

GRE

MAY 2013

ORDER OF SHEETS

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

TOTAL SHEETS = 194

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WEST COUNTY LINE - APPLETON

WEST COUNTY LINE - STH 76

STH 96

OUTAGAMIE COUNTY

STATE PROJECT NUMBER

4075-31-71

END PROJECT
STA. 574+10.00

BEGIN PROJECT
STA. 51+00
Y=566,152.962
X=740,354.262



DESIGN DESIGNATION

A.A.D.T. 2015	=	6,600
A.A.D.T. 2035	=	7,850
D.H.V. 2035	=	1,201
D.D.	=	59/41
T.	=	11.2%
DESIGN SPEED	=	60 MPH
ESALS	=	1,693,600

CONVENTIONAL SYMBOLS

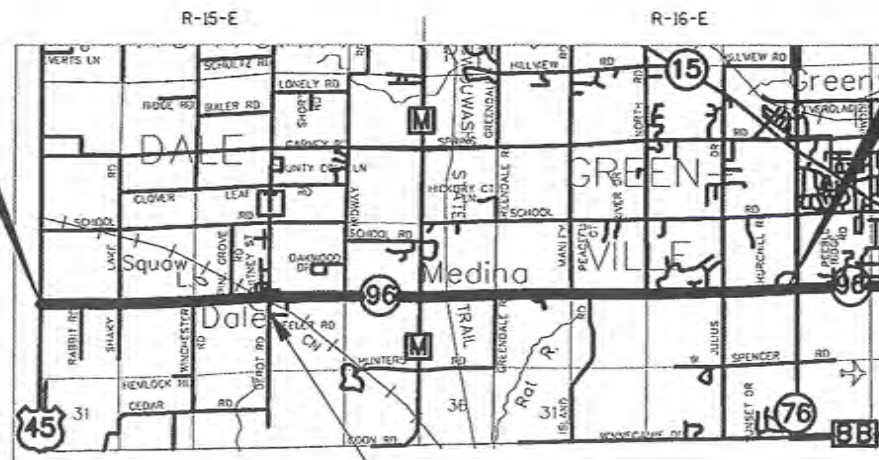
PLAN

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

PROFILE

GRADE LINE	----
ORIGINAL GROUND	----
MARSH OR ROCK PROFILE (To be noted as such)	----
SPECIAL DITCH	----
GRADE ELEVATION	95.36
CULVERT (Profile View)	----
UTILITIES	----
ELECTRIC	----
FIBER OPTIC	----
GAS	----
SANITARY SEWER	----
STORM SEWER	----
TELEPHONE	----
WATER	----
UTILITY PEDESTAL	----
POWER POLE	----
TELEPHONE POLE	----

T-21-N



EXCEPTION TO NET CENTERLINE LENGTH
STA. 204+98 TO STA. 205+18

LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 9.903 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), OUTAGAMIE COUNTY.

STATE PROJECT

4075-31-71

FEDERAL PROJECT

PROJECT

WISC 2013278

CONTRACT

1

ORIGINAL PLANS PREPARED BY:



DATE: 1-23-13 *Gary Corcoran*
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING, INC.
Designer	OTIE
Project Manager	CHARLES KAROW
Regional Examiner	
Regional Supervisor	BECKY ROOFKERS
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/28/2013 *Charles Karow*
(Signature)

E

UTILITIES

ANR PIPELINE COMPANY - GAS/PETROLEUM
ROBERT BIBELHAUSEN
(715) 758-3343 (OFFICE)
(715) 460-4001 (MOBILE)
ROBERT.BIBELHAUSEN@TRANSCANADA.COM

ATC MANAGEMENT, INC. - ELECTRICITY
MIKE OLSEN
801 O'KEEFE ROAD
P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582
MOLSEN@ATCLLC.COM

CENTURYLINK - COMMUNICATION LINE
ROSS HARTWIG
(920) 361-8425 (OFFICE)
(920) 290-4023 (MOBILE)
ROSS.HARTWIG@CENTURYLINK.COM

DALE SANITARY DISTRICT #1 - SEWER
LEROY RUPPEL
P.O. BOX 253
DALE, WI 54931-0253
(920) 779-6757

TIME WARNER CABLE - COMMUNICATION LINE
VINCE ALBIN
(920) 831-9249 (OFFICE)
(920) 378-0444 (MOBILE)
VINCE.ALBIN@TWCABLE.COM

WE ENERGIES - ELECTRICITY
STEVE ARMSTRONG
(920) 380-3563 (OFFICE)
(920) 428-2650 (MOBILE)
STEVE-E.ARMSTRONG@WE-ENERGIES.COM

WE ENERGIES - GAS/PETROLEUM
KENNETH J. VAN OSS
(920) 380-3318
KENNETH.VAN-OSS@WE-ENERGIES.COM

AT&T WISCONSIN - COMMUNICATION LINE
VINCENT LEBRUN
(920) 735-3076
VL1253@ATT.COM



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

WISDNR LIAISON

NORTHEAST REGION
MATT SCHAEVE
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 662-5472
MATTHEW.SCHAEVE@WISCONSIN.GOV

OUTAGAMIE COUNTY SURVEYOR

JAMES A. HEBERT
410 S. WALNUT STREET
APPLETON, WI 54911
(920) 832-5255

ORDER OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN SHEETS

GENERAL NOTES

MISCELLANEOUS

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

RADIUS DIMENSIONS OF THE CURB AND GUTTER ARE TO THE FLANGE OF THE GUTTER UNLESS
OTHERWISE NOTED. ELEVATIONS SHOWN FOR CURB AND GUTTER ARE FLANGE ELEVATIONS.

STATIONING FOR BEAMGUARD IS APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD.

REMOVALS

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

GRADING/EROSION CONTROL

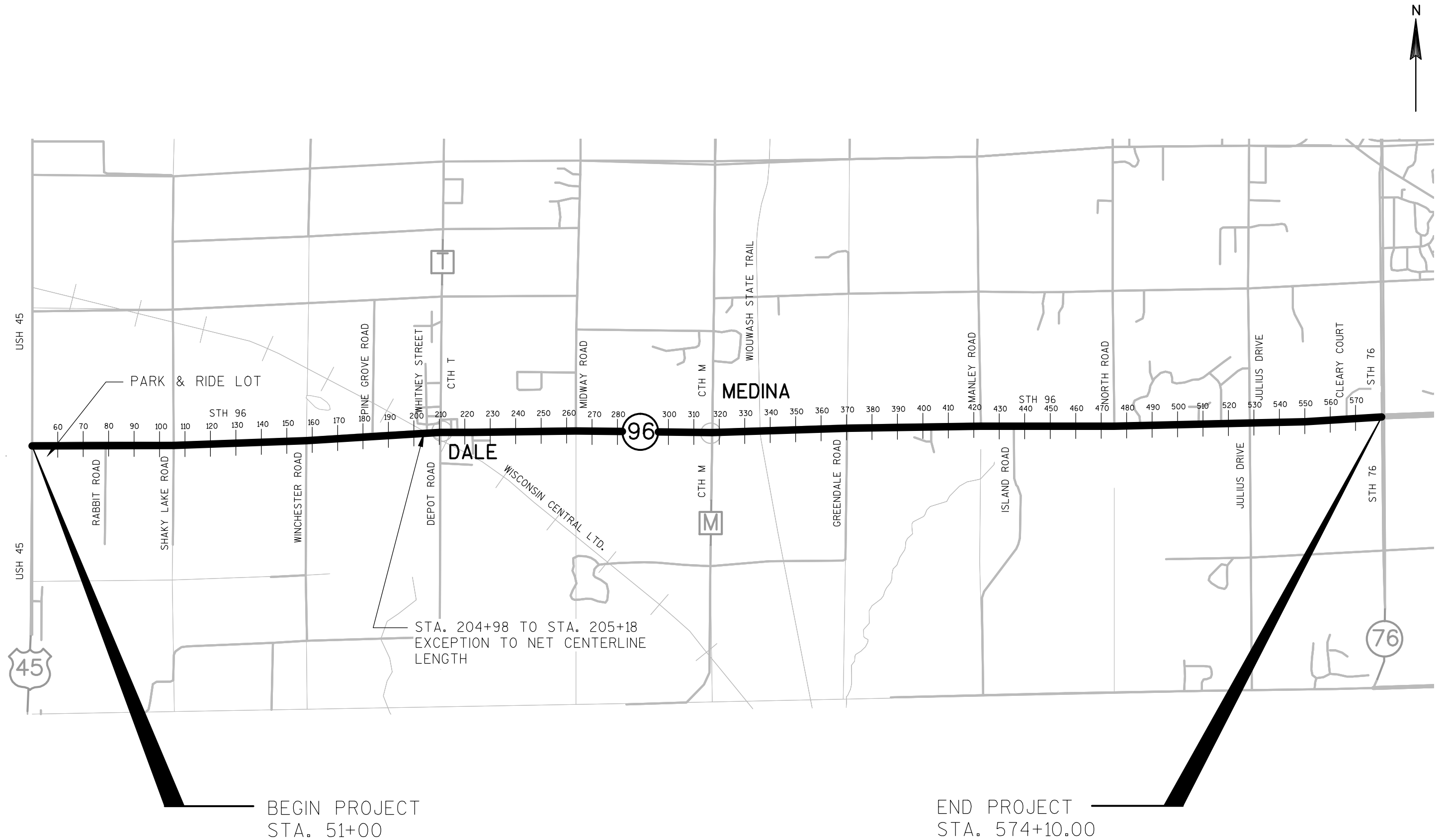
EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS.
THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

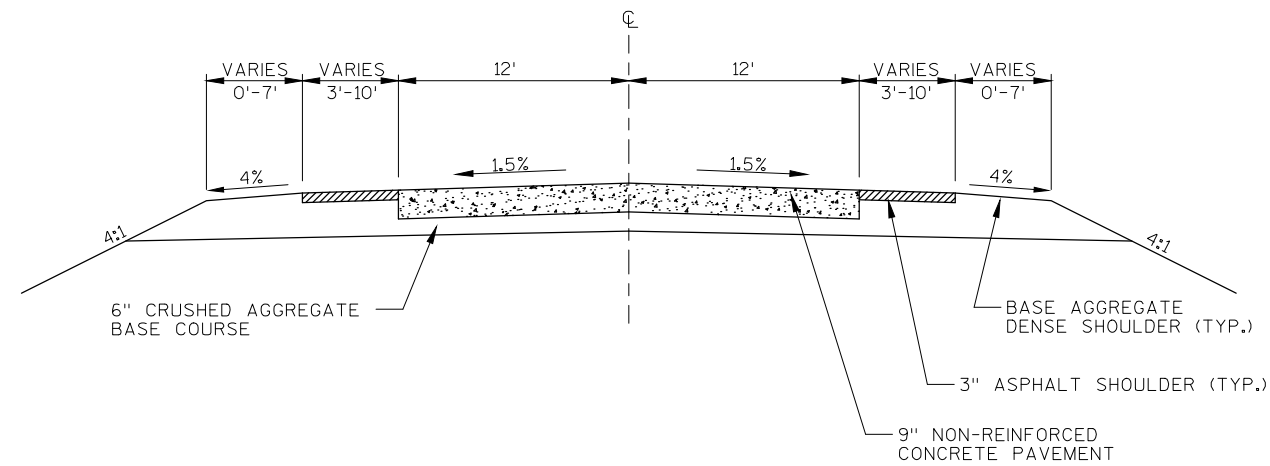
RESTORE EXISTING DRIVEWAYS IN KIND AND AT THE LOCATION AND WIDTH DETERMINED
BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT AREAS WITHIN THE FINISHED
SHOULDER POINTS SHALL BE TOPSOILED, FERTILIZED, SEEDED AND MULCHED.

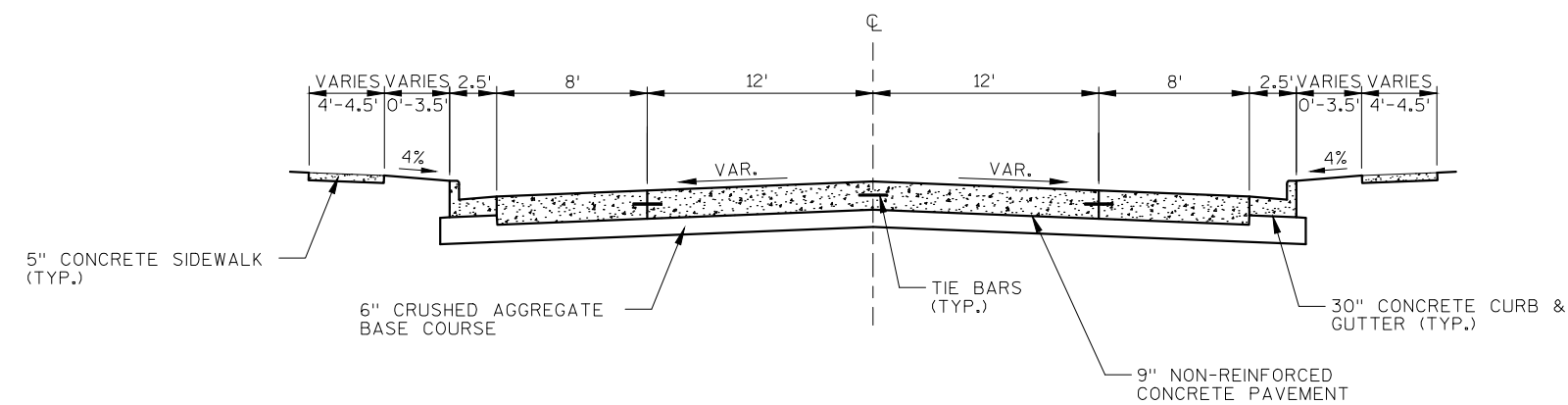
HMA PAVEMENT

PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND
CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A
DRIVING, TURNING OR AUXILLARY LANE.



**EXISTING TYPICAL SECTION**

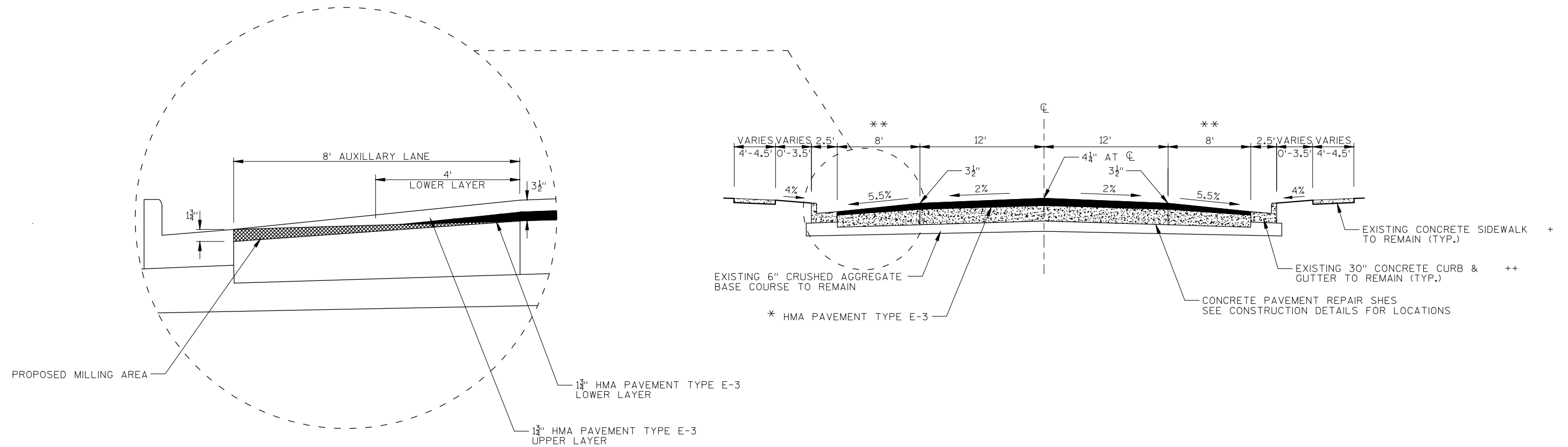
STA. 51+00 TO STA. 175+70
STA. 227+65 TO STA. 296+64
STA. 340+32 TO STA. 574+10

**EXISTING TYPICAL SECTION**

STA. 175+70 TO STA. 204+98
STA. 205+18 TO STA. 227+65
STA. 296+64 TO STA. 340+32

* UPPER LAYER: $1\frac{3}{4}$ "
 LOWER LAYER: $2\frac{1}{2}$ " AT C/L AND $1\frac{3}{4}$ " AT EDGE OF 12' LANE.

** PARKING LANE TO BE MILLED $1\frac{3}{4}$ " DEEP ACROSS 8' AUXILLARY LANE

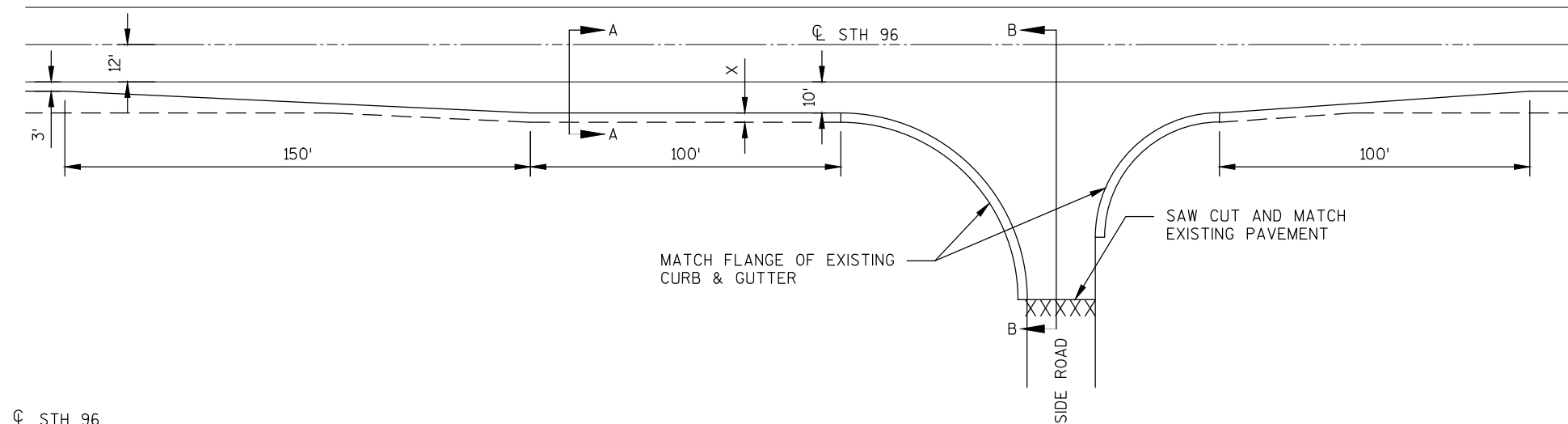


PROPOSED TYPICAL SECTION

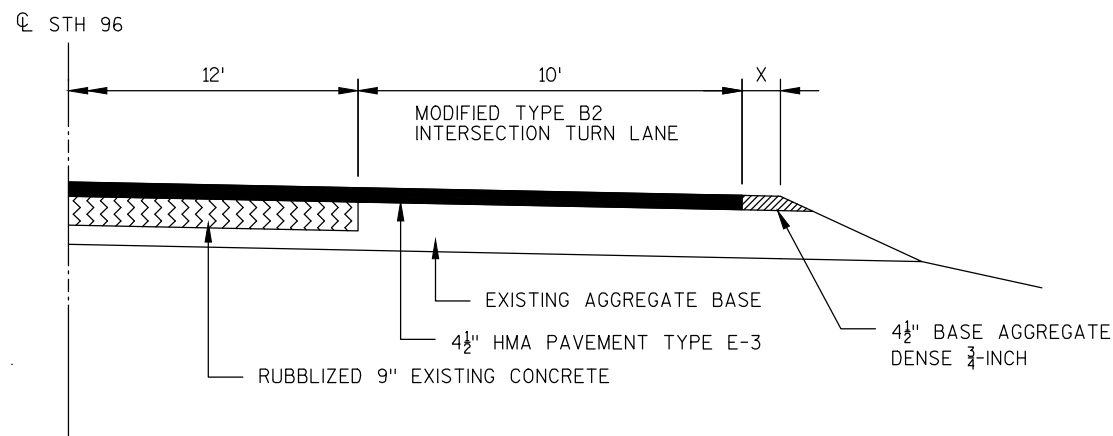
STA. 175+70 TO STA. 204+98
 STA. 205+18 TO STA. 227+65
 STA. 296+64 TO STA. 340+32

+ SEE PLAN SHEETS FOR SPOT CONCRETE SIDEWALK REPLACEMENT LOCATIONS

++ SEE PLAN SHEETS FOR SPOT CURB & GUTTER REPLACEMENT LOCATIONS

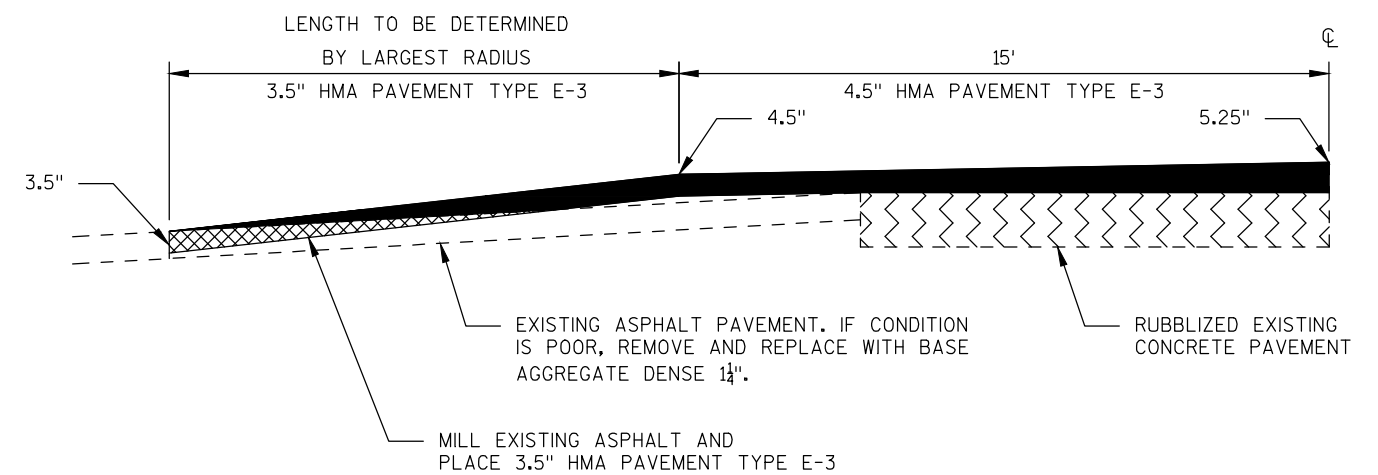


SIDE ROAD	X
MIDWAY ROAD	1'
GREENDALE ROAD	3'
BROOKVIEW ROAD	0'
MANLEY ROAD	1'
ISLAND ROAD	3'
NORTH ROAD	1'
SPRING VALLEY DRIVE	1'
LAKEVIEW LANE	1'
FOX SPRINGS DRIVE	1'
JULIUS DRIVE	1'
CLEARY COURT	1'

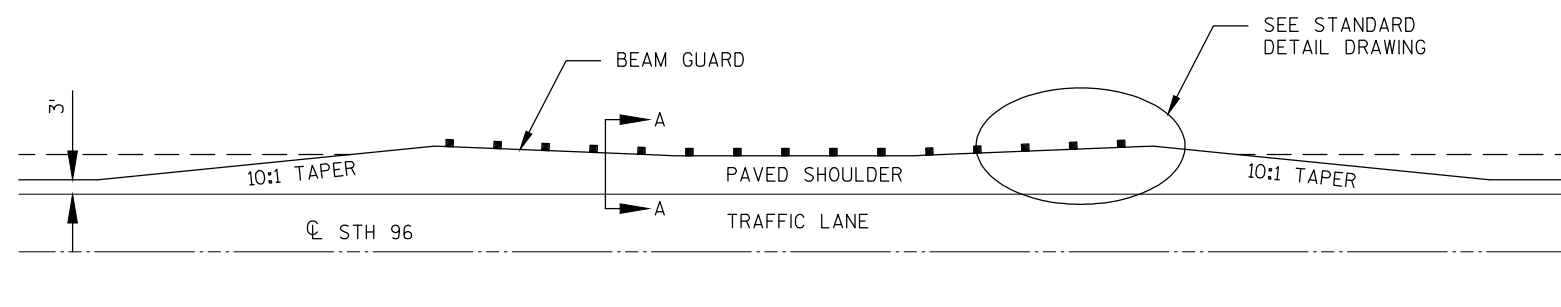


SECTION A-A

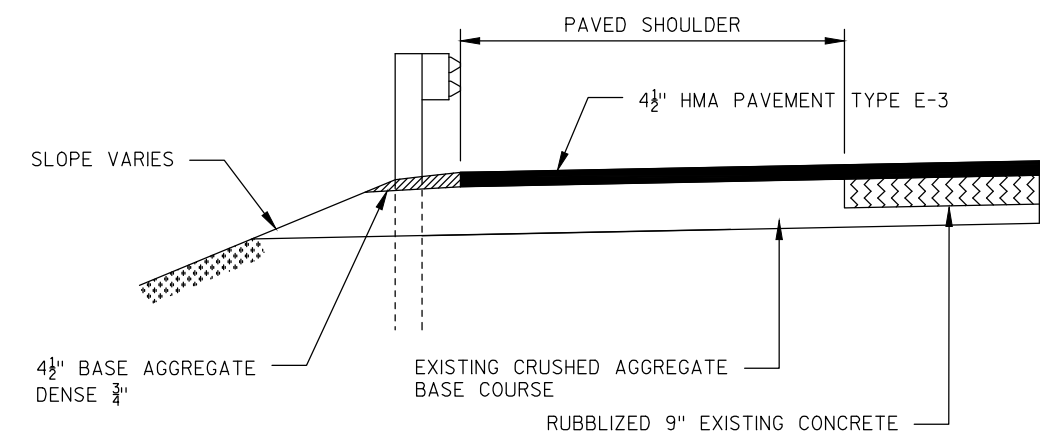
MODIFIED TYPE B2 INTERSECTION DETAIL



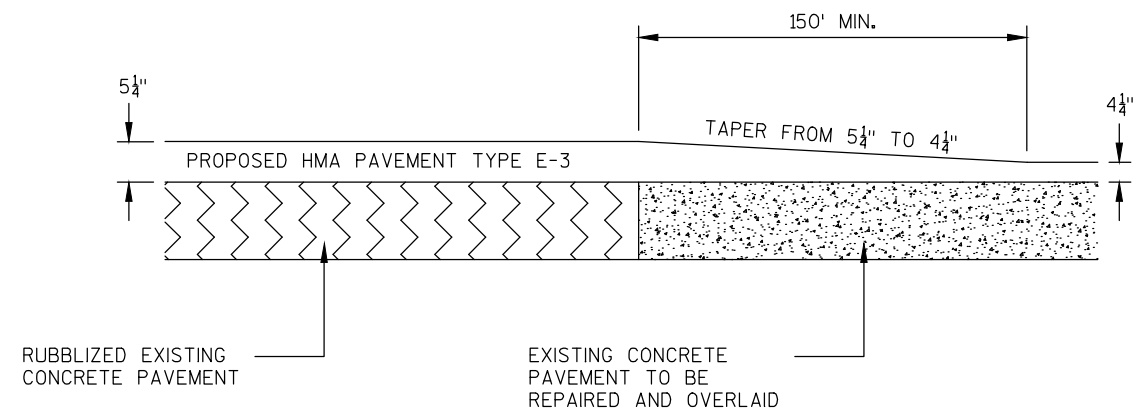
SECTION B-B



DETAIL FOR PAVED SHOULDER AT BEAM GUARD



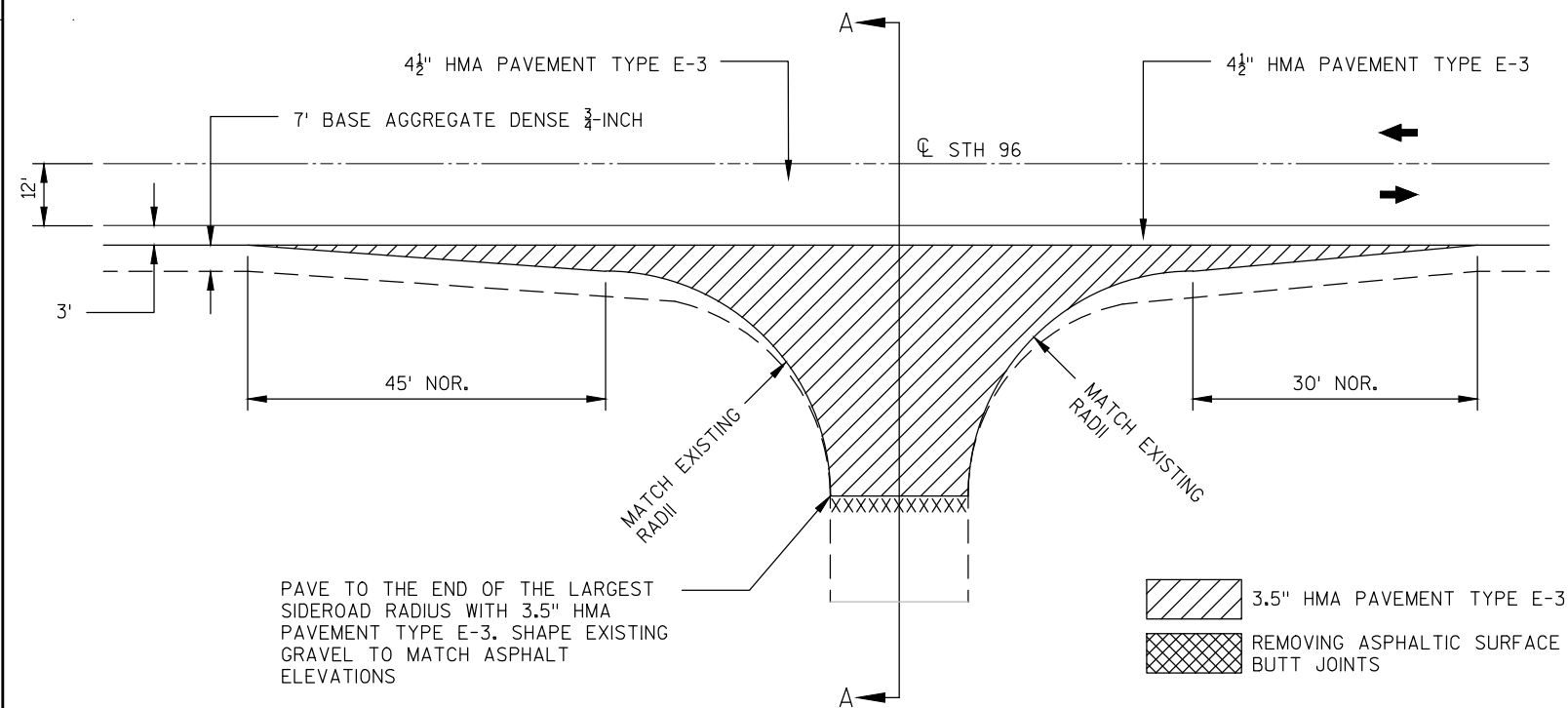
SECTION A-A



TRANSITION FROM RUBBLIZE/OVERLAY TO REPAIR/OVERLAY

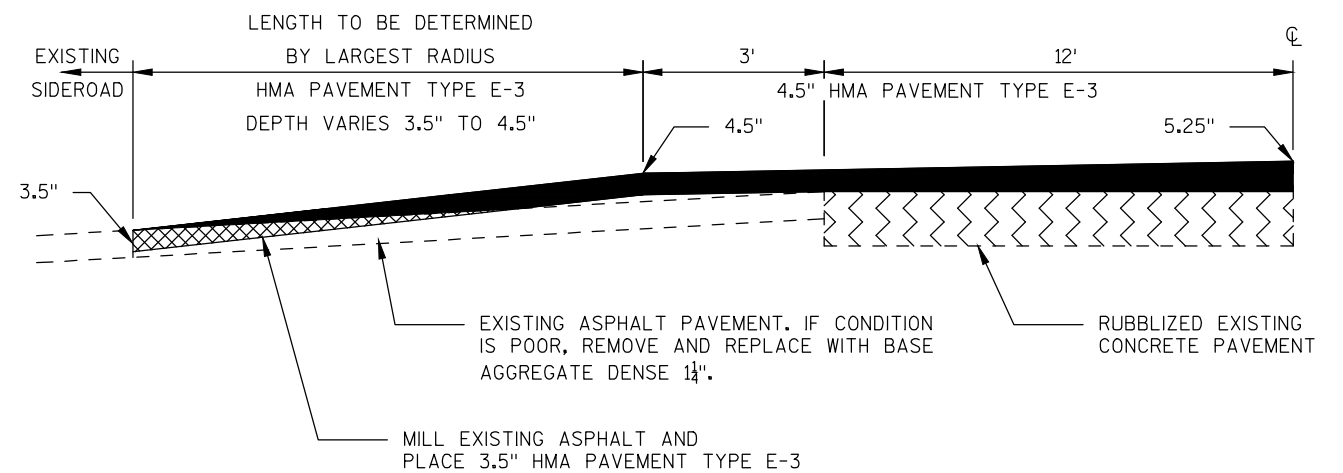
STA. 175+70 - STA. 177+20
 STA. 226+15 - STA. 227+65
 STA. 296+64 - STA. 298+18
 STA. 338+82 - STA. 340+32

NOTE: PAVEMENT THICKNESS SHOWN AT ϕ

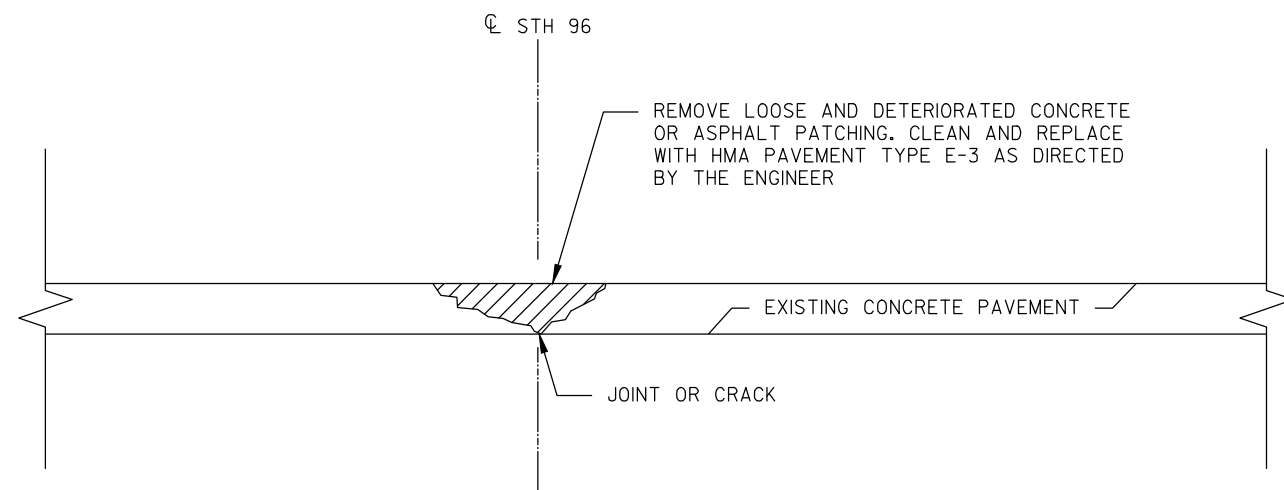


SIDE ROAD PAVING DETAIL

RABBIT ROAD
 SHAKY LAKE ROAD
 WINCHESTER ROAD

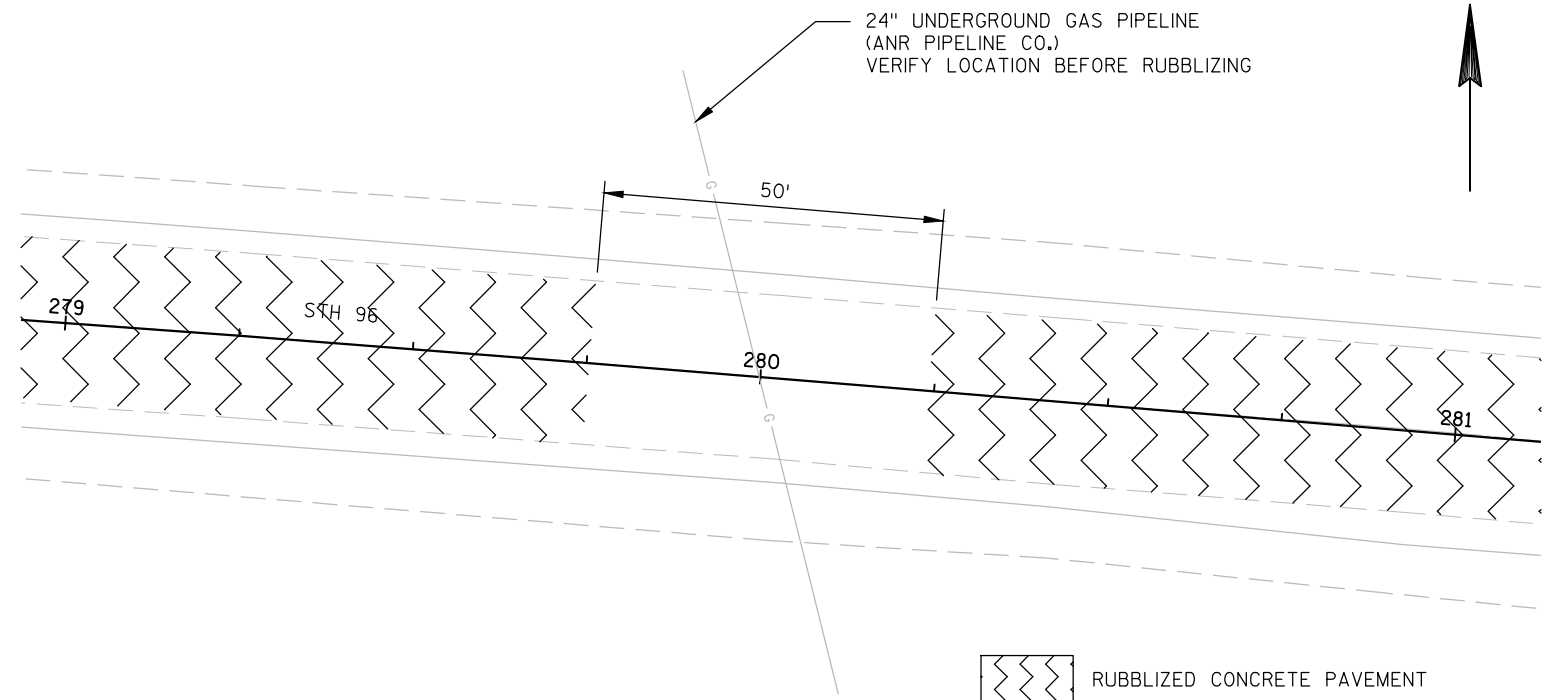


SECTION A-A



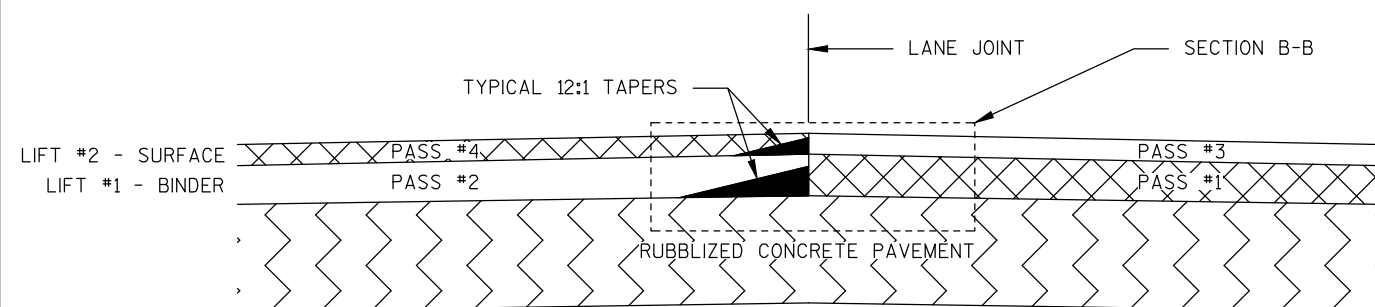
CONCRETE JOINT AND CRACK CLEANING

STH 96 CENTERLINE, DALE & MEDINA
 STA. 175+70 TO STA. 204+75
 STA. 205+37 TO STA. 227+65
 STA. 296+64 TO STA. 340+32

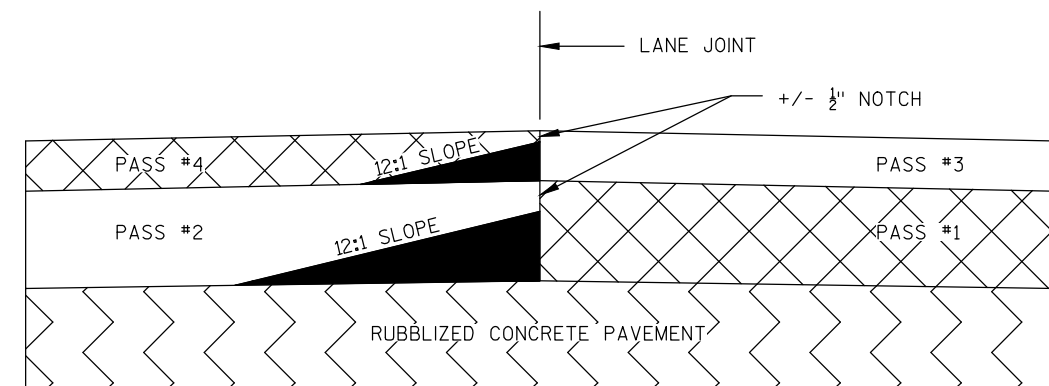


RUBBLIZING GAP FOR 24" GAS LINE

STA. 280+00



PAVEMENT SECTION (BINDER AND SURFACE COURSES)



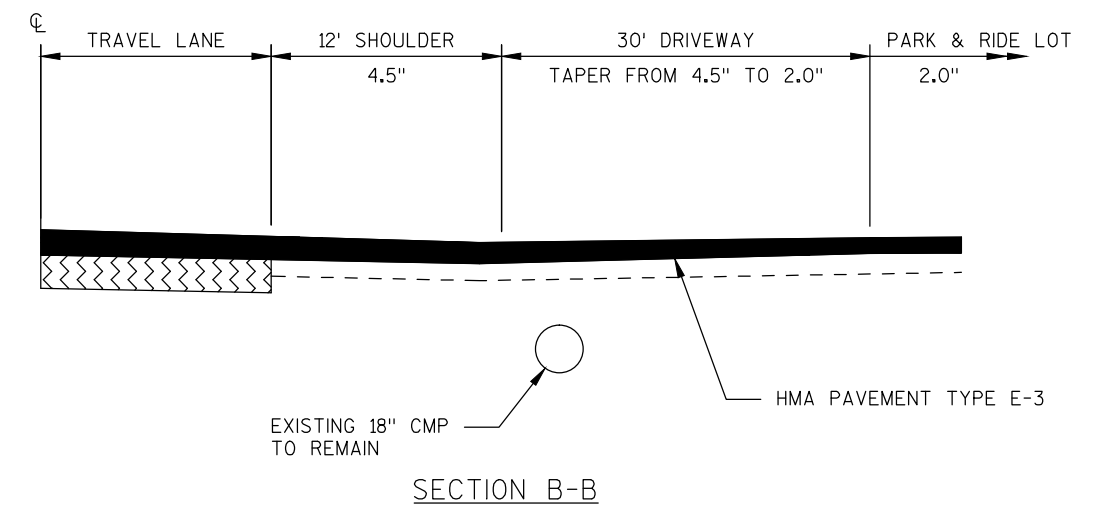
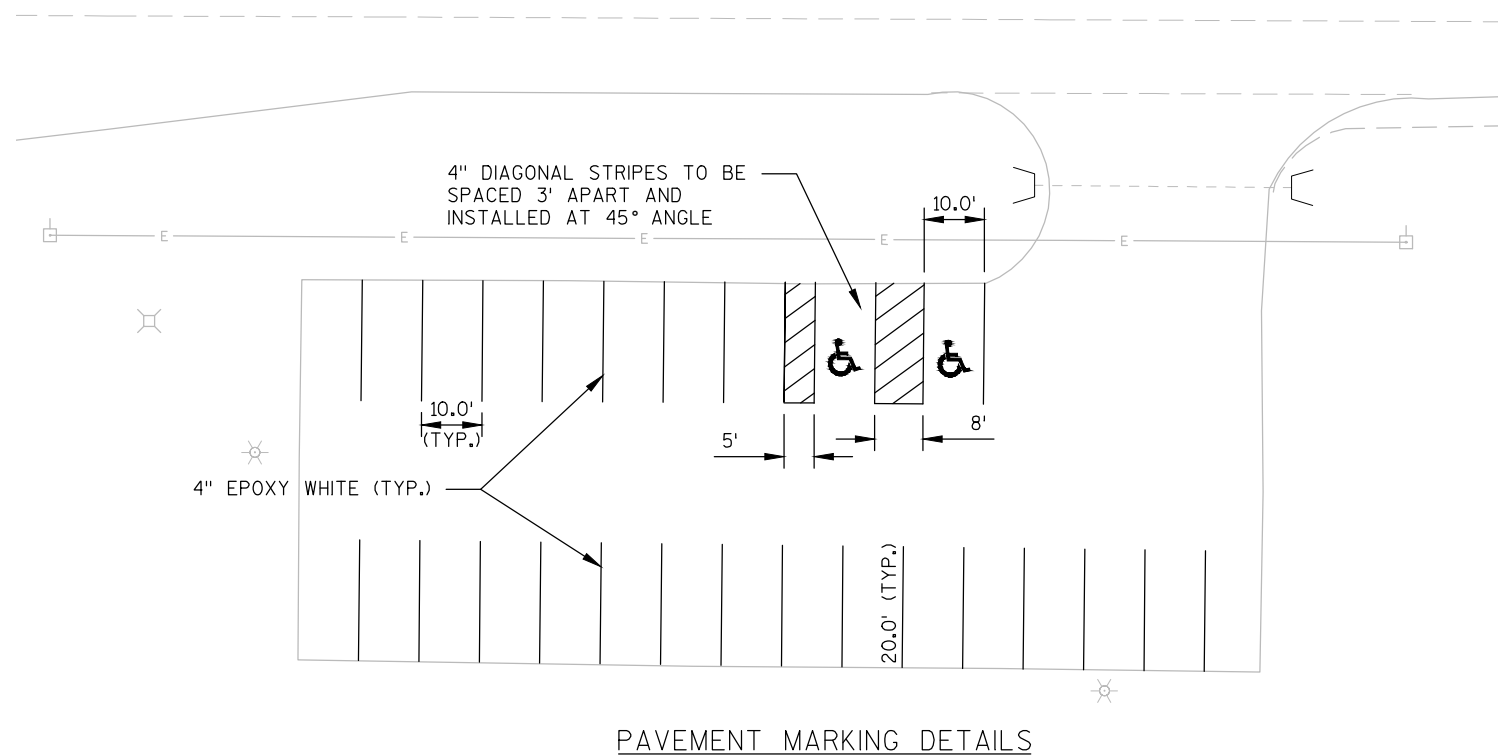
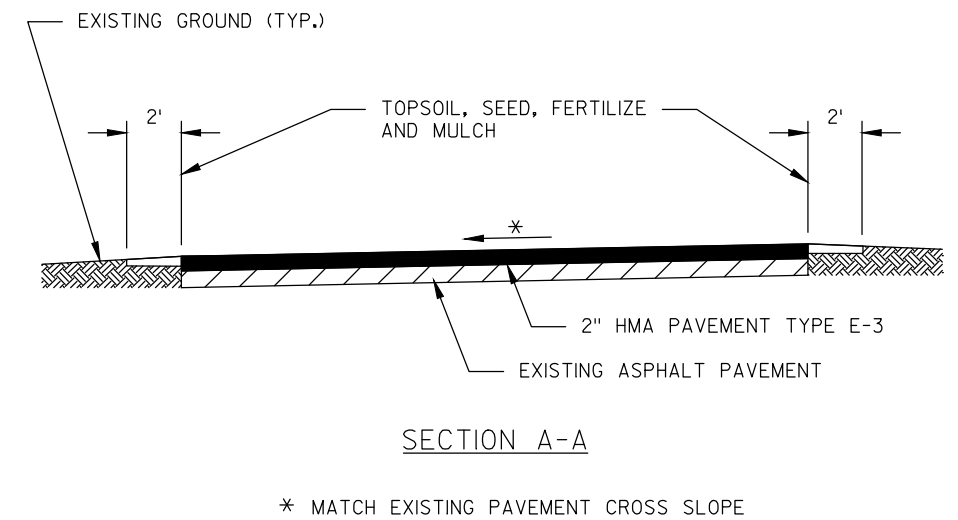
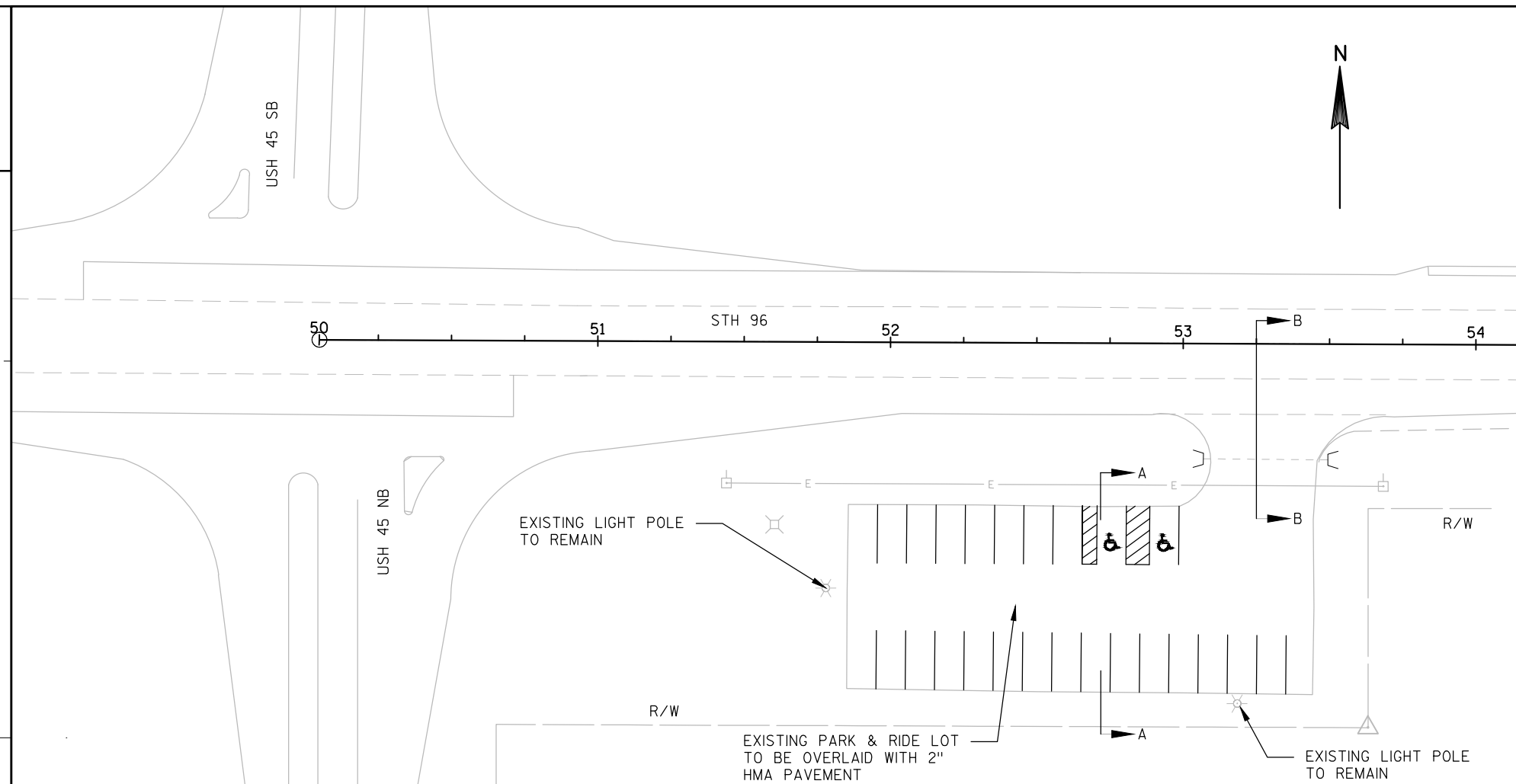
SECTION B-B

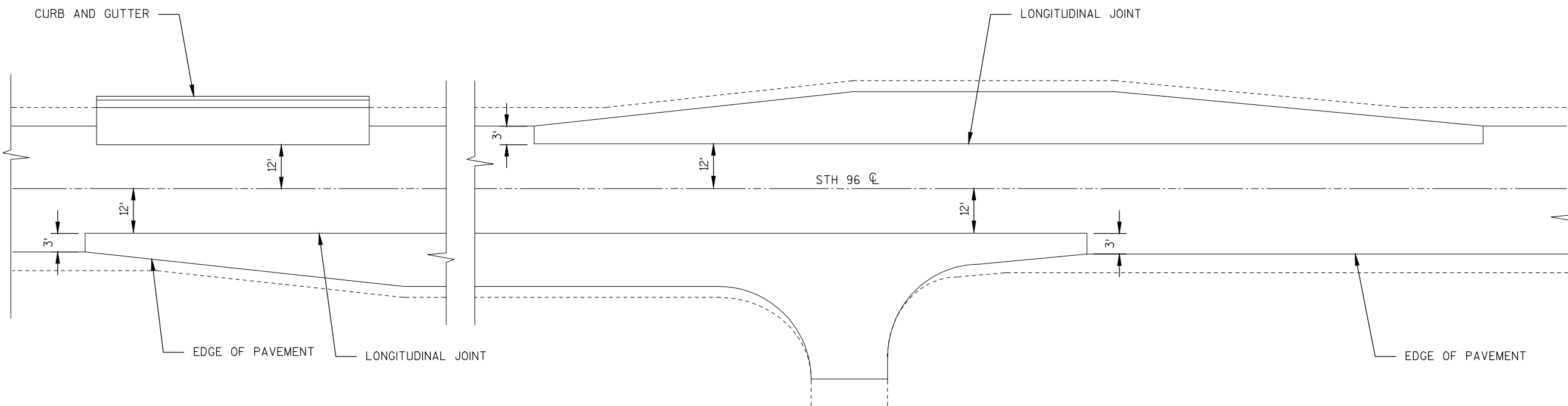
TYPICAL PAVEMENT CROSS SECTIONS OF NOTCHED WEDGE LONGITUDINAL JOINTS

RUBBLIZED SECTION - 2 PAVEMENT LIFTS



NOTCHED WEDGE TO BE REMOVED BY MILLING
 PRIOR TO RUBBLIZING OR PAVING THE ADJACENT
 LANE (PAID AS REMOVING HMA PAVEMENT
 NOTCHED WEDGE LONGITUDINAL JOINT MILLING)

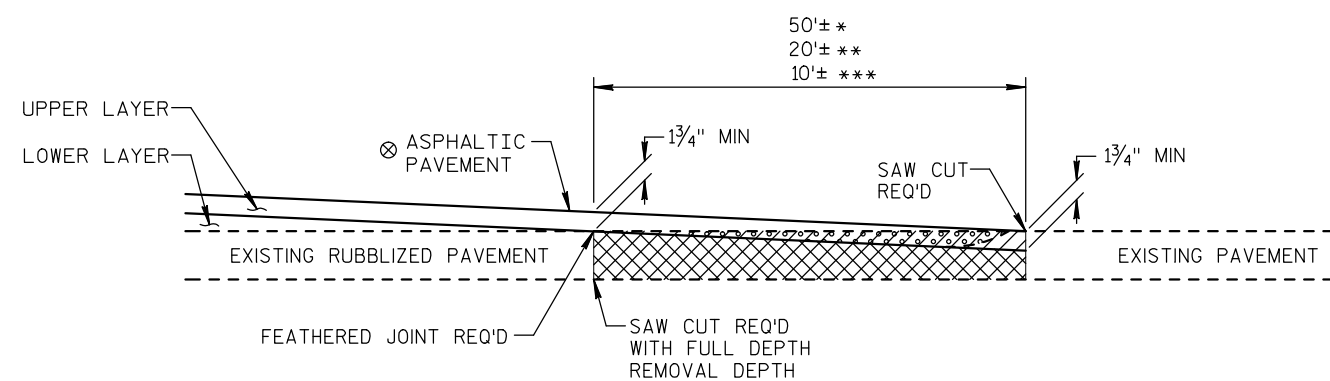




HMA LONGITUDINAL JOINT DETAIL

TO BE USED AT ALL INTERSECTIONS, BYPASS,
PASSING LANE AND RURAL CURB SECTIONS

(SEE SIDE ROAD PAVING DETAIL AND MODIFIED TYPE B2 INTERSECTION DETAIL FOR TAPER LENGTH)

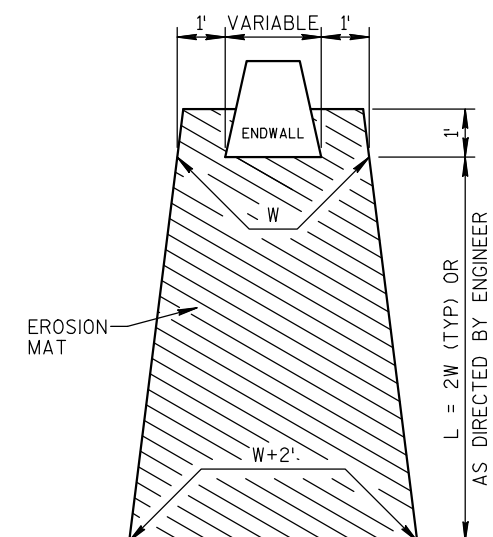


⊗ SEE TYPICAL CROSS SECTION FOR
PAVEMENT TYPE AND THICKNESS
OF INDIVIDUAL LAYERS

- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
- ASPHALTIC WEDGING (FULL DEPTH REMOVAL OPTION)
- REMOVING ASPHALTIC SURFACE, BUTT JOINTS (MILLING OPTION)

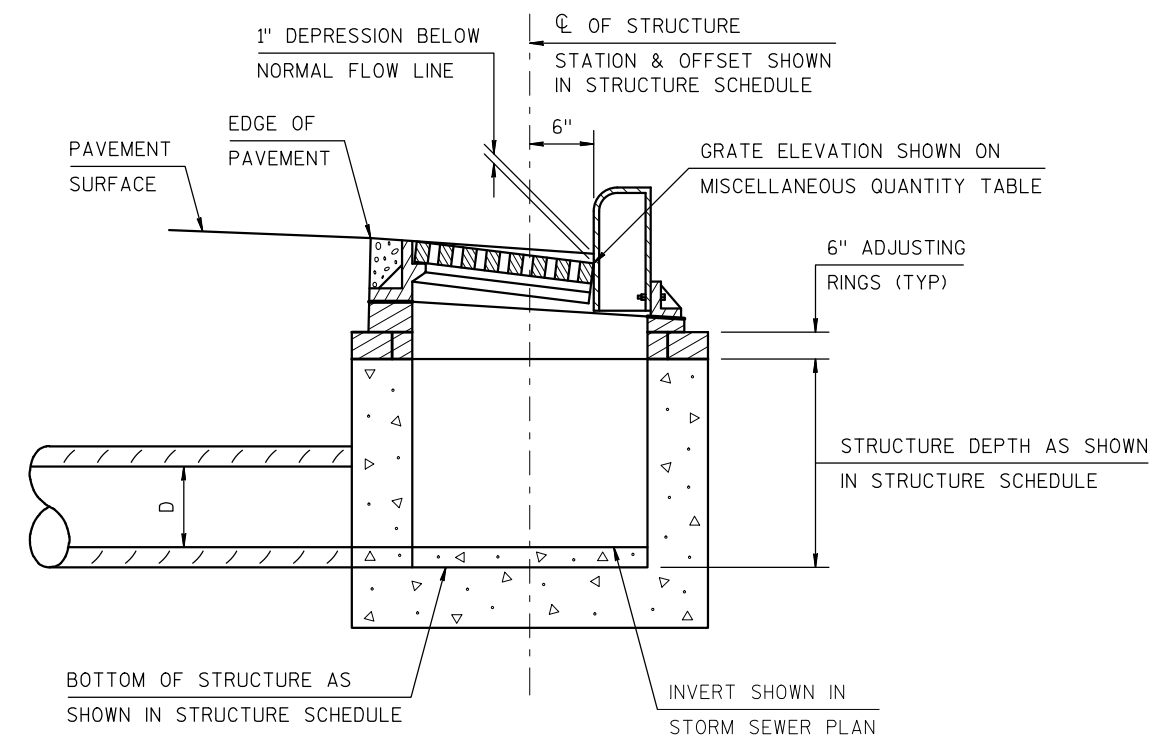
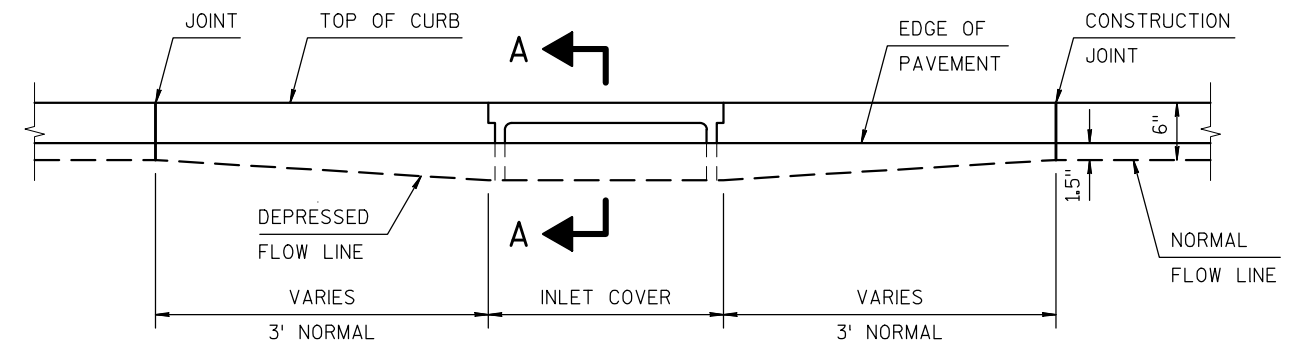
BUTT JOINT DETAIL FOR NON-MILLED ASPHALTIC PAVEMENTS

* MAINLINE
** SIDEROADS
*** PRIVATE ENTRANCES



EROSION MAT TREATMENT AT CULVERTS

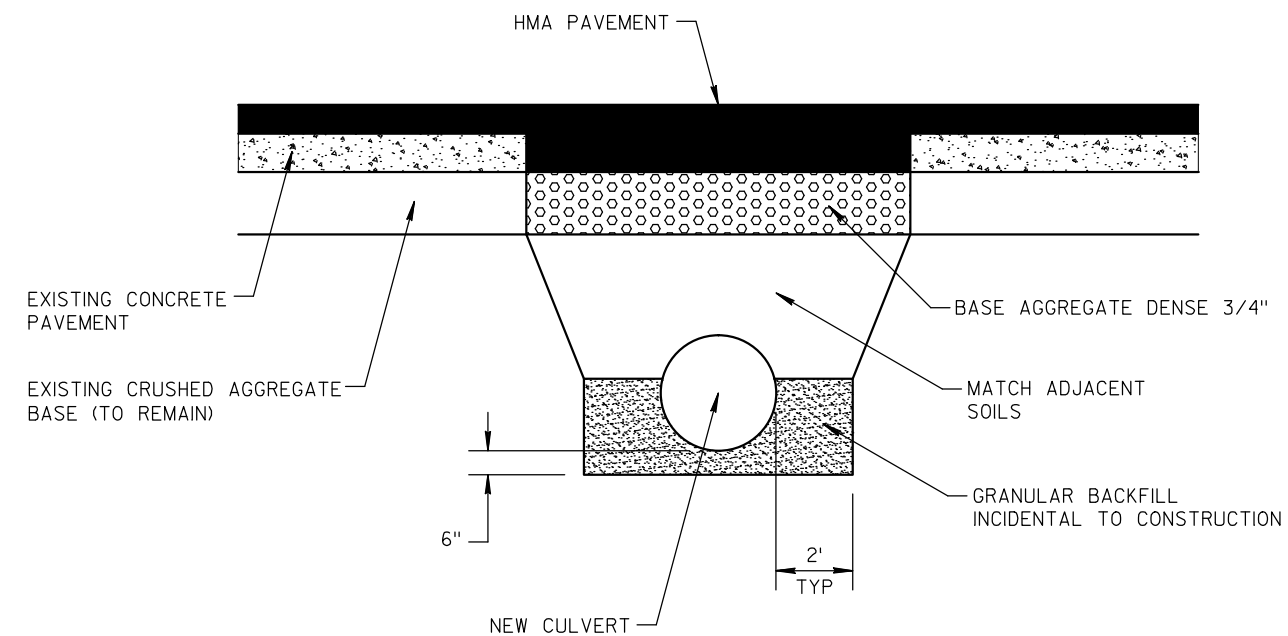
STA. 104+40 RT
STA. 298+95 RT
STA. 307+69 RT
STA. 335+50 RT
STA. 565+10 RT



SECTION A-A

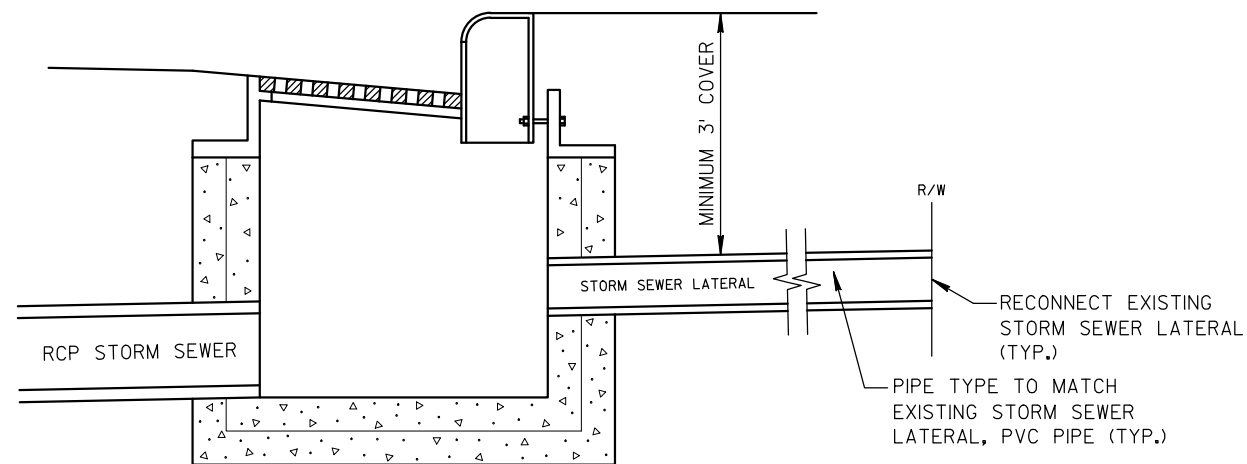
DETAIL OF CURB AND GUTTER AT INLETS

2



DETAIL FOR CULVERT REPLACEMENT

STA. 183+55
STA. 201+78
STA. 207+23
STA. 214+22
STA. 307+69

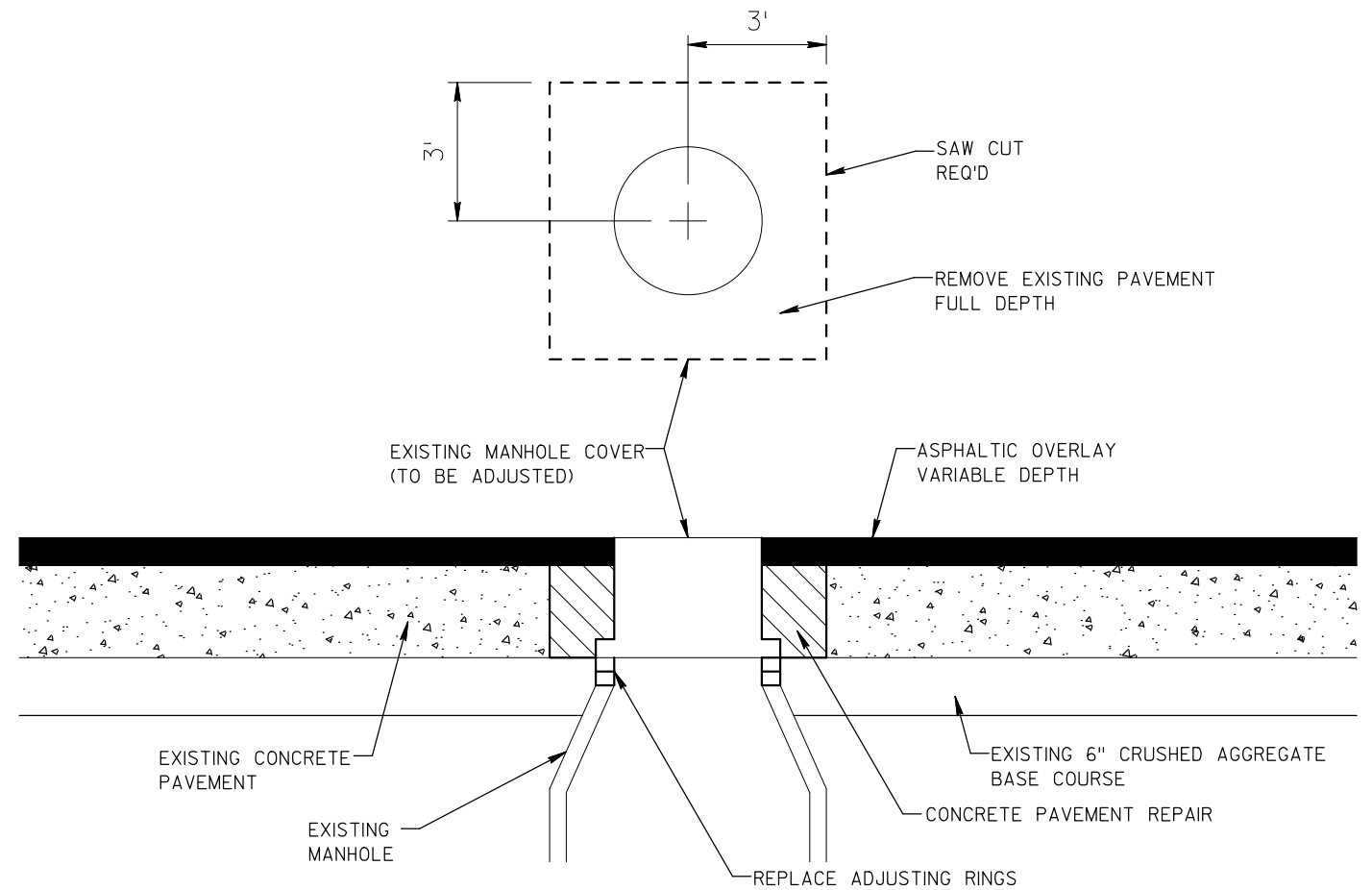


NOTE: ALL LABOR AND MATERIALS NECESSARY FOR CONNECTION TO STORM SEWER SHALL BE INCIDENTAL TO THE BID ITEM OF RECONNECT STORM SEWER LATERALS.

RECONNECT STORM SEWER LATERAL DETAIL

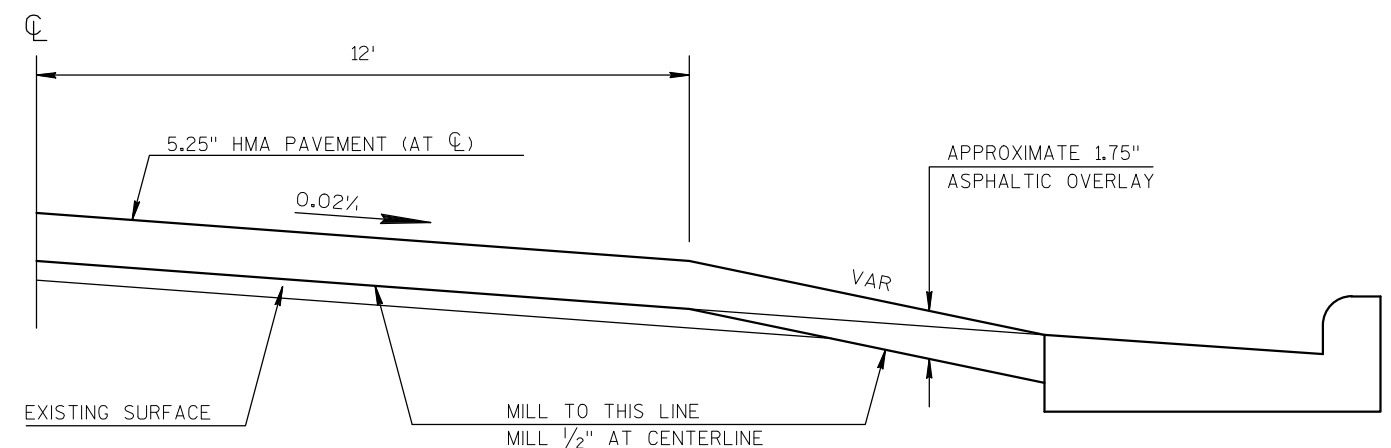
SEE STORM SEWER PLAN FOR LOCATIONS

2



ADJUSTING MANHOLE COVERS

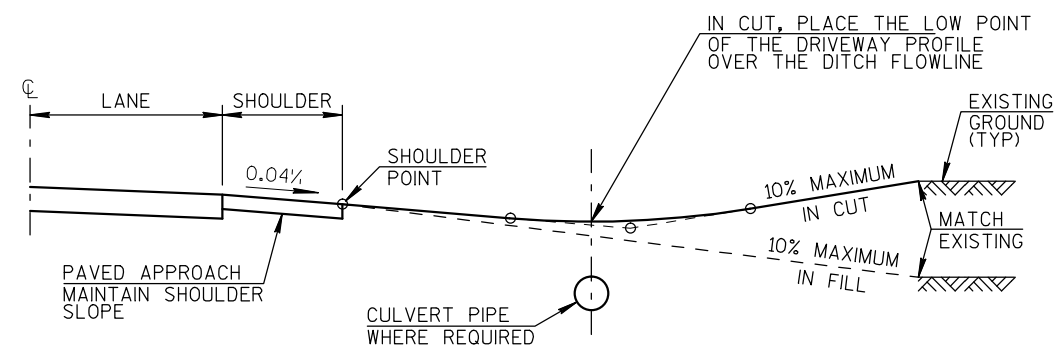
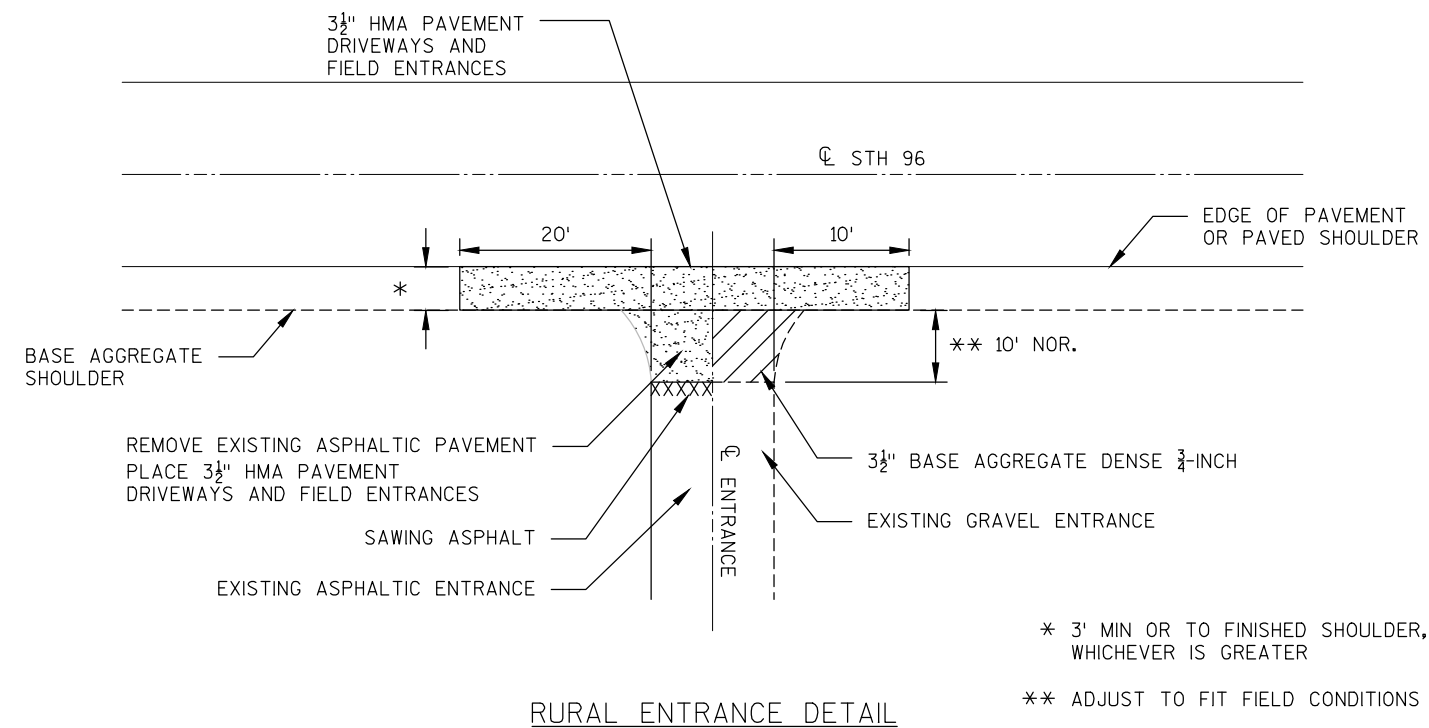
SEE STORM SEWER PLANS FOR LOCATIONS



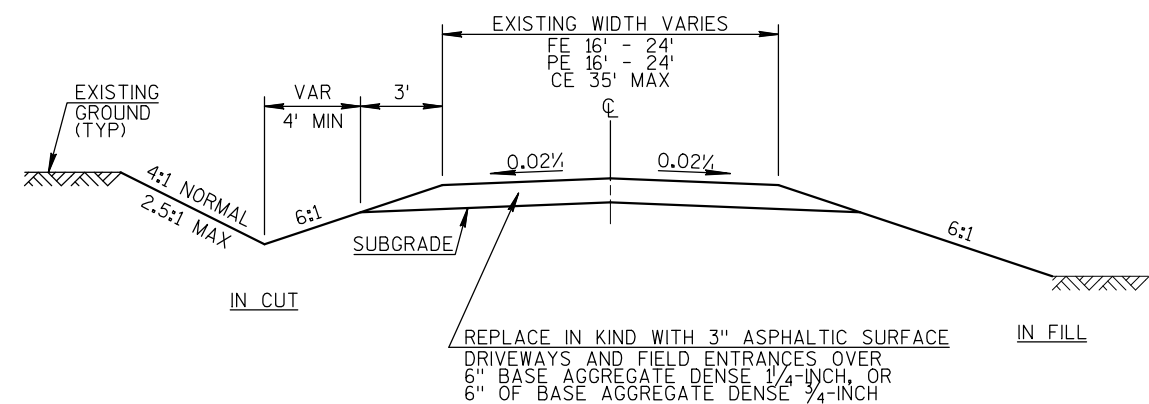
RURAL BUTT JOINT DETAIL FOR CURB & GUTTER

USH 45
INDUSTRIAL DRIVE
TOWN ROAD
MIDWAY ROAD
GREENDALE ROAD
BROOKVIEW DRIVE

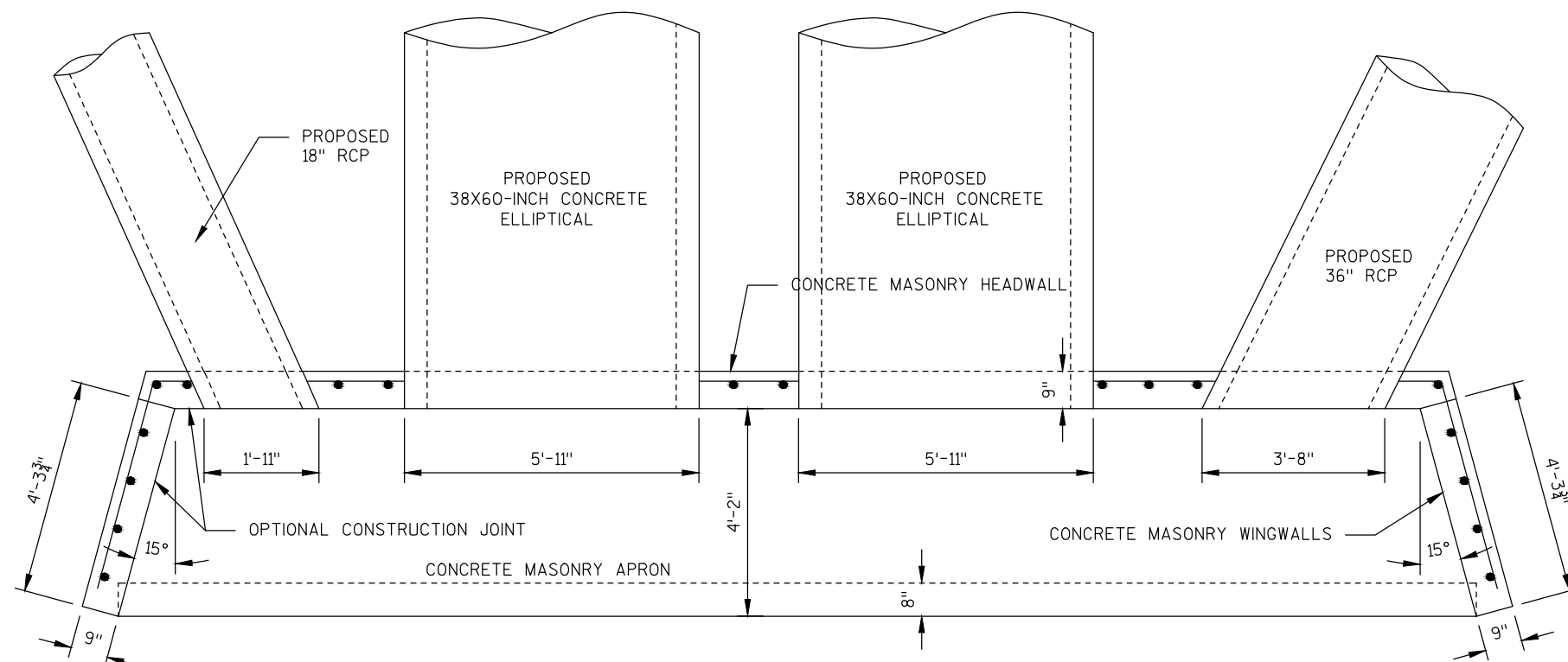
MANLEY ROAD
SPRING VALLEY DRIVE
LAKEVIEW LANE
FOX SPRINGS DRIVE
CLEARY COURT



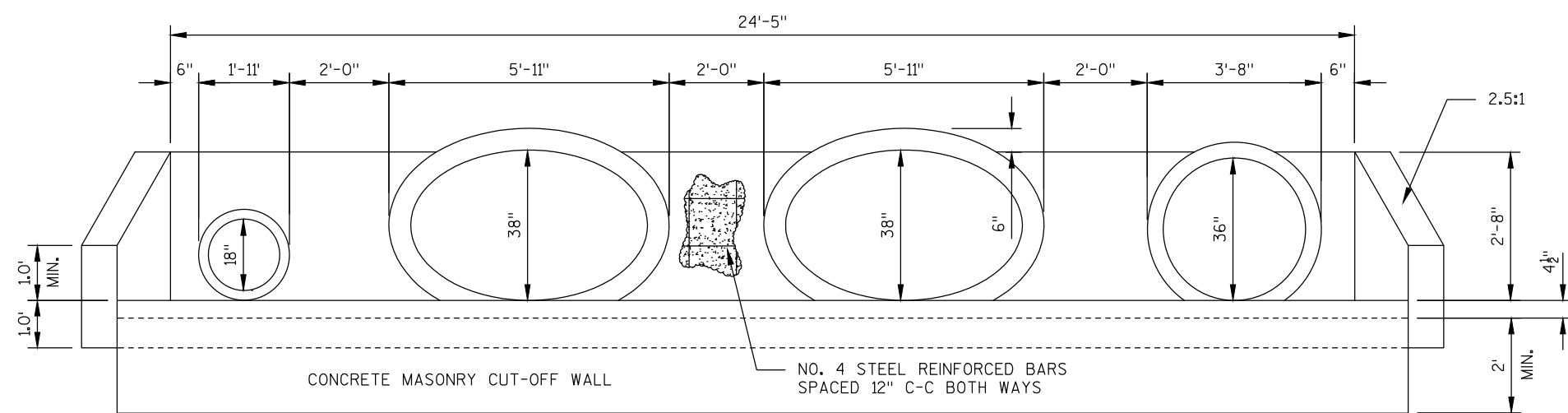
TYPICAL DRIVEWAY PROFILES



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



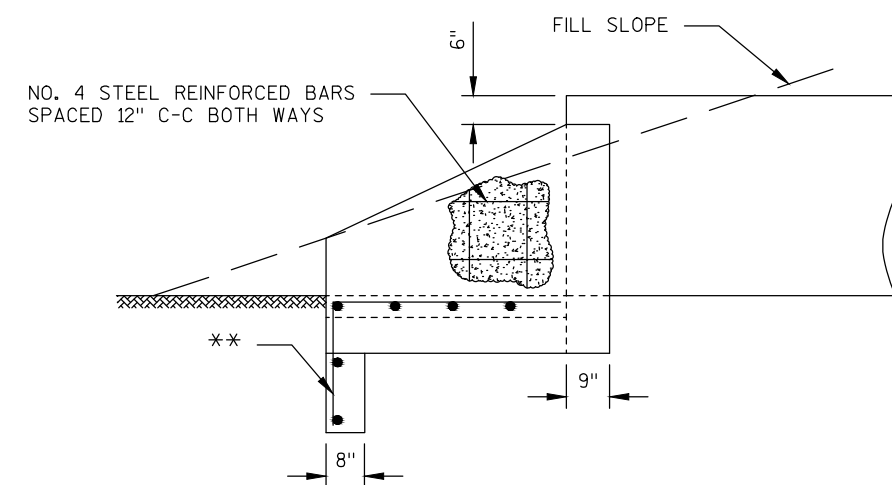
PLAN VIEW



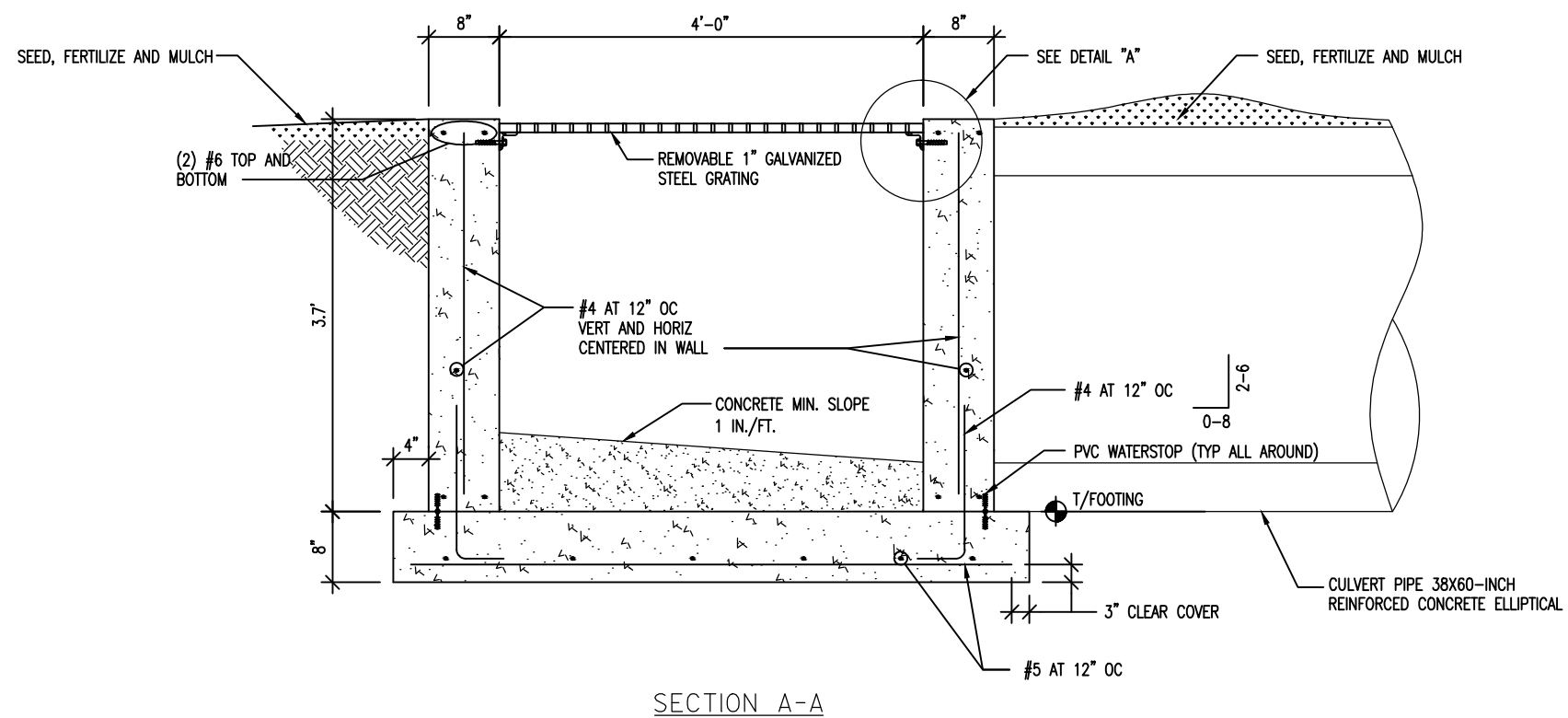
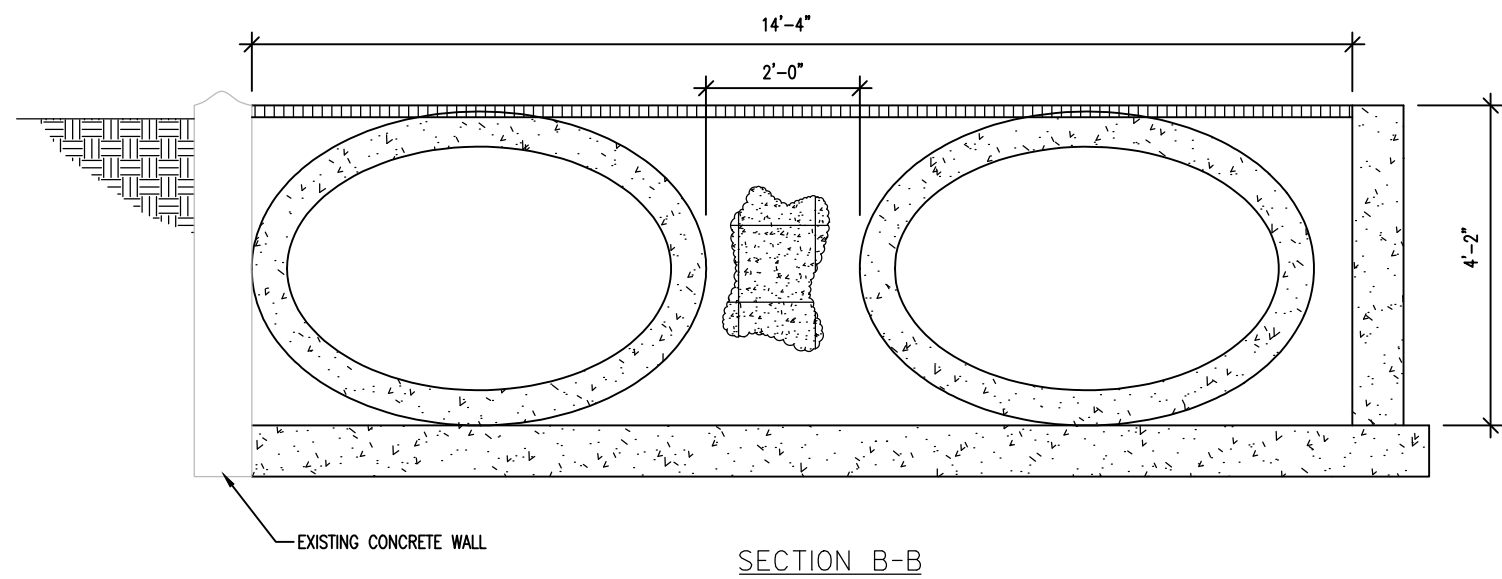
END ELEVATION

CONCRETE MASONRY ENDWALL
STA. 307+79 RT.

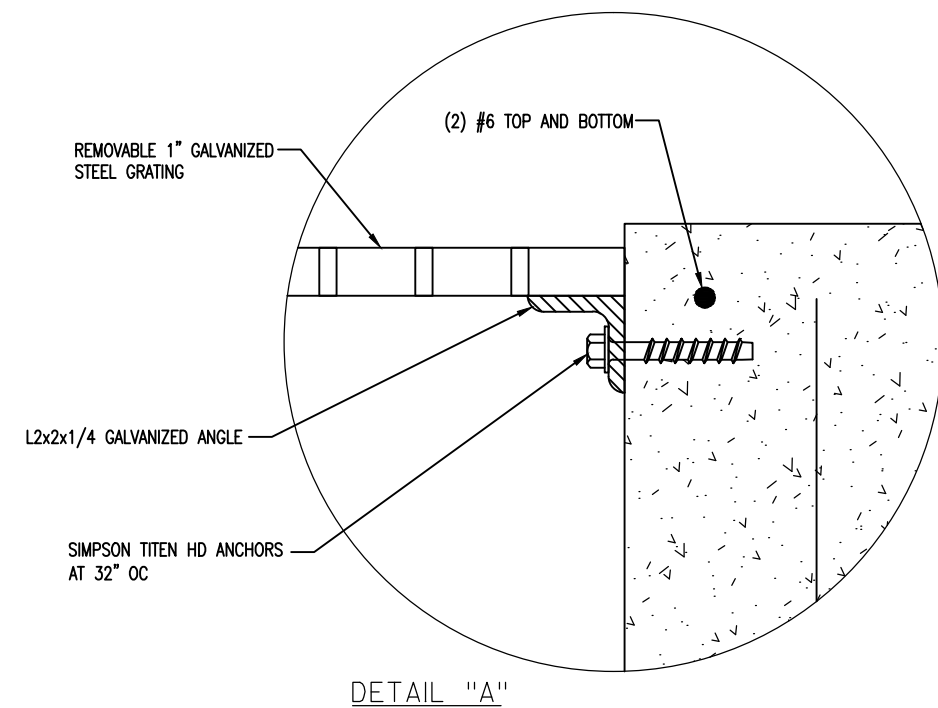
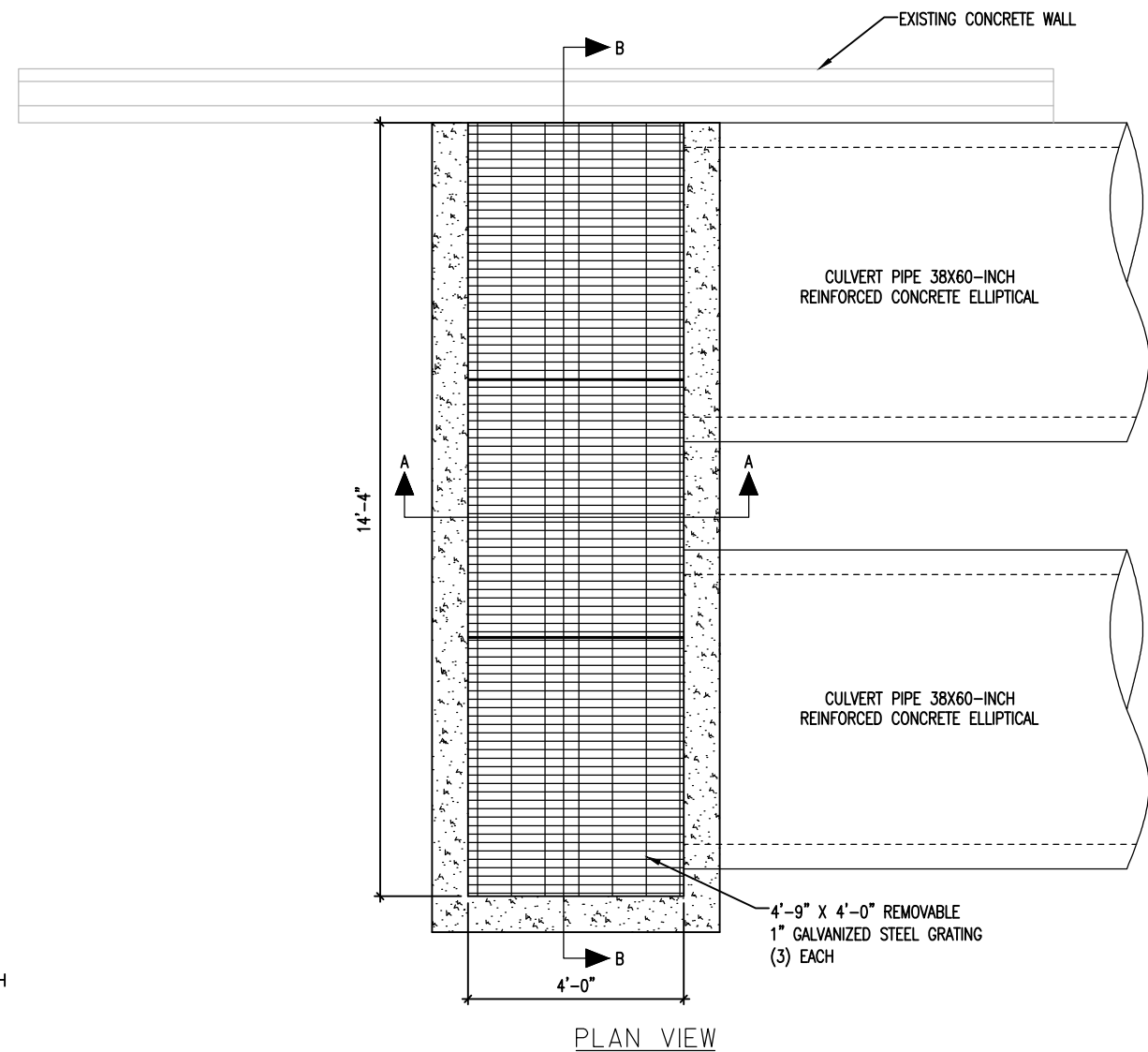
** MINIMUM REINFORCEMENT SHALL BE 6" X 6"
- W4.0 X W4.0 OR NO. 3 BARS SPACED 12"
C-C IN BOTH DIRECTIONS

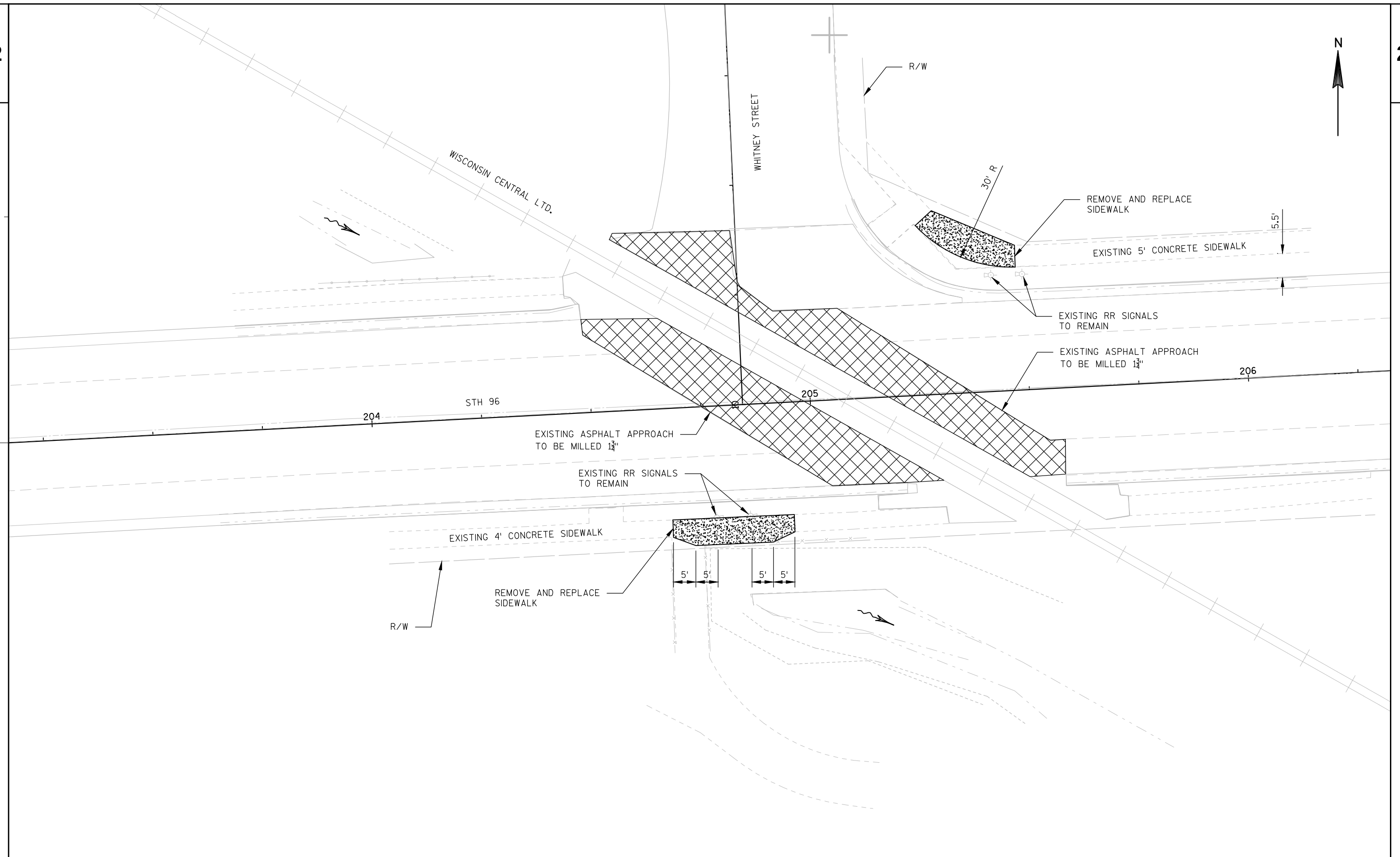


SIDE ELEVATION



INLET SPECIAL
STA. 307+76 LT.





GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

ADDITIONAL WORK VEHICLES MAY BE USED BETWEEN V1 AND V2.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS.

IF THERE IS A SIDE ROAD INTERSECTION BETWEEN THE FLAGGER STATIONS PROVIDE "ROAD WORK AHEAD" SIGNS ON THE SIDE ROAD AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE "ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

THIS DRAWING SHALL BE USED FOR CENTERLINE AND SHOULDER MILLING OF RUMBLE STRIPS.

- ① MAXIMUM DISTANCE BETWEEN FLAGGER STATIONS SHALL BE TWO MILES.
- ② FOR MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

LEGEND

V1 LEAD VEHICLE

V2 TRAIL VEHICLE WITH TMA

 **TMA** TRUCK-MOUNTED ATTENUATOR

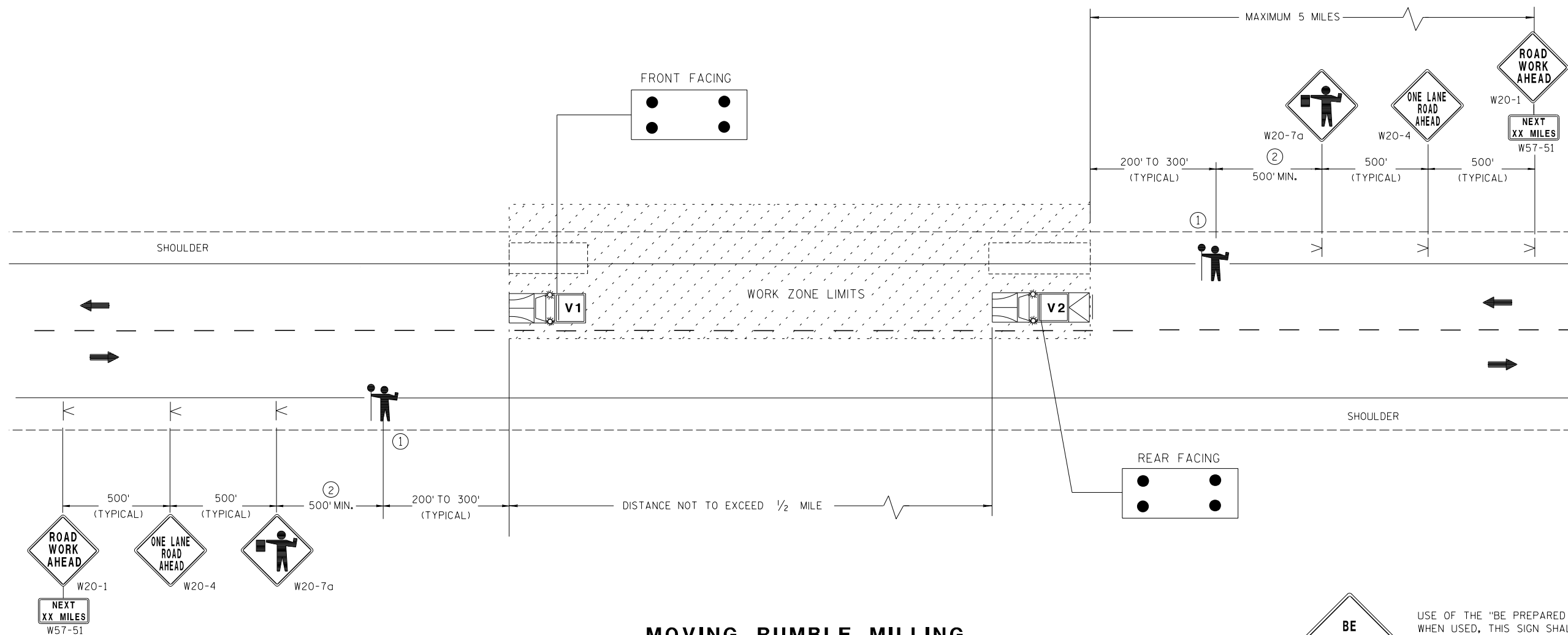
 SIGN ON PORTABLE SUPPORT

 DIRECTION OF TRAVEL

 FLASHING ARROW PANEL (CAUTION)

 (FLAGGER STATION)
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

 WORK AREA



MOVING RUMBLE MILLING OPERATIONS TWO-LANE TWO-WAY ROADWAY (REPOSITION VEHICLES TO OUTER EDGE FOR SHOULDER MILLING)



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.

PROJECT NO:

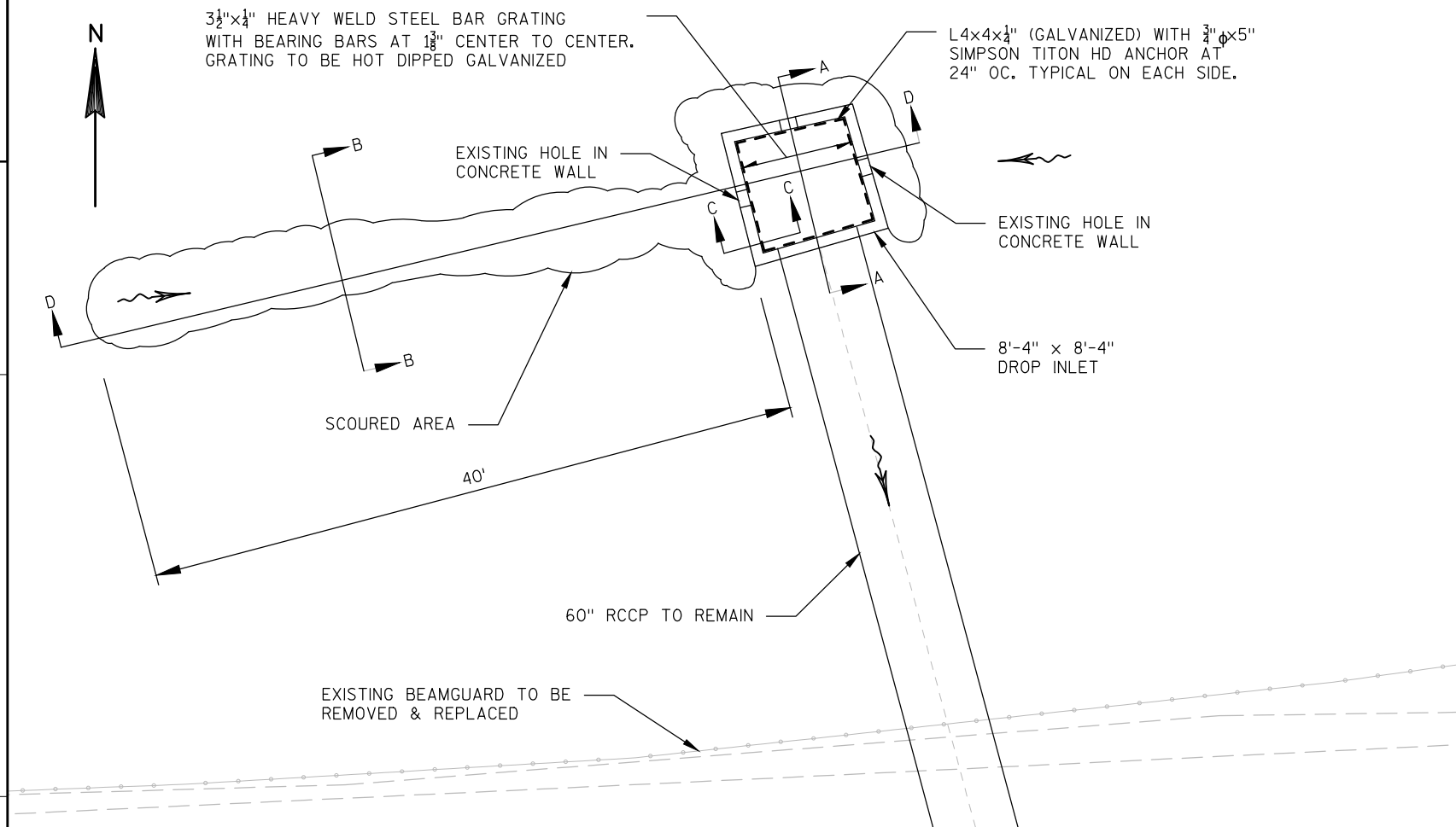
HWY:

COUNTY:

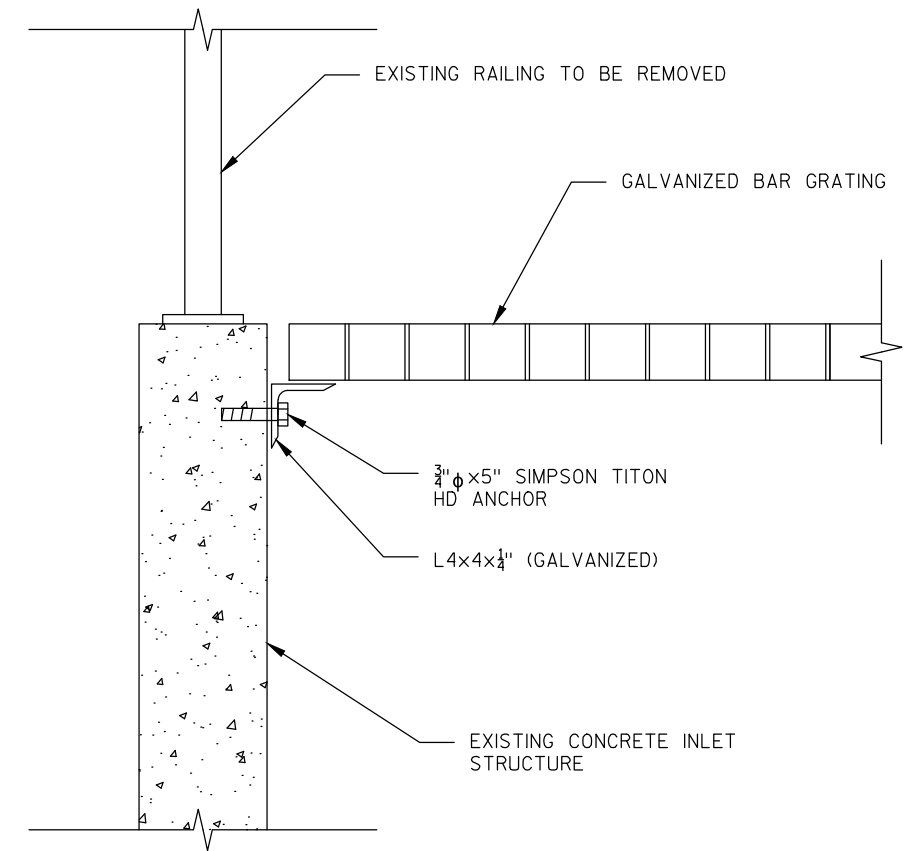
SHEET

E

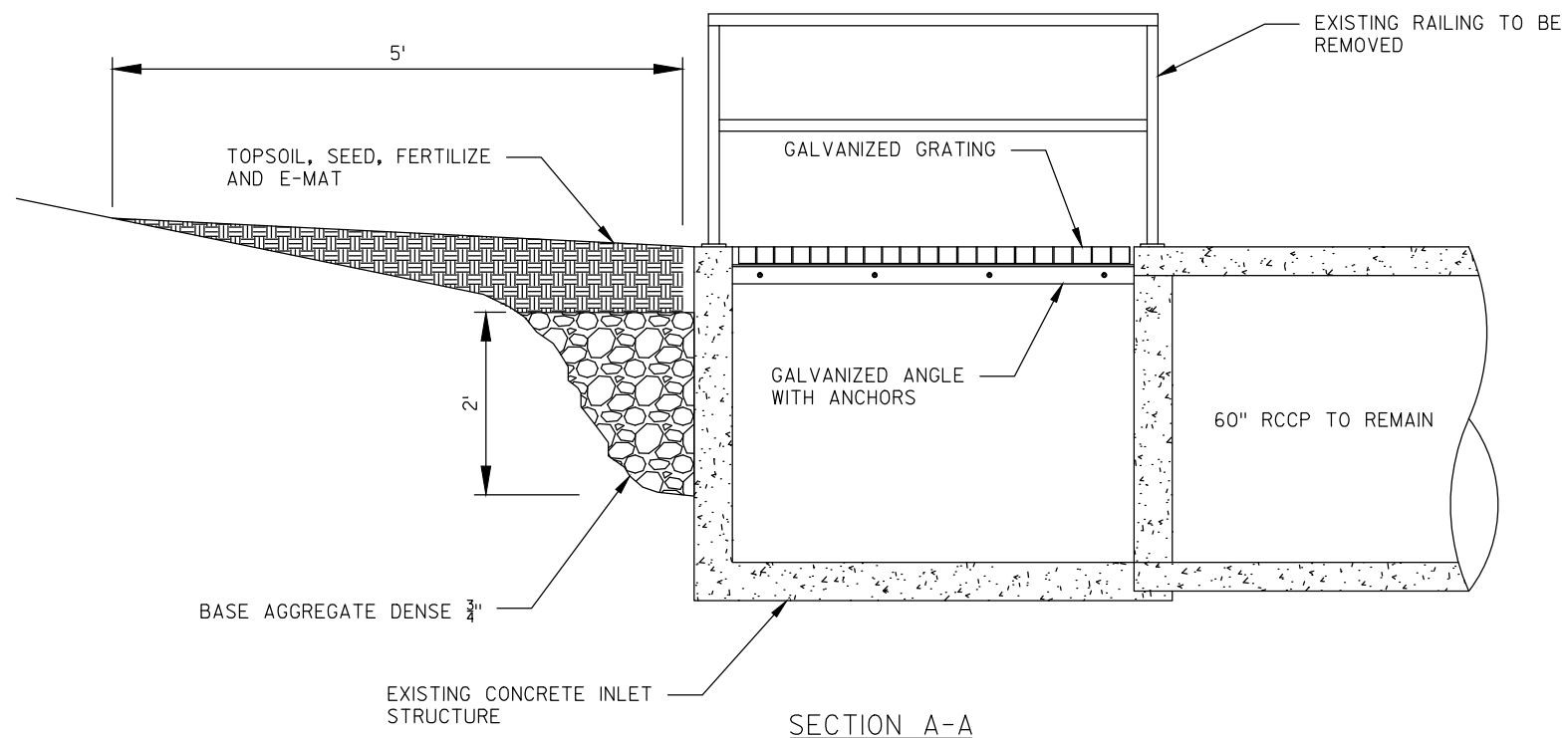
2



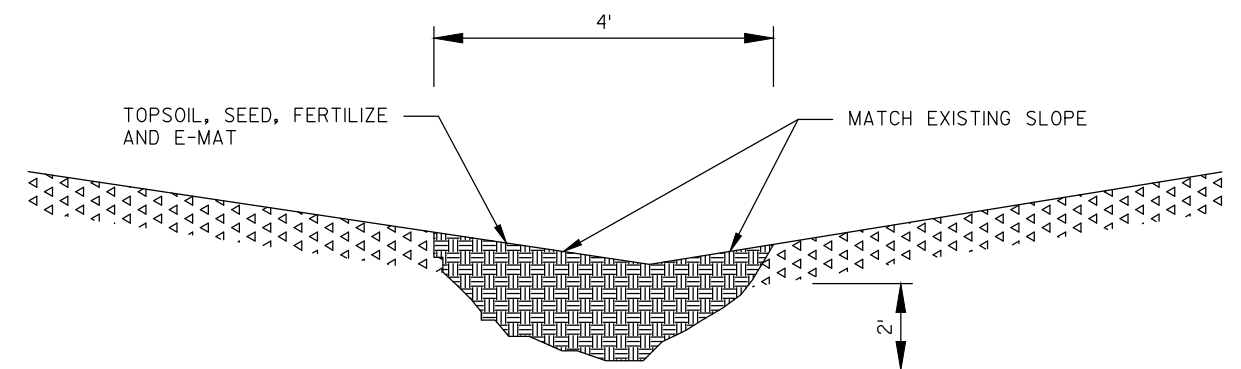
2



SECTION C-C



SECTION A-A



SECTION B-B

PROJECT NO: 4075-31-71

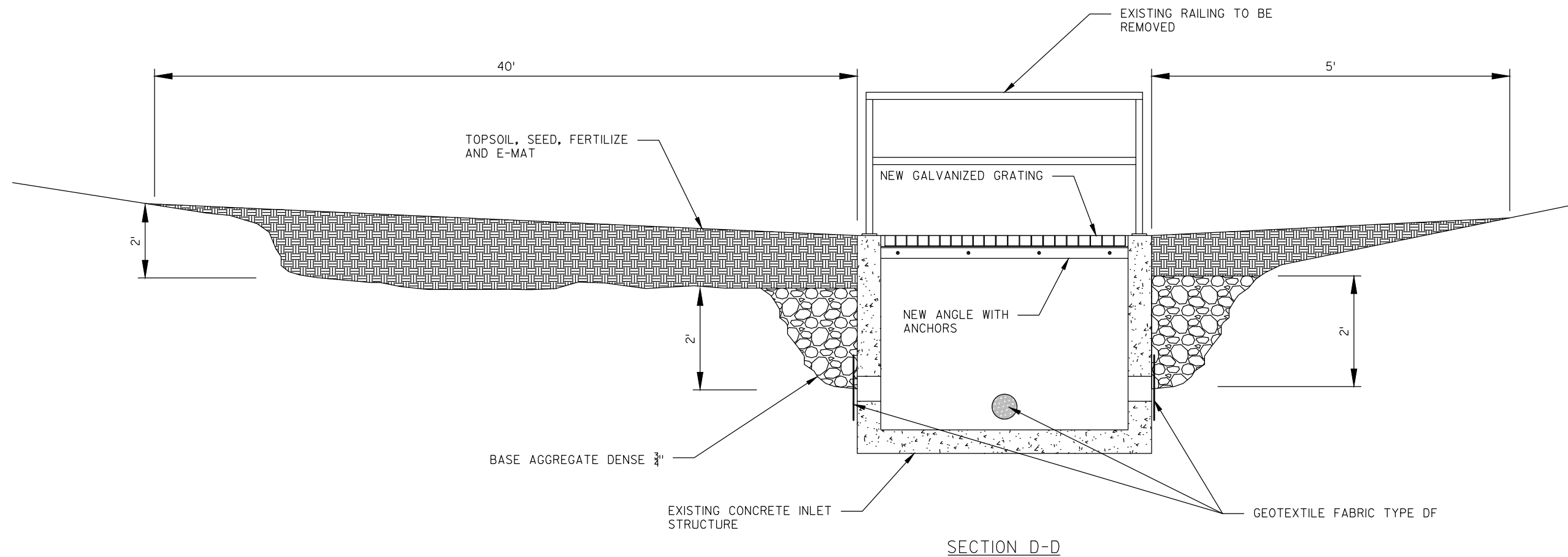
HWY: STH 96

COUNTY: OUTAGAMIE

CONSTRUCTION DETAILS - DROP INLET, STA 151+58, LT.

