

WKE
PROJECT ID: 1060-34-88
WITH: N/A

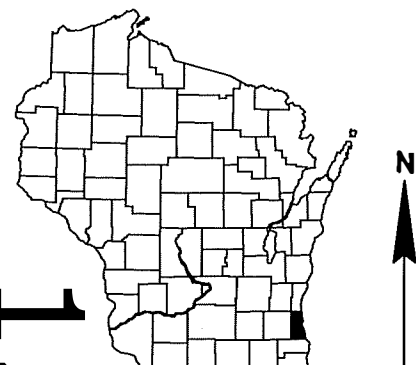
COUNTY: MILWAUKEE

JANUARY 2018

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 Plot
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 = 62



CONVENTIONAL SYMBOLS
PLAN

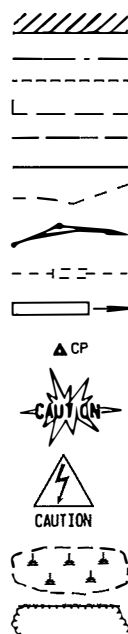
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SLOPE INTERCEPT
REFERENCE LINE
EXISTING CULVERT
PROPOSED CULVERT
(Box or Pipe)
SURVEY CONTROL POINT

COMBUSTIBLE FLUIDS

HIGH VOLTAGE

MARSH AREA

WOODED OR SHRUB AREA



PROFILE

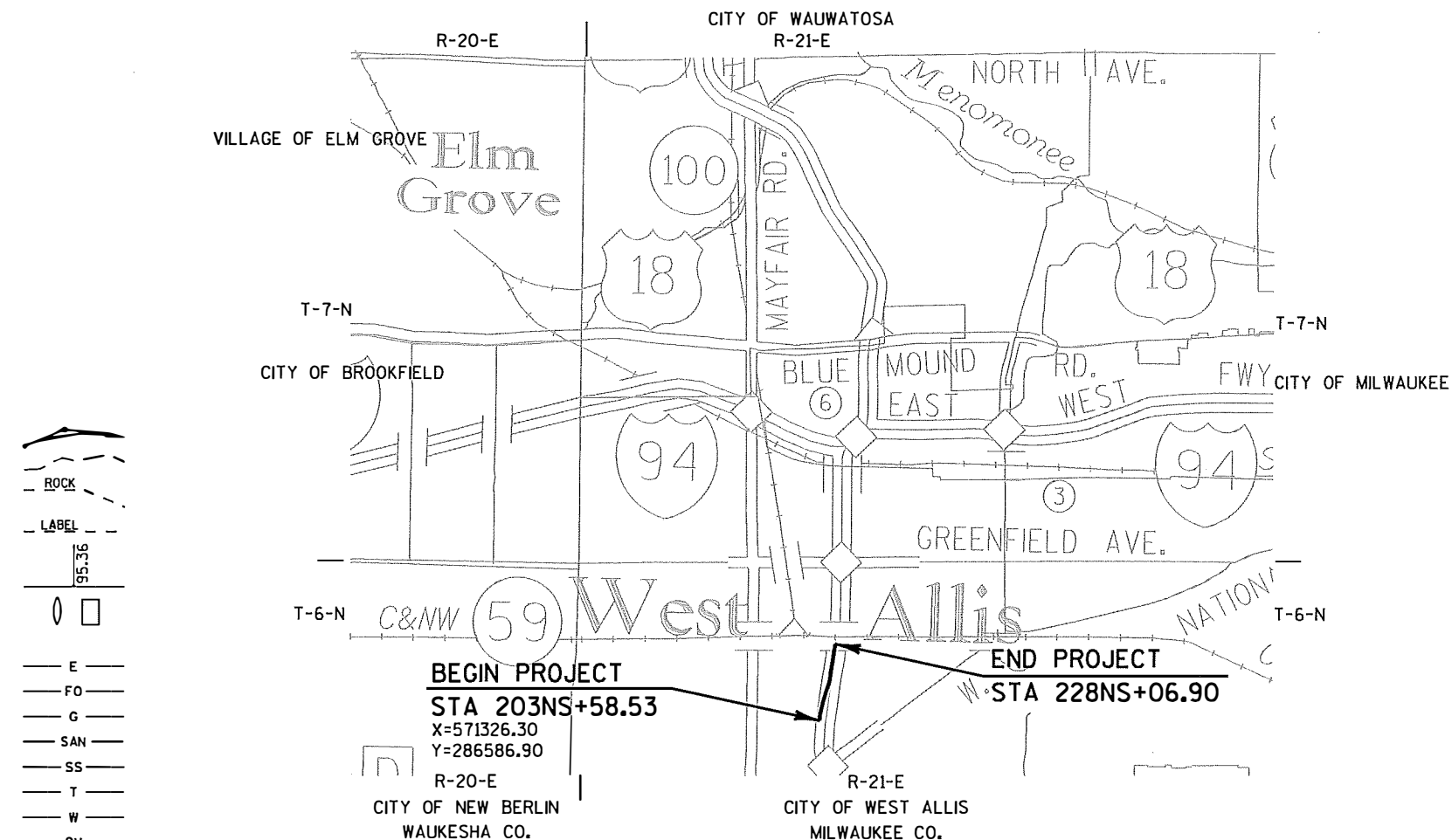
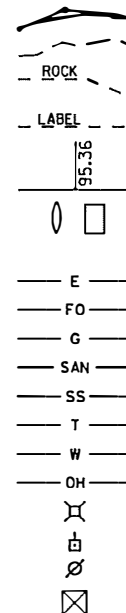
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH

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



LAYOUT
SCALE 0 0.5 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.000 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

1060-34-88

FEDERAL PROJECT

PROJECT

WISC 2018077

CONTRACT

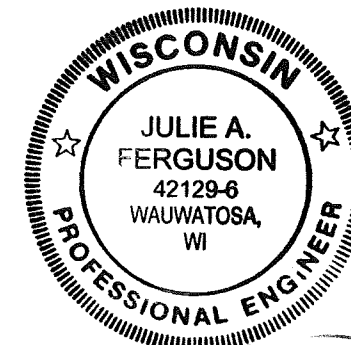
1

NOISE WALLS

N-40-65



ORIGINAL PLANS PREPARED BY
MILWAUKEE, WISCONSIN



4/13/17
(Date)

Julie A. Ferguson
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	FORWARD 45
Designer	FORWARD 45
Project Manager	JOSH LEVEQUE, P.E.
Regional Examiner	
Regional Supervisor	WILLIAM S. MOHR, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 4/13/17 *Julie A. Ferguson*
(Signature)

E

AT&T WISCONSIN

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ELECTRICAL FIELD UNIT

935 S. 60TH STREET
WEST ALLIS, WI 53214
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WISDOT STOC

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STATE AGENCIES

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OTHER AGENCIES

MILWAUKEE COUNTY DPW

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MILWAUKEE COUNTY TRANSIT SYSTEM

MS. MELANIE FLYNN
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SOUTHEASTERN WISCONSIN
REGIONAL PLANNING COMMISSION

MR. ROB MERRY
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rmerry@sewrpc.org

WEST ALLIS, CITY OF

MR. MIKE LEWIS, CITY ENGINEER
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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

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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

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.

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

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

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

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

FERTILIZER SHALL NOT BE USED WITHIN 100' OF NAVIGABLE WATERWAYS OR WETLANDS.

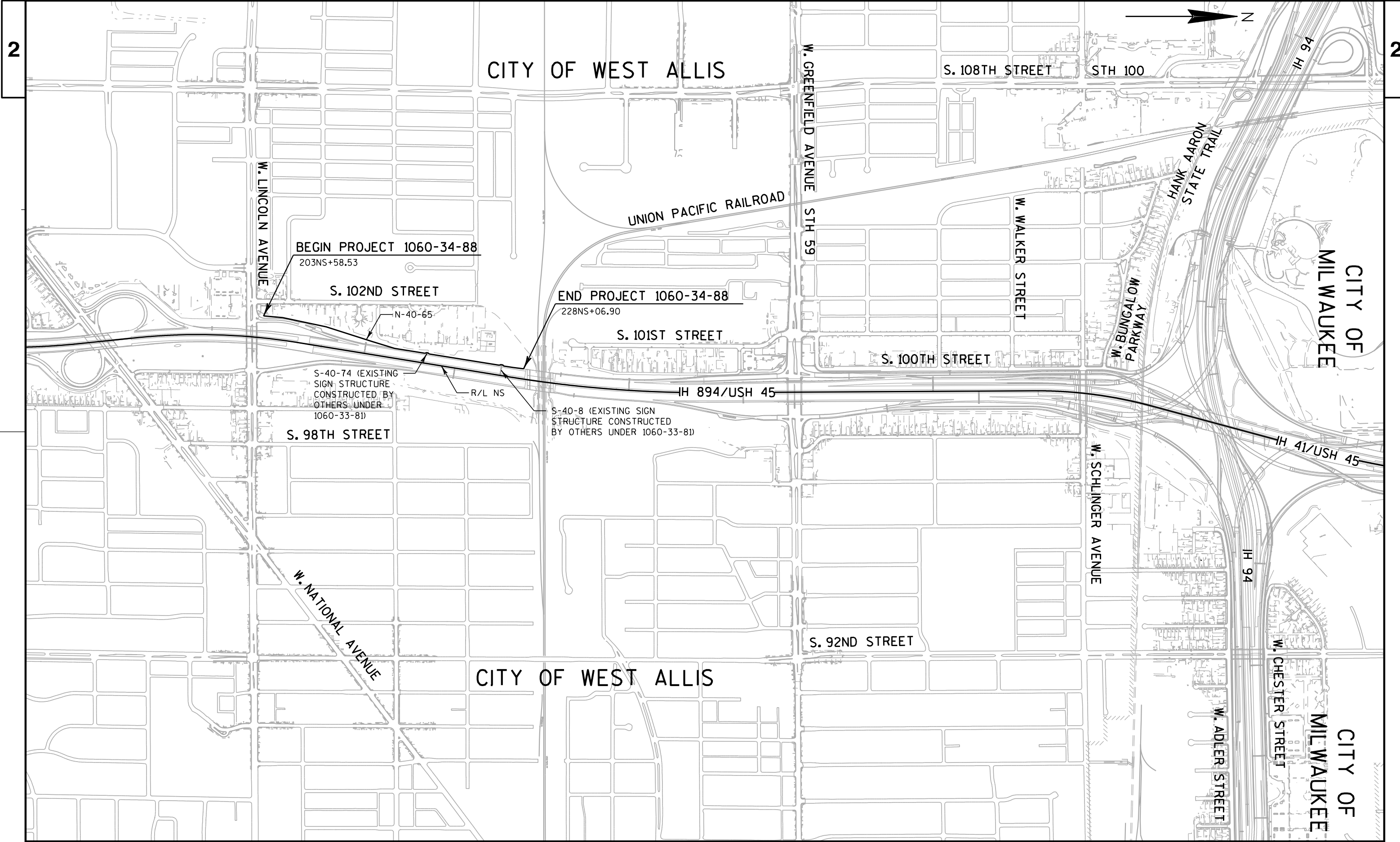
TRAFFIC CONTROL DEVICES TO BE PLACED UNDER CONTRACT 1060-33-81. COORDINATE WITH CONTRACTOR FOR 1060-33-81 FOR ACCESS TO WORK ZONE.

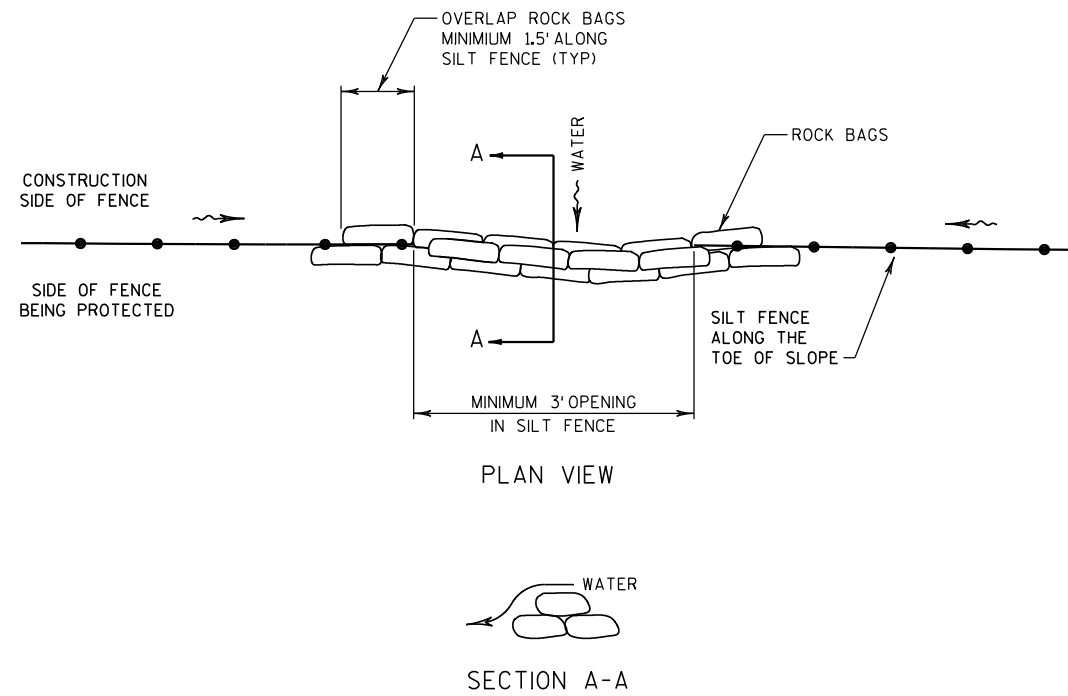
ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- CONSTRUCTION DETAILS
- REMOVAL PLANS
- EROSION CONTROL
- EXISTING UTILITY PLANS
- PERMANENT SIGNING
- EXISTING TRAFFIC CONTROL
- FENCING
- ALIGNMENT LAYOUT

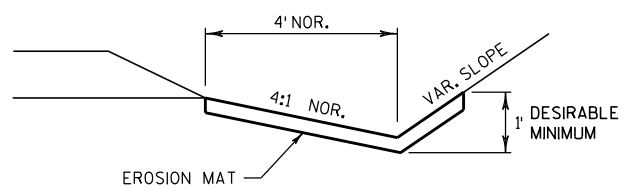
STANDARD ABBREVIATIONS

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

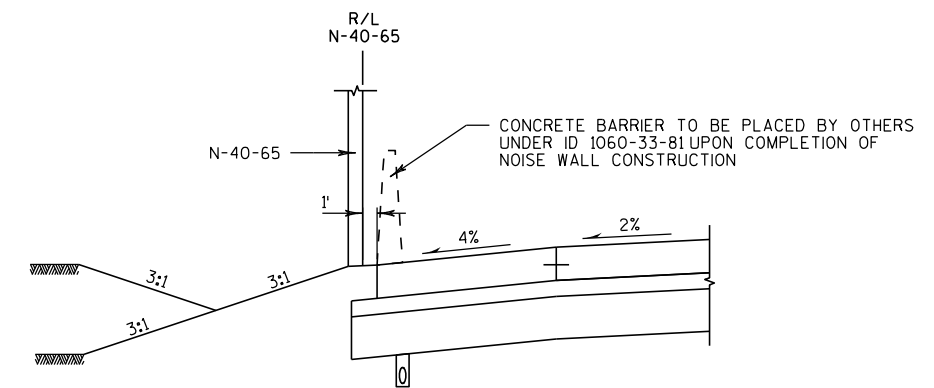




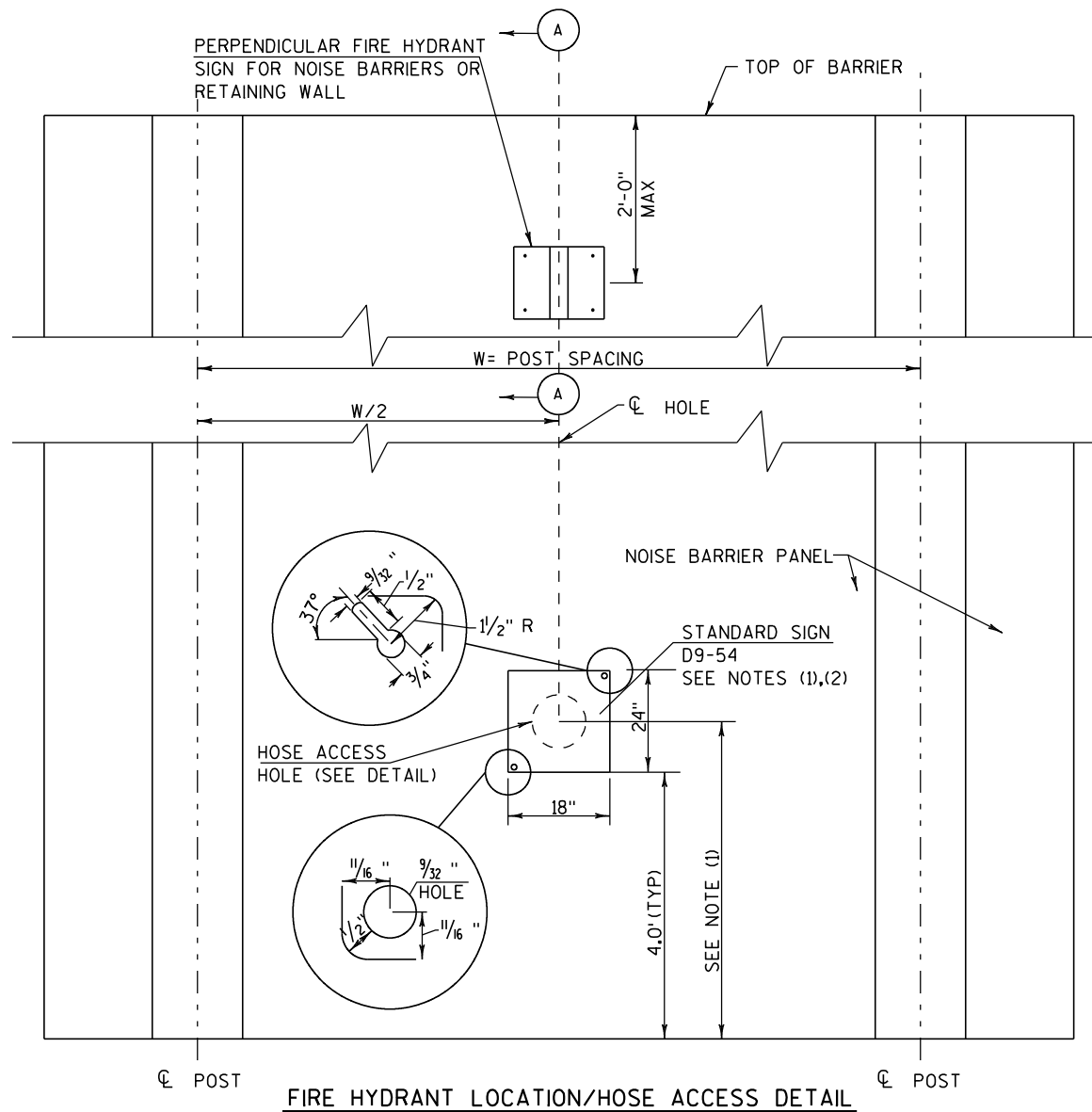
SILT FENCE DRAINAGE OUTLET, ROCK BAGS



EROSION MAT DETAIL FOR DITCHES



EXISTING ROADWAY ADJACENT TO NOISE WALL

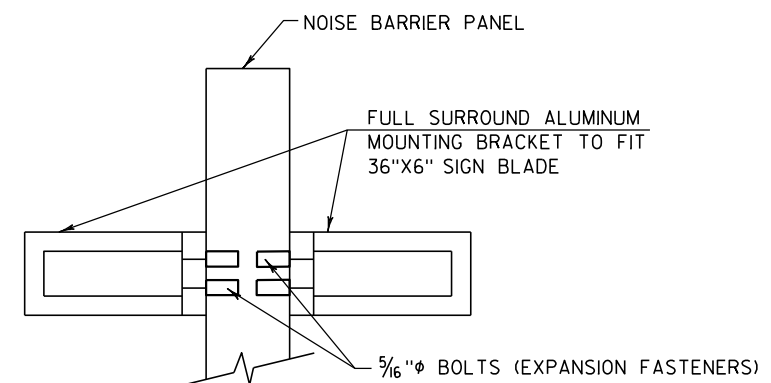


NOTES:

1. STANDARD SIGNS D9-54 SHALL BE FURNISHED BY THE CONTRACTOR. SEE PLAN.
2. TWO STANDARD SIGNS D9-54 TO BE FURNISHED PER STATION. ONE SIGN SHALL BE INSTALLED ON EACH SIDE OF THE BARRIER.
3. FIRE HYDRANT SIGN BLADE SHALL BE ATTACHED TO THE NOISE BARRIER PANEL OR RETAINING WALL NEAR THE TOP OF THE BARRIER. SEE DETAIL ABOVE, PAID FOR UNDER FIRE HYDRANT SIGN MOUNTING SEE SPECIAL PROVISIONS.

NOTE:

EXPANSION FASTENERS FOR SIGN (D9-54) SIGN ARE INCIDENTAL TO SIGN.

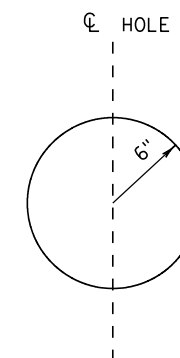


SECTION A-A

PERPENDICULAR FIRE HYDRANT
SIGN FOR NOISE BARRIER OR RETAINING WALL

NOTE:

MOUNTING BOLTS, BRACKETS, ARE INCIDENTAL TO SIGN

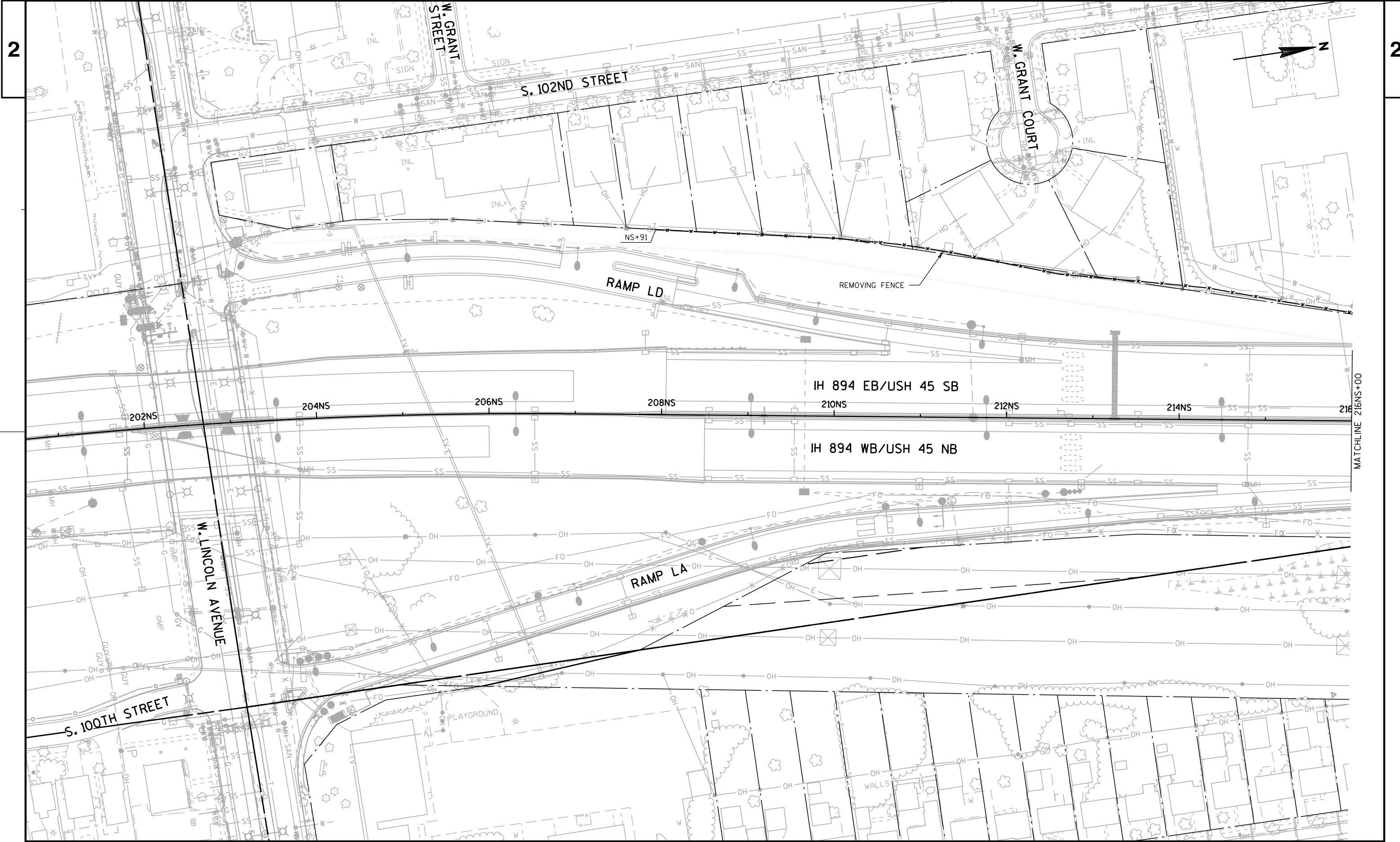


HOSE ACCESS HOLE DETAIL

NOTE:

PLACE SIGNS ADJACENT TO OPENING WHERE SIGNING PLAN SHEETS SO INDICATE OTHERWISE, INSTALL PER THIS DETAIL.

SHEET 1 OF 1



PROJECT NO:1060-34-88

HWY: IH 894

COUNTY: MILWAUKEE

REMOVAL PLANS

SHEET

E

FILE NAME : W:\Cadd\Final\10603488_NW\Roads\cds\021101.rm.dgn

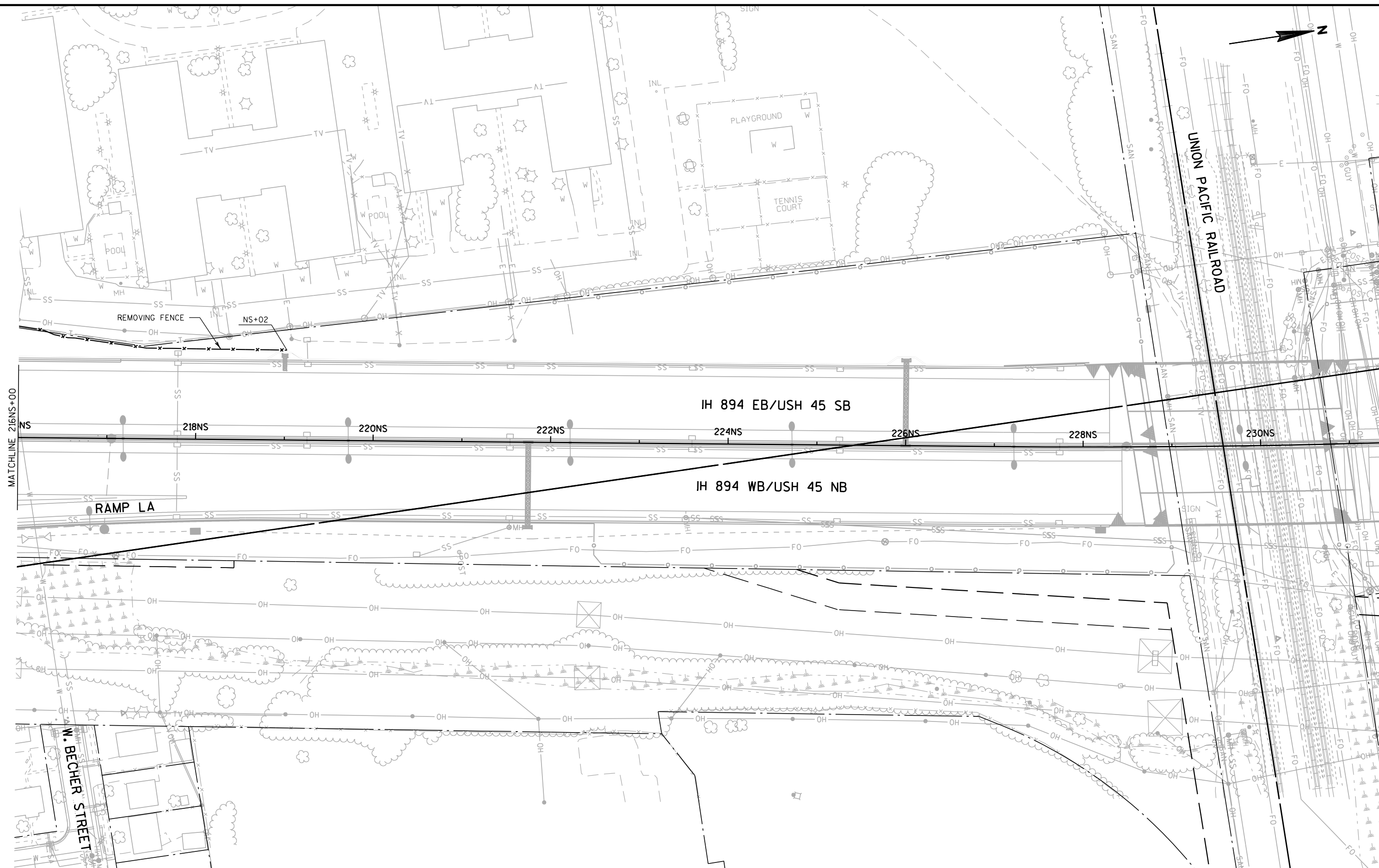
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PLOT BY : mscdyb

