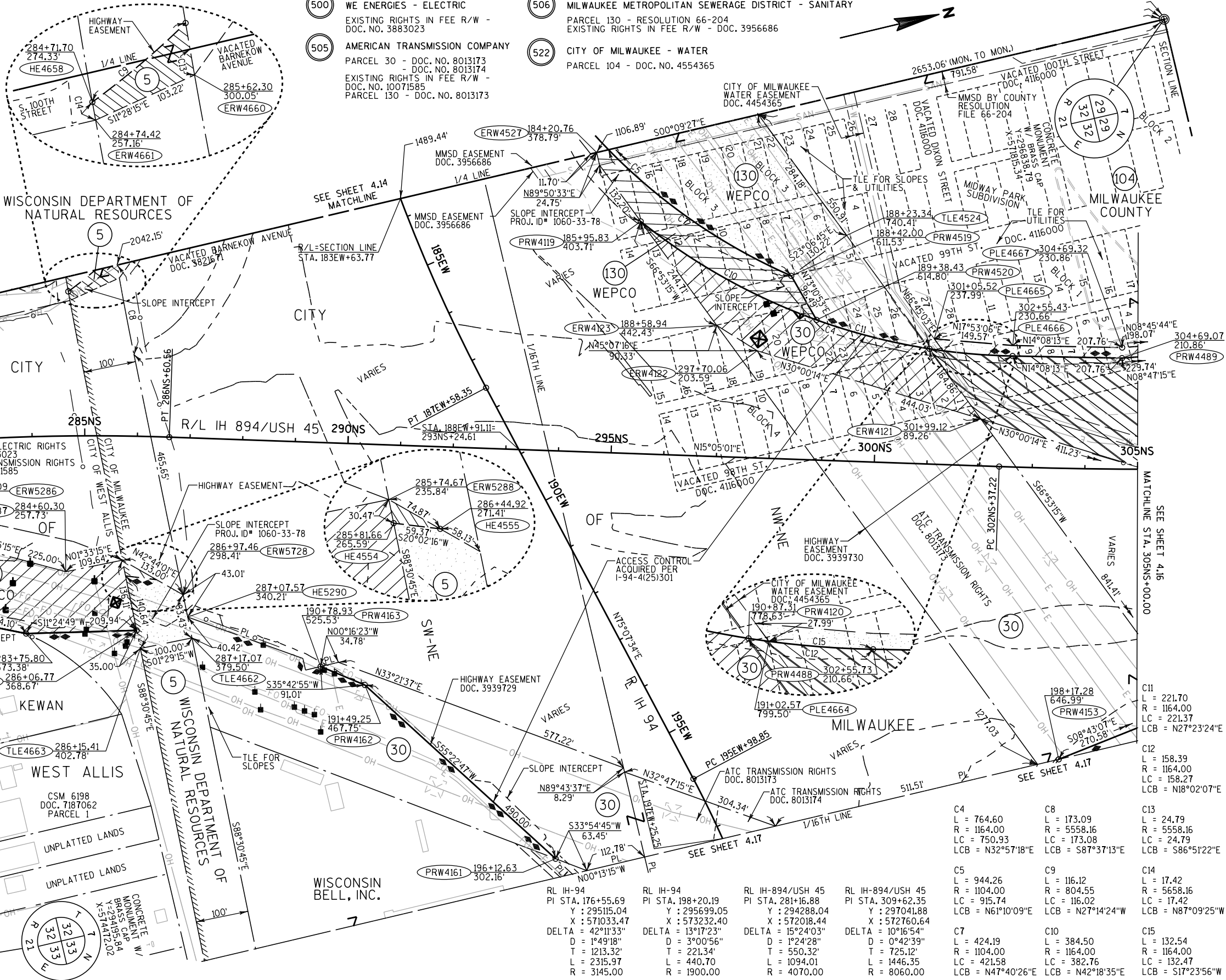
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

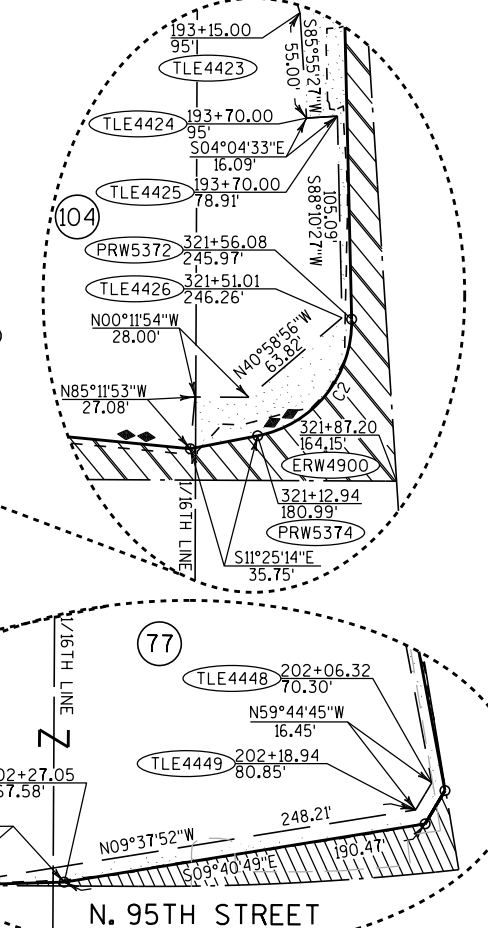


REVISION DATE SEP. 28, 2012 DEC. 17, 2012 APR. 17, 2013	AUG. 29, 2013 JAN. 17, 2014	DATE JULY 11, 2012	SCALE, FEET 0 100 200	HWY: IH 94 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-24 CONSTRUCTION PROJECT NUMBER 1060-33-78, 1060-33-81 1060-33-88	PLAT SHEET 4.15 PS&E SHEET E
--	--------------------------------	-----------------------	--------------------------	---------------------------------	---	---------------------------------

500 WE ENERGIES - ELECTRIC

PARCEL 75	- DOC. NO.	5075226	(10' ELECTRIC)
PARCEL 75	- DOC. NO.	3532880	(10' ELECTRIC)
PARCEL 75	- DOC. NO.	3955167	(10' ELECTRIC)
PARCEL 76	- DOC. NO.	5029286	(10' ELECTRIC)
PARCEL 76	- DOC. NO.	3532880	(10' ELECTRIC)
PARCEL 76	- DOC. NO.	3955167	(10' ELECTRIC)
PARCEL 76	- DOC. NO.	4538131	(10' ELECTRIC)
PARCEL 76	- DOC. NO.	4009985	(WIDTH UNDEFINED)
PARCEL 77	- DOC. NO.	5029287	(10' ELECTRIC)
PARCEL 77	- DOC. NO.	3532880	(10' ELECTRIC)
PARCEL 77	- DOC. NO.	3955167	(10' ELECTRIC)
PARCEL 77	- DOC. NO.	4009985	(WIDTH UNDEFINED)
PARCEL 104	- DOC. NO.	3352525	(7' ELECTRIC)
PARCEL 104	- DOC. NO.	8720257	(10' ELECTRIC)

504 AT&T WISCONSIN
 PARCEL 75 - DOC. NO. 3532880 (10' COMM.)
 PARCEL 75 - DOC. NO. 3955167 (10' COMM.)
 PARCEL 76 - DOC. NO. 3532880 (10' COMM.)
 PARCEL 76 - DOC. NO. 3955167 (10' COMM.)
 PARCEL 76 - DOC. NO. 4538131 (10' COMM.)
 PARCEL 76 - DOC. NO. 4009985 (WIDTH UNDEFINED)
 PARCEL 77 - DOC. NO. 3532880 (10' COMM.)
 PARCEL 77 - DOC. NO. 3955167 (10' COMM.)
 PARCEL 77 - DOC. NO. 4009985 (WIDTH UNDEFINED)



I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

E	
---	--

51
R/W 106-55-24 4.16

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.

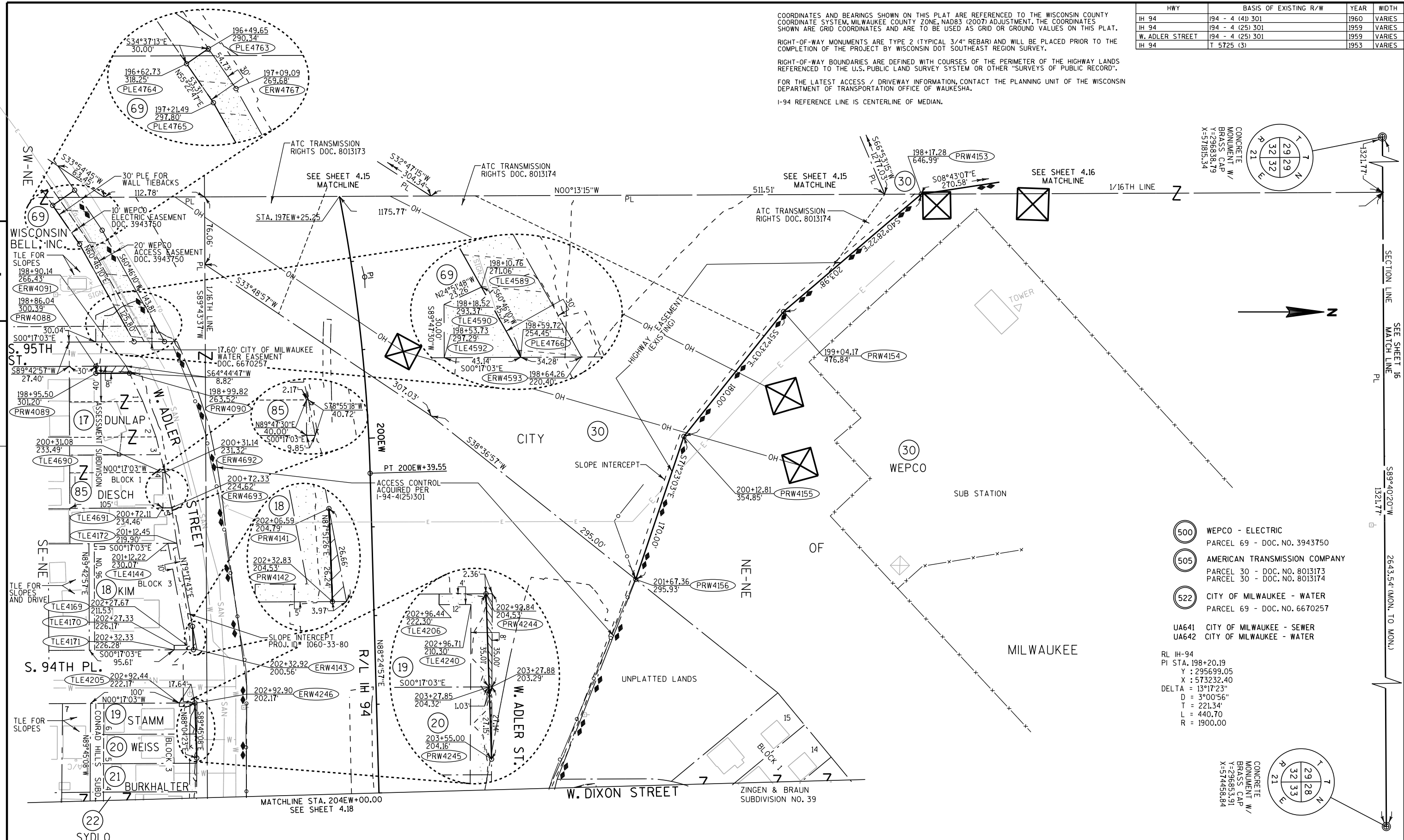
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WISCONSIN DOT SOUTHEAST REGION SURVEY.

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

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

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194 - 4 (41) 301	1960	VARIES
IH 94	194 - 4 (25) 301	1959	VARIES
W. ADLER STREET	194 - 4 (25) 301	1959	VARIES
IH 94	T 5725 (3)	1953	VARIES

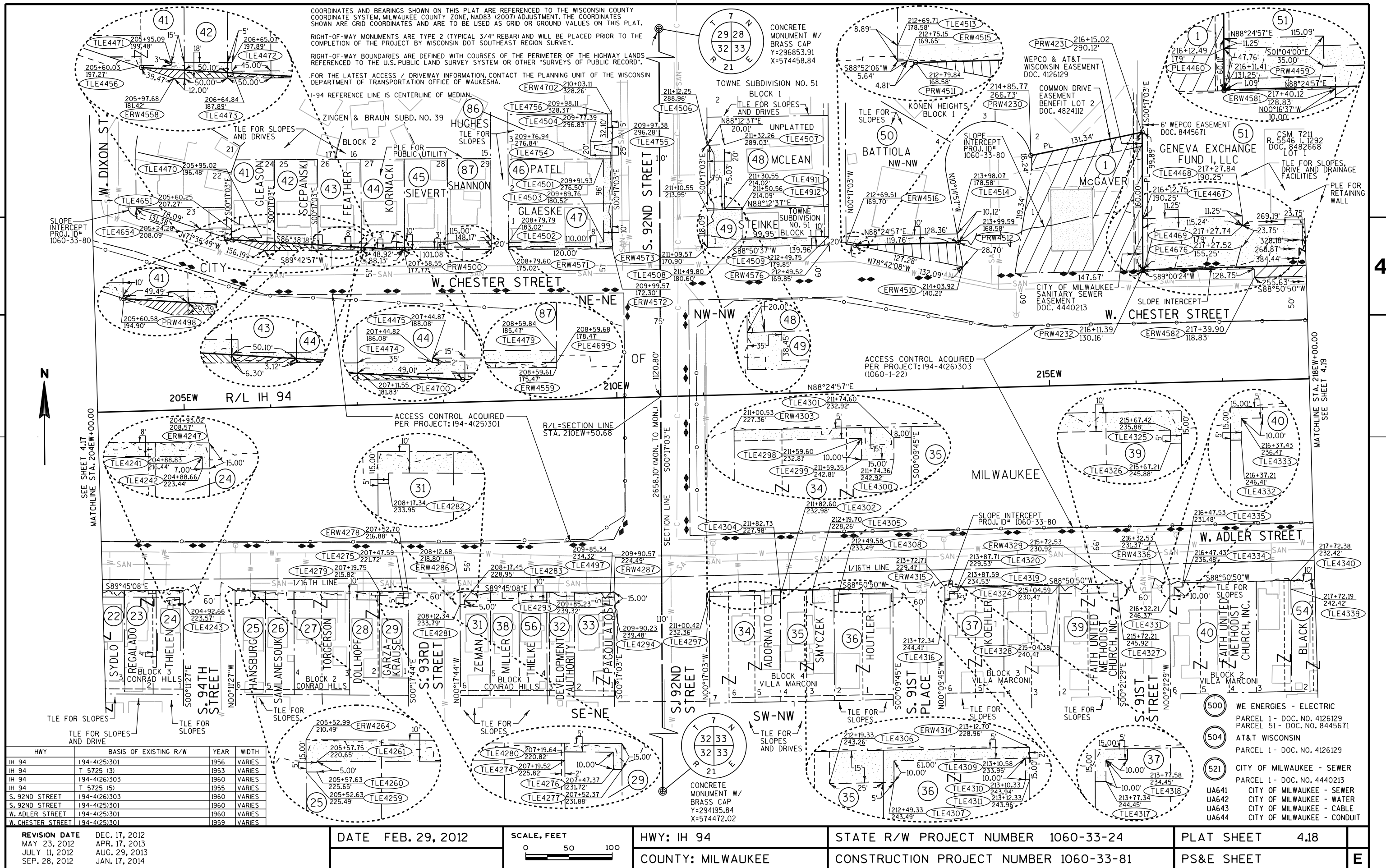


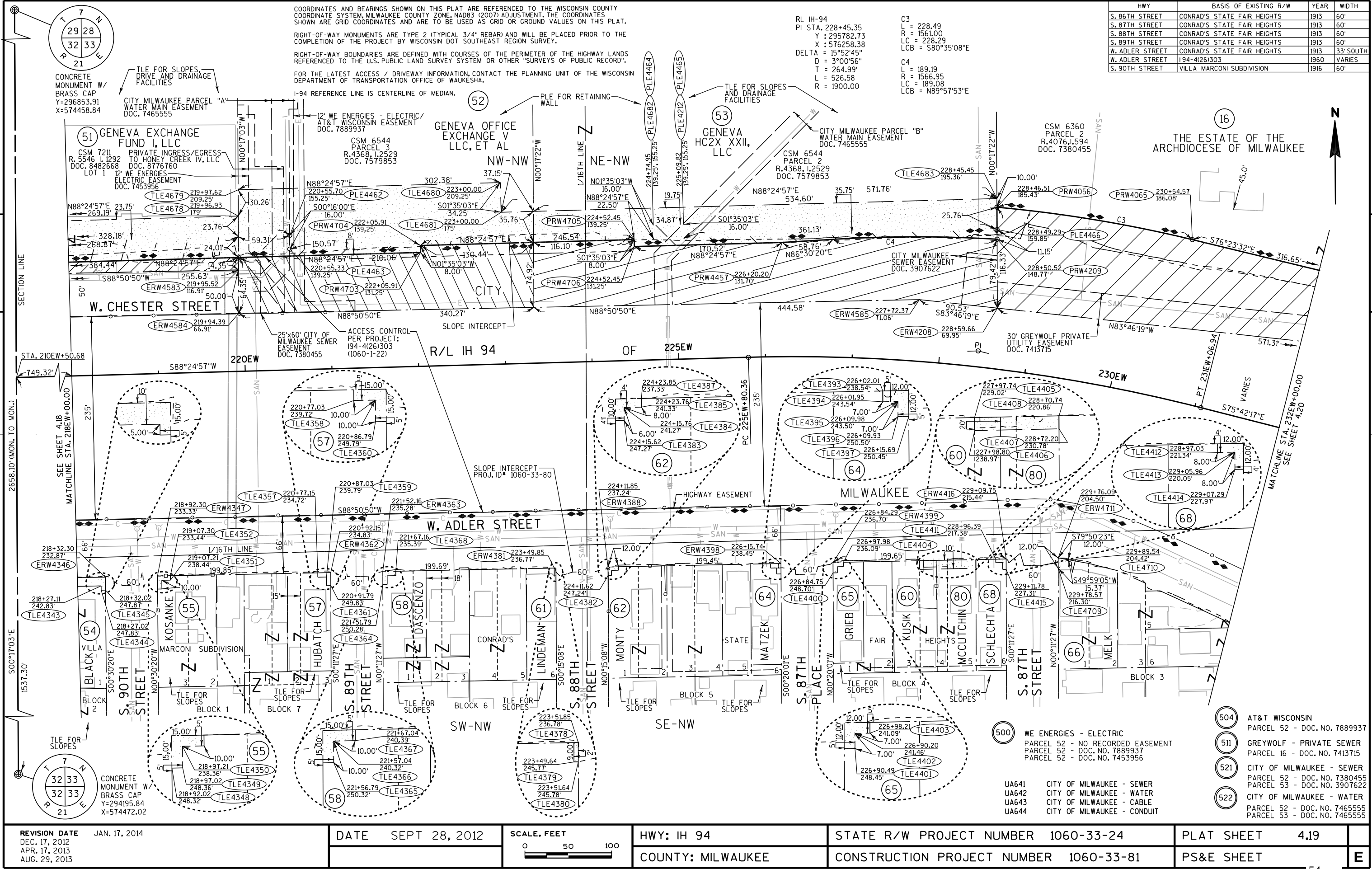
- 500 WEPCO - ELECTRIC
PARCEL 69 - DOC. NO. 3943750
- 505 AMERICAN TRANSMISSION COMPANY
PARCEL 30 - DOC. NO. 8013173
PARCEL 30 - DOC. NO. 8013174
- 522 CITY OF MILWAUKEE - WATER
PARCEL 69 - DOC. NO. 6670257
- UA641 CITY OF MILWAUKEE - SEWER
UA642 CITY OF MILWAUKEE - WATER

RL IH-94
PI STA. 198+20.19
Y : 295699.05
X : 573232.40
DELTA = 13°17'23"
D = 3°00'56"
T = 221.34'
L = 440.70
R = 1900.00

CONCRETE
MONUMENT W/
BRASS CAP
Y=296853.91
X=574458.84

REVISION DATE SEP. 28, 2012 DEC. 17, 2012 APR. 17, 2013	AUG. 29, 2013 JAN. 17, 2014	DATE JULY 11, 2012	SCALE, FEET 0 50 100	HWY: IH 94 COUNTY: MILWAUKEE	STATE R/W PROJECT NUMBER 1060-33-24 CONSTRUCTION PROJECT NUMBER 1060-33-81	PLAT SHEET 4.17 PS&E SHEET	E
--	--------------------------------	-----------------------	-------------------------	---------------------------------	---	-------------------------------	---





HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
S. 86TH STREET	CONRAD'S STATE FAIR HEIGHTS	1913	60'
S. 87TH STREET	CONRAD'S STATE FAIR HEIGHTS	1913	60'
S. 88TH STREET	CONRAD'S STATE FAIR HEIGHTS	1913	60'
S. 89TH STREET	CONRAD'S STATE FAIR HEIGHTS	1913	60'
W. ADLER STREET	CONRAD'S STATE FAIR HEIGHTS	1913	33' SOUTH
W. ADLER STREET	194-4(26)303	1960	VARIES
S. 90TH STREET	VILLA MARCONI SUBDIVISION	1916	60'

- (504) AT&T WISCONSIN
PARCEL 52 - DOC. NO. 7889937
- (511) GREYWOLF - PRIVATE SEWER
PARCEL 16 - DOC. NO. 7413715
- (521) CITY OF MILWAUKEE - SEWER
PARCEL 52 - DOC. NO. 7380455
PARCEL 53 - DOC. NO. 3907622
- (522) CITY OF MILWAUKEE - WATER
PARCEL 52 - DOC. NO. 7465555
PARCEL 53 - DOC. NO. 7465555