SHEET _____

E



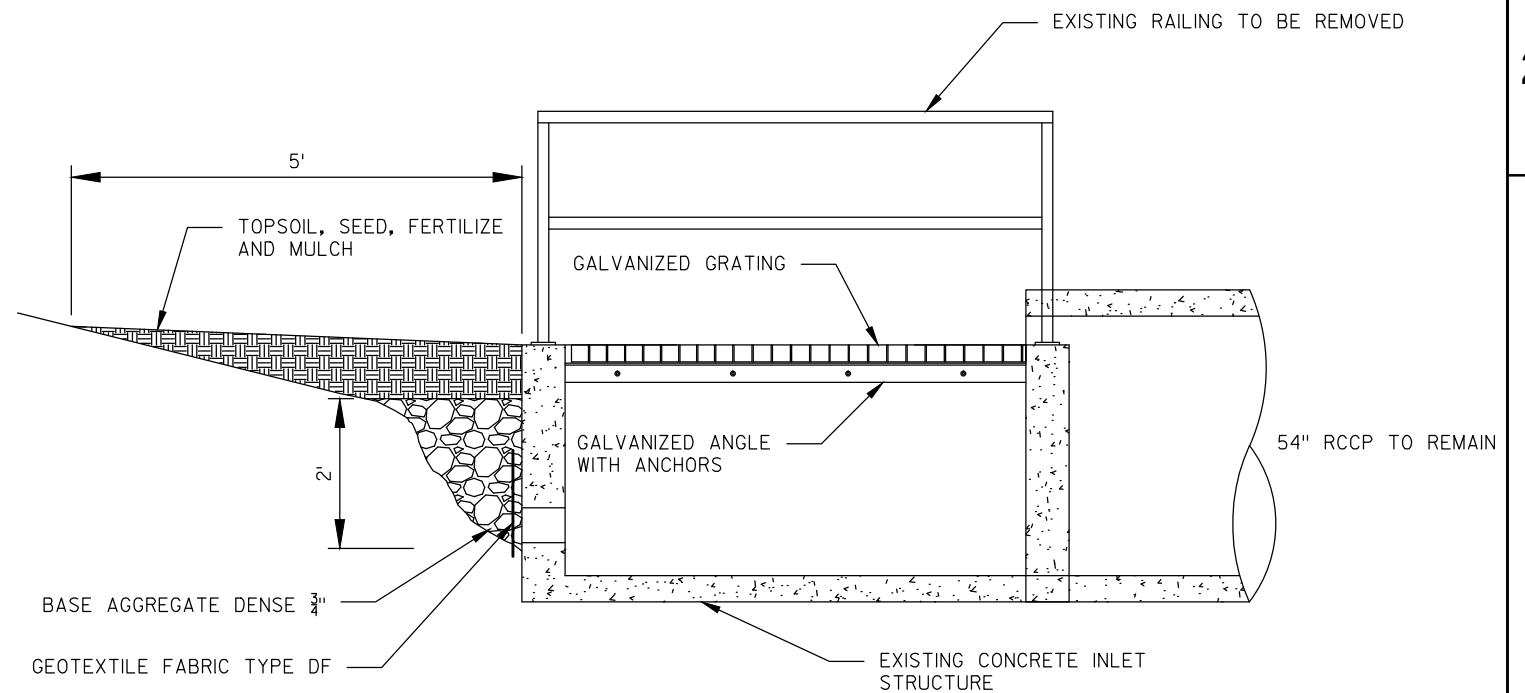
2



SCOURED AREA

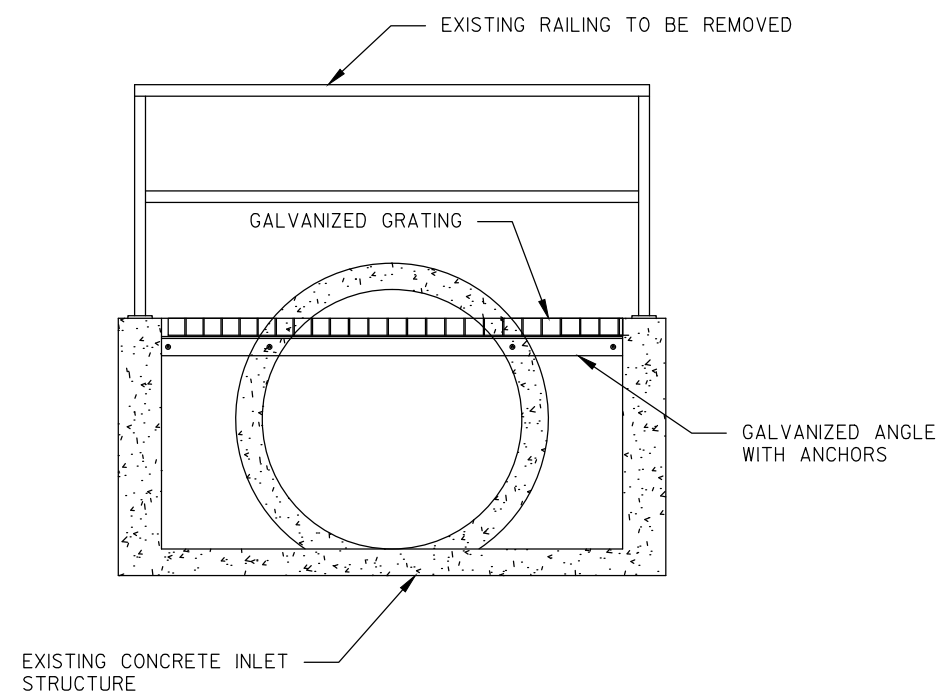
EXISTING HOLE IN
CONCRETE WALLL4x4x $\frac{1}{4}$ " (GALVANIZED) WITH $\frac{3}{4}$ " ϕ x5"
SIMPSON TITON HD ANCHOR AT
24" OC. TYPICAL ON EACH SIDE.

54" RCCP TO REMAIN

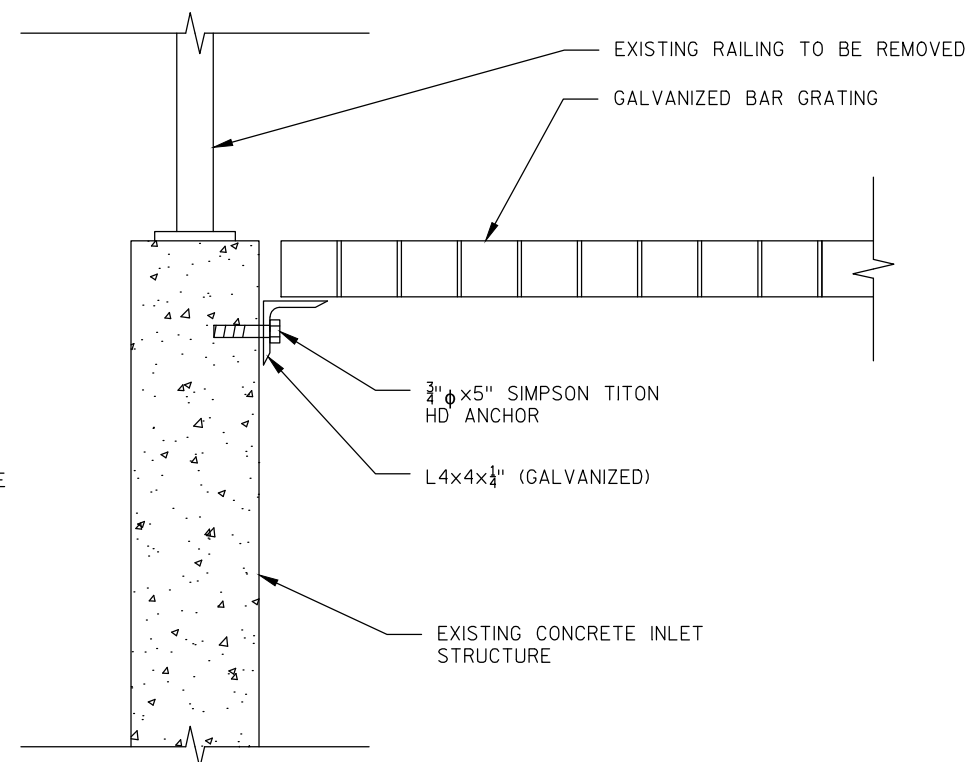
12'x8'x8"
DROP INLET $3\frac{1}{2}$ "x $\frac{1}{4}$ " HEAVY WELD STEEL BAR GRATING
WITH BEARING BARS AT $1\frac{3}{8}$ " CENTER TO CENTER.
GRATING TO BE HOT DIPPED GALVANIZED

SECTION A-A

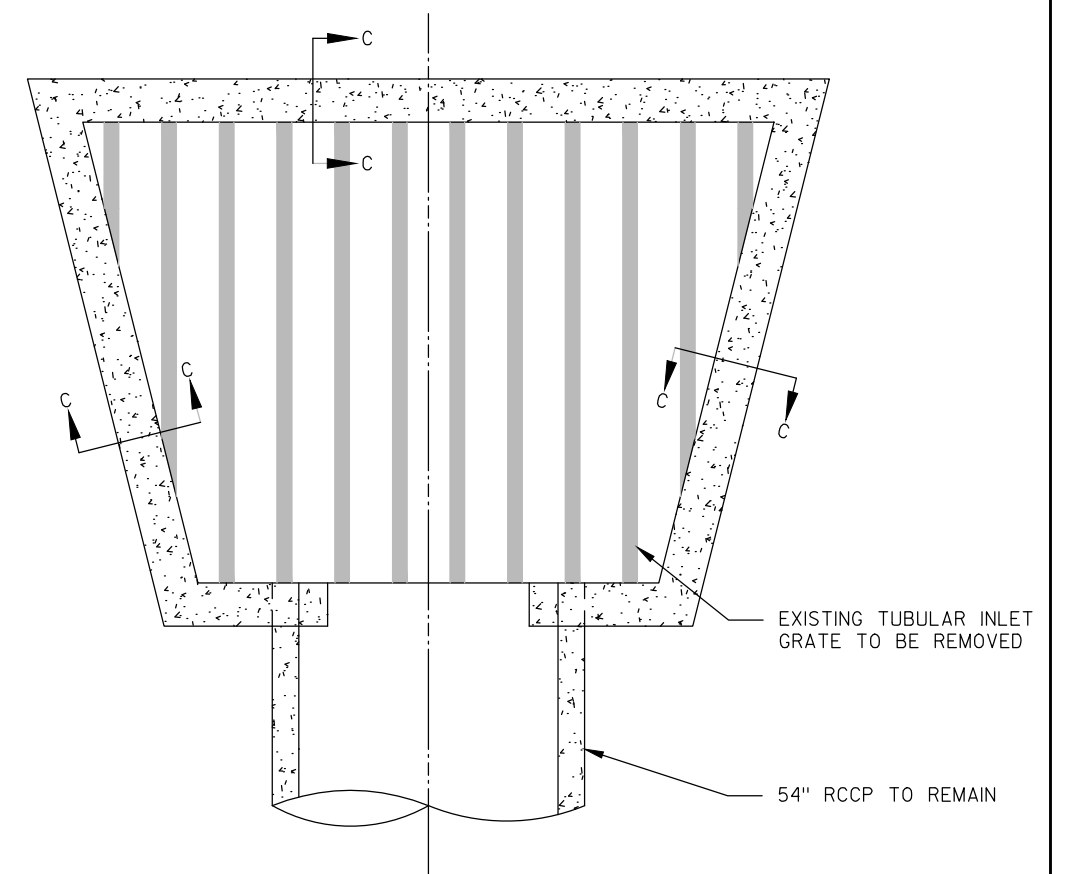
2



SECTION B-B



SECTION C-C



PLAN VIEW



USH 45 NB

BEGIN PROJECT 4075-31-71
STA. 51+00

EXISTING LOOP DETECTOR
TO REMAIN (LOCATION TO
BE VERIFIED IN FIELD)

EXISTING LOOP DETECTOR
TO REMAIN (LOCATION TO
BE VERIFIED IN FIELD)

50

52

53

STH 96

54

55

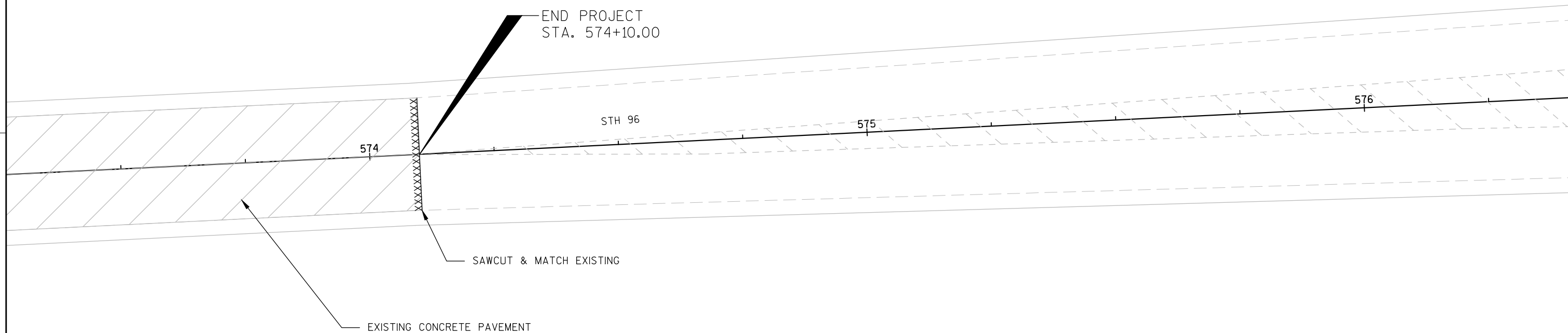
SAWCUT & MATCH EXISTING

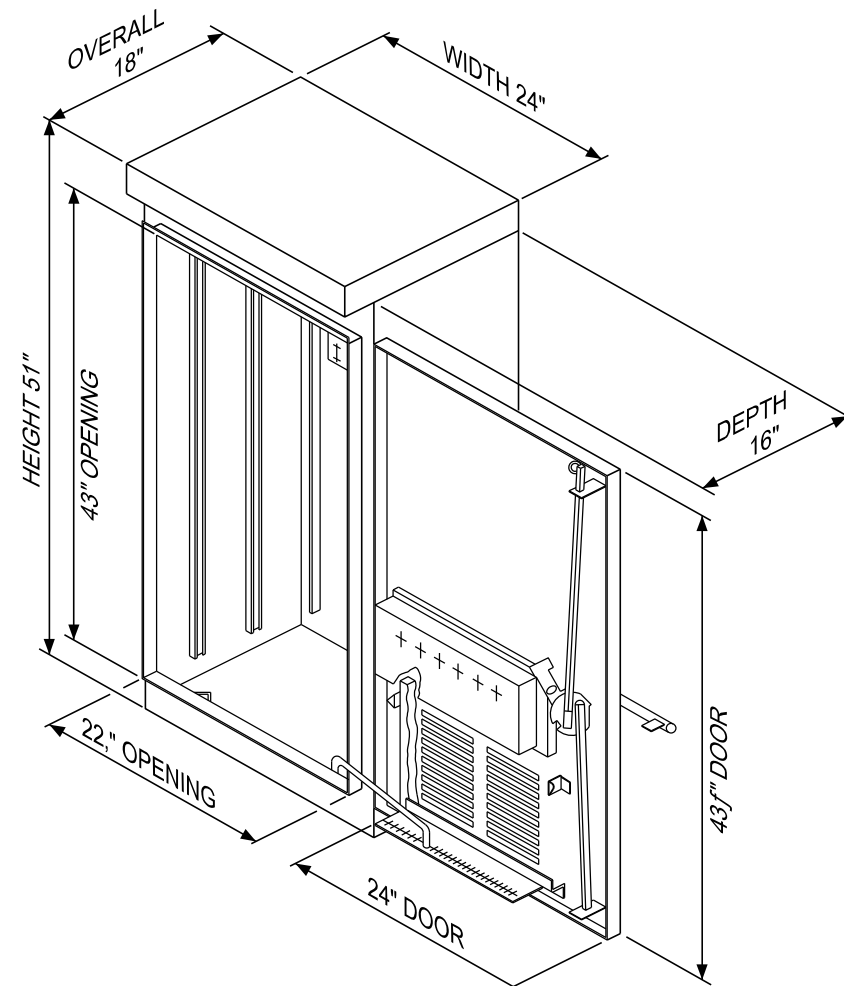
EXISTING CONCRETE PAVEMENT

EXISTING ASPHALT PAVEMENT

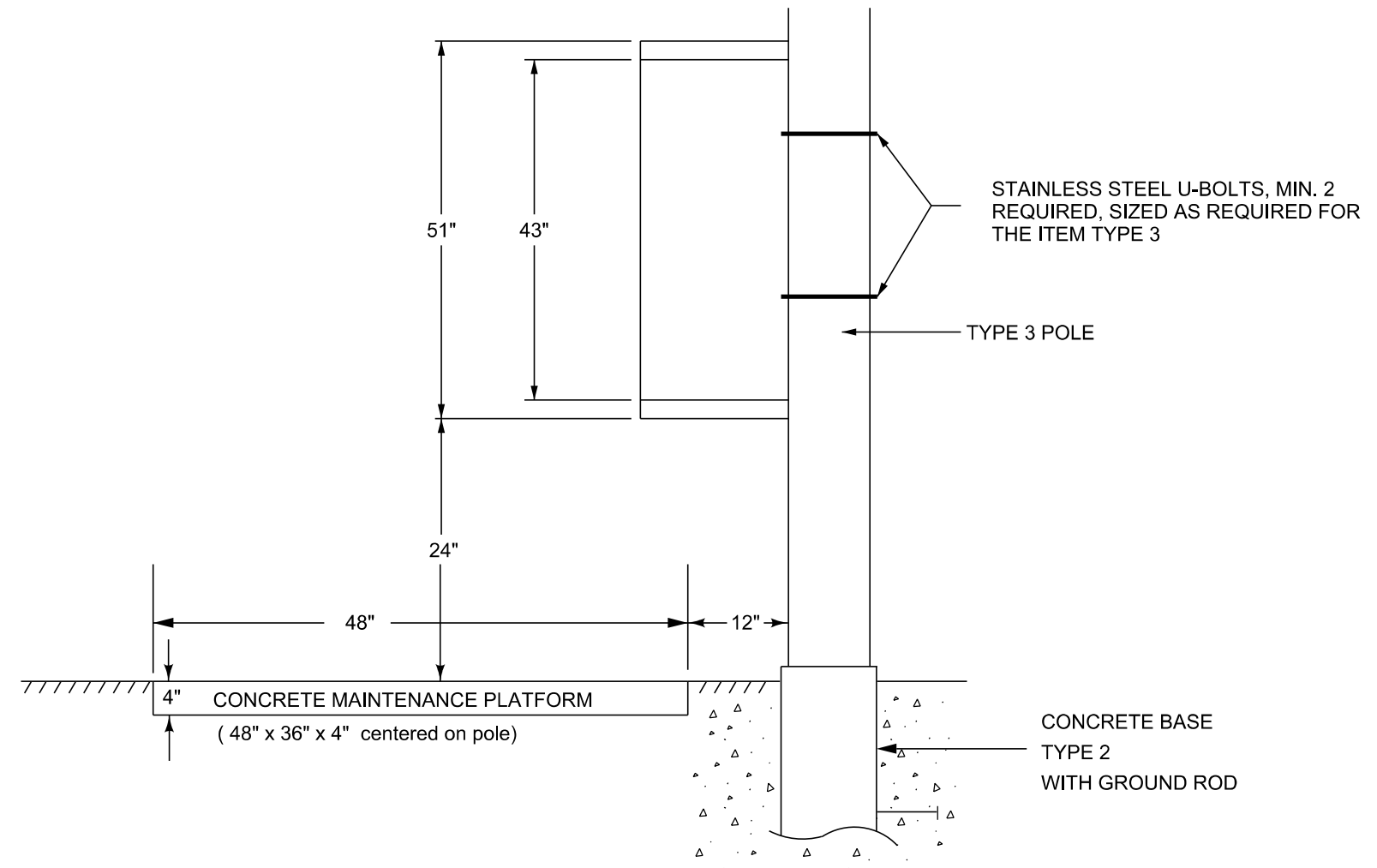
STA. 54+75, BEGIN RUBBLIZING

EXISTING PARK & RIDE LOT



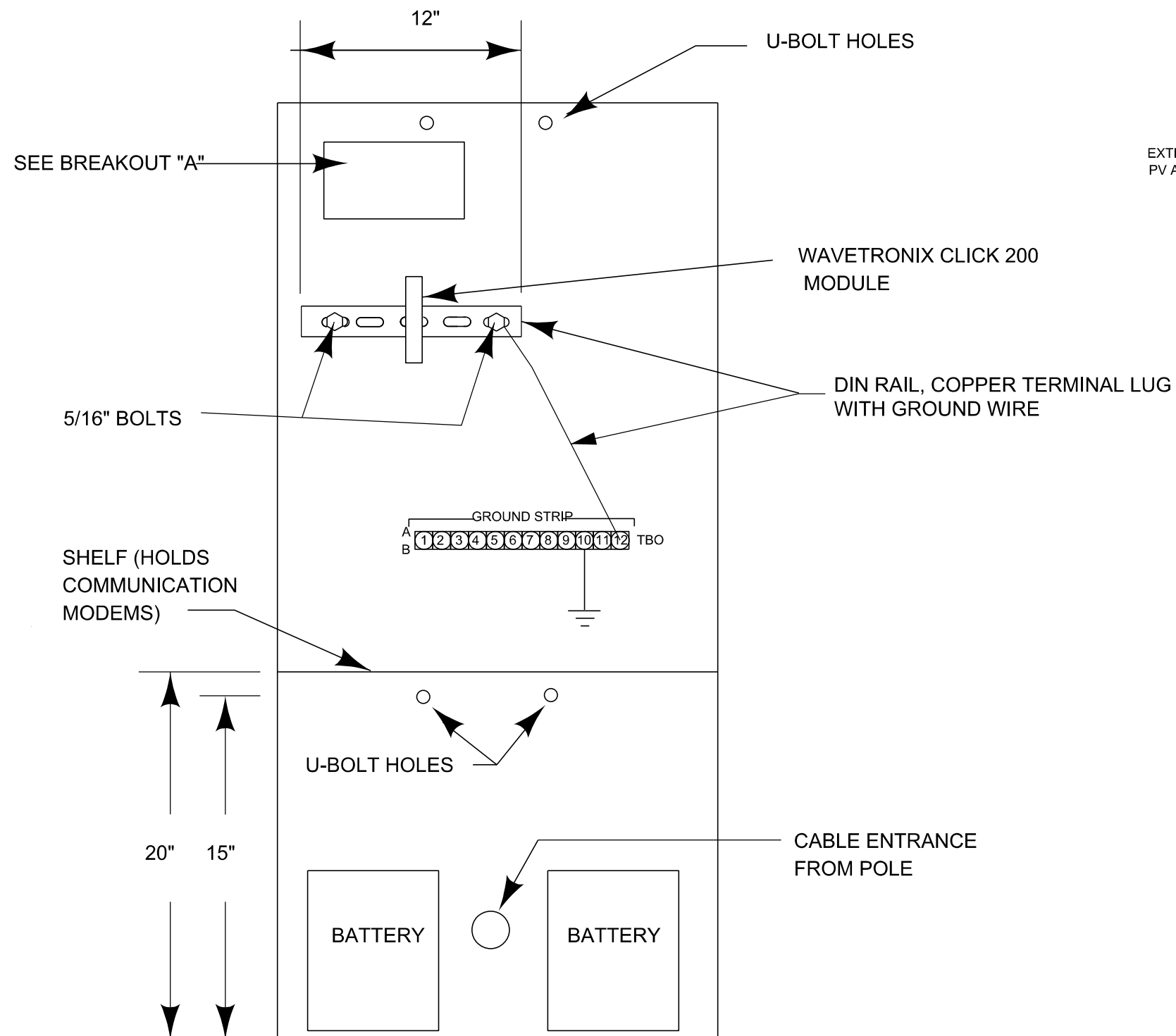


**CCTV POLE-MOUNTED CABINET
USED IN SOLAR INSTALLATION**



CCTV POLE-MOUNTED CABINET
ATR - WAVETRONIX

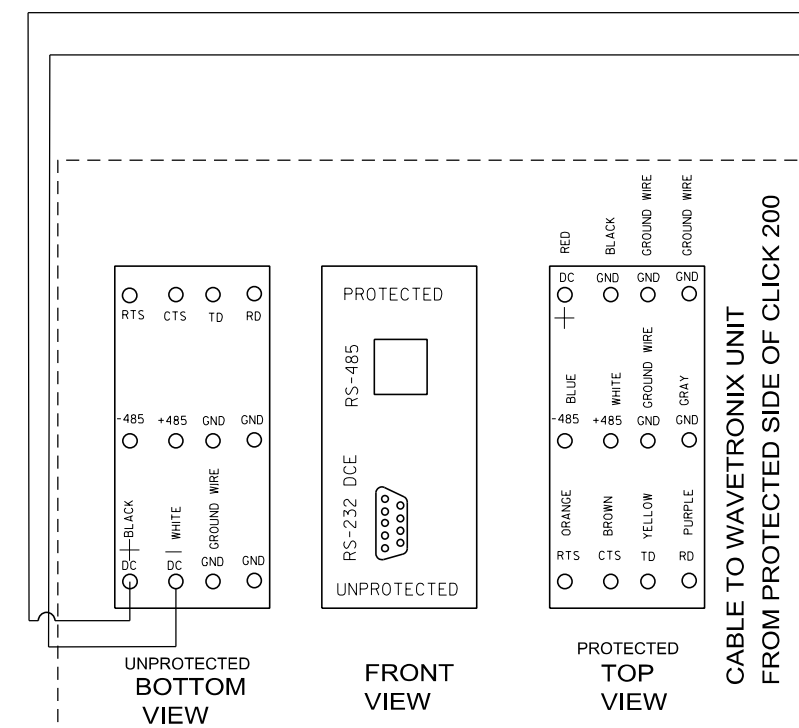
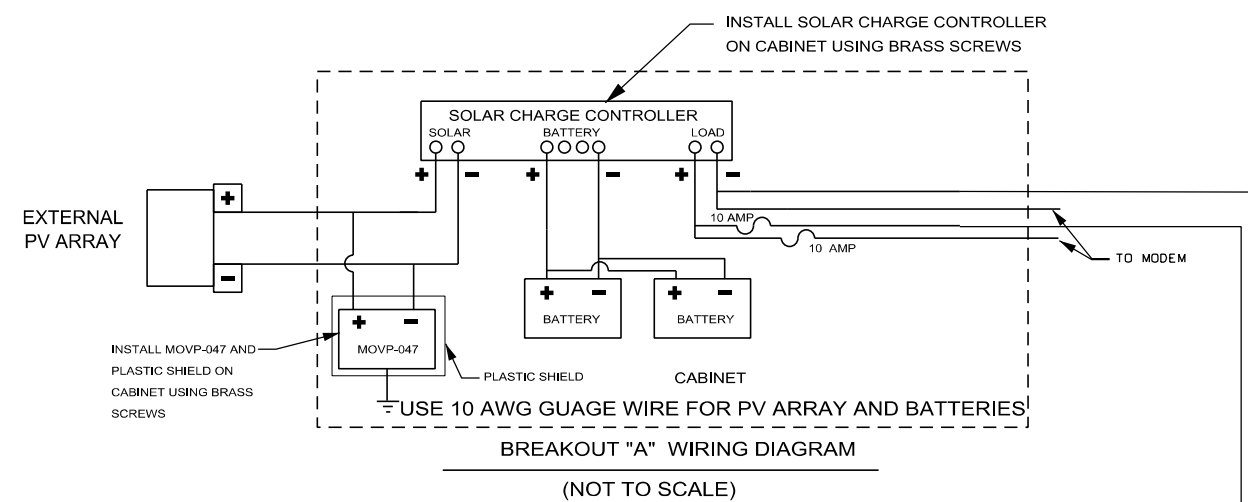
DESIGNED BY WISDOT CO
SHEET 1 OF 2



FRONT VIEW/LAYOUT
(NOT TO SCALE)

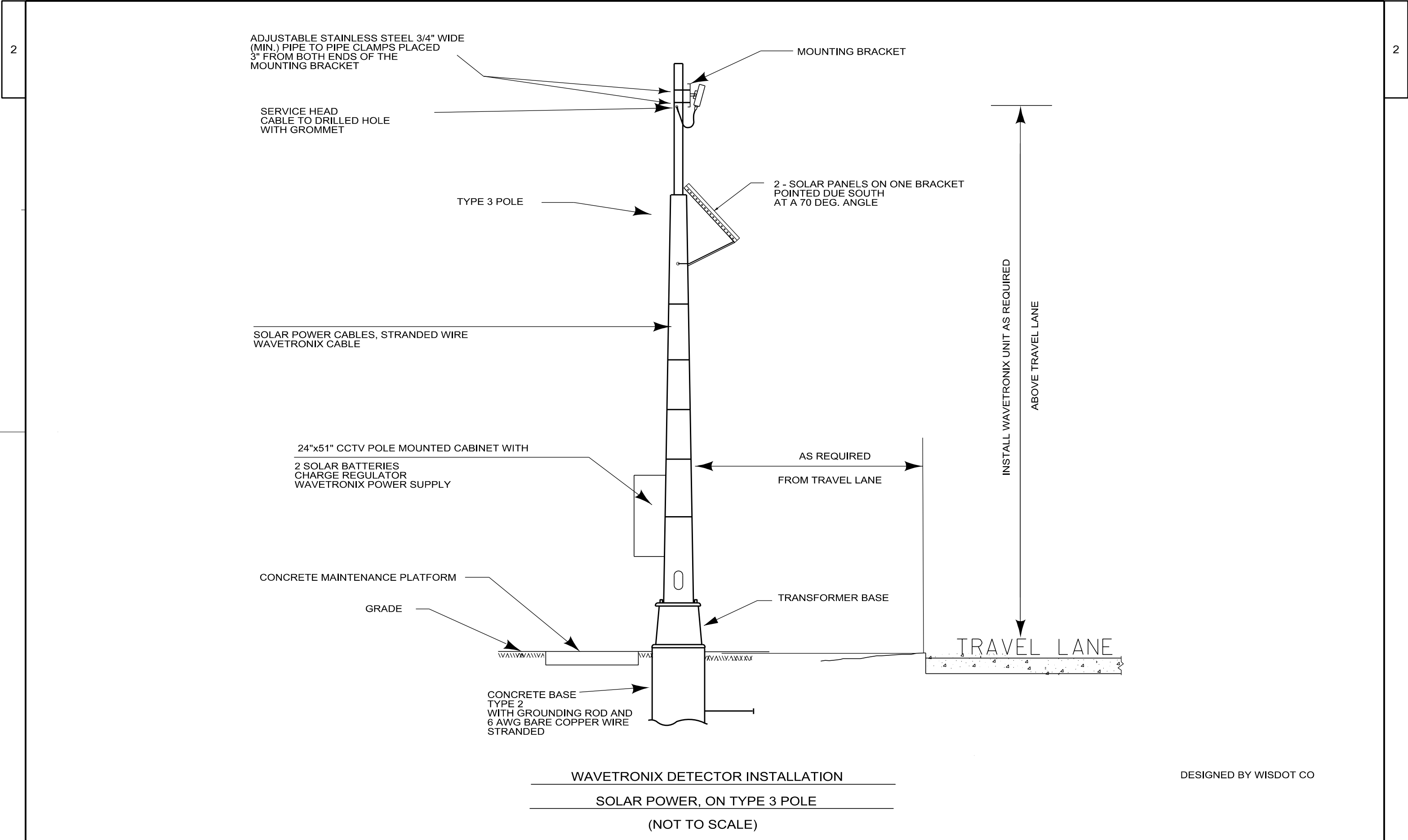
CCTV POLE-MOUNTED CABINET USED IN SOLAR INSTALLATION

CCTV POLE-MOUNTED CABINET LAYOUT ATR - WAVETRONIX



WAVETRONIX CLICK 200 MODULE
WIRING DIAGRAM
(NOT TO SCALE)

DESIGNED BY WISDOT DOT CO
SHEET 2 OF 2



WAVETRONIX DETECTOR INSTALLATION
SOLAR POWER, ON TYPE 3 POLE
(NOT TO SCALE)

DESIGNED BY WISDOT CO



R/W

EROSION MAT
CLASS I TYPE B

40'

60" RCCP TO REMAIN

EXISTING BEAMGUARD TO BE
REMOVED & REPLACED8'-4" x 8'-4"
DROP INLET

STH 96

151+25

151+50

151+75

PROJECT NO: 4075-31-71

HWY: STH 96

COUNTY: OUTAGAMIE

EROSION CONTROL DETAILS

SHEET

E

FILE NAME : P:\2010073 - STH 96\AUTOCAD\PLANSET\022001_EC.DWG

PLOT DATE : 3/4/2013

PLOT BY : OTIE

PLOT NAME : PLOT SCALE : 1

WISDOT/CADDs SHEET 42



R/W

MULCH

12'x8'x8"
DROP INLET

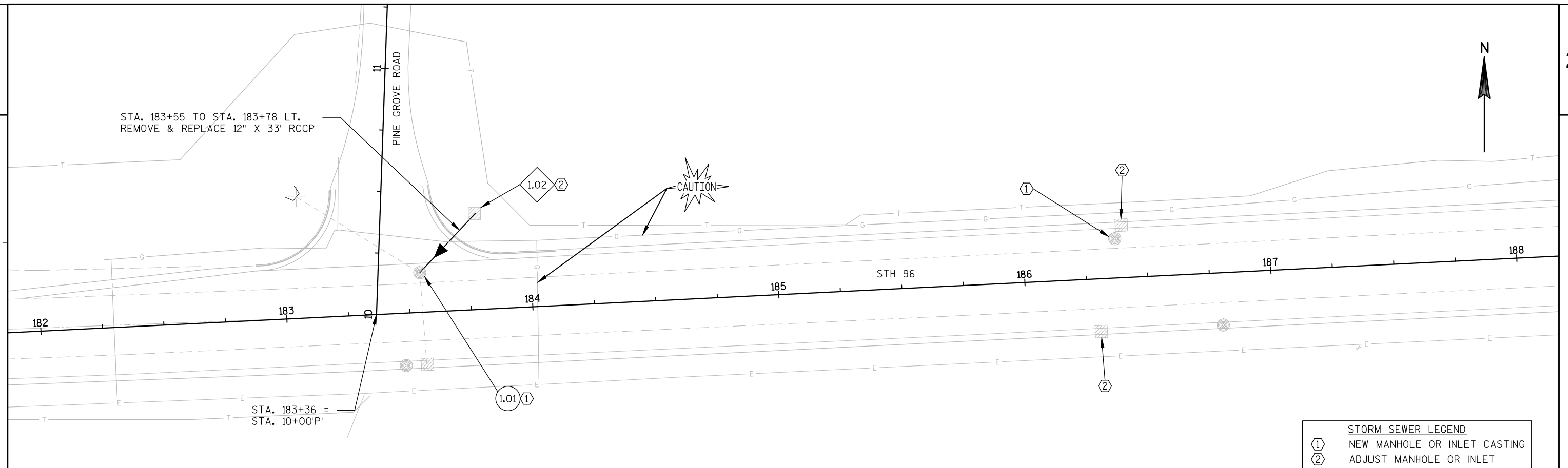
54" RCCP TO REMAIN

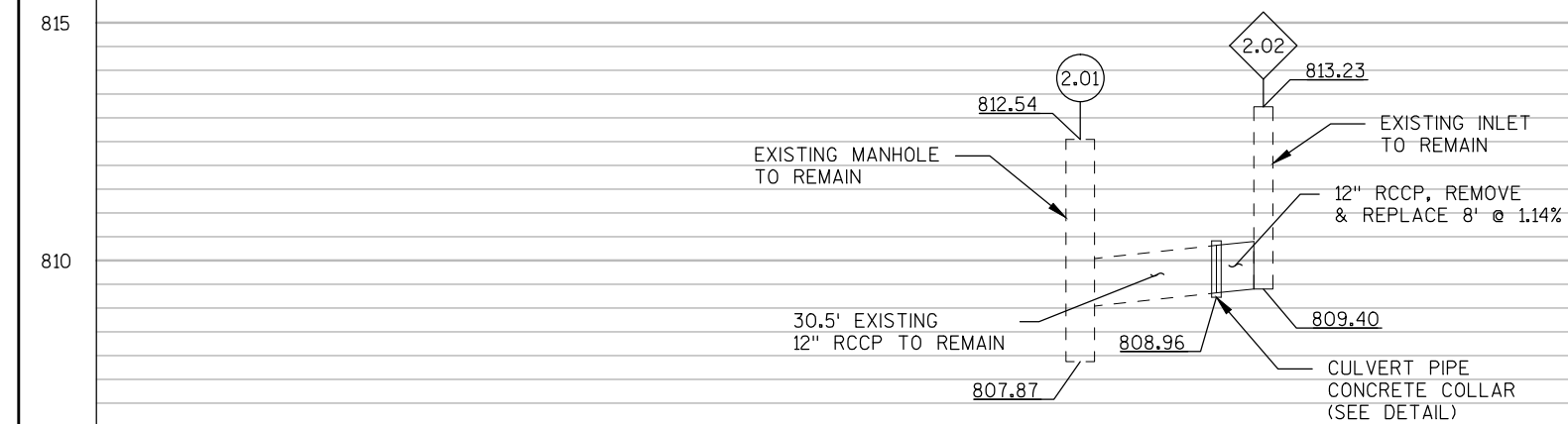
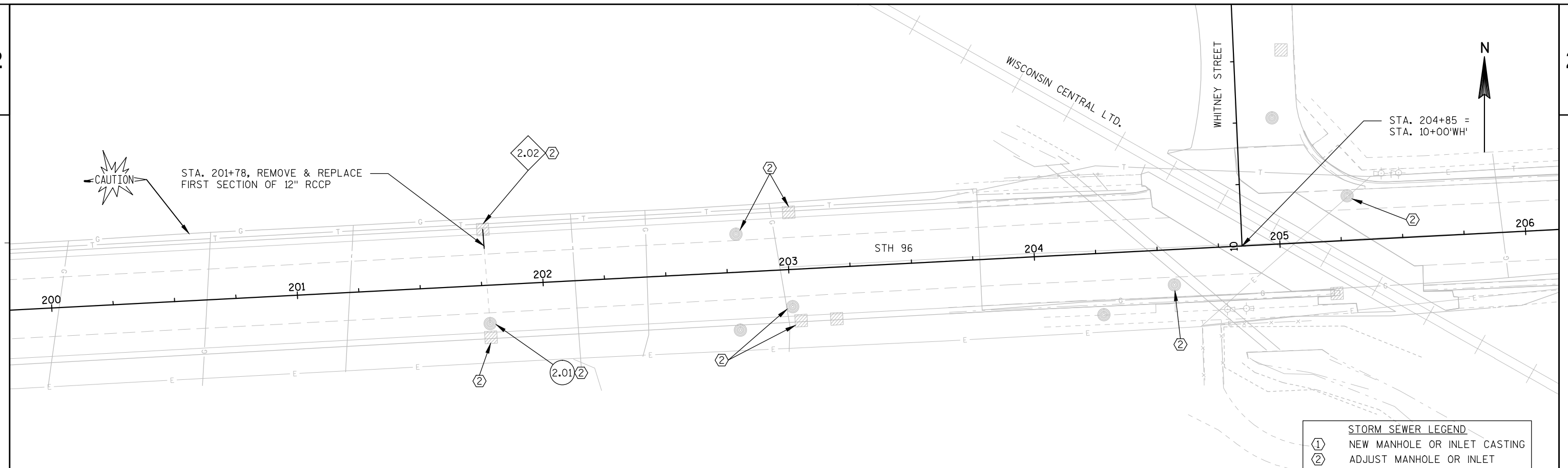
STH 96

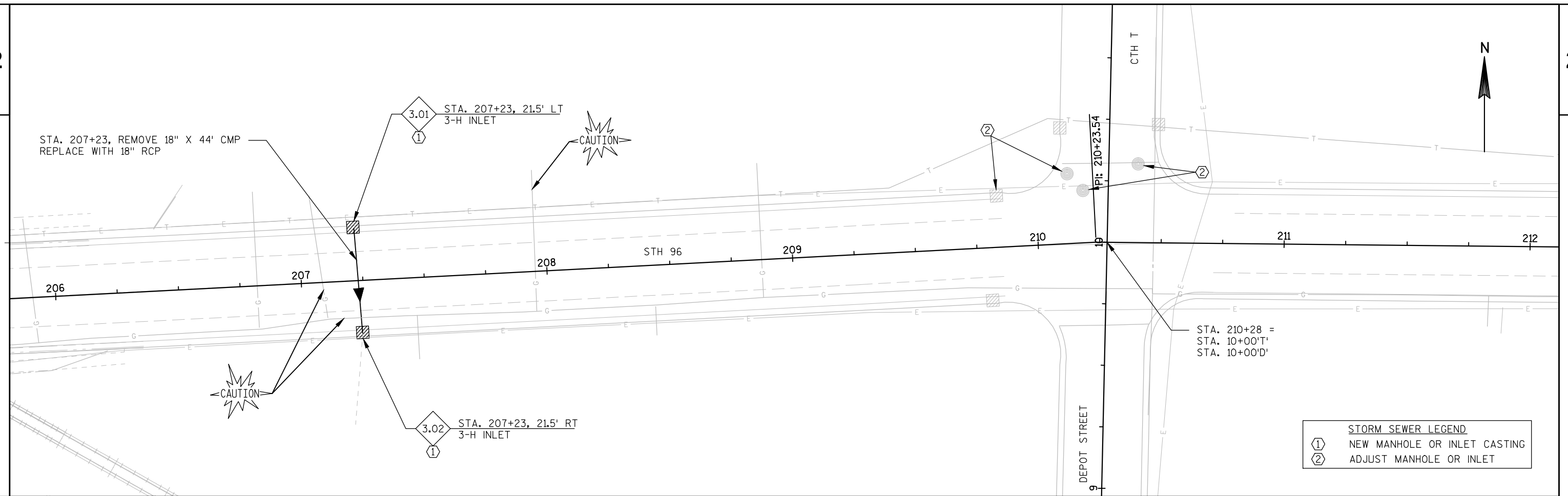
276+50

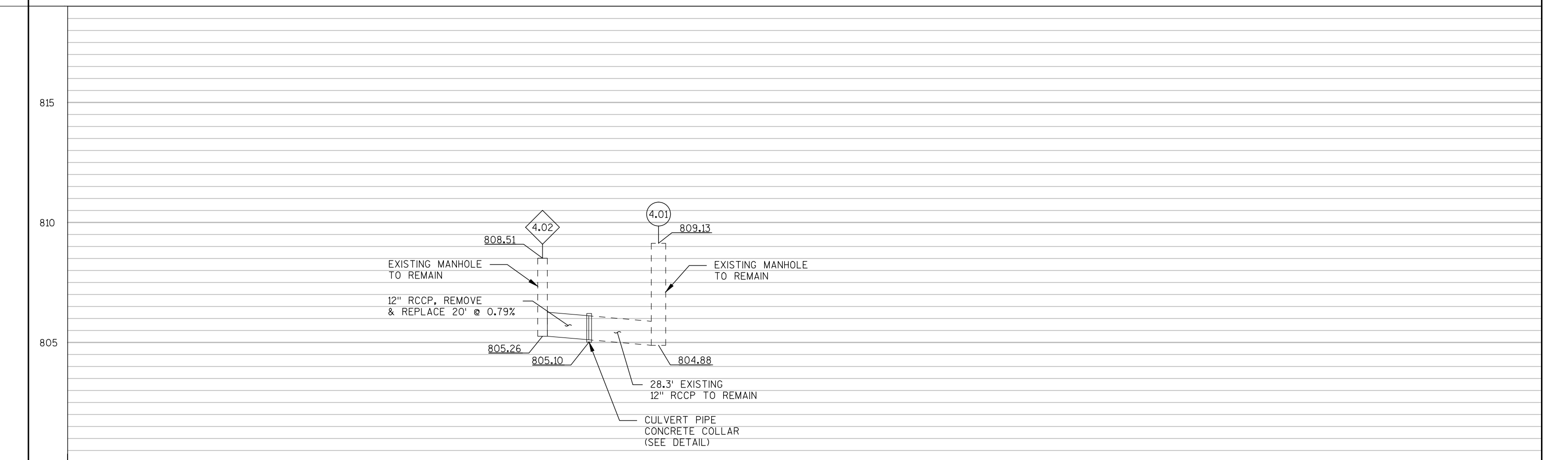
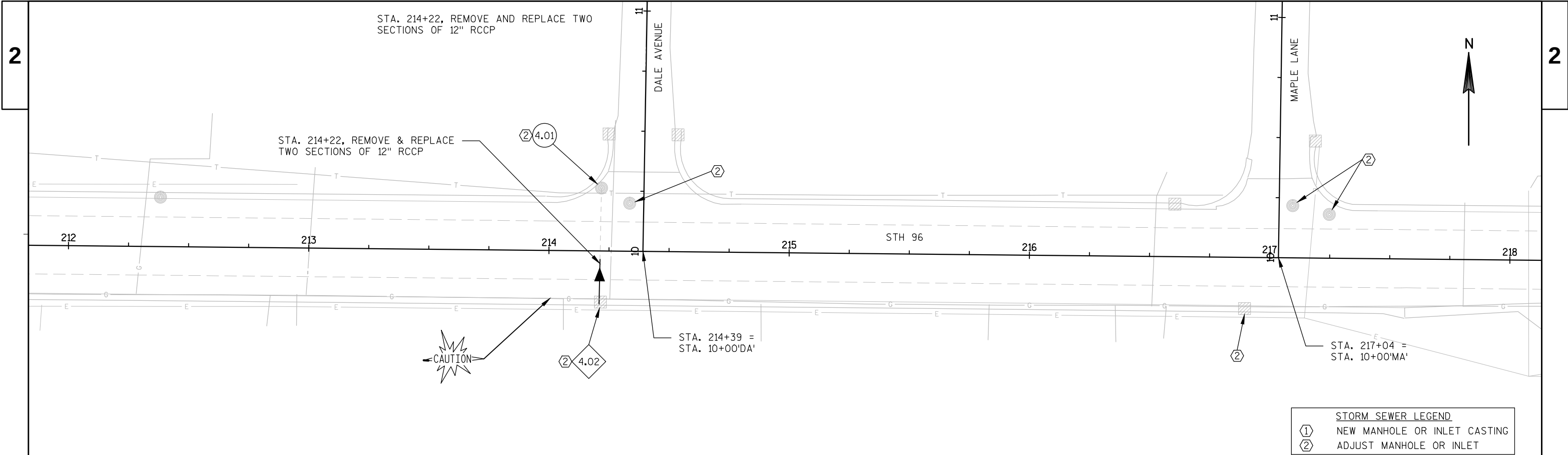
276+75

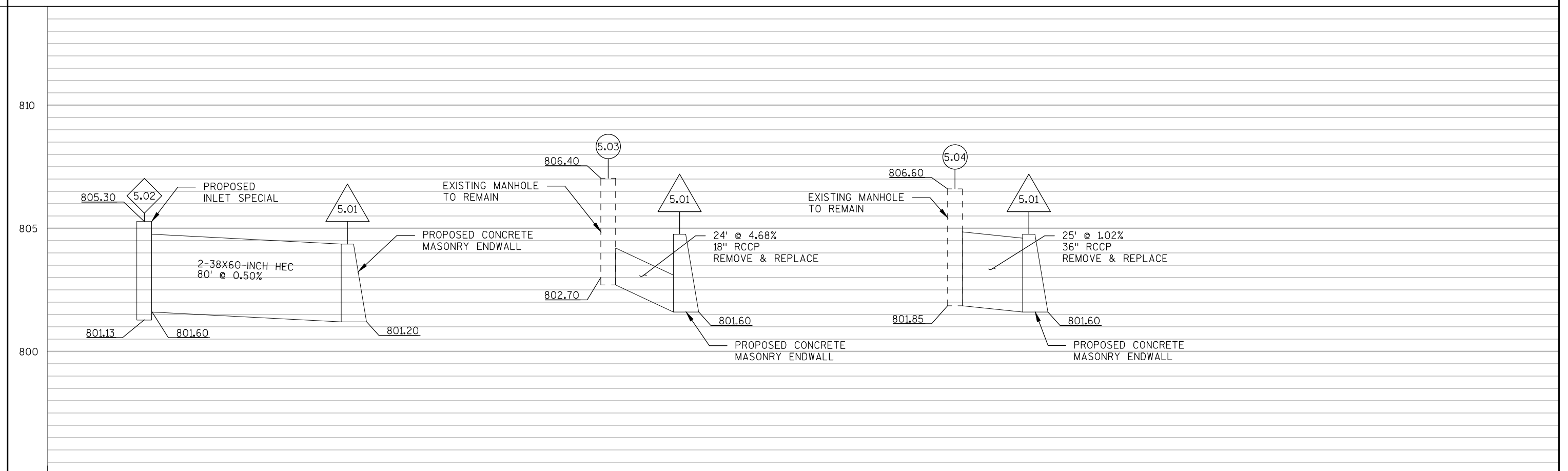
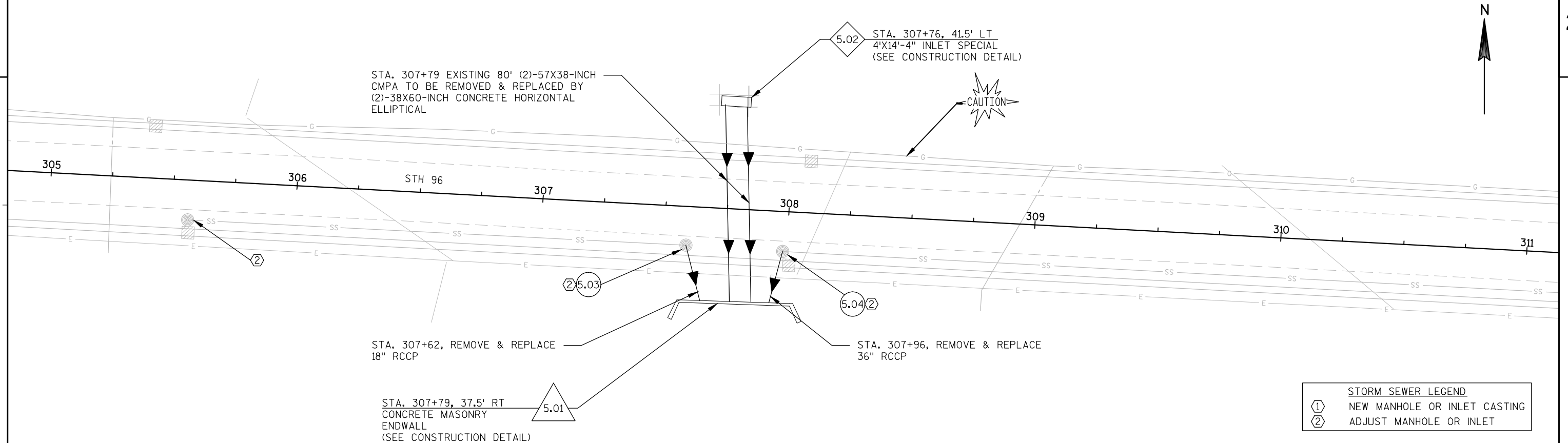
277

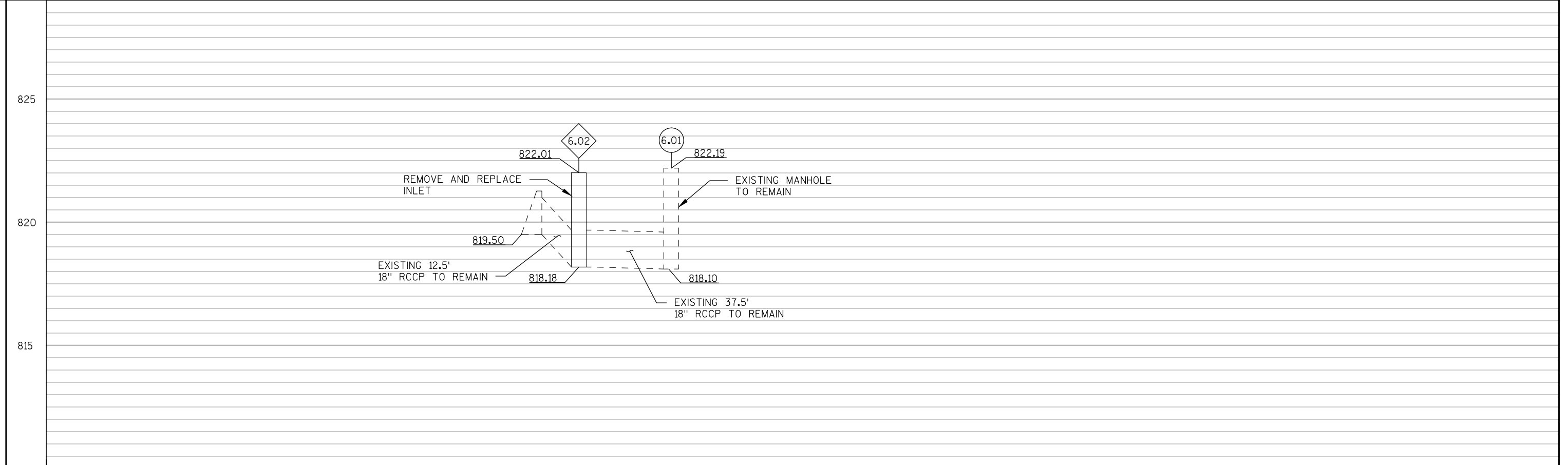
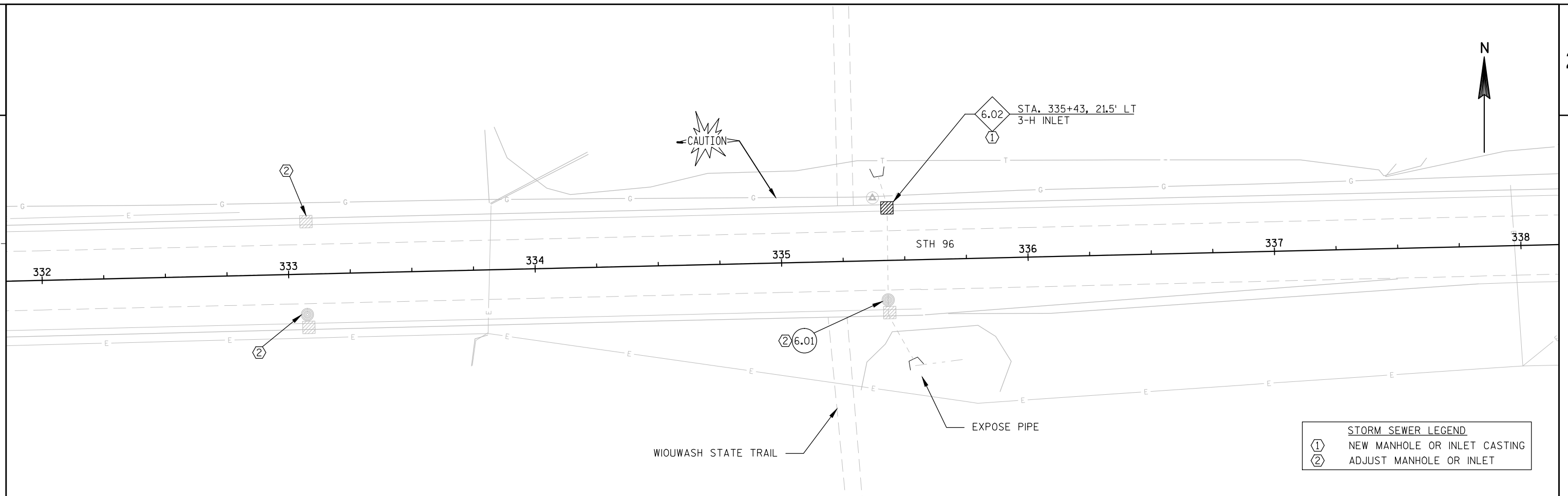


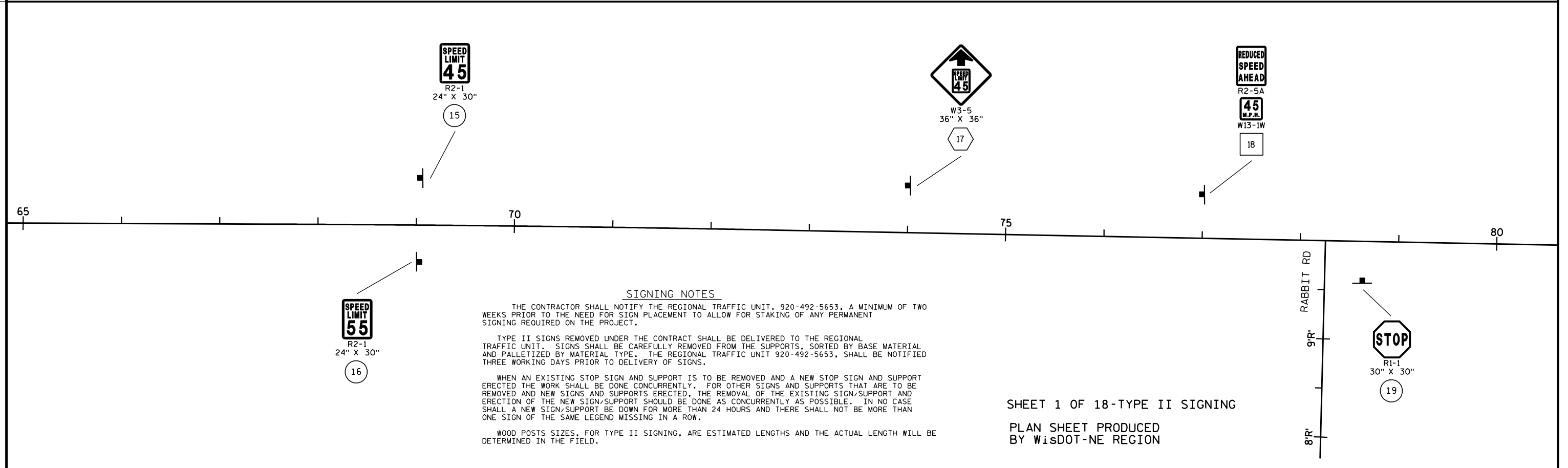












SIGNING NOTES

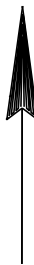
THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

N



85

90

95

100

105

110

12'S'

11'S'

10'S'

9'S'

8'S'

SHAKEY LAKE RD

R1-1
30" X 30"

(20)

R1-1
30" X 30"

(21)

- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

SHEET 2 OF 18-TYPE II SIGNING
PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



W14-3
48" X 36"

22



115

120

125

-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW



S3-1
36" X 36"

23

130

135

140

SHEET 3 OF 18-TYPE II SIGNING
PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

N

W14-3
48" X 36"

(24)

W14-3
48" X 36"

(25)

J4-1
24" X 36"

(26)

W1-7
48" X 24"

(27)

R1-1
30" X 30"

(28)

- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

WINCHESTER RD
9'W'
8'W'J4-1
24" X 36"

(29)

D2-2
72" X 24"

(30)

W2-2
30" X 30"

(32)

R2-1
24" X 30"

(34)

S3-1
36" X 36"

(35)

W16-2P
30" X 15"

(36)



R2-5A



W13-1W

(31)

I2-3
54" X 24"

(31A)

W3-5
36" X 36"

(33)

R2-1
24" X 30"

(37)

SHEET 4 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

W8-70
36" X 36"

36A

NEXT
2 MILESW57-51
30" X 15"

36B

N

W11-3
30" X 30"

38

NEXT
3 MILESW57-51
30" X 15"

38A

155-56
30" X 36"

39

SPEED
LIMIT
35R2-1
24" X 30"

40

STOP

R1-1
30" X 30"

42

NO
PARKING
ON THIS
SIDER7-53R
18" X 24"

42A

SPEED
LIMIT
35R2-1
24" X 30"

43C

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

PINE GROVE RD

W1-7
48" X 24"

43

NO
PARKING
ON THIS
SIDER7-53D
18" X 24"

43A

SPEED
LIMIT
35R2-1
24" X 30"

43B

○ SIGN-REMOVE AND REPLACE

□ SIGN-REMOVE EXISTING

⬡ SIGN-PLACE NEW

REMOUNT VILLAGE
PARKING RESTRICTIONS
BELOW SIGN #41

41

SPEED
LIMIT
35R2-1
24" X 30"NO
PARKING
ON THIS
SIDER7-53L
18" X 24"

37A

175

180

185

MOUNT TO
POWER POLER7-53D
18" X 24"

47A

MOUNT TO
POWER POLER7-53L
18" X 24"

47B

SPEED
LIMIT
35R2-1
24" X 30"

47

STOP

R1-1
30" X 30"

48

WHITNEY ST

205

190

195

200

NO
PARKING
ON THIS
SIDER7-53D
18" X 24"

45A

SPEED
LIMIT
35R2-1
24" X 30"

45

NO
PARKING
ON THIS
SIDER7-53D
18" X 24"

46A

W10-1
36" X 36"

46

W10-12
36" X 36"

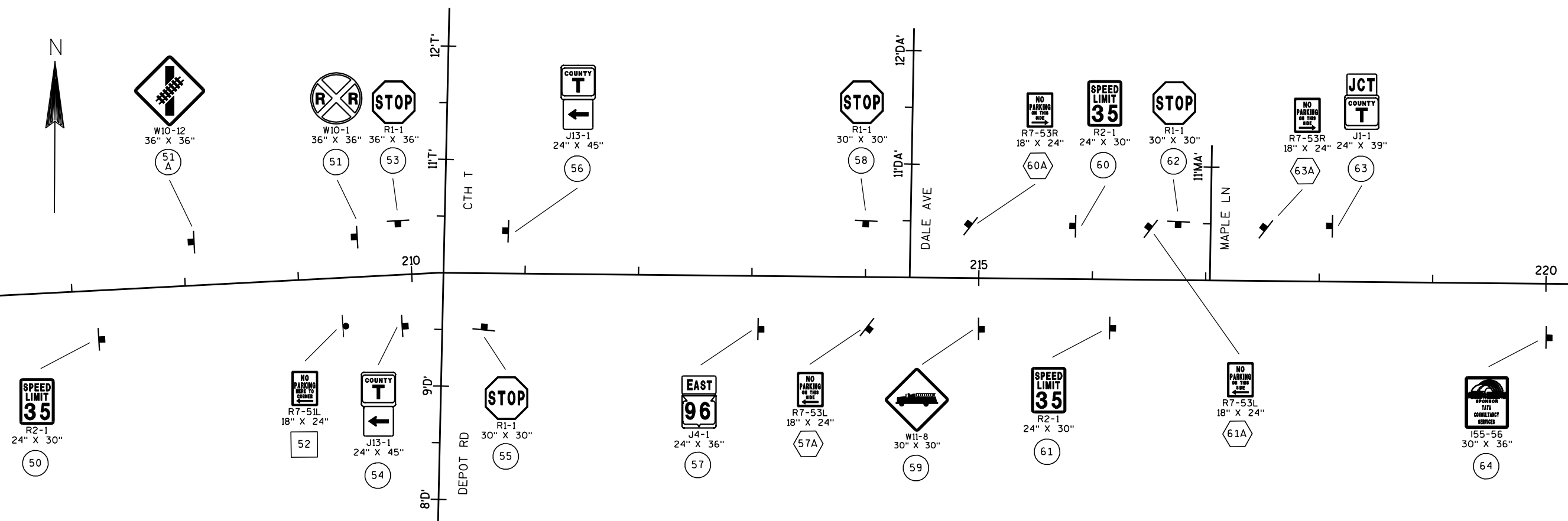
49A

JCT
COUNTY
TJ1-1
24" X 39"

49

SHEET 5 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION



SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

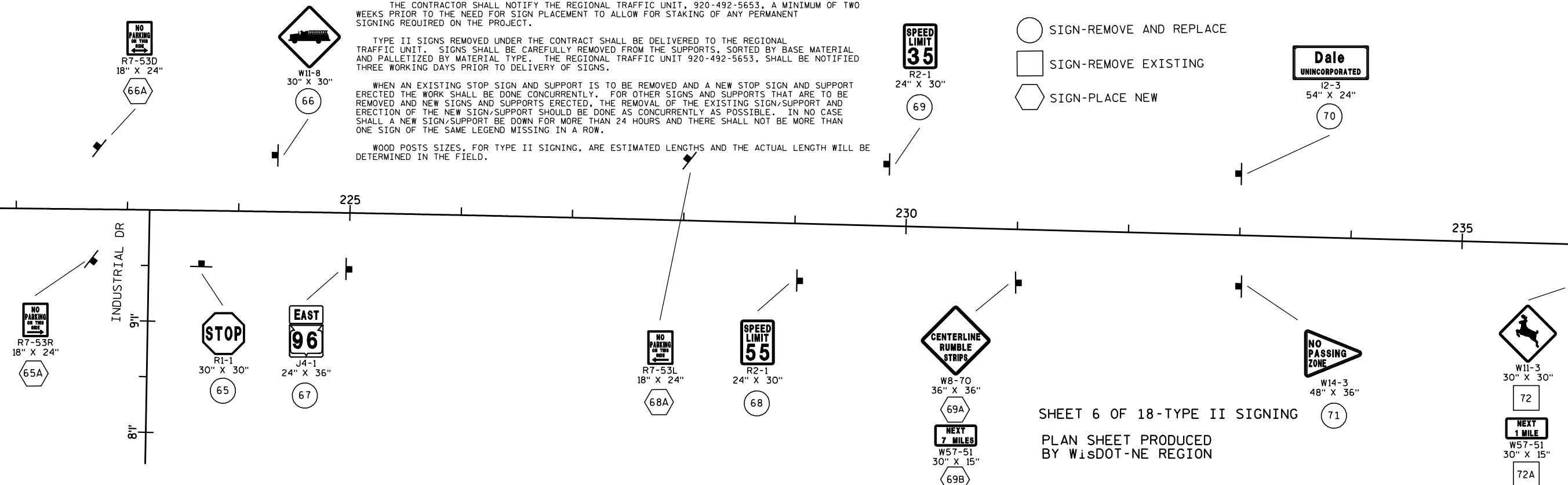
TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

Dale
UNINCORPORATED
12-3
54" X 24"
70



SHEET 6 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

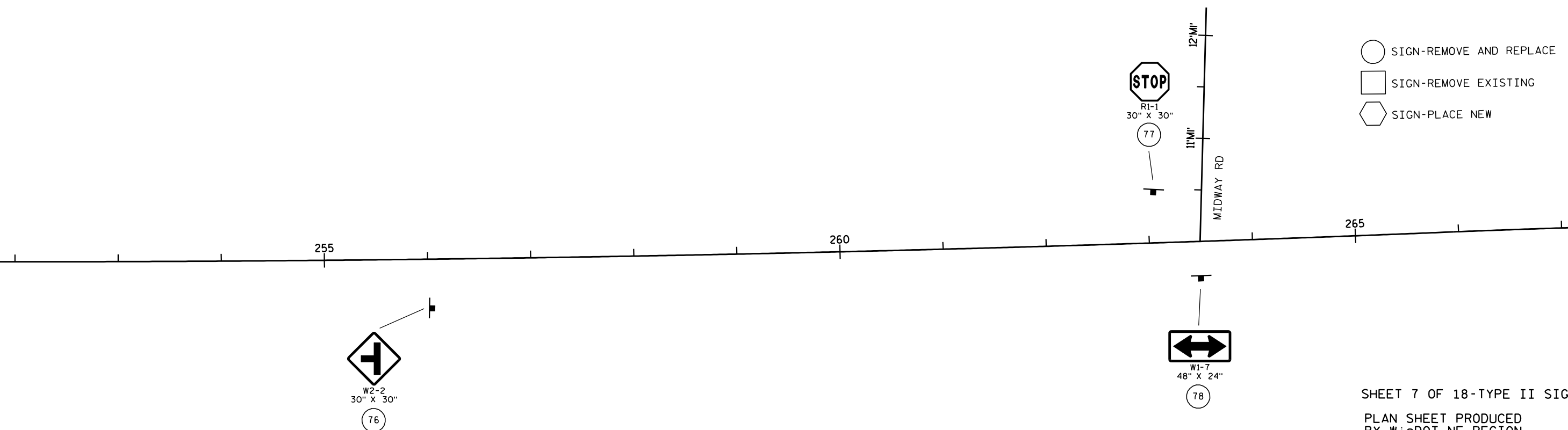
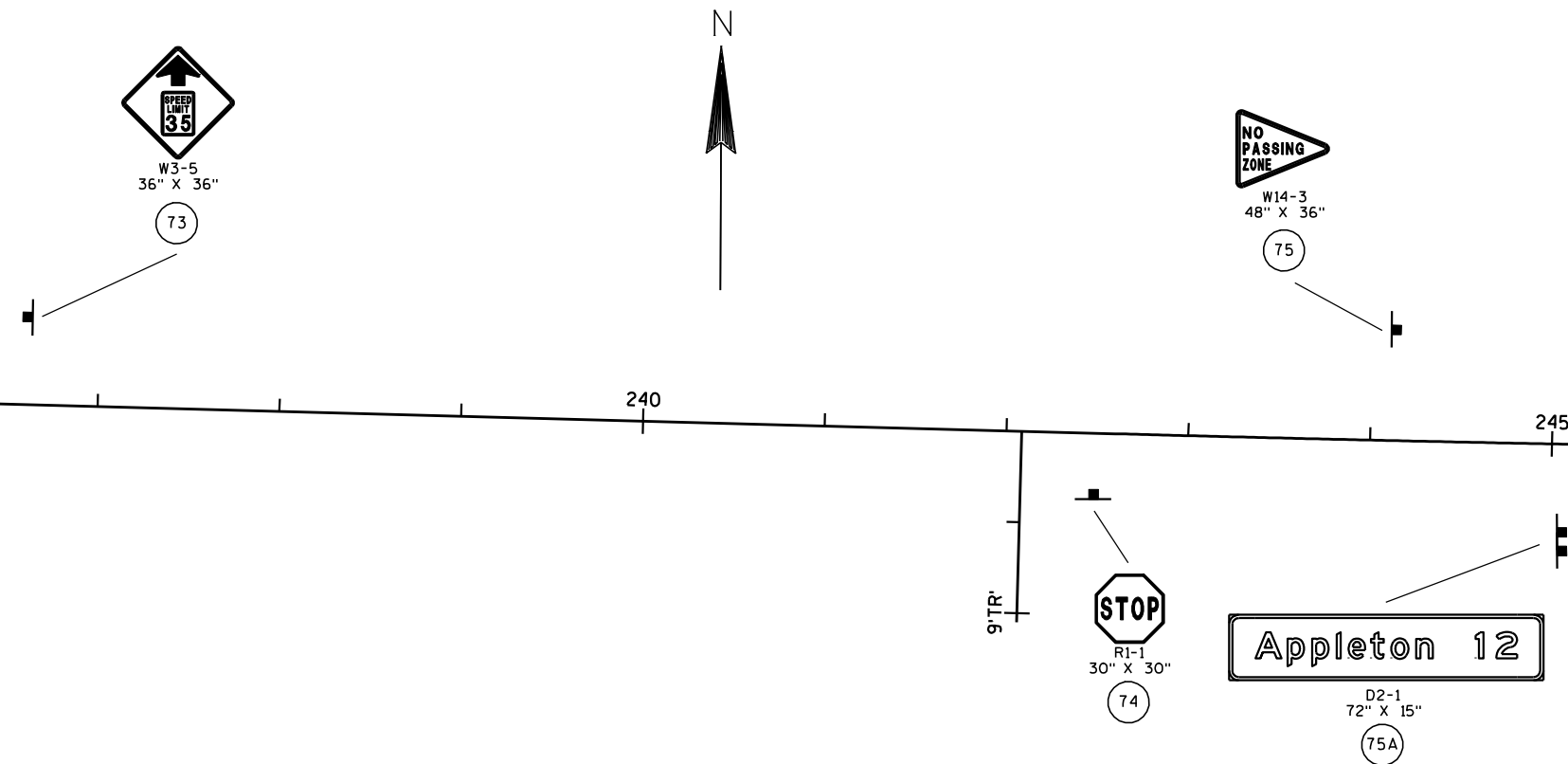
SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



SHEET 7 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERRECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERRECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



W14-3
48" X 36"

80

N



J4-1
24" X 36"

82



W14-3
48" X 36"

79



I2-3
54" X 24"

81

○ SIGN-REMOVE AND REPLACE

□ SIGN-REMOVE EXISTING

⬡ SIGN-PLACE NEW



W3-5
36" X 36"

83



W11-3
30" X 30"

85



W57-51
30" X 15"

85A



W8-70
36" X 36"



W57-51
30" X 15"



84B



R2-1
24" X 30"

86



R7-53R
18" X 24"



86A

285

290

295



W3-5
36" X 36"

84



R2-1
24" X 30"

87

LEAVE VILLAGE PARKING
RESTRICTIONS SIGN

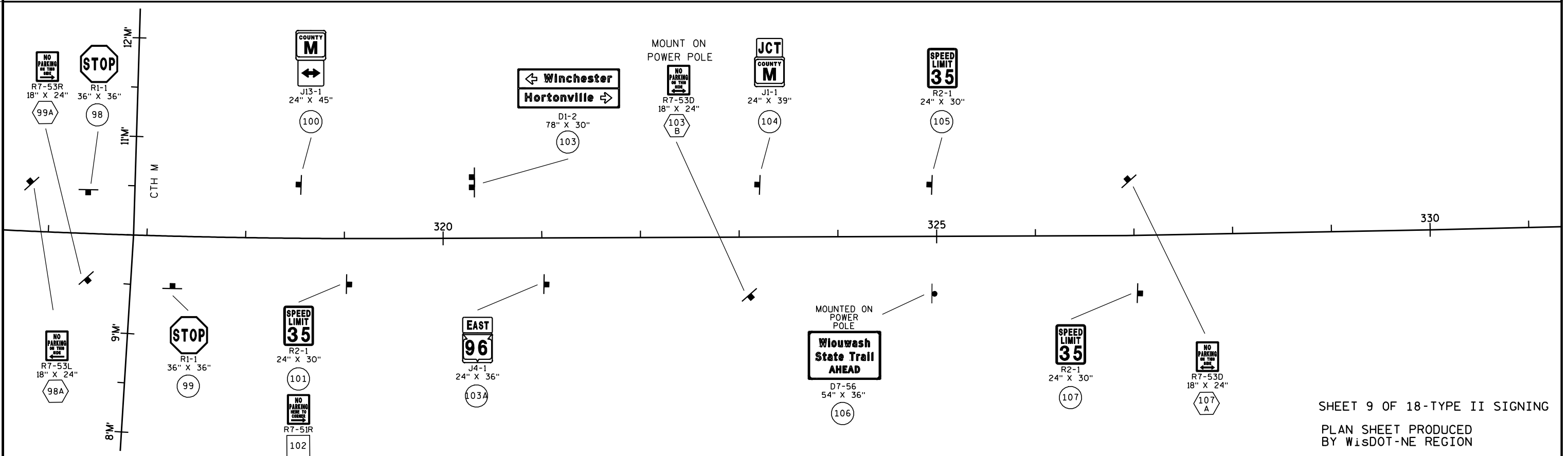
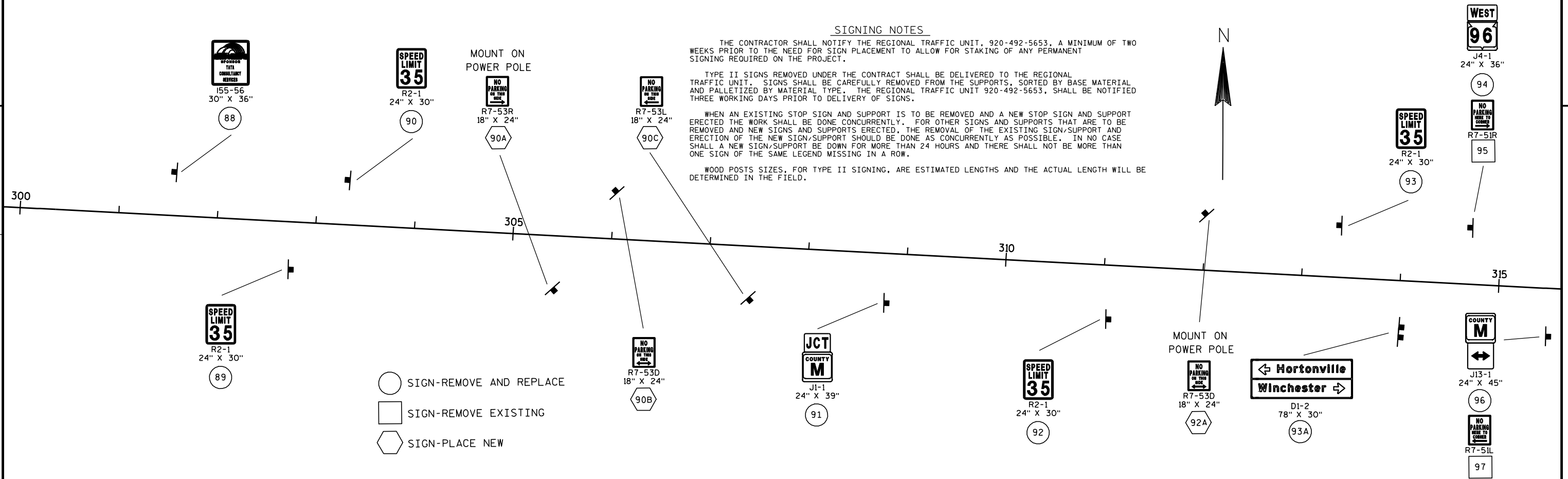


R7-53L
18" X 24"

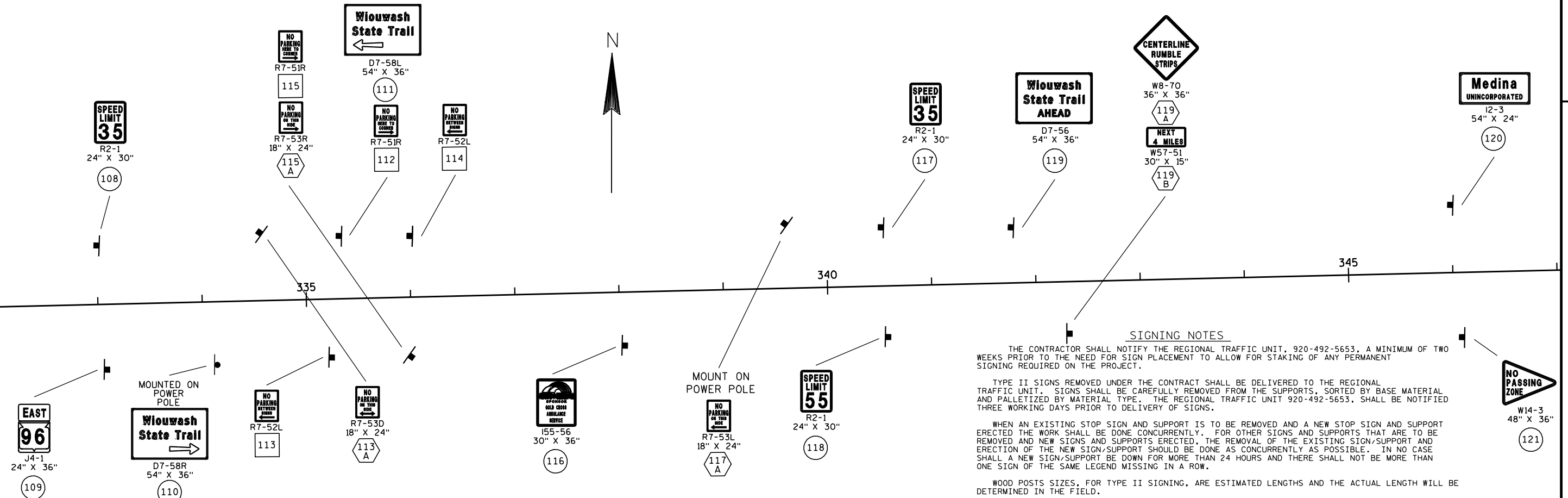


87A

SHEET 8 OF 18-TYPE II SIGNING
PLAN SHEET PRODUCED
BY WISDOT-NE REGION



SHEET 9 OF 18-TYPE II SIGNING
PLAN SHEET PRODUCED
BY WisDOT-NE REGION



SHEET 10 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



W1-7
48" X 24"

(124)



370

375

365

GREENDALE RD

9'0"

8'0"



R1-1
30" X 30"

(125)



W11-3
30" X 30"

123

NEXT
3 MILES

W57-51
30" X 15"

123A



W14-3
48" X 36"

(126)

380

385

390



W54-57
30" X 30"

(127)

-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW

SHEET 11 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



W54-57
30" X 30"

(128)

N



395

400

405

BROOKVIEW DR

9'8"

8'8"



R1-1
30" X 30"

(129)

-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW



W14-3
48" X 36"

(130)



155-56
30" X 36"

(131)



R1-1
30" X 30"

(132)

MANLEY RD

12'00"

11'00"

410

415

420

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

SHEET 12 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WISDOT-NE REGION



W1-7
48" X 24"

(133)

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE



W1-7
48" X 24"

135



425

430

435

ISLAND RD

9'S'

8'S'



155-56
30" X 36"

134

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE



R1-1
30" X 30"

136

-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

440

445

450

SHEET 13 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

N



460

465

470

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

-  SIGN-REMOVE AND REPLACE
-  SIGN-REMOVE EXISTING
-  SIGN-PLACE NEW

R1-1
30" X 30"

(137)

12'N'

11'N'

N ROAD

475

9'N'

8'N'

R1-1
30" X 30"

(138)

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

480

R1-1
30" X 30"

(139)

12'SP'

11'SP'

SPRING VALLEY DR

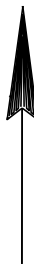
485

SHEET 14 OF 18-TYPE II SIGNING
PLAN SHEET PRODUCED
BY WisDOT-NE REGION

W14-3
48" X 36"

(140)

N



490

495

500

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- ⬡ SIGN-PLACE NEW

R1-1
30" X 30"

(141)

12'L'

11'L'

LAKEVIEW LN

505

510

515

SHEET 15 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



W11-3
30" X 30"

143

NEXT
3 MILES

W57-51
30" X 15"

143A

N



R1-1
30" X 30"

142



I55-56
30" X 36"

144



R1-1
30" X 30"

145

12' JN'

11' JN'

JULIUS DR

530

520

525

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

9' JS'

8' JS'



R1-1
30" X 30"

146

- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

SIGN & SUPPORTS TO STAY
OWNED & MAINTAINED BY GREENVILLE

540

545

535



I55-56
30" X 36"

147

SHEET 16 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

N

550

555

560

W3-5
36" X 36"

(148)

○ SIGN-REMOVE AND REPLACE

□ SIGN-REMOVE EXISTING

⬡ SIGN-PLACE NEW

Dale	7
Readfield	12
Fremont	16

D2-3
78" X 36"

(155)

R1-1
30" X 30"

(152)

CLEARY ST

12'
11'

570

575

R2-1
24" X 30"

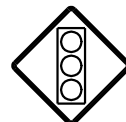
(149)

R2-1
36" X 48"

(150)

J1-1
24" X 39"

(151)

W3-3
48" X 48"

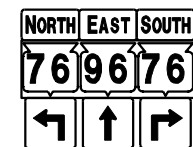
(153)

J1-1
24" X 39"

(154)

R2-1
24" X 30"

(156)

J3-3
72" X 57"

(157)

SHEET 17 OF 18-TYPE II SIGNING

PLAN SHEET PRODUCED
BY WisDOT-NE REGION



W8-70
36" X 36"



W57-51
30" X 15"



J4-1
24" X 36"



N

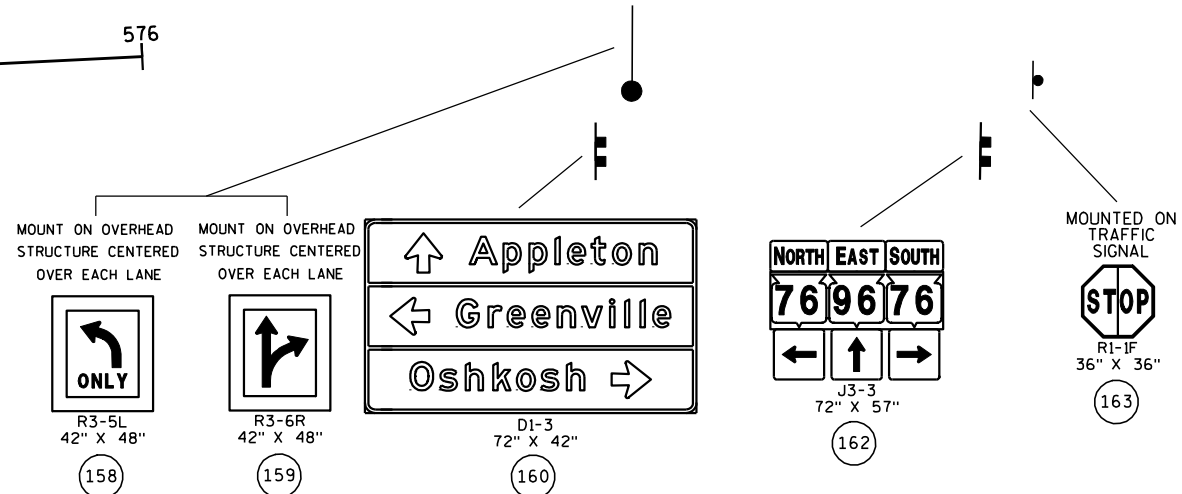
SIGNING NOTES

THE CONTRACTOR SHALL NOTIFY THE REGIONAL TRAFFIC UNIT, 920-492-5653, A MINIMUM OF TWO WEEKS PRIOR TO THE NEED FOR SIGN PLACEMENT TO ALLOW FOR STAKING OF ANY PERMANENT SIGNING REQUIRED ON THE PROJECT.

TYPE II SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

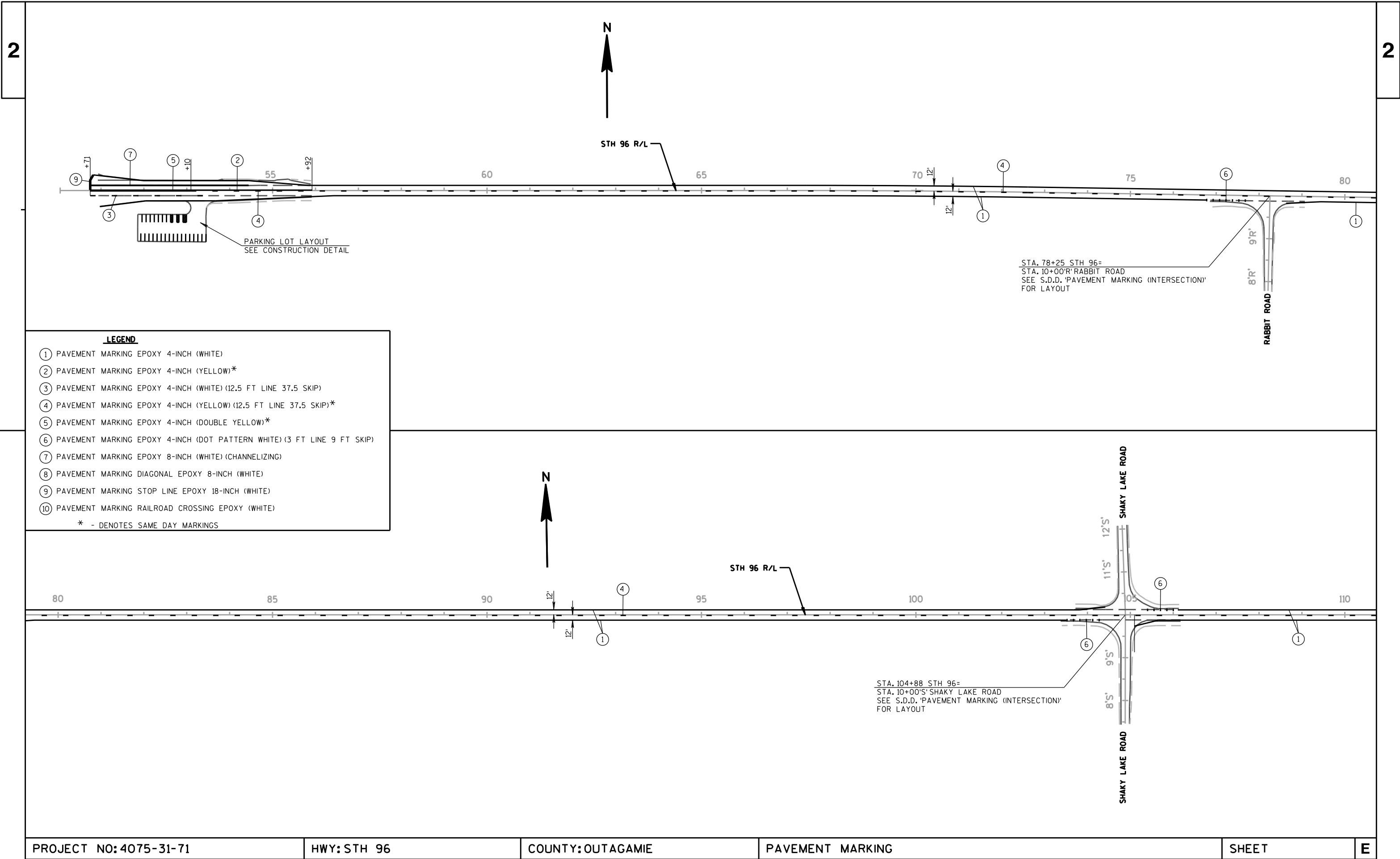
WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

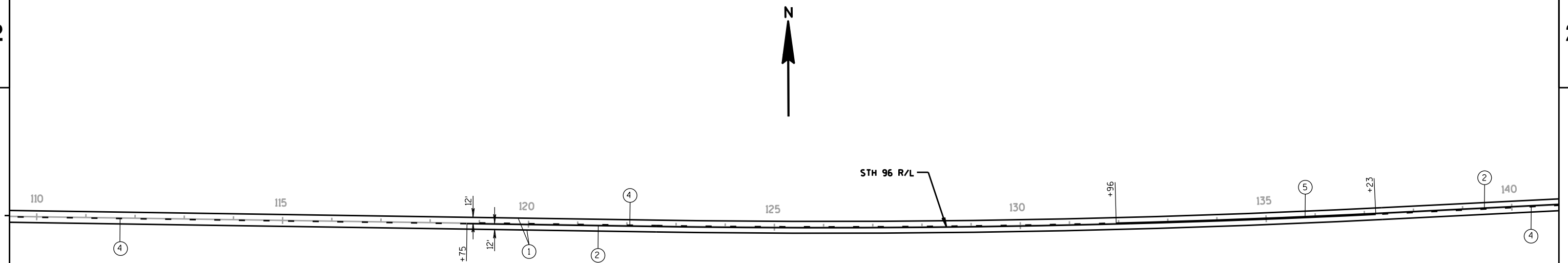


- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

SHEET 18 OF 18-TYPE II SIGNING

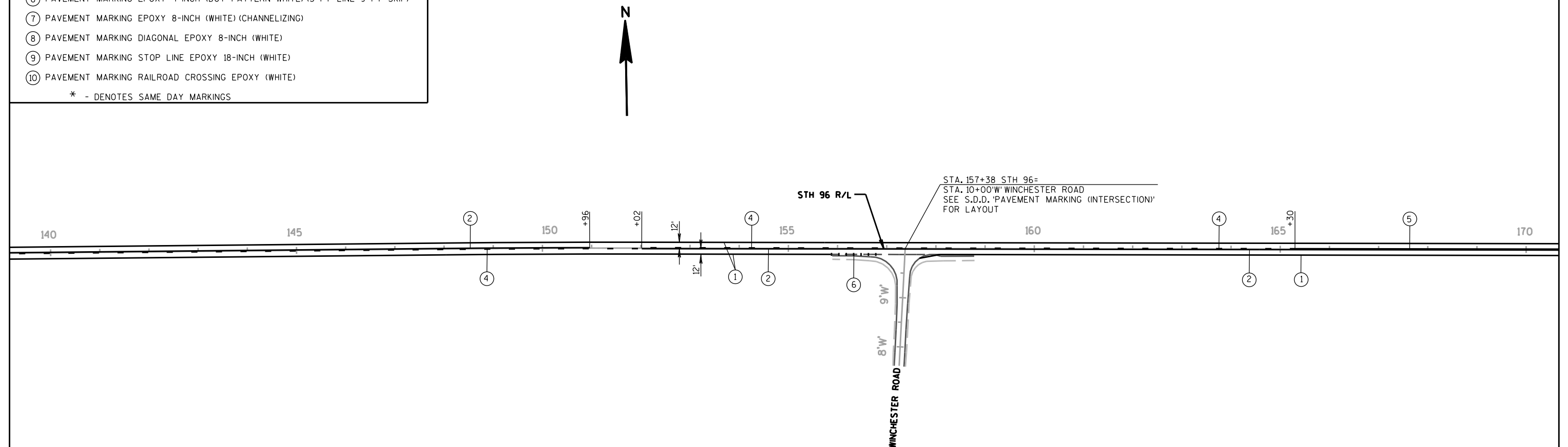
PLAN SHEET PRODUCED
BY WisDOT-NE REGION



**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS



PROJECT NO: 4075-31-71

HWY: STH 96

COUNTY: OUTAGAMIE

PAVEMENT MARKING

SHEET

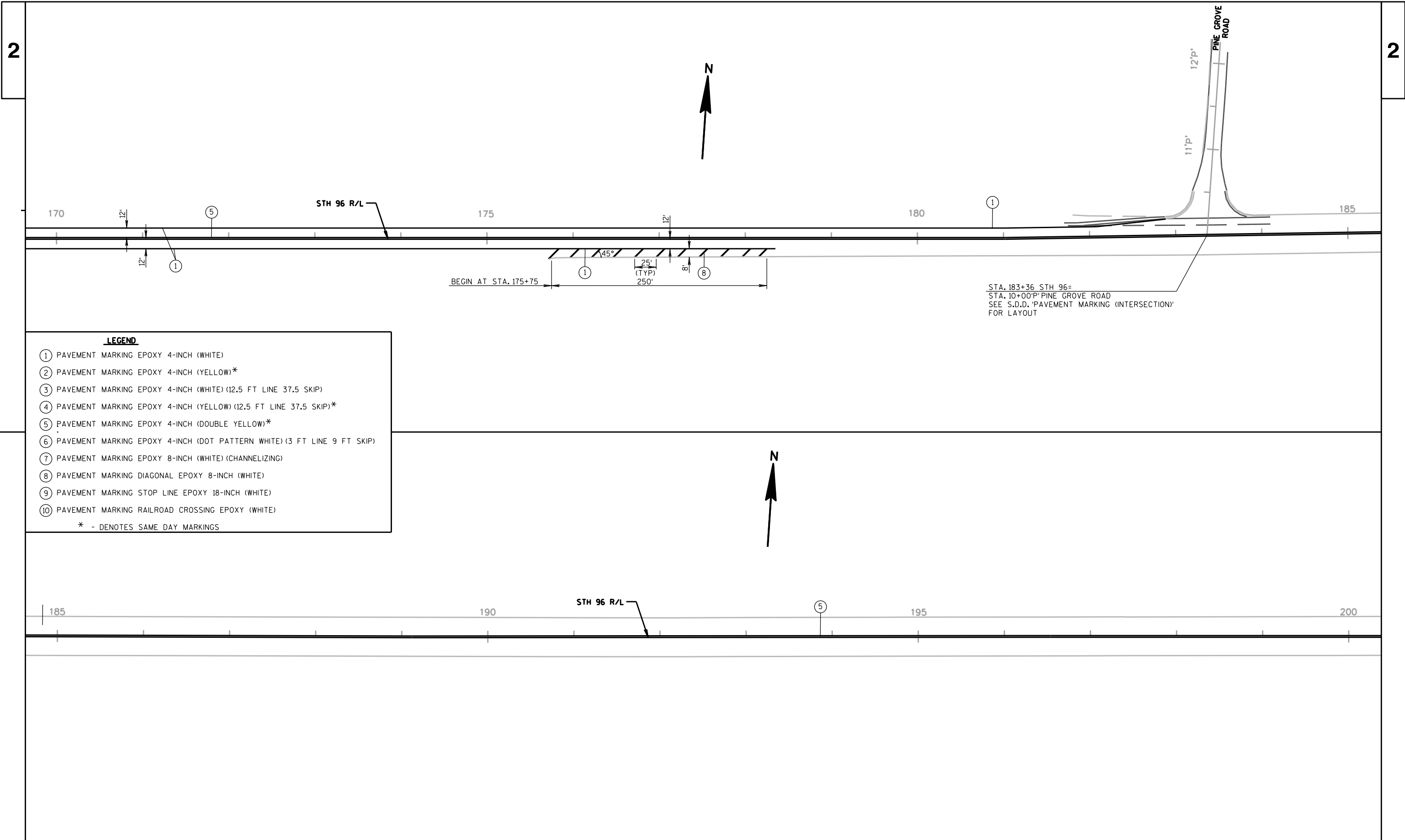
E

FILE NAME : X:\Projects\Outagamie\4075-31-00 STH 96\Plan Sheets\Pavement Marking\024502_pm.dgn

PLOT DATE : 7/13/2012

PLOT BY : **...plotuser...** PLOT NAME :

PLOT SCALE : **.....plotscale.....** WISDOT/CADDs SHEET 42



STA. 204+85 STH 96=
STA. 10+00'WH' WHITNEY WAY
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

SEE S.D.D. 'SIGNING AND PAVEMENT MARKING
DETAIL FOR RAILROAD CROSSINGS' FOR LAYOUT

STA. 214+38 STH 96=
STA. 10+00'DA' DALE AVENUE
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

SEE S.D.D. 'SIGNING AND PAVEMENT MARKING
DETAIL FOR RAILROAD CROSSINGS' FOR LAYOUT

STA. 210+28 STH 96=
STA. 10+00'T' CTH T
STA. 10+00'D' DEPOT ROAD
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

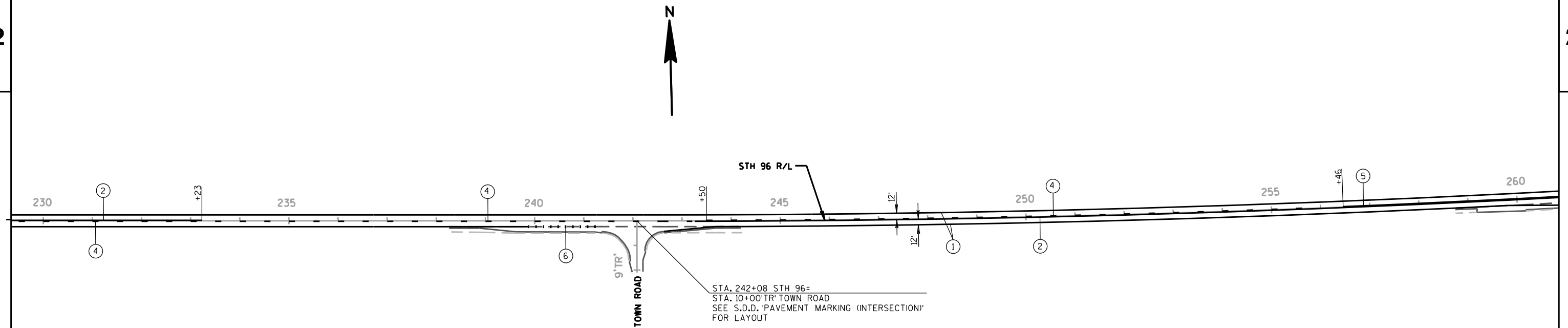
LEGEND

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS

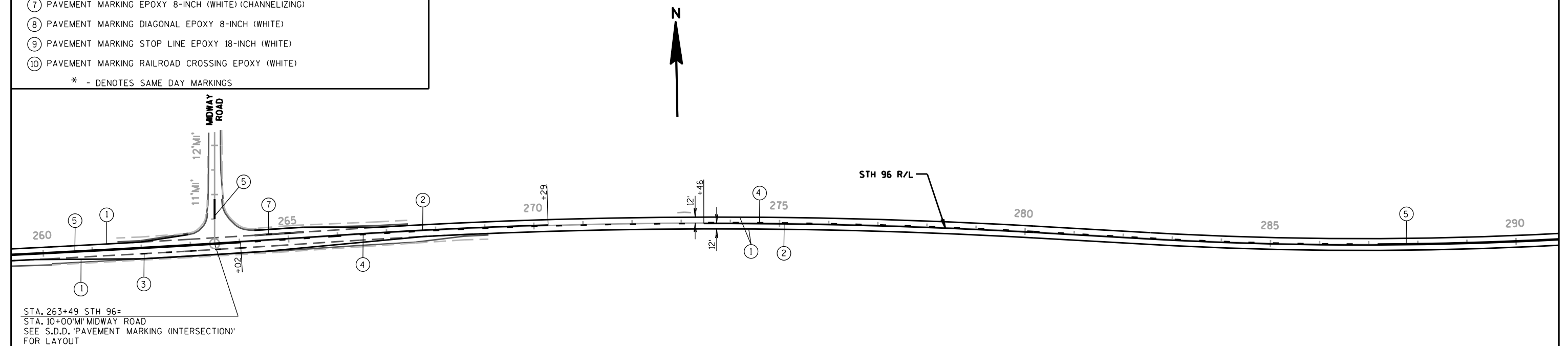
STA. 223+20 STH 96=
STA. 10+00'I' INDUSTRIAL DRIVE
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

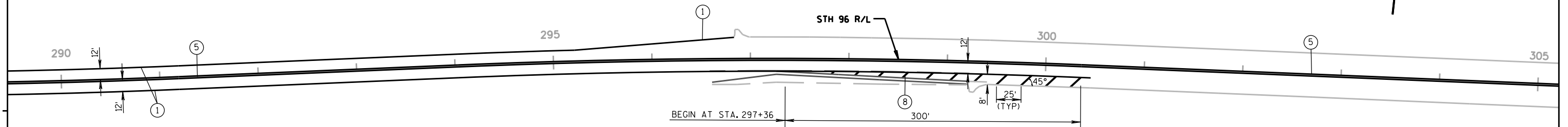
STA. 217+04 STH 96=
STA. 10+00'MA' MAPLE AVENUE
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

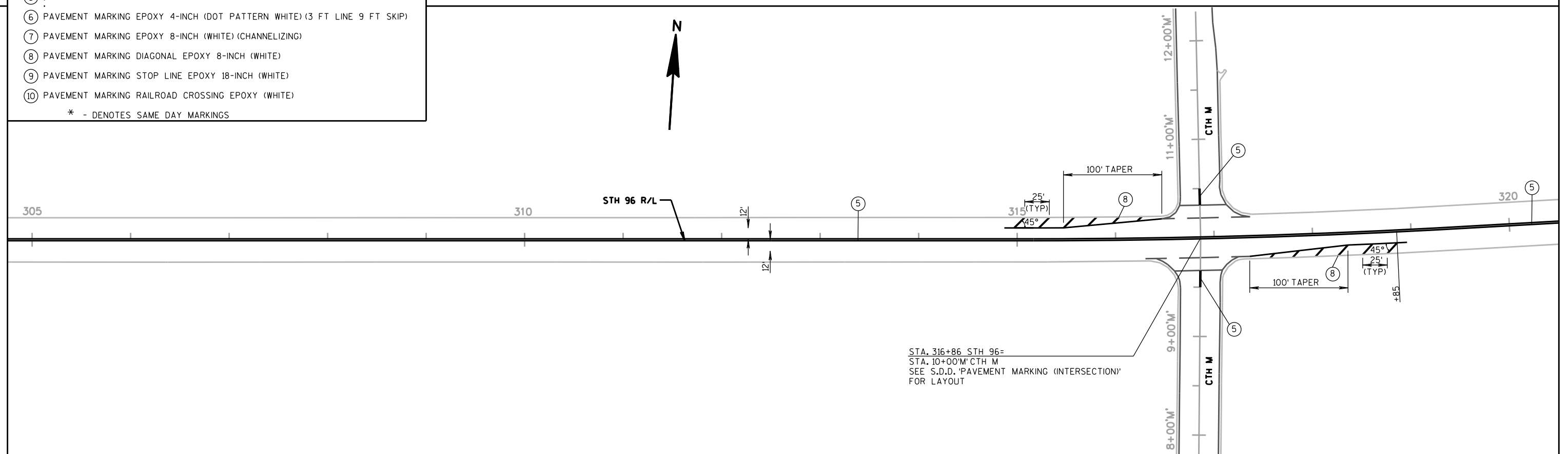
* - DENOTES SAME DAY MARKINGS



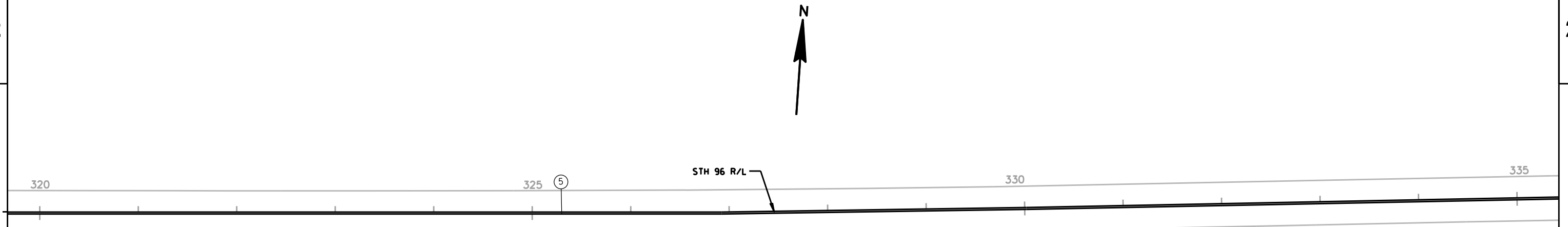
**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS



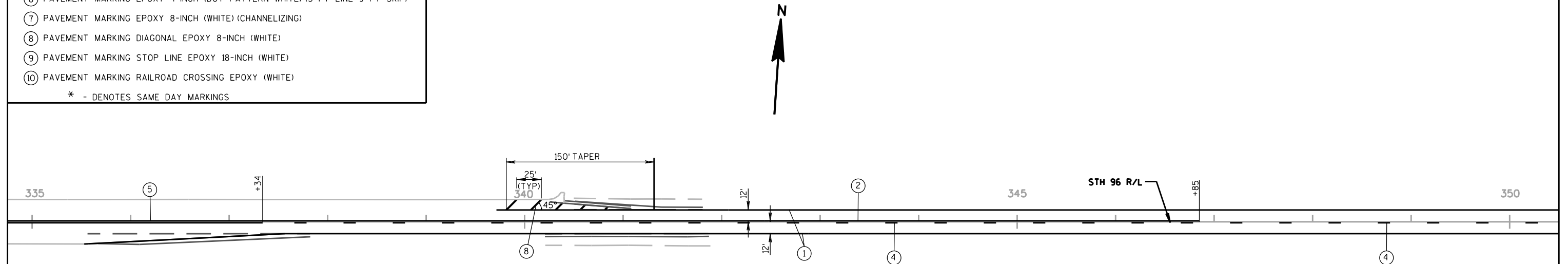
STA. 316+86 STH 96=
STA. 10+00'M CTH M
SEE S.D.D. 'PAVEMENT MARKING (INTERSECTION)'
FOR LAYOUT

