NEL

APR 2016

PROJECT ID: 1210-13-71, 4987-02-55

WITH: N/A

COUNTY: BROWN

ORDER OF SHEETS

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

TOTAL SHEETS = 292



15

N

DESIGN DESIGNATION

A.A.D.T.	(2016)	=	13,700
A.A.D.T.	(2036)	=	15,000
D.H.V.	(2036)	=	1,900
D.D.		=	59/41
T.		=	13.1%
DESIGN SPEED		=	40MPH
ESALS		=	5,466,100

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 172, V OF ASHWAUBENON

CTH YY RAMP

STH 172

BROWN COUNTY

STATE PROJECT NUMBER

1210-13-71

V ASHWAUBENON, CTH YY

HOLMGREN - ASHLAND

CTH YY

BROWN COUNTY

STATE PROJECT NUMBER

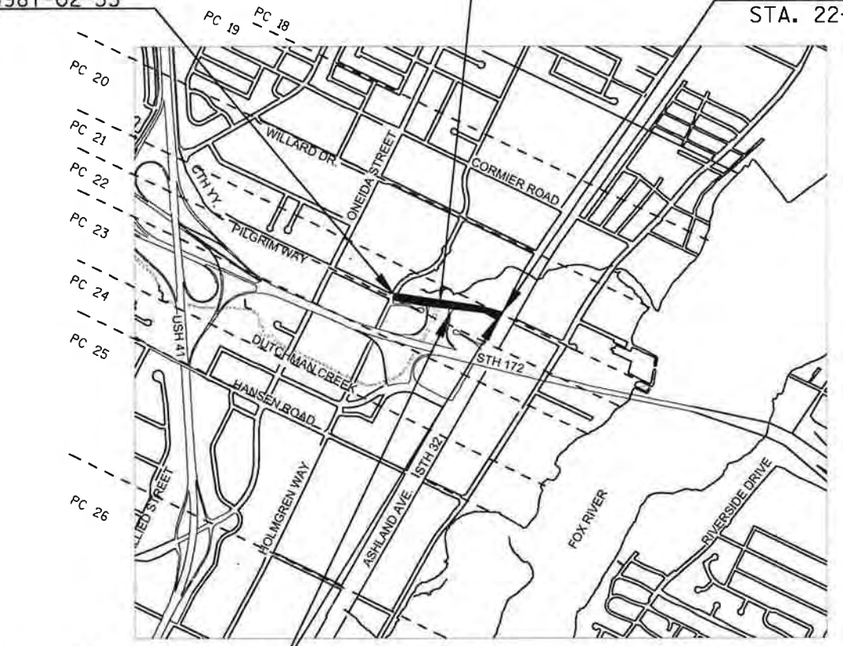
4987-02-55

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1210-13-71	———	———
4987-02-55	WISC 2016101	1

BEGIN PROJECT 4987-02-55
STA. 2+85.37 EB
Y = 555,041.802
X = 86,578.826

EXCEPTION TO NET CENTERLINE LENGTH
STA. 10+37.21 EB TO STA. 11+25.73 EB
B-5-153

END PROJECT 4987-02-55
STA. 22+29.21 EB



PROJECT 1210-13-71
STH 172 EXIT RAMP

LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE (1210-13-71) = 0.000 MI.
TOTAL NET LENGTH OF CENTERLINE (4987-02-55) = 0.351 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR COUNTY OF BROWN

10/15/15 (Date) (Signature & Title of Offical)

ORIGINAL PLANS PREPARED BY

GRAEF

1150 Springhurst Drive, Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com

WISCONSIN PROFESSIONAL ENGINEER
DAN R. HERZBERG
E-28226
EAU CLAIRE
WIS.

10-14-15 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor GRAEF
Designer GRAEF

Management Counsultant SHORT ELLIOTT HENDRICKSON

APPROVED FOR THE DEPARTMENT
DATE: 10/20/15 Management Consultant (Signature)

E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\010101-TI.DWG
LAYOUT NAME - 010101-TI

PLOT DATE : 10/14/2015 2:52 PM PLOT BY : ENGLES, BRIAN PLOT NAME :

WISDOT/CADDS SHEET 10

2

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

ALL RADIUS DIMENSIONS FOR CURB & GUTTER ARE GIVEN TO THE FACE. ALL ELEVATIONS ALONG CURB & GUTTER ARE GIVEN TO THE FLANGE. OFFSETS NOTED ARE TO THE FLANGE OR EDGE OF LANE IF NO CURB, UNLESS OTHERWISE NOTED.

THE LOCATION OF KNOWN EXISTING UTILITIES IN THE VICINITY OF THE PROJECT ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITIES IN THE AREA THAT ARE NOT SHOWN.

SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

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

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

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

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

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

CONCRETE JOINTS SHALL MATCH ABUTTING PAVEMENT AND CURB AND GUTTER JOINTS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

ANY MESH FOUND IN THE EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM.

ALL TIE OR DOWEL BARS INSERTED INTO A HOLE DRILLED IN THE EXISTING CONCRETE SHALL BE PAID FOR UNDER THE ITEM "DRILLED PAVEMENT TIES" AND "DRILLED DOWEL BARS." ALL OTHER TIE OR DOWEL BARS INCORPORATED INTO NEW POURED CONCRETE SHALL BE INCIDENTAL TO THE APPROPRIATE ITEM.

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

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

EROSION CONTROL MEASURES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND BY THE ENGINEER. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE EROSION CONTROL MEASURE IS NO LONGER REQUIRED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
	DELTA
DISCH	DISCHARGE
EB	EASTBOUND
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHESS	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPSS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT
WIS	WISCONSIN
WB	WESTBOUND

UTILITIES

VILLAGE OF ASHWAUBENON
WATER AND SEWER UTILITY
ATTN: DOUG MARTIN
2155 HOLMGREN WAY
GREEN BAY, WI. 54304-2335
PHONE: (920) 492-2335
EMAIL: DMartin@Ashwaubenon.com

AT&T WISCONSIN
COMMUNICATION
ATTN: JOE KASSAB
221 W. WASHINGTON STREET, 4TH FLOOR
APPLETON, WI. 54911
PHONE: (920) 735-3206
CELL: (920) 202-4002
EMAIL: jk572k@att.com

BROWN COUNTY PUBLIC WORKS - HIGHWAY DEPARTMENT
TRAFFIC SIGNALS
ATTN: KEN VANDENBUSH
2198 GLENDALE AVENUE
GREEN BAY, WI 54303
PHONE: (920) 662-2179
CELL: (920) 609-1372
EMAIL: vandenbush_ka@co.brown.wi.us

NET-LEC
COMMUNICATION
ATTN: DENNIS LAFAVE
C/O MI-TECH SERVICES, INC.
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
CELL: (920) 619-9774
EMAIL: dlafave@mi-tech.us

TIME WARNER CABLE
COMMUNICATION
ATTN: VINCE ALBIN
3520 DESTINATION DRIVE
APPLETON, WI. 54915
PHONE: (920) 831-9249
CELL: (920) 378-0444
EMAIL: vince.albin@twcable.com

WISCONSIN PUBLIC SERVICE CORPORATION
ELECTRIC DISTRIBUTION
ATTN: RANDY STEIER
2850 SOUTH ASHLAND AVENUE
P.O. BOX 19001
GREEN BAY, WI. 54307-9001
PHONE: (920) 617-5167
CELL: (920) 655-1596
EMAIL: rdsteier@wisconsinpublicservice.com

WISCONSIN PUBLIC SERVICE CORPORATION
GAS DISTRIBUTION
ATTN: DENA ANDRE
2850 SOUTH ASHLAND AVENUE
P.O. BOX 19001
GREEN BAY, WI. 54307-9001
PHONE: (920) 617-5092
EMAIL: djandre@wisconsinpublicservice.com

DEPT. OF NATURAL RESOURCES

WISCONSIN DEPT. OF NATURAL RESOURCES
JIM DOPERALSKI
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 662-5119
EMAIL: james.doperalski@wisconsin.gov

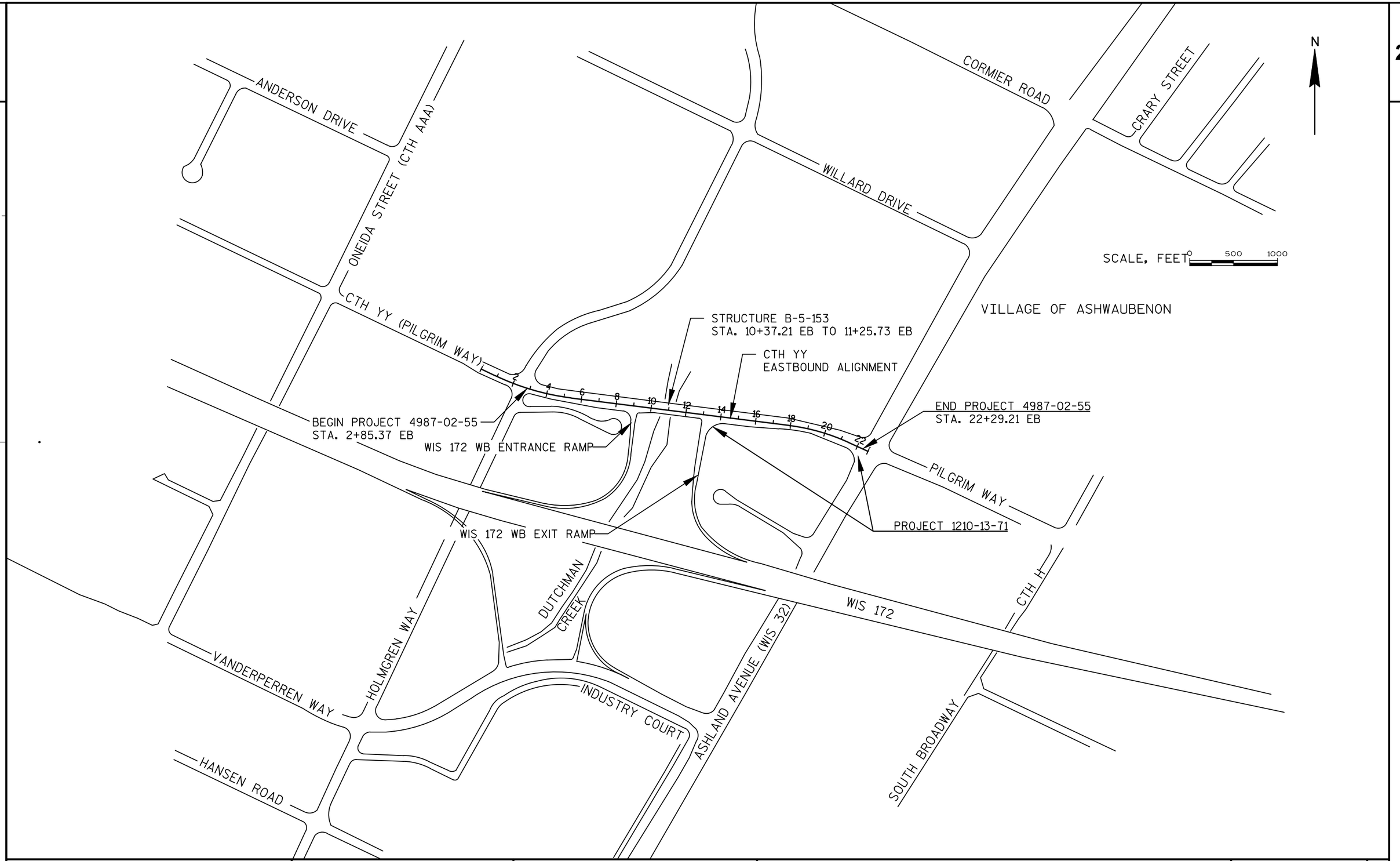
DESIGN CONTACT

GRAEF
MR. DAN HERZBERG
1150 SPRINGHURST DRIVE, SUITE 201
GREEN BAY, WI 54304
(920) 405-3825
EMAIL: Dan.Herzberg@GRAEF-usa.com

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

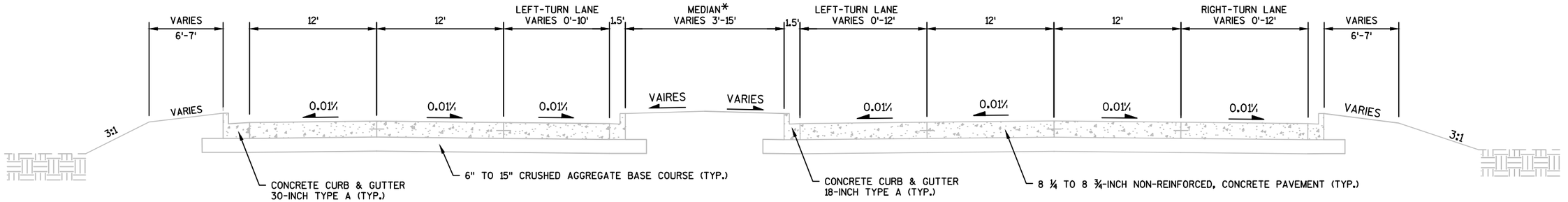
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	GENERAL NOTES	SHEET 2	E

2



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-PO - 020201_PO
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PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

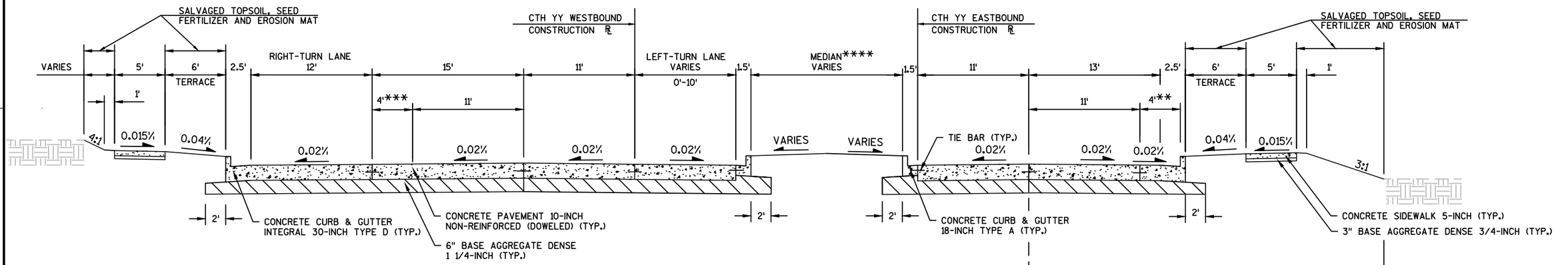


*5-INCH CONCRETE SIDEWALK: STA. 3+38 EB - STA. 4+44 EB
STA. 8+73 EB - STA. 8+90 EB
STA. 9+72 EB - STA. 10+37 EB
STA. 11+26 EB - STA. 12+44 EB
STA. 21+02 EB - STA. 22+07 EB

GRASS: STA. 4+44 EB - STA. 8+73 EB
STA. 13+19 EB - STA. 21+02 EB

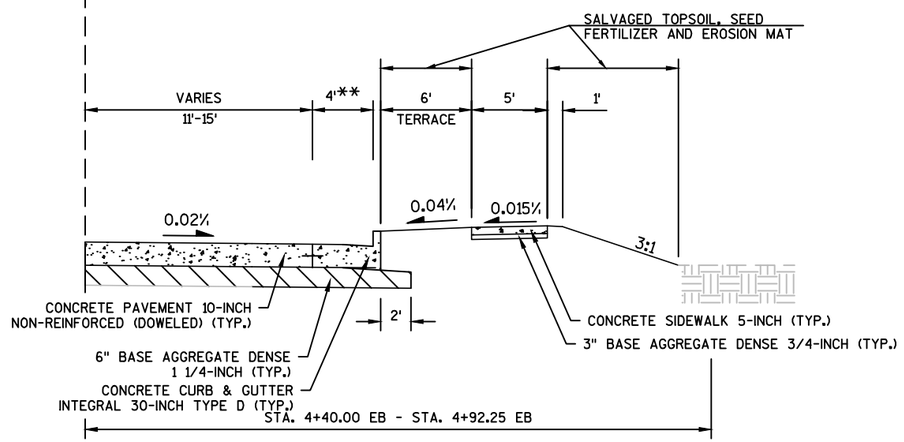
EXISTING TYPICAL SECTION CTH YY (PILGRIM WAY)

STA. 3+15.84 EB - STA. 10+37.21 EB
STA. 11+25.73 EB - STA. 22+29.21 EB



PROPOSED TYPICAL SECTION CTH YY (PILGRIM WAY)

EASTBOUND: STA 3+15.84 EB - STA 4+92.25 EB
WESTBOUND: STA 52+87.75 WB - STA 55+21.15 WB



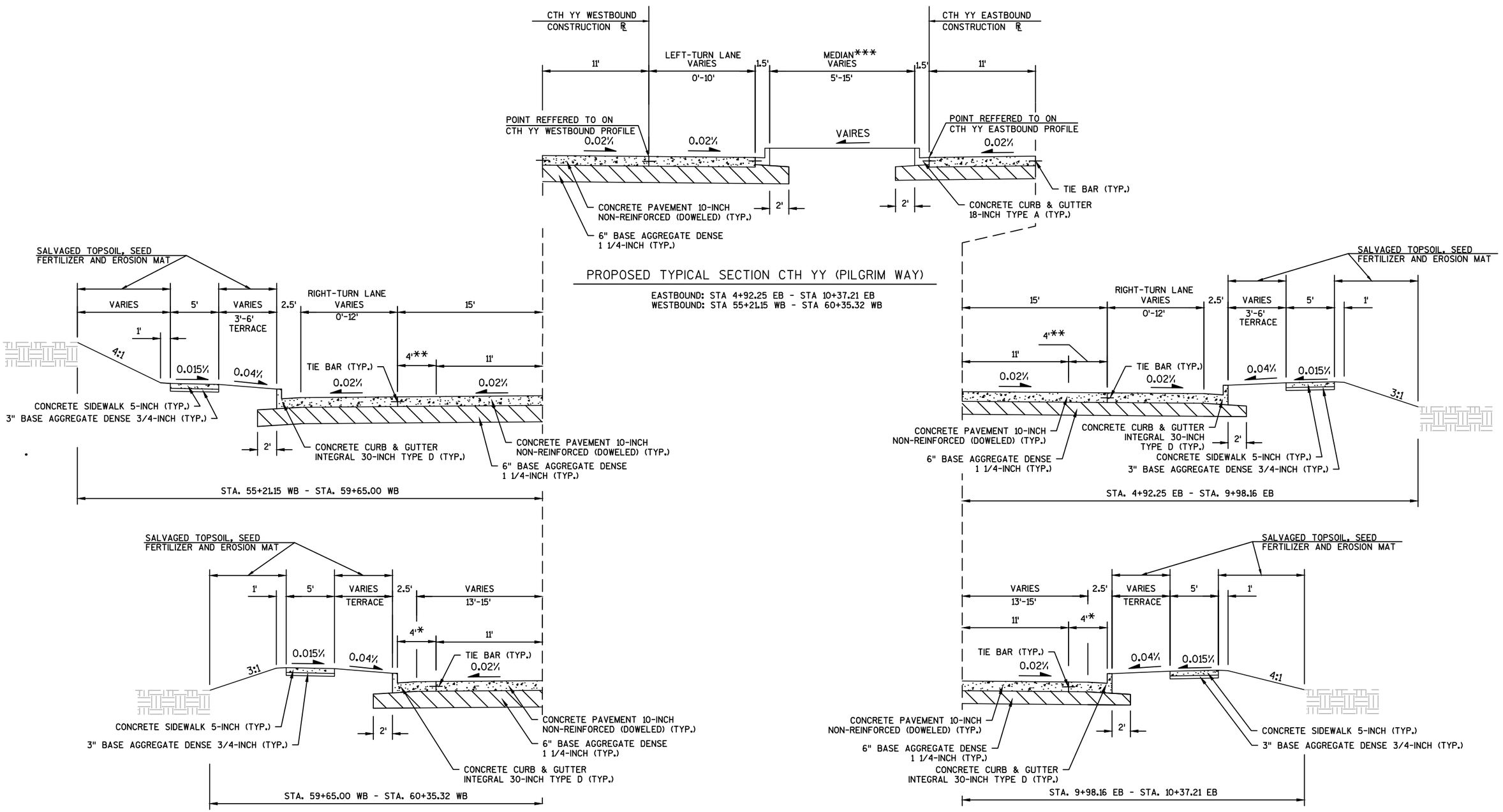
** BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN FACE OF INTEGRAL CURB & GUTTER AND NEAREST PAVEMENT JOINT

*** BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN OUTSIDE EDGE OF 11-FOOT THROUGH LANE AND NEAREST PAVEMENT JOINT

**** REFER TO PLAN DETAILS FOR MEDIAN TREATMENT TYPES AND LOCATIONS

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 4 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\020301-TS.DWG
LAYOUT NAME - 020301-TS
PLOT DATE : 10/30/2015 11:14 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION CTH YY (PILGRIM WAY)

EASTBOUND: STA 4+92.25 EB - STA 10+37.21 EB
WESTBOUND: STA 55+21.15 WB - STA 60+35.32 WB

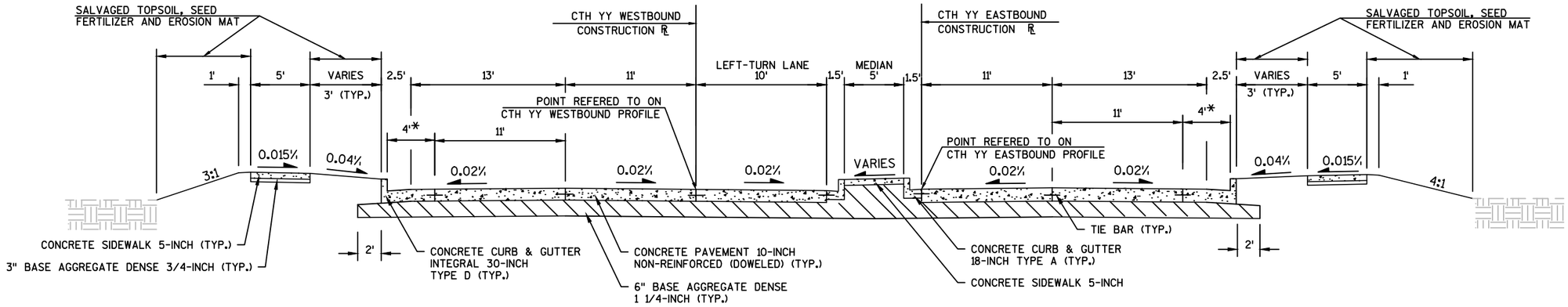
* BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN FACE OF INTEGRAL CURB & GUTTER AND NEAREST PAVEMENT JOINT

** BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN OUTSIDE EDGE OF 11-FOOT THROUGH LANE AND NEAREST PAVEMENT JOINT

*** REFER TO PLAN DETAILS FOR MEDIAN TREATMENT TYPES AND LOCATIONS

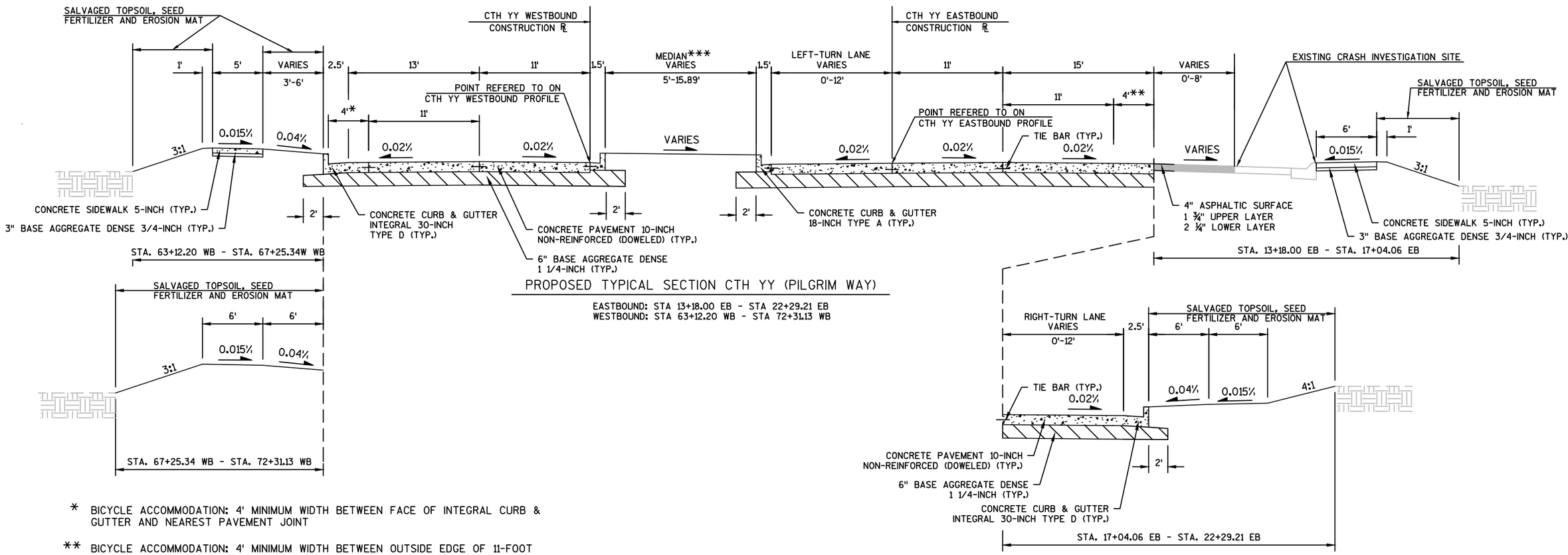
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PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 42



PROPOSED TYPICAL SECTION CTH YY (PILGRIM WAY)

EASTBOUND: STA 11+25.73 EB - STA 13+18.00 EB
WESTBOUND: STA 61+23.82 WB - STA 63+12.20 WB



PROPOSED TYPICAL SECTION CTH YY (PILGRIM WAY)

EASTBOUND: STA 13+18.00 EB - STA 22+29.21 EB
WESTBOUND: STA 63+12.20 WB - STA 72+31.13 WB

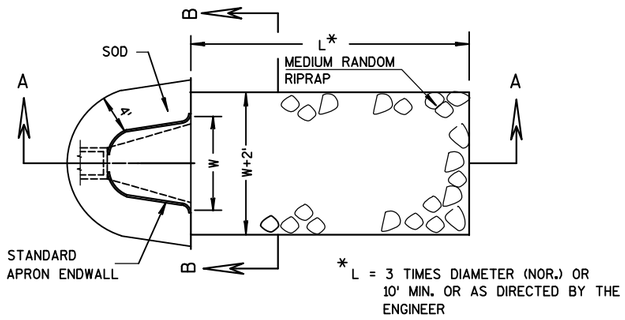
* BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN FACE OF INTEGRAL CURB & GUTTER AND NEAREST PAVEMENT JOINT

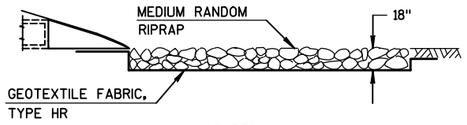
** BICYCLE ACCOMMODATION: 4' MINIMUM WIDTH BETWEEN OUTSIDE EDGE OF 11-FOOT THROUGH LANE AND NEAREST PAVEMENT JOINT

*** REFER TO PLAN DETAILS FOR MEDIAN TREATMENT TYPES AND LOCATIONS

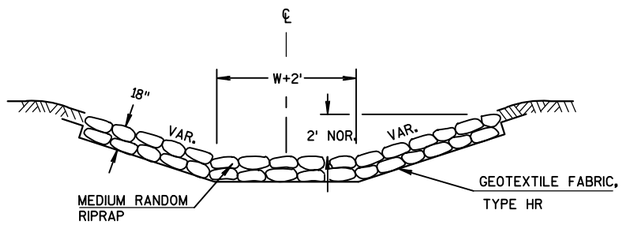
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TYPICAL SECTIONS	SHEET 6 E

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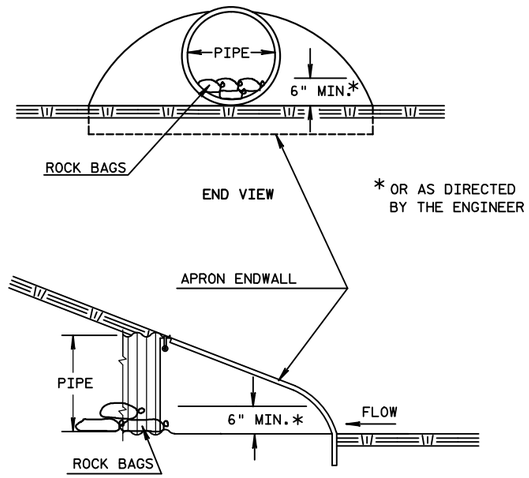


SECTION A-A



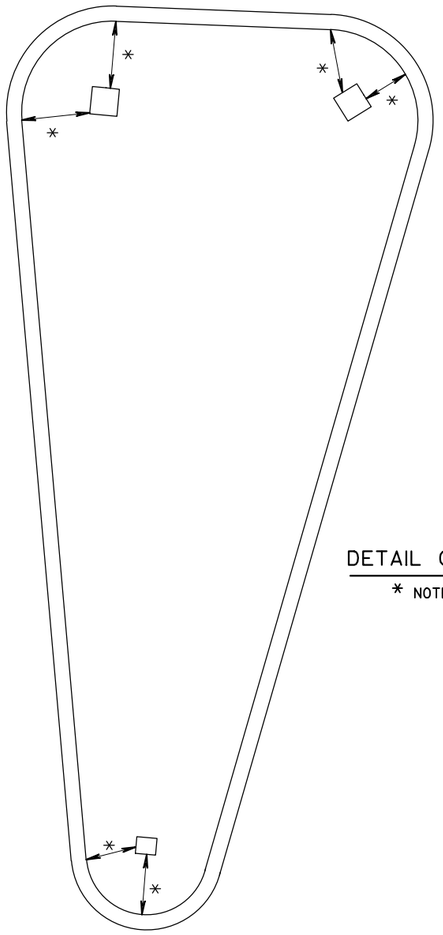
SECTION B-B

SOD, MEDIUM RANDOM RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT ARPON ENDWALL



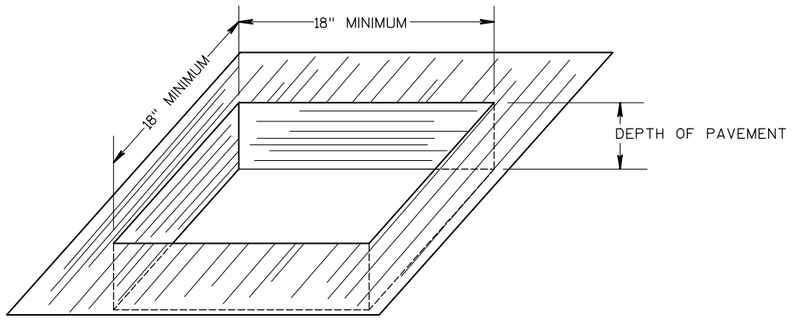
SIDE VIEW

CULVERT PIPE DITCH CHECK

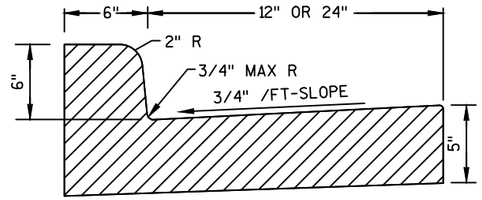


DETAIL OF OPENINGS IN ISLAND FOR SIGN PLACEMENT

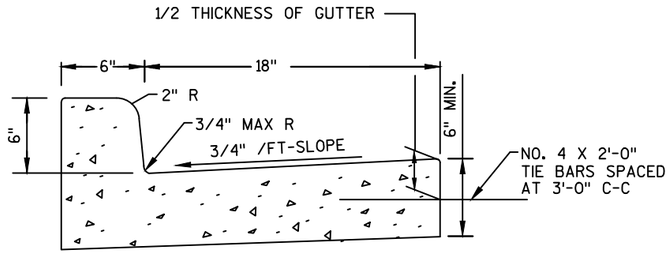
* NOTE: ALL SQUARED OPENINGS IN ISLAND FOR SIGN PLACEMENTS SHALL BE DETERMINED BY SIGN SIZE AND NUMBER. A 2" MINIMUM FROM BACK OF CURB IS REQUIRED.



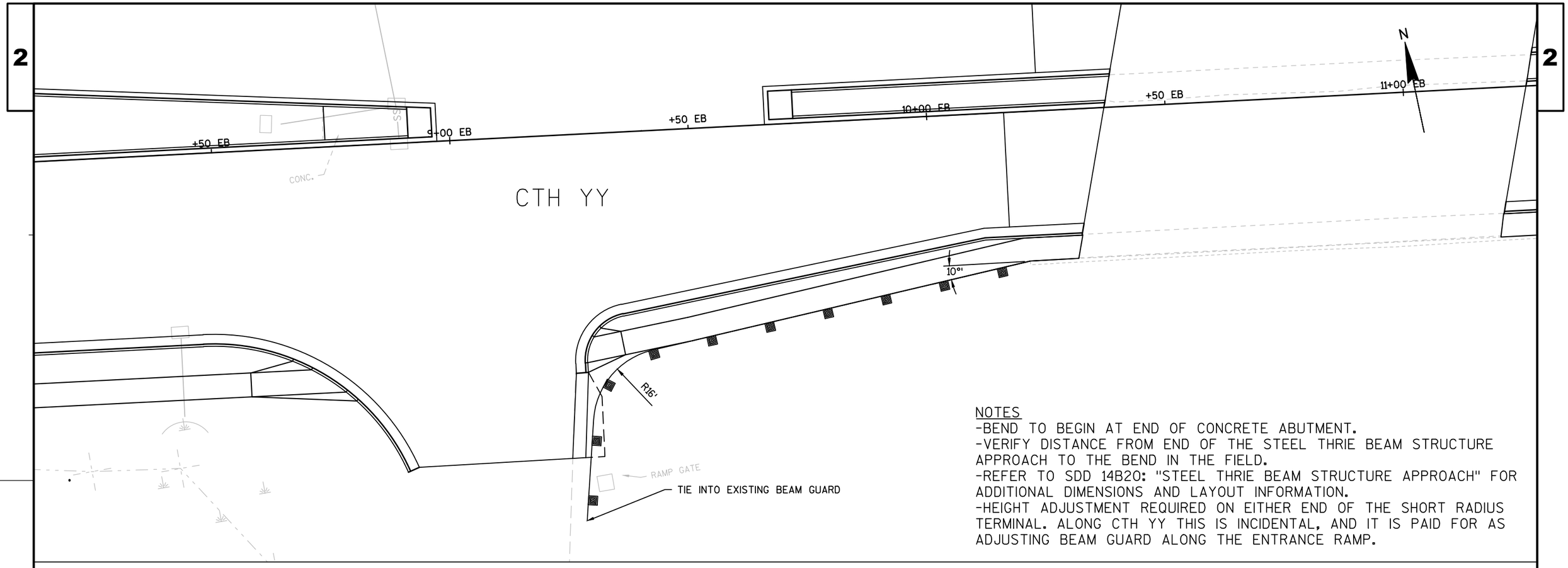
A MINIMUM 18" INSIDE DIAMETER PVC PIPE MAY BE USED AS AN ALTERNATIVE TO THE SQUARED OPENING.



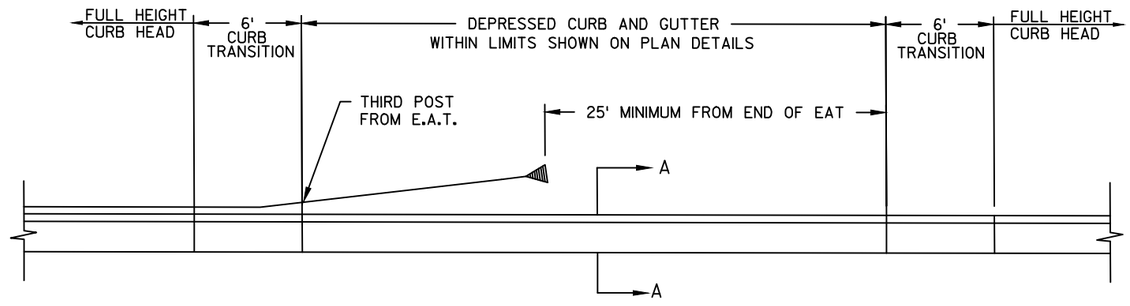
ASPHALT CURB AND GUTTER

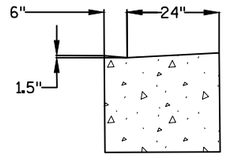


CONCRETE CURB AND GUTTER 24" TYPE A



NOTES
-BEND TO BEGIN AT END OF CONCRETE ABUTMENT.
-VERIFY DISTANCE FROM END OF THE STEEL THRIE BEAM STRUCTURE APPROACH TO THE BEND IN THE FIELD.
-REFER TO SDD 14B20: "STEEL THRIE BEAM STRUCTURE APPROACH" FOR ADDITIONAL DIMENSIONS AND LAYOUT INFORMATION.
-HEIGHT ADJUSTMENT REQUIRED ON EITHER END OF THE SHORT RADIUS TERMINAL. ALONG CTH YY THIS IS INCIDENTAL, AND IT IS PAID FOR AS ADJUSTING BEAM GUARD ALONG THE ENTRANCE RAMP.





SECTION A-A
DEPRESSED CURB

DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CONSTRUCTION DETAILS: BEAM GUARD DETAILS	SHEET 9	E

2

N

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY NW CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY NE CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY SE CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY SW CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

104+00

103+00

102+00

101+00

100+00.00

HOLMGREN WAY

CTH "YY" (PILGRIM WAY)

MATCHLINE 7+50 EB

PC: 103+13.84

PT: 55+33.91 WB

PT: 5+39.71 EB

R47'

R50'

R74'

R2.5'

R990'

R29'

R47

R24'

R34'

52+31.75, -63.81' LT WB

52+28.80, -54.37' LT WB

51+97.09, -24.22' LT WB

52+27.32, -24.54' LT WB

MODIFIED TYPE 3 CURB RAMPS

52+91.13, -26.00' LT WB

52+97.45, -86.97' LT WB

52+97.45, -68.59' LT WB

53+00.33, -100.98' LT WB

53+57.32, -46.50' LT WB

53+55.64, -38.00' LT WB

54+47.17, 10.50' RT

53+21.39, 10.00' RT WB

54+39.02, 10.00' RT WB

55+21.15, 0.00' WB

55+33.91, -40.00' LT WB

57+02.66, -46.50' LT WB

52+00 WB

53+00 WB

54+00 WB

55+00 WB

56+00 WB

57+00 WB

2+00 EB

3+00 EB

4+00 EB

5+00 EB

6+00 EB

7+00 EB

2+86.96, -8.00' LT EB

3+36.69, 0.00' EB

4+00.00, 0.00' EB

3+23.85, -1.05' LT EB

54+47.17, 16.50' RT

4+00.00, 22.00' RT EB

5+39.71, 30.88' RT EB

6+85.09, 38.00' RT

1+87.73, 23.98' RT EB

1+98.02, 23.91' RT EB

1+97.99, 30.07' RT EB

2+81.20, 22.00' RT EB

2+81.20, 24.09' RT EB

2+78.61, 53.11' RT EB

3+11.70, 24.00' RT EB

3+40.00, 24.00' RT

4+40.06, 24.00' RT EB

2+11.97, 54.03' RT EB

2+18.34, 51.27' RT EB

2+21.13, 31.49' RT

MODIFIED TYPE 3 CURB RAMPS

MODIFIED TYPE 3 CURB RAMPS

C&G 1

C&G 2

C&G 3

PAV 1

6.0'

5.0'

10'

15'

5'

12'

15'

11'

11'

15'

12'

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB

-INTEGRAL CURB & GUTTER SHOWN WITHIN LIMITS OF CONCRETE PAVEMENT FAST TRACK 10-INCH TO BE PAID FOR AS "CONCRETE PAVEMENT FAST TRACK 10-INCH"

-INTEGRAL CURB & GUTTER SHOWN WITHIN LIMITS OF CONCRETE PAVEMENT REPLACEMENT SHES TO BE PAID FOR AS "CONCRETE PAVEMENT REPLACEMENT SHES"

LEGEND

- CONCRETE SIDEWALK 5-INCH
- FUTURE SIDEWALK (NOT PART OF THIS CONTRACT)
- PAV 1 — CONCRETE PAVEMENT 10-INCH
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT FAST TRACK 10-INCH
- COLORED CONCRETE PAVEMENT 10-INCH
- C&G 1 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D - PAN SLOPE TO MATCH PAVEMENT SLOPE
- C&G 2 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- C&G 3 — CONCRETE CURB & GUTTER 18-INCH TYPE A
- C&G 4 — CONCRETE CURB & GUTTER 24-INCH TYPE A
- C&G 5 — CONCRETE GUTTER 24-INCH
- PROPOSED INLET
- PROPOSED MANHOLE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS	SHEET 10 E

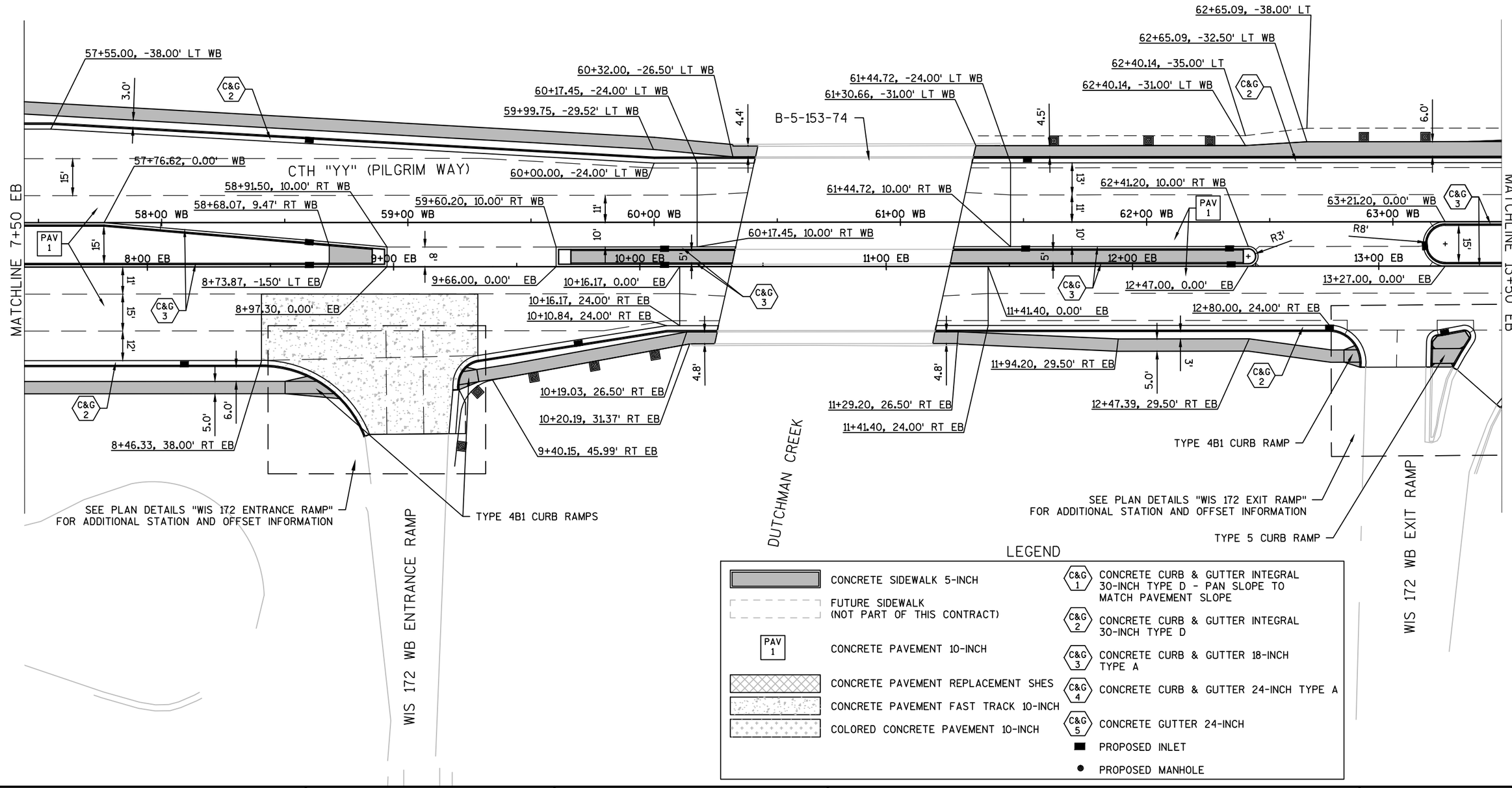
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LAYOUT NAME - 021201-PD - 021201-PD
PLOT DATE : 1/21/2016 4:22 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB

-INTEGRAL CURB & GUTTER SHOWN WITHIN LIMITS OF CONCRETE PAVEMENT FAST TRACK 10-INCH TO BE PAID FOR AS "CONCRETE PAVEMENT FAST TRACK 10-INCH"



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS	SHEET 11 E

2

N

63+55.70, -38.00' LT WB

63+80.68, -40.50' LT WB

SEE CONSTRUCTION DETAIL "DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL"

64+10.68, -32.50' LT WB

64+60.93, -32.50' LT

6.0'

5.0'

67+25.34, -32.50' LT WB

67+15.34, -32.50' LT WB

67+09.34, -32.50' LT WB

MODIFIED TYPE 2 CURB RAMP

6'

13'

11'

C&G 2

CTH "YY" (PILGRIM WAY)

64+10.68, -27.48' LT WB

67+09.34, -26.50' LT WB

67+15.34, -26.50' LT WB

C&G 3

67+15.34, 1.50' RT WB

TYPE 5 CURB RAMP

64+00 WB

65+00 WB

66+00 WB

67+00 WB

68+00 WB

69+00 WB

PAV 1

15'

67+09.34, 1.50' RT WB

PC: 67+93.35WB

PC: 17+92.51 EB

MATCHLINE 13+50 EB

14+00 EB

15+00 EB

16+00 EB

17+00 EB

18+00 EB

19+00 EB

MATCHLINE 19+50 EB

11'

15'

17+15.14, -1.50' LT EB

17+21.14, -1.50' LT EB

14+55.30, 24.00' RT EB

14+66.77, 24.00' RT EB

14+66.77, 26.00' RT EB

17+14.45, 24.00' RT EB

17+04.06, 26.00' RT EB

17+97.19, 26.00' RT

17+45.15, 26.00' RT EB

18+20.00, 24.00' RT EB

19+33.24, 0.00' EB

C&G 2

C&G 4

C&G 5

14+67.54, 29.47' RT EB

16+62.63, 34.00' RT

14+75.29, 34.00' RT

16+03.02, 46.53' RT

R30'

R33'

18+13.91, 26.00' RT

17+98.45, 36.25' RT

R1114'

5.0'

R55'

14+97.70, 46.72' RT EB

16+13.30, 46.22' RT

17+04.24, 34.50' RT EB

17+15.63, 26.50' RT EB

17+54.70, 26.00' RT

17+59.09, 35.07' RT EB

6.0'

14+85.83, 52.73' RT

MODIFIED TYPE 7A CURB RAMP

17+20.63, 26.50' RT EB

14+83.90, 47.12' RT EB

17+35.55, 26.00' RT

17+41.77, 34.50' RT EB

14+55.59, 40.26' RT EB

14+35.49, 39.18' RT EB

TYPE 4B1 CURB RAMP

SEE PLAN DETAILS "WIS 172 EXIT RAMP"
FOR ADDITIONAL STATION AND OFFSET INFORMATION

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB.

LEGEND

- CONCRETE SIDEWALK 5-INCH
- FUTURE SIDEWALK (NOT PART OF THIS CONTRACT)
- PAV 1 — CONCRETE PAVEMENT 10-INCH
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT FAST TRACK 10-INCH
- COLORED CONCRETE PAVEMENT 10-INCH
- C&G 1 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D - PAN SLOPE TO MATCH PAVEMENT SLOPE
- C&G 2 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- C&G 3 — CONCRETE CURB & GUTTER 18-INCH TYPE A
- C&G 4 — CONCRETE CURB & GUTTER 24-INCH TYPE A
- C&G 5 — CONCRETE GUTTER 24-INCH
- PROPOSED INLET
- PROPOSED MANHOLE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS	SHEET 12 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021201-PD.DWG
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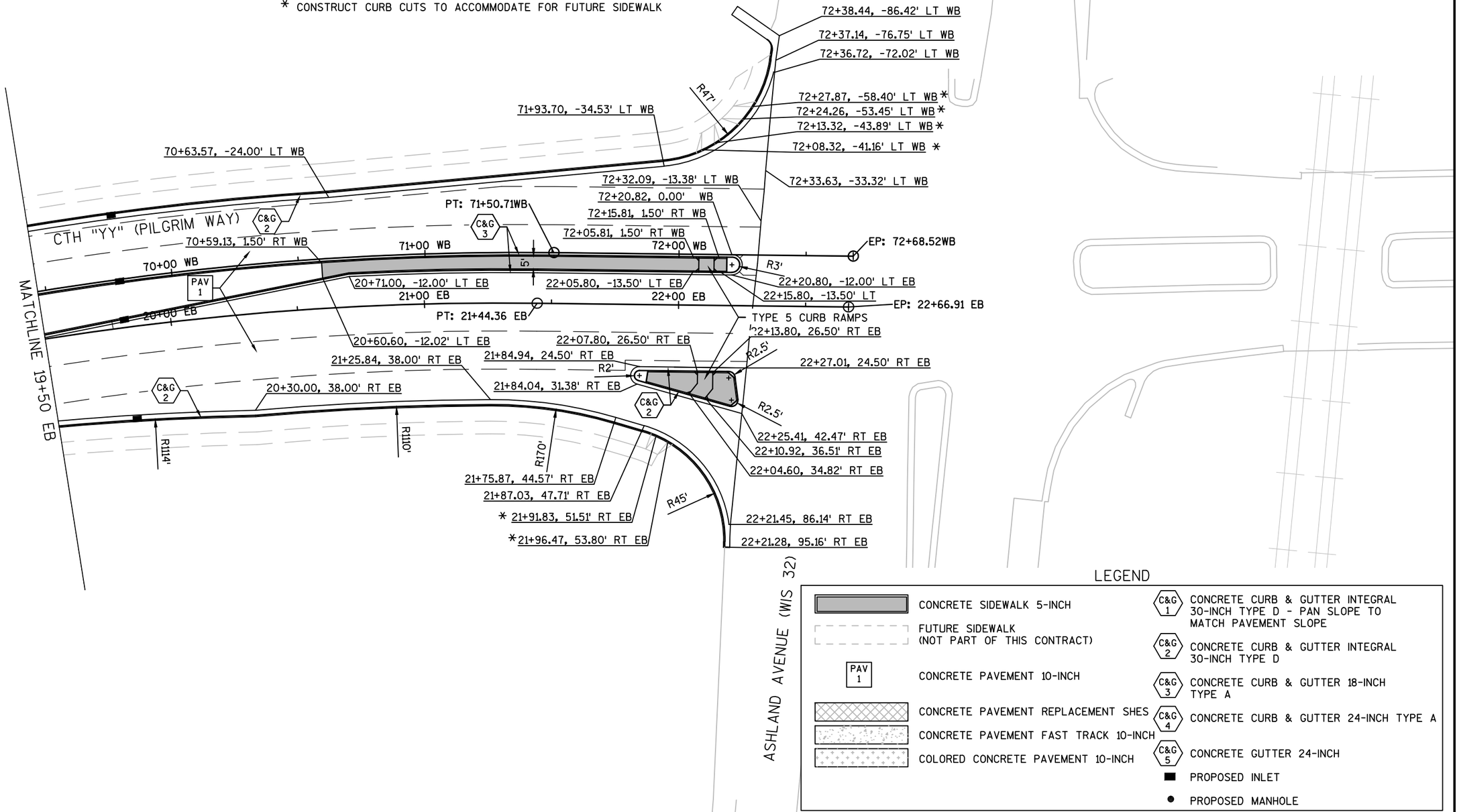
WISDOT/CADDS SHEET 42

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB

* CONSTRUCT CURB CUTS TO ACCOMMODATE FOR FUTURE SIDEWALK



LEGEND

- CONCRETE SIDEWALK 5-INCH
- FUTURE SIDEWALK (NOT PART OF THIS CONTRACT)
- PAV 1 — CONCRETE PAVEMENT 10-INCH
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT FAST TRACK 10-INCH
- COLORED CONCRETE PAVEMENT 10-INCH
- C&G 1 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D - PAN SLOPE TO MATCH PAVEMENT SLOPE
- C&G 2 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- C&G 3 — CONCRETE CURB & GUTTER 18-INCH TYPE A
- C&G 4 — CONCRETE CURB & GUTTER 24-INCH TYPE A
- C&G 5 — CONCRETE GUTTER 24-INCH
- PROPOSED INLET
- PROPOSED MANHOLE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS	SHEET 13 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021201-PD.DWG
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PLOT DATE : 1/21/2016 4:28 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

2

9+00 EB

EP: 200+00.00 ER

8+97.30, 0.00' EB

9+66.00, 0.00' EB

C&G 3

CTH "YY" (PILGRIM WAY)

11'

15'

PAV 1

PAV 1

9+34.15, 36.09' RT EB

199+57.99, 36.77' RT ER

8+46.33, 38.00' RT EB

3'

199+57.44, 30.77' RT ER

5'

199+54.15, -28.11' LT ER

R10'

R45'

C&G 2

C&G 2

9'

5'

+50' ER

199+51.75, 27.00' RT ER

199+49.77, 27.00' RT ER

9+40.15, 45.99' RT EB

199+48.81, -41.16' LT ER

199+49.04, -21.09' LT ER

199+51.85, 29.00' RT

199+44.58, 32.06' RT ER

15'

199+39.85, 30.01' RT ER

199+32.00, -7.02' LT ER

199+32.00, 25.19' RT ER

199+32.00, 31.94' RT ER

199+32.00, 27.93' RT ER

WIS 172 WB ENTRANCE RAMP

199+18.77, 27.45' RT ER

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB.

-INTEGRAL CURB & GUTTER SHOWN WITHIN LIMITS OF CONCRETE PAVEMENT FAST TRACK 10-INCH TO BE PAID FOR AS "CONCRETE PAVEMENT FAST TRACK 10-INCH"

LEGEND

- CONCRETE SIDEWALK 5-INCH
- FUTURE SIDEWALK (NOT PART OF THIS CONTRACT)
- PAV 1 — CONCRETE PAVEMENT 10-INCH
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT FAST TRACK 10-INCH
- COLORED CONCRETE PAVEMENT 10-INCH
- C&G 1 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D - PAN SLOPE TO MATCH PAVEMENT SLOPE
- C&G 2 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- C&G 3 — CONCRETE CURB & GUTTER 18-INCH TYPE A
- C&G 4 — CONCRETE CURB & GUTTER 24-INCH TYPE A
- C&G 5 — CONCRETE GUTTER 24-INCH
- PROPOSED INLET
- PROPOSED MANHOLE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS: WIS 172 ENTRANCE RAMP	SHEET 14 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021205-PD.DWG
LAYOUT NAME - 021205-PD

PLOT DATE : 1/21/2016 4:33 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 42

2

13+00 EB

EP: 300+00.00 EX

13+27.00, 0.00'

CTH "YY" (PILGRIM WAY)

14+00 EB

2

11'

15'

PAV 1

C&G 2

12+80.00, 24.00' RT EB

299+65.42, -27.80' LT EX

R14'

299+65.06, -33.50' LT EX

5'

12+80.47, 38.99' RT EB

299+60.26, -26.49' LT EX

299+59.01, 0.00' EX

299+59.61, -24.47' LT EX

299+58.24, -24.47' LT EX

299+60.55, 1.99' RT EX

299+73.97, 3.52' RT EX

299+76.26, 14.28' RT EX

R2.5'

299+69.54, -0.04' LT EX

299+66.55, 1.97' RT EX

12'

299+69.45, 19.02' RT EX

299+66.59, 14.93' RT

R115'

299+52.16, 39.02' RT EX

299+60.57, 11.67' RT

299+58.17, 12.72' RT

13+76.92, 38.37' RT EB

R45'

299+52.60, 44.53' RT EX

5'

299+46.05, 32.83' RT EX

299+44.41, 29.13' RT EX

WIS 172 WB EXIT RAMP

+50 EX

NOTE

-ELEVATION INFORMATION SHOWN ON PAVING GRADES DETAIL SHEETS

-RADIUS DIMENSIONS ARE TO FACE OF CURB.

LEGEND

- CONCRETE SIDEWALK 5-INCH
- FUTURE SIDEWALK (NOT PART OF THIS CONTRACT)
- PAV 1 — CONCRETE PAVEMENT 10-INCH
- CONCRETE PAVEMENT REPLACEMENT SHES
- CONCRETE PAVEMENT FAST TRACK 10-INCH
- COLORED CONCRETE PAVEMENT 10-INCH
- C&G 1 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D - PAN SLOPE TO MATCH PAVEMENT SLOPE
- C&G 2 — CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- C&G 3 — CONCRETE CURB & GUTTER 18-INCH TYPE A
- C&G 4 — CONCRETE CURB & GUTTER 24-INCH TYPE A
- C&G 5 — CONCRETE GUTTER 24-INCH
- PROPOSED INLET
- PROPOSED MANHOLE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN DETAILS: WIS 172 EXIT RAMP	SHEET 15 E

2

2

PC: 103+13.84

103+00 EB

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY NW CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY NE CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

N

52+00 WB

+50 WB

+50 WB

2+00 EB

+50 EB

53+00 WB

+50 WB

54+00 WB

3+00 EB

+50 EB

4+00 EB

102+00 EB

CTH YY (PILGRIM WAY)

MATCHLINE 4+50 EB

HOLMGREN WAY

+50 WB

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY SW CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

SEE PAVING GRADES DETAIL SHEET "HOLMGREN WAY SE CURB RETURN" FOR STATION, OFFSETS AND ELEVATIONS

598.03 597.79 597.55 597.53 597.46 597.38 597.34 597.29

598.04 597.91 597.79 597.70 597.62 597.53

598.09 598.09 598.08 598.00 597.92 597.83

597.97 597.95 +25 WB 597.86 597.78 +75 WB 597.70 +10.86 WB 597.66 +25 WB 597.61 597.57 +39.02 WB 597.54

+17.93 WB 597.81 MID POINT 597.75 E.O.R. 597.66 597.58 597.50 597.47

597.95 598.10 E.O.R. +14.14 EB 597.91 +20.92 EB 597.88 597.87 +25 EB 597.83 +36.69 EB 597.79 +50 EB 597.71 +75 EB 597.63 597.41 L.P. +25 EB 597.58 +15.00 EB 597.55 +50 597.47

598.08 598.09 598.01 597.93 597.85 597.77 597.69

597.95 597.89 597.75 597.67 597.59 597.54 597.51 +40.06 EB

597.83 597.46 E.O.R. 597.41

0.20% 0.07% 0.18% 1.5% 0.75% 1.50% 0.73% 0.46% 2.0% 2.5% 0.3%

12' 15' 11' 10' 8' 4' 13'

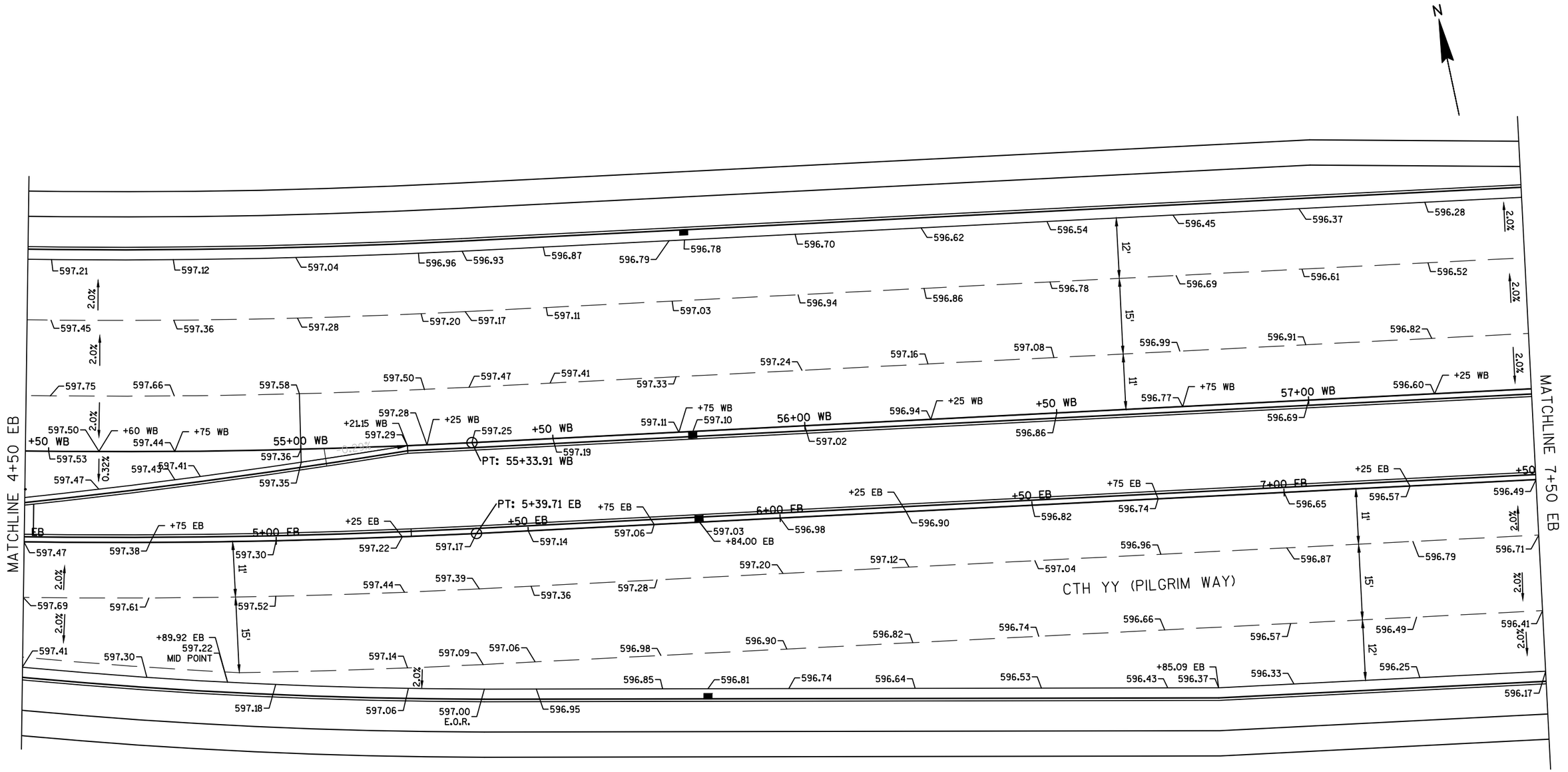
LEGEND:

■	PROPOSED INLET
●	PROPOSED MANHOLE
△	PROPOSED ENDWALL
▭	EXISTING INLET
E.O.R.	END OF RADIUS
L.P.	LOW POINT
H.P.	HIGH POINT
— — —	PROPOSED JOINT LINE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 16 E

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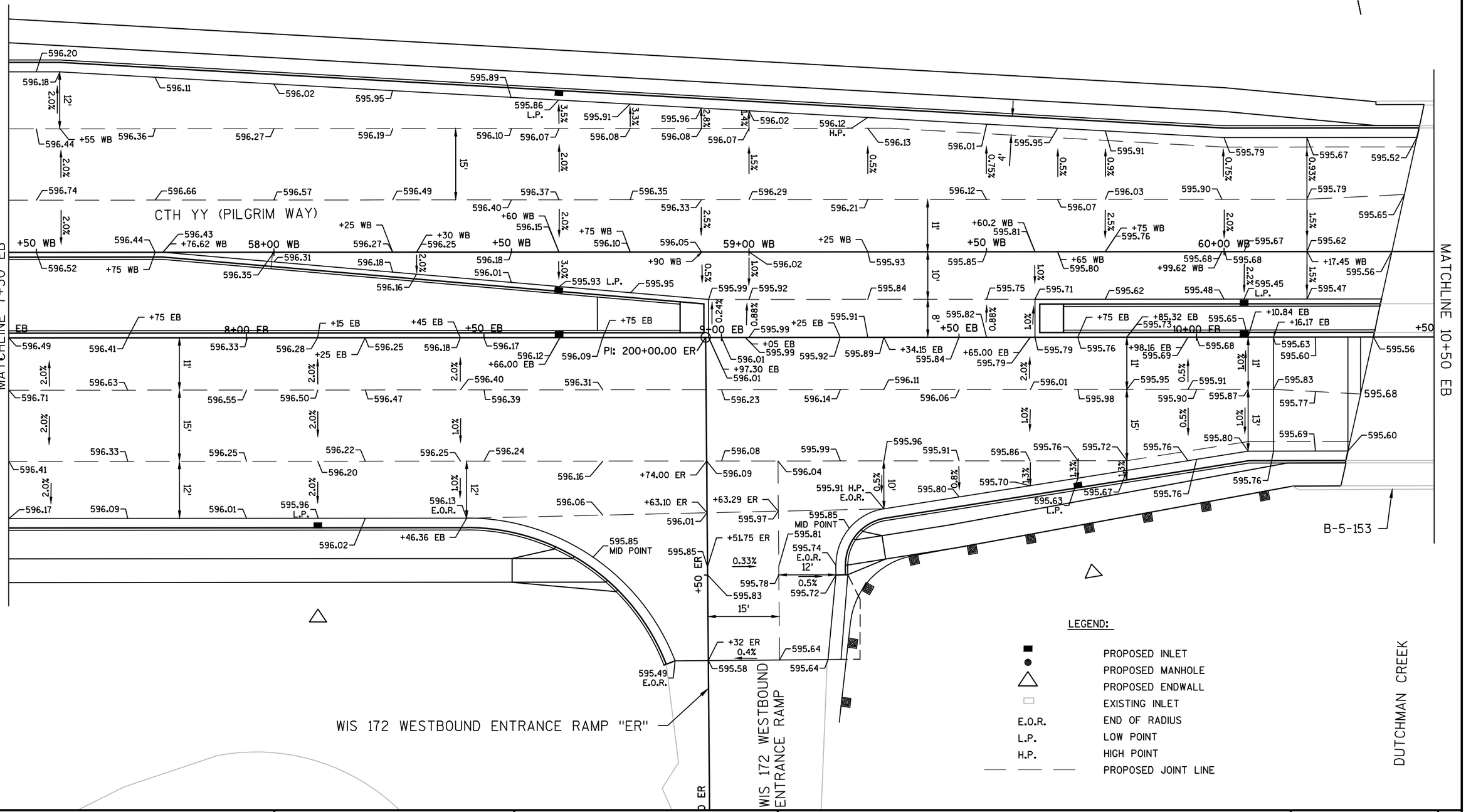
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 17 E

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LAYOUT NAME - 021302-pg
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WISDOT/CADDS SHEET 42

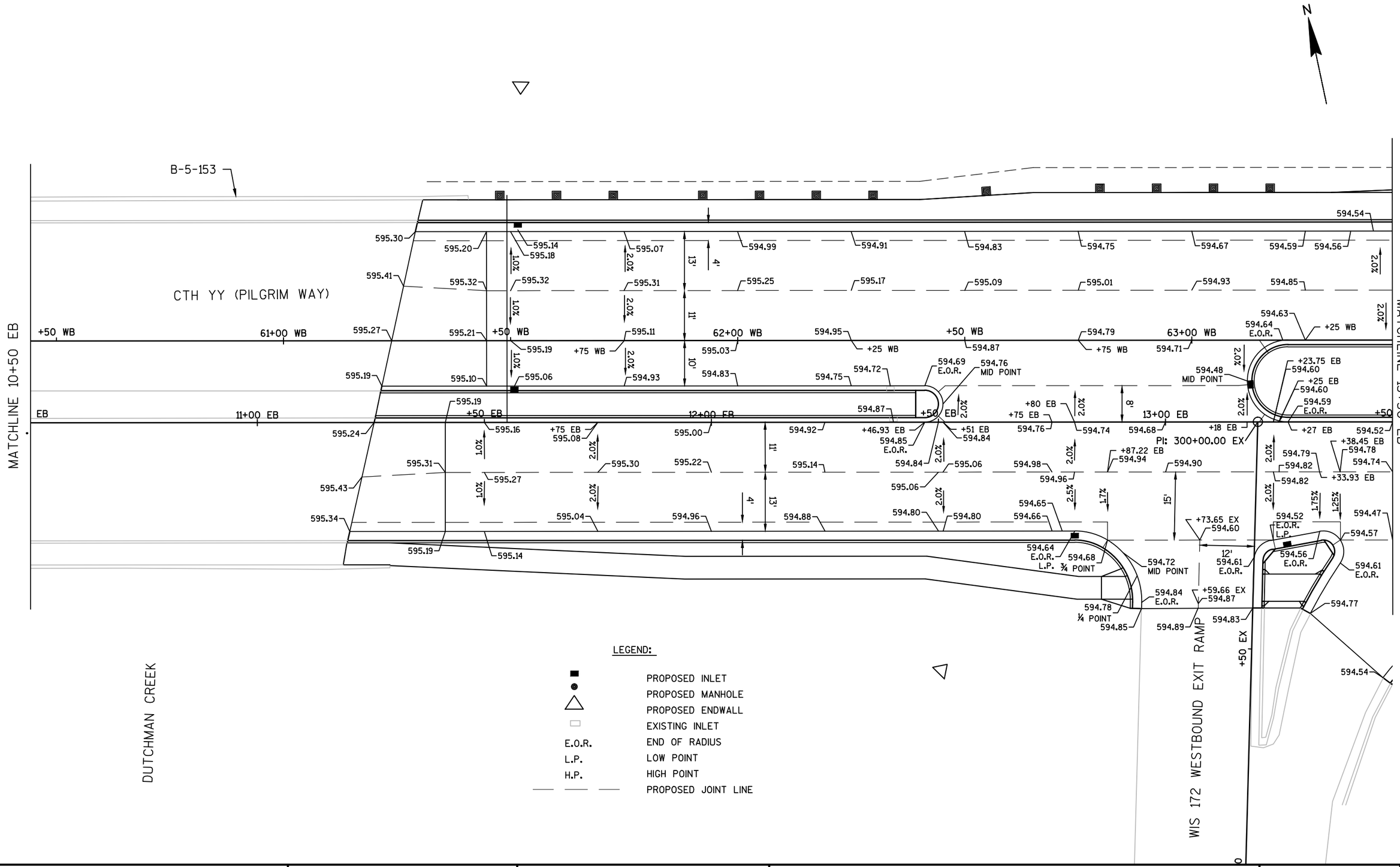
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 18 E

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LAYOUT NAME - 021303-pg
PLOT DATE : 11/1/2015 4:14 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 42

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 19 E

2

N

MATCHLINE 13+50 EB

MATCHLINE 16+50 EB

CTH YY (PILGRIM WAY)

+50 WB 64+00 WB +75 WB +25 WB +50 WB 65+00 WB +75 WB +25 WB +50 WB 66+00 WB +75 WB +25 WB

EB +55 EB +75 EB 14+00 EB +25 EB +35 EB +45 EB +50 EB +55 EB +75 EB 15+00 EB +25 EB +50 EB +75 EB 16+00 EB +25 EB +50

594.51 594.43 594.35 594.27 594.19 594.11 594.06 594.04 594.05 594.08 594.15 594.27 594.43

594.77 594.69 594.61 594.53 594.45 594.37 594.32 594.31 594.34 594.41 594.53 594.69

594.55 594.47 594.39 594.31 594.23 594.15 594.10 594.08 594.09 +25 WB 594.12 594.19 594.31 594.47

594.50 594.52 594.44 594.36 594.28 594.25 594.21 594.18 594.20 594.12 594.06 594.04 594.05 594.08 594.16 594.27 594.43 594.63

594.74 594.72 594.66 594.58 594.50 594.47 594.43 594.42 594.40 594.34 594.28 594.27 594.30 594.38 594.49 594.65 594.85

594.47 594.42 594.36 594.28 594.17 594.14 594.10 594.16 594.16 594.04 593.98 593.97 594.00 594.08 594.19 594.35 594.55

594.07 593.94 593.84 593.70 593.73 593.94 594.09

+93.69 EB 593.98 L.P.

+44.39 EB 594.21

594.06 E.O.R.

594.18 MID POINT

594.10 ¾ POINT

594.36 ¼ POINT

4' 13' 11' 15' 8'

2.0% 1.5%

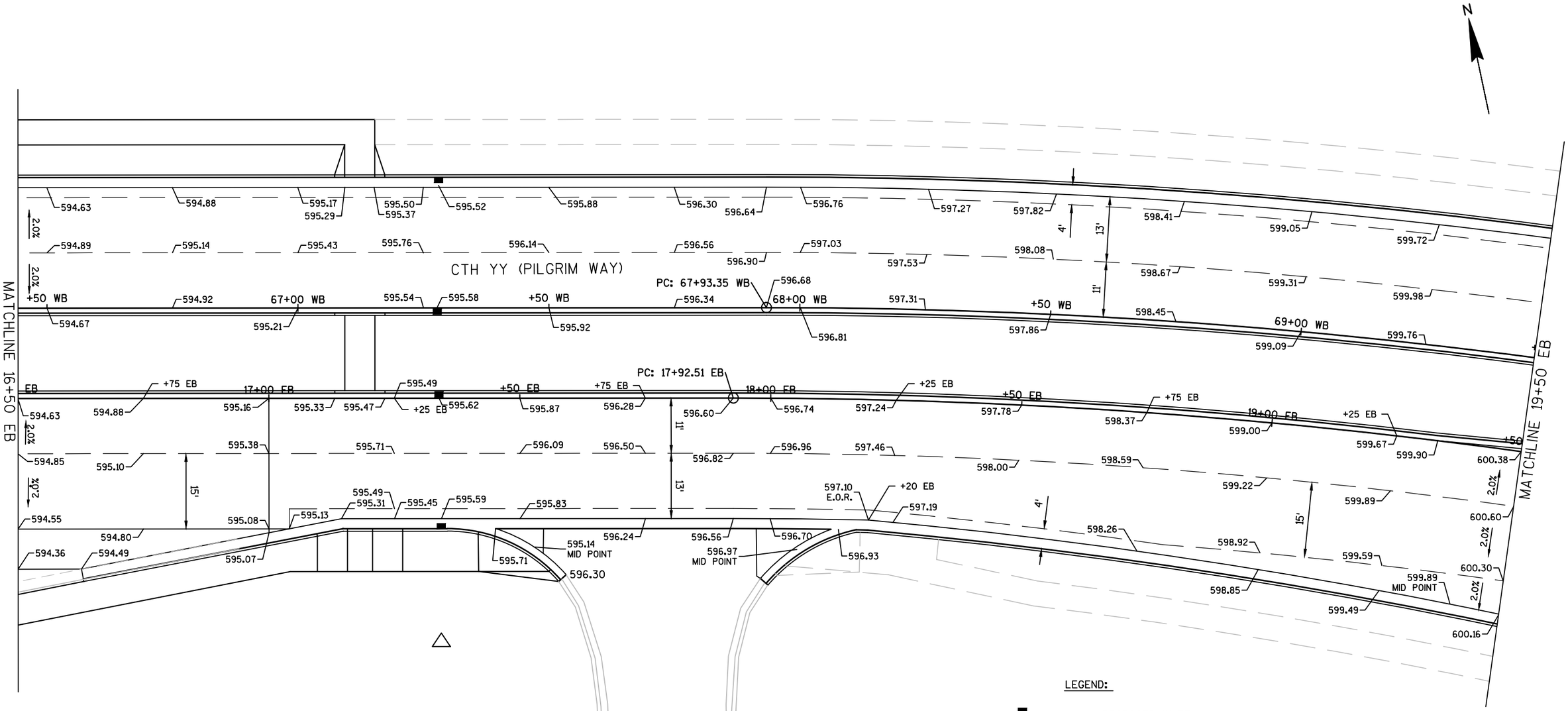
LEGEND:

■	PROPOSED INLET
●	PROPOSED MANHOLE
△	PROPOSED ENDWALL
▭	EXISTING INLET
E.O.R.	END OF RADIUS
L.P.	LOW POINT
H.P.	HIGH POINT
— — —	PROPOSED JOINT LINE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 20 E

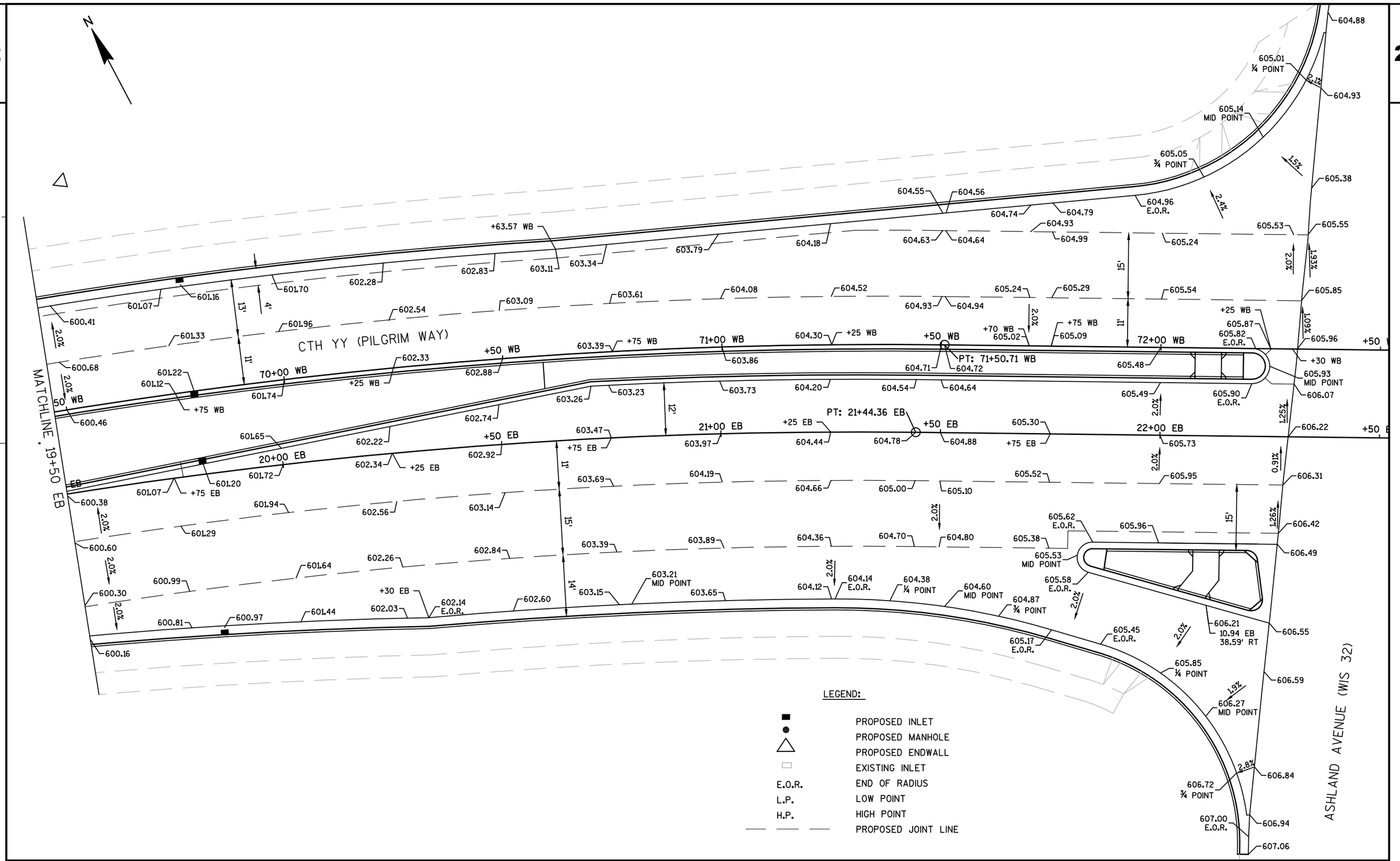
FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021301-PG.DWG
LAYOUT NAME - 021305-pg
PLOT DATE : 11/1/2015 4:15 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 42

2



LEGEND:

■	PROPOSED INLET
●	PROPOSED MANHOLE
△	PROPOSED ENDWALL
▭	EXISTING INLET
E.O.R.	END OF RADIUS
L.P.	LOW POINT
H.P.	HIGH POINT
— — —	PROPOSED JOINT LINE



LEGEND:

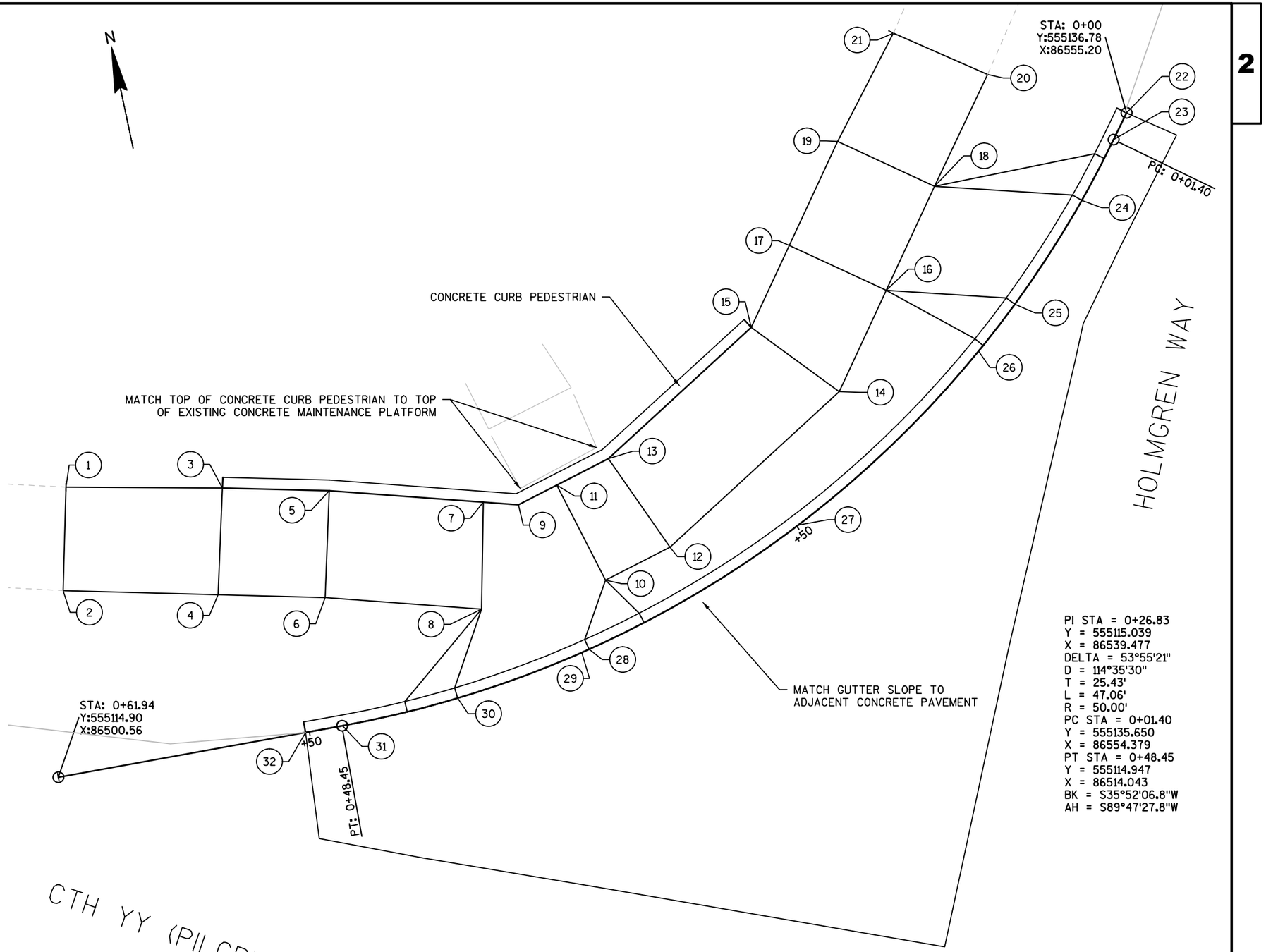
■	PROPOSED INLET
●	PROPOSED MANHOLE
△	PROPOSED ENDWALL
▭	EXISTING INLET
E.O.R.	END OF RADIUS
L.P.	LOW POINT
H.P.	HIGH POINT
— — —	PROPOSED JOINT LINE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES	SHEET 22 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021301-PG.DWG
LAYOUT NAME - 021307-pg
PLOT DATE : 11/1/2015 4:15 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 42

Point Number	Station	Offset	Elevation	Comment
1	0+59.17	13.29 RT	599.60	Back of Walk
2	0+60.16	8.55 RT	599.46	Front of Walk
3	0+51.97	11.95 RT	599.18	Back of Walk
4	0+53.06	7.07 RT	599.12	Front of Walk
5	0+46.69	10.91 RT	598.89	Back of Walk
6	0+48.11	6.05 RT	598.82	Front of Walk
7	0+38.34	8.27 RT	598.47	Back of Walk
8	0+40.44	3.62 RT	598.40	Begin Curb Ramp
9	0+36.61	7.53 RT	598.44	Back of Walk
10	0+34.18	2.60 RT	598.34	Begin Curb Ramp
11	0+34.23	2.60 RT	598.41	Back of Walk
12	0+30.61	2.50 RT	598.38	Front of Walk
13	0+31.04	7.54 RT	598.46	Back of Walk
14	0+19.19	3.51 RT	598.73	Front of Walk
15	0+20.26	8.52 RT	598.81	Back of Walk
16	0+13.76	5.14 RT	598.57	Begin Curb Ramp
17	0+15.38	9.95 RT	598.64	Back of Walk
18	0+07.83	6.23 RT	598.60	Begin Curb Ramp
19	0+08.75	11.17 RT	598.67	Back of Walk
20	0+01.21	6.64 RT	598.41	Front of Walk
21	0+01.40	11.44 RT	598.84	Back of Walk
22	0+00.00	0.00 RT	598.09	Begin Curb
23	0+01.40	0.00 RT	598.10	Begin Curve
24	0+04.60	0.00 RT	598.12	End Curb Ramp
25	0+10.39	0.00 RT	598.15	End Curb Ramp
26	0+13.16	0.00 RT	598.16	Quarter Point of Curve
27	0+24.91	0.00 RT	598.23	Mid Point of Curve
28	0+36.32	0.00 RT	598.29	End Curb Ramp
29	0+36.69	0.00 RT	598.29	Quarter Point of Curve
30	0+42.88	0.00 RT	598.33	End Curb Ramp
31	0+48.42	0.00 RT	598.36	End Curve
32	0+50.18	0.00 RT	598.37	End Curb

SEE PLAN DETAILS FOR ADDITIONAL STATON OFFSETS, CURB TYPE AND PAVEMENT TYPE

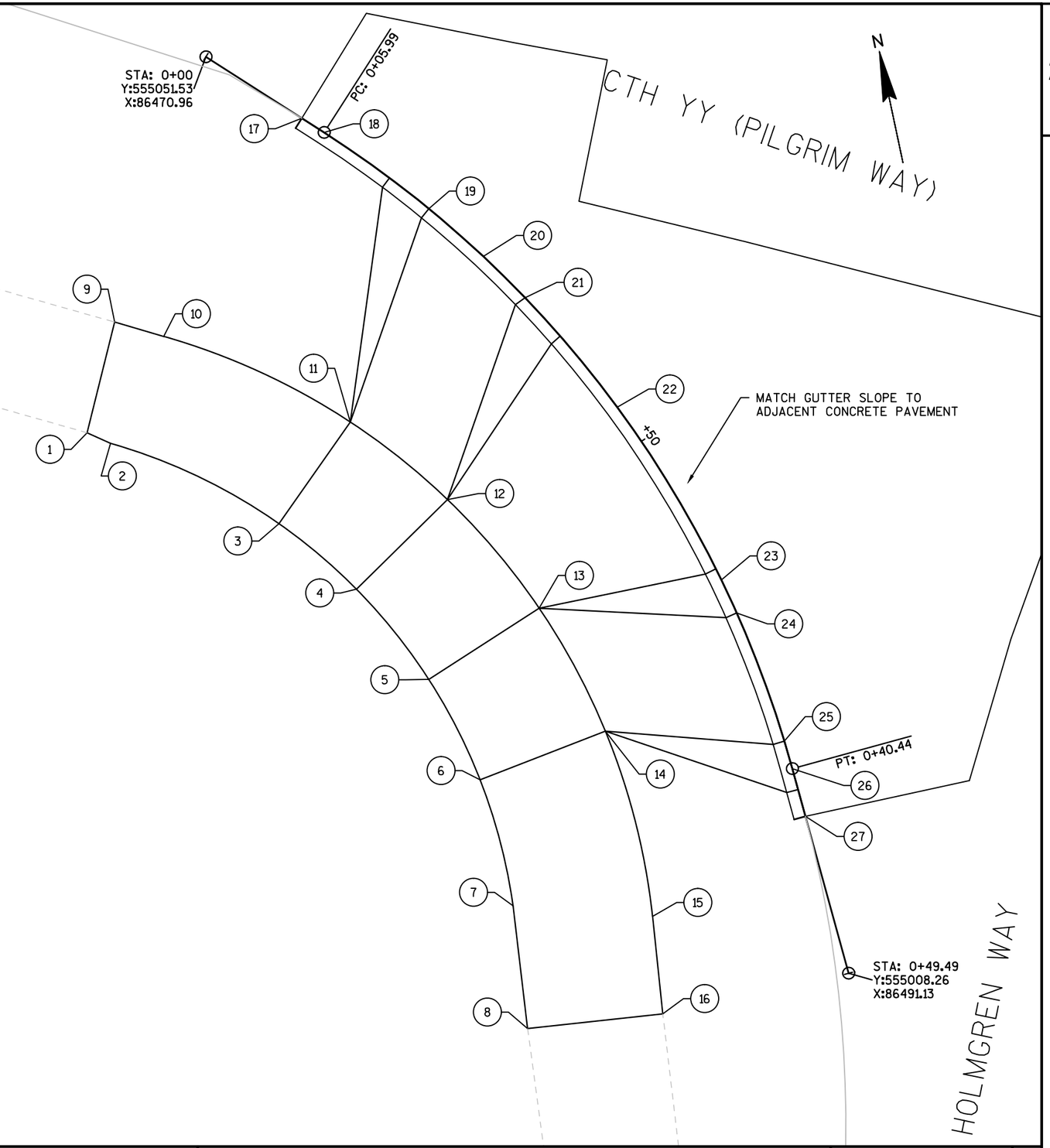


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES DETAIL: HOLMGREN WAY NW CURB RETURN	SHEET 23 E

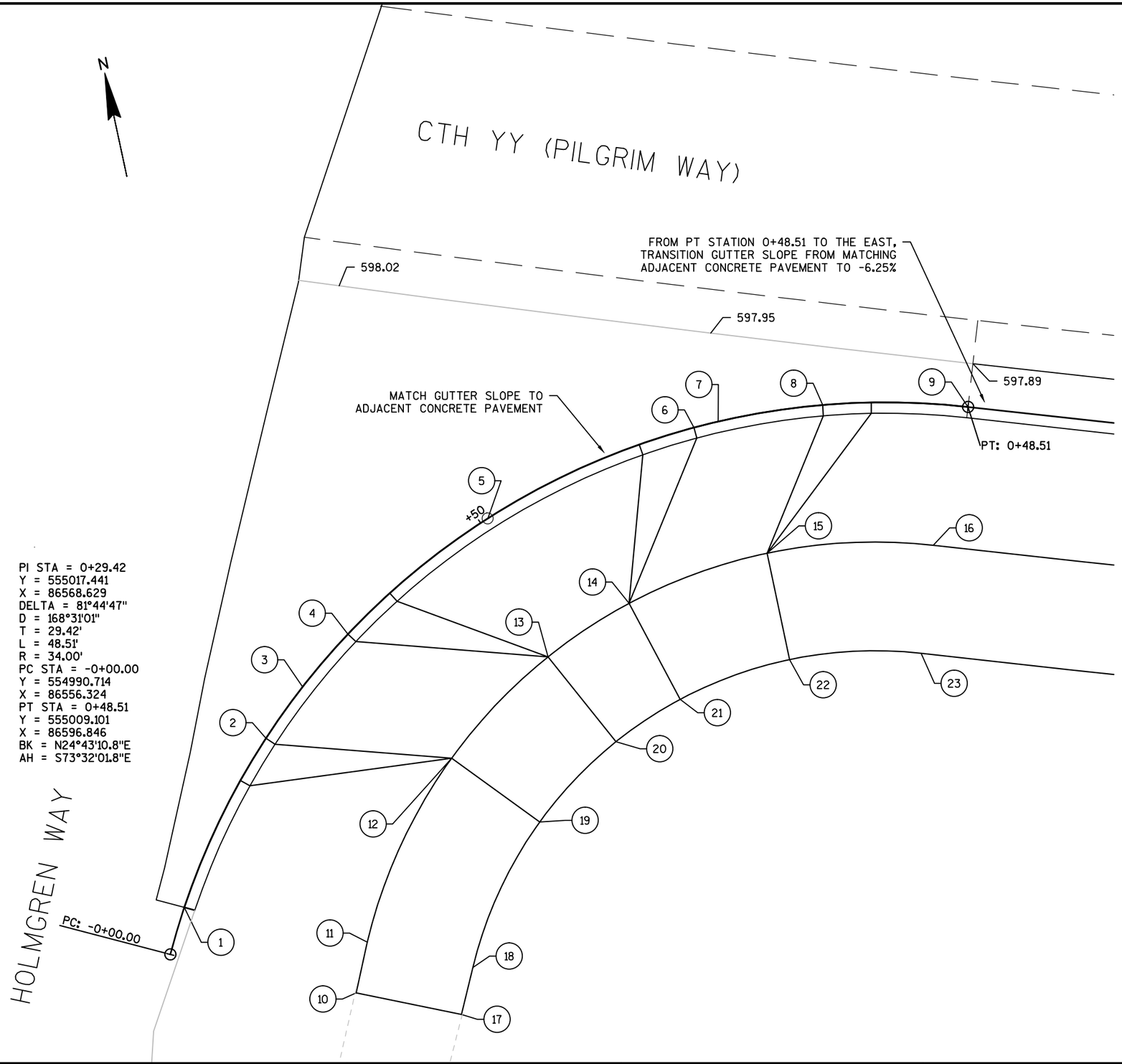
Point Number	Station	Offset	Elevation	Comment
1	0+04.39	16.23 RT	598.88	Back of Walk
2	0+05.47	16.07 RT	598.85	Back of Walk/Begin Curve
3	0+16.66	14.24 RT	598.66	Back of Walk
4	0+22.74	13.55 RT	598.58	Back of Walk
5	0+29.58	13.04 RT	598.49	Back of Walk
6	0+36.22	12.83 RT	598.41	Back of Walk
7	0+42.93	13.03 RT	598.52	Back of Walk/End Curve
8	0+48.14	13.82 RT	598.63	Back of Walk
9	0+02.83	11.63 RT	598.87	Front of Walk
10	0+04.92	11.02 RT	598.81	Front of Walk/Begin Curve
11	0+15.46	9.03 RT	598.58	Begin Curb Ramp
12	0+21.86	8.15 RT	598.50	Begin Curb Ramp
13	0+29.09	7.45 RT	598.41	Begin Curb Ramp
14	0+36.13	7.10 RT	598.33	Begin Curb Ramp
15	0+44.94	7.42 RT	598.44	Front of Walk/End Curve
16	0+49.06	8.10 RT	598.50	Front of Walk
17	0+04.86	0.00 RT	598.37	Begin Curb
18	0+05.99	0.00 RT	598.35	Begin Curve
19	0+11.52	0.00 RT	598.27	End Curb Ramp
20	0+14.60	0.00 RT	598.22	Quarter Point of Curve
21	0+17.11	0.00 RT	598.18	End Curb Ramp
22	0+23.22	0.00 RT	598.09	Mid Point of Curve
23	0+31.83	0.00 RT	597.95	Quarter Point of Curve
24	0+33.38	0.00 RT	597.93	End Curb Ramp
25	0+39.22	0.00 RT	597.83	End Curb Ramp
26	0+40.44	0.00 RT	597.81	End Curve
27	0+42.55	0.00 RT	597.75	End Curb

SEE PLAN DETAILS FOR ADDITIONAL STATON OFFSETS, CURB TYPE AND PAVEMENT TYPE

PI STA = 0+24.03
Y = 555035.238
X = 86488.626
DELTA = 42°00'13"
D = 121°54'21"
T = 18.04'
L = 34.46'
R = 47.00'
PC STA = 0+05.99
Y = 555047.474
X = 86475.365
PT STA = 0+40.44
Y = 555017.272
X = 86490.293
BK = S47°18'10.1"E
AH = S05°17'56.8"E



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES DETAIL: HOLMGREN WAY SW CURB RETURN	SHEET 24 E

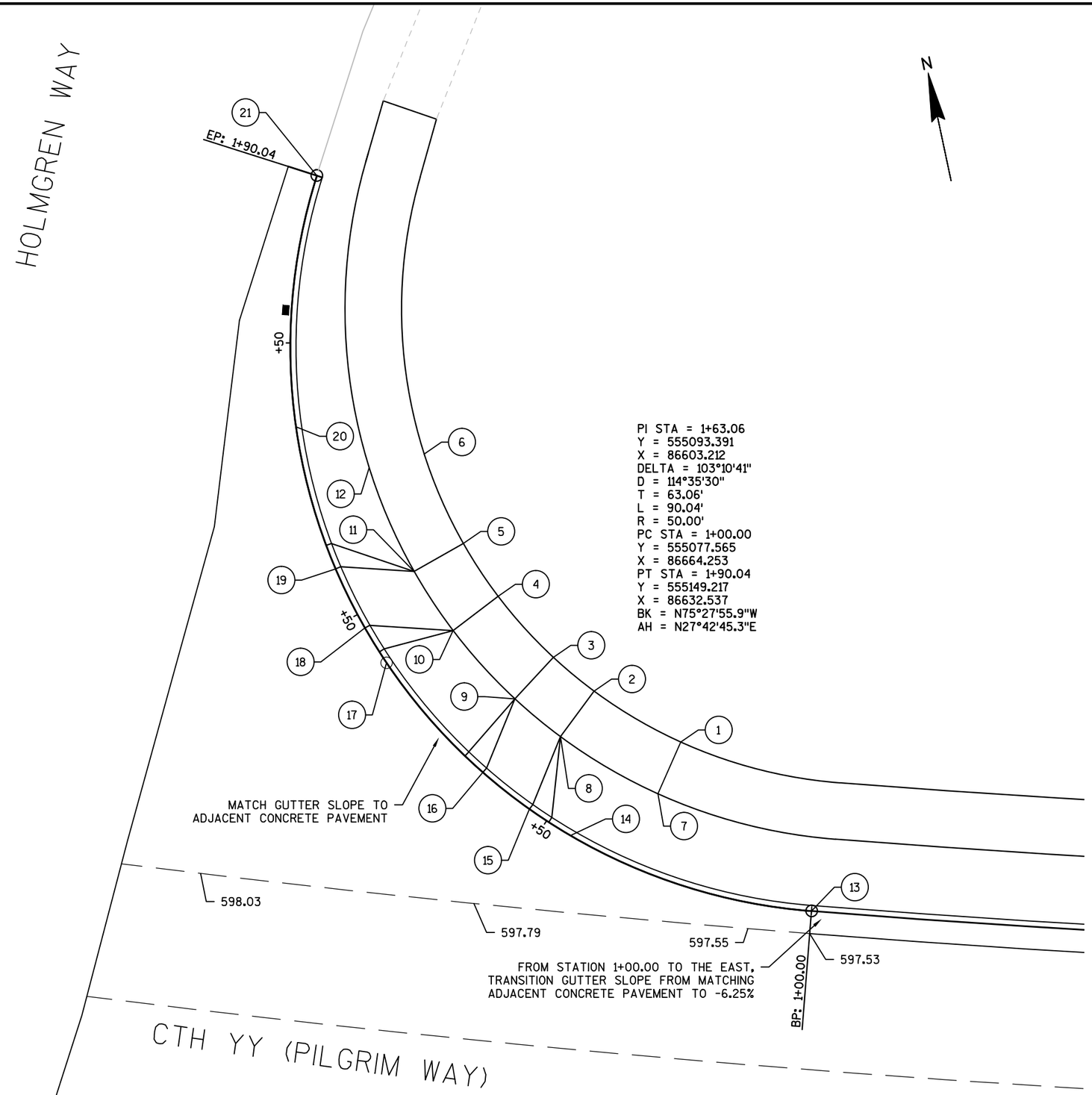


PI STA = 0+29.42
Y = 555017.441
X = 86568.629
DELTA = 81°44'47"
D = 168°31'01"
T = 29.42'
L = 48.51'
R = 34.00'
PC STA = -0+00.00
Y = 554990.714
X = 86556.324
PT STA = 0+48.51
Y = 555009.101
X = 86596.846
BK = N24°43'10.8"E
AH = S73°32'01.8"E

Point Number	Station	Offset	Elevation	Comment
1	0+02.26	0.00 RT	597.61	Begin Curb/Begin Curve
2	0+10.92	0.00 RT	597.63	End Curb Ramp
3	0+13.82	0.00 RT	597.69	Quarter Point of Curve
4	0+17.02	0.00 RT	597.71	End Curb Ramp
5	0+25.40	0.00 RT	597.76	Mid Point of Curve
6	0+35.79	0.00 RT	597.83	End Curb Ramp
7	0+36.95	0.00 RT	597.83	Quarter Point of Curve
8	0+41.81	0.00 RT	597.81	End Curb Ramp
9	0+48.51	0.00 RT	597.77	End Curve
10	0+00.62	8.71 RT	598.16	Front of Walk
11	0+03.79	8.46 RT	598.17	Front of Walk/Begin Curve
12	0+15.90	7.37 RT	598.19	Begin Curb Ramp
13	0+24.03	6.84 RT	598.29	Begin Curb Ramp
14	0+29.59	6.58 RT	598.25	Begin Curb Ramp
15	0+37.95	6.40 RT	598.15	Begin Curb Ramp
16	0+47.42	6.49 RT	598.36	Front of Walk/End Curve
17	0+01.20	13.64 RT	598.33	Back of Walk
18	0+04.88	13.41 RT	598.31	Back of Walk/Begin Curve
19	0+16.67	12.34 RT	598.26	Back of Walk
20	0+24.55	11.82 RT	598.36	Back of Walk
21	0+29.93	11.57 RT	598.32	Back of Walk
22	0+38.02	11.40 RT	598.22	Back of Walk
23	0+47.18	11.48 RT	598.43	Back of Walk/End Curve

SEE PLAN DETAILS FOR ADDITIONAL STATON OFFSETS, CURB TYPE AND PAVEMENT TYPE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES DETAIL: HOLMGREN WAY SE CURB RETURN	SHEET 25 E



PI STA = 1+63.06
Y = 555093.391
X = 86603.212
DELTA = 103°10'41"
D = 114°35'30"
T = 63.06'
L = 90.04'
R = 50.00'
PC STA = 1+00.00
Y = 555077.565
X = 86664.253
PT STA = 1+90.04
Y = 555149.217
X = 86632.537
BK = N75°27'55.9"W
AH = N27°42'45.3"E

Point Number	Station	Offset	Elevation	Comment
1	1+16.94	11.82 RT	598.33	Back of Walk
2	1+28.60	11.79 RT	598.09	Back of Walk
3	1+34.72	11.70 RT	598.16	Back of Walk
4	1+44.21	11.46 RT	598.22	Back of Walk
5	1+51.44	11.20 RT	598.31	Back of Walk
6	1+62.48	10.68 RT	598.60	Back of Walk
7	1+16.94	6.82 RT	598.26	Front of Walk
8	1+28.52	6.79 RT	598.02	Begin Curb Ramp
9	1+34.58	6.71 RT	598.09	End Curb Ramp
10	1+43.97	6.47 RT	598.15	Begin Curb Ramp
11	1+51.14	6.21 RT	598.24	End Curb Ramp
12	1+62.48	5.67 RT	598.53	Front of Walk
13	1+00.00	0.00 RT	597.41	Begin Curb/Begin Curve
14	1+22.51	0.00 RT	597.54	Quarter Point of Curve
15	1+26.83	0.00 RT	597.56	Begin Curb Ramp
16	1+32.09	0.00 RT	597.59	End Curb Ramp
17	1+45.02	0.00 RT	597.67	Mid Point of Curve
18	1+48.64	0.00 RT	597.70	Begin Curb Ramp
19	1+54.48	0.00 RT	597.75	End Curb Ramp
20	1+67.53	0.00 RT	597.86	Quarter Point of Curve
21	1+90.04	0.00 RT	598.05	End Curb/End Curve

SEE PLAN DETAILS FOR ADDITIONAL STATON OFFSETS, CURB TYPE AND PAVEMENT TYPE

2

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVING GRADES DETAIL: HOLMGREN WAY NE CURB RETURN	SHEET 26 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\021308-PG.DWG
LAYOUT NAME - 021311-pg
PLOT DATE : 11/2/2015 11:03 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I, URBAN TYPE A
- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION (TYPES SHOWN ON PLAN)
- ROCK BAGS AS CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK USING EROSION BALES
- ROCK BAG
- SURFACE WATER FLOW

N

CONC. WALK

ASPHALT

PT: 5+39.71

CONC.

CTH "YY" (PILGRIM WAY)

HOLMGREN WAY

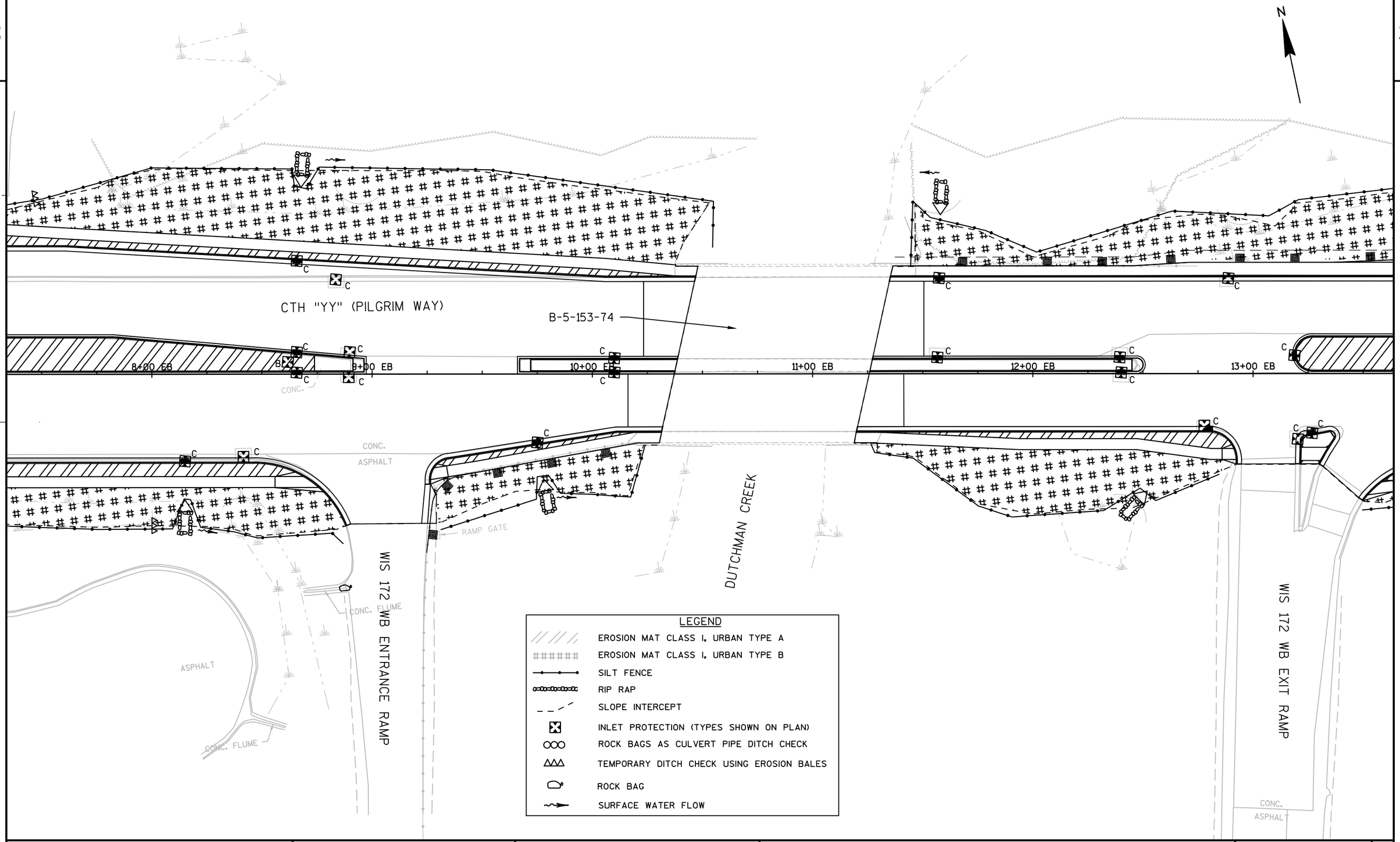
FRONTAGE ROAD

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	EROSION CONTROL	SHEET 27 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC - 022001-EC

PLOT DATE : 10/30/2015 11:17 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1" = 40'_XREF

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	EROSION CONTROL	SHEET 28 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC - 022002-EC
PLOT DATE : 11/2/2015 11:17 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

2

2

N

CTH "YY" (PILGRIM WAY)

PC: 17+92.51

A,C

C

B

CONC.

ASPHALT

CHAIN LINK FENCE

LEGEND

- EROSION MAT CLASS I, URBAN TYPE A
- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION (TYPES SHOWN ON PLAN)
- ROCK BAGS AS CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK USING EROSION BALES
- ROCK BAG
- SURFACE WATER FLOW

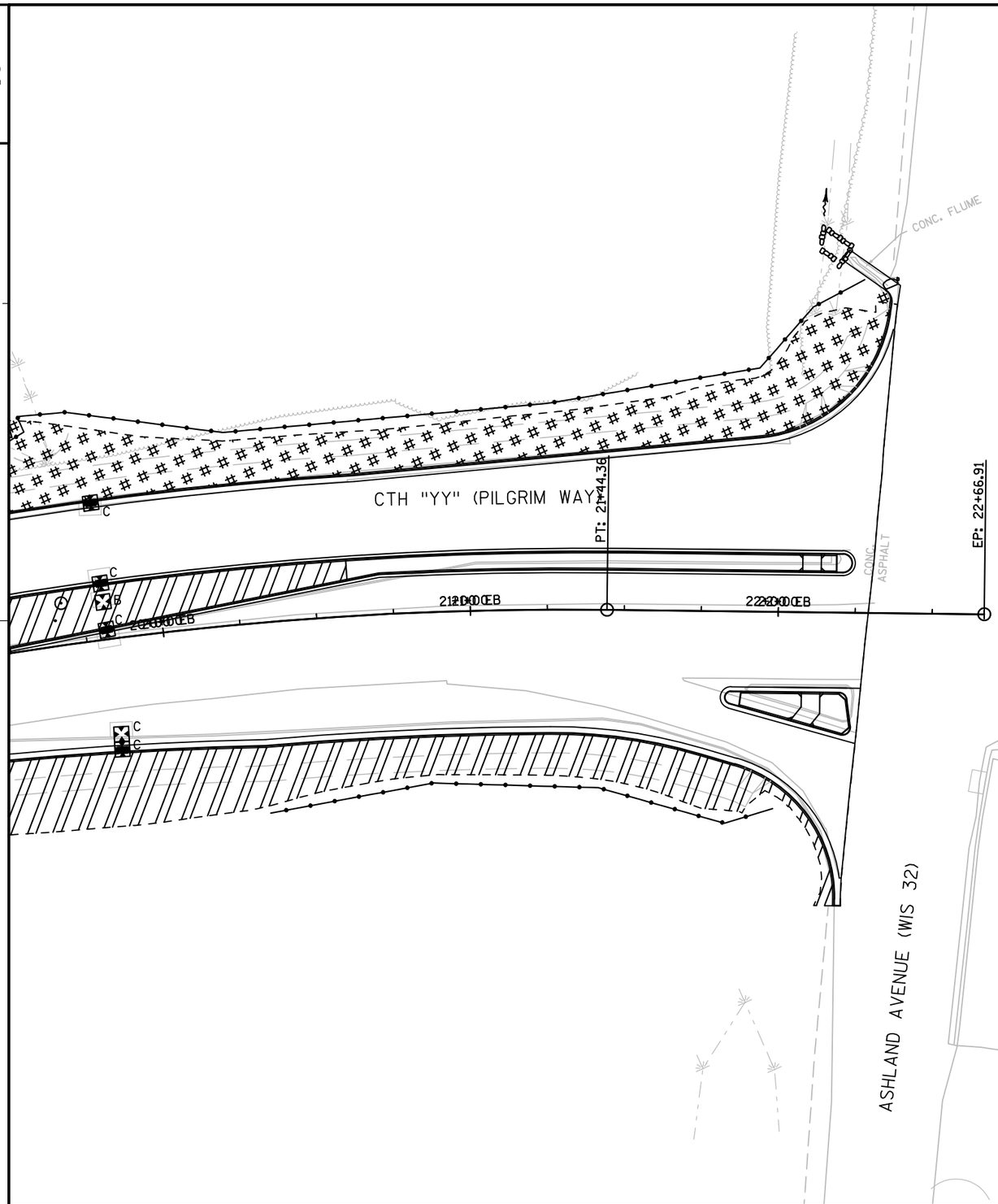
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	EROSION CONTROL	SHEET 29 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC - 022003-EC

PLOT DATE : 10/30/2015 11:18 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1" = 40'_XREF

2

2



N

LEGEND

- EROSION MAT CLASS I, URBAN TYPE A
- EROSION MAT CLASS I, URBAN TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- INLET PROTECTION (TYPES SHOWN ON PLAN)
- ROCK BAGS AS CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK USING EROSION BALES
- ROCK BAG
- SURFACE WATER FLOW

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	EROSION CONTROL	SHEET 30 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-EC - 022004-EC
PLOT DATE : 10/30/2015 11:18 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

2

STA 13+93, 84.9' LT
APRON ENDWALLS FOR CPRC 30-INCH
AE 8.1

STA 13+19, 8.3' LT
INLETS 3-Z
INL 8.3

STA 15+25, 76.3' LT
APRON ENDWALLS FOR CPRC 15-INCH
AE 9

STA 15+25, 43.5' LT
CATCH BASINS 4-H
INL 9.3

STA 15+25, 17.3' LT
INLETS 3-Z
INL 9.2

STA 15+20, 0.7' LT
INLETS 3-Z
INL 9.1

PC: 17+92.51

STA 19+61, 69.1' LT
APRON ENDWALLS FOR CPRC 15-INCH
AE 12

STA 19+82, 44.6' LT
INLETS 2x3-H
INL 12.4

STA 19+82, 18.3' LT
INLETS 3-Z
INL 12.3

STA 19+82, 3.1' LT
INLETS 3-Z
INL 12.2

PT: 21+44.36

EP: 22+66.91

CTH YY (PILGRIM WAY)

WIS 172 WB EXIT RAMP

WIS 172 WB EXIT RAMP

ASHLAND AVENUE (WIS 32)

ABANDON PIPE IN PLACE

STA 13+27, 27.0' RT
INLETS 2x3-H
INL 8.1

STA 13+94, 36.7' RT
CATCH BASINS 5-H
INL 8.2

STA 13+93, 70.6' RT
APRON ENDWALLS FOR CPRC 30-INCH
AE 8

EX INL 10.1
STA 15+60, 45.7' RT
INLETS 2x3-H

STA 15+60, 63.8' RT
APRON ENDWALLS FOR CPRC 12-INCH
AE 10

STA 17+34, 43.5' LT
INLETS 2x3-H
INL 11.4

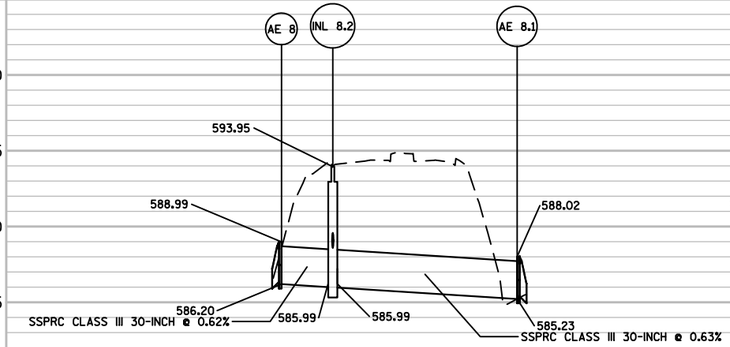
STA 17+34, 17.3' LT
INLETS 3-Z
INL 11.3

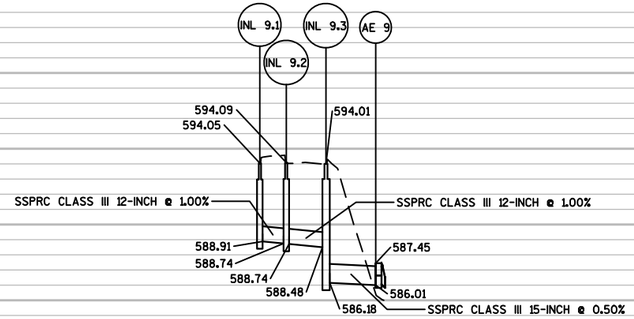
STA 17+34, 0.7' LT
INLETS 3-Z
INL 11.2

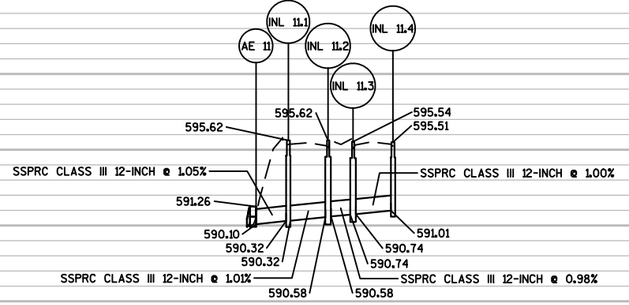
STA 17+34, 25.5' RT
INLETS 2x3-H
INL 11.1

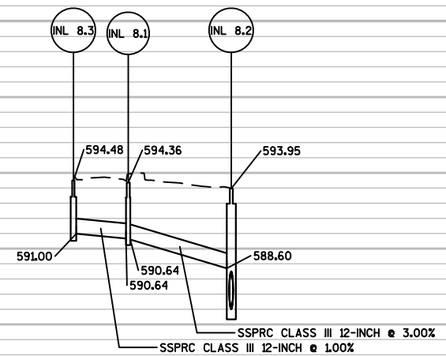
STA 17+34, 46.8' RT
APRON ENDWALLS FOR CPRC 12-INCH
AE 11

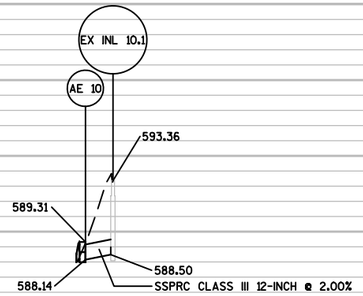
STA 19+82, 36.3' RT
INLETS 2x3-H
INL 12.1

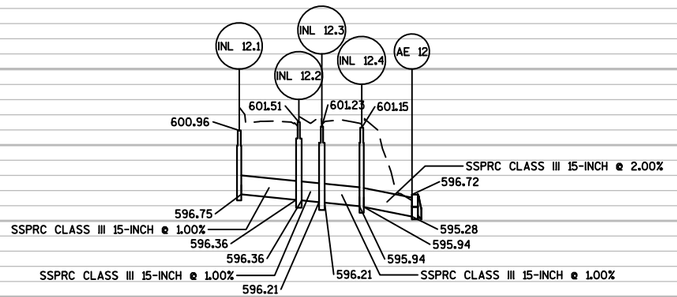








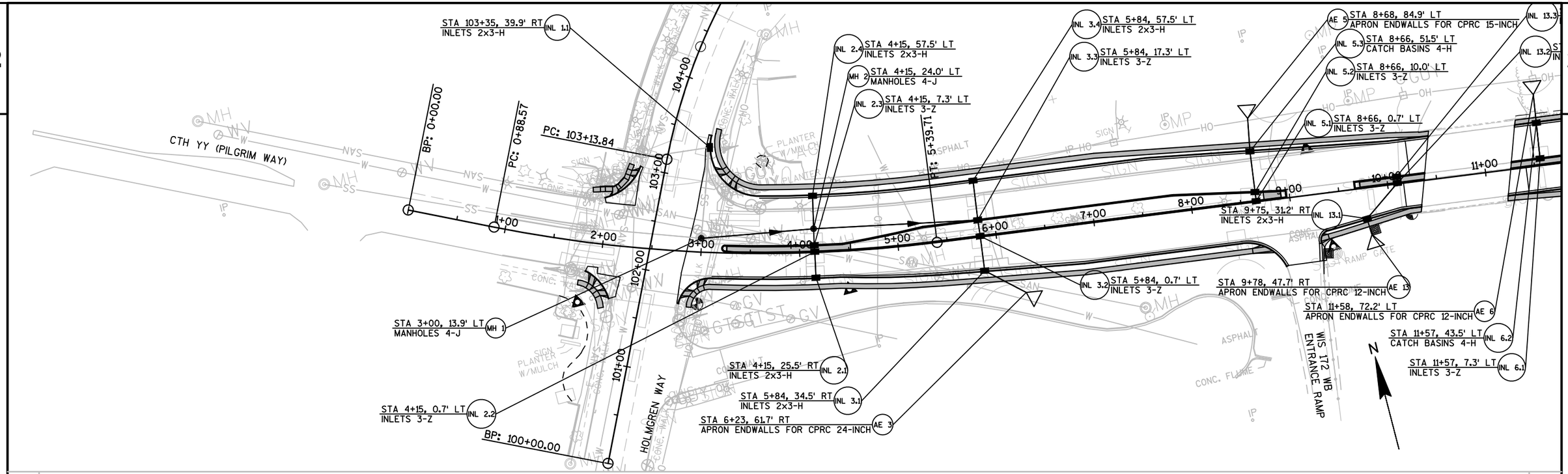


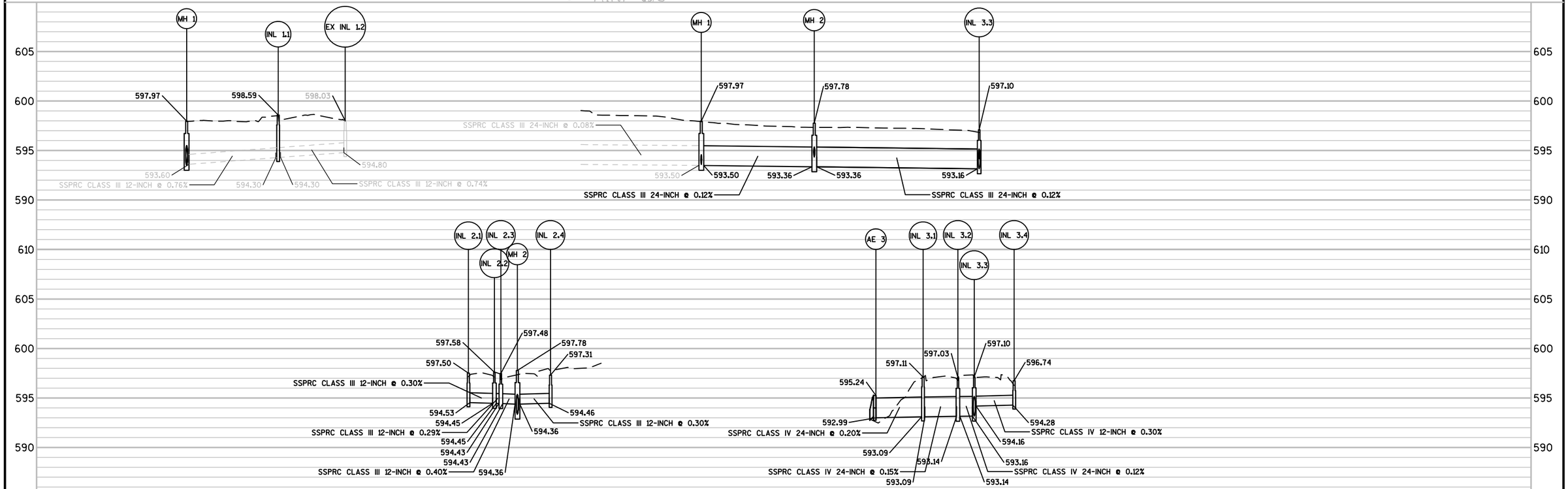


PROJECT NO: 4987-05-55	HWY: CTH YY	COUNTY: BROWN	STORM SEWER STAGE 1	SHEET 31	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022501-SS-STAGE 1.DWG
LAYOUT NAME - 022501_SS
PLOT DATE : 10/30/2015 11:19 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

2





PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	STORM SEWER STAGE 2	SHEET 32	E

2

STA 8+68, 84.9' LT
APRON ENDWALLS FOR CPRC 15-INCH (AE 5)

STA 8+66, 51.5' LT
CATCH BASINS 4-H (INL 5.3)

STA 8+66, 10.0' LT
INLETS 3-Z (INL 5.2)

STA 8+66, 0.7' LT
INLETS 3-Z (INL 5.1)

STA 10+10, 7.3' LT
INLETS 3-Z (INL 13.3)

STA 10+10, 0.7' LT
INLETS 3-Z (INL 13.2)

STA 12+39, 7.3' LT
INLETS 3-Z (INL 7.3)

STA 12+40, 0.7' LT
INLETS 3-Z (INL 7.2)

STA 9+75, 31.2' RT
INLETS 2x3-H (INL 13.1)

STA 9+78, 47.7' RT
APRON ENDWALLS FOR CPRC 12-INCH (AE 13)

STA 11+58, 72.2' LT
APRON ENDWALLS FOR CPRC 12-INCH (AE 6)

STA 11+57, 43.5' LT
CATCH BASINS 4-H (INL 6.2)

STA 11+57, 7.3' LT
INLETS 3-Z (INL 6.1)

STA 12+80, 25.0' RT
INLETS 2x3-H (INL 7.1)

STA 12+52, 53.3' RT
APRON ENDWALLS FOR CPRC 12-INCH (AE 7)

PC: 17+92.51

PT: 21+44.36

EP: 22+66.91

CTH YY (PILGRIM WAY)

WIS 172 WB ENTRANCE RAMP

WIS 172 WB EXIT RAMP

ASHLAND AVENUE (WIS 32)

BLOCK RETAINING WALL

CHAIN LINK FENCE

CONC. FLUME

CONC. ASPHALT

ASPHALT

SIGN

TV

SAN

SS

OH

HO

GUY

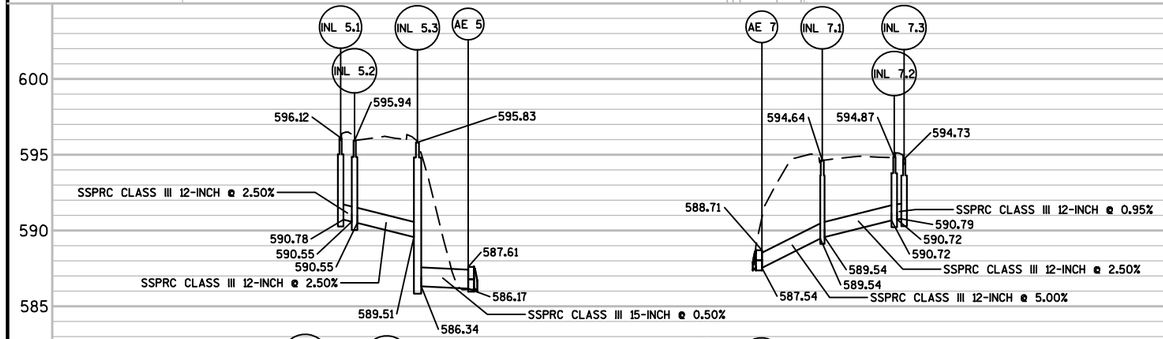
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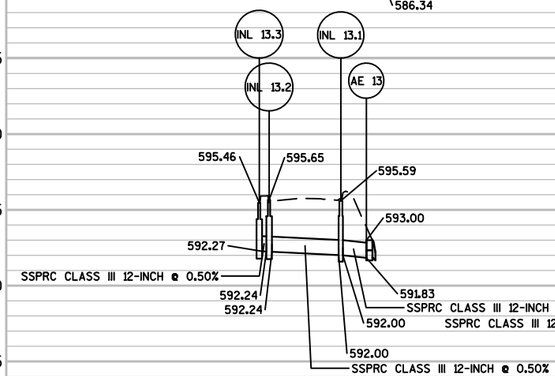
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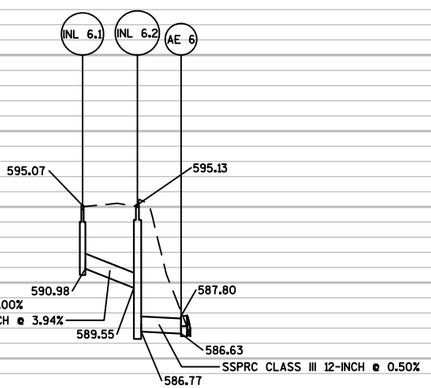
MH

N

8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00







600 595 590 585 605 600 595 590 585

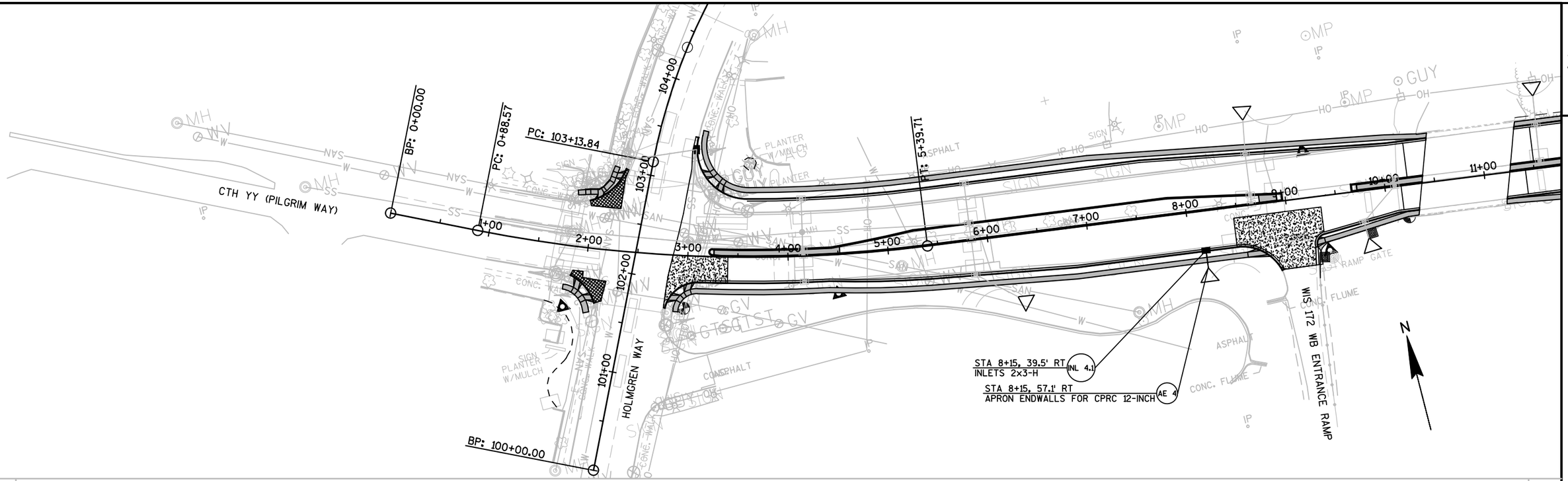
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	STORM SEWER STAGE 2	SHEET 33	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022501-SS-STAGE 2.DWG
LAYOUT NAME - 022503-SS

PLOT DATE : 10/30/2015 11:20 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :

PLOT SCALE : 1 IN:100 FT

2





PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	STORM SEWER STAGE 3	SHEET 34	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\022501-SS-STAGE 3.DWG
LAYOUT NAME - 022504-SS
PLOT DATE : 10/30/2015 11:20 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 41

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

CONC. WALK

CONC. WALK

CONC. WALK

CONC. WALK

ASPHALT

1 — STOP — REMOVE
STOP — R1-1F 36"X36"

2 — REMOVE — R4-7 24"X30"

3 — STOP — R1-1F 36"X36"

4 — WEST 172 — J2-1 24"X57"
WEST 172 — REMOVE

5 — DO NOT ENTER — R5-1 30"X30"

6 — REMOVE
W3-3 36"X36"

7 — WRONG WAY — R5-1A 36"X24"
WRONG WAY — REMOVE

8 — MOVE NO PARKING SIGN

9 — MOVE AUSTIN STRAUBEL AIRPORT — D9-52

10 — MOVE NO PARKING SIGN

11 — REMOVE
W3-3 36"X36"

12 — SPEED LIMIT 35 — REMOVE
SPEED LIMIT 35 — R2-1 24"X30"

13 — TO WEST 41 172 — J2-2 48"X57"
WEST TO 172 41 — REMOVE

14 — DO NOT ENTER — R5-1 30"X30"
DO NOT ENTER — REMOVE

1+00 EB
2+00 EB
3+00 EB
4+00 EB
5+00 EB
6+00 EB
7+00 EB
8+00 EB

CTH YY (PILGRIM WAY)

HOLMGREN WAY

CONC. WALK

CONC. WALK

CONC. WALK

CONC. WALK

CONC. FLUME

ASPHALT

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PERMANENT SIGNING PLAN (MOVING AND REMOVALS)	SHEET 35 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 10/30/2015 11:22 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

GUY

CTH YY (PILGRIM WAY)

EB 9+00 EB 10+00 EB 11+00 EB 12+00 EB 13+00 EB 14+00 EB 15+00 EB

15 — R10-15-L 30"X30"

16 — R3-7-R 30"X30"

17 — R10-15-L 30"X30"

18 — J2-1 24"X57"; REMOVE

19 — J2-2 48"X57"; REMOVE

20 — R2-1 24"X30"; REMOVE

21 — R5-1A 36"X24"; REMOVE

22 — R1-1F 36"X36"; REMOVE

23 — R3-1 24"X24"; REMOVE

24 — R1-1F 36"X36"; REMOVE

25 — R5-1 30"X30"; REMOVE

26 — MOVE NO PARKING SIGN

27 — MOVE ABBTN STRAUBEL AIRPORT D9-52

28 — R4-7 24"X30"; REMOVE

29 — R6-2-L 24"X30"; REMOVE

30 — R5-1 30"X30"; REMOVE

31 — R1-1F 36"X36"; REMOVE

32 — R5-1 30"X30"; REMOVE

33 — R3-2 24"X24"; REMOVE

34 — R1-1F 36"X36"; REMOVE

35 — R1-1F 36"X36"

36 — R1-1F 36"X36"; REMOVE

37 — R6-2-R 24"X30"; REMOVE

38 — R1-2 36"X31"; REMOVE

39 — D4-56-R 36"X36"; REMOVE

40 — R5-1A 36"X24"; REMOVE

CONC. FLUME

WIS 172 WB ENTRANCE RAMP

WIS 172 WB EXIT RAMP

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PERMANENT SIGNING PLAN (MOVING AND REMOVALS)	SHEET 36	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023202-PS.DWG
LAYOUT NAME - 023202-ps
PLOT DATE : 10/30/2015 11:21 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

(PILGRIM WAY)

CTH YY

17+00 EB
18+00 EB
19+00 EB
20+00 EB
21+00 EB
22+00 EB
22+67 EB

ASHLAND AVENUE (WIS 32)

CONC. FLUME

CONC. ASPHALT

41 — REMOVE; W3-3 36"X36"

42 — R10-64 30"X36"; REMOVE

UNDER STOP LIGHT SIGN

W3-3 36"X36"; REMOVE

43

44 — BUS STOP SIGN

45 — REMOVE; R6-2-R 24"X30"

46 — J2-1 24"X57"

47 — J2-1 24"X57"

48 — R3-8-B 36"X30"

49 — R3-8-D 36"X30"

50 — MOVE INFORMATIONAL SIGN

51 — REMOVE

52 — REMOVE

53 — REMOVE

54

EXISTING OVERHEAD SIGN SUPPORT TO BE REMOVED
PAID FOR AS "REMOVING STRUCTURAL STEEL SIGN SUPPORTS"

55 — REMOVE

56 — J1-1 24"X39"; REMOVE

57 — R1-1F 36"X36"; REMOVE

58 — R4-7 24"X30"; REMOVE

59 — R3-1 24"X24"; REMOVE

60 — R1-1F 36"X36"; REMOVE

61 — R5-1 30"X30"; REMOVE

62 — W12-1D 24"X24"; REMOVE

63 — R1-2 36"X31"; REMOVE

64 — R1-1F 36"X36"; REMOVE

65 — R6-2-R 24"X30"; REMOVE

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PERMANENT SIGNING PLAN (MOVING AND REMOVALS)	SHEET 37 E

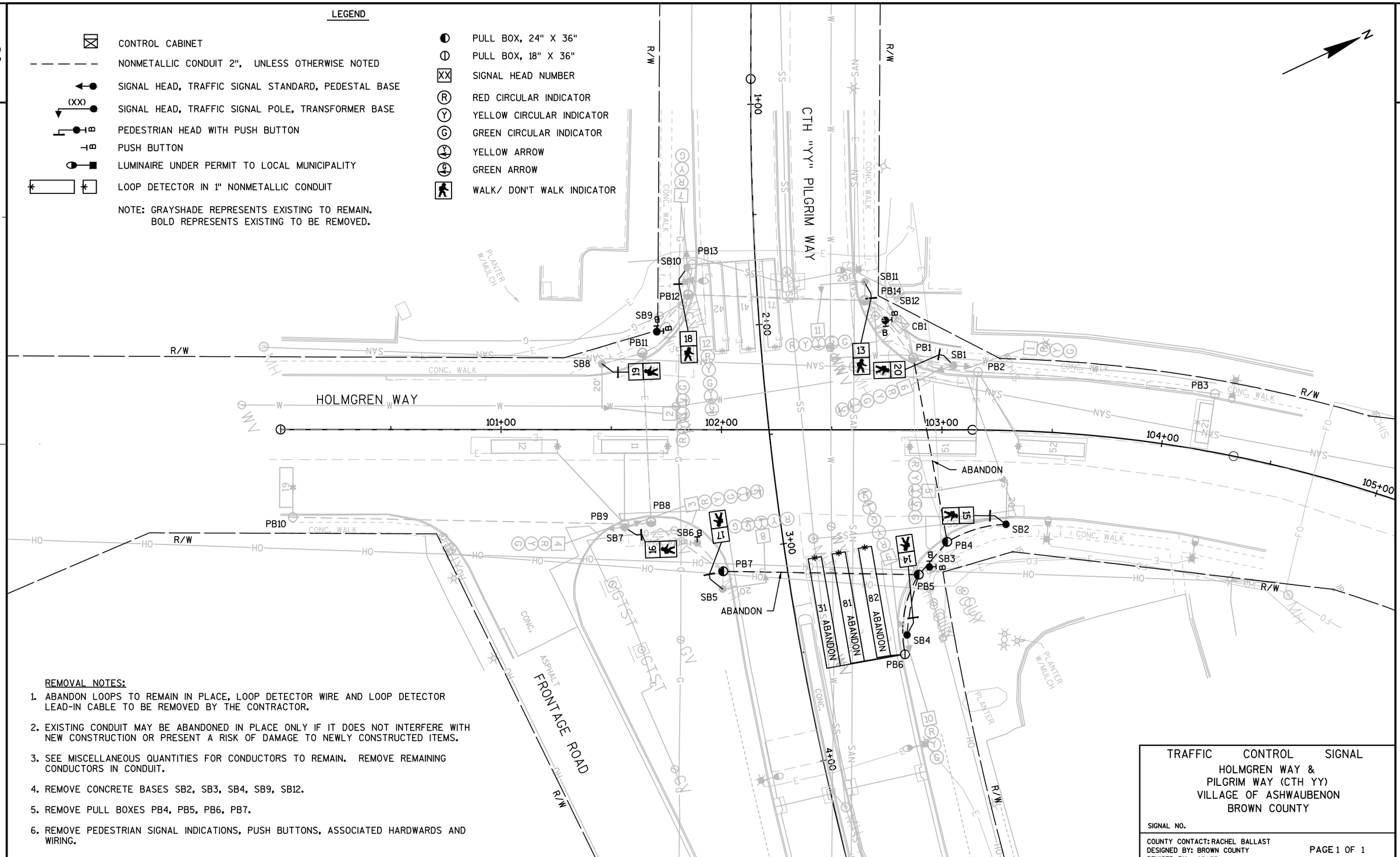
FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023203-PS.DWG
LAYOUT NAME - 023203-ps
PLOT DATE : 1/20/2016 11:42 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

NOTE: GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS EXISTING TO BE REMOVED.

- PULL BOX, 24" X 36"
- PULL BOX, 18" X 36"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/ DON'T WALK INDICATOR



REMOVAL NOTES:

1. ABANDON LOOPS TO REMAIN IN PLACE, LOOP DETECTOR WIRE AND LOOP DETECTOR LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
2. EXISTING CONDUIT MAY BE ABANDONED IN PLACE ONLY IF IT DOES NOT INTERFERE WITH NEW CONSTRUCTION OR PRESENT A RISK OF DAMAGE TO NEWLY CONSTRUCTED ITEMS.
3. SEE MISCELLANEOUS QUANTITIES FOR CONDUCTORS TO REMAIN. REMOVE REMAINING CONDUCTORS IN CONDUIT.
4. REMOVE CONCRETE BASES SB2, SB3, SB4, SB9, SB12.
5. REMOVE PULL BOXES PB4, PB5, PB6, PB7.
6. REMOVE PEDESTRIAN SIGNAL INDICATIONS, PUSH BUTTONS, ASSOCIATED HARDWARDS AND WIRING.

TRAFFIC CONTROL SIGNAL
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
VILLAGE OF ASHWAUBENON
BROWN COUNTY

SIGNAL NO.

COUNTY CONTACT: RACHEL BALLAST
DESIGNED BY: BROWN COUNTY
REVISED BY: GRAEF

PAGE 1 OF 1

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 38	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\024011_SP.DWG
LAYOUT NAME - 024011_SP - 024011_SP

PLOT DATE : 10/16/2015 3:16 PM PLOT BY : OST, ANDRE PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PB PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 18" X 36"
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- WALK/ DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

R10-3EL
9"X15"

R10-3ER
9"X15"

FURNISH AND INSTALL PEDESTRIAN CROSSING SIGNS. SIGNS ARE INCIDENTAL TO PEDESTRIAN PUSH BUTTONS. INSTALL SIGN R10-3EL ON SB3, SB7, SB8, SB10, SB12 & SB15. INSTALL SIGN R10-3ER ON SB1 & SB5.

CTH "YY" PILGRIM WAY

HOLMGREN WAY

POSTED SPEED LIMIT = 30 MPH

R/W

6'X20' 3 TURNS

3-6'X50' 2 TURNS EACH

2-6'X30' 2 TURNS EACH

6'X18' 3 TURNS

6'X18' 2 TURNS

8-6'X20' 3 TURNS EACH

FRONTAGE ROAD

ASPHALT

CONC.

CONC. WALK

ONE WAY

1+00 2+00 3+00 4+00 101+00 102+00 103+00 104+00 105+00

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16

CONSTRUCTION NOTES:

1. *LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. TRAFFIC SIGNAL MUST REMAIN FUNCTIONAL DURING CONSTRUCTION. ONLY ONE INDICATION MAY BE REMOVED PER APPROACH AT A TIME AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL SIGNAL
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
VILLAGE OF ASHWAUBENON
BROWN COUNTY

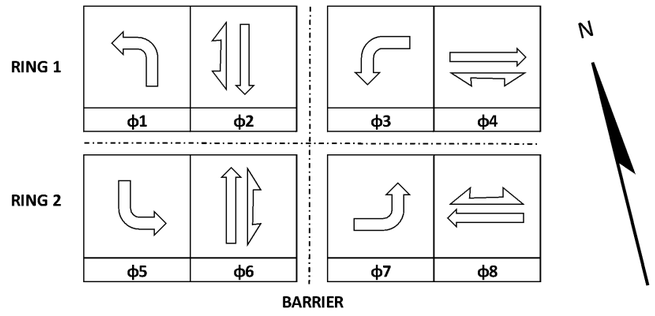
SIGNAL NO.

COUNTY CONTACT: RACHEL BALLAST
DESIGNED BY: BROWN COUNTY
REVISED BY: GRAEF

PAGE 1 OF 2

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC SIGNAL PLAN	SHEET 39	E

	HEAD NUMBERS	FLASH
ϕ1	5,6	-
ϕ2	1,2,3	R
ϕ3	11,12	-
ϕ4	7,8,9	R
ϕ5	2,3	-
ϕ6	4,5,6	R
ϕ7	8,9	-
ϕ8	10,11,12	R
ϕ2P	19,20	
ϕ4P	17,18	
ϕ6P	15,16	
ϕ8P	13,14	
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

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

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

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

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

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

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1			X	1	1				6X30	2
12	1		X		1	1				6X30	2
21	2	X			2	2				6X18	2
31	3			X	3	3				6X20	3
32	3		X		3	3				6X20	3
41	4	X			4	4				6X40	2
42	4	X			4	4		X		6X40	2
51	5			X	5	5				6X30	2
52	5		X		5	5				6X30	2
61	6	X			6	6				6X18	3
71	7			X	7	7				6X40	2
72	8		X		7	7				6X20	3
81	9	X			8	8				6X20	3
82	9	X			8	8				6X20	3
83	10	X			8	8				6X20	3
84	10	X			8	8				6X20	3
85	11	X			8	8		X		6X20	3
86	11	X			8	8		X		6X20	3

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL.
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PROVIDE FOR HAND CONTROL OPERATION.

