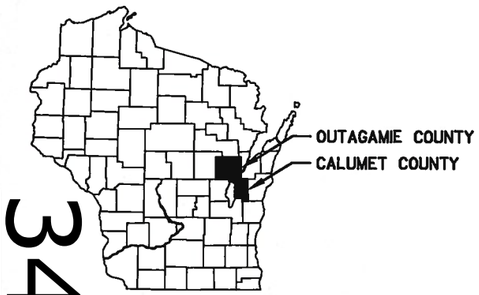
NEL MAY 2013

PROJECT ID: 4494-06-71
WITH: N/A

COUNTY: OUTAGAMIE

ORDER OF SHEETS

TOTAL SHEETS = 178



34

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C APPLETON, CTH KK (CALUMET ST)
COOP RD INTERSECTION
CTH KK
OUTAGAMIE COUNTY

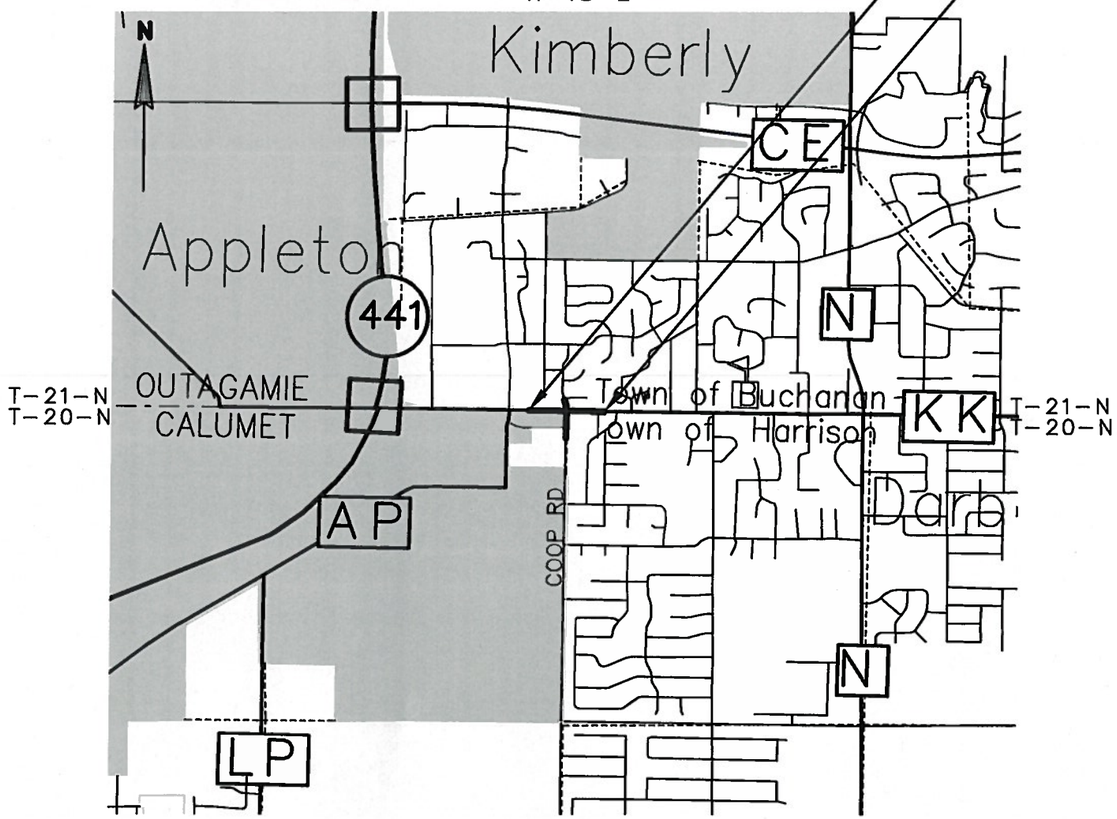
STATE PROJECT NUMBER
4494-06-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4494-06-71	WISC 2013279	1

BEGIN PROJECT 4494-06-71
STA 36+35.22
Y = 555,651.252
X = 843,496.953

END PROJECT 4494-06-71
STA 49+56.51

R-18-E



LAYOUT

SCALE 0 1/4 MI. 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.250 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), OUTAGAMIE COUNTY, NAD 1983 (91)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (91)

DESIGN DESIGNATION

		CTH KK	COOP RD
A.A.D.T. (2013)	=	28,500	2,500
A.A.D.T. (2033)	=	37,000	3,000
D.H.V. (K100, 2033)	=	3,552	597
D.D.	=	59/41	59/41
T. (DHV)	=	4.6%	4.6%
DESIGN SPEED	=	40 MPH	30 MPH
ESALS	=	5,431,200	335,800

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- 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

ACCEPTED FOR CITY OF APPLETON

DATE: 01/17/13 (Signature)

ORIGINAL PLANS PREPARED BY

OMNNI ASSOCIATES

WISCONSIN
STEVEN M. SEYMOUR
E-36629
APPLETON
WI
PROFESSIONAL ENGINEER
1/7/13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	OMNNI ASSOCIATES
Designer	OMNNI ASSOCIATES
Management Consultant	SEH
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 1/10/13 (Management Consultant Signature)

E

GENERAL NOTES

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

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

EXCAVATION BELOW SUBGRADE (EBS) SHOWN ON THE CROSS SECTIONS WILL BE MEASURED AND PAID FOR AS COMMON EXCAVATION. ANTICIPATED EBS IS SHOWN ON THE PLANS, HOWEVER THE ACTUAL LIMITS AND DEPTH OF ANY EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED ARE TO BE TOPSOILED, FERTILIZED, AND SEEDED.

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.

ELEVATIONS OF STORM SEWER STRUCTURES REFER TO THE CENTER OF STRUCTURE FOR MANHOLES AND FLANGELINE FOR INLETS.

ANY TEMPORARY CONNECTIONS OF EXISTING STORM SEWER WILL BE CONSIDERED INCIDENTAL TO OTHER STORM SEWER ITEMS.

THE COST OF CONNECTING NEW STORM SEWERS OR DRAINAGE STRUCTURES TO THE EXISTING STORM SEWER SHALL BE INCIDENTAL TO THE COST OF THE STORM SEWER.

PROPOSED PIPE UNDERDRAIN CONNECTIONS TO PROPOSED INLETS, EXISTING INLETS, AND EXISTING STORM SEWER WILL BE CONSIDERED INCIDENTAL TO THE COST OF THE PROPOSED PIPE UNDERDRAIN.

CURB AND GUTTER RADII ARE SHOWN TO THE FACE OF CURB.

ALL CURB RAMPS SHALL BE TYPE 2 UNLESS NOTED OTHERWISE.

CURB RAMP OPENINGS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE GIVEN BY THE ENGINEER IN THE FIELD.

REMOVING CONCRETE DRIVES WILL BE PAID FOR UNDER THE ITEM REMOVING CONCRETE SIDEWALK.

ADDITIONAL DOWEL BARS AND CONTRACTION JOINT DOWEL ASSEMBLIES REQUIRED TO MATCH MANHOLES, INLETS, AND SIDE ROAD INTERSECTIONS SHALL BE INCIDENTAL TO THE CONCRETE PAVEMENT BID ITEM.

ALL 6-INCH CONCRETE SIDEWALK LOCATED IN THE RESIDENTIAL DRIVEWAYS SHALL BE PAID FOR AS 6-INCH CONCRETE DRIVEWAY.

ALL 8-INCH CONCRETE SIDEWALK LOCATED IN THE COMMERCIAL DRIVEWAYS SHALL BE PAID FOR AS 8-INCH CONCRETE DRIVEWAY.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES, FIELD ENTRANCES AND COMMERCIAL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

BEYOND THE RIGHT-OF-WAY, DRIVEWAYS SHALL BE REPLACED IN KIND . BASE AGGREGATE WILL BE USED UNDER ALL DRIVEWAYS AND SIDEWALK.

ALL CONCRETE MEDIAN NOSES SHALL BE SLOPED AND CONSTRUCTED AS SHOWN IN THE STANDARD DETAIL DRAWING.

WHERE SLOPE INTERCEPT LINES FALL OUTSIDE OF THE EXISTING RIGHT-OF-WAY, TEMPORARY INTERESTS TO ACCOMPLISH CONSTRUCTION WORK WITHIN THE SLOPE INTERCEPTS HAVE BEEN OBTAINED. THESE RIGHTS ARE EXTENDED TO THE CONTRACTOR.

IMMEDIATELY AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.

THE EXACT LOCATIONS OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTANCES SHOWN ON THIS PLAN ARE GROUND DISTANCES.

EROSION CONTROL NOTES

RUNOFF COEFFICIENT FOR THIS PROJECT: EXISTING PAVEMENT 0.95, EXISTING SLOPES 0.30, NEW PAVEMENT 0.95, NEW SLOPES 0.30.

TOTAL PROJECT AREA = 5.34 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.75 ACRES

ORDER OF "SECTION 2" SHEETS

UTILITIES

ELECTRIC
WE ENERGIES - ELECTRIC OPERATIONS
333 WEST EVERETT STREET - A279
MILWAUKEE, WI 53203
ATTN: DAN SANDE
TELEPHONE: 414-221-4578
EMAIL: DAN.SANDE@WE-ENERGIES.COM

COMMUNICATIONS
AT&T WISCONSIN
221 WEST WASHINGTON STREET - 4TH FLOOR
APPLETON, WI 54911
ATTN: VINCENT LEBRUN
TELEPHONE: 920-735-3248
EMAIL: VL1253@ATT.COM

COMMUNICATIONS
TIME WARNER CABLE
3520 DESTINATION DRIVE
APPLETON, WI 54915
ATTN: LARRY PIHLSTROM
TELEPHONE: 920-831-9211
EMAIL: LARRY.PIHLSTROM@TWCABLE.COM

GAS
WE ENERGIES - GAS
333 WEST EVERETT STREET - A279
MILWAUKEE, WI 53203
ATTN: DAN SANDE
TELEPHONE: 414-221-4578
EMAIL: DAN.SANDE@WE-ENERGIES.COM

SANITARY SEWER & WATERMAINS
DARBOY JOINT SANITARY DISTRICT NO. 1
N398 CTH N
APPLETON, WI 54915
ATTN: JAMES SALM
TELEPHONE: 920-788-6048

OTHER CONTACTS

CITY OF APPLETON TRAFFIC ENGINEERING
MIKE HARDY
2625 E GLENDALE AVE
APPLETON, WI 54911
TELEPHONE: 920-832-6478
EMAIL: MIKE.HARDY@APPLETON.ORG

DNR LIAISON
JAMES P. DOPERALSKI JR.
DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
PO BOX 10448
GREEN BAY, WI 54307
TELEPHONE: 920-662-5119

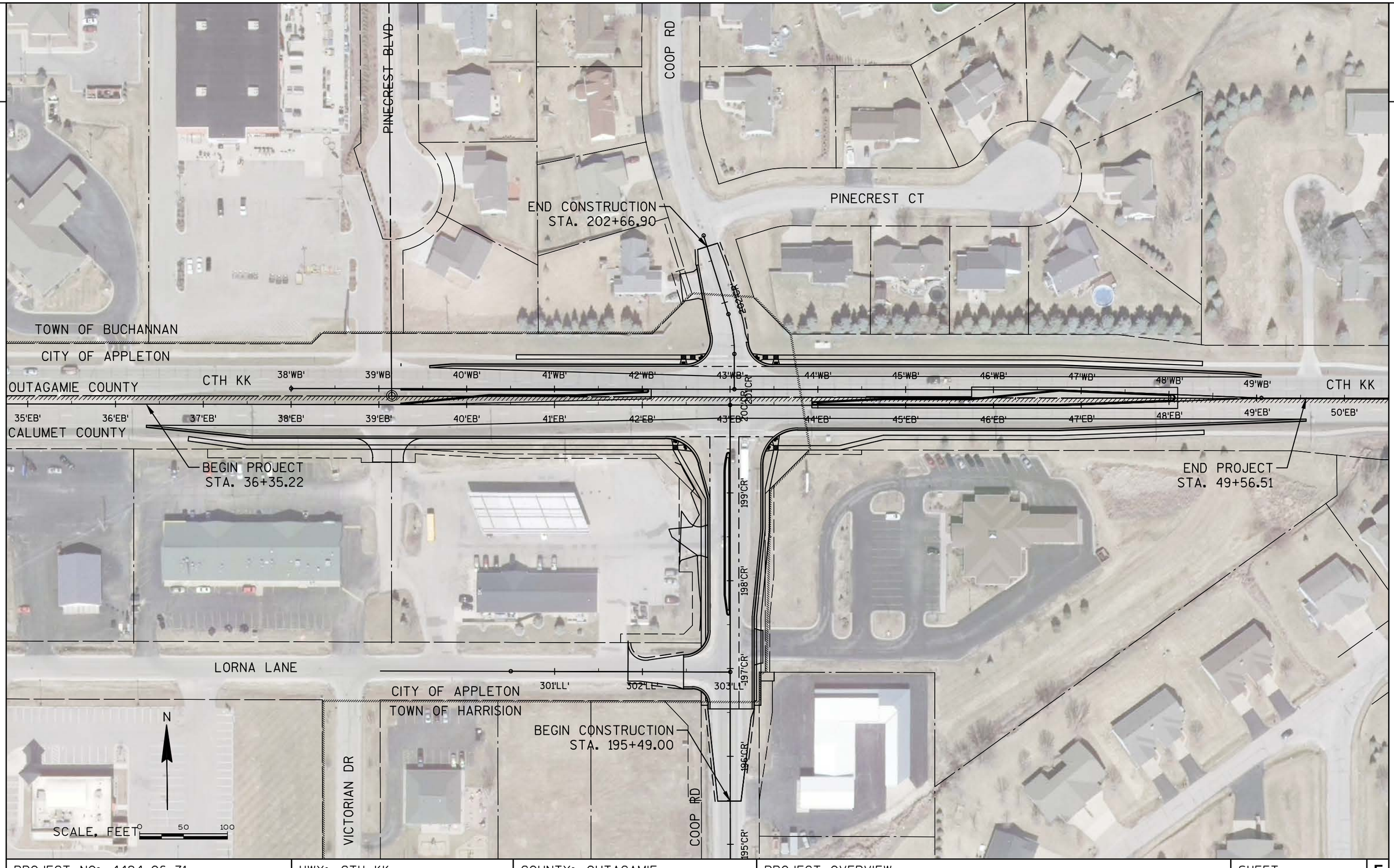
DIGGERS HOTLINE
CABLE LOCATE
TELEPHONE: (800) 242-8511 (TOLL FREE)

DIGGERS HOTLINE
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

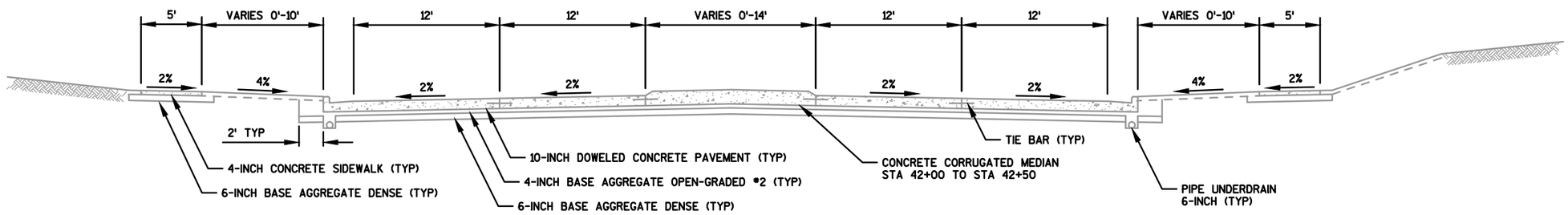
ABBREVIATIONS

AC	Acre
AGG	Aggregate
ASPH	Asphaltic
AVG	Average
BM	Bench Mark
CB	Catch Basin
CL	Center Line
Δ	Central Angle or Delta
CH	Chord
CONC	Concrete
CB#	Control Base
CABC	Crushed Aggregate Base Course
CY	Cubic Yard
CULV	Culvert
C & G	Curb and Gutter
D	Degree of Curve
DHV	Design Hour Volume
DIA	Diameter
DWY	Driveway
EB	Eastbound
ELEC	Electric (al)
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
FERT	Fertilize
FT	Foot
GAL	Gallon
GRAV	Gravel
HES	High Early Strength
CWT	Hundredweight
HYD	Hydrant
ID	Inch Diameter
INL	Inlet
INV	Invert
IP	Iron Pipe or Pin
LT	Left
L	Length of Curve
LF	Linear Foot
LS	Lump Sum
MH	Manhole
OD	Outside Diameter
PCC	Point of Compound Curve
PC	Point of Curvature
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
PL	Property Line
RL or R/L	Reference Line
REBAR	Reinforcement Bar
REQD	Required
RT	Right
R/W	Right-of-Way
SW	Sidewalk
SB#	Signal Base
SF	Square Feet
SY	Square Yard
SDD	Standard Detail Drawings
STA	Station
SS	Storm Sewer
TEL	Telephone
TLE	Temporary Limited Easement
TYP	Typical
VERT	Vertical
VPC	Vertical Point of Curve
VPI	Vertical Point of Intersection
VPT	Vertical Point of Tangency
VIT	Vitrified
VOL	Volume
WV	Water Valve
WB	Westbound
YD	Yard

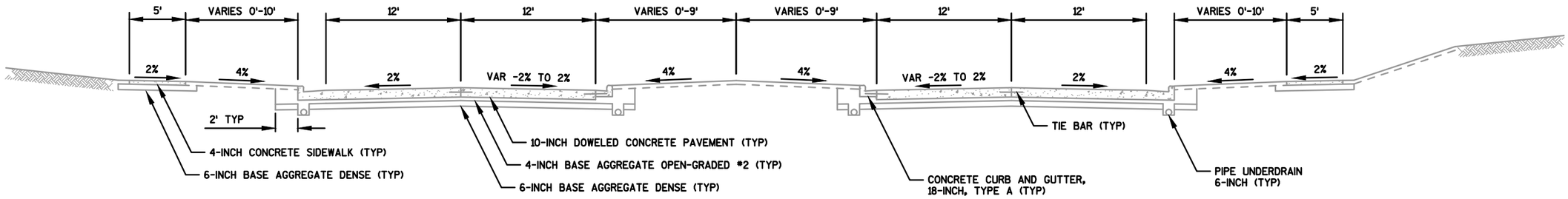
2



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET 4	E

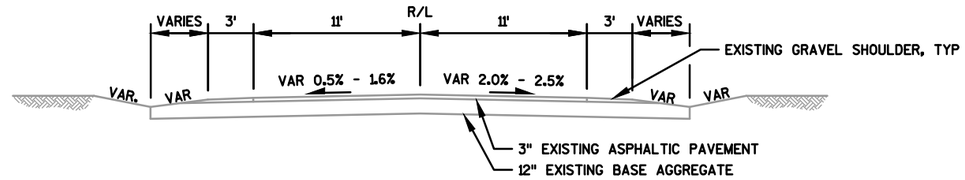


TYPICAL EXISTING SECTION - CTH 'KK'
STA 41+50 TO STA 50+00

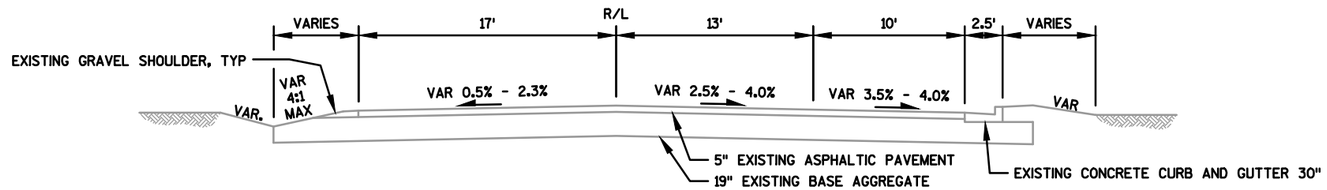


TYPICAL EXISTING SECTION - CTH 'KK'
STA 36+25 TO STA 41+50

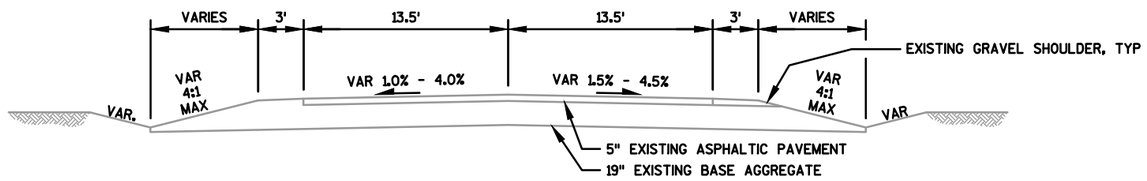
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 5	E



TYPICAL EXISTING SECTION - NORTH COOP RD
STA 201+00 TO STA 202+50

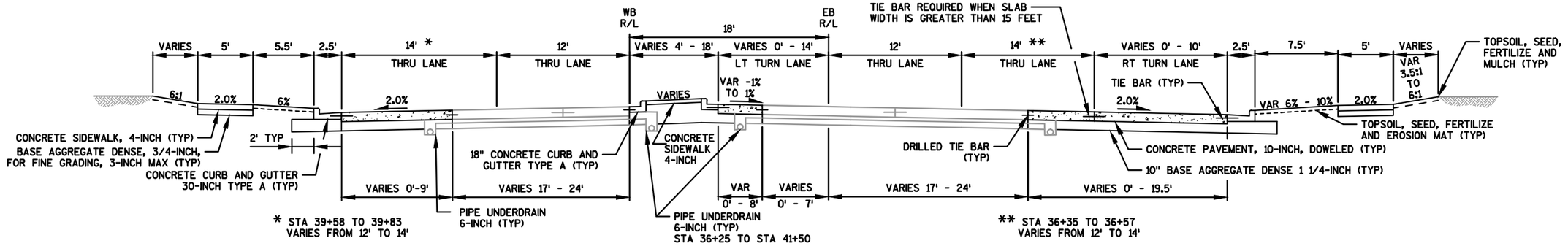


TYPICAL EXISTING SECTION - SOUTH COOP RD
STA 197+60 TO STA 200+00



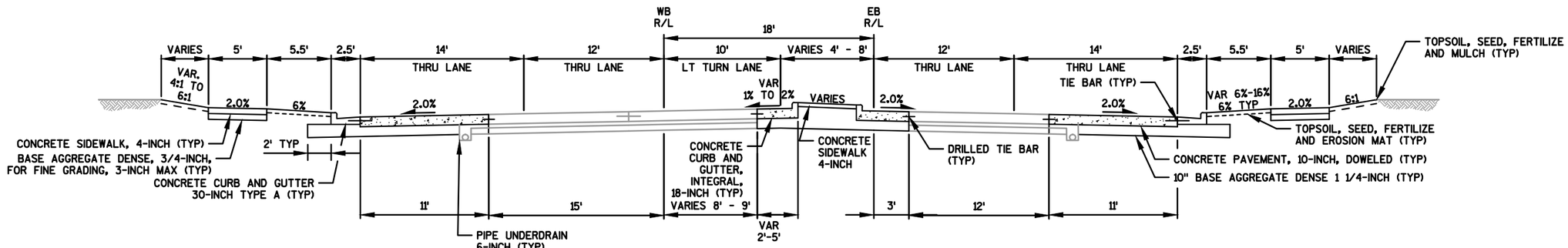
TYPICAL EXISTING SECTION - SOUTH COOP RD
STA 195+49 TO STA 197+60

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 6	E



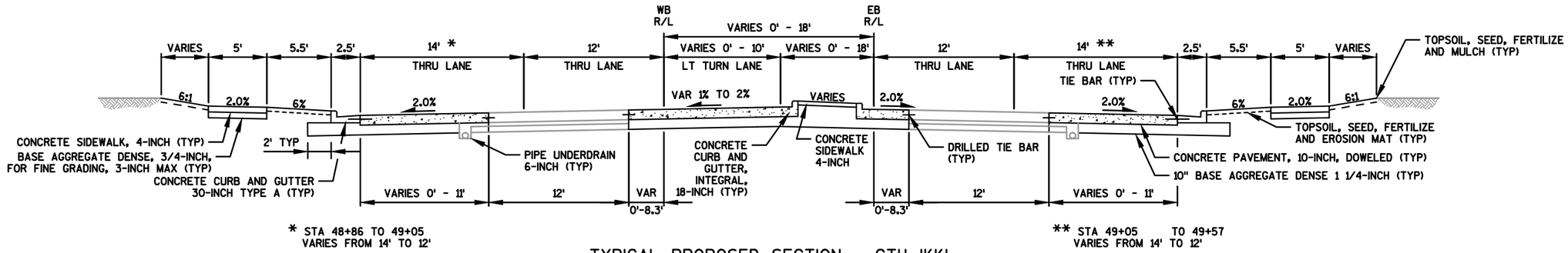
TYPICAL PROPOSED SECTION - CTH 'KK'

STA 36+35 TO STA 42+10, RT
STA 39+25 TO STA 42+10, LT



TYPICAL PROPOSED SECTION - CTH 'KK'

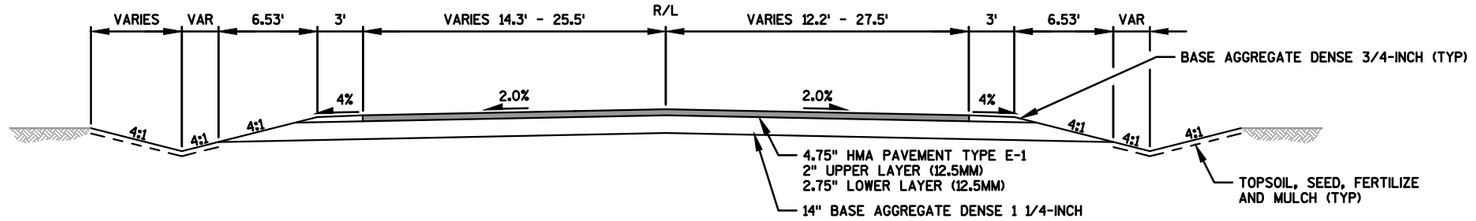
STA 43+93 TO STA 45+75



TYPICAL PROPOSED SECTION - CTH 'KK'

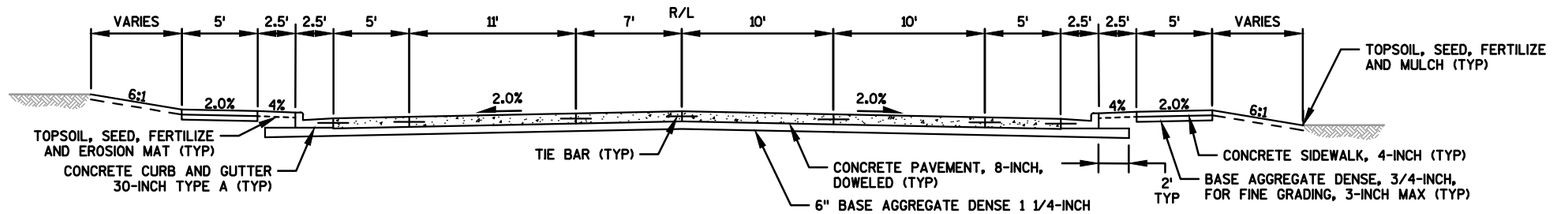
STA 45+75 TO STA 49+57, RT
STA 45+75 TO STA 49+05, LT

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 7	E



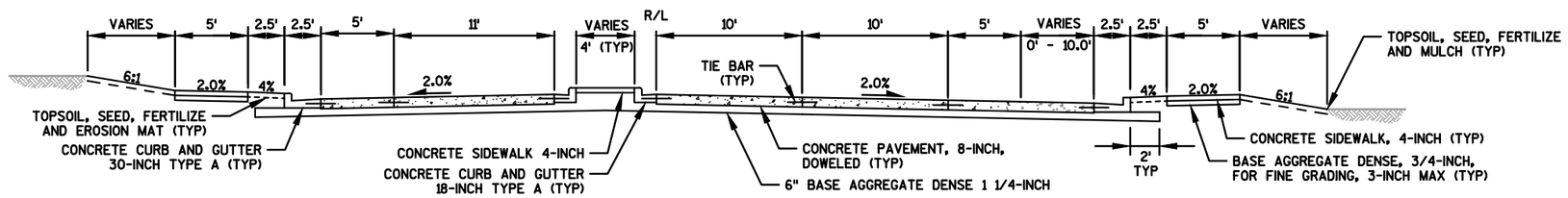
TYPICAL FINISHED SECTION - SOUTH COOP RD

STA 195+49 TO 196+54



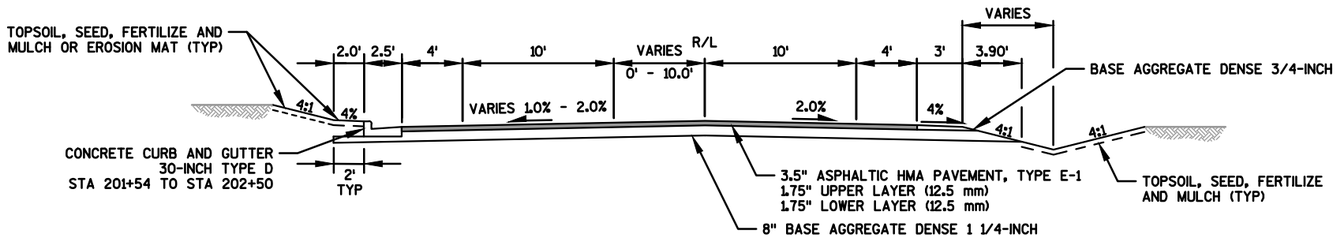
TYPICAL FINISHED SECTION - SOUTH COOP RD

STA 196+54 TO STA 197+60



TYPICAL FINISHED SECTION - SOUTH COOP RD

STA 197+60 TO STA 199+46 RT
STA 197+60 TO STA 198+93 LT

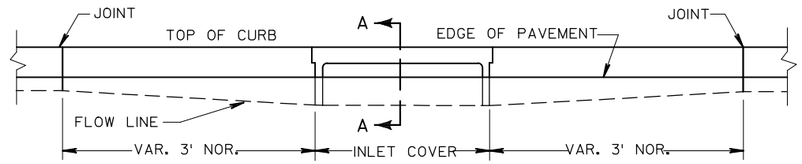


TYPICAL FINISHED SECTION - NORTH COOP RD

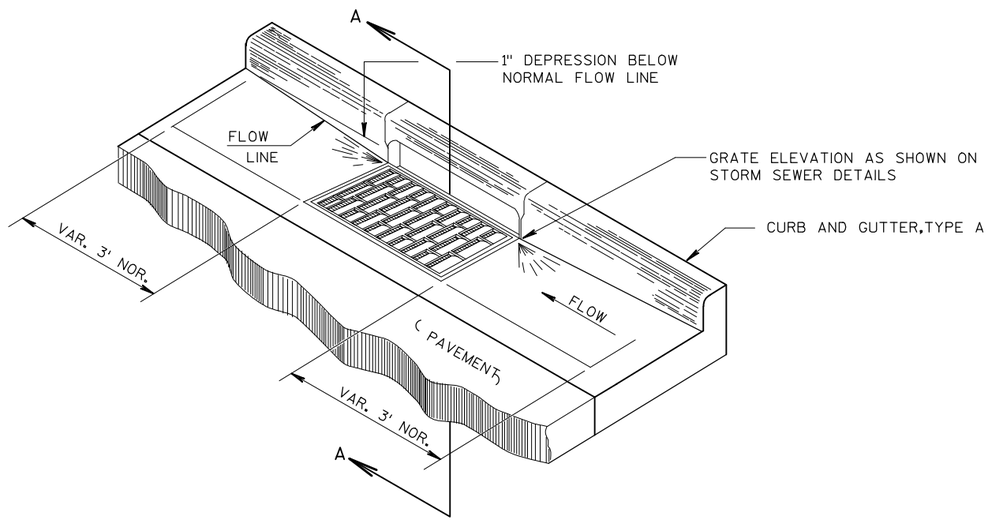
STA 201+53.57 TO STA 202+66.90

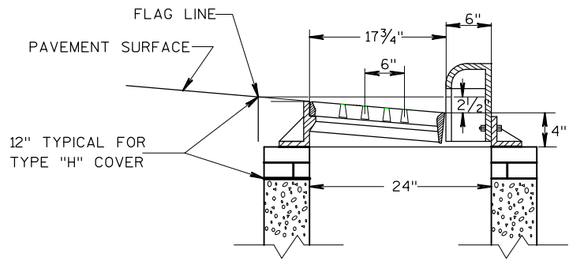
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TYPICAL SECTIONS	SHEET 8	E

2



ELEVATION



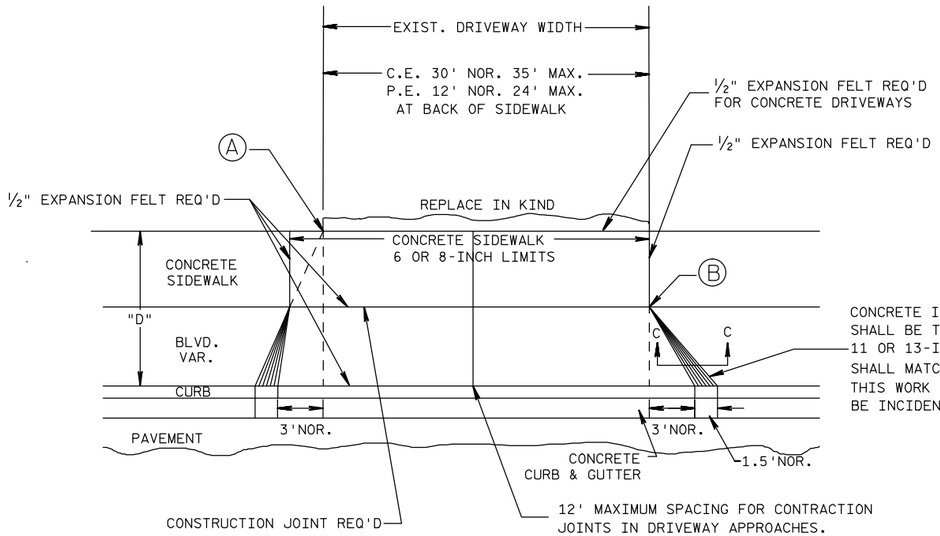


SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

(INLET 2x3-FT SHOWN)

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

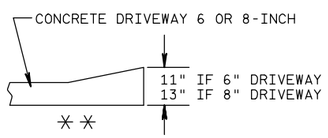


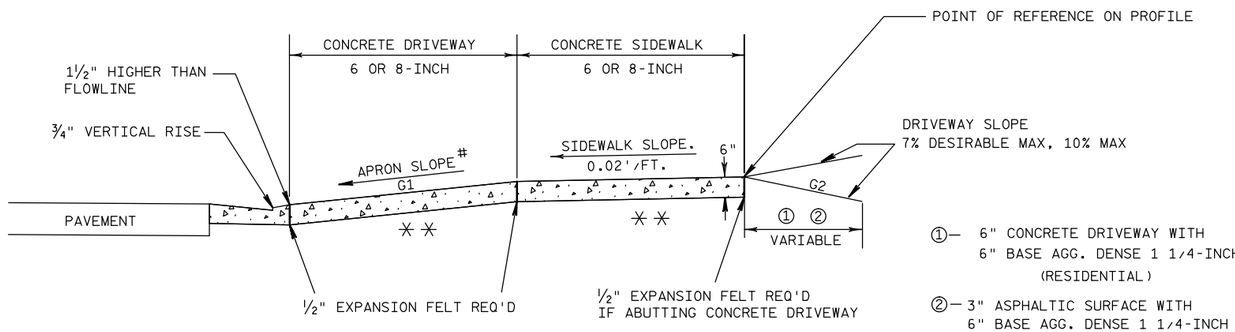
CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11 OR 13-INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.

PLAN VIEW

Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK





TYPICAL SIDEWALK SECTION

① — 6" CONCRETE DRIVEWAY WITH 6" BASE AGG. DENSE 1 1/4-INCH (RESIDENTIAL)

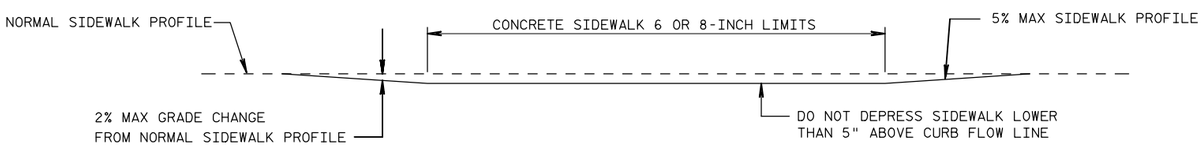
② — 3" ASPHALTIC SURFACE WITH 6" BASE AGG. DENSE 1 1/4-INCH (COMMERCIAL)

✳✳ = 6" BASE AGG. DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRWY

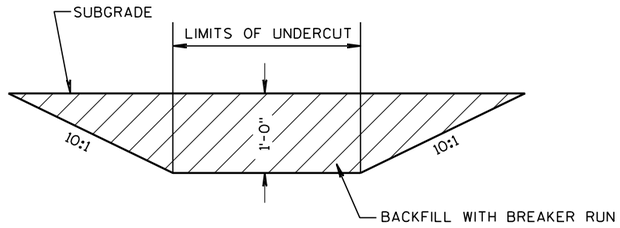
TERRACE WIDTH	APRON SLOPE (G1) MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

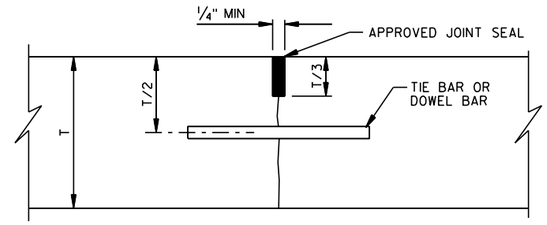
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



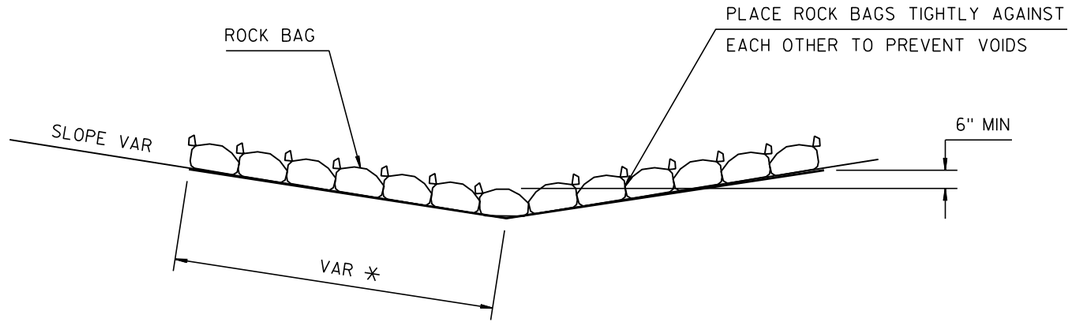
DEPRESSED SIDEWALK PROFILE DETAIL



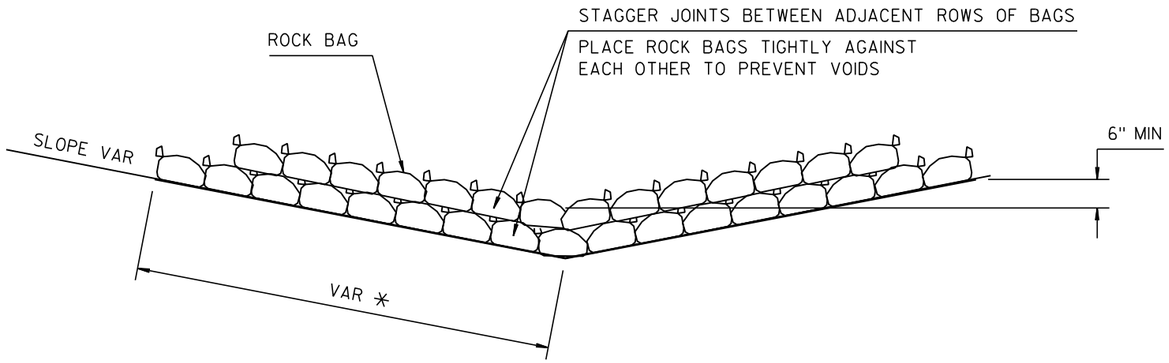
LONGITUDINAL SECTION FOR UNDERCUT AREAS (EBS)



CONCRETE JOINT SEALING



SIDE VIEW (SINGLE LAYER)



* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS DITCH CHECK

PAID AS ROCK BAGS

2

NOTES

ALL NOTES AND DETAILS FROM S.D.D. CONCRETE BASES, TYPES 1, 2 & 5 SHALL APPLY, EXCEPT AS OTHERWISE NOTED. ALL ITEMS SHOWN, EXCLUDING STORM SEWER, ARE INCIDENTAL TO CONCRETE BASES TYPE 5 SPECIAL.

(1) (10) NO. 4 X 5'-6" BAR STEEL REINFORCEMENT @ 1'-5"± C-C.

(2) (4) ANCHOR RODS SHALL BE 1" DIA. X 48".

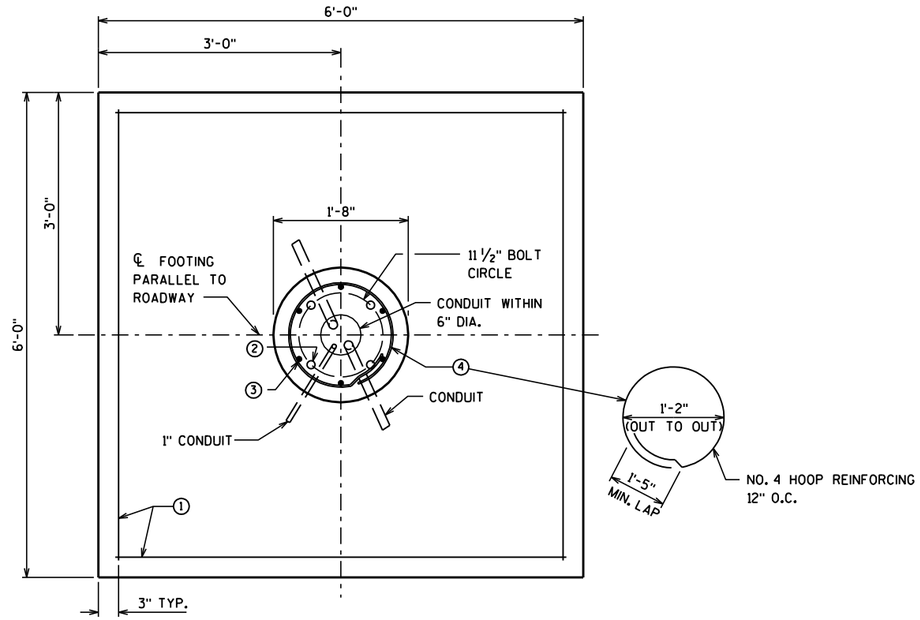
(3) (6) NO. 4 X 4'-5" BAR STEEL REINFORCEMENT.

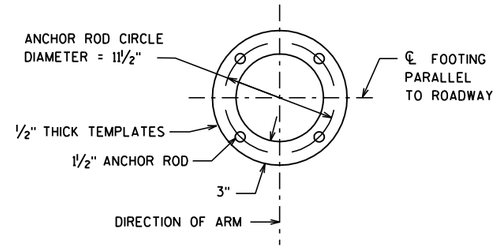
(4) (4) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

QUANTITY REQUIREMENTS

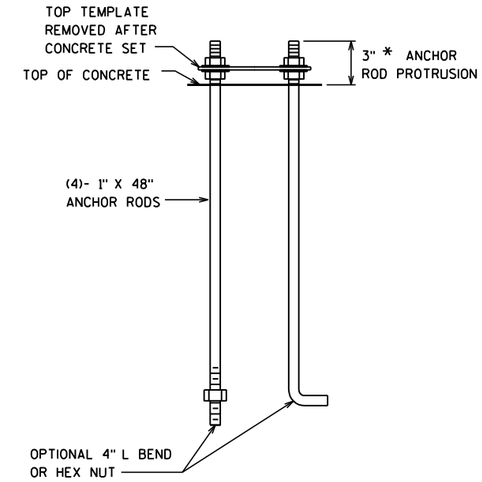
CONCRETE	2.8 CY
BAR STEEL	68 LB
NO. 1 CONCRETE STONE	3 CY
GEOTEXTILE FABRIC	15 SY

BAR BEND DIAGRAM

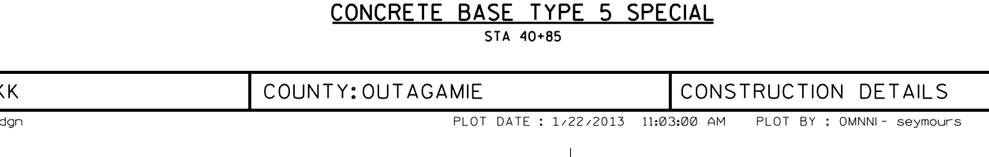




TOP TEMPLATE



ANCHOR BOLT ASSEMBLY DETAIL

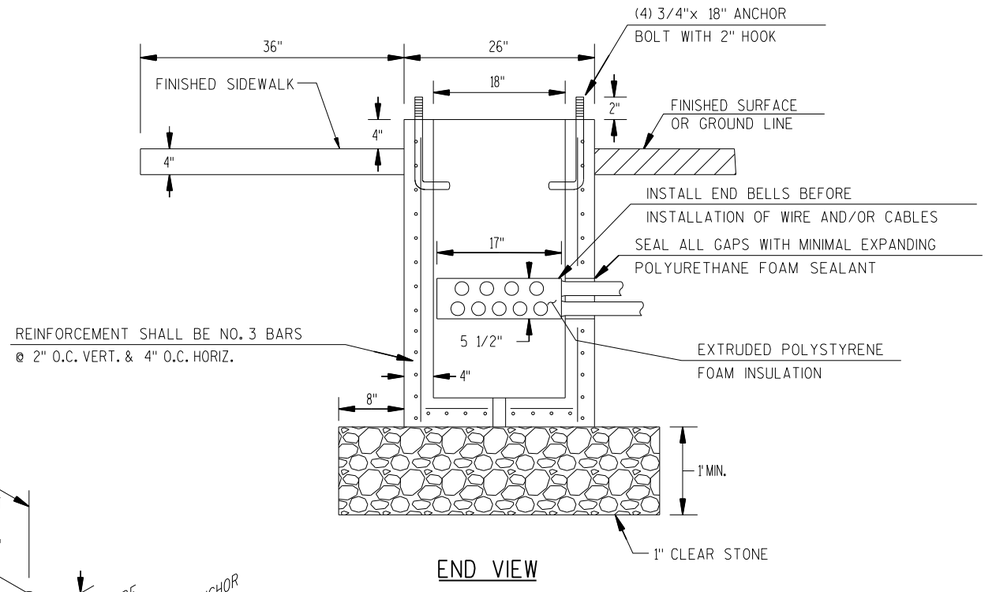


CONCRETE BASE TYPE 5 SPECIAL

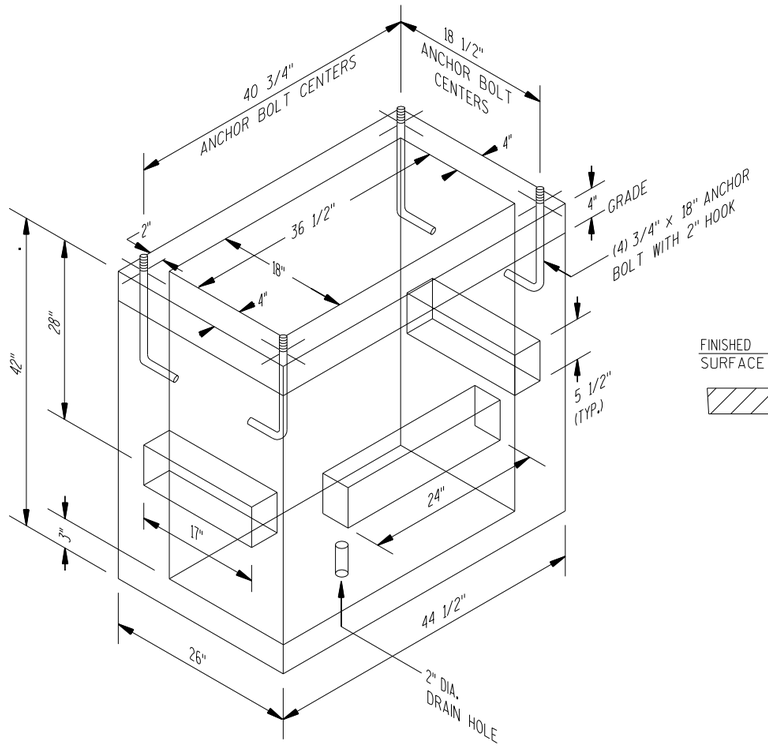
STA 40+85

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE

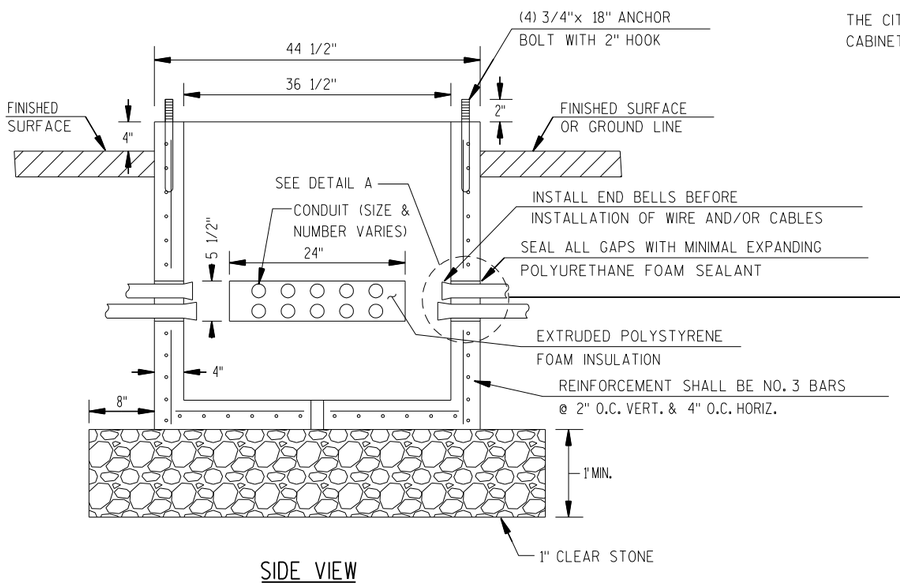
2



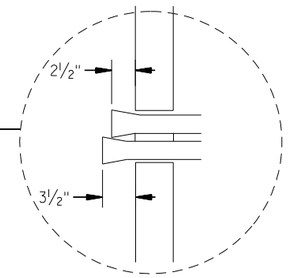
END VIEW



ISOMETRIC VIEW



SIDE VIEW



DETAIL A

GENERAL NOTES

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

4" THICK EXTRUDED POLYSTYRENE INSULATION BOARD SHALL BE USED FOR CONDUIT ENTRANCE WAYS DURING PRODUCTION.

A HOLE SAW SHALL BE USED TO DRILL OUT INSULATION BOARD OR CONDUITS. IF TEN OR MORE CONDUITS ENTER STRUCTURE, THE CONTRACTOR MAY REMOVE INSULATION BOARD AND FILL ALL GAPS WITH MINIMAL EXPANDING POLYURETHANE FOAM SEALANT.

TOP CONDUITS SHALL EXTEND 2½ INCHES BEYOND FACE OF CONCRETE WALL AND BOTTOM CONDUITS SHALL EXTEND 3½ INCHES BEYOND FACE OF CONCRETE WALL.

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 AND LEVEL.

A TWO-INCH DIAMETER DRAIN HOLE IS REQUIRED AT THE BOTTOM OF THE BASE.

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

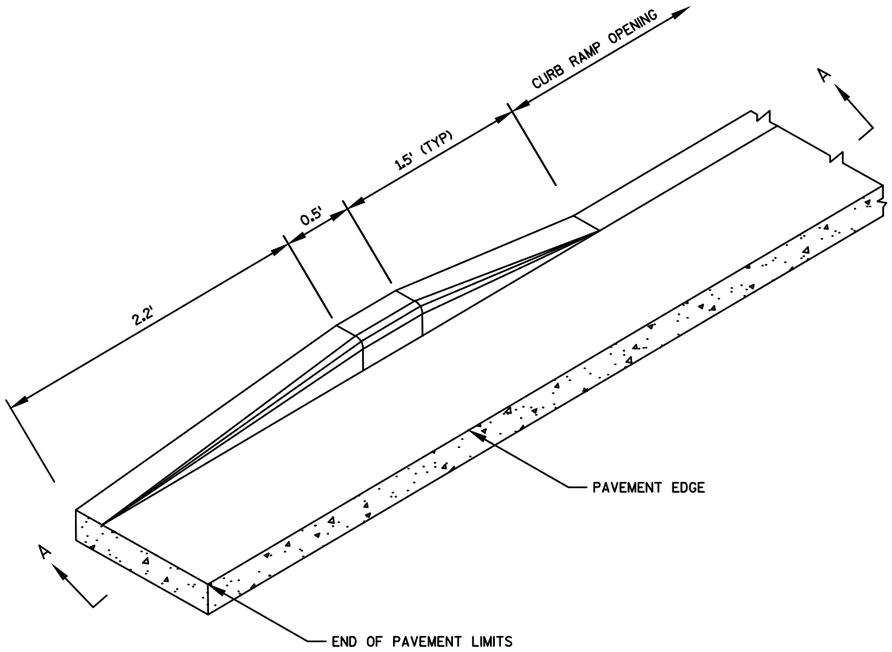
THE CITY OF APPLETON ELECTRICAL DEPARTMENT WILL APPROVE ALL FINAL LOCATIONS OF CONTROL CABINET BASES.

