WKE

FEB 11, 2020

ORDER OF SHEETS

TOTAL SHEETS = 110

PROJECT ID: 3180-00-74

WITH:

COUNTY: RACINE COUNTY

17

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3180-00-74	WISC 2020045	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

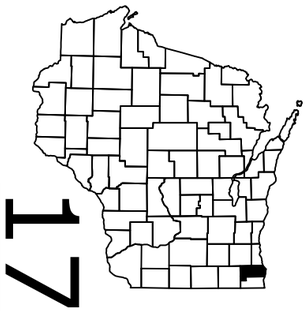
BURLINGTON BYPASS

RACINE CO LINE TO STH 83

STH 11

RACINE COUNTY

STATE PROJECT NUMBER
3180-00-74



N

DESIGN DESIGNATION

A.A.D.T.	2014	=	7,700
A.A.D.T.	2040	=	10,000
D.H.V.		=	23.8
D.D.		=	59/41
T.		=	27.7
DESIGN SPEED		=	55 MPH
ESALS		=	4,400,000

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
SLOPE INTERCEPT
REFERENCE LINE — 300'EB'
EXISTING CULVERT
PROPOSED CULVERT (Box or Pipe)
COMBUSTIBLE FLUIDS — CAUTION
MARSH AREA
WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

ELECTRIC — E
FIBER OPTIC — FO
GAS — G
SANITARY SEWER — SAN
STORM SEWER — SS
TELEPHONE — T
WATER — W
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE

R-19-E

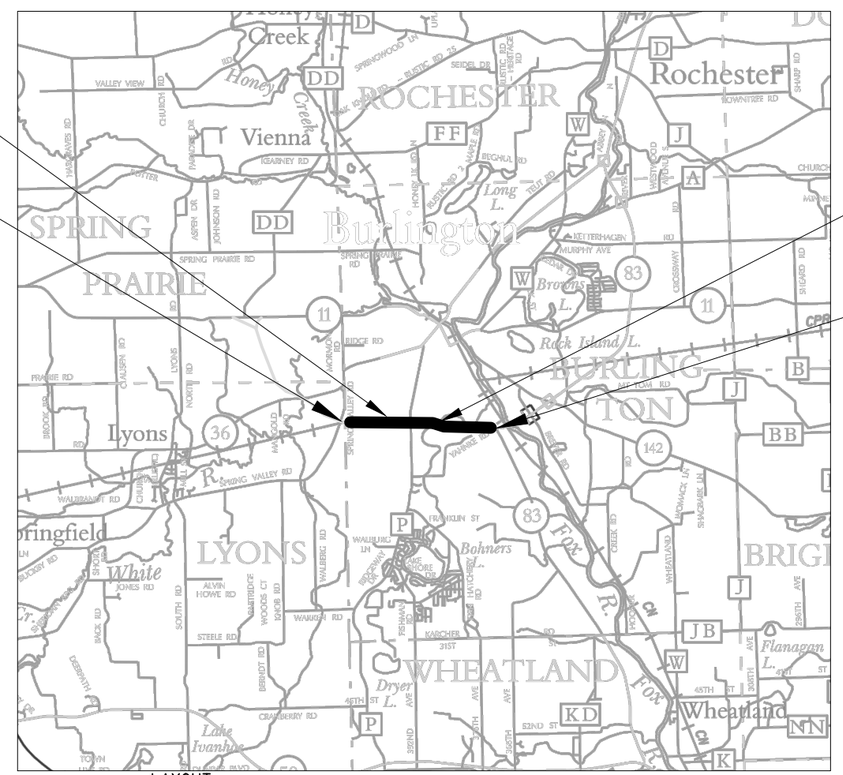
T-2-N

NET EXCEPTION TO CL LENGTH
STA 1026+04.02 - STA 1027+48.07
B-51-90, B-51-91

BEGIN PROJECT
STA 1000+00
Y=161868.668
X=499309.390

NET EXCEPTION TO CL LENGTH
STA 1077+34.98 - STA 1080+07.56
B-51-99, B-51-100

END PROJECT
STA 1125+00



LAYOUT

SCALE 0 2 MILES

TOTAL NET LENGTH OF CENTERLINE = 2.289 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, RACINE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD88 (2012).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	STEVEN ROTIER
Project Manager	DOUG CAIN
Regional Examiner	WISDOT
Regional Supervisor	BEN ERUCHALU

APPROVED FOR THE DEPARTMENT

DATE: 10/01/2019 Douglas A. Cain (Signature)

E

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. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE, OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.

COORDINATE HMA PAVING OPERATIONS CONSISTENT WITH PLAN TYPICAL SECTIONS, AND CONSTRUCT PAVEMENT TO AVOID LOCATING LONGITUDINAL CONSTRUCTION JOINTS WITHIN DRIVING, TURNING, BIKE, OR PARKING LANES.

SAWCUT EXISTING ASPHALT PAVEMENT AT THE MATCHLINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

DO NOT REMOVE ANY TREES OR SHRUBS WITHOUT APPROVAL OF THE ENGINEER.

COORDINATE REVIEW OF ALL PROPOSED SIGN LOCATIONS WITH THE ENGINEER BEFORE INSTALLATION.

RESTORE EXISTING DRIVEWAYS AND FIELD ENTRANCES IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATION OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

STH 11 HMA PAVEMENT

	THICKNESS	LAYER	ASPHALT MIX	DEPTH
MAINLINE	$7\frac{1}{4}$ INCH	UPPER UPPER	4MT 58-28 S	$1\frac{3}{4}$ INCH
		LOWER UPPER	3MT 58-28 S	$2\frac{3}{4}$ INCH
		LOWER	3MT 58-28 S	$2\frac{3}{4}$ INCH
SHOULDERS	$1\frac{3}{4}$ INCH		4MT 58-28S	$1\frac{3}{4}$ INCH
BASE PATCH	$6\frac{1}{4}$ INCH	UPPER	4MT 58-28 S	$1\frac{3}{4}$ INCH
		LOWER	ASPHALTIC BASE	$4\frac{1}{2}$ INCH

ORDER OF SECTION 2 SHEETS

STANDARD ABBREVIATIONS

AP	ACCESS POINT
AC	ACRE
ADJ	ADJUST
AECPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE
AH	AHEAD
AC	ASPHALT CEMENT
ASPH	ASPHALTIC
ACP	ASPHALTIC CONCRETE PAVEMENT
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
CB	CATCH BASIN
C/L	CENTER LINE
C/L CONST	CENTER LINE CONSTRUCTION
Δ	CENTRAL ANGLE OR DELTA
CL	CLASS
CONC	CONCRETE
CONST	CONSTRUCTION
CMCP	CORRUGATED METAL CULVERT PIPE
CTH	COUNTY TRUNK HIGHWAY
CABC	CRUSHED AGGREGATE BASE COURSE
CFS	CUBIC FEET PER SECOND
CY	CUBIC YARD
CP	CULVERT PIPE
CPCS	CULVERT PIPE CORRUGATED STEEL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EL	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FPS	FEET PER SECOND
FERT	FERTILIZE
FE	FIELD ENTRANCE
FL	FLOW LINE
FT	FOOT
GN	GRID NORTH
HES	HIGH EARLY STRENGTH
HP	HIGH POINT
HW	HIGH WATER
HMA	HOT MIX ASPHALT
CWT	HUNDREDWEIGHT
HWD	HYDRANT
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
INV	INVERT
IP	IRON PIPE OR PIN
JT	JOINT
LT	LEFT
LC	LENGTH OF CURVE
LF	LINEAR FOOT
LP	LOW POINT
LS	LUMP SUM
MH	MANHOLE
MAX	MAXIMUM
MGAL	MEGAGALLON
MPH	MILES PER HOUR
MIN	MINIMUM
MON	MONUMENT
NOM	NOMINAL
NC	NORMAL CROWN
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
NO	NUMBER
OPT	OPTIONAL
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PACS	PIPE ARCH CORRUGATED STEEL
P	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVC	POLYVINYL CHLORIDE
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PL	PROPERTY LINE
Q100	100-YEAR FLOW RATE
R	RADIUS
RR	RAILROAD
R	RANGE
R/L	REFRENCE LINE
REINF	REINFORCING OR REINFORCEMENT
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
RD	ROAD
RDWY	ROADWAY
SEC	SECTION
SHLDR	SHOULDER
S	SOUTH
SB	SOUTHBOUND
SQ	SQUARE
SF	SQUARE FEET
SW	SIDEWALK
SY	SQUARE YARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
ST	STREET
STR	STRUCTURE OR STRUCTURAL
SE	SUPERELEVATION
T	TANGENT
TEMP	TEMPORARY
TI	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED EASEMENT
t	TON
T	TOWN
T/L	TRANSIT LINE
T	TRUCKS (PERCENT OF)
TYP	TYPICAL
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
V	VELOCITY OF DESIGN SPEED
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATERMAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

2

UTILITY CONTACTS

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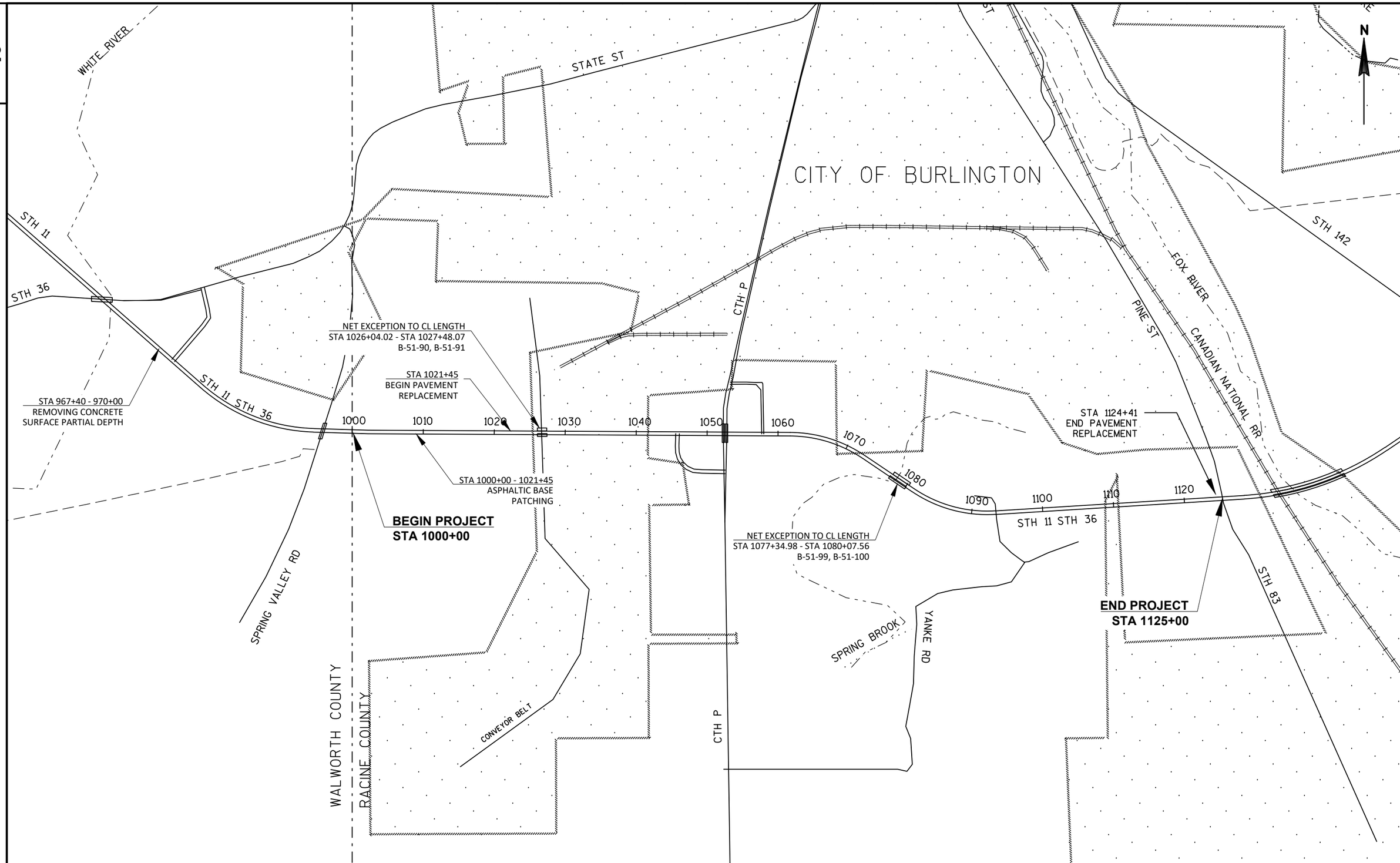
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com



PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN OVERVIEW	SHEET 4	E

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LAYOUT NAME - ####
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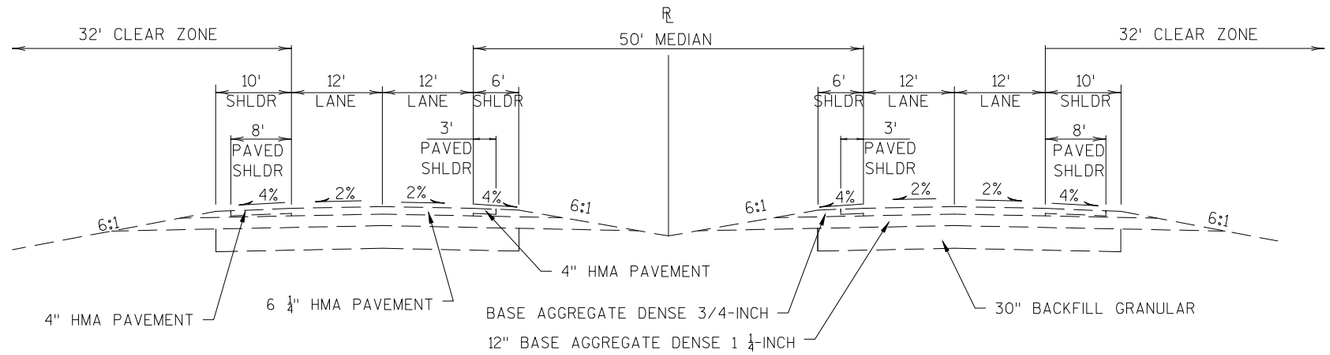
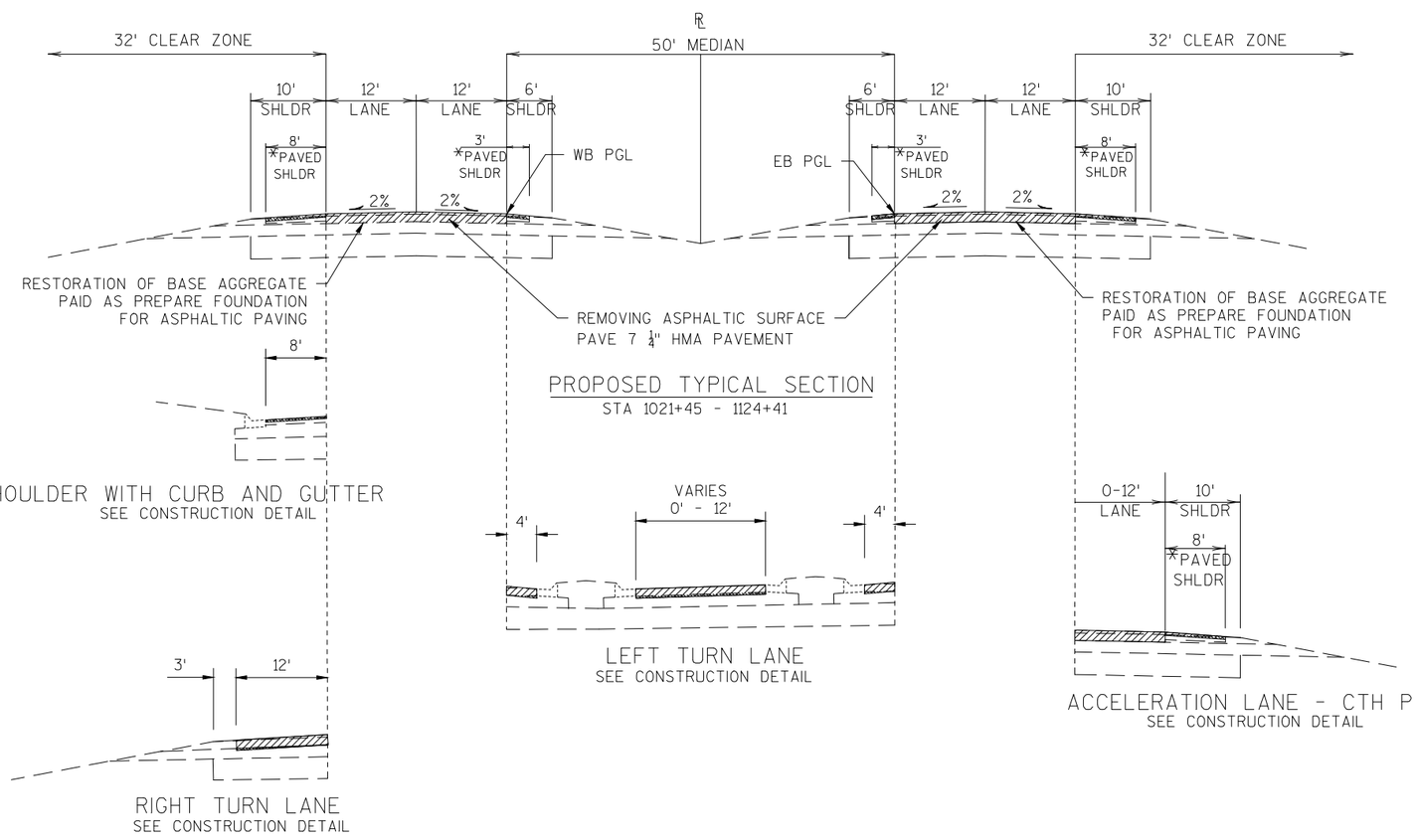


EXISTING TYPICAL SECTION

STA 1021+45 - 1124+41

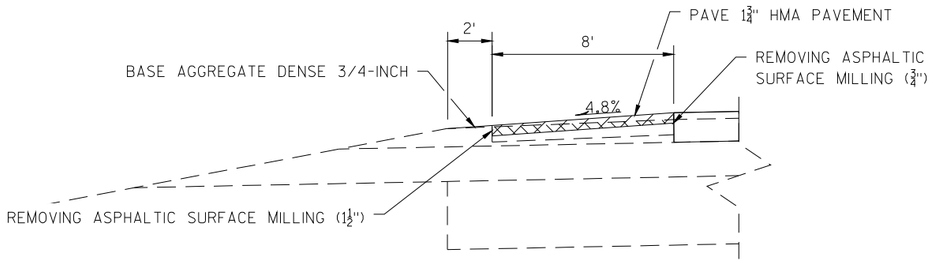


PROPOSED TYPICAL SECTION

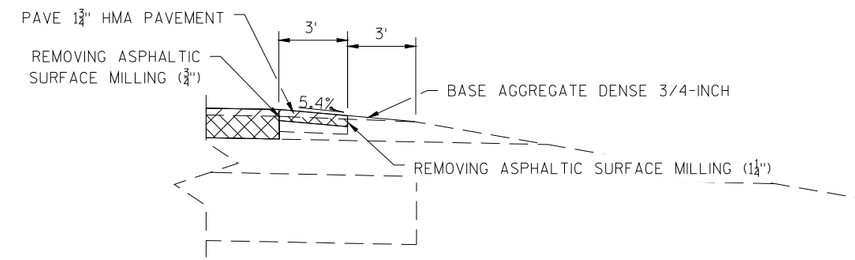
STA 1021+45 - 1124+41

NOTES: * SEE SDD SHOULDER RUMBLE STRIP, MILLING

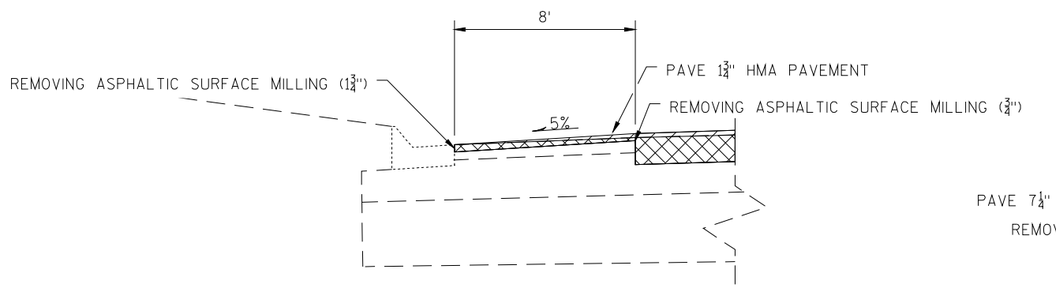
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	TYPICAL SECTIONS	SHEET 5	E



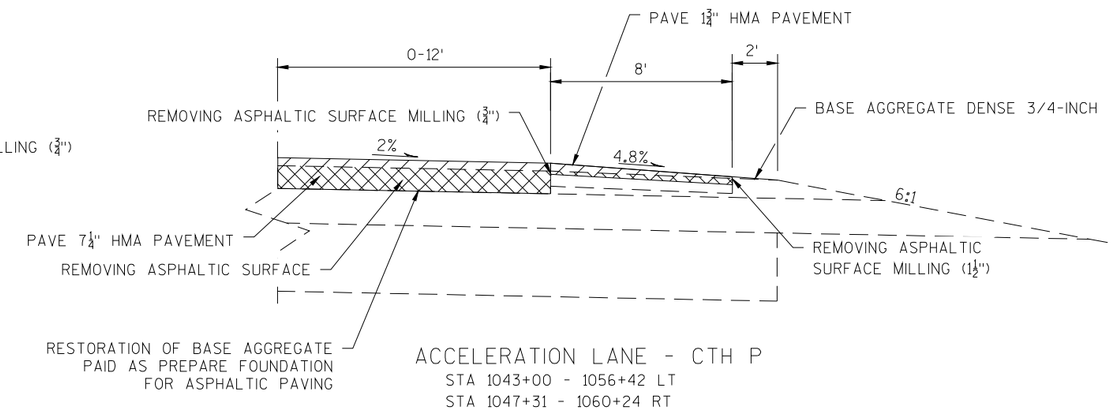
OUTSIDE SHOULDER (TYP.)



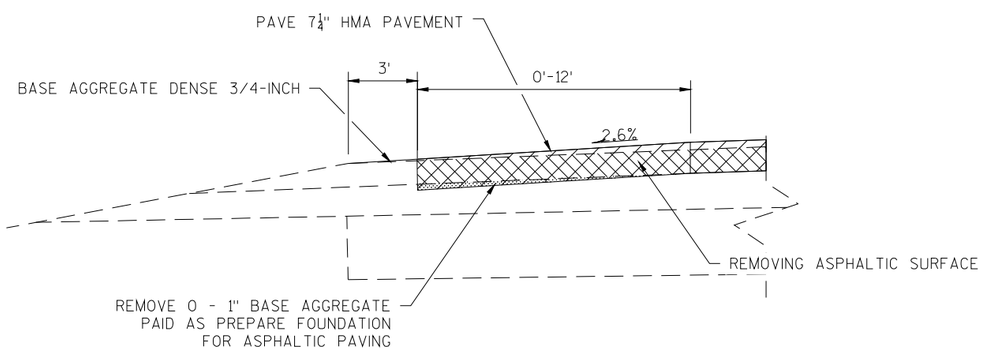
INSIDE SHOULDER (TYP.)



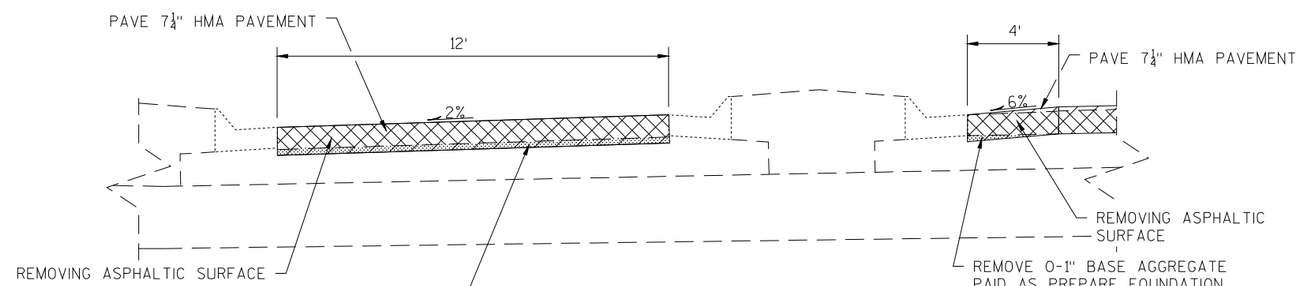
SHOULDER WITH CURB AND GUTTER
STA 1051+45 - 1053+52 LT
STA 1051+54 - 1054+57 RT
STA 1080+23 - 1085+50 LT



ACCELERATION LANE - CTH P
STA 1043+00 - 1056+42 LT
STA 1047+31 - 1060+24 RT



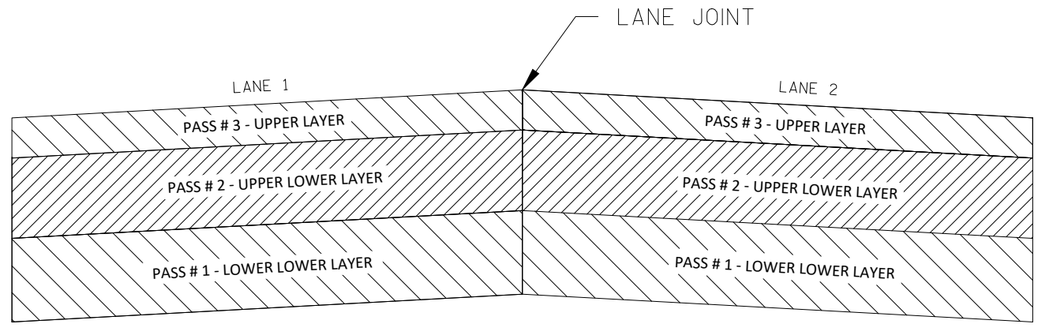
RIGHT TURN LANE
STA 1040+05 - 1044+75 RT
STA 1058+71 - 1063+71 LT
STA 1087+83 - 1092+75 RT
STA 1092+58 - 1096+30 LT (0-10' WIDE)
STA 1119+92 - 1123+05 RT



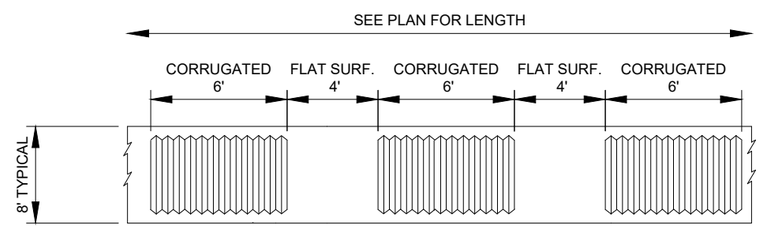
LEFT TURN LANE
STA 1089+00 - 1092+80 EB
STA 1093+80 - 1101+20 WB
STA 1117+35 - 1124+25 EB

NOTE:

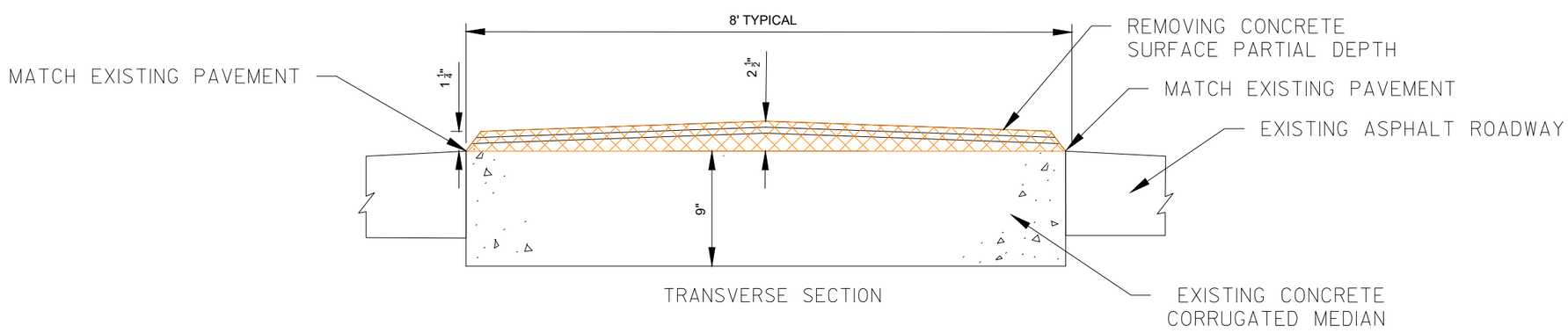
PAVE THE TRAVEL LANES, LANE #1 AND LANE #2, WITH TANDEM PAVERS (ECHELON) TO ELIMINATE A COLD CONSTRUCTION JOINT BETWEEN THE TRAVEL LANES.



TYPICAL PAVEMENT CROSS SECTIONS OF LONGITUDINAL JOINTS



PLAN



TRANSVERSE SECTION

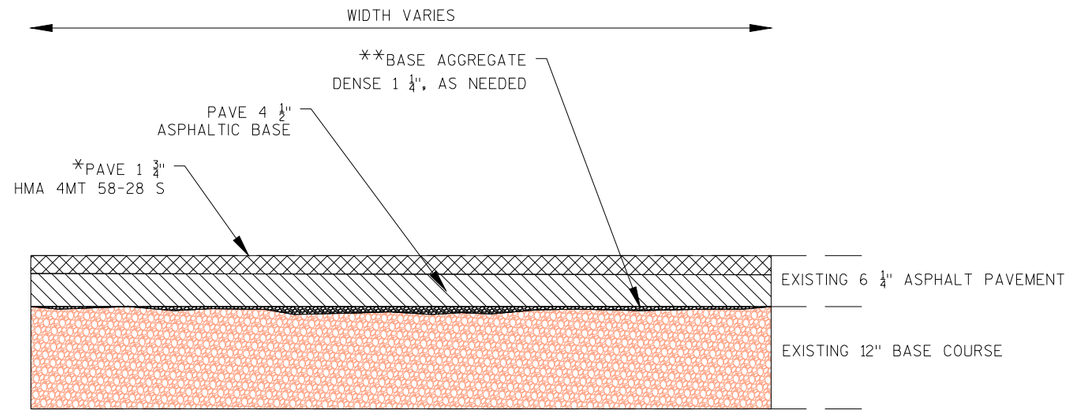
REMOVING CONCRETE SURFACE PARTIAL DEPTH

2

NOTE:

* UPPER LAYER 4MT 58-28 S IS INCIDENTAL TO THE BASE PATCHING ASPHALTIC ITEM

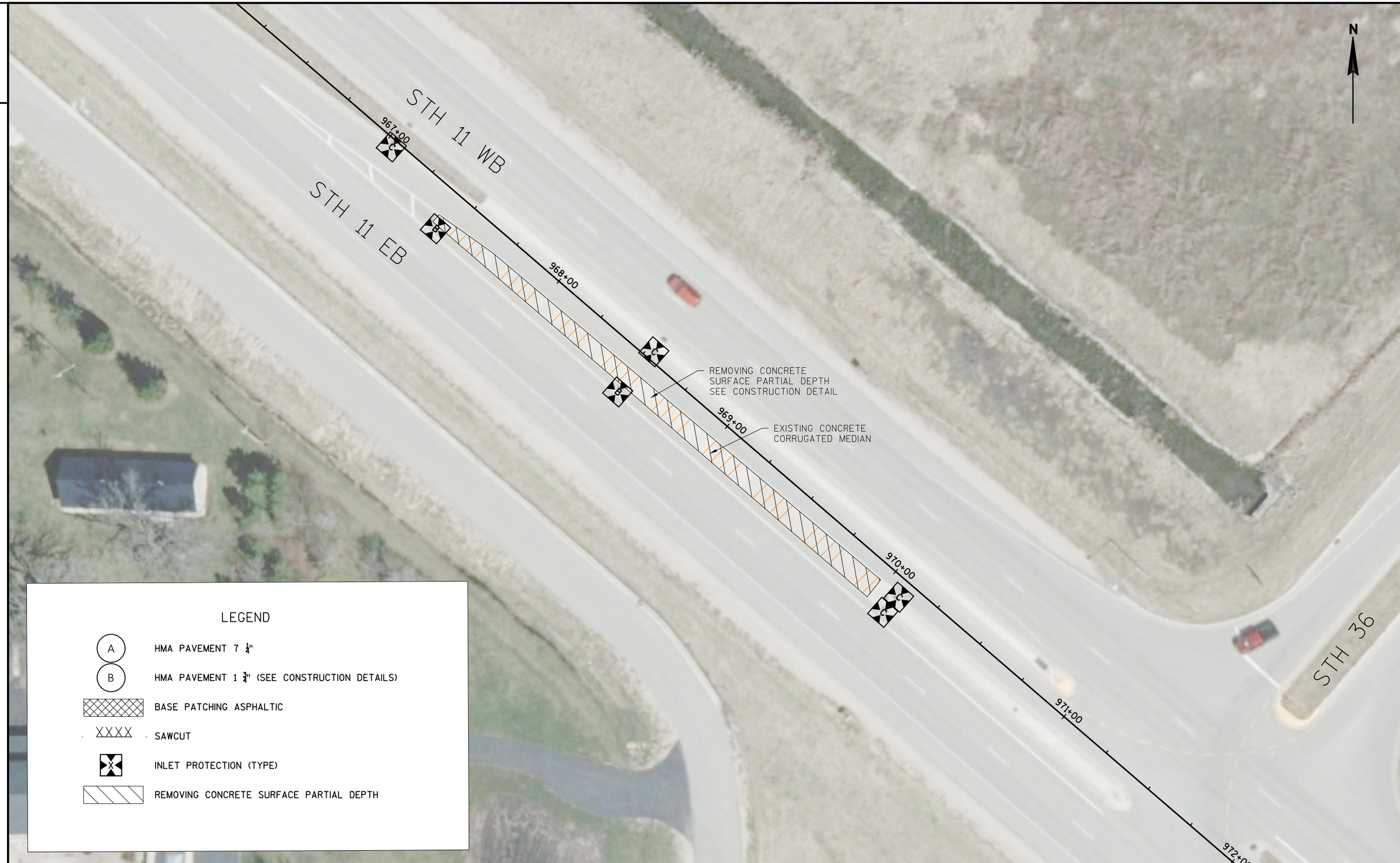
** BASE AGGREGATE DENSE 1 $\frac{1}{4}$" PAID BY SEPARATE BID ITEM.



BASE PATCHING ASPHALTIC

2

PROJECT NO:3180-00-04	HWY:STH 11	COUNTY:RACINE	CONSTRUCTION DETAILS	SHEET 8	E



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN DETAILS	SHEET 9	E

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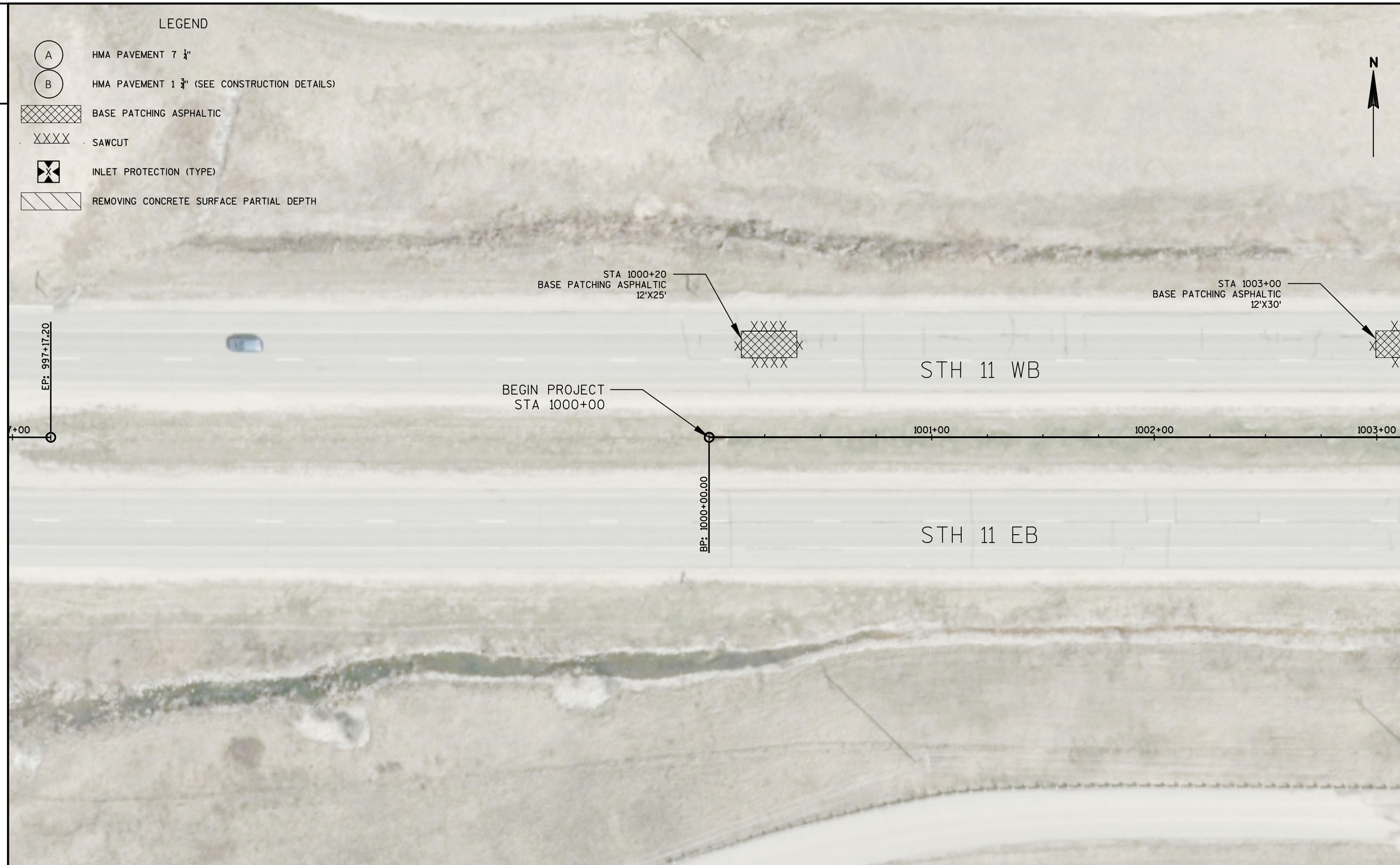
LAYOUT NAME - 021200
PLOT DATE : 4/30/2019 6:41 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN DETAILS	SHEET 10	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201
PLOT DATE : 4/30/2019 6:41 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN DETAILS	SHEET 11	E

2

LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH

N

2

STH 11 WB

1009+00 1010+00 1011+00 1012+00 1013+00 1014+00

STH 11 EB

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN DETAILS	SHEET 12	E

2

LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH

N

2

STH 11 WB

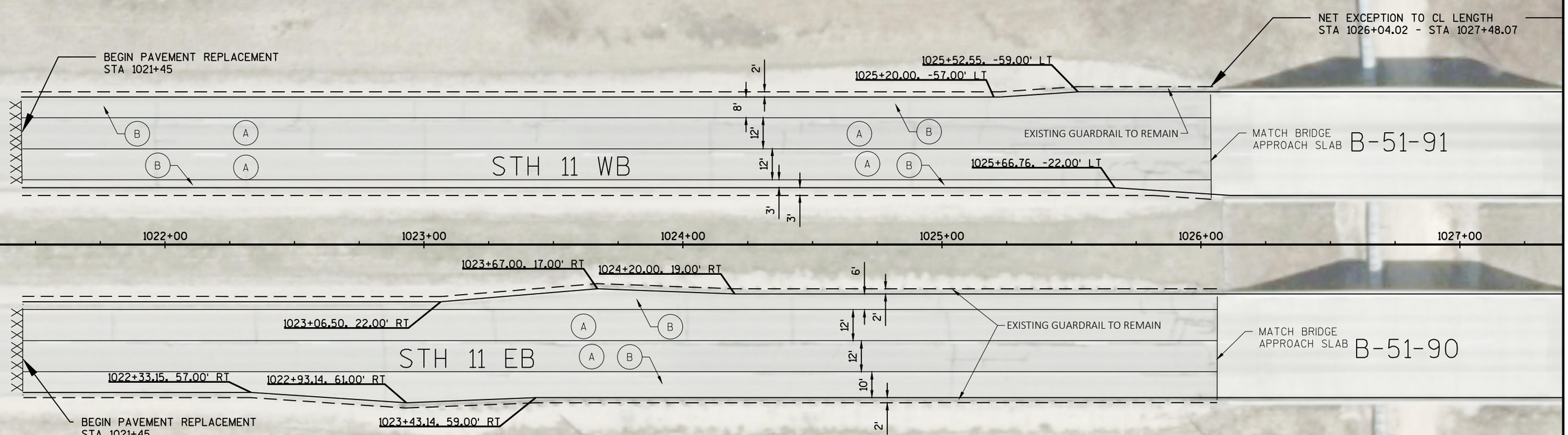
1015+00 1016+00 1017+00 1018+00 1019+00 1020+00 1021+00

STH 11 EB

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN DETAILS	SHEET 13	E

LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH



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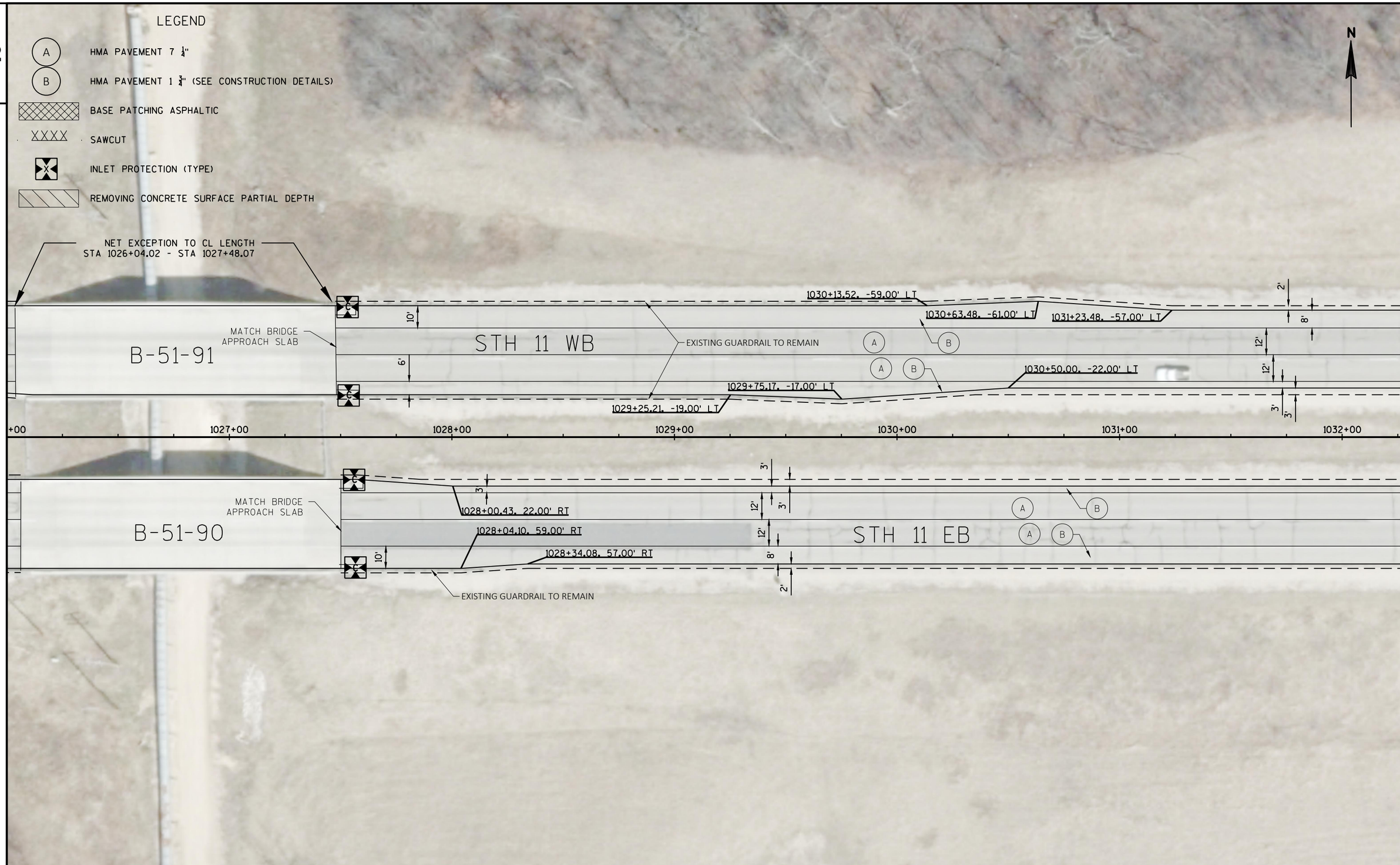

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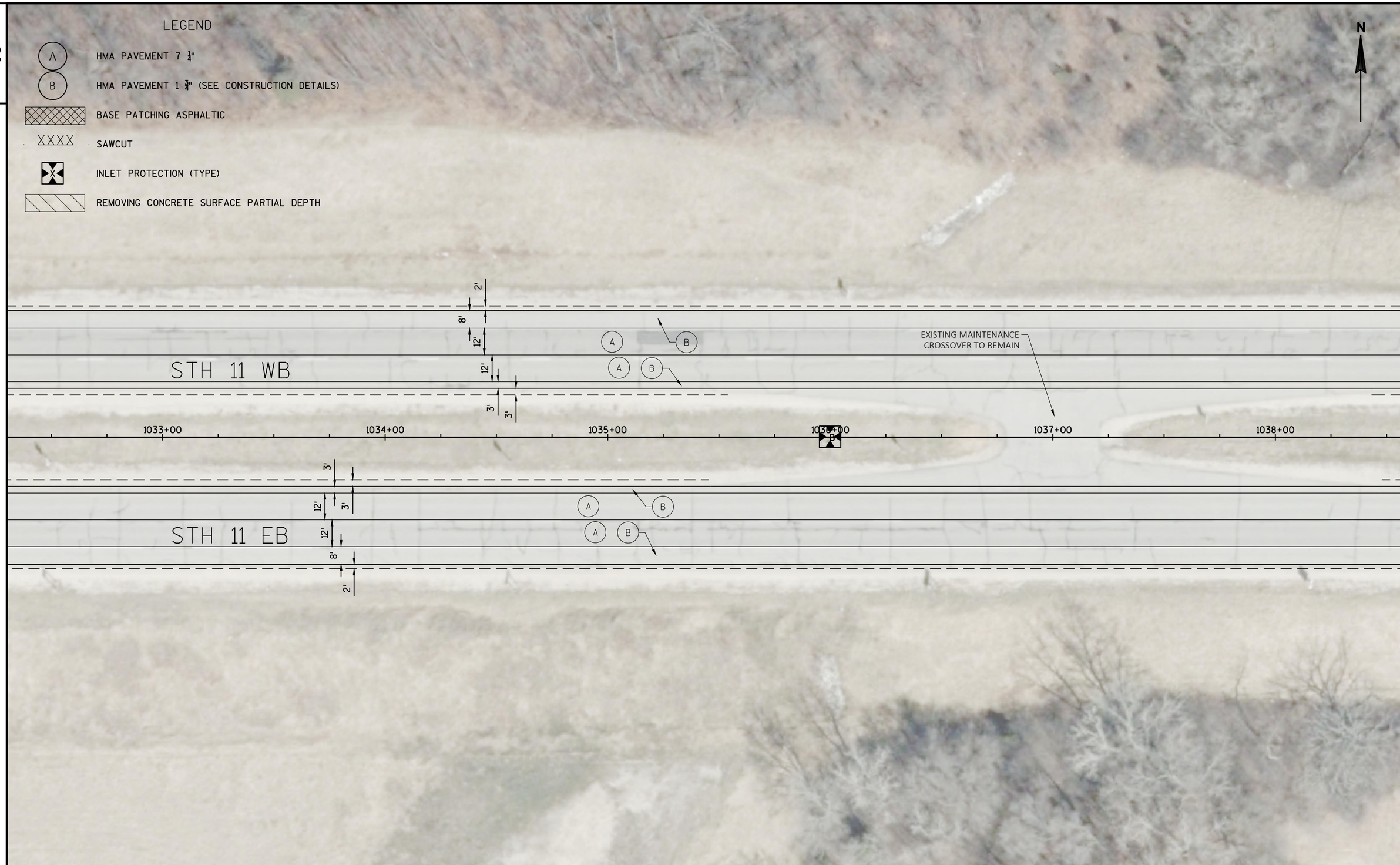
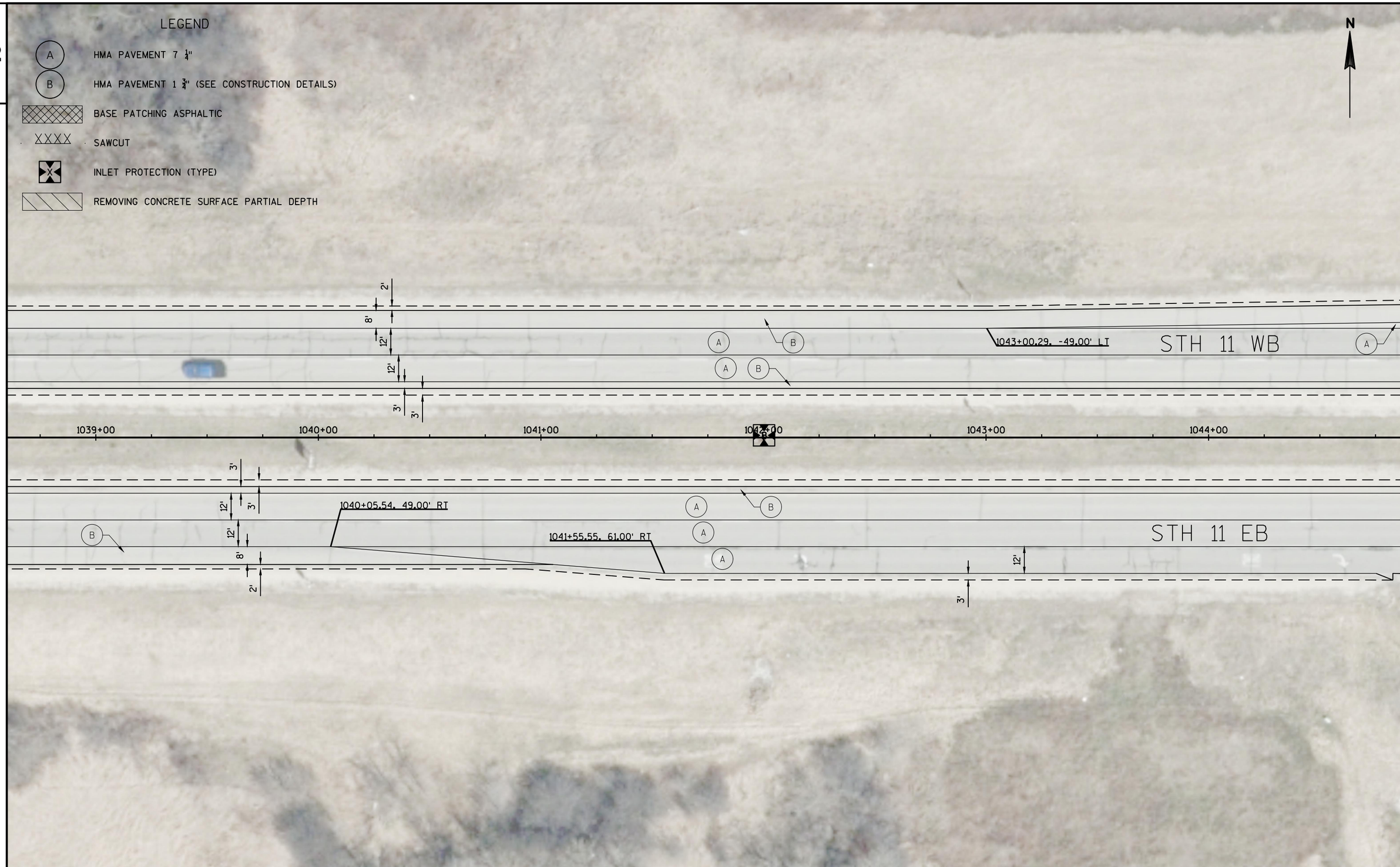
PLOT DATE : 4/30/2019 6:42 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT



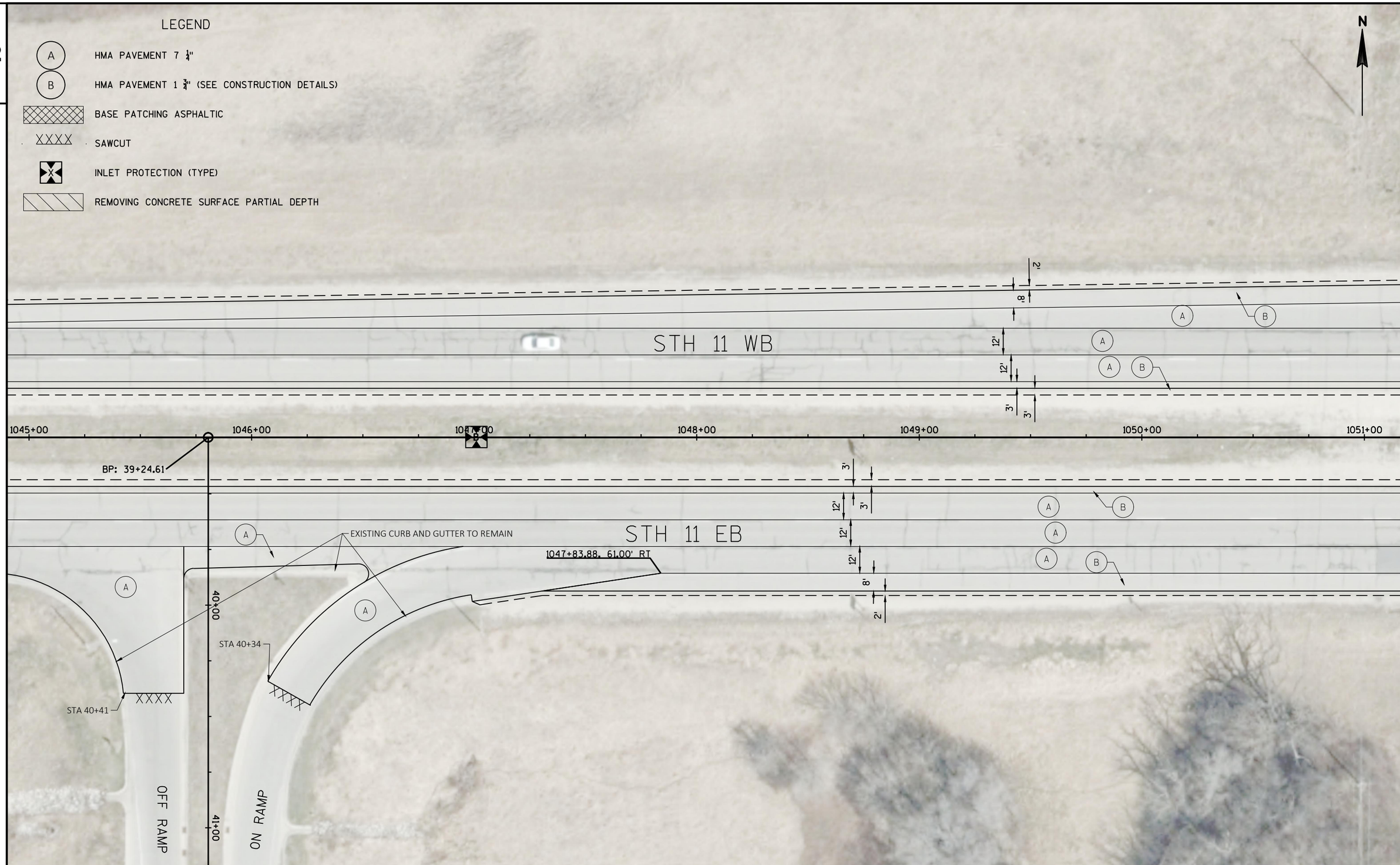
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 16	E



PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 17	E

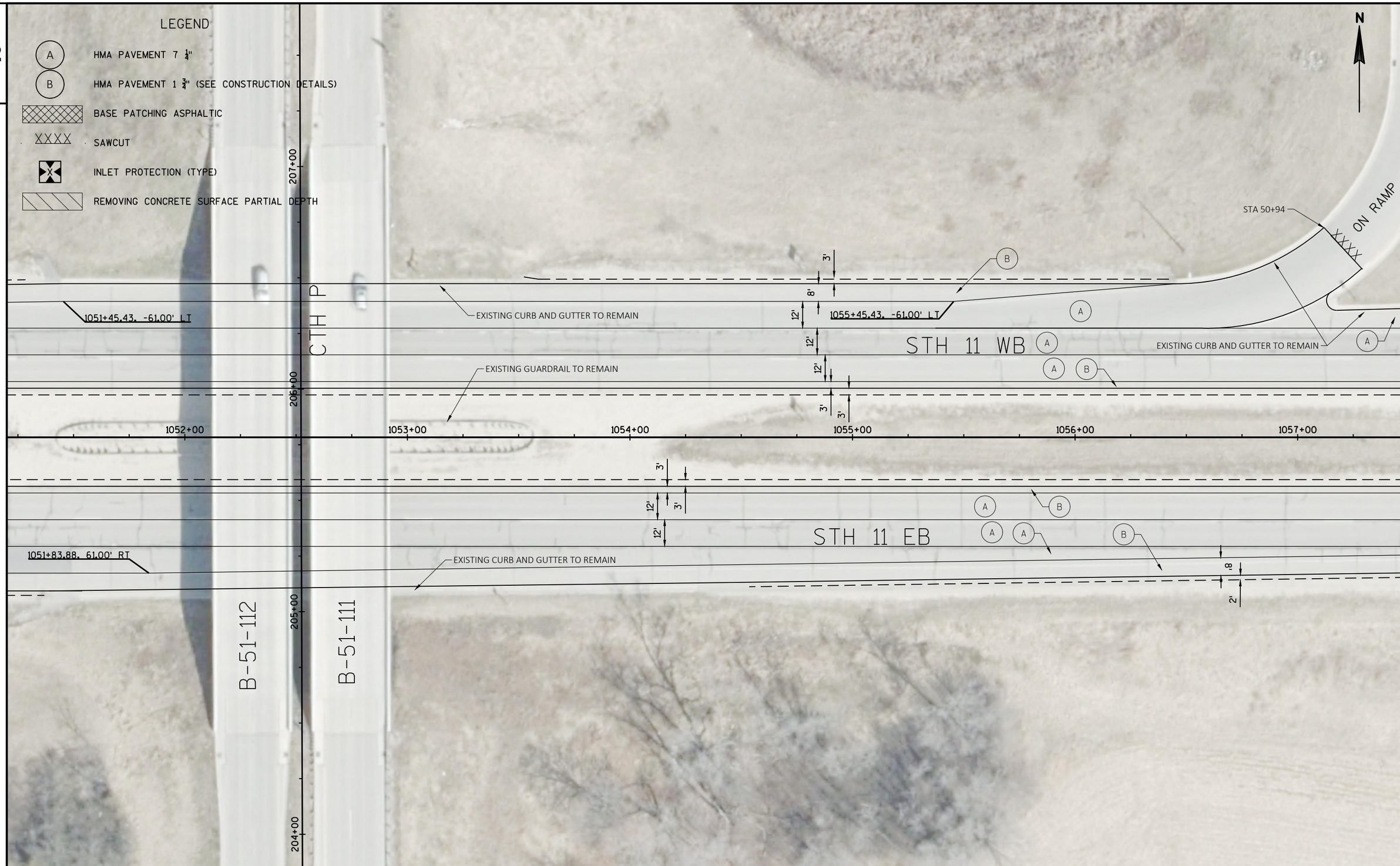
LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH



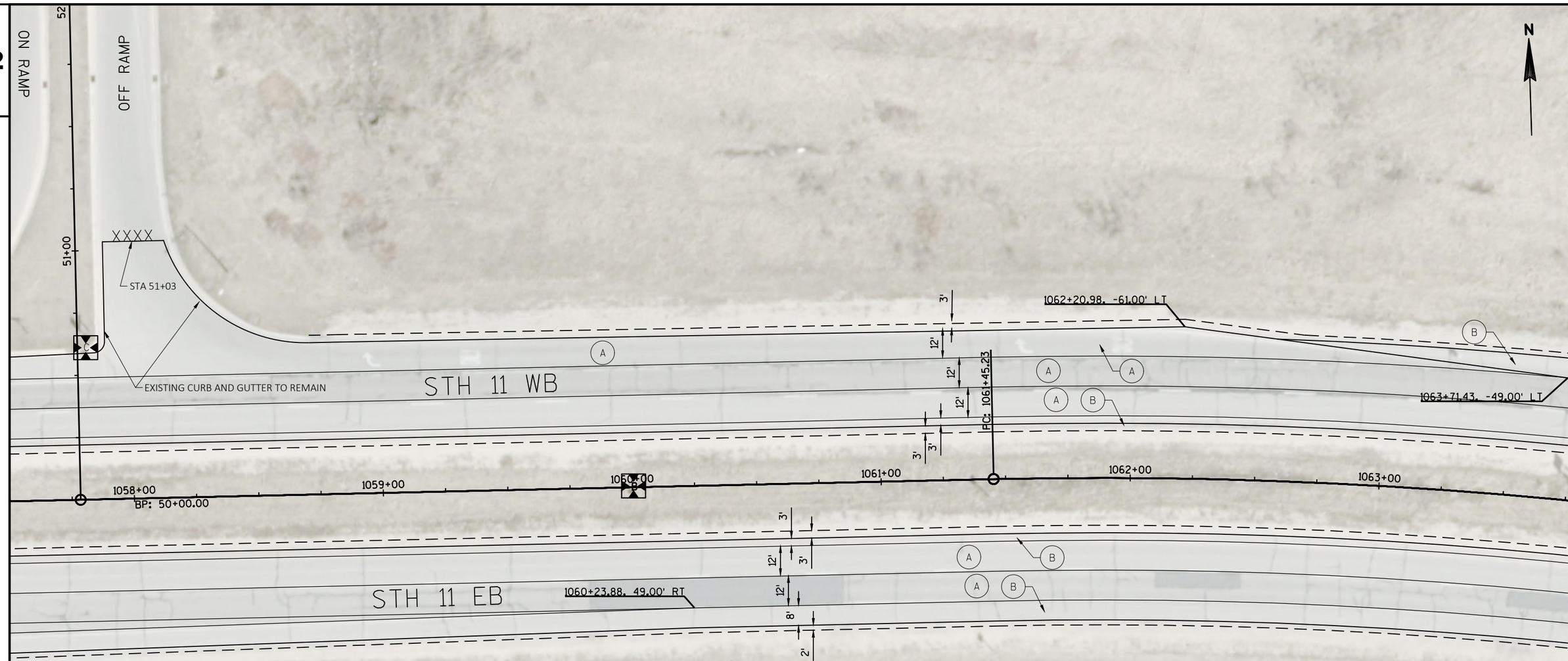
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 18	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021209
PLOT DATE : 4/30/2019 6:42 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 19	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021210
PLOT DATE : 4/30/2019 6:42 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT



LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 20	E

LEGEND

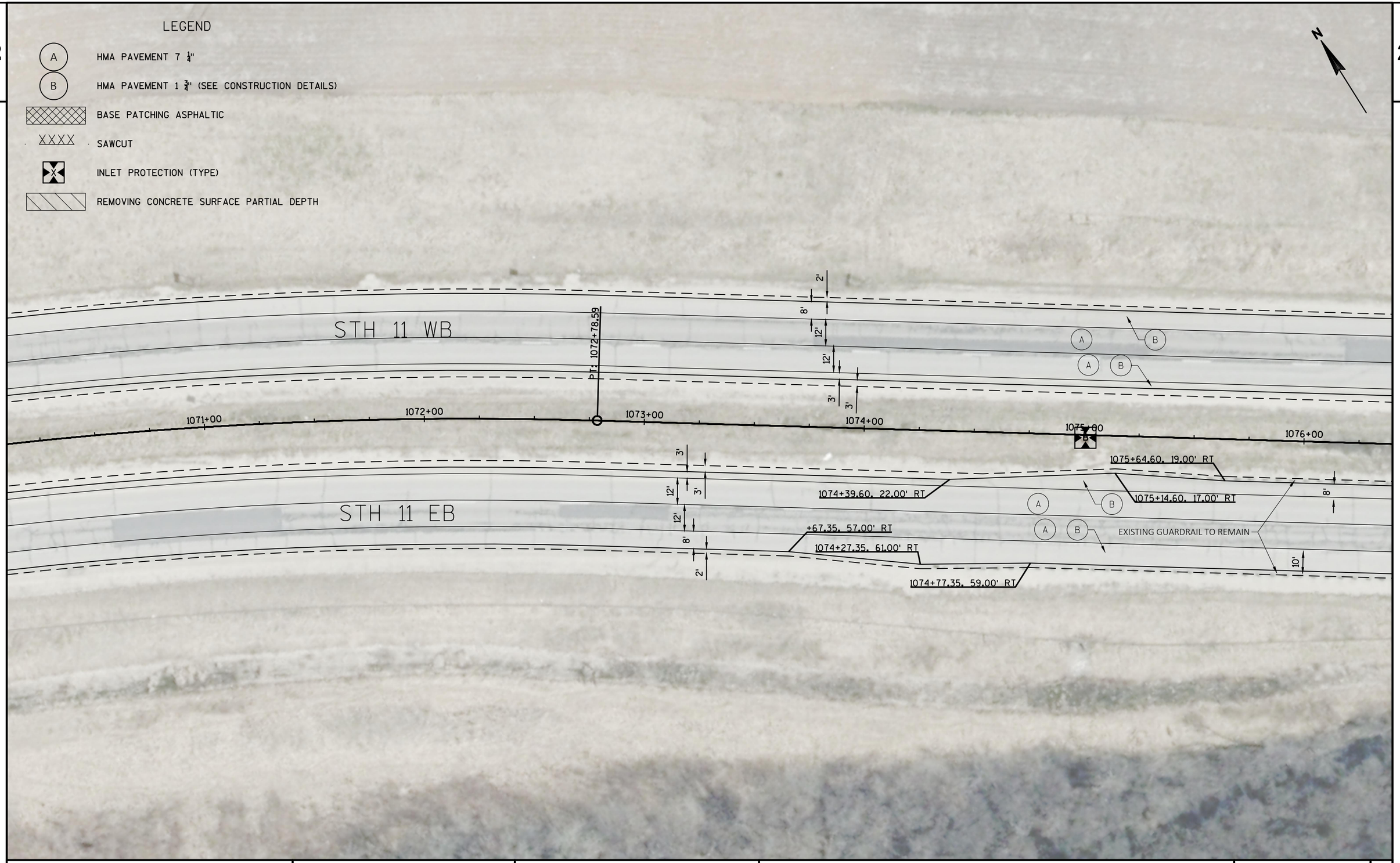
- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 21	E

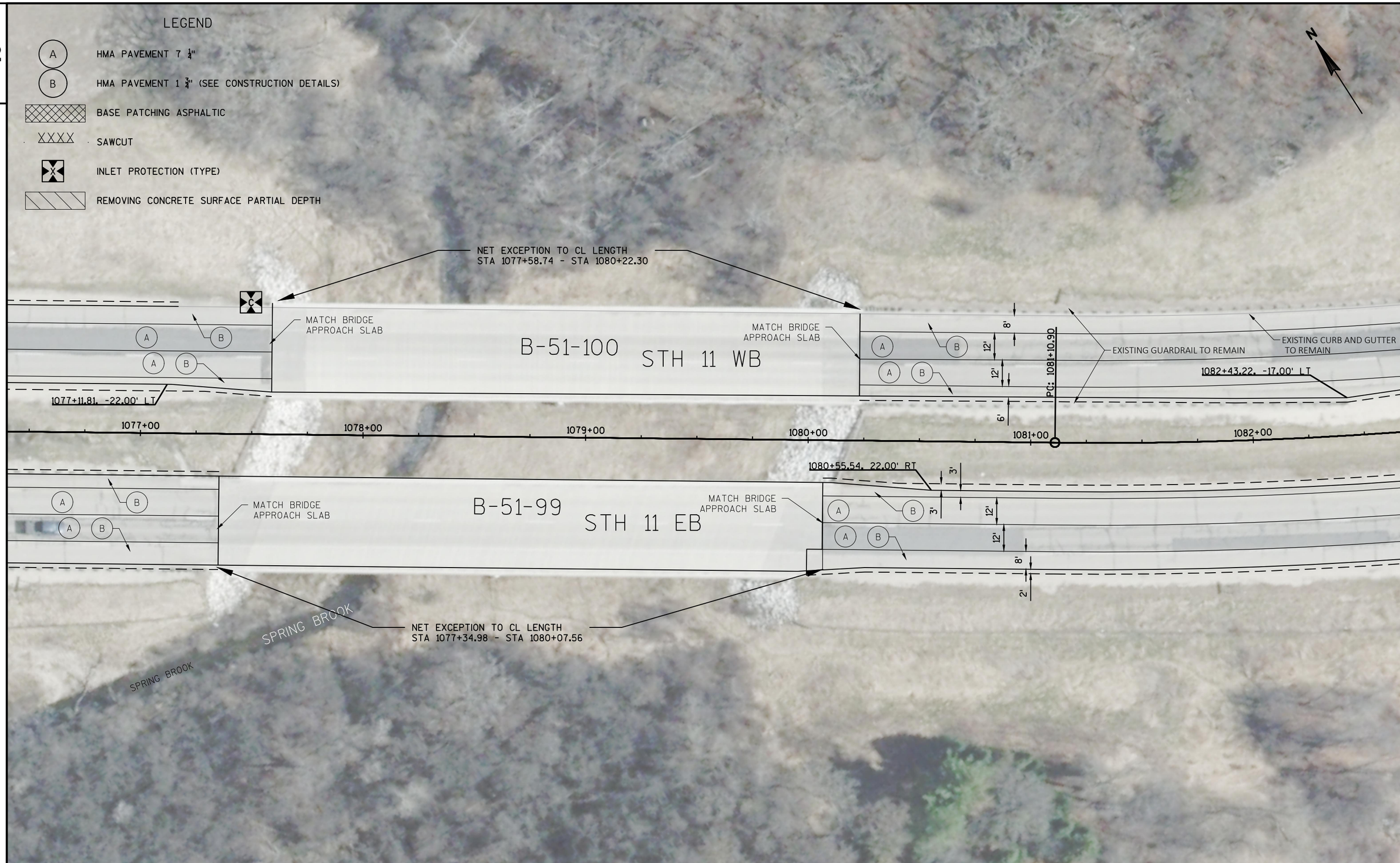
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021212
PLOT DATE : 4/30/2019 6:42 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH

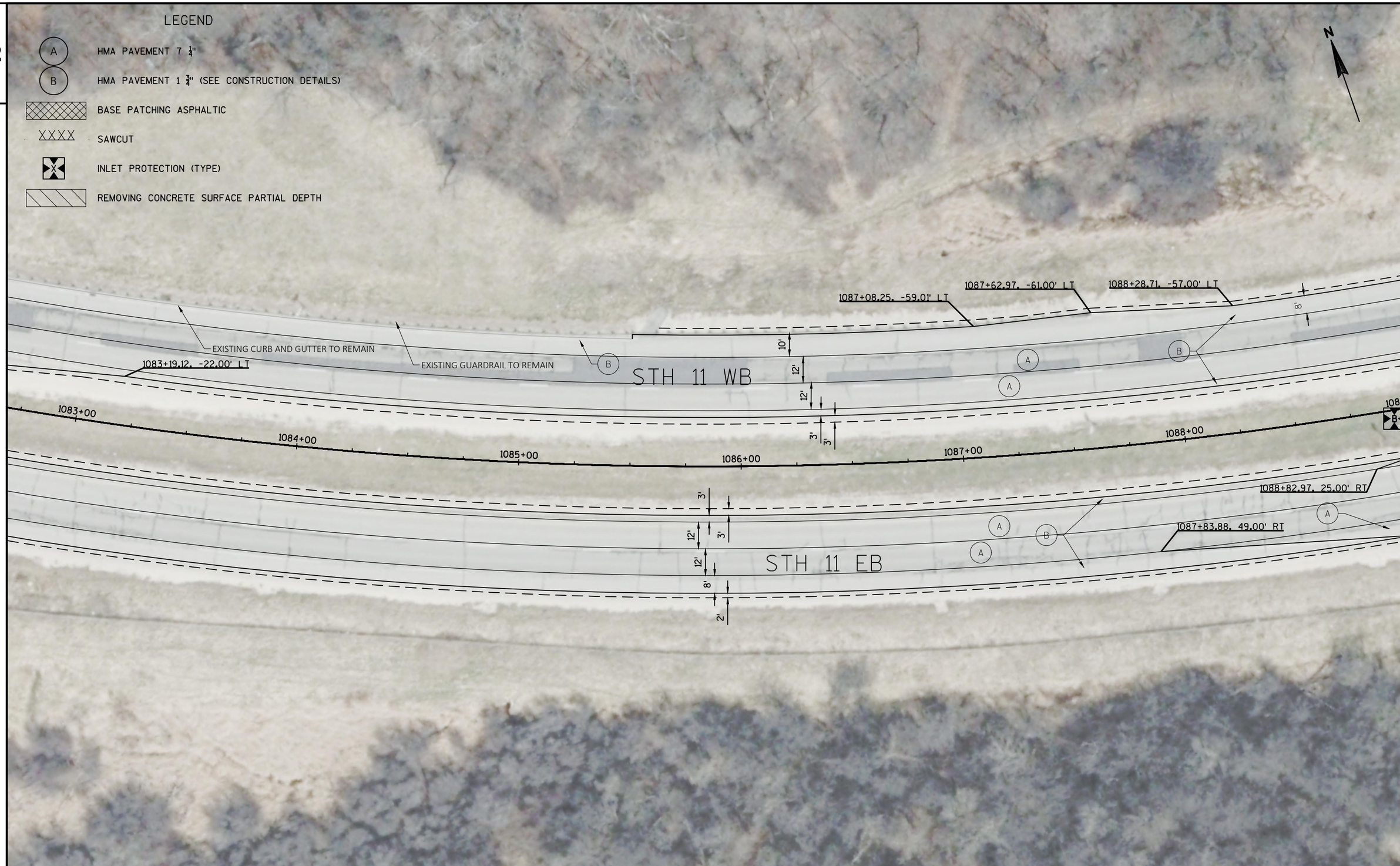


PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 22	E

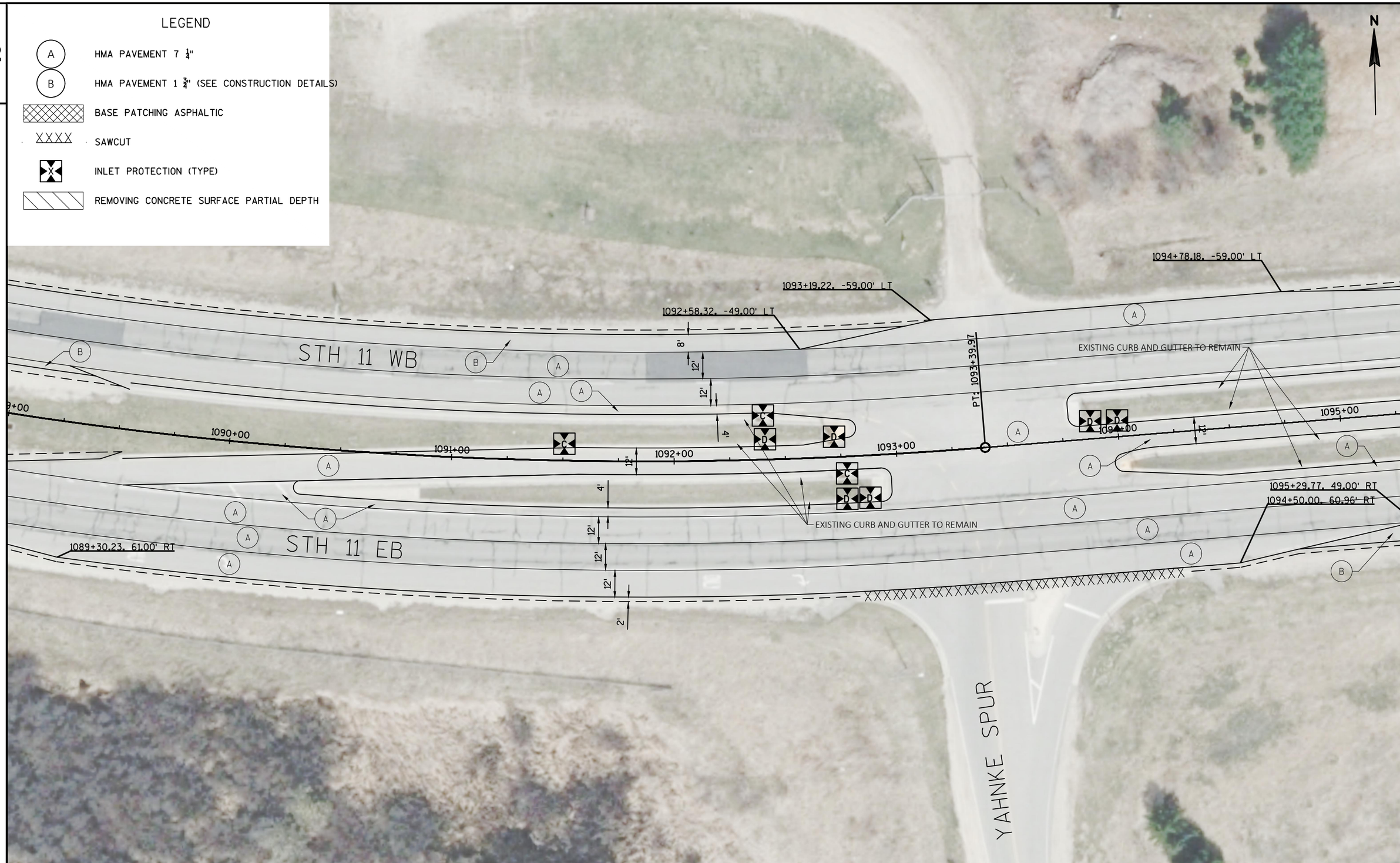


2

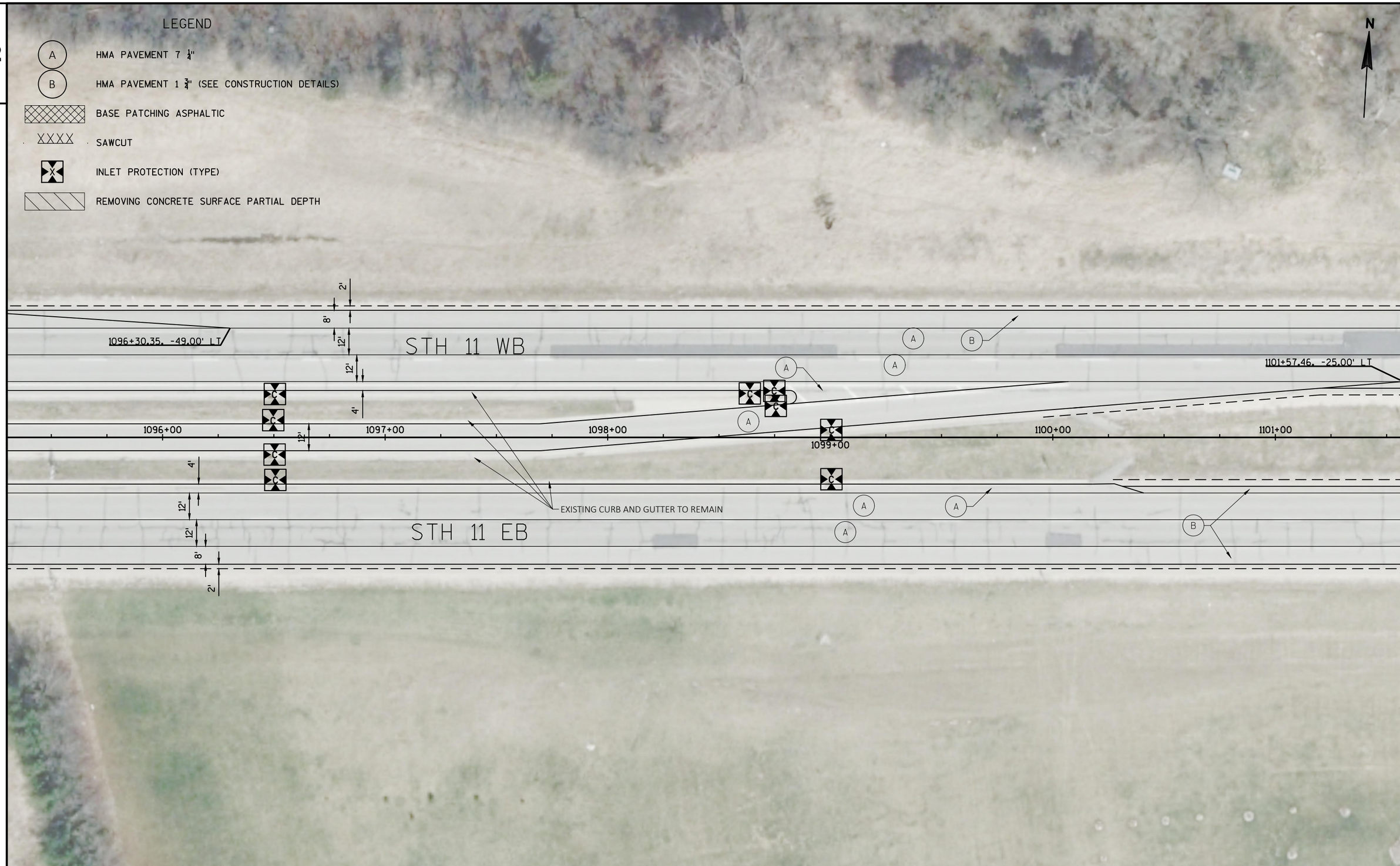
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 23	E



PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 24	E

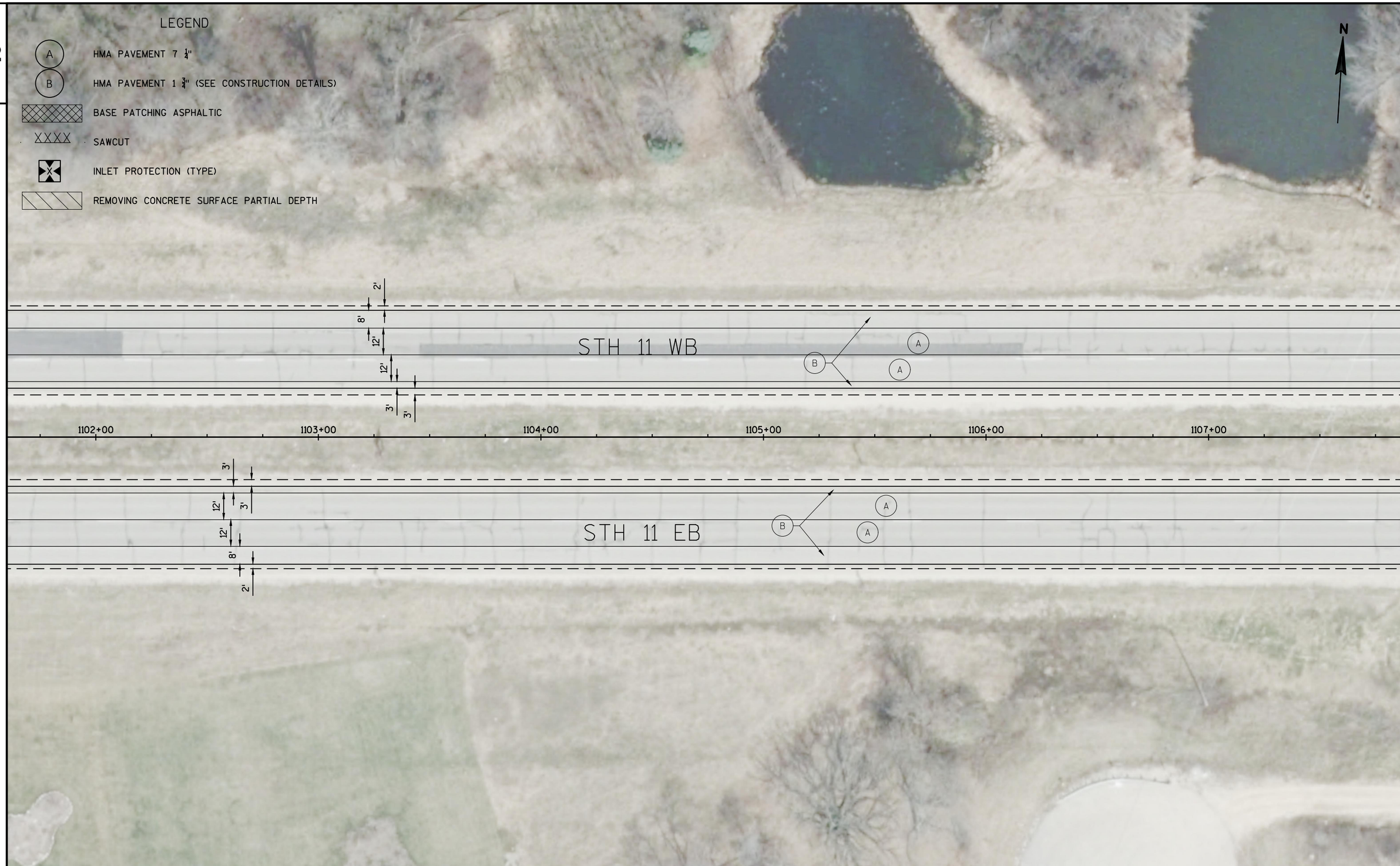


PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 25	E



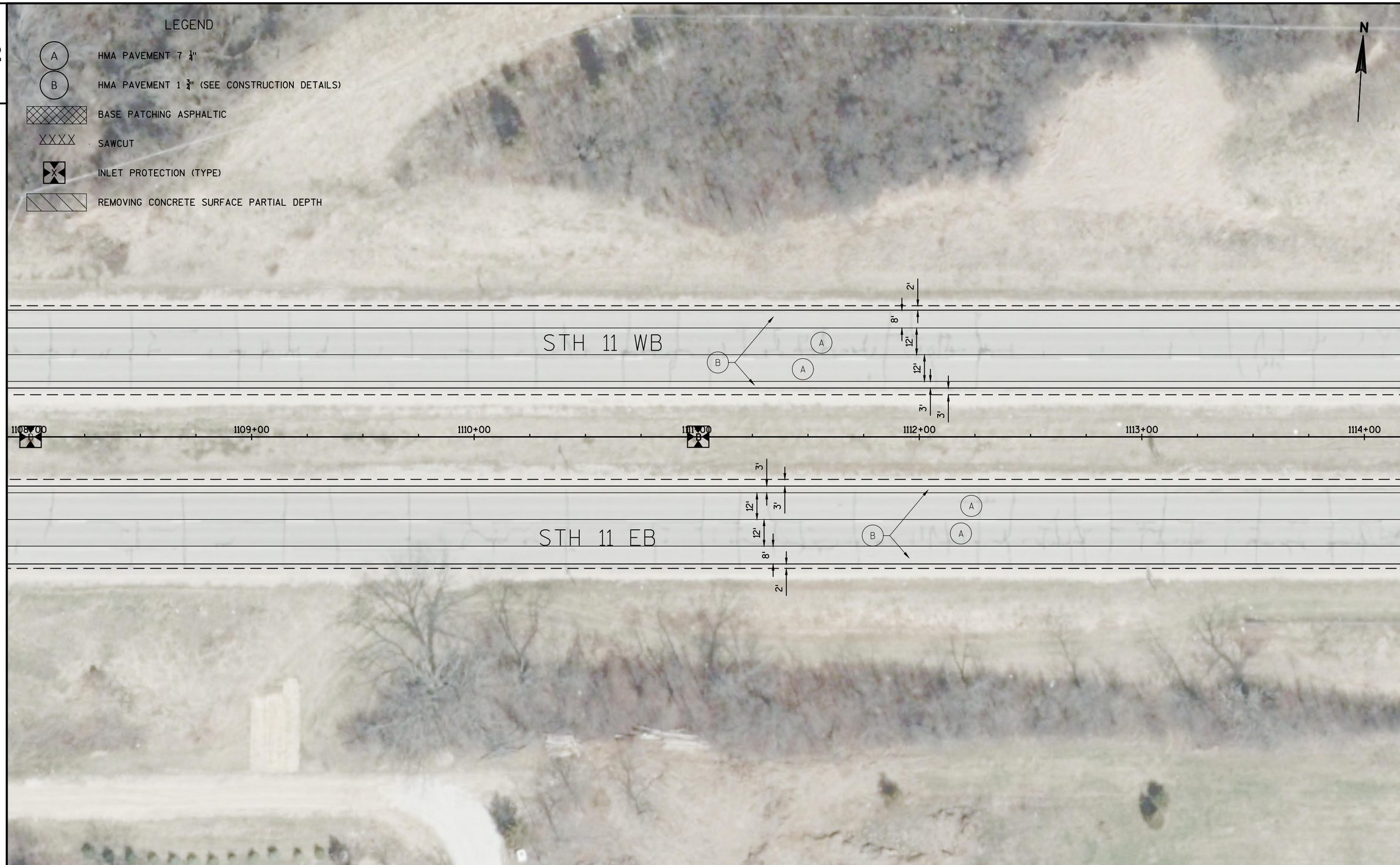
2

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 26	E



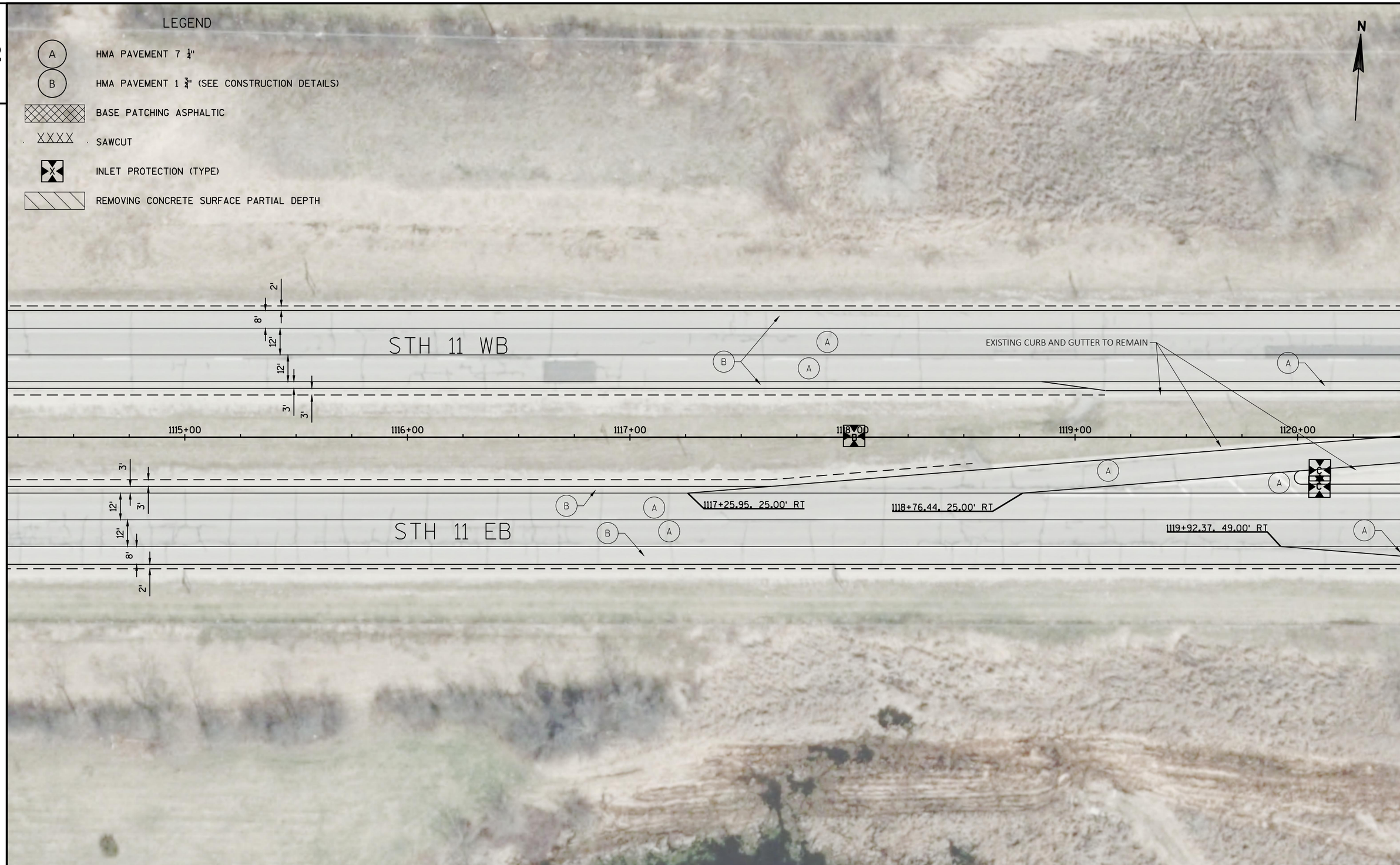
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 27	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021218
PLOT DATE : 4/30/2019 6:43 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT



2

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 28	E

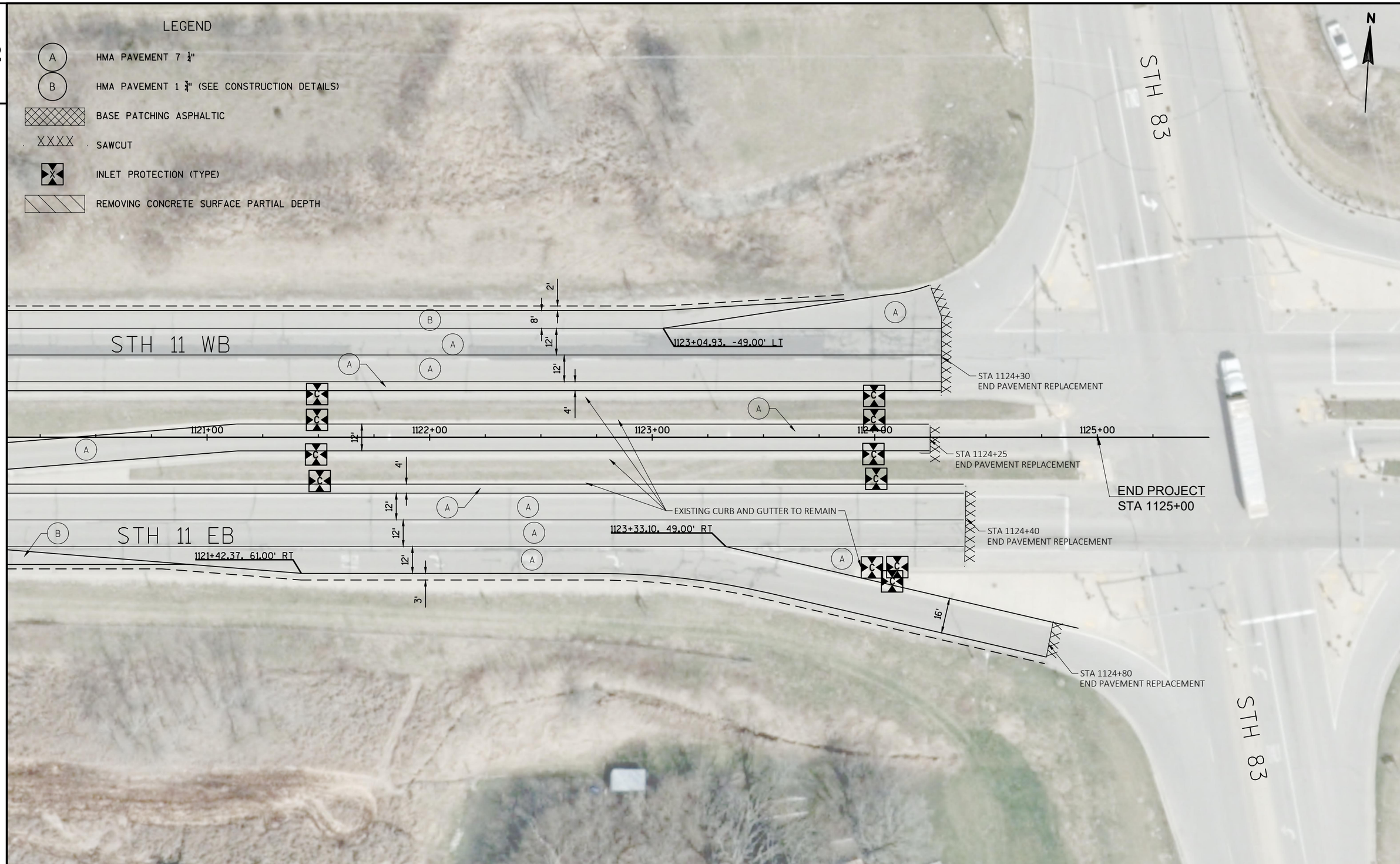


PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 29	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021220
PLOT DATE : 4/30/2019 6:43 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- (A) HMA PAVEMENT 7 ¼"
- (B) HMA PAVEMENT 1 ¾" (SEE CONSTRUCTION DETAILS)
- BASE PATCHING ASPHALTIC
- XXXX SAWCUT
- INLET PROTECTION (TYPE)
- REMOVING CONCRETE SURFACE PARTIAL DEPTH



PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	PLAN DETAILS	SHEET 30	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 021201_PD - 021221
PLOT DATE : 4/30/2019 6:43 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:40 FT

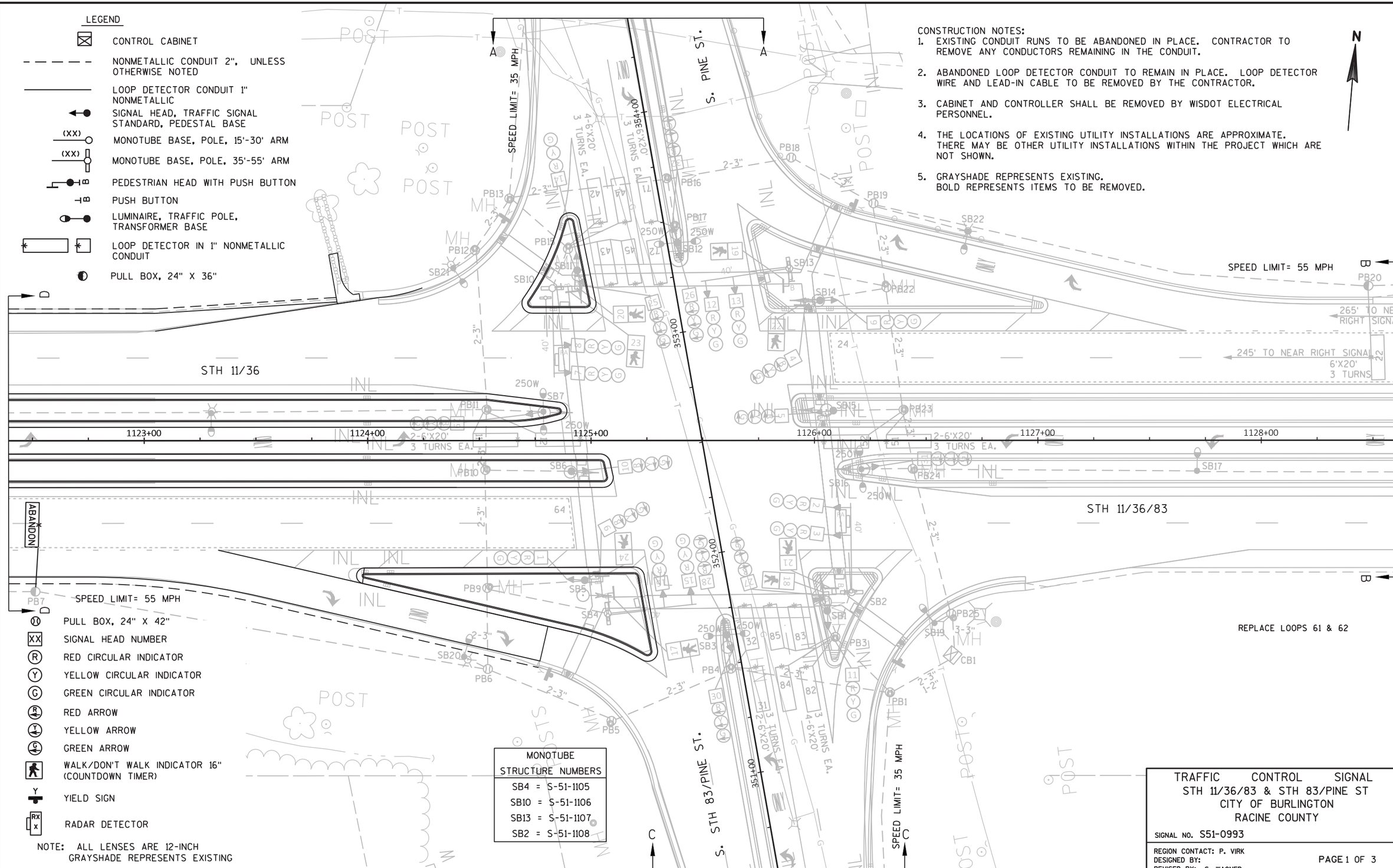
2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.
4. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
5. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.



- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- YIELD SIGN
- RADAR DETECTOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS
SB4 = S-51-1105
SB10 = S-51-1106
SB13 = S-51-1107
SB2 = S-51-1108

TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

SIGNAL NO. S51-0993

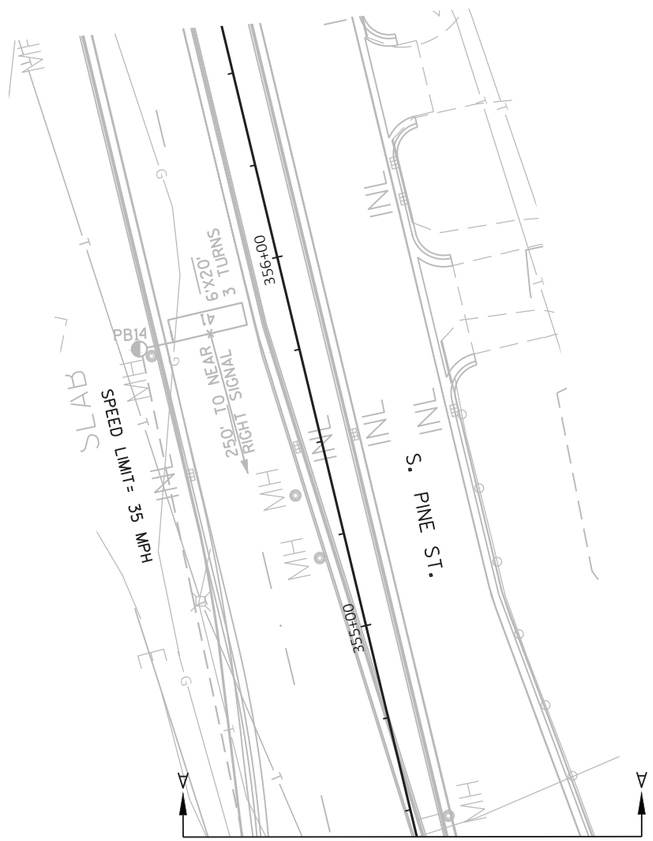
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

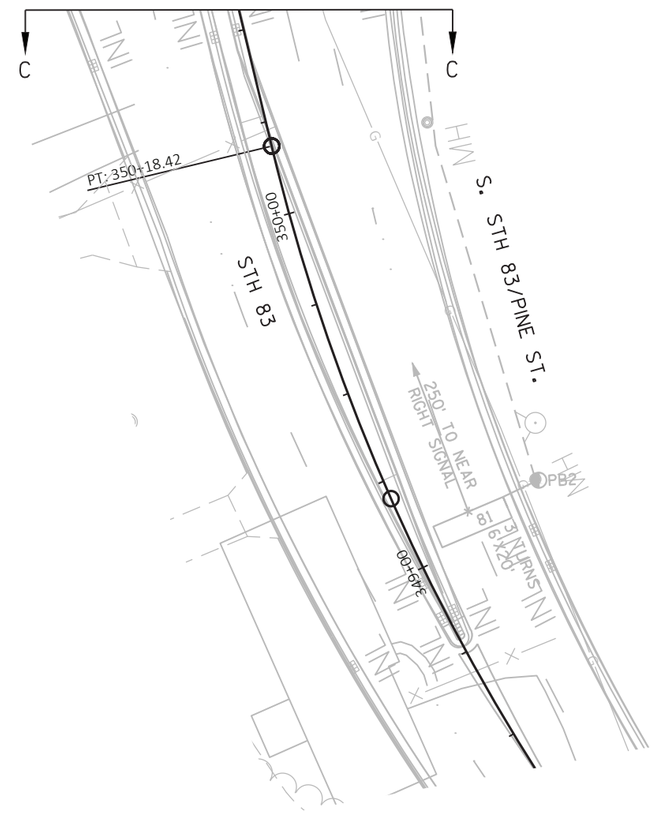
PAGE 1 OF 3

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 31	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_REM_16.DWG
LAYOUT NAME - S51-0993_PG1
PLOT DATE : 4/5/2019 9:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

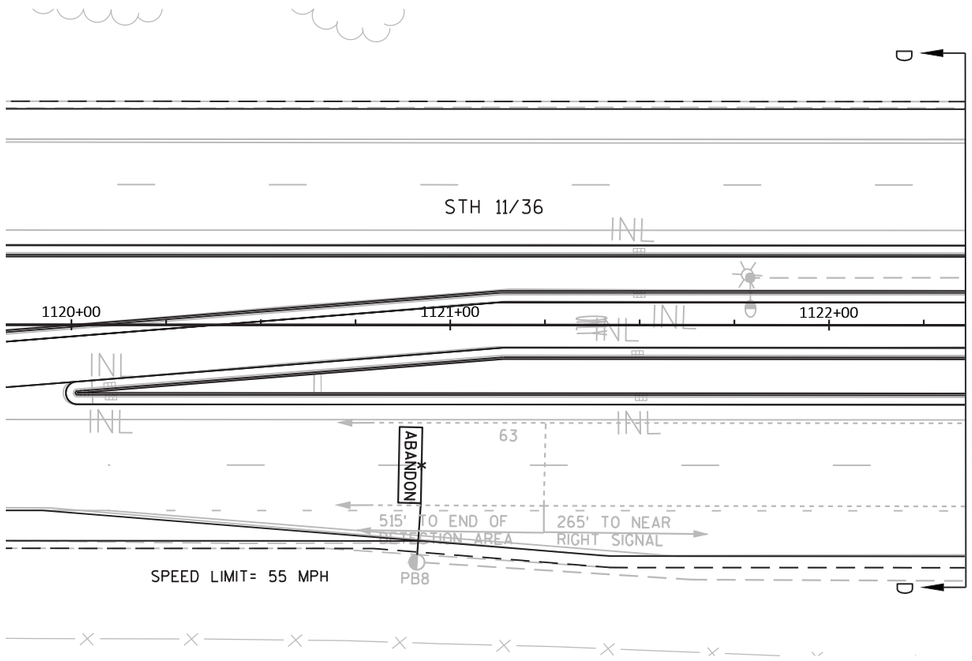
SIGNAL NO. S51-0993

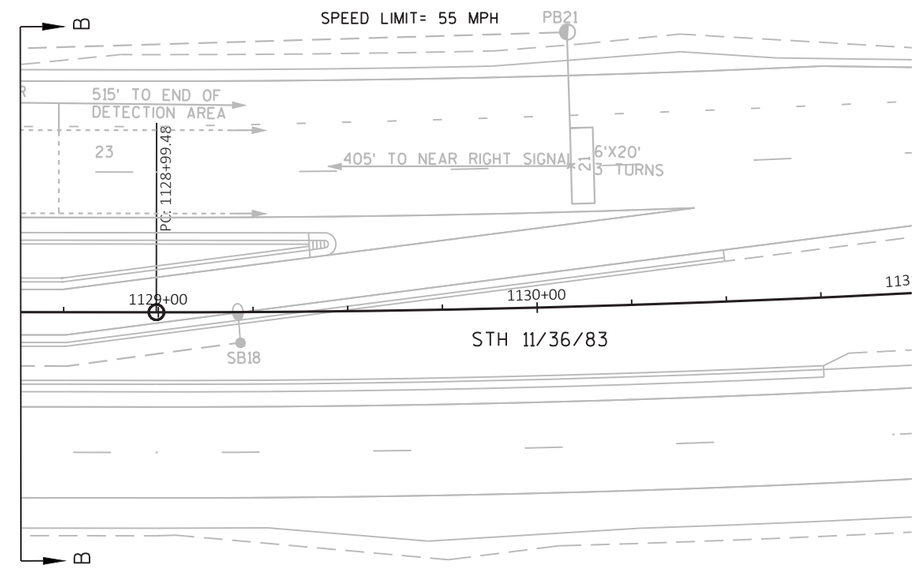
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 2 OF 3

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 32	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_REM_16.DWG
LAYOUT NAME - S51-0993_PG2
PLOT DATE : 4/5/2019 9:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ##########





TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

SIGNAL NO. S51-0993

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 3 OF 3

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 33	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_REM_16.DWG
LAYOUT NAME - S51-0993_PG3
PLOT DATE : 4/5/2019 9:15 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : ##########

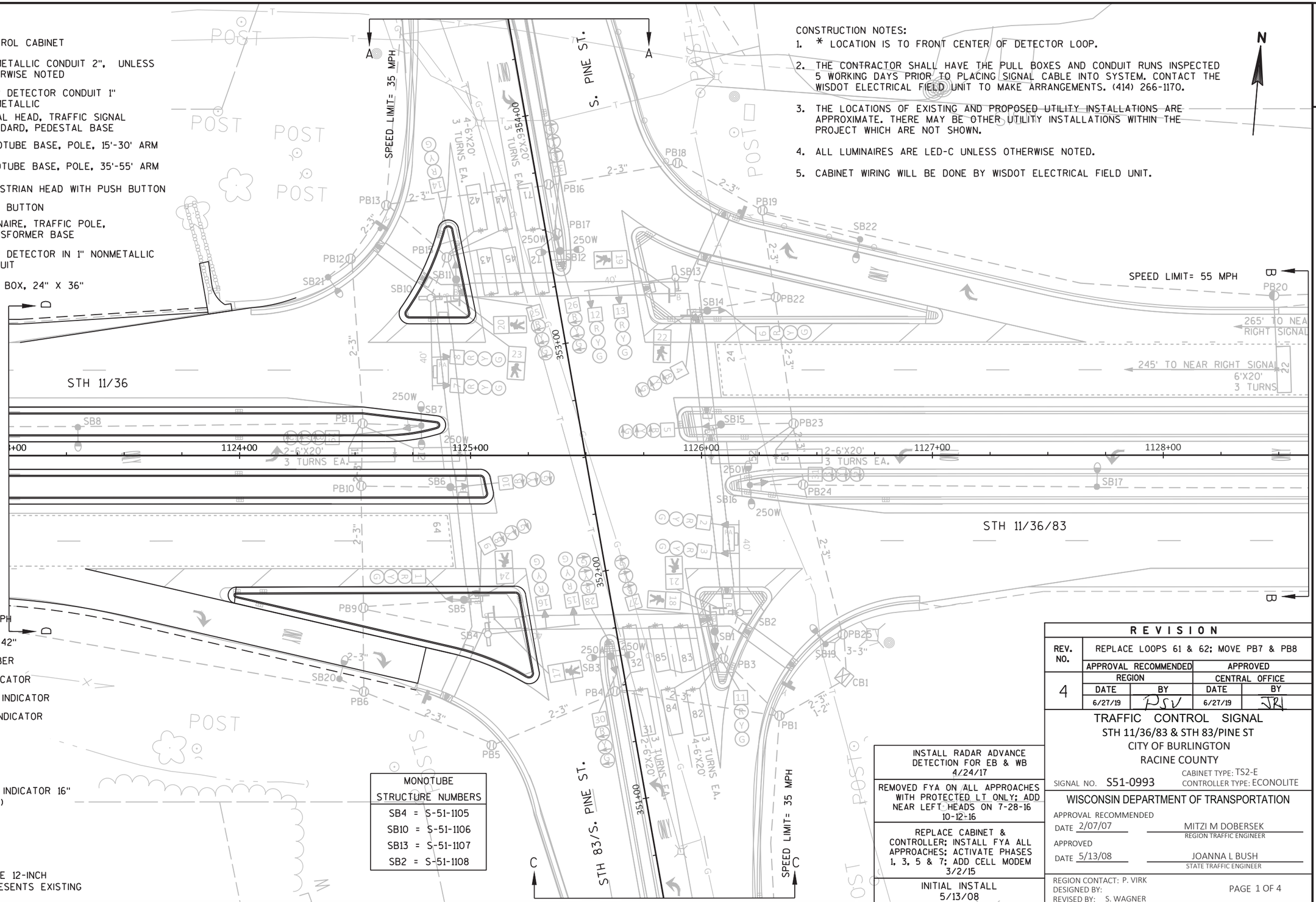
2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.
5. CABINET WIRING WILL BE DONE BY WISDOT ELECTRICAL FIELD UNIT.