TRAFFIC CONTROL SIGNAL
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
VILLAGE OF ASHWAUBENON
BROWN COUNTY

DATE: 10/15

COUNTY CONTACT: RACHEL BALLAST
DESIGNED BY:
REVISED BY: GRAEF

PAGE 2 OF 2

PROJECT NO: 4987-02-55 | HWY: CTH YY | COUNTY: BROWN | SEQUENCE OF OPERATIONS | SHEET 40 | E

HOLMGREN WAY & PILGRIM WAY (CTH YY)
BROWN COUNTY

RED - CABLE TRAFFIC SIGANL 21-14 AWG

CABLE COLOR	PHASE	LOCATION	REMARKS	SB1 Head No.	SB2 Head No.	SB3 Head No.	SB4 Head No.	SB8 Head No.	SB9 Head No.	SB10 Head No.	SB11 Head No.
BLK	8	PILGRIM	NORTHSIDE DON'T WALK	13		14					
WHT		HOLMGREN	NEUTRAL								
RED	6	HOLMGREN	NB RED		6		5		4		
GRE	6	HOLMGREN	NB GREEN		6		5		4		
ORA	6	HOLMGREN	NB YELLOW		6		5		4		
BLU	8	PILGRIM	NORTHSIDE WALK	13		14					
WHT/BLK		HOLMGREN	SPARE								
RED/BLK	2	HOLMGREN	SB RED		1				3		2
GRE/BLK	2	HOLMGREN	SB GREEN		1				3		2
ORA/BLK	2	HOLMGREN	SB YELLOW		1				3		2
BLU/BLK		HOLMGREN	SPARE								
BLK/WHT	4	PILGRIM	SOUTHSIDE DON'T WALK					17		18	
RED/WHT	1	HOLMGREN	NB YELLOW ARROW		6		5				
GRE/WHT	1	HOLMGREN	NB GREEN ARROW		6		5				
BLU/WHT	4	PILGRIM	SOUTHSIDE WALK					17		18	
BLK/RED	5	HOLMGREN	SB YELLOW ARROW						3		2
WHT/RED	8	PILGRIM	NORTHSIDE PPB	B		B					
ORA/RED	4	PILGRIM	SOUTHSIDE PPB					B		B	
BLU/RED		HOLMGREN	SPARE								
RED/GRE		PILGRIM	PED COMMON								
ORA/GRE	5	HOLMGREN	SB GREEN ARROW						3		2

EQUIPTMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB14
SB14	CB1

NEUTRAL GROUNDED CONDUCTOR 10 AWG WHT XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB14
SB14	CB1

BLUE - CABLE TRAFFIC SIGANL 21-14 AWG

CABLE COLOR	PHASE	LOCATION	REMARKS	SB5 Head No.	SB6 Head No.	SB7 Head No.	SB12 Head No.	SB13 Head No.	SB14 Head No.	SB15 Head No.
BLK	2	HOLMGREN	WESTSIDE DON'T WALK				19			20
WHT		PILGRIM	NEUTRAL							
RED	8	PILGRIM	WB RED	10				12	11	
GRE	8	PILGRIM	WB GREEN	10				12	11	
ORA	8	PILGRIM	WB YELLOW	10				12	11	
BLU	2	HOLMGREN	WESTSIDE WALK				19			20
WHT/BLK		PILGRIM	SPARE							
RED/BLK	4	PILGRIM	EB RED	9	8			7		
GRE/BLK	4	PILGRIM	EB GREEN	9	8			7		
ORA/BLK	4	PILGRIM	EB YELLOW	9	8			7		
BLU/BLK		PILGRIM	SPARE							
BLK/WHT	6	HOLMGREN	EASTSIDE DON'T WALK	15		16				
RED/WHT	3	PILGRIM	WB YELLOW ARROW					12	11	
GRE/WHT	3	PILGRIM	WB GREEN ARROW					12	11	
BLU/WHT	6	HOLMGREN	EASTSIDE WALK	15		16				
BLK/RED	7	PILGRIM	EB YELLOW ARROW	9	8					
WHT/RED	2	HOLMGREN	WESTSIDE PPB				B			B
ORA/RED	6	HOLMGREN	EASTSIDE PPB	B		B				
BLU/RED		PILGRIM	SPARE							
RED/GRE		HOLMGREN	PED COMMON							
ORA/GRE	7	PILGRIM	EB GREEN ARROW	9	8					

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB3	SB1
PB5	SB4
PB6	SB5
PB7	SB7
PB8	SB7
PB9	SB7
PB10	SB9
PB13	SB11
PB14	SB13
PB16	SB14

TRAFFIC CONTROL SIGNAL
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
VILLAGE OF ASHWAUBENON
BROWN COUNTY

DATE: 10/15

COUNTY CONTACT: RACHEL BALLAST
DESIGNED BY:
REVISED BY: GRAEF

PAGE 1 OF 1

PROJECT NO: 4987-02-55 | HWY: CTH YY | COUNTY: BROWN | CABLE ROUTING | SHEET 41 | E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\024021_SP.DWG
LAYOUT NAME - 024021_SP - 024101_CR
PLOT DATE : 10/16/2015 3:16 PM PLOT BY : OST, ANDRE PLOT NAME : PLOT SCALE : **********

2

Remove Signal
Remove Concrete Base

Remove Signal
Remove Concrete Base

Remove Signal
Remove Concrete Base

Remove Signal
Remove Concrete Base

Remove Pull Box

CTH YY (PILGRIM WAY)

20'

Remove Pull Box

Remove Signal
Remove Concrete Base

Remove Pull Box

Remove Pull Box

Remove Pull Box

Remove Pull Box

Remove Pull Box

Remove Signal
Remove Concrete Base

Remove Pull Box

Remove Pull Box

Remove Signal
Remove Concrete Base

Remove Pull Box

Remove Pull Box

Remove Pull Box

Remove Pull Box

Remove Signal
Remove Concrete Base

Remove Pull Box

Remove Pull Box

CTH YY (PILGRIM WAY)

25'

Remove Signal
Remove Concrete Base

Crash Investigation Site

Remove Concrete Base

Remove Concrete Base

Remove Concrete Base

Remove Concrete Base

N

STH 172
(Westbound off ramp)

SIGNAL REMOVAL NOTE

CONTACT THE NE REGION ELECTRICAL UNIT AT (920) 492-5710
OR 492-5654 PRIOR TO REMOVING ANY SIGNALS OR PULL BOXES.

LEGEND

PULL BOX 12" X 24"
PULL BOX 24" X 36"
PULL BOX 24" X 42"
SIGNAL HEAD PEDESTAL MOUNT
SIGNAL HEAD MAST-ARM MOUNT
CONTROL CABINET BASE
LUMINAIRE (local municipality)
CIS LIGHTING CONTROLLER

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

GENERAL NOTE

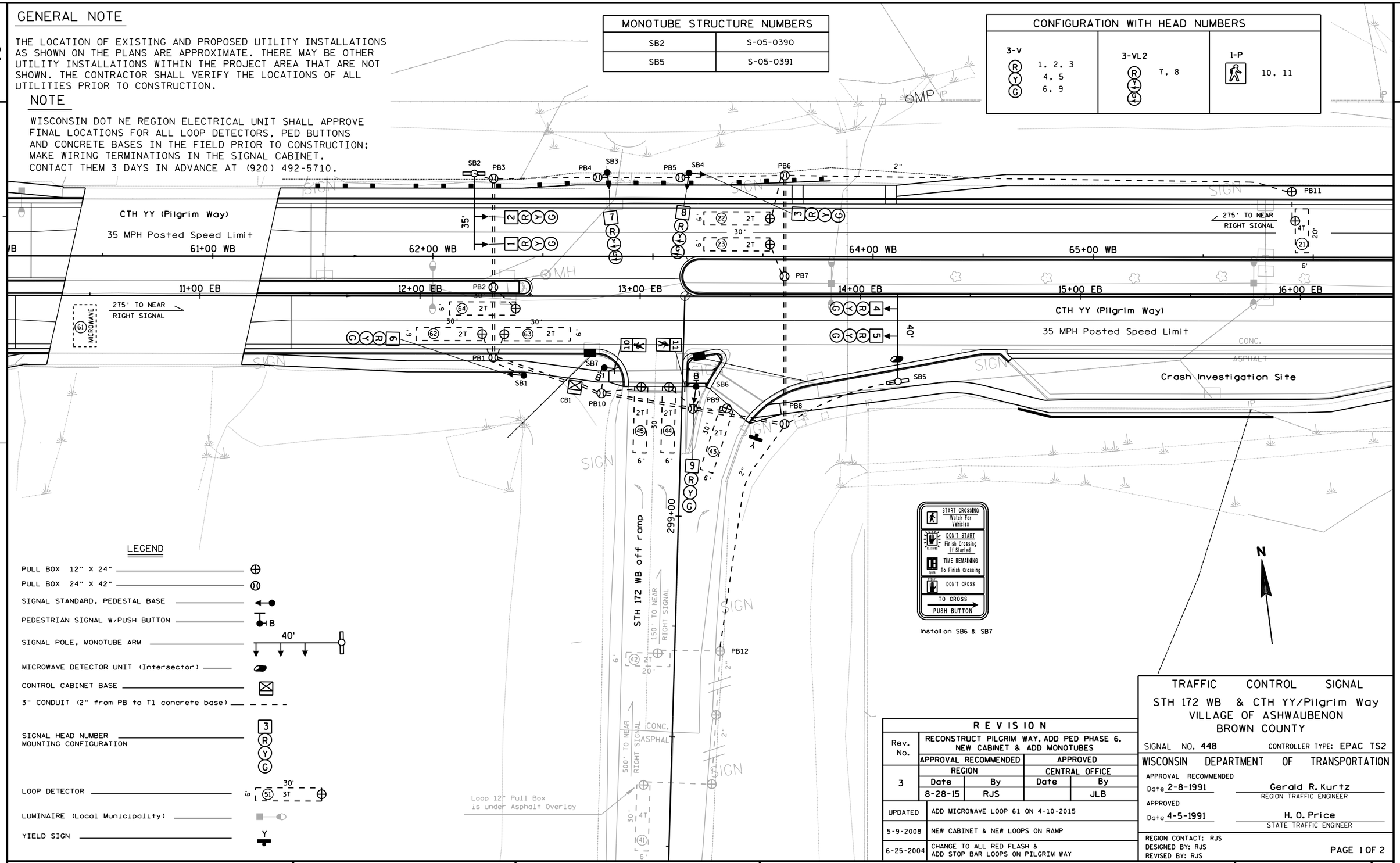
THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS, PED BUTTONS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

MONOTUBE STRUCTURE NUMBERS	
SB2	S-05-0390
SB5	S-05-0391

CONFIGURATION WITH HEAD NUMBERS		
3-V (R, Y, G)	3-VL2 (R, Y, G)	1-P
1, 2, 3 4, 5 6, 9	7, 8	10, 11



Install on SB6 & SB7

LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 42"
- SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN SIGNAL W/PUSH BUTTON (HB)
- SIGNAL POLE, MONOTUBE ARM (40')
- MICROWAVE DETECTOR UNIT (Intersector)
- CONTROL CABINET BASE
- 3" CONDUIT (2" from PB to T1 concrete base)
- SIGNAL HEAD NUMBER / MOUNTING CONFIGURATION (3 R Y G)
- LOOP DETECTOR (6' x 30', 51, 3T)
- LUMINAIRE (Local Municipality)
- YIELD SIGN (Y)

REVISION				
Rev. No.	RECONSTRUCT PILGRIM WAY, ADD PED PHASE 6, NEW CABINET & ADD MONOTUBES			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
3	Date	By	Date	By
	8-28-15	RJS		JLB
UPDATED	ADD MICROWAVE LOOP 61 ON 4-10-2015			
5-9-2008	NEW CABINET & NEW LOOPS ON RAMP			
6-25-2004	CHANGE TO ALL RED FLASH & ADD STOP BAR LOOPS ON PILGRIM WAY			

TRAFFIC CONTROL SIGNAL

STH 172 WB & CTH YY/Pilgrim Way
VILLAGE OF ASHWAUBENON
BROWN COUNTY

SIGNAL NO. 448 CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 2-8-1991 — Gerald R. Kurtz, REGION TRAFFIC ENGINEER

APPROVED
Date 4-5-1991 — H. O. Price, STATE TRAFFIC ENGINEER

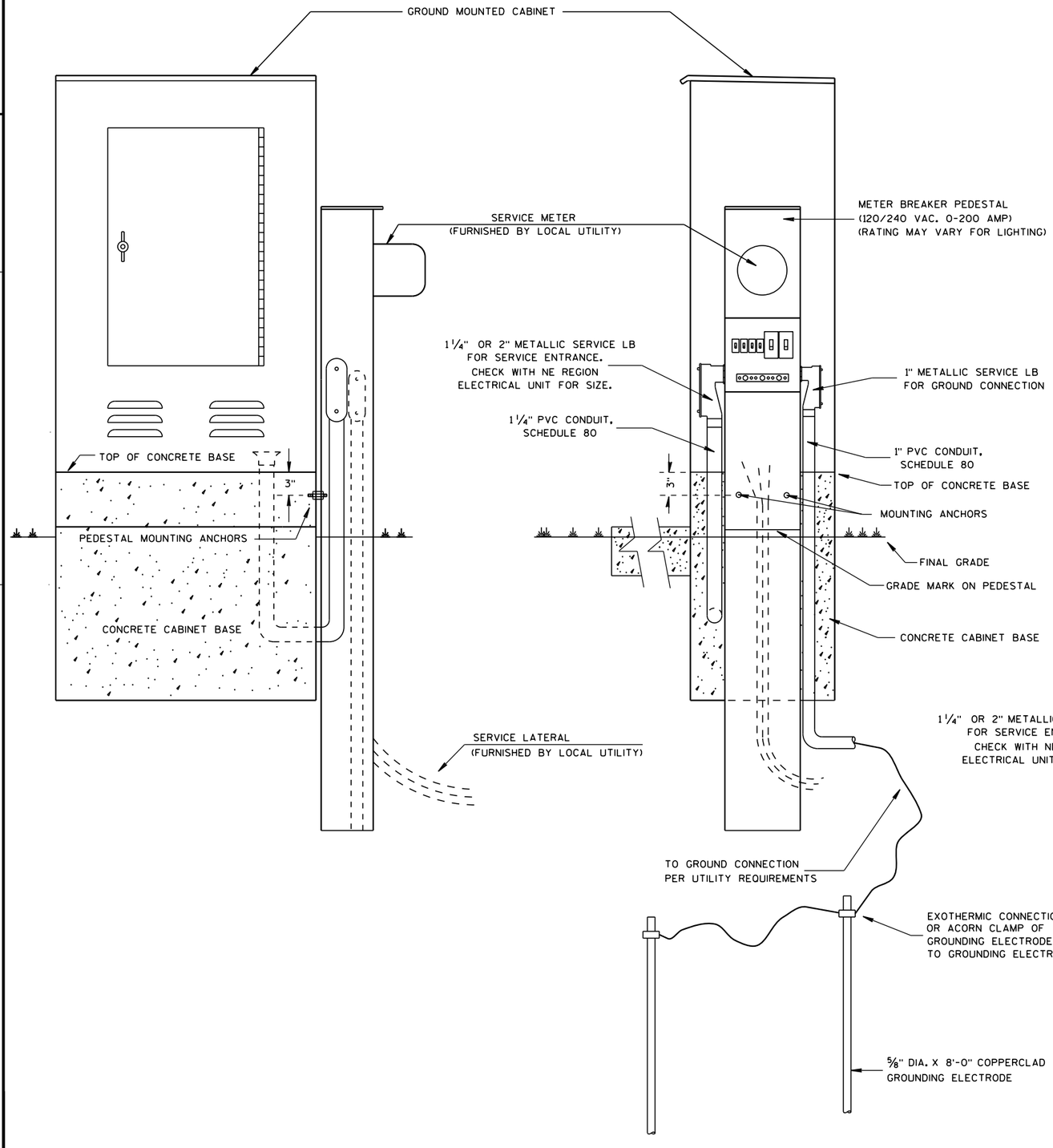
REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

PAGE 1 OF 2

PROJECT NO: 1210-13-71	HWY: STH 172	COUNTY: BROWN	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 43 E

FILE NAME : F:\d3_traffi\S-448,rev3.dgn PLOT DATE : 07-OCT-2015 11:57 PLOT BY : dotc5s PLOT NAME : S-448,rev3,const PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

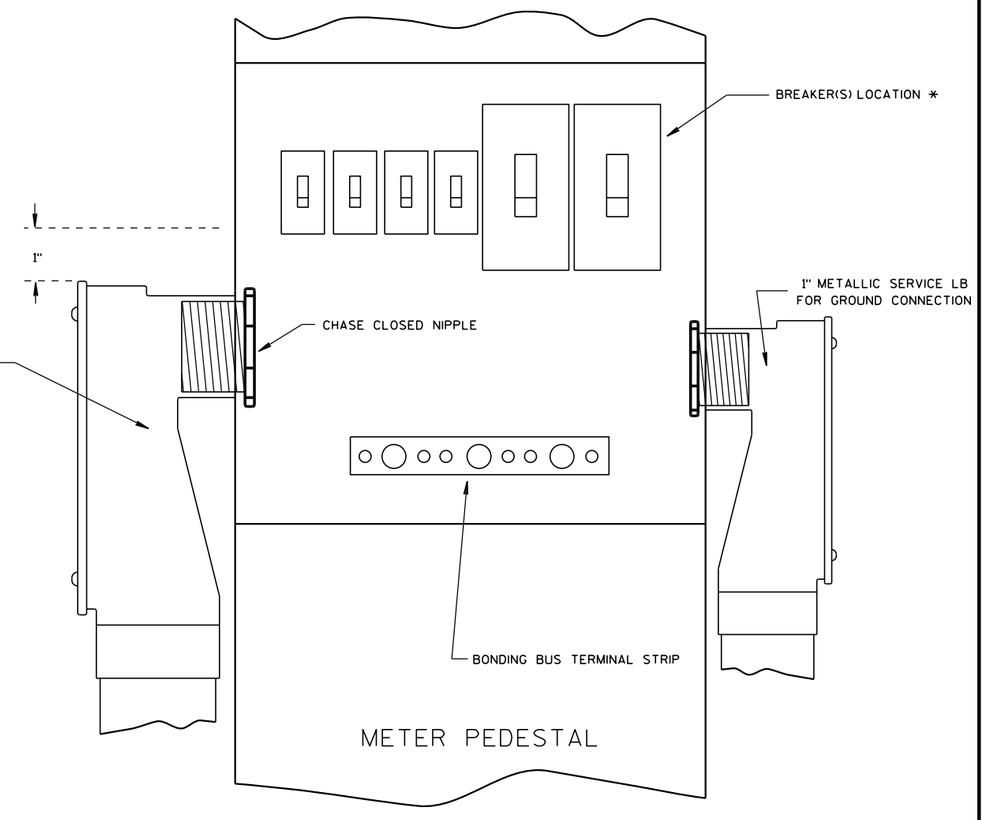
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



2

LEGEND

PULL BOX 12" X 24"

PULL BOX 24" X 36"

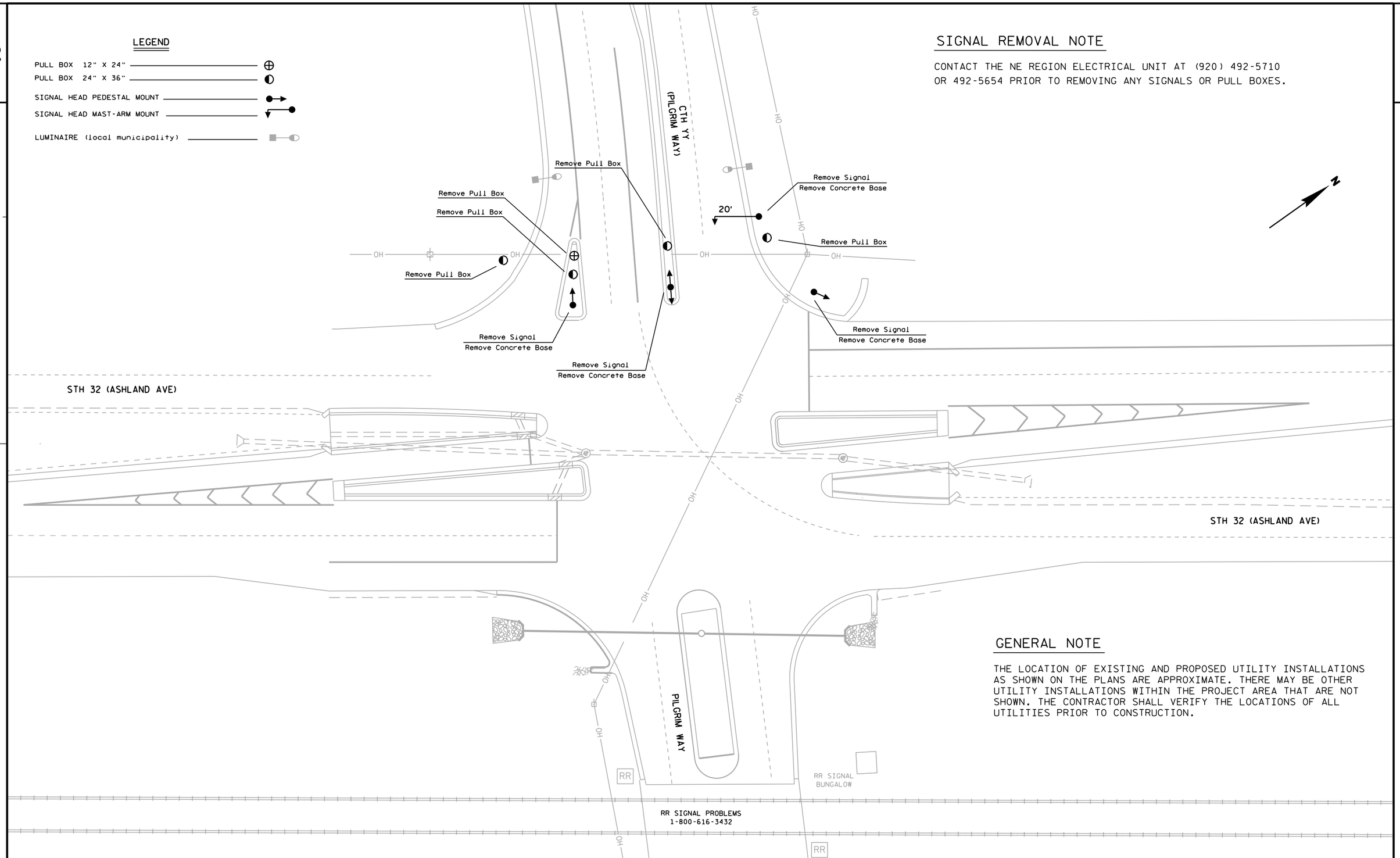
SIGNAL HEAD PEDESTAL MOUNT

SIGNAL HEAD MAST-ARM MOUNT

LUMINAIRE (local municipality)

SIGNAL REMOVAL NOTE

CONTACT THE NE REGION ELECTRICAL UNIT AT (920) 492-5710
OR 492-5654 PRIOR TO REMOVING ANY SIGNALS OR PULL BOXES.



GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

PROJECT NO: 1210-13-71	HWY: STH 32	COUNTY: BROWN	CONSTRUCTION DETAILS - TRAFFIC SIGNAL REMOVALS	SHEET 45	E

MONOTUBE STRUCTURE NUMBERS	
SB2	S-05-0392

CONFIGURATION WITH HEAD NUMBERS					
4-VL (R Y G G)	11, 12 14	3-VT (R Y G)	2, 7	5-HL (R Y G G G)	16
3-H (R Y G)	3, 8	3-V (R Y G)	4, 9, 13, 17	5-VL (R Y G G G)	1, 5 6, 10 15

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

STH 32 (Ashland Ave)

45 MPH Posted Speed Limit

401+00 402+00 403+00 404+00

CTH YY (Pilgrim Way)

Overlap "A"

Future CSW

CB1 PB1 PB2 PB3 PB4 PB5 PB6 PB7 SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10 SB11 SB12 SB13

40' 20' 30' 6' 1" TYP 2" TYP 3" TYP

190' TO NEAR RIGHT SIGNAL

350' TO NEAR RIGHT SIGNAL

LED BLANK OUT SIGN

Asphalt

SAN

RR SIGNAL BUNGALOW

RR SIGNAL PROBLEMS
1-800-616-3432

LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MAST-ARM, TRANSFORMER MOUNT
- LUMINAIRE (250W, unless otherwise noted)
- CONTROL CABINET BASE
- CONDUIT
- LOOP DETECTOR (In 1" Conduit) (81) 3T
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION 12 (R Y G)
- YIELD SIGN Y
- LUMINAIRE (under permit to local municipality)

GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

REVISION				
Rev. No.	RECONSTRUCT WEST APPROACH, ADD WESTBOUND MONOTUBE & NEW PHASE 4 LOOPS			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
7	Date	By	Date	By
	8-31-15	RJS		JLB
4-29-2011	NEW CABINET W/BATTERY BACKUP SYSTEM & ADD BLANK OUT SIGNS			
12-9-2002	ADD SLOTTED LEFT TURNS			
6-13-2000	ADD EAST APPROACH			
2-26-1999	ADD ROADWAY LIGHTING			
2-20-1995	CHANGE TO ALL RED FLASH & UPGRADE CONTROL CABINET			
1-20-1987	AS BUILT			

TRAFFIC CONTROL SIGNAL

STH 32 & CTH YY/Pilgrim Way
VILLAGE OF ASHWAUBENON
BROWN COUNTY

SIGNAL NO. 315 CONTROLLER TYPE: EPAC TS1

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 12-21-1983 Gerald R. Kurtz, REGION TRAFFIC ENGINEER

APPROVED
Date 3-14-1984 H. O. Price, STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

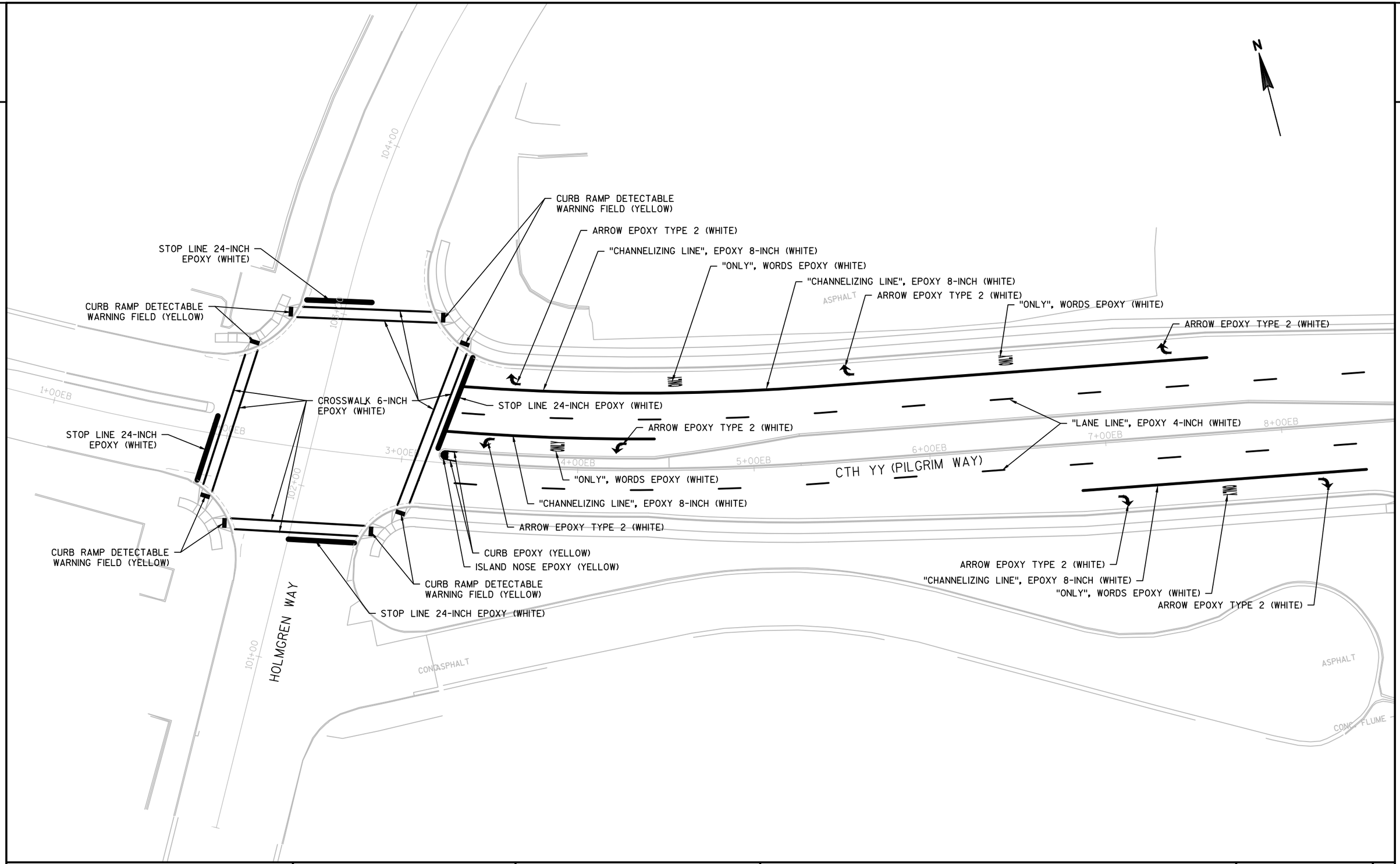
PAGE 1 OF 2

PROJECT NO: 1210-13-71	HWY: STH 32	COUNTY: BROWN	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 46 E

FILE NAME : F:\d3_traffi\S-315,rev7.dgn PLOT DATE : 06-OCT-2015 08:09 PLOT BY : dotc5s PLOT NAME : S-315,rev7,const PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVEMENT MARKING PLAN	SHEET 47 E

2

2

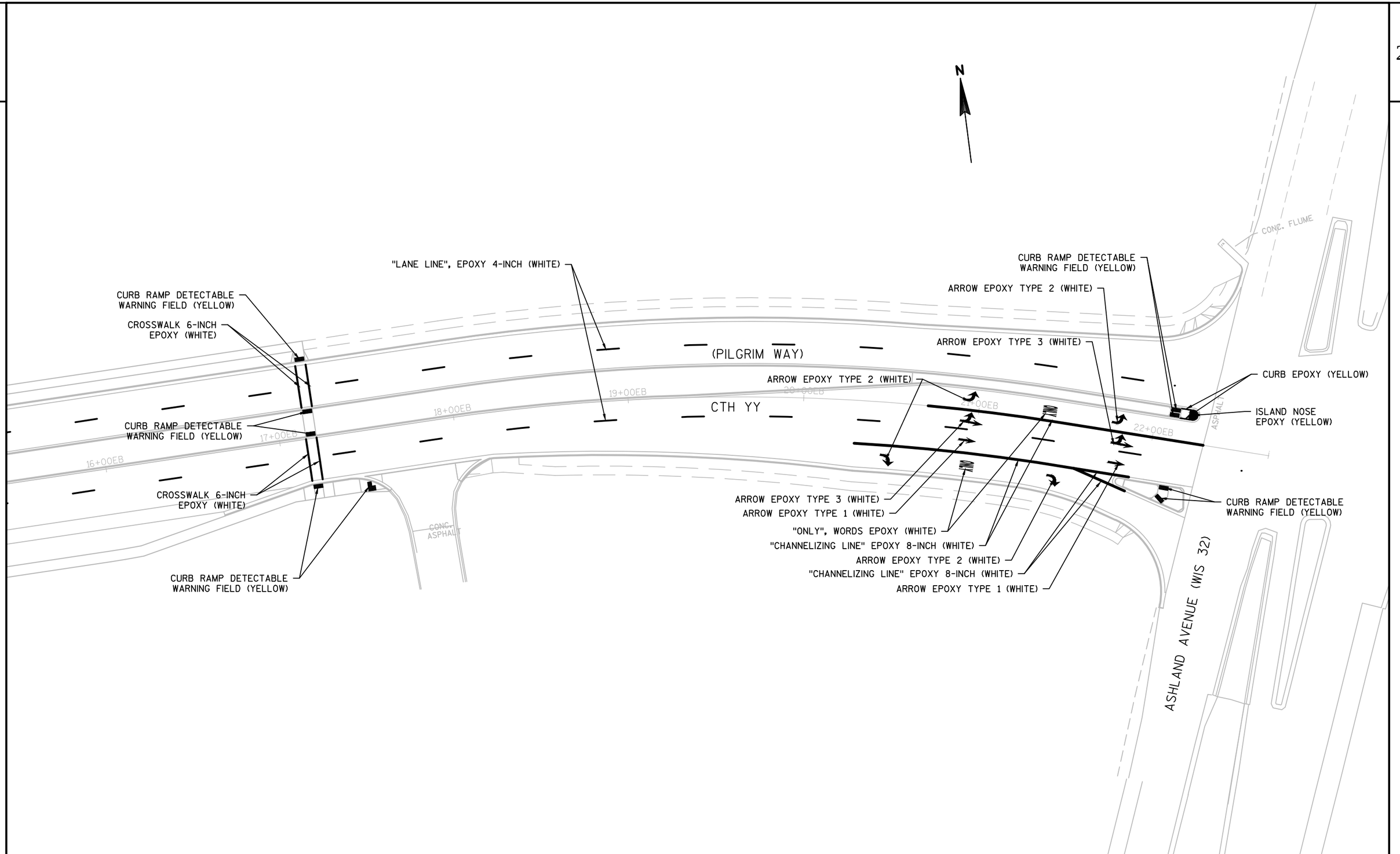
N

CURB EPOXY (YELLOW)
ISLAND NOSE EPOXY (YELLOW)
CURB EPOXY (YELLOW)
ARROW EPOXY TYPE 2 (WHITE)
"CHANNELIZING LINE" EPOXY 8-INCH (WHITE)
"ONLY", WORDS EPOXY (WHITE)
(PILGRIM WAY)
CURB EPOXY (YELLOW)
ISLAND NOSE EPOXY (YELLOW)
"CHANNELIZING LINE" EPOXY 8" DASHED (WHITE)
"LANE LINE", EPOXY 4-INCH (WHITE)
CURB EPOXY (YELLOW)
10+00EB
11+00EB
12+00EB
13+00EB
14+00EB
15+00EB
"CHANNELIZING LINE" EPOXY 8-INCH (WHITE)
CROSSWALK 6-INCH EPOXY (WHITE)
CTH YY
CROSSWALK 6-INCH EPOXY (WHITE)
CURB RAMP DETECTABLE WARNING FIELD (YELLOW)
CURB RAMP DETECTABLE WARNING FIELD (YELLOW)
CROSSWALK 8-INCH EPOXY (WHITE)
STOP LINE 24-INCH EPOXY (WHITE)
ARROW EPOXY TYPE 2 (WHITE)
CURB RAMP DETECTABLE WARNING FIELD (YELLOW)
CONC. FLUME
ASPHALT
CONC. FLUME
WIS 172 WB ENTRANCE RAMP
WIS 172 WB EXIT RAMP
ASPHALT

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVEMENT MARKING PLAN	SHEET 48 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 024502-pm
PLOT DATE : 1/22/2016 10:40 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1 IN:50 FT

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PAVEMENT MARKING PLAN	SHEET 49 E

TRAFFIC CONTROL LEGEND

	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	SIGN ON PERMANENT SUPPORT
	EXISTING SIGN ON PERMANENT SUPPORT
A	TYPE A WARNING LIGHT (FLASHING)
	SIGN ON TEMPORARY SUPPORT
	WORK AREA
	DIRECTION OF TRAFFIC
	TEMPORARY PAVEMENT MARKING ARROW TYPE 1
	TEMPORARY PAVEMENT MARKING ARROW TYPE 2
	TEMPORARY PAVEMENT MARKING ARROW TYPE 3
ONLY	TEMPORARY PAVEMENT MARKING WORD "ONLY"
(TPMRT)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE
(TPMART)	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
(TPMWRT)	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE
MB	PORTABLE CHANGEABLE MESSAGE BOARD
COVER	COVER EXISTING SIGN

TRAFFIC CONTROL GENERAL NOTES:

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

2) CONFLICTING TRAFFIC SIGNS SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

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

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

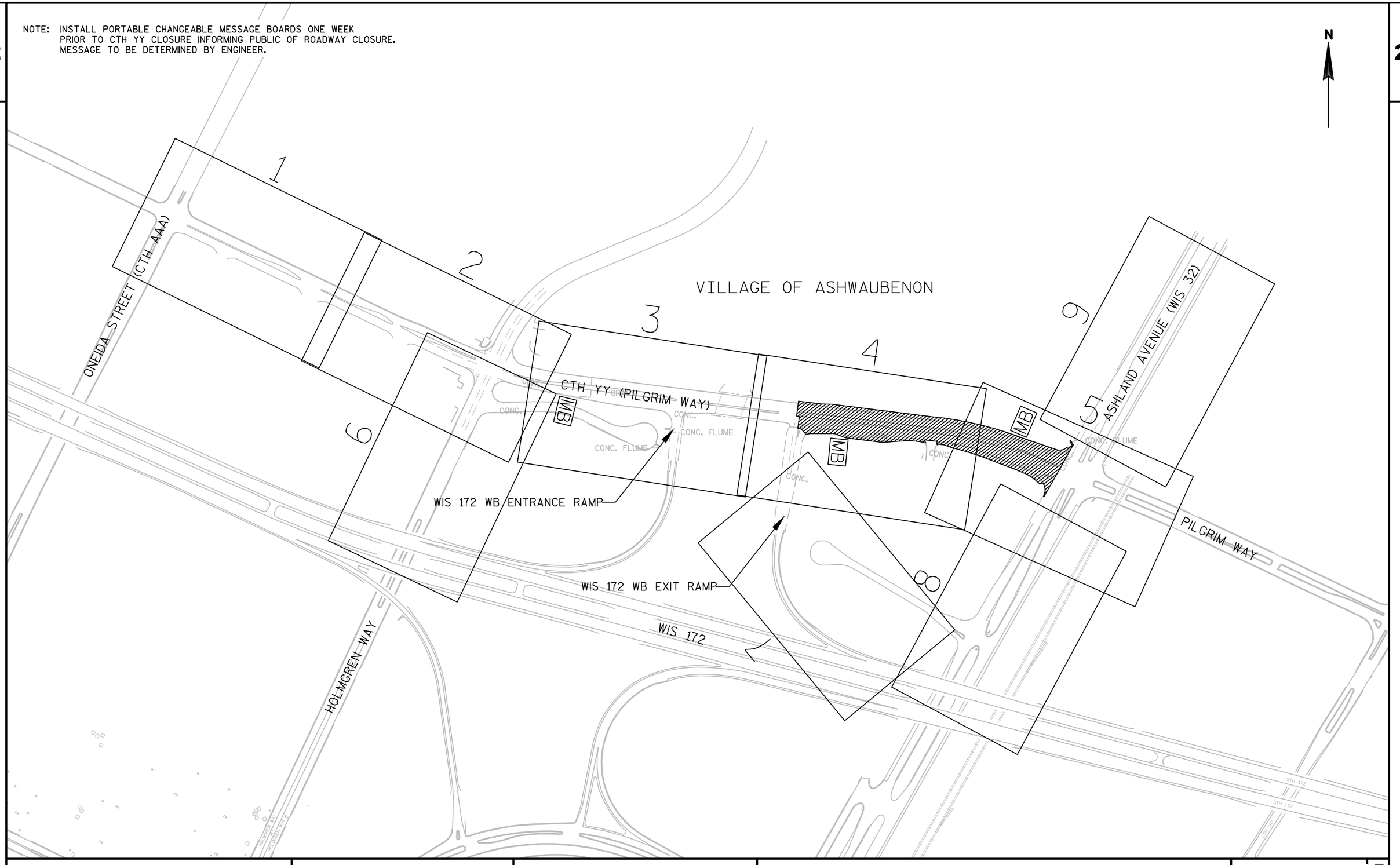
6) WORK AREAS SHOWN ILLUSTRATES GENERAL LOCATIONS OF WORK AND DOES NOT REFLECT ALL WORK REQUIRED.

7) TEMPORARY PAVEMENT MARKING AND SIGNING SHOWN IN GRAY WERE PLACED DURING A PREVIOUS STAGE.

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

2

NOTE: INSTALL PORTABLE CHANGEABLE MESSAGE BOARDS ONE WEEK PRIOR TO CTH YY CLOSURE INFORMING PUBLIC OF ROADWAY CLOSURE. MESSAGE TO BE DETERMINED BY ENGINEER.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1 KEYMAP OVERVIEW	SHEET 51 E

2

CTH YY (PILGRIM WAY)

ONEIDA STREET (CTH AAA)





DETOUR SIGNS INSTALLED
BY BROWN COUNTY



DETOUR SIGNS INSTALLED
BY BROWN COUNTY



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 52 E

2

2

ROAD WORK AHEAD
W20-1-A

ROAD WORK 500 FT
W20-1-D

500'

150'

350'

105+00

104+00

103+00

102+00

101+00

DETOUR
WEST 172
EAST COUNTY YY
ONLY

DETOUR SIGNS NSTALLED
BY BROWN COUNTY

END ROAD WORK
G20-2A
48"X24"

DETOUR
EAST COUNTY YY

DETOUR SIGNS INSTALLED
BY BROWN COUNTY

END ROAD WORK
G20-2A
48"X24"

(TPMRT) 4-INCH, (YELLOW)

(TPMRT) 4-INCH, (WHITE)
3+96.99 EB
11.89' R

4+57.40 EB
11.96' R

4+54.26 EB
-0.22' L

5+00 EB

4+00 EB

3+00 EB

25'
(TYP.)

3+01.76 EB
27.37' R

10'
(TYP.)

LANE CLOSED
R11-2-L
48"X30"

TYPE III BARRICADE

(TPMART), TYPE 1 (WHITE)

(TPMRT) 8-INCH, (WHITE)

CTH YY (PILGRIM WAY)

0+00 EB

1+00 EB

2+00 EB

0+73.27 EB
12.05' R

1+97.34 EB
11.66' R

(TPMART), TYPE 2 (WHITE)

(TPMWRT), ONLY (WHITE)

(TPMART), TYPE 2 (WHITE)

DETOUR
WEST 172
EAST COUNTY YY

DETOUR SIGNS INSTALLED
BY BROWN COUNTY

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

LOCATE THIS SIGN EAST OF THE
NEAREST DRIVEWAY TO HOLMGREN WAY

DETOUR
WEST 172
EAST COUNTY YY

DETOUR SIGNS INSTALLED
BY BROWN COUNTY

EAST COUNTY YY
ROAD CLOSED

WEST 172
ONLY

DETOUR SIGNS INSTALLED
BY BROWN COUNTY

HOLMGREN WAY

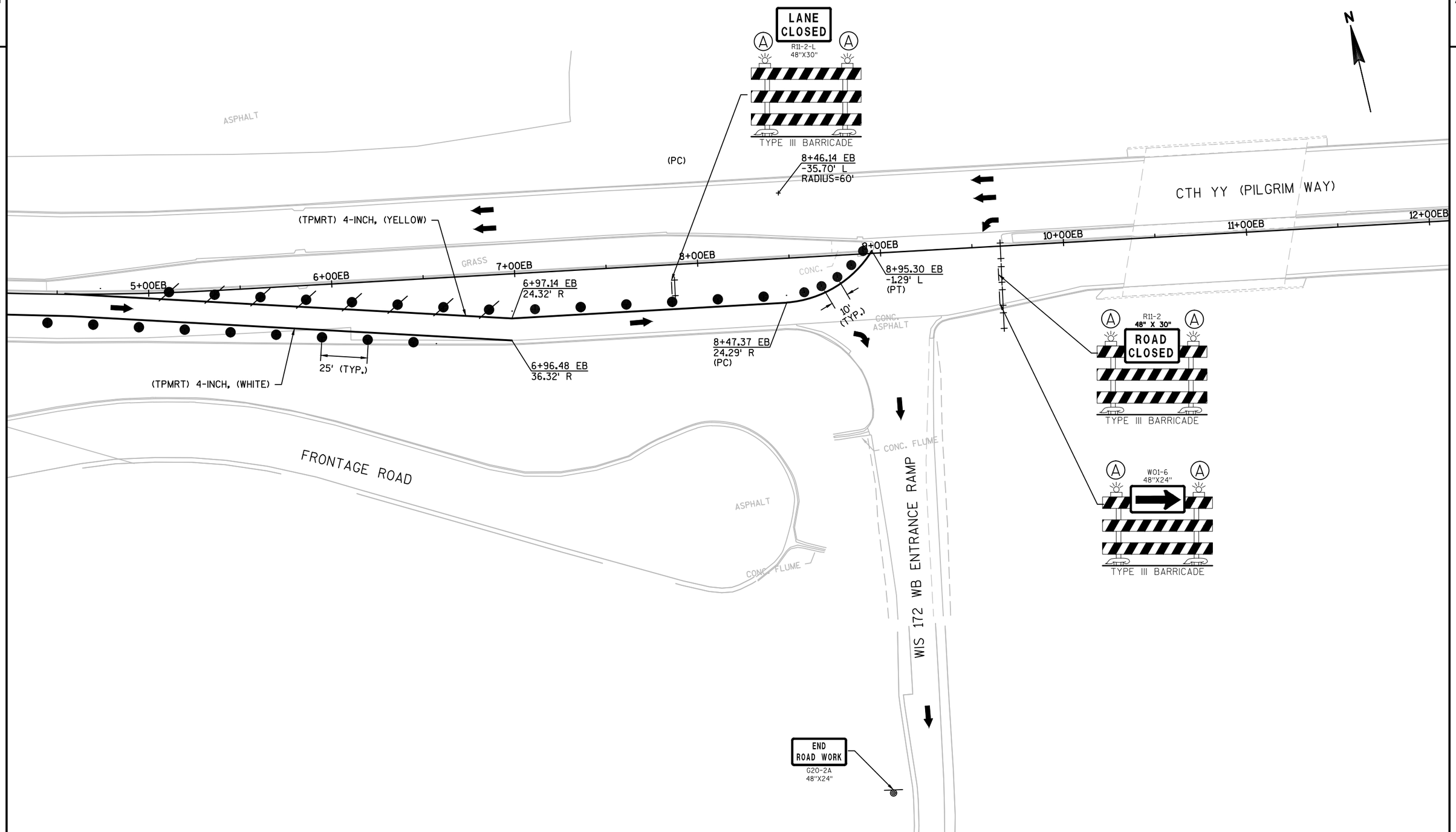
FRONTAGE ROAD

W01-4R

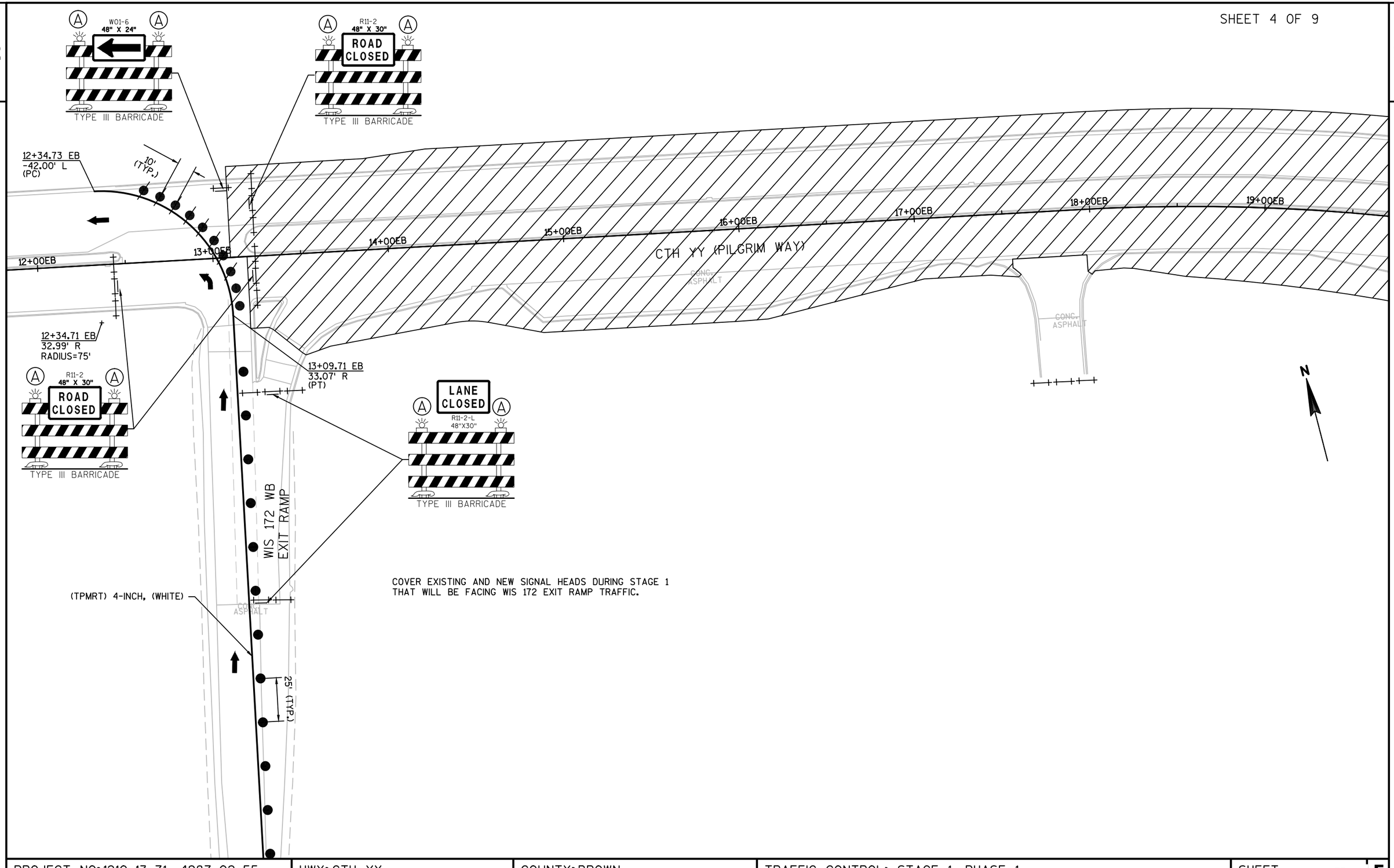
PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 53 E

2

2

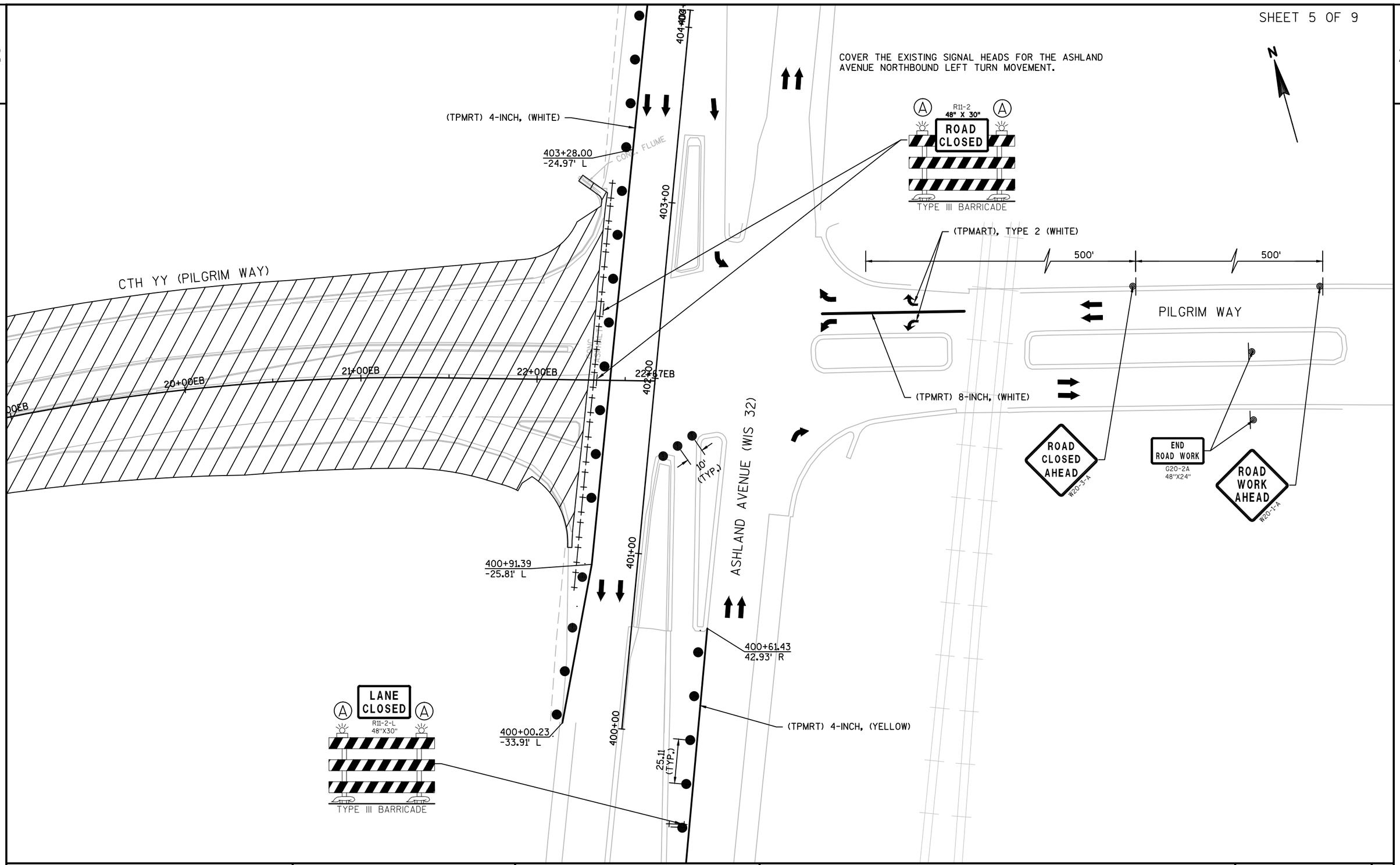


PROJECT NO:1210-13-71, 4987-02-55	HWY:CTH YY	COUNTY:BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 54 E



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 55 E

COVER THE EXISTING SIGNAL HEADS FOR THE ASHLAND AVENUE NORTHBOUND LEFT TURN MOVEMENT.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 56 E

2

2

N

END ROAD WORK
G20-2A
48"X24"

HOLMGREN WAY

ROAD WORK AHEAD
W20-1-A

500'

ROAD WORK 500 FT
W20-1-D

WIS 172 EB

WIS 172 WB

DETOUR WEST EAST 172 COUNTY YY
DETOUR SIGNS INSTALLED BY BROWN COUNTY

(TPMWRT), ONLY (WHITE)
(TPMRT) 8-INCH, (WHITE)
(TPMART), TYPE 2 (WHITE)
(TPMART), TYPE 1 (WHITE)

ONLY
ONLY

CONC. WALK

CTH YY (PILGRIM WAY)

100+00
101+00
102+00

CONC. WALK

EAST COUNTY YY ROAD CLOSED
WEST 172 ONLY
DETOUR SIGNS INSTALLED BY BROWN COUNTY

FRONTAGE ROAD

10' (TYP.)

CONC.

(TPMRT) 4-INCH, (WHITE)

W01-4R

25' (TYP.)

LANE CLOSED
R11-2-L
48"X30"
A
A
TYPE III BARRICADE

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 57 E

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 58 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025009-TC.DWG
LAYOUT NAME - 025009-tc
PLOT DATE : 11/1/2015 2:05 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

2

TENNIS COURT

ROAD WORK AHEAD
W20-1-A

ROAD WORK 1000 FT
W20-1-C

ROAD WORK 500 FT
W20-1-D

END ROAD WORK
G20-2A
48"X24"

R3-2
24"X24"

5' (TYP.)

1000'

500'

500'

COVER

ASHLAND AVENUE (WIS 32)

(TPMRT) 4-INCH (WHITE)

400+00.23
-33.91' L

400+91.39
-25.81' L

400+00

401+00

25' (TYP.)

400+61.43
42.93' R

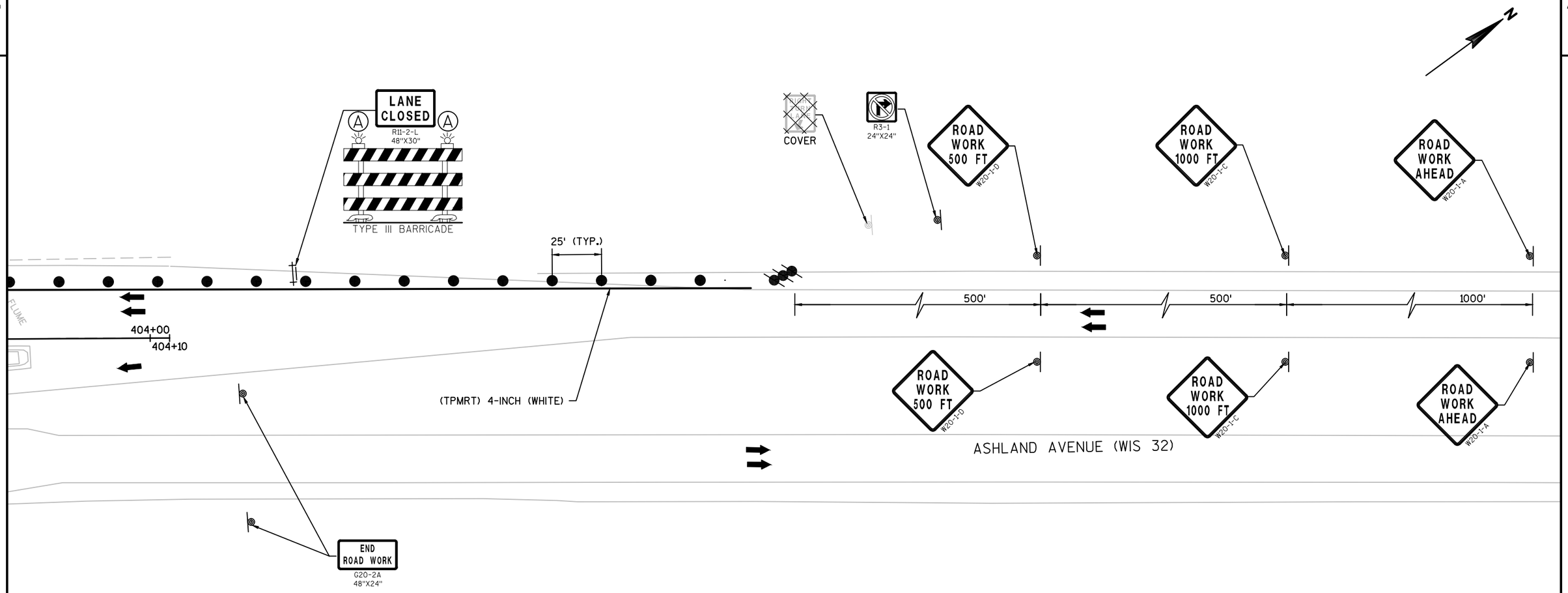
(TPMRT) 4-INCH (YELLOW)

LANE CLOSED
R11-2-L
48"X30"

TYPE III BARRICADE

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 1	SHEET 59 E

2



2

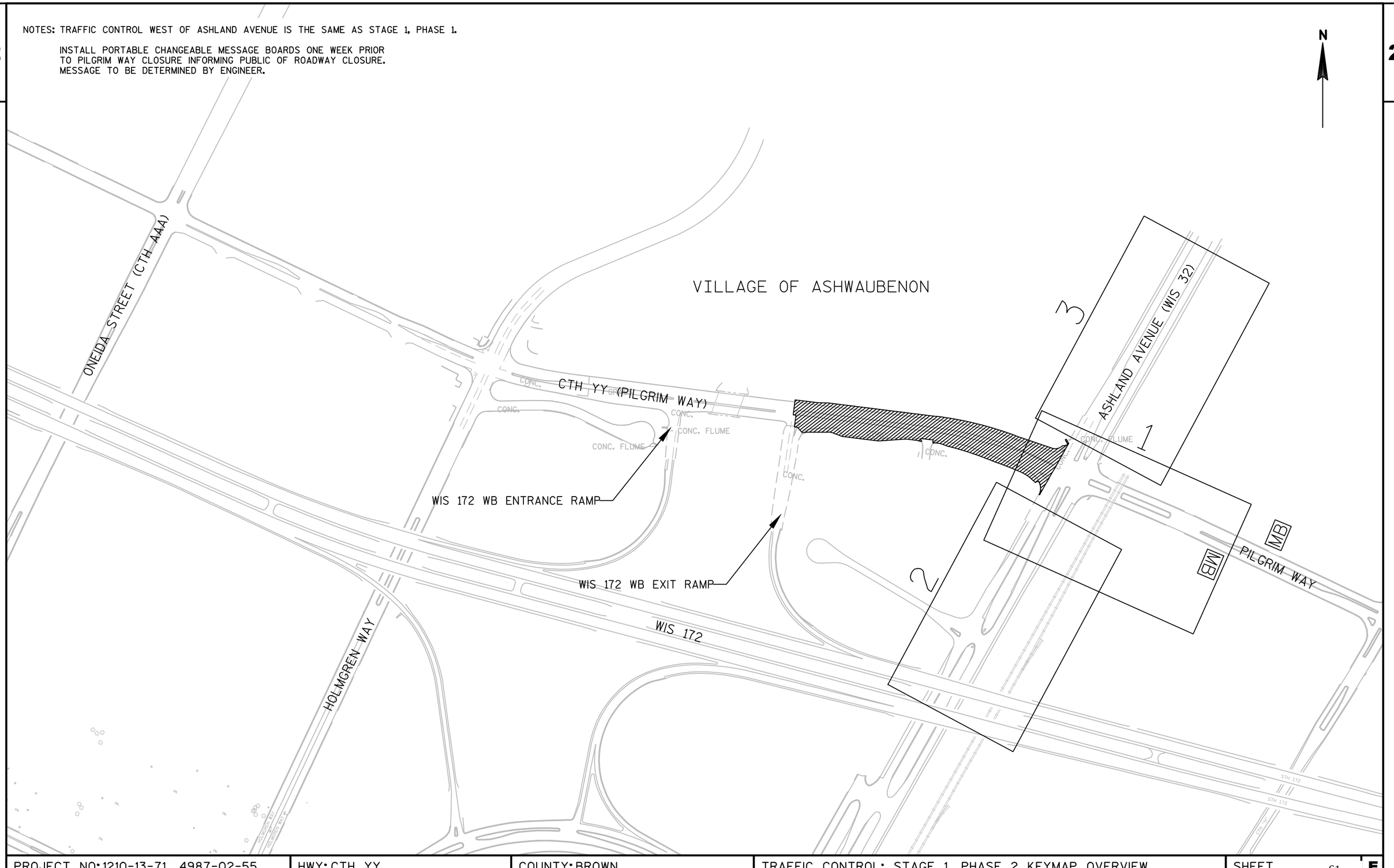
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FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025011-TC.DWG
LAYOUT NAME - 025011-tc

PLOT DATE : 11/1/2015 2:06 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTES: TRAFFIC CONTROL WEST OF ASHLAND AVENUE IS THE SAME AS STAGE 1, PHASE 1.

INSTALL PORTABLE CHANGEABLE MESSAGE BOARDS ONE WEEK PRIOR TO PILGRIM WAY CLOSURE INFORMING PUBLIC OF ROADWAY CLOSURE. MESSAGE TO BE DETERMINED BY ENGINEER.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 2 KEYMAP OVERVIEW	SHEET 61 E

SHEET 1 OF 3

COVER EXISTING AND NEW SIGNAL HEADS DURING STAGE 1, PHASE 2 THAT WILL BE FACING ASHLAND AVENUE NORTHBOUND AND SOUTHBOUND AND PILGRIM WAY WESTBOUND TRAFFIC.

N

(TPMRT) 4-INCH, (YELLOW)

R11-2 48"X30" ROAD CLOSED TYPE III BARRICADE

CONC. FLUME

404+00

403+00

402+00

401+00

400+00

22+00EB

22+67EB

10' (TYP.)

25' (TYP.)

400+61.43
42.93' R

ASHLAND AVENUE (WIS 32)

PILGRIM WAY

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

500'

500'

END ROAD WORK

ROAD CLOSED AHEAD

ROAD WORK AHEAD

(TPMRT) 4-INCH, (YELLOW)

(TPMRT) 4-INCH, (WHITE)

LANE CLOSED TYPE III BARRICADE

LANE CLOSED R11-2-L 48"X30" TYPE III BARRICADE

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 2	SHEET 62 E

2

2

TENNIS COURT

ROAD WORK AHEAD

ROAD WORK 1000 FT

ROAD WORK 500 FT

1000'

500'

500'

R3-1
24"X24"

END ROAD WORK

5' (TYP.)

COVER

LANE CLOSED

TYPE III BARRICADE

ASHLAND AVENUE
(WIS 32)

400+00

401+00

25' (TYP.)

25' (TYP.)

(TPMRT) 4-INCH (WHITE)

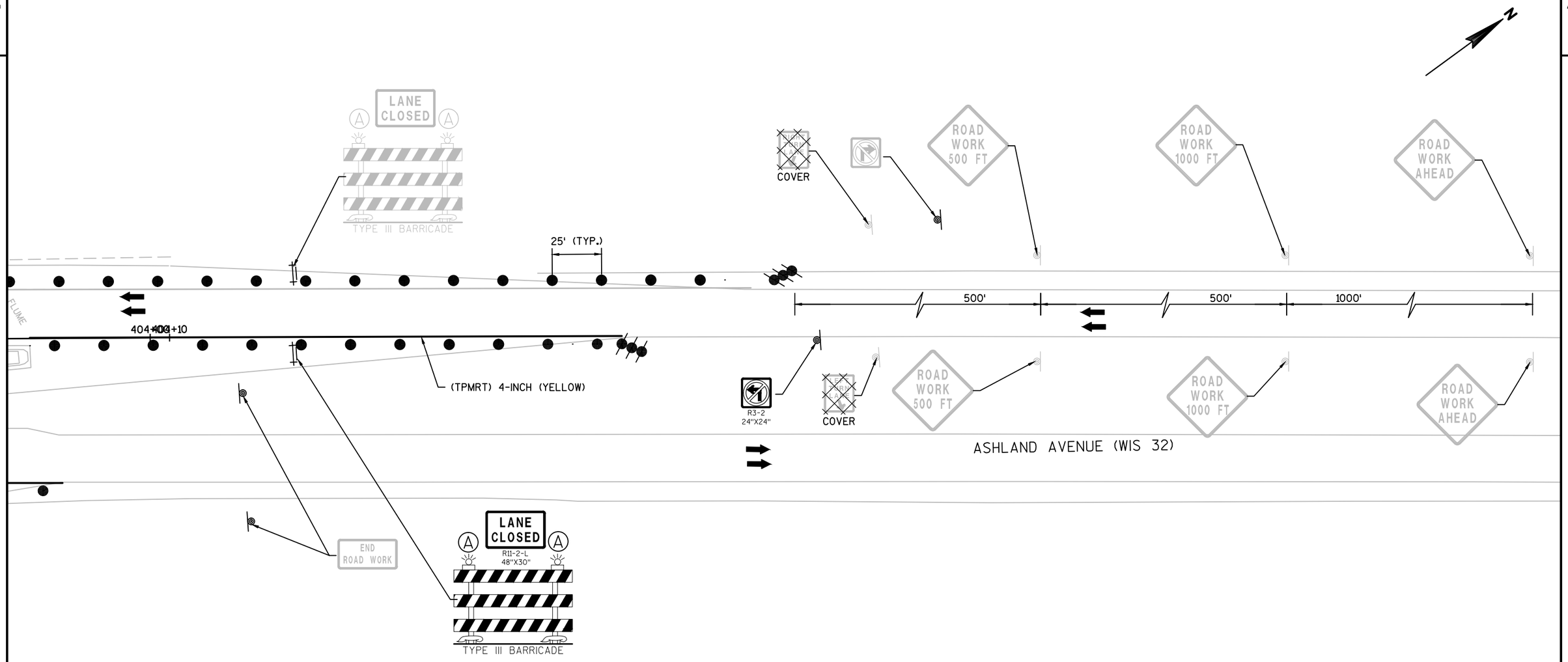
LANE CLOSED
R11-2-L
48"X30"

TYPE III BARRICADE

PROJECT NO:1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 2	SHEET 63 E

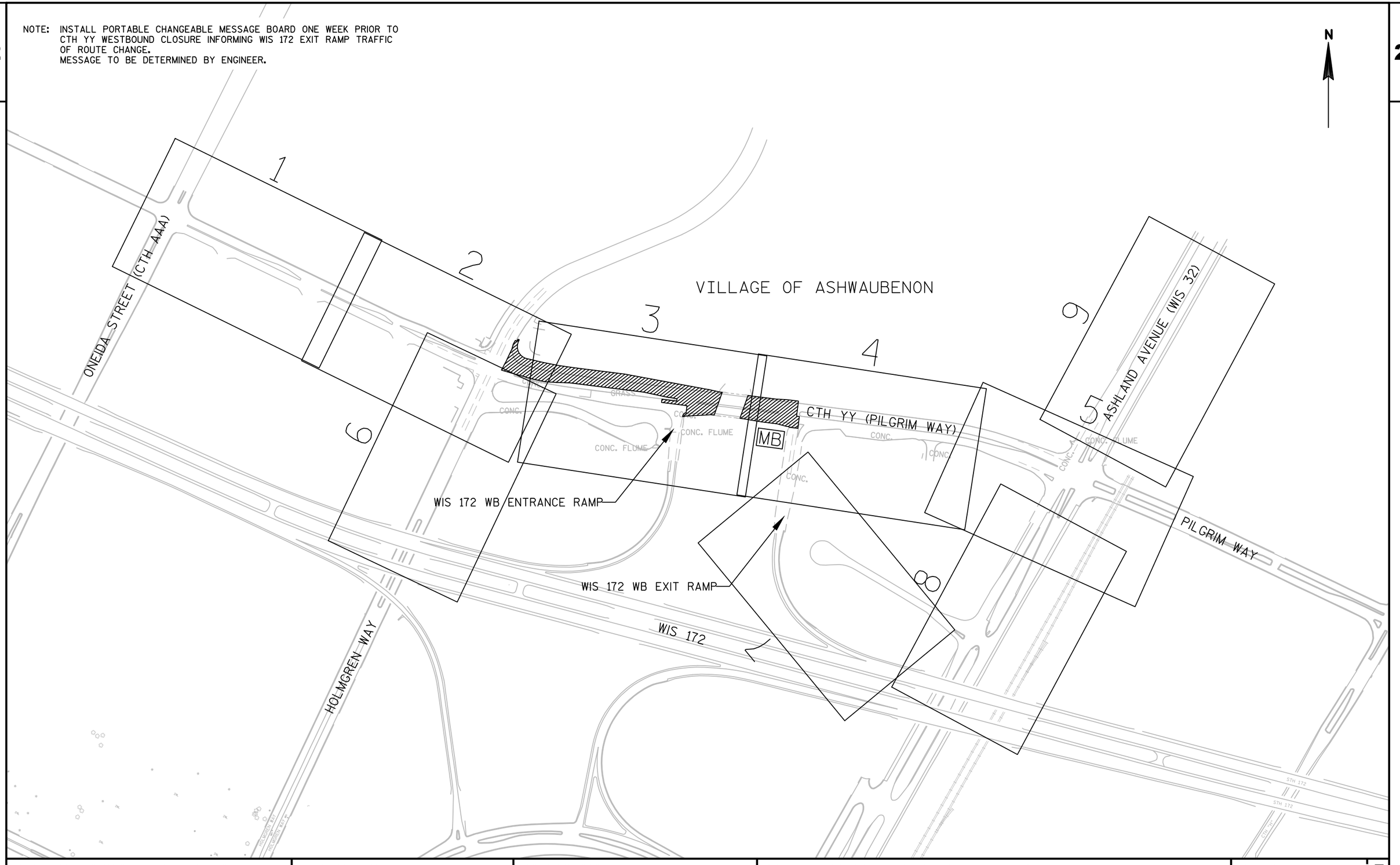
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LAYOUT NAME - 025014-tc
PLOT DATE : 11/1/2015 2:08 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 1, PHASE 2	SHEET 64 E

NOTE: INSTALL PORTABLE CHANGEABLE MESSAGE BOARD ONE WEEK PRIOR TO CTH YY WESTBOUND CLOSURE INFORMING WIS 172 EXIT RAMP TRAFFIC OF ROUTE CHANGE.
MESSAGE TO BE DETERMINED BY ENGINEER.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 KEYMAP OVERVIEW	SHEET 65 E

2

2

CTH YY (PILGRIM WAY)

ONEIDA STREET (CTH AAA)





DETOUR SIGNS INSTALLED
BY BROWN COUNTY



DETOUR SIGNS INSTALLED
BY BROWN COUNTY

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 66 E

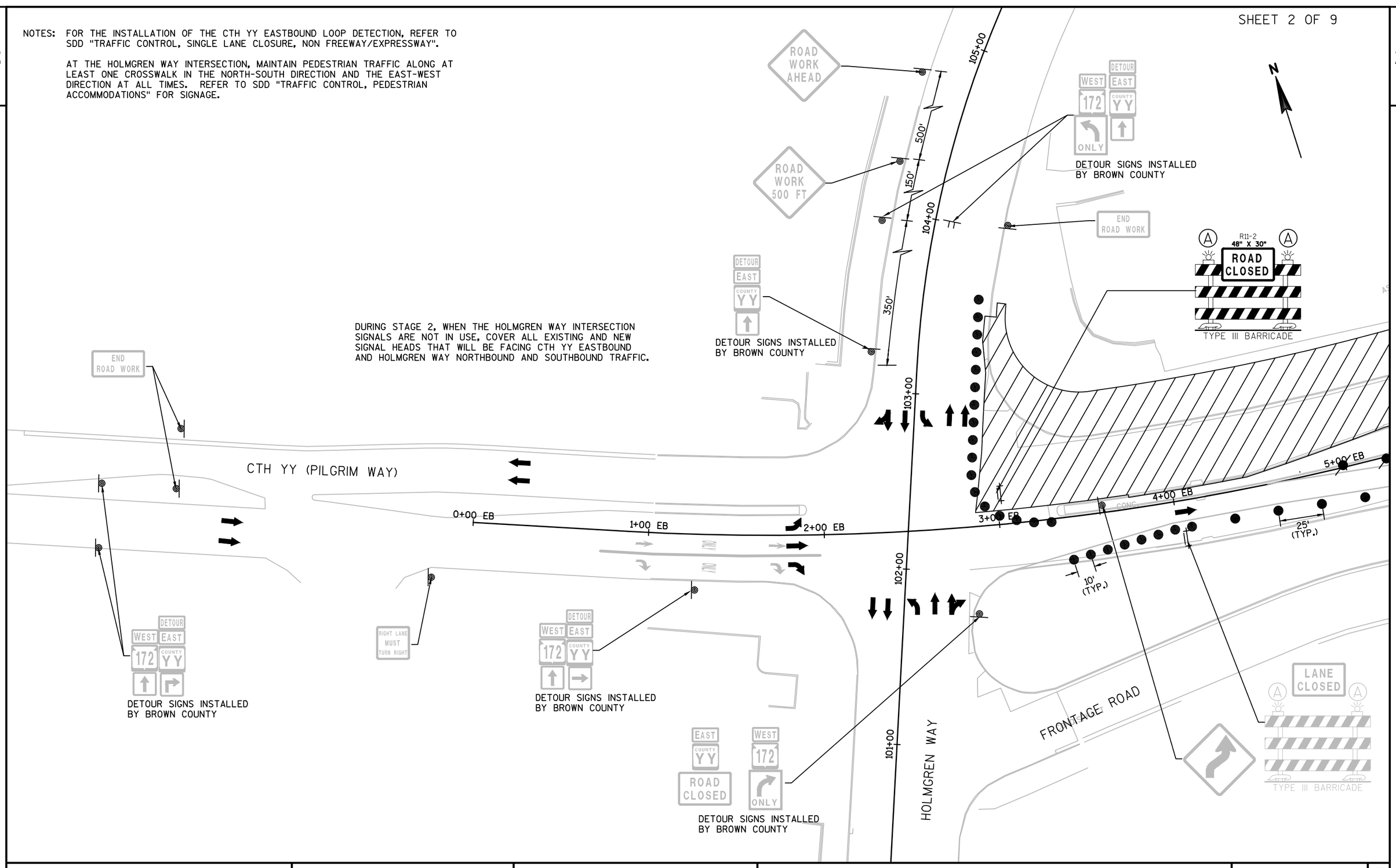
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LAYOUT NAME - 025017-tc
PLOT DATE : 11/1/2015 2:10 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

NOTES: FOR THE INSTALLATION OF THE CTH YY EASTBOUND LOOP DETECTION, REFER TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

AT THE HOLMGREN WAY INTERSECTION, MAINTAIN PEDESTRIAN TRAFFIC ALONG AT LEAST ONE CROSSWALK IN THE NORTH-SOUTH DIRECTION AND THE EAST-WEST DIRECTION AT ALL TIMES. REFER TO SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATIONS" FOR SIGNAGE.

DURING STAGE 2, WHEN THE HOLMGREN WAY INTERSECTION SIGNALS ARE NOT IN USE, COVER ALL EXISTING AND NEW SIGNAL HEADS THAT WILL BE FACING CTH YY EASTBOUND AND HOLMGREN WAY NORTHBOUND AND SOUTHBOUND TRAFFIC.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 67 E

2

2

N

CTH YY (PILGRIM WAY)

5+00EB
6+00EB
7+00EB
8+00EB
9+00EB
10+00EB
11+00EB
12+00EB

GRASS

25' (TYP.)

8+47.55 EB
24.29' R

CONC.

CONC. 10' (TYP.)

LANE CLOSED

TYPE III BARRICADE

(TPMRT) 4-INCH, (YELLOW)

8+93.43 EB
24.28' R
(PC)

8+93.45 EB
54.28' R
RADIUS=30'

9+23.29 EB
56.84' R
(PT)

9+21.38 EB
79.80' R

CONC. FLUME

FRONTAGE ROAD

CONC. FLUME

WIS-172 WESTBOUND
ENTRANCE RAMP

R11-2
SIZE
ROAD CLOSED

TYPE III BARRICADE

W01-6
48"X24"

TYPE III BARRICADE

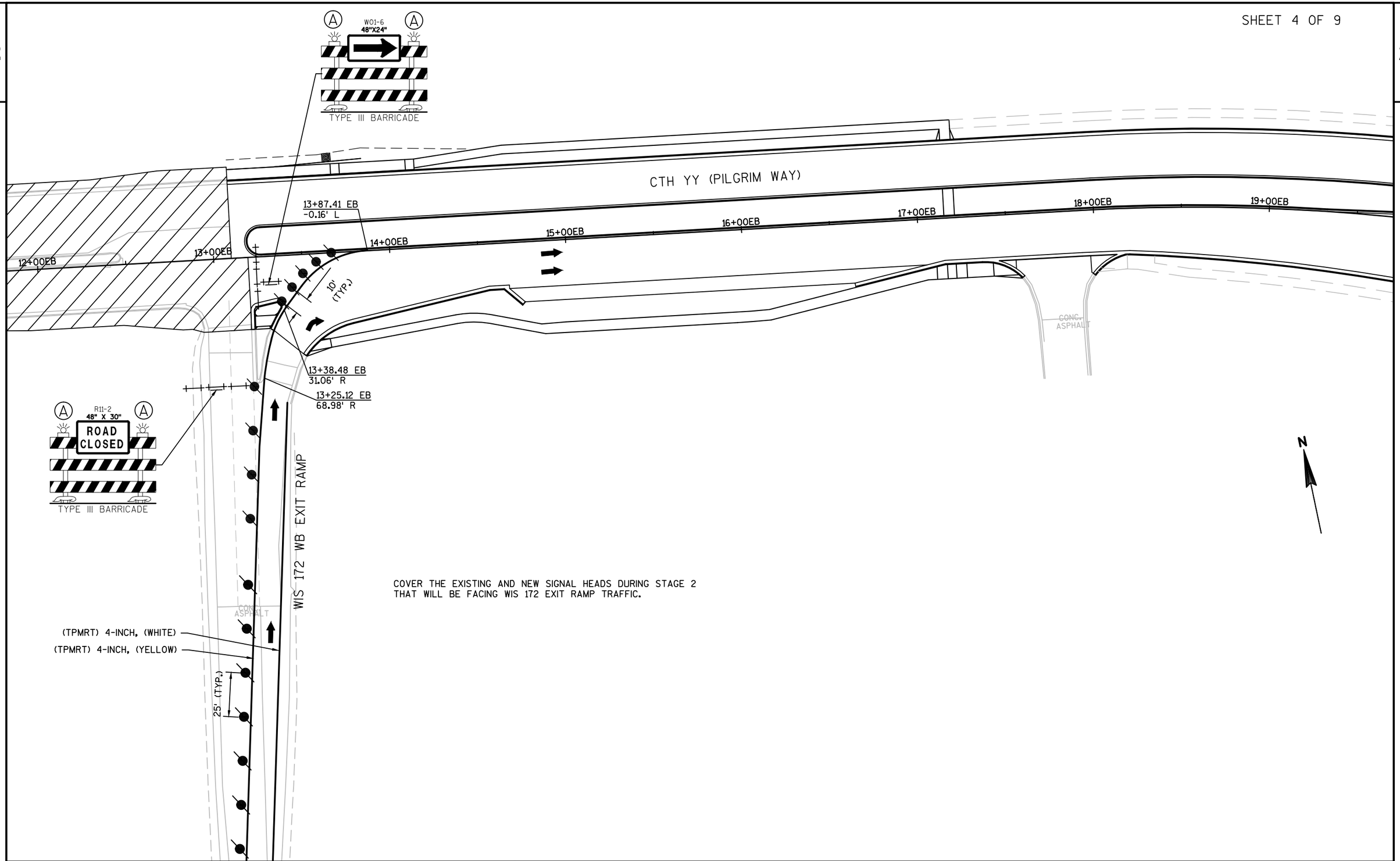
END
ROAD WORK

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 68 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025019-TC.DWG
LAYOUT NAME - 025019-tc
PLOT DATE : 11/1/2015 2:11 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

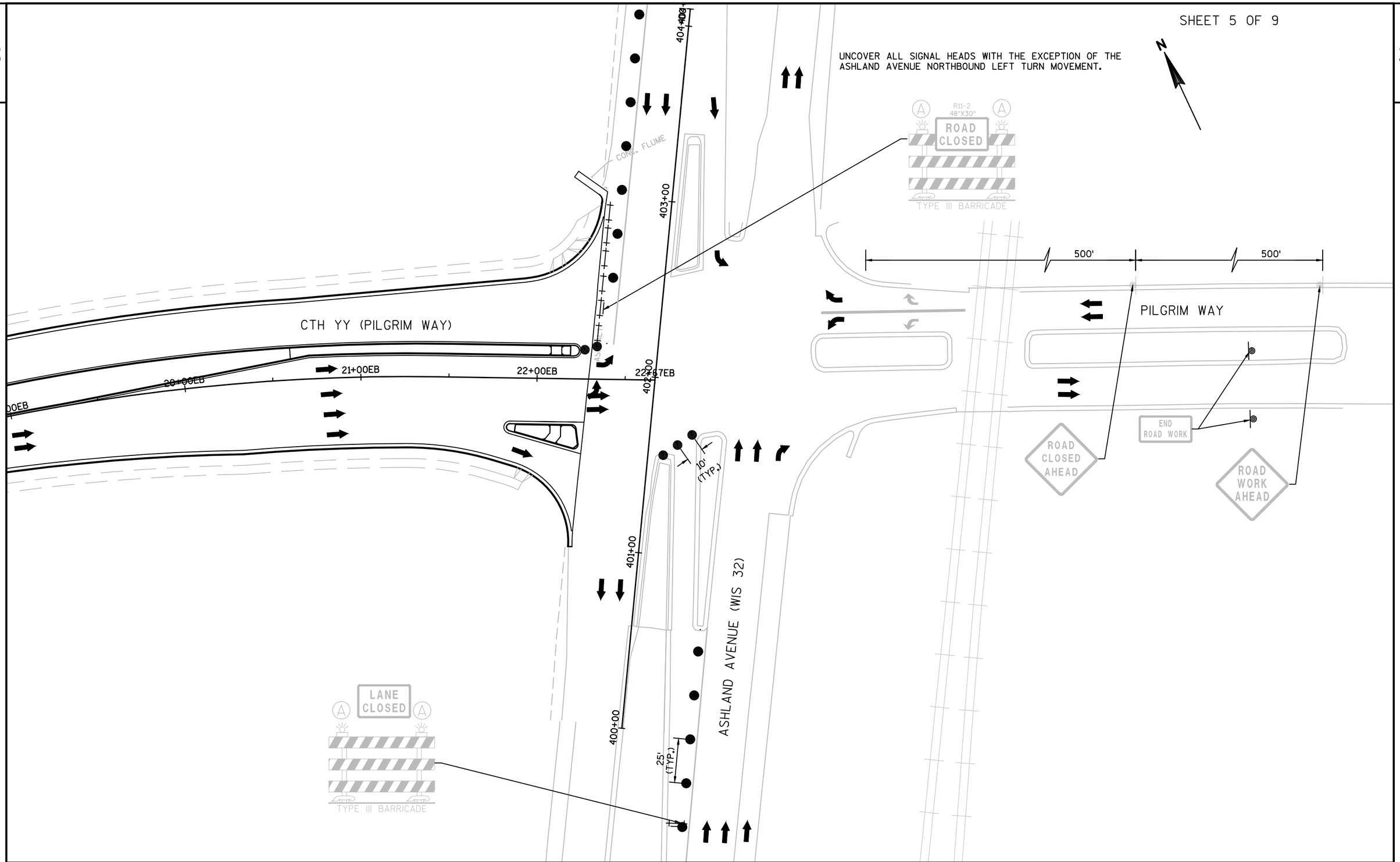
2



COVER THE EXISTING AND NEW SIGNAL HEADS DURING STAGE 2
THAT WILL BE FACING WIS 172 EXIT RAMP TRAFFIC.

PROJECT NO:1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 69 E

UNCOVER ALL SIGNAL HEADS WITH THE EXCEPTION OF THE ASHLAND AVENUE NORTHBOUND LEFT TURN MOVEMENT.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 70 E

2

2

N

END ROAD WORK

HOLMGREN WAY

ROAD WORK AHEAD

500'

ROAD WORK 500 FT

WIS 172 EB

WIS 172 WB

DETOUR

WEST EAST

172 COUNTY YY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

CONC. WALK

ONLY

CTH YY (PILGRIM WAY)

100+00

101+00

102+00

FRONTAGE ROAD

EAST COUNTY YY ROAD CLOSED

WEST 172 ONLY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

10' (TYP.)

25' (TYP.)

LANE CLOSED

TYPE III BARRICADE

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 71 E

2

2

WIS 172 WB

WIS 172 WB EXIT RAMP

N

ROAD WORK 1000 FT

500'

500'

ROAD WORK 500 FT

ROAD WORK AHEAD

COVER

ONLY

R3-50-R

25' (TYP.)

(TPMRT) 4-INCH, (YELLOW)

(TPMRT) 4-INCH, (WHITE)

TENNIS COURT

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 72 E

2

2

TENNIS COURT

ROAD WORK AHEAD

ROAD WORK 1000 FT

ROAD WORK 500 FT

END ROAD WORK

SIGN COVERED DURING STAGE 1

ASHLAND AVENUE (WIS 32)

400+00

401+00

5' (TYP.)

25' (TYP.)

1000'

500'

500'

LANE CLOSED

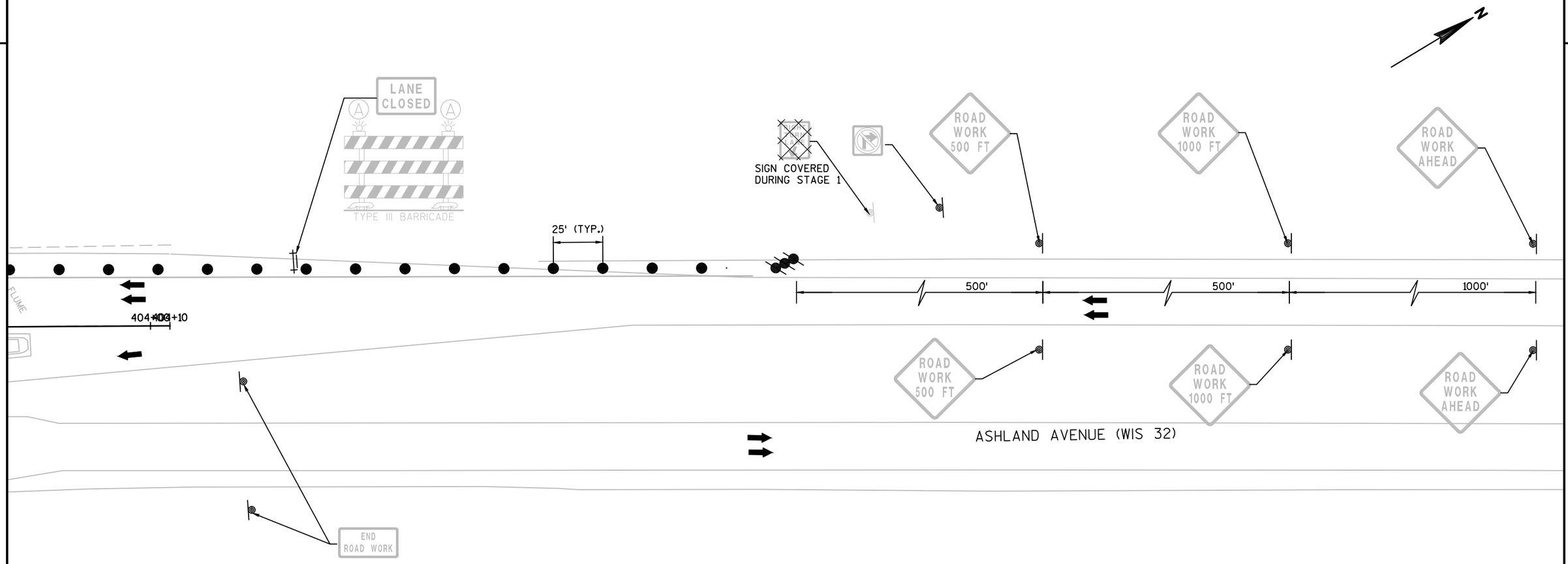
TYPE III BARRICADE

N

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 73 E

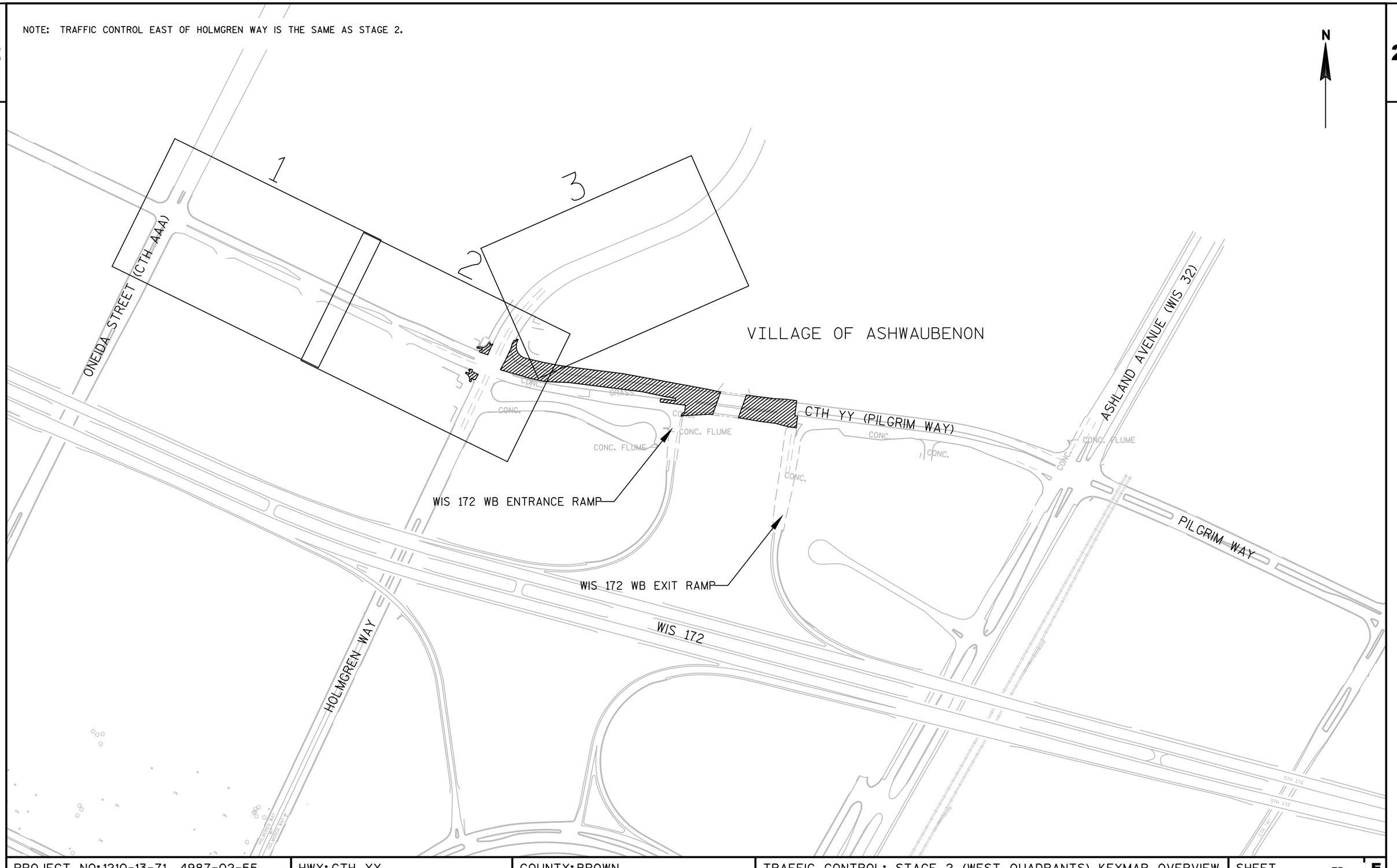
2

2



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2	SHEET 74 E

NOTE: TRAFFIC CONTROL EAST OF HOLMGREN WAY IS THE SAME AS STAGE 2.



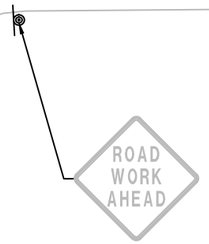
PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (WEST QUADRANTS) KEYMAP OVERVIEW	SHEET 75 E

2

2

CTH YY (PILGRIM WAY)

ONEIDA STREET (CTH AAA)





DETOUR SIGNS INSTALLED
BY BROWN COUNTY





DETOUR SIGNS INSTALLED
BY BROWN COUNTY

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (WEST QUADRANTS)	SHEET 76 E

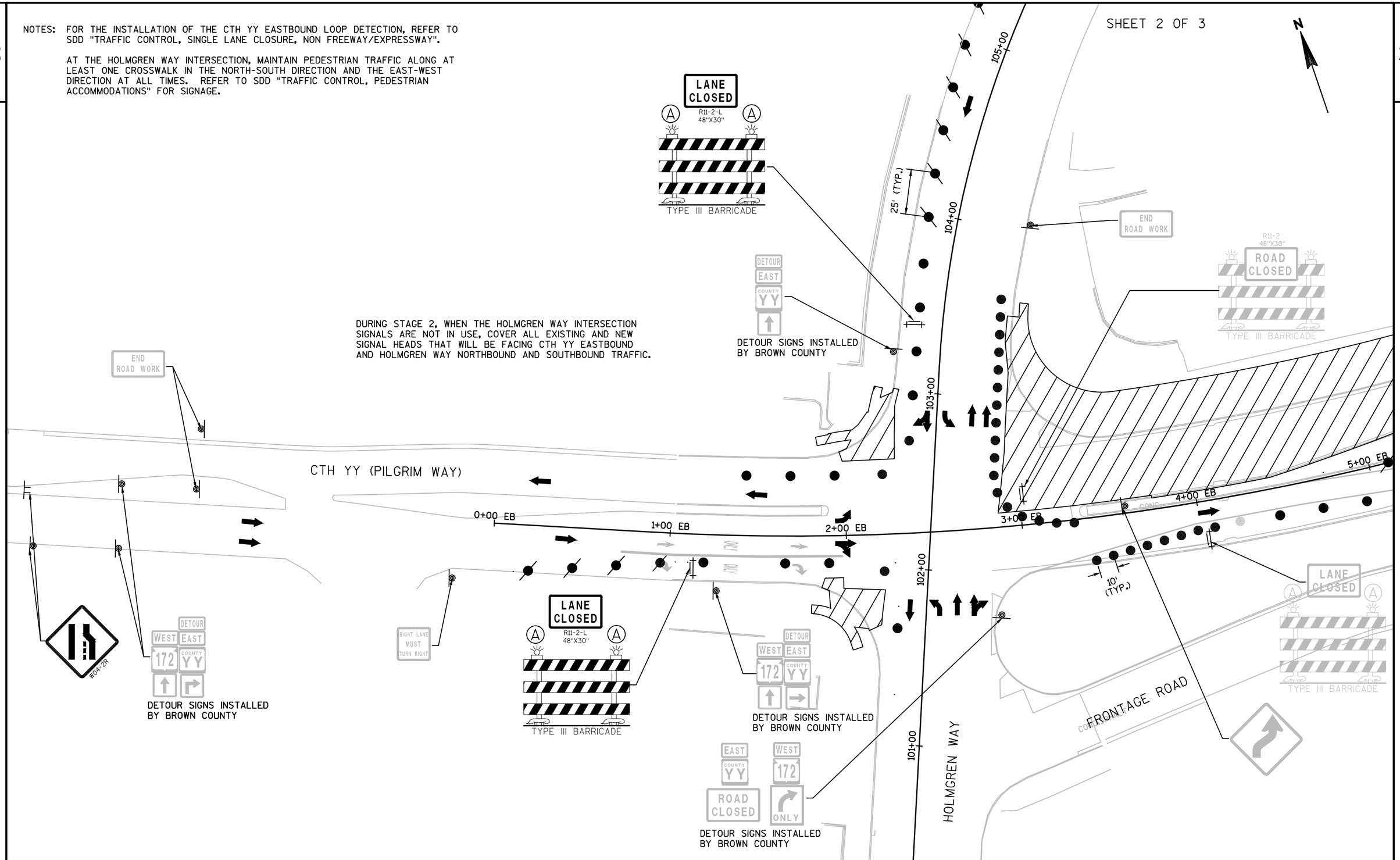
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LAYOUT NAME - 025027-tc
PLOT DATE : 11/1/2015 2:15 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT

NOTES: FOR THE INSTALLATION OF THE CTH YY EASTBOUND LOOP DETECTION, REFER TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

AT THE HOLMGREN WAY INTERSECTION, MAINTAIN PEDESTRIAN TRAFFIC ALONG AT LEAST ONE CROSSWALK IN THE NORTH-SOUTH DIRECTION AND THE EAST-WEST DIRECTION AT ALL TIMES. REFER TO SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATIONS" FOR SIGNAGE.

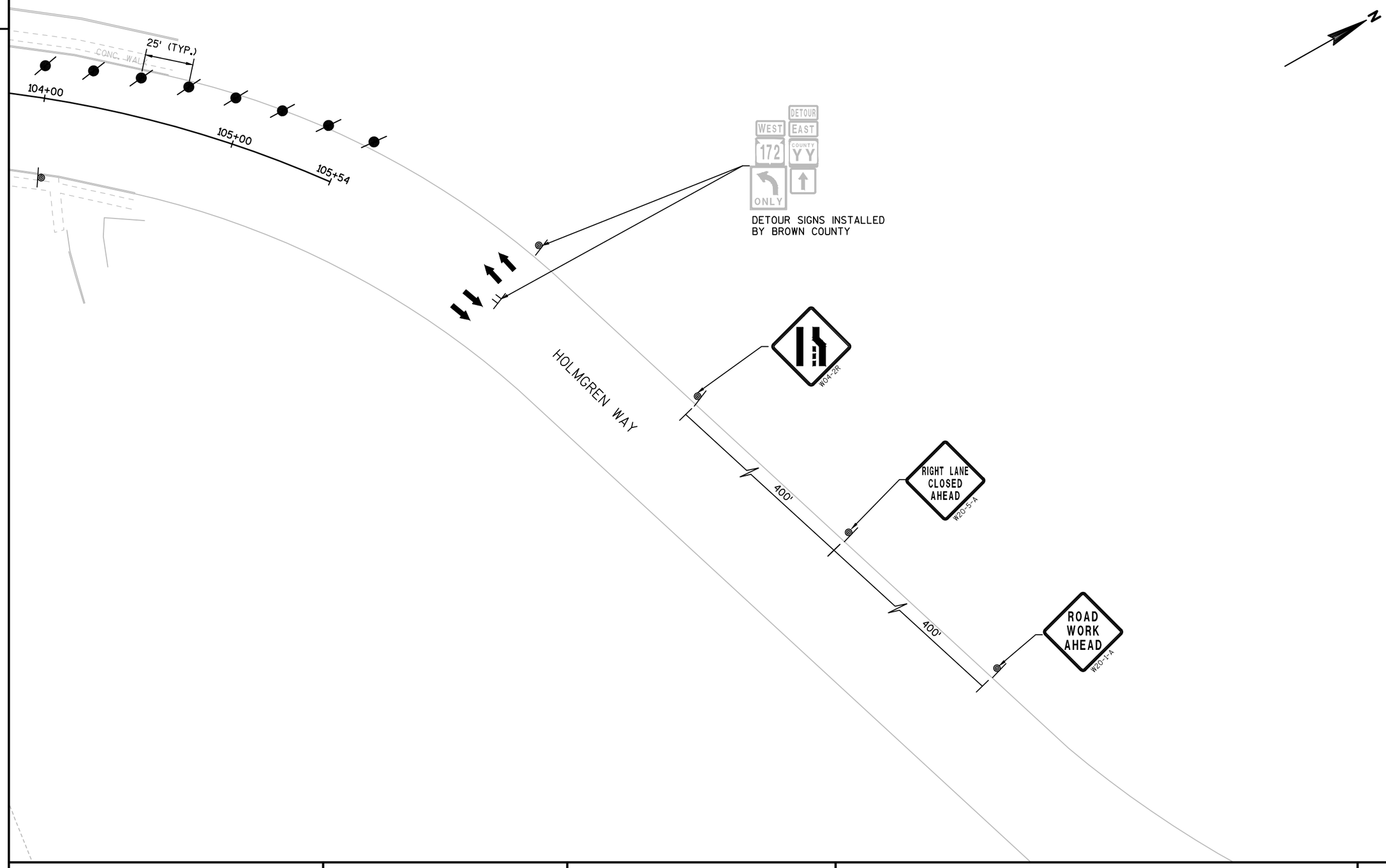
2

DURING STAGE 2, WHEN THE HOLMGREN WAY INTERSECTION SIGNALS ARE NOT IN USE, COVER ALL EXISTING AND NEW SIGNAL HEADS THAT WILL BE FACING CTH YY EASTBOUND AND HOLMGREN WAY NORTHBOUND AND SOUTHBOUND TRAFFIC.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (WEST QUADRANTS)	SHEET 77 E

2

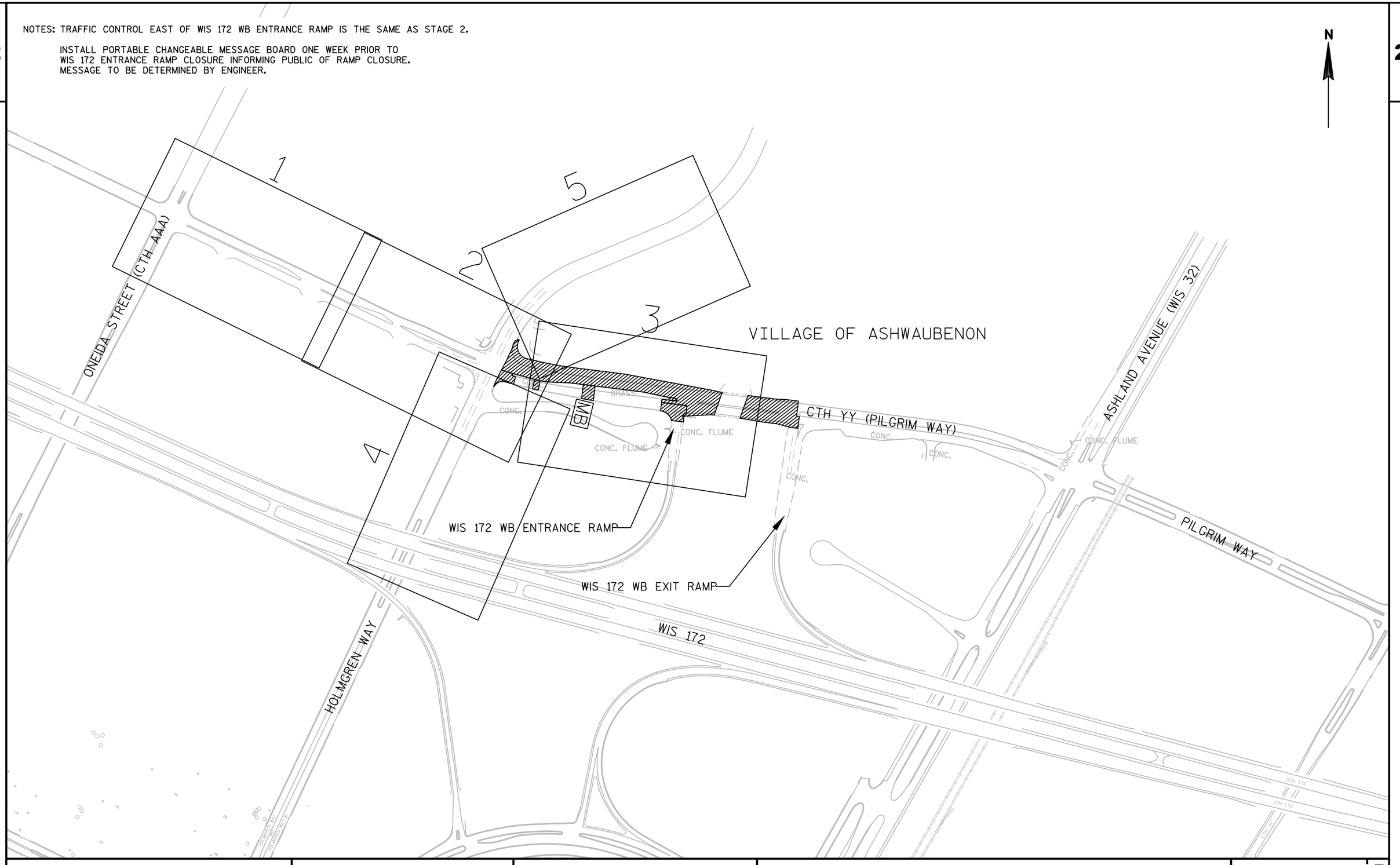


PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (WEST QUADRANTS)	SHEET 78 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025029-TC.DWG
LAYOUT NAME - 025029-tc
PLOT DATE : 11/1/2015 2:17 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

NOTES: TRAFFIC CONTROL EAST OF WIS 172 WB ENTRANCE RAMP IS THE SAME AS STAGE 2.

INSTALL PORTABLE CHANGEABLE MESSAGE BOARD ONE WEEK PRIOR TO WIS 172 ENTRANCE RAMP CLOSURE INFORMING PUBLIC OF RAMP CLOSURE. MESSAGE TO BE DETERMINED BY ENGINEER.



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE) KEYMAP OVERVIEW	SHEET 79 E

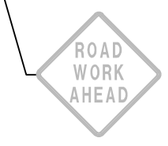




CTH YY (PILGRIM WAY)

25' (TYP.)

ONEIDA STREET (CTH AAA)





DETOUR SIGNS INSTALLED
BY BROWN COUNTY



COVER
DETOUR SIGNS TO BE
COVERED BY BROWN COUNTY

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE)	SHEET 80 E

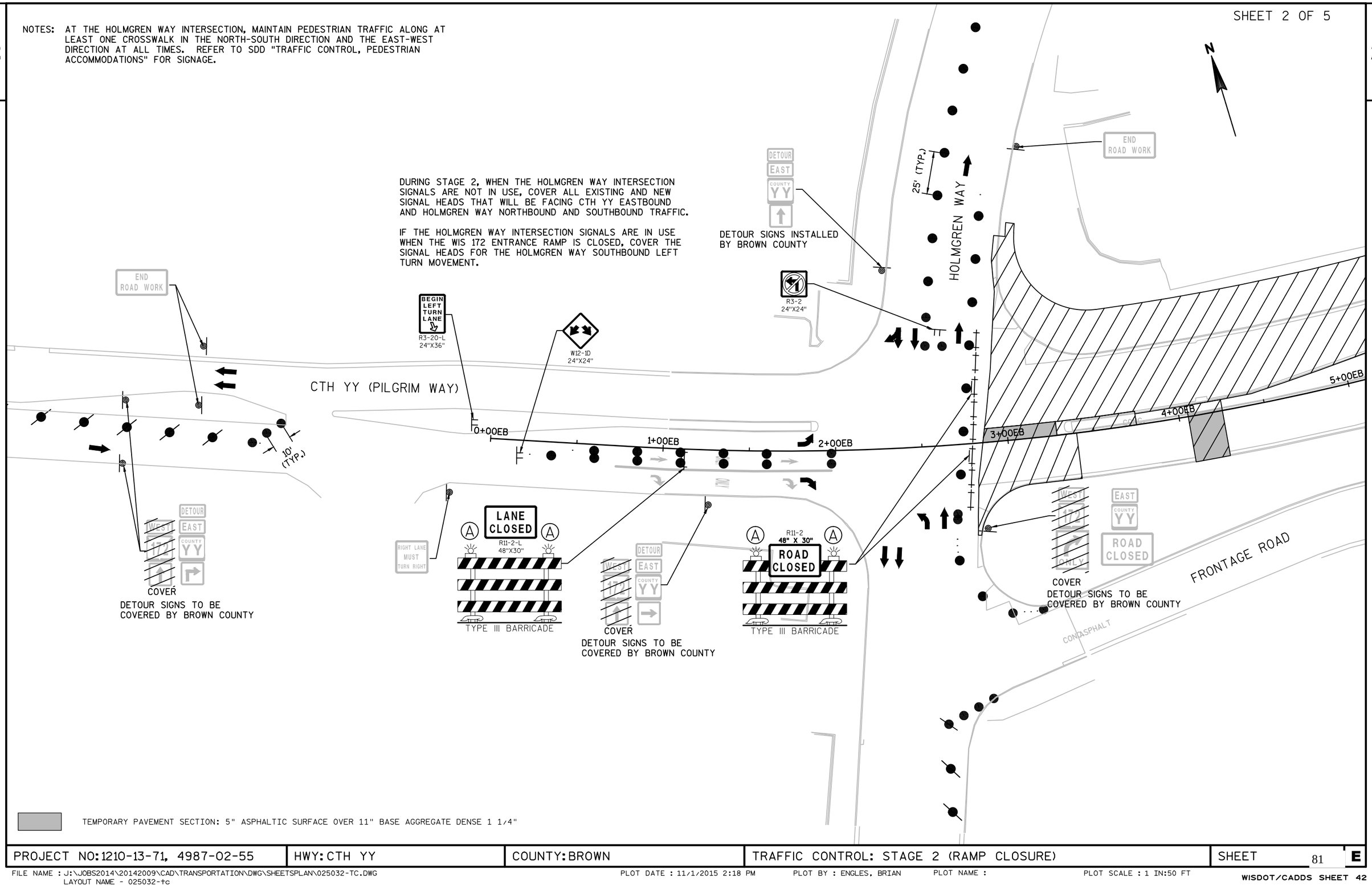
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LAYOUT NAME - 025031-tc
PLOT DATE : 11/1/2015 2:17 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

2

NOTES: AT THE HOLMGREN WAY INTERSECTION, MAINTAIN PEDESTRIAN TRAFFIC ALONG AT LEAST ONE CROSSWALK IN THE NORTH-SOUTH DIRECTION AND THE EAST-WEST DIRECTION AT ALL TIMES. REFER TO SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATIONS" FOR SIGNAGE.

DURING STAGE 2, WHEN THE HOLMGREN WAY INTERSECTION SIGNALS ARE NOT IN USE, COVER ALL EXISTING AND NEW SIGNAL HEADS THAT WILL BE FACING CTH YY EASTBOUND AND HOLMGREN WAY NORTHBOUND AND SOUTHBOUND TRAFFIC.

IF THE HOLMGREN WAY INTERSECTION SIGNALS ARE IN USE WHEN THE WIS 172 ENTRANCE RAMP IS CLOSED, COVER THE SIGNAL HEADS FOR THE HOLMGREN WAY SOUTHBOUND LEFT TURN MOVEMENT.



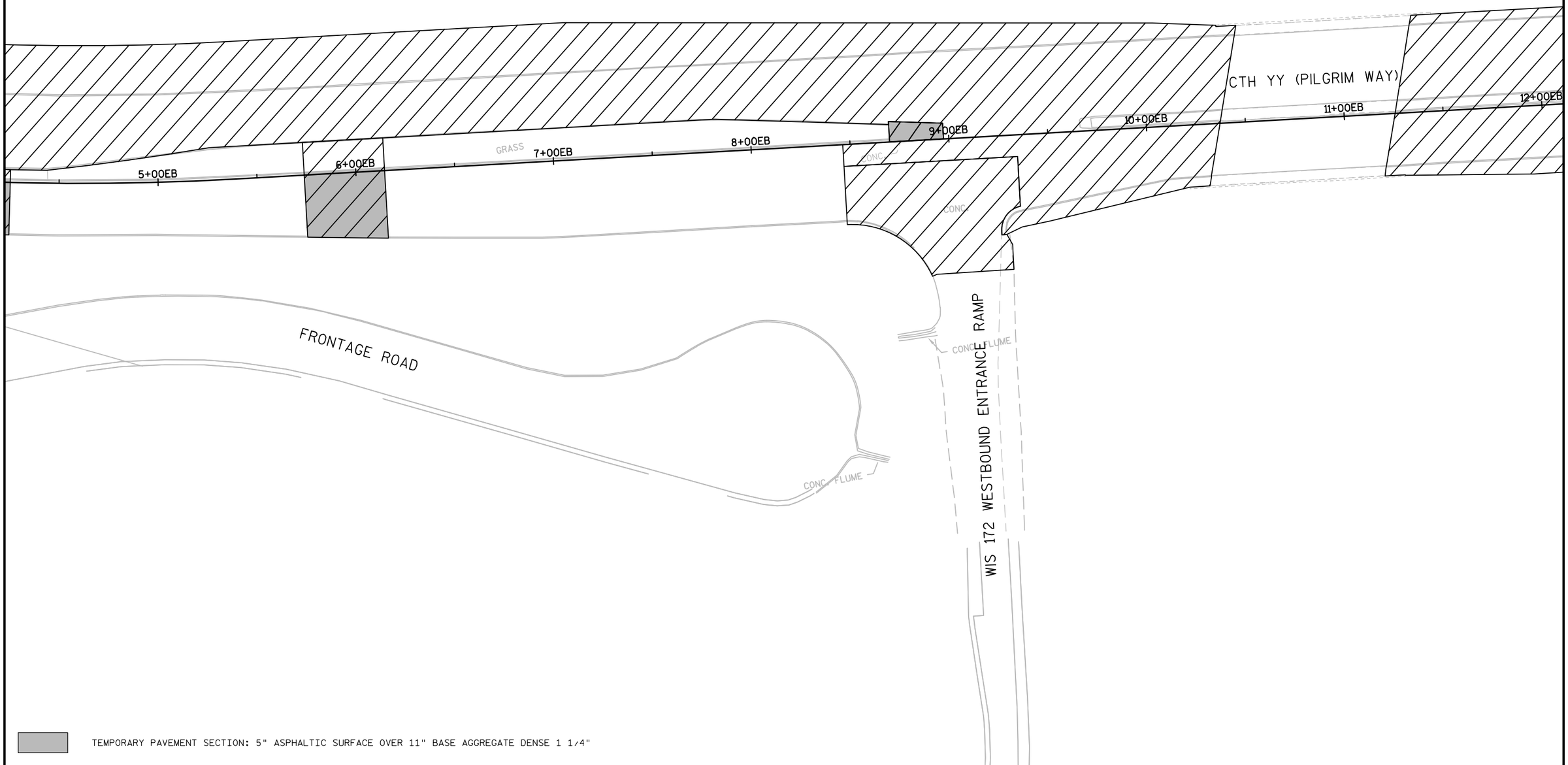
TEMPORARY PAVEMENT SECTION: 5" ASPHALTIC SURFACE OVER 11" BASE AGGREGATE DENSE 1 1/4"

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE)	SHEET 81 E

2

2

N

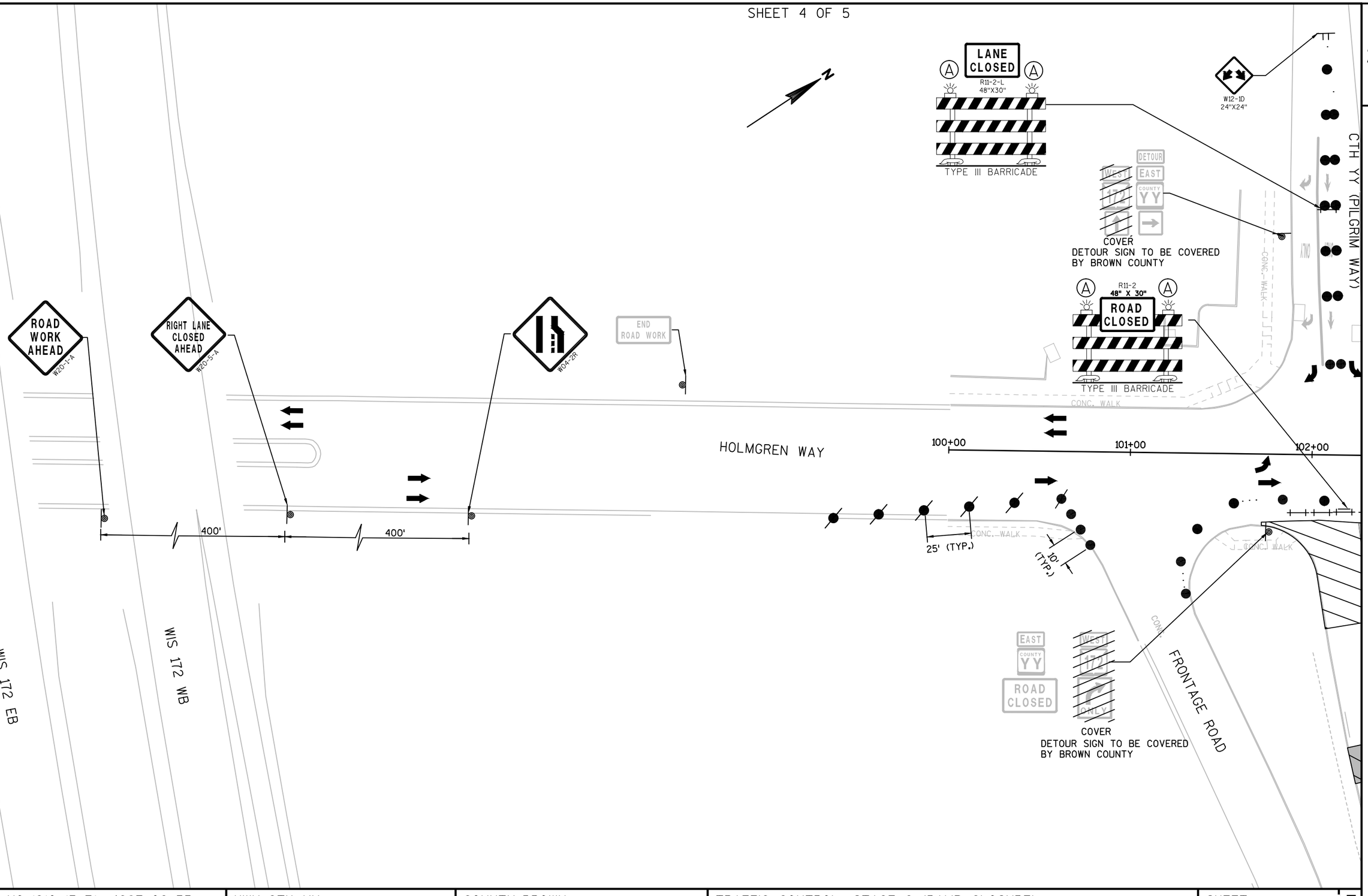


TEMPORARY PAVEMENT SECTION: 5" ASPHALTIC SURFACE OVER 11" BASE AGGREGATE DENSE 1 1/4"

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE)	SHEET 82 E

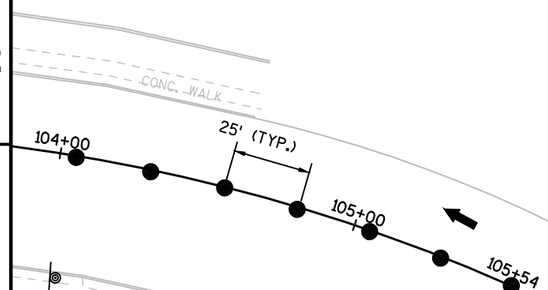
2

2



PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE)	SHEET 83 E

2



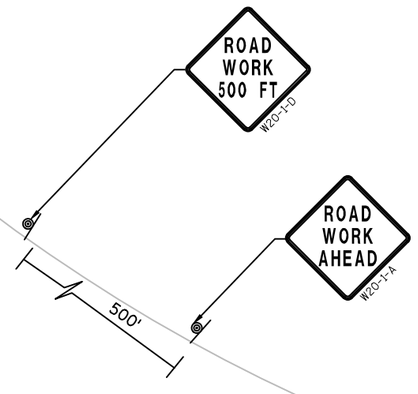




COVER
DETOUR SIGN TO BE COVERED
BY BROWN COUNTY



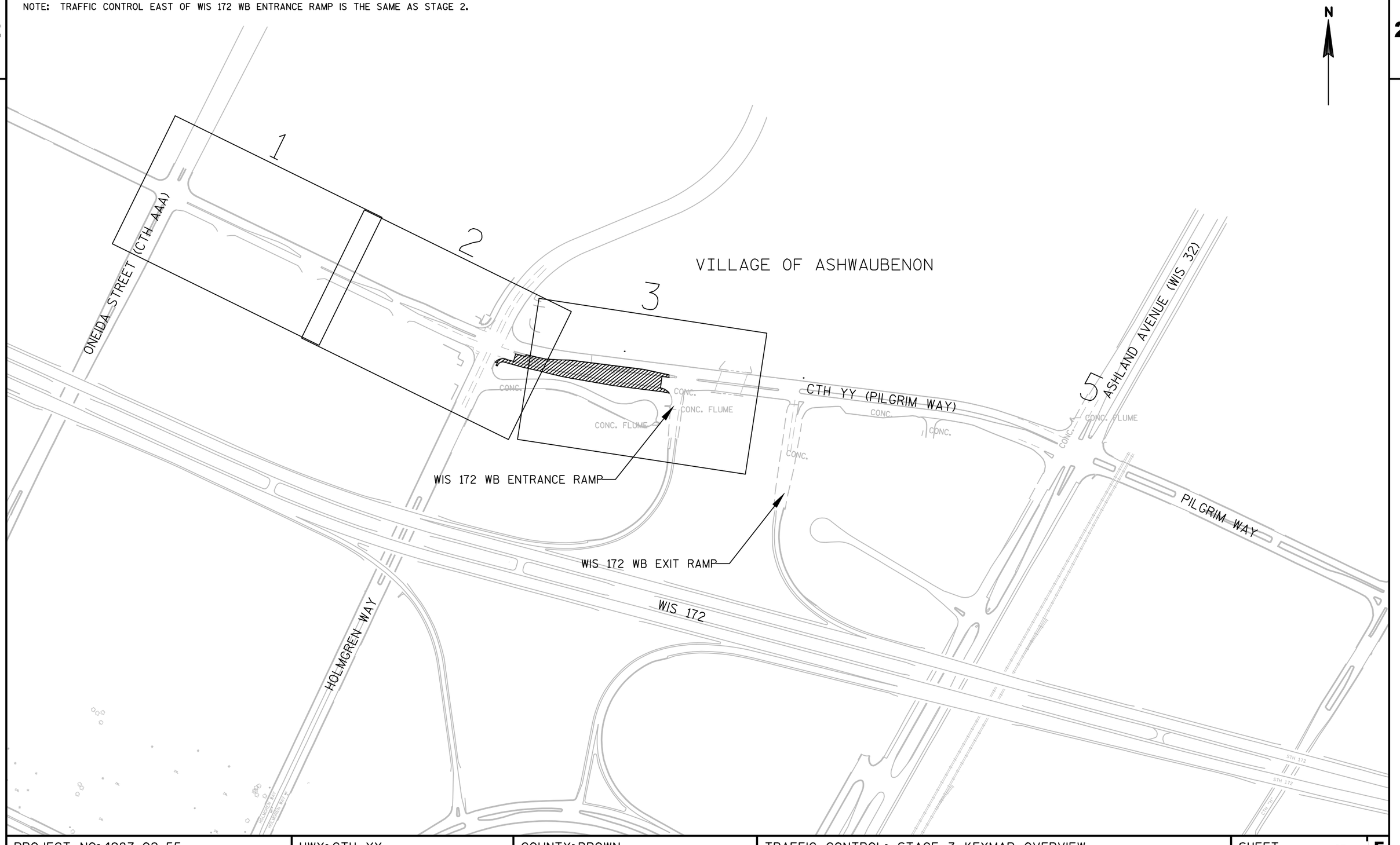
HOLMGREN WAY



2

PROJECT NO: 1210-13-71, 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 2 (RAMP CLOSURE)	SHEET 84 E

NOTE: TRAFFIC CONTROL EAST OF WIS 172 WB ENTRANCE RAMP IS THE SAME AS STAGE 2.



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 3 KEYMAP OVERVIEW	SHEET 85 E

2

N

CTH YY (PILGRIM WAY)

ONEIDA STREET (CTH AAA)





DETOUR SIGNS INSTALLED
BY BROWN COUNTY



DETOUR SIGNS INSTALLED
BY BROWN COUNTY

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 3	SHEET 86 E

2

2

ROAD WORK AHEAD

ROAD WORK 500 FT

500'

150'

350'

105+00

104+00

103+00

DETOUR WEST 172 EAST COUNTY YY ONLY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

DETOUR EAST COUNTY YY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

END ROAD WORK

END ROAD WORK

W01-4L

0+00 EB

1+00 EB

2+00 EB

CTH YY (PILGRIM WAY)

RIGHT LANE MUST TURN RIGHT

DETOUR WEST 172 EAST COUNTY YY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

DETOUR SIGNS INSTALLED BY BROWN COUNTY

EAST COUNTY YY ROAD CLOSED

WEST 172 ONLY

102+00

101+00

HOLMGREN WAY

103+01.98
39.95' R
(PC)

3+35.90 EB
-71.43' L
RADIUS=35'

(TPMRT) 4-INCH (YELLOW)

(TPMRT) 4-INCH (WHITE)

10' (TYP.)

25' (TYP.)

4+73.18 EB
-30.00' L

25' (TYP.)

3+95.55 EB
-18.00' L

3+35.94 EB
-36.43' L

10' (TYP.)

3+33.84 EB
-11.13' L
(PT)

(PT)

5+00 EB

4+00 EB

3+00 EB

101+84.14
37.74' R
(PC)

3+42.21 EB
53.31' R
RADIUS=65'

R11-2
48" X 30"
ROAD CLOSED

TYPE III BARRICADE

FRONTAGE ROAD

N

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 3	SHEET 87 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025038-TC.DWG
LAYOUT NAME - 025038-tc
PLOT DATE : 11/1/2015 2:21 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

N

LANE CLOSED
R11-2-L
48"X30"
TYPE III BARRICADE

W1-1R
36"X36"

W01-6
48"X24"
TYPE III BARRICADE

(TPMRT) 4-INCH (WHITE)

(TPMRT) 4-INCH (YELLOW)

4+73.18 EB
-30.00' L

8+80.68 EB
-30.00' L
(PC)

5+00EB
6+00EB
7+00EB
8+00EB
9+00EB
10+00EB
11+00EB
12+00EB

CTH YY (PILGRIM WAY)

GRASS

8+80.68 EB
18.00' R
RADIUS=48'

10'
(TYP.)

9+28.03 EB
25.82' R
(PT)

(TPMRT) 4-INCH (WHITE)

(TPMRT) 4-INCH (YELLOW)

FRONTAGE ROAD

ASPHALT

CONC. FLUME

CONC. FL

WIS 172 WB
ENTRANCE RAMP

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

END
ROAD WORK

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 3	SHEET 88 E

2

N

1

2

3

4

5

ONEIDA STREET (CTH AAA)

VILLAGE OF ASHWAUBENON

CTH YY (PILGRIM WAY)

ASHLAND AVENUE (WIS 32)

PILGRIM WAY

WIS 172 WB ENTRANCE RAMP

WIS 172 WB EXIT RAMP

WIS 172

HOLMGREN WAY

CONC.

GRASS

CONC. FLUME

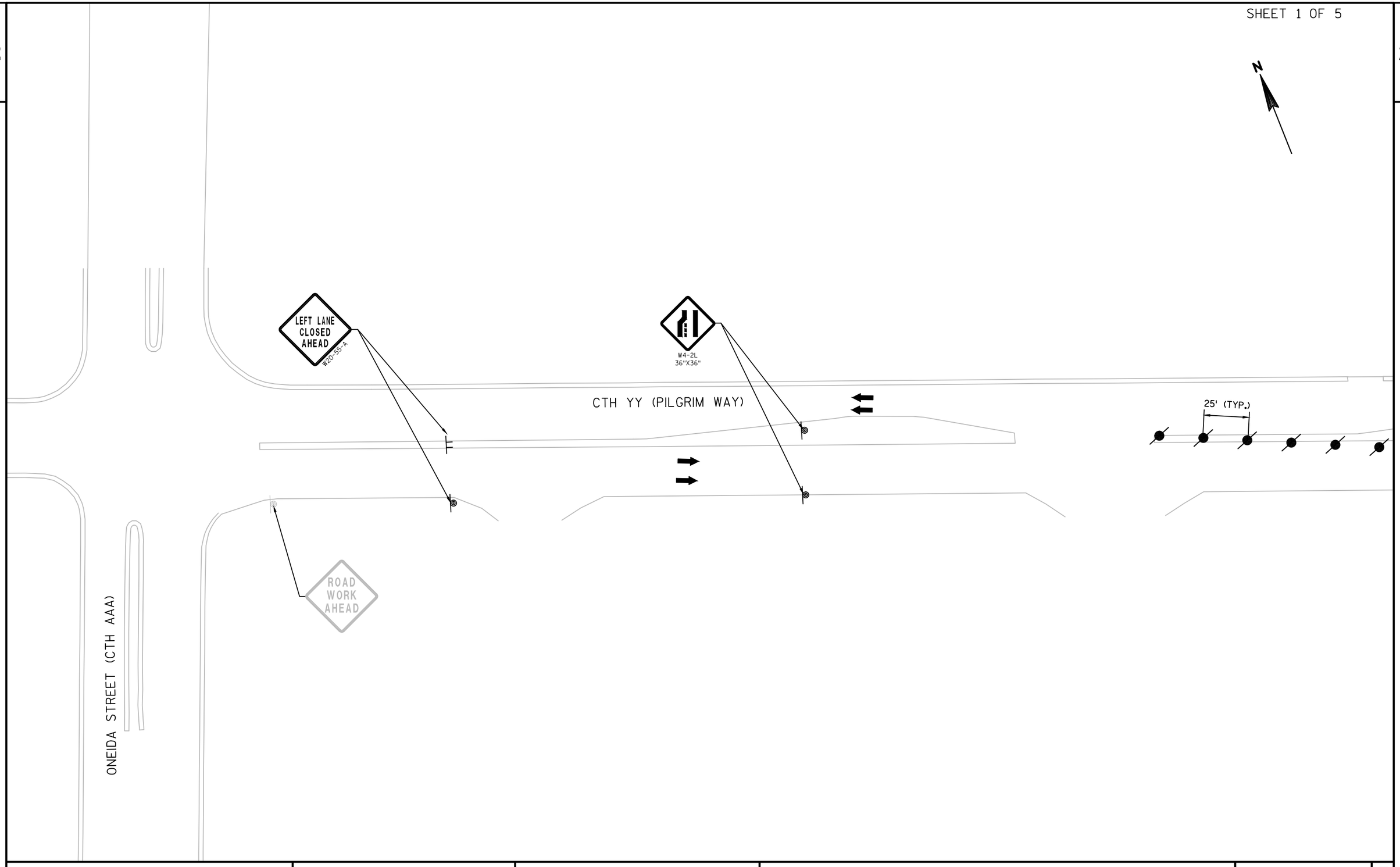
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4 KEYMAP OVERVIEW	SHEET 89 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025040-TC.DWG
LAYOUT NAME - 025040-tc

PLOT DATE : 11/1/2015 2:22 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:300 FT

WISDOT/CADDS SHEET 42

2

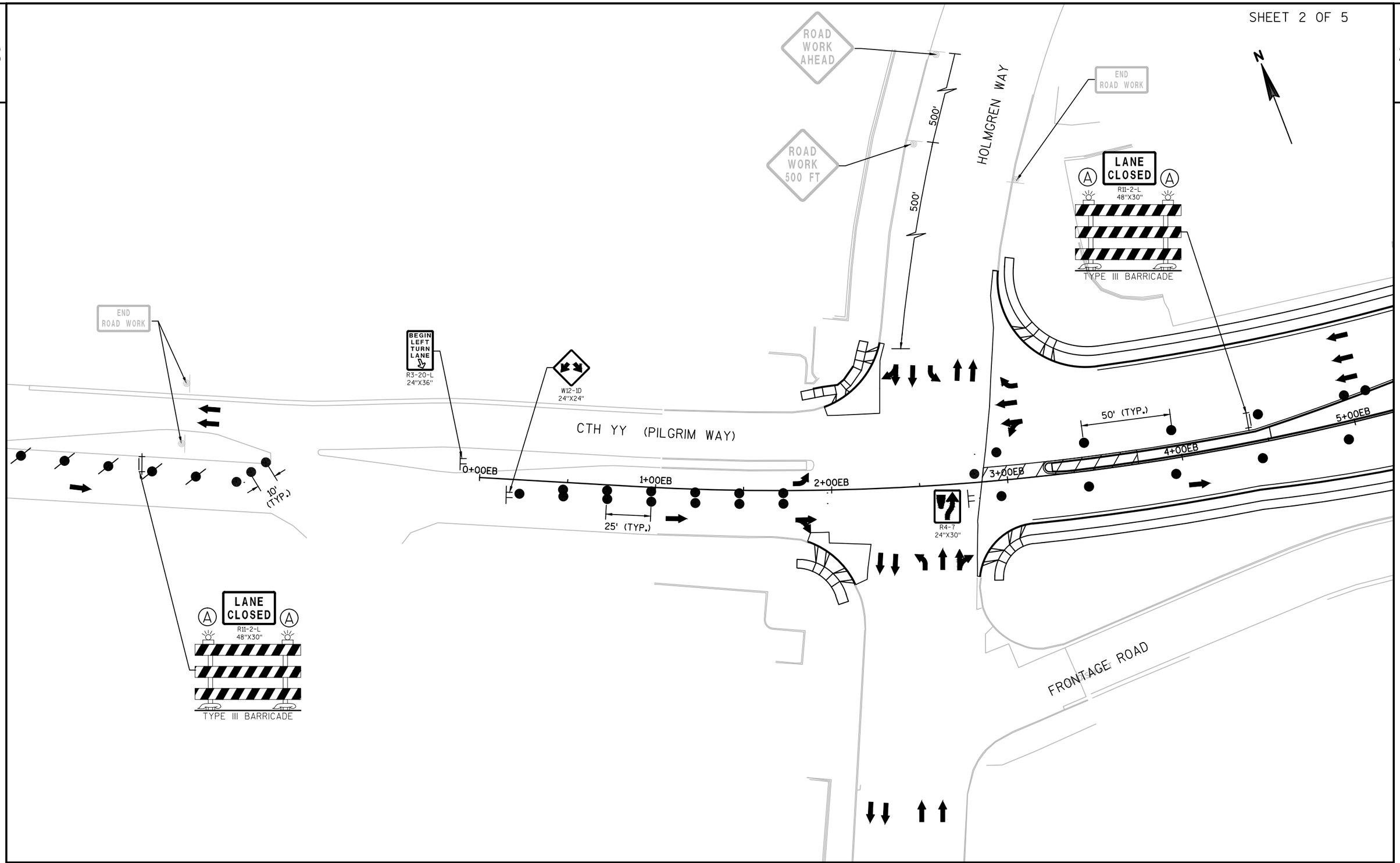


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4	SHEET 90 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025041-TC.DWG
LAYOUT NAME - 025041-tc
PLOT DATE : 11/1/2015 2:22 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

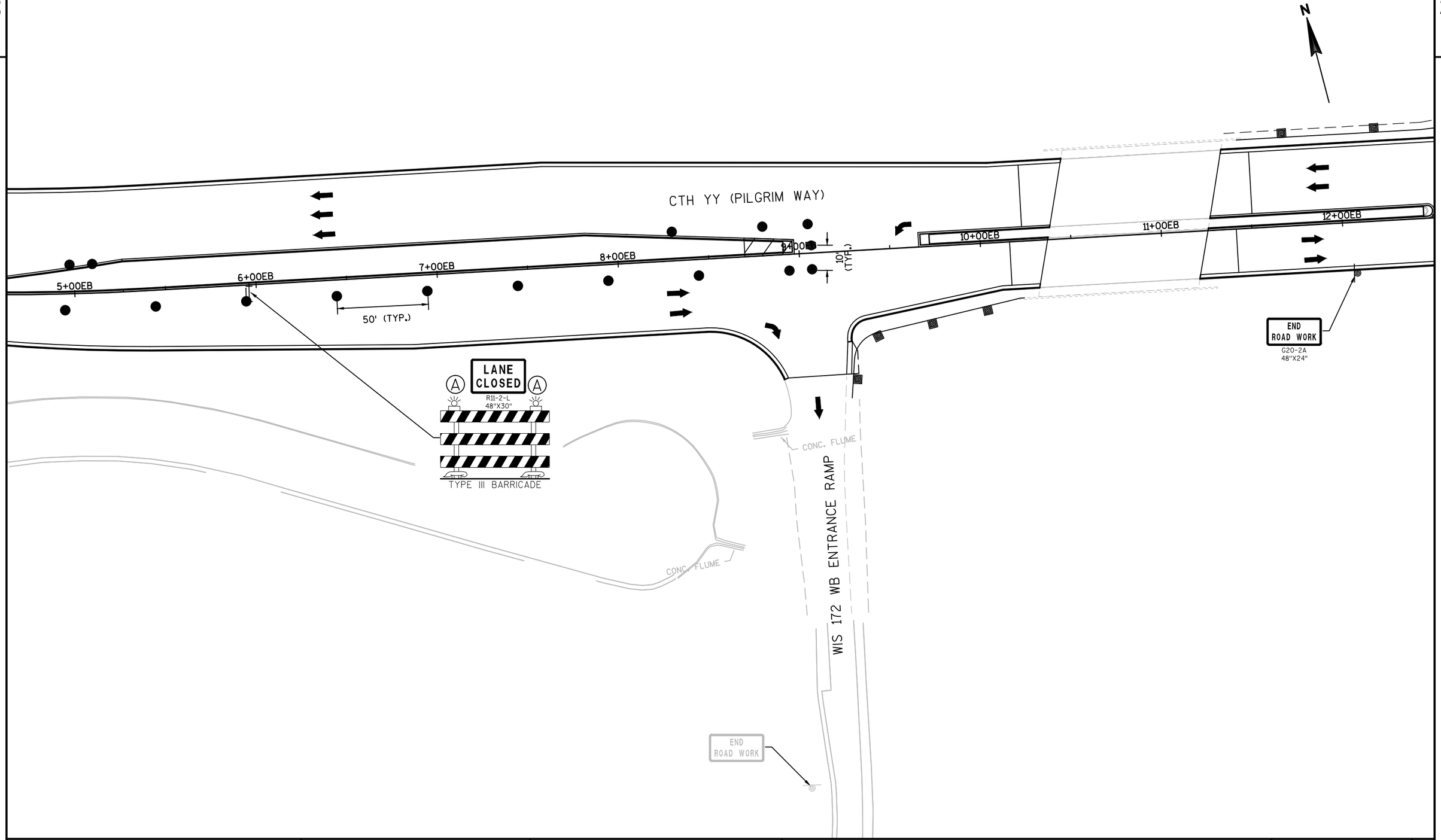
2

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4	SHEET 91 E

2



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4	SHEET 92 E

2

2

N

ROAD WORK 500 FT
W20-1-D

13+00EB
14+00EB
15+00EB
16+00EB
17+00EB
18+00EB
19+00EB
20+00EB

CTH YY (PILGRIM WAY)

CONC.
ASPHALT

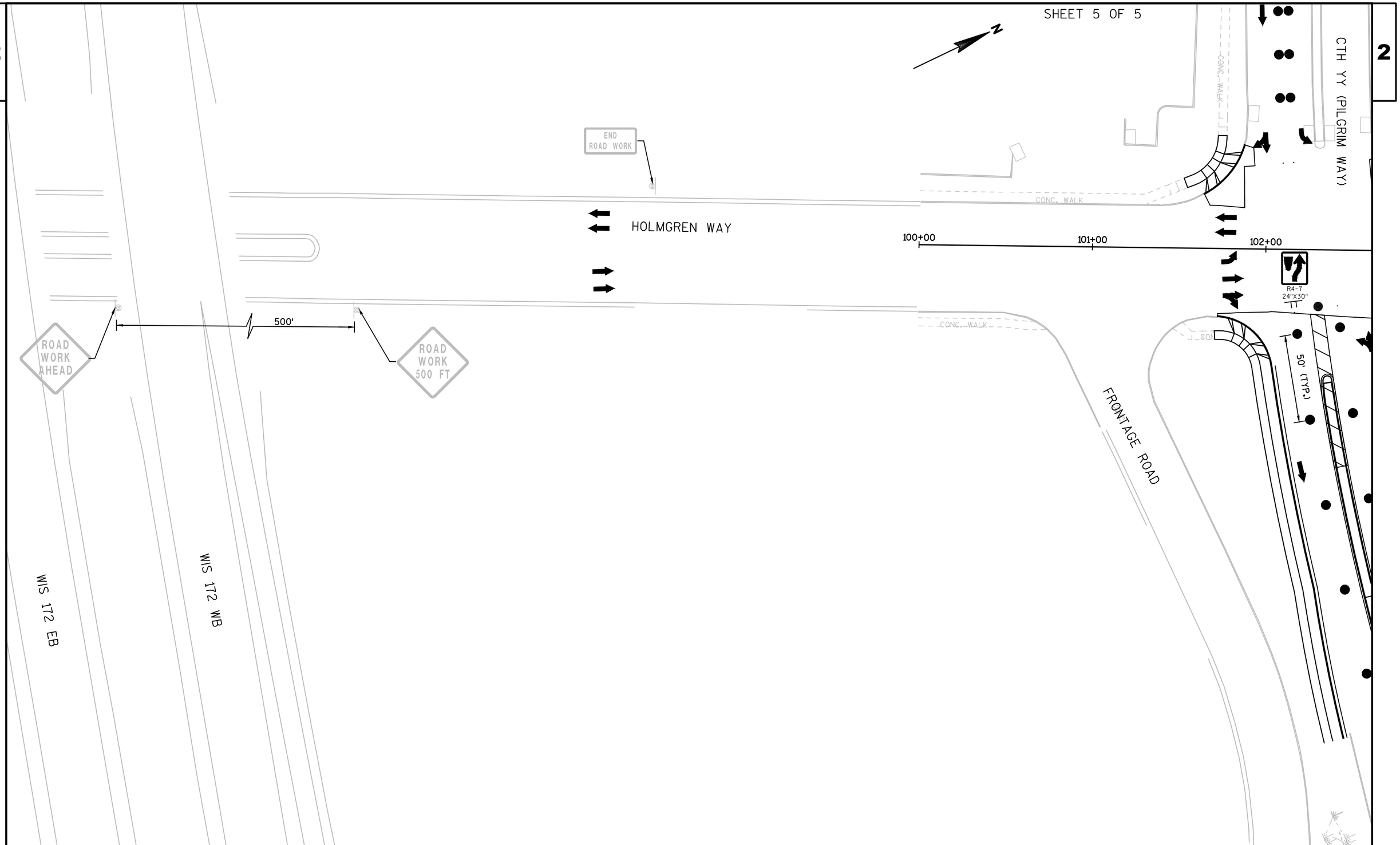
ROAD WORK AHEAD
W20-1-A

WIS 172 WB EXIT RAMP

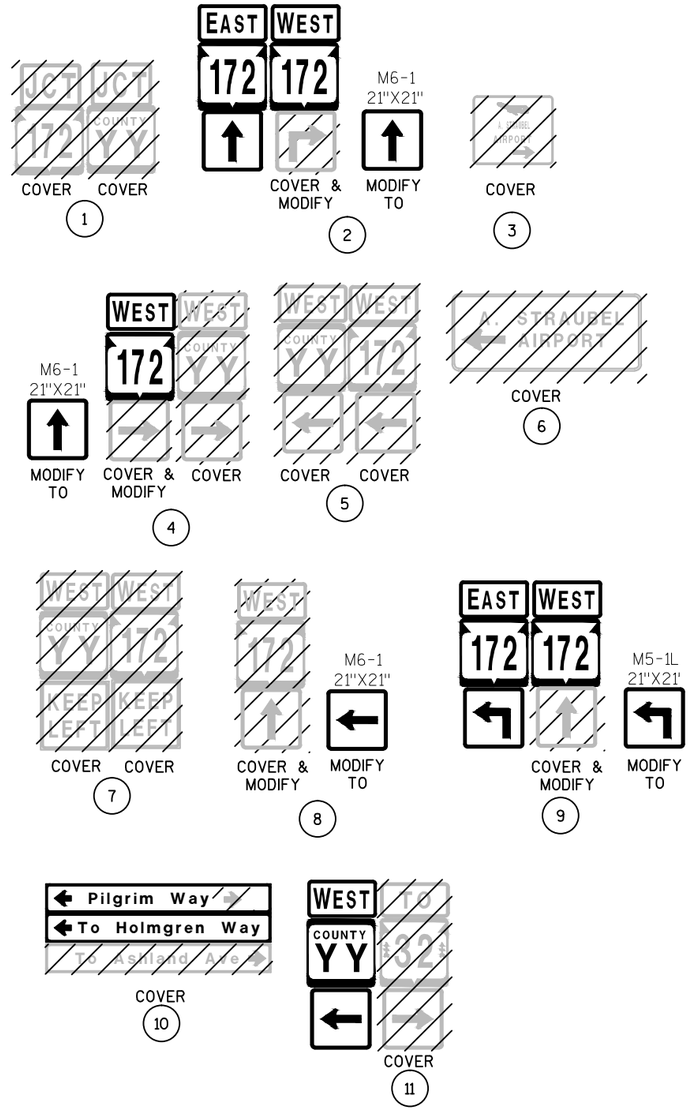
CONC.
ASPHALT

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4	SHEET 93 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\025044-TC.DWG
LAYOUT NAME - 025044-tc
PLOT DATE : 11/1/2015 2:25 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

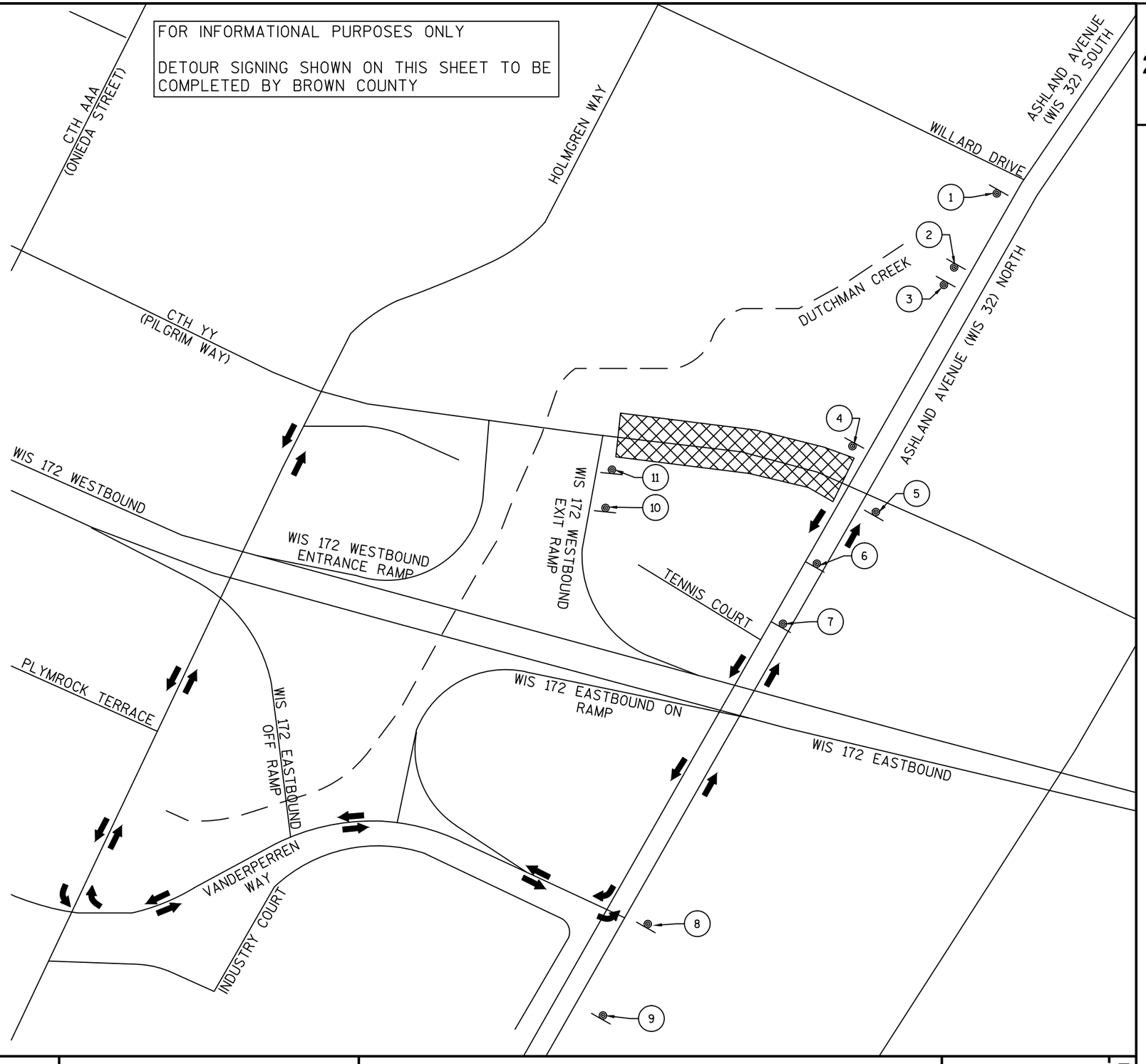


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	TRAFFIC CONTROL: STAGE 4	SHEET 94 E



FOR INFORMATIONAL PURPOSES ONLY

DETOUR SIGNING SHOWN ON THIS SHEET TO BE COMPLETED BY BROWN COUNTY



LEGEND

- COVER SIGN OR SIGNS
- DETOUR DIRECTION ARROWS
- (XXX) SIGN NUMBER - REFER TO MISCELLANEOUS QUANTITY SHEET

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	DETOUR PLAN - COVERING SIGNS STAGE 1	SHEET 95 E

WEST DETOUR SIGNS

WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
DETOUR AHEAD W20-2-A
12 15 54

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M05-1L 21"X21"
13 55 24

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
14

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
172 M1-6 24"X24"
M6-1 21"X21"

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
16

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
172 M1-6 24"X24"
M06-1 21"X21"
M6-1 21"X21"
17 20

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
172 M1-6 24"X24"
M6-1 21"X21"

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M05-1R 21"X21"
18 21

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
172 M1-6 24"X24"
M5-1R 21"X21"

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
19 22

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
172 M1-6 24"X24"
M6-1 21"X21"

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
23

EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
ROAD CLOSED R11-2 48"X30"
25

WEST 172 ONLY R3-50-R 30"X36"
ATTACH TO EXISTING SIGN POST

DETOUR M4-8 24"X12"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
26 56

END DETOUR M4-8A 24"X18"
WEST M3-4 24"X12"
COUNTY YY M1-5A 24"X24"
27

WEST & EAST DETOUR SIGNS

DETOUR M4-8 24"X12"
WEST M3-4 24"X12" | EAST M3-2 24"X12"
172 M1-6 24"X24" | COUNTY YY M1-5A 24"X24"
USE LEFT LANE M4-20L 24"X24" | USE RIGHT LANE M4-20R 24"X24"
30 31

DETOUR M4-8 24"X12"
WEST M3-4 24"X12" | EAST M3-2 24"X12"
172 M1-6 24"X24" | COUNTY YY M1-5A 24"X24"
M6-1 21"X21" | M05-1R 21"X21'
32 33

DETOUR M4-8 24"X12"
WEST M3-4 24"X12" | EAST M3-2 24"X12"
172 M1-6 24"X24" | COUNTY YY M1-5A 24"X24"
M6-1 21"X21" | M6-1 21"X21"
34

DETOUR M4-8 24"X12"
WEST M3-4 24"X12" | EAST M3-2 24"X12"
172 M1-6 24"X24" | COUNTY YY M1-5A 24"X24"
ONLY R3-50-L 30"X36" | M6-1 21"X21"
63 64

EAST DETOUR SIGNS

EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
DETOUR AHEAD W20-2-A
28 45 51
29 48 57

DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
35 38 42 60

DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
M05-1L 21"X21'
36 58
40 61

DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
37 59
41 62

DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
39 47
43 49
46 50

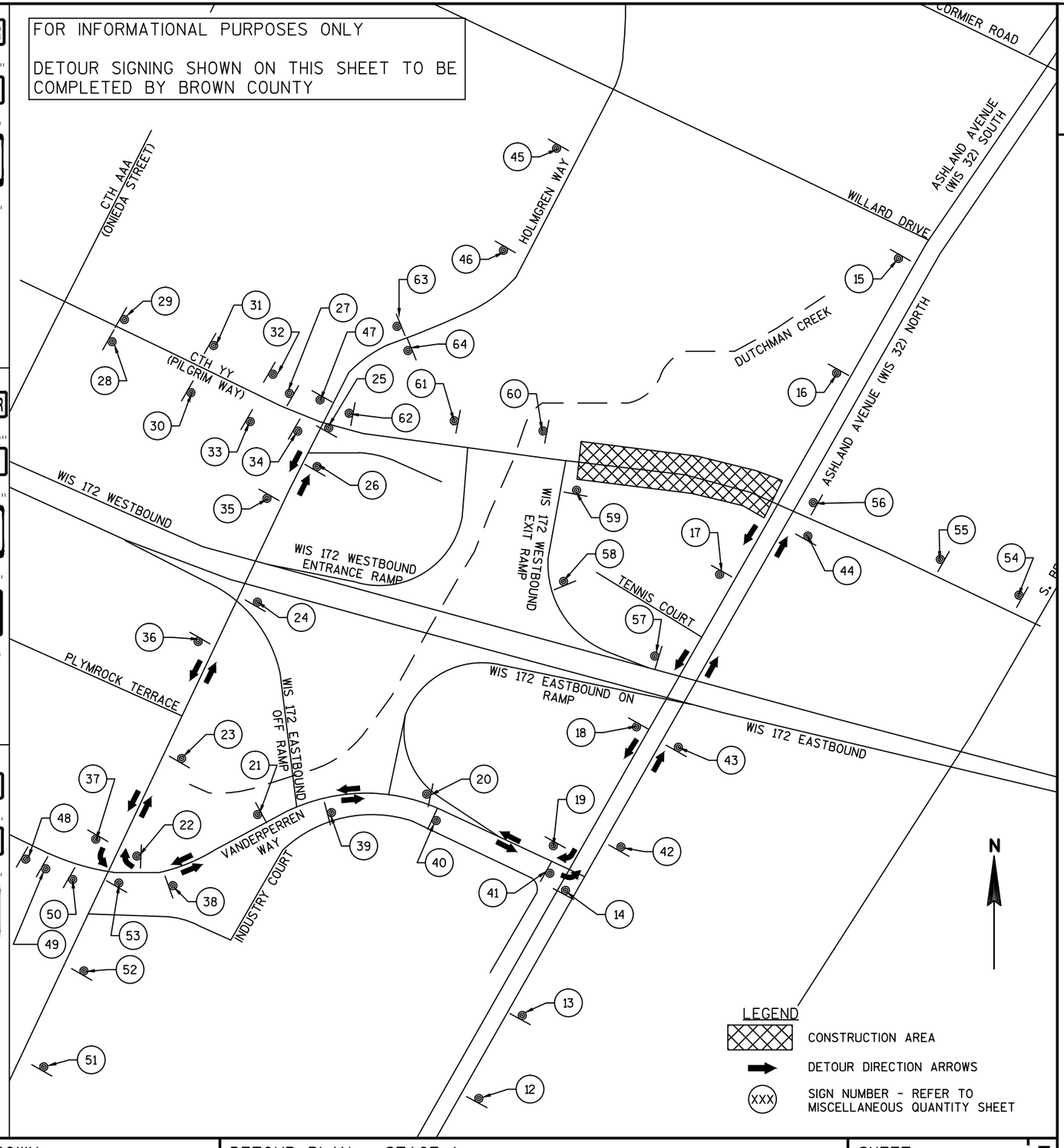
END DETOUR M4-8A 24"X18"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
44

DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
M05-1R 21"X21'
52

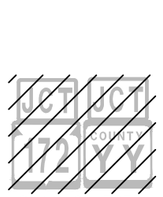
DETOUR M4-8 24"X12"
EAST M3-2 24"X12"
COUNTY YY M1-5A 24"X24"
M06-1 21"X21"
53

FOR INFORMATIONAL PURPOSES ONLY

DETOUR SIGNING SHOWN ON THIS SHEET TO BE COMPLETED BY BROWN COUNTY

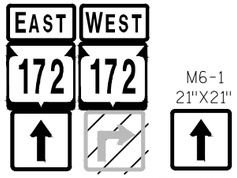


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	DETOUR PLAN - STAGE 1	SHEET 96 E



SIGNS COVERED IN STAGE 1

(1)



SIGNS COVERED AND MODIFIED IN STAGE 1

(2)



SIGNS COVERED IN STAGE 1

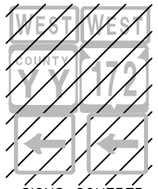
(3)





SIGNS COVERED AND MODIFIED IN STAGE 1

(4)



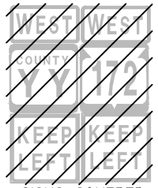
SIGNS COVERED IN STAGE 1

(5)



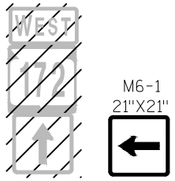
SIGNS COVERED IN STAGE 1

(6)



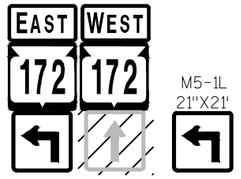
SIGNS COVERED IN STAGE 1

(7)



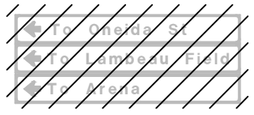
SIGNS COVERED AND MODIFIED IN STAGE 1

(8)



SIGNS COVERED AND MODIFIED IN STAGE 1

(9)



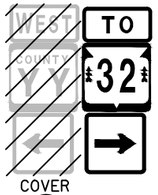
COVER

(10)



COVER

(11)



COVER

(12)

LEGEND

COVER SIGN OR SIGNS

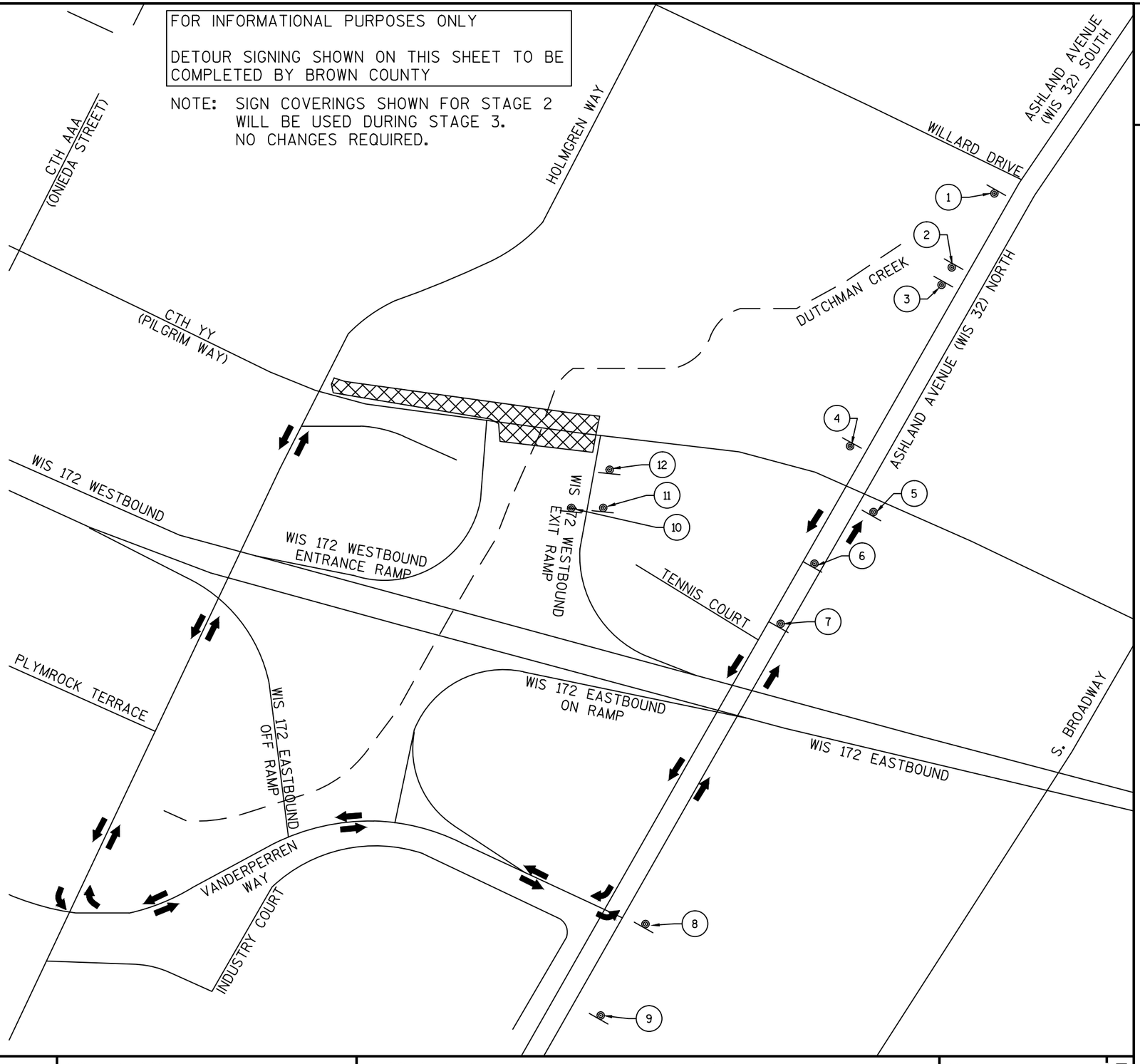
DETOUR DIRECTION ARROWS

(XXX) SIGN NUMBER - REFER TO MISCELLANEOUS QUANTITY SHEET

FOR INFORMATIONAL PURPOSES ONLY

DETOUR SIGNING SHOWN ON THIS SHEET TO BE COMPLETED BY BROWN COUNTY

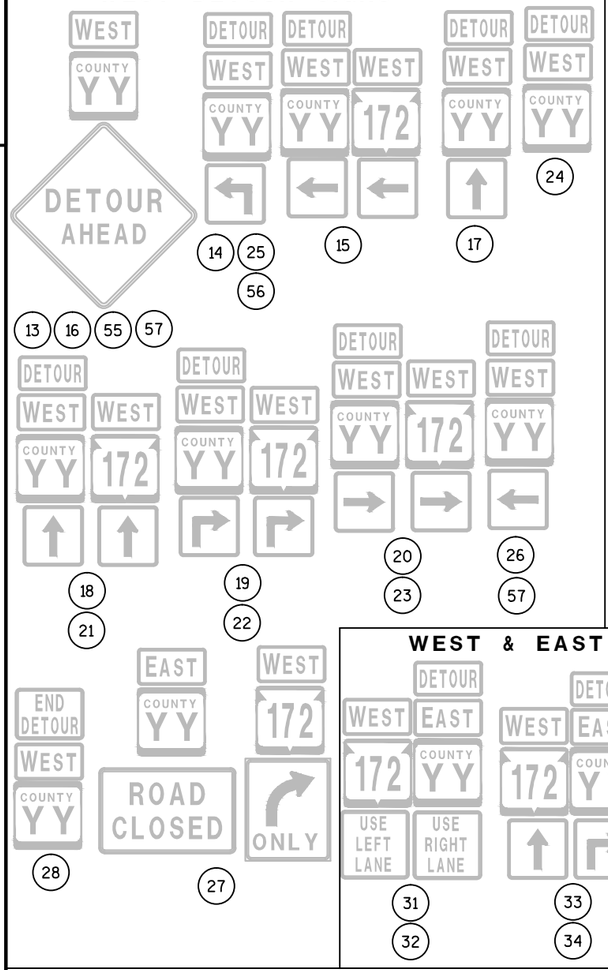
NOTE: SIGN COVERINGS SHOWN FOR STAGE 2 WILL BE USED DURING STAGE 3. NO CHANGES REQUIRED.