PRE-CAST CONCRETE CABINET BASE

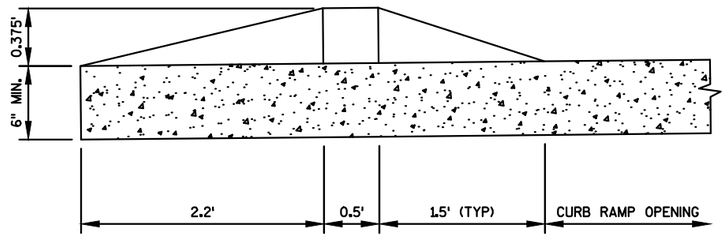
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 13	E

2

NOTES:
ALL NOTES AND DETAILS FROM S.D.D. CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES SHALL APPLY, EXCEPT AS OTHERWISE NOTED.

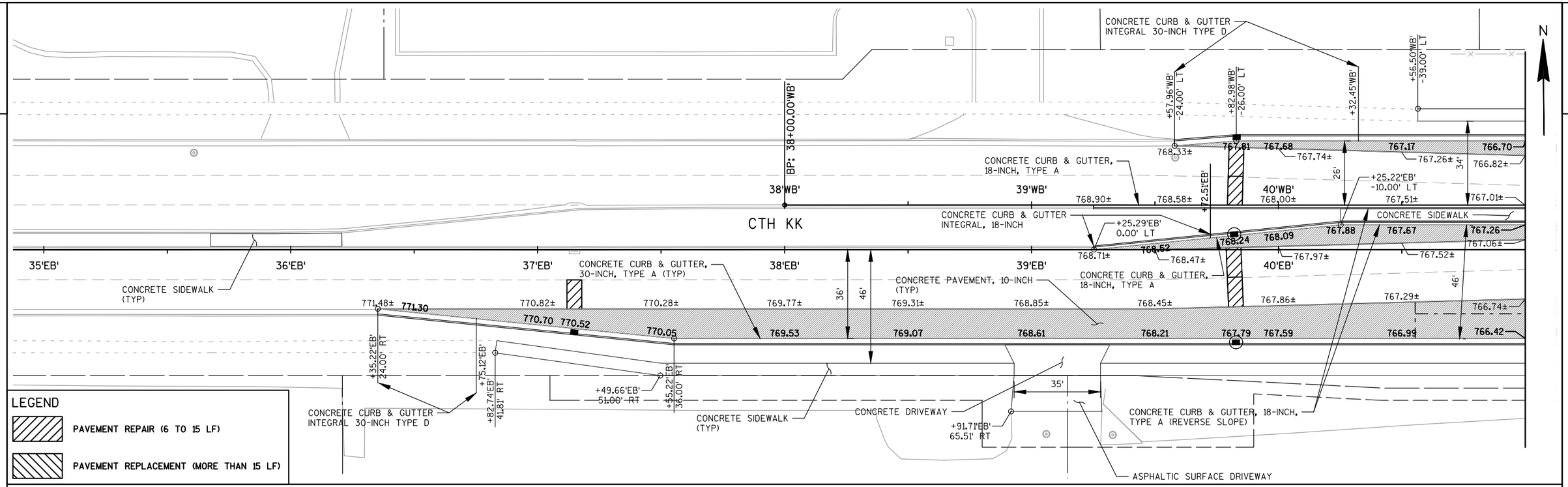


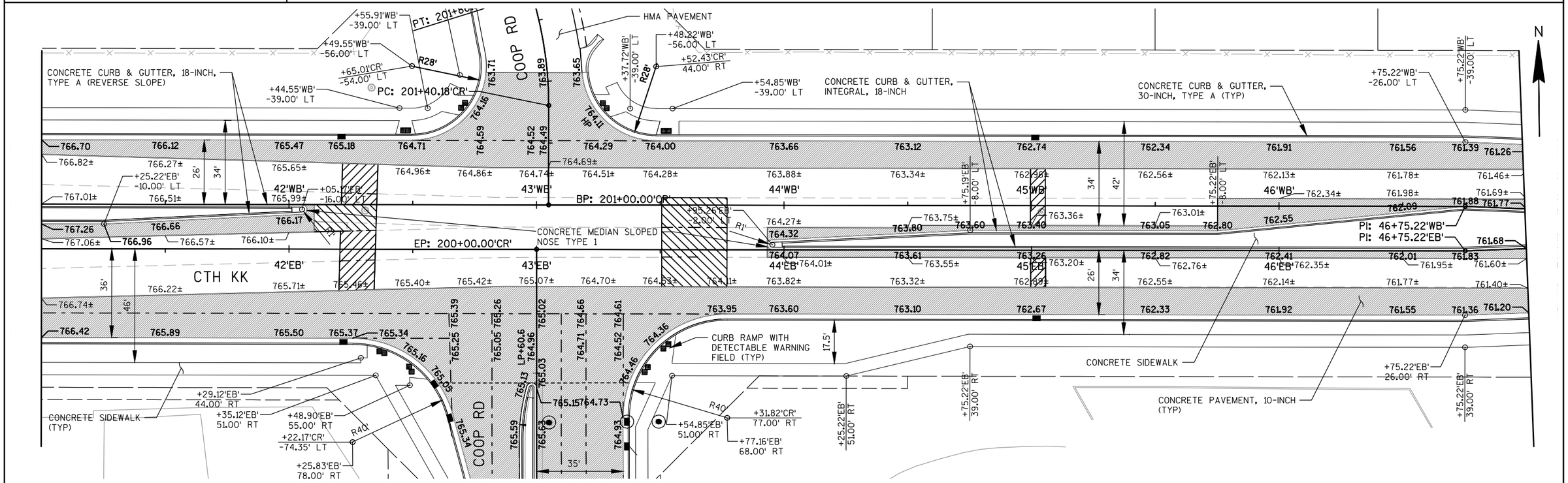
SECTION A-A



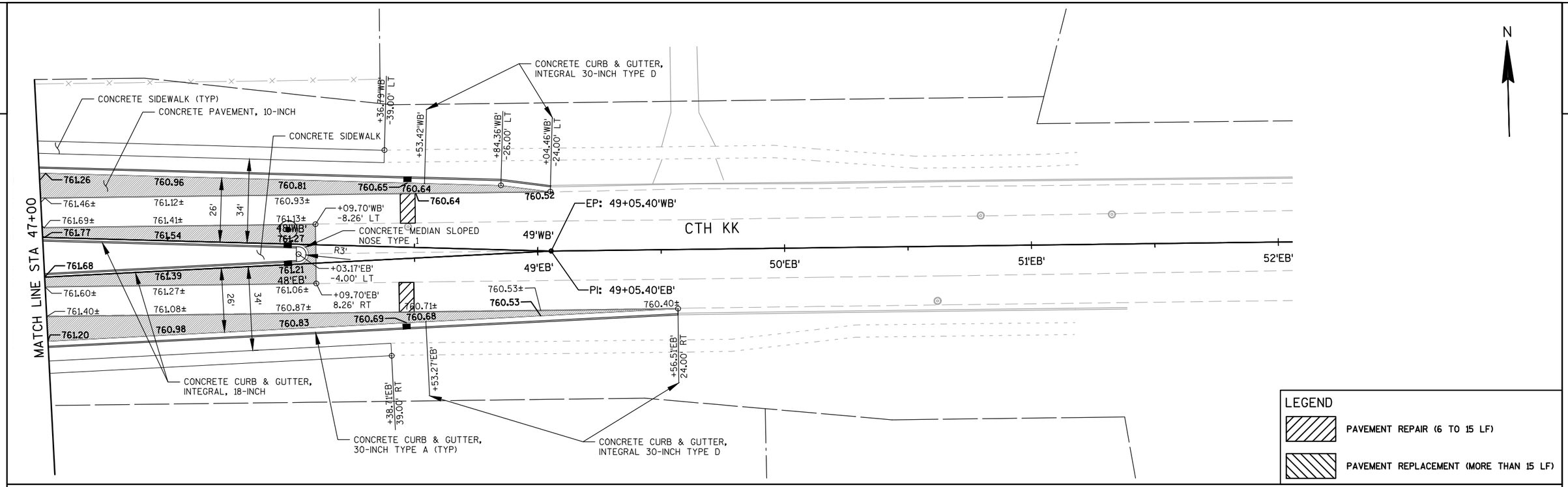
END SECTION CURB AND GUTTER

STA 196+54.00 LT & RT COOP ROAD





PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVING DETAILS: CTH KK	SHEET 15	E



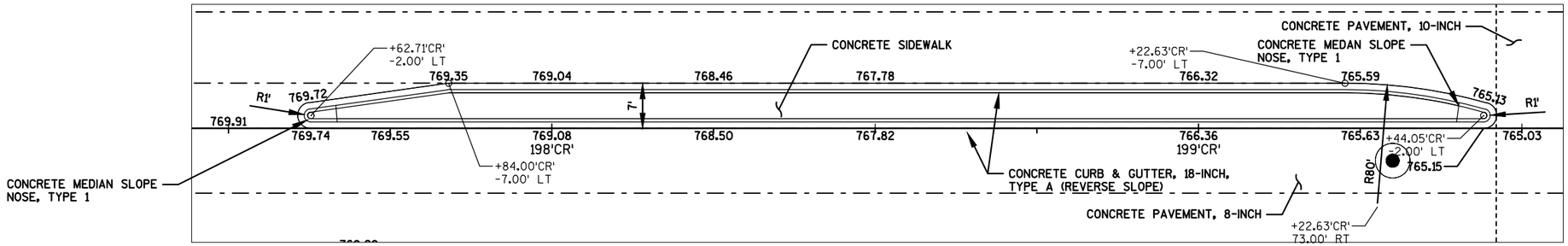
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVING DETAILS: CTH KK	SHEET 16	E

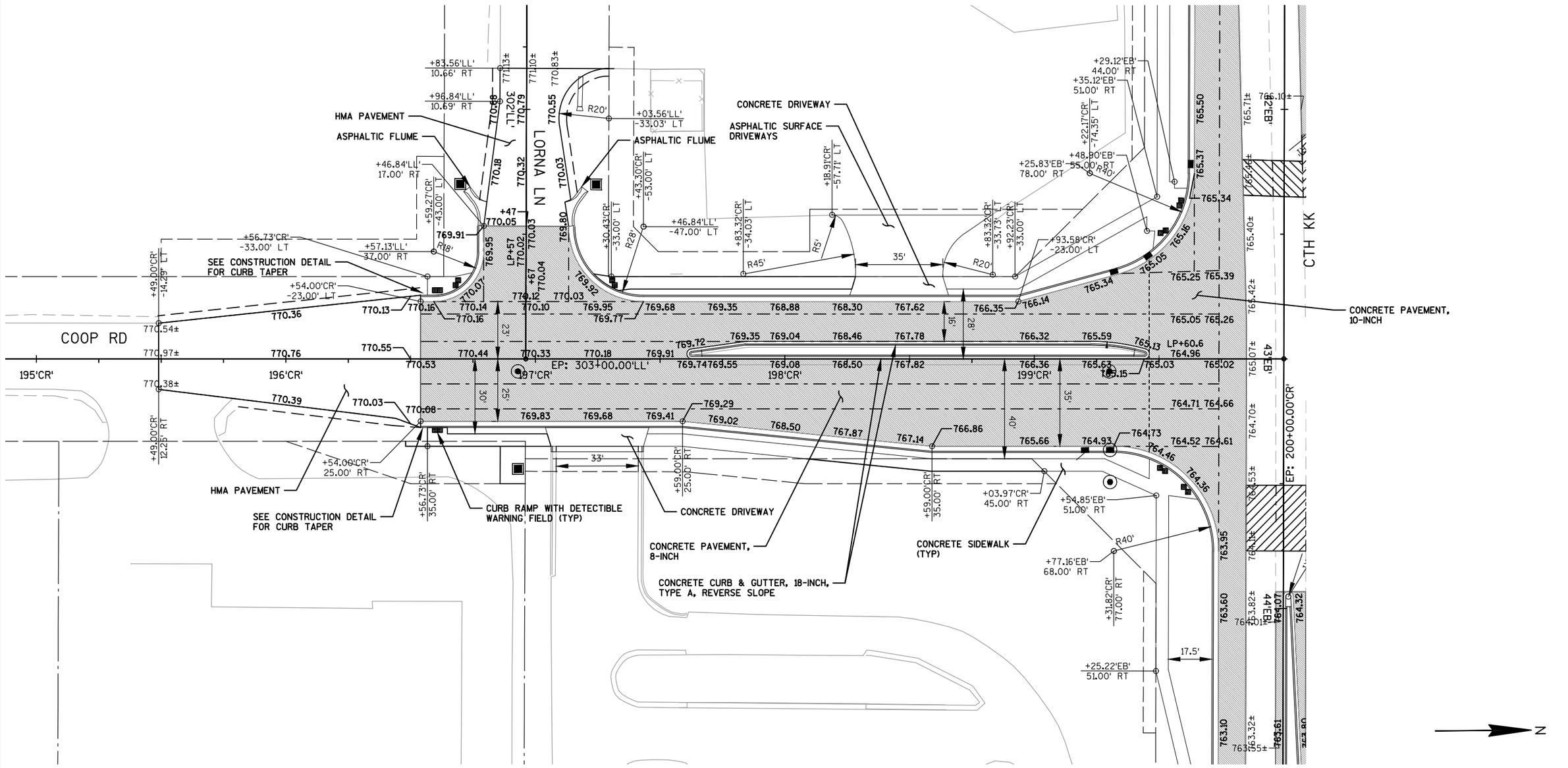
2

LEGEND

PAVEMENT REPAIR (6 TO 15 LF)

PAVEMENT REPLACEMENT (MORE THAN 15 LF)



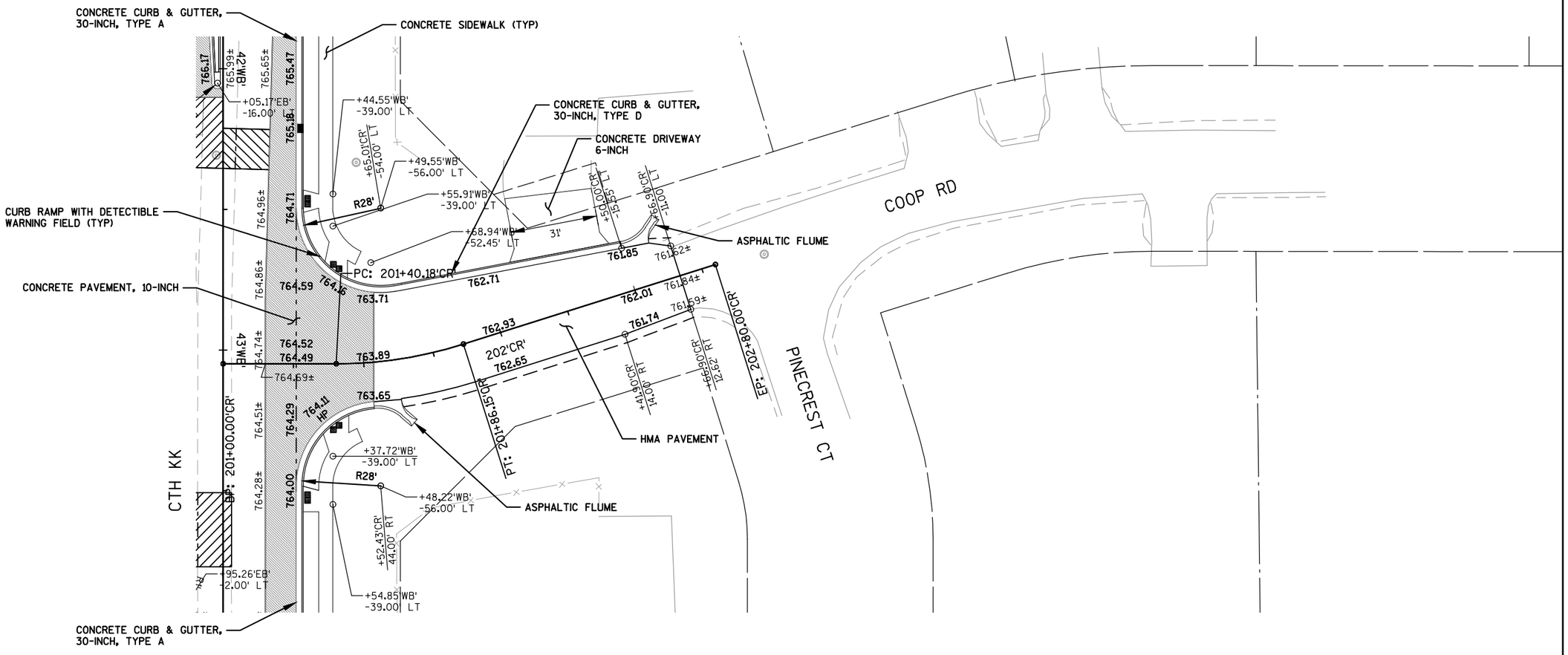


2

LEGEND

PAVEMENT REPAIR (6 TO 15 LF)

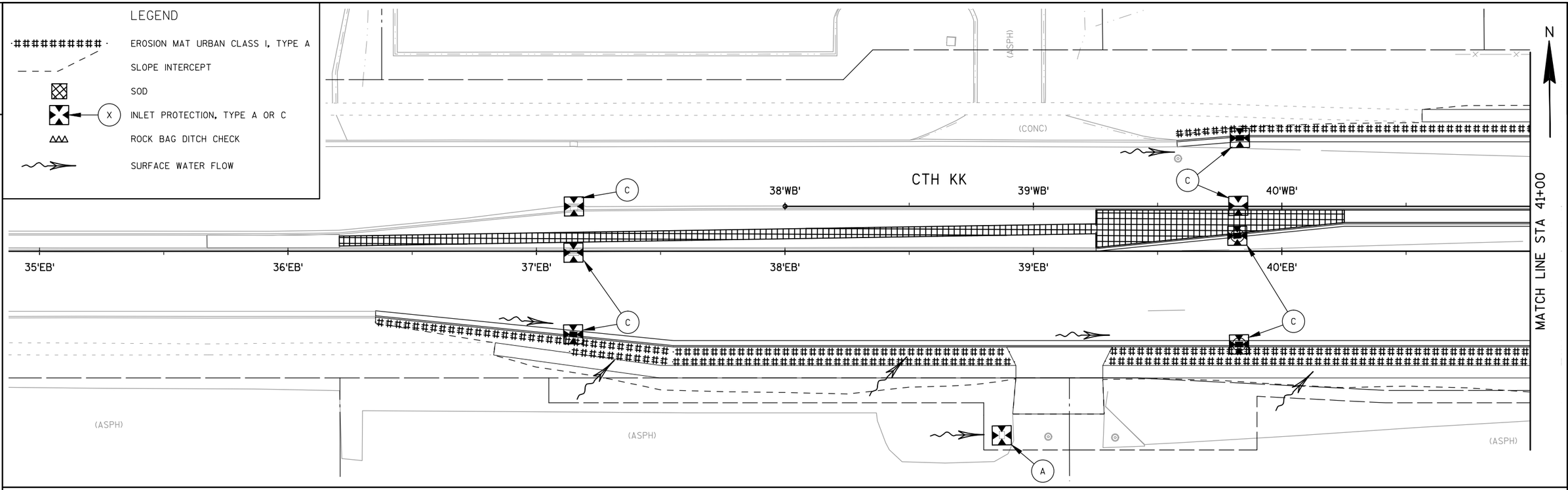
PAVEMENT REPLACEMENT (MORE THAN 15 LF)

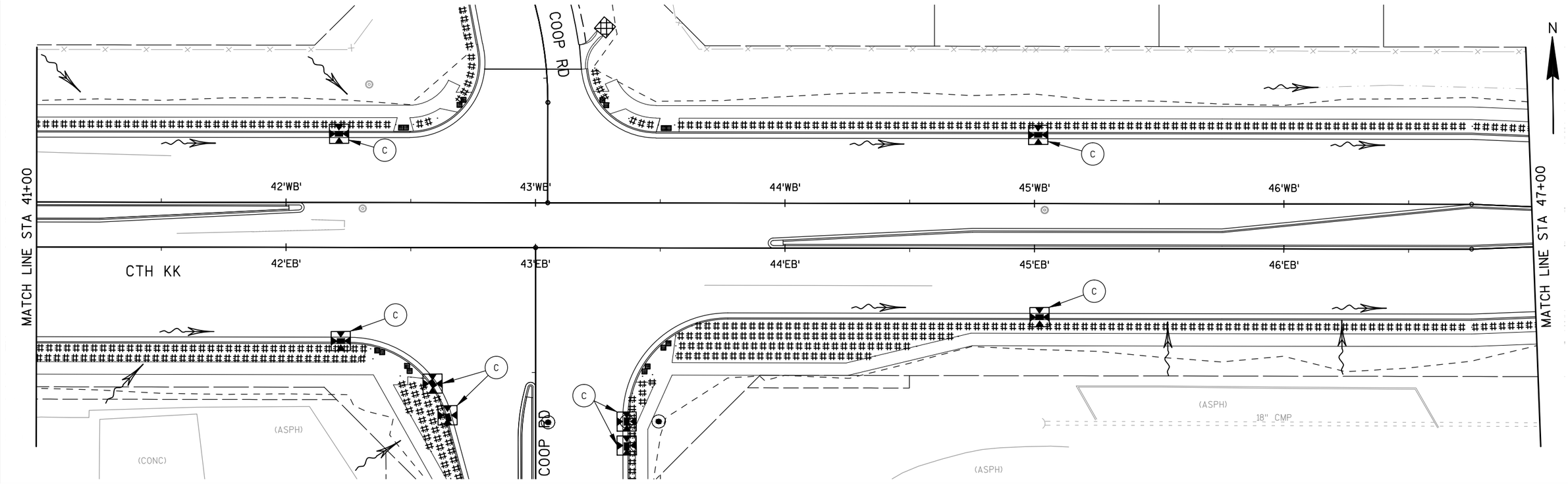


PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVING DETAILS: COOP ROAD	SHEET 18	E

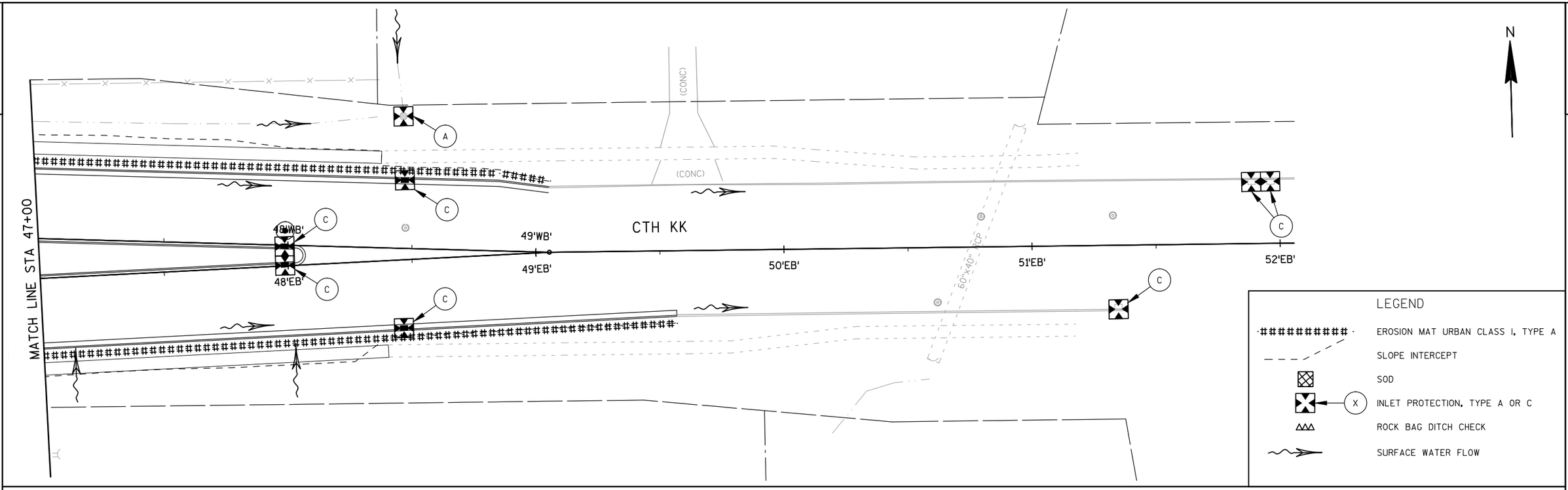
LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- SLOPE INTERCEPT
- SOD
- (X) INLET PROTECTION, TYPE A OR C
- ROCK BAG DITCH CHECK
- SURFACE WATER FLOW





PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	EROSION CONTROL: CTH KK	SHEET 19	E



2

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	EROSION CONTROL: CTH KK	SHEET 20	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_022001_EC.DWG 44940671_022002_ec PLOT DATE : 3/6/2013 7:59 AM PLOT BY : OMNNI ASSOCIATES, INC - CHAD DERCKS

LEGEND

EROSION MAT URBAN CLASS I, TYPE A

SLOPE INTERCEPT

SOD

INLET PROTECTION, TYPE A OR C

ROCK BAG DITCH CHECK

SURFACE WATER FLOW

N

COOP RD

LORNA LN

CTH KK

302'LT'

42'EB'

43'EB'

43'WB'

195'CR'

196'CR'

197'CR'

198'CR'

199'CR'

202'CR'

(ASPH)

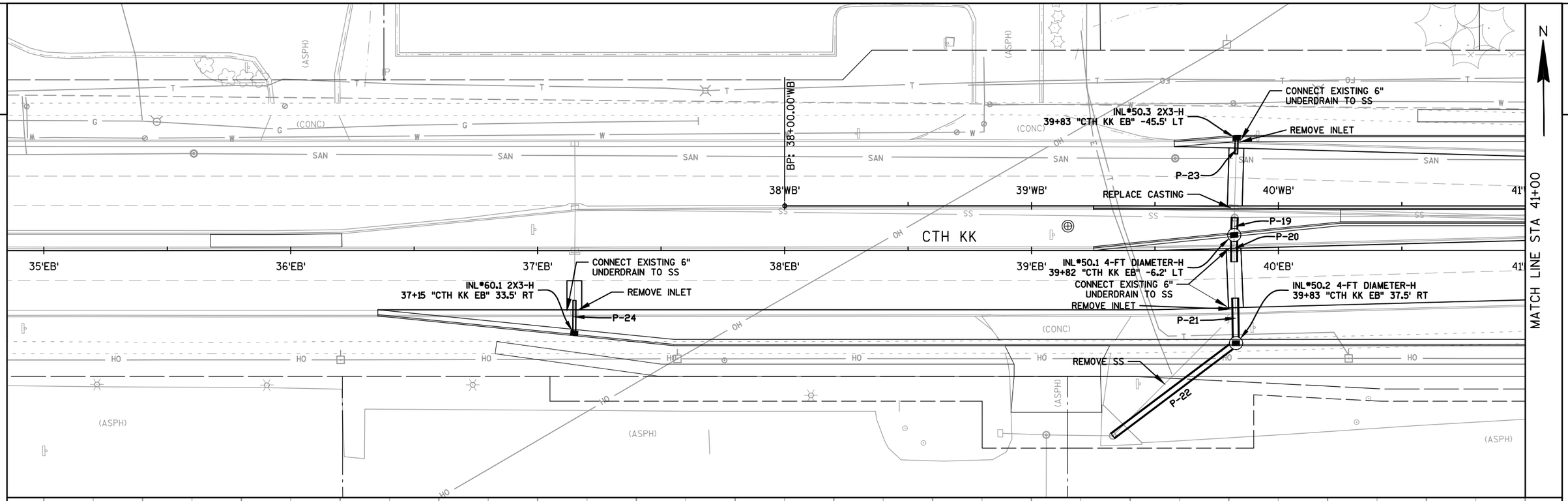
A

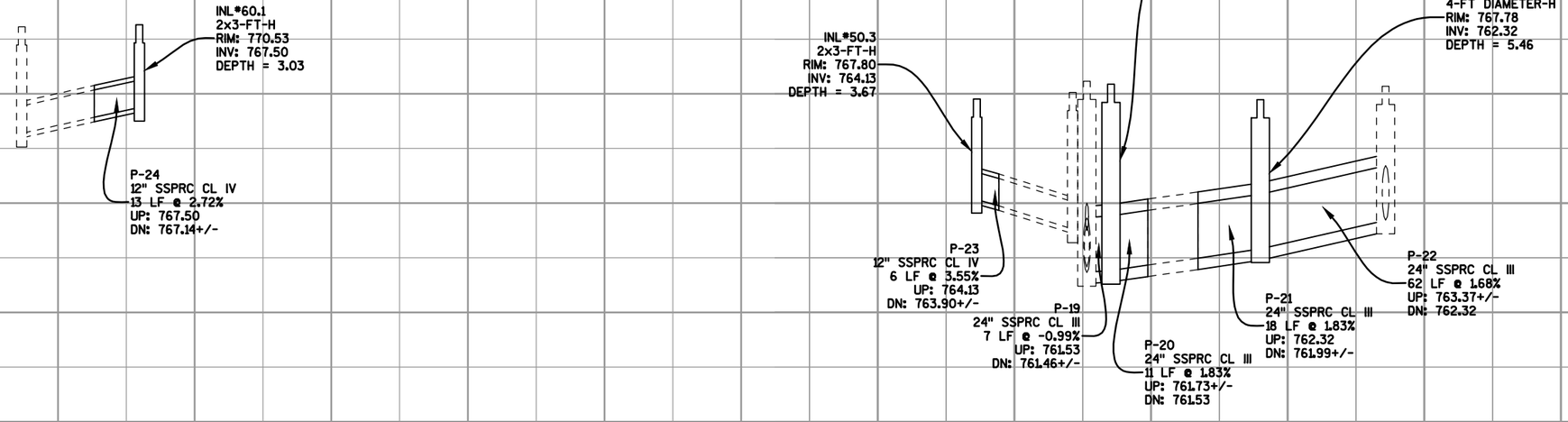
C

15" CMP

PINECREST CT

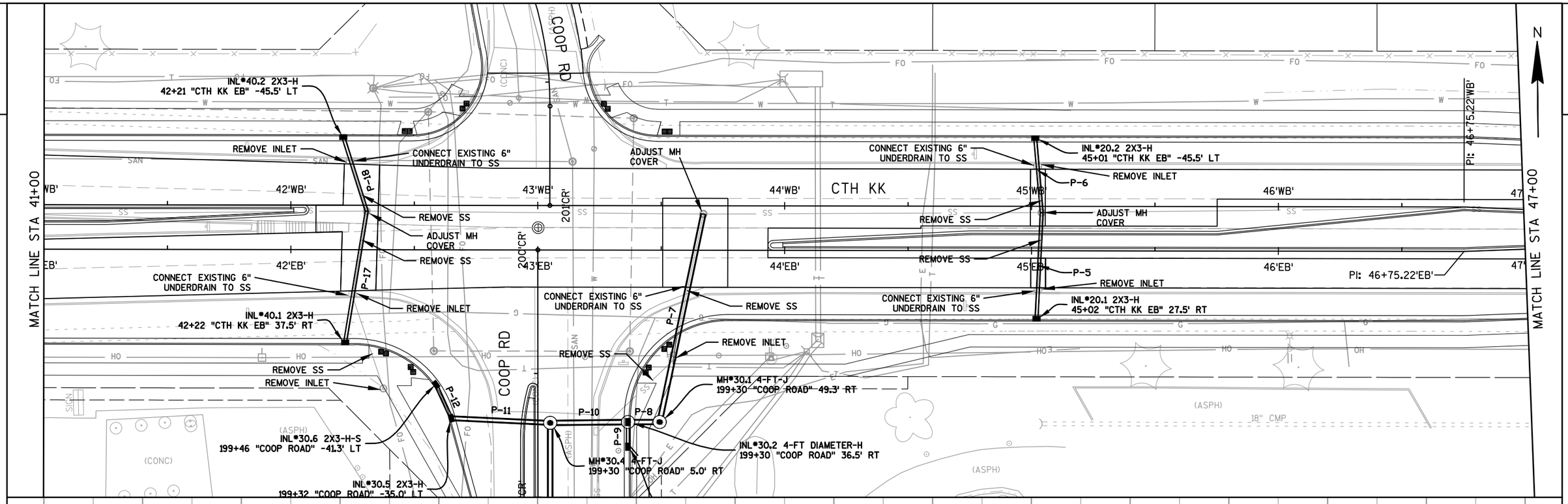
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	EROSION CONTROL: COOP RD AND LORNA LN	SHEET 21	E

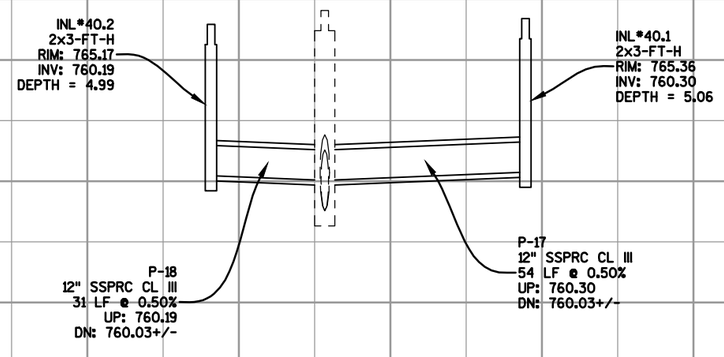


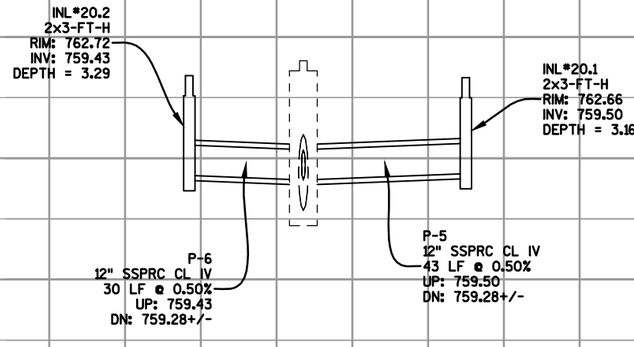


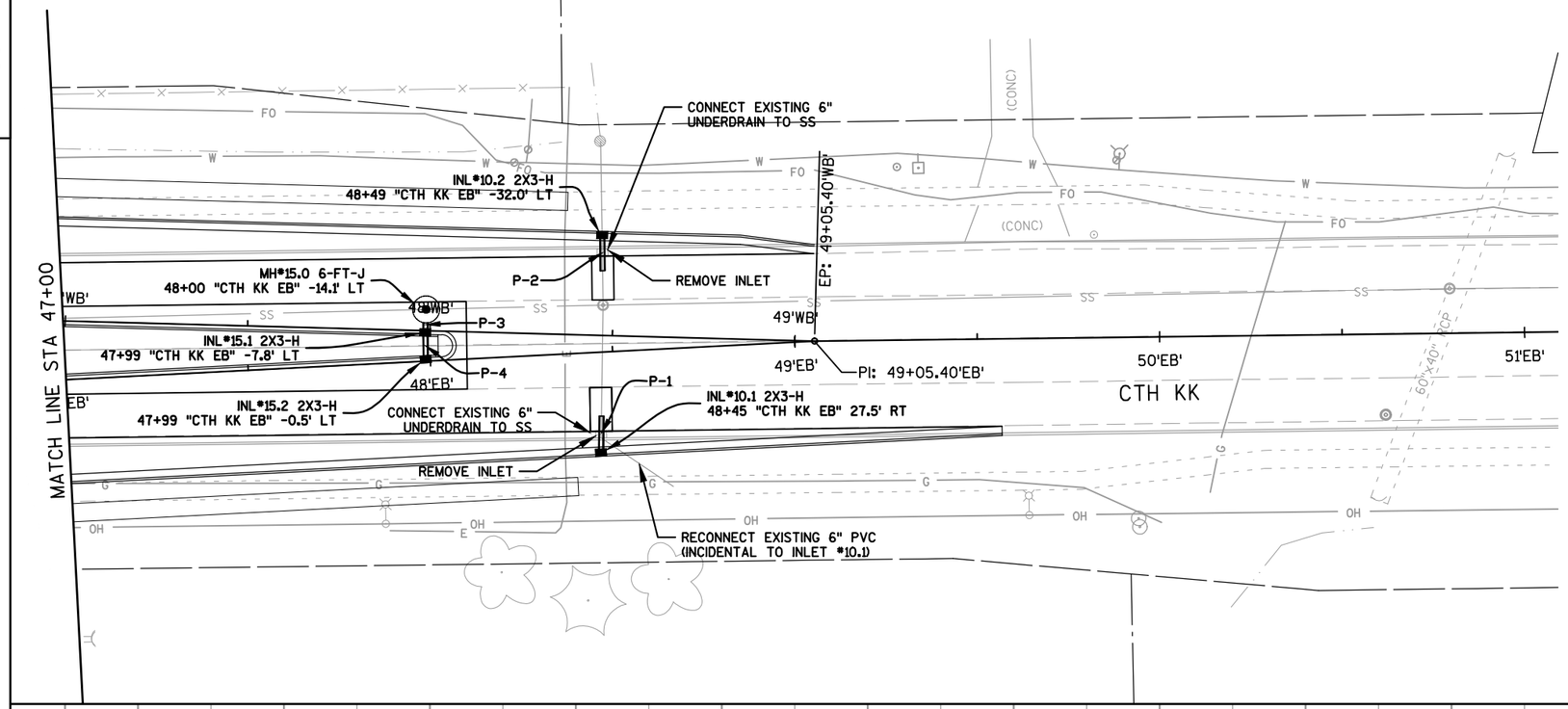
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 22	E

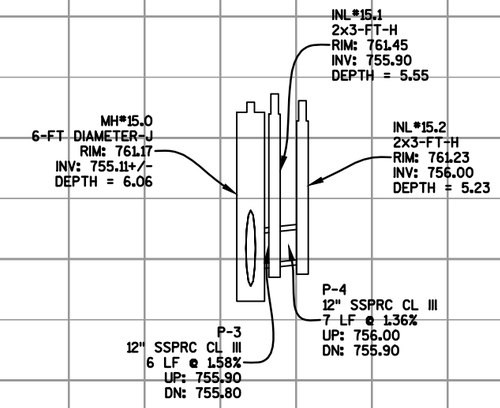
FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_022500_SS.DWG 44940671_022501_ss PLOT DATE : 1/25/2013 10:30 AM PLOT BY : OMNNI ASSOCIATES, INC - CHAD DERCKS

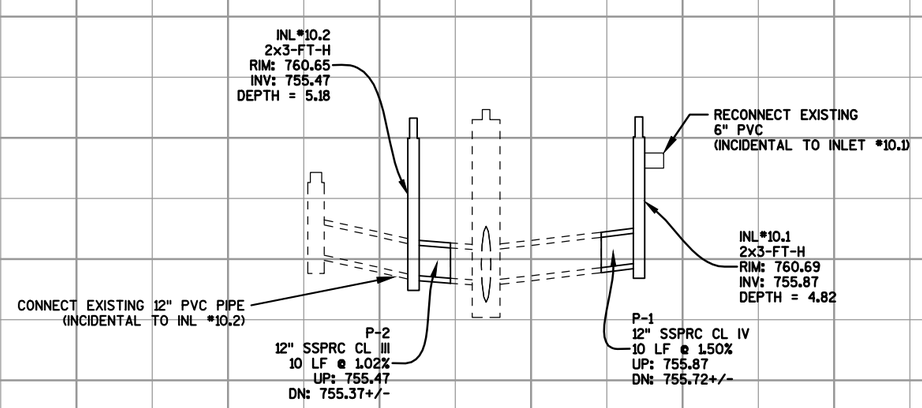

MATCH LINE STA 41+00
MATCH LINE STA 47+00
COOP RD
CTH KK
INL*40.2 2X3-H
42+21 "CTH KK EB" -45.5' LT
REMOVE INLET
CONNECT EXISTING 6" UNDERDRAIN TO SS
ADJUST MH COVER
REMOVE SS
P-18
P-17
INL*40.1 2X3-H
42+22 "CTH KK EB" 37.5' RT
INL*30.6 2X3-H-S
199+46 "COOP ROAD" -41.3' LT
INL*30.5 2X3-H
199+32 "COOP ROAD" -35.0' LT
P-12
P-11
P-10
P-9
P-8
P-7
MH*30.4 4-FT-J
199+30 "COOP ROAD" 5.0' RT
MH*30.1 4-FT-J
199+30 "COOP ROAD" 49.3' RT
INL*30.2 4-FT DIAMETER-H
199+30 "COOP ROAD" 36.5' RT
INL*20.2 2X3-H
45+01 "CTH KK EB" -45.5' LT
P-6
P-5
INL*20.1 2X3-H
45+02 "CTH KK EB" 27.5' RT
PI: 46+75.22'WB'
PI: 46+75.22'EB'
42'WB'
43'WB'
44'WB'
45'WB'
46'WB'
42'EB'
43'EB'
44'EB'
45'EB'
46'EB'
20'CR'
(ASPH)
(CONC)
18" CMP
N


INL*40.2
2x3-FT-H
RIM: 765.17
INV: 760.19
DEPTH = 4.99
INL*40.1
2x3-FT-H
RIM: 765.36
INV: 760.30
DEPTH = 5.06
P-18
12" SSPRC CL III
31 LF @ 0.50%
UP: 760.19
DN: 760.03+/-
P-17
12" SSPRC CL III
54 LF @ 0.50%
UP: 760.30
DN: 760.03+/-


INL*20.2
2x3-FT-H
RIM: 762.72
INV: 759.43
DEPTH = 3.29
INL*20.1
2x3-FT-H
RIM: 762.66
INV: 759.50
DEPTH = 3.16
P-6
12" SSPRC CL IV
30 LF @ 0.50%
UP: 759.43
DN: 759.28+/-
P-5
12" SSPRC CL IV
43 LF @ 0.50%
UP: 759.50
DN: 759.28+/-

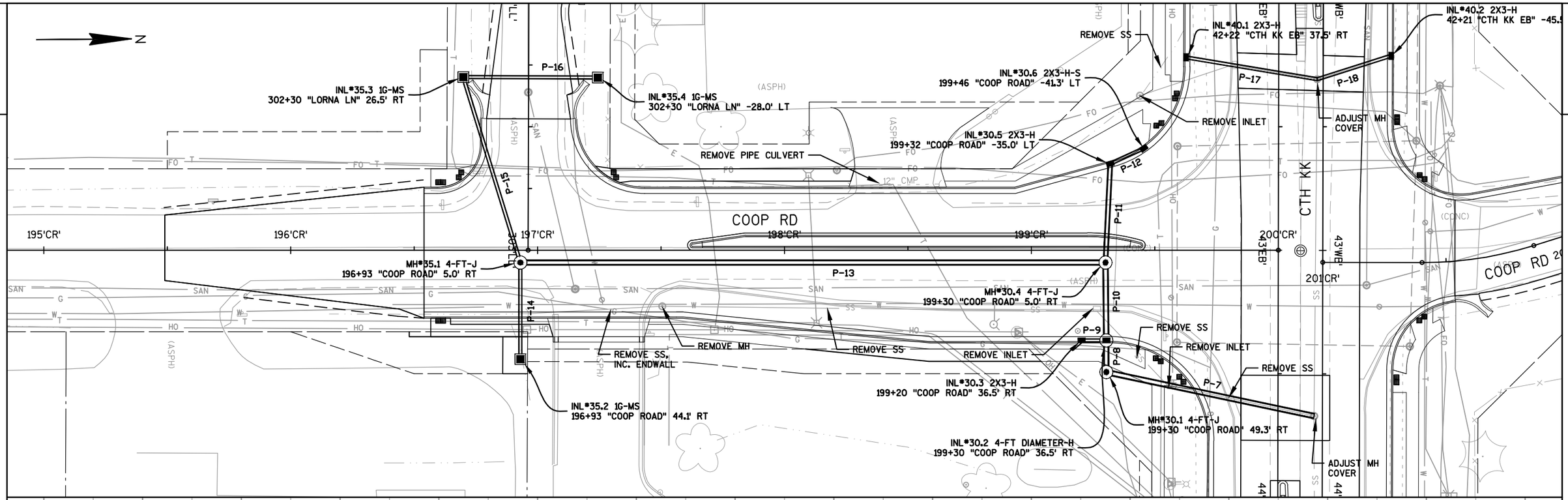


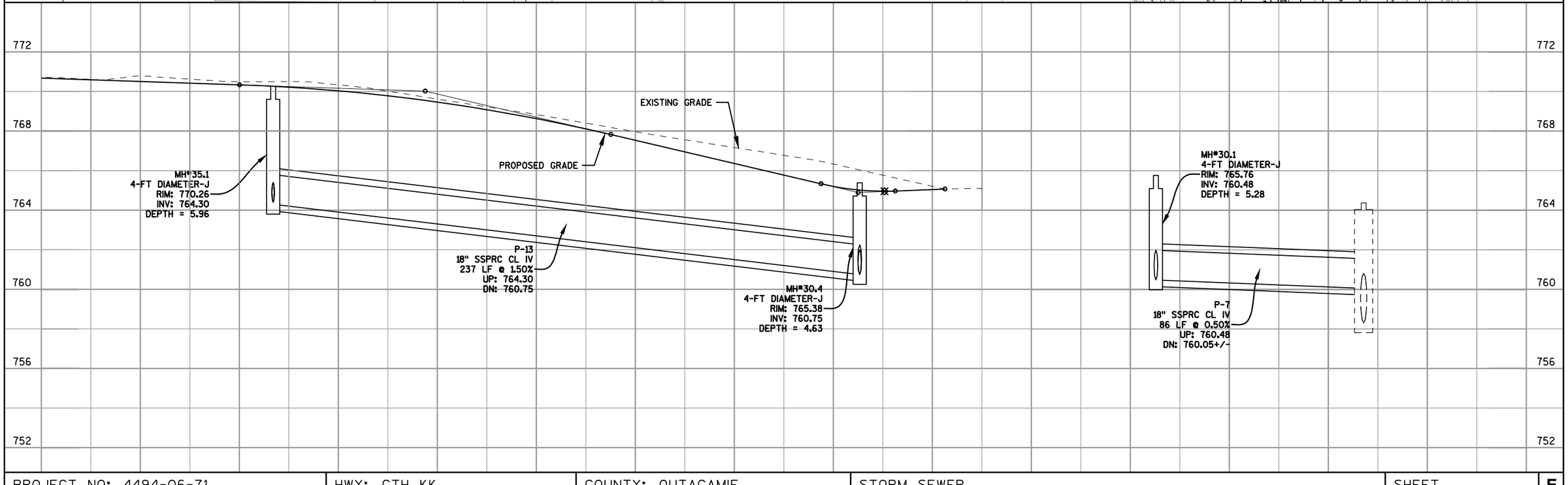




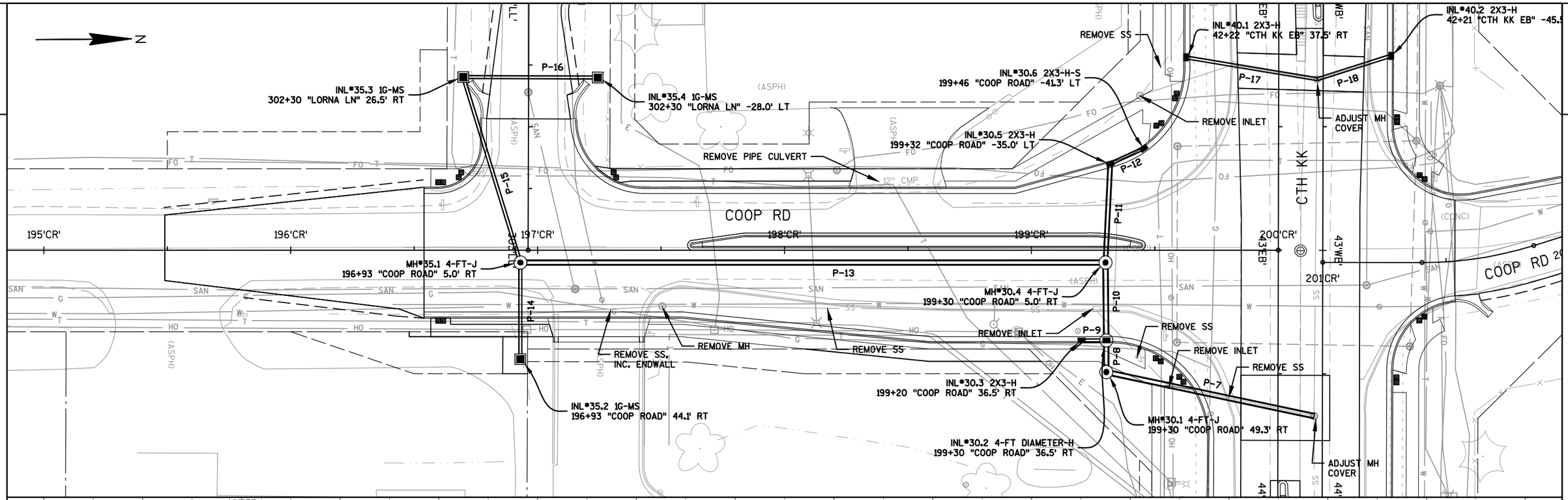
768 764 760 756 752 748

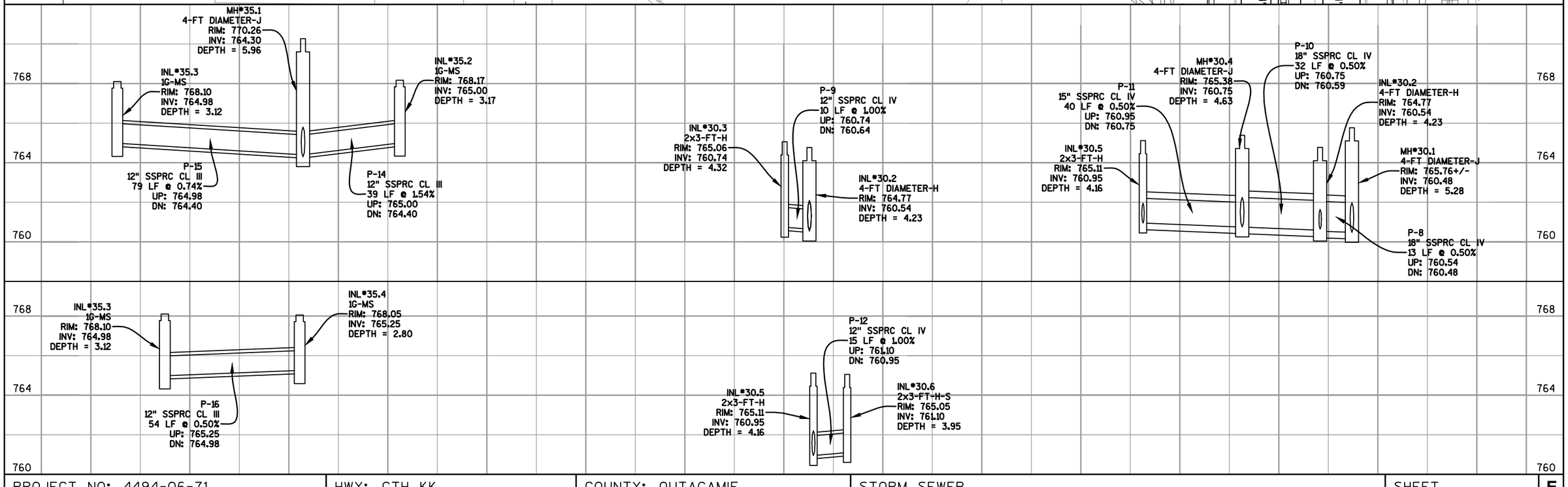
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 24	E





PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 25	E

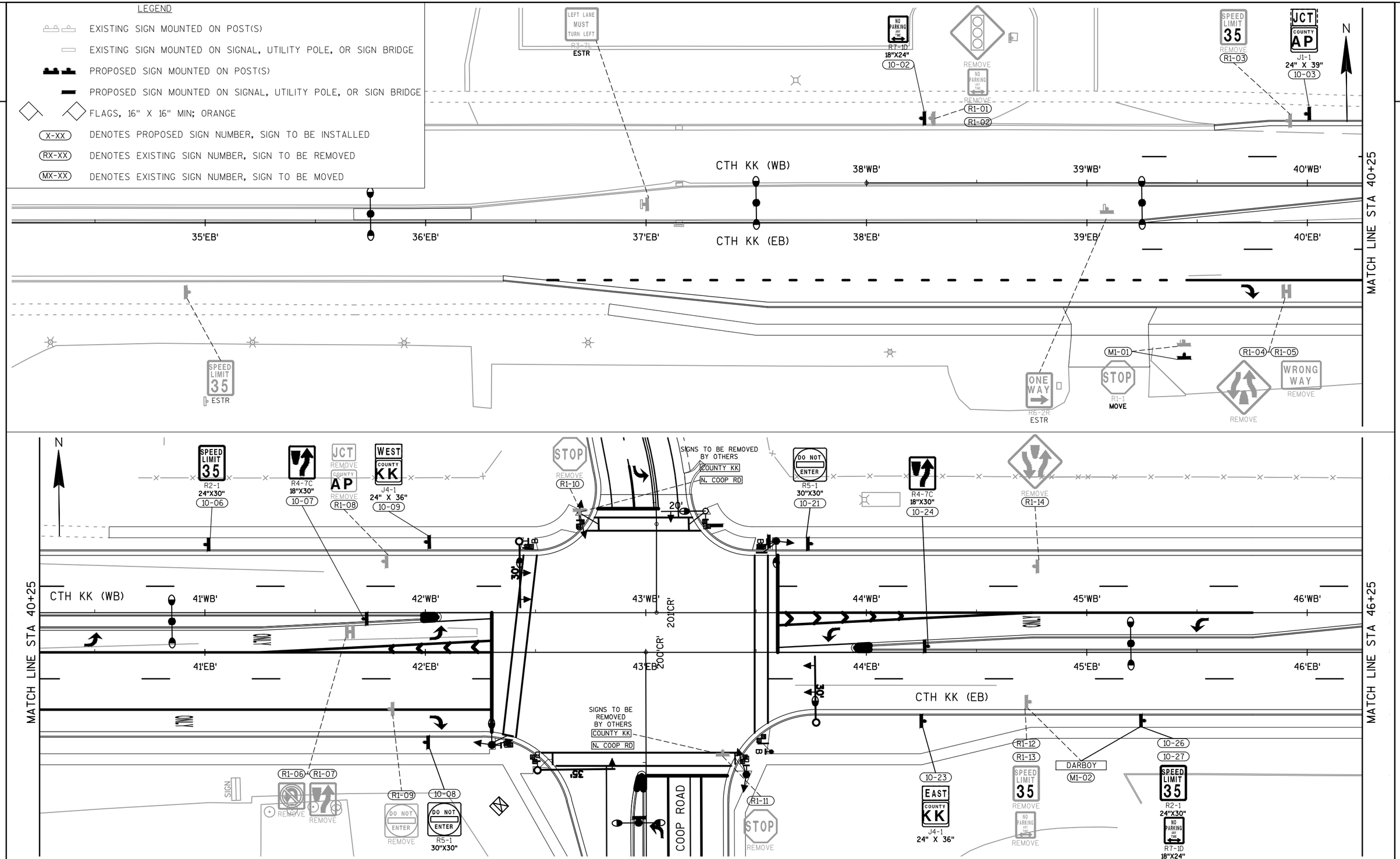




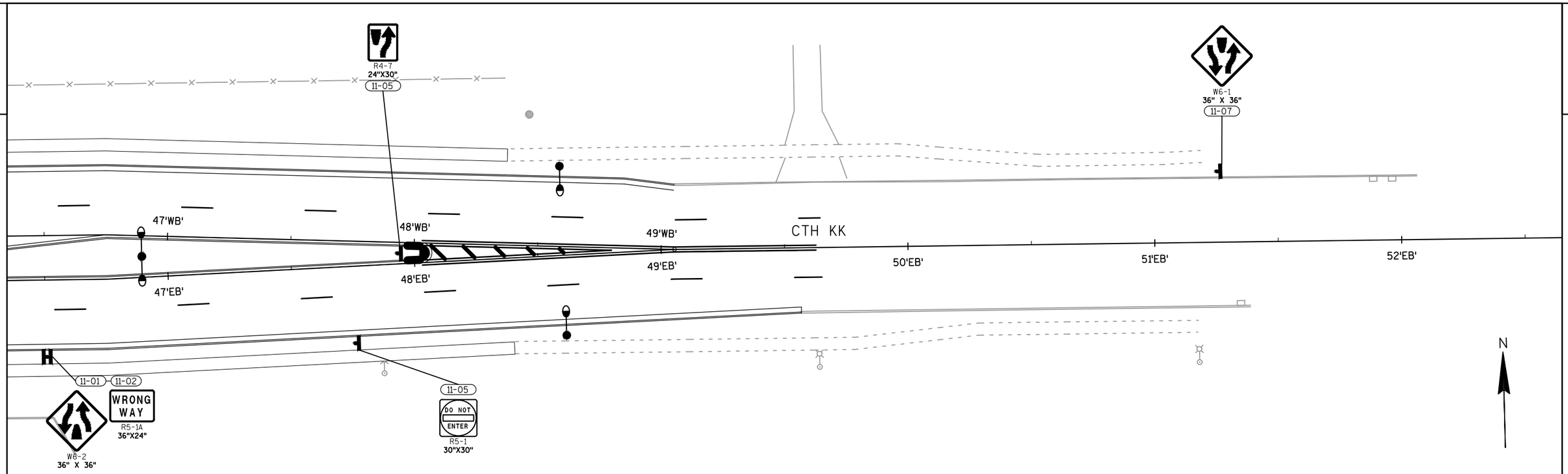
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 26	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL, UTILITY POLE, OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL, UTILITY POLE, OR SIGN BRIDGE
- FLAGS, 16" X 16" MIN; ORANGE
- (X-XX) DENOTES PROPOSED SIGN NUMBER, SIGN TO BE INSTALLED
- (RX-XX) DENOTES EXISTING SIGN NUMBER, SIGN TO BE REMOVED
- (MX-XX) DENOTES EXISTING SIGN NUMBER, SIGN TO BE MOVED



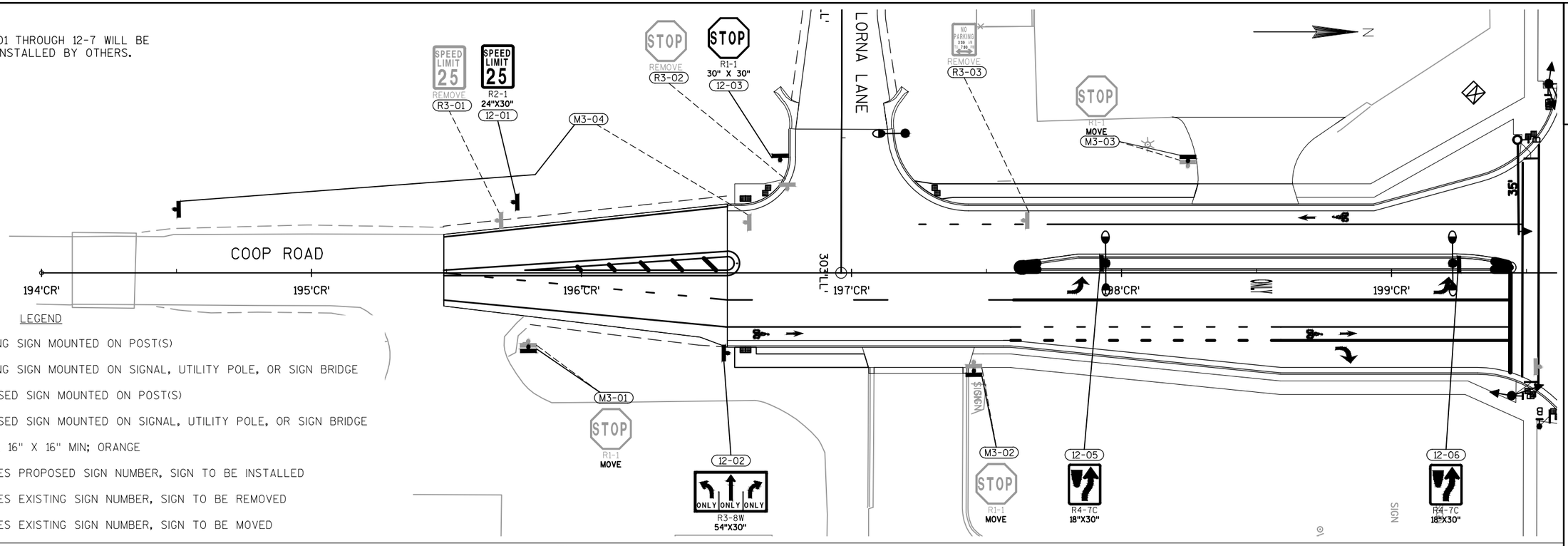
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 27	E

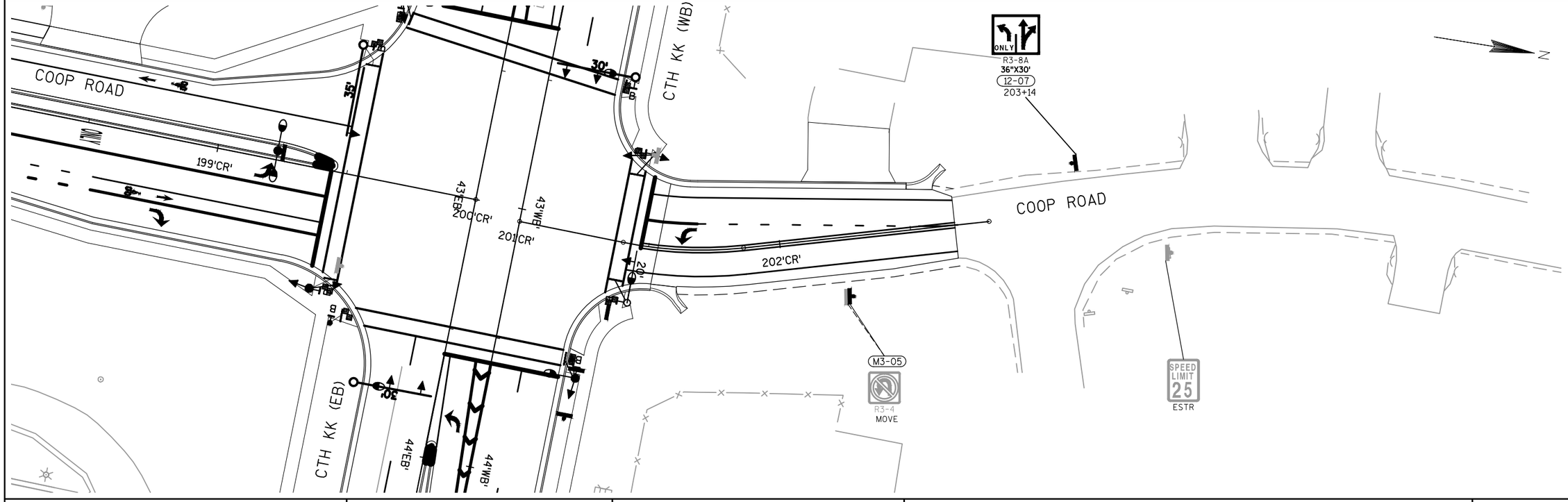


LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL, UTILITY POLE, OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL, UTILITY POLE, OR SIGN BRIDGE
- FLAGS, 16" X 16" MIN; ORANGE
- (X-XX) DENOTES PROPOSED SIGN NUMBER, SIGN TO BE INSTALLED
- (RX-XX) DENOTES EXISTING SIGN NUMBER, SIGN TO BE REMOVED
- (MX-XX) DENOTES EXISTING SIGN NUMBER, SIGN TO BE MOVED

NOTE: SIGNS 12-01 THROUGH 12-7 WILL BE FURNISHED AND INSTALLED BY OTHERS.





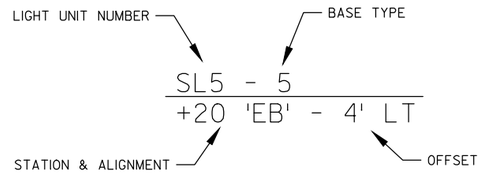
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 29	E

2

STREET LIGHTING PLAN LEGEND

- LIGHTING UNIT TYPE 5 (SINGLE)
- LIGHTING UNIT TYPE 5 (DOUBLE)
- STREET LIGHT (ARM & LUMINAIRE ONLY; MOUNTED ON TRAFFIC SIGNAL POLE)
- PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS, SEE TRAFFIC SIGNAL PLANS)
- PULL BOX (STEEL 24" X 42")
- CONDUIT RIGID NONMETALLIC 2 INCH SCHEDULE 80 (UNLESS OTHERWISE NOTED)

LIGHT UNIT ANNOTATION



NOTES:

1. CONTRACTOR SHALL COORDINATE CONCRETE BASE LOCATIONS IN THE FIELD PRIOR TO CONSTRUCTION WITH THE CITY OF APPLETON ELECTRICAL UNIT.
2. CONCRETE BASES SHALL NOT BE POURED UNTIL NEARBY CURB IS SET TO ESTABLISH BASE HEIGHT AND TO ASSURE PROPER FINISH BASE HEIGHT.
3. CONTRACTOR SHALL INSTALL PULL ROPE IN EACH RUN OF CONDUIT.
4. CITY OF APPLETON WILL PROVIDE AND INSTALL ALL STREET LIGHTING WIRE AND LIGHTING UNITS.
5. THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.
6. REFER TO TRAFFIC SIGNAL PLAN FOR LAYOUT INFORMATION. LIGHTING CONDUIT SHALL RUN PARALLEL & WITHIN THE SAME TRENCH AS THE SIGNAL CONDUIT AT THE INTERSECTION.
7. REFER TO CONSTRUCTION DETAIL FOR CONCRETE BASE TYPE 5 SPECIAL LAYOUT INFORMATION.
8. OFFSETS LISTED ON THE PLANS ARE APPROXIMATE.
9. ALL PULL BOXES SHALL HAVE GROUNDING LUGS INSTALLED AS CITY WILL INSTALL WIRE SHORTLY AFTER PULL BOX INSTALLATION.

2

CTH KK

CONDUIT STUB TO WEST REQUIRED

34'EB' 35'EB' 36'EB' 37'EB' 38'EB' 39'EB'

38'WB' 39'WB'

SL1 - 5
+75 'EB' - 4' LT

SL2 - 5
+50 'EB' - 9' LT

SL3 - 5
+25 'EB' - 9' LT

MATCH LINE STA 39+50

EISENHOWER DRIVE

STREET LIGHTING PLAN LEGEND

- LIGHTING UNIT TYPE 5 (SINGLE)
- LIGHTING UNIT TYPE 5 (DOUBLE)
- STREET LIGHT (ARM & LUMINAIRE ONLY; MOUNTED ON TRAFFIC SIGNAL POLE)
- PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS, SEE TRAFFIC SIGNAL PLANS)
- PULL BOX (STEEL 24" X 42")
- CONDUIT RIGID NONMETALLIC 2 INCH SCHEDULE 80 (UNLESS OTHERWISE NOTED)

SL4 - 5 SPECIAL (SEE DETAIL)
+85 'EB' - 14' LT

SEE NOTE 4

CTH KK

40'WB' 41'WB' 42'WB' 43'WB' 44'WB' 45'WB'

40'EB' 41'EB' 42'EB' 43'EB' 44'EB' 45'EB'

CONDUIT SPECIAL 2-INCH

200'CR' 201'CR'

30'

SL5 - 5
+20 'EB' - 4' LT

PB1

SL11 - 2
+22.6 'CR' - 3.5' LT

COOP RD

MATCH LINE STA 39+50

MATCH LINE STA 45+50

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	LIGHTING: CTH KK	SHEET 31	E

2

MATCH LINE STA 45+50

N

SL6 - 5
+90'EB' - 8.44' LT

SL7 - 5
+60'WB' - 32.5' LT

CONDUIT STUB TO
EAST REQUIRED

CONDUIT SPECIAL 2-INCH

CONDUIT SPECIAL 2-INCH

46'WB'

47'WB'

48'WB'

49'WB'

46'EB'

47'EB'

48'EB'

49'EB'

50'EB'

51'EB'

CTH KK

PB2

CONDUIT STUB TO
EAST REQUIRED

SL8 - 5
+60'EB' - 32.5' RT

(CONC)

(CONC)

60"x40" RCP

(ASPH)

18" CMP

302LT

LORNA LANE

CONDUIT STUB TO
WEST REQUIRED

(ASPH)

PB 3

SL9 - 5
+48.2 'LL' - 23.5' LT

SL10 - 5
+94'CR' - 3.5' LT

12" CMP

COOP ROAD

196'CR'

197'CR'

198'CR'

199'CR'

STREET LIGHTING PLAN LEGEND

- LIGHTING UNIT TYPE 5 (SINGLE)
- LIGHTING UNIT TYPE 5 (DOUBLE)
- STREET LIGHT (ARM & LUMINAIRE ONLY; MOUNTED ON TRAFFIC SIGNAL POLE)
- PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS, SEE TRAFFIC SIGNAL PLANS)
- PULL BOX (STEEL 24" X 42")
- CONDUIT RIGID NONMETALLIC 2 INCH SCHEDULE 80 (UNLESS OTHERWISE NOTED)

2

TRAFFIC SIGNAL CONSTRUCTION NOTES

1. ALL SIGNAL BASE LOCATIONS SHALL BE STAKED PER PLAN A MINIMUM OF THREE WORKING DAYS PRIOR TO INSTALLATION, LOCATION WILL THEN BE FIELD REVIEWED BY THE CITY OF APPLETON PRIOR TO INSTALLATION.
   CITY CONTACT IS MIKE HARDY, 920-832-5580.

2. THE CONTRACTOR SHALL INSTALL TYPE 9 AND TYPE 10 POLES AND MONOTUBE ARMS FURNISHED BY THE CITY OF APPLETON. THE CITY OF APPLETON WILL INSTALL ALL OTHER TRAFFIC SIGNAL CABLE, TRAFFIC SIGNAL WIRE, TRAFFIC SIGNAL POLES, HEADS AND CONTROLLER.

3. THE TRAFFIC SIGNAL PLAN ONLY ILLUSTRATE THE SIGNAL CONDUIT, SEE LIGHTING PLAN FOR LIGHTING DETAILS AND ADDITIONAL CONDUIT LOCATIONS.

4. LIGHTING CONDUIT SHALL BE PLACED IN THE SAME TRENCH AS THE SIGNAL CONDUIT WHERE POSSIBLE. ALL POLE TO POLE LIGHTING CONDUIT IS SHOWN ON THE LIGHTING PLAN.

5. ALL MULTIPLE RUN CONDUITS SHALL BE PLACED AS TIGHTLY AS POSSIBLE IN ONE TRENCH. THE CONTRACTOR WILL BE RESPONSIBLE TO IDENTIFY THE WIDTH OF EACH TRENCH AND IDENTIFY ONE CONDUIT THAT IS CENTERED IN EACH TRENCH. THIS INFORMATION SHALL BE PROVIDED TO THE CITY OF APPLETON FOR FUTURE UTILITY LOCATING NEEDS.

6. CONTRACTOR TO INSTALL PULL ROPE IN EACH RUN OF CONDUIT.

7. CONCRETE BASES SHALL NOT BE POURED UNTIL NEARBY CURB IS SET TO ESTABLISH BASE HEIGHT AND TO ASSURE PROPER FINISHED BASE HEIGHT.

8. INSTALL THE CONCRETE CABINET BASE A MINIMUM OF 4 WEEKS PRIOR TO THE START-UP DATE OF NEW SIGNAL OPERATION TO ALLOW THE CITY AND WE ENERGIES TO SCHEDULE AND INSTALL NEW METER SERVICE.

9. ALL EXISTING UTILITY FEATURE MAY NOT BE SHOWN ON THE TRAFFIC SIGNAL OR INTERCONNECT PLANS. VERIFY UTILITIES IN THE FIELD.

LEGEND

- PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS)
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 15'-35' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12"
  WALK INDICATOR 12"
- LANE DESIGNATION FOR INFO ONLY

BASE	STRUCTURE NUMBER
SB1	S-08-0010
SB3	S-08-0011
SB6	S-08-0012
SB8	S-08-0013

N

SCALE, FEET 0 10 20

COOP ROAD

CTH KK (WB)

CTH KK (EB)

R/W

CUT EXISTING CONDUIT. MAKE CONNECTION TO NEW CONDUIT.

REMOVE PULL BOX

SB9 (T1)

SB1 (T10)

SB2 (T2)

SB8 (T10)

SB3 (T10)

SB4 (T1)

SB5 (T1)

SB6 (T10)

SB7 (T2)

20'

30'

35'

2-2"

4-2"

5-2"

1-3"

42'WB'

43'WB'

44'WB'

42'EB'

43'EB'

44'EB'

201'CR'

200'CR'

WE ENERGIES SERVICE POLE

STUB 3" CONDUIT A MINIMUM OF 2 FEET UP POLE

CB1

TLE

GUY

NOTES:
TRAFFIC SIGNALS AND PUSH BUTTONS TO BE INSTALLED BY THE CITY OF APPLETON. TRAFFIC SIGNALS AND PUSH BUTTONS SHOW FOR INFORMATION ONLY. SEE TRAFFIC SIGNAL GENERAL NOTES FOR ADDITIONAL INFORMATION.

LEGEND

- PRECAST CONCRETE CABINET BASE (CABINET BY OTHERS)
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 15'-35' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- LANE DESIGNATION FOR INFO ONLY
- (A) → CONDUIT SPECIAL 2-INCH ← (A)

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC SIGNAL PLAN - COOP ROAD	SHEET 34	E

2

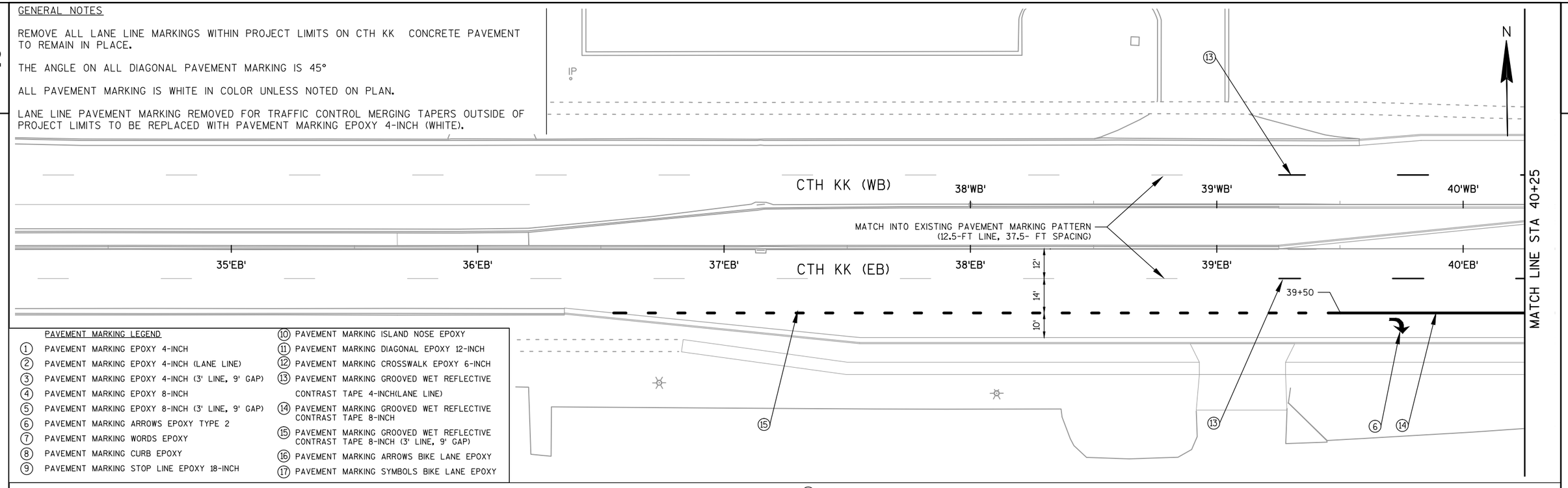
GENERAL NOTES

REMOVE ALL LANE LINE MARKINGS WITHIN PROJECT LIMITS ON CTH KK CONCRETE PAVEMENT TO REMAIN IN PLACE.

THE ANGLE ON ALL DIAGONAL PAVEMENT MARKING IS 45°

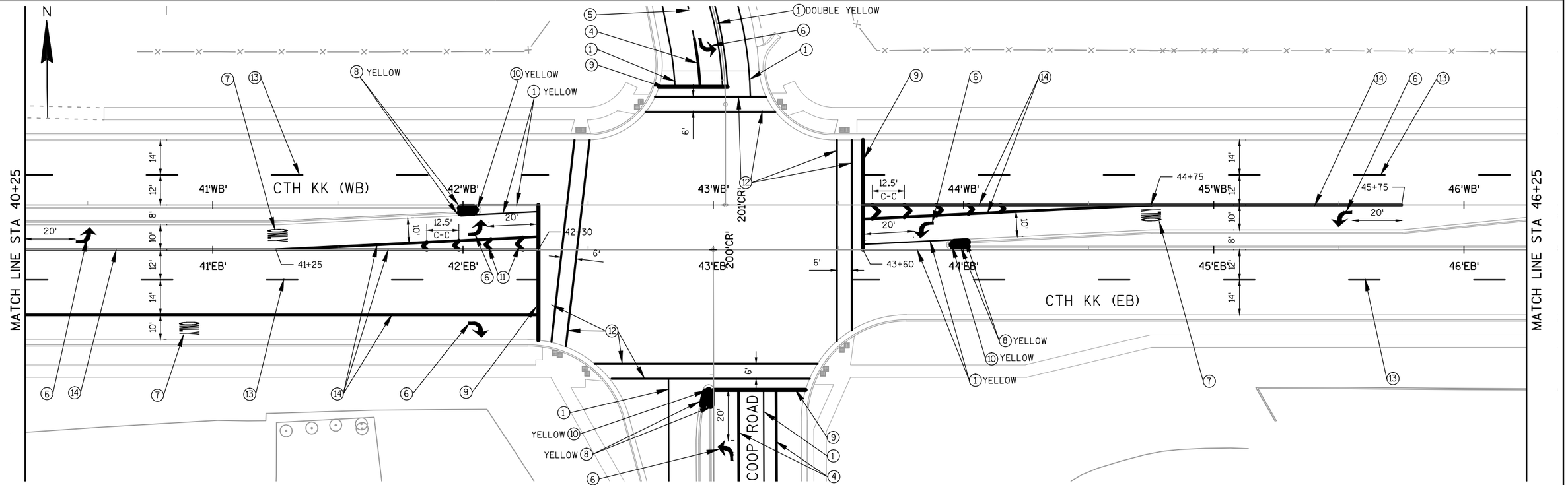
ALL PAVEMENT MARKING IS WHITE IN COLOR UNLESS NOTED ON PLAN.

LANE LINE PAVEMENT MARKING REMOVED FOR TRAFFIC CONTROL MERGING TAPERS OUTSIDE OF PROJECT LIMITS TO BE REPLACED WITH PAVEMENT MARKING EPOXY 4-INCH (WHITE).



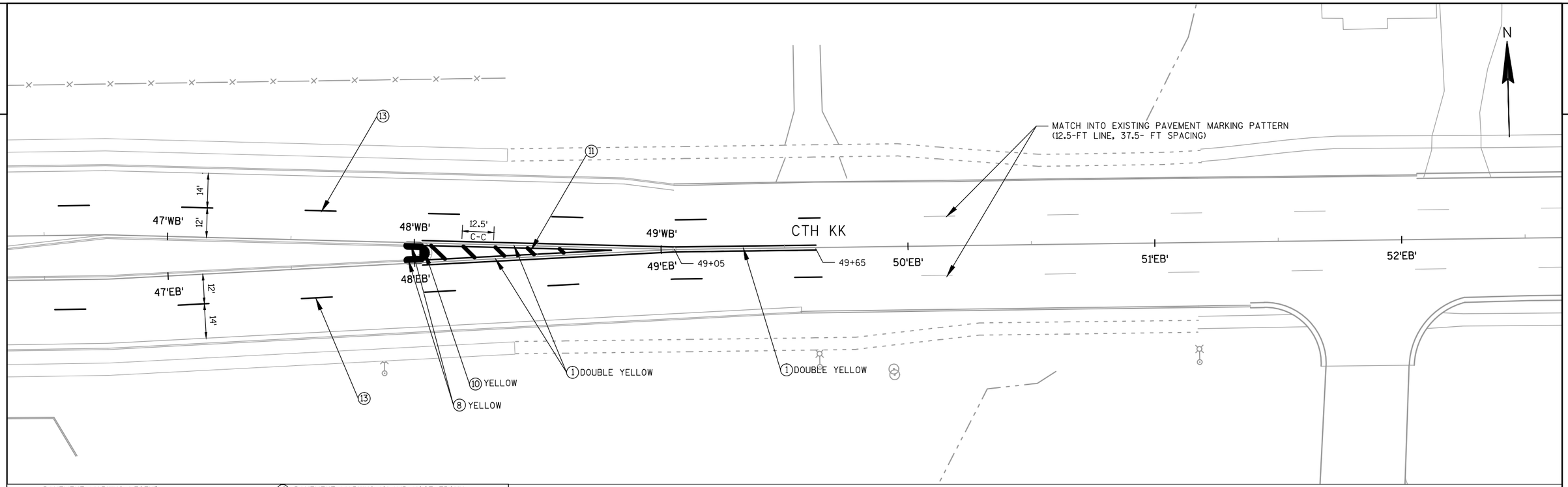
PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH
2. PAVEMENT MARKING EPOXY 4-INCH (LANE LINE)
3. PAVEMENT MARKING EPOXY 4-INCH (3' LINE, 9' GAP)
4. PAVEMENT MARKING EPOXY 8-INCH
5. PAVEMENT MARKING EPOXY 8-INCH (3' LINE, 9' GAP)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2
7. PAVEMENT MARKING WORDS EPOXY
8. PAVEMENT MARKING CURB EPOXY
9. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
10. PAVEMENT MARKING ISLAND NOSE EPOXY
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH
12. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH
13. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH(LANE LINE)
14. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH
15. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3' LINE, 9' GAP)
16. PAVEMENT MARKING ARROWS BIKE LANE EPOXY
17. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 35	E

2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH
2. PAVEMENT MARKING EPOXY 4-INCH (LANE LINE)
3. PAVEMENT MARKING EPOXY 4-INCH (3' LINE, 9' GAP)
4. PAVEMENT MARKING EPOXY 8-INCH
5. PAVEMENT MARKING EPOXY 8-INCH (3' LINE, 9' GAP)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2
7. PAVEMENT MARKING WORDS EPOXY
8. PAVEMENT MARKING CURB EPOXY
9. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
10. PAVEMENT MARKING ISLAND NOSE EPOXY
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH
12. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH
13. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH(LANE LINE)
14. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH
15. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3' LINE, 9' GAP)
16. PAVEMENT MARKING ARROWS BIKE LANE EPOXY
17. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY

GENERAL NOTES

REMOVE ALL LANE LINE MARKINGS WITHIN PROJECT LIMITS ON CTH KK CONCRETE PAVEMENT TO REMAIN IN PLACE.

THE ANGLE ON ALL DIAGONAL PAVEMENT MARKING IS 45°

ALL PAVEMENT MARKING IS WHITE IN COLOR UNLESS NOTED ON PLAN.

LANE LINE PAVEMENT MARKING REMOVED FOR TRAFFIC CONTROL MERGING TAPERS OUTSIDE OF PROJECT LIMITS TO BE REPLACED WITH PAVEMENT MARKING EPOXY 4-INCH (WHITE).

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 36	E

2

GENERAL NOTES

REMOVE ALL LANE LINE MARKINGS WITHIN PROJECT LIMITS ON CTH KK CONCRETE PAVEMENT TO REMAIN IN PLACE.

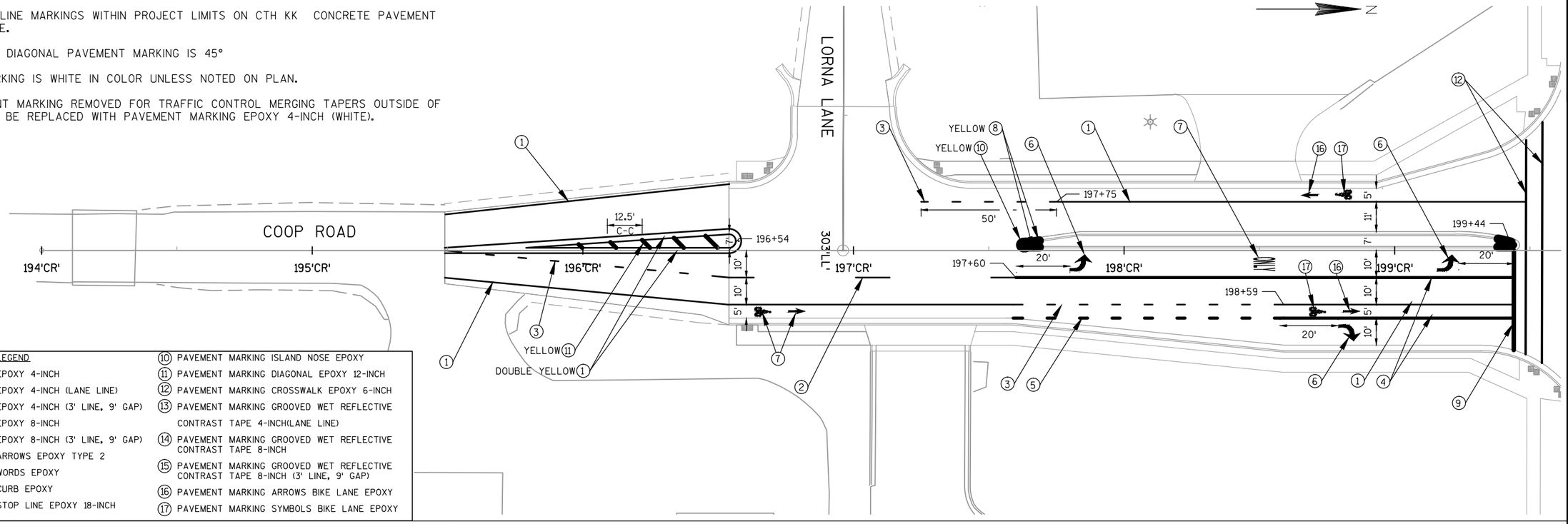
THE ANGLE ON ALL DIAGONAL PAVEMENT MARKING IS 45°

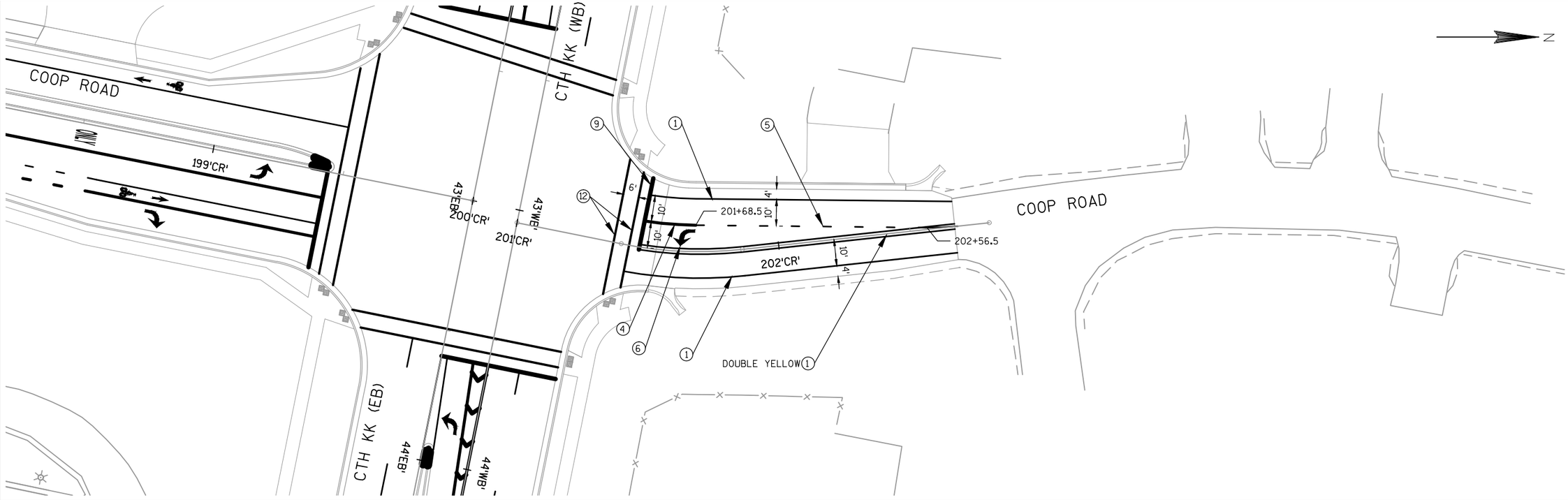
ALL PAVEMENT MARKING IS WHITE IN COLOR UNLESS NOTED ON PLAN.

LANE LINE PAVEMENT MARKING REMOVED FOR TRAFFIC CONTROL MERGING TAPERS OUTSIDE OF PROJECT LIMITS TO BE REPLACED WITH PAVEMENT MARKING EPOXY 4-INCH (WHITE).

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH
2. PAVEMENT MARKING EPOXY 4-INCH (LANE LINE)
3. PAVEMENT MARKING EPOXY 4-INCH (3' LINE, 9' GAP)
4. PAVEMENT MARKING EPOXY 8-INCH
5. PAVEMENT MARKING EPOXY 8-INCH (3' LINE, 9' GAP)
6. PAVEMENT MARKING ARROWS EPOXY TYPE 2
7. PAVEMENT MARKING WORDS EPOXY
8. PAVEMENT MARKING CURB EPOXY
9. PAVEMENT MARKING STOP LINE EPOXY 18-INCH
10. PAVEMENT MARKING ISLAND NOSE EPOXY
11. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH
12. PAVEMENT MARKING CROSSWALK EPOXY 6-INCH
13. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH(LANE LINE)
14. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH
15. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3' LINE, 9' GAP)
16. PAVEMENT MARKING ARROWS BIKE LANE EPOXY
17. PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY

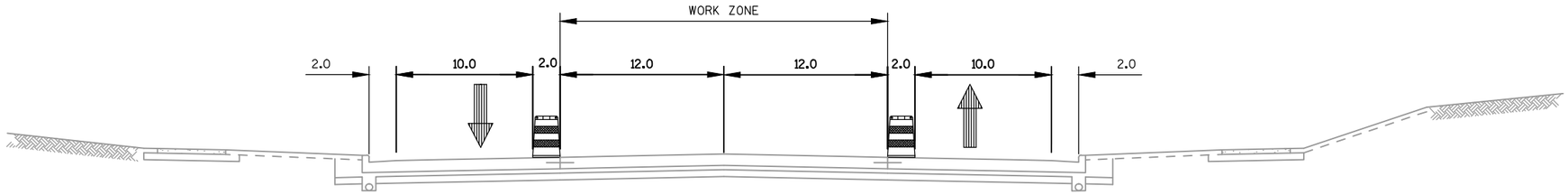




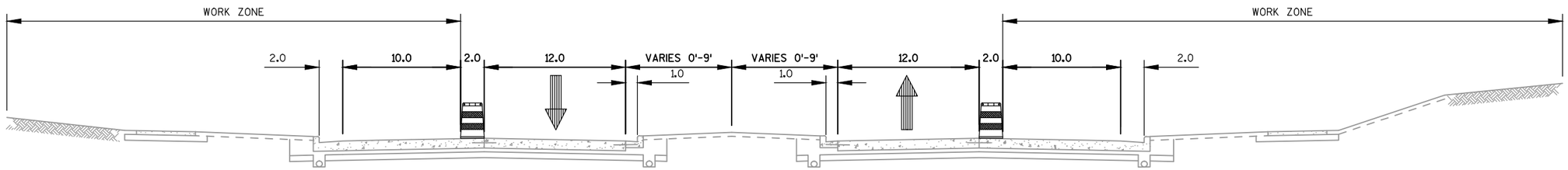
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PAVEMENT MARKING	SHEET 37	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_024500_PM.DWG 44940671_024503_PM PLOT DATE : 3/6/2013 9:22 AM PLOT BY : OMNNI ASSOCIATES, INC - CHAD DERCKS PLOT SCALE : 1 IN:40 FT

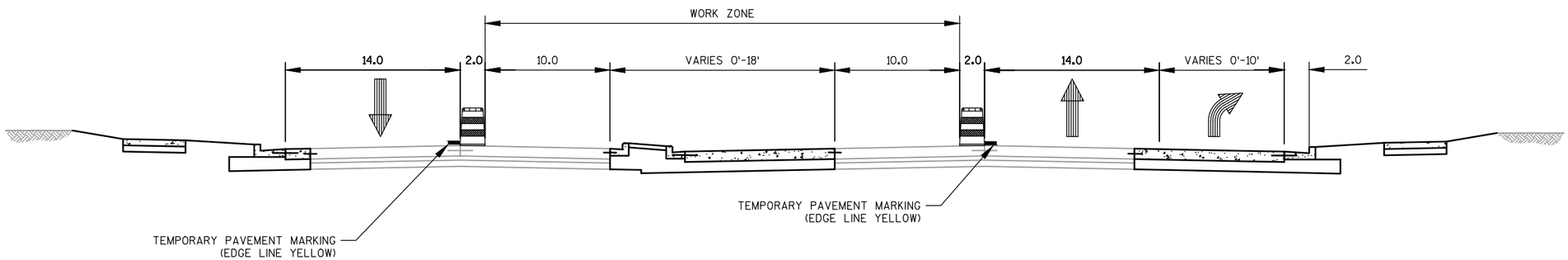
2



CTH KK TYPICAL SECTION - STAGE 1



CTH KK TYPICAL SECTION - STAGE 2



CTH KK TYPICAL SECTION - STAGE 3

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL : CONSTRUCTION STAGING TYPICAL SECTIONS	SHEET 38	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_025001_TC.DWG
PLOT DATE : 1/10/2013 1:18 PM
PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN
WISDOT/CADDS SHEET 42

SCALE, FEET 0 300 600

N

GENERAL NOTES

(A) REFER TO STANDARD DETAIL DRAWING " TRAFFIC CONTROL SIGNLE LANE CLOSURE, NON-FREEWAY/ EXPRESSWAY"

(B) REFER TO STANDARD DETAIL DRAWING " TRAFFIC CONTROL, INTERSECTION WITH SINGLE LANE CLOSURE"

(C) REFER TO STANDARD DETAIL DRAWING " BARRICADES AND SIGNS FOR MAINLINE CLOSURES" - DETAILS C, D, & E

(D) REFER TO STANDARD DETAIL DRAWING " BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

(E) REFER TO STANDARD DETAIL DRAWING " TRAFFIC CONTROL, SIDEWALK CLOSURE". KEEP AT LEAST ONE SIDEWALK (NORTH OR SOUTH) OPEN AS MUCH AS POSSIBLE.

STH 441 (SB)
STH 441 (NB)
STONYBROOK RD
EISENHOWER DR
PINECREST BLVD
COOP RD
FENCELINE DR
KAMKES ST
MAIN ST
CTH N
RODGERS LN
BRUX RD
DARBOY DR
OTTE CT
NOE RD
VICTORIAN DR
EMERALD LN
GOLDEN WAY
CTH AP (EISENHOWER DR)
CTH AP
LORNA LANE
WHITEPINE RD
PINEWOOD CT
PINECREST CT
SPRINGFIELD DR
FARMSTEAD DR
GARNET DR
HEARTHSTONE DR
CTH KK
CTH KK (WB)
CTH KK (EB)
MB

ROAD CLOSED AHEAD W20-3

FMS 2'X3.5' 100
NO ACCESS TO CTH K K

R11-3 60" X 30"
ROAD CLOSED .1 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

SIDEWALK CLOSED
R9-9 24" X 12"
0.1 MILES AHEAD
W057-52 24" X 18"

W02-2 36"X36"
25 M.P.H.
W013-1 24" X 24"

SIDEWALK CLOSED
R9-9 24" X 12"
0.5 MILES AHEAD
W057-52 24" X 18"

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

ROAD WORK AHEAD W20-1
25 M.P.H. W013-1 24" X 24"

STAGE 2 RIGHT LANE CLOSED AHEAD W20-5
STAGE 2 W04-2R
STAGE 1 & 3 LEFT LANE CLOSED AHEAD W20-5
STAGE 1 & 3 W04-2L

R11-3 60" X 30"
ROAD CLOSED .25 MILES AHEAD LOCAL TRAFFIC ONLY
TYPE III BARRICADE

ROAD CLOSED AHEAD W20-3

LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- EXISTING SIDEWALK
- 101 FIXED MESSAGE SIGN

SEE DETAIL "A" FOR TRAFFIC CONTROL ON COOP ROAD SOUTH OF HEARTHSTONE DR.

DETAIL "A"

R11-3 60" X 30"
ROAD CLOSED 1.0 MILES AHEAD LOCAL TRAFFIC ONLY
101 FMS 2'X3.5'
NO ACCESS TO CTH K K
TYPE III BARRICADE

ROAD CLOSED AHEAD W20-3

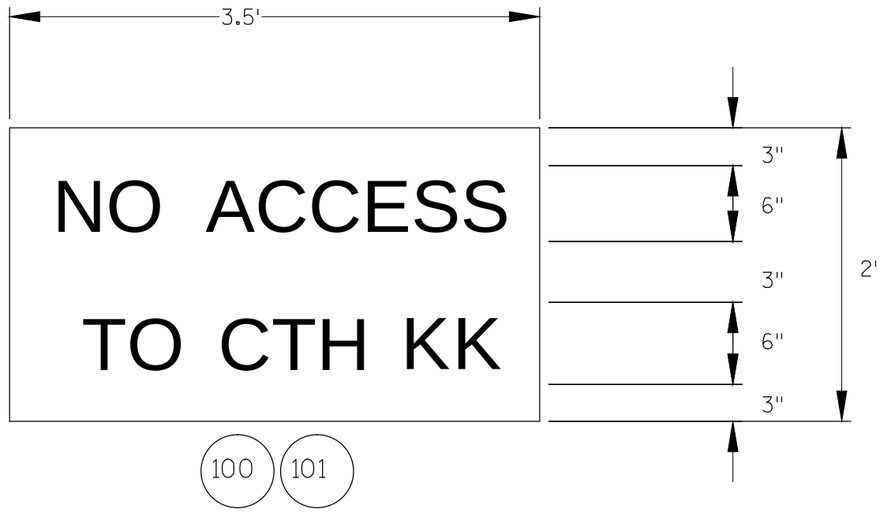
E MIDWAY RD
MIDWAY RD
ZINNIA DR

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL: PROJECT OVERVIEW /ADVANCED WARNING SIGNING	SHEET 39	E

FIXED MESSAGE SIGNS (DETAIL SHEETS)

1. ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE; "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FILED, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."
4. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND PER SPEC 643.2.9.3.
5. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
7. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643.2.9.3 (FIXED MESSAGE SIGNS).

(XXX) = FIXED MESSAGE SIGN NUMBER



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - FIXED MESSAGE SIGNS	SHEET 40	E

2

EISENHOWER DR

(ASPH)

(CONC)

N

STA 38+25

CTH KK (WB)

CTH KK (EB)

33'EB'

34'EB'

35'EB'

36'EB'

37'EB'

38'EB'

38'WB'

MATCH LINE

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

W01-6
48" X 24"
TYPE III BARRICADE

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

COOP RD

STA 44+50

39'WB'

40'WB'

41'WB'

42'WB'

43'WB'

44'WB'

245' MERGING TAPER

100' TAPER

25'

15'

10'

39'EB'

40'EB'

41'EB'

42'EB'

43'EB'

44'EB'

201'CR'

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

R3-2
24"X24"

SIGN

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

STOP
R1-1
36"X36"

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

CR COOP RD

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET 41	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026000_S1.DWG PLOT DATE : 1/29/2013 9:26 AM PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

2

2

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

MATCH LINE
STA 50+25
STA 44+50
MATCH LINE

245' MERGING TAPER
100' TAPER

10'
10'

45'WB'
46'WB'
47'WB'
48'WB'
49'WB'
45'EB'
46'EB'
47'EB'
48'EB'
49'EB'
50'EB'
25'
25'
25'

CTH KK

(CONC)
(CONC)

(ASPH)
18" CMP
(ASPH)

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

MATCH LINE
STA 50+25

CREEKSIDE CT

CTH KK

51'EB'
52'EB'
53'EB'
54'EB'
55'EB'
56'EB'

60"X40" RCP

GOLDEN WAY

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET 42	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026000_S1.DWG
PLOT DATE : 1/29/2013 9:24 AM
PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC — TYPE III BARRICADE

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

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC — TYPE III BARRICADE

STOP R1-1 36"X36"

STOP R1-1 36"X36"

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

COOP RD

195'CR' 196'CR' 197'CR' 198'CR' 199'CR' 200'CR' 201'CR' 202'CR'

LORNA LN

30'LT

50'

25'

13"X21" CMPA

42"EB

42"WB

43'EB

43'WB

CTH KK (EB)

CTH KK (WB)

CTH KK

12" CMP

15" CMP

15" CMP

(ASPH)

(CONC)

SIGN

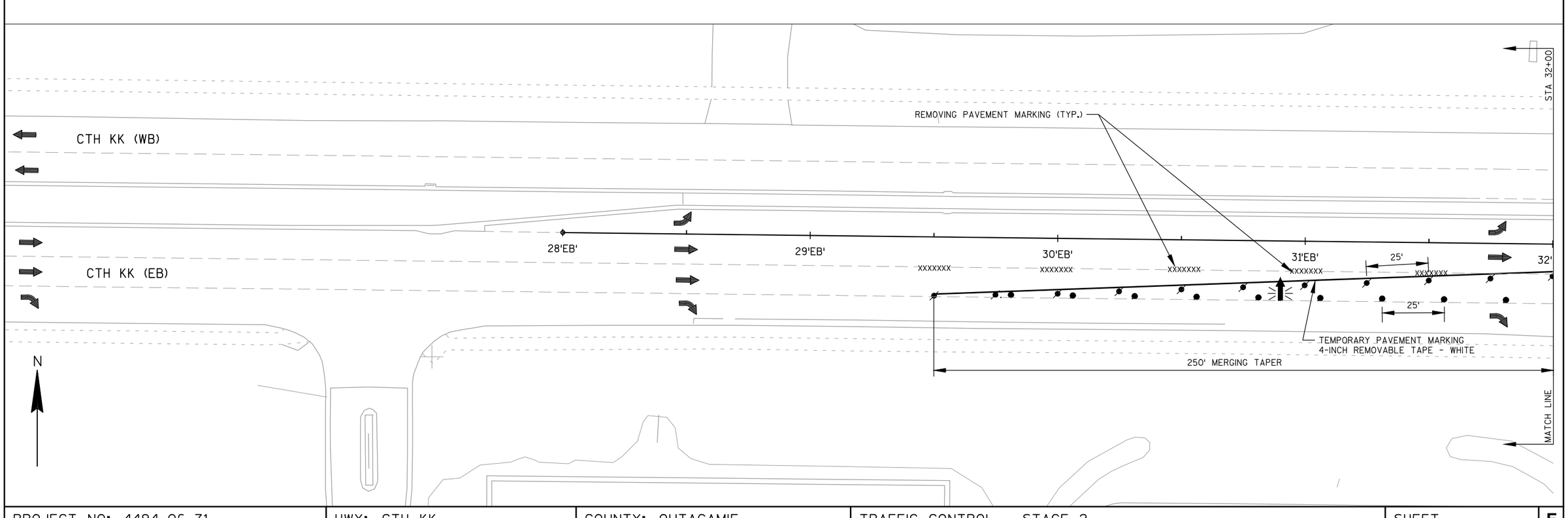
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1	SHEET 43	E

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 44	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026100_S2.DWG PLOT DATE : 1/23/2013 4:22 PM PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

2

2

MATCH LINE

EISENHOWER DR

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

(ASPH)

IP

(CONC)

N

STA 38+25

CTH KK (WB)

38'WB'

CTH KK (EB)

33'EB'

34'EB'

35'EB'

36'EB'

37'EB'

38'EB'

25'

15'

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

SIDEWALK CLOSED
R9-9
24" X 12"

(ASPH)

MATCH LINE

STA 32+00

EISENHOWER DR

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

SIDEWALK CLOSED
R9-9
24" X 12"

45' TAPER

(CONC)

39'WB'

40'WB'

41'WB'

25'

42'WB'

43'WB'

44'WB'

25'

39'EB'

40'EB'

41'EB'

25'

42'EB'

43'EB'

44'EB'

25'

20'CR'

20'CR'

COOP RD

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

STA 44+50

N

STA 38+25

(ASPH)

(CONC)

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

R3-2
24"X24"

SIGN

(ASPH)

(CONC)

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

STOP
R1-1
36"X36"

CR COOP RD

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

MATCH LINE

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 45	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026100_S2.DWG PLOT DATE : 1/29/2013 9:28 AM PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

2

2

MATCH LINE

STA 44+50

STA 50+25

MATCH LINE

CTH KK

45'WB'

46'WB'

25'

47'WB'

48'WB'

49'WB'

45'EB'

46'EB'

25'

47'EB'

48'EB'

49'EB'

50'EB'

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

SIDEWALK CLOSED
R9-9
24" X 12"

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

SIDEWALK CLOSED
R9-9
24" X 12"

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

(CONC)

(CONC)

XXXXXXX

XXXXXXX

18" CMP

(ASPH)

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

MATCH LINE

245' MERGING TAPER

TEMPORARY PAVEMENT MARKING
4-INCH REMOVABLE TAPE - WHITE

25'

XXXXXXX

XXXXXXX

XXXXXXX

XXXXXXX

XXXXXXX

CTH KK

60"X40" RCP

51'EB'

52'EB'

53'EB'

54'EB'

55'EB'

56'EB'

REMOVING PAVEMENT MARKING (TYP.)