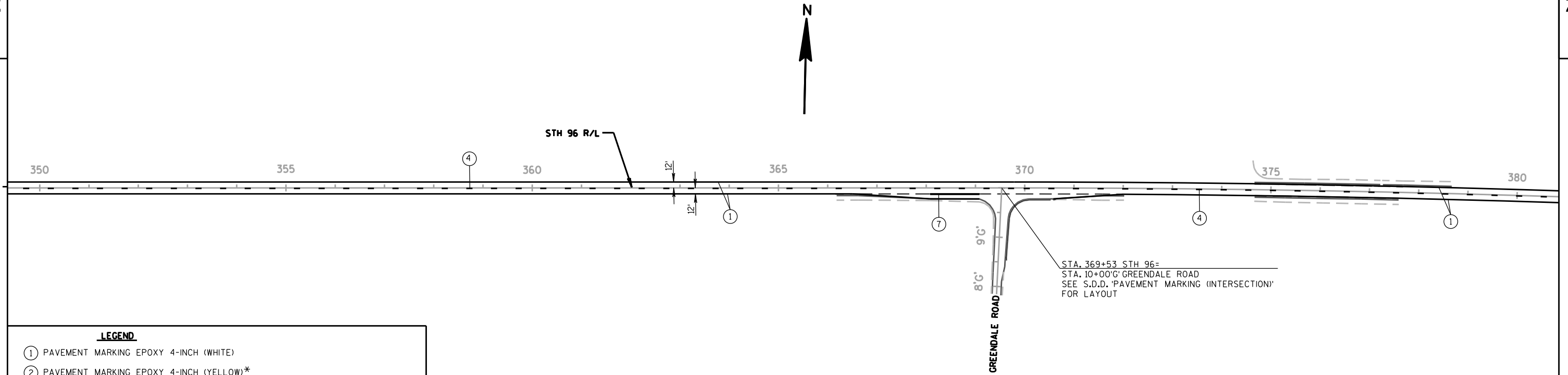


LEGEND

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

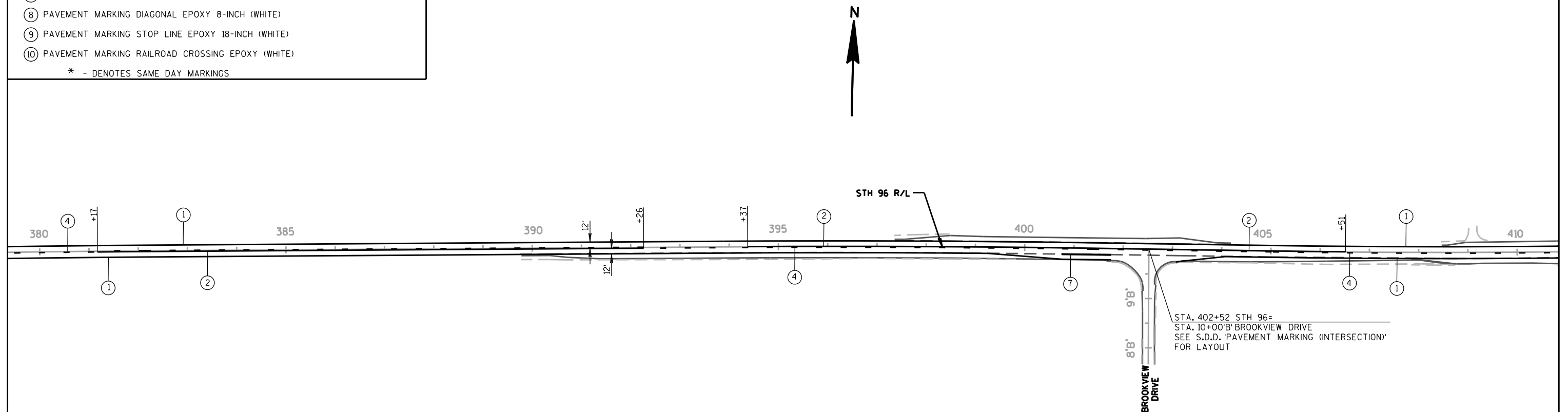
* - DENOTES SAME DAY MARKINGS



**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS



PROJECT NO: 4075-31-71

HWY: STH 96

COUNTY: OUTAGAMIE

PAVEMENT MARKING

SHEET

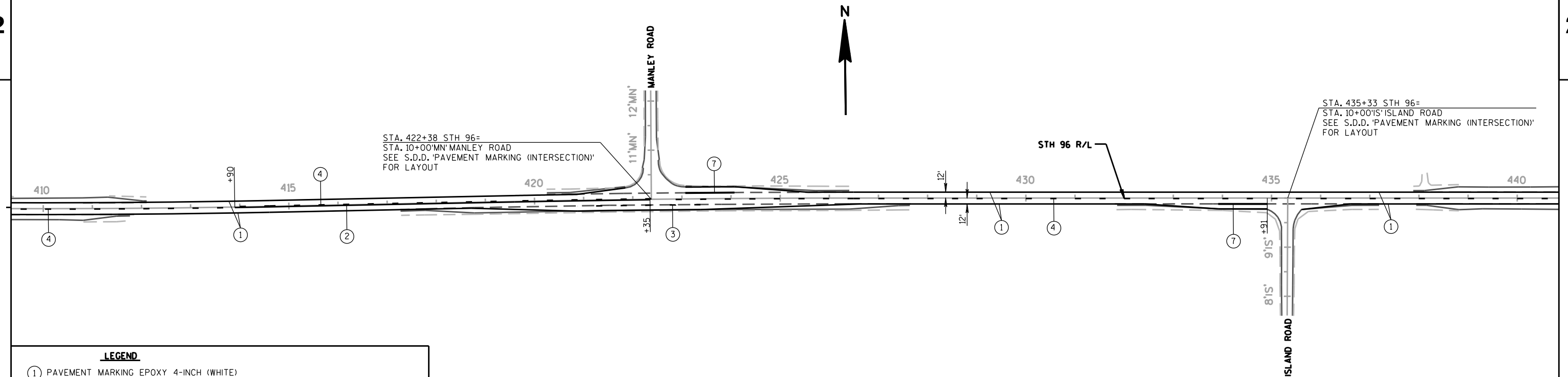
E

FILE NAME : X:\Projects\Outagamie\4075-31-00 STH 96\Plan Sheets\Pavement Marking\024508_pm.dgn

PLOT DATE : 1/23/2013

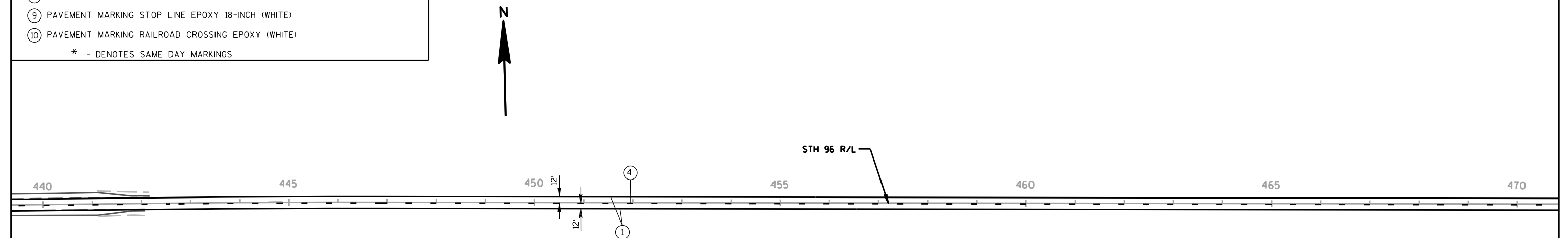
PLOT BY : **...plotuser...** PLOT NAME :

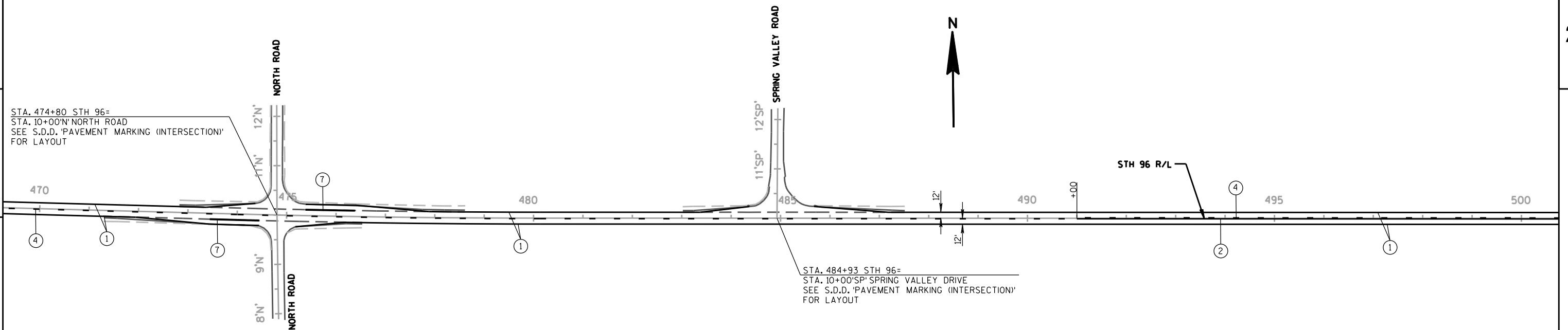
PLOT SCALE : **.....plotscale.....** WISDOT/CADDs SHEET 42

**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

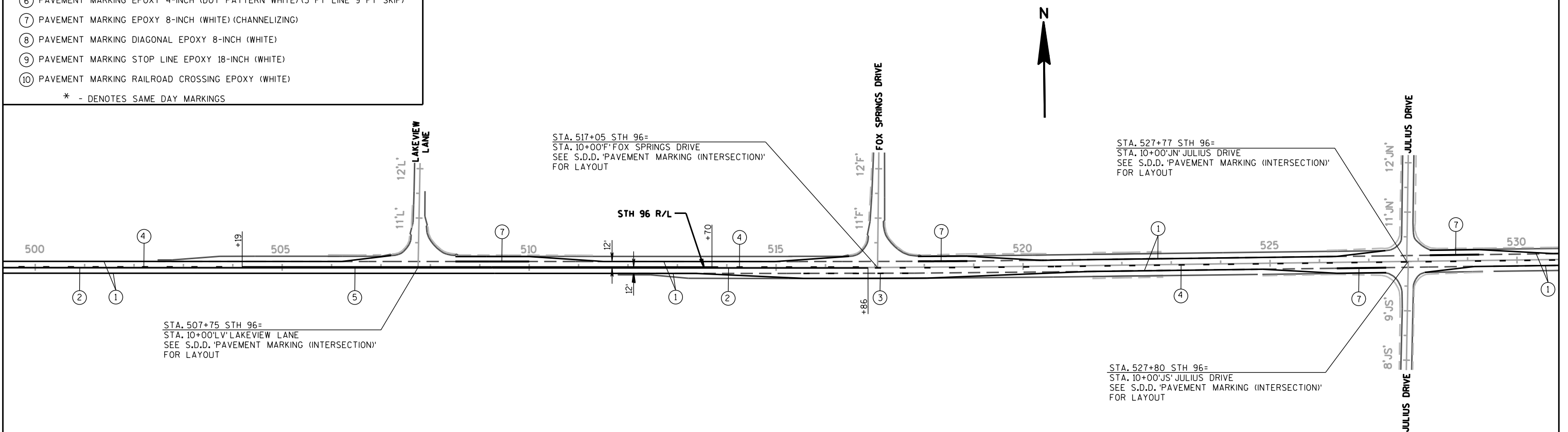
* - DENOTES SAME DAY MARKINGS



**LEGEND**

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS



PROJECT NO: 4075-31-71

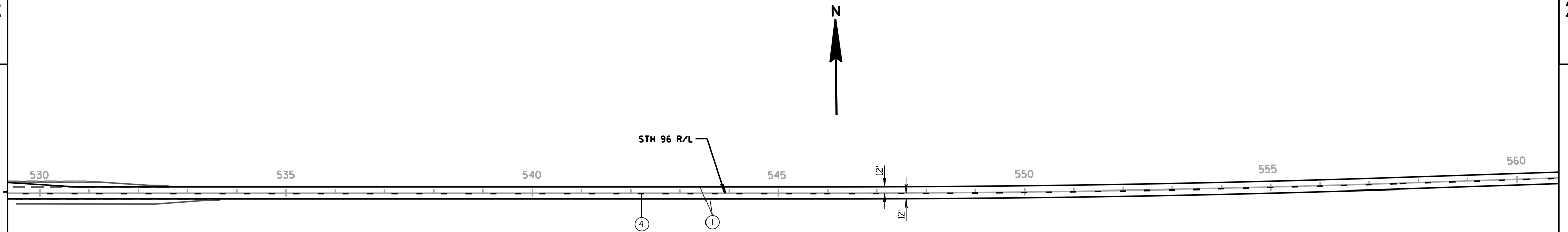
HWY: STH 96

COUNTY: OUTAGAMIE

PAVEMENT MARKING

SHEET

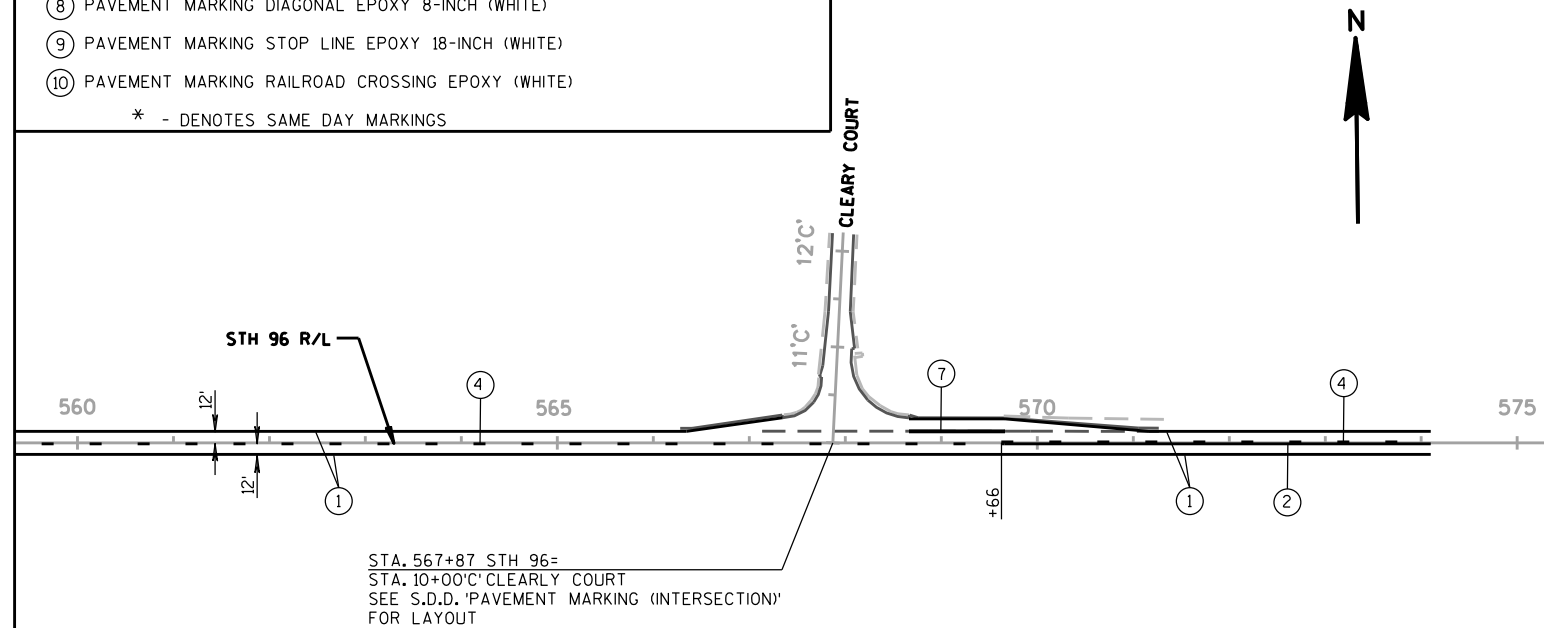
E

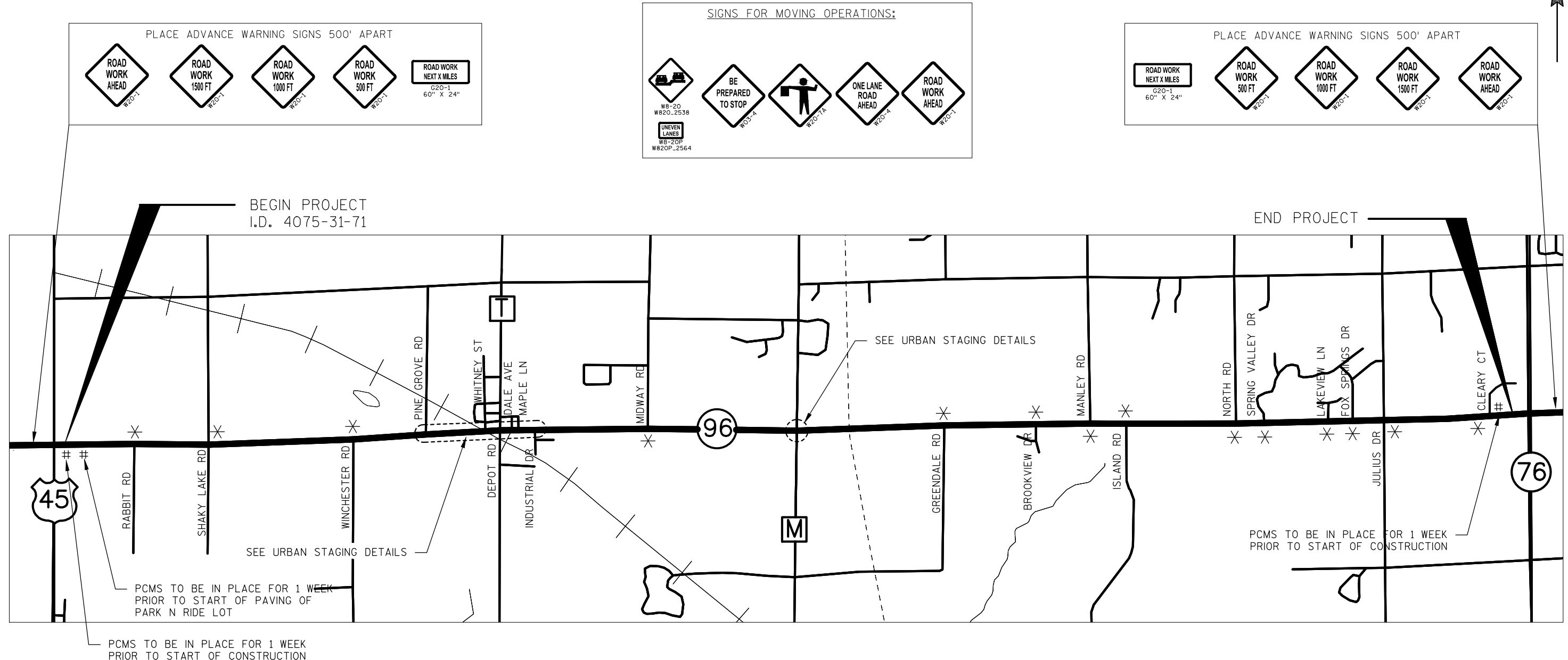


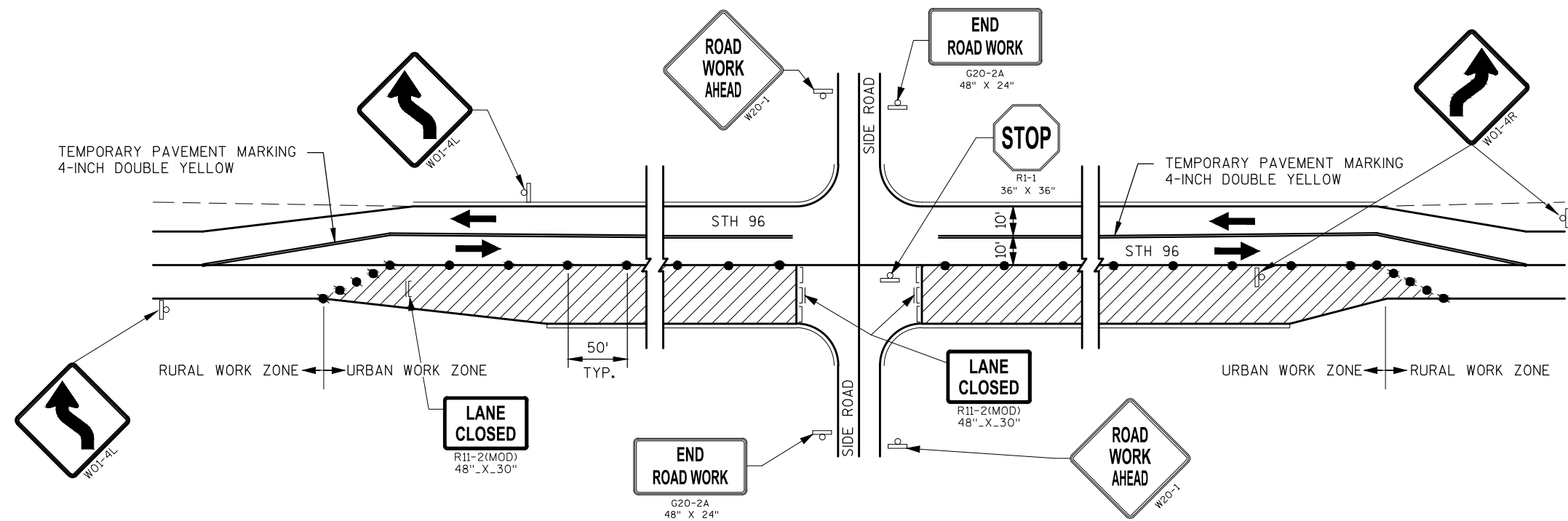
LEGEND

- ① PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ② PAVEMENT MARKING EPOXY 4-INCH (YELLOW)*
- ③ PAVEMENT MARKING EPOXY 4-INCH (WHITE) (12.5 FT LINE 37.5 SKIP)
- ④ PAVEMENT MARKING EPOXY 4-INCH (YELLOW) (12.5 FT LINE 37.5 SKIP)*
- ⑤ PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)*
- ⑥ PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- ⑦ PAVEMENT MARKING EPOXY 8-INCH (WHITE) (CHANNELIZING)
- ⑧ PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- ⑨ PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ⑩ PAVEMENT MARKING RAILROAD CROSSING EPOXY (WHITE)

* - DENOTES SAME DAY MARKINGS







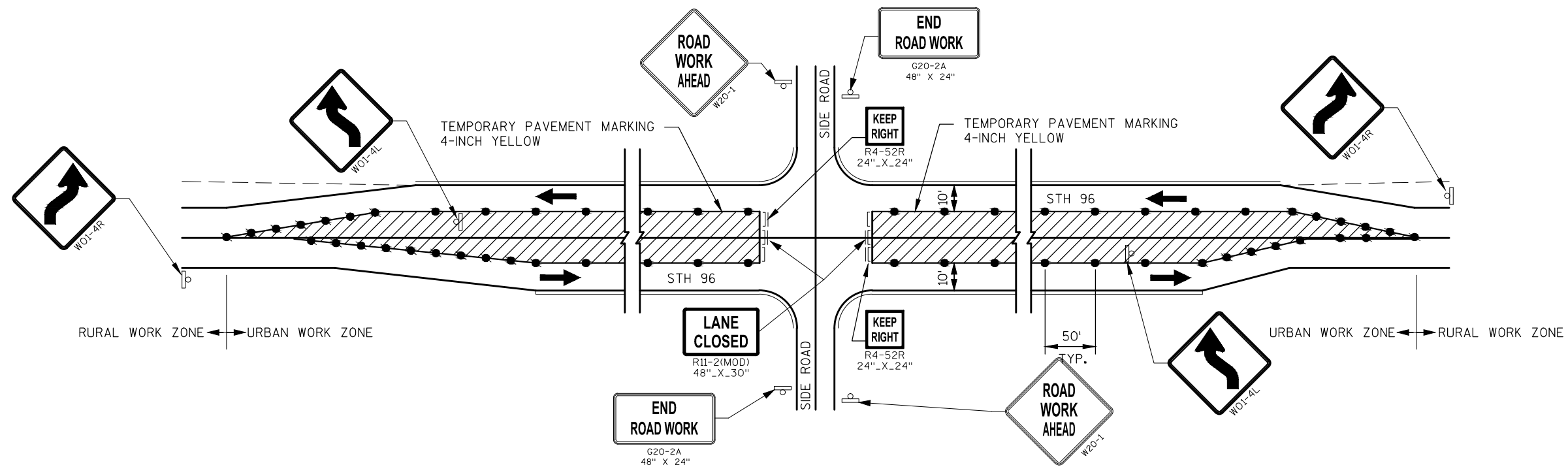
URBAN STAGING DETAIL DURING CONCRETE PAVEMENT REPAIRS

STA. 175+00 TO 228+00
STA. 295+00 TO 341+00

NOTE: URBAN WORK TO BE COMPLETED IN THREE STAGES. ONE STAGE SHALL CONSIST OF THE EASTBOUND LANE AND PARKING LANE. THE SECOND STAGE SHALL CONSIST OF THE WESTBOUND LANE AND PARKING LANE. THE THIRD STAGE SHALL CONSIST OF THE CENTERLINE JOINT REPAIR.

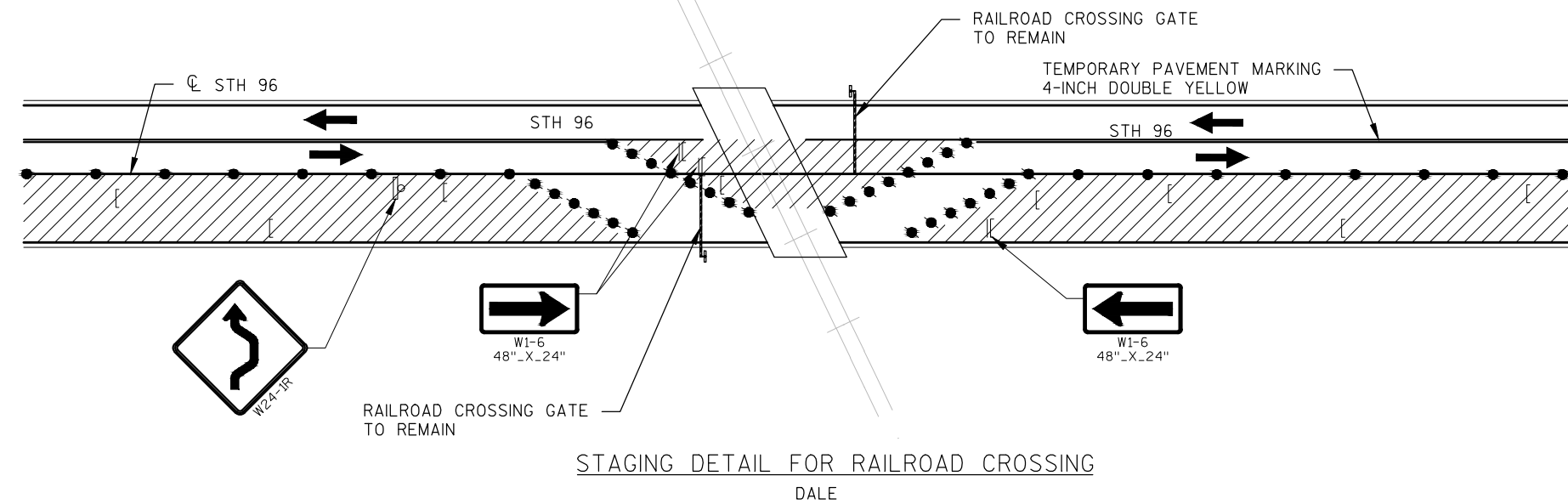
LEGEND

- [TYPE III BARRICADE
- [TYPE III BARRICADE WITH ATTACHED SIGN
- ⌋ WOOD POST WITH ATTACHED SIGN
- DRUM
- ▨ WORK ZONE
- * SEE SIDE ROAD CLOSURE DETAIL
- WARNING LIGHT TYPE A



URBAN STAGING DETAIL DURING CENTERLINE JOINT REPAIRS

STA. 175+00 TO 228+00
STA. 295+00 TO 341+00



LEGEND

- [TYPE III BARRICADE
- [TYPE III BARRICADE WITH ATTACHED SIGN
- ⌋ WOOD POST WITH ATTACHED SIGN
- DRUM
- ▨ WORK ZONE
- ⚡ WARNING LIGHT TYPE A

NOTE: URBAN WORK TO BE STAGED SUCH THAT BOTH EASTBOUND AND WESTBOUND TRAFFIC HAVE A RAILROAD CROSSING GATE

DATE 04APR13		E S T I M A T E O F Q U A N T I T I E S			
LINE		4075-31-71			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	204.0100	REMOVING PAVEMENT	SY	266.000	266.000
0020	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	4,013.000	4,013.000
0030	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	1,050.000	1,050.000
0040	204.0150	REMOVING CURB & GUTTER	LF	1,273.000	1,273.000
0050	204.0155	REMOVING CONCRETE SIDEWALK	SY	41.000	41.000
0060	204.0165	REMOVING GUARDRAIL	LF	3,908.000	3,908.000
0070	204.0185	REMOVING MASONRY	CY	6.000	6.000
0080	204.0220	REMOVING INLETS	EACH	4.000	4.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	61.000	61.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 02. 18-INCH	LF	68.000	68.000
0110	204.0245	REMOVING STORM SEWER (SIZE) 03. 36-INCH	LF	25.000	25.000
0120	204.0245	REMOVING STORM SEWER (SIZE) 04. 38 X 57-INCH CMPA	LF	160.000	160.000
0130	213.0100	FINISHING ROADWAY (PROJECT) 01. 4175-31-71	EACH	1.000	1.000
0140	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	17,530.000	17,530.000
0150	305.0500	SHAPING SHOULDERS	STA	427.000	427.000
0160	335.0100	RUBBLIZING	SY	113,000.000	113,000.000
0170	390.0403	BASE PATCHING CONCRETE SHES	SY	6,109.000	6,109.000
0180	415.1090	CONCRETE PAVEMENT HES 9-INCH	SY	246.000	246.000
0190	416.0610	DRILLED TIE BARS	EACH	206.000	206.000
0200	416.0620	DRILLED DOWEL BARS	EACH	10,268.000	10,268.000
0210	416.1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	246.000	246.000
0220	440.4410.S	INCENTIVE IRI RIDE	DOL	41,600.000	41,600.000
0230	455.0105	ASPHALTIC MATERIAL PG58-28	TON	3,000.000	3,000.000
0240	455.0605	TACK COAT	GAL	5,430.000	5,430.000
0250	460.1103	HMA PAVEMENT TYPE E-3	TON	54,380.000	54,380.000
0260	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	34,810.000	34,810.000
0270	460.4110.S	REHEATING HMA LONGITUDINAL JOINTS	LF	550.000	550.000
0280	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	115.000	115.000
0290	465.0315	ASPHALTIC FLUMES	SY	15.000	15.000
0300	465.0475.S	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	42,746.000	42,746.000
0310	504.0900	CONCRETE MASONRY ENDWALLS	CY	6.000	6.000
0320	520.7000	CLEANING CULVERT PIPES	EACH	6.000	6.000
0330	520.8000	CONCRETE COLLARS FOR PIPE	EACH	2.000	2.000
0340	522.1042	APRON ENDWALLS FOR CULVERT PIPE	EACH	1.000	1.000
0350	523.0138	REINFORCED CONCRETE 42-INCH CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH	LF	160.000	160.000
0360	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	1,242.000	1,242.000
0370	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	31.000	31.000
0380	602.0410	CONCRETE SIDEWALK 5-INCH	SF	676.000	676.000
0390	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	61.000	61.000
0400	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	68.000	68.000
0410	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	25.000	25.000
0420	611.0530	MANHOLE COVERS TYPE J	EACH	3.000	3.000
0430	611.0624	INLET COVERS TYPE H	EACH	3.000	3.000
0440	611.3230	INLETS 2X3-FT	EACH	3.000	3.000
0450	611.8110	ADJUSTING MANHOLE COVERS	EACH	31.000	31.000

DATE 04APR13		E S T I M A T E O F Q U A N T I T I E S			
LINE					4075-31-71
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	611.8115	ADJUSTING INLET COVERS	EACH	31.000	31.000
0470	611.8120.S	COVER PLATES TEMPORARY	EACH	62.000	62.000
0480	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	30.000	30.000
0490	614.2330	MGS GUARDRAIL 3 K	LF	3,423.000	3,423.000
0500	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	30.000	30.000
0510	619.1000	MOBILIZATION	EACH	1.000	1.000
0520	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	76.000	76.000
0530	625.0100	TOPSOIL	SY	370.000	370.000
0540	627.0200	MULCHING	SY	150.000	150.000
0550	628.1504	SILT FENCE	LF	6,000.000	6,000.000
0560	628.1520	SILT FENCE MAINTENANCE	LF	6,000.000	6,000.000
0570	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
0580	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	6.000	6.000
0590	628.2002	EROSION MAT CLASS I TYPE A	SY	90.000	90.000
0600	628.2004	EROSION MAT CLASS I TYPE B	SY	1,950.000	1,950.000
0610	628.7015	INLET PROTECTION TYPE C	EACH	58.000	58.000
0620	629.0210	FERTILIZER TYPE B	CWT	1.000	1.000
0630	630.0130	SEEDING MIXTURE NO. 30	LB	1.500	1.500
0640	630.0140	SEEDING MIXTURE NO. 40	LB	4.000	4.000
0650	631.1000	SOD LAWN	SY	170.000	170.000
0660	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	130.000	130.000
0670	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	54.000	54.000
0680	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,290.370	1,290.370
0690	637.0402	SIGNS REFLECTIVE FOLDING TYPE II	SF	14.920	14.920
0700	638.2602	REMOVING SIGNS TYPE II	EACH	172.000	172.000
0710	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	161.000	161.000
0720	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0730	643.0100	TRAFFIC CONTROL (PROJECT) 01. 4075-31-71	EACH	1.000	1.000
0740	643.0300	TRAFFIC CONTROL DRUMS	DAY	26,400.000	26,400.000
0750	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	990.000	990.000
0760	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	1,320.000	1,320.000
0770	643.0900	TRAFFIC CONTROL SIGNS	DAY	5,740.000	5,740.000
0780	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	21.000	21.000
0790	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	86,270.000	86,270.000
0800	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	1,620.000	1,620.000
0810	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	50,395.000	50,395.000
0820	647.0110	PAVEMENT MARKING RAILROAD CROSSINGS	EACH	2.000	2.000
		EPOXY			
0830	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	2.000	2.000
0840	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	40.000	40.000
0850	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	690.000	690.000
0860	647.0716	PAVEMENT MARKING DIAGONAL EPOXY 8-INCH	LF	640.000	640.000
0870	648.0100	LOCATING NO-PASSING ZONES	MI	8.100	8.100
0880	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	100,440.000	100,440.000
0890	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	16.000	16.000
0900	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	1,273.000	1,273.000
0910	650.8000	CONSTRUCTION STAKING RESURFACING	LF	52,290.000	52,290.000
		REFERENCE			
0920	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL	LS	1.000	1.000
		CONTROL (PROJECT) 01. 4075-31-71			
0930	654.0102	CONCRETE BASES TYPE 2	EACH	1.000	1.000
0940	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	1.000	1.000
0950	657.0310	POLES TYPE 3	EACH	1.000	1.000

DATE 04APR13		E S T I M A T E O F Q U A N T I T I E S			
LINE				4075-31-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0960	690.0150	SAWING ASPHALT	LF	1,140.000	1,140.000
0970	690.0250	SAWING CONCRETE	LF	24,868.000	24,868.000
0980	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	2,400.000	2,400.000
0990	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	3,040.000	3,040.000
1000	SPV.0060	SPECIAL 01. RESETTNG PIPE ENDS	EACH	1.000	1.000
1010	SPV.0060	SPECIAL 02. INLET SPECIAL	EACH	1.000	1.000
1020	SPV.0060	SPECIAL 03. INLET COVER SPECIAL	EACH	1.000	1.000
1030	SPV.0060	SPECIAL 04. INLET GRATE SPECIAL	EACH	2.000	2.000
1040	SPV.0060	SPECIAL 05. INSTALLING POLE MOUNTED CABINET	EACH	1.000	1.000
1050	SPV.0060	SPECIAL 06. INSTALLING 2 SOLAR PANELS ON ONE BRACKET	EACH	1.000	1.000
1060	SPV.0060	SPECIAL 07. INSTALLING WAVETRONIX CLICK 200 MODULE	EACH	1.000	1.000
1070	SPV.0060	SPECIAL 08. INSTALLING WAVETRONIX DETECTOR MODULE	EACH	1.000	1.000
1080	SPV.0060	SPECIAL 09. INSTALLING CONCRETE MAINTENANCE PLATFORM	EACH	1.000	1.000
1090	SPV.0060	SPECIAL 10. SECTION CORNER MONUMENTS	EACH	19.000	19.000
1100	SPV.0090	SPECIAL 01. CONCRETE JOINT AND CRACK CLEANING	LF	9,543.000	9,543.000
1110	SPV.0105	SPECIAL 01. REMOVING PIPE RAILING STA 151+58	LS	1.000	1.000
1120	SPV.0105	SPECIAL 02. REMOVING PIPE RAILING STA 276+67	LS	1.000	1.000
1130	SPV.0105	SPECIAL 03. GRADING SHAPING & FINISHING ATR SITE	LS	1.000	1.000
1140	SPV.0180	SPECIAL 01. REMOVING CONCRETE PAVEMENT MILLING	SY	17,510.000	17,510.000

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

REMOVING ASPHALTIC SURFACE

				204.0115	204.0120
				BUTT	MILLING
STATION	TO	STATION	LOCATION	JOINTS	SY
51+00	-	51+21	STH 96 (BEGIN)	-	146
			RABBIT ROAD	160	-
			SHAKY LAKE ROAD	320	-
			WINCHESTER ROAD	160	-
			PINE GROVE ROAD	120	-
			WHITNEY STREET	107	-
			DEPOT STREET	107	-
			CTH T	107	-
			DALE AVENUE	80	-
			MAPLE LANE	80	-
			INDUSTRIAL DRIVE	267	93
			TOWN ROAD	160	88
			MIDWAY ROAD	160	94
			CTH M	267	-
			GREENDALE ROAD	160	69
			BROOKVIEW DRIVE	160	98
			MANLEY ROAD	160	83
			ISLAND ROAD	160	-
			NORTH ROAD	320	-
			SPRING VALLEY DRIVE	160	90
			LAKEVIEW LANE	160	91
			FOX SPRINGS DRIVE	160	99
			JULIUS ROAD	320	-
			CLEARY COURT	160	98
TOTALS:				4,013	1,050

NOTE: ASPHALT SURFACE MILLING TO BE PERFORMED ADJACENT TO C&G FLANGE TO PREVENT FILLING GUTTER PAN WITH ASPHALT

204.0150
REMOVING CURB & GUTTER

STATION	TO	STATION	LOCATION	LF
182+95	-	183+04	LT.	9
183+64	-	183+73	LT.	10
183+80	-	183+92	LT.	12
204+65	-	204+98	RT.	40
205+07	-	205+78	LT.	105
206+02	-	206+33	LT.	31
206+52	-	206+82	LT.	30
206+69	-	206+89	RT.	20
207+19	-	207+25	LT.	6
207+22	-	207+76	RT.	54
207+40	-	208+00	LT.	60
208+11	-	208+26	RT.	15
208+20	-	208+44	LT.	24
208+71	-	209+41	RT.	70
209+82	-	209+94	LT.	12
209+92	-	210+08	RT.	24
210+00	-	210+08	LT.	15
210+48	-	210+63	LT.	21
210+59	-	211+47	RT.	88
211+21	-	211+64	LT.	43
211+74	-	211+96	RT.	22
212+22	-	212+66	LT.	44
212+49	-	212+99	RT.	50
212+93	-	213+67	LT.	74
214+11	-	214+24	RT.	13
214+61	-	214+73	LT.	14
214+76	-	214+84	LT.	8
214+76	-	216+62	RT.	186
215+10	-	215+30	LT.	20
216+50	-	216+69	LT.	19
216+82	-	217+04	RT.	22
217+23	-	217+45	LT.	24
223+53	-	223+59	RT.	6
227+92	-	228+04	LT.	12
307+59	-	307+99	RT.	40
307+71	-	307+89	LT.	18
316+54	-	316+60	RT.	6
335+40	-	335+46	LT.	6
TOTAL:				1,273

204.0165
REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	LF
115+12	-	116+50	RT.	138
115+69	-	117+07	LT.	139
146+89	-	152+04	LT.	515
147+15	-	156+78	RT.	963
233+12	-	234+25	LT.	113
233+41	-	234+55	RT.	114
236+19	-	237+46	RT.	128
236+25	-	237+64	LT.	139
294+78	-	296+59	RT.	180
295+22	-	296+76	LT.	155
398+49	-	403+15	LT.	468
408+77	-	410+81	RT.	204
409+40	-	411+34	LT.	192
438+80	-	441+10	RT.	230
438+80	-	441+10	LT.	230
TOTAL:				3,908

204.0155
REMOVING CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	SY
206+69	-	206+89	RT.	11
207+22	-	207+76	RT.	30
TOTAL:				41

204.0185
REMOVING MASONRY

STATION	LOCATION	CY
307+69	STH 96 RT.	6
TOTAL:		6

204.0220
REMOVING INLETS

STATION	LOCATION	EACH
207+23	22' LT.	1
207+23	22' RT.	1
307+69	42' LT.	1
335+43	22' LT.	1
TOTAL:		4

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

REMOVING STORM SEWER

STATION	TO	STATION	LOCATION	204.0245 (12-INCH) LF	204.0245 (18-INCH) LF	204.0245 (36-INCH) LF	204.0245 (57x38-INCH CMPA) LF
183+55	-	183+78	LT.	33	-	-	-
201+78	-		LT.	8	-	-	-
207+23	-		LT./RT.	-	44	-	-
214+22	-		RT.	20	-	-	-
307+59	-		RT.	-	24	-	-
307+69	-		LT./RT.	-	-	-	160
307+98	-		RT.	-	-	25	-
TOTALS:				61	68	25	160

213.0100
FINISHING ROADWAY (4075-31-71)

LOCATION	EACH
PROJECT LIMITS	1
TOTAL:	1

335.0500
SHAPING SHOULDERS

STATION	TO	STATION	LOCATION	STA.
51+00	-	175+70	STH 96	125
227+65	-	296+64	STH 96	69
340+32	-	574+10	STH 96	234
TOTAL:				427

305.0110
BASE AGGREGATE DENSE

STATION	TO	STATION	LOCATION	3/4-INCH TON
51+00	-	175+70	STH 96 LT. & RT. SHOULDERS	4,875
227+65	-	296+64	STH 96 LT. & RT. SHOULDERS	2,695
340+32	-	574+10	STH 96 LT. & RT. SHOULDERS	9,125
UNDISTRIBUTED				835
TOTAL:				17,530

335.0100
RUBBLIZING

STATION	TO	STATION	LOCATION	SY
54+75	-	175+70	STH 96	32,253
227+65	-	296+64	STH 96	18,397
340+32	-	574+10	STH 96	62,349
TOTAL:				113,000

FULL DEPTH CONCRETE PAVEMENT REPLACEMENT SUMMARY

						204.1000 REMOVING PAVEMENT SY	415.1090 CONCRETE PAVEMENT HES 9-INCH SY	416.0610* DRILLED TIE BARS EACH	416.0620* DRILLED DOWEL BARS EACH	690.0250* SAWING CONCRETE LF
STATION	TO	STATION	LOCATION	SIZE (FT X FT)						
183+54	-	183+70	LT.	17 X 6		11	11	12	-	46
201+73	-	201+79	LT.	8 X 6		5	5	10	-	28
204+64	-	204+97	RT.	8 X 33		29	19	30	8	80
205+06	-	205+77	LT.	70 X 44		78	67	30	8	124
207+18	-	207+28	LT. & RT.	10 X 40		44	44	8	56	100
214+18	-	214+24	RT.	6 X 20		13	13	4	20	52
307+70	-	307+89	LT. & RT.	19 X 40		84	84	16	56	118
TOTALS:						266	246	110	148	548

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

CONCRETE REPAIR

						416.0620*	390.0403	690.0250*
						DRILLED	BASE PATCHING	SAWING
						DOWEL	CONCRETE	CONCRETE
						BARS	SHES	CONCRETE
						EACH	SY	LF
STATION	LOCATION	SIZE						
		(FT	X	FT)				
175+70	LT. & RT.	6	X	32		32	21	82
175+83	LT. & RT.	6	X	32		32	21	82
175+97	LT. & RT.	6	X	24		32	16	54
176+15	LT.	6	X	12		16	8	30
176+33	LT. & RT.	6	X	24		32	16	54
176+45	LT. & RT.	6	X	24		32	16	54
176+58	LT. & RT.	6	X	24		32	16	54
176+77	LT. & RT.	6	X	24		32	16	54
176+95	LT. & RT.	6	X	24		32	16	54
177+07	LT. & RT.	6	X	24		32	16	54
177+21	LT. & RT.	6	X	24		32	16	54
177+40	LT. & RT.	6	X	32		32	21	82
177+58	LT. & RT.	6	X	32		32	21	82
177+71	LT. & RT.	6	X	20		16	13	58
177+90	LT.	6	X	12		16	8	30
178+02	LT. & RT.	6	X	24		32	16	54
178+21	LT. & RT.	6	X	24		32	16	54
178+39	LT. & RT.	6	X	24		32	16	54
178+51	LT. & RT.	6	X	24		32	16	54
178+64	LT. & RT.	6	X	24		32	16	54
178+81	LT. & RT.	6	X	24		32	16	54
179+00	LT.	6	X	12		16	8	30
179+12	LT. & RT.	6	X	24		32	16	54
179+25	LT. & RT.	6	X	24		32	16	54
179+44	LT. & RT.	6	X	24		32	16	54
179+62	LT. & RT.	6	X	24		32	16	54
179+74	LT. & RT.	6	X	24		32	16	54
179+87	LT. & RT.	6	X	24		32	16	54
180+06	LT. & RT.	6	X	24		32	16	54
180+24	LT. & RT.	6	X	24		32	16	54
180+36	LT. & RT.	6	X	24		32	16	54
180+48	LT. & RT.	6	X	24		32	16	54
180+67	LT. & RT.	6	X	24		32	16	54
180+85	LT. & RT.	6	X	24		32	16	54
180+97	LT. & RT.	6	X	24		32	16	54
181+10	LT. & RT.	6	X	24		32	16	54
181+26	LT. & RT.	6	X	24		32	16	54
181+45	LT. & RT.	6	X	24		32	16	54
181+63	LT. & RT.	6	X	24		32	16	54
181+75	LT. & RT.	6	X	24		32	16	54
181+88	LT. & RT.	6	X	24		32	16	54
182+07	LT. & RT.	6	X	32		44	21	82
182+25	LT. & RT.	6	X	24		32	16	54
182+37	LT. & RT.	6	X	24		32	16	54
182+50	LT. & RT.	6	X	24		32	16	54
182+69	LT. & RT.	6	X	32		44	21	82
182+87	LT. & RT.	6	X	24		32	16	54
182+99	LT. & RT.	6	X	32		44	21	82
183+18	LT. & RT.	6	X	24		32	16	54
183+37	LT. & RT.	6	X	32		44	21	82
183+76	LT. & RT.	6	X	32		44	21	82
183+95	LT. & RT.	6	X	32		44	21	82
184+13	LT. & RT.	6	X	24		32	16	54
184+33	LT. & RT.	6	X	24		32	16	54
184+53	LT. & RT.	6	X	24		32	16	54

Continues in next page

						416.0620*	390.0403	690.0250*
						DRILLED	BASE PATCHING	SAWING
						DOWEL	CONCRETE	CONCRETE
						BARS	SHES	CONCRETE
						EACH	SY	LF
STATION	LOCATION	SIZE						
		(FT	X	FT)				
184+73	LT. & RT.	6	X	32		32	21	82
184+93	LT. & RT.	6	X	32		32	21	82
185+03	RT.	6	X	12		16	8	30
185+13	LT. & RT.	6	X	32		32	21	82
185+32	LT. & RT.	6	X	32		32	21	82
185+52	LT. & RT.	6	X	20		16	13	58
185+72	LT. & RT.	6	X	24		32	16	54
185+93	LT. & RT.	6	X	32		32	21	82
186+12	LT. & RT.	6	X	32		32	21	82
186+27	LT.	6	X	12		16	8	30
186+48	LT. & RT.	6	X	32		32	21	82
186+68	LT. & RT.	6	X	24		32	16	54
186+88	LT. & RT.	6	X	24		32	16	54
187+05	LT. & RT.	6	X	24		32	16	54
187+23	LT. & RT.	6	X	32		32	21	82
187+42	RT.	6	X	12		16	8	30
187+61	LT. & RT.	6	X	24		32	16	54
187+87	LT. & RT.	6	X	24		32	16	54
187+98	LT. & RT.	6	X	24		32	16	54
188+18	LT. & RT.	6	X	32		32	21	82
188+36	LT. & RT.	6	X	24		32	16	54
188+55	LT. & RT.	6	X	24		32	16	54
188+74	LT. & RT.	6	X	24		32	16	54
188+93	LT. & RT.	6	X	24		32	16	54
189+08	LT. & RT.	6	X	24		32	16	54
189+24	LT. & RT.	6	X	24		32	16	54
189+42	LT. & RT.	6	X	24		32	16	54
189+53	LT.	6	X	12		16	8	30
189+61	RT.	6	X	12		16	8	30
189+81	LT. & RT.	6	X	24		32	16	54
190+00	LT. & RT.	6	X	24		32	16	54
190+21	LT. & RT.	6	X	24		32	16	54
190+39	LT.	6	X	12		16	8	30
190+50	RT.	6	X	12		16	8	30
190+57	LT. & RT.	6	X	24		32	16	54
190+77	LT. & RT.	6	X	24		32	16	54
191+03	RT.	6	X	12		16	8	30
191+13	LT. & RT.	6	X	24		32	16	54
191+19	LT.	6	X	12		16	8	30
191+33	LT. & RT.	6	X	24		32	16	54
191+48	LT. & RT.	6	X	24		32	16	54
191+64	LT. & RT.	6	X	24		32	16	54
191+77	RT.	6	X	12		16	8	30
191+84	LT. & RT.	6	X	24		32	16	54
192+39	LT. & RT.	6	X	32		32	21	82
192+52	RT.	6	X	12		16	8	30
192+63	LT. & RT.	6	X	32		32	21	82
192+68	RT.	6	X	12		16	8	30
192+81	LT. & RT.	6	X	32		32	21	82
193+00	LT. & RT.	6	X	24		32	16	54
193+21	LT. & RT.	6	X	24		32	16	54
193+43	LT. & RT.	6	X	24		32	16	54
193+64	LT. & RT.	6	X	24		32	16	54
193+86	LT. & RT.	6	X	24		32	16	54
194+06	LT. & RT.	6	X	24		32	16	54

Continues in next page

						416.0620*	390.0403	690.0250*
						DRILLED	BASE PATCHING	SAWING
						DOWEL	CONCRETE	CONCRETE
						BARS	SHES	CONCRETE
						EACH	SY	LF
STATION	LOCATION	SIZE						
		(FT	X	FT)				
194+10	LT.	6	X	12		16	8	30
194+14	RT.	6	X	12		16	8	30
194+24	LT. & RT.	6	X	24		32	16	54
194+43	LT. & RT.	6	X	24		32	16	54
194+61	LT. & RT.	6	X	24		32	16	54
194+81	LT. & RT.	6	X	32		32	21	82
194+90	RT.	6	X	12		16	8	30
194+98	LT. & RT.	6	X	32		32	21	82
195+18	LT. & RT.	6	X	32		32	21	82
195+27	RT.	6	X	12		16	8	30
195+38	LT. & RT.	6	X	32		32	21	82
195+58	LT. & RT.	6	X	32		32	21	82
195+78	LT. & RT.	6	X	32		32	21	82
195+94	LT. & RT.	6	X	24		32	16	54
196+11	LT. & RT.	6	X	24		32	16	54
196+29	LT. & RT.	6	X	32		32	21	82
196+48	LT. & RT.	6	X	32		32	21	82
196+68	LT. & RT.	6	X	32		32	21	82
196+86	LT. & RT.	6	X	32		32	21	82
196+98	RT.	6	X	12		16	8	30
197+10	LT. & RT.	6	X	32		32	21	82
197+22	RT.	6	X	12		16	8	30
197+29	LT. & RT.	6	X	32		32	21	82
197+50	LT. & RT.	6	X	32		32	21	82
197+69	LT. & RT.	6	X	32		32	21	82
197+89	LT. & RT.	6	X	32		32	21	82
198+13	RT.	6	X	20		28	13	58
198+34	RT.	6	X	20		28	13	58
198+55	LT. & RT.	6	X	32		32	21	82
198+69	LT. & RT.	6	X	24		32	16	54
198+85	RT.	6	X	12		16	8	30
198+99	RT.	6	X	12		16	8	30
199+06	RT.	6	X	12		16	8	30
199+29	LT. & RT.	6	X	24		32	16	54
199+50	LT. & RT.	6	X	32		32	21	82
199+69	RT.	6	X	12		16	8	30
199+87	RT.	6	X	12		16	8	30
200+10	RT.	6	X	12		16	8	30
200+32	RT.	6	X	12		16	8	30
200+72	RT.	6	X	12		16	8	30
200+91	RT.	6	X	12		16	8	30
201+13	RT.	6	X	12		16	8	30
201+32	RT.	6	X	20		28	13	58
201+52	RT.	6	X	20		28	13	58
201+68	LT. & RT.	6	X	32		32	21	82
201+79	LT.	6	X	12		16	8	30
202+02	RT.	6	X	12		16	8	30
202+14	RT.	6	X	12		16	8	30
202+23	LT. & RT.	6	X	24		32	16	54
202+34	RT.	6	X	12		16	8	30
202+44	LT. & RT.	6	X	32		32	21	82
202+63	RT.	6	X	8		-	5	28
202+69	RT.	6	X	12		16	8	30
203+45	RT.	6	X	20		16	13	58
203+65	RT.	6	X	20		16	13	58

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

			416.0620*	390.0403	690.0250*
			DRILLED	BASE PATCHING	SAWING
			DOWEL	CONCRETE	CONCRETE
			BARS	SHES	CONCRETE
			EACH	SY	LF
STATION	LOCATION	SIZE (FT X FT)			
204+11	RT.	6 X 12	16	8	30
204+33	RT.	6 X 12	16	8	30
204+42	RT.	6 X 20	16	13	58
204+58	LT. & RT.	6 X 24	32	16	54
205+37	LT.	6 X 12	16	8	30
205+68	LT.	6 X 12	16	8	30
205+72	RT.	6 X 12	16	8	30
205+88	LT.	6 X 12	16	8	30
205+99	RT.	6 X 12	16	8	30
206+21	LT. & RT.	6 X 28	32	19	74
206+43	LT. & RT.	6 X 28	32	19	74
206+65	LT. & RT.	6 X 28	32	19	74
206+77	RT.	6 X 12	16	8	30
206+85	LT. & RT.	6 X 16	16	11	50
206+97	RT.	6 X 12	16	8	30
207+06	RT.	6 X 14	16	9	40
207+28	RT.	6 X 12	16	8	30
207+47	LT. & RT.	6 X 26	32	17	64
207+68	LT. & RT.	6 X 24	32	16	54
207+88	LT. & RT.	6 X 24	32	16	54
208+03	LT. & RT.	6 X 24	32	16	54
208+23	LT. & RT.	6 X 24	32	16	54
208+43	LT. & RT.	6 X 24	32	16	54
208+63	LT. & RT.	6 X 24	32	16	54
208+83	LT. & RT.	6 X 24	32	16	54
209+03	LT. & RT.	6 X 24	32	16	54
209+25	LT. & RT.	6 X 24	32	16	54
209+44	LT. & RT.	6 X 24	32	16	54
209+64	LT. & RT.	6 X 24	32	16	54
209+82	LT. & RT.	6 X 26	32	17	64
210+03	LT.	6 X 12	16	8	30
210+22	LT.	6 X 12	16	8	30
210+41	LT. & RT.	6 X 26	32	17	64
210+51	LT.	6 X 12	16	8	30
210+70	LT. & RT.	6 X 24	32	16	54
210+89	LT. & RT.	6 X 24	32	16	54
211+11	LT. & RT.	6 X 26	32	17	64
211+31	LT. & RT.	6 X 24	32	16	54
211+51	LT. & RT.	6 X 24	32	16	54
211+72	LT. & RT.	6 X 26	32	17	64
211+91	LT. & RT.	6 X 24	32	16	54
212+11	LT. & RT.	6 X 26	32	17	64
212+31	LT. & RT.	6 X 24	32	16	54
212+51	LT. & RT.	6 X 26	32	17	64
212+72	LT. & RT.	6 X 26	32	17	64
212+92	LT. & RT.	6 X 28	32	19	74
213+12	LT. & RT.	6 X 26	32	17	64
213+33	LT. & RT.	6 X 28	32	19	74
213+53	LT. & RT.	6 X 24	32	16	54
213+73	LT. & RT.	6 X 24	32	16	54
213+93	LT. & RT.	6 X 24	32	16	54
214+09	LT. & RT.	6 X 24	32	16	54
214+29	LT. & RT.	6 X 24	32	16	54
214+39	LT.	6 X 20	28	13	58
214+48	LT. & RT.	6 X 32	44	21	82

Continues in next page

			416.0620*	390.0403	690.0250*
			DRILLED	BASE PATCHING	SAWING
			DOWEL	CONCRETE	CONCRETE
			BARS	SHES	CONCRETE
			EACH	SY	LF
STATION	LOCATION	SIZE (FT X FT)			
214+68	LT. & RT.	6 X 40	56	27	110
214+89	LT. & RT.	6 X 24	32	16	54
215+08	LT. & RT.	6 X 24	32	16	54
215+28	LT. & RT.	6 X 32	32	21	82
215+54	LT. & RT.	6 X 40	32	27	110
215+74	LT. & RT.	6 X 24	32	16	54
215+95	LT. & RT.	6 X 24	32	16	54
216+15	LT. & RT.	6 X 24	32	16	54
216+35	LT.	6 X 12	16	8	30
216+55	LT.	6 X 20	28	13	58
216+75	LT. & RT.	6 X 24	32	16	54
216+97	LT. & RT.	6 X 24	32	16	54
217+17	LT. & RT.	6 X 24	32	16	54
217+32	LT. & RT.	6 X 24	32	16	54
217+41	RT.	6 X 12	16	8	30
217+57	LT. & RT.	6 X 24	32	16	54
217+77	LT. & RT.	6 X 24	32	16	54
217+95	LT. & RT.	6 X 24	32	16	54
218+07	LT. & RT.	6 X 24	32	16	54
218+19	LT. & RT.	6 X 24	32	16	54
218+38	LT. & RT.	6 X 24	32	16	54
218+55	LT. & RT.	6 X 24	32	16	54
218+81	LT.	6 X 12	16	8	30
219+01	LT.	6 X 12	16	8	30
219+19	LT.	6 X 12	16	8	30
219+31	LT.	6 X 12	16	8	30
219+44	LT.	6 X 12	16	8	30
219+59	LT.	6 X 12	16	8	30
219+95	LT. & RT.	6 X 24	32	16	54
220+09	LT.	6 X 12	16	8	30
221+46	LT.	6 X 12	16	8	30
221+65	LT.	6 X 12	16	8	30
223+09	LT.	6 X 12	16	8	30
223+35	LT.	6 X 8	12	5	28
223+54	RT.	6 X 12	16	8	30
224+46	LT.	6 X 8	12	5	28
225+08	LT.	6 X 8	-	5	28
225+39	LT.	6 X 20	16	13	58
225+57	LT. & RT.	6 X 20	16	13	58
225+83	RT.	6 X 12	16	8	30
226+02	LT. & RT.	6 X 24	32	16	54
226+19	LT.	6 X 8	-	5	28
226+32	LT. & RT.	6 X 20	16	13	58
226+44	RT.	6 X 12	16	8	30
226+82	LT.	6 X 8	-	5	28
226+94	LT. & RT.	6 X 20	16	13	58
227+07	LT.	6 X 8	-	5	28
227+26	LT. & RT.	6 X 24	32	16	54
227+57	RT.	6 X 12	16	8	30
297+27	LT.	6 X 8	-	5	28
297+46	LT. & RT.	6 X 24	32	16	54
297+64	LT. & RT.	6 X 24	32	16	54
297+98	RT.	6 X 12	16	8	30
298+09	RT.	6 X 12	16	8	30
298+54	RT.	6 X 8	-	5	28

Continues in next page

			416.0620*	390.0403	690.0250*
			DRILLED	BASE PATCHING	SAWING
			DOWEL	CONCRETE	CONCRETE
			BARS	SHES	CONCRETE
			EACH	SY	LF
STATION	LOCATION	SIZE (FT X FT)			
299+05	RT.	6 X 8	-	5	28
299+18	RT.	6 X 8	-	5	28
299+25	RT.	6 X 12	16	8	30
299+43	LT.	6 X 12	16	8	30
299+64	RT.	6 X 12	16	8	30
299+66	LT.	6 X 12	16	8	30
299+73	LT.	6 X 8	-	5	28
299+99	LT.	6 X 8	-	5	28
300+41	LT. & RT.	6 X 16	-	11	56
300+81	LT. & RT.	6 X 28	16	19	86
300+89	RT.	6 X 12	16	8	30
301+21	RT.	6 X 12	16	8	30
301+41	RT.	6 X 20	16	13	58
301+50	RT.	6 X 12	16	8	30
302+02	LT. & RT.	6 X 24	32	16	54
302+22	LT. & RT.	6 X 40	32	27	110
302+42	LT. & RT.	6 X 32	32	21	82
302+63	LT. & RT.	6 X 32	32	21	82
302+83	LT. & RT.	6 X 24	32	16	54
303+04	LT. & RT.	6 X 40	32	27	110
303+13	RT.	6 X 12	16	8	30
303+45	LT. & RT.	6 X 24	32	16	54
303+65	LT. & RT.	6 X 24	32	16	54
303+81	LT. & RT.	6 X 24	32	16	54
304+01	RT.	6 X 12	16	8	30
304+22	RT.	6 X 12	16	8	30
304+42	LT. & RT.	6 X 20	16	13	58
305+03	RT.	6 X 8	-	5	28
305+30	LT. & RT.	6 X 24	32	16	54
305+64	RT.	6 X 2	-	1	10
305+94	LT. & RT.	6 X 32	32	21	82
306+25	RT.	6 X 2	-	1	10
306+45	RT.	6 X 2	-	1	10
306+56	LT.	6 X 8	-	5	28
306+66	RT.	6 X 2	-	1	10
307+06	LT.	6 X 8	-	5	28
307+27	LT. & RT.	6 X 4	-	3	20
307+47	LT. & RT.	6 X 4	-	3	20
307+69	LT.	6 X 8	-	5	28
307+94	LT.	6 X 12	16	8	30
307+97	RT.	6 X 12	16	8	30
308+08	RT.	6 X 8	-	5	28
308+29	RT.	6 X 8	-	5	28
308+57	RT.	6 X 12	16	8	30
308+90	LT.	6 X 12	16	8	30
309+92	RT.	6 X 8	-	5	28
310+03	RT.	6 X 12	16	8	30
310+53	LT.	6 X 8	-	5	28
310+64	RT.	6 X 12	16	8	30
310+75	LT. & RT.	6 X 16	-	11	56
310+95	LT. & RT.	6 X 16	-	11	56
311+16	RT.	6 X 8	-	5	28
311+36	RT.	6 X 8	-	5	28
311+57	LT. & RT.	6 X 16	-	11	56
311+78	LT.	6 X 8	-	5	28

Continues in next page

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

				416.0620*	390.0403	690.0250*
				DRILLED	BASE PATCHING	SAWING
				DOWEL	CONCRETE	CONCRETE
		SIZE		BARS	SHES	
STATION	LOCATION	(FT X FT)		EACH	SY	LF
311+98	LT. & RT.	6 X 16		-	11	56
312+49	RT.	6 X 12		16	8	30
312+58	LT. & RT.	6 X 16		-	11	56
312+72	RT.	12 X 12		16	16	48
312+81	RT.	6 X 8		-	5	28
313+00	RT.	6 X 8		-	5	28
313+21	LT. & RT.	6 X 20		16	13	58
313+42	LT. & RT.	6 X 16		-	11	56
313+62	RT.	6 X 8		-	5	28
313+83	RT.	6 X 8		-	5	28
314+03	RT.	6 X 8		-	5	28
314+11	RT.	6 X 8		-	5	28
314+24	RT.	6 X 8		-	5	28
314+64	RT.	6 X 8		-	5	28
314+84	LT.	6 X 12		16	8	30
315+05	LT. & RT.	6 X 32		32	21	82
315+14	RT.	6 X 12		16	8	30
315+26	LT. & RT.	6 X 20		16	13	58
315+46	RT.	6 X 8		12	5	28
315+86	LT. & RT.	6 X 20		28	13	58
316+06	RT.	6 X 20		28	13	58
316+25	LT. & RT.	6 X 40		56	27	110
316+45	LT. & RT.	6 X 40		56	27	110
316+65	LT. & RT.	6 X 16		24	11	56
316+86	RT.	6 X 8		12	5	28
317+06	LT. & RT.	6 X 24		32	16	54
317+12	LT.	12 X 12		16	16	48
317+19	RT.	6 X 12		16	8	30
317+30	RT.	6 X 12		16	8	30
317+47	LT.	6 X 12		16	8	30
317+86	LT.	6 X 12		16	8	30
317+96	LT.	6 X 8		12	5	28
318+02	RT.	6 X 12		16	8	30
318+20	RT.	6 X 12		16	8	30
318+89	LT. & RT.	6 X 24		32	16	54
319+31	LT. & RT.	6 X 24		32	16	54
319+66	LT. & RT.	6 X 24		32	16	54
319+72	LT.	6 X 12		16	8	30
319+92	LT.	6 X 20		16	13	58
320+33	LT.	6 X 20		16	13	58
320+74	LT.	6 X 8		-	5	28
320+76	RT.	6 X 12		16	8	30
320+87	RT.	6 X 12		16	8	30
320+95	LT. & RT.	6 X 20		16	13	58
321+15	LT. & RT.	6 X 20		16	13	58
321+26	RT.	6 X 12		16	8	30
321+36	LT.	6 X 20		16	13	58
321+47	LT. & RT.	6 X 24		32	16	54
321+68	LT.	6 X 12		16	8	30
321+77	LT.	6 X 12		16	8	30
322+18	LT.	6 X 20		16	13	58
322+50	LT.	6 X 12		16	8	30
322+58	LT.	6 X 8		-	5	28
322+79	LT.	6 X 8		-	5	28
323+19	LT. & RT.	6 X 16		-	11	56
323+33	RT.	6 X 12		16	8	30
323+60	LT.	6 X 8		-	5	28

Continues in next page

				416.0620*	390.0403	690.0250*
				DRILLED	BASE PATCHING	SAWING
				DOWEL	CONCRETE	CONCRETE
		SIZE		BARS	SHES	
STATION	LOCATION	(FT X FT)		EACH	SY	LF
323+80	LT.	6 X 8		-	5	28
324+22	LT.	6 X 12		16	8	30
324+42	LT.	6 X 12		16	8	30
325+03	RT.	6 X 12		16	8	30
325+64	LT.	6 X 8		-	5	28
325+77	RT.	6 X 8		-	5	28
326+55	LT.	6 X 8		-	5	28
326+67	LT.	6 X 8		-	5	28
326+88	LT. & RT.	6 X 32		32	21	82
327+02	LT.	6 X 12		16	8	30
327+09	LT.	6 X 20		16	13	58
327+29	LT. & RT.	6 X 28		16	19	86
327+45	LT. & RT.	6 X 24		32	16	54
327+50	LT.	6 X 8		-	5	28
327+70	LT. & RT.	6 X 16		-	11	56
327+91	LT. & RT.	6 X 16		-	11	56
328+11	LT.	6 X 8		-	5	28
328+31	LT.	6 X 20		16	13	58
328+72	RT.	6 X 20		16	13	58
328+93	LT.	6 X 12		16	8	30
329+13	RT.	6 X 12		16	8	30
329+34	LT. & RT.	6 X 24		32	16	54
329+54	LT. & RT.	6 X 16		-	11	56
329+74	LT. & RT.	6 X 32		32	21	82
329+89	RT.	6 X 12		16	8	30
329+95	LT. & RT.	6 X 24		32	16	54
330+15	LT. & RT.	6 X 20		16	13	58
330+31	RT.	6 X 12		16	8	30
330+36	LT.	6 X 8		-	5	28
330+76	RT.	6 X 8		-	5	28
330+97	RT.	6 X 12		16	8	30
331+17	RT.	6 X 12		16	8	30
331+38	LT.	6 X 20		16	13	58
331+49	LT.	6 X 12		16	8	30
331+99	LT. & RT.	6 X 24		32	16	54
332+12	LT.	6 X 12		16	8	30
332+20	LT. & RT.	6 X 24		32	16	54
332+61	RT.	6 X 12		16	8	30
332+81	LT. & RT.	6 X 20		16	13	58
333+02	LT.	6 X 12		16	8	30
333+22	LT.	6 X 12		16	8	30
333+43	RT.	6 X 12		16	8	30
333+84	LT. & RT.	6 X 24		32	16	54
334+04	LT.	6 X 8		-	5	28
334+24	LT.	6 X 8		-	5	28
334+65	LT. & RT.	6 X 28		16	19	86
334+86	LT.	6 X 20		16	13	58
335+07	LT. & RT.	6 X 28		16	19	86
335+27	LT. & RT.	6 X 16		-	11	56
335+41	LT.	6 X 12		16	8	30
335+59	LT.	6 X 8		-	5	28
335+67	LT. & RT.	6 X 16		-	11	56
335+85	RT.	6 X 8		-	5	28
335+98	LT. & RT.	6 X 16		-	11	56
336+12	RT.	6 X 8		-	5	28

Continues in next page

				416.0620*	390.0403	690.0250*
				DRILLED	BASE PATCHING	SAWING
				DOWEL	CONCRETE	CONCRETE
		SIZE		BARS	SHES	
STATION	LOCATION	(FT X FT)		EACH	SY	LF
336+31	LT. & RT.	6 X 16		-	11	56
336+49	LT. & RT.	6 X 16		-	11	56
336+61	RT.	6 X 8		-	5	28
336+77	LT. & RT.	6 X 16		-	11	56
337+14	LT. & RT.	6 X 32		32	21	82
337+26	LT.	6 X 8		-	5	28
337+39	LT.	6 X 20		16	13	58
337+76	LT.	6 X 8		-	5	28
337+89	LT.	6 X 8		-	5	28
338+03	LT.	6 X 8		-	5	28
338+22	LT.	6 X 8		-	5	28
338+40	LT.	6 X 8		-	5	28
338+52	LT.	6 X 8		-	5	28
339+91	LT. & RT.	6 X 20		16	13	58
340+02	LT.	6 X 12		16	8	30
340+11	LT.	6 X 8		-	5	28
340+29	LT.	6 X 8		-	5	28
340+42	LT.	6 X 8		-	5	28
TOTAL:				9712	5853	22448

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

				416.0620	390.0403	690.0250
				DRILLED	BASE PATCHING	SAWING
				DOWEL	CONCRETE	CONCRETE
		SIZE		BARS	SHES	
GROUP	STATION	LOCATION	(FT X FT)	EACH	SY	LF
0020	206+21	LT. & RT.	6 X 12	-	8	36
0020	206+43	LT. & RT.	6 X 12	-	8	36
0020	206+65	LT. & RT.	6 X 12	-	8	36
0020	206+85	LT. & RT.	6 X 12	-	8	36
0020	207+06	RT.	6 X 6	-	4	18
0020	207+47	LT. & RT.	6 X 6	-	4	18
0020	209+82	LT. & RT.	6 X 6	12	4	18
0020	210+41	LT. & RT.	6 X 6	12	4	18
0020	211+11	LT. & RT.	6 X 6	12	4	18
0020	211+72	LT. & RT.	6 X 6	-	4	18
0020	212+11	LT. & RT.	6 X 6	-	4	18
0020	212+51	LT. & RT.	6 X 6	-	4	18
0020	212+72	LT. & RT.	6 X 6	-	4	18
0020	212+92	LT. & RT.	6 X 12	-	8	36
0020	213+12	LT. & RT.	6 X 6	-	4	18
0020	213+33	LT. & RT.	6 X 12	-	8	36
0020	305+64	RT.	6 X 6	-	4	18
0020	306+25	RT.	6 X 6	-	4	18
0020	306+45	RT.	6 X 6	-	4	18
0020	306+66	RT.	6 X 6	-	4	18
0020	307+27	LT. & RT.	6 X 12	-	8	36
0020	307+47	LT. & RT.	6 X 12	-	8	36
TOTALS:				36	120	540

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

ASPHALT PAVEMENT ITEMS												
GROUP CODE	STATION	TO	STATION	LOCATION	455.0105	455.0605	460.1103	460.2000	440.4410.S	460.4110.S	465.0120	
					ASPHALTIC MATERIAL	TACK	HMA PAVEMENT	INCENTIVE	INCENTIVE	REHEATING HMA	ASPHALTIC	
					PG 58-28 (LOWER LAYERS)	COAT GAL	TYPE E-3 TON	DENSITY HMA PAVEMENT DOL	IRI RIDE DOL	LONGITUDINAL JOINTS STA	DRIVEWAYS AND FIELD ENTRANCES TON	
0010	51+00	-	175+70	STH 96	631	1,070	11,473	7,343	9,447	125	-	
0010	175+70	-	204+98	STH 96 (DALE)	153	326	2,773	1,775	2,218	29	-	
0010	205+18	-	227+65	STH 96 (DALE)	104	222	1,894	1,212	1,702	22	-	
0010	227+65	-	296+64	STH 96	339	575	6,166	3,946	5,227	69	-	
0010	296+64	-	340+32	STH 96 (MEDINA)	226	482	4,109	2,630	3,309	44	-	
0010	340+32	-	574+10	STH 96	1,149	1,948	20,894	13,372	17,711	234	-	
0010	340+32	-	574+10	STH 96 (PAVED SHOULDER)	83	152	1,500	960	-	-	-	
0010				PARK & RIDE LOT	7	30	131	84	-	-	-	
0010				RABBIT ROAD	3	8	57	36	-	-	-	
0010				SHAKY LAKE ROAD	7	16	125	80	-	-	-	
0010				WINCHESTER ROAD	3	8	57	36	-	-	-	
0010				PINE GROVE ROAD	2	5	33	21	-	-	-	
0010				WHITNEY STREET	2	5	38	24	-	-	-	
0010				CTH T/DEPOT STREET	3	7	48	31	-	-	-	
0010				DALE AVENUE	1	3	18	12	-	-	-	
0010				MAPLE LANE	1	2	14	9	-	-	-	
0010				INDUSTRIAL DRIVE	4	10	74	47	-	-	-	
0010				TOWN ROAD	7	17	126	81	-	-	-	
0010				MIDWAY ROAD	7	16	120	77	-	-	-	
0010				CTH M	4	9	65	42	-	-	-	
0010				GREENDALE ROAD	5	12	94	60	-	-	-	
0010				BROOKVIEW DRIVE	3	8	59	38	-	-	-	
0010				MANLEY ROAD	7	17	132	84	-	-	-	
0010				ISLAND ROAD	5	11	84	54	-	-	-	
0010				NORTH ROAD	9	22	165	106	-	-	-	
0010				SPRING VALLEY DRIVE	6	15	113	72	-	-	-	
0010				LAKEVIEW LANE	4	9	69	44	-	-	-	
0010				FOX SPRINGS DRIVE	4	10	76	49	-	-	-	
0010				JULIUS DRIVE	3	8	61	39	-	-	-	
0010				CLEARY COURT	9	20	155	99	-	-	-	
0010				BEAMGUARD	45	106	816	522	-	-	-	
0010				DRIVEWAYS/ENTRANCES (29)	-	-	-	-	-	-	105	
0010				UNDISTRIBUTED	144	258	2,581	1,647	1,986	27	9	
				SUBTOTALS:	2,980	5,400	54,120	34,640	41,600	550	115	
0020	205+75	-	214+00	PARKING LANE RT/LT	12	27	234	152	-	-	-	
0020	305+50	-	307+50	PARKING LANE RT	2	4	28	18	-	-	-	
0020				UNDISTRIBUTED	6	2	13	8	-	-	-	
				SUBTOTALS:	20	30	260	170	-	-	-	
				TOTALS:	3,000	5,430	54,380	34,810	41,600	550	115	

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

CONCRETE REPLACEMENT

				SIZE			416.1725 CONCRETE PAVEMENT REPLACEMENT	416.0610* DRILLED TIE BARS EACH	416.0620* DRILLED DOWEL BARS EACH	690.0250* SAWING CONCRETE LF
STATION	TO	STATION	LOCATION	(FT X FT)			SHES SY			
177+71	-	177+90	RT.	19 X 12			25	-	16	62
185+32	-	185+52	RT.	20 X 8			18	-	12	56
192+01	-	192+24	LT. & RT.	23 X 24			62	16	32	94
200+72	-	201+13	RT.	41 X 8			37	30	12	98
215+08	-	215+28	RT.	20 X 8			18	-	12	56
218+81	-	219+44	RT.	63 X 12			85	50	16	150
TOTALS:							246	96	100	516

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

465.0315
ASPHALTIC FLUMES

STATION	LOCATION	SY
263+32	MIDWAY ROAD	15
TOTAL:		15

504.0900
CONCRETE MASONRY ENDWALLS

STATION	LOCATION	CY
307+69	STH 96 RT.	6
TOTAL:		6

465.0475.S
CENTERLINE RUMBLE STRIP

STATION	TO	STATION	LOCATION	LF
51+00	-	175+70	STH 96	12,469
227+65	-	296+64	STH 96	6,899
340+32	-	574+10	STH 96	23,378
TOTAL:				42,746

520.7000
CLEANING CULVERT PIPES

STATION	DESCRIPTION	EACH
298+95	12-INCH CMP	1
335+52	18-INCH CMP	1
341+00	21X15-INCH CMPA	2
362+24	35X24-INCH CMPA	1
522+00	35X24-INCH CMPA	1
TOTAL:		6

522.1042
APRON ENDWALLS FOR CULVERT PIPE
REINFORCED CONCRETE 42-INCH

STATION	LOCATION	EACH
565+10	RT.	1
TOTAL:		1

602.0410
CONCRETE SIDEWALK 5-INCH

STATION	TO	STATION	LOCATION	SF
204+67	-	204+95	RT.	158
205+26	-	205+48	LT.	148
206+69	-	206+89	RT.	100
207+22	-	207+76	RT.	270
TOTAL:				676

CONCRETE CURB & GUTTER 30-INCH

				650.5500 CONSTRUCTION STAKING			625.0100* TOPSOIL SY	631.1000 SOD LAWN SY
STATION	TO	STATION	LOCATION	601.0409 TYPE A LF	601.0411 TYPE D LF	CURB GUTTER AND CURB & GUTTER LF		
182+95	-	183+04	LT.	-	9	9	2	2
183+64	-	183+73	LT.	-	10	10	2	2
183+80	-	183+92	LT.	-	12	12	3	3
204+65	-	204+98	RT.	40	-	40	-	-
205+07	-	205+78	LT.	105	-	105	23	23
206+02	-	206+33	LT.	31	-	31	7	7
206+52	-	206+82	LT.	30	-	30	7	7
206+69	-	206+89	RT.	20	-	20	-	-
207+19	-	207+25	LT.	6	-	6	-	-
207+22	-	207+76	RT.	54	-	54	-	-
207+40	-	208+00	LT.	60	-	60	-	-
208+11	-	208+26	RT.	15	-	15	-	-
208+20	-	208+44	LT.	24	-	24	-	-
208+71	-	209+41	RT.	70	-	70	-	-
209+82	-	209+94	LT.	12	-	12	-	-
209+92	-	210+08	RT.	24	-	24	-	-
210+00	-	210+08	LT.	15	-	15	-	-
210+48	-	210+63	LT.	21	-	21	-	-
210+59	-	211+47	RT.	88	-	88	-	-
211+21	-	211+64	LT.	43	-	43	10	10
211+74	-	211+96	RT.	22	-	22	-	-
212+22	-	212+66	LT.	44	-	44	10	10
212+49	-	212+99	RT.	50	-	50	-	-
212+93	-	213+67	LT.	74	-	74	16	16
214+11	-	214+24	RT.	13	-	13	3	3
214+61	-	214+73	LT.	14	-	14	3	3
214+76	-	214+84	LT.	8	-	8	2	2
214+76	-	216+62	RT.	186	-	186	41	41
215+10	-	215+30	LT.	20	-	20	4	4
216+50	-	216+69	LT.	19	-	19	4	4
216+82	-	217+04	RT.	22	-	22	5	5
217+23	-	217+45	LT.	24	-	24	5	5
223+53	-	223+59	RT.	6	-	6	1	1
227+92	-	228+04	LT.	12	-	12	3	3
307+59	-	307+99	RT.	40	-	40	9	9
307+71	-	307+89	LT.	18	-	18	4	4
316+54	-	316+60	RT.	6	-	6	1	1
335+40	-	335+46	LT.	6	-	6	1	1
UNDISTRIBUTED				-	-	-	3	3
TOTALS:				1,242	31	1,273	170	170

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

STORM SEWER PIPES

						520.8000.S			523.0138		
PIPE LOCATION		*	*		CONCRETE	STORM SEWER PIPE REINFORCED CONCRETE CLASS III		REINFORCED	650.4000		
FROM	TO	PIPE	PIPE		COLLARS	608.0312	608.0318	CONCRETE	ELLIPTICAL	CONSTRUCTION	
STRUCTURE	STRUCTURE	INLET	DISCHARGE		FOR PIPE	12-INCH	18-INCH	CLASS III	CLASS HE-III	STAKING	
NO.	NO.	ELEVATION	ELEVATION	SLOPE %	EACH	LF	LF	36-INCH	38X60-INCH	STORM SEWER	
								LF	LF	EACH	
1.02	1.01	826.21	825.67	1.64	-	33	-	-	-	2	
2.02	2.01	809.40	808.96	1.14	1	8	-	-	-	2	
3.01	3.02	807.51	806.79	1.64	-	-	44	-	-	2	
4.02	4.01	805.26	804.88	0.79	1	20	-	-	-	2	
5.02	5.01	801.60	801.20	0.50	-	-	-	-	160	2	
5.03	5.01	802.70	801.60	4.58	-	-	24	-	-	2	
5.04	5.01	801.85	801.60	1.00	-	-	-	25	-	2	
6.02	6.01	-	-	-	-	-	-	-	-	2	
TOTALS:					2	61	68	25	160	16	

* SEE CONSTRUCTION DETAIL

STORM SEWER STRUCTURE SCHEDULE

								611.0624	
			OFFSET TO		TOP OF	BOTTOM OF	STRUCTURE	INLET	611.3230
STRUCTURE			CENTER OF	CASTING	STRUCTURE	STRUCTURE	DEPTH	COVERS	INLET
NO.	STATION	LOCATION	STRUCTURE	ELEVATION	ELEVATION	ELEVATION	FT	TYPE H	2X3-FT
								EACH	EACH
3.01	207+23	STH 96	22.0' LT.	811.43	810.60	807.51	3.09	1	1
3.02	207+23	STH 96	22.0' RT.	811.37	810.54	806.79	3.75	1	1
6.02	335+43	STH 96	22.0' LT.	822.01	821.18	818.18	3.00	1	1
TOTALS:								3	3

1. CASTING ELEVATIONS ARE GIVEN AT THE FLOW LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE STRUCTURE FOR MANHOLES.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. TOP OF STRUCTURE = CASTING ELEVATION - CASTING HEIGHT - ADJUSTMENT (SEE CONSTRUCTION DETAIL).
CASTING HEIGHT = 9" FOR TYPE J COVERS AND 6" FOR TYPE H COVERS. ADJUSTMENT = 6" TYPICAL.
4. PROVIDE A FLAT TOP SLAB WITH A 24" X 30" RECTANGULAR OPENING TO FIT A TYPE T INLET COVER.
5. PROVIDE A FLAT TOP SLAB WITH A 24-INCH BY 36-INCH RECTANGULAR OPENING FOR ALL MANHOLES WITH TYPE H INLET COVERS.

DRAINAGE STRUCTURE REPAIRS								
STATION	LOCATION	416.0620* DRILLED DOWEL BARS EACH	390.0403 BASE PATCHING CONCRETE SHES SY	611.0530 MANHOLE COVERS TYPE J EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.8120.S COVERS PLATES TEMPORARY EACH	690.0250* SAWING CONCRETE LF
177+97	14' RT.	8	4	-	1	-	1	24
181+17	15' RT.	8	4	-	1	-	1	24
183+55	16' LT.	8	4	1	-	-	-	24
183+78	39' LT.	-	-	-	-	1	1	-
186+30	22' RT.	-	-	-	-	1	1	-
186+37	16' LT.	8	4	1	-	-	-	24
186+40	22' LT.	-	-	-	-	1	1	-
189+66	22' RT.	-	-	-	-	1	1	-
189+66	22' LT.	-	-	-	-	1	1	-
189+66	17' LT.	8	4	1	-	-	-	24
194+78	16' LT.	8	4	-	1	-	1	24
196+00	22' LT.	-	-	-	-	1	1	-
196+10	16.5' RT.	8	4	-	1	-	1	24
196+10	22' RT.	-	-	-	-	1	1	-
198+78	16' LT.	8	4	-	1	-	1	24
199+07	22' LT.	-	-	-	-	1	1	-
199+07	22' RT.	-	-	-	-	1	1	-
199+07	16' RT.	8	4	-	1	-	1	24
201+77	22' LT.	-	-	-	-	1	1	-
201+77	22' RT.	-	-	-	-	1	1	-
201+77	16' RT.	8	4	-	1	-	1	24
202+79	15' LT.	8	4	-	1	-	1	24
203+01	22' LT.	-	-	-	-	1	1	-
203+01	15' RT.	8	4	-	1	-	1	24
203+04	22' RT.	-	-	-	-	1	1	-
204+56	15' RT.	8	4	-	1	-	1	24
205+44	18' LT.	8	4	-	1	-	1	24
209+84	22' LT.	-	-	-	-	1	1	-
210+12	29' LT.	8	4	-	1	-	1	24
210+18	22' LT.	8	4	-	1	-	1	24
210+40	32' LT.	8	4	-	1	-	1	24
214+22	26' LT.	8	4	-	1	-	1	24
214+22	20' RT.	-	-	-	-	1	1	-
214+33	20' LT.	8	4	-	1	-	1	24
216+89	22' RT.	-	-	-	-	1	1	-
217+09	22' LT.	8	4	-	1	-	1	24
217+25	18' LT.	8	4	-	1	-	1	24
299+06	22' LT.	-	-	-	-	1	1	-
305+56	16' RT.	8	4	-	1	-	1	24
307+59	16' RT.	8	4	-	1	-	1	24
307+98	16' RT.	8	4	-	1	-	1	24
312+79	16' RT.	8	4	-	1	-	1	24
316+60	16' RT.	8	4	-	1	-	1	24
316+63	52' RT.	-	-	-	-	1	1	-
317+07	47' RT.	-	-	-	-	1	1	-
317+32	16' RT.	8	4	-	1	-	1	24
317+32	22' RT.	-	-	-	-	1	1	-
317+40	22' LT.	-	-	-	-	1	1	-
319+08	16' RT.	8	4	-	1	-	1	24
319+08	22' RT.	-	-	-	-	1	1	-
319+08	22' LT.	-	-	-	-	1	1	-
321+08	15' RT.	8	4	-	1	-	1	24
321+08	22' RT.	-	-	-	-	1	1	-
321+08	22' LT.	-	-	-	-	1	1	-
323+08	16' RT.	8	4	-	1	-	1	24
323+08	22' RT.	-	-	-	-	1	1	-
323+08	22' LT.	-	-	-	-	1	1	-
329+08	16' RT.	8	4	-	1	-	1	24
329+08	22' RT.	-	-	-	-	1	1	-
329+08	22' LT.	-	-	-	-	1	1	-
331+08	17' RT.	8	4	-	1	-	1	24
333+07	16.5' RT.	8	4	-	1	-	1	24
333+08	22' RT.	-	-	-	-	1	1	-
333+08	22' LT.	-	-	-	-	1	1	-
335+43	16' RT.	8	4	-	1	-	1	24
TOTALS:		272	136	3	31	31	62	816

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

MIDWEST GUARDRAIL SYSTEM (MGS)						
				614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.2330 GUARDRAIL 3K LF	614.2610 GUARDRAIL TERMINAL EAT EACH
STATION	TO	STATION	LOCATION			
114+54	-	116+86	RT.	2	125	2
115+38	-	117+70	LT.	2	125	2
145+47	-	152+04	LT.	2	550	2
147+18	-	156+75	RT.	2	850	2
232+38	-	234+70	RT.	2	125	2
232+92	-	234+86	LT.	2	87	2
235+29	-	237+61	RT.	2	125	2
236+11	-	238+43	LT.	2	125	2
294+28	-	296+60	RT.	2	125	2
295+21	-	297+40	LT.	2	112	2
397+73	-	403+92	LT.	2	512	2
408+14	-	410+83	RT.	2	162	2
409+41	-	411+48	LT.	2	100	2
438+24	-	440+81	RT.	2	150	2
438+93	-	441+50	LT.	2	150	2
TOTALS:				30	3,423	30

614.0010
BARRIER SYSTEM GRADING SHAPING FINISHING

STATION	TO	STATION	LOCATION	*BORROW CY	*SALVAGED TOPSOIL SY	*FERTILIZER Type B CWT	*SEEDING No. 30 LB	*MULCHING SY
114+54	-	116+86	RT.	110	170	0.11	4.6	170
115+38	-	117+70	LT.	30	80	0.05	2.2	80
145+47	-	152+04	LT.	45	140	0.09	3.7	140
147+18	-	156+75	RT.	10	60	0.04	1.6	60
232+38	-	234+70	RT.	40	140	0.09	3.8	140
232+92	-	234+86	LT.	10	50	0.03	1.3	50
235+29	-	237+61	RT.	30	130	0.08	3.4	130
236+11	-	238+43	LT.	25	90	0.05	2.3	90
294+28	-	296+60	RT.	105	330	0.21	8.9	330
295+21	-	297+40	LT.	15	100	0.06	2.7	100
397+73	-	403+92	LT.	-	50	0.03	1.2	50
408+14	-	410+83	RT.	40	130	0.08	3.4	130
409+41	-	411+48	LT.	50	140	0.09	3.7	140
438+24	-	440+81	RT.	25	90	0.06	2.5	90
438+93	-	441+50	LT.	5	30	0.02	0.8	30
TOTALS:				540	1,730	1.09	46	1,730

* Items and Quantities are listed for Bid Information Only.
These quantities are an estimate and may vary.

619.1000
MOBILIZATION

LOCATION	EACH
PROJECT	1
TOTAL:	1

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

SECTION CORNERS		
LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.10 SECTION CORNER MONUMENTS EACH
SOUTH CORNER 19 (NORTH CORNER 30)	4	1
SOUTHEAST CORNER 19 (NORTHEAST CORNER 30)	4	1
SOUTH CORNER 20 (NORTH CORNER 29)	4	1
SOUTHEAST CORNER 20 (NORTHEAST CORNER 29)	4	1
SOUTH CORNER 21 (NORTH CORNER 28)	4	1
SOUTHEAST CORNER 21 (NORTHEAST CORNER 28)	4	1
SOUTH CORNER 22 (NORTH CORNER 27)	4	1
SOUTHEAST CORNER 22 (NORTHEAST CORNER 27)	4	1
SOUTH CORNER 23 (NORTH CORNER 26)	4	1
SOUTHEAST CORNER 23 (NORTHEAST CORNER 26)	4	1
SOUTH CORNER 24 (NORTH CORNER 25)	4	1
SOUTHEAST CORNER 24 (NORTHEAST CORNER 25)	4	1
SOUTH CORNER 19 (NORTH CORNER 30)	4	1
SOUTHEAST CORNER 19 (NORTHEAST CORNER 30)	4	1
SOUTH CORNER 20 (NORTH CORNER 29)	4	1
SOUTHEAST CORNER 20 (NORTHEAST CORNER 29)	4	1
SOUTH CORNER 21 (NORTH CORNER 28)	4	1
SOUTHEAST CORNER 21 (NORTHEAST CORNER 28)	4	1
SOUTH CORNER 22 (NORTH CORNER 27)	4	1
TOTALS:	76	19

NOTE: MONUMENTS START AT THE BEGINNING OF THE PROJECT AND PROCEED EASTWARD

SILT FENCE					
STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
114+39	-	117+01	RT.	318	318
115+23	-	117+85	LT.	297	297
145+32	-	152+19	LT.	726	726
147+03	-	156+90	RT.	1,002	1,002
232+23	-	234+85	RT.	281	281
232+77	-	235+01	LT.	238	238
235+14	-	237+76	RT.	280	280
235+96	-	238+58	LT.	275	275
294+13	-	296+75	RT.	300	300
295+06	-	297+55	LT.	280	280
397+58	-	404+07	LT.	670	670
407+99	-	410+98	RT.	331	331
409+26	-	411+63	LT.	252	252
438+09	-	440+96	RT.	316	316
438+78	-	441+65	LT.	308	308
			UNDISTRIBUTED	126	126
TOTALS:				6,000	6,000

NOTE: SILT FENCE TO BE PLACED AT BEAM GUARD LOCATIONS

MOBILIZATIONS EROSION CONTROL			
		628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
LOCATION	ROADWAY		
PROJECT	STH 96	3	6
TOTALS:		3	6

EROSION MAT					
STATION	TO	STATION	LOCATION	628.2002 CLASS I TYPE A SY	628.2004 CLASS I TYPE B SY
104+40			CP, RT.	35	-
114+54	-	116+86	BEAMGUARD, RT.	-	171
115+38	-	117+70	BEAMGUARD, LT.	-	80
145+47	-	152+04	BEAMGUARD, LT.	-	138
147+18	-	156+75	BEAMGUARD, RT.	-	60
151+13	-	151+66	DROP INLET, LT.	-	36
232+38	-	234+70	BEAMGUARD, RT.	-	141
232+92	-	234+86	BEAMGUARD, LT.	-	49
235+29	-	237+61	BEAMGUARD, RT.	-	128
236+11	-	238+43	BEAMGUARD, LT.	-	85
276+58	-	276+74	DROP INLET, LT.	-	5
294+28	-	296+60	BEAMGUARD, RT.	-	330
295+21	-	297+40	BEAMGUARD, LT.	-	98
298+95			CP, RT.	4	-
307+69			CP, RT.	28	-
335+50			CP, RT.	4	-
397+73	-	403+92	BEAMGUARD, LT.	-	46
408+14	-	410+83	BEAMGUARD, RT.	-	126
409+41	-	411+48	BEAMGUARD, LT.	-	137
438+24	-	440+81	BEAMGUARD, RT.	-	91
438+93	-	441+50	BEAMGUARD, LT.	-	30
565+10			CP, RT.	9	-
			UNDISTRIBUTED	10	199
TOTALS:				90	1,950

628.7015 INLET PROTECTION TYPE C		
STATION	LOCATION	EACH
180+07	RT.	1
183+56	RT.	1
186+30	RT.	1
186+40	LT.	1
189+66	LT. & RT.	2
192+20	LT. & RT.	2
196+00	LT.	1
196+10	RT.	1
199+07	LT. & RT.	2
201+77	LT. & RT.	2
203+02	LT. & RT.	2
203+18	RT.	1
205+22	RT.	1
207+22	LT. & RT.	2
209+80	RT.	1
209+84	LT.	1
210+12	LT.	1
210+48	LT.	1
214+21	RT.	1
214+25	LT.	1
214+54	LT.	1
216+60	LT.	1
216+89	RT.	1
217+19	LT.	1
220+79	LT.	1
224+08	LT.	1
299+06	LT.	1
305+42	LT.	1
305+56	RT.	1
308+02	RT.	1
308+08	LT.	1
312+80	LT. & RT.	2
12+04'M'	LT. (CTH M)	1
316+63	RT.	1
317+07	RT.	1
317+32	RT.	1
317+40	LT.	1
319+08	LT. & RT.	2
321+07	LT. & RT.	2
323+08	LT. & RT.	2
329+08	LT. & RT.	2
331+08	LT. & RT.	2
333+08	LT. & RT.	2
335+43	LT. & RT.	2
TOTAL:		58

LANDSCAPING ITEMS								
				625.0100*	627.0200	629.0210	630.0130	630.0140
				TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING
STATION	TO	STATION	LOCATION	SY	SY	TYPE B	MIXTURE NO. 30	MIXTURE NO. 40
						CWT	LB	LB
			PARK N RIDE	92	92	0.058	-	2.5
151+13	-	151+66	STH 96, LT. (DROP INLET)	36	-	0.023	1.0	-
276+58	-	276+74	STH 96, LT. (DROP INLET)	5	-	0.003	0.1	-
307+69			STH 96, LT. (DROP INLET)	40	40	0.025	-	1.1
			UNDISTRIBUTED	27	18	0.891	0.4	0.4
TOTALS:				200	150	1.00	1.50	4.00

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	STH 45/STH 96 INTERSECTION	J2-2	48" X 57"	19.00		1	1	1	2	STH 45, STH 45, SEE PLAN SHEET
2	"	R1-1F	36" X 36"		7.46			1		MOUNT TO TRAFFIC SIGNAL
3	"	R2-1	24" X 30"					1		
3A	"	J4-1	24" X 36"	6.00						STH 96, MOUNT TO TRAFFIC SIGNAL, SEE PLAN SHEET
4	EAST OF STH 45	I-2-2	78" X 15"	8.13				1	2	
5	"	D4-5R	30" X 36"	7.50			1	1	1	
6	"	D4-6L	30" X 36"	7.50			1	1	1	
6A	"	W8-70	36" X 36"	9.00		1				
6B	"	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #6A, NEXT 10 MILES
7	"	R2-1	24" X 30"	5.00		1				45 MPH
8	"	D1-1	84" X 15"	8.75		2		1	2	SEE SIGN DETAIL SHEET
9	"	I55-56	30" X 36"	7.50				1	1	MOUNTED TO FRONT SIDE OF SIGN #10, SEE PLAN SHEET
10	"	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
11	"	J2-2	48" X 57"	19.00		1	1			STH 45, STH 45, SEE PLAN SHEET
12	"	J4-1	24" X 36"					1	1	
13	"	J1-1	24" X 39"	6.50		1		1	1	STH 45, SEE PLAN SHEET
14	"	W3-3	36" X 36"	9.00		1		1	1	FLUORSCENT REFLECTIVE SHEETING
14A	"	SP	96" X 48"					1	1	SEE PLAN SHEET
15	WEST OF RABBIT ROAD	R2-1	24" X 30"	5.00		1		1	1	45 MPH
16	"	R2-1	24" X 30"	5.00		1		1	1	55 MPH
17	"	W3-5	36" X 36"	9.00			1			FLUORSCENT REFLECTIVE SHEETING, 45 MPH, SEE PLAN SHEET
18	"	R2-5A						2	1	SEE PLAN SHEET FOR REMOVAL
19	RABBIT ROAD	R1-1	30" X 30"	5.18		1		1	1	
20	SHAKY LAKE ROAD	R1-1	30" X 30"	5.18		1		1	1	
21	"	R1-1	30" X 30"	5.18		1		1	1	
22	EAST OF SHAKY LAKE ROAD	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
23	"	S3-1	36" X 36"	9.00		1		1	1	FLUORSCENT REFLECTIVE SHEETING
24	WEST OF WINCHESTER ROAD	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
25	"	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
26	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
27	WINCHESTER ROAD	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
28	"	R1-1	30" X 30"	5.18		1		1	1	
29	EAST OF WINCHESTER ROAD	J4-1						1	1	
30	"	D2-2	72" X 24"	12.00			1	1		SEE SIGN DETAIL SHEET
31	"	R2-5A						2	1	SEE PLAN SHEET FOR REMOVAL
31A	"	I2-3	54" X 24"	9.00			1			DALE, SEE SIGN DETAIL SHEET
32	"	W2-2	30" X 30"	6.25		1		1	1	FLUORSCENT REFLECTIVE SHEETING, SEE PLAN SHEET
33	"	W3-5	36" X 36"	9.00			1			FLUORSCENT REFLECTIVE SHEETING
34	WEST OF PINE GROVE ROAD	R2-1	24" X 30"	5.00		1		1	1	55 MPH
35	"	S3-1	36" X 36"	9.00			1	1	1	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

PAGE SUBTOTALS

252.97 7.46 18 14 34 32

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
36	WEST OF PINE GROVE ROAD	W16-2P	30" X 15"	3.13				1		FLUORSCENT REFLECTIVE SHEETING, MOUNT BELOW SIGN #35
36A	"	W8-70	36" X 36"	9.00		1				
36B	"	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #36A, NEXT 2 MILES
37	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
37A	"	R7-53L	18" X 24"	3.00		1				
38	"	W11-3						1	1	
38A	"	W57-51						1		
39	"	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
40	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
41	"	R2-1	24" X 30"	5.00		1		2	1	35 MPH
42	PINE GROVE ROAD	R1-1	30" X 30"	5.18		1		1	1	
42A	EAST OF PINE GROVE ROAD	R7-53R	18" X 24"	3.00		1				
43	"	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
43A	"	R7-53D	18" X 24"	3.00		1				
43B	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
43C	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
44	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
44A	"	R7-53D	18" X 24"	3.00		1				
45	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
45A	"	R7-53D	18" X 24"	3.00		1				
46	WEST OF WHITNEY STREET	W10-1	36" X 36"	7.07			1	1	1	
46A	"	R7-53D	18" X 24"	3.00		1				
47	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
47A	"	R7-53D	18" X 24"	3.00						MOUNT TO POWER POLE
47B	"	R7-53L	18" X 24"	3.00		1				
48	WHITNEY STREET	R1-1	30" X 30"	5.18		1		1	1	
49	WEST OF WHITNEY STREET	J1-1	24" X 39"	6.50		1		1	1	CTH T, SEE PLAN SHEET
49A	"	W10-12	36" X 36"	9.00		1				
50	EAST OF WHITNEY STREET	R2-1	24" X 30"	5.00		1		1	1	35 MPH
51	"	W10-1	36" X 36"	7.07		1		1	1	
51A	"	W10-12	36" X 36"	9.00		1				
52	"	R7-51L						1		
53	CTH T	R1-1	36" X 36"	7.46			1	1	1	
54	"	J13-1	24" X 45"	7.50			1	1	1	CTH T, SEE PLAN SHEET
55	"	R1-1	36" X 36"	7.46			1	1	1	
56	EAST CTH T	J13-1	24" X 45"	7.50			1	1	1	CTH T, SEE PLAN SHEET
57	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
57A	"	R7-53L	18" X 24"	3.00		1				
58	DALE AVENUE	R1-1	30" X 30"	5.18		1		1	1	
59	"	W11-8	30" X 30"	6.25		1		1	1	
60	EAST OF DALE AVENUE	R2-1	24" X 30"	5.00		1		1	1	35 MPH
60A	"	R7-53R	18" X 24"	3.00		1				
61	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
61A	"	R7-53L	18" X 24"	3.00		1				

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

PAGE SUBTOTALS

215.10 0.00 32 6 30 26

PROJECT NO: 4075-31-71

HWY: STH 96

COUNTY: OUTAGAMIE

MISCELLANEOUS QUANTITIES

SHEET: 2 of 4

E

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
62	MAPLE LANE	R1-1	30" X 30"	5.18		1		1	1	
63	EAST OF MAPLE LANE	J1-1	24" X 39"	6.50		1		1	1	CTH T, SEE PLAN SHEET
63A	"	R7-53R	18" X 24"	3.00		1				
64	"	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
65	INDUSTRIAL DRIVE	R1-1	30" X 30"	5.18		1		1	1	
65A	"	R7-53R	18" X 24"	3.00		1				
66	EAST OF INDUSTRIAL DRIVE	W11-8	30" X 30"	6.25		1		1	1	
66A	"	R7-53D	18" X 24"	3.00		1				
67	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
68	"	R2-1	24" X 30"	5.00		1		1	1	55 MPH
68A	"	R7-53L	18" X 24"	3.00		1				
69	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH
69A	"	W8-70	36" X 36"	9.00		1				
69B	"	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #69A, NEXT 7 MILES
70	WEST OF TOWN ROAD	I2-3	54" X 24"	9.00			1	1	1	DALE, SEE SIGN DETAIL SHEET
71	"	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
72	"	W11-3						1	1	
72A	"	W57-51						1		
73	"	W3-5	36" X 36"	9.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING, 35 MPH, SEE PLAN SHEET
74	TOWN ROAD	R1-1	30" X 30"	5.18		1		1	1	
75	EAST OF TOWN ROAD	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
75A	"	D2-1	72" X 15"	7.50		2		1	1	SEE SIGN DETAIL SHEET
76	WEST OF MIDWAY ROAD	W2-2	30" X 30"	6.25		1		1	1	FLUORSCENT REFLECTIVE SHEETING, SEE PLAN SHEET
77	MIDWAY ROAD	R1-1	30" X 30"	5.18		1		1	1	
78	"	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
79	EAST OF MIDWAY ROAD	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
80	"	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
81	"	I2-3	54" X 24"	9.00			1	1	1	MEDINA, SEE SIGN DETAIL SHEET
82	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
83	EAST OF MIDWAY ROAD	W3-5						1	1	SEE PLAN SHEET
84	"	W3-5	36" X 36"	9.00			1			FLUORSCENT REFLECTIVE SHEETING, 35 MPH, SEE PLAN SHEET
84A	"	W8-70	36" X 36"	9.00		1				
84B	"	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #84A, NEXT 5 MILES
85	"	W11-3						1	1	
85A	"	W57-51						1		
86	"	R2-1	24" X 30"	5.00		1		1	1	55 MPH, SEE PLAN SHEET
86A	"	R7-53R	18" X 24"	3.00		1				
87	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
87A	"	R7-53L	18" X 24"	3.00						MOUNT TO POWER POLE
88	WEST OF CTH M	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
89	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
90	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
90A	"	R7-53R	18" X 24"	3.00						MOUNT TO POWER POLE
90B	"	R7-53D	18" X 24"	3.00		1				

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

PAGE SUBTOTALS

220.47 0.00 27 9 31 29

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
90C	WEST OF CTH M	R7-53L	18" X 24"	3.00		1				
91	"	J1-1	24" X 39"	6.50		1		1	1	CTH M, SEE PLAN SHEET
92	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
92A	"	R7-53D	18" X 24"	3.00						MOUNT TO POWER POLE
93	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
93A	"	D1-2	78" X 30"	16.25			2	1	2	SEE SIGN DETAIL SHEET
94	"	J4-1	24" X 36"	6.00			1	1	1	STH 96, SEE PLAN SHEET
95	"	R7-51R						1		
96	"	J13-1	24" X 45"	7.50			1	1	1	CTH M, SEE PLAN SHEET
97	"	R7-51L						1		
98	CTH M	R1-1	36" X 36"	7.46			1	1	1	
98A	"	R7-53L	18" X 24"	3.00		1				
99	"	R1-1	36" X 36"	7.46			1	1	1	
99A	"	R7-53R	18" X 24"	3.00		1				
100	EAST OF CTH M	J13-1	24" X 45"	7.50			1	1	1	CTH M, SEE PLAN SHEET
101	"	R2-1	24" X 30"	5.00			1	1	1	35 MPH, SEE PLAN SHEET
102	"	R7-51R						1		
103	"	D1-2	78" X 30"	16.25		2		1	2	SEE SIGN DETAIL SHEET
103A	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
103B	"	R7-53D	18" X 24"	3.00		1				
104	"	J1-1	24" X 39"	6.50		1		1	1	CTH M, SEE PLAN SHEET
105	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
106	"	D7-56	54" X 36"	13.50				1		MOUNT TO POWER POLE, SEE SIGN DETAIL SHEET
107	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
107A	"	R7-53D	18" X 24"	3.00		1				
108	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
109	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
110	"	D7-58R	54" X 36"	13.50				1		MOUNT TO POWER POLE, SEE SIGN DETAIL SHEET
111	"	D7-58L	54" X 36"	13.50		1		1	1	SEE SIGN DETAIL SHEET
112	"	R7-51R						1		
113	"	R7-52L						1	1	
113A	"	R7-53D	18" X 24"	3.00		1				
114	"	R7-52L						1	1	
115	"	R7-51R						1	1	
115A	"	R7-53R	18" X 24"	3.00		1				
116	"	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
117	"	R2-1	24" X 30"	5.00		1		1	1	35 MPH, SEE PLAN SHEET
117A	"	R7-53L	18" X 24"	3.00		1				
118	"	R2-1	24" X 30"	5.00		1		1	1	55 MPH, SEE PLAN SHEET
119	"	D7-56	54" X 36"	13.50		1		1	1	SEE SIGN DETAIL SHEET
119A	"	W8-70	36" X 36"	9.00		1				

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

PAGE SUBTOTALS

230.92 0.00 25 8 31 27

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
119B	EAST OF CTH M	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #119A, NEXT 4 MILES
120	"	I2-3	54" X 24"	9.00			1	1	1	MEDINA, SEE SIGN DETAIL SHEET
121	"	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
122	"	W3-5	36" X 36"	9.00			1	1	1	35 MPH, SEE PLAN SHEET
123	WEST OF GREENDALE ROAD	W11-3						1	1	
123A	WEST OF GREENDALE ROAD	W57-51						1		
124	"	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
125	GREENDALE ROAD	R1-1	30" X 30"	5.18		1		1	1	
126	EAST OF GREENDALE ROAD	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
127	"	W54-57	30" X 30"	6.25		1		1	1	
128	WEST OF BROOKVIEW DRIVE	W54-57	30" X 30"	6.25		1		1	1	
129	BROOKVIEW DRIVE	R1-1	30" X 30"	5.18		1		1	1	
130	EAST OF BROOKVIEW DRIVE	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
131	"	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
132	MANLEY ROAD	R1-1	30" X 30"	5.18		1		1	1	
133	"	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
134	EAST OF MANLEY ROAD	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
135	ISLAND ROAD	W1-7	48" X 24"	8.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
136	"	R1-1	30" X 30"	5.18		1		1	1	
137	NORTH ROAD	R1-1	30" X 30"	5.18		1		1	1	
138	"	R1-1	30" X 30"	5.18		1		1	1	
139	SPRING VALLEY DRIVE	R1-1	30" X 30"	5.18		1		1	1	
140	EAST OF SPRING VALLEY DRIVE	W14-3	48" X 36"	6.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING
141	LAKEVIEW LANE	R1-1	30" X 30"	5.18		1		1	1	
142	FOX SPRINGS DRIVE	R1-1	30" X 30"	5.18		1		1	1	
143	WEST OF JULIUS DRIVE	W11-3						1	1	
143A	"	W57-51						1		
144	"	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
145	JULIUS DRIVE	R1-1	30" X 30"	5.18		1		1	1	
146	"	R1-1	30" X 30"	5.18		1		1	1	
147	EAST OF JULIUS DRIVE	I55-56	30" X 36"	7.50		1		1	1	SEE PLAN SHEET
148	WEST OF CLEARY COURT	W3-5	36" X 36"	9.00			1	1	1	FLUORSCENT REFLECTIVE SHEETING, 45 MPH, SEE PLAN SHEET
149	"	R2-1	24" X 30"	5.00		1		1	1	55 MPH
150	"	R2-1	36" X 48"	12.00		1	1	1	2	45 MPH
151	"	J1-1						1	1	
152	CLEARY COURT	R1-1	30" X 30"	5.18		1		1	1	
153	EAST OF CLEARY COURT	W3-3	48" X 48"	16.00		1	1	1	2	FLUORSCENT REFLECTIVE SHEETING
154	"	J1-1	24" X 39"	6.50		1		1	1	STH 76, SEE PLAN SHEET
155	"	D2-3	78" X 36"	19.50		1	1	1	2	SEE SIGN DETAIL SHEET
156	"	R2-1	24" X 30"	5.00		1		1	1	45 MPH
157	WEST OF STH 76	J3-3	72" X 57"	28.50			2	1	2	STH 76, STH 96, STH 76, SEE PLAN SHEET
157A	"	W8-70	36" X 36"	9.00		1				

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.0202 SIGNS REFLECTIVE TYPE II S.F.	637.0402 SIGNS REFLECTIVE FOLDING TYPE II S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
157B	WEST OF STH 76	W57-51	30" X 15"	3.13						MOUNT BELOW SIGN #157A, NEXT 10 MILES
158	"	R3-5L	42" X 48"	14.00				1		MOUNT ON STRUCTURE S-44-022, CENTER ABOVE LANE
159	"	R3-6R	42" X 48"	14.00				1		MOUNT ON STRUCTURE S-44-022, CENTER ABOVE LANE
160	"	D1-3	72" X 42"	21.00		1	1	1	2	SEE SIGN DETAIL SHEET
161	"	J4-1	24" X 36"	6.00		1		1	1	STH 96, SEE PLAN SHEET
162	"	J3-3	72" X 57"	28.50		1	1	1	2	STH 76, STH 96, STH 76, SEE PLAN SHEET
163	"	R1-1F	36" X 36"		7.46			1		MOUNT TO TRAFFIC SIGNAL
PAGE SUBTOTALS				86.63	7.46	3	2	6	5	
PROJECT TOTALS				1290.37	14.92	130	54	172	161	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

FIELD OFFICE	
LOCATION	642.5201 TYPE C EACH
PROJECT LIMITS	1
TOTAL:	1

TRAFFIC CONTROL										
LOCATION	DAYS	NUMBER OF DRUMS	643.0100 PROJECT 4175-31-71 EACH	643.0300 DRUMS DAYS	NUMBER OF BARRICADES	643.0420 BARRICADES TYPE III DAYS	NUMBER OF LIGHTS	643.0710 LIGHTS TYPE C DAYS	NUMBER OF SIGNS	643.0900 SIGNS DAYS
PROJECT	-	-	1	-	-	-	-	-	-	-
MAINLINE (URBAN)	60	400	-	24,000	15	900	20	1,200	25	1,500
MAINLINE (RURAL)	30	-	-	-	-	-	-	-	20	600
SIDEROADS	120	-	-	-	-	-	-	-	26	3,120
UNDISTRIBUTED	-	-	-	2,400	-	90	-	120	-	520
TOTALS:			1	26,400		990		1,320		5,740

PAVEMENT MARKING ITEMS																
STATION	TO	STATION	LOCATION	646.0106 EPOXY 4-INCH			646.0406 SAME DAY EPOXY 4-INCH			646.0126	647.0110	647.0256	647.0566	647.0656	647.0716	649.0100
				WHITE	WHITE	WHITE	YELLOW	YELLOW	YELLOW	8-INCH	RAILROAD	SYMBOLS	STOP LINE	PARKING	DIAGONAL	TEMPORARY
				DOT	DASH	SOLID	DASH	SOLID	DOUBLE	EPOXY	CROSSINGS	EPOXY	EPOXY	EPOXY	EPOXY	EPOXY
				LF	LF	LF	LF	LF	LF	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	YELLOW
51+00	-	175+00	STH 96	90	75	24,000	2,680	4,320	3,250	-	-	-	40	-	-	20,500
175+00	-	204+98	STH 96	-	-	1,130	-	-	5,950	370	1	-	-	-	155	11,900
205+18	-	228+00	STH 96	-	-	690	-	-	4,530	-	1	-	-	-	170	9,060
228+00	-	295+00	STH 96	40	70	12,990	1,300	3,740	3,080	-	-	-	-	-	-	16,240
295+00	-	340+40	STH 96	-	-	1,630	50	200	8,690	100	-	-	-	-	305	17,880
340+40	-	574+10	STH 96	-	125	45,430	5,630	4,850	1,950	1,150	-	-	-	-	10	24,860
			PARK & RIDE	-	-	-	-	-	-	-	-	2	-	690	-	-
			CTH T	-	-	-	-	-	25	-	-	-	-	-	-	-
			MIDWAY ROAD	-	-	-	-	-	80	-	-	-	-	-	-	-
			CTH M (NORTH)	-	-	-	-	-	35	-	-	-	-	-	-	-
			CTH M (SOUTH)	-	-	-	-	-	35	-	-	-	-	-	-	-
SUBTOTALS:				130	270	85,870	9,660	13,110	27,625	1,620	2	2	40	690	640	100,440
TOTALS:				86,270			50,395			1,620	2	2	40	690	640	100,440

643.1050
TRAFFIC CONTROL SIGNS PCMS

LOCATION	DAY
STA. 51+00	7
STA. 574+10	7
PARK N RIDE	7
TOTAL:	21

648.0100
LOCATING NO-PASSING ZONES

STATION	TO	STATION	LOCATION	MI
51+00	-	175+70	STH 96	2.36
227+65	-	296+64	STH 96	1.31
340+32	-	574+10	STH 96	4.43
TOTAL:				8.10

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS
51+00	-	574+10	PROJECT	-	1
51+00	-	204+98	STH 96	15,398	-
205+18	-	574+10	STH 96	36,892	-
TOTALS:				52,290	1

3

ALL ITEMS ARE GROUP CODE 0010 UNLESS OTHERWISE NOTED

690.0150 SAWING ASPHALT	
LOCATION	LF
RABBIT ROAD	24
SHAKY LAKE ROAD	48
WINCHESTER ROAD	24
PINE GROVE ROAD	39
WHITNEY STREET	40
CTH T	38
DEPOT STREET	32
DALE AVENUE	25
MAPLE LANE	25
INDUSTRIAL DRIVE	40
TOWN ROAD	26
MIDWAY ROAD	30
CTH M	80
GREENDALE ROAD	26
BROOKVIEW DRIVE	25
MANLEY ROAD	28
ISLAND ROAD	24
NORTH ROAD	48
SPRING VALLEY DRIVE	28
LAKEVIEW LANE	28
FOX SPRINGS DRIVE	26
JULIUS DRIVE	48
CLEARY COURT	28
DRIVEWAYS	300
UNDISTRIBUTED	60
TOTAL:	1,140

SPV.0060.01 RESETTING PIPE ENDS		
STATION	LOCATION	EACH
104+40	RT.	1
TOTAL:		1

SPV.0060.04 INLET GRATE SPECIAL		
STATION	LOCATION	EACH
151+58	STH 96 LT.	1
276+67	STH 96 LT.	1
TOTAL:		2

INLET SPECIAL			
		SPV.0060.02 INLET SPECIAL EACH	SPV.0060.03 INLET COVER SPECIAL EACH
STATION	LOCATION		
307+69	STH 96 LT.	1	1
TOTALS:		1	1

SPV.0090.01 CONCRETE JOINT AND CRACK CLEANING				
STATION	TO	STATION	LOCATION	LF
175+70	-	204+98	STH 96 (DALE)	2,928
205+18	-	227+65	STH 96 (DALE)	2,247
296+64	-	340+32	STH 96 (MEDINA)	4,368
TOTAL:				9,543

REMOVING PIPE RAILING			
		SPV.0105.01	SPV.0105.02
STATION	LOCATION	LS	LS
151+58	STH 96 LT. (DROP INLET)	1	-
276+67	STH 96 LT. (DROP INLET)	-	1
TOTALS:		1	1

SPV.0180.01 REMOVING CONCRETE PAVEMENT MILLING				
STATION	TO	STATION	LOCATION	SY
51+00	-	50+21	STH 96 (BEGIN)	56
175+70	-	204+98	STH 96 (DALE)	5,205
205+18	-	227+65	STH 96 (DALE)	3,995
296+64	-	340+32	STH 96 (MEDINA)	7,771
PINE GROVE ROAD				55
WHITNEY STREET				33
CTH T				48
DEPOT STREET				46
DALE AVENUE				40
MAPLE LANE				33
CTH M				94
573+60	-	574+10	STH 96 (END)	133
TOTAL:				17,510

3

ATR WAVETRONIX DETECTOR

	654.0102 CONCRETE TYPE 2 BASE EACH	657.0255 TRANSFORMER BASE EACH	657.0310 POLE TYPE 3 EACH	SPV.0060.05 INSTALLING POLE MOUNTED CABINET EACH	SPV.0060.06 INSTALLING 2 SOLAR PANELS ON ONE BRACKET EACH	SPV.0060.07 INSTALLING WAVETRONIX CLICK 200 MODULE EACH	SPV.0060.08 INSTALLING WAVETRONIX DETECTOR MODULE EACH	SPV.0060.09 INSTALLING CONCRETE MAINTENANCE PLATFORM EACH	SPV.0105.03 GRADING, SHAPING & FINISHING FOR ATR SITE EACH
STATION ATR 44-0106 STH 96, BTWN STH 76 AND CTH M	1	1	1	1	1	1	1	1	1
TOTALS:	1	1	1	1	1	1	1	1	1

SPV.0105.02 GRADING, SHAPING & FINISHING FOR ATR SITE

STATION LOCATION	* FILL CY	* SALV TOPSOI SY	* FERT. TYPE B CWT	* SEEDING MIXTURE NO. 30 LB
	3	15	0.01	0.25
TOTALS:	3	15	0.01	0.25

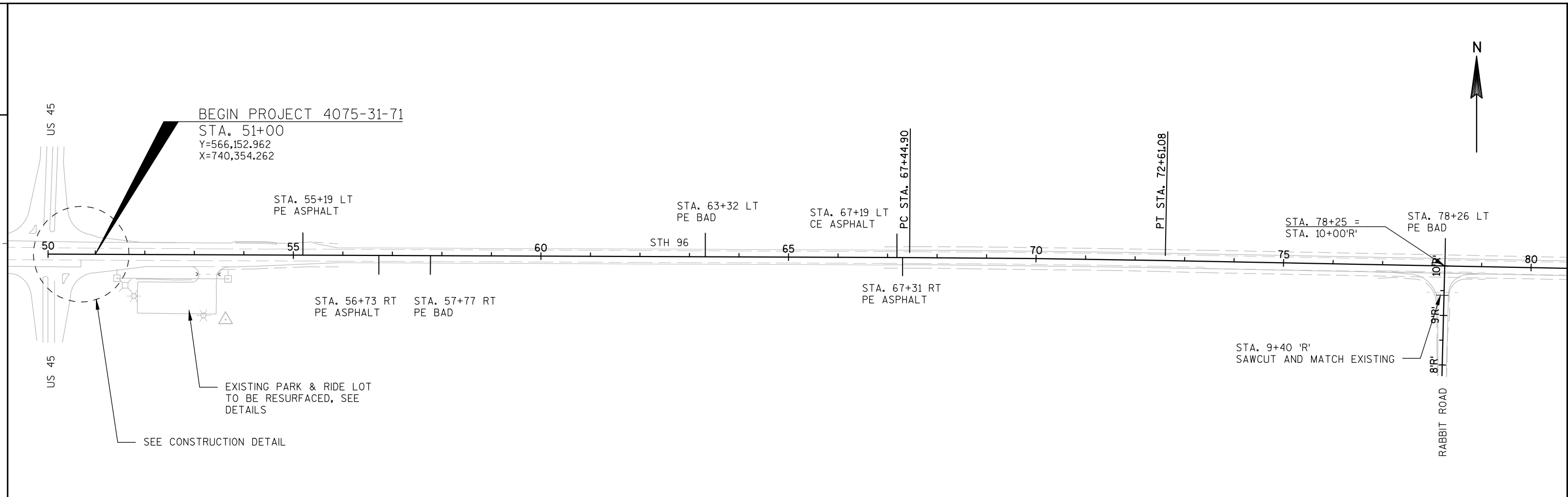
*ITEMS & QUANTITIES FOR BID INFORMATION ONLY.