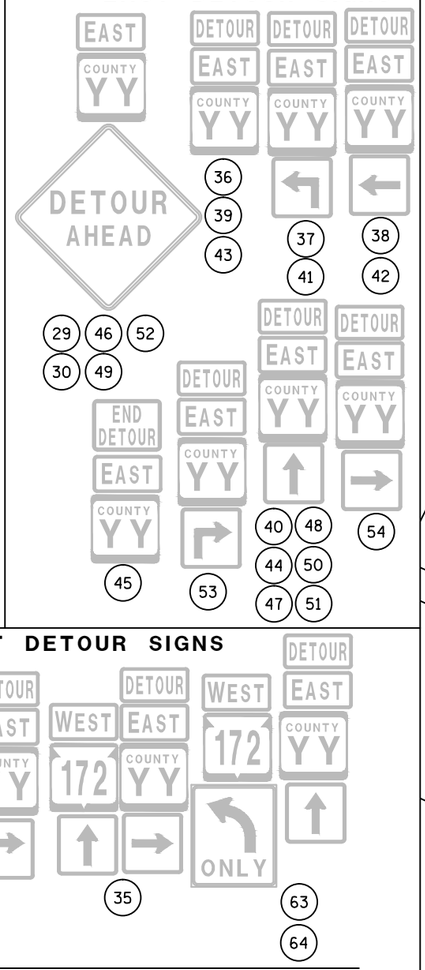
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	DETOUR PLAN - COVERING SIGNS STAGE 2	SHEET 97 E

2

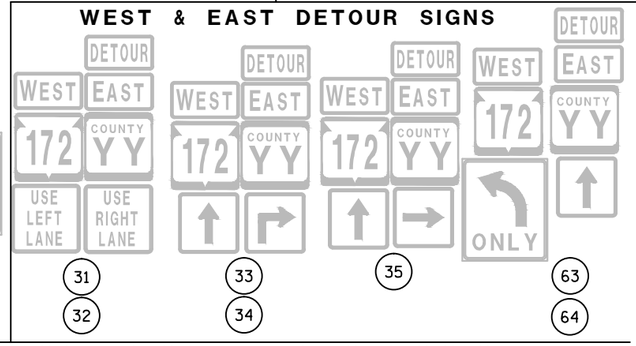
WEST DETOUR SIGNS



EAST DETOUR SIGNS



WEST & EAST DETOUR SIGNS



EXISTING/MODIFIED OR NEW DETOUR SIGNS



FOR SIGN NO. 58 REMOVE M3-2 "EAST" SIGN FROM EXISTING SIGN AND REPLACE WITH M3-4 "WEST" SIGN

58



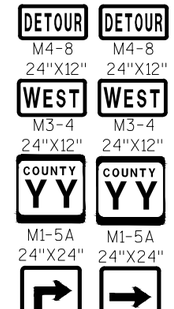
FOR SIGN NO. 59 REMOVE M3-2 "EAST" AND M05-1L "LEFT TURN" SIGNS FROM EXISTING SIGN AND REPLACE WITH M3-4 "WEST" AND M05-1R "RIGHT TURN" SIGNS

59



FOR SIGN NO. 60 REMOVE M3-2 "EAST" AND M06-1 "LEFT ARROW" SIGNS FROM EXISTING SIGN AND REPLACE WITH M3-4 "WEST" AND M06-1 "RIGHT ARROW" SIGNS

60

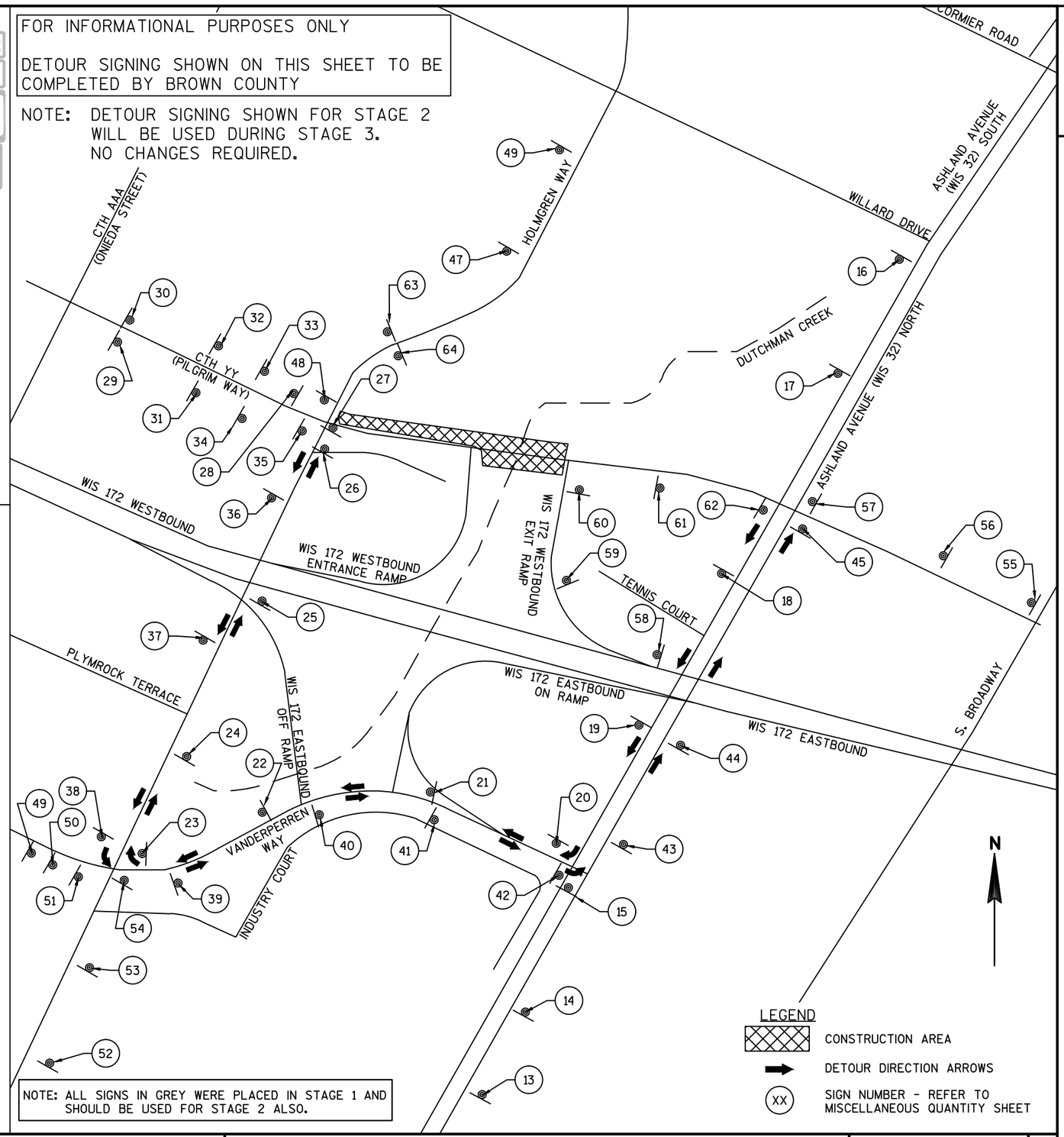


61 62

FOR INFORMATIONAL PURPOSES ONLY

DETOUR SIGNING SHOWN ON THIS SHEET TO BE COMPLETED BY BROWN COUNTY

NOTE: DETOUR SIGNING SHOWN FOR STAGE 2 WILL BE USED DURING STAGE 3. NO CHANGES REQUIRED.



NOTE: ALL SIGNS IN GREY WERE PLACED IN STAGE 1 AND SHOULD BE USED FOR STAGE 2 ALSO.

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	DETOUR PLAN - STAGE 2	SHEET 98 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\027004-DT.DWG
LAYOUT NAME - 027004-DT.DWG
PLOT DATE : 11/2/2015 8:15 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

DATE 04FEB16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1210-13-71 QUANTITY	4987-02-55 QUANTITY
0010	201.0205	Grubbing	STA	8.000		8.000
0020	201.0220	Grubbing	ID	54.000		54.000
0030	204.0100	Removing Pavement	SY	14,540.000		14,540.000
0040	204.0110	Removing Asphaltic Surface	SY	237.000		237.000
0050	204.0150	Removing Curb & Gutter	LF	197.000		197.000
0060	204.0155	Removing Concrete Sidewalk	SY	120.000		120.000
0070	204.0165	Removing Guardrail	LF	250.000		250.000
0080	204.0185	Removing Masonry	CY	2.000		2.000
0090	204.0195	Removing Concrete Bases	EACH	23.000	16.000	7.000
0100	204.0210	Removing Manholes	EACH	7.000		7.000
0110	204.0220	Removing Inlets	EACH	34.000		34.000
0120	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	782.000		782.000
0130	204.0245	Removing Storm Sewer (size) 02. 24-Inch	LF	357.000		357.000
0140	204.0245	Removing Storm Sewer (size) 03. 30-Inch	LF	152.000		152.000
0150	204.0250	Abandoning Manholes	EACH	1.000		1.000
0160	204.0291.S	Abandoning Sewer	CY	19.000		19.000
0170	205.0100	Excavation Common	CY	7,585.000		7,585.000
0180	208.0100	Borrow	CY	904.000		904.000
0190	213.0100	Finishing Roadway (project) 01. 4987-02-55	EACH	1.000		1.000
0200	305.0110	Base Aggregate Dense 3/4-Inch	TON	272.000		272.000
0210	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	6,571.000		6,571.000
0220	405.0100	Coloring Concrete Red	CY	9.000		9.000
0230	415.0100	Concrete Pavement 10-Inch	SY	12,975.000		12,975.000
0240	415.0410	Concrete Pavement Approach Slab	SY	244.000		244.000
0250	415.1150.S	Concrete Pavement Fast Track (inch) 01. 10-Inch	SY	655.000		655.000
0260	416.0610	Drilled Tie Bars	EACH	107.000		107.000
0270	416.0620	Drilled Dowel Bars	EACH	113.000		113.000
0280	416.1010	Concrete Surface Drains	CY	1.000		1.000
0290	416.1725	Concrete Pavement Replacement SHES	SY	110.000		110.000
0300	465.0105	Asphaltic Surface	TON	42.000		42.000
0310	465.0125	Asphaltic Surface Temporary	TON	78.000		78.000
0320	465.0310	Asphaltic Curb	LF	120.000		120.000
0330	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	6.000		6.000
0340	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	3.000		3.000
0350	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000		1.000
0360	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000		2.000
0370	601.0205	Concrete Gutter 24-Inch	LF	69.000		69.000
0380	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	3,314.000		3,314.000
0390	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	3,470.000		3,470.000
0400	601.0600	Concrete Curb Pedestrian	LF	28.000		28.000
0410	602.0410	Concrete Sidewalk 5-Inch	SF	17,555.000		17,555.000
0420	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	235.000		235.000
0430	606.0200	Riprap Medium	CY	22.800		22.800
0440	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	603.000		603.000
0450	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	179.000		179.000

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DATE 04FEB16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1210-13-71 QUANTITY	4987-02-55 QUANTITY
0460	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	114.000		114.000
0470	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	156.000		156.000
0480	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	40.000		40.000
0490	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	267.000		267.000
0500	611.0430	Reconstructing Inlets	EACH	1.000		1.000
0510	611.0530	Manhole Covers Type J	EACH	2.000		2.000
0520	611.0624	Inlet Covers Type H	EACH	17.000		17.000
0530	611.0666	Inlet Covers Type Z	EACH	18.000		18.000
0540	611.1004	Catch Basins 4-FT Diameter	EACH	3.000		3.000
0550	611.1005	Catch Basins 5-FT Diameter	EACH	1.000		1.000
0560	611.2004	Manholes 4-FT Diameter	EACH	2.000		2.000
0570	611.3003	Inlets 3-FT Diameter	EACH	18.000		18.000
0580	611.3230	Inlets 2x3-FT	EACH	13.000		13.000
0590	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-Inch	SY	8.000		8.000
0600	614.0200	Steel Thrie Beam Structure Approach	LF	21.000		21.000
0610	614.0305	Steel Plate Beam Guard Class A	LF	72.000		72.000
0620	614.0345	Steel Plate Beam Guard Short Radius	LF	33.000		33.000
0630	614.0400	Adjusting Steel Plate Beam Guard	LF	12.500		12.500
0640	614.2300	MGS Guardrail 3	LF	150.000		150.000
0650	614.2500	MGS Thrie Beam Transition	LF	39.000		39.000
0660	614.2610	MGS Guardrail Terminal EAT	EACH	1.000		1.000
0670	619.1000	Mobilization	EACH	1.000	0.050	0.950
0680	620.0300	Concrete Median Sloped Nose	SF	252.000		252.000
0690	624.0100	Water	MGAL	69.000		69.000
0700	625.0500	Salvaged Topsoil	SY	12,731.000		12,731.000
0710	628.1504	Silt Fence	LF	3,881.000		3,881.000
0720	628.1520	Silt Fence Maintenance	LF	3,881.000		3,881.000
0730	628.1905	Mobilizations Erosion Control	EACH	13.000		13.000
0740	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000		4.000
0750	628.2006	Erosion Mat Urban Class I Type A	SY	4,974.000		4,974.000
0760	628.2008	Erosion Mat Urban Class I Type B	SY	8,538.000		8,538.000
0770	628.7005	Inlet Protection Type A	EACH	4.000		4.000
0780	628.7010	Inlet Protection Type B	EACH	5.000		5.000
0790	628.7015	Inlet Protection Type C	EACH	83.000		83.000
0800	628.7020	Inlet Protection Type D	EACH	8.000		8.000
0810	628.7504	Temporary Ditch Checks	LF	70.000		70.000
0820	628.7555	Culvert Pipe Checks	EACH	10.000		10.000
0830	628.7570	Rock Bags	EACH	5.000		5.000
0840	629.0210	Fertilizer Type B	CWT	8.000		8.000
0850	630.0120	Seeding Mixture No. 20	LB	209.000		209.000
0860	630.0140	Seeding Mixture No. 40	LB	122.000		122.000
0870	630.0200	Seeding Temporary	LB	344.000		344.000
0880	633.5200	Markers Culvert End	EACH	12.000		12.000
0890	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	38.000		38.000
0900	637.2210	Signs Type II Reflective H	SF	375.130		375.130
0910	638.2102	Moving Signs Type II	EACH	7.000		7.000
0920	638.2602	Removing Signs Type II	EACH	48.000		48.000
0930	638.3000	Removing Small Sign Supports	EACH	27.000		27.000
0940	638.3100	Removing Structural Steel Sign Supports	EACH	1.000		1.000
0950	642.5201	Field Office Type C	EACH	1.000		1.000

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DATE 04FEB16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1210-13-71 QUANTITY	4987-02-55 QUANTITY
0960	643.0100	Traffic Control (project) 01. 4987-02-55	EACH	1.000		1.000
0970	643.0300	Traffic Control Drums	DAY	11,158.000		11,158.000
0980	643.0410	Traffic Control Barricades Type II	DAY	153.000		153.000
0990	643.0420	Traffic Control Barricades Type III	DAY	3,249.000		3,249.000
1000	643.0705	Traffic Control Warning Lights Type A	DAY	3,886.000		3,886.000
1010	643.0715	Traffic Control Warning Lights Type C	DAY	3,221.000		3,221.000
1020	643.0900	Traffic Control Signs	DAY	4,473.000		4,473.000
1030	643.0920	Traffic Control Covering Signs Type II	EACH	5.000		5.000
1040	643.1050	Traffic Control Signs PCMS	DAY	49.000		49.000
1050	645.0120	Geotextile Fabric Type HR	SY	62.750		62.750
1060	645.0130	Geotextile Fabric Type R	SY	16.000		16.000
1070	646.0106	Pavement Marking Epoxy 4-Inch	LF	945.000		945.000
1080	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,282.000		1,282.000
1090	646.0600	Removing Pavement Markings	LF	1,440.000		1,440.000
1100	647.0156	Pavement Marking Arrows Epoxy Type 1	EACH	2.000		2.000
1110	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	13.000		13.000
1120	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000		2.000
1130	647.0356	Pavement Marking Words Epoxy	EACH	7.000		7.000
1140	647.0456	Pavement Marking Curb Epoxy	LF	85.000		85.000
1150	647.0576	Pavement Marking Stop Line Epoxy 24-Inch	LF	192.000		192.000
1160	647.0606	Pavement Marking Island Nose Epoxy	EACH	5.000		5.000
1170	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	836.000		836.000
1180	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	6,665.000		6,665.000
1190	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	205.000		205.000
1200	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	6.000		6.000
1210	649.2000	Temporary Pavement Marking Words Removable Tape	EACH	2.000		2.000
1220	650.4000	Construction Staking Storm Sewer	EACH	52.000		52.000
1230	650.4500	Construction Staking Subgrade	LF	3,975.000		3,975.000
1240	650.7000	Construction Staking Concrete Pavement	LF	3,975.000		3,975.000
1250	650.8500	Construction Staking Electrical Installations (project) 01. 4987-02-55	LS	1.000		1.000
1260	650.8500	Construction Staking Electrical Installations (project) 02. 1210-13-71	LS	1.000	1.000	
1270	650.9910	Construction Staking Supplemental Control (project) 01. 4987-02-55	LS	1.000		1.000
1280	650.9910	Construction Staking Supplemental Control (project) 02. 1210-13-71	LS	1.000	1.000	
1290	650.9920	Construction Staking Slope Stakes	LF	3,975.000		3,975.000
1300	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	20.000	20.000	
1310	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	544.000	450.000	94.000
1320	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,425.000	1,280.000	145.000
1330	652.0615	Conduit Special 3-Inch	LF	165.000		165.000
1340	652.0700.S	Install Conduit into Existing Item	EACH	5.000		5.000
1350	652.0800	Conduit Loop Detector	LF	1,897.000	1,130.000	767.000
1360	652.0900	Loop Detector Slots	LF	85.000		85.000
1370	653.0105	Pull Boxes Steel 12x24-Inch	EACH	15.000	15.000	
1380	653.0140	Pull Boxes Steel 24x42-Inch	EACH	21.000	15.000	6.000
1390	653.0905	Removing Pull Boxes	EACH	22.000	18.000	4.000

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DATE 04FEB16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1210-13-71 QUANTITY	4987-02-55 QUANTITY
1400	654.0101	Concrete Bases Type 1	EACH	14.000	7.000	7.000
1410	654.0102	Concrete Bases Type 2	EACH	1.000		1.000
1420	654.0113	Concrete Bases Type 13	EACH	3.000	3.000	
1430	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000	
1440	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,845.000	1,685.000	160.000
1450	655.0240	Cable Traffic Signal 7-14 AWG	LF	431.000	340.000	91.000
1460	655.0260	Cable Traffic Signal 12-14 AWG	LF	720.000	720.000	
1470	655.0290	Cable Traffic Signal 21-14 AWG	LF	938.000		938.000
1480	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	5,988.000	3,210.000	2,778.000
1490	655.0700	Loop Detector Lead In Cable	LF	3,765.000	1,650.000	2,115.000
1500	655.0800	Loop Detector Wire	LF	4,971.000	2,580.000	2,391.000
1510	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. STH 172 & Pilgrim Way	LS	1.000	1.000	
1520	657.0100	Pedestal Bases	EACH	14.000	7.000	7.000
1530	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	6.000	6.000	
1540	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	8.000	1.000	7.000
1550	657.1355	Install Poles Type 12	EACH	3.000	3.000	
1560	657.1535	Install Monotube Arms 35-FT	EACH	1.000	1.000	
1570	657.1540	Install Monotube Arms 40-FT	EACH	2.000	2.000	
1580	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	11.000	11.000	
1590	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	2.000	2.000	
1600	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	11.000	11.000	
1610	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	2.000	2.000	
1620	658.0416	Pedestrian Signal Face 16-Inch	EACH	2.000	2.000	
1630	658.0500	Pedestrian Push Buttons	EACH	10.000	2.000	8.000
1640	658.0600	Led Modules 12-Inch Red Ball	EACH	13.000	13.000	
1650	658.0605	Led Modules 12-Inch Yellow Ball	EACH	11.000	11.000	
1660	658.0610	Led Modules 12-Inch Green Ball	EACH	11.000	11.000	
1670	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	2.000	2.000	
1680	658.0625	Led Modules 12-Inch Green Arrow	EACH	4.000	4.000	
1690	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	10.000	2.000	8.000
1700	658.5069	Signal Mounting Hardware (location) 01. Holmgren Way Intersection	LS	1.000		1.000
1710	658.5069	Signal Mounting Hardware (location) 02. STH 32 & Pilgrim Way	LS	1.000	1.000	
1720	658.5069	Signal Mounting Hardware (location) 03. STH 172 & Pilgrim Way	LS	1.000	1.000	
1730	690.0150	Sawing Asphalt	LF	243.000		243.000
1740	690.0250	Sawing Concrete	LF	1,244.000		1,244.000
1750	715.0415	Incentive Strength Concrete Pavement	DOL	4,114.800		4,114.800
1760	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000		1,200.000
1770	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000		600.000
1780	SPV.0060	Special 01. Move Existing Signal Assembly	EACH	2.000		2.000
1790	SPV.0060	Special 02. Adjusting Water Valve Box	EACH	5.000		5.000
1800	SPV.0060	Special 03. Adjusting Sanitary Manhole Covers	EACH	1.000		1.000
1810	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type A	LF	34.000		34.000
1820	SPV.0105	Special 01. Removing Traffic Signal (STH 32 & Pilgrim Way)	LS	1.000	1.000	

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DATE 04FEB16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1210-13-71 QUANTITY	4987-02-55 QUANTITY
1830	SPV.0105	Special 02. Removing Traffic Signal (STH 172 & Pilgrim Way)	LS	1.000	1.000	
1840	SPV.0105	Special 03. Remove Traffic Signals, Holmgren Way & Pilgrim Way	LS	1.000		1.000
1850	SPV.0105	Special 04. Maintenance of Traffic Signals, Holmgren Way & Pilgrim Way	LS	1.000		1.000
1860	SPV.0105	Special 05. Concrete Pavement Joint Layout	LS	1.000		1.000
1870	SPV.0120	Special 01. Water For Seeded Areas	MGAL	71.000		71.000
1880	SPV.0180	Special 01. Concrete Joint Sealer	SY	13,740.000		13,740.000

2

CURVE 1
PI STA = 3+16.12EB
Y = 555015.781
X = 86601.168
DELTA = 18°27'47"
D = 4°05'33"
T = 227.54'
L = 451.14'
R = 1400.00'
PC STA = 0+88.57EB
Y = 555114.123
X = 86395.976
PT STA = 5+39.71EB
Y = 554987.485
X = 86826.942
BK = S64°23'35.8"E
AH = S82°51'22.6"E

CURVE 2
PI STA = 19+69.82EB
Y = 554809.638
X = 88245.948
DELTA = 17°31'48"
D = 4°58'56"
T = 177.31'
L = 351.85'
R = 1150.00'
PC STA = 17+92.51EB
Y = 554831.688
X = 88070.014
PT STA = 21+44.36EB
Y = 554735.620
X = 88407.070
BK = S82°51'22.6"E
AH = S65°19'34.4"E

CURVE 3
PI STA = 53+13.19WB
Y = 555033.278
X = 86606.309
DELTA = 18°27'47"
D = 4°08'45"
T = 224.62'
L = 445.34'
R = 1382.00'
PC STA = 50+88.57WB
Y = 555130.355
X = 86403.755
PT STA = 55+33.91WB
Y = 555005.345
X = 86829.181
BK = S64°23'35.8"E
AH = S82°51'22.6"E

CURVE 4
PI STA = 69+73.43WB
Y = 554826.328
X = 88257.529
DELTA = 17°31'48"
D = 4°54'20"
T = 180.09'
L = 357.36'
R = 1168.00'
PC STA = 67+93.35WB
Y = 554848.723
X = 88078.841
PT STA = 71+50.71WB
Y = 554751.151
X = 88421.173
BK = S82°51'22.6"E
AH = S65°19'34.4"E

CURVE 5
PI STA = 104+35.69
Y = 555247.132
X = 86634.980
DELTA = 22°57'37"
D = 9°32'57"
T = 121.85'
L = 240.44'
R = 600.00'
PC STA = 103+13.84
Y = 555137.021
X = 86582.790
PT STA = 105+54.27
Y = 555328.162
X = 86725.989
BK = N25°21'35.2"E
AH = N48°19'11.8"E

N

STA.=105+54.27
Y=555328.1619
X=86725.9894

CURVE 5

105

STA=50+00.00 WB
Y=555168.6359
X=86323.8802

PC

PC

STA=0+00.00EB
Y=555152.4039
X=86316.1008

S64° 23' 36"E

PC

HOLMGREN WAY
ALIGNMENT ℄

N25° 21' 35"E

CTH YY (PILGRIM WAY)
WESTBOUND ALIGNMENT ℄

55+00WB

PT

5+00EB

PT

CURVE 1

CTH YY (PILGRIM WAY)
EASTBOUND ALIGNMENT ℄

EP: 200+00.00 ER

STA.=100+00.00
Y=554853.4265
X=86448.3735

WIS 172 WESTBOUND ENTRANCE
RAMP ALIGNMENT ℄

N6° 42' 15"E

BP: 198+00.00 ER

STA.=198+00.00 ER
Y=554744.4634
X=87157.7647

L

STA=8+96.65 EB CTH YY (PILGRIM WAY) EASTBOUND
STA=199+98.88 ER WEST WIS 172 ENTRANCE RAMP
Y=554941.9856
X=87180.9403

60+00WB

10+00EB

S82° 51' 23"E

EP: 300+00.00 EX

ASHLAND AVE (WIS 32)
ALIGNMENT ℄

STA=72+68.52 WB CTH YY (PILGRIM WAY) WESTBOUND
STA=402+18.41 ASHLAND AVE.
Y=554701.9703
X=88528.2274

65+00WB

PC

15+00EB

PC

70+00WB

PT

CURVE 2

20+00EB

PT

S65° 19' 34"E

STA.=404+09.84
Y=554867.9173
X=88621.5328

N29° 13' 47"E

STA=13+20.28 EB CTH YY (PILGRIM WAY) EASTBOUND
STA=303+98.78 EX WEST WIS 172 EXIT RAMP
Y=554889.2999
X=87601.3108

N8° 43' 30"E

WIS 172 WESTBOUND EXIT
RAMP ALIGNMENT ℄

BP: 296+01.22 EX

STA.=296+01.22 EX
Y=554496.2492
X=87540.9923

STA=22+66.91 EB CTH YY (PILGRIM WAY) EASTBOUND
STA=401+98.34 ASHLAND AVE
Y=554684.4616
X=88518.4302

STA.=400+00.00
Y=554510.2621
X=88421.4026

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	ALIGNMENT DIAGRAM	SHEET 104 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201_AD

PLOT DATE : 10/30/2015 11:47 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :

PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CLEARING AND GRUBBING

STATION	LOCATION	201.0105 * CLEARING STA	201.0120 * CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
5+85 EB	LT	---	4	---	4
7+50 EB - 8+50 EB	LT	1	---	1	---
11+45 EB - 12+45 EB	LT	1	---	1	---
14+50 EB - 20+50 EB	LT	6	---	6	---
15+25 EB	LT	---	3	---	3
18+60 EB	RT	---	3	---	3
18+95 EB	RT	---	3	---	3
19+30 EB	RT	---	3	---	3
19+60 EB	RT	---	3	---	3
19+90 EB	RT	---	3	---	3
20+45 EB	RT	---	13	---	13
21+20 EB	RT	---	19	---	19
PROJECT TOTALS		8	54	8	54

* - CLEARING FOR INFORMATIONAL PURPOSES ONLY, CLEARING TO BE COMPLETED PRIOR TO CONSTRUCTION.

REMOVING PAVEMENT

STAGE	STATION	LOCATION	204.0100 SY
1	13+10 EB - 22+38 EB	WB CTH YY	3,110
	13+19 EB - 22+31 EB	EB CTH YY	3,690
2	1+85 EB - 2+20 EB	SW QUADRANT	50
	1+95 EB - 2+30 EB	NW QUADRANT	60
	2+87 EB - 10+47 EB	WEST OF BRIDGE	4,405
	11+20 EB - 13+35 EB	EAST OF BRIDGE	1,520
3	3+79 EB - 8+42 EB	EB CTH YY	1,705
		PROJECT TOTAL	14,540

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REMOVING ASPHALT SURFACE

STAGE	STATION	LOCATION	204.0110 SY
1	14+65 EB - 17+10 EB	CIS	237
		PROJECT TOTAL	237

REMOVING CURB AND GUTTER

STAGE	STATION TO STATION	LOCATION	204.0150 LF
1	13+21 EB	RT	14
	14+64 EB - 14+74 EB	RT	14
	16+63 EB - 17+09 EB	RT	46
	17+44 EB - 17+58 EB	RT	16
	17+99 EB - 18+18 EB	RT	21
2	9+26 EB - 9+34 EB	RT	14
4	3+38 EB - 3+75 EB	LT	37
	3+40 EB - 3+75 EB	LT	35
		PROJECT TOTAL	197

REMOVING CONCRETE SIDEWALK

STAGE	STATION	LOCATION	204.0155 SY
2	1+80 EB - 2+08 EB	SW QUADRANT	35
	1+83 EB - 2+24 EB	NW QUADRANT	35
	3+07 EB - 3+20 EB	NE QUADRANT	37
	2+85 EB - 2+94 EB	SE QUADRANT	13
		PROJECT TOTAL	120

REMOVING GUARDRAIL

STAGE	STATION	LOCATION	204.0165 LF
2	9+25 EB - 10+22 EB	RT	125
	11+47 EB - 12+75 EB	LT	125
		PROJECT TOTAL	250

REMOVING MASONRY

STAGE	STATION	NOTE	LOCATION	204.0185 CY
1	22+35 EB	EXISTING FLUME	LT	2
			PROJECT TOTAL	2

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

REMOVING CONCRETE BASES

STAGE	STATION	LOCATION	204.0195 (A) EACH
1	14+95 EB	RT	1
	16+05 EB	RT	1
		PROJECT TOTAL	2

(A) REFER TO TRAFFIC SIGNAL QUANTITIES FOR ADDITIONAL QUANTITIES

REMOVING MANHOLES

STAGE	STATION	LOCATION	204.0210 EACH	204.0250 ABANDONING MANHOLES EACH
1	13+81 EB	RT	1	-
	13+94 EB	RT	1	-
	15+45 EB	RT	-	1
2	3+00 EB	LT	1	-
	12+57 EB	LT	1	-
	4+23 EB	LT	1	-
	5+92 EB	LT	1	-
	12+57 EB	LT	1	-
	PROJECT TOTALS		7	1

REMOVING INLETS

STAGE	STATION	LOCATION	204.0220 EACH
1	13+20 EB	RT	1
	13+80 EB	RT	1
	15+84 EB	LT	4
	17+34 EB	LT	5
	19+82 EB	LT	5
2	4+15 EB	LT	4
	5+84 EB	LT	4
	8+62 EB	LT	1
	8+84 EB	LT	1
	8+89 EB	LT	2
	11+57 EB	LT	1
	12+40 EB	LT	2
	12+78 EB	RT	1
	12+89 EB	LT	1
3	8+42 EB	RT	1
	PROJECT TOTALS		34

REMOVING STORM SEWER

STAGE	STATION - STATION	LOCATION	204.0245 .01 12-INCH LF	.02 24-INCH LF	.03 30-INCH LF
1	13+20 EB - 13+80 EB	RT	60	-	-
	13+80 EB - 13+81 EB	RT	6	-	-
	13+81 EB - 13+94 EB	RT	13	-	-
	13+94 EB - 13+94 EB	LT & RT	-	-	120
	13+94 EB - 13+94 EB	RT	-		32
	13+94 EB - 14+00 EB	RT	-	6	-
	15+80 EB - 15+84 EB	RT	6	-	-
	15+84 EB - 15+84 EB	LT	8	-	-
	15+84 EB - 15+84 EB	LT	8	-	-
	15+84 EB - 15+84 EB	LT	27	-	-
	17+34 EB - 17+34 EB	LT	27	-	-
	17+34 EB - 17+34 EB	LT	8	-	-
	17+34 EB - 17+34 EB	LT	8	-	-
	17+34 EB - 17+34 EB	RT	30	-	-
	17+34 EB - 17+34 EB	RT	18	-	-
	19+70 EB - 19+82 EB	LT	19	-	-
	19+82 EB - 19+82 EB	LT	27	-	-
	19+82 EB - 19+82 EB	LT	8	-	-
	19+82 EB - 19+82 EB	LT	8	-	-
	19+82 EB - 19+82 EB	RT	34	-	-
2	3+00 EB - 4+23 EB	LT	-	123	-
	4+15 EB - 4+15 EB	LT	35	-	-
	4+15 EB - 4+15 EB	RT	27	-	-
	4+15 EB - 4+23 EB	LT	8	-	-
	4+15 EB - 4+23 EB	LT	7	-	-
	4+23 EB - 5+92 EB	LT	-	169	-
	5+84 EB - 5+84 EB	LT	27	-	-
	5+84 EB - 5+92 EB	LT	11	-	-
	5+84 EB - 5+92 EB	LT	12	-	-
	5+84 EB - 5+89 EB	RT	15	-	-
	5+92 EB - 6+03 EB	LT & RT	-	59	-
	8+62 EB - 8+89 EB	LT	27	-	-
	8+84 EB - 8+92 EB	LT	35	-	-
	8+84 EB - 8+89 EB	LT	36	-	-
	8+89 EB - 8+89 EB	LT	7	-	-
	11+57 EB - 11+57 EB	LT	66	-	-
	12+40 EB - 12+40 EB	LT	7	-	-
	12+40 EB - 12+57 EB	LT	18	-	-
	12+48 EB - 12+78 EB	RT	42	-	-
	12+57 EB - 12+89 EB	LT	47	-	-
	12+89 EB - 12+92 EB	LT	24	-	-
3	8+42 EB - 8+42 EB	RT	16	-	-
		PROJECT TOTALS	782	357	152

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

ABANDONING SEWER

STAGE	STATION - STATION	LOCATION	204.0291.S CY
1	14+00 EB - 15+45 EB	RT	17
	15+45 EB - 15+60 EB	RT	0.7
	15+45 EB - 15+84 EB	RT	1.3
		PROJECT TOTALS	19

3

EARTHWORK

Division	From/To Station CURVE TABLE	Location	Common Excavation (1) Cut (2) (item # 205.0100)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14) (15)	Waste	Borrow (item #208.0100)	Comment:
STAGE 1	13+10 to 22+37	CTH YY	3808	1700	2108	1853	2316	-208	0	208	
Division 1 Subtotal			3808	1700	2108	1853	2316	-208	0	208	
STAGE 2	1+86 to 13+19	CTH YY	2652	1480	1172	1429	1787	-615	0	615	
Division 2 Subtotal			2652	1480	1172	1429	1787	-615	0	615	
STAGE 3	3+40 to 8+46	CTH YY	1124	425	699	625	781	-81	0	81	
Division 3 Subtotal			1124	425	699	625	781	-81	0	81	
Grand Total			7585	3605	3980	3907	4883	-904	0	904	
Total Common Exc			7585								

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
4) Salvaged/Unsuable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
13) Expanded Fill. Factor = 1.25
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
15) Excavation for Structures is not included on this table.

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

BASE AGGREGATE DENSE AND WATER

STAGE	STATION TO STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
1	13+10 EB - 22+37 EB	WB LANES	---	1,237	12.4
	13+10 EB - 22+30 EB	EB LANES	---	1,430	14.3
	13+10 EB - 17+31 EB	NORTH SIDEWALK	42	---	0.4
	13+22 EB - 13+37 EB	PAVED ISLAND	---	21	0.2
	13+50 EB - 17+58 EB	SOUTH SIDEWALK	44	---	0.4
	17+15 EB - 17+21 EB	MEDIAN CROSSING	2	---	0.0
	20+61 EB - 22+19 EB	PAVED MEDIAN	---	106	1.1
	21+88 EB - 22+23 EB	PAVED ISLAND	---	40	0.4
2	1+80 EB - 2+11 EB	SW QUADRANT SIDEWALK	6	---	0.1
	1+83 EB - 2+30 EB	NW QUADRANT SIDEWALK	6	---	0.1
	2+79 EB - 3+40 EB	SE QUADRANT PAVEMENT	---	66	0.7
	2+87 EB - 10+23 EB	WB LANES	---	1,258	12.6
	3+11 EB - 10+48 EB	NORTH SIDEWALK	72	---	0.7
	8+46 EB - 10+16 EB	EB LANES	---	154	1.5
	8+46 EB - 9+34 EB	EB LANES SHES PAVEMENT	---	149	1.5
	9+27 EB - 10+31 EB	SOUTH SIDEWALK	10	---	0.1
	9+72 EB - 10+39 EB	PAVED MEDIAN	---	45	0.4
	10+16 EB - 10+37 EB	EB APPROACH SLAB	---	14	0.1
	10+23 EB - 10+46 EB	WB APPROACH SLAB	---	19	0.2
	11+19 EB - 12+92 EB	SOUTH SIDEWALK	16	---	0.2
	11+20 EB - 11+41 EB	EB APPROACH SLAB	---	14	0.1
	11+26 EB - 12+45 EB	PAVED MEDIAN	---	80	0.8
	11+27 EB - 11+51 EB	WB APPROACH SLAB	---	19	0.2
	11+35 EB - 13+10 EB	NORTH SIDEWALK	16	---	0.2
	11+41 EB - 13+19 EB	EB LANES	---	204	2.0
	11+50 EB - 13+10 EB	WB LANES	---	218	2.2
3	2+82 EB - 8+78 EB	SOUTH SIDEWALK	58	---	0.6
	3+40 EB - 8+46 EB	EB LANES	---	788	7.9
	3+75 EB - 4+52 EB	PAVED MEDIAN	---	53	0.5
4	2+85 EB - 3+40 EB	EB LANES	---	12	0.1
	3+26 EB - 3+75 EB	PAVED MEDIAN	---	33	0.3
	8+74 EB - 8+91 EB	PAVED MEDIAN	---	15	0.1
		UNDISTRIBUTED	---	597	6.2
		PROJECT TOTALS	272	6,571	69

COLORING CONCRETE RED

STAGE	STATION TO STATION	LOCATION	405.0100 CY
1	17+15 EB - 17+21 EB	MID BLOCK CROSSING	9
		PROJECT TOTALS	9

3

CONCRETE PAVEMENT APPROACH SLAB

STAGE	STATION TO STATION	LOCATION	415.0410 SY
2	10+16 EB - 10+37 EB	EB PILGRIM WAY	49
	10+23 EB - 10+46 EB	WB PILGRIM WAY	73
	11+20 EB - 11+41 EB	EB PILGRIM WAY	49
	11+27 EB - 11+51 EB	WB PILGRIM WAY	73
		PROJECT TOTALS	244

DRILLED BARS

STAGE	STATION TO STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH
1	13+10 EB - 13+48 EB	EXIT RAMP BYPASS	-	13
	13+10 EB - 22+30 EB	DRIVEWAY	23	-
2	1+86 EB - 2+21 EB	SW QUADRANT	26	-
	1+97 EB - 2+34 EB	NW QUADRANT	26	8
	101+75 HOL - 102+25 HOL	HOLMGREN	9	16
	102+35 HOL - 103+50 HOL	HOLMGREN	23	32
	8+90 EB - 9+22 EB	ENTRANCE RAMP	-	20
	12+95 EB - 13+19 EB	EXIT RAMP	-	16
4	102+25 HOL - 102+35 HOL	HOLMGREN	-	8
		PROJECT TOTALS	107	113

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

CONCRETE PAVEMENT

STAGE	STATION TO STATION	LOCATION	415.0100 10-INCH SY	415.1150.S.01 FAST TRACK (10-INCH) SY	416.1725 REPLACMENT SHES SY	SPV.0180.01 CONCRETE JOINT SEALER SY
1	13+10 EB - 22+37 EB	WB LANES	2,715	-	-	2,715
	13+10 EB - 22+30 EB	EB LANES	3,445	-	-	3,445
2	1+86 EB - 2+21 EB	SW QUADRANT	-	-	50	50
	1+97 EB - 2+34 EB	NW QUADRANT	-	-	60	60
	2+79 EB - 3+40 EB	SE QUADRANT	-	185	-	185
	2+87 EB - 10+23 EB	WB LANES	3,405	-	-	3,405
	8+46 EB - 10+16 EB	EB LANES	410	-	-	410
	8+46 EB - 9+34 EB	EB LANES	-	435	-	435
	11+41 EB - 13+19 EB	EB LANES	570	-	-	570
	11+50 EB - 13+10 EB	WB LANES	615	-	-	615
3	3+40 EB - 8+46 EB	EB LANES	1,815	-	-	1,815
4	2+85 EB - 3+40 EB	EB LANES	-	35	-	35
		PROJECT TOTALS	12,975	655	110	13,740

3

CONCRETE SURFACE DRAIN

STAGE	STATION TO STATION	LOCATION	416.1010 CY
1	22+35 EB	LT	1
		PROJECT TOTALS	1

ASPHALT SUMMARY

STAGE	STATION TO STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0310 ASPHALTIC CURB LF
1	14+67 EB - 17+04 EB	CIS	42	---	---
2	2+85 EB - 3+29 EB	MEDIAN	---	10	---
	4+05 EB - 4+25 EB	EB LANES	---	17	40
	5+74 EB - 6+15 EB	EB LANES	---	43	80
	8+70 EB - 8+97 EB	MEDIAN	---	8	---
		PROJECT TOTALS	42	78	120

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

CONCRETE GUTTER AND CURB & GUTTER

STAGE	STATION TO STATION	LOCATION	601.0205 CONCRETE GUTTER 24-INCH LF	601.0405 18-INCH TYPE A LF	601.0452 INTEGRAL 30-INCH TYPE D LF	601.0600 PEDESTRIAN LF	SPV.0090.01 24-INCH TYPE A LF
1	13+10 EB - 22+36 EB	LT	-	-	964	-	-
	13+19 EB - 22+19 EB	LT	-	910	-	-	-
	13+19 EB - 22+19 EB	LT	-	905	-	-	-
	13+21 EB - 13+30 EB	RT	-	-	44	-	-
	13+49 EB - 14+74 EB	RT	-	-	135	-	-
	16+63 EB - 17+45 EB	RT	-	-	82	-	-
	17+45 EB - 17+58 EB	RT	-	-	-	-	17
	17+45 EB - 18+14 EB	RT	69	-	-	-	-
	17+99 EB - 18+14 EB	RT	-	-	-	-	17
	18+14 EB - 22+19 EB	RT	-	-	425	-	-
	21+88 EB - 22+23 EB	RT	-	-	83	-	-
2	1+91 EB - 2+15 EB	LT	-	-	-	28	-
	3+06 EB - 10+47 EB	LT	-	-	771	-	-
	3+75 EB - 8+70 EB	LT	-	495	-	-	-
	9+34 EB - 10+31 EB	RT	-	-	98	-	-
	9+72 EB - 10+37 EB	LT	-	65	-	-	-
	9+72 EB - 10+39 EB	LT	-	67	-	-	-
	11+20 EB - 12+93 EB	RT	-	-	182	-	-
	11+26 EB - 12+45 EB	LT	-	119	-	-	-
	11+27 EB - 12+45 EB	LT	-	118	-	-	-
	11+35 EB - 13+10 EB	LT	-	-	175	-	-
3	3+40 EB - 8+46 EB	RT	-	-	511	-	-
	3+75 EB - 8+70 EB	LT	-	495	-	-	-
4	3+26 EB - 3+75 EB	LT	-	49	-	-	-
	3+26 EB - 3+75 EB	LT	-	49	-	-	-
	8+70 EB - 8+91 EB	LT	-	21	-	-	-
	8+70 EB - 8+91 EB	LT	-	21	-	-	-
	PROJECT TOTALS		69	3,314	3,470	28	34

3

CONCRETE SIDEWALK

STAGE	STATION TO STATION	LOCATION	602.0410 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
1	13+10 EB - 17+31 EB	NORTH SIDEWALK	2,250	10.0
	13+22 EB - 13+37 EB	PAVED ISLAND	155	20.0
	13+50 EB - 17+58 EB	SOUTH SIDEWALK	2,355	32.5
	17+15 EB - 17+21 EB	MEDIAN CROSSING	90	20.0
	20+61 EB - 22+19 EB	PAVED MEDIAN	785	20.0
	21+88 EB - 22+23 EB	PAVED ISLAND	290	20.0
2	1+80 EB - 2+11 EB	SW QUADRANT	320	20.0
	1+83 EB - 2+30 EB	NW QUADRANT	330	20.0
	3+11 EB - 10+48 EB	NORTH SIDEWALK	3,905	20.0
	9+27 EB - 10+31 EB	SOUTH SIDEWALK	535	10.0
	9+72 EB - 10+39 EB	PAVED MEDIAN	330	-
	11+19 EB - 12+92 EB	SOUTH SIDEWALK	875	10.0
	11+26 EB - 12+45 EB	PAVED MEDIAN	590	-
	11+35 EB - 13+10 EB	NORTH SIDEWALK	860	-
3	2+82 EB - 8+78 EB	SOUTH SIDEWALK	3,150	32.5
	3+75 EB - 4+52 EB	PAVED MEDIAN	385	-
4	3+26 EB - 3+75 EB	PAVED MEDIAN	240	-
	8+74 EB - 8+91 EB	PAVED MEDIAN	110	-
		PROJECT TOTALS	17,555	235

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

RIPRAP

STAGE	STATION	LOCATION	606.0200 MEDIUM CY
1	13+94 EB	LT	4.25
	15+25 EB	LT	1.75
	15+60 EB	RT	1.4
	17+34 EB	RT	1.4
	19+55 EB	LT	1.75
	22+22 EB	LT	2
2	6+30 EB	RT	3.2
	8+15 EB	RT	1.4
	8+68 EB	LT	1.4
	9+78 EB	RT	1.4
	11+58 EB	LT	1.4
	12+45 EB	RT	1.4
	PROJECT TOTALS		22.8

INSULATION BOARD POLYSTYRENE

STAGE	STATION	LOCATION	612.0902.S 2-INCH SY
2	3+32 EB	LT	4
	4+15 EB	LT	4
	PROJECT TOTALS		8

3

CONCRETE MEDIAN SLOPED NOSE

STAGE	STATION	LOCATION	TYPE	620.0300 SF
1	21+85 EB	LT	1	42
	22+21 EB	LT	1	41
2	9+70 EB	LT	1	48
	12+47 EB	LT	1	41
4	3+24 EB	LT	1	30
	8+94 EB	LT	1	50
	PROJECT TOTALS			252

BEAM GUARD

STAGE	STATION TO STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
2	9+25 EB - 9+26 EB	RT	-	9	-	12.5	-	-	-
	9+26 EB - 9+40 EB	RT	-	-	33	-	-	-	-
	9+40 EB - 10+02 EB	RT		63	-	-	-	-	-
	10+02 EB - 10+23 EB	RT	21	-	-	-	-	-	-
	11+44 EB - 11+96 EB	LT	-	-	-	-	-	39	-
	11+96 EB - 13+33 EB	LT	-	-	-	-	150	-	-
	13+33 EB - 13+87 EB	LT	-	-	-	-	-	-	1
	PROJECT TOTALS		21	72	33	12.5	150	39	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

STORM SEWER

STAGE	FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 608.0312 12-INCH (LF)	608.0315 15-INCH (LF)	608.0324 24-INCH (LF)	608.0330 30-INCH (LF)	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 608.0412 12-INCH (LF)	608.0424 24-INCH (LF)
1	INL 8.3	INL 8.1	591.00	590.64	1.00%	36	---	---	---	---	---
	INL 8.1	INL 8.2	590.64	588.60	3.00%	68	---	---	---	---	---
	AE 8	INL 8.2	586.20	585.51	2.03%	---	---	---	34	---	---
	INL 8.2	AE 8.1	585.51	585.23	0.63%	---	---	---	122	---	---
	INL 9.1	INL 9.2	588.91	588.74	1.00%	17	---	---	---	---	---
	INL 9.2	INL 9.3	588.74	588.48	1.00%	26	---	---	---	---	---
	INL 9.3	AE 9	586.18	586.01	0.50%	---	33	---	---	---	---
	INL 10.1	AE 10	588.50	588.14	2.00%	18	---	---	---	---	---
	INL 11.1	AE 11	590.32	590.10	1.05%	21	---	---	---	---	---
	INL 11.2	INL 11.1	590.58	590.32	1.01%	26	---	---	---	---	---
	INL 11.3	INL 11.2	590.74	590.58	0.98%	17	---	---	---	---	---
	INL 11.4	INL 11.3	591.01	590.74	1.00%	26	---	---	---	---	---
	INL 12.1	INL 12.2	596.75	596.36	1.00%	---	39	---	---	---	---
	INL 12.2	INL 12.3	596.36	596.21	1.00%	---	15	---	---	---	---
	INL 12.3	INL 12.4	596.21	595.94	1.00%	---	26	---	---	---	---
	INL 12.4	AE 12	595.94	595.28	2.00%	---	33	---	---	---	---
2	MH 1	MH 2	593.5	593.36	0.12%	---	---	114	---	---	---
	MH 2	INL 3.3	593.36	593.16	0.12%	---	---	---	---	---	167
	INL 2.3	MH 2	594.43	594.36	0.40%	17	---	---	---	---	---
	INL 2.1	INL 2.2	594.53	594.45	0.30%	26	---	---	---	---	---
	INL 2.2	INL 2.3	594.45	594.43	0.29%	7	---	---	---	---	---
	INL 2.4	MH 2	594.46	594.36	0.30%	34	---	---	---	---	---
	INL 3.1	AE 3	593.09	592.99	0.20%	---	---	---	---	---	48
	INL 3.2	INL 3.1	593.14	593.09	0.15%	---	---	---	---	---	35
	INL 3.3	INL 3.2	593.16	593.14	0.12%	---	---	---	---	---	17
	INL 3.4	INL 3.3	594.29	594.16	0.30%	---	---	---	---	40	---
	INL 5.1	INL 5.2	590.78	590.55	2.50%	9	---	---	---	---	---
	INL 5.2	INL 5.3	590.55	589.51	2.50%	42	---	---	---	---	---
	INL 5.3	AE 5	586.34	586.17	0.50%	---	33	---	---	---	---
	INL 6.1	INL 6.2	590.98	589.55	3.94%	36	---	---	---	---	---
	INL 6.2	AE 6	586.78	586.63	0.50%	29	---	---	---	---	---
	INL 7.1	AE 7	589.54	587.47	5.00%	40	---	---	---	---	---
	INL 7.3	INL 7.2	590.79	590.73	0.95%	7	---	---	---	---	---
	INL 7.2	INL 7.1	590.73	589.54	2.50%	48	---	---	---	---	---
	INL 13.3	INL 13.2	592.27	592.24	0.50%	7	---	---	---	---	---
	INL 13.2	INL 13.1	592.24	592.00	0.50%	47	---	---	---	---	---
	INL 13.1	AE 13	592.00	591.83	1.00%	17	---	---	---	---	---
3	INL 4.1	AE 4	591.40	591.22	1.00%	18	---	---	---	---	---
				PROJECT TOTALS		603	179	114	156	40	267

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

STORM SEWER STRUCTURE SCHEDULE

				FINISHED				APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE				RECONSTRUCTING INLET	INLET AND MANHOLE COVERS			CATCH BASINS		MANHOLES	INLETS	
								522.1012	522.1015	522.1024	522.1030	611.0430	611.0530	611.0624	611.0666	611.1004	611.1005	611.2004	611.3003	611.3230
STAGE	STRUCT. NO.	STATION	OFFSET	CASTING ELEV	TOP STRUCTURE ELEV	BOTTOM STRUCTURE ELEV	DEPTH	12-INCH (EACH)	15-INCH (EACH)	24-INCH (EACH)	30-INCH (EACH)	(EACH)	TYPE J (EACH)	TYPE H (EACH)	TYPE Z (EACH)	4-FT DIAMETER (EACH)	5-FT DIAMETER (EACH)	4-FT DIAMETER (EACH)	3-FT DIAMETER (EACH)	2x3-FT (EACH)
1	AE 8	13+93.49'	70.60' RT			586.20		---	---	---	1	---	---	---	---	---	---	---	---	---
	INL 8.3	13+18.78'	8.25' LT	594.48	593.48	591.00	2.48	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 8.1	13+26.79'	26.96' RT	594.36	593.53	590.64	2.89	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 8.2	13+94.09'	36.74' RT	593.95	593.12	585.51	7.61	---	---	---	---	---	---	1	---	---	1	---	---	---
	AE 8.1	13+93.21'	84.94' LT			585.23		---	---	---	1	---	---	---	---	---	---	---	---	---
	INL 9.1	15+19.56'	0.75' LT	594.05	593.05	588.91	4.14	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 9.2	15+24.93'	17.25' LT	594.09	593.09	588.74	4.35	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 9.3	15+25.13'	43.50' LT	594.01	593.18	586.18	7.00	---	---	---	---	---	---	1	---	1	---	---	---	---
	AE 9	15+25.03'	76.33' LT			586.01		---	1	---	---	---	---	---	---	---	---	---	---	---
	EX INL 10.1	15+60.01	45.70' RT	593.36		588.50		---	---	---	---	1	---	---	---	---	---	---	---	---
	AE 10	15+60.03'	63.76' RT			588.14		1	---	---	---	---	---	---	---	---	---	---	---	---
	INL 11.1	17+34.33'	25.50' RT	595.62	594.79	590.32	4.47	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 11.2	17+33.87'	0.75' LT	595.62	594.62	590.58	4.04	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 11.3	17+33.55'	17.25' LT	595.54	594.54	590.74	3.79	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 11.4	17+33.83'	43.50' LT	595.51	594.68	591.01	3.68	---	---	---	---	---	---	1	---	---	---	---	---	1
	AE 11	17+34.33'	46.78' RT			590.10		1	---	---	---	---	---	---	---	---	---	---	---	---
	INL 12.1	19+81.89'	36.30' RT	600.96	600.13	596.75	3.38	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 12.2	19+81.88'	3.08' LT	601.72	600.72	596.36	4.37	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 12.3	19+82.00'	18.32' LT	601.23	600.23	596.21	4.02	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 12.4	19+81.99'	44.57' LT	601.15	600.32	595.94	4.37	---	---	---	---	---	---	1	---	---	---	---	---	1
	AE 12	19+60.68'	69.14' LT			595.28		---	1	---	---	---	---	---	---	---	---	---	---	---
2	MH 1	2+99.73'	13.94' LT	597.97	596.72	593.60	3.12	---	---	---	---	---	1	---	---	---	---	1	---	---
	INL 1.1	103+35.41'	39.85' RT	598.59	597.76	594.30	3.46	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 2.1	4+15.46'	25.50' RT	597.50	596.67	594.53	2.14	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 2.2	4+15.38'	0.75' LT	597.59	596.59	594.45	2.14	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 2.3	4+14.96'	7.25' LT	597.48	596.48	594.43	2.05	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 2.4	4+15.20'	57.50' LT	597.31	596.48	594.46	2.02	---	---	---	---	---	---	1	---	---	---	---	---	1
	MH 2	4+15.04'	24.00' LT	597.78	596.53	593.36	3.17	---	---	---	---	---	1	---	---	---	---	1	---	---
	INL 3.1	5+83.91'	34.55' RT	597.11	596.28	593.09	3.18	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 3.2	5+83.93'	0.75' LT	597.03	596.03	593.14	2.89	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 3.3	5+83.52'	17.25' LT	597.10	596.10	593.16	2.94	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 3.4	5+83.76'	57.50' LT	596.75	595.92	594.28	1.64	---	---	---	---	---	---	1	---	---	---	---	---	1
	AE 3	6+22.96'	61.72' RT			592.99		---	---	1	---	---	---	---	---	---	---	---	---	---
	INL 5.1	8+65.80'	0.75' LT	596.12	595.12	590.78	4.34	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 5.2	8+65.74'	10.00' LT	595.94	594.94	590.55	4.39	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 5.3	8+65.81'	51.50' LT	595.86	595.03	586.34	8.69	---	---	---	---	---	---	1	---	1	---	---	---	---
	AE 5	8+67.72'	84.85' LT			586.17		---	1	---	---	---	---	---	---	---	---	---	---	---
	INL 6.1	11+56.62'	7.25' LT	595.07	594.07	590.98	3.09	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 6.2	11+57.39'	43.50' LT	595.13	594.30	586.77	7.53	---	---	---	---	---	---	1	---	1	---	---	---	---
	AE 6	11+58.02'	72.22' LT			586.63		1	---	---	---	---	---	---	---	---	---	---	---	---
	INL 7.1	12+80.00'	25.00' RT	594.62	593.79	589.54	4.25	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 7.2	12+40.10'	0.75' LT	594.87	593.87	590.72	3.15	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 7.3	12+39.44'	7.25' LT	594.73	593.73	590.79	2.94	---	---	---	---	---	---	---	1	---	---	---	1	---
	AE 7	12+51.27'	53.93' RT			587.47		1	---	---	---	---	---	---	---	---	---	---	---	---
	INL 13.1	9+75.00'	31.15' RT	595.59	594.76	592.00	2.76	---	---	---	---	---	---	1	---	---	---	---	---	1
	INL 13.2	10+10.00'	0.75' LT	595.65	594.65	592.24	2.41	---	---	---	---	---	---	---	1	---	---	---	1	---
	INL 13.3	10+10.00'	7.25' LT	595.46	594.46	592.27	2.19	---	---	---	---	---	---	---	1	---	---	---	1	---
	AE 13	9+77.85'	47.75' RT			591.83		1	---	---	---	---	---	---	---	---	---	---	---	---
3	INL 4.1	8+15.00'	39.50' RT	595.93	595.10	591.40	3.70	---	---	---	---	---	---	1	---	---	---	---	---	1
	AE 4	8+15.00'	57.11' RT			591.22		1	---	---	---	---	---	---	---	---	---	---	---	---
						PROJECT TOTALS		**6**	**3**	**1**	**2**	**1**	**2**	**17**	**18**	**3**	**1**	**2**	**18**	**13**

Notes:
Type J Cover = 9" Depth from flow line to bottom of casting
Type H Cover = 4" Depth from flow line to bottom of casting
Type Z Cover = 6" Depth from flow line to bottom of casting

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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LANDSCAPING SUMMARY

STAGE	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	SPV.0120.01 WATER FOR SEEDED AREAS MGAL
1	13+10 EB - 22+35 EB	WB BEHIND SIDEWALK/TERRACE	3,004	1.89	81.1	---	81	17
	13+19 EB - 17+15 EB	MEDIAN	657	0.41	---	11.8	18	4
	13+50 EB - 17+58 EB	EB BEHIND SIDEWALK	720	0.45	19.4	---	19	4
	13+59 EB - 14+85 EB	EB TERRACE	113	0.07	---	2.0	3	1
	13+88 EB - 17+15 EB	WB TERRACE	211	0.13	---	3.8	6	1
	17+21 EB - 20+61 EB	MEDIAN	533	0.34	---	9.6	14	3
	17+98 EB - 22+19 EB	EB TERRACE*	774	0.49	---	34.8	21	4
2	1+80 EB - 2+02 EB	SW QUADRANT BEHIND SIDEWALK	12	0.01	---	0.2	0.3	0.1
	1+80 EB - 2+11 EB	SW QUADRANT TERRACES	20	0.01	---	0.4	1	0.1
	1+84 EB - 2+30 EB	NW QUADRANT TERRACES	17	0.01	---	0.3	0.5	0.1
	3+05 EB - 10+38 EB	WB TERRACE	382	0.24	---	6.9	10	2
	3+15 EB - 7+35 EB	WB BEHIND SIDEWALK*	186	0.12	---	8.4	5	1
	7+35 EB - 10+52 EB	WB BEHIND SIDEWALK	1,006	0.63	27.2	---	27	6
	9+27 EB - 10+30 EB	EB BEHIND SIDEWALK	126	0.08	3.4	---	3	1
	9+30 EB - 10+19 EB	EB TERRACE	22	0.01	---	0.4	1	0.1
	11+26 EB - 12+86 EB	EB BEHIND SIDEWALK	338	0.21	9.1	---	9	2
	11+29 EB - 12+90 EB	EB TERRACE	53	0.03	---	1.0	1	0.3
	11+45 EB - 13+10 EB	WB BEHIND SIDEWALK	279	0.18	7.5	---	8	2
3	2+80 EB - 8+65 EB	EB TERRACE	387	0.24	---	7.0	10	2
	2+93 EB - 8+88 EB	EB BEHIND SIDEWALK	721	0.45	19.5	---	19	4
	4+52 EB - 8+70 EB	MEDIAN	625	0.39	---	11.2	17	4
		SUBTOTALS	10185	6.4	167	98	275	57
		UNDISTRIBUTED AMOUNT	2546	1.6	42	24	69	14
		PROJECT TOTAL	12,731	8.0	209	122	344	71

NOTES:
TYPE B FERTILIZER @ 7LBS/1000SF
SEED NO 20 @ 3LBS/1000SF
SEED NO 40 @ 2LBS/1000SF
* SEED NO 40 @ 5LBS/1000SF
TEMP SEED @ 3LBS/1000SF

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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SILT FENCE

STAGE	STATION TO STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
1	13+10 EB - 22+27 EB	LT	995	995
	13+50 EB - 17+58 EB	RT	445	445
	20+30 EB - 21+99 EB	RT	165	165
2	7+00 EB - 10+55 EB	LT	390	390
	9+31 EB - 10+27 EB	RT	120	120
	11+26 EB - 12+85 EB	RT	175	175
	11+45 EB - 13+10 EB	LT	205	205
3	3+11 EB - 8+87 EB	RT	610	610
		SUBTOTALS	3105	3105
		UNDISTRIBUTED AMOUNT	776	776
		PROJECT TOTALS	3,881	3,881

EROSION MAT URBAN CLASS I

STAGE	STATION	LOCATION	628.2006 TYPE A SY	628.2008 TYPE B SY
1	13+10 EB - 22+35 EB	WB BEHIND SIDEWALK/TERRACE	---	3,004
	13+19 EB - 17+15 EB	MEDIAN	657	---
	13+50 EB - 17+58 EB	EB BEHIND SIDEWALK	---	720
	13+59 EB - 14+85 EB	EB TERRACE	113	---
	13+88 EB - 17+15 EB	WB TERRACE	211	---
	17+21 EB - 20+61 EB	MEDIAN	533	---
	17+98 EB - 22+19 EB	EB TERRACE	774	---
2	1+80 EB - 2+02 EB	SW QUADRANT BEHIND SIDEWALK	---	12
	1+80 EB - 2+11 EB	SW QUADRANT TERRACES	20	---
	1+84 EB - 2+30 EB	NW QUADRANT TERRACES	17	---
	3+05 EB - 10+38 EB	WB TERRACE	382	---
	3+15 EB - 7+35 EB	WB BEHIND SIDEWALK	186	---
	7+35 EB - 10+52 EB	WB BEHIND SIDEWALK	---	1,006
	9+27 EB - 10+30 EB	EB BEHIND SIDEWALK	---	126
	9+30 EB - 10+19 EB	EB TERRACE	22	---
	11+26 EB - 12+86 EB	EB BEHIND SIDEWALK	---	338
	11+29 EB - 12+90 EB	EB TERRACE	53	---
	11+45 EB - 13+10 EB	WB BEHIND SIDEWALK	---	279
3	2+80 EB - 8+65 EB	EB TERRACE	387	---
	2+93 EB - 8+88 EB	EB BEHIND SIDEWALK	---	721
	4+52 EB - 8+70 EB	MEDIAN	625	625
		SUBTOTALS	3980	6830
		UNDISTRIBUTED AMOUNT	995	1708
		PROJECT TOTALS	4,974	8,538

MOBILIZATIONS EROSION CONTROL

STATION	LOCATION	628.1905 EACH	628.1910 EMERGENCY EACH
1+86 EB - 22+36 EB	PILGRIM WAY	10	3
	SUBTOTALS	10	3
	UNDISTRIBUTED AMOUNT	3	1
	PROJECT TOTALS	13	4

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INLET PROTECTION

STAGE	STATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	629.7020 TYPE D EACH
1	1+68 EB - 19+82 EB	3	4	46	6
2	4+15 EB - 12+78 EB	---	---	19	---
3	4+15 EB - 8+42 EB	---	---	1	---
	SUBTOTAL	3	4	66	6
	UNDISTRIBUTED	1	1	17	2
	PROJECT TOTALS	4	5	83	8

TEMPORARY DITCH CHECKS

STAGE	STATION	LOCATION	628.7504 LF
2	7+46 EB	LT	17.5
3	5+75 EB	RT	17.5
	6+50 EB	RT	17.5
	8+00 EB	RT	17.5
		PROJECT TOTAL	70

CULVERT PIPE CHECKS

STAGE	STATION	LOCATION	628.7555 EACH
1	13+94 EB	RT	5
	18+05 EB	RT	5
		PROJECT TOTAL	10

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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ROCK BAGS

STAGE	STATION	LOCATION	628.7570 EACH
1	8+87 EB	RT	2
	22+33 EB	LT	2
		UNDISTRIBUTED	1
		PROJECT TOTAL	5

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
13+94 EB	LT & RT	2
15+25 EB	LT	1
15+60 EB	RT	1
17+34 EB	RT	1
19+55 EB	LT	1
6+30 EB	RT	1
8+15 EB	RT	1
8+68 EB	LT	1
9+78 EB	RT	1
11+58 EB	LT	1
12+45 EB	RT	1
	PROJECT TOTAL	12

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REMOVING STRUCTURAL STEEL SIGN SUPPORTS

DESCRIPTION	STATION	638.3100 EACH
OVERHEAD SIGN STRUCTURE	21+00	1
	PROJECT TOTALS	1

TRAFFIC CONTROL COVERING SIGNS TYPE II

STAGE	LOCATION	643.0920 EACH	NUMBER OF CYCLES	NUMBER OF SIGNS
1	WIS 172 EXIT RAMP	1	1	1
	WIS 32 - PHASE 1	2	1	2
	WIS 32 - PHASE 2	1	1	1
2	WIS 172 EXIT RAMP	1	1	1
	PROJECT TOTALS	5		

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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ERECTION AND REMOVAL OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	DIRECTION OF TRAVEL	SIGN CODE	637.2210 SIGNS TYPE II REFLECTIVE H W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	634.0614 POSTS WOOD 4x6x14 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	CTH YY	WB	R1-1F	3X3	7.46	---	---	1	1	REMOVE AND BAND ON NEW SIGNAL POLE
2	CTH YY	EB	R4-7	2X2.5	5	1	---	1	1	---
3	CTH YY	WB	R1-1F	3X3	7.46	---	---	---	---	PLACED ON THE BACK OF SIGN SUPPORT 2
4	CTH YY	EB	J2-1	2X4.75	9.50	1	---	1	1	---
5	CTH YY	WB	R5-1	2.5X2.5	6.26	1	---	---	---	---
6	CTH YY	EB	W3-3	3X3	9.00	1	---	1	1	---
7	CTH YY	WB	R5-1A	3X2	6.00	1	---	1	1	---
8	CTH YY	WB	EX SIGN	---	---	---	1	---	---	MOVE NO PARKING SIGN TO BACK OF SIGN SUPPORT 5
9	CTH YY	EB	EX SIGN	---	---	1	1	---	1	AUSTIN STRAUBEL AIRPORT, MOVE TO NEW SUPPORT
10	CTH YY	EB	EX SIGN	---	---	1	1	---	1	NO PARKING, MOVE TO NEW SUPPORT
11	CTH YY	WB	W3-3	3X3	9.00	1	---	1	1	---
12	CTH YY	WB	R2-1	2X2.5	5.00	1	---	1	1	35 MPH
13	CTH YY	EB	J2-2	4X4.75	19.00	1	---	1	1	---
14	CTH YY	EB	R5-1	2.5X2.5	6.26	---	---	1	---	PLACE ON THE BACK OF SIGN SUPPORT 13
15	CTH YY	WB	R10-15L	2.5X2.5	6.25	1	---	---	---	---
16	CTH YY	WB	R3-7-R	2.5X2.5	6.25	1	---	---	---	---
17	CTH YY	WB	R10-15L	2.5X2.5	6.25	1	---	---	---	---
18	CTH YY	EB	J2-1	2X4.75	9.50	1	---	1	1	---
19	CTH YY	WB	J2-2	4X4.75	19.00	---	---	1	---	INSTALL NEW SIGN ON SUPPORT 18
20	CTH YY	EB	R2-1	2X2.5	5.00	1	---	1	1	35 MPH
21	CTH YY	WB	R5-1A	3X2	6.00	---	---	1	---	PLACE ON THE BACK OF SUPPORT 20
22	CTH YY	EB	R1-1F	3X3	7.46	1	---	1	---	REMOVE AND REPLACE ON NEW SUPPORT
23	CTH YY	EB	R3-1	2X2	4.00	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
24	CTH YY	EB	R1-1F	3X3	7.46	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
25	CTH YY	WB	R5-1	2.5X2.5	6.26	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
26	CTH YY	WB	EX SIGN	---	---	1	1	---	---	NO PARKING, MOVE TO NEW SUPPORT
27	CTH YY	WB	EX SIGN	---	---	---	1	---	---	MOVE AUSTIN STRAUBEL AIRPORT UNDER SIGN 26
28	CTH YY	WB	R4-7	2X2.5	5.00	---	---	1	---	PLACE ON THE BACK OF SIGN SUPPORT 22
29	CTH YY	NB	R6-2L	2X2.5	5.00	1	---	1	2	---
30	WIS 172 EXIT RAMP	SB	R5-1	2.5X2.5	6.26	1	---	1	1	---
31	CTH YY	WB	R1-1F	3X3	7.46	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
32	CTH YY	EB	R5-1	2.5X2.5	6.26	1	---	1	1	---
			SUBTOTALS		203.35	20.00	5.00	22.00	16.00	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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ERECTION AND REMOVAL OF TYPE II SIGNS AND SUPPORTS CONT.

SIGN NO.	LOCATION	DIRECTION OF TRAVEL	SIGN CODE	637.2210 SIGNS TYPE II REFLECTIVE H W X H	S.F.	634.0614 POSTS WOOD 4x6x14 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
33	CTH YY	EB	R3-1	2X2	4.00	1	---	1	---	REMOVE AND REPLACE ON NEW SUPPORT
34	CTH YY	WB	R1-1F	3X3	7.46	---	---	1	---	PLACE ON THE BACK OF SUPPORT 33
35	WIS 172 EXIT RAMP	NB	R1-1F	3X3	7.46	1	---	---	---	---
36	WIS 172 EXIT RAMP	NB	R1-1F	3X3	7.46	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
37	WIS 172 EXIT RAMP	NB	R6-2R	2X2.5	5.00	---	---	1	---	PLACE ON THE BACK OF SUPPORT 30
38	WIS 172 EXIT RAMP	NB	R1-2	3X2.58	3.88	1	---	1	1	---
39	CTH YY	EB	D4-56R	3X3	9.00	1	---	1	1	---
40	CTH YY	EB	RS-1A	3X2	6.00	1	---	1	1	---
41	CTH YY	WB	W3-3	3X3	9.00	1	---	1	1	---
42	CTH YY	EB	R10-64	2.5X3	7.50	---	---	1	---	REMOVE AND REPLACE UNDER SIGN 43
43	CTH YY	EB	W3-3	3X3	9.00	1	---	1	1	---
44	CTH YY	EB	EX SIGN	---	---	1	1	---	1	BUS STOP SIGN, MOVE TO NEW SUPPORT
45	CTH YY	DRIVEWAY	R6-2R	2X2.5	5.00	---	---	1	---	REMOVE AND BAND NEW SIGN ON LIGHT POLE
46	CTH YY	EB	J2-1	2X4.75	9.50	1	---	---	---	---
47	CTH YY	EB	J2-1	2X4.75	9.50	1	---	---	---	---
48	CTH YY	EB	R3-8-B	3X2.5	7.50	1	---	---	---	---
49	CTH YY	EB	R3-8-D	3X2.5	7.50	1	---	---	---	---
50	CTH YY	EB	EX SIGN	---	---	2	1	---	2	MOVE INFORMATIONAL SIGN TO NEW SUPPORTS
51	CTH YY	EB	EX SIGN	---	---	---	---	1	---	---
52	CTH YY	EB	EX SIGN	---	---	---	---	1	---	---
53	CTH YY	EB	EX SIGN	---	---	---	---	1	---	---
54	CTH YY	EB	EX SIGN	---	---	---	---	1	---	---
55	CTH YY	EB	EX SIGN	---	---	---	---	1	---	---
56	CTH YY	WB	J1-1	2X3.25	6.50	1		1	1	---
57	CTH YY	EB	R1-1F	3X3	7.46	1	---	1	---	REMOVE FROM SIGNAL POLE AND PLACE ON NEW SUPPORT
58	CTH YY	WB	R4-7	2X2.5	5.00	---	---	1	---	REMOVE FROM SIGNAL POLE AND PLACE ON SUPPORT 57
59	CTH YY	WB	R3-1	2X2	4.00	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
60	STH 32	SB	EX SIGN	3X3	7.46	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
61	CTH YY	WB	R5-1	2.5X2.5	6.26	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
62	CTH YY	EB	W12-1D	2X2	4.00	1	---	1	1	---
63	CTH YY	EB	R1-2	3X2.58	3.88	1	---	1	1	---
64	CTH YY	EB	R1-1F	3X3	7.46	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
65	CTH YY	EB	R6-2R	2X2.5	5.00	---	---	1	---	REMOVE AND BAND ON NEW SIGNAL POLE
			SUBTOTALS		171.78	18.00	2.00	26.00	11.00	
			PROJECT TOTALS		375.13	38.00	7.00	48.00	27.00	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL SUMMARY

STAGE	LOCATION	SERVICE DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	642.0410 BARRICADES TYPE II NO.	642.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS	643.1050 SIGNS PCMS NO.	643.1050 SIGNS PCMS DAYS
1	CTH YY/ PILGRIM WAY	43	48	2,064	---	---	36	1,548	43	1,849	17	731	15	645	2	14
	HOLMGREN WAY	43	---	---	---	---	---	---	---	---	---	---	6	258	---	---
	WIS 172 ENTRANCE RAMP	43	---	---	---	---	---	---	---	---	---	---	1	43	---	---
	WIS 172 EXIT RAMP	43	16	688	---	---	5	215	7	301	---	---	5	215	1	7
	WIS 32 - PHASE 1	36	50	1,800	---	---	2	72	4	144	6	216	20	720	---	---
	PILGRIM EAST - PHASE 1	36	---	---	---	---	---	---	---	---	---	---	4	144	---	---
	WIS 32 - PHASE 2	7	116	812	---	---	4	28	8	56	12	84	24	168	---	---
	PILGRIM EAST - PHASE 2	7	---	---	---	---	22	154	26	182	---	---	8	56	2	14
2	CTH YY/ PILGRIM WAY	31	54	1,674	---	---	19	589	20	620	21	651	12	372	---	---
	HOLMGREN WAY	31	11	341	---	---	---	---	---	---	---	---	6	186	---	---
	WIS 172 ENTRANCE RAMP	31	---	---	---	---	---	---	---	---	---	---	1	31	---	---
	WIS 172 EXIT RAMP	31	15	465	---	---	3	93	4	124	15	465	4	124	1	7
	WIS 32/ASHLAND AVENUE	31	43	1,333	---	---	2	62	4	124	6	186	20	620	---	---
	SOUTHWEST QUADRANT	1	9	9	---	---	1	1	2	2	4	4	4	4	---	---
	NORTHWEST QUADRANT	1	17	17	---	---	1	1	2	2	8	8	4	4	---	---
	CTH YY LOOP INSTALL - WEST LEG	1	12	12	---	---	1	1	2	2	2	2	4	4	---	---
	ENTRANCE RAMP CLOSURE	2	127	254	---	---	24	48	29	58	42	84	48	96	1	7
	SIDEWALK CLOSURE - NE QUAD	31	---	---	3	93	2	62	---	---	---	---	4	124	---	---
	SIDEWALK CLOSURE - NW QUAD	1	---	---	4	4	4	4	---	---	---	---	5	5	---	---
	SIDEWALK CLOSURE - SW QUAD	1	---	---	4	4	4	4	---	---	---	---	5	5	---	---
3	CTH YY/ PILGRIM WAY	13	68	884	---	---	21	273	24	312	39	507	12	156	---	---
	HOLMGREN WAY	13	---	---	---	---	---	---	---	---	---	---	6	78	---	---
	WIS 172 ENTRANCE RAMP	13	---	---	---	---	---	---	---	---	---	---	1	13	---	---
	WIS 172 EXIT RAMP	13	15	195	---	---	3	39	4	52	15	195	4	52	---	---
	WIS 32/ASHLAND AVENUE	13	43	559	---	---	2	26	4	52	6	78	20	260	---	---
	SIDEWALK CLOSURE - SE QUAD	13	---	---	4	52	2	26	---	---	---	---	5	65	---	---
4	CTH YY/ PILGRIM WAY	1	51	51	---	---	3	3	6	6	10	10	18	18	---	---
	HOLMGREN WAY	1	---	---	---	---	---	---	---	---	---	---	6	6	---	---
	WIS 172 ENTRANCE RAMP	1	---	---	---	---	---	---	---	---	---	---	1	1	---	---
	PROJECT TOTALS		695	11,158	15	153	161	3,249	189	3,886	203	3,221	273	4,473	7	49

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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PAVEMENT MARKING

STATION TO STATION	LOCATION	646.011 EPOXY 4-INCH WHITE DASHED LF	646.0126 EPOXY 8-INCH WHITE SOLID LF	646.0126 EPOXY 8-INCH WHITE DASHED LF	647.0156 ARROWS EPOXY TYPE 1 EACH	647.0166 ARROWS EPOXY TYPE 2 EACH	647.0176 ARROWS EPOXY TYPE 3 EACH	647.0356 WORDS EPOXY EACH	647.0456 CURB EPOXY YELLOW LF	647.0576 STOP LINE EPOXY 24-INCH LF	647.0606 ISLAND NOSE EPOXY YELLOW EACH	647.0766 CROSSWALK EPOXY 6-INCH LF
1+88 EB - 2+09 EB	WEST LEG CTH YY/HOLMGREN	---	---	---	---	---	---	---	---	38	---	161
2+10 EB - 2+83 EB	SOUTH LEG CTH YY/HOLMGREN	---	---	---	---	---	---	---	---	38	---	146
2+29 EB - 3+13 EB	NORTH LEG CTH YY/HOLMGREN	---	---	---	---	---	---	---	---	37	---	152
3+00 EB - 3+36 EB	EAST LEG CTH YY/HOLMGREN	---	---	---	---	---	---	---	---	55	---	186
3+10 EB - 22+04 EB	EASTBOUND LANE LINE	475	---	---	---	---	---	---	---	---	---	---
3+21 EB - 3+31 EB	MEDIAN NOSE	---	---	---	---	---	---	---	10	---	1	---
3+21 EB - 3+31 EB	WB LEFT TURN AT HOLMGREN	---	120	---	---	2	---	1	---	---	---	---
3+26 EB - 22+08 EB	WESTBOUND LANE LINE	470	---	---	---	---	---	---	---	---	---	---
3+31 EB - 7+61 EB	WB RIGHT TURN AT HOLMGREN	---	425	---	---	3	---	2	---	---	---	---
6+85 EB - 8+46 EB	EB RIGHT TURN AT WIS 172 ON RAMP	---	160	---	---	2	---	1	---	---	---	---
8+86 EB - 8+97 EB	MEDIAN NOSE	---	---	---	---	---	---	---	10	---	1	---
9+66 EB - 9+77 EB	MEDIAN NOSE	---	---	---	---	---	---	---	10	---	1	---
9+66 EB - 11+97 EB	WB LEFTT TURN AT WIS 172 ON RAMP	---	230	---	---	2	---	1	---	---	---	---
12+47 EB - 13+07 EB	MEDIAN NOSE	---	---	---	---	---	---	---	10	---	1	---
12+40 EB - 12+51 EB	LEFT TURN CHANNELIZING LINE	---	---	24	---	---	---	---	---	---	---	---
12+94 EB - 13+19 EB	WIS 172 OFF RAMP LEFT TURN LANES	---	---	---	---	---	---	---	---	24	---	50
13+19 EB - 13+32 EB	MEDIAN NOSE	---	---	---	---	---	---	---	35	---	---	---
13+33 EB - 13+55 EB	WIS 172 OFF RAMP RIGHT TURN LANE	---	---	---	---	---	---	---	---	---	---	45
17+15 EB - 17+21 EB	MID BLOCK CROSSING	---	---	---	---	---	---	---	---	---	---	96
20+30 EB - 21+90 EB	EASTBOUND RIGHT TURN AT WIS 32	---	190	---	---	2	---	1	---	---	---	---
20+71 EB - 22+04 EB	EASTBOUND LEFT TURN AT WIS 32	---	133	---	---	2	---	1	---	---	---	---
20+90 EB - 21+90 EB	EASTBOUND THROUGH LANES	---	---	---	2	---	2	---	---	---	---	---
22+14 EB - 22+25 EB	MEDIAN NOSE	---	---	---	---	---	---	---	10	---	1	---
	SUBTOTAL	945	1,258	24	2	13	2	7	85	192	5	836
	PROJECT TOTALS	945	1,282		2	13	2	7	85	192	5	836

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

GEOTEXTILE FABRIC

STAGE	STATION TO STATION	LOCATION	645.0120 TYPE HR SY	645.0130 TYPE R SY
1	13+94 EB	LT	12.75	---
	15+25 EB	LT	5.25	---
	15+60 EB	RT	4.25	---
	17+34 EB	RT	4.25	---
	19+55 EB	LT	5.25	---
	22+22 EB	LT	---	16
2	6+30 EB	RT	9.75	---
	8+15 EB	RT	4.25	---
	8+68 EB	LT	4.25	---
	9+78 EB	RT	4.25	
	11+58 EB	LT	4.25	---
	12+45 EB	RT	4.25	---
		PROJECT TOTALS	62.75	16

REMOVING PAVEMENT MARKINGS

STATION TO STATION	LOCATION	646.0600 LF
1+88 EB - 2+09 EB	WEST LEG CTH YY/HOLMGREN	480
2+10 EB - 2+83 EB	SOUTH LEG CTH YY/HOLMGREN	480
2+29 EB - 3+13 EB	NORTH LEG CTH YY/HOLMGREN	480
	PROJECT TOTALS	1,440

TEMPORARY PAVEMENT MARKING

STAGE	STATION TO STATION	LOCATION	649.0400 REMOVABLE TAPE 4-INCH WHITE SOLID LF	649.0400 REMOVABLE TAPE 4-INCH YELLOW SOLID LF	649.0801 REMOVABLE TAPE 8-INCH WHITE SOLID LF	649.1800 ARROWS REMOVABLE TAPE EACH	649.2000 WORDS REMOVABLE TAPE EACH
1	0+73 EB - 1+97 EB	WEST LEG CTH YY/HOLMGREN	---	---	125	4	2
	3+02 EB - 8+95 EB	EASTBOUND LANE LINE	400	450	---	---	---
	12+70 EB - 13+09 EB	WIS 172 EXIT RAMP	530	---	---	---	---
		SB WIS 32/ASHLAND AVE PHASE 1	705	---	---	---	---
		NB WIS 32/ASHLAND AVE PHASE 1	---	300	---	---	---
		EAST LEG PILGRIM WAY/WIS 32	---	---	80	2	---
		SB WIS 32/ASHLAND AVE PHASE 2	---	410	---	---	---
		NB WIS 32/ASHLAND AVE PHASE 2	740	125	---	---	---
2	8+48 EB - 9+21 EB	WIS 172 ENTRANCE RAMP	---	120	---	---	---
	12+92 EB - 13+87 EB	WIS 172 EXIT RAMP	685	1,080	---	---	---
3	2+77 EB - 9+28 EB	EB CTH YY	290	750	---	---	---
	8+69 EB - 8+90 EB	WIS 172 ENTRANCE RAMP	80	---	---	---	---
		SUBTOTAL	3,430	3,235	205	6	2
		PROJECT TOTALS	6,665		205	6	2

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONSTRUCTION STAKING SUMMARY

STATION TO STATION	LOCATION	650.4000 STORM SEWER SYSTEM * EACH	650.4500 SUBGRADE LF	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS (4987-02-55) LS	650.9910 SUPPLEMENTAL CONTROL (4987-02-55) LS	650.9920 SLOPE STAKES LF
1+86 EB - 22+36 EB	PILGRIM WAY	52	3,975	3,975	1	1	3,975
	PROJECT TOTALS	52	3,975	3,975	1	1	3,975

* SEE STORM SEWER QUANTITIES FOR STATION AND OFFSETS

SAWING

STAGE	STATION TO STATION		LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
1	13+10 EB - 13+50 EB	LT & RT	STAGE 1 WEST LIMITS	---	132
	14+63 EB - 17+08 EB	RT	CIS	243	6
	17+55 EB - 18+00 EB	RT	DRIVEWAY	---	68
	22+19 EB - 22+38 EB	LT & RT	STAGE 1 EAST LIMITS	---	209
2	1+86 EB - 2+21 EB	RT	SW QUADRANT	---	74
	1+97 EB - 2+34 EB	LT	NW QUADRANT	---	78
	2+79 EB - 3+40 EB	RT	SE QUADRANT	---	136
	2+87 EB - 3+75 EB	LT	STAGE 2 WEST LIMITS	---	212
	4+06 EB - 4+25 EB	LT & RT	EB STORM SEWER	---	56
	5+74 EB - 6+15 EB	LT & RT	EB STORM SEWER	---	68
	4+46 EB - 8+70 EB	LT & RT	MEDIAN CUT	---	45
	8+46 EB - 9+34 EB	RT	ON RAMP CUTS	---	160
			PROJECT TOTALS	243	1,244

UTILITY ADJUSTMENTS

STAGE	STATION	LOCATION	SPV.0060.02 ADJUSTING WATER VALVE BOX EACH	SPV.0060.03 ADJUSTING SANITARY MANHOLE COVERS EACH
1	22+09 EB	LT	1	---
	22+30 EB	LT	1	---
2	2+95 EB	LT	1	---
	3+50 EB	LT	1	---
3	5+12 EB	RT	---	1
	5+37 EB	RT	1	---
	PROJECT TOTALS		5	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

CONDUIT RIGID NONMETALLIC SCHEDULE 40

LOCATION	FROM	TO	652.0210 1-INCH LF	652.0225 2-INCH LF	652.0235 3-INCH LF
STH 32 & PILGRIM WAY (S-315)	PB1	PB2	---	---	30
	PB1	PB2	---	---	30
	PB2	SB1	---	20	---
	PB2	PB3	---	---	50
	PB2	PB3	---	---	50
	PB3	PB7	20	---	---
	PB3	PB4	---	---	50
	PB3	PB4	---	---	50
	PB4	SB2	---	---	10
	PB4	PB5	---	---	50
	PB4	PB5	---	---	50
	PB5	SB3	---	10	---
	PB5	PB6	---	---	20
	PB5	PB6	---	---	20
STH 172 & PILGRIM WAY (S-448)	CB1	PB1	---	---	40
	CB1	PB1	---	---	40
	PB1	SB1	---	20	---
	PB1	PB2	---	---	30
	PB1	PB2	---	---	30
	PB2	PB3	---	---	50
	PB2	PB3	---	---	50
	PB3	SB2	---	---	10
	PB3	PB4	---	---	50
	PB4	SB3	---	5	---
	PB4	PB5	---	---	40
	PB5	SB4	---	5	---
	PB5	PB6	---	---	50
	PB6	PB11	---	230	---
	PB6	PB7	---	---	50
	PB6	PB7	---	---	50
	PB7	PB8	---	---	70
	PB7	PB8	---	---	70
	PB8	SB5	---	---	60
	PB8	PB12	---	140	---
	PB8	PB9	---	---	40
	PB8	PB9	---	---	40
	PB9	SB6	---	10	---
	PB9	PB10	---	---	40
	PB9	PB10	---	---	40
	PB10	SB7	---	10	---
	PB10	CB1	---	---	10
	PB10	CB1	---	---	10
	PROJECT TOTALS		20	450	1,280

REMOVING CONCRETE BASES

LOCATION	204.0195 EACH
STH 32 & PILGRIM WAY (S-315)	4
STH 172 & PILGRIM WAY (S-448)	12
PROJECT TOTALS	16

CONSTRUCTION STAKING SUMMARY

STATION TO STATION	LOCATION	650.8500 ELECTRICAL INSTALLATIONS (1210-13-71) LS	650.9910 SUPPLEMENTAL CONTROL (1210-13-71) LS
1+86 EB - 22+36 EB	PILGRIM WAY	1	1
	PROJECT TOTALS	1	1

PULL BOXES STEEL

LOCATION	653.0105 12x24-INCH EACH	653.0140 24x42-INCH EACH
STH 32 & PILGRIM WAY (S-315)	5	5
STH 172 & PILGRIM WAY (S-448)	10	10
PROJECT TOTALS	15	15

REMOVING PULL BOX

LOCATION	653.0905 EACH
STH 32 & PILGRIM WAY (S-315)	5
STH 172 & PILGRIM WAY (S-448)	13
PROJECT TOTALS	18

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONCRETE BASES

LOCATION	654.0101 TYPE 1 EACH	654.0113 TYPE 13 EACH	654.0217 CABINET BASE TYPE 9 SPECIAL EACH
STH 32 & PILGRIM WAY (S-315)	2	1	---
STH 172 & PILGRIM WAY (S-448)	5	2	1
PROJECT TOTALS	7	3	1

LOOP DETECTORS

LOCATION	LOOP NO.	# OF TURNS	652.0800 CONDUIT LF	655.0700 LEAD IN CABLE LF	655.0800 WIRE LF
STH 32 & PILGRIM WAY (S-315)	41	2	90	30	190
	42	3	90	70	260
	43	2	85	70	210
	44	2	85	160	170
STH 172 & PILGRIM WAY (S-448)	21	4	70	470	250
	22	2	95	240	200
	23	2	90	190	190
	43	2	90	80	190
	44	2	85	80	180
	45	2	90	40	190
	62	2	85	60	180
	63	2	85	60	180
	64	2	90	100	190
PROJECT TOTALS			1,130	1,650	2,580

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION	FROM	TO	655.0515 GROUNDED CONDUCTOR (WHITE) LF	655.0515 EQUIPMENT GROUNDING CONDUCTOR (GREEN) LF
STH 32 & PILGRIM WAY (S-315)	CB1	PB1	---	40
	CB1	SB1	100	100
	SB1	PB2	---	50
	SB1	SB2	180	180
	SB2	PB3	---	100
	SB2	PB4	---	40
	SB2	SB3	110	110
	SB3	PB5	---	40
	SB3	PB6	---	70
	SB3	SB4	160	160
STH 172 & PILGRIM WAY (S-448)	CB1	SB1	---	90
	SB1	PB1	---	50
	SB1	SB2	---	160
	SB2	PB2	---	110
	SB2	PB3	---	40
	SB2	SB3	---	120
	SB3	PB4	---	30
	SB3	SB4	---	100
	SB4	PB5	---	30
	SB4	PB6	---	100
	SB4	SB5	---	300
	SB5	PB7	---	170
	SB5	PB8	---	90
	SB5	SB6	---	150
	SB6	PB9	---	40
	SB6	SB7	---	100
	SB7	PB10	---	40
	SB7	CB1	---	50
		SUBTOTALS	550	2,660
		PROJECT TOTALS	3,210	

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NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL CABLE

LOCATION		655.0230 5-14 AWG LF	655.0240 7-14 AWG LF	655.0260 12-14 AWG LF	HEAD NO.	655.0230 BASE TO HEAD 5-14 AWG LF	655.0240 BASE TO HEAD 7-14 AWG LF	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH EACH
STH 32 & PILGRIM WAY (S-315)	FROM CB1 TO								
	SB1	100	---	---	17	15	---	1	---
	SB2	---	210	---	11	---	70	---	1
		---	---	---	12	---	60	---	1
	SB3	270	---	---	4	15	---	1	---
	SB4	---	---	370	6	---	---	---	---
	SUBTOTAL	370	210	370		30	130	2	2
STH 172 & PILGRIM WAY (S-448)	FROM CB1 TO								
	SB1	90	---	---	6	15	---	1	---
	SB2	180	---	---	1	60	---	1	---
			---	---	2	50	---	1	---
	SB3	240	---	---	7	15	---	1	---
	SB4	---	---	350	3	15	---	1	---
		---	---	---	8	15	---	1	---
	SB5	200	---	---	4	65	---	1	---
		---	---	---	5	55	---	1	---
	SB6	100	---	---	9	15	---	1	---
	SB6	100	---	---	11	10	---	---	---
	SB7	50	---	---	10	10	---	---	---
	SUBTOTAL	960	0	350		325	0	9	0
	PROJECT TOTALS	1,685	340	720				11	2

SIGNAL INDICATION		CONDUCTOR COLOR
RED	=	RED
YELLOW	=	ORANGE
GREEN	=	GREEN
RED ARROW	=	RED w/BLACK TRACER
YELLOW ARROW	=	BLACK w/WHITE
YELLOW FLASHING ARROW	=	WHITE w/BLACK
GREEN ARROW	=	BLUE w/BLACK

PEDS		
WALK	=	GREEN
DON'T WALK	=	RED
BUTTON	=	BLACK & ORANGE

NOTES:
IF THERE IS A BACK TO BACK 3 SECTION WITH BALL INDICATIONS, THEN USE SOLID COLORED CONDUCTORS FOR NB & EB, AND TRACER CONDUCTORS FOR SB & WB.
INDIVIDUAL 5-14 AWG SIGNAL CABEL REQUIRED TO EACH PED INDICATION.
LEAD-IN CABLE SHALL BE PULLED IN SEPARATELY FROM THE OTHER CABLES/WIRES AND ENTER THE CONTROL CABINET IN A SEPARATE CONDUIT IF PROVIDED.

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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METER BREAKER PEDESTAL

LOCATION	656.0200 LS
STH 172 & PILGRIM WAY (S-448)	1
PROJECT TOTAL	1

REMOVE TRAFFIC SIGNAL

LOCATION	SPV.0105.01 (STH 32 & PILGRIM WAY) LS	SPV.0105.02 (STH 172 & PILGRIM WAY) LS
STH 32 & PILGRIM WAY (S-315)	1	---
STH 172 & PILGRIM WAY (S-448)	---	1
PROJECT TOTALS	1	1

3

TRAFFIC SIGNAL POLES

LOCATION	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNAL STANDARD ALUMINUM 13-FT EACH	657.0430 TRAFFIC SIGNAL STANDARD ALUMINUM 10-FT EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH
STH 32 & PILGRIM WAY (S-315)	2	2	---	1	---	1
STH 172 & PILGRIM WAY (S-448)	5	4	1	2	1	1
PROJECT TOTALS	7	6	1	3	1	2

TRAFFIC SIGNAL HEADS

LOCATION	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0416 PEDESTRIAN SIGNAL FACE 16 INCH EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH	658.5069 SIGNAL MOUNTING HARDWARE (STH 32 & PILGRIM WAY) LS	658.5069 SIGNAL MOUNTING HARDWARE (STH 172 & PILGRIM WAY) LS
STH 32 & PILGRIM WAY (S-315)	2	2	---	---	4	4	4		2	---	1	---
STH 172 & PILGRIM WAY (S-448)	9	---	2	2	9	7	7	2	2	2	---	1
PROJECT TOTALS	11	2	2	2	13	11	11	2	4	2	1	1

3

REMOVING CONCRETE BASES

EXISTING BASE NO.	STATION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB2	103+30.22	42.56' RT	1
SB3	3+21.18	63.85' LT	1
SB4	3+50.77	48.5' LT	1
SB9	1+99.76	46.54' RT	1
SB12	2+02.47	57.20' LT	1
		TOTAL	5

CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
CONDUIT SPECIAL 3-INCH

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0615 CONDUIT SPECIAL 3-INCH L.F.
PB1	PB3		45	
PB3	PB5			73
PB5	PB6		67	
PB6	PB7			58
PB7	PB8			34
PB8	PB9		33	
PB1	SB1	10		
PB5	SB3	15		
PB5	SB4	5		
PB6	SB5	24		
PB9	SB7	4		
PB13	SB10	4		
PB14	SB12	17		
PB16	SB15	15		
	TOTALS	94	145	165

INSTALL CONDUIT INTO EXISTING ITEM

PULL BOX NO.	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
PB1	1
PB13	1
*PB14	1
PB15	1
*PB16	1
	5

3

CONDUIT LOOP DETECTOR
LOOP DETECTOR SLOTS
LOOP DETECTOR LEAD IN CABLE
LOOP DETECTOR WIRE

LOOP NO.	HOME RUN PB	STATION	LOCATION	SIZE	NO. OF TURNS	INSTALLATION NOTE	652.0800 CONDUIT LOOP DETECTOR L.F.	652.0900 LOOP DETECTOR SLOTS LF	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
31	PB7	3+23.31	13.26' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	65	--	277	205
32	PB7	3+51.60	13.10' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	67	--	277	211
72	PB15	1+62.32	5.85' LT	6'X20'	3	INSTALLED IN EXISTING CONCRETE PAVEMENT	117	85	131	361
81	PB7	3+25.95	23.60' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	--	277	262
82	PB7	3+54.42	23.43' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	93	--	277	289
83	PB6	3+28.07	36.40' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	101	--	219	313
84	PB6	3+56.87	36.19' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	97	--	219	301
85	PB6	3+32.17	51.58' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	--	219	220
86	PB6	3+61.35	51.27' LT	6'X20'	3	INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	73	--	219	229
						TOTALS	767	85	2,115	2,391

* STATION AND LOCATION IS TO FRONT CENTER OF DETECTION LOOP
** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

PULL BOXES STEEL 24" X 42"

PULL BOX NO.	STATION	LOCATION	653.0140 PULL BOXES STEEL 24"X42" EACH
PB4	103+30.71	27.58' LT	1
PB5	103+29.46	45.32' RT	1
PB6	3+59.02	61.38' LT	1
PB7	3+47.04	4.36' LT	1
PB8	3+40.51	28.84' RT	1
PB9	3+08.19	28.83' RT	1
		TOTALS	6

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

TRAFFIC SIGNAL QUANTITIES
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
BROWN COUNTY
PAGE 1 OF 2

REMOVING PULL BOXES

PULL BOX NO.	STATION	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB4	103+02.42	50.82' RT	1
PB5	3+23.81	58.52' LT	1
PB6	3+59.64	46.07' LT	1
PB7	3+08.19	28.83' RT	1
		TOTAL	4

CONCRETE BASES TYPE 1
CONCRETE BASES TYPE 2

BASE NO.	STATION	LOCATION	654.0102 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH
SB1	102+97.49	31.82' LT	1	
SB3	103+15.82	54.68' RT	1	
SB4	103+34.82	43.08' RT		1
SB5	3+34.93	70.10' LT	1	
SB7	3+05.83	32.34' RT	1	
SB10	101+64.44	38.83' LT	1	
SB12	1+96.42	42.96' RT	1	
SB15	2+02.33	60.32' LT	1	
		TOTALS	7	1

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

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

FROM	TO	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF (GREEN GROUND)	(WHITE NEUTAL)
CB1	SB1	44	44
SB1	SB2	42	42
SB2	SB3	178	178
SB3	SB4	36	36
SB4	SB5	118	118
SB5	SB6	190	190
SB6	SB7	26	26
SB7	SB8	36	36
SB8	SB9	90	90
SB9	SB10	107	107
SB10	SB11	37	37
SB11	SB12	97	97
SB12	SB13	43	43
SB13	SB14	121	121
SB14	SB15	38	38
SB15	CB1	52	52
PB1	SB1	EXISTING	
PB3	SB1	66	
PB5	SB4	16	
PB6	SB5	35	
PB7	SB7	87	
PB8	SB7	47	
PB9	SB7	17	
PB10	SB9	EXISTING	
PB13	SB11	EXISTING	
PB14	SB13	EXISTING	
PB16	SB14	EXISTING	
	SUBTOTAL	1,523	1,255
	TOTAL	2,778	

CABLE TRAFFIC SIGNAL 5-14 AWG
CABLE TRAFFIC SIGNAL 7-14 AWG
CABLE TRAFFIC SIGNAL 21-14 AWG

FROM	TO	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0290 CABLE TRAFFIC SIGNAL 21-14 AWG L.F.	CABLE COLOR
CB1	SB2			EXISTING	RED
SB2	HEAD 1	EXISTING			
SB1	HEAD 6		EXISTING		
SB2	SB1			44	RED
SB1	HEAD 13	15			
SB2	SB4			161	RED
SB4	HEAD 5		45		
SB4	SB3			36	RED
SB3	HEAD 14	15			
CB1	SB11			EXISTING	RED
SB11	HEAD 2		EXISTING		
SB11	SB10			38	RED
SB10	HEAD 18	15			
SB11	SB9			EXISTING	RED
SB9	HEAD 3		EXISTING		
SB9	HEAD 4		EXISTING		
SB9	SB8			90	RED
SB8	HEAD 17	15			
CB1	SB5			262	BLUE
SB5	HEAD 9	21			
SB5	HEAD 10	19			
SB5	HEAD 15	15			
SB5	SB6			190	BLUE
SB6	HEAD 8		46		
SB6	SB7			26	BLUE
SB7	HEAD 16	15			
CB1	SB14			EXISTING	BLUE
SB14	HEAD 11		EXISTING		
SB14	SB15			37	BLUE
SB15	HEAD 20	15			
SB14	SB13			EXISTING	BLUE
SB13	HEAD 7	EXISTING			
SB13	HEAD 12	EXISTING			
SB13	SB12			54	BLUE
SB12	HEAD 19	15			
	TOTALS	160	91	938	

PEDESTAL BASES
TRAFFIC SGINAL STANDARDS ALUMINUM 10-FT
MOVE EXISTING SIGNAL ASSEMBLY

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.01 MOVE EXISTING SIGNAL ASSEMBLY EACH
SB1	1	1	--
SB3	1	1	--
SB4	--	--	1
SB5	--	--	1
SB7	1	1	--
SB8	1	1	--
SB10	1	1	--
SB12	1	1	--
SB15	1	1	--
TOTALS	7	7	2

PEDESTIAN PUSH BUTTONS
LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0500 PEDESTRIAN PUSH BUTTONS EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
13	SB1	1	1
14	SB3	1	1
15	SB5	1	1
16	SB7	1	1
17	SB8	1	1
18	SB10	1	1
19	SB12	1	1
20	SB15	1	1
	TOTALS	8	8

SIGNAL MOUNTING HARDWARE
HOLMGREN WAY & PILGRIM WAY

LOCATION	658.5069 SIGNAL MOUNTING HARDWARE L.S.
HOLMGREN WAY & PILGRIM WAY	1
TOTAL	1

REMOVE TRAFFIC SIGNALS, HOLMGREN WAY & PILGRIM WAY
MAINTENANCE OF TRAFFIC SIGNALS, HOLMGREN WAY & PILGRIM WAY

LOCATION	SPV.0105.03 REMOVE TRAFFIC SIGNALS L.S.	SPV.0105.04 MAINTENANCE OF TRAFFIC SIGNALS L.S.
HOLMGREN WAY & PILGRIM WAY	1	1
TOTAL	1	1

TRAFFIC SIGNAL QUANTITIES
HOLMGREN WAY &
PILGRIM WAY (CTH YY)
BROWN COUNTY
PAGE 2 OF 2

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) (TYPE)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
BRIDGE

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		
LIGHT POLE		

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)

PARCEL NUMBER 25
UTILITY NUMBER 40

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

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

NOTES:

COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COORDINATE SYSTEM BROWN COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENT (TYPICALLY 1"x18" IRON PIPE) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

ACCESS CONTROL ACQUIRED UNDER PROJECT 1211-01-22.

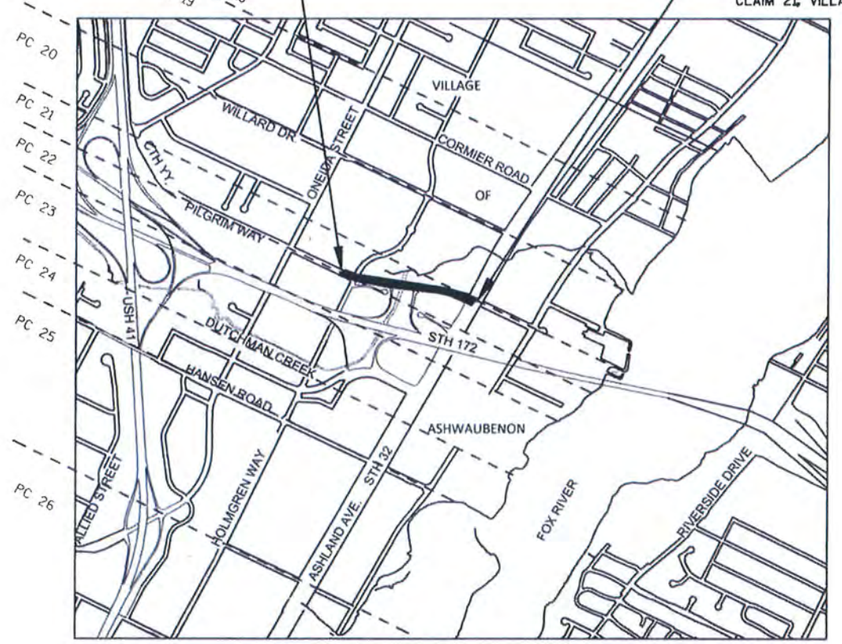
R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	7

PLAT OF RIGHT OF WAY REQUIRED FOR
V ASHWAUBENON, CTH YY
HOLMGREN - ASHLAND
CTH YY BROWN CO.

CONSTRUCTION PROJECT NUMBER
4987-02-55

BEGIN RELOCATION ORDER
STA. 0+00.00EB
Y=555,152.404
X=86,316.101
407.506 FEET SOUTH AND 827.071 FEET EAST OF BROWN COUNTY CONTROL POINT 30 F/G-13/14 AND BEING LOCATED IN PRIVATE CLAIM 22, VILLAGE OF ASHWAUBENON, BROWN COUNTY, WISCONSIN

END RELOCATION ORDER
STA. 22+66.91EB
Y=554,684.462
X=88,518.430
512.132 FEET NORTH AND 1,150.39 FEET WEST OF BROWN COUNTY CONTROL POINT 30G/H-16/17 AND BEING LOCATED IN PRIVATE CLAIM 21, VILLAGE OF ASHWAUBENON, BROWN COUNTY, WISCONSIN.



N

LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = NETLENGTH

RECEIVED
SEP 2015
Sandra L. Juno
Brown County Clerk

PLAT PREPARED BY
GRÄEF
1150 Springhurst Drive, Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com

WISCONSIN
MICHAEL C. JENSEN
S-1748
WAUPACA, WI
LAND SURVEYOR

9-23-15
(Date) (Signature)

REVISION DATE	APPROVED FOR BROWN COUNTY
	Interim Public Works Director / Highway Commissioner DATE: 9/24/15 (Signature)

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040101-RP.DWG
LAYOUT NAME - 040101-RP.DWG
PLOT DATE : 9/23/2015 12:37 PM PLOT BY : WORECK, CHRIS PLOT NAME :
WISDOT/CADDS SHEET 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

* DENOTES AREAS COMPUTED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	NEW ACRES	EXISTING ACRES	TOTAL ACRES	TLE ACRES	PLE ACRES	PARCEL NUMBER
1	4.04	FOUNDATION CAPITAL RESOURCES, INC.	FEE,TLE	0.003	0.000	0.003	0.005	0.000	1
2	4.04	BT MULT LLC.	FEE	0.001	0.000	0.001	0.000	0.000	2
3	4.04-4.05	PREVEA CLINIC, INC.	FEE,TLE,PLE	0.039	0.000	0.039	0.057	0.002	3
4	4.06-4.07	SPIRIT SPE PORTFOLIO 2006-1 LLC.	FEE,TLE,PLE	0.027	0.000	0.027	0.009	0.002	4
5	4.06-4.07	WESTERN RACQUET INDOOR TENNIS CLUB, INC.	FEE,TLE,PLE	0.008	0.000	0.008	0.101	0.008	5
6	4.06	PREVEA MEDICAL LLC.	FEE,TLE	0.004	0.000	0.004	0.037	0.000	6
200	4.04	WISCONSIN PUBLIC SERVICE CORP. (GAS)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	200
201	4.04	NET-LEC (FIBER OPTIC)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	201
202	4.04	WISCONSIN PUBLIC SERVICE CORP. (ELECTRIC)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	202

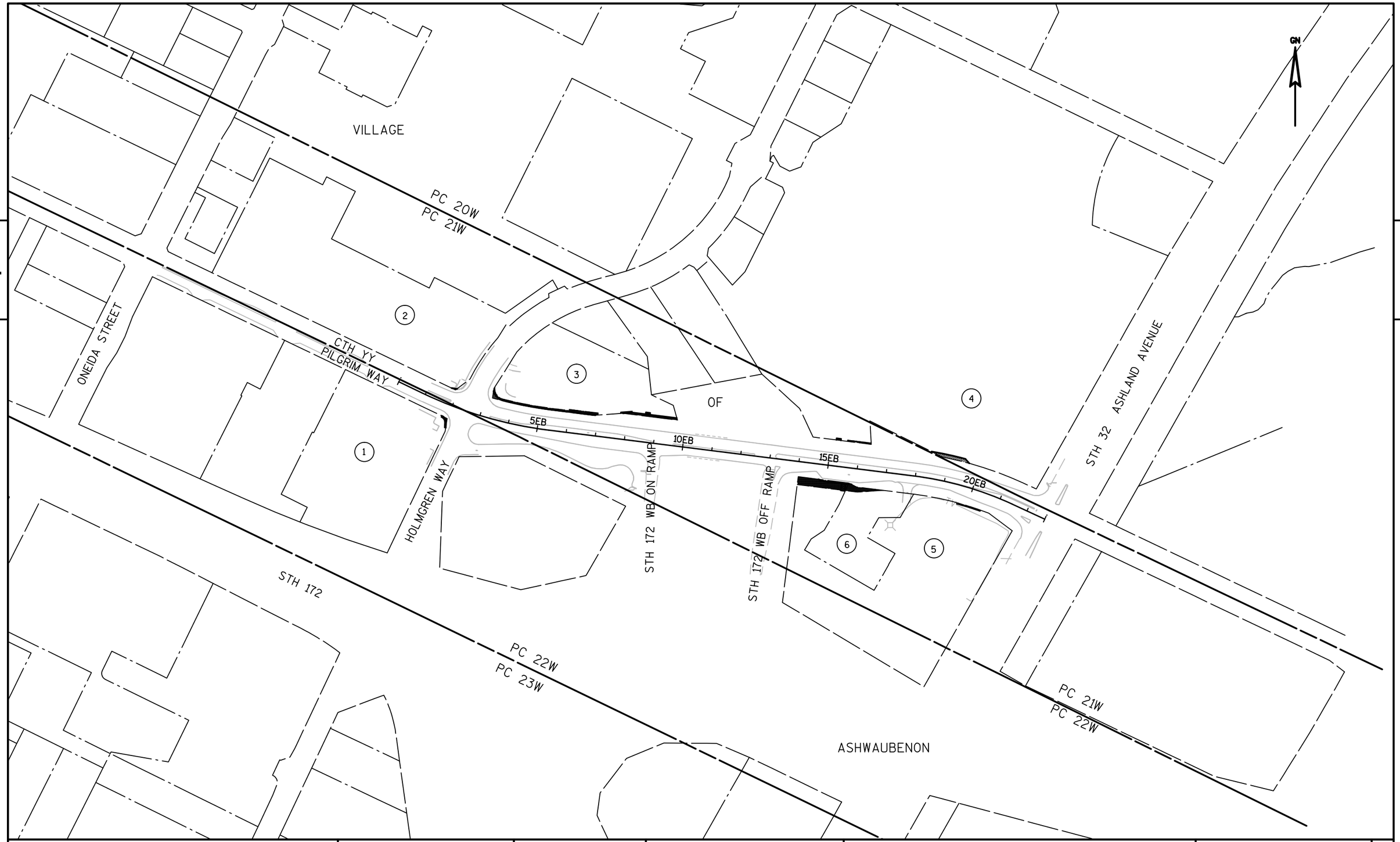
4

4

REVISION DATE	DATE	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.02	
	COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55			E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040102-RP.DWG PLOT DATE : 10/30/2015 11:51 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 75



REVISION DATE	DATE	NOT TO SCALE	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.03	
	GRID FACTOR: N/A		COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55	PS&E SHEET	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040103-RP.DWG
LAYOUT NAME - 040103-RP.DWG

PLOT DATE : 10/30/2015 11:52 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN1:300 FT

WISDOT/CADDS SHEET 75

BT MULT LLC.
(2)
LOT 1
CSM* 6612
44 CSM 140

PREVEA CLINIC, INC.
(3)
LOT D
CSM* 442
2 CSM 185

FOUNDATION CAPITAL RESOURCES, INC.
(1)
LOT 1
CSM* 8009
55 CSM 266

VILLAGE

PRIVATE 21W 22W CLAIM
30F/G-13/14
CHISEL "X"
Y: 555559.91
X: 85489.03

PI. STA. 0+00.00EB
Y: 555152.404
X: 86316.101

PRIVATE CLAIM LINE BEARING S 64°19'22" E 1,124.70'

S64°23'36"E 1,108.45'

PC: 0+88.57EB

PI. STA. 105+54.27
Y: 555328.162
X: 86725.989

PC: 103+13.84

PI. STA. 100+00.00EB
Y: 554853.426
X: 86448.374

PILGRIM WAY

HOLMGREN WAY

CTH YY

FRONTAGE ROAD

ASHWAUBENON

12' WIDE UTILITY EASEMENT PER CSM* 6612

12' WIDE UTILITY EASEMENT DOC* 2354259

WPS 12' WIDE ELEC. & GAS EASEMENT DOC.* 2710904

SLOPE INTERCEPTS (TYP.)

TLE FOR SLOPES

PROP. R/W

EX. R/W

WIDTH VARIES

100'

80'

STA. 2+43.78EB

STA. 2+47.89EB CTH YY (PILGRIM WAY)
STA. 102+21.5 HOLMGREN WAY

N 25°40'38" E 49.72'

S 25°40'38" W 50.28'

N 25°40'38" E 79.82"

N25°21'35"E

S82°51'23"E

PT: 5+39.71EB

30G/H-13/14
IRON ROD
Y: 554963.61
X: 86729.31

PRIVATE 21W 22W CLAIM

PC 21 W
PC 22 W

MATCH LINE STA. 7+50EB

1+00EB
2+00EB
3+00EB
4+00EB
5+00EB
6+00EB
7+00EB

1+94.00EB 60.14' (7626)
1+75.00EB 55.85' (7625)
1+90.63EB 54.81' (7152)
3+21.94EB 108.03'
3+20.13EB 102.18'
3+21.37EB 92.95' (7636)
3+24.44EB 69.49' (7612)
3+60.82EB 75.50'
3+60.82EB 70.50' (7638)
5+39.71EB 75.50'
5+39.71EB 70.50' (7640)
5+46.42EB 68.95' (7539)
6+00.00EB 75.50' & 79.50'
7+00.00EB 72.17' & 79.50'
6+83.88EB 68.94' (7543)
6+91.67EB 70.50' (7646)
1+78.70EB 44.60' (7627)
1+77.84EB 49.52'
1+83.23EB 45.46' (7634)
1+82.35EB 50.37'
1+95.45EB 62.06'
1+99.98EB 60.43' (7629)
2+01.03EB 78.99' (200)
2+05.51EB 77.37' (7632)
1+99.15EB 46.15' (7175)

C5 C13 C24 C25 C26 C27 C28

CURVE TABLE

CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C5	24.02'	22.94'	N 27°52'54" W	23.00'
C13	18.80'	17.96'	S 27°52'54" E	18.00'
C24	211.32'	211.11'	N 78°26'35" W	1,372.39'
C25	45.74'	43.40'	S 43°34'37" E	41.00'
C26	169.88'	169.77'	S 79°11'44" E	1,329.50'
C27	169.24'	169.13'	N 79°11'44" W	1,324.50'
C28	53.57'	48.76'	N 32°54'18" W	36.00'

COORDINATE TABLE NEW R/W POINTS

POINT NO.	(Y) NORTHING	(X) EASTING
7625	555,130.95	86,496.00
7626	555,128.22	86,514.51
7627	555,036.44	86,461.80
7629	555,013.63	86,476.55
7632	554,995.73	86,475.91
7634	555,033.91	86,465.82
7636	555,120.70	86,639.03
7638	555,089.26	86,668.95
7640	555,057.44	86,835.71
7646	555,038.54	86,986.49

HOLMGREN WAY
PI STA = 104+35.69
Y = 555247.132
X = 86634.980
DELTA = 22°57'37"
D = 9°32'57"
T = 121.85'
L = 240.44'
R = 600.00'
PC STA = 103+13.84
PT STA = 105+54.27

CTH YY (PILGRIM WAY)
PI STA = 3+16.12EB
Y = 555015.781
X = 86601.168
DELTA = 18°27'47"
D = 4°05'33"
T = 227.54'
L = 451.14'
R = 1400.00'
PC STA = 0+88.57EB
PT STA = 5+39.71EB

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
PILGRIM WAY HOLMGREN WAY	PROJ. 1211-1-22	VARIES 80'	1971

PARCEL 1 FEE

COURSE	BEARING	DISTANCE
7175-7632	S 08°57'16" W	31.92'
7632-7629	N 02°02'11" E	17.91'
	C5	
7634-7627	N 57°48'00" W	4.75'
7627-7175	S 64°18'30" E	21.17'

PARCEL 2 FEE

COURSE	BEARING	DISTANCE
7152-7625	N 64°18'30" W	15.05'
7625-7626	S 81°35'41" E	18.71'
7626-7152	S 52°33'13" W	6.23'

PARCEL 3A FEE

COURSE	BEARING	DISTANCE
7612-7636	N 08°59'35" E	23.64'
	C25	
	C26	
7640-7646	S 82°51'23" E	151.96'
7646-7543	S 85°50'09" W	7.95'
7543-7539	N 82°51'16" W	137.46'
	C24	

REVISION DATE	DATE	SCALE. FEET	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.04	
	GRID FACTOR	0 25 50	COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55	PS&E SHEET	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040104-RP.DWG
LAYOUT NAME - 040104-RP.DWG
PLOT DATE : 10/30/2015 11:52 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 75

4

PREVEA CLINIC, INC.

3

LOT D
CSM# 442
2 CSM 185

VILLAGE

OF

ASHWAUBENON

DUTCHMAN CREEK

CTH YY (PILGRIM WAY)
PI STA = 19+69.82EB
Y = 554809.638
X = 88245.948
DELTA = 17°31'48"
D = 4°58'56"
T = 177.31'
L = 351.85'
R = 1150.00'
PC STA = 17+92.51EB
PT STA = 21+44.36EB

PARCEL 3B FEE

COURSE	BEARING	DISTANCE
7523-7544	N 82°51'16" W	187.04'
7544-7650	N 85°50'09" E	30.92'
7650-7655	S 82°51'23" E	154.18'
7655-7523	S 15°37'19" E	6.58'

PARCEL 3 PLE

COURSE	BEARING	DISTANCE
7654-7651	N 82°51'23" W	15.00'
7651-7652	N 07°08'37" E	7.00'
7652-7653	S 82°51'23" E	15.00'
7653-7654	S 07°08'37" E	7.00'

COORDINATE TABLE
NEW R/W POINTS
AND PLE POINTS

POINT NO.	(Y) NORTHING	(X) EASTING
7523	555,022.10	87,265.86
7544	555,045.37	87,080.28
7650	555,047.61	87,111.11
7651	555,041.79	87,157.55
7652	555,048.74	87,158.42
7653	555,046.87	87,173.30
7654	555,039.93	87,172.43
7655	555,028.44	87,264.09

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
PILGRIM WAY	PROJ. 1211-1-22	VARIES	1971
STH 172	PROJ. 1211-1-22	VARIES	1971

7650 8+14.19EB 95.00'
8+14.32EB 100.12'
TLE FOR SLOPES
7+75.00EB 87.16' & 92.26'
PLE FOR STORM SEWER
7652 8+61.00EB 102.00'
8+76.00EB 102.00' 7653
8+76.00EB 95.00' 7564
PROP. R/W
IP
EX. R/W
SLOPE INTERCEPTS (TYP.)
9+68.37EB 95.00' 7655
9+70.92EB 88.93' 7523
7544 7+83.88EB 88.94'
7651 8+61.00EB 95.00'
N 82°51'23" W 82.37'
N 07°08'37" E 88.93'
VARIES
WIDTH
MATCH LINE STA. 7+50EB
PI. STA. 200+00.00
Y: 554943.096
X: 87181.114
8+00EB
S82°51'23"E
9+00EB
10+00EB
11+00EB
12+00EB
13+00EB
CTH YY
PILGRIM WAY
STA. 8+96.66EB CTH YY (PILGRIM WAY)
STA. 200+00.00 STH 172 WESTBOUND ON RAMP
PI. STA. 300+00.00
Y: 554890.410
X: 87601.484
STA. 13+20.31EB CTH YY (PILGRIM WAY)
STA. 300+00.00 STH 172 WESTBOUND OFF RAMP
PC: 17+92.51EB
PT: 21+44.36EB
18+00EB
MATCH LINE STA. 13+50EB
PRIVATE CLAIM LINE BEARING
N 63°43'41" W 5,428.11'
PRIVATE 20W 21W CLAIM
30E/F-11/12
¾" IRON PIPE
Y: 557148.80
X: 83597.33
45.15'
S 65°19'34" E
S 29°31'22" W 33.76'
PRIVATE CLAIM LINE BEARING
N 64°31'11" W 1,333.82'
PRIVATE 20W 21W CLAIM
30G/H-16/17
MAG NAIL
Y: 554172.33
X: 89668.82
R/W
B-5-153
RAMP GATE
199+00
N06°42'15"E
STH 172 WESTBOUND ON RAMP
PRIVATE CLAIM LINE BEARING S 63°42'37" E
PI. STA. 198+00.00
Y: 554744.463
X: 87157.765
PC 21 W
PC 22 W
298+00
299+00
N08°43'30"E
STH 172 WESTBOUND OFF RAMP
PI. STA. 296+01.22
Y: 554496.249
X: 87540.992

REVISION DATE	DATE	SCALE. FEET 0 25 50	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.05	
	GRID FACTOR		COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55	PS&E SHEET 133	E

SPIRIT SPE PORTFOLIO 2006-1 LLC.
4

VILLAGE

PC 20 W
PC 21 W

EX. R/W

PARCEL 4 PLE

COURSE	BEARING	DISTANCE
7659-7656	N 82°51'16" W	16.00'
7656-7657	N 07°08'37" E	6.09'
7657-7658	S 82°51'23" E	16.00'
7658-7659	S 07°08'37" W	6.09'

CTH YY (PILGRIM WAY)
PI STA = 19+69.82EB
Y = 554809.638
X = 88245.948
DELTA = 17°31'48"
D = 4°58'56"
T = 177.31'
L = 351.85'
R = 1150.00'
PC STA = 17+92.51EB
PT STA = 21+44.36EB

PARCEL 4 FEE

COURSE	BEARING	DISTANCE
7545-7663	N 63°34'13" W C22	41.68"
7664-7665	S 40°37'06" E C23	19.44'

COORDINATE TABLE
NEW R/W POINTS
AND PLE POINTS

POINT NO.	(Y) NORTHING	(X) EASTING
7633	554,914.52	88,132.26
7656	554,954.17	87,807.70
7657	554,960.21	87,808.46
7658	554,958.22	87,824.33
7659	554,952.18	87,823.58
7673	554,820.36	87,746.59
7674	554,815.36	87,758.05
7675	554,802.61	87,859.78
7700	554,806.90	87,825.53
7701	554,782.09	87,822.42
7702	554,805.16	87,839.42
7703	554,780.35	87,836.31

PARCEL 5 FEE

COURSE	BEARING	DISTANCE
7600-7688	S 24°27'14" W	3.69'
7688-7674	N 82°51'23" W	91.49'
7674-7673	N 66°26'12" W	12.51'
7673-7600	S 82°50'54" E	104.59'

PRIVATE CLAIM LINE BEARING N 63°43'41" W

PRIVATE CLAIM LINE BEARING N 64°31'11" W 1,333.82'

PRIVATE CLAIM LINE BEARING N 63°43'41" W 5,428.11'

PRIVATE 20W 21W CLAIM

30E/F-11/12
¾" IRON PIPE
Y: 557148.80
X: 83597.33

PT: 21+44.36EB

S 65°19'34" E 45.15'

S 29°31'22" W 33.76'

PRIVATE 20W 21W CLAIM

30G/H-16/17
MAG NAIL
Y: 554172.33
X: 89668.82

MATCH LINE STA. 13+50EB

PILGRIM WAY
CTH YY

7658 15+33.00EB 95.00'
PLE FOR STORM SEWER
7657 15+17.00EB 95.00'
SLOPE INTERCEPTS (TYP.)
7656 15+17.00EB 88.91'
7659 15+33.00EB 88.91'
TLE FOR SLOPES
15+55.00EB 88.91' & 93.91'
16+36.31EB 93.91'
16+37.26EB 88.91'
N 82°51'16" W 104.26'
N 07°08'37" E 88.91'
PRIVATE CLAIM LINE BEARING N 63°43'41" W
EX. R/W
18+40.21EB 91.00' 7633
PROP. R/W
C22
C23
7545 18+77.51EB 79.53'
N 11°22'44" E 79.53'
VARIES WIDTH
R/W
14+00EB
15+00EB
16+00EB
17+00EB
18+00EB
19+00EB
22+00EB
S 07°08'37" W 51.45'
S 82°50'54" E 69.40'
14+03.60EB 51.45'
14+73.00EB 51.46' 7673
15+67.00EB 55.00' 7702
15+77.59EB 51.48' 7600
7700 15+53.00EB 55.00'
15+87.52EB 55.00' 7675
16+05.80EB 61.48'
S82°51'23"E 233.66'
155.25'
PC: 17+92.51EB
C17
14+03.59EB 79.00'
7674 14+85.00EB 55.00'
S 82°51'23" E 68.00'
TLE FOR SLOPES
PROP. R/W
7701 15+53.00EB 80.00'
15+53.00EB 79.00'
16+10.00EB 79.00'
17+00.00EB 61.50'
EX. R/W
15+76.49EB 55.00' 7688
15+69.01EB 79.00'
15+67.00EB 79.00'
15+67.00EB 80.00' 7703
PLE FOR STORM SEWER
SLOPE INTERCEPTS (TYP.)
MATCH LINE STA. 19+00EB
CHAIN LINK FENCE
PL

WESTERN RACQUET
INDOOR TENNIS CLUB INC.
5
LOT 2
CSM# 8108
56 CSM 215

PREVEA MEDICAL LLC.
6
LOT 1
CSM# 8108
56 CSM 215

WESTERN RACQUET
INDOOR TENNIS CLUB INC.
5
LOT 2
CSM# 8108
56 CSM 215

OF

ASHWAUBENON

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
PILGRIM WAY	PROJ. 1211-1-22	VARIES	1971

CURVE TABLE

CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C17	266.84'	266.25'	N 71°58'25" W	1,150.00'
C22	118.47'	118.43'	S 77°44'40" E	1,241.00'
C23	93.56'	93.54'	N 76°48'26" W	1,215.92'

REVISION DATE	DATE	SCALE. FEET 0 25 50	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.06	
	GRID FACTOR		COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55	PS&E SHEET 134	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040106-RP.DWG
LAYOUT NAME - 040106-RP.DWG
PLOT DATE : 10/30/2015 11:52 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : **********

30E/F-11/12
¾" IRON PIPE
Y: 557148.80
X: 83597.33

PRIVATE
20W
21W
CLAIM

SPIRIT SPE PORTFOLIO 2006-1 LLC.
4

CTH YY (PILGRIM WAY)
PI STA = 19+69.82EB
Y = 554809.638
X = 88245.948
DELTA = 17°31'48"
D = 4°58'56"
T = 177.31'
L = 351.85'
R = 1150.00'
PC STA = 17+92.51EB
PT STA = 21+44.36EB

32' WIDE
ATC ELEC. EASEMENT
DOC.* 2667456

20' WIDE
WATER MAIN EASEMENT
DOC.* 2154502

VILLAGE

PROP. R/W

19+50.00EB
91.00'
7664

19+65.00EB
80.12'
7665

C22

C23

SLOPE INTERCEPTS (TYP.)

EX. R/W

IP

PRIVATE CLAIM LINE BEARINGN 63°43'41" W 5,428.11'

MATCH LINE STA. 19+00EB

PILGRIM WAY

VARIES

CTH YY

WIDTH

20+00EB

21+00EB

C17

R/W

SIGN

OVERHEAD SIGN STRUCTURE

CONC. FLUME

BROWN CO. 30G14.2
ANGLE POINT ON /
NORTHERLY LINE, PC 21
WSFR PER CSM*8108

PT: 21+44.36EB

45.15'

33.76'

22+00EB

S65°19'34"E

403+00

N29°13'47"E

ASHLAND AVENUE

404+00

PI. STA. 404+09.84
Y: 554869.027
X: 88621.706

19+60.00EB
60.37' &
65.37'

C15

C16

TLE FOR SLOPES

C14

IP

N 53°03'14" W

EX. R/W

99.92'

20+50.00EB
59.86' &
64.86'

SLOPE INTERCEPTS (TYP.)