REVISION DATE JAN. 17, 2014
DEC. 17, 2012
APR. 17, 2013
AUG. 29, 2013

DATE SEPT 28, 2012

SCALE, FEET
0 50 100

HWY: IH 94

COUNTY: MILWAUKEE

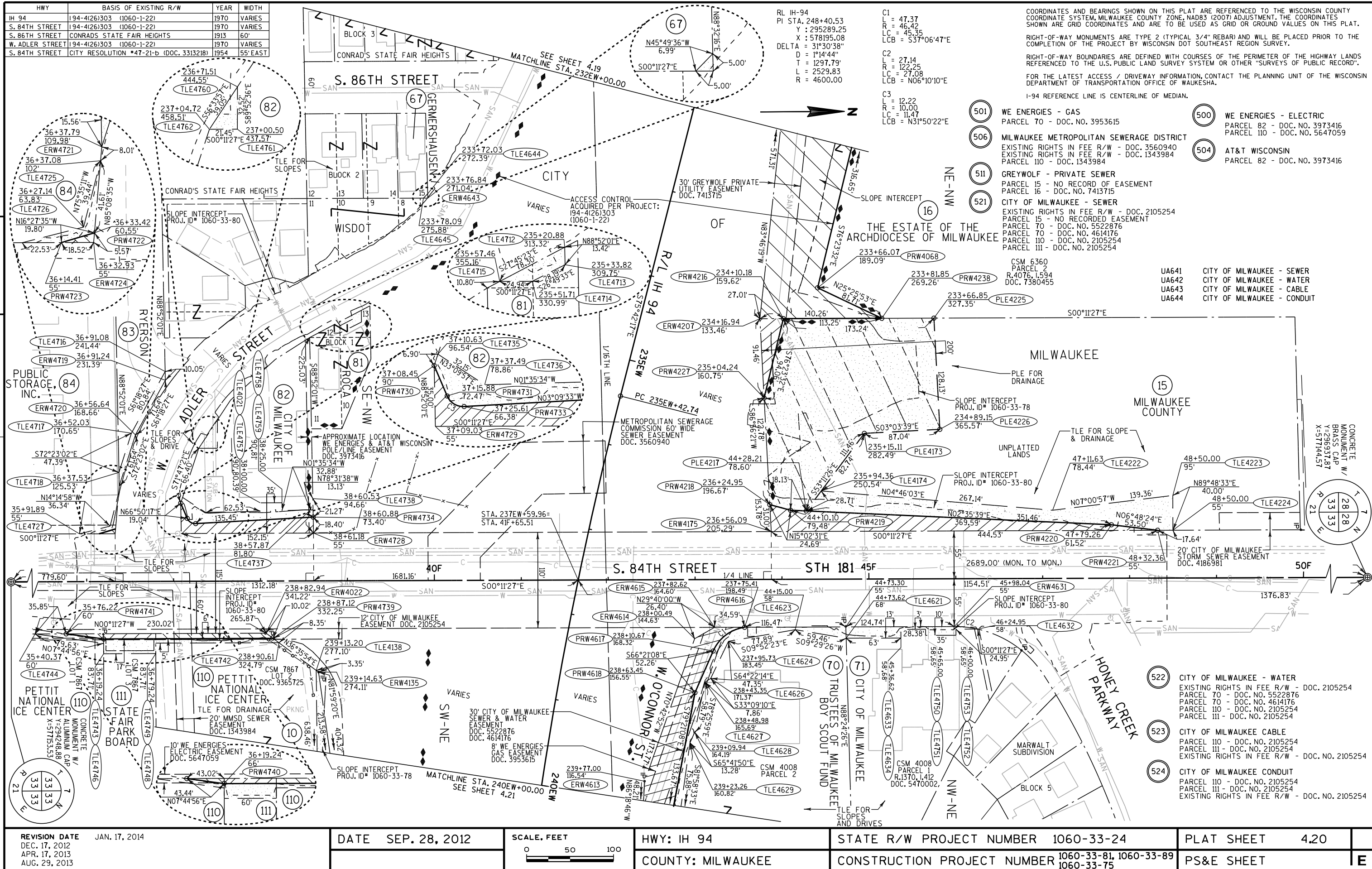
STATE R/W PROJECT NUMBER 1060-33-24

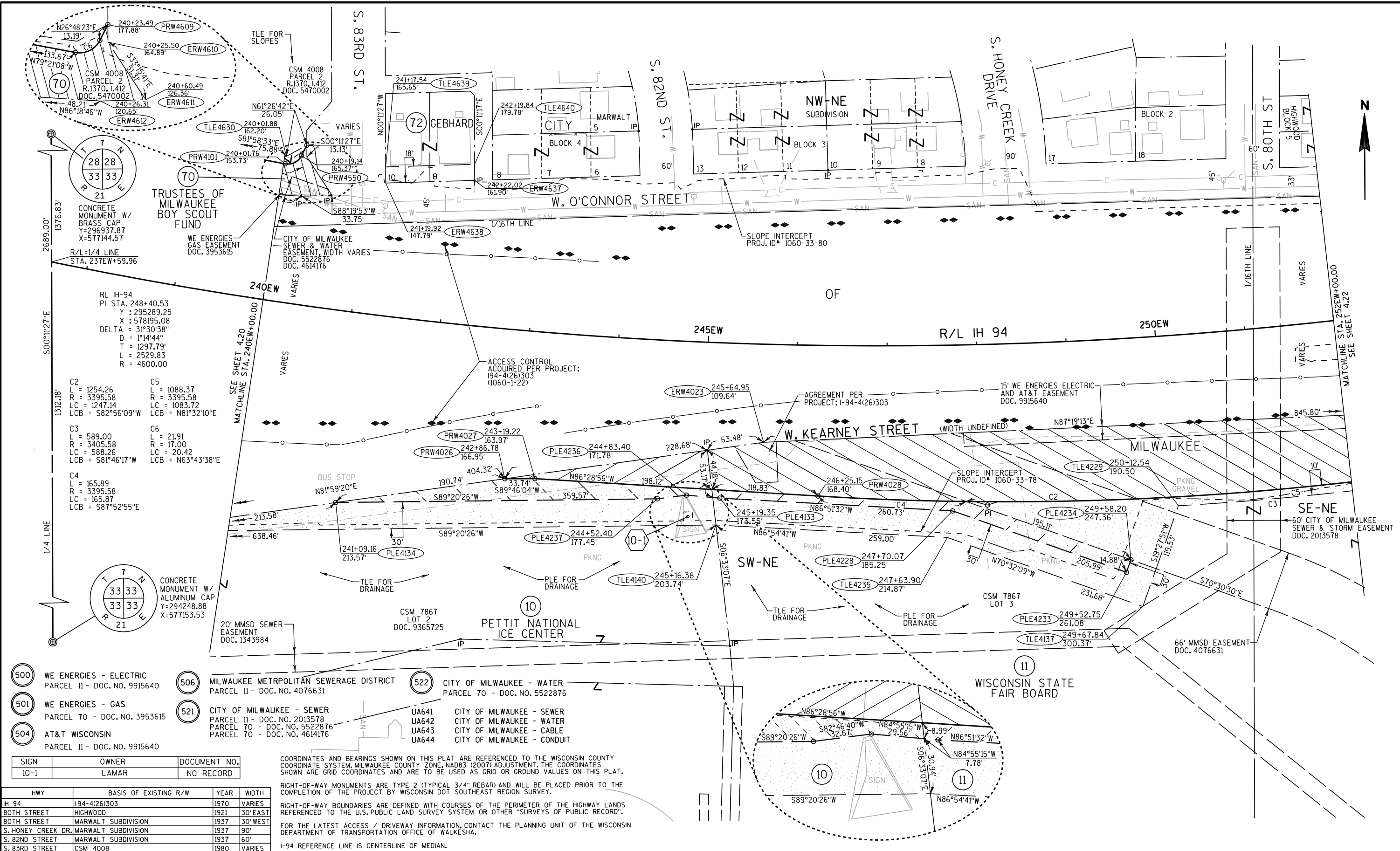
CONSTRUCTION PROJECT NUMBER 1060-33-81

PLAT SHEET 4.19

PS&E SHEET

E





- 500

WE ENERGIES - ELECTRIC
PARCEL 11 - DOC. NO. 9915640
- 501

WE ENERGIES - GAS
PARCEL 70 - DOC. NO. 3953615
- 504

AT&T WISCONSIN
PARCEL 11 - DOC. NO. 9915640
- 506

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
PARCEL 11 - DOC. NO. 4076631
- 521

CITY OF MILWAUKEE - SEWER
PARCEL 11 - DOC. NO. 2013578
PARCEL 70 - DOC. NO. 5522876
PARCEL 70 - DOC. NO. 4614176
- 522

CITY OF MILWAUKEE - WATER
PARCEL 70 - DOC. NO. 5522876
- UA641

CITY OF MILWAUKEE - SEWER
- UA642

CITY OF MILWAUKEE - WATER
- UA643

CITY OF MILWAUKEE - CABLE
- UA644

CITY OF MILWAUKEE - CONDUIT

SIGN	OWNER	DOCUMENT NO.
10-1	LAMAR	NO RECORD

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(26)303	1970	VARIES
80TH STREET	HIGHWOOD	1921	30' EAST
80TH STREET	MARWALT SUBDIVISION	1937	30' WEST
S. HONEY CREEK DR.	MARWALT SUBDIVISION	1937	90'
S. 82ND STREET	MARWALT SUBDIVISION	1937	60'
S. 83RD STREET	CSM 4008	1980	VARIES

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 REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(26)303 (1060-1-22)	1970	VARIES
77TH STREET	HIGHWOOD	1921	60'
78TH STREET	HIGHWOOD	1921	60'
79TH STREET	HIGHWOOD	1921	60'

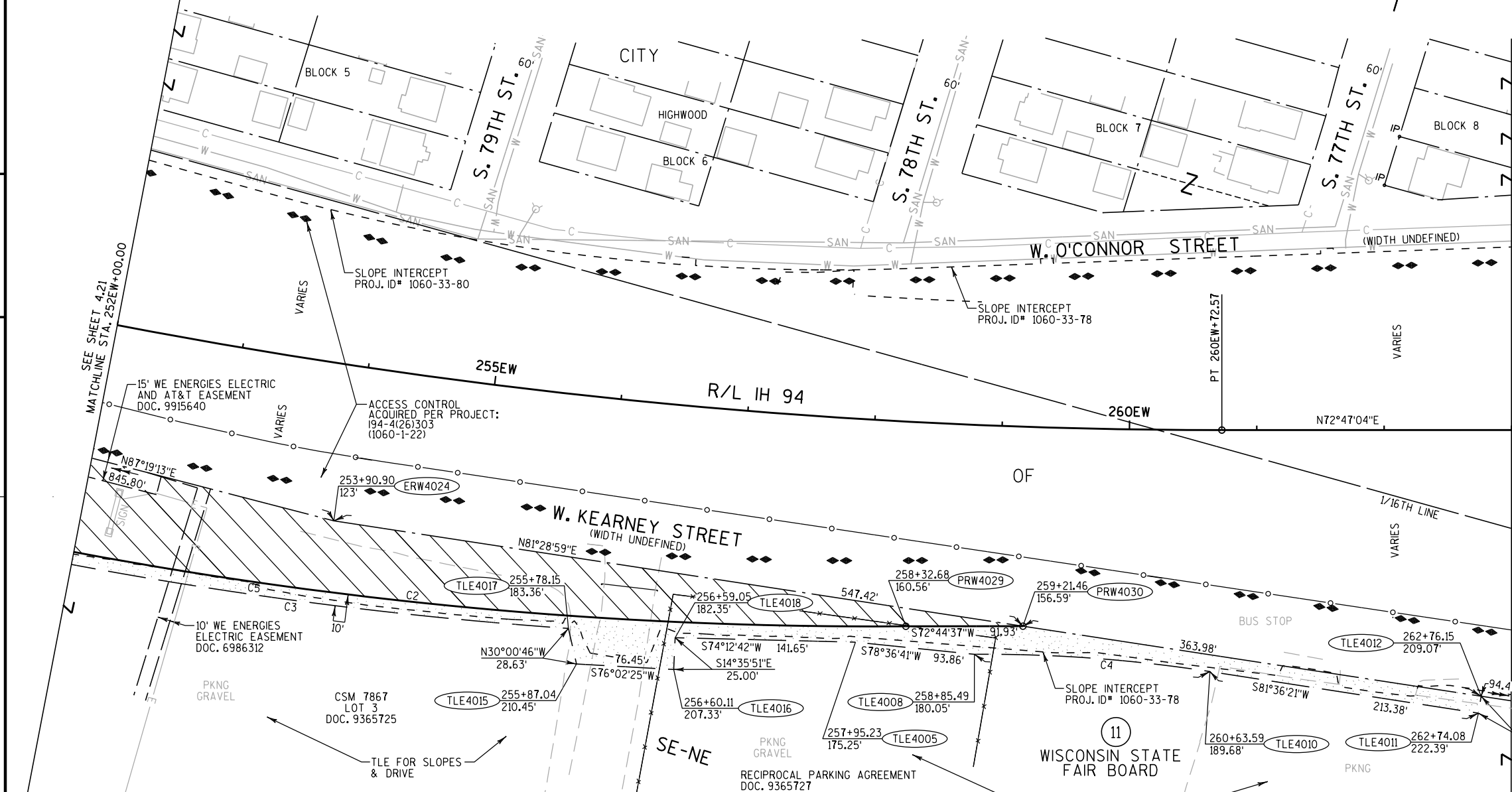
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.



- 500
WE ENERGIES - ELECTRIC
PARCEL 11 - DOC. NO. 6986312
PARCEL 11 - DOC. NO. 9915640
PARCEL 11 - NO RECORDED EASEMENT
- 504
AT&T WISCONSIN
PARCEL 11 - DOC. NO. 9915640
- UA641 CITY OF MILWAUKEE - SEWER
UA642 CITY OF MILWAUKEE - WATER
UA643 CITY OF MILWAUKEE - CABLE
UA644 CITY OF MILWAUKEE - CONDUIT

- RL IH-94
PI STA. 248+40.53
Y : 295289.25
X : 578195.08
DELTA = 31°30'38"
D = 1°14'44"
T = 1297.79'
L = 2529.83
R = 4600.00
- C2
L = 1254.26
R = 3395.58
LC = 1247.14
LCB = S82°56'09"W
C3
L = 589.00
R = 3405.58
LC = 588.26
LCB = S81°46'17"W
C4
L = 185.70
R = 1150.00
LC = 185.50
LCB = S76°58'47"W
C5
L = 1088.37
R = 3395.58
LC = 1083.72
LCB = N81°32'10"E

REVISION DATE JAN. 17, 2014
DEC. 17, 2012
APR. 17, 2013
AUG. 29, 2013

DATE SEP. 28, 2012

SCALE, FEET
0 50 100

HWY: IH 94

COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER 1060-33-24

CONSTRUCTION PROJECT NUMBER 1060-33-81
1060-33-79

PLAT SHEET 4.22

PS&E SHEET

E

HWY	BASIS OF EXISTING R/W	YEAR	WIDTH
IH 94	194-4(26)303 (1060-1-22)	1970	VARIES
S. 76TH STREET	194-4(26)303 (1060-1-22)	1970	50' EAST
S. 76TH STREET	WD DOC. 2558768	1945	50' WEST
S. 76TH STREET	RELIANCE LAND COMPANY'S SUBDIVISION	1901	100'
S. 76TH STREET	CITY RESOLUTION #67475-a (DOC. 3164714)	1952	50' WEST

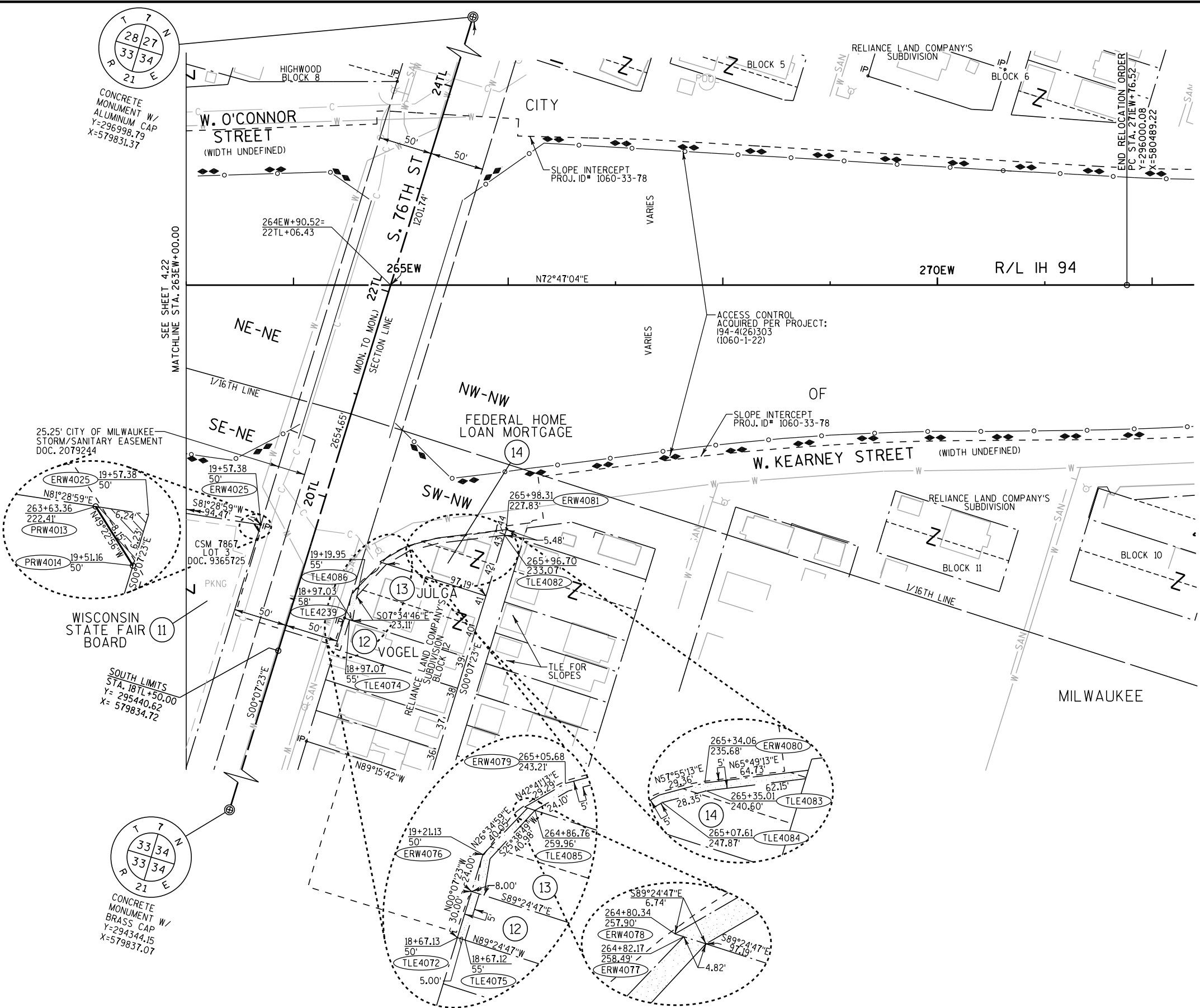
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

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 REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

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

I-94 REFERENCE LINE IS CENTERLINE OF MEDIAN.



UA641 CITY OF MILWAUKEE - SEWER
UA642 CITY OF MILWAUKEE - WATER
UA643 CITY OF MILWAUKEE - CABLE
UA644 CITY OF MILWAUKEE - CONDUIT

REVISION DATE	JAN. 17, 2014	DATE	SEP. 28, 2012	SCALE, FEET	HWY: IH 94	STATE R/W PROJECT NUMBER	1060-33-24	PLAT SHEET	4.23
DEC. 17, 2012				0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER	1060-33-81 1060-33-79	PS&E SHEET	E
APR. 17, 2013									
AUG. 29, 2013									

FILE NAME : W:\Plots\1060-33-24 (IH 94)\cads\040423.RP.dgn

PLOT DATE : 20-JAN-2014 13:46

PLOT BY : MSCBXD

PLOT NAME :

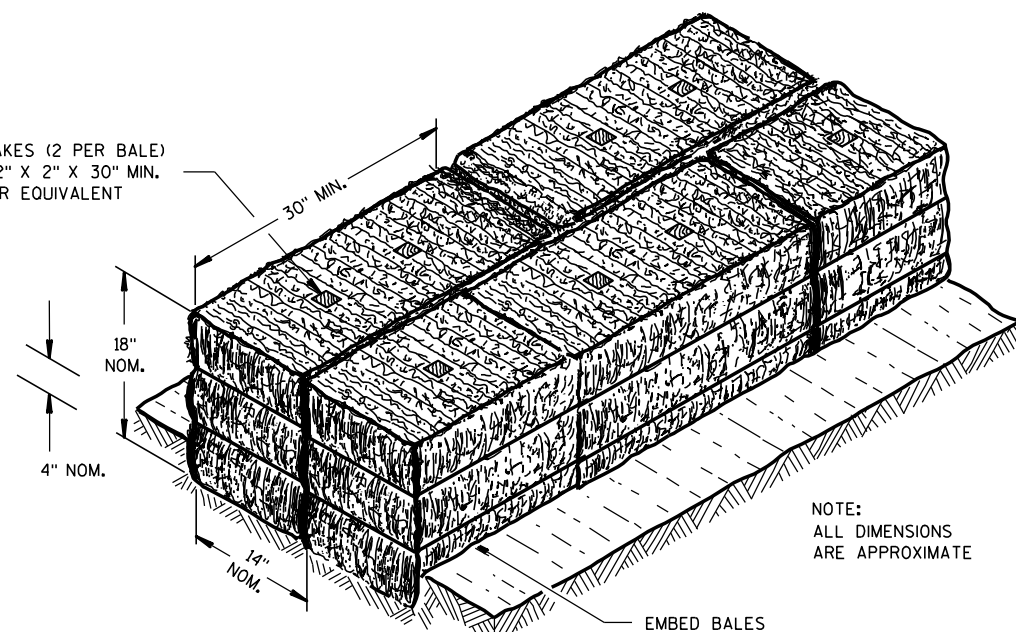
PLOT SCALE : 100:1

R/W 1060-33-24 4.23

Standard Detail Drawing List

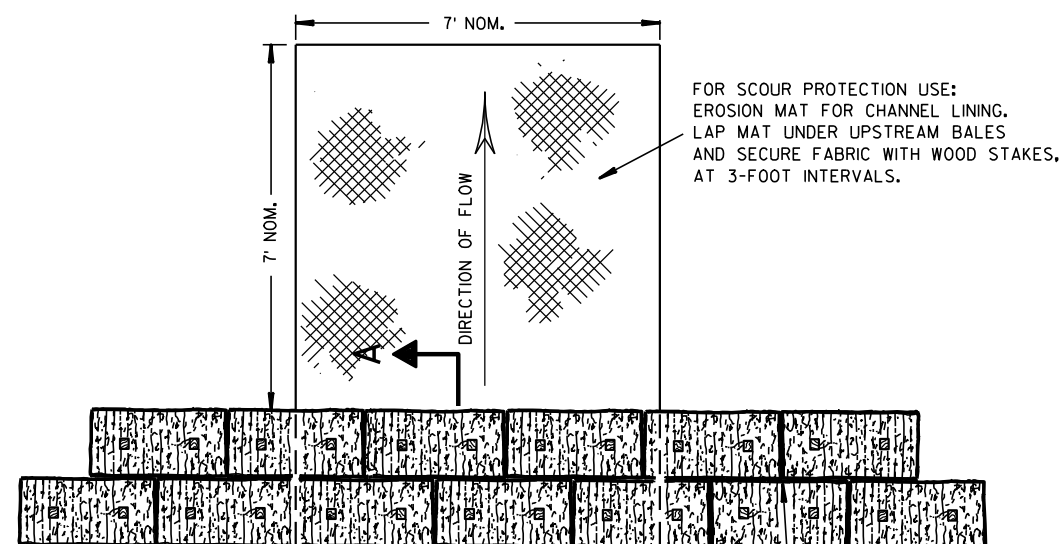
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
15B03-13A	FENCE CHAIN LINK
15B03-13B	FENCE CHAIN LINK
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT

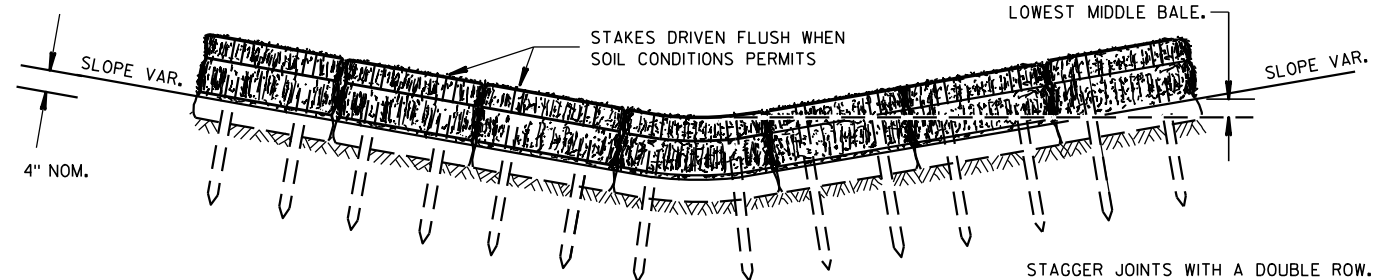


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



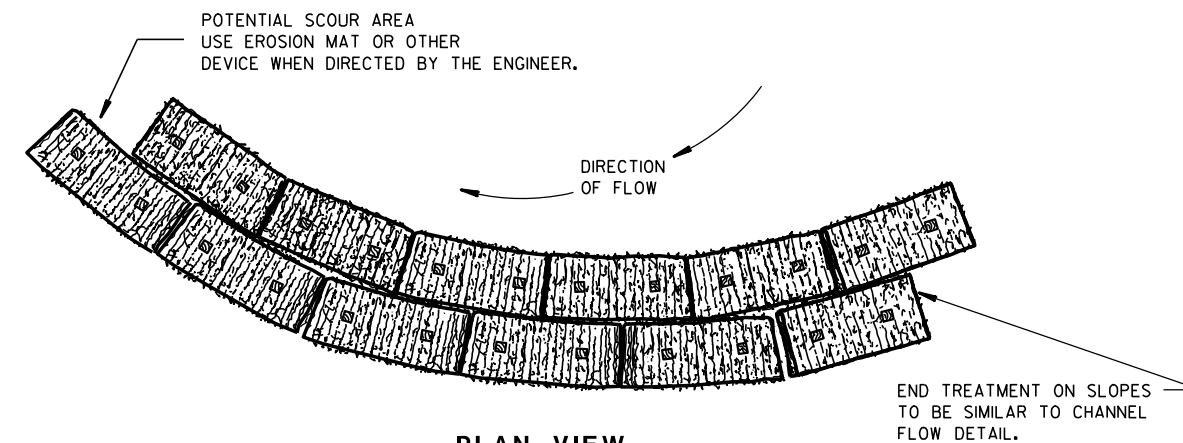
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

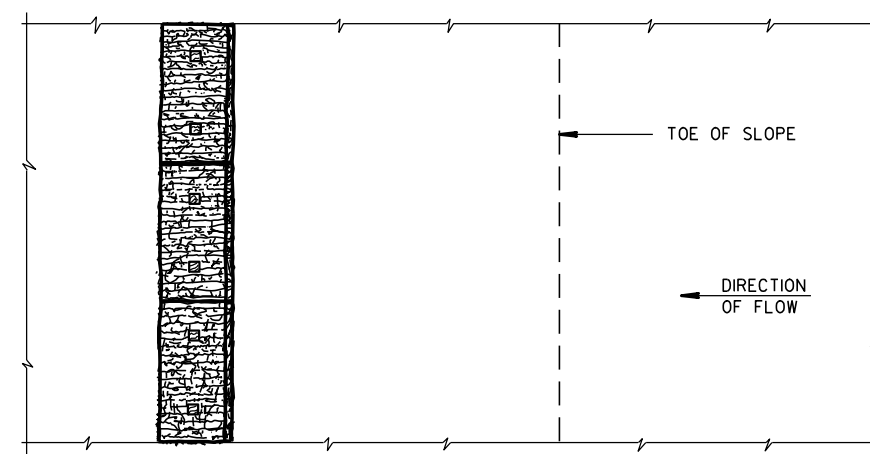
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

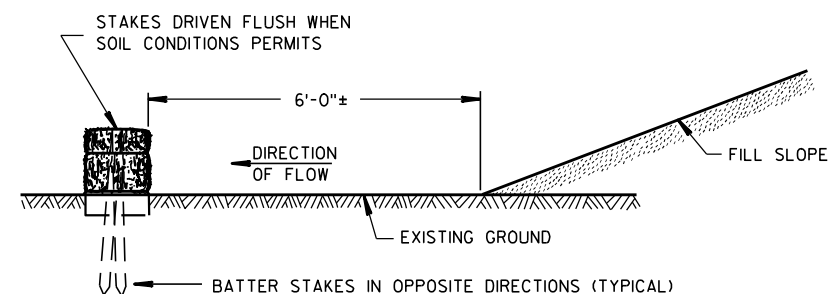


PLAN VIEW

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

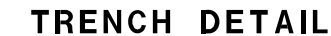
6/04/02
DATE

FHWA

/S/ Beth Conn-----
CHIEF ROADWAY DEVELOPER 60 INEER



- 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 1½" X 1½" 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.

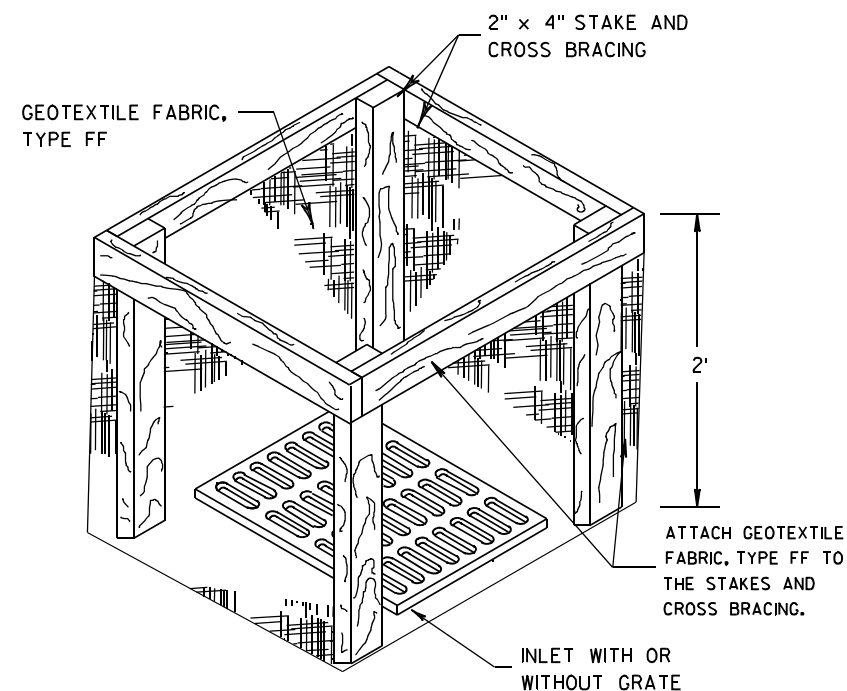
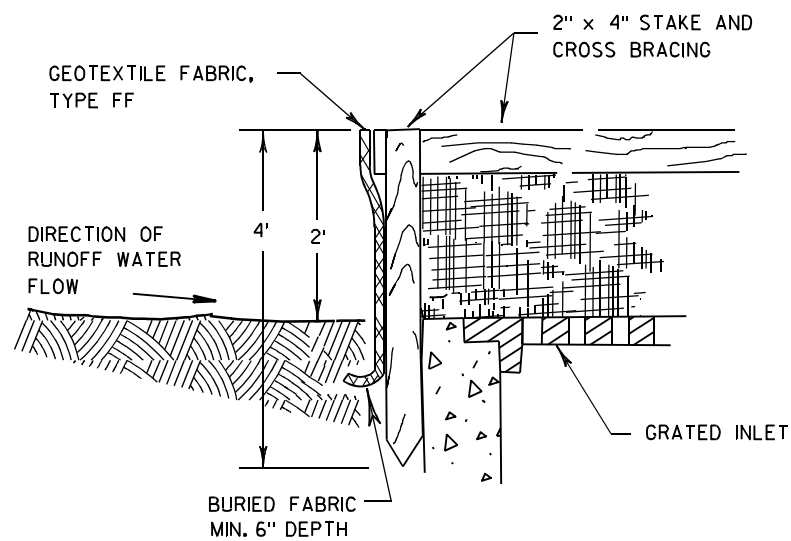


SILT FENCE

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
4-29-05 _____ /S/ Beth Cannata _____
DATE CHIEF ROADWAY DEVELOPMENT DIVISION

FHWA



INLET PROTECTION, TYPE A

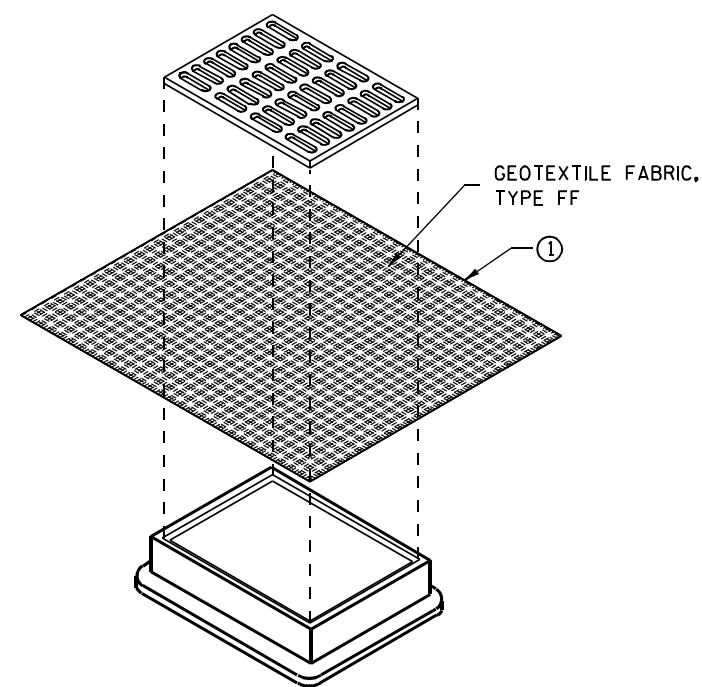
GENERAL NOTES

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.

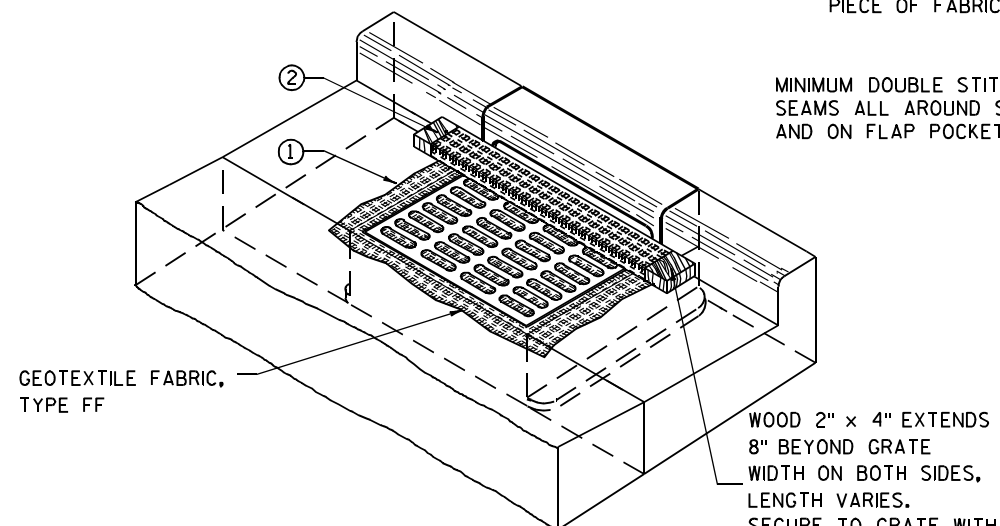
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

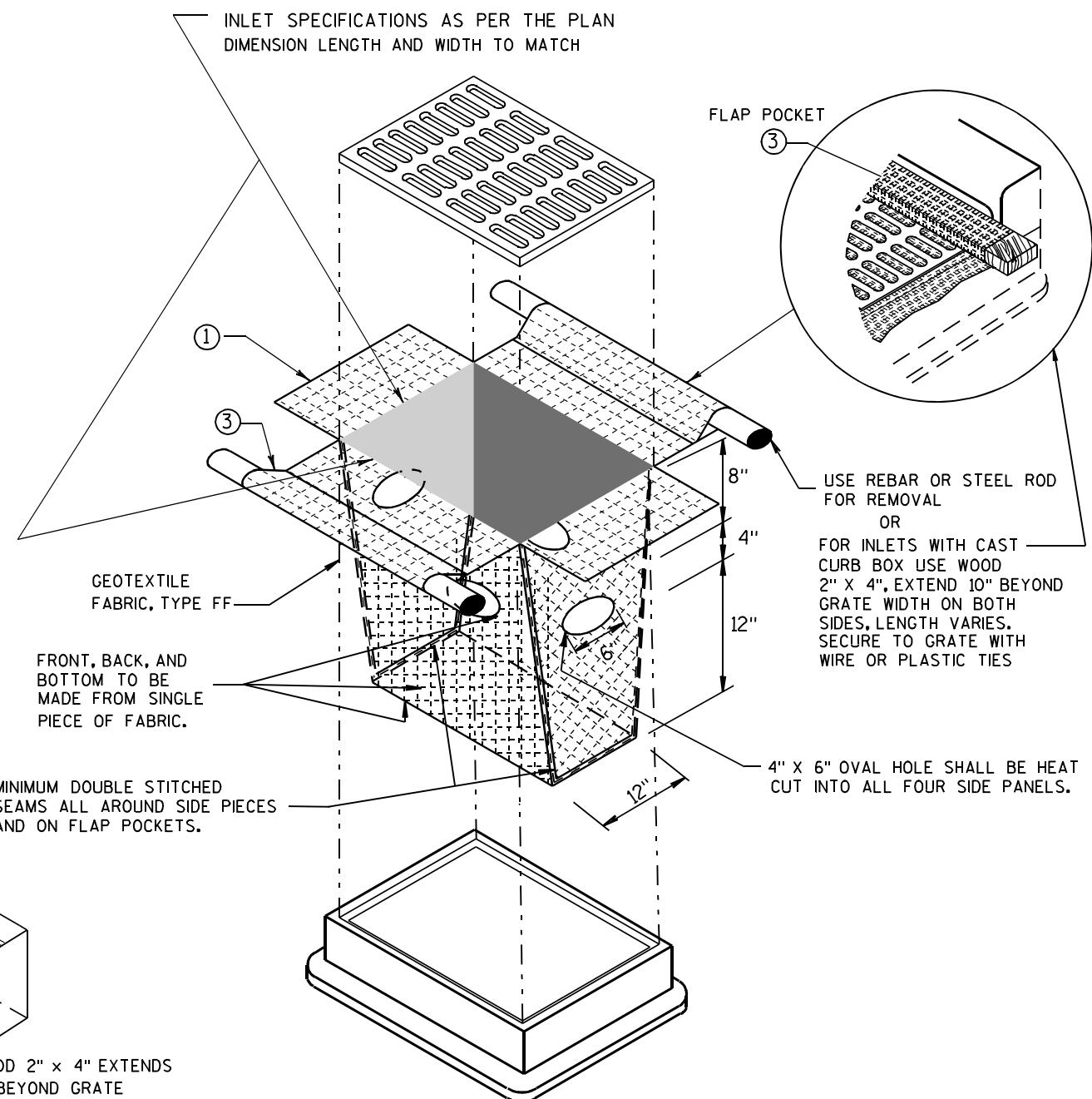
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.

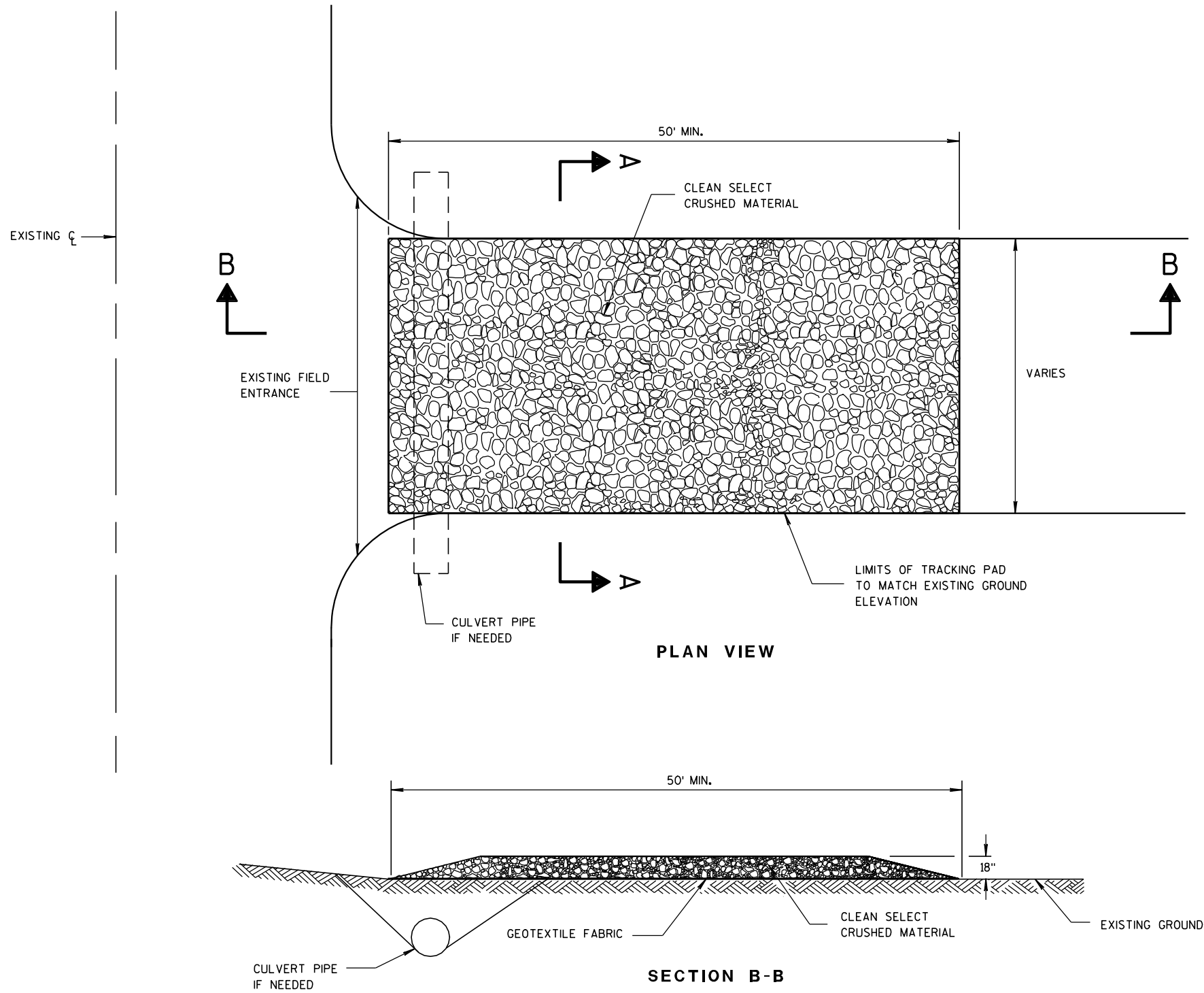
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/S/ Beth Connolly 62 CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



TRACKING PAD

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

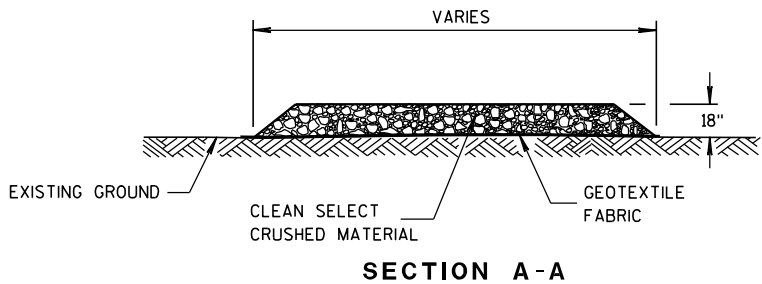
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