STATE WILL PROVIDE THE FOLLOWING ITEMS:

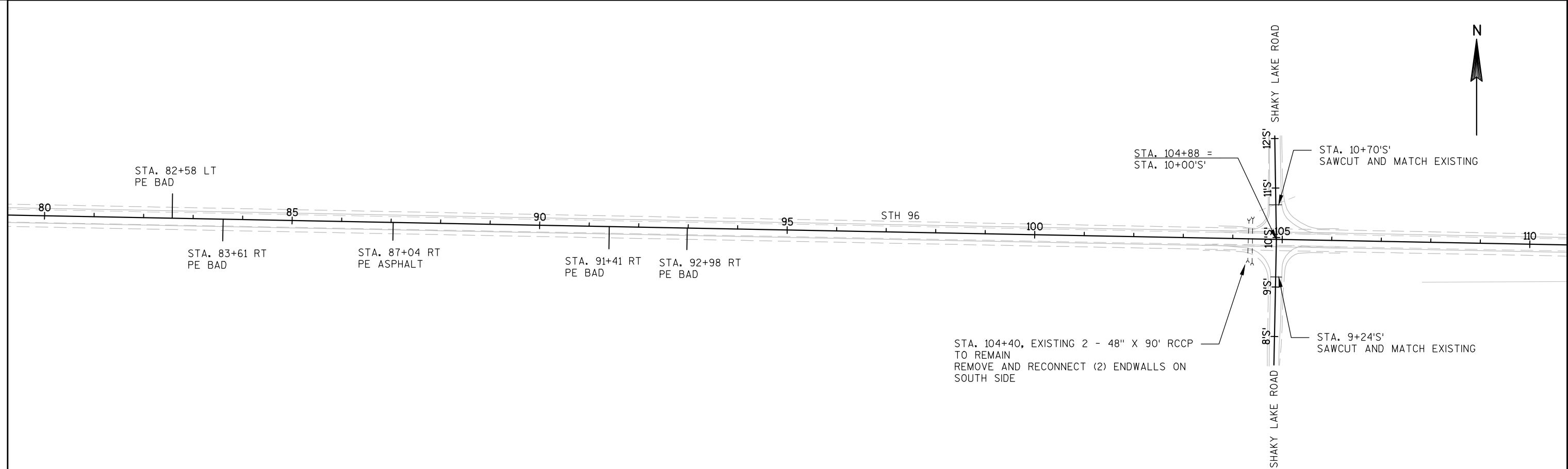
2 SOLAR PANELS AND ONE BRACKET
CCTV MOUNTED CABINET
WAVETRONIX HD-125 UNIT & 40' CABLE
WAVETRONIX CLICK 200 SURGE ARRESTOR MODULE
WIRE AND HARDWARE NEEDED FOR INSTALLATION

DESIGNED BY WISDOT CO

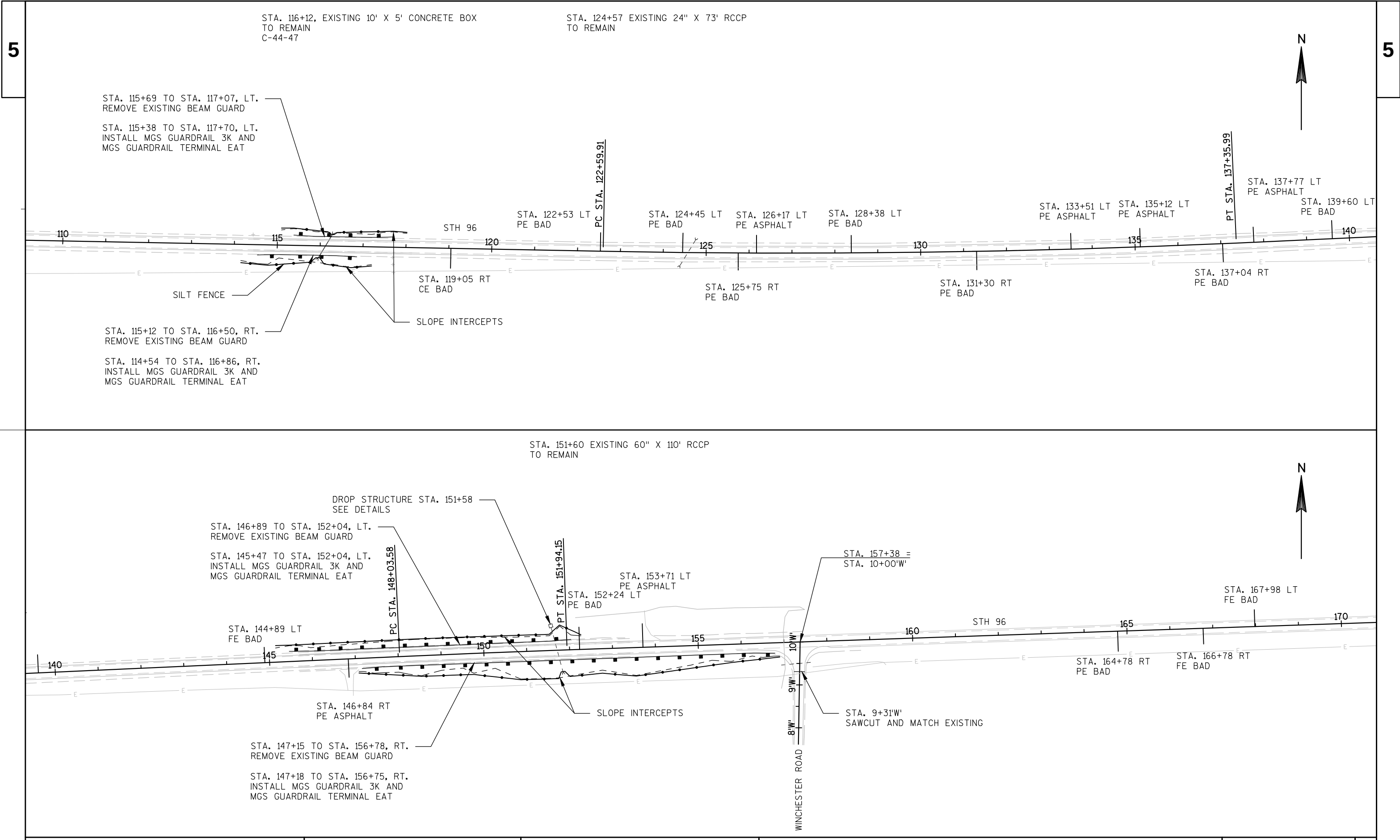
5

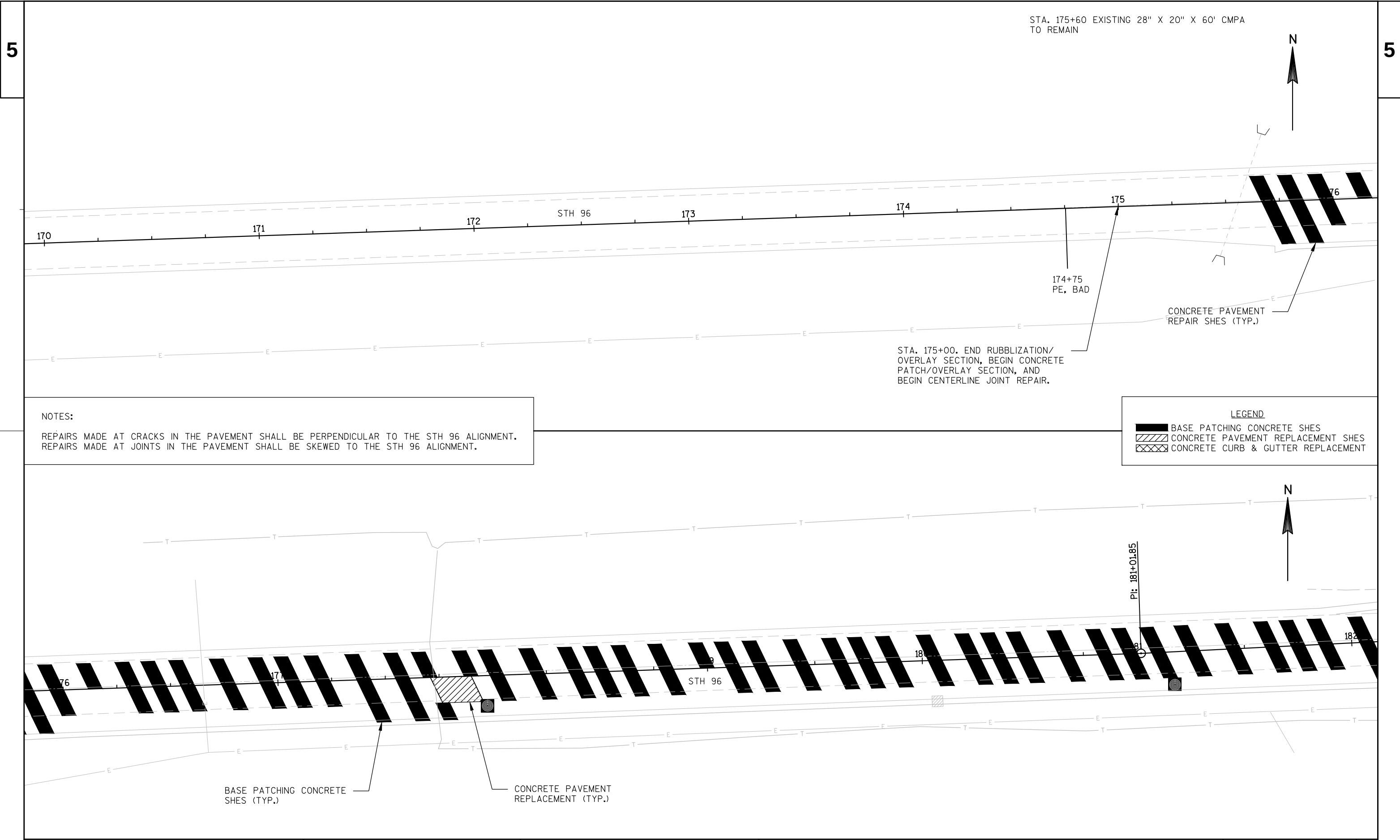


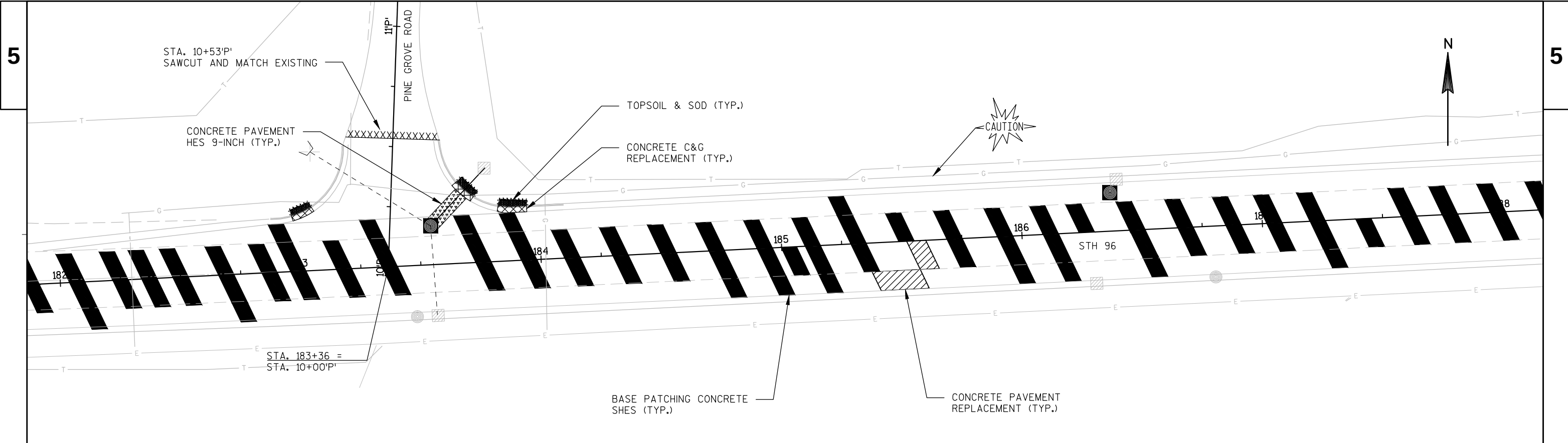
5



PROJECT NO: 4075-31-71	HWY: STH 96	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	-----	E
------------------------	-------------	-------------------	-------------	-------	-------	---





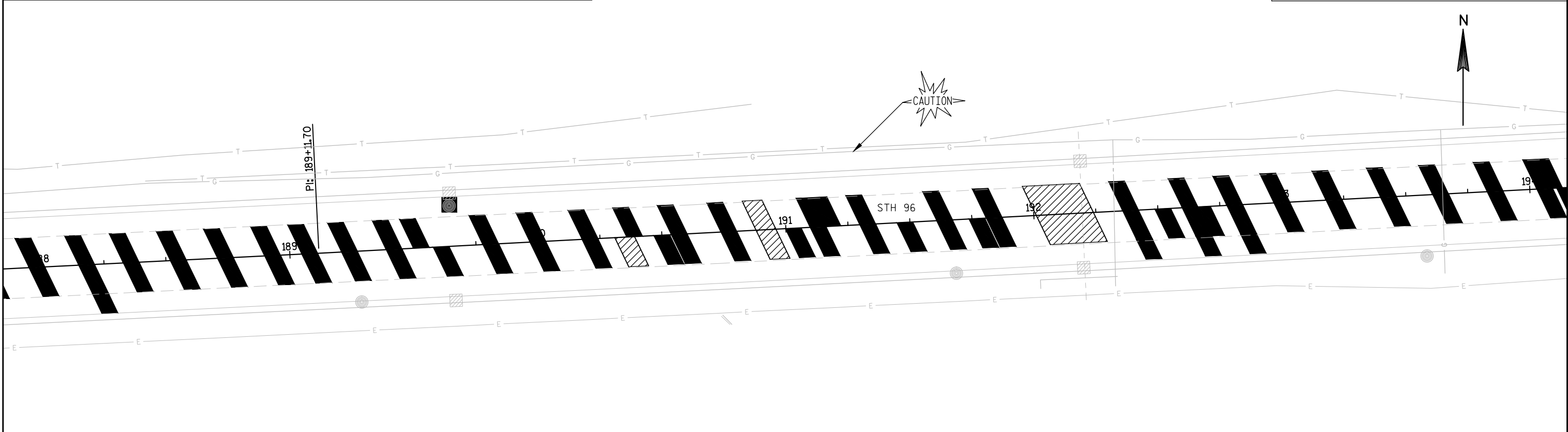


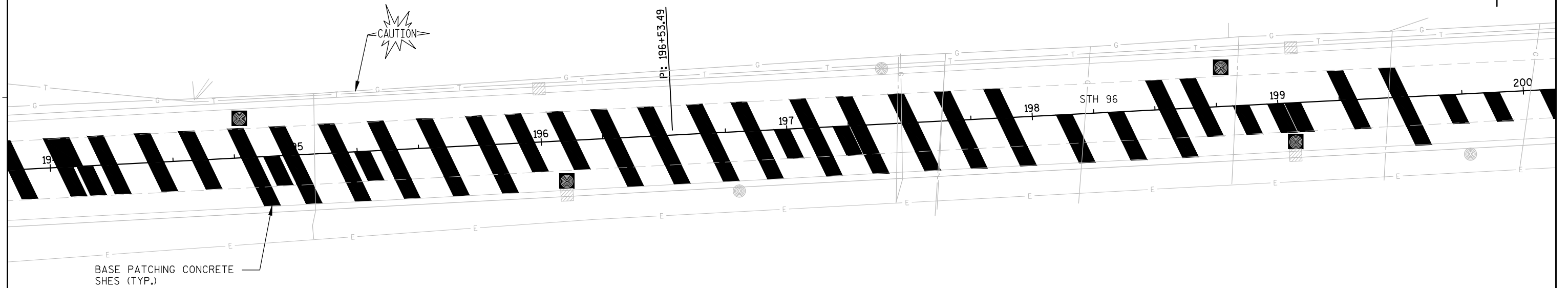
NOTES:

REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
 REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH



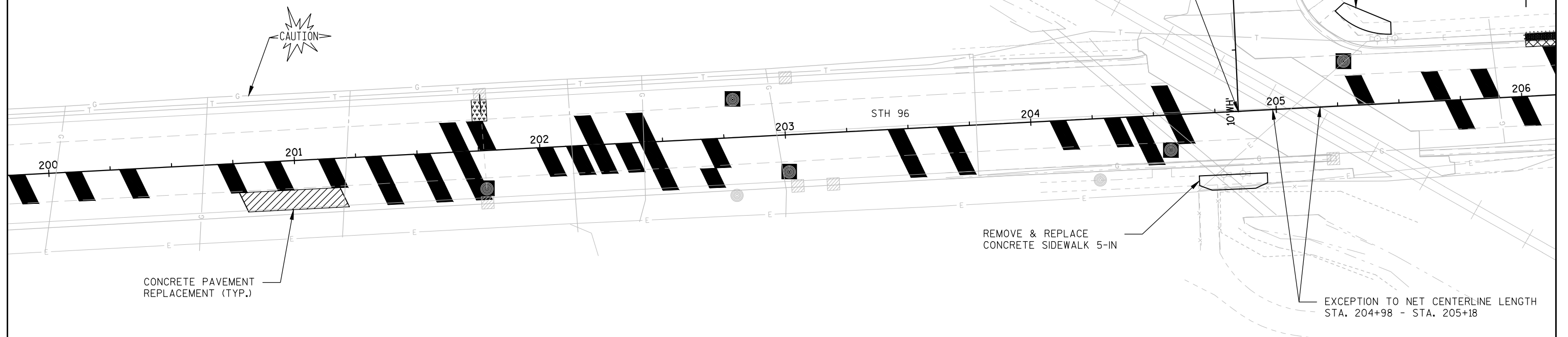


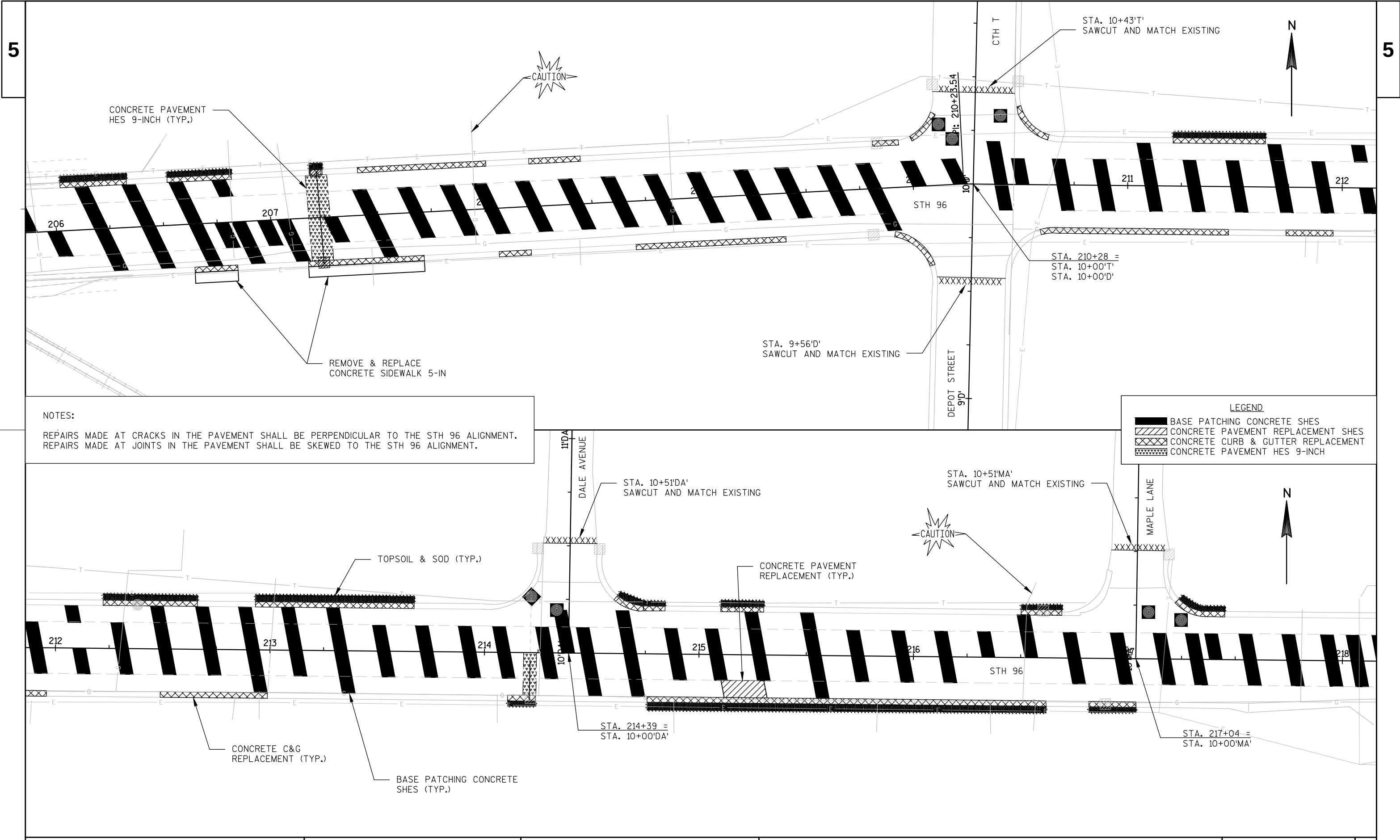
NOTES:

REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH

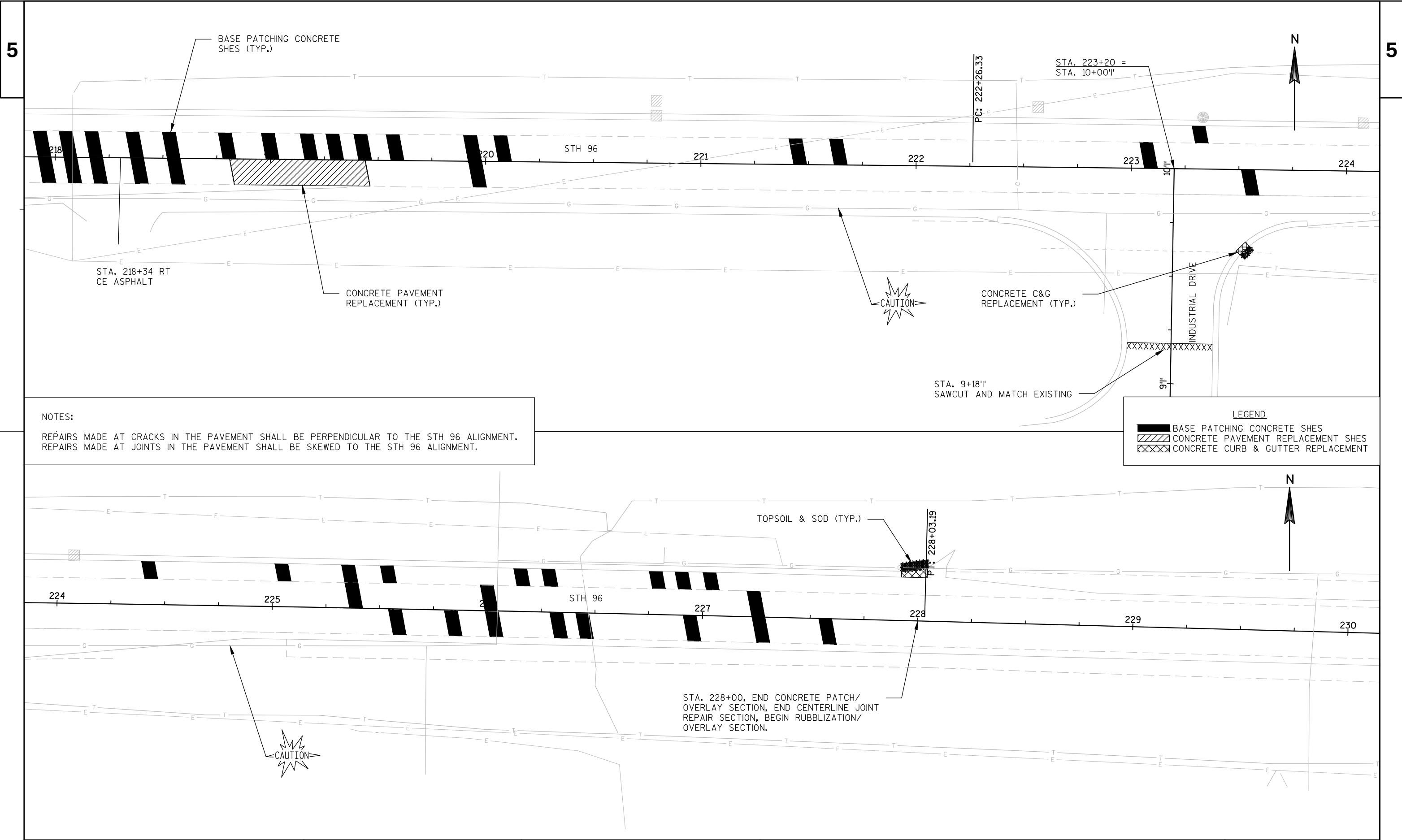


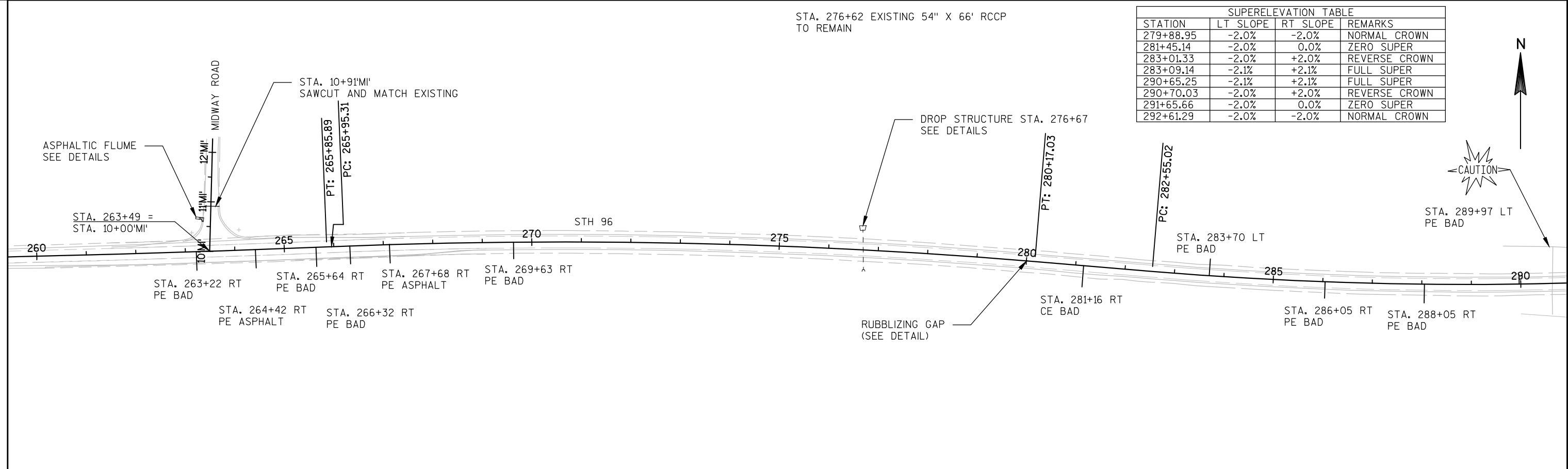
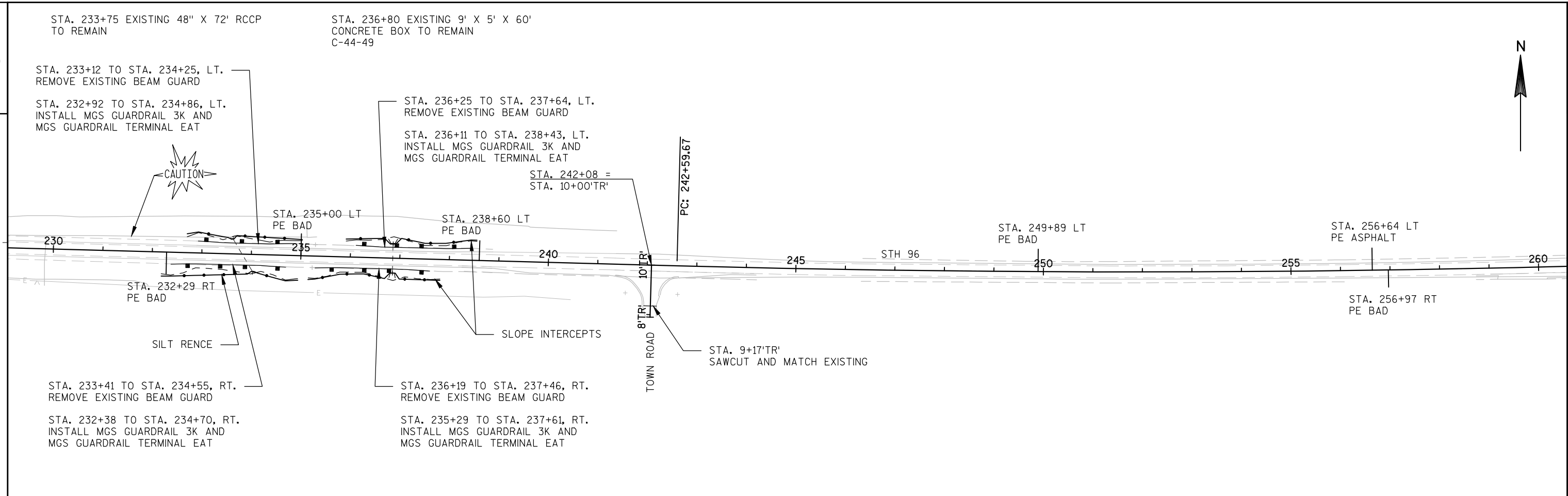


NOTES:
REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH





SUPERELEVATION TABLE			
STATION	LT SLOPE	RT SLOPE	REMARKS
279+88.95	-2.0%	-2.0%	NORMAL CROWN
281+45.14	-2.0%	0.0%	ZERO SUPER
283+01.33	-2.0%	+2.0%	REVERSE CROWN
283+09.14	-2.1%	+2.1%	FULL SUPER
290+65.25	-2.1%	+2.1%	FULL SUPER
290+70.03	-2.0%	+2.0%	REVERSE CROWN
291+65.66	-2.0%	0.0%	ZERO SUPER
292+61.29	-2.0%	-2.0%	NORMAL CROWN

SUPERELEVATION TABLE			
STATION	LT SLOPE	RT SLOPE	REMARKS
279+88.95	-2.0%	-2.0%	NORMAL CROWN
281+45.14	-2.0%	0.0%	ZERO SUPER
283+01.33	-2.0%	+2.0%	REVERSE CROWN
283+09.14	-2.1%	+2.1%	FULL SUPER
290+65.25	-2.1%	+2.1%	FULL SUPER
290+70.03	-2.0%	+2.0%	REVERSE CROWN
291+65.66	-2.0%	0.0%	ZERO SUPER
292+61.29	-2.0%	-2.0%	NORMAL CROWN

CAUTION

STA. 289+97 LT
PE BAD

PT: 291+19.37

STA. 293+15 LT
PE ASPHALT

STH 96

PC: 294+03.20

STA. 294+64 LT
PE BADSTA. 295+00. END RUBBLIZATION/
OVERLAY SECTION, BEGIN CONCRETE
PATCH/OVERLAY SECTION AND /
CENTERLINE JOINT REPAIR SECTION.STA. 294+78 TO STA. 296+59, RT.
REMOVE EXISTING BEAM GUARDSTA. 294+78 TO STA. 296+60, RT.
INSTALL MGS GUARDRAIL 3 AND
MGS GUARDRAIL TERMINAL EATSTA. 295+80 EXISTING 10' X 8' CONCRETE BOX
TO REMAIN
C-44-44

SLOPE INTERCEPTS

NOTES:

REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH

CAUTION

SLOPE INTERCEPTS

296

297

298

STH 96

299

300

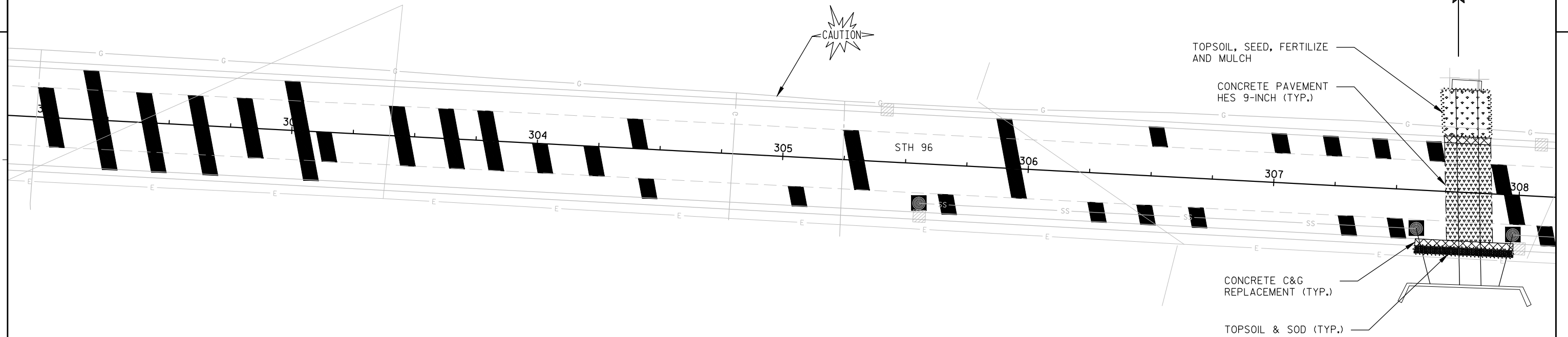
301

PT: 300+36.00

SUPERELEVATION TABLE			
STATION	LT SLOPE	RT SLOPE	REMARKS
292+61.29	-2.0%	-2.0%	NORMAL CROWN
293+56.92	0.0%	-2.0%	ZERO SUPER
294+52.55	+2.0%	-2.0%	REVERSE CROWN
294+57.32	+2.1%	-2.1%	FULL SUPER
299+81.88	+2.1%	-2.1%	FULL SUPER
299+89.69	+2.0%	-2.0%	REVERSE CROWN
301+45.88	0.0%	-2.0%	ZERO SUPER
303+02.07	-2.0%	-2.0%	NORMAL CROWN

SILT FENCE

BASE PATCHING CONCRETE
SHES (TYP.)

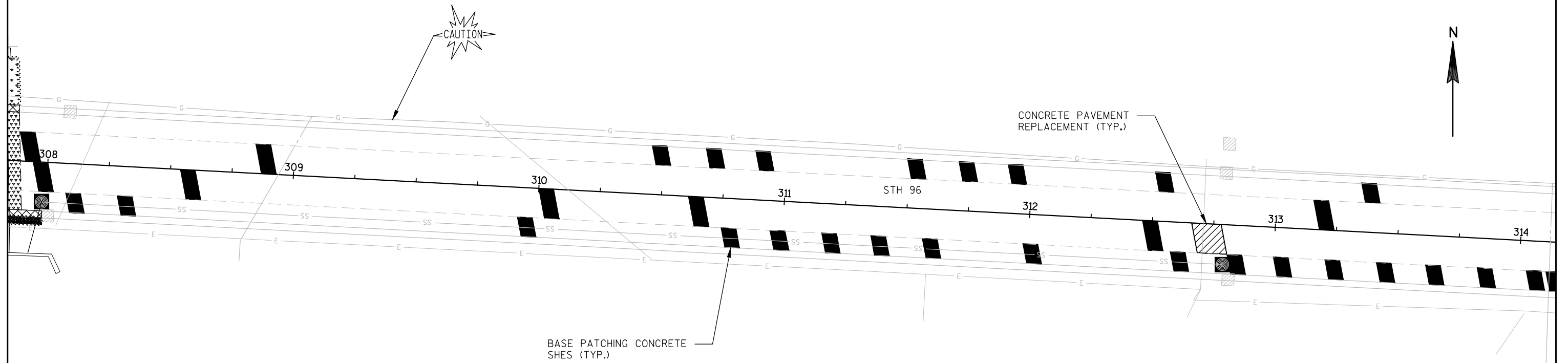


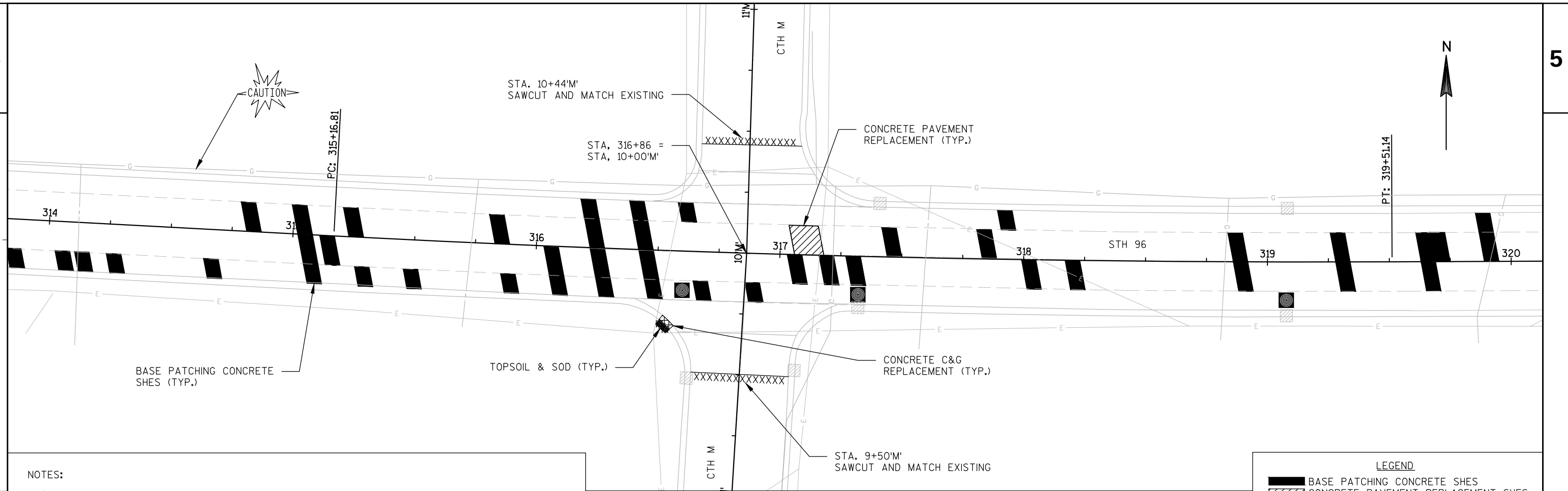
NOTES:

REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
 REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH



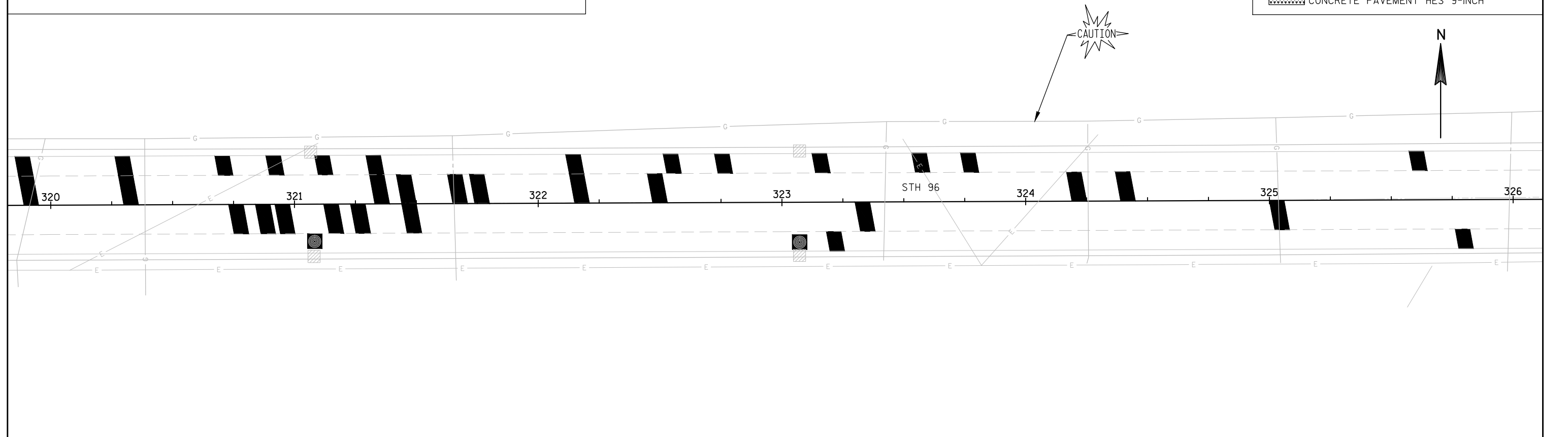


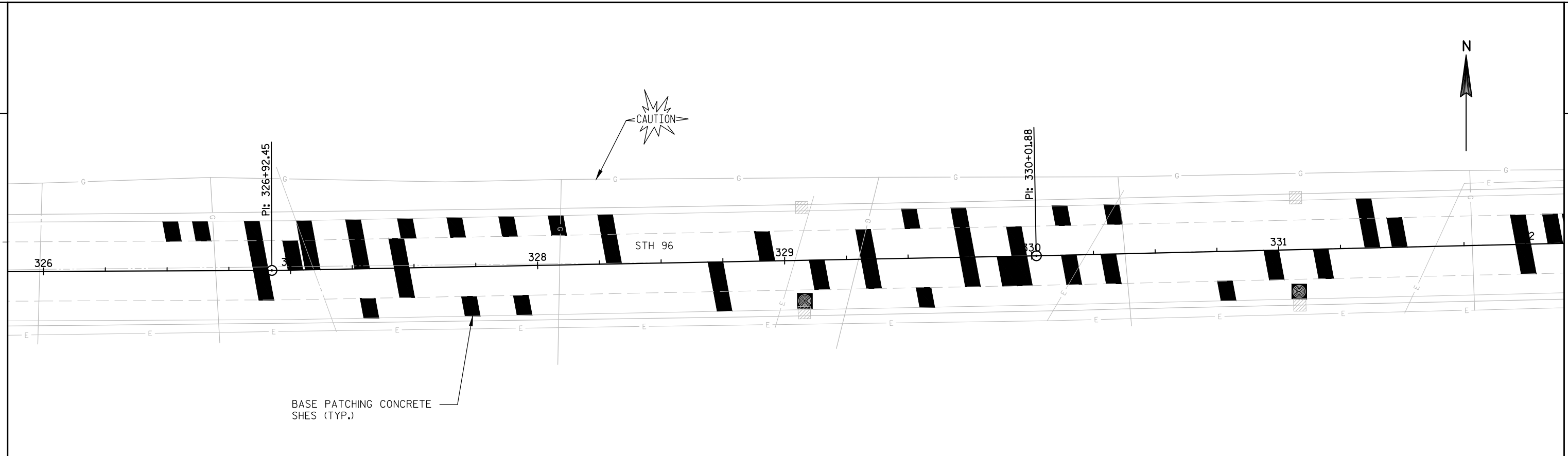
NOTES:

REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

LEGEND

- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH

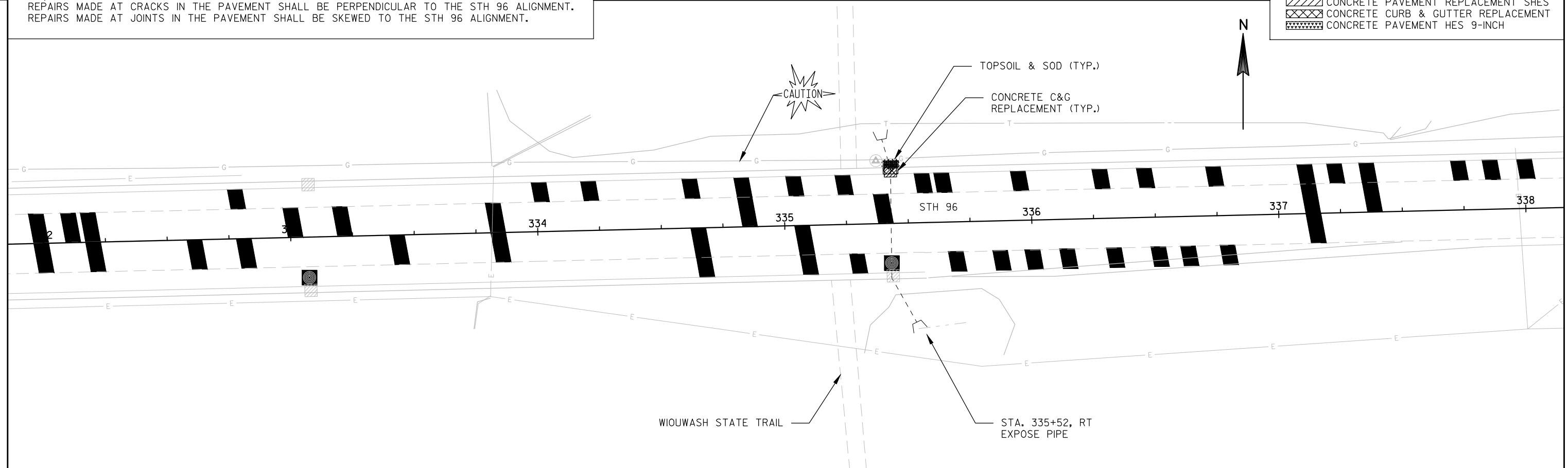


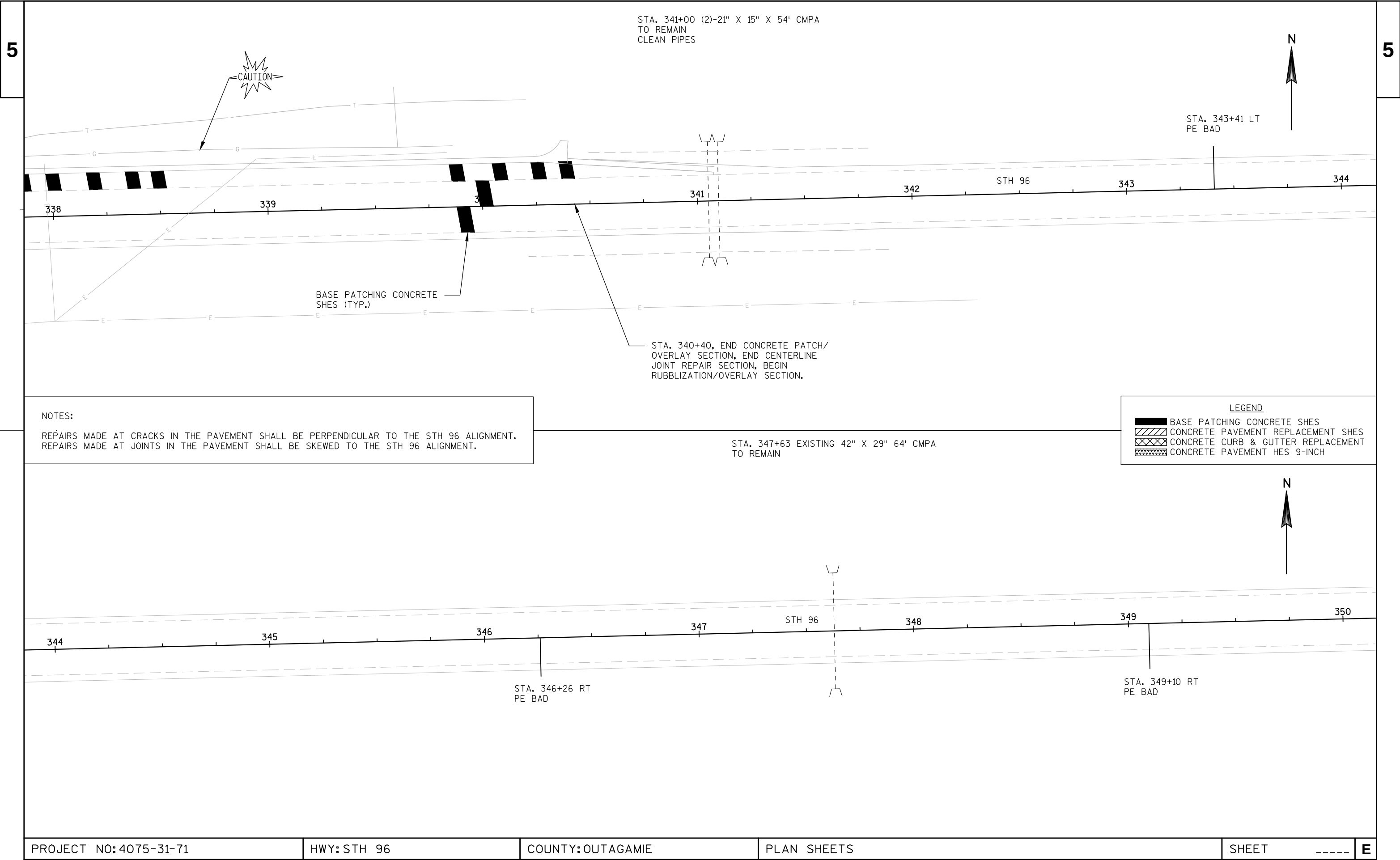


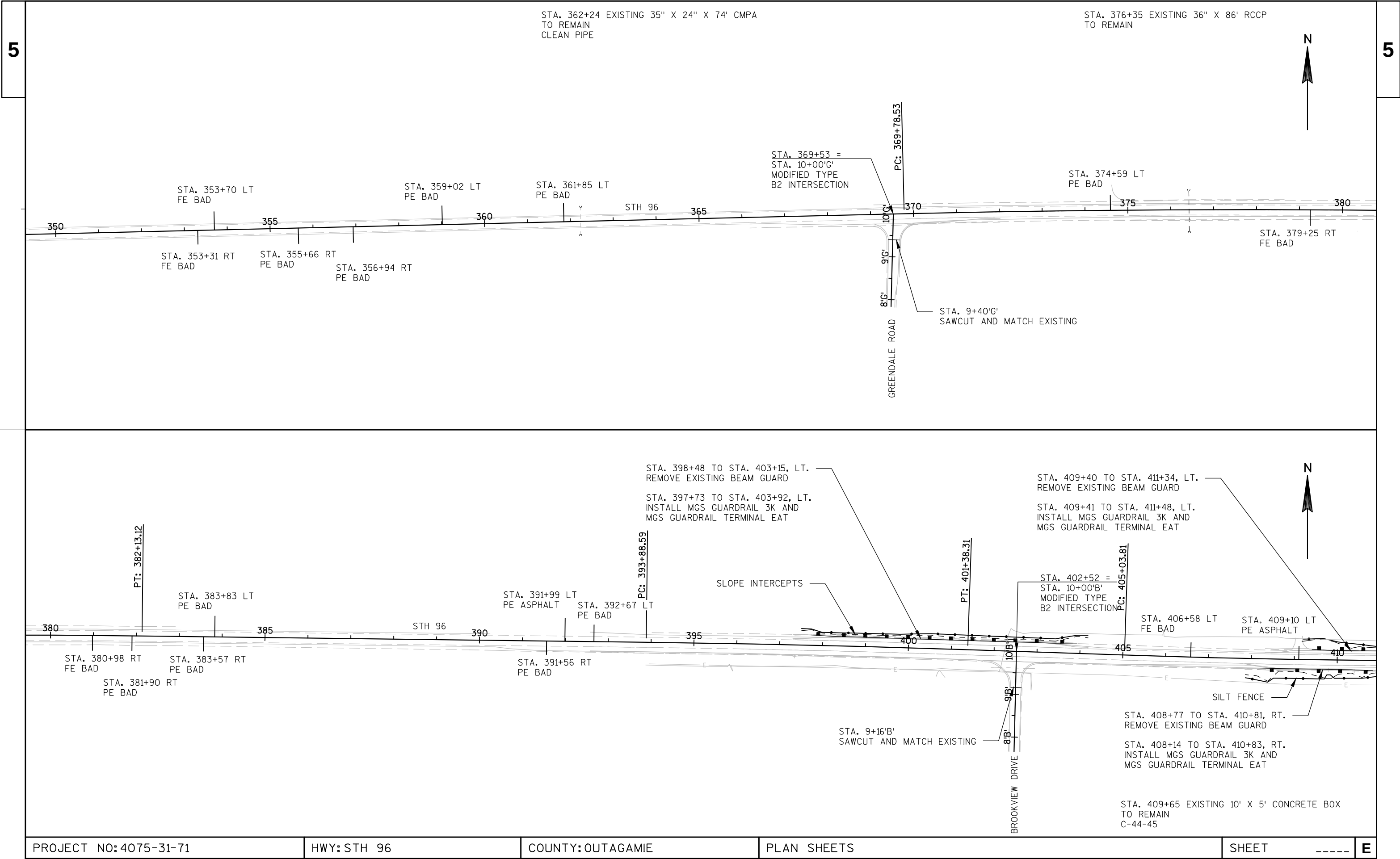
NOTES:
REPAIRS MADE AT CRACKS IN THE PAVEMENT SHALL BE PERPENDICULAR TO THE STH 96 ALIGNMENT.
REPAIRS MADE AT JOINTS IN THE PAVEMENT SHALL BE SKEWED TO THE STH 96 ALIGNMENT.

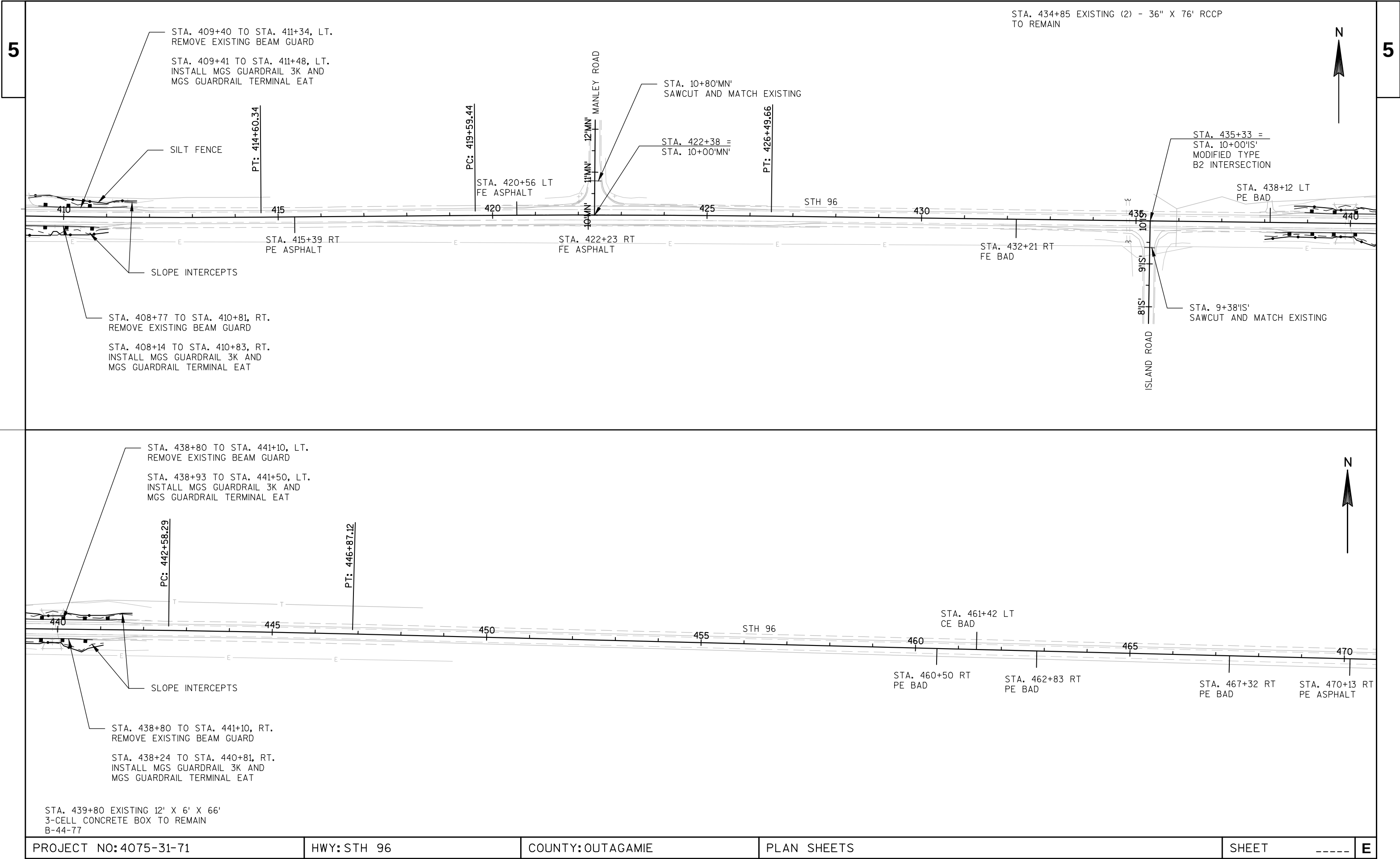
LEGEND

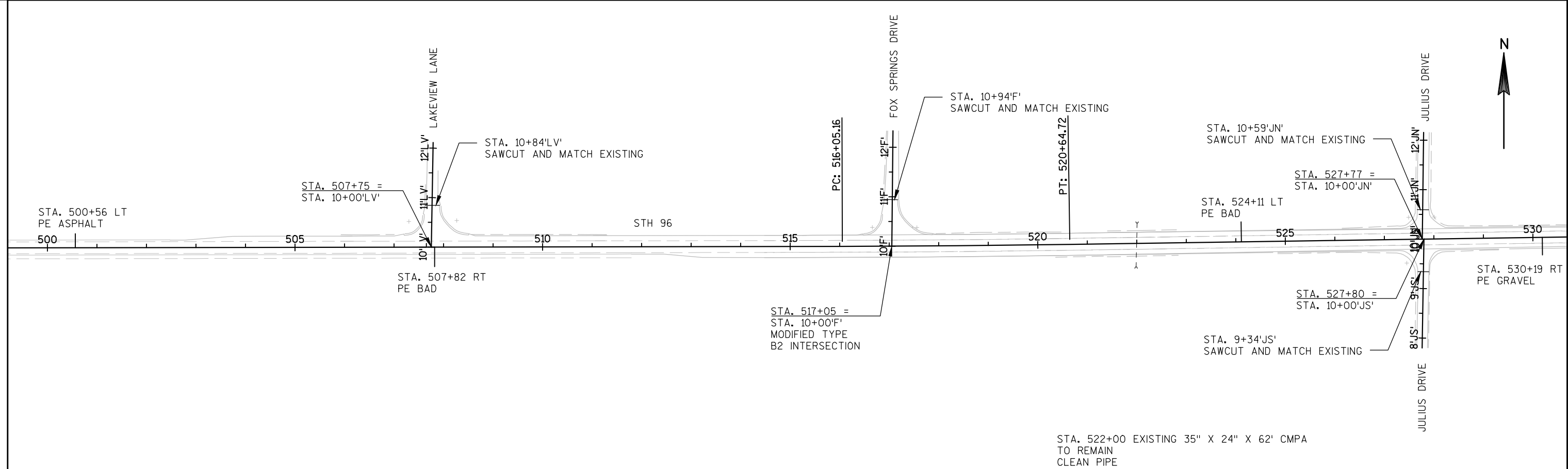
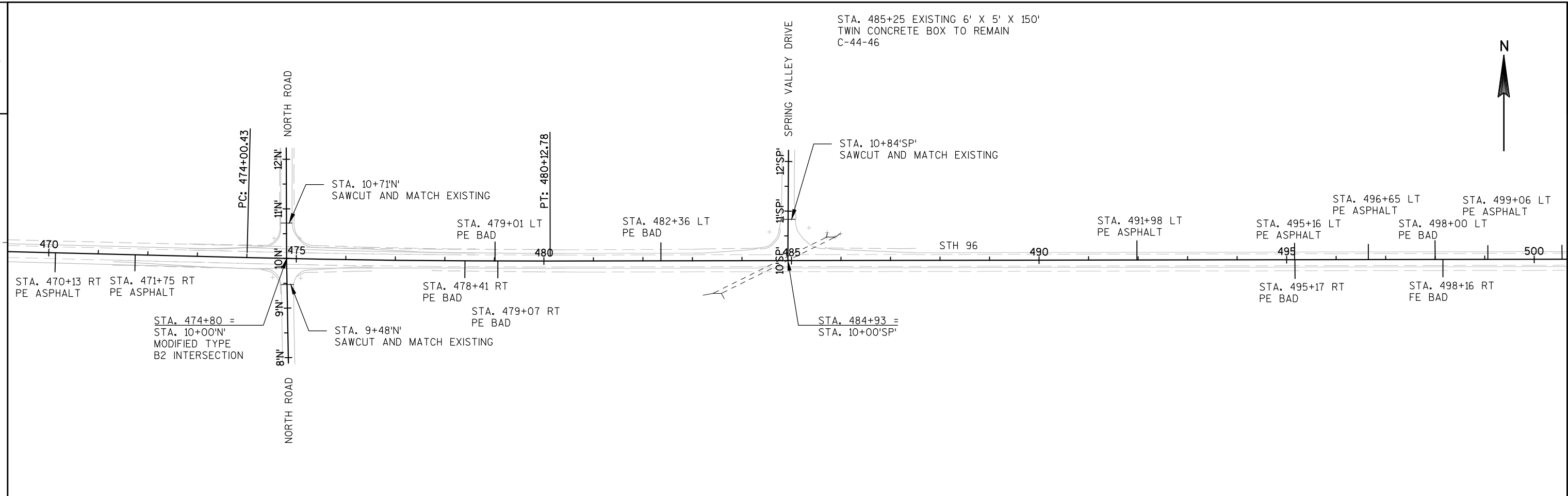
- BASE PATCHING CONCRETE SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE CURB & GUTTER REPLACEMENT
- CONCRETE PAVEMENT HES 9-INCH



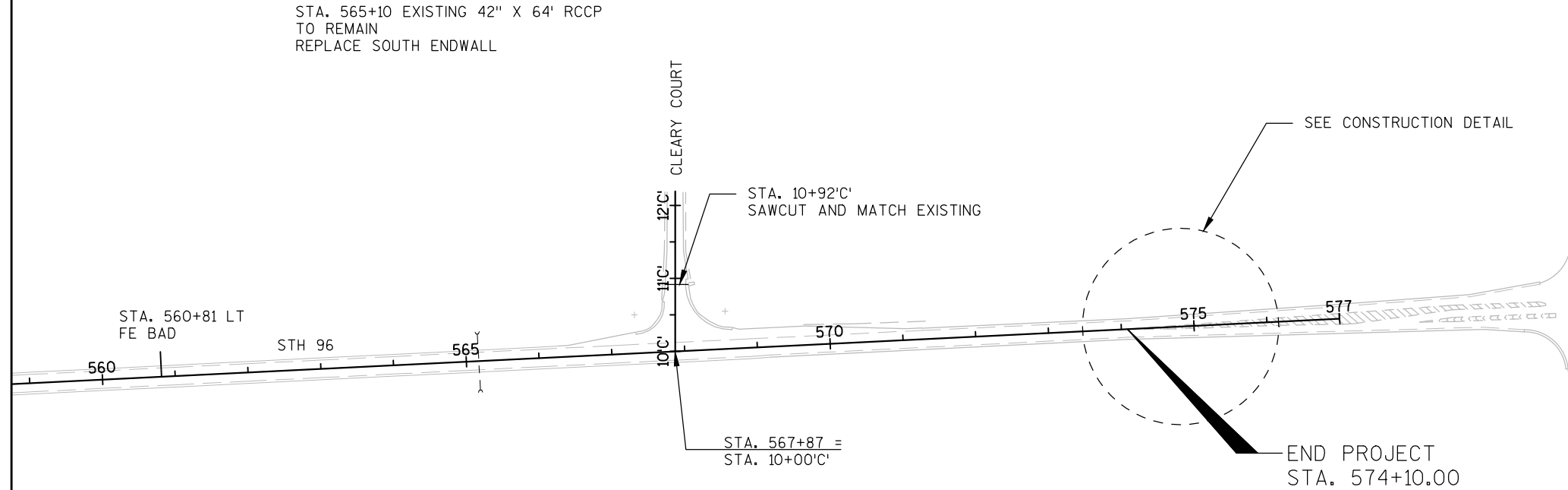
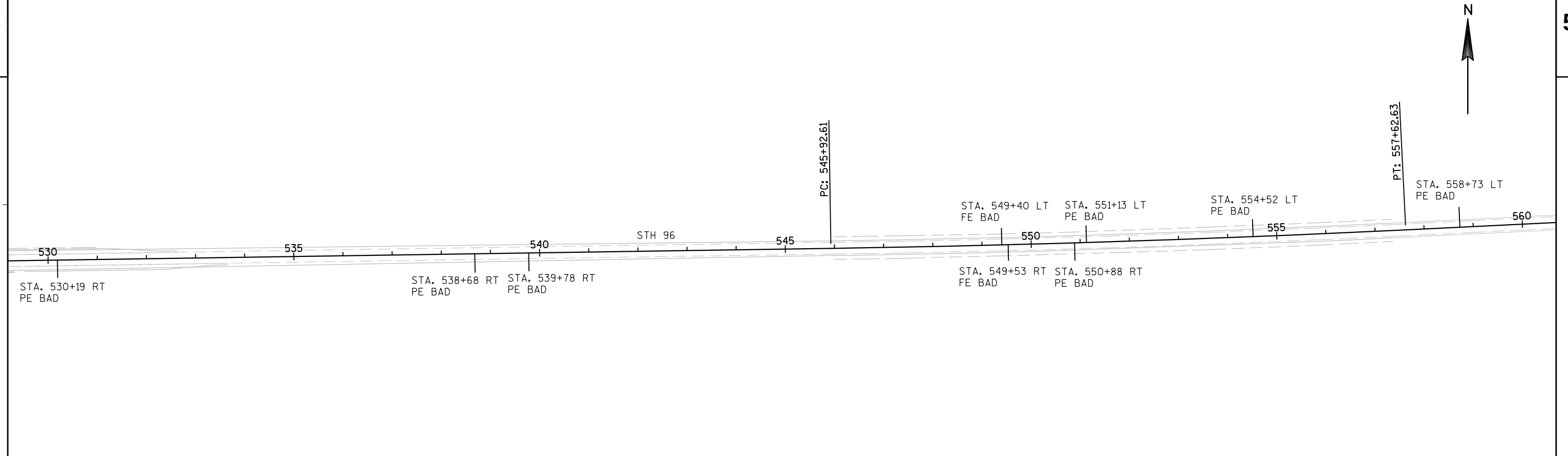








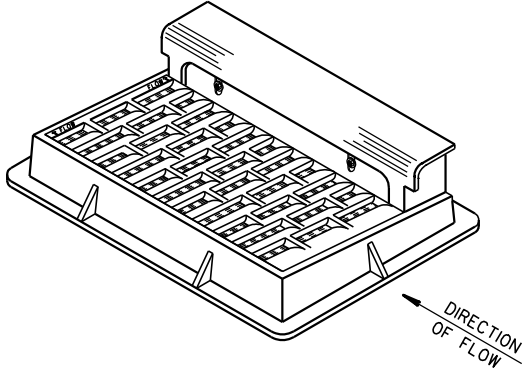
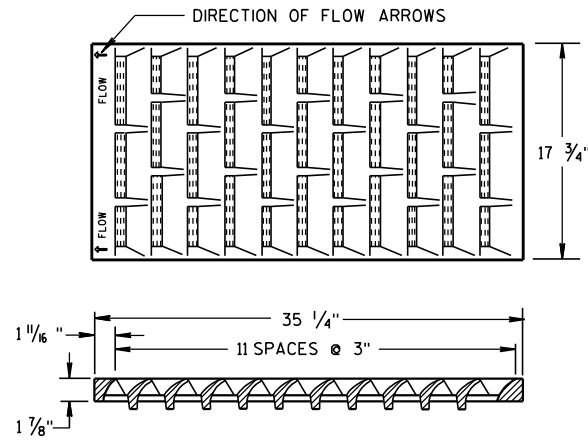
PROJECT NO: 4075-31-71	HWY: STH 96	COUNTY: OUTAGAMIE	PLAN SHEETS	SHEET	-----	E
------------------------	-------------	-------------------	-------------	-------	-------	---



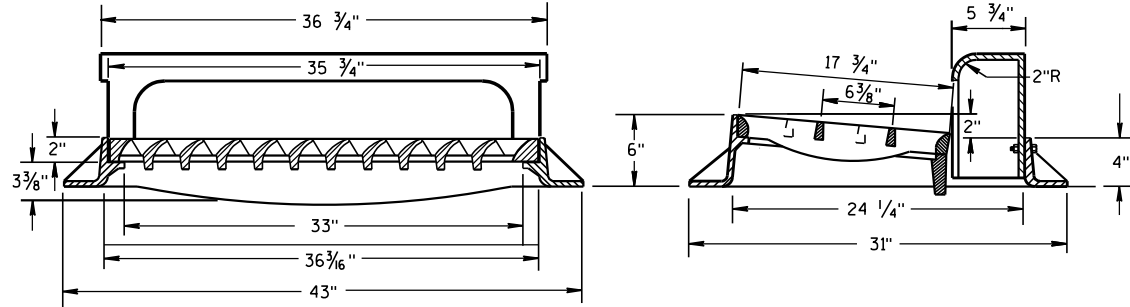
Standard Detail Drawing List

08A05-16A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-17D	INLET COVER, TYPE Z MANHOLE COVERS, TYPE K, J, J-S, J-H, J-H-S, L & M
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09E01-11D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
13A11-01A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-01B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-09A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12A	PAVEMENT MARKING SYMBOLS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C09-09A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-03	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

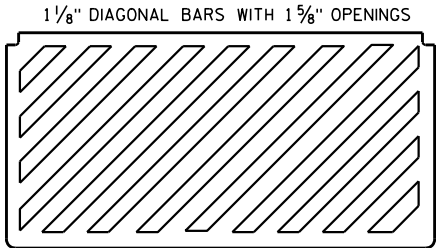
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"
(APPROXIMATE WEIGHT 422 LBS.)
FRAME..... 175 LBS.
GRATE..... 138 LBS.
CURB BOX..... 109 LBS.



**SPECIAL GRATE FOR
TYPE "H" COVER**
(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 172 LBS.)
GRATE..... 172 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

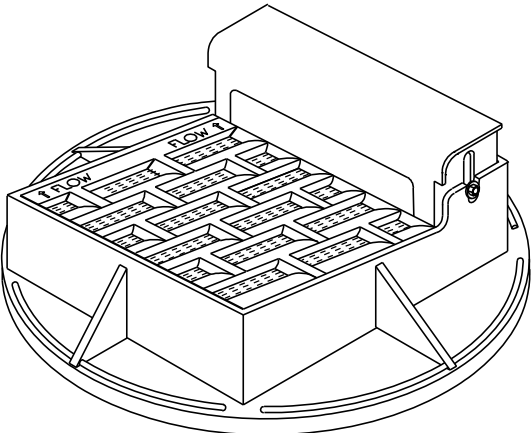
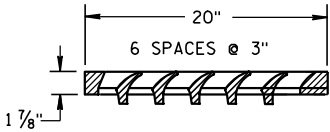
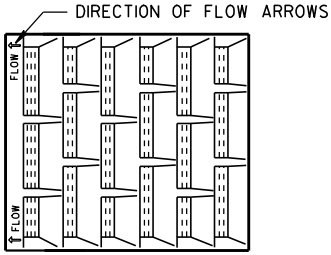
GENERAL NOTES

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

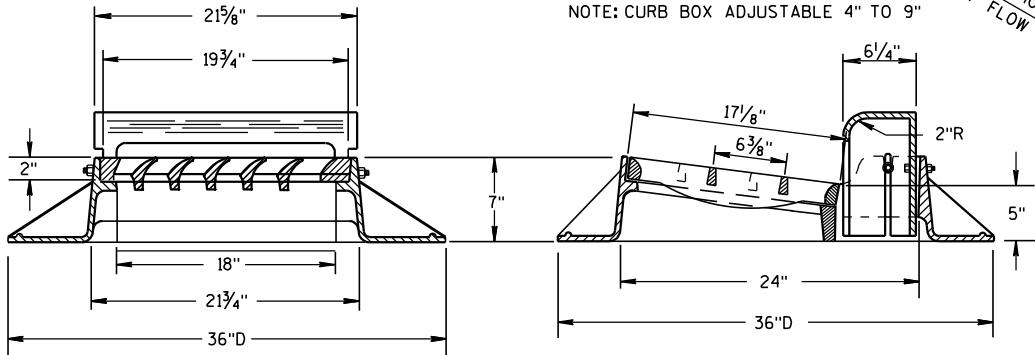
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



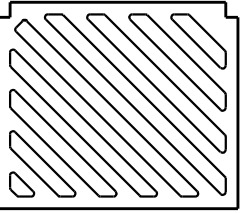
NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"
(APPROXIMATE WEIGHT 325 LBS.)
FRAME..... 157 LBS.
GRATE..... 84 LBS.
CURB BOX..... 84 LBS.

NOTE:
GRATE IS REVERSIBLE.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



**SPECIAL GRATE FOR
TYPE "A" COVER**
(MEASURES 19 3/4" X 17" X 1 1/8")
GRATE..... 84 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

**INLET COVERS
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/4/1999 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

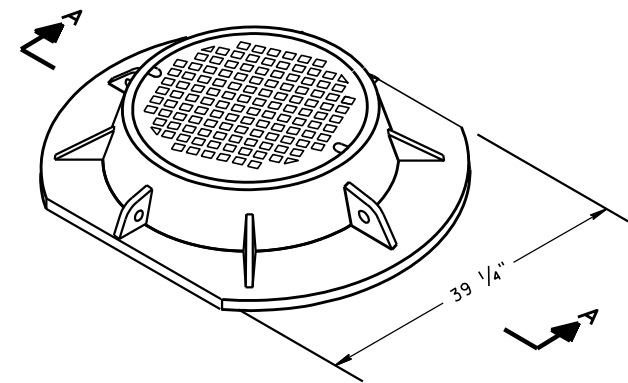
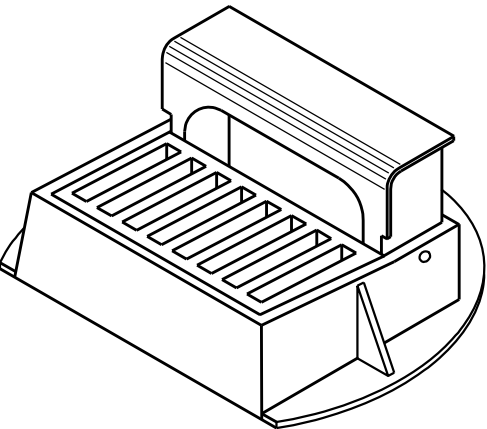
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

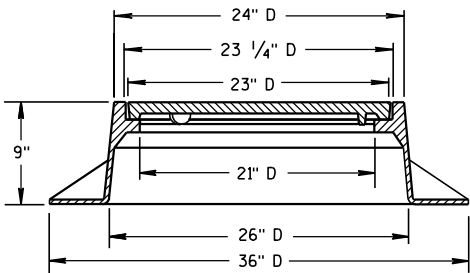
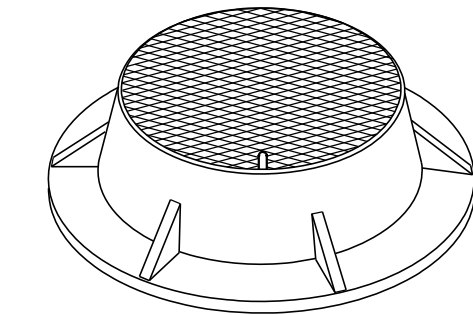
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

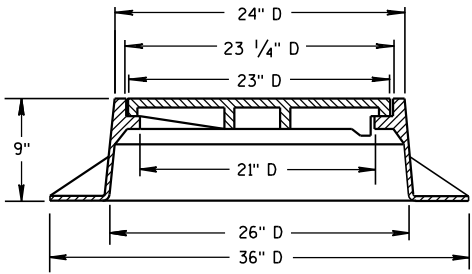
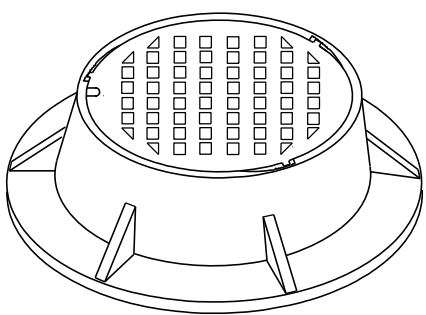
① MANUFACTURER MAY PROVIDE ADDITIONAL SEALS OR GASKETS.



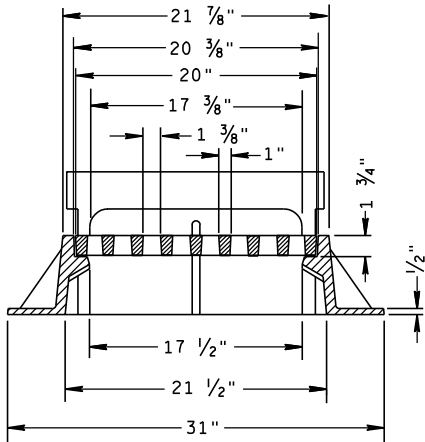
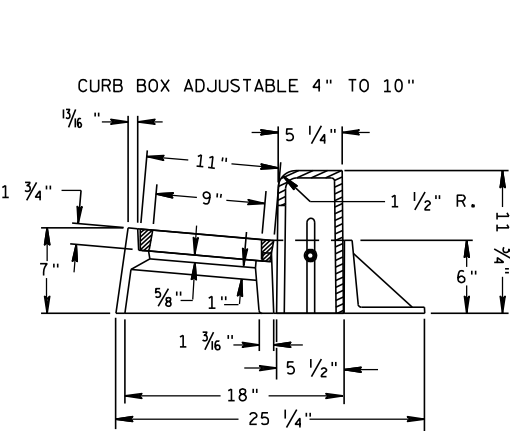
SECTION A-A
TYPE "K"
(APPROXIMATE WEIGHT 415 LBS.)
FRAME.....210 LBS.
LID.....205 LBS.



TYPE "J"
(APPROXIMATE WEIGHT 250 LBS.)
FRAME.....135 LBS.
LID.....115 LBS.



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(APPROXIMATE WEIGHT 245 LBS.)
FRAME.....145 LBS.
LID.....100 LBS.
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

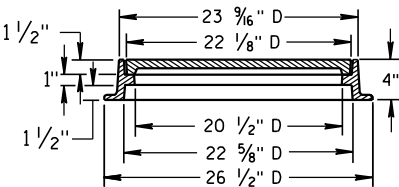
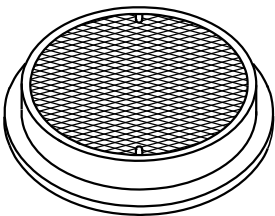


INLET COVER TYPE "Z"
(APPROXIMATE WEIGHT 340 LBS.)
FRAME.....198 LBS.
GRATE.....50 LBS.
CURB BOX.....92 LBS.

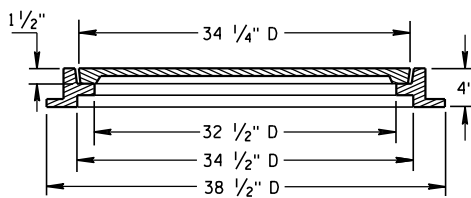
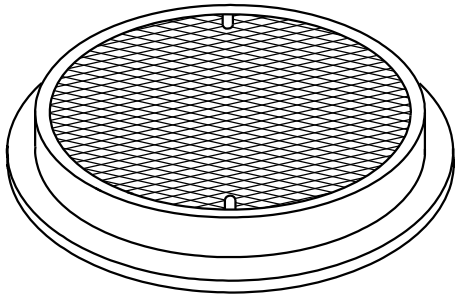
**INLET COVER, TYPE Z
MANHOLE COVERS, TYPE
K, J, J-S, J-H, J-H-S, L & M**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

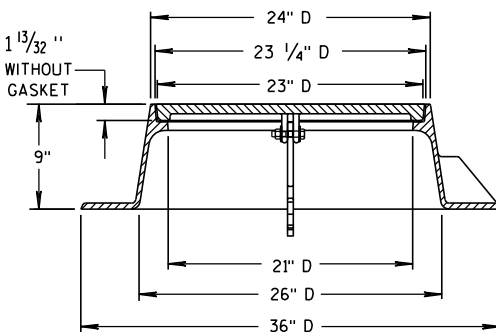
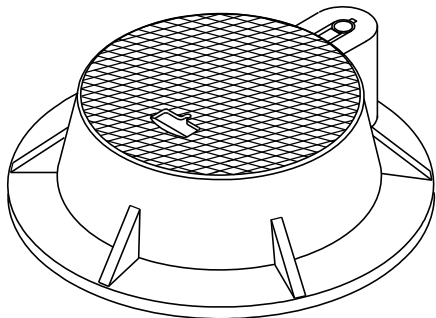
APPROVED
11/24/2005 DATE /S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



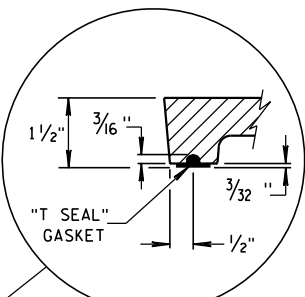
TYPE "L"
(APPROXIMATE WEIGHT 145 LBS.)
FRAME.....75 #
LID.....70 #



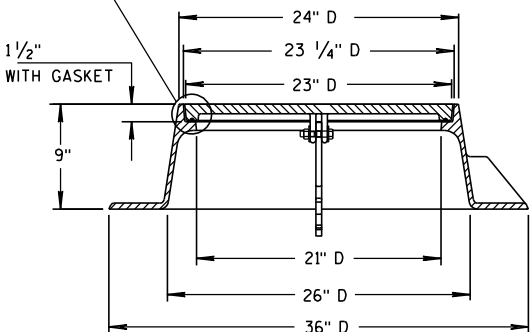
TYPE "M"
(APPROXIMATE WEIGHT 385 LBS.)
FRAME.....125 #
LID.....260 #



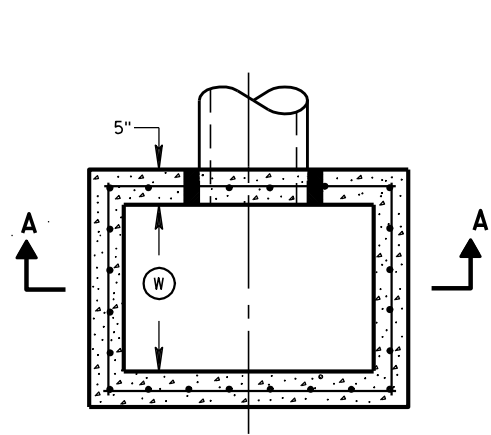
TYPE "J" HINGED
LID WITHOUT "T SEAL" GASKET
(APPROXIMATE WEIGHT 310 LBS.)
FRAME.....190 LBS.
LID.....120 LBS.
(NOTED AS TYPE J-H ON THE DRAINAGE TABLE)



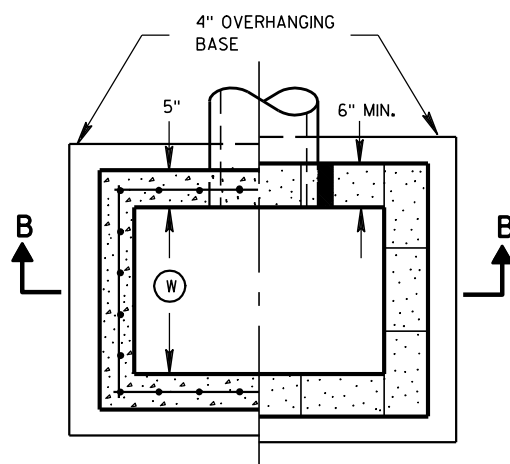
"T SEAL" GASKET DETAIL



TYPE "J" HINGED-SPECIAL ①
LID WITH "T SEAL" GASKET
(APPROXIMATE WEIGHT 310 LBS.)
FRAME.....190 LBS.
LID.....120 LBS.
(NOTED AS TYPE J-S-H ON THE DRAINAGE TABLE)

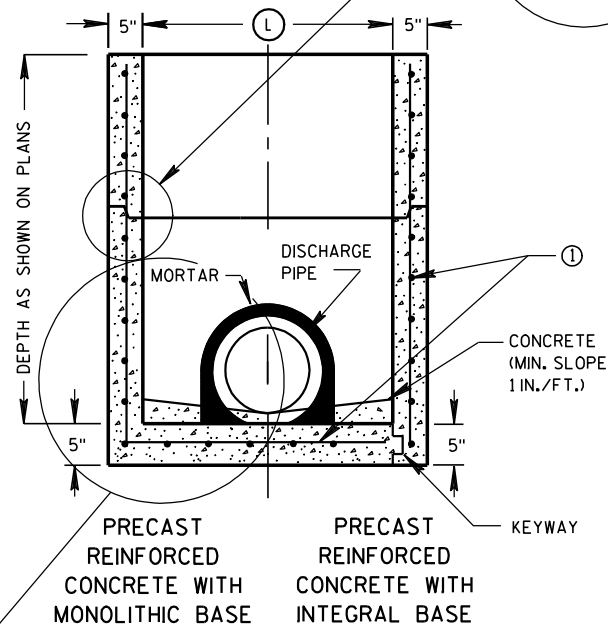
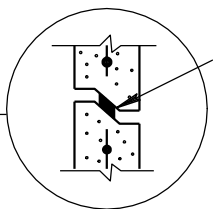


PLAN VIEW

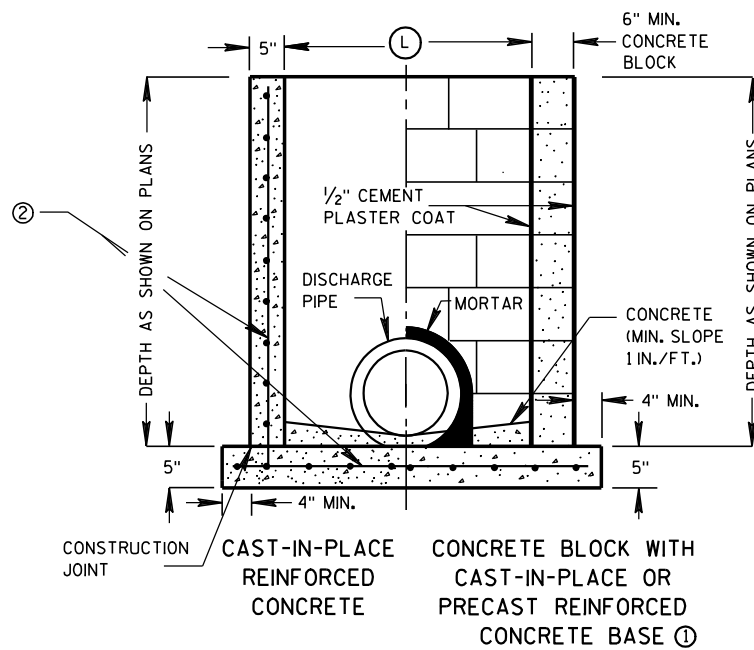


PLAN VIEW

RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B

SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

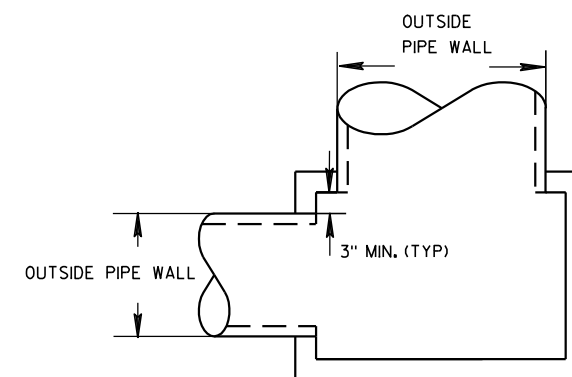
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (FT)	LENGTH (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

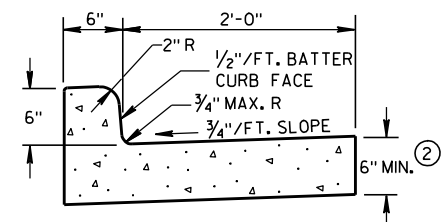


DETAIL "A"

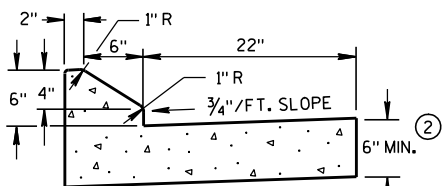
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

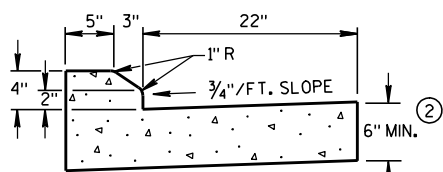
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPES A & D ①

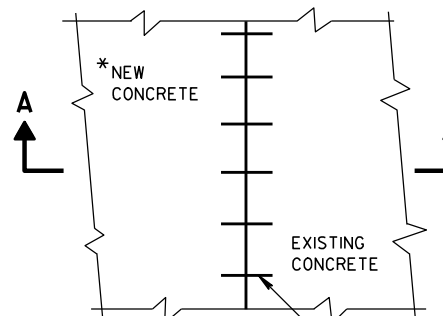


6" SLOPED CURB TYPES G & J ①



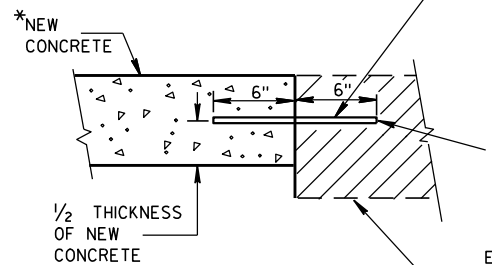
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



PLAN VIEW

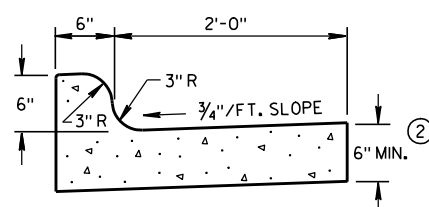
* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

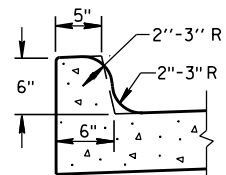
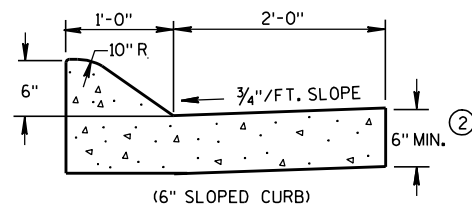
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

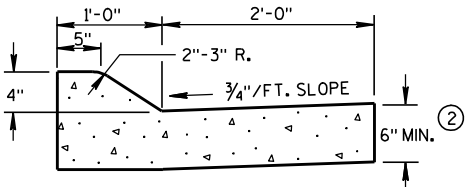
EXISTING
CONCRETE



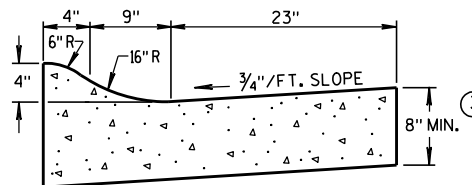
TYPES K & L ①

OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

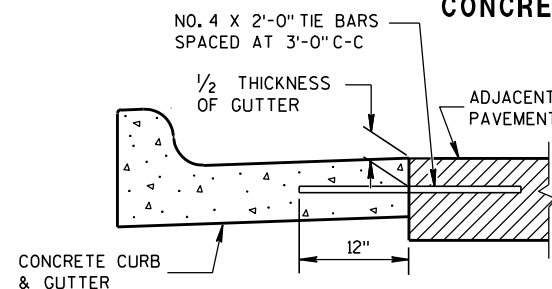


TYPES A & D ①

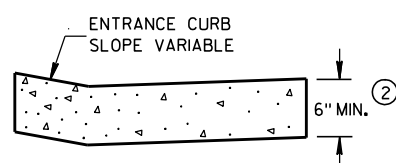


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

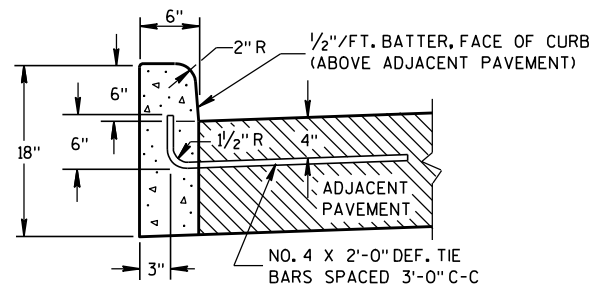


TYPICAL TIE BAR LOCATION ①



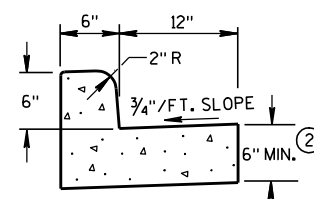
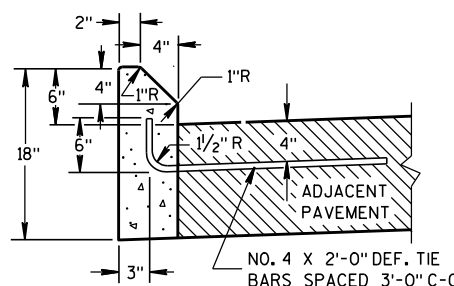
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

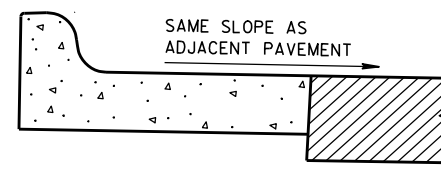
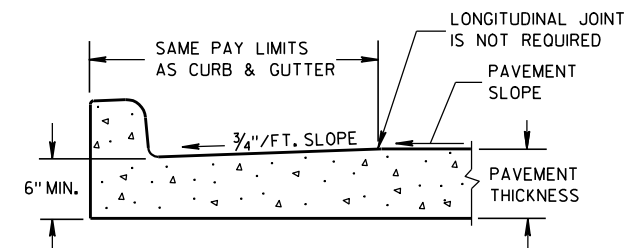
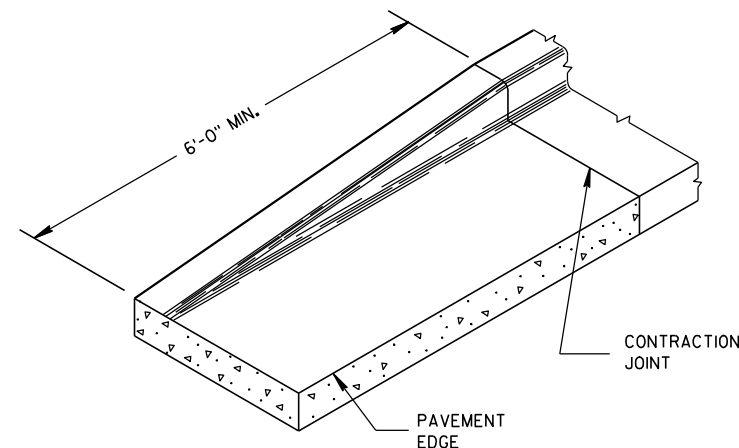
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

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

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

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

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

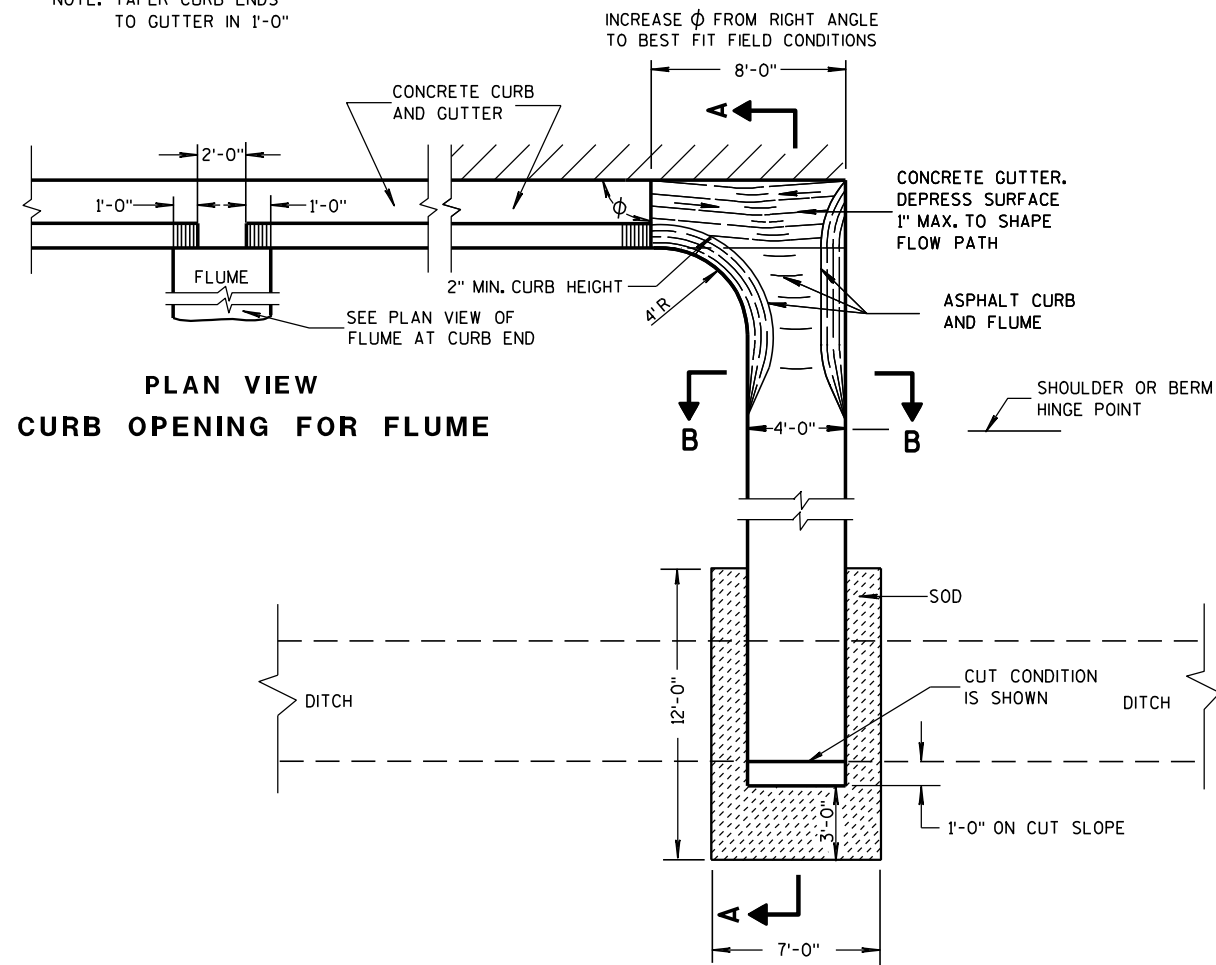
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

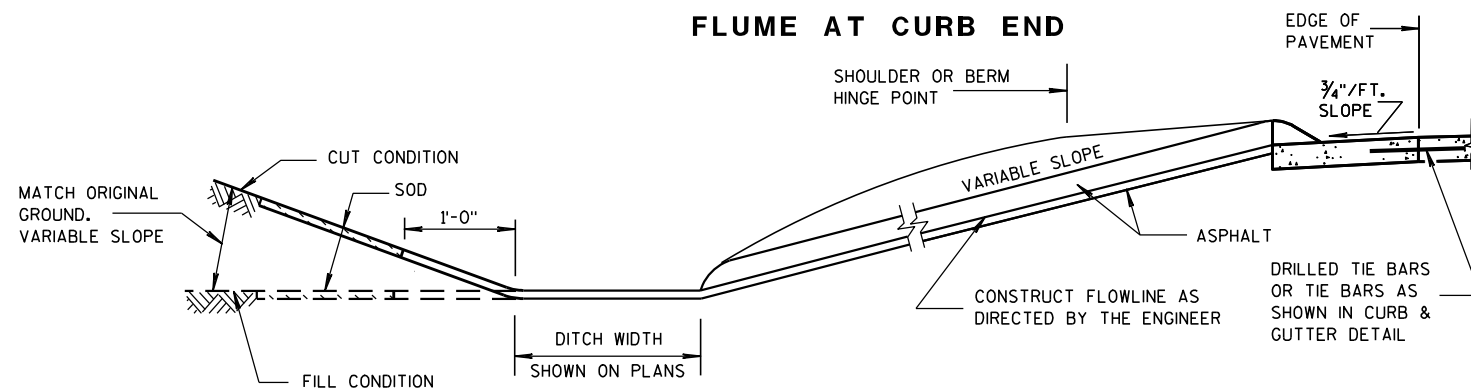
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

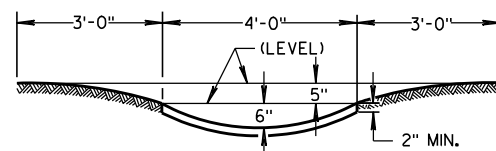


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

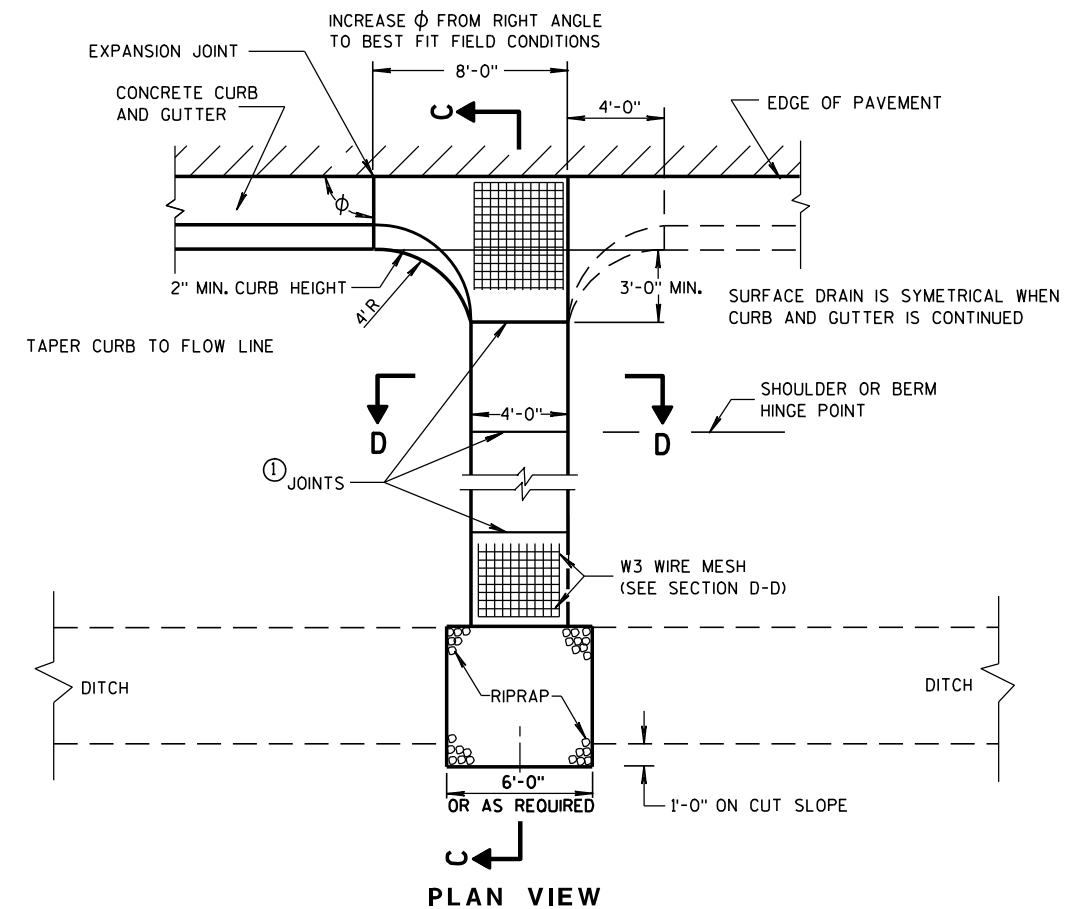
GENERAL NOTES

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

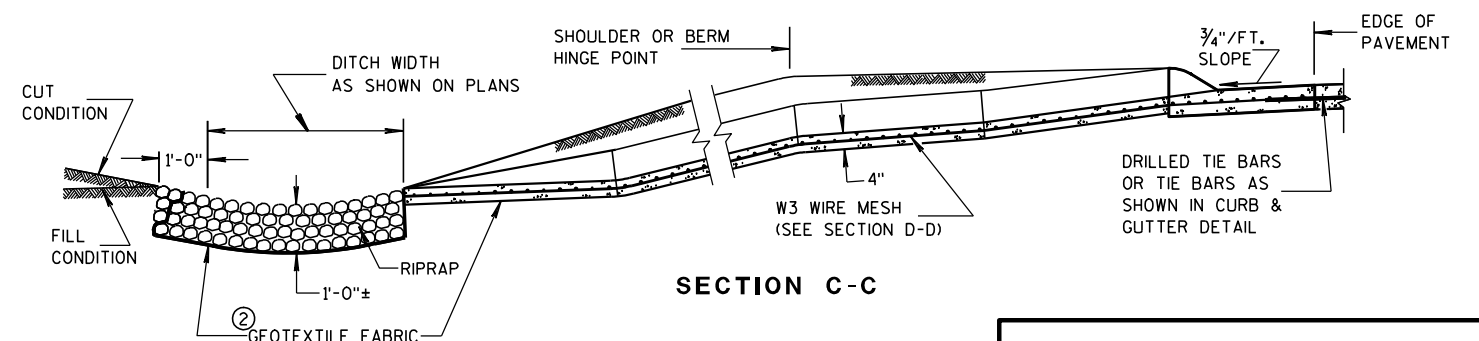
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8 TO 1/4 INCH WIDE BY 1 1/2 INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

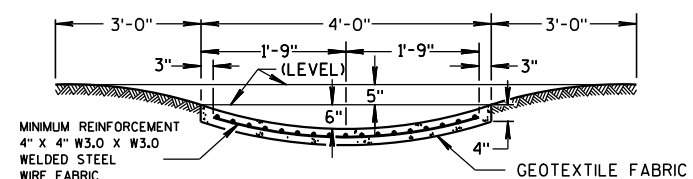
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

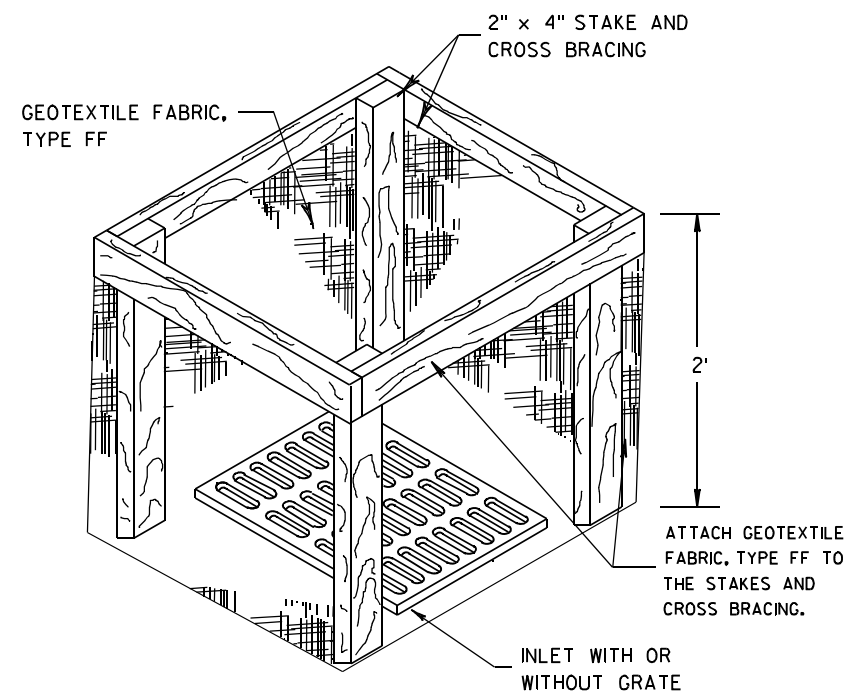
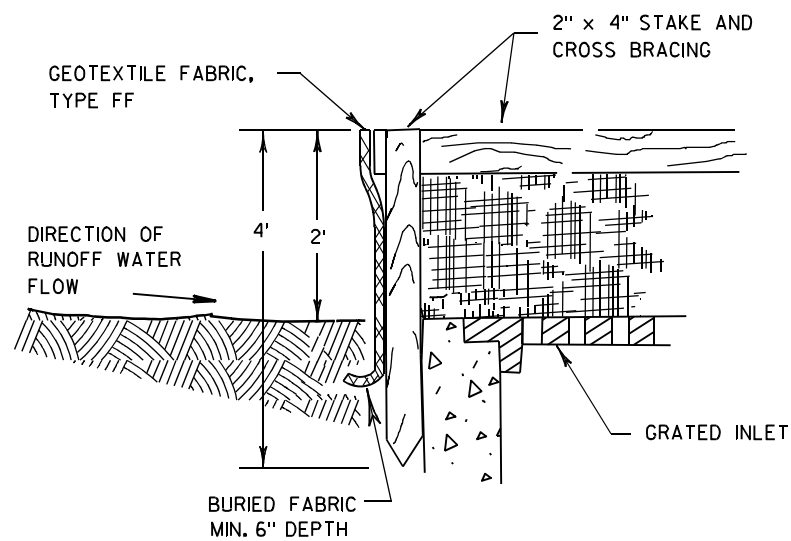
ENGINEER