SPEED LIMIT= 55 MPH

- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R ARROW RED ARROW
- Y ARROW YELLOW ARROW
- G ARROW GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- Y YIELD SIGN
- RX X RADAR DETECTOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE NUMBERS
SB4 = S-51-1105
SB10 = S-51-1106
SB13 = S-51-1107
SB2 = S-51-1108

INSTALL RADAR ADVANCE DETECTION FOR EB & WB 4/24/17

REMOVED FYA ON ALL APPROACHES WITH PROTECTED LT ONLY; ADD NEAR LEFT HEADS ON 7-28-16 10-12-16

REPLACE CABINET & CONTROLLER; INSTALL FYA ALL APPROACHES; ACTIVATE PHASES 1, 3, 5 & 7; ADD CELL MODEM 3/2/15

INITIAL INSTALL 5/13/08

REVISION

REV. NO.	REPLACE LOOPS 61 & 62; MOVE PB7 & PB8			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
4	6/27/19	PSV	6/27/19	JBL

TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

SIGNAL NO. S51-0993
CABINET TYPE: TS2-E
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 2/07/07 MITZI M DOBERSEK
REGION TRAFFIC ENGINEER

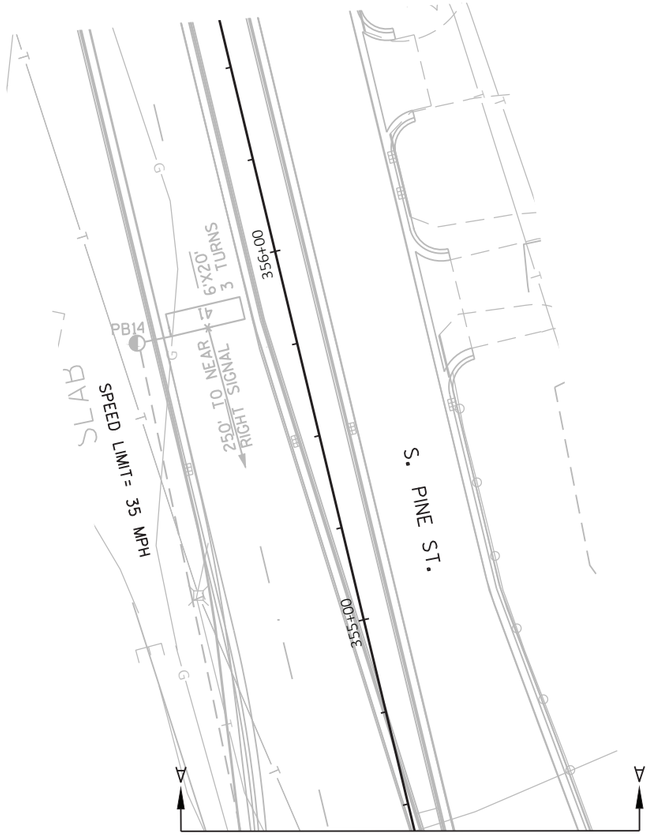
APPROVED
DATE 5/13/08 JOANNA L BUSH
STATE TRAFFIC ENGINEER

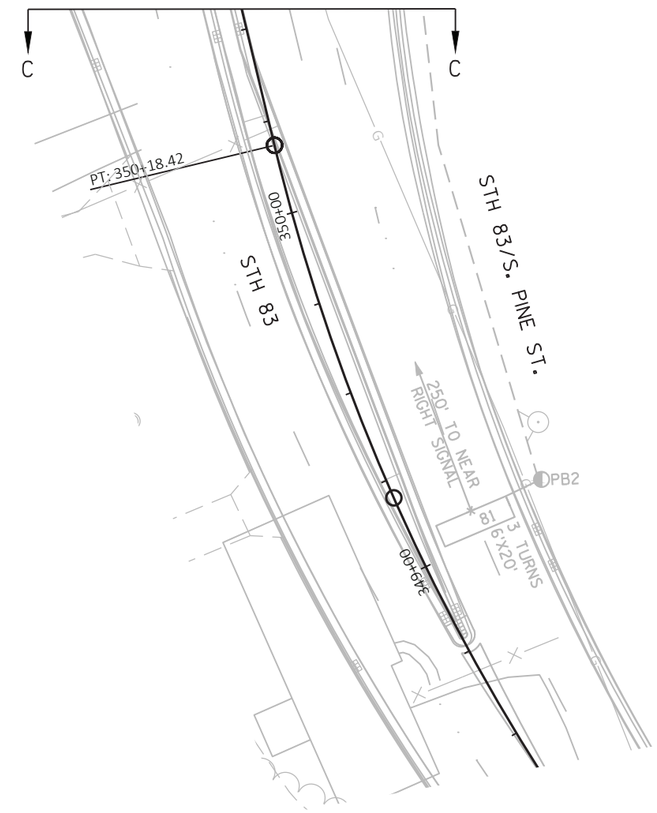
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 1 OF 4

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 34	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_16.DWG
LAYOUT NAME - S51-0993_PG1
PLOT DATE : 6/28/2019 9:06 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:40 FT





TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

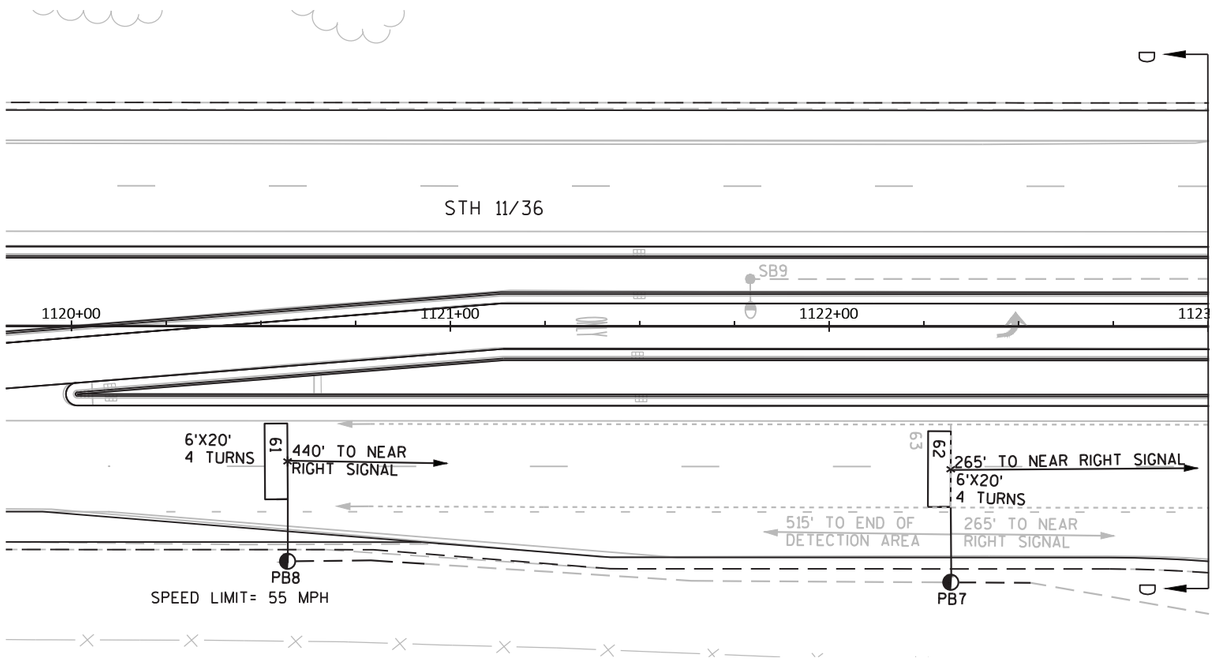
SIGNAL NO. S51-0993

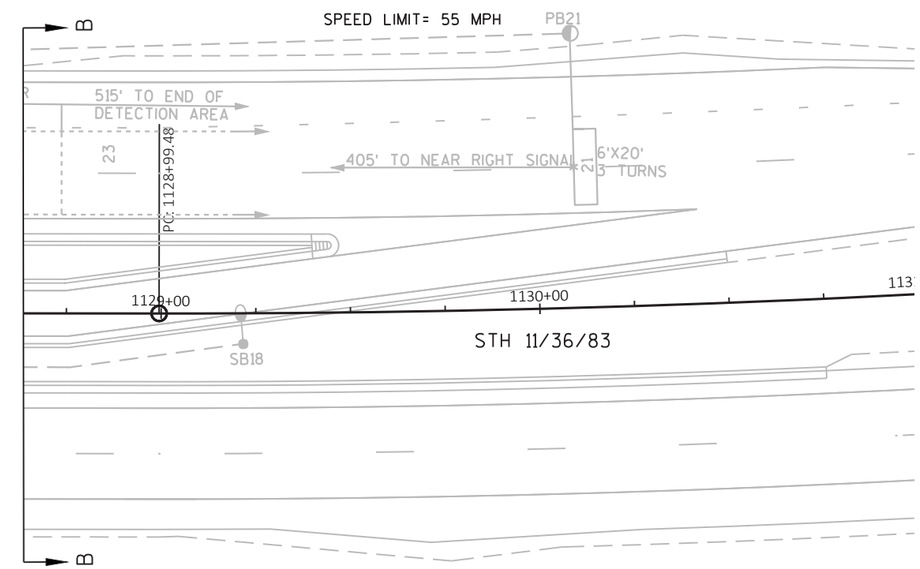
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 2 OF 4

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 35	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_16.DWG
LAYOUT NAME - S51-0993_PG2
PLOT DATE : 6/28/2019 9:06 AM
PLOT BY : WAGNER, SCOTT H
PLOT NAME :
PLOT SCALE : ##########





TRAFFIC CONTROL SIGNAL
STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

SIGNAL NO. S51-0993

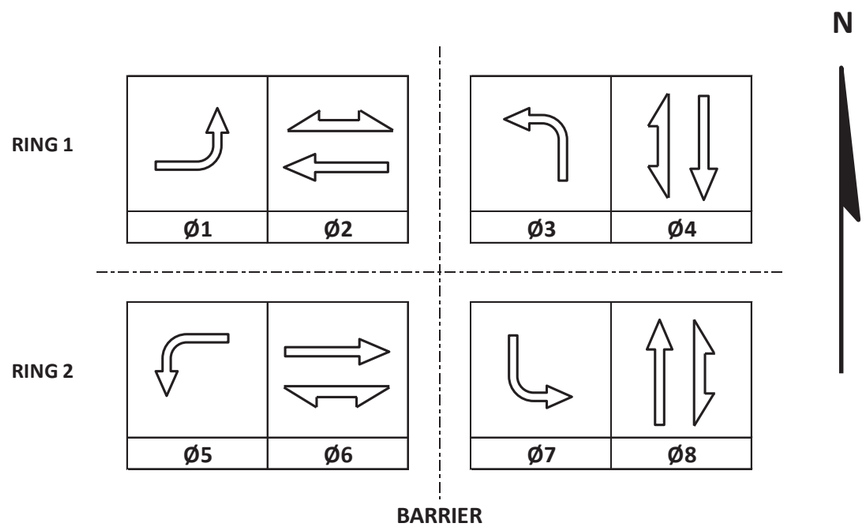
REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: S. WAGNER

PAGE 3 OF 4

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 36	E

FILE NAME : N:\PDS\C3D\CAD\31800004\SIG\S51-0993_16.DWG
LAYOUT NAME - S51-0993_PG3
PLOT DATE : 6/28/2019 9:06 AM
PLOT BY : WAGNER, SCOTT H
PLOT NAME :
PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1	4,5, 29	R ←
Ø2	6,7,8	R
Ø3	25,26, 30	R ←
Ø4	14,15,16	R
Ø5	9,10, 31	R ←
Ø6	1,2,3	R
Ø7	27,28, 32	R ←
Ø8	11,12,13	R
Ø2P	19,20	
Ø4P	23,24	
Ø6P	17,18	
Ø8P	21,22	
OLE		
OLF		
OLG		
OLH		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	X

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21			33	35	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	11	41	31	45	43	62	52	82	72		84			23	63	PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	1	4	3	4	4	6	5	8	7		8			2	6	CALLED PHASE
CALL OPTION	X	X		X	X	X	X	X	X	X		X					CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X		X			X	X	EXTENTION OPTION
EXTEND TIME			X												X	X	EXTEND TIME
USE ADDED INITIAL	X						X										USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22			34	36	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	22	12	42	32	51	44	71	61	83	81		85			24	64	PLAN LOOP DETECTOR*
CALLED PHASE	2	1	4	3	5	4	7	6	8	8		8			2	6	CALLED PHASE
CALL OPTION	X	X	X	X	X	X	X	X	X			X					CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X		X			X	X	EXTENTION OPTION
EXTEND TIME										X							EXTEND TIME
USE ADDED INITIAL	X							X									USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

STH 11/36/83 & STH 83/PINE ST
CITY OF BURLINGTON
RACINE COUNTY

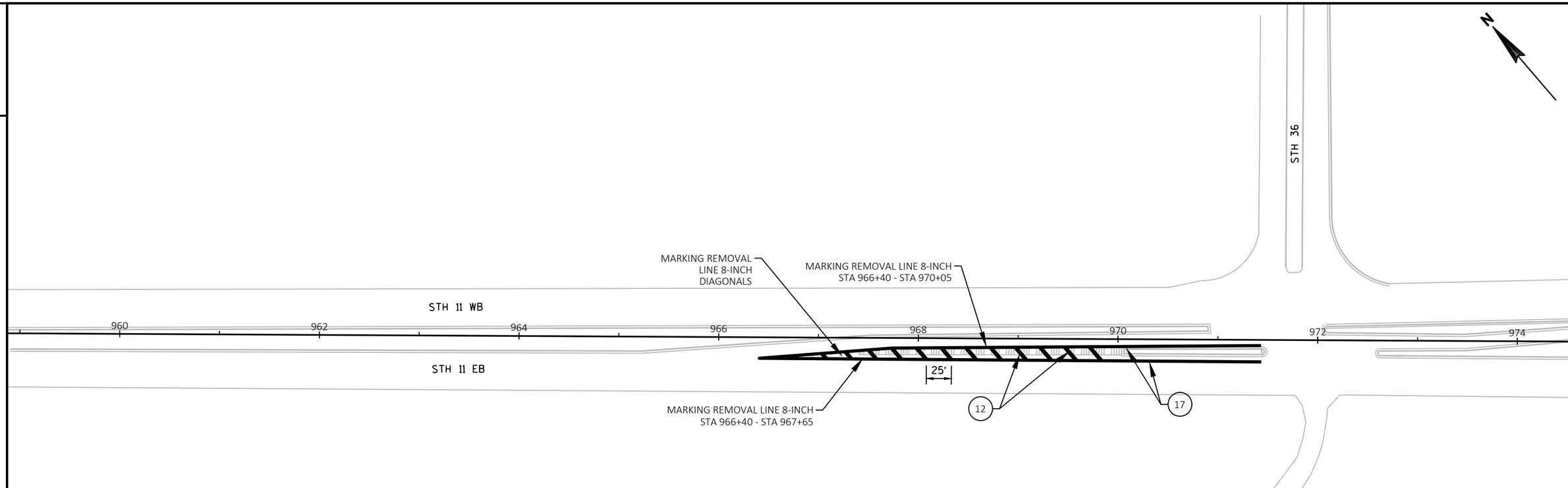
SIGNAL NO: S51-0993 CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE
DATE: 05/2019 PAGE NO. 4 OF 4

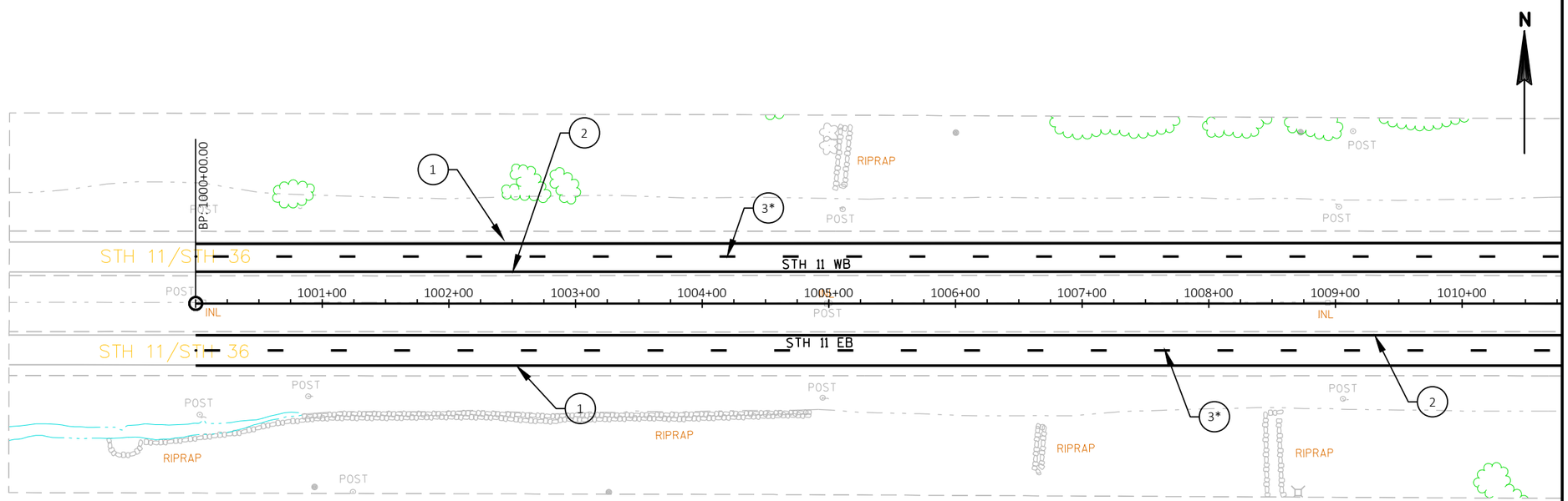
2

2

LEGEND

1	MARKING LINE EPOXY 4-INCH WHITE	10	MARKING WORD EPOXY WHITE
2	MARKING LINE EPOXY 4-INCH YELLOW	11	MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH WHITE (3' LINE 9' GAP)
3	MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH WHITE (12.5' LINE W 37.5' GAP)	12	MARKING DIAGONAL EPOXY 12-INCH WHITE
4	MARKING LINE EPOXY 4-INCH DOUBLE YELLOW	13	MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH YELLOW (2' LINE 6' GAP)
5	MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH WHITE	14	MARKING LINE 4-INCH EPOXY WHITE (3' LINE 12' GAP)
6	MARKING STOP LINE EPOXY 18-INCH WHITE	15	MARKING LINE 4-INCH EPOXY YELLOW (3' LINE 12' GAP)
7	MARKING ISLAND NOSE EPOXY - YELLOW	16	MARKING LINE 8-INCH EPOXY WHITE (3' LINE 12' GAP)
8	MARKING ARROW EPOXY TYPE 2 - WHITE	17	MARKING LINE 8-INCH EPOXY WHITE
9	MARKING ARROW EPOXY TYPE 5 - WHITE	18	MARKING CORRUGATED MEDIAN PAINT YELLOW

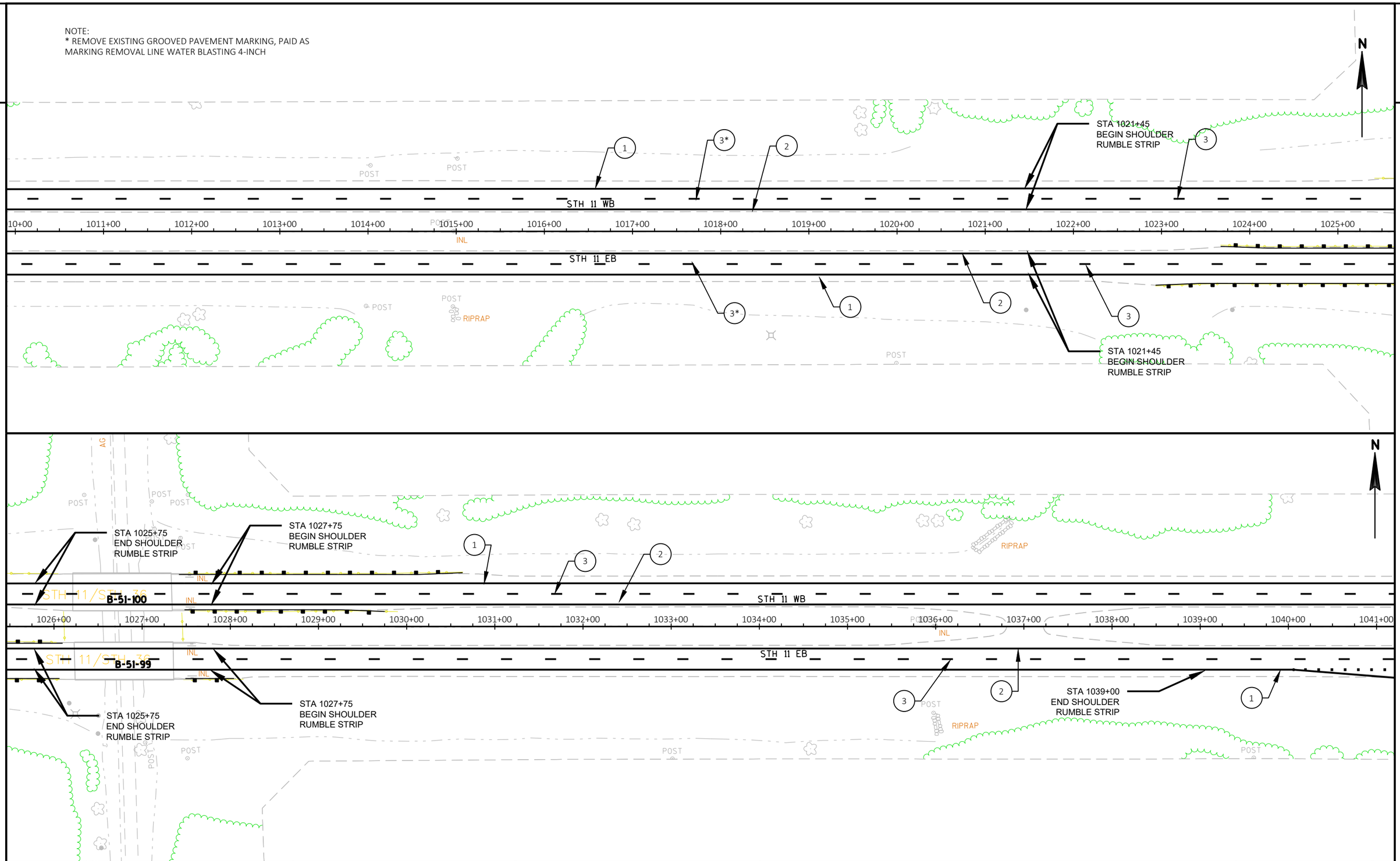




NOTE:
* REMOVE EXISTING GROOVED PAVEMENT MARKING, PAID AS MARKING REMOVAL LINE WATER BLASTING 4-INCH

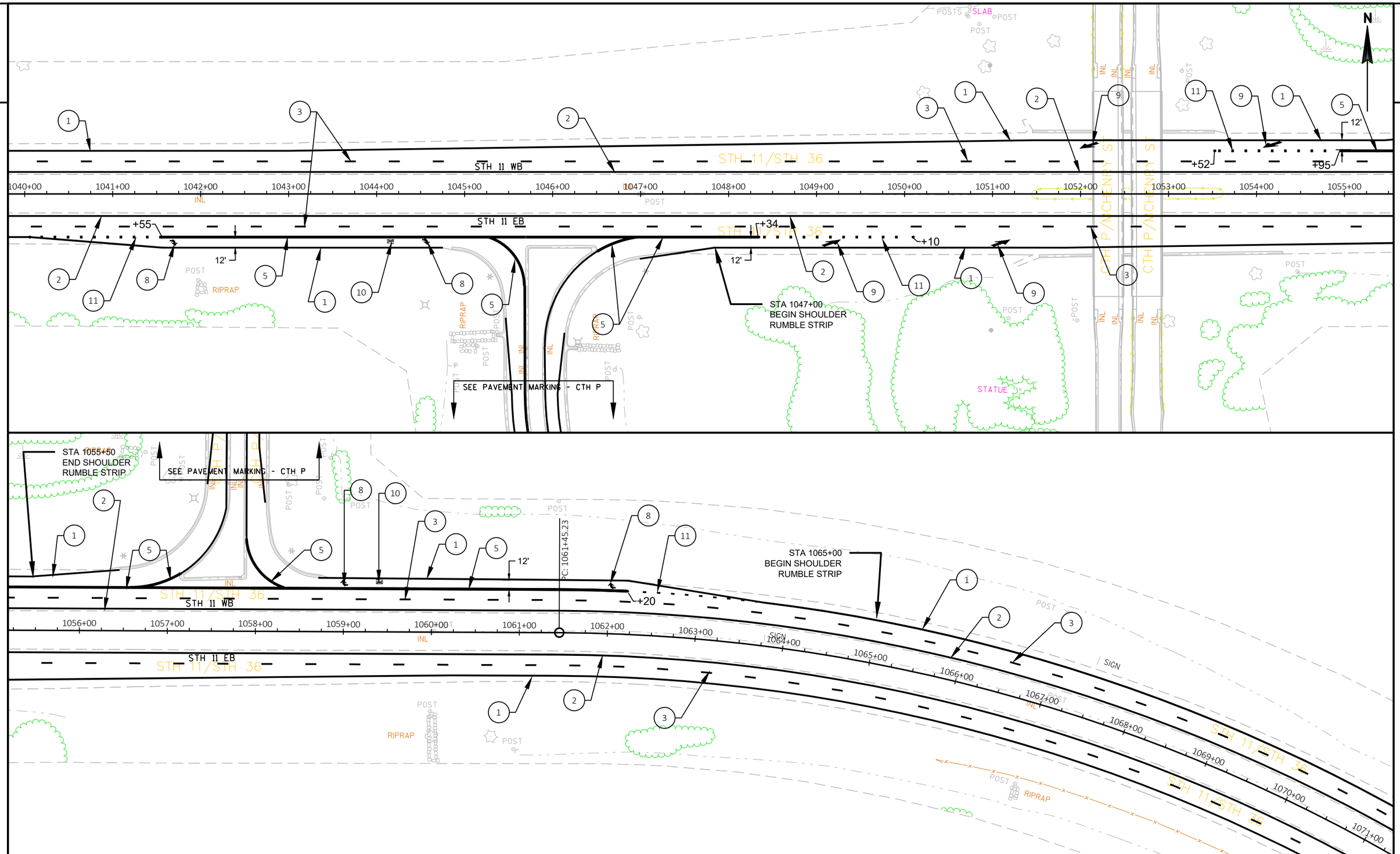
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - STH 11	SHEET 39	E

NOTE:
* REMOVE EXISTING GROOVED PAVEMENT MARKING, PAID AS MARKING REMOVAL LINE WATER BLASTING 4-INCH



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - STH 11	SHEET 40	E

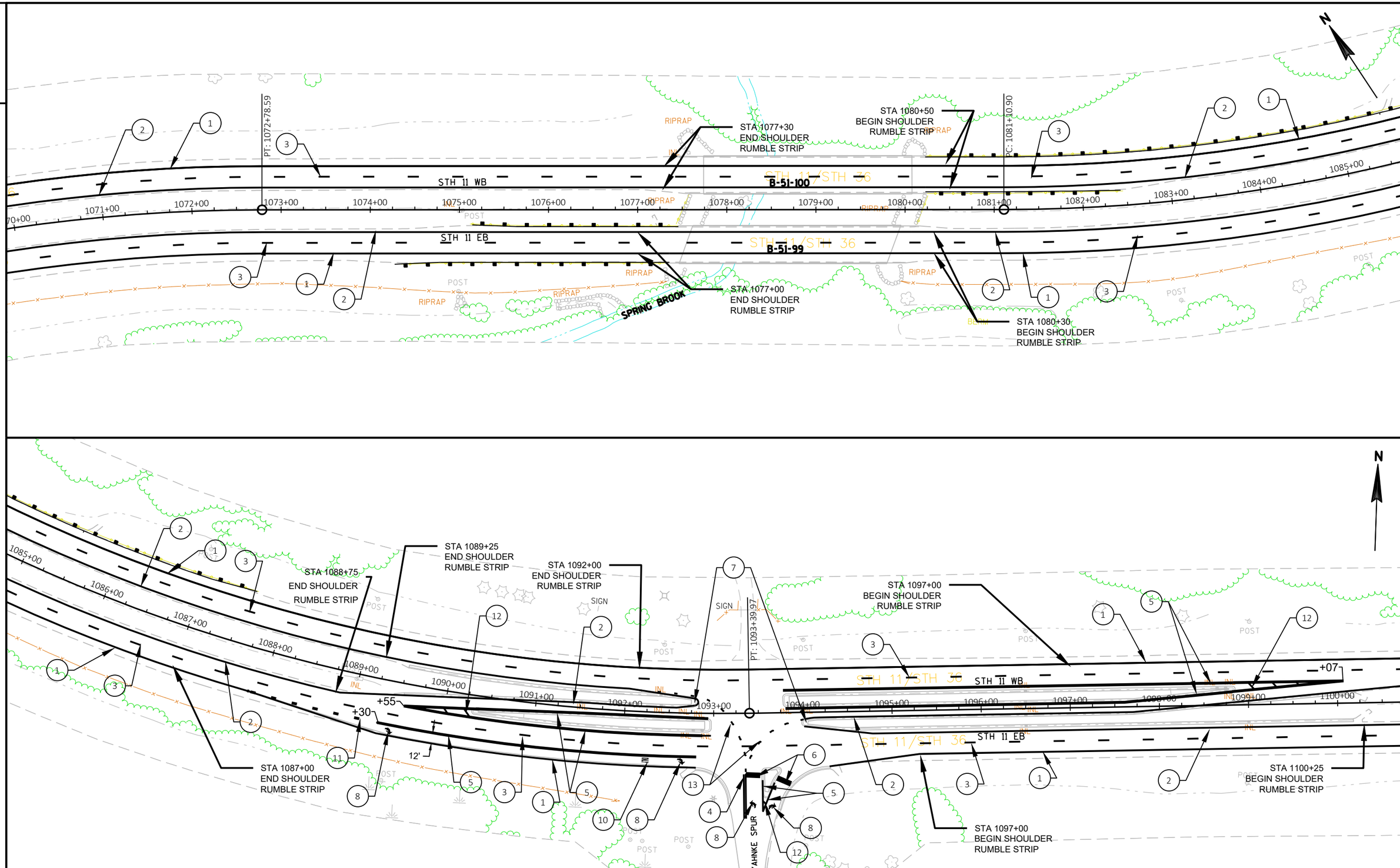
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 23
PLOT DATE : 9/30/2019 9:46 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - STH 11	SHEET 41	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 24
PLOT DATE : 9/30/2019 9:46 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

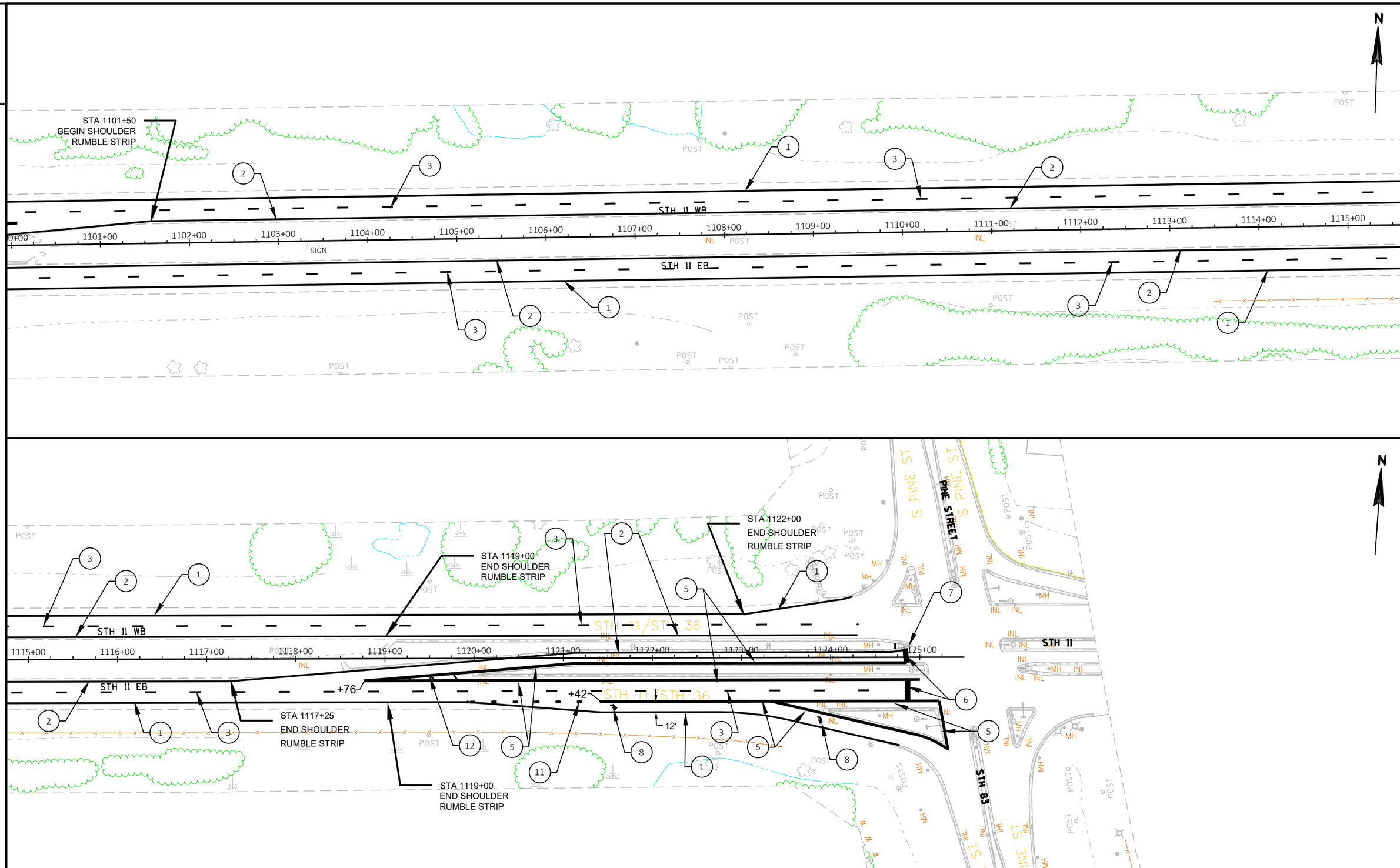


2

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - STH 11	SHEET 42	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_PM - 25
PLOT DATE : 9/30/2019 9:46 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

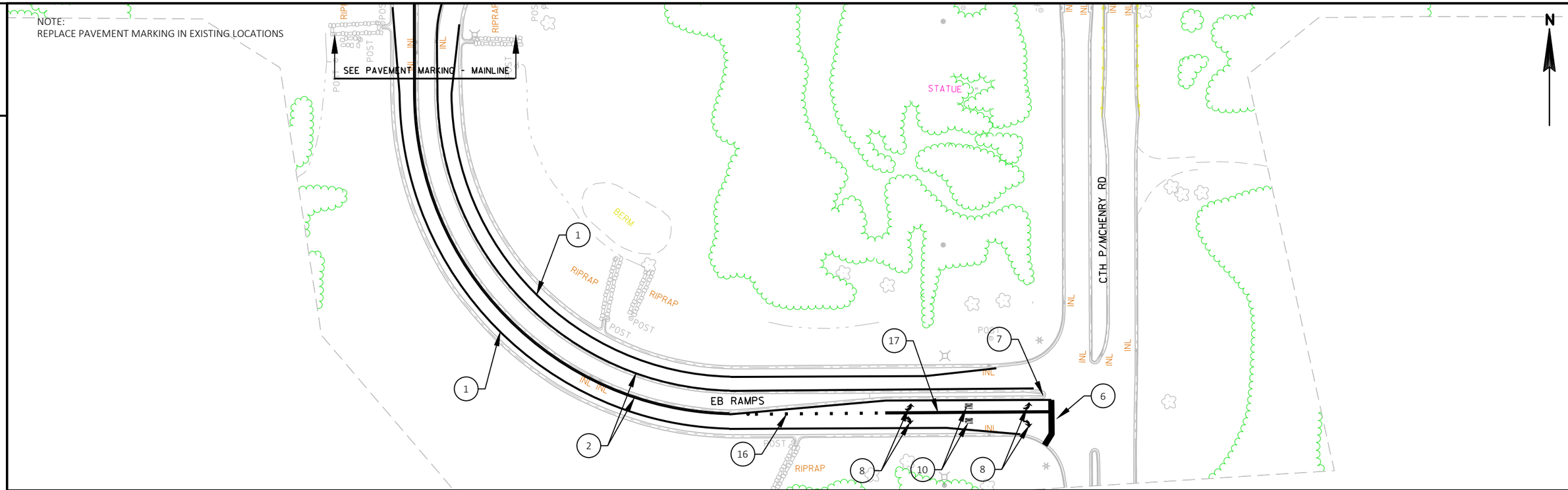


2

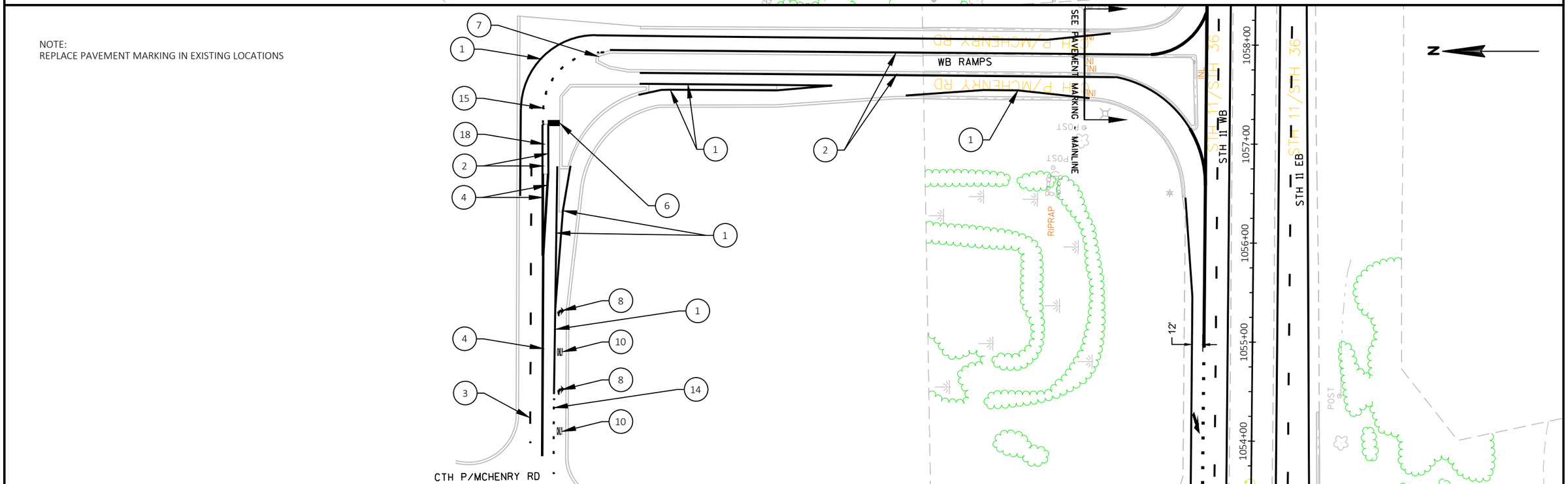
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - STH 11	SHEET 43	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_PM - 25
PLOT DATE : 9/30/2019 9:46 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

NOTE:
REPLACE PAVEMENT MARKING IN EXISTING LOCATIONS

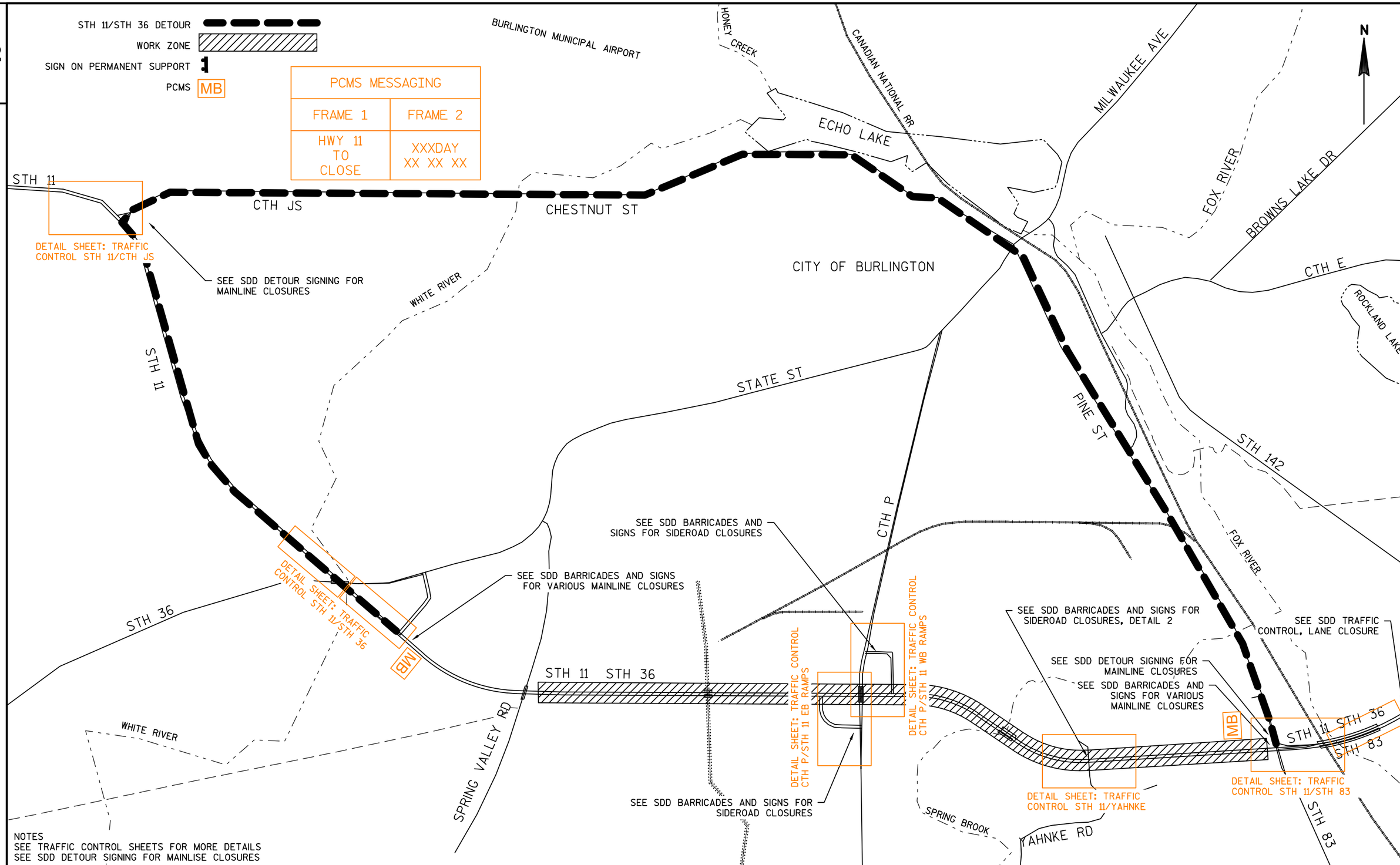


NOTE:
REPLACE PAVEMENT MARKING IN EXISTING LOCATIONS



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PAVEMENT MARKING - CTH P RAMPS	SHEET 44	E

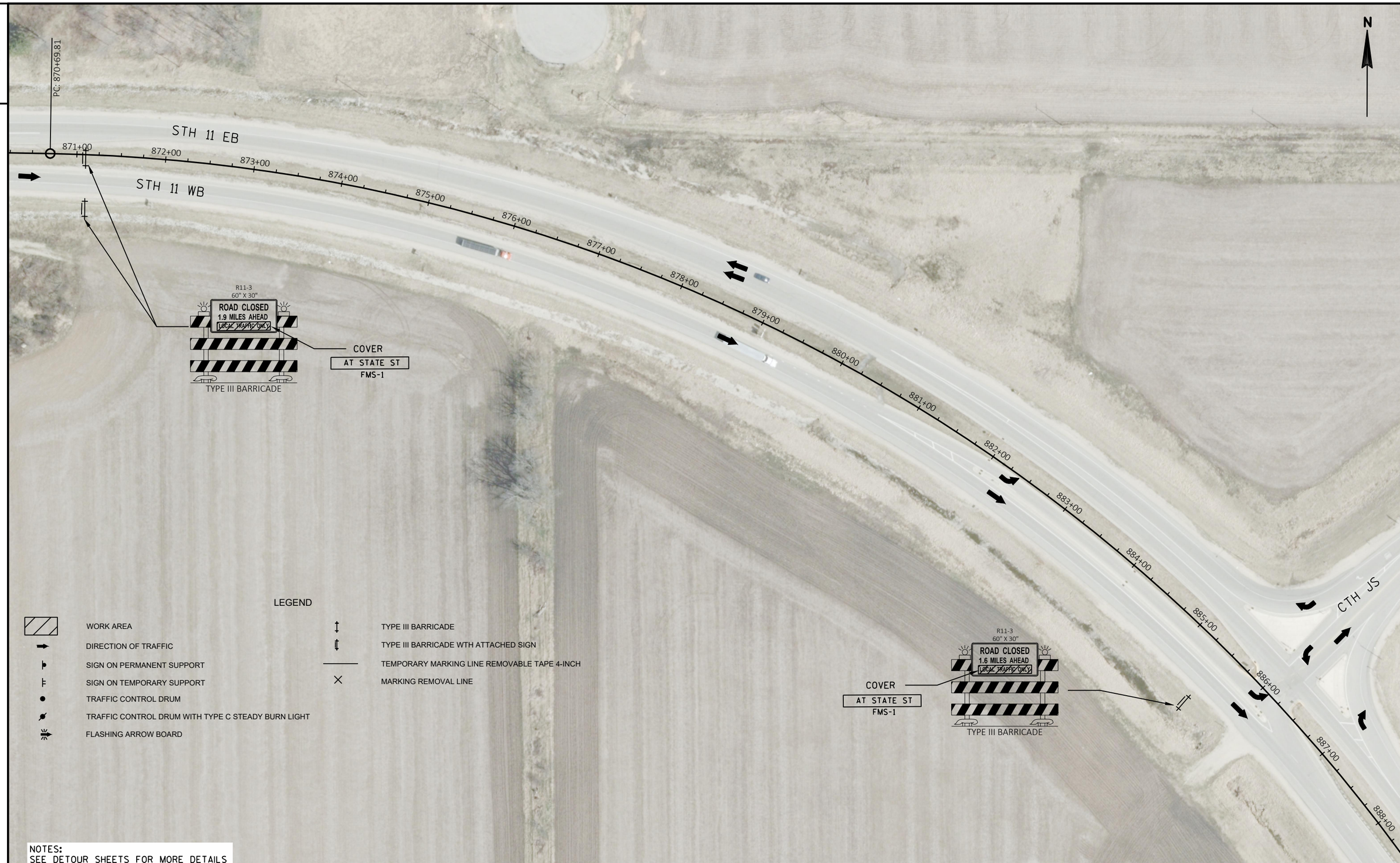
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 24
PLOT DATE : 9/30/2019 9:46 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



NOTES
SEE TRAFFIC CONTROL SHEETS FOR MORE DETAILS
SEE SDD DETOUR SIGNING FOR MAINLISE CLOSURES

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	TRAFFIC CONTROL OVERVIEW	SHEET 45	E