GOLDEN WAY

CREEKSIDE CT

STA 50+25

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 46	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026100_S2.DWG

PLOT DATE : 1/29/2013 9:10 AM

PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

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

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC
TYPE III BARRICADE

STOP R1-1 36"X36"

STOP R1-1 36"X36"

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

LORNA LN

302'LT'

303'LT'

COOP RD

195'CR'

196'CR'

197'CR'

198'CR'

199'CR'

200'CR'

201'CR'

202'CR'

CTH KK (EB)

CTH KK (WB)

42'WB'

43'EB'

43'WB'

50'

25'

13"X21" CMPA

12" CMP

15" CMP

(ASPH)

(CONC)

SIGN

2

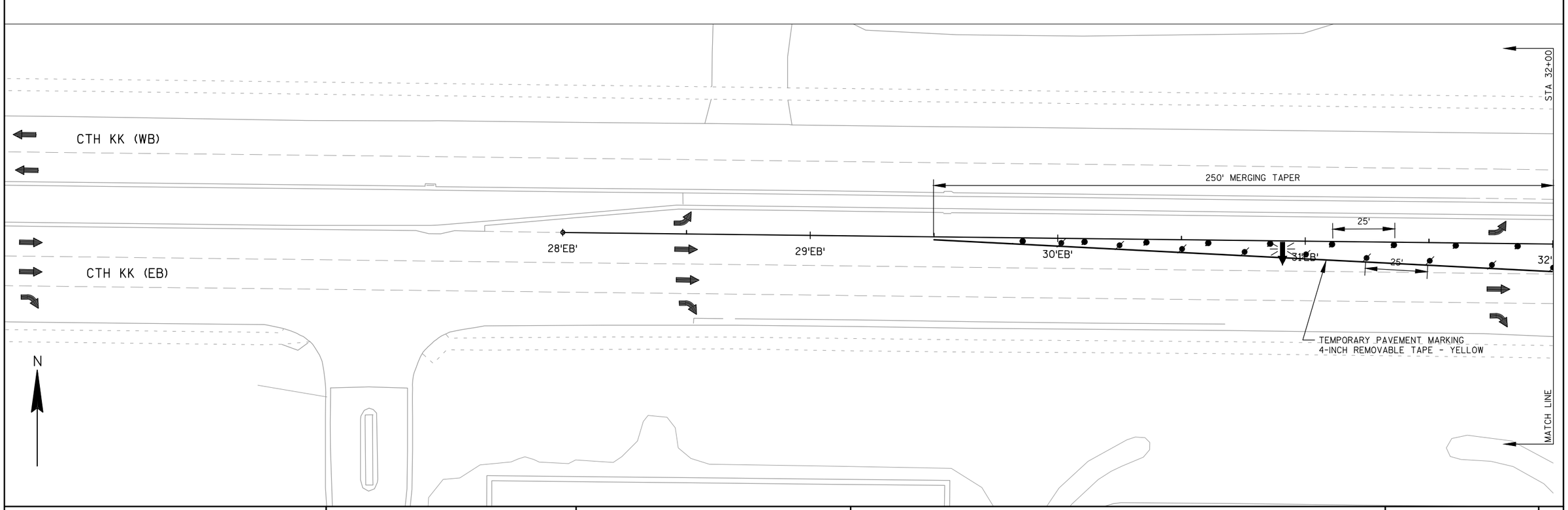
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2	SHEET 47	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026100_S2.DWG PLOT DATE : 1/23/2013 4:28 PM PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET 48	E

2

MATCH LINE

EISENHOWER DR

W01-6
48" X 24"

TYPE III BARRICADE

CTH KK (WB)

CTH KK (EB)

MH

IP

N

STA 38+25

2

33'EB'

34'EB'

35'EB'

36'EB'

37'EB'

38'EB'

38'WB'

15'

25'

TEMPORARY PAVEMENT MARKING
4-INCH REMOVABLE TAPE - YELLOW

245' MERGING TAPER

GUY

STA 32+00

EISENHOWER DR

MATCH LINE

LEGEND

‡	TYPE III BARRICADE
‡	TYPE III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	WORK AREA
	DIRECTION OF TRAFFIC
MB	PORTABLE CHANGEABLE MESSAGE BOARD

TEMPORARY PAVEMENT MARKING
4-INCH REMOVABLE TAPE - YELLOW

CTH KK (WB)

CTH KK (EB)

GMH

39'WB'

40'WB'

41'WB'

42'WB'

43'WB'

44'WB'

39'EB'

40'EB'

41'EB'

42'EB'

43'EB'

44'EB'

25'

15'

245' MERGING TAPER

100' TAPER

COOP RD

201'CR'

200'CR'

CR COOP RD

W01-6
48" X 24"

TYPE III BARRICADE

R11-2
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W01-6
48" X 24"

TYPE III BARRICADE

R3-2
24"X24"

R11-4
60" X 30"
ROAD CLOSED TO THRU TRAFFIC

TYPE III BARRICADE

R11-2
48" X 30"
ROAD CLOSED

TYPE III BARRICADE

STOP
R1-1
36"X36"

R11-2
48" X 30"
LANE CLOSED

TYPE III BARRICADE

TEMPORARY PAVEMENT MARKING
4-INCH REMOVABLE TAPE - YELLOW

STA 44+50

MATCH LINE

N

STA 38+25

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET 49	E

2

2

MATCH LINE

STA 44+50

CTH KK (WB)

CTH KK (EB)

TEMPORARY PAVEMENT MARKING
4-INCH REMOVABLE TAPE - YELLOW

W01-6
48" X 24"
TYPE III BARRICADE

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

45'WB' 25' 46'WB' 47'WB' 48'WB' 49'WB' 25' 50'EB'

45'EB' 25' 46'EB' 47'EB' 48'EB' 49'EB' 25'

245' MERGING TAPER

STA 50+25

MATCH LINE

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

MATCH LINE

245' MERGING TAPER

CREEKSIDE CT

CTH KK

51'EB' 52'EB' 53'EB' 54'EB' 55'EB' 56'EB'

MH

GOLDEN WAY

STA 50+25

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

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 3	SHEET 50	E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\SHEETSPLAN\44940671_026200_S3.DWG PLOT DATE : 1/29/2013 9:05 AM PLOT BY : OMNNI ASSOCIATES, INC - TIM VERHAGEN

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD

R11-4 60" X 30" ROAD CLOSED TO THRU TRAFFIC — TYPE III BARRICADE

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

STOP R1-1 36"X36"

50'

302'LT

LORNA LN

COOP RD

195'CR'

196'CR'

197'CR'

198'CR'

199'CR'

200'CR'

201'CR'

202'CR'

CTH KK (EB)

CTH KK (WB)

42'EB

42'WB

43'EB

43'WB

CTH KK

GUY

OMP

HMP

DATE 13MAR13 — 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	4494-06-71 QUANTITY
0010	201.0105	CLEARING **P**	STA	2.000	2.000
0020	201.0205	GRUBBING **P**	STA	2.000	2.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	1.000	1.000
0040	204.0100	REMOVING PAVEMENT	SY	1,895.000	1,895.000
0050	204.0150	REMOVING CURB & GUTTER **P**	LF	2,560.000	2,560.000
0060	204.0155	REMOVING CONCRETE SIDEWALK **P**	SY	1,025.000	1,025.000
0070	204.0220	REMOVING INLETS	EACH	10.000	10.000
0080	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	480.000	480.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 02. 18-INCH	LF	55.000	55.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 03. 24-INCH	LF	70.000	70.000
0110	205.0100	EXCAVATION COMMON	CY	6,527.000	6,527.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 01. 4494-06-71	EACH	1.000	1.000
0130	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	700.000	700.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	7,300.000	7,300.000
0150	310.0115	BASE AGGREGATE OPEN GRADED	CY	11.000	11.000
0160	311.0110	BREAKER RUN	TON	700.000	700.000
0170	415.0080	CONCRETE PAVEMENT 8-INCH **P**	SY	1,675.000	1,675.000
0180	415.0100	CONCRETE PAVEMENT 10-INCH **P**	SY	3,600.000	3,600.000
0190	415.0210	CONCRETE PAVEMENT GAPS	EACH	3.000	3.000
0200	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	90.000	90.000
0210	416.0180	CONCRETE DRIVEWAY 8-INCH	SY	140.000	140.000
0220	416.0610	DRILLED TIE BARS	EACH	1,640.000	1,640.000
0230	416.0620	DRILLED DOWEL BARS	EACH	230.000	230.000
0240	416.1710	CONCRETE PAVEMENT REPAIR	SY	180.000	180.000
0250	416.1720	CONCRETE PAVEMENT REPLACEMENT	SY	120.000	120.000
0260	455.0105	ASPHALTIC MATERIAL PG58-28	TON	20.000	20.000
0270	455.0605	TACK COAT	GAL	30.000	30.000
0280	460.1101	HMA PAVEMENT TYPE E-1	TON	285.000	285.000
0290	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	190.000	190.000
0300	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	40.000	40.000
0310	465.0315	ASPHALTIC FLUMES	SY	32.000	32.000
0320	520.8000	CONCRETE COLLARS FOR PIPE	EACH	6.000	6.000
0330	521.0721	PIPE ARCH CORRUGATED STEEL 21X15-INCH	LF	12.000	12.000
0340	521.1721	APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 21X15-INCH 6 TO 1	EACH	1.000	1.000
0350	601.0342	CONCRETE CURB & GUTTER INTEGRAL 18-INCH	LF	860.000	860.000
0360	601.0405	CONCRETE CURB & GUTTER 18-INCH TYPE A **P**	LF	860.000	860.000
0370	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A **P**	LF	2,545.000	2,545.000
0380	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D **P**	LF	100.000	100.000
0390	601.0452	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D **P**	LF	275.000	275.000
0400	602.0405	CONCRETE SIDEWALK 4-INCH **P**	SF	16,135.000	16,135.000
0410	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA **P**	SF	96.000	96.000
0420	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	280.000	280.000
0430	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	98.000	98.000
0440	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	127.000	127.000

3

DATE 13MAR13 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	4494-06-71 QUANTITY
0450	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	LF	40.000	40.000
0460	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	368.000	368.000
0470	611.0530	MANHOLE COVERS TYPE J	EACH	4.000	4.000
0480	611.0624	INLET COVERS TYPE H	EACH	16.000	16.000
0490	611.0639	INLET COVERS TYPE H-S	EACH	1.000	1.000
0500	611.0642	INLET COVERS TYPE MS	EACH	3.000	3.000
0510	611.2004	MANHOLES 4-FT DIAMETER	EACH	3.000	3.000
0520	611.2006	MANHOLES 6-FT DIAMETER	EACH	1.000	1.000
0530	611.3004	INLETS 4-FT DIAMETER	EACH	3.000	3.000
0540	611.3230	INLETS 2X3-FT	EACH	13.000	13.000
0550	611.3901	INLETS MEDIAN 1 GRATE	EACH	3.000	3.000
0560	611.8110	ADJUSTING MANHOLE COVERS	EACH	3.000	3.000
0570	612.0106	PIPE UNDERDRAIN 6-INCH	LF	55.000	55.000
0580	619.1000	MOBILIZATION	EACH	1.000	1.000
0590	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	146.000	146.000
0600	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	6.000	6.000
0610	624.0100	WATER	MGAL	80.000	80.000
0620	625.0100	TOPSOIL	SY	4,950.000	4,950.000
0630	627.0200	MULCHING	SY	2,700.000	2,700.000
0640	628.1504	SILT FENCE	LF	100.000	100.000
0650	628.1520	SILT FENCE MAINTENANCE	LF	100.000	100.000
0660	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
0670	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
0680	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	2,300.000	2,300.000
0690	628.7005	INLET PROTECTION TYPE A	EACH	7.000	7.000
0700	628.7015	INLET PROTECTION TYPE C	EACH	23.000	23.000
0710	628.7570	ROCK BAGS	EACH	75.000	75.000
0720	629.0210	FERTILIZER TYPE B	CWT	4.000	4.000
0730	631.0300	SOD WATER	MGAL	5.000	5.000
0740	631.1000	SOD LAWN	SY	290.000	290.000
0750	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	11.000	11.000
0760	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	3.000	3.000
0770	637.0202	SIGNS REFLECTIVE TYPE II	SF	88.200	88.200
0780	638.2102	MOVING SIGNS TYPE II	EACH	6.000	6.000
0790	638.2602	REMOVING SIGNS TYPE II	EACH	17.000	17.000
0800	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	13.000	13.000
0810	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	6.000	6.000
0820	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0830	643.0100	TRAFFIC CONTROL (PROJECT) 01. 4494-06-71	EACH	1.000	1.000
0840	643.0300	TRAFFIC CONTROL DRUMS	DAY	12,650.000	12,650.000
0850	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	3,320.000	3,320.000
0860	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	3,970.000	3,970.000
0870	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	2,220.000	2,220.000
0880	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	230.000	230.000
0890	643.0900	TRAFFIC CONTROL SIGNS	DAY	3,560.000	3,560.000
0900	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	14.000	14.000
0910	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	21.000	21.000
0920	645.0112	GEOTEXTILE FABRIC TYPE DF SCHEDULE B	SY	55.000	55.000
0930	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	2,520.000	2,520.000
0940	646.0126	PAVEMENT MARKING EPOXY 8-INCH **P**	LF	325.000	325.000
0950	646.0600	REMOVING PAVEMENT MARKINGS	LF	825.000	825.000

3

DATE 13MAR13 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	4494-06-71 QUANTITY
0960	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	550.000	550.000
0970	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH **P**	LF	1,005.000	1,005.000
0980	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	10.000	10.000
0990	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	2.000	2.000
1000	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	2.000	2.000
1010	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	4.000	4.000
1020	647.0456	PAVEMENT MARKING CURB EPOXY	LF	50.000	50.000
1030	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	175.000	175.000
1040	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	5.000	5.000
1050	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	110.000	110.000
1060	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH **P**	LF	610.000	610.000
1070	649.0300	TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH **P**	LF	3,400.000	3,400.000
1080	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	23.000	23.000
1090	650.4500	CONSTRUCTION STAKING SUBGRADE **P**	LF	2,938.000	2,938.000
1100	650.5000	CONSTRUCTION STAKING BASE **P**	LF	287.000	287.000
1110	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER **P**	LF	929.000	929.000
1120	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT **P**	LF	2,647.000	2,647.000
1130	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 4494-06-71	LS	1.000	1.000
1140	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 4494-06-71	LS	1.000	1.000
1150	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	2,938.000	2,938.000
1160	652.0325	CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	LF	2,800.000	2,800.000
1170	652.0335	CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	LF	55.000	55.000
1180	652.0605	CONDUIT SPECIAL 2-INCH	LF	475.000	475.000
1190	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	3.000	3.000
1200	653.0905	REMOVING PULL BOXES	EACH	4.000	4.000
1210	654.0101	CONCRETE BASES TYPE 1	EACH	3.000	3.000
1220	654.0102	CONCRETE BASES TYPE 2	EACH	3.000	3.000
1230	654.0105	CONCRETE BASES TYPE 5	EACH	9.000	9.000
1240	654.0110	CONCRETE BASES TYPE 10	EACH	4.000	4.000
1250	690.0150	SAWING ASPHALT	LF	220.000	220.000
1260	690.0250	SAWING CONCRETE	LF	4,850.000	4,850.000
1270	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	1,575.000	1,575.000
1280	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	300.000	300.000
1290	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	600.000	600.000
1300	SPV.0060	SPECIAL 01. PRECAST CONCRETE CABINET BASE	EACH	1.000	1.000
1310	SPV.0060	SPECIAL 02. CONCRETE BASE TYPE 5 SPECIAL	EACH	1.000	1.000
1320	SPV.0060	SPECIAL 03. POLES TYPE 9	EACH	1.000	1.000
1330	SPV.0060	SPECIAL 04. POLES TYPE 10	EACH	3.000	3.000
1340	SPV.0060	SPECIAL 05. MONOTUBE ARMS 20-FT	EACH	1.000	1.000
1350	SPV.0060	SPECIAL 06. MONOTUBE ARMS 30-FT	EACH	2.000	2.000
1360	SPV.0060	SPECIAL 07. MONOTUBE ARMS 35-FT	EACH	1.000	1.000
1370	SPV.0085	SPECIAL 01. SEED LAWN SPECIAL MIX	LB	110.000	110.000

3

DATE 13MAR13 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	4494-06-71 QUANTITY
1380	SPV.0105	SPECIAL 01. CONCRETE PAVEMENT JOINT LAYOUT	LS	1.000	1.000
1390	SPV.0180	SPECIAL 01. CONCRETE JOINT SEALING **P**	SY	5,570.000	5,570.000

3

CLEARING AND GRUBBING

STATION	TO	STATION	LOCATION	DIR	201.0105 CLEARING STA	201.2050 GRUBBING STA
CATEGORY 0010						
45+00	-	47+00	CTH KK	RT	2	2
			PROJECT TOTALS		2	2

REMOVING INLETS

STATION	LOCATION	DIRECTION	204.0220 EA
CATEGORY 0010			
37+15	CTH KK EB	RT	1
39+81	CTH KK EB	MED	1
39+81	CTH KK WB	LT	1
42+24	CTH KK EB	RT	1
42+24	CTH KK WB	LT	1
45+03	CTH KK EB	RT	1
45+03	CTH KK WB	LT	1
48+48	CTH KK EB	RT	1
48+48	CTH KK WB	LT	1
199+50	SOUTH COOP RD	RT	1
	PROJECT TOTALS		10

REMOVING STORM SEWER

STATION	TO	STATION	LOCATION	DIR	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.03 24-INCH LF	REMARKS
CATEGORY 0010								
37+15	-	37+15	CTH KK EB	RT	5	---	---	CONCRETE
39+28	-	39+82	CTH KK EB	RT	5	---	70	CONCRETE
39+82	-	39+82	CTH KK EB	MED	15	---	---	CONCRETE
39+82	-	39+82	CTH KK WB	LT	5	---	---	CONCRETE
42+20	-	42+40	CTH KK EB	RT	70	---	---	CONCRETE
42+20	-	42+30	CTH KK WB	LT	30	---	---	CONCRETE
43+25	-	43+68	CTH KK EB	RT	---	55	---	CONCRETE
45+00	-	45+03	CTH KK EB	RT	40	---	---	CONCRETE
45+01	-	45+03	CTH KK WB	LT	30	---	---	CONCRETE
48+37	-	48+37	CTH KK EB	RT	5	---	---	CONCRETE
48+37	-	48+37	CTH KK WB	LT	5	---	---	CONCRETE
196+97	-	199+54	SOUTH COOP RD	RT	270	---	---	CONCRETE,NOTE 1
				PROJECT TOTALS	480	55	70	

NOTE 1: QUANTITY INCLUDES CONCRETE APRON ENDWALL

REMOVING CONCRETE SIDEWALK

STATION	TO	STATION	LOCATION	DIR	204.0155 SY
CATEGORY 0010					
35+67	-	36+22	CTH KK	MED	30
36+82	-	42+50	CTH KK	RT	315
40+56	-	42+65	CTH KK	LT	120
43+38	-	48+40	CTH KK	RT	280
43+34	-	48+37	CTH KK	LT	280
			PROJECT TOTAL		1,025

REMOVING CURB AND GUTTER

STATION	TO	STATION	LOCATION	DIR	204.0150 SY
CATEGORY 0010					
36+35	-	42+23	CTH KK EB	RT	590
39+25	-	41+83	CTH KK EB	MED	260
39+25	-	39+80	CTH KK WB	MED	55
39+58	-	42+35	CTH KK WB	LT	280
43+65	-	49+57	CTH KK EB	RT	590
43+50	-	49+05	CTH KK WB LT	LT	555
197+05	-	199+30	SOUTH COOP RD	RT	230
			PROJECT TOTALS		2,560

REMOVING SMALL CULVERT PIPES

STATION	LOCATION	DIRECTION	203.0100 EA	REMARKS
CATEGORY 0010				
198+50	SOUTH COOP RD	LT	1	12-INCH CMP
	PROJECT TOTAL		1	

REMOVING PAVEMENT

STATION	TO	STATION	LOCATION	DIR	204.0100 SY
CATEGORY 0010					
38+80	-	39+40	CTH KK	RT	100
39+40	-	42+10	CTH KK	MED	190
43+93	-	49+10	CTH KK	MED	890
199+34	-	199+84	SOUTH COOP RD	LT & RT	415
201+15	-	201+62	NORTH COOP RD	LT & RT	300
			PROJECT TOTALS		1,895

EARTHWORK SUMMARY

From/To Station	Location	Excavation Common 205.0100 (1)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpand. Fill	Expanded Fill (7)	Mass Ordinate +/- (8)	Waste	Comment:
		Cut (2)	EBS Excavation (3)				Factor 1.25			
36+50 to 49+50	CTH KK - Stage 2	3,499	322	177	3,322	0	0	3,322	3,322	
36+50 to 49+50	CTH KK - Stage 3	808	0	450	358	0	0	358	358	
195+49 to 199+50	South Coop Road	1,522	0	268	1,254	107	134	1,120	1,120	
201+50 to 202+80	North Coop Road	228	0	29	199	6	8	191	191	
301+84 to 302+50	Lorna Lane	148	0	24	124	8	10	115	115	
	Subtotals	6,206	322							
	Project Totals	6,527		948	5,258	121	151	5,106	5,106	

1) Excavation Common is the sum of the Cut and EBS Excavation columns.
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Breaker Run material. EBS material shall not be used for fill on the project.
4) Salvaged/ Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
7) Expanded Fill. Factor = 1.25 (Unexpanded Fill x Fill Factor)
8) 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 Divi
9) Borrow will be paid only if there is insufficient waste material within the Stage.

Notes:
1.) Cut includes salvaged unusable pavement material
2.) Salvaged unusable pavement material is not shown in the cross sections
3.) Does not include exc volume of unusable pavement in fill sections
4.) Mass Ordinate = Cut - Salvaged/ Unusable Pavement Material - (Unexpanded Fill - Rock*Rock Factor)* Fill Factor

BASE AGGREGATE DENSE AND WATER

STATION	TO	STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON	311.0110 BREAKER RUN TON	624.0100 WATER MGAL	REMARKS
CATEGORY 0010								
36+35	-	41+00	CTH KK	130	2,120	470	20	NOTE 1
41+00	-	47+00	CTH KK	145	2,170	180	20	NOTE 1
47+00	-	49+56	CTH KK	30	570	---	5	
195+49	-	199+49	SOUTH COOP RD	230	1,210	---	15	
201+40	-	202+67	NORTH COOP RD	30	300	---	5	
			LORNA LANE	30	320	---	5	
			UNDISTRIBUTED	105	610	50	10	
			PROJECT TOTALS	700	7,300	700	80	

NOTE 1: BREAKER RUN REQUIRED FOR EBS BACKFILL

PAVEMENT GAPS

LOCATION	415.0210 EACH
CATEGORY 0010	
KWIK TRIP DRIVEWAY ENTRANCE ON EB CTH KK	1
COMMUNITY FIRST DRIVEWAY ENTRANCE ON S. COOP RD	1
LORNA LANE/S COOP RD INTERSECTION	1
PROJECT TOAL	3

CONCRETE JOINT SEALING

STATION	TO	STATION	LOCATION	SPV.0180.01 SY
CATEGORY 0020				
36+35	-	41+00	CTH KK	880
41+00	-	47+00	CTH KK	2570
47+00	-	49+56	CTH KK	445
196+54	-	199+46	S. COOP RD	1675
			PROJECT TOTAL	5,570

CONCRETE PAVEMENT

STATION	TO	STATION	LOCATION	415.0080 8-INCH SY	415.0100 10-INCH SY
CATEGORY 0010					
36+35	-	41+00	CTH KK	---	840
41+00	-	47+00	CTH KK	---	2335
47+00	-	49+56	CTH KK	---	425
196+54	-	199+46	SOUTH COOP RD	1675	---
			PROJECT TOTALS	1,675	3,600

CONCRETE DRIVEWAYS

STATION	TO	STATION	LOCATION	416.0160 6-INCH SY	416.0180 8-INCH SY
CATEGORY 0010					
38+94	-	39+28	CTH KK, RT	---	70
197+05	-	197+40	S. COOP RD, RT	---	35
198+27	-	198+64	S. COOP RD, LT	---	35
202+10	-	202+45	N. COOP RD, LT	90	---
			PROJECT TOTALS	90	140

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATION	TO	STATION	LOCATION	416.1710 CONCRETE PAVEMENT REPAIR (STAGE 1) SY	416.1710 CONCRETE PAVEMENT REPAIR (STAGE 2) SY	416.1710 CONCRETE PAVEMENT REPAIR (STAGE 3) SY	416.1720 CONCRETE PAVEMENT REPLACEMENT (STAGE 1) SY	416.1720 CONCRETE PAVEMENT REPLACEMENT (STAGE 2) SY
CATEGORY 0010								
36+35	-	41+00	CTH KK	---	24	16	---	--
41+00	-	47+00	CTH KK	20	64	8	90	30
47+00	-	49+56	CTH KK	---	32	16	---	---
			STAGE TOTALS	20	120	40	90	30
			PROJECT TOTALS		180		120	

DRILLED TIE BARS AND DOWELS

STATION	TO	STATION	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWELS EACH
CATEGORY 0010					
36+35	-	41+00	CTH KK	415	35
41+00	-	47+00	CTH KK	890	120
41+00	-	49+55	CTH KK	300	25
			UNDISTRIBUTED	35	50
			PROJECT TOTALS	1,640	230

CONCRETE SIDEWALK 4-INCH

STATION	TO	STATION	LOCATION	602.0405 SF
CATEGORY 0010				
35+67	-	36+22	CTH KK	275
36+35	-	41+00	CTH KK	2,960
41+00	-	47+00	CTH KK	7,430
47+00	-	49+56	CTH KK	2,380
196+55	-	199+46	SOUTH COOP RD	3,090
			PROJECT TOTALS	16,135

CONCRETE MEDIAN SLOPED NOSE

STATION	LOCATION	DIR	620.0300 SF
CATEGORY 0010			
42+02	CTH KK	MED	24
43+90	CTH KK	MED	28
48+05	CTH KK	MED	40
197+65	SOUTH COOP RD	MED	24
199+45	SOUTH COOP RD	MED	30
	PROJECT TOTALS		146

CONCRETE CURB AND GUTTER

STATION	TO	STATION	LOCATION	601.0342 18-INCH INTEGRAL LF	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	601.0411 30-INCH TYPE D LF	601.0452 INTEGRAL 30-INCH TYPE D LF
CATEGORY 0010								
36+35	-	41+00	CTH KK	50	300	505	---	115
41+00	-	47+00	CTH KK	600	210	1165	---	---
47+00	-	49+56	CTH KK	210	---	310	---	160
195+48	-	199+50	SOUTH COOP RD	---	350	565	10	0
201+54	-	202+50	NORTH COOP RD	---	---	---	90	0
			PROJECT TOTALS	860	860	2,545	100	275

ASPHALTIC ITEMS

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	455.0105 ASPHALTIC MATERIAL PG58-28 TON	460.1101 HMA PAVEMENT TYPE E-1 TON	465.0120 ASPHALTIC DRIVEWAYS AND FIELD ENTRANCES TON
CATEGORY 0010							
38+90	-	39+27	CTH KK, RT	---	---	---	15
195+49	-	196+55	SOUTH COOP RD	15	10	140	---
197+08	-	197+41	SOUTH COOP RD, RT	---	---	---	5
198+27	-	198+63	SOUTH COOP RD, LT	---	---	---	20
201+54	-	202+67	NORTH COOP RD	10	6	95	---
			LORNA LANE	5	4	50	---
			PROJECT TOTALS	30	20	285	40

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STATION	LOCATION	DIR	602.0515 SF
CATEGORY 0010			
42+40	CTH KK	RT	8
42+46	CTH KK	LT	8
42+47	CTH KK	RT	8
42+67	CTH KK	LT	8
43+30	CTH KK	LT	8
43+45	CTH KK	RT	8
43+50	CTH KK	RT	8
43+52	CTH KK	LT	8
196+60	SOUTH COOP RD	LT & RT	16
196+67	SOUTH COOP RD	LT	8
197+30	SOUTH COOP RD	LT	8
	PROJECT TOTALS		96

STEEL CULVERT PIPES

STATION	LOCATION	521.0721 PIPE ARCH CORRUGATED STEEL 21 X 15-INCH **LF	521.1717 APRON ENDWALLS PIPE ARCH SLOPED SIDE DRAINS STEEL 6 TO 1 21 X 15-INCH EACH	REMARKS
CATEGORY 0010				
301+90	LORNA LANE, LT	12	1	EXTEND EXISTING CP
		12	1	

** REMOVAL OF EXISTING ENDWALL SHALL BE INCIDENTAL TO THE PIPE ARCH EXTENSION

ASPHALTIC FLUMES

STATION	LOCATION	DIR	465.0315 SY
CATEGORY 0010			
201+60	NORTH COOP RD	RT	8
202+55	NORTH COOP RD	LT	8
	LORNA LANE	RT	8
	LORNA LANE	LT	8
	PROJECT TOTALS		32

3

STORM SEWER PIPE

PIPE RUN NUM.	STRUCTURE FROM	STRUCTURE TO	520.8000 CONCRETE COLLARS FOR PIPE (STAGE 2) EACH	520.8000 CONCRETE COLLARS FOR PIPE (STAGE 3) EACH	608.0312 REIN. CONC. CLASS III 12-INCH (STAGE 1) LF	608.0312 REIN. CONC. CLASS III 12-INCH (STAGE 2) LF	608.0312 REIN. CONC. CLASS III 12-INCH (STAGE 3) LF	608.0324 REIN. CONC. CLASS III 24-INCH (STAGE 2) LF	608.0324 REIN. CONC. CLASS III 24-INCH (STAGE 3) LF	608.0412 REIN. CONC. CLASS IV 12-INCH (STAGE 1) LF	608.0412 REIN. CONC. CLASS IV 12-INCH (STAGE 2) LF	608.0415 REIN. CONC. CLASS IV 15-INCH (STAGE 2) LF	608.0418 REIN. CONC. CLASS IV 18-INCH (STAGE 1) LF	608.0418 REIN. CONC. CLASS IV 18-INCH (STAGE 2) LF	612.0206 PIPE UNDERDRAIN 6-INCH (STAGE 2) LF	612.0206 PIPE UNDERDRAIN 6-INCH (STAGE 3) LF	310.0115 BASE AGG. OPEN GRADED (STAGE 2) CY	310.0115 BASE AGG. OPEN GRADED (STAGE 3) CY	645.0112 GEOTEXTILE FABRIC TYPE DF SCHEDULE B (STAGE 2) SY	645.0112 GEOTEXTILE FABRIC TYPE DF SCHEDULE B (STAGE 3) SY	REMARKS
CATEGORY 0010																						
P-1	10.1	EXIST	1	---	---	---	---	---	---	---	10	---	---	---	5	---	1	---	5	---	NOTE A
P-2	10.2	EXIST	1	---	---	10	---	---	---	---	---	---	---	---	5	---	1	---	5	---	NOTE A
P-3	15.0	15.1	---	---	---	---	6	---	---	---	---	---	---	---	---	---	---	---	---	---	
P-4	15.1	15.2	---	---	---	---	7	---	---	---	---	---	---	---	---	---	---	---	---	---	
P-5	20.1	EXIST	---	---	---	---	---	---	---	19	24	---	---	---	5	---	1	---	5	---	NOTE A
P-6	20.2	EXIST	---	---	---	---	---	---	---	5	25	---	---	---	5	---	1	---	5	---	NOTE A
P-7	30.1	EXIST	---	---	---	---	---	---	---	---	---	---	18	68	5	---	1	---	5	---	NOTE A
P-8	30.1	30.2	---	---	---	---	---	---	---	---	---	---	---	13	---	---	---	---	---	---	
P-9	30.2	30.3	---	---	---	---	---	---	---	---	10	---	---	---	---	---	---	---	---	---	
P-10	30.2	30.4	---	---	---	---	---	---	---	---	---	---	---	32	---	---	---	---	---	---	
P-11	30.4	30.5	---	---	---	---	---	---	---	---	---	40	---	---	---	---	---	---	---	---	
P-12	30.5	30.6	---	---	---	---	---	---	---	---	15	---	---	---	---	---	---	---	---	---	
P-13	30.4	35.1	---	---	---	---	---	---	---	---	---	---	---	237	---	---	---	---	---	---	
P-14	35.1	35.2	---	---	---	39	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
P-15	35.1	35.3	---	---	---	79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
P-16	35.3	35.4	---	---	---	54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
P-17	40.1	EXIST	---	---	20	34	---	---	---	---	---	---	---	---	5	---	1	---	5	---	NOTE A
P-18	40.2	EXIST	---	---	5	26	---	---	---	---	---	---	---	---	5	---	1	---	5	---	NOTE A
P-19	50.1	EXIST	---	---	---	---	---	---	7	---	---	---	---	---	---	---	---	---	---	---	
P-20	50.1	EXIST	---	1	---	---	---	---	11	---	---	---	---	---	---	5	---	1	---	5	NOTE A
P-21	50.2	EXIST	1	---	---	---	---	18	---	---	---	---	---	---	5	---	1	---	5	---	NOTE A
P-22	50.2	EXIST	---	---	---	---	---	62	---	---	---	---	---	---	---	---	---	---	---	---	
P-23	50.3	EXIST	1	---	---	---	---	---	---	---	6	---	---	---	5	---	1	---	5	---	NOTE A
P-24	60.1	EXIST	1	---	---	---	---	---	---	---	13	---	---	---	5	---	1	---	5	---	NOTE A
STAGE TOTALS			5	1	25	242	13	80	18	24	103	40	18	350	50	5	10	1	50	5	
PROJECT TOTALS			6		280			98		127		40	368		55		11		55		

NOTE A: CONNECT EXISTING 6-INCH UNDERDRAIN TO STORM SEWER

STORM SEWER STRUCTURES

STRUCTURE NUMBER	STATION	LOCATION	RL	DIST.	DIR	611.3230 INLET 2 X 3 FT (STAGE 2) EACH	611.3230 INLET 2 X 3 FT (STAGE 3) EACH	611.3004 INLET 4-FT DIA (STAGE 2) EACH	611.3004 INLET 4-FT DIA (STAGE 3) EACH	611.3901 INLET MEDIAN 1 GRATE (STAGE 2) EACH	611.0624 INLET COVER TYPE H STORM (STAGE 2) EACH	611.0624 INLET COVER TYPE H STORM (STAGE 3) EACH	611.0639 INLET COVER TYPE H-S STORM (STAGE 2) EACH	611.0642 INLET COVER TYPE MS (STAGE 2) EACH	611.2004 MANHOLE 4-FOOT DIA (STAGE 2) EACH	611.2006 MANHOLE 6-FOOT DIA (STAGE 3) EACH	611.0530 MANHOLE COVER TYPE J STORM (STAGE 2) EACH	611.0530 MANHOLE COVER TYPE J STORM (STAGE 3) EACH	NOTES
CATEGORY 0010																			
INL #10.1	48+45.00	CTH KK	EB	27.50	RT	1	---	---	---	---	1	---	---	---	---	---	---	---	
INL #10.2	48+49.00	CTH KK	EB	32.00	LT	1	---	---	---	---	1	---	---	---	---	---	---	---	
MH #15.0	48+00.00	CTH KK	EB	14.10	LT	---	---	---	---	---	---	---	---	---	---	1	---	1	
INL #15.1	47+99.00	CTH KK	EB	7.80	LT	---	1	---	---	---	---	1	---	---	---	---	---	---	
INL #15.2	47+99.00	CTH KK	EB	0.50	LT	---	1	---	---	---	---	1	---	---	---	---	---	---	
INL #20.1	45+02.00	CTH KK	EB	27.50	RT	1	---	---	---	---	1	---	---	---	---	---	---	---	
INL #20.2	45+01.00	CTH KK	EB	45.50	LT	1	---	---	---	---	1	---	---	---	---	---	---	---	
MH #30.1	199+30.00	S COOP RD	RL	49.30	RT	---	---	---	---	---	---	---	---	---	1	---	1	---	
INL #30.2	199+30.00	S COOP RD	RL	36.50	RT	---	---	1	---	---	1	---	---	---	---	---	---	---	2' X 3' OPENING
INL #30.3	199+20.00	S COOP RD	RL	36.50	RT	1	---	---	---	---	1	---	---	---	---	---	---	---	
MH #30.4	199+30.00	S COOP RD	RL	5.00	RT	---	---	---	---	---	---	---	---	---	1	---	1	---	
INL #30.5	199+32.00	S COOP RD	RL	35.00	LT	1	---	---	---	---	1	---	---	---	---	---	---	---	
INL #30.6	199+46.00	S COOP RD	RL	41.30	LT	1	---	---	---	---	---	---	1	---	---	---	---	---	
MH #35.1	196+93.00	S COOP RD	RL	5.00	RT	---	---	---	---	---	---	---	---	---	1	---	1	---	
INL #35.2	196+93.00	S COOP RD	RL	44.10	RT	---	---	---	---	1	---	---	---	1	---	---	---	---	
INL #35.3	302+30.00	LORNA LN	RL	26.50	RT	---	---	---	---	1	---	---	---	1	---	---	---	---	
INL #35.4	302+30.00	LORNA LN	RL	27.00	LT	---	---	---	---	1	---	---	---	1	---	---	---	---	
INL #40.1	42+22.00	CTH KK	EB	37.50	RT	1	---	---	---	---	1	---	---	---	---	---	---	---	
INL #40.2	42+21.00	CTH KK	EB	45.50	LT	1	---	---	---	---	1	---	---	---	---	---	---	---	
INL #50.1	39+82.00	CTH KK	EB	6.20	LT	---	---	---	1	---	---	1	---	---	---	---	---	---	2' X 3' OPENING
INL #50.2	39+83.00	CTH KK	EB	37.50	RT	---	---	1	---	---	1	---	---	---	---	---	---	---	
INL #50.3	39+83.00	CTH KK	EB	45.50	LT	1	---	---	---	---	1	---	---	---	---	---	---	---	
---	39+83.00	CTH KK	EB	17.50	LT	---	---	---	---	---	---	1	---	---	---	---	---	---	CASTING ONLY
INL #60.1	37+15.00	CTH KK	EB	33.50	RT	---	1	---	---	---	1	---	---	---	---	---	---	---	
					STAGE TOTALS	10	3	2	1	3	12	4	1	3	3	1	3	1	
					PROJECT TOTALS	13		3		3	16		1	3	3	1	4		

GENERAL NOTES: LOCATION REFERS TO THE CENTER OF STRUCTURE
ELEVATIONS REFER TO THE CENTER OF STRUCTURE FOR MANHOLES AND FLANGELINE FOR INLETS

LANDSCAPING

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	SPV.0085.01 SEED LAWN SPECIAL MIX LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
CATEGORY 0010									
36+35	-	41+00	CTH KK	850	385	0.6	15	2	250
41+00	-	47+00	CTH KK	1,550	700	1.0	30	---	---
47+00	-	49+56	CTH KK	475	145	0.3	10	---	---
195+49	-	199+50	SOUTH COOP RD	1,285	970	0.9	25	1	5
201+40	-	202+66	NORTH COOP RD	340	270	0.3	10	1	10
UNDISTRIBUTED				450	230	0.9	20	1	25
			PROJECT TOTALS	4,950	2,700	4.0	110	5	290

EROSION CONTROL

STATION	TO	STATION	LOCATION	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINT. LF	628.7005 INLET PROTECTION TYPE A EA	628.7015 INLET PROTECTION TYPE C EA	628.7570 ROCK BAGS EACH
CATEGORY 0010									
36+35	-	41+00	CTH KK	465	---	---	1	7	---
41+00	-	47+00	CTH KK	850	---	---	---	6	---
47+00	-	49+56	CTH KK	330	---	---	1	7	---
195+46	-	199+00	S. COOP RD	315	---	---	3	---	20
201+50	-	202+80	N. COOP RD	70	---	---	---	---	40
UNDISTRIBUTED				270	100	100	2	3	15
			PROJECT TOTALS	2,300	100	100	7	23	75

ADJUSTING MANHOLES COVERS

STATION	LOCATION	DIR	611.8110 EACH
CATEGORY 0010			
42+31	CTH KK, WB	3' RT	1
43+67	CTH KK, WB	3' RT	1
45+05	CTH KK, WB	3' RT	1
		PROJECT TOTALS	3

LANDMARK REFERENCE MONUMENTS

LOCATION	621.0100 EACH
CATEGORY 0010	
NW QUADRANT CTH KK/COOP ROAD	1
NE QUADRANT CTH KK/COOP ROAD	1
SW QUADRANT CTH KK/COOP ROAD	1
SE QUADRANT CTH KK/COOP ROAD	1
SW QUADRANT CTH KK/KWIK TRIP DRIVEWAY	1
SE QUADRANT CTH KK/KWIK TRIP DRIVEWAY	1
	6

CONSTRUCTION STAKING

STATION	TO	STATION	REFERENCE LINE	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB, GUTTER, AND CURB AND GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS LS	650.9910 SUPPLEMENTAL CONTROL EACH	650.9920 SLOPE STAKES LF
36+35	-	41+00	CTH KK EB	4	465	---	---	465	---	---	465
39+25	-	41+00	CTH KK WB	1	175	---	---	175	---	---	175
41+00	-	47+00	CTH KK EB	3	600	---	307	600	---	---	600
41+00	-	47+00	CTH KK WB	2	600	---	307	600	---	---	600
47+00	-	49+56	CTH KK EB	2	256	---	110	256	---	---	256
47+00	-	49+05	CTH KK WB	2	205	---	110	205	---	---	205
195+49	-	199+50	SOUTH COOP RD	7	401	110	---	291	---	---	401
201+25	-	202+67	NORTH COOP RD	---	142	113	95	25	---	---	142
301+84	-	302+78	LORNA LANE	2	94	64	---	30	---	---	94
			PROJECT	---	---	---	---	---	1	1	---
			TOTALS	23	2,938	287	929	2,647	1	1	2,938

3

PERMANENT SIGNS REFLECTIVE TYPE II AND SIGN SUPPORTS

SIGN NO.	STATION	LOCATION	FACE DIR.	SIGN CODE	SIGN SIZE	DESCRIPTION	SIGN DIMENSIONS W X H IN X IN	AREA SF	ASSEMBLY NO.	ASSEMBLY WIDTH IN	ASSEMBLY HEIGHT IN	SIGN MOUNTED ON SAME POST AS	634.0614 POSTS WOOD 4 X 6-INCH 14-FT EACH	634.0616 POSTS WOOD 4 X 6-INCH 16-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	REMARKS
CATEGORY 0010																
10-02	38+25 , LT	CTH KK	WB	R7-1D	2	NO PARKING ANY TIME <-->	18 X 24	3.00					1	---	3.00	
10-03	40+00 , LT	CTH KK	WB	M2-1	2	JCT	21 X 15	2.20	J1-1	24.00	39.00		---	1	6.20	
				M1-5A	2	COUNTY AP	24 X 24	4.00				10-03	---	---	---	MOUNT ON POST 10-03
10-06	41+00 , LT	CTH KK	WB	R2-1	2	SPEED LIMIT 35 MPH	24 X 30	5.00					1	---	5.00	
10-07	41+72 , MED	CTH KK	WB	R4-7C	2	KEEP RIGHT	18 X 30	3.75					1	---	3.75	
10-08	42+00 , RT	CTH KK	WB	R5-1	2	DO NOT ENTER	30 X 30	6.25					1	---	6.25	
10-09	42+00 , LT	CTH KK	WB	M3-4	2	WEST	24 X 12	2.00	J4-1	24.00	36.00			1	6.00	
				M1-5A	2	COUNTY KK	24 X 24	4.00				10-09	---	---	---	MOUNT ON POST 10-09
10-21	43+75 , LT	CTH KK	EB	R5-1	2	DO NOT ENTER	30 X 30	6.25					1	---	6.25	
10-23	44+28 , RT	CTH KK	EB	M3-2	2	EAST	24 X 12	2.00	J4-1	24.00	36.00		---	1	6.00	
				M1-5A	2	COUNTY KK	24 X 24	4.00				10-23	---	---	---	MOUNT ON POST 10-23
10-24	44+28 , MED	CTH KK	EB	R4-7C	2	KEEP RIGHT	18 X 30	3.75					1	---	3.75	
10-26	45+24 , RT	CTH KK	EB	R2-1	2	SPEED LIMIT 35 MPH	24 X 30	5.00					1	---	5.00	
10-27	45+24 , RT	CTH KK	EB	R7-1D	2	NO PARKING ANY TIME <-->	18 X 24	3.00				10-26	---	---	3.00	MOUNT ON POST 10-26
11-01	46+50 , RT	CTH KK	EB	W6-2	2	DIVIDED HIGHWAY ENDS	36 X 36	9.00					1	---	9.00	
11-02	46+50 , RT	CTH KK	WB	R5-1A	2	WRONG WAY	36 X 24	6.00				11-01	---	---	6.00	MOUNT ON POST 11-01
11-04	44+28 , MED	CTH KK	WB	R4-7C	2	KEEP RIGHT	18 X 30	3.75					1	---	3.75	
11-05	47+77 , RT	CTH KK	WB	R5-1	2	DO NOT ENTER	30 X 30	6.25					1	---	6.25	
11-07	51+25 , LT	CTH KK	WB	W6-1	2	DIVIDED HIGHWAY AHEAD SYMBOL	36 X 36	9.00					1	---	9.00	
12-01	195+76 , LT	S COOP RD	SB	R2-1	2	SPEED LIMIT 25 MPH	24 X 30	5.00					---	---	---	NOTE A
12-02	196+53 , RT	S COOP RD	NB	R3-8W	2	LT ONLY, THRU ONLY, RT ONLY	54 X 30	11.25					---	---	---	NOTE A
12-03	196+75 , LT	S COOP RD	EB	R1-1	2	STOP	36 X 36	7.46					---	---	---	NOTE A
12-05	197+95 , MED	S COOP RD	NB	R4-7C	2	KEEP RIGHT	18 X 30	3.75					---	---	---	NOTE A
12-06	199+25 , MED	S COOP RD	SB	R4-7	2	KEEP RIGHT	18 X 30	3.75					---	---	---	NOTE A
12-07	203+14 , LT	N COOP RD	SB	R3-8A	2	LT ONLY, THRU / RT	36 X 30	7.50					---	---	---	NOTE A
												PROJECT TOTALS	11	3	88.20	

NOTE A: SIGNS AND POSTS FURNISHED AND INSTALLED BY OTHERS

REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS

SIGN NO.	STATION	LOCATION	DESCRIPTION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
CATEGORY 0010						
R1-01	38+30 , LT	CTH. KK	NO PARKING	1	1	
R1-02	38+30 , LT	CTH. KK	SIGNAL LIGHTS AHEAD	1	-	LOCATED ON SIGN SUPPORT R1-01
R1-03	39+92 , LT	CTH. KK	SPEED LIMIT 35 MPH	1	1	
R1-04	39+95 , RT	CTH. KK	ONCOMING TRAFFIC USES SAME CENTERLINE	1	1	
R1-05	39+95 , RT	CTH. KK	WRONG WAY	1	-	LOCATED ON SIGN SUPPORT R1-04
R1-06	41+67 , MED	CTH. KK	NO U-TURN	1	1	
R1-07	41+67 , MED	CTH. KK	KEEP RIGHT	1	-	LOCATED ON SIGN SUPPORT R1-06
R1-08	41+85 , LT	CTH. KK	JCT CTH. AP	1	1	
R1-09	41+86 , RT	CTH. KK	DO NOT ENTER	1	1	
R1-10	42+72 , LT	CTH. KK	STOP SIGN	1	1	
R1-11	43+35 , RT	CTH. KK	STOP SIGN	1	1	
R1-12	44+74 , RT	CTH. KK	SPEED LIMIT 35 MPH	1	1	
R1-13	44+74 , RT	CTH. KK	NO PARKING	1	-	LOCATED ON SIGN SUPPORT R1-12
R1-14	44+78 , LT	CTH. KK	MEDIAN AHEAD	1	1	
R3-01	195+72 , LT	S. COOP RD	SPEED LIMIT 25 MPH	1	1	
R3-02	196+78 , LT	S. COOP RD	STOP SIGN	1	1	
R3-03	197+65 , LT	S. COOP RD	NO PARKING ANY TIME	1	1	
			PROJECT TOTALS	17	13	

MOVING SIGNS TYPE II AND MOVING SMALL SIGN SUPPORTS

SIGN NO.	FROM STATION	TO STATION	LOCATION	DESCRIPTION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
CATEGORY 0010						
M1-01	39+44 , RT	39+44 , RT	CTH KK	STOP SIGN	1	1
M3-01	195+71 , RT	195+71 , RT	S. COOP RD	STOP SIGN	1	1
M3-04	196+61 , LT	194+49 , LT	S. COOP RD	BUS ROUTE	1	1
M3-02	197+47 , RT	197+47 , RT	S. COOP RD	STOP SIGN	1	1
M3-03	198+26 , LT	198+26 , RT	S. COOP RD	STOP SIGN	1	1
M3-05	202+21 , RT	202+21 , RT	N. COOP RD	NO U-TURN	1	1
				PROJECT TOTALS	6	6

REMOVING PAVEMENT MARKINGS

STAGE	STATION	-	STATION	LOCATION	DIR	646.0600 LF
CATEGORY 0010						
1	38+50	-	40+50	CTH KK	EB	50
1	46+25	-	48+50	CTH KK	WB	75
2	29+50	-	32+00	CTH KK	EB	75
2	51+25	-	53+50	CTH KK	WB	75
3	39+00	-	49+65	CTH KK	EB	275
3	39+00	-	49+65	CTH KK	WB	275
				PROJECT TOTAL		825

TEMP PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

STAGE	LOCATION	649.0300 4-INCH (WHITE) LF	649.0300 4-INCH (YELLOW) EA
CATEGORY 0010			
2	CTH KK EB	250	---
2	CTH KK WB	250	---
3	CTH KK EB	---	1775
3	CTH KK WB	---	1125
		3,400	

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH (WHITE) LF	646.0106 EPOXY 4-INCH (YELLOW) LF	646.0126 EPOXY 8-INCH (WHITE) LF	647.0166 ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0206 ARROWS BIKE LANE EPOXY (WHITE) EACH	647.0306 SYMBOL BIKE LANE EPOXY (WHITE) EACH	647.0356 WORDS EPOXY (WHITE) EACH	647.0456 CURB EPOXY (YELLOW) LF	647.0566 STOPLINE EPOXY 18-INCH (WHITE) LF	647.0606 ISLAND NOSE EPOXY (YELLOW) EACH	647.0726 DIAGONALS EPOXY 12-INCH (WHITE) EACH	647.0726 DIAGONALS EPOXY 12-INCH (YELLOW) EACH	647.0766 CROSSWALK EPOXY 6-INCH (WHITE) LF	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (WHITE) LF	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE) LF
CATEGORY 0010																		
29+50	-	32+00	CTH KK	150	---	---	---	---	---	---	---	---	---	---	---	---	---	---
36+35	-	40+25	CTH KK	150	---	---	1	---	---	---	---	---	---	---	---	---	50	155
40+25	-	46+25	CTH KK	---	120	---	5	---	---	3	20	110	2	55	---	330	300	850
46+25	-	49+65	CTH KK	---	470	---	---	---	---	---	10	---	1	---	30	---	200	---
49+65	-	52+50	CTH KK	150	---	---	---	---	---	---	---	---	---	---	---	---	---	---
195+49	-	199+55	S. COOP RD	670	390	300	3	2	2	1	20	35	2	---	25	170	---	---
201+34	-	202+67	N. COOP RD	270	150	25	1	---	---	---	---	30	0	---	0	110	---	---
			PROJECT TOTALS	2,520		325	10	2	2	4	50	175	5	110		610	550	1,005