PLOT NAME : 021101.rm

PLOT SCALE : 100:1

WISDOT/CADDs SHEET 42



PROJECT NO:1060-34-88

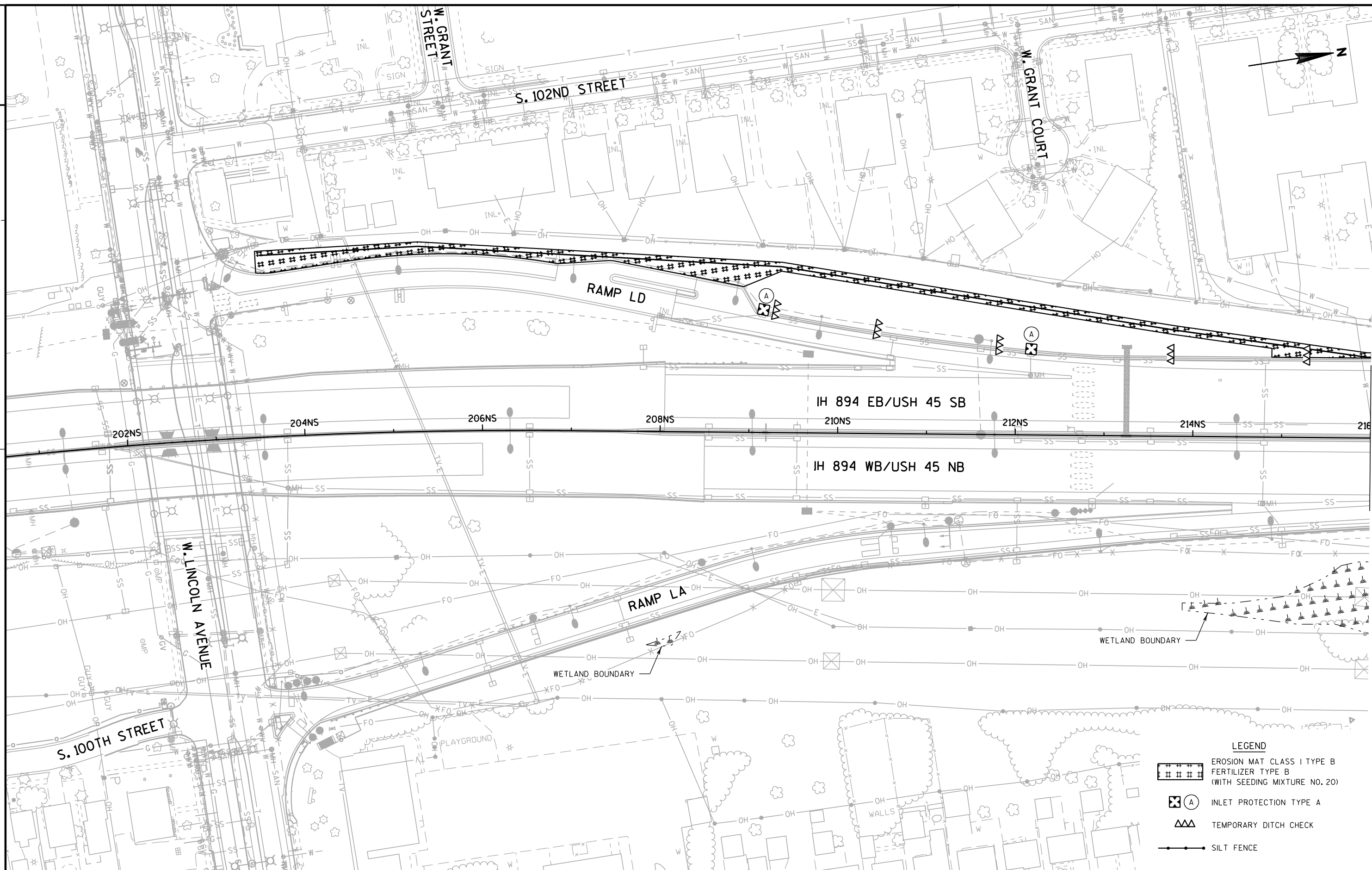
HWY: IH 894

COUNTY: MILWAUKEE

REMOVAL PLANS

SHEET

E



PROJECT NO:1060-34-88

HWY: IH 894

COUNTY: MILWAUKEE

EROSION CONTROL

SHEET

E

FILE NAME : W:\Cadd\Final\10603488_NW\Roads\cds\022001.ec.dgn

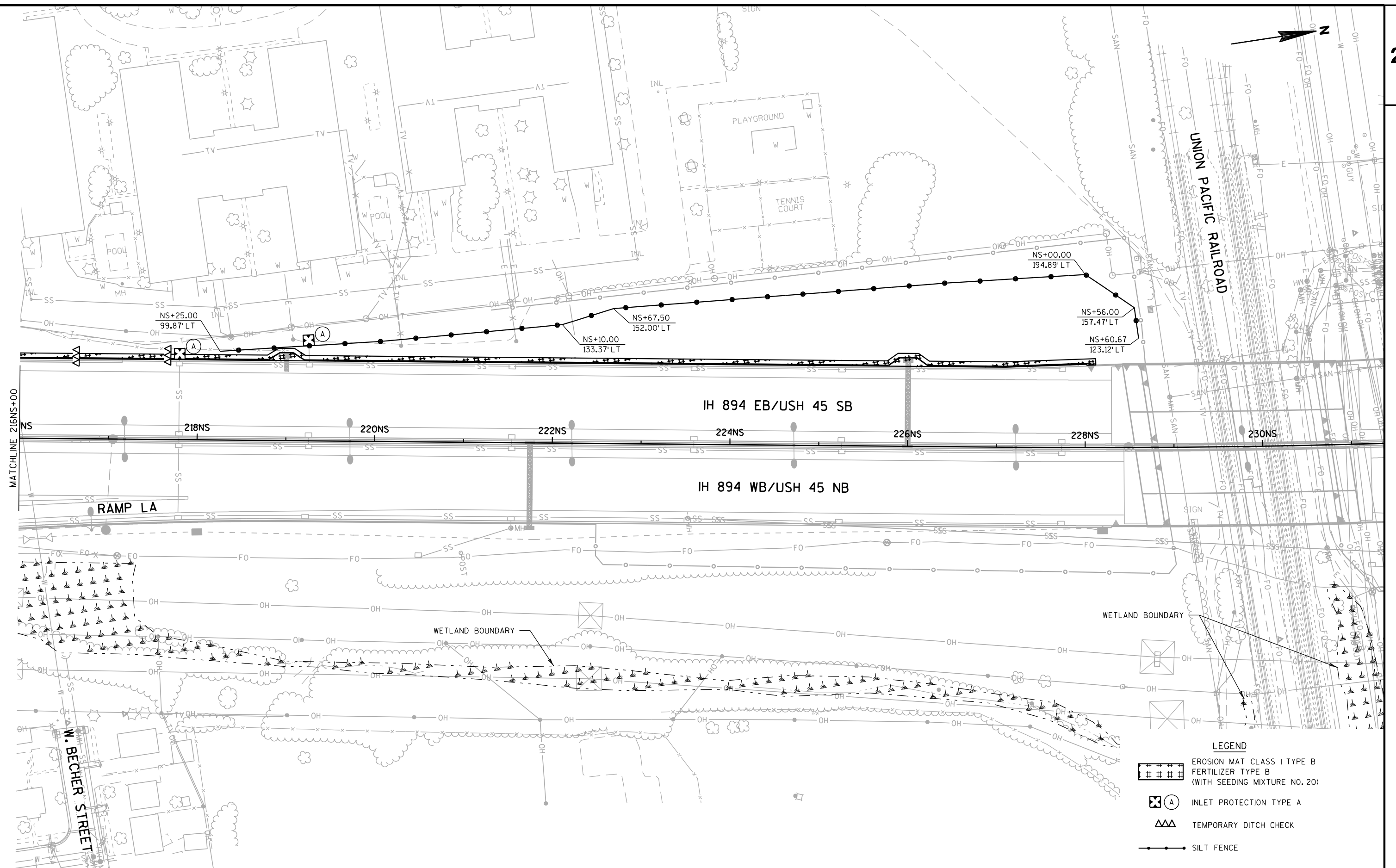
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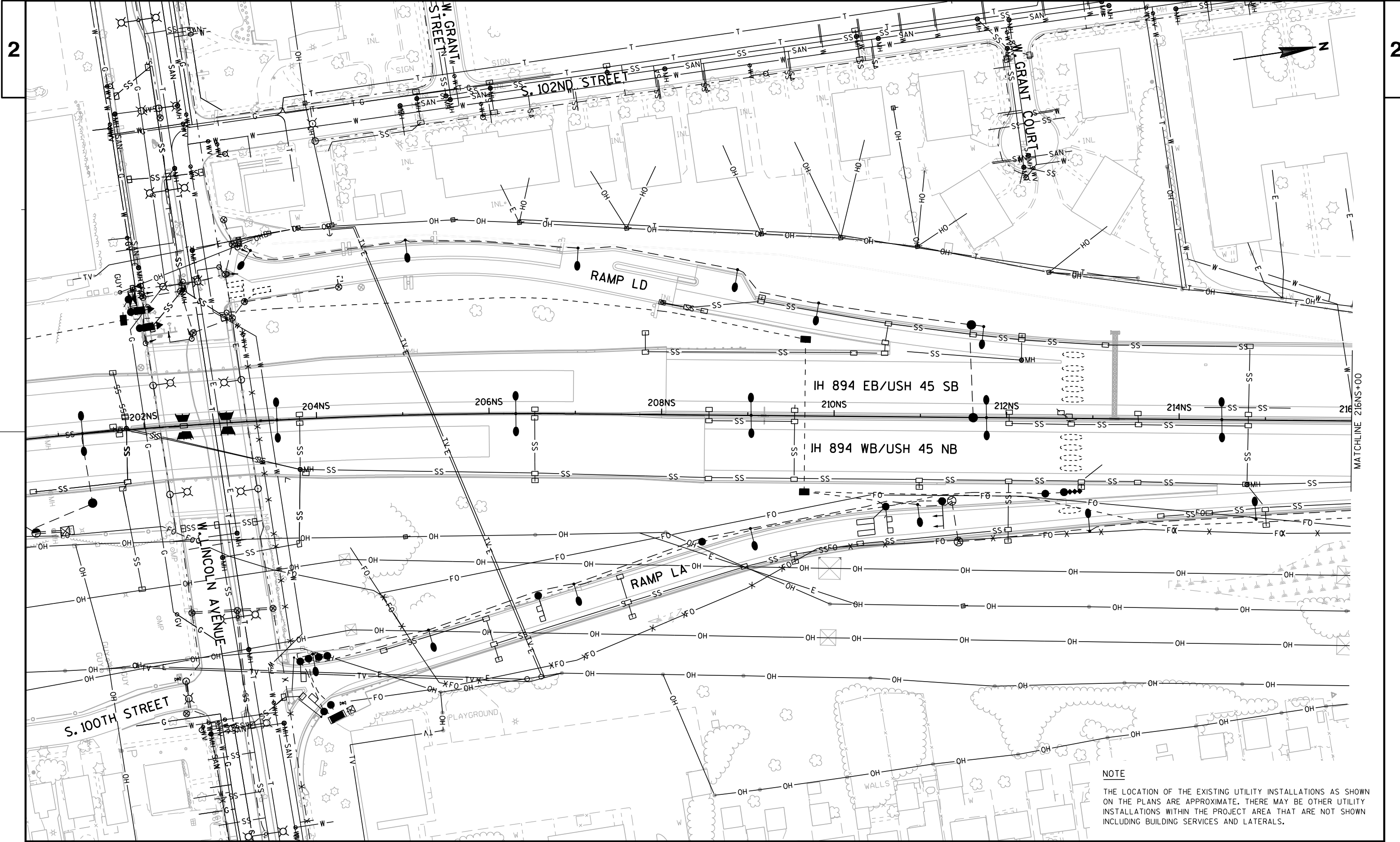
PLOT BY : mscdyb

PLOT NAME : 022001.ec

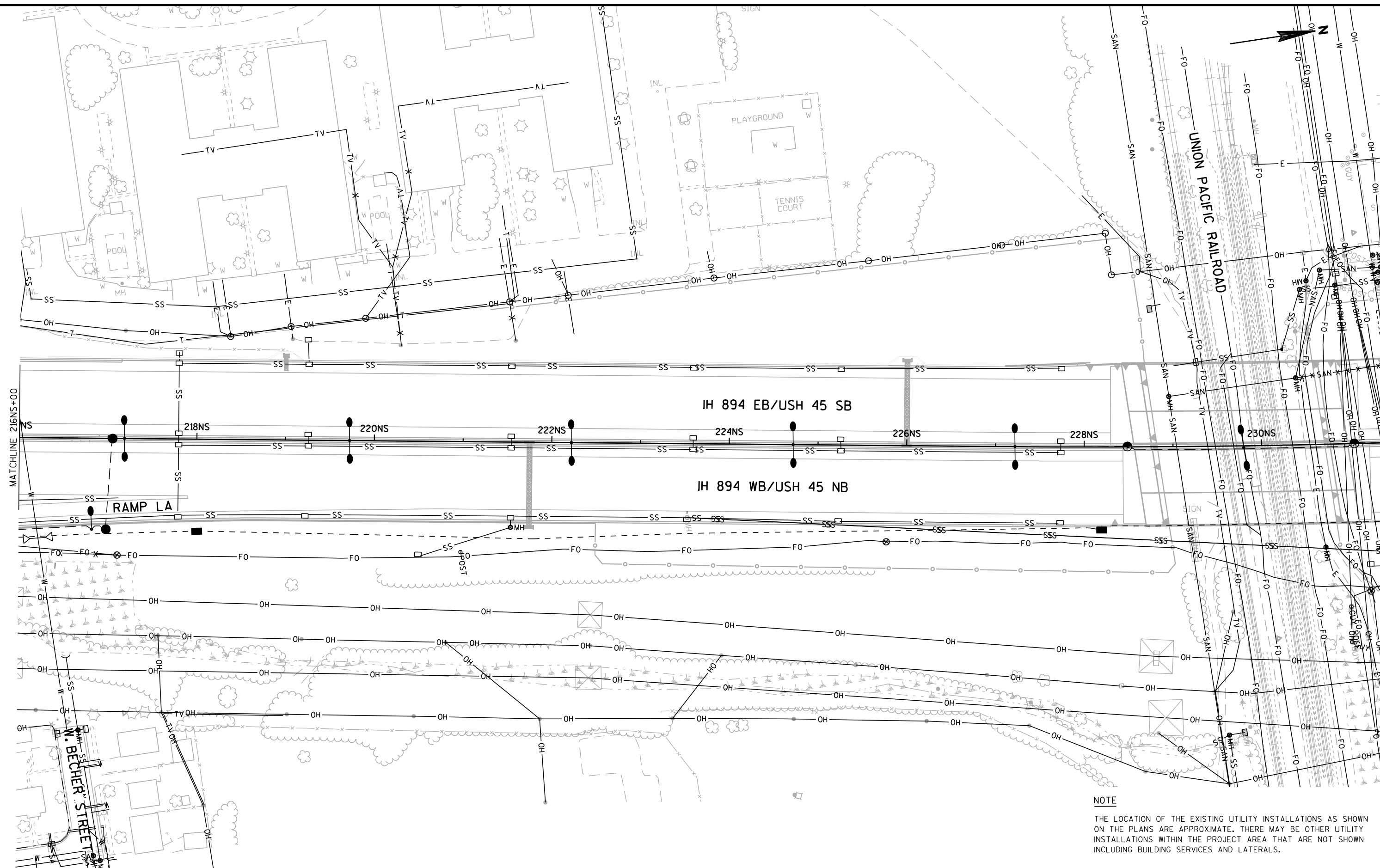
PLOT SCALE : 100:1

WISDOT/CADDs SHEET 42





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



PROJECT NO:1060-34-88

HWY: IH 894

COUNTY: MILWAUKEE

EXISTING UTILITY PLANS

SHEET

E

LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

BLANK IDENTIFIER
BLADES
SEE DETAIL

 1 1A

 2 2A

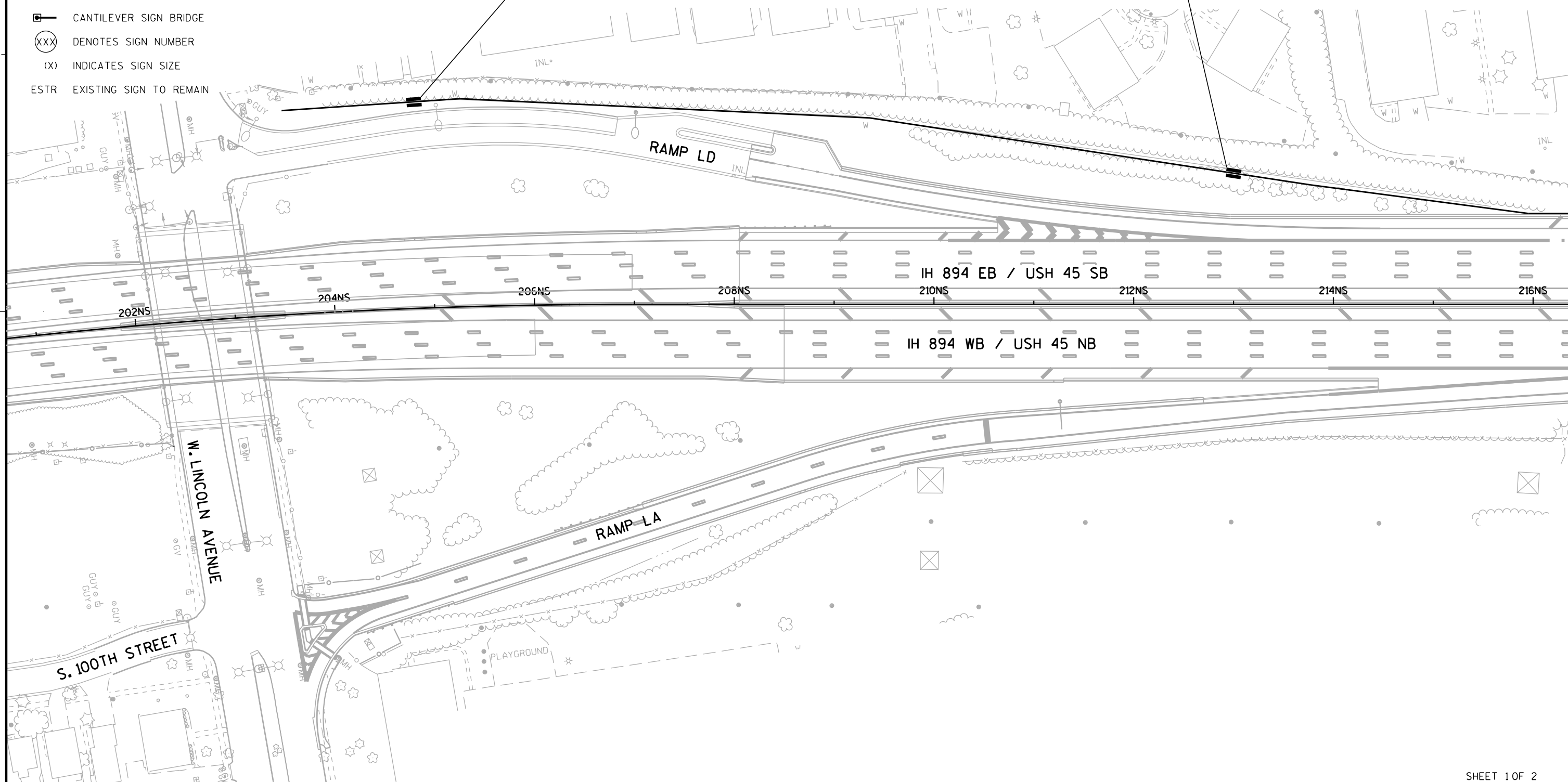
D9-54 (2S)
S. 102nd ST. @
W. GRANT ST.
ON WALL

BLANK IDENTIFIER
BLADES
(SEE DETAIL)

 3 3A

 4 4A

D9-54 (2S)
10119 W.
GRANT CT.
ON WALL



SHEET 1 OF 2

PROJECT NO: 1060-34-88

HWY: IH 894

COUNTY: MILWAUKEE

PERMANENT SIGNING

SHEET

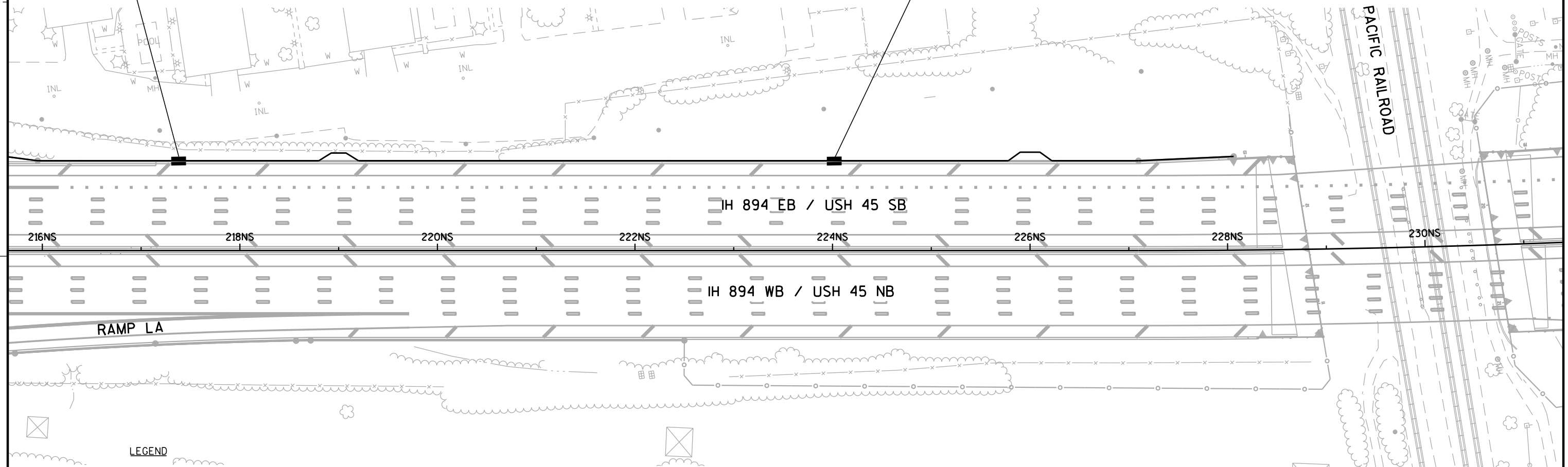
E

5A 5 
BLANK IDENTIFIER
BLADES
(SEE DETAIL)

6A 6 
D9-54 (2S)
2054 S. 102nd ST.
ON WALL

7A 7 
BLANK IDENTIFIER
BLADES
(SEE DETAIL)

8A 8 
D9-54 (2S)
W. ROGERS ST.
@ S. 102nd ST.
ON WALL



LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
-  VARIABLE MESSAGE SIGN
-  EXISTING LIGHT OR SIGNAL POLE
-  SIGN BRIDGE
-  CANTILEVER SIGN BRIDGE
-  DENOTES SIGN NUMBER
-  INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 2 OF 2

PROJECT NO:1060-34-88

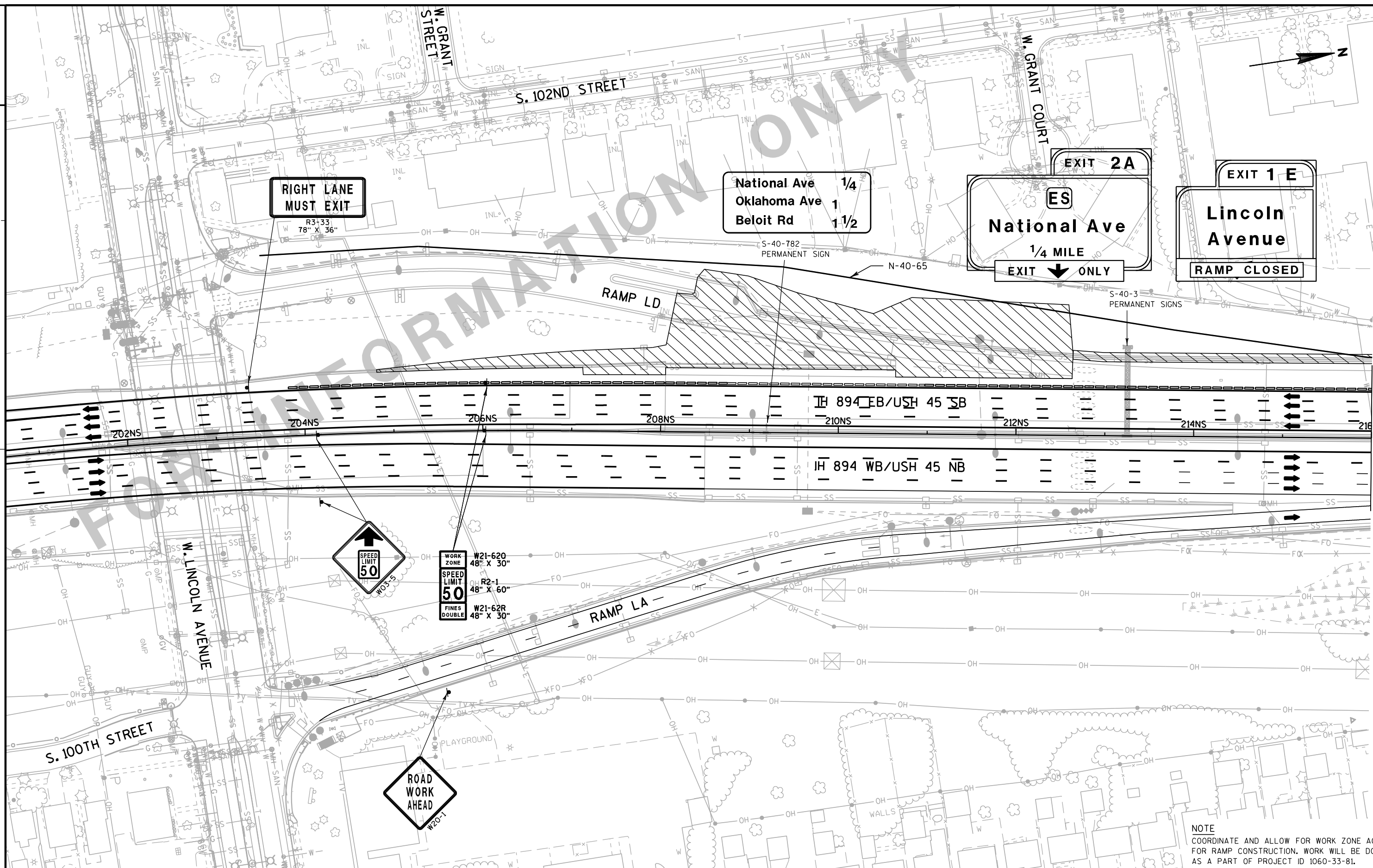
HWY: IH 894

COUNTY: MILWAUKEE

PERMANENT SIGNING

SHEET

E



PROJECT NO: 1060-34-88

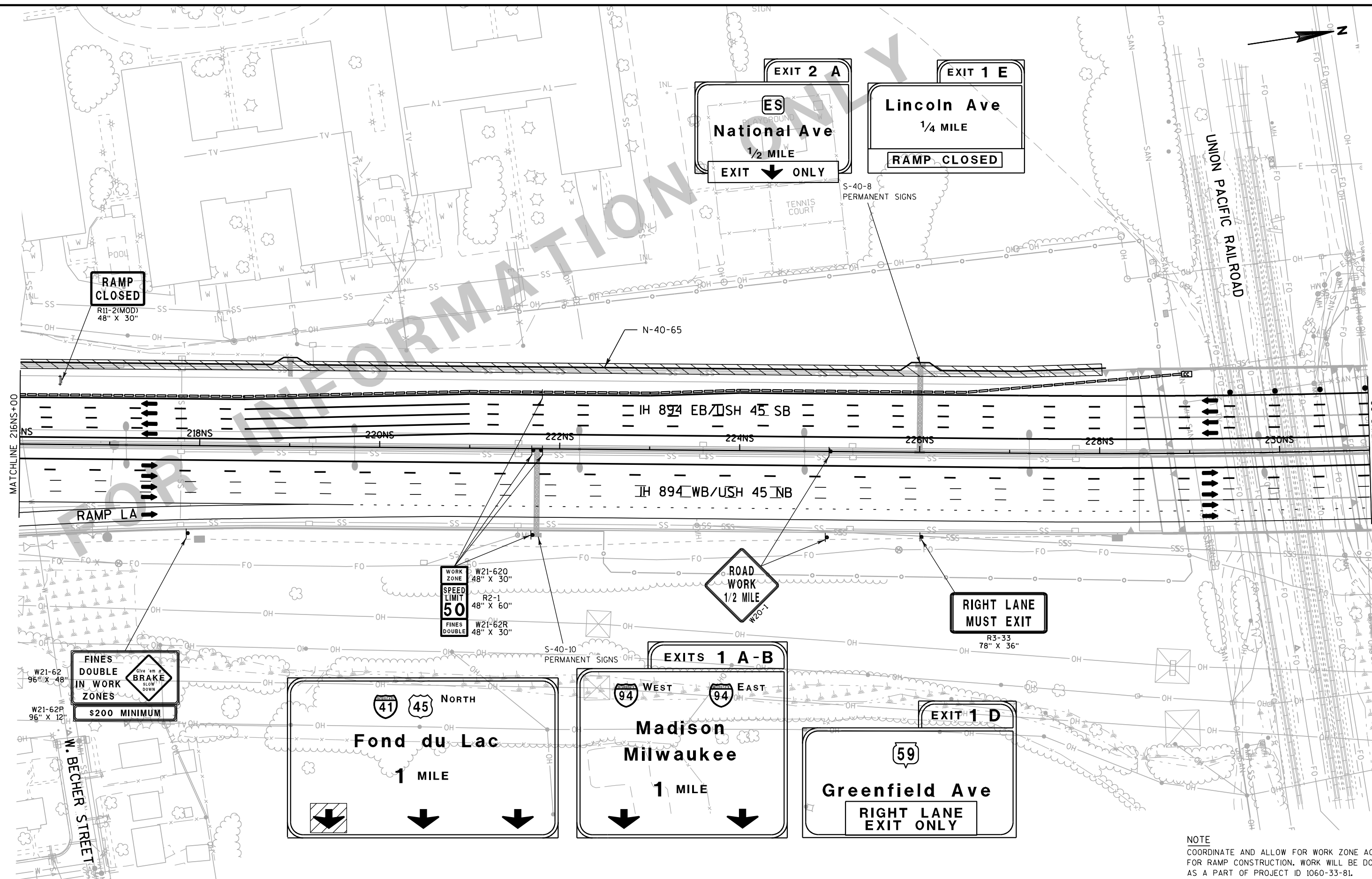
HWY: IH 894

COUNTY: MILWAUKEE

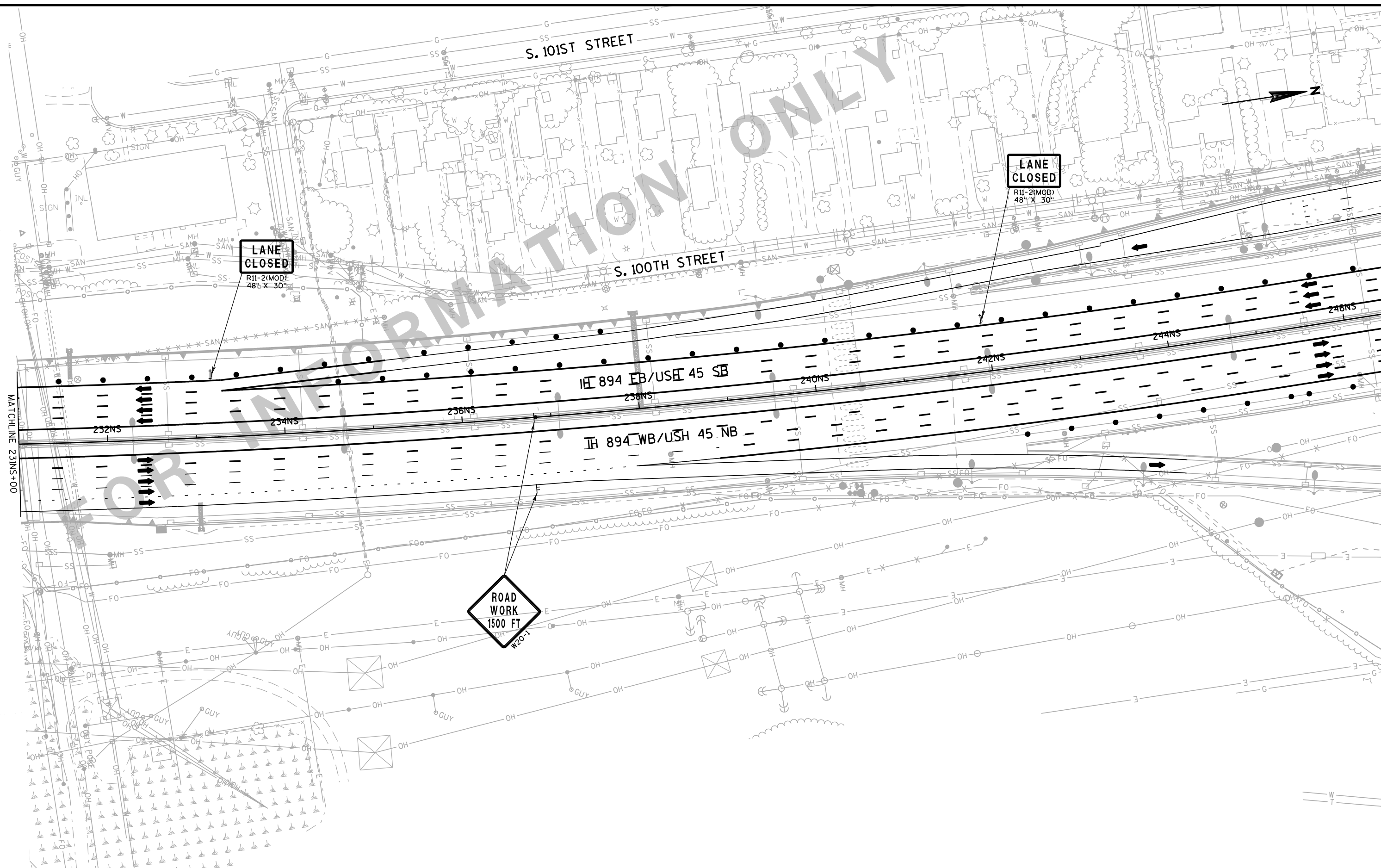
EXISTING TRAFFIC CONTROL

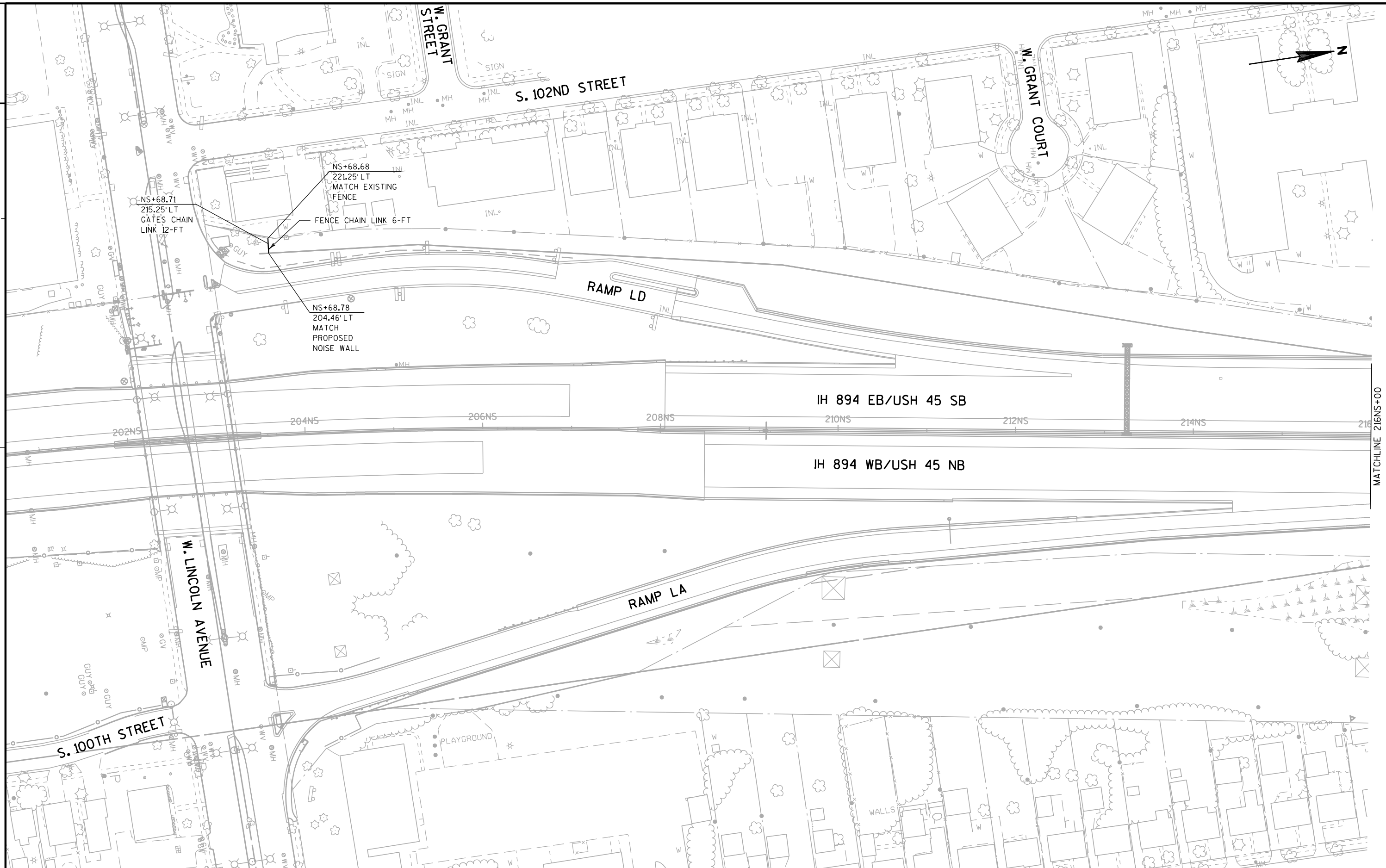
SHEET

E



NOTE
COORDINATE AND ALLOW FOR WORK ZONE ACCESS
FOR RAMP CONSTRUCTION. WORK WILL BE DONE
AS A PART OF PROJECT ID 1060-33-81.