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



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/s/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

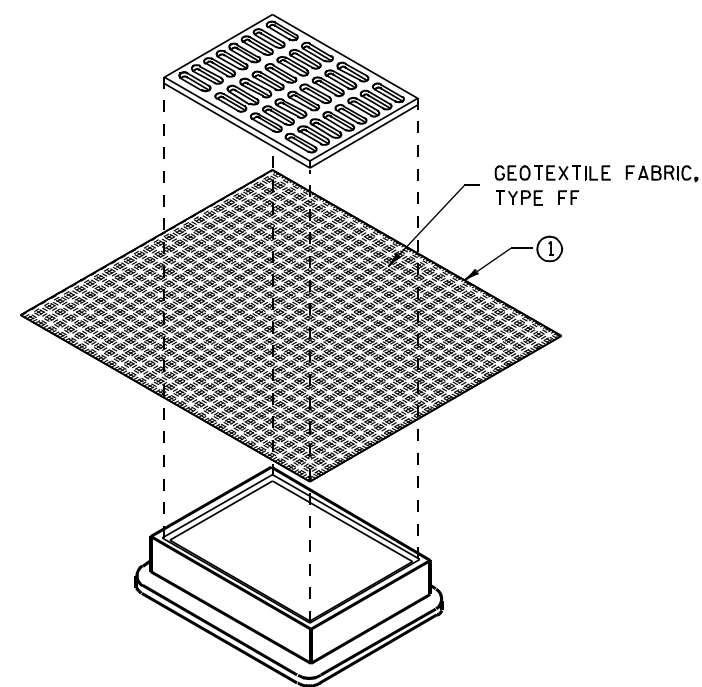
GENERAL NOTES

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

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

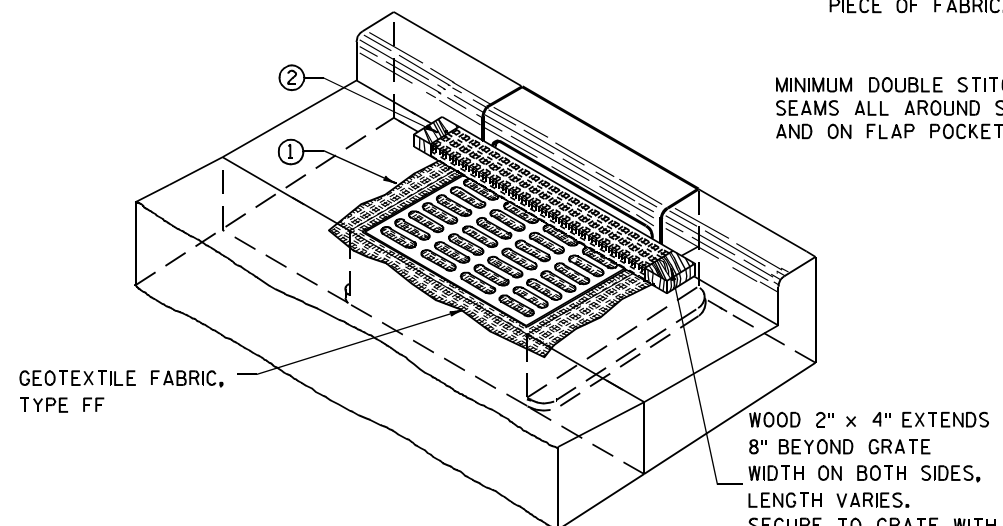
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

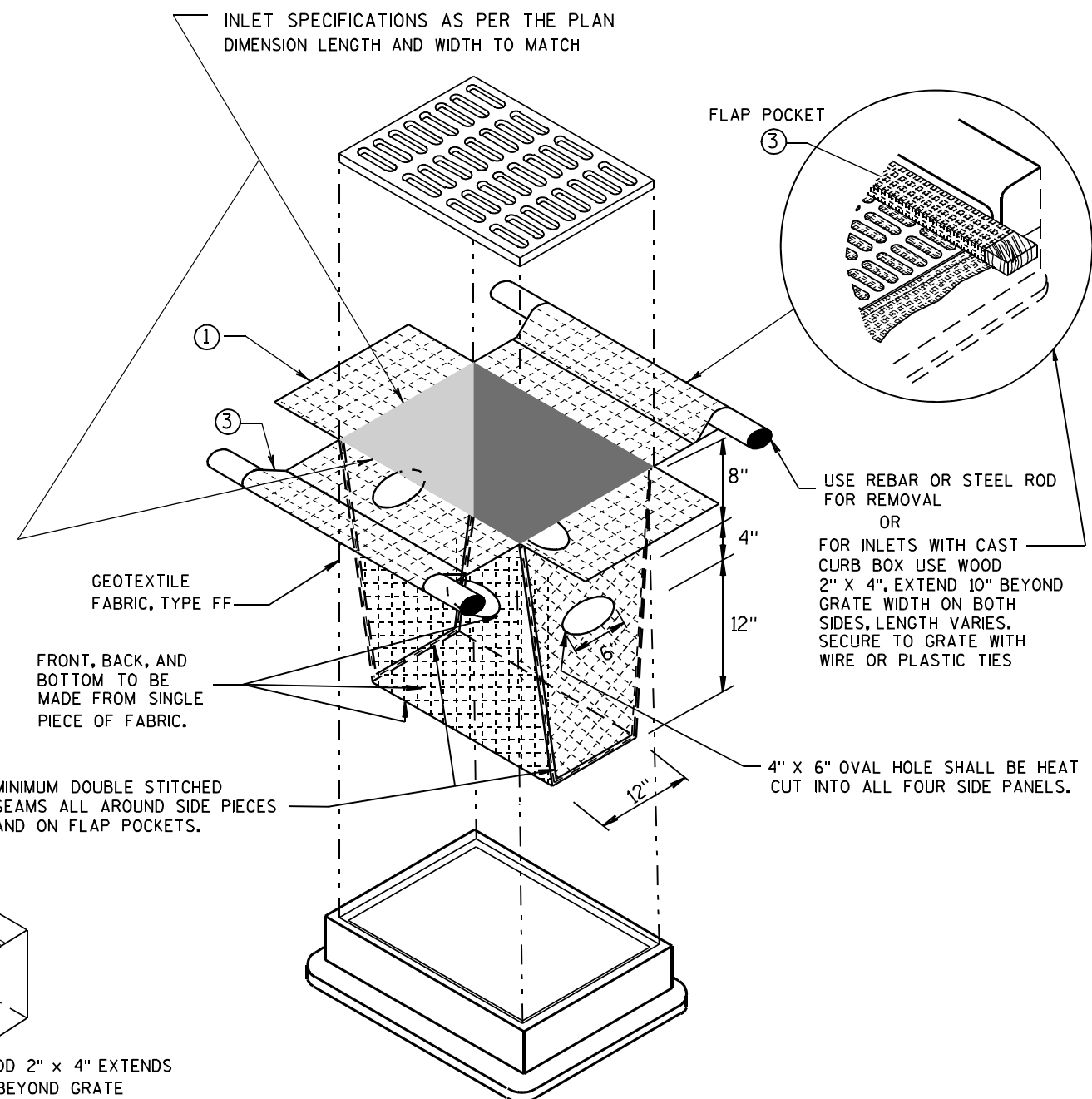
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

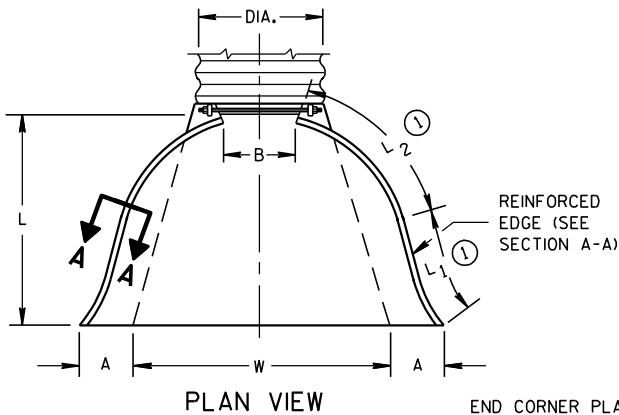
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

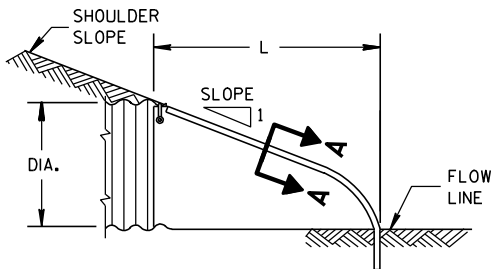
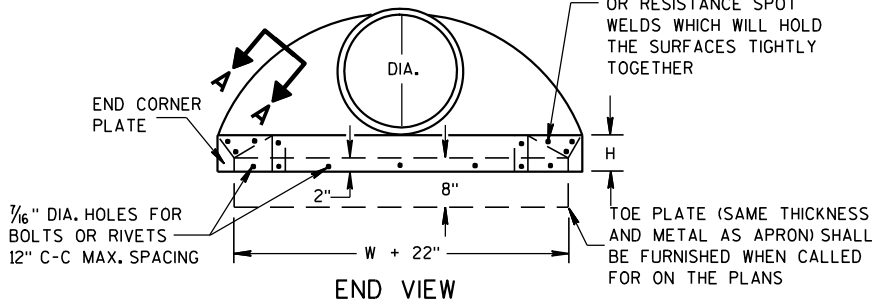
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)						APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①			W (±2")
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

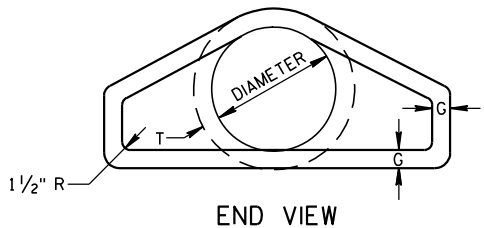
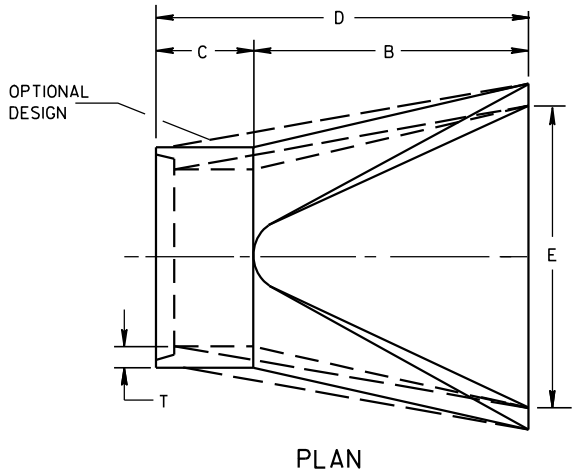
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



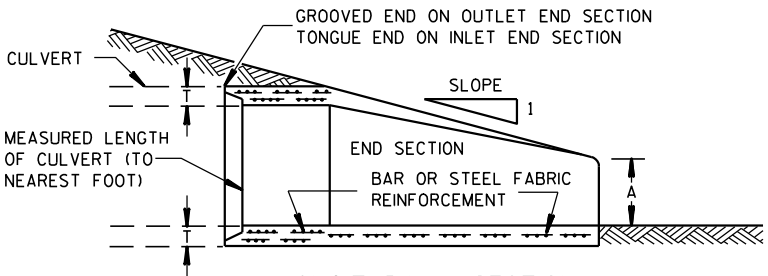
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ⁷ / ₈	72 ⁷ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	33 ¹ / ₄ -35	98 ¹ / ₄ -100	90	5 ¹ / ₂	2 ¹ / ₂ to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	24-30	72-78	21-27	99	102	5 ¹ / ₂	2 to 1
72	7	24-36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	24-36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

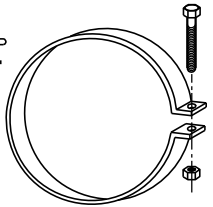
* MINIMUM
** MAXIMUM



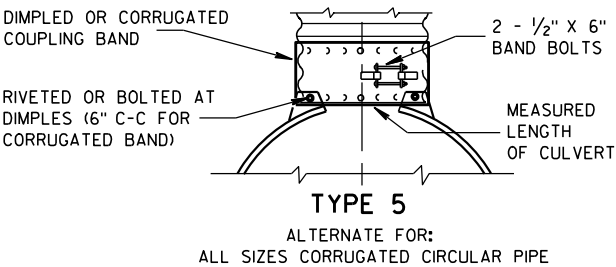
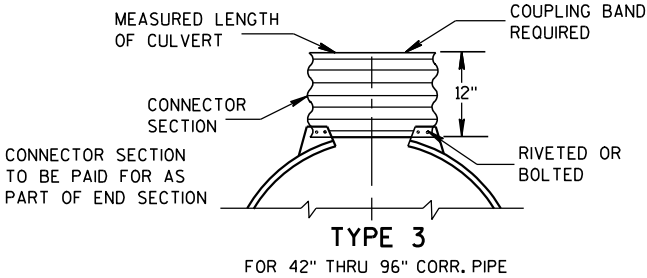
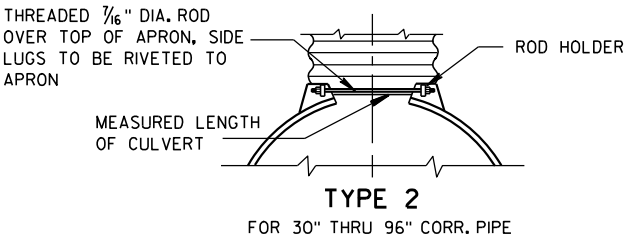
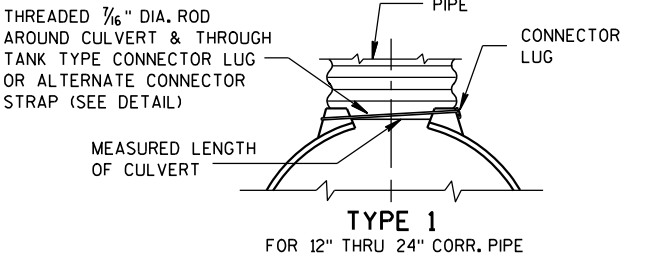
LONGITUDINAL SECTION
CONCRETE ENDWALLS



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



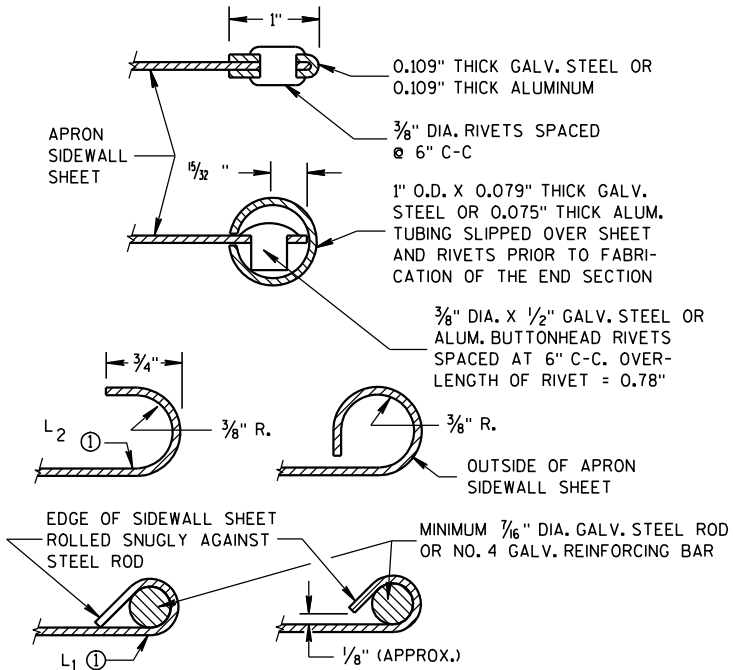
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

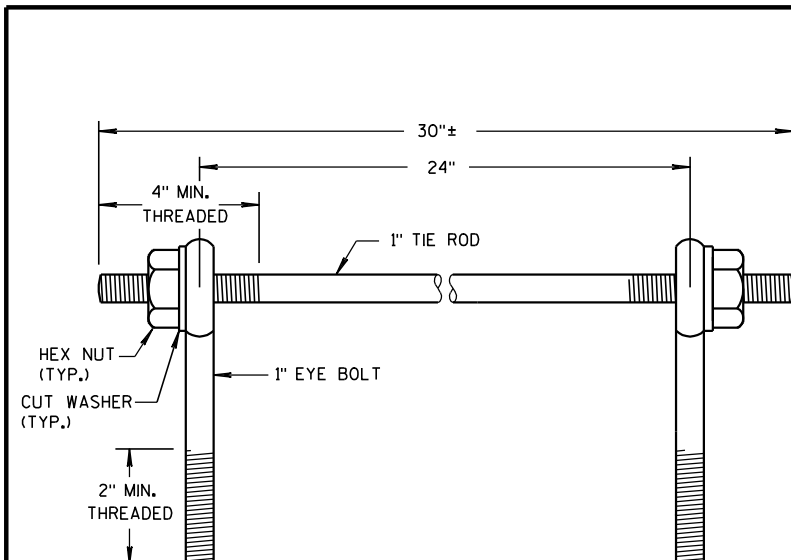
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

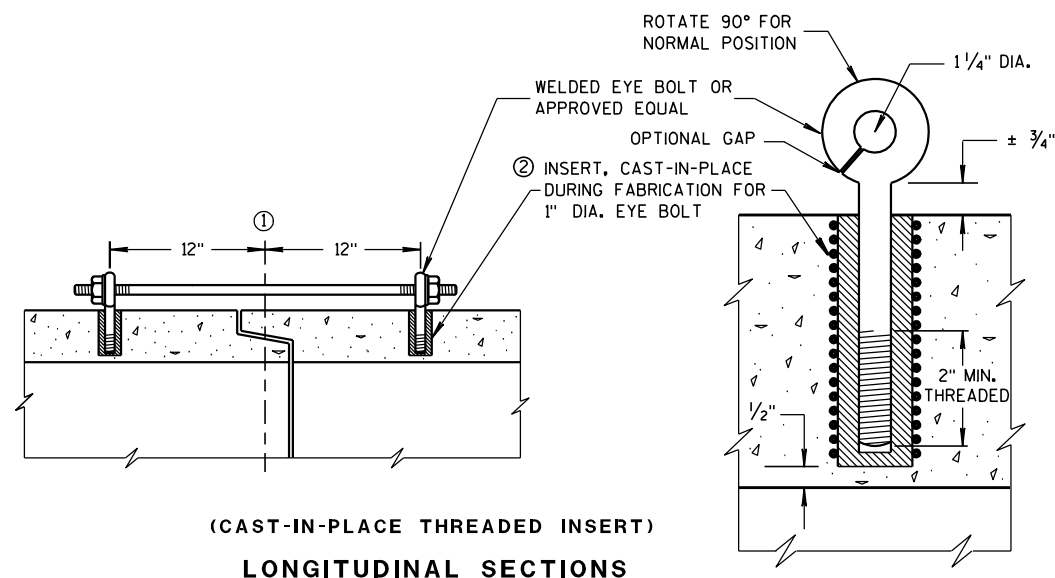
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



EYE BOLTS AND TIE ROD



EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

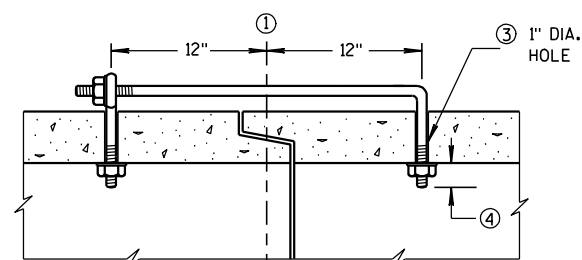
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

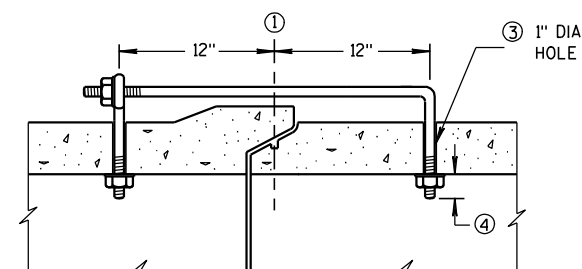
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① ∇ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ∇ OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN $\frac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.

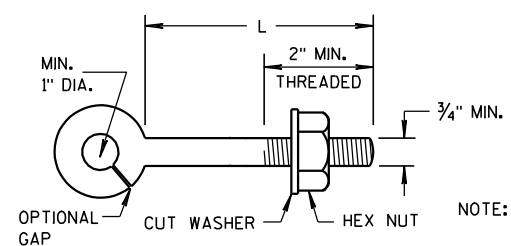


(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION



EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH
A 30" LONG THREADED ROD IN LIEU
OF THE 90° BENT TIE ROD.

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

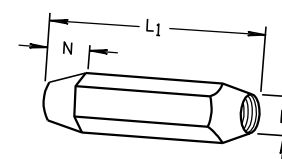
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

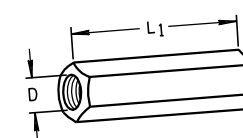
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12-60	$\frac{5}{8}$	$\frac{5}{8}$	5	$\frac{1}{2}$
66-84	$\frac{3}{4}$	$\frac{3}{4}$	5	$\frac{1}{2}$
90-108	1	1	7	$1\frac{1}{2}$

DIMENSIONS SHOWN ARE IN INCHES



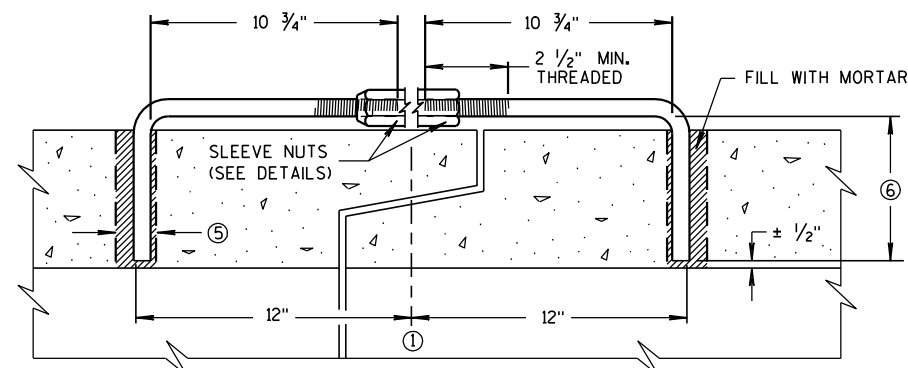
TAPERED



PLAIN

RIGHT AND LEFT THREADS

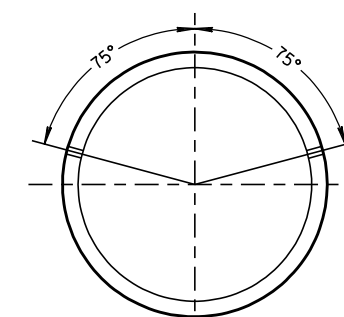
SLEEVE NUTS



LONGITUDINAL SECTION

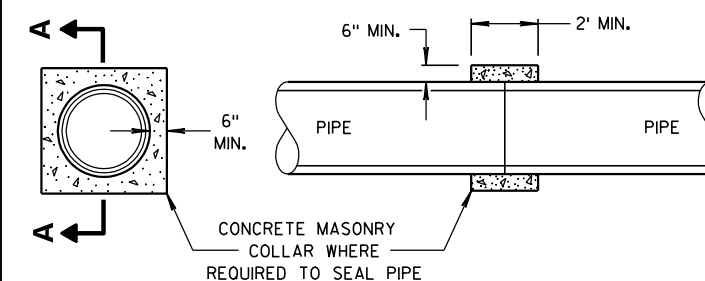
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

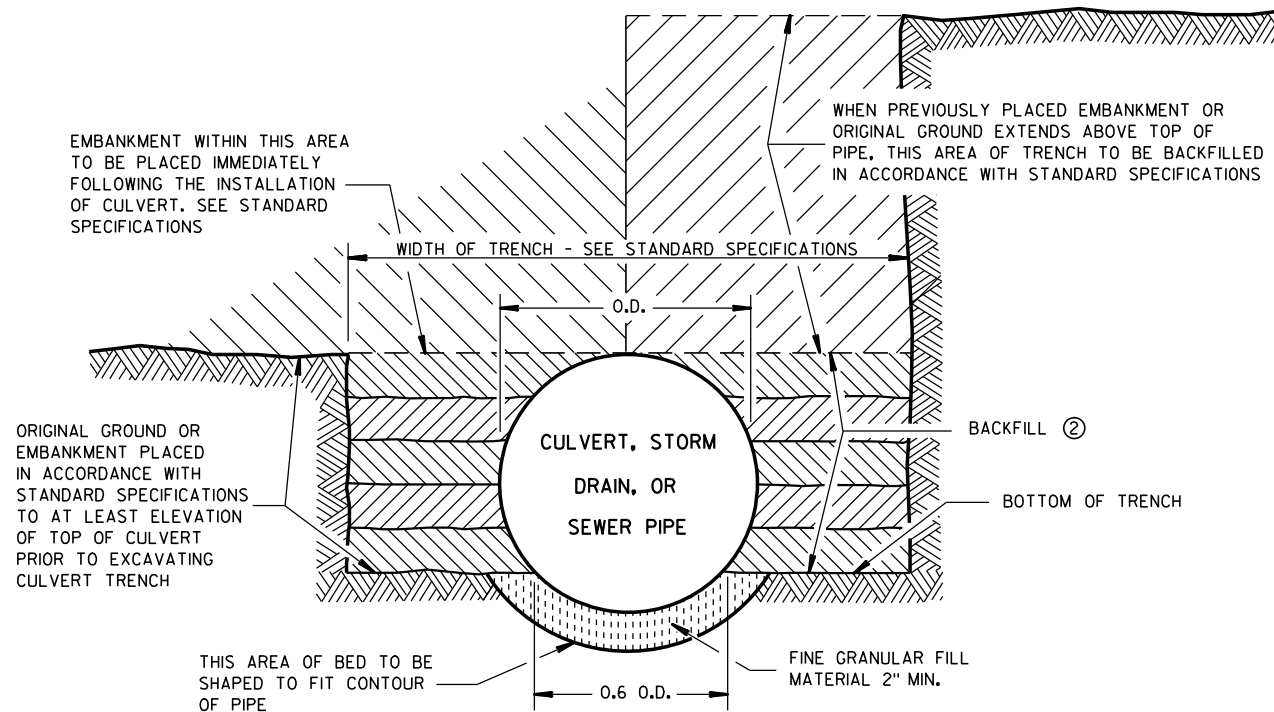
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

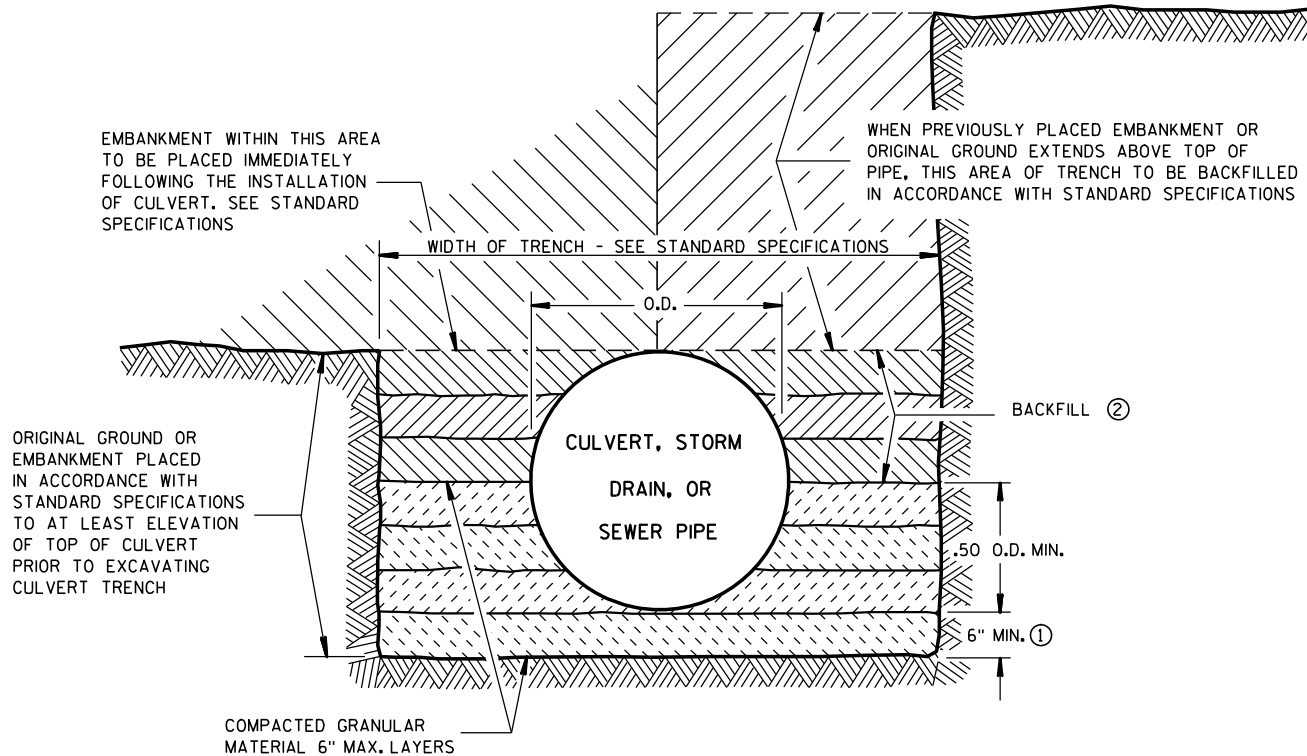
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

GENERAL NOTES

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

THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

- ① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO $\frac{1}{2}$ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.
- ② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.

CLASS "B" BEDDING FOR
CULVERT PIPE OR STORM SEWER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

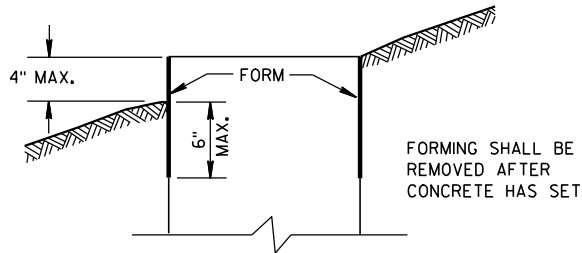
APPROVED

4/7/83
DATE

FHWA

/S/ D.L. Strand
STATE DESIGN ENGINEER FOR HWYS

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD, ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

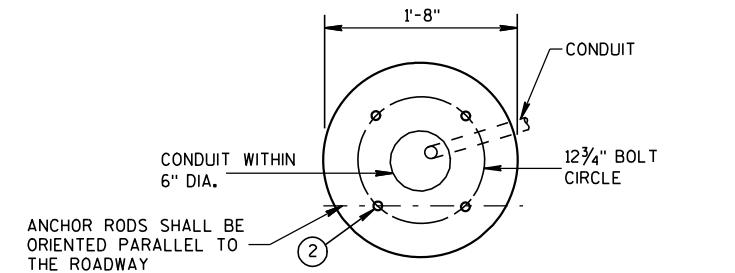
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

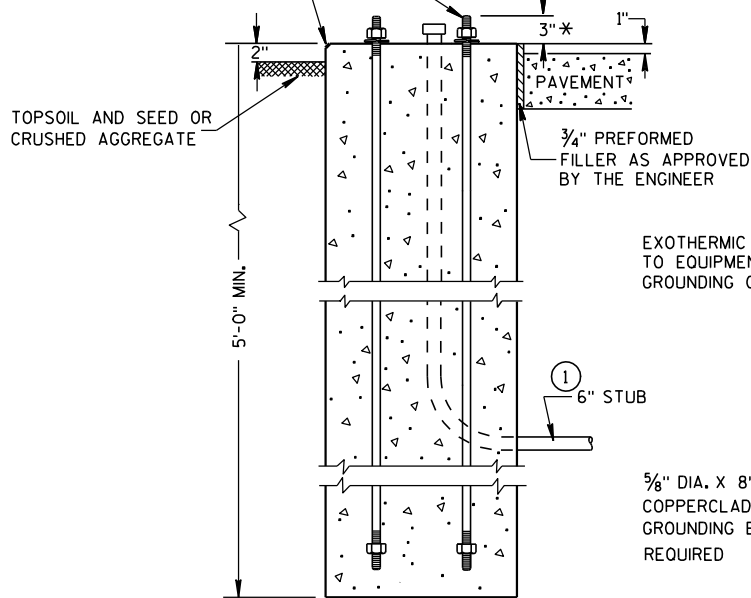
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

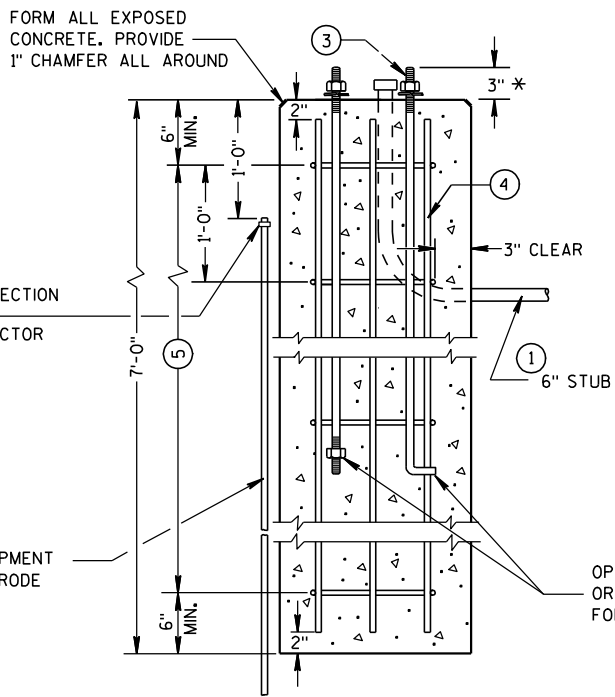
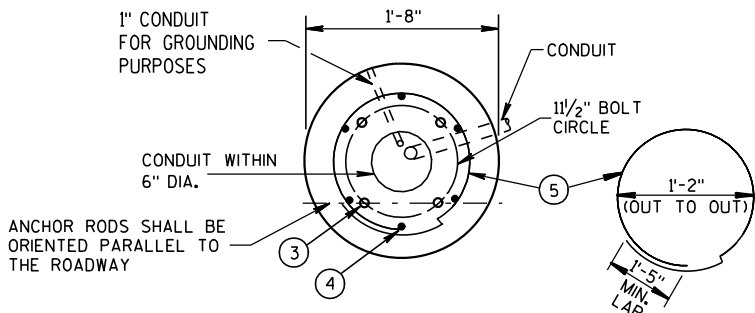
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
- 4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
- 6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



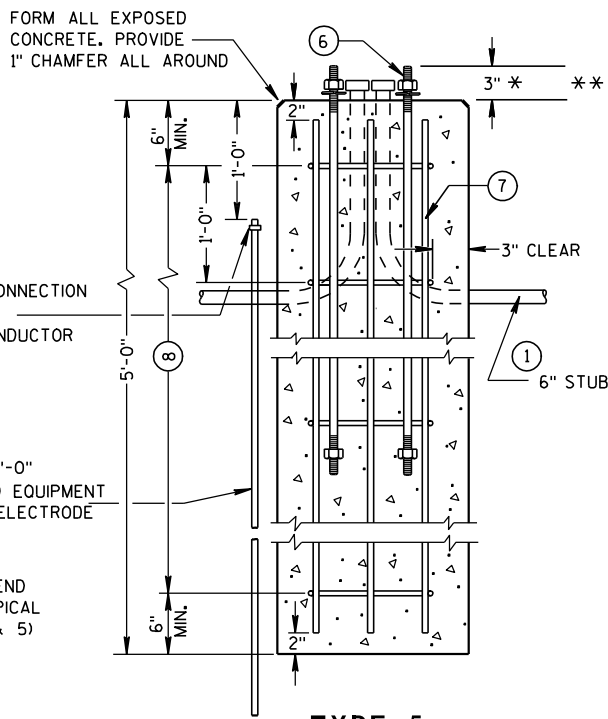
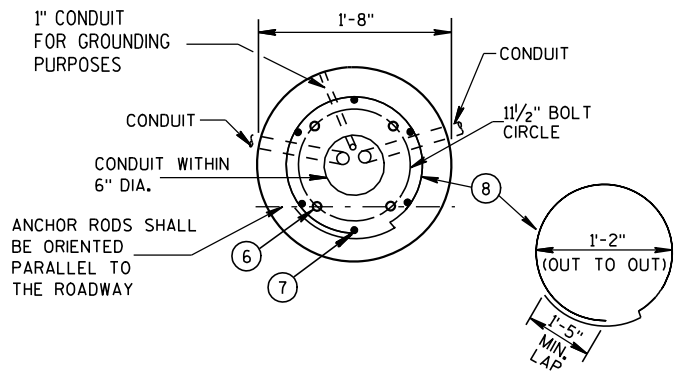
HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2 & 5)



TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

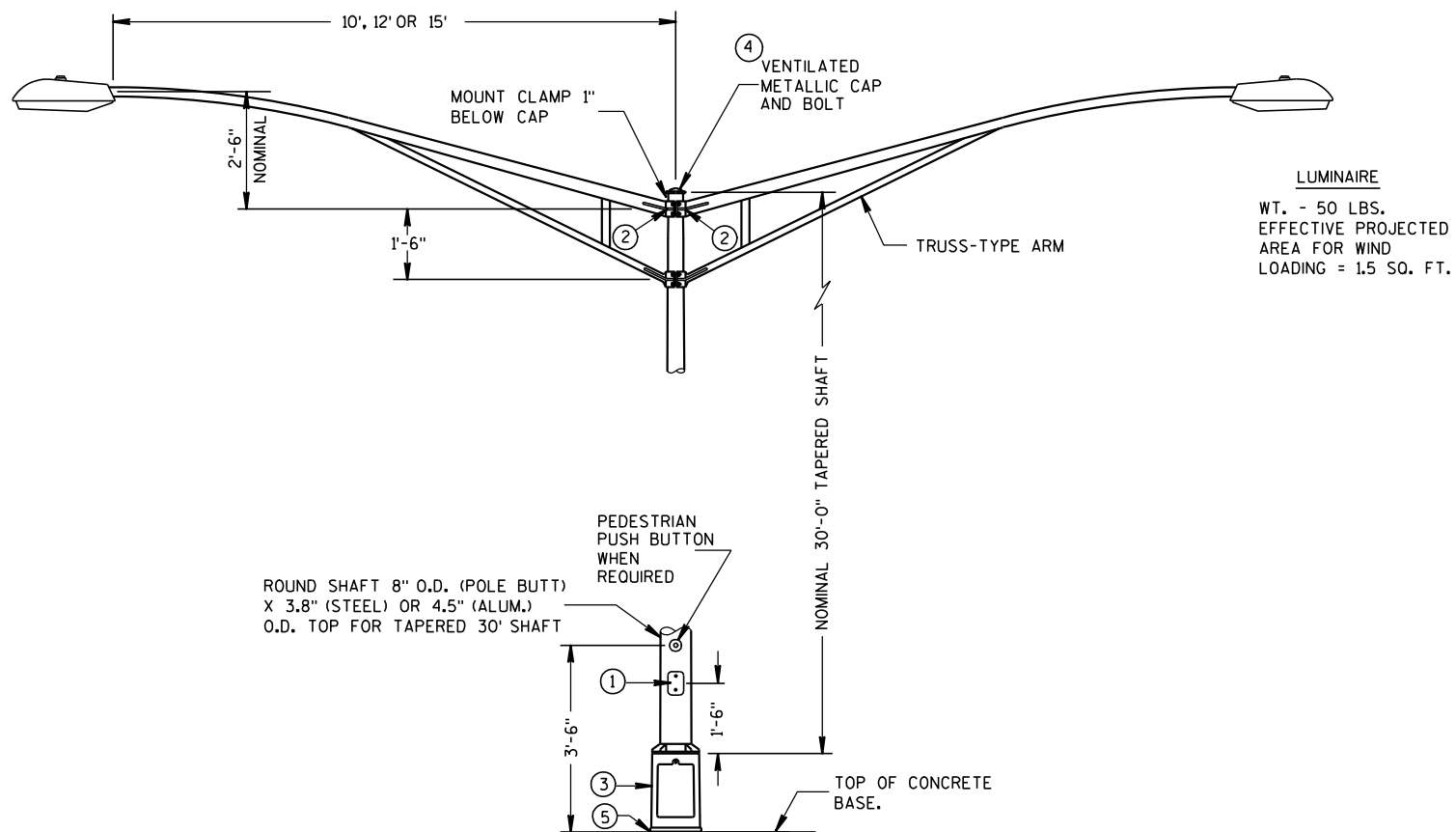
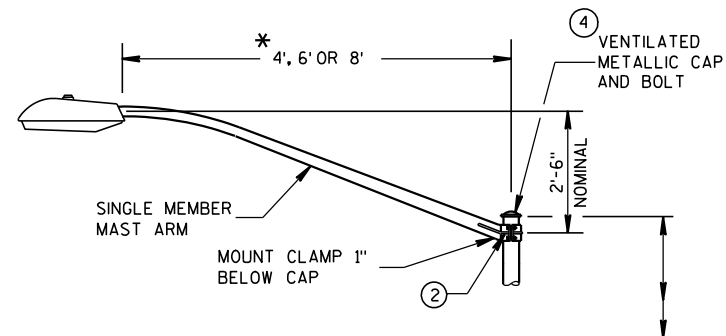
3/3/10

DATE

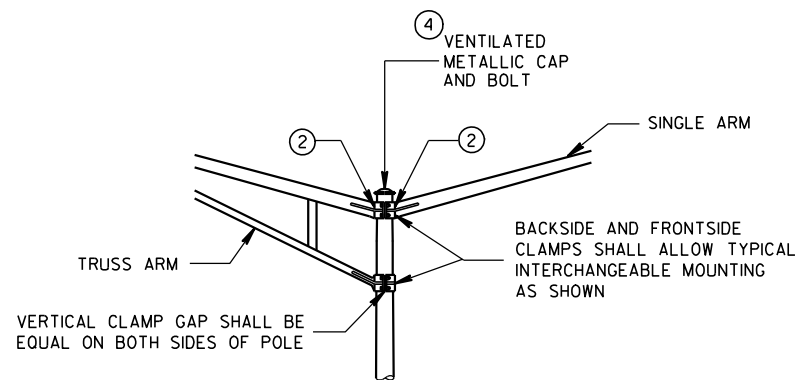
FHWA

/S/ Joanna L. Bush
STATE ELECTRICAL ENGINEER FOR HWYS

* RISE FOR 4' ARM SHALL BE 2'-0".



TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

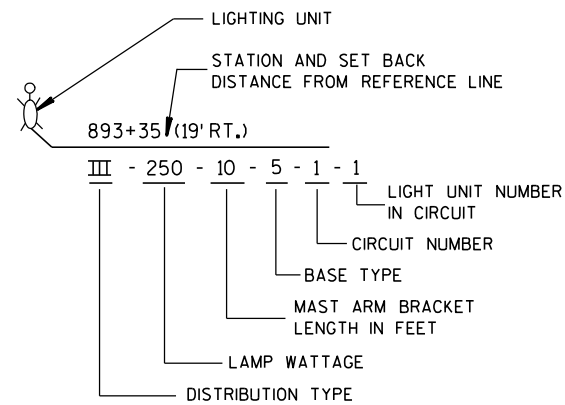
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL $2\frac{3}{8}$ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

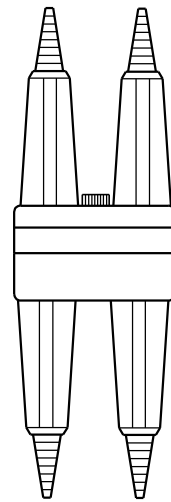
- ① 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) $\frac{1}{4}$ " x $\frac{3}{4}$ " - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
- ② GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR $1\frac{3}{8}$ " HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) $\frac{1}{4}$ " x $\frac{3}{4}$ " - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

**POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)**

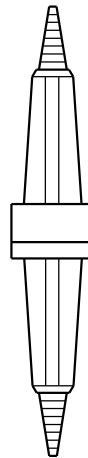
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



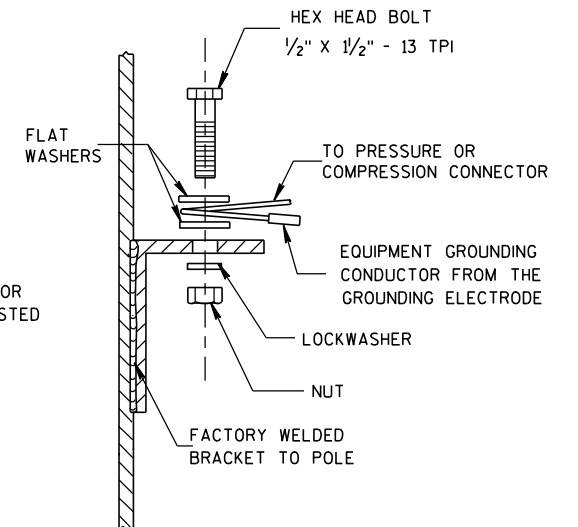
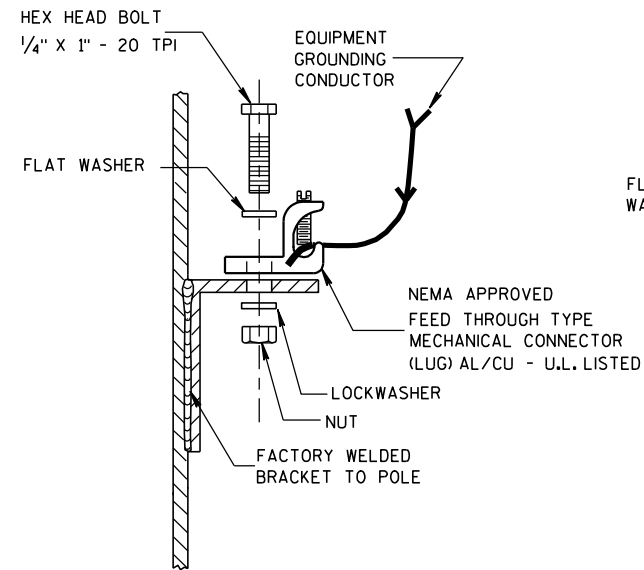
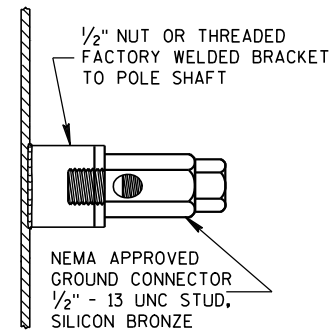
LIGHTING UNIT CODE
(TYPICAL)



DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

ADDITIONAL CONDUCTORS
AND FUSE FOR TWIN
LIGHTING UNITS

EQUIPMENT GROUNDING
CONDUCTOR(S) TO LUMINAIRE(S)

APPROVED MECHANICAL TYPE
CONNECTOR FOR EQUIPMENT
GROUNDING CONDUCTORS.
COMPRESSION, CRIMP OR
WIRE NUT CONNECTORS ARE
NOT ALLOWED.

TYPICAL GROUNDING CONNECTION -
STAINLESS STEEL BOLT,
NUT AND WASHERS
1/2" X 1/2" - 13 TPI

AWG #4 (MIN.) BARE EQUIPMENT
GROUNDING CONDUCTOR.
NOTE: THIS WIRE SHALL BE
CONTINUOUS WITHOUT SPLICES
FROM THE GROUNDING ELECTRODE
TO THE EQUIPMENT GROUNDING
CONDUCTOR SPLICE CONNECTOR.

INSULATED EQUIPMENT GROUNDING
CONDUCTORS FROM SYSTEM RACEWAY

EXOTHERMICALLY WELDED
TO GROUNDING ELECTRODE

CONDUCTORS TO
LUMINAIRES SHALL BE #12 AWG,
COPPER STRANDED, U.S.E. RATED,
XLP INSULATED. SINGLE
LIGHTING UNIT SHOWN

CIRCUIT TAGS, BOTH SIDES
OF ALL FUSES (TYPICAL)

IN LINE SINGLE POLE FUSE ASSEMBLY.
600 VAC, WITH 5 AMP FNO FUSE
(SEE DETAIL "B")
TAPE AND VARNISH
CRIMPED END FERRULES

HANDHOLE & COVER

18" PIGTAIL BETWEEN
CONNECTOR AND FUSEHOLDER

APPROVED INSULATED MULTITAP
TERMINAL BLOCK TYPE CONNECTORS.
COMPRESSION, CRIMP OR WIRE NUT
CONNECTORS ARE NOT ALLOWED.

INSULATED UNGROUNDED CIRCUIT
CONDUCTORS FROM SYSTEM RACEWAY

ALTERNATE PHASE UNGROUNDED
CIRCUIT CONDUCTOR PASSING
THROUGH THIS POLE

3 WIRE - 120, 240 OR 480 VAC (UNGROUND CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR

UNGROUND CONDUCTORS TO
LUMINAIRES SHALL BE #12 AWG,
COPPER STRANDED, U.S.E.
RATED, XLP INSULATED.
SINGLE LIGHTING UNIT SHOWN

TWIN LIGHTING UNITS REQUIRE
INDIVIDUAL SETS OF UNGROUNDED
CONDUCTORS AND FUSE ASSEMBLY.

AWG #4 (MIN.) BARE EQUIPMENT
GROUNDING CONDUCTOR.
NOTE: THIS WIRE SHALL BE
CONTINUOUS WITHOUT SPLICES
FROM THE GROUNDING ELECTRODE
TO THE EQUIPMENT GROUNDING
CONDUCTOR SPLICE CONNECTOR.

EQUIPMENT GROUNDING
CONDUCTOR(S) TO LUMINAIRE(S)

TYPICAL GROUNDING CONNECTION -
STAINLESS STEEL BOLT,
NUT AND WASHERS
1/2" X 1/2" - 13 TPI

APPROVED MECHANICAL TYPE
CONNECTOR FOR EQUIPMENT
GROUNDING CONDUCTORS.
COMPRESSION, CRIMP OR
WIRE NUT CONNECTORS ARE
NOT ALLOWED.

INSULATED EQUIPMENT GROUNDING
CONDUCTORS FROM SYSTEM RACEWAY

EXOTHERMICALLY WELDED
TO GROUNDING ELECTRODE

2 WIRE - 240 OR 480 VAC (UNGROUND CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

CIRCUIT TAGS, BOTH SIDES
OF ALL FUSES (TYPICAL)

IN LINE FUSE ASSEMBLY
TWO POLE, 600 VAC,
WITH 5 AMP FNO FUSES
(SEE DETAIL "A")
TAPE AND VARNISH
CRIMPED END FERRULES

HANDHOLE & COVER

18" PIGTAIL BETWEEN
CONNECTORS AND FUSEHOLDERS

APPROVED INSULATED MULTITAP
TERMINAL BLOCK TYPE CONNECTORS.
COMPRESSION, CRIMP OR WIRE NUT
CONNECTORS ARE NOT ALLOWED.

INSULATED UNGROUNDED CIRCUIT
CONDUCTORS FROM SYSTEM RACEWAY

NON-FREWAY LIGHTING UNIT
POLE WIRING

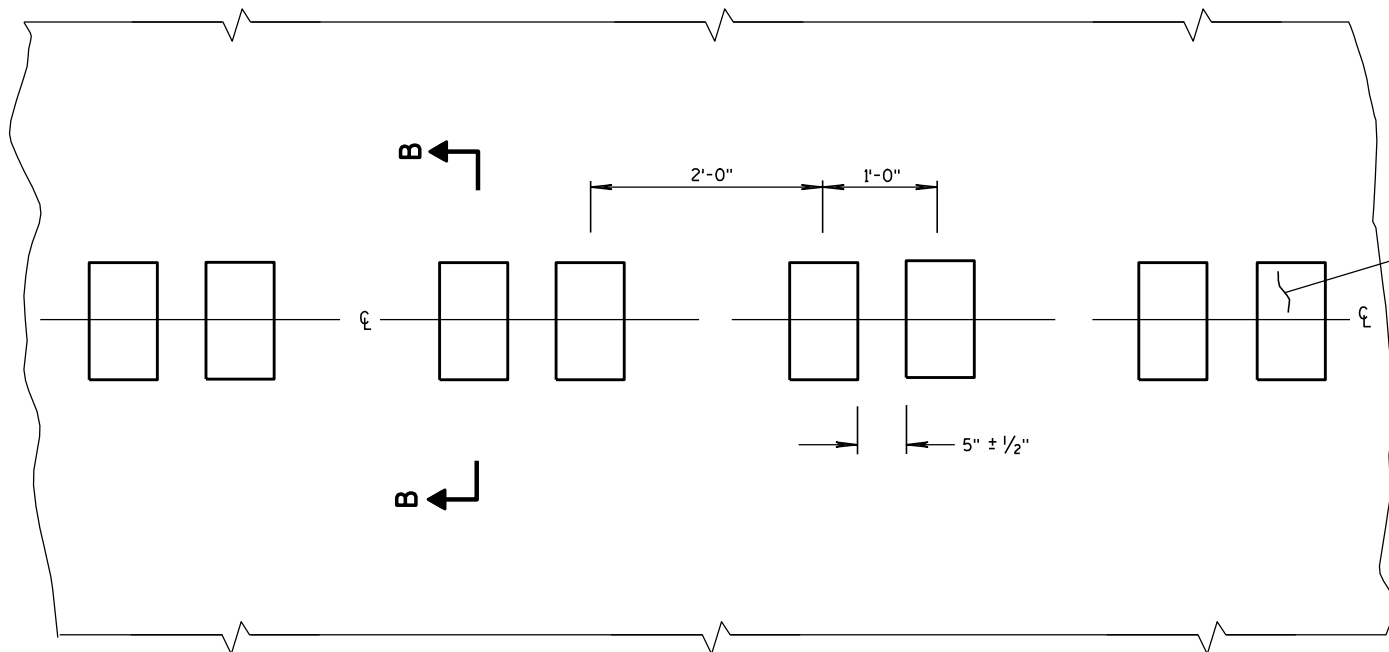
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

FHWA

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

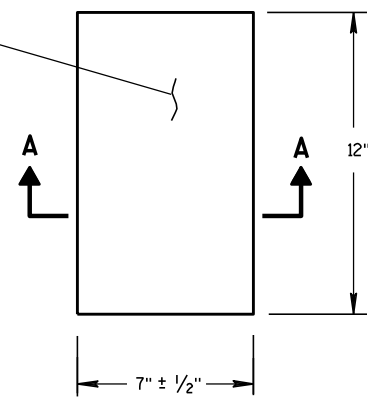


PLAN VIEW
CENTER LINE WITH GROOVES

6

6

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

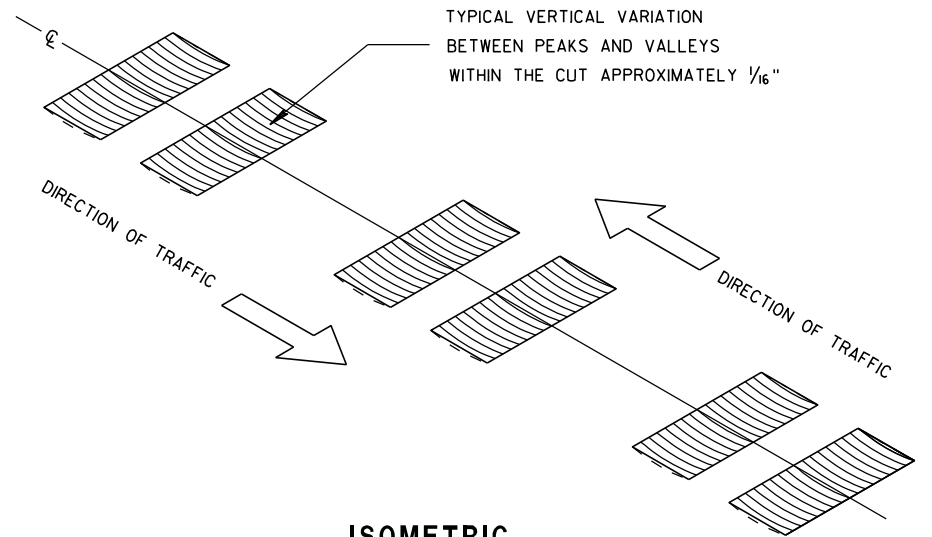
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

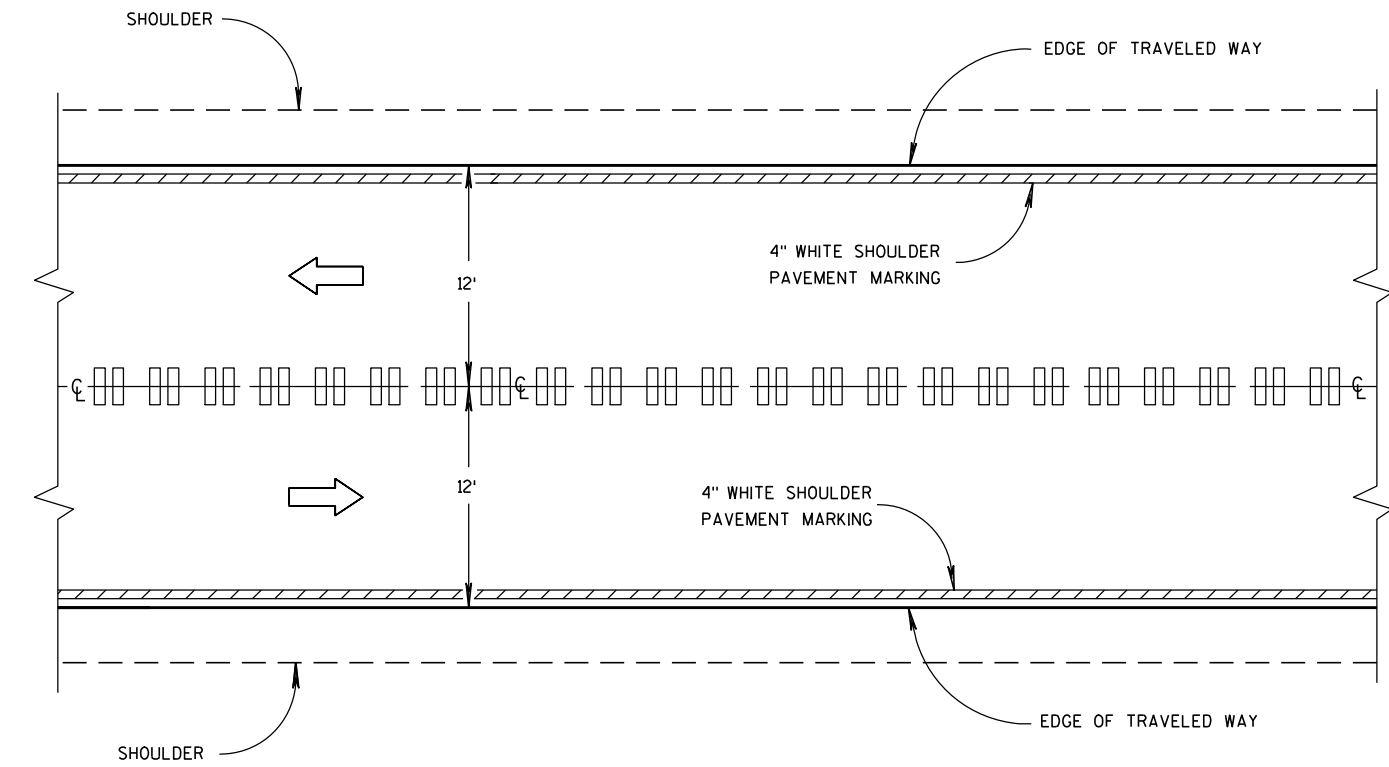
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

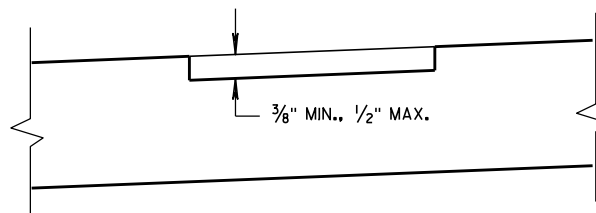
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



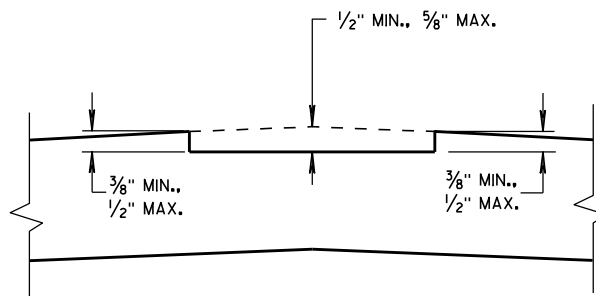
ISOMETRIC



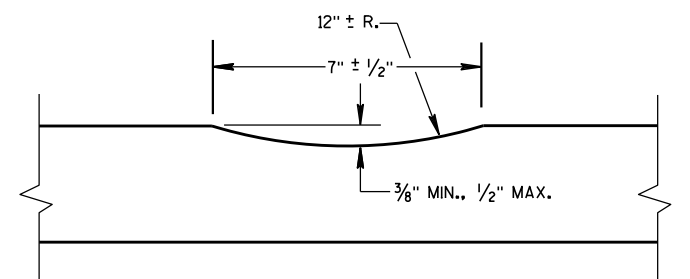
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



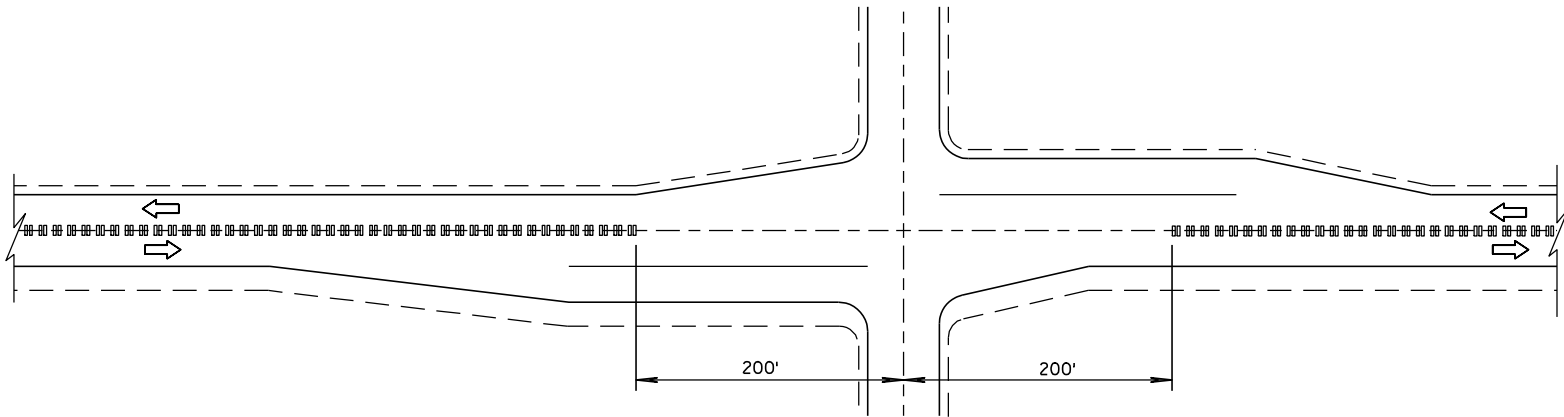
SECTION B-B
CROWNED ROADWAY



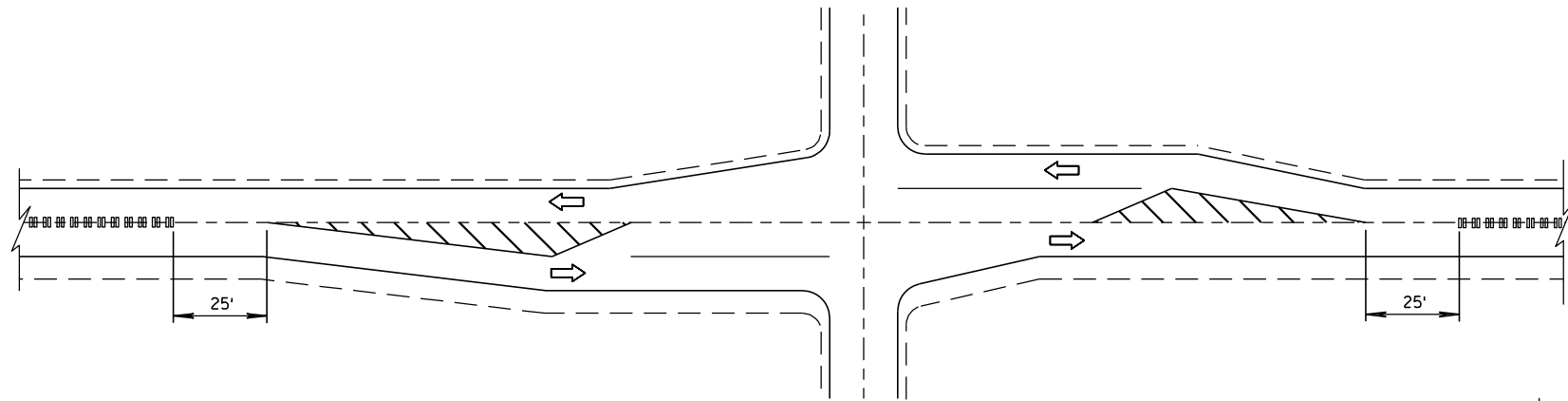
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

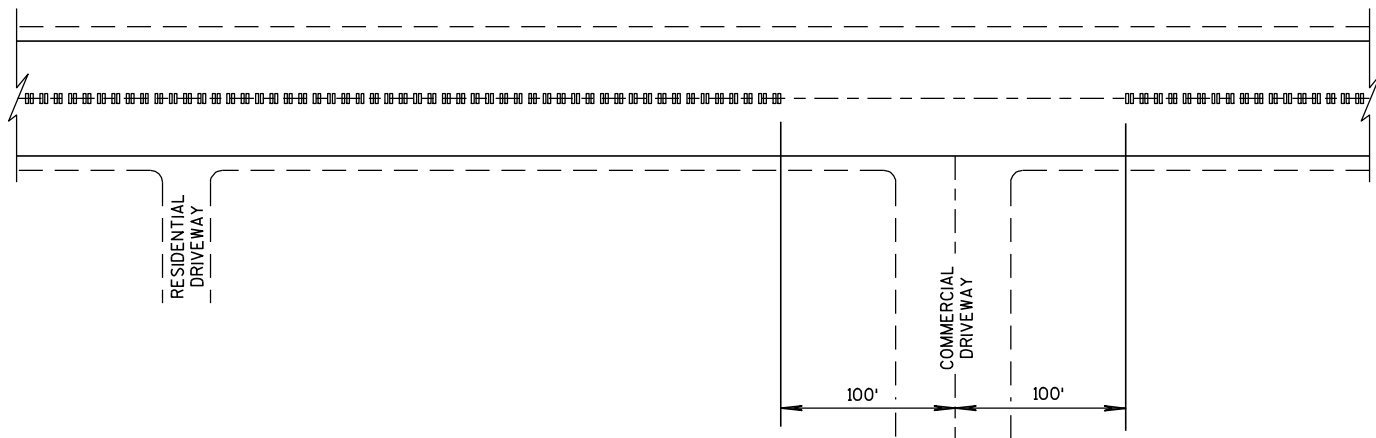
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

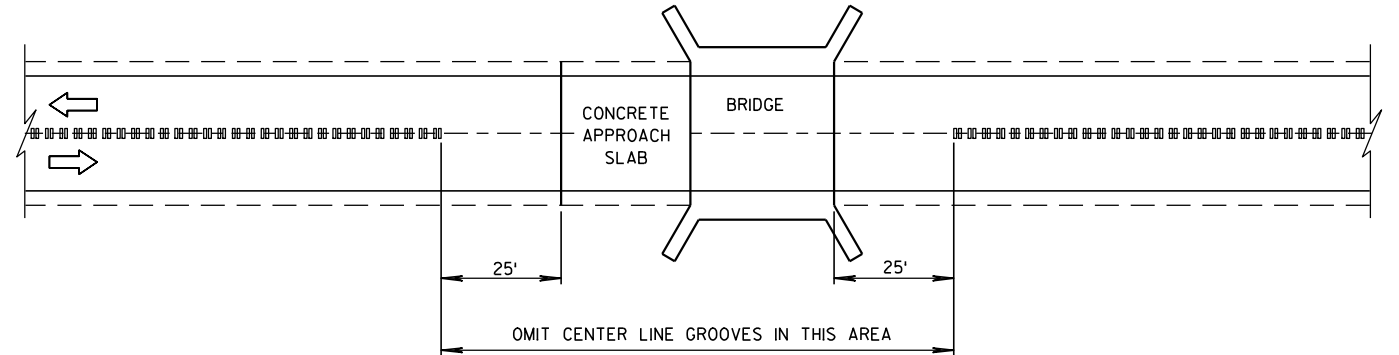


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

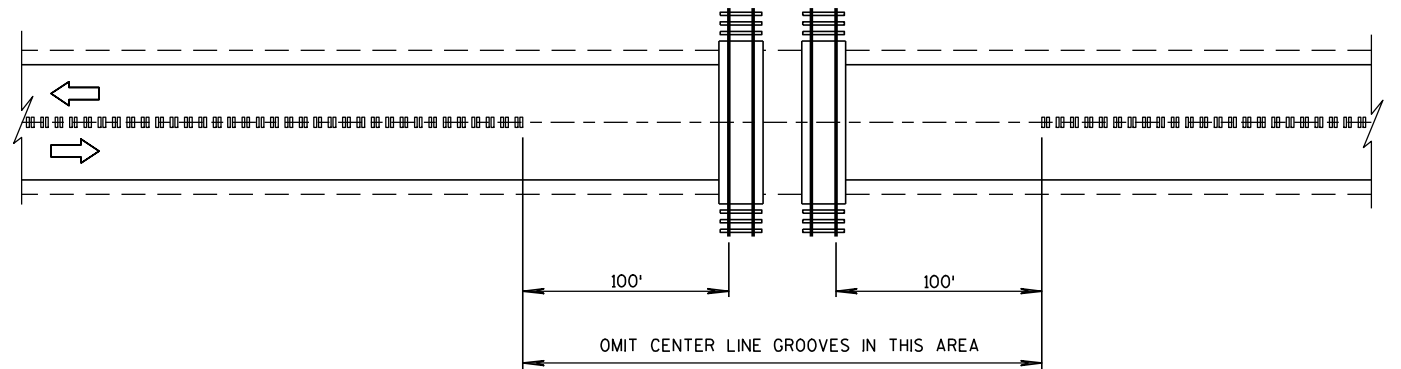


CENTER LINE GROOVES AT DRIVEWAYS ¹

¹ CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES

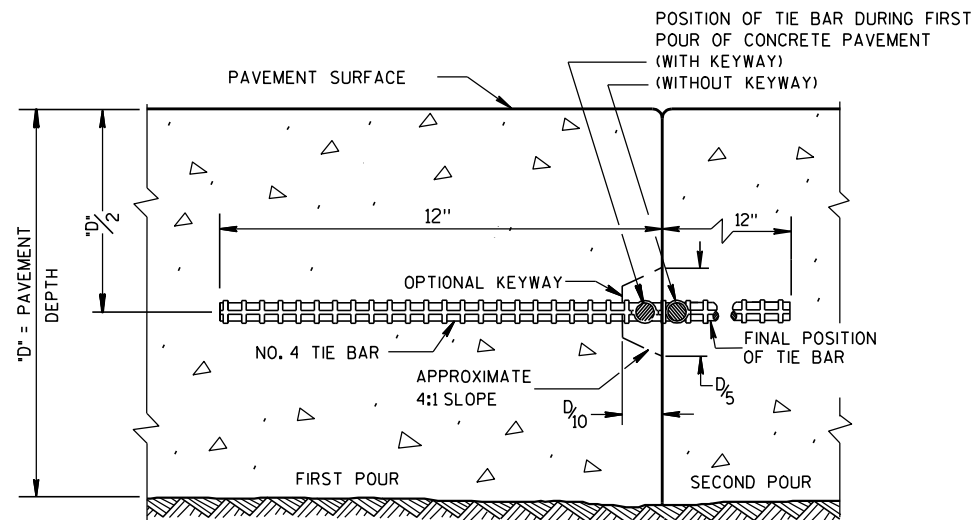


CENTER LINE GROOVES AT RAILROADS

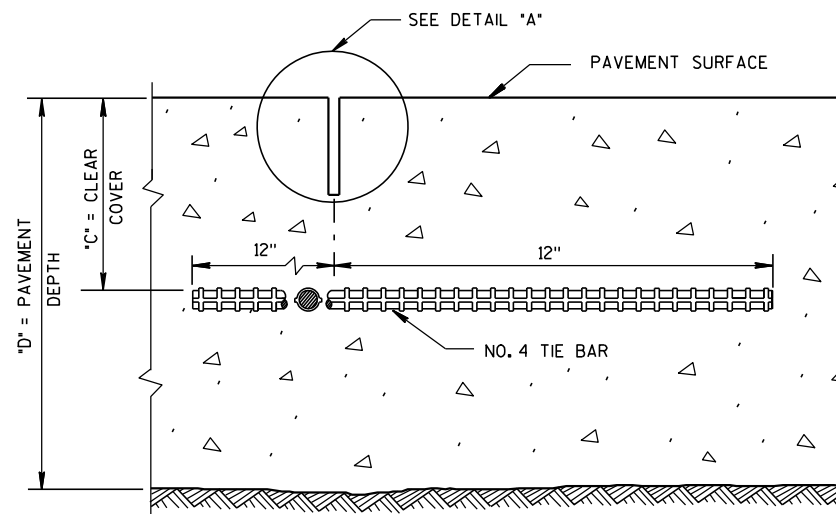
2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/28/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



CONSTRUCTION JOINT



SAWED JOINT

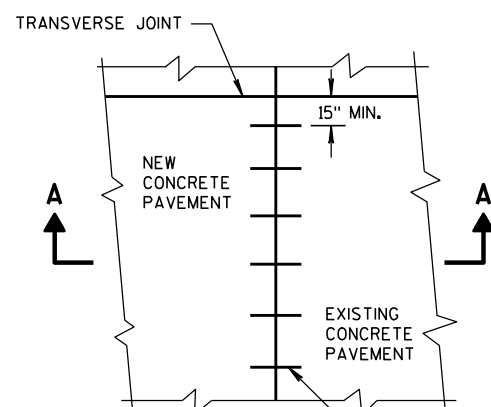
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

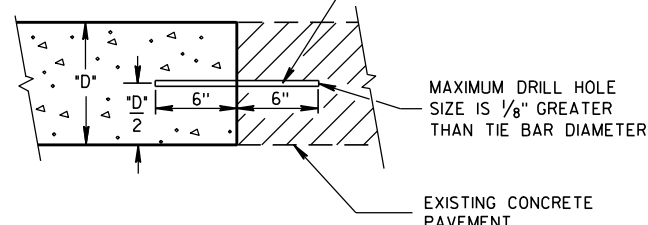
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

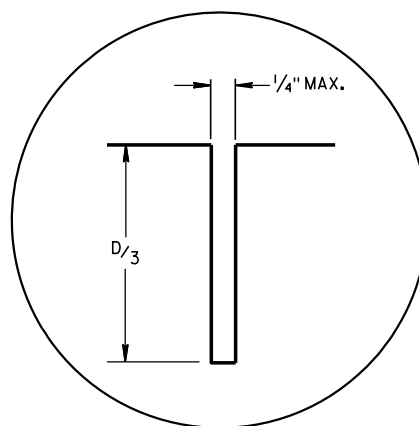


PLAN VIEW

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

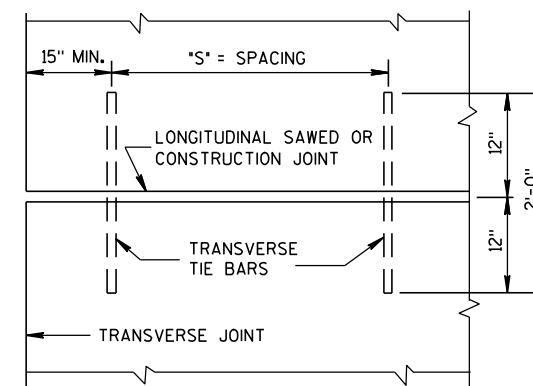


**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"

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



**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

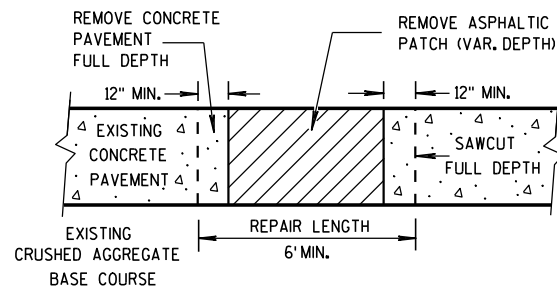
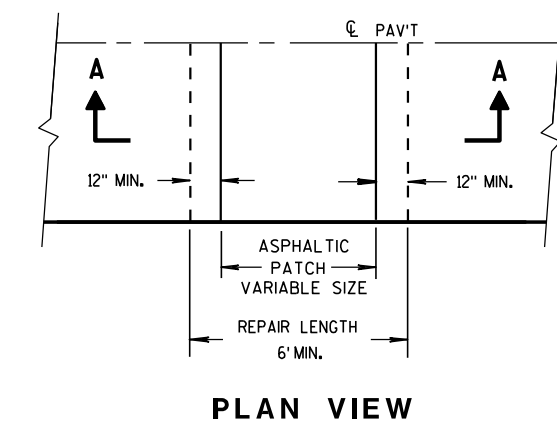
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

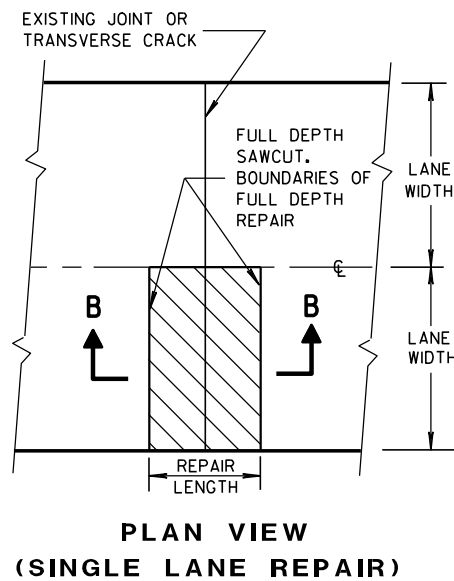
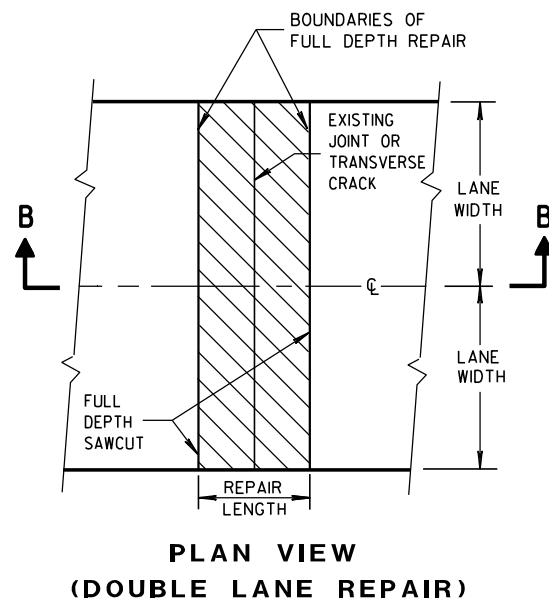
10-5-2010
DATE

FHWA

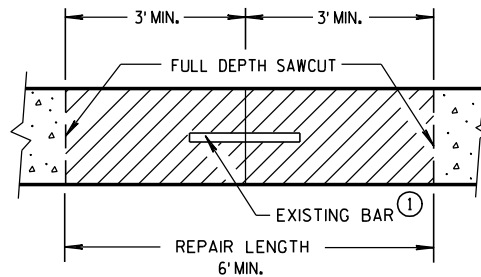
/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



SECTION A-A
HMA PATCH REMOVAL



FULL DEPTH CONCRETE PAVEMENT REMOVAL
(SEE NOTE)



SECTION B-B
CONCRETE REMOVAL

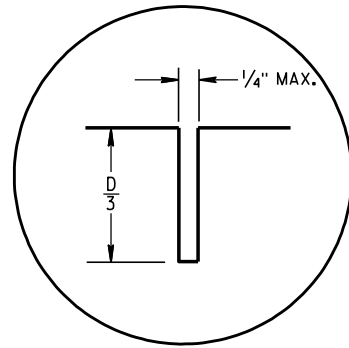
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

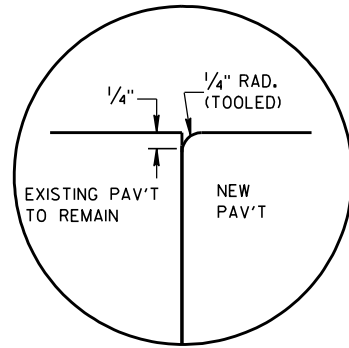
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① DOWEL BARS MIGHT NOT EXIST.

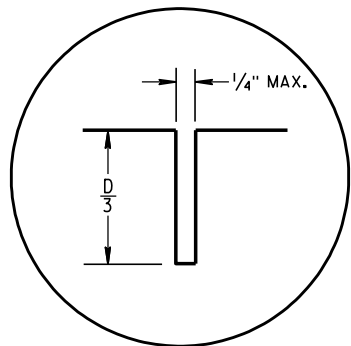


C1

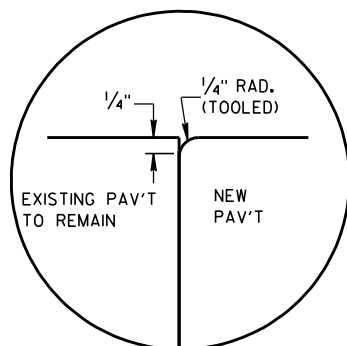


C2

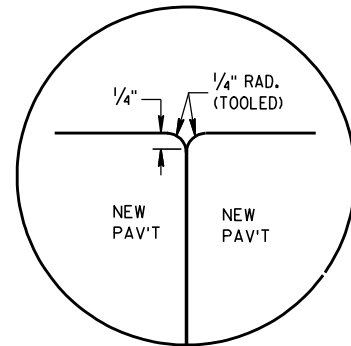
TRANSVERSE JOINTS



L1

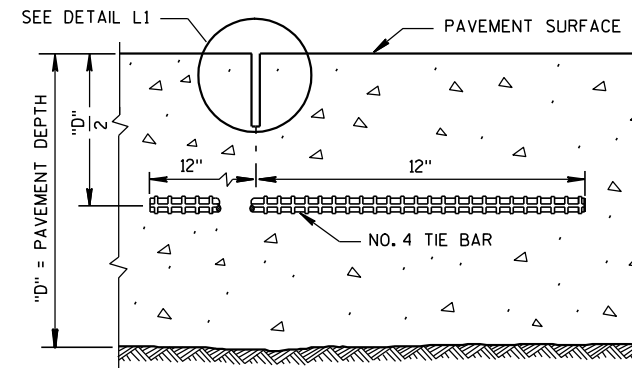


L2

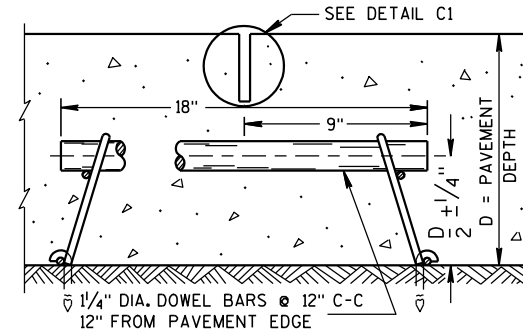


L3

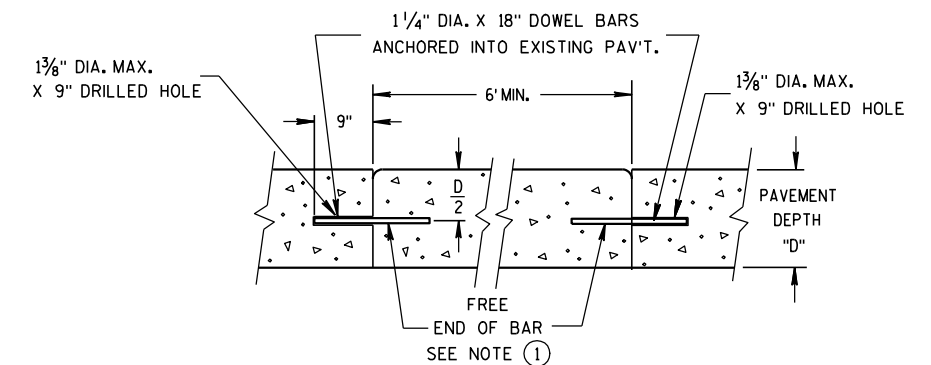
LONGITUDINAL JOINTS



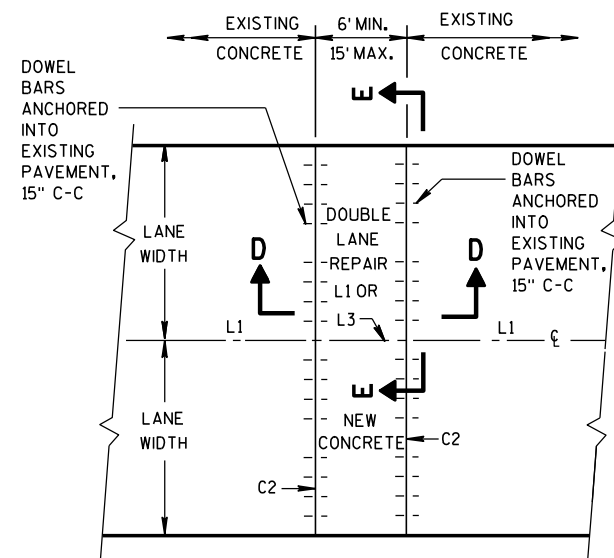
SECTION C-C
SAWED LONGITUDINAL JOINT



SECTION F-F
CONTRACTION JOINT

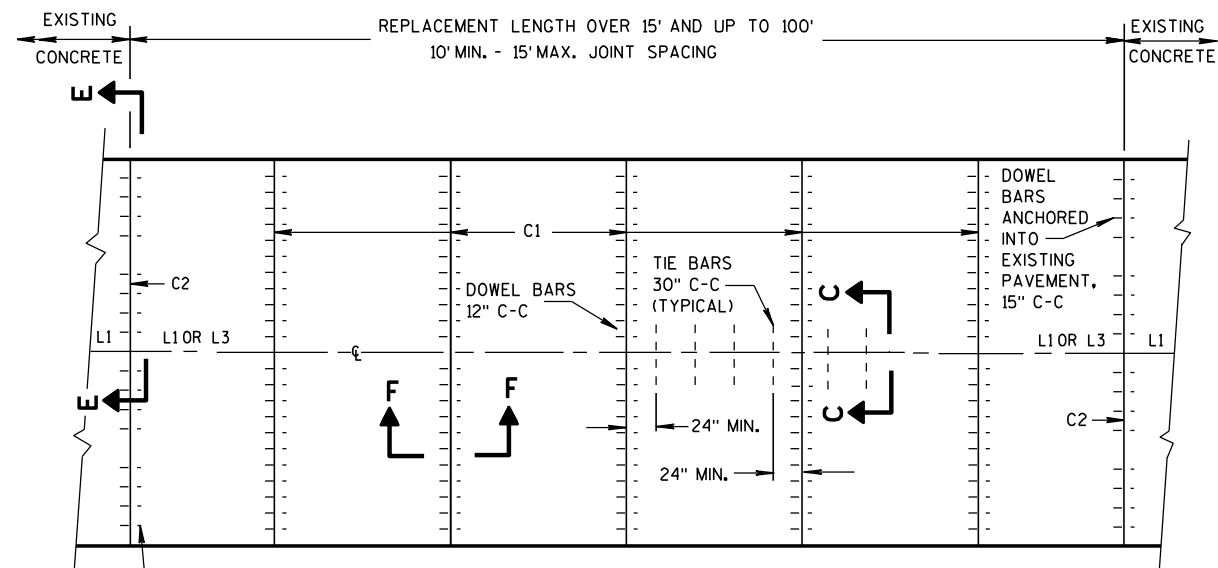


SECTION D-D



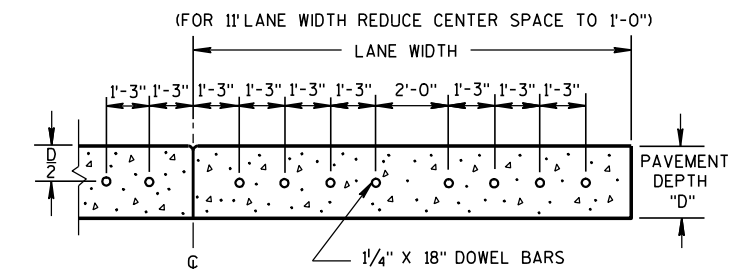
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



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

GENERAL NOTES

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

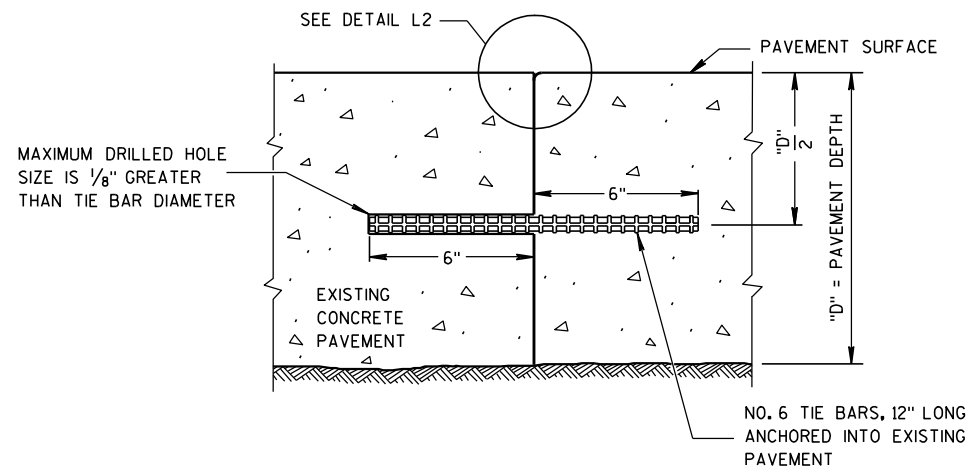
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

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

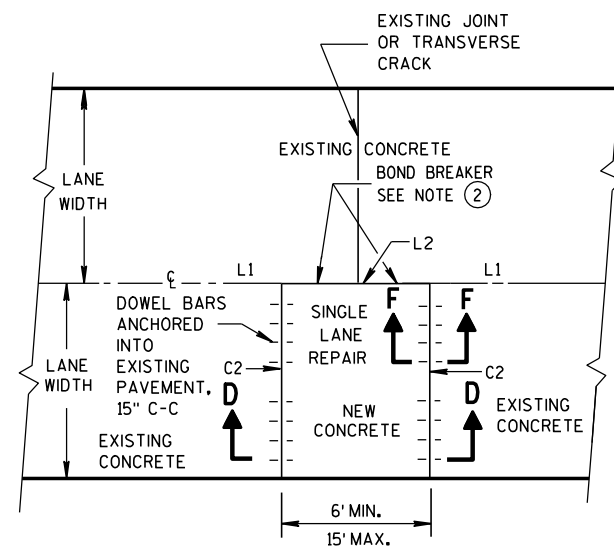
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



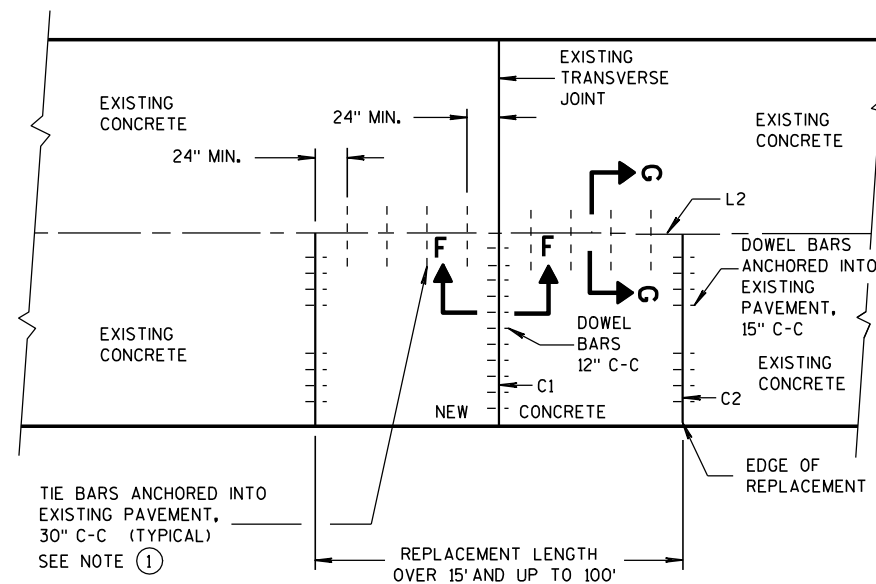
SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

GENERAL NOTES

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

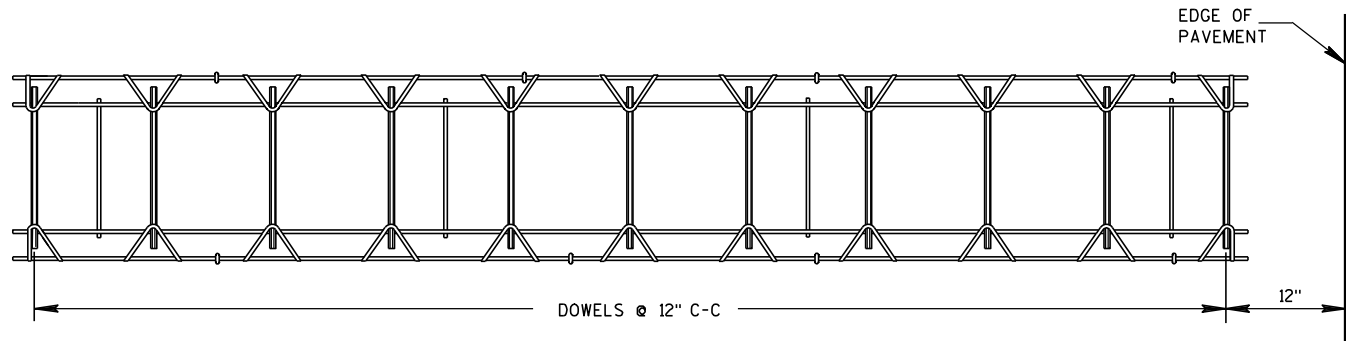
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

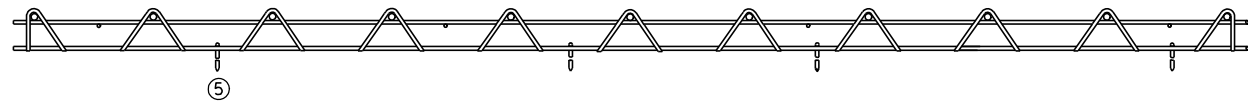
11-1-2011
DATE

FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



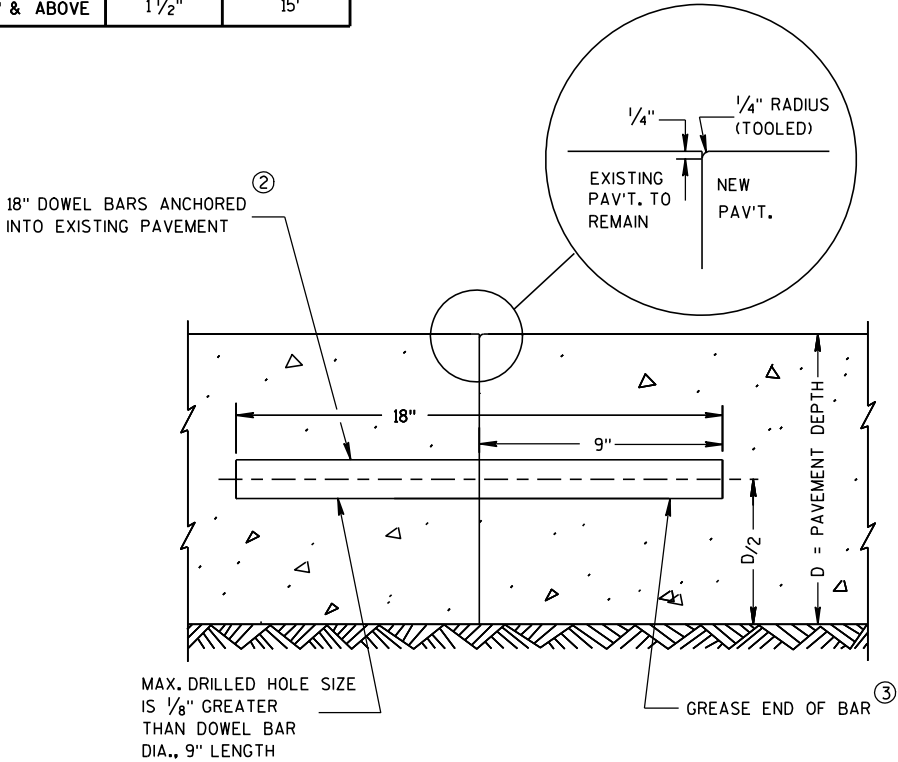
PLAN VIEW



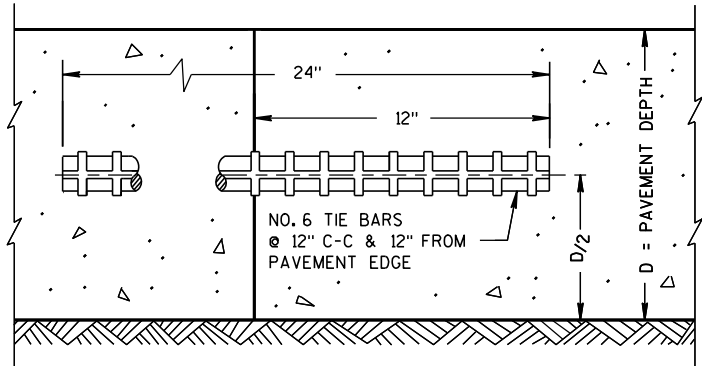
SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

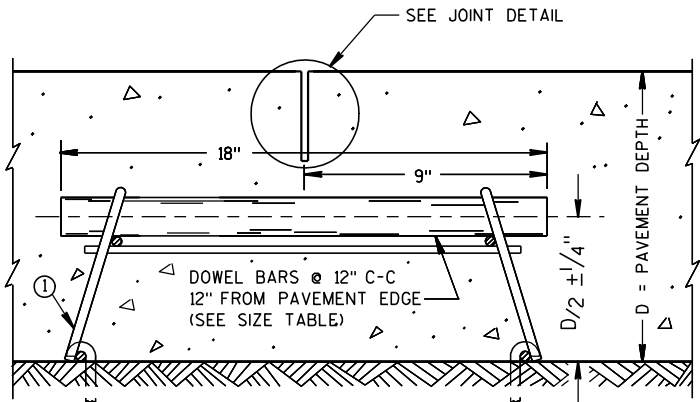
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



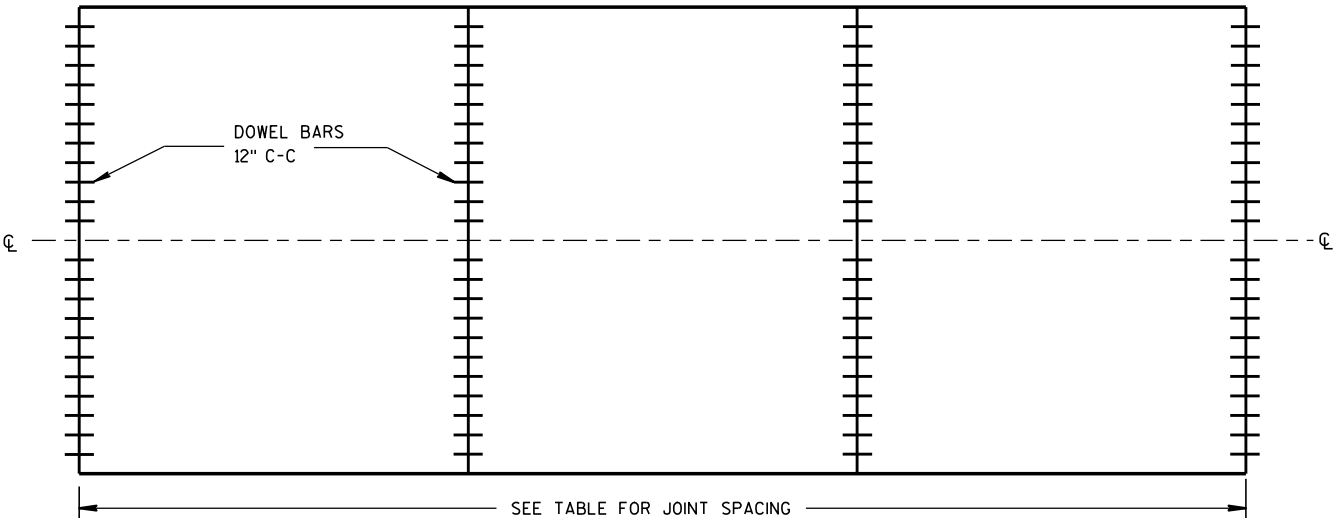
TRANSVERSE CONTRACTION JOINTS ABUTTING
EXISTING PAVEMENT
DOWEL BAR DETAIL



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

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

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

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

CONSTRUCTION JOINTS

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

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

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

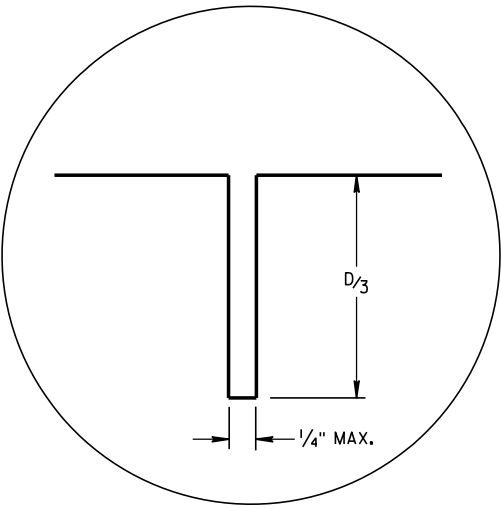
② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

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

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

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

⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.



JOINT DETAIL

URBAN DOWELED
CONCRETE PAVEMENT

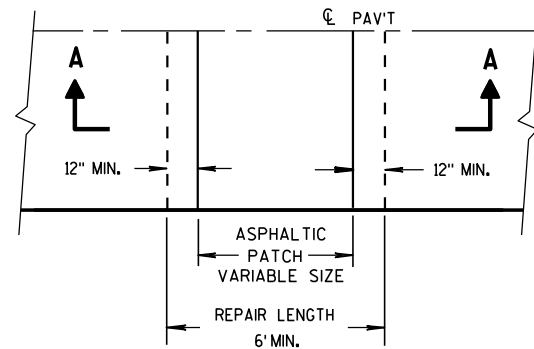
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

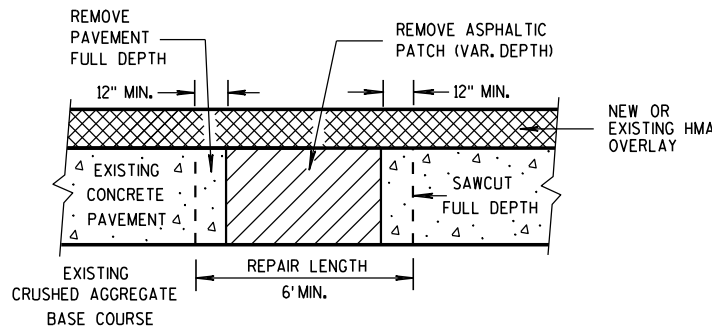
12/11/2009
DATE

FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER

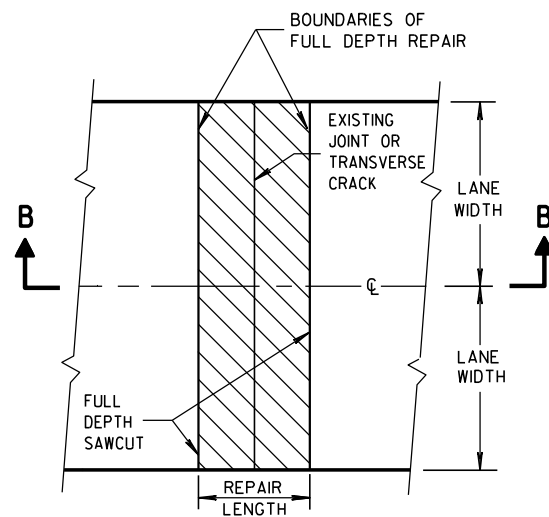


PLAN VIEW

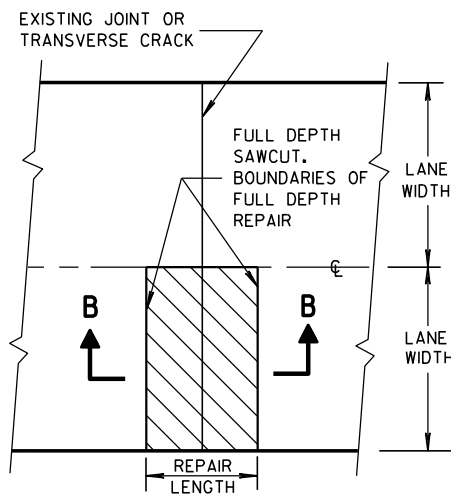


SECTION A-A

HMA PATCH REMOVAL



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)

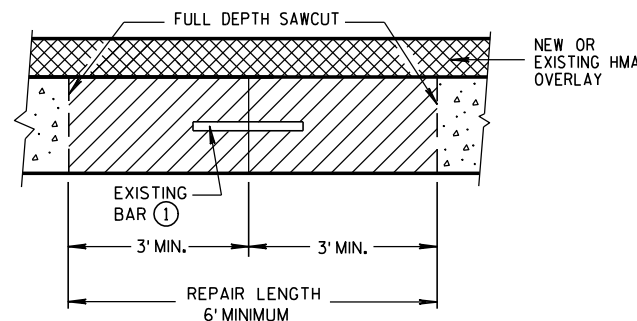
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

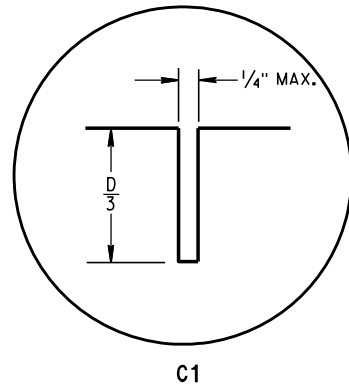
① DOWEL BARS MIGHT NOT EXIST.