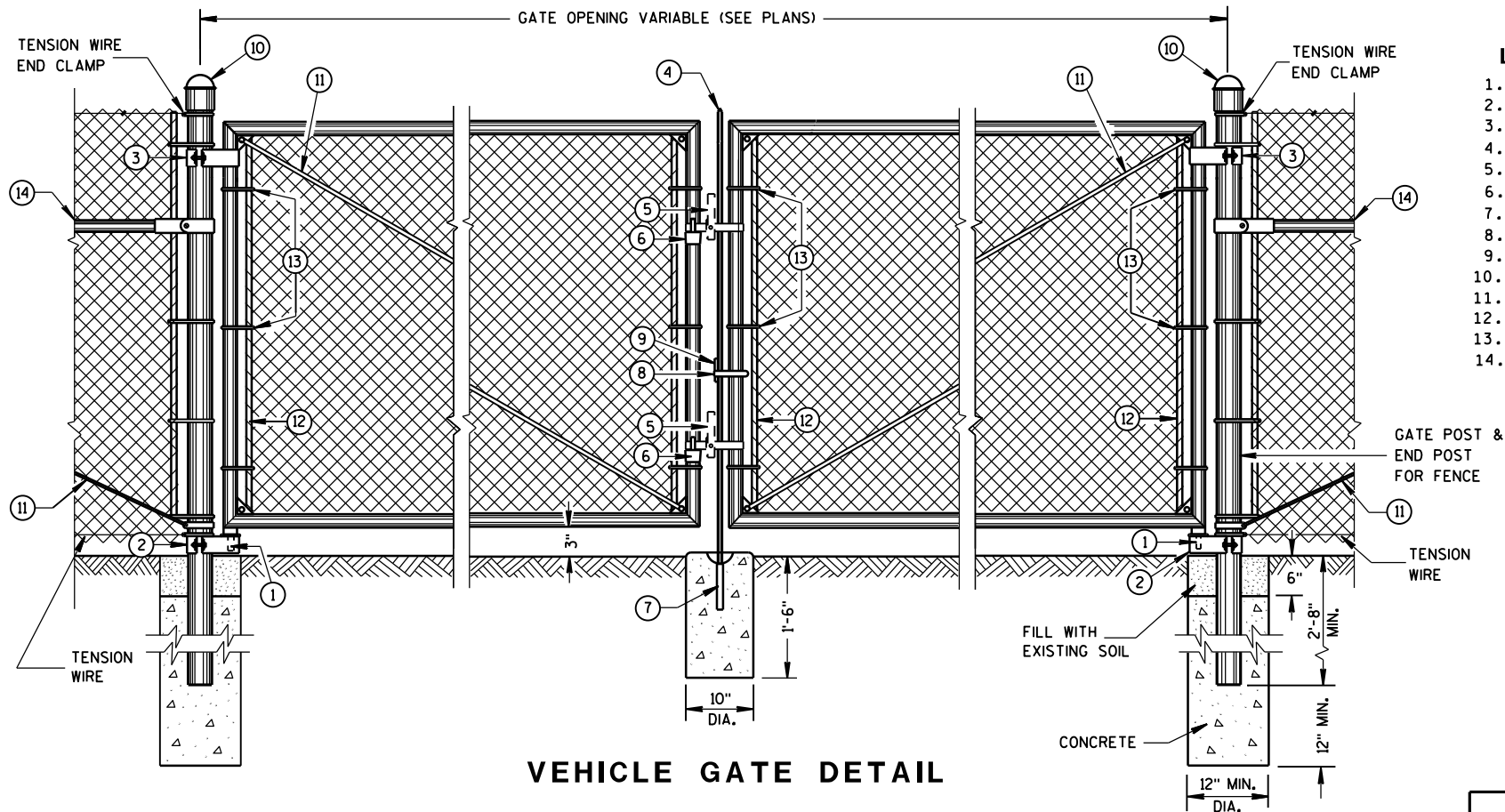
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



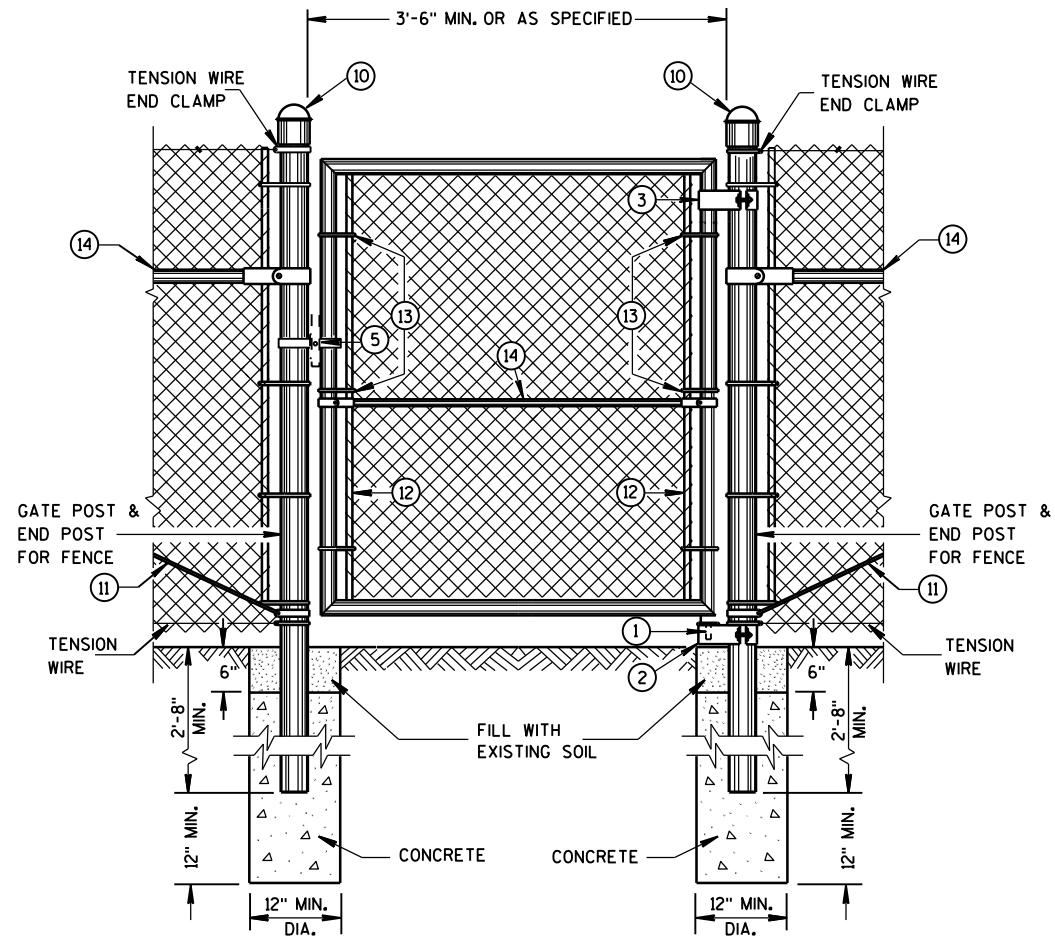
TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS 63
ENGINEER
ENT



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

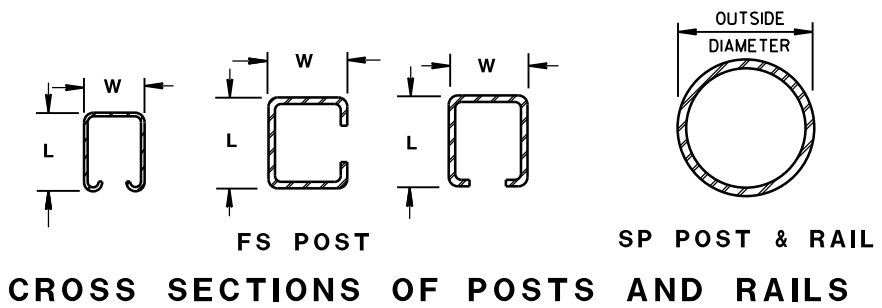
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

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.



SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

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

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

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

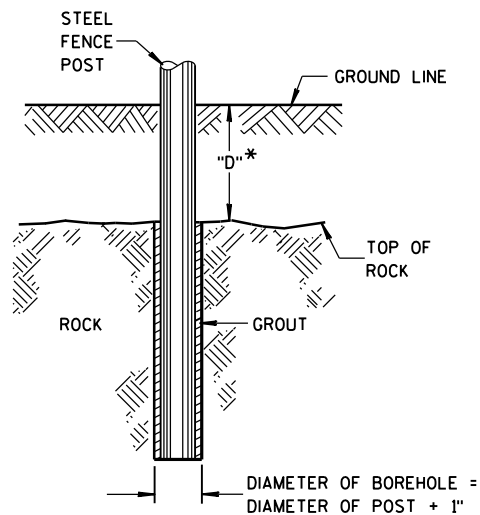
BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

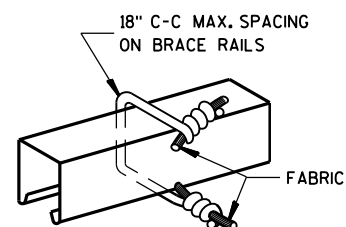
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



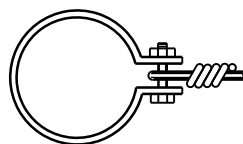
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

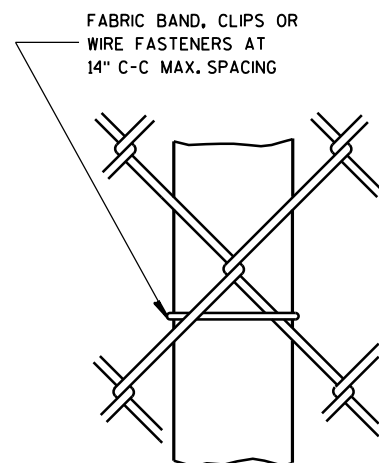


BRACE RAIL FABRIC FASTENER

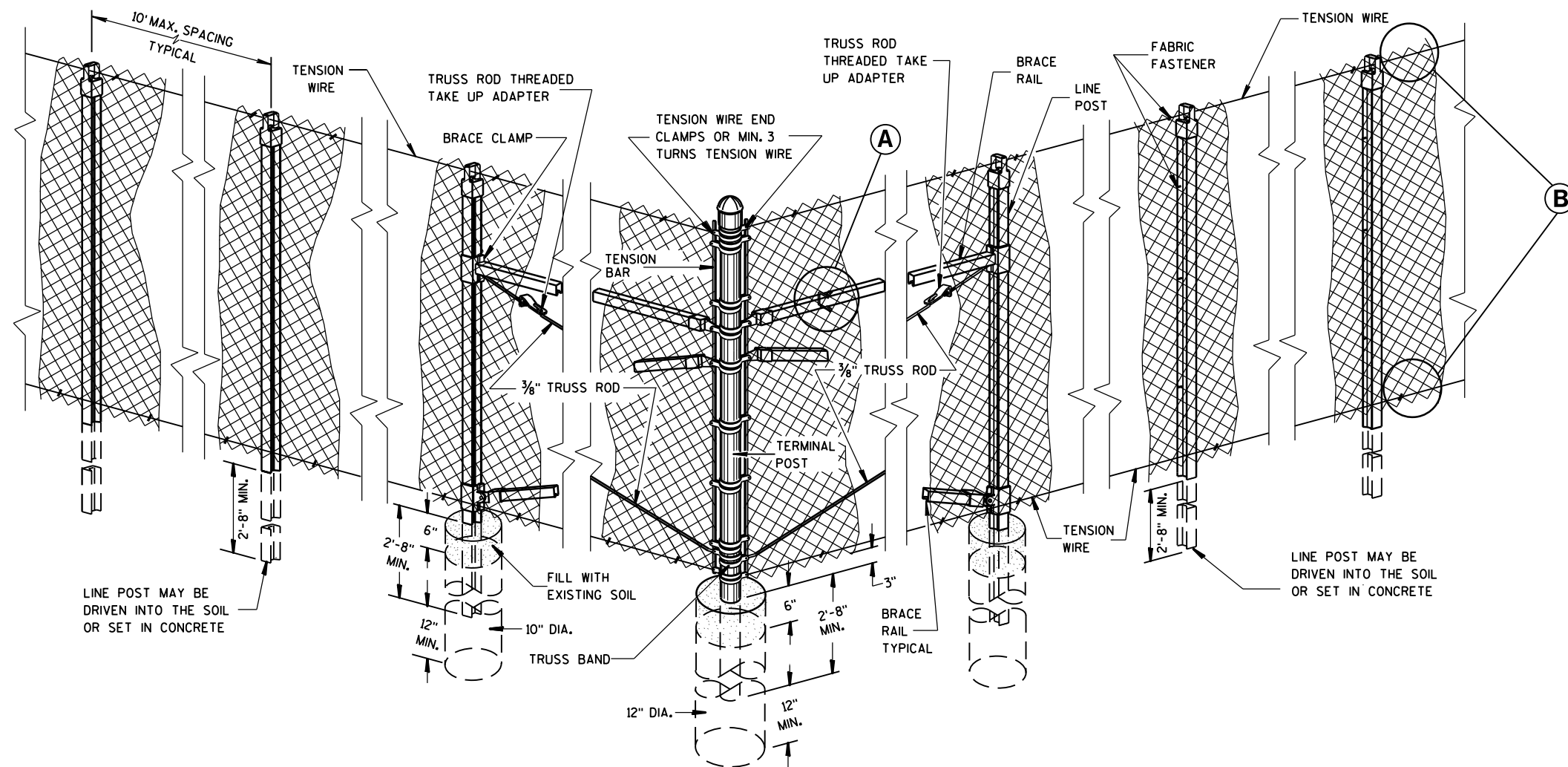
(A)



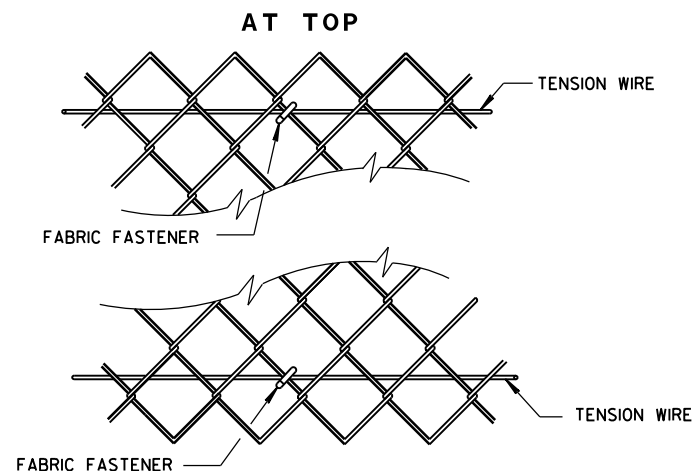
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS

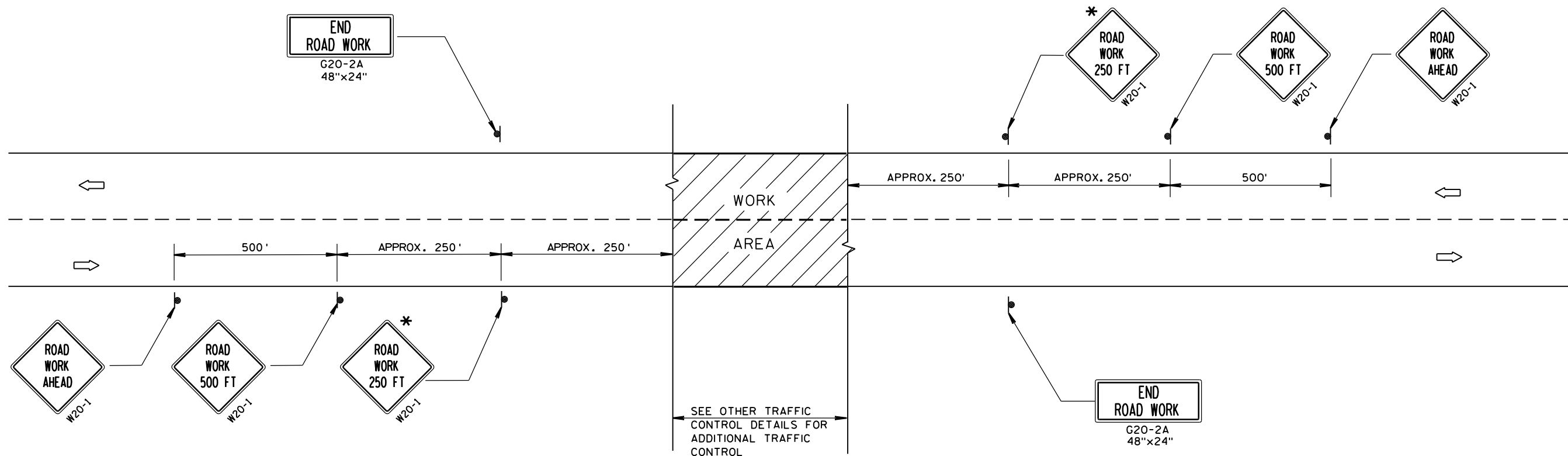


(B)

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/16/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS 65
ENGINEER



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.

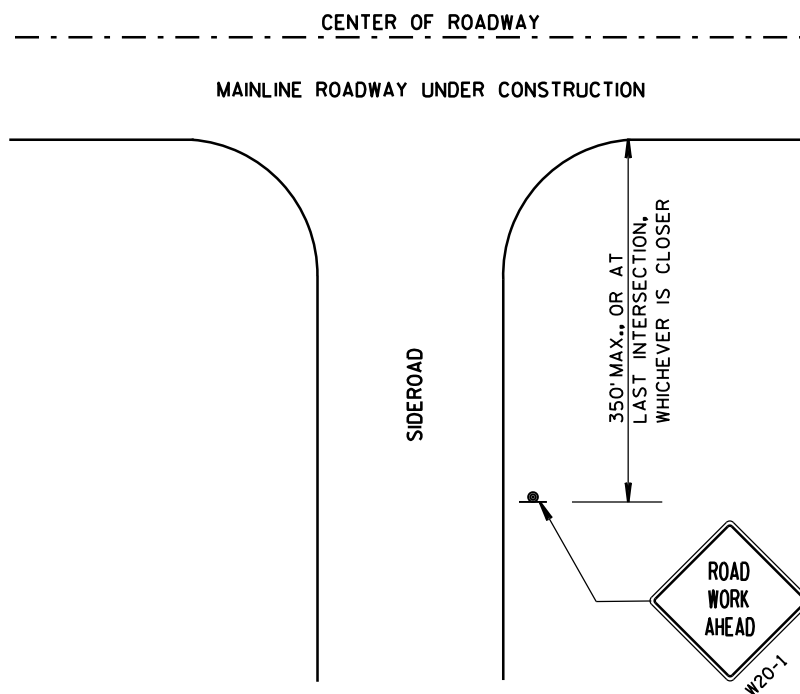
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER SIGN
FHWA

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

POST WITH ATTACHED SIGN IN DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

TYPE "A" WARNING LIGHT (FLASHING)

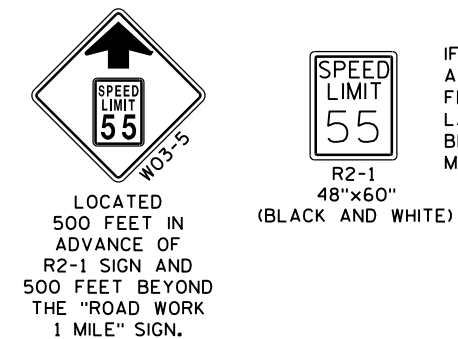
REMOVING PAVEMENT MARKING

DIRECTION OF TRAFFIC

WORK AREA

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS,
THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



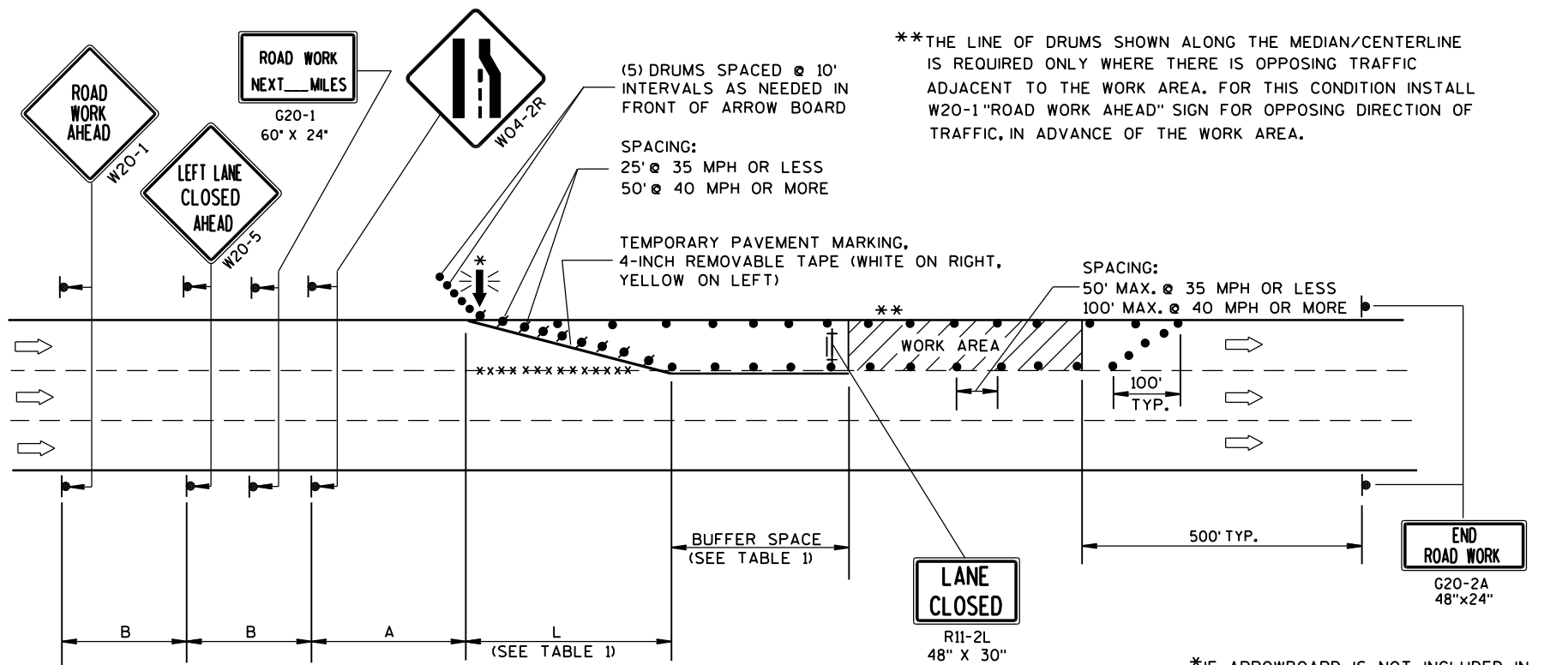
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

R11-2L
48" x 30"
LANE
CLOSED

A A

TYPE III BARRICADE
SPACED EVERY 1/4 MILE.

TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER 67
FHWA	



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

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

(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.

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.

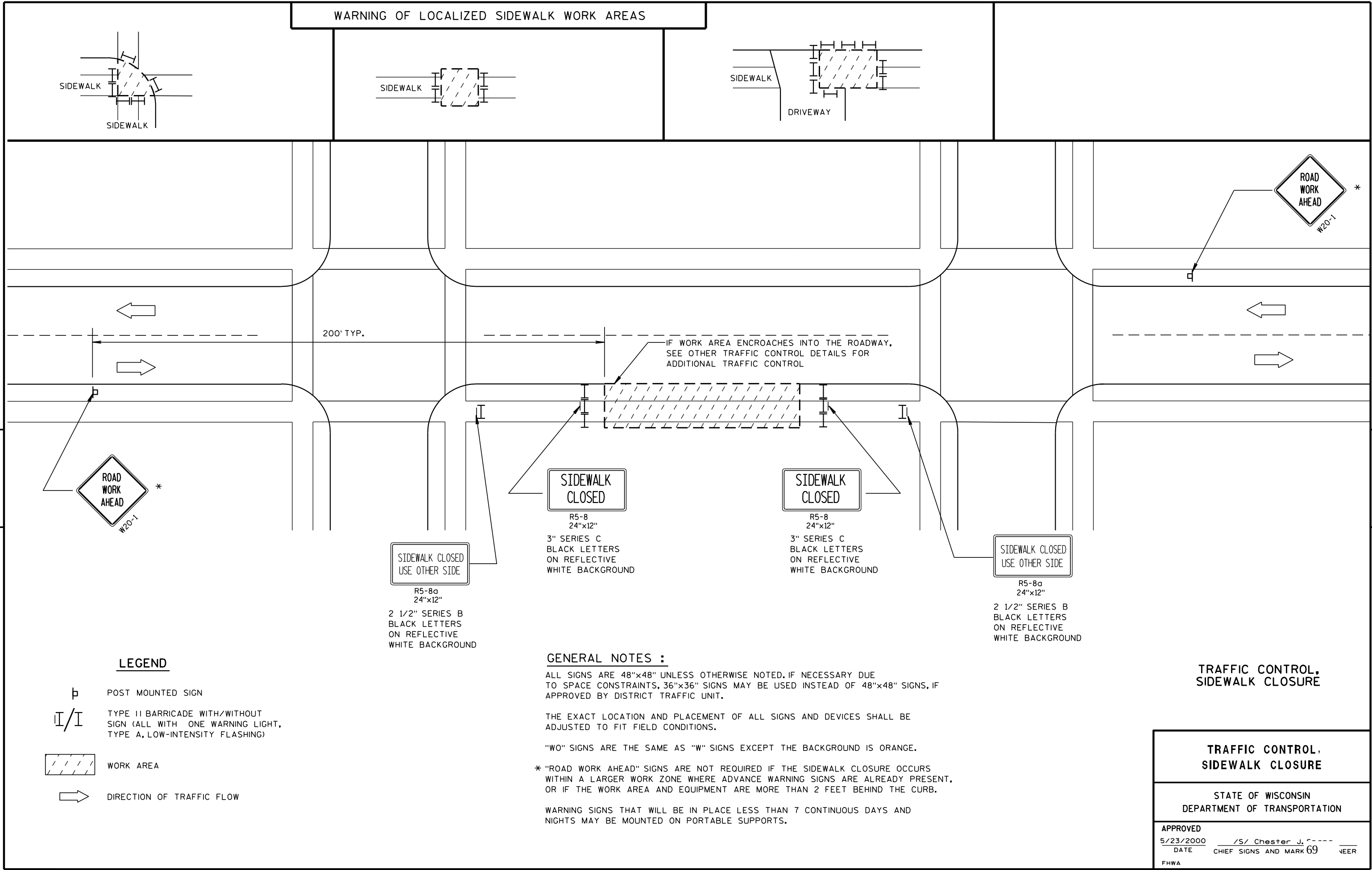
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

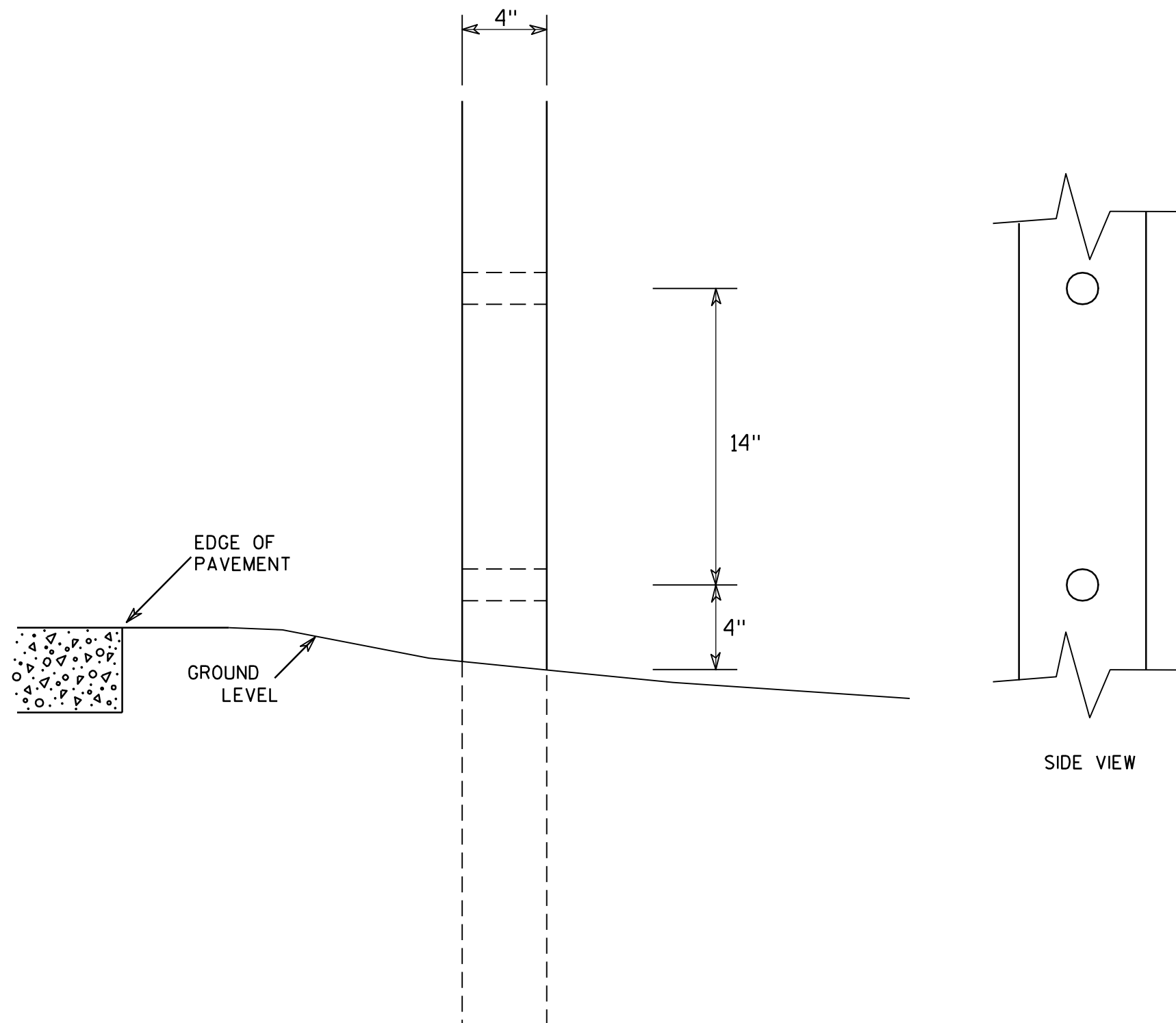
TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 68 :SIGN
FHWA



7



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

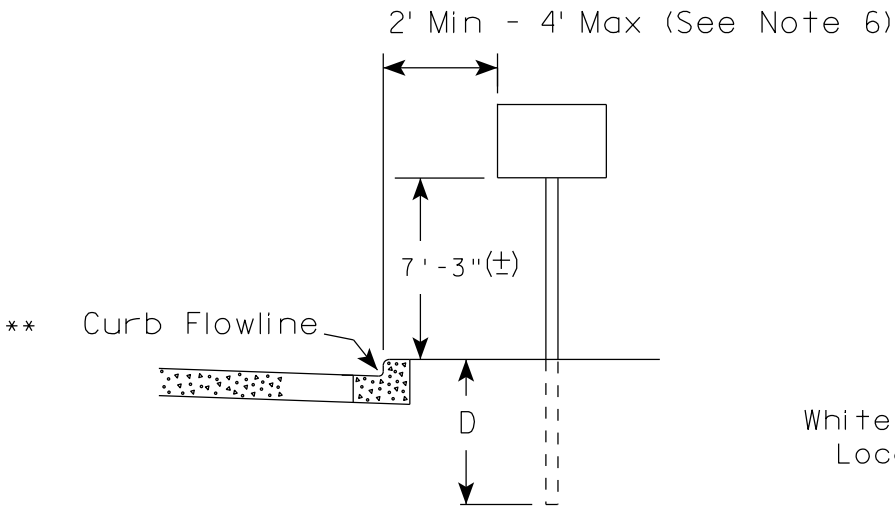
HWY:

COUNTY:

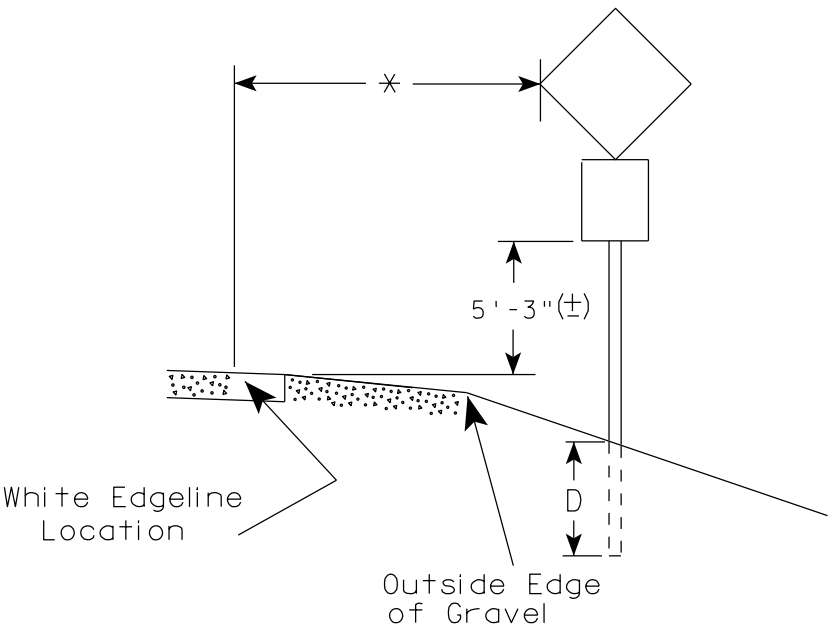
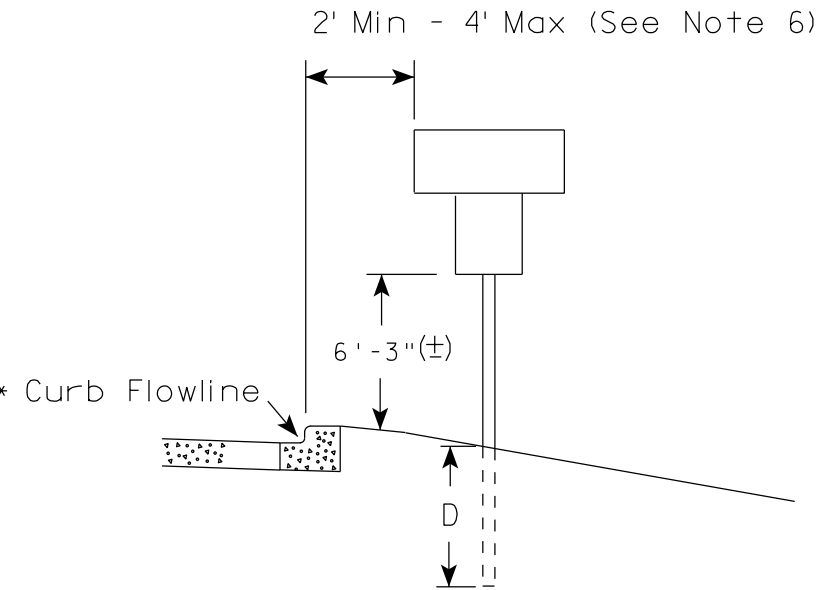
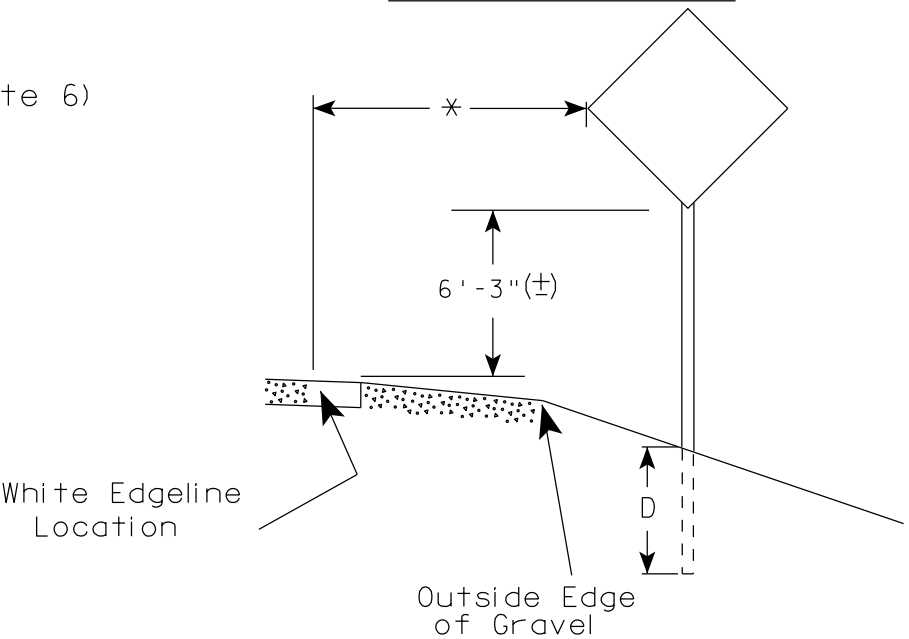
SHEET NO: 70

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

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

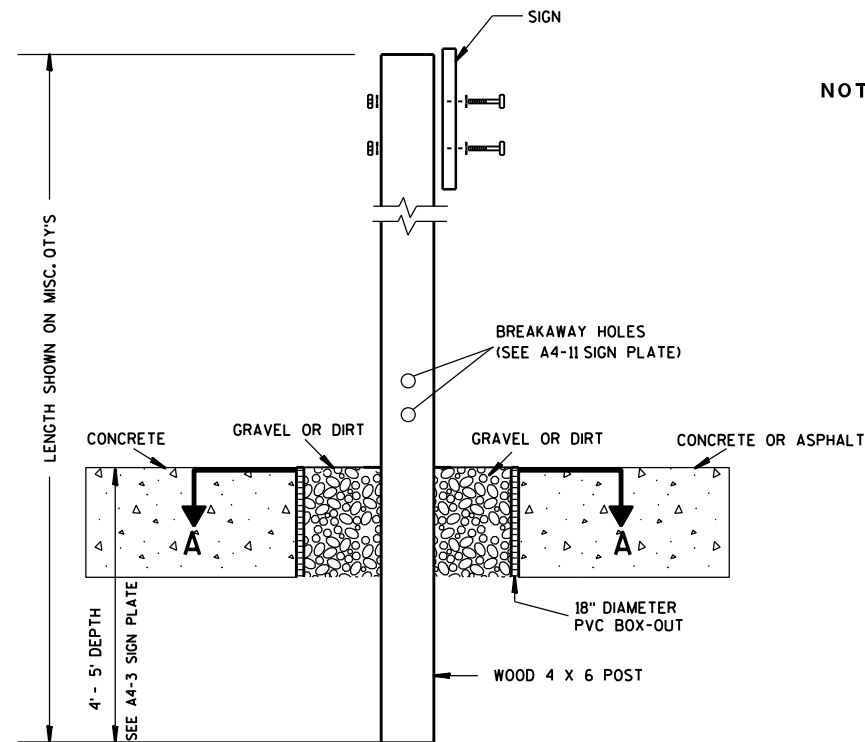
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

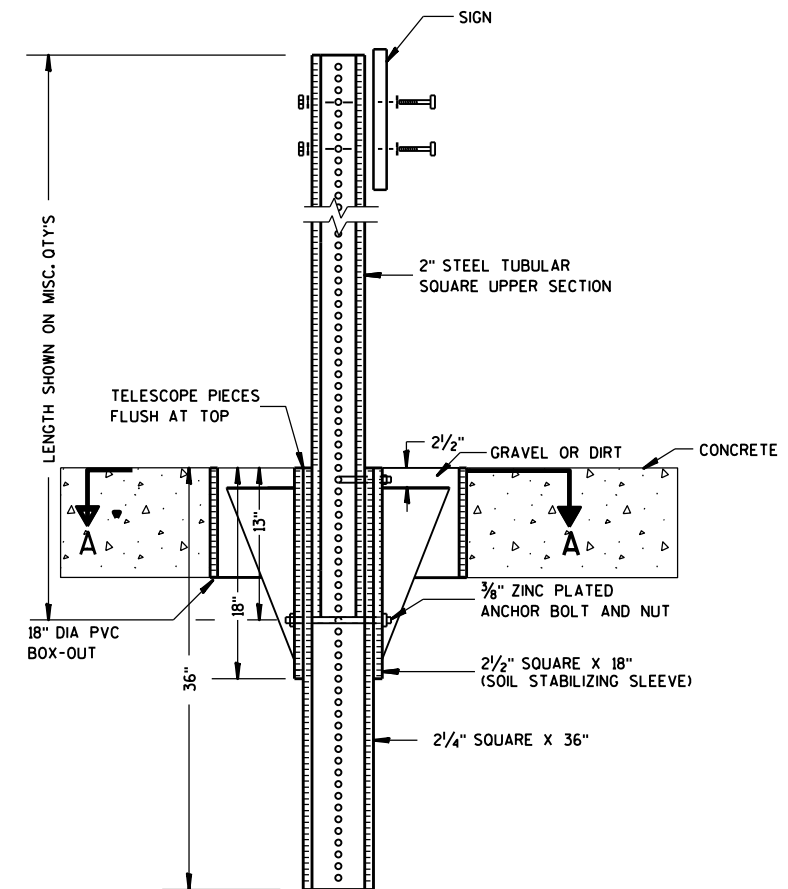
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

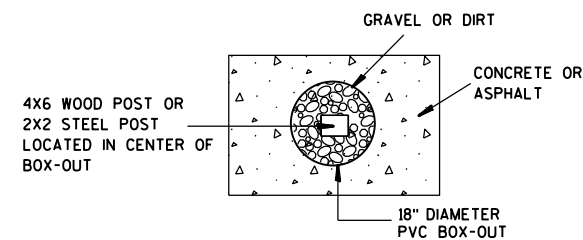
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 72 A4-3B.1

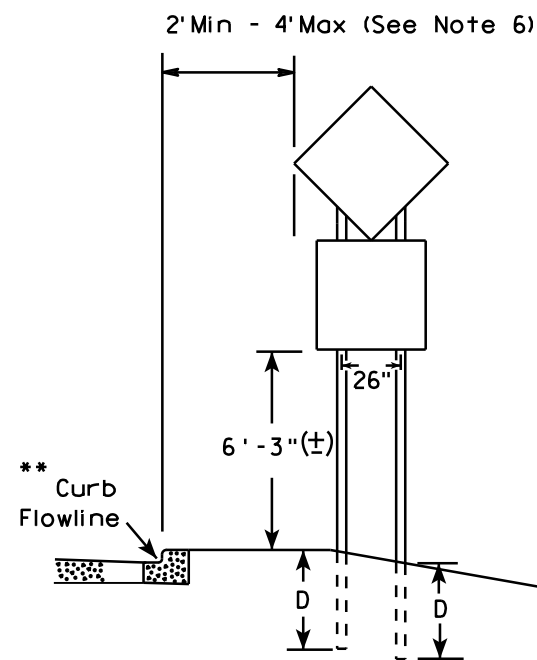
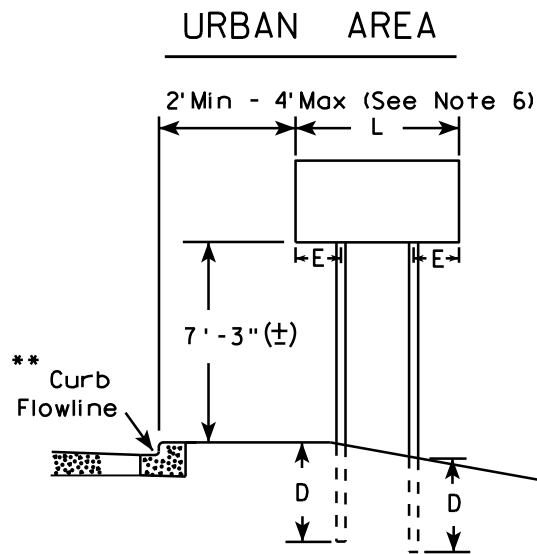
PROJECT NO:

HWY:

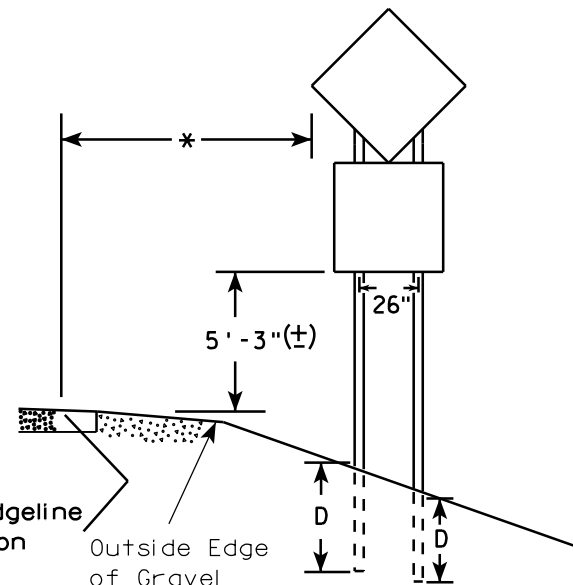
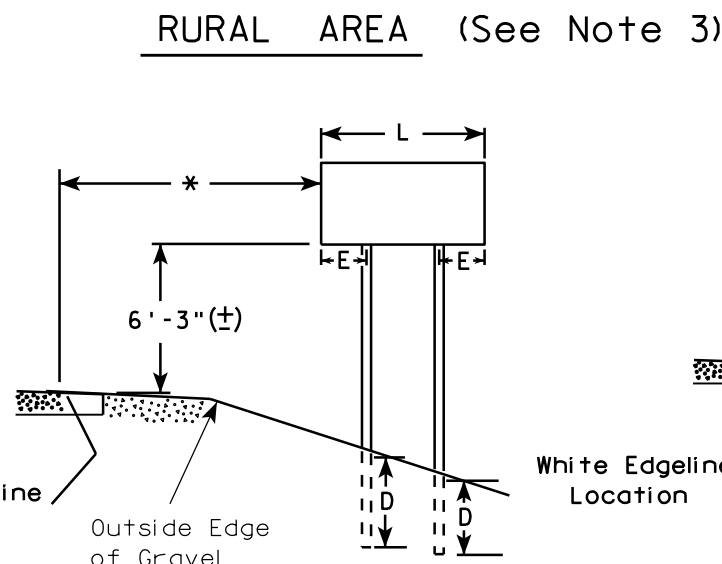
COUNTY:

SHEET NO:

E



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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

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

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

POST EMBEDMENT DEPTH

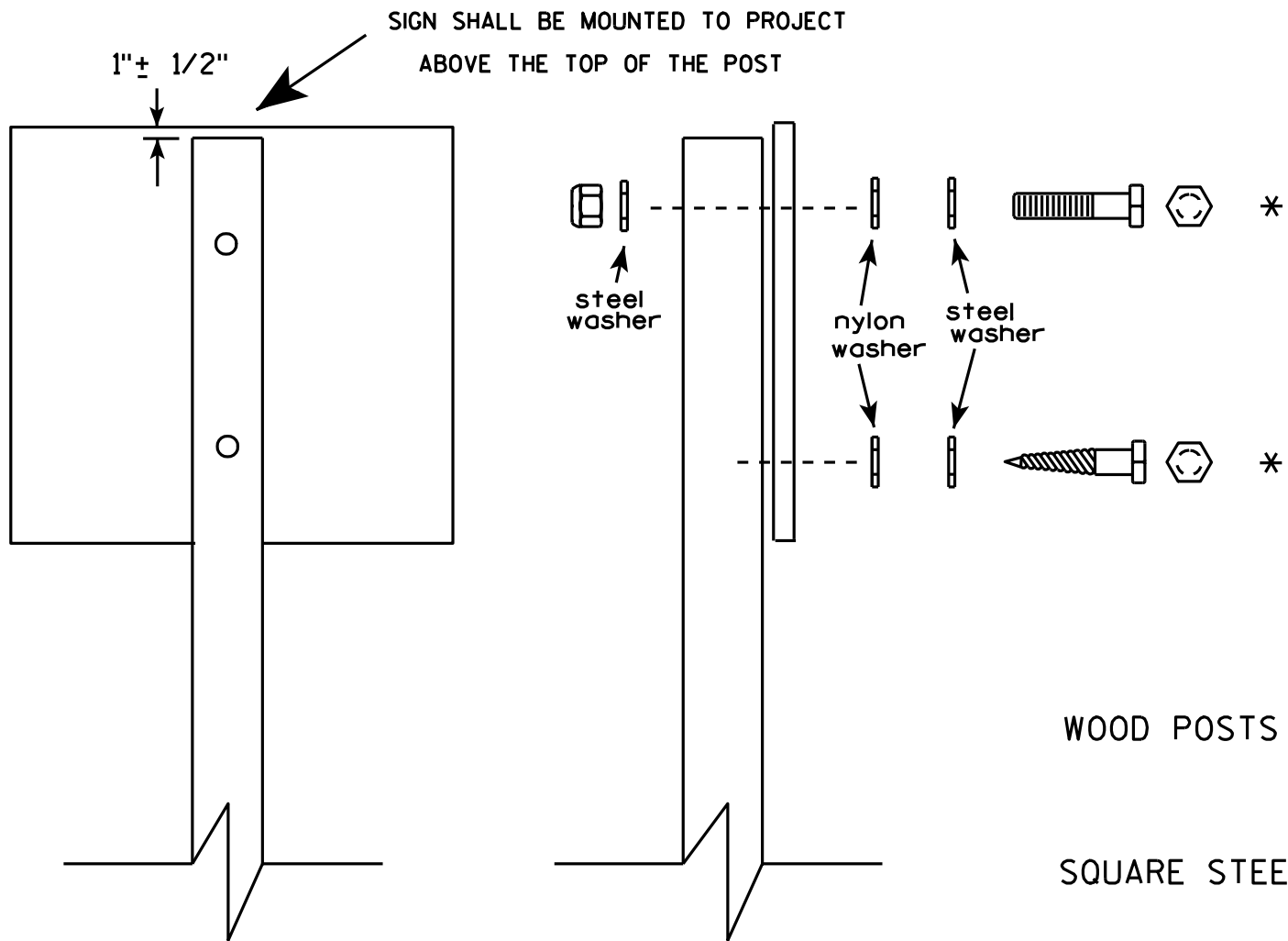
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. ^{AA-A} 12
-73

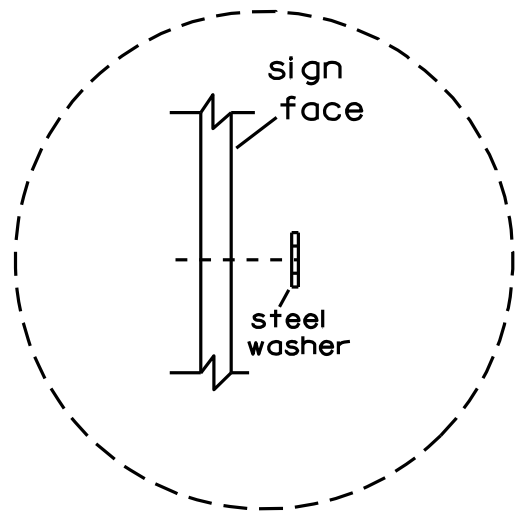


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

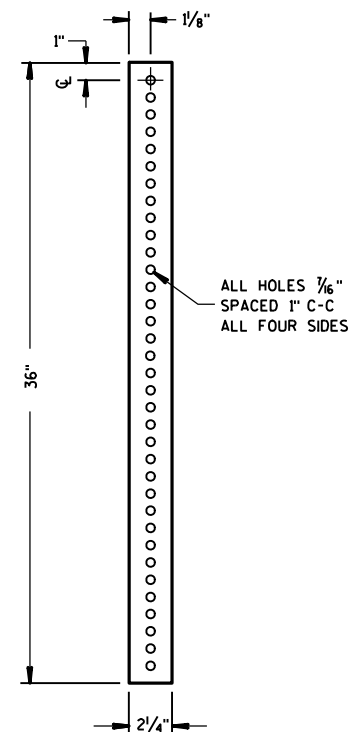


Washer Placement when Sign Has Other Than Type H or Type F Face

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

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

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



2 1/2" or 2 1/4" TELES PAR TUBE

4" x 12" x 10 GA. STEEL PLATE (CUT AS SHOWN) WELDED TO ALL FOUR CORNERS OF TELES PAR TUBE

4"

2 1/2"

12"

3 1/2"

10"

LENGTH SHOWN ON MISC. OTYS

TELESCOPE PIECES FLUSH AT TOP

18" DIA PVC BOX-OUT

36"

18"

13"

18"

2" STEEL TUBULAR SQUARE UPPER SECTION

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

SIGN

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

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

$2\frac{1}{2}$ " GRAVEL OR DIRT

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

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

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

LENGTH SHOWN ON MISC. QTY'S

TELESCOPE PIECES FLUSH AT TOP

1"

12"

18"

36"

2" STEEL TUBULAR SQUARE UPPER SECTION

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

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

1"

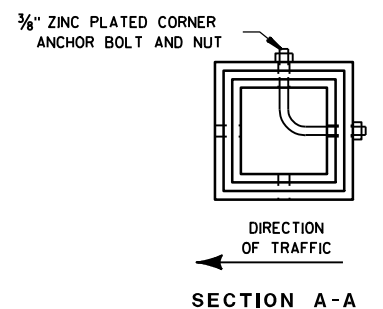
$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

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

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

SIGN

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



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer
DATE 5/30/12 PLATE NO. A4-9.7

PROJECT NO:

HWY:

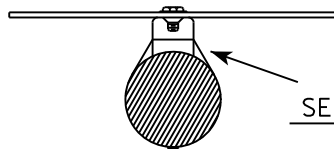
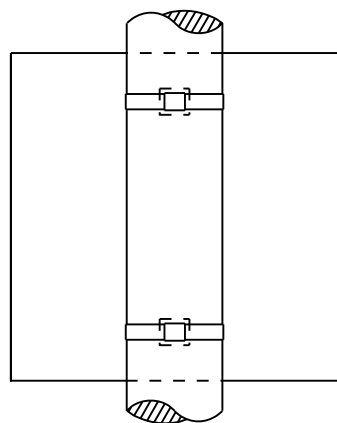
COUNTY:

SHEET NO: 75

E

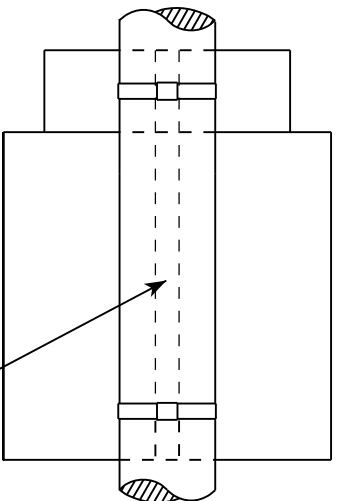
BANDING

SINGLE SIGN

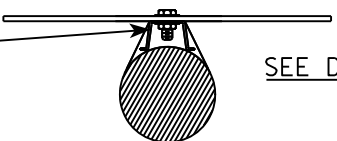


SEE DETAIL A

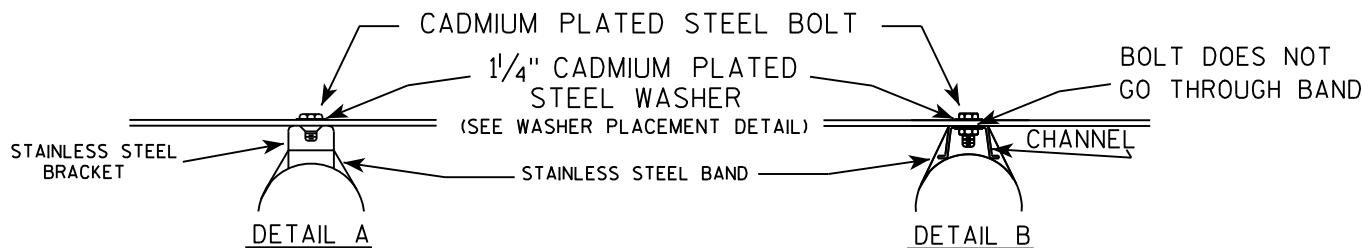
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



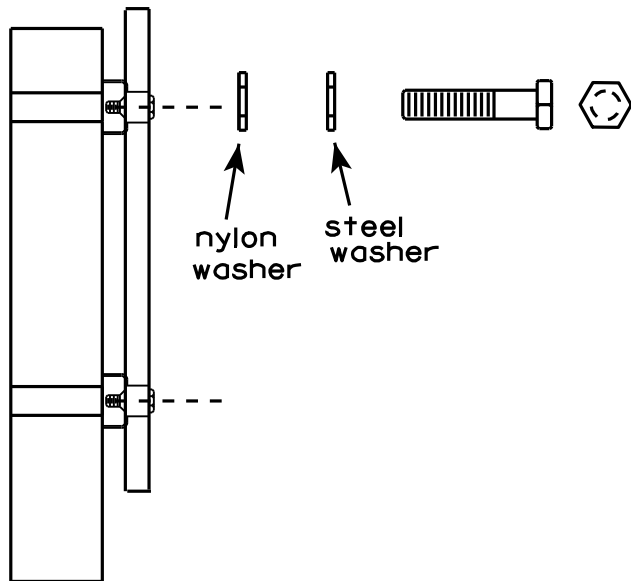
SEE DETAIL B



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 $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

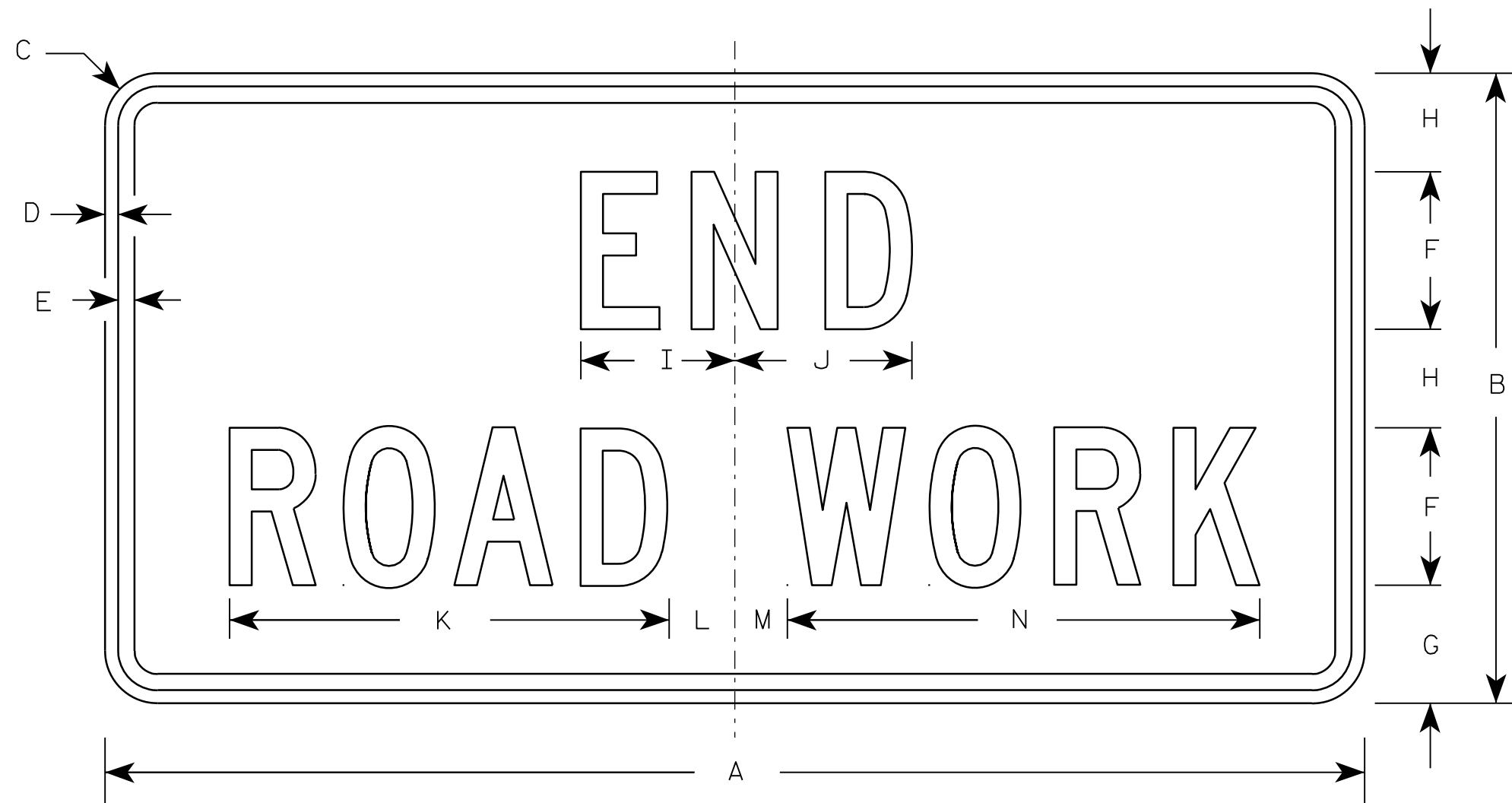
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

7



G20-2A

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 sq. m.
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

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

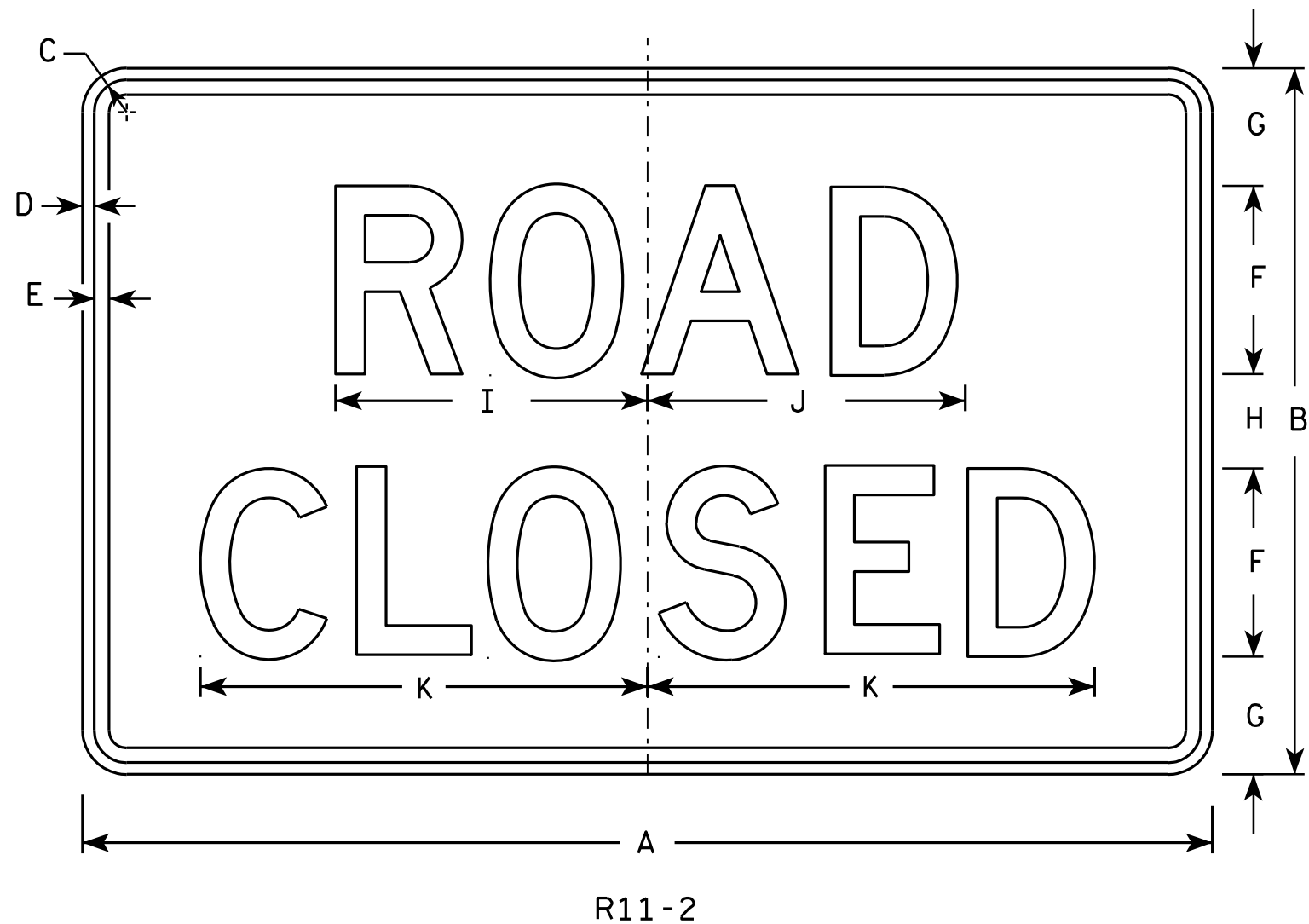
PROJECT NO:

HWY:

COUNTY:

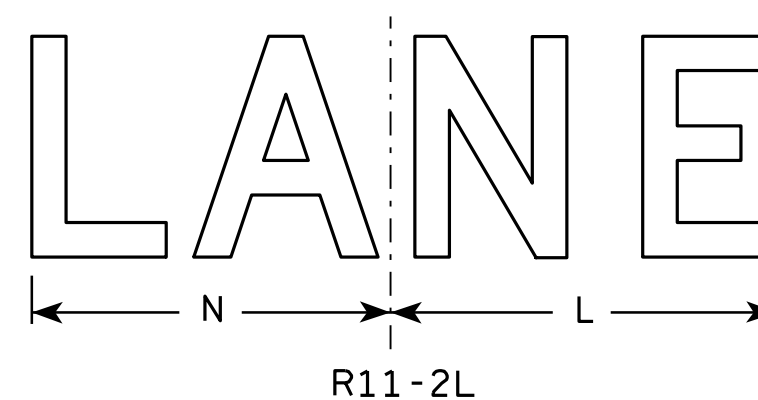
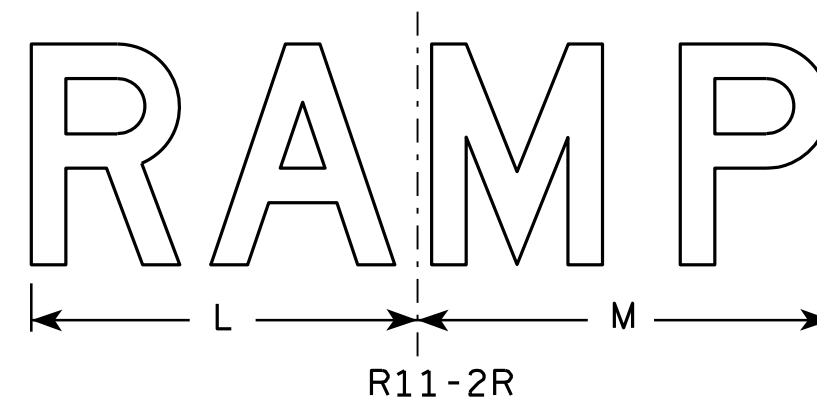
SHEET NO: 77