PROJECT NO:1060-34-88

HWY: IH 894

COUNTY: MILWAUKEE

FENCING

SHEET

E

FILE NAME : W:\Cadd\Final\10603488_NW\Roads\cads\027101_fn.dgn

PLOT DATE : 12-APR-2017 21:44

PLOT BY : mscdyb

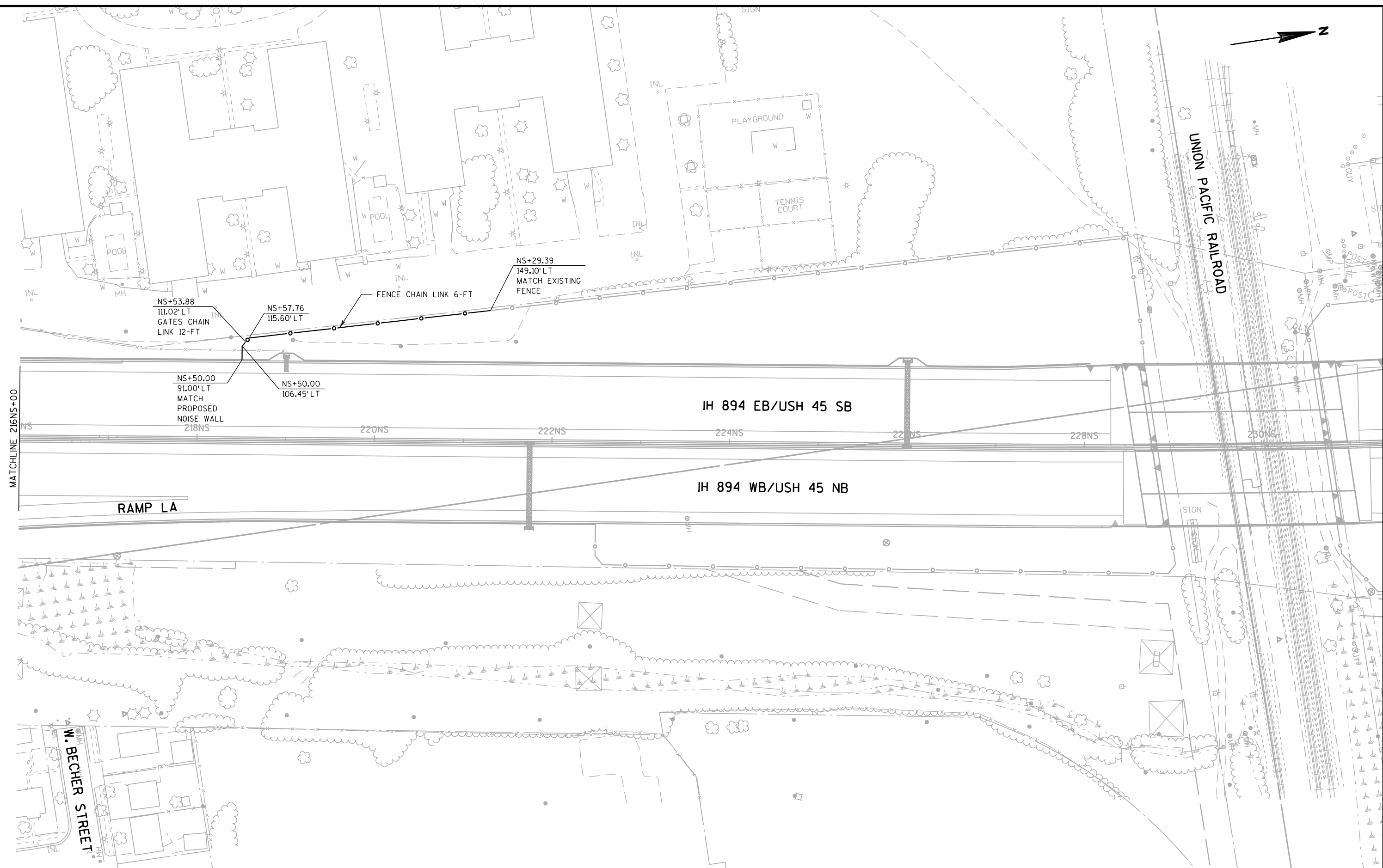
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PLOT SCALE : 100:1

WISDOT/CADDs SHEET 42

2

2



PROJECT NO:1060-34-88

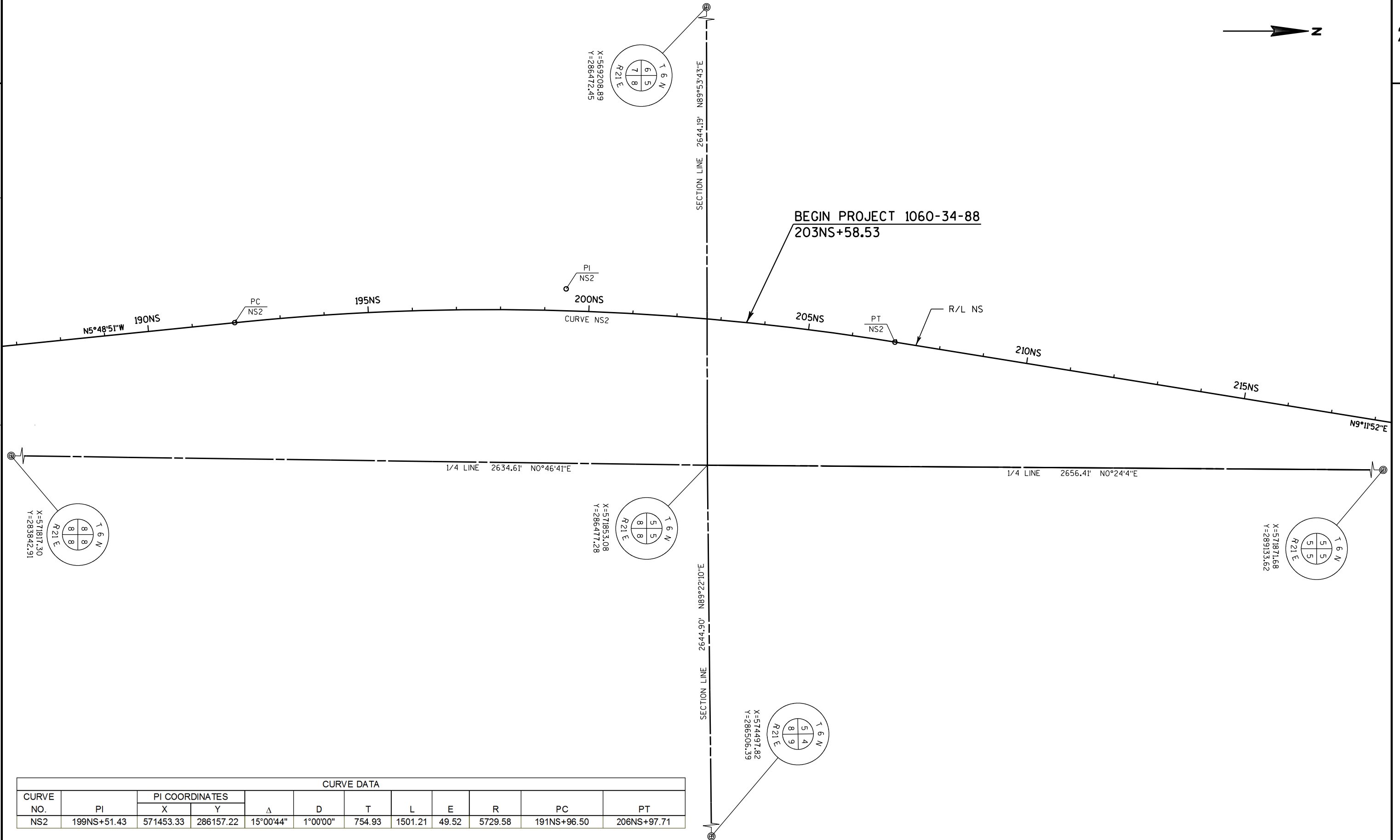
HWY: IH 894

COUNTY: MILWAUKEE

FENCING

SHEET

E



PROJECT NO:1060-34-88

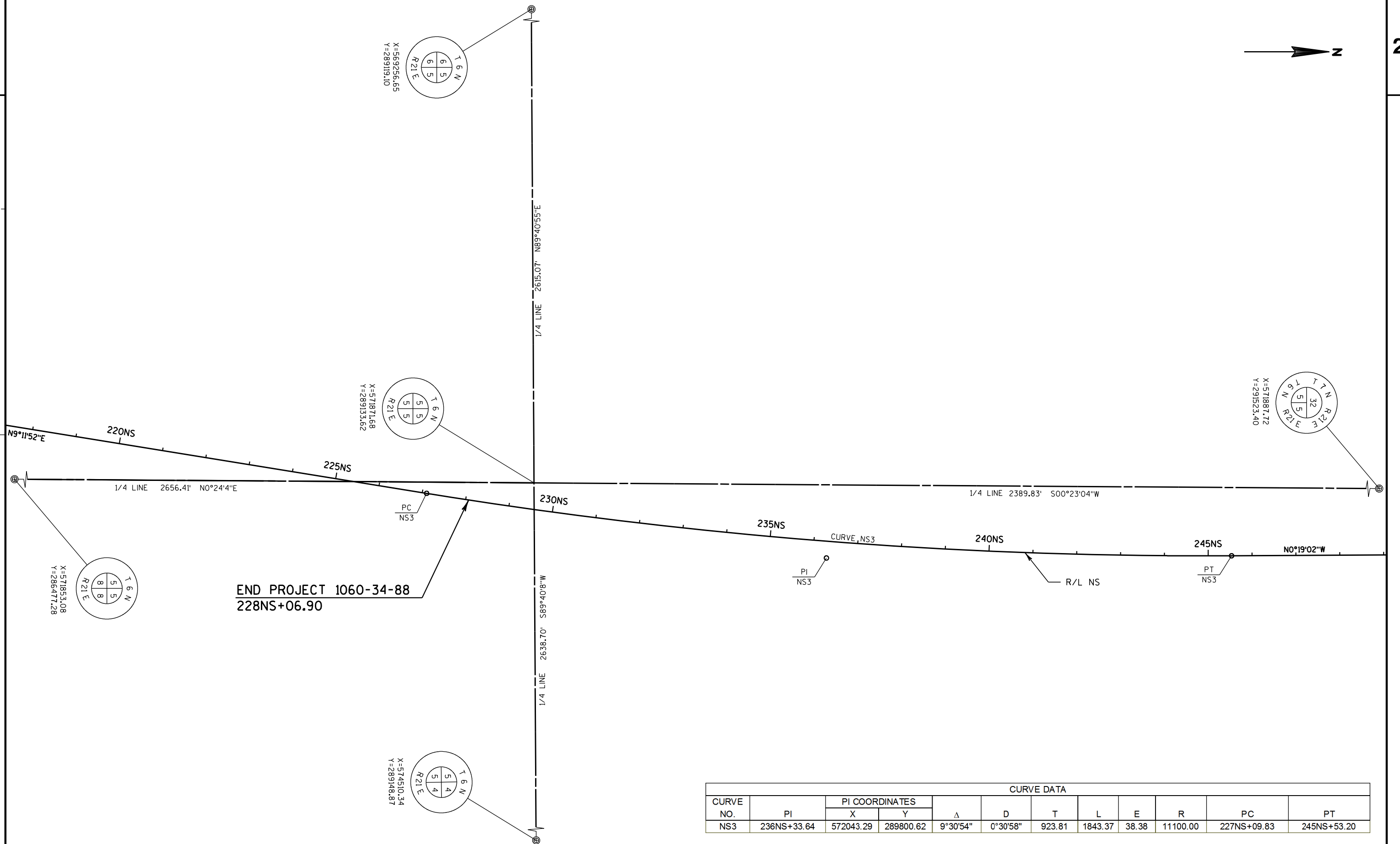
HWY: IH 894

COUNTY: MILWAUKEE

ALIGNMENT LAYOUT

SHEET

E



END PROJECT 1060-34-88
228NS+06.90

CURVE DATA											
CURVE NO.	PI	PI COORDINATES		Δ	D	T	L	E	R	PC	PT
		X	Y								
NS3	236NS+33.64	572043.29	289800.62	9°30'54"	0°30'58"	923.81	1843.37	38.38	11100.00	227NS+09.83	245NS+53.20

Estimate Of Quantities

1060-34-88					
Line	Item	Item Description	Unit	Total	Qty
0002	108.4400	CPM Progress Schedule	EACH	1.000	1.000
0004	204.0170	Removing Fence	LF	1,120.000	1,120.000
0006	213.0100	Finishing Roadway (project) 0001. 1060-34-88	EACH	1.000	1.000
0008	531.0300.S	Noise Barriers Double-Sided Sound Absorptive (structure) 0001. N-40-65	SF	53,860.000	53,860.000
0010	616.0206	Fence Chain Link 6-FT	LF	294.000	294.000
0012	616.0329	Gates Chain Link (width) 0001. 12-FT	EACH	2.000	2.000
0014	619.1000	Mobilization	EACH	1.000	1.000
0016	628.1504	Silt Fence	LF	1,352.000	1,352.000
0018	628.1520	Silt Fence Maintenance	LF	1,352.000	1,352.000
0020	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0022	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0024	628.2004	Erosion Mat Class I Type B	SY	3,415.000	3,415.000
0026	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0028	628.7504	Temporary Ditch Checks	LF	105.000	105.000
0030	628.7560	Tracking Pads	EACH	1.000	1.000
0032	628.7570	Rock Bags	EACH	50.000	50.000
0034	629.0210	Fertilizer Type B	CWT	2.200	2.200
0036	630.0120	Seeding Mixture No. 20	LB	93.000	93.000
0038	630.0200	Seeding Temporary	LB	47.000	47.000
0040	637.2210	Signs Type II Reflective H	SF	36.000	36.000
0042	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,400.000	1,400.000
0044	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,200.000	1,200.000
0046	SPV.0075	Special 0001. Pavement Cleanup Project 1060-34-88	HRS	25.000	25.000
0048	SPV.0105	Special 0001. Survey Project 1060-34-88	LS	1.000	1.000
0050	SPV.0180	Special 0200. Topsoil Special	SY	3,415.000	3,415.000

3

CPM PROGRESS SCHEDULE		
108.4400 CPM PROGRESS SCHEDULE EACH		
CATEGORY	LOCATION	
1000	PROJECT	1
TOTAL		1

REMOVING FENCE						
204.0170 REMOVING FENCE LF						
CATEGORY	LOCATION	FROM STATION	OFFSET	TO STATION	OFFSET	
1000	IH 894/USH 45 SB	207NS+91	214' LT	219NS+02	101' LT	1,120
TOTAL						1,120

FINISHING ROADWAY		
213.0100.0001 FINISHING ROADWAY PROJECT 1060-34-88 EACH		
CATEGORY	LOCATION	
1000	PROJECT	1
TOTAL		1

MOBILIZATION		
619.1000 MOBILIZATION EACH		
CATEGORY	LOCATION	
1000	PROJECT	1
TOTAL		1

3

FENCING ITEMS					
616.0206 616.0329.0001 FENCE GATES CHAIN LINK CHAIN LINK 6-FT 12-FT LF EACH					
CATEGORY	LOCATION	STATION	TO	STATION	
1000	IH 894/USH 45 SB				
		203NS+69	-	203NS+69	5
		218NS+50	-	221NS+29	289
TOTALS					294

EROSION CONTROL ITEMS													
628.1504 628.1520 628.1905 628.1910 628.2004 628.7005 628.7504 628.7560 628.7570 SILT SILT MOBILIZATIONS MOBILIZATIONS EROSION MAT INLET TEMPORARY FENCE FENCE EROSION EROSION CLASS I PROTECTION DITCH TRACKING ROCK LF LF CONTROL CONTROL TYPE B TYPE A CHECKS PADS BAGS LF LF EACH EACH SY EACH LF EACH EACH													
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET								
1000	IH 894/USH 45 SB	203NS+54	-	228NS+61	LT	1,081	1,081	--	--	2,732	4	84	--
UNDISTRIBUTED						271	271	1	1	683	1	21	50
TOTALS						1,352	1,352	1	1	3,415	5	105	50

RESTORATION ITEMS								
629.0210 630.0120 630.0200 SPV.0180.0200 SEEDING SEEDING FERTILIZER MIXTURE SEEDING TOPSOIL TYPE B NO. 20 TEMPORARY SPECIAL CWT LB LB SY								
CATEGORY	LOCATION	STATION	TO	STATION	OFFSET			
1000	IH 894/USH 45 SB	203NS+54	-	228NS+61	LT	1.7	74	37
UNDISTRIBUTED						.5	19	10
TOTALS						2.2	93	47

PAVEMENT CLEANUP		
SPV.0075.0001 PAVEMENT CLEANUP PROJECT 1060-34-88 HRS		
CATEGORY	LOCATION	
1000	PROJECT	25
TOTAL		25

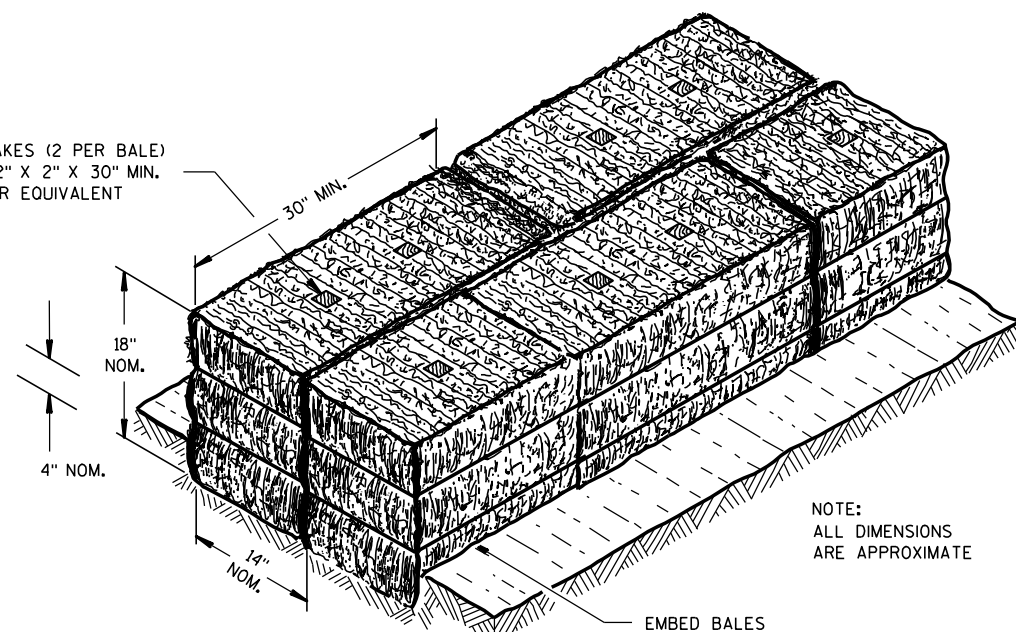
SURVEY PROJECT		
SPV.0105.0001 SURVEY PROJECT 1060-34-88 LS		
CATEGORY	LOCATION	
1000	PROJECT	1
TOTAL		1

TYPE II PERMANENT SIGNING -			CATEGORY 1000			Project 1060-34-88	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE			637.2210	REMARKS / NEW SIGN LOCATION
			W [IN.]	X x	H [IN.]	SIGNS TYPE II REFLECTIVE H [SF]	
1	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL MOUNT ON WALL - SEE DETAIL MOUNT ON WALL - SEE DETAIL
1A	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	
2	D9-54(2S)	S. 102ND ST AT W. GRANT ST	18	X	24	3.000	
2A	D9-54(2S)	S. 102ND ST AT W. GRANT ST	18	X	24	3.000	
3	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL MOUNT ON WALL - SEE DETAIL MOUNT ON WALL - SEE DETAIL
3A	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	
4	D9-54(2S)	10119 W. GRANT CT	18	X	24	3.000	
4A	D9-54(2S)	10119 W. GRANT CT	18	X	24	3.000	
5	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL MOUNT ON WALL - SEE DETAIL MOUNT ON WALL - SEE DETAIL
5A	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	
6	D9-54(2S)	2054 S. 102ND ST	18	X	24	3.000	
6A	D9-54(2S)	2054 S. 102ND ST	18	X	24	3.000	
7	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL BLUE BACKGROUND - MOUNT ON WALL BRACKETS INCIDENTAL MOUNT ON WALL - SEE DETAIL MOUNT ON WALL - SEE DETAIL
7A	NONE	BLANK - IDENTIFIER BLADE	36	X	6	1.500	
8	D9-54(2S)	W. ROGERS ST AT S. 102ND ST	18	X	24	3.000	
8A	D9-54(2S)	W. ROGERS ST AT S. 102ND ST	18	X	24	3.000	
TOTALS						36.000	

Standard Detail Drawing List

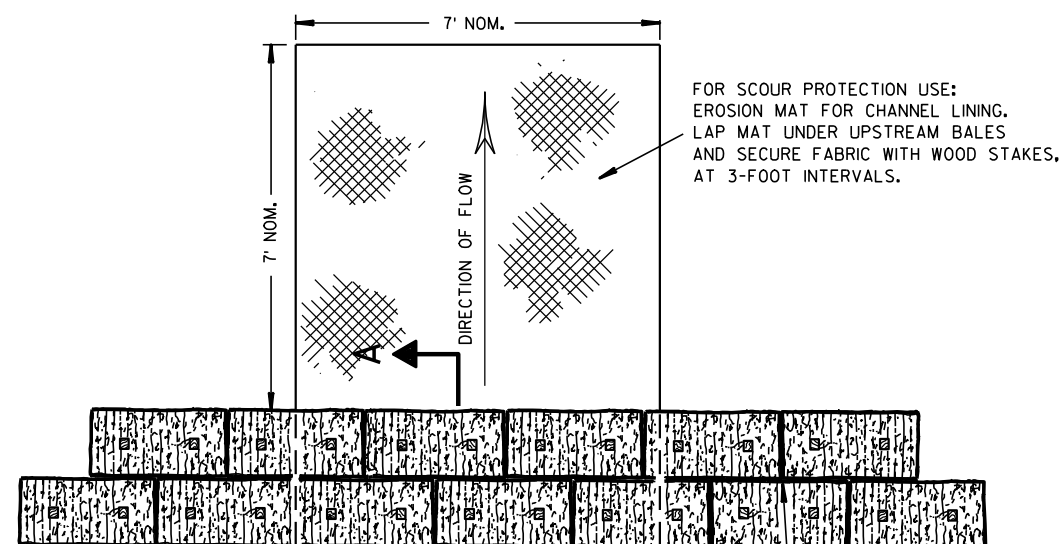
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK

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

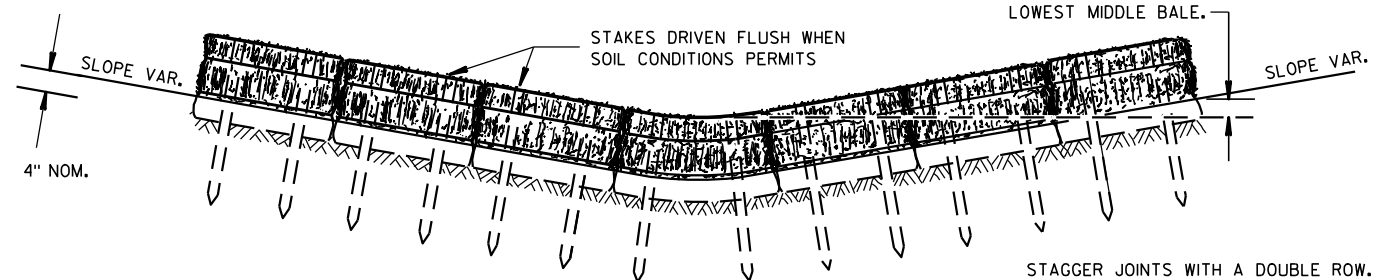


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



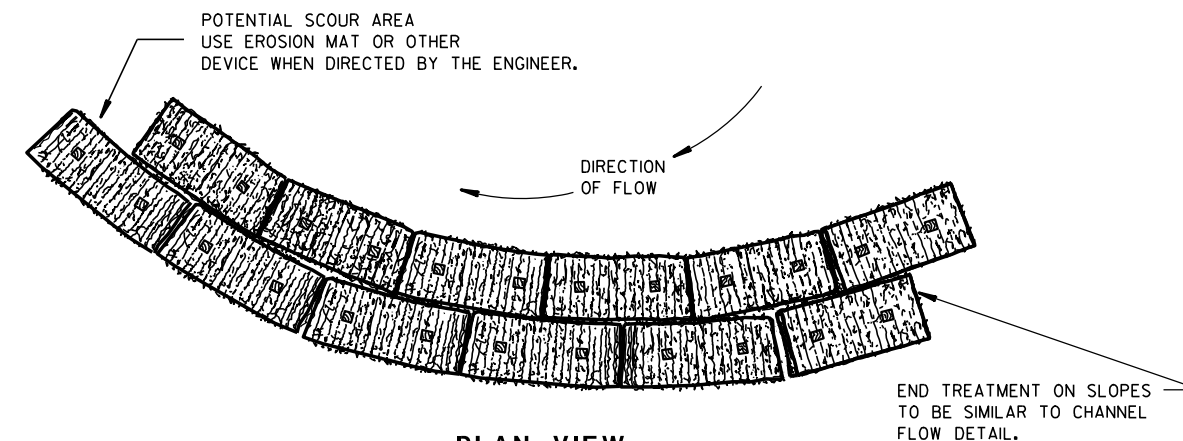
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

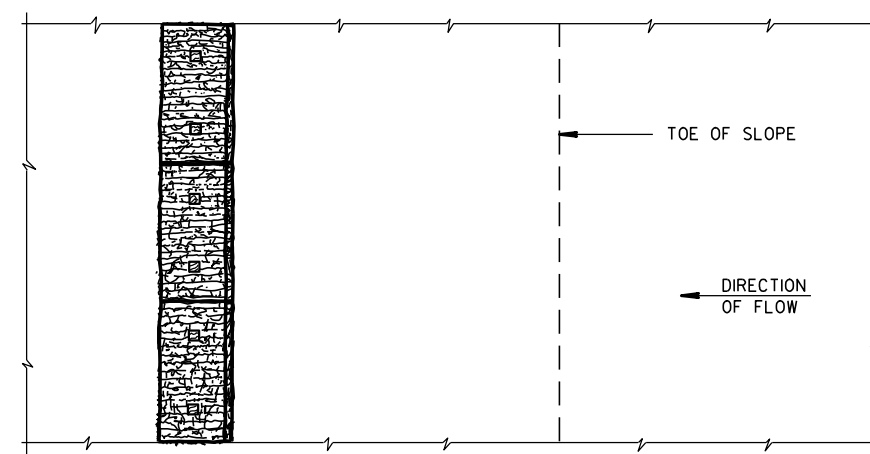
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

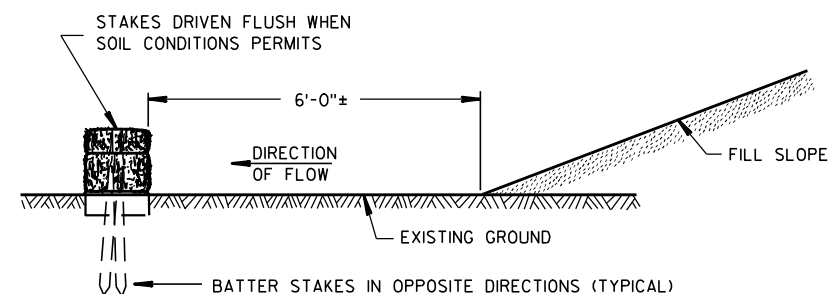


PLAN VIEW

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

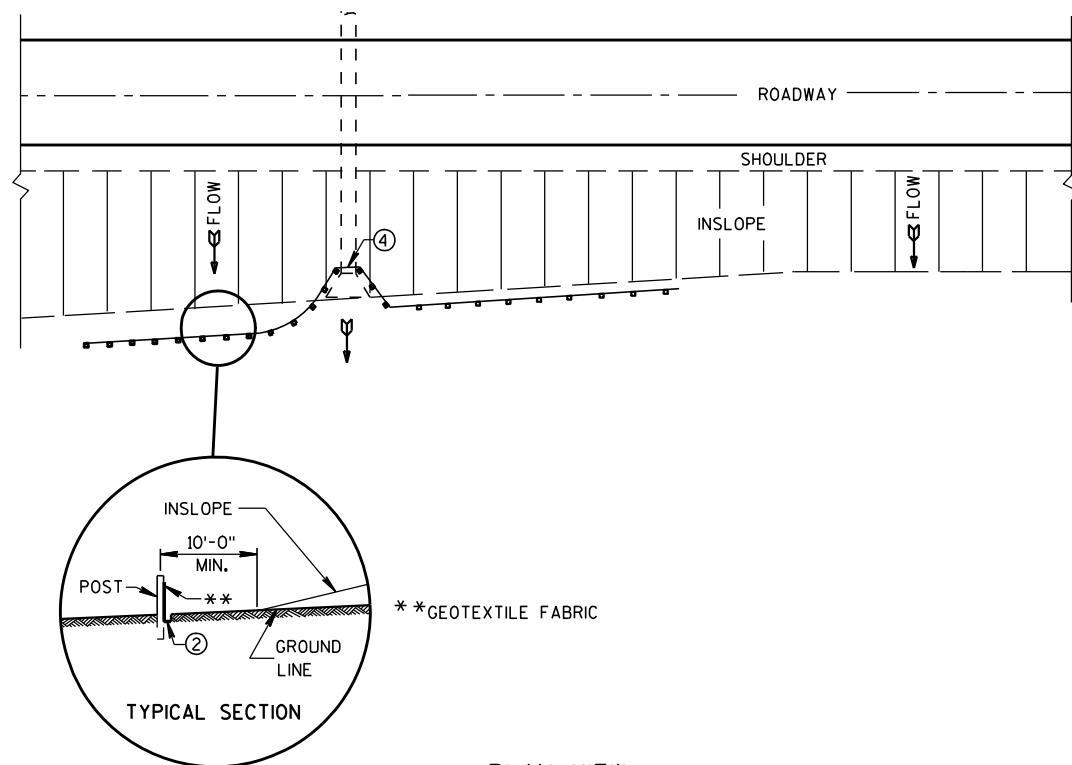
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

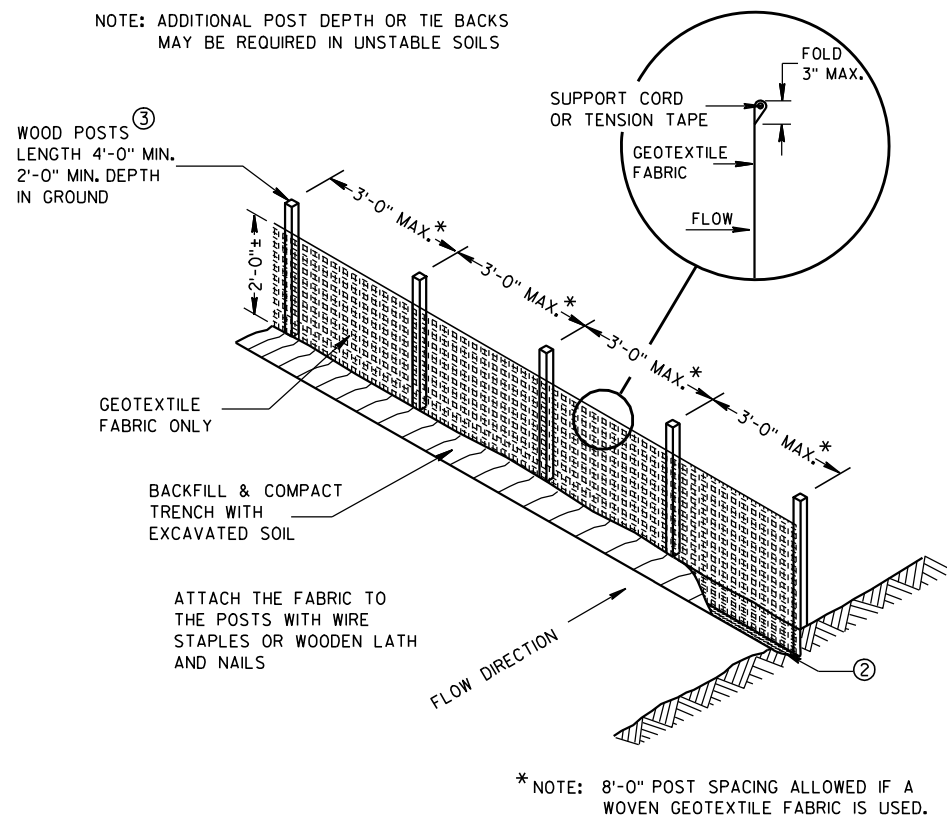
FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



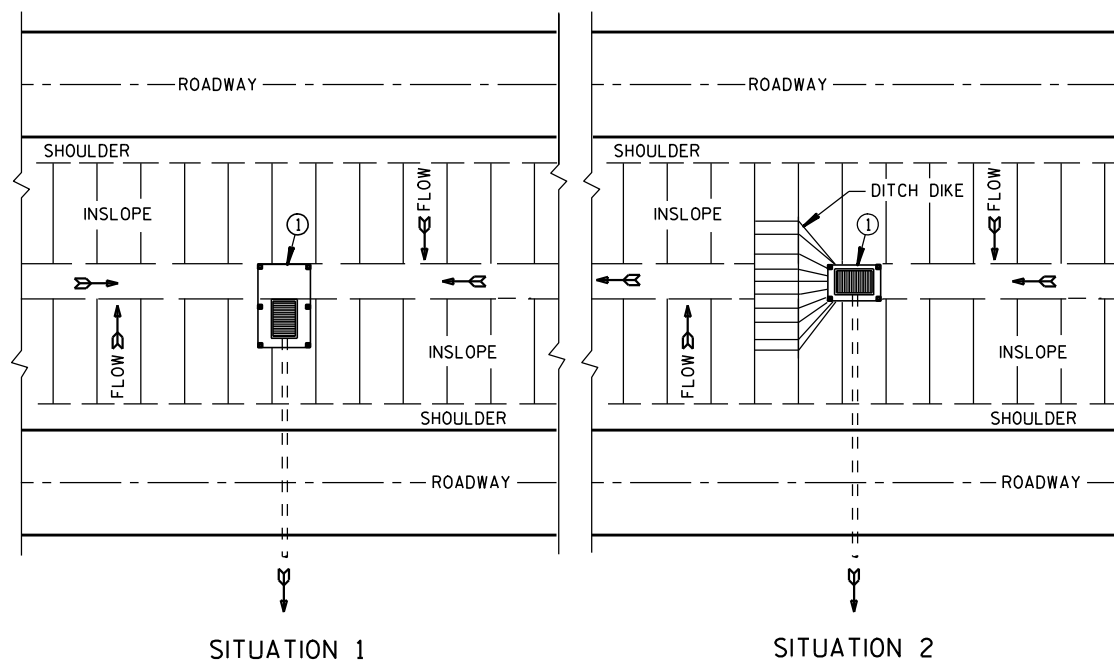
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

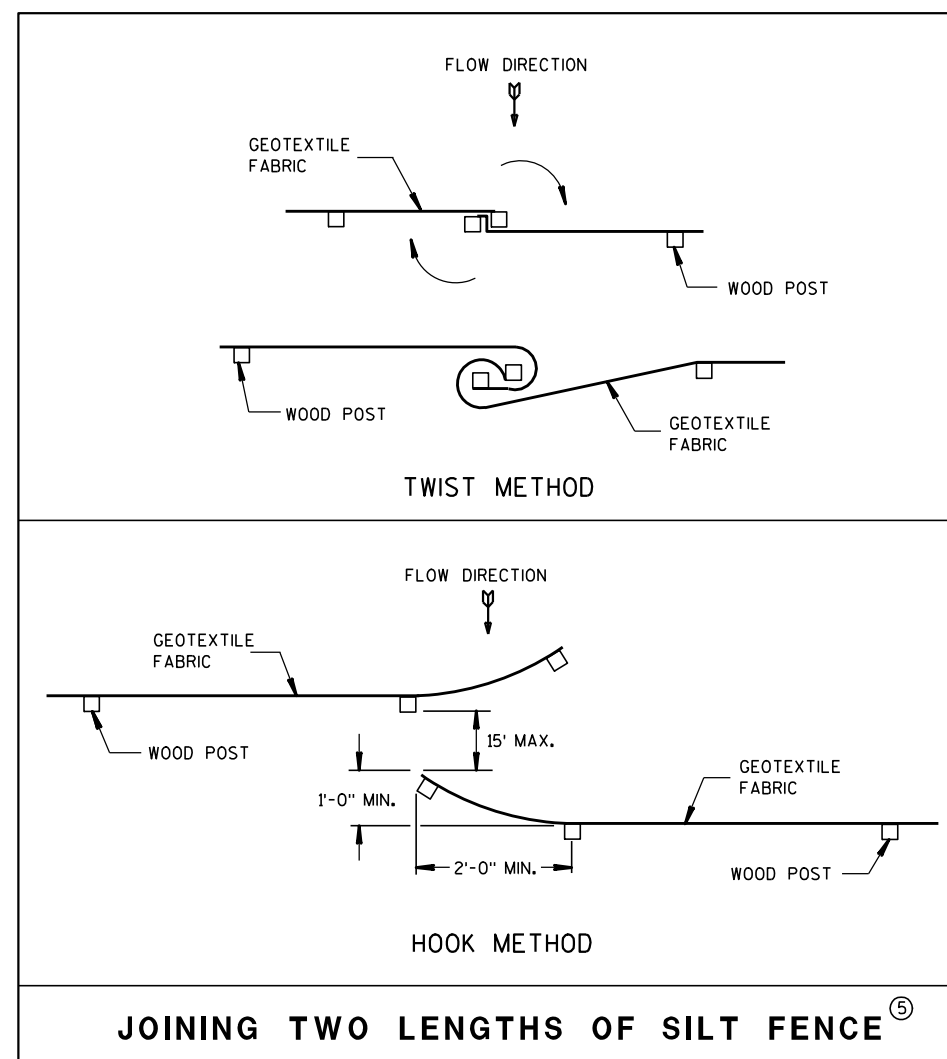


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

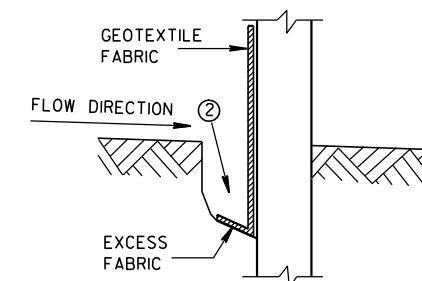


JOINING TWO LENGTHS OF SILT FENCE^⑤

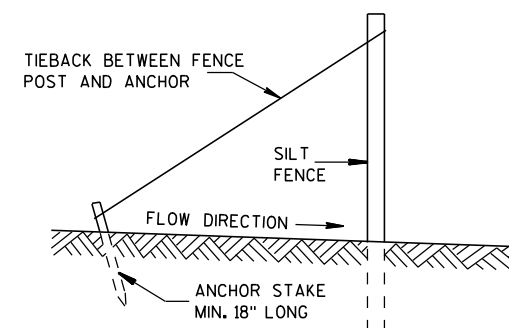
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