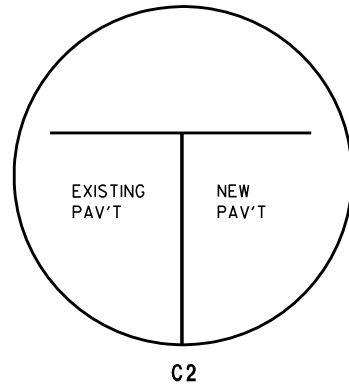
SECTION B-B
CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

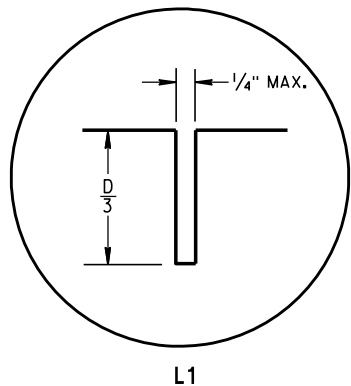


C1

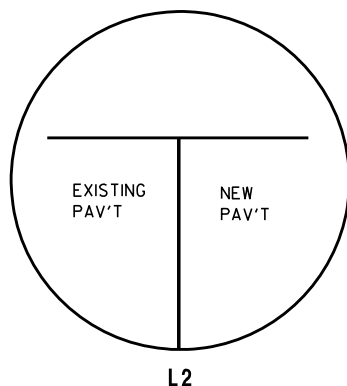


C2

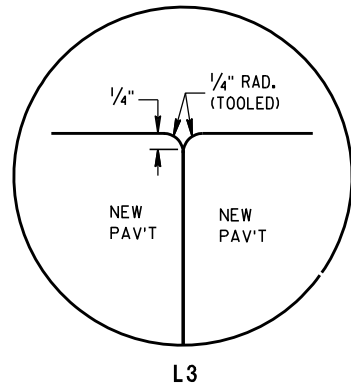
TRANSVERSE JOINTS



L1

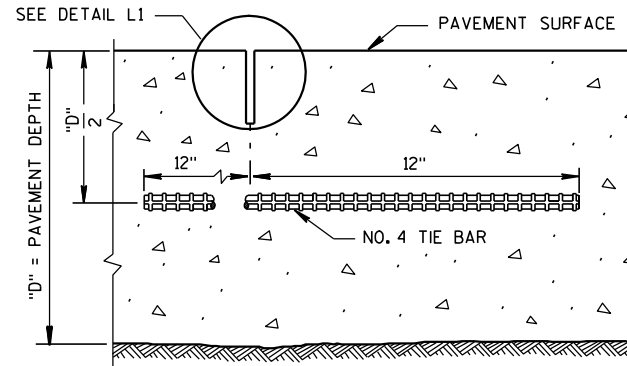


L2

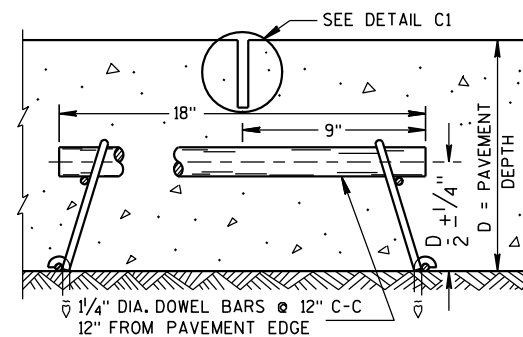


L3

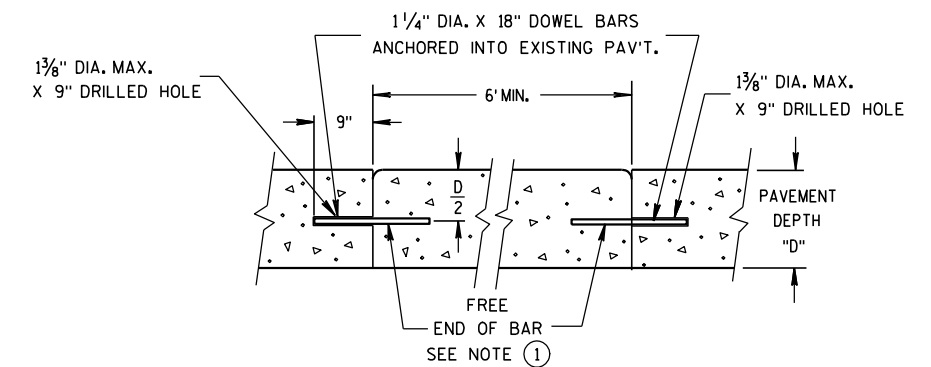
LONGITUDINAL JOINTS



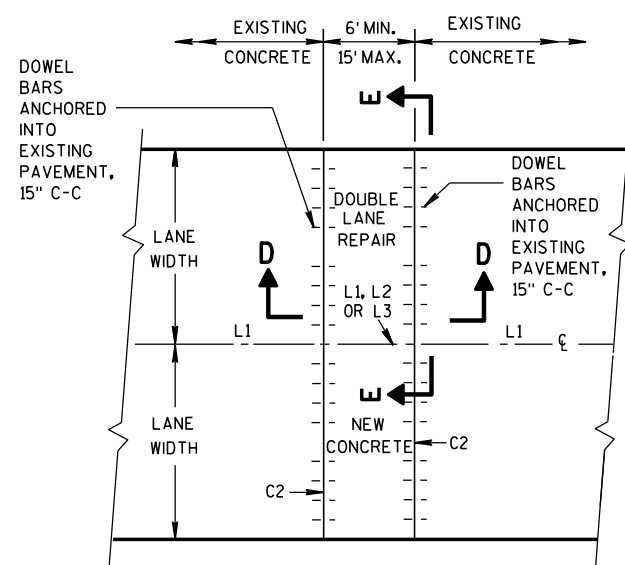
SECTION C-C
SAWED LONGITUDINAL JOINT



SECTION F-F
CONTRACTION JOINT

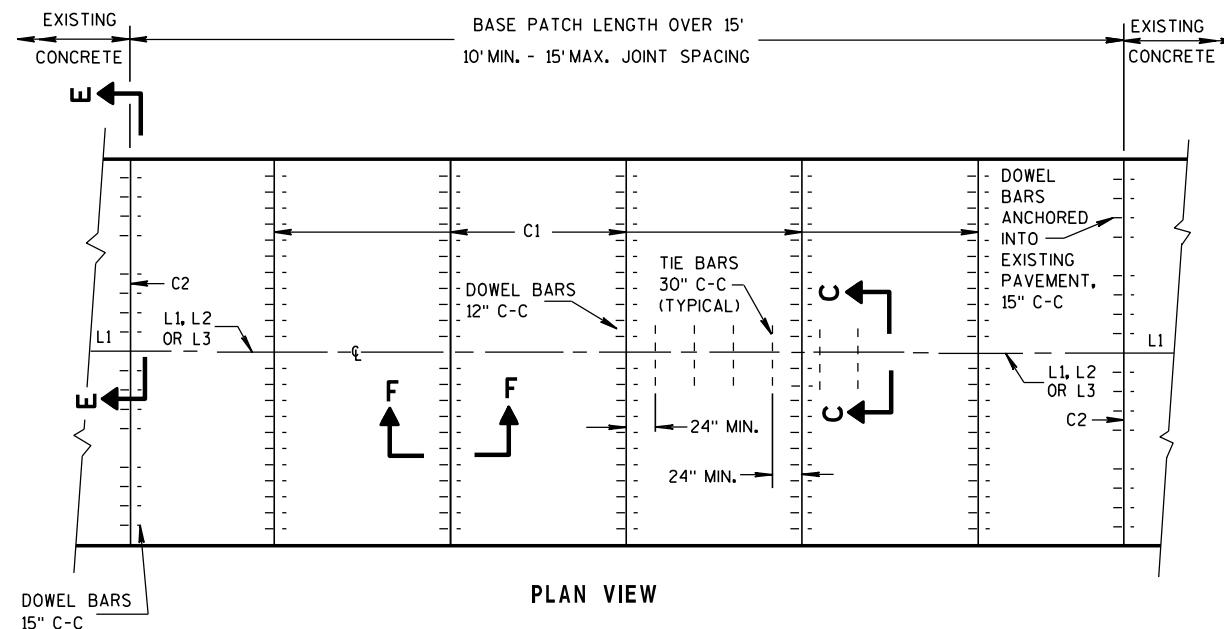


SECTION D-D



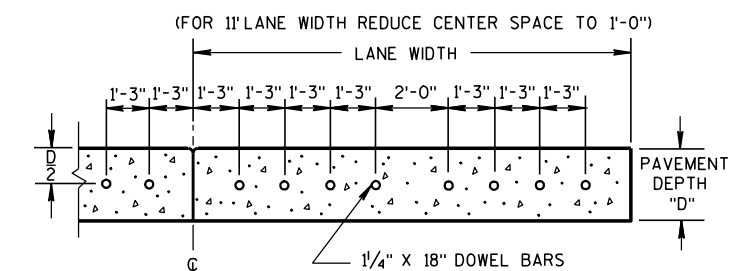
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH



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

GENERAL NOTES

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

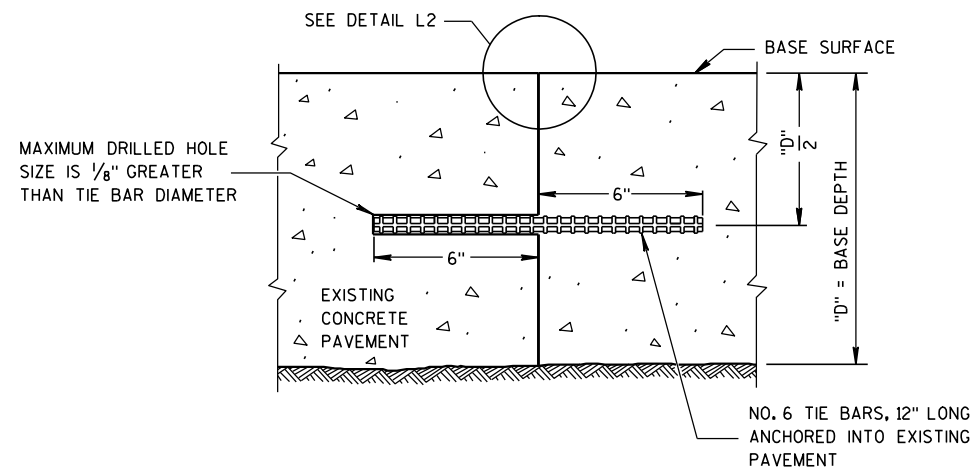
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

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

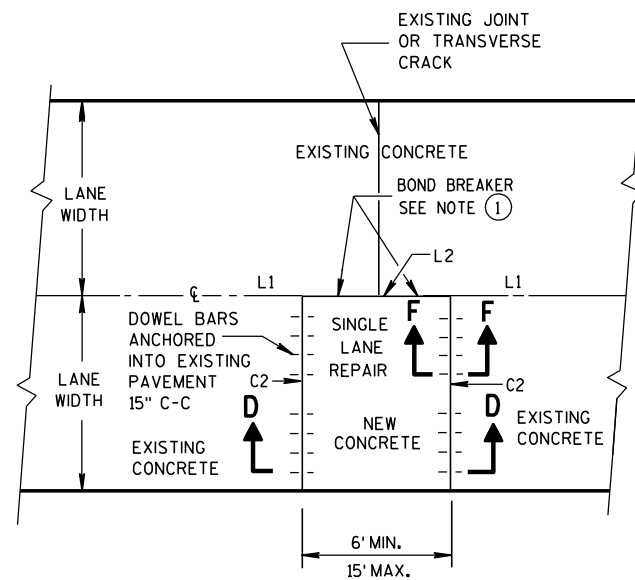
- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



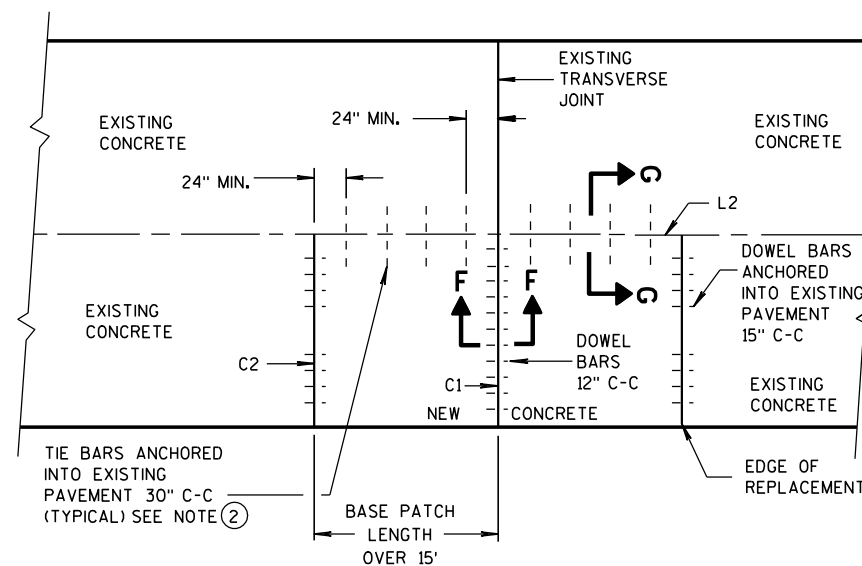
SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

GENERAL NOTES

- ① USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.
- ② WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH



PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

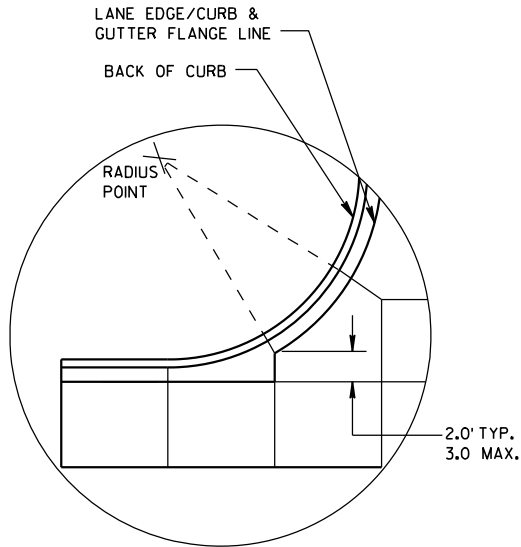
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

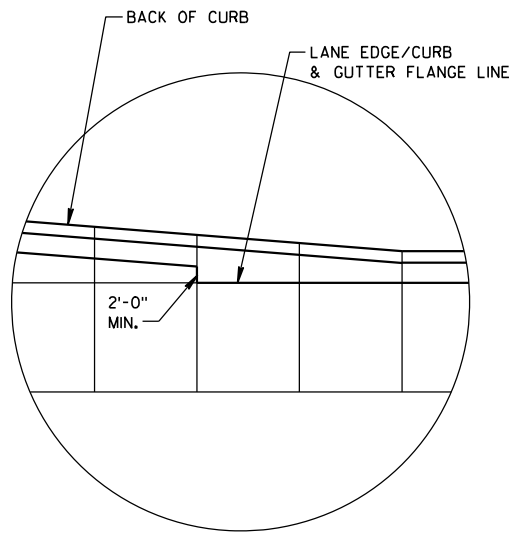
12-11-2009
DATE

FHWA

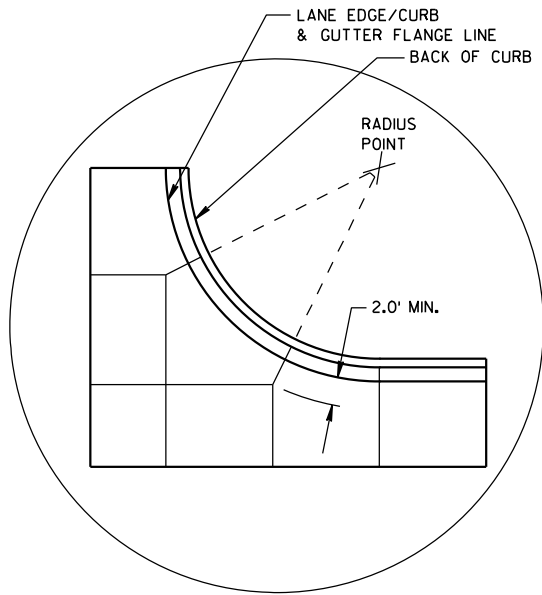
/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



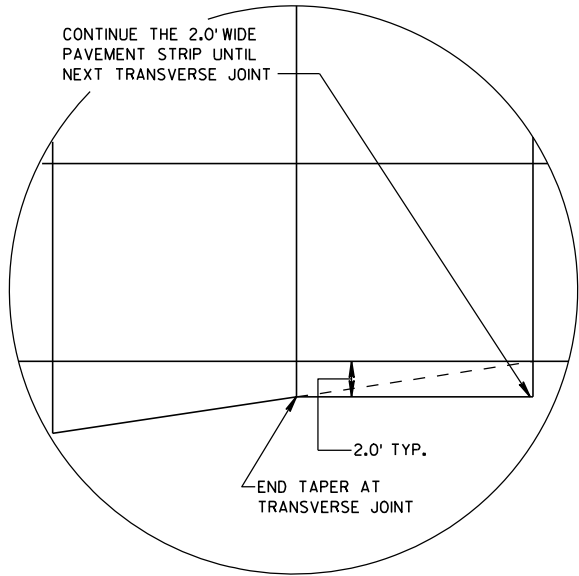
DETAIL "A"



DETAIL "B"



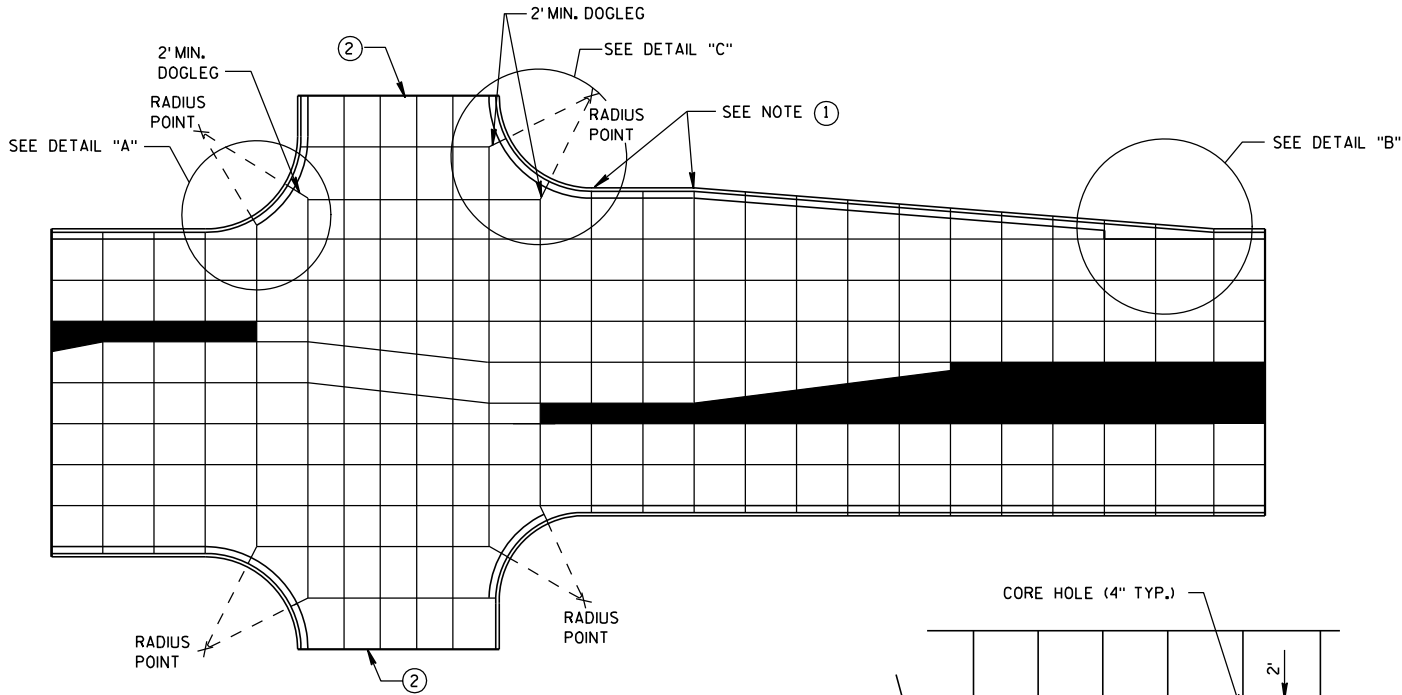
DETAIL "C"



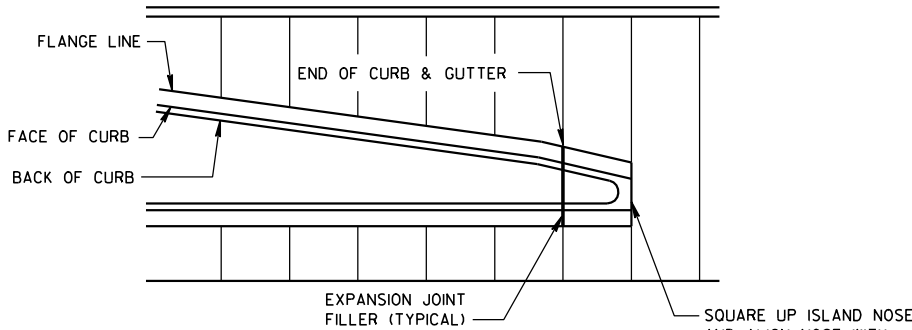
DETAIL "D"

GENERAL NOTES

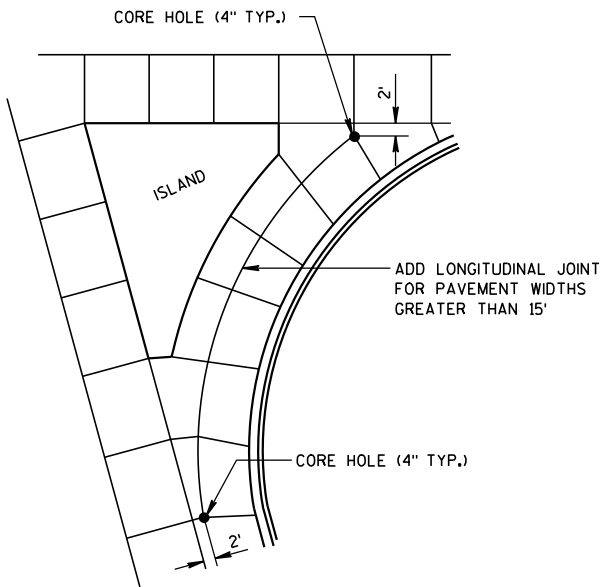
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
 2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
 3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



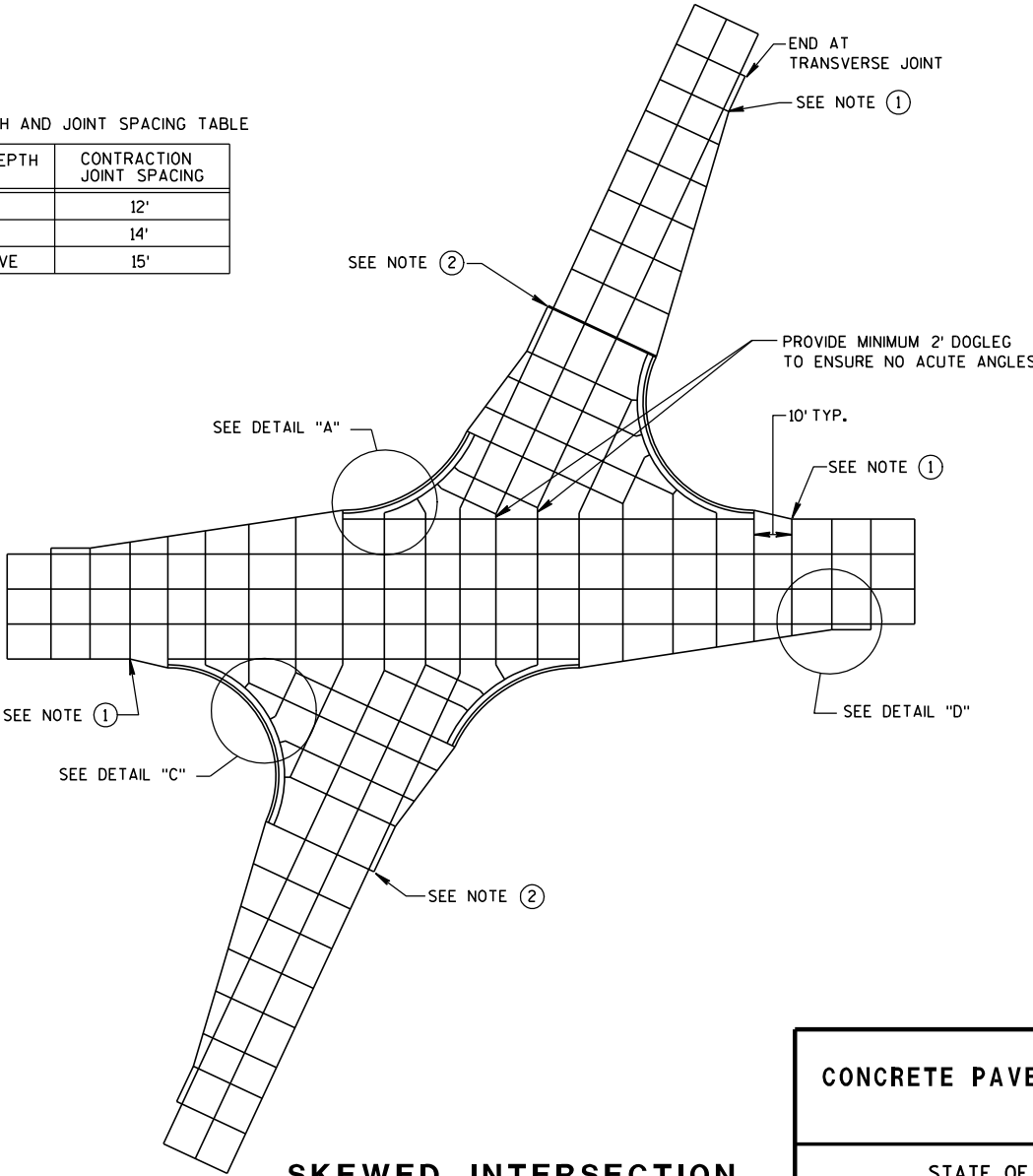
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

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



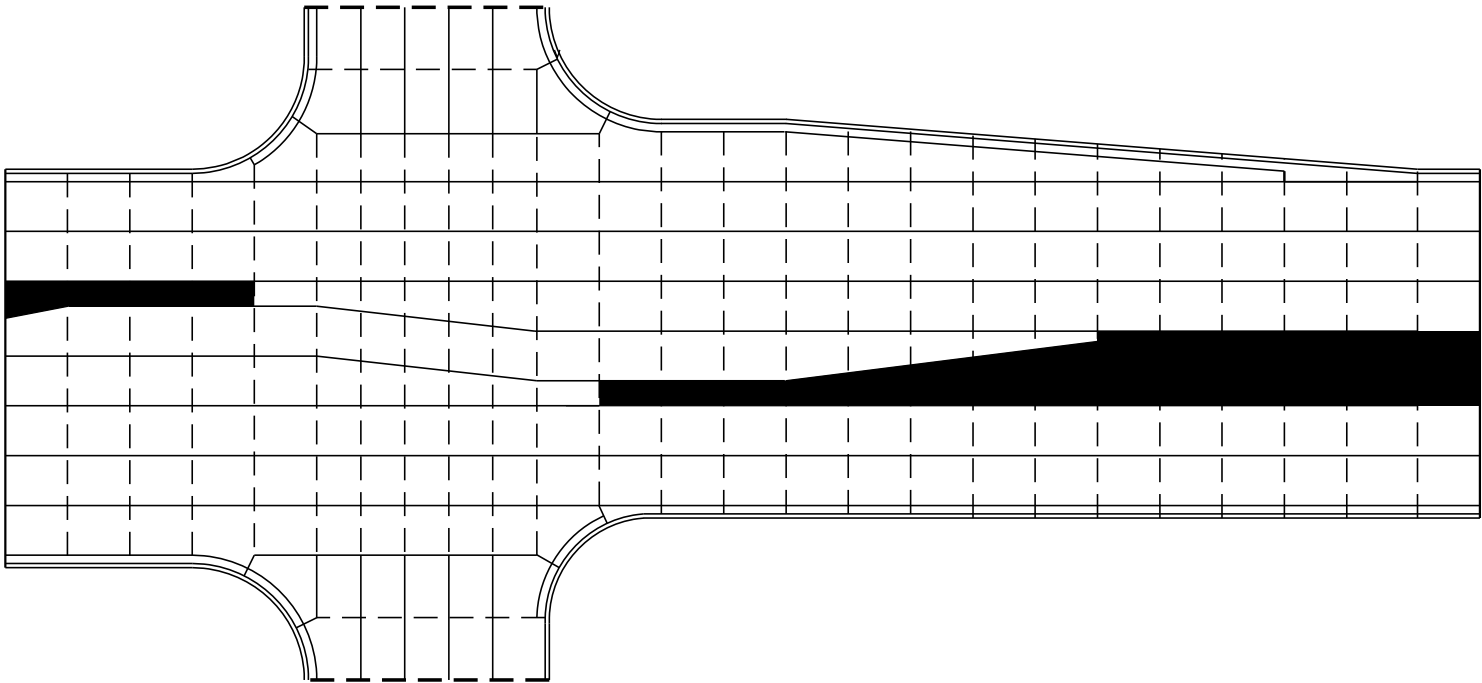
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

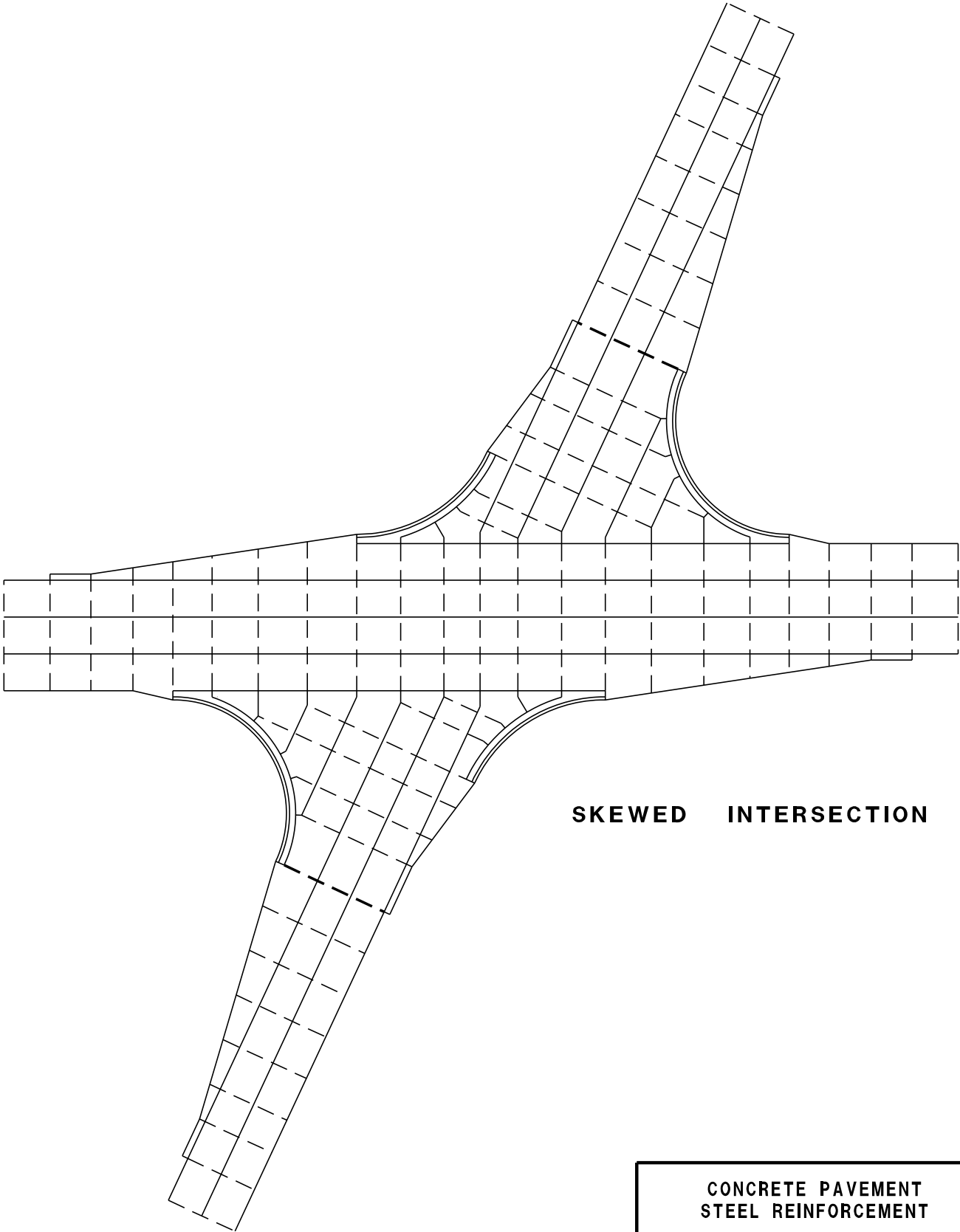
- POTENTIAL DOWELED EXPANSION JOINT
- - - DOWELED JOINT
- _____ TIED JOINT



STANDARD INTERSECTION

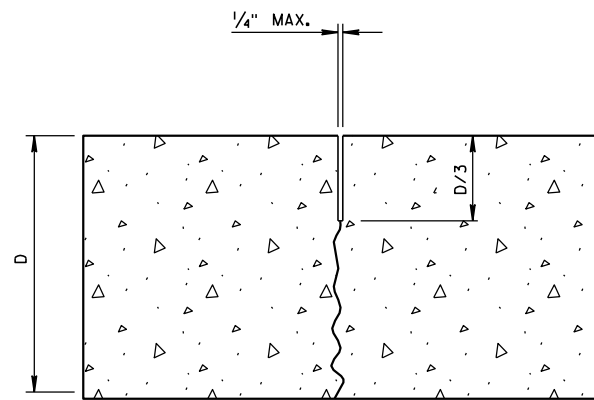
GENERAL NOTES

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

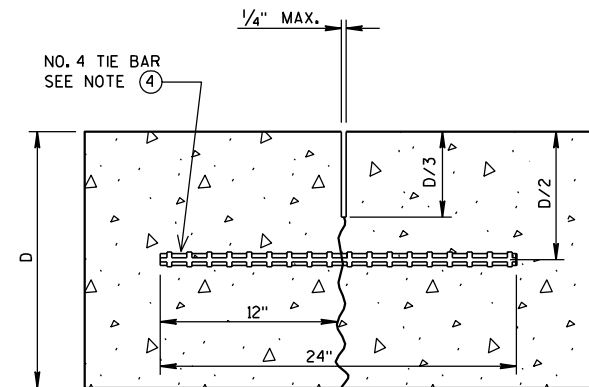


SKewed INTERSECTION

CONCRETE PAVEMENT STEEL REINFORCEMENT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

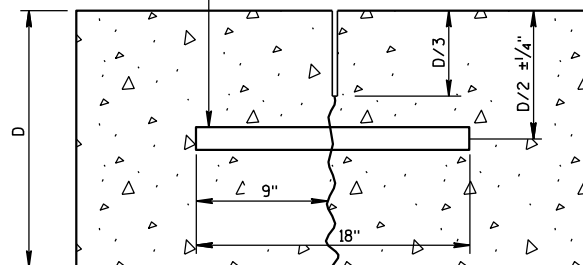


UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

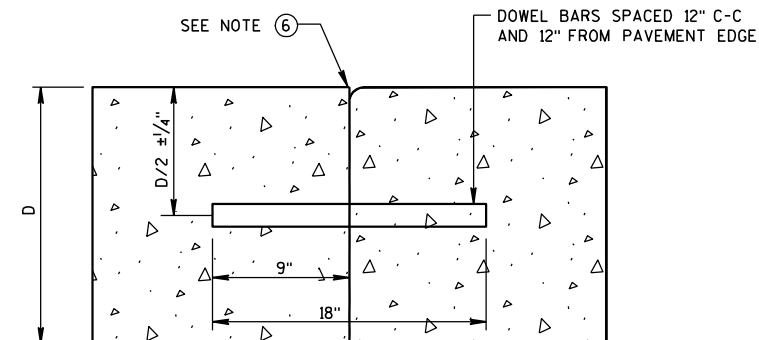
DOWEL BARS AT 12" C-C
12" FROM PAVEMENT EDGE



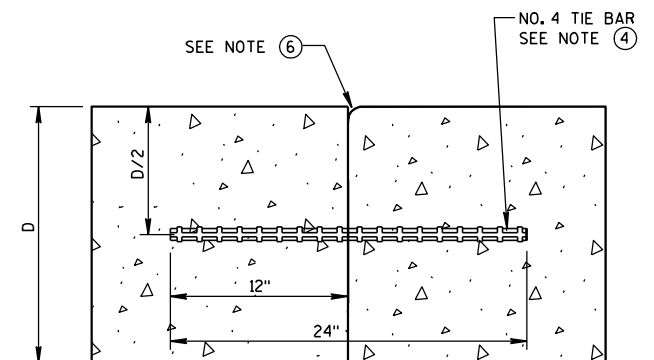
DOWELED-TRANSVERSE

CONTRACTION JOINTS

SEE NOTE ②

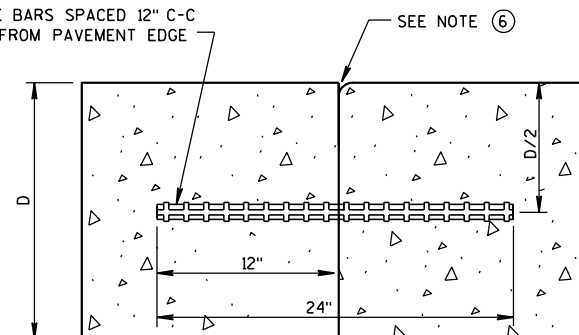


DOWELED TRANSVERSE



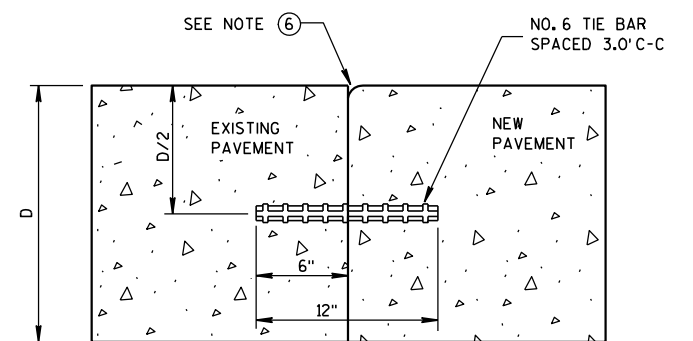
TIED LONGITUDINAL

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



TIED TRANSVERSE

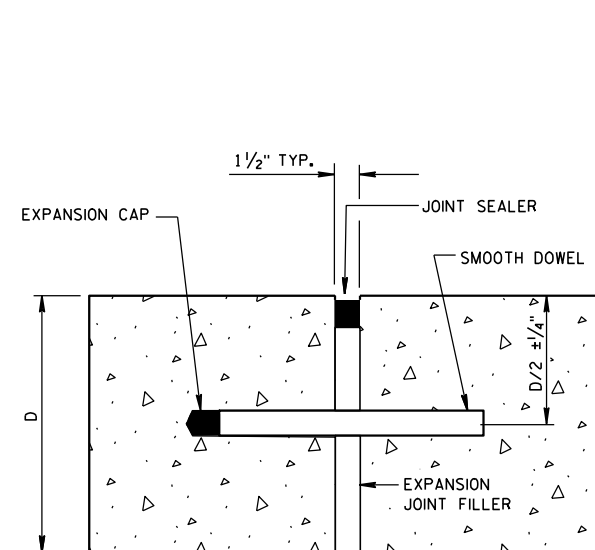
SEE NOTE ③



TIED LONGITUDINAL TO EXISTING

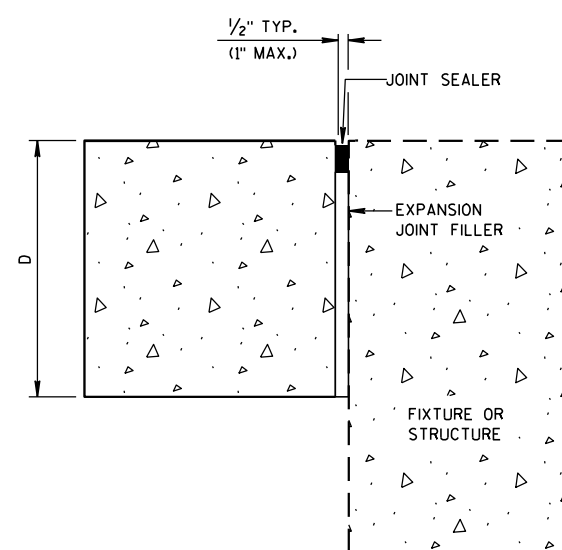
CONSTRUCTION JOINTS

SEE NOTE ⑤



DOWELED-TRANSVERSE

SEE NOTE ①



UNTIED-LONGITUDINAL

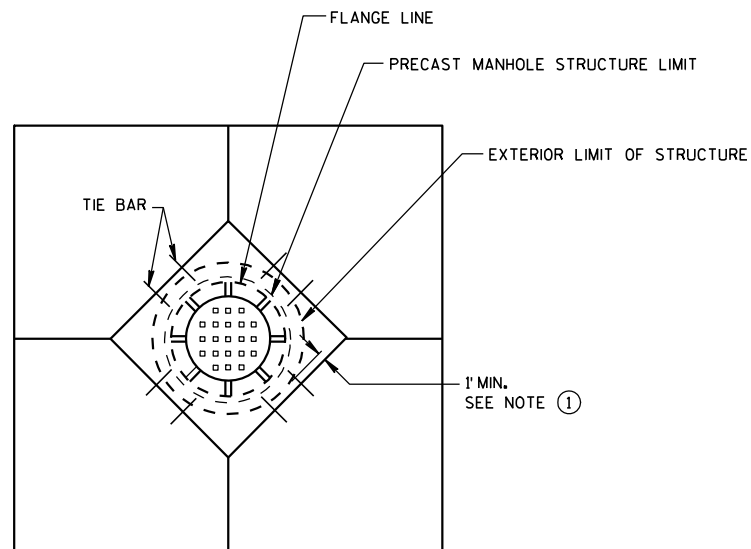
EXPANSION JOINTS

GENERAL NOTES

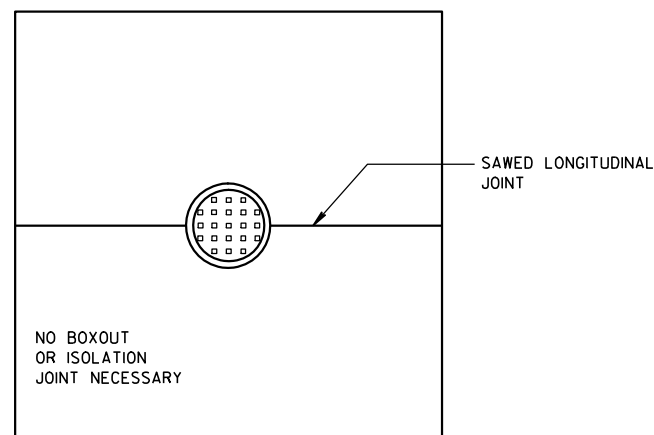
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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

CONCRETE PAVEMENT
JOINT TYPES

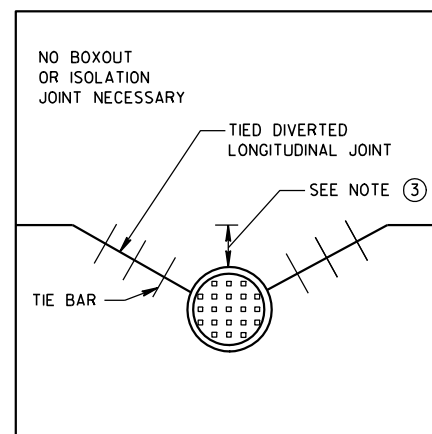
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



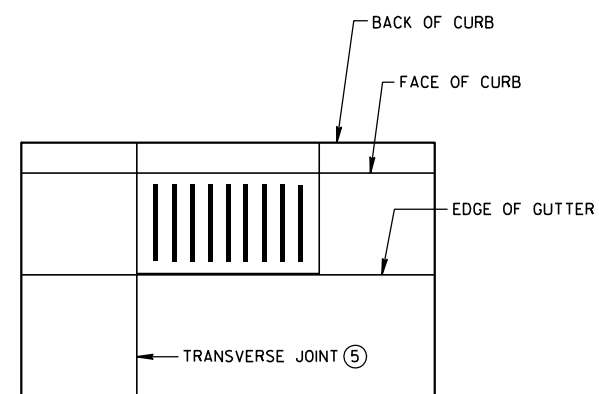
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



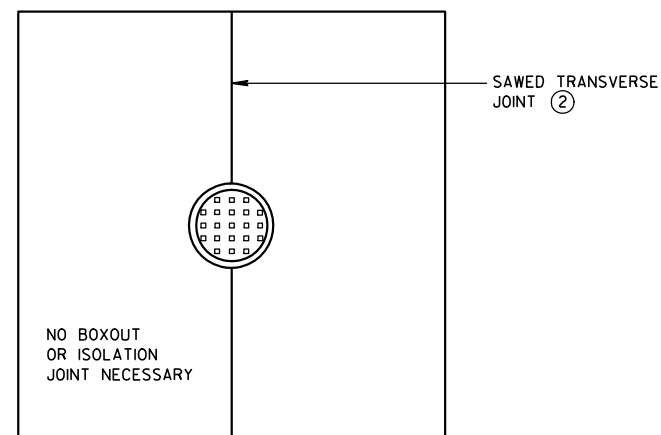
**MANHOLE WITH
LONGITUDINAL JOINT**



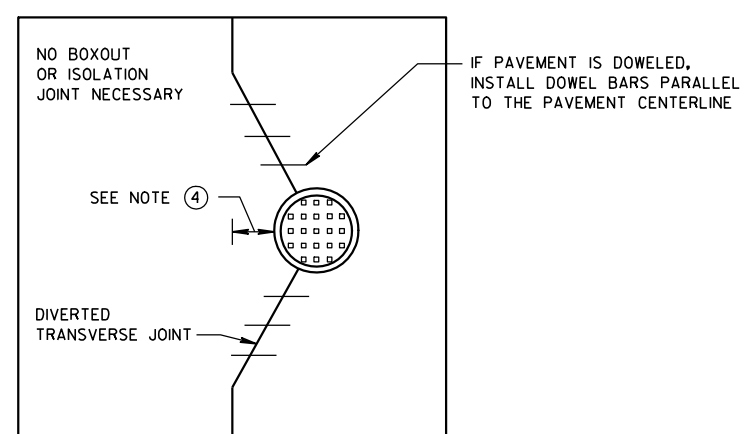
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

GENERAL NOTES

1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS GREATER THAN 2 FEET, DO NOT DIVERT JOINT AND SAW LONGITUDINAL JOINT AS NORMAL. IF DISTANCE IS 2 FEET OR LESS, DIVERT LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE.
4. IF DISTANCE FROM THE EDGE OF MANHOLE TO THE NEAREST TRANSVERSE JOINT IS GREATER THAN 4 FEET, REDIRECT JOINT TO INTERSECT MANHOLE. IF DISTANCE IS 4 FEET OR LESS, PLACE REBAR REINFORCEMENT AROUND MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

**CONCRETE PAVEMENT
JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

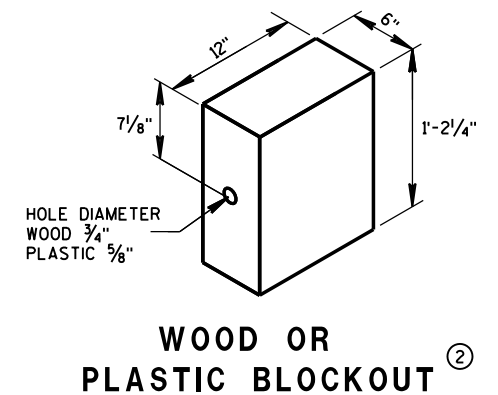
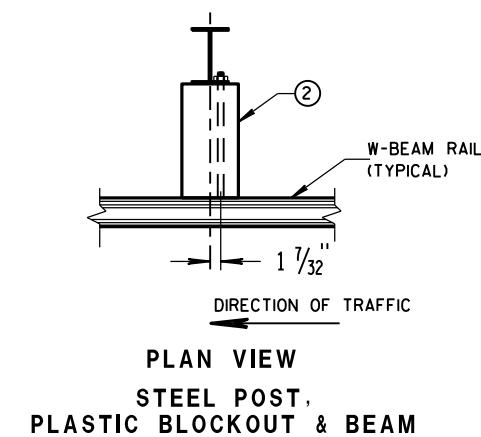
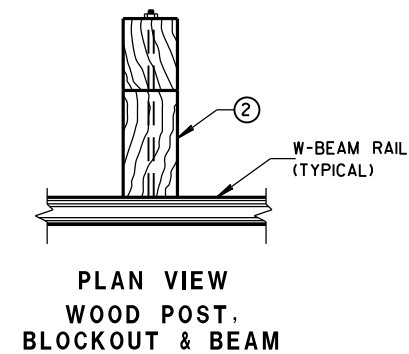
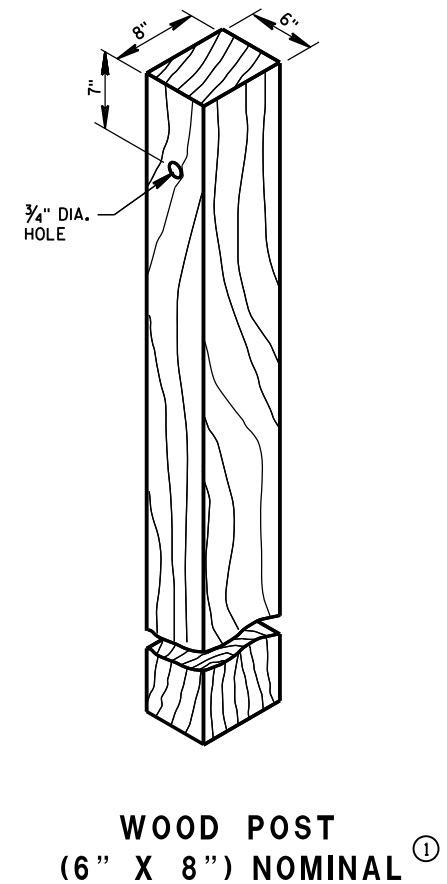
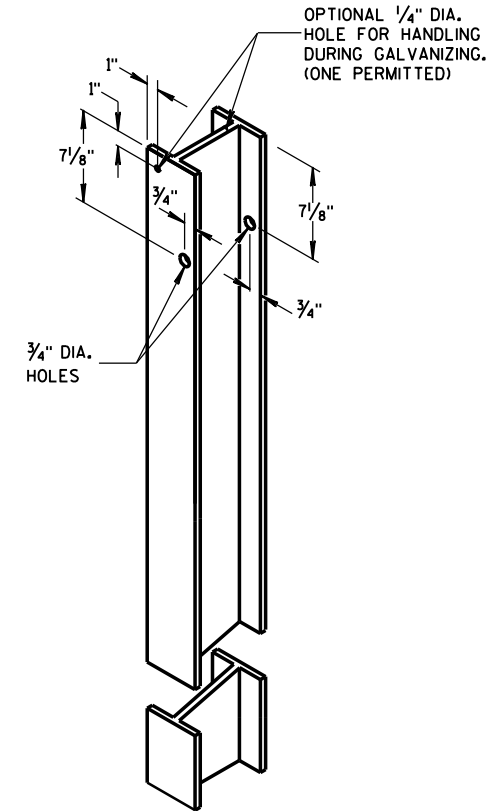
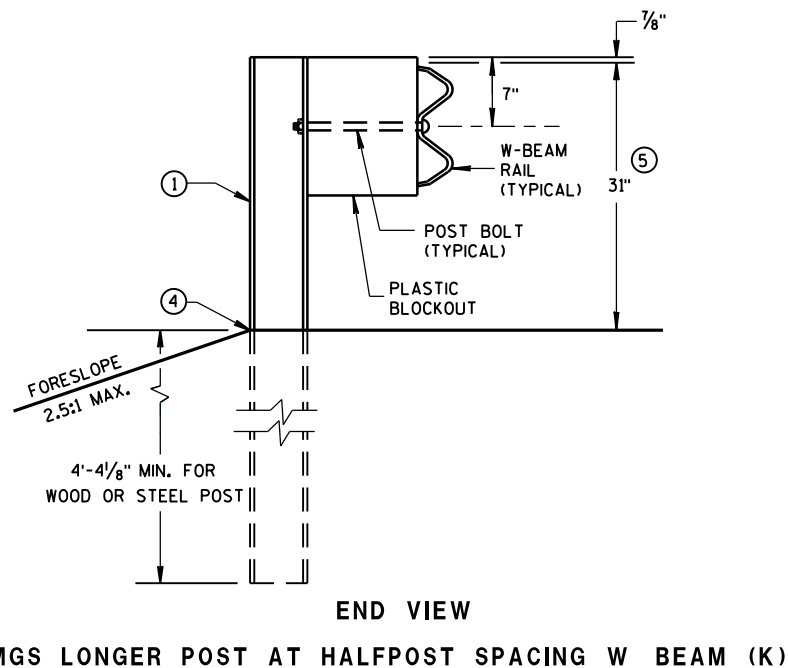
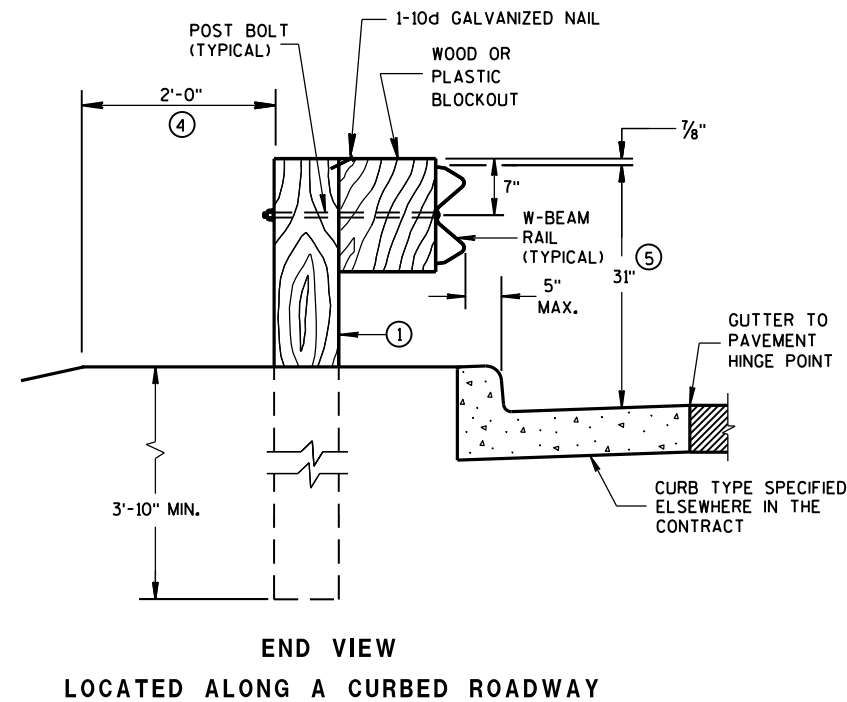
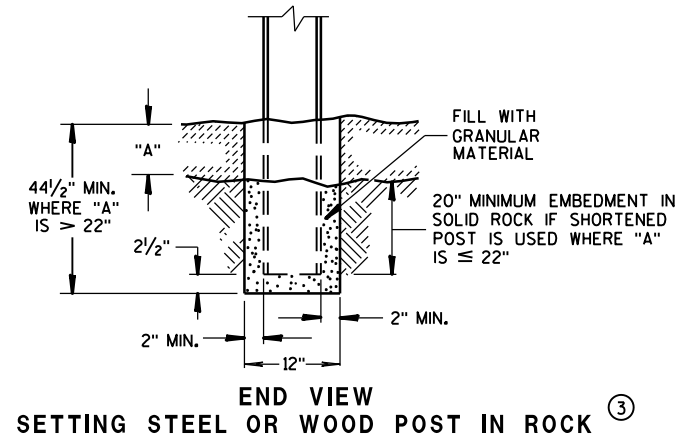
APPROVED
10-5-2010
DATE

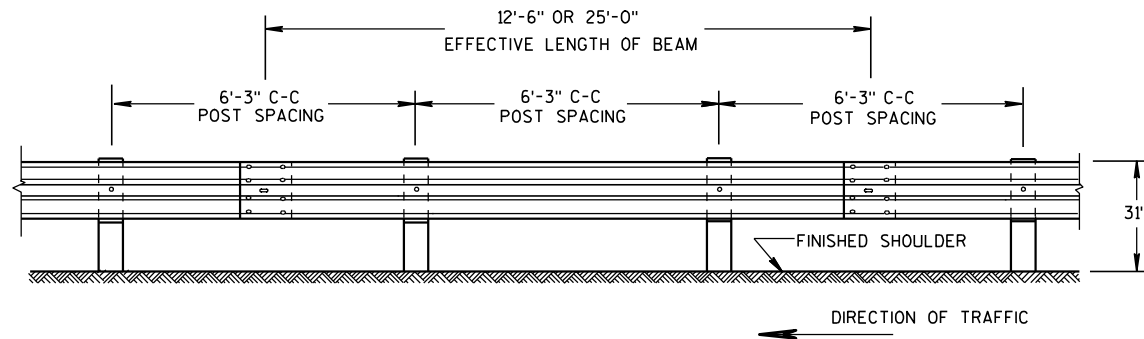
FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER

6

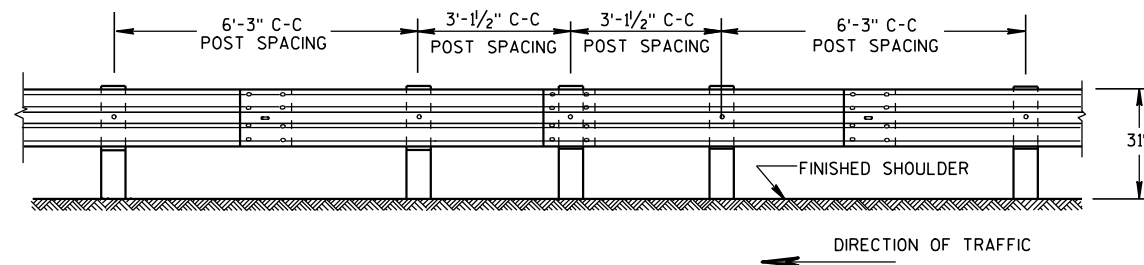
- S.D.D. 14 B 42-2a**





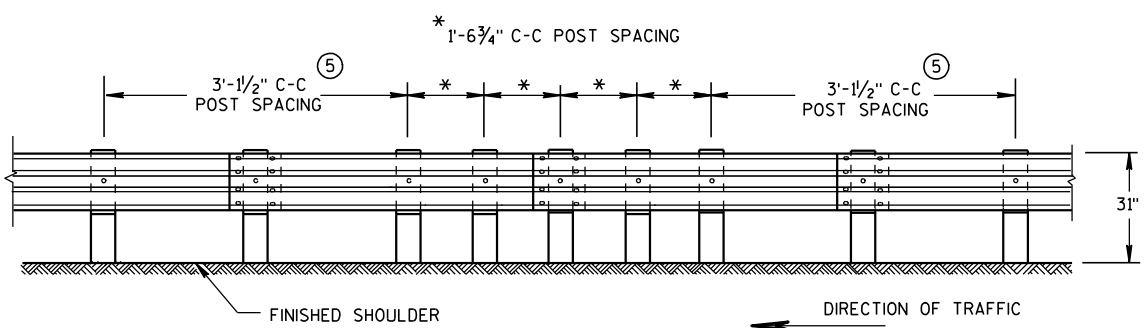
FRONT VIEW

POST SPACING STANDARD INSTALLATION



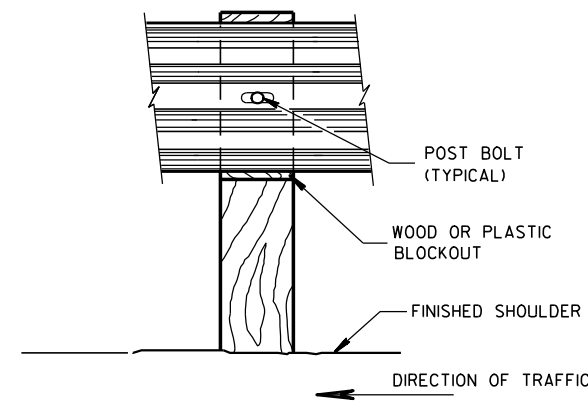
FRONT VIEW

HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)

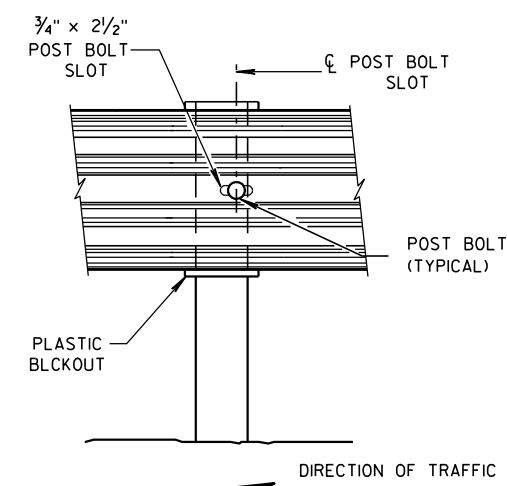


FRONT VIEW

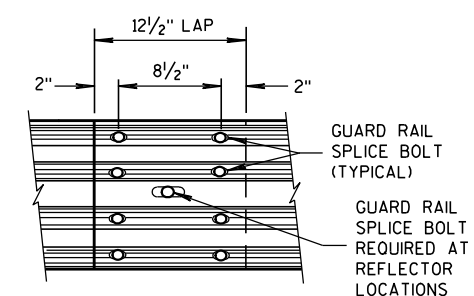
QUARTER POST SPACING (QS)



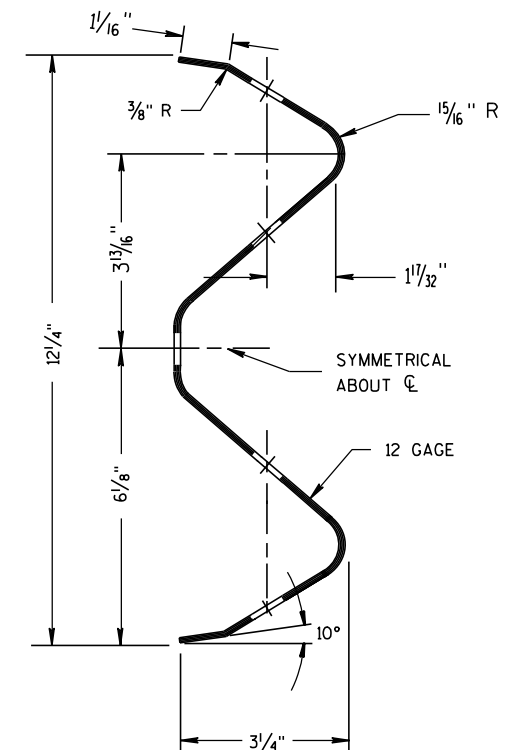
FRONT VIEW AT WOOD POST



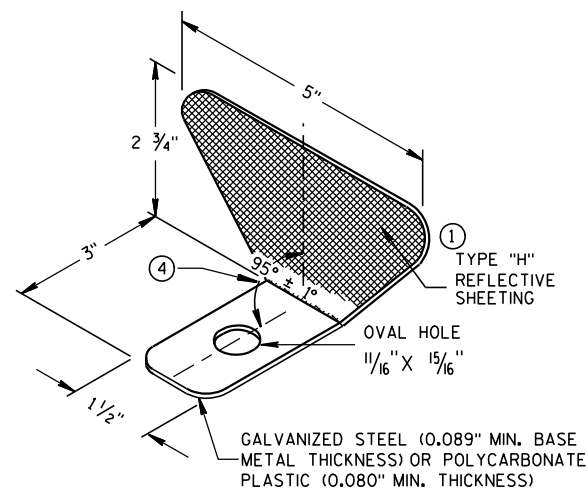
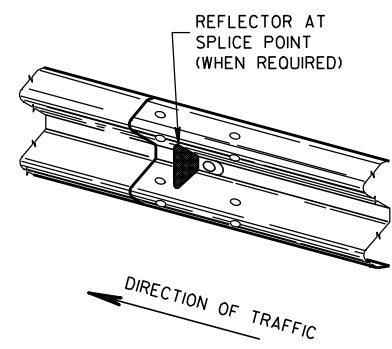
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

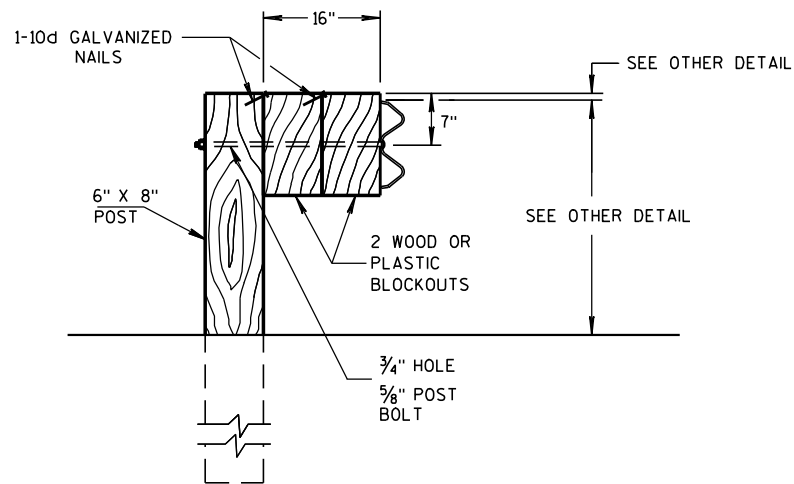
- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
 - 2 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - 4 PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - 5 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	

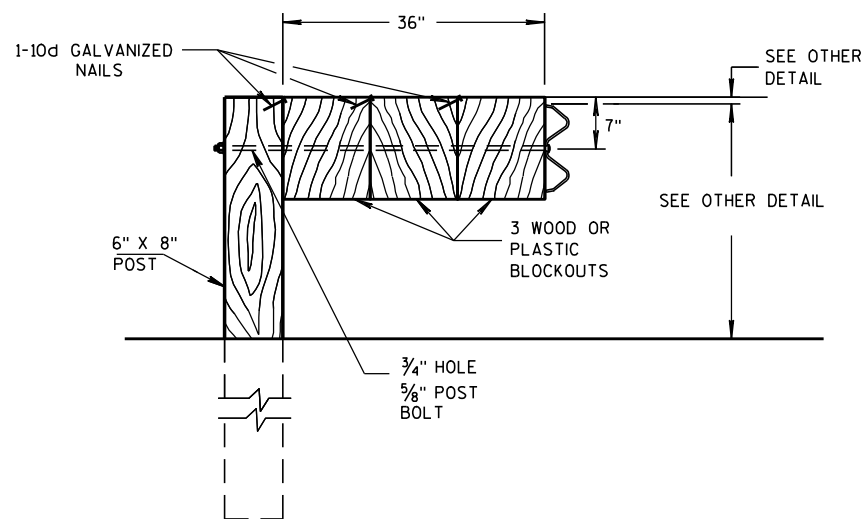
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

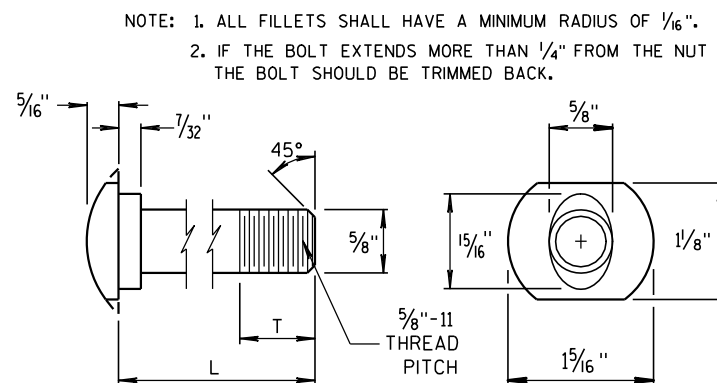
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



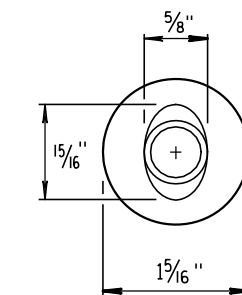
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

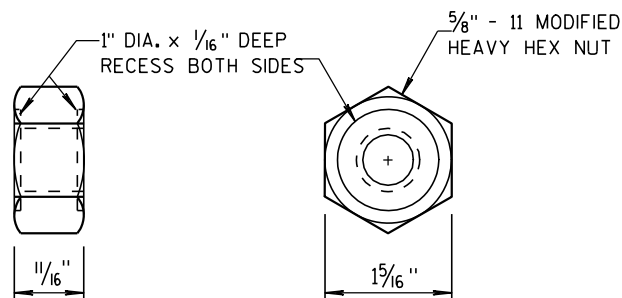
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



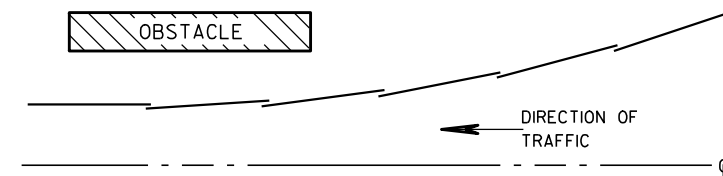
POST BOLT TABLE



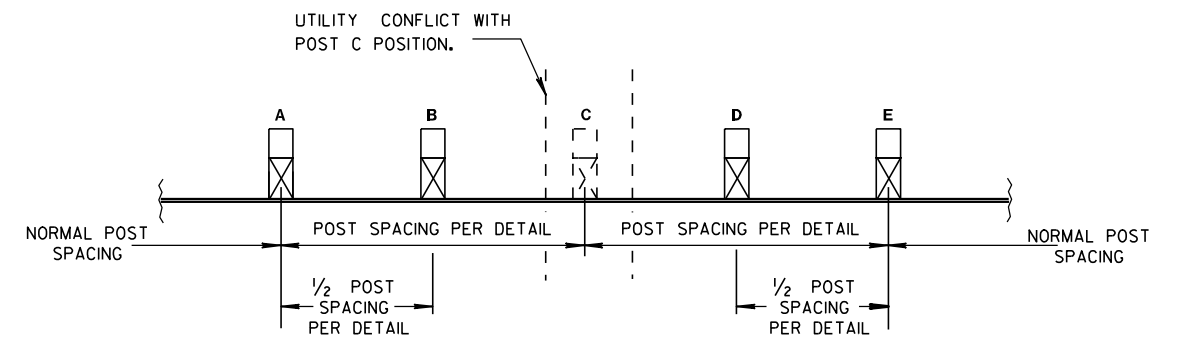
ALTERNATE BOLT HEAD



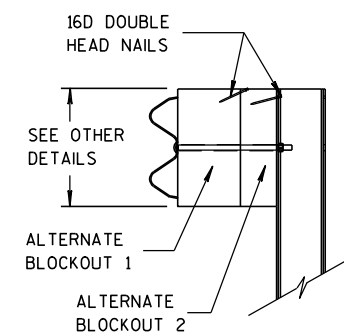
POST BOLT AND RECESS NUT



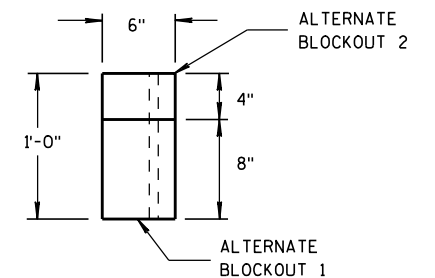
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

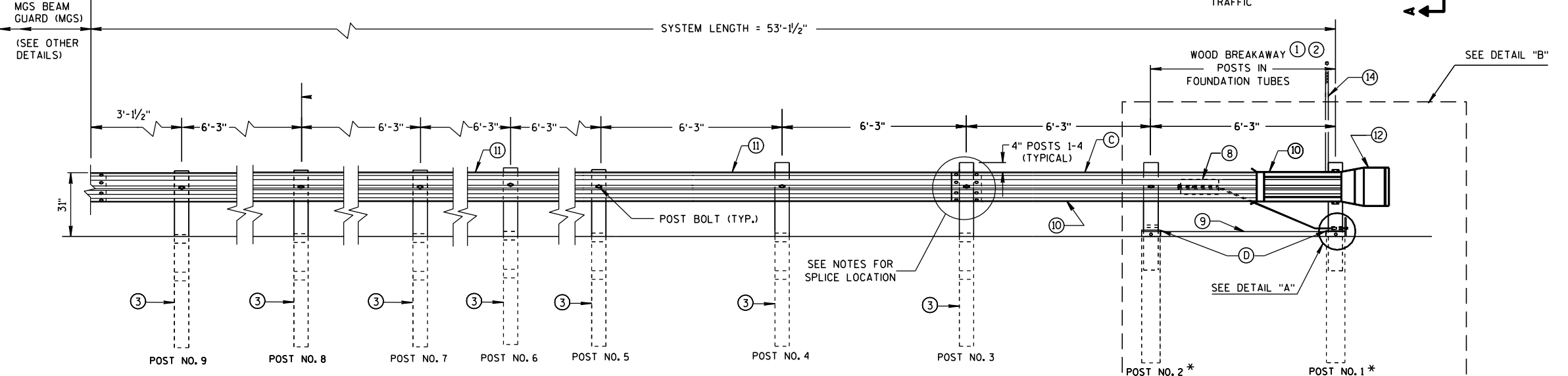
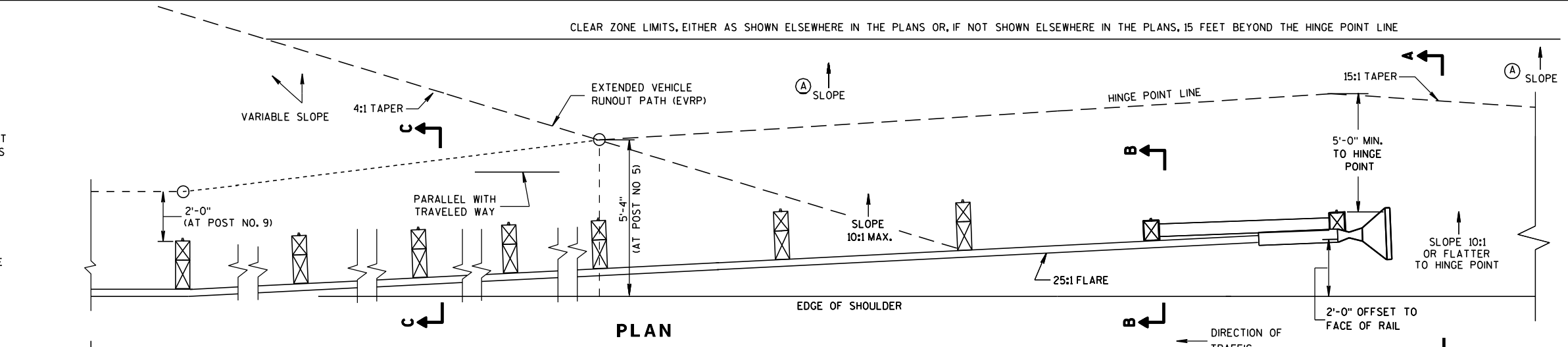
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

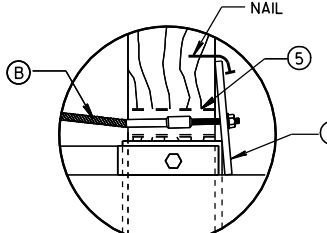
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

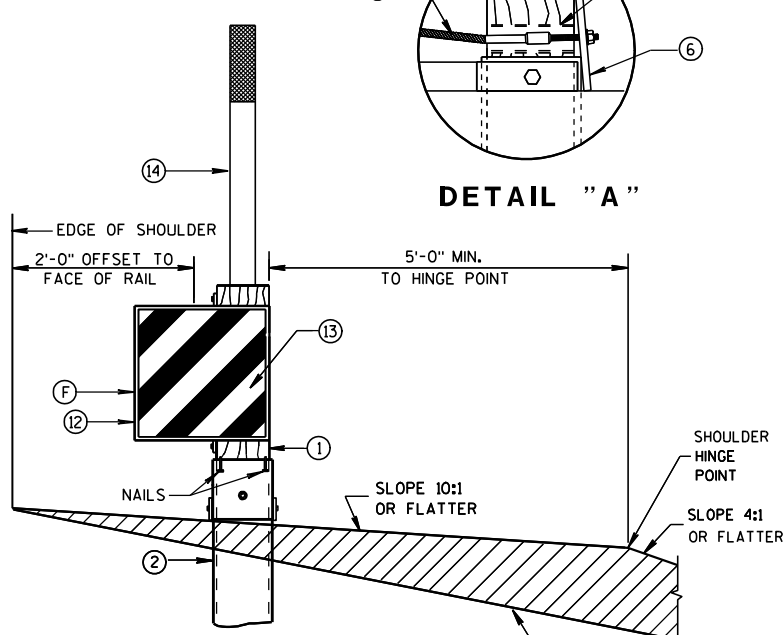
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")



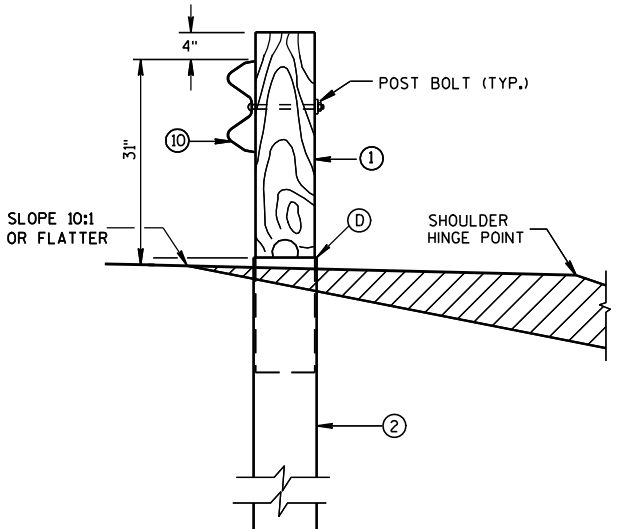
ELEVATION



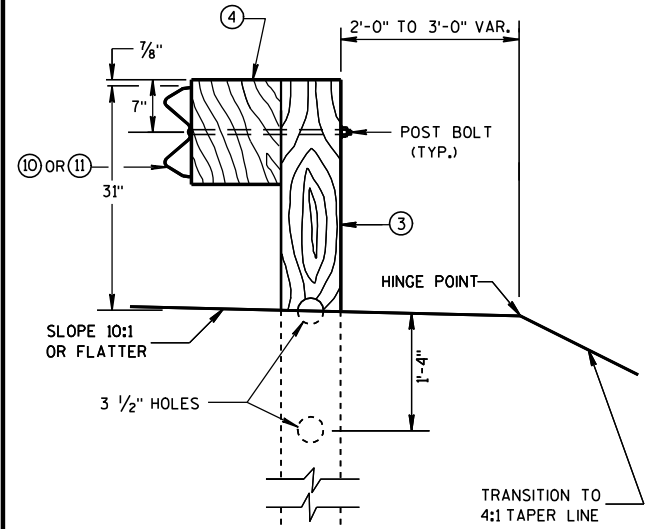
DETAIL "A"



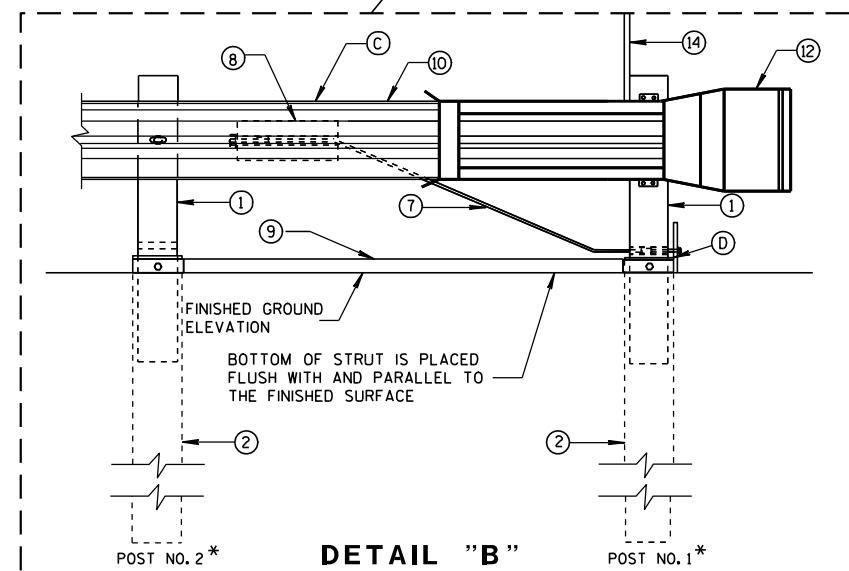
SECTION A-A
TYPICAL AT POST NO. 1*



SECTION B-B
TYPICAL AT POST NO. 2*



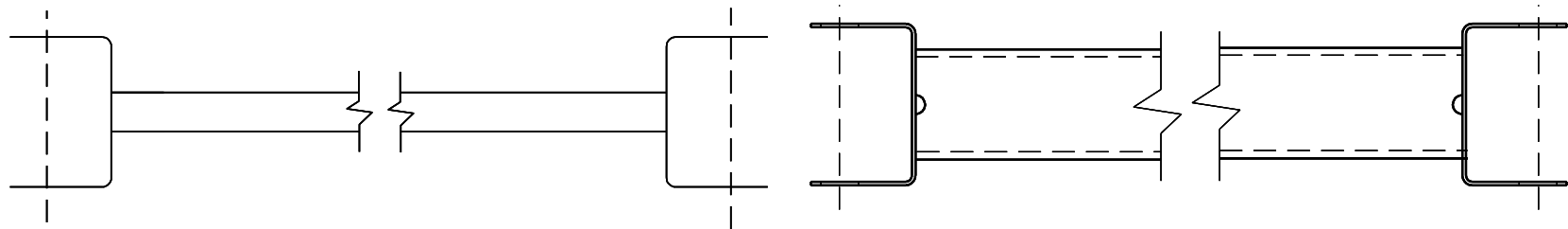
SECTION C-C
TYPICAL AT POST NOS. 3-9



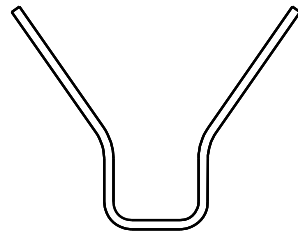
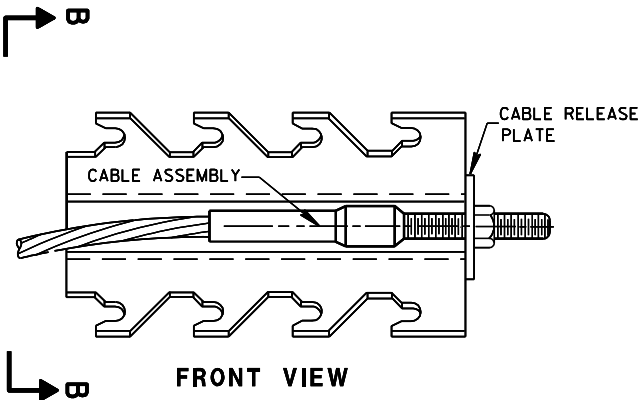
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

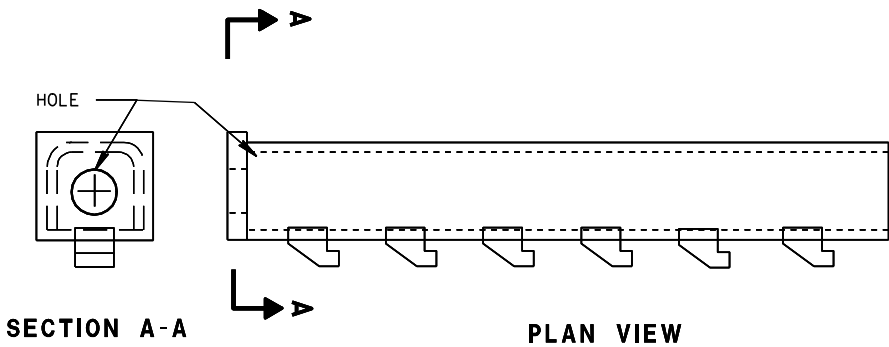
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



9 H
GENERIC GROUND STRUT

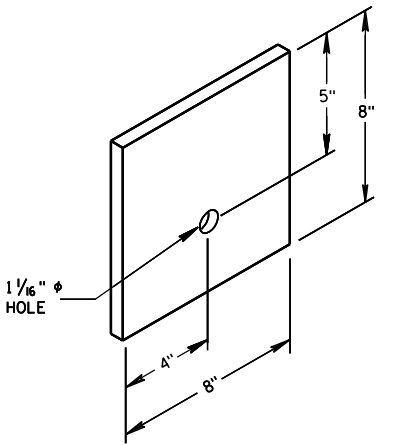


SECTION B-B
8 H
GENERIC ANCHOR CABLE BOX



BILL OF MATERIALS

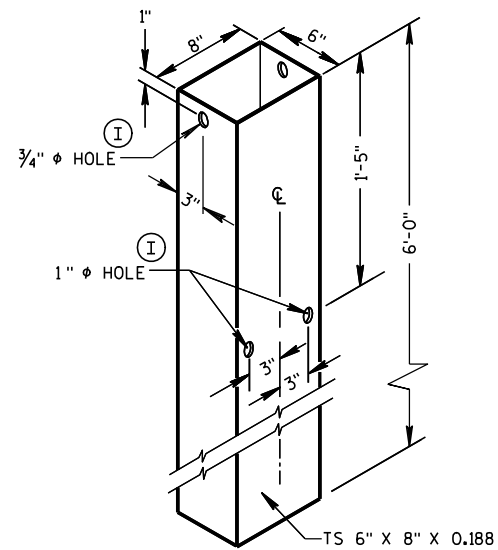
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL, MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



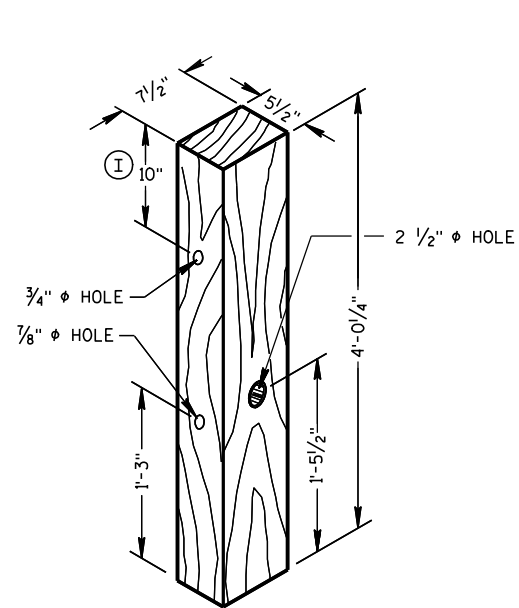
6
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

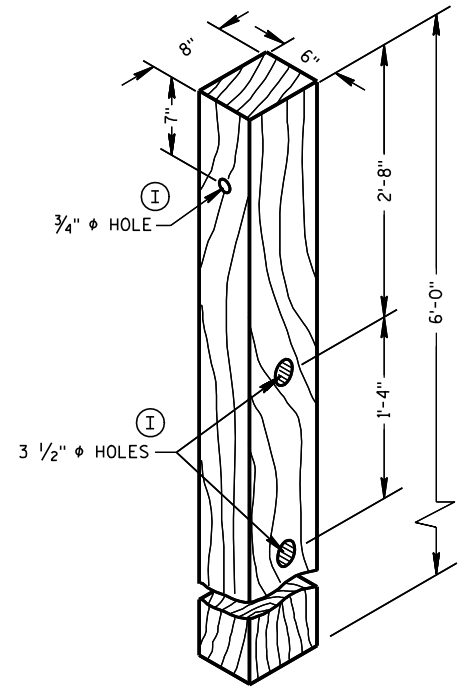
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



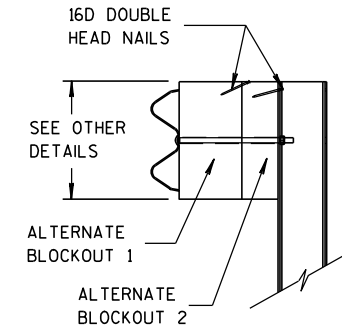
FOUNDATION TUBE ②



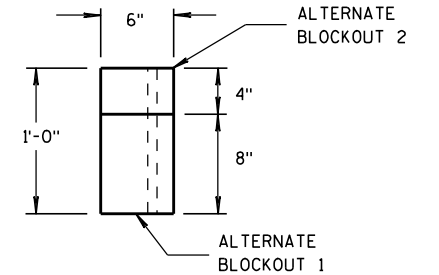
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

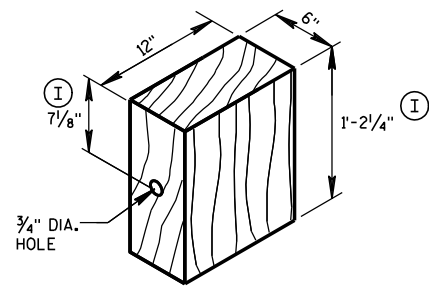


SIDE VIEW



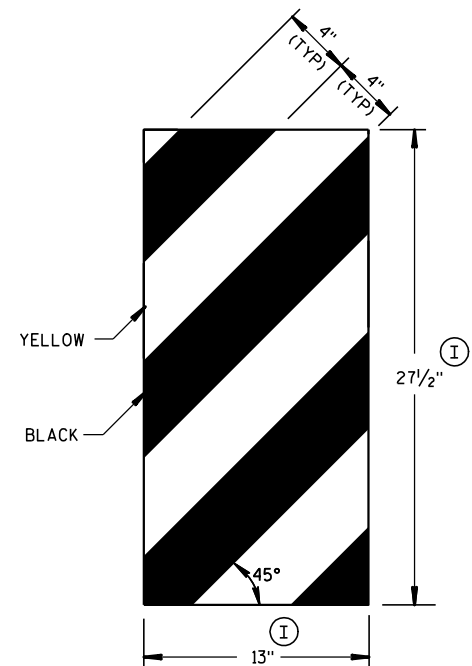
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

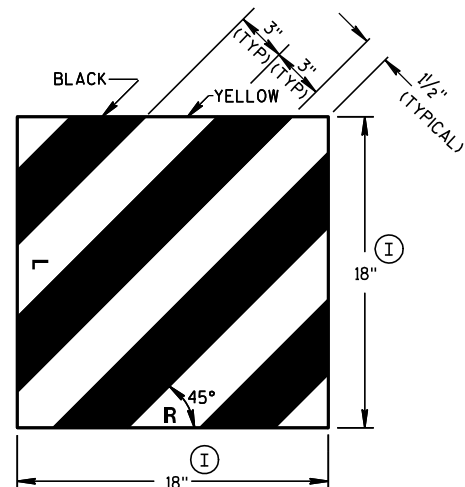


WOOD BLOCKOUT ④

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



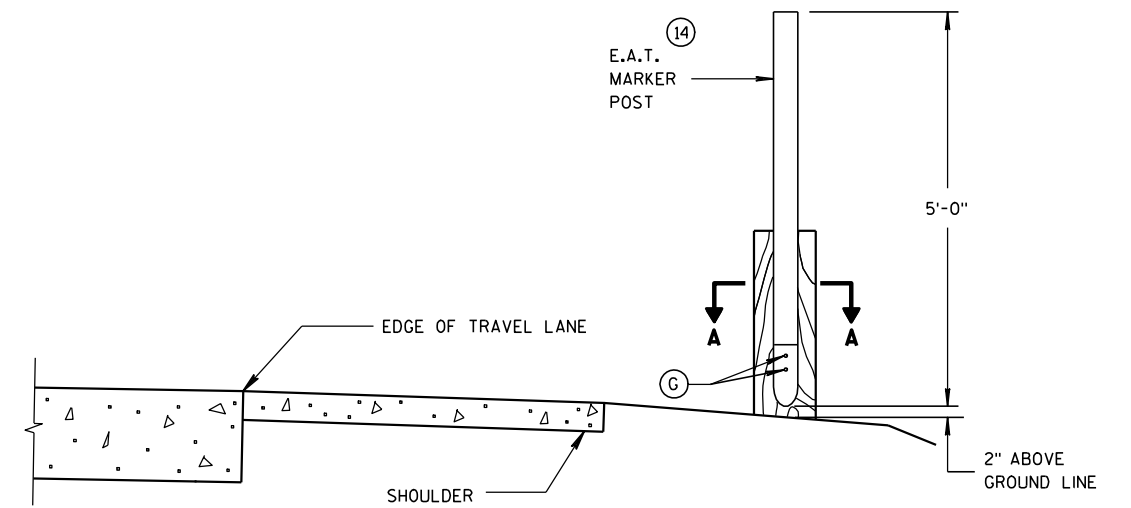
GENERIC REFLECTIVE SHEETING ⑬ ④



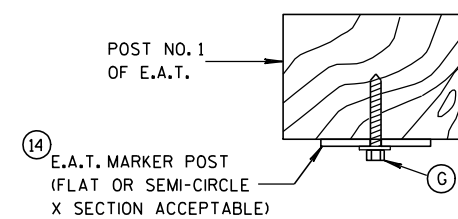
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

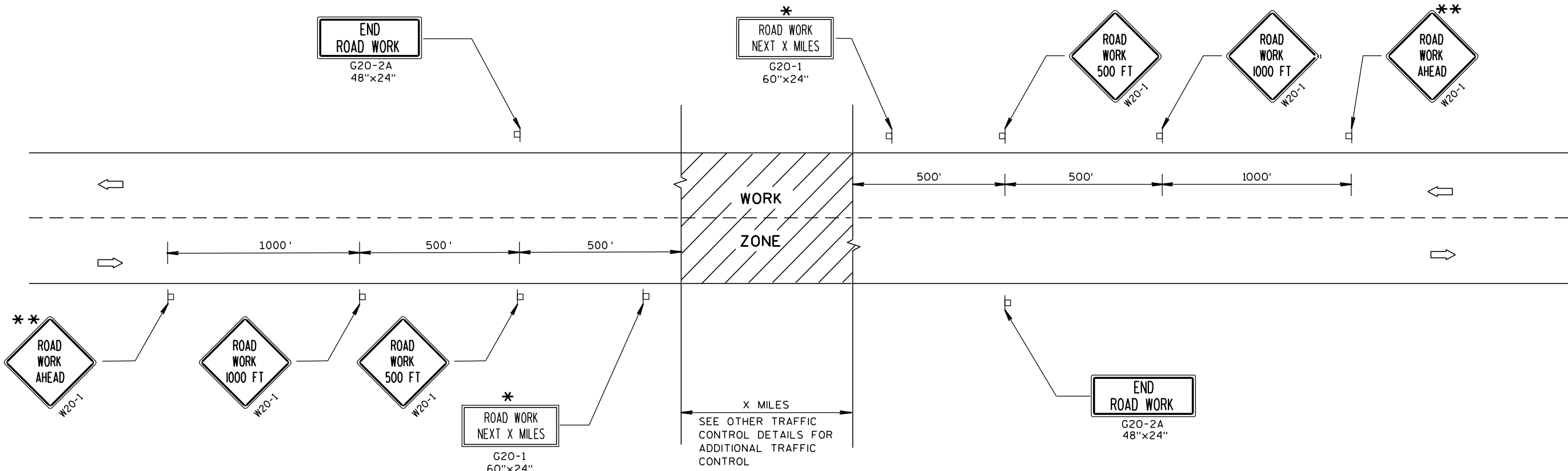
APPROVED

5/23/2011

DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

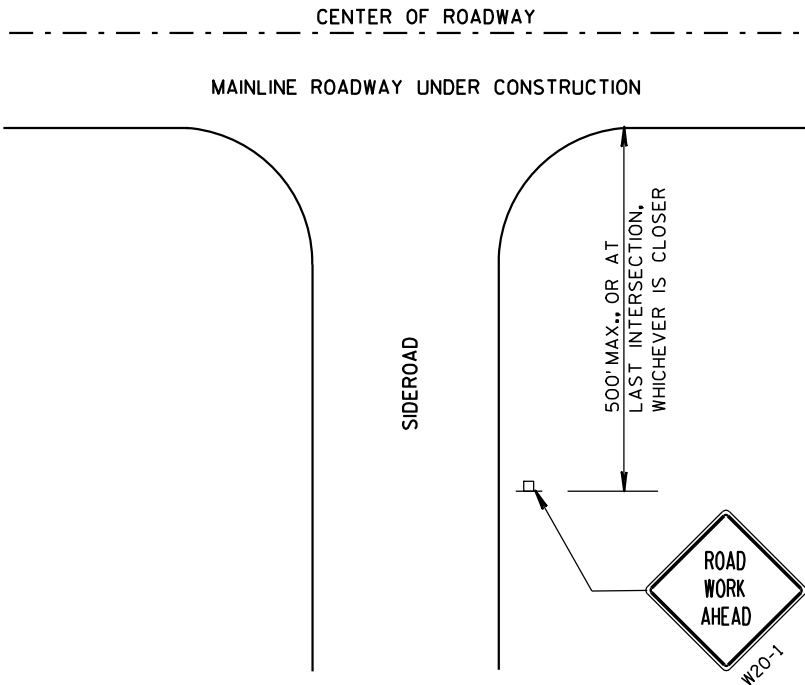
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.



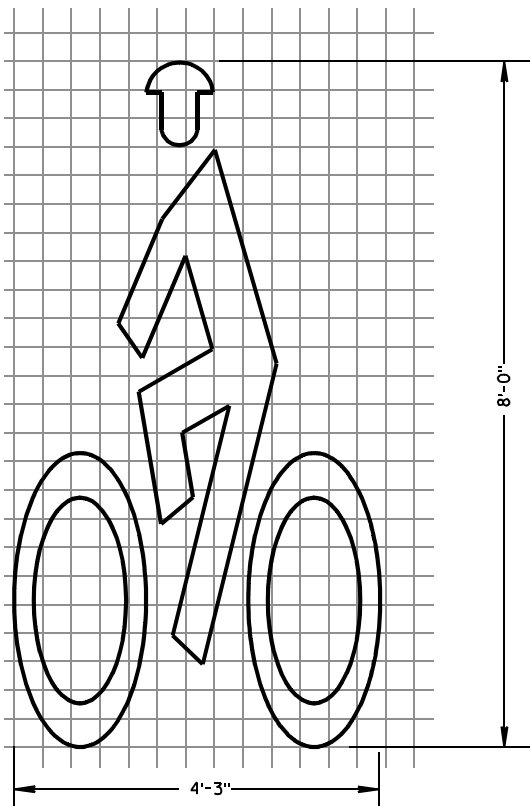
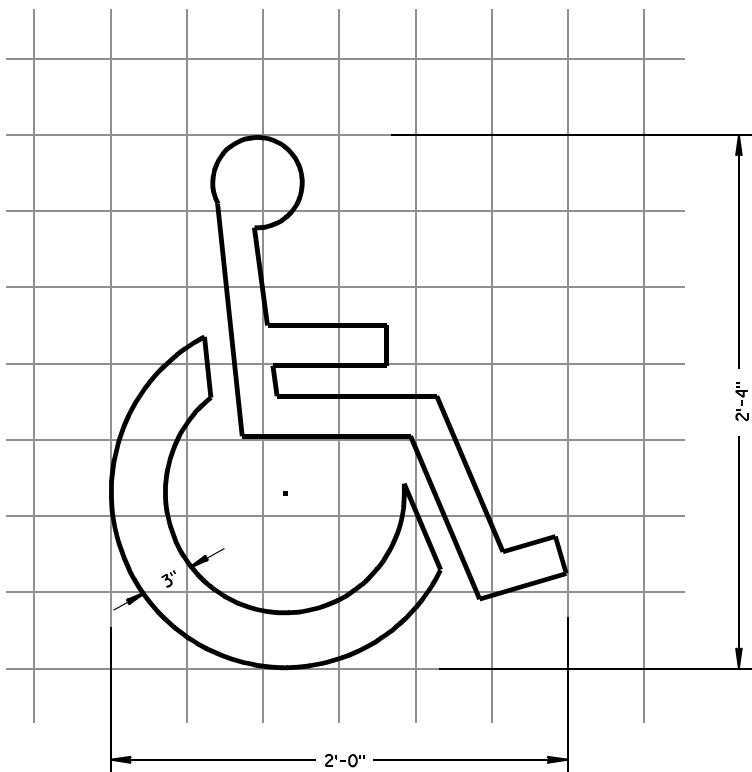
LEGEND

- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

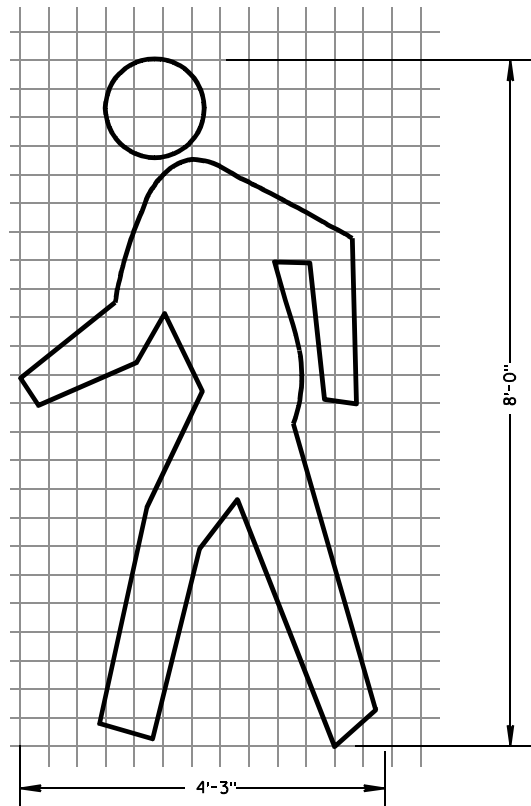
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

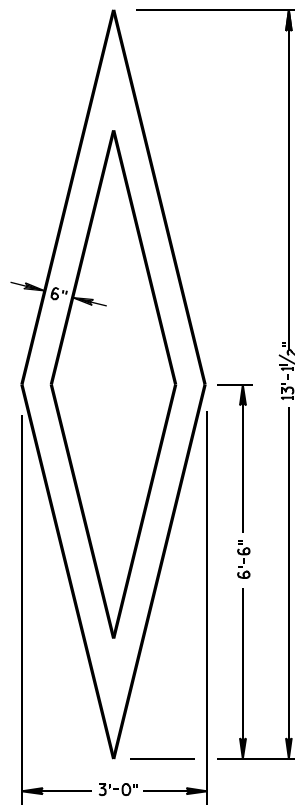
APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA



BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL
LANE SYMBOL

GENERAL NOTES

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

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

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

PAVEMENT MARKING SYMBOLS

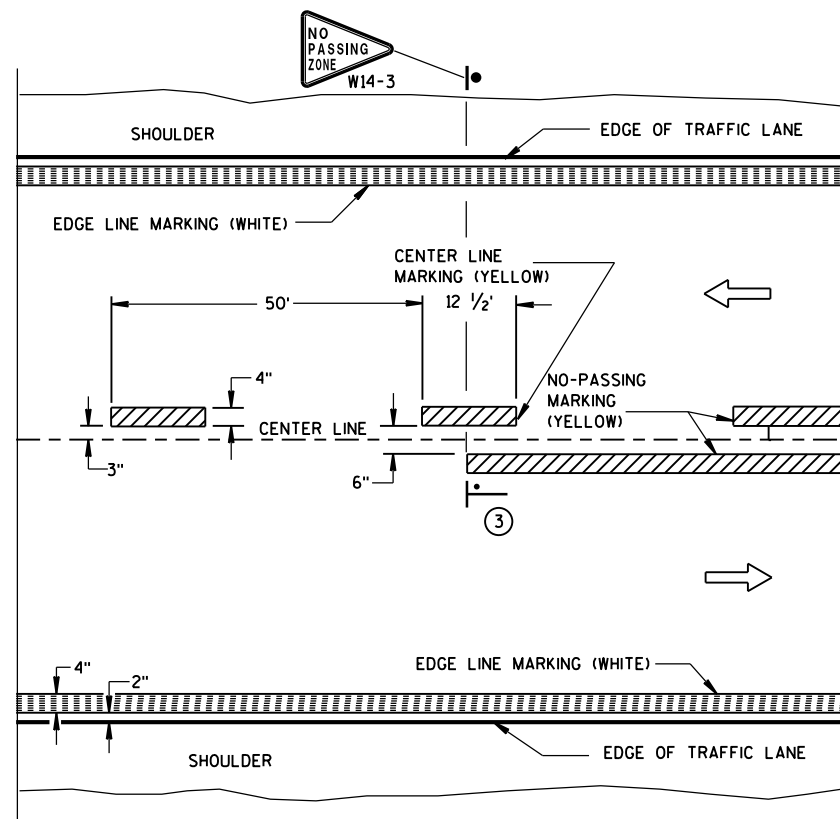
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

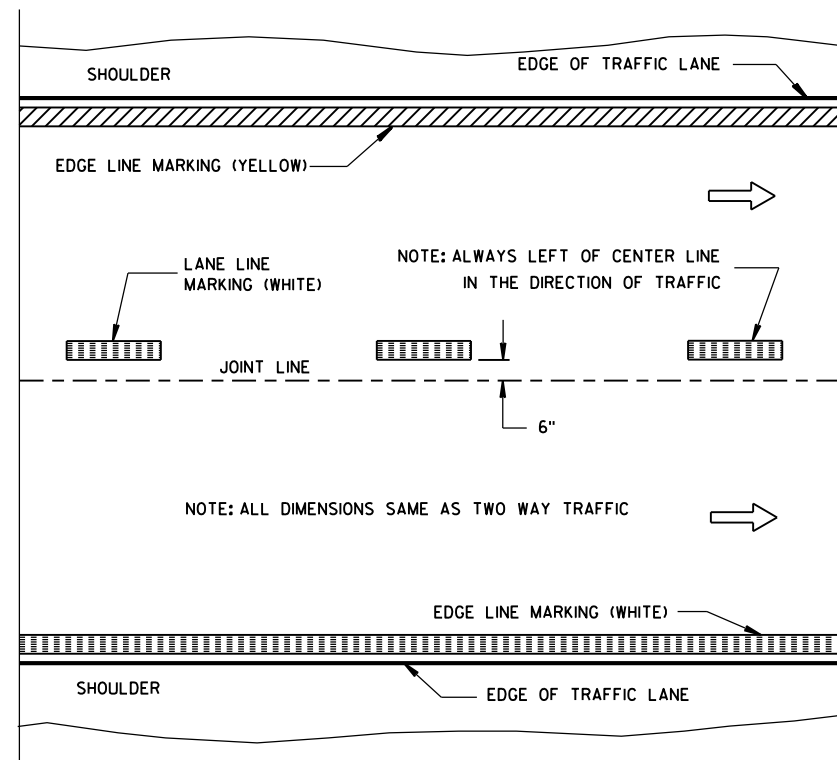
7/1/11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

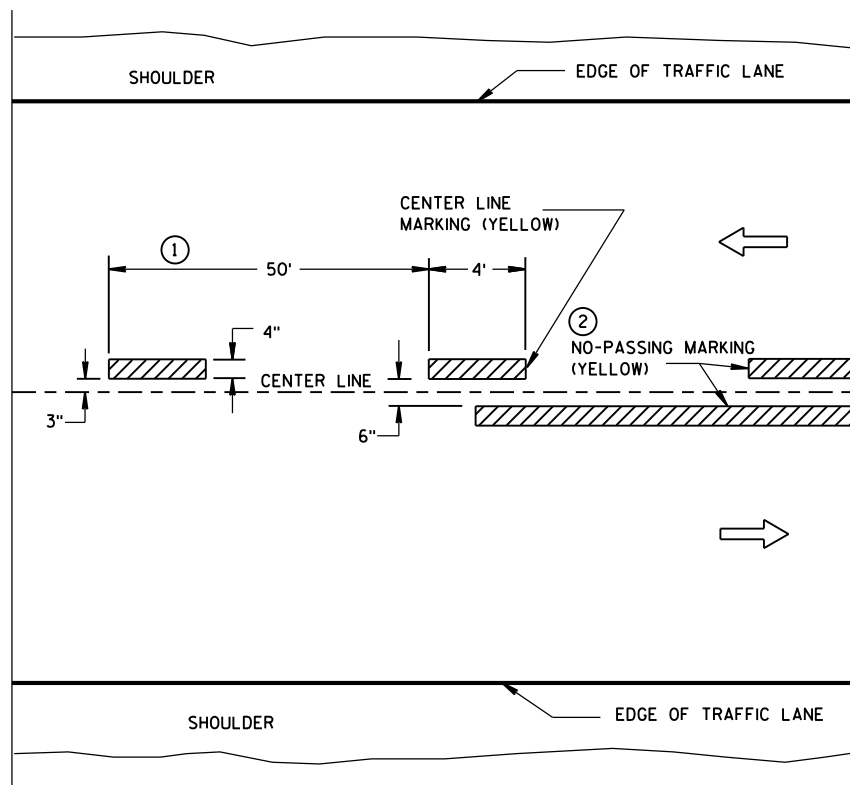


TWO WAY TRAFFIC

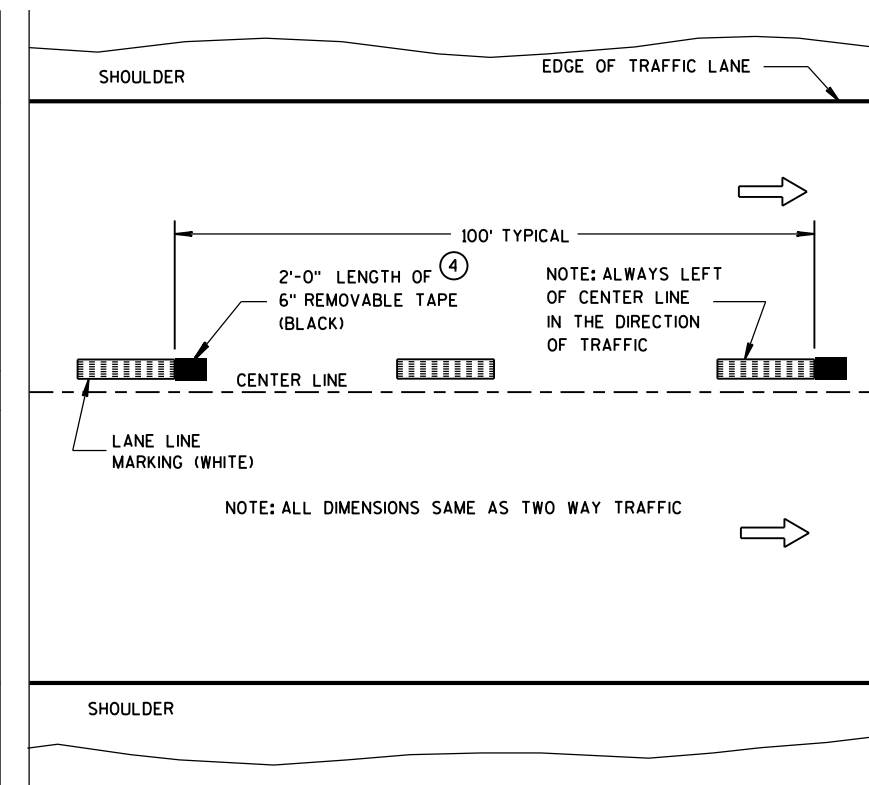


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

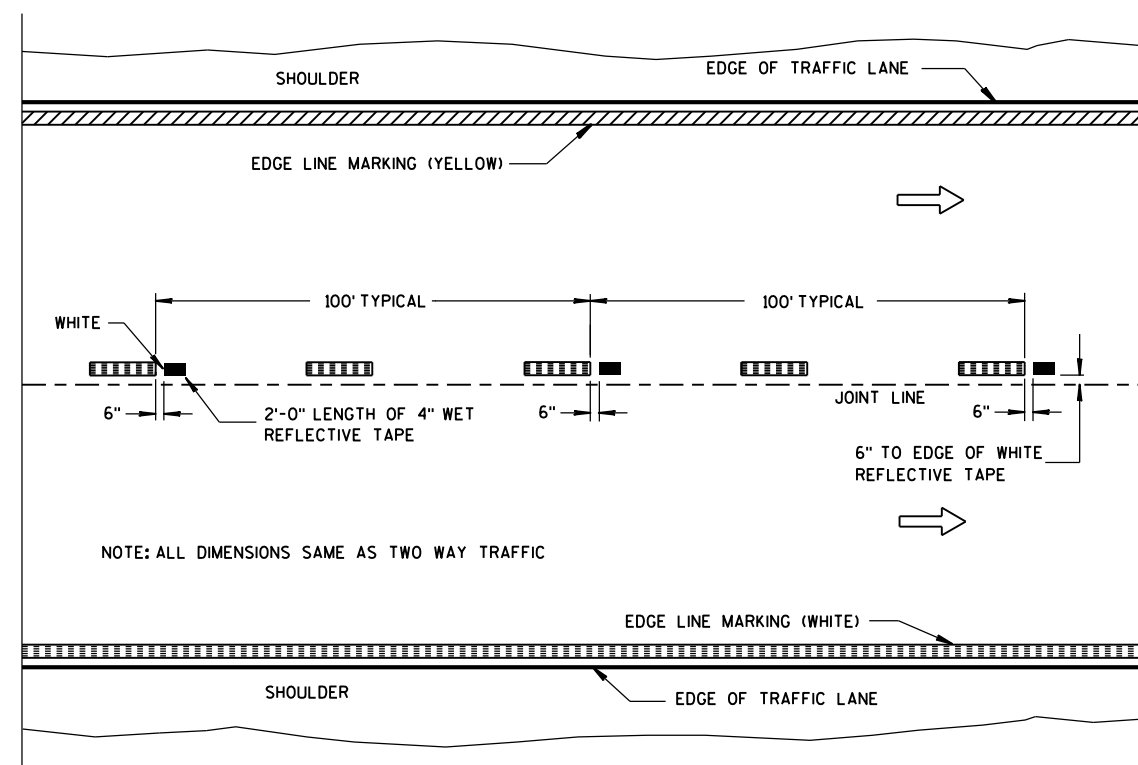
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

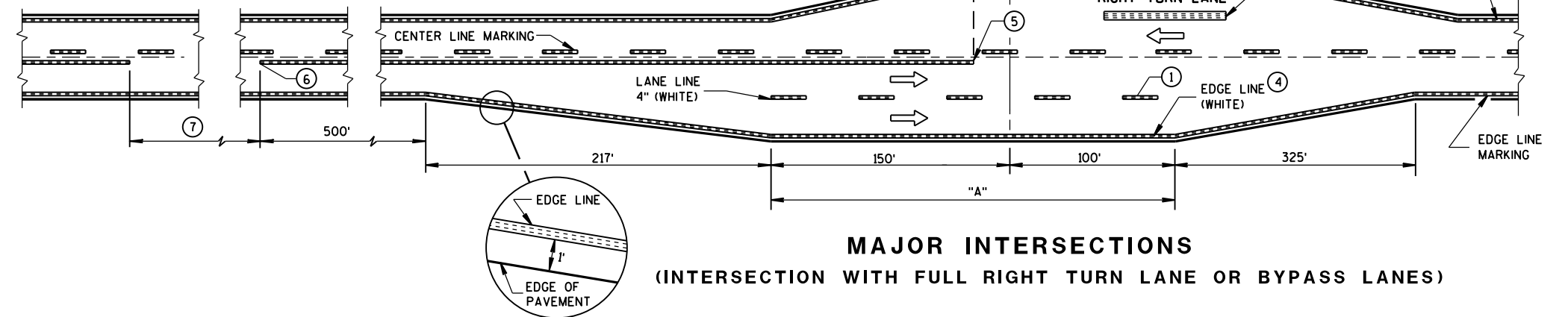
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-1-2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



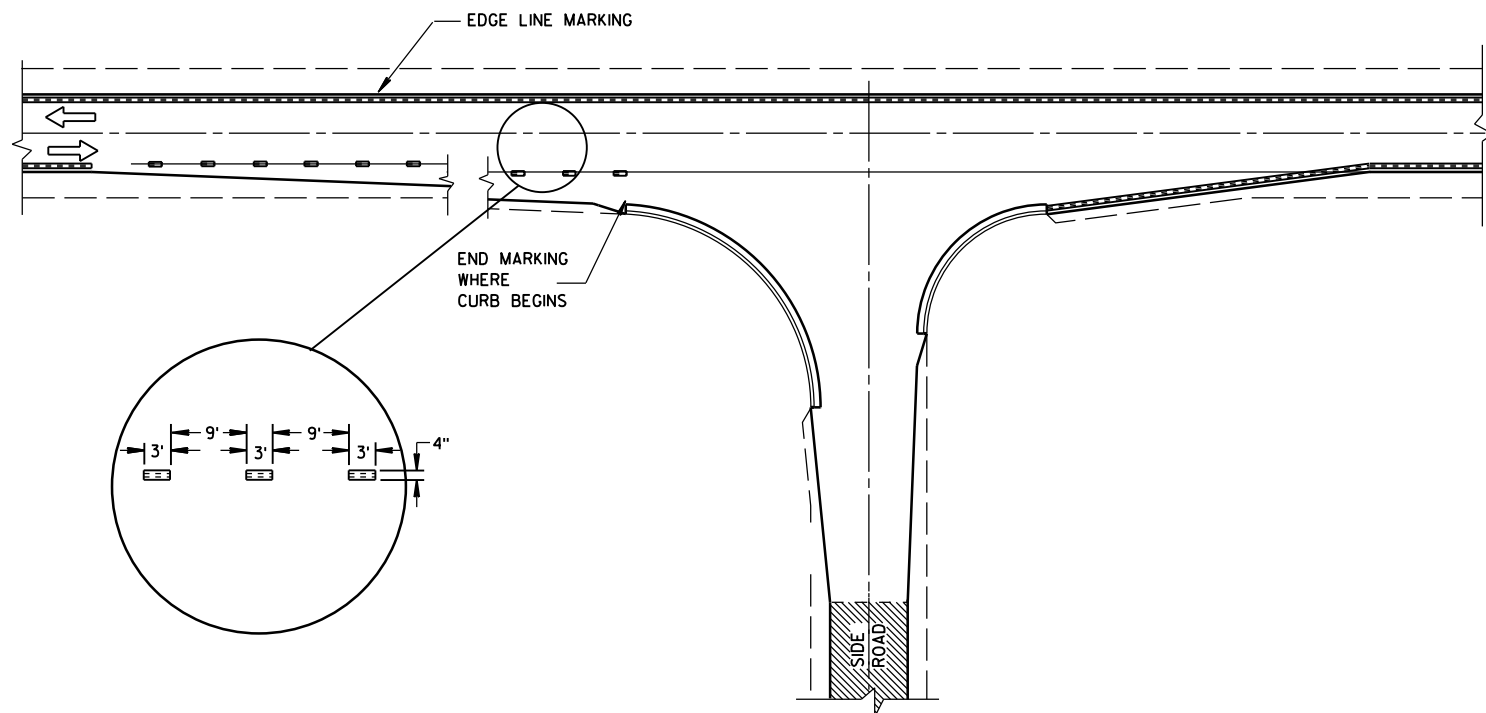
(7)

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

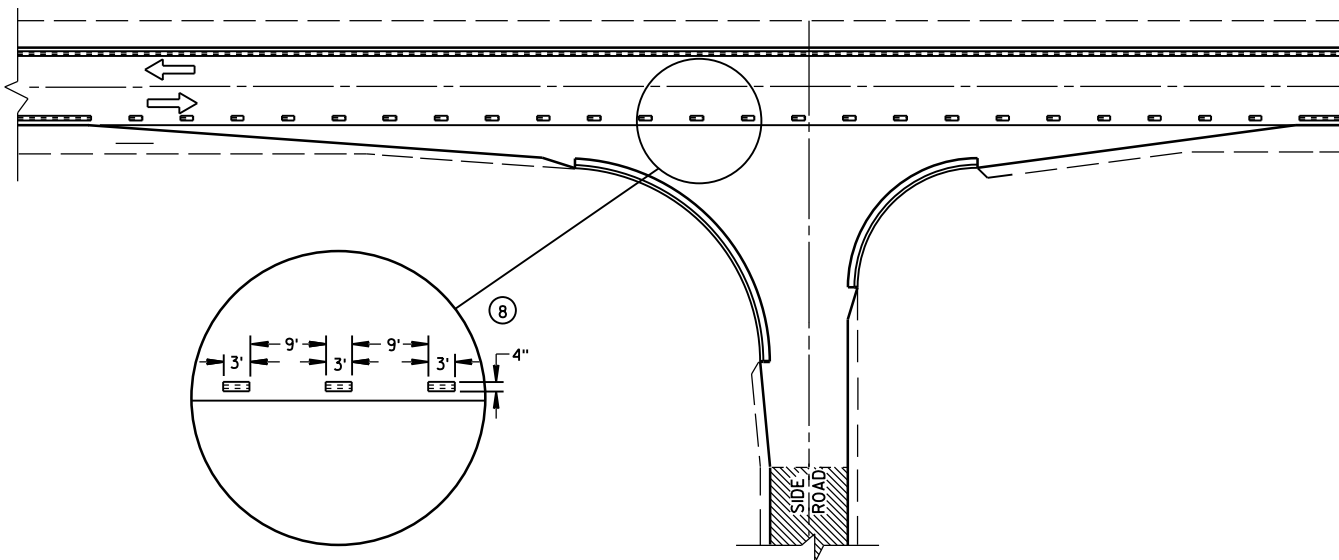


MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS (TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