TIME WARNER
UNDEFINED EASEMENT
DOC.* 2226838

S 29°31'22" W
82.86'

403+00

PRIVATE CLAIM LINE BEARING N 64°31'11" W

PC 20 W

PC 21 W

100'

1,333.82'

PI. STA. 22+66.91EB
Y: 554684.462
X: 88518.430

STA. 22+66.91EB CTH YY (PILGRIM WAY)
STA. 401+98.34 STH 32 ASHLAND AVENUE

STH 32

401+00

200'

12' WIDE
UTILITY EASEMENT
PER CSM* 8108

32' WIDE
ATC ELEC. TRANS. EASEMENT
DOC.* 2685266

N29°13'47"E

PI. STA. 400+00.00
Y: 554511.372
X: 88421.576

ASHWAUBENON

PRIVATE
20W
21W
CLAIM

30G/H-16/17
MAG NAIL
Y: 554172.33
X: 89668.82

GN

OF

4

4

COORDINATE TABLE NEW R/W POINTS

POINT NO.	(Y) NORTHING	(X) EASTING
7664	554,889.38	88,247.99
7665	554,874.62	88,260.65

PARCEL 4 FEE

COURSE	BEARING	DISTANCE
7545-7663	N 63°34'13" W C22	41.68'
7664-7665	S 40°37'06" E C23	19.44'

CURVE TABLE

CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C17	266.84'	266.25'	N 71°58'25" W	1,150.00'

CURVE TABLE

CURVE	LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C14	29.94'	29.94'	N 69°32'39" W	1,075.92'
C15	85.30'	85.27'	N 72°36'45" W	1,075.92'
C16	84.91'	84.88'	S 72°36'50" E	1,070.92'
C22	118.47'	118.43'	S 77°44'40" E	1,241.00'
C23	93.56'	93.54'	N 76°48'26" W	1,215.92'

WESTERN RACQUET
INDOOR TENNIS CLUB INC.

5
LOT 2
CSM# 8108
56 CSM 215

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
ASHLAND AVE.	PROJ. F060-1 (2)	200'	1952
PILGRIM WAY	PROJ. 1211-1-22	VARIES	1971

REVISION DATE	DATE	SCALE. FEET 0 25 50	HWY: CTH YY	R/W PROJECT NUMBER	PLAT SHEET 4.07	
	GRID FACTOR		COUNTY: BROWN	CONSTRUCTION PROJECT NUMBER 4987-02-55	PS&E SHEET 135	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040107-RP.DWG
LAYOUT NAME - 040107-RP.DWG

PLOT DATE : 10/30/2015 11:52 AM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

BENCHMARK TABLE

NO.		OFFSET		ELEV.
30	2+98.27 EB	52.59' RT	TOP NE. CORNER OF CONC. SLAB OF HOLMGREN MONUMENT SE. QUAD OF CTH 'YY' AND HOLMGREN WAY	598.82

PI STA = 3+16.12 EB
Y = 555015.781
X = 86601.168
DELTA = 18°27'47"
D = 4°05'33"
T = 227.54'
L = 451.14'
R = 1400.00'
PC STA = 0+88.57 EB
PT STA = 5+39.71 EB

PI STA = 53+13.19 WB
Y = 555033.278
X = 86606.309
DELTA = 18°27'47"
D = 4°08'45"
T = 224.62'
L = 445.34'
R = 1382.00'
PC STA = 50+88.57 WB
PT STA = 55+33.91 WB

N

HOLMGREN WAY

EX. R/W

104+00

103+00

102+00

101+00

WISCONSIN PUBLIC SERVICE
CAUTION ELECTRIC

PC: 103+13.84

NET-LEC
FIBER OPTIC
CAUTION

TLE FOR SLOPING

WISCONSIN PUBLIC SERVICE
OVERHEAD ELECTRIC
CAUTION

NET-LEC
OVERHEAD COMMUNICATIONS

WISCONSIN PUBLIC SERVICE
CAUTION ELECTRIC

SLOPE INTERCEPTS TYP.)

CTH YY (PILGRIM WAY) WESTBOUND
R/L ALIGNMENT

MATCH LINE STA. 57+00 WB

PC: 50+88.57 WB

51+00

STA. 52+47.82 WB CTH YY (PILGRIM WAY) WESTBOUND =
STA. 102+39.61 HOLMGREN WAY

CONSTRUCTION LIMITS
STA. 52+86.39 WB

PT: 55+33.91 WB

52+00 WB

53+00 WB

54+00 WB

55+00 WB

56+00 WB S82° 51' 23"E

57+0

1+00 EB

PC: 0+88.57 EB

2+00 EB

3+00 EB

4+00 EB

5+00 EB

6+00 EB

7+00

S82° 51' 23"E

PT: 5+39.71 EB

MATCH LINE STA. 7+00 EB

STA. 2+47.89 EB CTH YY (PILGRIM WAY) EASTBOUND =
STA. 102+21.50 HOLMGREN WAY

CTH YY (PILGRIM WAY)

BEGIN PROJECT
STA. 2+85.37 EB

WISCONSIN PUBLIC SERVICE
CAUTION GAS

CP-300

TLE FOR SLOPING

AT&T
OVERHEAD COMMUNICATIONS

BM #30

NET-LEC
OVERHEAD COMMUNICATIONS

WISCONSIN PUBLIC SERVICE
OVERHEAD ELECTRIC
CAUTION

CP-51

SLOPE INTERCEPTS (TYP.)

VILLAGE OF ASHWAUBENON
WATER

CTH YY (PILGRIM WAY) EASTBOUND R/L ALIGNMENT

VILLAGE OF ASHWAUBENON
SANITARY SEWER

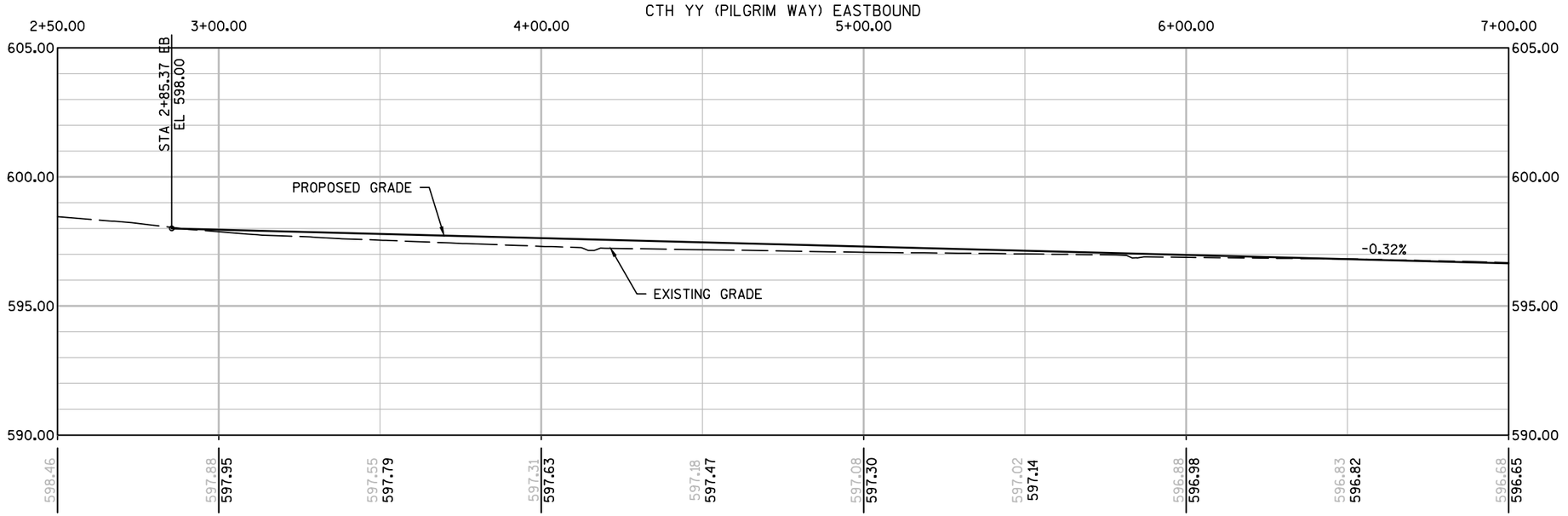
HOLMGREN WAY CONSTRUCTION R/L

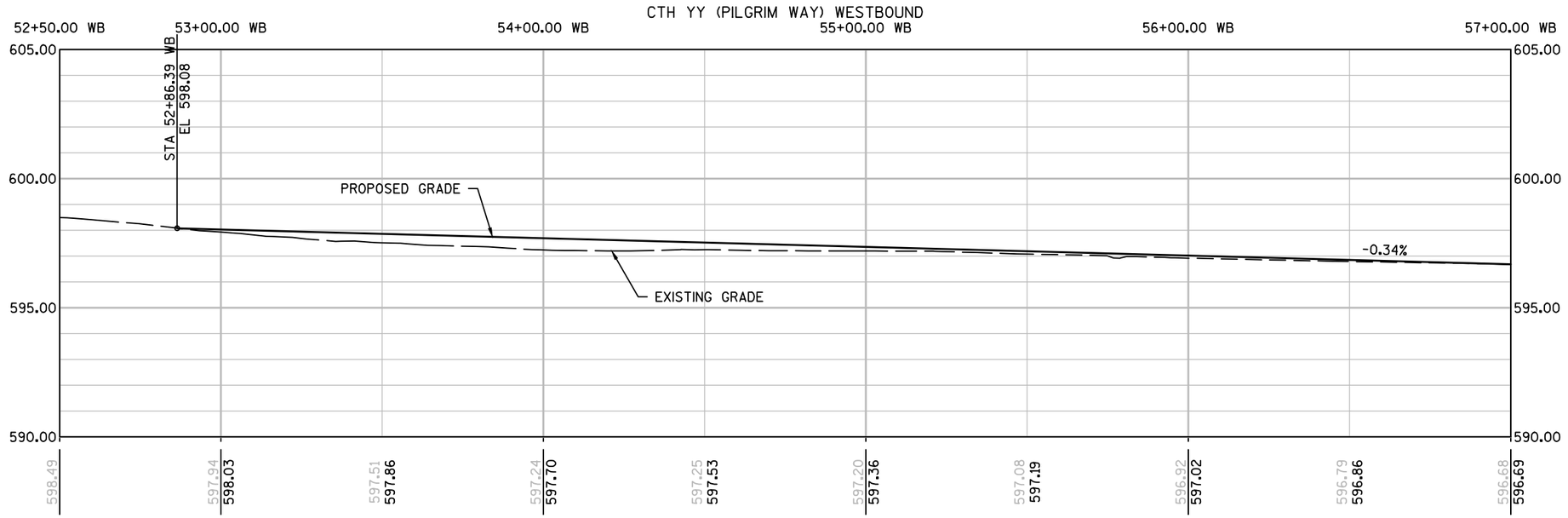
EX. R/W

CONTROL POINT TABLE

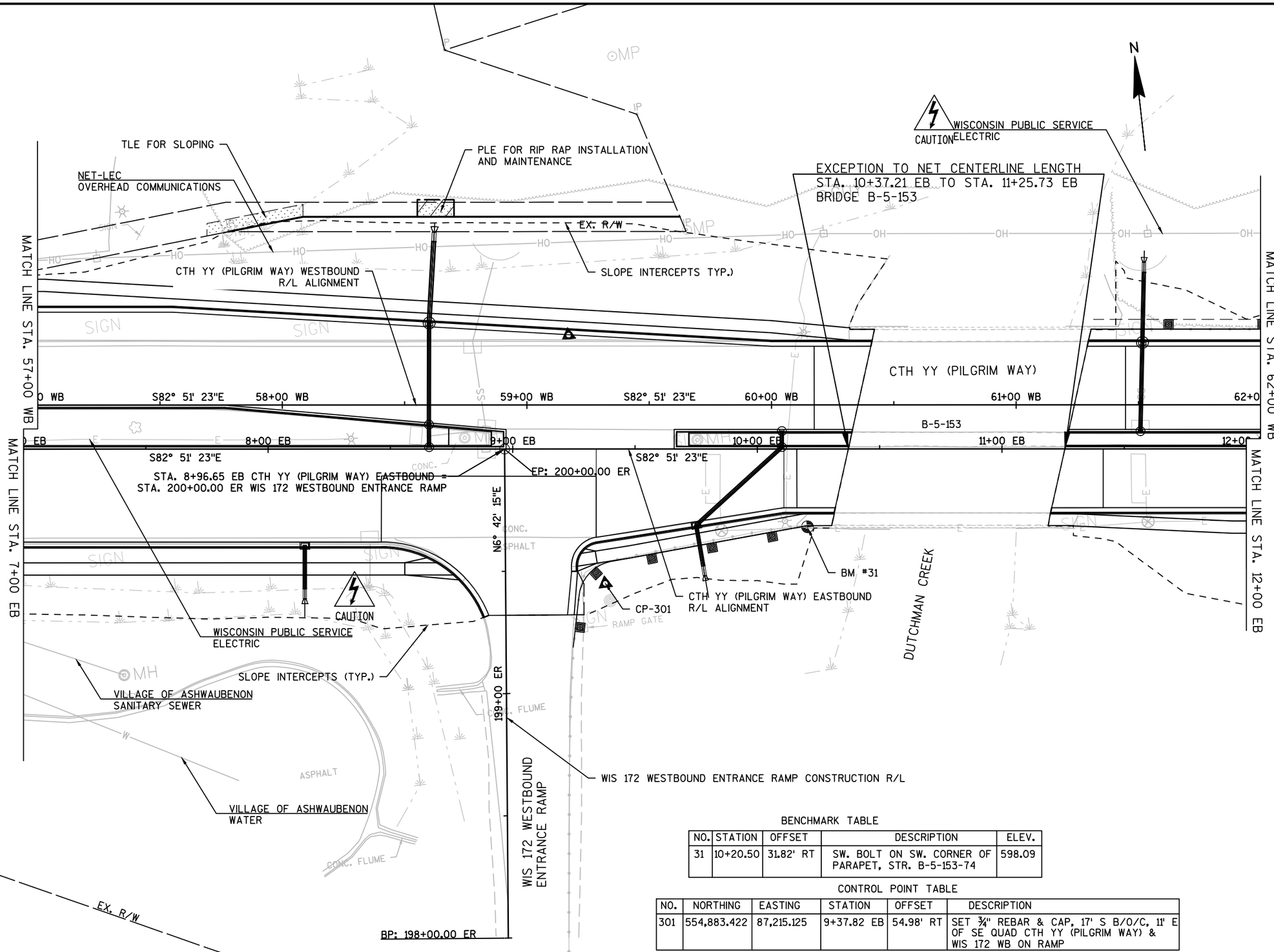
NO.	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
300	555,019.413	86,458.990	2+98.27 EB	52.59' RT	SET ¾" REBAR & CAP, SW QUAD OF CTH YY (PILGRIM WAY) & HOLMGREN WAY
51	554,963.670	86,729.339	4+48.30 EB	38.83' RT	FD ¾" REBAR W/ BROWN CO. CAP, 12' S B/O/C OF CTH YY. COUNTY CORNER *30G/H/-13/14

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 136 E





PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 137 E



BENCHMARK TABLE

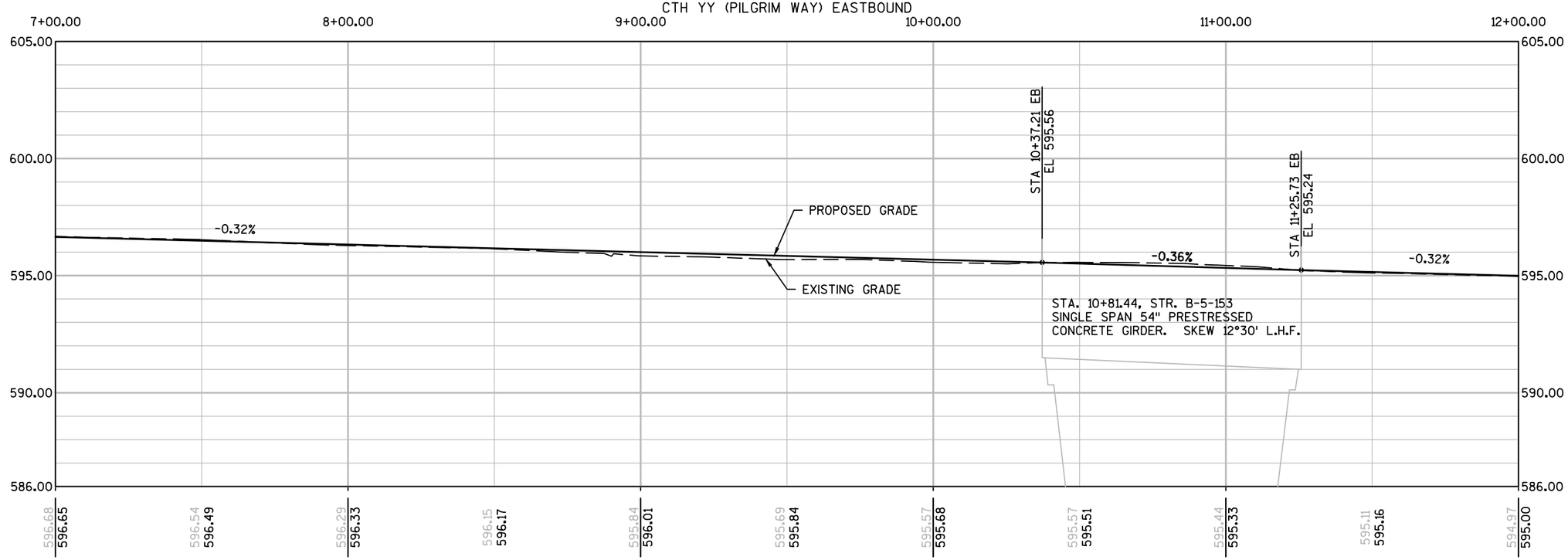
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
31	10+20.50	31.82' RT	SW. BOLT ON SW. CORNER OF PARAPET, STR. B-5-153-74	598.09

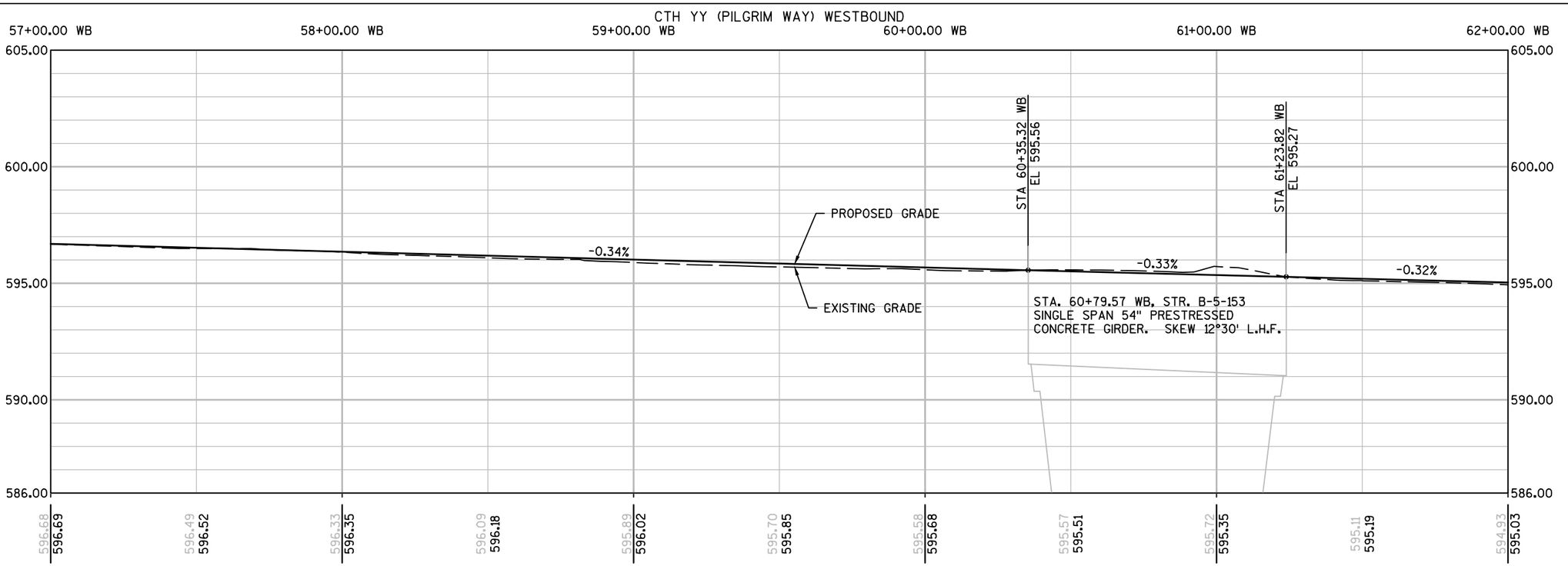
CONTROL POINT TABLE

NO.	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
301	554,883.422	87,215.125	9+37.82 EB	54.98' RT	SET ¾" REBAR & CAP, 17' S B/O/C, 11' E OF SE QUAD CTH YY (PILGRIM WAY) & WIS 172 WB ON RAMP

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 138 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050103-pp
PLOT DATE : 1/20/2016 2:22 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44





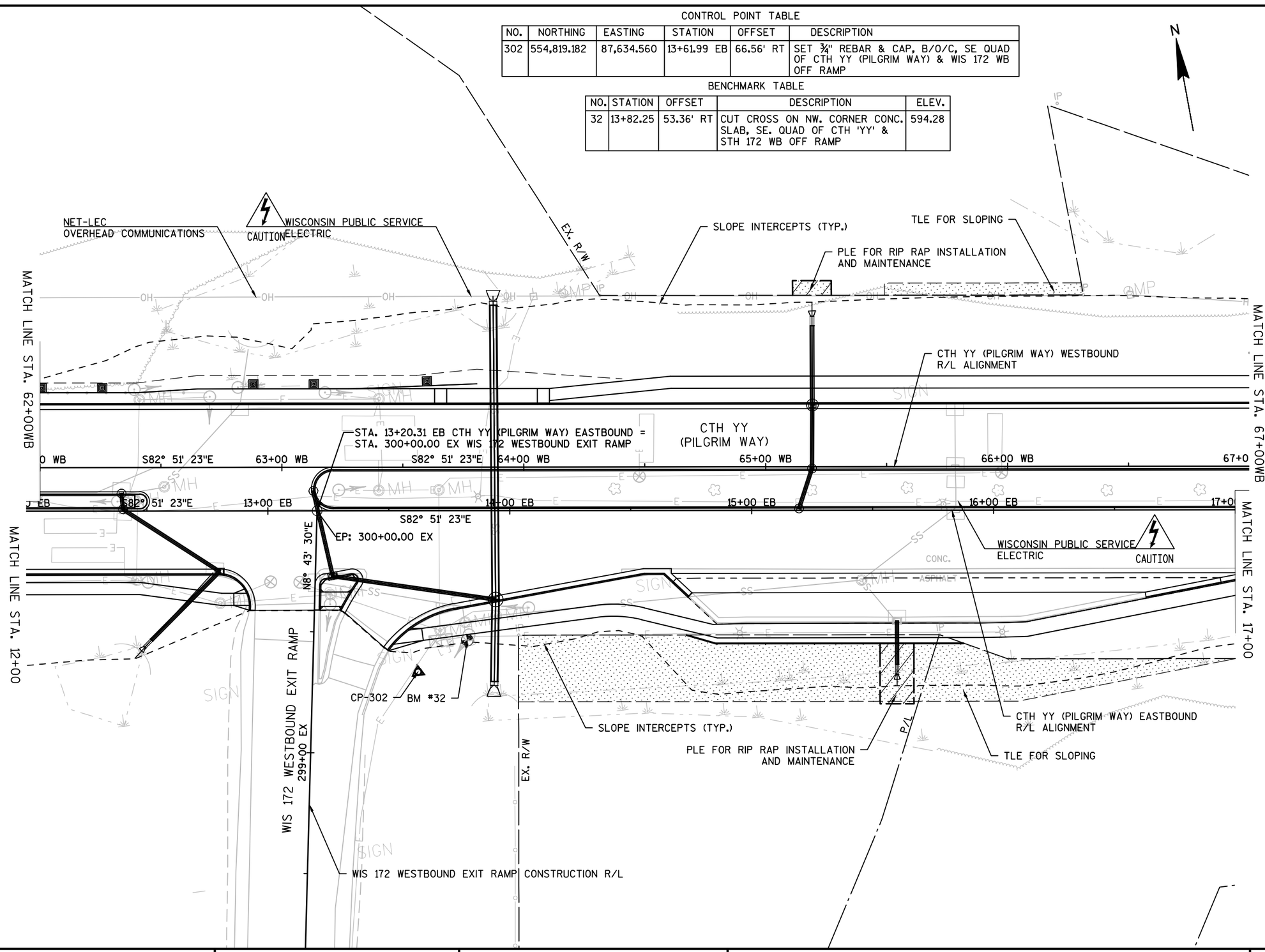
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 139 E

CONTROL POINT TABLE

NO.	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
302	554,819.182	87,634.560	13+61.99 EB	66.56' RT	SET ¾" REBAR & CAP, B/O/C, SE QUAD OF CTH YY (PILGRIM WAY) & WIS 172 WB OFF RAMP

BENCHMARK TABLE

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
32	13+82.25	53.36' RT	CUT CROSS ON NW. CORNER CONC. SLAB, SE. QUAD OF CTH 'YY' & STH 172 WB OFF RAMP	594.28

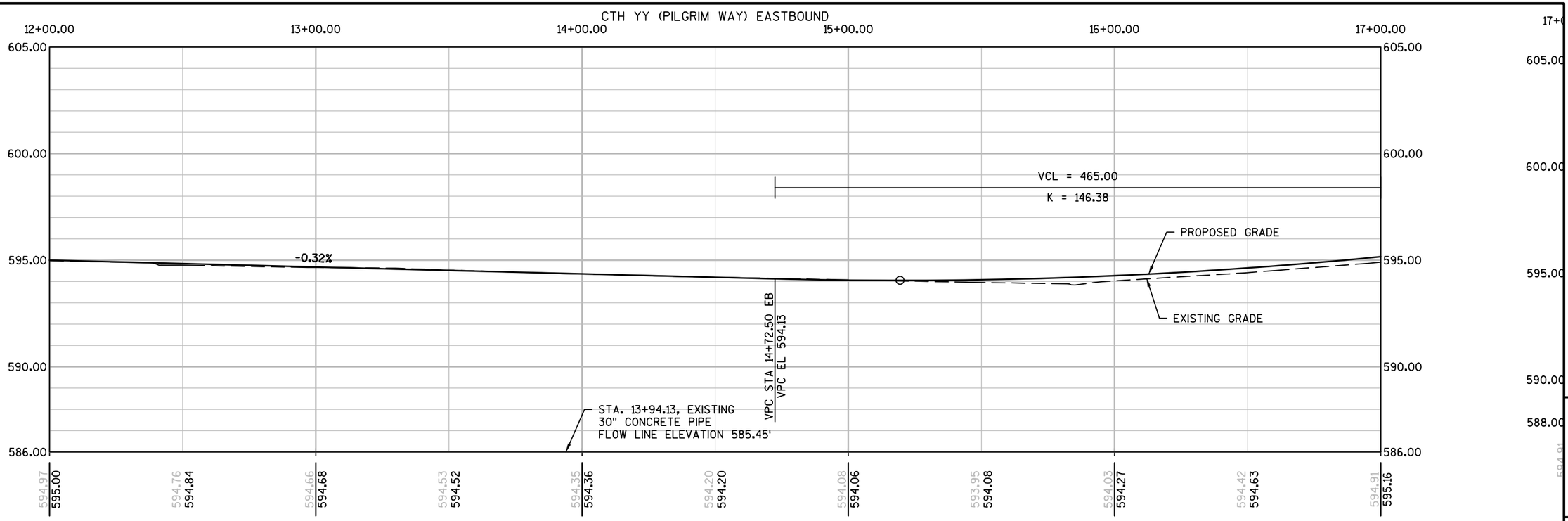


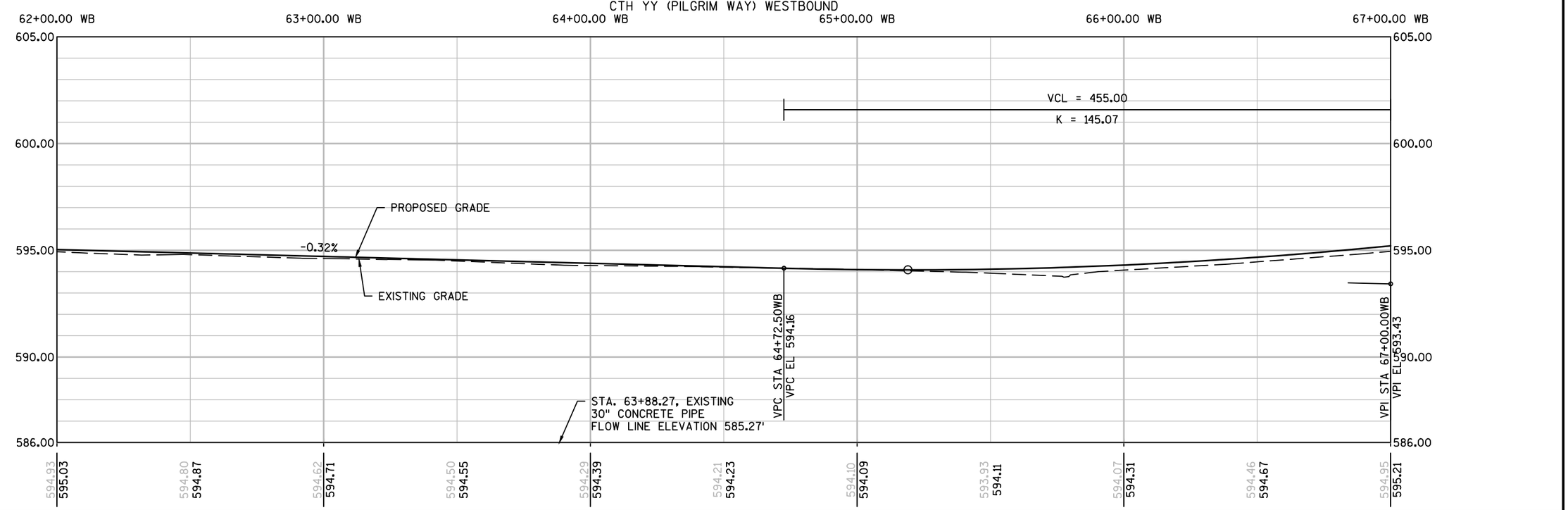
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 140 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050105-pp

PLOT DATE : 1/20/2016 2:22 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44





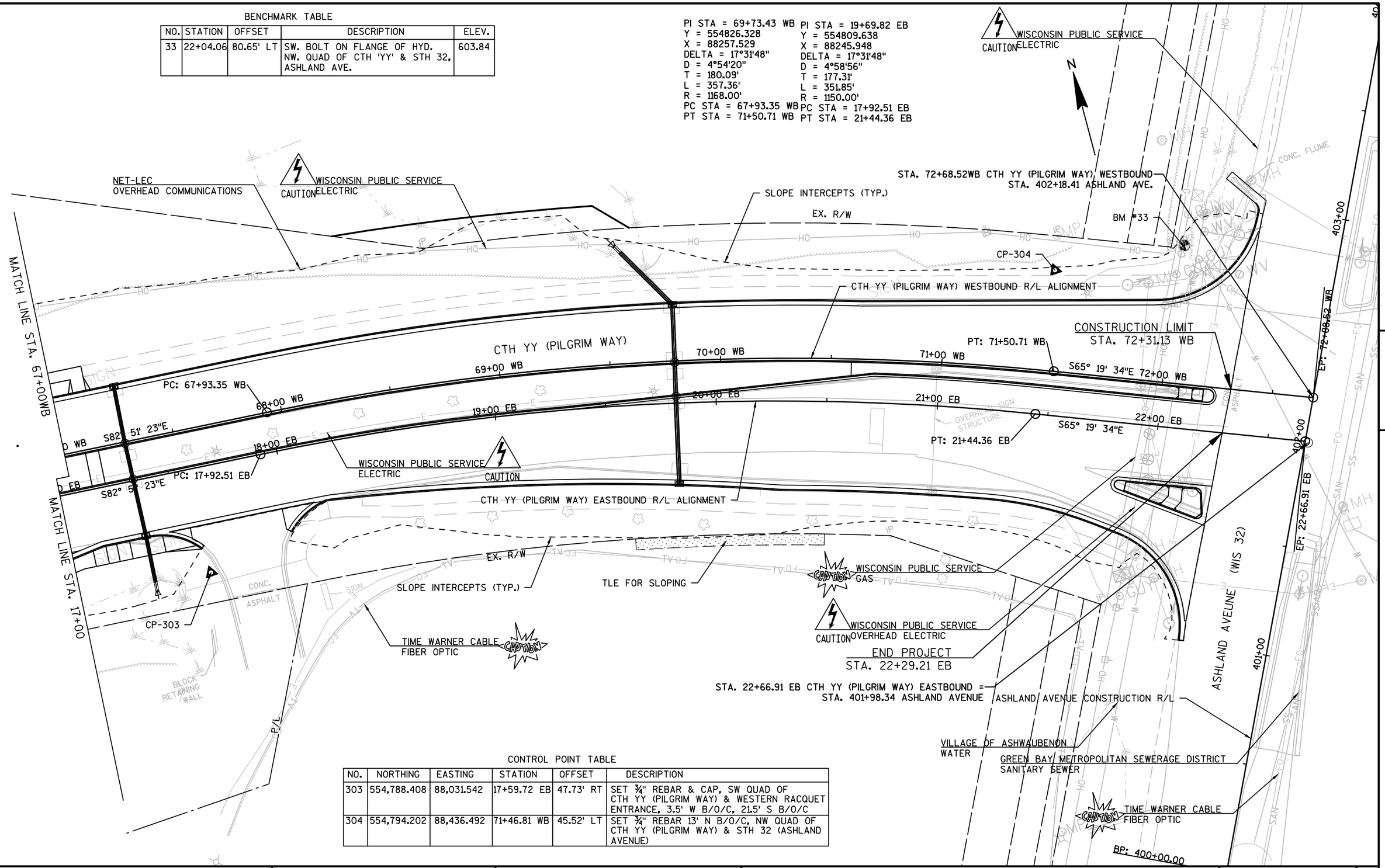
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 141 E

BENCHMARK TABLE

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
33	22+04.06	80.65' LT	SW. BOLT ON FLANGE OF HYD. NW. QUAD OF CTH 'YY' & STH 32, ASHLAND AVE.	603.84

PI STA = 69+73.43 WB
Y = 554826.328
X = 88257.529
DELTA = 17°31'48"
D = 4°54'20"
T = 180.09'
L = 357.36'
R = 1168.00'
PC STA = 67+93.35 WB
PT STA = 71+50.71 WB

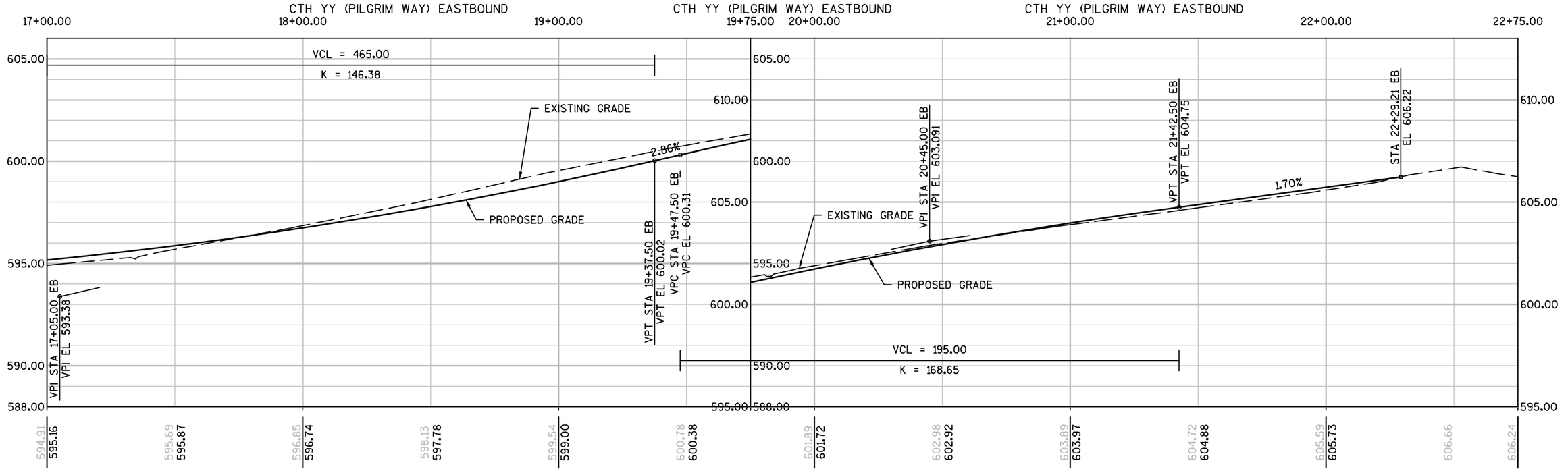
PI STA = 19+69.82 EB
Y = 554809.638
X = 88245.948
DELTA = 17°31'48"
D = 4°58'56"
T = 177.31'
L = 351.85'
R = 1150.00'
PC STA = 17+92.51 EB
PT STA = 21+44.36 EB

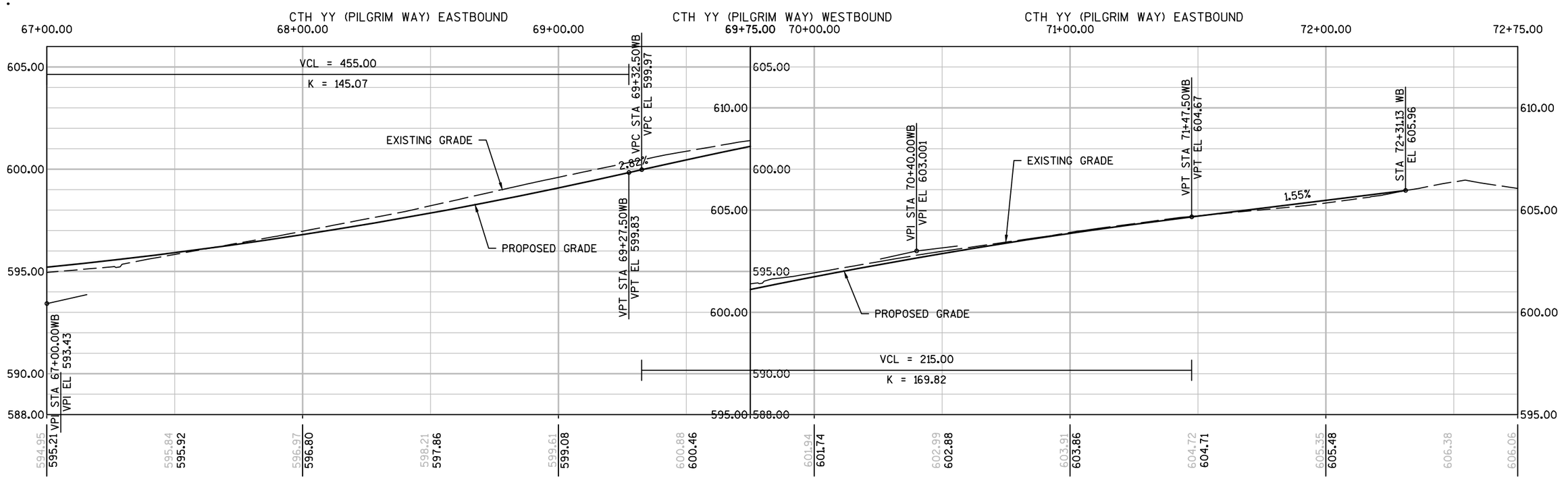


CONTROL POINT TABLE

NO.	NORTHING	EASTING	STATION	OFFSET	DESCRIPTION
303	554,788.408	88,031.542	17+59.72 EB	47.73' RT	SET ¾" REBAR & CAP, SW QUAD OF CTH YY (PILGRIM WAY) & WESTERN RACQUET ENTRANCE, 3.5' W B/O/C, 21.5' S B/O/C
304	554,794.202	88,436.492	71+46.81 WB	45.52' LT	SET ¾" REBAR 13' N B/O/C, NW QUAD OF CTH YY (PILGRIM WAY) & STH 32 (ASHLAND AVENUE)

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 142 E





PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	PLAN AND PROFILE: CTH YY (PILGRIM WAY)	SHEET 143 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050108-pp
PLOT DATE : 1/20/2016 2:22 PM
PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 44

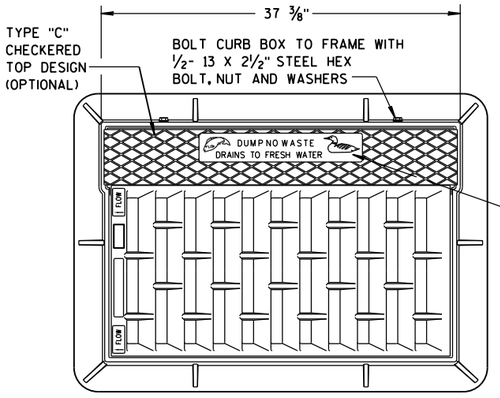
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
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
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-06A	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09E01-14A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-07C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F12-04	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
11B02-02	CONCRETE MEDIAN NOSE
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-12A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-12B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-12C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

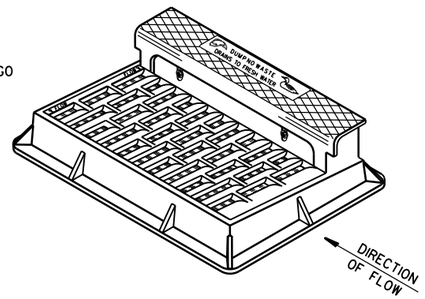
6

Standard Detail Drawing List

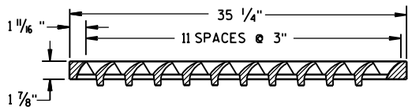
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C18-03	MEDIAN ISLAND MARKING
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

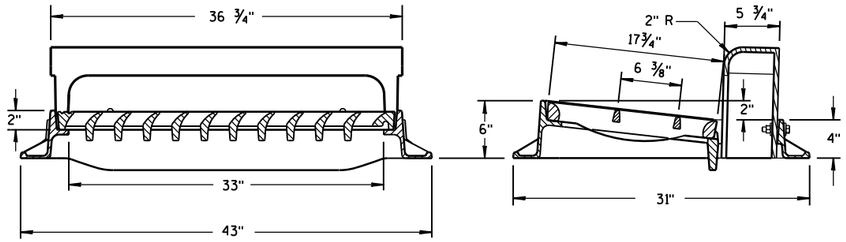


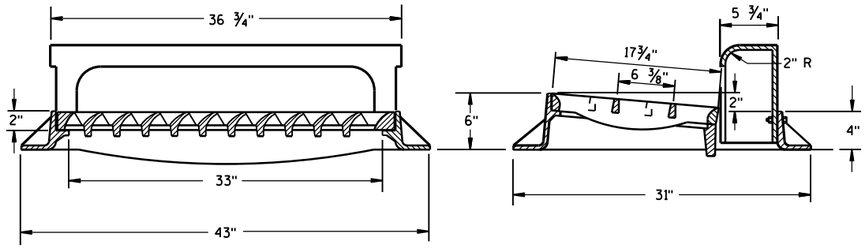
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

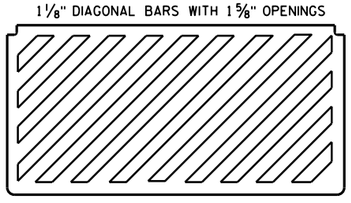






TYPE "H"

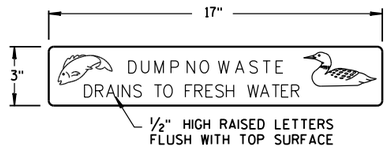
NOTE: EITHER CASTING IS ACCEPTABLE



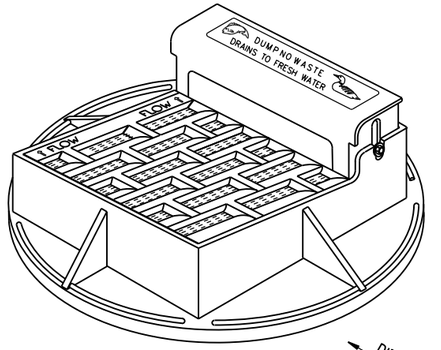
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

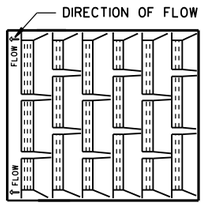
NOTE:
GRATE IS REVERSIBLE.

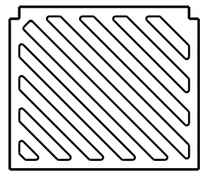
GENERAL NOTES

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

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

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

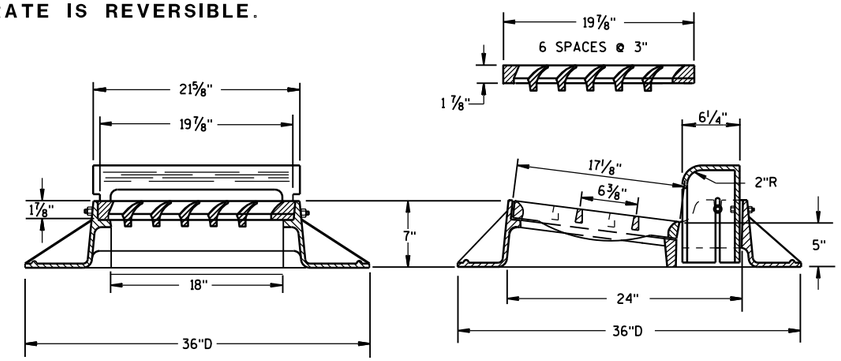




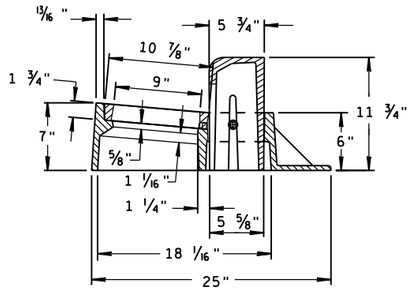
SPECIAL GRATE FOR TYPE "A" COVER

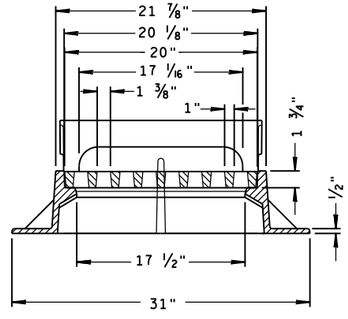
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

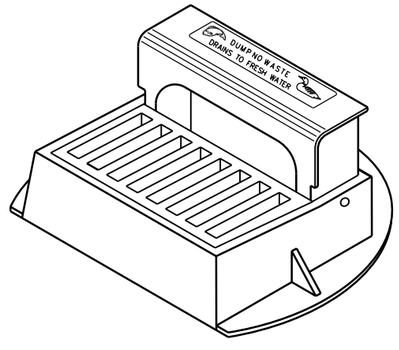


TYPE "A"





TYPE "Z"



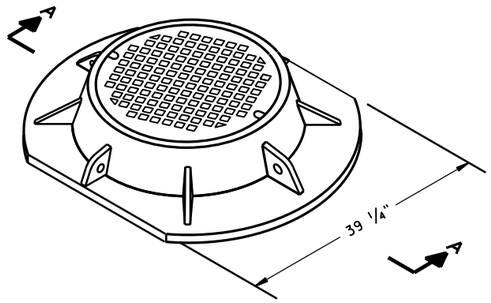
INLET COVERS
TYPE A, H, A-S, H-S & Z

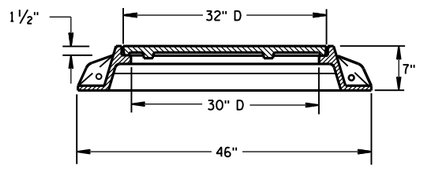
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

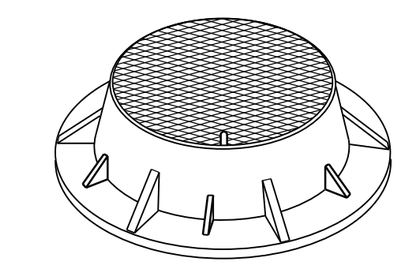
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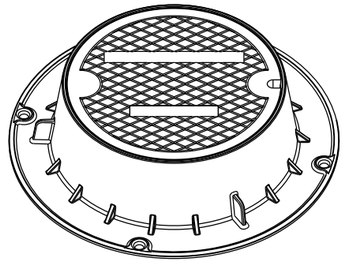
S.D.D. 8 A 5-19a

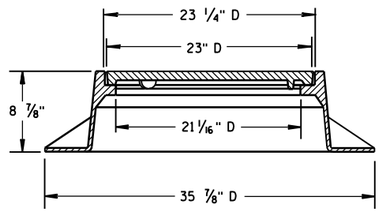


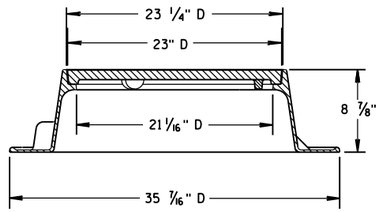


SECTION A-A
TYPE "K"









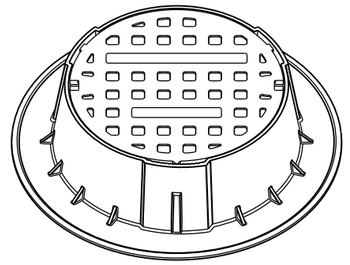
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

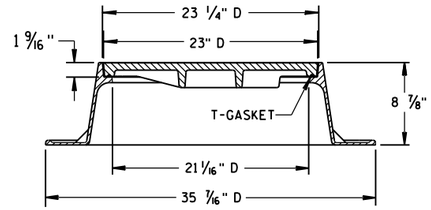
GENERAL NOTES

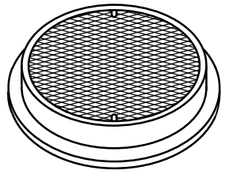
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

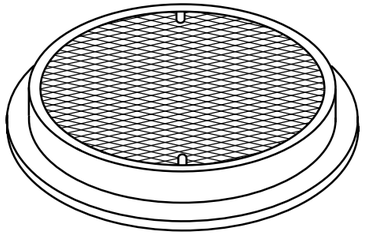
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

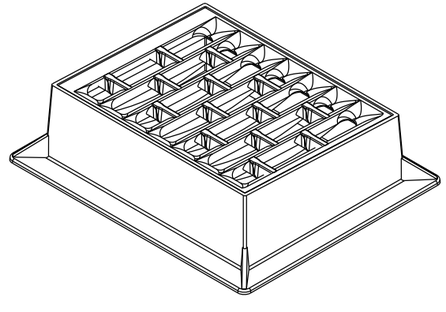
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

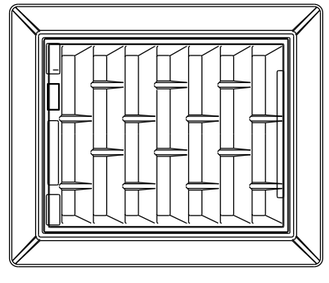


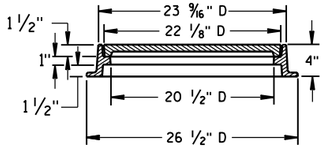




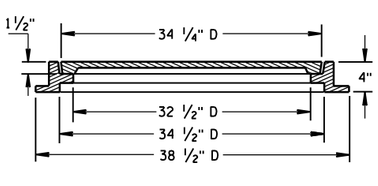




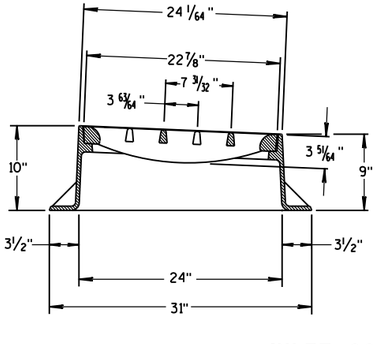


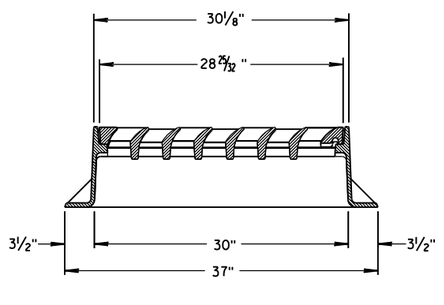


TYPE "L"

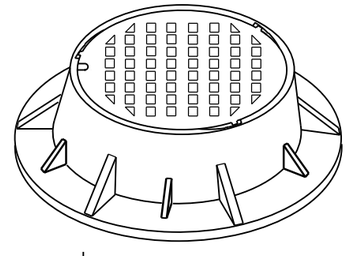


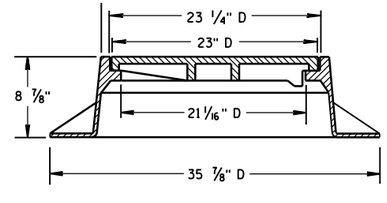
TYPE "M"





INLET COVER TYPE "BW"





TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

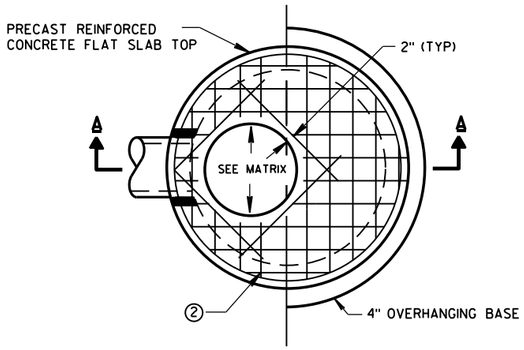
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

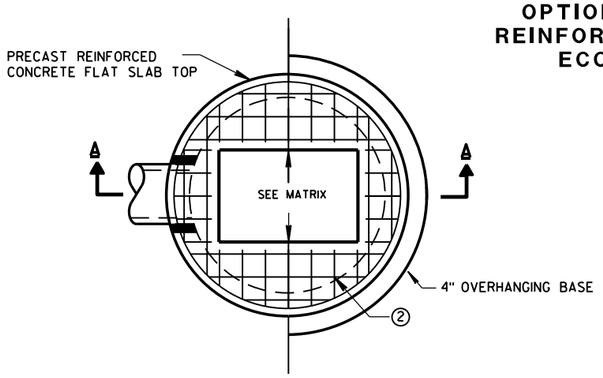
S.D.D. 8 A 5-19d

6

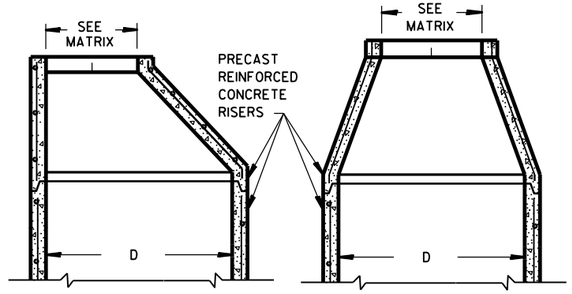
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PLAN VIEW CIRCULAR OPENING

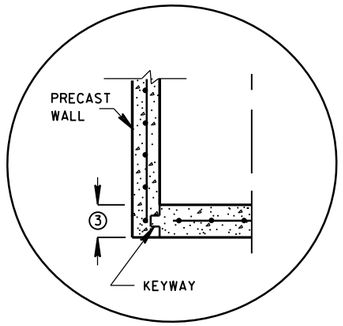


PLAN VIEW RECTANGULAR OPENING

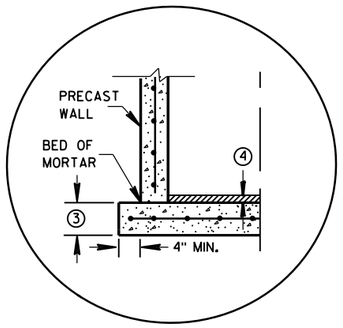


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

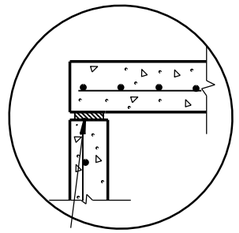


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



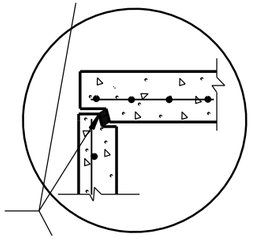
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

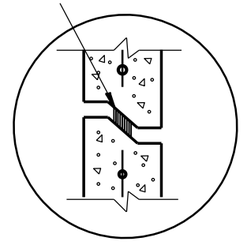


TOP WITH PLAIN END JOINT

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

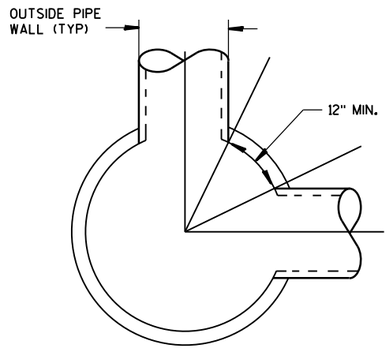


TOP WITH TONGUE AND GROOVE JOINT

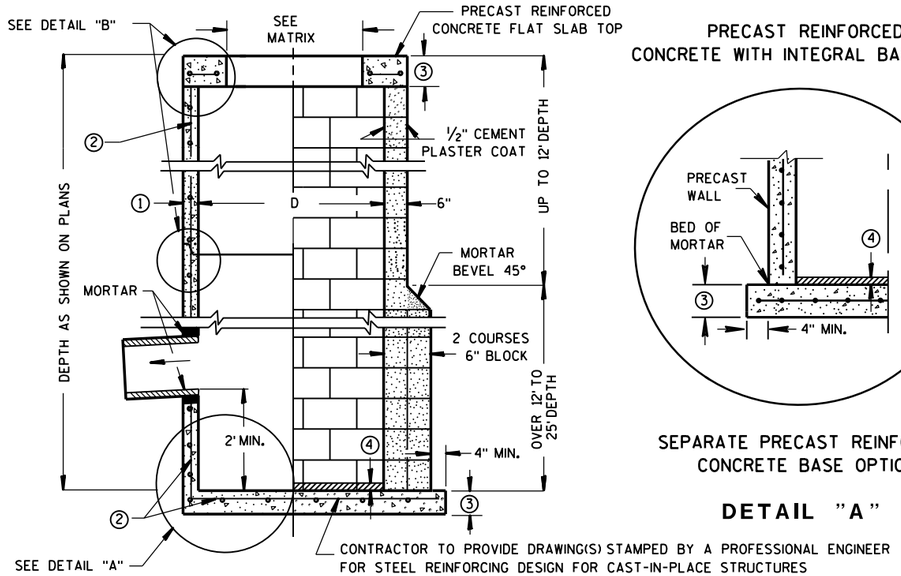


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

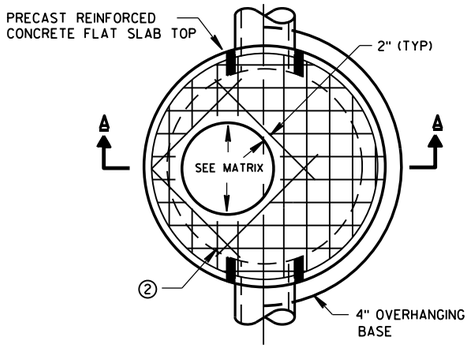
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

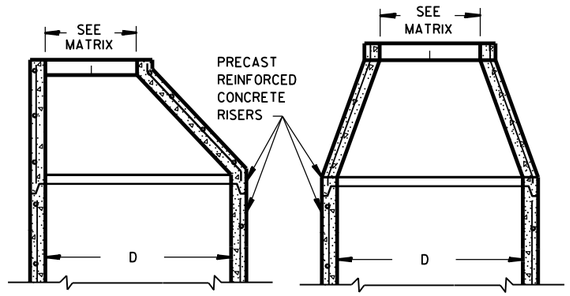
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 8 A 8-1

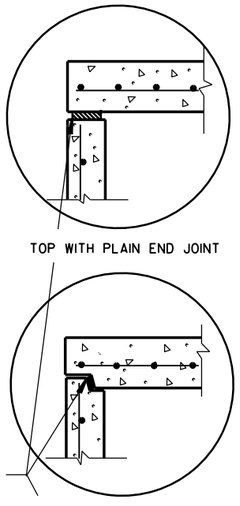


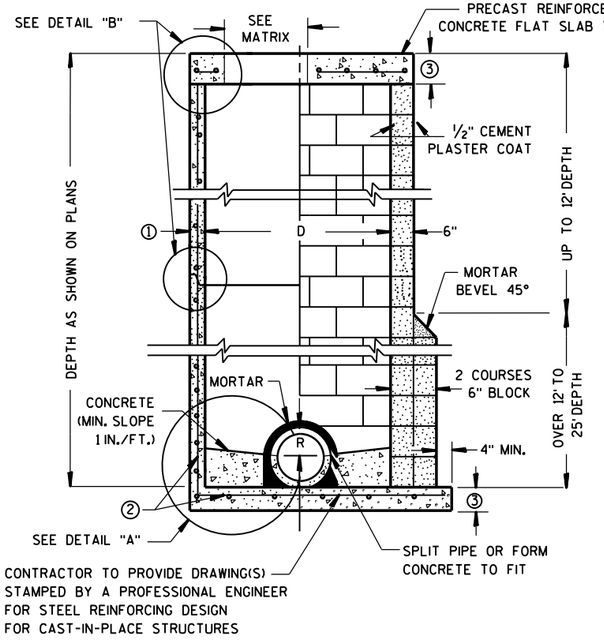
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

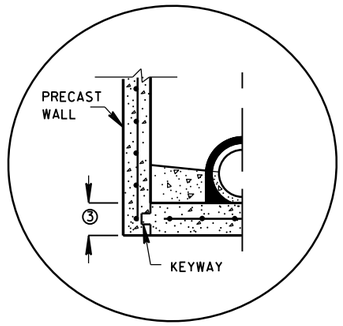
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



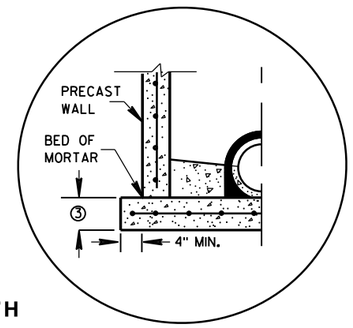


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

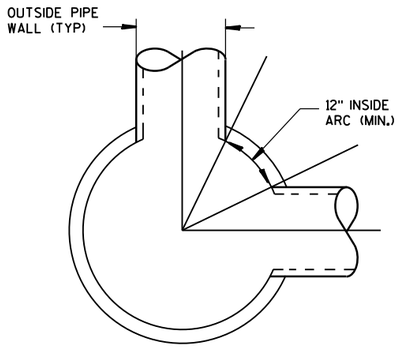


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

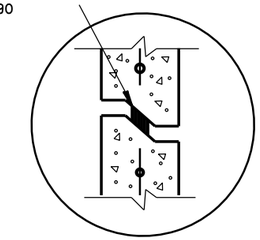


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "B"

GENERAL NOTES

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

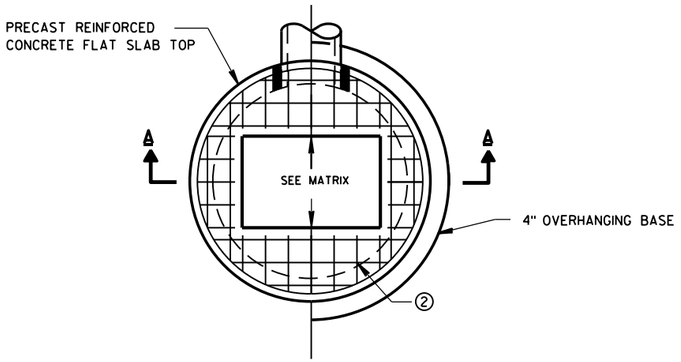
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

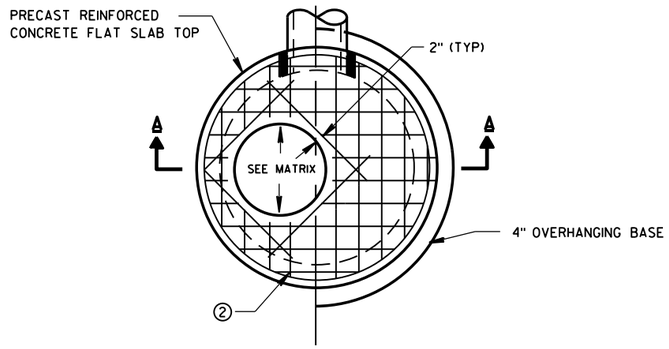
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

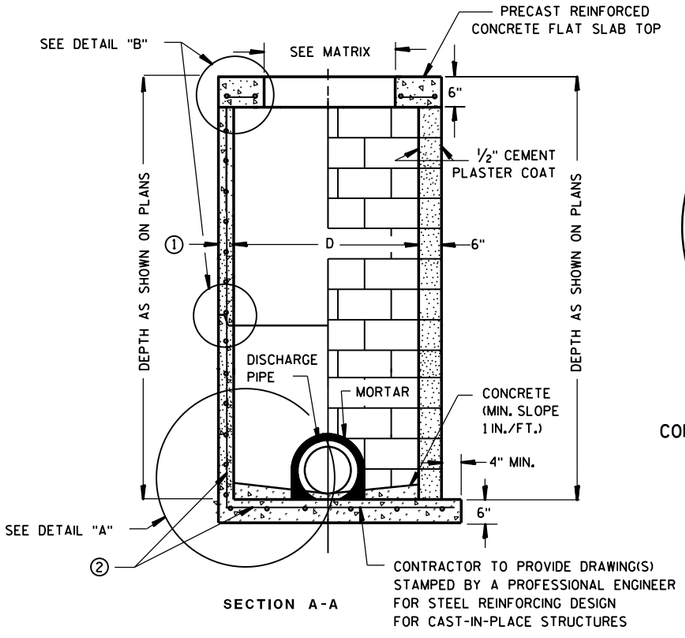
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S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

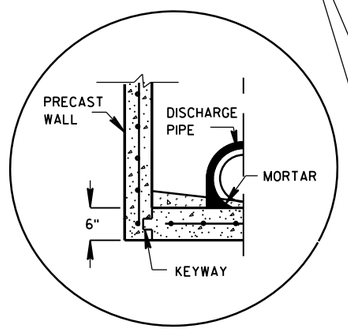


SECTION A-A

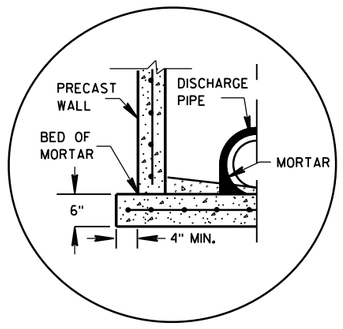
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

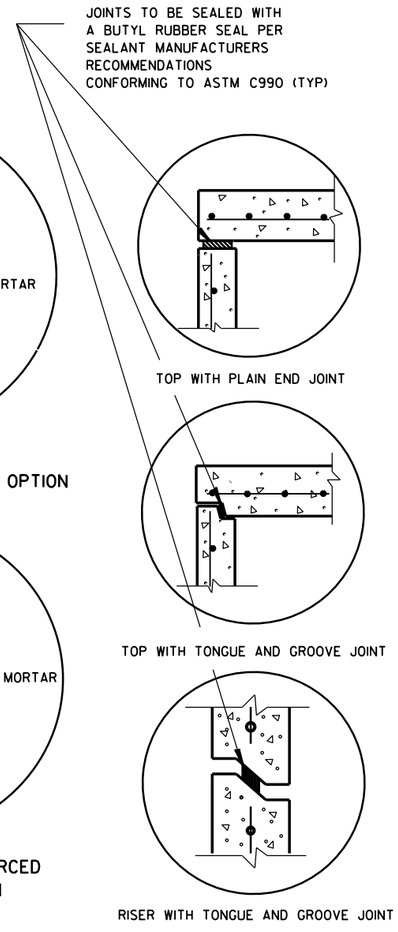


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

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

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

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

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

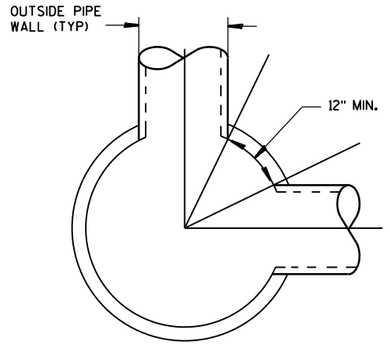
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

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DEPARTMENT OF TRANSPORTATION

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6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

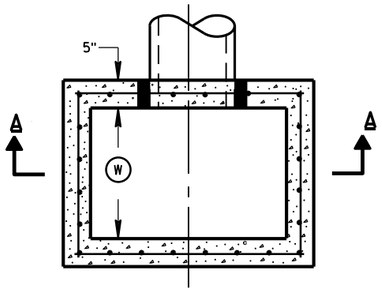
INLETS 3-FT AND 4-FT DIAMETER

6

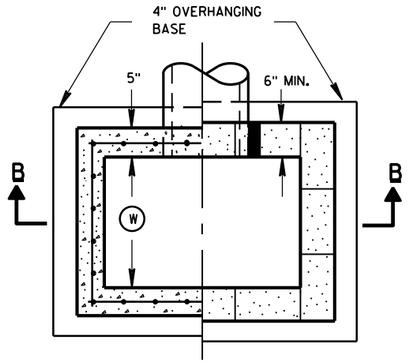
S.D.D. 8 C 6-1

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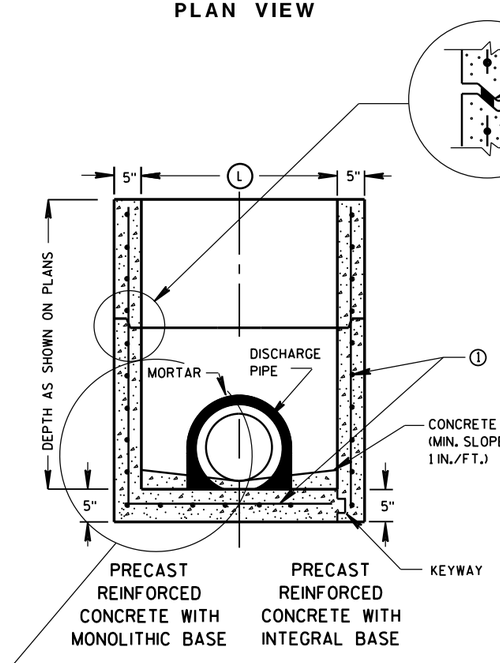
S.D.D. 8 C 6-1



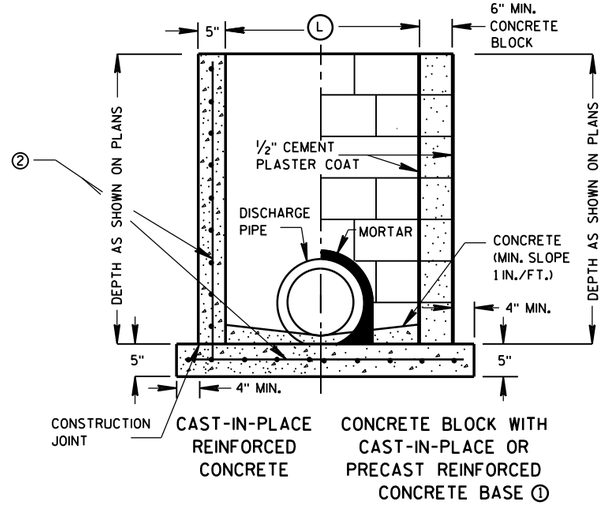
PLAN VIEW



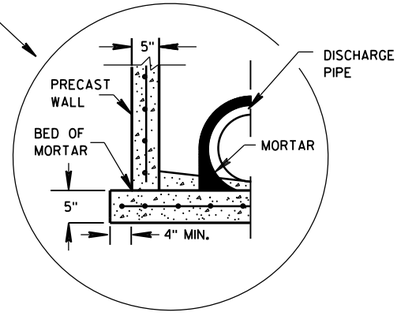
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 SEPARATE 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.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

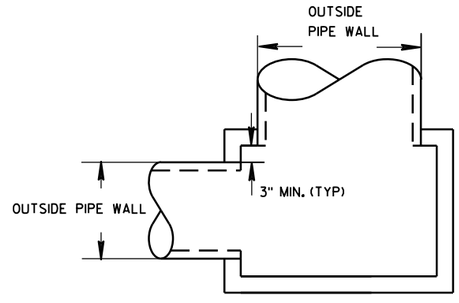
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (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

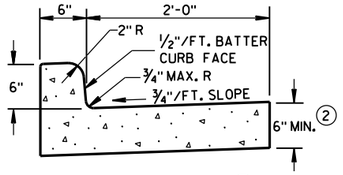
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

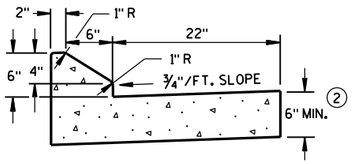
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER

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

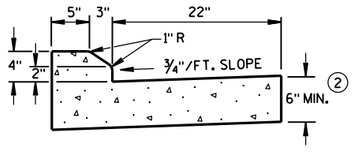
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S.D.D. 8 C 7-1



TYPES A & D ①

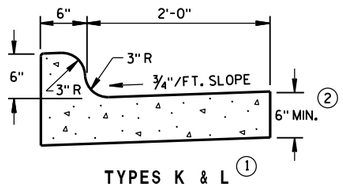


6" SLOPED CURB TYPES G & J ①

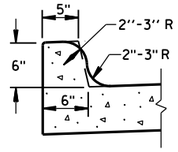


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

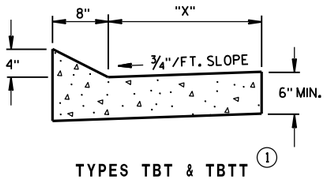


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

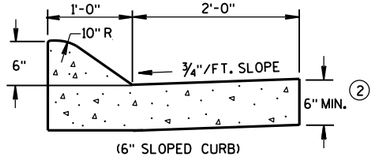
CONCRETE CURB & GUTTER 30"



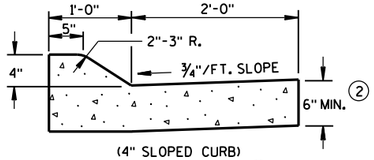
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

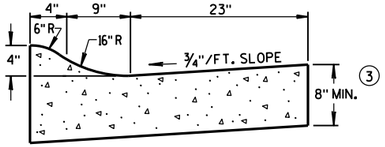


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

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

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

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

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

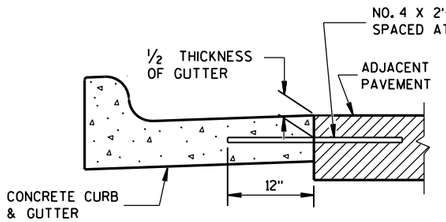
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

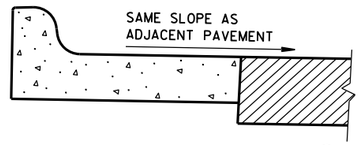
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

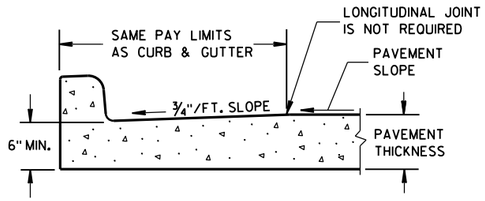
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



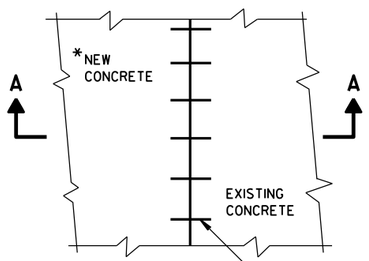
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

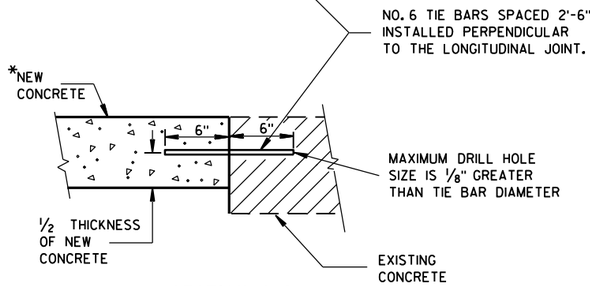


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



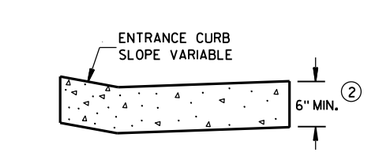
PLAN VIEW

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

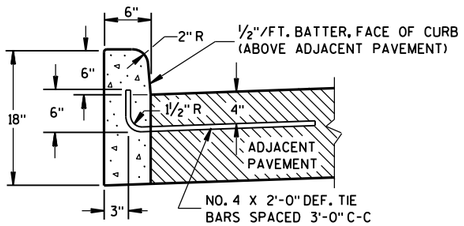


SECTION A-A

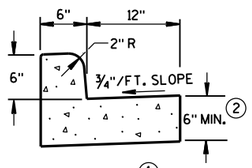
TIE BARS DRILLED
INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

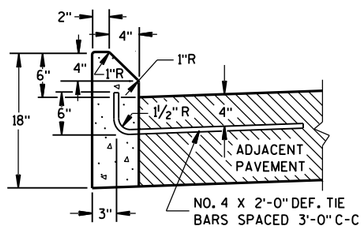


① TYPES A & D



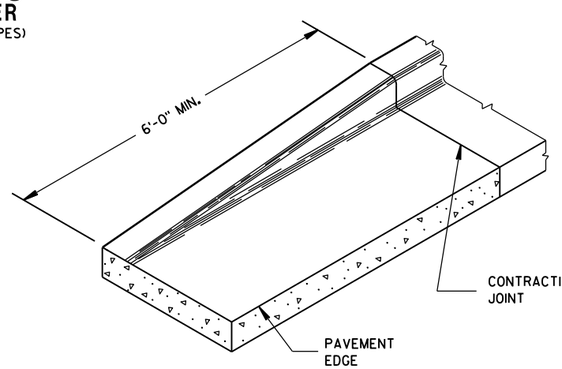
① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

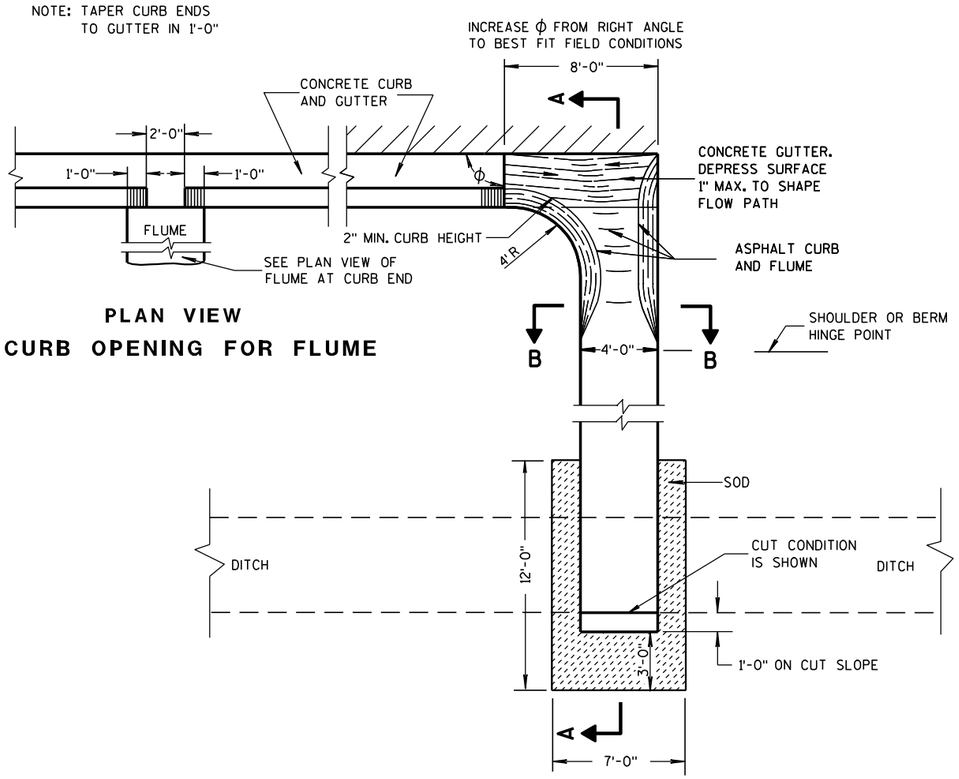
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

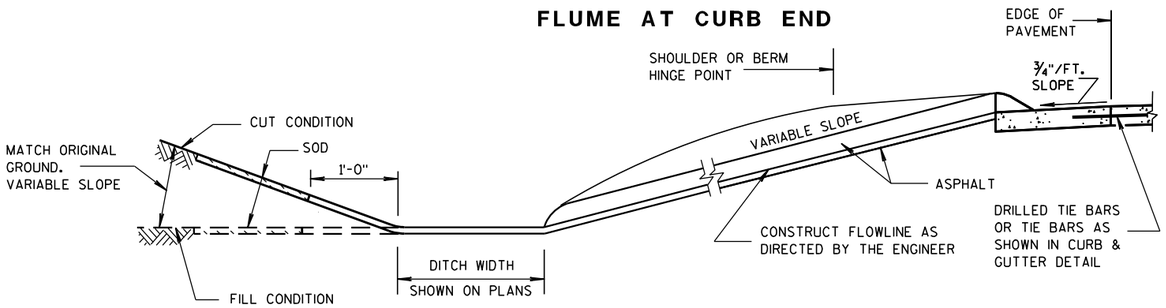
S.D.D. 8 D 1-18

ASPHALTIC FLUME

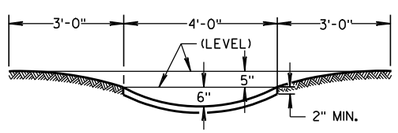


PLAN VIEW
CURB OPENING FOR FLUME

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.

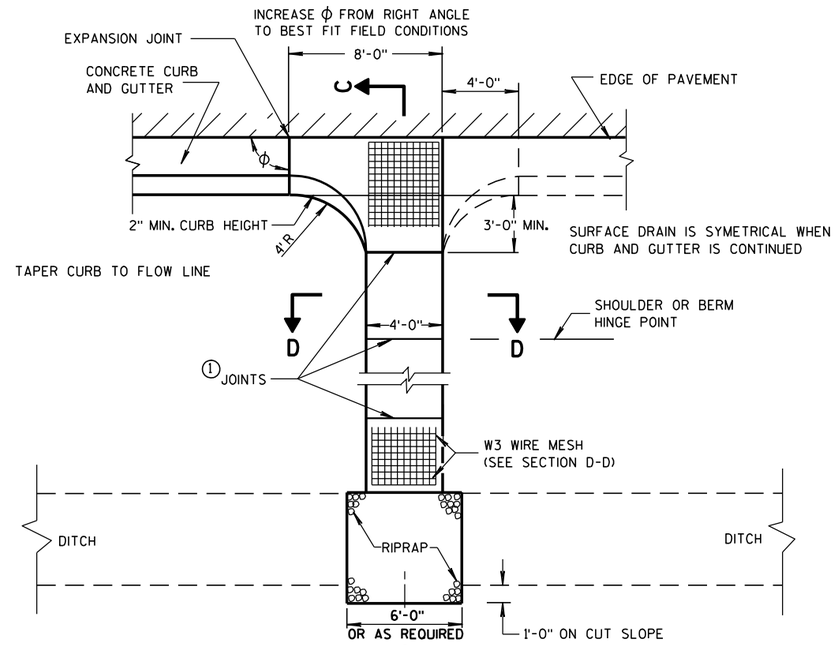
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

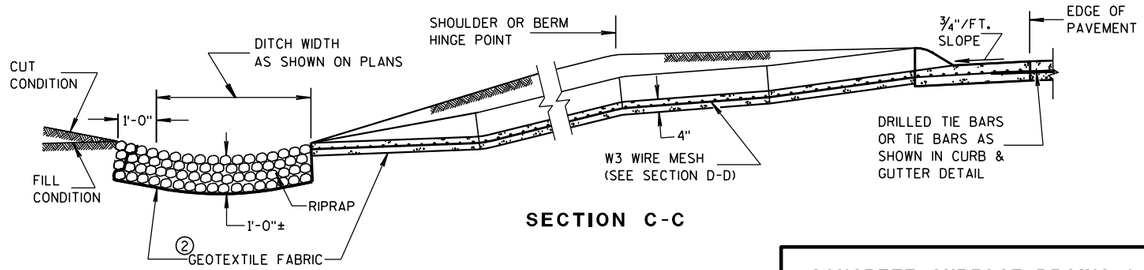
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

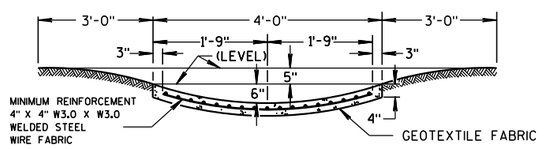
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

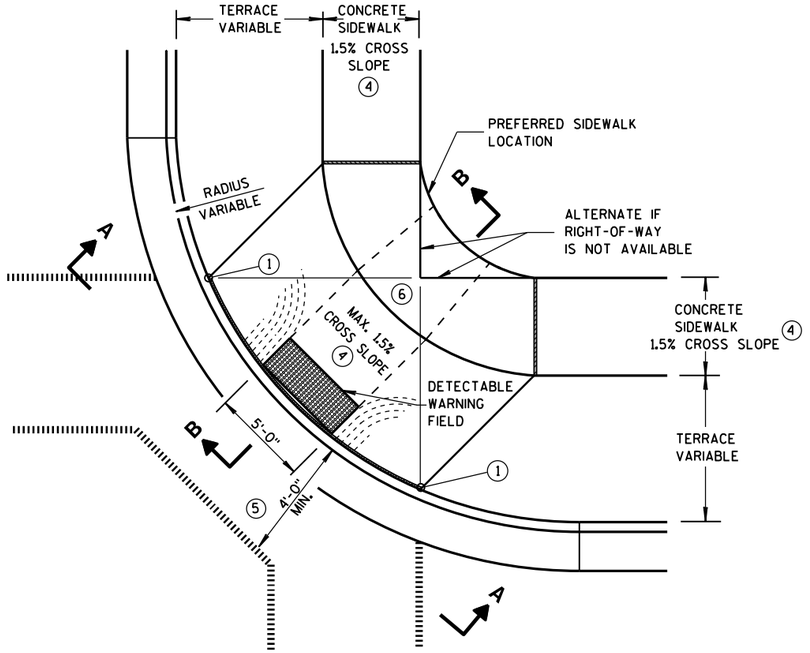
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
153
MENT
FHWA

6

S.D.D. 8 D 4-5

6

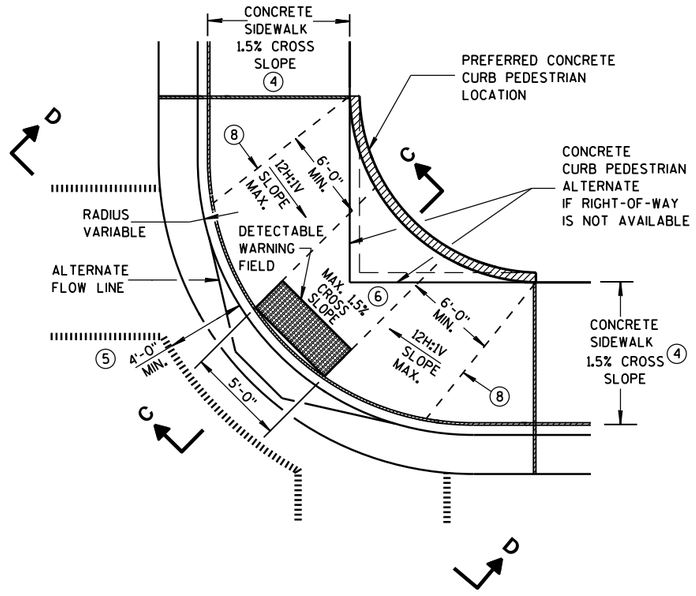
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$-INCH ARE ALLOWED.

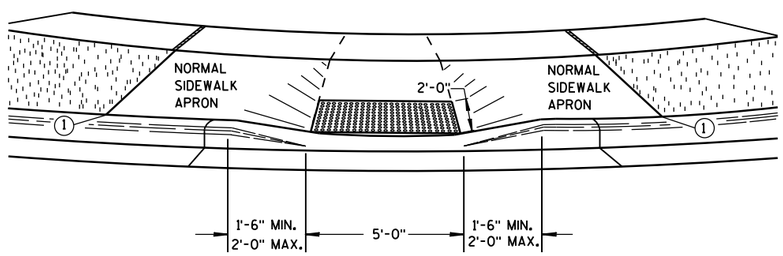
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

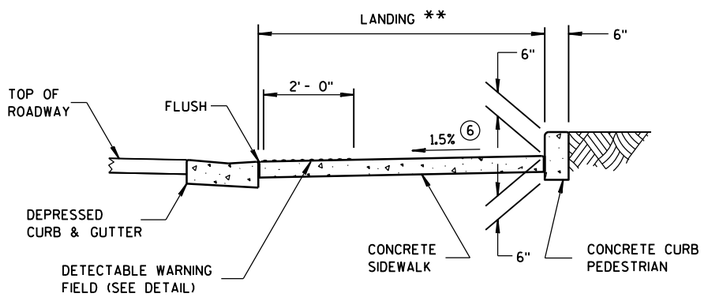
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

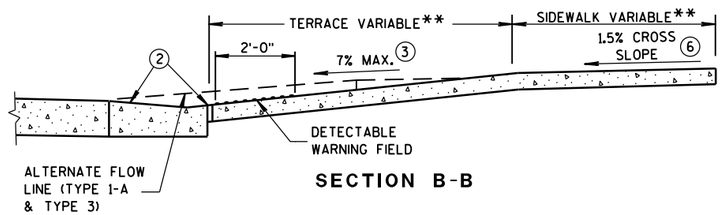
** WIDTH SHOWN ELSEWHERE IN THE PLANS



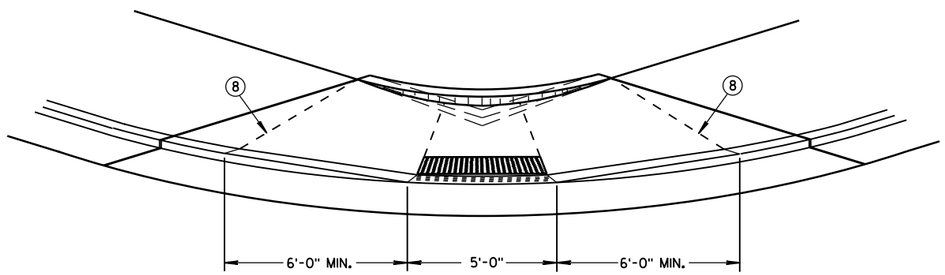
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



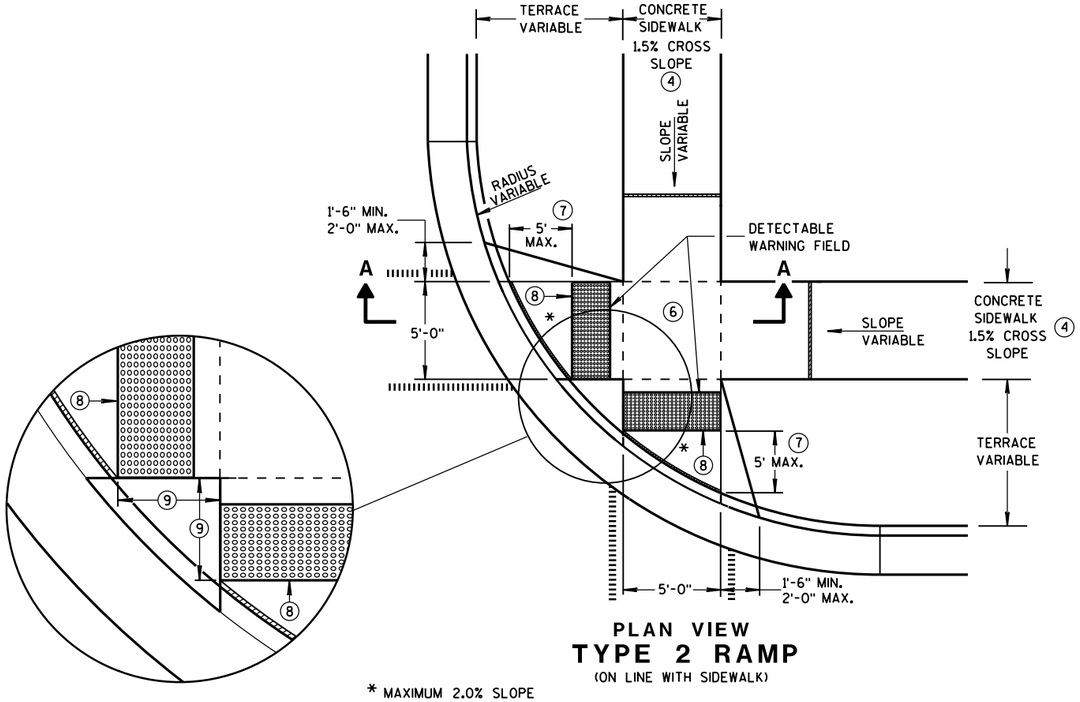
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

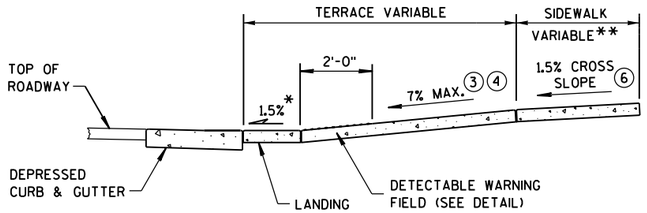


PLAN VIEW

TYPE 2 RAMP

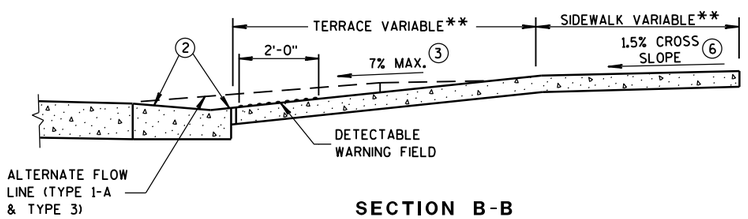
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

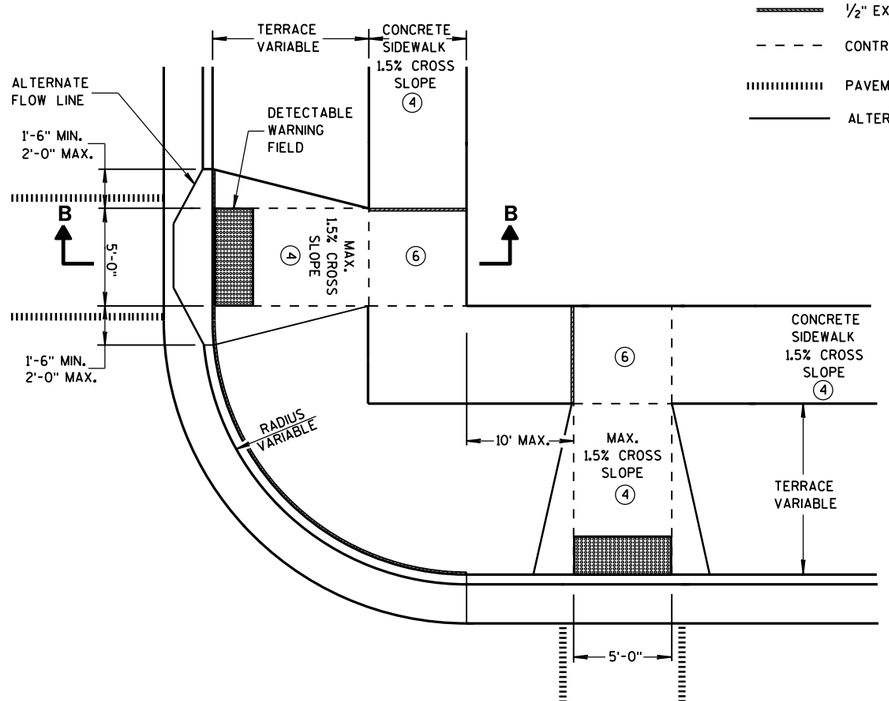
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

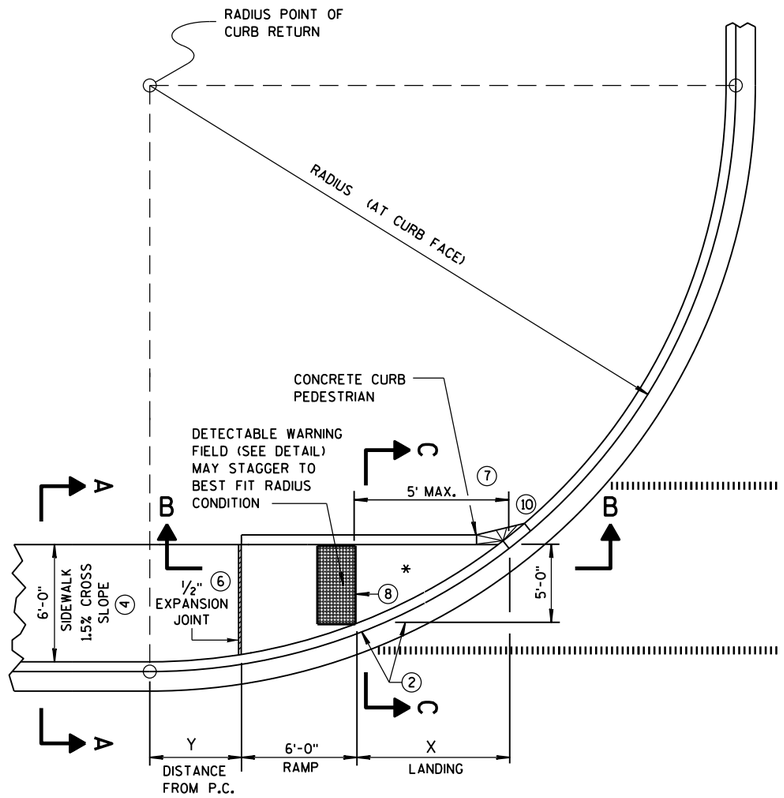
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

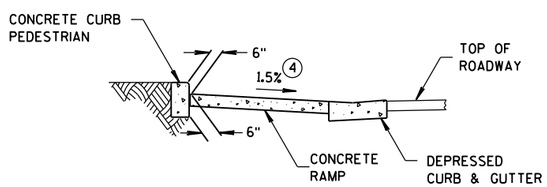
S.D.D. 8 D 5-16b



CURB RAMP TYPE 4A
PLAN VIEW

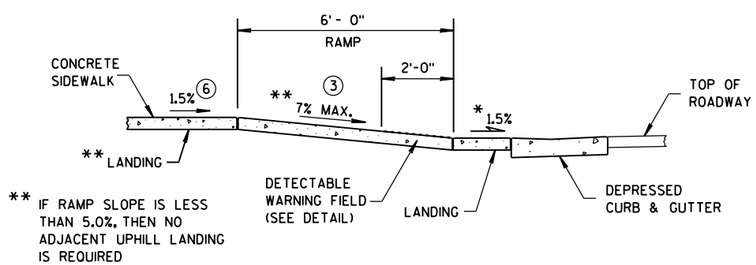
RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

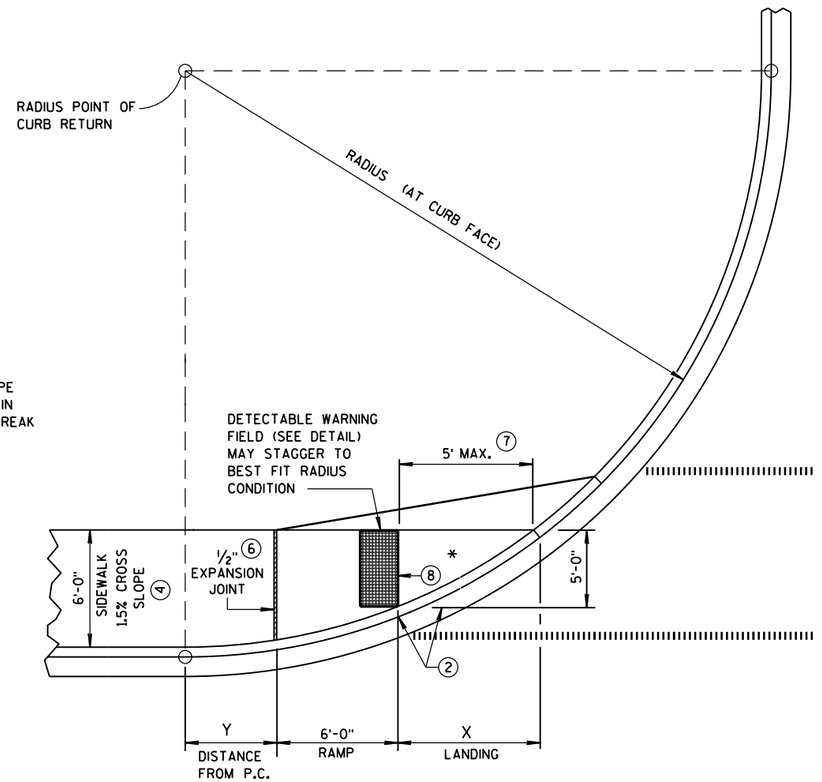
SECTION A-A FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

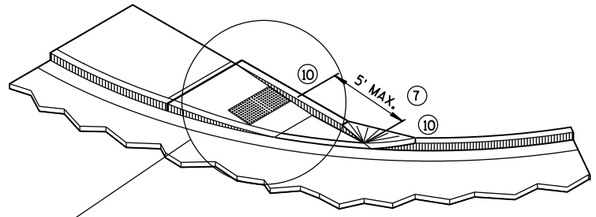
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

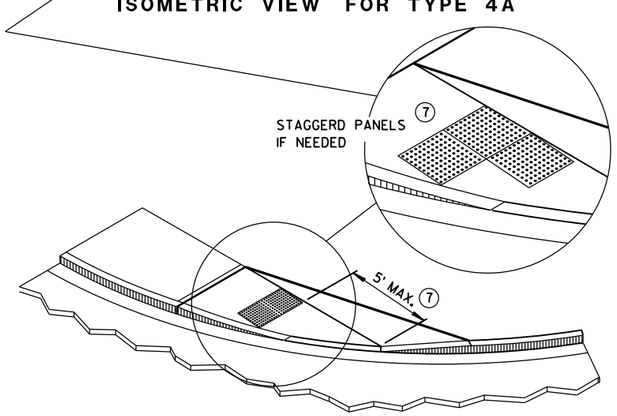
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

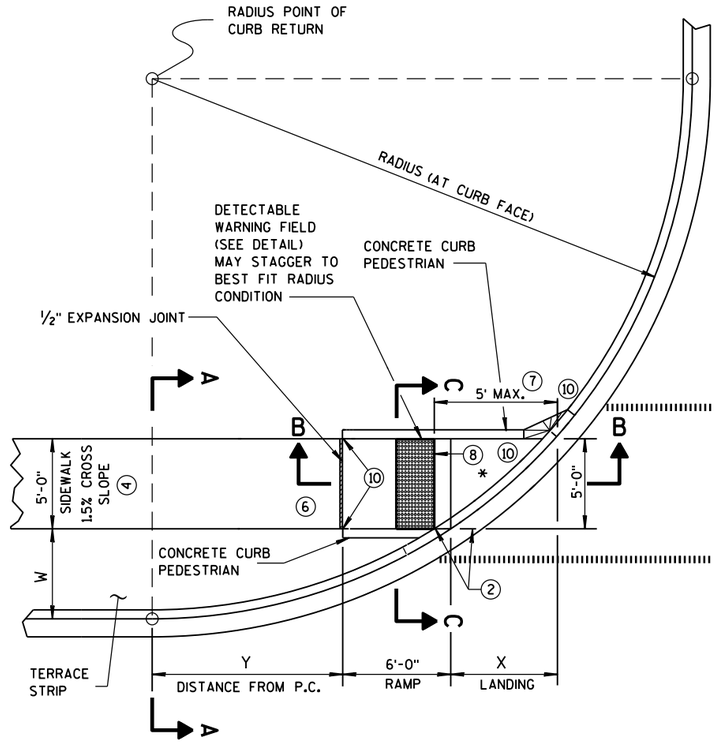
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

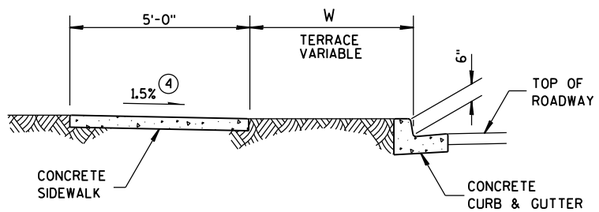
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

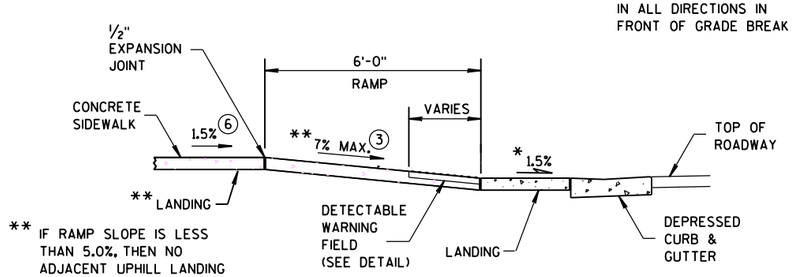
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

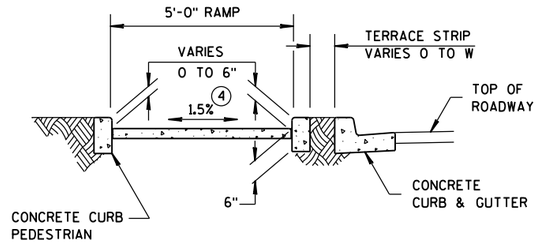
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

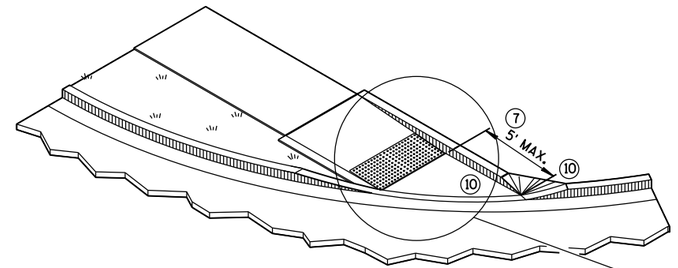
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

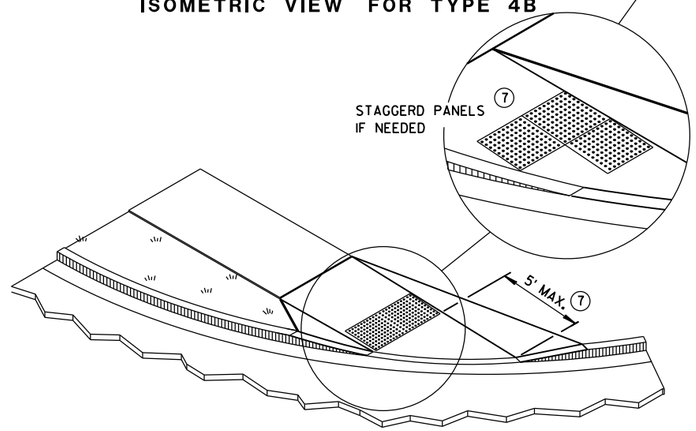
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

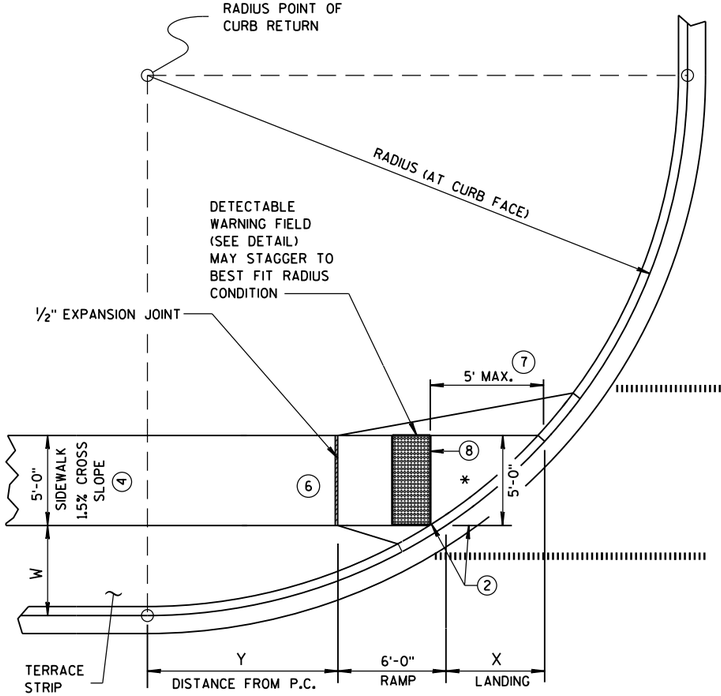
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

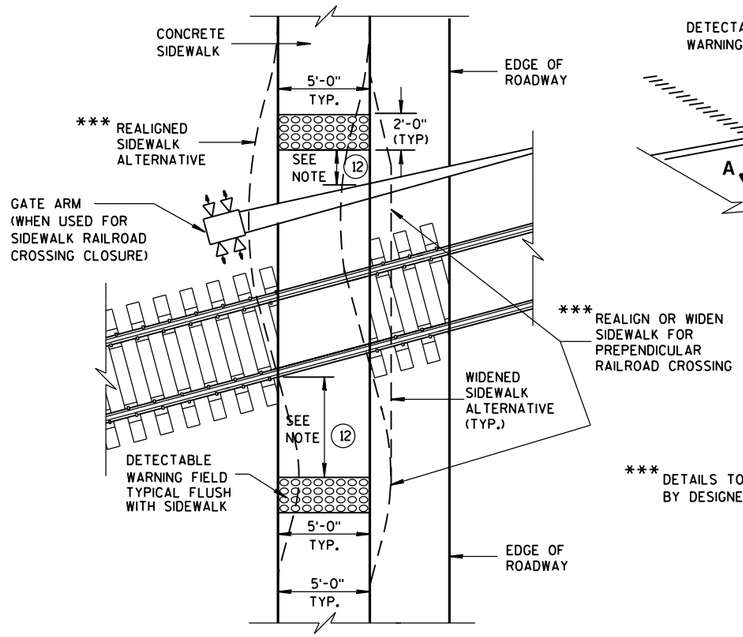
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16d

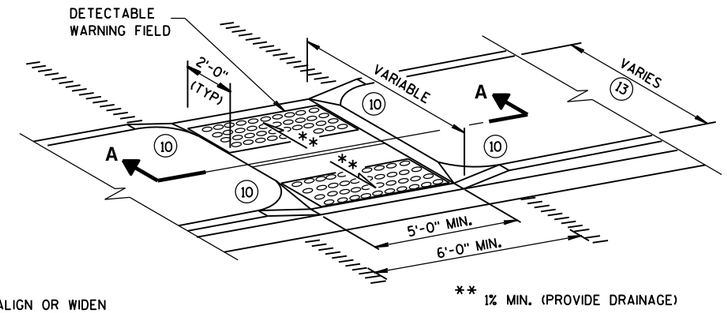
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S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

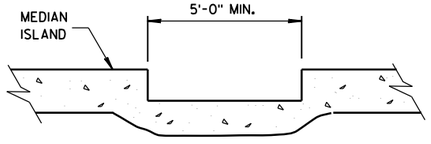
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

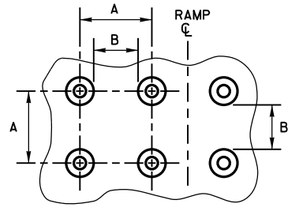
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



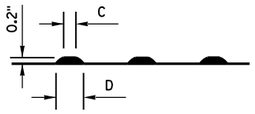
SECTION A-A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

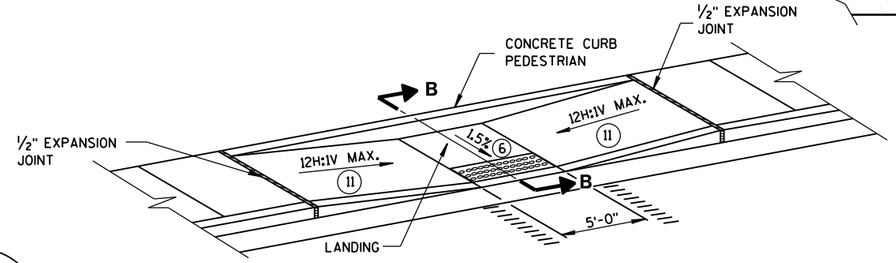


PLAN VIEW

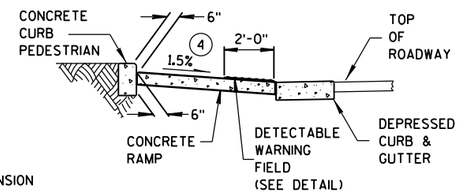


ELEVATION VIEW

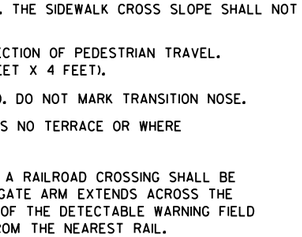
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



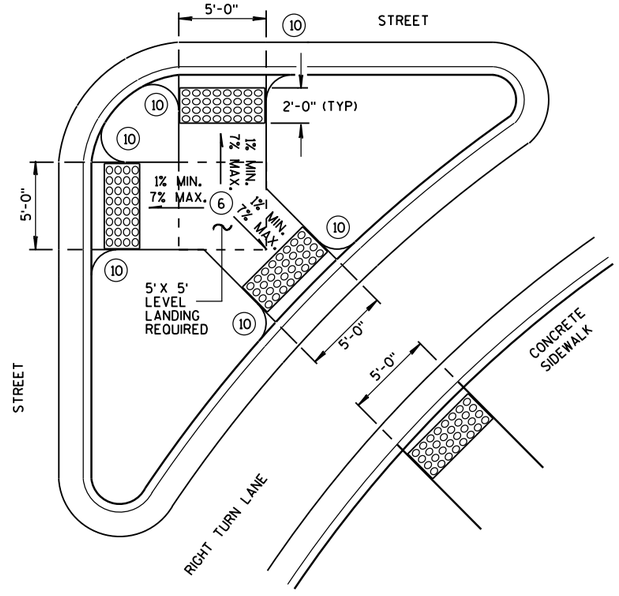
SECTION B-B



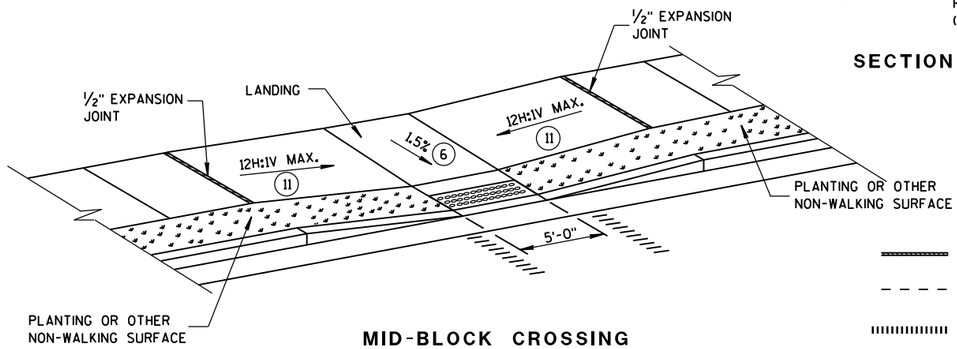
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

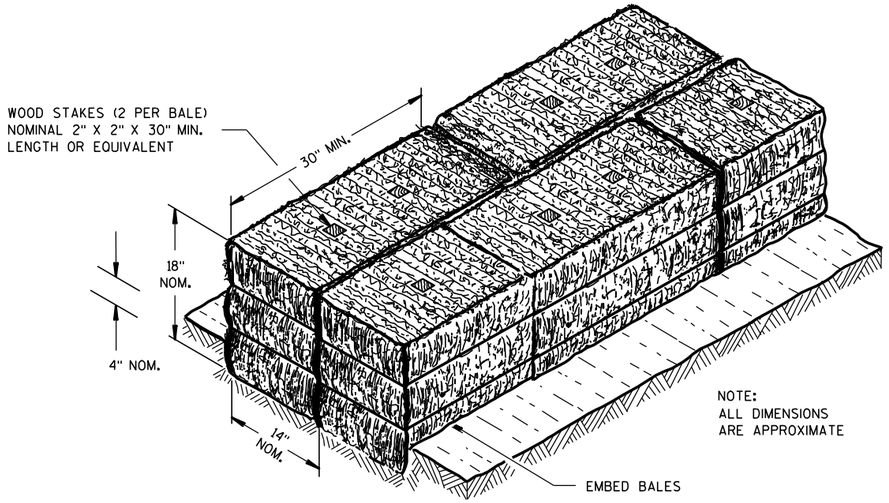
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

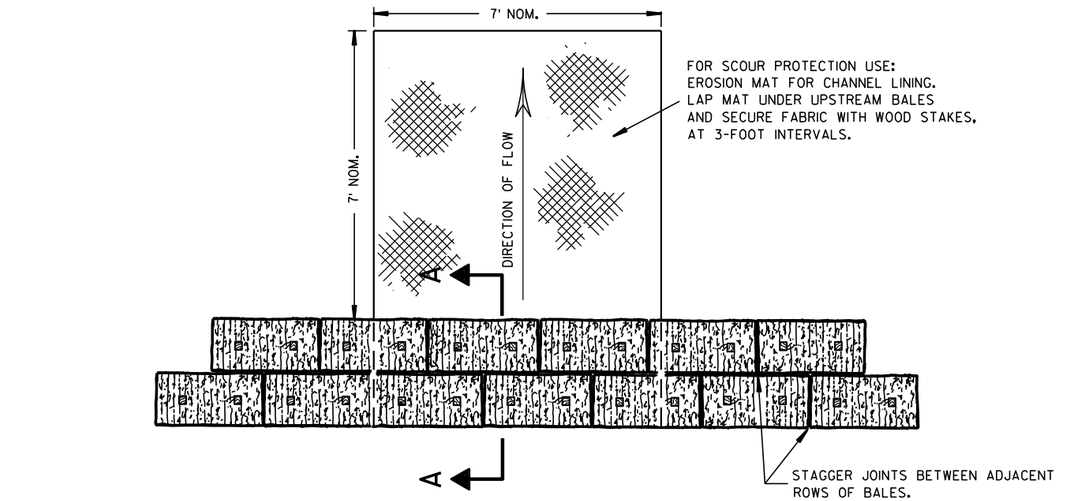
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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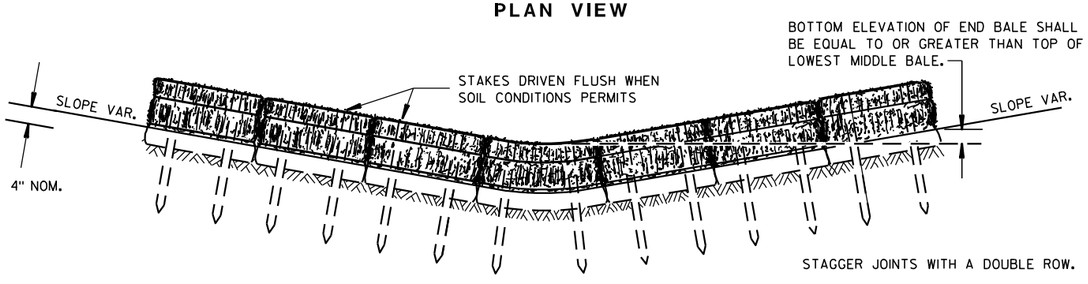
S.D.D. 8 D 5-16e



SECTION A-A



PLAN VIEW



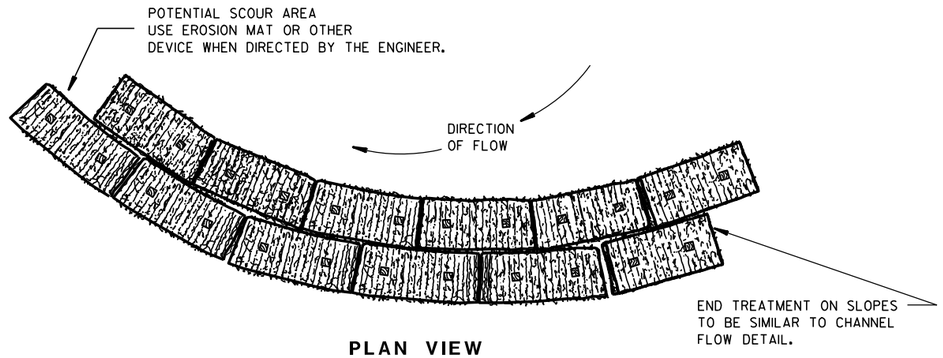
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

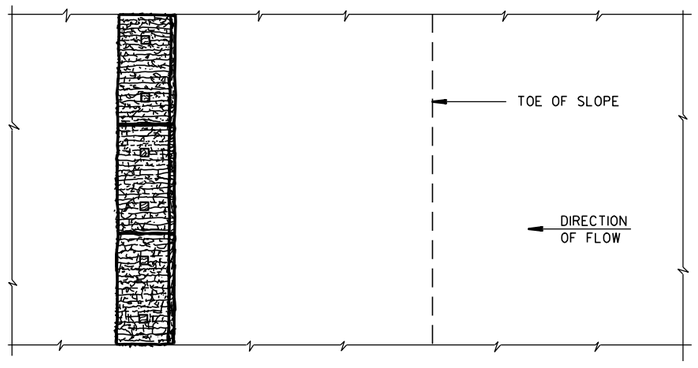
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

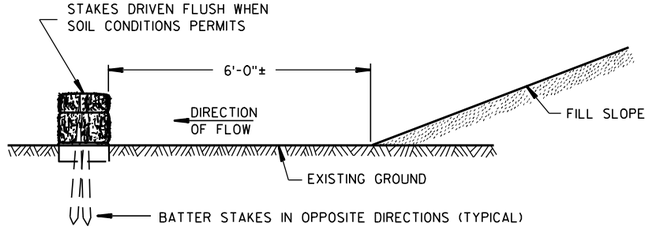


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

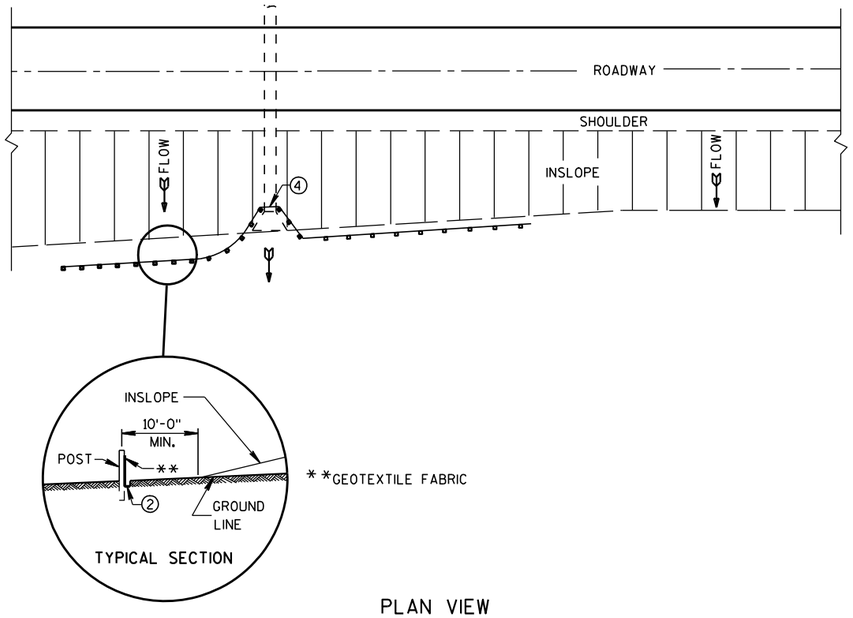
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

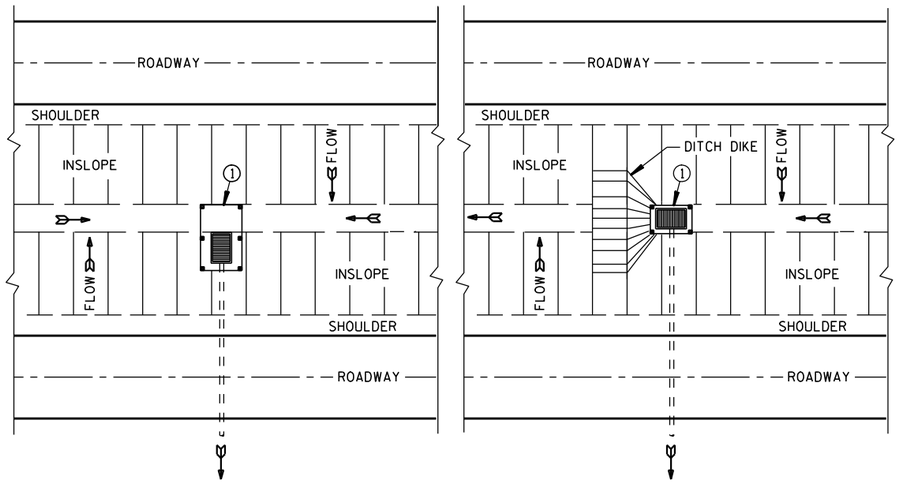
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

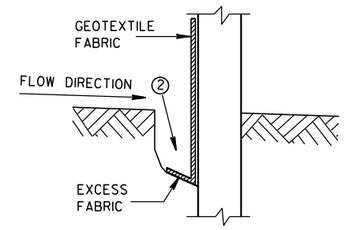
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

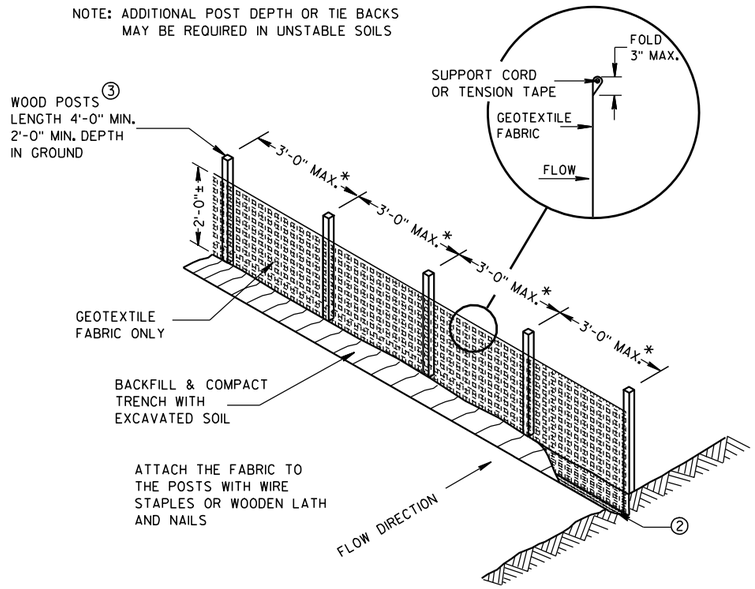
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

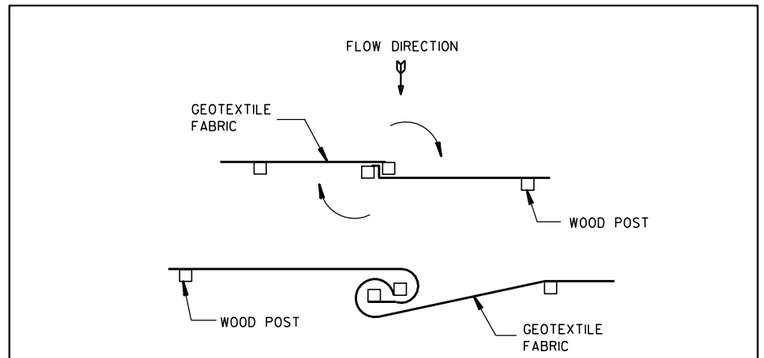
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



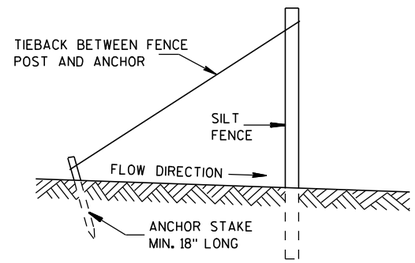
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

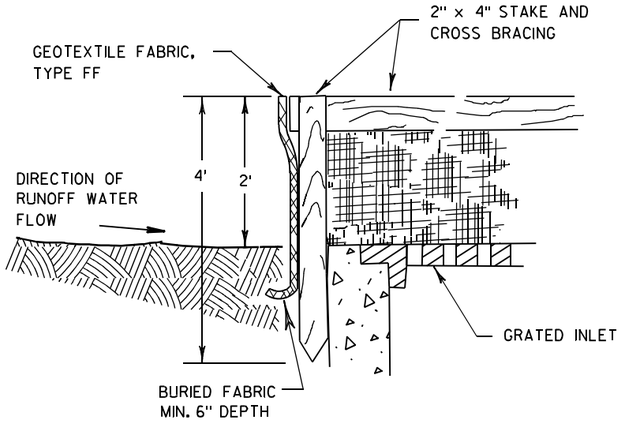
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

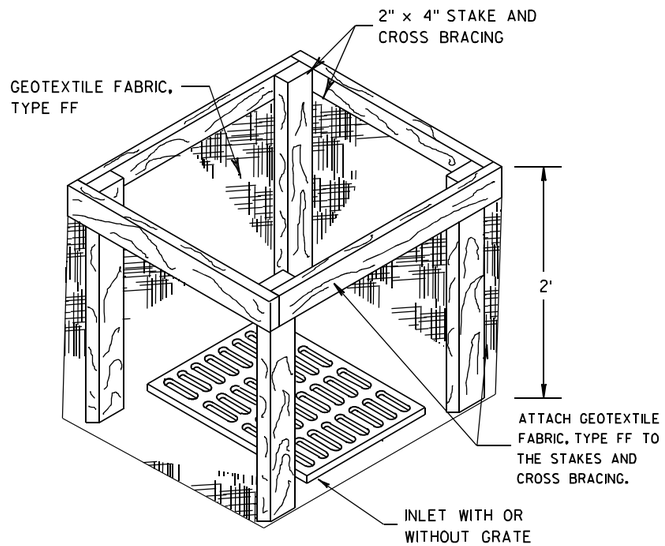
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S.D.D. 8 E 9-6

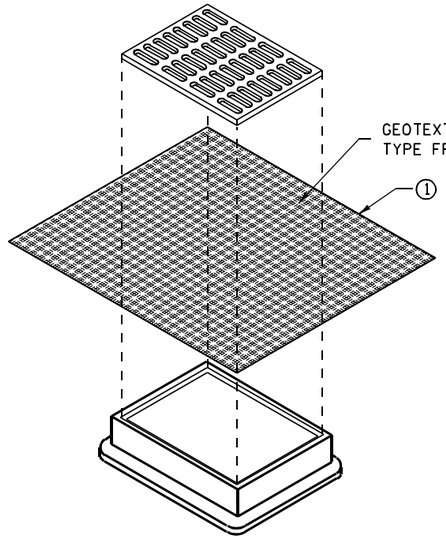
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S.D.D. 8 E 9-6



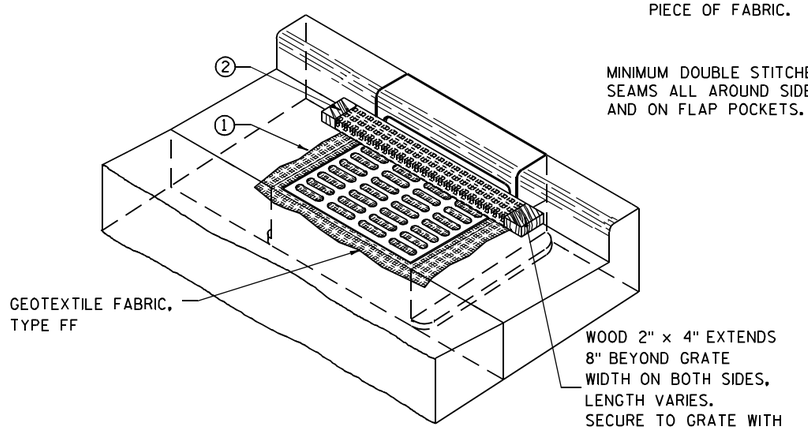


INLET PROTECTION, TYPE A

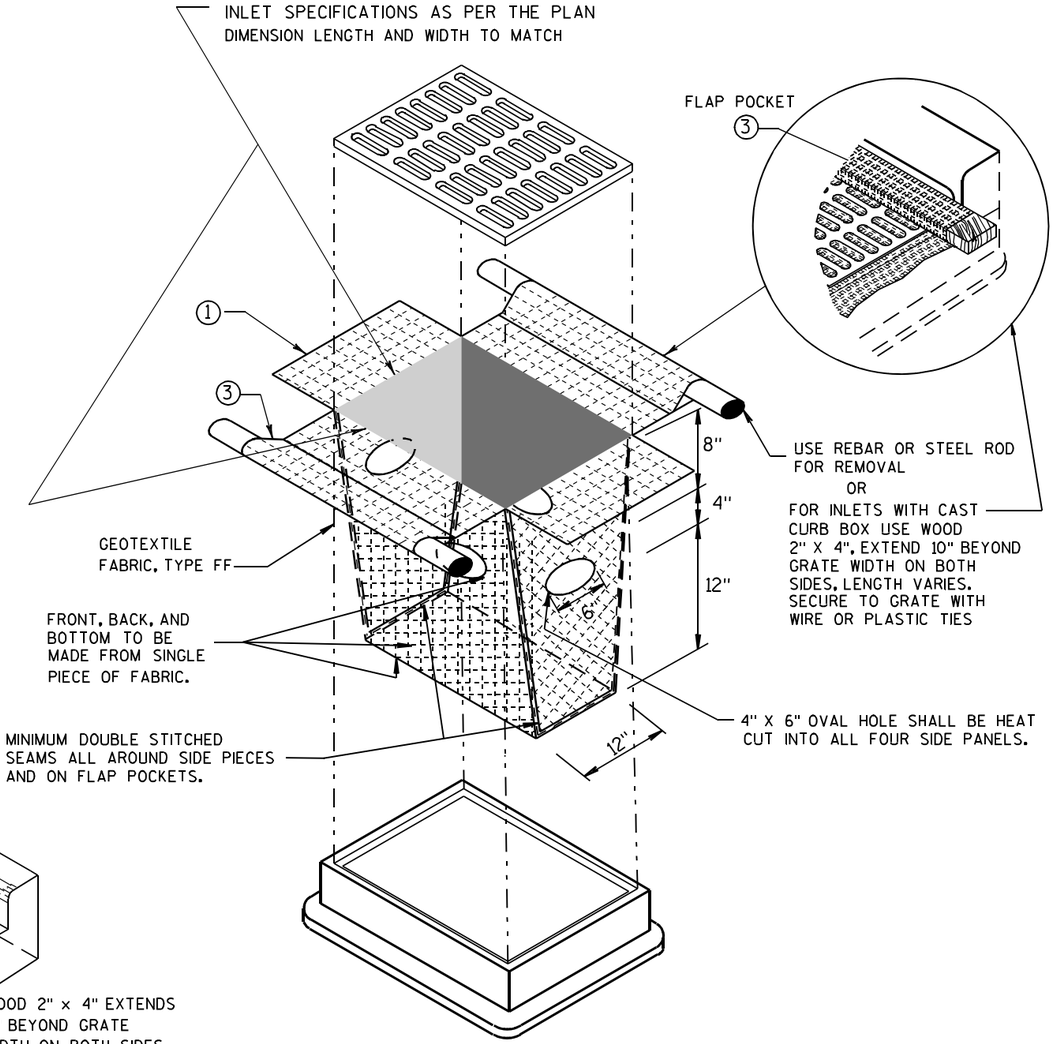


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

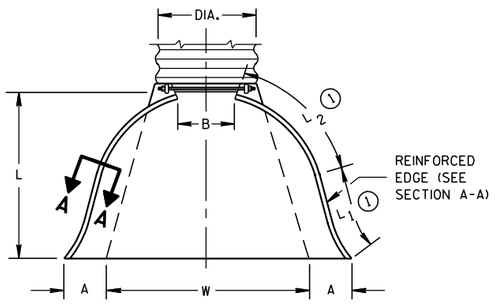
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

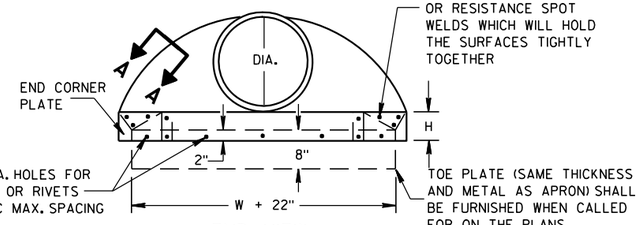
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	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 2/5 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

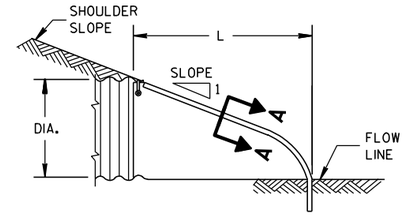
*MINIMUM
**MAXIMUM



PLAN VIEW

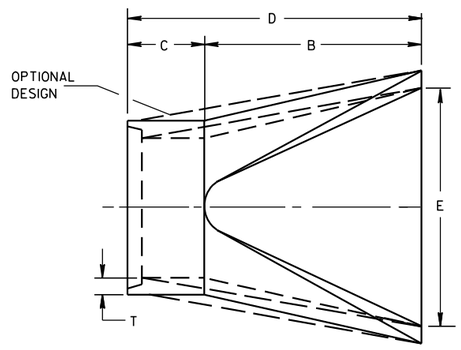


END VIEW

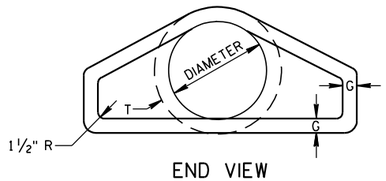


SIDE ELEVATION

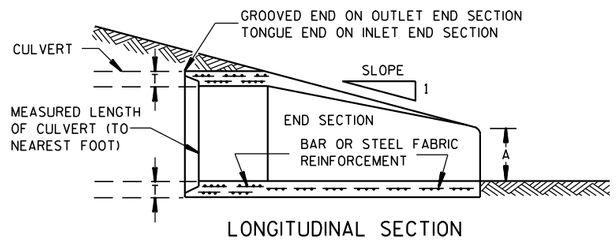
METAL ENDWALLS



PLAN

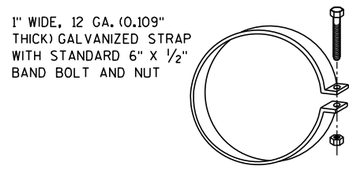


END VIEW



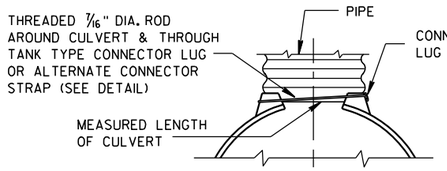
LONGITUDINAL SECTION

CONCRETE ENDWALLS

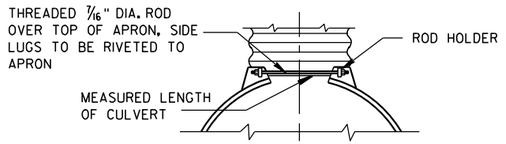


ALTERNATE FOR TYPE 1 CONNECTION

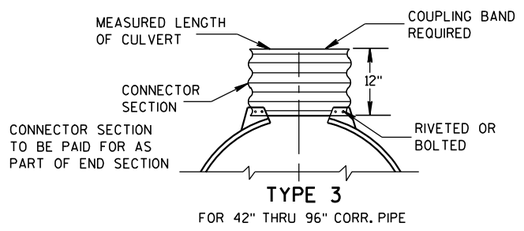
END SECTION CONNECTOR STRAP



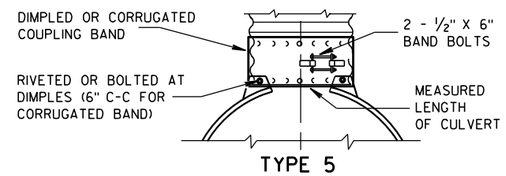
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

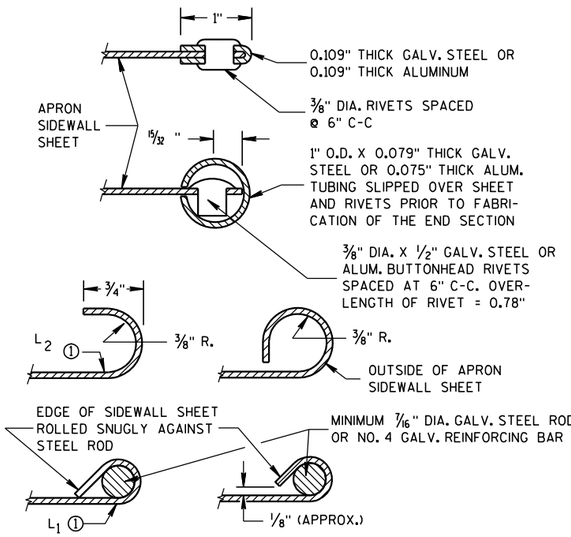
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

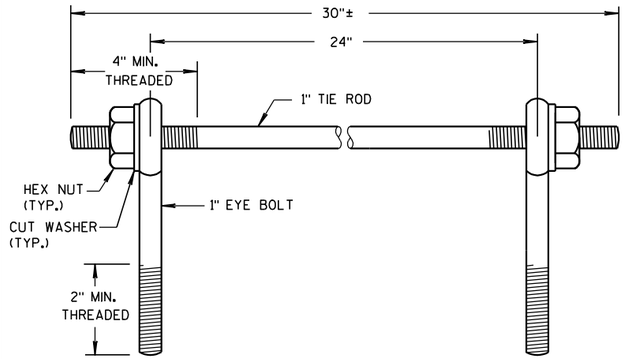
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

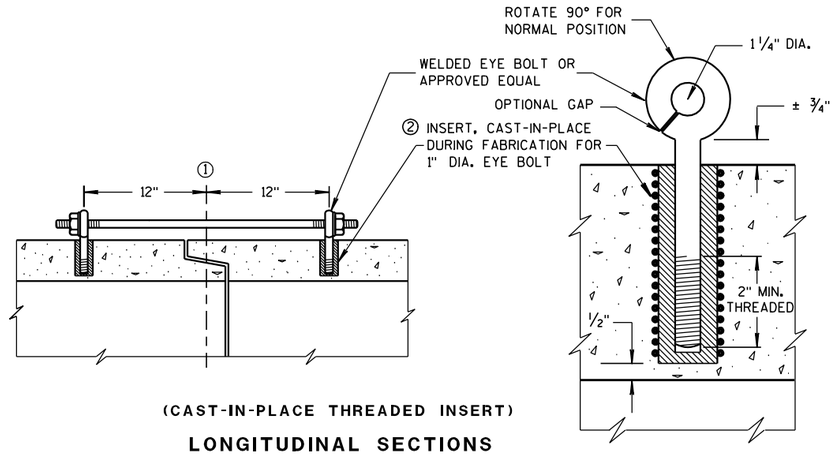
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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.