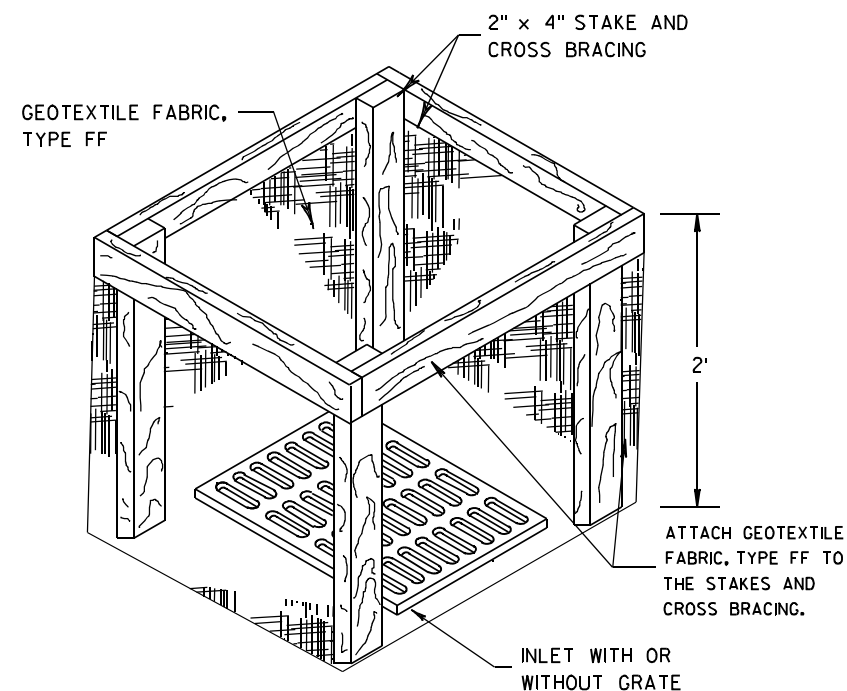
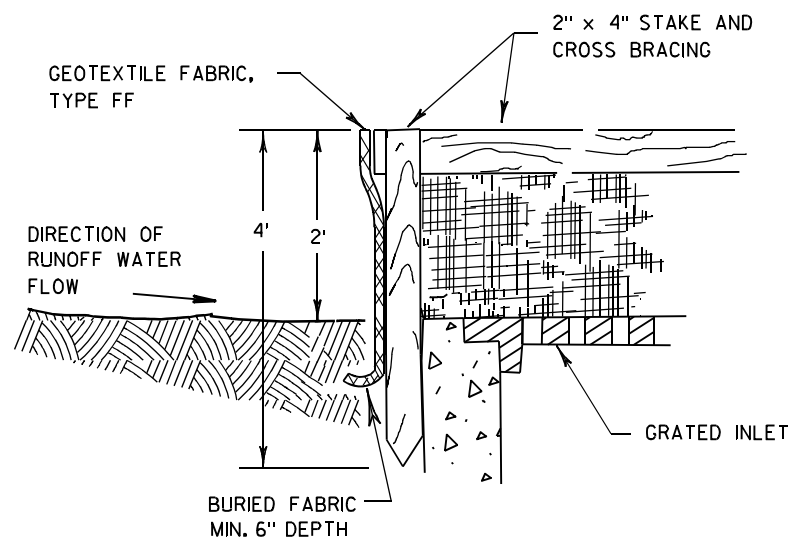
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

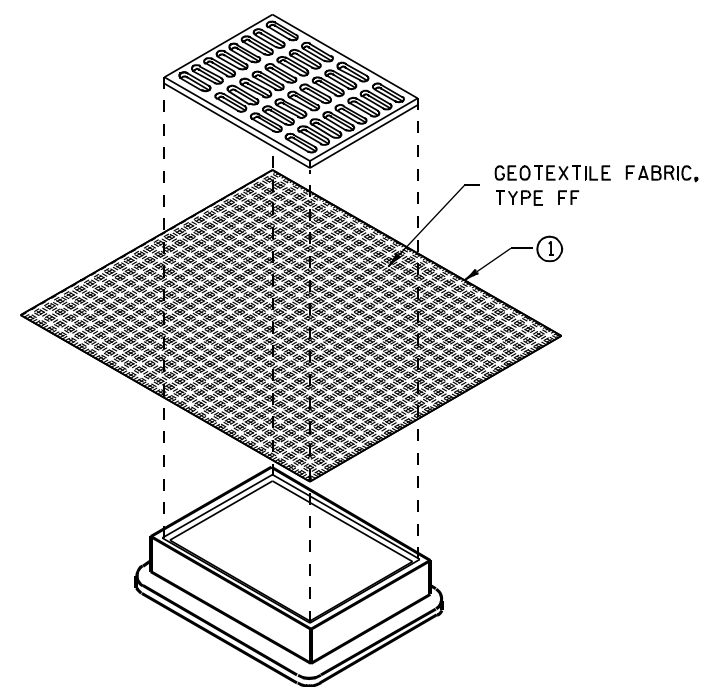
GENERAL NOTES

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.

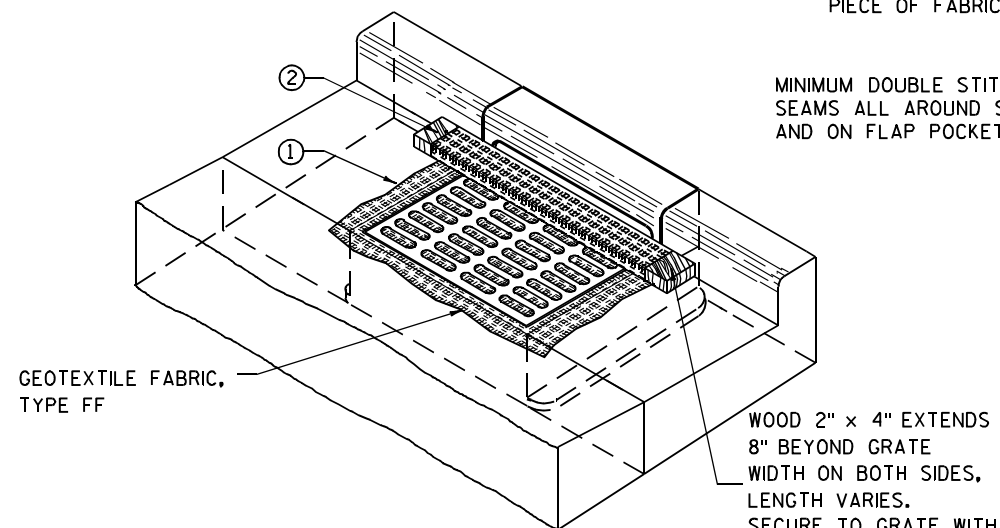
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

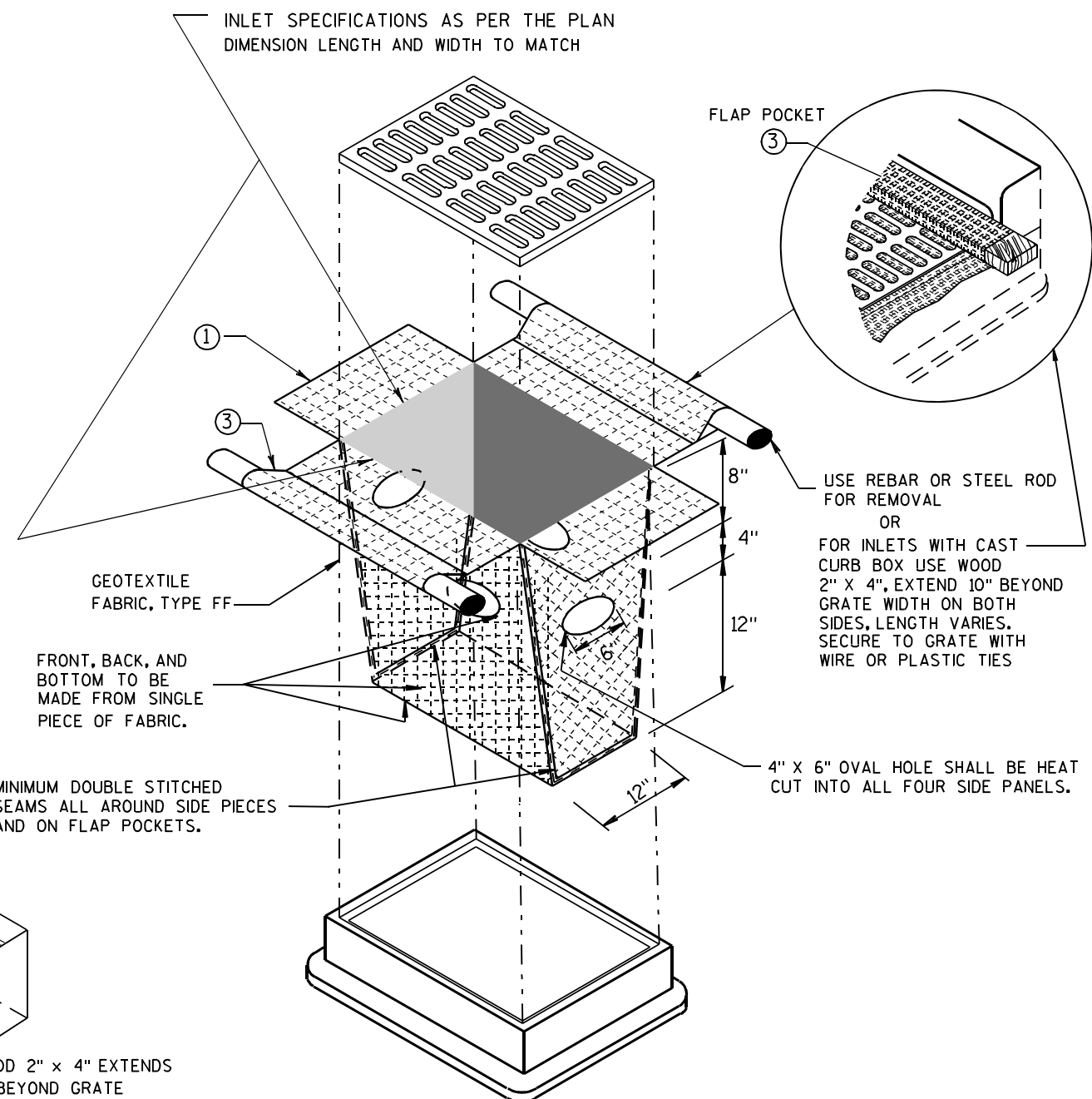
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



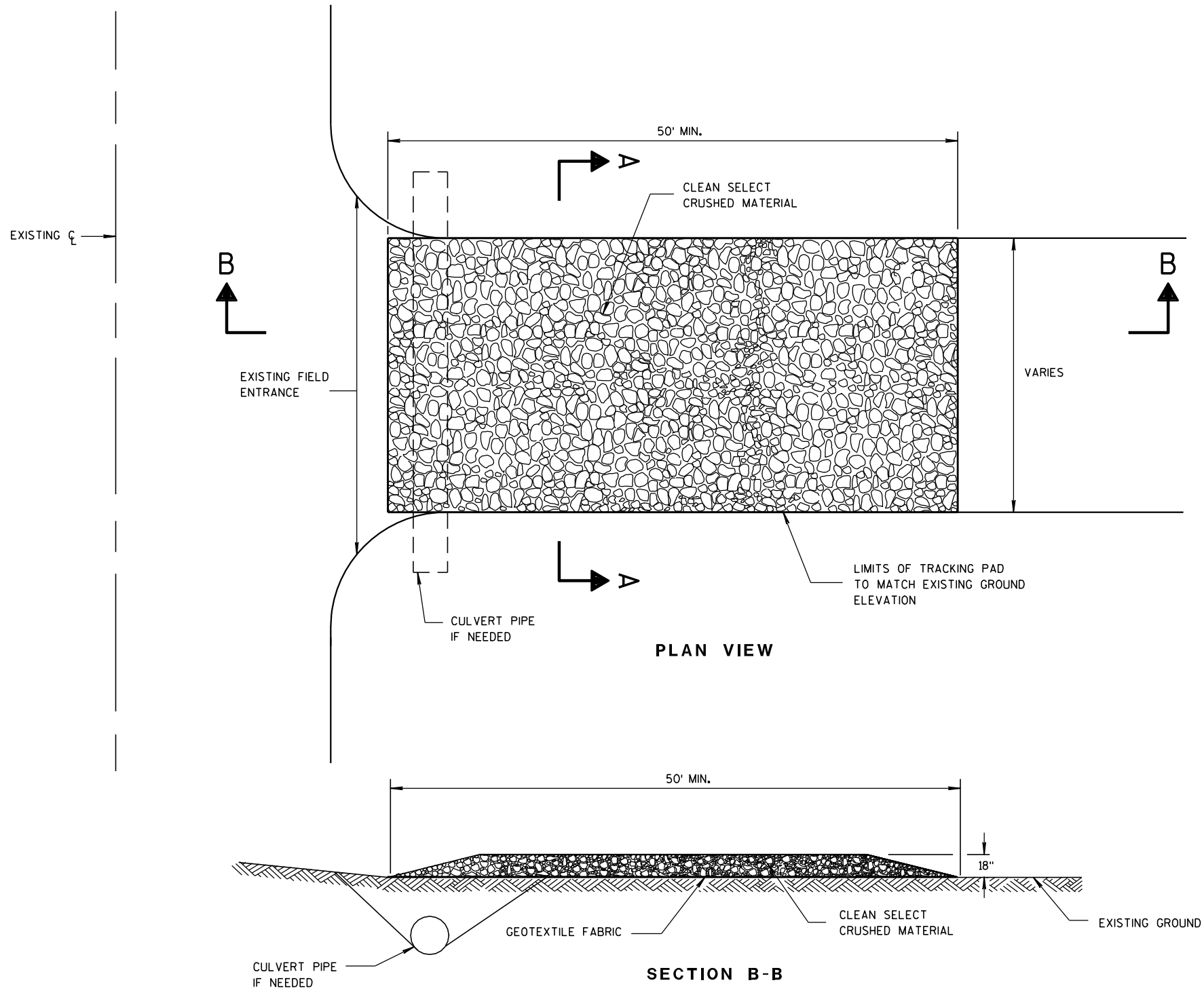
INLET PROTECTION, TYPE D

(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 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



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.

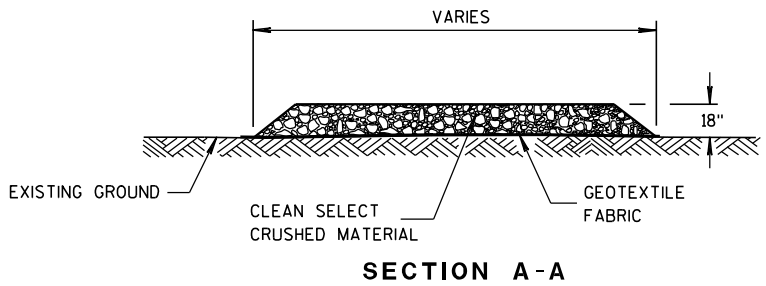
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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.

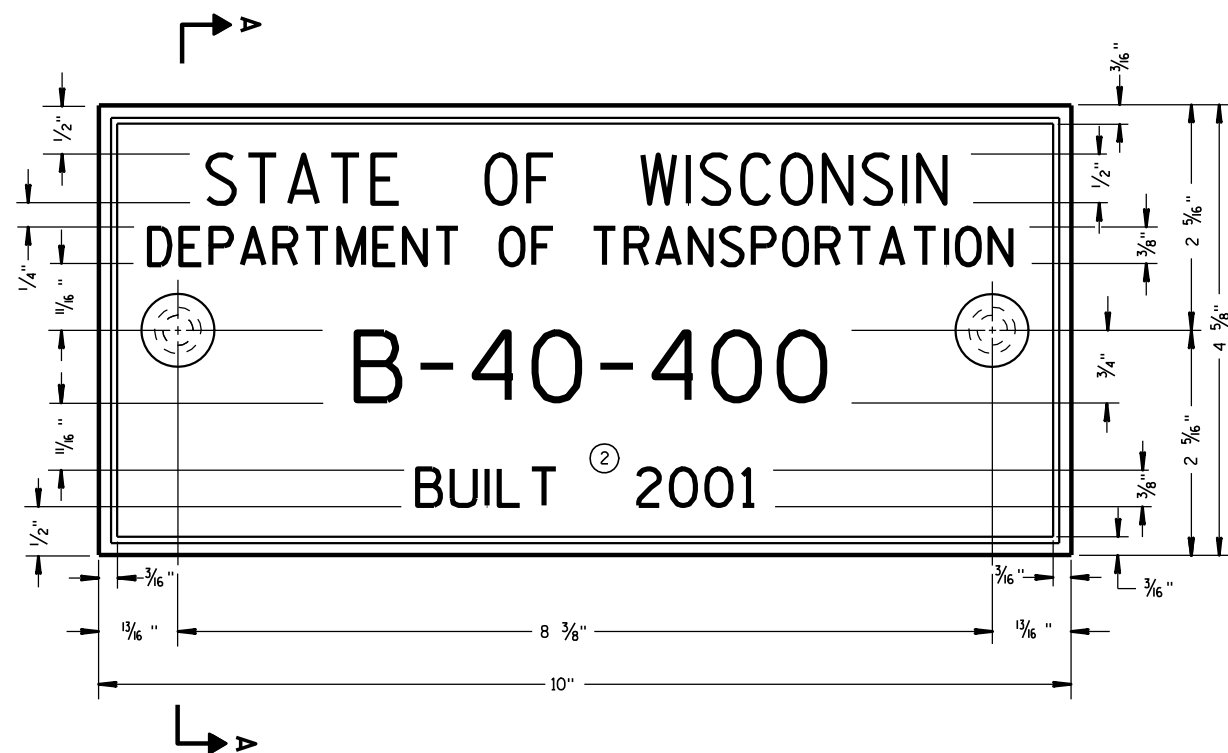
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



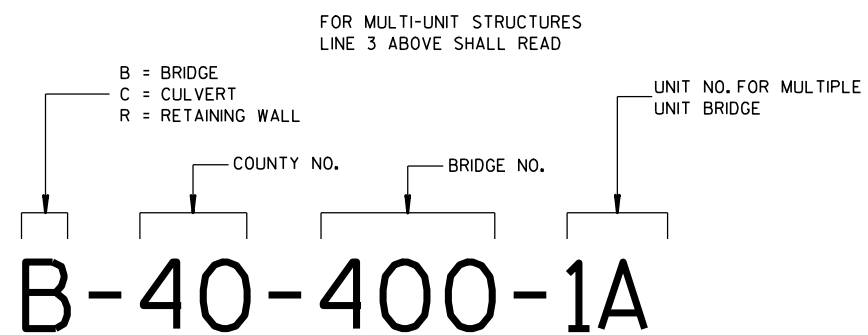
TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



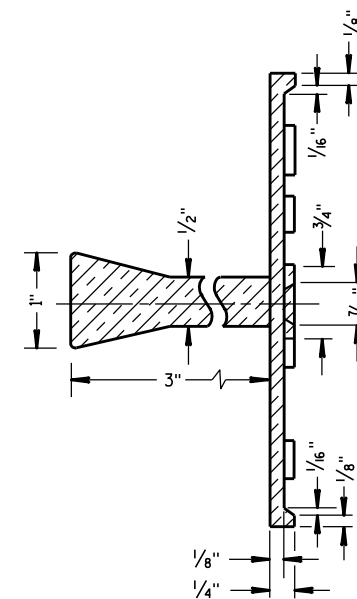
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

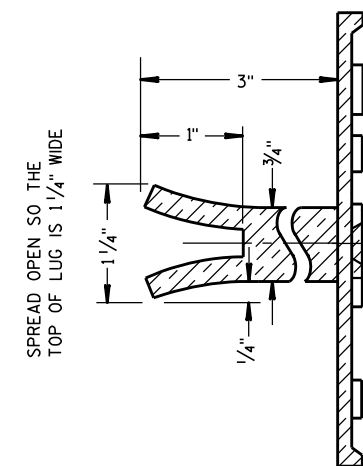
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

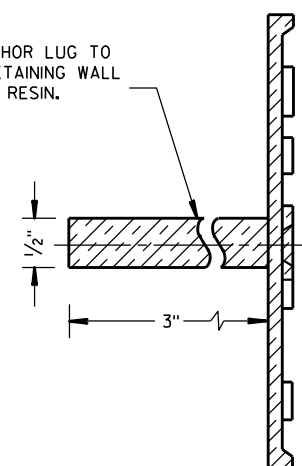


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

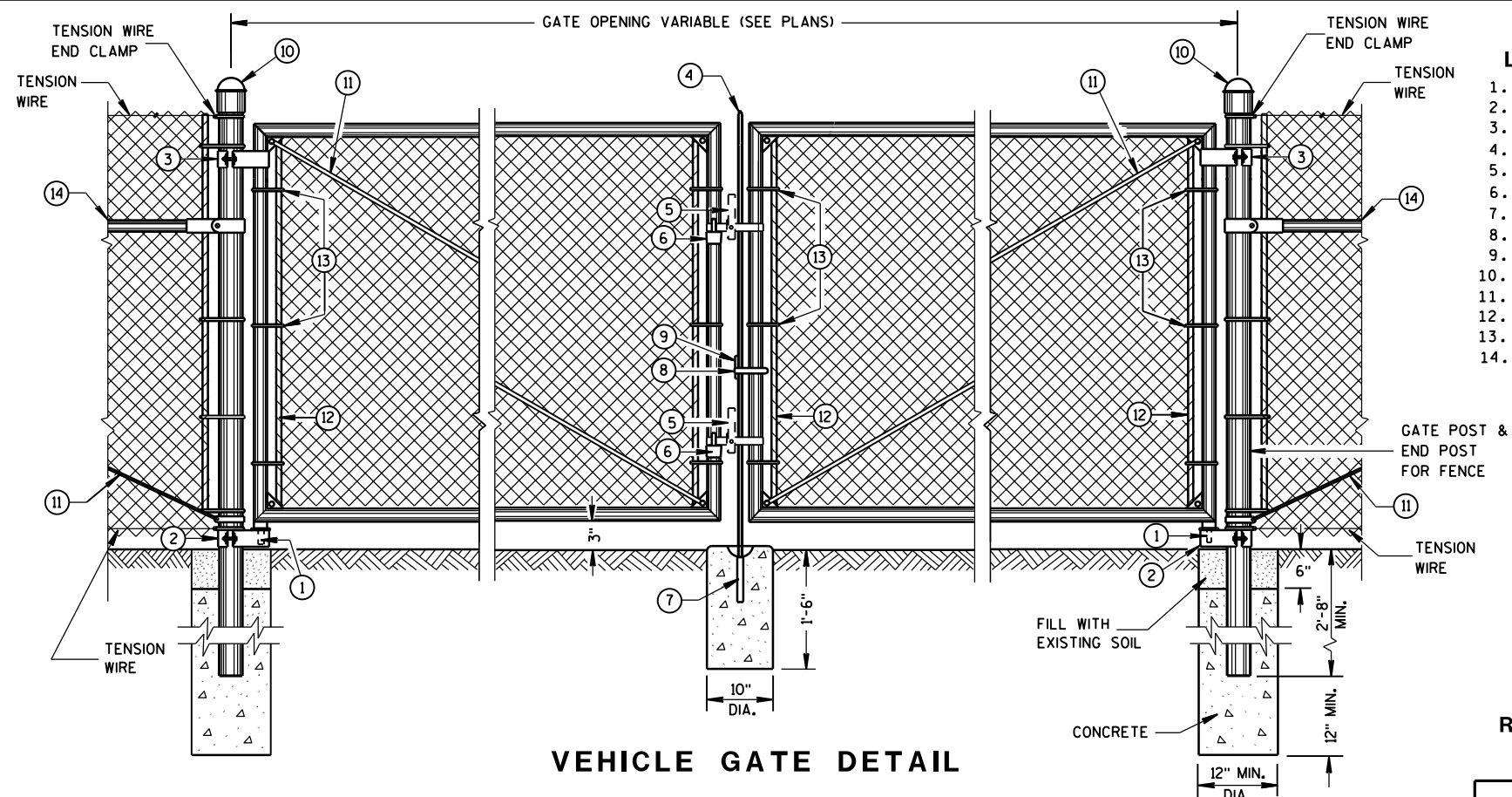
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

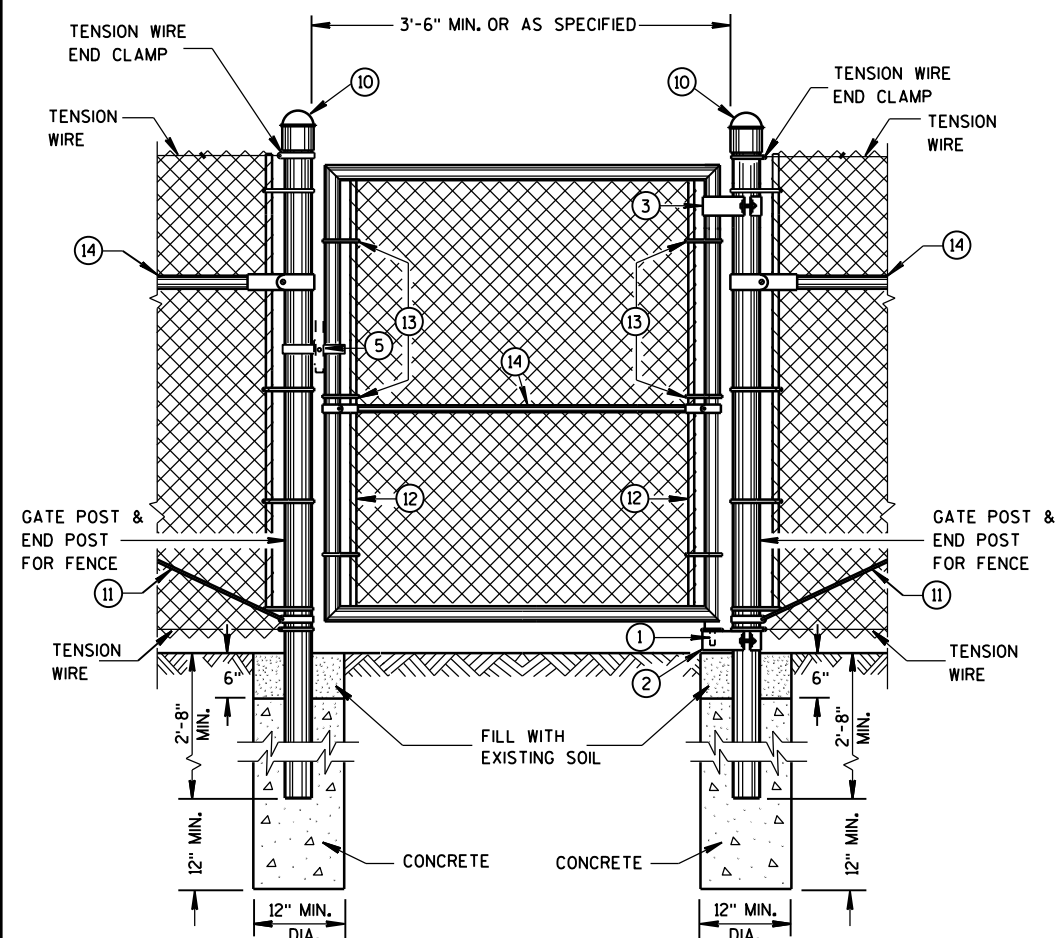
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

- ## LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

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

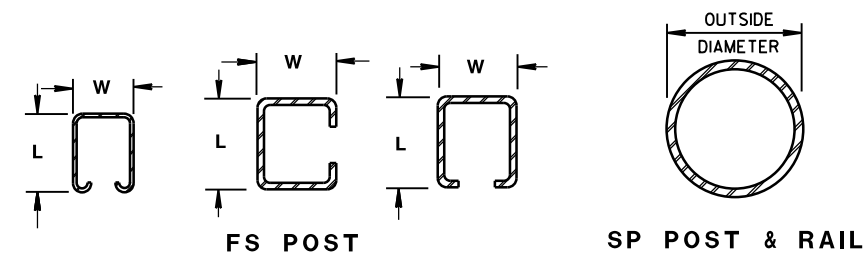
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE
RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

**ROLLED-FORMED STEEL FENCE POST
(2.0 OZ./SQ. FT. COATING)**

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

**ROUND STEEL FENCE POST
(1.8 OZ./SQ. FT. COATING)**

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED 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

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

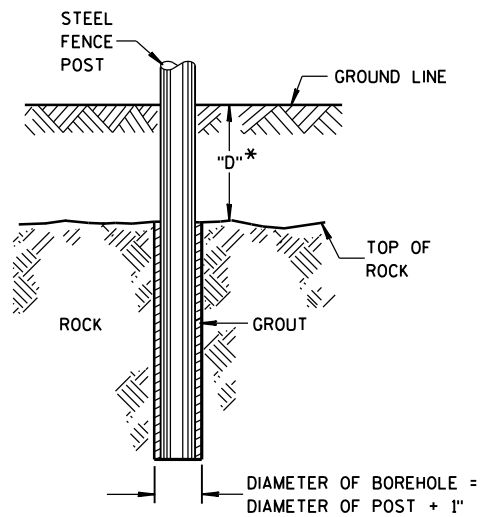
BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

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

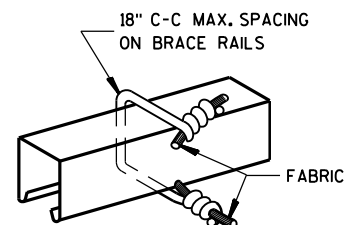
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



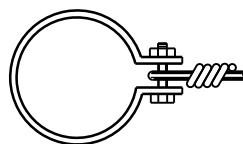
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

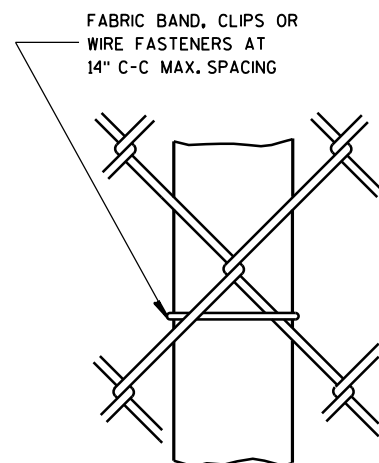


BRACE RAIL FABRIC FASTENER

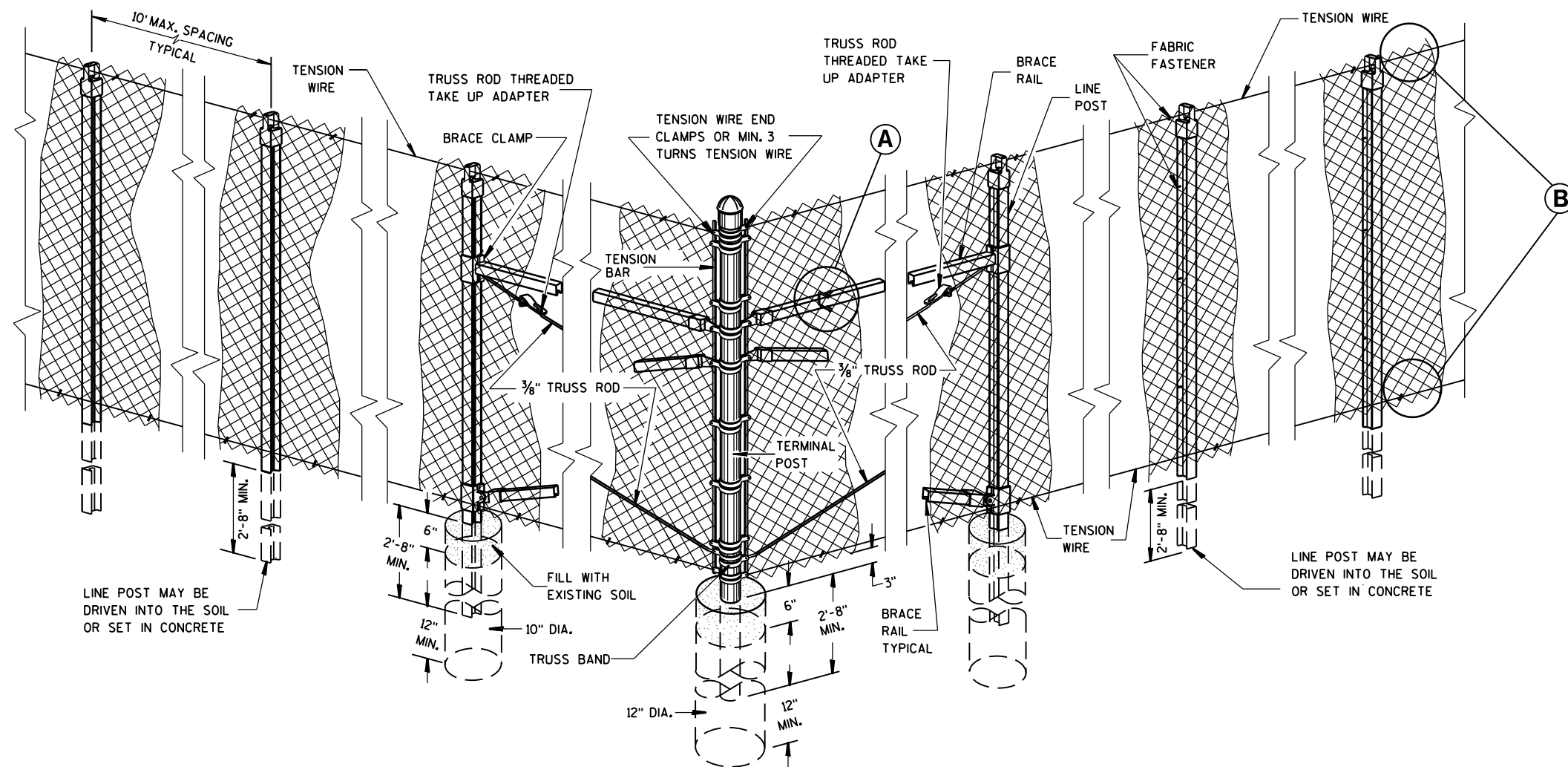
(A)