TRAFFIC CONTROL

STAGE	LOCATION	EST. SERVICE PERIOD DAYS	643.0300 DRUMS NO	643.0300 DRUMS 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	643.0800 ARROW BOARDS NO	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO	643.0900 SIGNS DAYS	643.1050 SIGNS PCMS NO	643.1050 SIGNS PCMS DAYS	643.1000 FIXED MESSAGE SIGNS SF
CATEGORY 0010																	
1	CTH KK WB	10	35	350	2	20	4	40	11	110	1	10	7	70	0	0	
1	CTH KK EB	10	40	400	2	20	4	40	11	110	1	10	9	90	0	0	
1	SOUTH COOP RD	10	0	0	13	130	14	140	0	0	0	0	10	100	0	0	7
1	NORTH COOP RD	10	0	0	13	130	14	140	0	0	0	0	4	40	0	0	7
	STAGE 1 SUBTOTALS		75	750	30	300	36	360	22	220	2	20	0	300	0	0	14
2	CTH KK WB	60	60	3,600	3	180	6	360	10	600	1	60	10	600	0	0	0
2	CTH KK EB	60	65	3,900	3	180	6	360	6	360	1	60	10	600	0	0	0
2	SOUTH COOP RD	60	0	0	12	720	11	660	0	0	0	0	10	600	0	0	0
2	NORTH COOP RD	60	0	0	12	720	7	420	0	0	0	0	4	240	0	0	0
	STAGE 2 SUBTOTALS		125	7500	30	1800	30	1800	16	960	2	120	34	2040	0	0	0
3	CTH KK WB	30	60	1,800	5	150	10	300	20	600	1	30	10	300	0	0	0
3	CTH KK EB	30	60	1,800	5	150	10	300	10	300	1	30	10	300	0	0	0
3	SOUTH COOP RD	30	0	0	12	360	16	480	0	0	0	0	10	300	0	0	0
3	NORTH COOP RD	30	0	0	12	360	16	480	0	0	0	0	4	120	0	0	0
	STAGE 3 SUBTOTALS		120	3600	34	1020	52	1560	30	900	2	60	34	1020	0	0	0
---	UNDISTRIBUTED	---		800		200		250		140		30		200	3	21	0
	PROJECT TOTALS			12,650		3,320		3,970		2,220		230		3,560		**21	14

** PORTABLE CHANGEABLE MESSAGE SIGNS TO BE PLACED 1 WEEK PRIOR TO CLOSURE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

PULL BOXES

NUMBER	ALIGNMENT	STATION	OFFSET	653.0140 STEEL 24X42-INCH EACH
CATEGORY 0010				
PB1	CTH KK	45+20	31.0' RT	1
PB2	CTH KK	46+88	31.5' RT	1
PB3	COOP ROAD	196+53	30.4' LT	1
	PROJECT TOTALS			3

REMOVING PULL BOXES

STATION	LOCATION	DIRECTION	653.0905 EA
CATEGORY 0010			
42+56	CTH KK	LT	1
42+58	CTH KK	RT	1
43+37	CTH KK	RT	1
43+39	CTH KK	LT	1
		PROJECT TOTAL	4

CONDUIT

FROM	TO	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH (STAGE 2) LF	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH (STAGE 3) LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF
CATEGORY 0010					
CTH KK & COOP ROAD TRAFFIC SIGNAL					
CB1	SB1	120	---	---	75
CB1	SB2	150	---	---	75
CB1	SB3	145	---	---	---
CB1	SB4	125	---	---	---
CB1	SB5	100	---	---	---
CB1	SB6	20	---	---	---
CB1	SB7	25	---	---	---
CB1	SB8	45	---	---	75
CB1	SB9	55	---	---	75
CB1	EXISTING	60	---	---	75
CB1	UTILITY POLE	---	---	55	---
TRAFFIC SIGNAL TOTALS		845		55	375
CTH KK & COOP ROAD STREET LIGHTING					
END	SL1	---	5	---	---
SL1	SL2	---	175	---	---
SL2	SL3	---	175	---	---
SL3	SL4	---	160	---	---
SL4	CB1	30	155	---	25
CB1	PB1	290	---	---	---
PB1	SL5	5	5	---	25
PB1	PB2	170	---	---	---
PB2	SL6	15	10	---	25
SL6	SL7	170	10	---	25
SL7	END	5	---	---	---
PB2	SL8	170	---	---	---
SL8	END	5	---	---	---
PB3	SL9	75	---	---	---
SL9	END	5	---	---	---
SL9	SL10	115	---	---	---
SL10	SL11	130	---	---	
SL11	CB1	75	---	---	---
STREET LIGHTING TOTALS		1,955		0	100
PROJECT TOTALS		2,800		55	475

STREET LIGHTING

LIGHT NUMBER	STATION	OFFSET	R/L	654.0102 CONC BASE TYPE 2 EACH**	654.0105 CONC BASE TYPE 5 EACH	SPV.0060.02 CONC BASE TYPE 5 SPECIAL EACH	*** 657.0255 TRANSFORMER BASE BREAKAWAY 1 1 1/2-INCH BOLT CIRCLE EACH**	*** 657.0321 POLES TYPE 5 STEEL EACH	*** 657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	*** LUMINAIRES UTILITY LED EACH**
CATEGORY 0010										
SL1	35+75	4.00' LT	EB CTH KK	---	1	---	1	1	2	2
SL2	37+50	9.00' LT	EB CTH KK	---	1	---	1	1	2	2
SL3	39+25	9.00' LT	EB CTH KK	---	1	---	1	1	2	2
SL4	40+85	14.00' LT	EB CTH KK	---	---	1	1	1	2	2
SL5	45+20	4.00' LT	EB CTH KK	---	1	---	1	1	2	2
SL6	46+90	8.44' LT	EB CTH KK	---	1	---	1	1	2	2
SL7	48+60	32.50' LT	WB CTH KK	---	1	---	1	1	2	2
SL8	48+60	32.50' RT	EB CTH KK	---	1	---	1	1	1	1
SL9	302+48	23.50' LT	LORNA LANE	---	1	---	1	1	1	1
SL10	197+94	3.50' LT	COOP ROAD	---	1	---	1	1	1	1
SL11	199+23	3.50' LT	COOP ROAD	1	---	---	1	1	2	2
			PROJECT TOTALS	1	9	1	11	11	19	19

** ADDITIONAL QUANTITIES SHOWN ELSE WARE
***BY OTHERS, FOR INFORMATION ONLY

CONCRETE BASES

BASE NUMBER	ALIGNMENT	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH**	654.0110 CONCRETE BASES TYPE 10 EACH	SPV.0060.01 PRECAST CONCRETE CABINET BASE EACH
CATEGORY 0010							
CB1	CTH KK (EB)	42+34	69.1' RT	--	--	--	1
SB1	CTH KK (EB)	43+27	64.1' LT	--	--	1	--
SB2	CTH KK (EB)	43+59	50.5' LT	--	1	--	--
SB3	CTH KK (EB)	43+77	31.9' RT	--	--	1	--
SB4	CTH KK (EB)	43+57	45.1' RT	1	--	--	--
SB5	CTH KK (EB)	43+46	55.5' RT	1	---	--	--
SB6	CTH KK (EB)	42+51	53.7' RT	--	--	1	--
SB7	CTH KK (EB)	42+30	42.1' RT	--	1	--	--
SB8	CTH KK (EB)	42+42	50.3' LT	--	--	1	--
SB9	CTH KK (EB)	42+70	63.5' LT	1	--	--	--
			PROJECT TOTALS	3	2	4	1

** ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL CABLE, ELECTRICAL WIRE, AND DETECTION

PROJECT	*** 655.0515 ELECTRICAL WIRE TRAFFIC SIGNAL 10 AWG LF	*** 655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	*** 655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF	*** 655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF	*** FURNISH & INSTALL TRAFFIC SIGNAL CONTROL SYSTEM EACH	*** FURNISH & INSTALL MICROWAVE DETECTOR EACH	*** CABLE TRAFFIC SIGNAL 16-14 AWG LF	*** CABLE DATA COMMUNICATIONS LF	*** CABLE TRAFFIC CAMERA POWER LF
4494-06-71	3,900	2,100	3,100	600	1	4	1,600	600	150
PROJECT TOTALS	3,900	2,100	3,100	600	1	4	1,600	600	150

*** BY OTHERS, FOR INFORMATION ONLY

TRAFFIC SIGNAL MISCELLANEOUS

PROJECT	*** 656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (4494-06-71) LS	*** 658.5069 SIGNAL MOUNTING HARDWARE (4494-06-71) LS	*** 670.0100 FIELD SYSTEM INTEGRATOR LS
4494-06-71	1	1	1
PROJECT TOTALS	1	1	1

*** BY OTHERS, FOR INFORMATION ONLY

TRAFFIC SIGNAL POLES, ARMS, & BASES

BASE NO.	RL	STA	OFFSET	*** 657.0100 PEDESTAL BASES EACH	*** 657.0255 TRANSFORMER BASES STANDARD 11 1/2-INCH BOLT CIRCLE EACH**	*** 657.0315 POLES TYPE 4 EACH	SPV.0060.03 POLES TYPE 9 EACH	SPV.0060.04 POLES TYPE 10 EACH	*** 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	*** 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	SPV.0060.05 MONOTUBE ARMS 20-FT EACH	SPV.0060.06 MONOTUBE ARMS 30-FT EACH	SPV.0060.07 MONOTUBE ARMS 35-FT EACH	*** 657.0609 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	*** LUMINAIRE ARMS STEEL 6-FT EACH
CATEGORY 0010															
SB1	CTH KK (EB)	43+27	64.1' LT	--	--	--	--	1	--	--	1	--	--	--	1
SB2	CTH KK (EB)	43+59	50.5' LT	--	1	1	--	--	--	--	--	--	--	1	--
SB3	CTH KK (EB)	43+77	31.9' RT	--	--	--	--	1	--	--	--	1	--	--	1
SB4	CTH KK (EB)	43+57	45.1' RT	1	--	--	--	--	--	1	--	--	--	--	--
SB5	CTH KK (EB)	43+46	55.5' RT	1	--	--	--	--	1	--	--	--	--	--	--
SB6	CTH KK (EB)	42+51	53.7' RT	--	--	--	1	--	--	--	--	--	1	--	--
SB7	CTH KK (EB)	42+30	42.1' RT	--	1	1	--	--	--	--	--	--	--	1	--
SB8	CTH KK (EB)	42+42	50.3' LT	--	--	--	--	1	--	--	--	1	--	--	1
SB9	CTH KK (EB)	42+70	63.5' LT	1	--	--	--	--	1	--	--	--	--	--	--
			PROJECT TOTALS	3	2	2	1	3	2	1	1	2	1	2	3

** ADDITIONAL QUANTITIES SHOWN ELSE WARE
***BY OTHERS, FOR INFORMATION ONLY

TRAFFIC SIGNAL INFRASTRUCTURE BY OTHERS

BASE NO.	RL	STA	OFFSET	*** 658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL EACH	*** 658.0215 BACKPLATES SIGNAL FACES 3-SECTION 12-INCH 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	*** 658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH	*** LUMINAIRES UTILITY LED EACH**
SB1	CTH KK (EB)	43+27	64.1' LT	1	1	1	1	1	1	1	1	1
SB2	CTH KK (EB)	43+59	50.5' LT	2	2	1	1	2	2	2	1	1
SB3	CTH KK (EB)	43+77	31.9' RT	2	2	--	--	2	2	2	--	1
SB4	CTH KK (EB)	43+57	45.1' RT	--	--	1	1	--	--	--	1	--
SB5	CTH KK (EB)	43+46	55.5' RT	2	2	1	1	2	2	2	1	--
SB6	CTH KK (EB)	42+51	53.7' RT	1	1	1	1	1	1	1	1	--
SB7	CTH KK (EB)	42+30	42.1' RT	2	2	1	1	2	2	2	1	1
SB8	CTH KK (EB)	42+42	50.3' LT	2	2	1	1	2	2	2	1	1
SB9	CTH KK (EB)	42+70	63.5' LT	2	2	1	1	2	2	2	1	--
			PROJECT TOTALS	14	14	8	8	14	14	14	8	5

** ADDITIONAL QUANTITIES SHOWN ELSE WARE
***BY OTHERS, FOR INFORMATION ONLY

SAWCUTS

STATION	TO	STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
CATEGORY 0010					
36+35	-	41+00	CTH KK	35	1,205
41+00	-	47+00	CTH KK	---	2,770
47+00	-	49+56	CTH KK	---	850
195+49	-	199+50	S. COOP RD	115	---
201+40	-	202+67	N. COOP RD	25	---
			LORNA LANE	45	25
			PROJECT TOTALS	220	4,850

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
---	4.1	4
STATE PROJECT NUMBER ---		

PLAT OF RIGHT-OF-WAY REQUIRED FOR
CITY OF APPLETON, CTH KK (CALUMET ST)
COOP RD INTERSECTION

OUTAGAMIE COUNTY

CONSTRUCTION PROJECT NUMBER
4494-06-71

Conventional Signs and Abbreviations

- SECTION LINE
- QUARTER LINE
- TOWNSHIP AND RANGE LINE
- PROPOSED OR NEW CENTERLINE
- PROPOSED OR NEW R/W LINE
- EXISTING R/W LINE
- LOT LINE
- PROPERTY LINE
- CORPORATE LIMITS
- SLOPE INTERCEPTS
- EXISTING MONUMENTATION (SIZE & TYPE)
- FENCE
- SECTION OR QUARTER CORNER
- TELEPHONE
- GAS
- WATER
- ELECTRIC
- FIBER OPTIC
- SANITARY
- STORM SEWER
- NO ACCESS (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- NO ACCESS (BY PREVIOUS PROJECT)
- TEMPORARY LIMITED EASEMENT
- FEE TITLE
- PERMANENT LIMITED EASEMENT
- BUILDING FOOTPRINT
- RIGHT-OF-WAY TYPE 2 MONUMENTS SET AT NEWLY ACQUIRED R/W ANGLE POINTS
- (6) PARCEL NUMBER
- (92) UTILITY PARCEL NUMBER

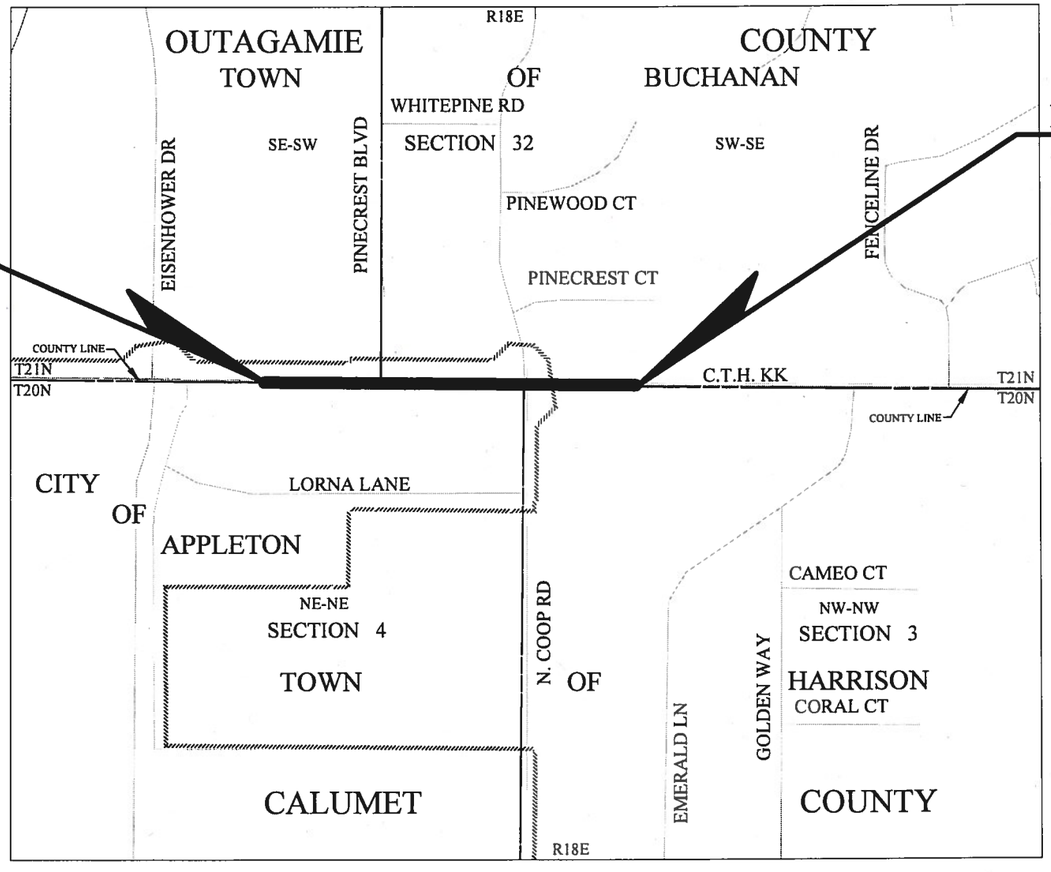
AC	ACRES	R	RADIUS
Δ	CENTRAL ANGLE	R.	RANGE
C/L	CENTERLINE	R/L	REFERENCE LINE
COR.	CORNER	R/W	RIGHT OF WAY
CTH	COUNTY TRUNK HIGHWAY	1/4LINE	QUARTER LINE
D	DEGREE OF CURVE	1/16LINE	SIXTEENTH LINE
E.	EAST	S.	SOUTH
L	LENGTH OF CURVE	SEC	SECTION
LC	LONG CHORD	SEC LINE	SECTION LINE
LCB	LONG CHORD BEARING	STH	STATE TRUNK HIGHWAY
MI	MILE	SF	SQUARE FEET
N.	NORTH	STA	STATION
PC	POINT OF CURVATURE	T.	TOWN
PI	POINT OF INTERSECTION	T	TANGENT LENGTH OF CURVE
PT	POINT OF TANGENCY	TLE	TEMPORARY LIMITED EASEMENT
PLE	PERMANENT LIMITED EASEMENT	PLE	PERMANENT LIMITED EASEMENT
P/L	PROPERTY LINE	USH	UNITED STATES HIGHWAY
		W.	WEST

	COMPENSABLE	NON-COMPENSABLE
POWER POLE	■	□
TELEPHONE POLE	●	⊘
TELEPHONE PEDESTAL	■	⊡

N

BEGIN RELOCATION
36+00.00
5.94 FEET SOUTH AND 314.63 FEET WEST OF THE SOUTH QUARTER CORNER SECTION 32, T21N, R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.
Y - 555651.660
X - 843461.735

END RELOCATION
46+00.00
17.55 FEET SOUTH OF AND 685.30 FEET EAST OF THE SOUTH QUARTER CORNER OF SECTION 32, T21N R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.
Y - 555640.054
X - 844461.668



LAYOUT
SCALE 0 100 200 FT
TOTAL NET LENGTH OF CENTERLINE = 0.189 MI.

Notes

COORDINATES AND BEARINGS ON THE PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, (OUTAGAMIE COUNTY) COUNTY ZONE, NAD 1983 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4-INCH BY 24-INCH REBAR) AND WILL BE PLACED PRIOR TO THE 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.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED OF MAPS AND DOCUMENTS OF PUBLIC RECORD AND/ OR EXISTING OCCUPATION LINES. EXCLUDING RIGHT-OF-WAY BOUNDARIES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

DIMENSIONS FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

ACCEPTED FOR
CITY OF APPLETON

(Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY
OMNI ASSOCIATES
APPLETON, WISCONSIN

WISCONSIN
DAVID A. YURK
S-2648
OSHKOSH, WI
LAND SURVEYOR

1-7-13 (Date)
David a. Yurk (Signature)
REV 3-5-13

LEVELS ON = 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

OUTAGAMIE/CALUMET COUNTY

FILE NAME : $FILE$ PLOT DATE: $DATE$ $TIME$ ORG DATE : __/__/2000 PLOT SCALE : ORIGINATOR : OMNNI ASSOCIATES PLOT SCALE :

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE COUNTY OF WAUPACA.

PARCEL NUMBER	PLAT SHEET NUMBER	OWNER	INT. REQD.	AREA ACRES REQUIRED NEW	EXISTING	TOTAL	TLE AREA	PLE AREA
1	4.4	RED KK CENTRE HOLDINGS III, LLC	TLE	--	--	--	2,750 SQ FT	--
2	4.4	CONVENIENCE STORE INVESTMENTS	TLE	--	--	--	7,580 SQ FT	--
3	4.4	ABED KHATIB	TLE	--	--	--	509 SQ FT	--
4	4.4	COMMUNITY FIRST CREDIT UNION	FEE TLE	340 SQ FT	--	340 SQ FT	1,627 SQ FT	--
6	4.4	MICHAEL J. VANLANEN & SHARON J. VANLANEN	FEE TLE PLE	96 SQ FT	--	96 SQ FT	959 SQ FT	151 SQ FT
7	4.4	PFLUM INVESTMENTS LLC	TLE	--	--	--	2,060 SQ FT	--
90	4.4	AT & T WISCONSIN	RELEASE OF RIGHTS	--	--	--	--	--
91	4.4	WE ENERGIES ELECTRIC	RELEASE OF RIGHTS	--	--	--	--	--

4

REVISION DATE: 3-5-13	DATE:	SCALE, FEET	HWY: CTH KK	STATE R/W PROJECT NUMBER:	PLAT SHEET NO: 4.2	
			CNTYS: OUTAGAMIE/CALUMET	CONSTRUCTION PROJECT NUMBER: 4494-06-71	PS&E SHEET NO: 69	E

TOWN OF BUCHANAN

SECTION 32

SE-SW

OUTAGAMIE COUNTY

PINECREST COURT

SW-SE

OUTAGAMIE COUNTY

N

③

CORPORATE BOUNDARY

4

4

COUNTY BOUNDARY

COUNTY BOUNDARY

C.T.H. KK

CITY OF APPLETON

①

②

④

N. COOP ROAD

BEGIN RELOCATION

36+00.00

5.94 FEET SOUTH AND 314.63 FEET WEST OF THE SOUTH QUARTER CORNER SECTION 32, T21N, R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.

Y - 555651.660

X - 843461.735

END RELOCATION

46+00.00

17.55 FEET SOUTH OF AND 685.30 FEET EAST OF THE SOUTH QUARTER CORNER OF SECTION 32, T21N R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.

Y - 555640.054

X - 844461.668

LORNA LANE

CORPORATE BOUNDARY

CALUMET COUNTY

NE-NE

SECTION 4

TOWN OF HARRISON

⑦

⑥

NW-NW

SECTION 3

CALUMET COUNTY

REVISION DATE 3-5-13 NC	DATE	SCALE, FEET 0 50 100	HWY: CTH KK	STATE R/W PROJECT NUMBER	PLAT SHEET 43
	GRID FACTOR		COUNTY: OUTAGAMIE/CALUMET	CONSTRUCTION PROJECT NUMBER 4494-06-71	PS&E SHEET 70

E

FILE NAME : F:\TR\JOBS\F2034A12\CTVTL_3D_2012\RW\F2034LAYOUT.DWG PLOT DATE : 4/4/2012 12:50 PM PLOT BY : BEN WILDENBERG PLOT NAME : _____ PLOT SCALE : ********

TOWN OF BUCHANAN

SECTION 32

SE-SW

OUTAGAMIE COUNTY

LOT 3 CSM 5224 (VOL. 30, PG. 5224 DOC. NO. 1687992)

COUNTY MONUMENT FOUND Y-555657.599 X-843776.367

LOT 70

LOT 23

SECOND ADDITION TO PINECREST ESTATES (PLAT CABINET H PG. 199-200, DOC. NO. 1481868)

LOT 71

LOT 24

ABED KHATIB

3

30' WISCONSIN ELECTRIC POWER COMPANY EASEMENT

15' TEMPORARY LIMITED EASEMENT

10' EASEMENT PER PLAT

6' & 12' EASEMENT PER PLAT

202+50.31 32.30' TLE 47.30' TLE

202+12.46 47.47' TLE

PT 201+86.15

202+80.00 Y-555836.788 X-844133.493

PINECREST COURT (66')

LOT 5

SW-SE

STEVEN R. ZILLGES 30' EASEMENT J 13897, I 49, DOC NO. 1076578

(PLAT CABINET F, PG. 11-12, DOC. NO. 1054004)

PINECREST ESTATES

LOT 1 LOT 2 LOT 3 LOT 4

6' & 10' EASEMENT PER PLAT

CURVE C-1

PI 201+63.35
Y - 555724.819
X - 844167.495
△ 17°33'26"
R 150.00'
L 45.97'
LC 45.79'
LCB N08°06'49"W
T 23.16'

OUTAGAMIE COUNTY

N

SLOPE INTERCEPT

PC 201+40.18

201+00.00 COOP RD. Y-555661.478 X-844166.759

SAW CUT CROSS FOUND N-555623.666 E-846421.915

T21N R18E 32 33 3 T20N R18E

36+00 38+00 40+00 42+00 44+00 46+00 48+00

S89°20'06"E

S89°15'55"E 385.44' (CORNER TO CORNER)

S89°15'55"E 1000.00'

SEC LINE 2260.33' (CORNER TO CORNER)

CITY OF APPLETON

C.T.H. KK

200+00.00 COOP RD. 43+00.00 CTH KK Y-555643.536 X-844161.687

208+00.00

S00°31'53"W 110.21'

S00°31'53"W 2788.88' (CORNER TO CORNER)

N. COOP RD.

198+00

196+00

2475.72'

37+05.00 51.00' TLE 61.00' TLE

10' TEMPORARY LIMITED EASEMENT

38+80.00 61.00' TLE 80.00' TLE

15' TEMPORARY LIMITED EASEMENT

39+90.00 58.40' TLE 80.00' TLE

40+41.58 61.00' TLE

5' TEMPORARY LIMITED EASEMENT

10' EASEMENT PER PLAT

42+20.37 61.00' TLE

199+19.34 60.00' TLE

25' TEMPORARY LIMITED EASEMENT

198+10.00 43.00' TLE 60.00' TLE

43+85.10 56.00' TLE 199+08.95 50.00' TLE

44+50.00 51.00' TLE 56.00' TLE

5' TEMPORARY LIMITED EASEMENT

CHISELED "X" FOUND Y-555652.656 X-844161.771

DETAIL "A"

DETAIL "A" NOT TO SCALE

L5 L1 L2 L3 L4

199+03.97 45.00' RW/TLE

198+58.50 45.00' RW

198+08.50 40.00' RW

SLOPE INTERCEPT

RED KK CENTRE HOLDINGS III, LLC

1

LOT 2

LOT 3

CONVENIENCE STORE INVESTMENTS

2

10' WE ENERGIES EASEMENT J. 5954, I. 63-65, DOC. NO. 320275

KWIK TRIP PLAT (PLAT CABINET B, SLIDE 163, DOC. NO. 245114)

LOT 1

10' TEMPORARY LIMITED EASEMENT

301+75.00 33.00' TLE 43.00' TLE

197+49.27 43.00' TLE

197+39.30 53.00' TLE

198+08.00 50.00' TLE

197+60.66 45.00' TLE

5' TEMPORARY LIMITED EASEMENT

SILVER ACRES (PLAT CABINET B, SLIDE 129, DOC. NO. 224856)

COMMUNITY FIRST CREDIT UNION

4

LOT 1

BEGIN RELOCATION

36+00.00

5.94' FEET SOUTH AND 314.63 FEET WEST OF THE SOUTH QUARTER CORNER SECTION 32, T21N, R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.
Y - 555651.660
X - 843461.735

END RELOCATION

46+00.00

17.55 FEET SOUTH OF AND 685.30 FEET EAST OF THE SOUTH QUARTER CORNER OF SECTION 32, T21N R18E, CITY OF APPLETON, OUTAGAMIE COUNTY, WISCONSIN.
Y - 555640.054
X - 844461.668

KWIK TRIP PLAT (PLAT CABINET B, SLIDE 163, DOC. NO. 245114)

10' EASEMENT PER PLAT

S89°16'14"E 250.00'

300+50 302+00 303+00

300+50.00 Y - 555342.852 X - 843908.889

LORNA LANE

196+96.12 COOP 303+00.00 LORNA

10' EASEMENT PER PLAT

DETAIL "B"

62'±

15' TEMPORARY LIMITED EASEMENT

SLOPE INTERCEPT

196+00.00 33.00' TLE

MICHAEL J. VANLANEN & SHARON J. VANLANEN

6

LOT 1 CSM 1451 (VOL. 10, PG. 88, DOC. NO. 209787)

40' DRAINAGE EASEMENT PER PLAT

DETAIL "B" NOT TO SCALE

L6 L10 L11 L14 L12 L13 L7 L9 L8

196+95.95 35.00' RW/PLE 40.00' TLE 45.00' TLE 50.00' PLE

PERMANENT LIMITED EASEMENT FOR DRAINAGE STRUCTURE

196+85.85 35.00 PLE/TLE 50.00' PLE/TLE

SLOPE INTERCEPT

196+50.00 50.00' TLE

196+48.00 33.00' RW 35.00' RW

CALUMET COUNTY

NE-NE

SECTION 4

TOWN OF APPLETON

LOT 1 CSM 3135 (VOL. 26, PG. 171, DOC. NO. 439047)

10' EASEMENT PER KWIK TRIP PLAT

302+19.00 33.00' TLE 44.00' TLE

196+52.40 48.00' TLE

15' TEMPORARY LIMITED EASEMENT

SLOPE INTERCEPT

PFLUM INVESTMENTS, LLC

7

195+50.00 33.00' TLE 48.00' TLE

LOT 2 CSM 3135 (VOL. 26, PG. 171, DOC. NO. 439047)

LOT 1 CSM 1339 (VOL. 9, PG. 243, DOC. NO. 200642)

COMPUTED N=552863.891 E=844135.907

T 20 N R 18 E 4 3

NW-NW

SECTION 3

CALUMET COUNTY

HARRISON

LINE TABLE		
L1	S89°34'32"E	40.00'
L2	S00°31'53"W	90.49'
L3	N06°14'31"E	50.25'
L4	N00°31'53"E	45.47'
L5	S45°38'21"W	7.06'
L6	S89°28'07"E	33.00'
L7	S00°31'53"W	47.95'
L8	S89°28'07"E	2.00'
L9	N00°31'53"E	47.95'
L10	N89°15'54"W	2.00'

LINE TABLE		
L11	S89°15'54"E	15.00'
L12	S00°31'53"W	10.04'
L13	N89°28'07"W	15.00'
L14	N00°31'53"E	10.10'
L15	N00°39'54"E	40.18'

BASIS OF EXISTING RIGHT-OF-WAY

CTH KK: AYRES ASSOCIATES R/W PLAT DATED JAN. 3, 1994 (NO PROJ. NO.)
COOP RD: PINECREST ESTATES PLAT 1992, SILVER ACRES PLAT 1992, KWIK TRIP PLAT 1994, 2ND ADD TO PINECREST ESTATES 2002
LORNA LANE: KWIK TRIP PLAT 1994

REVISION DATE 3-5-13	DATE	SCALE, FEET 0 50 100	HWY: CTH KK	STATE R/W PROJECT NUMBER / PLAT SHEET 44
	GRID FACTOR N/A		COUNTY: OUTAGAMIE/CALUMET	CONSTRUCTION PROJECT NUMBER 4494-06-71 / PS&E SHEET 71 E

FILE NAME : F:\TR\JOBS\E2034A12\CIVIL 3D 2012\RW\E2034SHEETS.DWG PLOT DATE : 4/4/2012 12:50 PM PLOT BY : BEN WILDENBERG PLOT NAME : _____ PLOT SCALE : ********

WISDOT/CADDS SHEET 75

STA 38+00.00'WB'
X = 843661.932
Y = 555667.497

T21N R18E 32 4 T20N R18E

COUNTY MONUMENT FOUND
Y-555657.599
X-843776.367

BM-1

CAUTION

EXIST R/W

P/L

(ASPH)

(CONC)

CONCRETE SIDEWALK

SECTION LINE

REMOVE CONCRETE SIDEWALK

BP: 38+00.00'WB

38'WB'

S89° 20' 06.01"E

39'WB'

N89° 21' 36.33"W

40'WB'

N89° 15' 54.50"W

41'

CTH KK

35'EB'

36'EB'

37'EB'

38'EB'

S89° 20' 06.01"E

39'EB'

40'EB'

41'

CONCRETE PAVEMENT, 10-INCH

BEGIN PROJECT
STA 36'EB'+35.22
Y = 555,651.252
X = 843,496.953

MATCH LINE STA 41+00

N

EXIST R/W

TLE

CONCRETE SIDEWALK (TYP)

SLOPE INTERCEPT (TYP)

CONCRETE DRIVEWAY

ASPHALTIC SURFACE

CONCRETE DRIVEWAY

RED KK CENTRE HOLDINGS III, LLC

CONVENIENCE STORE INVESTMENTS

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	40'WB'+16, 47' LT	BURY BOLT HYDRANT, 265' W OF COOP RD	770.25

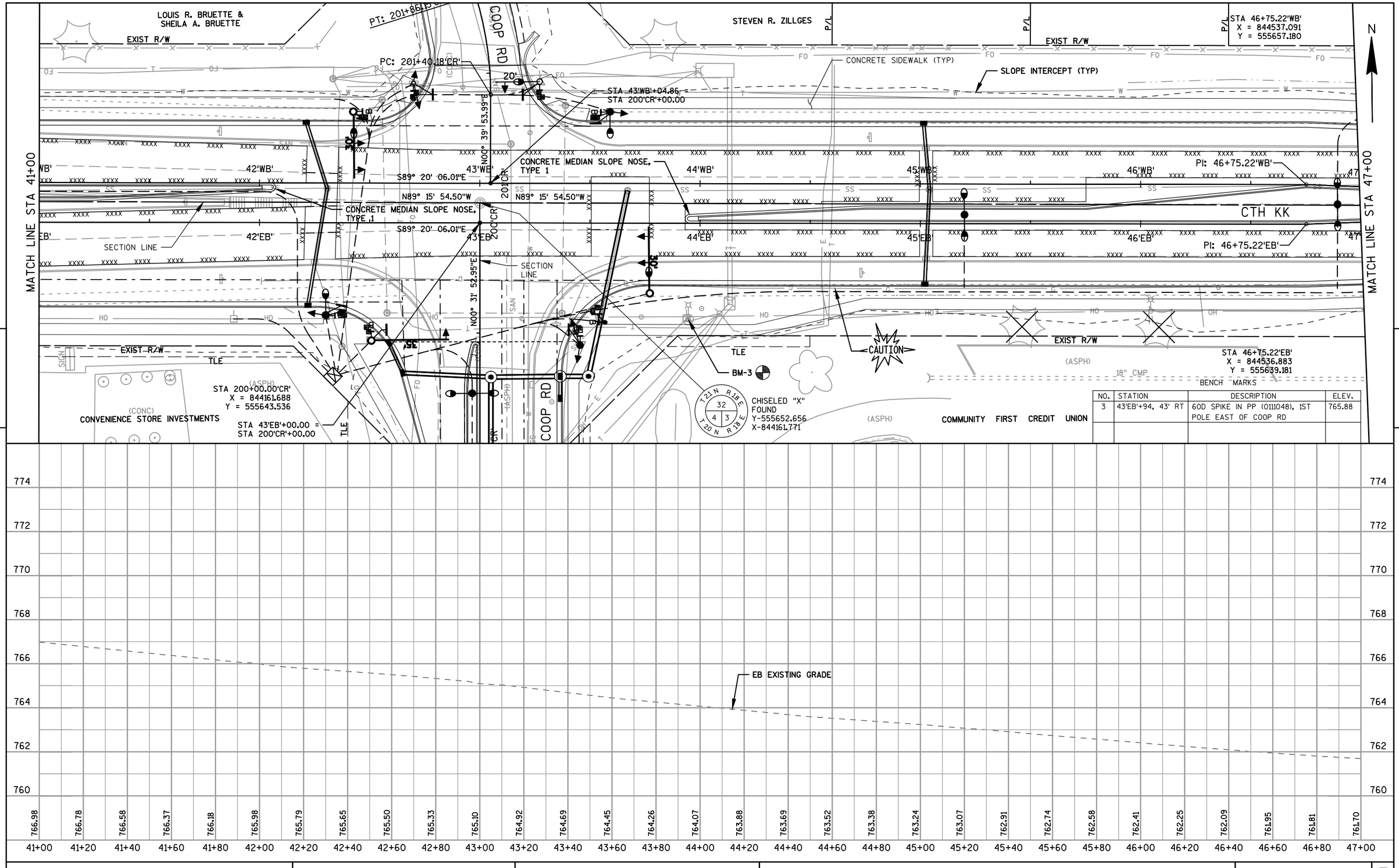
EB EXISTING GRADE

780 778 776 774 772 770 768 766

772.75 772.58 772.38 772.17 772.00 771.81 771.60 771.38 771.16 770.96 770.77 770.65 770.49 770.31 770.12 769.91 769.70 769.49 769.32 769.15 768.96 768.76 768.57 768.36 768.17 767.99 767.80 767.59 767.40 767.20 766.98

35+00 35+20 35+40 35+60 35+80 36+00 36+20 36+40 36+60 36+80 37+00 37+20 37+40 37+60 37+80 38+00 38+20 38+40 38+60 38+80 39+00 39+20 39+40 39+60 39+80 40+00 40+20 40+40 40+60 40+80 41+00

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH KK	SHEET 72	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH KK	SHEET 73	E

STA 49+05.40'WB'
X = 844766.971
Y = 555645.511

P/L

EXIST R/W

CONCRETE SIDEWALK (TYP)

(CONC)

BM-5

CTH KK

MATCH LINE STA 47+00

'WB'

48'WB'

S87° 05' 38.89"E

N89° 15' 54.50"W

N88° 25' 26.88"E

48'EB'

CONCRETE MEDIAN SLOPE NOSE TYPE 1

49'WB'

EP: 49+05.40'WB'

S89° 20' 06.01"E

PI: 49+05.40'EB'

49'EB'

50'EB'

51'EB'

52'EB'

60" CMP

SECTION LINE

STA 49+05.40'EB'
X = 844766.971
Y = 555645.511

CAUTION

BM-4

BM-6

EXIST R/W

P/L

END PROJECT
STA 49'EB'+56.51

GOLDEN WAY

N

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
4	47'EB'+86, 44' RT	60D SPIKE IN PP (02-10626)	762.60
5	49'EB'+90, 50' LT	BURY BOLT HYDRANT	760.90
6	51'EB'+18, 48' RT	60D SPIKE IN PP (02-11895)	759.20

COMMUNITY FIRST CREDIT UNION

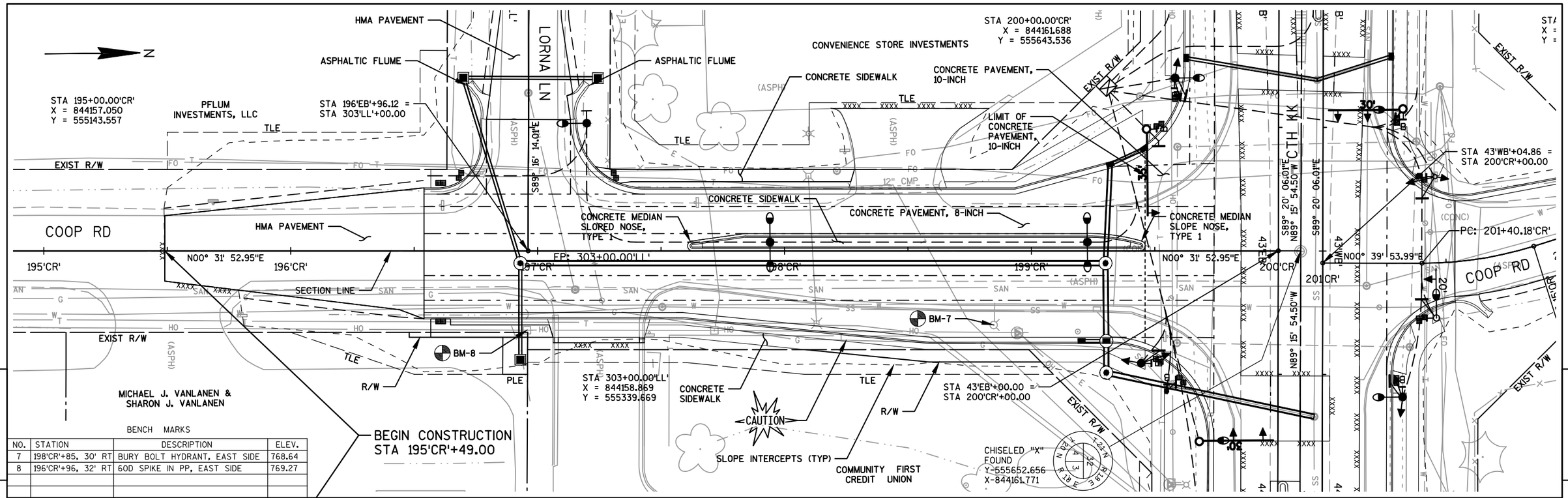
EXISTING GRADE

770 768 766 764 762 760 758 756

761.70 761.58 761.45 761.34 761.30 761.26 761.21 761.15 761.10 761.05 761.01 760.95 760.89 760.82 760.75 760.67 760.60 760.54 760.48 760.46 760.47

47+00 47+20 47+40 47+60 47+80 48+00 48+20 48+40 48+60 48+80 49+00 49+20 49+40 49+60 49+80 50+00 50+20 50+40 50+60 50+80 51+00 51+20 51+40 51+60 51+80 52+00 52+20 52+40 52+60 52+80 53+00

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH KK	SHEET 74	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: COOP RD	SHEET 75	E

STA 200+00.00'CR'
X = 844161.688
Y = 555643.536

STA 201+00.00'CR'
X = 844166.759
Y = 555661.478

STA 202+80.00'CR'
X = 844133.492
Y = 555836.788

LOUIS R. BRUETTE &
SHEILA A. BRUETTE

CAUTION

EXIST R/W

STA 43'WB'+04.86 =
STA 200'CR'+00.00

COOP RD

PC: 201+40.18'CR'

N00° 39' 53.99"E

N16° 53' 31.70"W

202'CR'

199'CR'

200'CR'

201'CR'

N00° 31' 52.95"E

S89° 20' 06.01"E

N89° 15' 54.50"W

43'EB'

43'WB

30'

35'

20'

EXIST R/W

BM-2

PT: 202+01.98'CR'

EP: 202+08.00'CR'

PINECREST CT

STEVEN R. ZILLGES

STA 43'EB'+00.00 =
STA 200'CR'+00.00

CHISELED "X"
FOUND
Y-555652.656
X-844161.771

CTH KK

END CONSTRUCTION
STA 202'CR'+66.90

PI STA = 201+63.35'CR
Y = 555724.819
X = 844167.494
DELTA = 017°33'26"
D = 038°11'50"
T = 23.16
L = 45.96
R = 150.00
PC STA = 201+40.18'CR'
PT STA = 201+86.15'CR'

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	202'CR'+68, 33' RT	BURY BOLT HYDRANT, SE CORNER	764.00

PI STA = 201+15.00CR
PI ELEV = 764.695

PI STA = 201+26.00CR
PI ELEV = 764.490

PI STA = 201+50.00CR
PI ELEV = 763.970

VPI STA = 202+40.00CR
VPI ELEV = 762.09
g1 = -2.08%
g2 = -0.93%
K = 32.80
K = 28

VPC STA = 202+23.60CR
VPC ELEV = 762.44

VPT STA = 202+56.40CR
VPT ELEV = 761.94

PI STA = 202+66.90CR
PI ELEV = 761.844

EXISTING GRADE

PROPOSED GRADE

-1.86%

-2.17%

-2.08%

-0.93%

774 772 770 768 766 764 762 760

764.99
764.57 764.60
764.18 764.19
763.92 763.76
763.52 763.34
763.17 762.93
762.70 762.51
762.22 762.14
761.91 761.91
761.72

198+00 198+20 198+40 198+60 198+80 199+00 199+20 199+40 199+60 199+80 200+00 200+20 200+40 200+60 200+80 201+00 201+20 201+40 201+60 201+80 202+00 202+20 202+40 202+60 202+80 203+00 203+20 203+40 203+60 203+80 204+00

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: COOP RD	SHEET 76	E

CONVENIENCE STORE INVESTMENTS

ASPHALTIC FLUME

TLE

EXIST R/W

13"×21" CMPA

HMA PAVEMENT

LORNA LN (ASPH)

301'LL'

302'LL'

S89° 16' 14.01"E

STA 303+00.00'LL'
X = 844158.869
Y = 555339.669

COMMUNITY FIRST CREDIT UNION

P/L

BM-8

UNK CULV

BP: 300+50.00'LL'

EXIST R/W

ASPHALTIC FLUME

TLE

EP: 303+00.00'LL'

STA 303'LL'+00.00 =
STA 196'CR'+96.12

MICHAEL J. VANLANEN &
SHARON J. VANLANEN

STA 300+50.00'LL'
X = 843908.889
Y = 555342.852

CONCRETE PAVEMENT, 8-INCH

PFLUM
INVESTMENTS, LLC

COOP RD

BEGIN CONSTRUCTION
STA 301'LL'+83.56

SLOPE INTERCEPT (TYP)

CAUTION

N

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	196'CR'+96, 32' RT	60D SPIKE IN PP, EAST SIDE	769.27

VPI STA = 302+50.00LL
VPI ELEV = 769.85
g1 = -1.88%
g2 = 1.00%
L = 50.00
K = 17

PI STA = 301+83.39LL
PI ELEV = 771.102

VPC STA = 302+25.00LL
VPC ELEV = 770.32

VPT STA = 302+75.00LL
VPT ELEV = 770.10

PI STA = 303+00.00LL
PI ELEV = 770.351

EXISTING GRADE

PROPOSED GRADE

-1.88%

1.00%

LP STA = 302+57.64LL
LP ELEV = 770.015

772.56 772.43 772.26 772.06 771.86 771.57 771.16 770.85 770.79 770.57 770.42 770.34 770.10 770.23 770.02 770.30 770.15 770.49 770.35

782 780 778 776 774 772 770 768

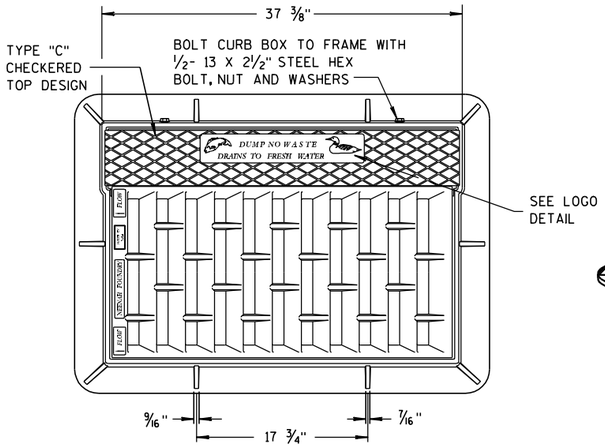
300+00 300+20 300+40 300+60 300+80 301+00 301+20 301+40 301+60 301+80 302+00 302+20 302+40 302+60 302+80 303+00 303+20 303+40 303+60 303+80 304+00 304+20 304+40 304+60 304+80 305+00 305+20 305+40 305+60 305+80 306+00

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	PLAN AND PROFILE: LORNA LN	SHEET 77	E

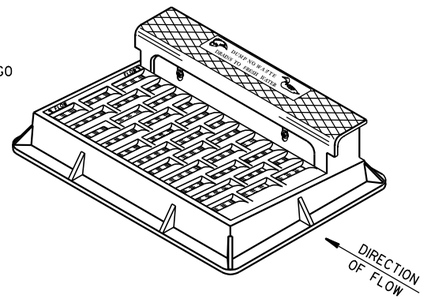
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
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
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
09B02-07	CONDUIT
09B04-09	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C11-02	CONCRETE BASE TYPE 10
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-11B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-11D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-11G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-04	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTUBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C01-15	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-09A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-09C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-01C	CONCRETE PAVEMENT JOINT TIES
13C18-01D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C18-03	MEDIAN ISLAND MARKING
15C29-02A	BICYCLE LANE MARKING
15C29-02D	URBAN BICYCLE LANE MARKING
15C29-02E	PAVEMENT MARKING FOR BIKE LANES
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

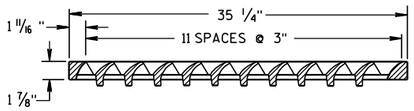
6

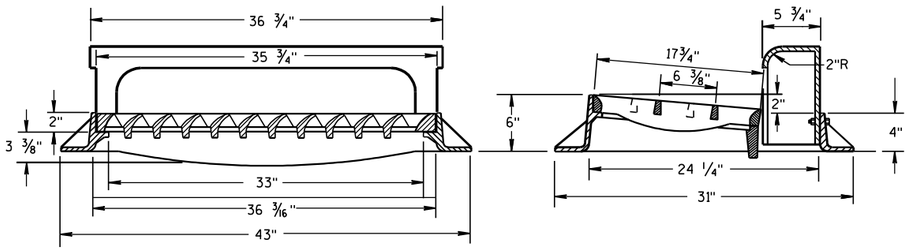


NOTE:
GRATE IS REVERSIBLE.