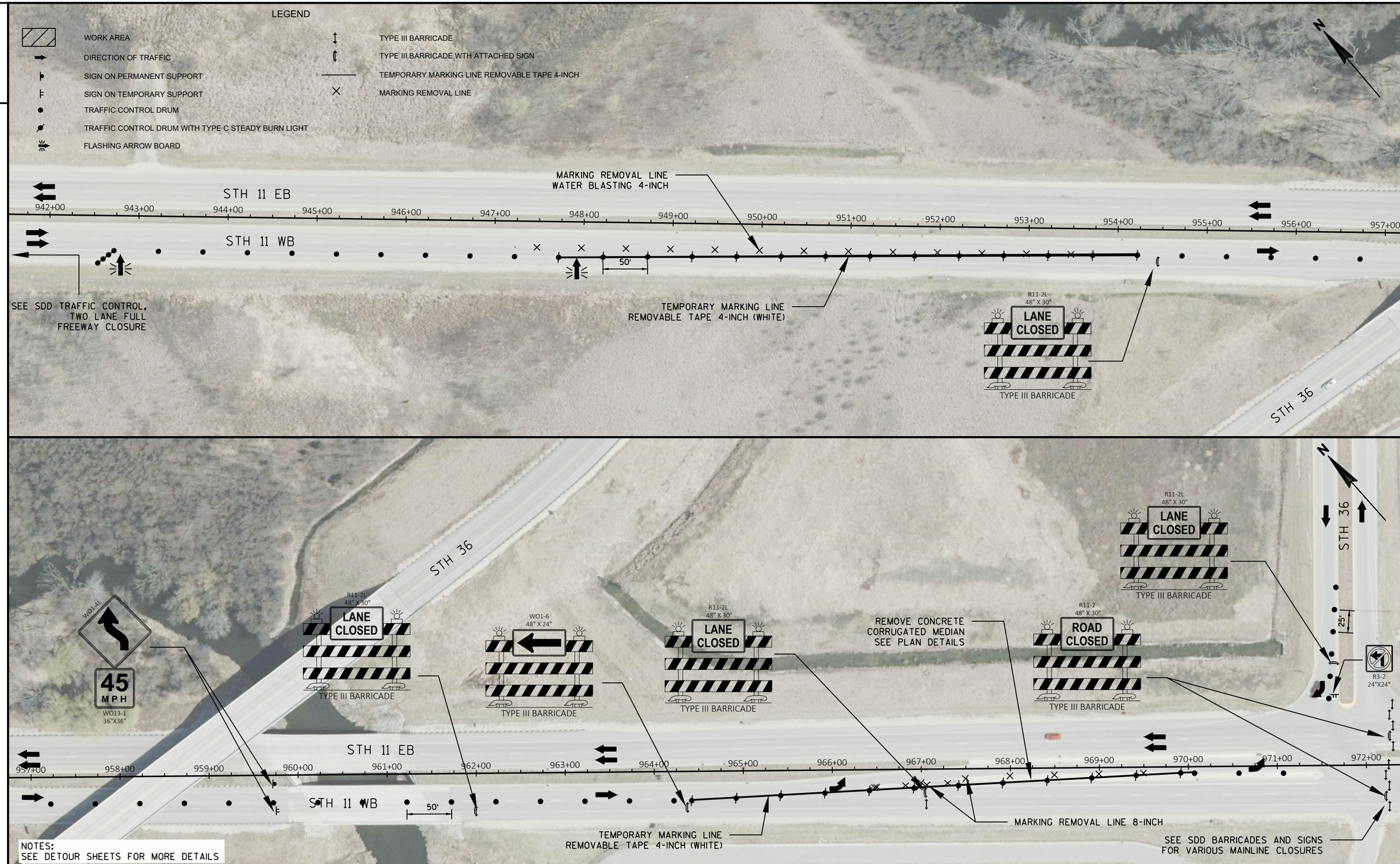
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - ****
PLOT DATE : 4/30/2019 7:16 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1:1500

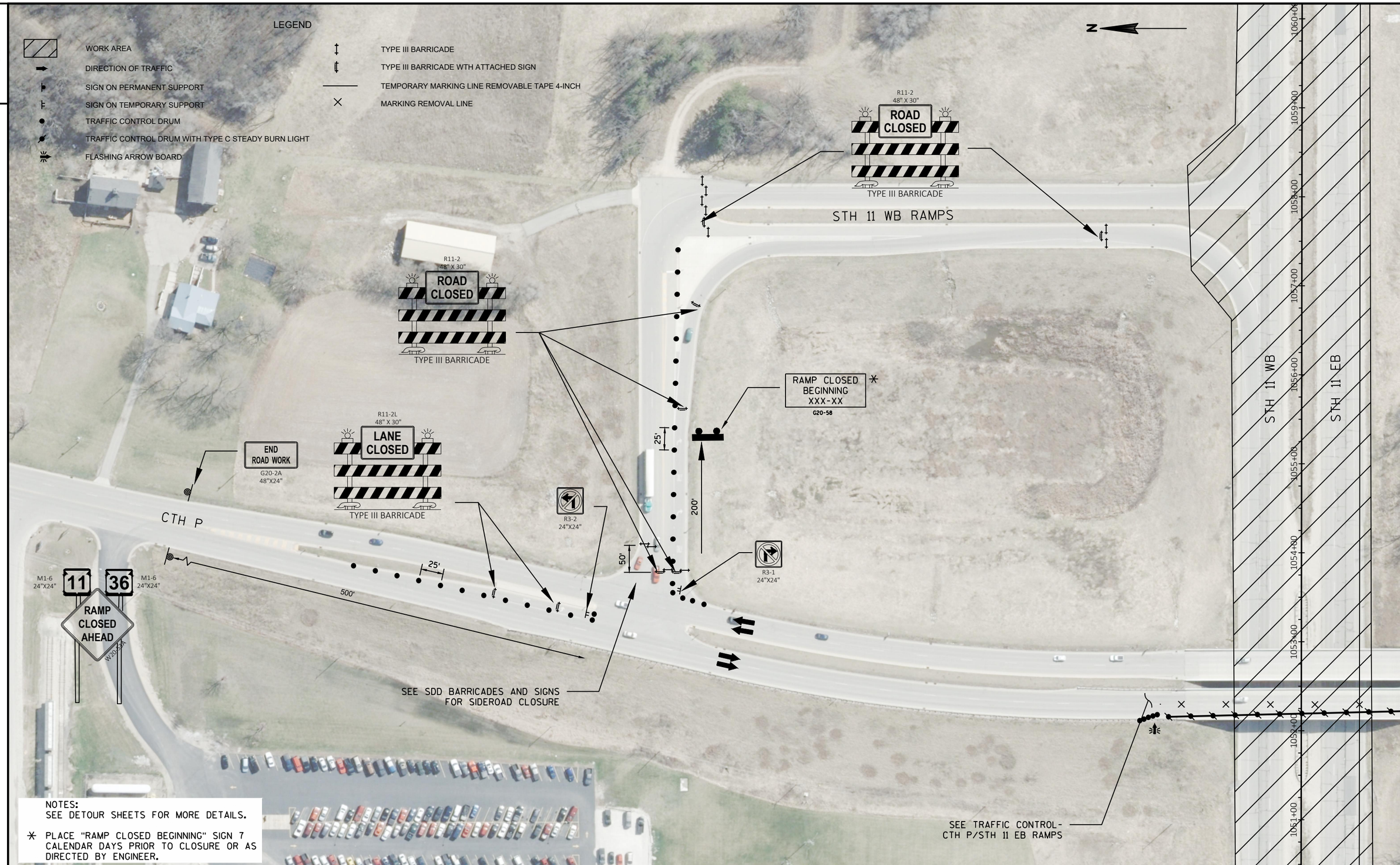


NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - STH 11/ CTH JS	SHEET 46	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - at CTH JS
PLOT DATE : 4/30/2019 7:15 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:100 FT


LEGEND
WORK AREA
DIRECTION OF TRAFFIC
SIGN ON PERMANENT SUPPORT
SIGN ON TEMPORARY SUPPORT
TRAFFIC CONTROL DRUM
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
FLASHING ARROW BOARD
TYPE III BARRICADE
TYPE III BARRICADE WTH ATTACHED SIGN
TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH
MARKING REMOVAL LINE
MARKING REMOVAL LINE
WATER BLASTING 4-INCH
STH 11 EB
STH 11 WB
942+00
943+00
944+00
945+00
946+00
947+00
948+00
949+00
950+00
951+00
952+00
953+00
954+00
955+00
956+00
957+00
50'
SEE SDD TRAFFIC CONTROL,
TWO LANE FULL
FREEWAY CLOSURE
TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)
R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
STH 36
N
WO1-4L
45
MPH
WO13-1
36"X36"
R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
WO1-6
48" X 24"
TYPE III BARRICADE
R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
REMOVE CONCRETE
CORRUGATED MEDIAN
SEE PLAN DETAILS
R11-2
48" X 30"
ROAD
CLOSED
TYPE III BARRICADE
R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
25'
R3-2
24"X24"
957+00
958+00
959+00
960+00
961+00
962+00
963+00
964+00
965+00
966+00
967+00
968+00
969+00
970+00
971+00
972+00
50'
MARKING REMOVAL LINE 8-INCH
TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)
SEE SDD BARRICADES AND SIGNS
FOR VARIOUS MAINLINE CLOSURES
NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS

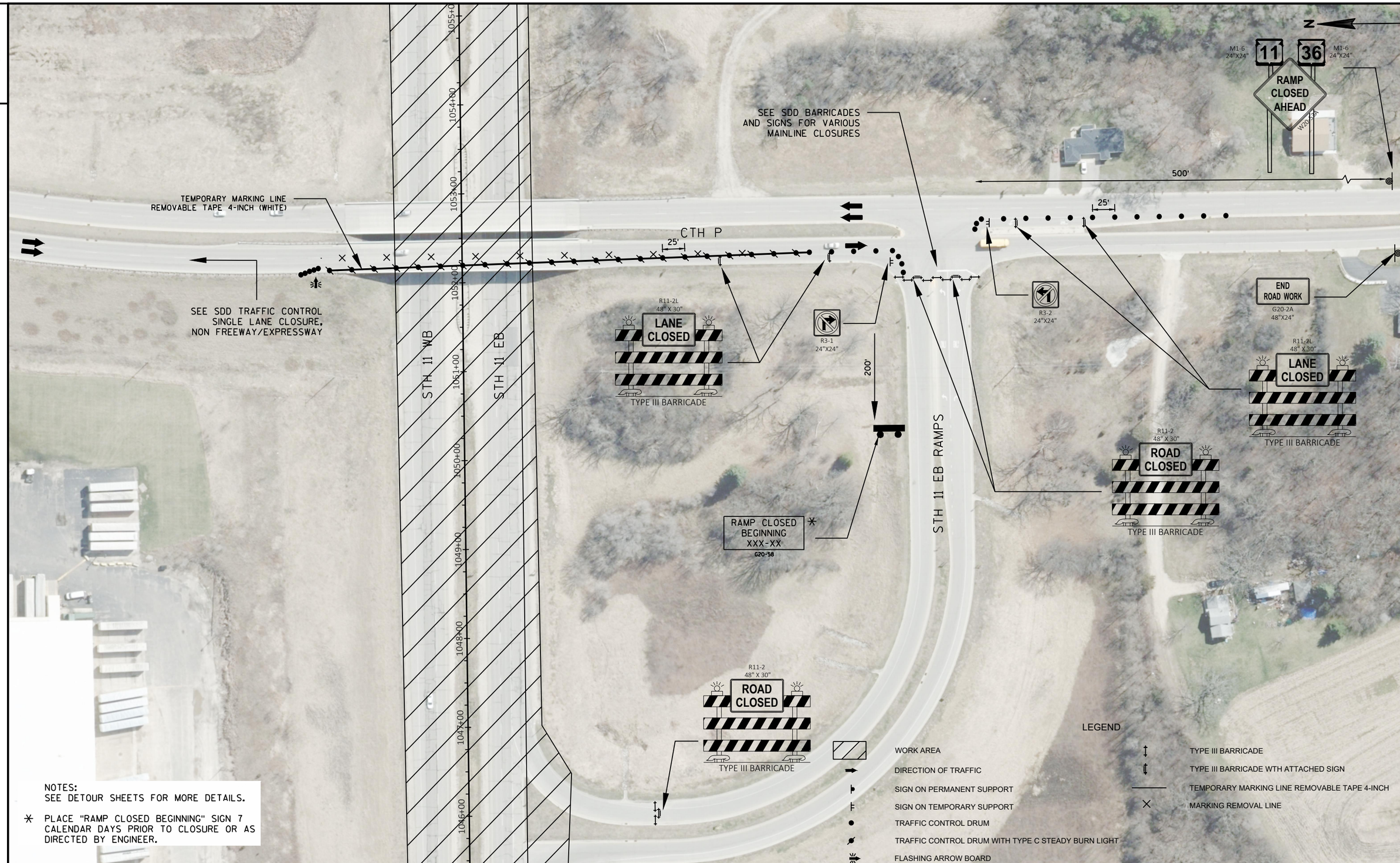


NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS.

✳ PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY ENGINEER.

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - CTH P/STH 11 WB RAMPS	SHEET 48	E

2



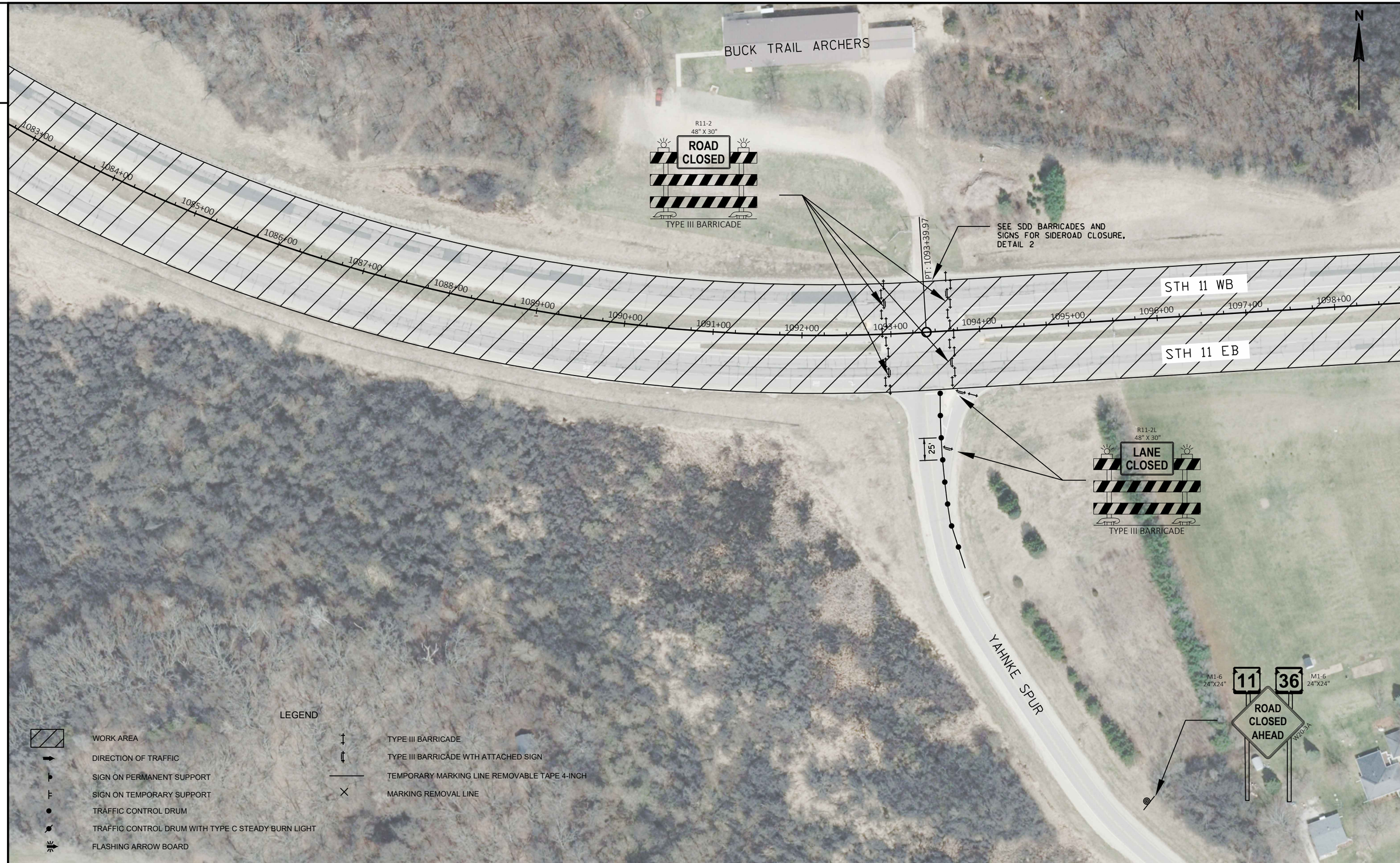
2

NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS.

✳ PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY ENGINEER.

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL AT CTH P/STH 11 EB RAMPS	SHEET 49	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - at CTH P south
PLOT DATE : 4/30/2019 7:15 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - STH 11/YAHNKE SPUR	SHEET 50	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - at YahnkeSpur
PLOT DATE : 4/30/2019 7:15 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

PC: 357+66.44

M3-4 24"X12" WEST 11 SOUTH 36 M3-3 24"X12"
M1-6 24"X24" M1-6 24"X24"
ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A 48"X24"

PINE STREET

CANADIAN NATIONAL RR

FOX RIVER

N

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE

RIGHT LANE MUST TURN RIGHT
R3-7R 30"X30"

WO12-1D 24"X24"

MARKING REMOVAL LINE
WATER BLASTING 4-INCH

SEE SDD BARRICADES AND SIGNS
FOR VARIOUS MAINLINE CLOSURES

R3-1 24"X24"

PC: 1128+99.48

STH 11 WB

STH 11 EB

TEMPORARY MARKING LINE
REMOVABLE TAPE 4-INCH (WHITE)

LEFT LANE MUST TURN LEFT
R3-7L 30"X30"

R11-2L 48" X 30"
LANE CLOSED
TYPE III BARRICADE

END ROAD WORK
G20-2A 48"X24"

R11-2 48" X 30"
ROAD CLOSED
TYPE III BARRICADE

R3-2 24"X24"

PT: 350+18.42

STH 83

M3-4 24"X12" WEST 11 SOUTH 36 M3-3 24"X12"
M1-6 24"X24" M1-6 24"X24"
ROAD CLOSED AHEAD
W20-3A

END ROAD WORK
G20-2A 48"X24"

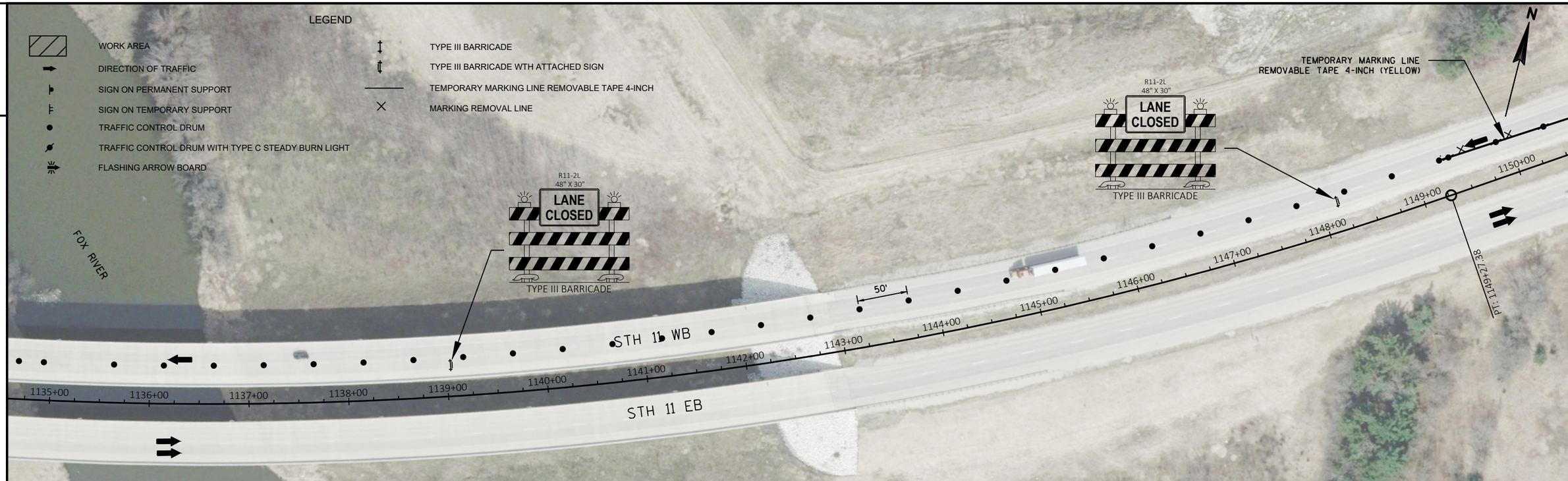
LEGEND

- WORK AREA
- DIRECTION OF TRAFFIC
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH
- MARKING REMOVAL LINE

NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS

PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - STH 11/STH 83	SHEET 51	E

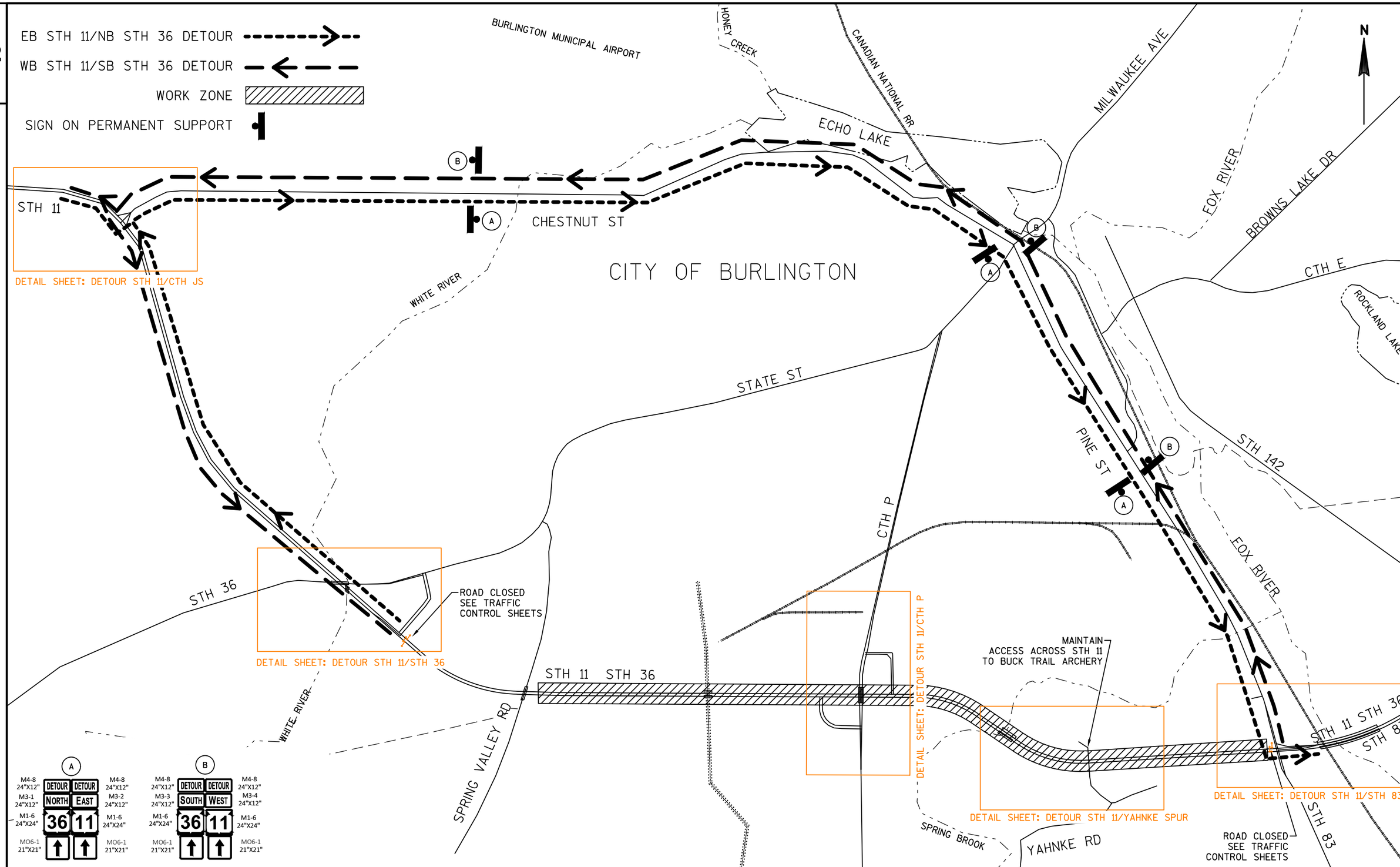
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - at STH 83a
PLOT DATE : 4/30/2019 7:15 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:100 FT



NOTES:
SEE DETOUR SHEETS FOR MORE DETAILS

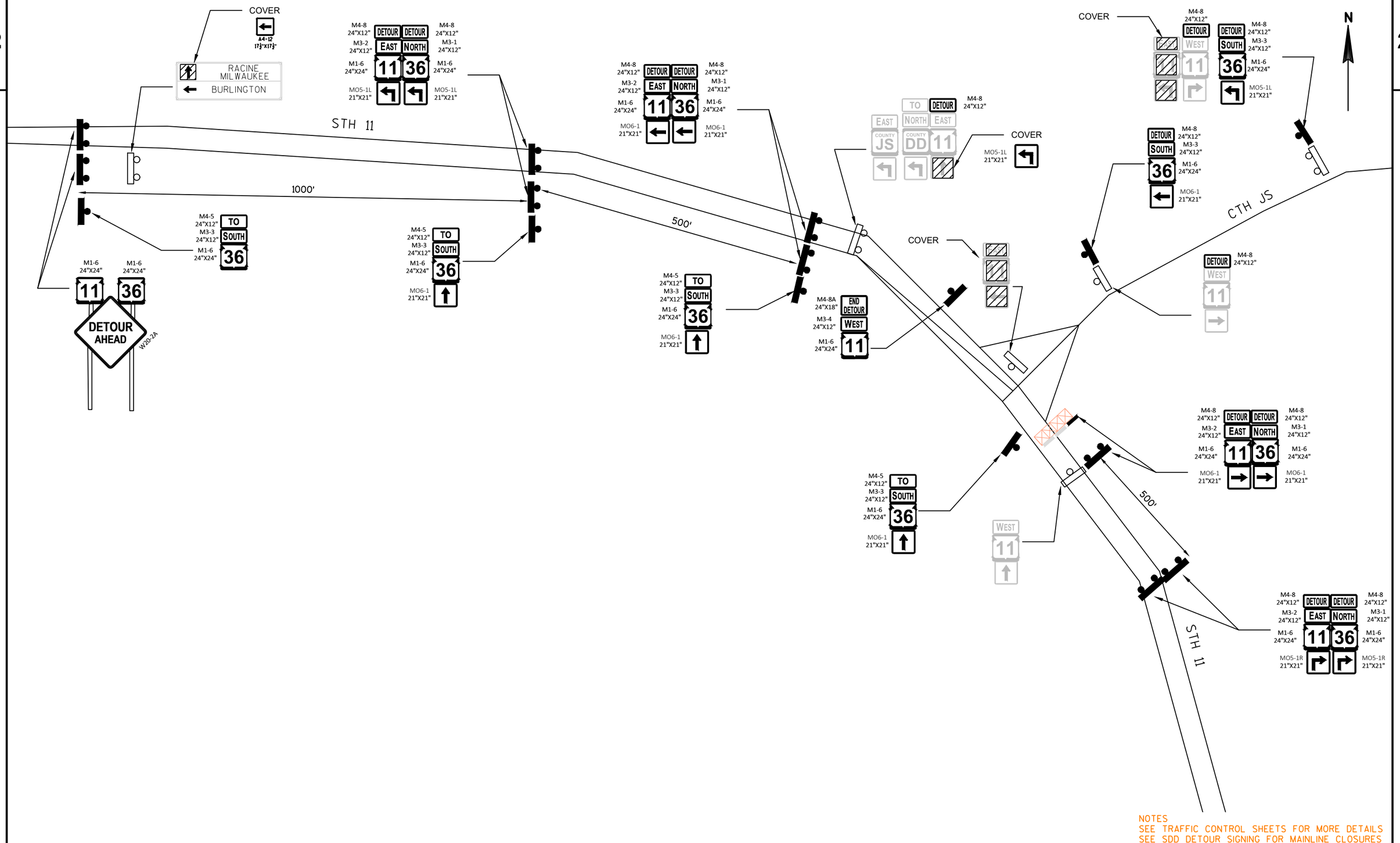
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - STH 11/STH 83	SHEET 52	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\025001_TC.DWG
LAYOUT NAME - at STH 83b
PLOT DATE : 4/30/2019 7:15 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



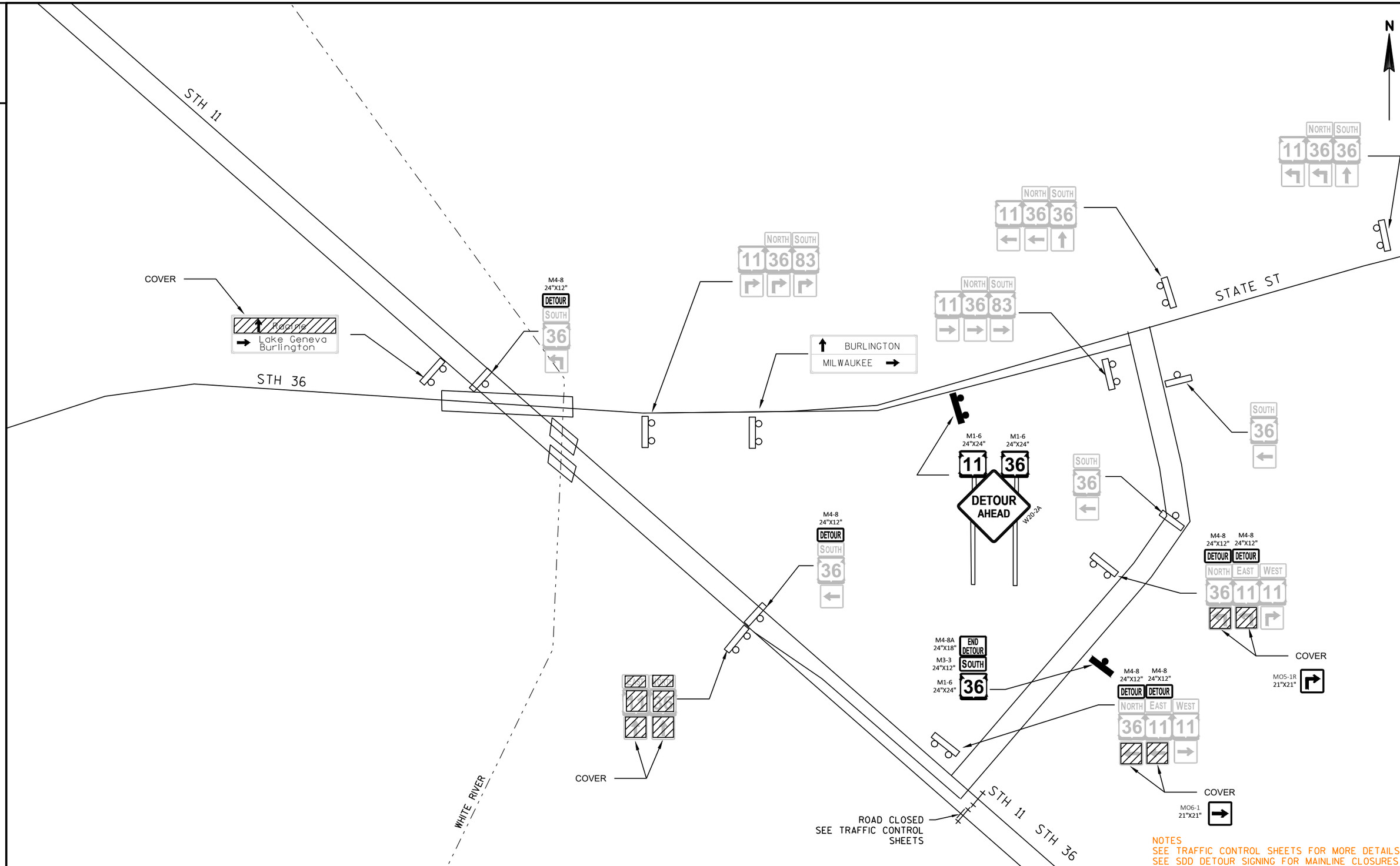
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	DETOUR OVERVIEW	SHEET 53	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - ****
PLOT DATE : 9/30/2019 3:09 PM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1:1500
WISDOT/CADDS SHEET 42



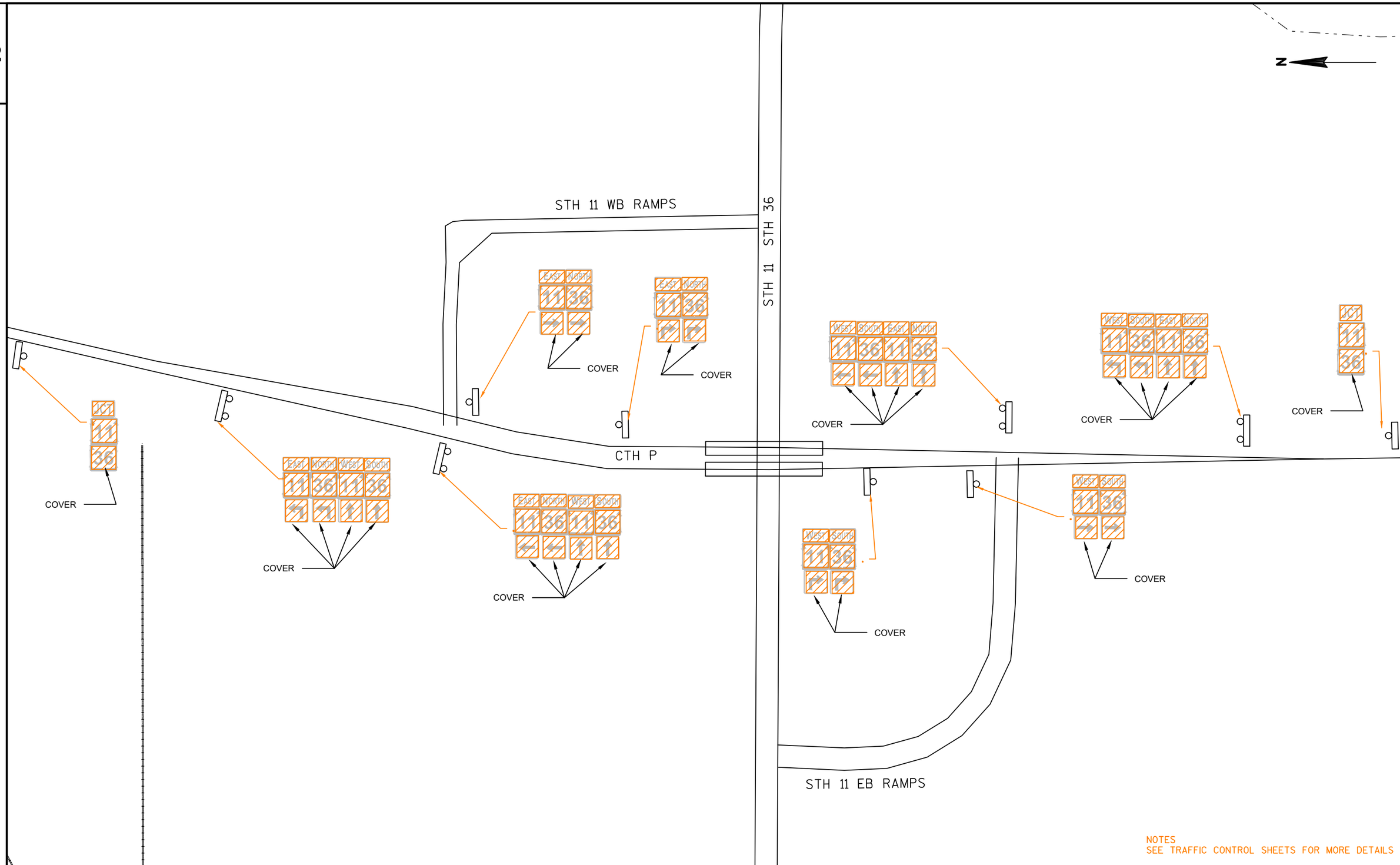
NOTES
SEE TRAFFIC CONTROL SHEETS FOR MORE DETAILS
SEE SDD DETOUR SIGNING FOR MAINLINE CLOSURES

PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	DETOUR: STH 11/CTH JS	SHEET 54	E



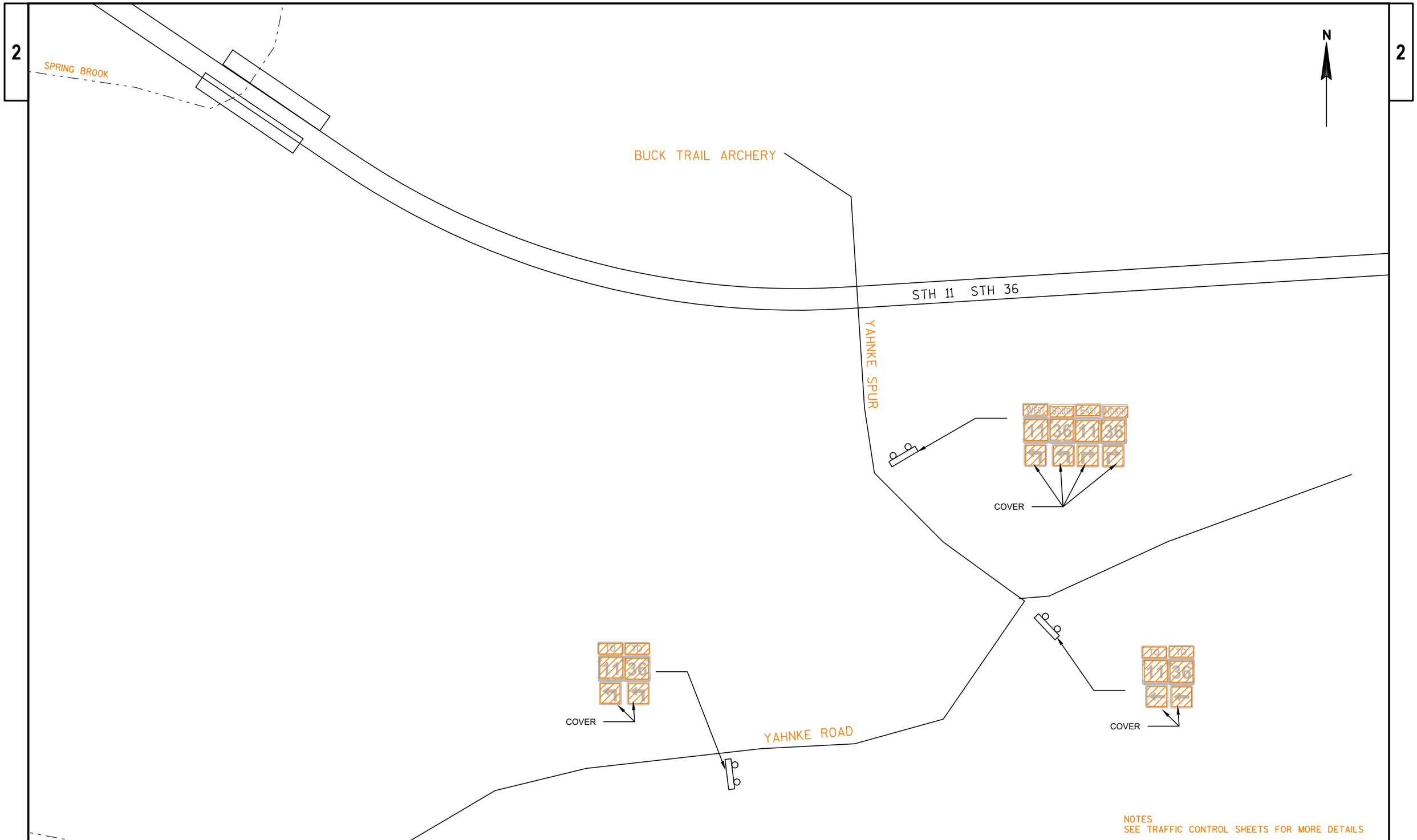
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	DETOUR: STH 11/STH 36	SHEET 55	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - STH11DETOURSat36
PLOT DATE : 9/30/2019 10:23 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



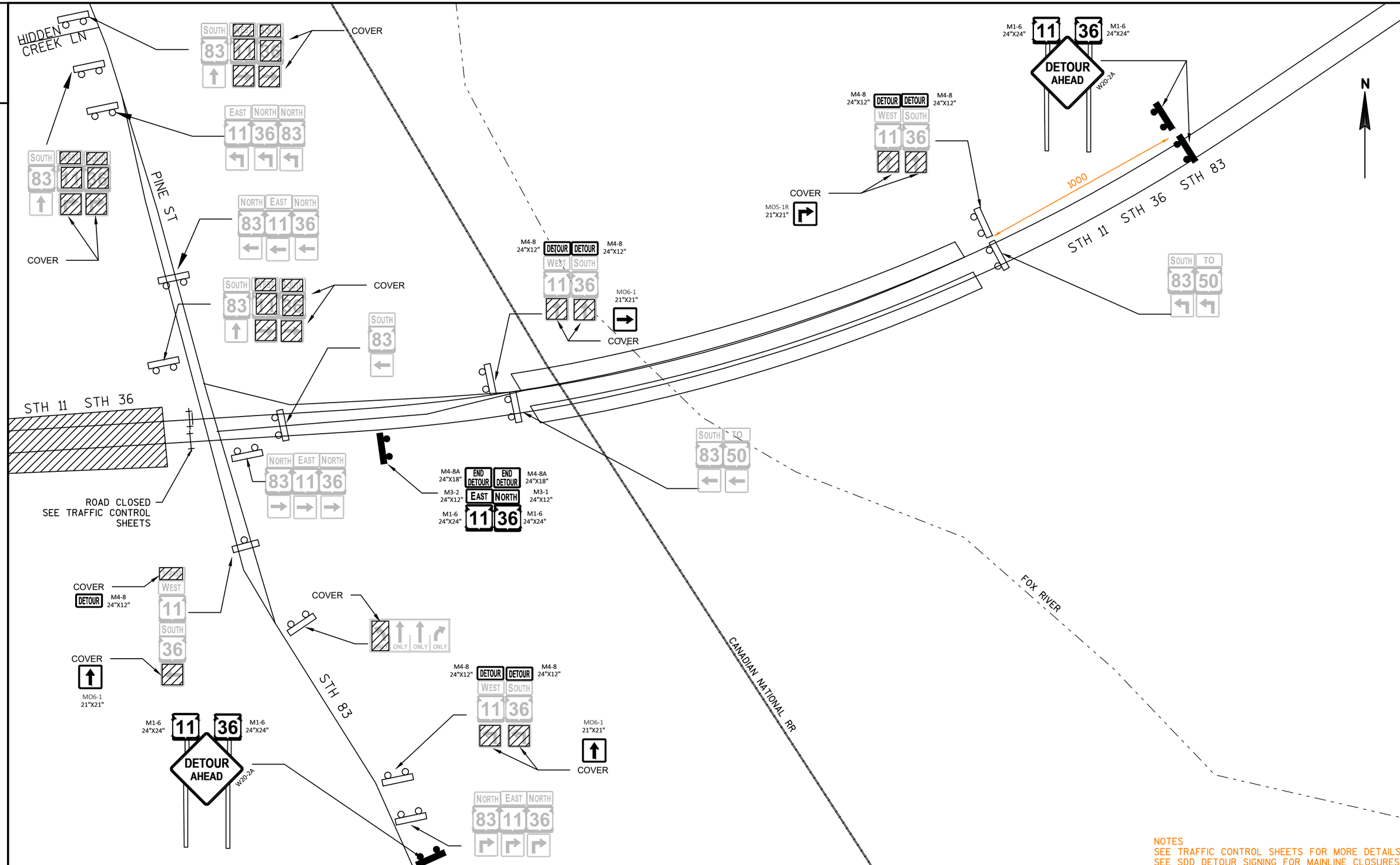
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	DETOUR - STH 11/CTH P	SHEET 56	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - ****
PLOT DATE : 9/30/2019 10:23 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:200 FT



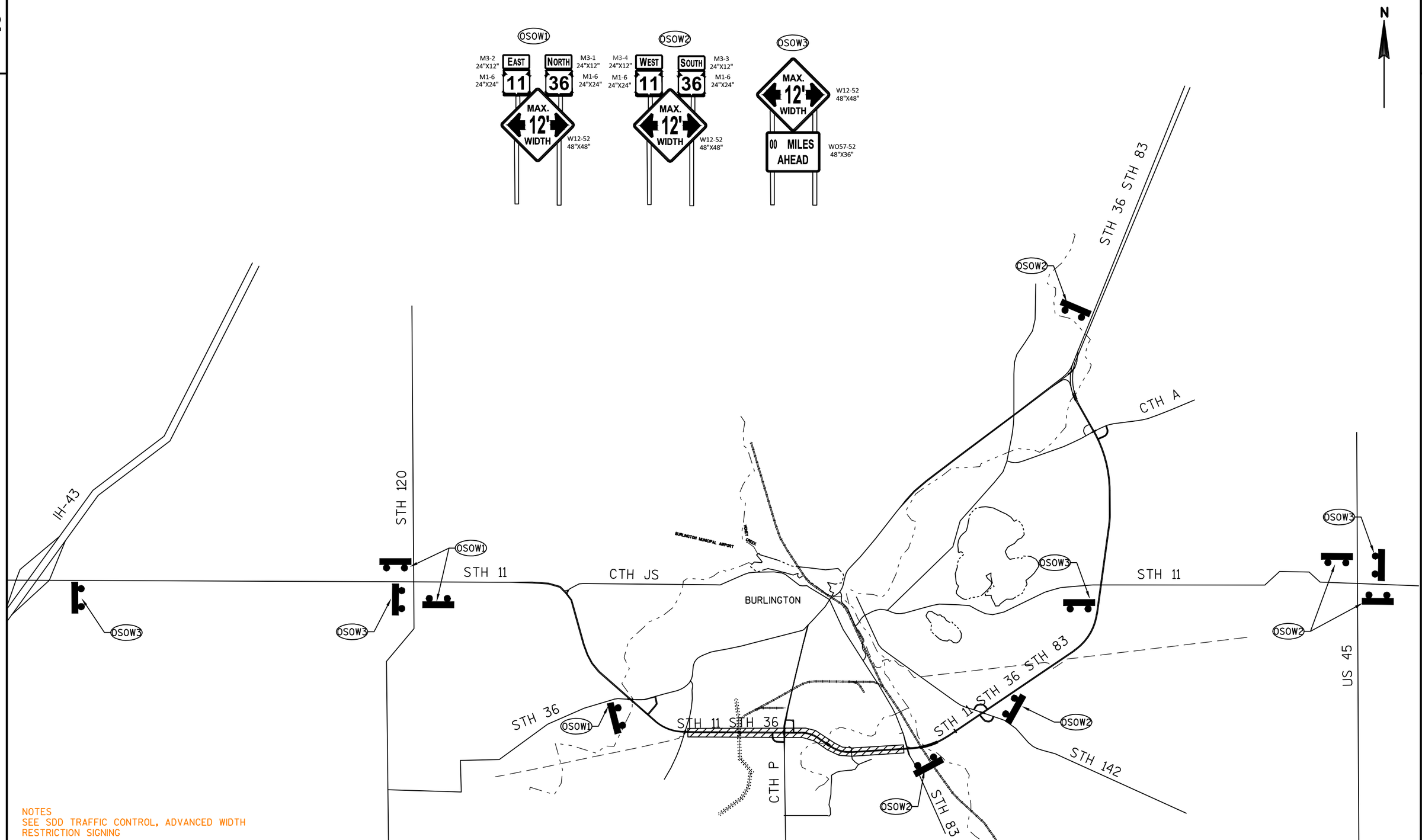
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	DETOUR - STH 11/YAHNKE SPUR	SHEET 57	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - STH11DETOURSatYAHNKE
PLOT DATE : 9/30/2019 10:23 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	DETOUR: STH 11/STH 83	SHEET 58	E

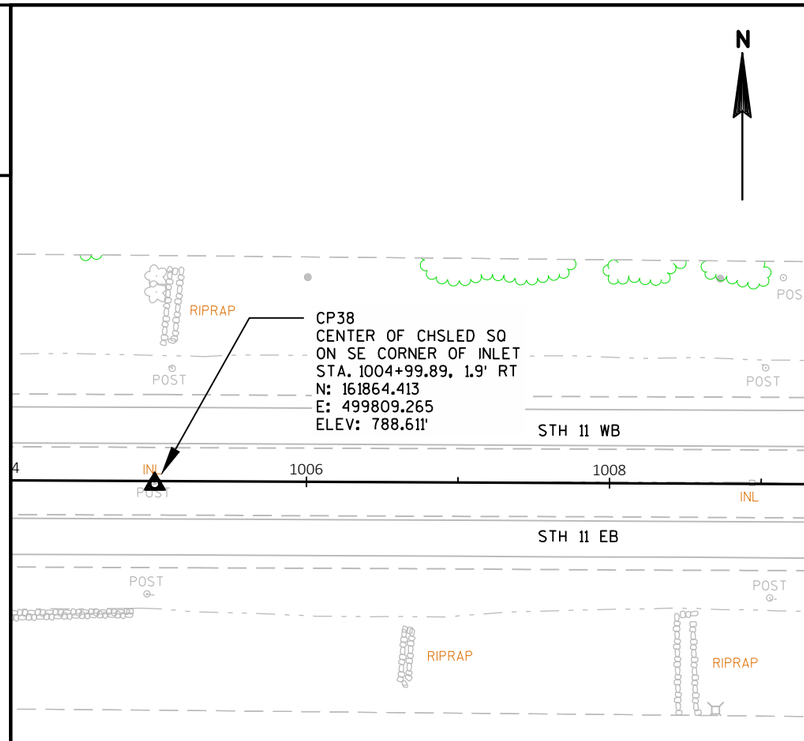
FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027001_DT.DWG
LAYOUT NAME - STH11DETOURSat83
PLOT DATE : 9/30/2019 10:23 AM PLOT BY : ROTIER, STEVEN J PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

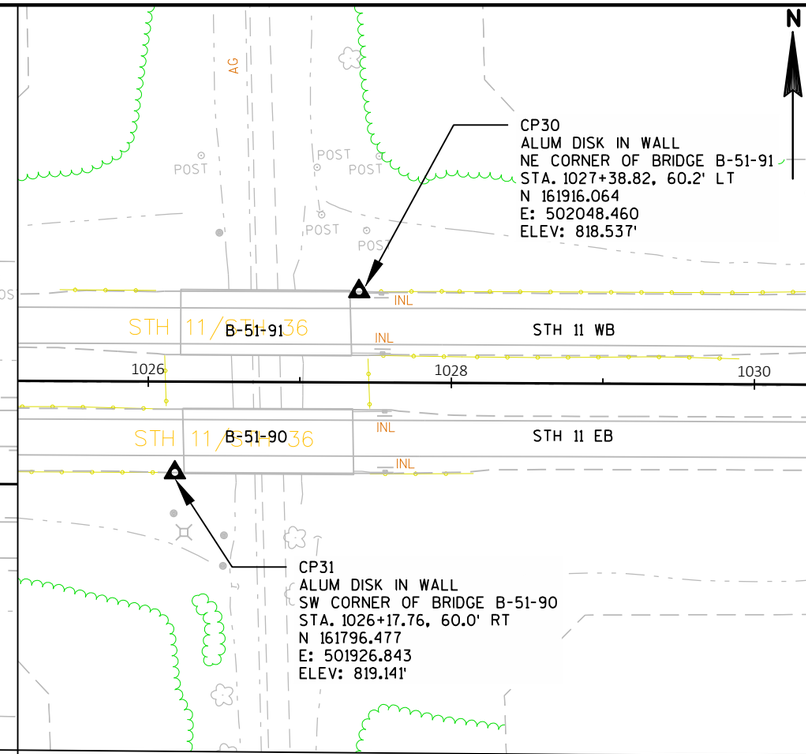


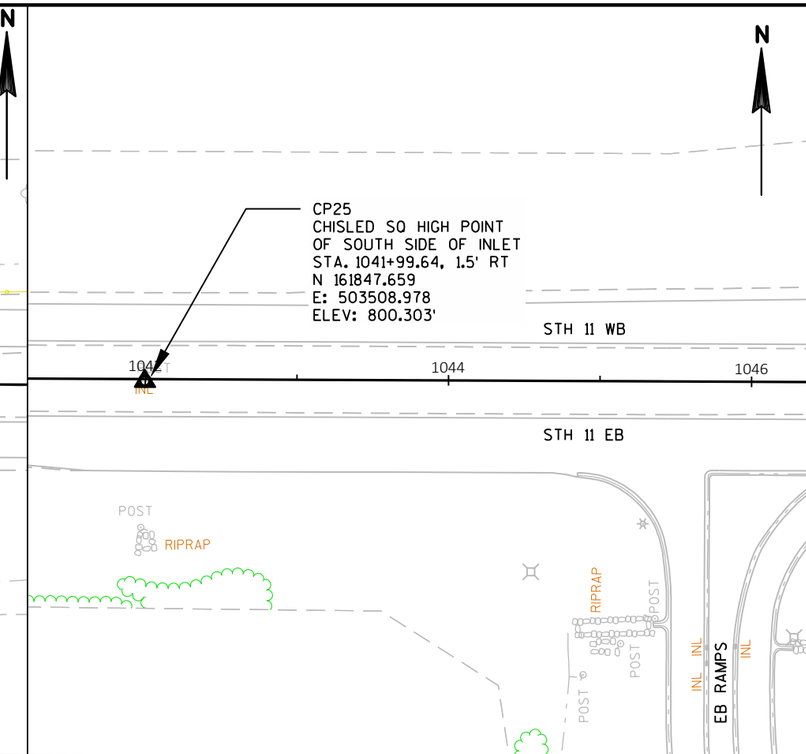
NOTES
SEE SDD TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING

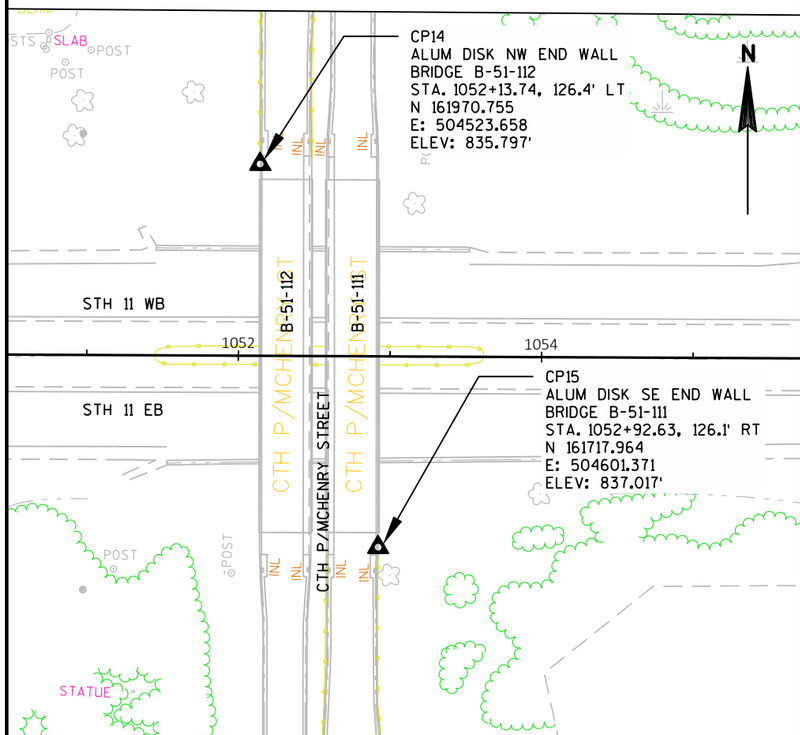
PROJECT NO:3180-00-74	HWY:STH 11	COUNTY:RACINE	DETOUR - OSOW SIGNING	SHEET 59	E