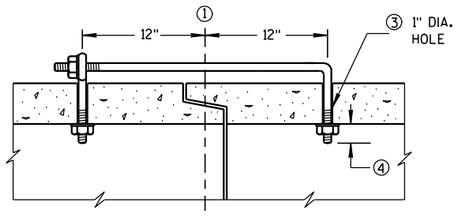
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

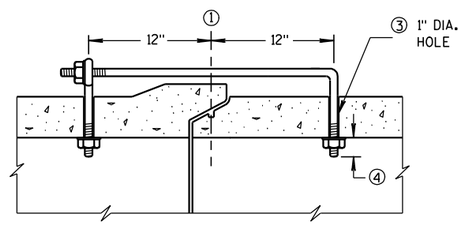
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

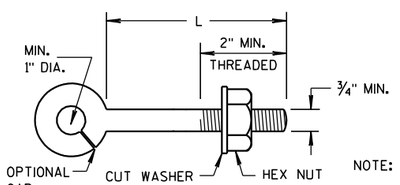


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

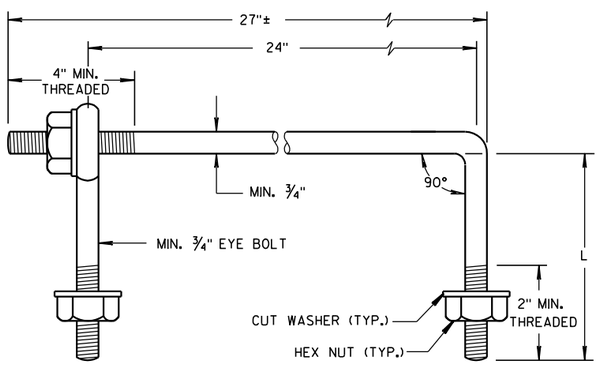
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

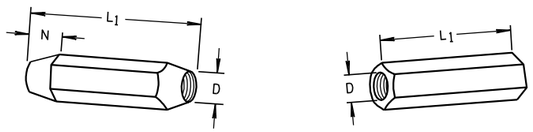
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

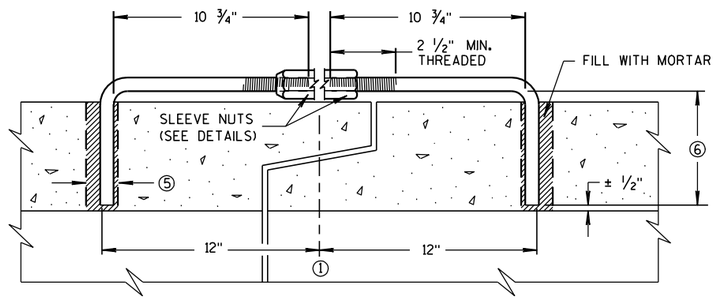
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

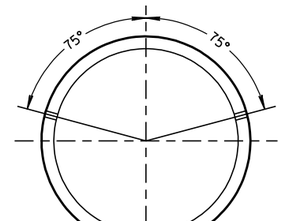
SLEEVE NUTS



LONGITUDINAL SECTION

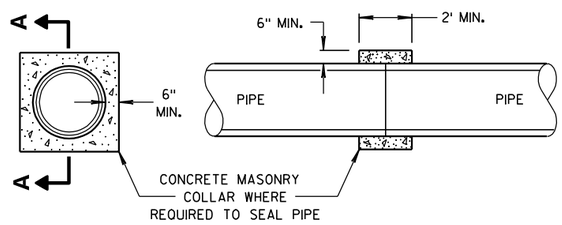
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

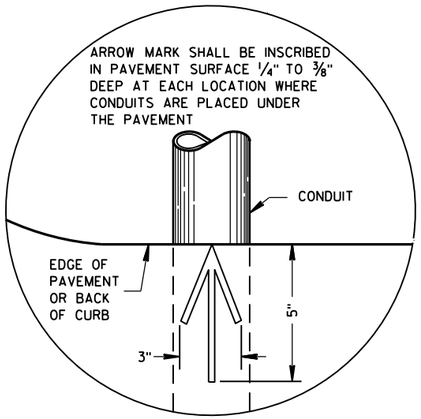
FHWA

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S.D.D. 8 F 4-7

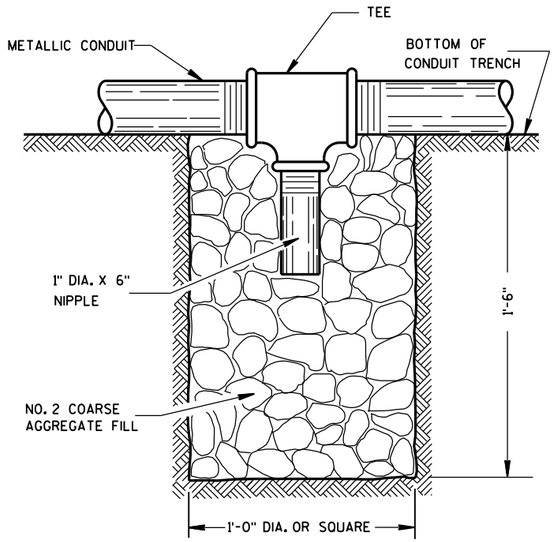
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S.D.D. 8 F 4-7



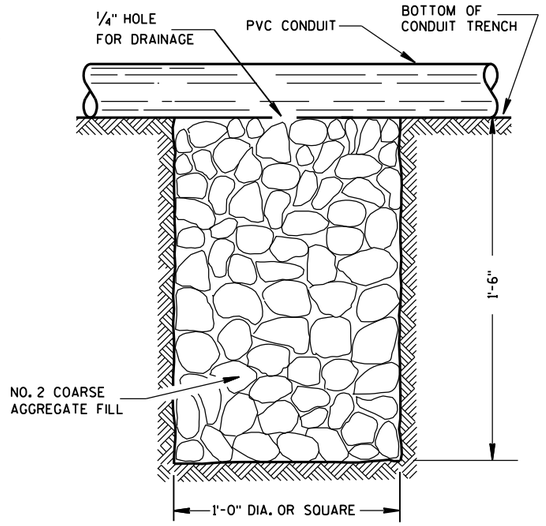
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

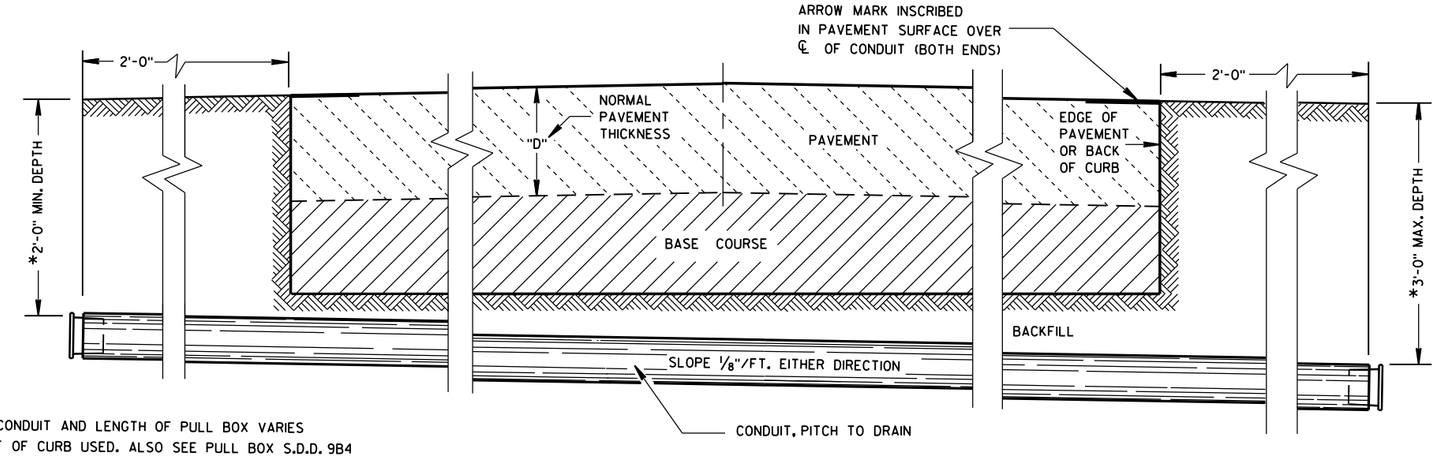
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-9

6

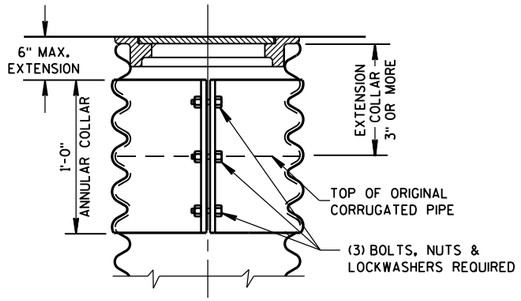
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

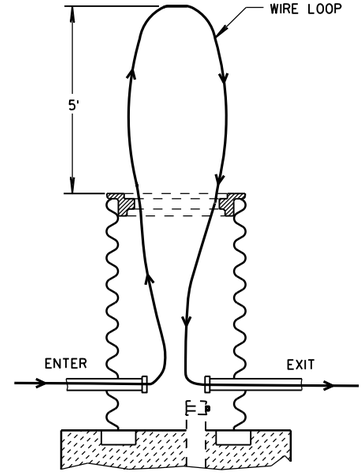
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

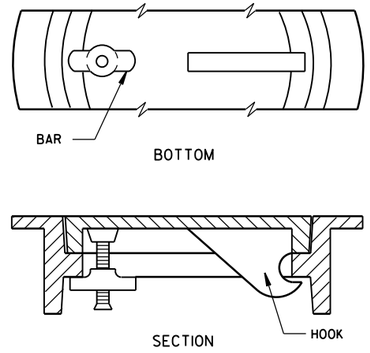
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

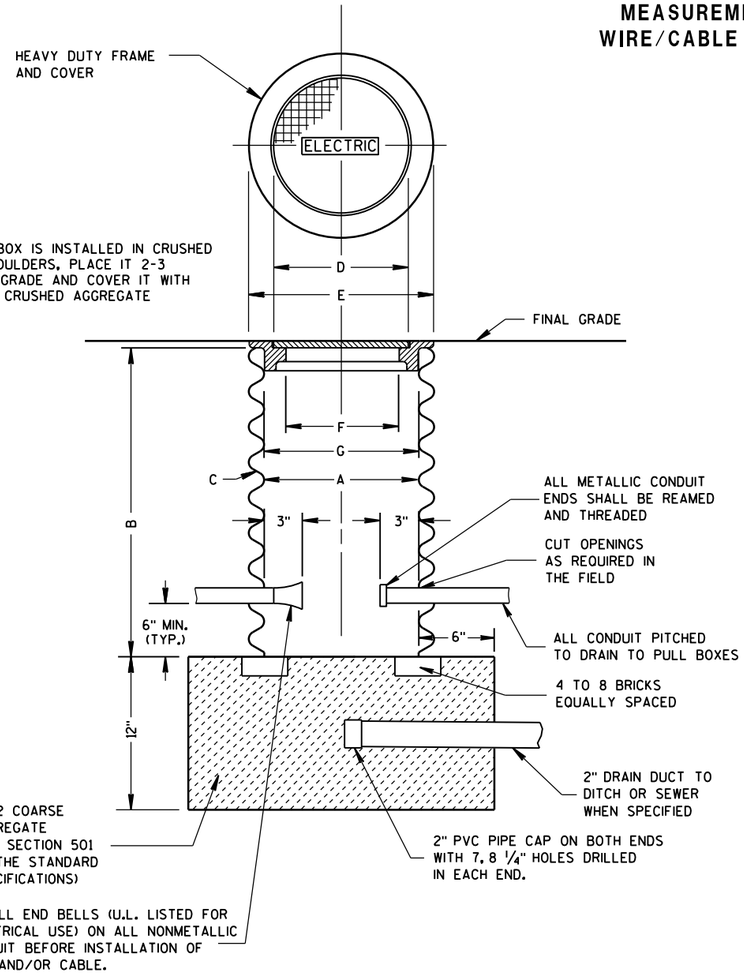


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



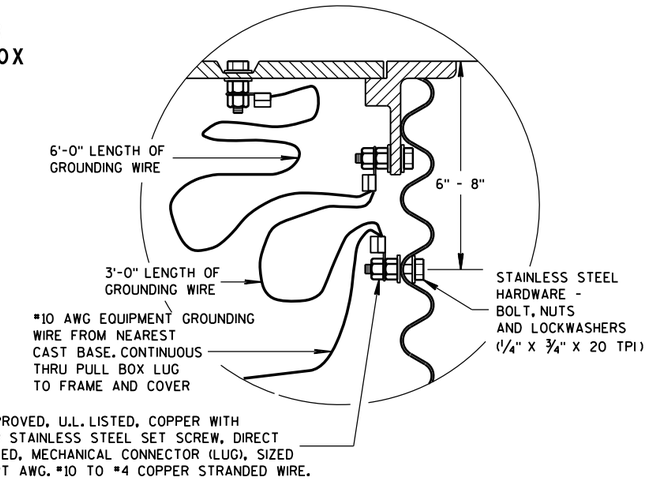
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



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

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

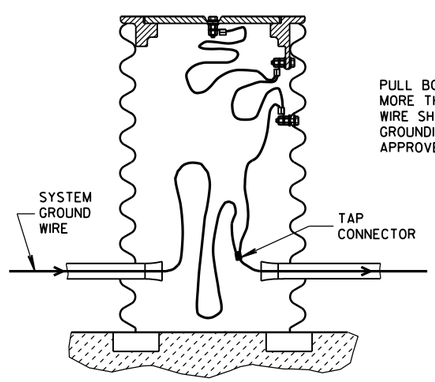
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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

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

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



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

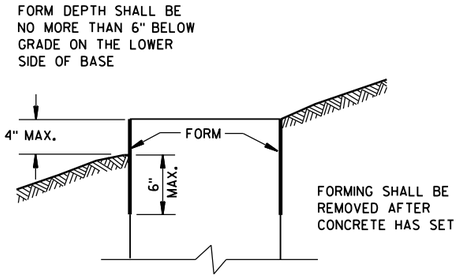
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
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FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

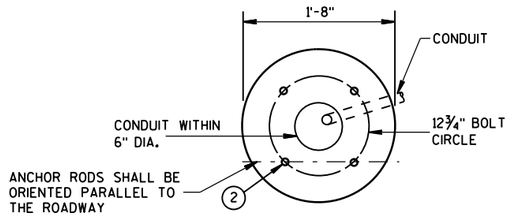
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

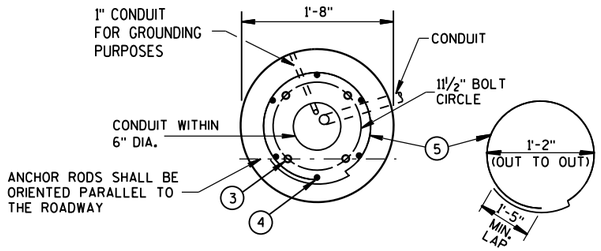
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

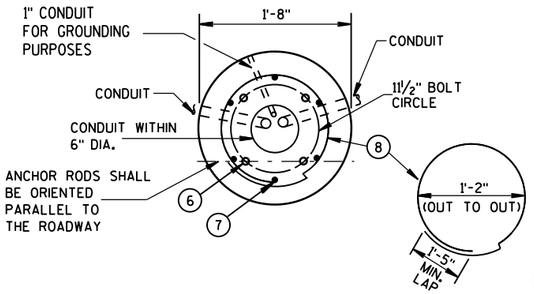
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

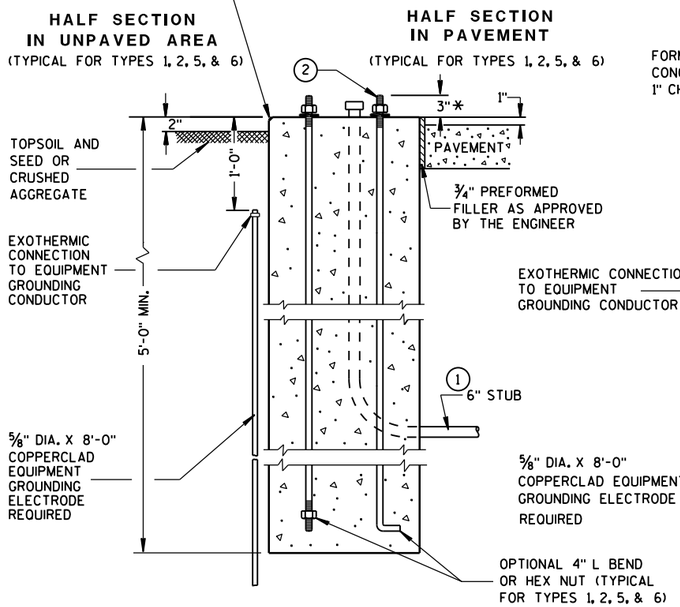






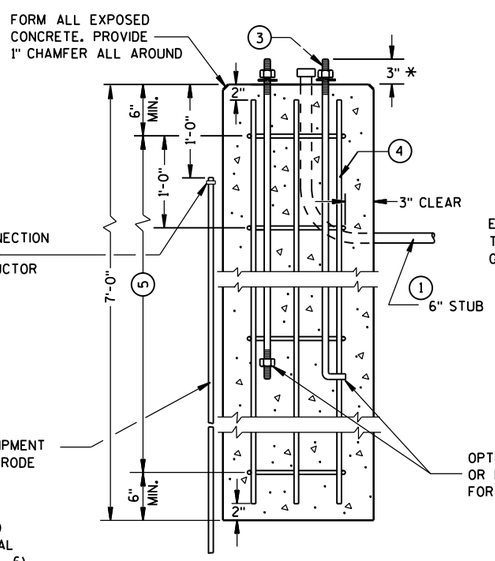
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

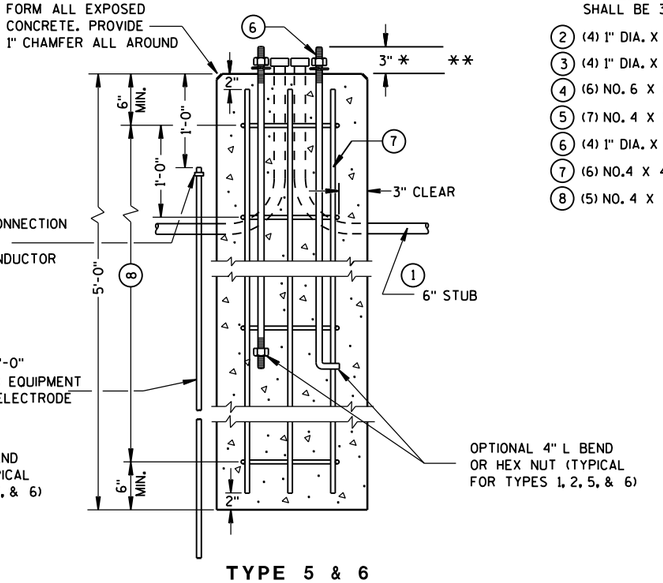


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

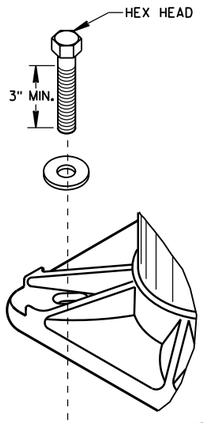
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

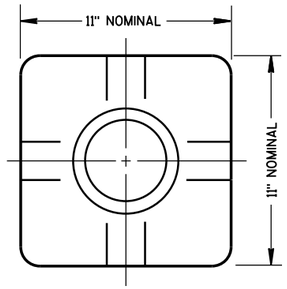
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

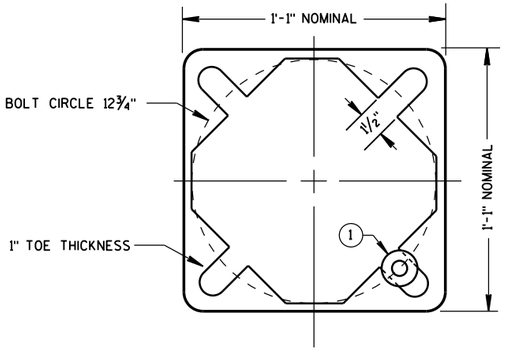
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

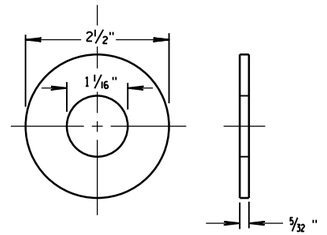




TOP VIEW
(PEDESTAL BASE)

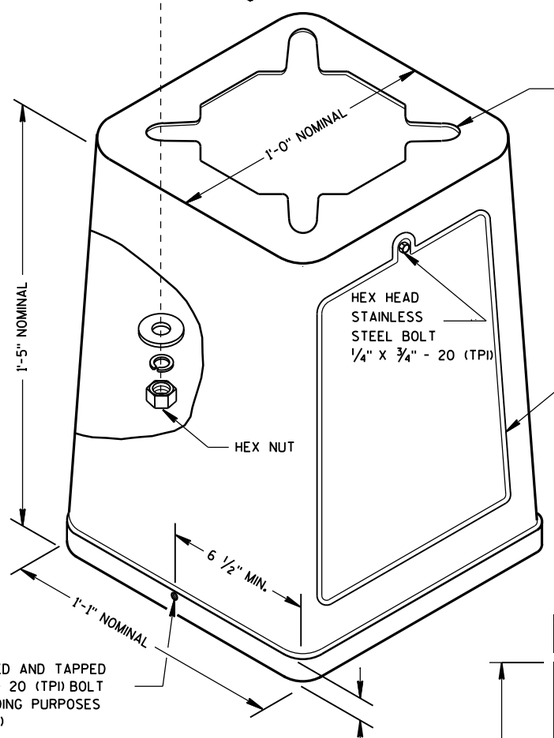


BOTTOM VIEW
(PEDESTAL BASE)

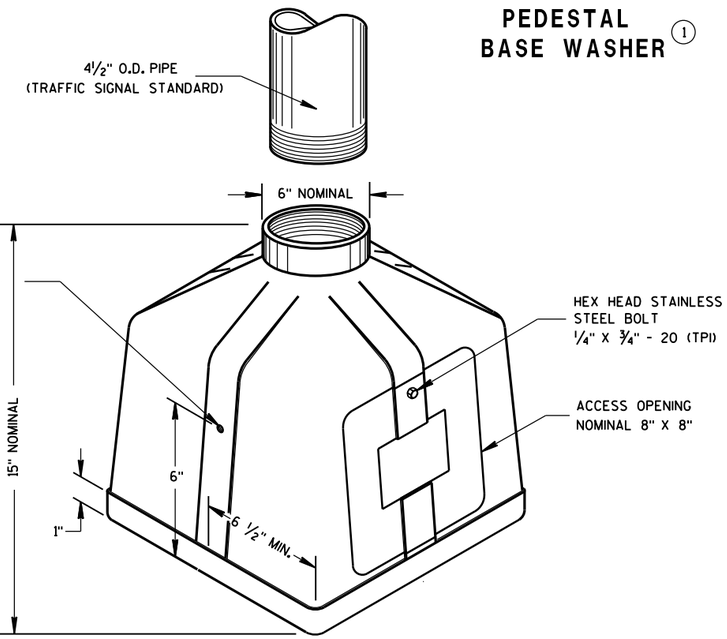


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

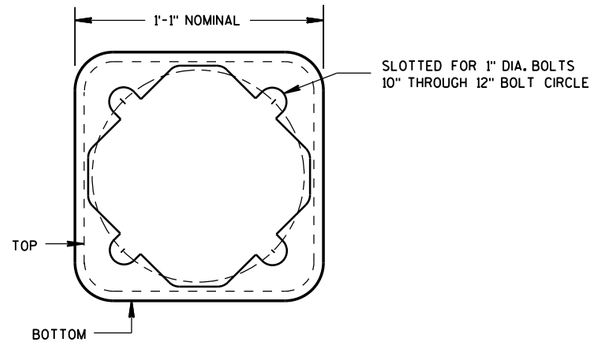


ISOMETRIC VIEW

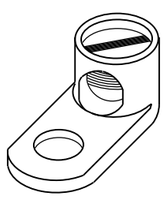


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

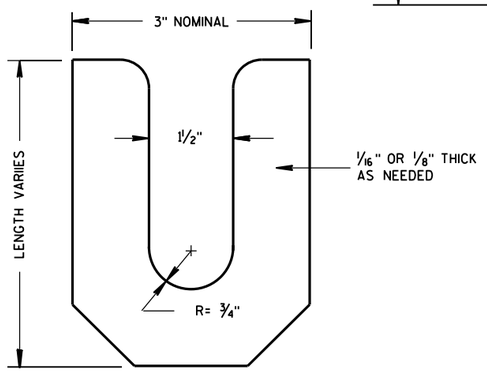


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
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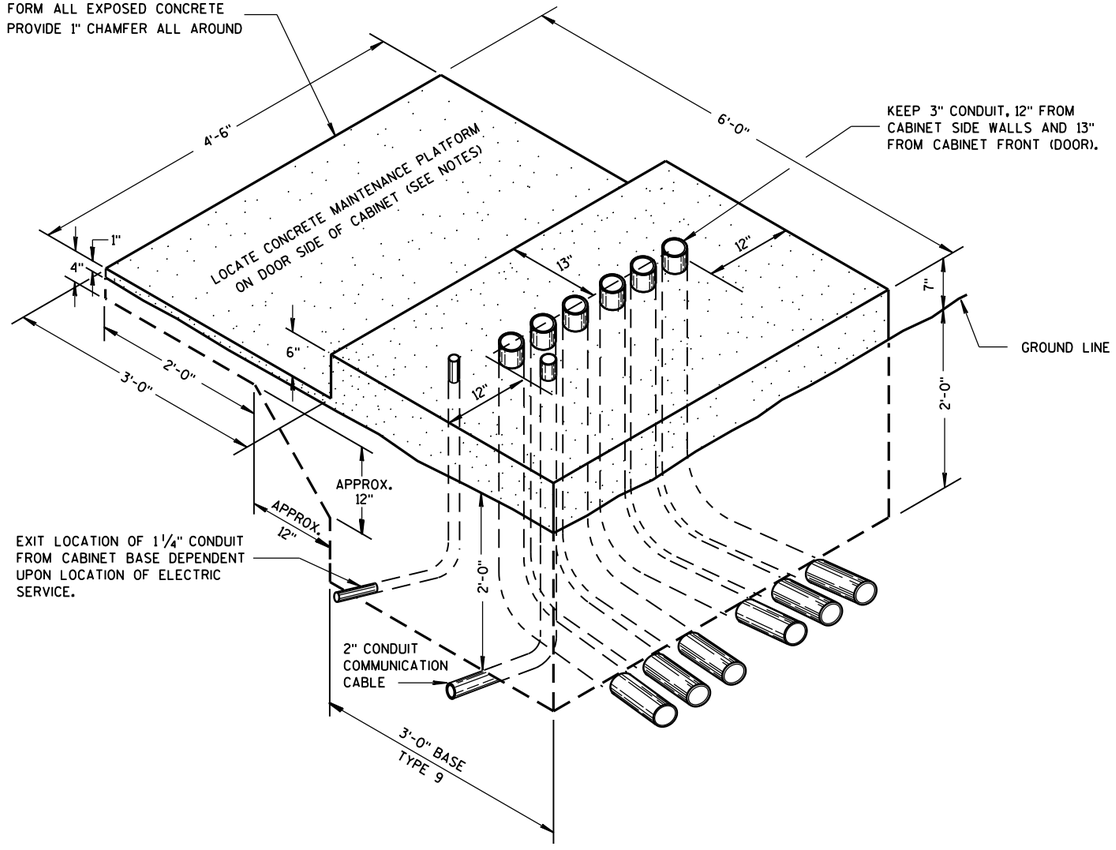
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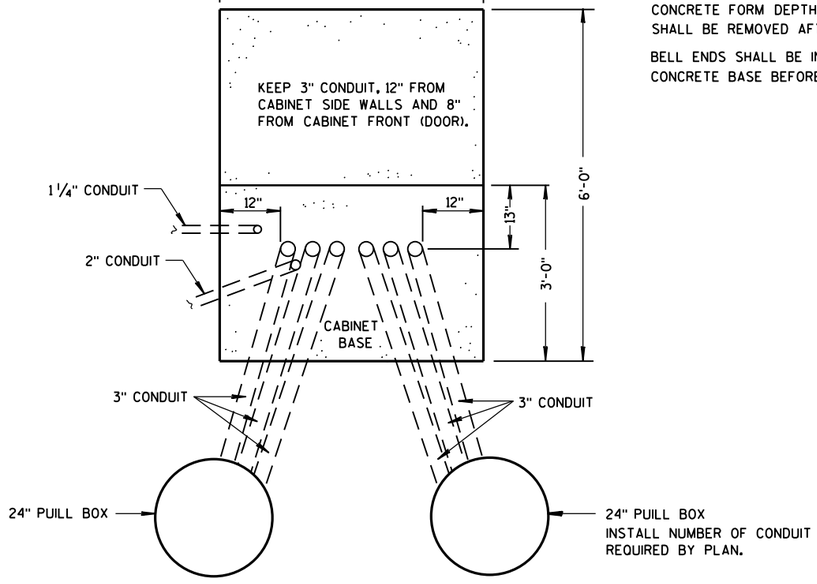
S.D.D. 9 C 3-4



ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

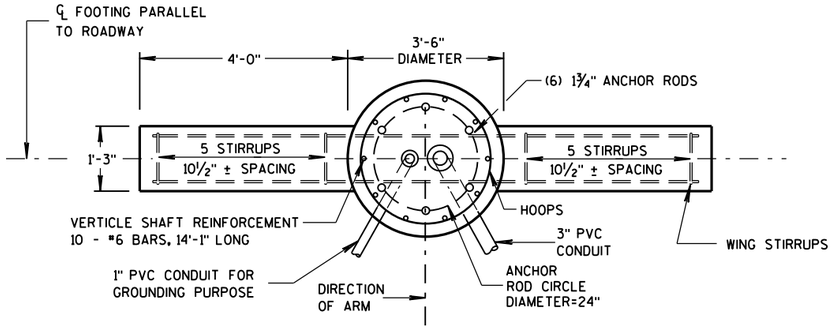
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

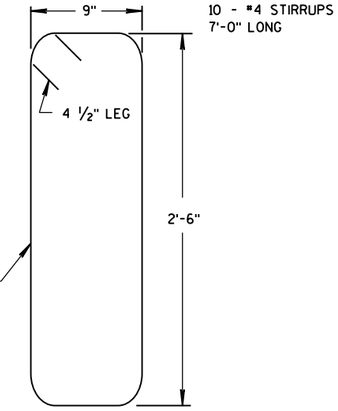
CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

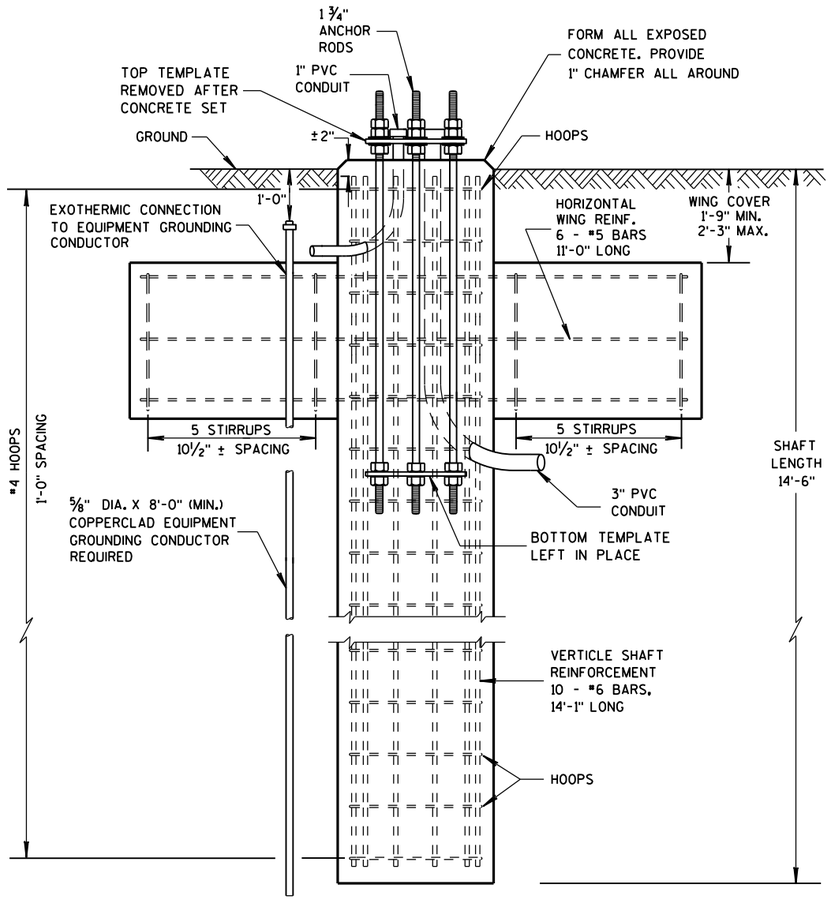
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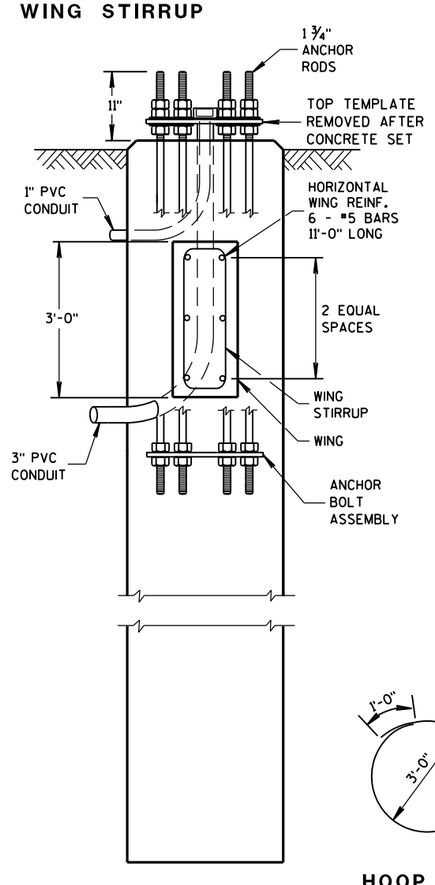
PLAN VIEW



WING STIRRUP

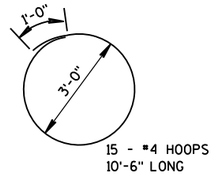


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

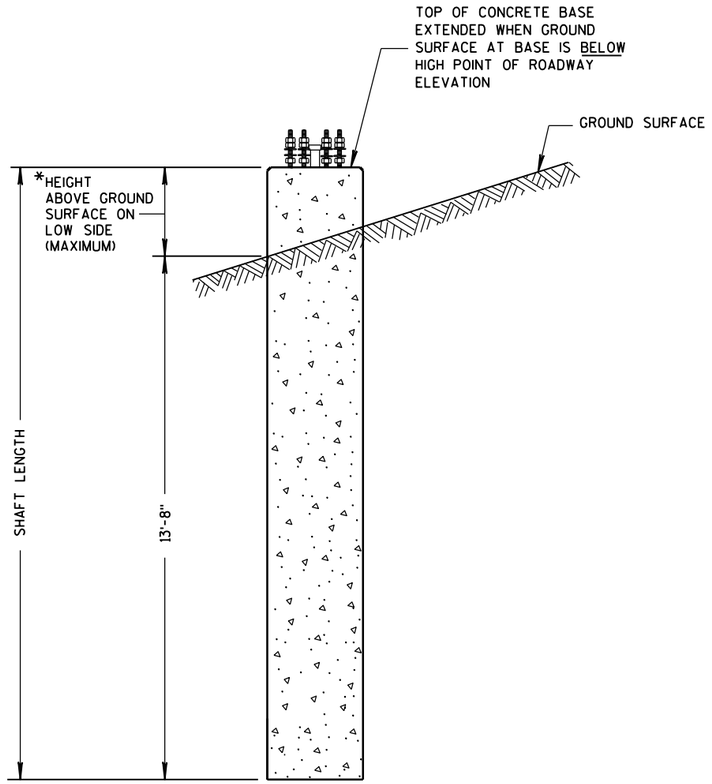
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S.D.D. 9 C 12-6a

S.D.D. 9 C 12-6a

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

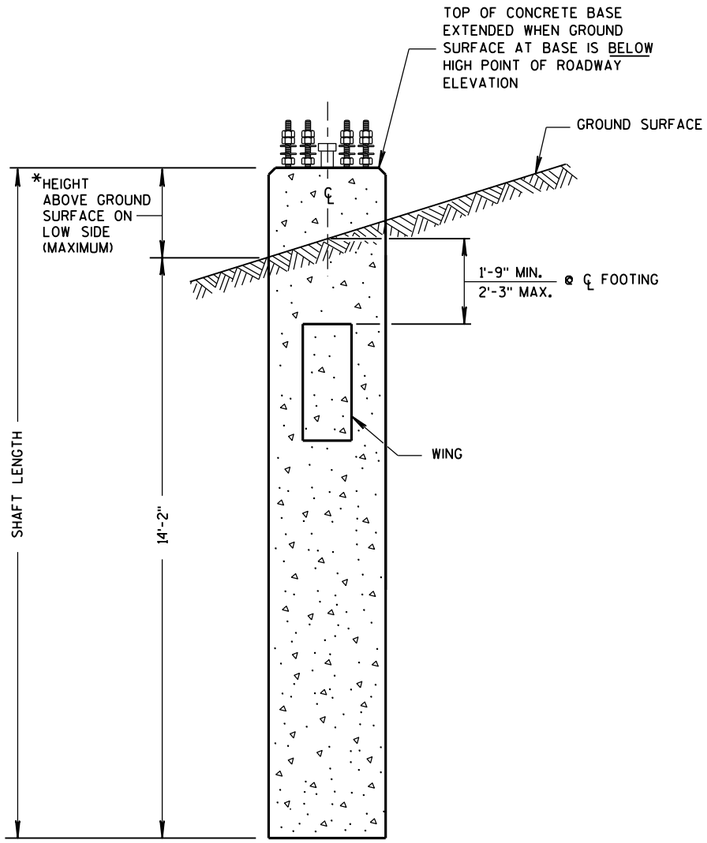
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

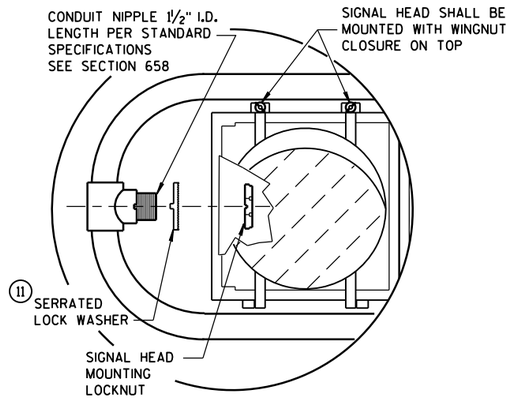
APPROVED
11-26-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA

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S.D.D. 9 C 13-2

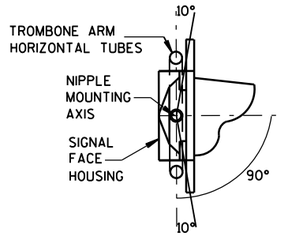
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S.D.D. 9 C 13-2



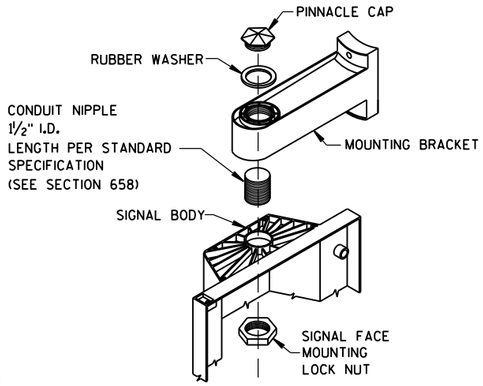
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652 SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG - 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

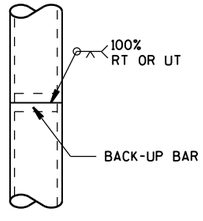
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

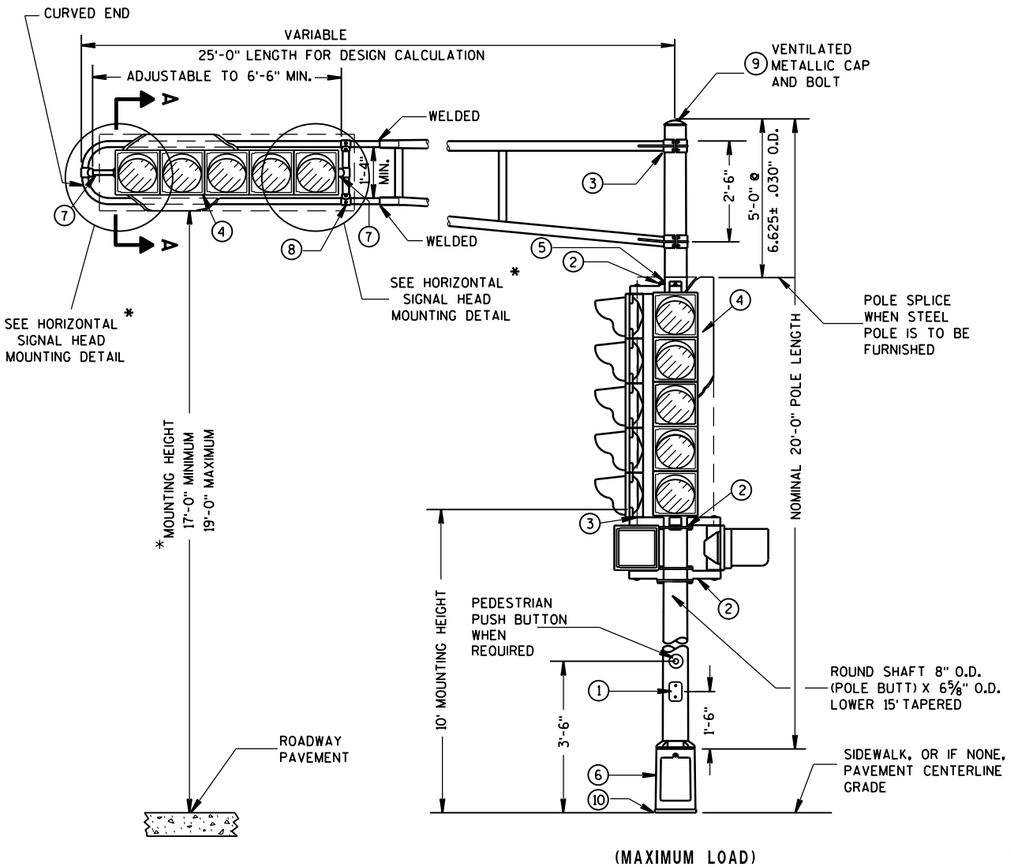
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

FOR MANUFACTURERS USE ONLY

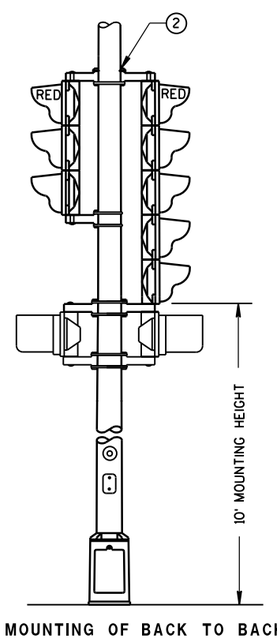
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



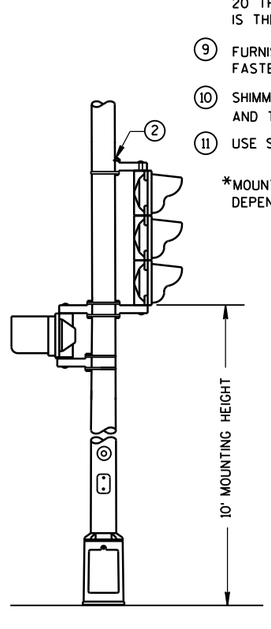
POLE SPLICE DETAIL



(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

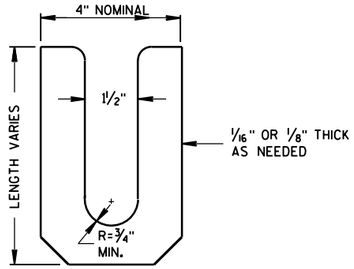
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 9 E 1-14a

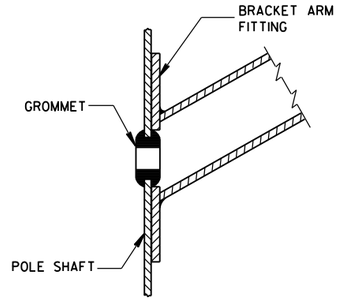
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S.D.D. 9 E 1-14a

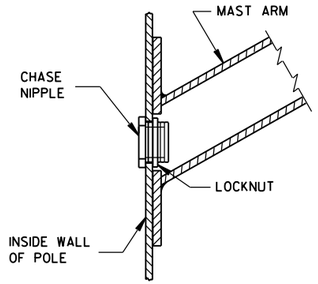


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

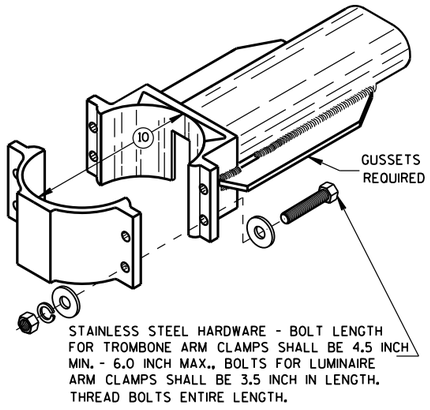
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

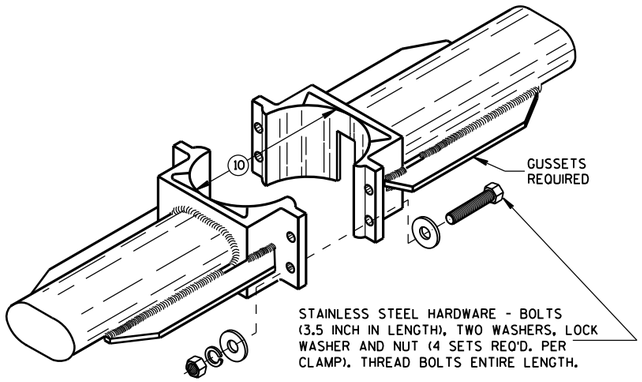
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

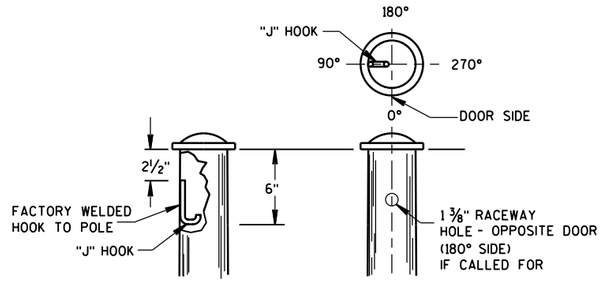
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



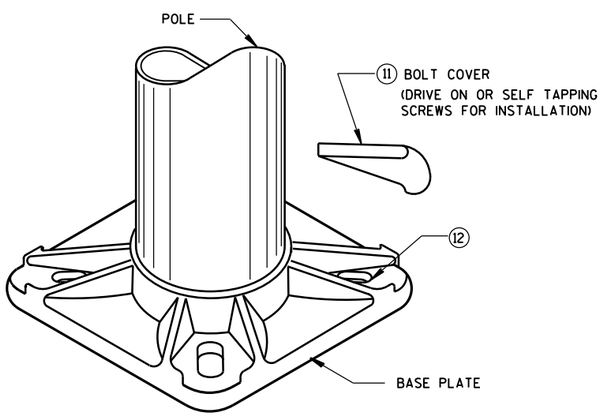
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



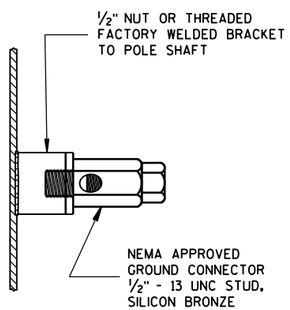
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

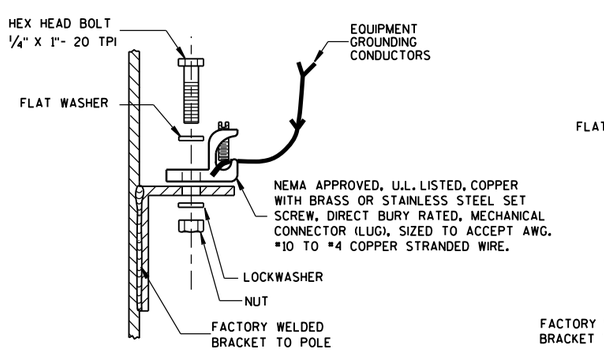


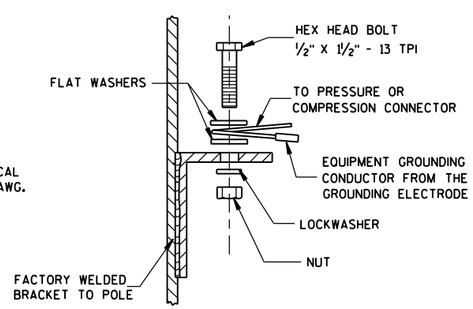
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

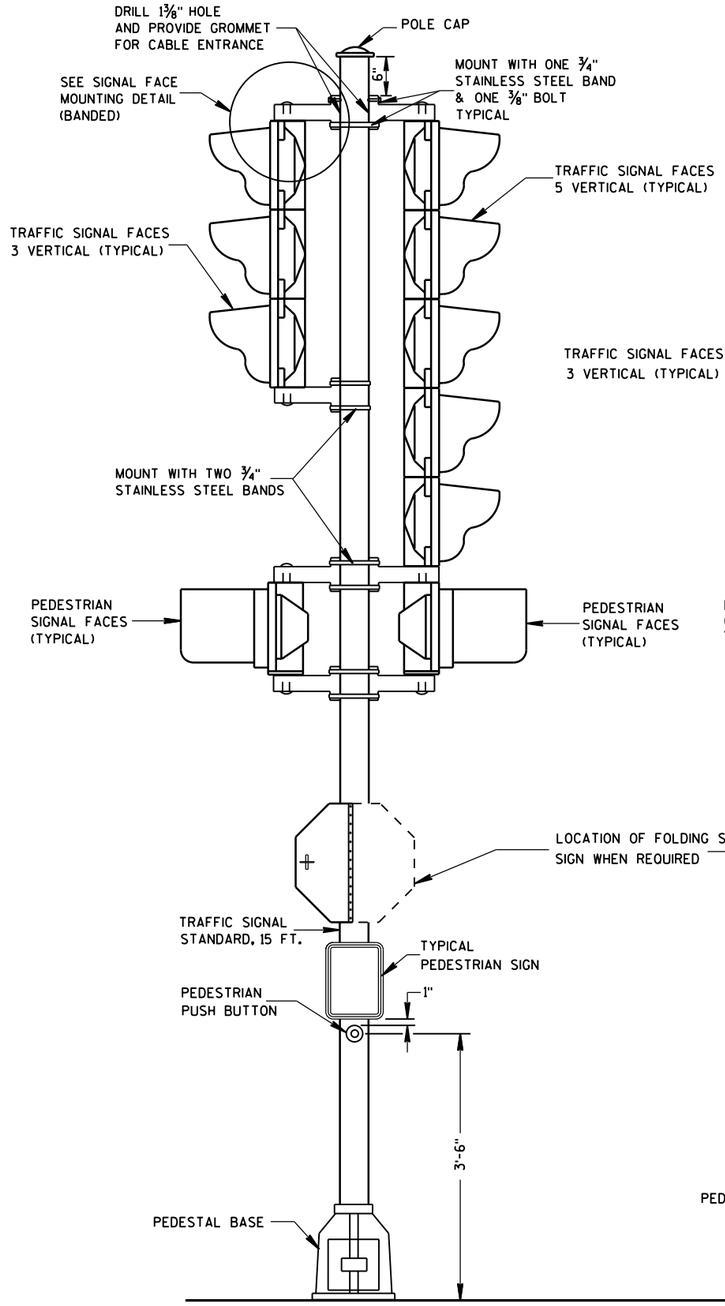
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

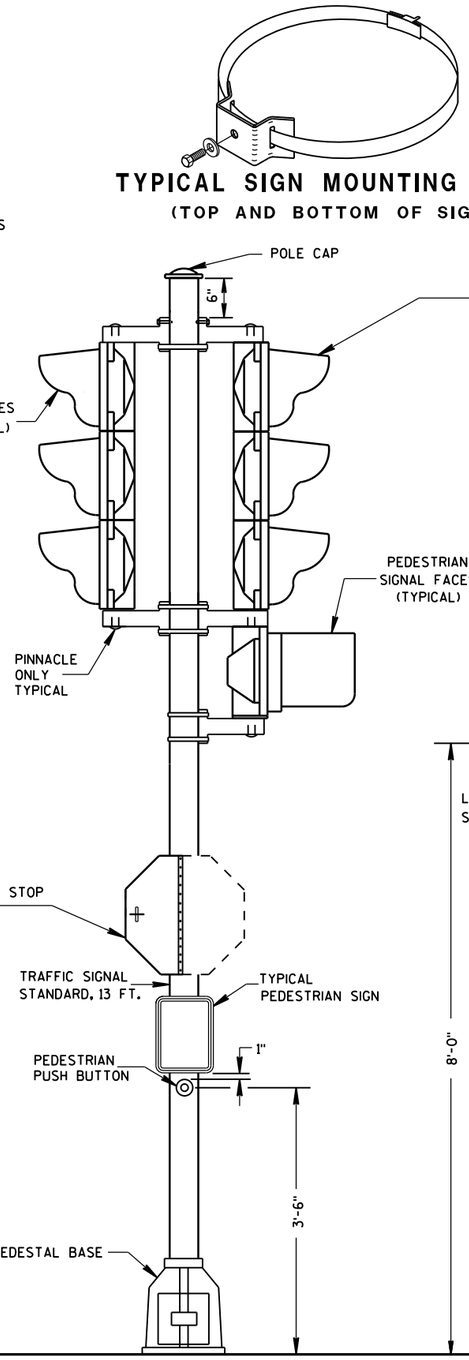
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 1-14g

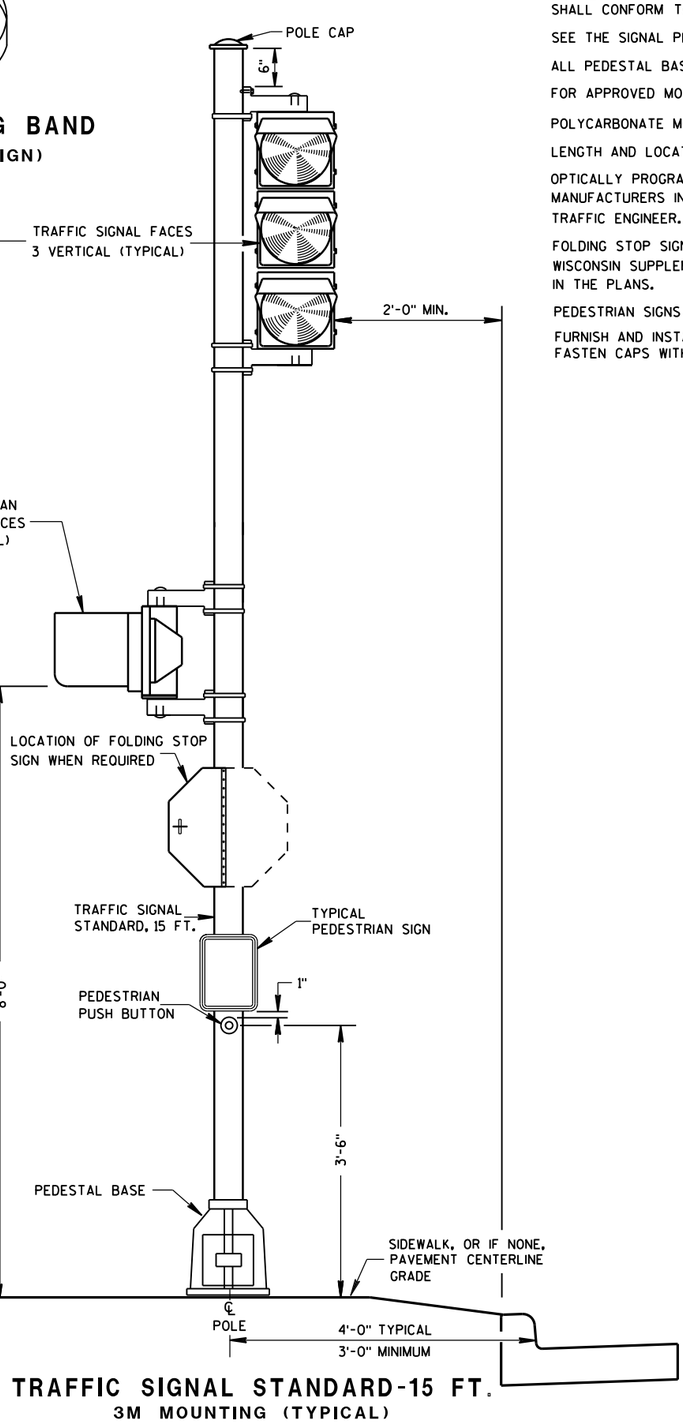


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

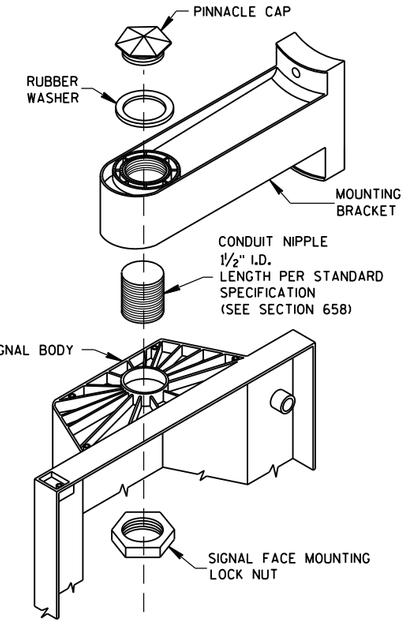
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

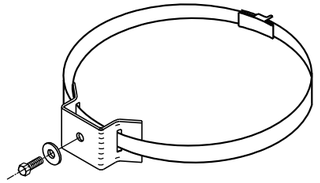
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

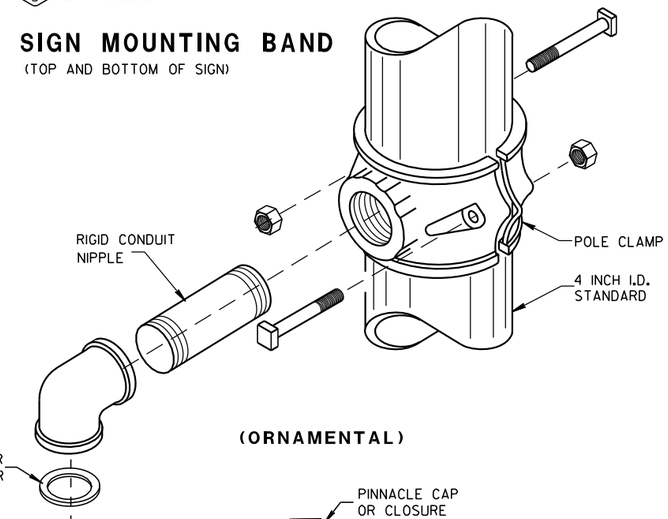
APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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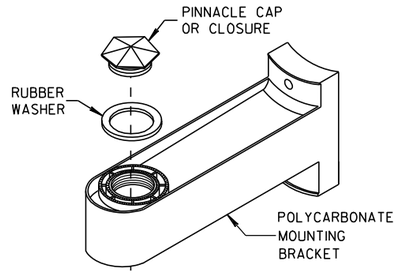
S.D.D. 9 E 6-5



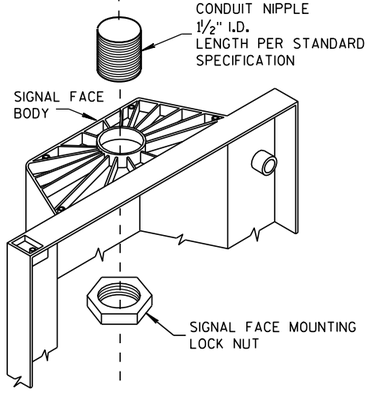
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



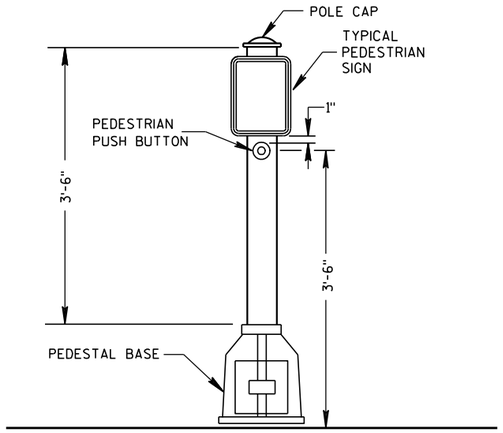
(ORNAMENTAL)



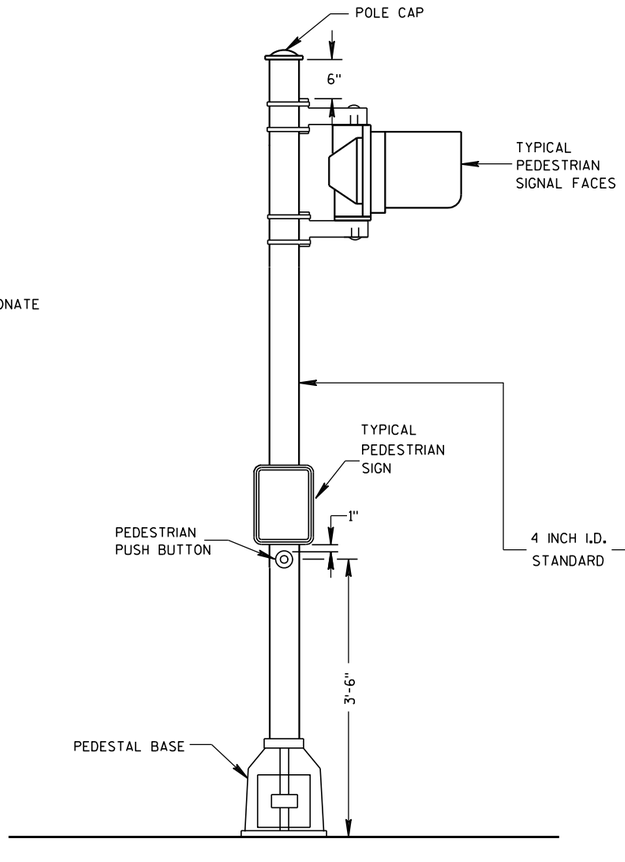
(BANDED)



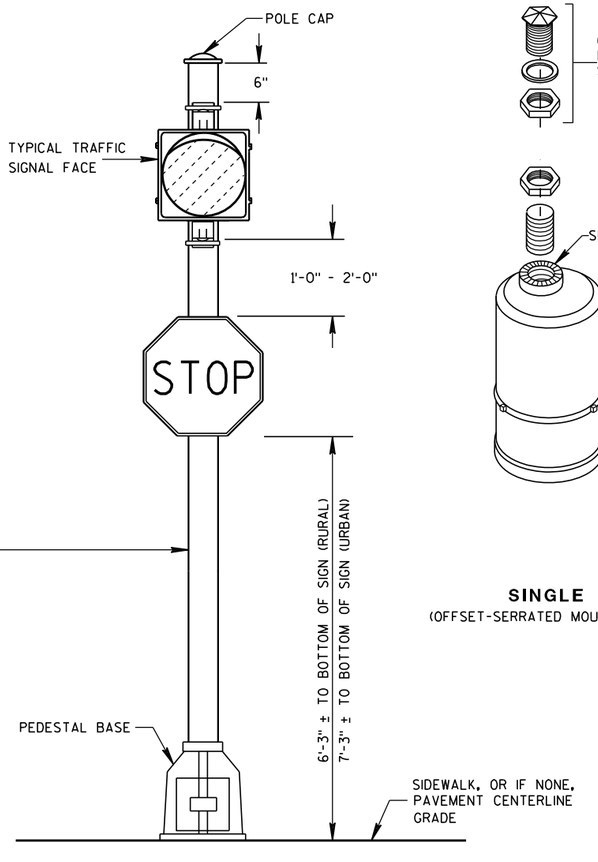
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

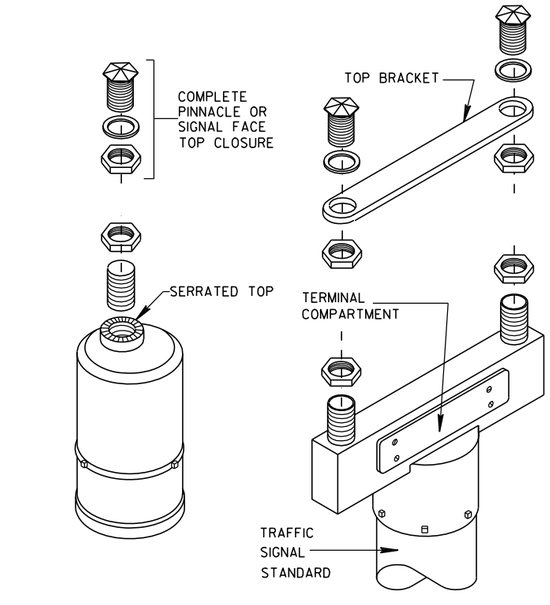
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

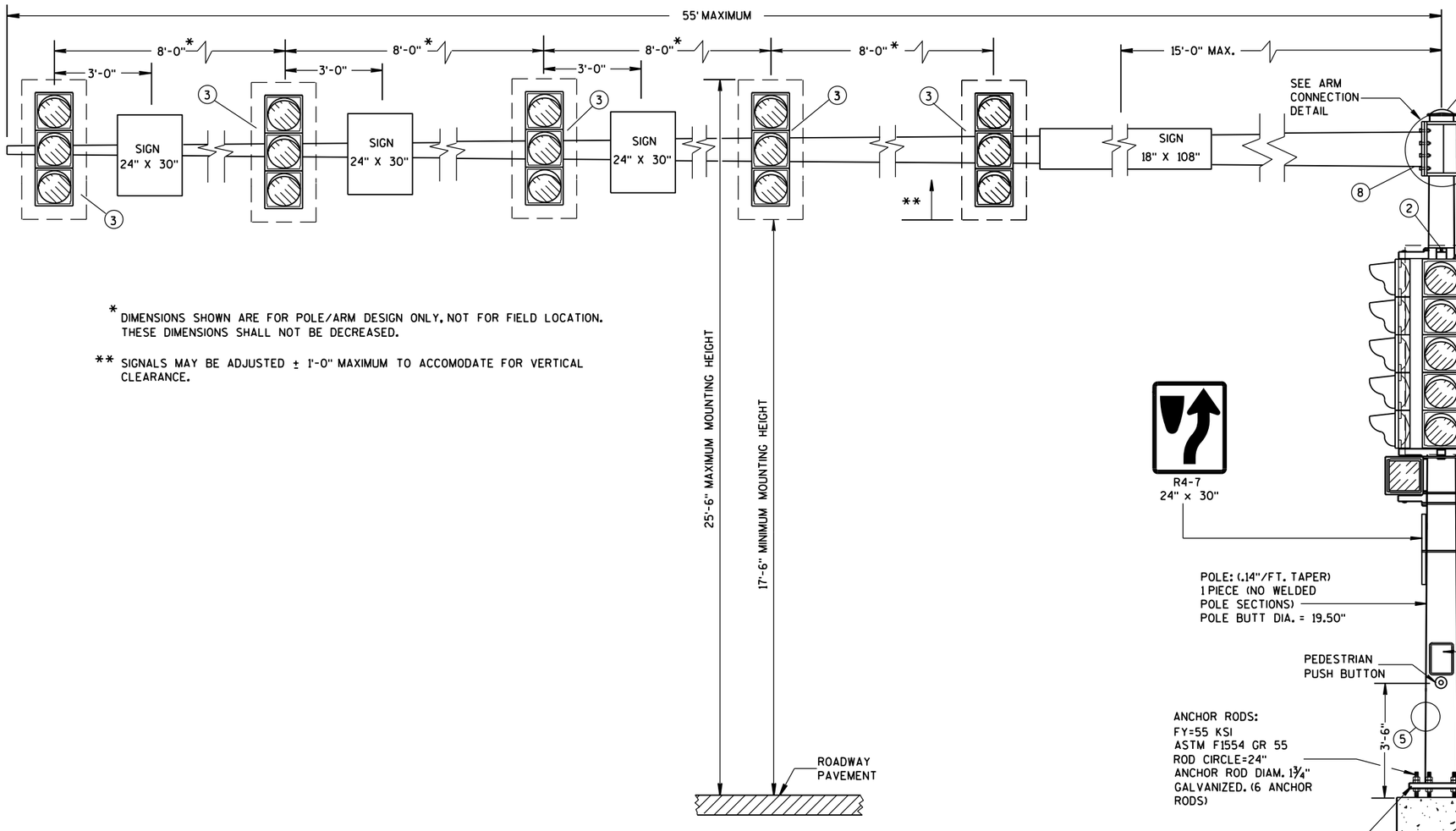
APPROVED
5/11/10 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
FHWA HWYS

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S.D.D. 9 E 7-5

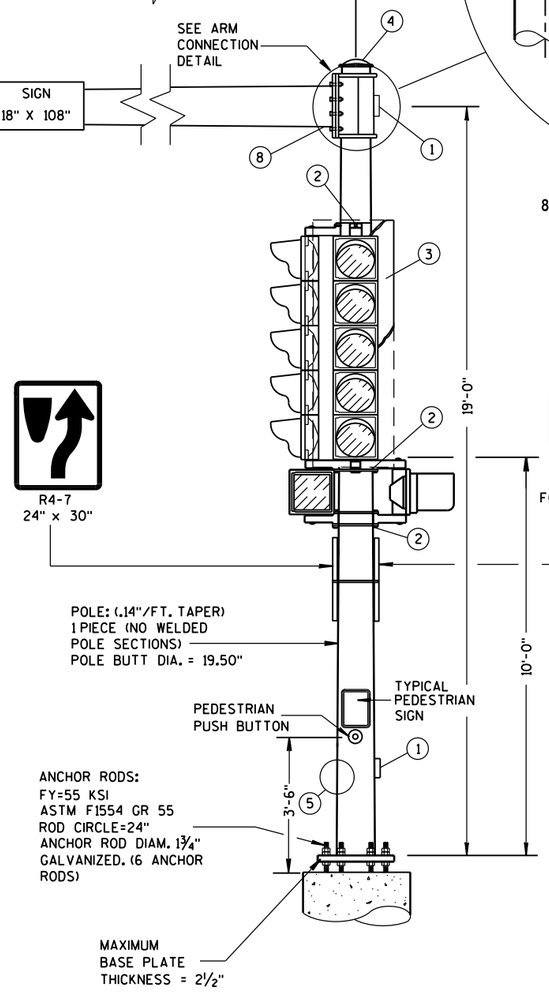
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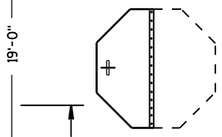
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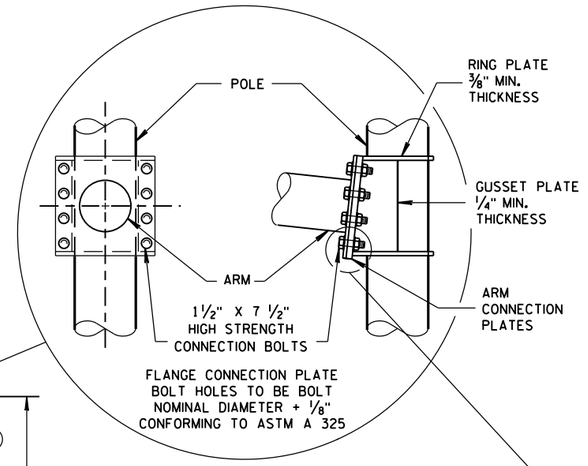


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

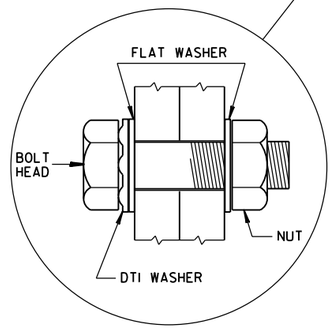
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



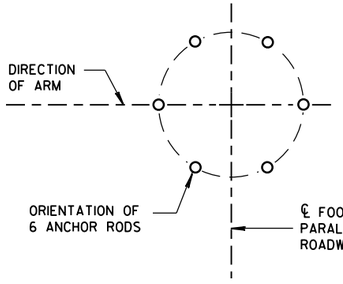




8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 8-7c

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

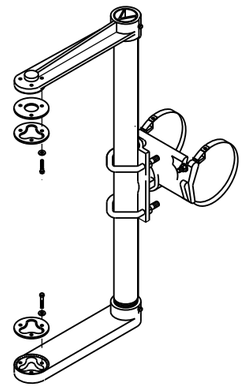
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

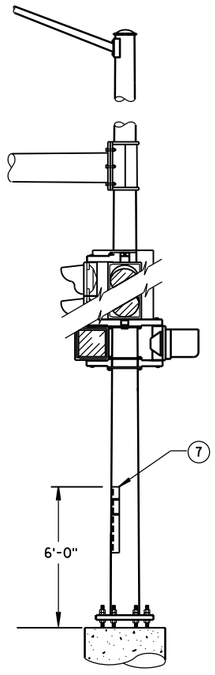
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

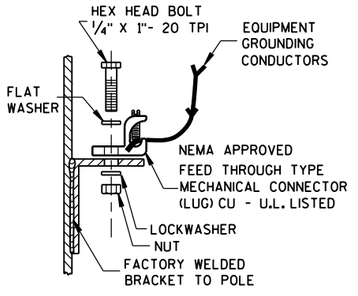


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

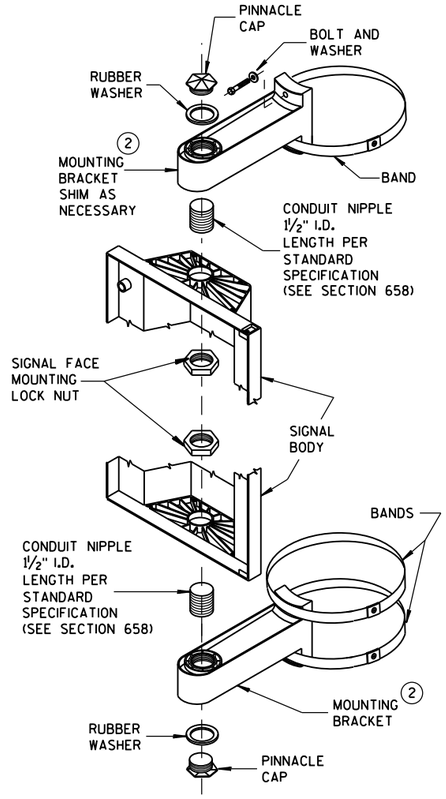


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

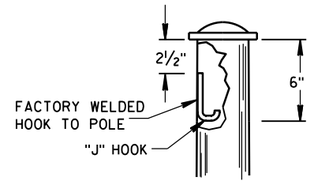


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

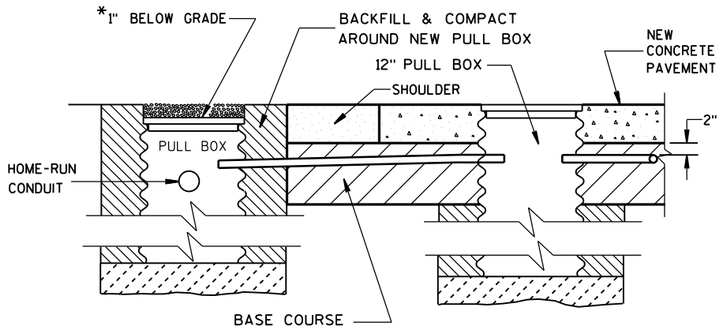
June, 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

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

GENERAL NOTES

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

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

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

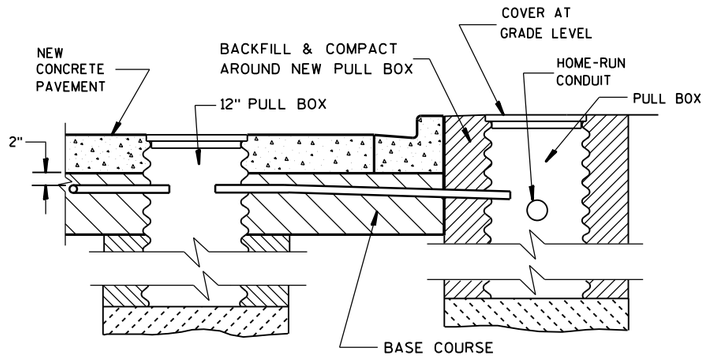
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

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

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

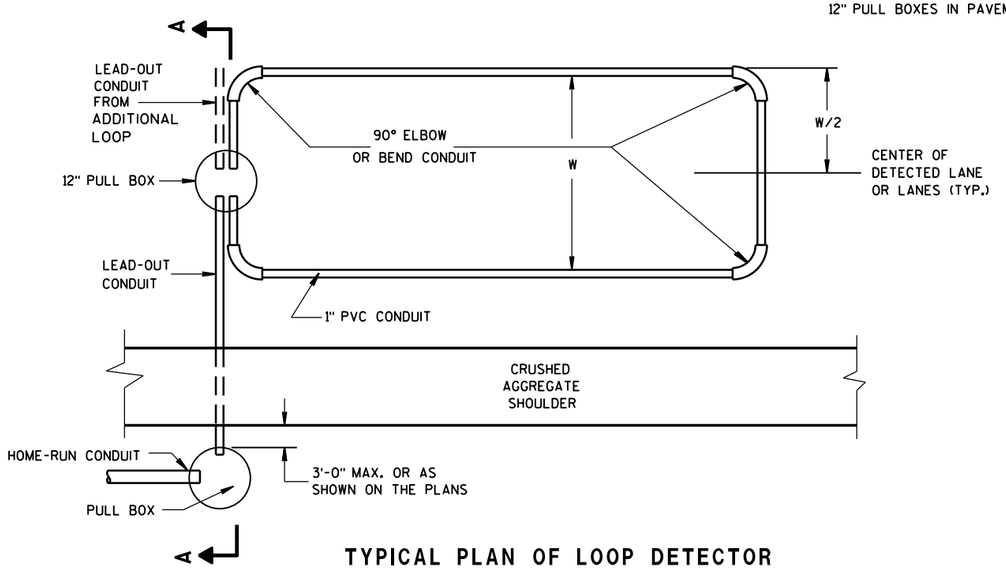
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



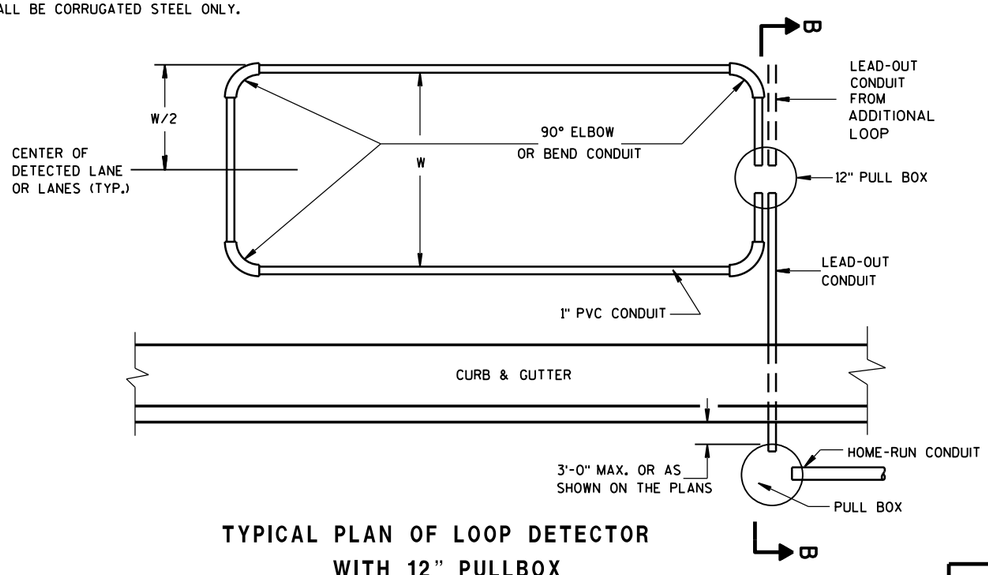
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

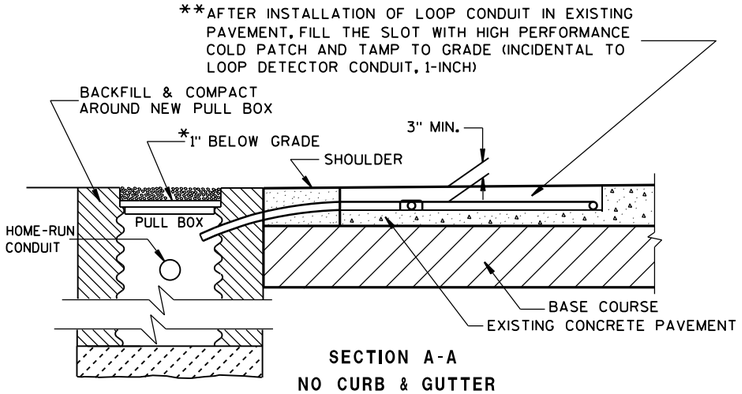
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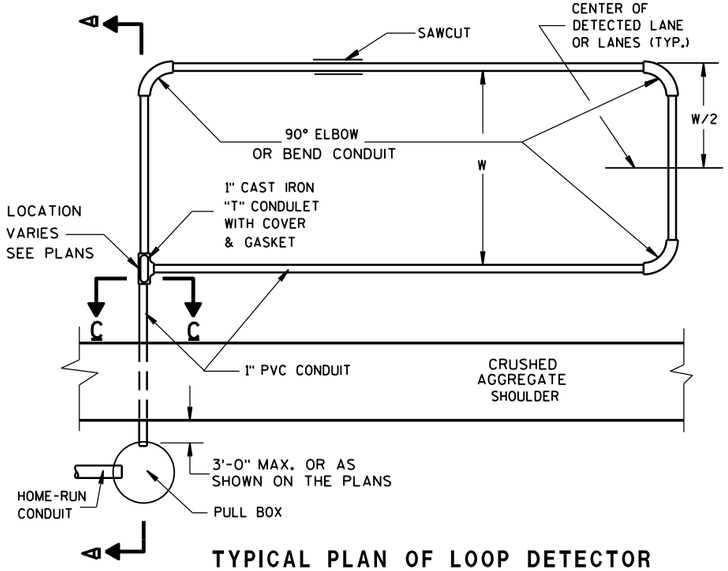
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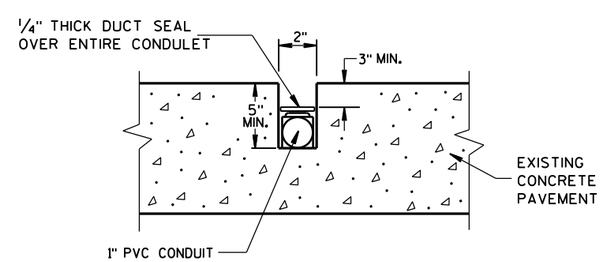
SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

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



TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY $\frac{1}{2}$ INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

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

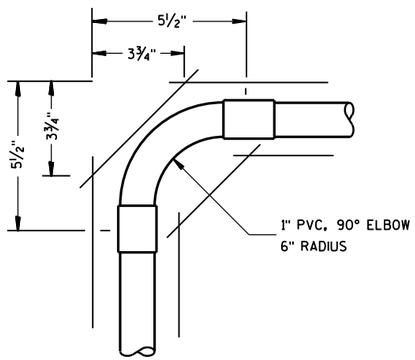
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

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

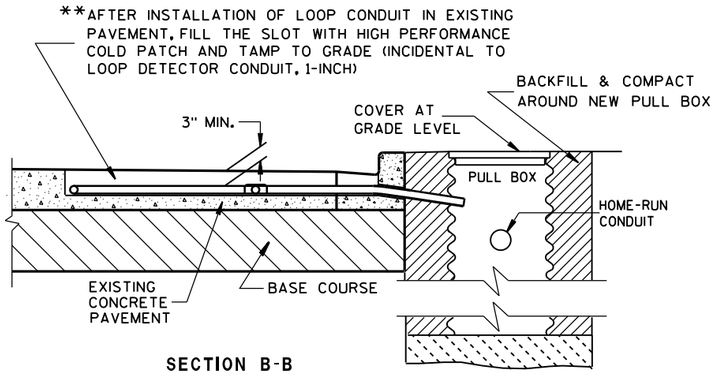
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



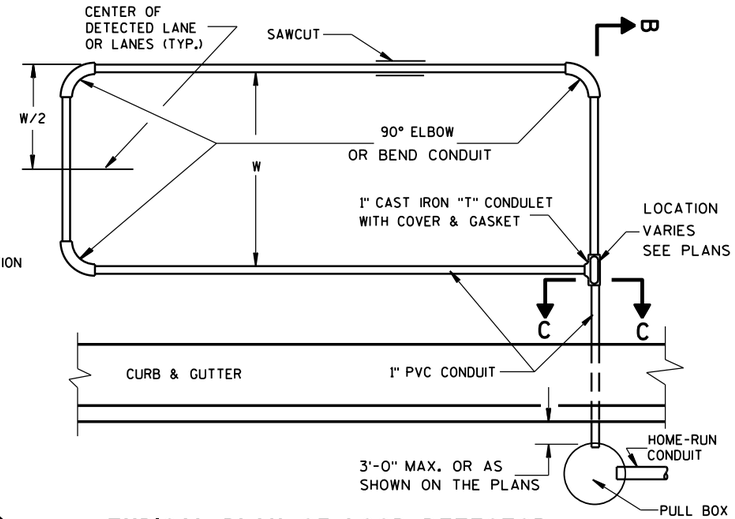
TOP VIEW

CORNER SAW SLOT DETAIL

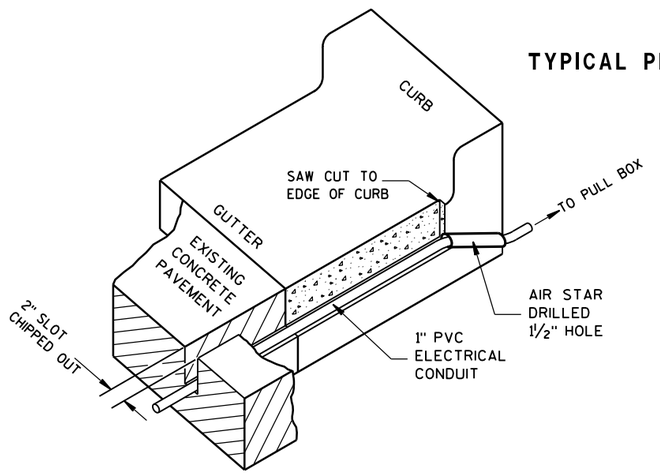


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

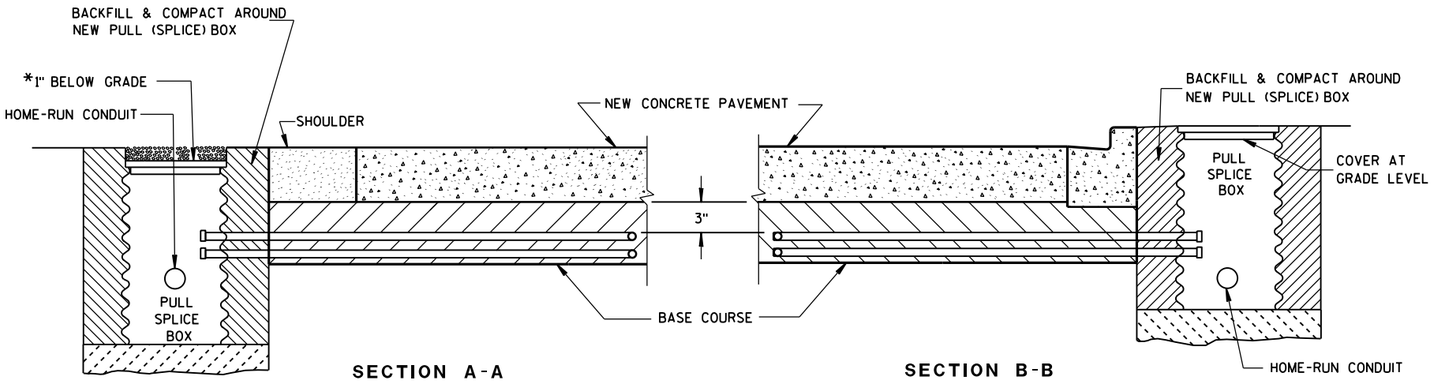
LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6 S.D.D. 9 F 12-4

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SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

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

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

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

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

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

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

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

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

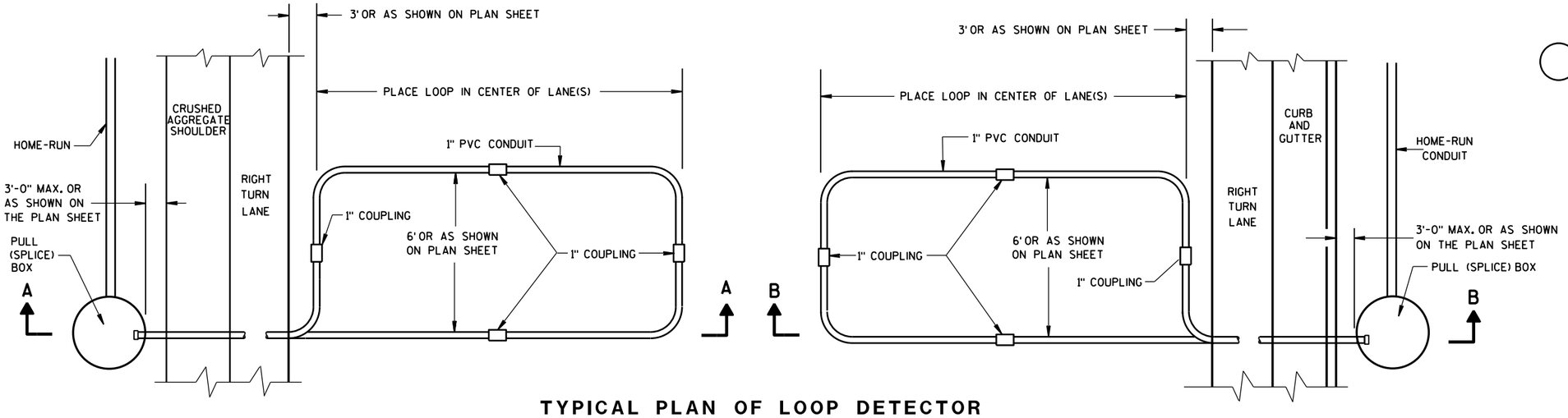
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

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

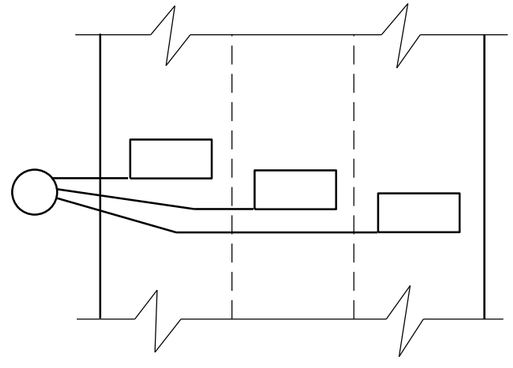
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

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

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



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



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

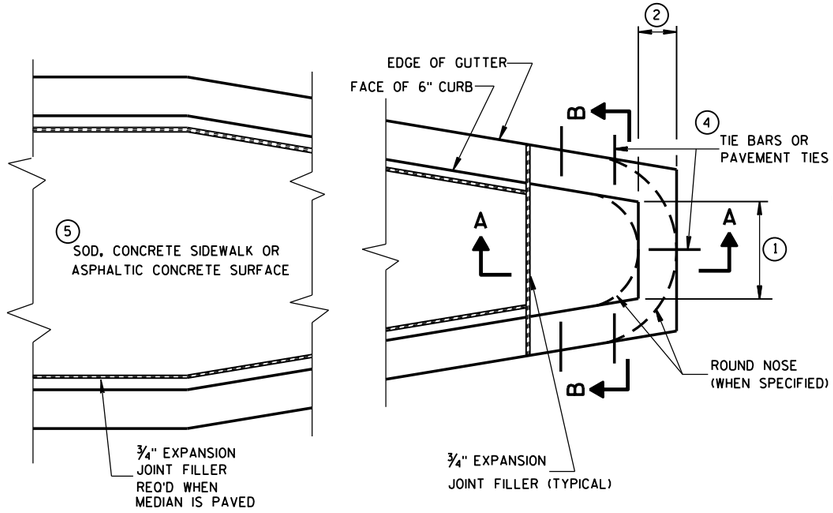
APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
FHWA

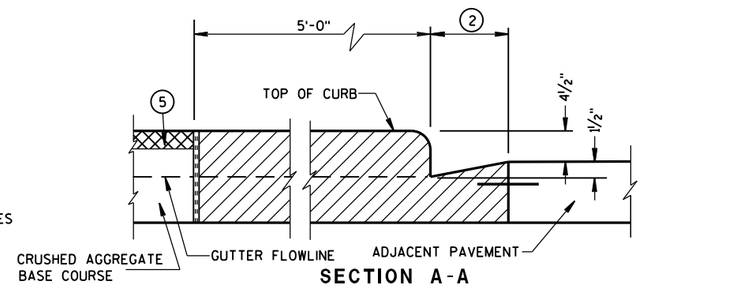
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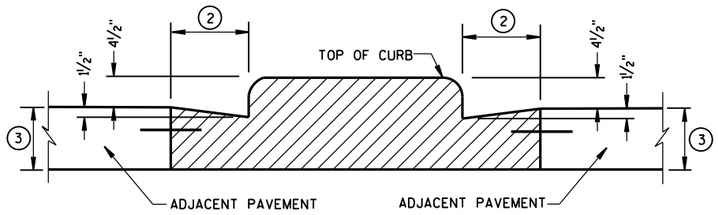
S.D.D. 9 F 15-4b

6

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







CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

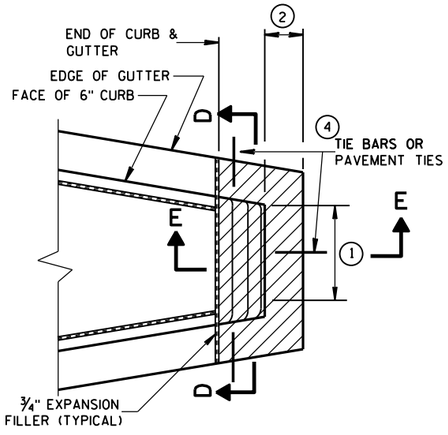
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

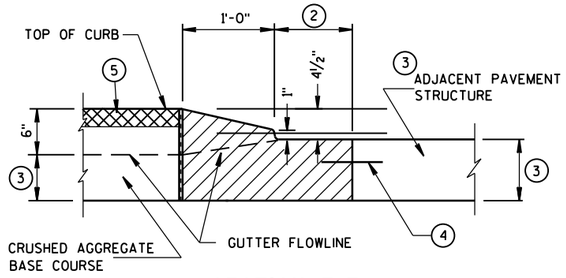
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

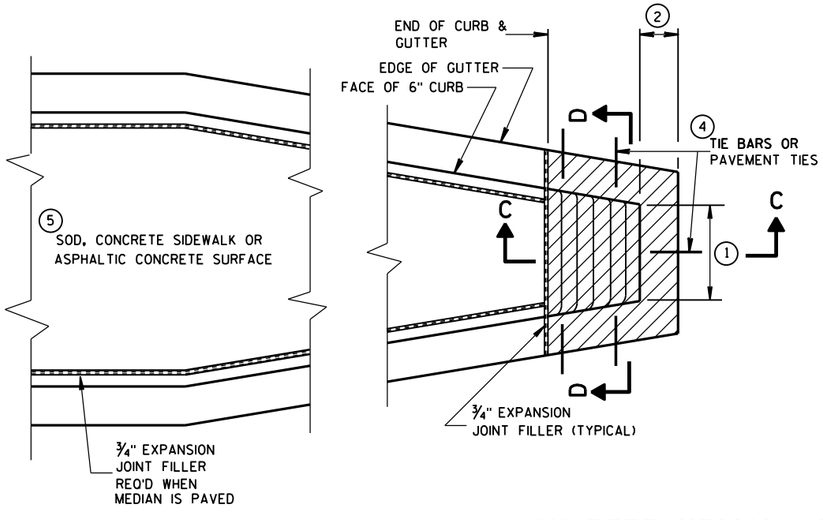
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

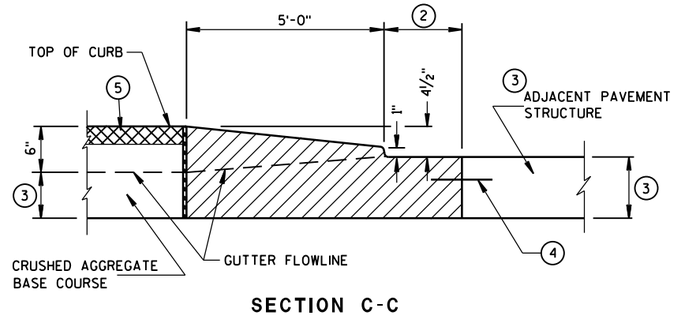




SECTION E-E

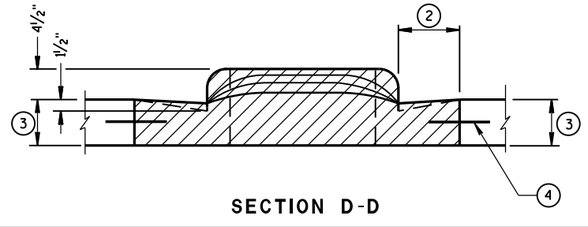
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER

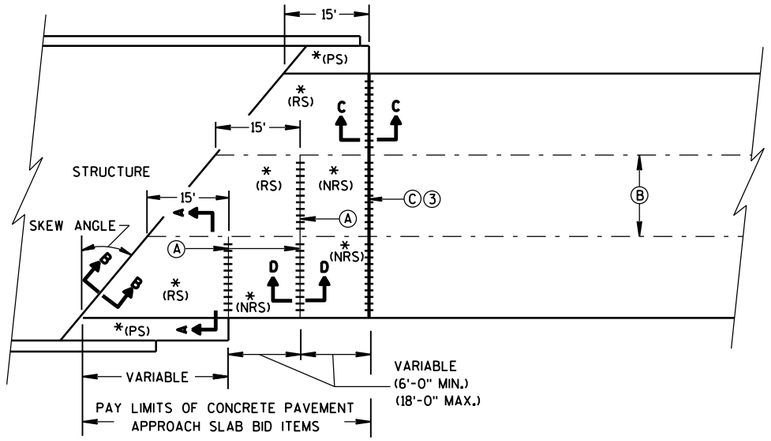
FHWA

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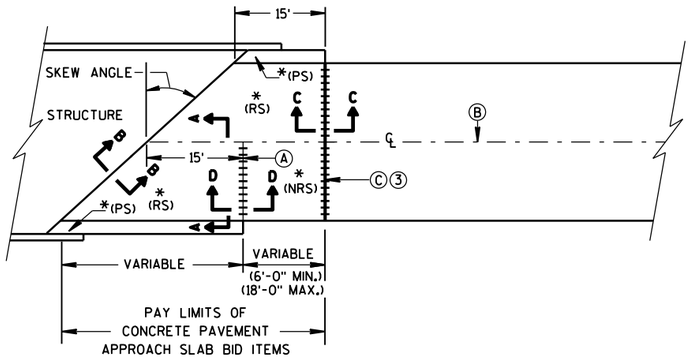
S.D.D. 11 B 2-2

6

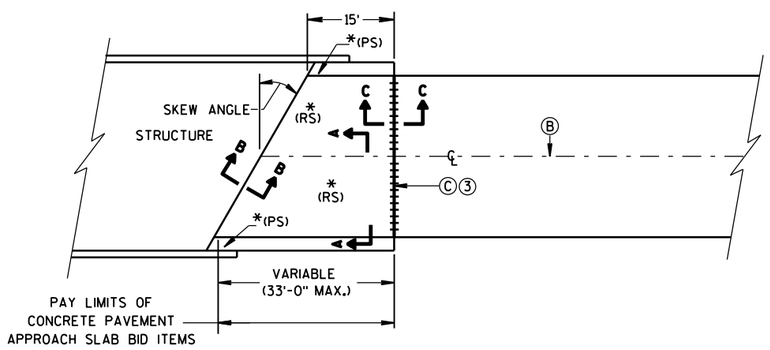
S.D.D. 11 B 2-2



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

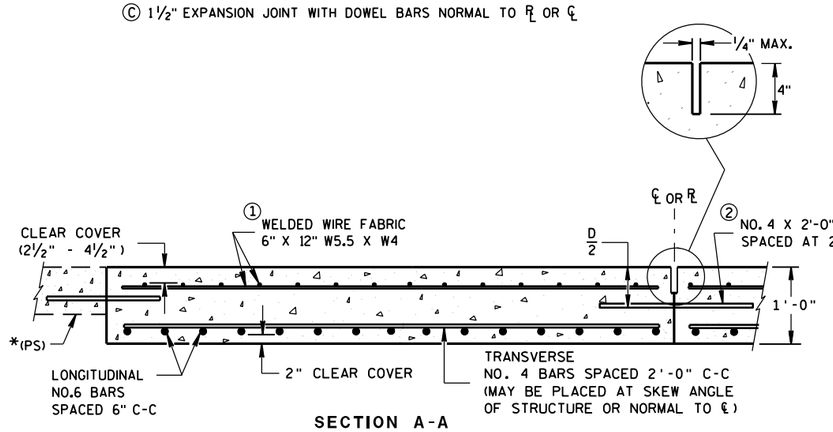
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

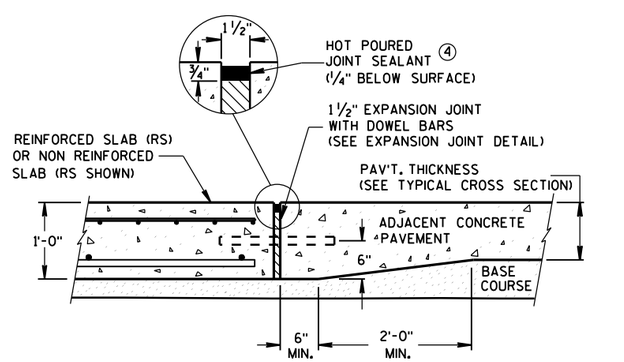
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

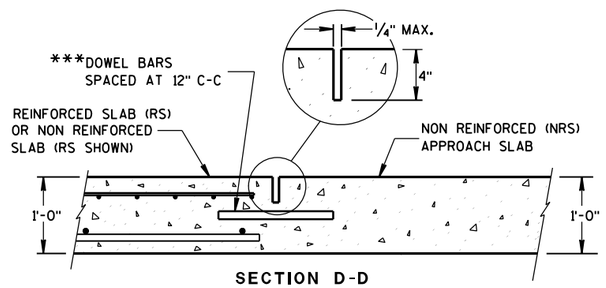
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



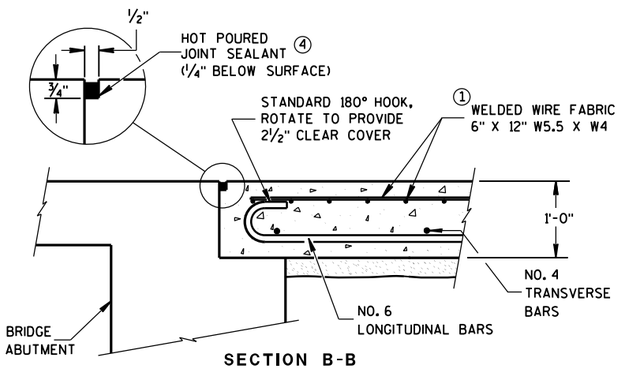
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

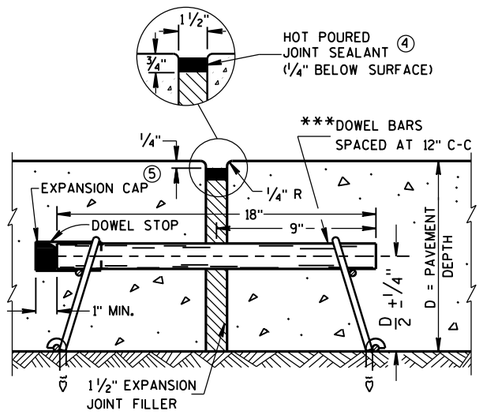
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

1. THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
2. THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
3. DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
4. USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
5. PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

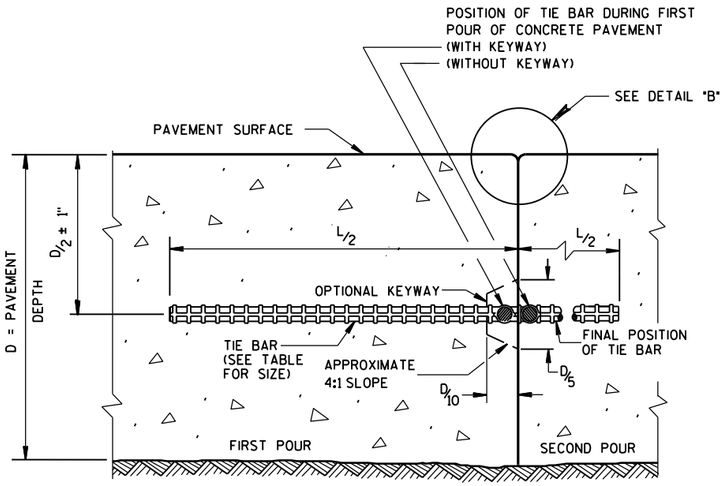
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

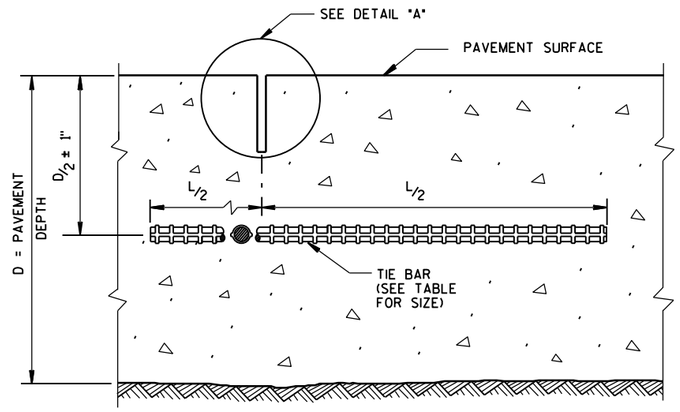
S.D.D. 13 B 2-8a

6

S.D.D. 13 B 2-8a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

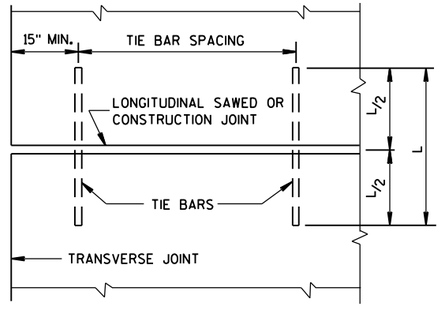
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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S.D.D. 13 C 1-18

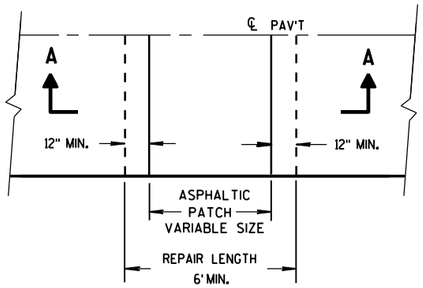
GENERAL NOTES

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.

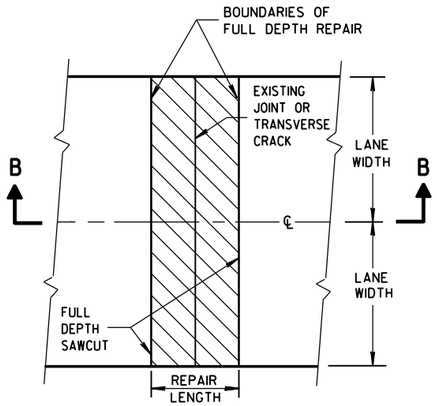
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

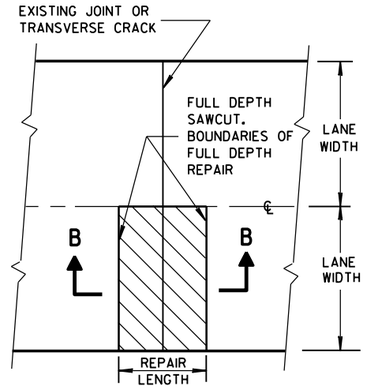
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

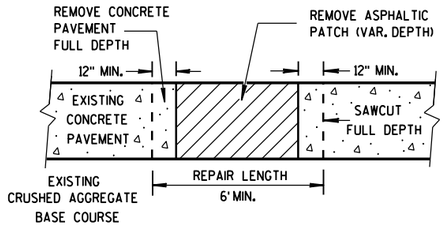


PLAN VIEW
(DOUBLE LANE REPAIR)



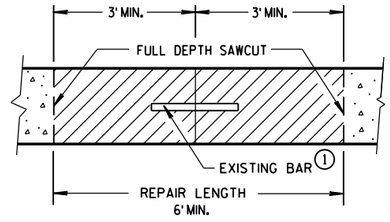
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

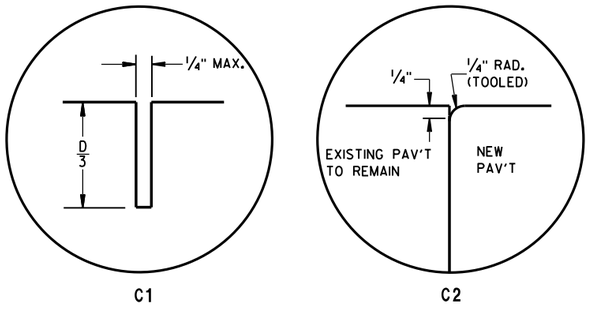
CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 13 C 9-12a



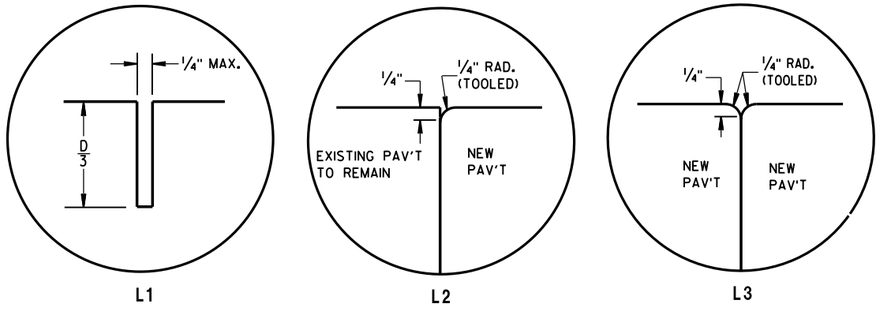
TRANSVERSE JOINTS

TIE BAR TABLE

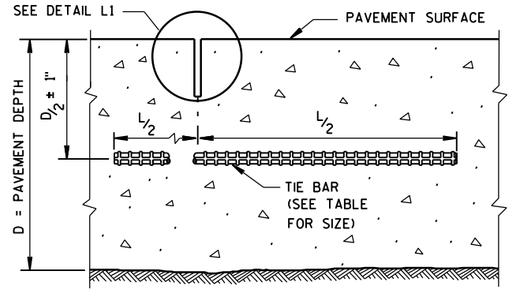
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

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

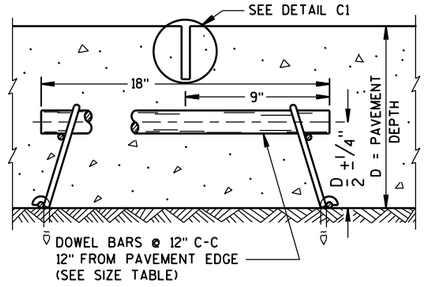
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

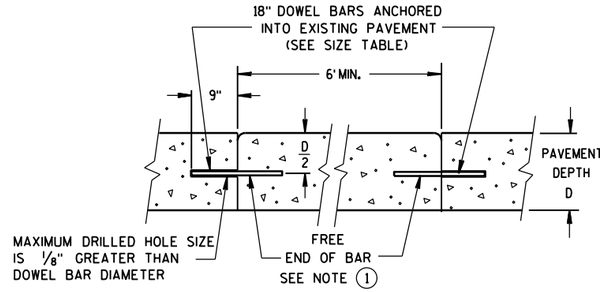
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

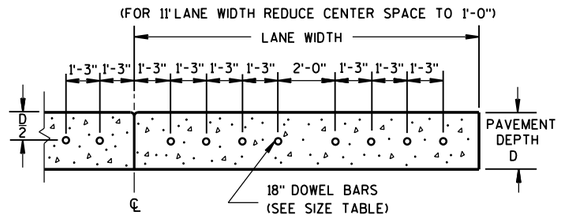


SECTION F-F

CONTRACTION JOINT



SECTION D-D

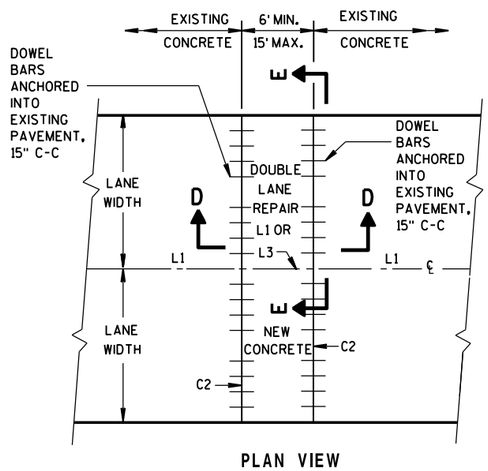


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

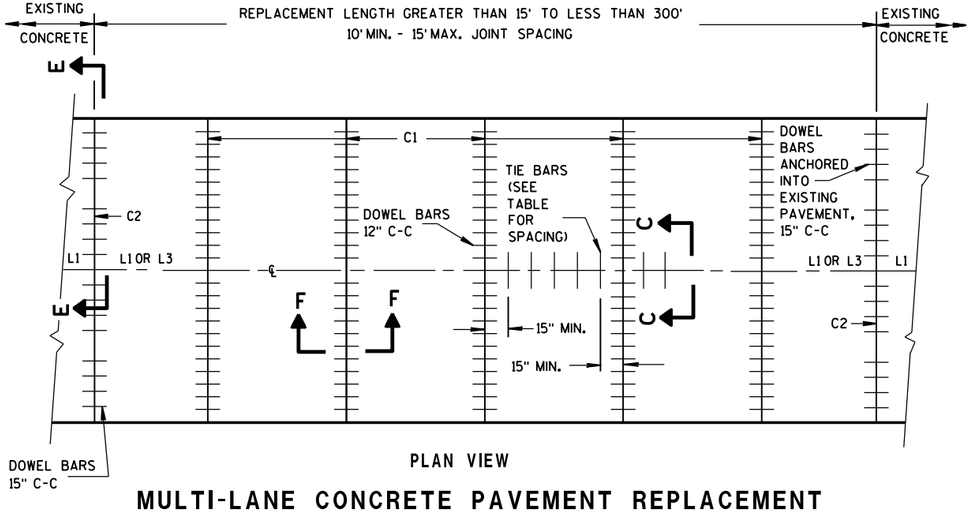
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6",6 ½"	NONE	12'
7",7 ½"	1"	14'
8",8 ½"	1 ¼"	15'
9",9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

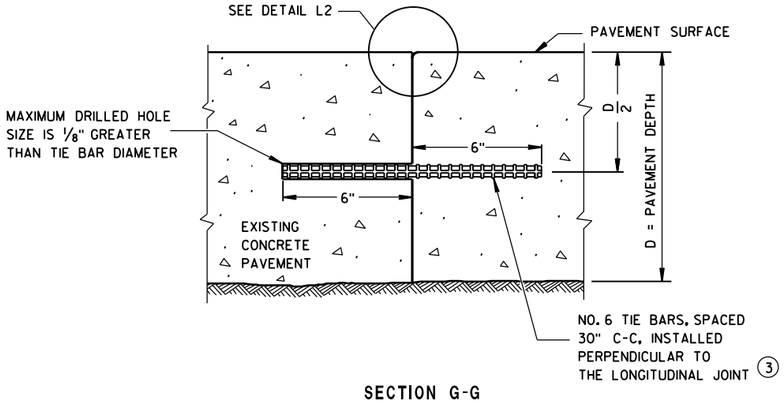
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 9-12b



SECTION G-G

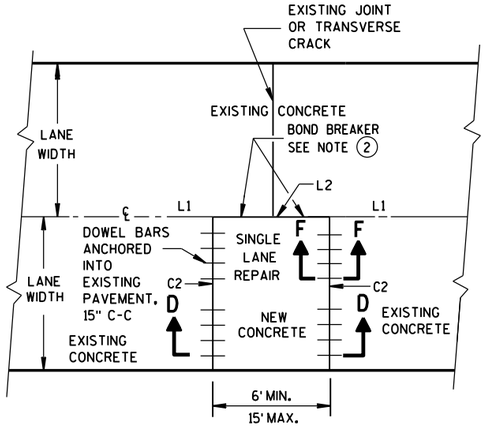
TIE BARS ANCHORED INTO EXISTING PAVEMENT

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 IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

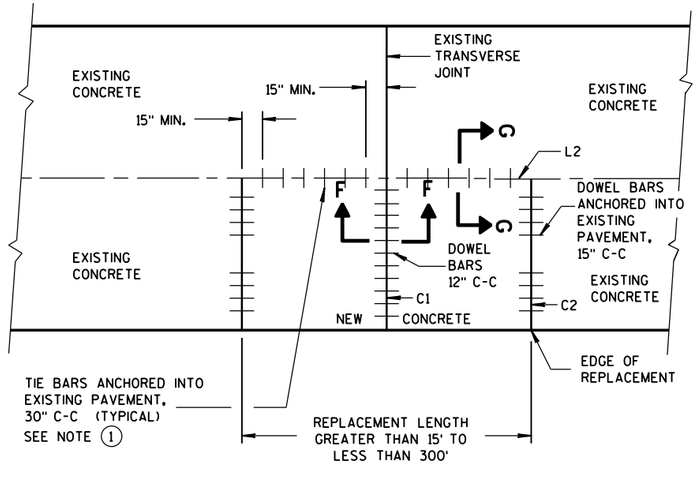
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

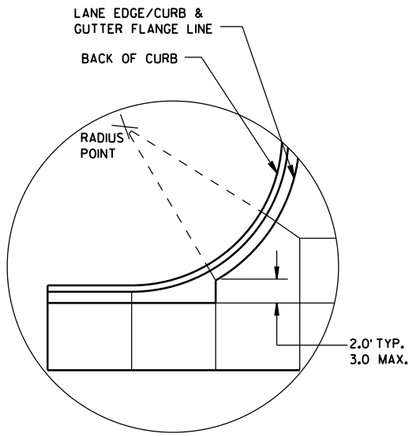
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

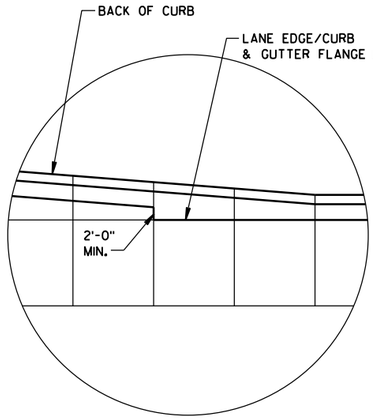
APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

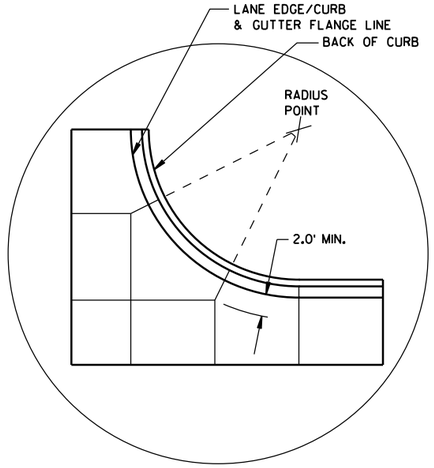
S.D.D. 13 C 9-12c



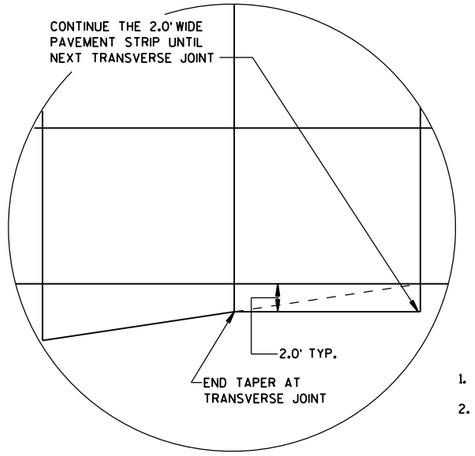
DETAIL "A"



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.

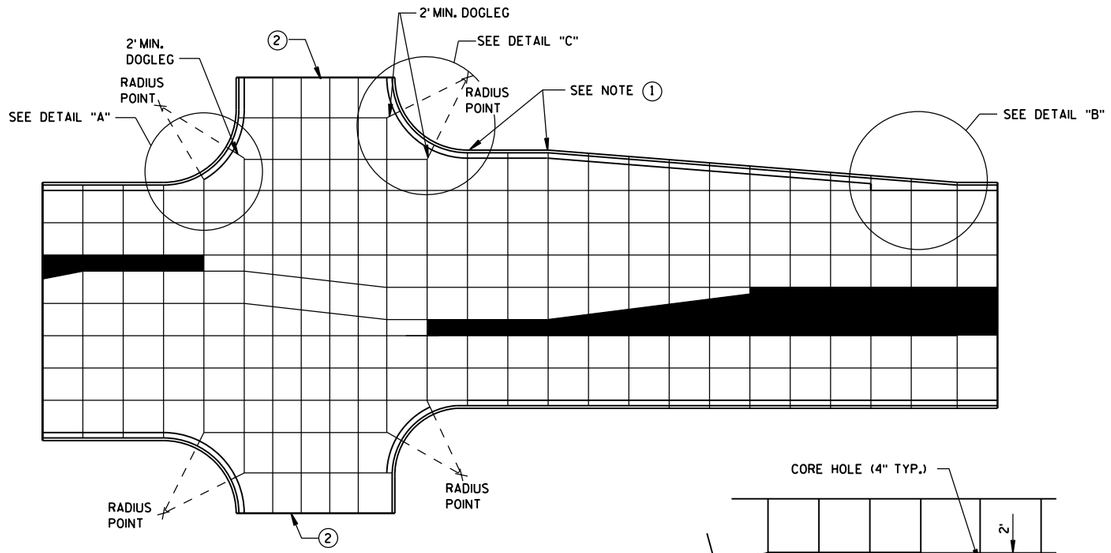
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

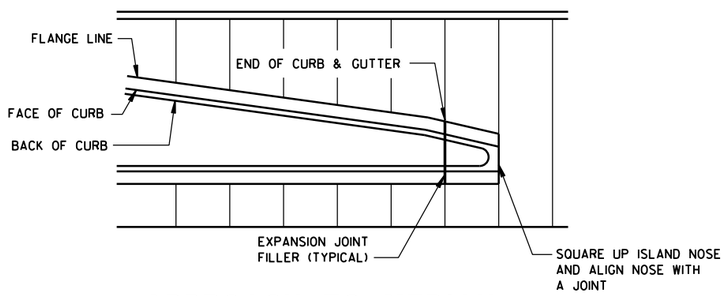
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



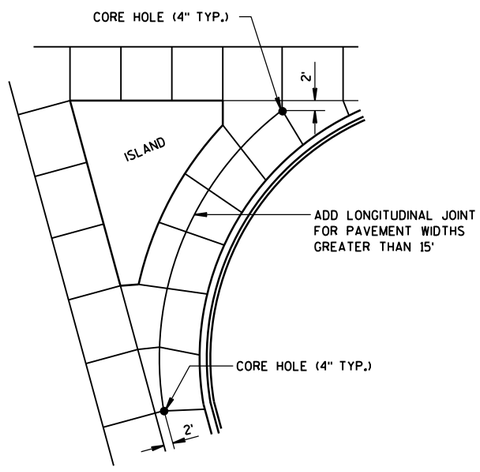
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

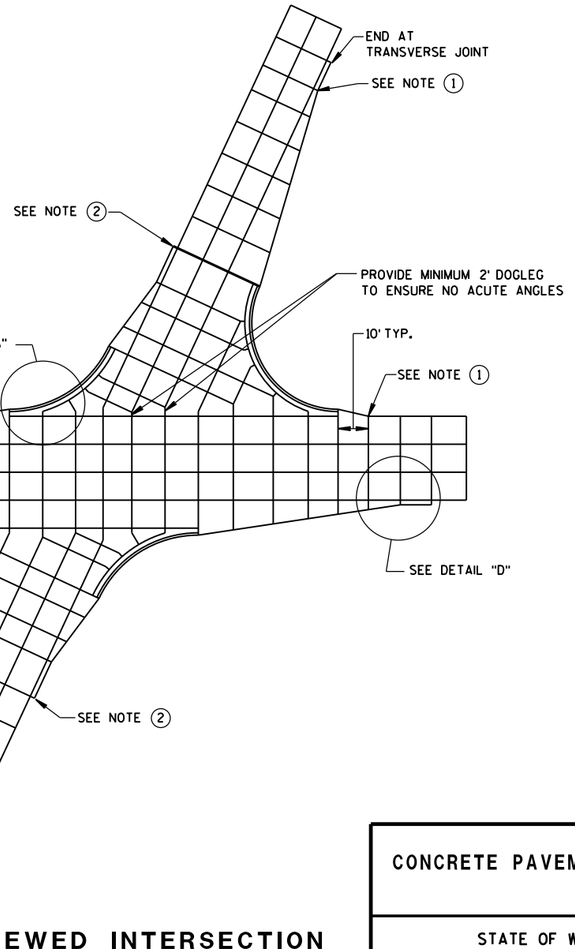
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

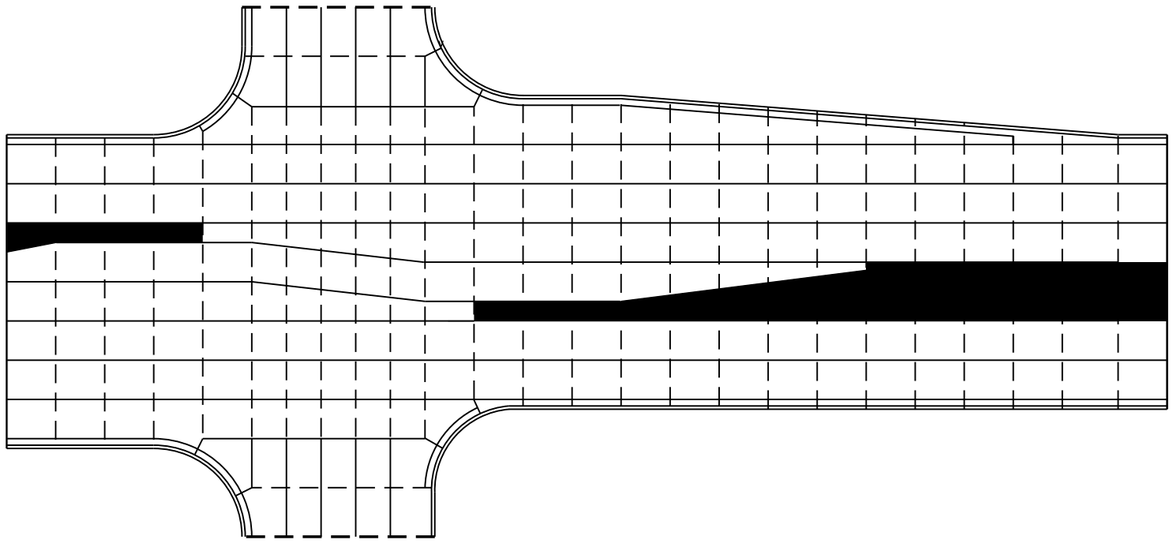
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

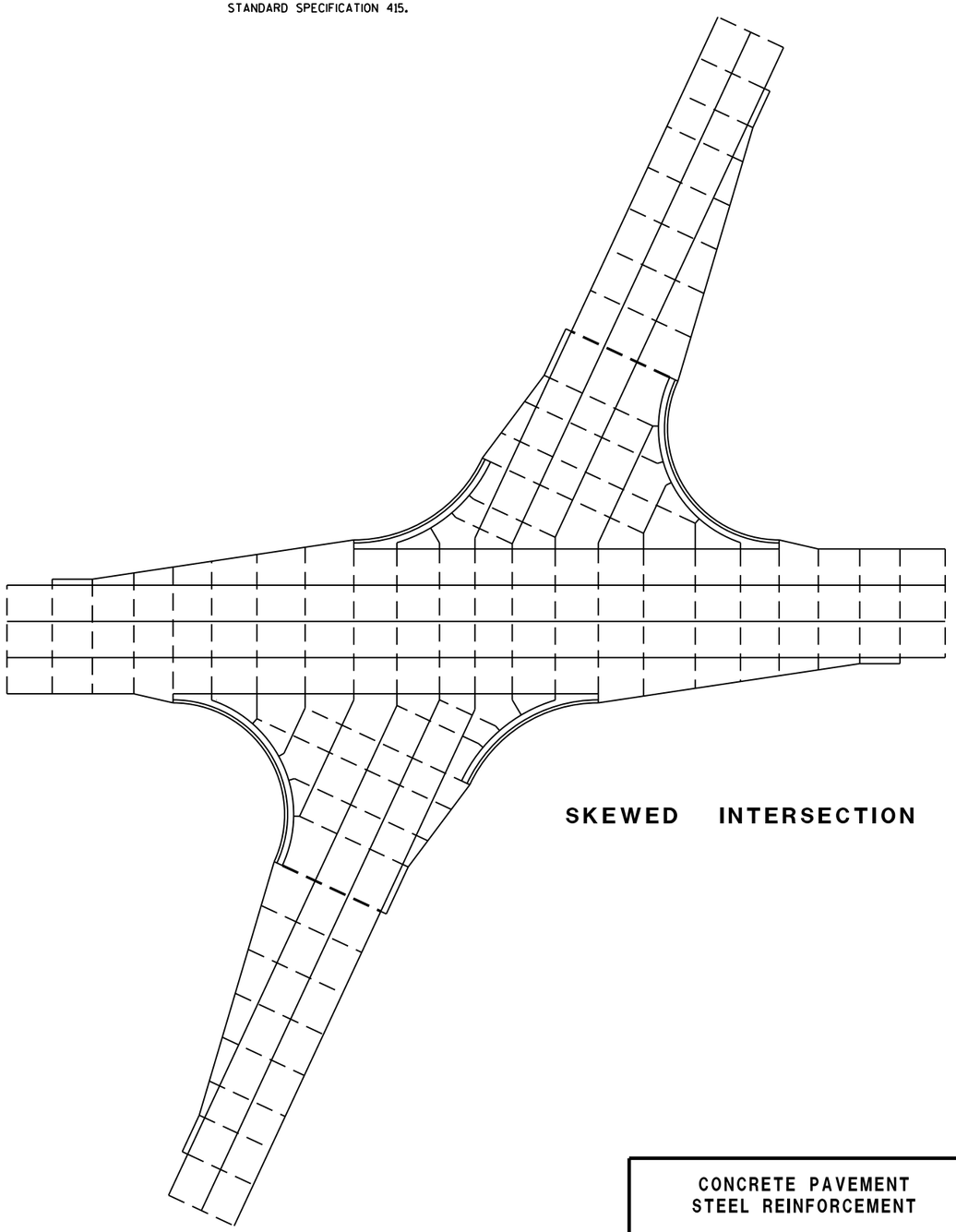
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

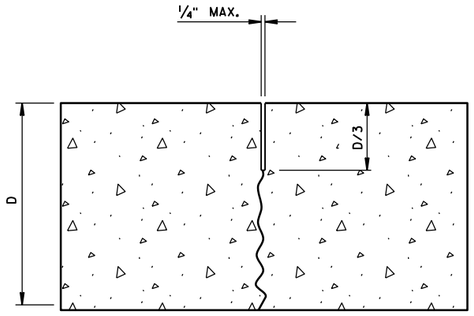
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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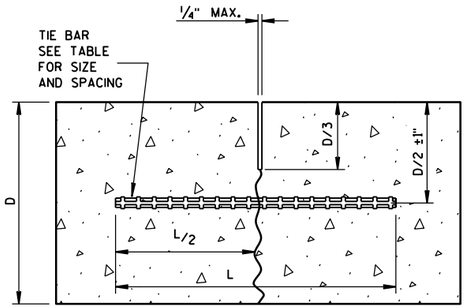
S.D.D. 13 C 18-3b

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S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

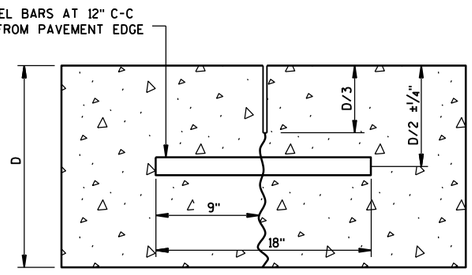
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

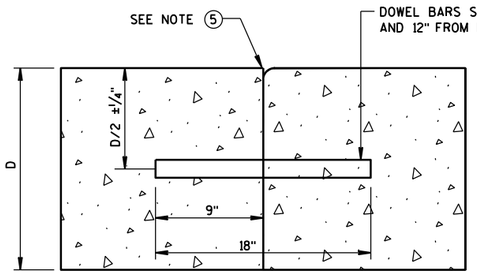
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



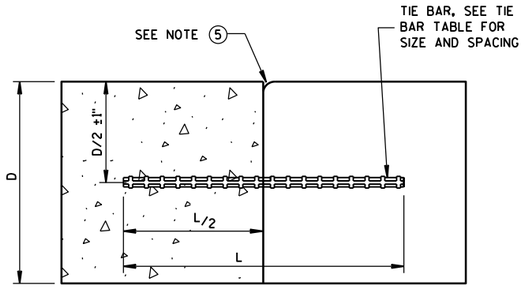
DOWELED-TRANSVERSE

CONTRACTION JOINTS

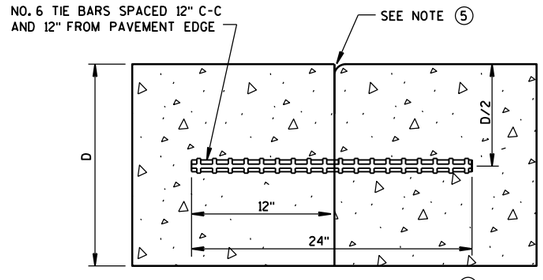
SEE NOTE (2)



DOWELED TRANSVERSE (3)

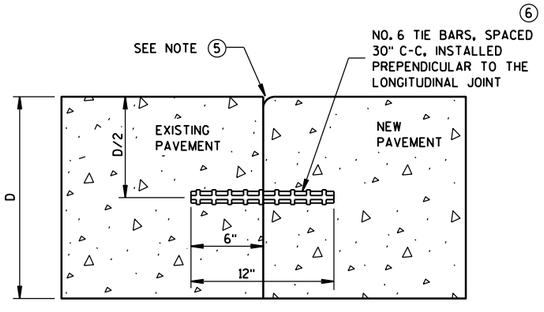


TIED LONGITUDINAL



TIED TRANSVERSE (3)

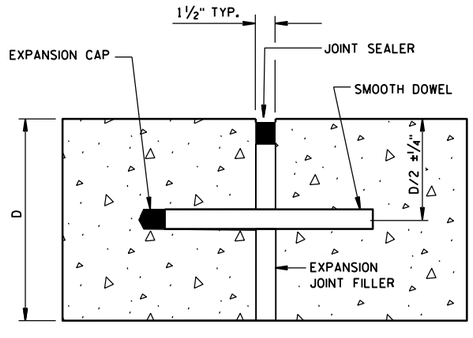
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

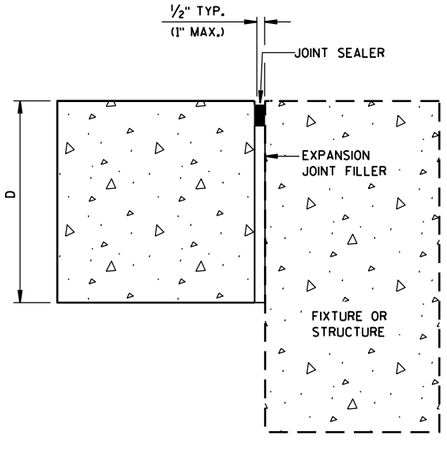
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

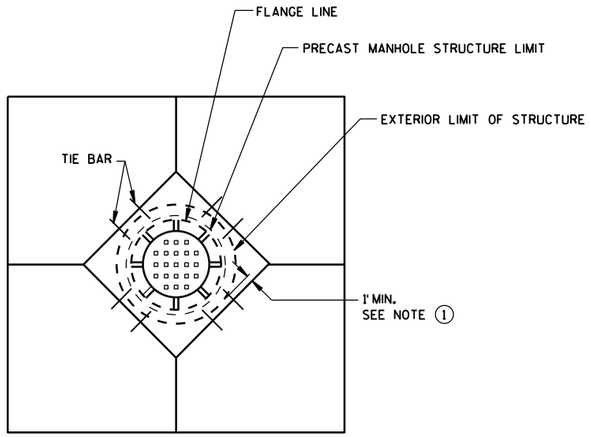
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S.D.D. 13 C 18-3c

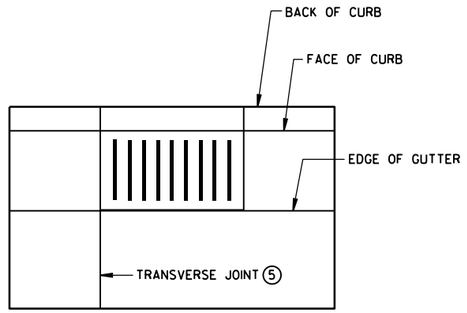
S.D.D. 13 C 18-3c

CONCRETE PAVEMENT
JOINT TYPES

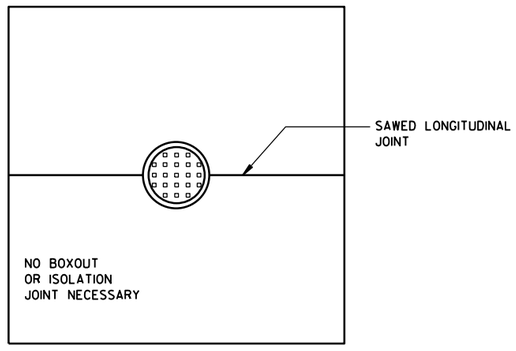
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



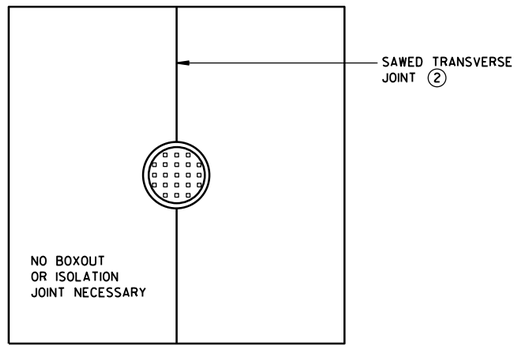
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



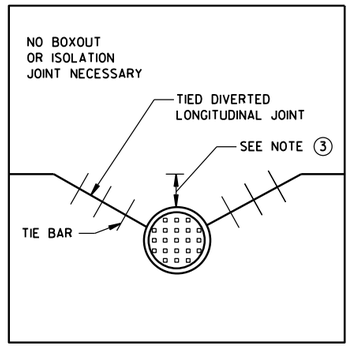
INLET WITH TRANSVERSE JOINT



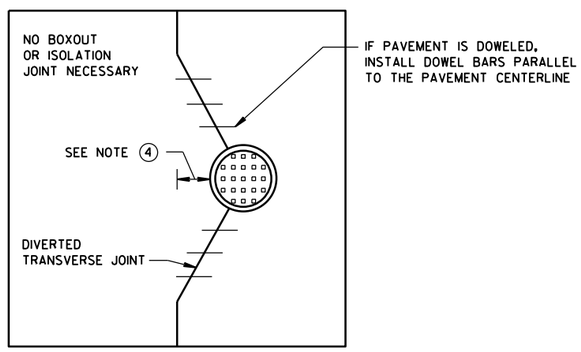
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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S.D.D. 13 C 18-3d

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

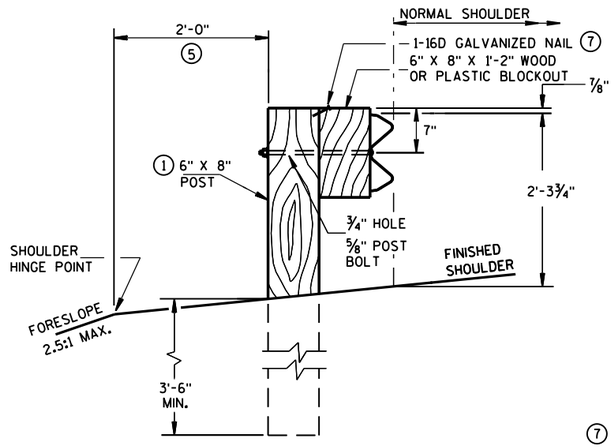
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

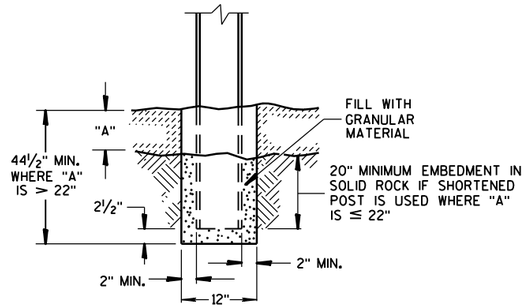
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

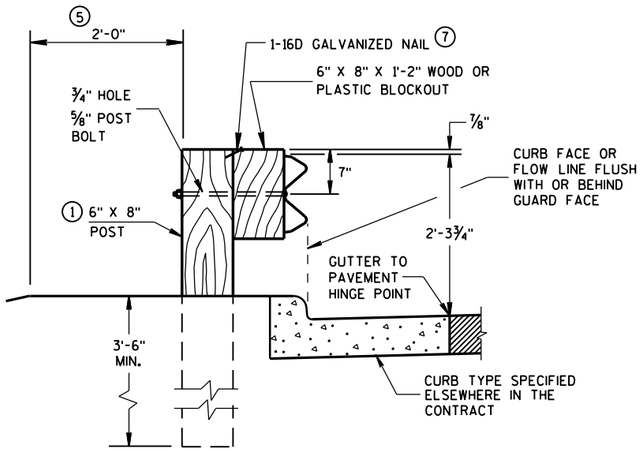
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



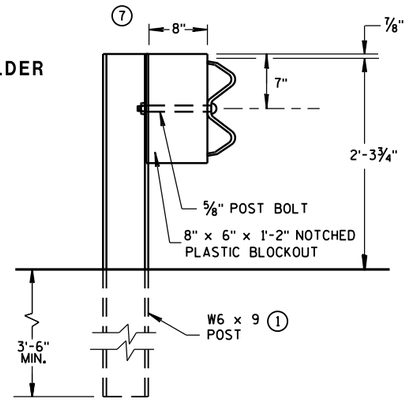
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



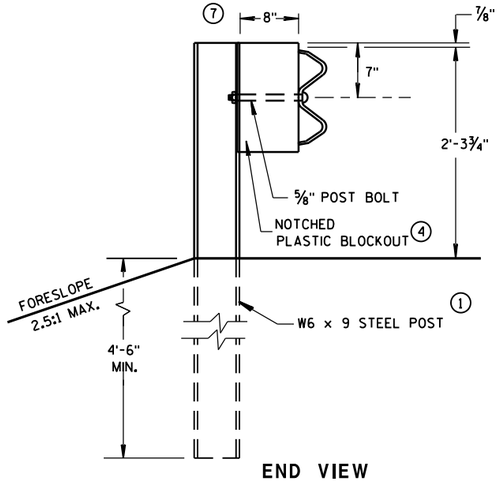
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



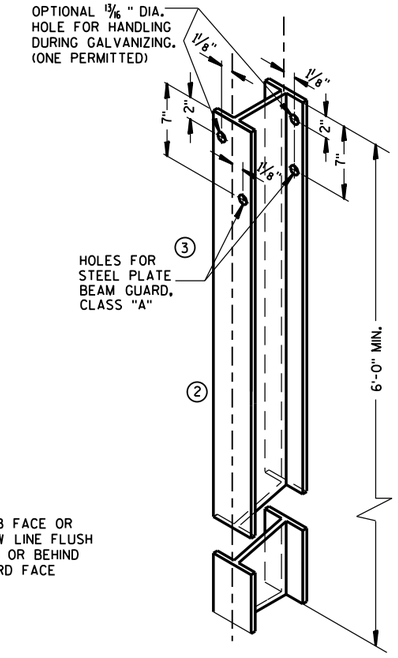
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION

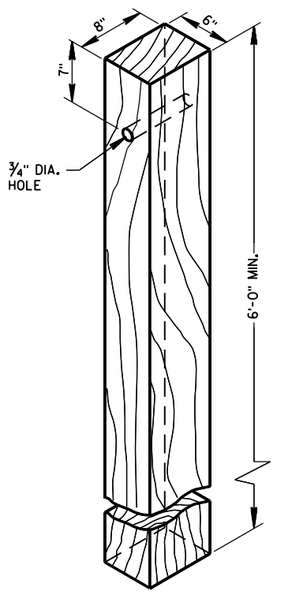


END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

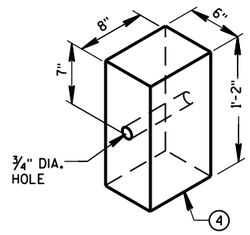


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

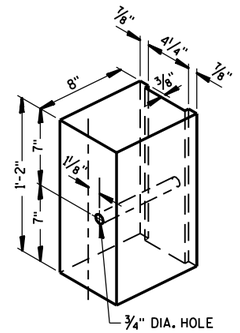
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



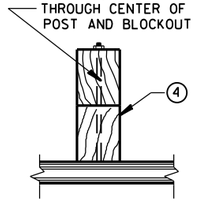
WOOD POST
(6"X8") NOMINAL



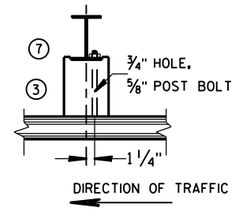
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



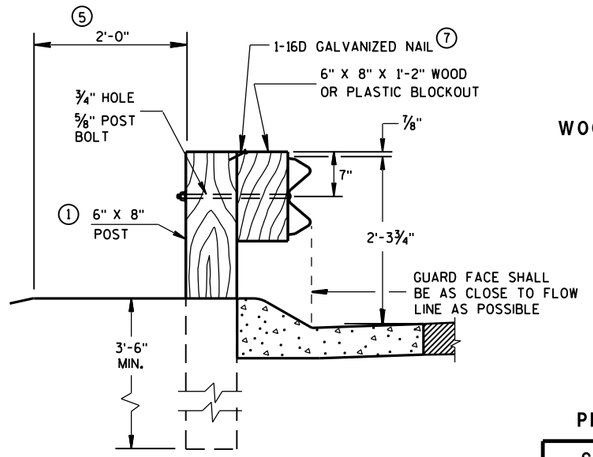
TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



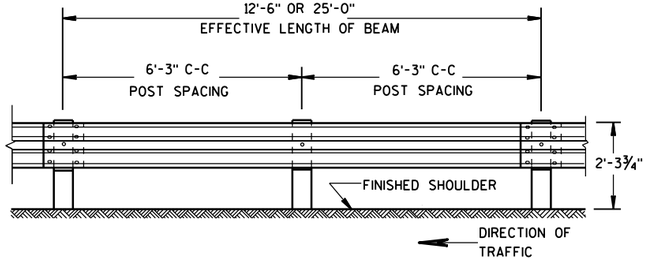
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

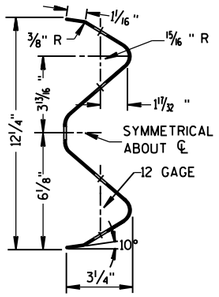
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-8a

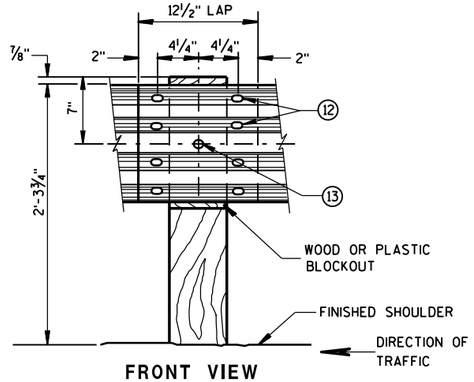


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

(8) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

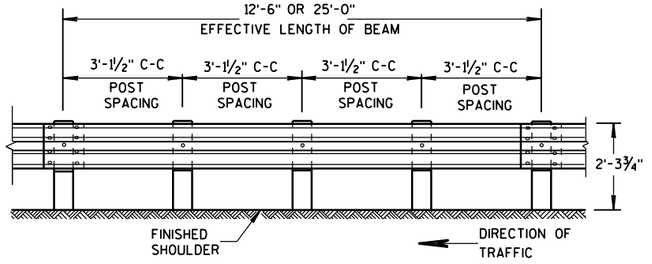
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

(10) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(11) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

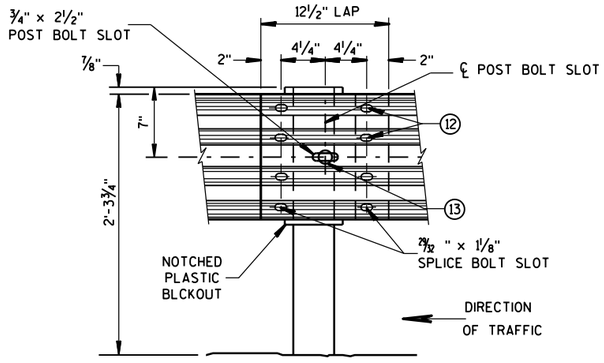
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

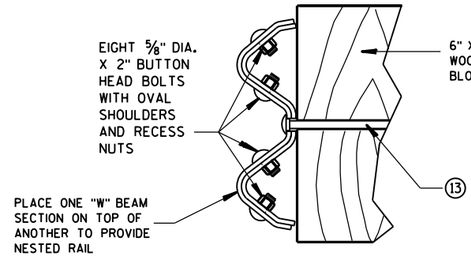
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

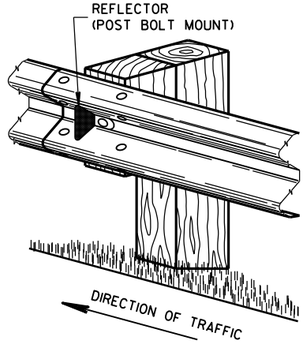


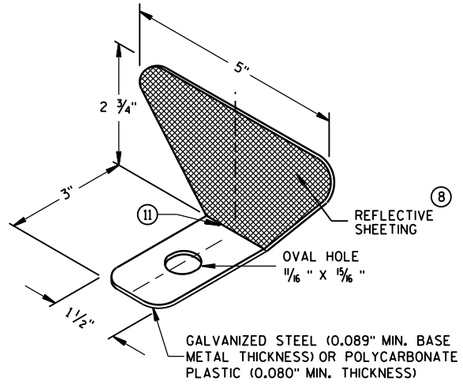
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (9)

	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 (10)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 (11)	3
	> 200'	100' C-C	2	



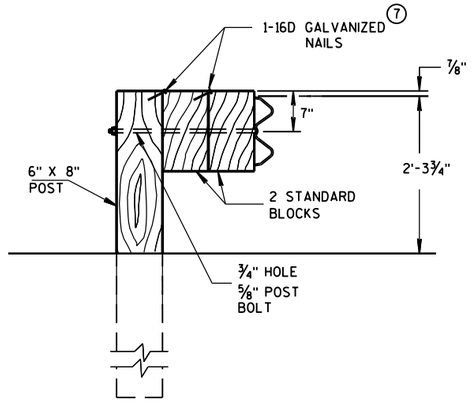


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (8)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

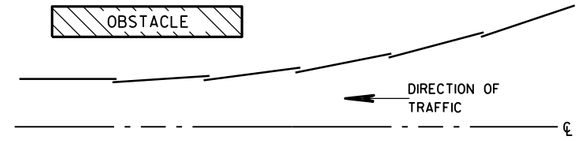
STATE OF WISCONSIN
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6
S.D.D. 14 B 15-8b

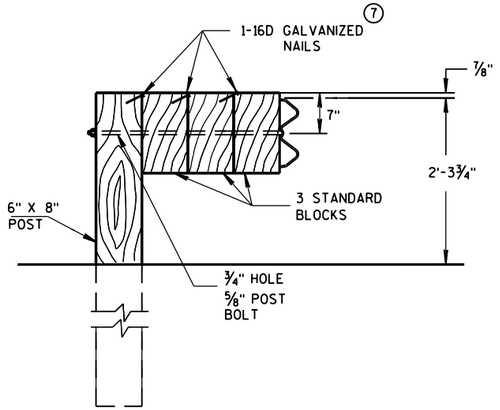


DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

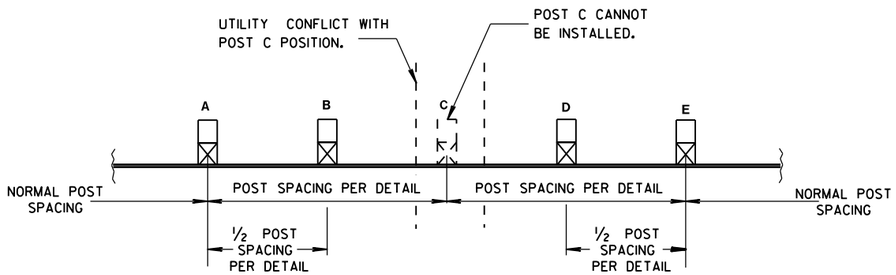


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.