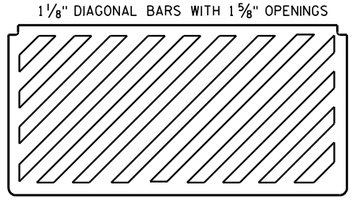
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

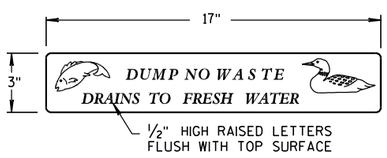
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

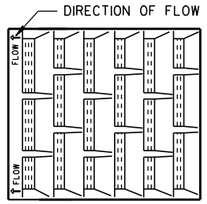
GENERAL NOTES

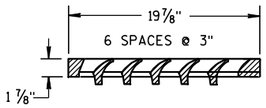
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

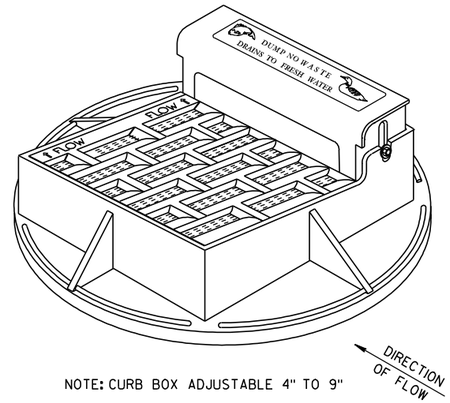
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

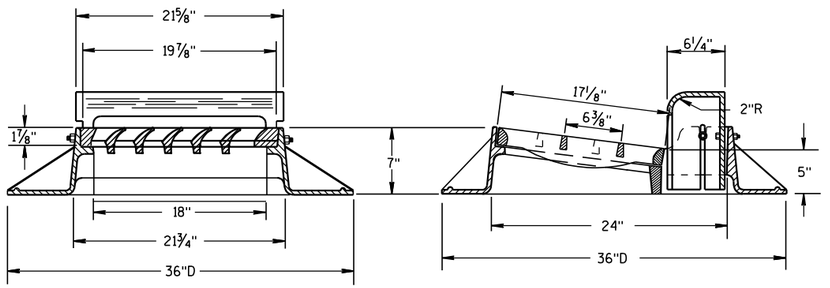
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





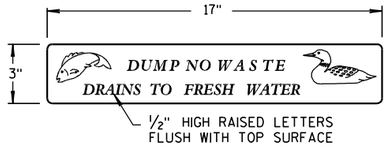


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



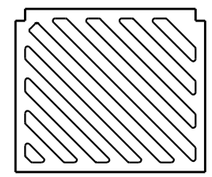
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

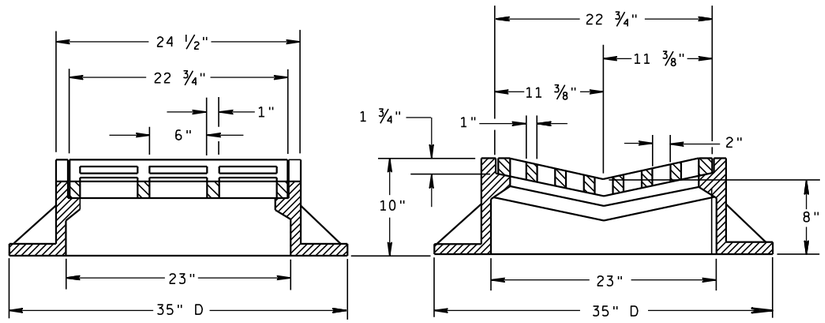
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

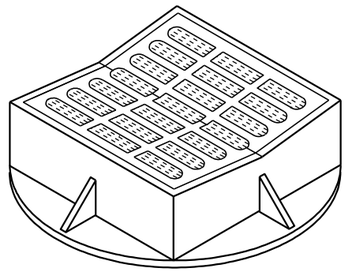
INLET COVERS TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 8 A 5-18a

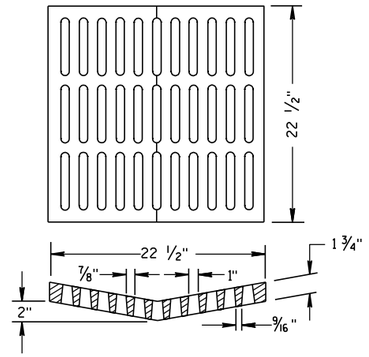




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

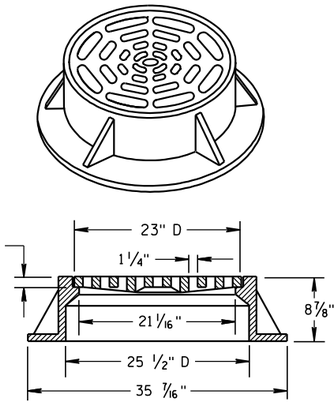


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

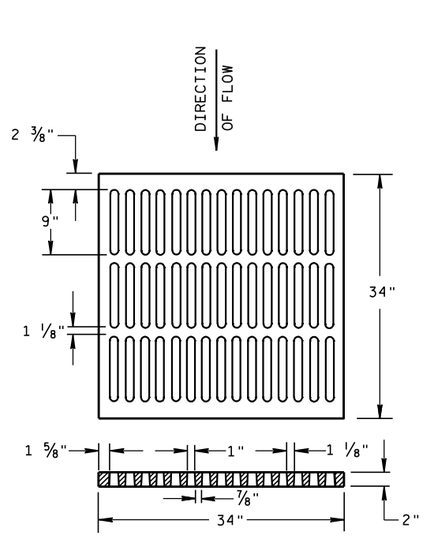
GENERAL NOTES

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

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

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

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

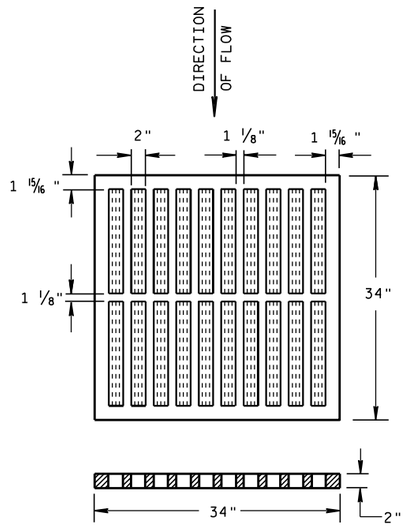


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

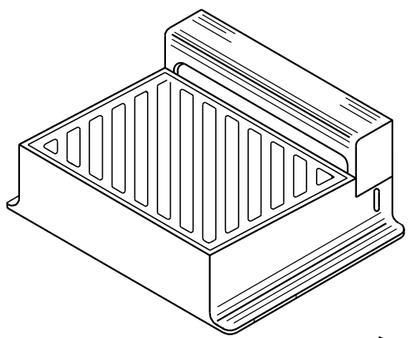


TYPE "MS"

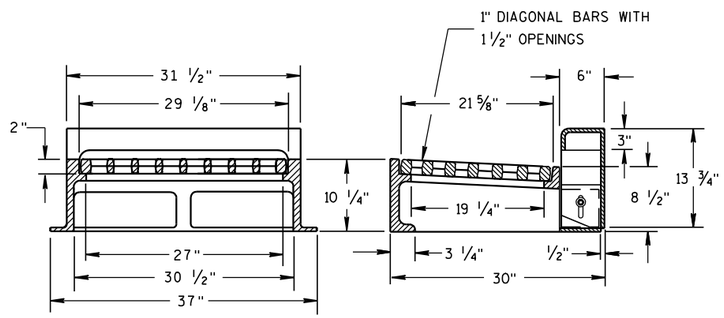
(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 — DATE

/S/ Jerry H. Zaas — ROADWAY STANDARDS ENGINEER

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FHWA

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S.D.D. 8 A 5-18b

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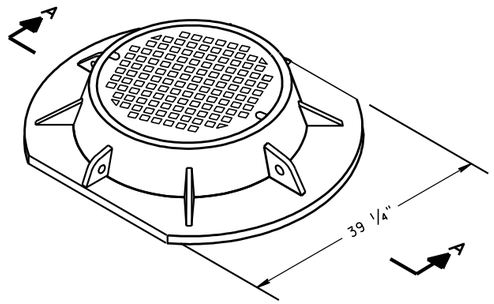
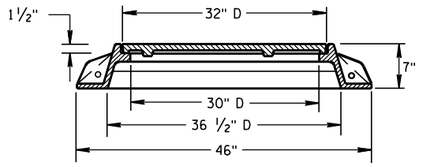
S.D.D. 8 A 5-18b



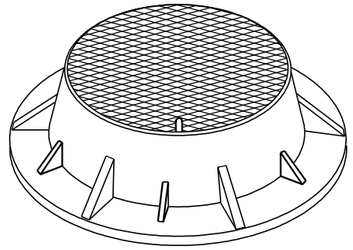


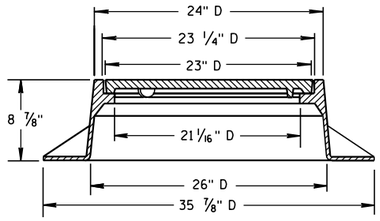
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

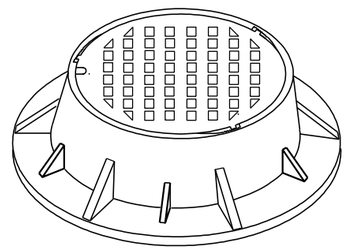


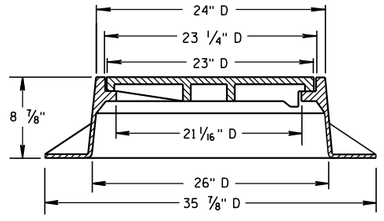


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

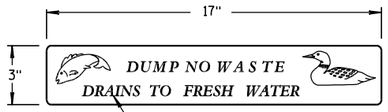
GENERAL NOTES

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

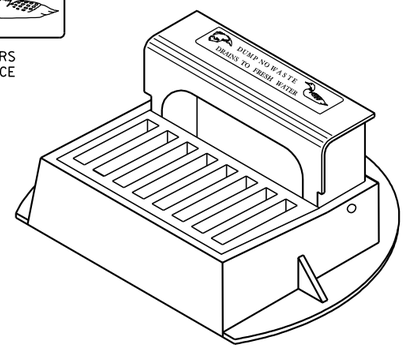
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

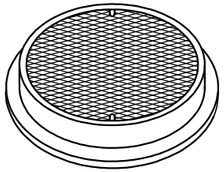
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

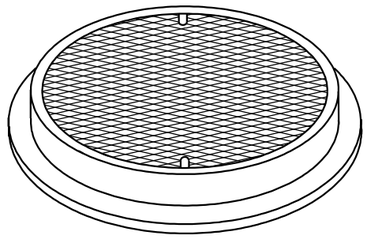
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

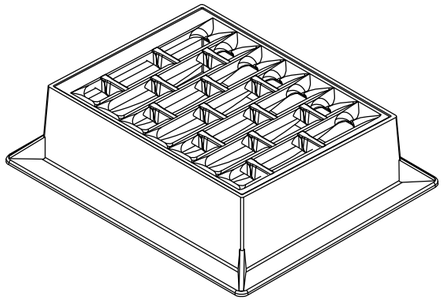


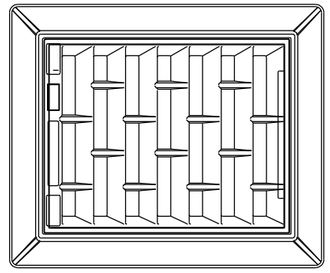
LOGO DETAIL

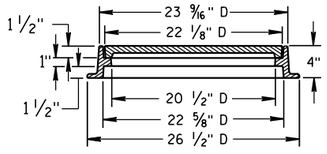








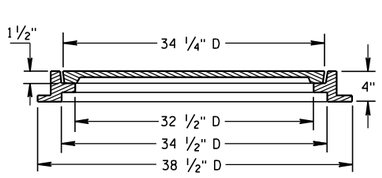




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

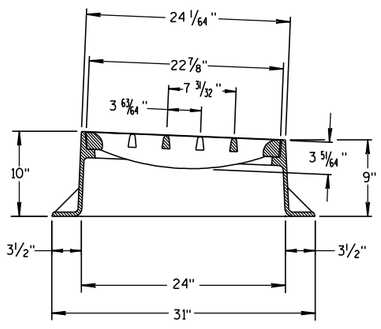
FRAME.....81 LBS.
LID.....77 LBS.

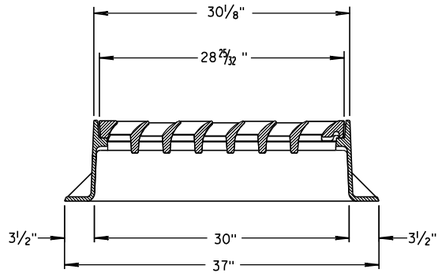


TYPE "M"

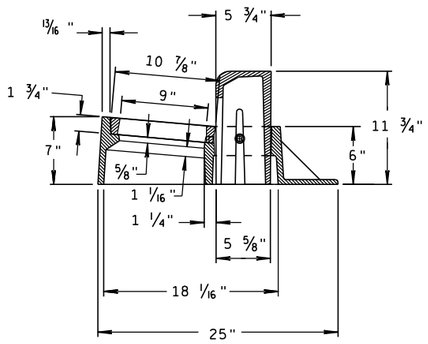
(APPROXIMATE WEIGHT 377 LBS.)

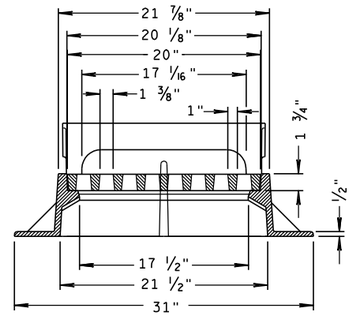
FRAME..... 125 LBS.
LID..... 252 LBS.





INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

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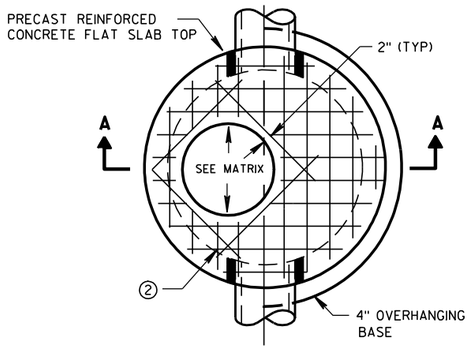
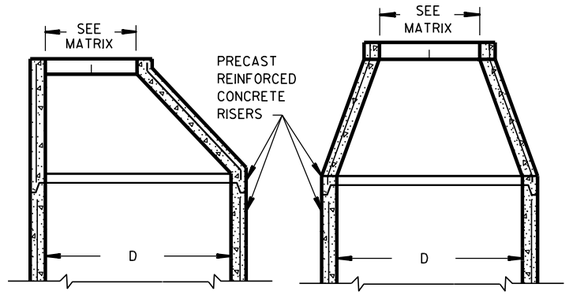
S.D.D. 8 A 5-18d

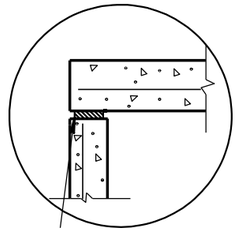


PLAN VIEW CIRCULAR OPENING

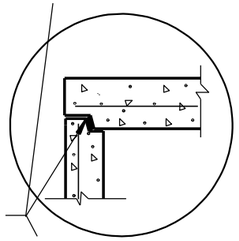


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

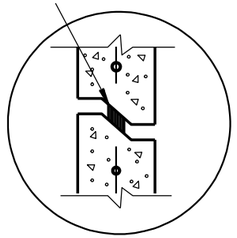


TOP WITH PLAIN END JOINT



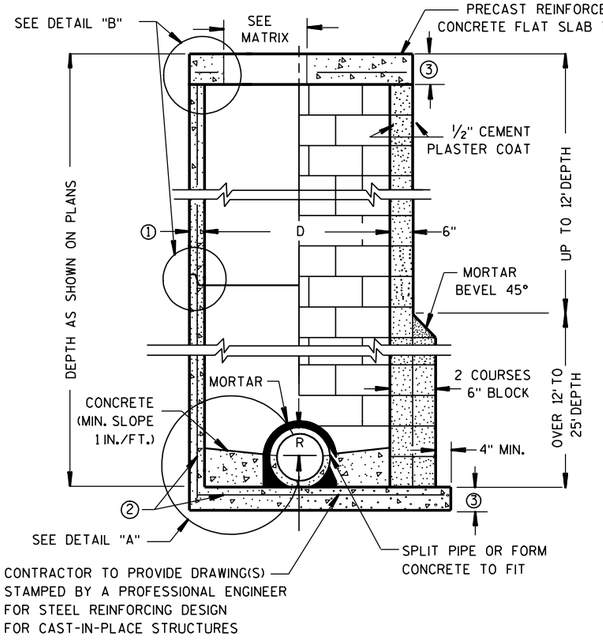
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



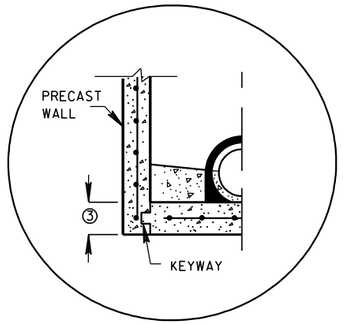
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

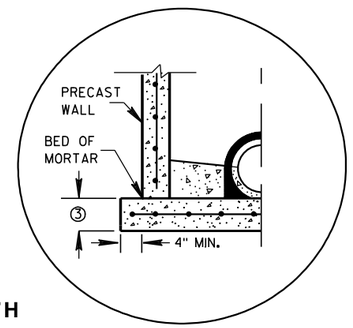


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

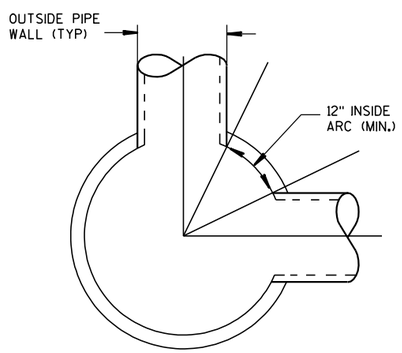


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 MANHOLE 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 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.

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

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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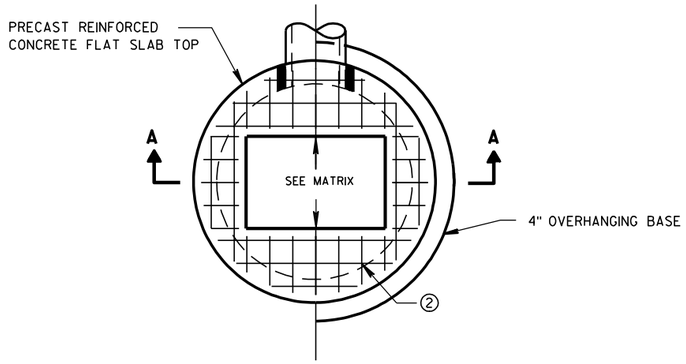
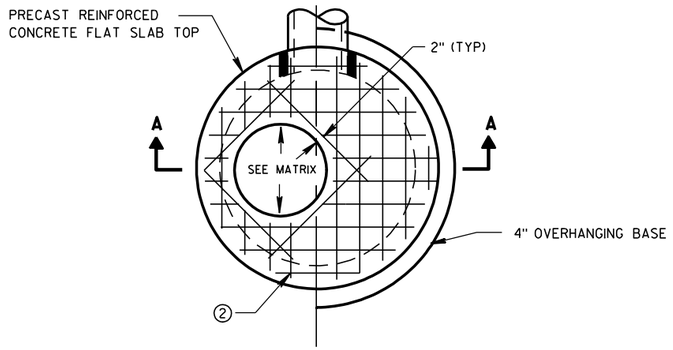
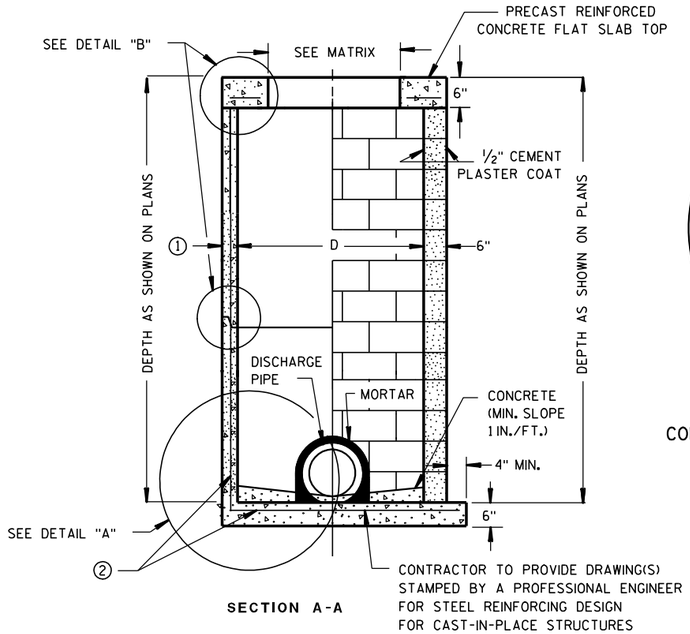
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

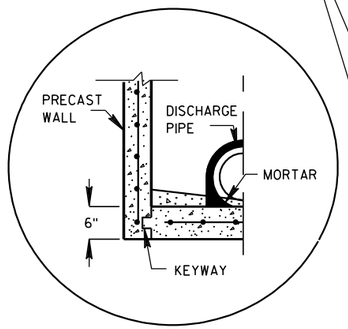


SECTION A-A

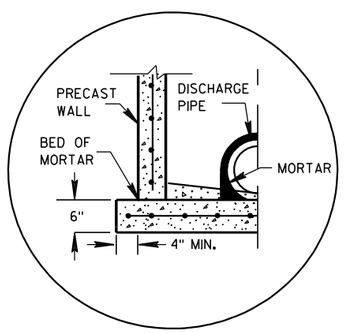
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

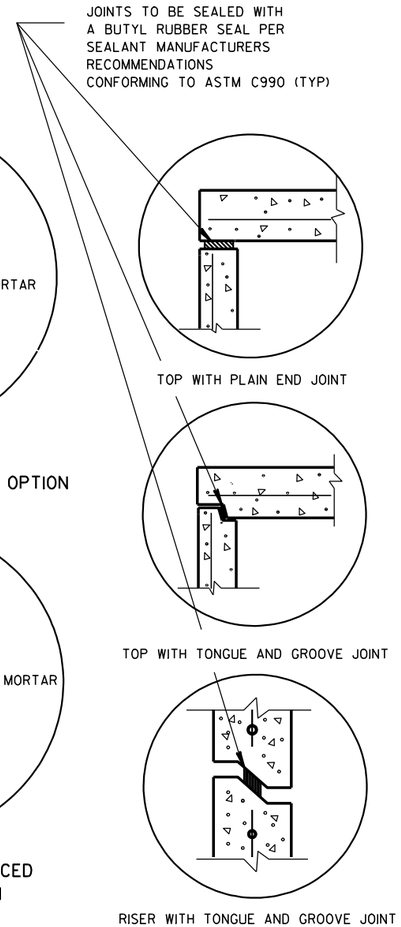


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE 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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

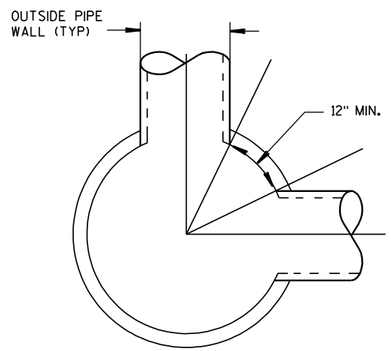
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

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

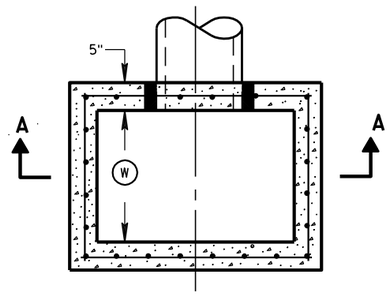
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

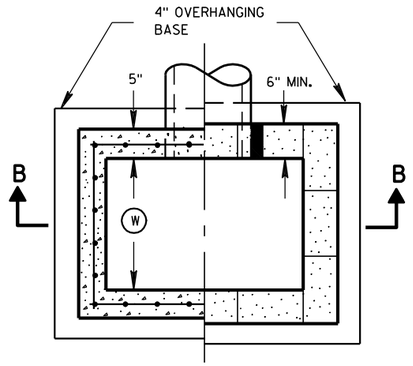
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

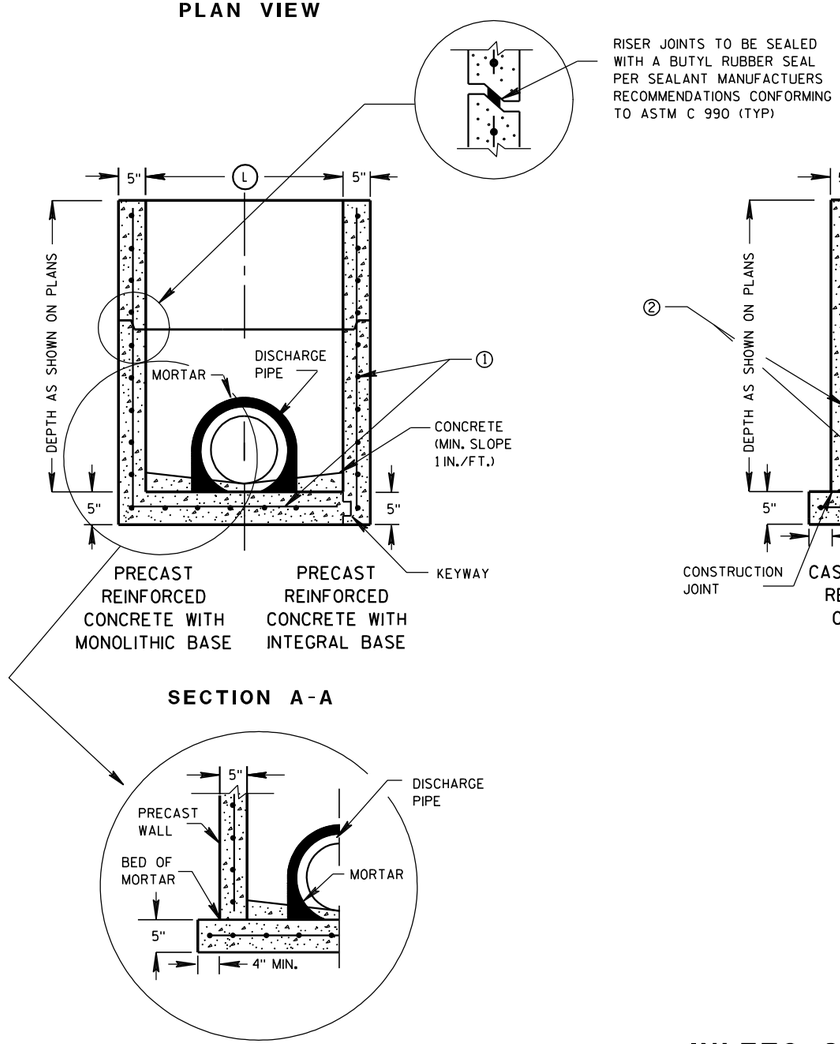
INLETS 3-FT AND 4-FT DIAMETER



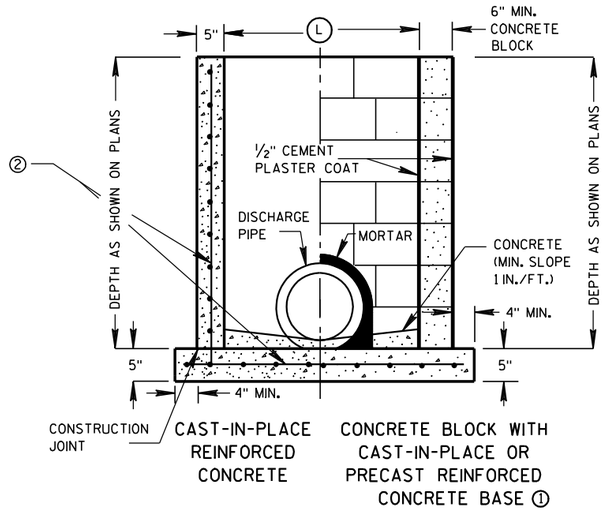
PLAN VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

SEPERATE 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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

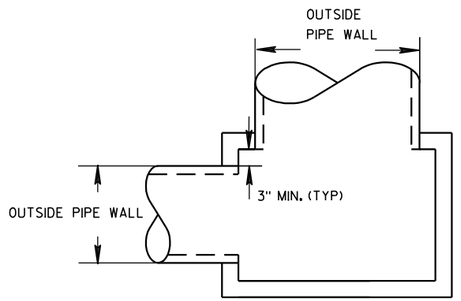
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

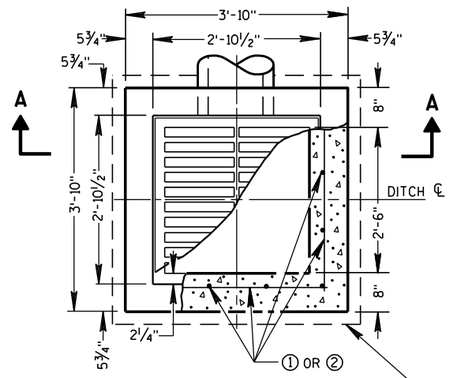
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D 84 — ENGINEER
FHWA

6

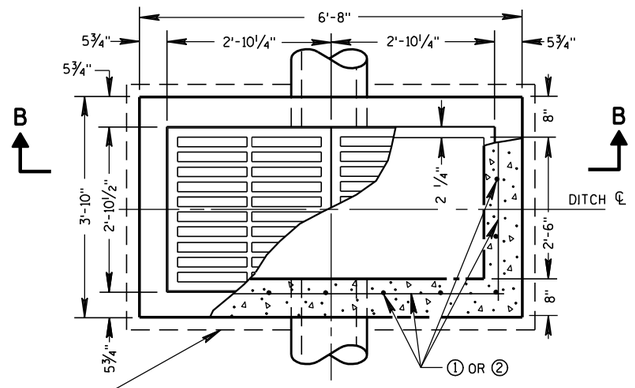
S.D.D. 8 C 7-1

6

S.D.D. 8 C 7-1

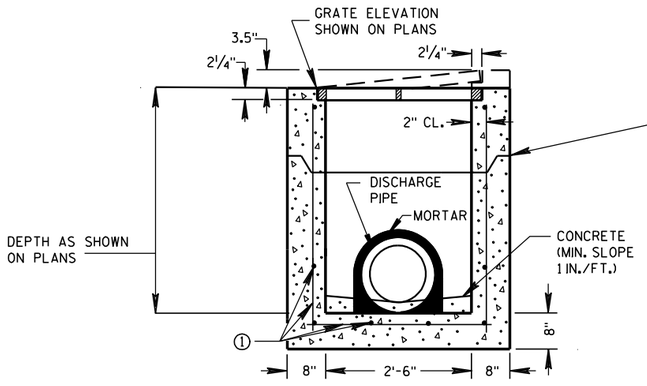


PLAN VIEW

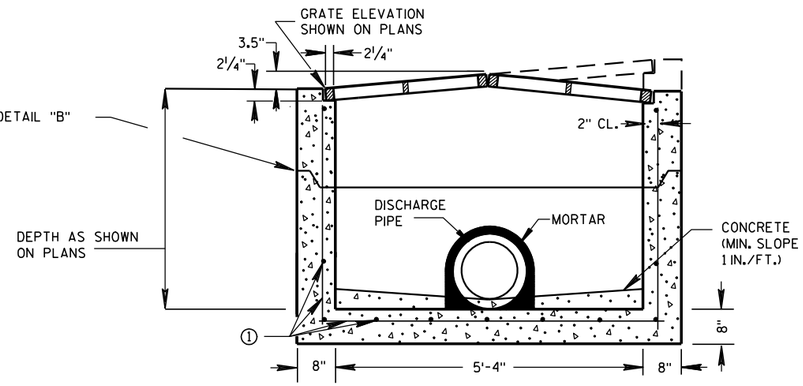


PLAN VIEW

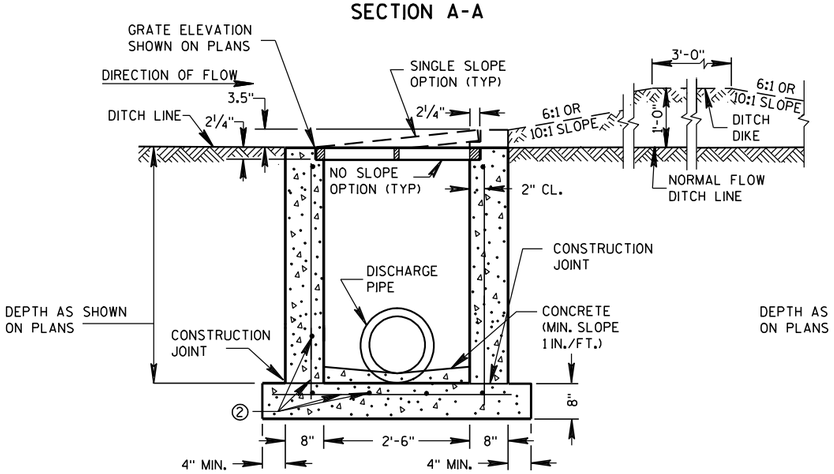
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



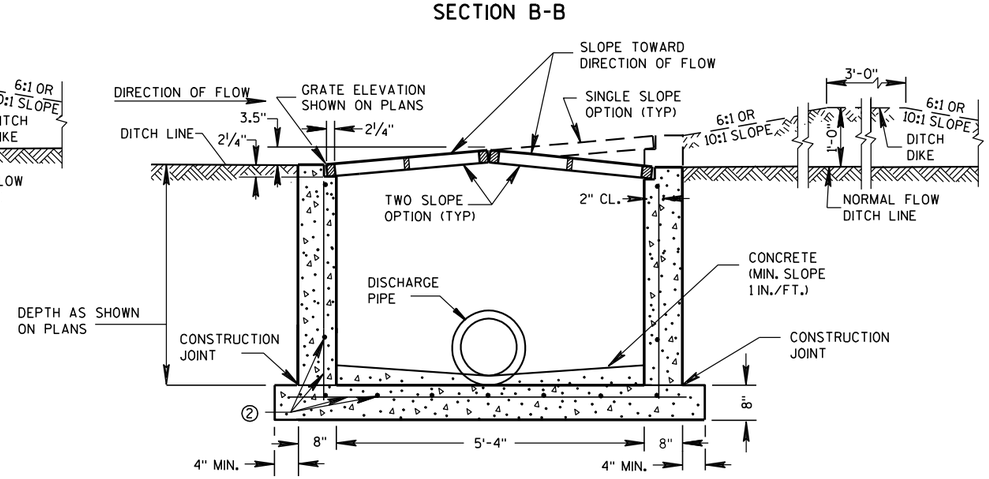
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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.

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

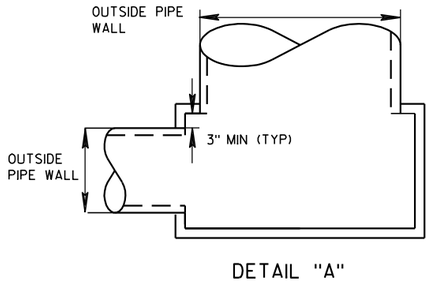
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

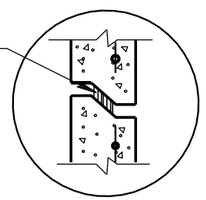
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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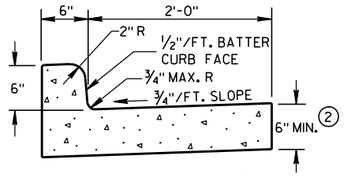
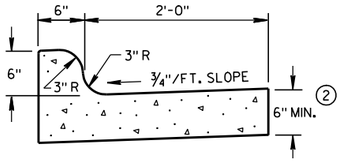
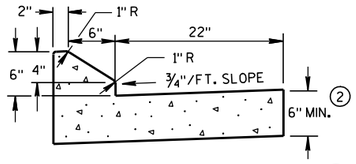


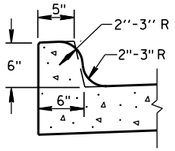
TYPES A & D (1)



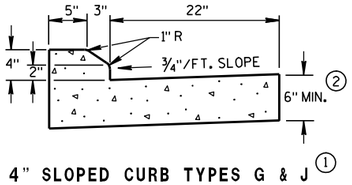
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

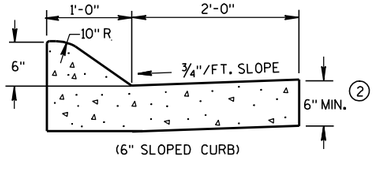


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

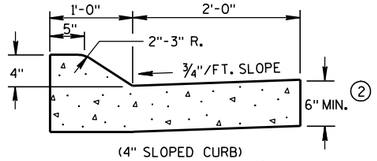


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

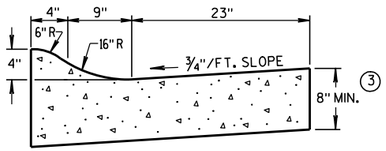


(6" SLOPED CURB)



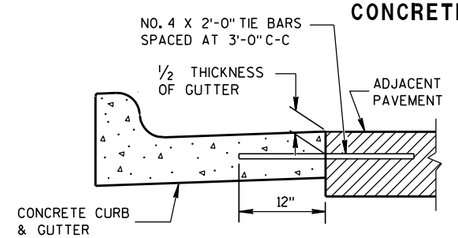
(4" SLOPED CURB)

TYPES A & D (1)

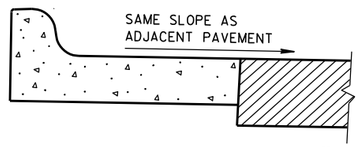


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

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

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

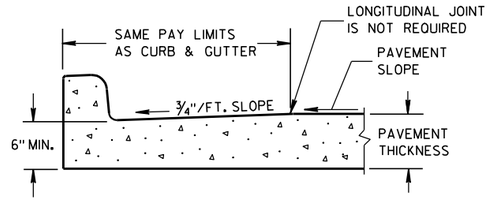
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

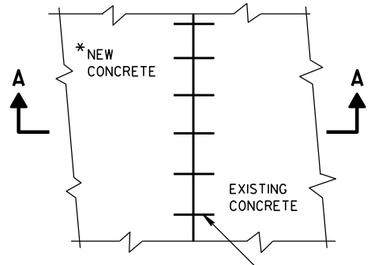
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

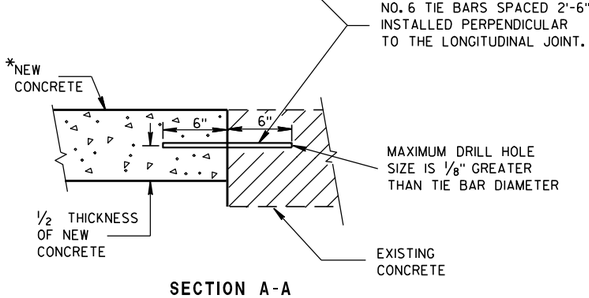


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



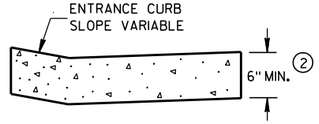
PLAN VIEW

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

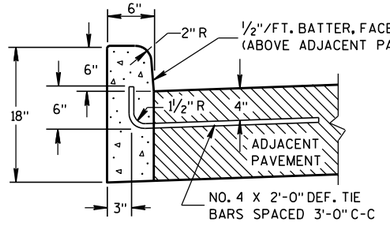


SECTION A-A

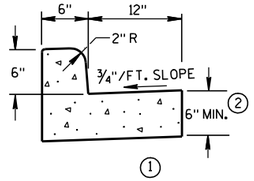
TIE BARS DRILLED INTO EXISTING PAVEMENT



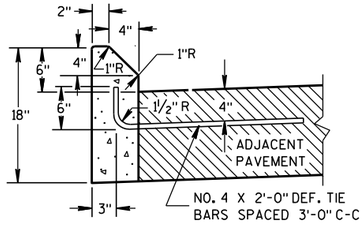
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



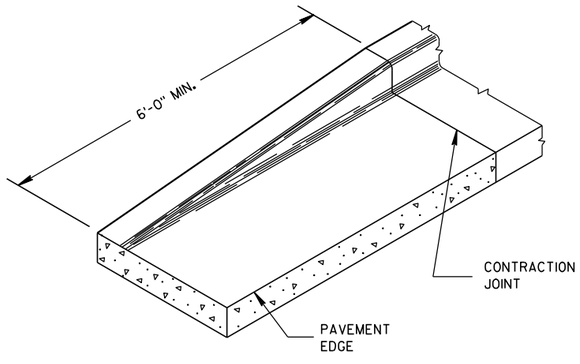
(1)
TYPES A & D



(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

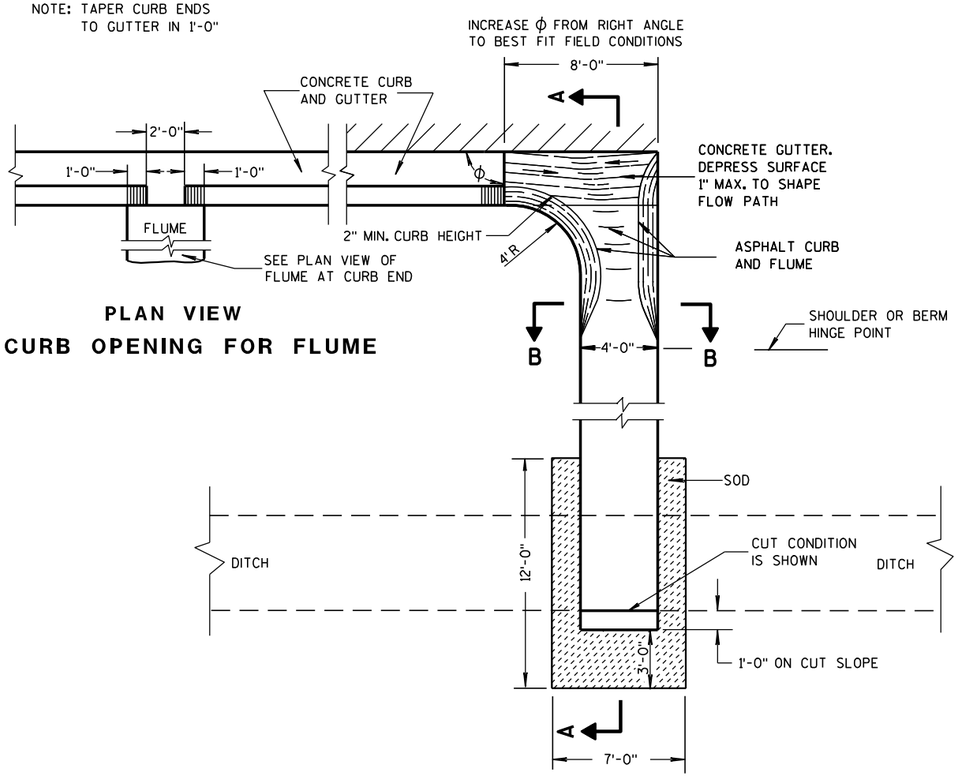
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

6

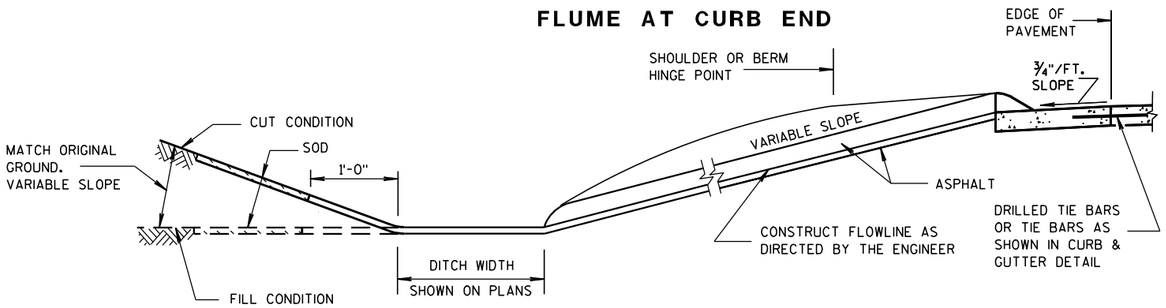
S.D.D. 8 D 1-17

ASPHALTIC FLUME

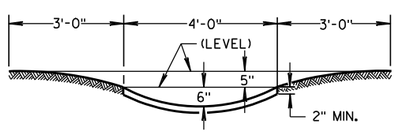


PLAN VIEW
CURB OPENING FOR FLUME

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.

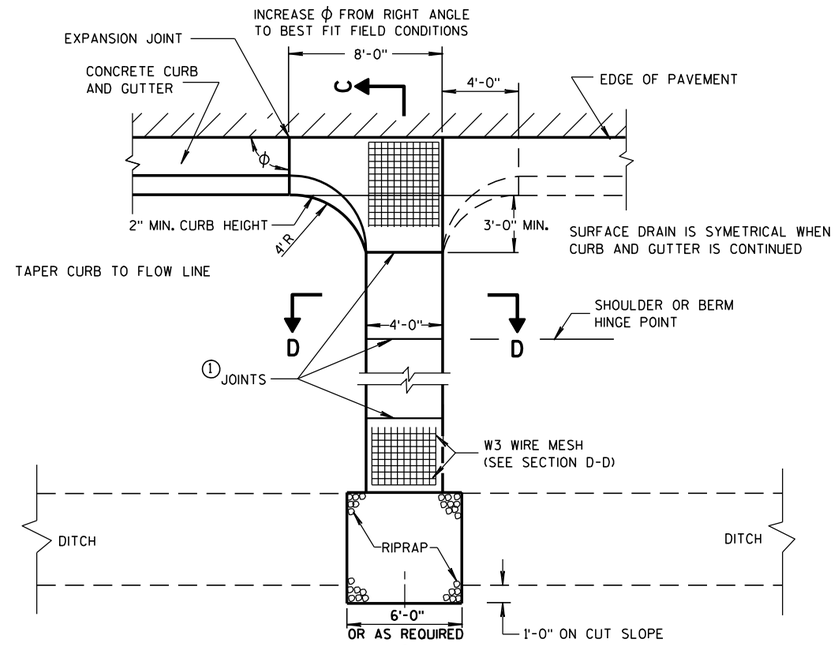
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

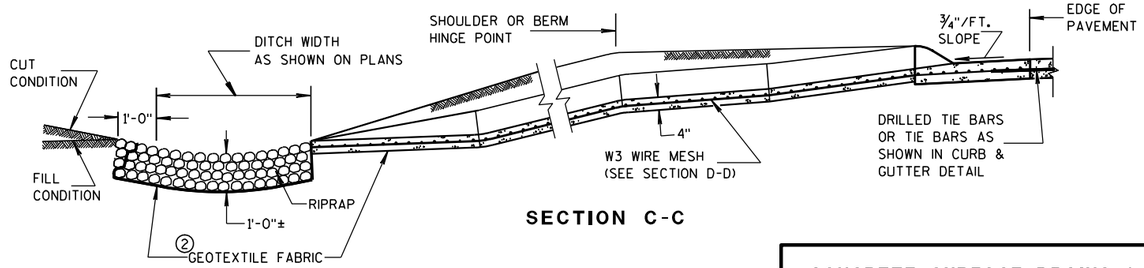
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

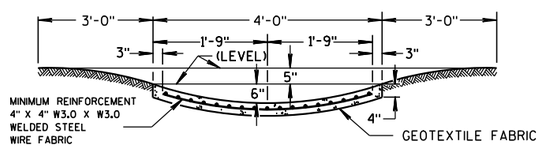
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

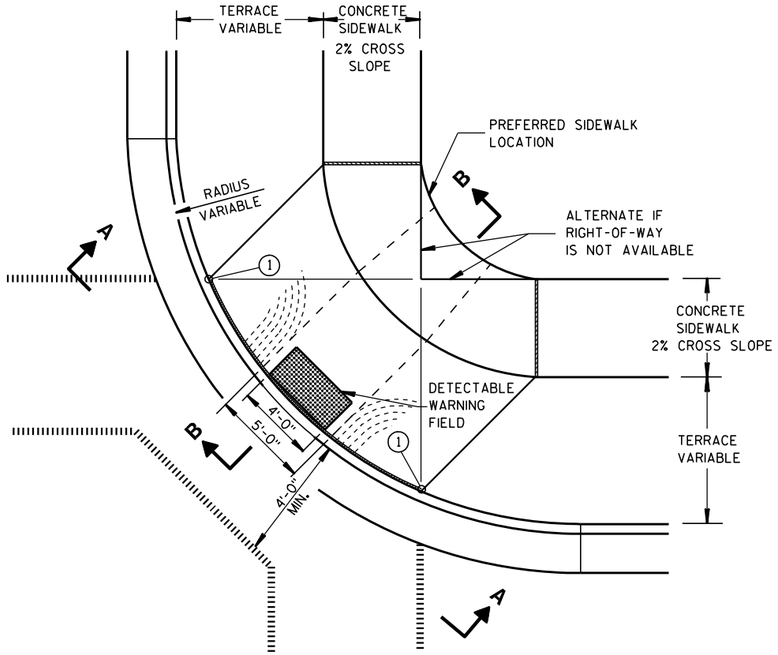
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
87
MENT
FHWA

6

S.D.D. 8 D 4-5

6

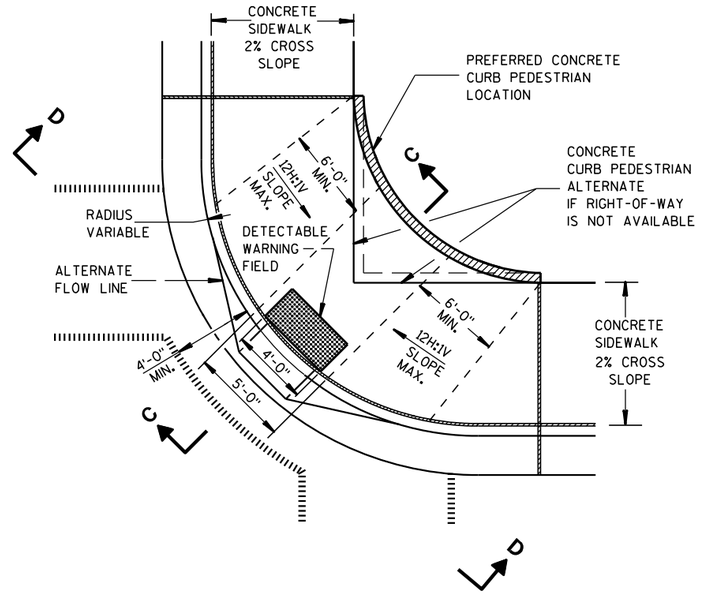
S.D.D. 8 D 4-5



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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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".

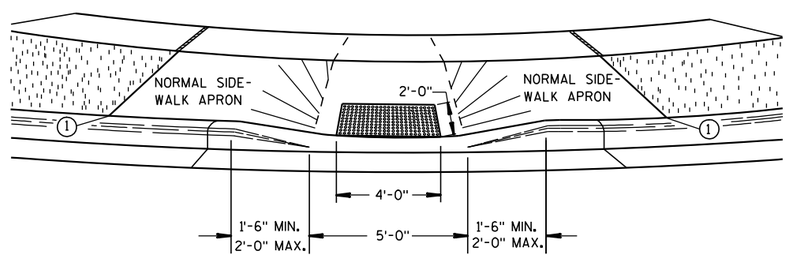
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

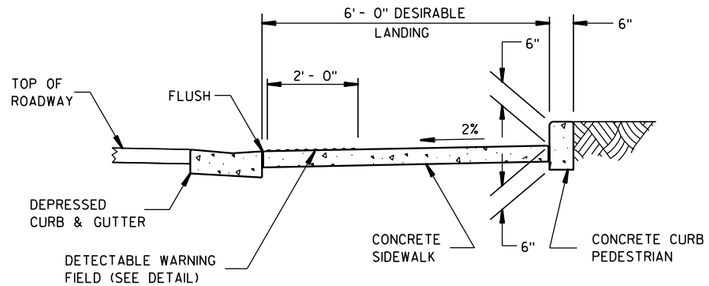
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

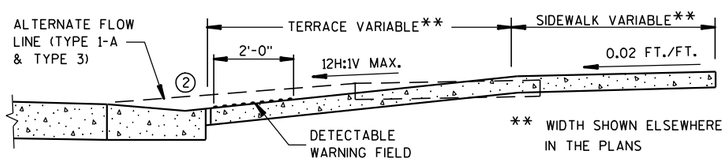
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



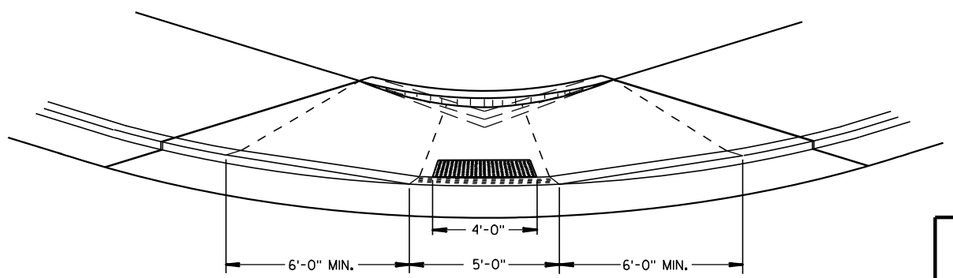
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

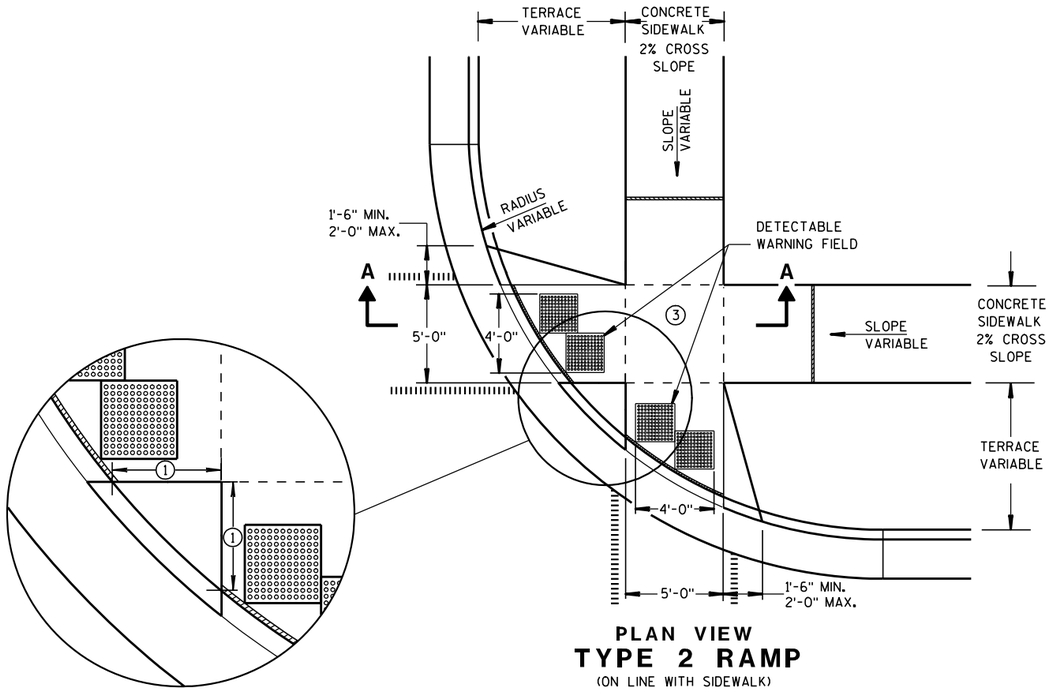
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

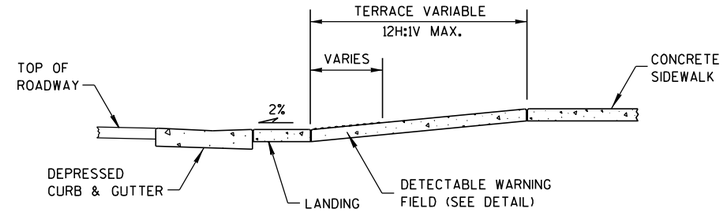
S.D.D. 8 D 5-14a

6

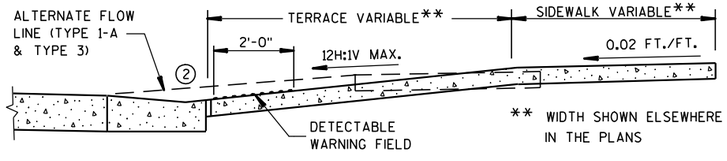
S.D.D. 8 D 5-14a



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



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.