E



NOTES

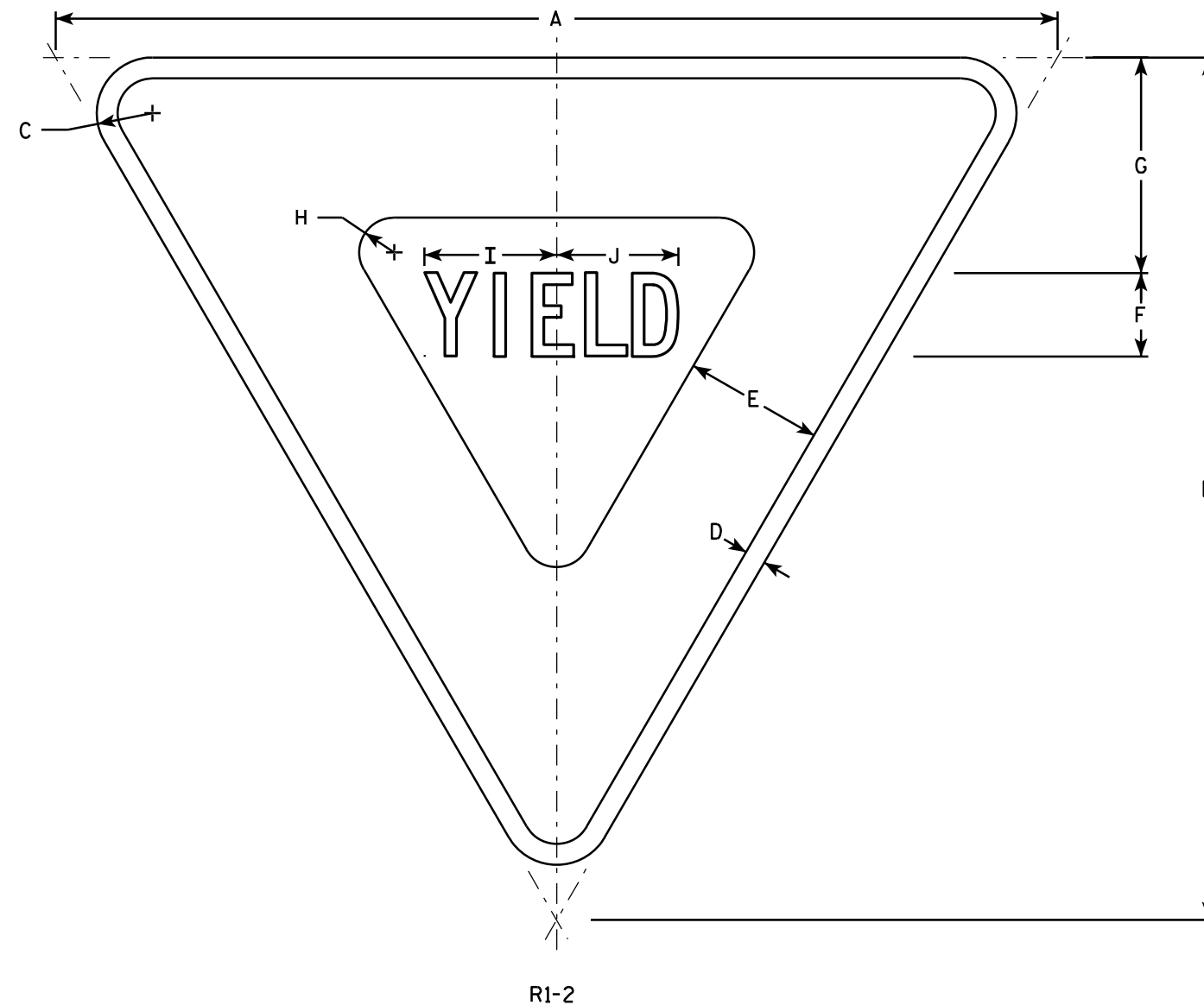
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN	
R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 78
-------------	------	---------	--------------



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

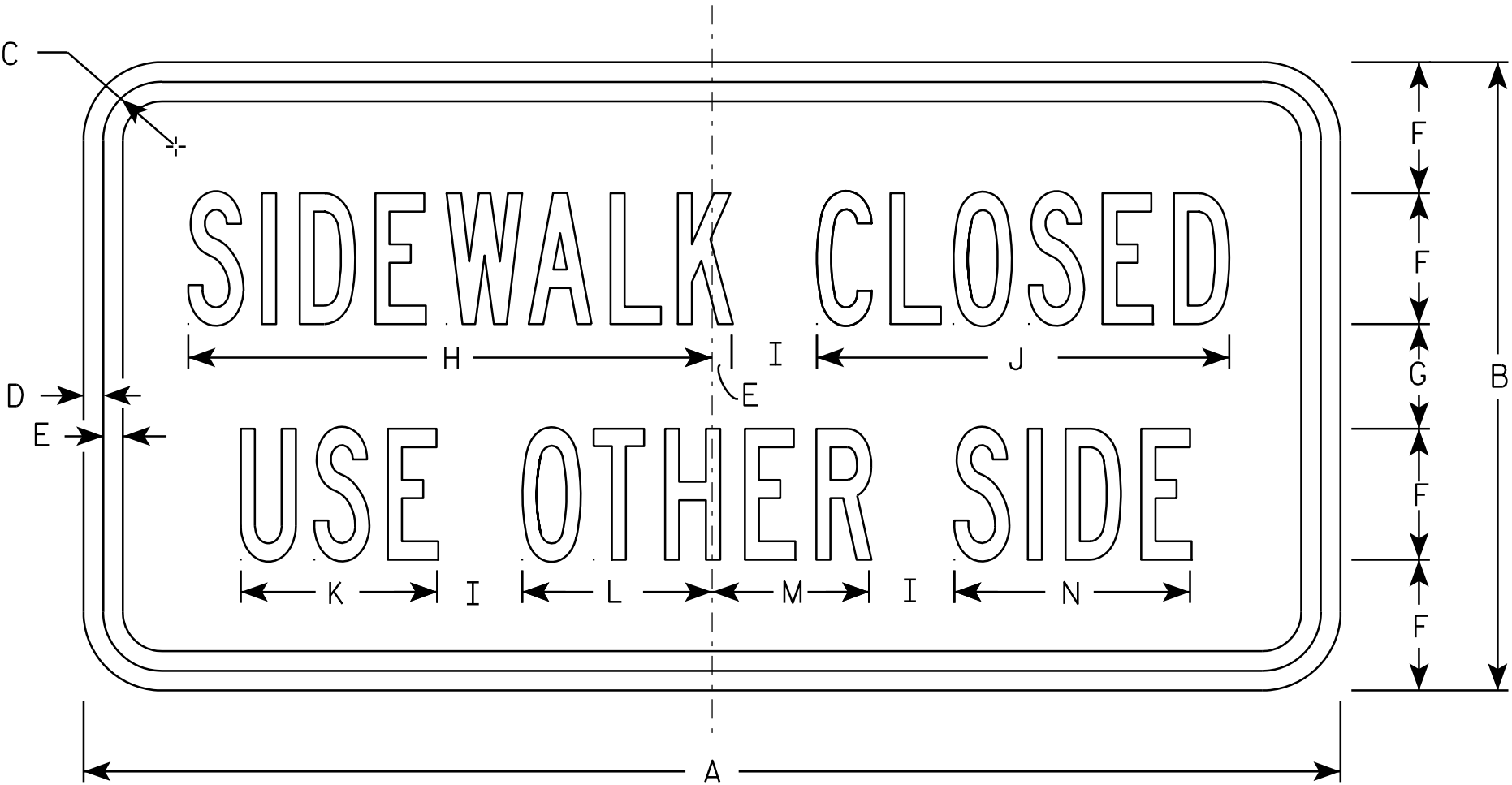
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: HWY: COUNTY: SHEET NO: 79 E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - 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.



R9-10

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	12	1 1/8	3/8	3/8	2 1/2	2	10	1 5/8	7 7/8	3 3/4	3 5/8	3	4 1/2													2.0
2S	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
2M	48	24	2 3/4	3/4	3/4	5	4	20	3 1/4	15 3/4	7 1/2	7 1/4	6	9													8.0
3																											
4																											
5																											

STANDARD SIGN
R9-10

WISCONSIN DEPT OF TRANSPORTATION

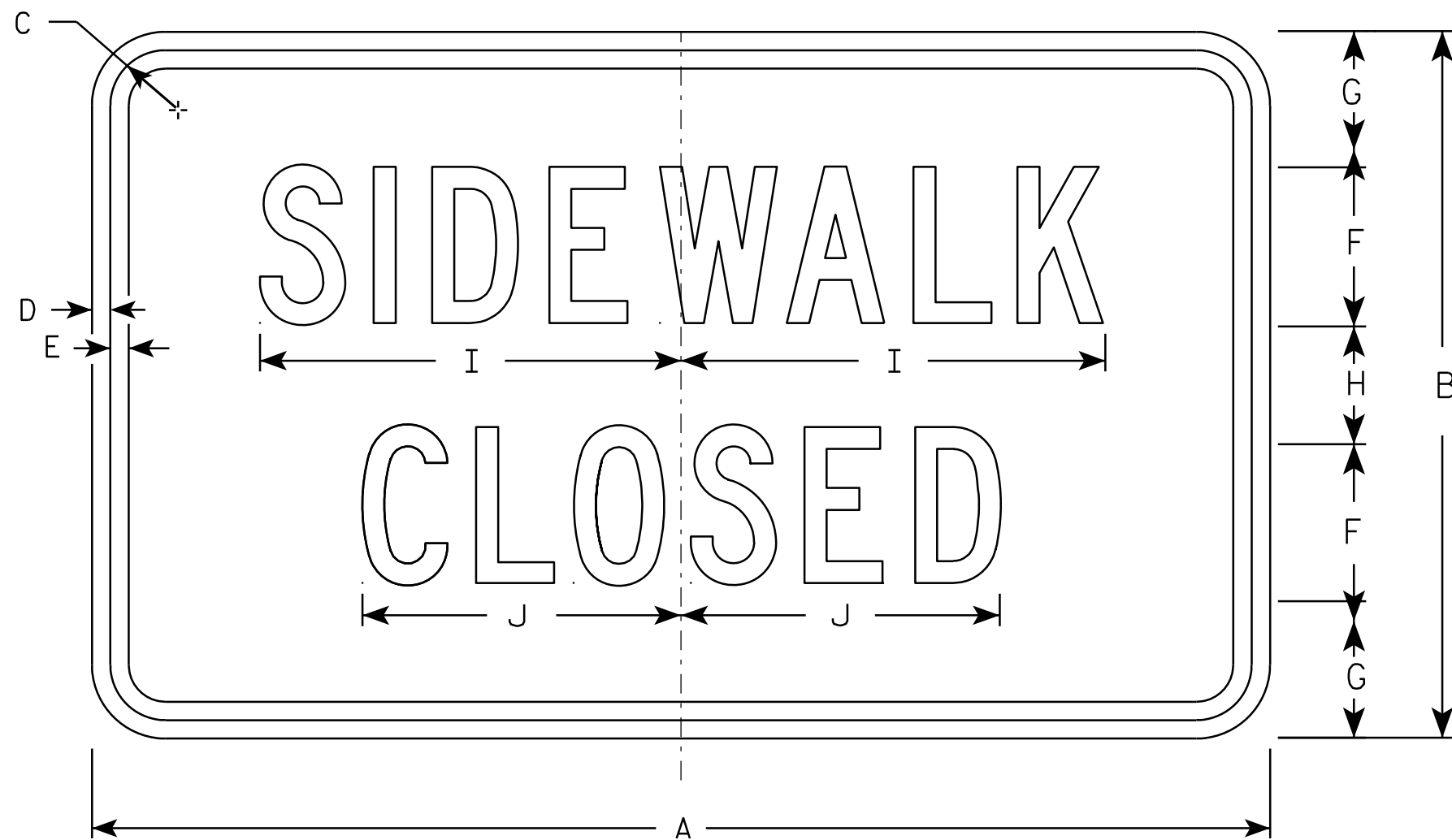
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/2012 PLATE NO. R9-10.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 80	E
-------------	------	---------	--------------	---

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - 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.



R9-9

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ¾	½	½	4	3 ½	3	10 ¾	8 ⅛																	3.75
2M	30	18	1 ¾	½	½	4	3 ½	3	10 ¾	8 ⅛																	3.75
3																											
4																											
5																											

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO:

HWY:

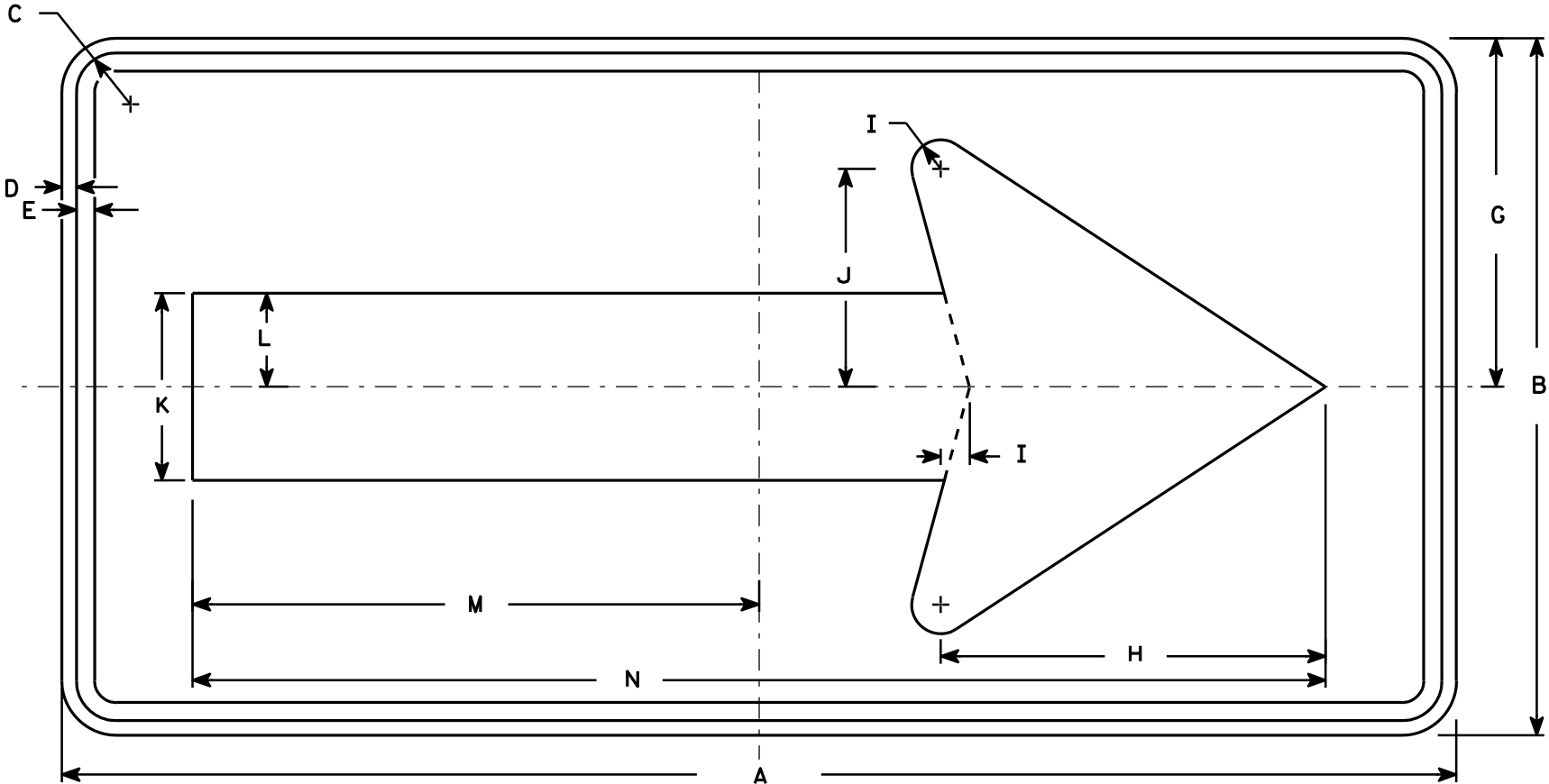
COUNTY:

SHEET NO: 81

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. 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.



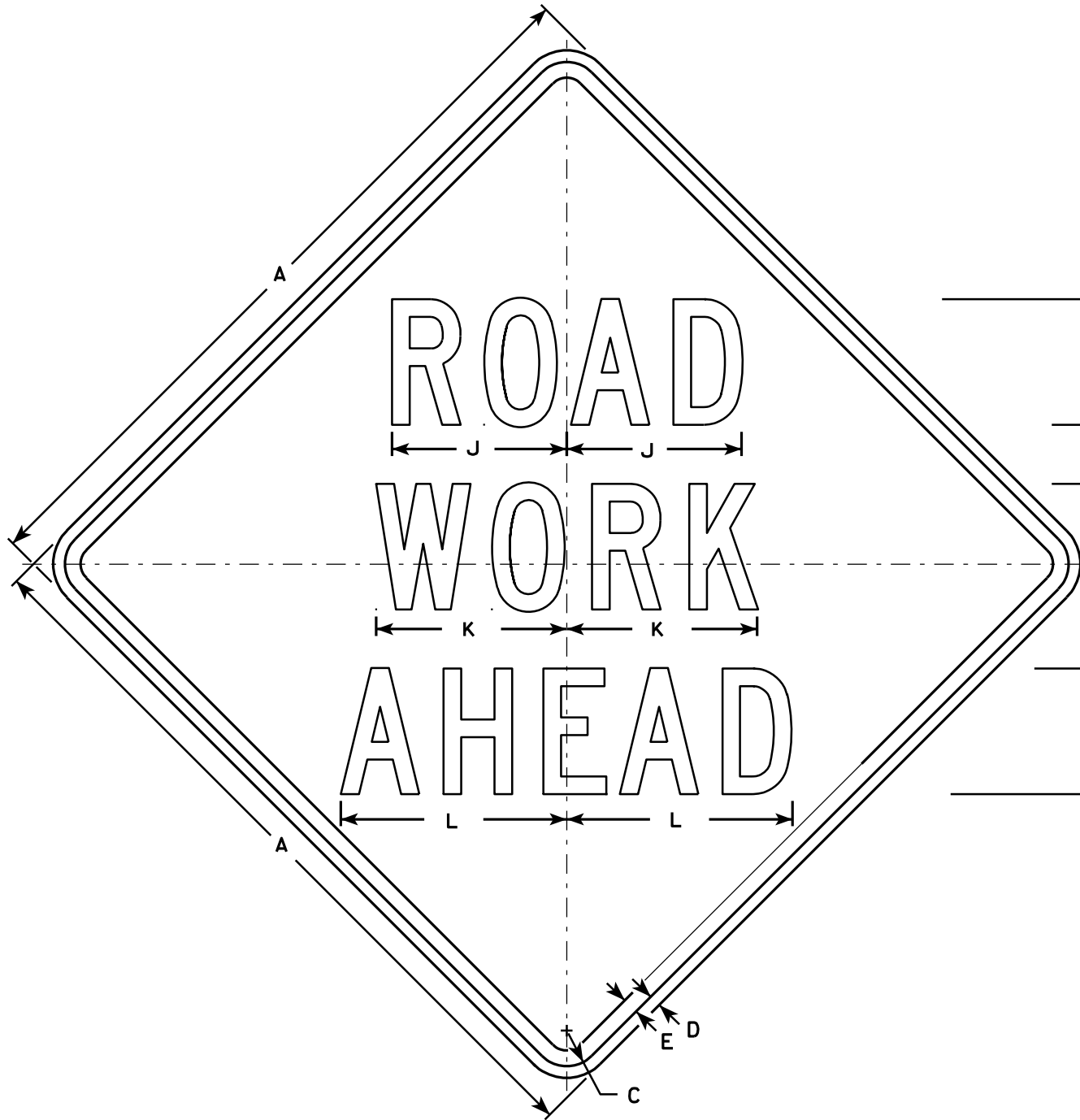
W1-6

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	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

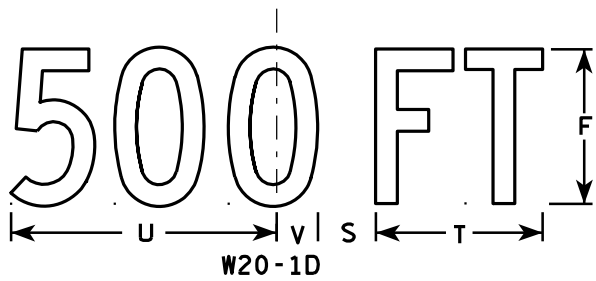
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

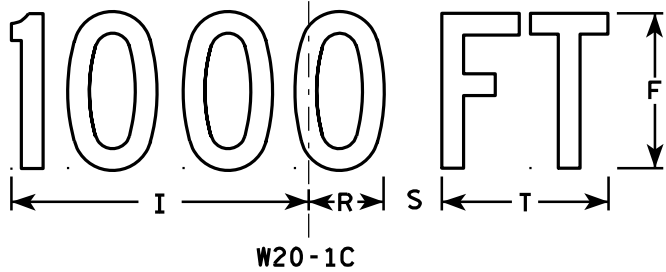
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8



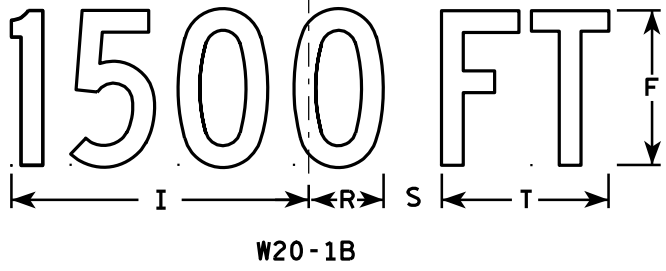
W20-1A



W20-1D



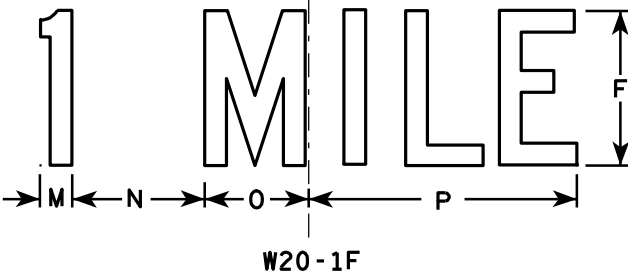
W20-1C



W20-1B



W20-1G



W20-1F

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.