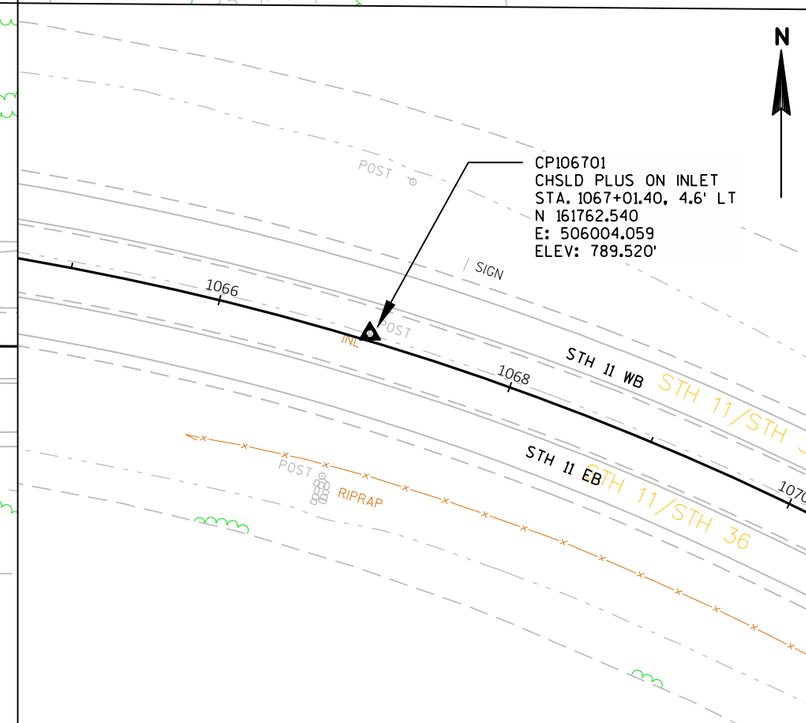
2

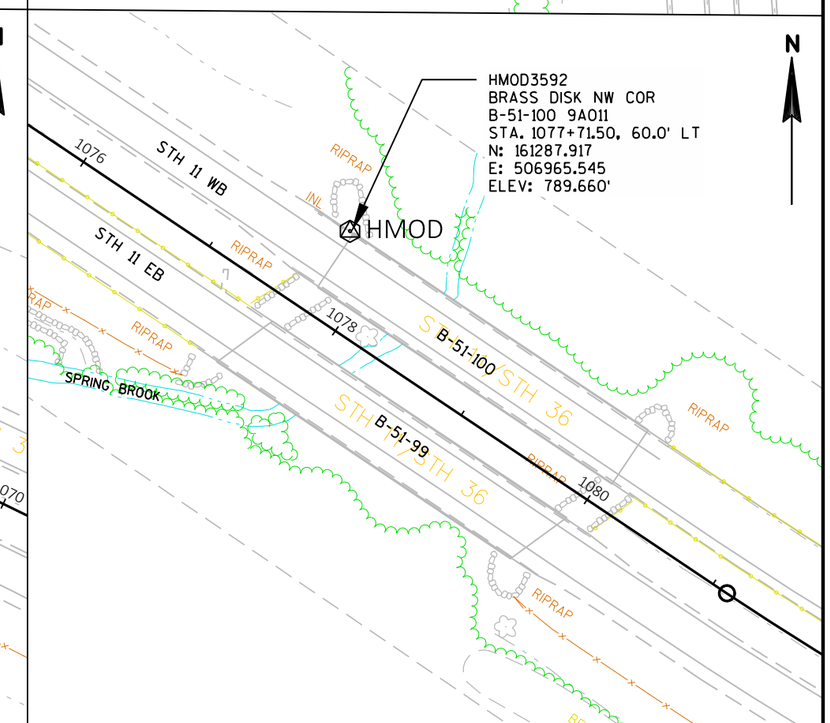








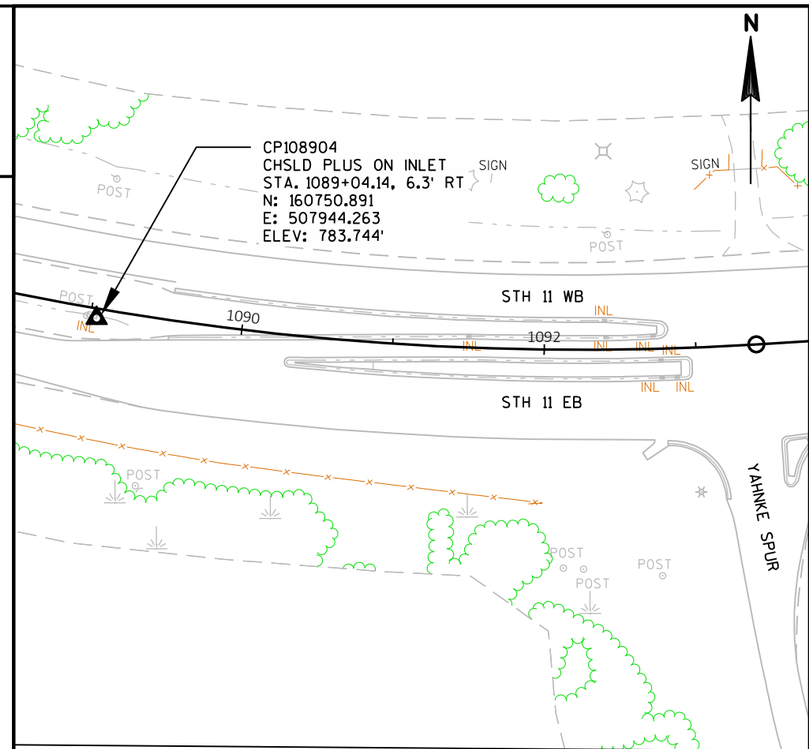


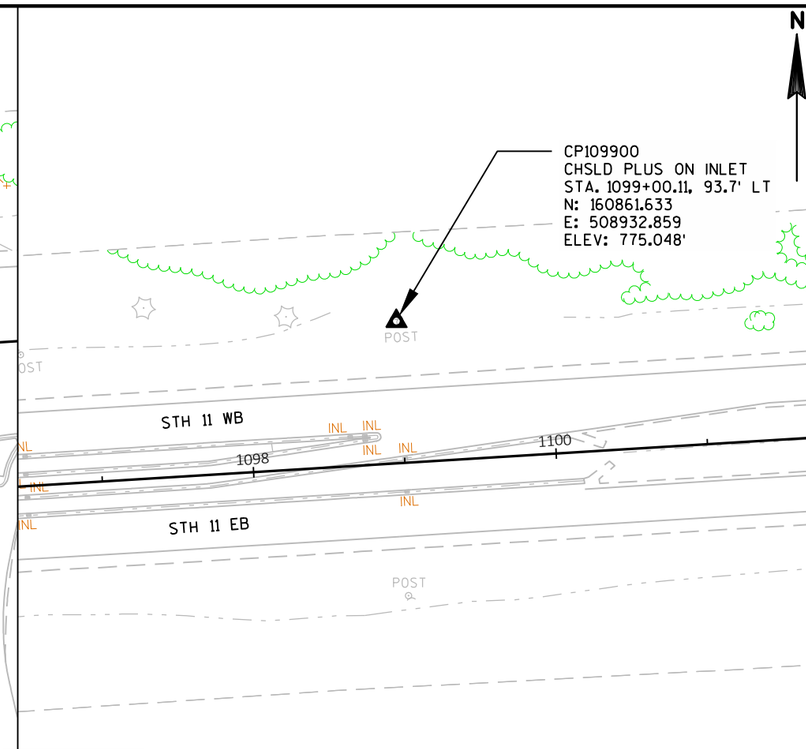


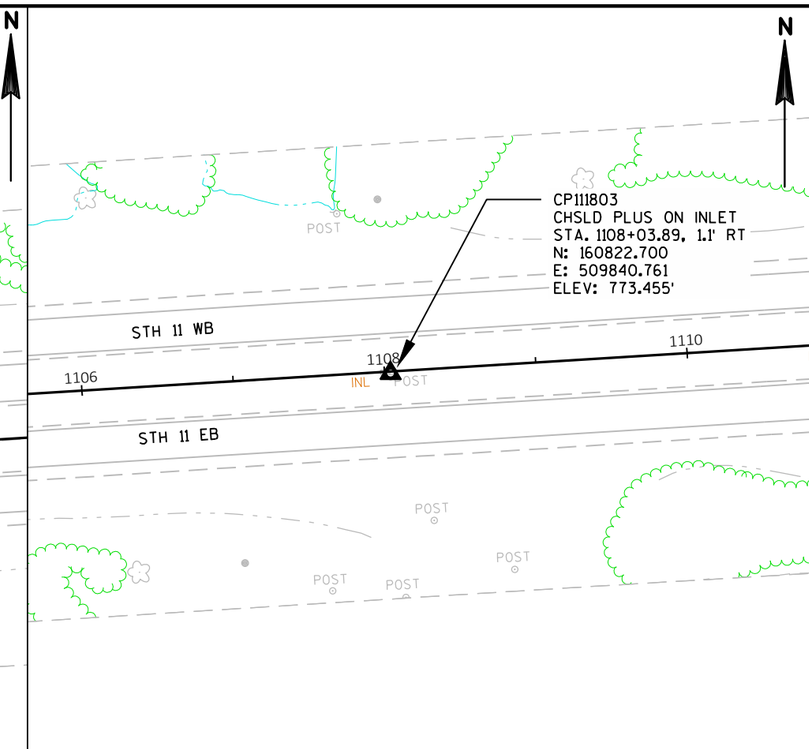
2

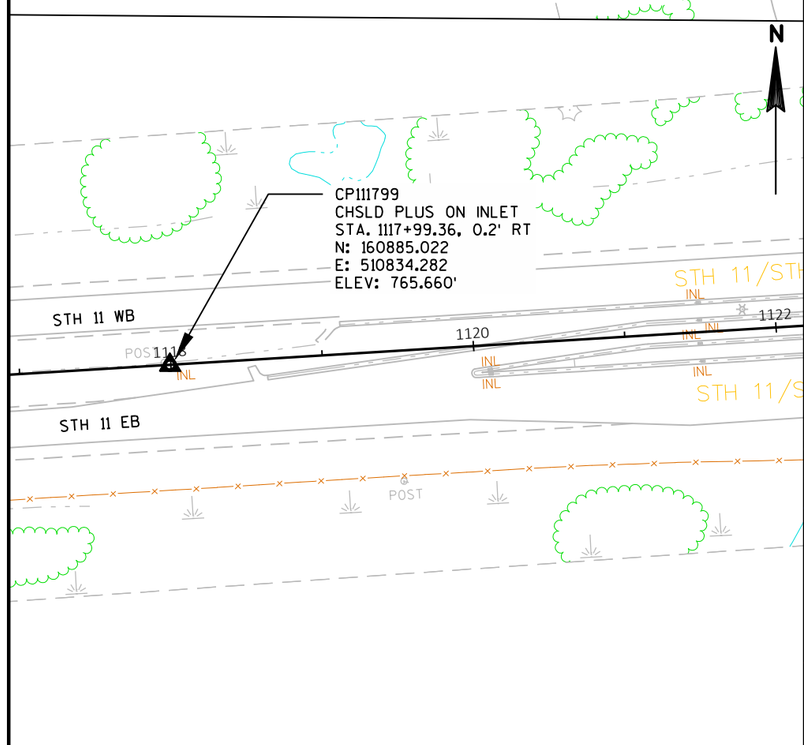
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	ALIGNMENT LAYOUT SURVEY CONTROL	SHEET 60	E

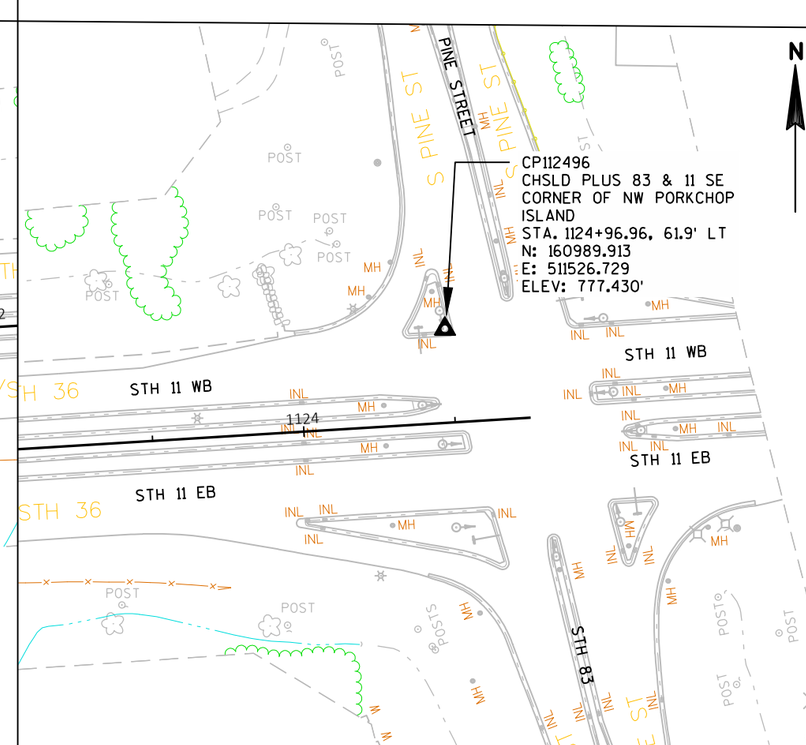
2



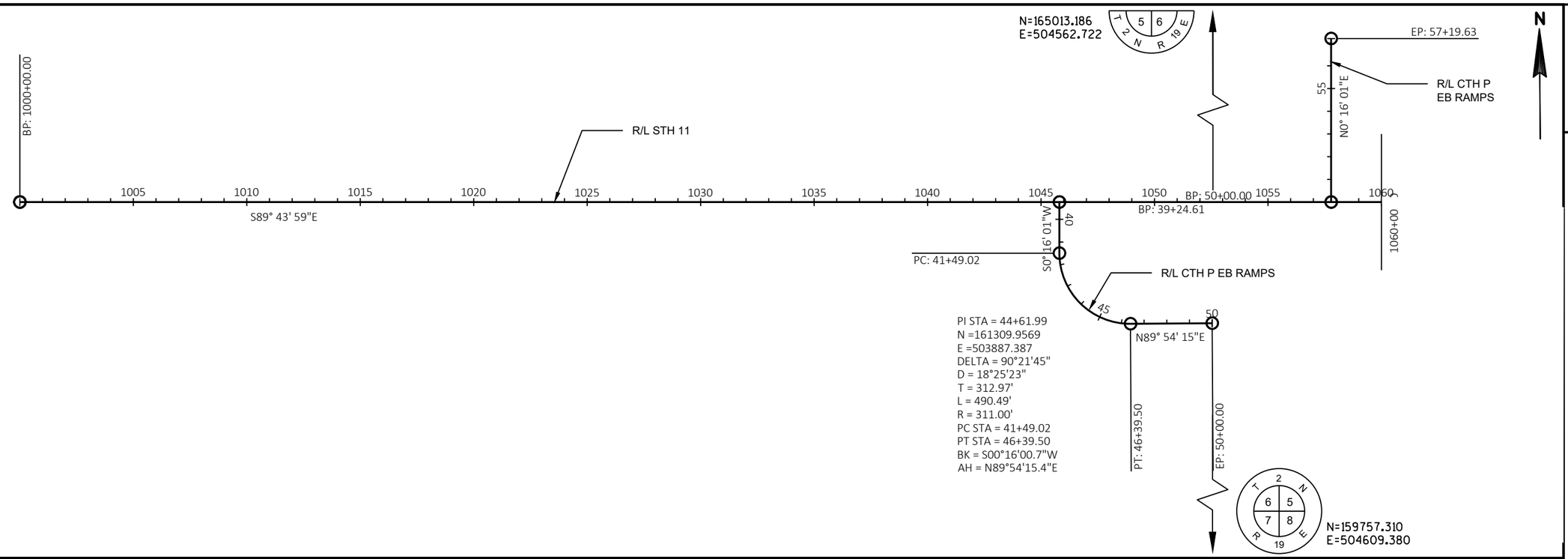


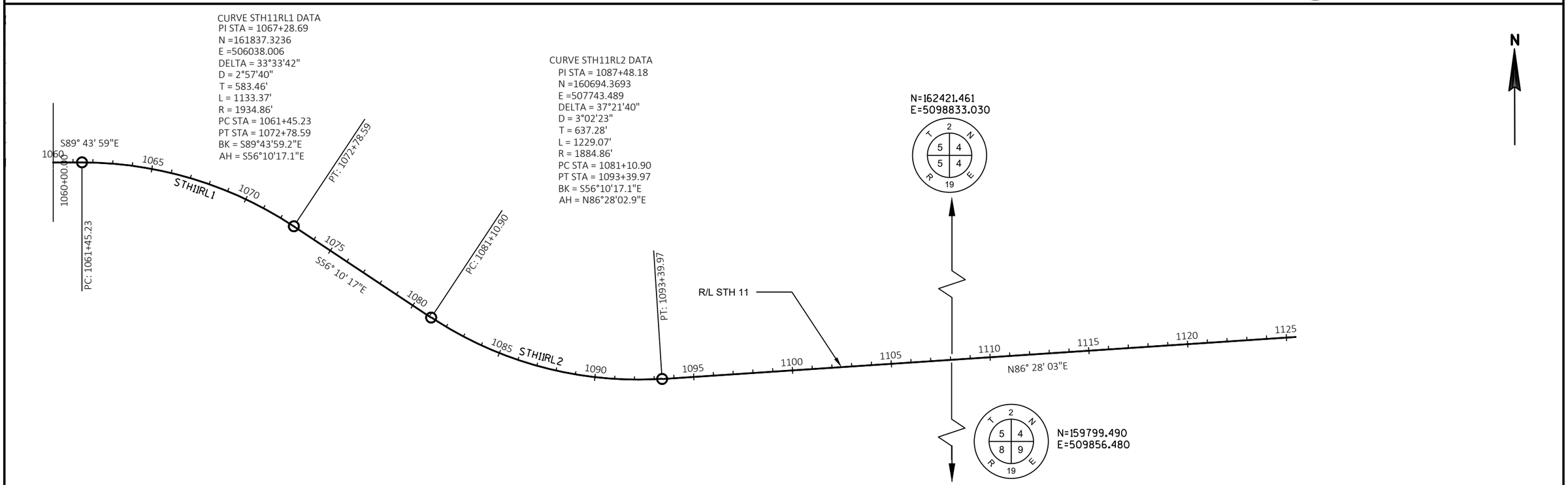






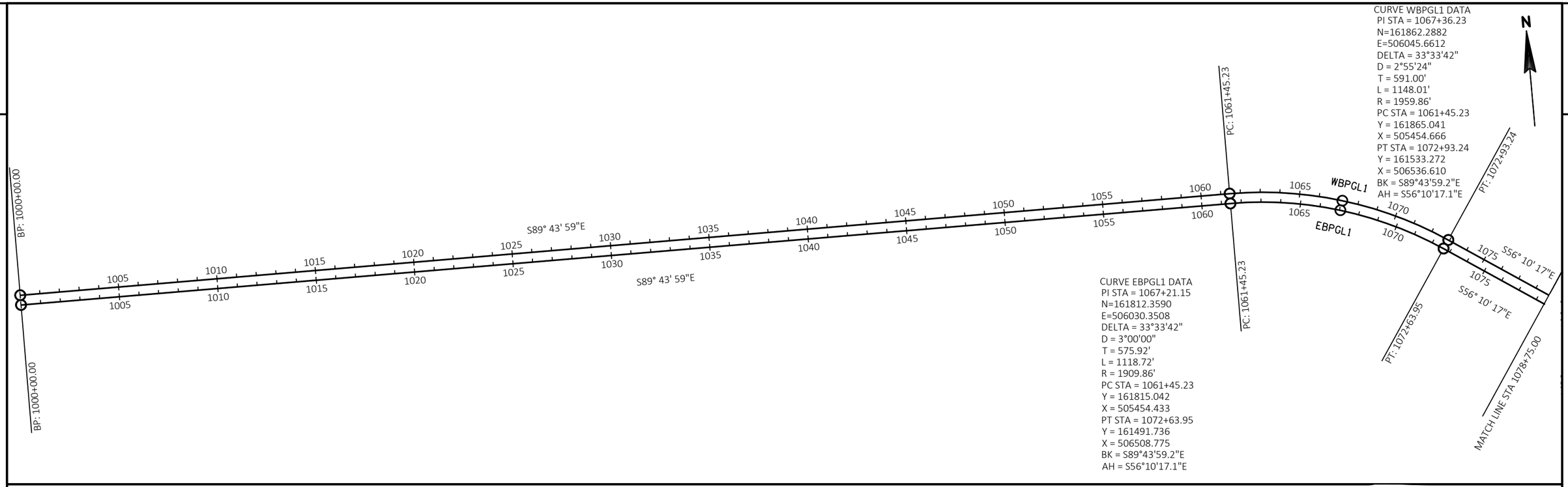
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	ALIGNMENT LAYOUT SURVEY CONTROL	SHEET 61	E

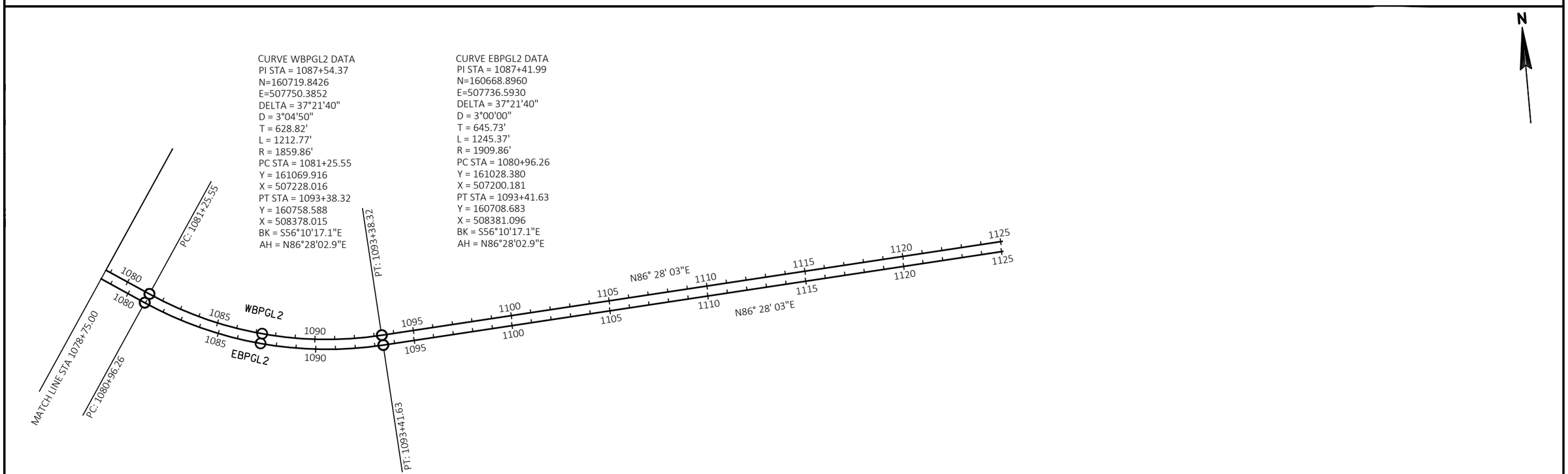




PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	ALIGNMENT - STH 11 R/L	SHEET 62	E

2





PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	ALIGNMENT - EB PGL & WB PGL	SHEET 63	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\027202_AD.DWG
LAYOUT NAME - PGL1
PLOT DATE : 4/30/2019 7:32 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:500 FT

Estimate Of Quantities

3180-00-74

Line	Item	Item Description	Unit	Total	Qty
0002	204.0109.S	Removing Concrete Surface Partial Depth	SF	2,040.000	2,040.000
0004	204.0110	Removing Asphaltic Surface	SY	70,116.000	70,116.000
0006	204.0125	Removing Asphaltic Surface Milling	TON	2,372.000	2,372.000
0008	204.9105.S	Removing (item description) 01. LOOP DETECTOR WIRE & LEAD-IN CABLE STH 11/36/83 & STH 83/PINE ST	LS	1.000	1.000
0010	205.0100	Excavation Common	CY	36.000	36.000
0012	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 3180-00-74	LS	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 3180-00-74	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,280.000	1,280.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,037.000	4,037.000
0020	390.0203	Base Patching Asphaltic	SY	208.000	208.000
0022	455.0605	Tack Coat	GAL	11,310.000	11,310.000
0024	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	3.000	3.000
0026	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	3.000	3.000
0028	460.2005	Incentive Density PWL HMA Pavement	DOL	27,360.000	27,360.000
0030	460.2010	Incentive Air Voids HMA Pavement	DOL	34,310.000	34,310.000
0032	460.6223	HMA Pavement 3 MT 58-28 S	TON	23,560.000	23,560.000
0034	460.6224	HMA Pavement 4 MT 58-28 S	TON	10,740.000	10,740.000
0036	465.0400	Asphaltic Shoulder Rumble Strips	LF	35,710.000	35,710.000
0038	618.0100	Maintenance And Repair of Haul Roads (project) 01. 3180-00-74	EACH	1.000	1.000
0040	619.1000	Mobilization	EACH	1.000	1.000
0042	625.0100	Topsoil	SY	280.000	280.000
0044	627.0200	Mulching	SY	280.000	280.000
0046	628.1504	Silt Fence	LF	300.000	300.000
0048	628.7010	Inlet Protection Type B	EACH	12.000	12.000
0050	628.7015	Inlet Protection Type C	EACH	35.000	35.000
0052	628.7020	Inlet Protection Type D	EACH	6.000	6.000
0054	629.0210	Fertilizer Type B	CWT	0.180	0.180
0056	630.0130	Seeding Mixture No. 30	LB	5.000	5.000
0058	630.0500	Seed Water	MGAL	6.000	6.000
0060	642.5201	Field Office Type C	EACH	1.000	1.000
0062	643.0300	Traffic Control Drums	DAY	14,700.000	14,700.000
0064	643.0420	Traffic Control Barricades Type III	DAY	5,450.000	5,450.000
0066	643.0705	Traffic Control Warning Lights Type A	DAY	7,500.000	7,500.000
0068	643.0715	Traffic Control Warning Lights Type C	DAY	2,950.000	2,950.000
0070	643.0800	Traffic Control Arrow Boards	DAY	250.000	250.000
0072	643.0900	Traffic Control Signs	DAY	15,750.000	15,750.000
0074	643.0920	Traffic Control Covering Signs Type II	EACH	86.000	86.000

3180-00-74

Line	Item	Item Description	Unit	Total	Qty
0076	643.1000	Traffic Control Signs Fixed Message	SF	6.750	6.750
0078	643.1050	Traffic Control Signs PCMS	DAY	128.000	128.000
0080	643.5000	Traffic Control	EACH	1.000	1.000
0082	646.1020	Marking Line Epoxy 4-Inch	LF	56,684.000	56,684.000
0084	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	6,710.000	6,710.000
0086	646.3020	Marking Line Epoxy 8-Inch	LF	1,204.000	1,204.000
0088	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	6,153.000	6,153.000
0090	646.5020	Marking Arrow Epoxy	EACH	20.000	20.000
0092	646.5120	Marking Word Epoxy	EACH	7.000	7.000
0094	646.6120	Marking Stop Line Epoxy 18-Inch	LF	132.000	132.000
0096	646.7120	Marking Diagonal Epoxy 12-Inch	LF	255.000	255.000
0098	646.8020	Marking Corrugated Median Epoxy	SF	105.000	105.000
0100	646.8220	Marking Island Nose Epoxy	EACH	5.000	5.000
0102	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	1,663.000	1,663.000
0104	646.9100	Marking Removal Line 8-Inch	LF	518.000	518.000
0106	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	2,775.000	2,775.000
0108	650.5000	Construction Staking Base	LF	20,592.000	20,592.000
0110	650.9910	Construction Staking Supplemental Control (project) 01. 3180-00-74	LS	1.000	1.000
0112	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	57.000	57.000
0114	652.0800	Conduit Loop Detector	LF	176.000	176.000
0116	653.0135	Pull Boxes Steel 24x36-Inch	EACH	2.000	2.000
0118	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0120	655.0700	Loop Detector Lead In Cable	LF	1,096.000	1,096.000
0122	655.0800	Loop Detector Wire	LF	704.000	704.000
0124	690.0150	Sawing Asphalt	LF	850.000	850.000
0126	740.0440	Incentive IRI Ride	DOL	14,960.000	14,960.000
0128	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	800.000	800.000
0130	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,000.000	1,000.000

3

REMOVING CONCRETE SURFACE PARTIAL DEPTH

LOCATION	STA	TO	STA	204.0109.S.01 REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
STH 11 EASTBOUND				
	967+40	TO	970+00	2,040
			TOTAL	2,040

REMOVING ASPHALTIC SURFACE

LOCATION	STA	TO	STA	204.0110 REMOVING ASPHALTIC SURFACE SY
STH 11 EASTBOUND				
MAINLANES	1021+45	TO	1026+04	1,285
MAINLANES	1027+48	TO	1077+35	14,043
MAINLANES	1080+08	TO	1124+40	13,205
OFF-RAMP AT CTH P	1040+05	TO	1045+75	900
ON-RAMP AT CTH P	1046+00	TO	1060+24	1,494
LEFT TURN LANE AT YAHNKE SPUR	1088+83	TO	1093+00	556
RIGHT TURN LANE AT YAHNKE SPUR	1087+84	TO	1095+30	850
LEFT TURN LANE AT STH 83	1117+26	TO	1124+25	932
RIGHT TURN LANE AT STH 83	1119+92	TO	1124+80	617
STH 11 WESTBOUND				
MAINLANES	1021+45	TO	1026+04	1,285
MAINLANES	1027+48	TO	1077+59	14,124
MAINLANES	1080+22	TO	1124+30	16,370
ON-RAMP AT CTH P	1043+00	TO	1057+25	1,489
OFF-RAMP AT CTH P	1058+00	TO	1064+00	867
LEFT TURN LANE AT YAHNKE SPUR	1094+00	TO	1101+57	1,009
RIGHT TURN LANE AT YAHNKE SPUR	1092+58	TO	1096+30	496
RIGHT TURN LANE AT STH 83	1123+05	TO	1124+30	128
STH 11 INTERSECTION AT YAHNKE SPUR	1093+00	TO	1094+00	467
TOTAL				70,116

REMOVING ASPHALTIC SURFACE MILLING

LOCATION	STA	TO	STA	204.0125 REMOVING ASPHALTIC SURFACE MILLING TON
STH 11 EASTBOUND				
6-FT LEFT SHOULDER (TYP)	1021+45	TO	1026+04	28
3-FT LEFT SHOULDER (TYP)	1027+48	TO	1074+00	174
8-FT LEFT SHOULDER (TYP)	1074+00	TO	1077+35	23
3-FT LEFT SHOULDER (TYP)	1080+08	TO	1089+00	34
3-FT LEFT SHOULDER (TYP)	1100+30	TO	1117+30	63
10-FT RIGHT SHOULDER (TYP)	1021+45	TO	1026+04	59
8-FT RIGHT SHOULDER (TYP)	1027+48	TO	1040+50	131
8-FT RIGHT SHOULDER (TYP)	1047+75	TO	1074+67	261
10-FT RIGHT SHOULDER (TYP)	1074+67	TO	1077+35	46
8-FT RIGHT SHOULDER (TYP)	1080+08	TO	1088+50	84
8-FT RIGHT SHOULDER (TYP)	1094+75	TO	1120+50	258
STH 11 WESTBOUND				
3-FT LEFT SHOULDER (TYP)	1021+45	TO	1026+04	12
6-FT LEFT SHOULDER (TYP)	1027+48	TO	1030+50	22
3-FT LEFT SHOULDER (TYP)	1030+50	TO	1077+59	173
6-FT LEFT SHOULDER (TYP)	1080+22	TO	1083+00	26
3-FT LEFT SHOULDER (TYP)	1083+00	TO	1089+25	23
3-FT LEFT SHOULDER (TYP)	1101+60	TO	1118+80	62
8-FT RIGHT SHOULDER (TYP)	1021+45	TO	1026+04	32
10-FT RIGHT SHOULDER (TYP)	1027+48	TO	1031+25	46
8-FT RIGHT SHOULDER (TYP)	1031+25	TO	1055+75	255
8-FT RIGHT SHOULDER (TYP)	1063+00	TO	1077+59	145
8-FT RIGHT SHOULDER (TYP)	1080+22	TO	1085+50	52
10-FT RIGHT SHOULDER (TYP)	1085+50	TO	1088+28	35
8-FT RIGHT SHOULDER (TYP)	1088+28	TO	1092+75	44
8-FT RIGHT SHOULDER (TYP)	1095+50	TO	1123+75	279
TOTAL				2,372

3

3

PREPARE FOUNDATION FOR ASPHALTIC PAVING

LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING LS
PROJECT	1
TOTAL	1

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY (3180-00-74) EACH
PROJECT	1
TOTAL	1

BASE AGGREGATE

LOCATION	STA	TO	STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
STH 11 EASTBOUND					
	1021+45	TO	1026+04	30	71
	1027+48	TO	1077+35	323	913
	1080+08	TO	1124+40	287	911
STH 11 WESTBOUND					
	1021+45	TO	1026+04	30	71
	1027+48	TO	1077+59	325	916
	1080+22	TO	1124+30	286	1,013
TOTAL				1,280	3,966

*ADDITIONAL QUANTITY SHOWN ELSEWHERE

3

BASE PATCHING

LOCATION	STA	TO	STA	205.0100 EXCAVATION COMMON CY	* 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	390.0203 BASE PATCHING ASPHALTIC SY
STH 11 WESTBOUND						
	1000+00	TO	1002+00	-	-	34
	1002+00	TO	1004+00	-	-	40
	1006+00	TO	1008+00	-	-	34
	UNDISTRIBUTED**			36	71	100
TOTAL				36	71	208

*ADDITIONAL QUANTITY SHOWN ELSEWHERE

**ITEMS USED FOR BASE PATCHING LOCATIONS WHERE THERE IS POOR SUBGRADE MATERIAL AS DETERMINED BY THE ENGINEER

3

ASPHALTIC ITEMS

LOCATION	STA	TO	STA	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
STH 11 EASTBOUND						
MAINLANES	1021+45	TO	1026+04	180	432	158
MAINLANES	1027+48	TO	1077+35	1,966	4,718	1,730
MAINLANES	1080+08	TO	1124+40	1,849	4,437	1,627
OFF-RAMP AT CTH P	1040+05	TO	1045+75	126	302	111
ON-RAMP AT CTH P	1046+00	TO	1060+24	209	502	184
LEFT TURN LANE AT YAHNKE SPUR	1088+83	TO	1093+00	78	187	68
RIGHT TURN LANE AT YAHNKE SPUR	1087+84	TO	1095+30	119	286	105
LEFT TURN LANE AT STH 83	1117+26	TO	1124+25	130	313	115
RIGHT TURN LANE AT STH 83	1119+92	TO	1124+80	86	207	76
6-FT LEFT SHOULDER (TYP)	1021+45	TO	1026+04	17	--	30
3-FT LEFT SHOULDER (TYP)	1027+48	TO	1074+00	109	--	192
8-FT LEFT SHOULDER (TYP)	1074+00	TO	1077+35	14	--	25
3-FT LEFT SHOULDER (TYP)	1080+08	TO	1089+00	21	--	38
3-FT LEFT SHOULDER (TYP)	1100+30	TO	1117+30	40	--	70
10-FT RIGHT SHOULDER (TYP)	1021+45	TO	1026+04	37	--	65
8-FT RIGHT SHOULDER (TYP)	1027+48	TO	1040+50	82	--	145
8-FT RIGHT SHOULDER (TYP)	1047+75	TO	1074+67	163	--	287
10-FT RIGHT SHOULDER (TYP)	1074+67	TO	1077+35	29	--	51
8-FT RIGHT SHOULDER (TYP)	1080+08	TO	1088+50	53	--	93
8-FT RIGHT SHOULDER (TYP)	1094+75	TO	1120+50	161	--	284

ASPHALTIC ITEMS

LOCATION	STA	TO	STA	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
STH 11 WESTBOUND						
MAINLANES	1021+45	TO	1026+04	195	432	167
MAINLANES	1027+48	TO	1077+59	1,977	4,746	1,582
MAINLANES	1080+22	TO	1124+30	2,292	5,500	1,833
ON-RAMP AT CTH P	1043+00	TO	1057+25	208	500	167
OFF-RAMP AT CTH P	1058+00	TO	1064+00	121	291	97
LEFT TURN LANE AT YAHNKE SPUR	1094+00	TO	1101+57	141	339	113
RIGHT TURN LANE AT YAHNKE SPUR	1092+58	TO	1096+30	69	167	56
RIGHT TURN LANE AT STH 83	1123+05	TO	1124+30	18	43	14
3-FT LEFT SHOULDER (TYP)	1021+45	TO	1026+04	8	--	12
6-FT LEFT SHOULDER (TYP)	1027+48	TO	1030+50	14	--	22
3-FT LEFT SHOULDER (TYP)	1030+50	TO	1077+59	108	--	173
6-FT LEFT SHOULDER (TYP)	1080+22	TO	1083+00	16	--	26
3-FT LEFT SHOULDER (TYP)	1083+00	TO	1089+25	15	--	23
3-FT LEFT SHOULDER (TYP)	1101+60	TO	1118+80	39	--	62
8-FT RIGHT SHOULDER (TYP)	1021+45	TO	1026+04	20	--	32
10-FT RIGHT SHOULDER (TYP)	1027+48	TO	1031+25	29	--	46
8-FT RIGHT SHOULDER (TYP)	1031+25	TO	1055+75	160	--	255
8-FT RIGHT SHOULDER (TYP)	1063+00	TO	1077+59	91	--	145
8-FT RIGHT SHOULDER (TYP)	1080+22	TO	1085+50	33	--	52
10-FT RIGHT SHOULDER (TYP)	1085+50	TO	1088+28	22	--	35
8-FT RIGHT SHOULDER (TYP)	1088+28	TO	1092+75	28	--	44
8-FT RIGHT SHOULDER (TYP)	1095+50	TO	1123+75	174	--	279
STH 11 INTERSECTION AT YAHNKE SPUR	1093+00	TO	1094+00	65	157	52
TOTAL				11,310	23,560	10,740

3

3

HMA PERCENT WITHIN LIMITS

LOCATION	STATION RANGE	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	THICKNESS	TONS	QUALITY MANAGEMENT PROGRAM USED: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM USED: DENSITY ACCEPTANCE	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT DOL	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT DOL	460.0110.S.01 HMA PAVEMENT PWL TEST STRIP DENSITY EACH	460.0105.S.01 HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH
4-12' DRIVING LANES	1021+45 - 1125+00	LOWER	BASE AGGREGATE	3 MT 58-28S	2 3/4"	10,140	PWL INCENTIVE AIR VOIDS 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005	10,140	10,140	1	1
TURN LANES	1021+45 - 1125+00	LOWER	BASE AGGREGATE	3 MT 58-28S	2 3/4"	1,650	PWL INCENTIVE AIR VOIDS 460.2010	QMP AS PER SS 460	--	1,650		--
4-12' DRIVING LANES	1021+45 - 1125+00	LOWER UPPER	3 MT 58-28S	3 MT 58-28S	2 3/4"	10,140	PWL INCENTIVE AIR VOIDS 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005	10,140	10,140	1	1*
TURN LANES	1021+45 - 1125+00	LOWER UPPER	3 MT 58-28S	3 MT 58-28S	2 3/4"	1,650	PWL INCENTIVE AIR VOIDS 460.2010	QMP AS PER SS 460	--	1,650		--
4-12' DRIVING LANES	1021+45 - 1125+00	UPPER UPPER	3 MT 58-28S	4 MT 58-28S	1 3/4"	7,080	PWL INCENTIVE AIR VOIDS 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000	7,080	7,080	1	1
SHOULDER AND TURN LANES	1021+45 - 1125+00	UPPER UPPER	3 MT 58-28S	4 MT 58-28S	1 3/4"	3,650	PWL INCENTIVE AIR VOIDS 460.2010	QMP AS PER SS 460	--	3,650		--
TOTAL									27,360	34,310	3	3

*THIS TEST STRIP MAY OR MAY NOT BE REQUIRED BASED UPON CONTRACTOR OPERATION

3

ASPHALTIC RUMBLE STRIP

LOCATION	STA	TO	STA	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
STH 11 EASTBOUND				
LEFT SHOULDER	1021+45	TO	1025+75	430
LEFT SHOULDER	1027+75	TO	1077+00	4,925
LEFT SHOULDER	1080+30	TO	1117+25	2,545
RIGHT SHOULDER	1000+00	TO	1025+75	2,575
RIGHT SHOULDER	1027+75	TO	1077+00	4,125
RIGHT SHOULDER	1080+30	TO	1119+00	2,870
STH 11 WESTBOUND				
LEFT SHOULDER	1021+45	TO	1025+75	430
LEFT SHOULDER	1027+75	TO	1077+30	4,955
LEFT SHOULDER	1080+50	TO	1119+00	2,625
RIGHT SHOULDER	1000+00	TO	1025+75	2,575
RIGHT SHOULDER	1027+75	TO	1077+30	4,005
RIGHT SHOULDER	1080+50	TO	1122+00	3,650
TOTAL				35,710

INLET PROTECTION

LOCATION	STA	TO	STA	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
STH 11						
	967+00	TO	970+25	2	4	--
	1027+48	TO	1077+35	6	6	--
	1080+08	TO	1124+40	4	25	6
TOTAL				12	35	6

3

HAUL ROAD

LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
PROJECT	1
TOTAL	1

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
PROJECT	1
TOTAL	1

QMP INCENTIVE: IRI RIDE

LOCATION	740.0440 INCENTIVE IRI RIDE DOL
PROJECT	14,960
TOTAL	14,960

FIELD OFFICE

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
PROJECT	1
TOTAL	1

3

TRAFFIC CONTROL

LOCATION		DURATION # OF DAYS	643.0300 DRUMS EACH*	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III EACH*	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A EACH*	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C EACH*	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS EACH*	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS EACH*	643.0900 SIGNS DAYS	643.0920 COVERING SIGNS TYPE II EACH	643.1000 FIXED MESSAGE SIGN SF	643.1050 SIGNS PCMS EACH*	643.1050 SIGNS PCMS DAYS
STH 11 (INTERSECTION W/ STH 83)	ROAD & INSIDE LANE(S) CLOSURE	50	102	5,100	10	500	17	850	14	700	2	100	15	750	--	--	1	14
STH 83/PINE ST	TURN LANE CLOSURES	50	23	1,150	16	800	22	1,100	--	--	--	--	25	1,250	--	--	--	--
STH 11 AND CTH P EB RAMPS	ROAD AND TURN LANE CLOSURES	50	43	2,150	16	800	22	1,100	26	1,300	1	50	19	950	12	--	--	--
STH 11 AND CTH P WB RAMPS	ROAD AND TURN LANE CLOSURE	50	30	1,500	19	950	29	1,450	--	--	--	--	14	700	--	--	--	--
STH 11 AND STH 36	ROAD AND LANE CLOSURE(S)	50	88	4,400	16	800	22	1,100	19	950	2	100	20	1,000	--	--	2	100
STH 11 AND CTH JS	STH 11 WB TO CTH JS	50	--	--	3	150	6	300	--	--	--	--	3	150	--	6.75	1	14
STH 11 AND YAHNKE RD	ACCESS TO BUCK TRAIL ARCHERS	50	8	400	29	1,450	32	1,600	--	--	--	--	9	450	24	--	--	--
WB DETOUR ROUTE		50	--	--	--	--	--	--	--	--	--	--	24	1,200	--	--	--	--
WB DETOUR ROUTE	STH 11 / STH 83	50	--	--	--	--	--	--	--	--	--	--	29	1,450	1	--	--	--
WB DETOUR ROUTE	STH 11 / CTH JS	50	--	--	--	--	--	--	--	--	--	--	10	500	6	--	--	--
WB DETOUR ROUTE	STH 11 / STH 36	50	--	--	--	--	--	--	--	--	--	--	11	550	--	--	--	--
EB DETOUR ROUTE		50	--	--	--	--	--	--	--	--	--	--	24	1,200	--	--	--	--
EB DETOUR ROUTE	STH 11 / STH 83	50	--	--	--	--	--	--	--	--	--	--	6	300	36	--	--	--
EB DETOUR ROUTE	STH 11 / CTH JS	50	--	--	--	--	--	--	--	--	--	--	60	3,000	--	--	--	--
EB DETOUR ROUTE	STH 11 / STH 36	50	--	--	--	--	--	--	--	--	--	--	5	250	7	--	--	--
STH 11 AND IH 43		50	--	--	--	--	--	--	--	--	--	--	2	100	--	--	--	--
STH 11 AND STH 120		50	--	--	--	--	--	--	--	--	--	--	12	600	--	--	--	--
STH 11 AND STH 142		50	--	--	--	--	--	--	--	--	--	--	5	250	--	--	--	--
STH 11 AND STH 83		50	--	--	--	--	--	--	--	--	--	--	5	250	--	--	--	--
STH 11 AND US 45		50	--	--	--	--	--	--	--	--	--	--	12	600	--	--	--	--
STH 83 (NORTH OF FOX RIVER)		50	--	--	--	--	--	--	--	--	--	--	5	250	--	--	--	--
TOTAL				14,700		5,450		7,500		2,950		250		15,750	86	6.75		128

NOTES:

* FOR INFORMATION ONLY

3

TRAFFIC CONTROL

STAGE	LOCATION	643.5000 EACH
ALL	PROJECT	1
TOTAL		1

3

MARKING

STATION	TO	STATION	646.1020 LINE EPOXY 4-INCH (WHITE) LF	646.1020 LINE EPOXY 4-INCH (YELLOW) LF	646.1020 LINE EPOXY 4-INCH (12.5' LINE, 37.5' GAP) (WHITE)	646.1020 LINE EPOXY 4-INCH (3' LINE, 12' GAP) (WHITE)	646.1020 LINE EPOXY 4-INCH (3' LINE, 12' GAP) (YELLOW)	646.3020 LINE EPOXY 8-INCH (WHITE)	646.3020 LINE EPOXY 8-INCH (3' LINE, 12' GAP) (WHITE)	646.1545 LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH (12.5' LINE, 37.5' GAP) (WHITE) LF	646.1545 LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH (2' LINE, 6' GAP) (YELLOW) LF	646.3545 LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH (WHITE) LF	646.3545 LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 8-INCH (3' LINE, 9' GAP) (YELLOW) LF
947+25	TO	954+50	--	--	--	--	--	--	--	175	--	--	--
966+30	TO	971+50	--	--	--	--	--	1,010	--	--	--	--	--
1000+00	TO	1040+05	8,010	8,010	--	--	--	--	--	2,000	--	--	--
1040+05	TO	1050+10	1,795	2,010	--	--	--	--	--	500	--	800	78
1050+10	TO	1053+50	680	680	--	--	--	--	--	175	--	--	--
1053+50	TO	1063+50	1,795	2,000	--	--	--	--	--	500	--	865	72
1063+50	TO	1087+85	4,870	4,870	--	--	--	--	--	1,213	--	--	--
1087+85	TO	1101+60	2,625	2,530	--	--	--	--	--	688	--	2,310	39
1101+60	TO	1117+25	3,130	3,130	--	--	--	--	--	788	--	--	--
1117+25	TO	1124+75	1,460	1,470	--	--	--	--	--	363	--	1,880	39
1131+75	TO	1134+25	--	--	--	--	--	--	--	63	--	--	--
1149+25	TO	1156+00	--	--	--	--	--	--	--	175	--	--	--
YAHNKE SPUR			--	100	--	--	--			--	70	70	--
EB RAMP AT CTH P			1,680	1,895	175	--	--	167	27	--	--	--	--
WB RAMP AT CTH P			1,680	1,975	75	15	24	--	--	--	--	--	--
SUBTOTAL			27,725	28,670	250	15	24	1,177	27	6,640	70	5,925	228
TOTAL					56,684			1,204		6,710		6,153	

MARKING

STATION	TO	STATION	646.5020 ARROW EPOXY TYPE 2 (WHITE) EACH	646.5020 ARROW EPOXY TYPE 5 (WHITE) EACH	646.5120 WORD EPOXY (ONLY) (WHITE) EACH	646.6120 STOP LINE EPOXY 18-INCH (WHITE) LF	646.7120 DIAGONAL EPOXY 12-INCH (WHITE) LF	646.8020 CORRUGATED MEDIAN EPOXY (YELLOW) SF	646.8220 ISLAND NOSE EPOXY (YELLOW) EACH
966+30	TO	970+00	--	--	--	--	178	--	--
1040+05	TO	1050+10	2	1	1	--	--	--	--
1050+10	TO	1053+50	--	2	--	--	--	--	--
1053+50	TO	1063+50	2	1	1	--	--	--	--
1087+85	TO	1101+60	2	--	1	--	49	--	2
1117+25	TO	1124+75	2	--	--	39	22	--	1
YAHNKE SPUR			2	--	--	33	6	--	--
EB RAMP AT CTH P			4	--	2	48	--	--	1
WB RAMP AT CTH P			2	--	2	12	--	105	1
SUBTOTAL			16	4	7	132	255	105	5
TOTAL			20		7	132	255	105	5

TEMPORARY MARKING

STATION	TO	STATION	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF
947+50	TO	954+25	175	--	675
966+30	TO	970+00	--	518	550
1000+00	TO	1021+45	1,075	--	--
1131+75		1134+25	63	--	230
1149+25	TO	1156+00	175	--	660
CTH P SOUTHBOUND			175	--	660
TOTAL			1,663	518	2,775

3

RESTORATION

LOCATION	STA	TO	STA	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO.30 LB	630.0500 SEED WATER MGAL
STH 11 EASTBOUND									
	1120+00	TO	1123+00	280	280	300	0.18	5	6
TOTAL				280	280	300	0.18	5	6

3

SURVEY PROJECT

LOCATION	650.5000 CONSTRUCTION STAKING BASE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS
PROJECT	20,592	1
TOTAL	20,592	1

SAWING ASPHALT

690.0150

SAWING ASPHALT

LOCATION	STA	TO	STA	LF
STH 11 EASTBOUND				
	1000+00	TO	1026+04	35
	1027+48	TO	1077+35	49
	1080+08	TO	1124+40	221
STH 11 WESTBOUND				
	1000+00	TO	1026+04	277
	1027+48	TO	1077+59	50
	1080+22	TO	1124+30	50
UNDISTRIBUTED**				168
TOTAL				850

**ITEMS USED FOR BASE PATCHING LOCATIONS WHERE THERE IS POOR SUBGRADE MATERIAL AS DETERMINED BY THE ENGINEER

3

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION		204.9105.S.01 REMOVING LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
STH 11/36/83 & STH 83/PINE ST		1
	TOTAL	1

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
61	PB8	1120+57.1, 35.7' RT	6'X20'	4	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	636	336
62	PB7	1122+32.1, 37.7' RT	6'X20'	4	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	460	368
					TOTAL	176	1096	704

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

PULL BOXES

PULL BOX NO.	LOCATION*		653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB7	1122+32.1, 67.4' RT		1
PB8	1120+57.1, 6231' RT		1
		TOTAL	2

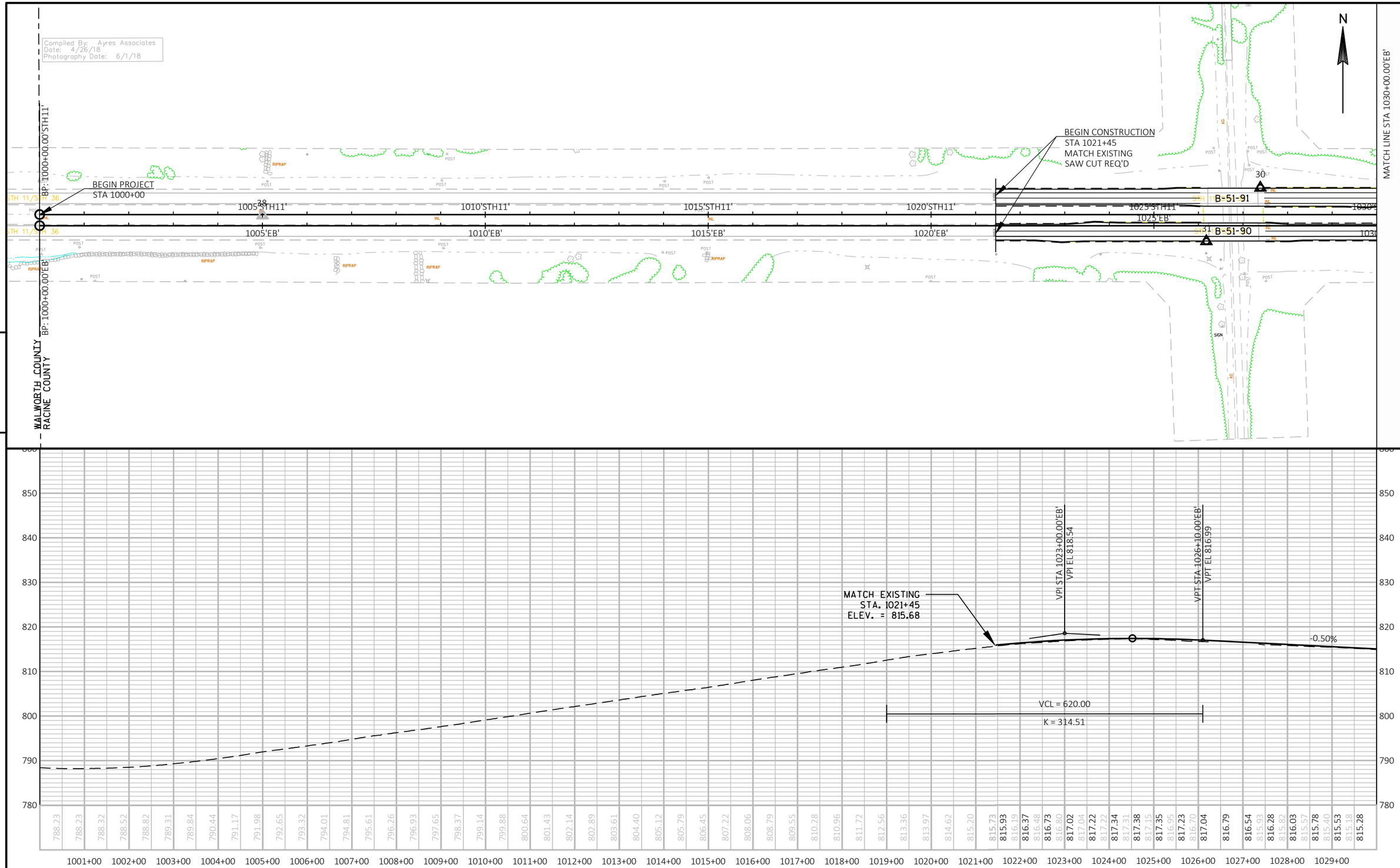
* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIE

CONDUIT

FROM	TO		652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
PB7	EX. CONDUIT		21
PB8	EX. CONDUIT		36
		TOTAL	57

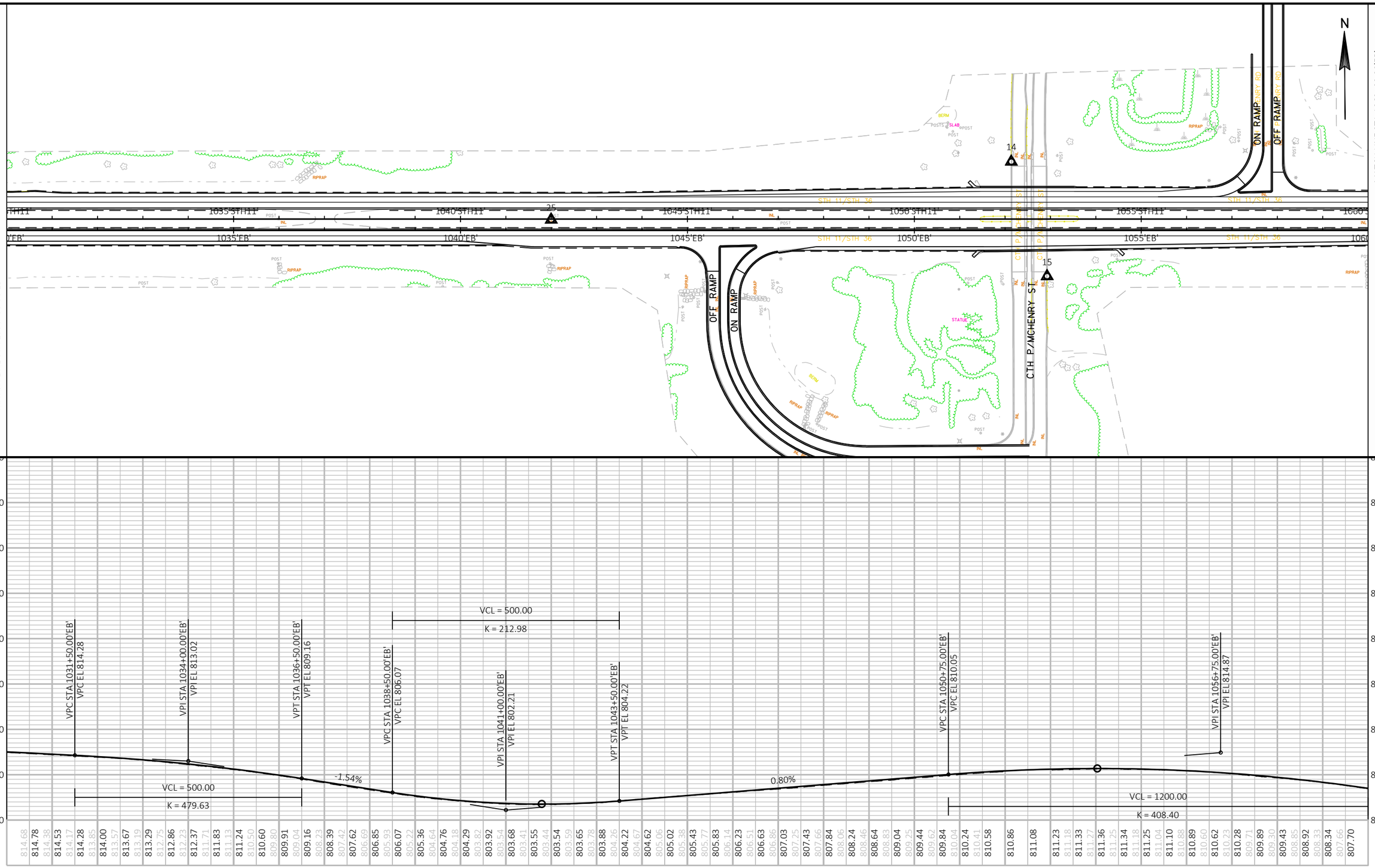
REMOVE PULL BOXES

PULL BOX NO.		653.0905 REMOVING PULL BOXES EACH
PB7		1
PB8		1
	TOTAL	2



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 EB PGL	SHEET 75	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\050101_PPEB.DWG
LAYOUT NAME - EB1
PLOT DATE : 4/30/2019 7:36 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

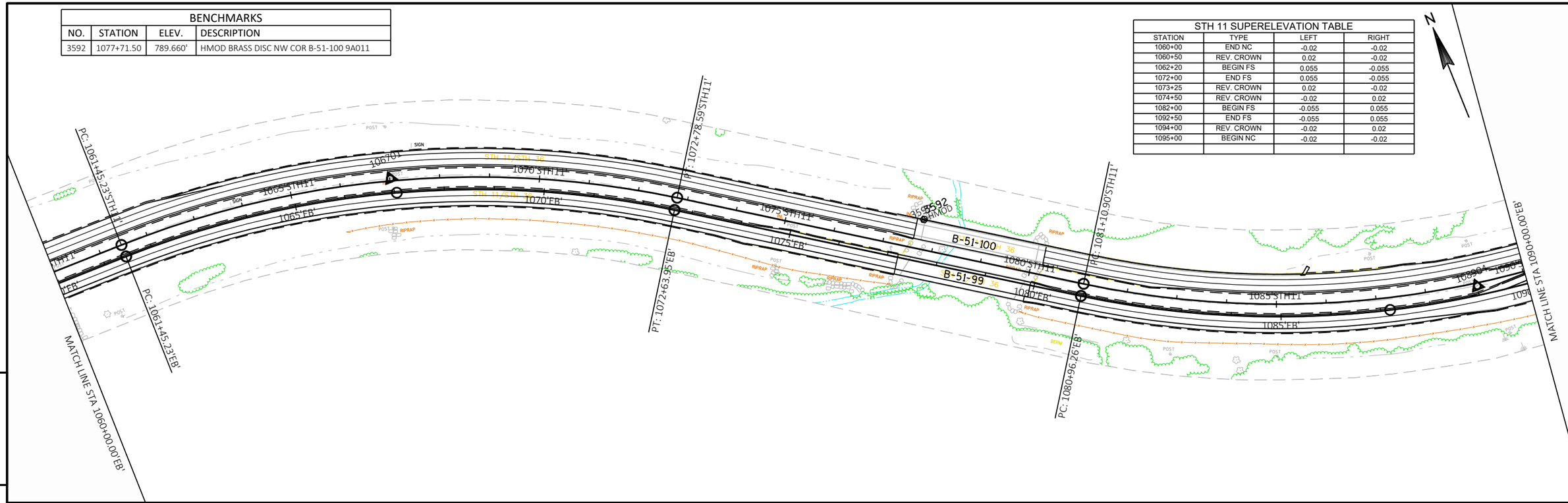


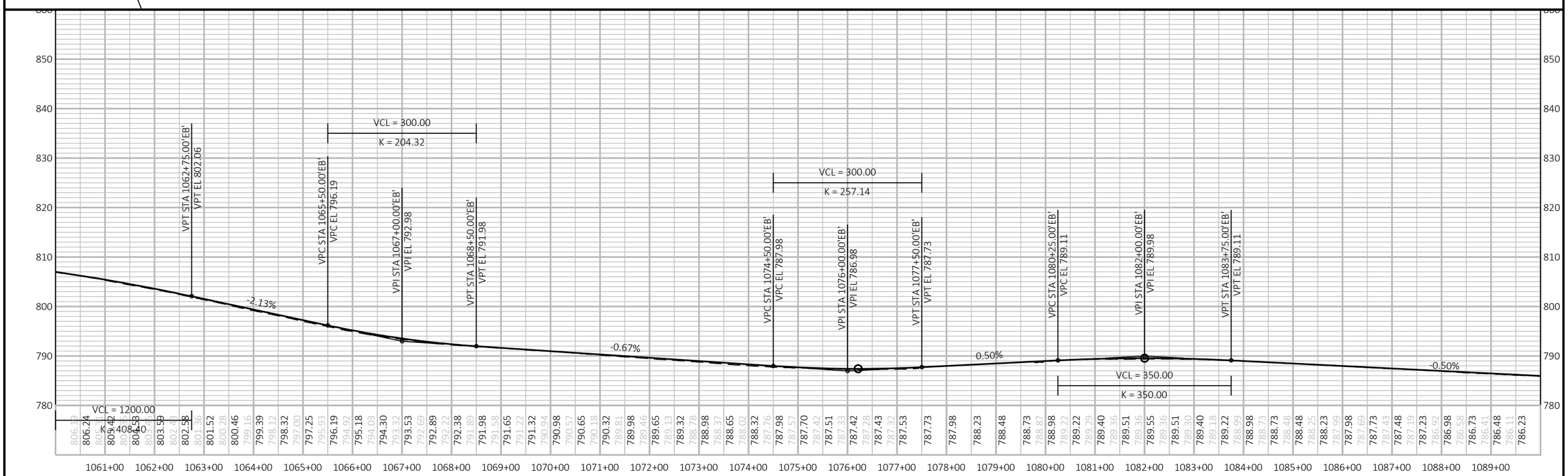
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 EB PGL	SHEET 76	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\050101_PPEB.DWG
LAYOUT NAME - EB2
PLOT DATE : 4/30/2019 7:36 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

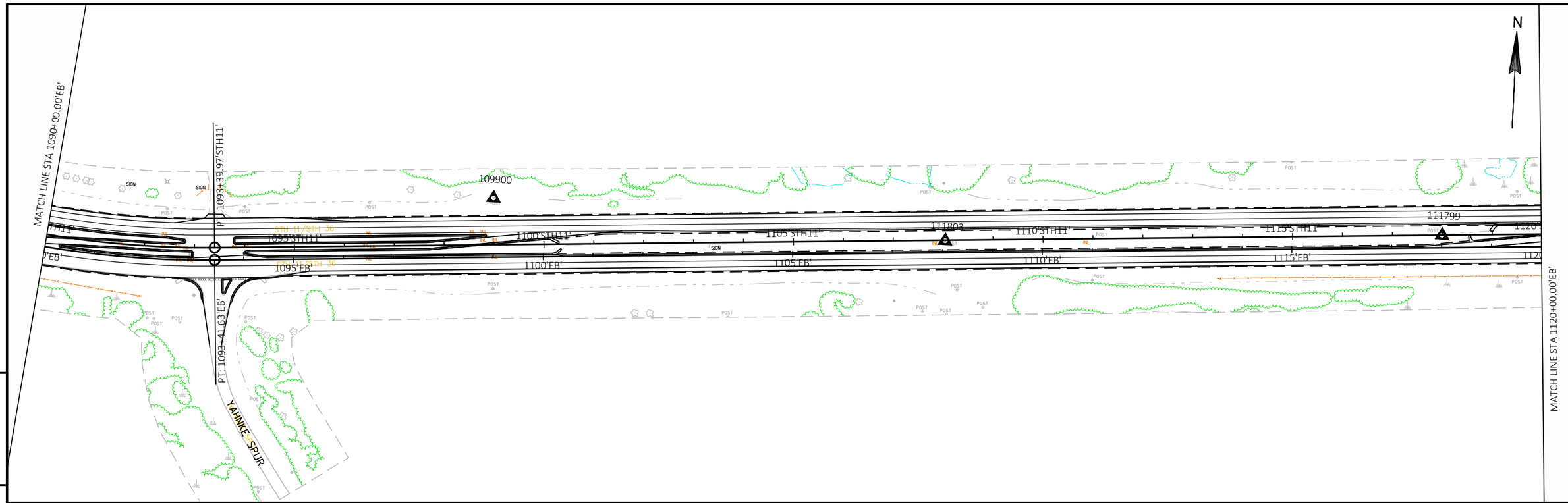
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
3592	1077+71.50	789.660'	HMOD BRASS DISC NW COR B-51-100 9A011

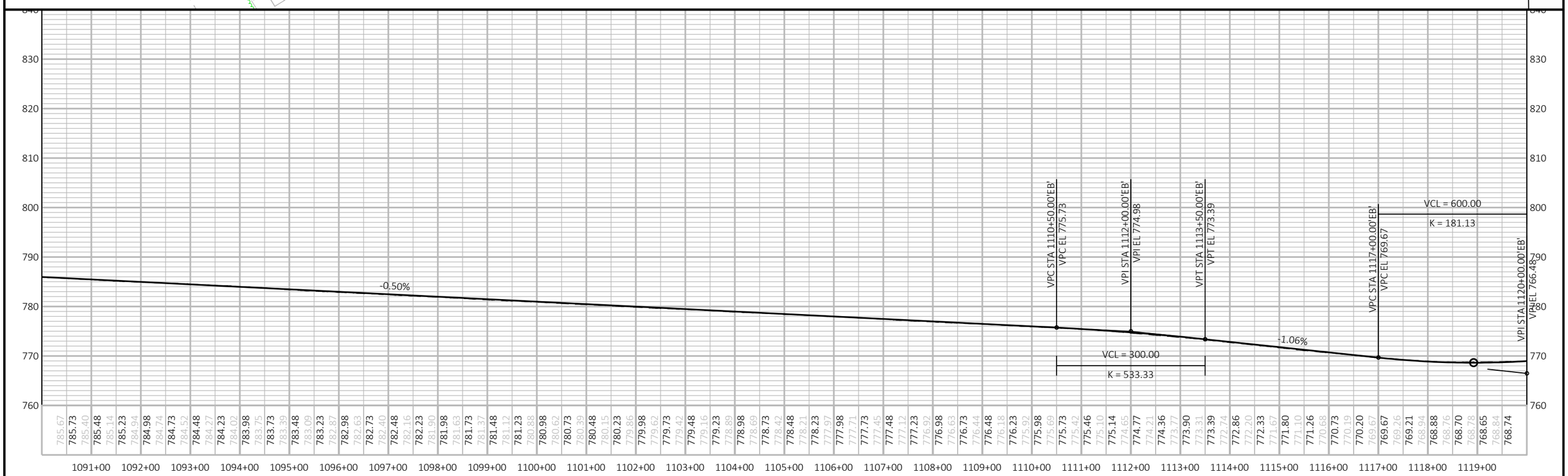
STH 11 SUPERELEVATION TABLE			
STATION	TYPE	LEFT	RIGHT
1060+00	END NC	-0.02	-0.02
1060+50	REV. CROWN	0.02	-0.02
1062+20	BEGIN FS	0.055	-0.055
1072+00	END FS	0.055	-0.055
1073+25	REV. CROWN	0.02	-0.02
1074+50	REV. CROWN	-0.02	0.02
1082+00	BEGIN FS	-0.055	0.055
1092+50	END FS	-0.055	0.055
1094+00	REV. CROWN	-0.02	0.02
1095+00	BEGIN NC	-0.02	-0.02





PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 EB PGL	SHEET 77	E





PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 EB PGL	SHEET 78	E

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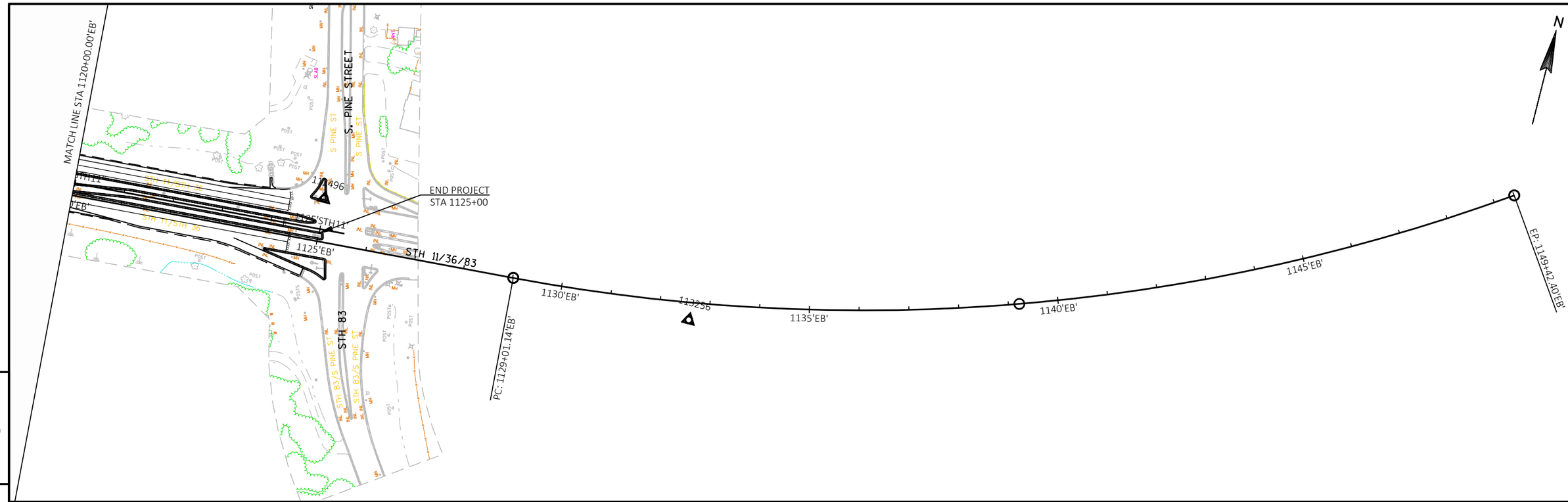
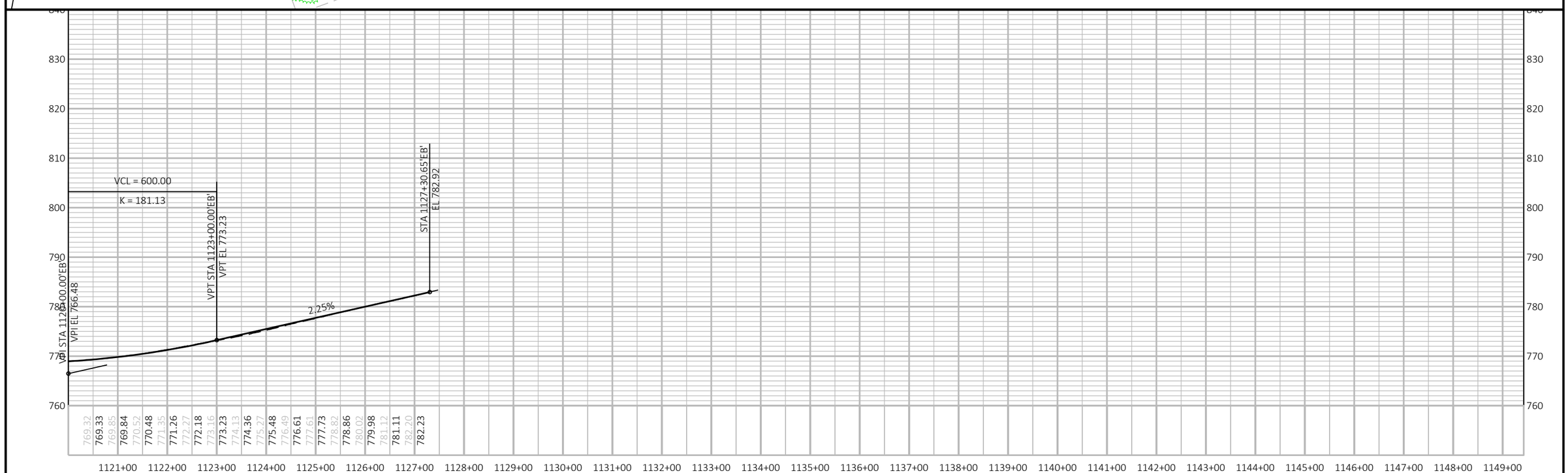
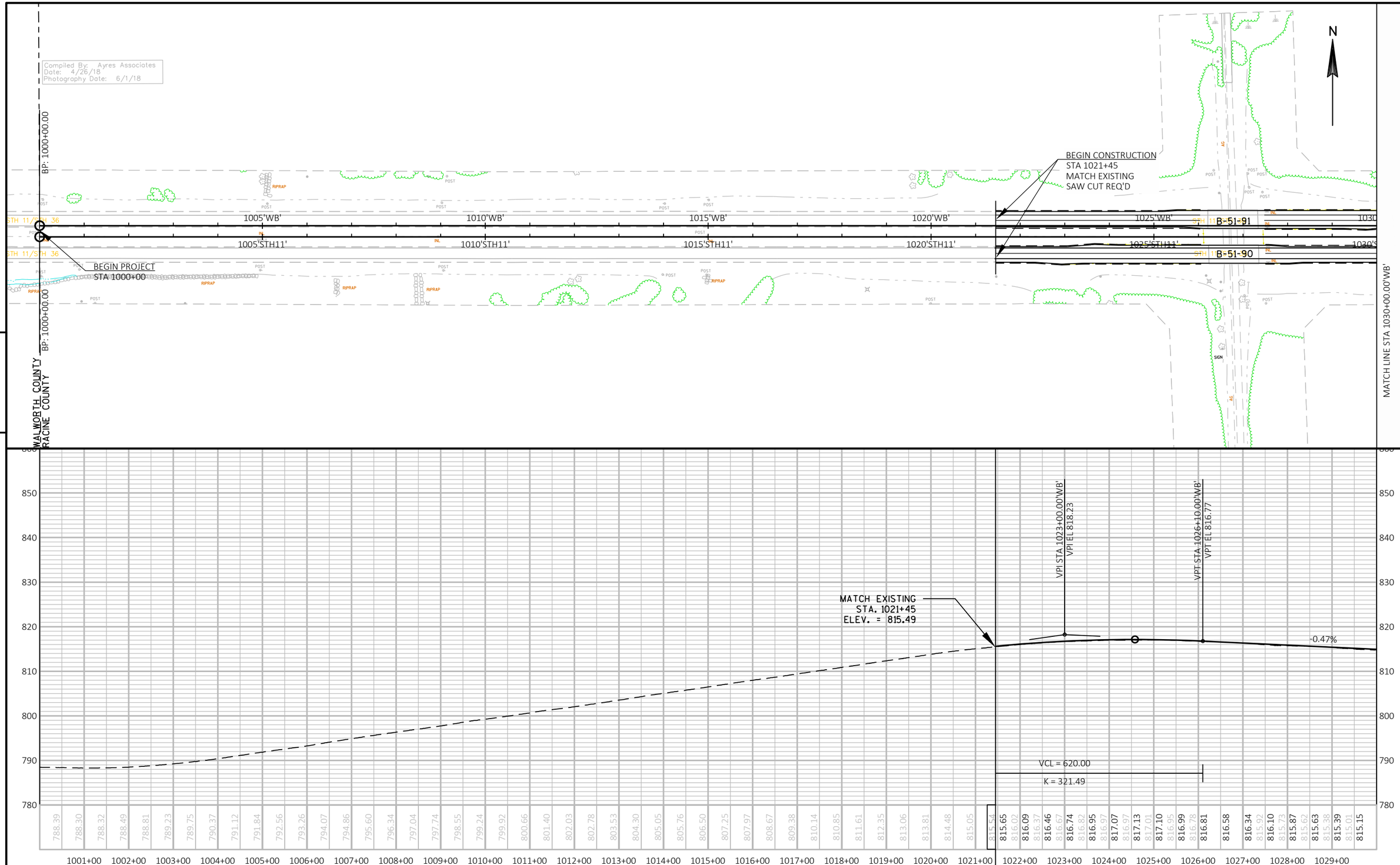
LAYOUT NAME - EB4
PLOT DATE : 4/30/2019 7:36 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

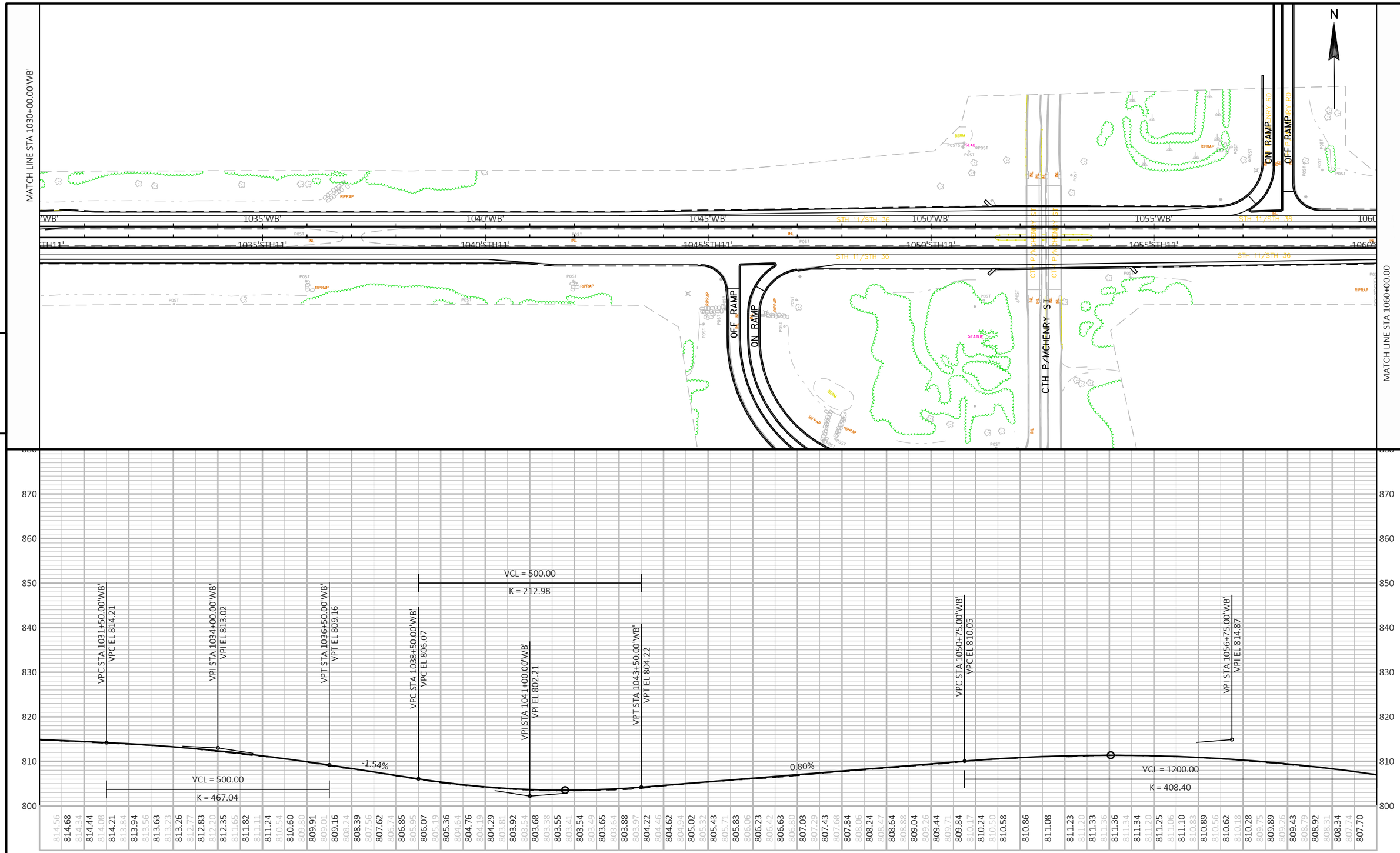




PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 EB PGL	SHEET 79	E



PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 WB PGL	SHEET 80	E

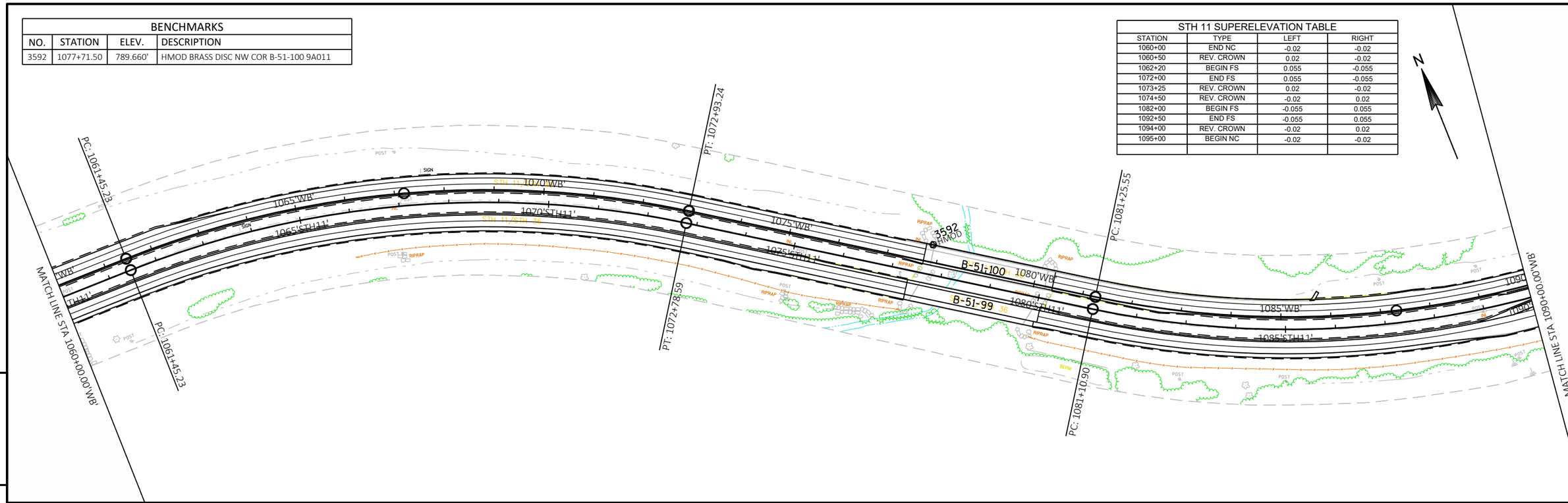


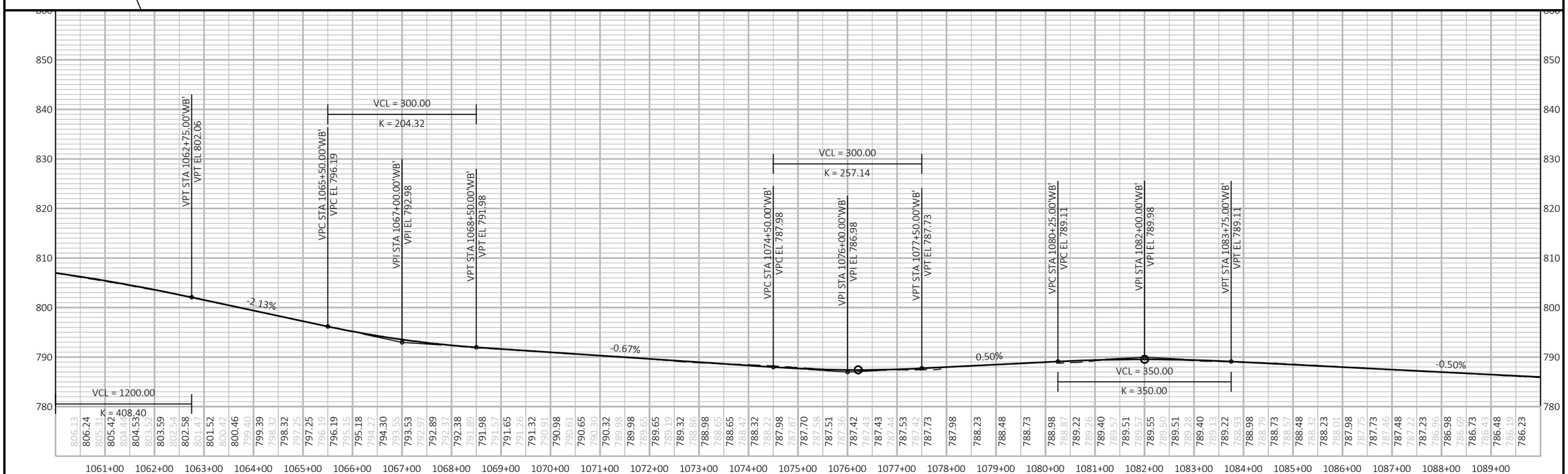
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 WB PGL	SHEET 81	E

FILE NAME : N:\PDS\C3D\31800004\SHEETSPLAN\050101_PPWB.DWG
LAYOUT NAME - WB2
PLOT DATE : 4/30/2019 7:38 AM
PLOT BY : ROTIER, STEVEN J
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

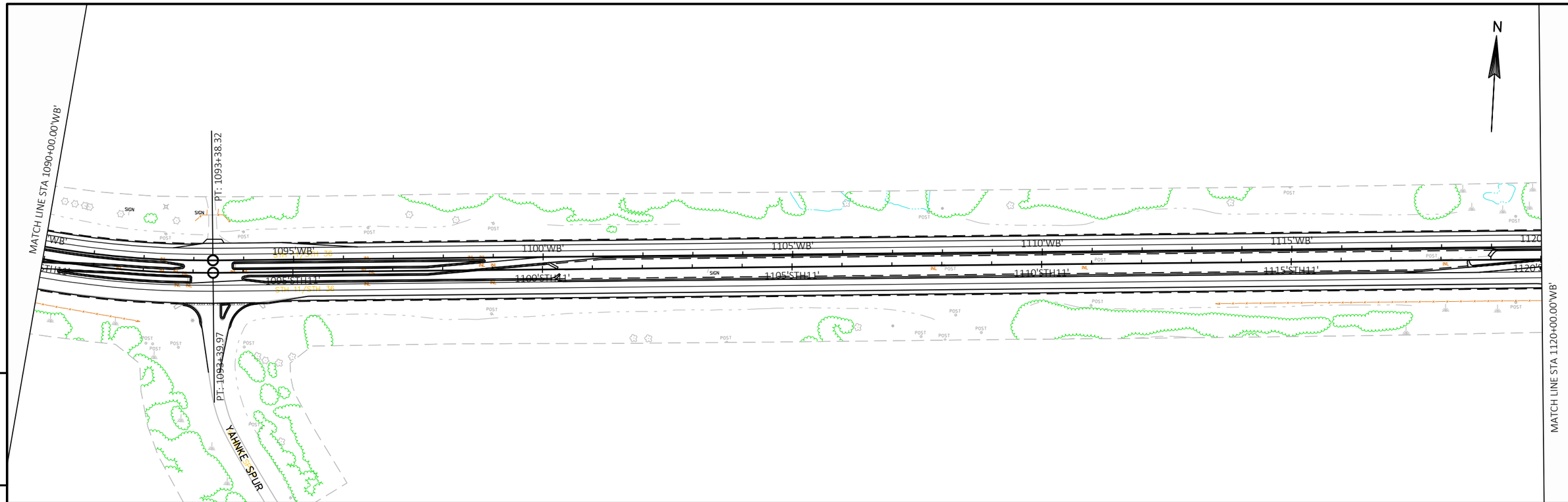
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
3592	1077+71.50	789.660'	HMOD BRASS DISC NW COR B-51-100 9A011

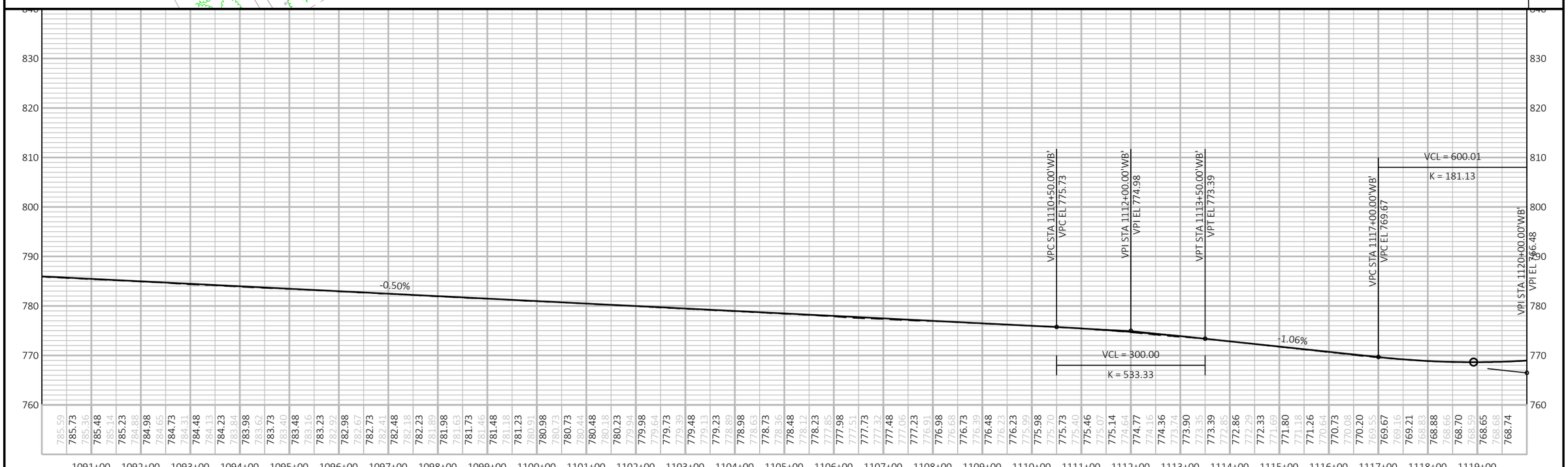
STH 11 SUPERELEVATION TABLE			
STATION	TYPE	LEFT	RIGHT
1060+00	END NC	-0.02	-0.02
1060+50	REV. CROWN	0.02	-0.02
1062+20	BEGIN FS	0.055	-0.055
1072+00	END FS	0.055	-0.055
1073+25	REV. CROWN	0.02	-0.02
1074+50	REV. CROWN	-0.02	0.02
1082+00	BEGIN FS	-0.055	0.055
1092+50	END FS	-0.055	0.055
1094+00	REV. CROWN	-0.02	0.02
1095+00	BEGIN NC	-0.02	-0.02



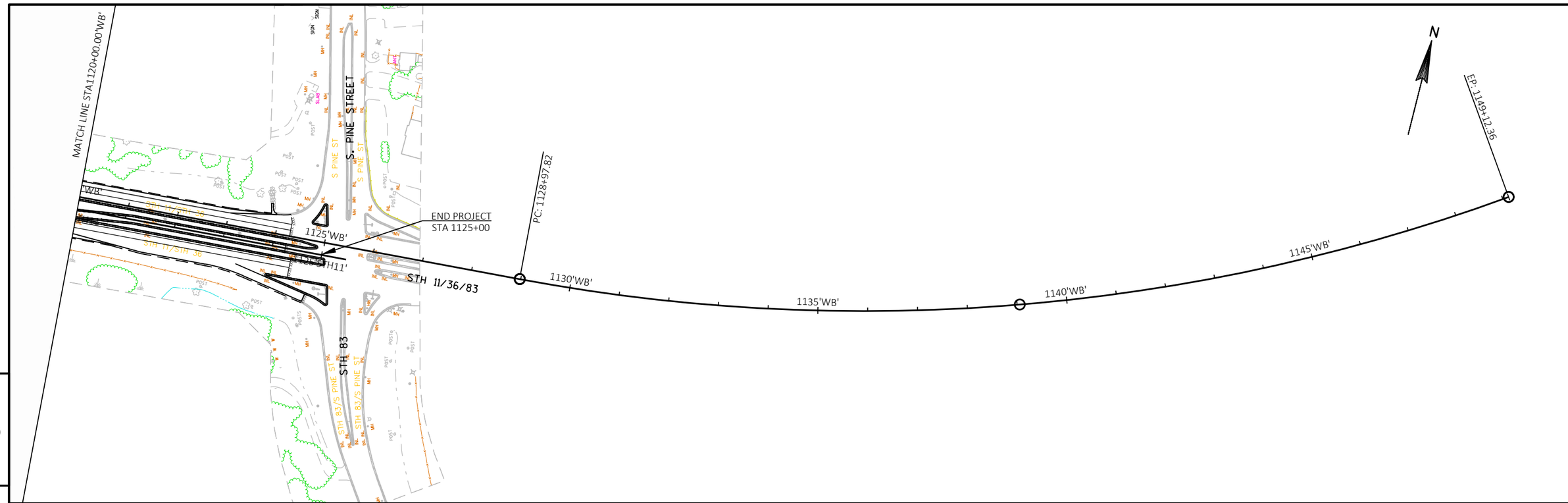


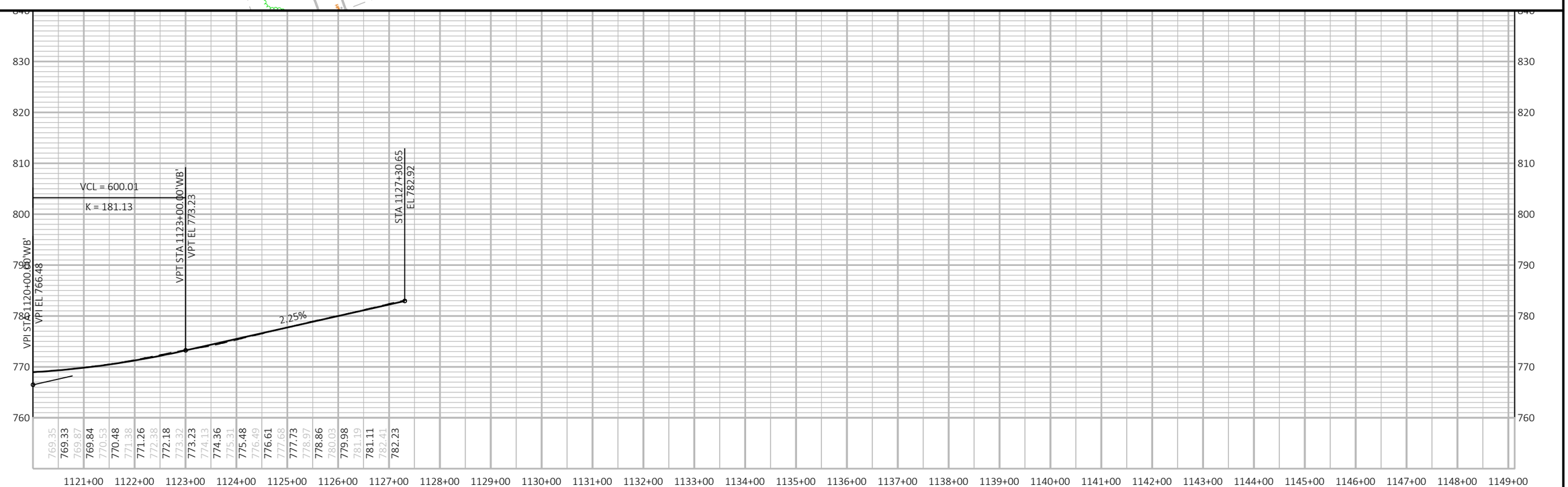
PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 WB PGL	SHEET 82	E





PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 WB PGL	SHEET 83	E



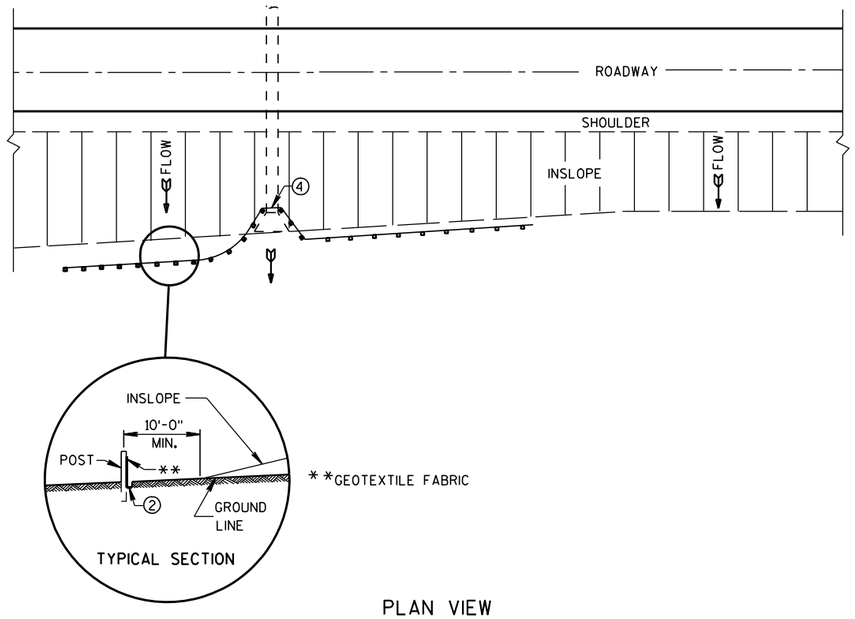


PROJECT NO: 3180-00-74	HWY: STH 11	COUNTY: RACINE	PLAN AND PROFILE: STH 11 WB PGL	SHEET 84	E

Standard Detail Drawing List

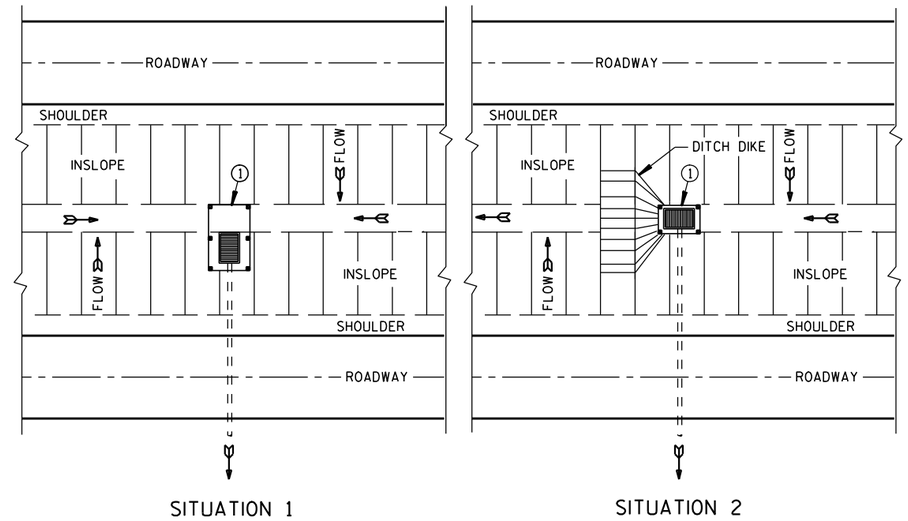
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-11	PULL BOX
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-04	MEDIAN ISLAND MARKING
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

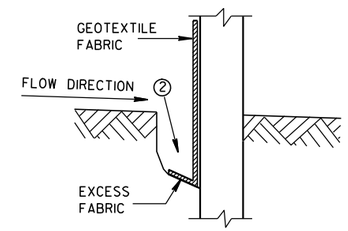
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

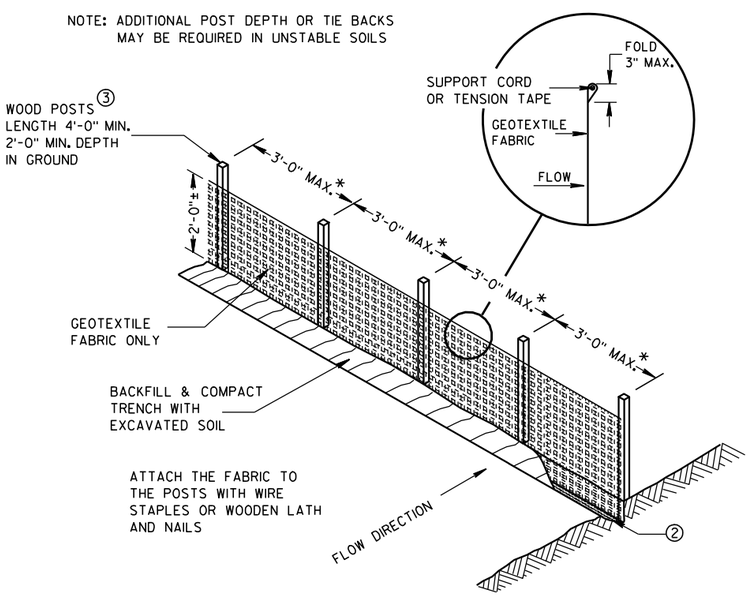
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES. B) HOOK THE END OF EACH SILT FENCE LENGTH.