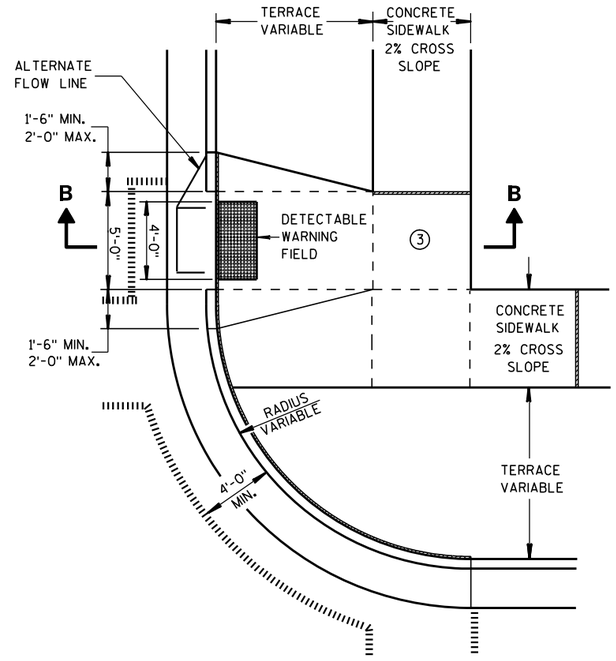
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

(3) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

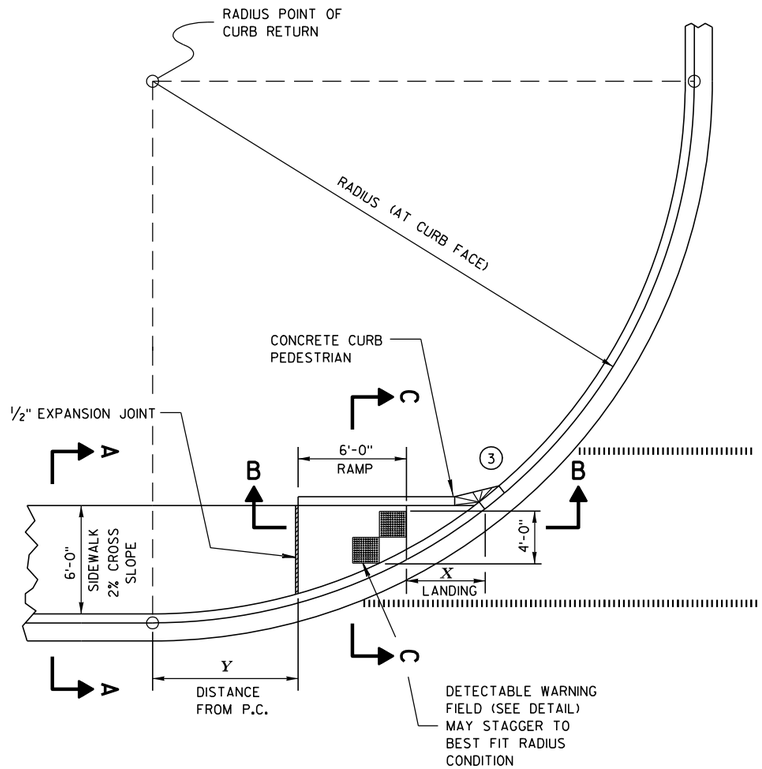


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

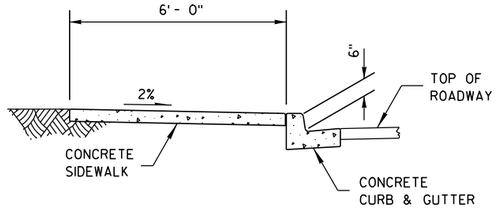
6
S.D.D. 8 D 5-14b



CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 3/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A

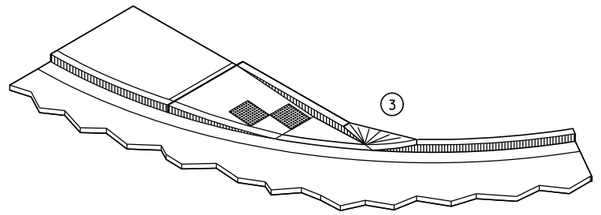
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

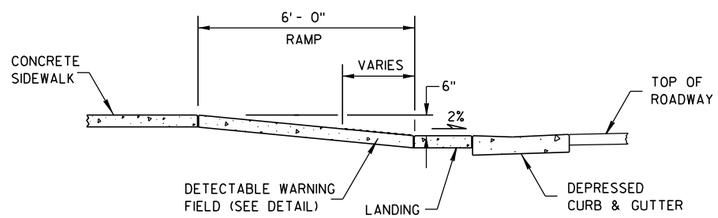
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

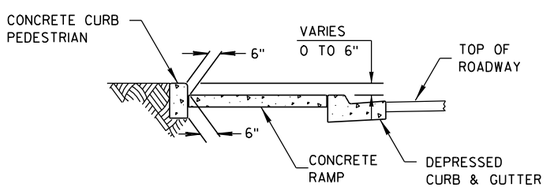
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

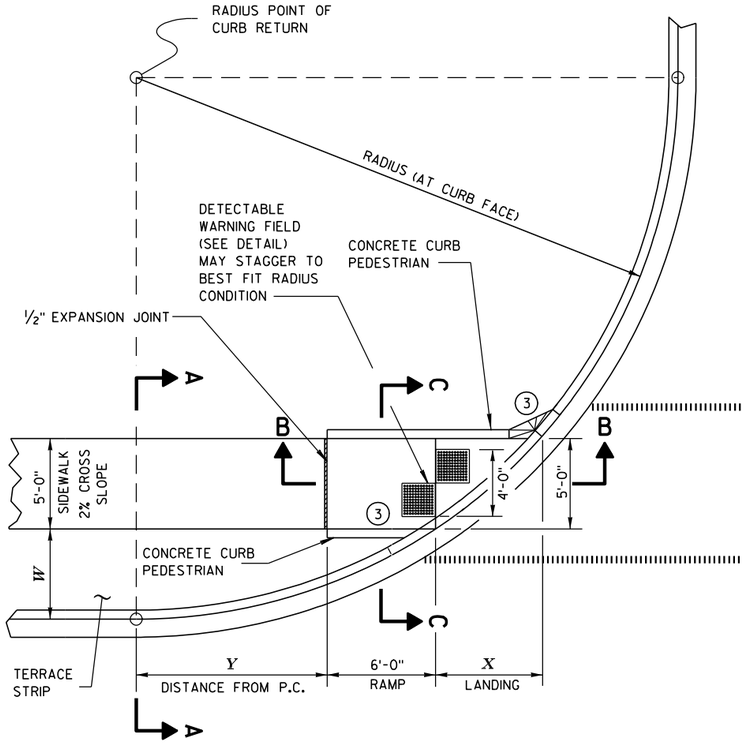
LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

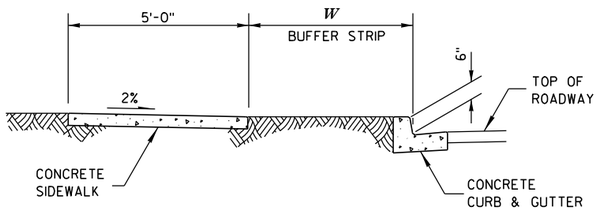
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

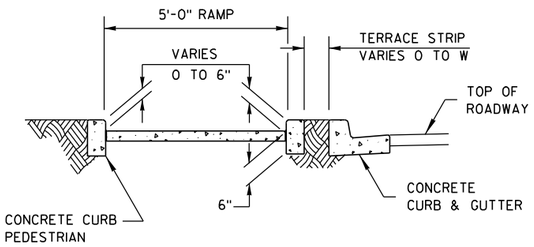
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

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"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

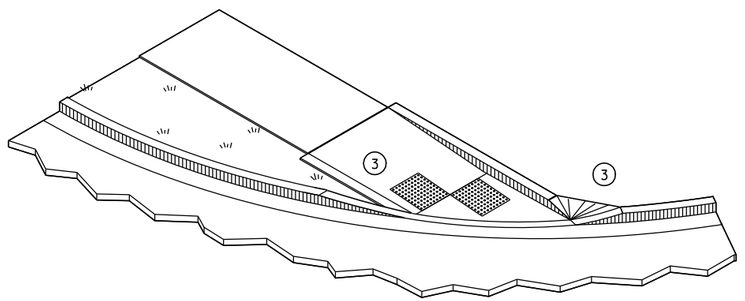
INTERMEDIATE RADII CAN BE INTERPOLATED



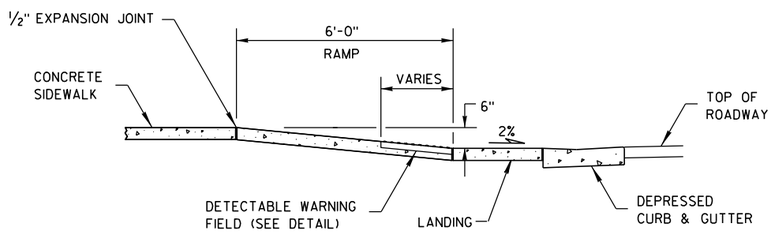
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

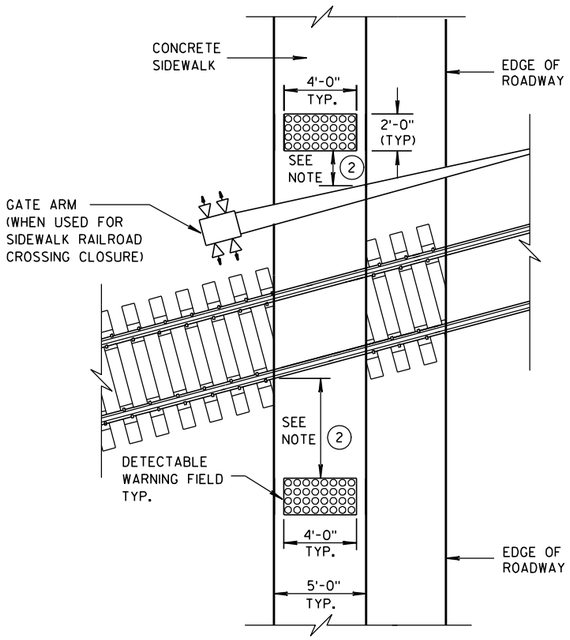
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

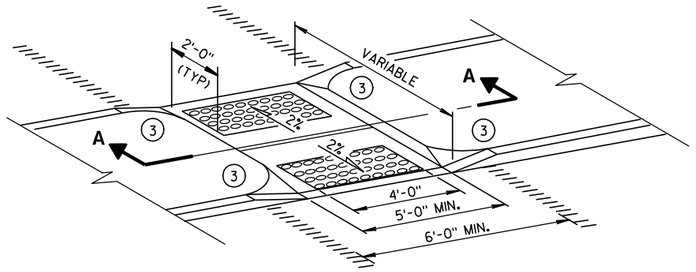
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

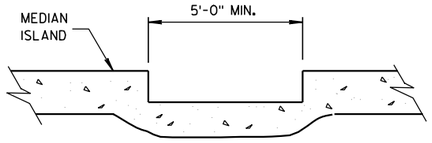
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

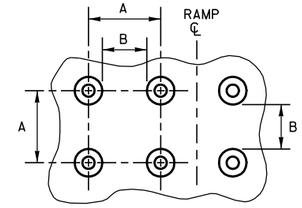
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(2) 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.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

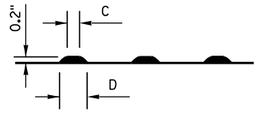
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

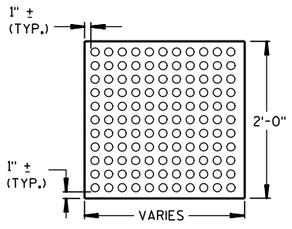
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



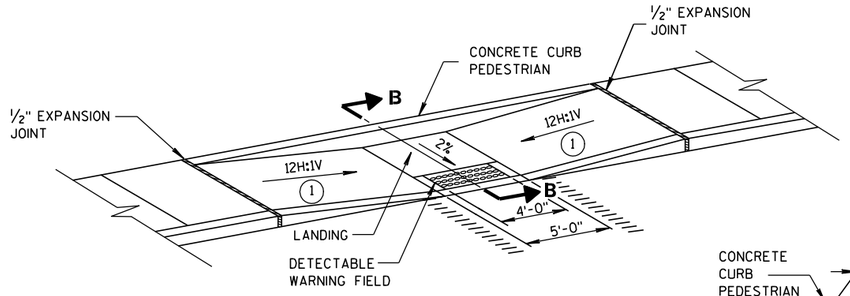
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

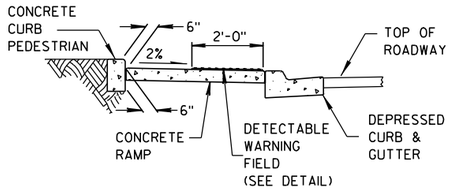


PLAN VIEW

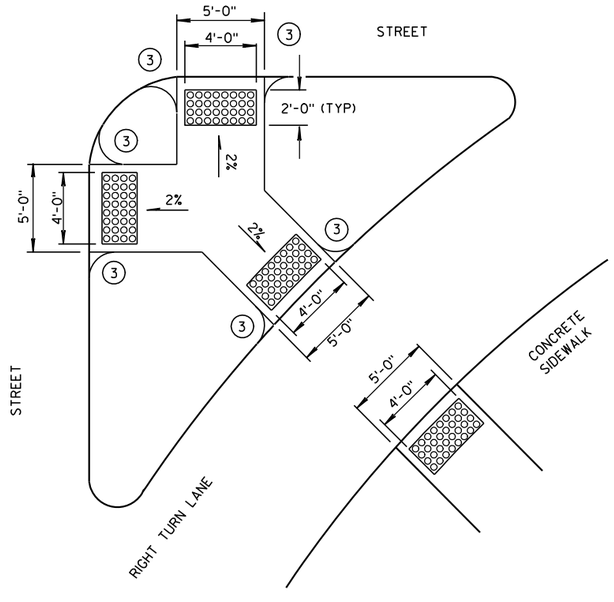
DETECTABLE WARNING FIELD (TYPICAL)



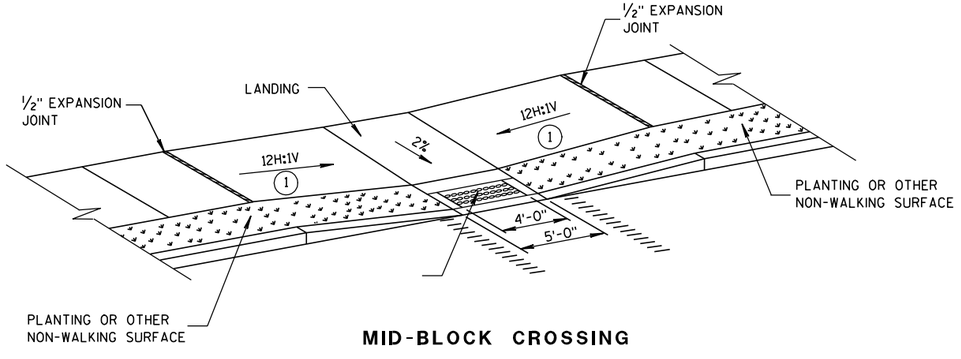
MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

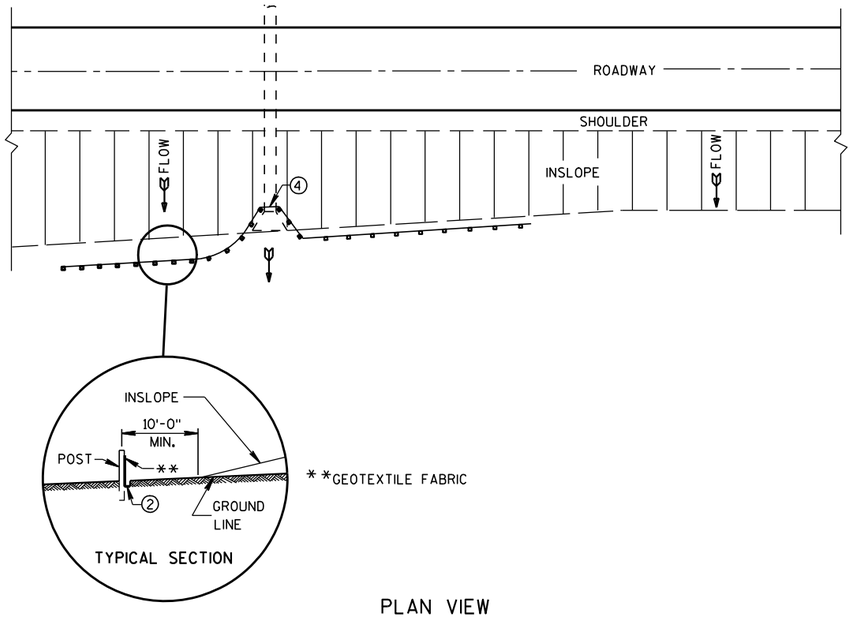
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

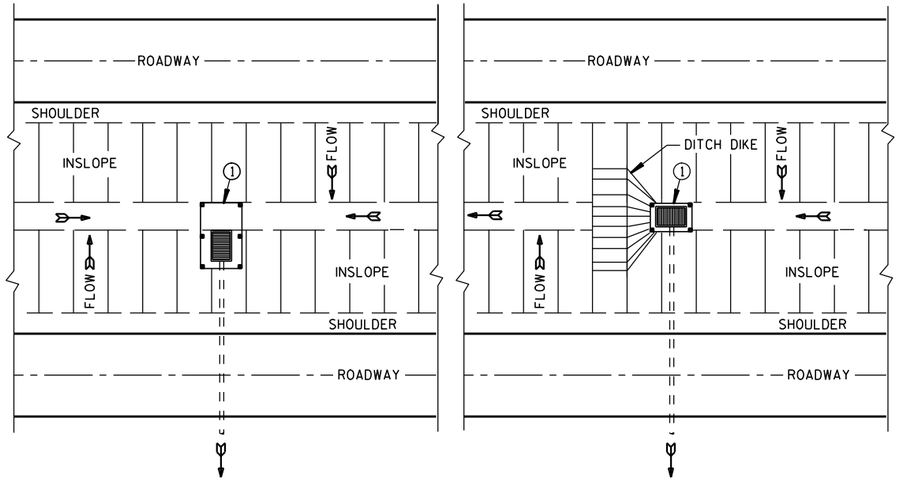
APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
92 ENT
FHWA

6
S.D.D. 8 D 5-14e



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.

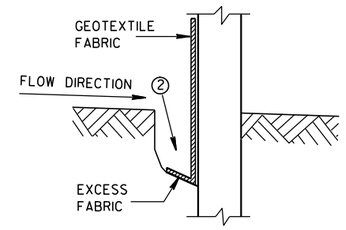
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

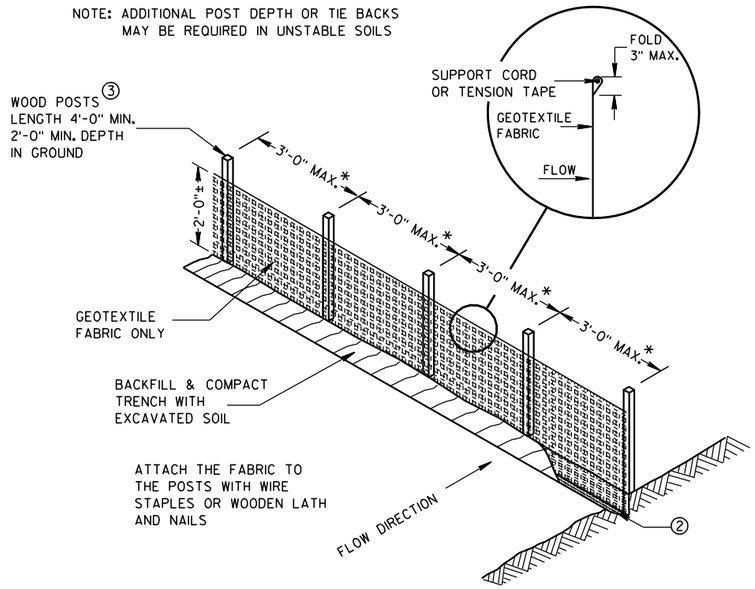
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

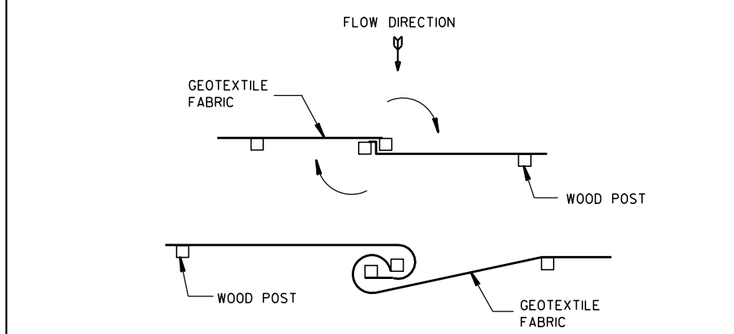
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



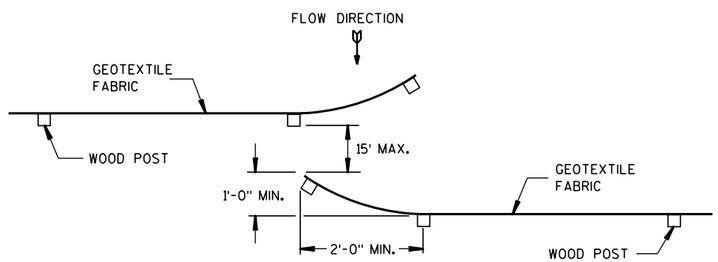
TRENCH DETAIL



SILT FENCE

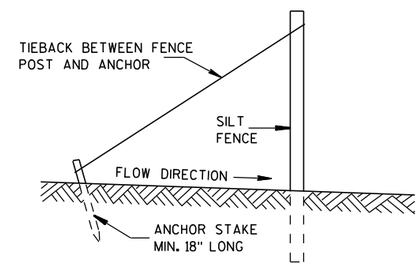


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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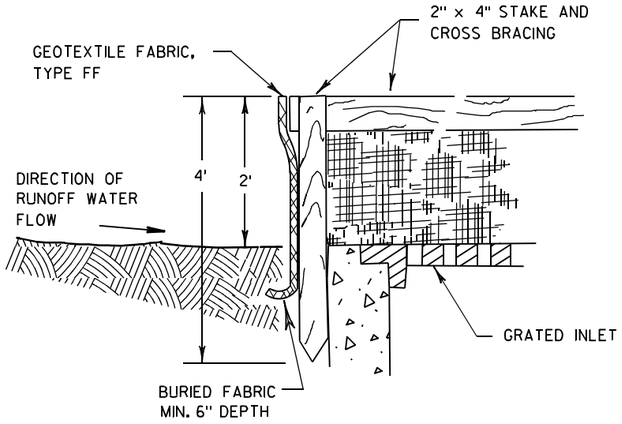
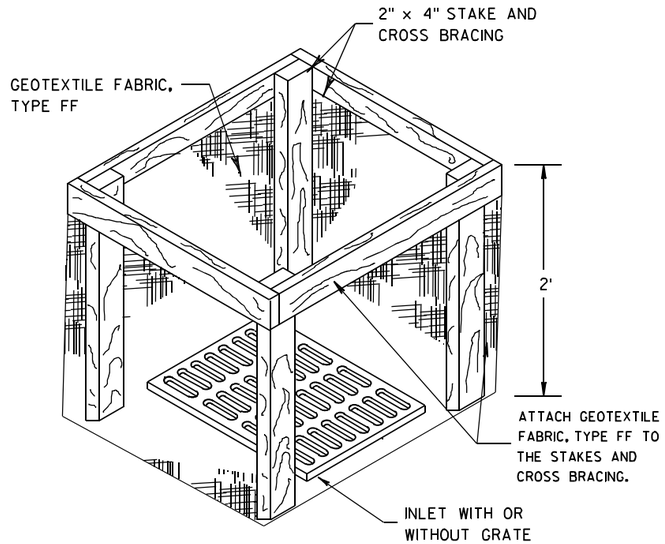
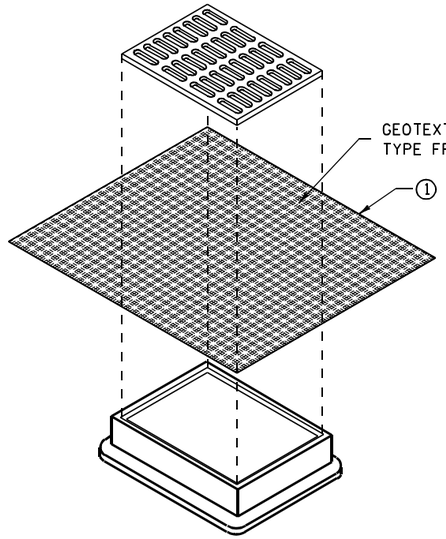


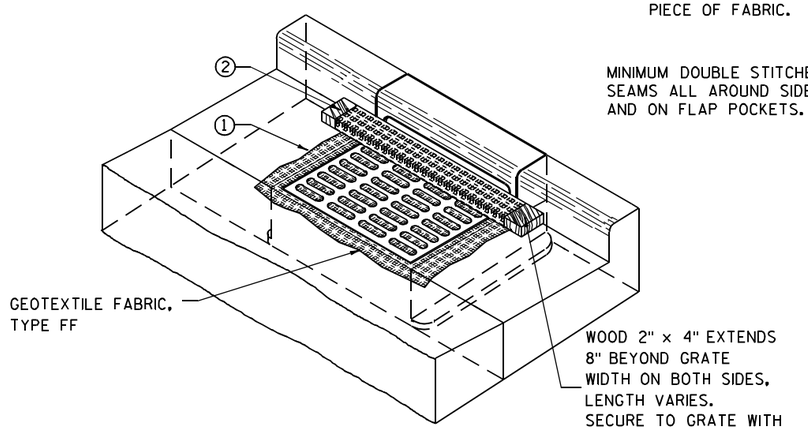


INLET PROTECTION, TYPE A

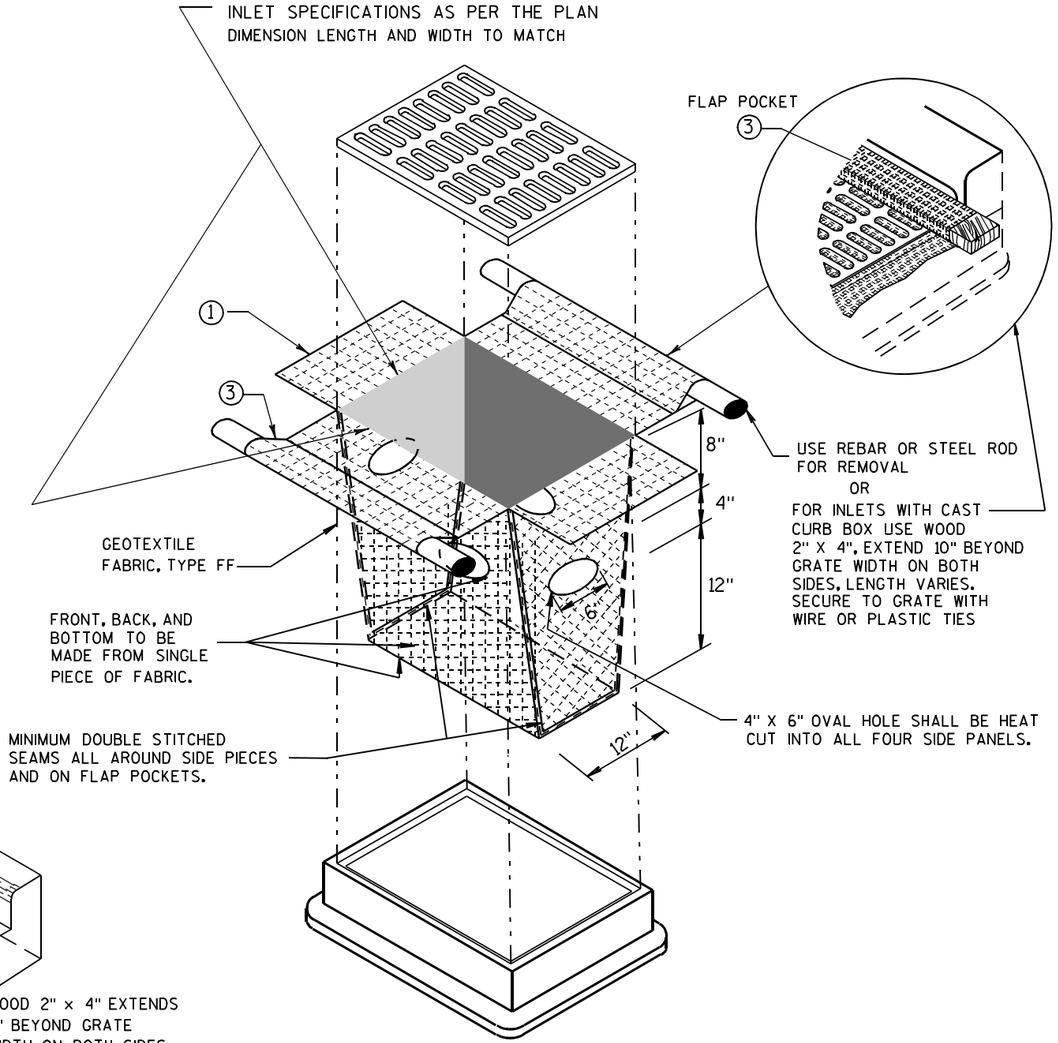


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

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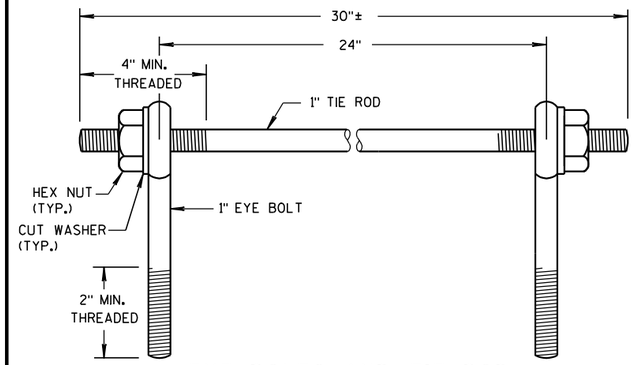
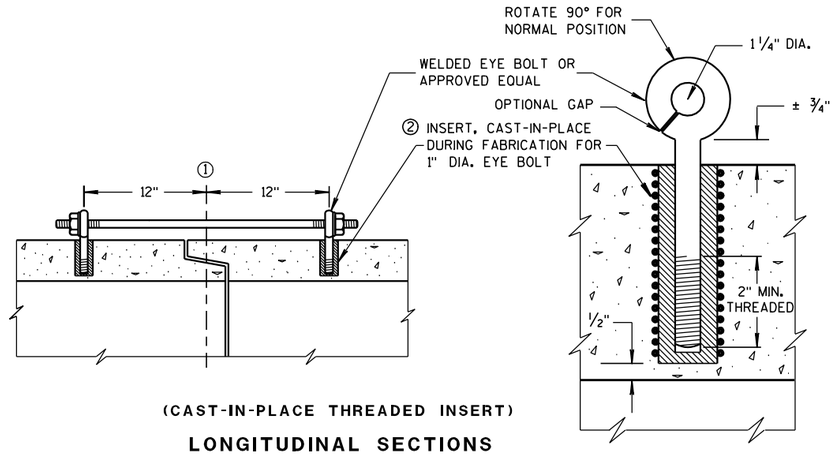
S.D.D. 8 E 10-2



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.

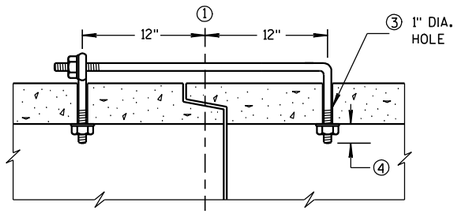
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

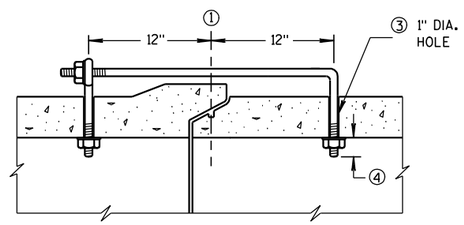
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

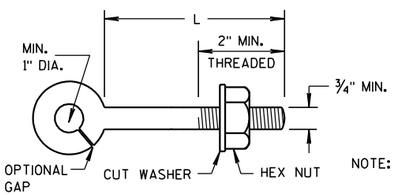


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

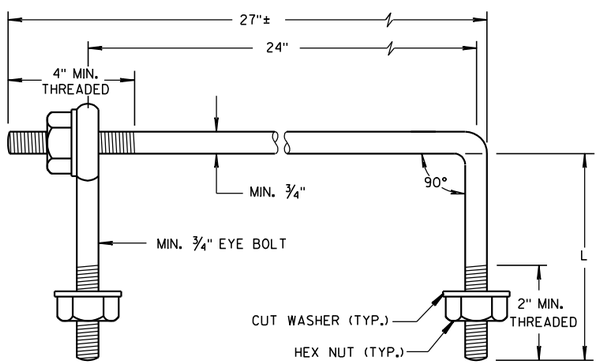
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

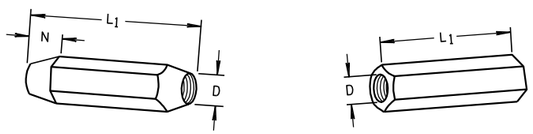
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

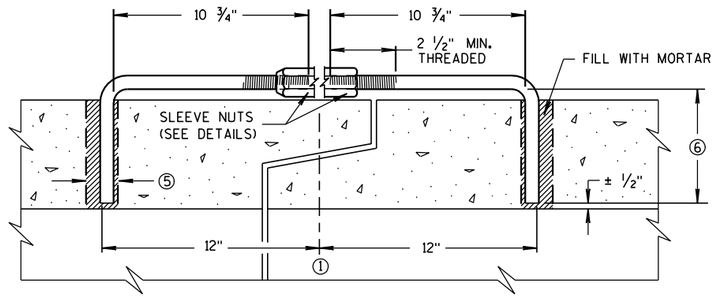
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

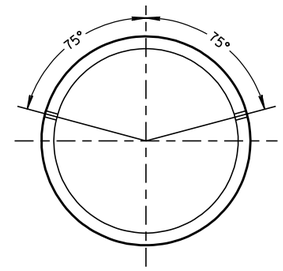
SLEEVE NUTS



LONGITUDINAL SECTION

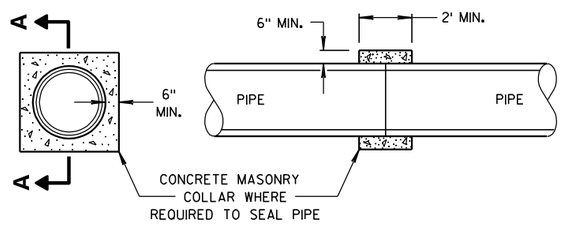
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
95 — 'MENT

FHWA

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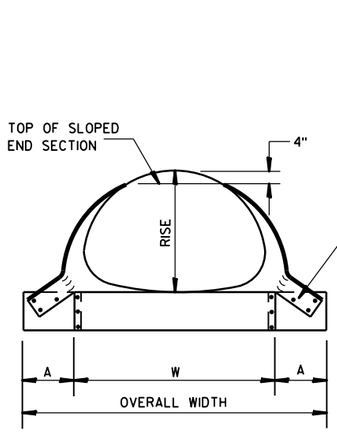
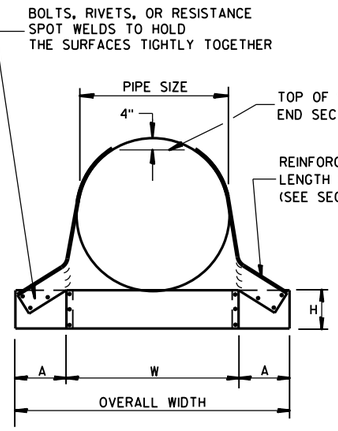
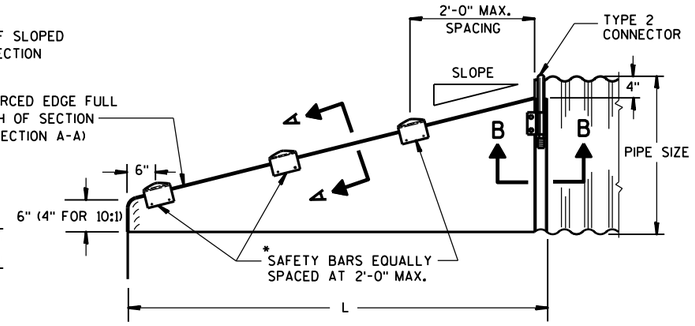


FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

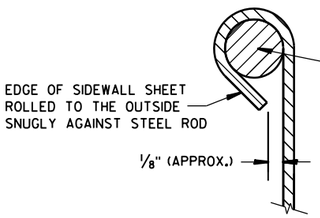
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

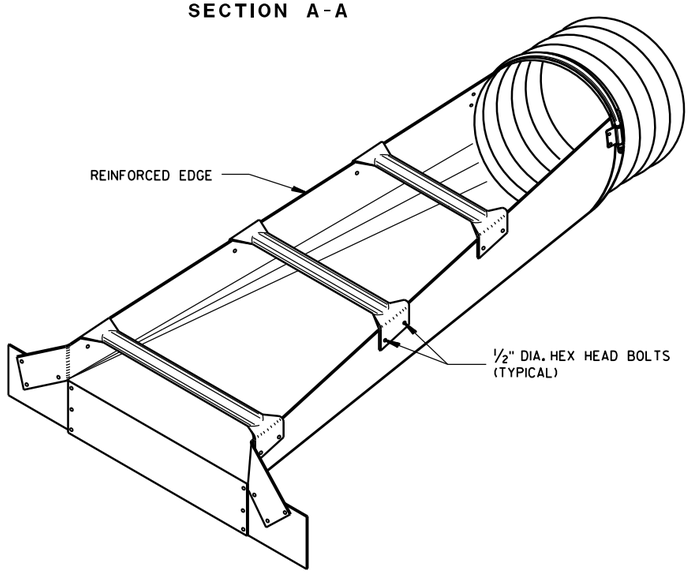
SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



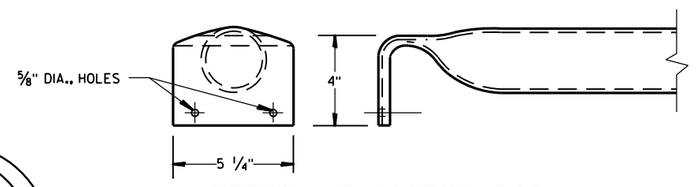
SECTION A-A



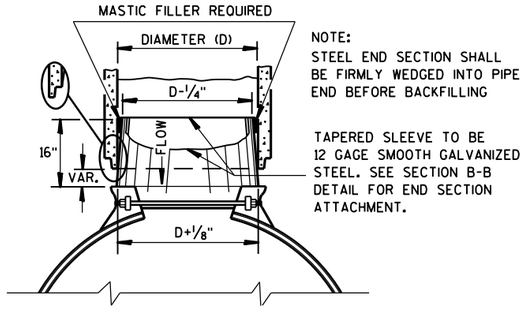
ISOMETRIC VIEW

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.



DETAIL OF SAFETY BAR

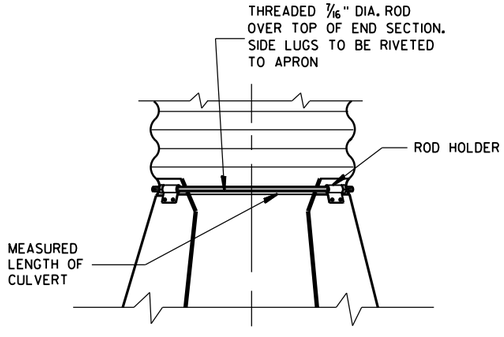


STEEL ADAPTER SLEEVE FOR CONCRETE PIPE

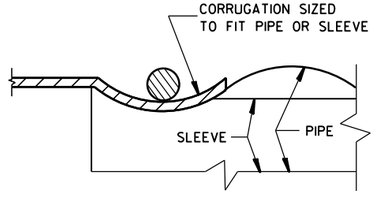
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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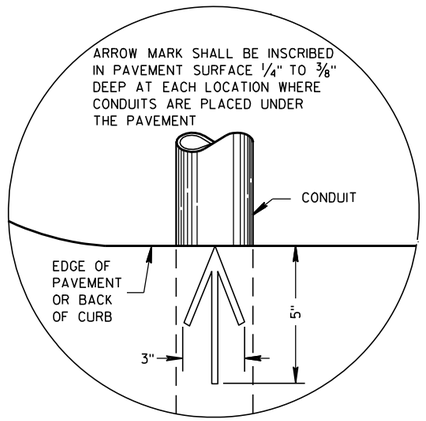
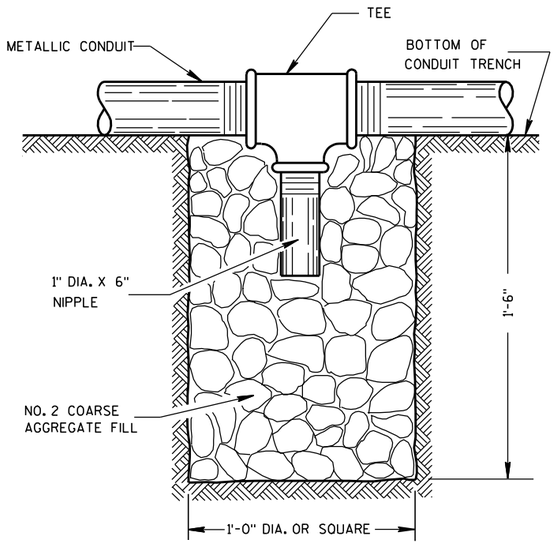
S.D.D. 8 F 7-5



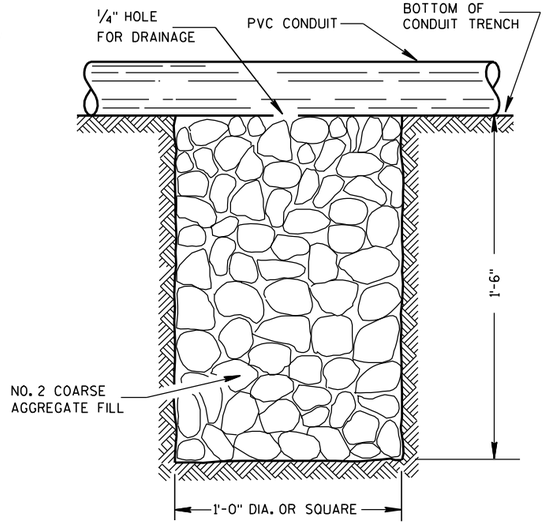
PLAN VIEW

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.

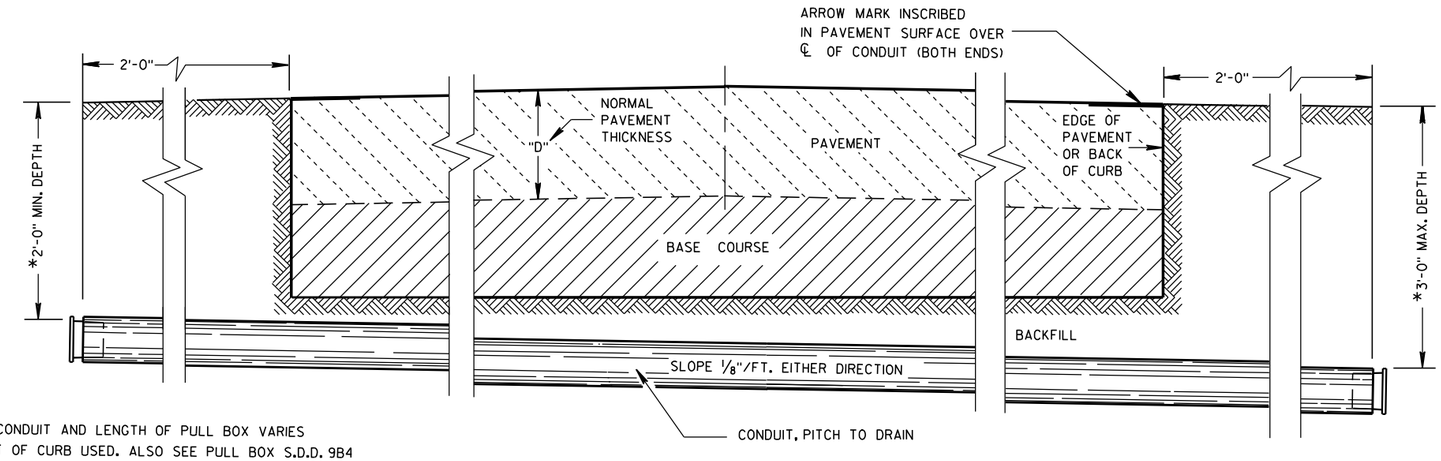
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

POLY ROPE OR A PULL 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

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

97 HWYS

FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

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

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

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

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. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

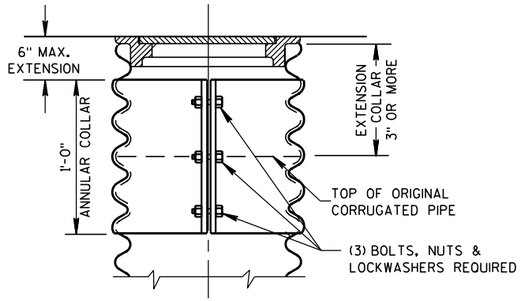
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

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

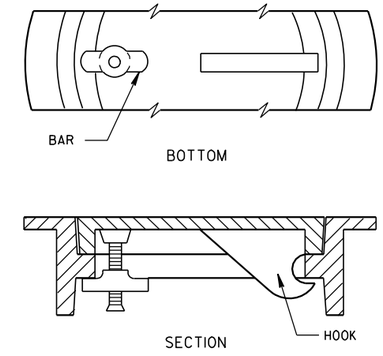
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

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.

IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.

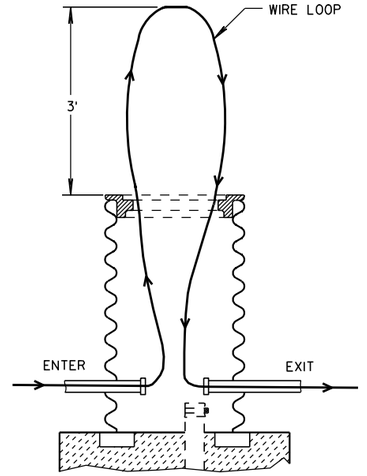


CORRUGATED PIPE EXTENDER

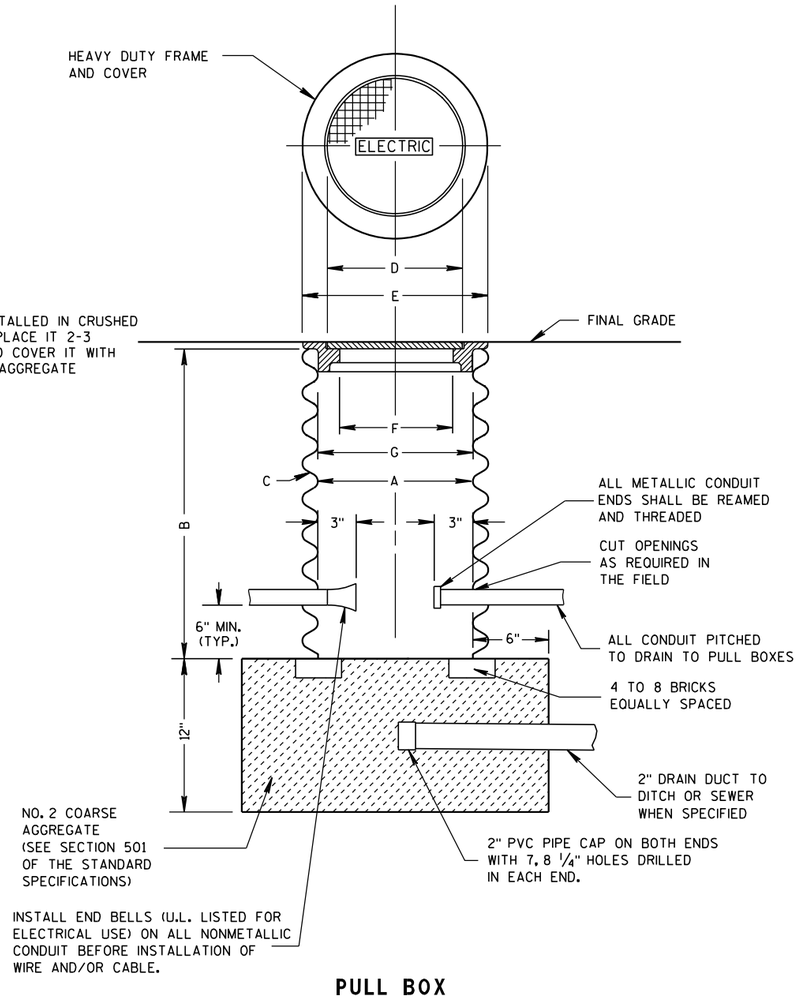


ALTERNATE COVER (LOCKING)

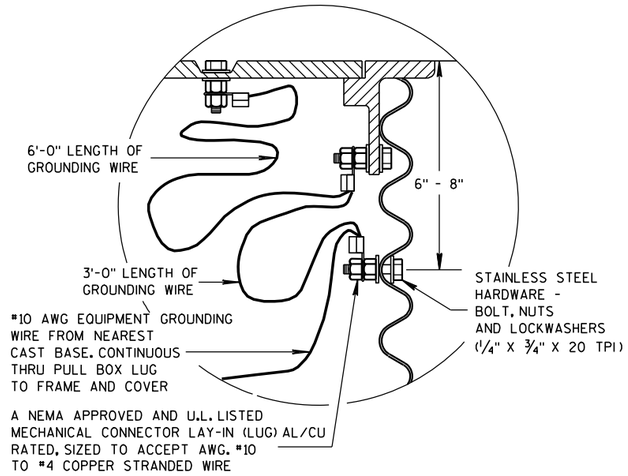
TIGHTENING BAR TYPE



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/27/06 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

HWYS

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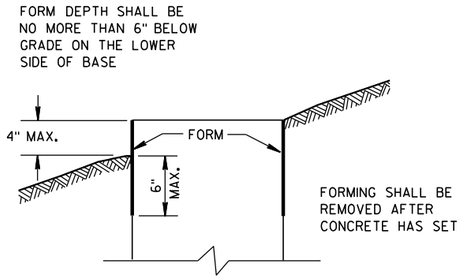


FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

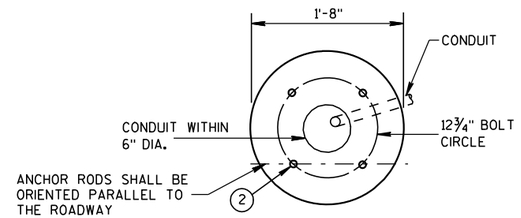
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

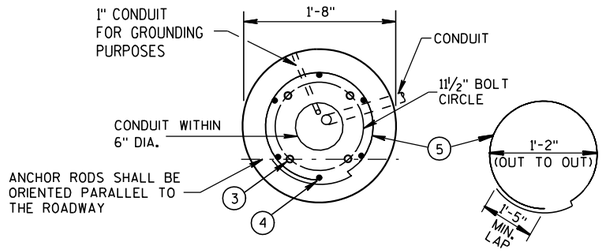
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

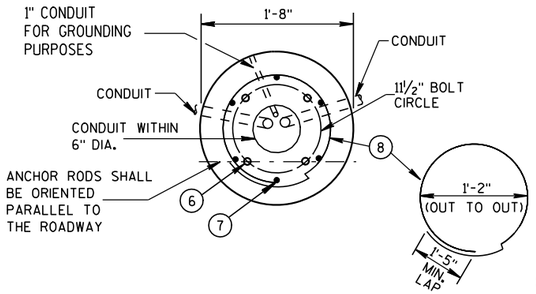
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

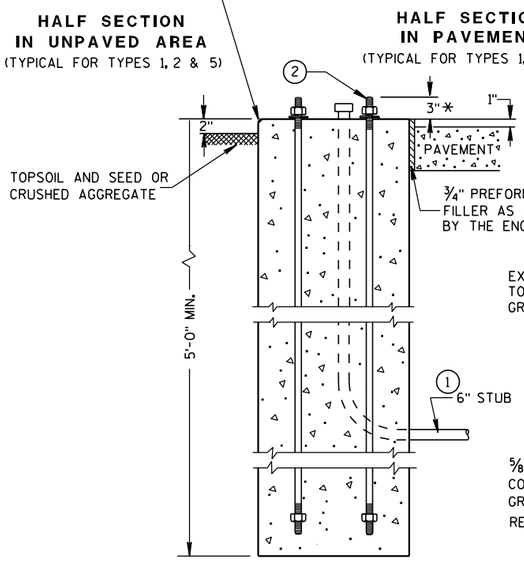






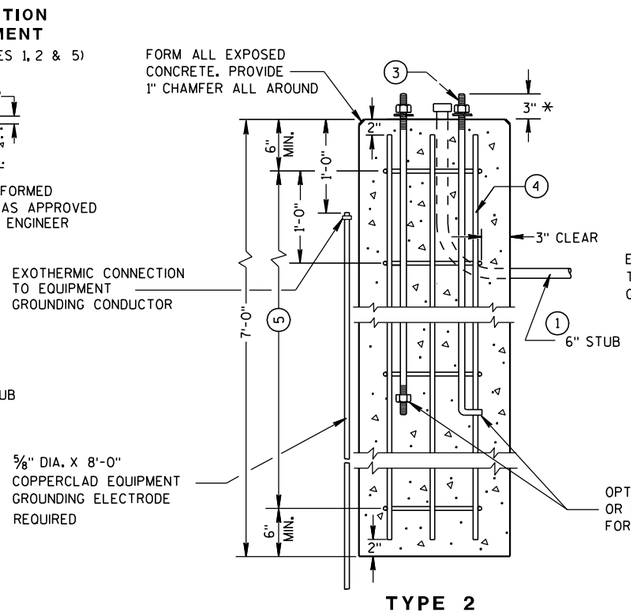
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

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

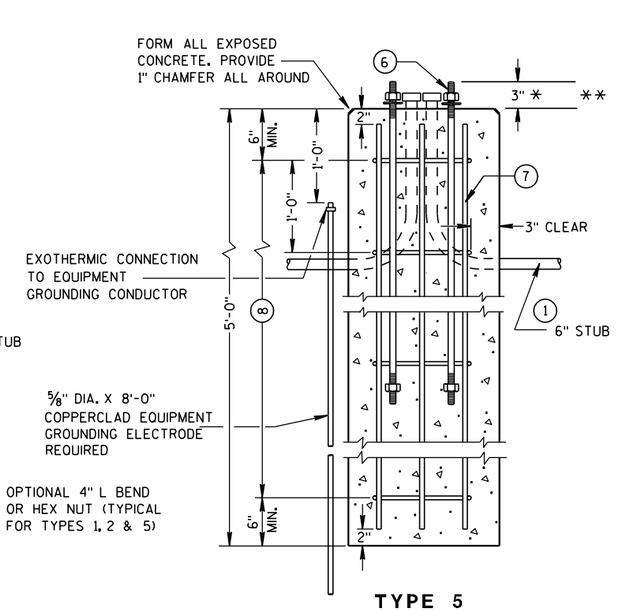


HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

TYPE 1



TYPE 2



TYPE 5

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
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HWYS
FHWA

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S.D.D. 9 C 2-6

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 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 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

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. CONDUIT 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.