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	1 7/8	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		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		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		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		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		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

PROJECT NO:

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-19

SHEET NO: 83

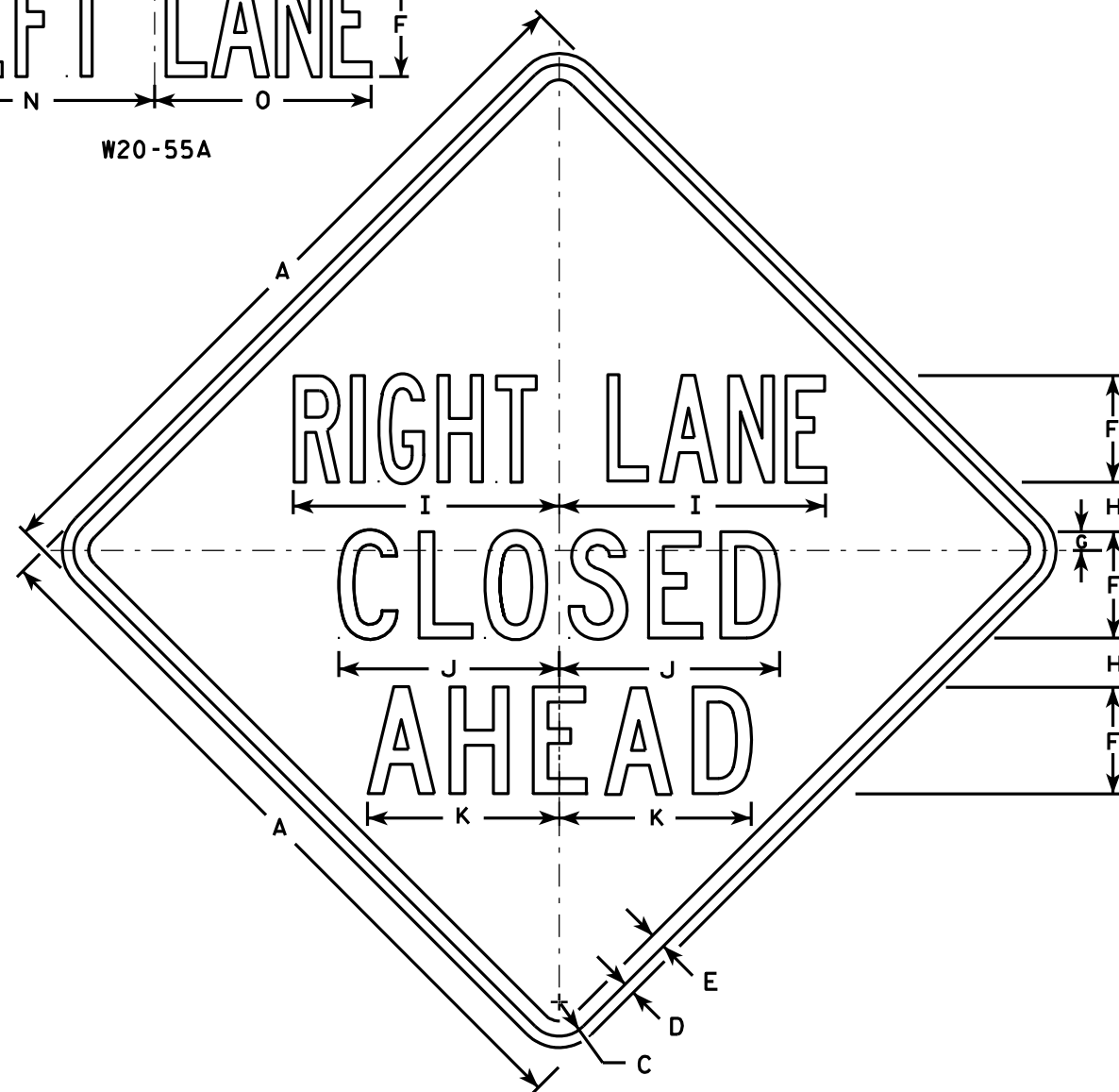
E

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. "-----LANE" is Series B.
All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

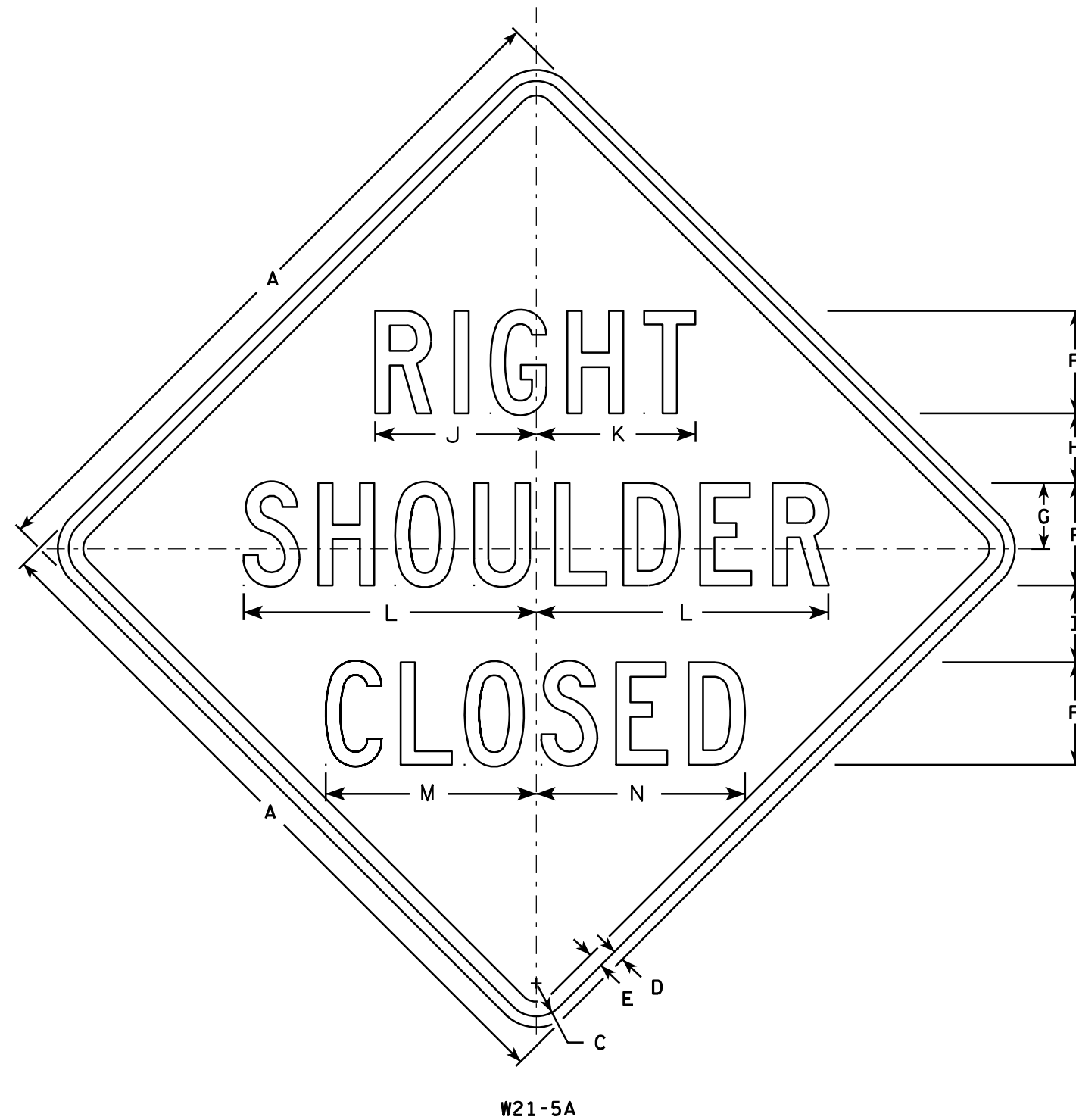
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

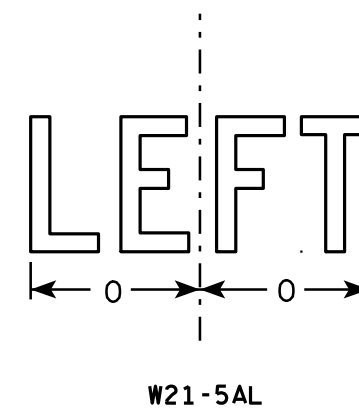
DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 84

E



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	4	7 7/8	7 3/4	14 1/4	10 1/4	10 1/8	6 1/4												9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0

STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5A.3

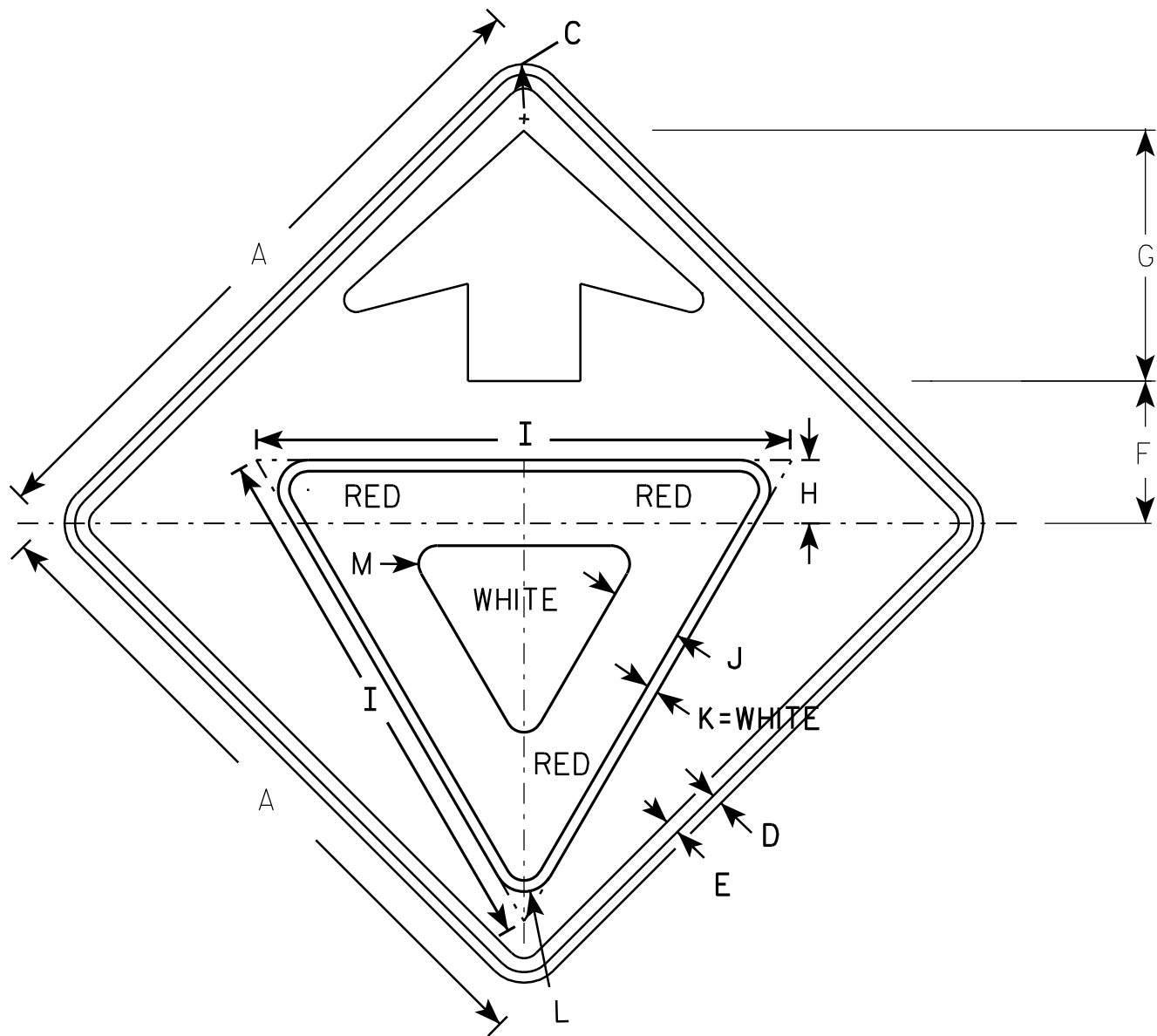
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 85

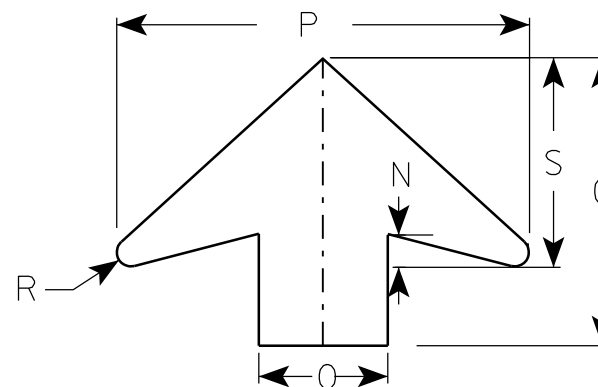
E



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Yield Symbol - WHITE BORDER ON RED BACKGROUND



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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

PROJECT NO:

STANDARD SIGN
W3-2

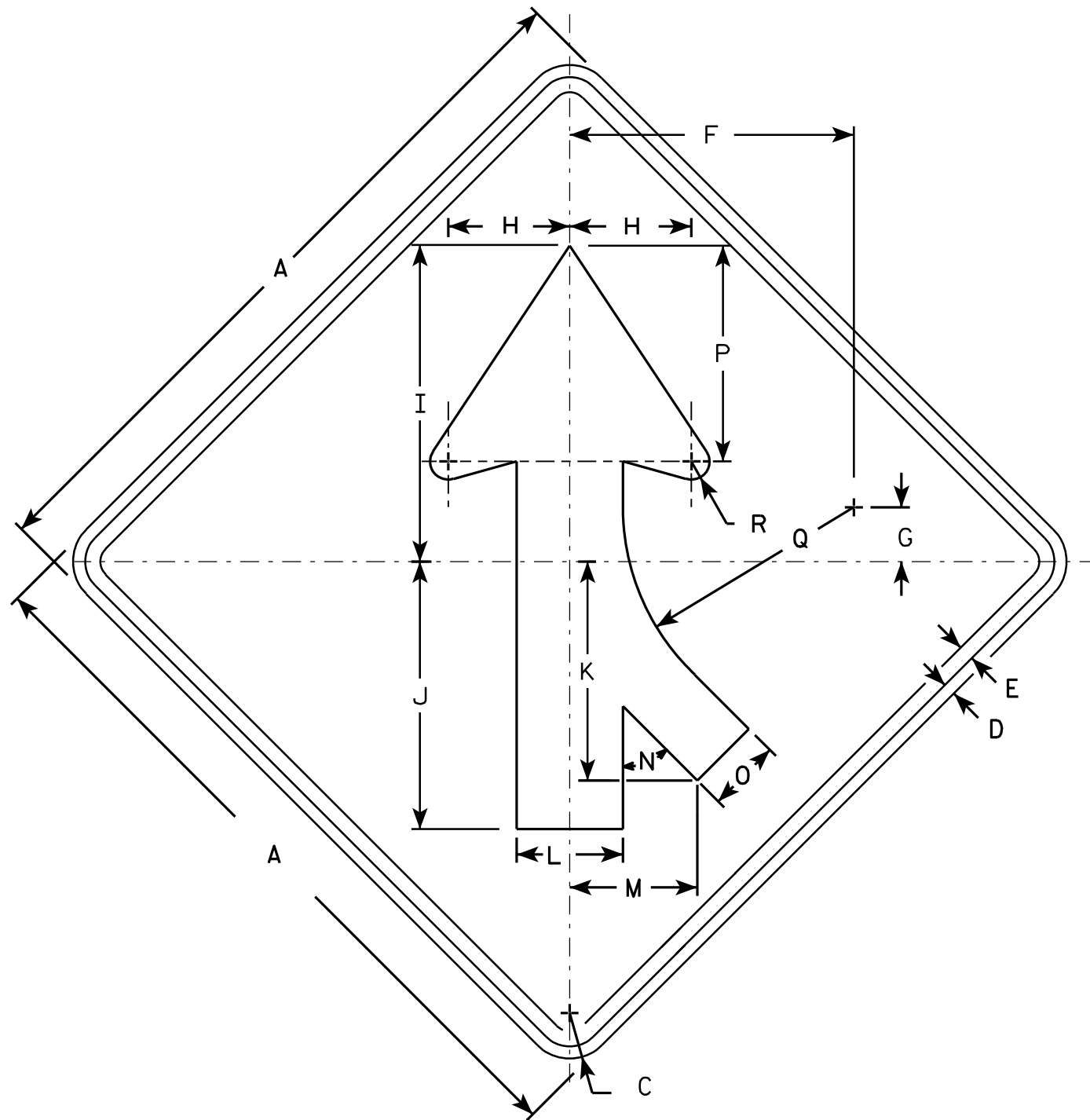
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

SHEET NO: 86

E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

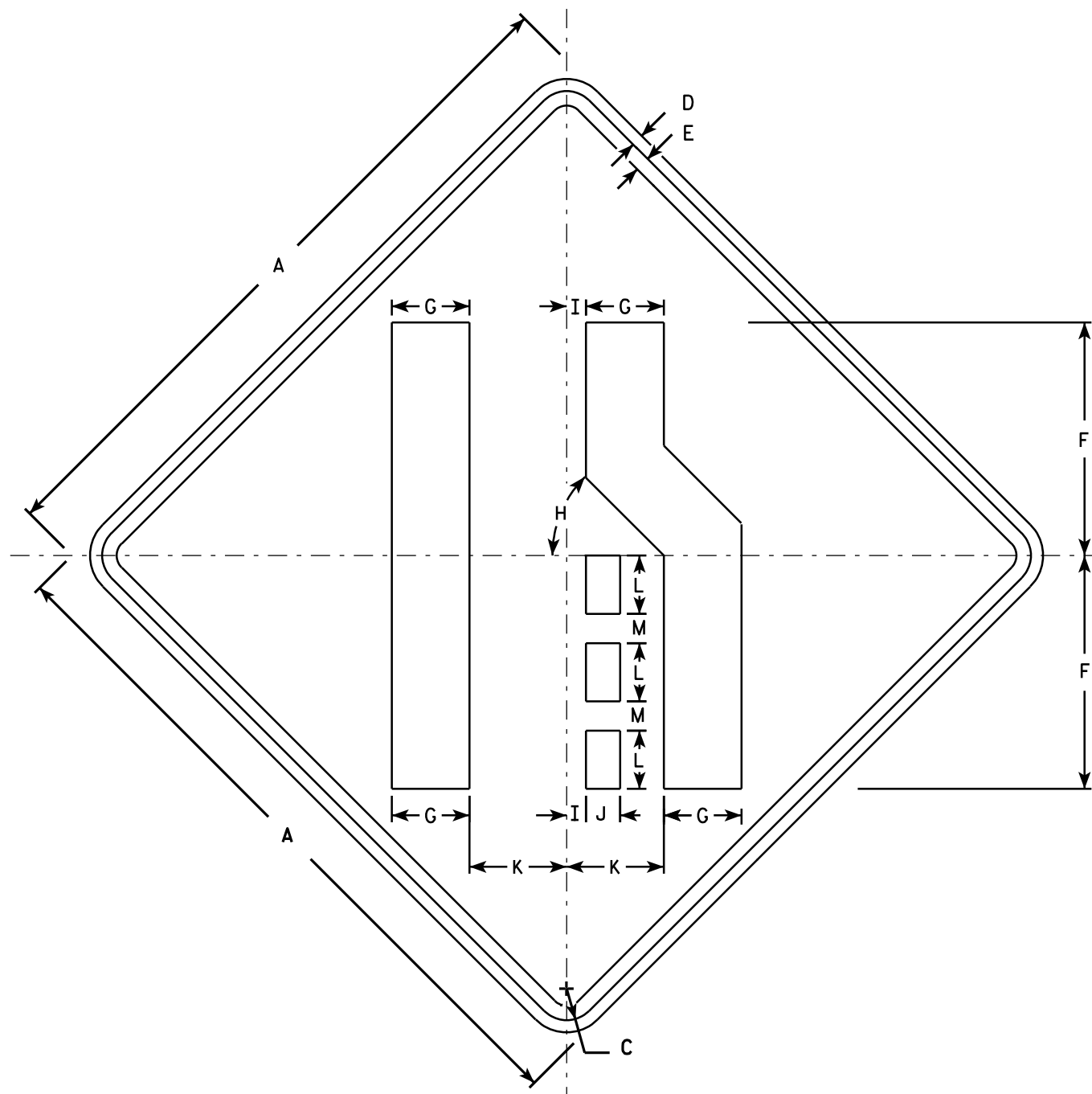
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO: HWY: COUNTY: SHEET NO: 87 E



W4-2R

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- 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.
- W4-2L is the same as W4-2R except the symbols is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN W4-2

WISCONSIN DEPT OF TRANSPORTATION

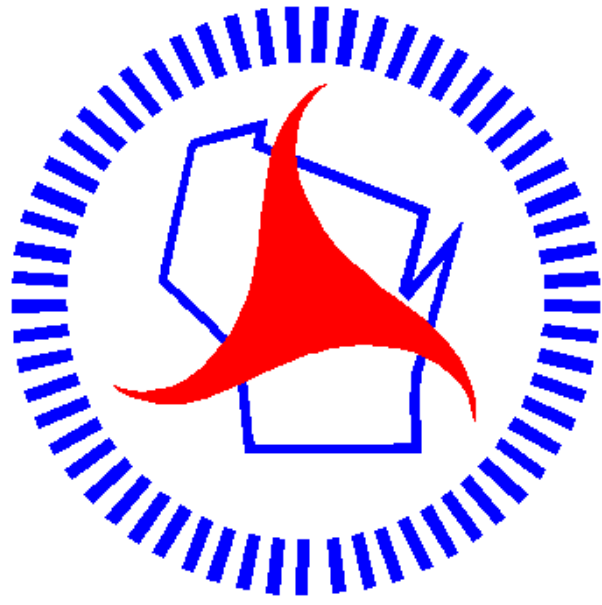
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 88

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>