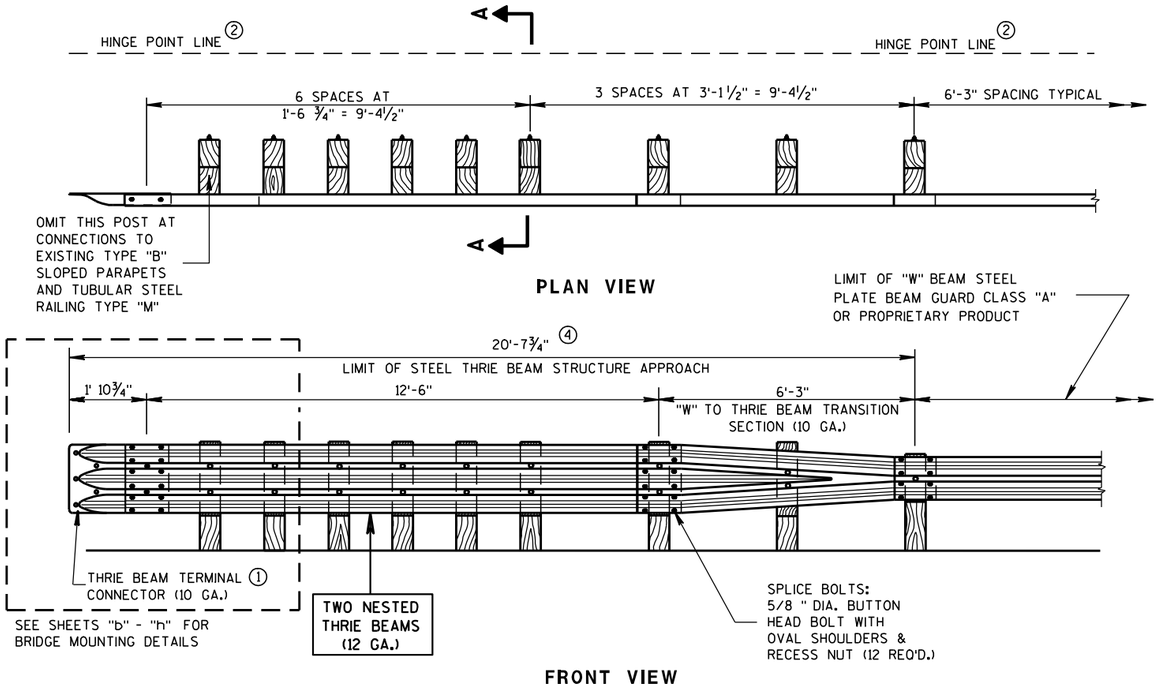
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 15-8c



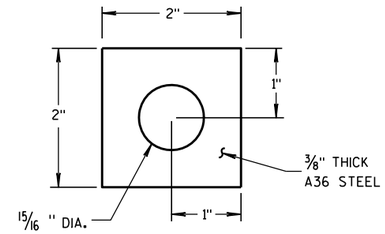


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

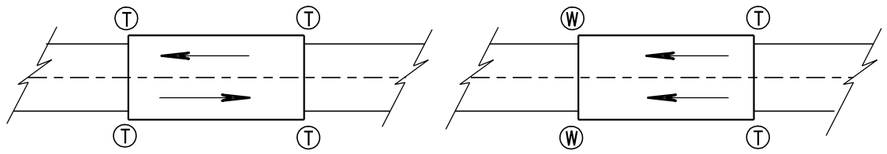
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



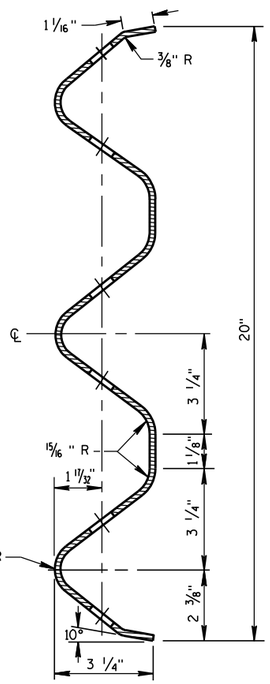
TWO WAY TRAFFIC

ONE WAY TRAFFIC

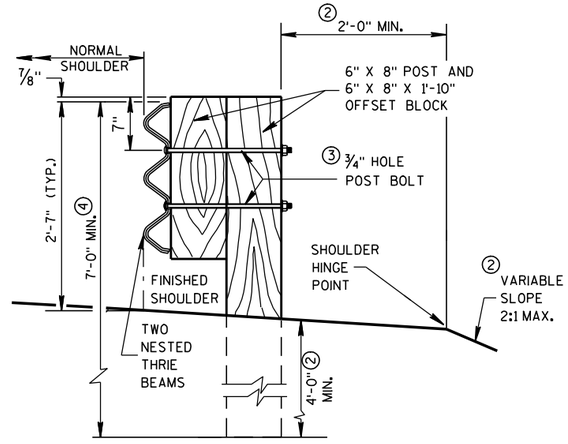
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

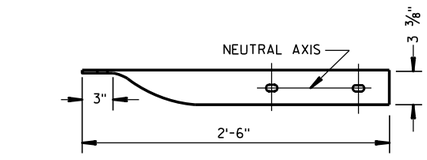
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

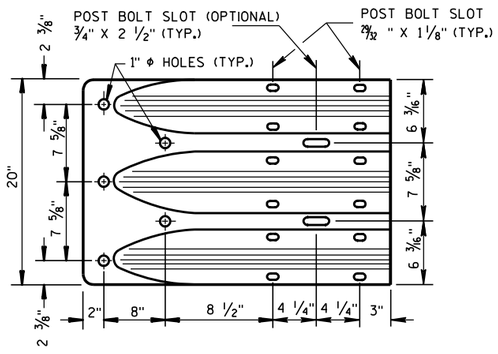


SECTION THRU THRIE BEAM RAIL ELEMENT

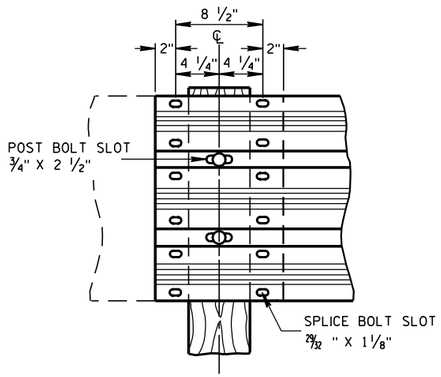


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

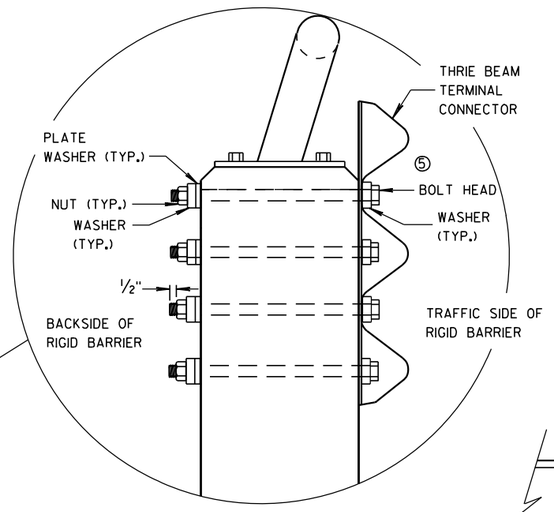
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

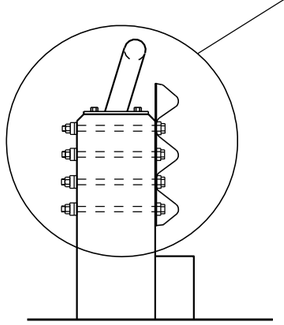
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

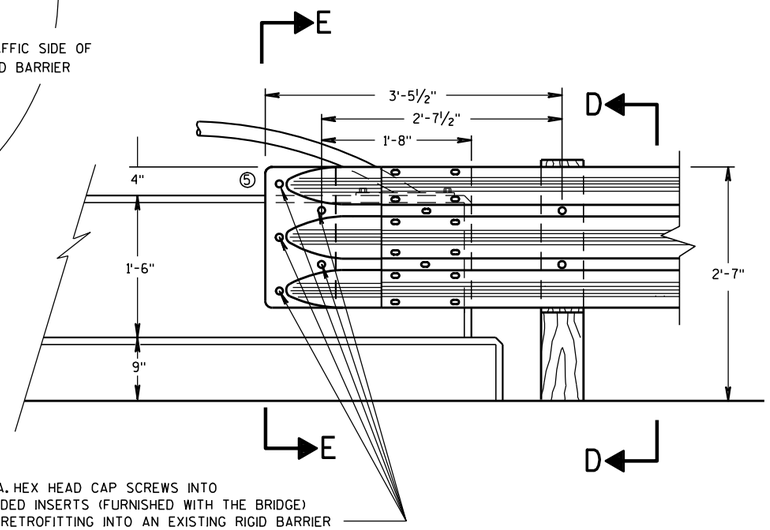
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





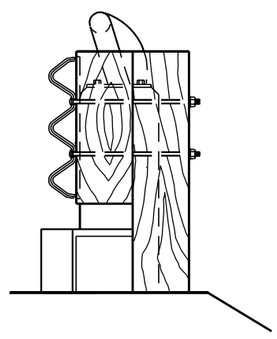
SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

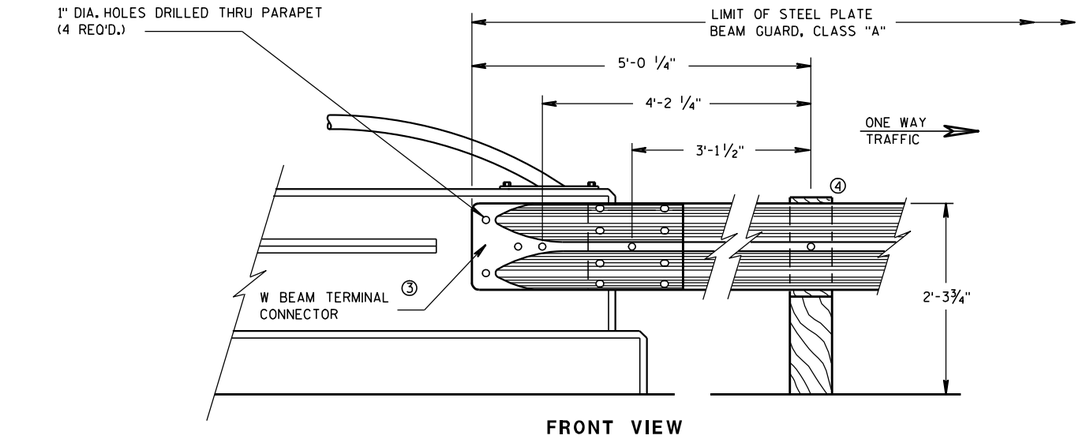


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

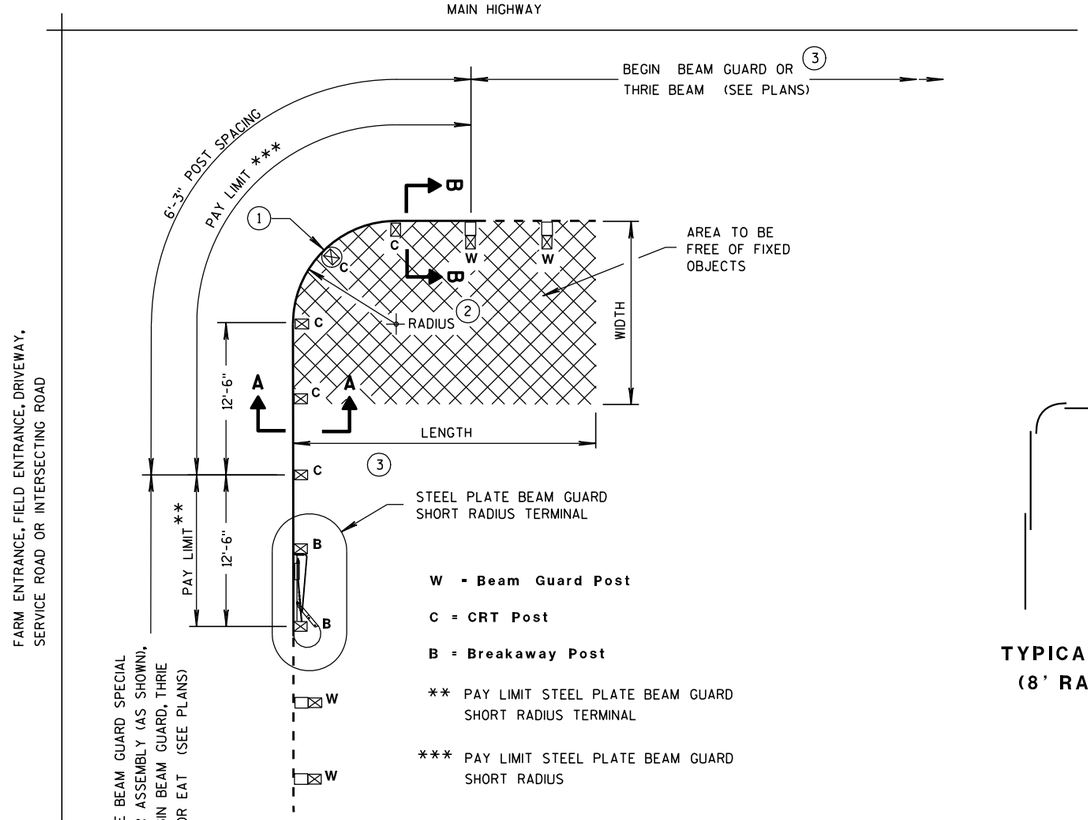
APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

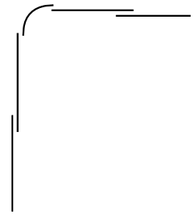
S.D.D. 14 B 20-11c

6

S.D.D. 14 B 20-11c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

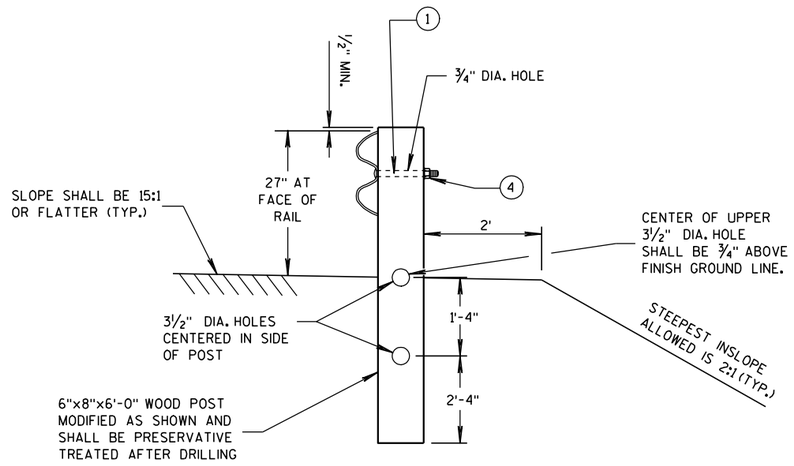
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

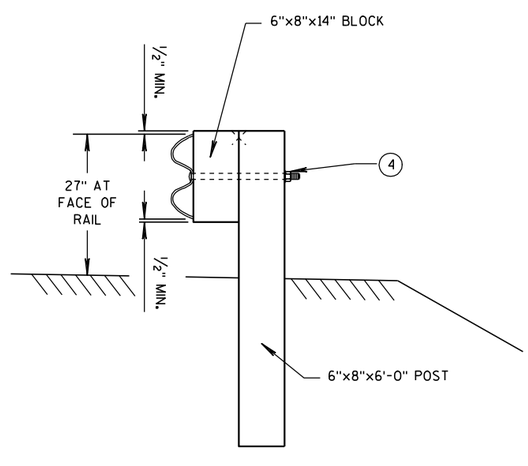
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

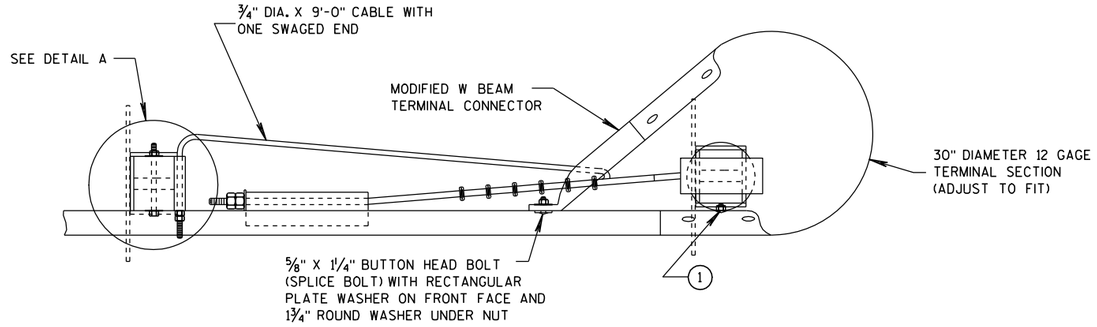
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

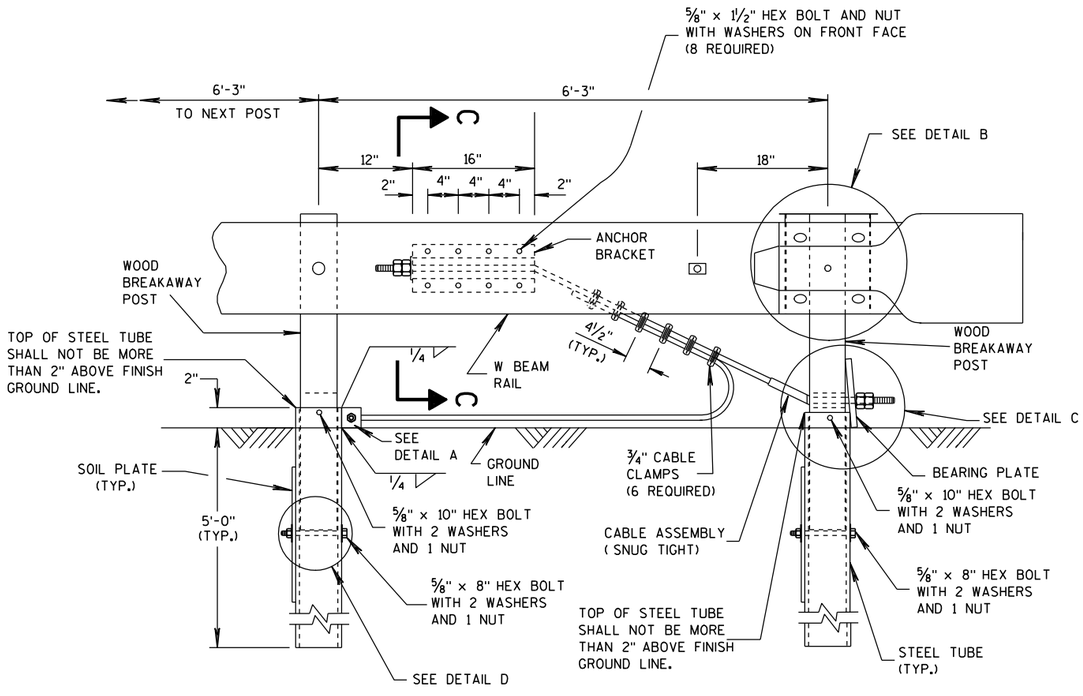
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



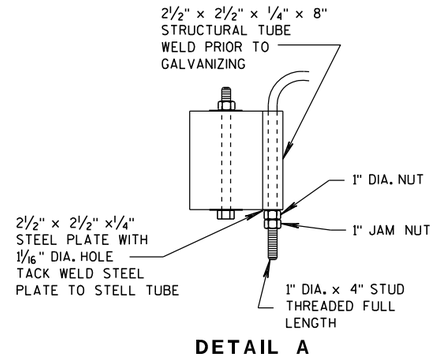
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

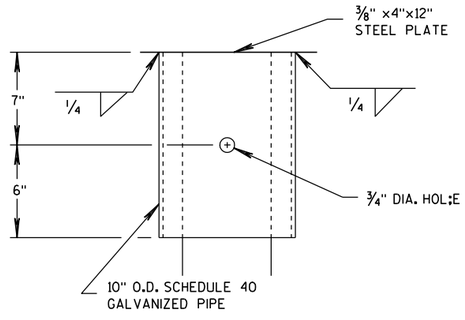
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

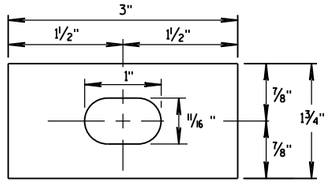
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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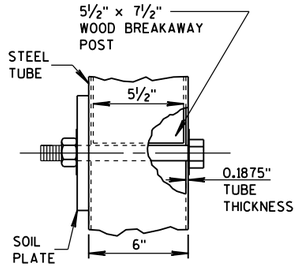
S.D.D. 14 B 27-1b

6

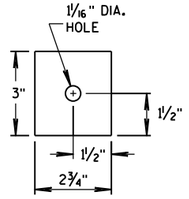
S.D.D. 14 B 27-1b



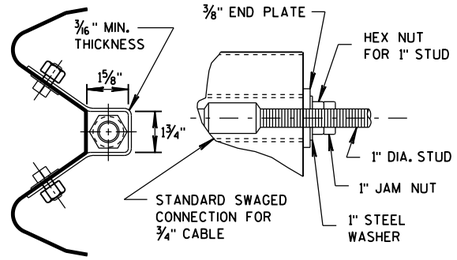
RECTANGULAR PLATE WASHER



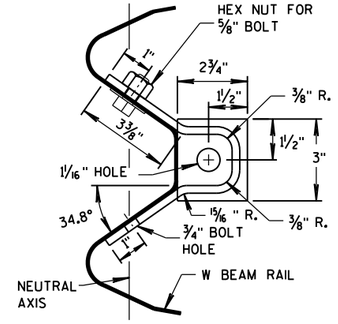
DETAIL D



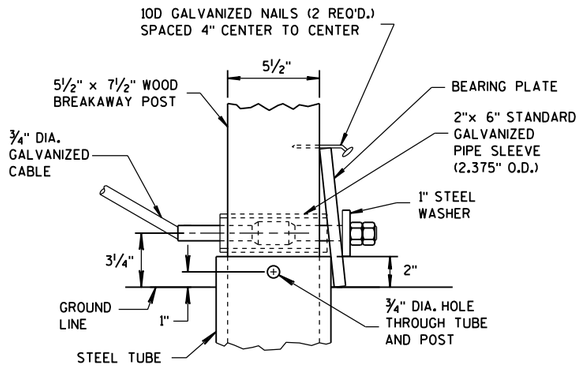
END PLATE



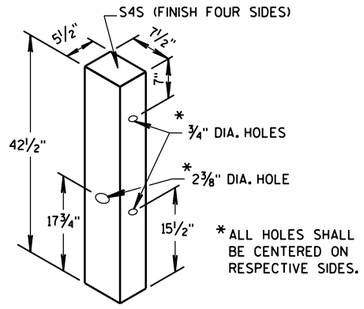
SECTION C-C
(END PLATE REMOVED)



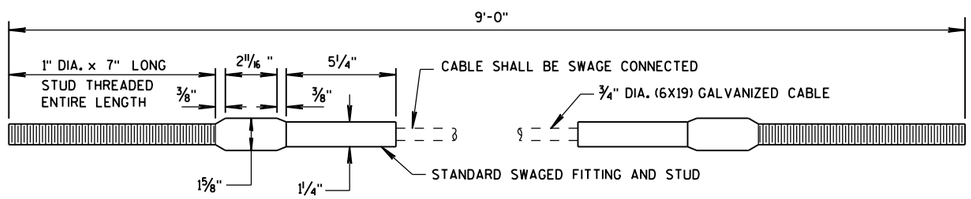
ANCHOR BRACKET



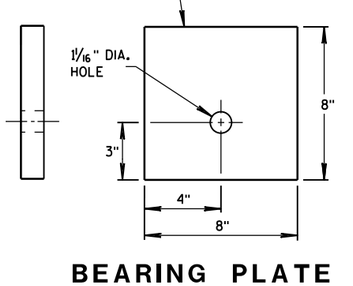
DETAIL C



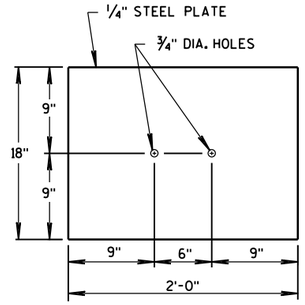
WOOD BREAKAWAY POST



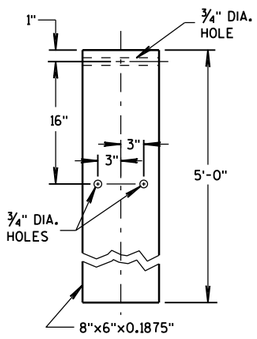
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c

GENERAL NOTES

1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

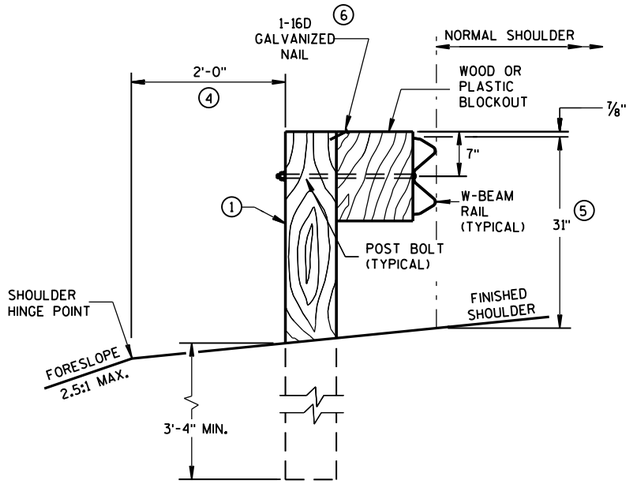
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

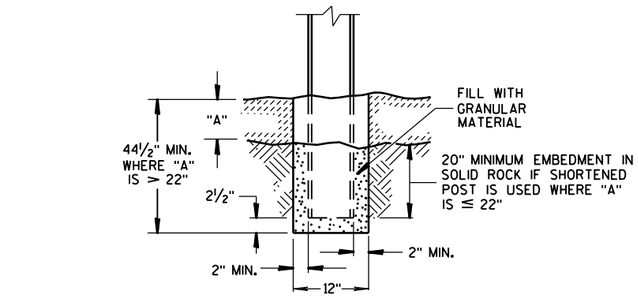
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

6. WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



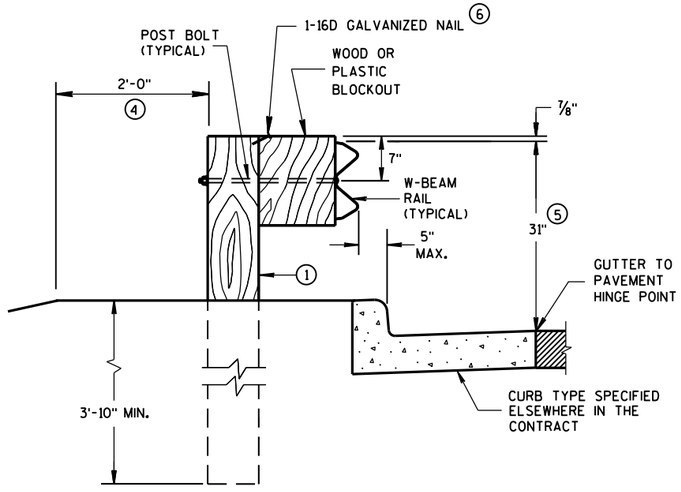
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



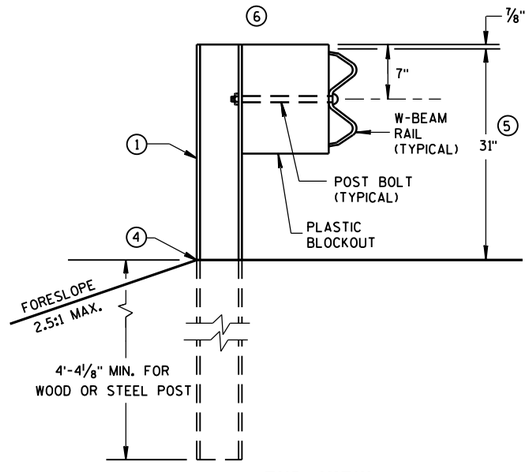
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



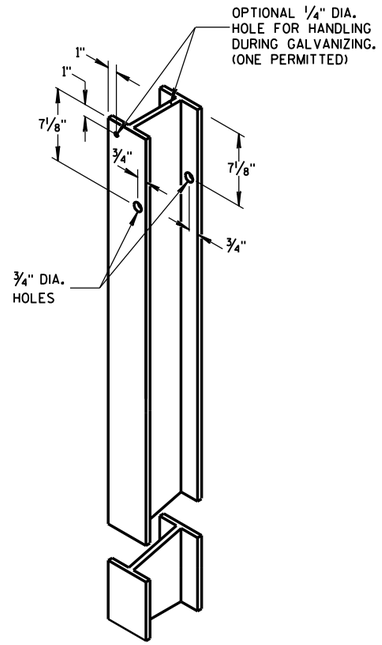
END VIEW

LOCATED ALONG A CURBED ROADWAY

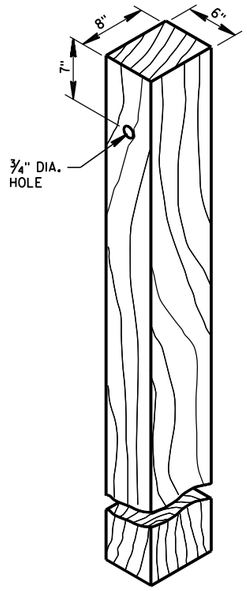


END VIEW

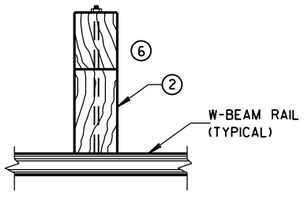
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



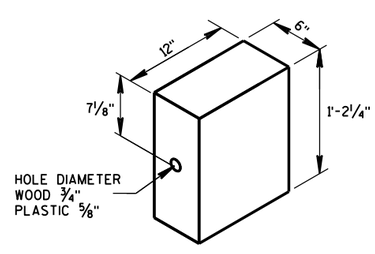
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



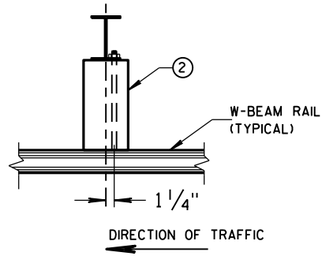
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

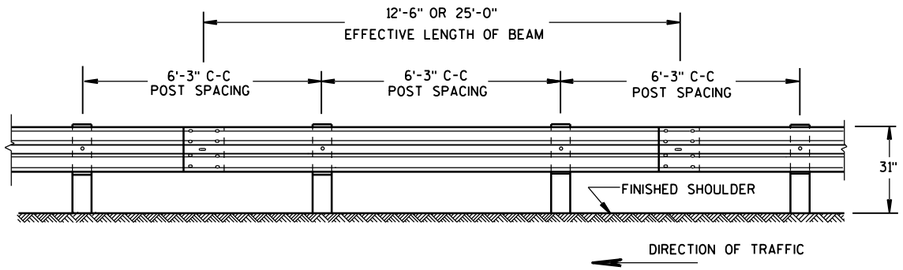


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

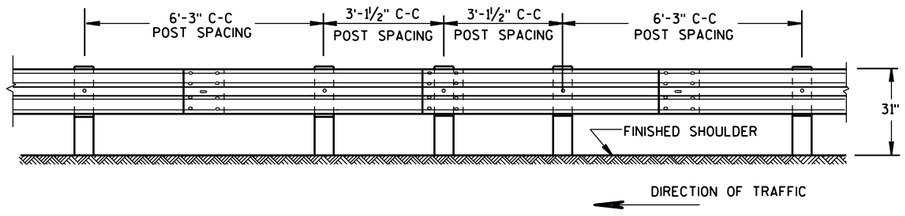
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 42-3a



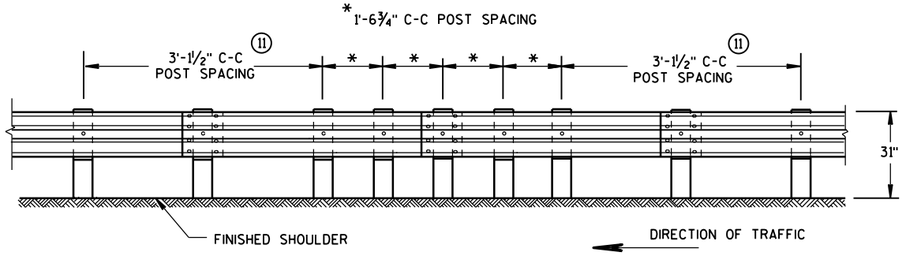
FRONT VIEW

POST SPACING STANDARD INSTALLATION



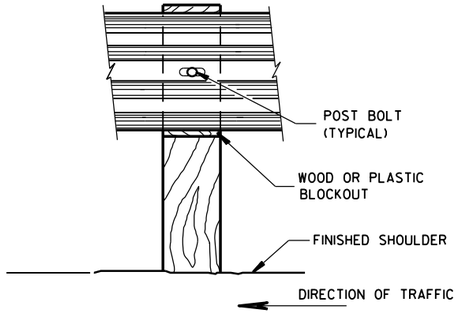
FRONT VIEW

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

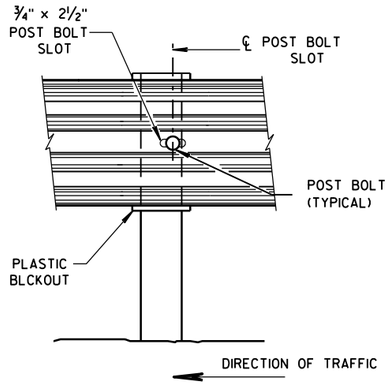


FRONT VIEW

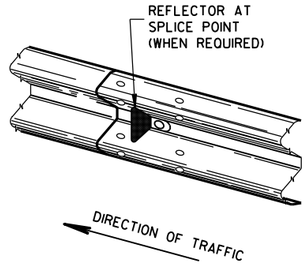
QUARTER POST SPACING (QS)

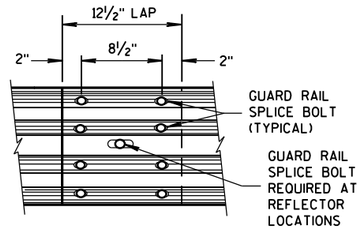


FRONT VIEW AT WOOD POST



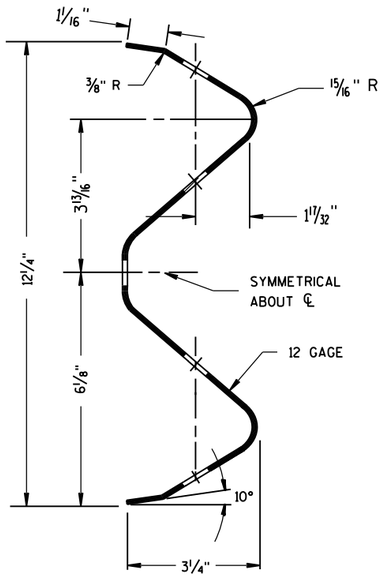
FRONT VIEW AT STEEL POST



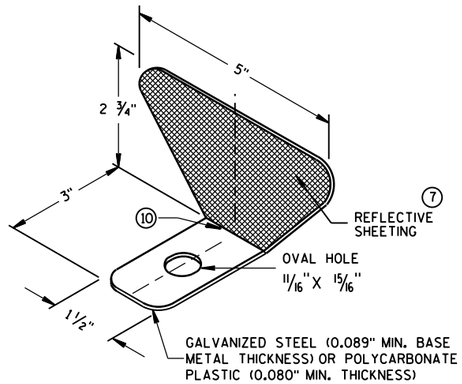


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ 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.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

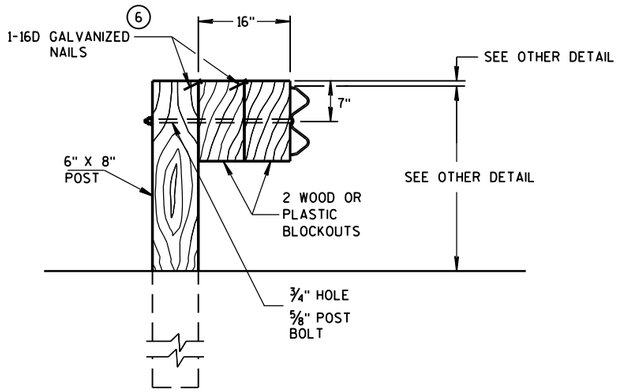
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

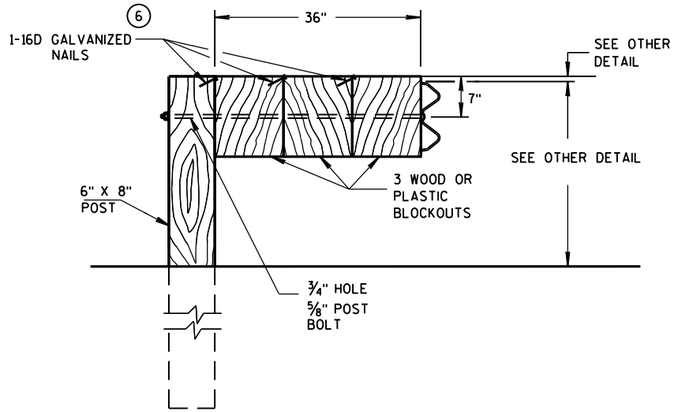
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S.D.D. 14 B 42-3b



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.

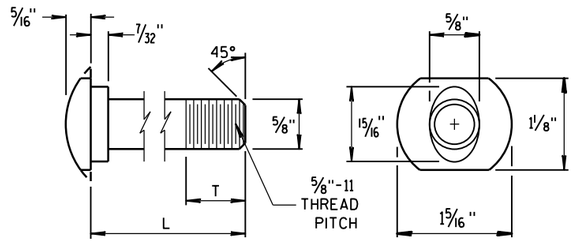


DETAIL FOR 36" BLOCKOUT DEPTH

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.

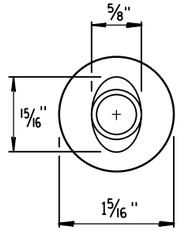
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

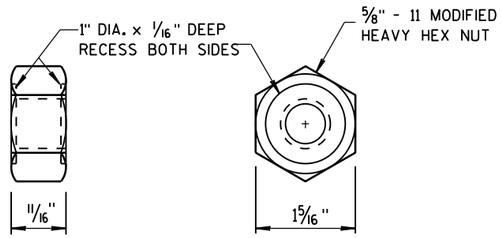


POST BOLT TABLE

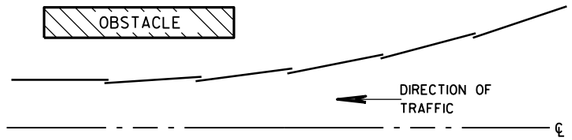
L	T (MIN.)
1¼"	1⅛"
2"	1¾"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

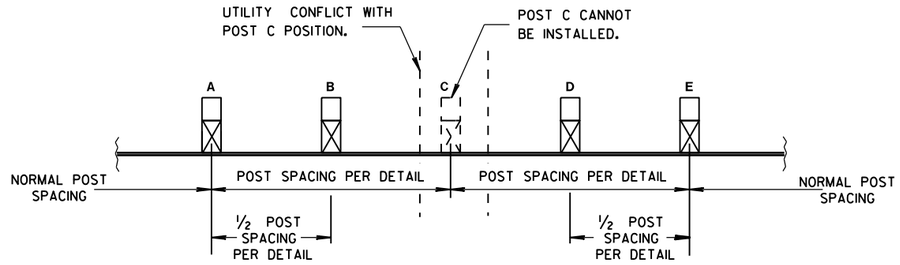


POST BOLT AND RECESS NUT

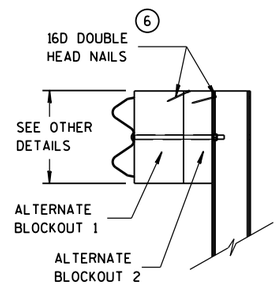


PLAN VIEW

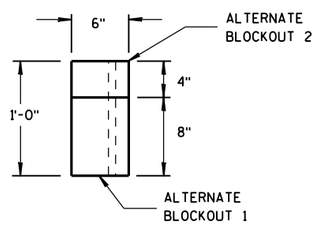
BEAM LAPPING DETAIL



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
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" 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.

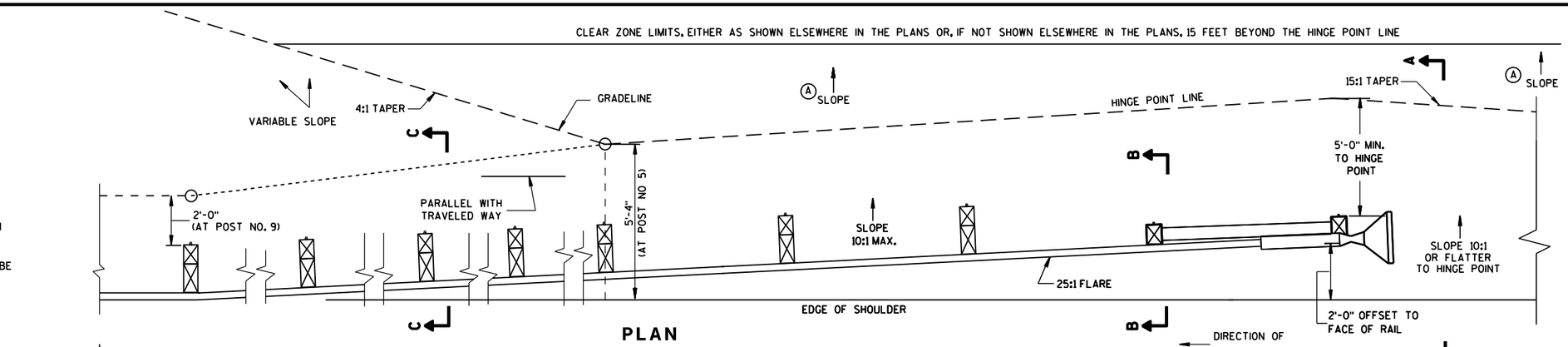
SEE SDD 14B42 FOR MORE INFORMATION.

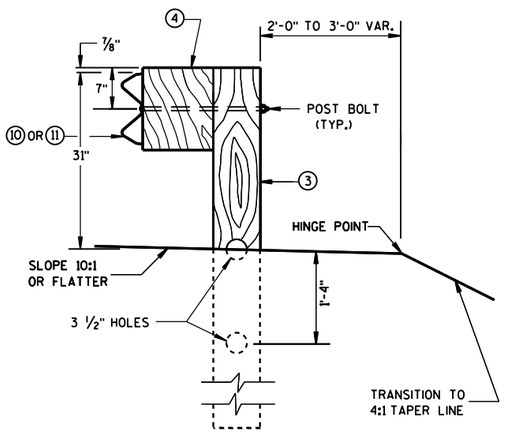
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

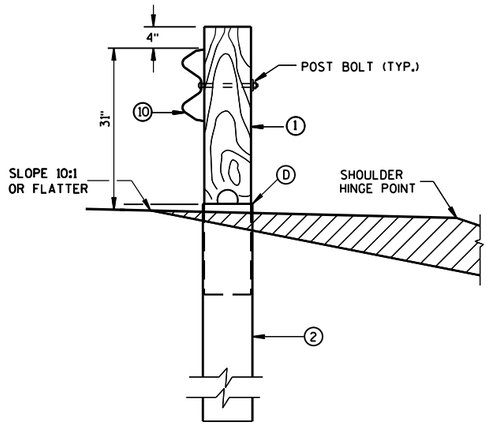
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

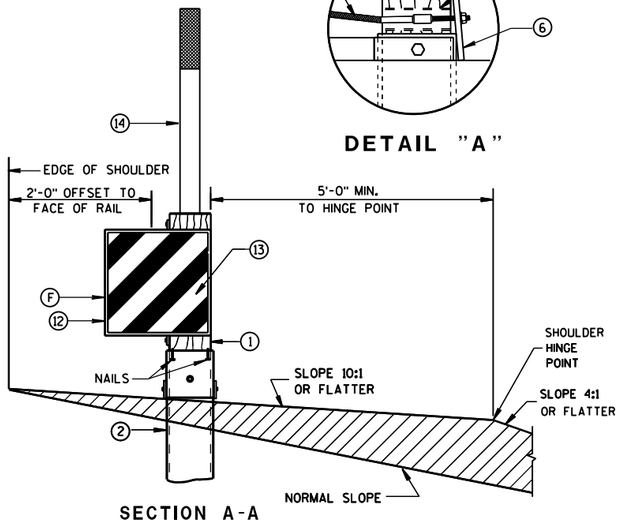




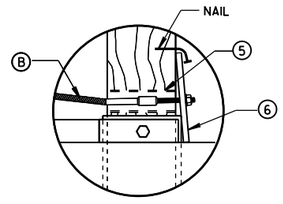
SECTION C-C
TYPICAL AT POST NOS. 3-9



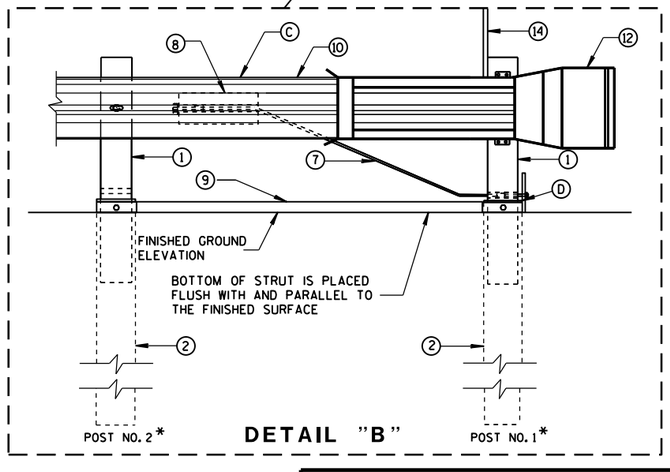
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



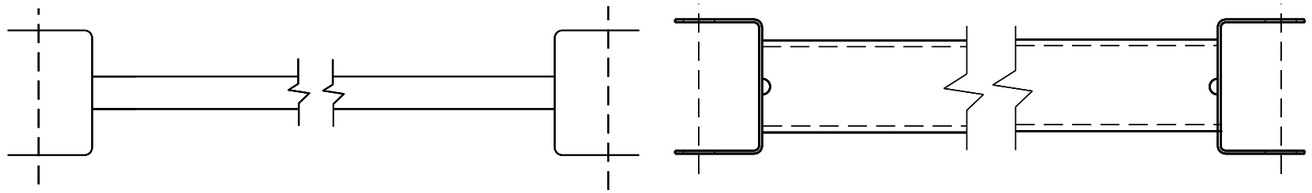
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 201

S.D.D. 14 B 44-2a

S.D.D. 14 B 44-2a

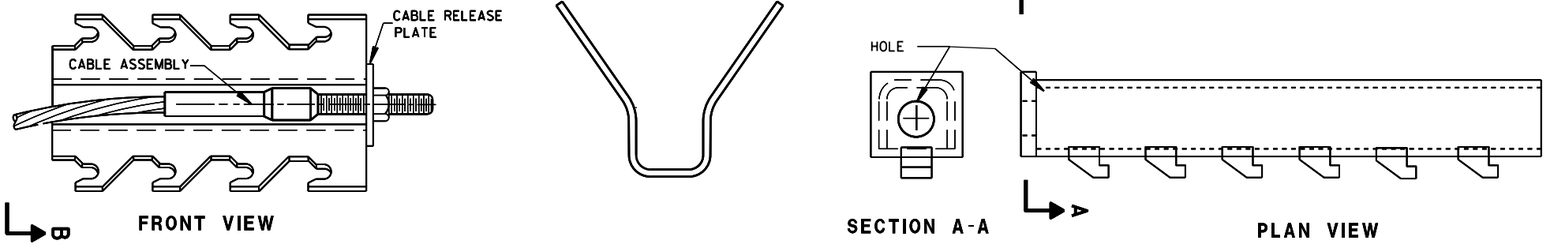


⑨ Ⓗ

GENERIC GROUND STRUT

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 F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



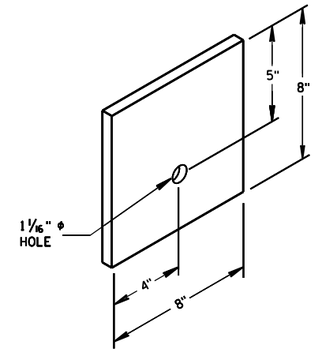
FRONT VIEW

SECTION B-B

SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX ⑧ Ⓗ



BEARING PLATE ⑥

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

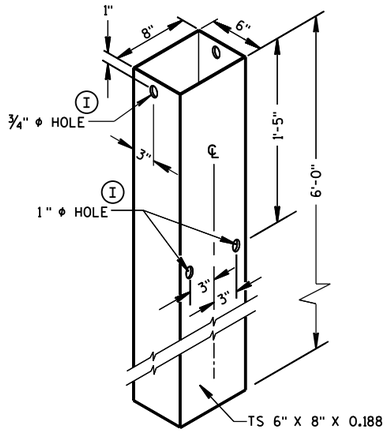
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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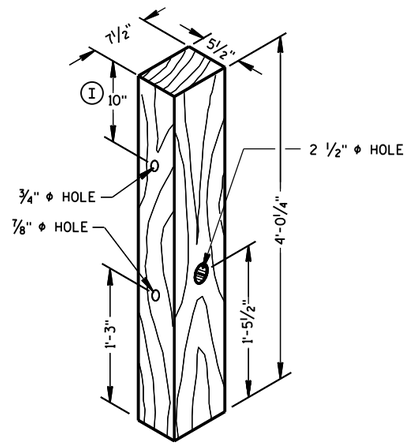
S.D.D. 14 B 44-2b

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S.D.D. 14 B 44-2b

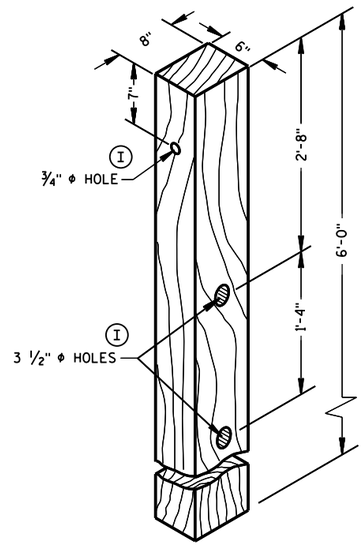


FOUNDATION TUBE (2)



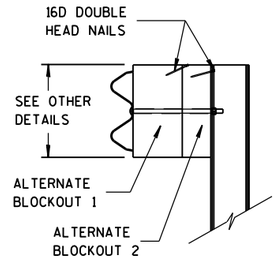
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

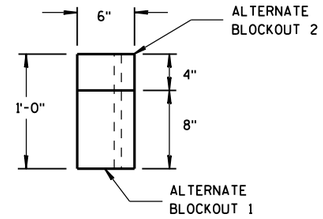


POSTS NUMBER 3-9

WOOD CRT POST (3)

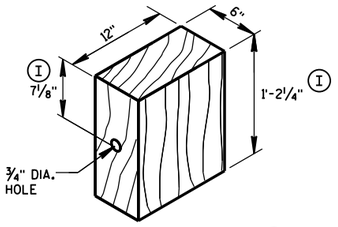


SIDE VIEW



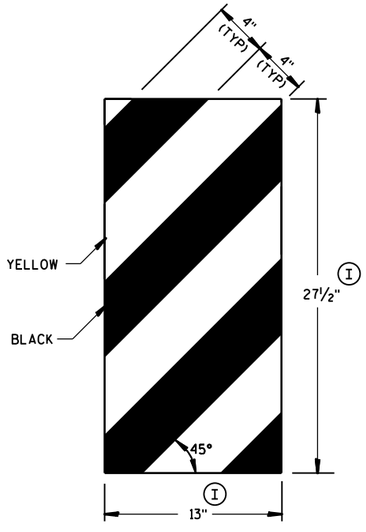
TOP VIEW

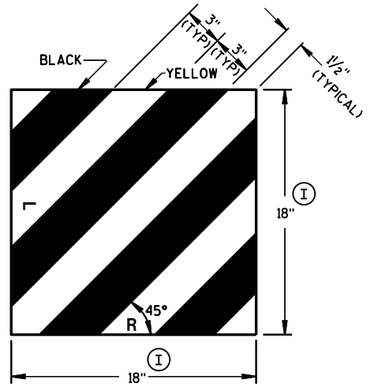
ALTERNATE WOOD BLOCKOUT DETAIL



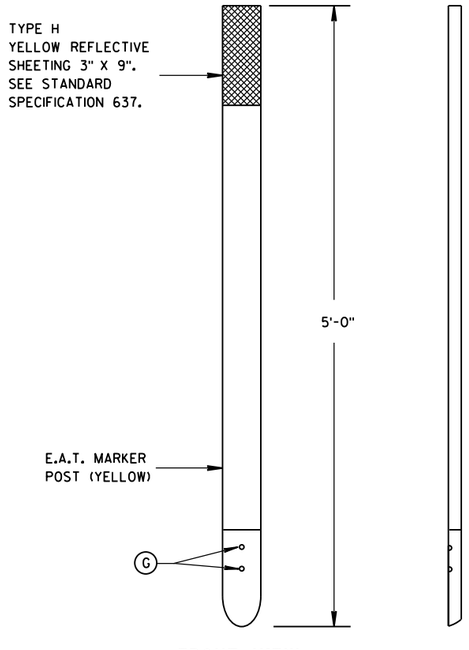
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





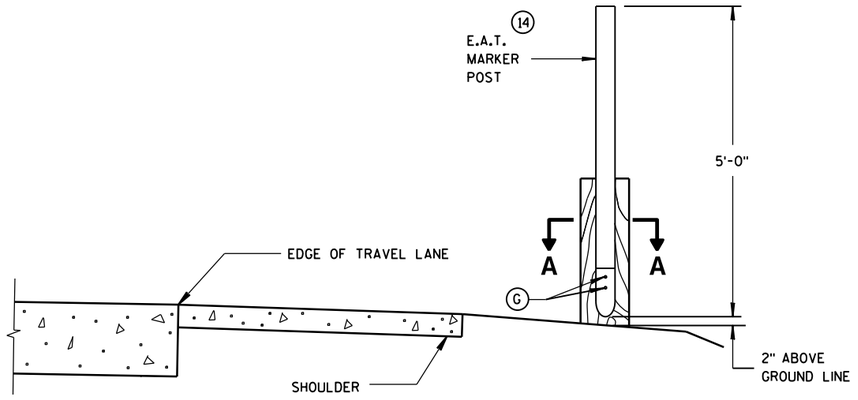
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

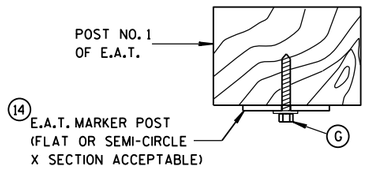
SIDE VIEW

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)

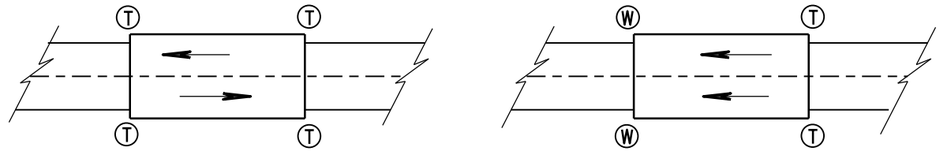
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

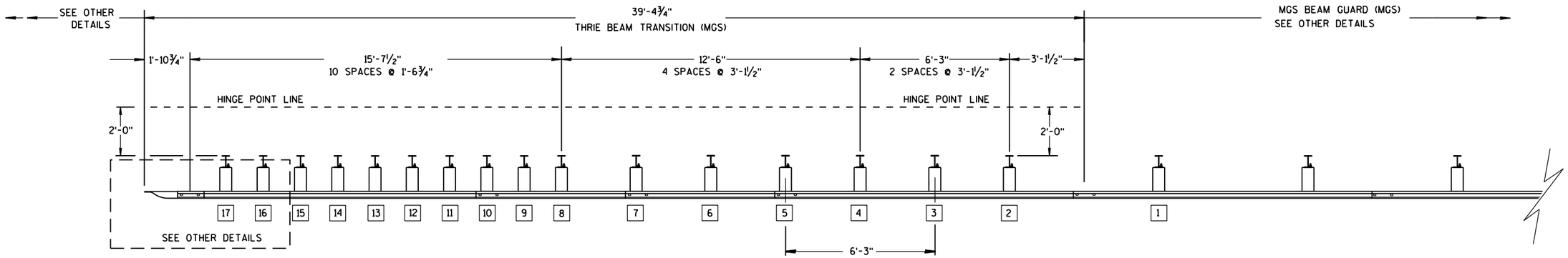
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

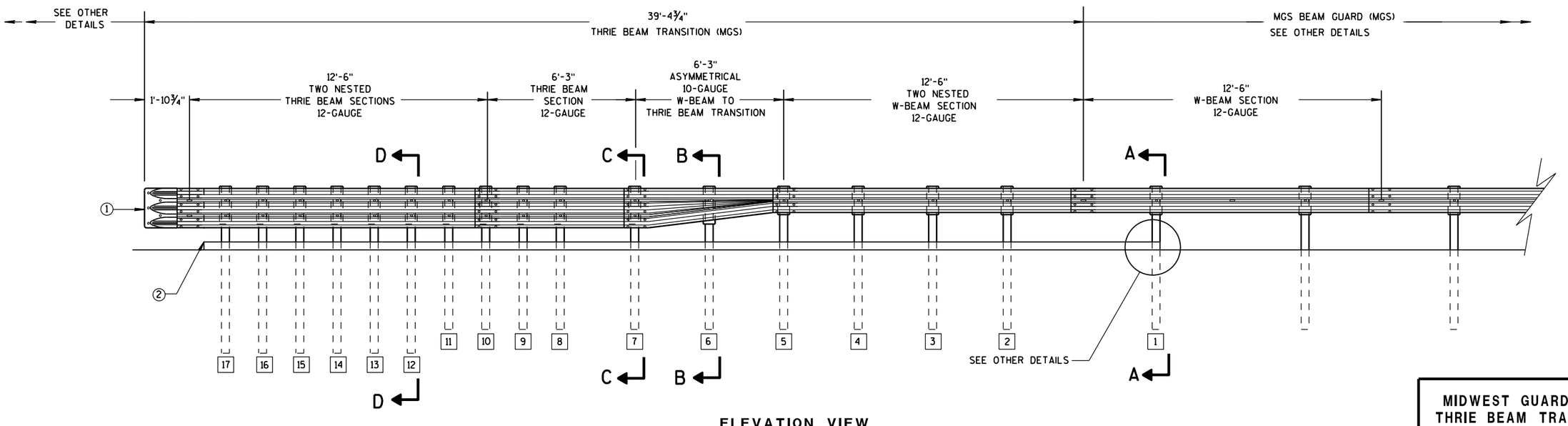
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 45-4a

6

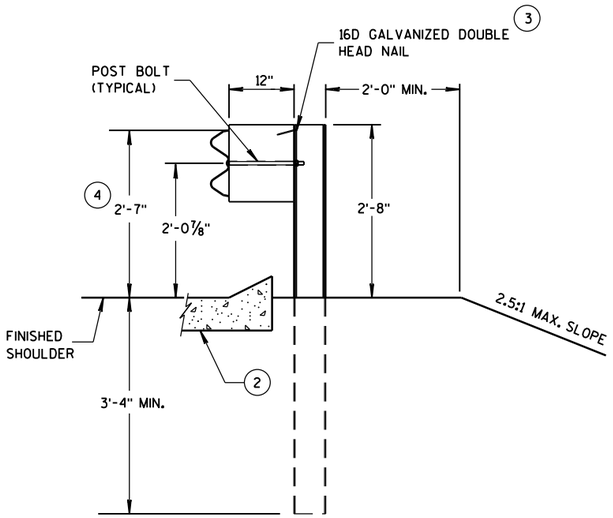
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

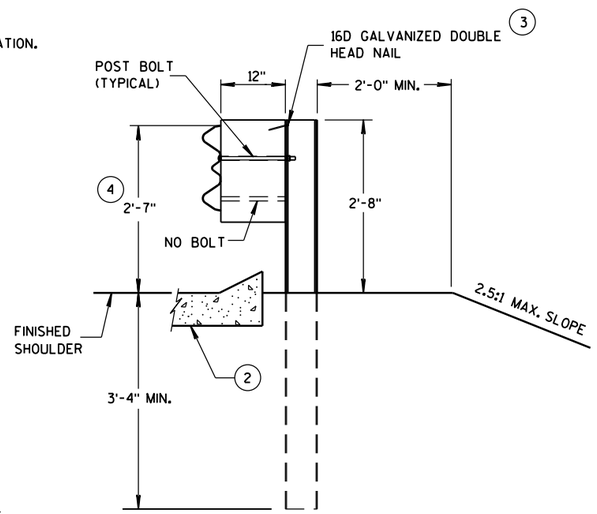
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



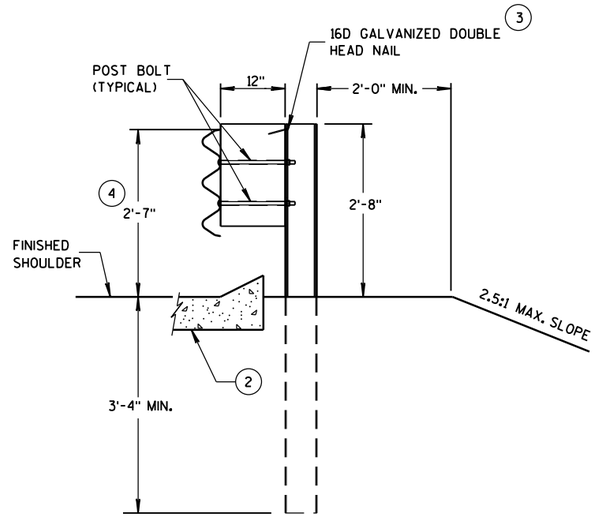
SECTION A-A

POSTS 1-5



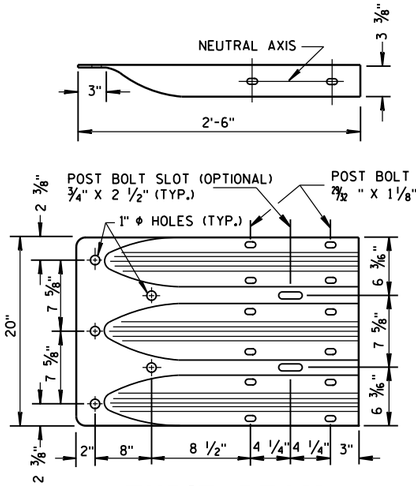
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

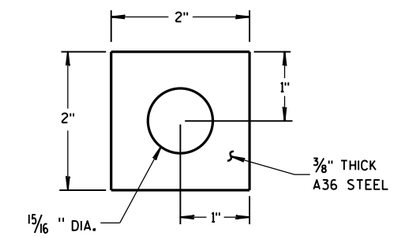
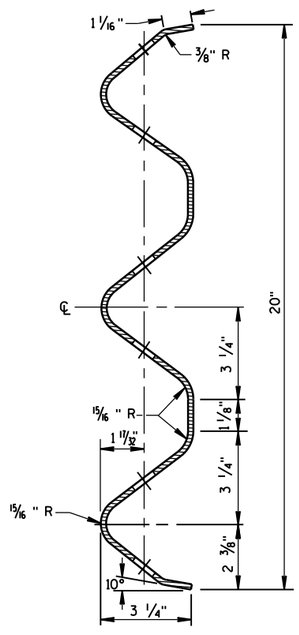
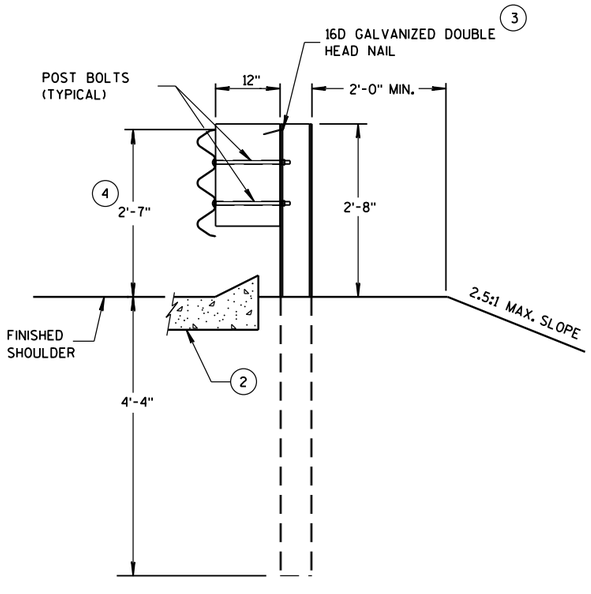


PLATE WASHER DETAIL

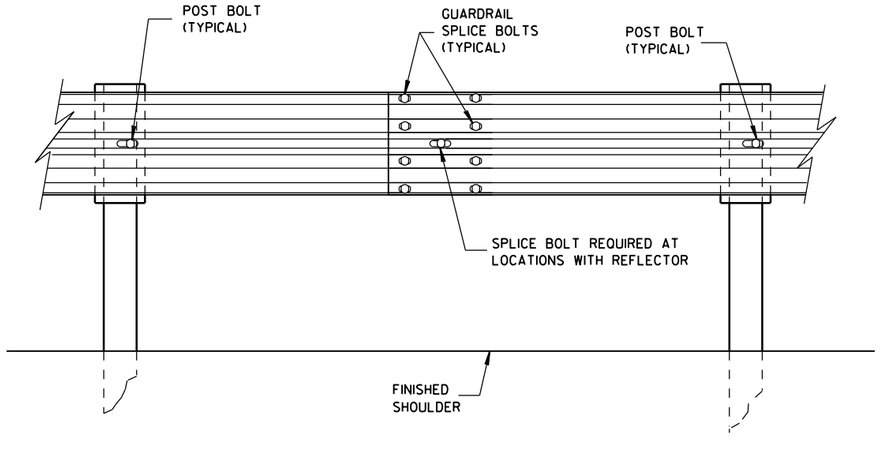


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



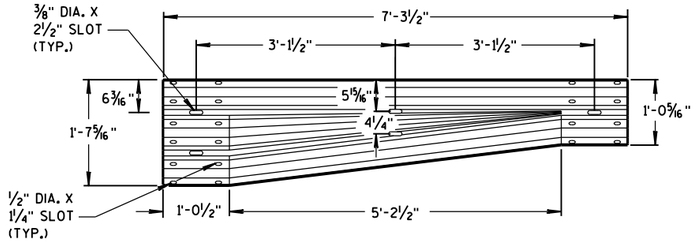
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

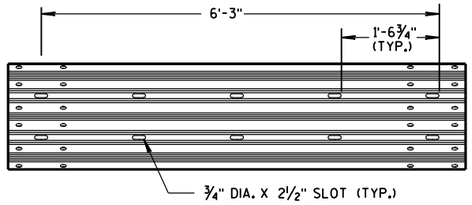
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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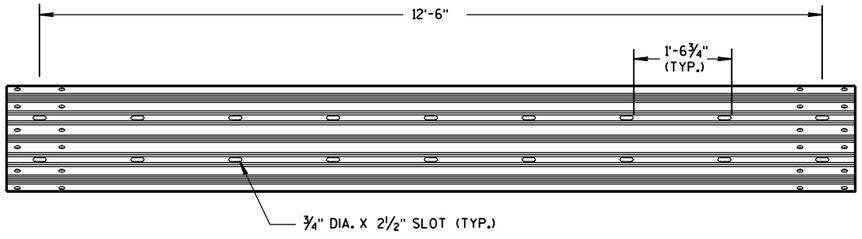
S.D.D. 14 B 45-4b



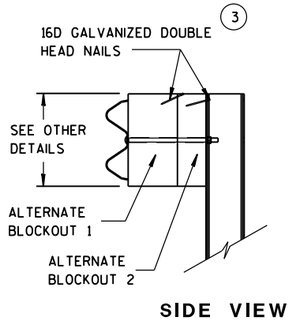
W-BEAM TO THRIE BEAM TRANSITION SECTION



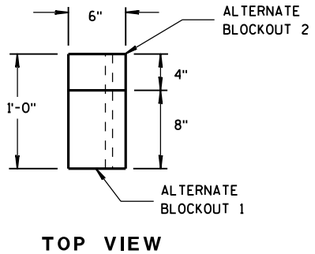
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

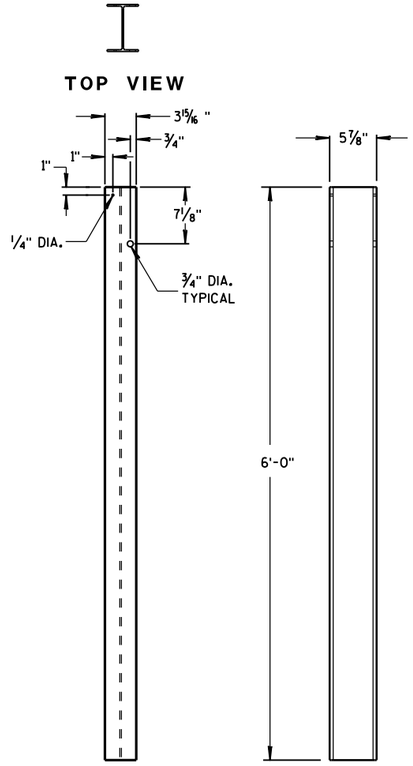


SIDE VIEW



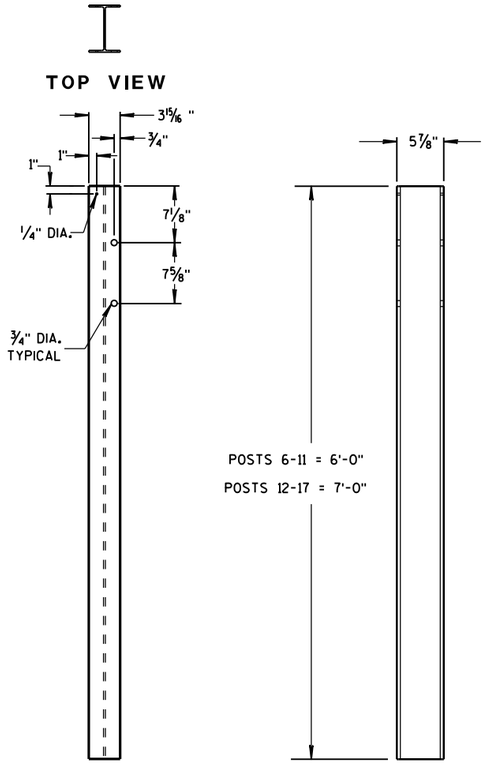
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



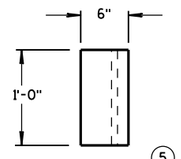
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5

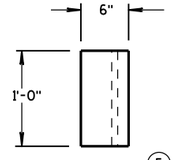


FRONT VIEW SIDE VIEW

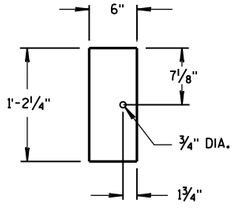
STEEL POSTS 6-17



TOP VIEW

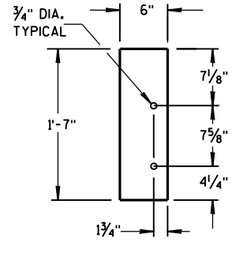


TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

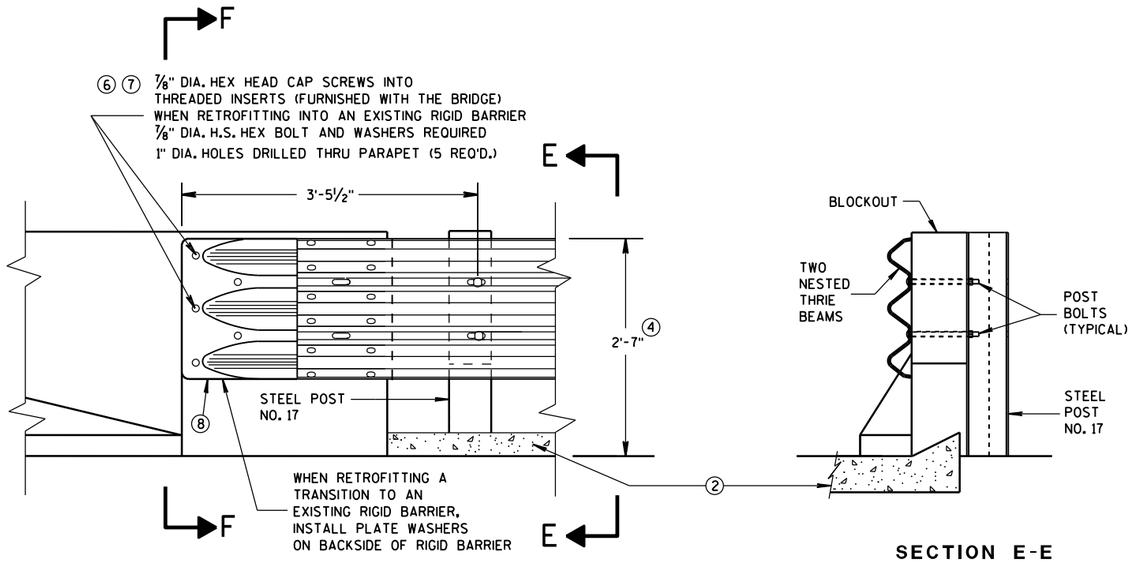
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

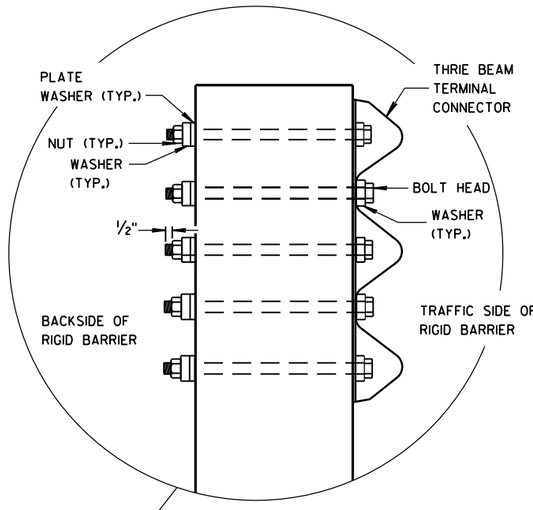
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

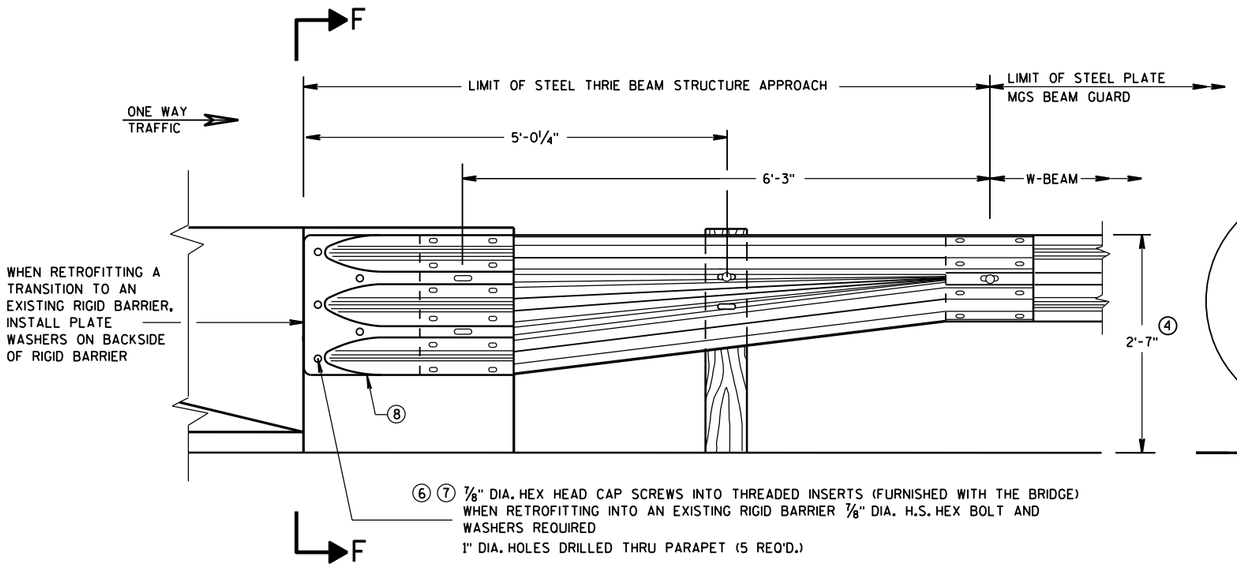
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

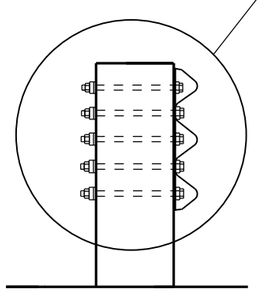
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

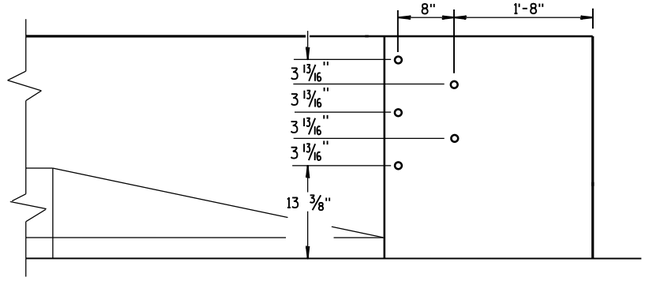




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA
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GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

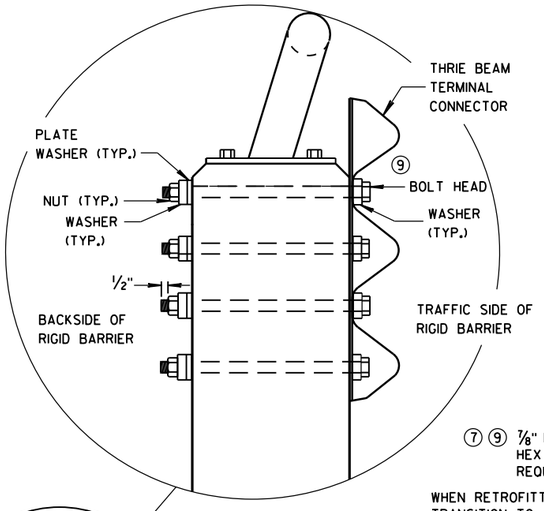
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

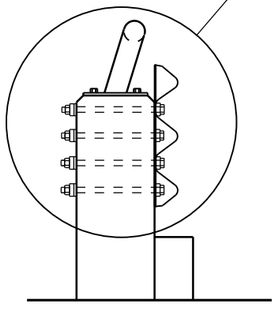
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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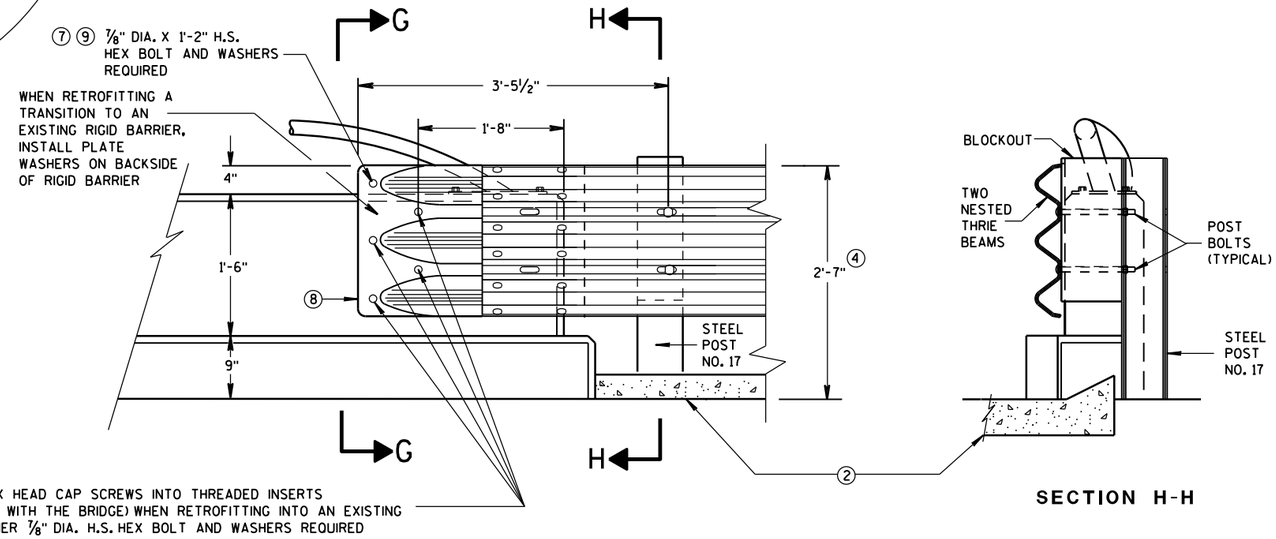
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





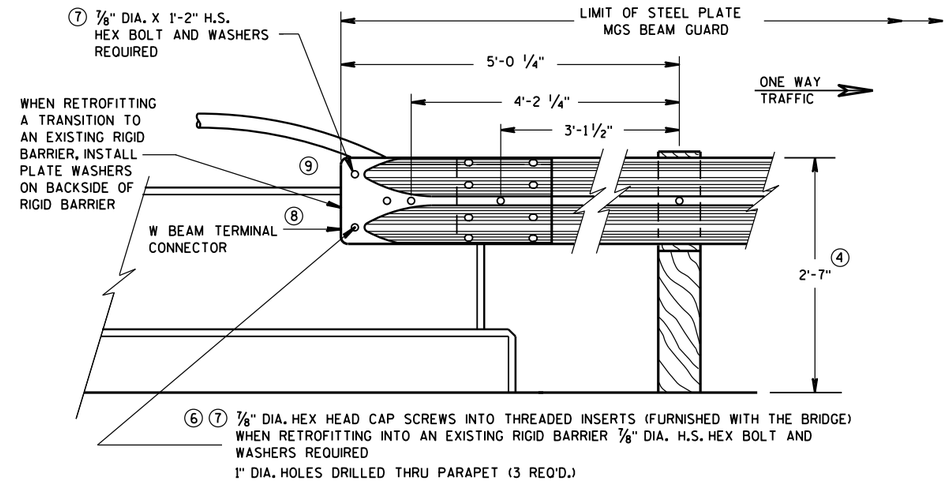
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

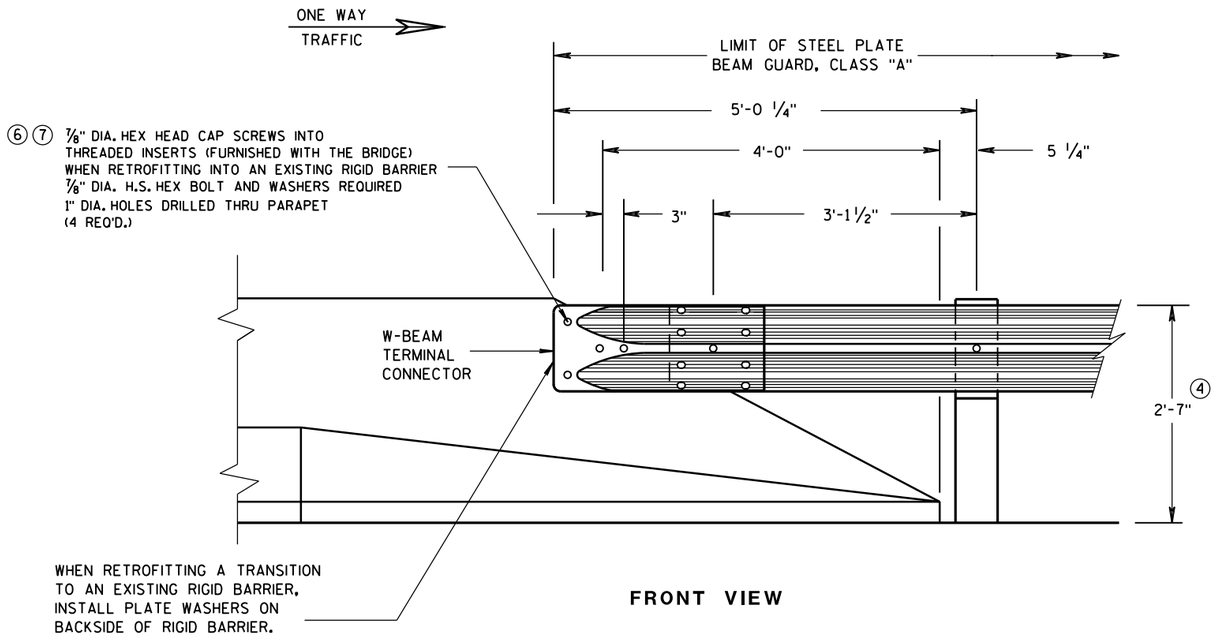
APPROVED
June, 2015 — DATE
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S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

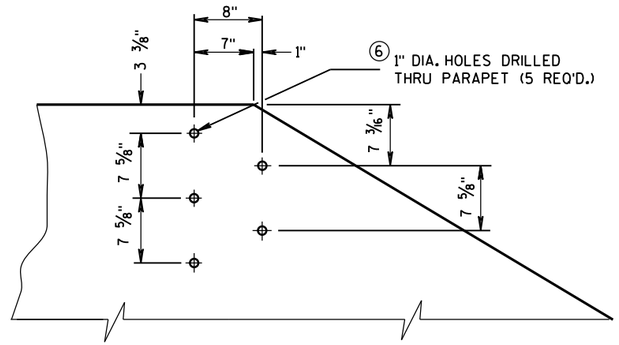
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

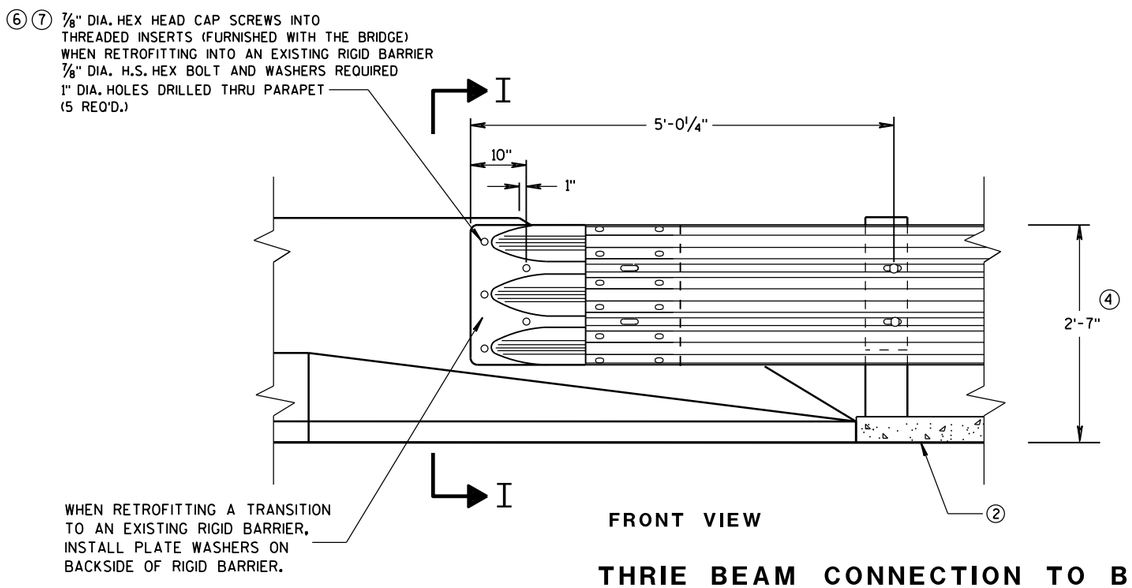
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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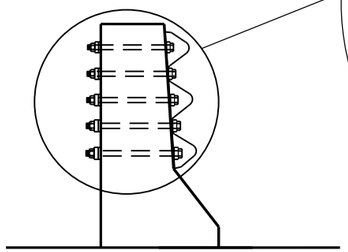
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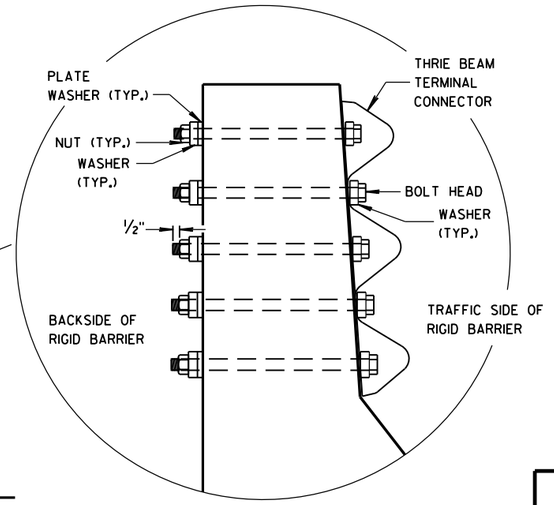
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

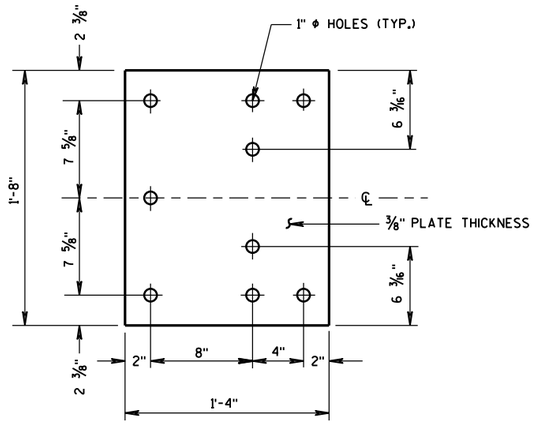
APPROVED
June, 2015 — DATE
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FHWA

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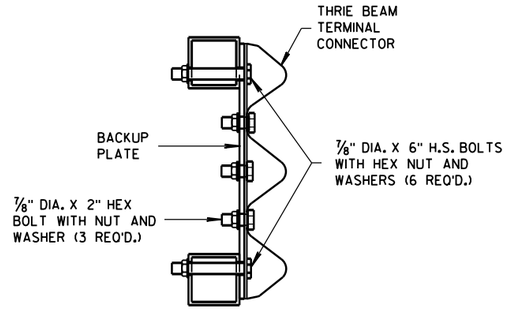
S.D.D. 14 B 45-4f

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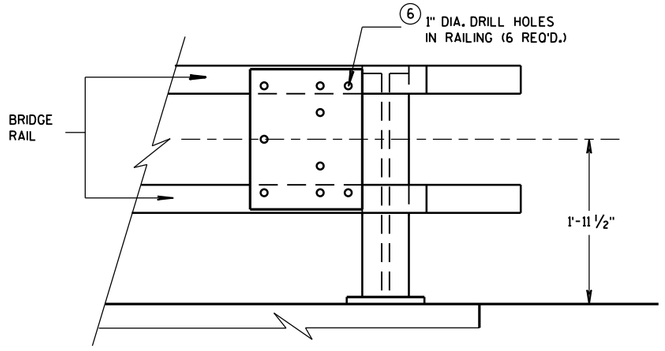
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

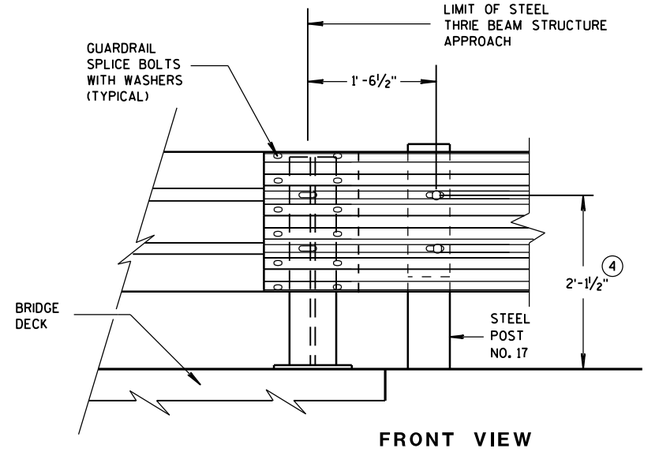


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

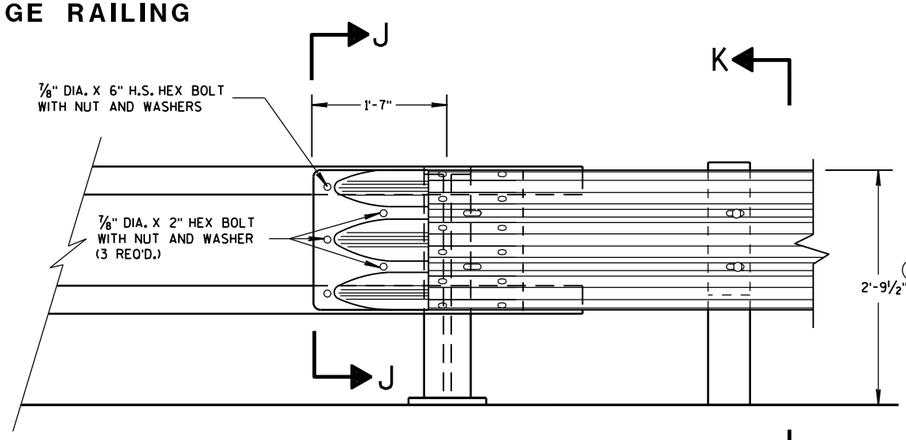
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

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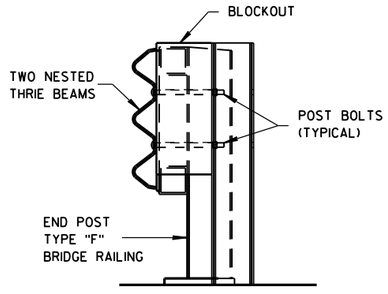


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
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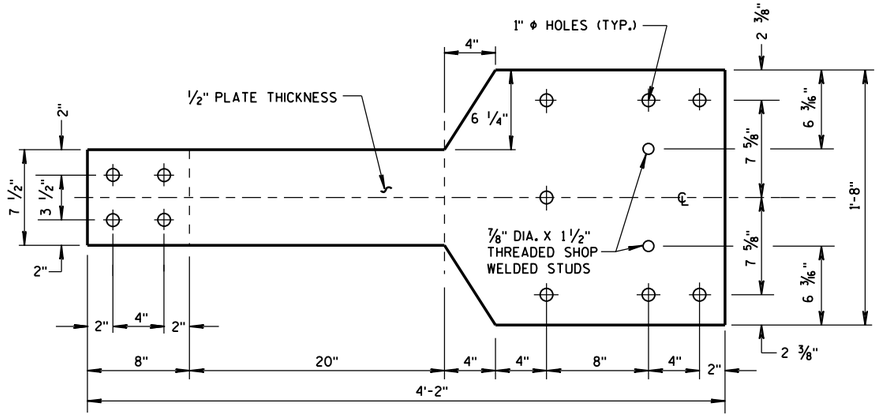
S.D.D. 14 B 45-4g

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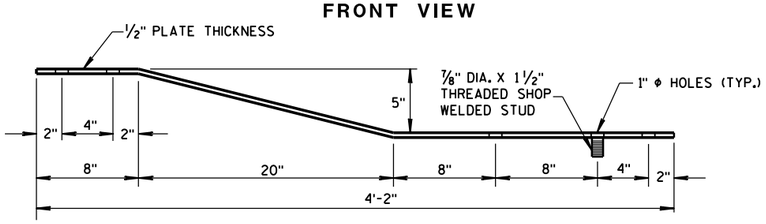
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

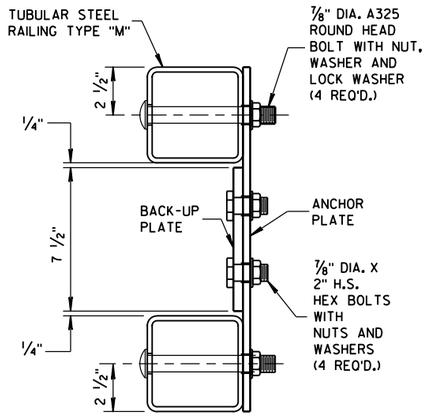


FRONT VIEW

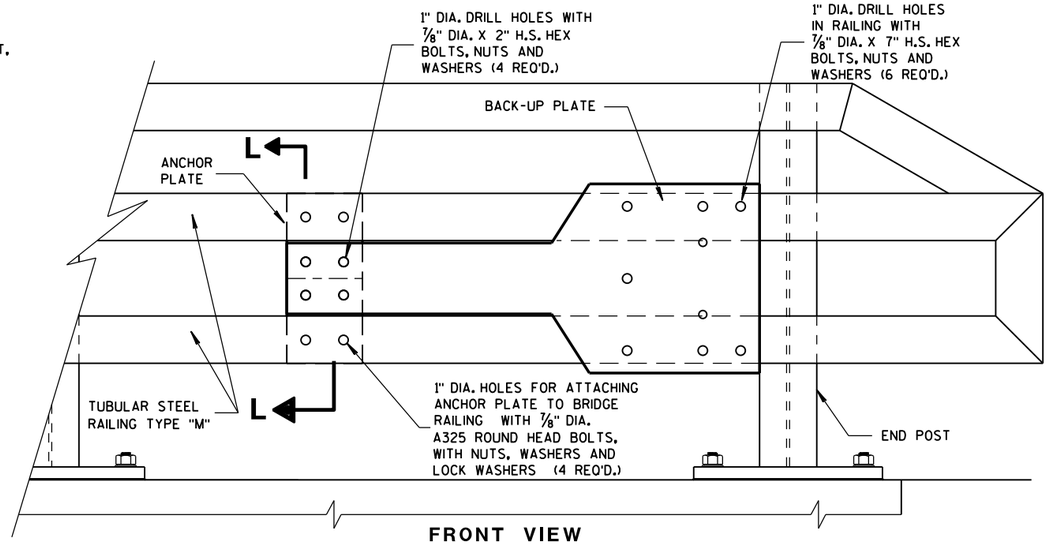


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

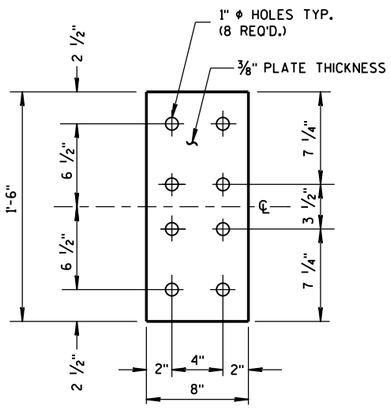


SECTION L-L



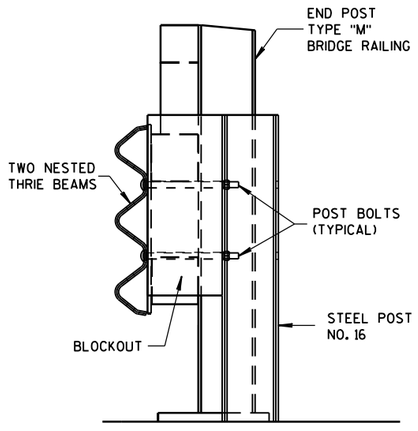
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

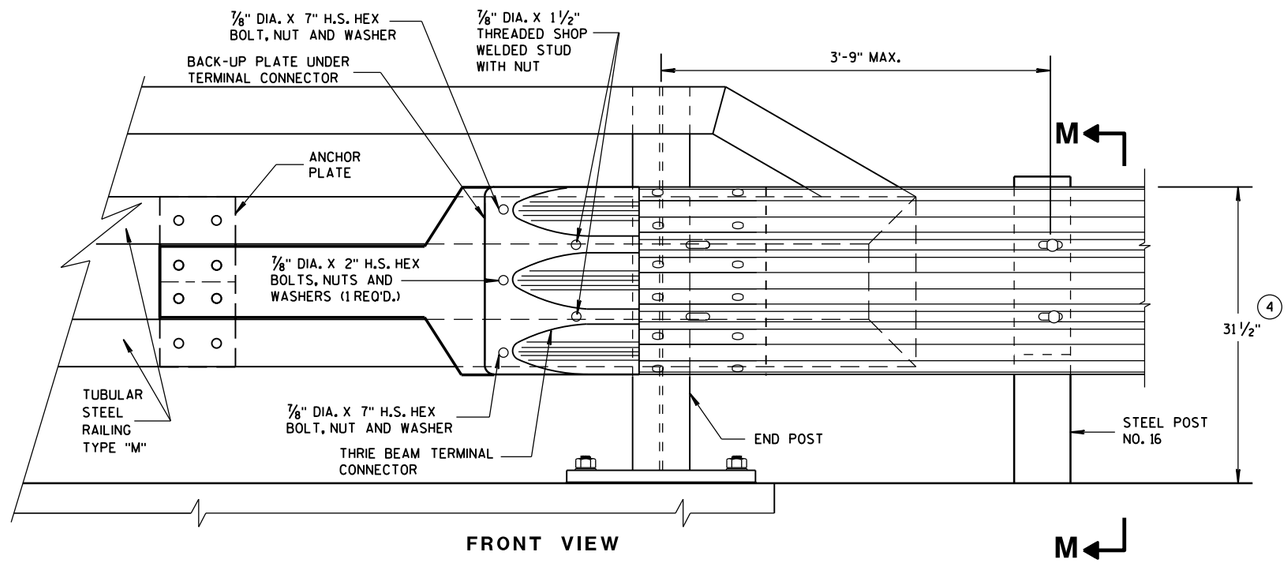


FRONT VIEW

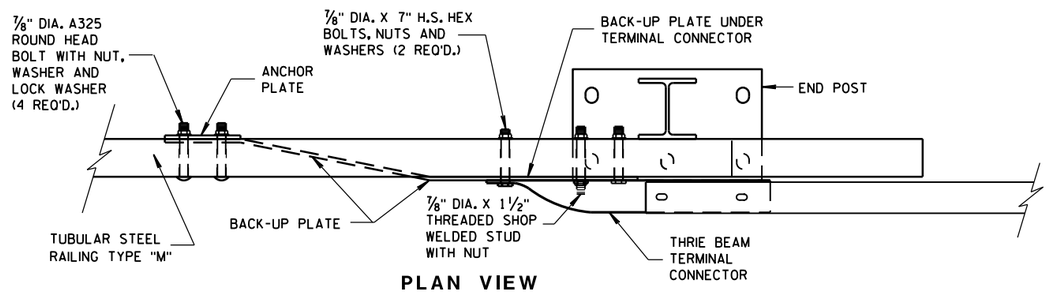
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

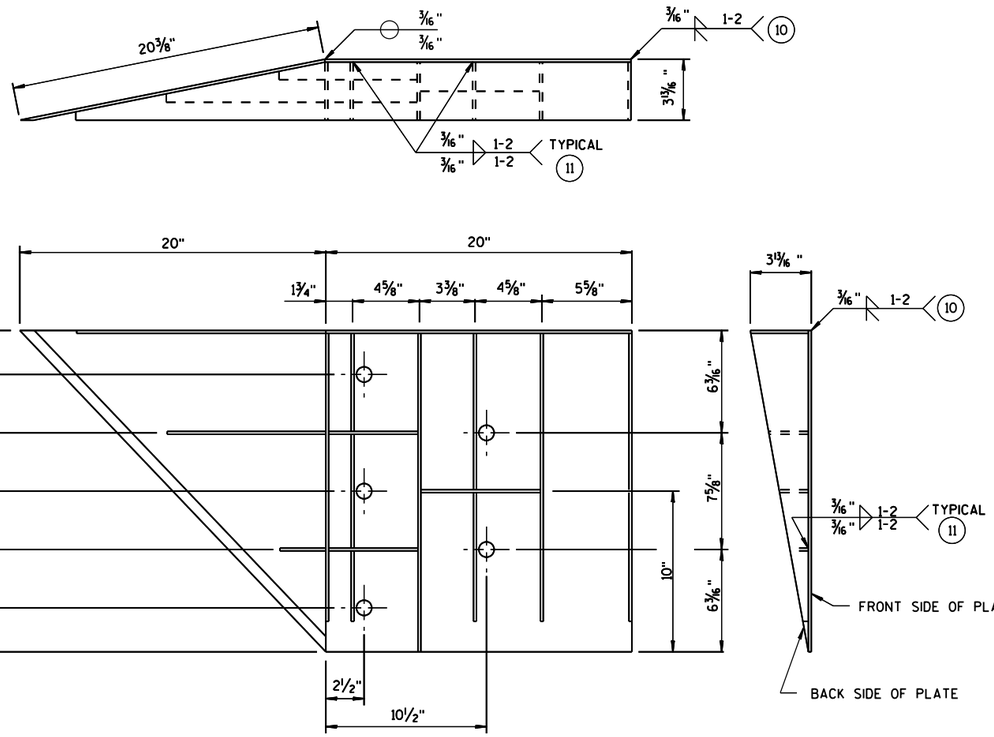
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
June, 2015	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

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S.D.D. 14 B 45-4h



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

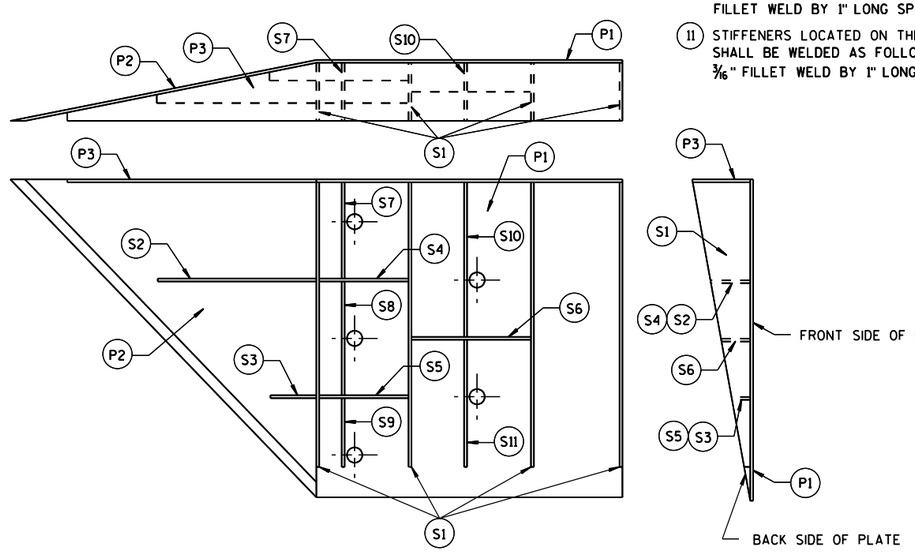


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

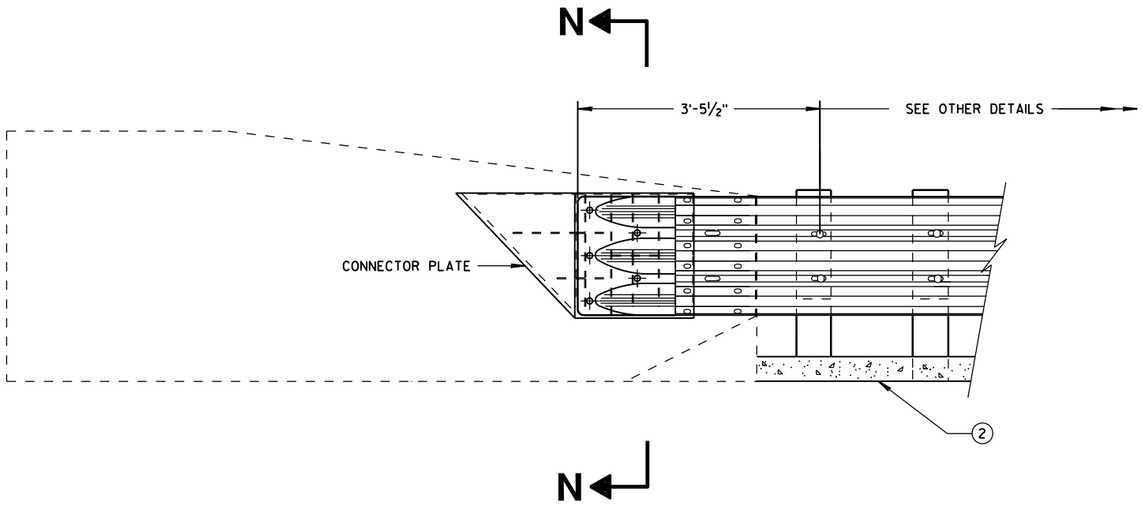
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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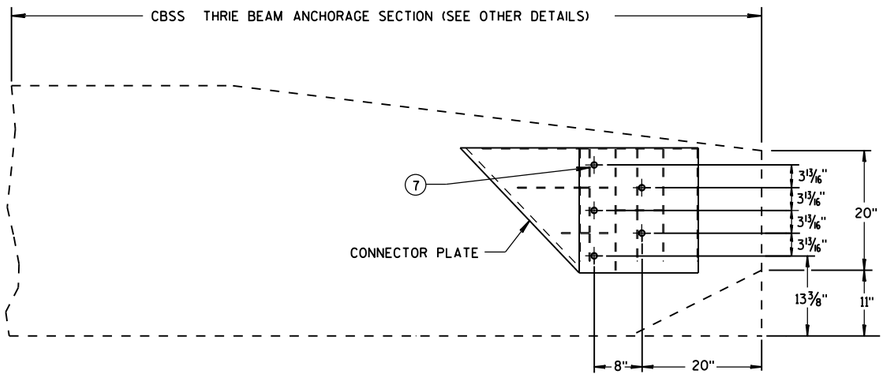
S.D.D. 14 B 45-4i

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S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



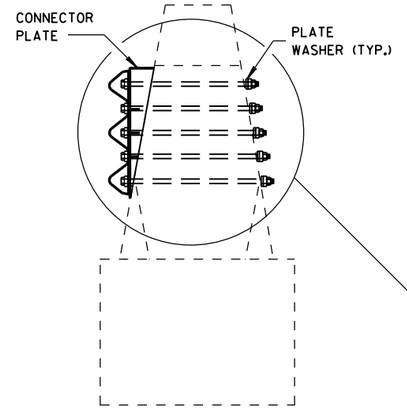
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

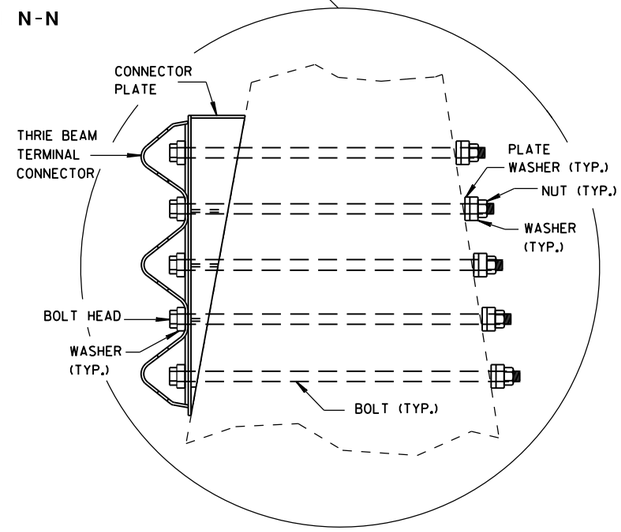
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

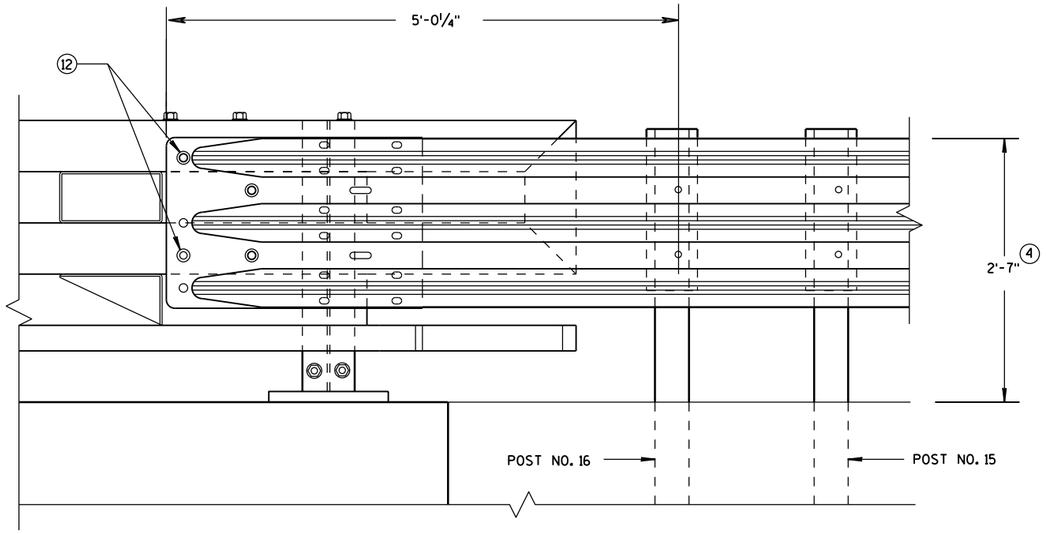
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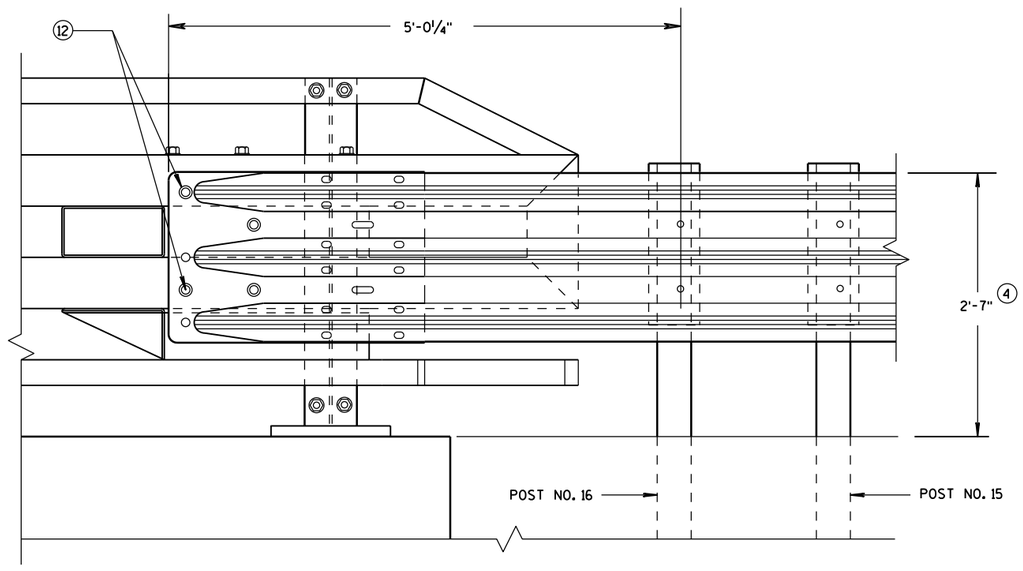
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S.D.D. 14 B 45-4j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
FHWA

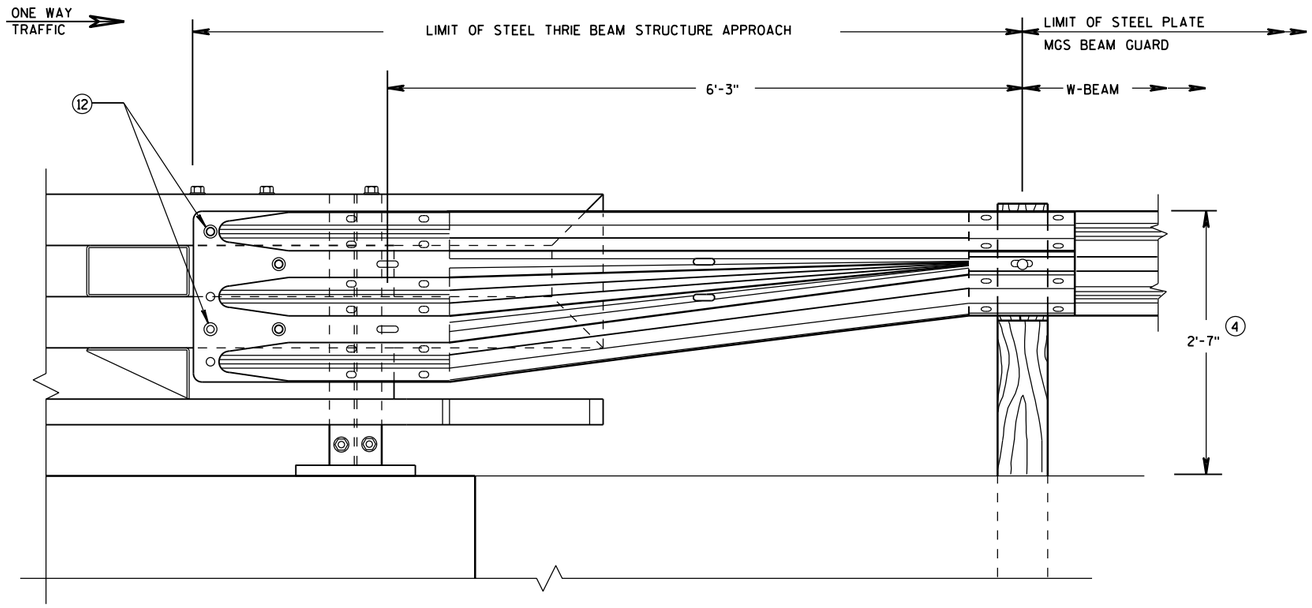
/S/ Jerry H. Zogg
ROADWAY STANDARDS D 214 NT
ENGINEER

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S.D.D. 14 B 45-4k

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S.D.D. 14 B 45-4k



FRONT VIEW

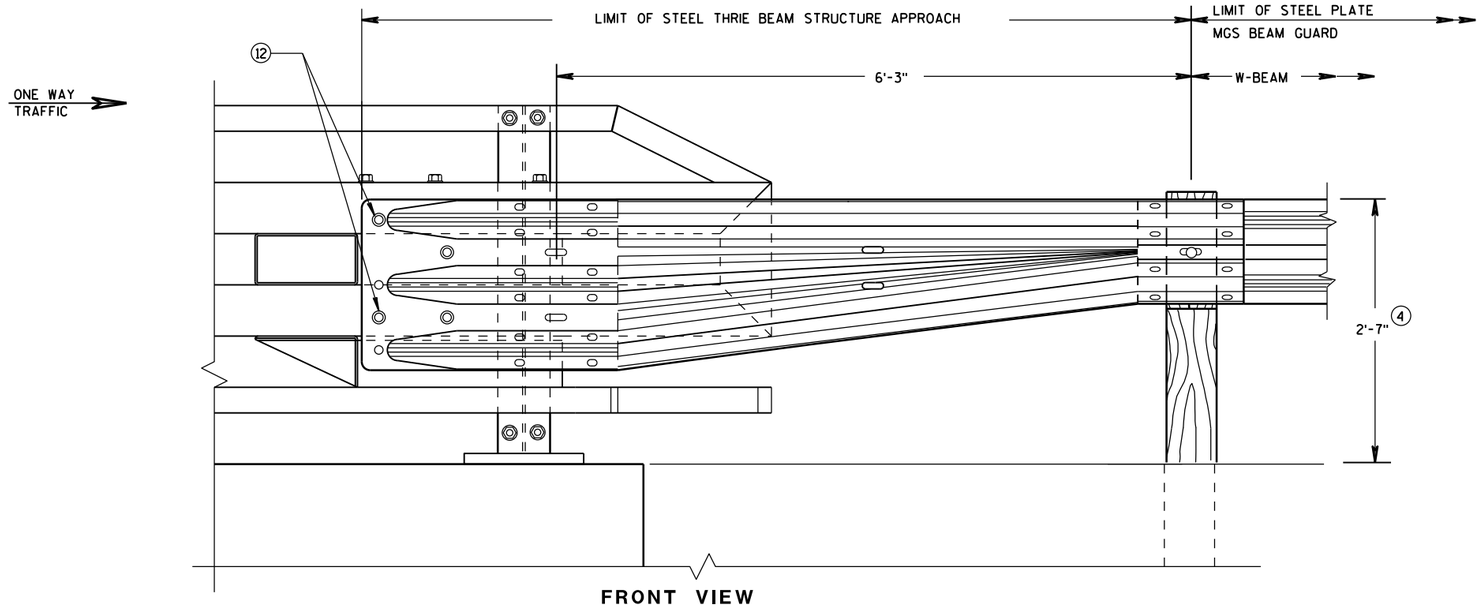
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND ½-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

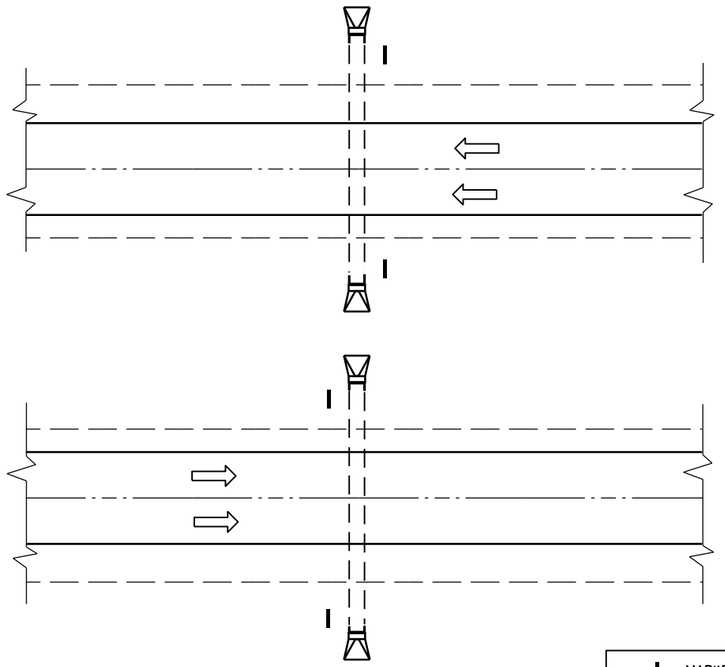
APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D 215 NT
ENGINEER
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S.D.D. 14 B 45-4L

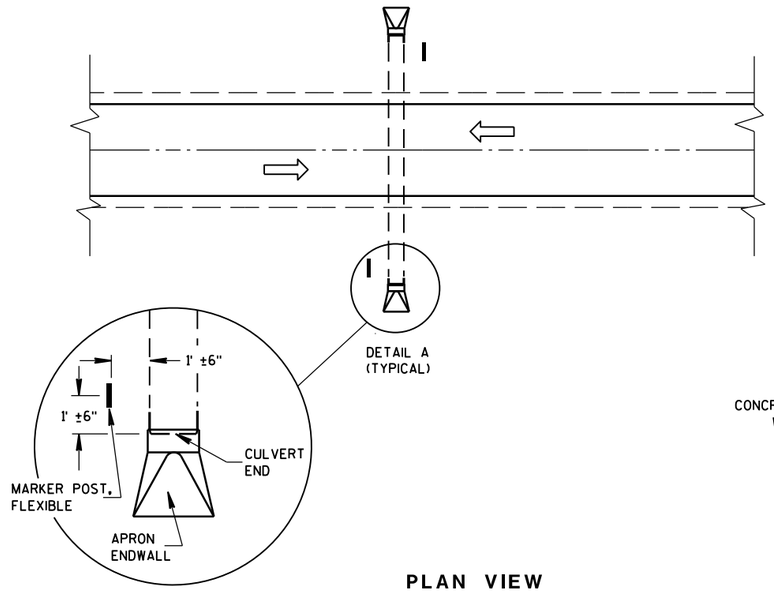
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S.D.D. 14 B 45-4L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

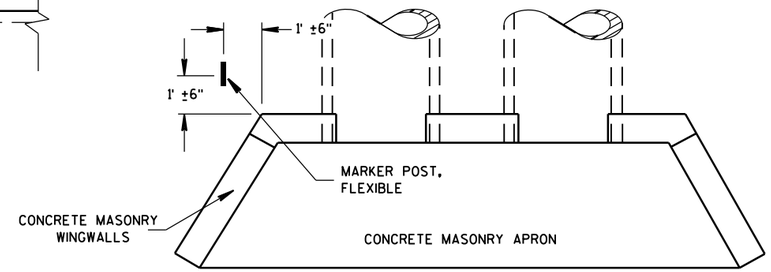
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

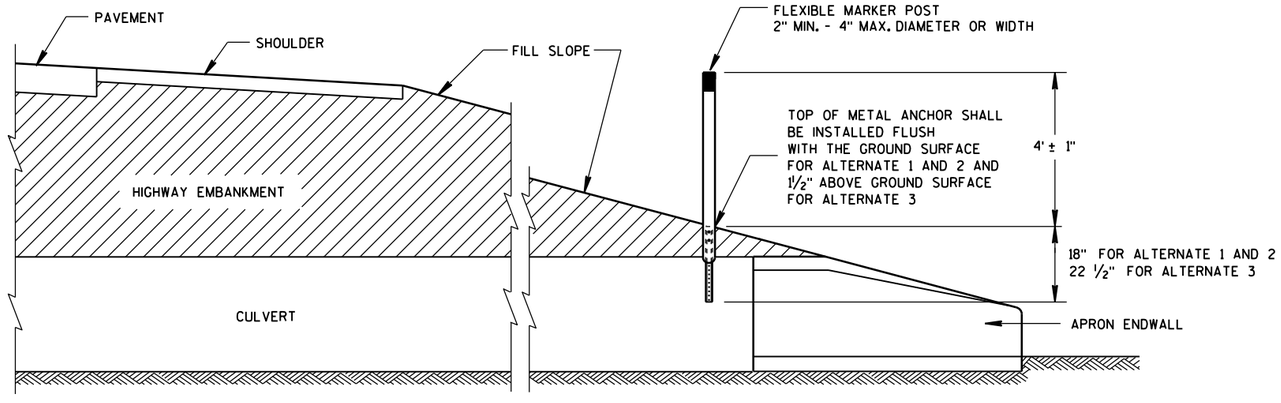
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

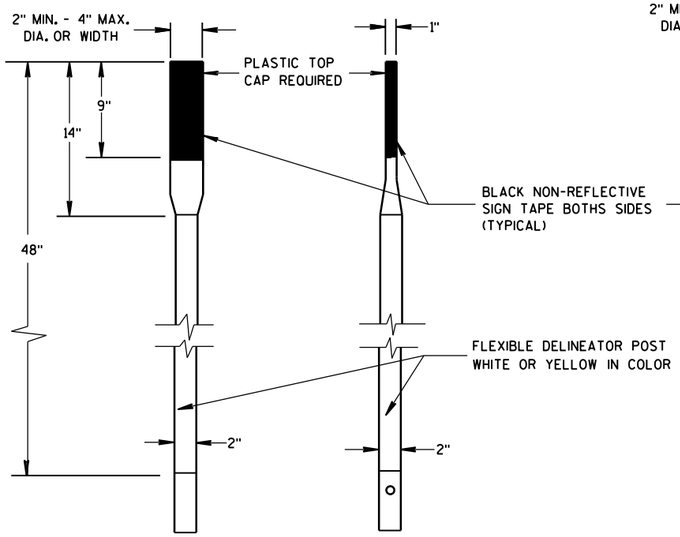
STATE OF WISCONSIN
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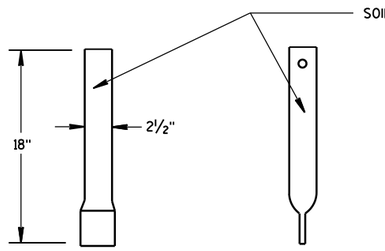
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S.D.D. 15 A 3-2a

6

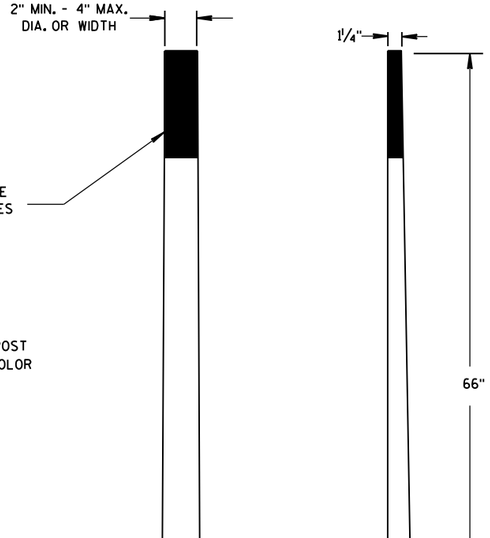
S.D.D. 15 A 3-2a





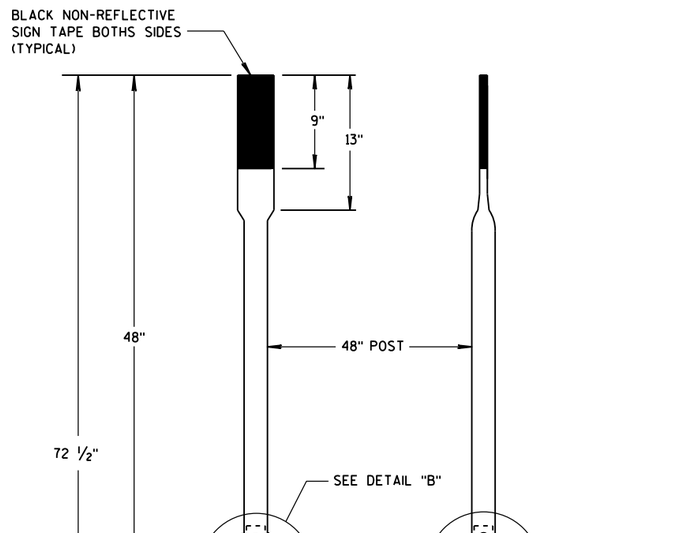
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

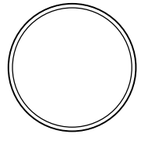
ALTERNATE 2



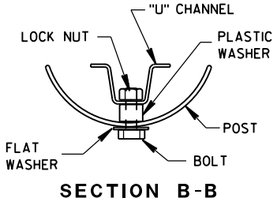
FRONT VIEW SIDE VIEW

ALTERNATE 3

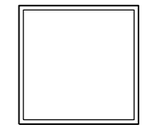
FLEXIBLE MARKER POSTS



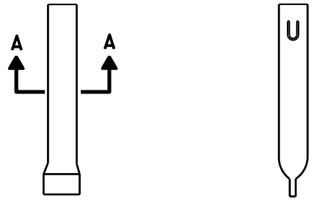
SECTION A-A



SECTION B-B

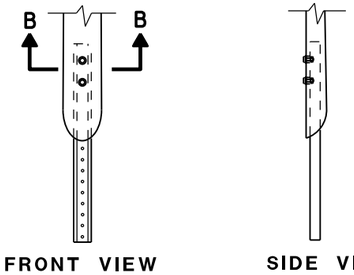


SECTION C-C



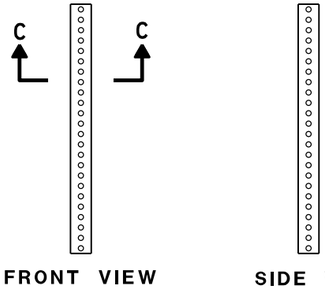
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

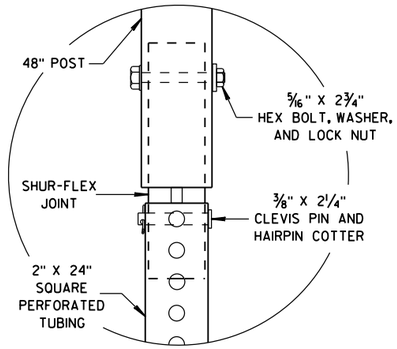
ALTERNATE 2



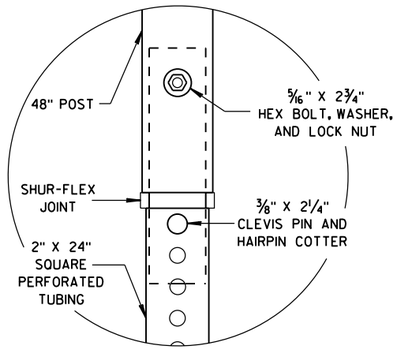
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

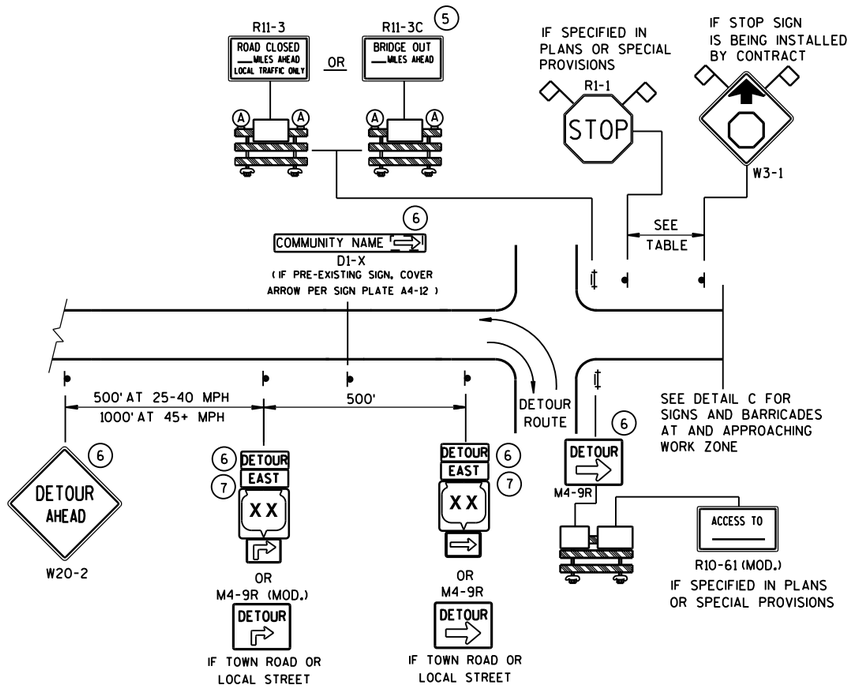
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
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FHWA

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S.D.D. 15 A 3-2b

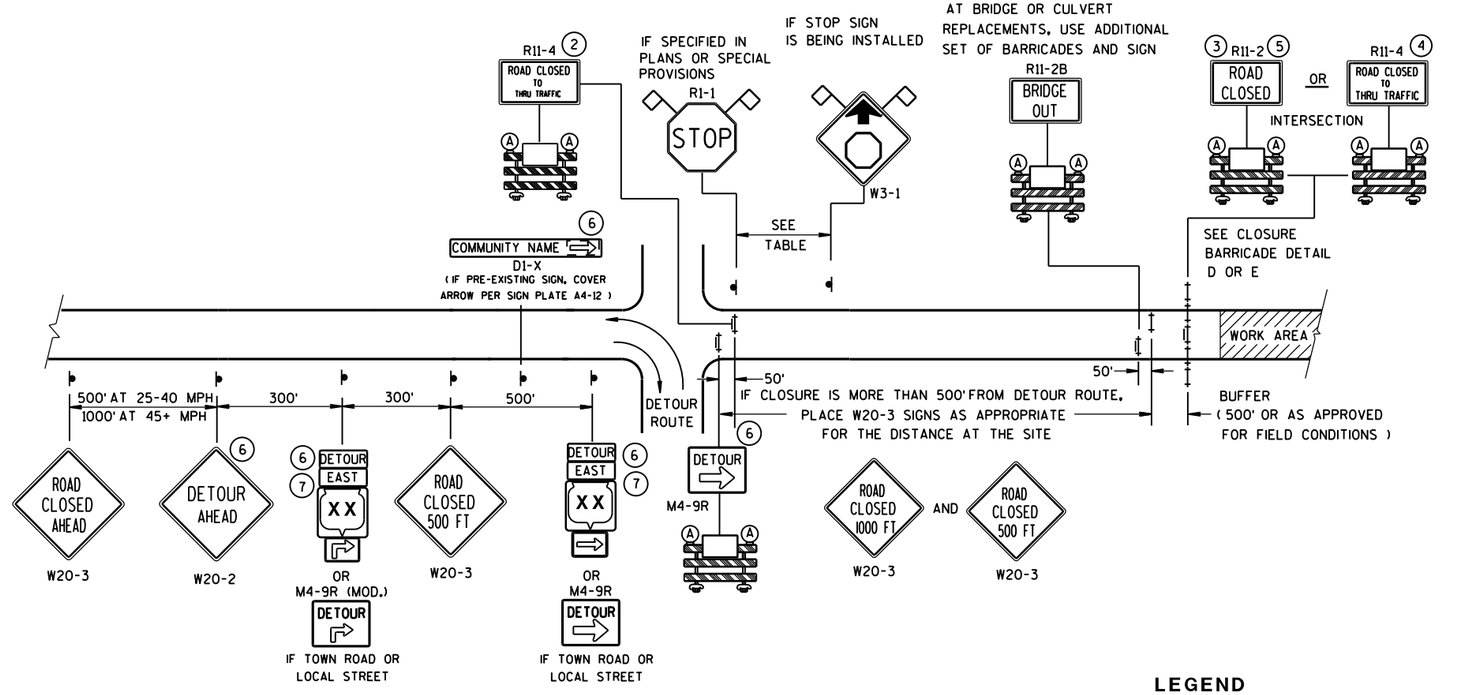
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S.D.D. 15 A 3-2b



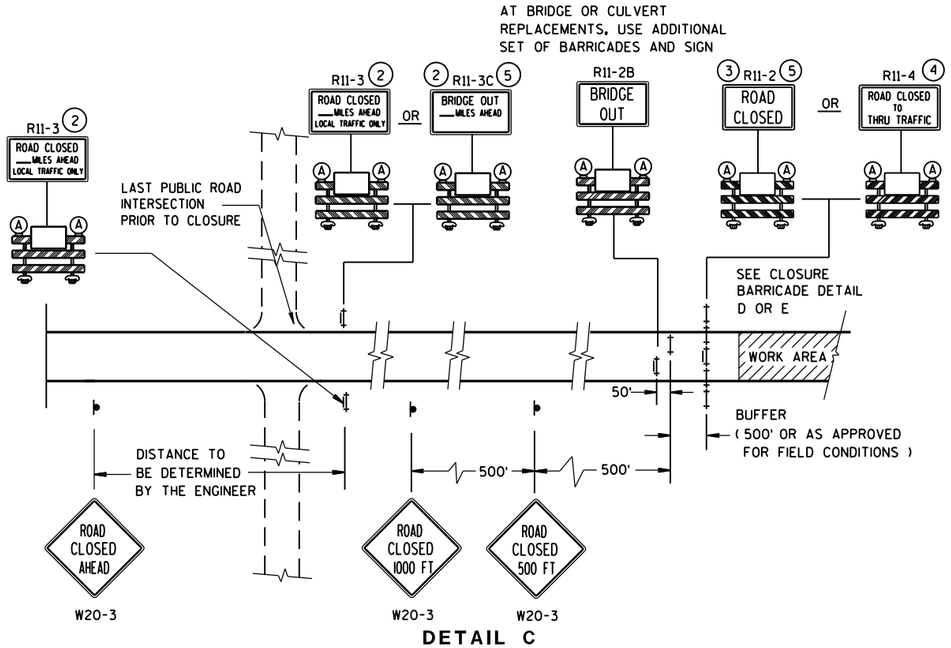
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

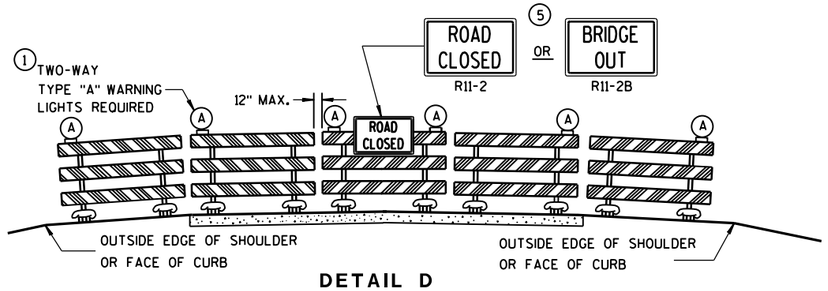
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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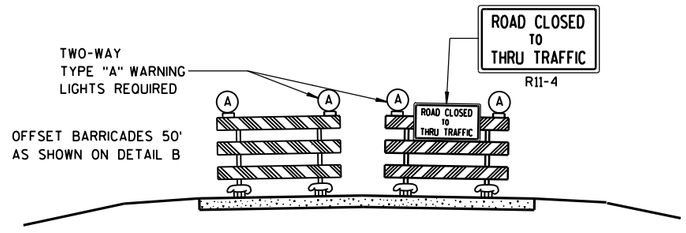
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 2-5b

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

GENERAL NOTES

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

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

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

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

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

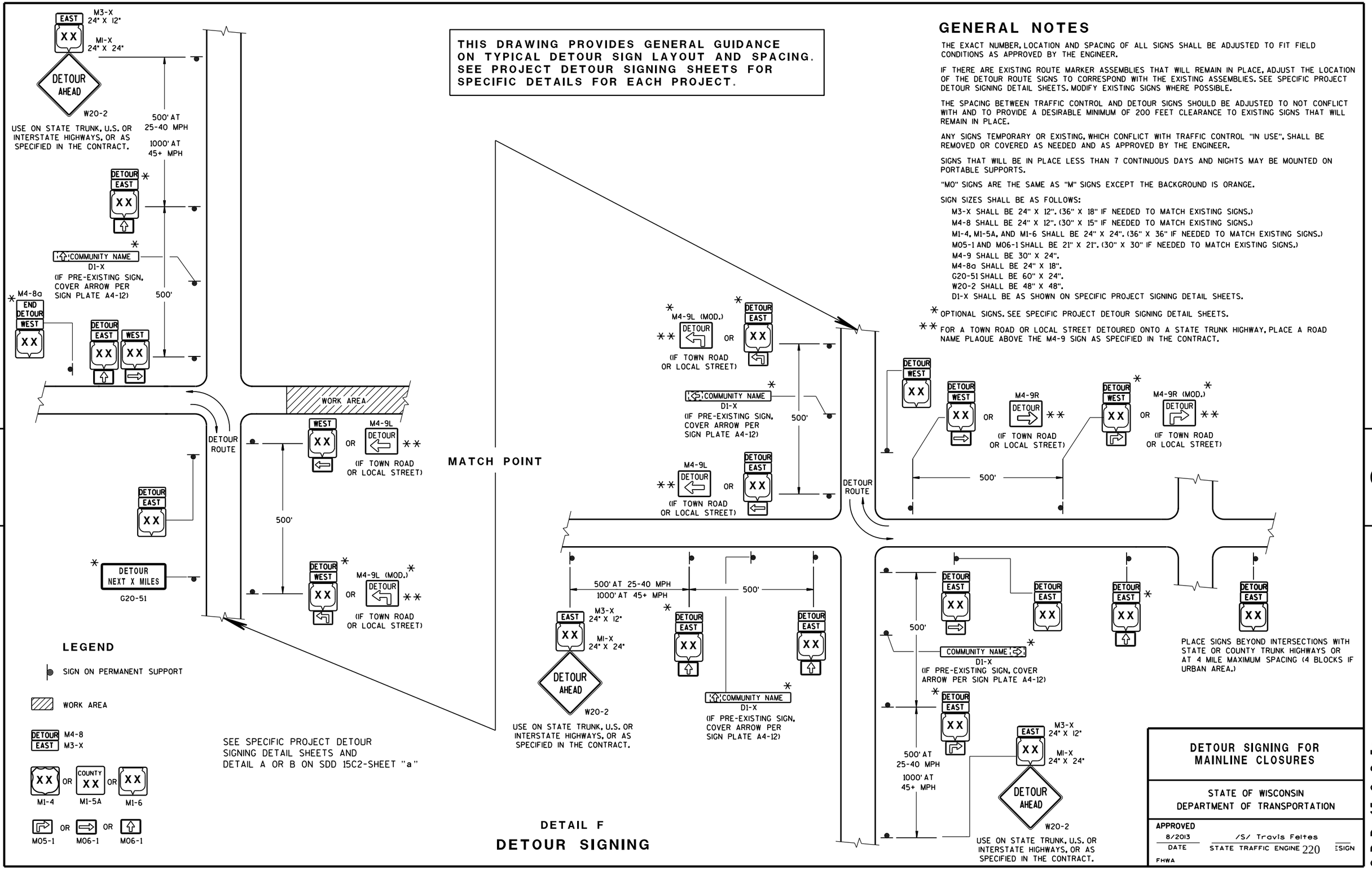
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



LEGEND

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

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

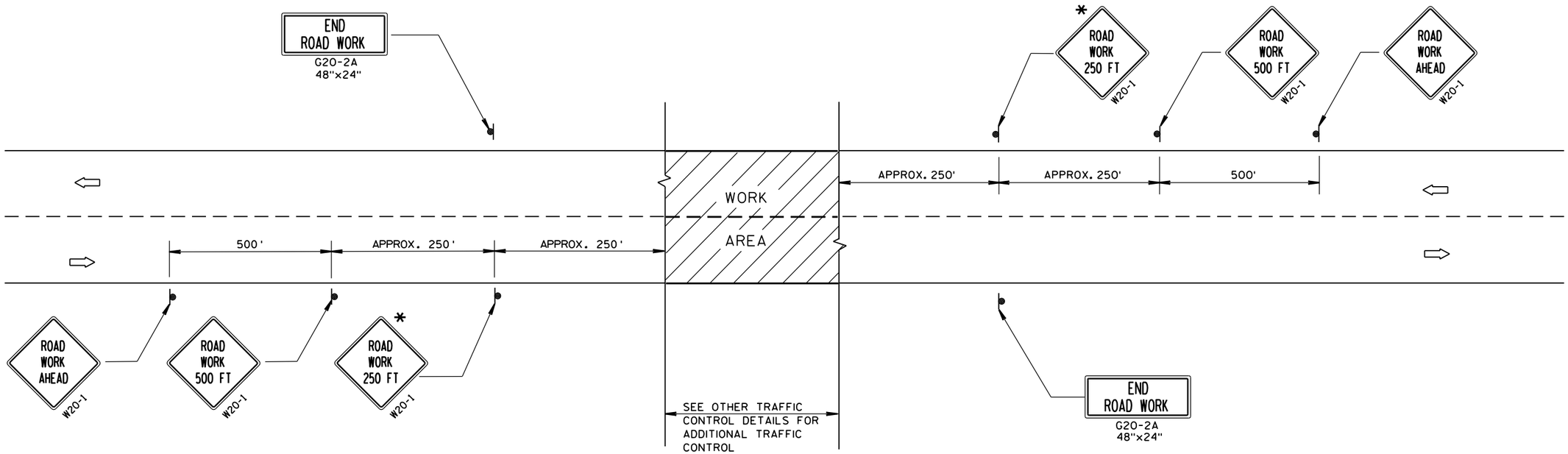
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

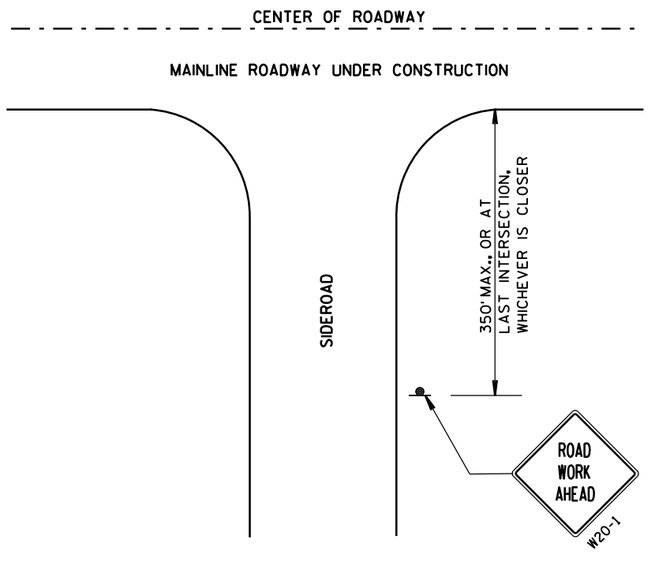
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 C 2-5c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA

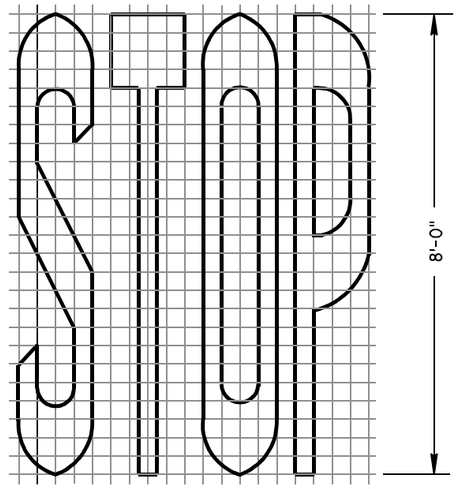
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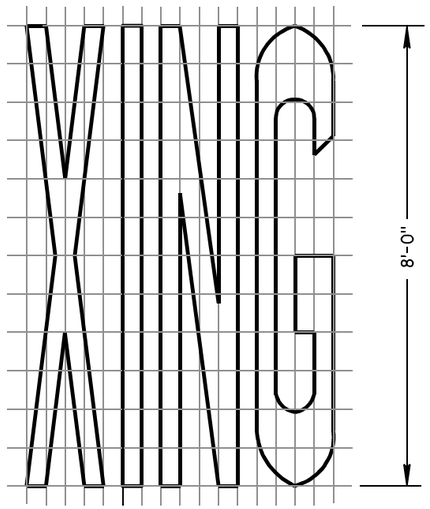
S.D.D. 15 C 5-2

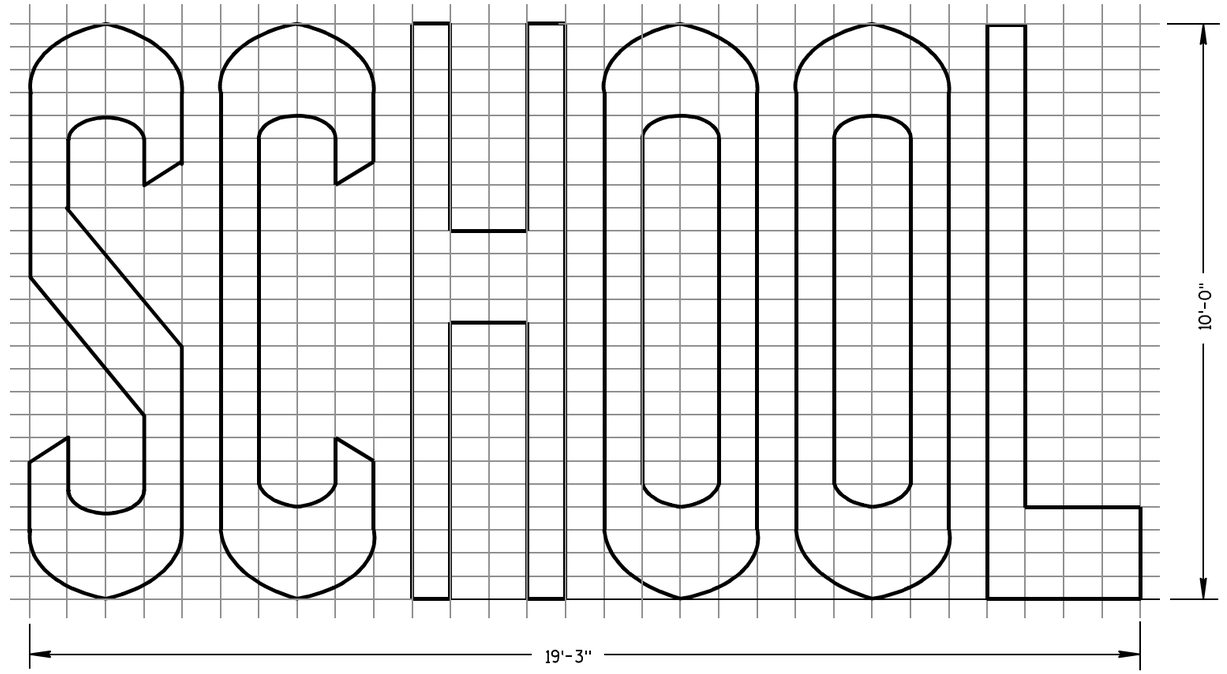
GENERAL NOTES

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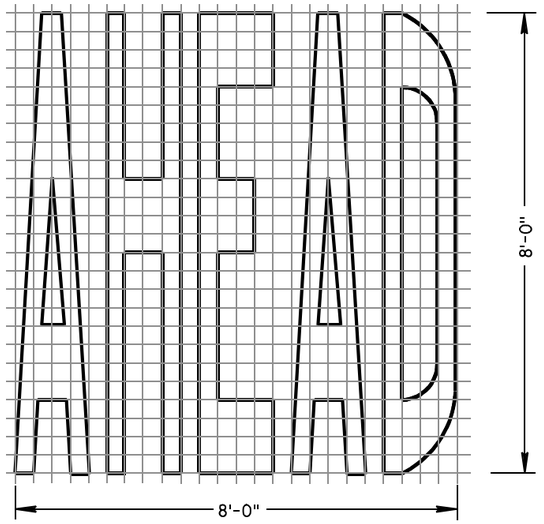
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

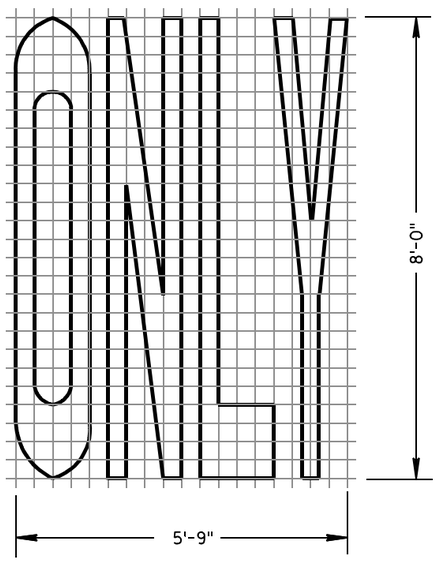


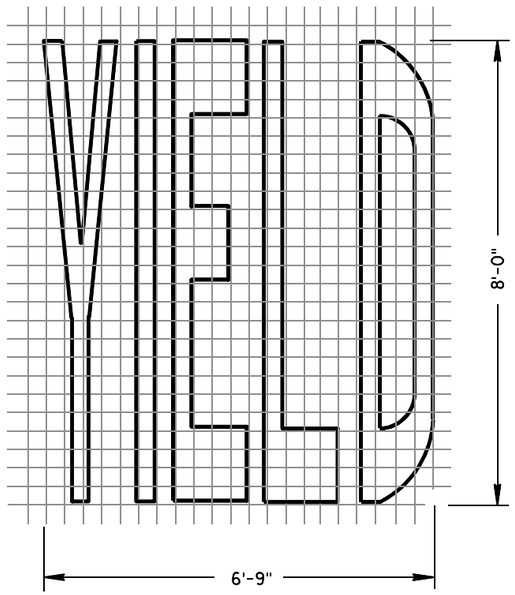


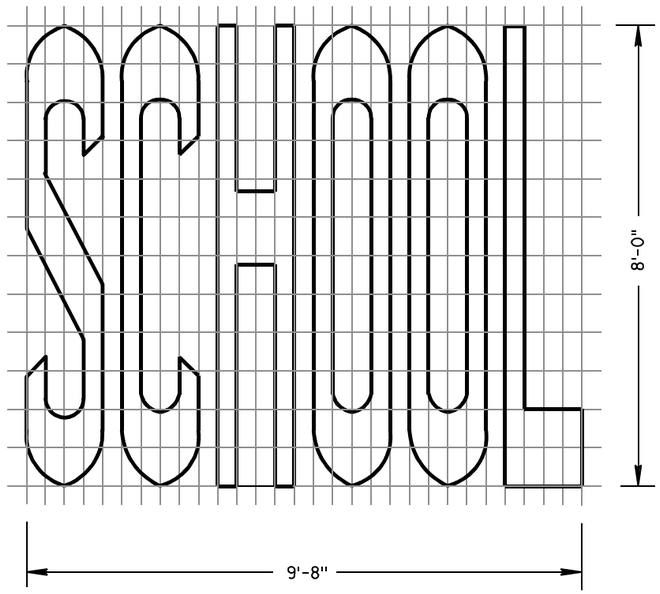


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

FHWA

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S.D.D. 15 C 7-12b

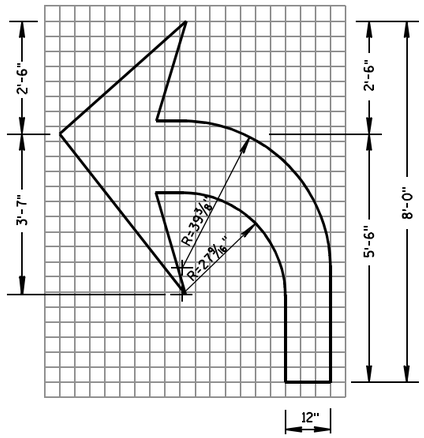
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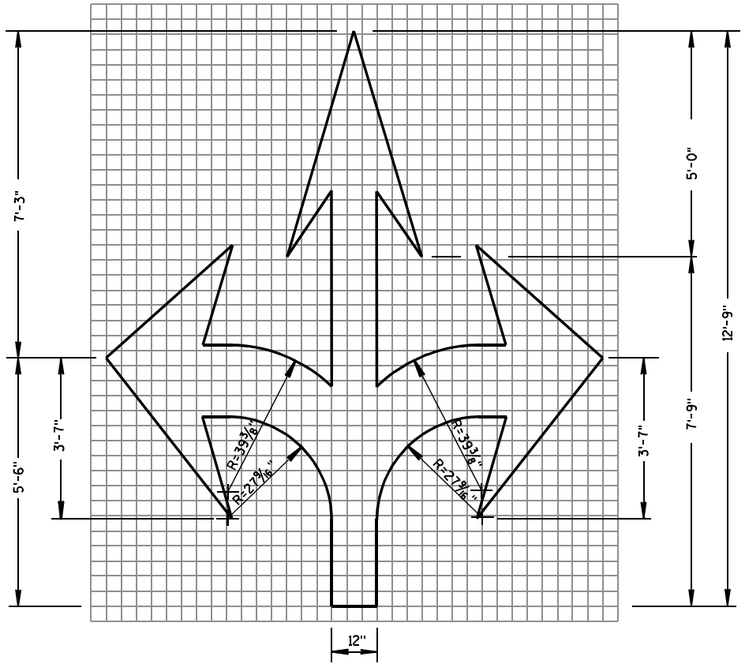
GENERAL NOTES

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.