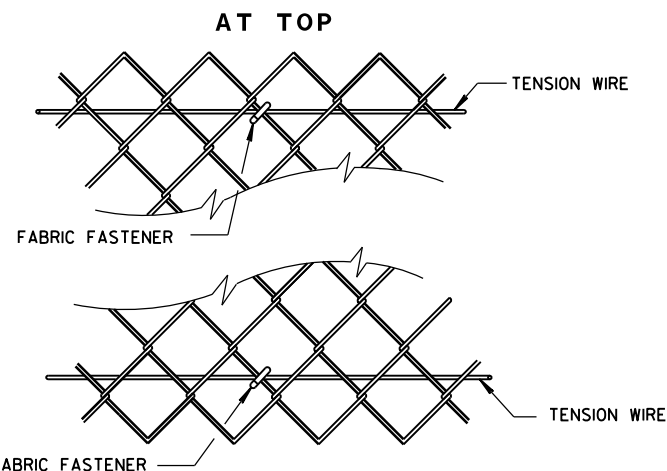
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



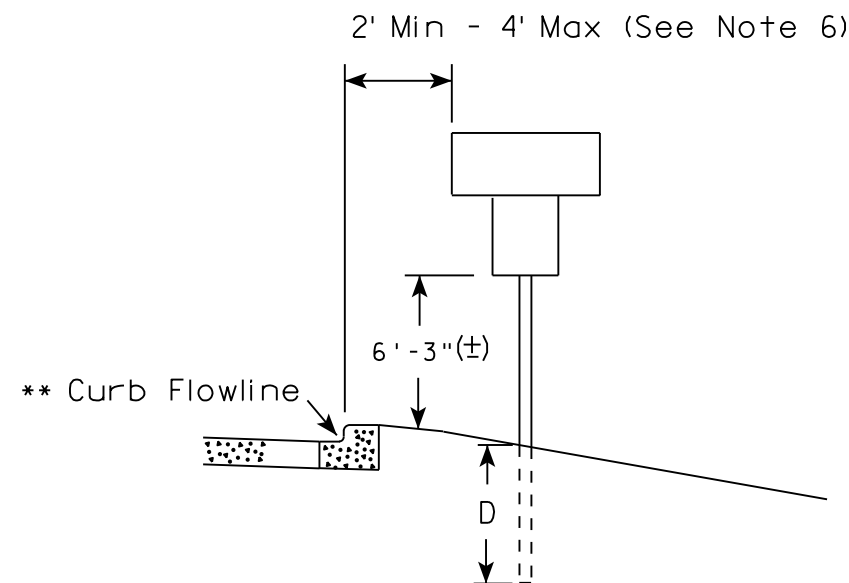
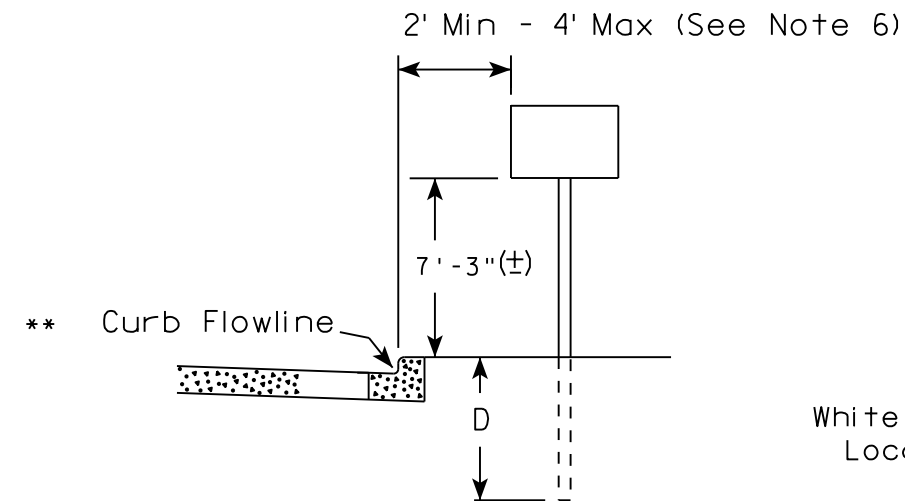
(B)

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

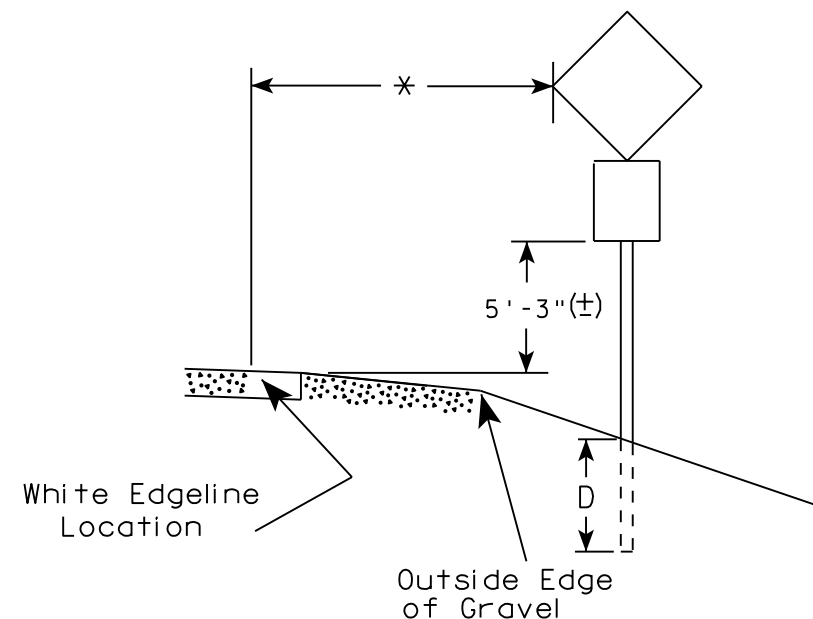
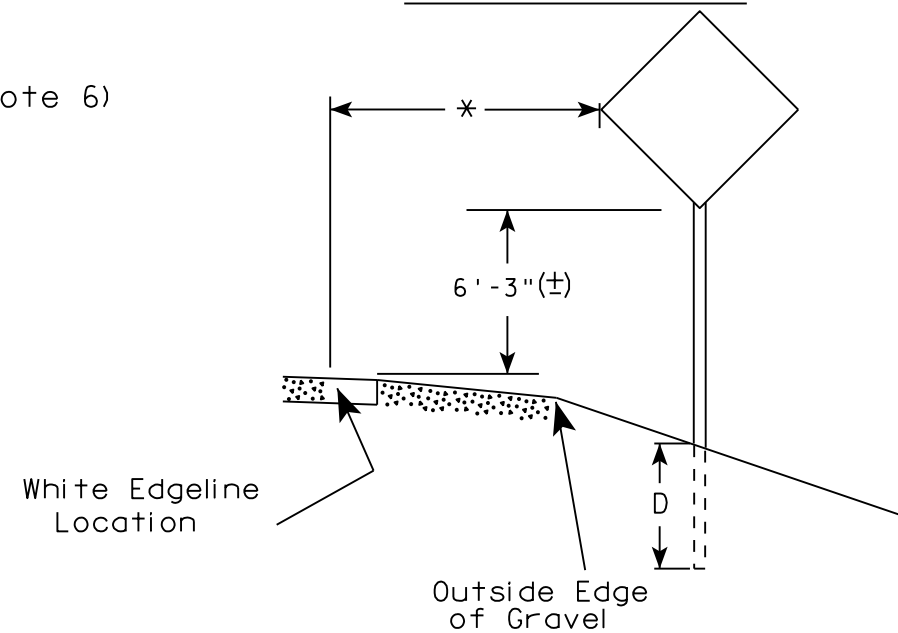
APPROVED
FEB. 2015
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

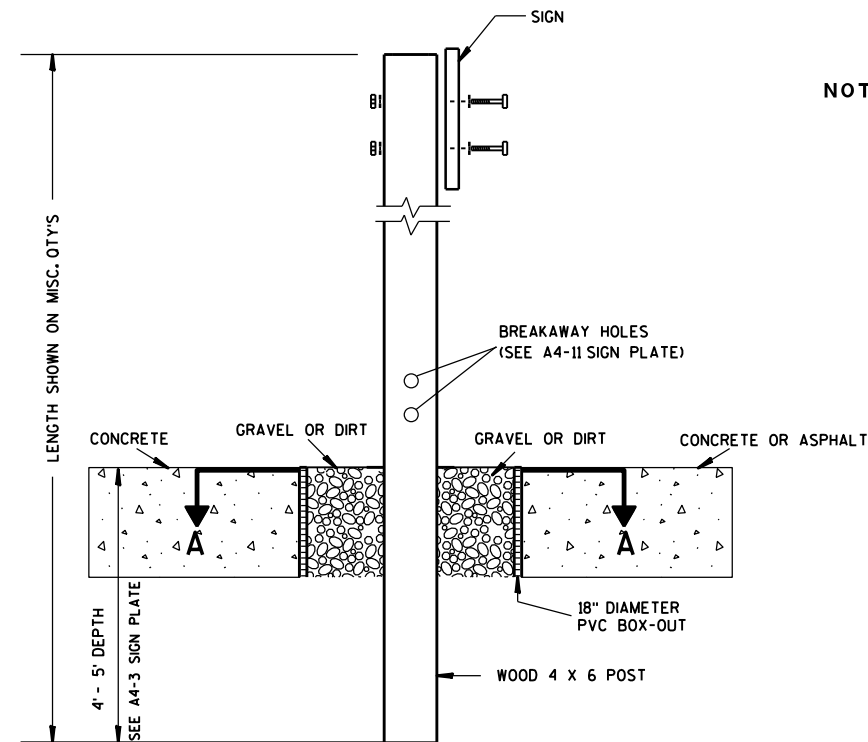
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

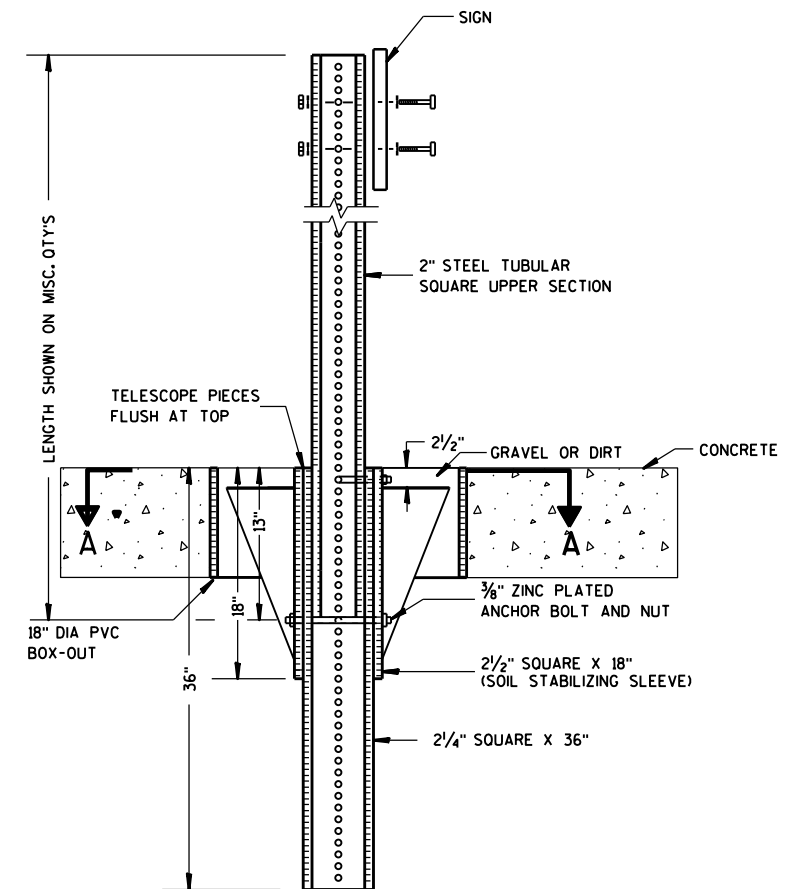
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

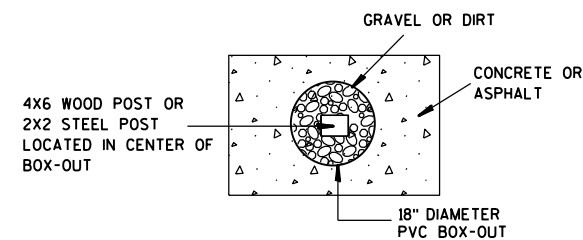
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

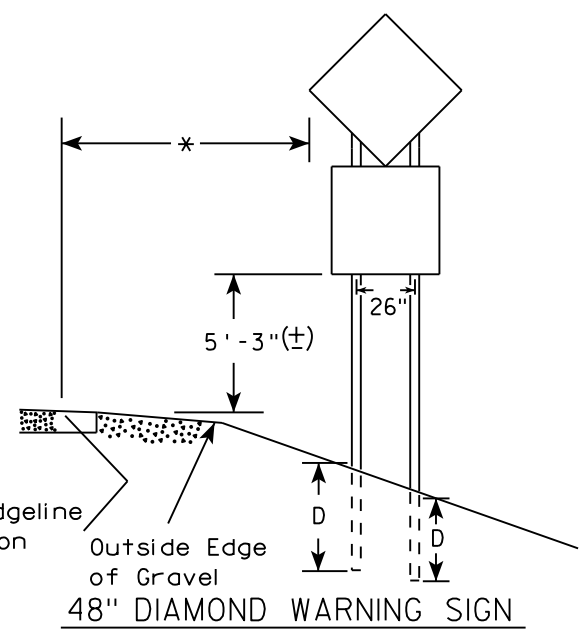
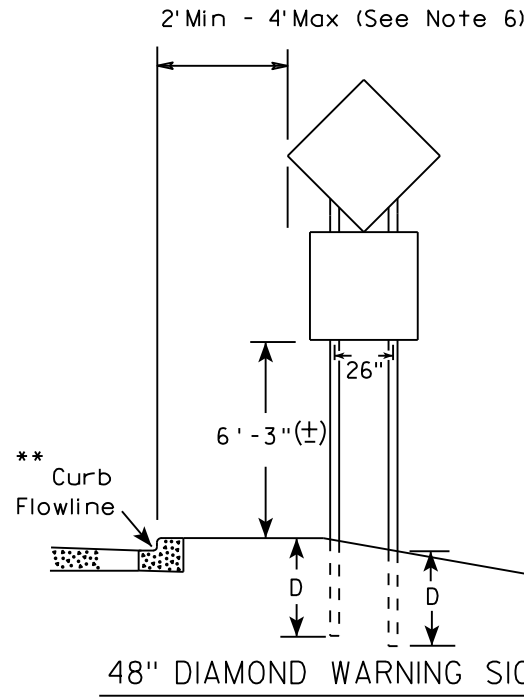
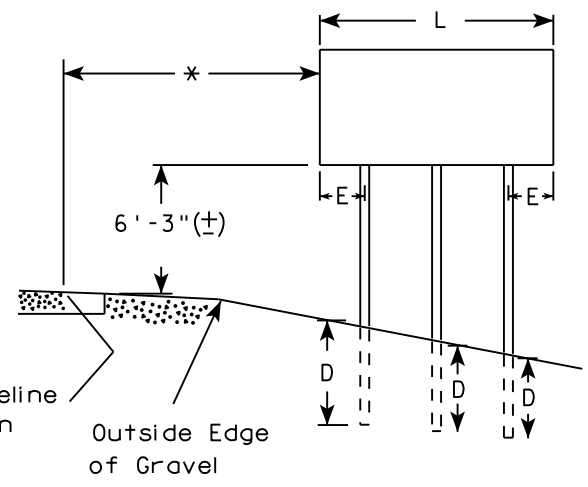
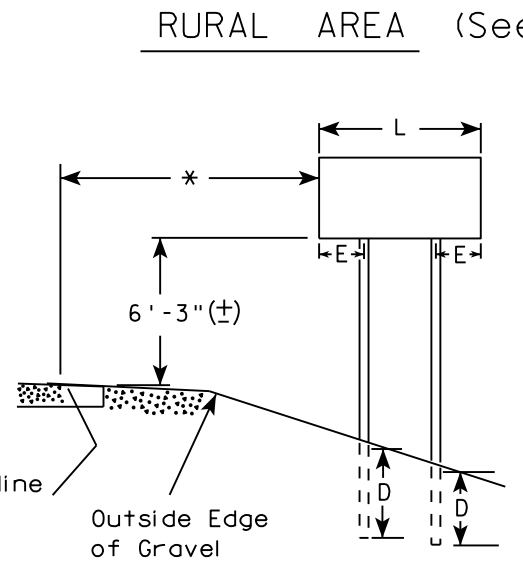
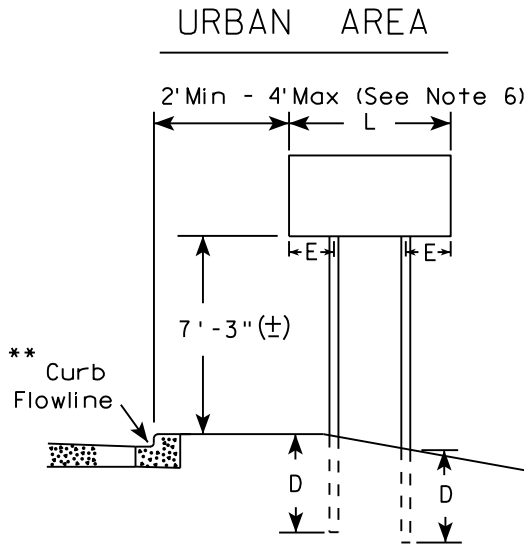
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

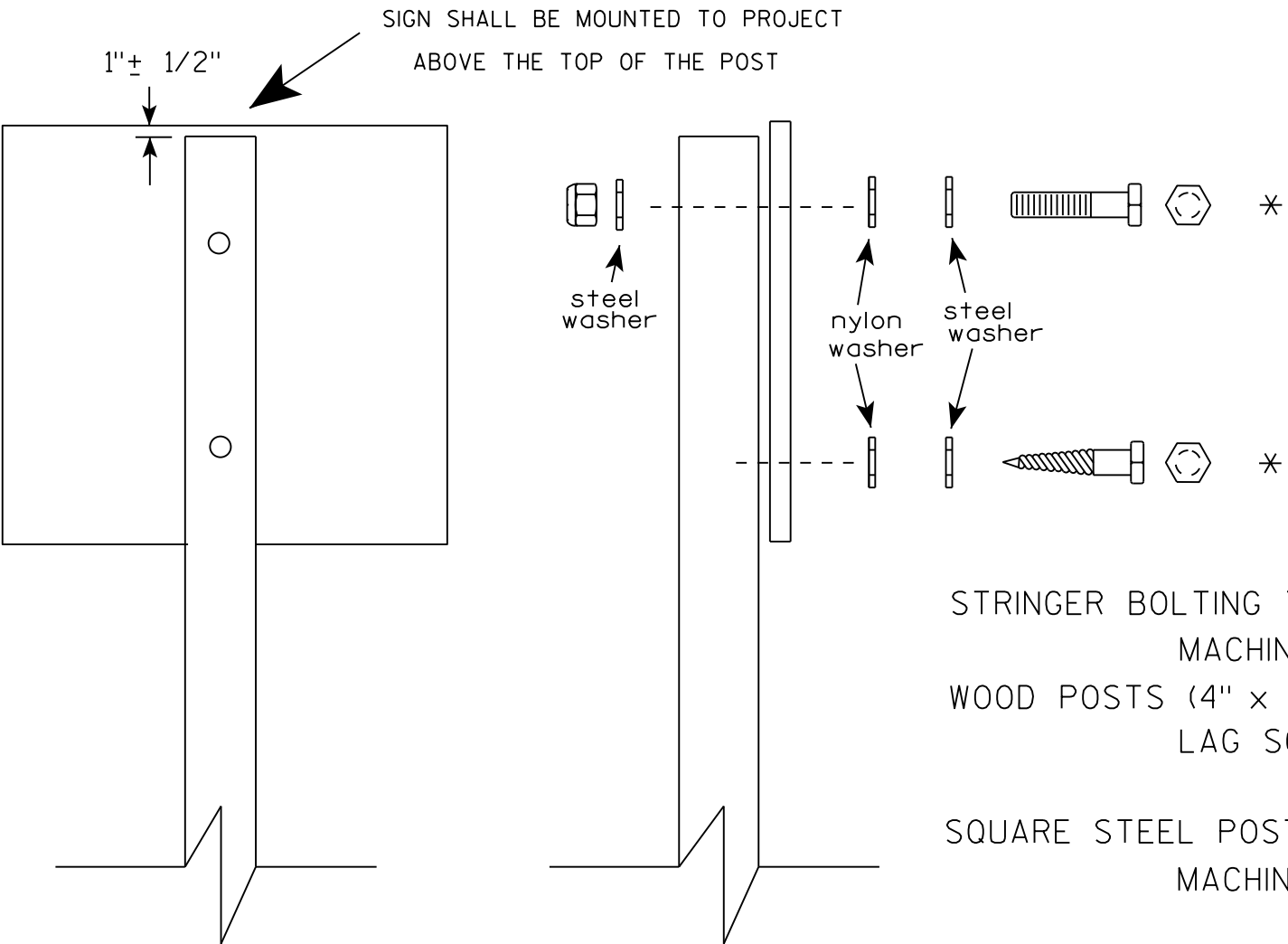
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

- GENERAL NOTES
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. J-Assemblies are considered to be one sign for mounting height.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



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

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

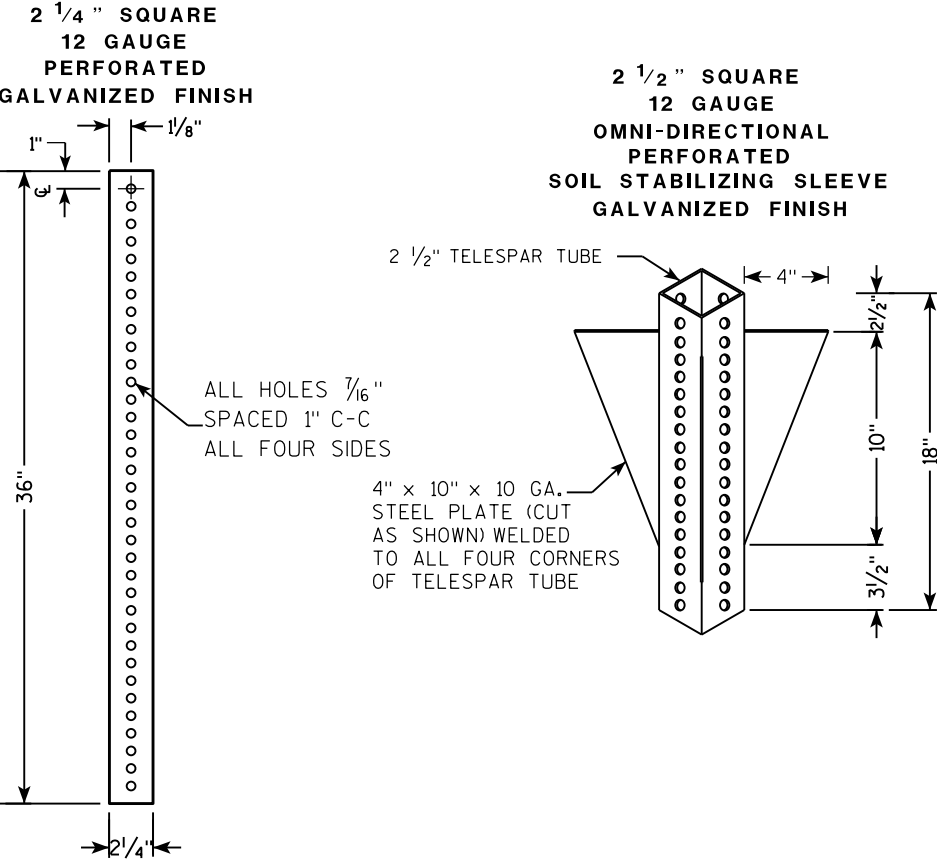
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

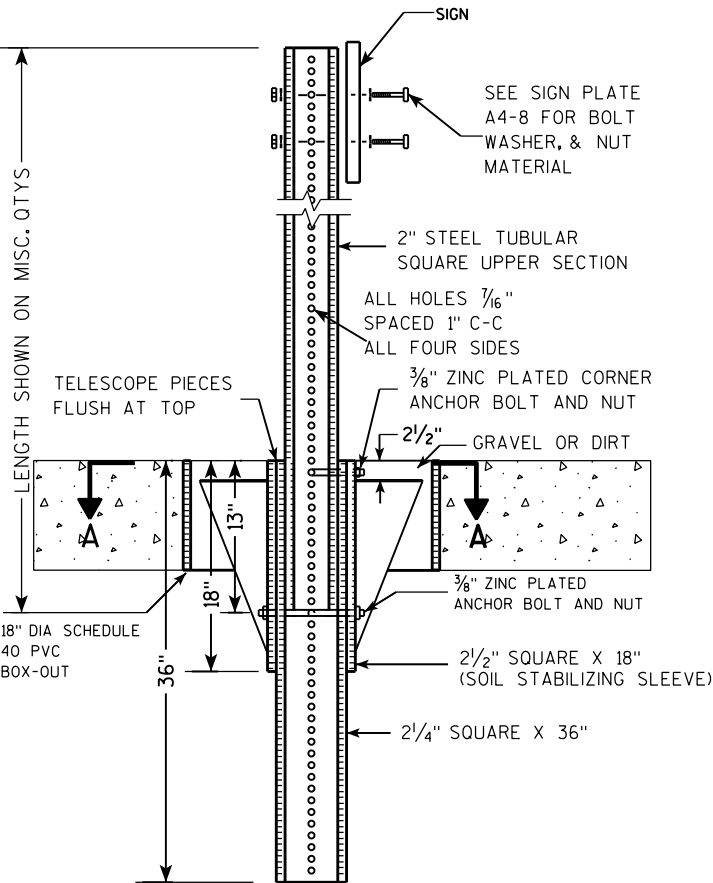
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE <u>8/11/16</u>	PLATE NO. <u>A4-8.8</u>

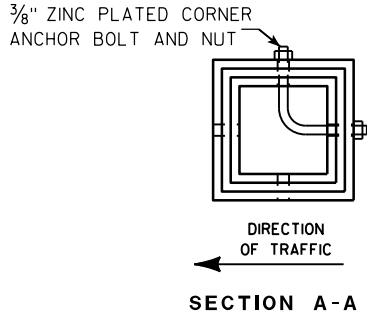
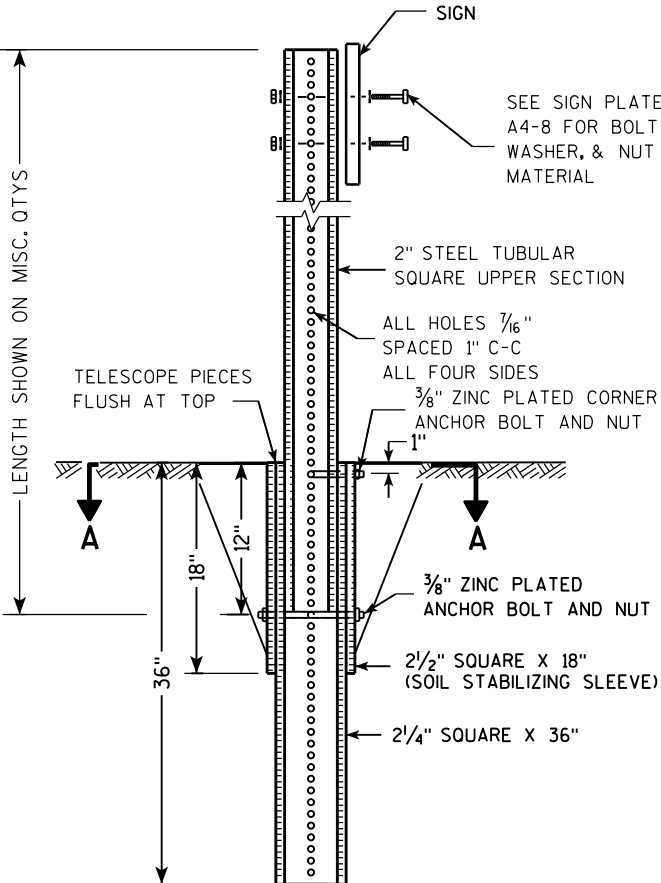
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



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

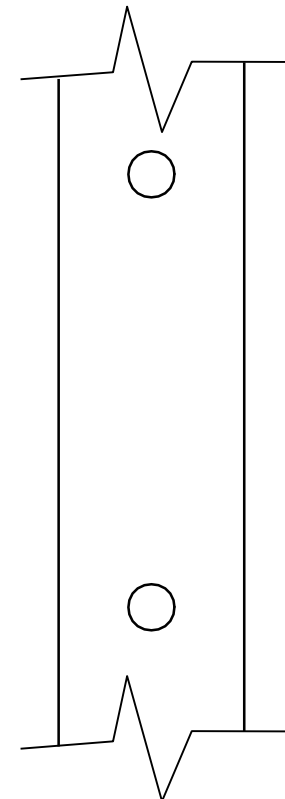
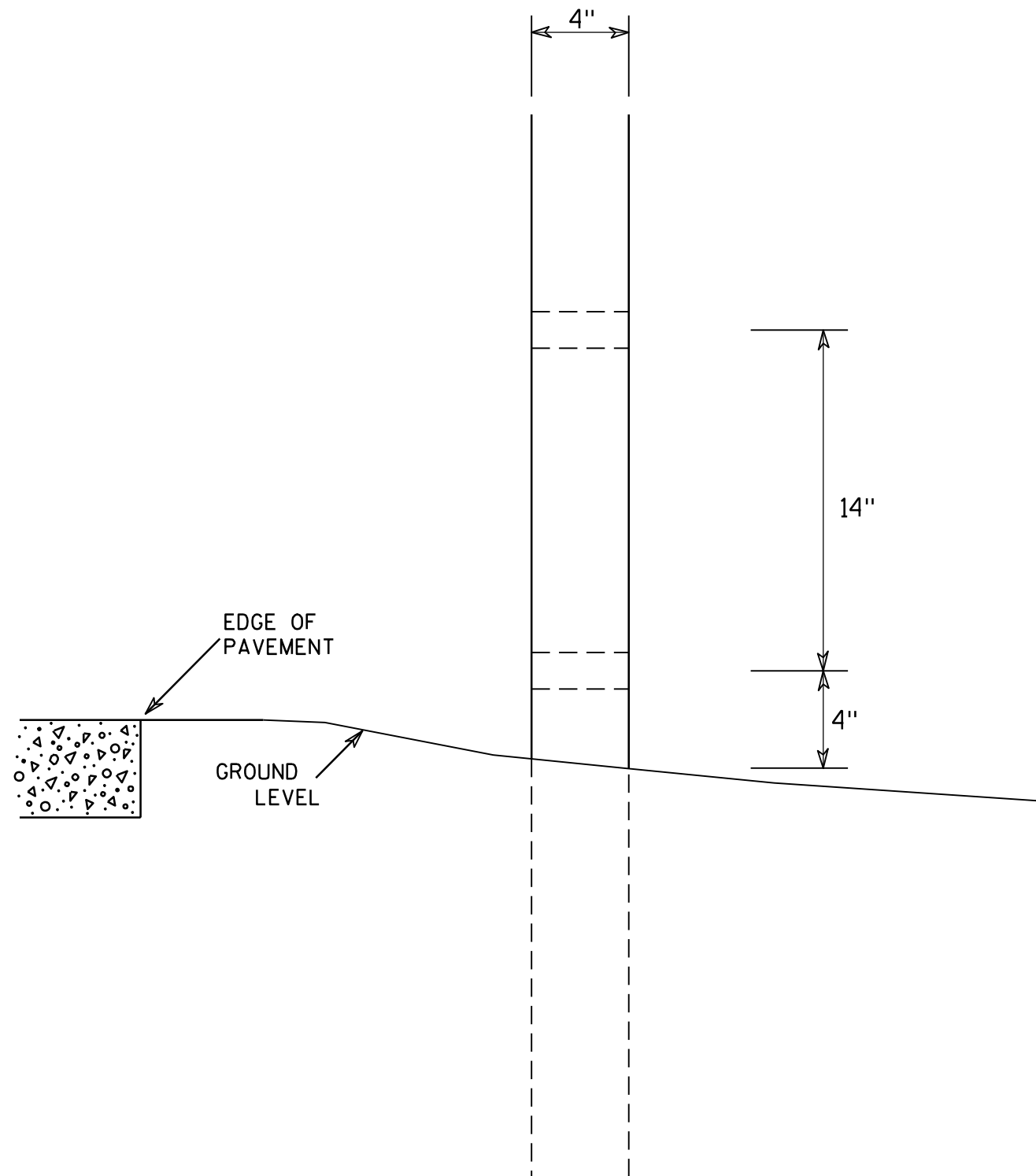
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

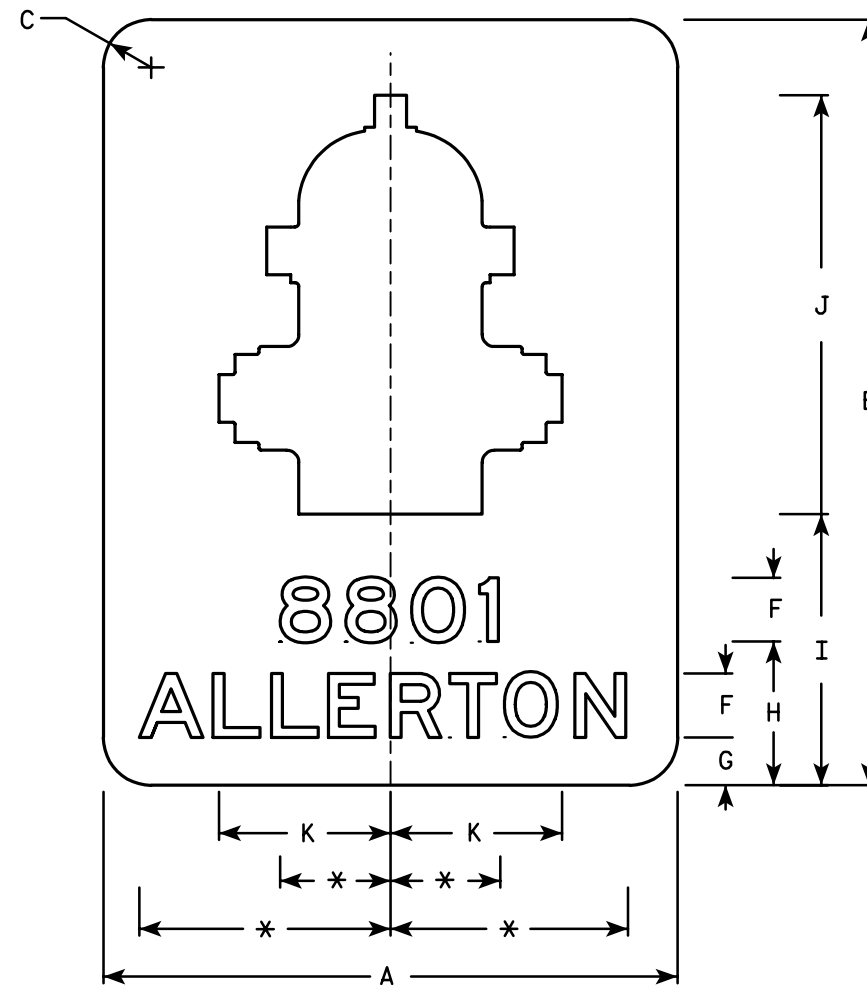
COUNTY:

SHEET NO:

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 - Green
 - Message - White - Type H Reflective
3. Message Series - B thru E See Note 5
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. Select appropriate message series and adjust spacing to achieve proper balance. Each line is independent, therefore use the maximum series available while still fitting within physical limitations of sign.