⁽³⁾ (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

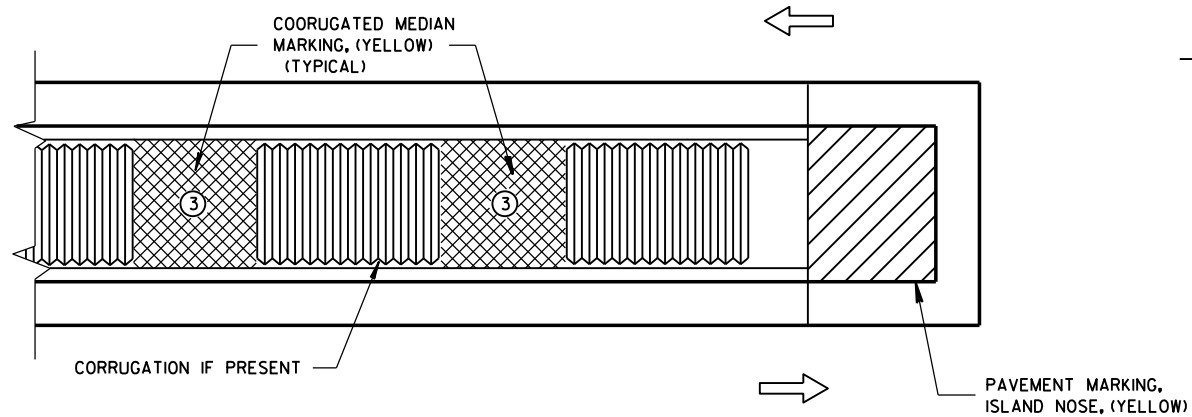
GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

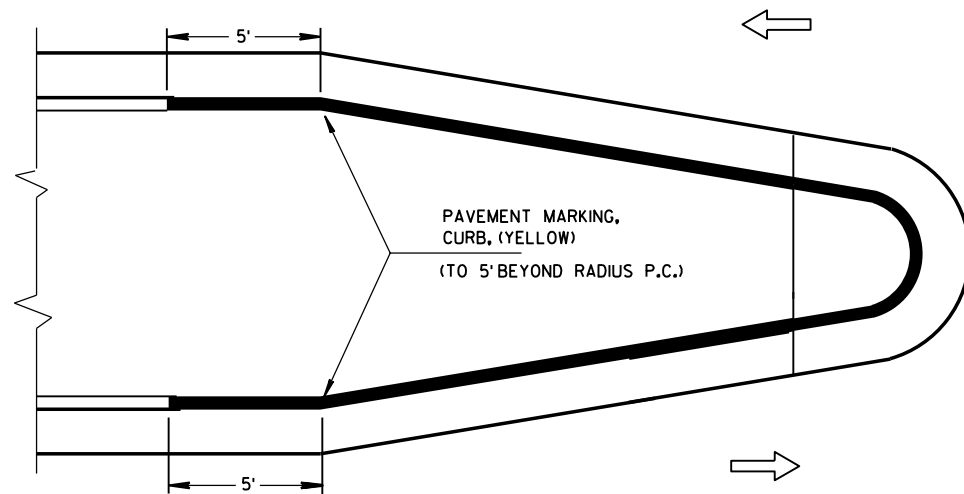
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
- ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

- ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
- ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

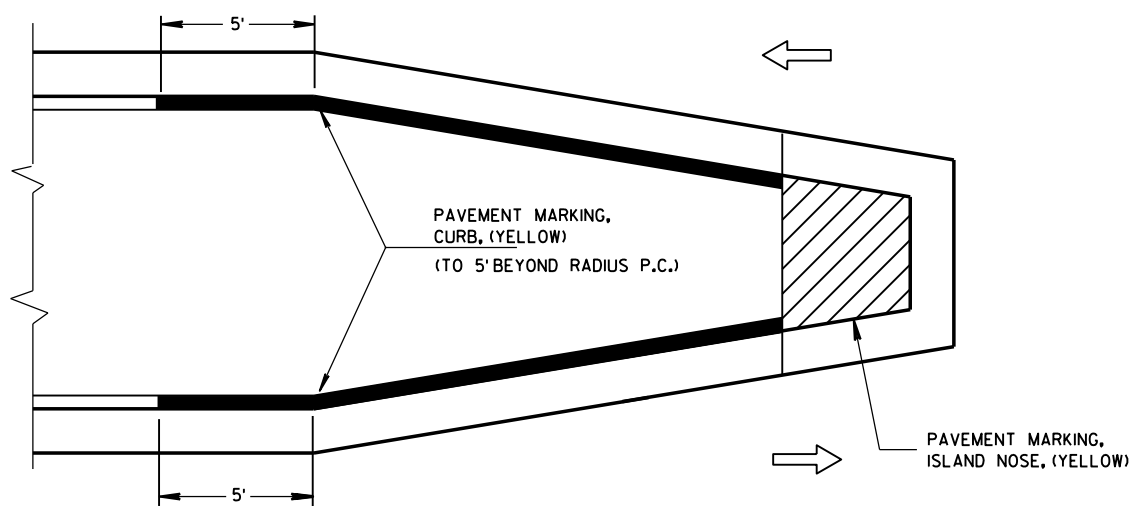
ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

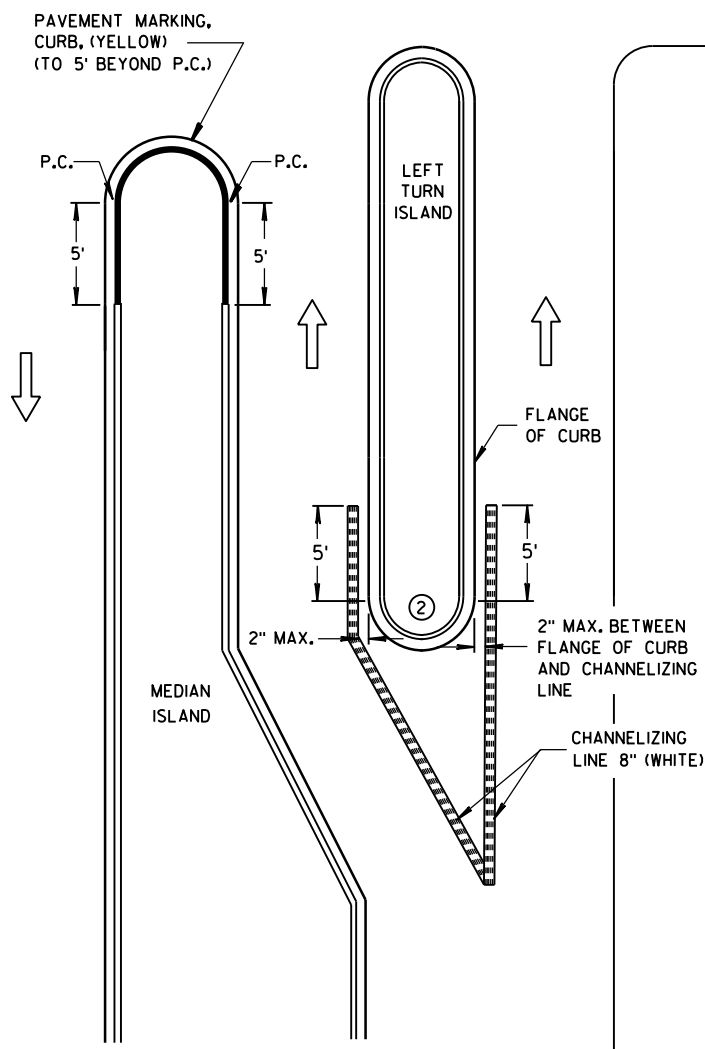


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

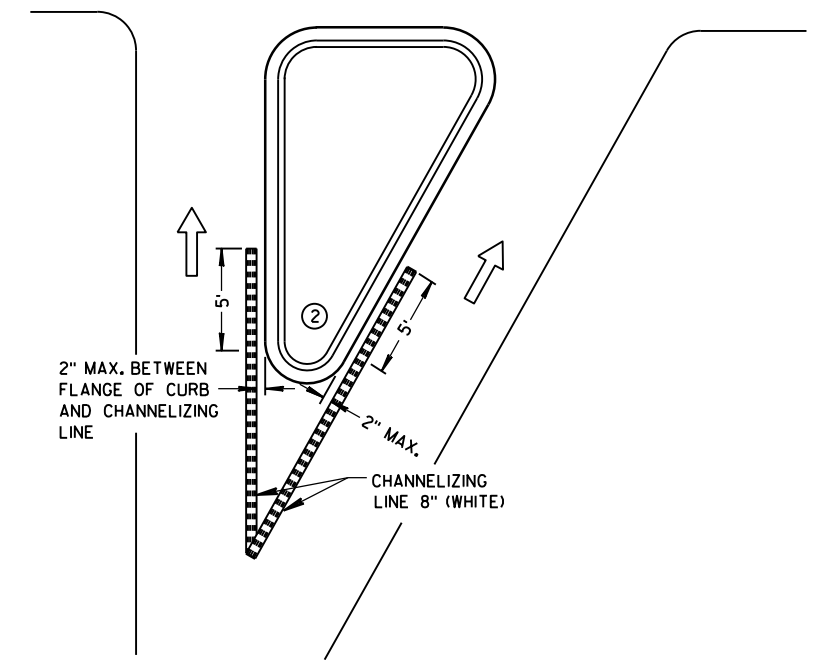
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

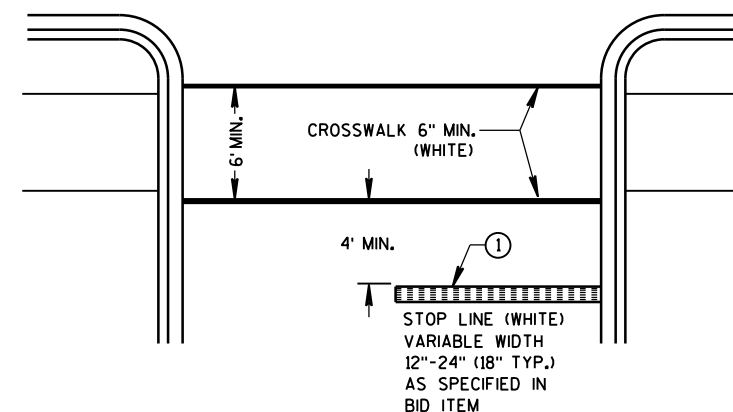
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED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



RIGHT TURN ISLAND

LEGEND

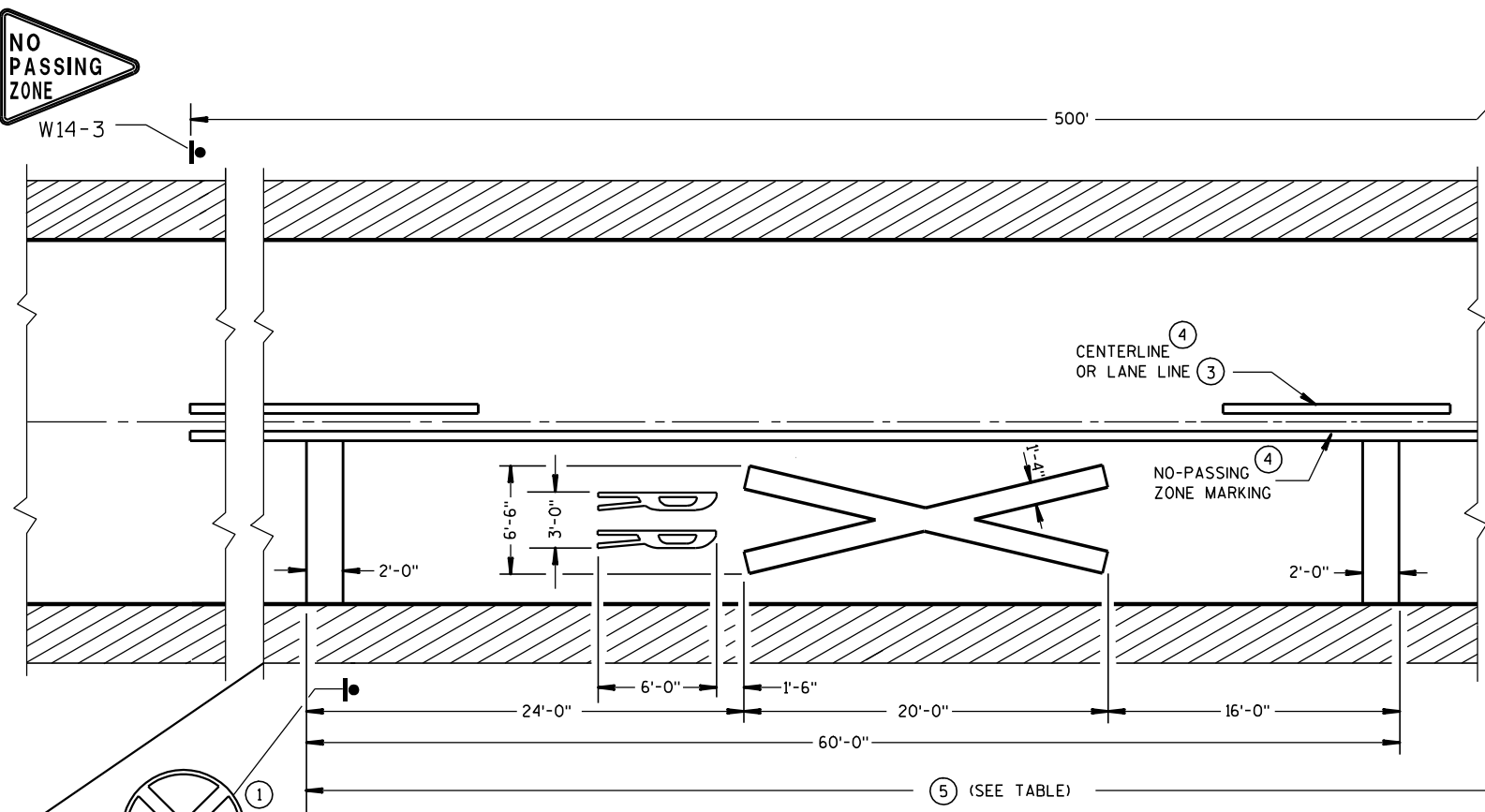
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



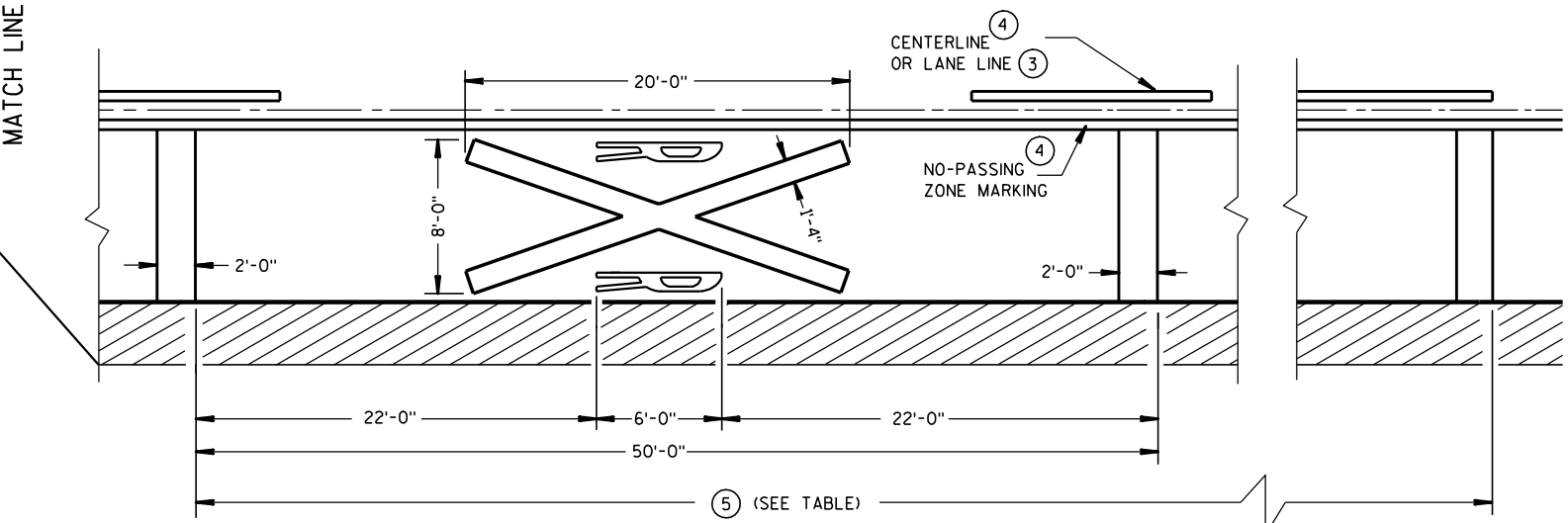
STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



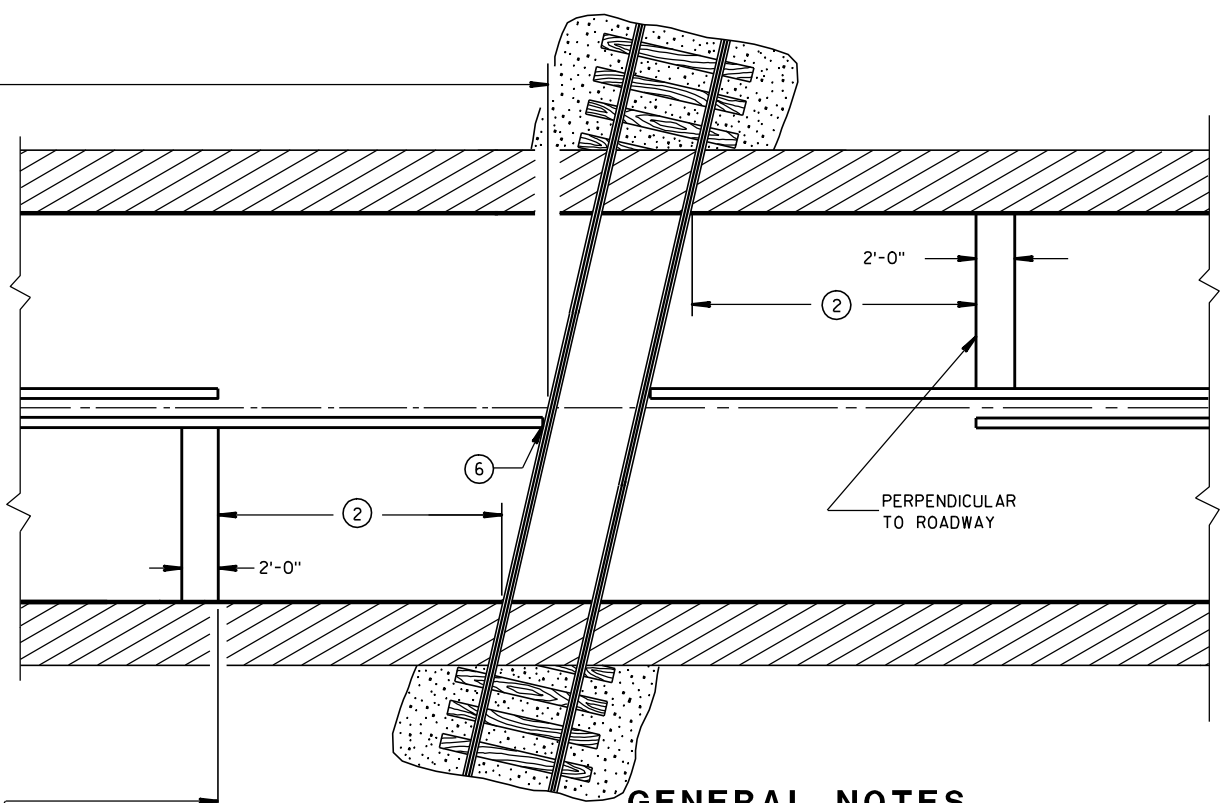
PREFERRED PAVEMENT MARKING



ALTERNATE PAVEMENT MARKING

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



GENERAL NOTES

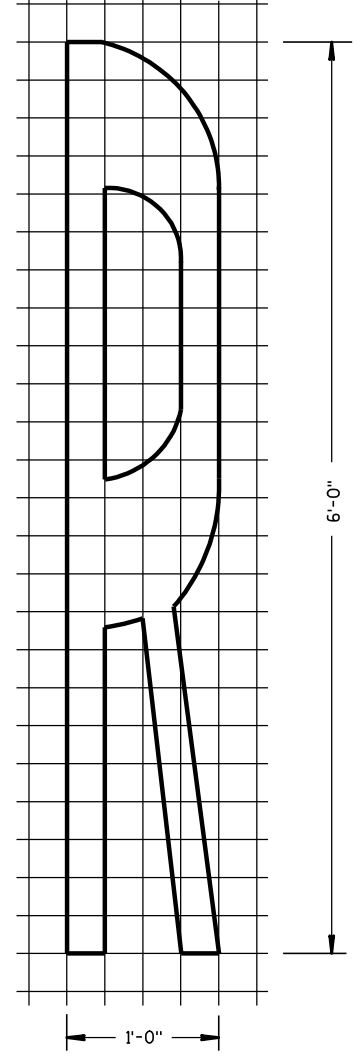
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

- 1 A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
- 2 MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- 3 REFLECTIVE WHITE.
- 4 REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- 5 TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 6 FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.



SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1-9-2012 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



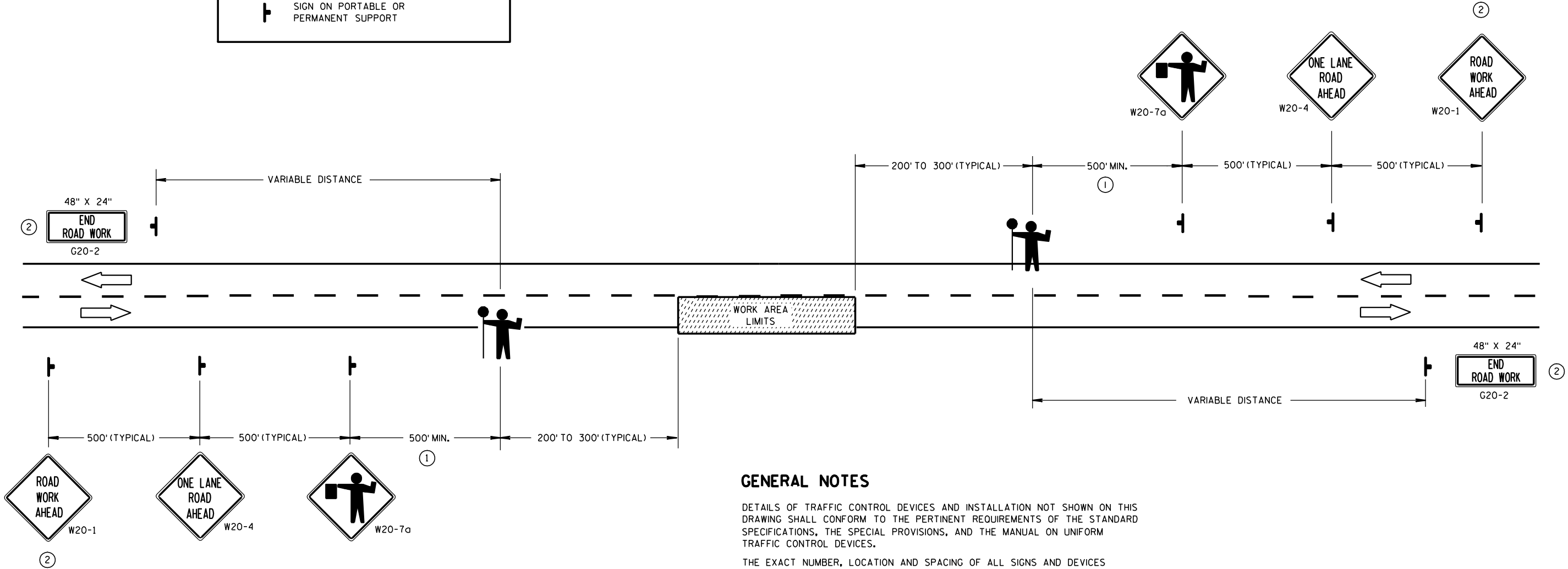
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

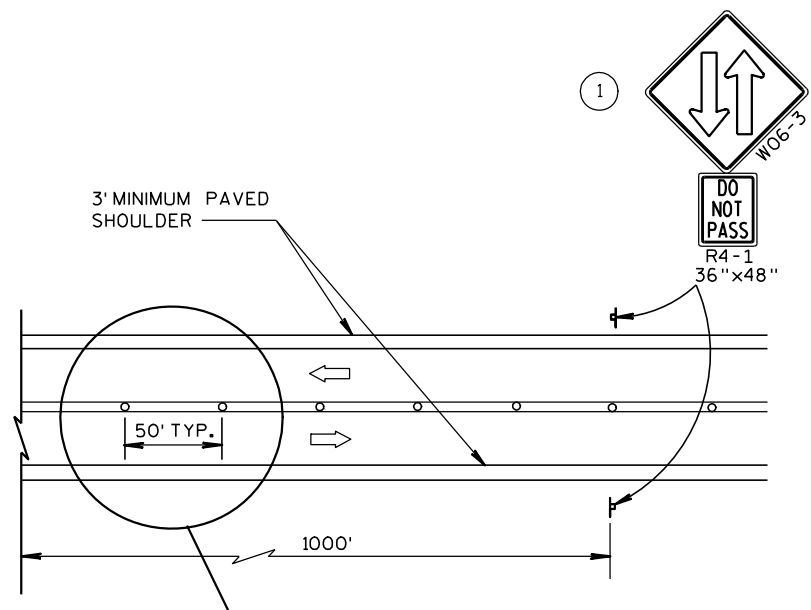
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

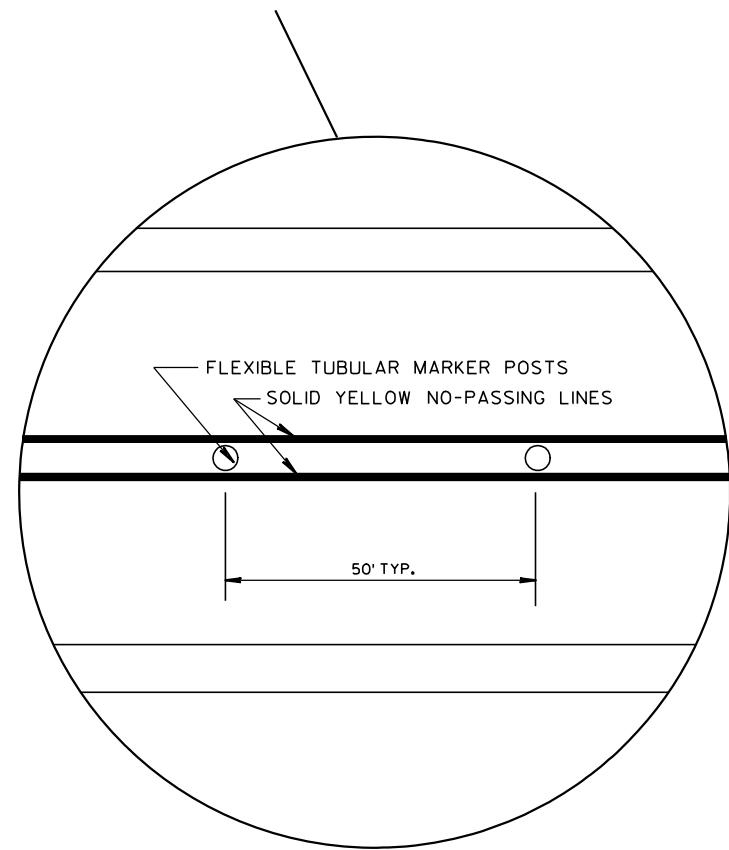
APPROVED
9/5/06
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA



TWO LANE, TWO WAY OPERATION



- LEGEND**
- POST WITH ATTACHED SIGN
 - FLEXIBLE TUBULAR MARKER AND BASE
 - DIRECTION OF TRAFFIC

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

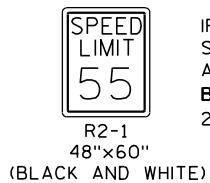
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

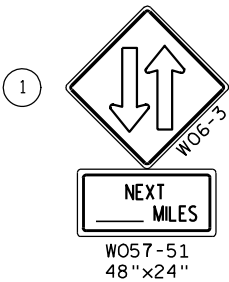
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



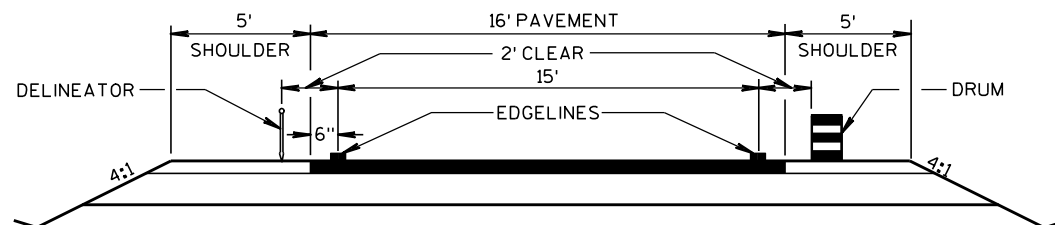
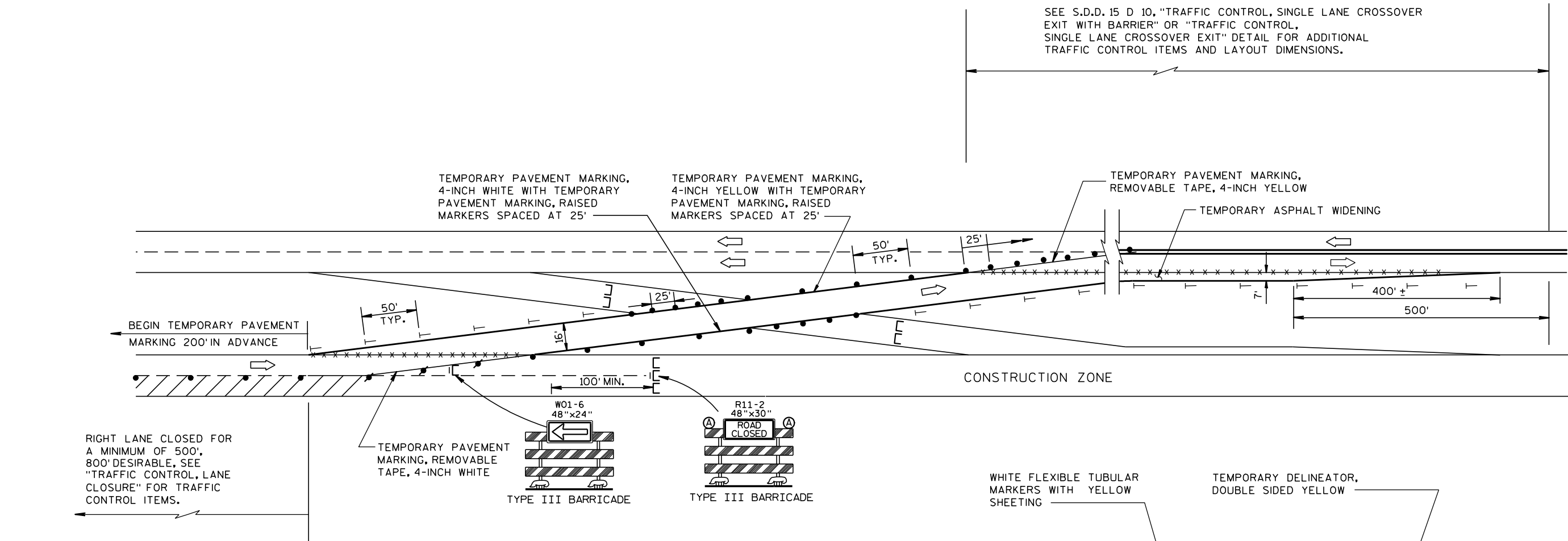
IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.



THE WO6-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE WO6-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE WO6-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN WO6-3 SIGNS.



TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-4-95 DATE	/S/ Chester J. Spang DIRECTOR, OFFICE OF TRAFFIC
FHWA	



TYPICAL CROSSOVER ROADWAY DIMENSIONS

LEGEND

- / □ 8' TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN
- ⚡ DRUM WITH WARNING LIGHTS, TYPE C
- DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE PAINT
- Ⓐ WARNING LIGHT, TYPE A
- ***** REMOVING PAVEMENT MARKINGS
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- FLEXIBLE TUBULAR MARKER AND BASE
- ➡ DIRECTION OF TRAFFIC

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 PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

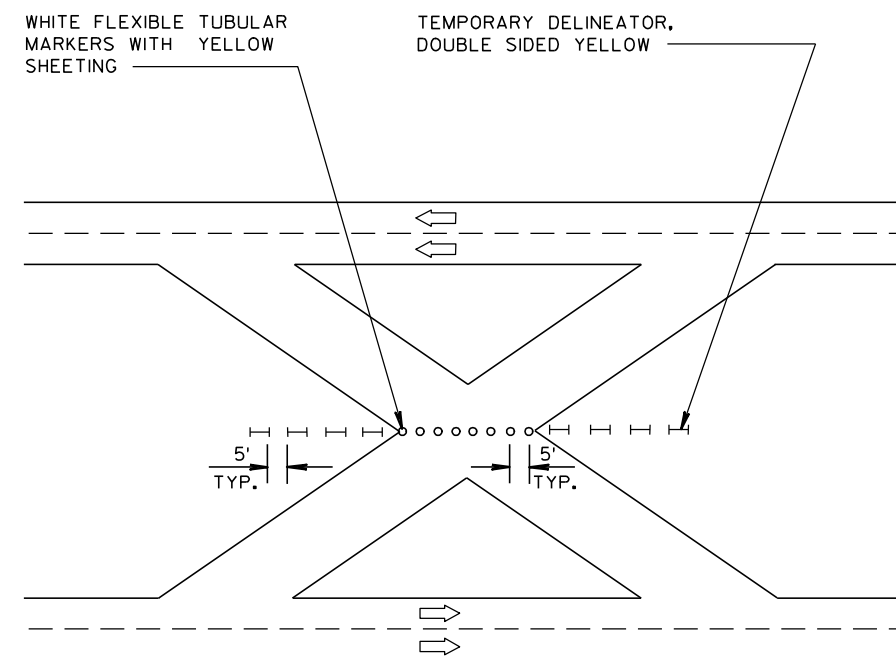
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.



PROTECTION OF CROSSOVER NOT IN USE
WHEN CONSTRUCTION IS NOT TAKING PLACE

TRAFFIC CONTROL,
SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-22-96
DATE

FHWA

/S/ Chester J. Spang
STATE TRAFFIC ENGINEER

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

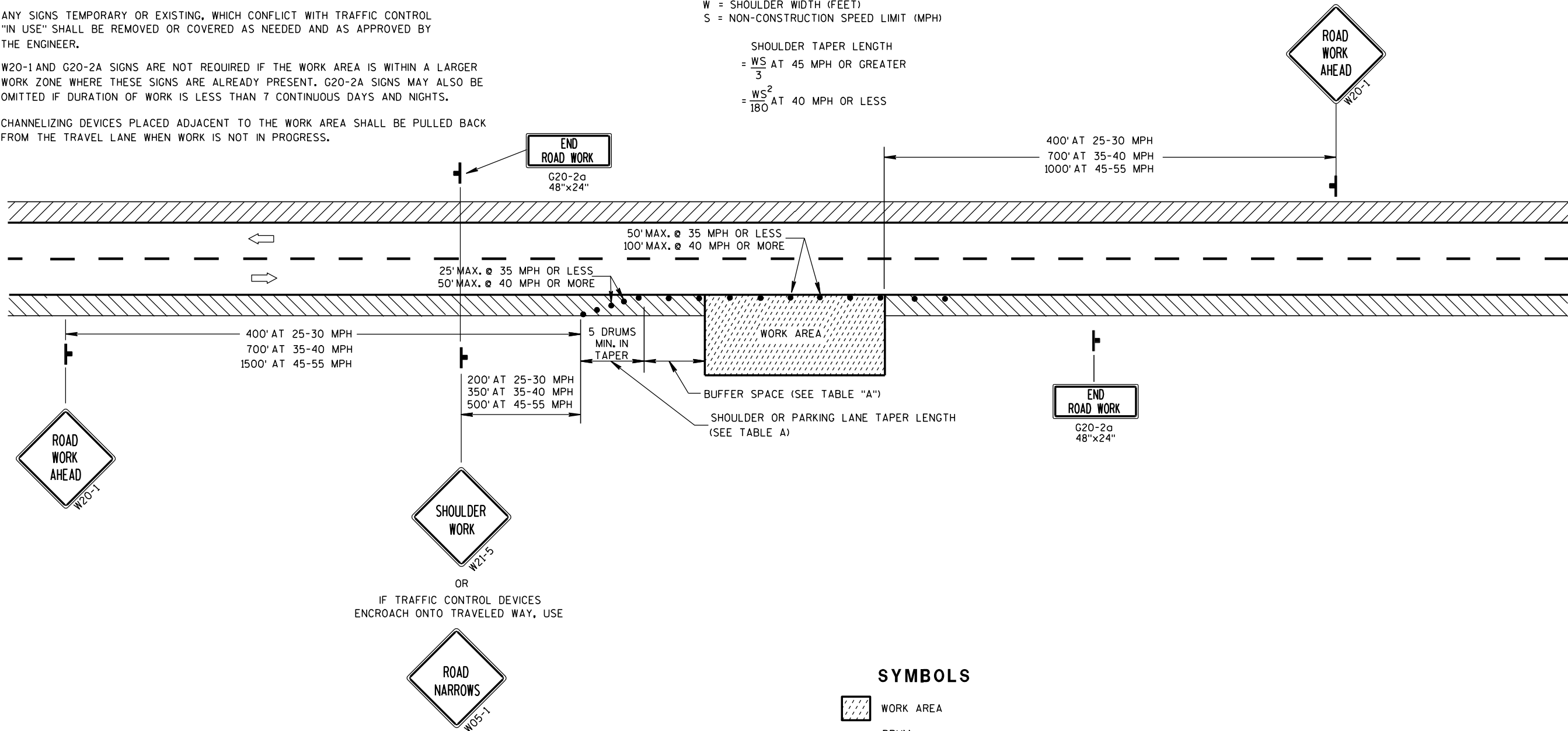
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



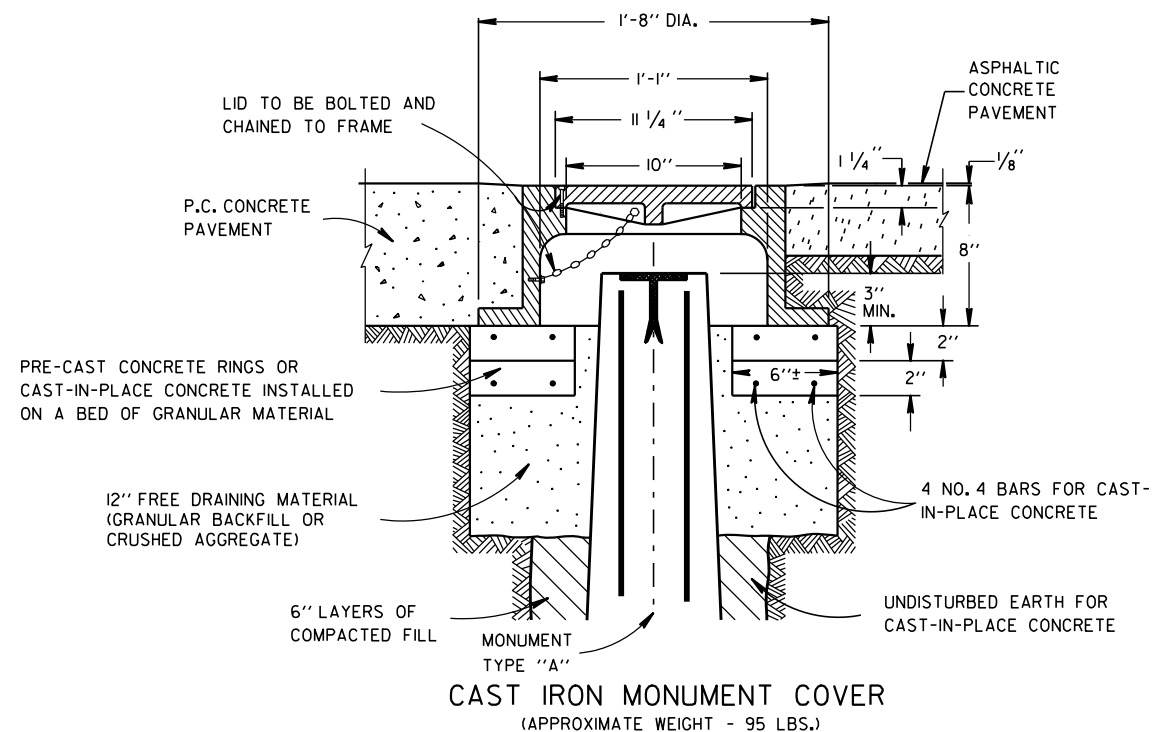
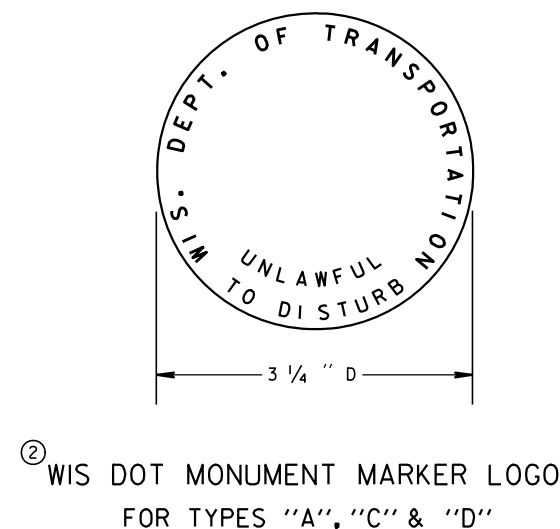
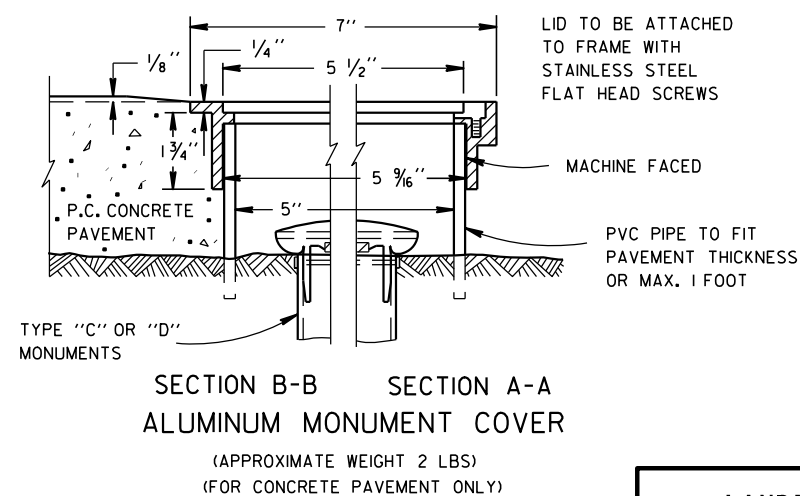
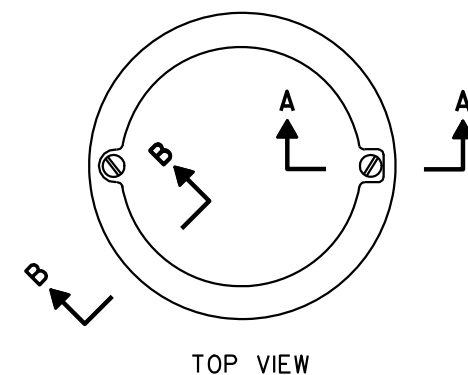
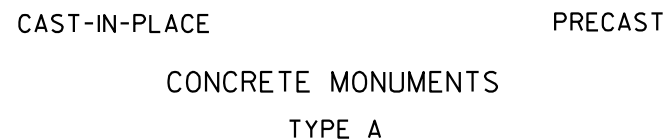
SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

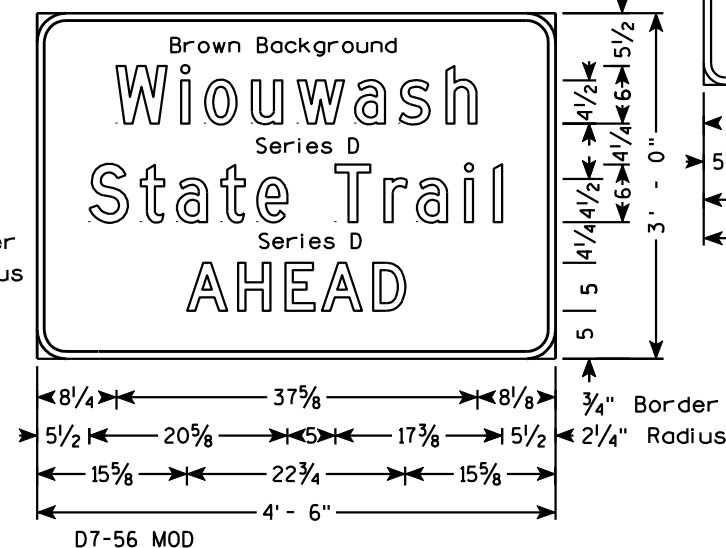
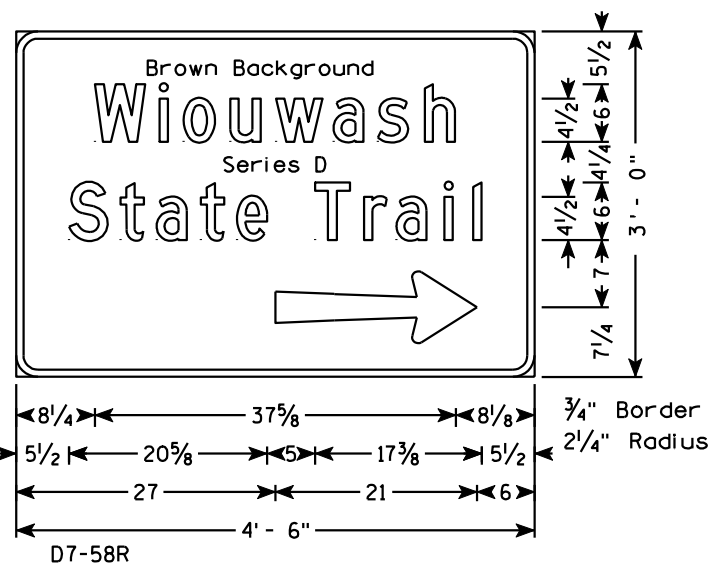
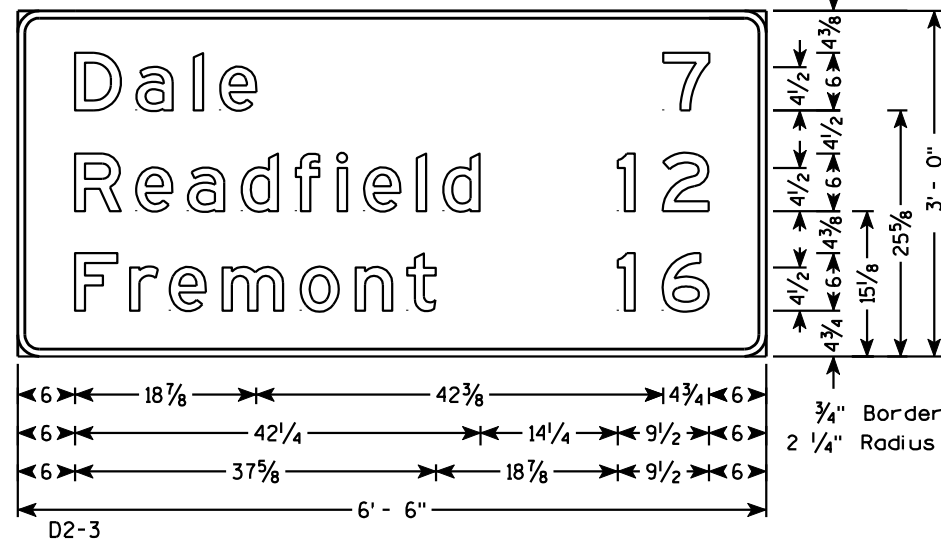
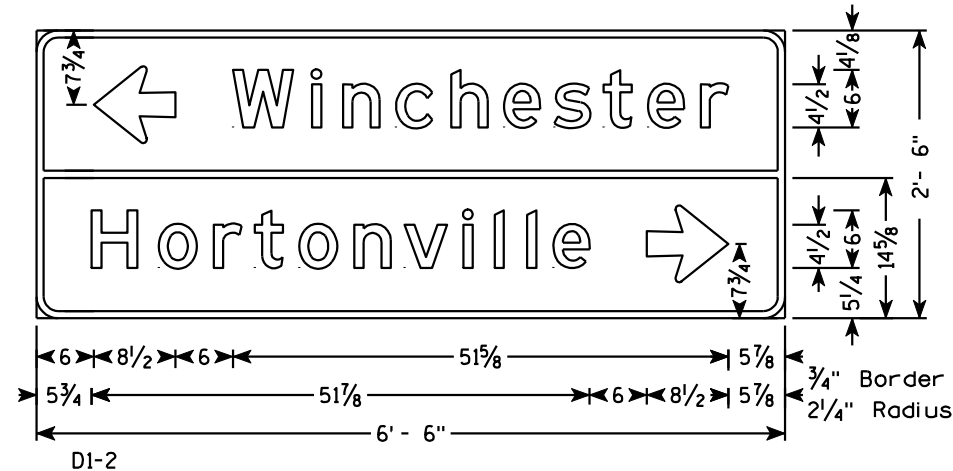
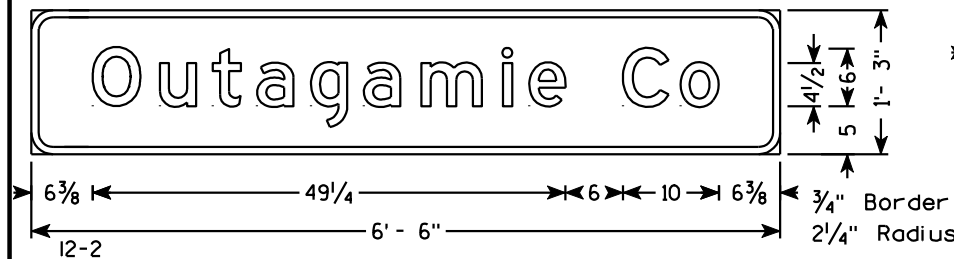
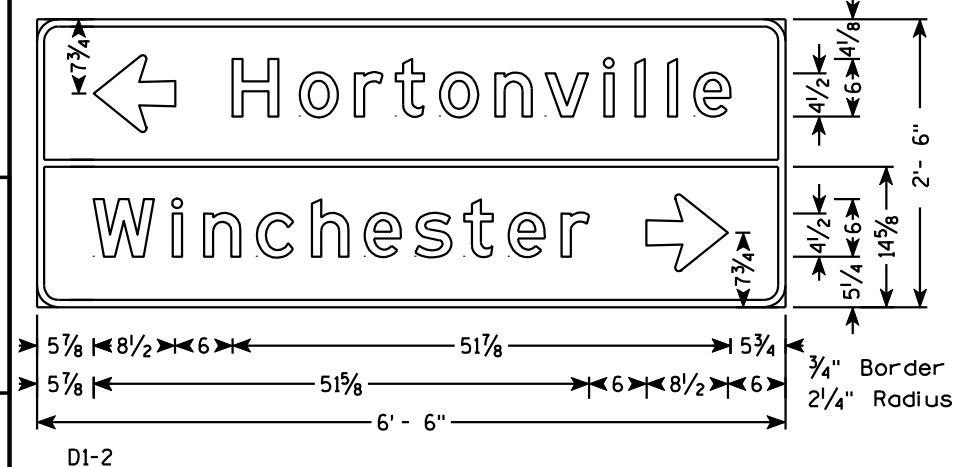
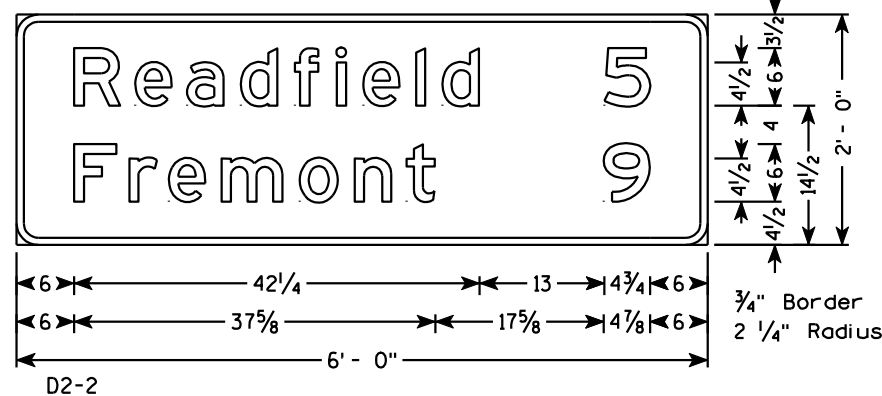
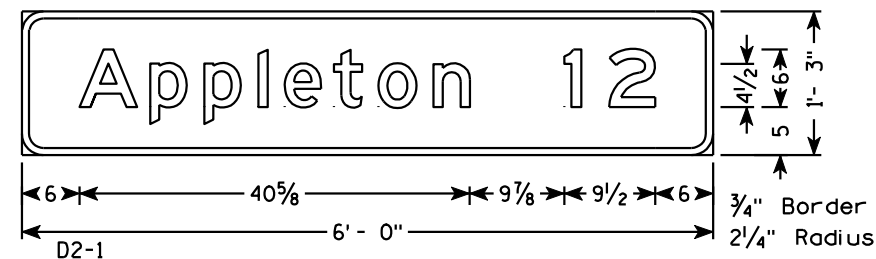
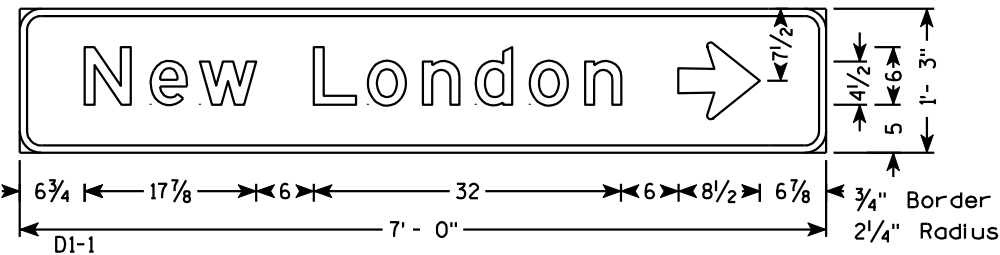
TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA

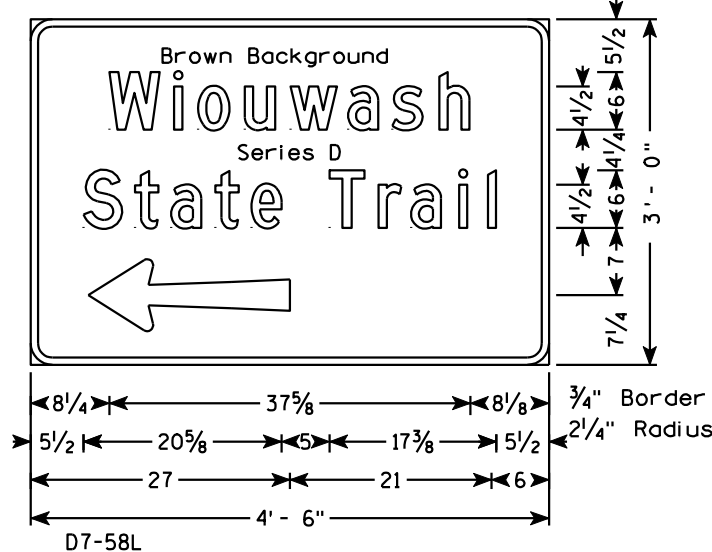
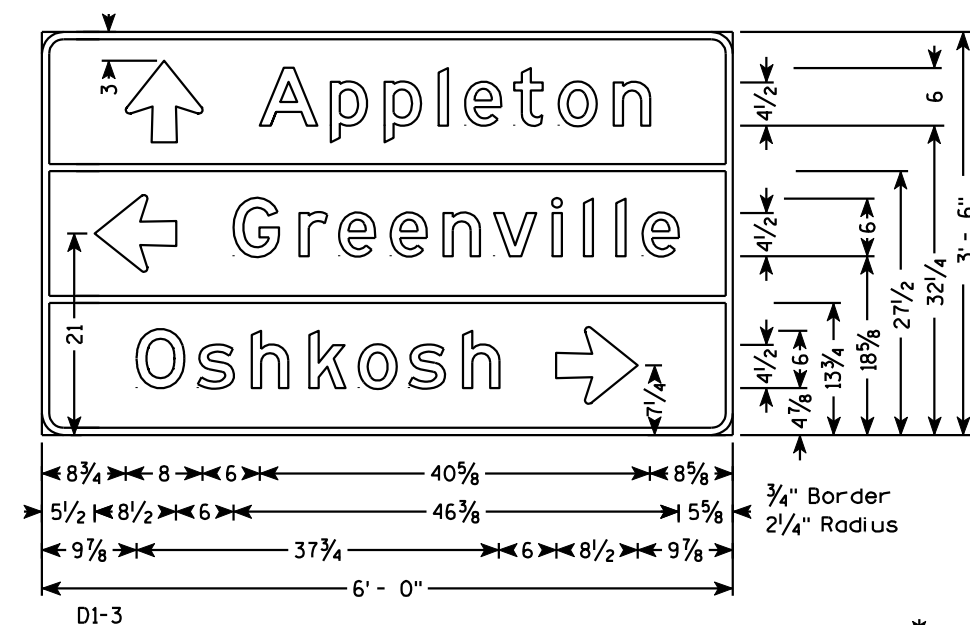


LANDMARK REFERENCE MOUNMENTS AND COVERS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>9/22/1999</u> DATE	<u>/s/ Rory L. Rhinesmith</u> CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



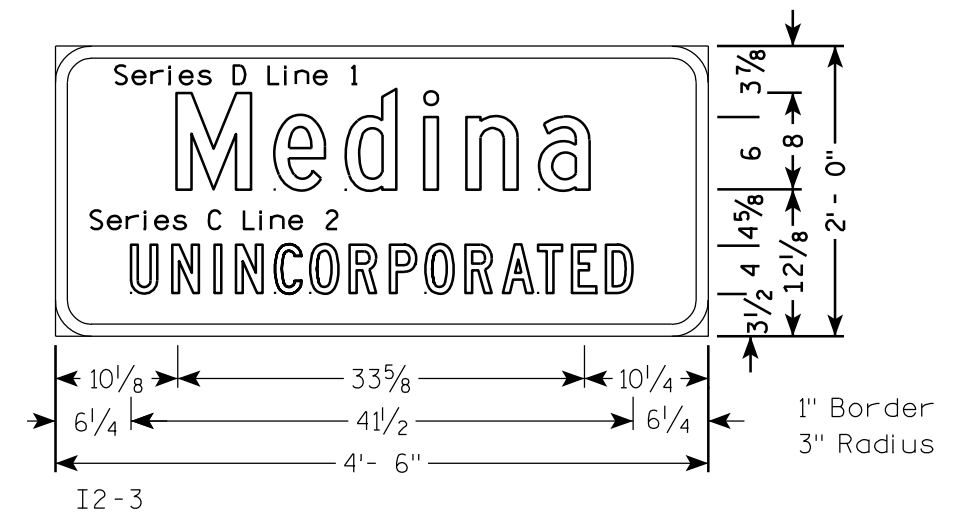
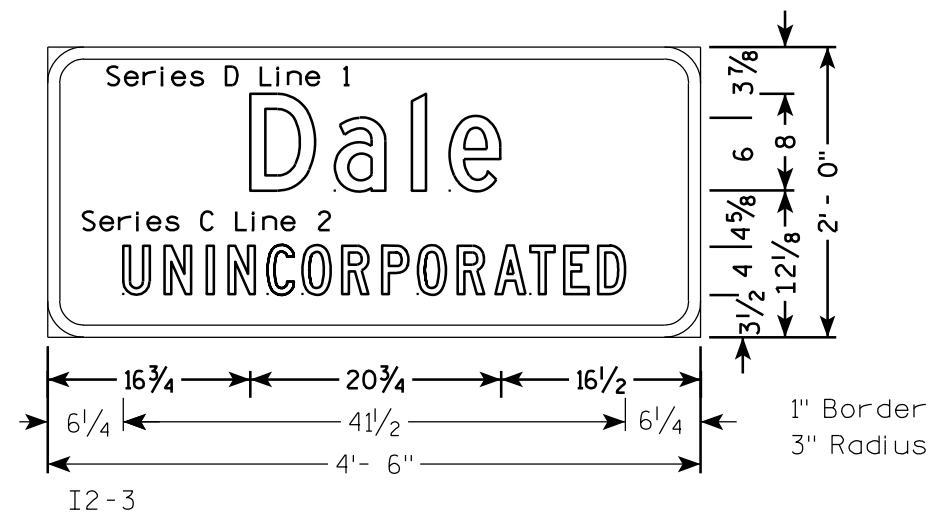
NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green except as noted
Message - White
3. Message Series - E except as noted

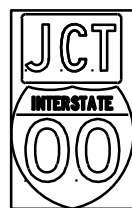


NOTES

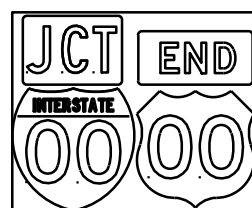
1. All Signs Type II - Type H Reflective - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 Background - Green
 Message - White
3. Message Series - as Shown



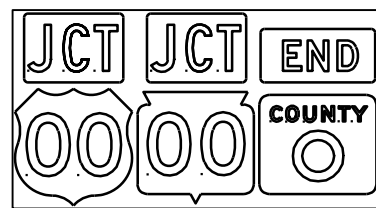
TYPICAL ASSEMBLIES



J1-1



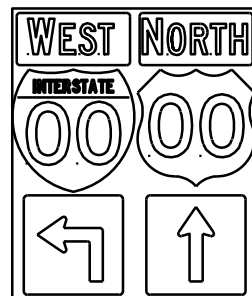
J1-2



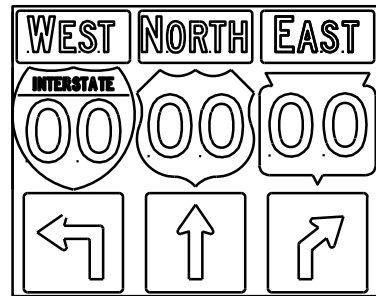
J1-3



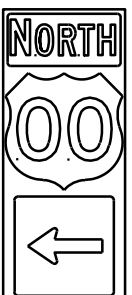
J2-1



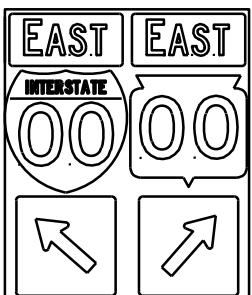
J2-2



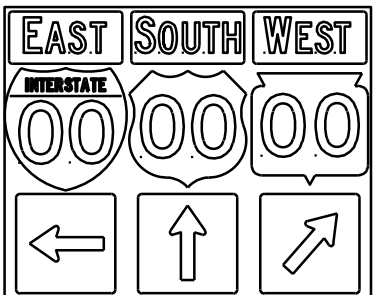
J2-3



J3-1



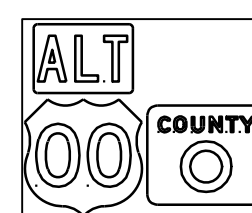
J3-2



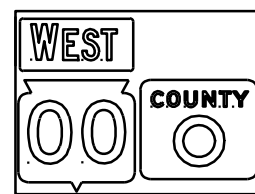
J3-3



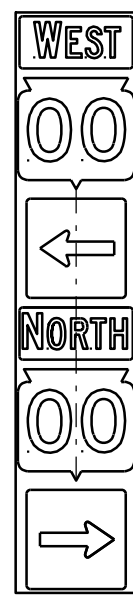
J4-1



J4-2

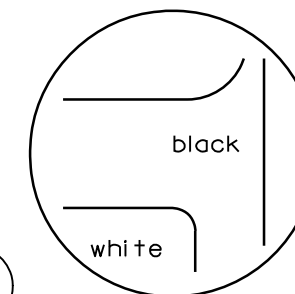
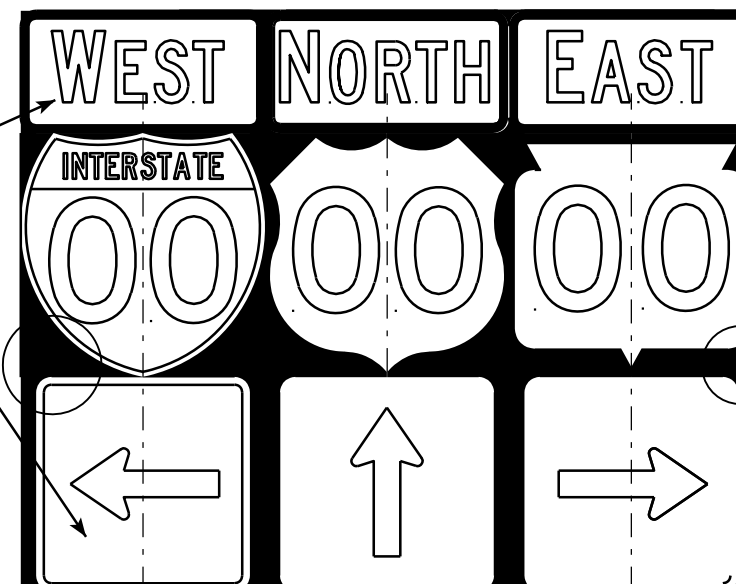
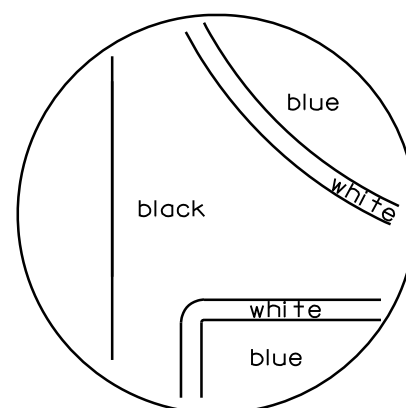


J4-2



JV

[blue background with interstate]



[black background]



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 10/21/09

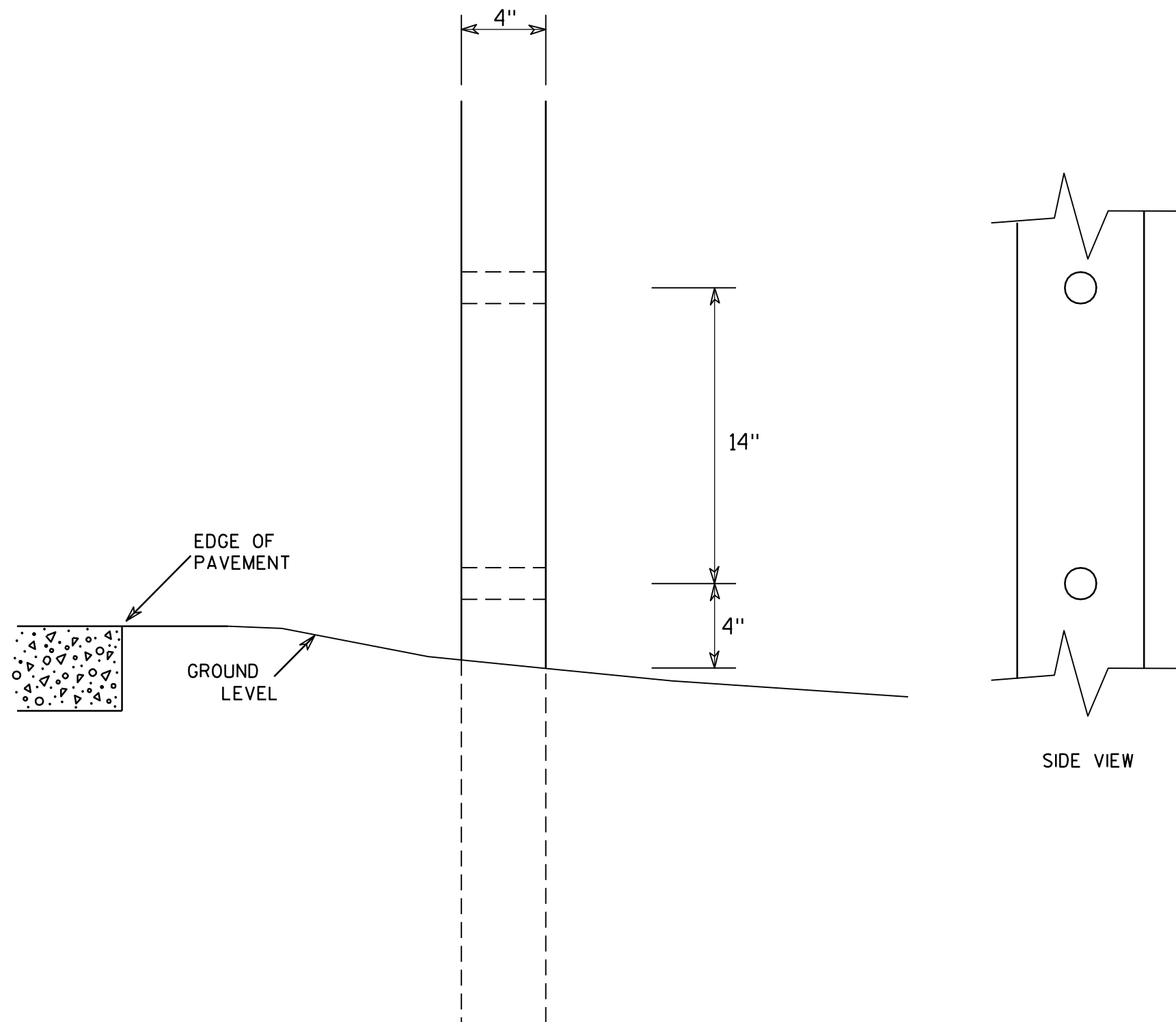
PLATE NO. A2-1S.6

PROJECT NO:

SHEET NO:

E

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

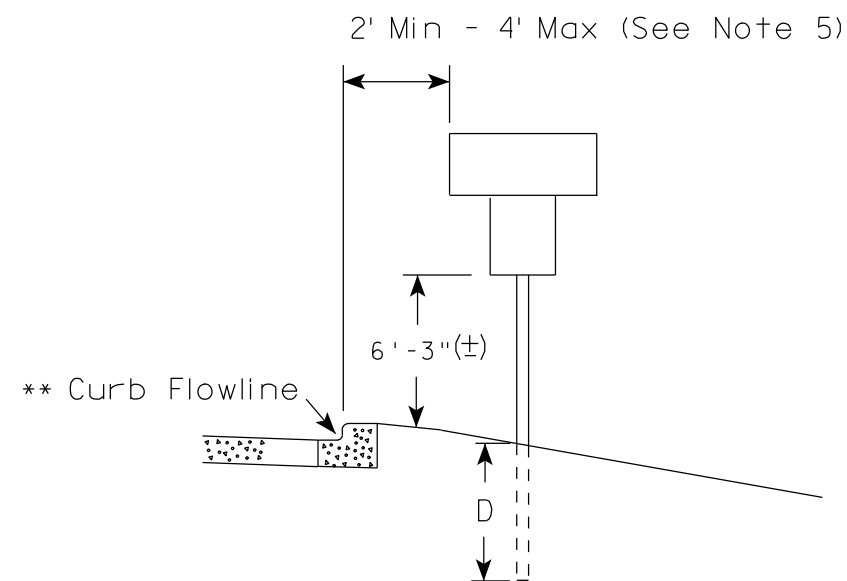
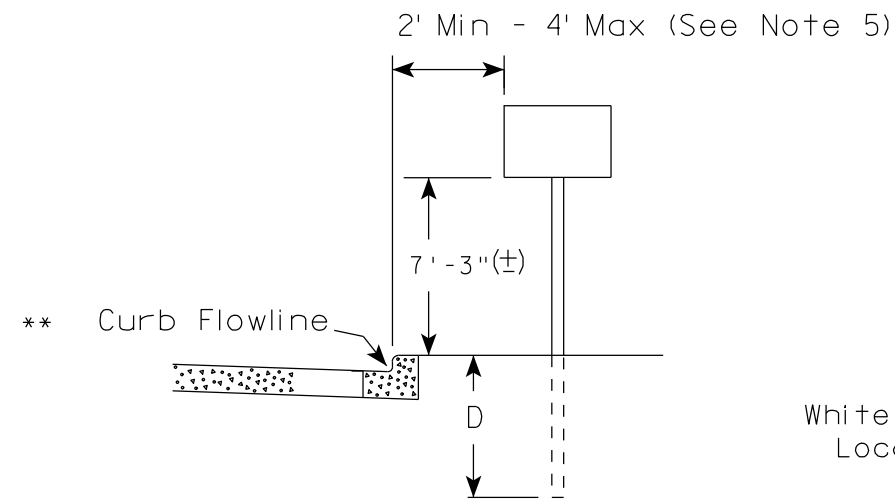
HWY:

COUNTY:

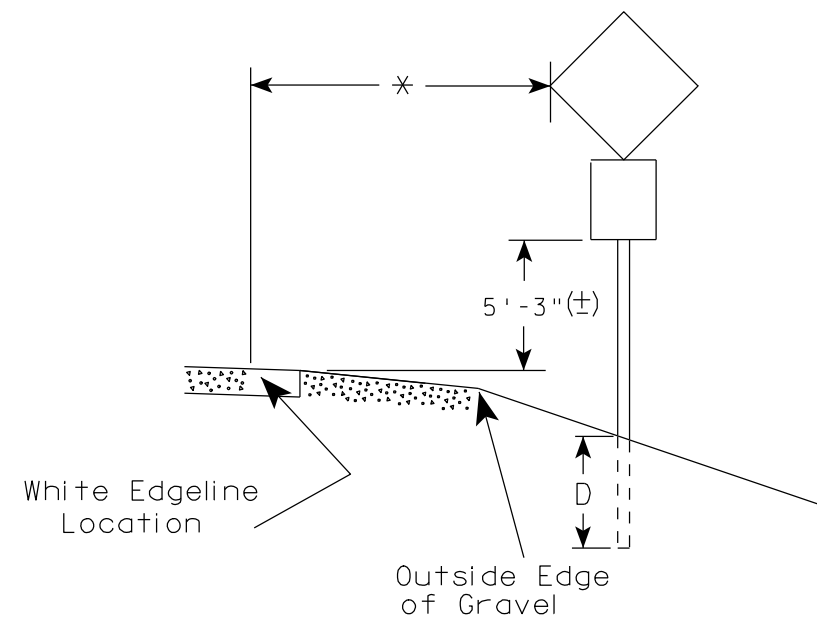
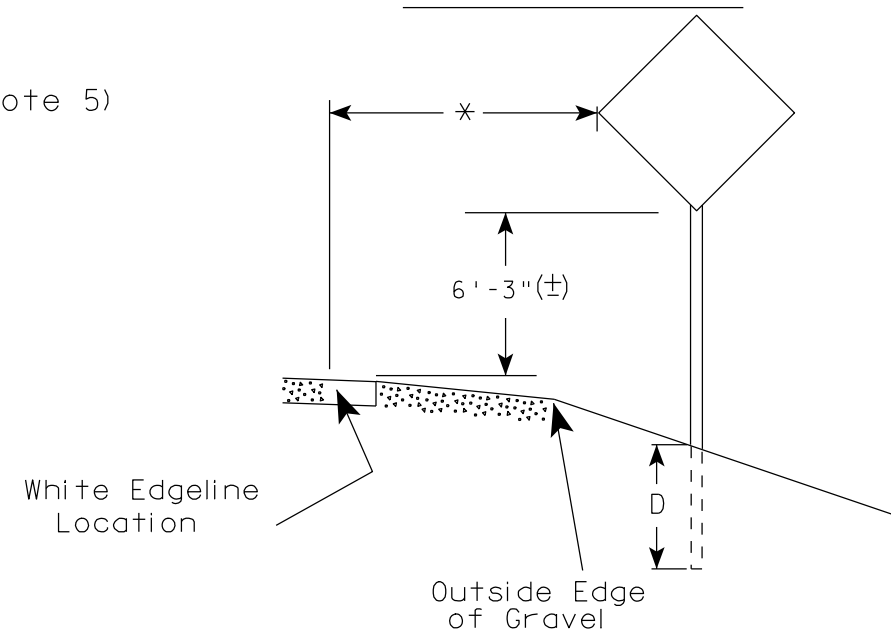
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

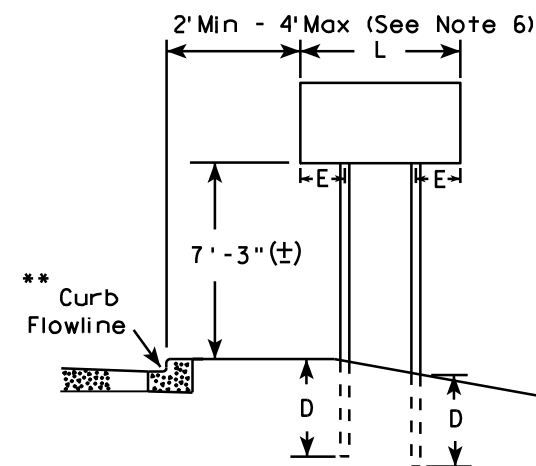
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

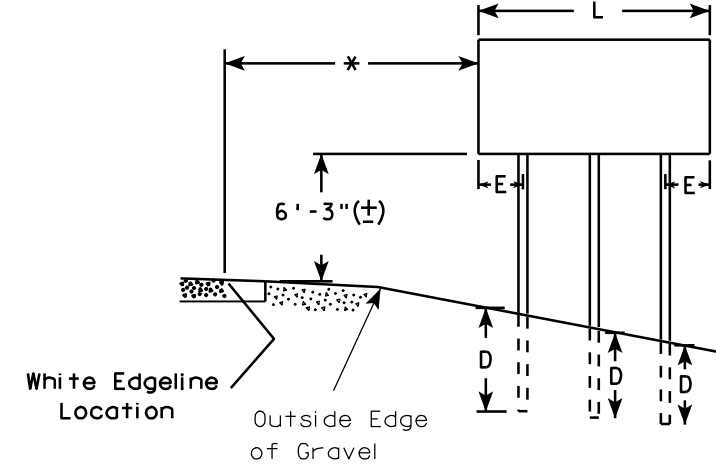
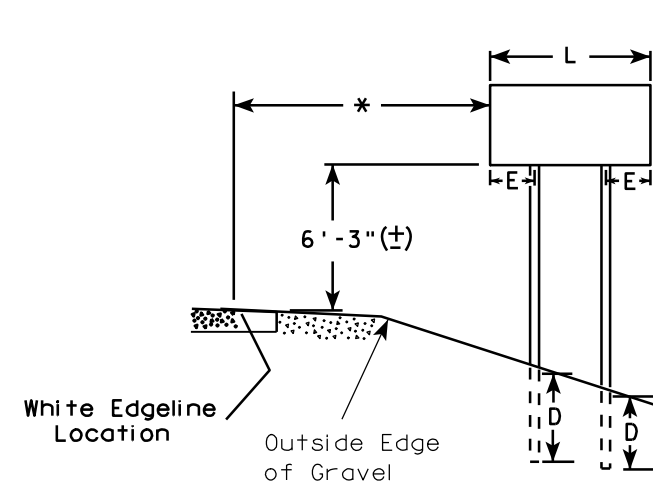
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

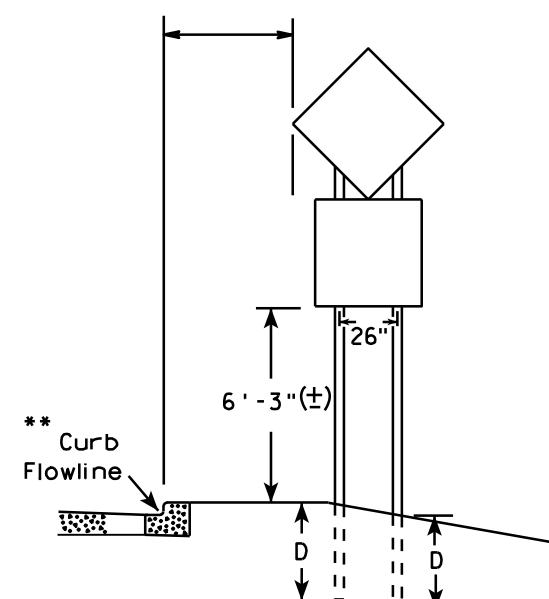
URBAN AREA



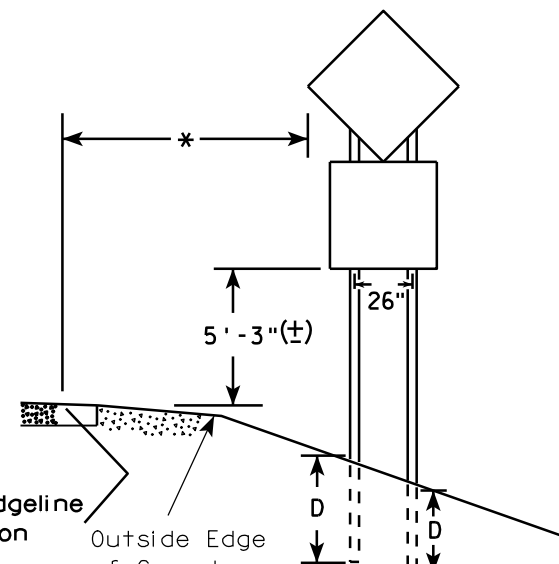
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

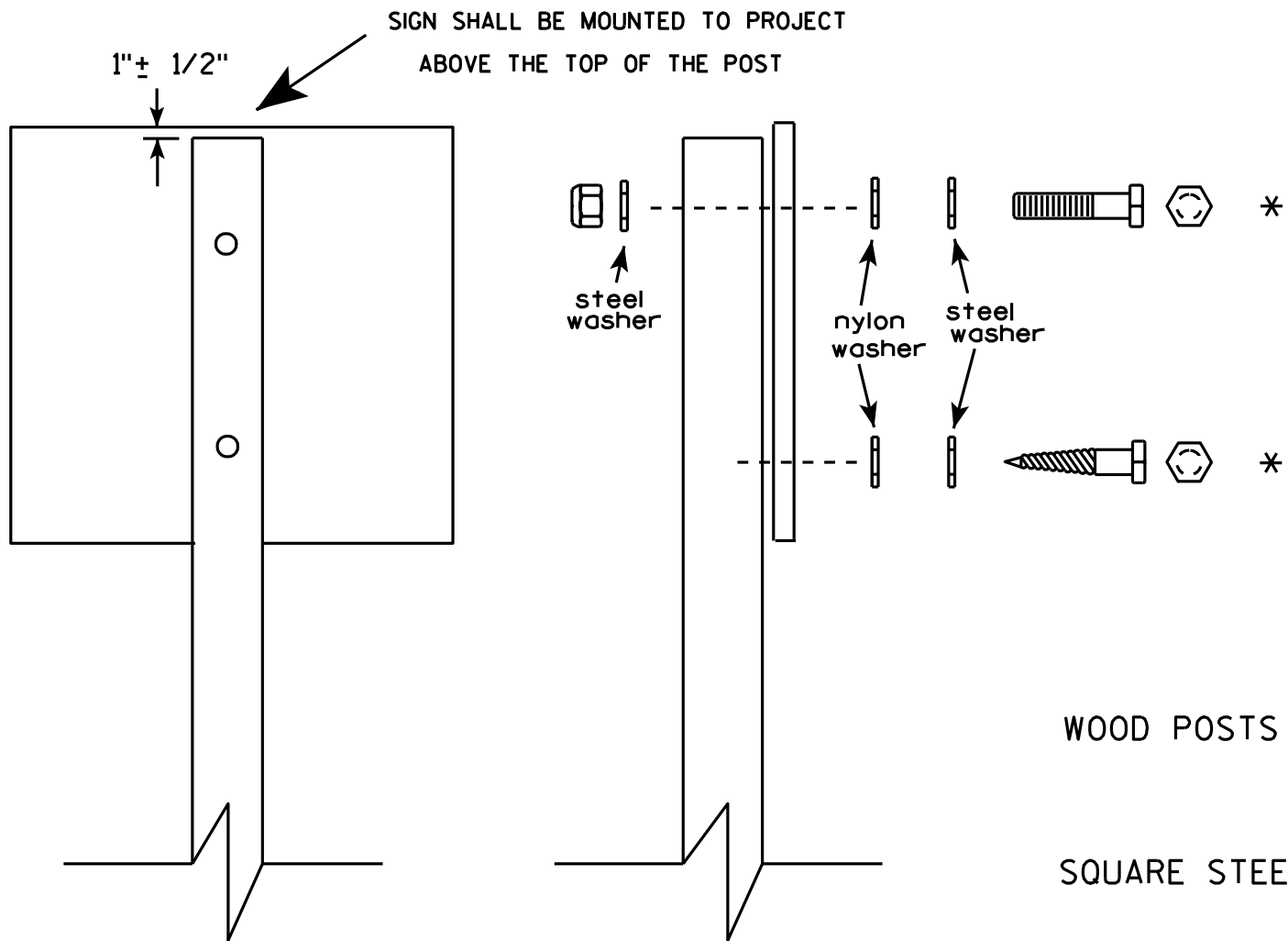
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

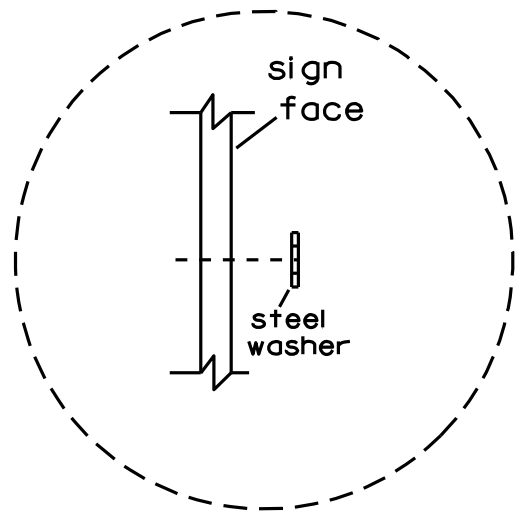


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

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

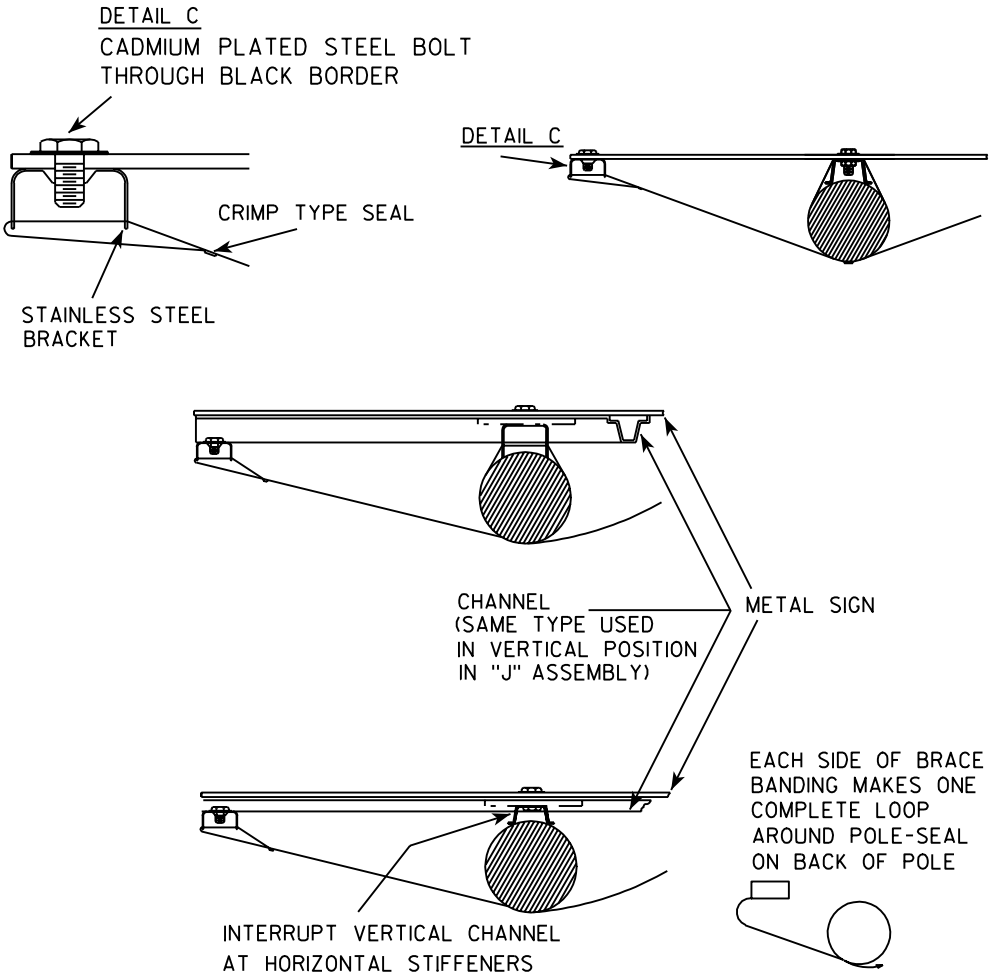


Washer Placement when Sign Has Other Than Type H or Type F Face

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

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

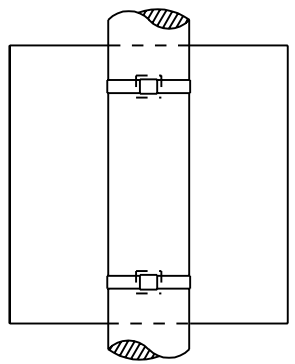
BRACE BANDING



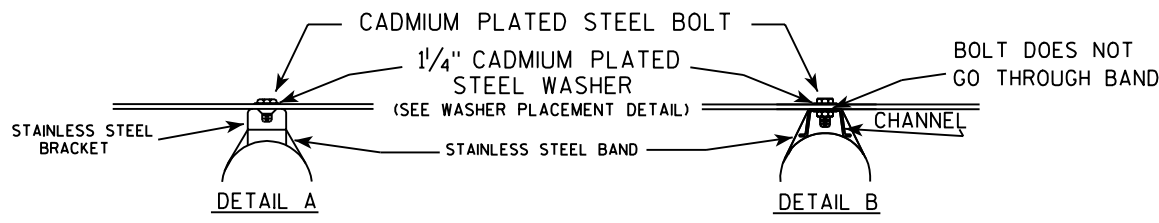
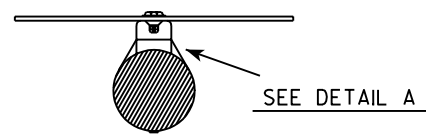
BRACE BANDING

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

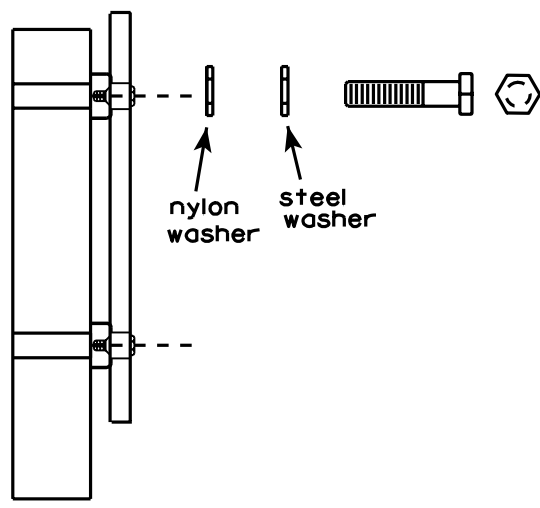
SINGLE SIGN



BRACKET BANDING

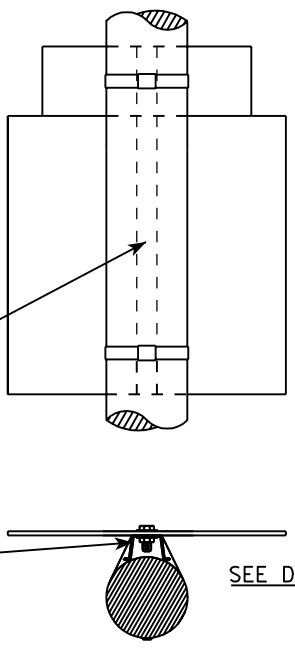


WASHER PLACEMENT



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

"J" ASSEMBLY



SEE DETAIL B

GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

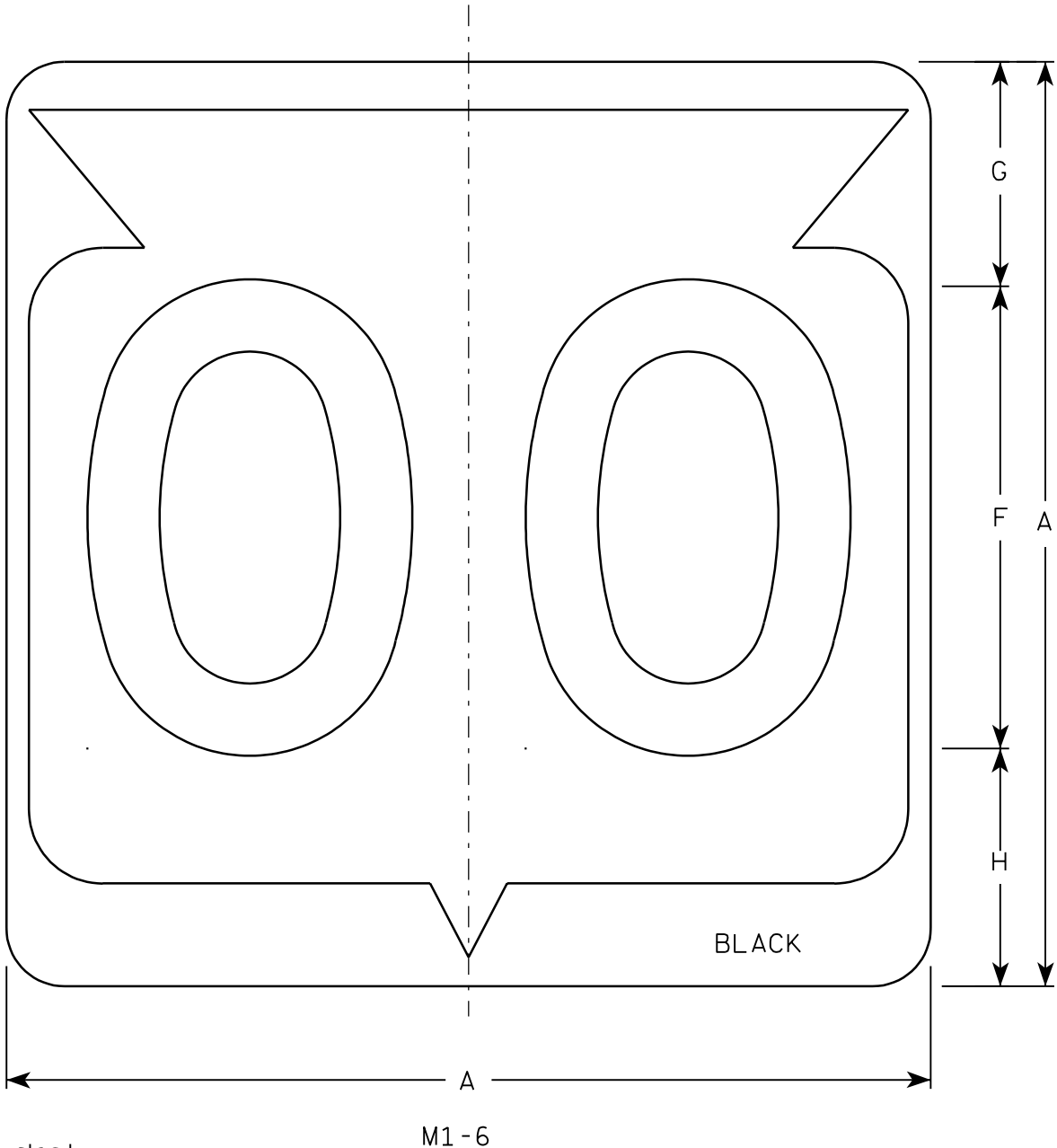
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

7



Metric equivalent
for this sign is:

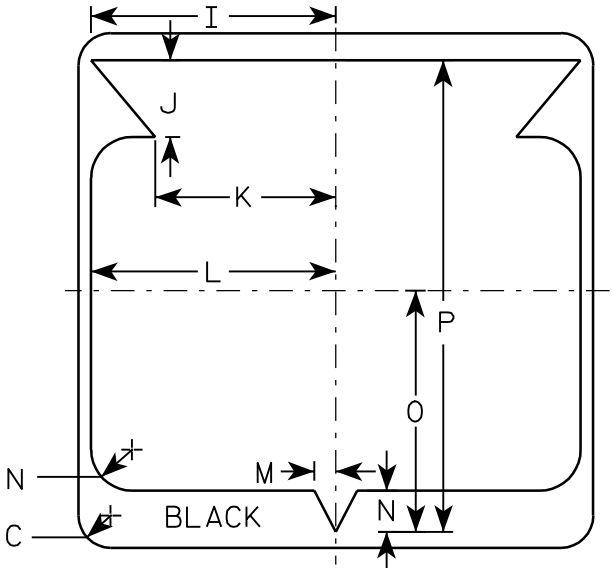
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

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

NOTES

- Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 6
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

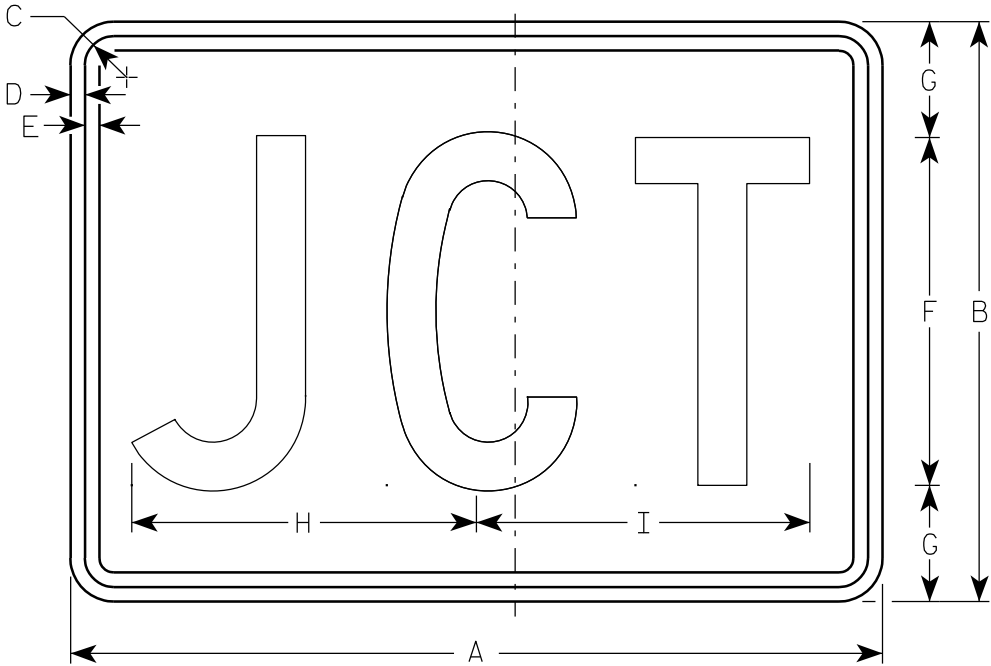
APPROVED 
for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

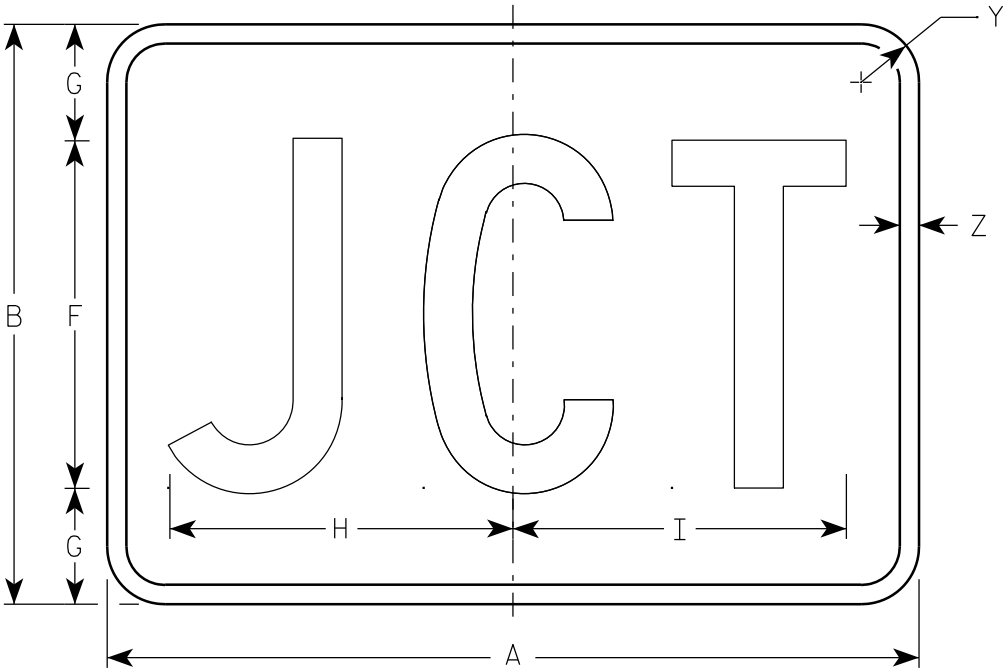
7

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

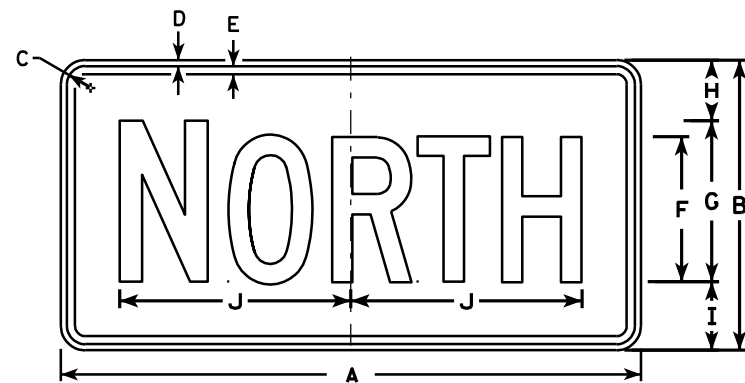
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

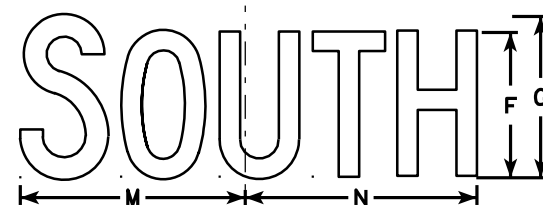
PROJECT NO: HWY: COUNTY: SHEET NO: E



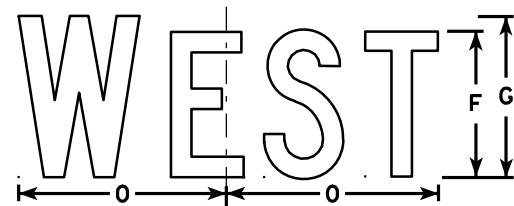
M3-1
MK3-1
M03-1



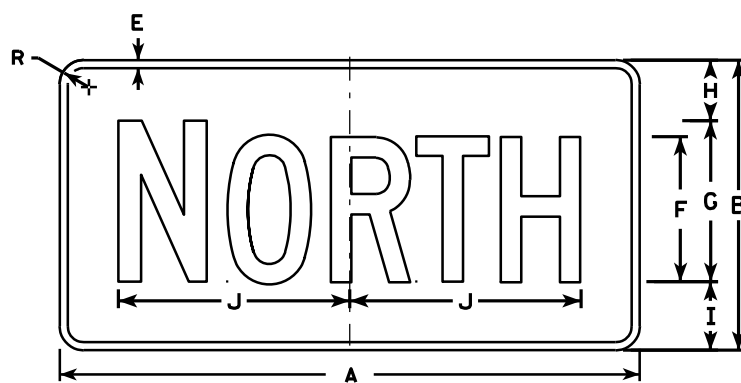
M3-2
MK3-2
M03-2



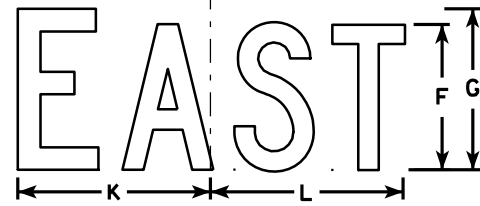
M3-3
MK3-3
M03-3



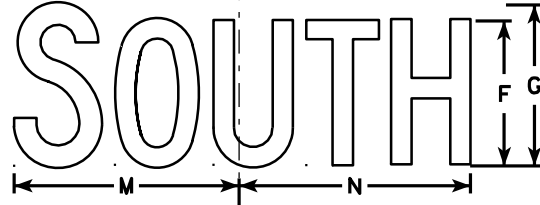
M3-4
MK3-4
M03-4



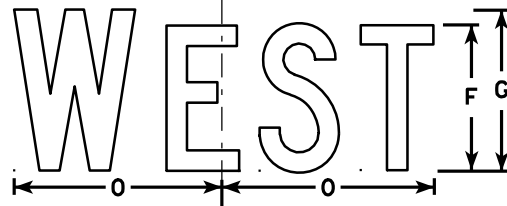
MB3-1
MG3-1
MM3-1
MN3-1



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



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



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

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

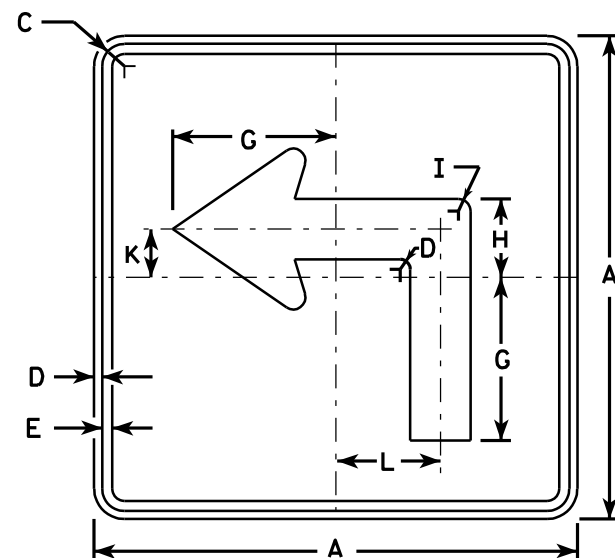
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

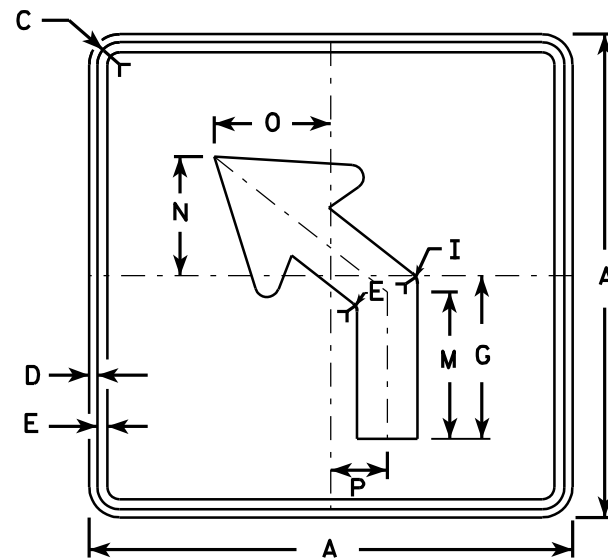
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

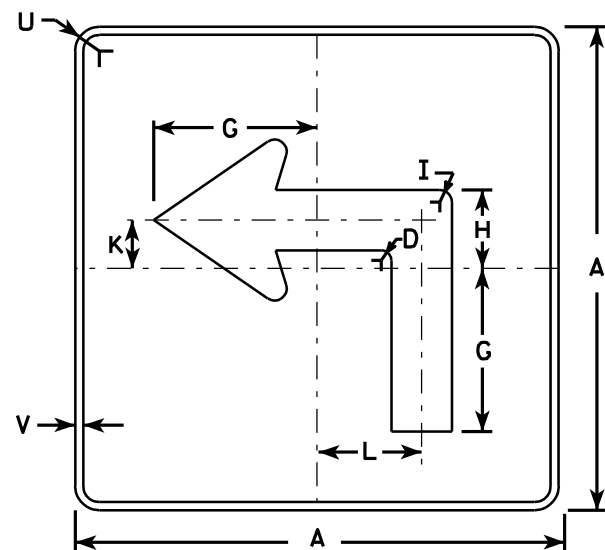
DATE 11/10/10 PLATE NO. M3-1.12



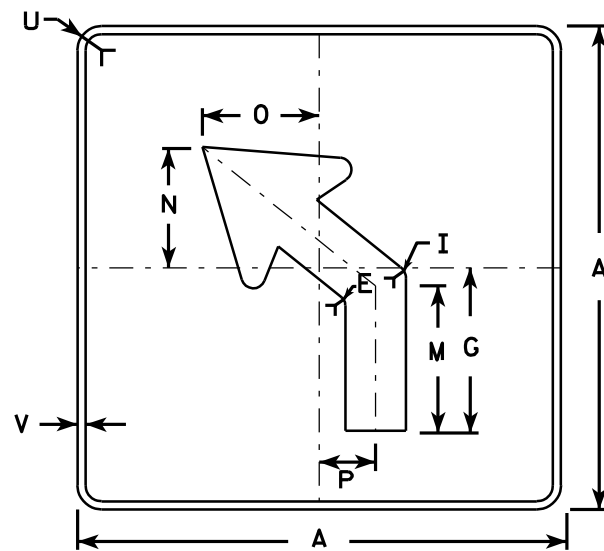
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



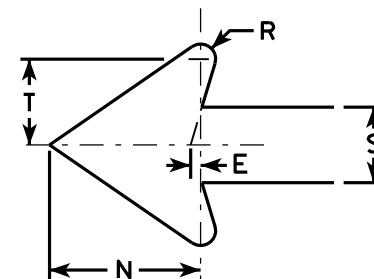
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



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



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



Metric equivalent
for this sign is:

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

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

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

NOTES

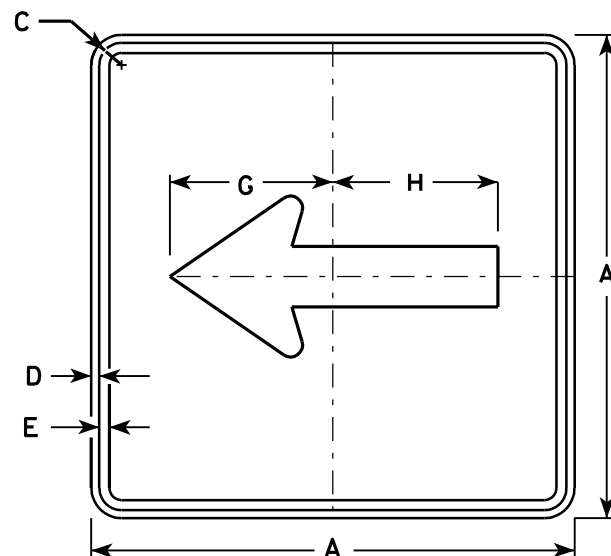
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material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

STANDARD SIGN
M5-1 & M5-2

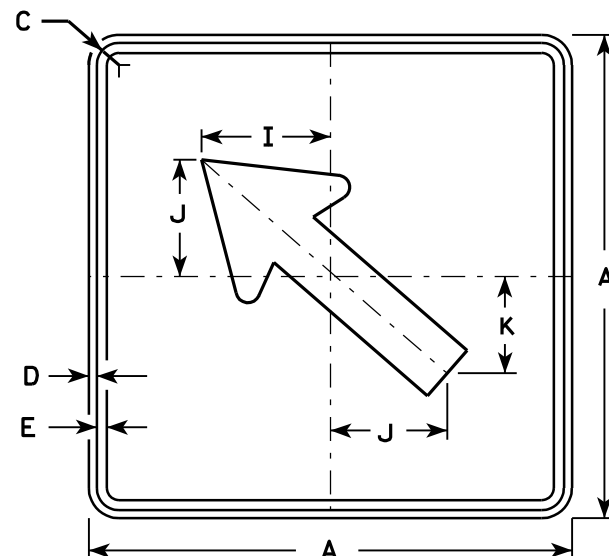
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

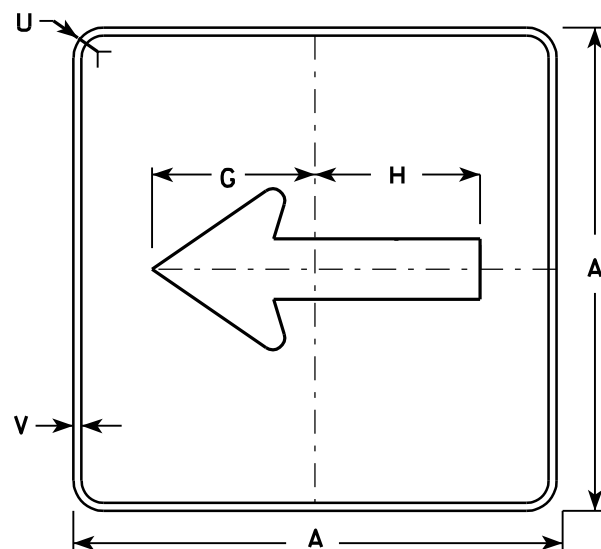
DATE 3/16/10 PLATE NO. M5-1.11



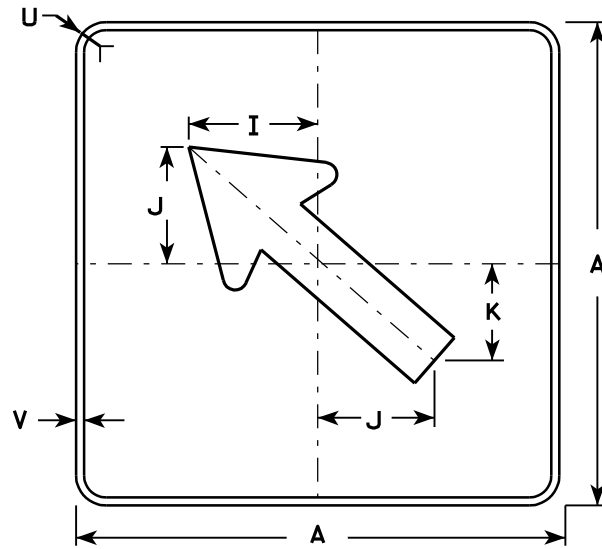
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



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



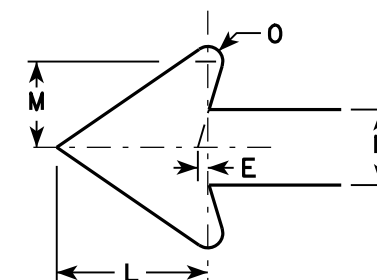
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

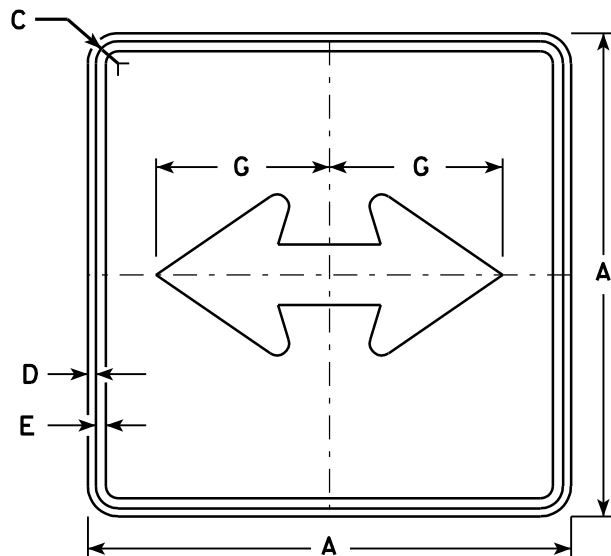
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGN M6-1 & M6-2 SERIES