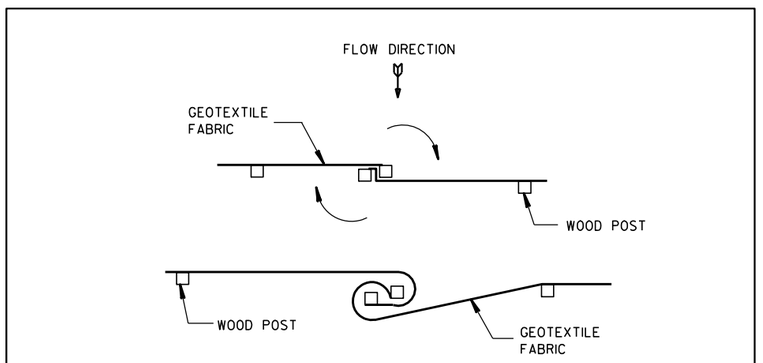


TRENCH DETAIL

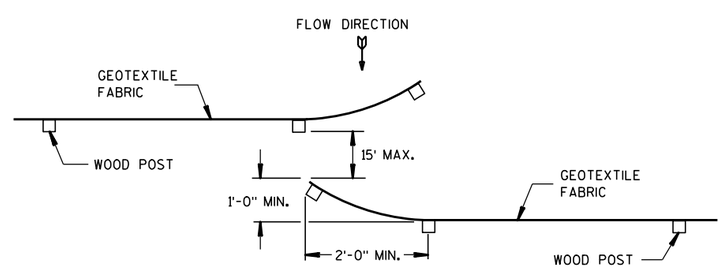


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

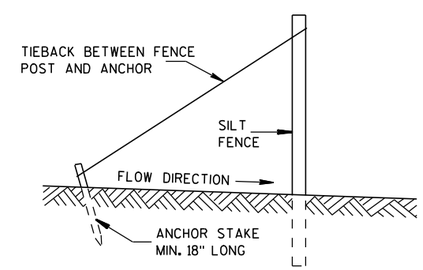


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 4-29-05 DATE — /S/ Beth Cann-- CHIEF ROADWAY DEVELOP ENGINEER FHWA

6

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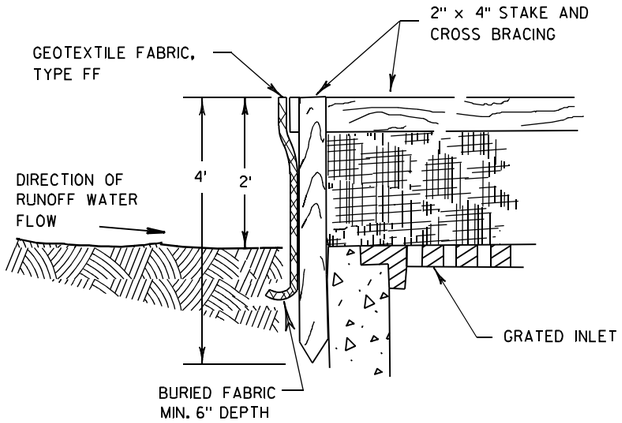
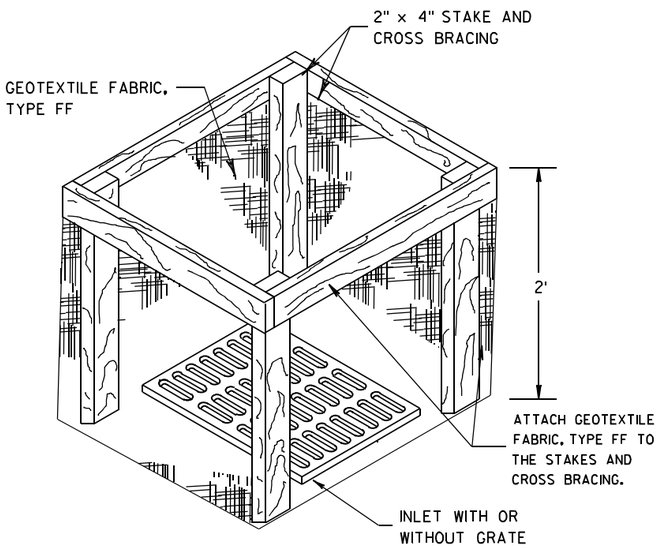
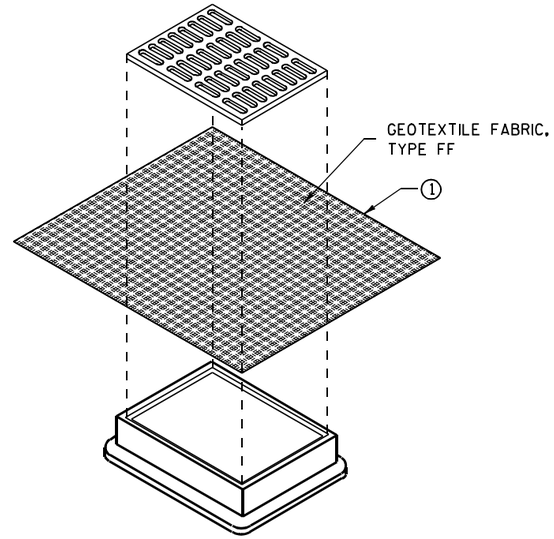
S.D.D. 8 E 9-6

S.D.D. 8 E 9-6



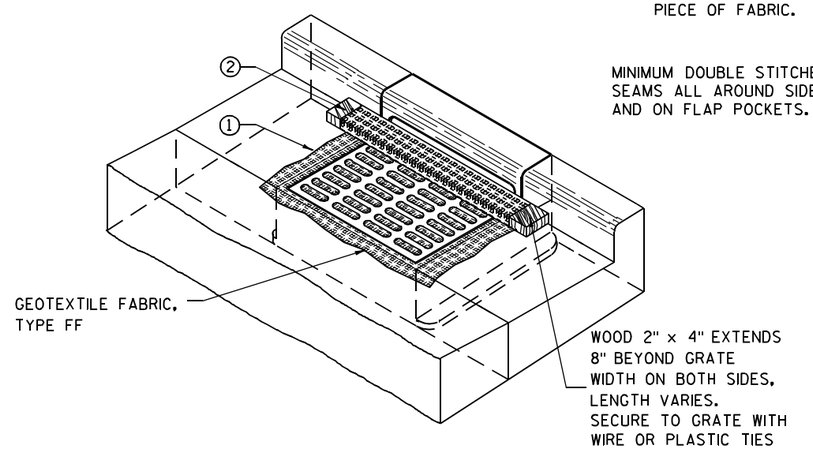


INLET PROTECTION, TYPE A

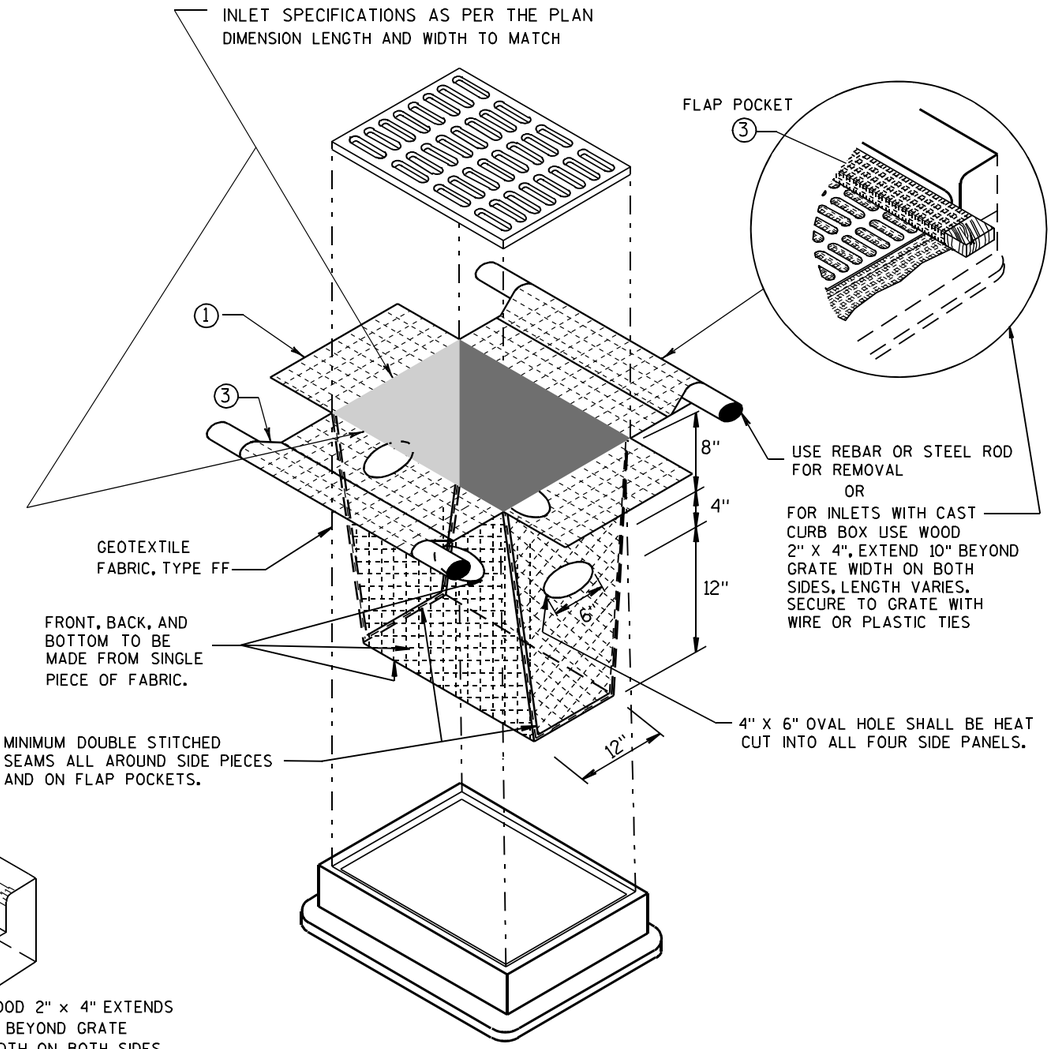


INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

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

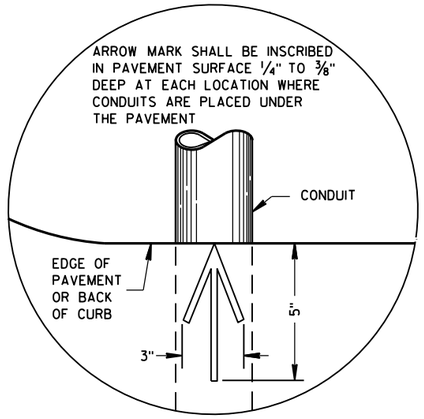
INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 — DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

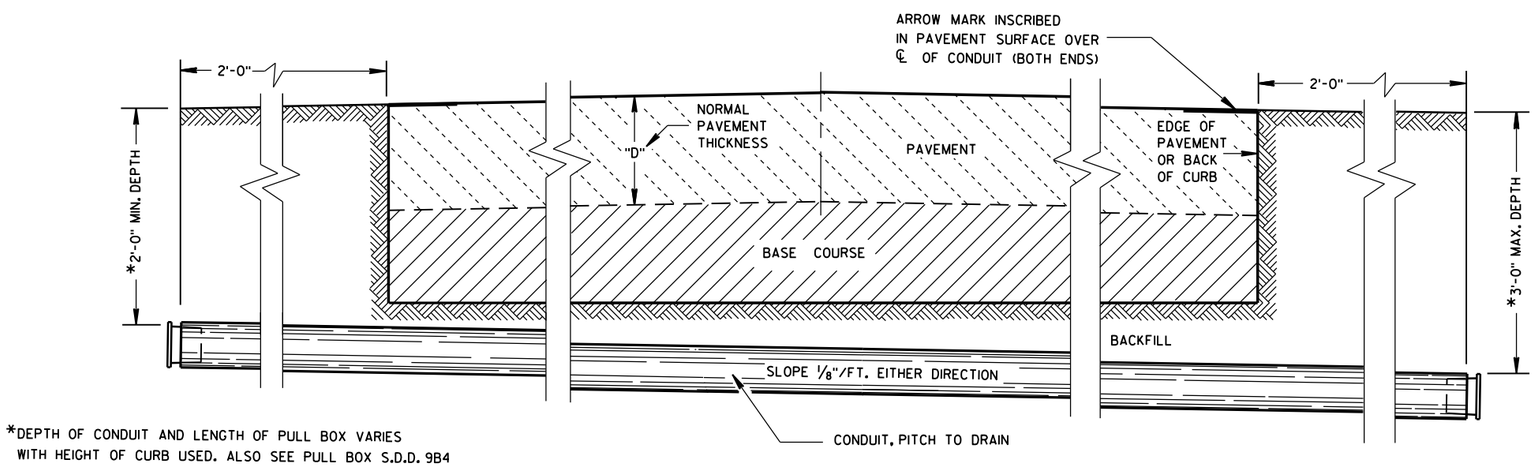
6

S.D.D. 8 E 10-2



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

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

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

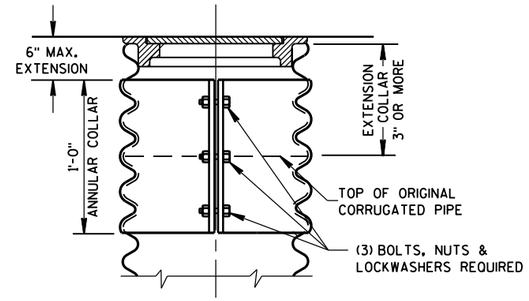
APPROVED
March, 2017 — /S/ Ahmet Demirbilek
DATE — STATE ELECTRICAL
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

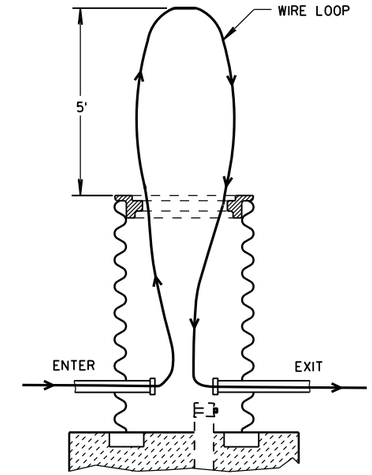
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

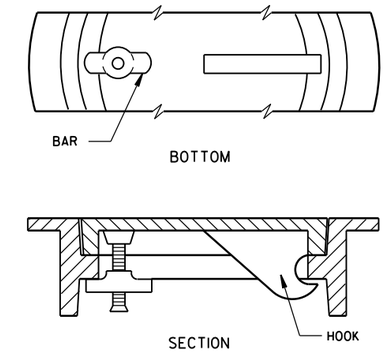
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

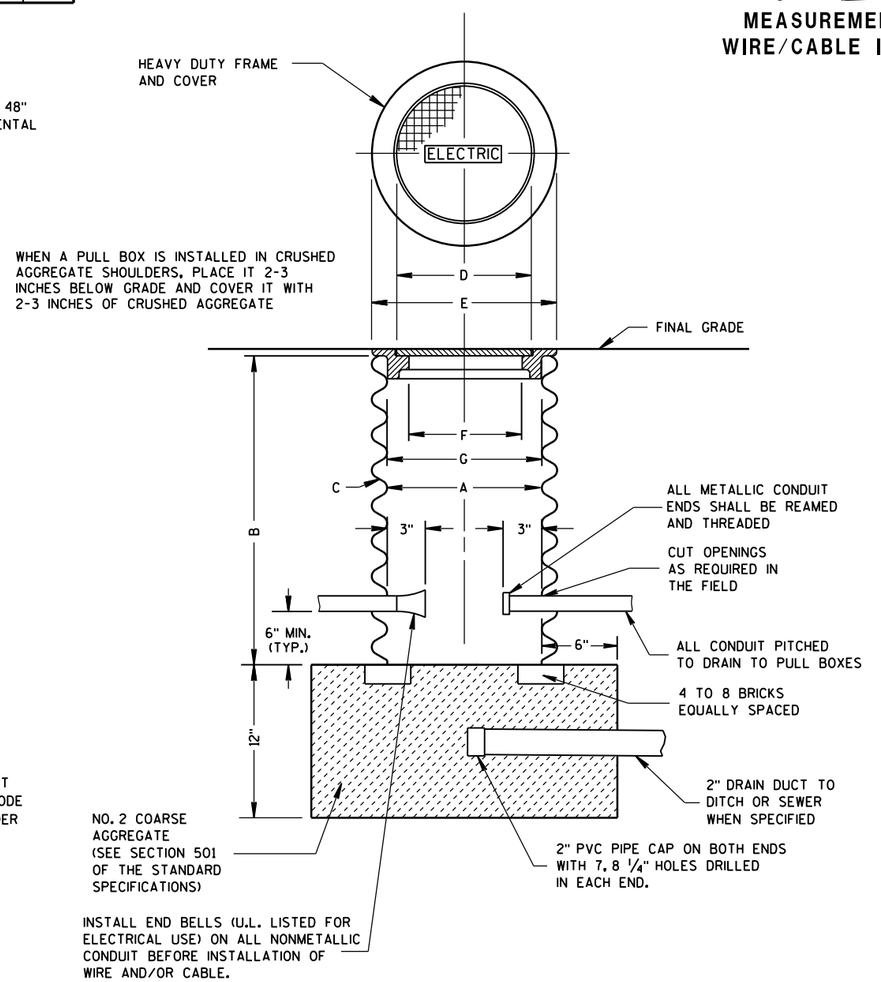


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

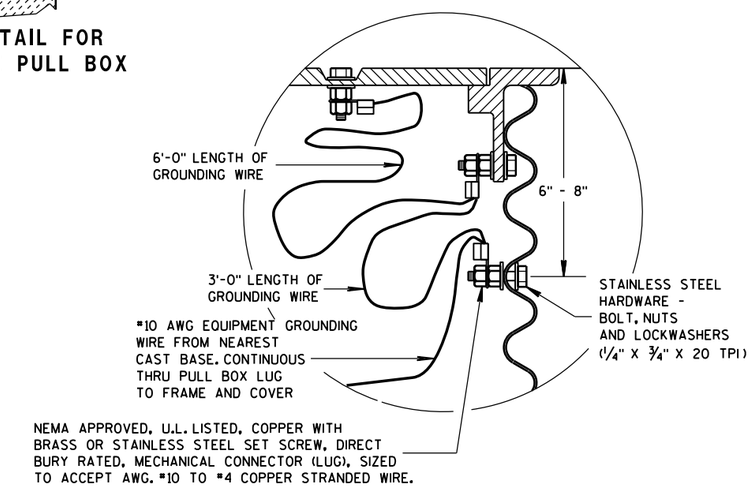


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

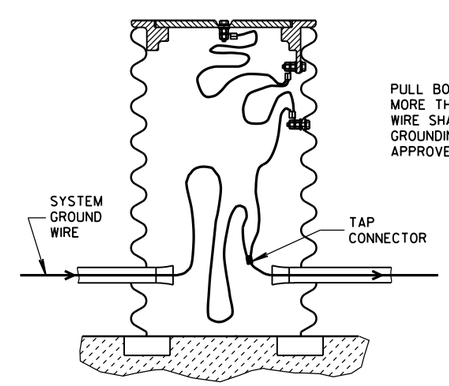
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

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

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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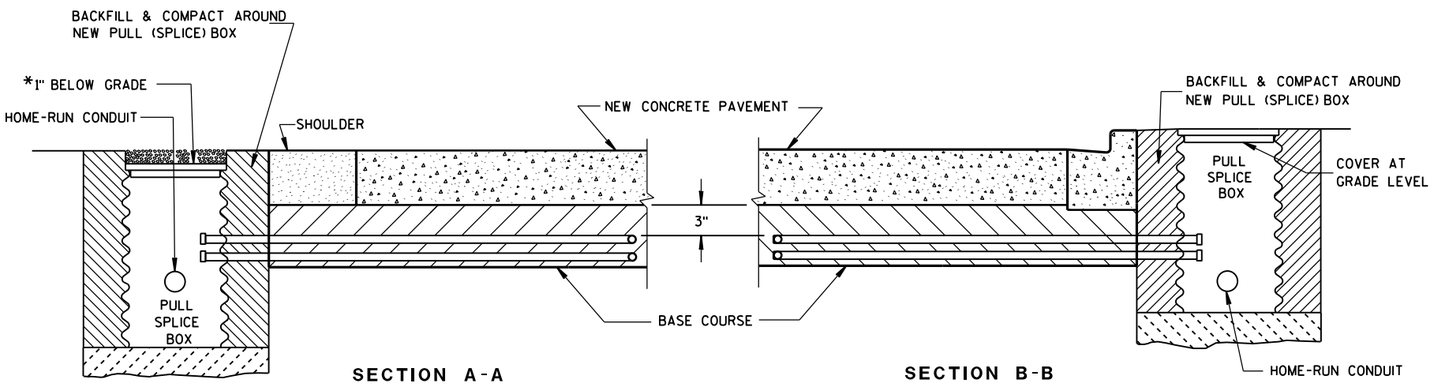
6

S.D.D. 9 B 4-11

S.D.D. 9 B 4-11



SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

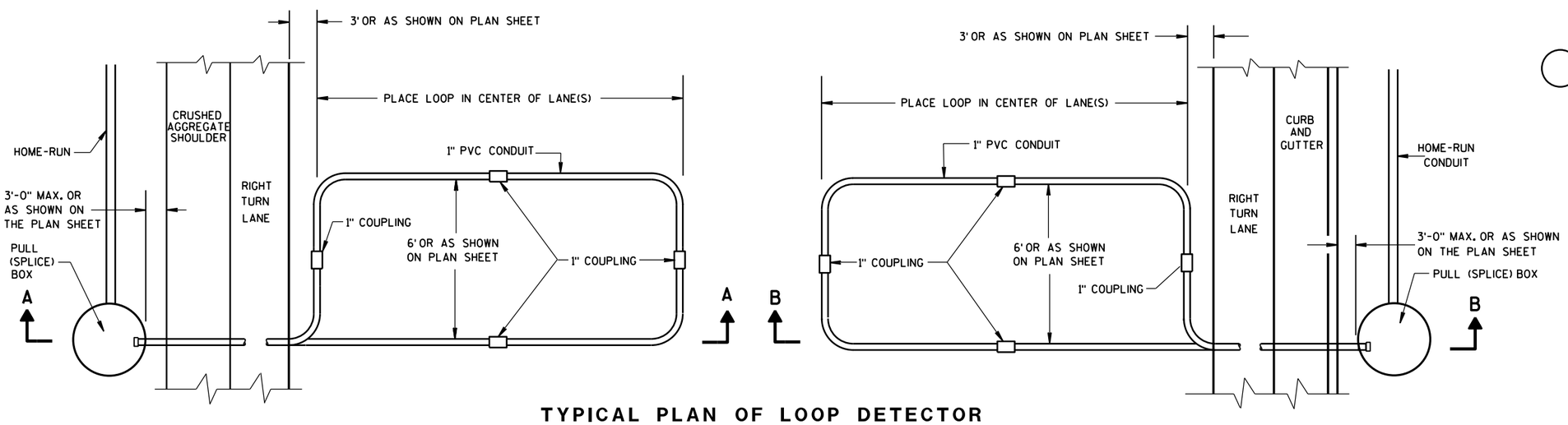
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

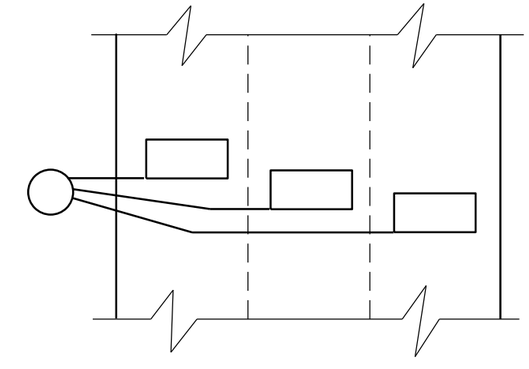
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 DATE — /S/ Ahmet Demirbilek STATE ELECTRICAL — FHWA

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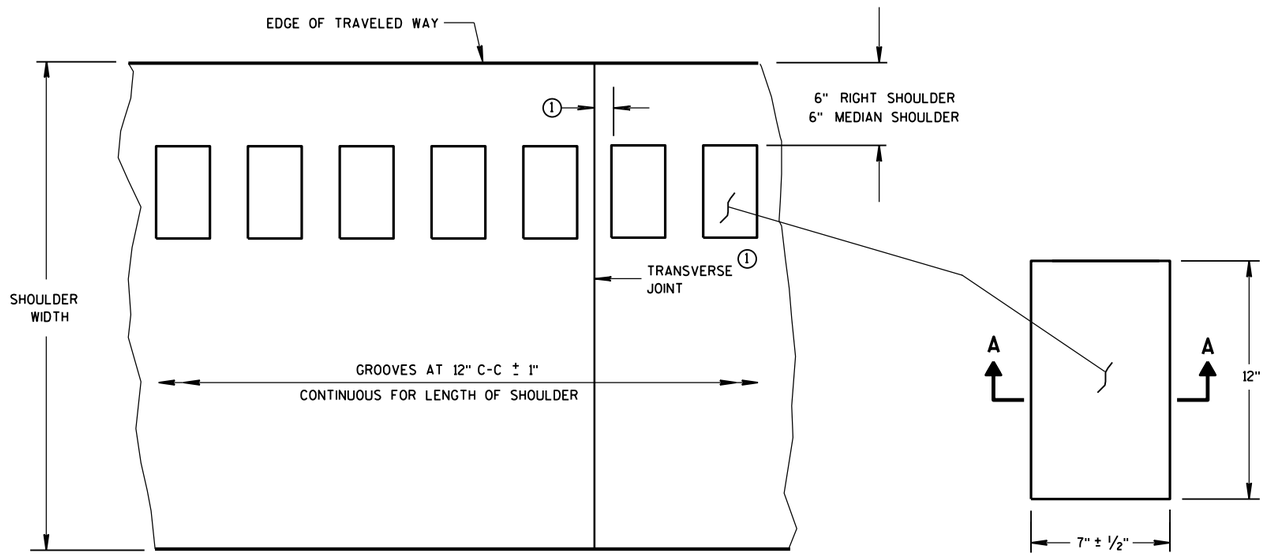
S.D.D. 9 F 15-4b

S.D.D. 9 F 15-4b



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

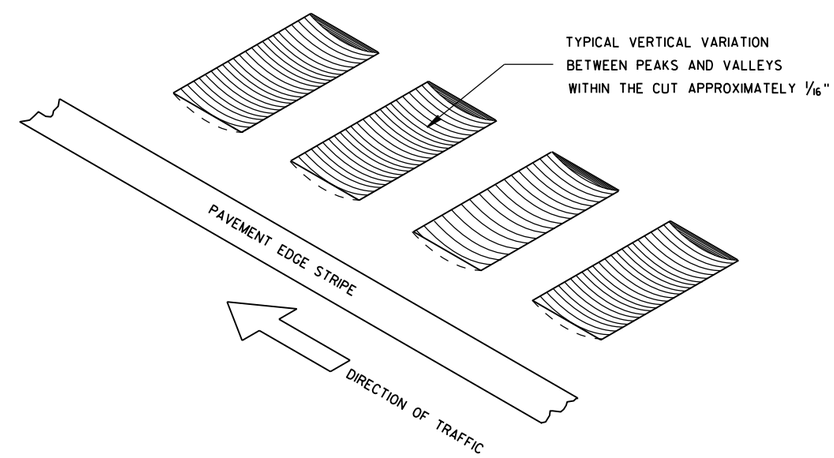
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



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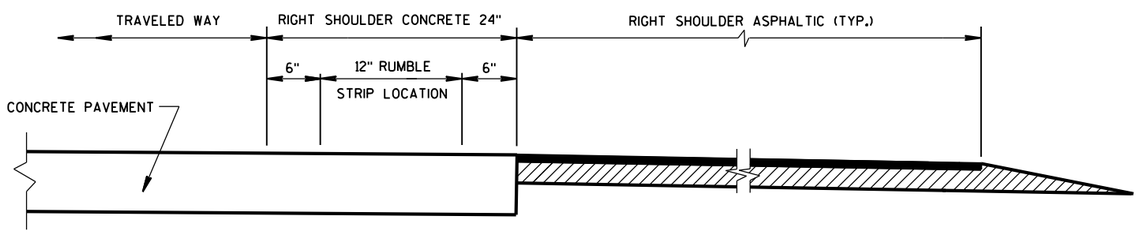
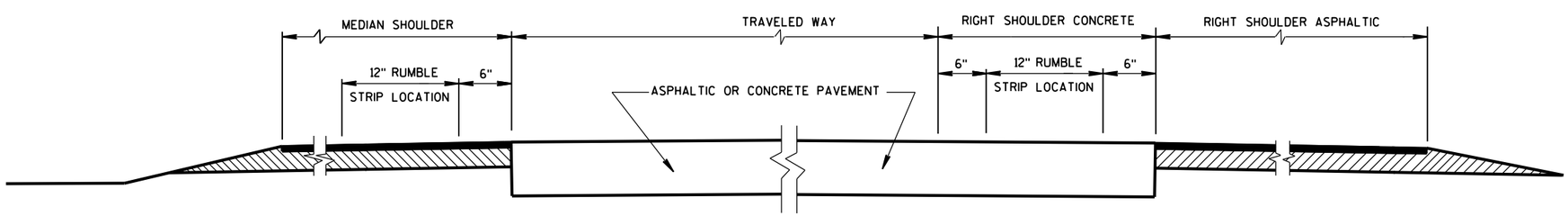


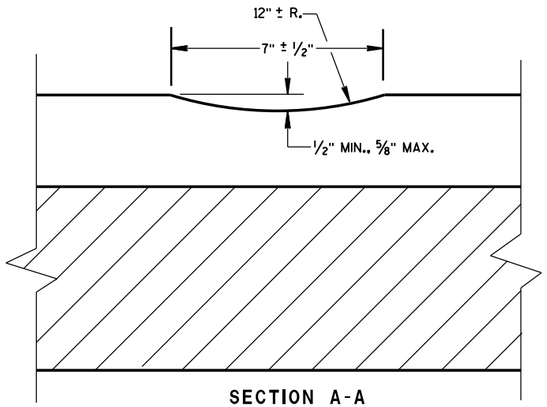
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 13 A 5-5a

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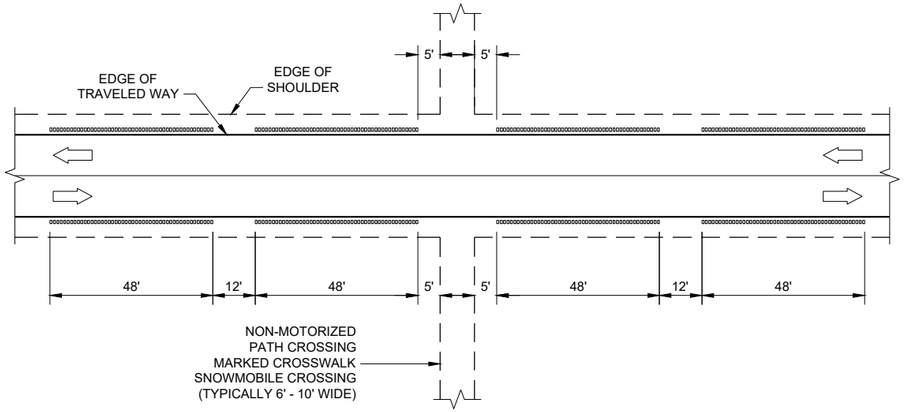
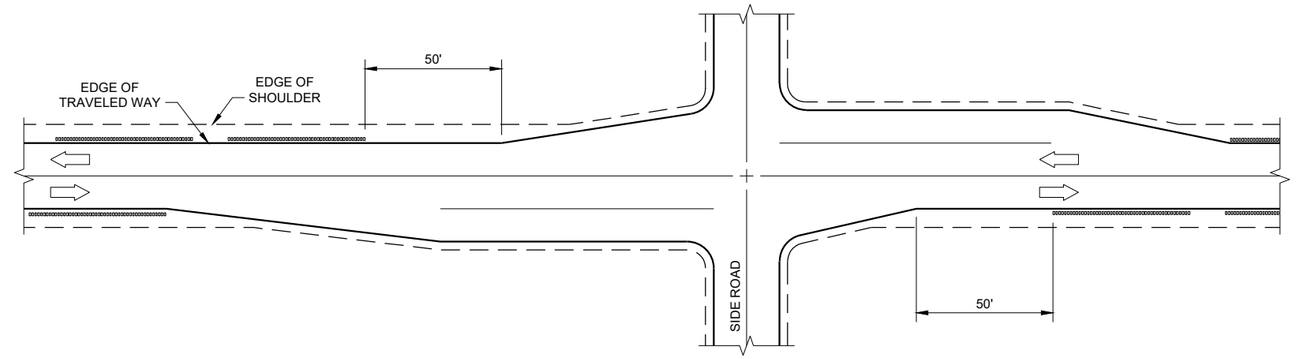
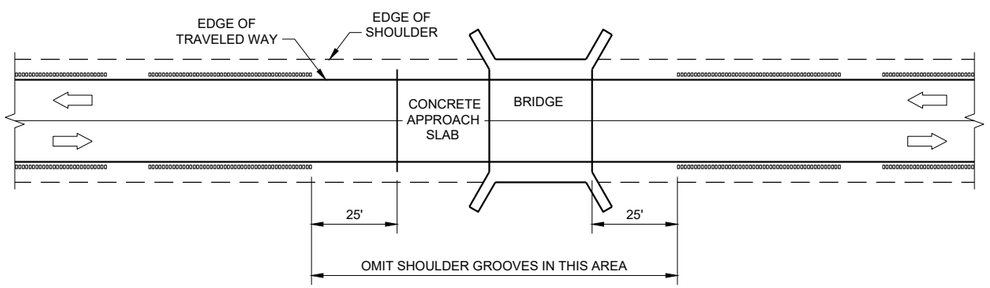
S.D.D. 13 A 5-5a



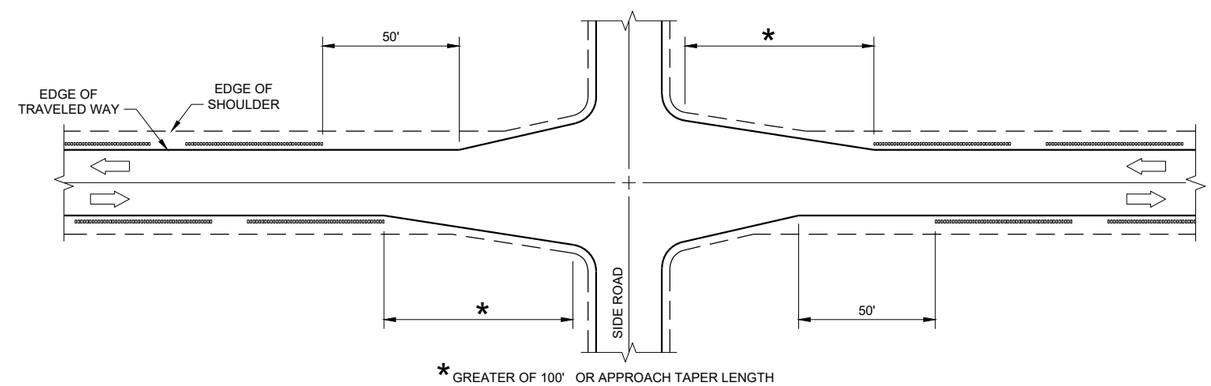
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



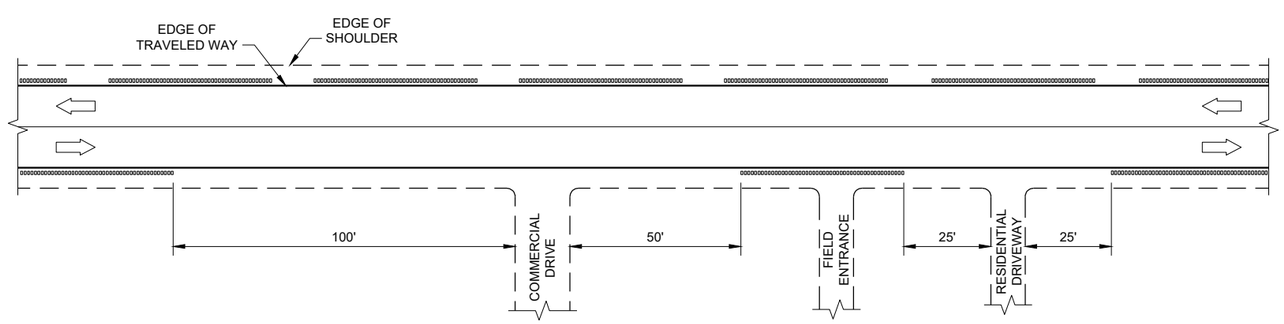
SHOULDER GROOVES AT RIGHT TURN LANE



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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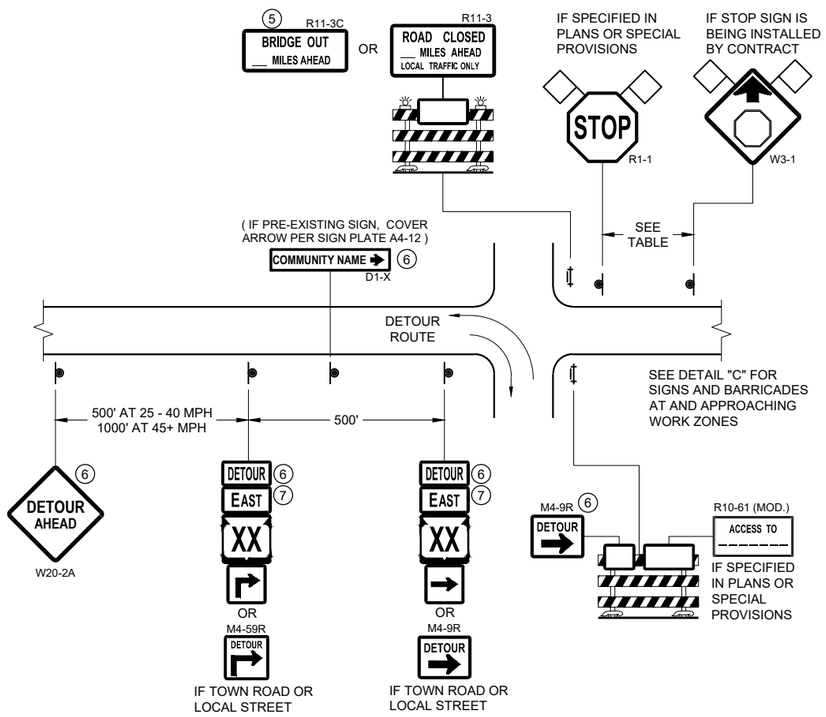
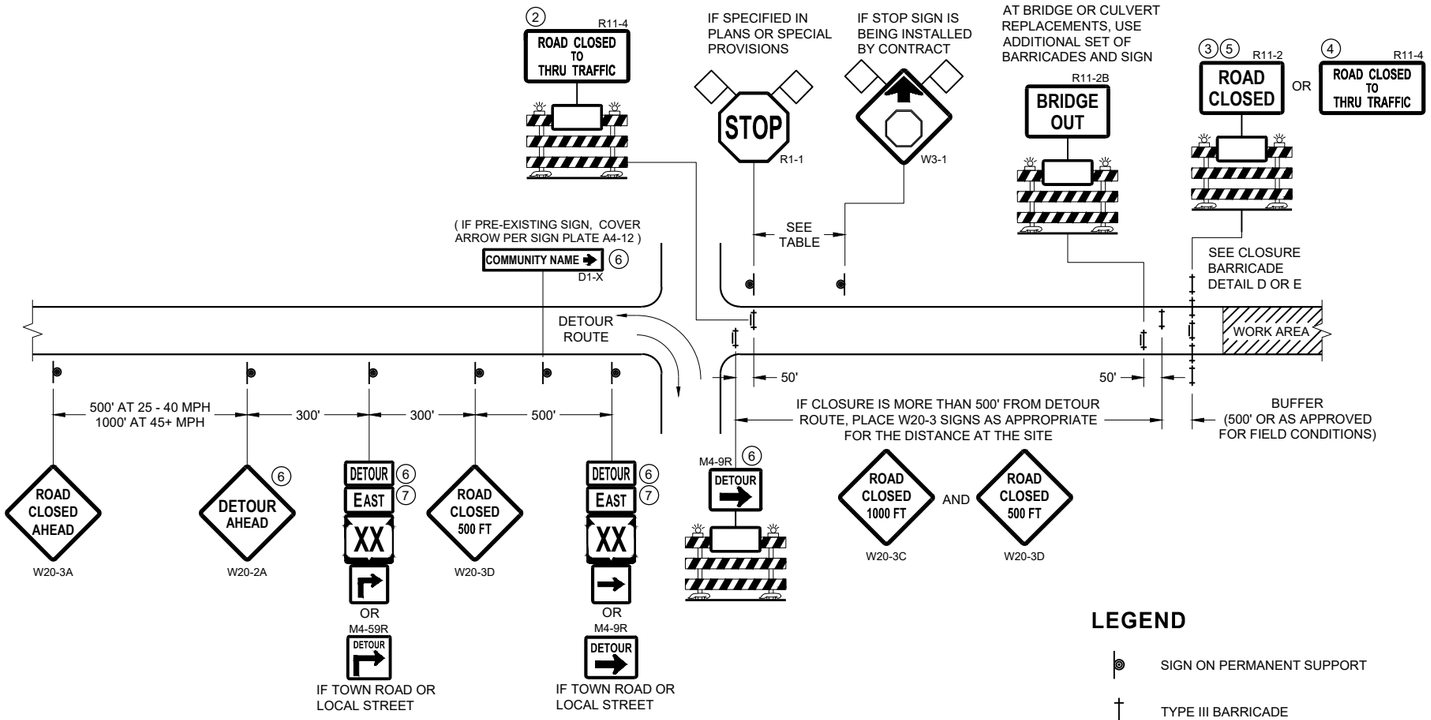
SDD 13A10 - 02c



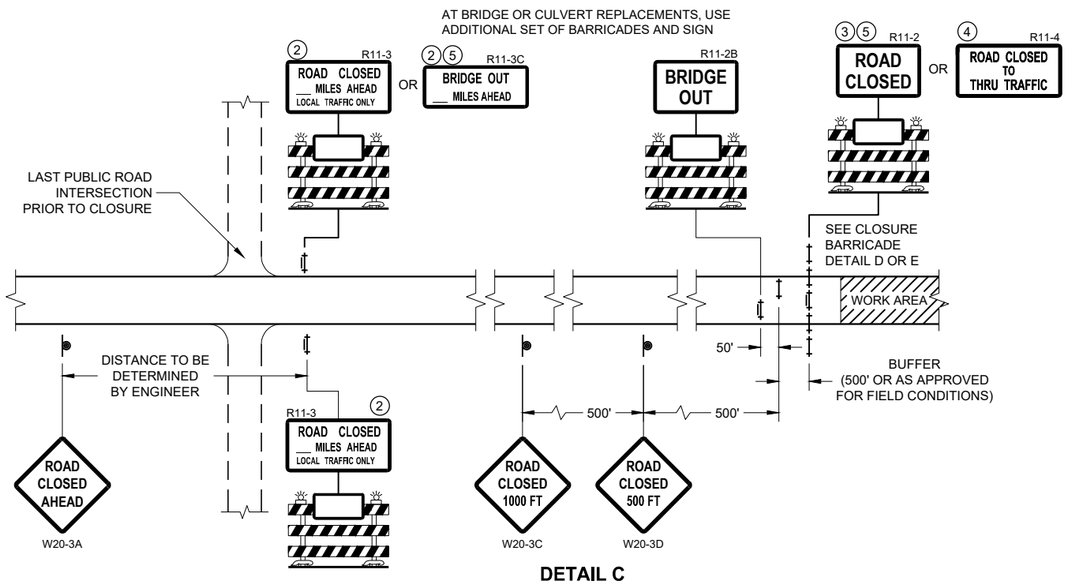
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES 1 THROUGH 7

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
- M05 - 1 OR M06 - 1

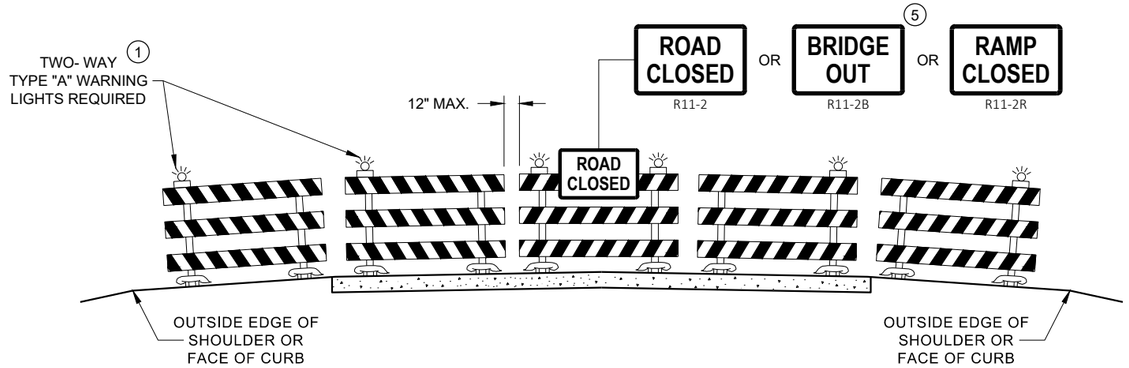
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

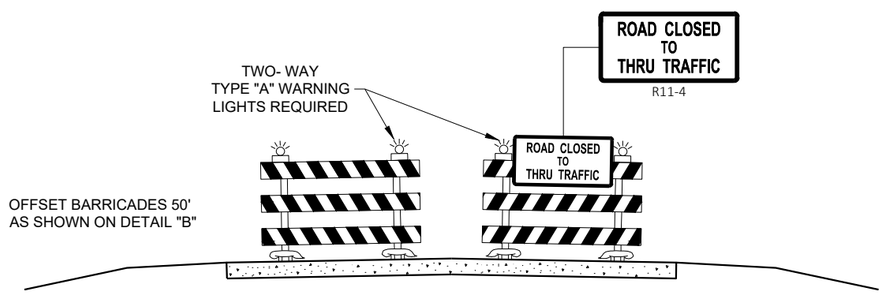
APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

6

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

1. TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.
2. THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
3. FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
4. FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
5. FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
6. INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
7. "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

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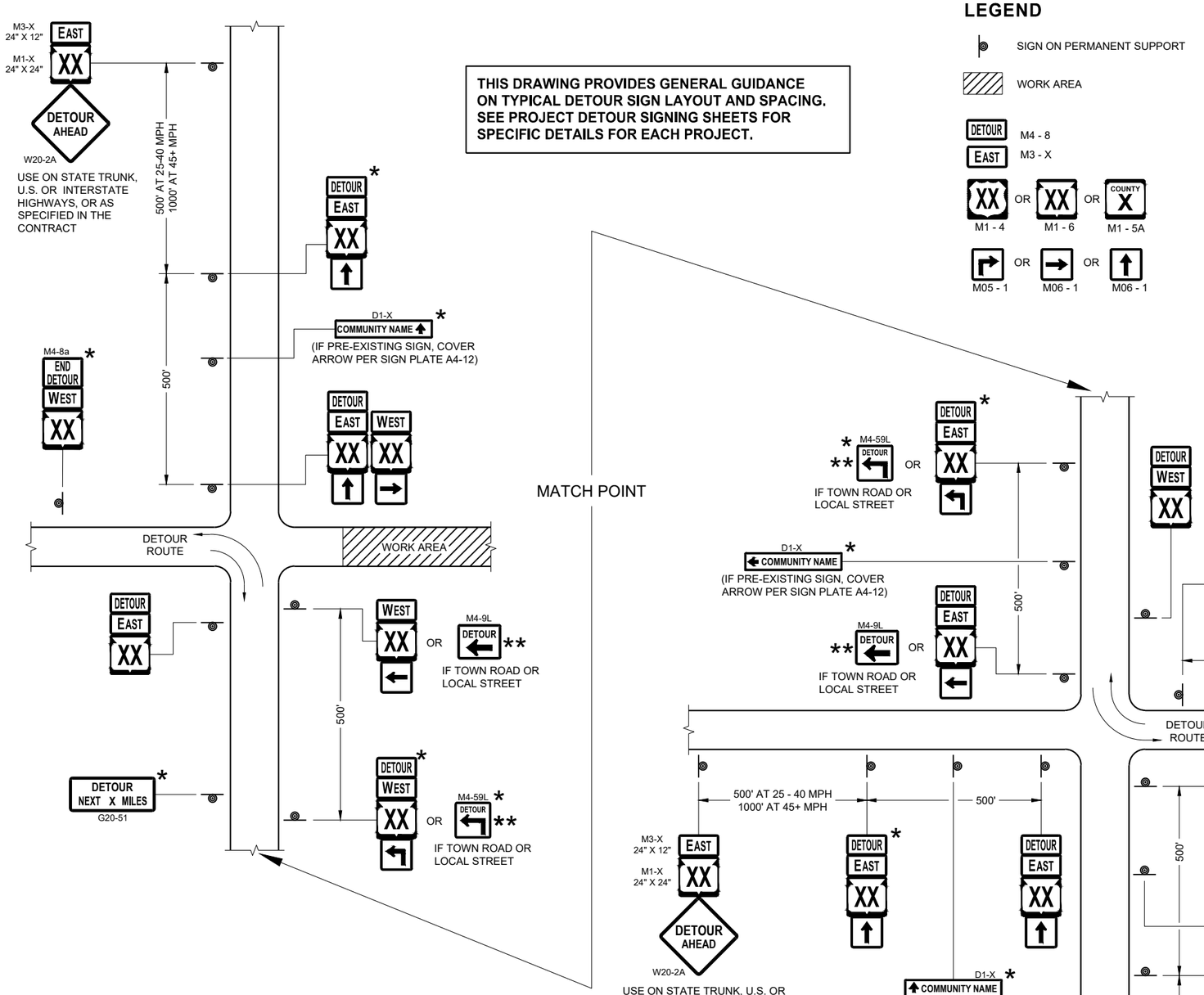
SDD 15C02 - 07b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

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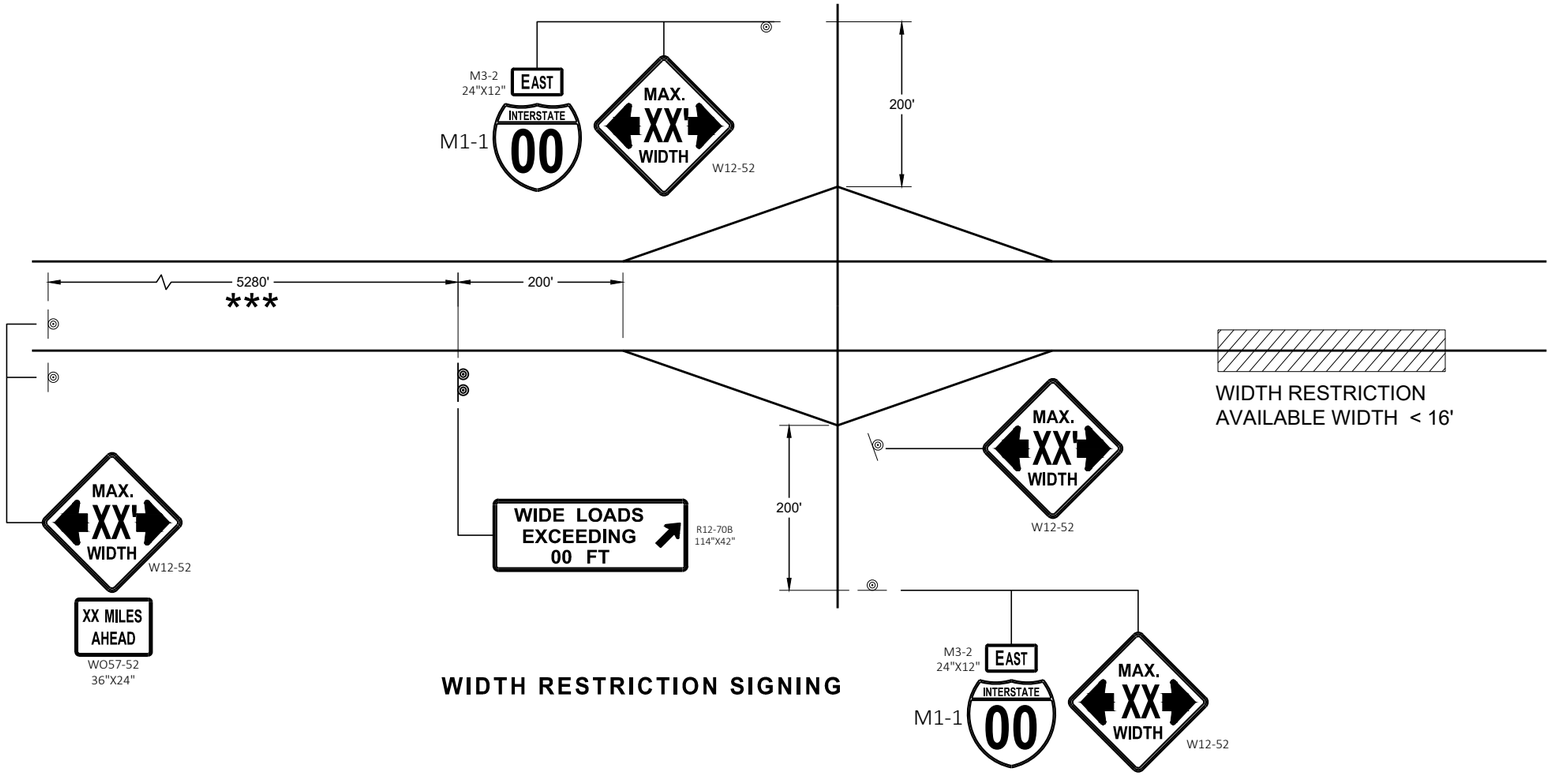
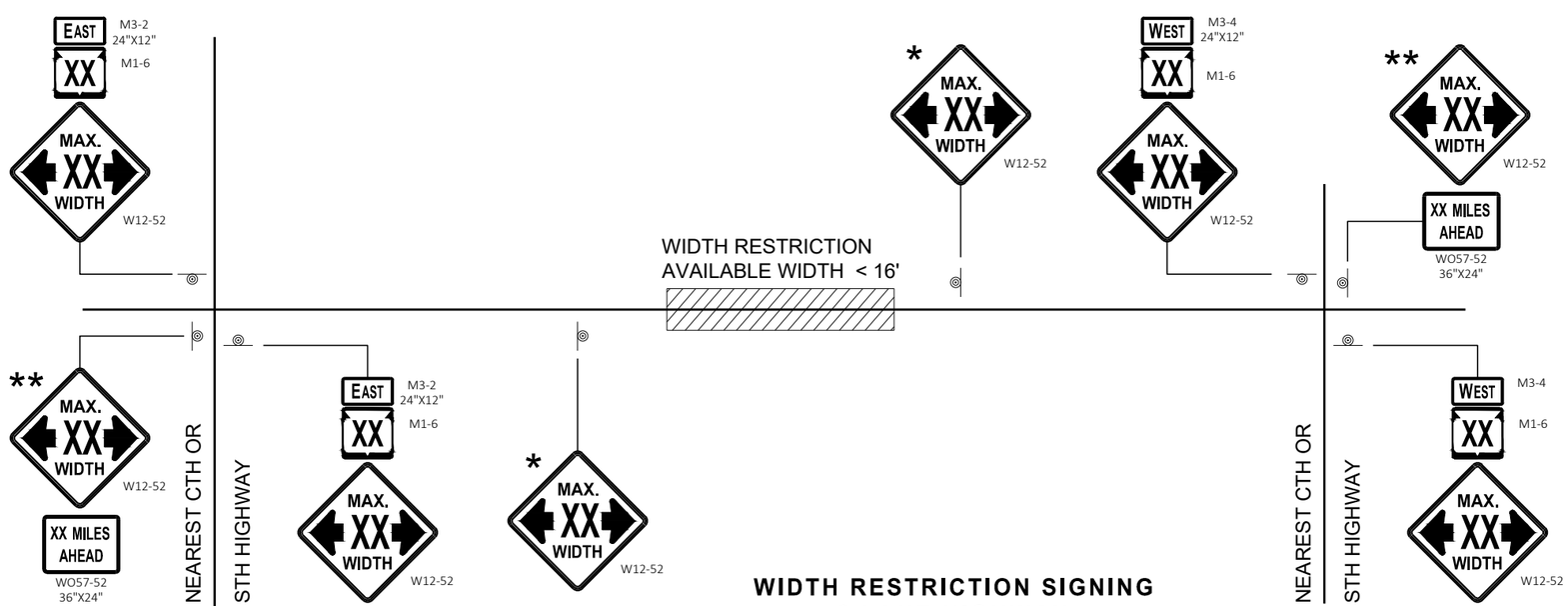
SDD 15C02 - 07c



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL " IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET BEFORE THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

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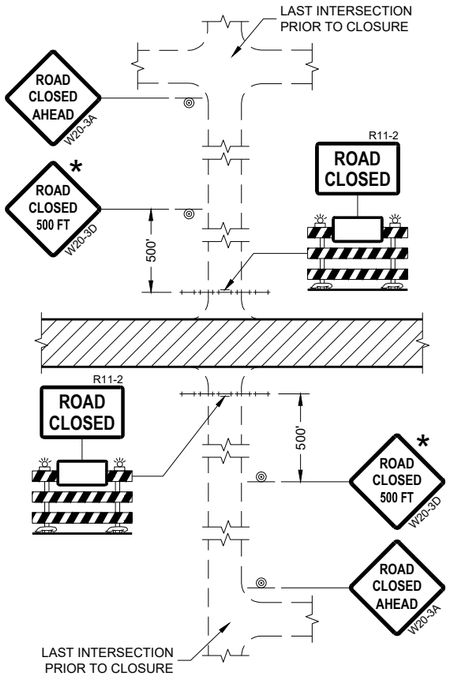
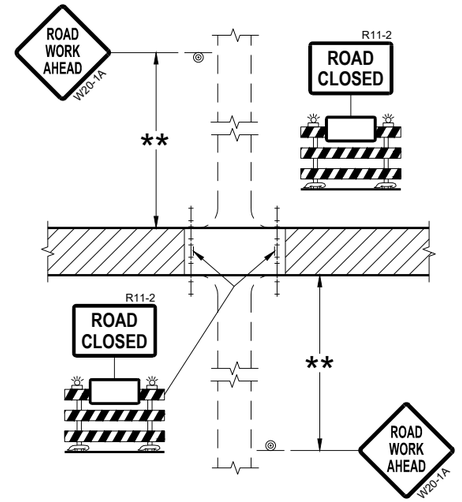
SDD 15C02 - 07f



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

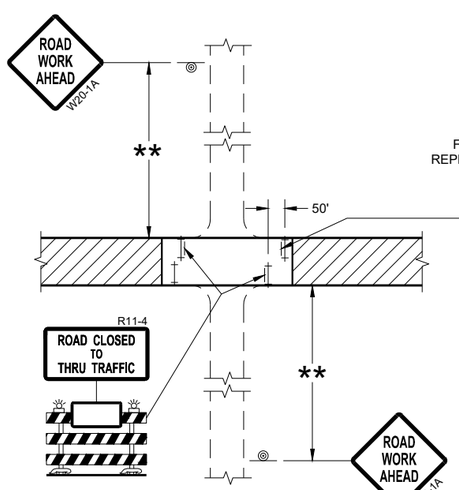
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

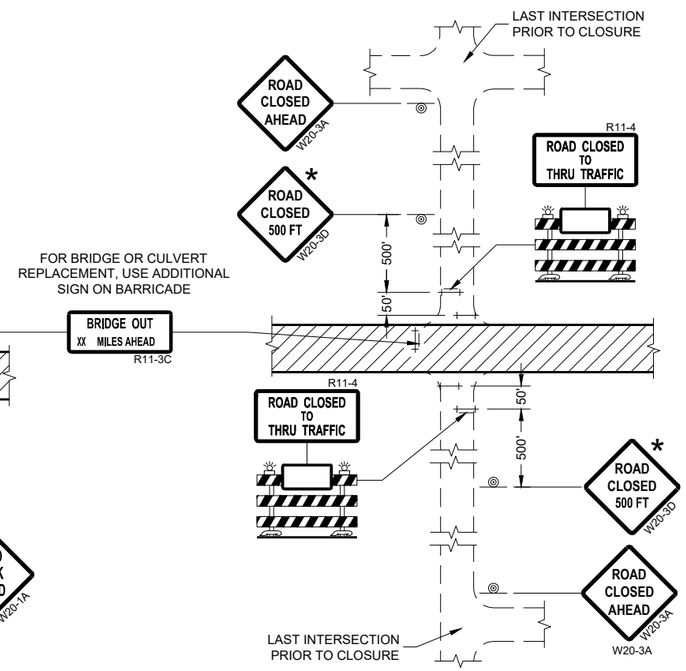
ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