ALLERTON 2" E
15 1/4

BRIARCLIFF 2" C
13 5/8"

Metric equivalent
for this sign is:

SIZE	
2	450 mm X 600 mm
3	
4	
5	

[illegible]

* See Note 5

STANDARD SIGN
D9-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J Spang
for State Traffic Engineer

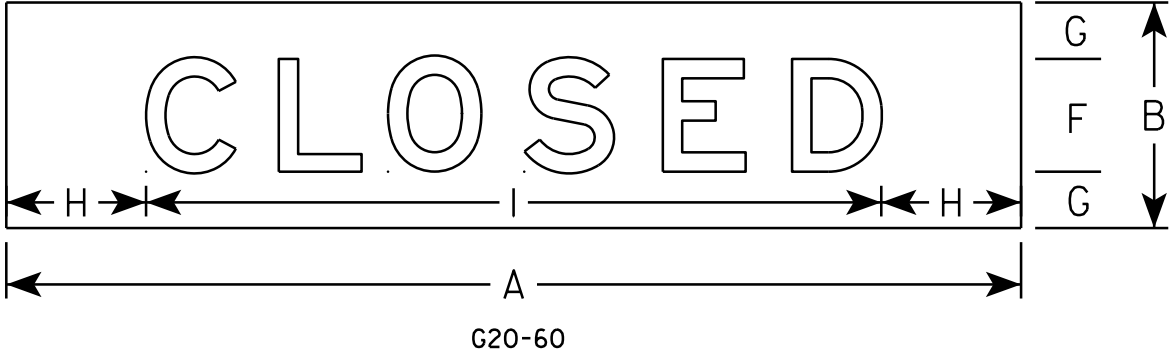
DATE 1/15/02

PLATE NO. D9-54.3

STATE PROJECT NUMBER:

SHEET NO:

1



NOTES

- 1. Sign is Type II- Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - E
- 4. Material shall be .040 aluminum

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																											
2																											
3																											
4	108	24				12	6	14 7/8	78 1/4																		18.0
5																											

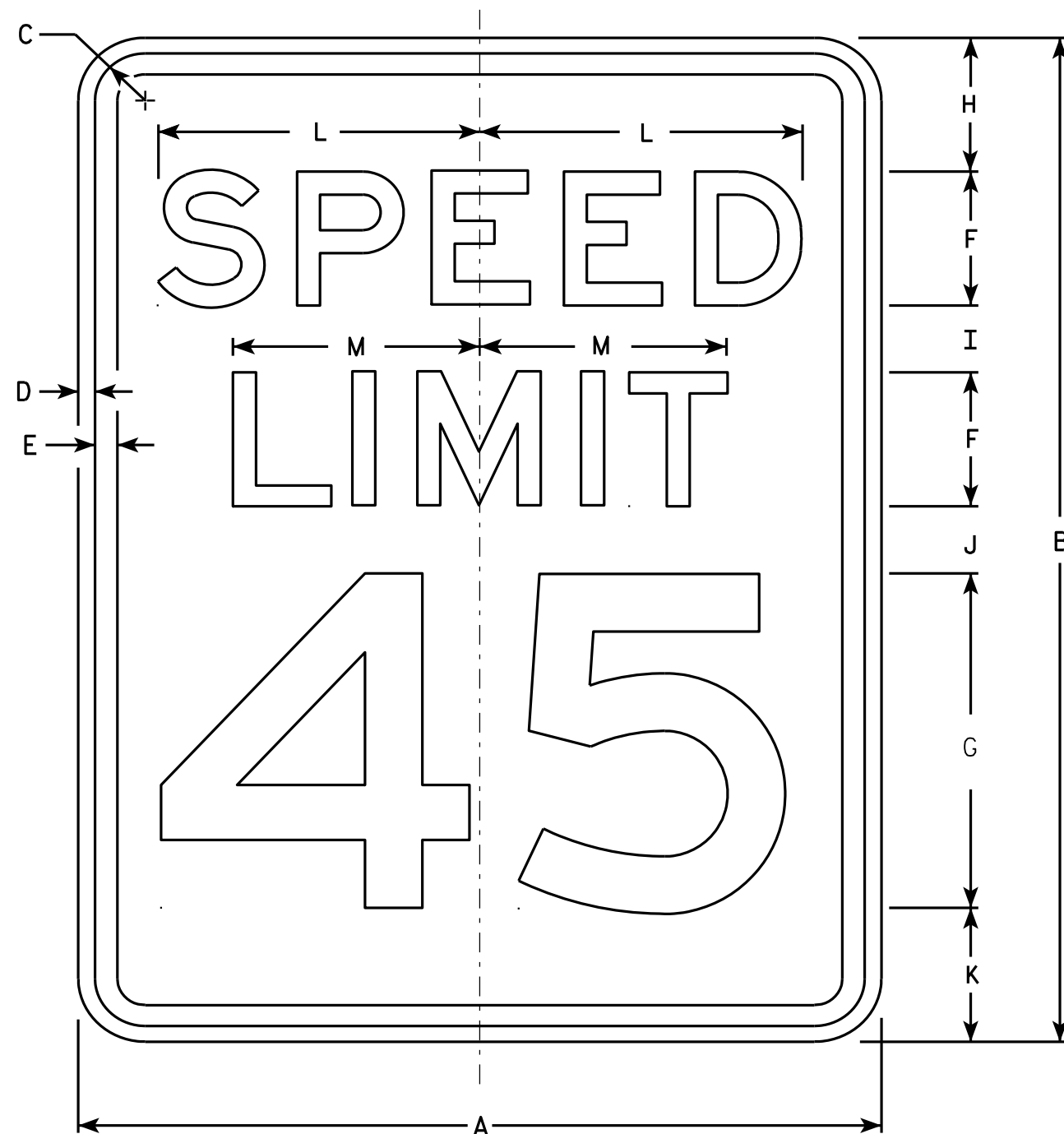
STANDARD SIGN

G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/13/15 PLATE NO. G20-60.1



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

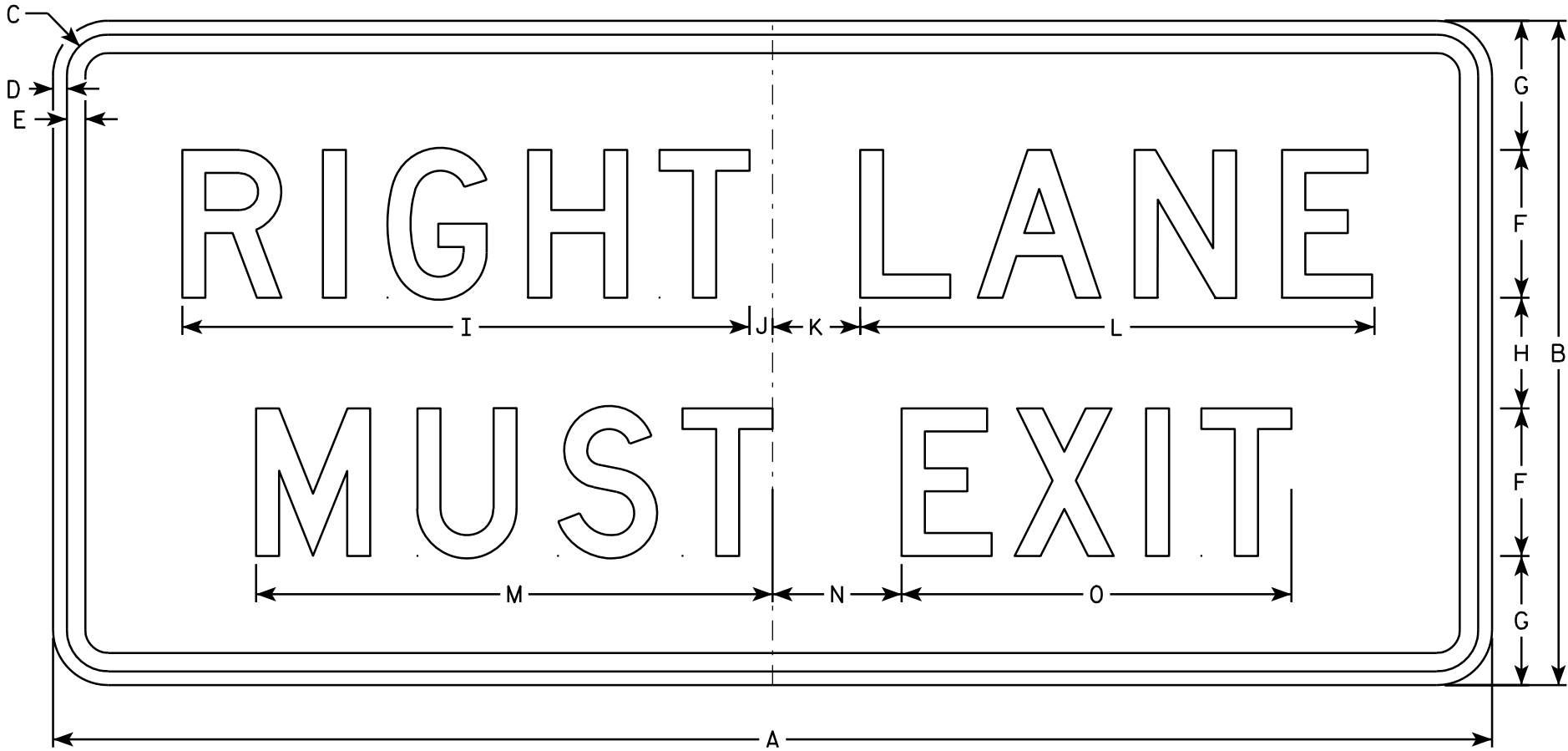
STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

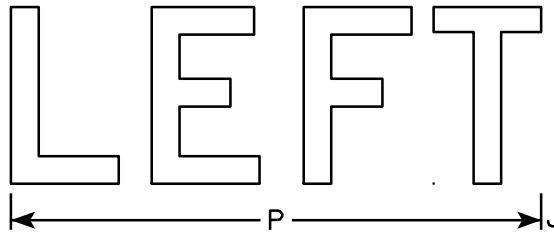
PROJECT NO: HWY: COUNTY: SHEET NO: E

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.



R3-33R



R3-33L

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																											
2M																											
3																											
4	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5
5	78	36	2 1/4	3/4	1	8	7	6	30 3/4	1 1/4	4 3/4	27 7/8	28	7	21 1/8	24											19.5

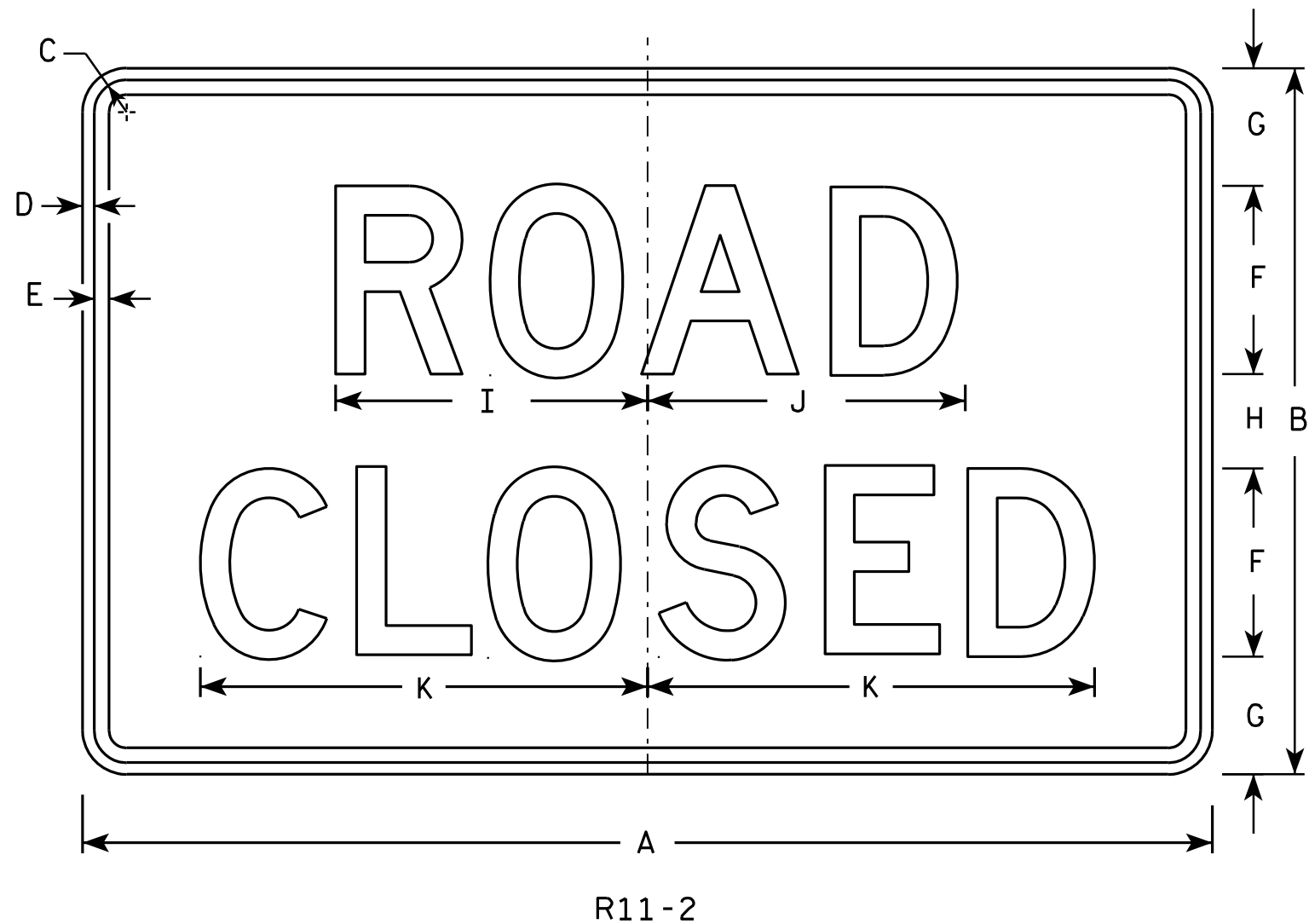
STANDARD SIGN
R3-33

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

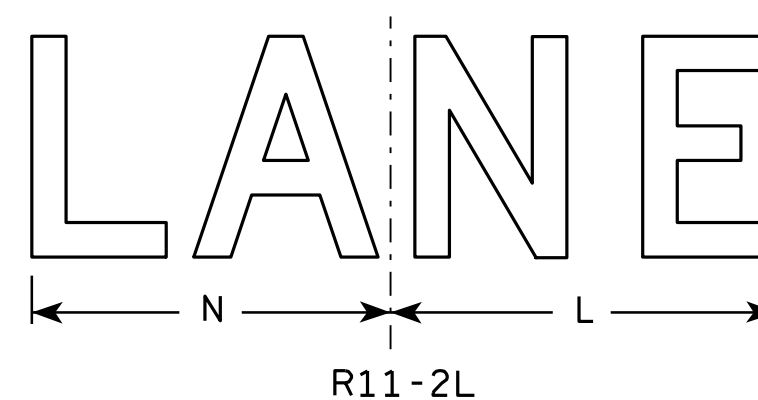
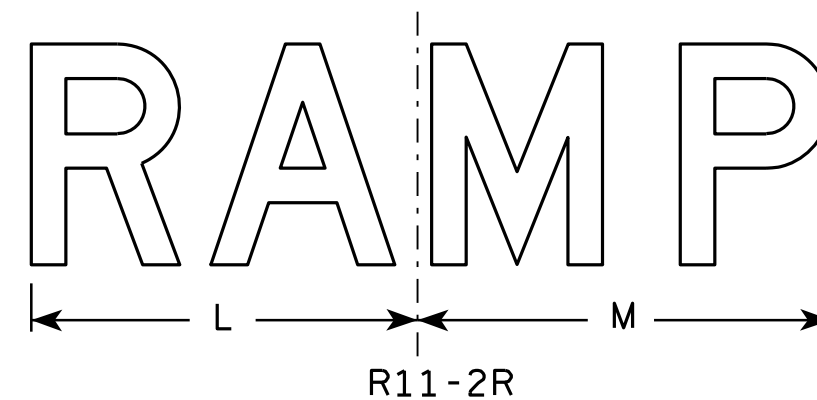
DATE 10/7/10 PLATE NO. R3-33.1

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

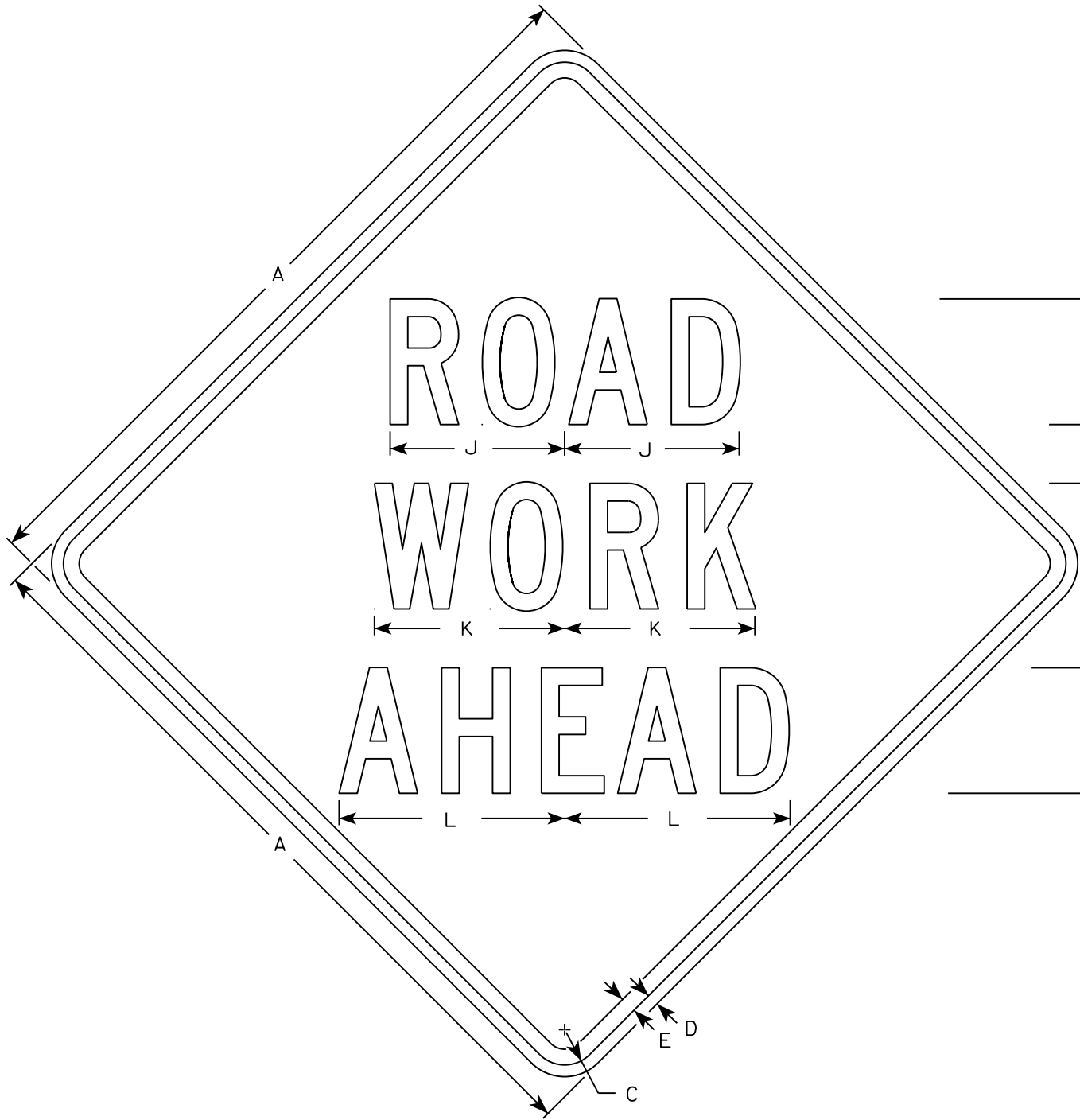
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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



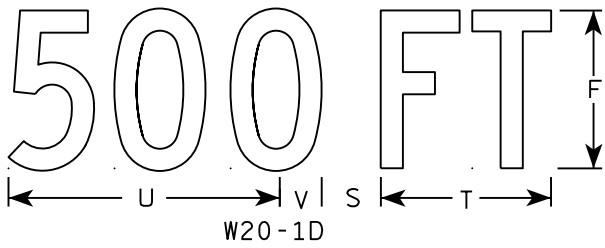
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13				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

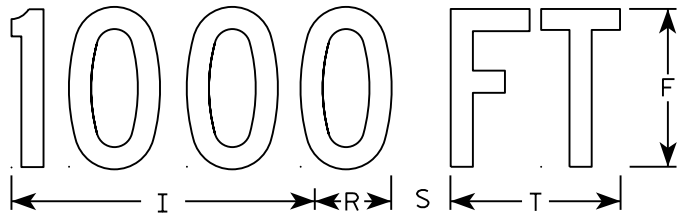
PROJECT NO:	HWY:	COUNTY:	SHEET NO: E
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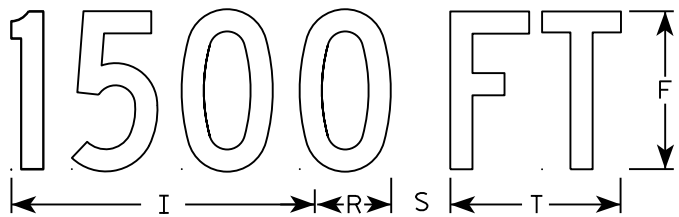
W20-1A



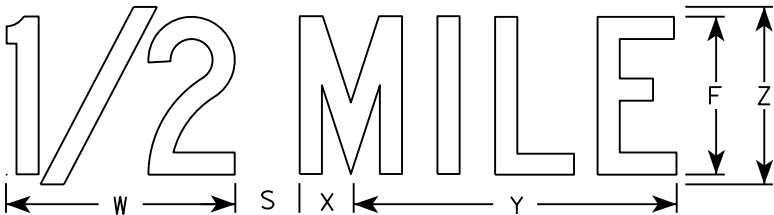
W20-1D



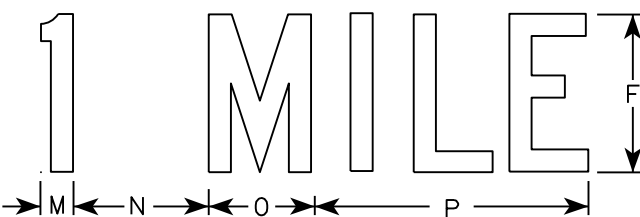
W20-1C



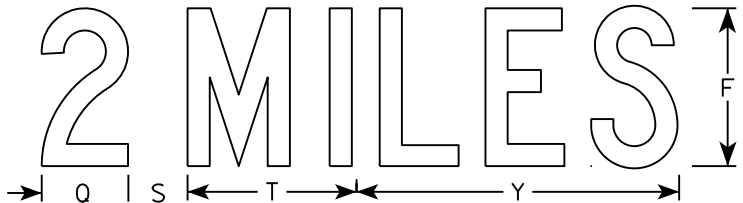
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

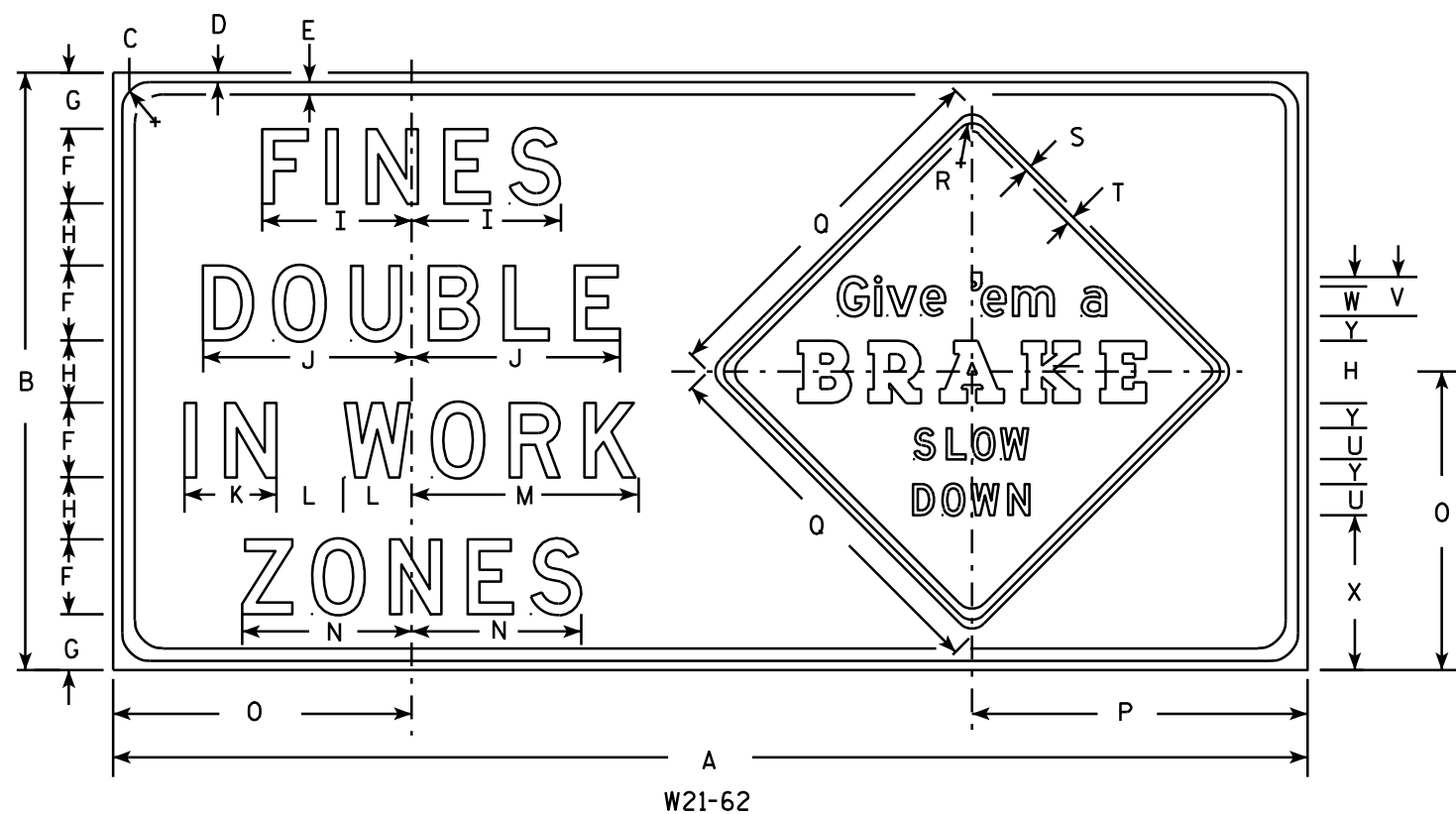
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

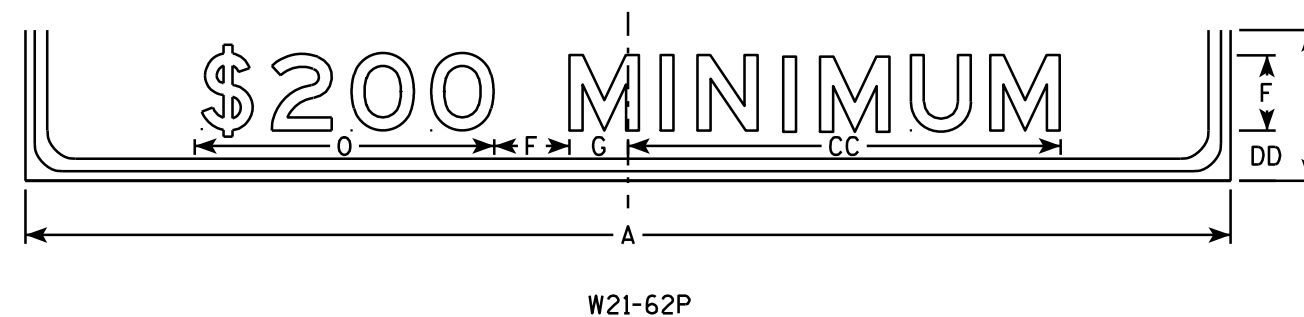
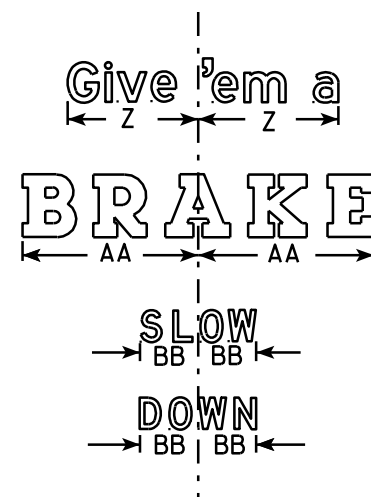
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White - (See Note 5)
Message - Black
- Message Series -
Fines Double Message - All lines are Series D
Give 'em a Brake -
Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
- The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a separate sheet of aluminum with the corners and borders rounded as shown. This separate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
- Background for the Give 'em a Brake sign shall be Type F reflective orange.