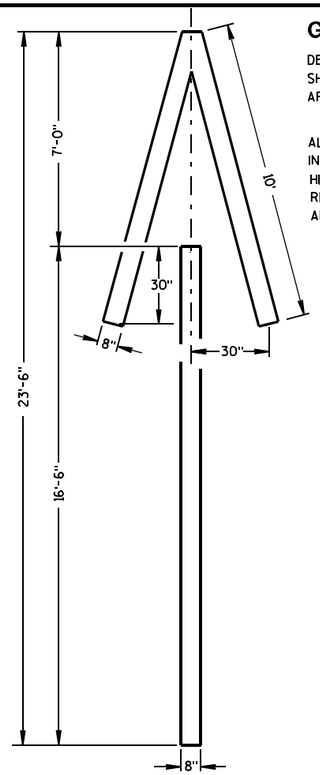
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



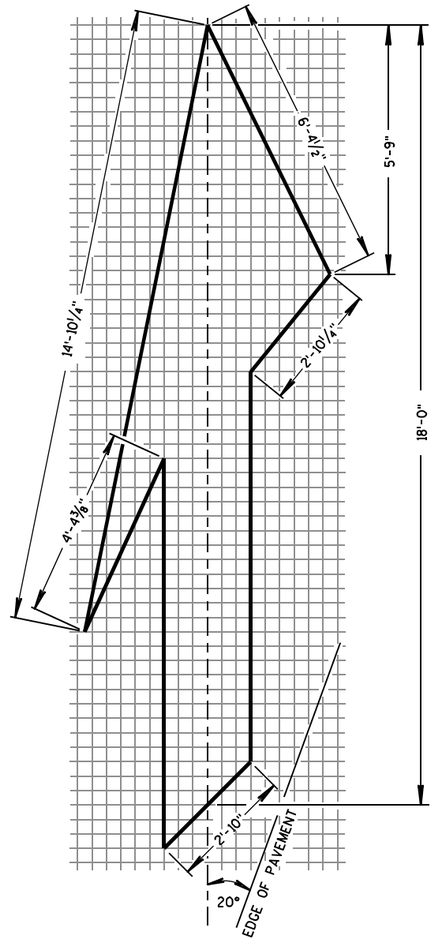
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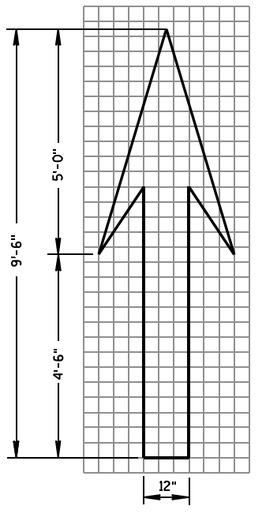
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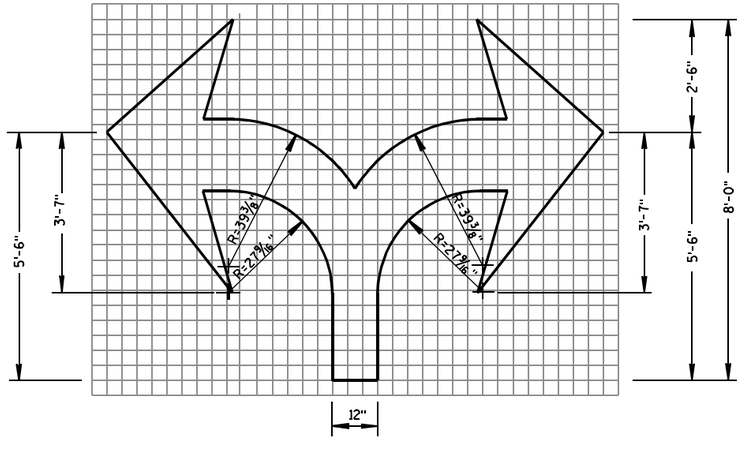
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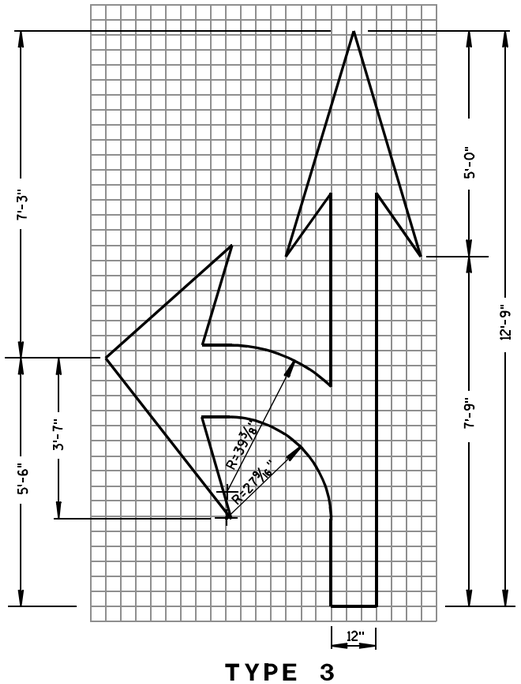
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

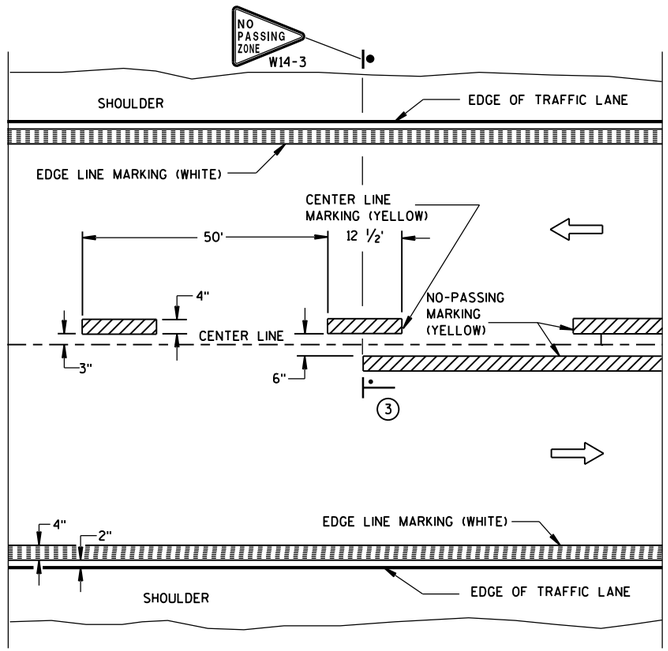
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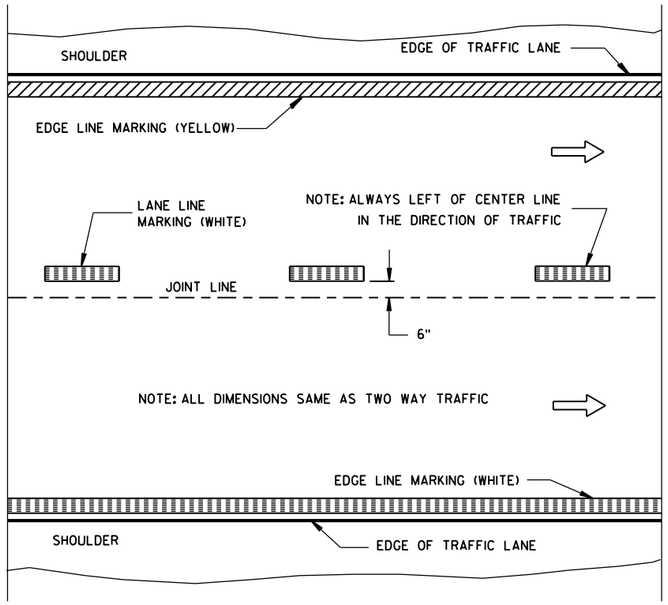
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

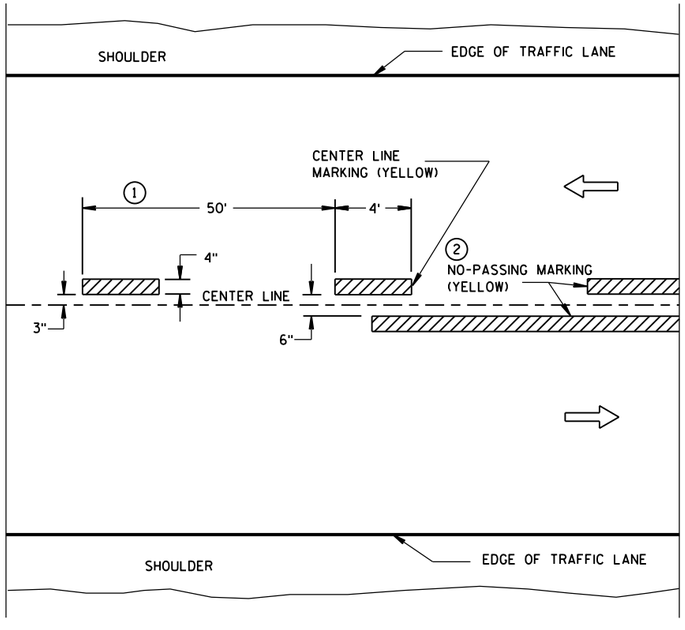


TWO WAY TRAFFIC

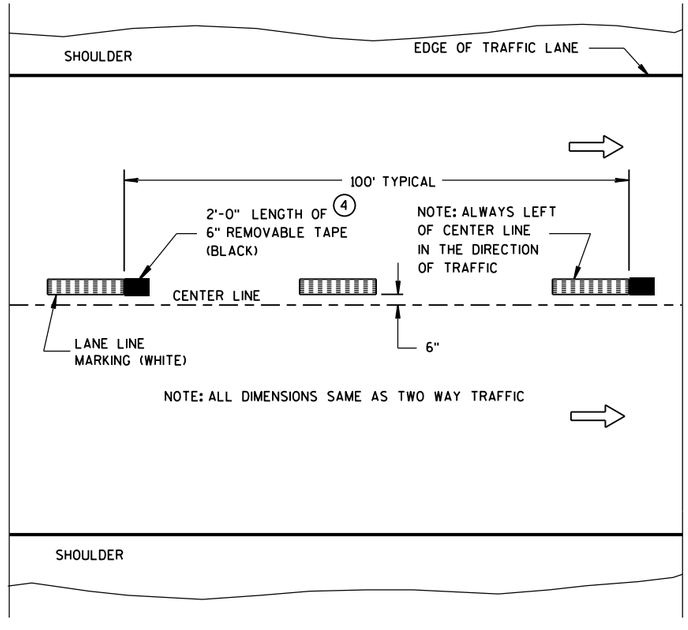


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

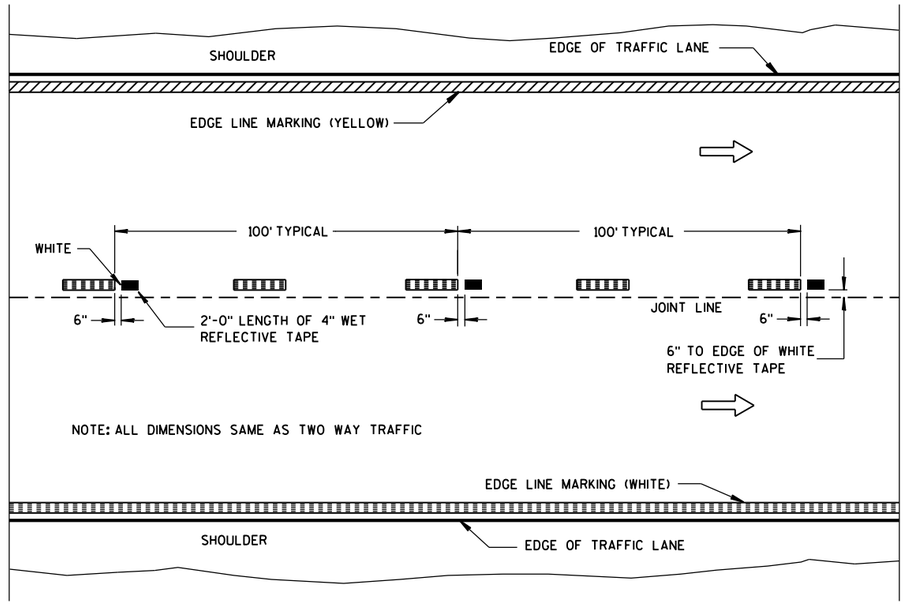
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

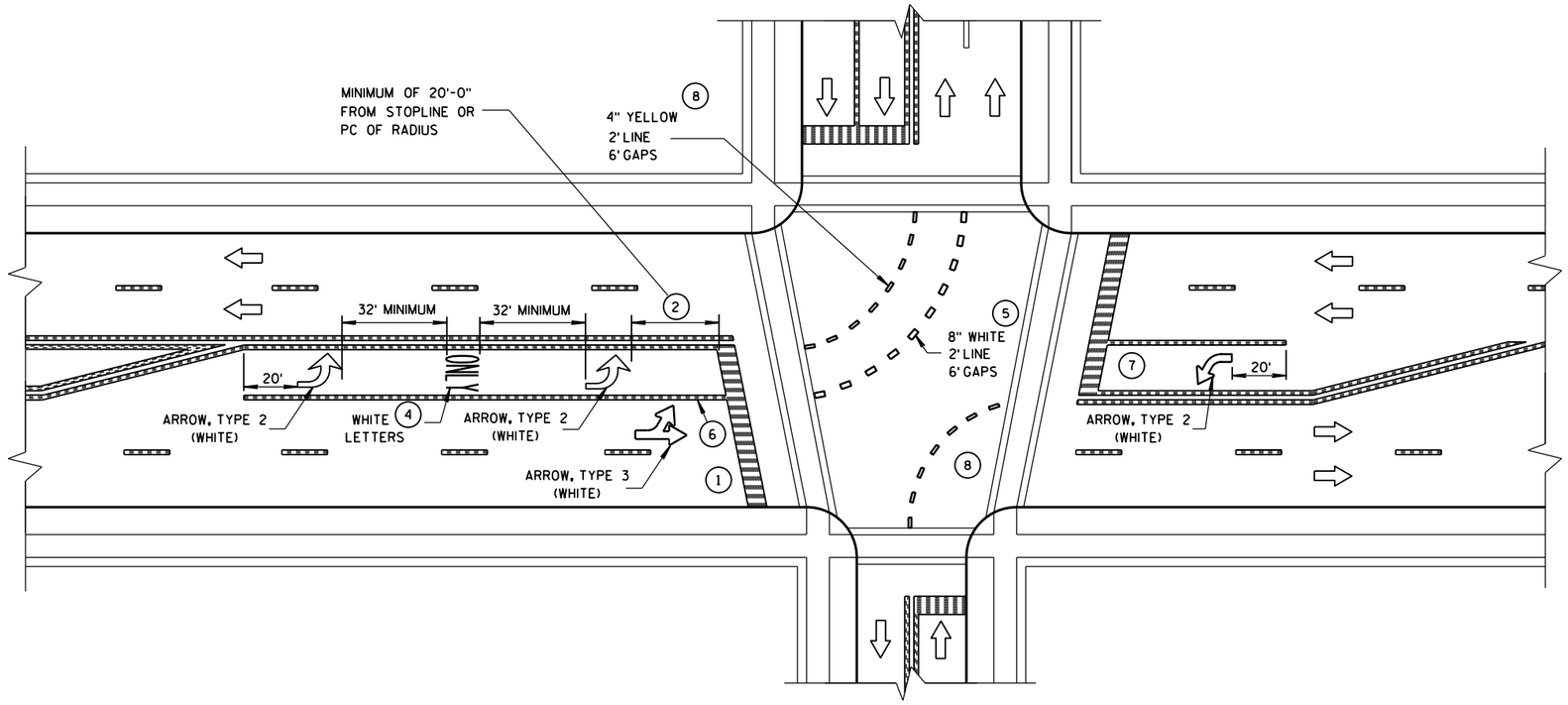
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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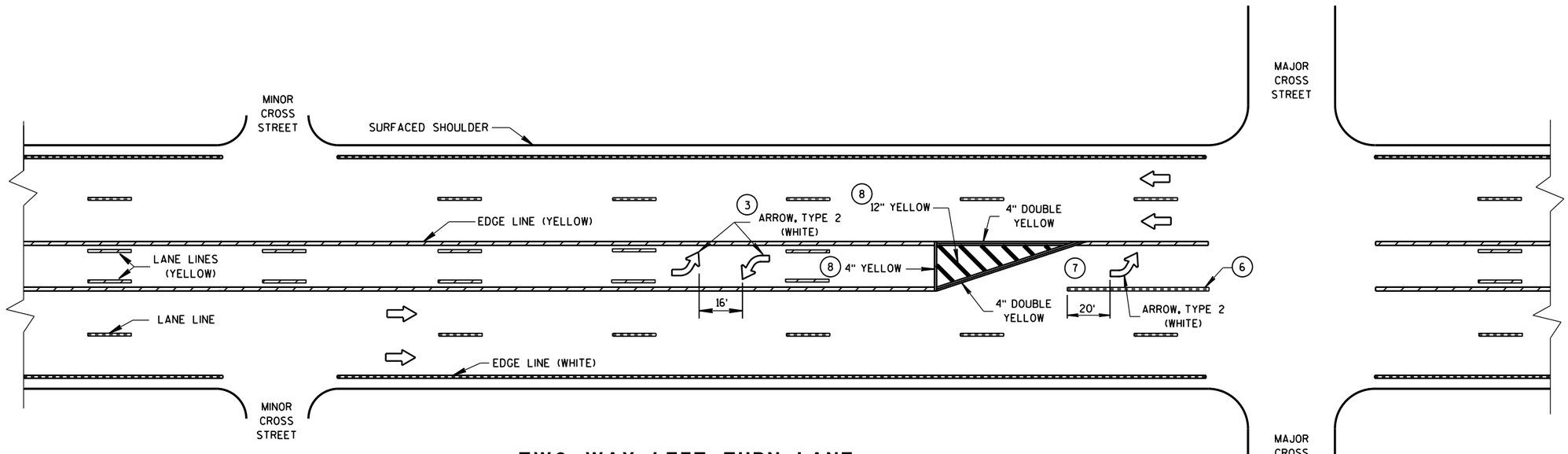
S.D.D. 15 C 8-16a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

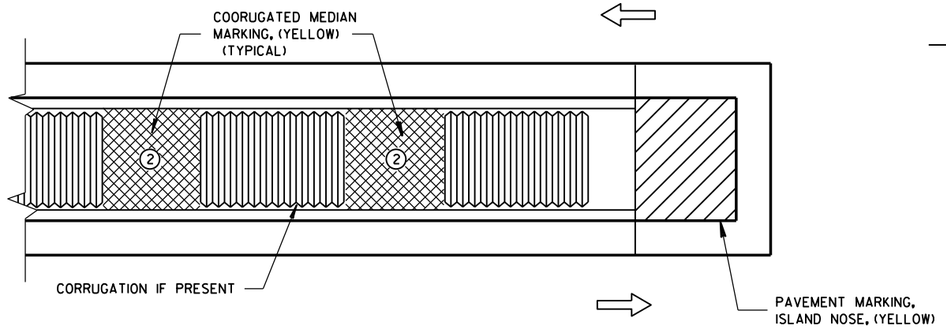
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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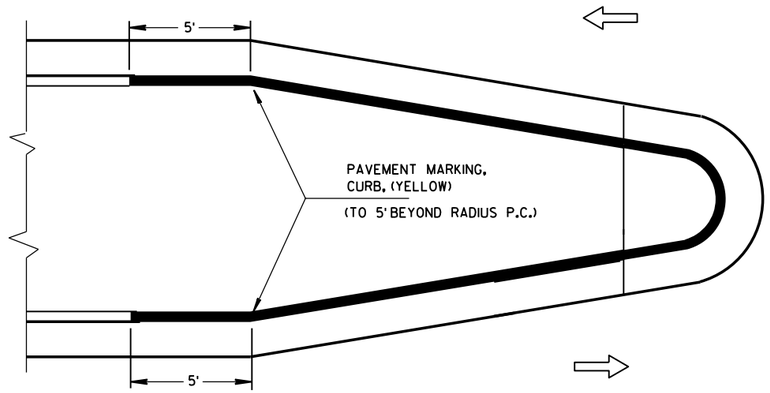
S.D.D. 15 C 8-16e

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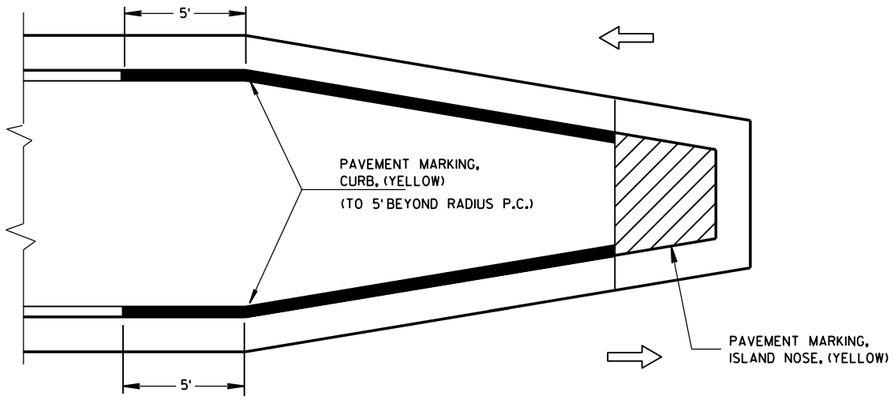
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

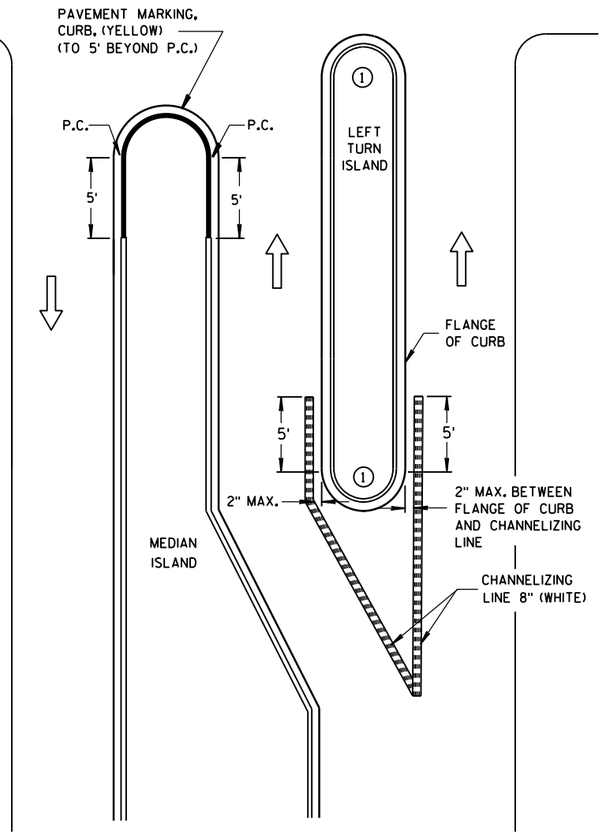


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

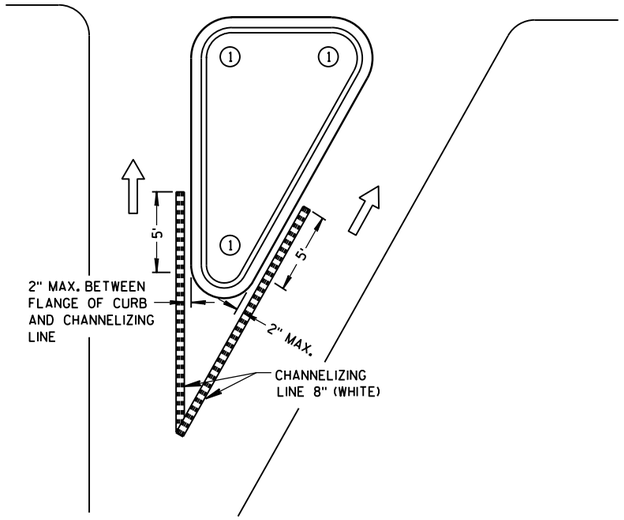


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

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



RIGHT TURN ISLAND

LEGEND

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

PAVEMENT MARKING
(ISLANDS)

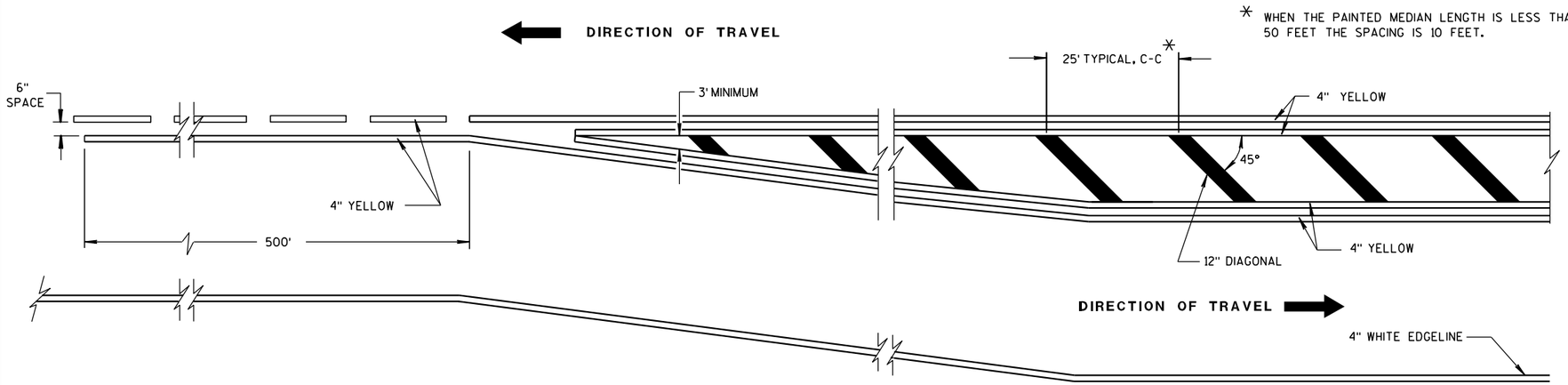
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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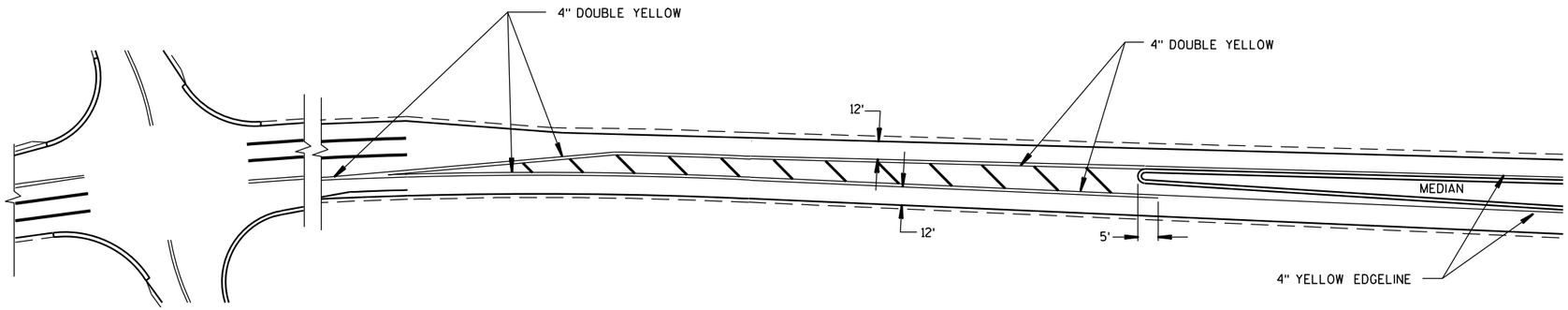
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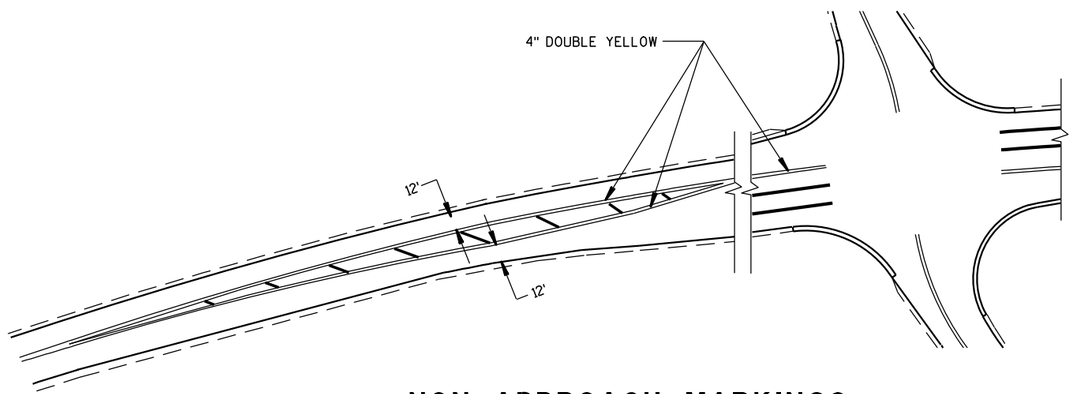
MEDIAN ISLAND DETAIL

GENERAL NOTE

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



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

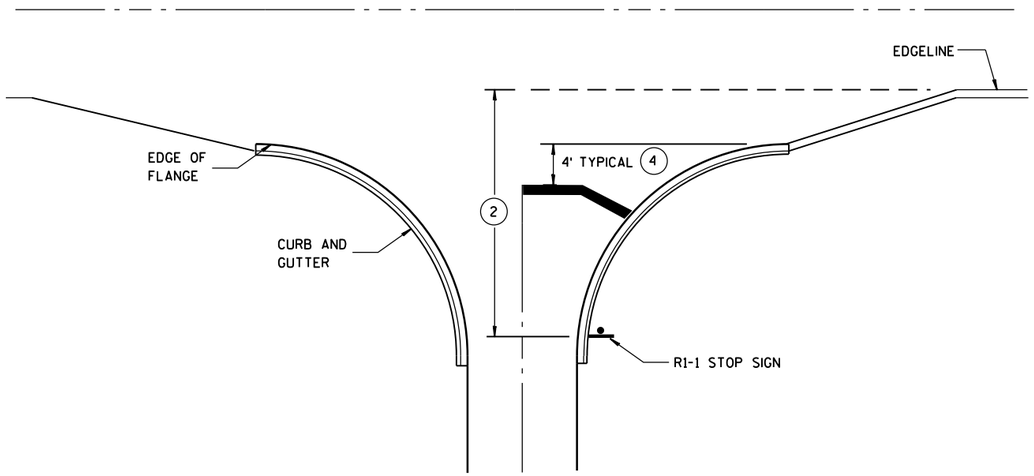
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEE 227 IGN
FHWA	

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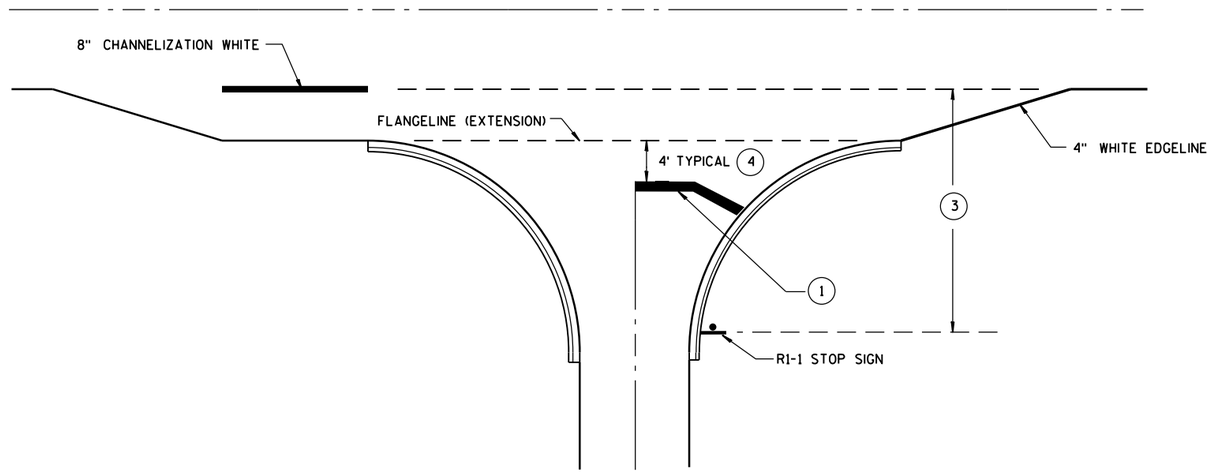
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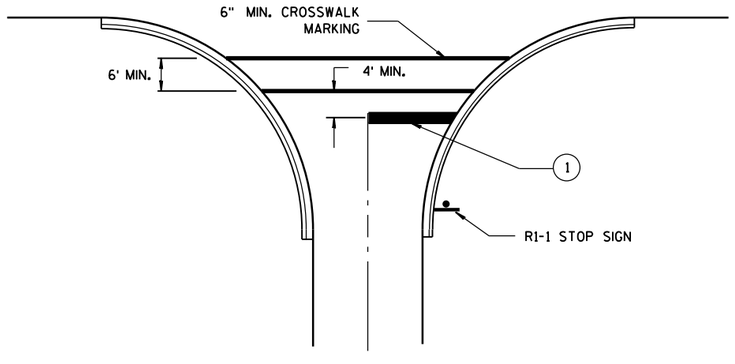
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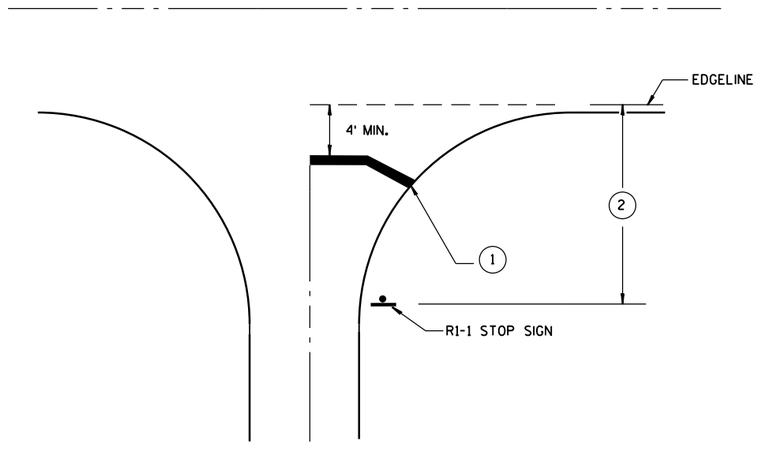
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

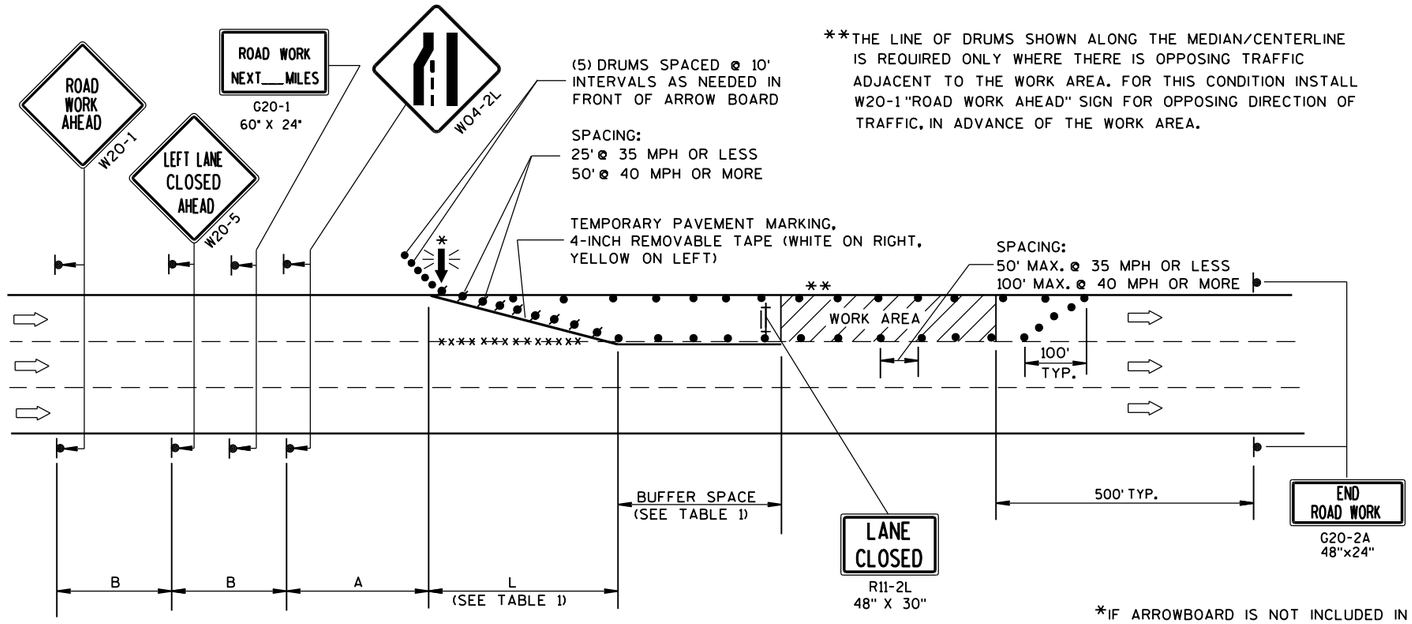
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1



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

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

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

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

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

W01-6
48"x24"

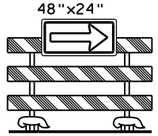


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

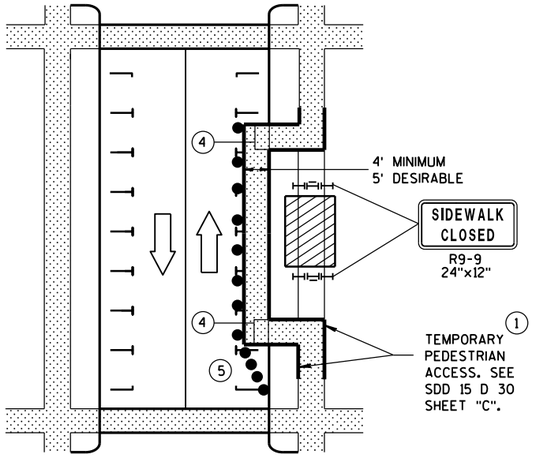
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S.D.D. 15 D 20-3

6

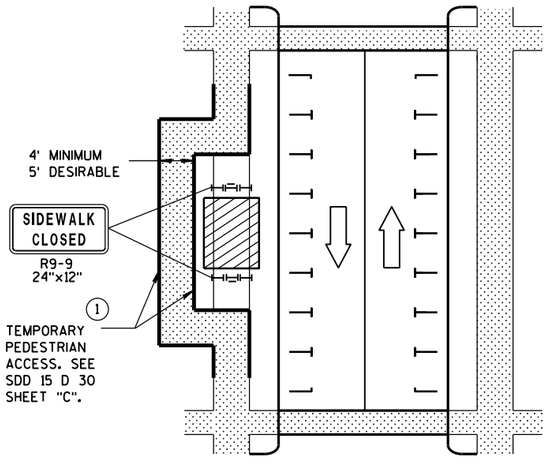
S.D.D. 15 D 20-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

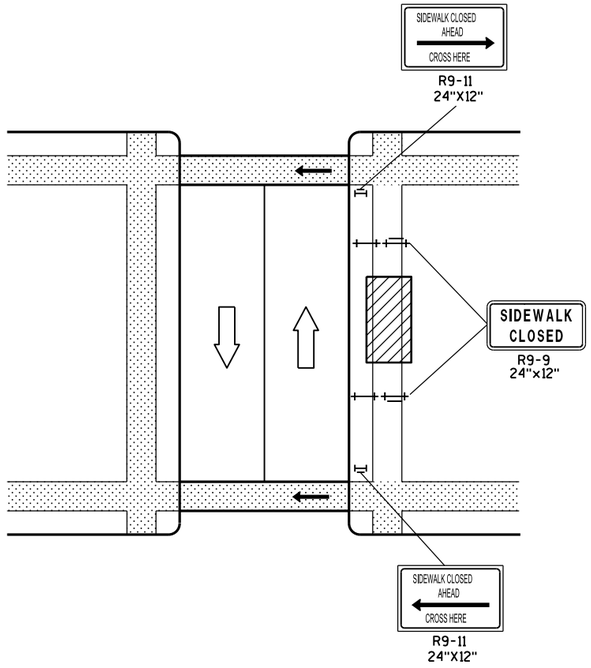


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

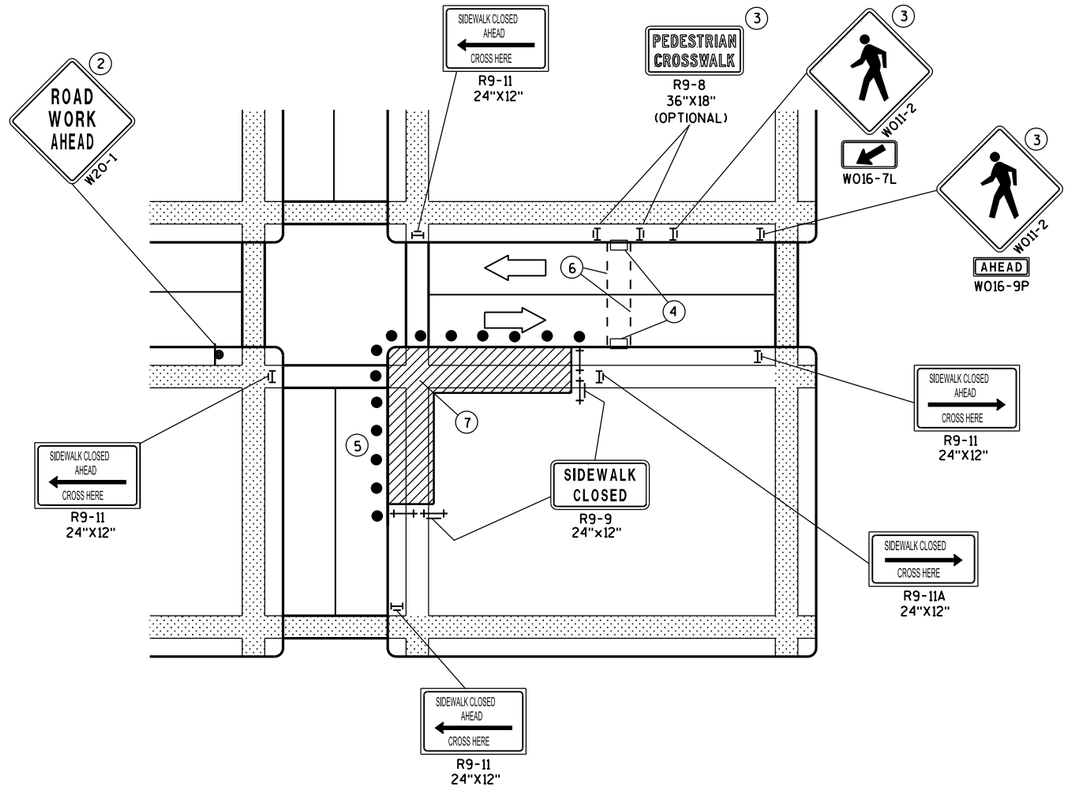
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 30-2a

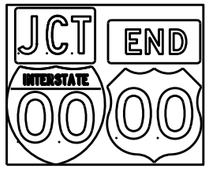
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S.D.D. 15 D 30-2a

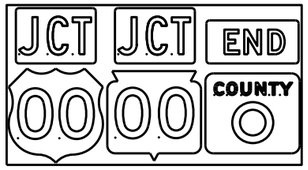
TYPICAL ASSEMBLIES



J1-1



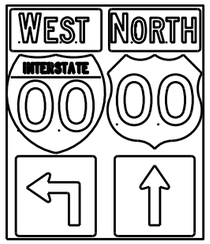
J1-2



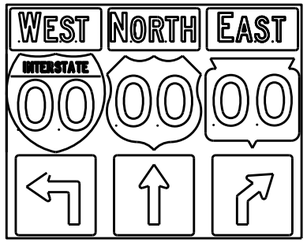
J1-3



J2-1



J2-2

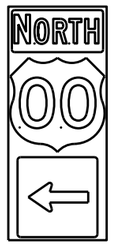


J2-3

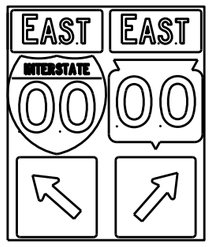


JV

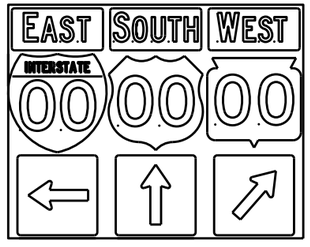
(Typical Vertical J-Assembly
See Note 10 and 11)



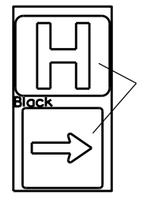
J3-1



J3-2



J3-3

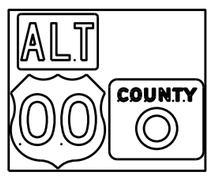


Blue Background

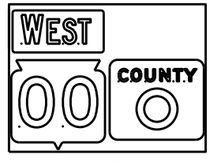
JH-1



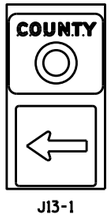
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

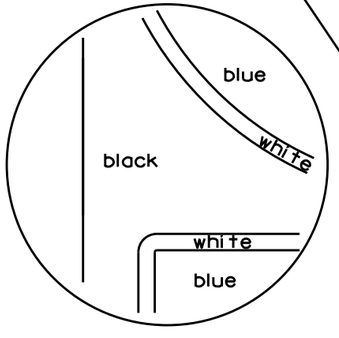


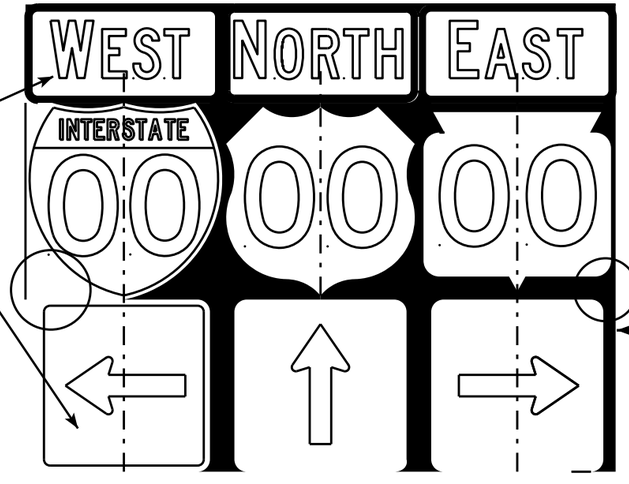
J23-1

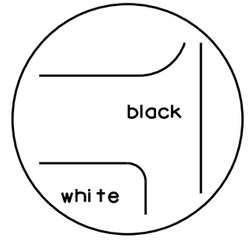


J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

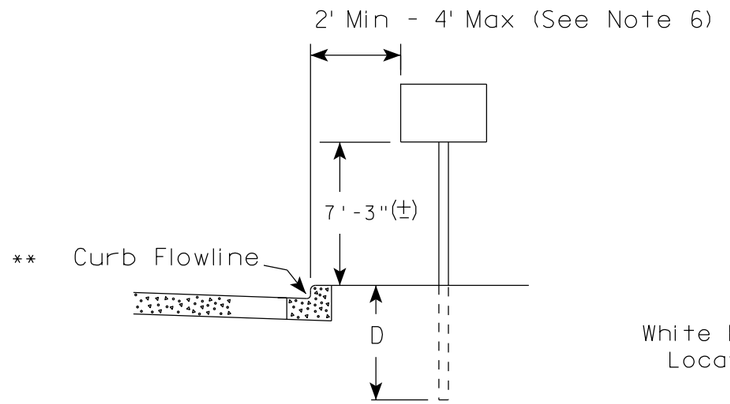
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

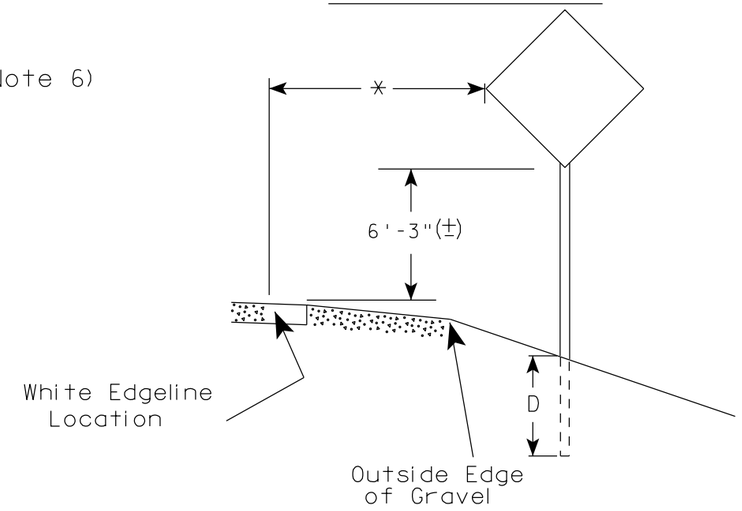
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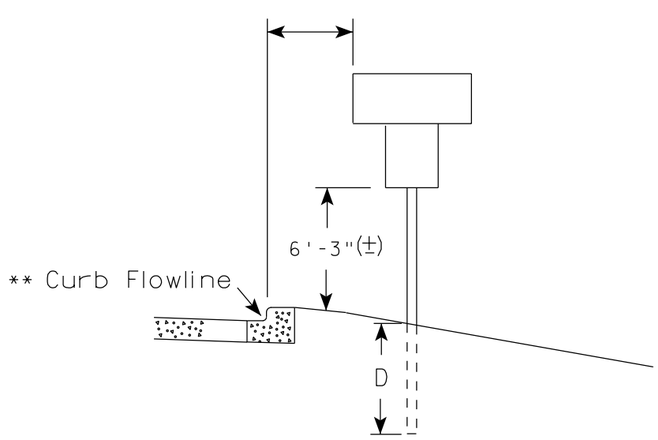
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WISDOT/CADDS SHEET 42

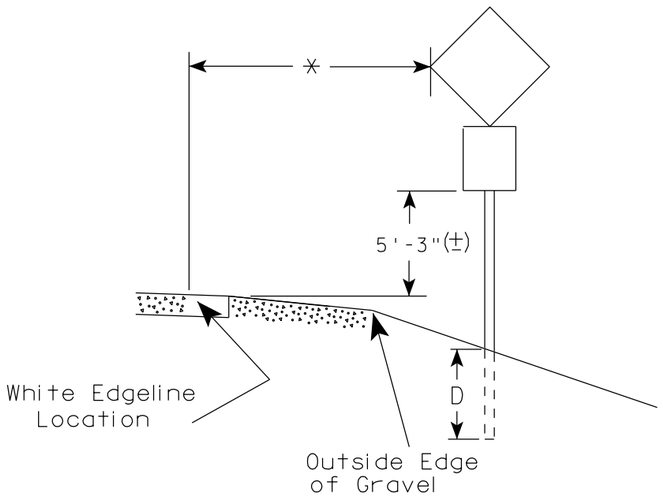
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

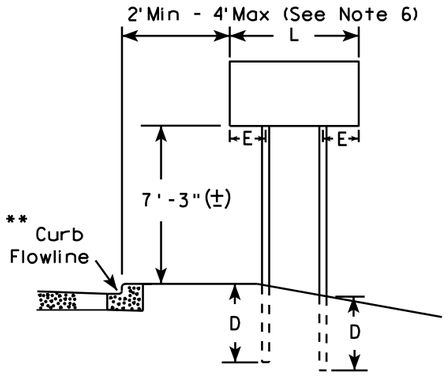
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

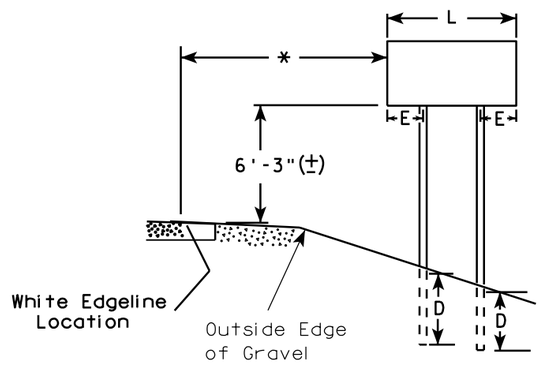
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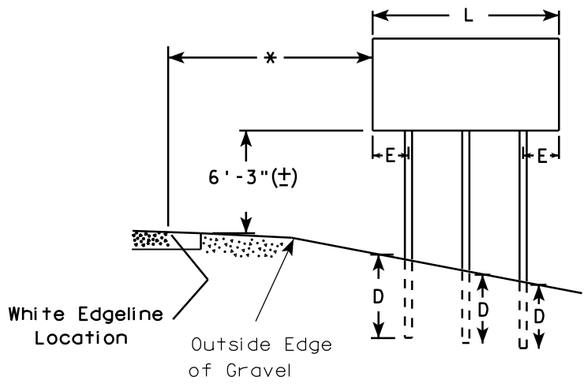
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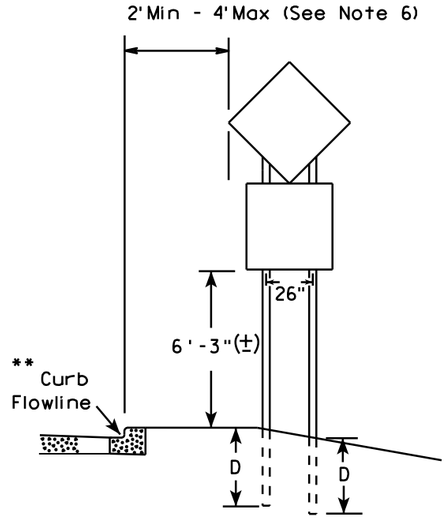
URBAN AREA



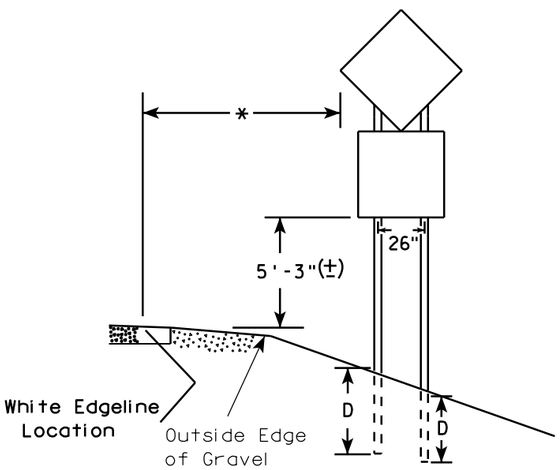
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

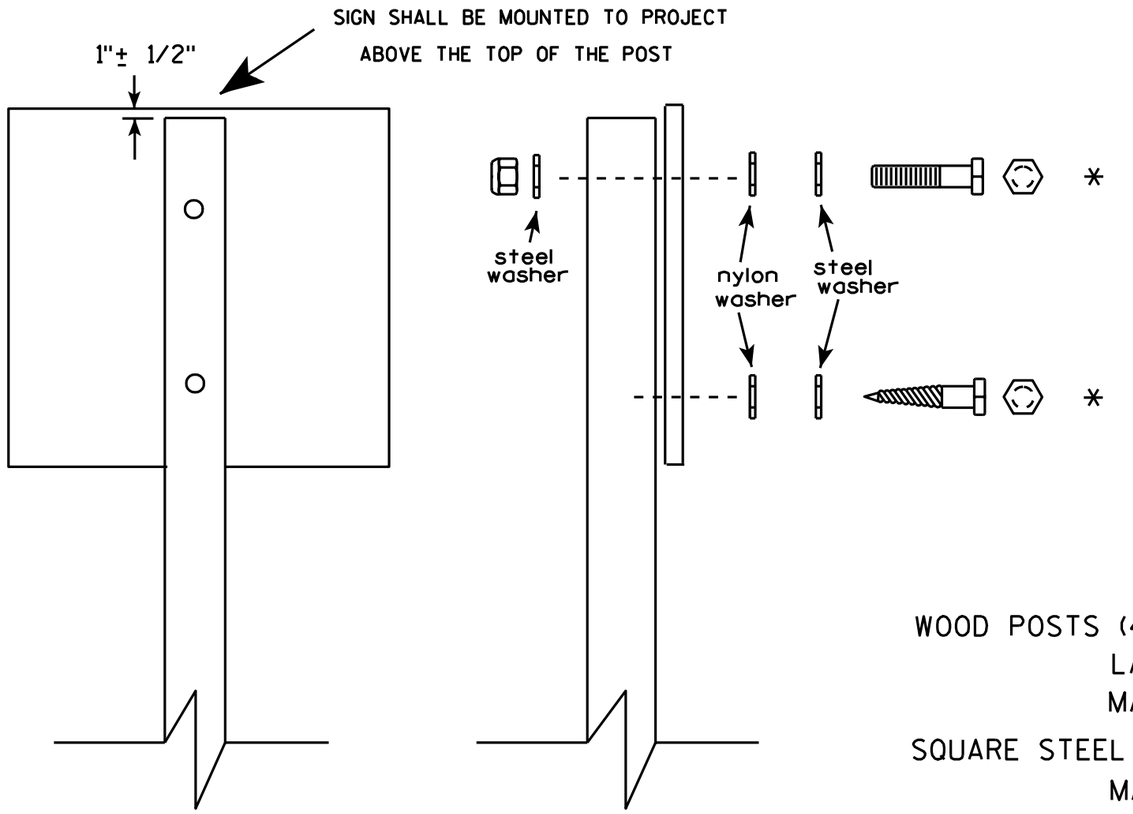
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4 233 13

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

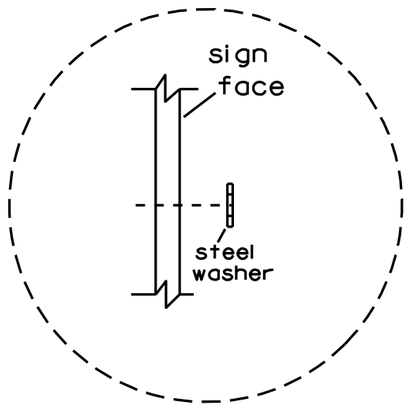
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 Matthew R Rauch
for State Traffic Engineer

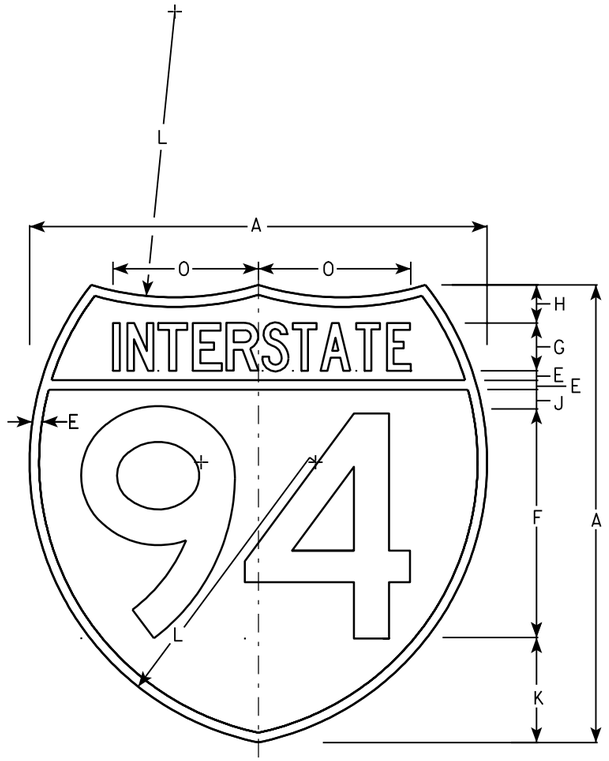
DATE 3/23/10 PLATE NO. A4-8.7

7

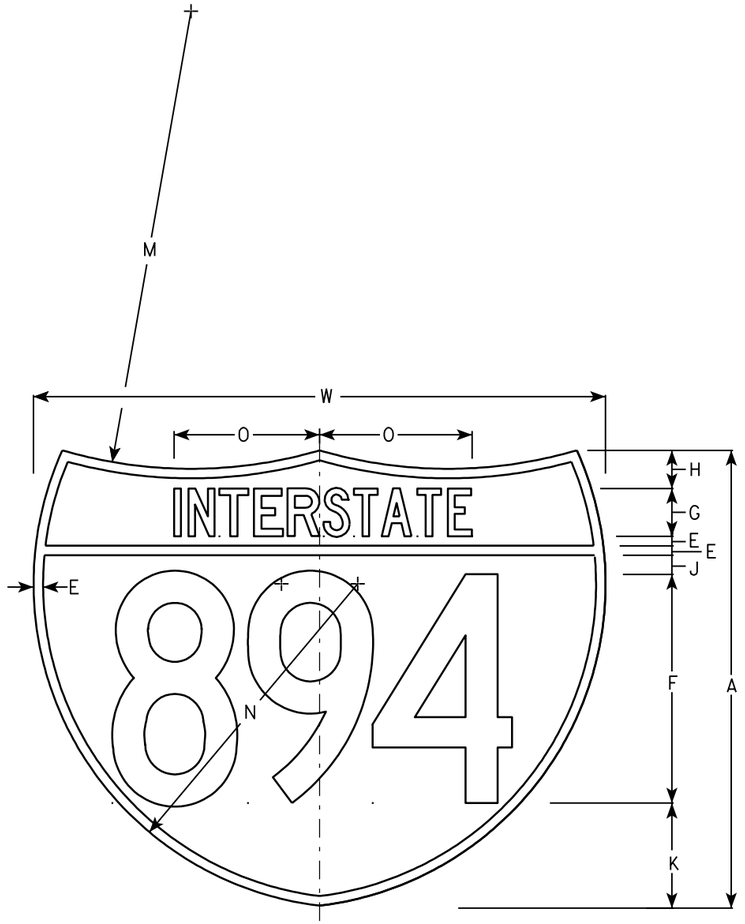
7

PROJECT NO:

SHEET NO: 234 E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

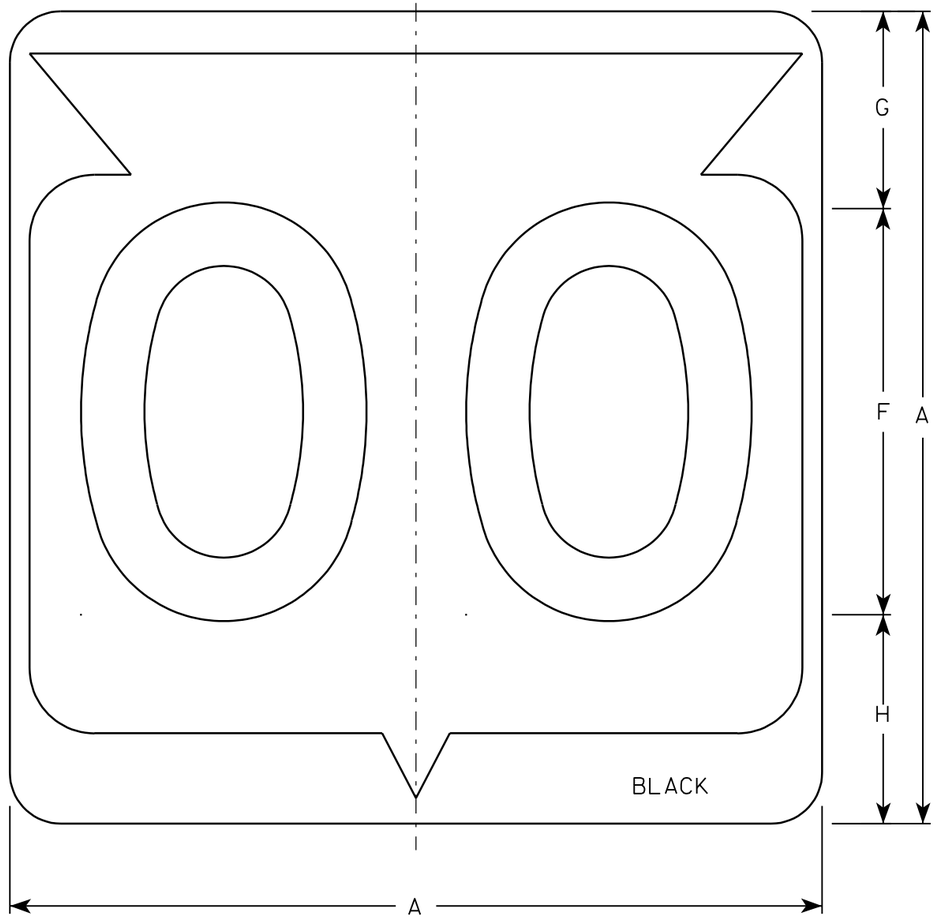
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

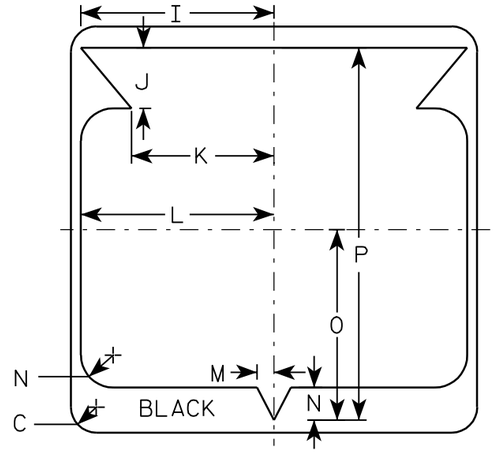
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 235	E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		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

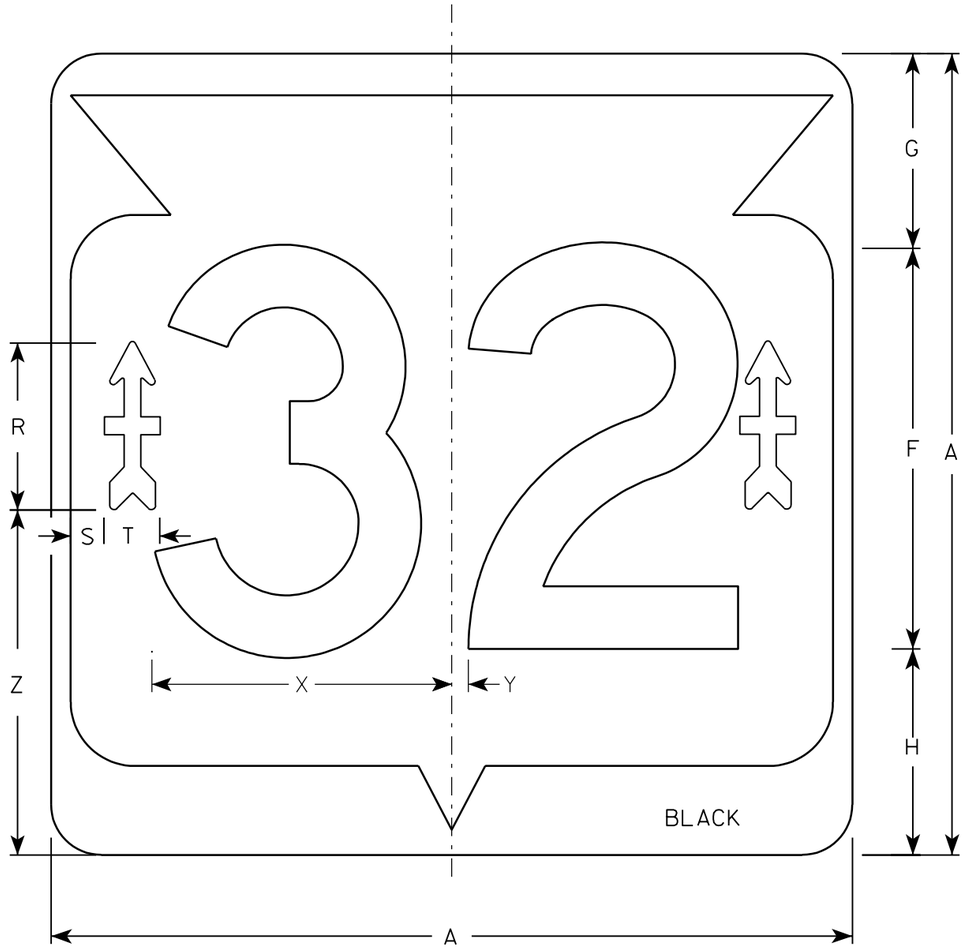
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

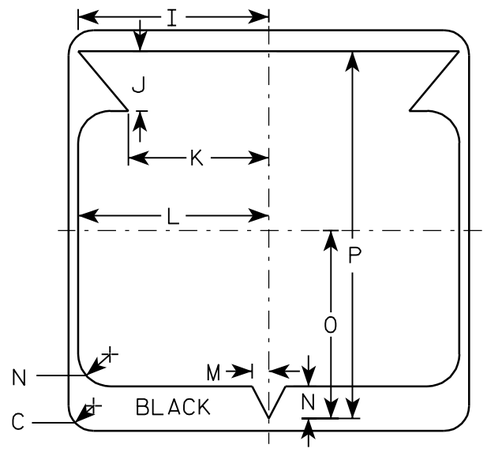
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 236	E



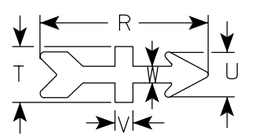
M1-6B

NOTES

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



32nd DIVISION ARROW
ACTUAL SIZE



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2	24		1 ½			12	5 ½	6 ½	10 ¼	2 ½	8 ⅞	11 ½	1	1 ⅞	11 ¼	21 ⅞		5 ⅛	¾	1 ⅞	1 ½	⅝	⅝	9	½	10 ½	4.0	.36
3	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
4	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81
5	36		2 ¼			18	8 ¾	9 ¼	15 ⅜	5 ⅜	12 ⅝	17 ⅛	1 ½	2 ⅞	16 ⅞	33		7 ½	1 ½	2 ½	2	⅞	¾	13 ½	¾	15 ½	9.0	.81

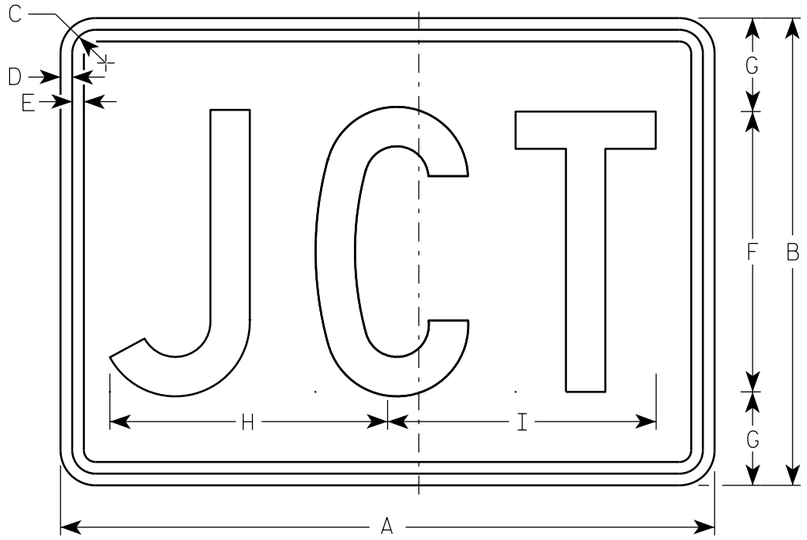
STATE ROUTE MARKER "32"
M1-6B FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

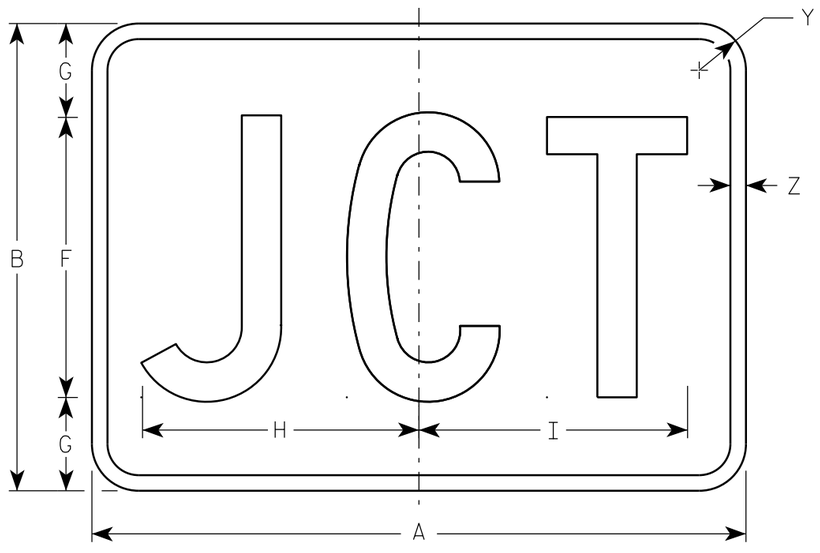
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 12/5/05 PLATE NO. M1-6B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237 | E



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MR2-1 Background - Brown
   Message - Yellow

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

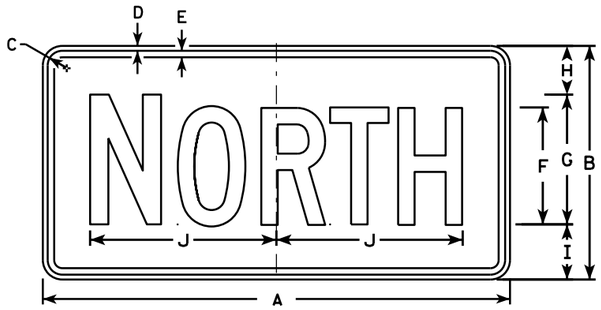
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

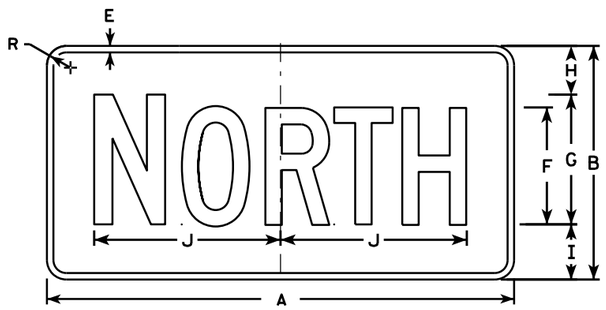
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 238 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



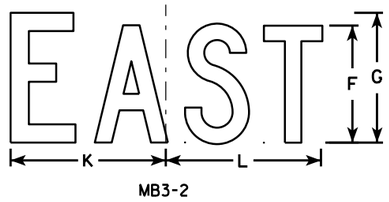
M3-1
MK3-1
MM3-1
MN3-1



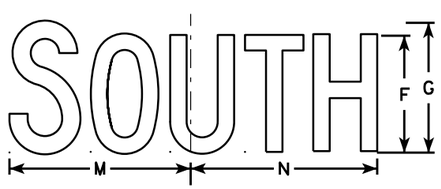
MB3-1



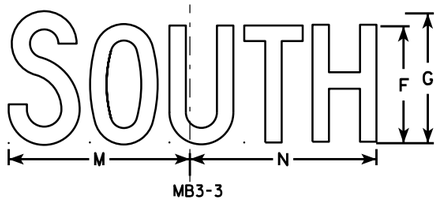
M3-2
MK3-2
MM3-2
MN3-2



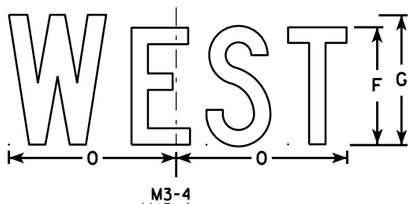
MB3-2



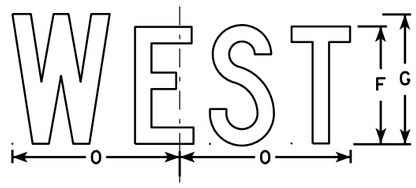
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

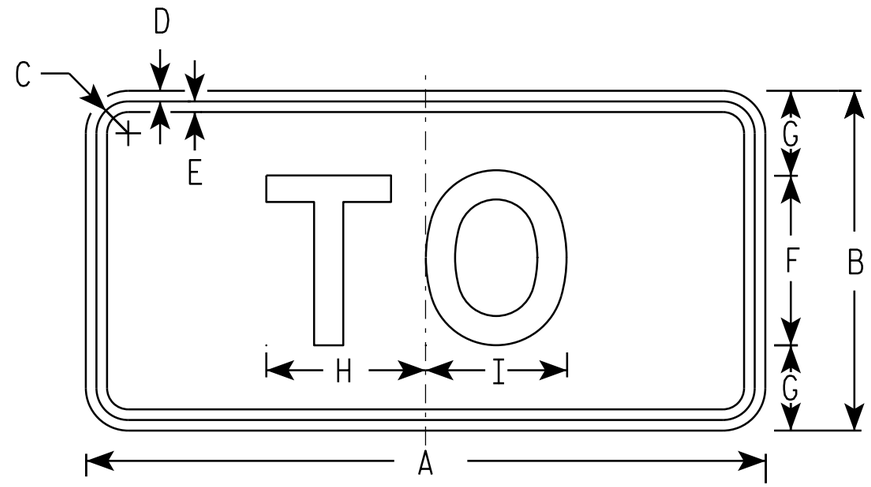
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

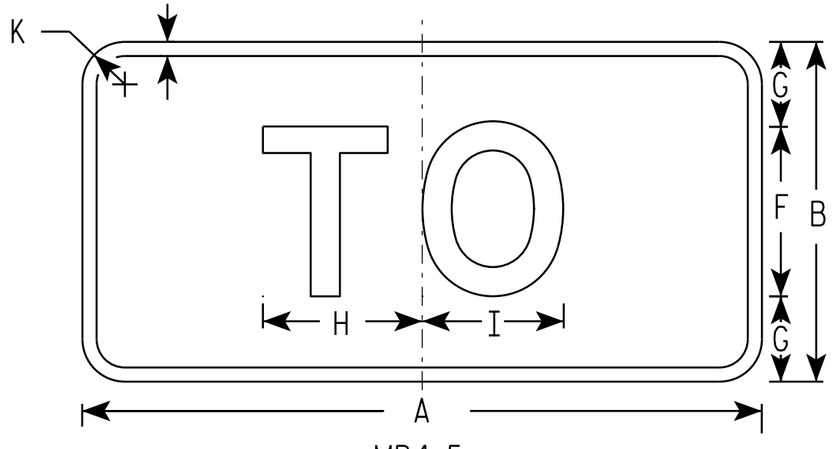
DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

7



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

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

STANDARD SIGN
M4-5

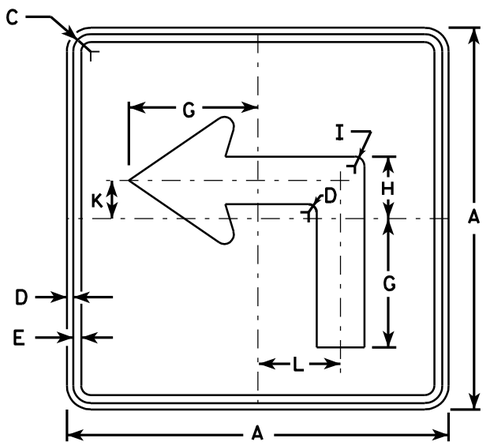
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

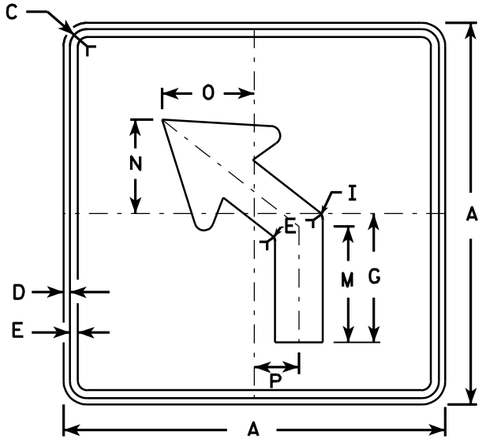
DATE 6/30/14 PLATE M4-5.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

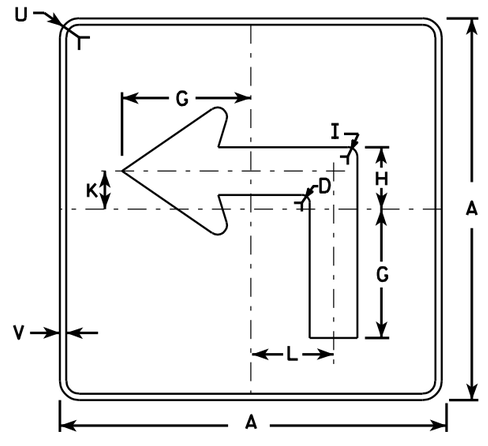
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 30-JUN-2014 12:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.351066:1.000000
WISDOT/CADDS SHEET 42



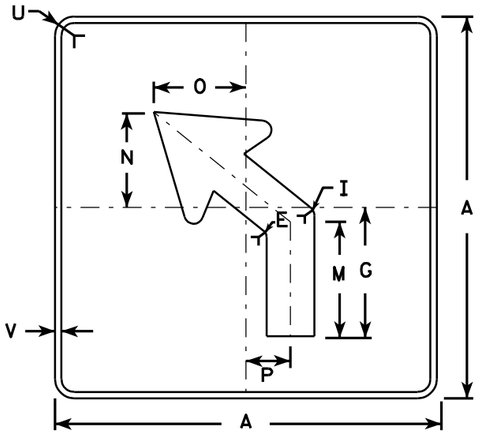
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



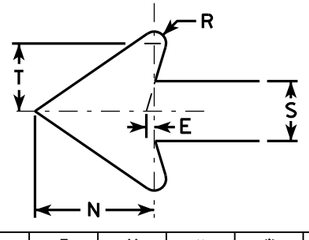
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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



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



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H 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 - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

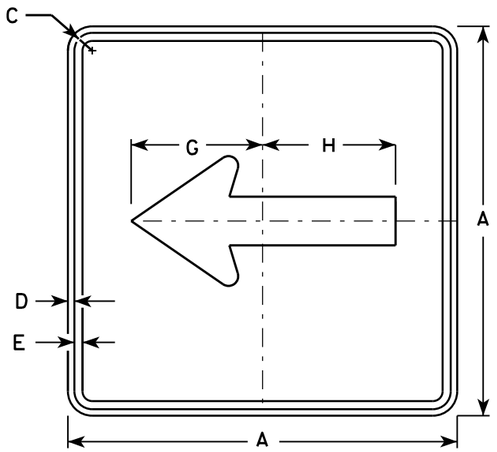
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

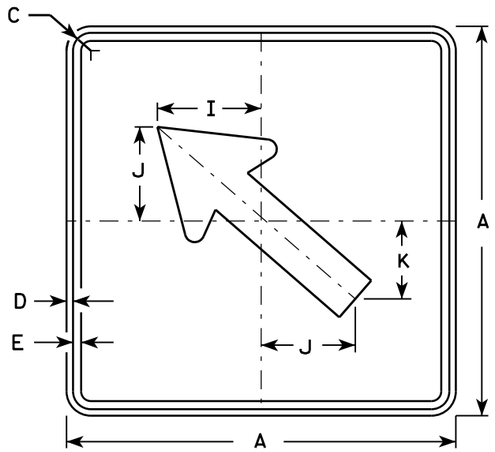
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 241 | E



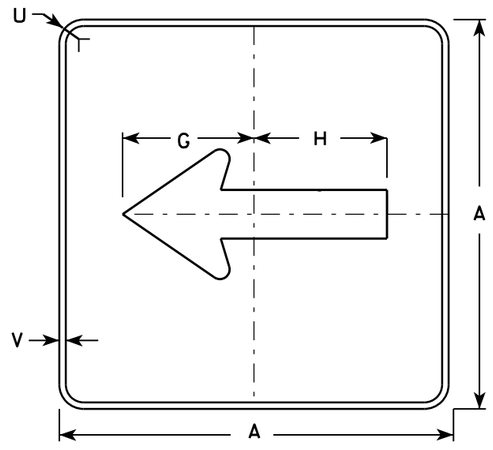
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



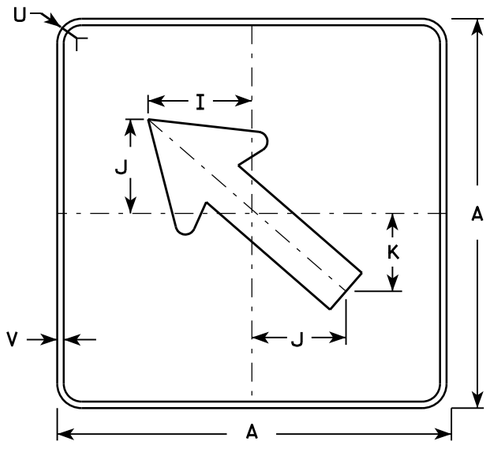
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

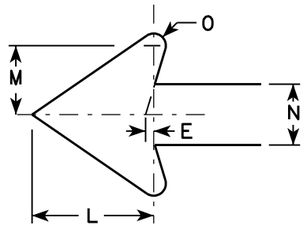
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

STANDARD SIGN M6-1 & M6-2 SERIES

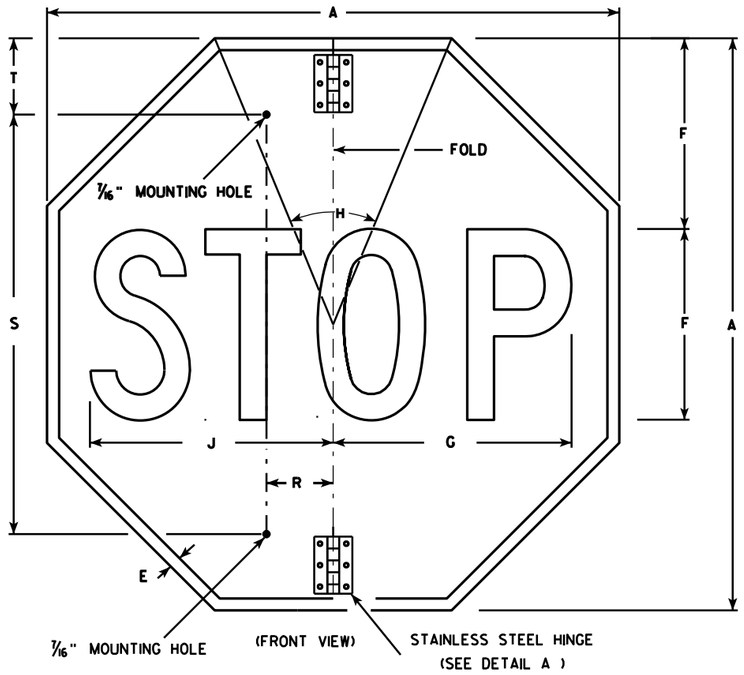
WISCONSIN DEPT OF TRANSPORTATION

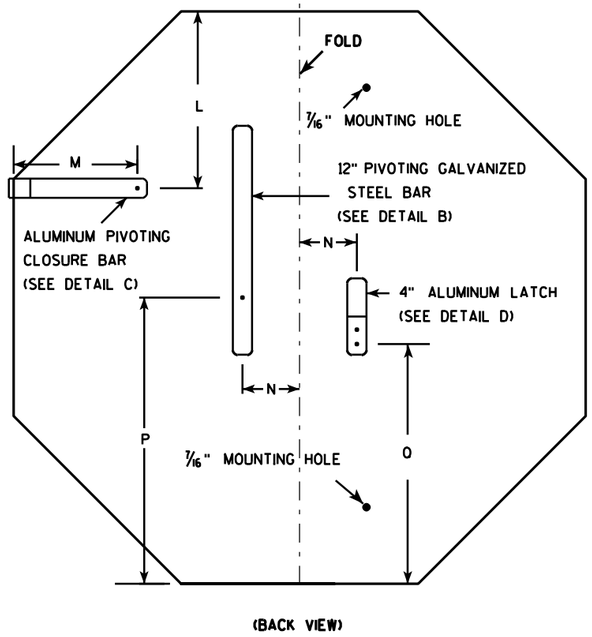
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 242 M6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

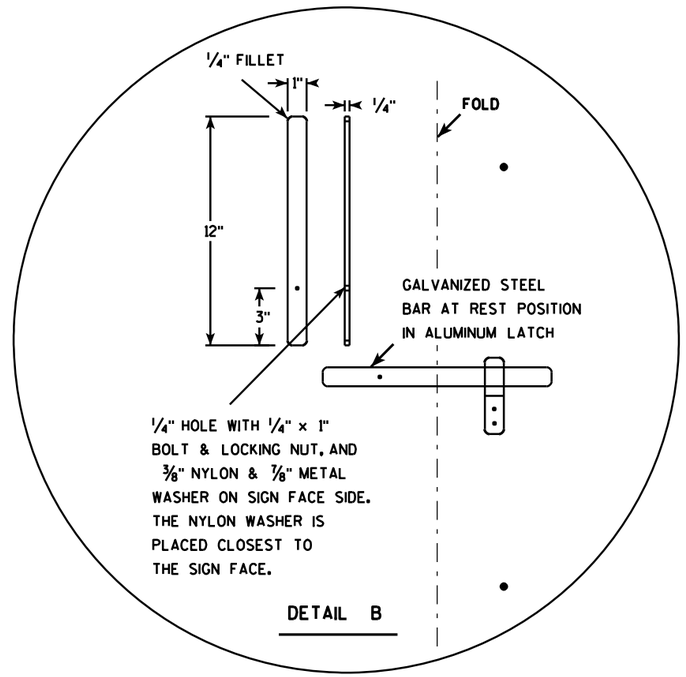
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



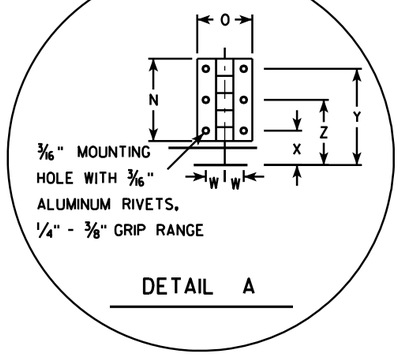


NOTES

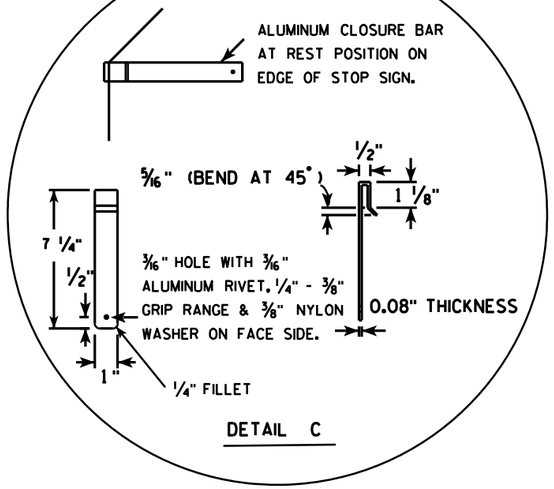
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



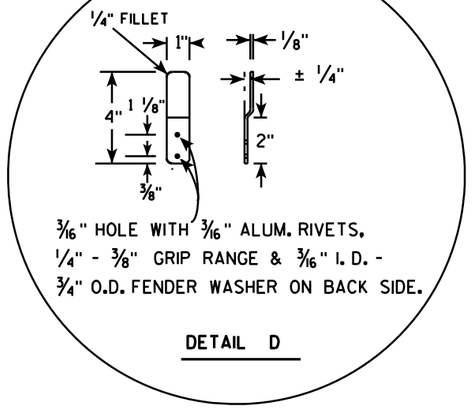
DETAIL B



DETAIL A



DETAIL C



DETAIL D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

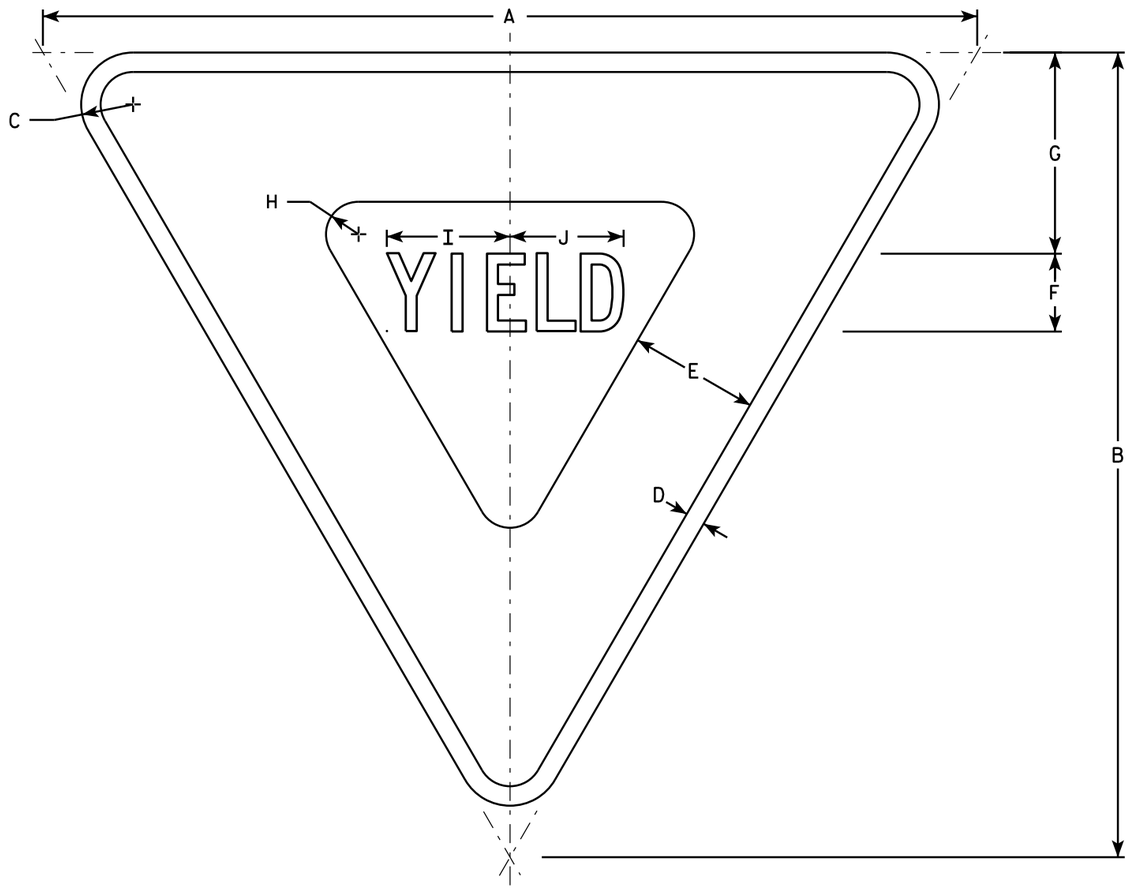
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 243 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R1-2

NOTES

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

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

STANDARD SIGN
R1-2

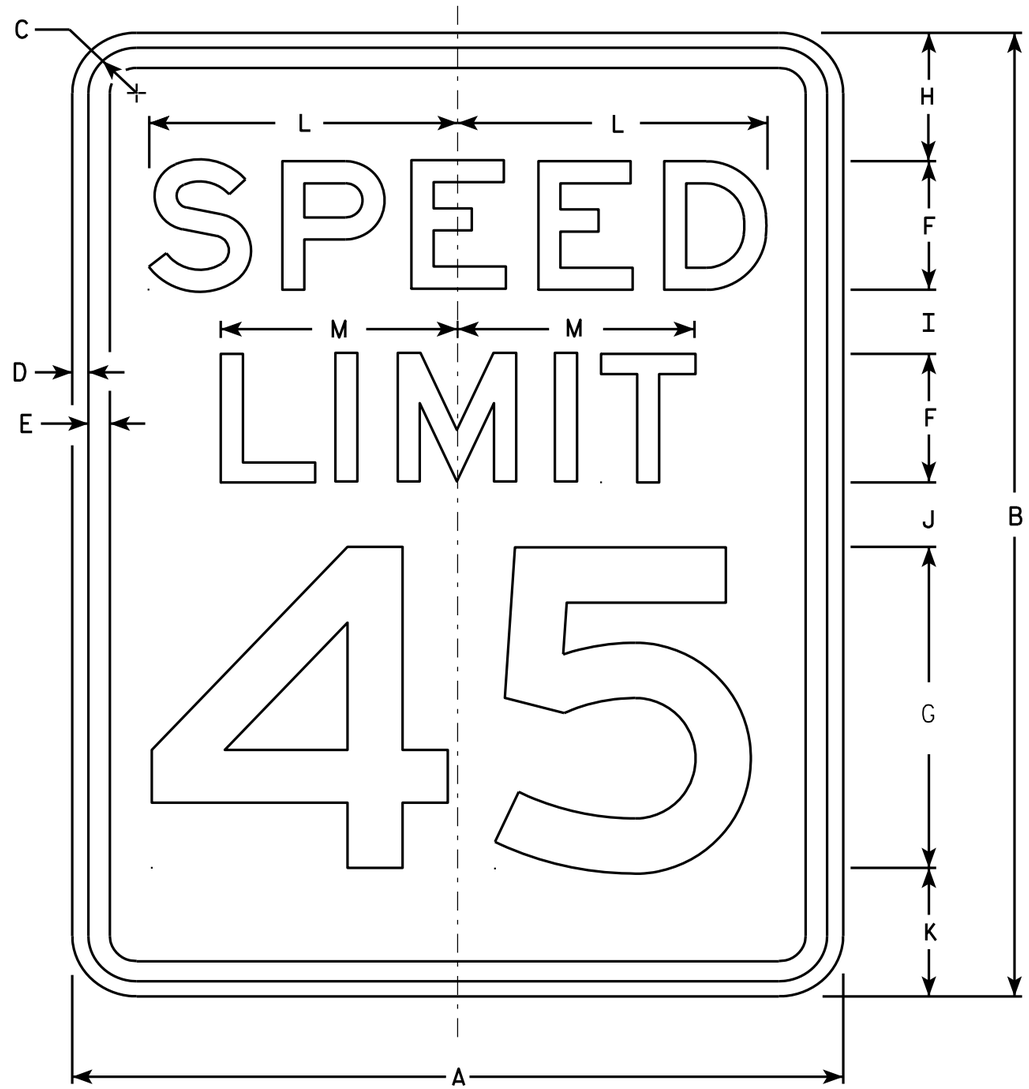
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

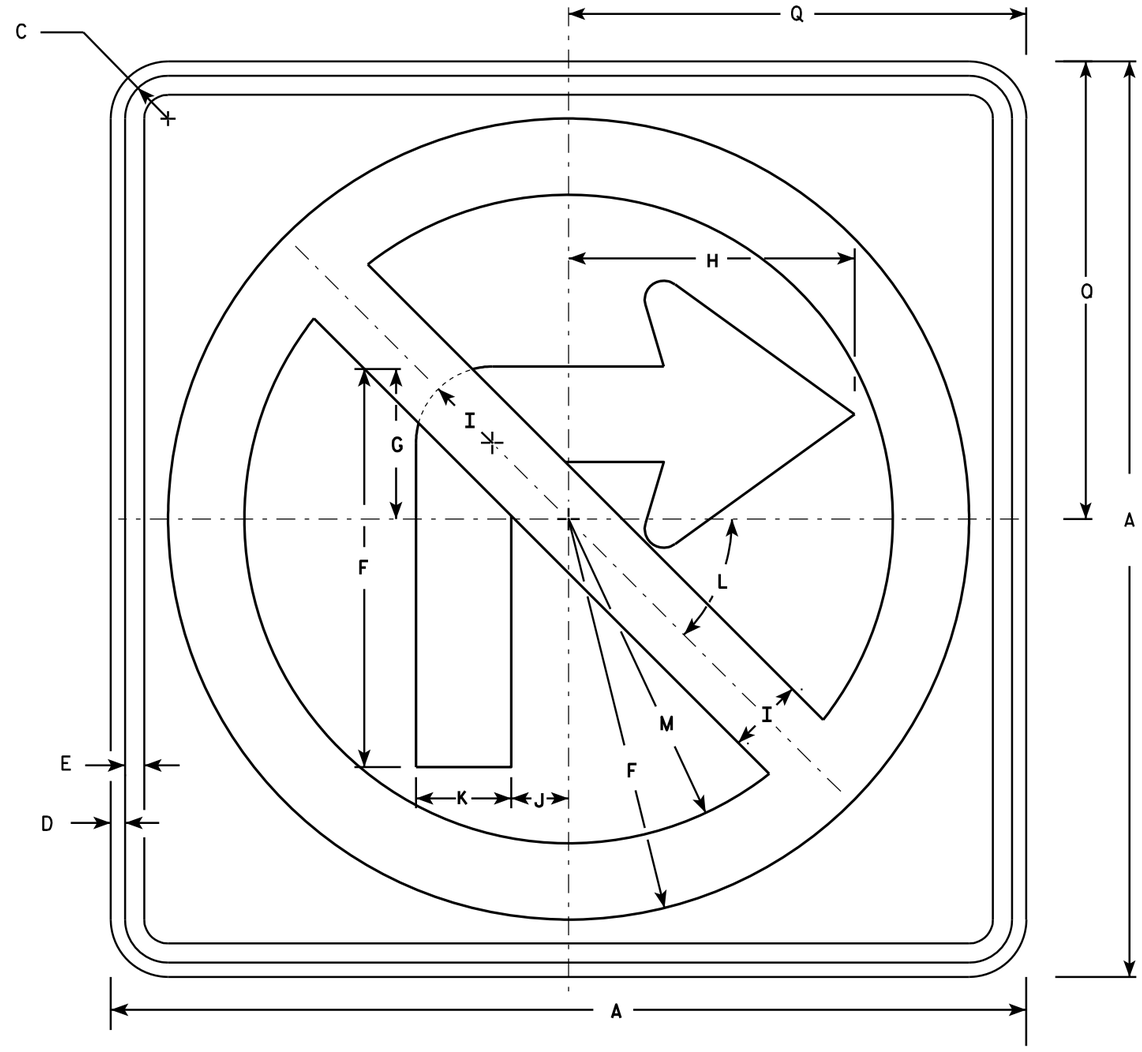
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

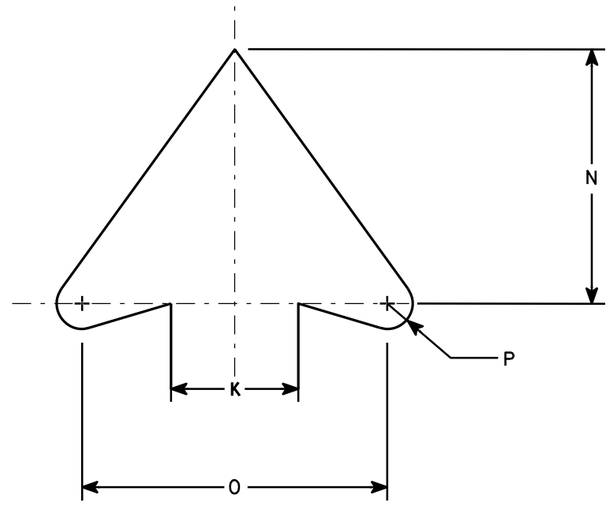
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

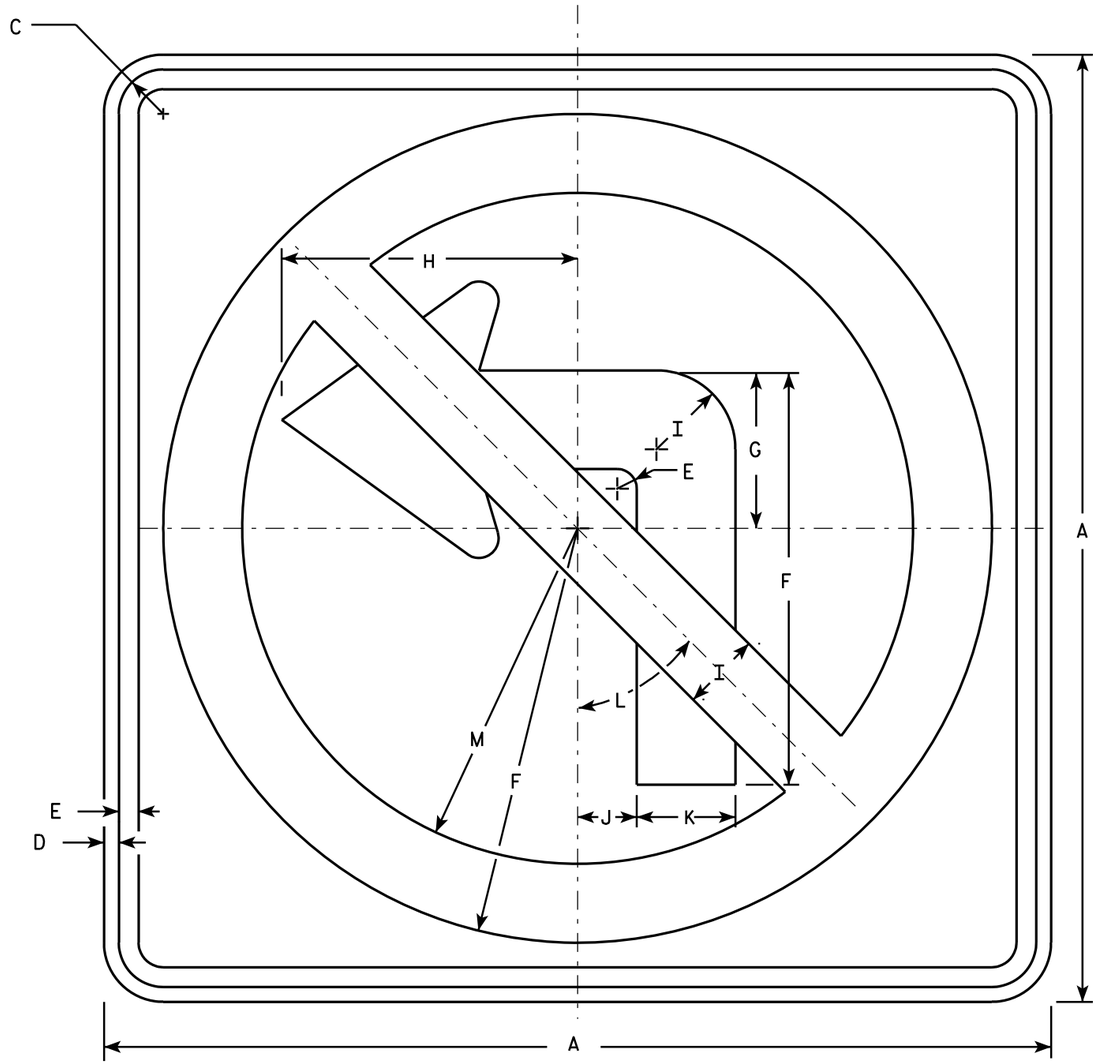
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

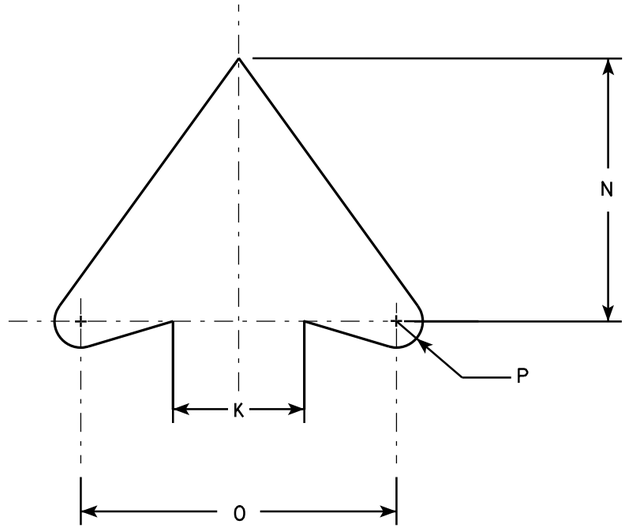
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 246	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

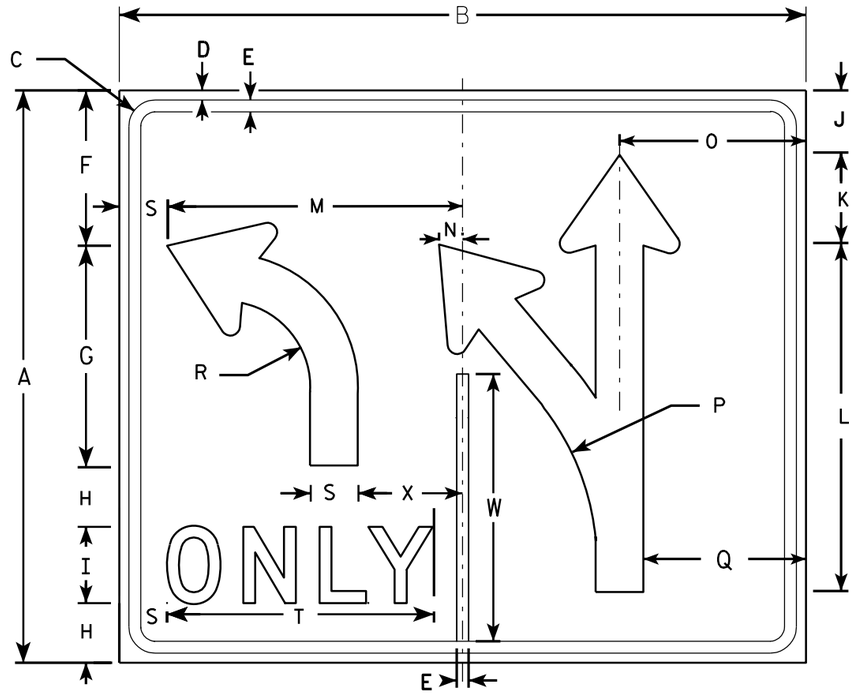
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

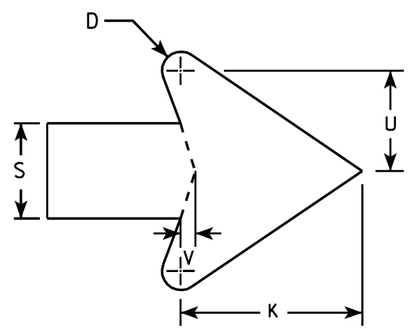
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 247	E



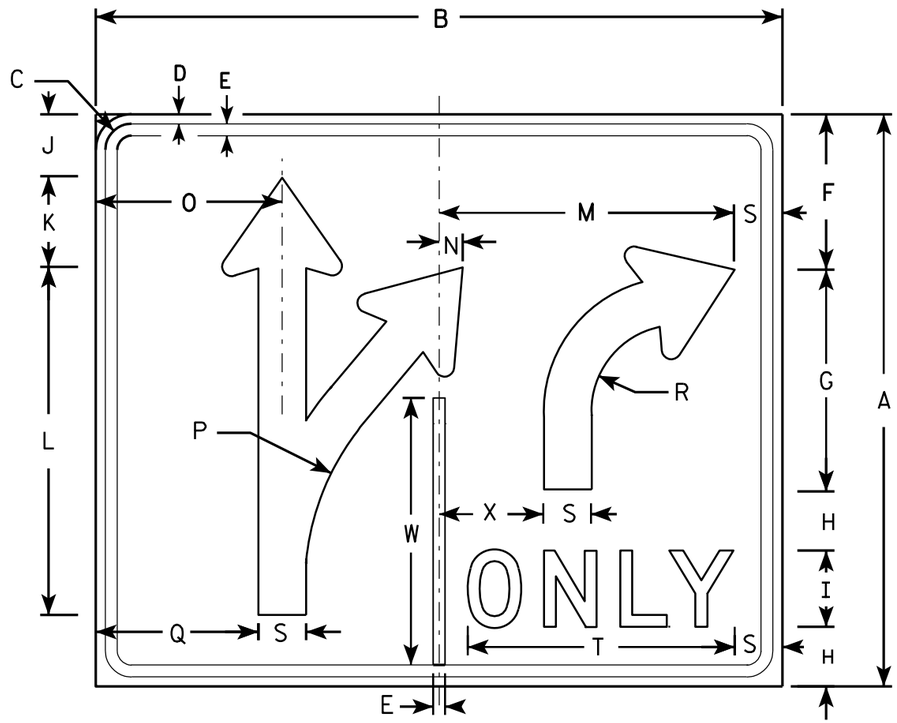
R3-8B



ARROW DETAIL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-8B & R3-8C is the same but reversed.