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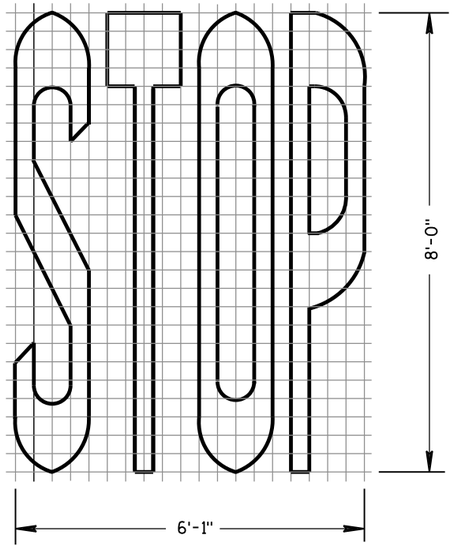
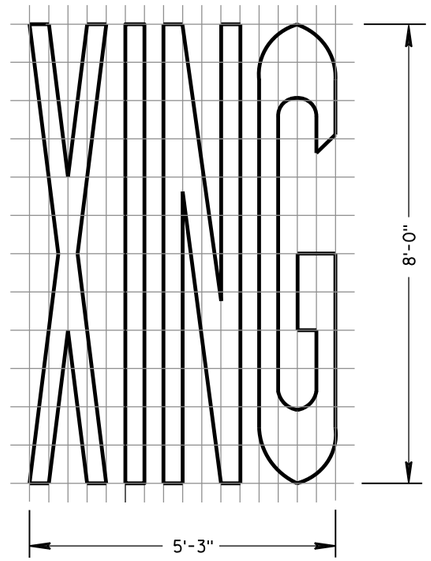
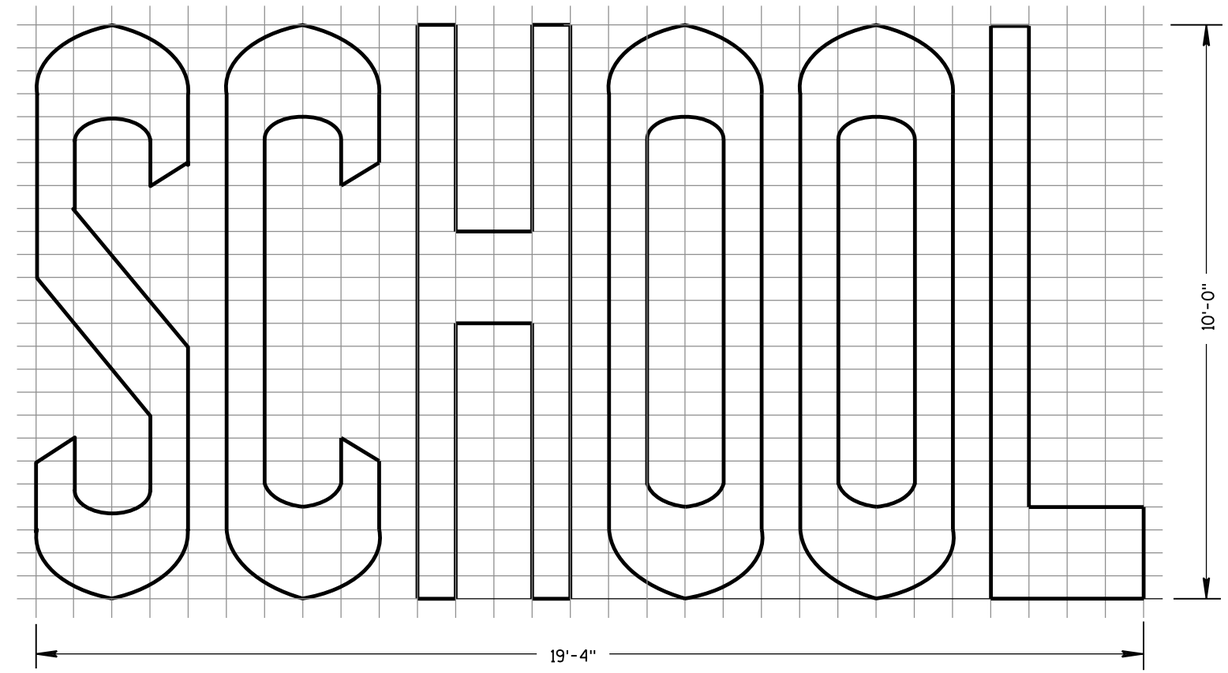
SDD 15C03 - 05

GENERAL NOTES

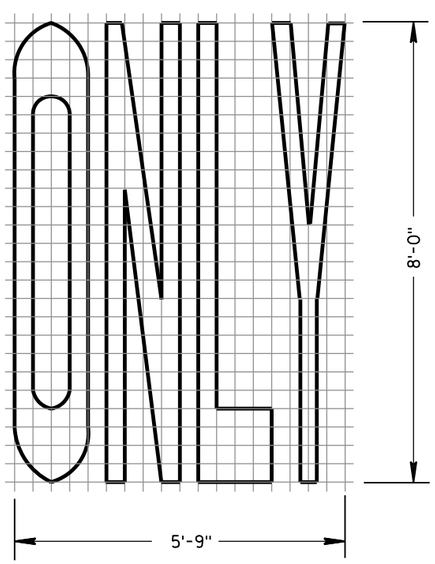
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

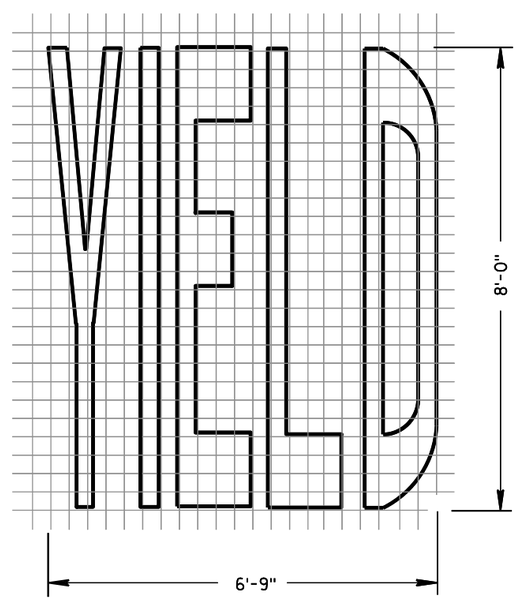


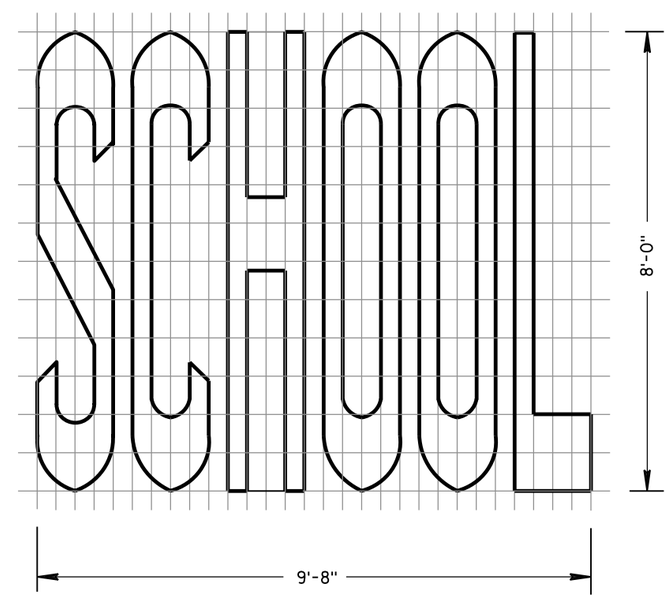




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 /S/ Matthew R. Rauch DATE STATE SIGNING AND MARK EER FHWA	

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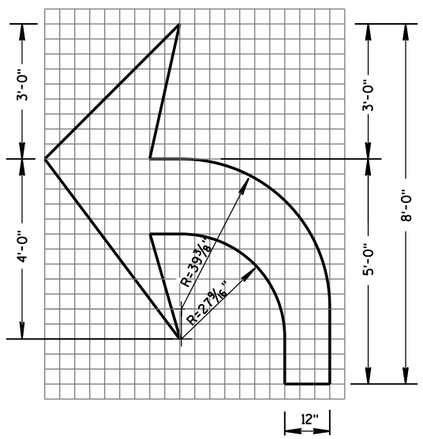
S.D.D. 15 C 7-14b

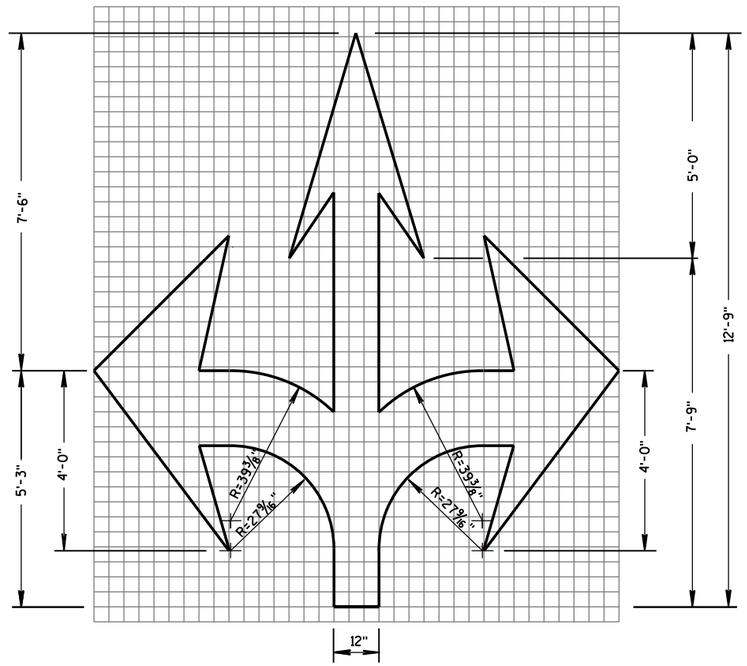
S.D.D. 15 C 7-14b

GENERAL NOTES

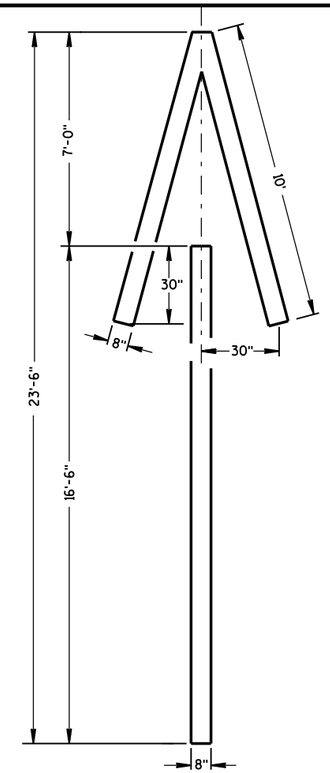
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



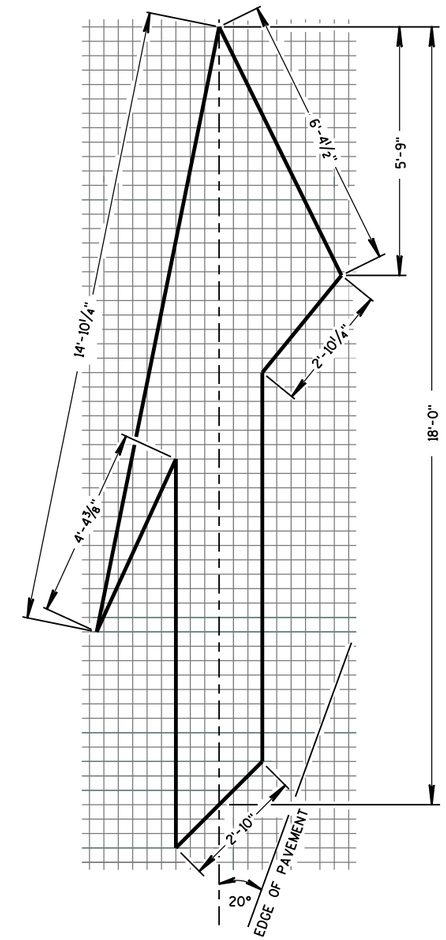
TYPE 2



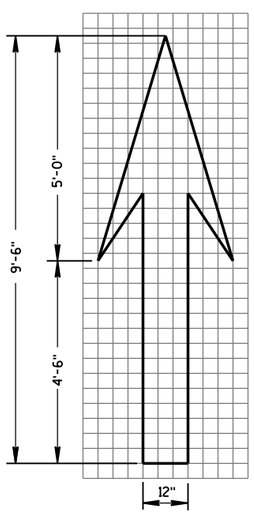
TYPE 6



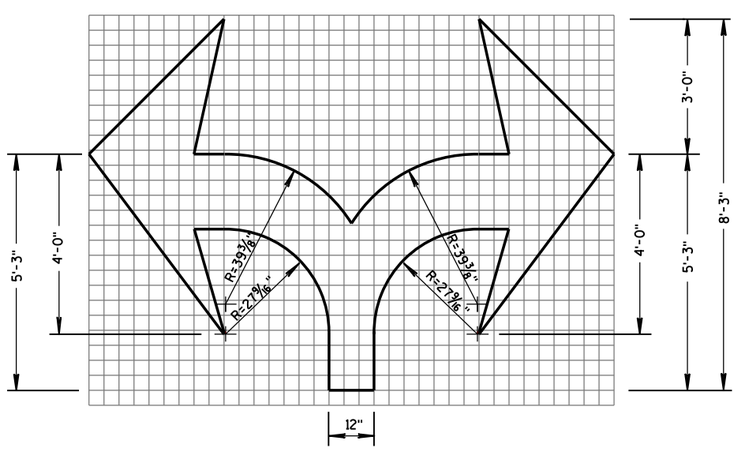
TYPE 4



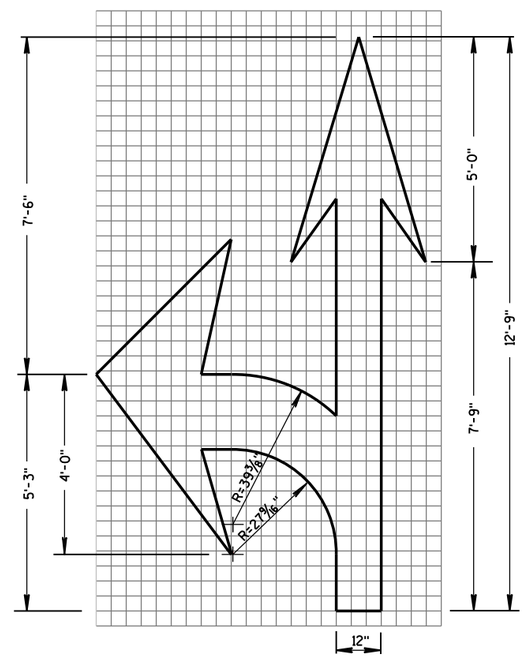
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

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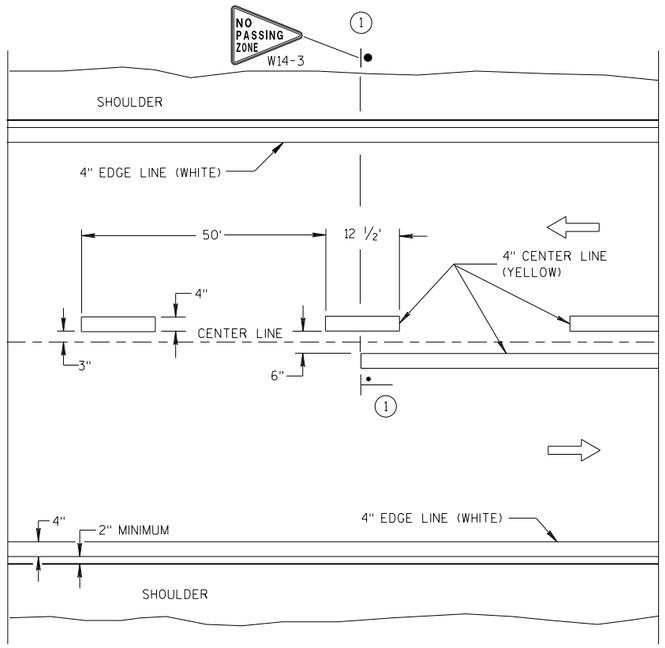
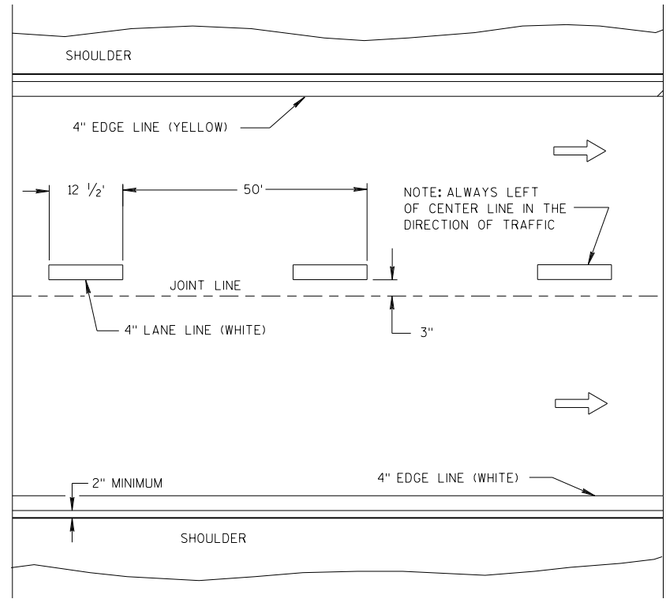
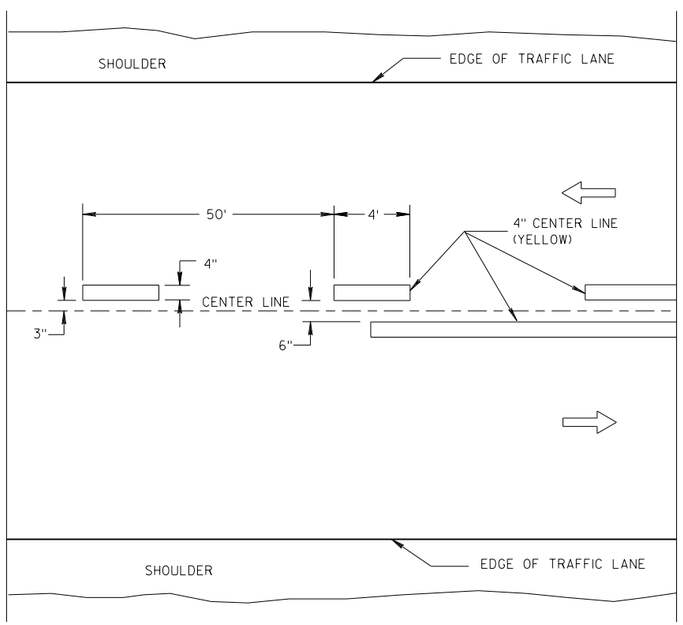


TWO WAY TRAFFIC

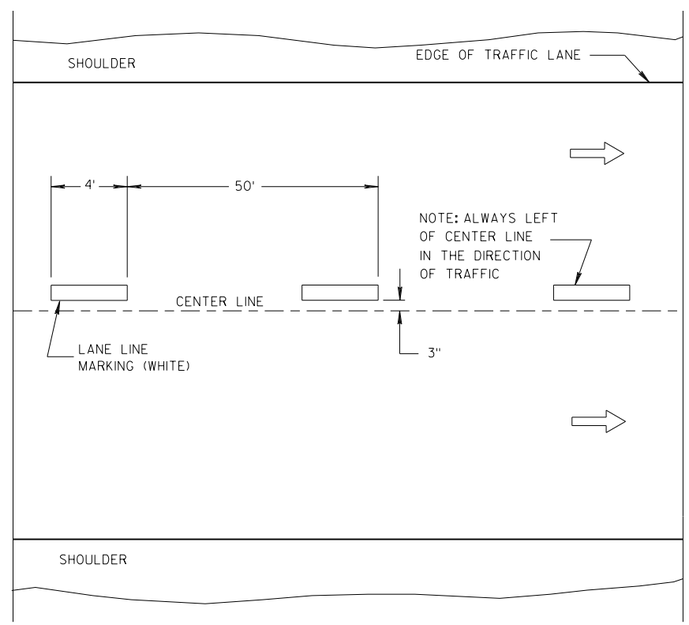


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

LEGEND

"T" MARKING

POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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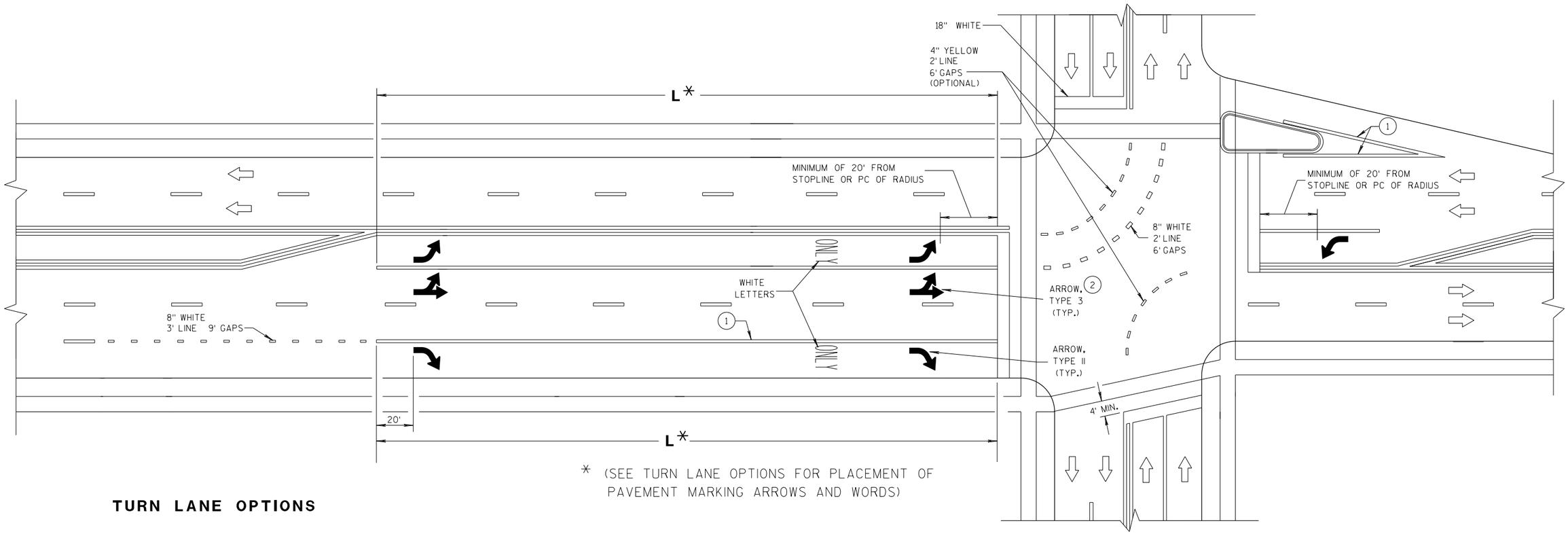
S.D.D. 15 C 8-19a

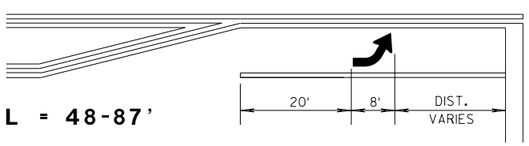


* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

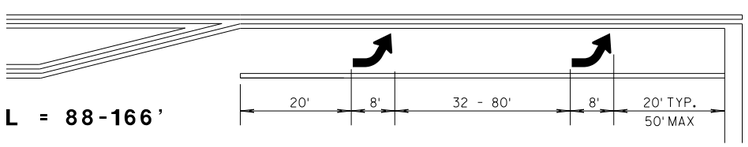
TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS

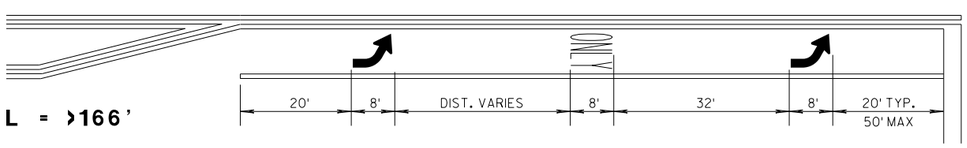
L = 48-87'



L = 88-166'



L = >166'



GENERAL NOTES

(1) 8" WHITE

(2) QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

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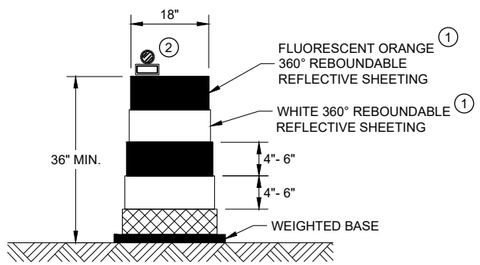
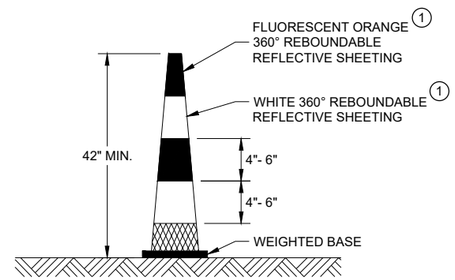
S.D.D. 15 C 8-19c

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

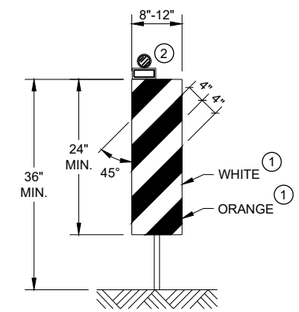


DRUM



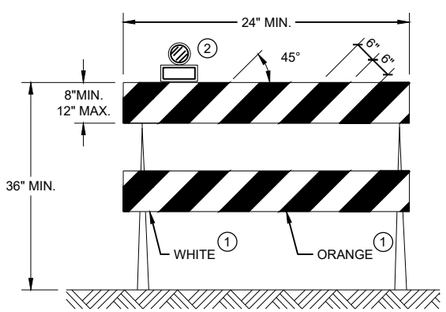
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



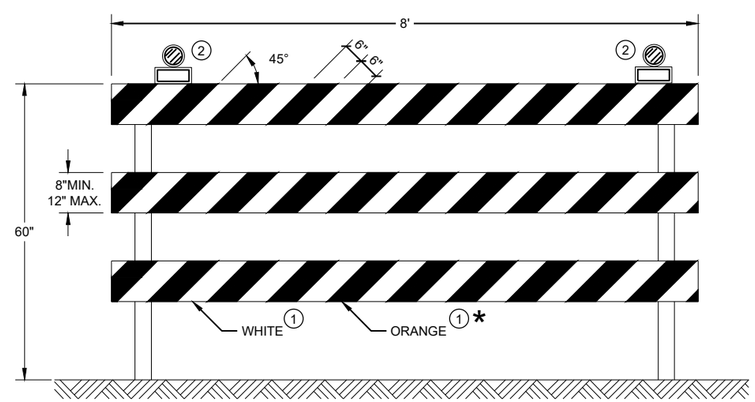
VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
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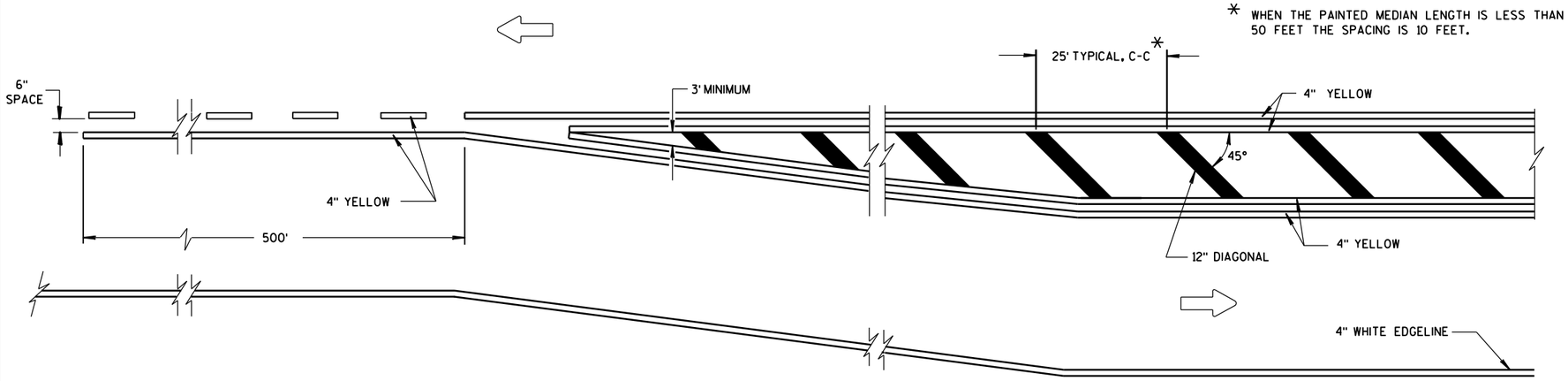
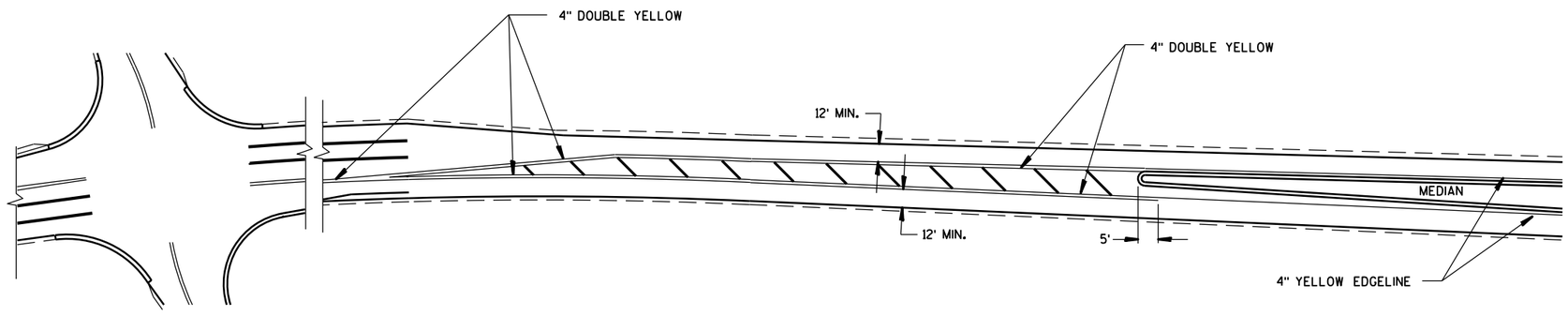


MEDIAN ISLAND DETAIL

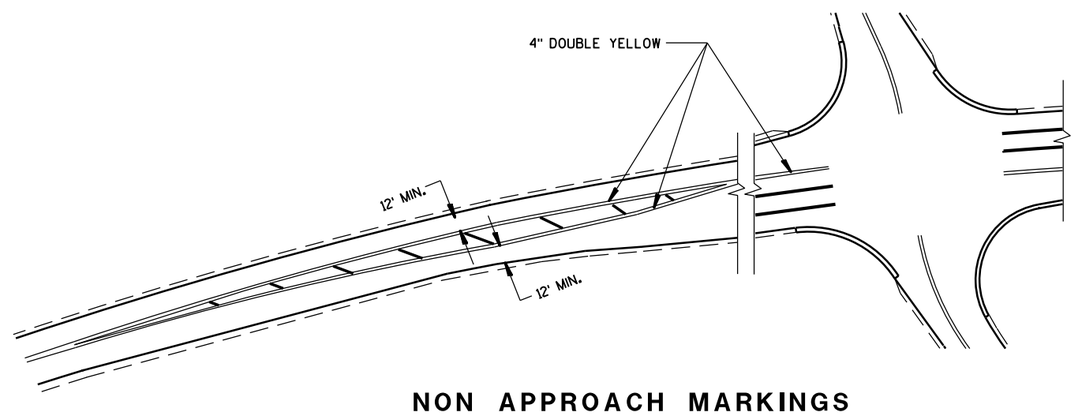
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING

STATE OF WISCONSIN
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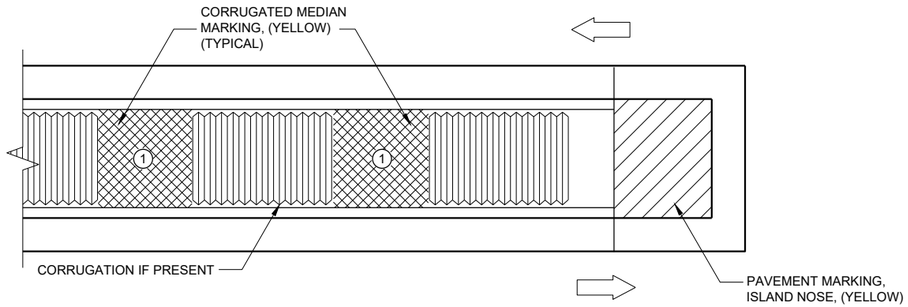
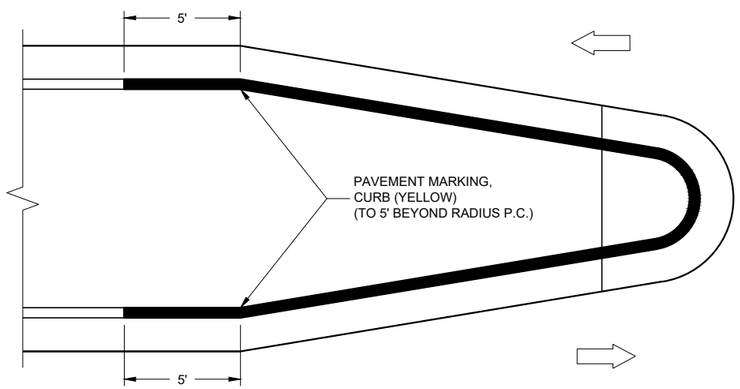
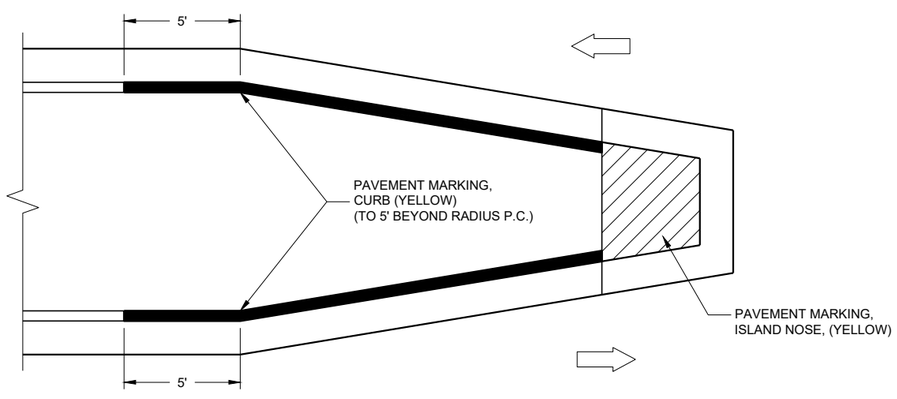


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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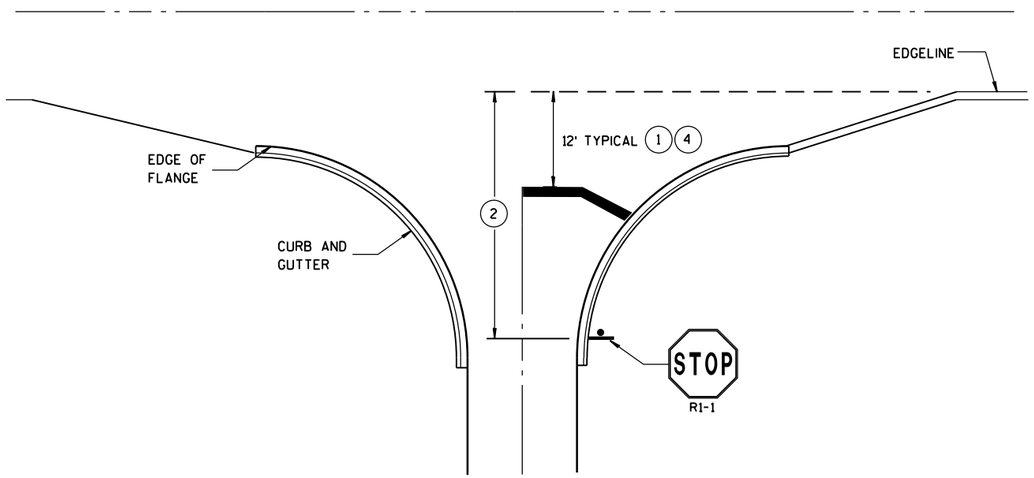
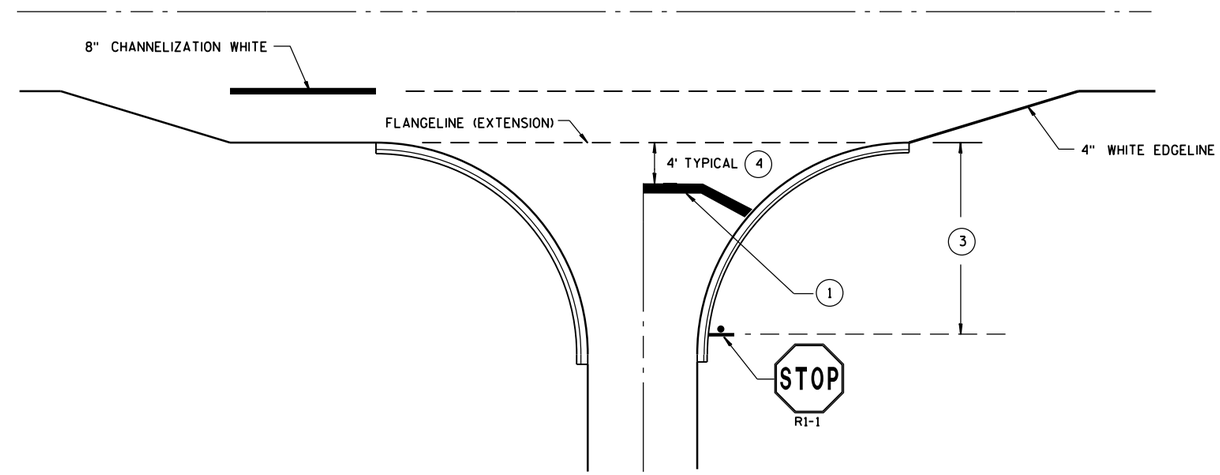
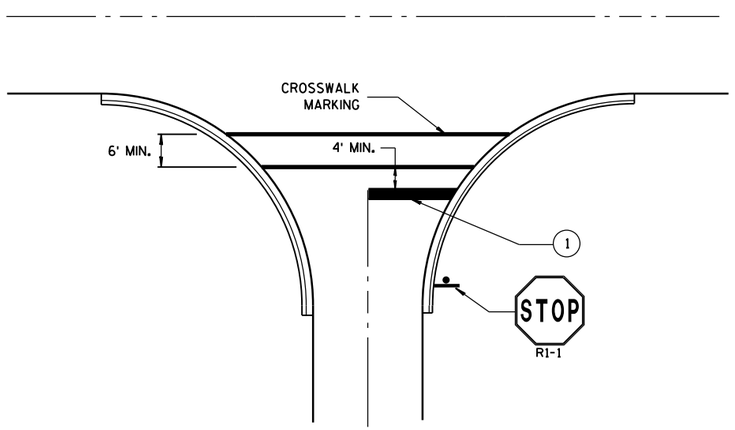


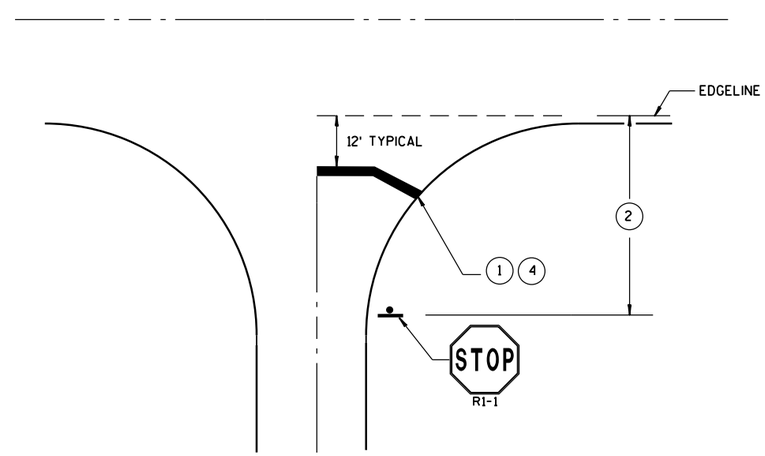
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017	/S/ Matthew R. Rauch
DATE	STATE SIGNING AND MAR[illegible]NEER

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GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

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.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

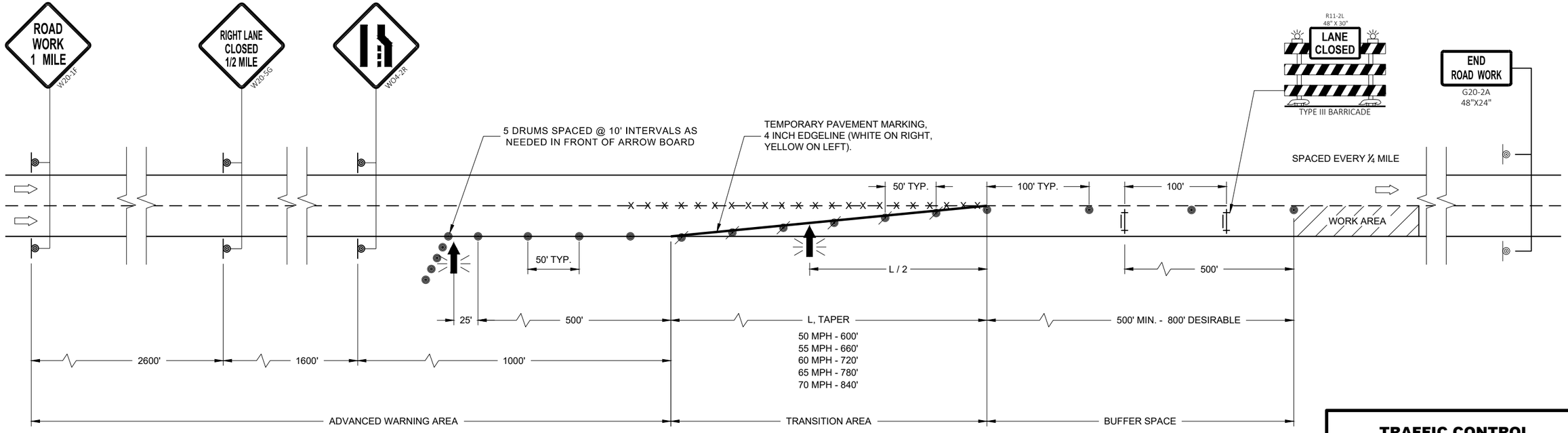
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Novermber 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
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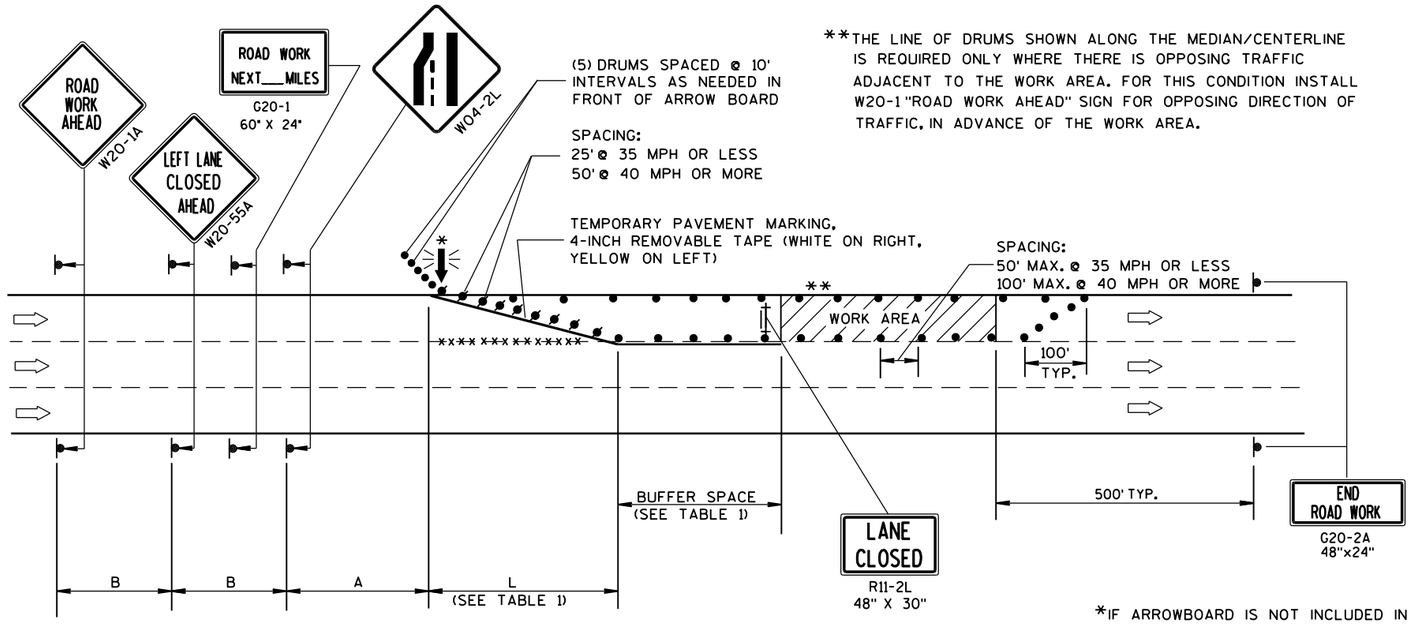


**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

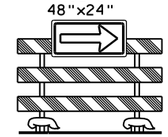
B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

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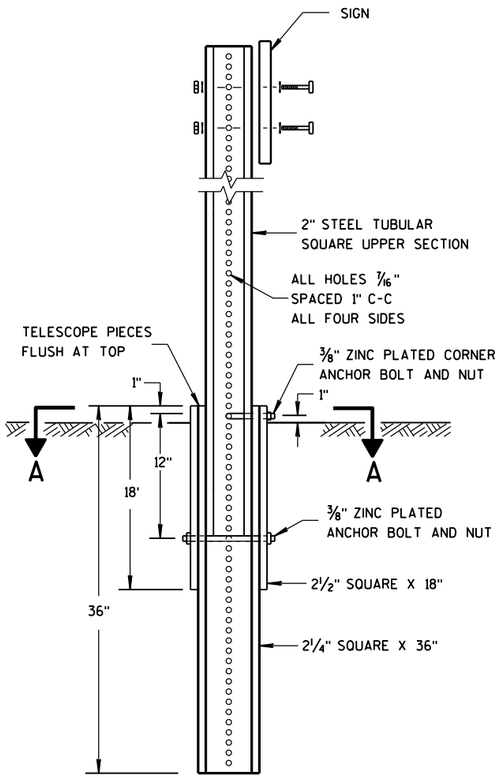
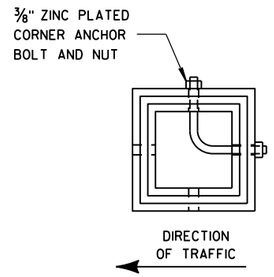
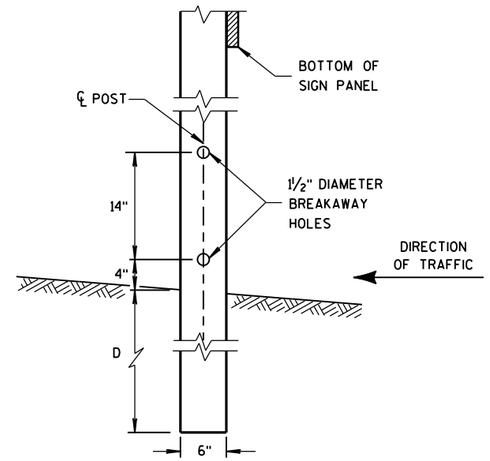
S.D.D. 15 D 20-4



DETAIL OF TUBULAR STEEL SIGN POST



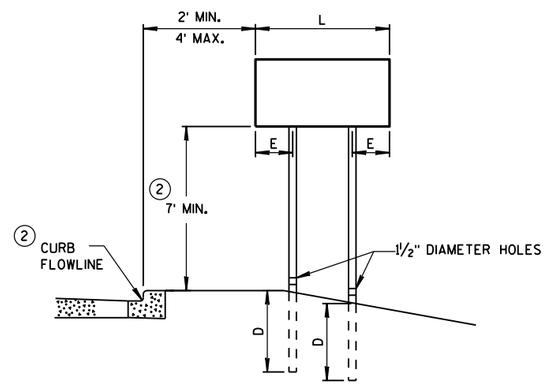
SECTION A-A



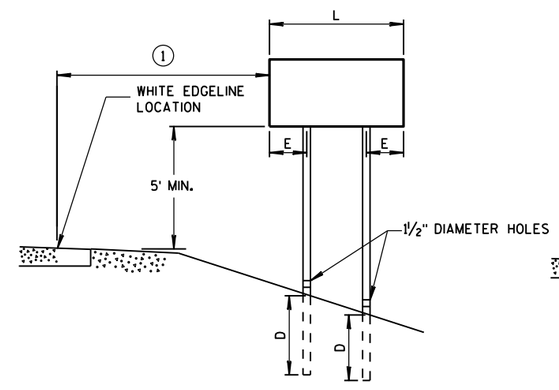
4"x6" WOOD POST MODIFICATION

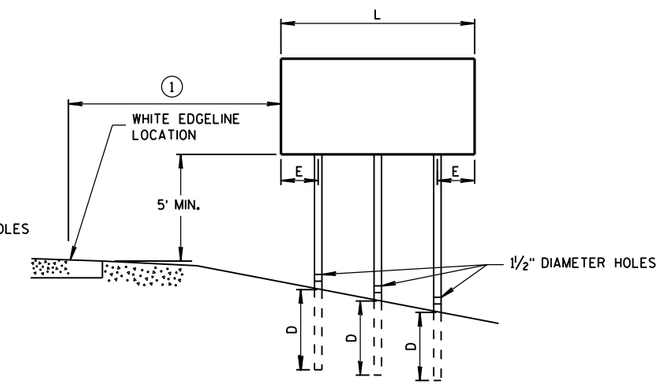
GENERAL NOTES

1. 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
2. THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
3. FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE 3

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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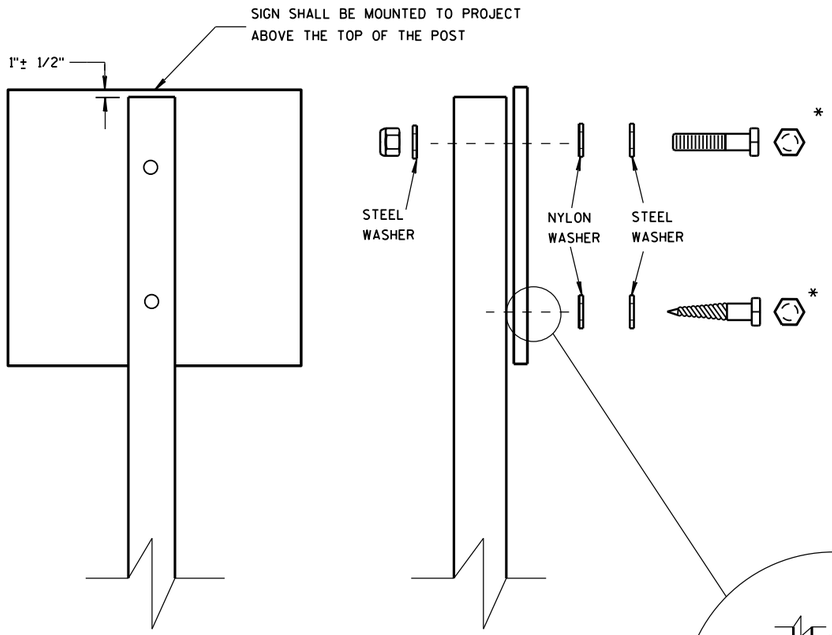
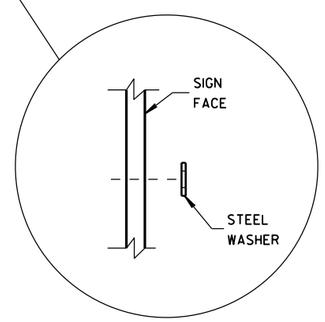
S.D.D. 15 D 38-2a





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

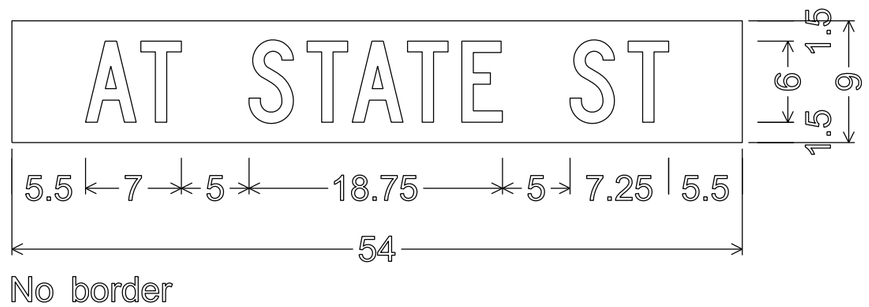
June 2017 — /S/ Andrew Heldtke

DATE — WORK ZONE ENG

FHWA

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Base Material .040" aluminum



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Notes

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