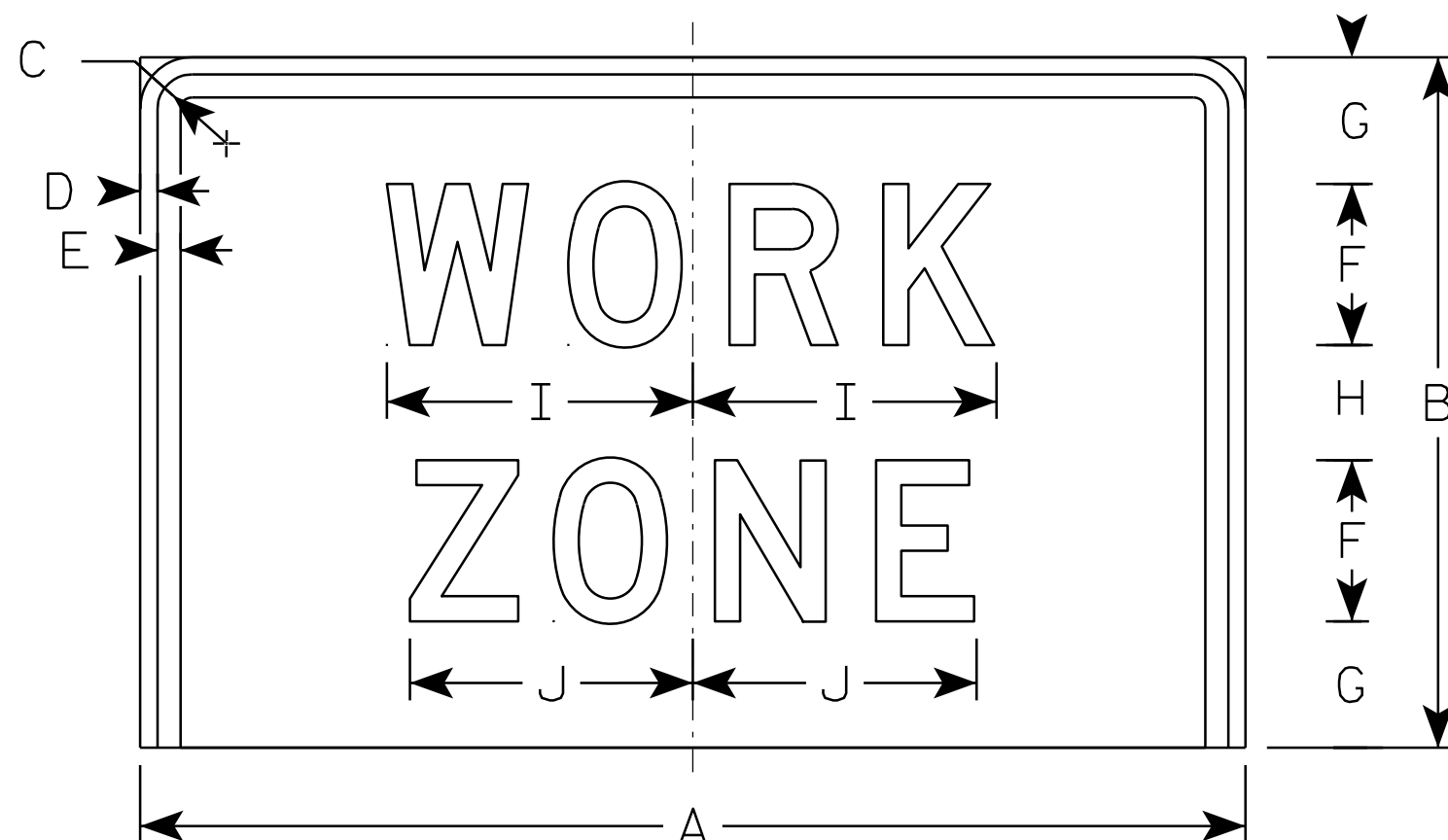


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

STANDARD SIGN W21-62	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/21/11	PLATE NO. W21-62.5

NOTES

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



W21-620

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	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

STANDARD SIGN
W21-620

WISCONSIN DEPT OF TRANSPORTATION

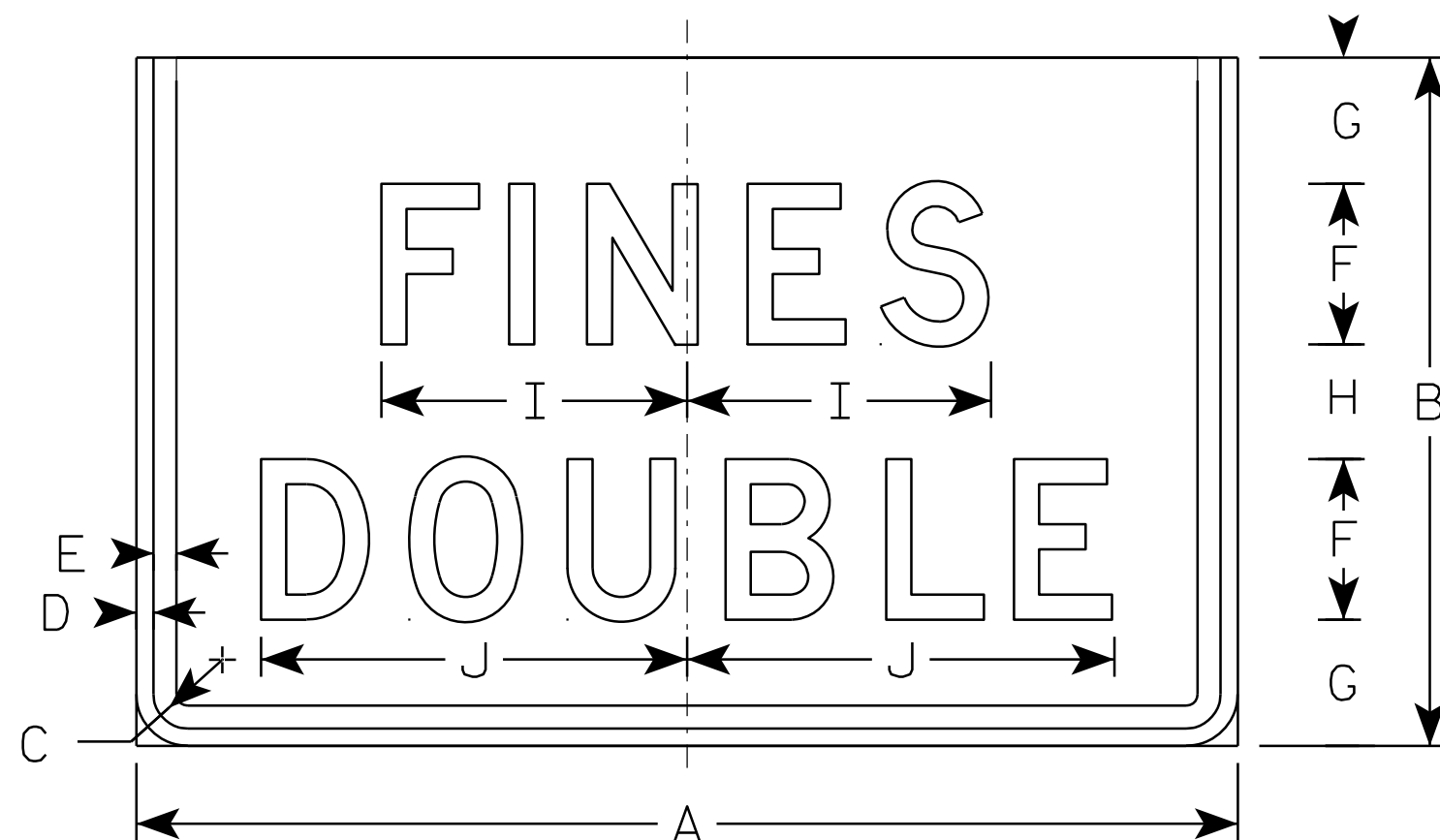
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

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



W21-62R

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	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

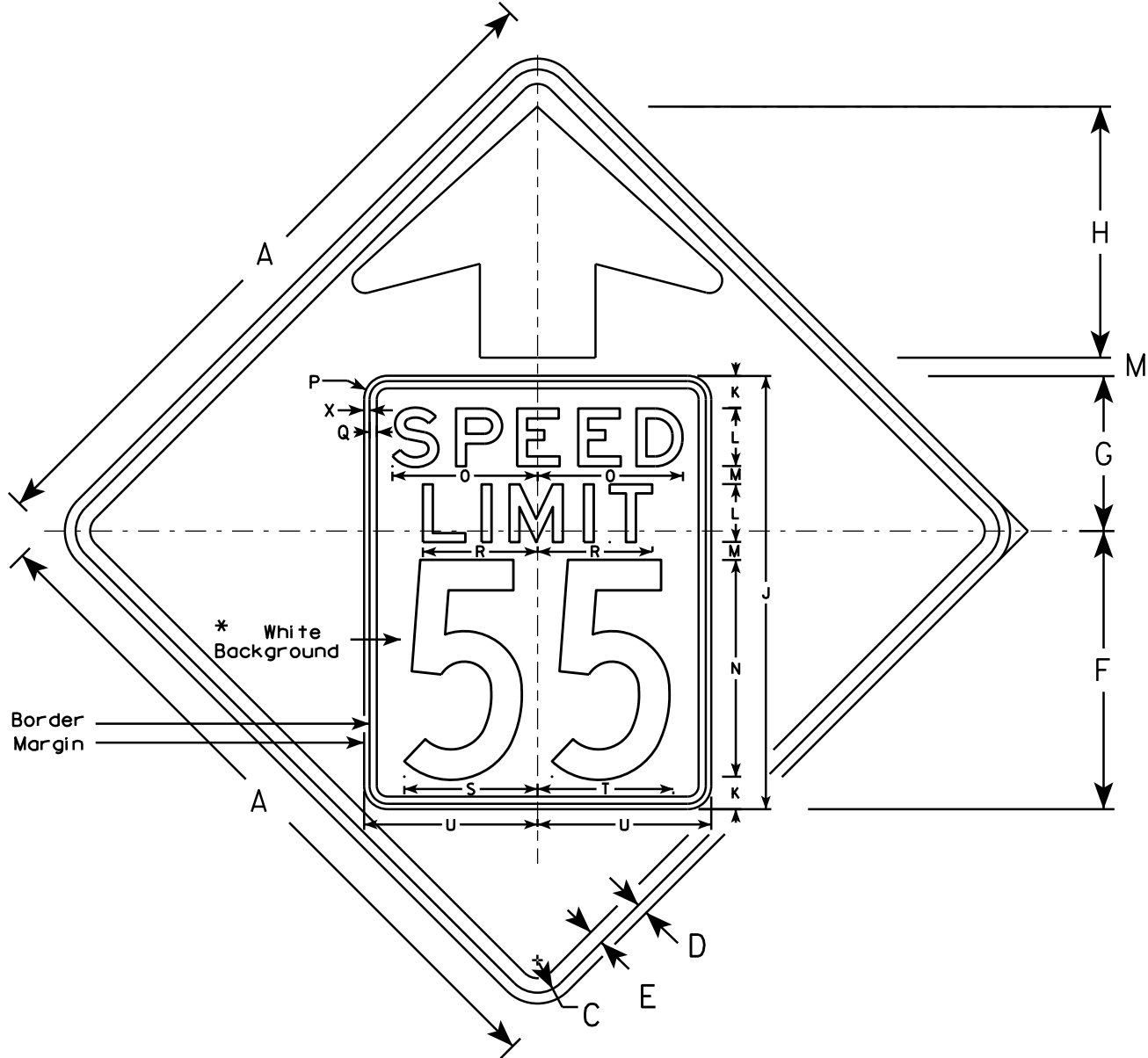
STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

PROJECT NO: HWY: COUNTY: SHEET NO: E

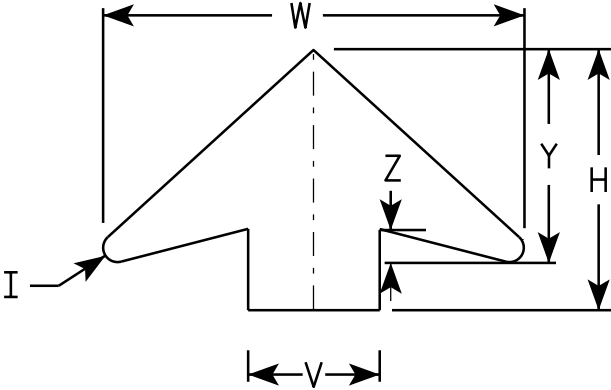


W03-5

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 for numbers Series E for wording
- 4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

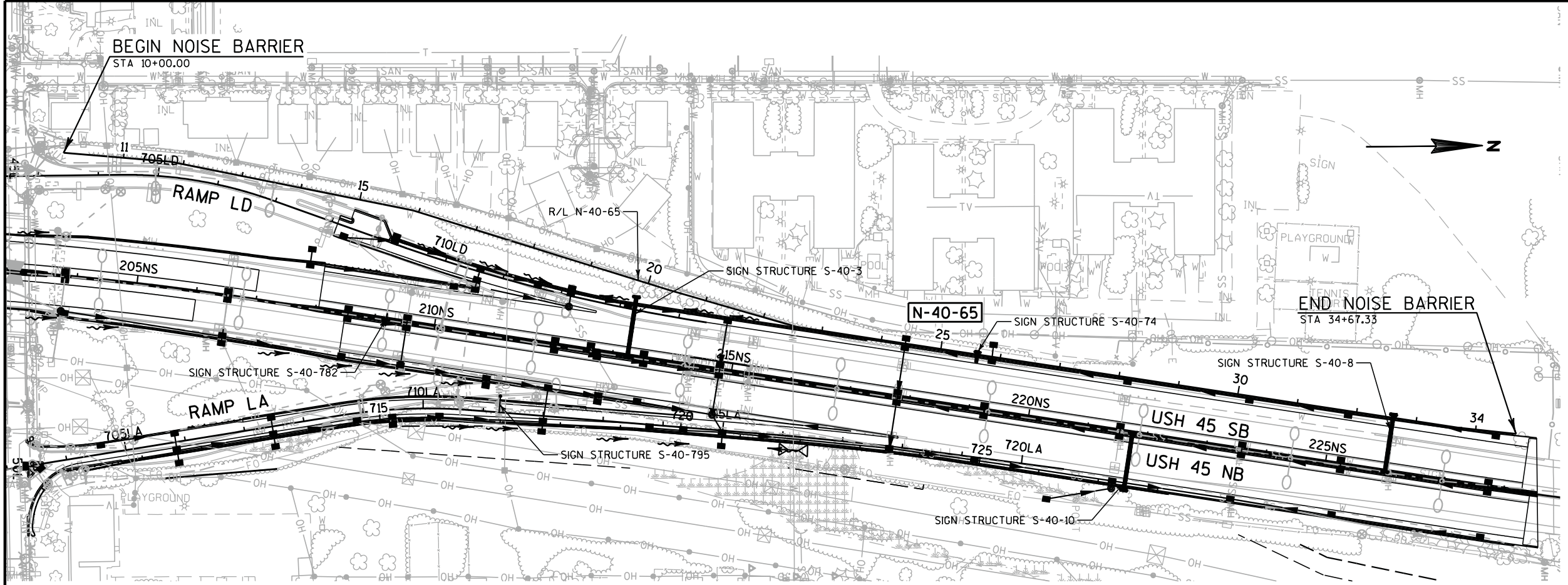
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W03-5.1

PROJECT NO:

SHEET NO:

E



STATE PROJECT NUMBER

1060-33-81

NOTES

FOR UTILITY INFORMATION, SEE SHEETS 2 - 6.
LOCATE THE BOTTOM OF THE HYDRANT ACCESS HOLES 4.0' ABOVE THE BOTTOM OF NOISE BARRIER.

LIST OF DRAWINGS

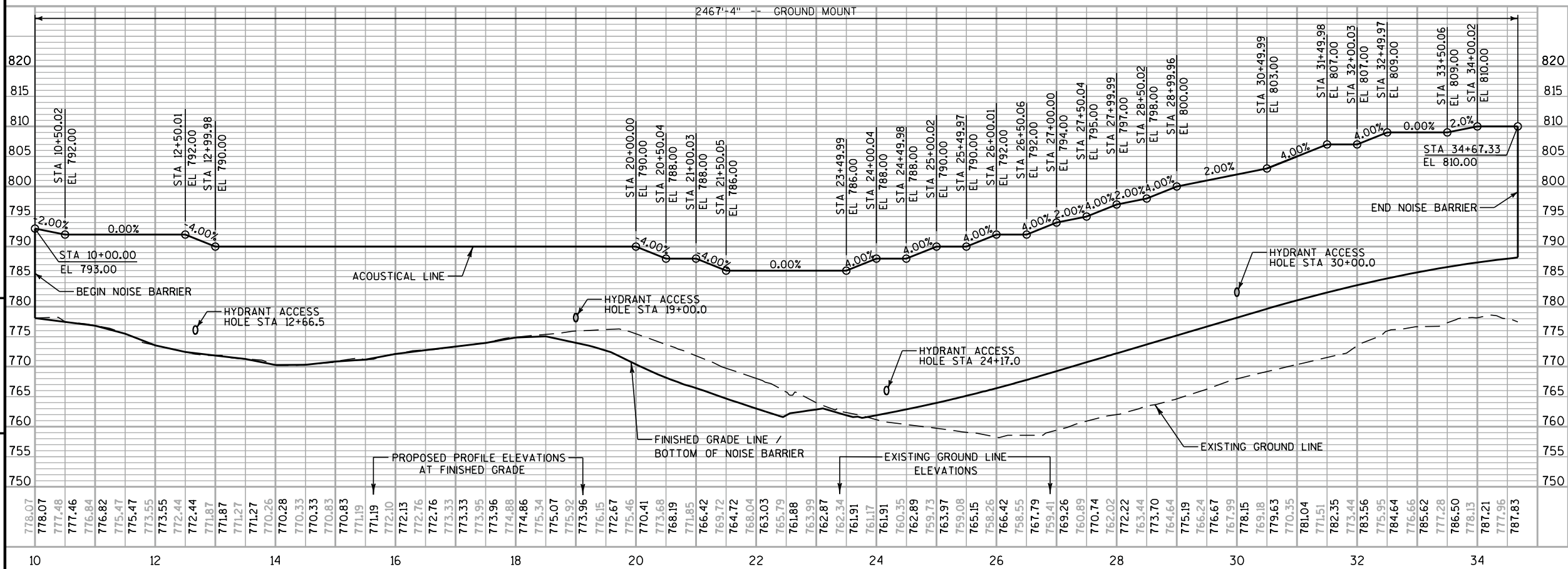
1. GENERAL PLAN & ELEVATION
2. UTILITY PLAN (1 OF 5)
3. UTILITY PLAN (2 OF 5)
4. UTILITY PLAN (3 OF 5)
5. UTILITY PLAN (4 OF 5)
6. UTILITY PLAN (5 OF 5)
7. ALIGNMENT PLAN
8. QUANTITIES & CONSTRUCTION DETAILS
9. AESTHETIC WALL TREATMENT DETAILS
RESIDENTIAL SIDE
10. AESTHETIC WALL TREATMENT DETAILS
FREEWAY SIDE
11. SUBSURFACE EXPLORATION (1 OF 3)
12. SUBSURFACE EXPLORATION (2 OF 3)
13. SUBSURFACE EXPLORATION (3 OF 3)



5/20/2015

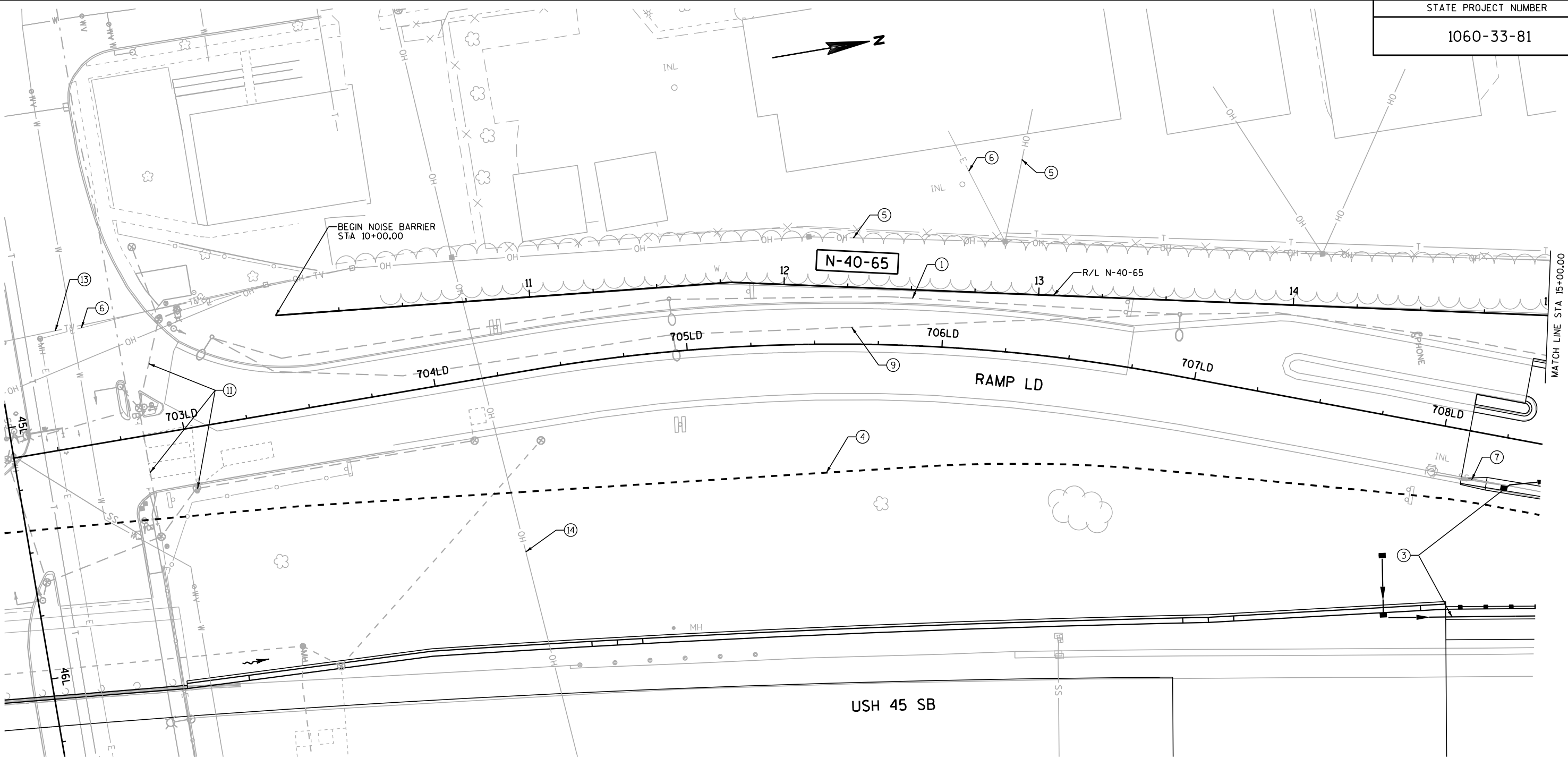
STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426



PLAN & PROFILE: NOISE BARRIER N-40-65

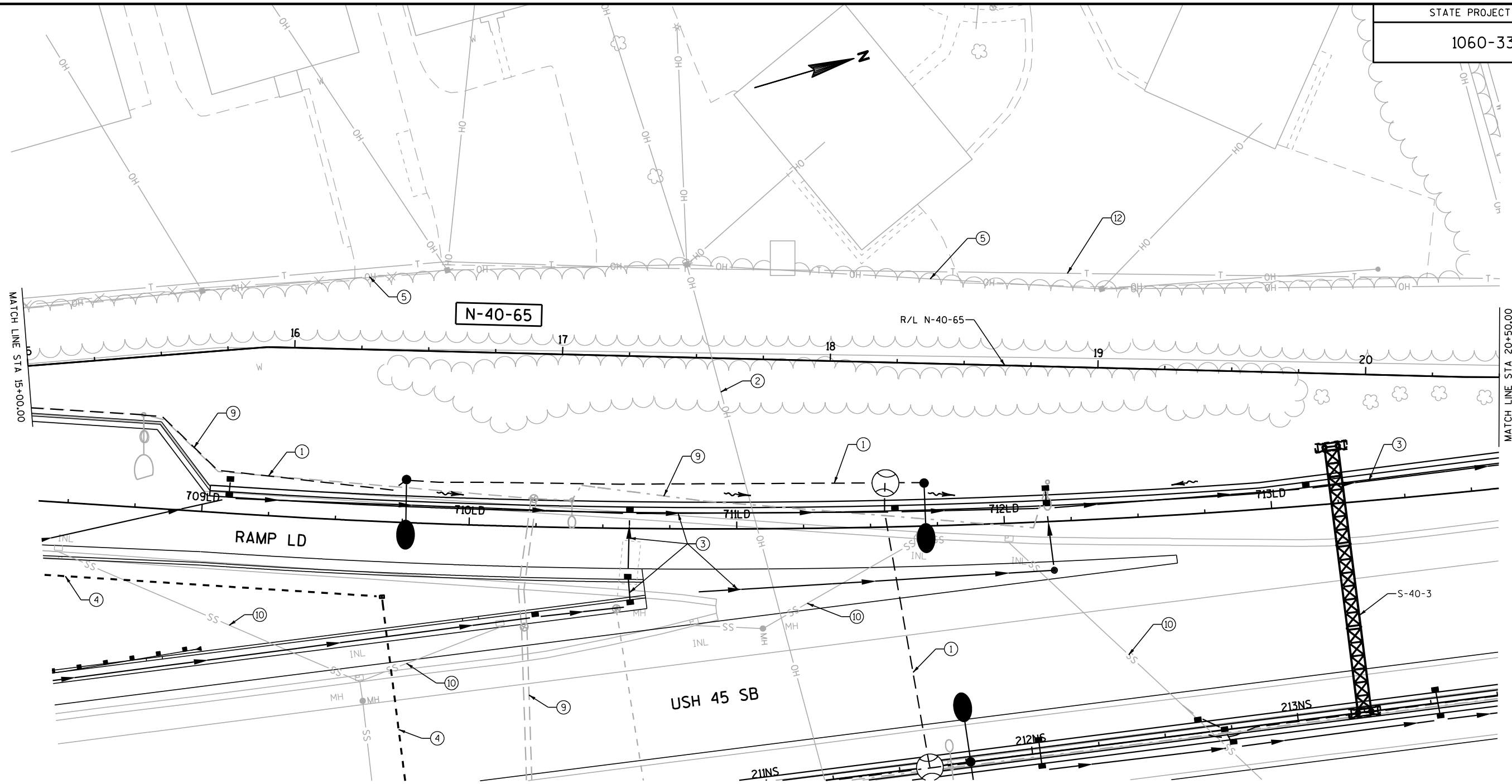
NO.	DATE	REVISION	BY
			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i>		DATE	05/27/15
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE N-40-65			
NOISE BARRIER N OF LINCOLN/WEST OF USH 45 SB			
COUNTY		TOWN/CITY/VILLAGE	
MILWAUKEE		WEST ALLIS	
DESIGN SPEC. AASHTO 2002			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
KES	EKM	GLM	KES
GENERAL PLAN & ELEVATION			SHEET 1 OF 13



UTILITY LEGEND

- | | |
|--|---|
| ① PROPOSED WISDOT LIGHTING | ⑨ EXISTING WISDOT LIGHTING TO BE RELOCATED |
| ② EXISTING TIME WARNER CABLE OH LINE TO BE RELOCATED | ⑩ EXISTING WISDOT STORM SEWER TO BE REMOVED |
| ③ PROPOSED WISDOT STORM SEWER | ⑪ EXISTING WISDOT FTMS TO REMAIN |
| ④ PROPOSED WISDOT FTMS CONDUIT | ⑫ EXISTING AT&T WISCONSIN TELEPHONE LINE TO REMAIN |
| ⑤ EXISTING WE ENERGIES OH ELECTRIC TO REMAIN | ⑬ EXISTING TIME WARNER CABLE TV LINE TO REMAIN |
| ⑥ EXISTING WE ENERGIES ELECTRIC TO REMAIN | ⑭ EXISTING WE ENERGIES OH ELECTRIC LINE TO BE RELOCATED |
| ⑦ EXISTING WISDOT STORM SEWER TO REMAIN | |
| ⑧ EXISTING CITY OF WEST ALLIS WATER LINE TO BE RELOCATED | |

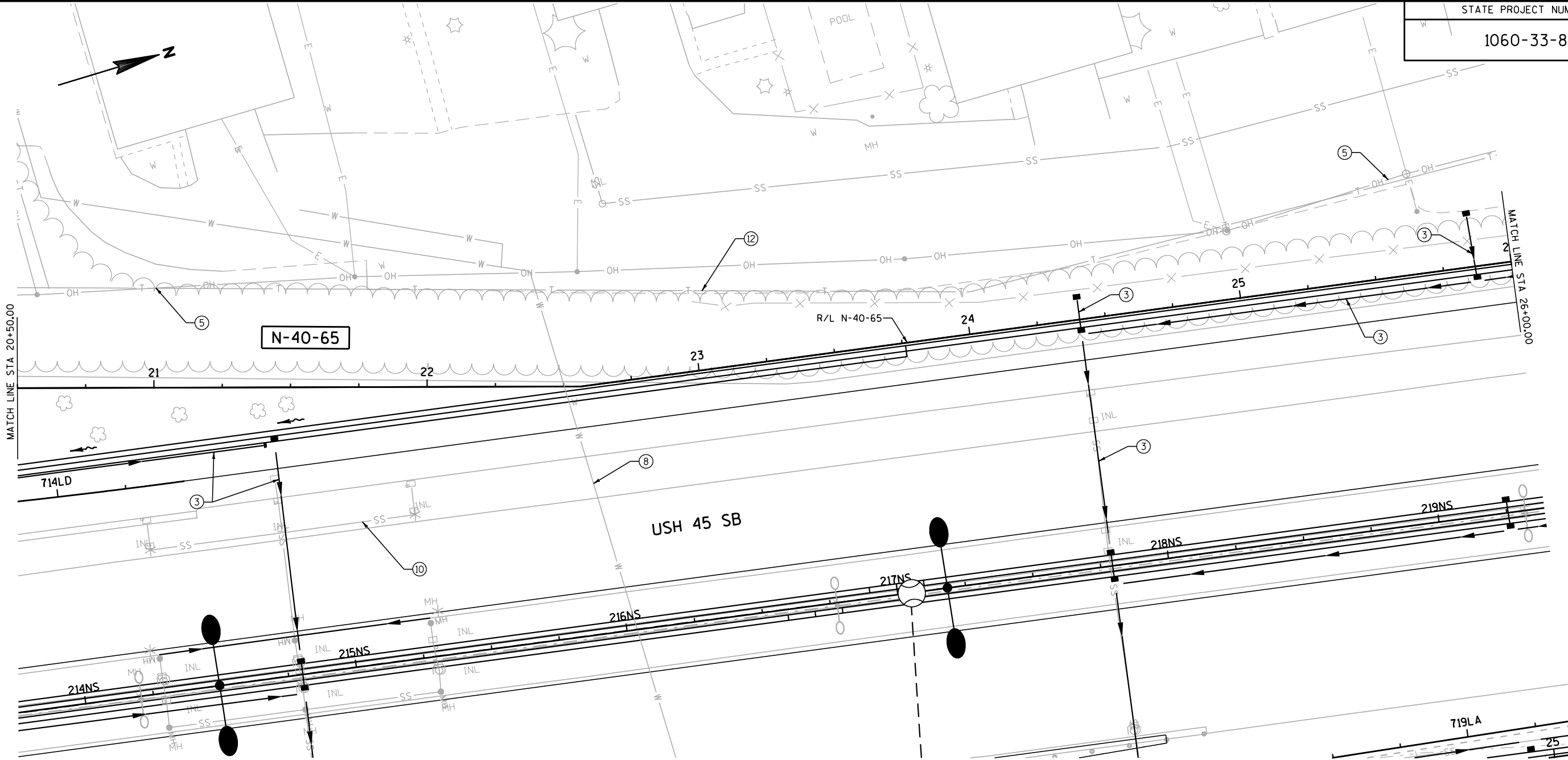
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY GLM		PLANS CK'D. KES	
UTILITY PLAN (1 OF 5)			SHEET 2 OF 13



UTILITY LEGEND

- | | |
|--|---|
| ① PROPOSED WISDOT LIGHTING | ⑨ EXISTING WISDOT LIGHTING TO BE RELOCATED |
| ② EXISTING TIME WARNER CABLE OH LINE TO BE RELOCATED | ⑩ EXISTING WISDOT STORM SEWER TO BE REMOVED |
| ③ PROPOSED WISDOT STORM SEWER | ⑪ EXISTING WISDOT FTMS TO REMAIN |
| ④ PROPOSED WISDOT FTMS | ⑫ EXISTING AT&T WISCONSIN TELEPHONE LINE TO REMAIN |
| ⑤ EXISTING WE ENERGIES OH ELECTRIC TO REMAIN | ⑬ EXISTING TIME WARNER CABLE TV LINE TO REMAIN |
| ⑥ EXISTING WE ENERGIES ELECTRIC TO REMAIN | ⑭ EXISTING WE ENERGIES OH ELECTRIC LINE TO BE RELOCATED |
| ⑦ EXISTING WISDOT STORM SEWER TO REMAIN | |
| ⑧ EXISTING CITY OF WEST ALLIS WATER LINE TO BE RELOCATED | |

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
UTILITY PLAN (2 OF 5)			SHEET 3 OF 13



8

UTILITY LEGEND

- 1

PROPOSED WISDOT LIGHTING
- 2

EXISTING TIME WARNER CABLE OH LINE TO BE RELOCATED
- 3

PROPOSED WISDOT STORM SEWER
- 4

PROPOSED WISDOT FTMS
- 5

EXISTING WE ENERGIES OH ELECTRIC TO REMAIN
- 6

EXISTING WE ENERGIES ELECTRIC TO REMAIN
- 7

EXISTING WISDOT STORM SEWER TO REMAIN
- 8

EXISTING CITY OF WEST ALLIS WATER LINE TO BE RELOCATED

9

EXISTING WISDOT LIGHTING TO BE RELOCATED

10

EXISTING WISDOT STORM SEWER TO BE REMOVED

11

EXISTING WISDOT FTMS TO REMAIN

12

EXISTING AT&T WISCONSIN TELEPHONE LINE TO REMAIN

13

EXISTING TIME WARNER CABLE TV LINE TO REMAIN

14

EXISTING WE ENERGIES OH ELECTRIC LINE TO BE RELOCATED

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
		DRAWN BY	GLM
		PLANS CK'D.	KES
UTILITY PLAN (3 OF 5)		SHEET 4 OF 13	



- ① PROPOSED WISDOT LIGHTING
- ② EXISTING TIME WARNER CABLE OH LINE TO BE RELOCATED
- ③ PROPOSED WISDOT STORM SEWER
- ④ PROPOSED WISDOT FTMS
- ⑤ EXISTING WE ENERGIES OH ELECTRIC TO REMAIN
- ⑥ EXISTING WE ENERGIES ELECTRIC TO REMAIN
- ⑦ EXISTING WISDOT STORM SEWER TO REMAIN
- ⑧ EXISTING CITY OF WEST ALLIS WATER LINE TO BE RELOCATED

- ⑨ EXISTING WISDOT LIGHTING TO BE RELOCATED
- ⑩ EXISTING WISDOT STORM SEWER TO BE REMOVED
- ⑪ EXISTING WISDOT FTMS TO REMAIN
- ⑫ EXISTING AT&T WISCONSIN TELEPHONE LINE TO REMAIN
- ⑬ EXISTING TIME WARNER CABLE TV LINE TO REMAIN
- ⑭ EXISTING WE ENERGIES OH ELECTRIC LINE TO BE RELOCATED

USH 45 SB

N-40-65

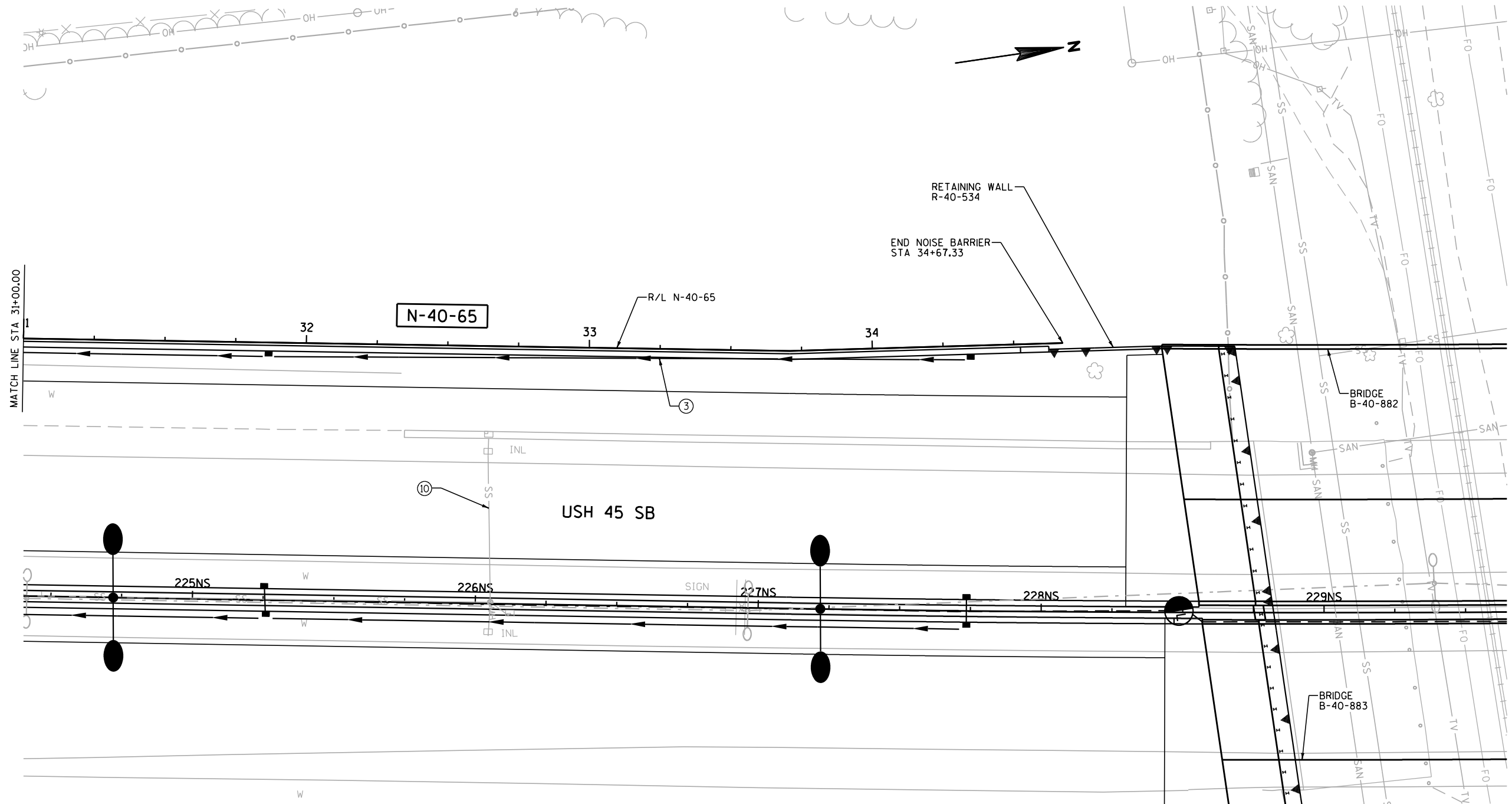
R/L N-40-65 -

MATCH LINE STA 31+00.00

MATCH LINE STA 26+00.00

8

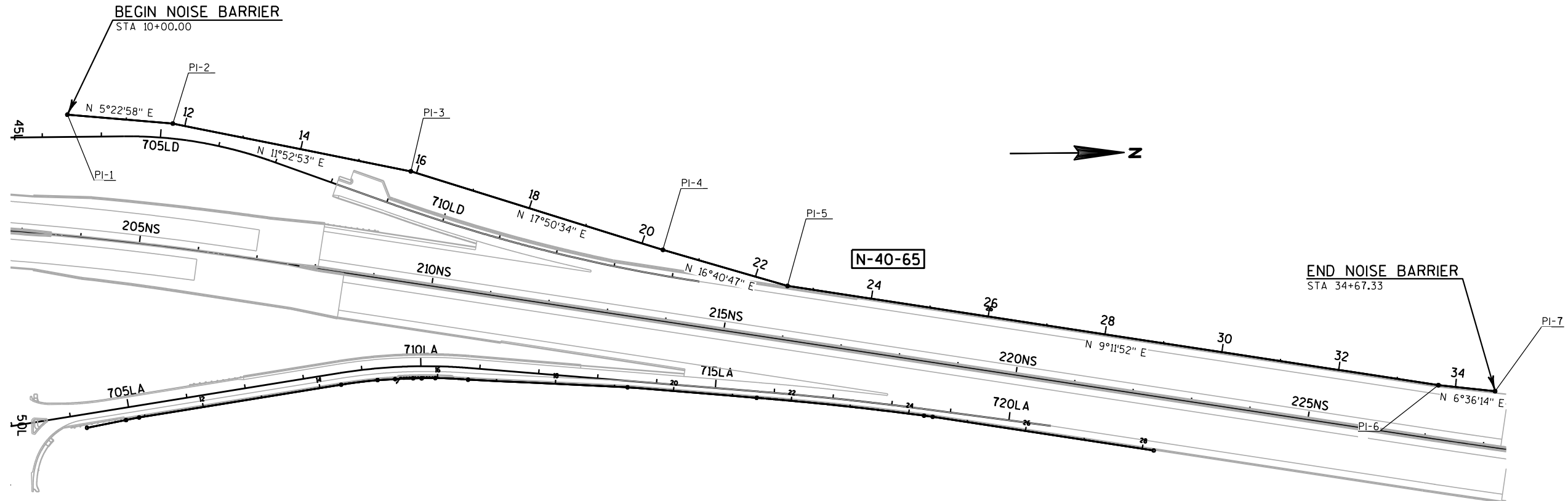
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
UTILITY PLAN (4 OF 5)		SHEET 5 OF 13	



UTILITY LEGEND

- | | |
|--|---|
| ① PROPOSED WISDOT LIGHTING | ⑨ EXISTING WISDOT LIGHTING TO BE RELOCATED |
| ② EXISTING TIME WARNER CABLE OH LINE TO BE RELOCATED | ⑩ EXISTING WISDOT STORM SEWER TO BE REMOVED |
| ③ PROPOSED WISDOT STORM SEWER | ⑪ EXISTING WISDOT FTMS TO REMAIN |
| ④ PROPOSED WISDOT FTMS | ⑫ EXISTING AT&T WISCONSIN TELEPHONE LINE TO REMAIN |
| ⑤ EXISTING WE ENERGIES OH ELECTRIC TO REMAIN | ⑬ EXISTING TIME WARNER CABLE TV LINE TO REMAIN |
| ⑥ EXISTING WE ENERGIES ELECTRIC TO REMAIN | ⑭ EXISTING WE ENERGIES OH ELECTRIC LINE TO BE RELOCATED |
| ⑦ EXISTING WISDOT STORM SEWER TO REMAIN | |
| ⑧ EXISTING CITY OF WEST ALLIS WATER LINE TO BE RELOCATED | |

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
UTILITY PLAN (5 OF 5)			SHEET 6 OF 13



ALIGNMENT DATA

PI NO	STATION	X	Y
PI-1	10+00.00	571326.30	286586.90
PI-2	11+79.09	571343.10	286765.20
PI-3	15+89.99	571427.70	287167.30
PI-4	20+36.78	571564.60	287592.60
PI-5	22+56.37	571627.63	287802.94
PI-6	33+70.92	571805.78	288903.17
PI-7	34+67.33	571816.87	288998.94

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
ALIGNMENT PLAN		SHEET 7 OF 13	

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE NOISE BARRIER IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE NOISE BARRIER MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

PLANS, ELEVATIONS AND DETAILS SHOWN ARE INTENDED TO INDICATE LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE NOISE BARRIER IS TO BE DESIGNED USING THE FINISHED GRADE LINE AND THE ACOUSTICAL LINE SHOWN ON THE GENERAL PLAN AND ELEVATION SHEETS.