R3-8C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4	9 3/4	13 1/4	8 1/2	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	15 1/2	1 1/4	9 3/4	13 1/4	8 1/2	4 1/2	2 1/2	14	2 5/8	3/8	14	5 1/4			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 5/8	23 1/8	1 7/8	14 5/8	21 7/8	12 3/4	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	8 1/8			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 5/8	23 1/8	1 7/8	14 5/8	21 7/8	12 3/4	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	8 1/8			18.0

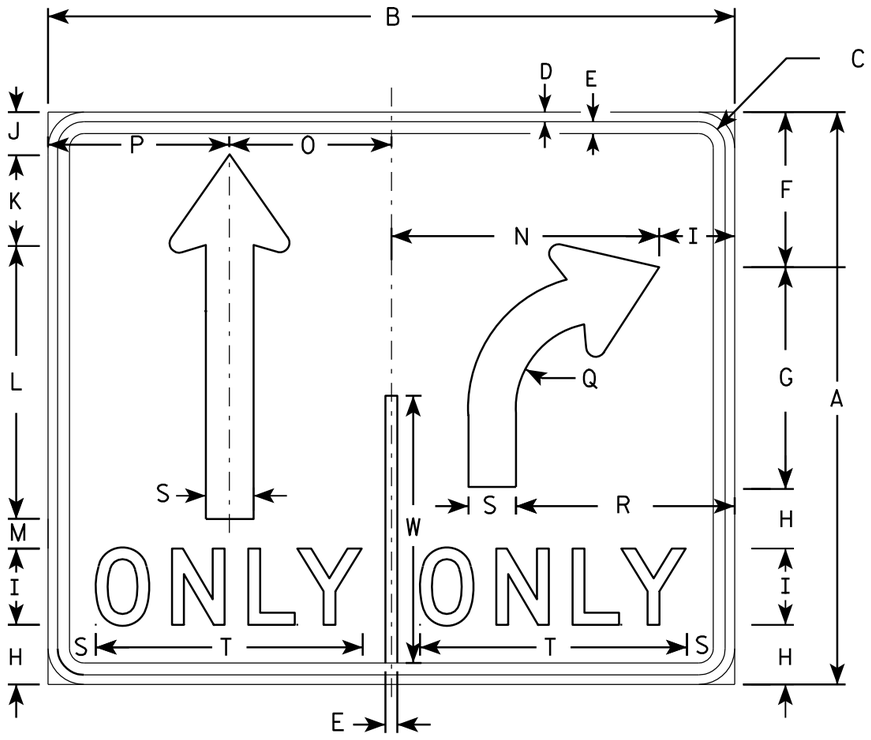
STANDARD SIGN
R3-8B & R3-8C

WISCONSIN DEPT OF TRANSPORTATION

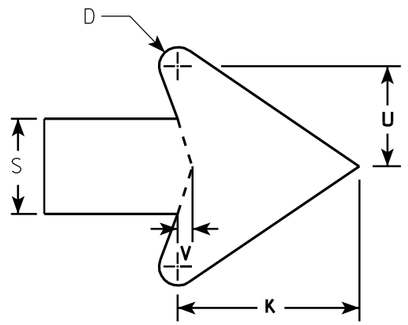
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 248	E



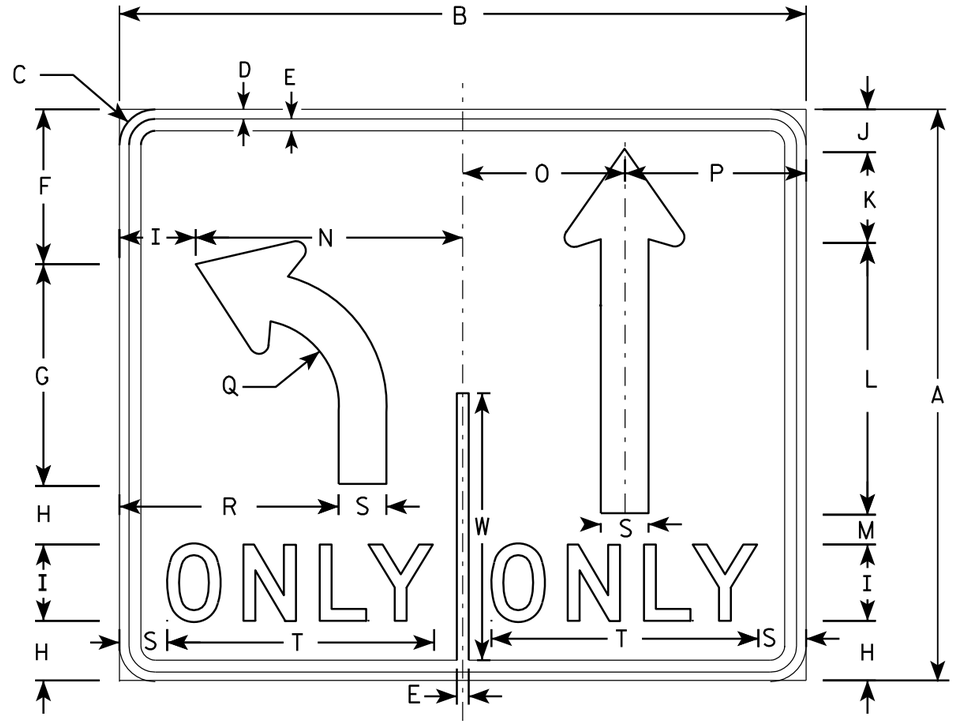
R3-8D



ARROW DETAIL

NOTES

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



R3-8E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0

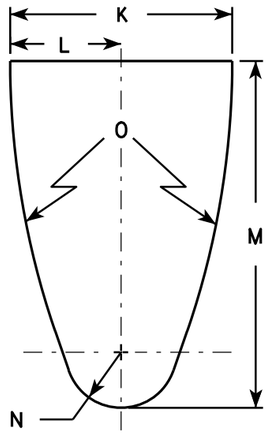
STANDARD SIGN
R3-8D & R3-8E

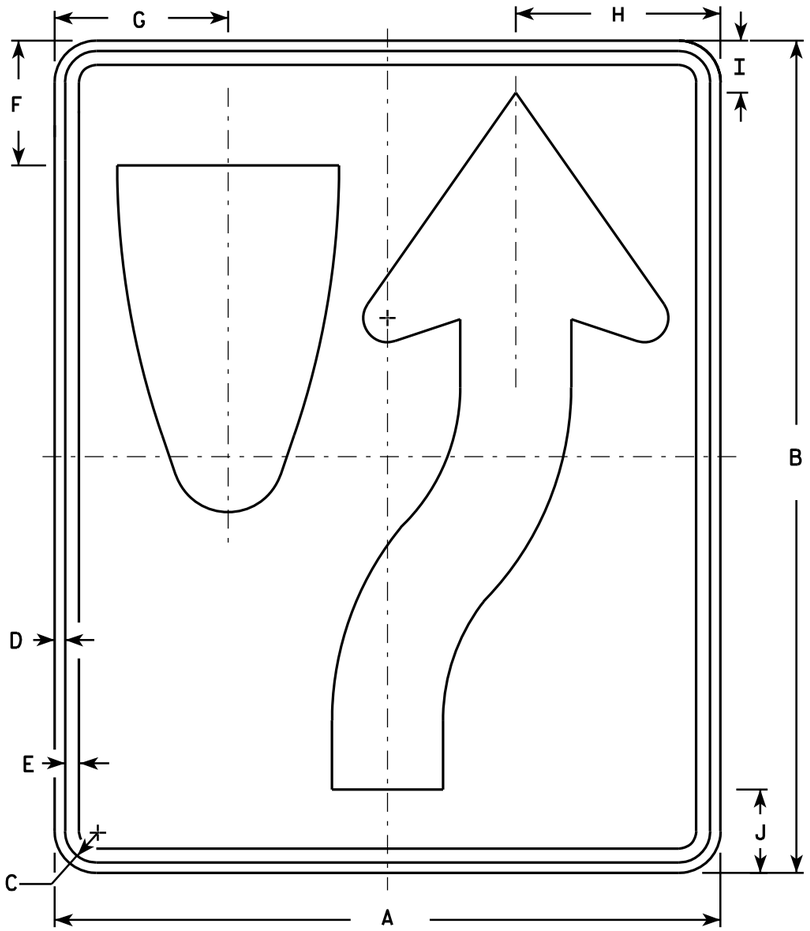
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8D.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 249	E

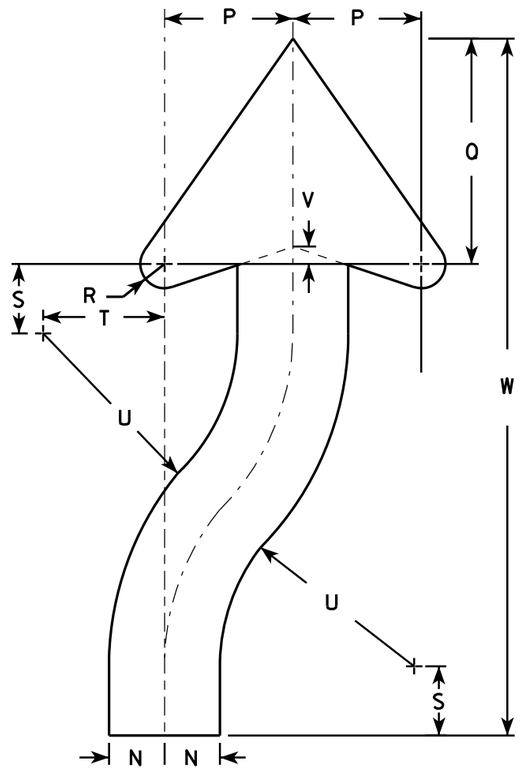




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

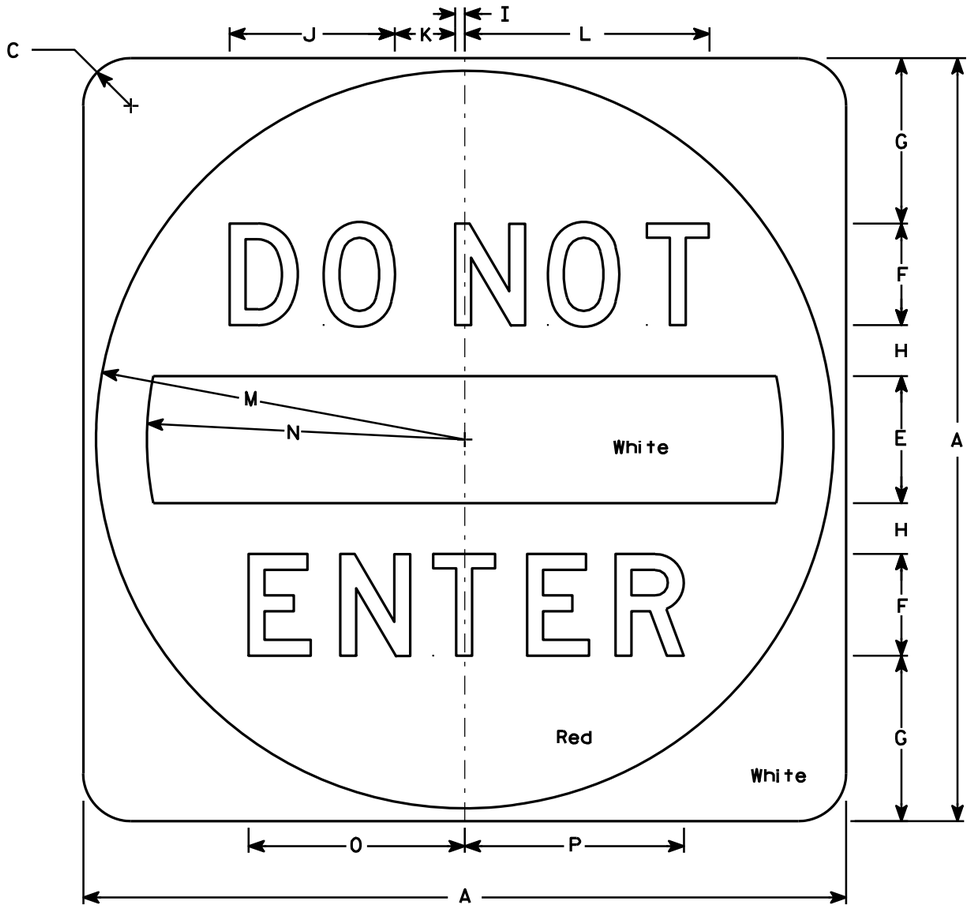
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 250	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors 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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

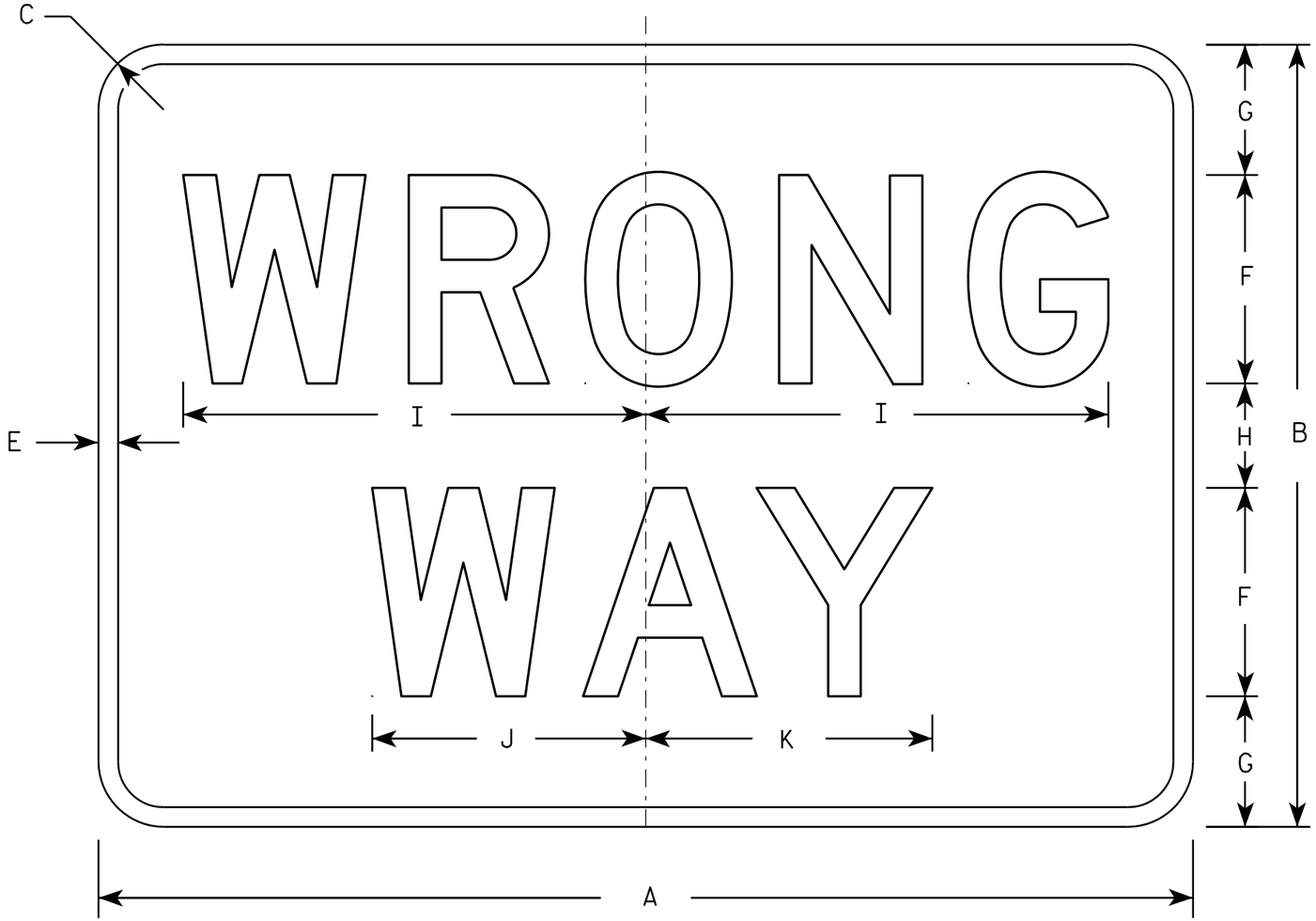
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 251 | E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

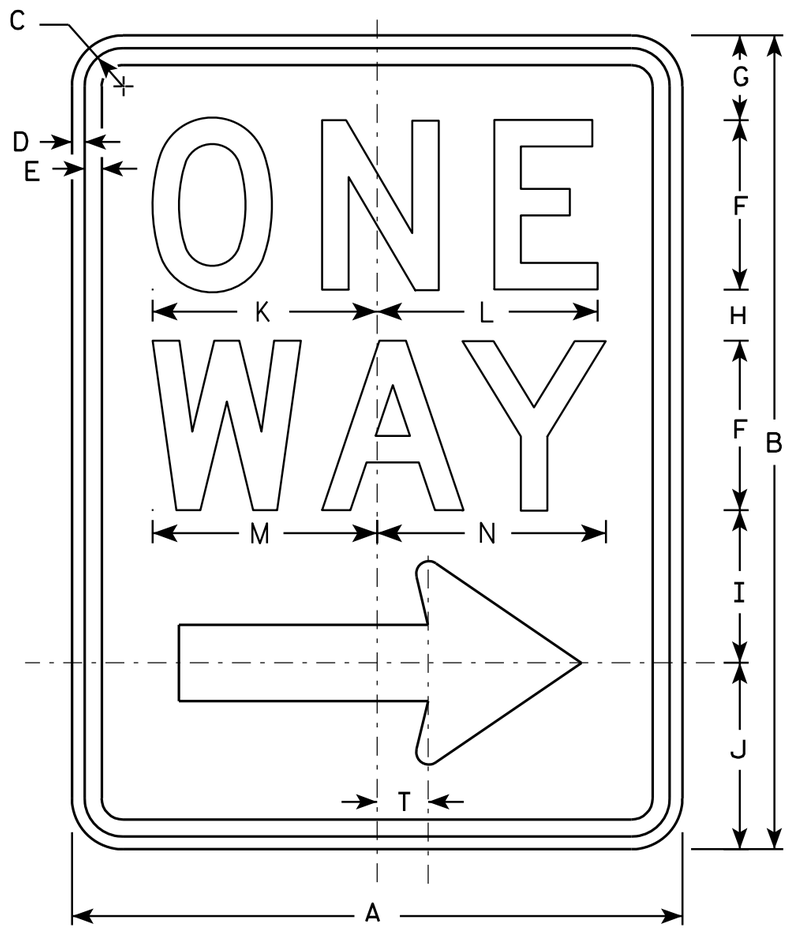
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

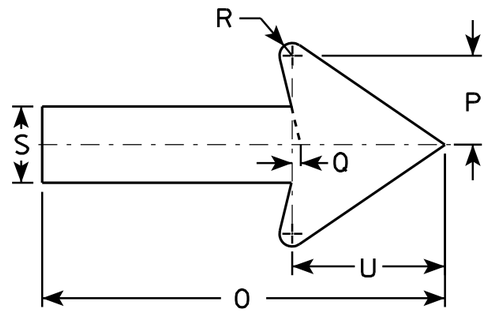
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 252	E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

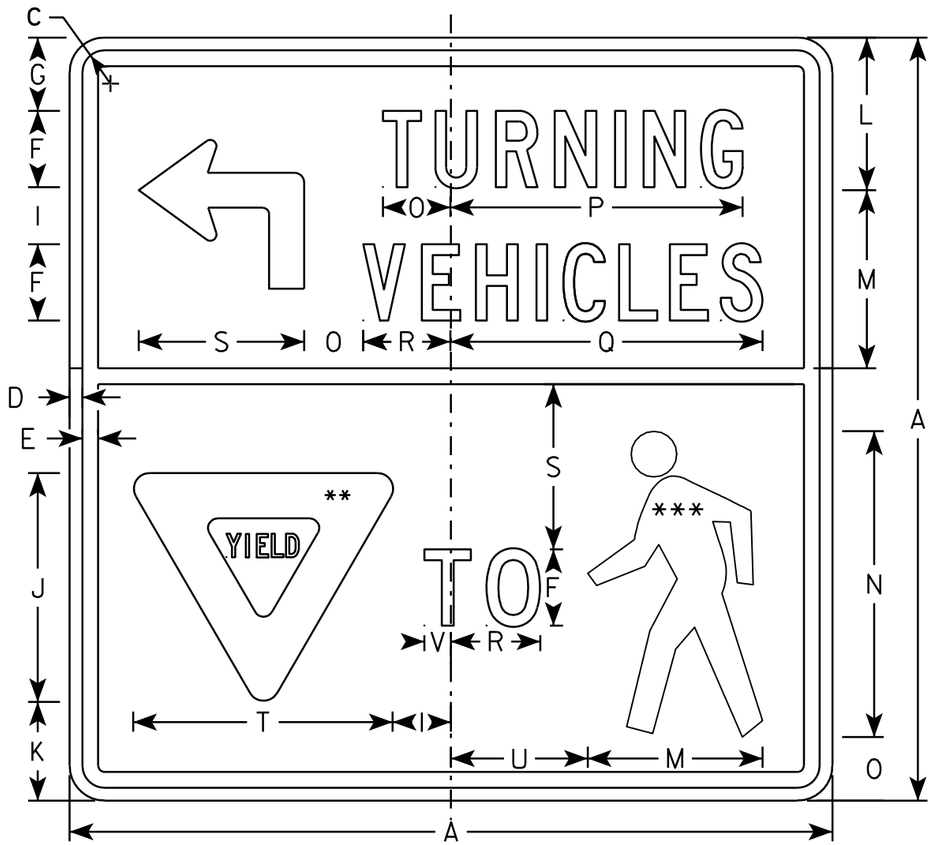
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 253	E



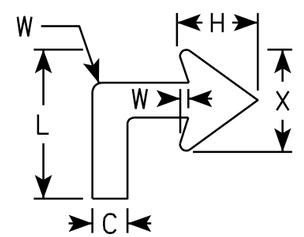
R10-15L

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Half- Yellow
   Bottom Half - WHITE
   Message - BLACK
   YIELD SYMBOL - RED ON WHITE
   PED SYMBOL - BLACK ON WHITE
3. Message Series - C except "TO" Series D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
2M	30		1 3/8	1/2	5/8	3	2 7/8	3	2 1/4	9	3 7/8	6	7	12	2 1/2	11 1/2	12 1/4	3 1/2	6 1/2	10 1/4	5 3/8	1	3/8	4			6.25
3																											
4																											
5																											

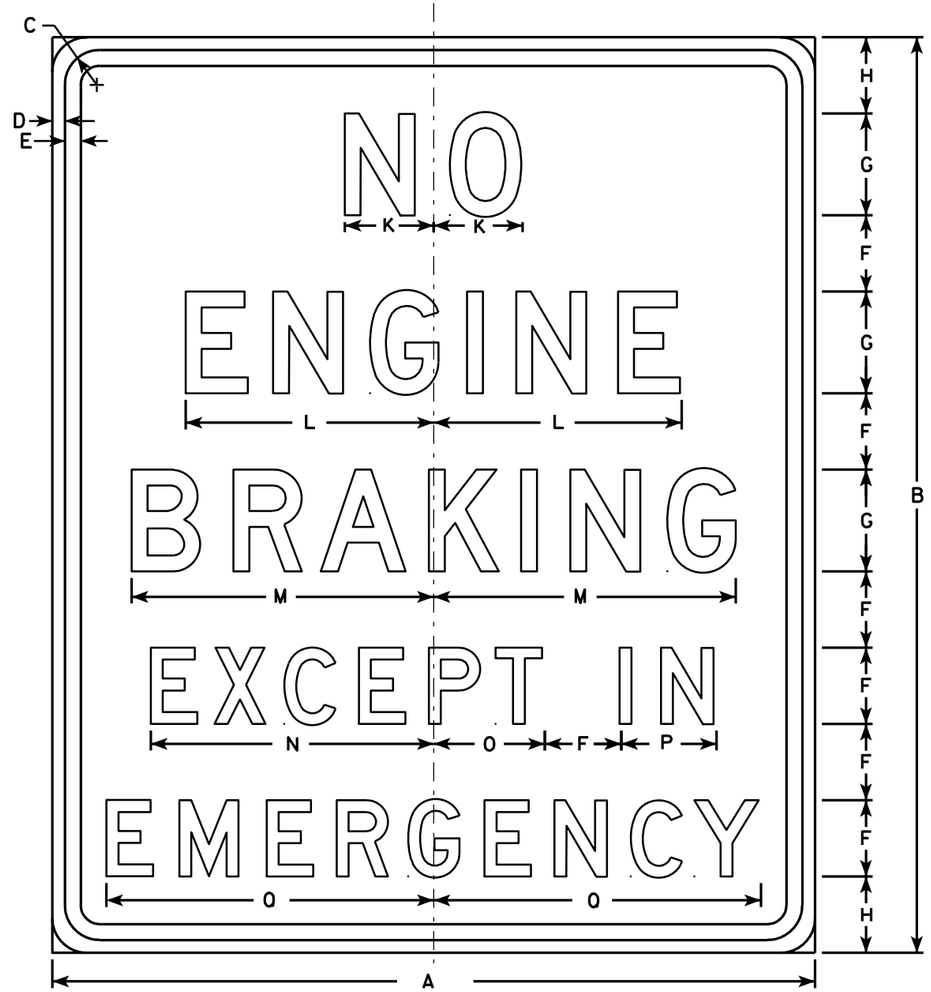
STANDARD SIGN
R10-15L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R10-15L.1

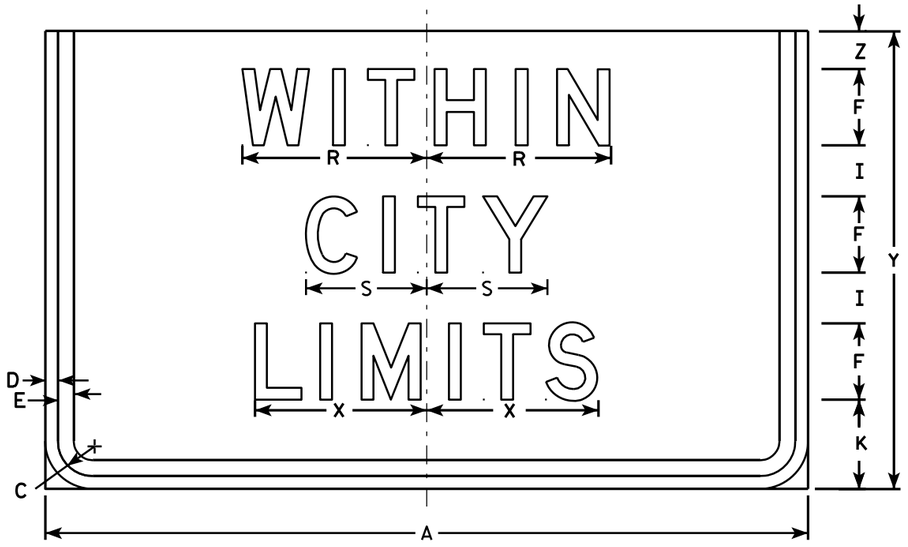
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 254 | E



R10-64

NOTES

1. Signs are 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 See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F

Area sq. ft.
3.75
7.0

VILLAGE
V
V

TOWNSHIP
U
U

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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

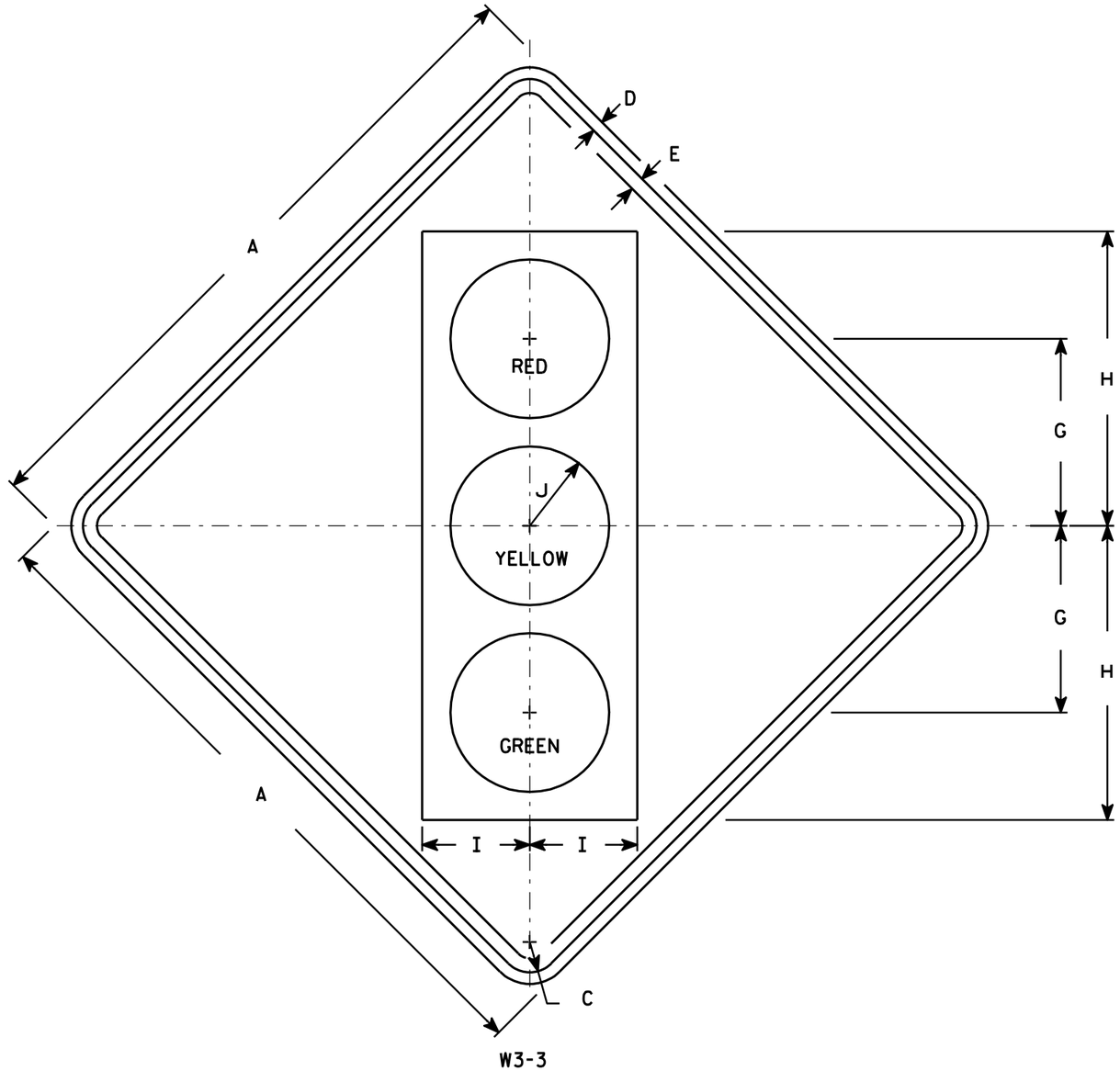
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 255	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

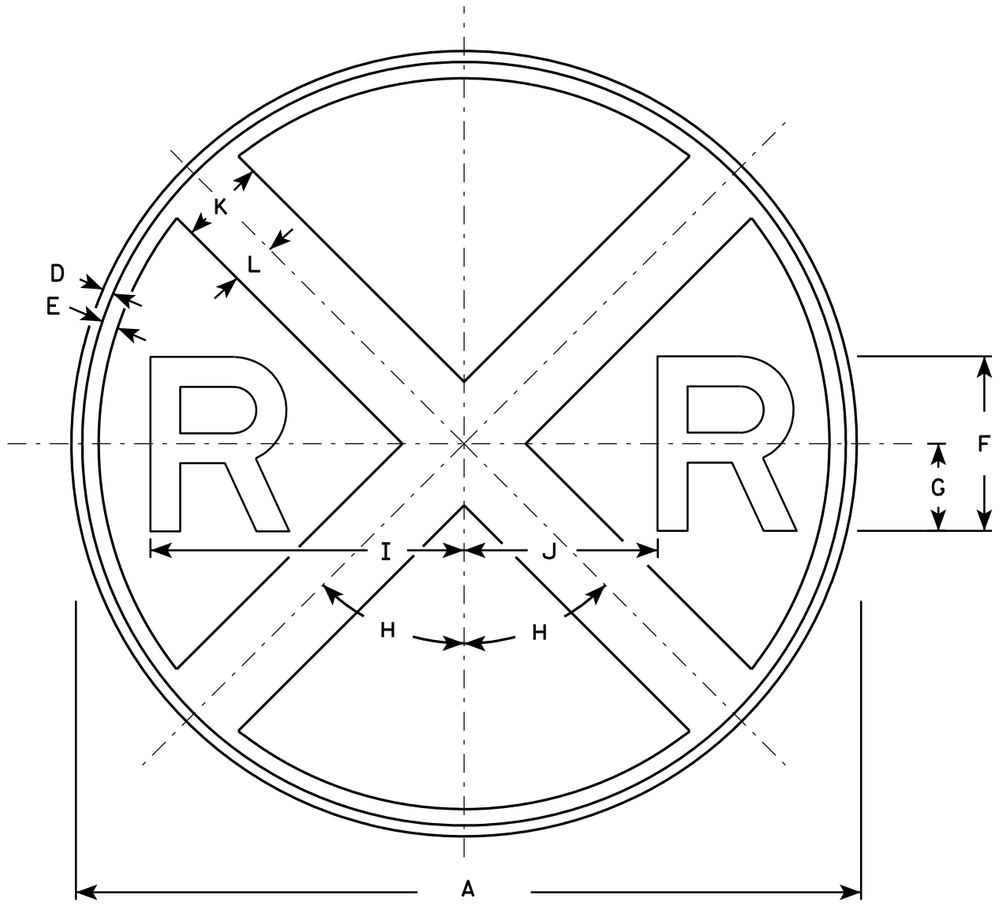
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 256 | E



W10-1

NOTES

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

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			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

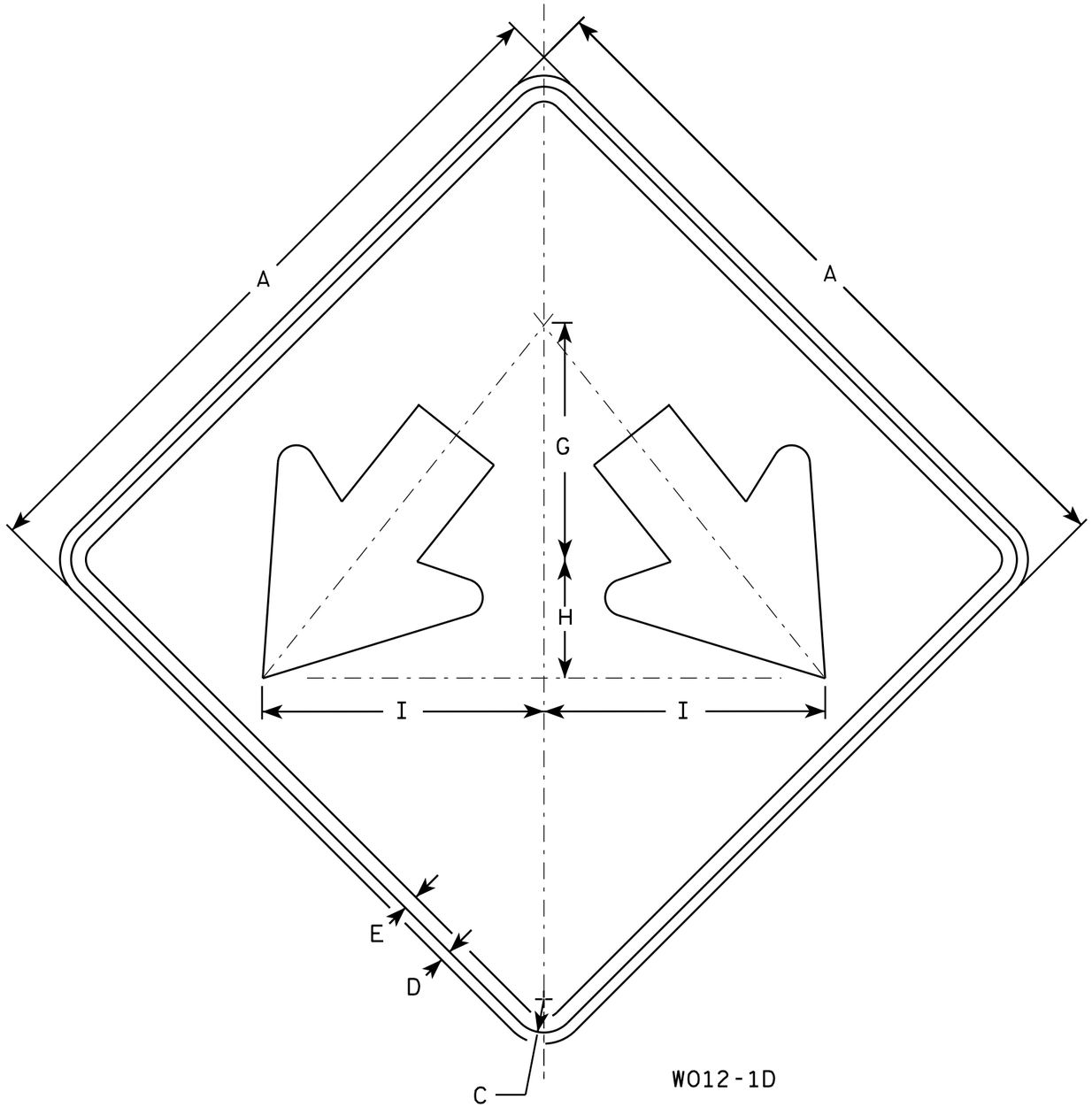
STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-1.8

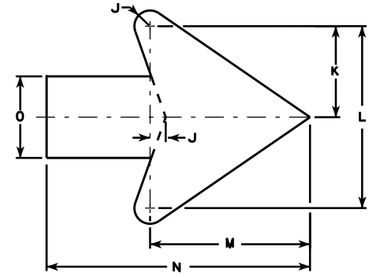
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 257	E



W012-1D

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
2S	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0
2M	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0
3	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0
4	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W012-1D

WISCONSIN DEPT OF TRANSPORTATION

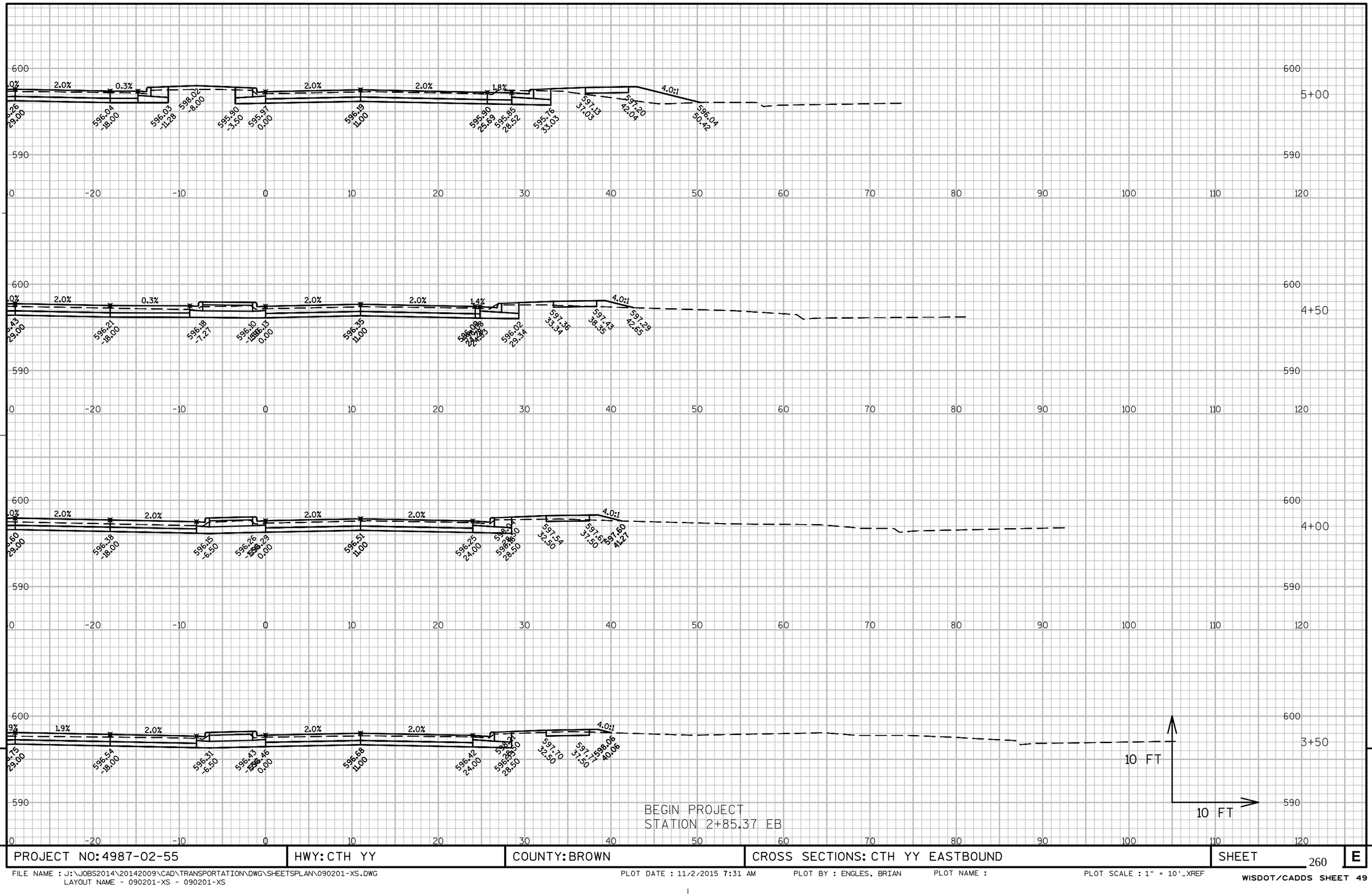
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 258 W012-1D.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

CTH YY

STATION	LENGTH	END-AREA CUT	END-AREA FILL	VOLUME INCREMENTAL CUT	VOLUME INCREMENTAL FILL	VOLUME CUMULATIVE CUT	CUT FAC	VOLUME CUMULATIVE FILL	FILL FAC	MASS HAUL
		SQ FT		CU YD		CU YD		CU YD		CU YD
03+00.00		129.5	1.6							
	50.00			239.8	2.9	239.8	1.0	3.6	1.25	236.2
03+50.00		129.5	1.6							
	50.00			222.7	4.1	462.5	1.0	8.8	1.25	453.8
04+00.00		111.0	2.8							
	50.00			204.6	7.7	667.1	1.0	18.4	1.25	648.7
04+50.00		109.9	5.5							
	50.00			202.4	23.3	869.5	1.0	47.5	1.25	822.0
05+00.00		108.7	19.7							
	39.71			159.9	36.8	1029.4	1.0	93.5	1.25	935.9
05+39.71		108.8	30.3							
	10.29			41.6	11.9	1071.0	1.0	108.4	1.25	962.6
05+50.00		109.7	32.2							
	50.00			212.8	74.1	1283.8	1.0	201.0	1.25	1082.8
06+00.00		120.2	47.8							
	50.00			233.9	89.2	1517.7	1.0	312.5	1.25	1205.2
06+50.00		132.5	48.6							
	50.00			236.8	92.4	1754.5	1.0	428.0	1.25	1326.5
07+00.00		123.2	51.2							
	50.00			222.6	131.9	1977.1	1.0	592.9	1.25	1384.2
07+50.00		117.2	91.2							
	50.00			215.7	244.0	2192.8	1.0	897.9	1.25	1294.9
08+00.00		115.7	172.3							
	50.00			215.4	326.0	2408.2	1.0	1305.4	1.25	1102.8
08+50.00		116.9	179.7							
	50.00			241.2	278.0	2649.4	1.0	1652.9	1.25	996.5
09+00.00		143.6	120.5							
	50.00			228.4	212.6	2877.8	1.0	1918.6	1.25	959.2
09+50.00		103.0	109.0							
	50.00			181.1	156.5	3058.9	1.0	2114.3	1.25	944.7
10+00.00		92.6	60.0							
	23.96			82.1	53.3	3141.0	1.0	2180.9	1.25	960.1
10+23.96		92.6	60.0							
				Bridge						
11+29.68		94.3	18.8							
	20.32			71	14.2	71.0	1.0	17.8	1.25	53.3
11+50.00		94.3	18.8							
	50.00			178	41.6	249.0	1.0	69.8	1.25	179.3
12+00.00		98.0	26.1							
	25.00			89.7	22.6	338.7	1.0	98.0	1.25	240.7
12+25.00		95.9	22.7							
	25.00			88.1	16.0	426.8	1.0	118.0	1.25	308.8
12+50.00		94.5	12.0							
	50.00			189.6	25.7	616.4	1.0	150.1	1.25	466.3
13+00.00		110.2	15.8							
	36.52			145.2	27.4	761.6	1.0	184.4	1.25	577.2
13+36.52		104.4	24.7							
	13.48			55.1	13.7	816.7	1.0	201.5	1.25	615.2
13+50.00		116.1	30.2							
	11.50			47.4	14.3	864.1	1.0	219.4	1.25	644.7
13+61.50		106.6	37.0							
	24.98			93.2	43.6	957.3	1.0	273.9	1.25	683.4
13+86.48		95.0	57.4							
	13.52			47.3	31.4	1004.6	1.0	313.1	1.25	691.5
14+00.00		93.9	67.9							
	50.00			164.8	116.0	1169.4	1.0	458.1	1.25	711.3
14+50.00		84.2	57.5							
	50.00			155	149.9	1324.4	1.0	645.5	1.25	678.9
15+00.00		83.2	104.5							
	50.00			146.8	198.5	1471.2	1.0	893.6	1.25	577.6
15+50.00		75.3	109.9							
	50.00			131.6	217.0	1602.8	1.0	1164.9	1.25	437.9
16+00.00		66.8	124.5							
	50.00			125.7	221.6	1728.5	1.0	1441.9	1.25	286.6
16+50.00		69.0	114.8							
	50.00			129.5	197.5	1858.0	1.0	1688.8	1.25	169.3
17+00.00		70.9	98.4							
	50.00			135.3	165.2	1993.3	1.0	1895.3	1.25	98.0
17+50.00		75.3	80.0							
	42.51			128	114.1	2121.3	1.0	2037.9	1.25	83.4
17+92.51		87.2	65.0							
	7.49			24.5	17.7	2145.8	1.0	2060.0	1.25	85.8
18+00.00		89.6	63.0							
	50.00			190.5	111.8	2336.3	1.0	2199.8	1.25	136.6
18+50.00		116.1	57.8							
	50.00			264.1	121.4	2600.4	1.0	2351.5	1.25	248.9
19+00.00		169.2	73.4							
	50.00			325.2	115.5	2925.6	1.0	2495.9	1.25	429.7
19+50.00		182.1	51.4							
	18.43			121.7	31.8	3047.3	1.0	2535.6	1.25	511.7
19+68.43		174.6	41.6							
	31.57			198.2	30.2	3245.5	1.0	2573.4	1.25	672.1
20+00.00		164.5	10.0							
	50.00			283	12.5	3528.5	1.0	2589.0	1.25	939.5
20+50.00		141.2	3.5							
	50.00			251.8	7.1	3780.3	1.0	2597.9	1.25	1182.4
21+00.00		130.8	4.2							
	44.36			212.8	12.1	3993.1	1.0	2613.0	1.25	1380.1
21+44.36		128.2	10.5							
	5.64			26.8	2.3	4019.9	1.0	2615.9	1.25	1404.0
21+50.00		128.5	11.9							
	50.00			259.3	37.8	4279.2	1.0	2663.1	1.25	1616.1
22+00.00		151.5	29.0							
	29.34			164.6	31.5	4443.8	1.0	2702.5	1.25	1741.3
22+29.34		151.5	29.0							

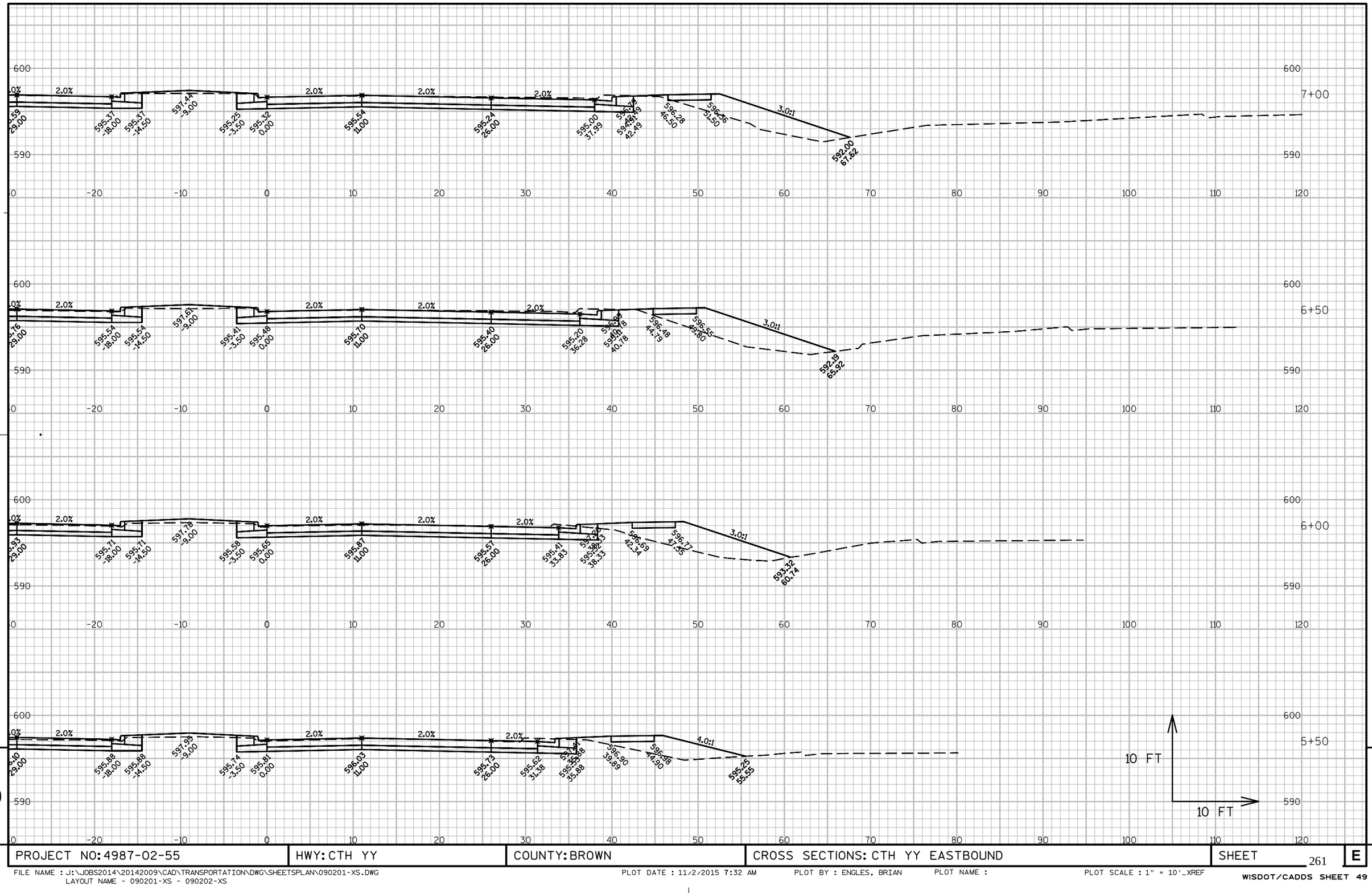


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 260	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090201-XS

PLOT DATE : 11/2/2015 7:31 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

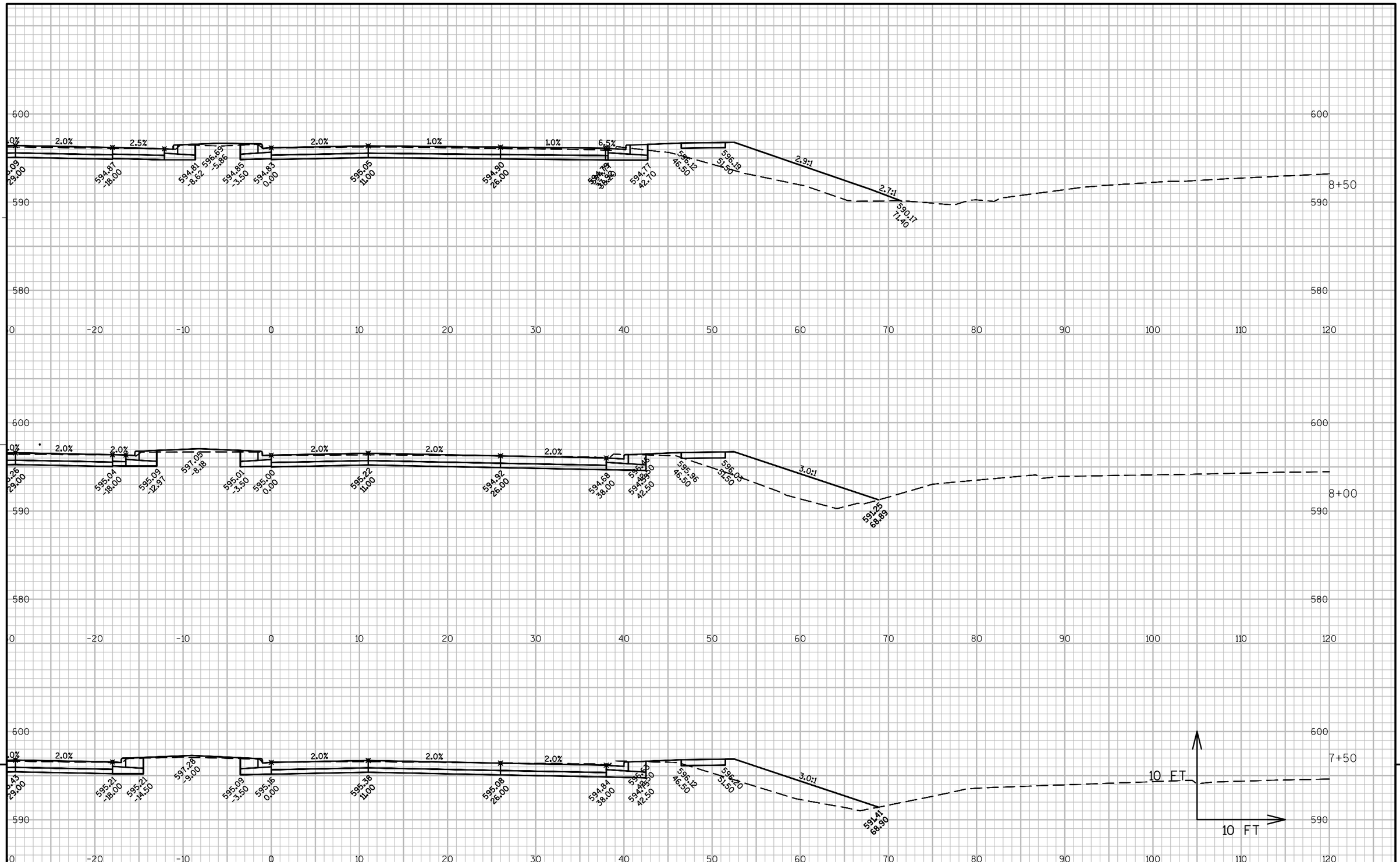
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 261	E

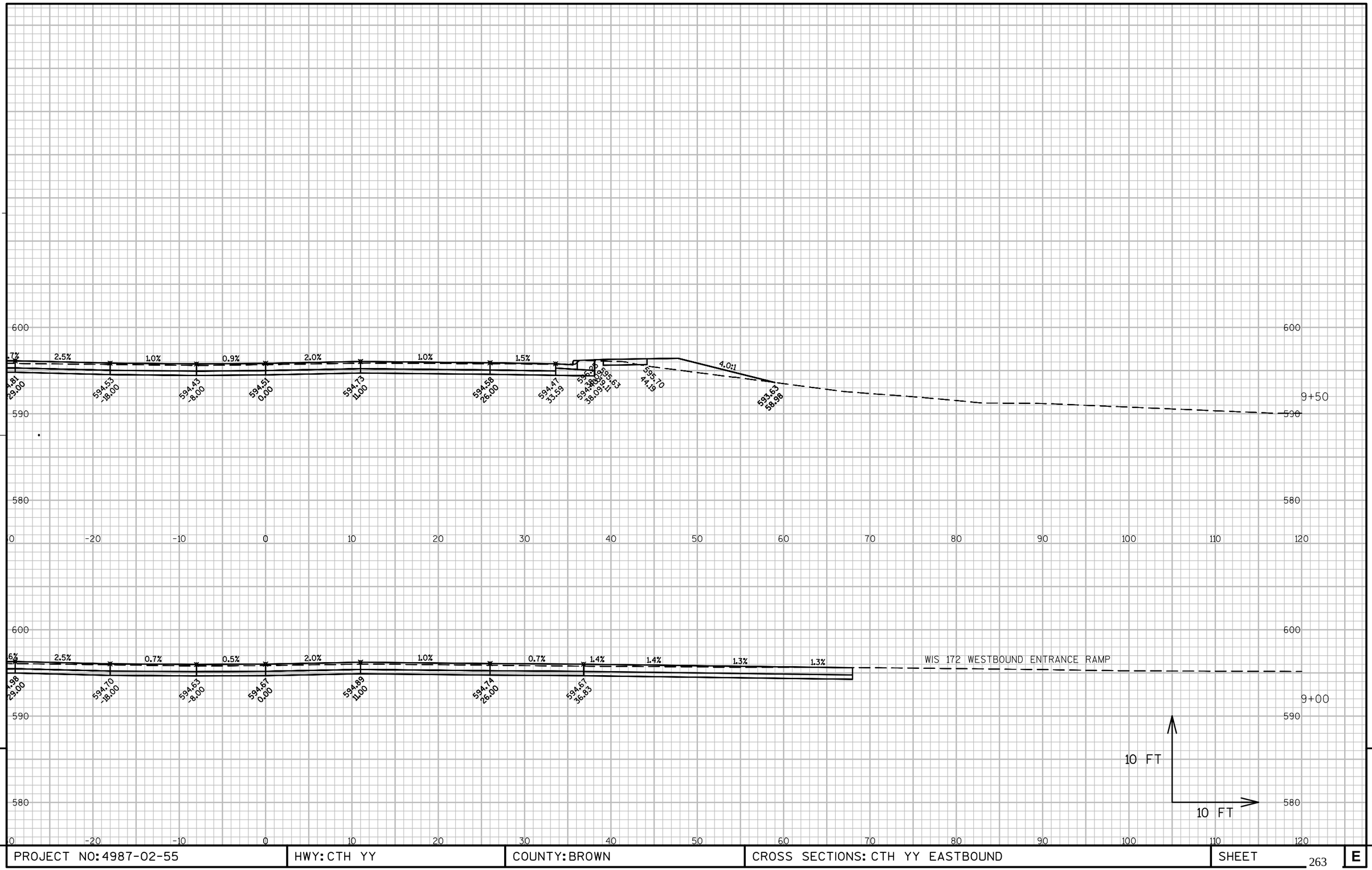
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LAYOUT NAME - 090201-XS - 090202-XS

PLOT DATE : 11/2/2015 7:32 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 262	E



9

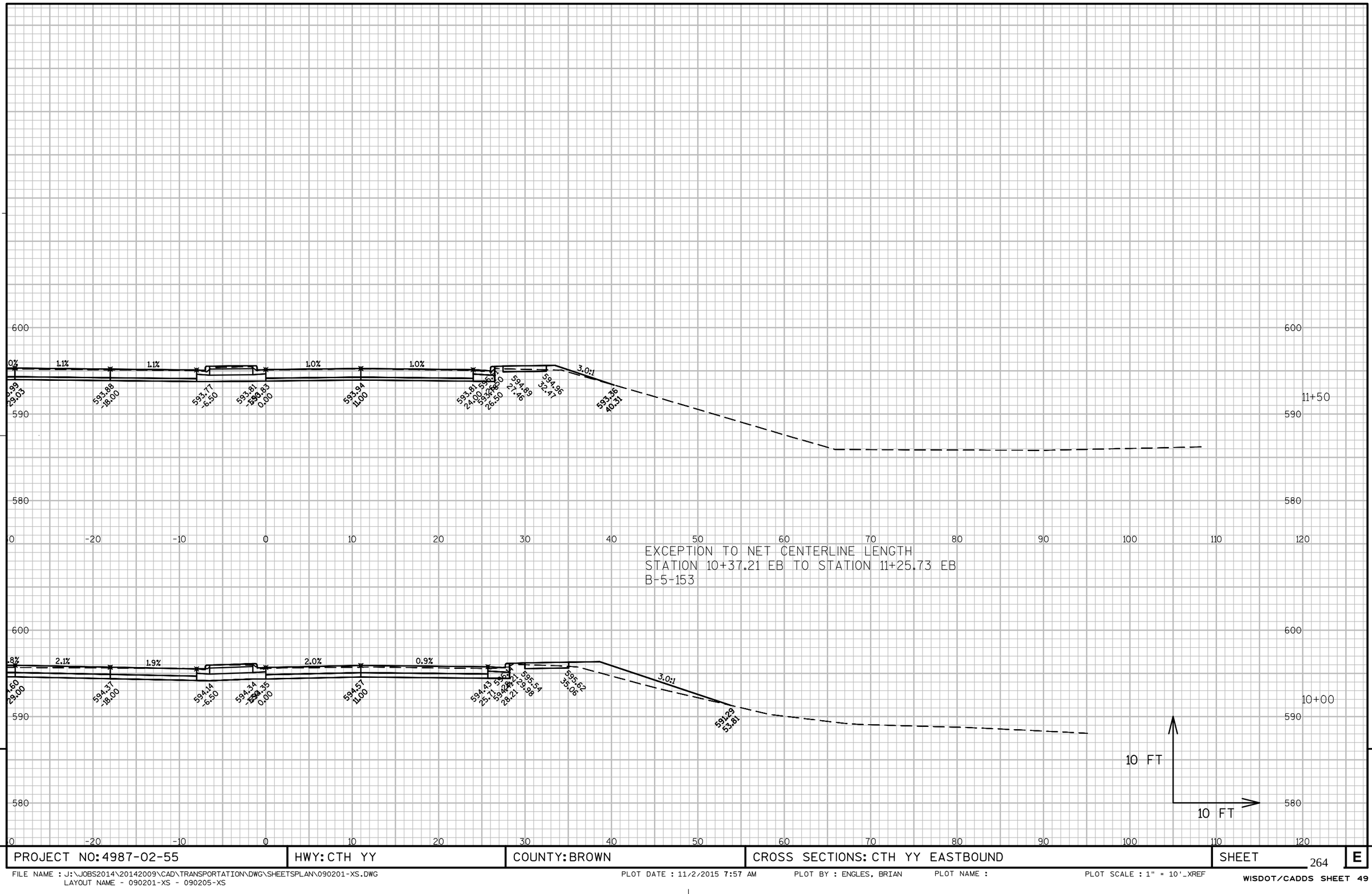
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 263	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090204-XS

PLOT DATE : 11/2/2015 7:33 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

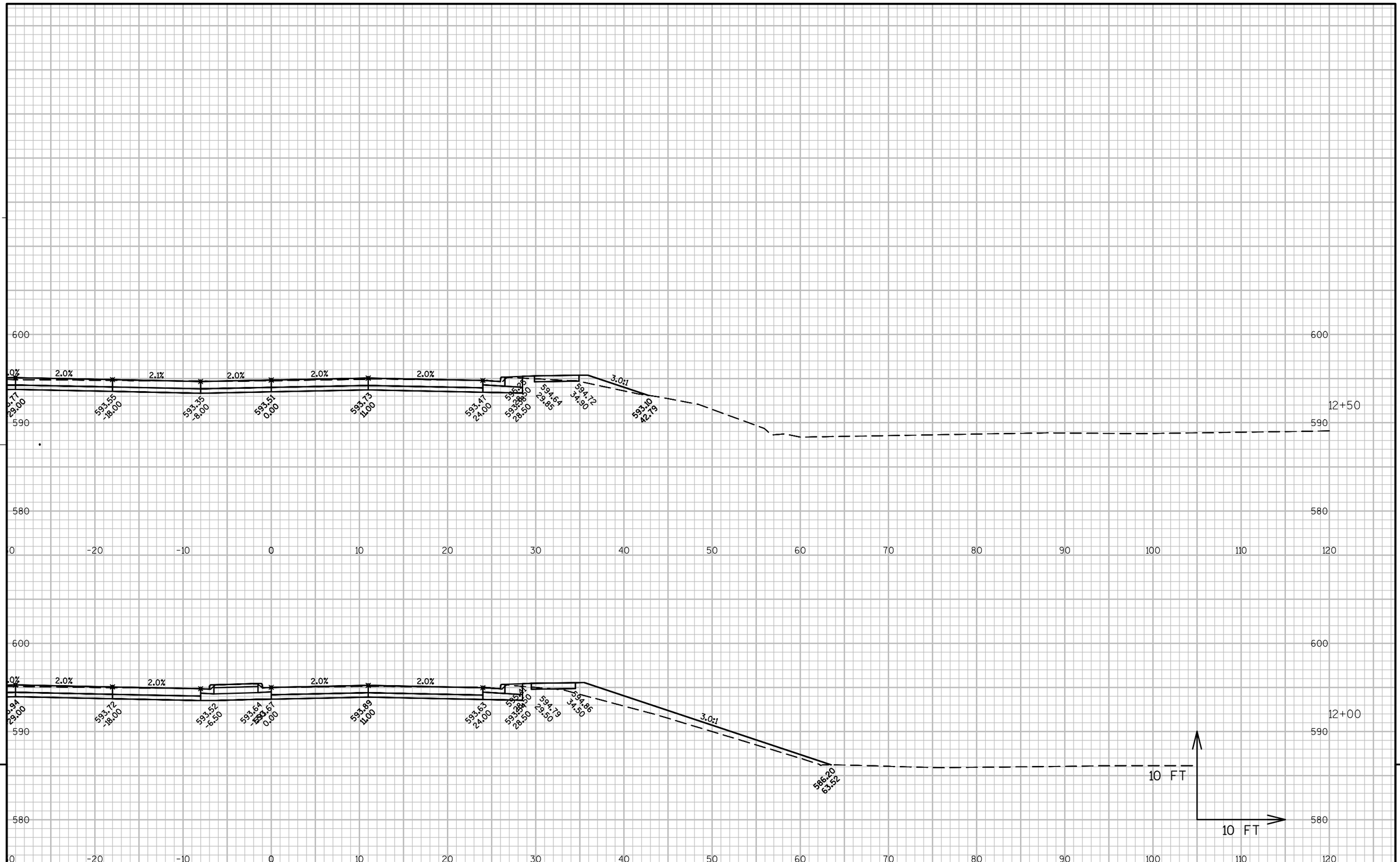


9

9

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 264	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090205-XS
PLOT DATE : 11/2/2015 7:57 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49

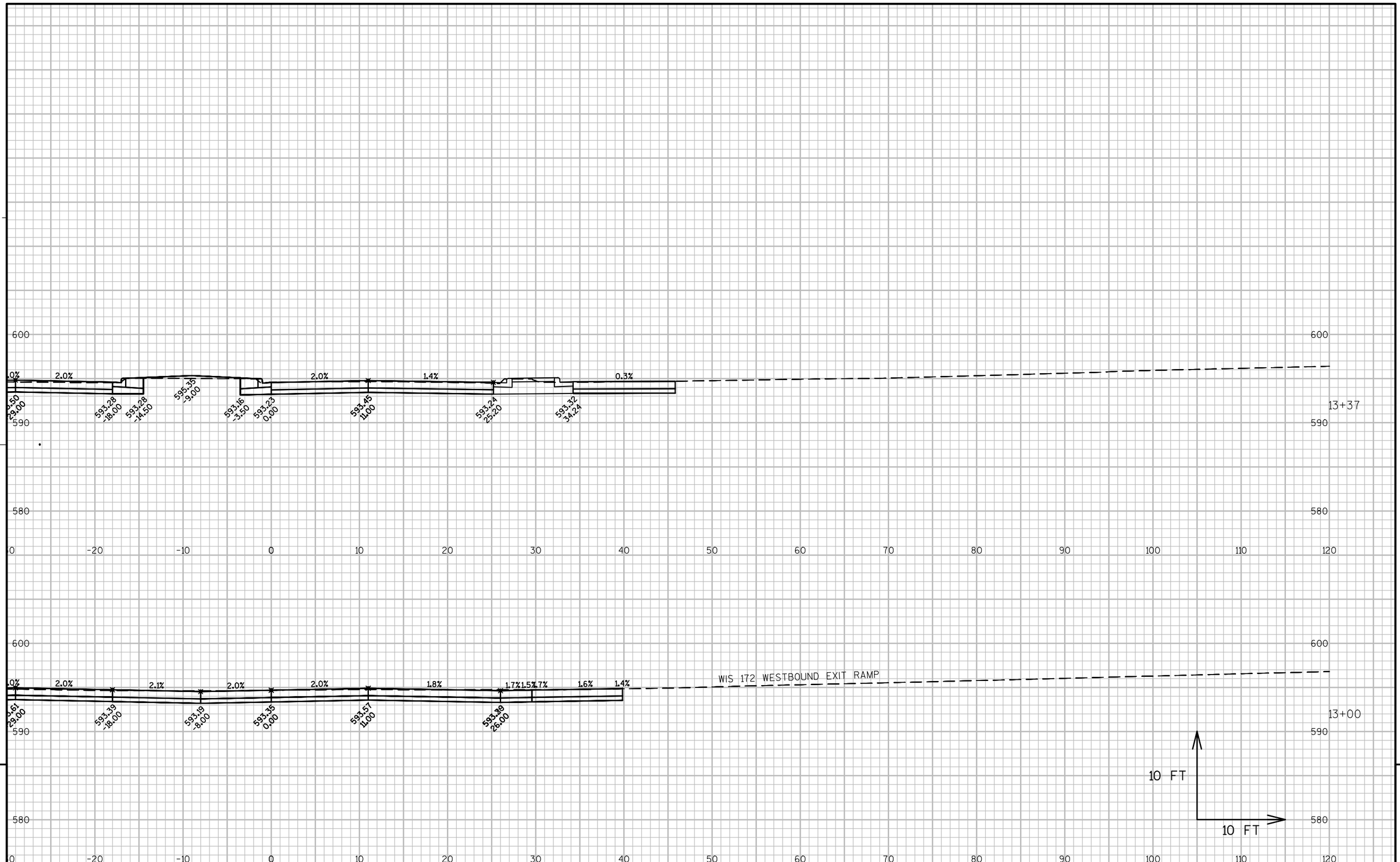


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 265	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090206-XS

PLOT DATE : 11/2/2015 7:34 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

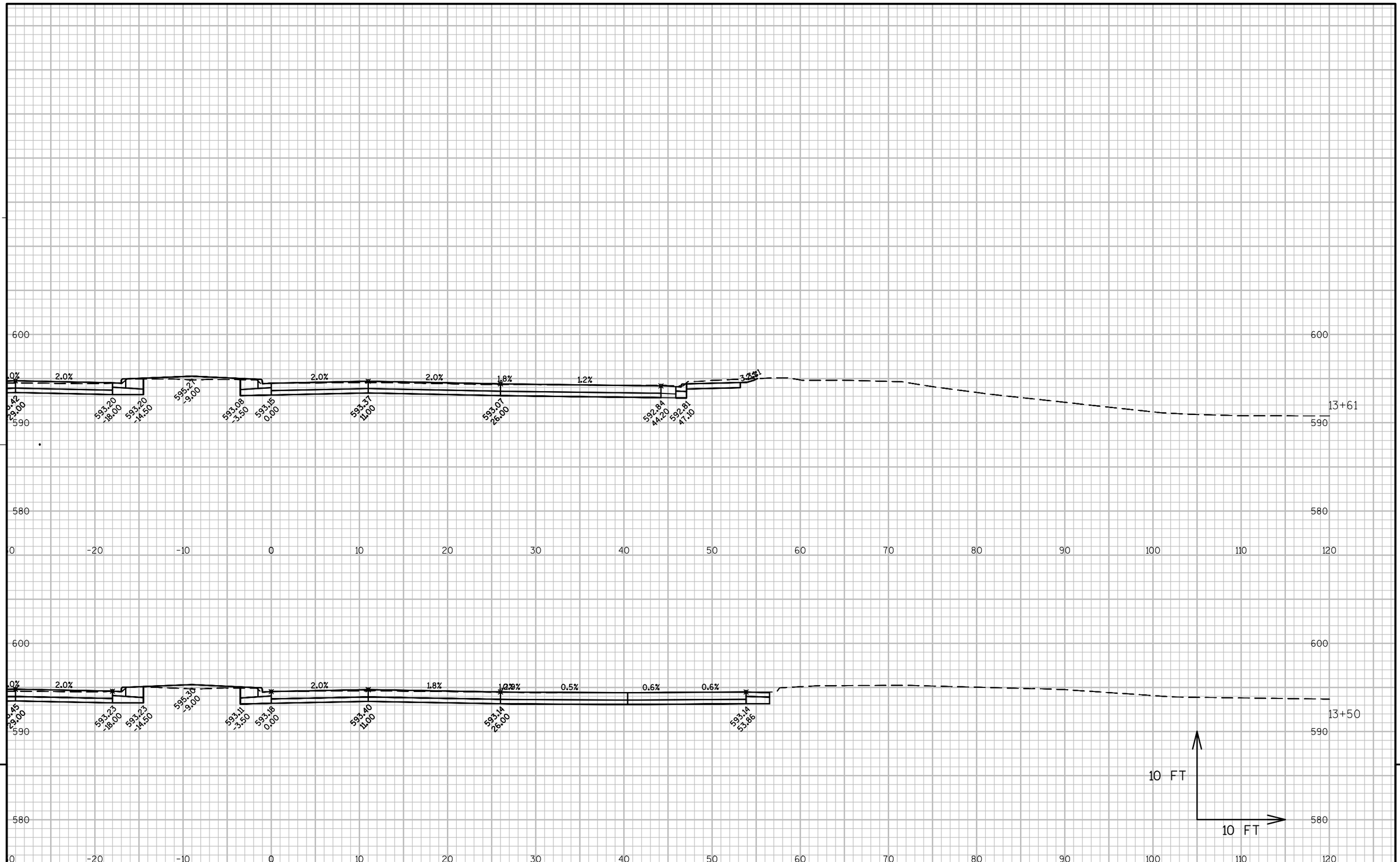
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 266	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090207-XS

PLOT DATE : 11/2/2015 7:35 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

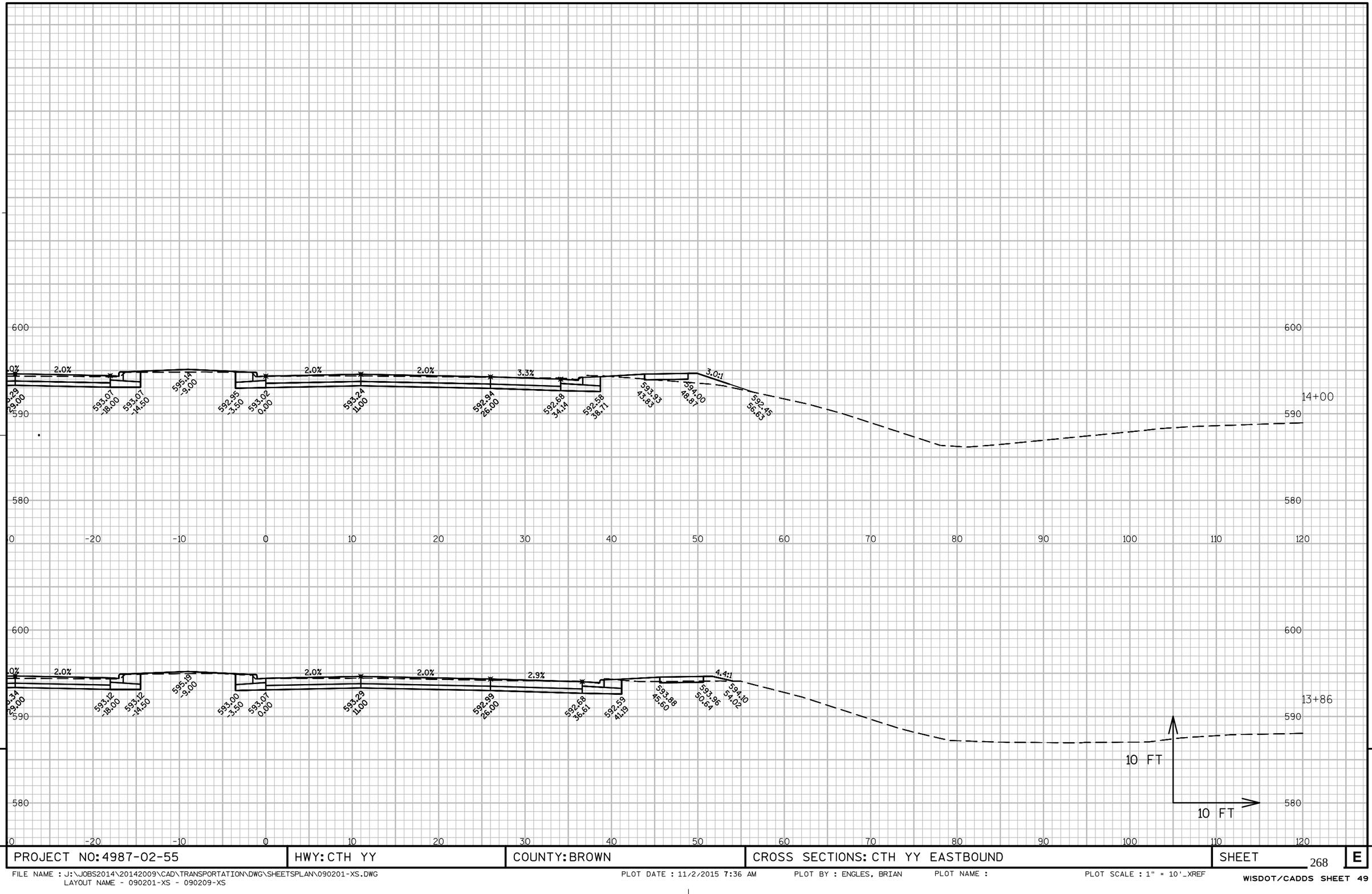
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 267	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090208-XS

PLOT DATE : 11/2/2015 7:35 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



9

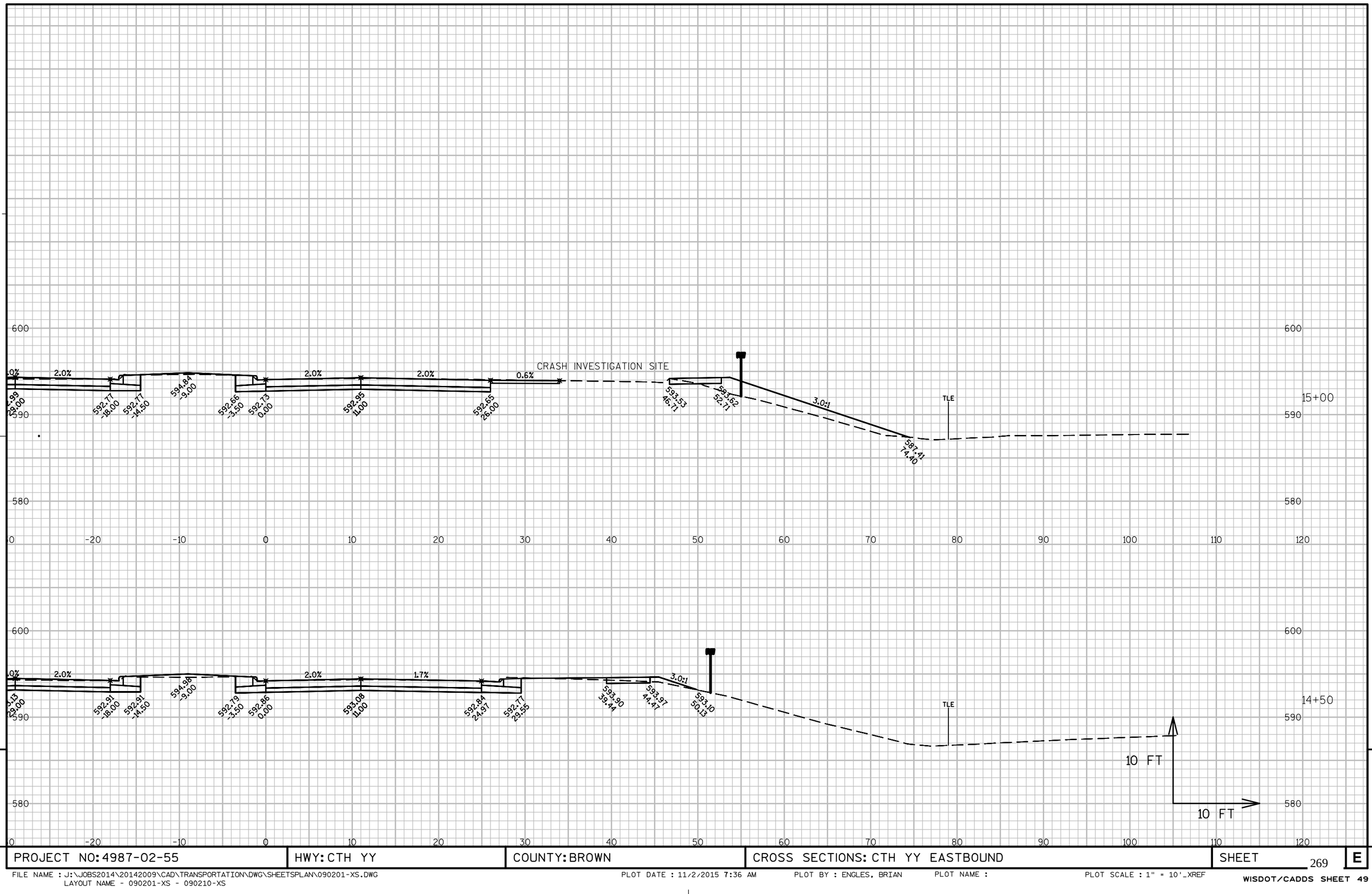
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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 268	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090209-XS

PLOT DATE : 11/2/2015 7:36 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

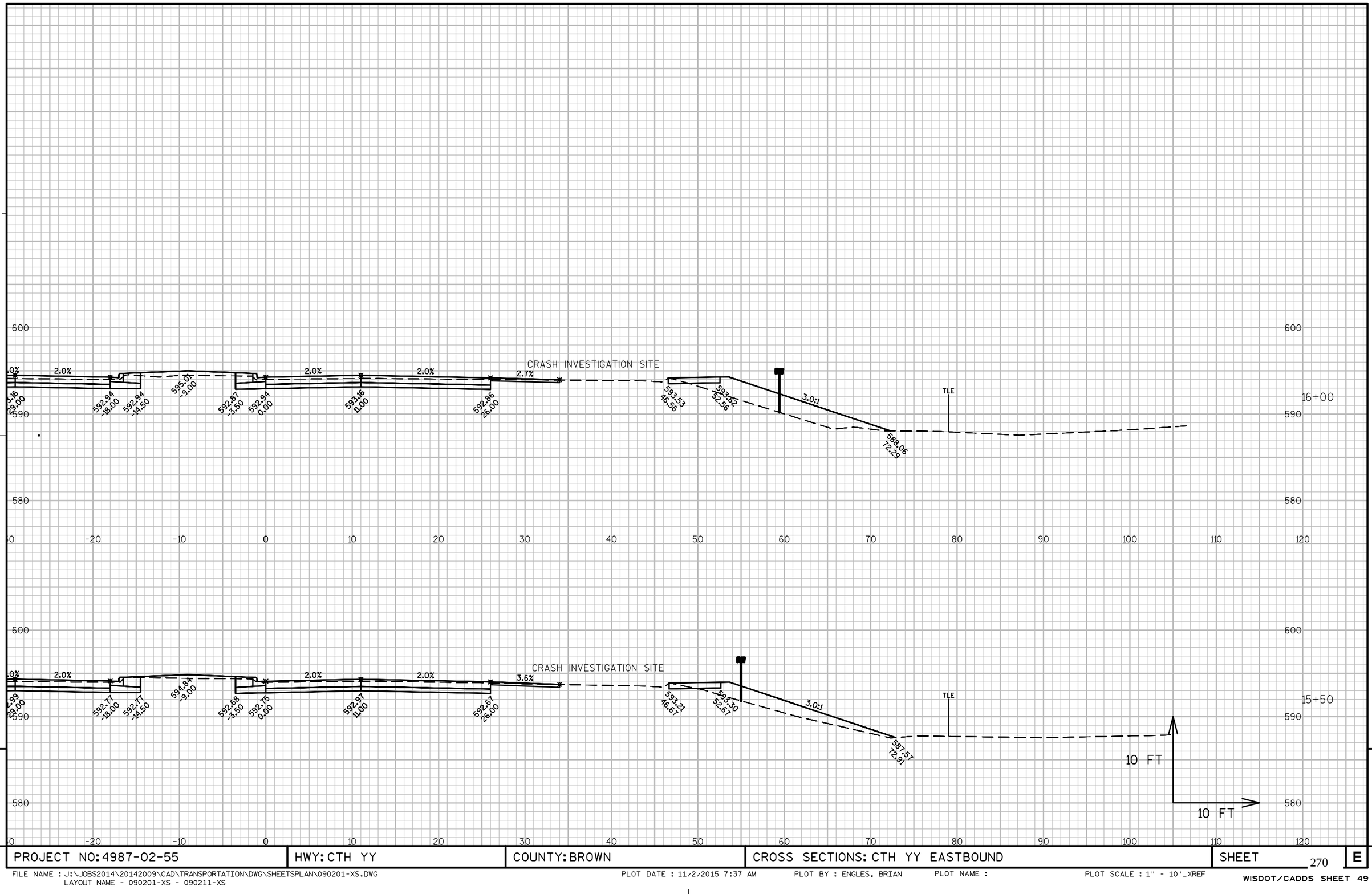


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 269	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090210-XS

PLOT DATE : 11/2/2015 7:36 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



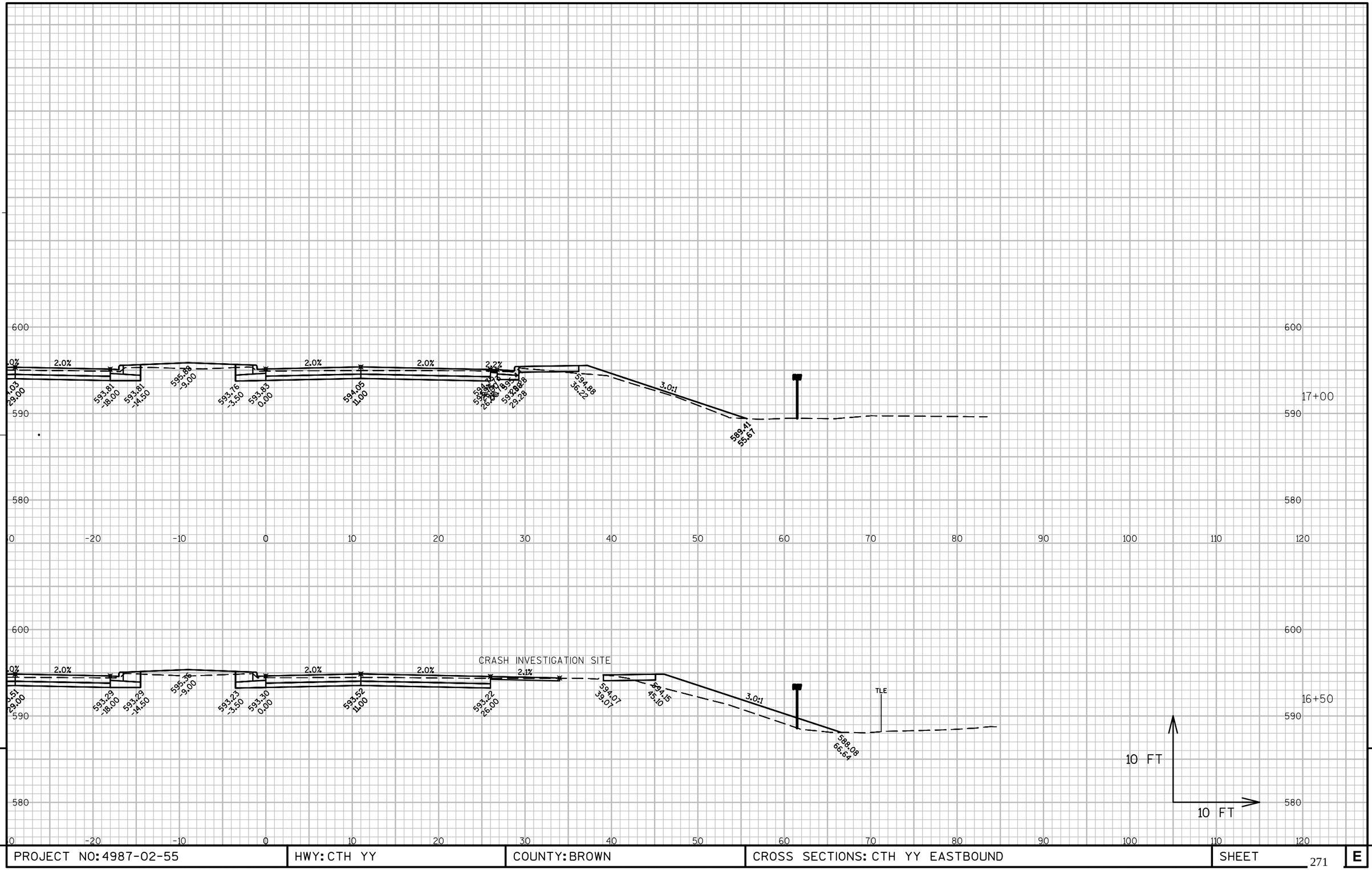
9 9

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 270	E

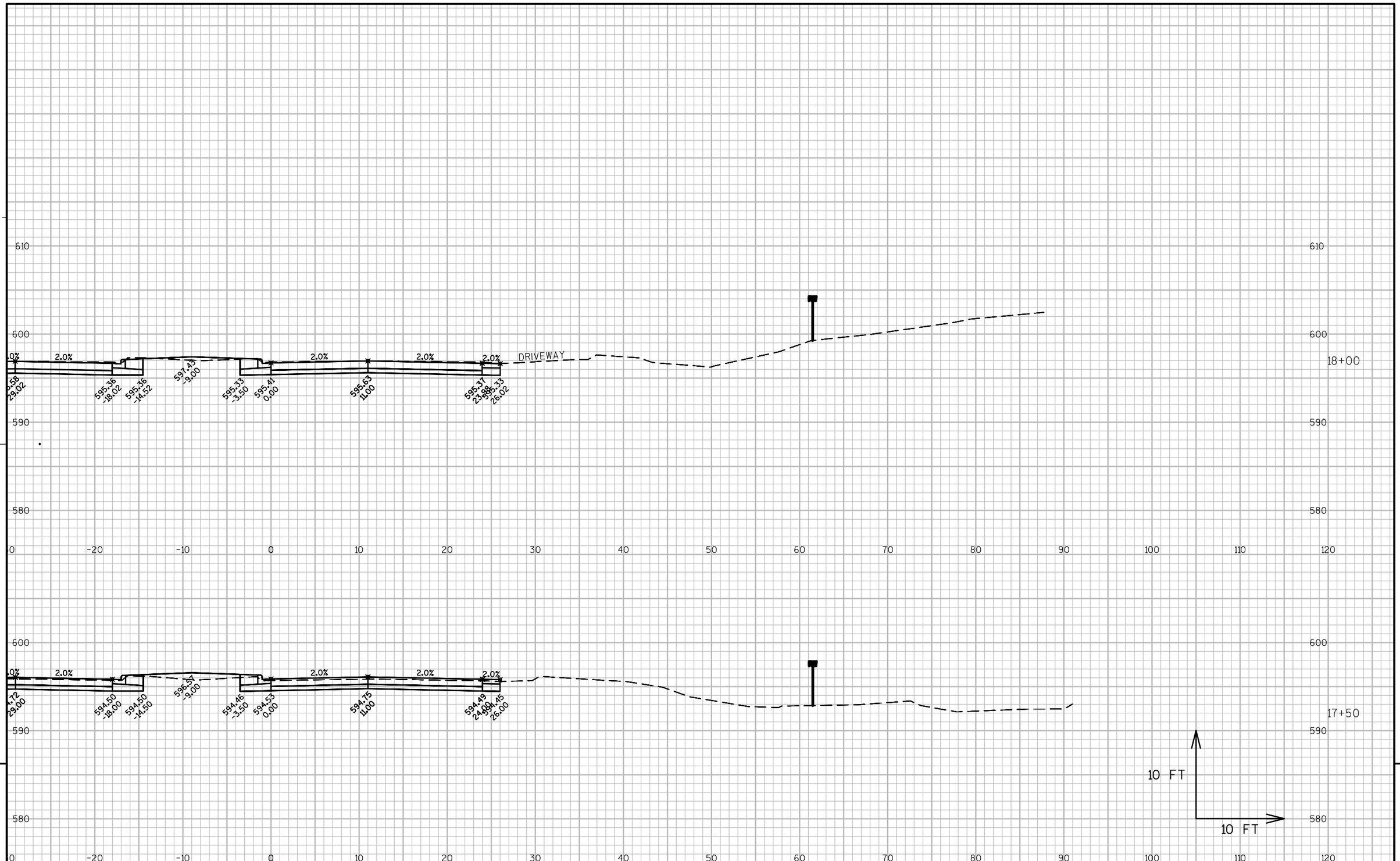
FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090211-XS

PLOT DATE : 11/2/2015 7:37 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

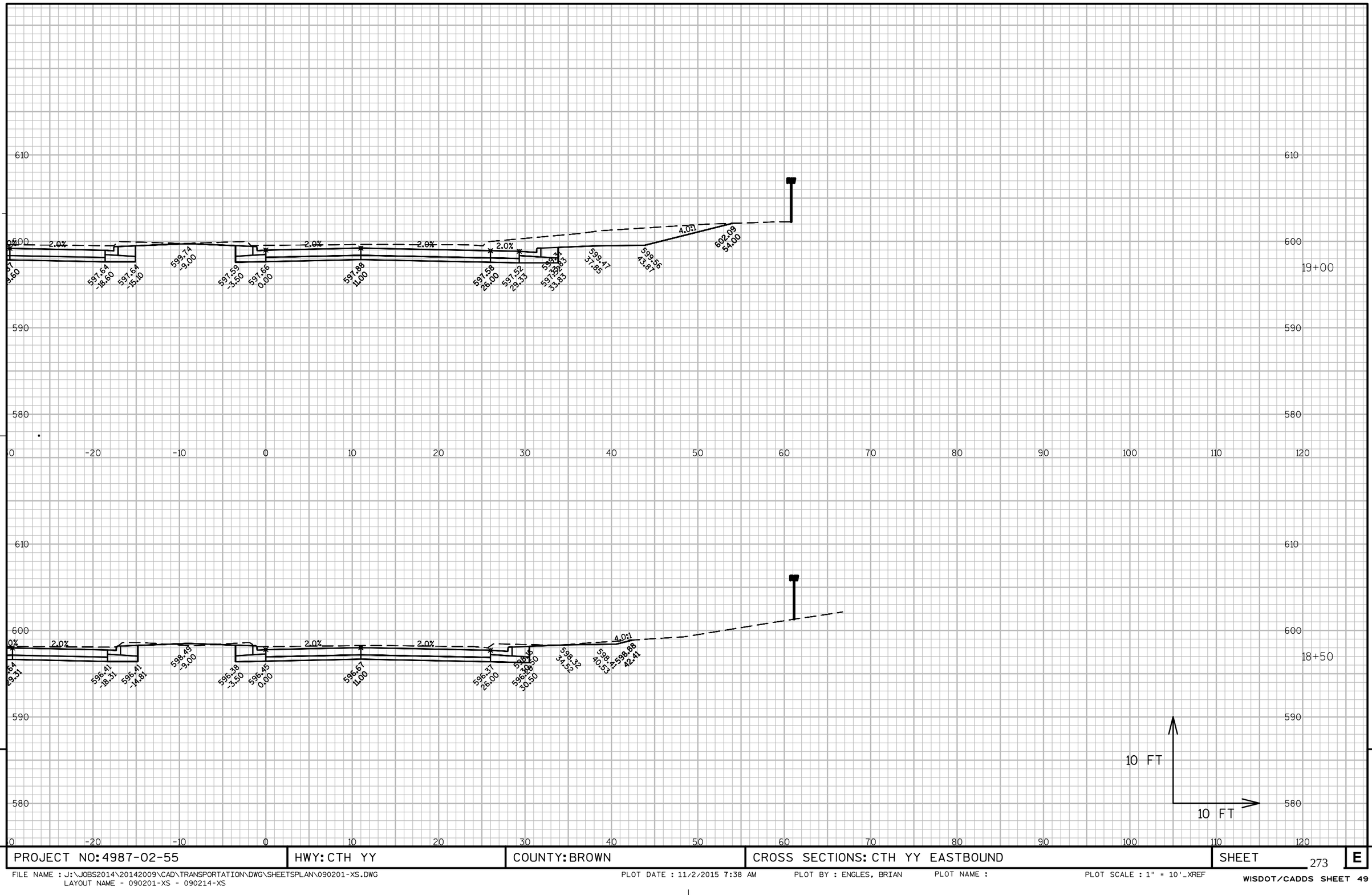
WISDOT/CADDS SHEET 49



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 271	E



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 272	E

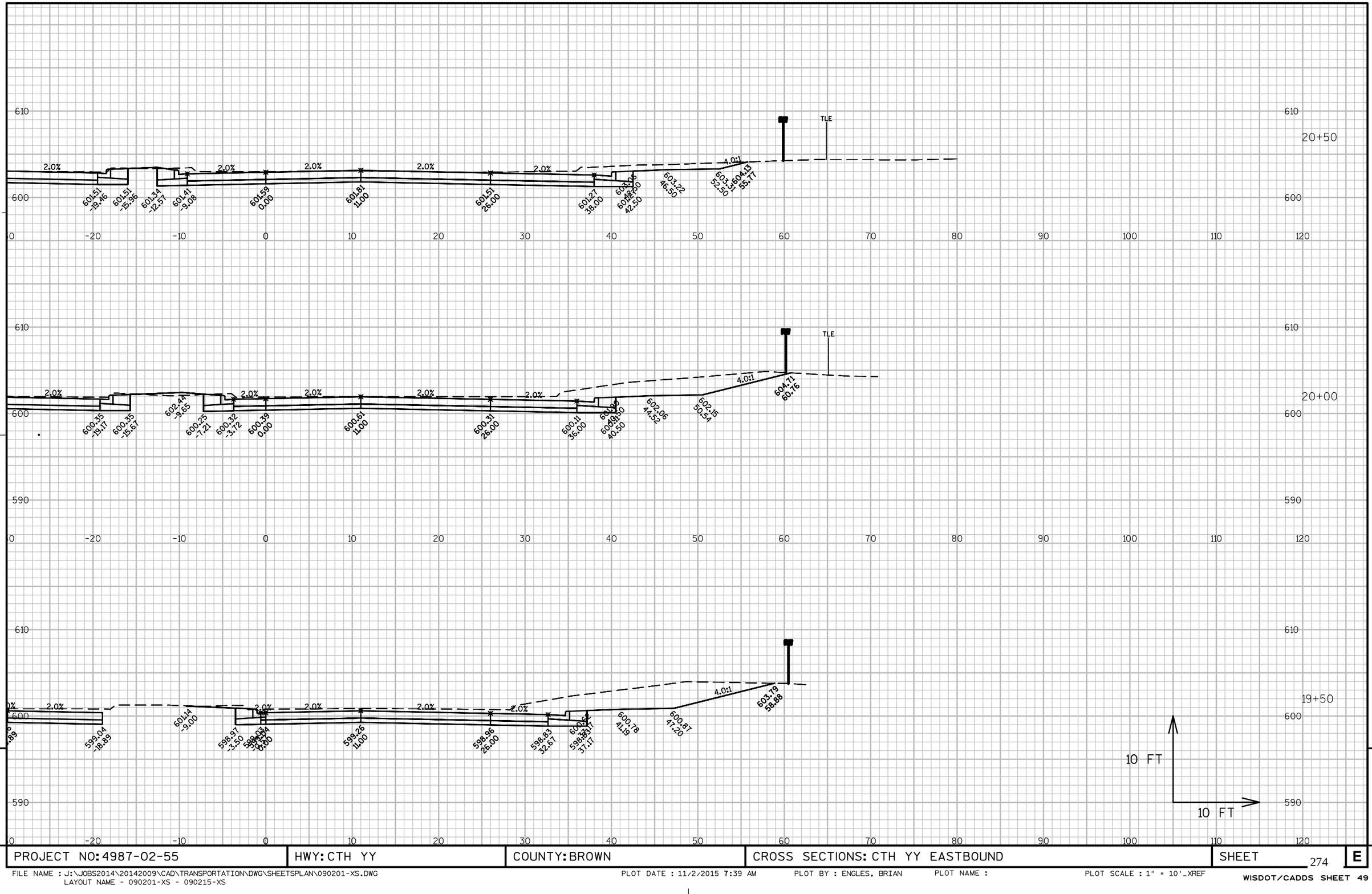


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 273	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090214-XS

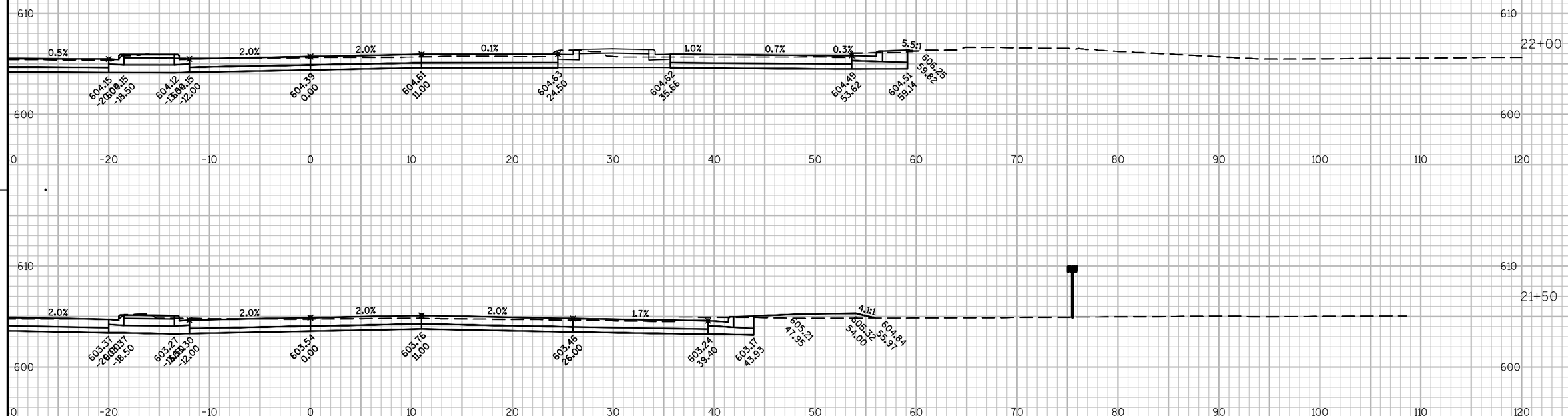
PLOT DATE : 11/2/2015 7:38 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 274	E

END PROJECT
STATION 22+29.21 EB



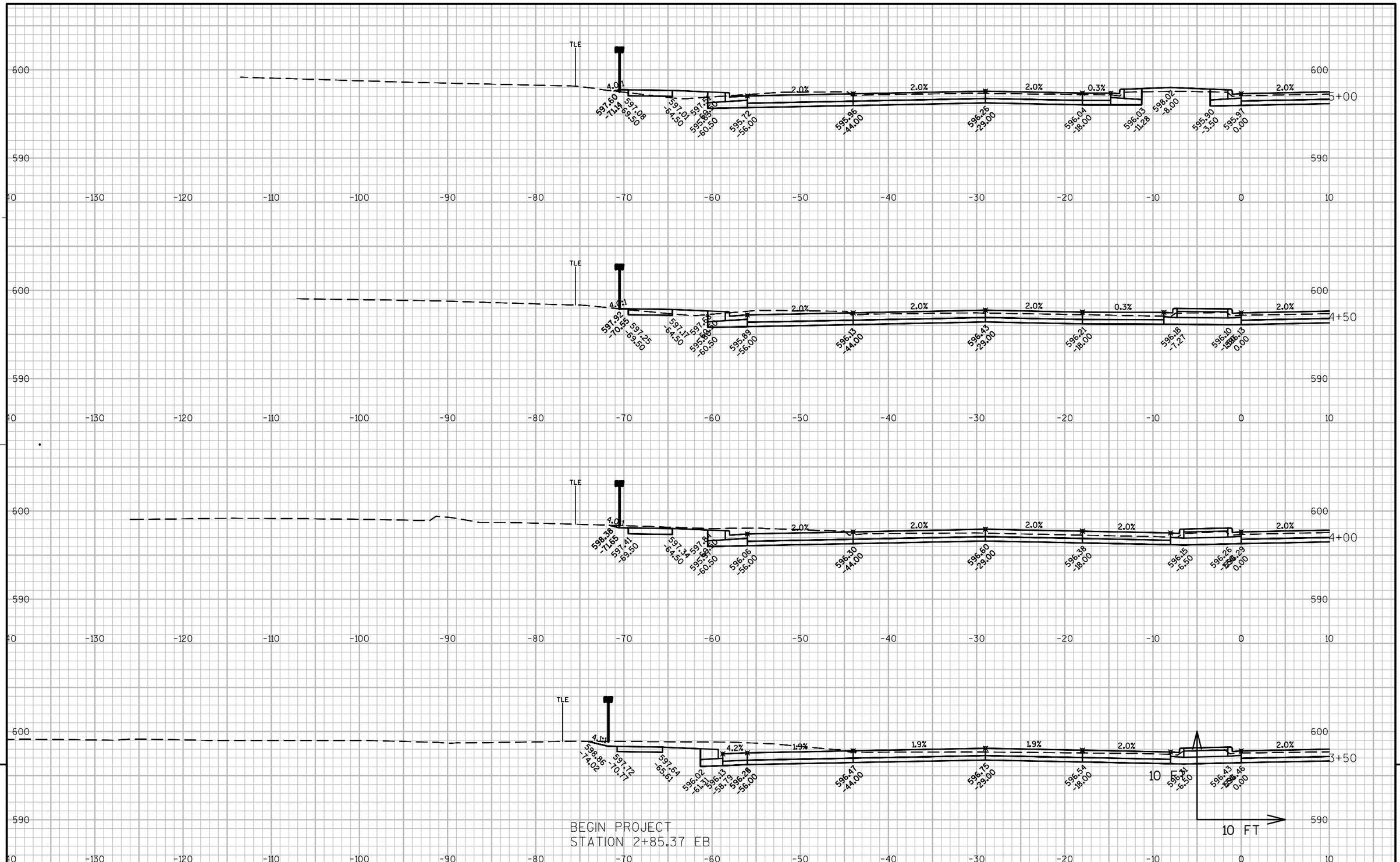
9

9

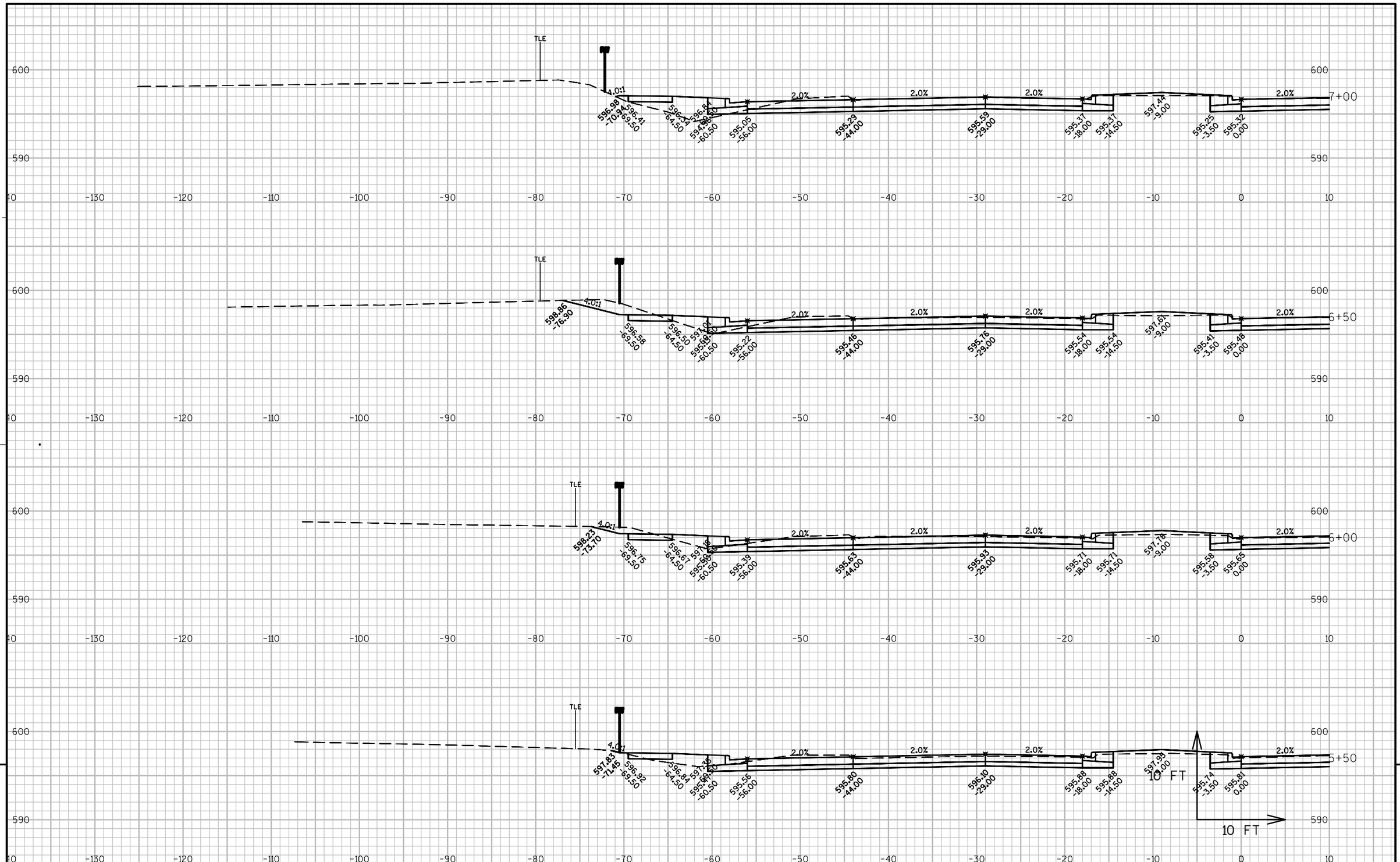
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY EASTBOUND	SHEET 275	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090216-XS

PLOT DATE : 11/2/2015 7:39 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 276 E



9

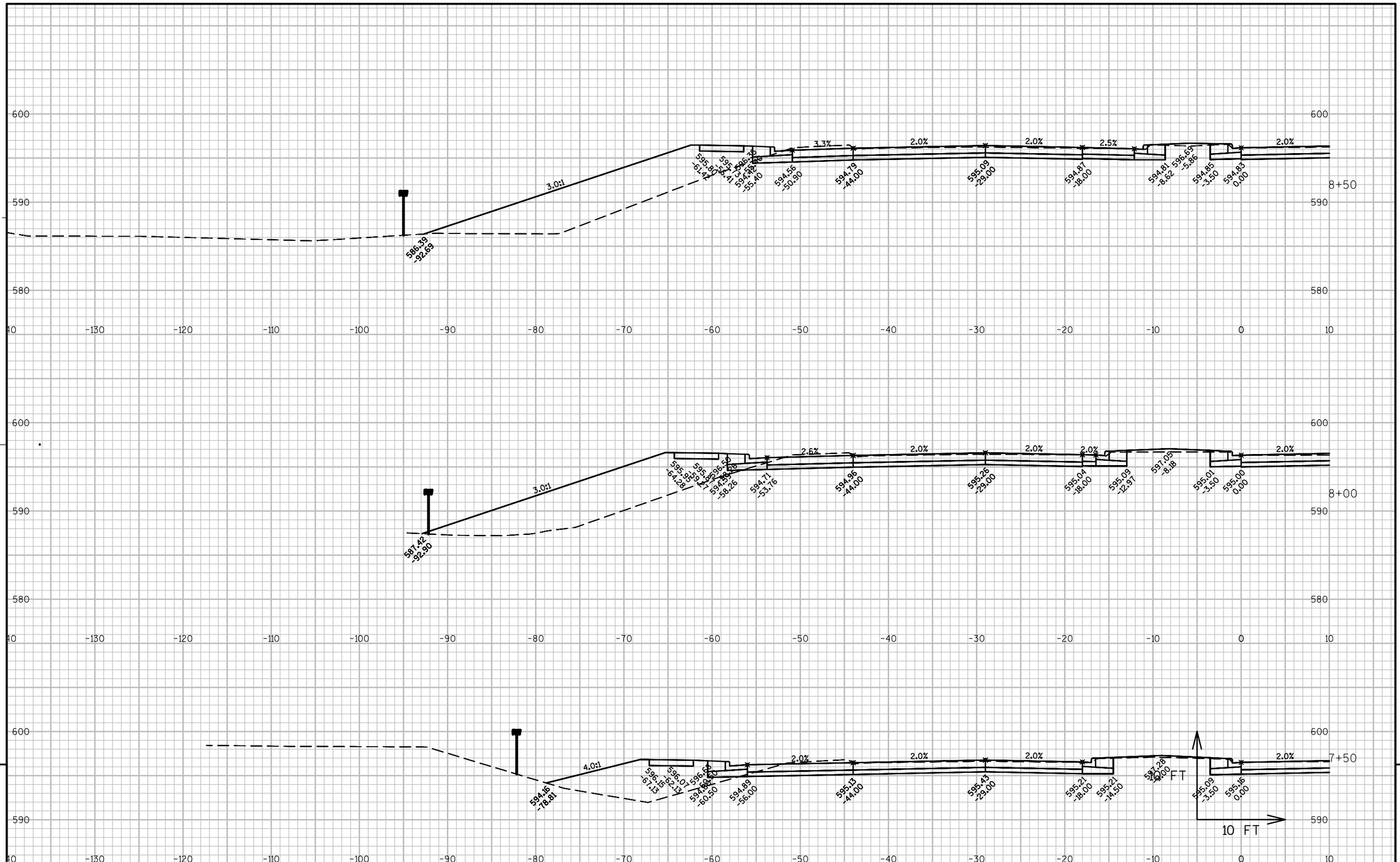
9

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 277	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090218-XS

PLOT DATE : 11/2/2015 7:41 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

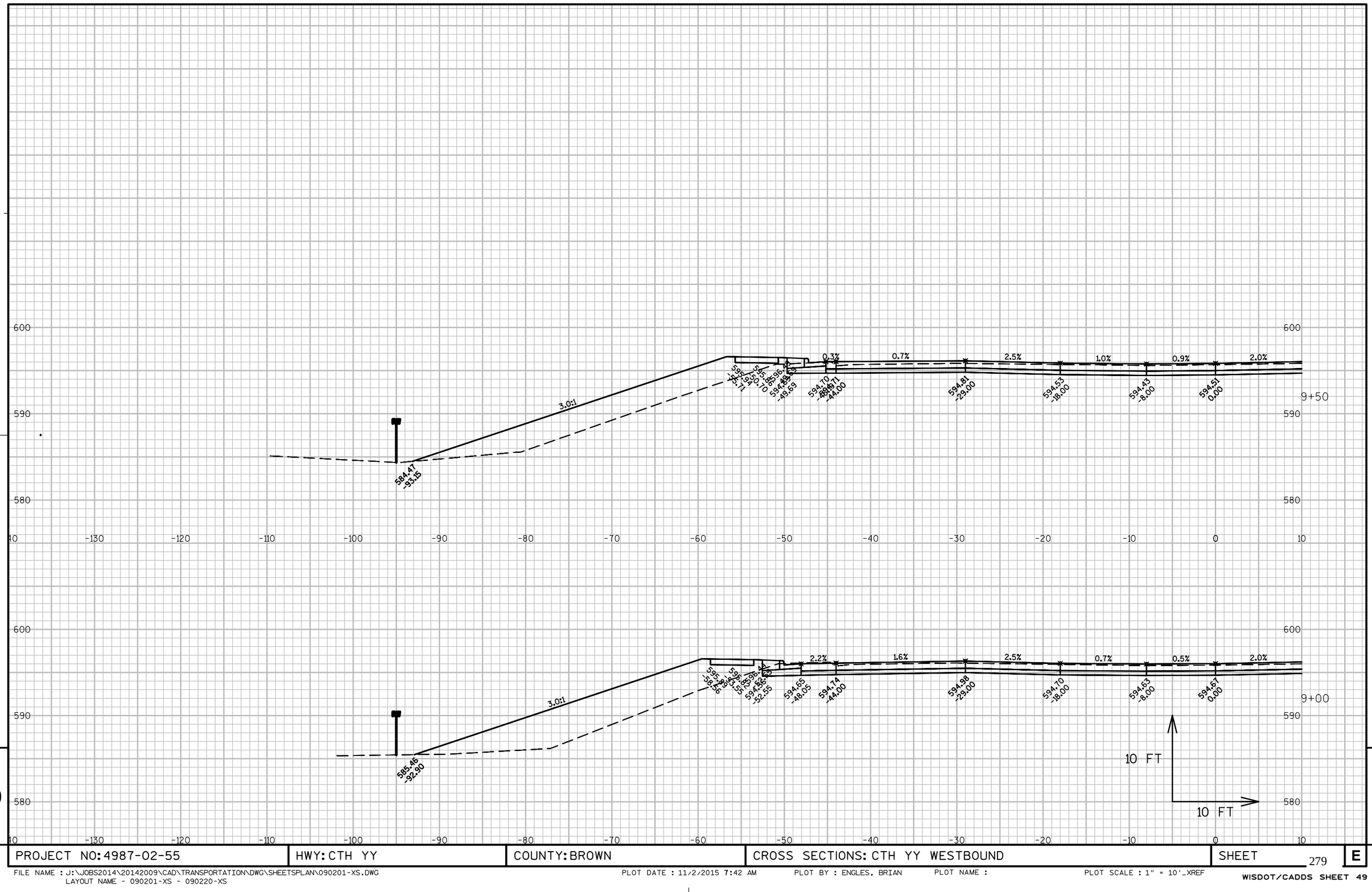


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 278	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090219-XS

PLOT DATE : 11/2/2015 7:41 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

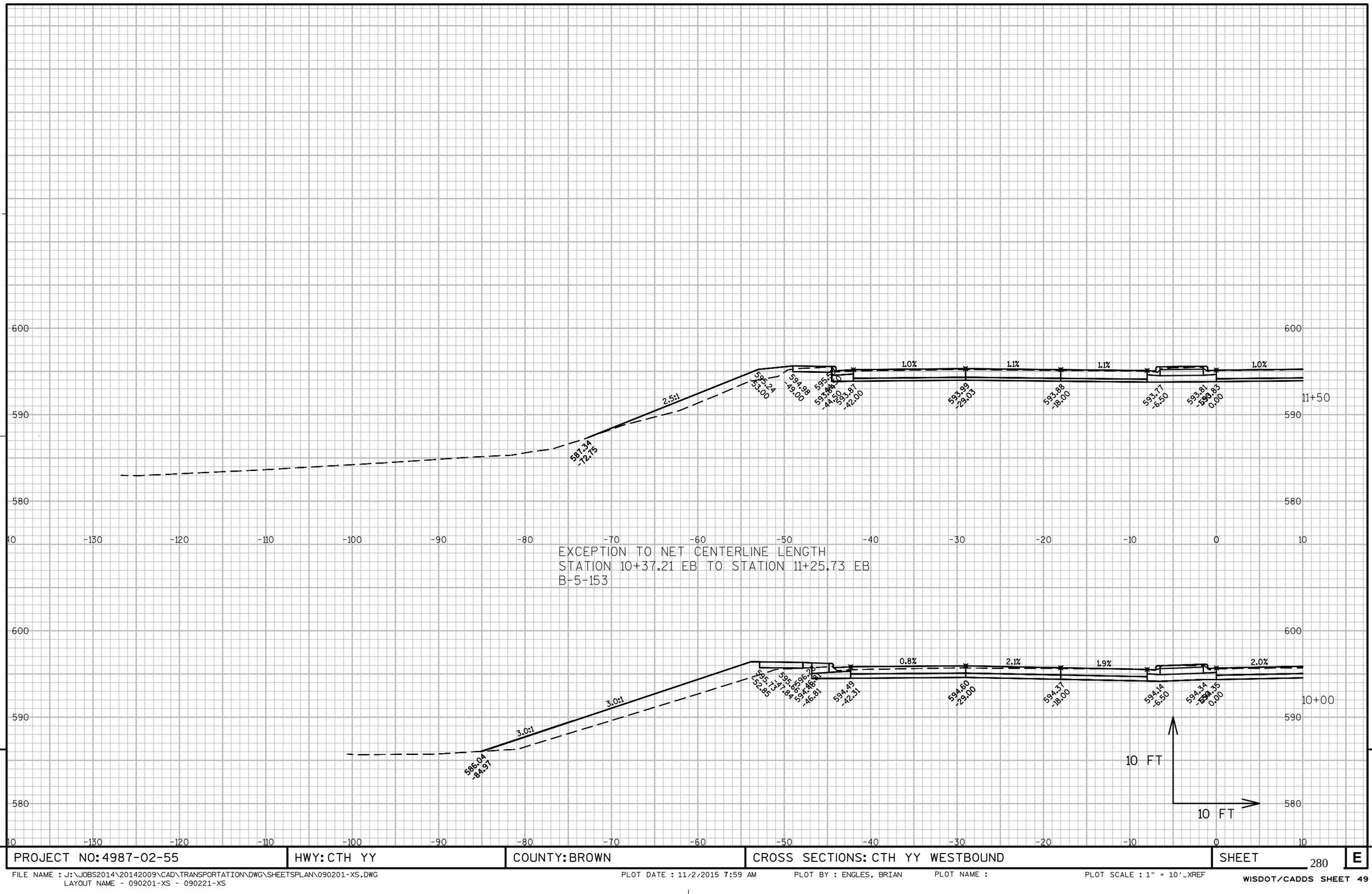


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 279	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090220-XS

PLOT DATE : 11/2/2015 7:42 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

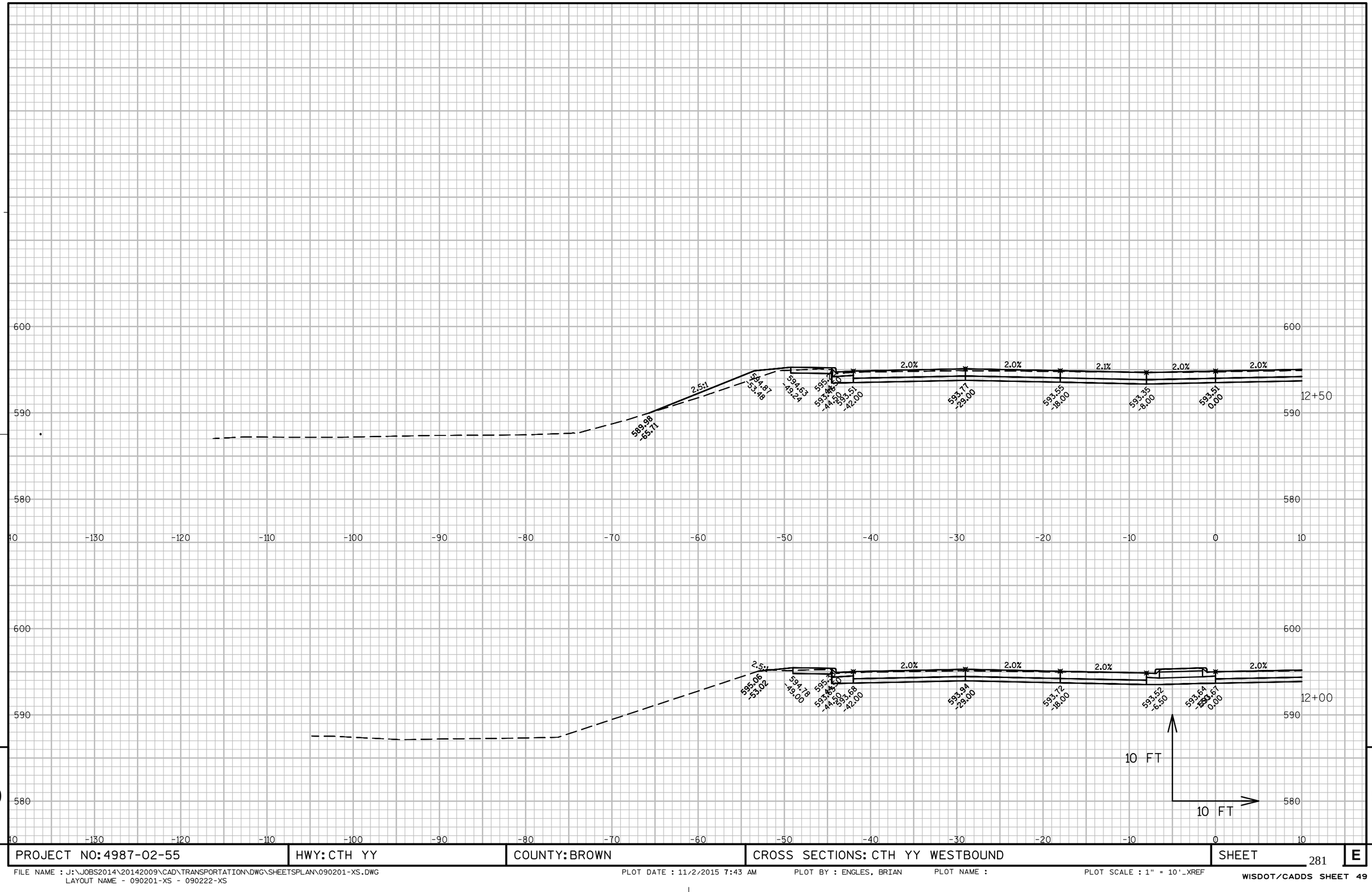


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 280	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090221-XS

PLOT DATE : 11/2/2015 7:59 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

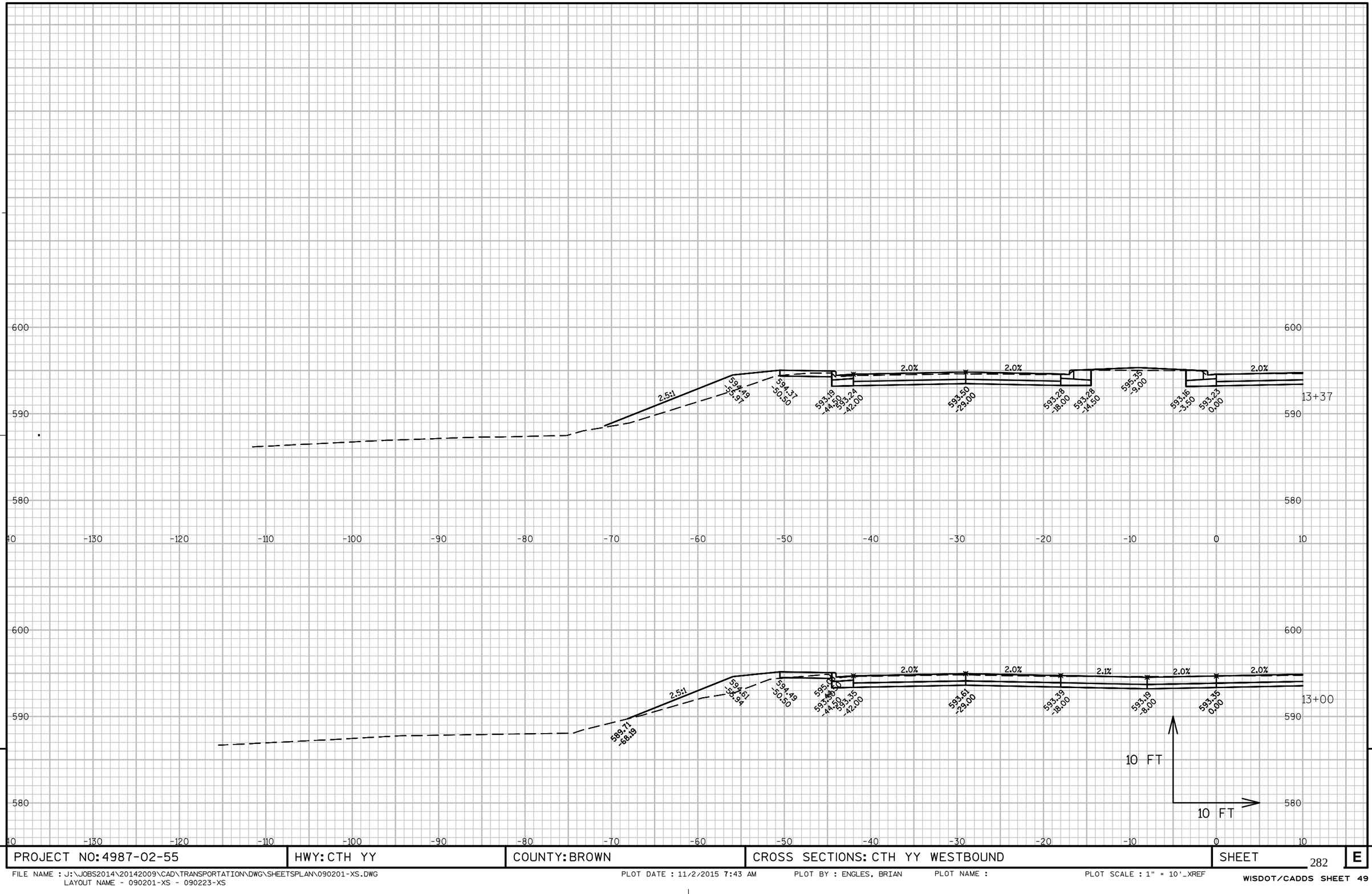


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 281	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090222-XS

PLOT DATE : 11/2/2015 7:43 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



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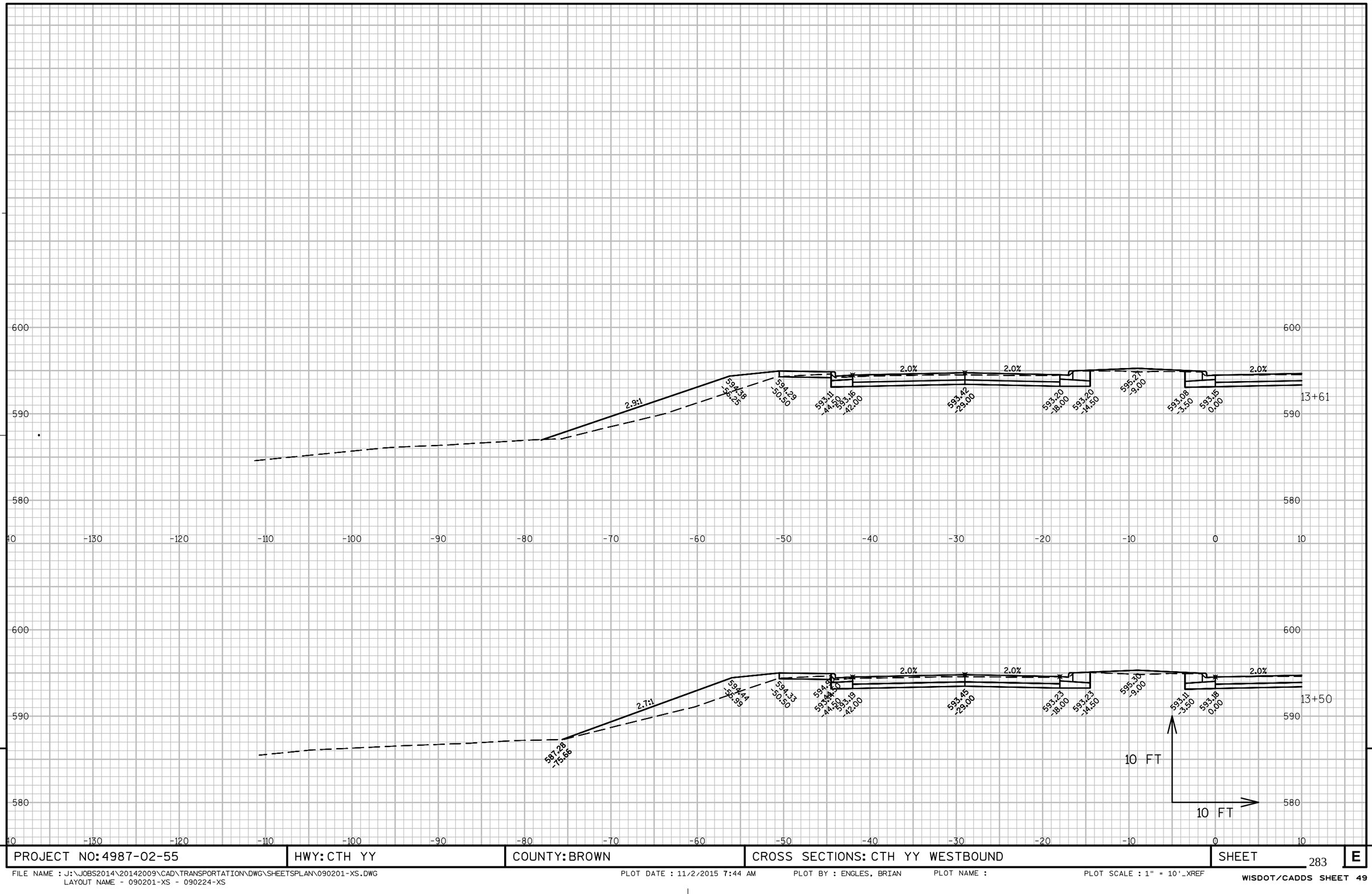
9

PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 282	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090223-XS

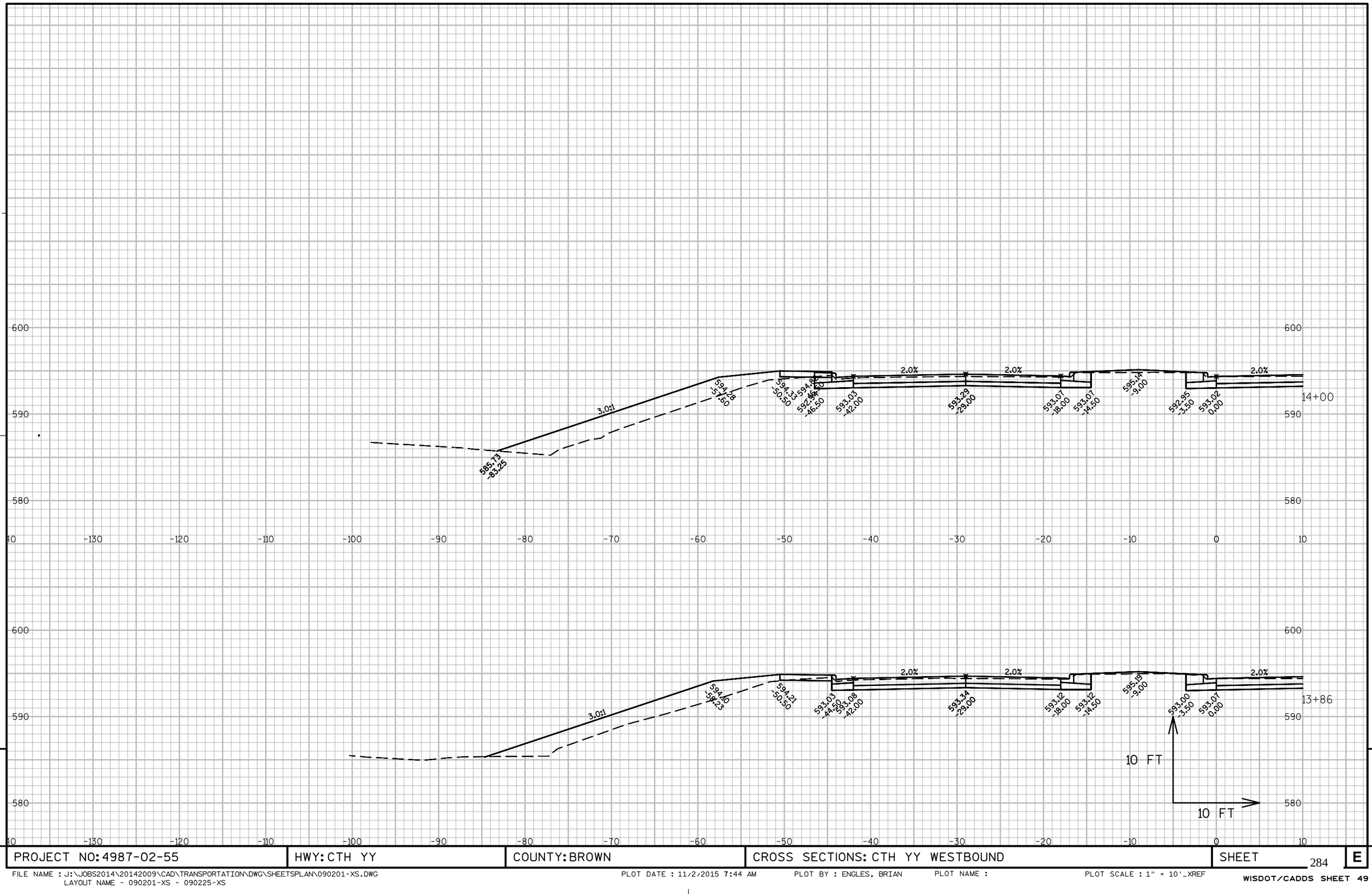
PLOT DATE : 11/2/2015 7:43 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 283	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090224-XS
PLOT DATE : 11/2/2015 7:44 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49

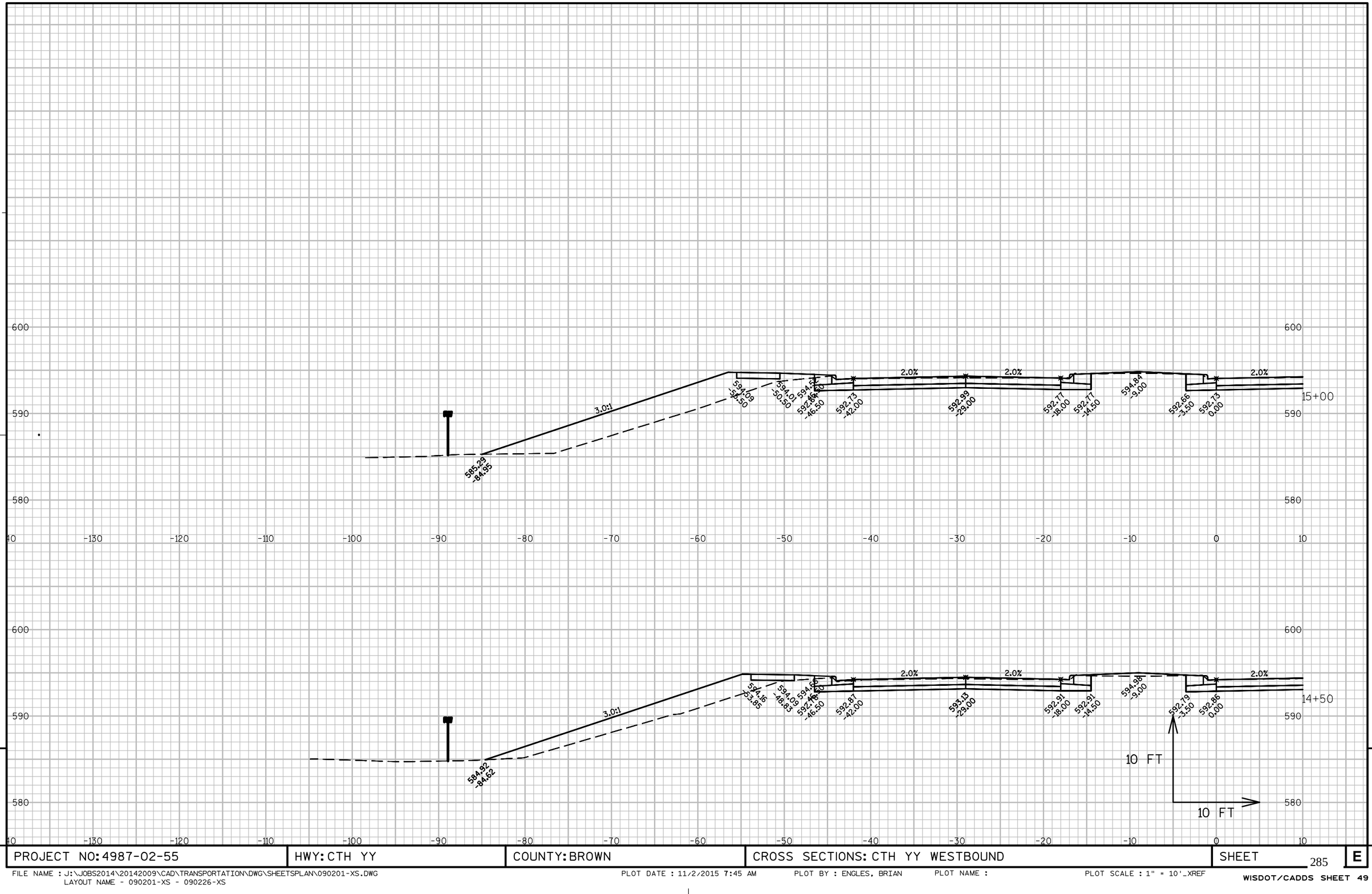


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PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 284	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090225-XS
PLOT DATE : 11/2/2015 7:44 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49

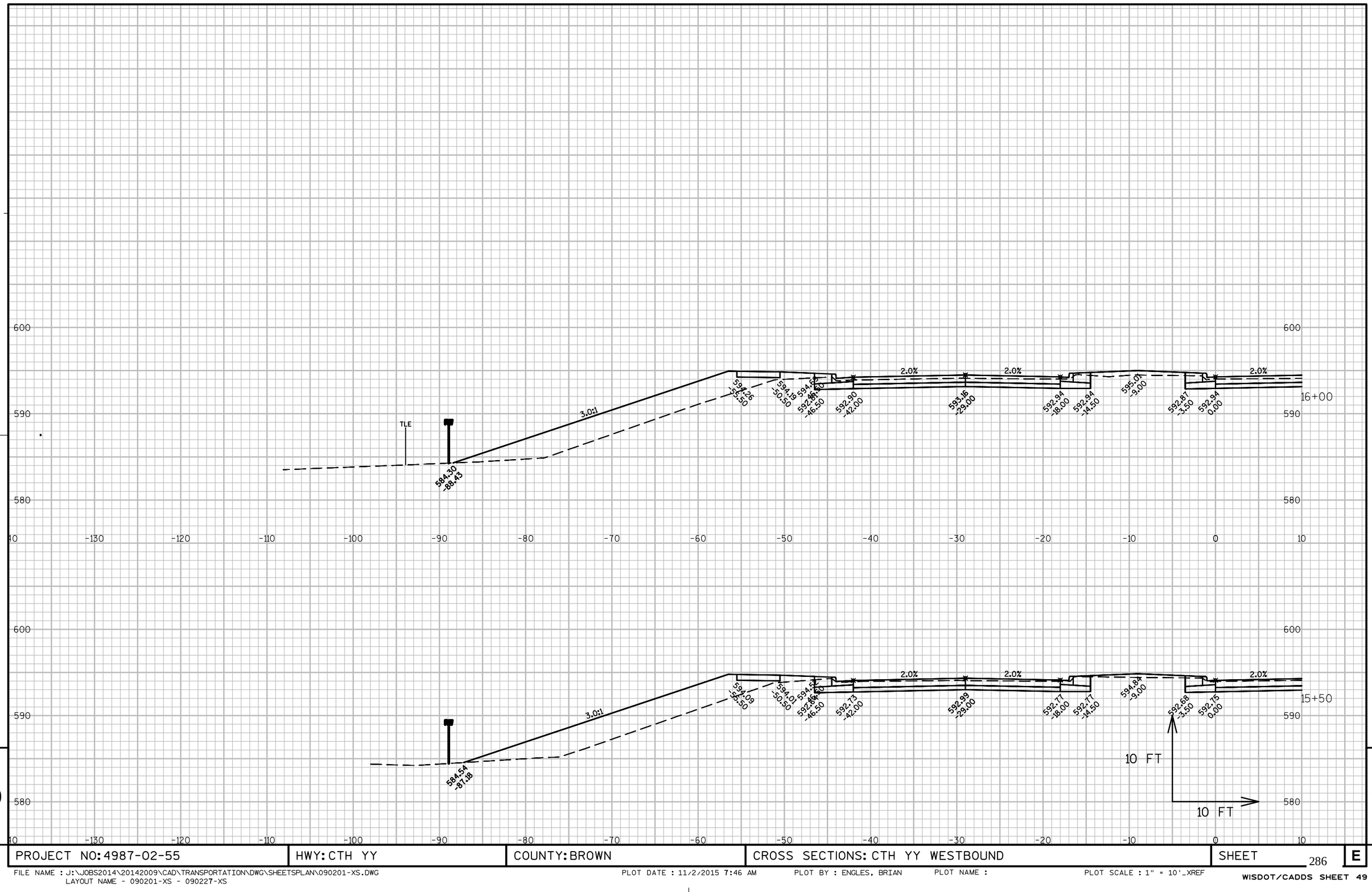


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 285	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090226-XS

PLOT DATE : 11/2/2015 7:45 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

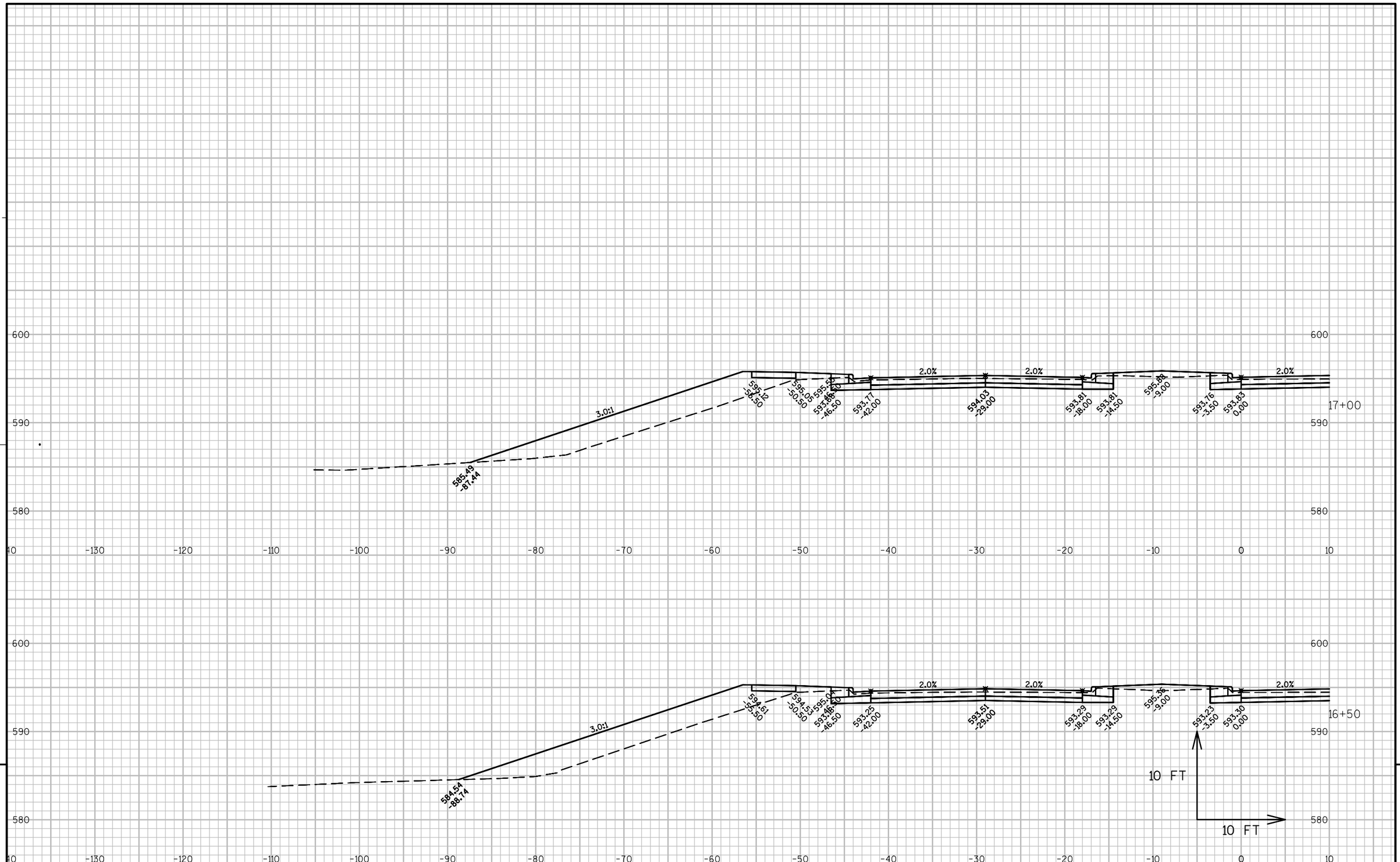


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 286	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090227-XS

PLOT DATE : 11/2/2015 7:46 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

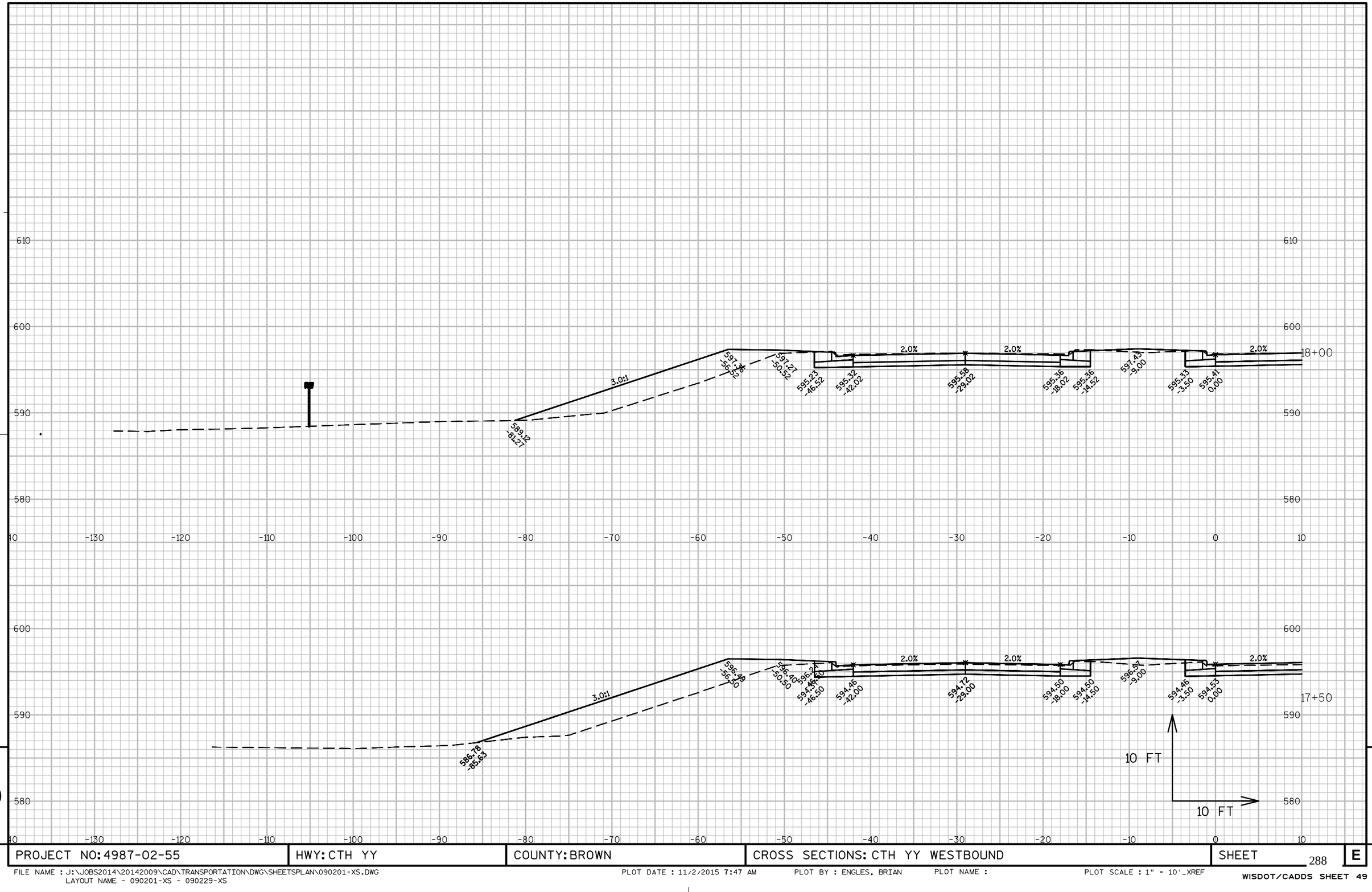


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 287 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090228-XS

PLOT DATE : 11/2/2015 7:46 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

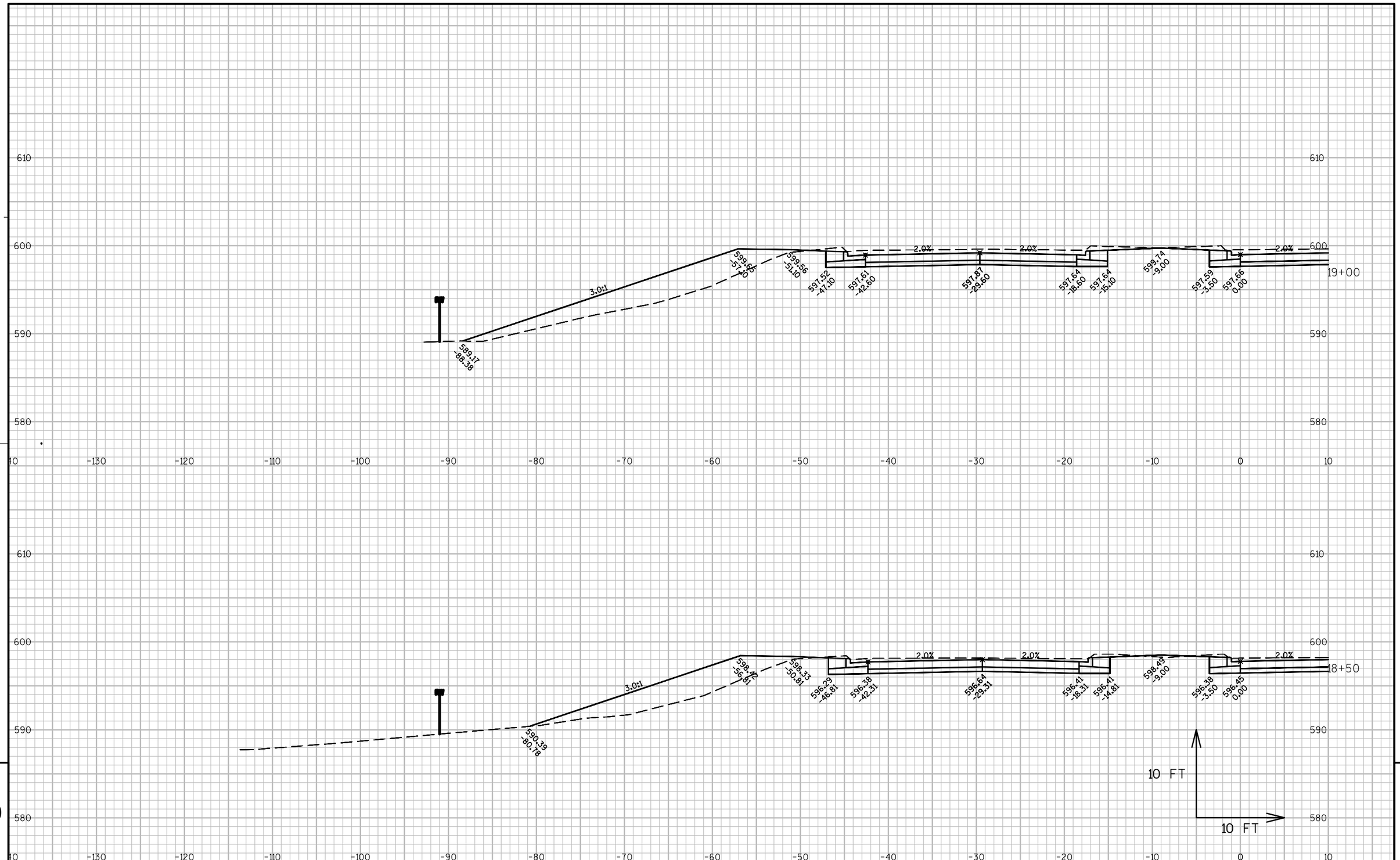


PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 288	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090229-XS

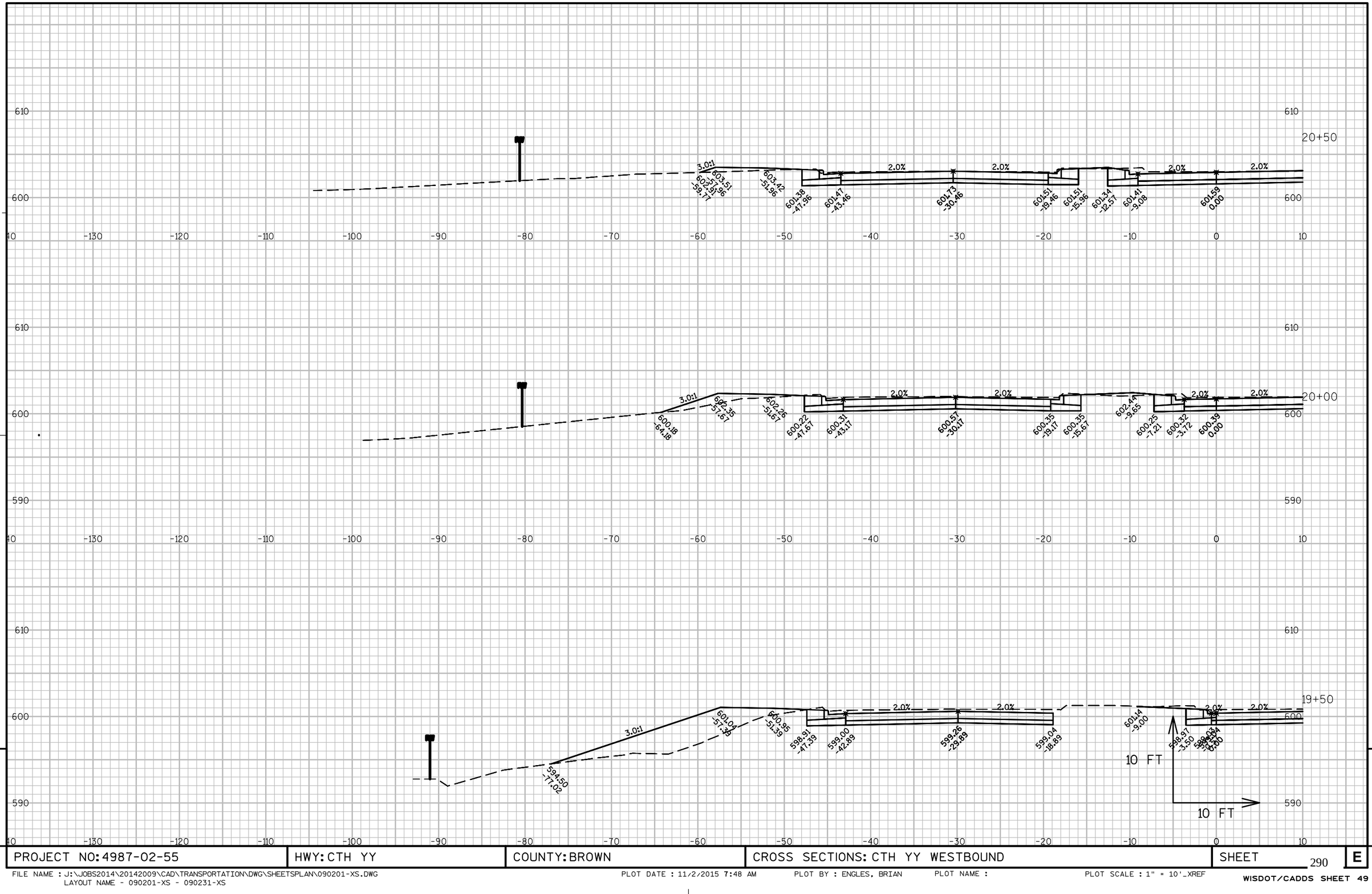
PLOT DATE : 11/2/2015 7:47 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 289	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090230-XS
PLOT DATE : 11/2/2015 7:47 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF
WISDOT/CADDS SHEET 49



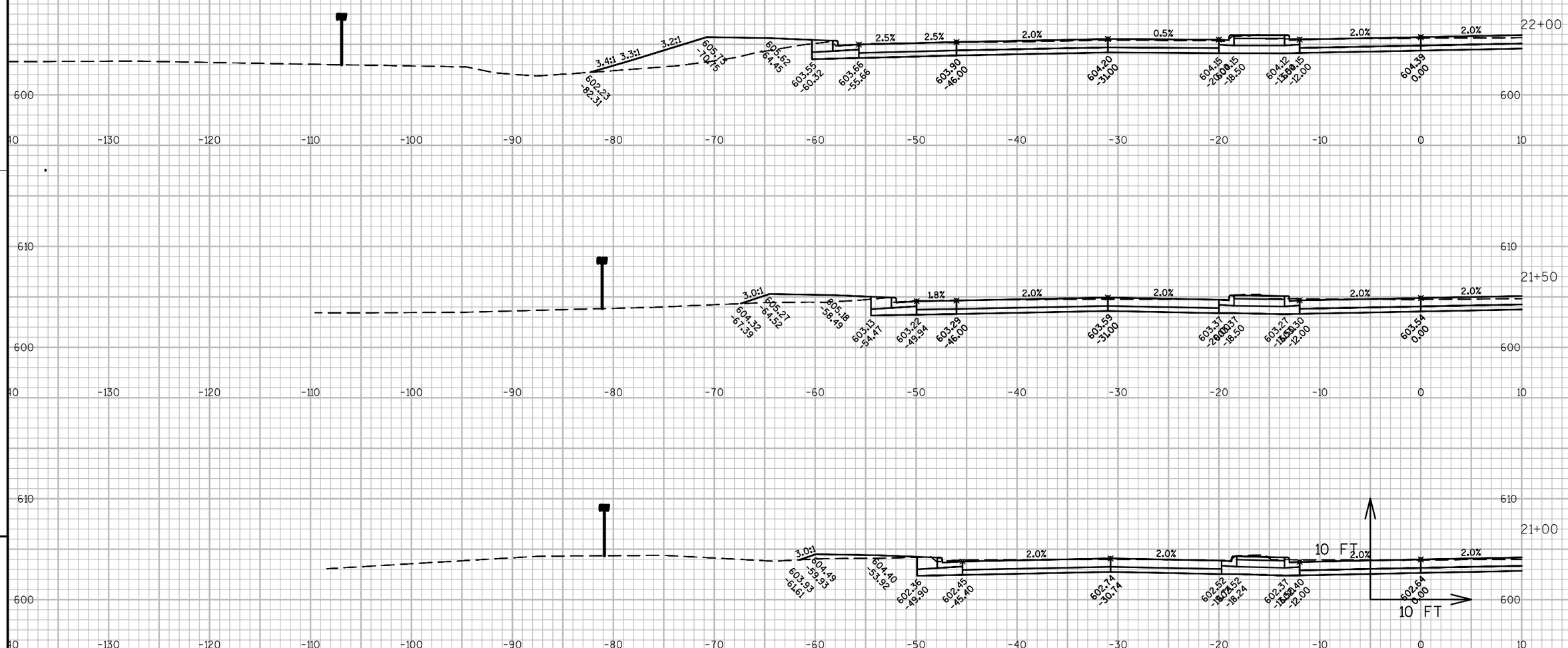
PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 290	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090231-XS

PLOT DATE : 11/2/2015 7:48 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1" = 10'_XREF

WISDOT/CADDS SHEET 49

END PROJECT
STATION 22+29.21 EB



PROJECT NO: 4987-02-55	HWY: CTH YY	COUNTY: BROWN	CROSS SECTIONS: CTH YY WESTBOUND	SHEET 291	E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-XS - 090232-XS

PLOT DATE : 11/2/2015 7:49 AM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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