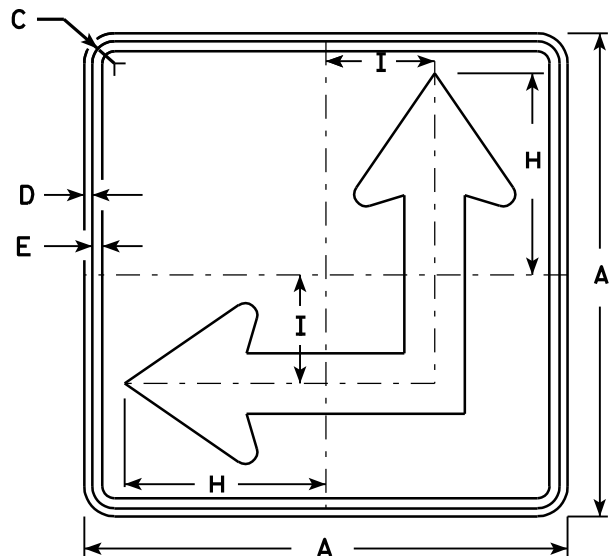
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

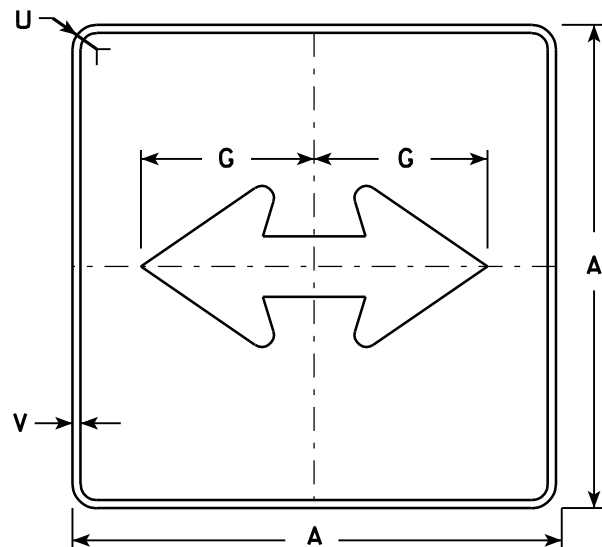
DATE 3/16/10 PLATE NO. M6-1.12



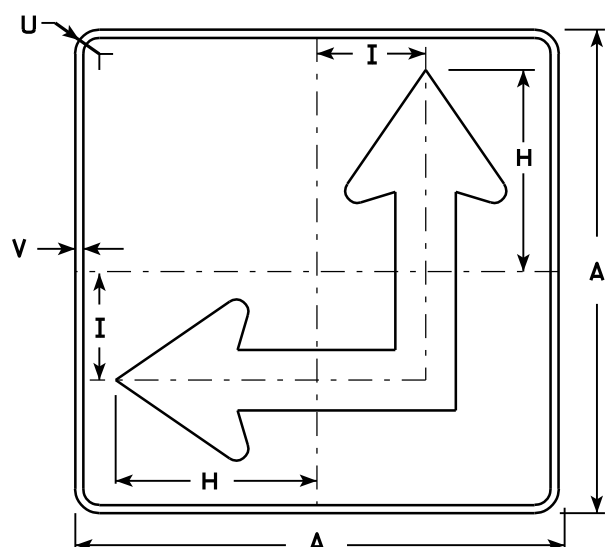
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MR6 - 6



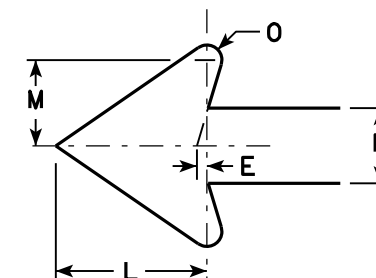
MB6 - 4
MG6 - 4
MN6 - 4



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-4 and M6-6 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Reflective
Message - Black
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

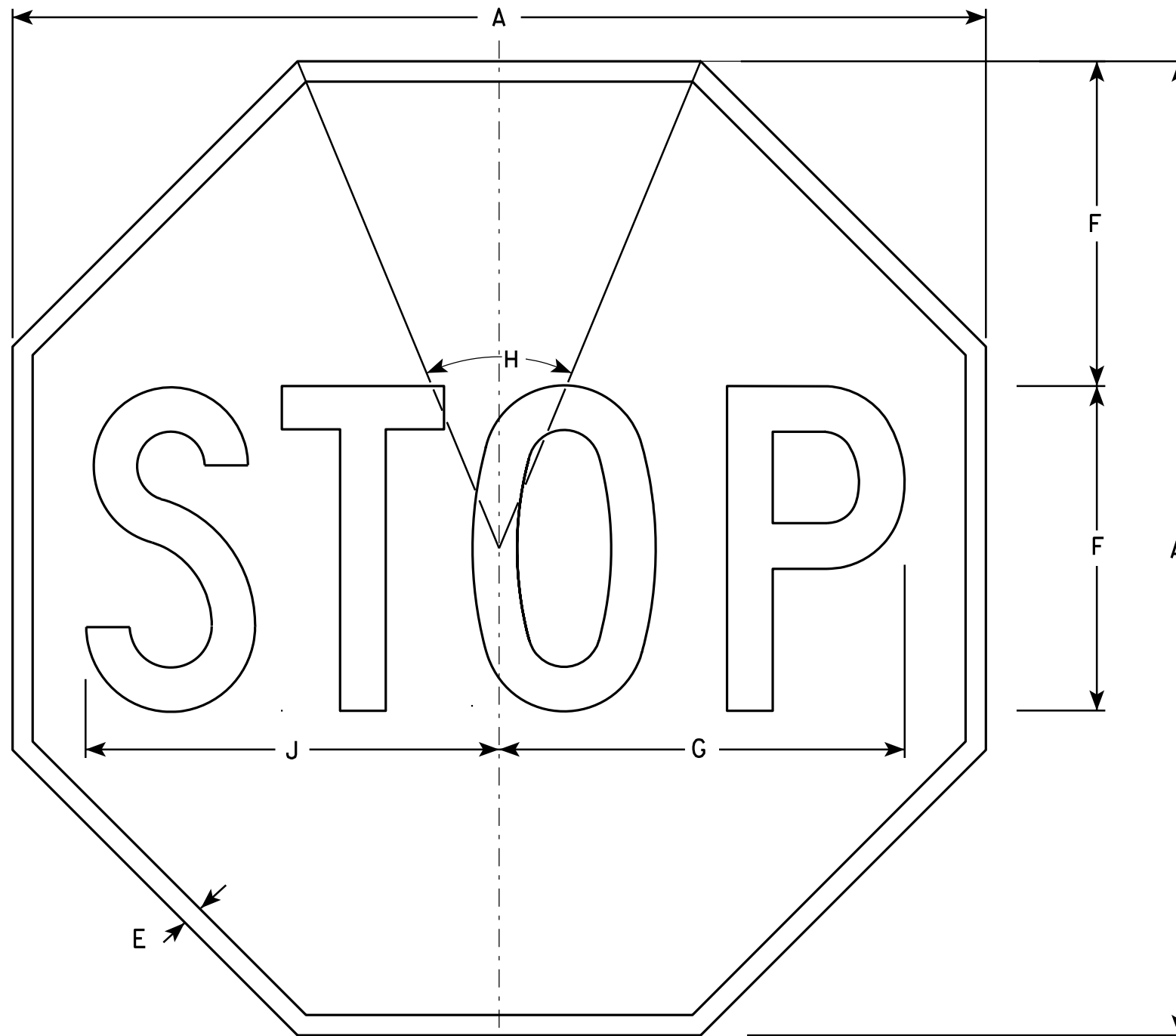
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7



NOTES

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

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

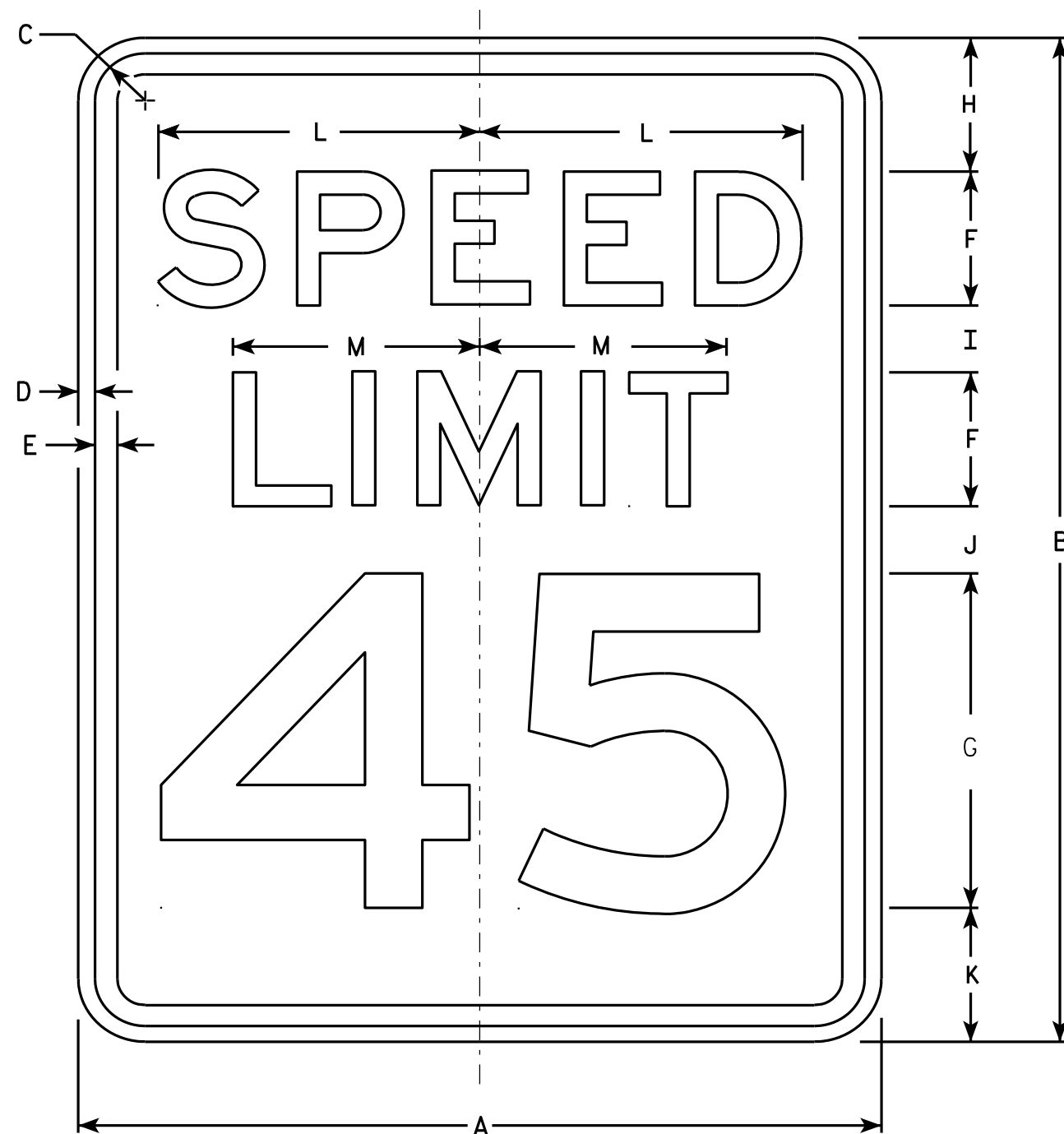
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R2-1

NOTES

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

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

STANDARD SIGN R2-1

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

PROJECT NO: HWY: COUNTY: SHEET NO: E



R2-6P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

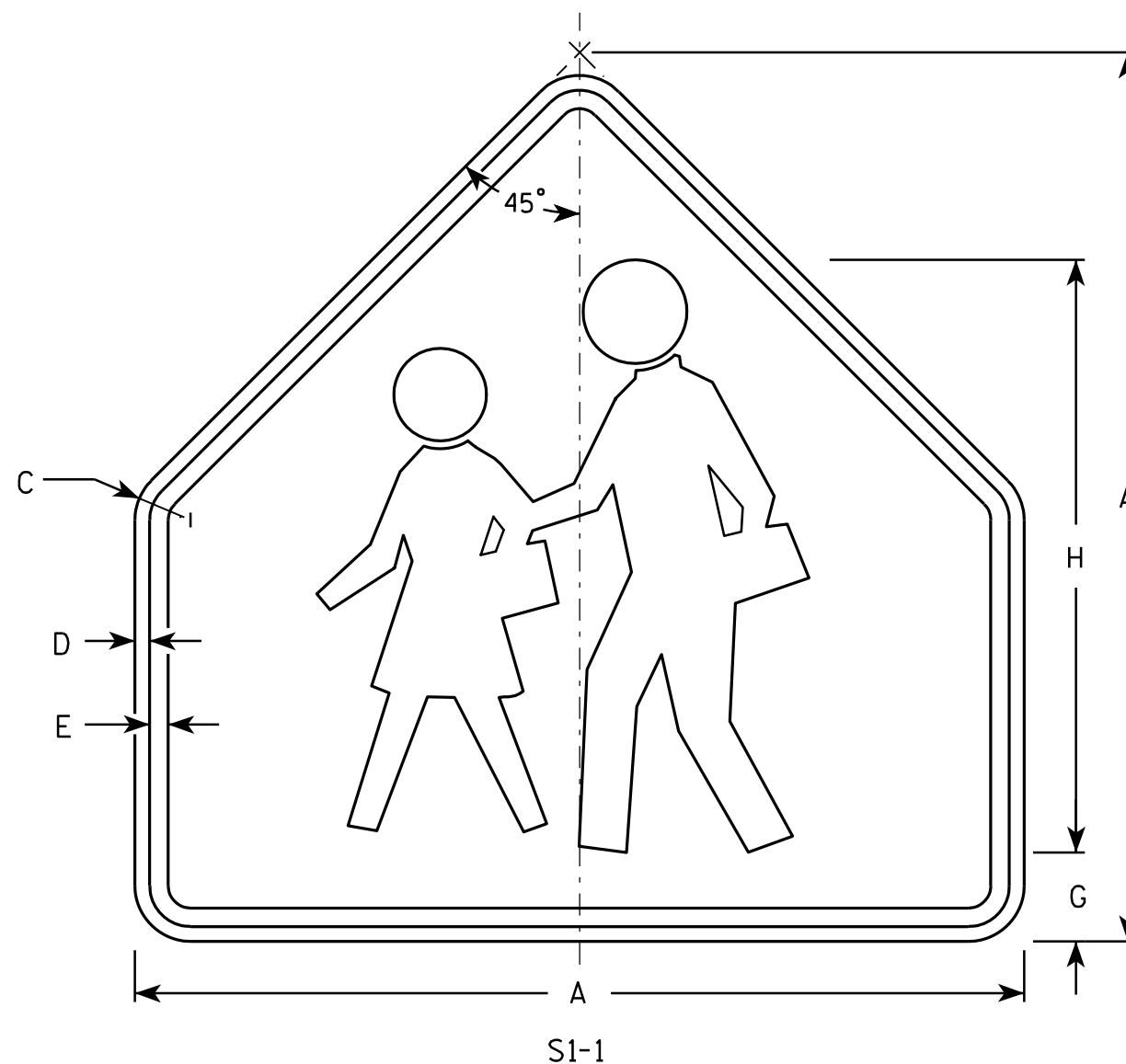
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

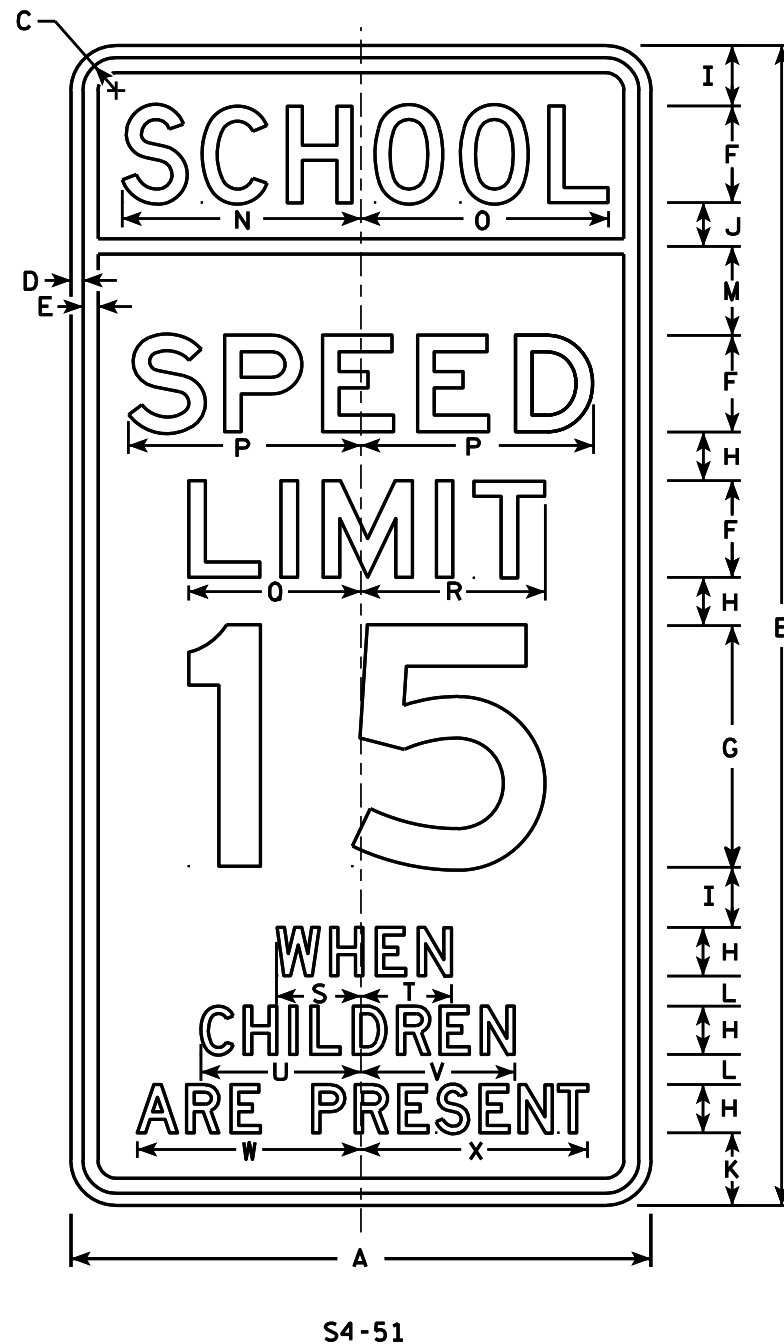
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24	48	1 3⁄8	1⁄2	5⁄8	4	10	2	2 1⁄2	1 3⁄4	3	1 1⁄4	3 3⁄4	9 7⁄8	10 1⁄4	9 5⁄8	7 1⁄8	7 5⁄8	3 1⁄2	3 3⁄8	6 5⁄8	6 3⁄8	9 1⁄4	9 3⁄8			8.00	0.72
3	36	72	2 1⁄4	3⁄4	1	6	15	3	3 3⁄4	2 3⁄4	4 1⁄2	1 7⁄8	5 1⁄2	15	15 1⁄4	14 1⁄2	11 1⁄4	11 1⁄2	5 1⁄2	5 3⁄4	10	9 3⁄4	14	14 1⁄8			18.00	1.62
4																												
5																												

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



NOTES

- Sign is Type II - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:
Background - See note 5
Message - Black
- Message Series - See note 6
- CornerRadius may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.
Lower panel background - White -Type H Reflective.
- From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and
adjust spacing to achieve proper balance.

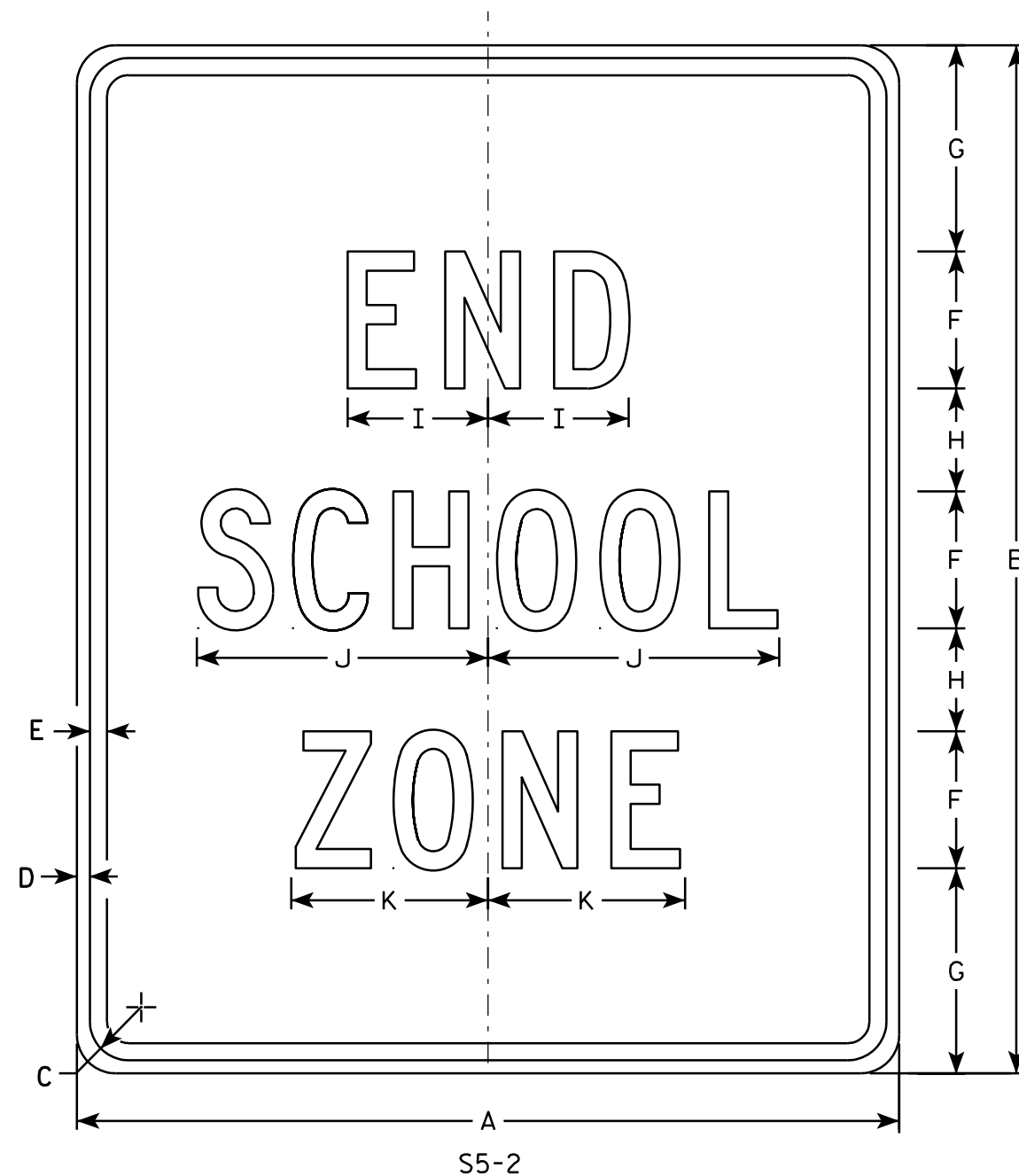
STANDARD SIGN S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1⁄8	3⁄8	1⁄2	4	6	3	4 1⁄8	8 1⁄2	5 3⁄4																5.0
3	36	42	1 5⁄8	5⁄8	3⁄4	6	7	5	6 1⁄8	12 5⁄8	8 5⁄8																10.5
4																											
5																											

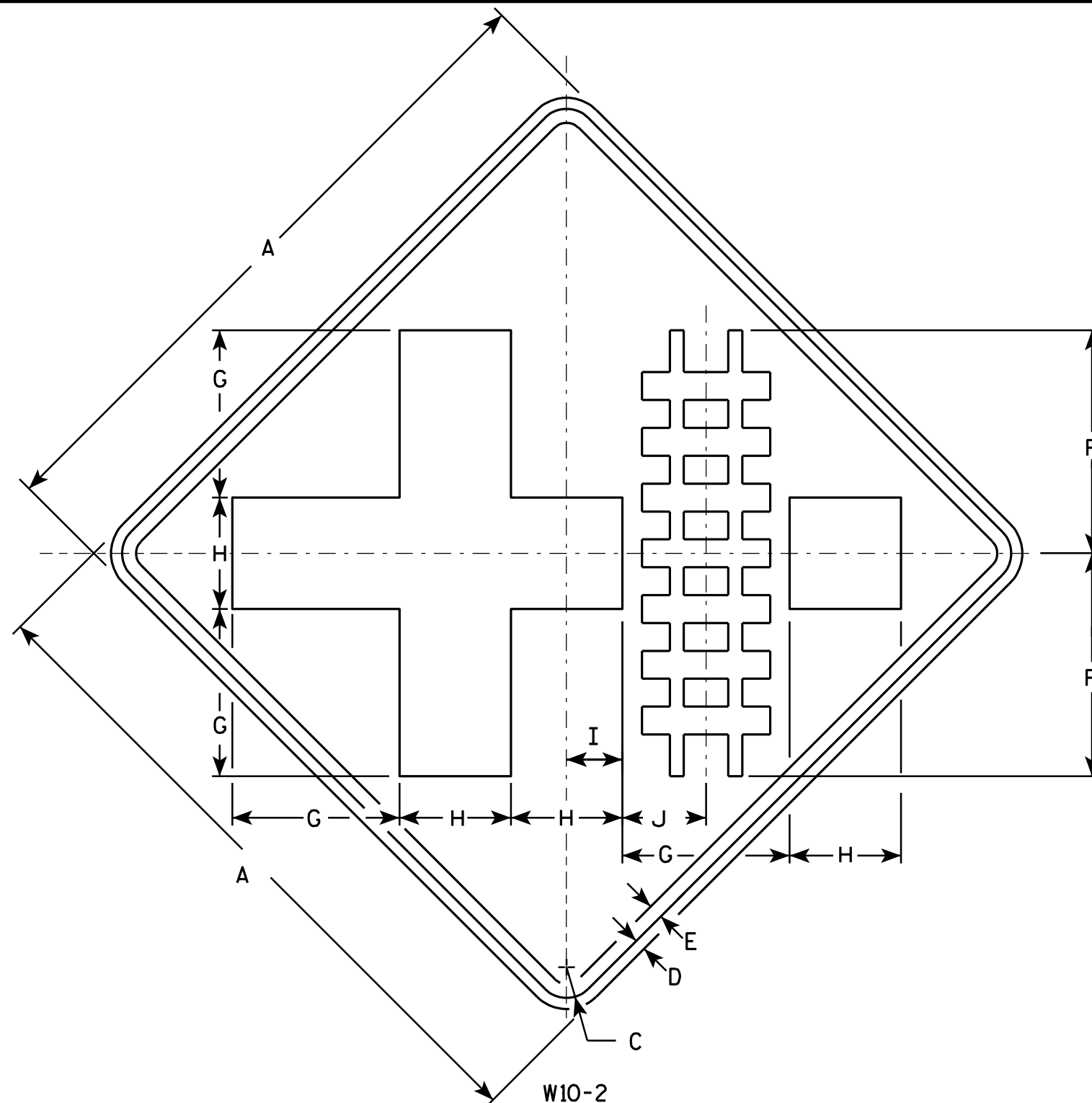
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

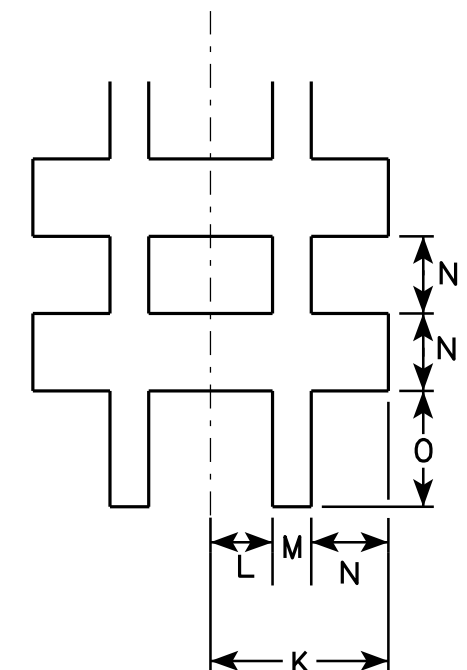
DATE 3/8/11 PLATE NO. S5-2.2

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



NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

STANDARD SIGN W10-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W10-2.7

PROJECT NO:

HWY:

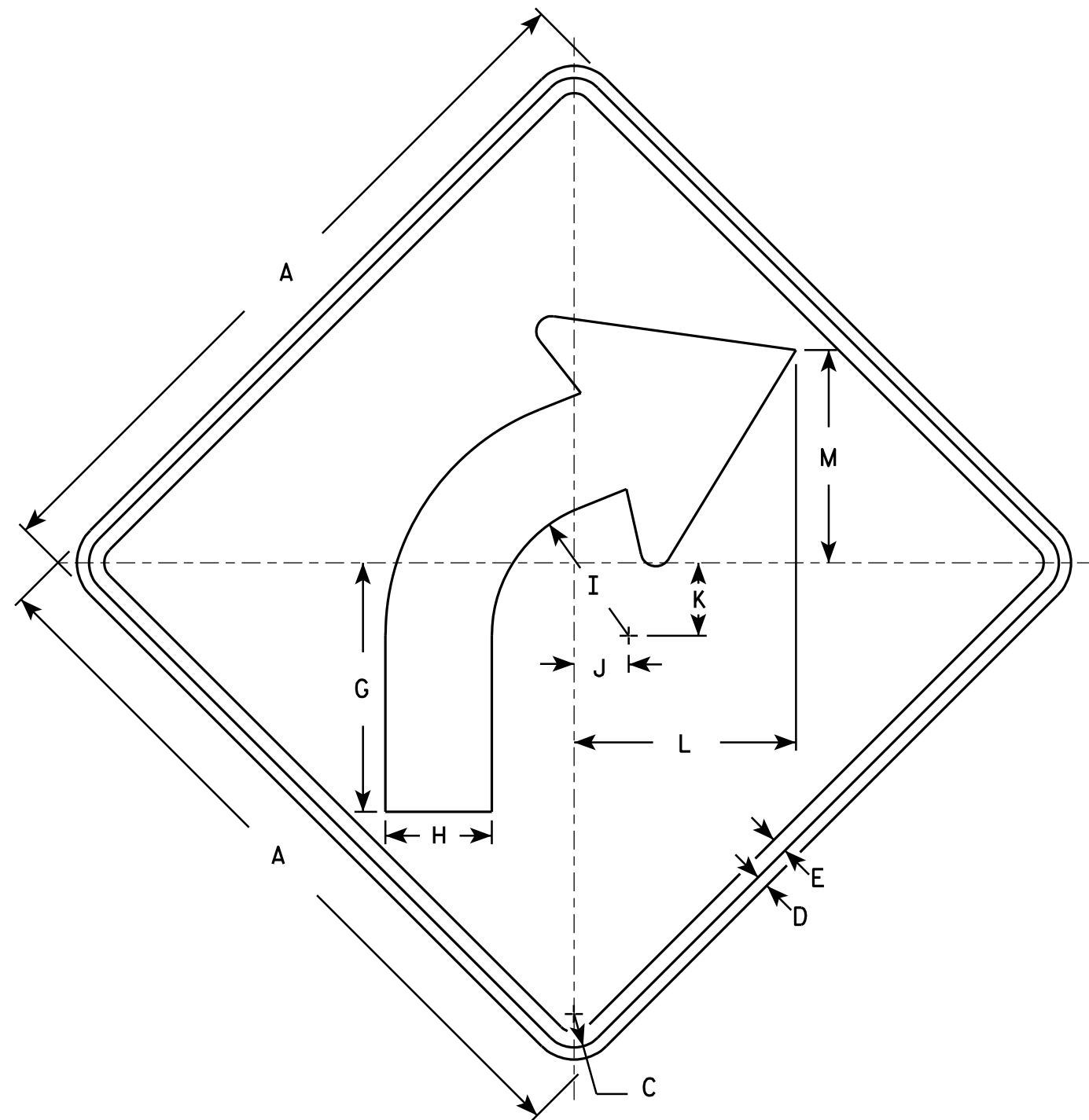
COUNTY:

SHEET NO:

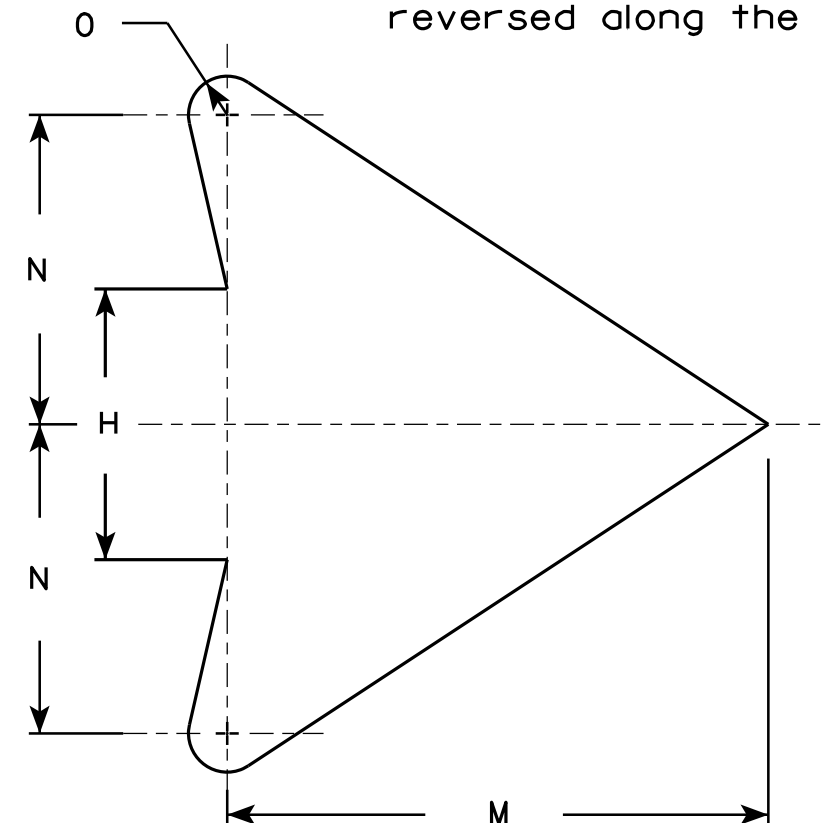
E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/18/11 PLATE NO. W1-2.9

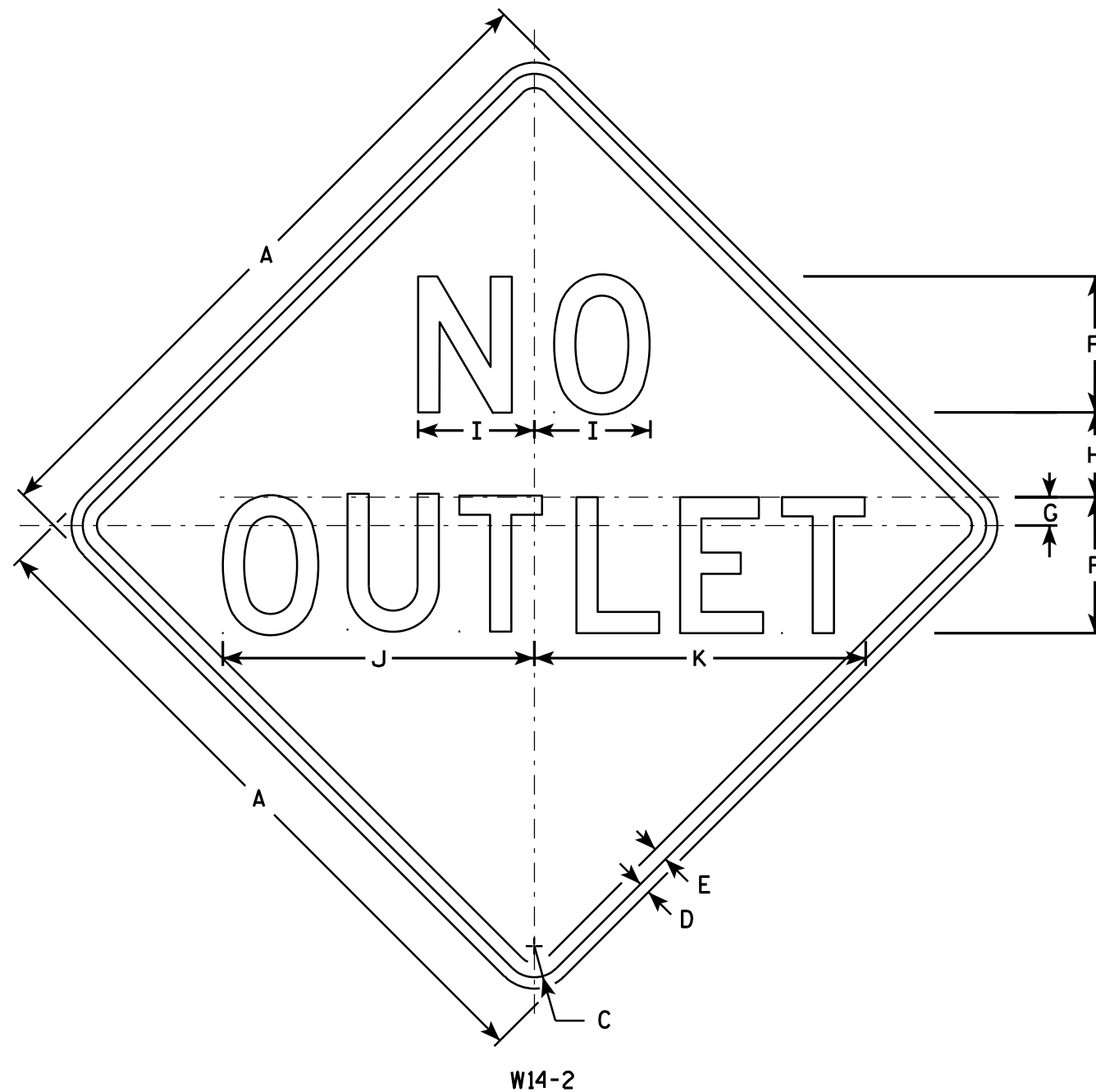
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

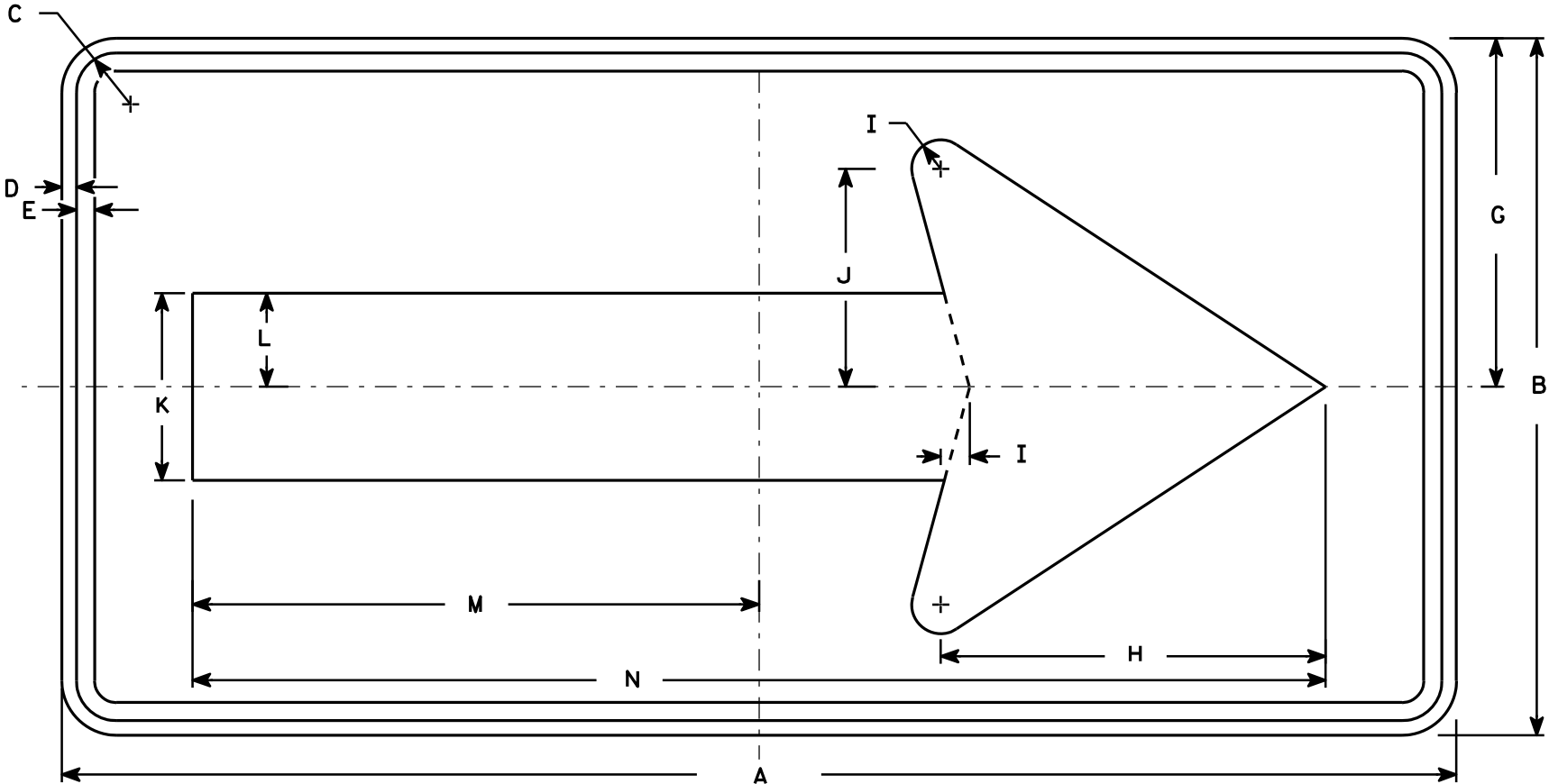
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN	
W14-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE <u>3/16/11</u>	PLATE NO. <u>W14-2.2</u>

NOTES

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



W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

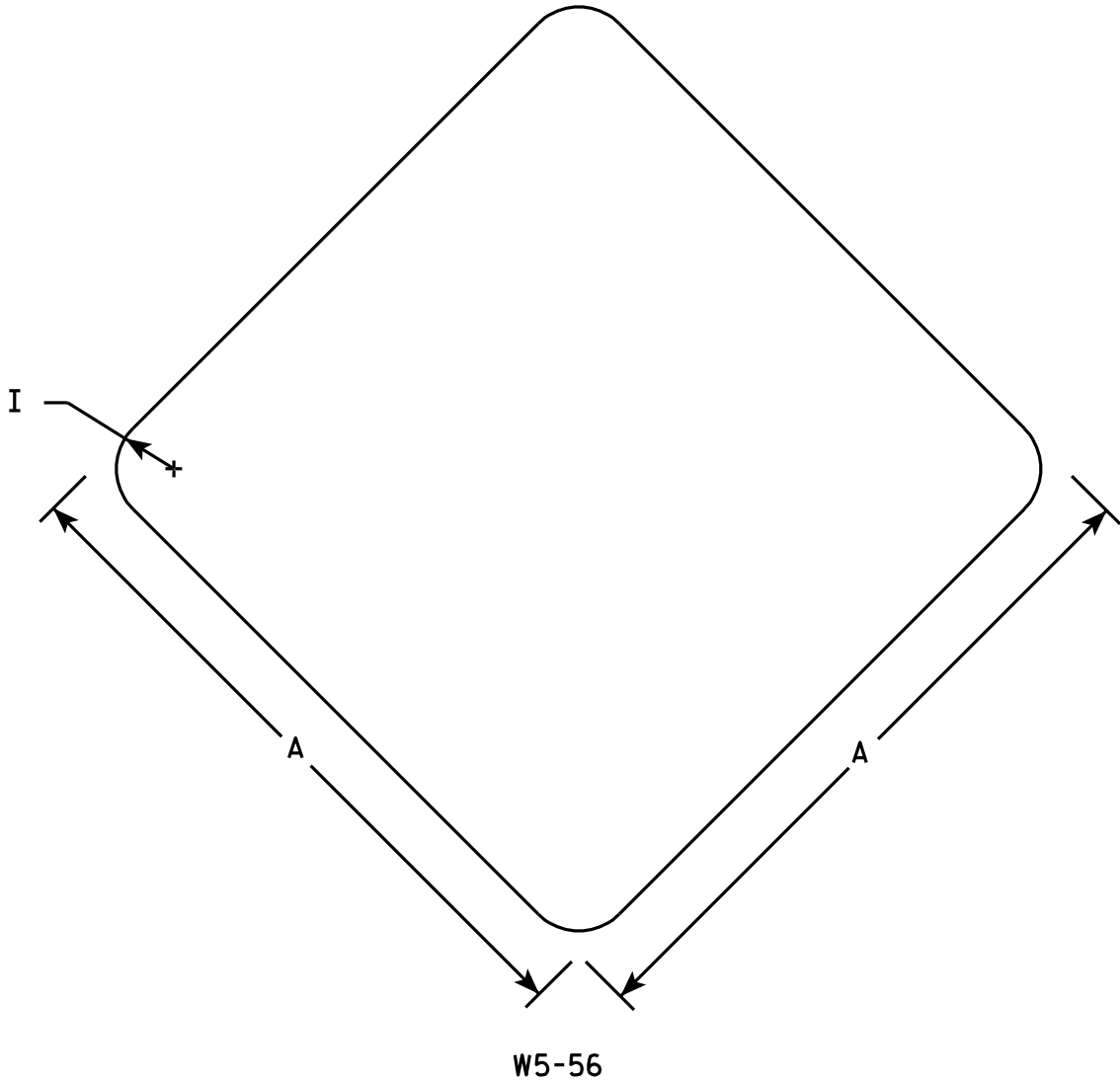
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

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

NOTES

- 1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
- 3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.



7

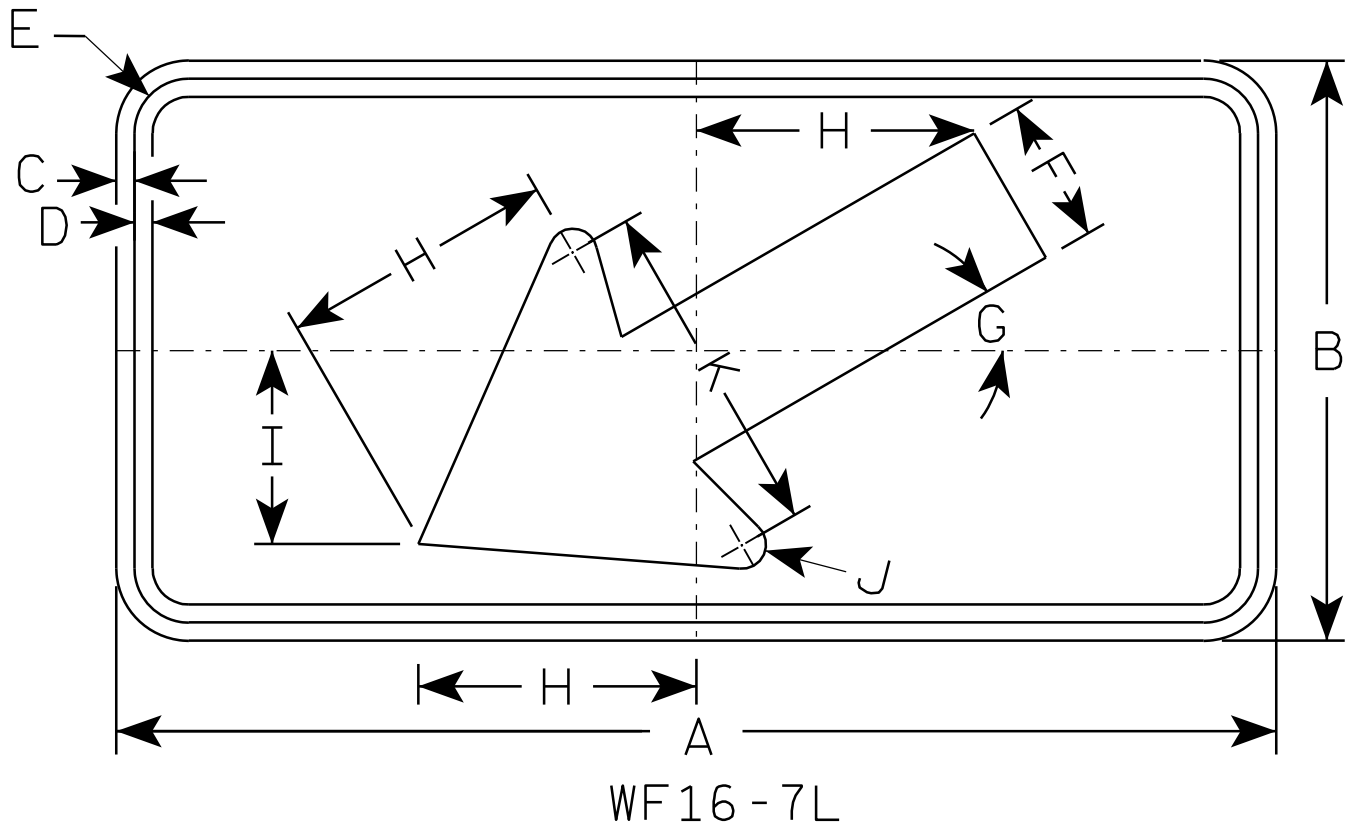
7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 1/2																		2.25
2M	18								1 1/2																		2.25
3																											
4																											
5																											

STANDARD SIGN	
W5 - 56	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE 11/2/10	PLATE NO. W5-56.6

NOTES

1. Sign is Type II - Type F Reflective -
reference WIS DOT Standard Specification for
HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow-Green
Message - Black
3. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
4. WF16-7R are the same as
WF-16-7L except the arrow is reversed along
the vertical centerline.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

STANDARD SIGN	
WF16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/21/10	PLATE NO. WF16-7.3

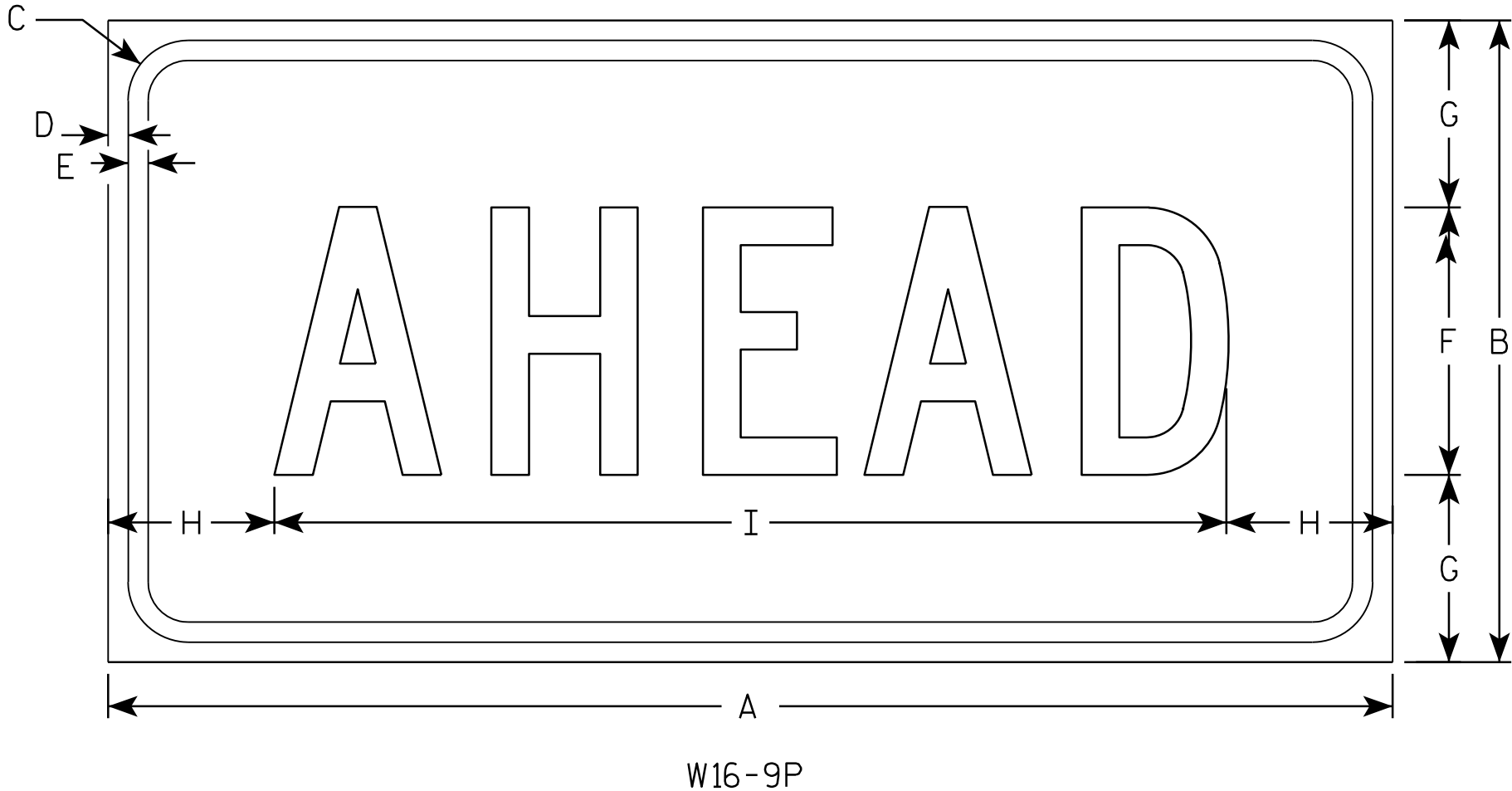
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

7

7

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

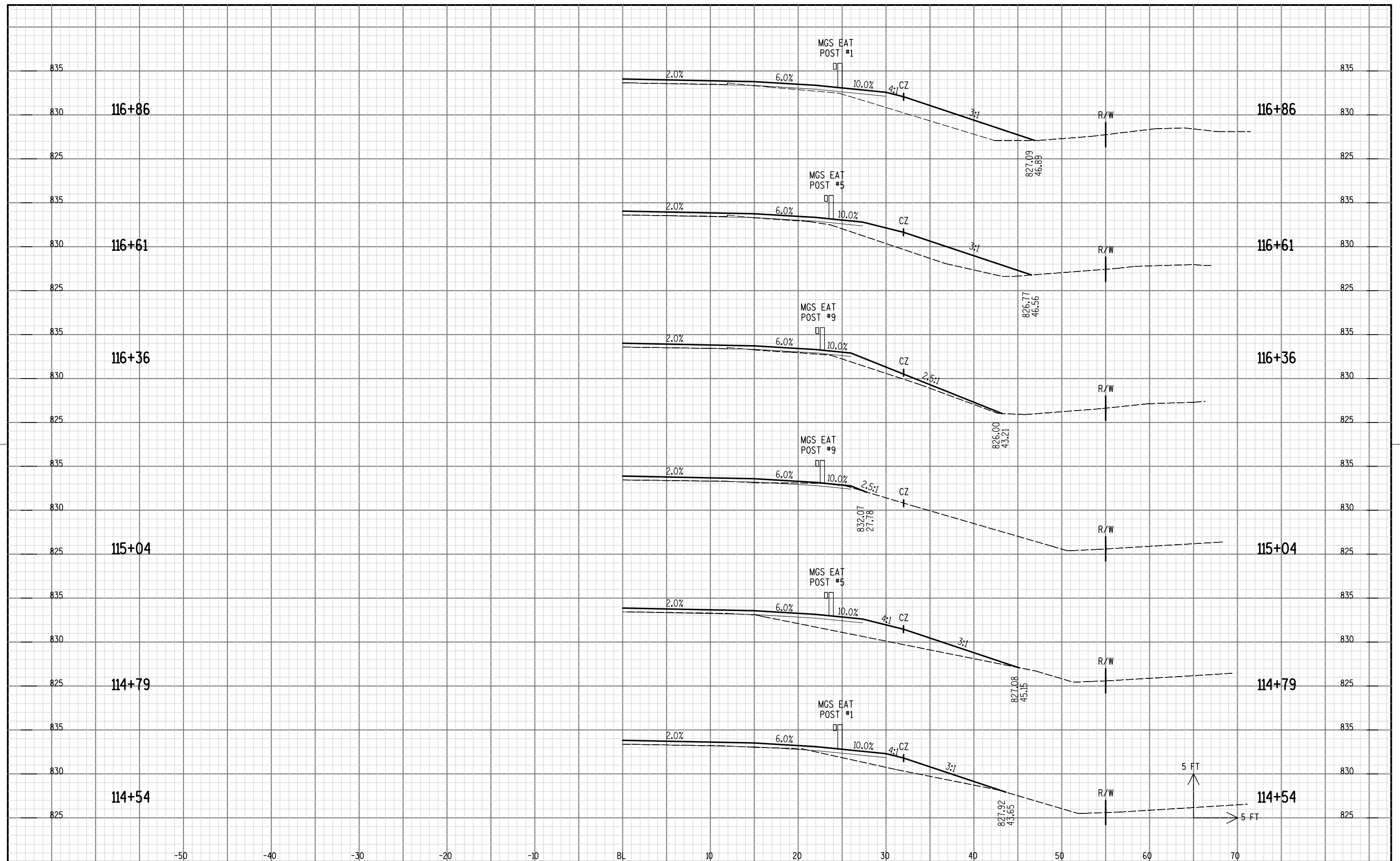
STANDARD SIGN

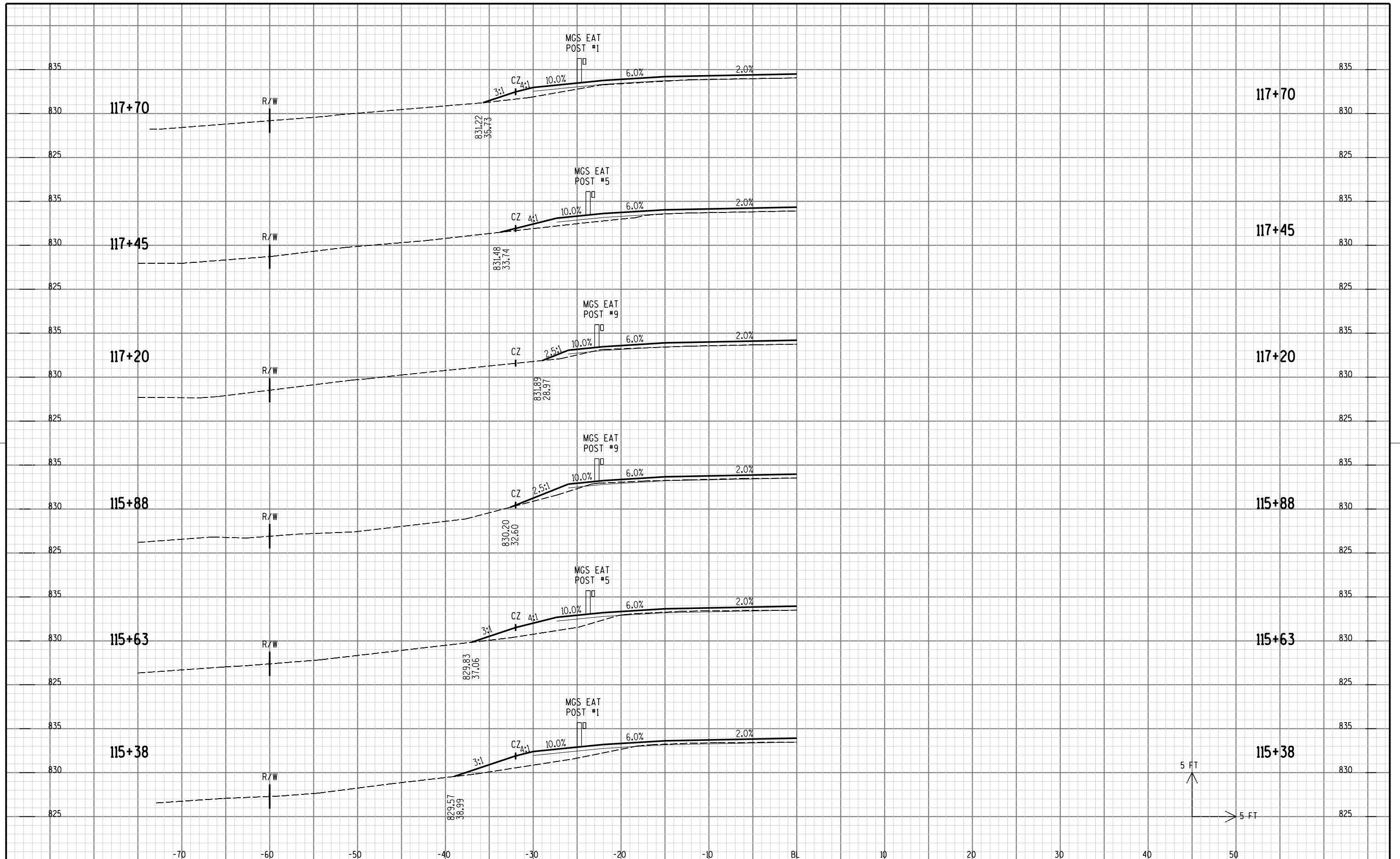
WF16-9P

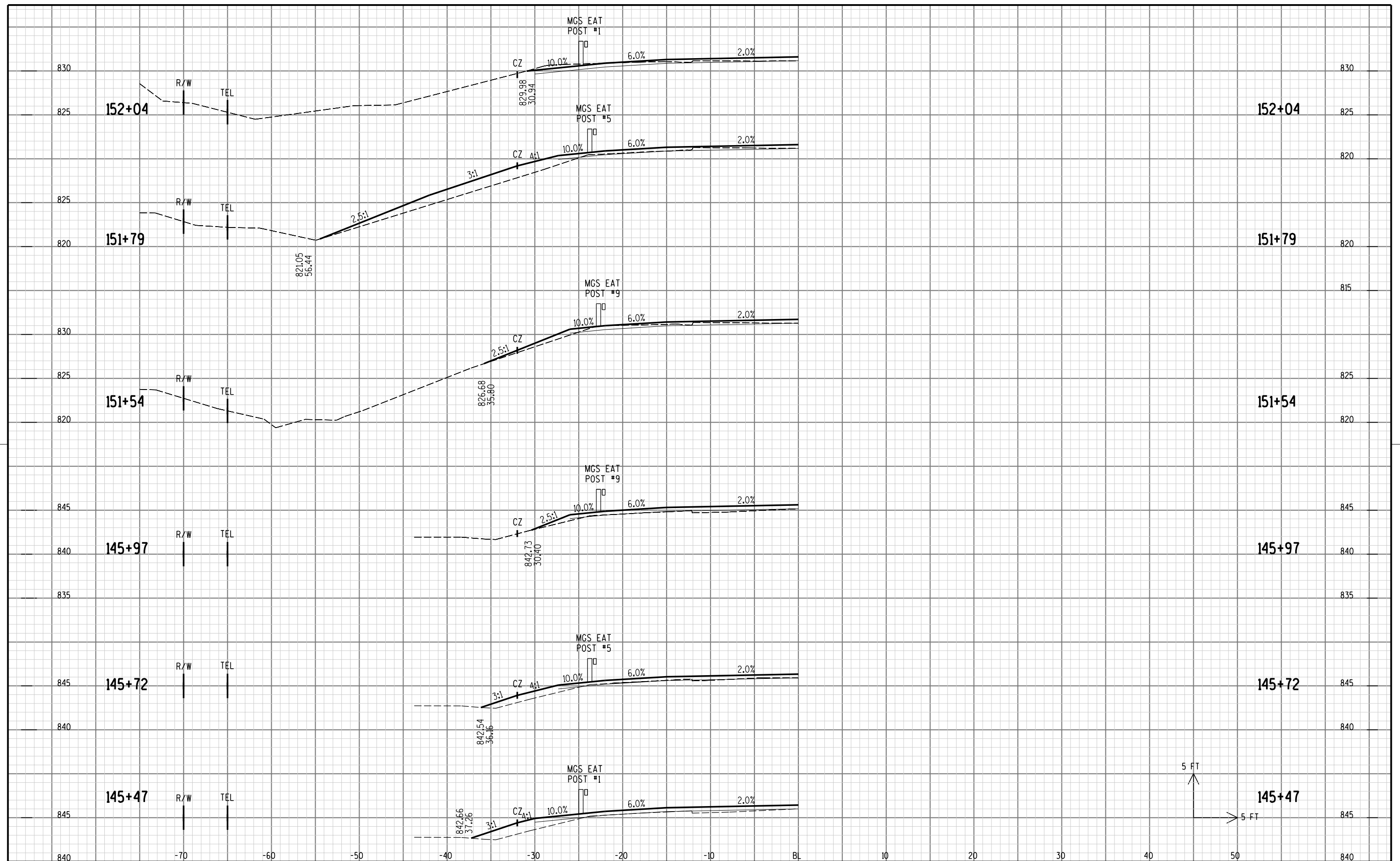
WISCONSIN DEPT OF TRANSPORTATION

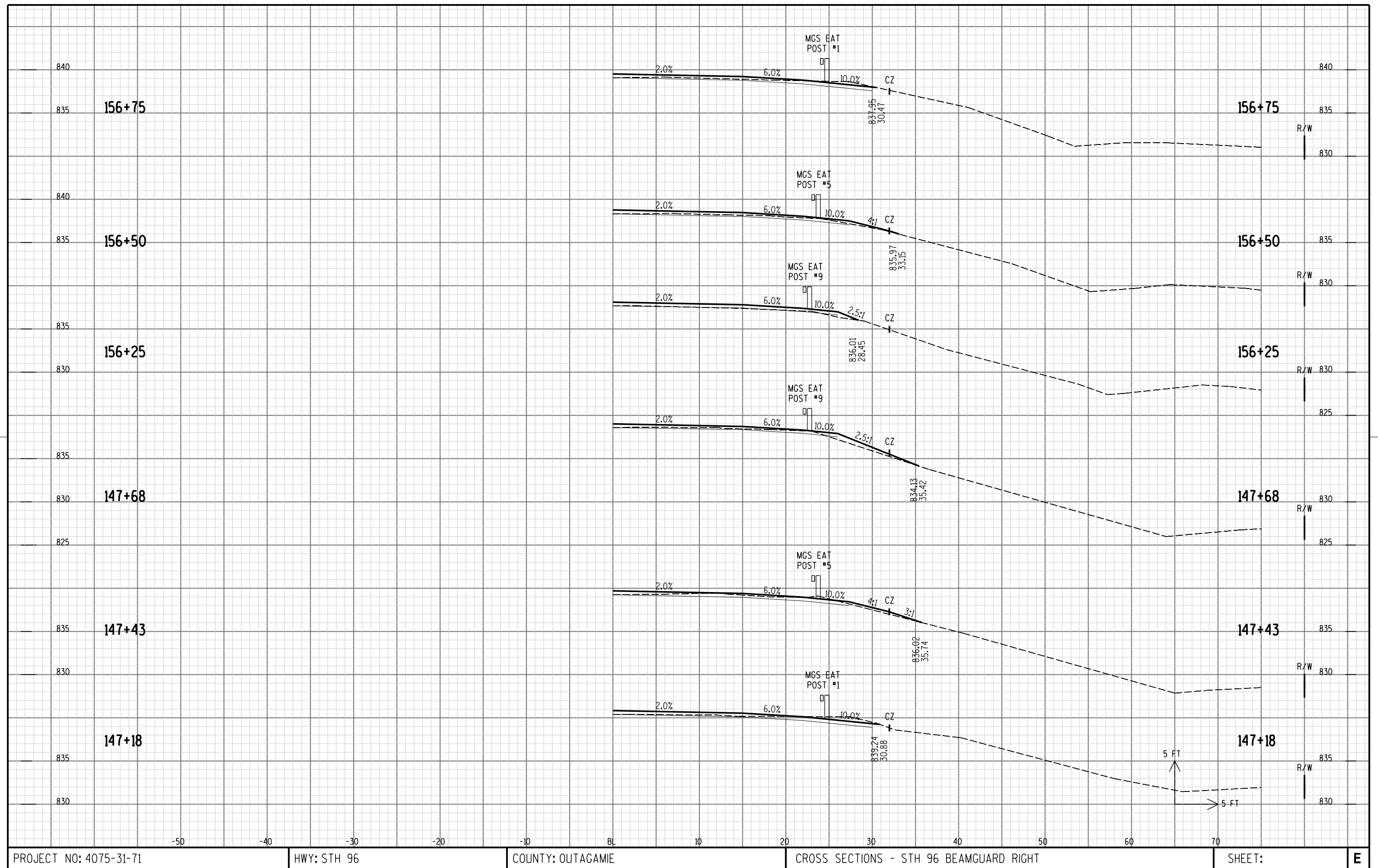
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

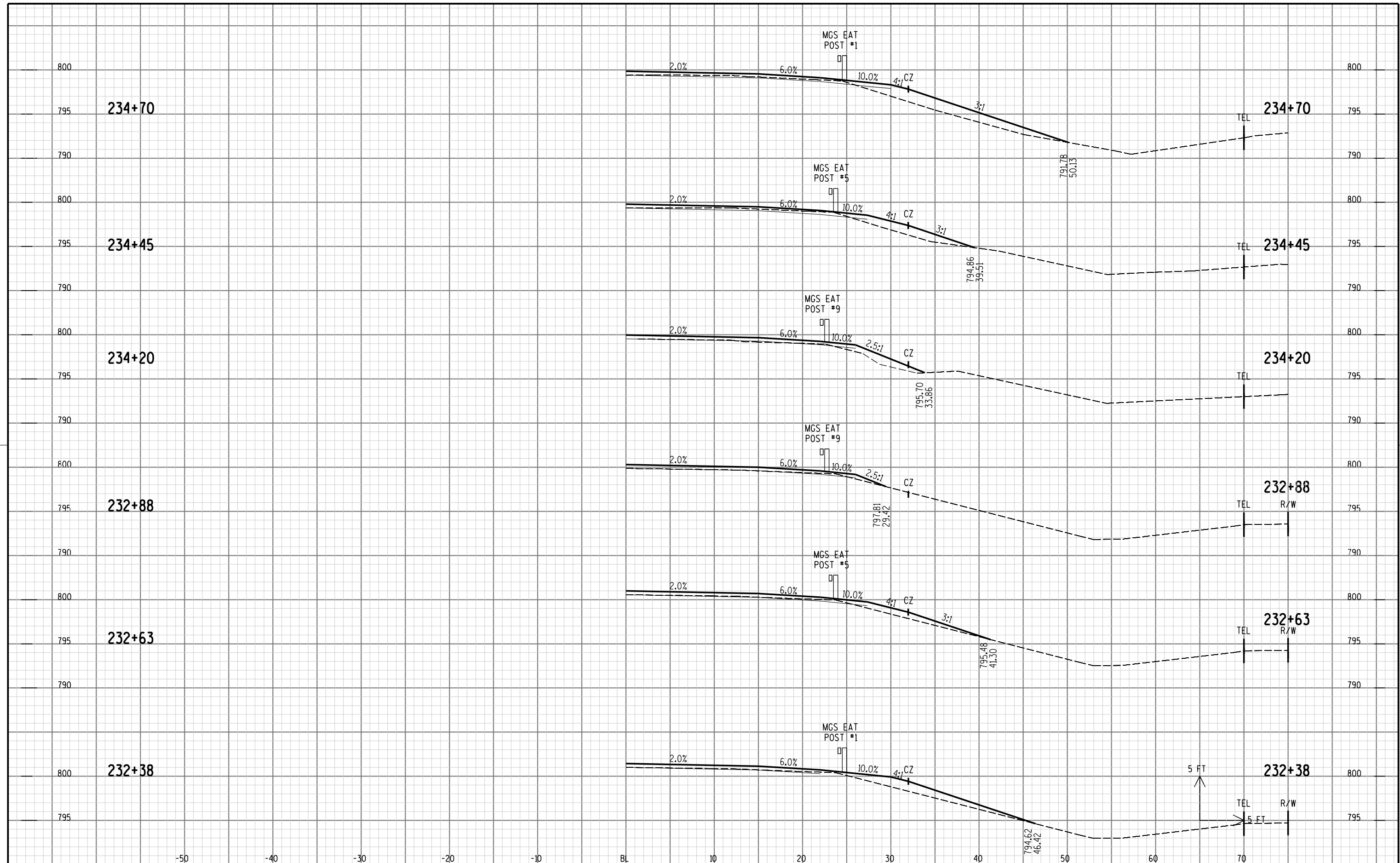
DATE 12/28/10 PLATE NO. WF16-9P.3

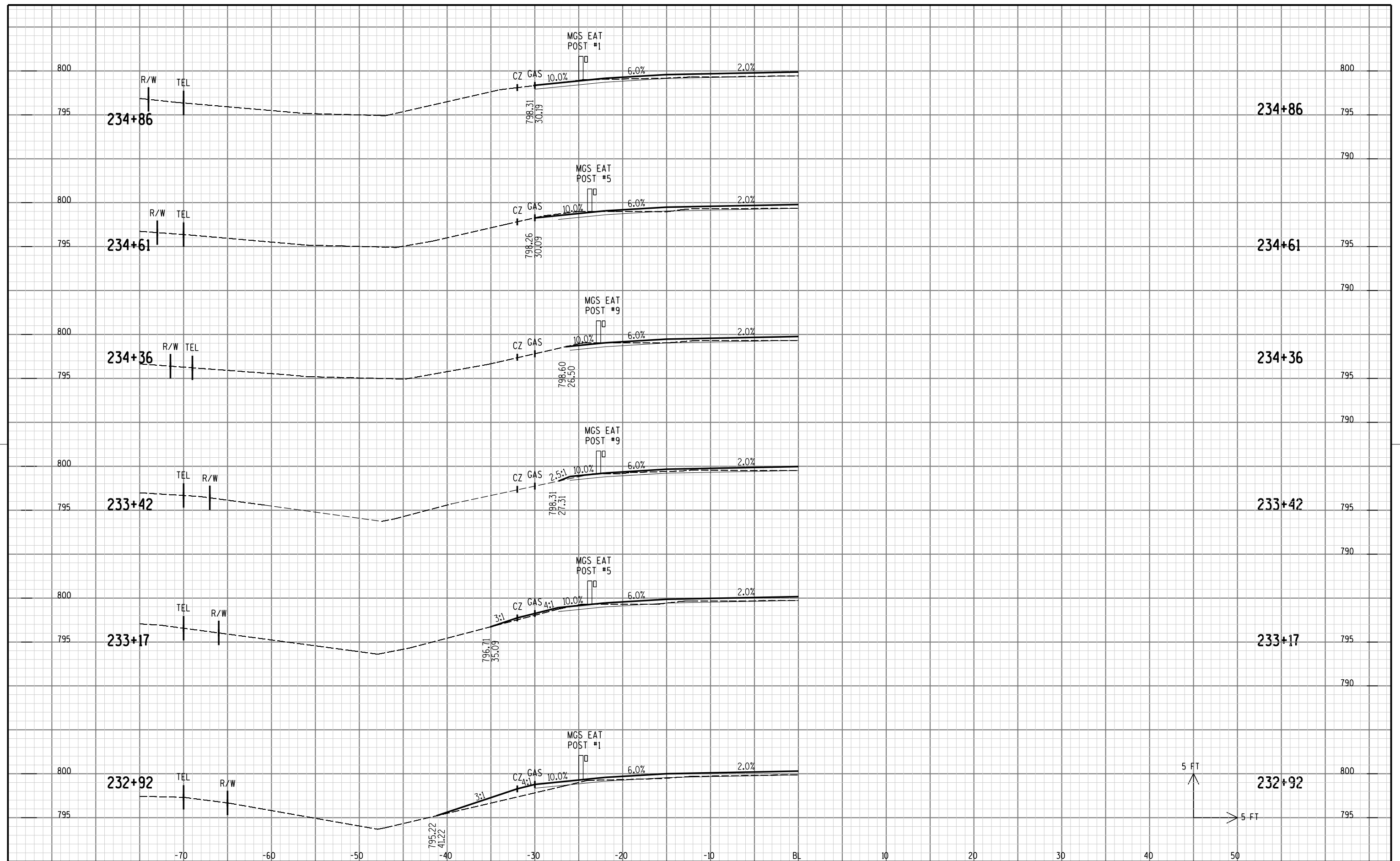


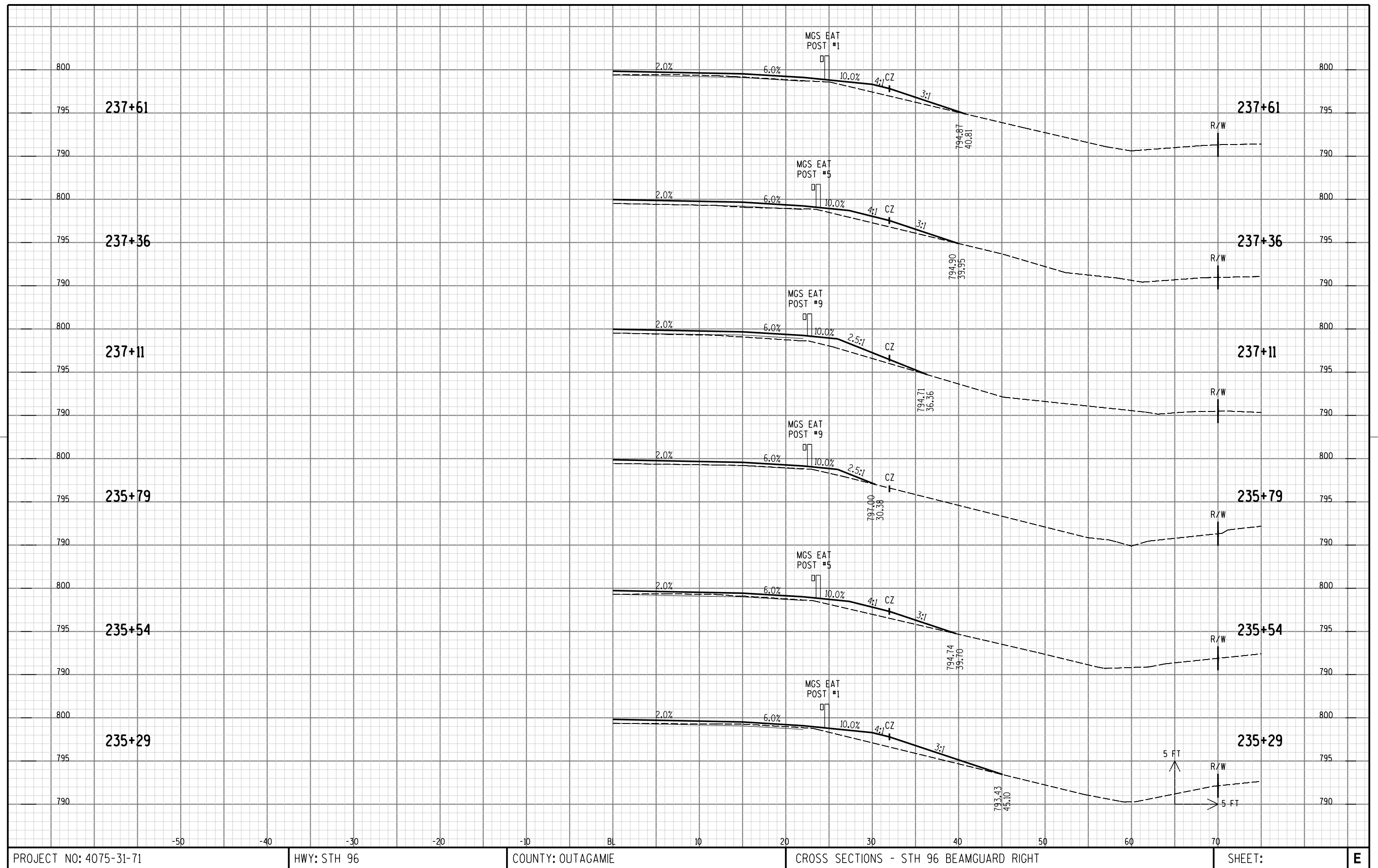


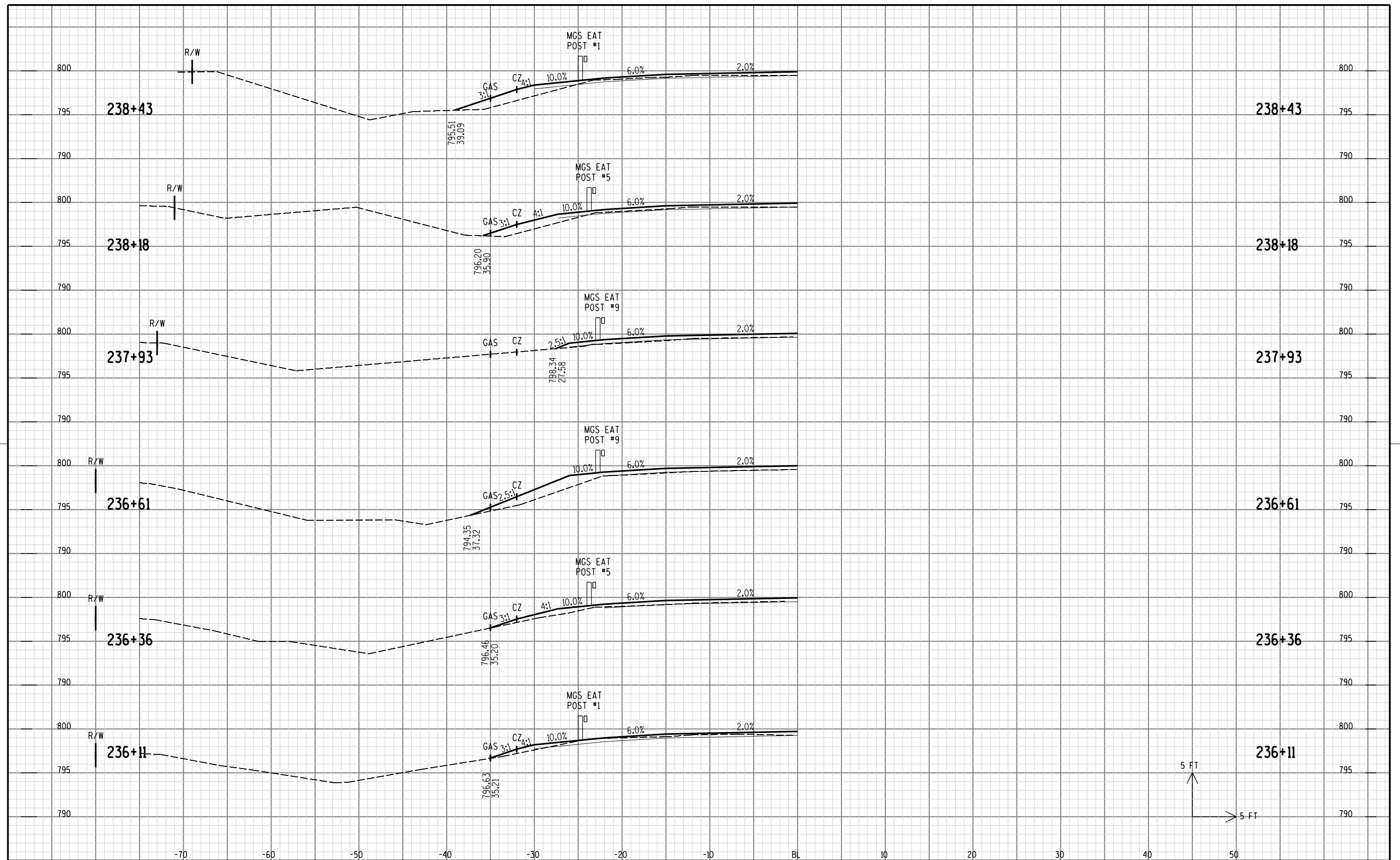


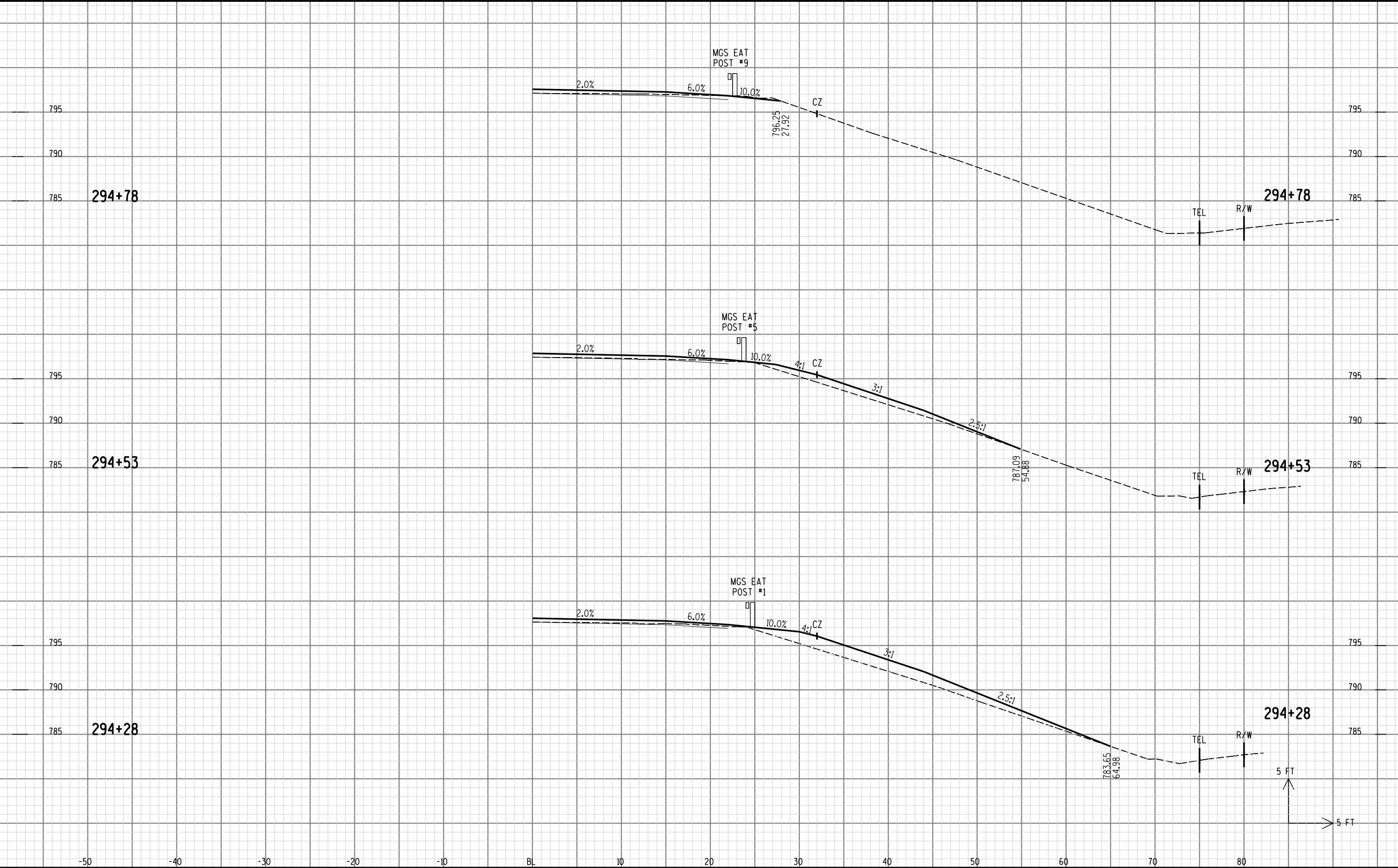


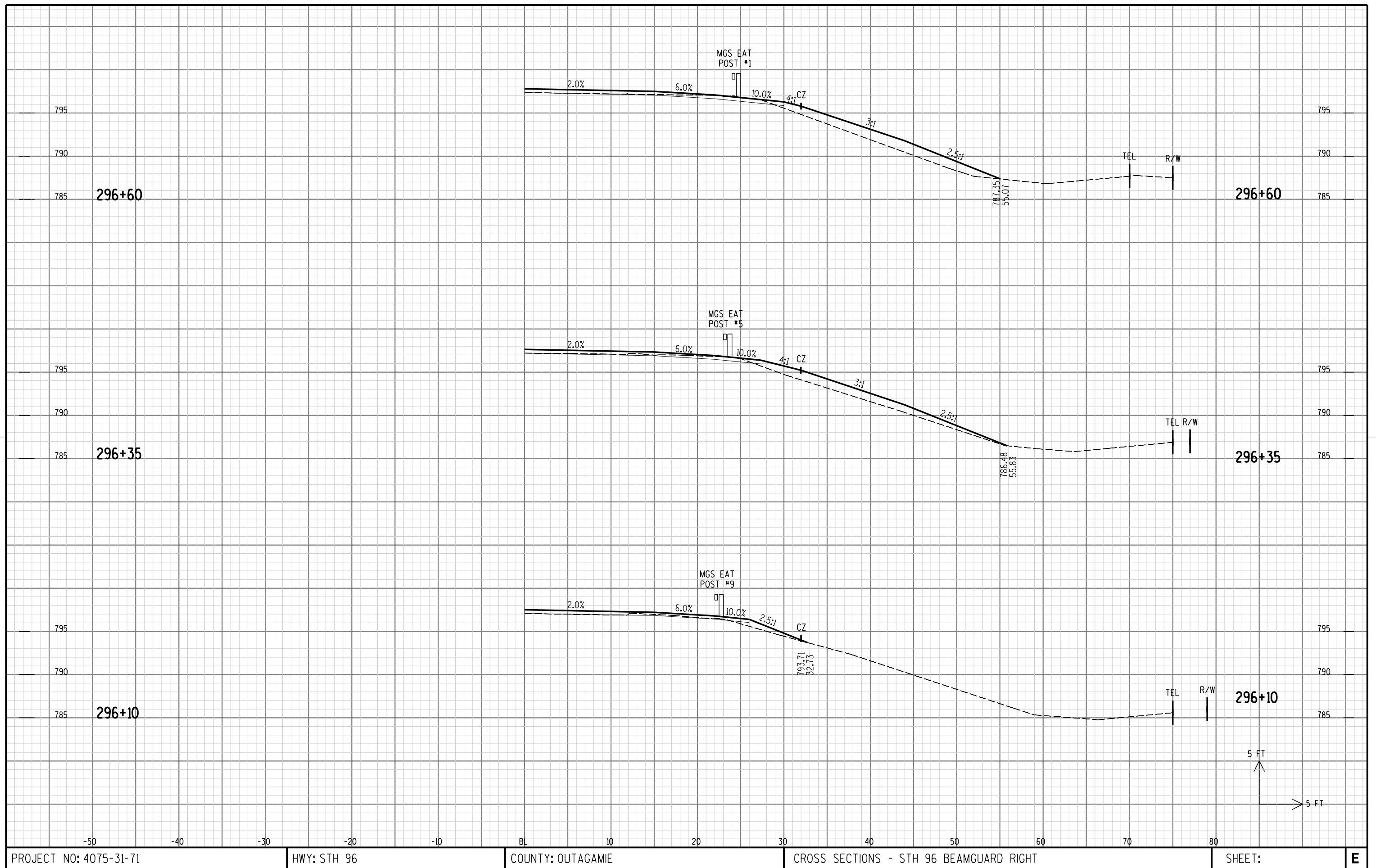


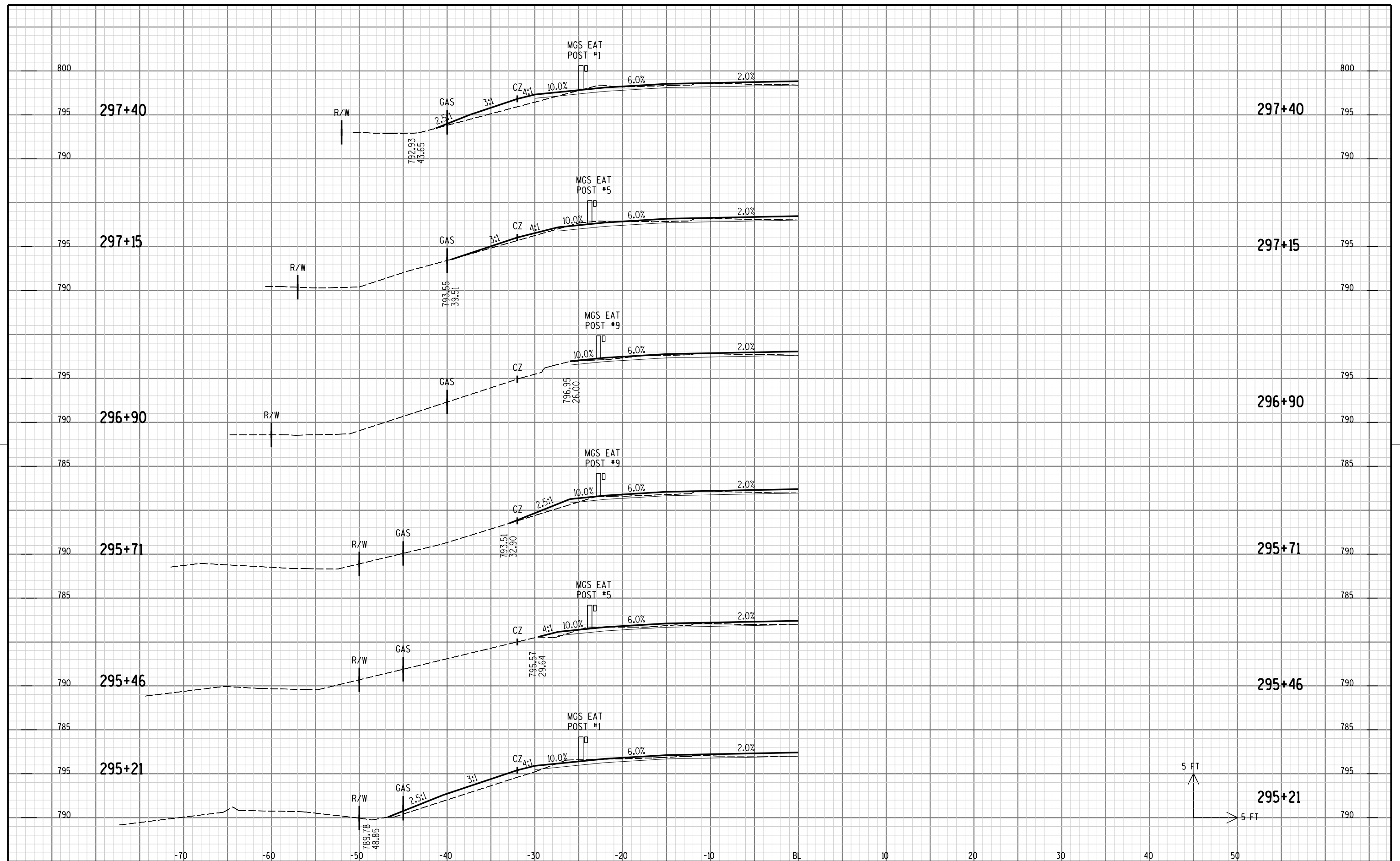


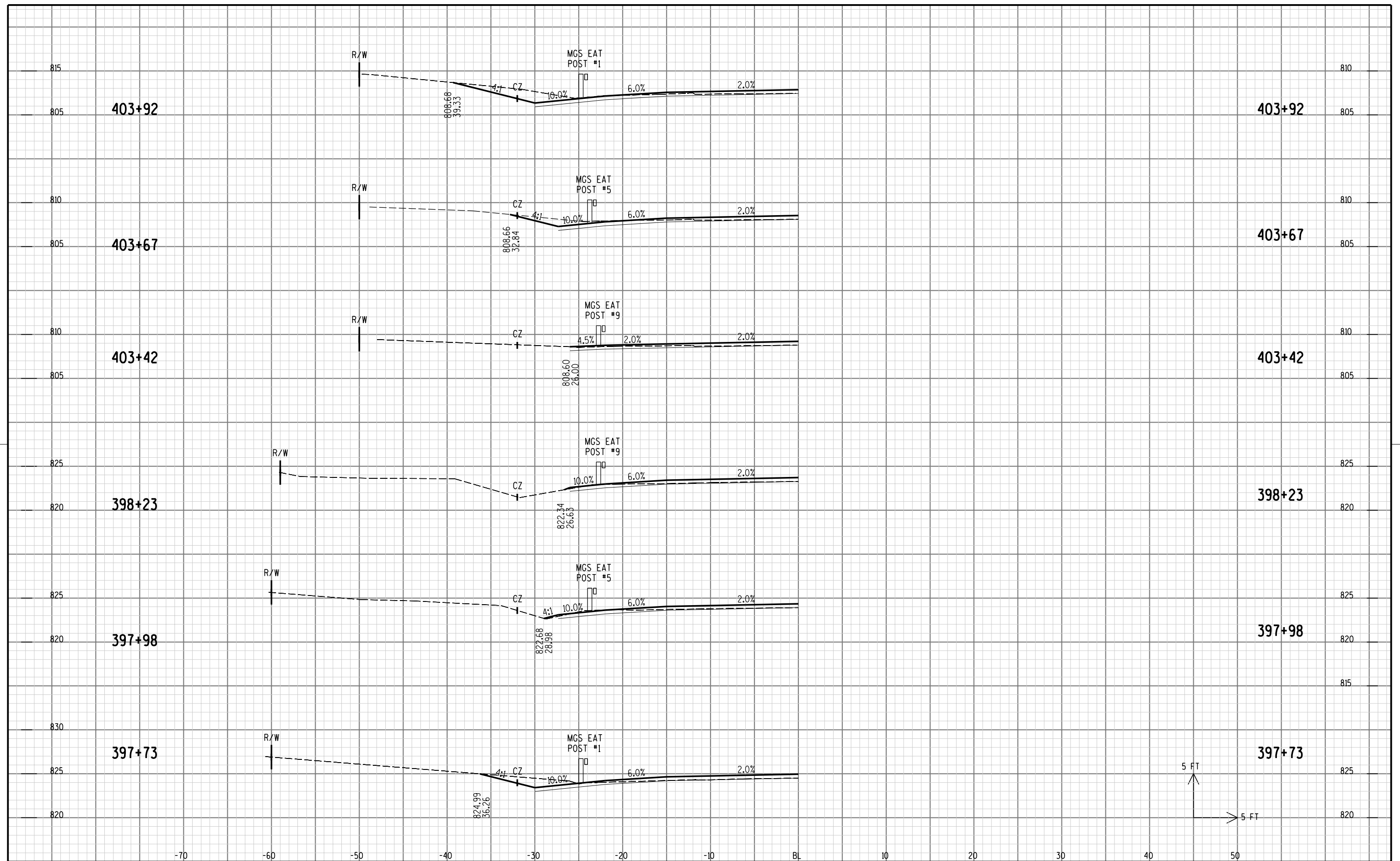


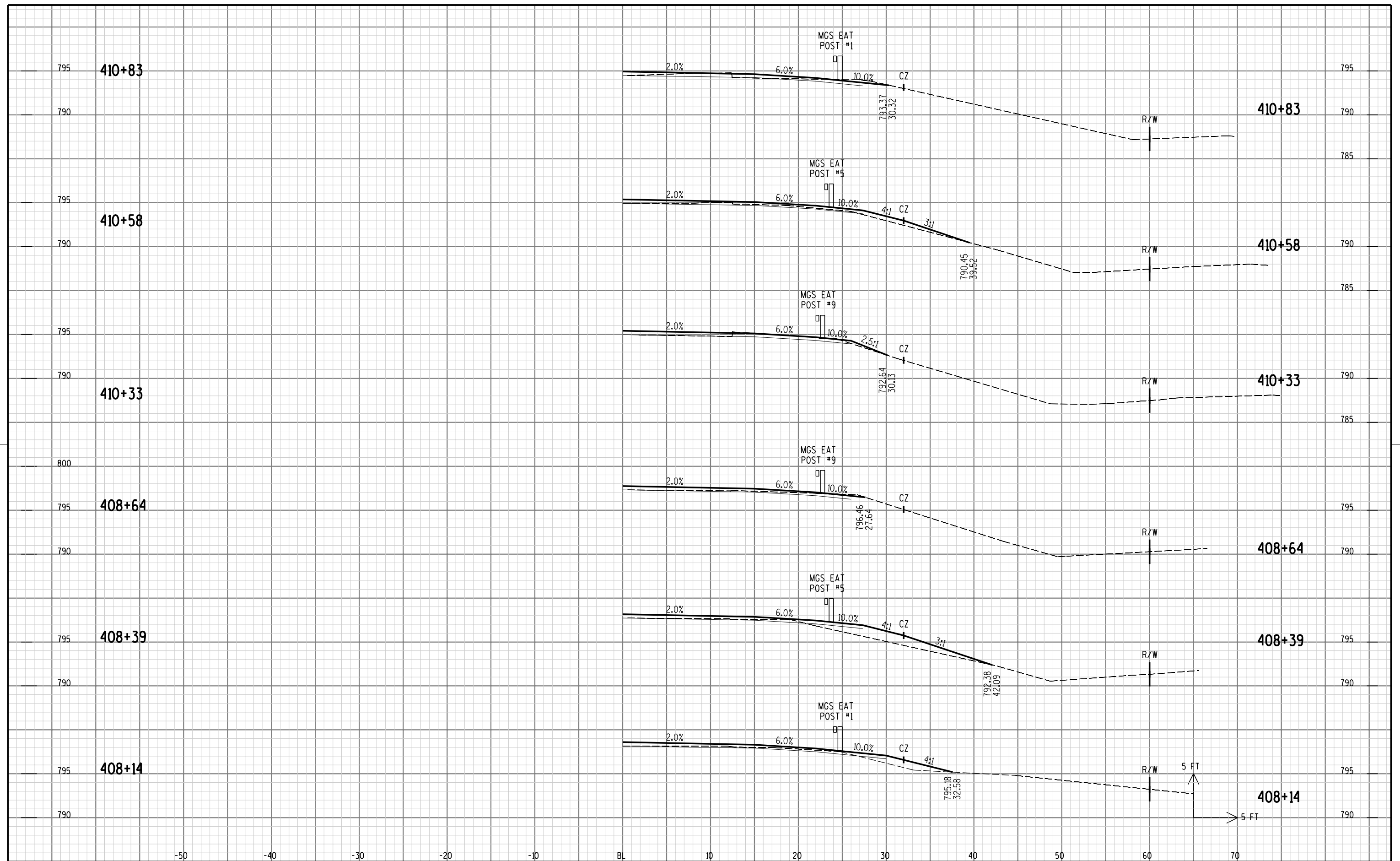


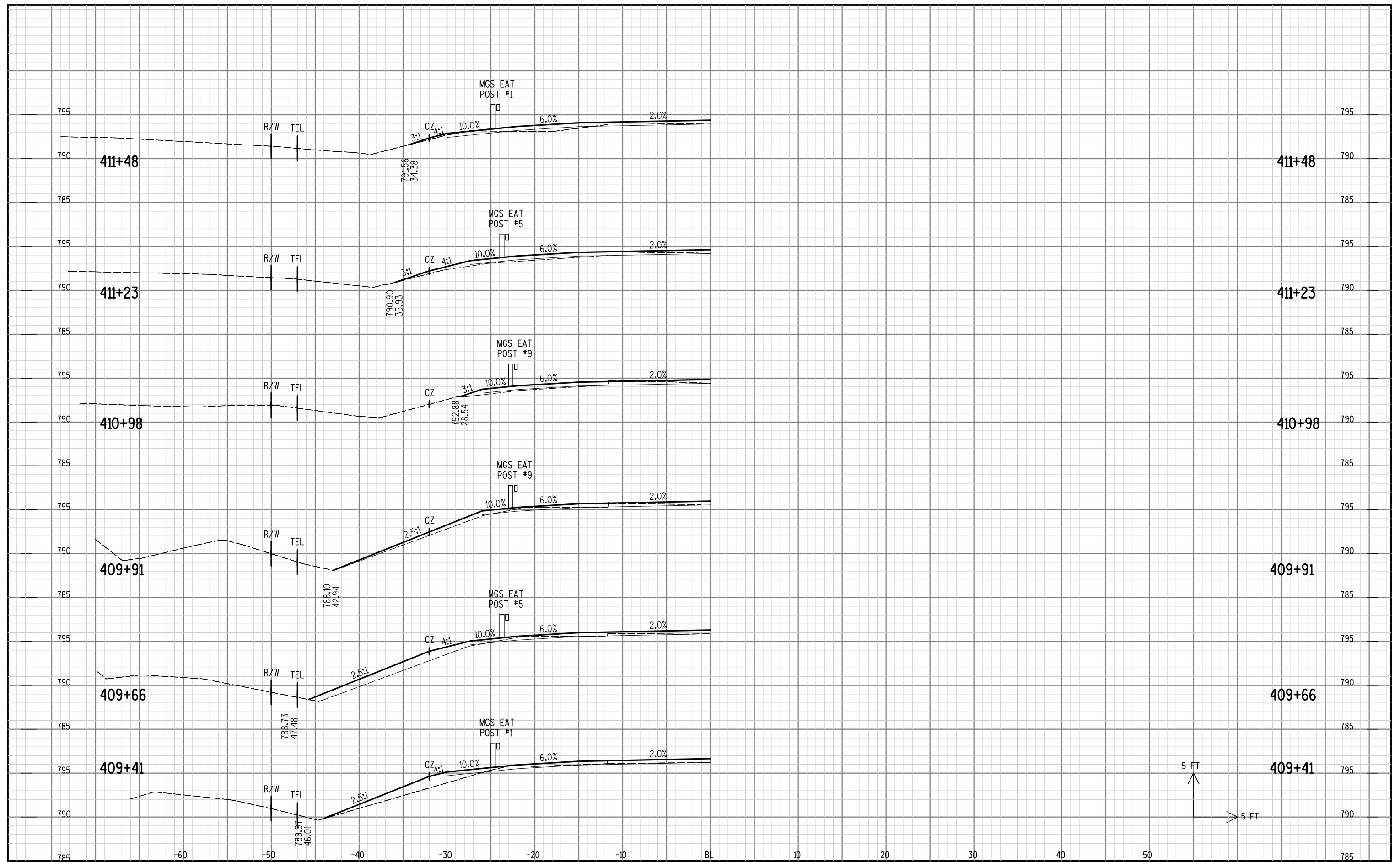




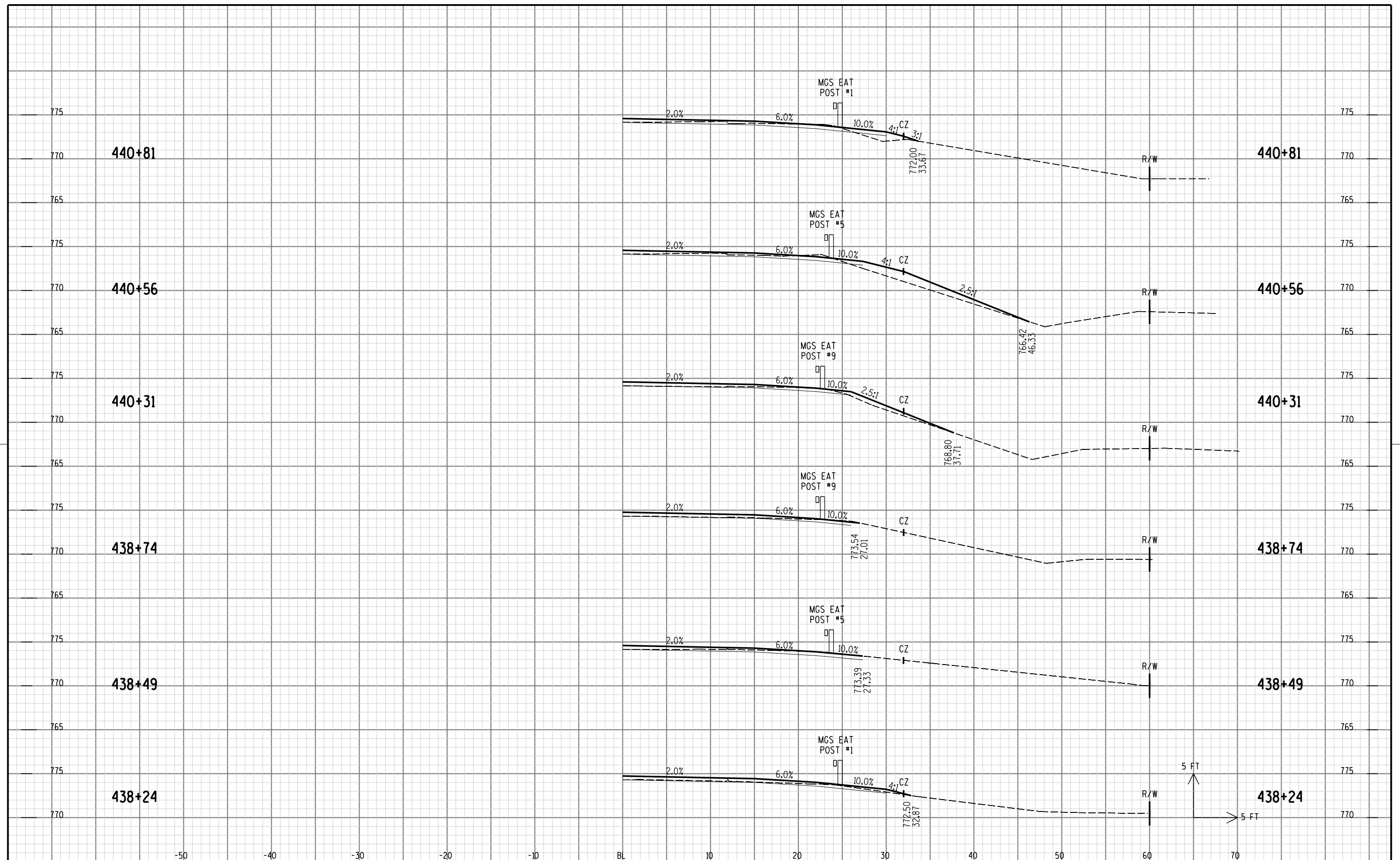


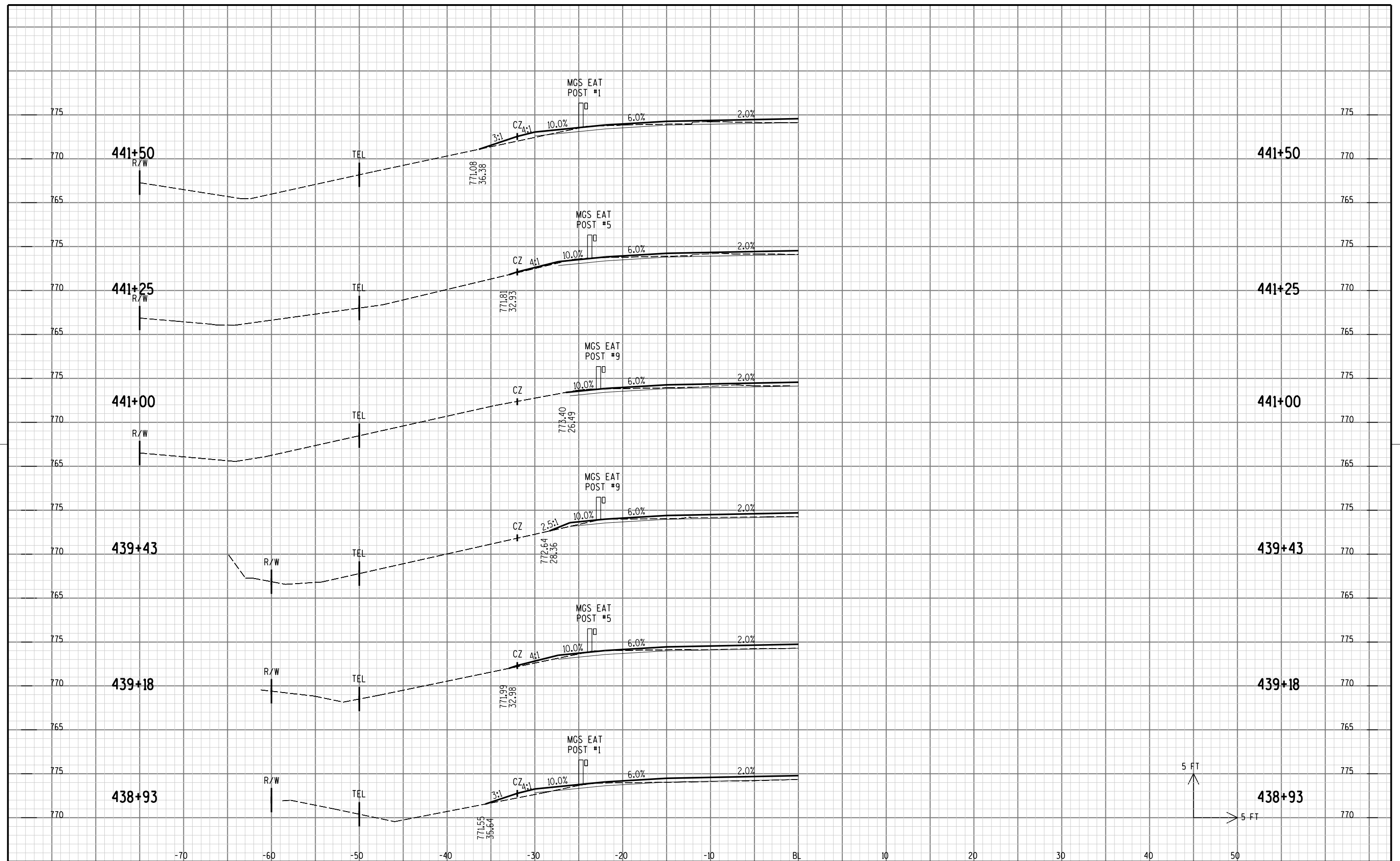




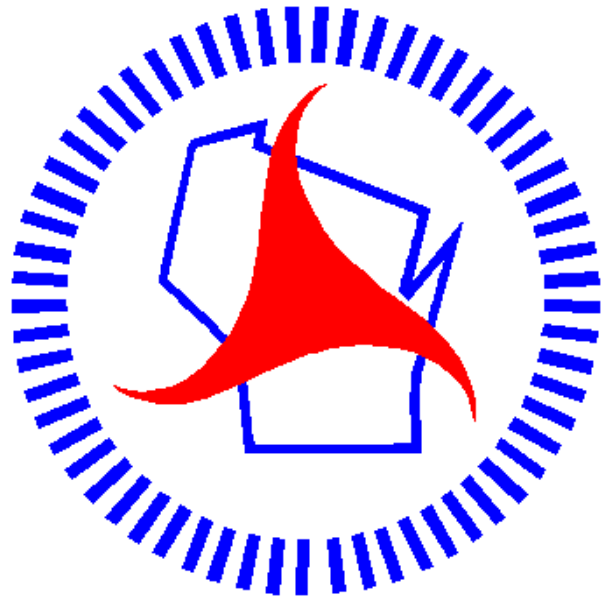


PROJECT NO: 4075-31-71	HWY: STH 96	COUNTY: OUTAGAMIE	CROSS SECTIONS - STH 96 BEAMGUARD LEFT	SHEET: E
------------------------	-------------	-------------------	--	----------





Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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