THE ACOUSTICAL LINE IS THE TOP PAY LIMIT FOR THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65". NOISE BARRIER PLACED ABOVE THE ACOUSTICAL LINE WILL NOT BE MEASURED FOR PAYMENT.

THE FINISHED GRADE LINE IS THE BOTTOM PAY LIMIT FOR THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65". NOISE BARRIER PLACED BELOW THE FINISHED GRADE LINE WILL NOT BE MEASURED FOR PAYMENT.

EXISTING BORING LOGS AND LAB DATA IN THE VICINITY OF THE PROPOSED NOISE BARRIERS HAVE BEEN COMPILED AND INCLUDED IN THE DOCUMENT "CORE 2 CONTRACT NOISE BARRIER GEOTECHNICAL DATA REPORT", DATED DEC 12, 2014. CONTACT JEFF BOHEN - WISDOT, (414) 750-2928, 141 NW BARSTOW STREET, P.O. BOX 798, WAUKESHA, WI 53187 TO OBTAIN A COPY. THE CONTRACTORS ARE RESPONSIBLE TO REVIEW THE DATA IN THIS REPORT TO HELP ASSESS FIELD DRILLING CONDITIONS AND TO SUPPORT DEVELOPMENT OF SOIL DESIGN PARAMETERS FOR THE NOISE BARRIER FOUNDATION DESIGN.

ALL NOISE BARRIERS SHALL BE DESIGNED IN ACCORDANCE WITH THE 1989 GUIDE SPECIFICATIONS FOR STRUCTURAL DESIGN OF SOUND BARRIERS, INCLUDING THE 1992 AND 2002 INTERIMS BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS.

THE FOLLOWING DESIGN PRESSURES SHALL BE USED IN ACCORDANCE WITH THE SPECIAL PROVISIONS:

28.5 P.S.F. FOR GROUND MOUNTED BARRIERS
37.5 P.S.F. FOR STRUCTURE MOUNTED BARRIERS

REINFORCING STEEL IN THE CONCRETE CORE OF THE NOISE BARRIER PANELS SHALL HAVE A MINIMUM CLEARANCE OF 1 INCH. THE CONCRETE CORE SHALL BE DESIGNED TO RESIST THE LOADS WITHOUT CONSIDERING ANY COMPOSITE ACTION FROM OTHER MATERIAL IN THE PANEL.

BOTTOM NOISE BARRIER PANELS SHALL BE DESIGNED TO SUPPORT THE DEAD LOAD (WEIGHT) OF THE PANELS DIRECTLY ABOVE IT AND ITS OWN DEAD LOAD. THE DEAD LOAD SHALL BE DISTRIBUTED UNIFORMLY ASSUMING SIMPLE BEAM ACTION WITH SUPPORTS AT THE POSTS. BOTTOM PANELS SHALL HAVE A MINIMUM AMOUNT OF PERIMETER REINFORCEMENT OF A #4 BAR WHICH SHALL BE CONTINUOUS AROUND THE CORNERS.

A COMPRESSIBLE BEARING PAD OF 1/4" THICK SHALL BE PROVIDED BETWEEN THE FOUNDATION AND THE BOTTOM PANELS. THE BEARING PADS SHALL BE PREFORMED EPDM RUBBER CONFORMING TO ASTM D-2000, GRADE 2, TYPE A, CLASS A WITH A MINIMUM DUROMETER HARDNESS OF 80. BEARING PADS SHALL BE INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

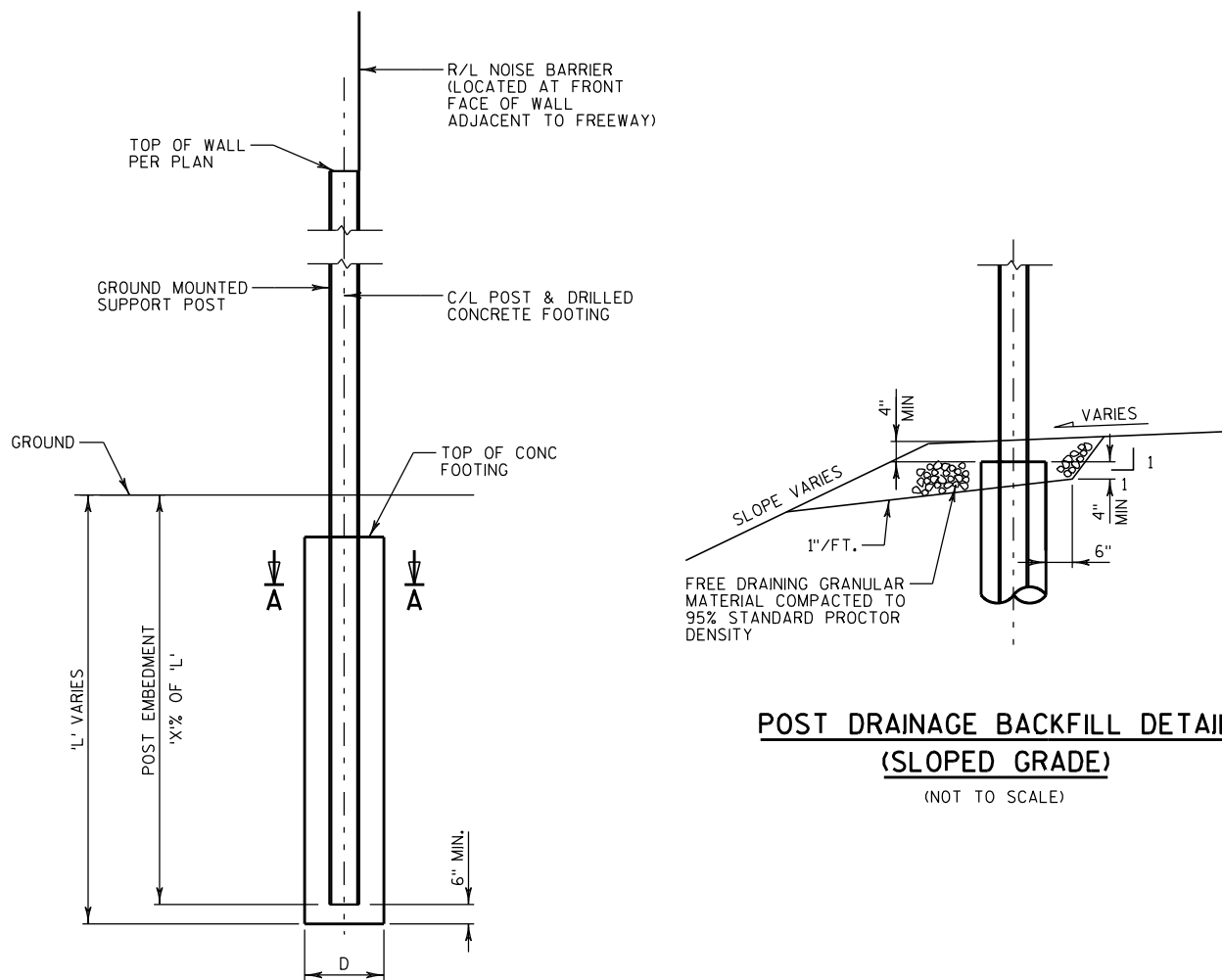
PRECAST CONCRETE PEDESTALS PLACED BETWEEN THE FOUNDATION AND BOTTOM PANELS SHALL BE REINFORCED IF OVER 1'-0" HIGH.

INCLUDE THE COST OF THE STONE PATTERN SURFACE TREATMENT, REVEALS, COATING OF STEEL POSTS AND CONNECTIONS, AND COLORING/STAINING THE PANELS, UNDER THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

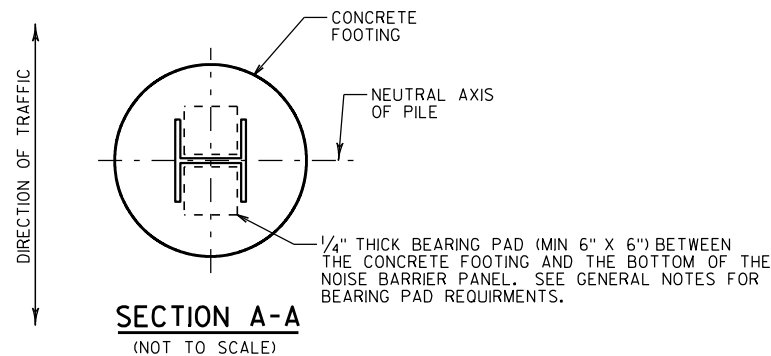
LOCATE HYDRANT ACCESS HOLES IN NOISE BARRIERS WITH COVER SIGNS AT LOCATIONS SHOWN ON THE GENERAL PLAN & ELEVATION SHEETS. PROVIDING HYDRANT ACCESS HOLES IS INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

INSTALL FREE DRAINING GRANULAR MATERIAL AT THE BOTTOM OF NOISE BARRIERS AS SHOWN IN THE NOISE BARRIER PLANS. FREE DRAINING GRANULAR MATERIAL IS INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

ALL CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IS SUBJECT TO THE OMP REQUIREMENTS FOR CLASS II ANCILLARY CONCRETE. PERFORM OMP TESTING OF CONCRETE MASONRY FOR NOISE BARRIER FOUNDATIONS IN ACCORDANCE WITH SECTION 716 OF THE STANDARD SPECIFICATIONS FOR CLASS II ANCILLARY CONCRETE. OMP TESTING IS INCIDENTAL TO THE BID ITEM "NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65".

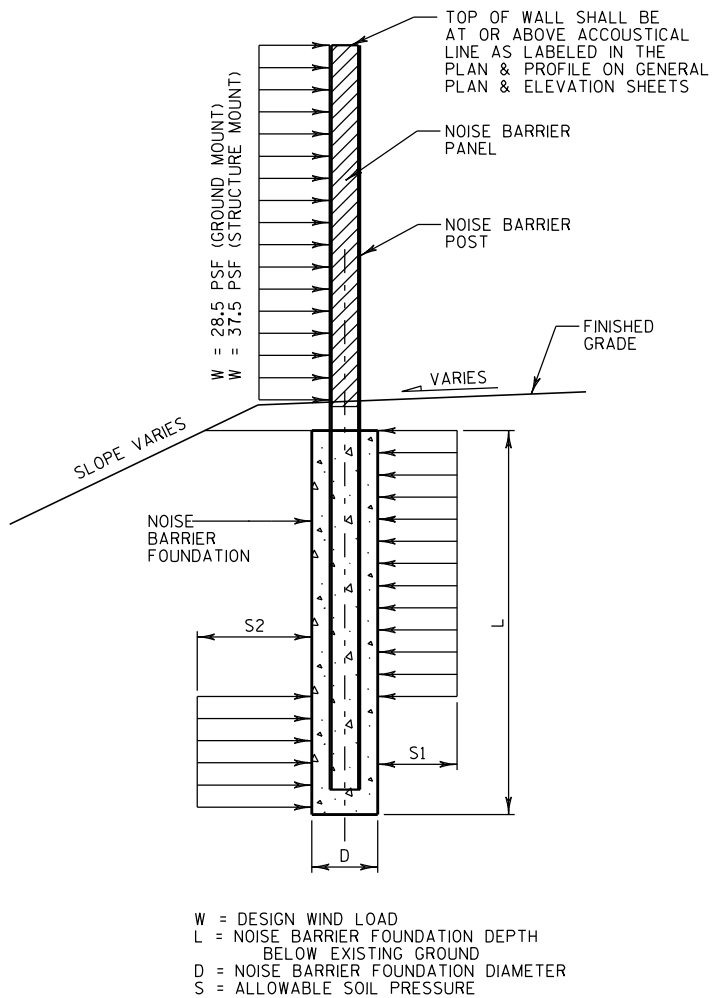
**SECTION THRU GROUND MOUNTED POST & DRILLED CONC FOOTING**

TYPICAL AT EACH POST LOCATION
(NOT TO SCALE)
(D, L AND X TO BE DETERMINED BY SUPPLIER)

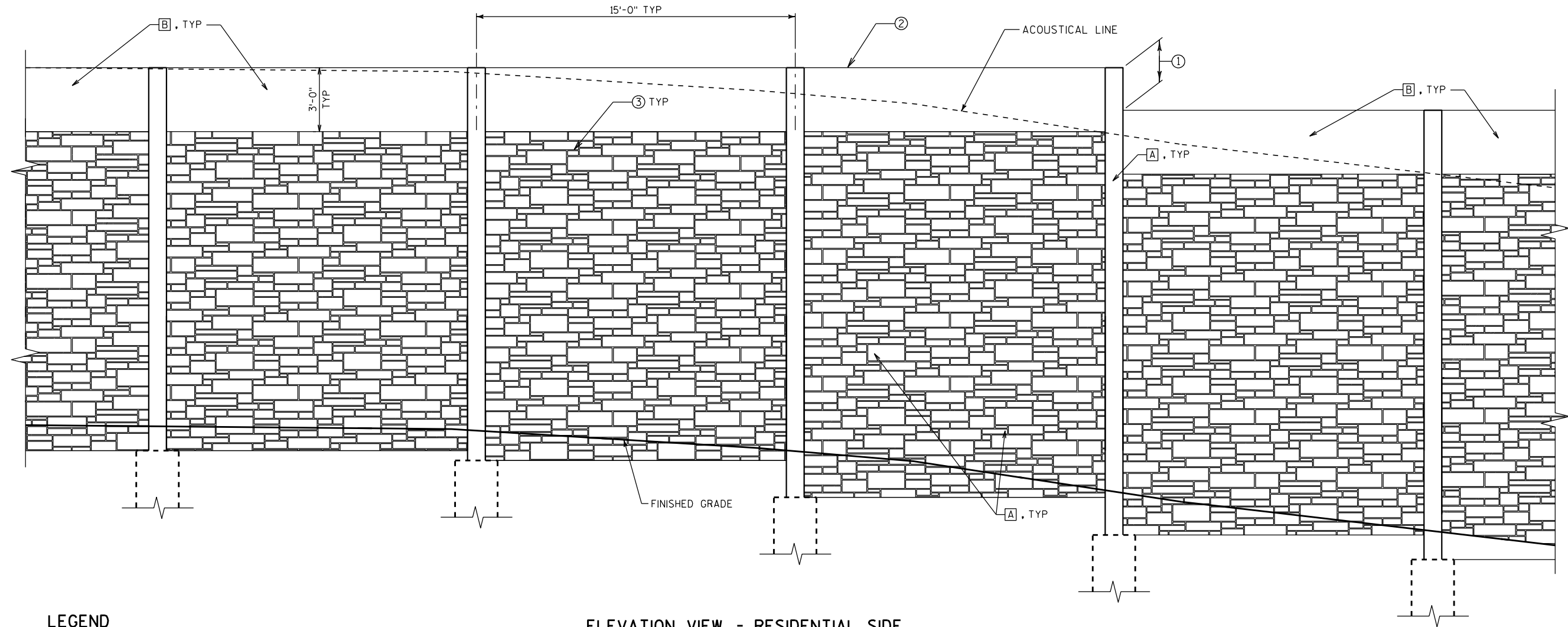
**SECTION A-A**
(NOT TO SCALE)**TOTAL ESTIMATED QUANTITIES**

ITEM NUMBER	BID ITEM	UNIT	TOTAL
531.0300.S.0005	NOISE BARRIER DOUBLE-SIDED SOUND ABSORPTIVE N-40-65	SF	53,420

ALL ITEMS ARE CATEGORY ID 9040

**NOISE BARRIER LOADING DIAGRAM**

(NOT TO SCALE)



ELEVATION VIEW - RESIDENTIAL SIDE

LEGEND

[A] BASE COLOR

[B] ACCENT COLOR NO.1

- ① STEP PANELS IN INCREMENTS OF 2'-0\".
- ② ADJUST VERTICAL PLACEMENT OF PANELS TO MAXIMIZE HORIZONTAL RUNS, KEEPING THE TOP OF PANELS AT THE SAME ELEVATION.
- ③ THE RESIDENTIAL SIDE WALL PATTERN SHALL BE A "RANDOM SPLIT EDGE ASHLAR" PATTERN. THE PATTERN SHALL CONSIST OF RANDOM SIZED PIECES RANGING FROM A MINIMUM OF 1/2" HIGH BY 4" LONG TO A MAXIMUM OF 10" HIGH BY 31" LONG WITH A MAXIMUM RELIEF 1/2".

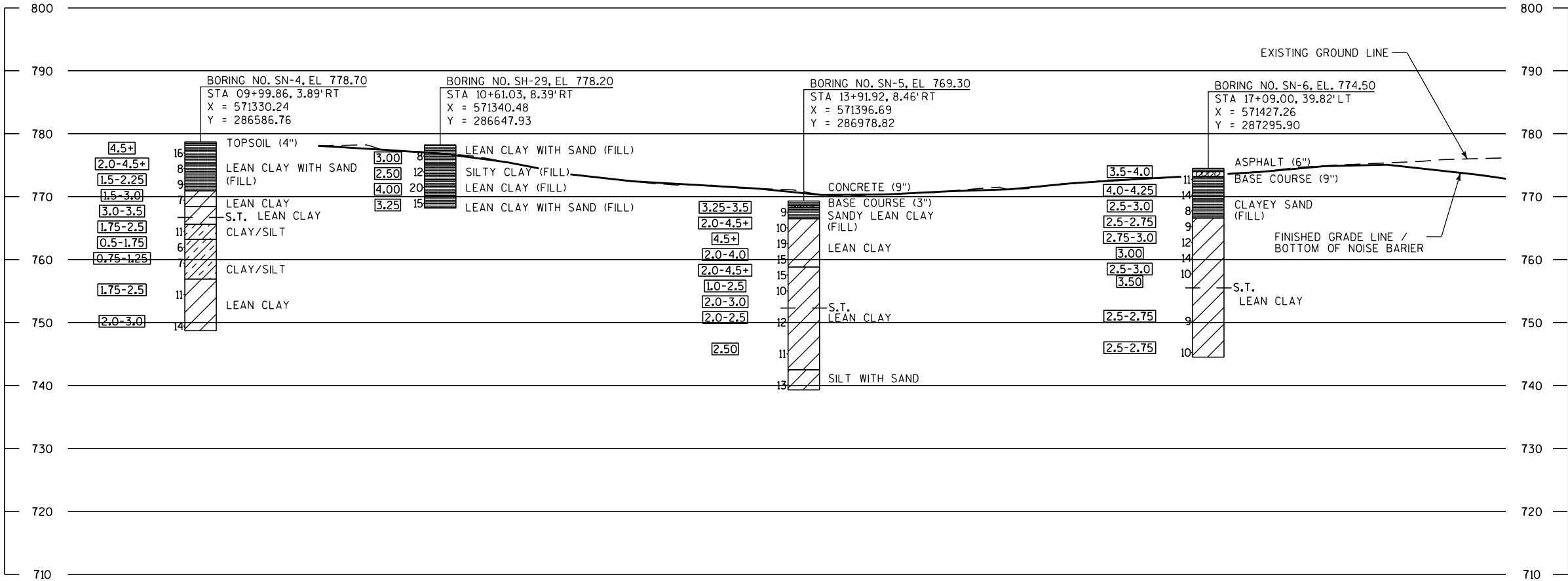
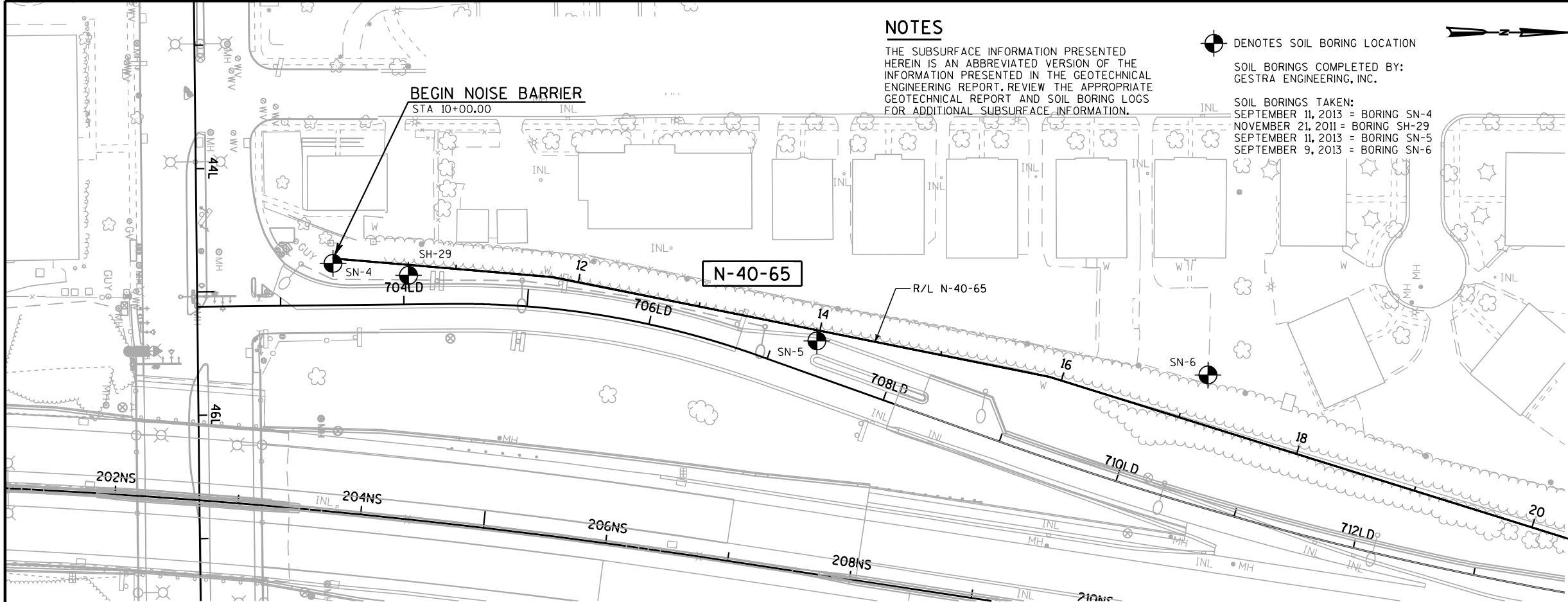
STAIN COLORS

THE FINAL COLORING OF THE NOISE BARRIER FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR - 33564

ACCENT COLOR NO.1 - 33448

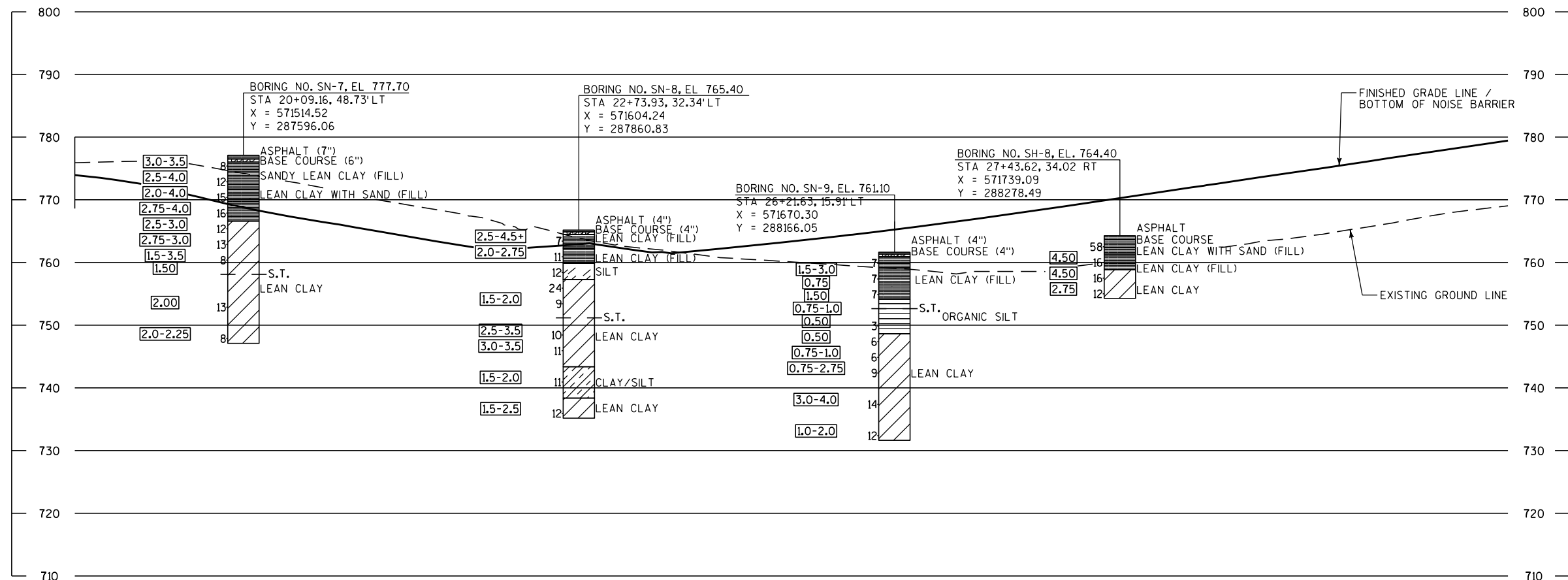
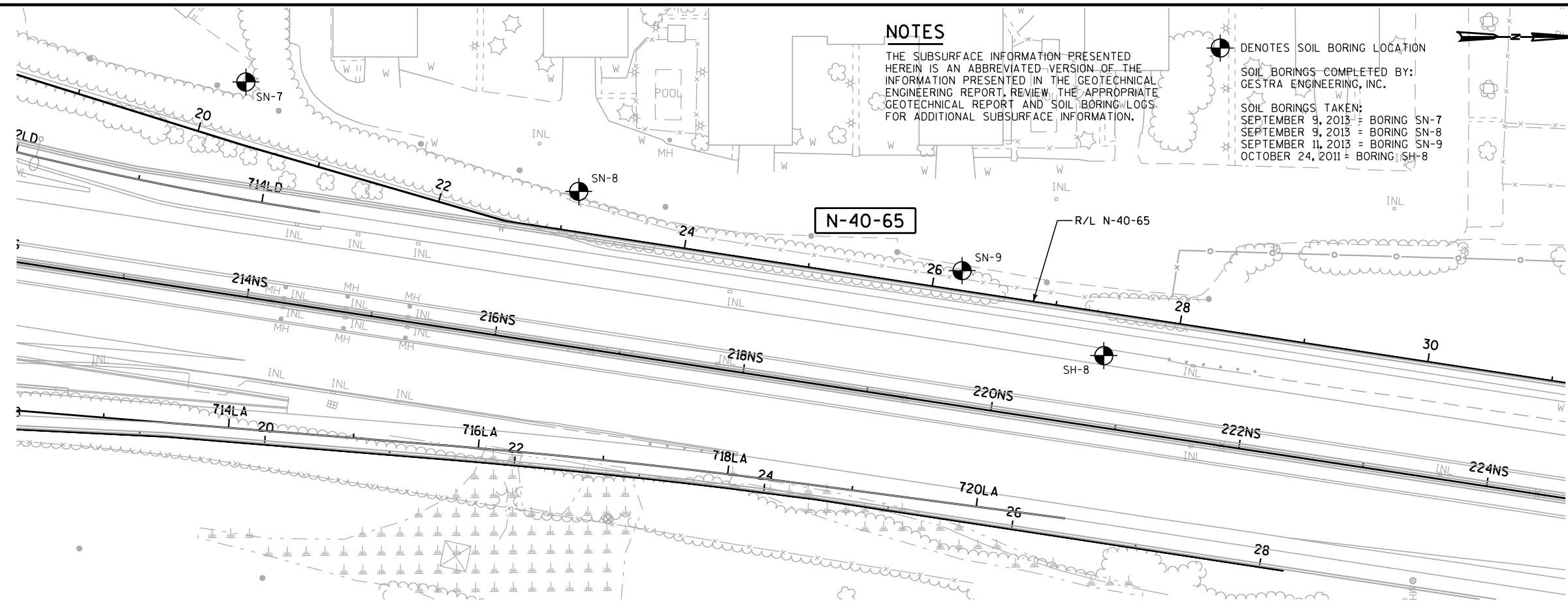
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
AESTHETIC WALL TREATMENT DETAILS RESIDENTIAL SIDE			SHEET 9 OF 13



STATE PROJECT NUMBER			
1060-33-81			
ABBREVIATIONS			
F — FINE	M — MEDIUM	C — COARSE	
WS — WEATHERED	SO — SOUND		
MATERIAL SYMBOLS			
TOPSOIL / FILL	SILT	SANDSTONE	
SAND	PEAT	LIMESTONE	
GRAVEL	CLAY	IGNEOUS ROCK	
LEGEND OF PROBING			
PROBING NO.			
STA.			
ELEVATION			
7 AVERAGE BLOWS PER FOOT			
REFUSAL 95/6			
LEGEND OF BORING			
BORING NO.			
STA.			
ELEV.			
UNCONFINED STRENGTH → 7.7			
BLOWS PER FT. USING 140# WT. FALLING 30"			
WASH SAMPLE			
SHELBY TUBE — S.T.			
GROUND WATER ELEVATION			
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION			
UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CAGED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.			
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION			
TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.			
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
SUBSURFACE EXPLORATION (1 OF 3)		SHEET 11 OF 13	

8

8



STATE PROJECT NUMBER

1060-33-81

ABBREVIATIONS

F — FINE
WS — WEATHERED

M — MEDIUM
SO — SOUND

C — COARSE

MATERIAL SYMBOLS

TOPSOIL / FILL

SAND

GRAVEL

SILT

PEAT

CLAY

SANDSTONE

LIMESTONE

IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

ELEV.
BORING NO.
STA.

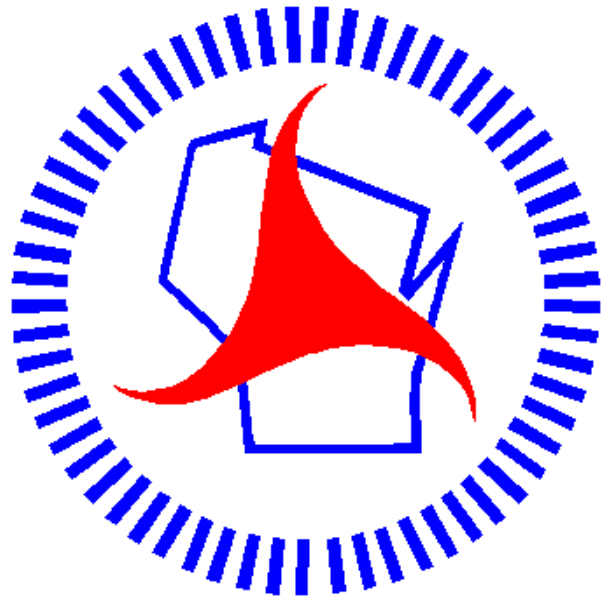
UNCONFINED STRENGTH
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE N-40-65			
DRAWN BY		GLM	PLANS CK'D. KES
SUBSURFACE EXPLORATION (2 OF 3)		SHEET 12 OF 13	



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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