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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL 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.

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

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

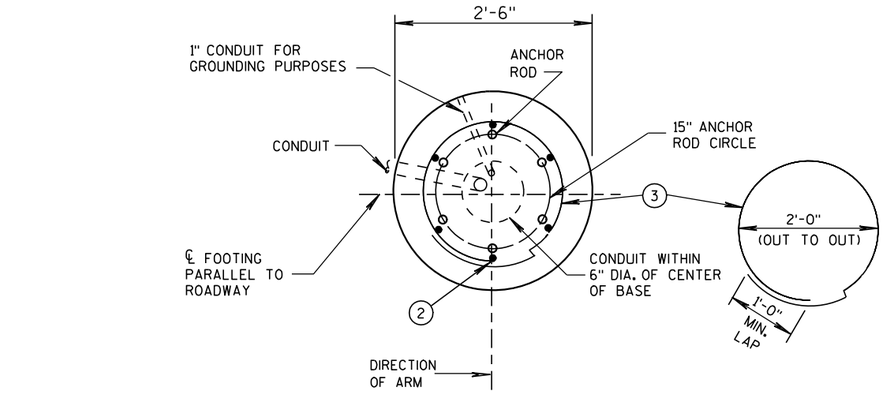
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

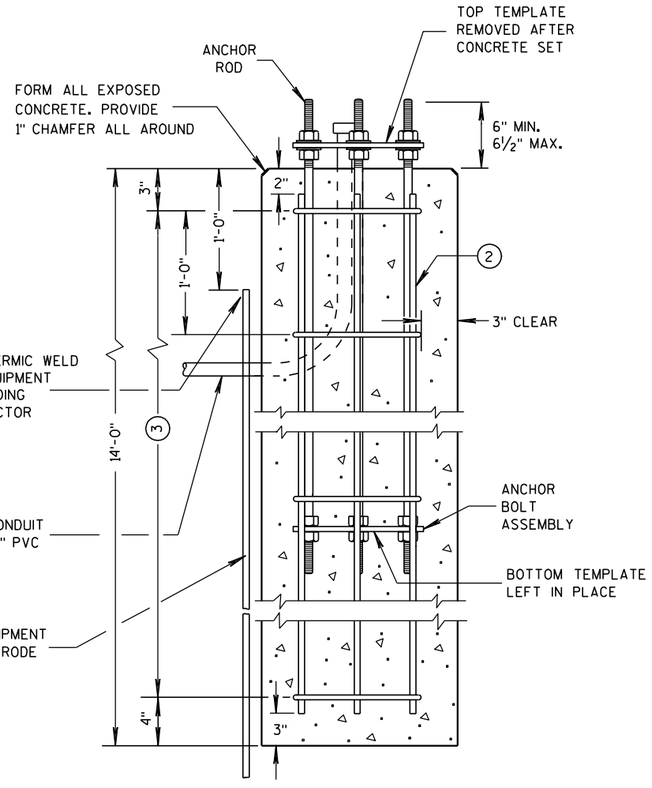
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

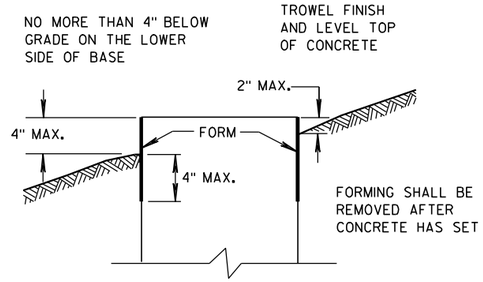
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



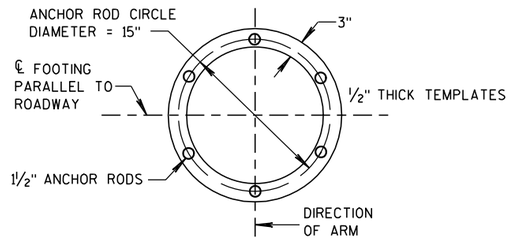


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

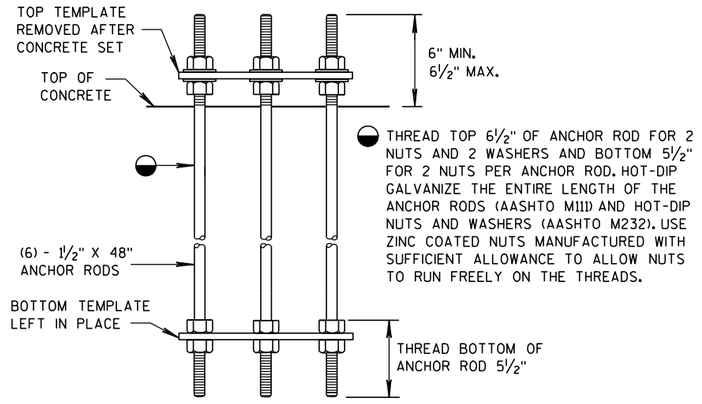
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10
ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2-11 DATE

/S/ Thomas J. Cornine STATE ELECTRICAL ENGI

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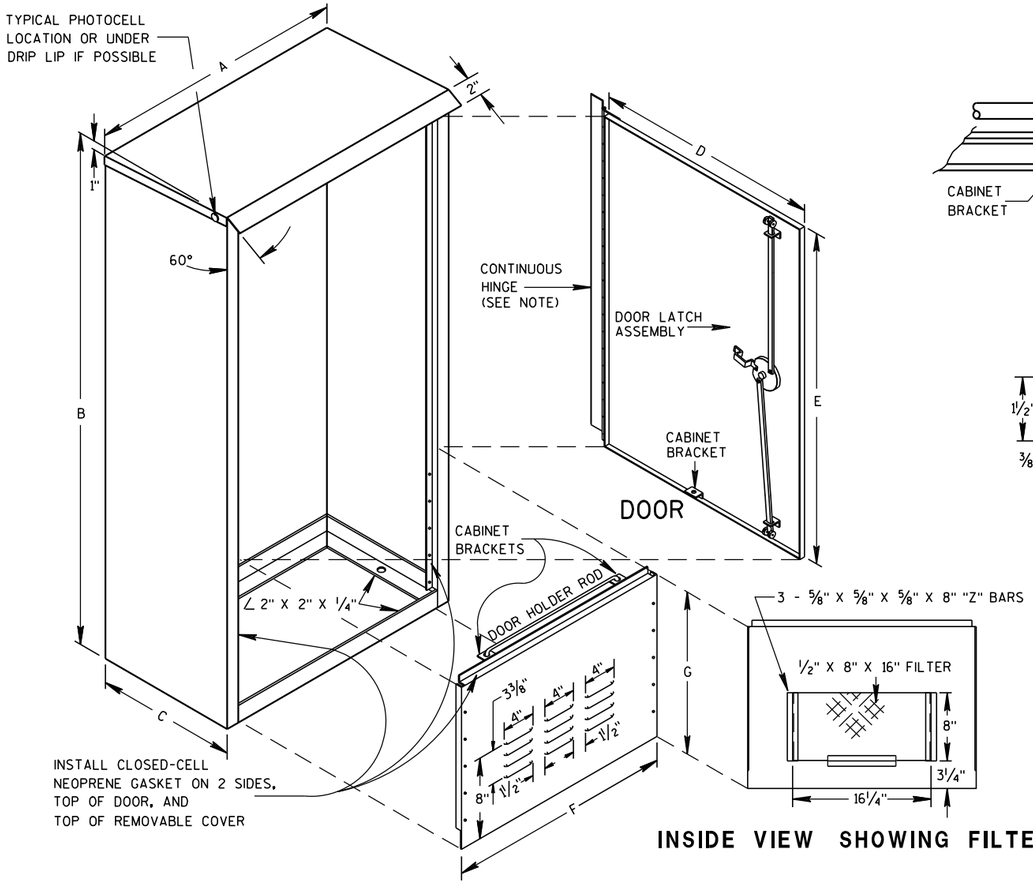
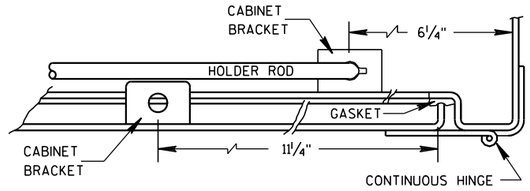
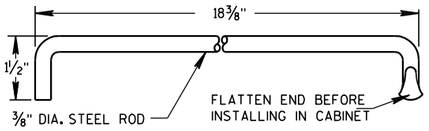


REMOVABLE COVER

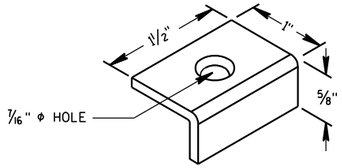
INSIDE VIEW SHOWING FILTER



HINGE & DOOR HOLDER



HOLDER ROD

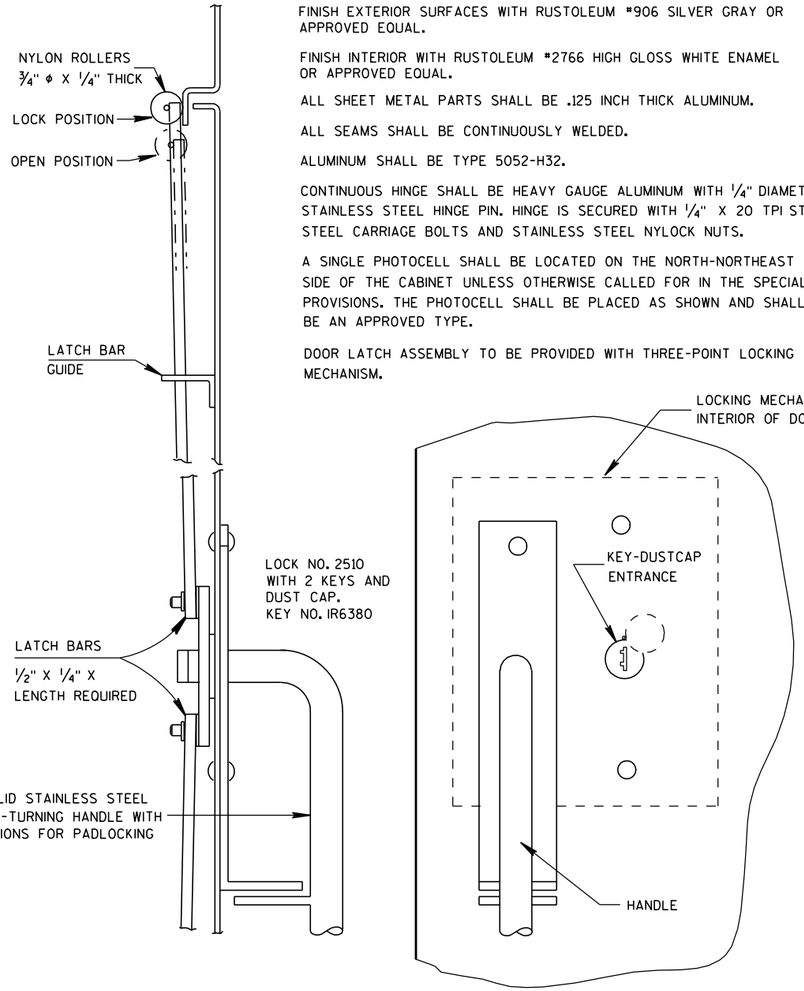


CABINET BRACKET

MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

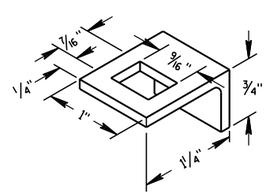
MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI — HWYS
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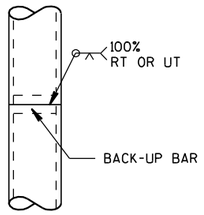
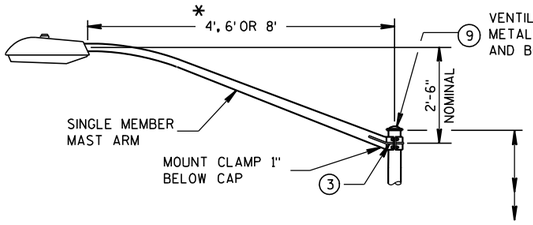
FOR MANUFACTURERS USE ONLY

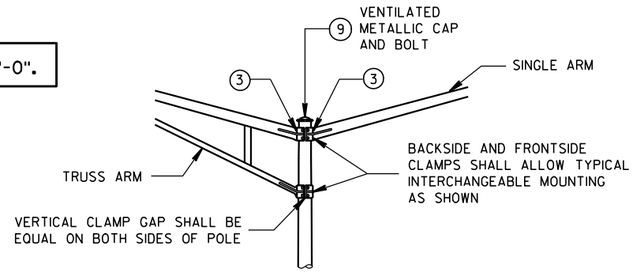
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.

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





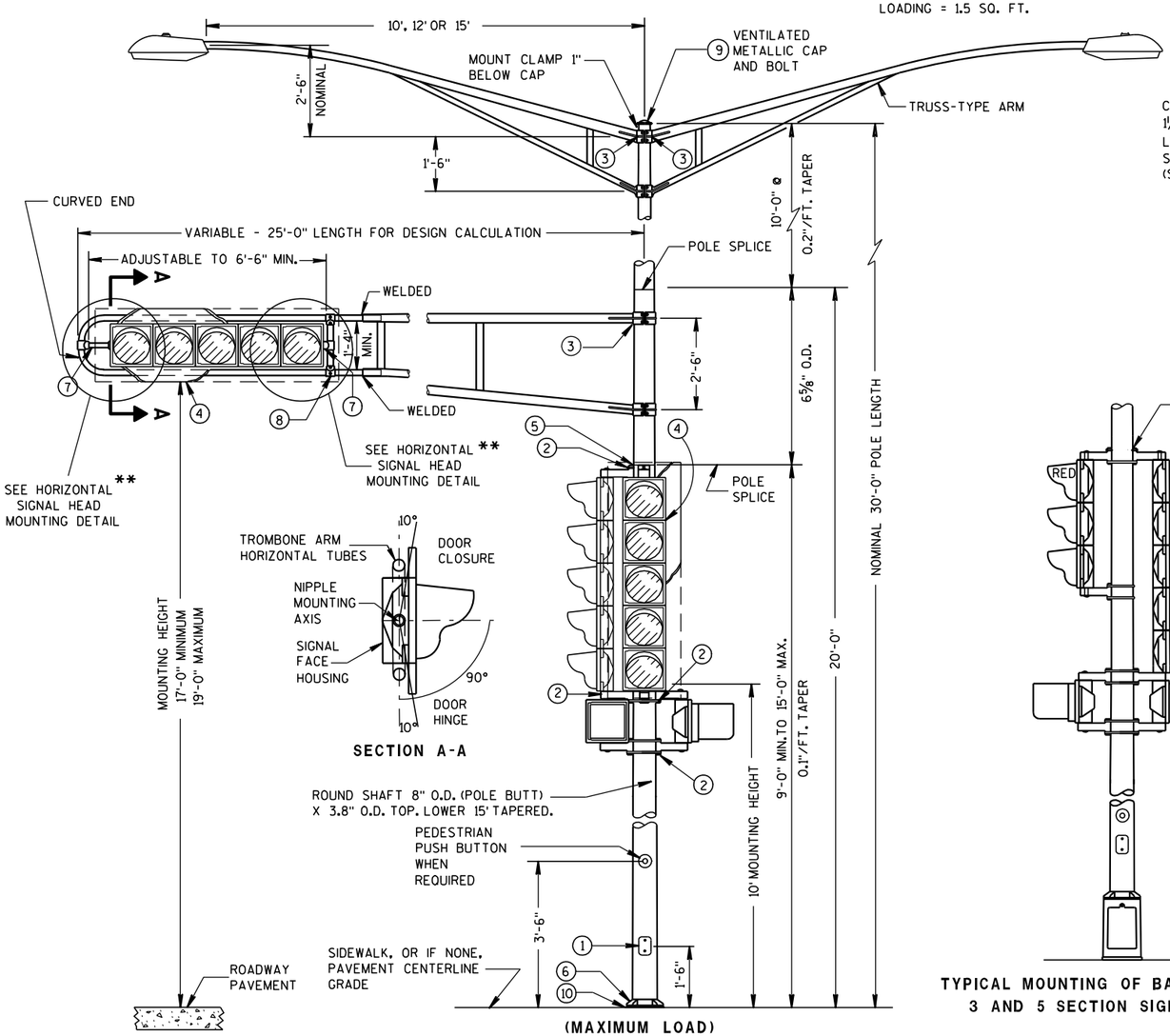
POLE SPLICE DETAIL

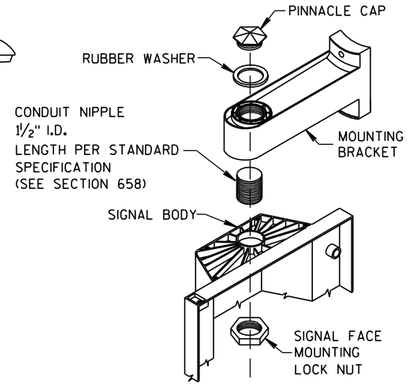


INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

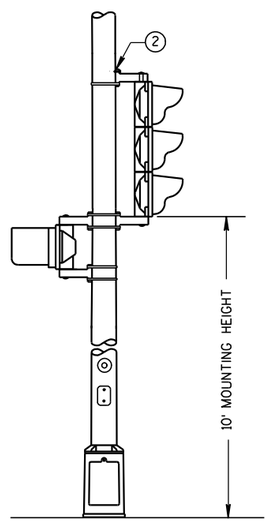
WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.





SIGNAL FACE MOUNTING DETAIL (BANDED)

TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

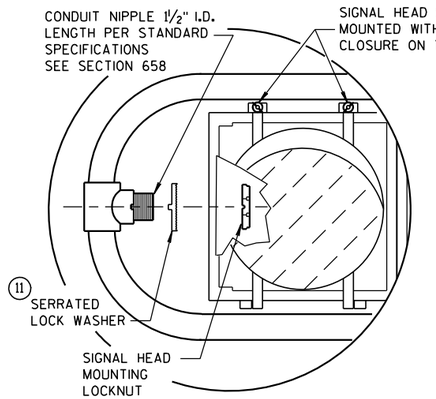
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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 FACE.
6. TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.
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 (1/4 " X ¾" -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 POLE.
11. USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

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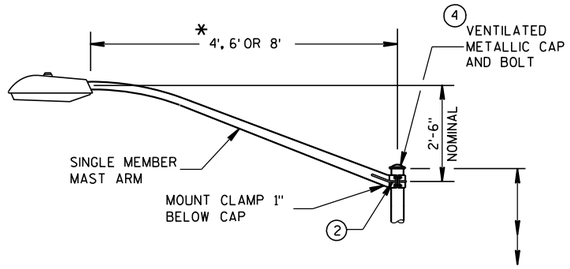
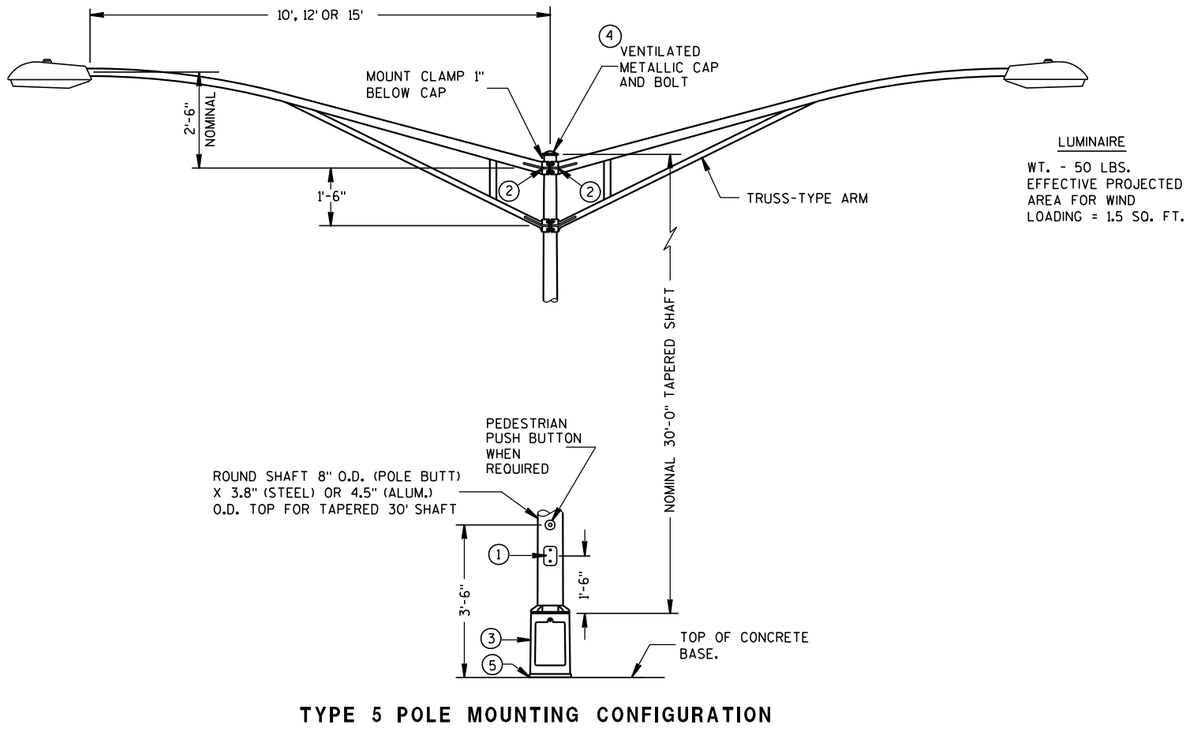
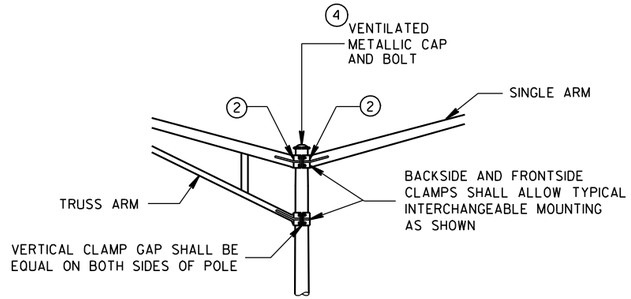
*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

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

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

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

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

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS 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. GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.
3. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
4. FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
5. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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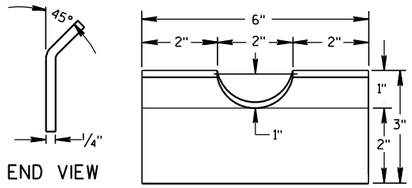
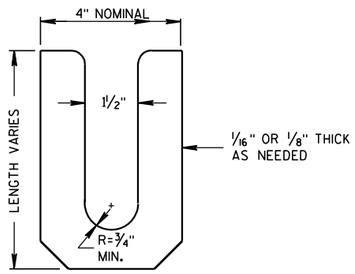


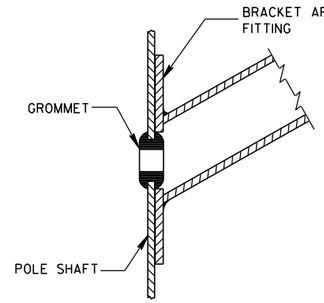
RECTANGULAR CLAMP SHIM

(4 TO A SET)

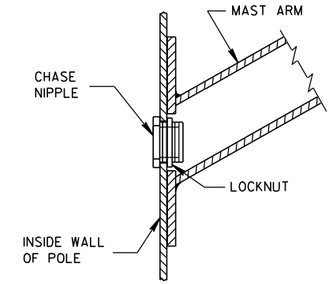


LEVELING SHIM (15)

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.) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14.) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

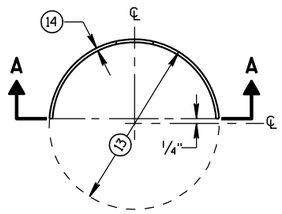
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

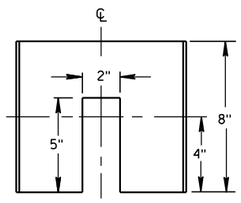
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15.) 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.



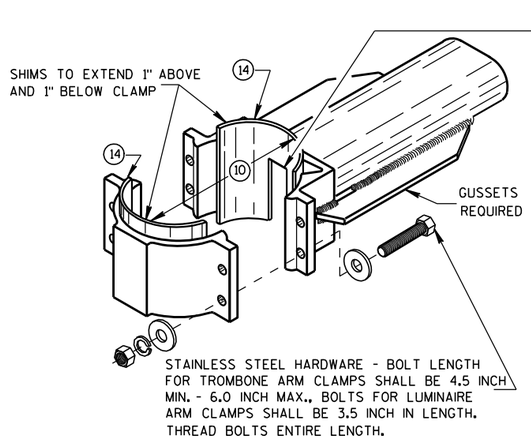
PLAN VIEW



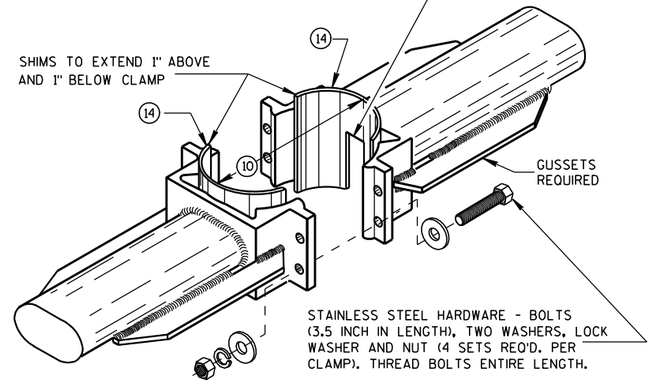
SECTION A-A

CIRCULAR CLAMP SHIM

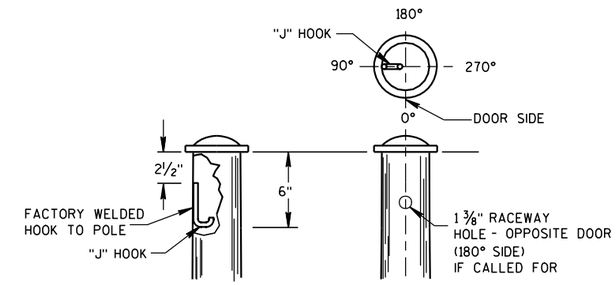
(2 TO A SET)



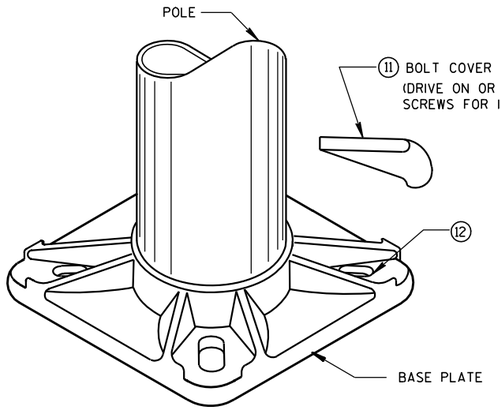
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



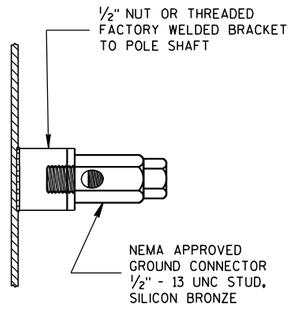
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

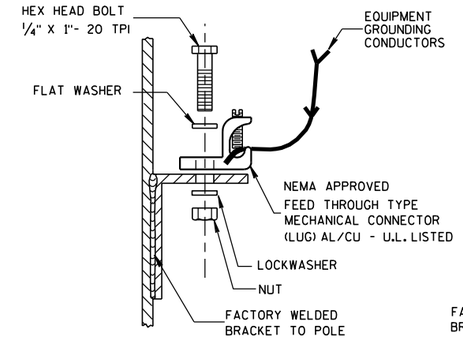


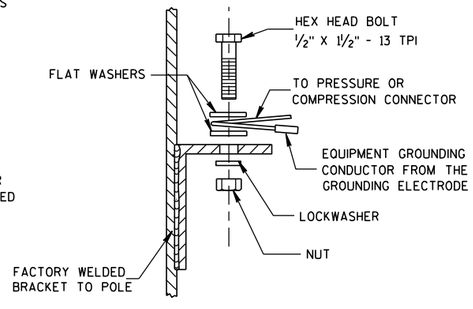
TYPICAL "J" HOOK LOCATION



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

3/2/11 — DATE

/S/ Thomas J. Goerlinger — STATE ELECTRICAL ENGI

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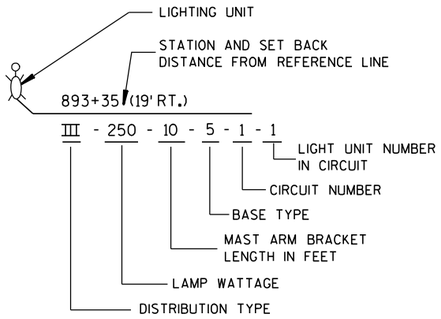
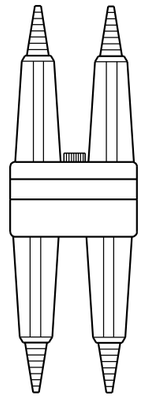
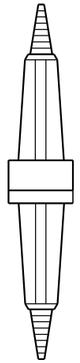


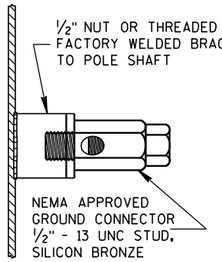
LIGHTING UNIT CODE
(TYPICAL)

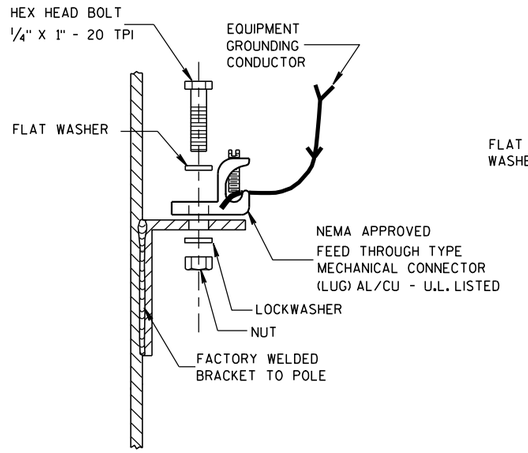


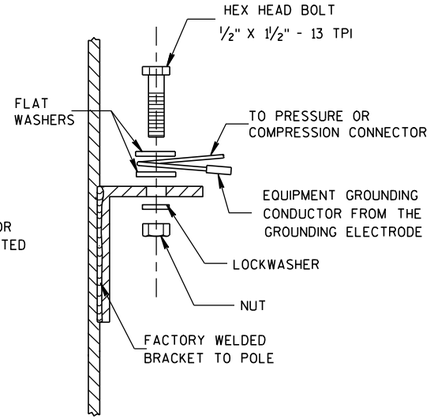
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



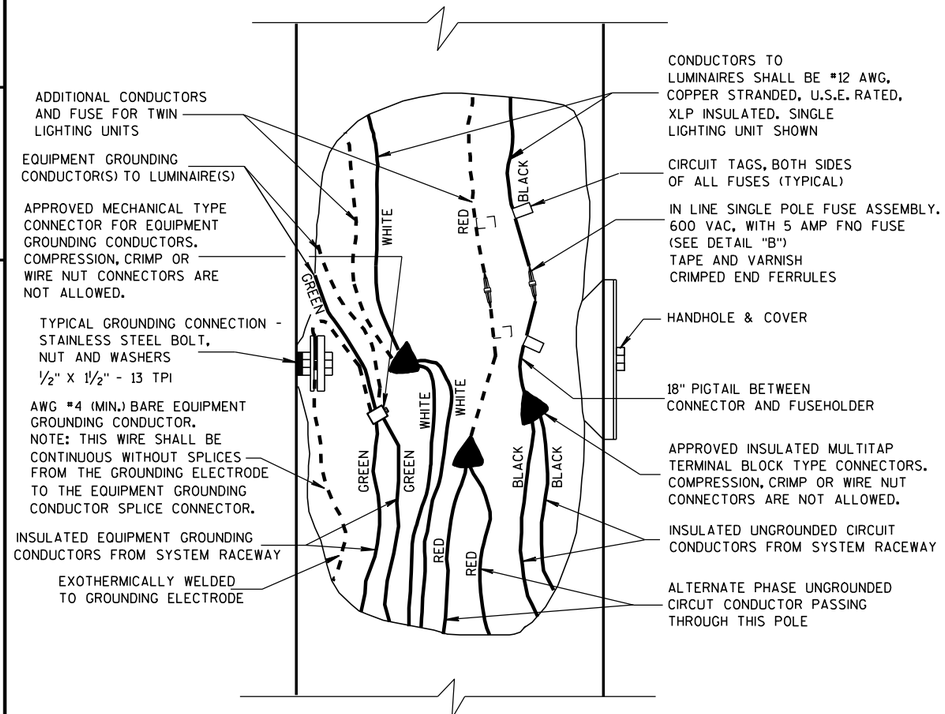
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



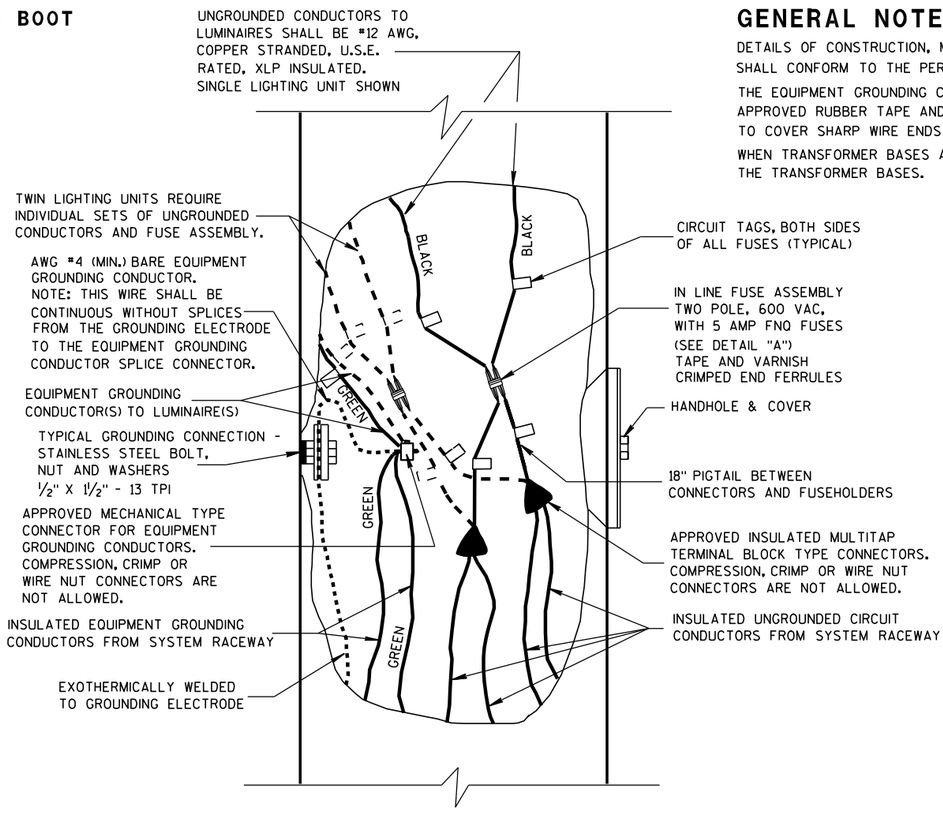




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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



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

GENERAL NOTES

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

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

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

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
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3/2/2011 — DATE

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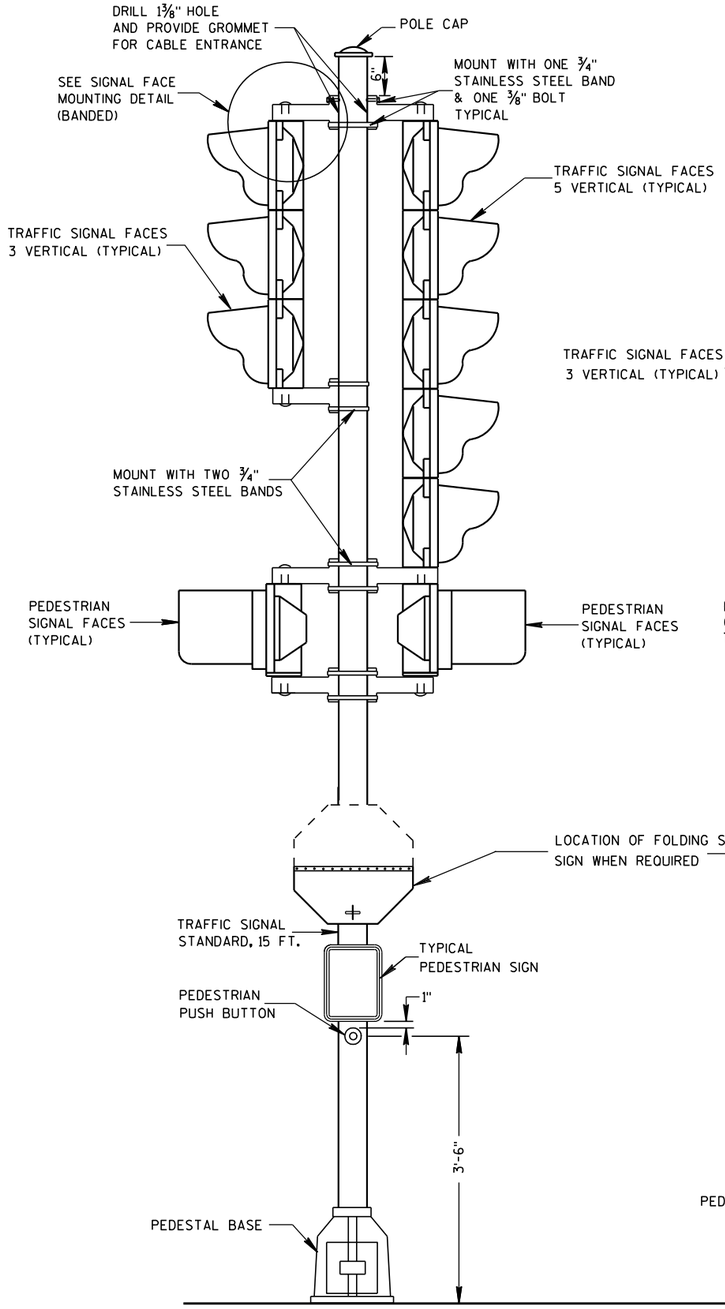
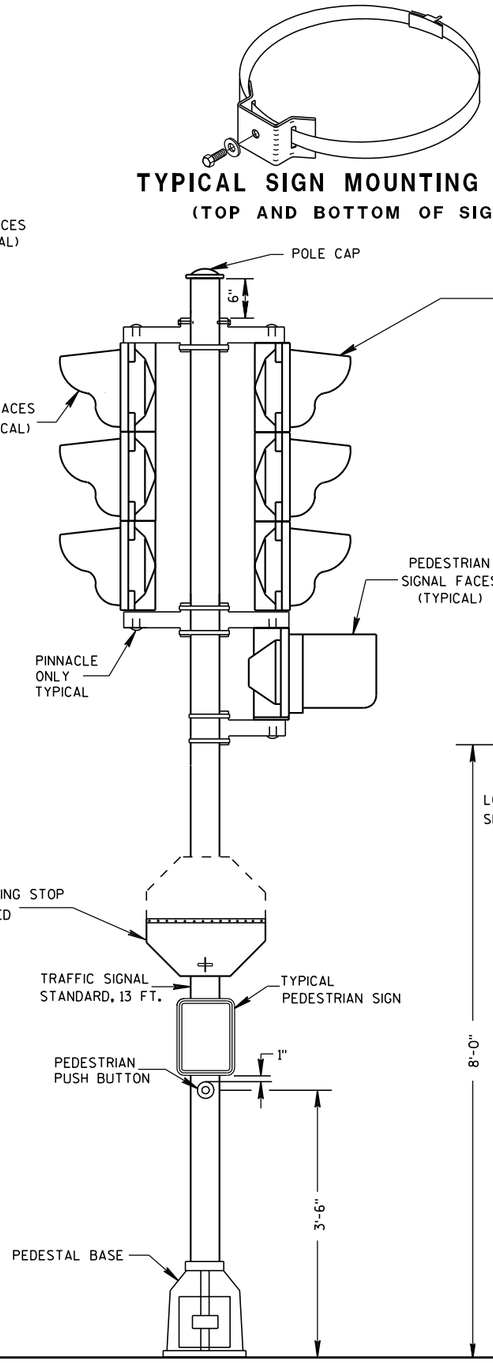
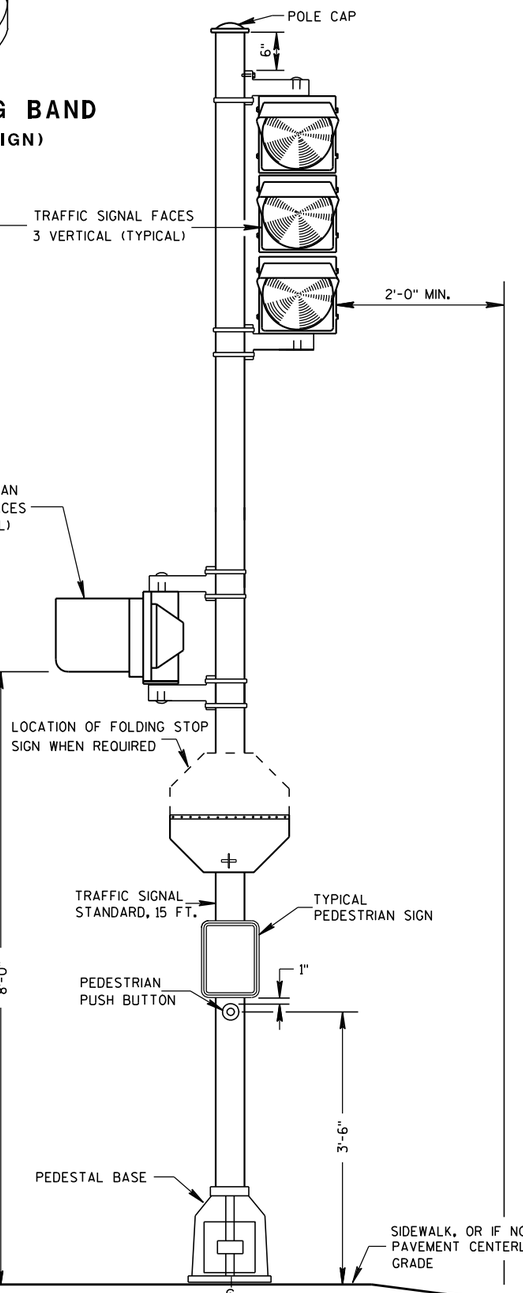


TRAFFIC SIGNAL STANDARD-15 FT.



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.

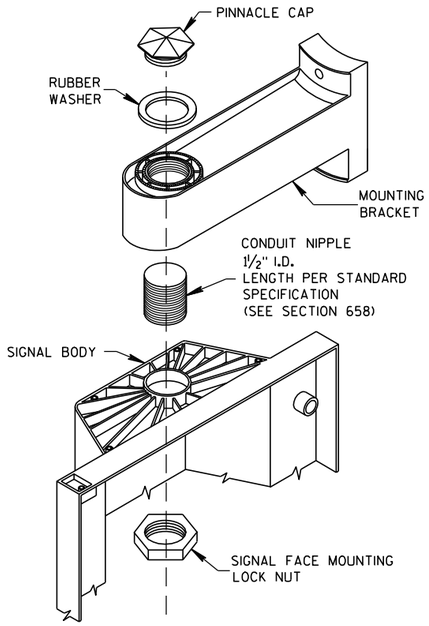
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE DISTRICT 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) 1/4" 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
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5/11/10 DATE
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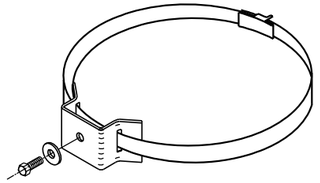
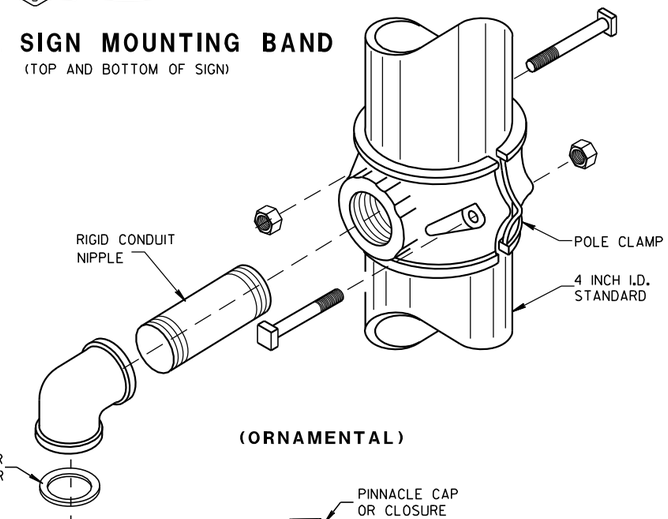


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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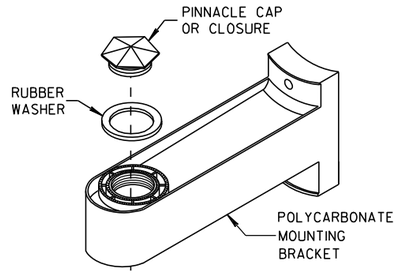

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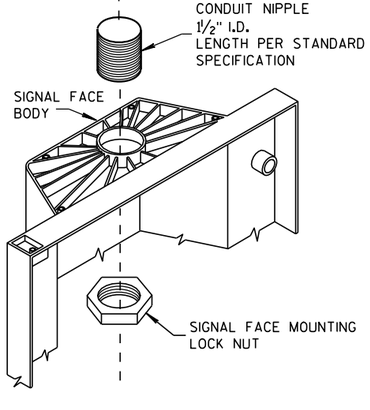
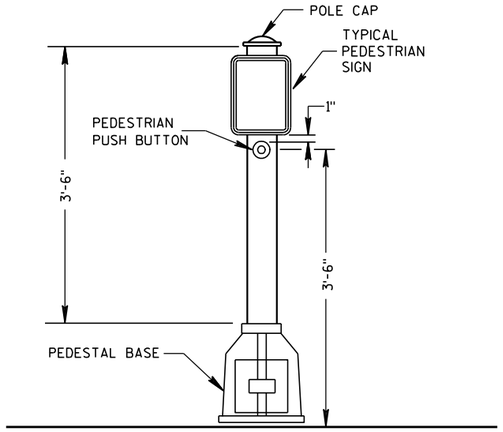


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

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.

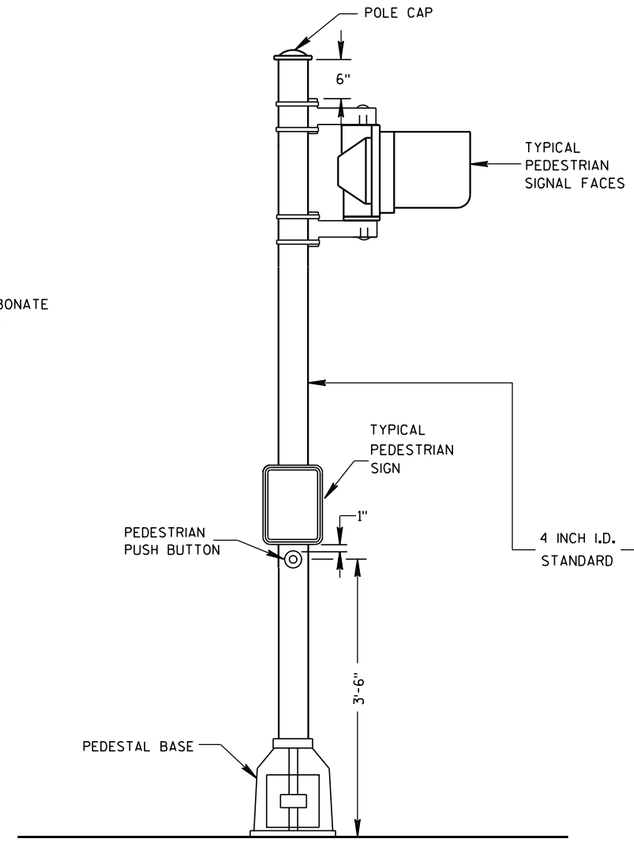
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

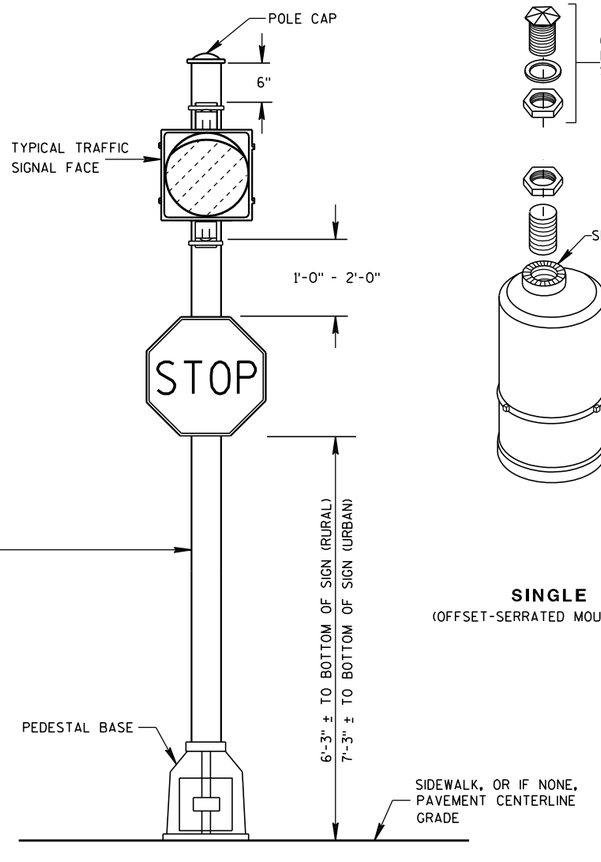
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

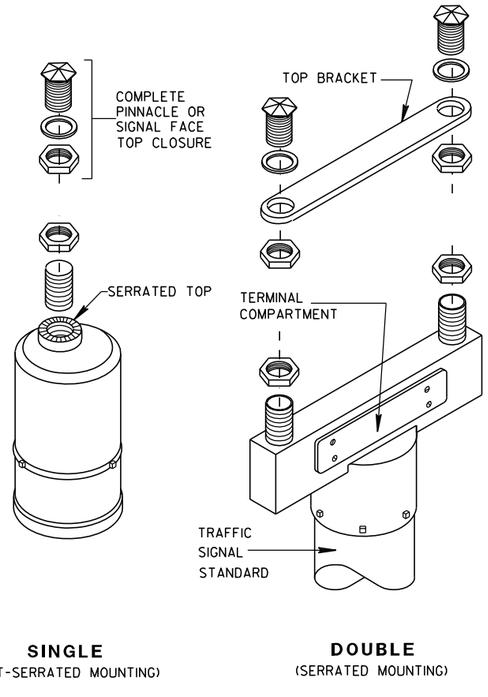
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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5/11/10
DATE

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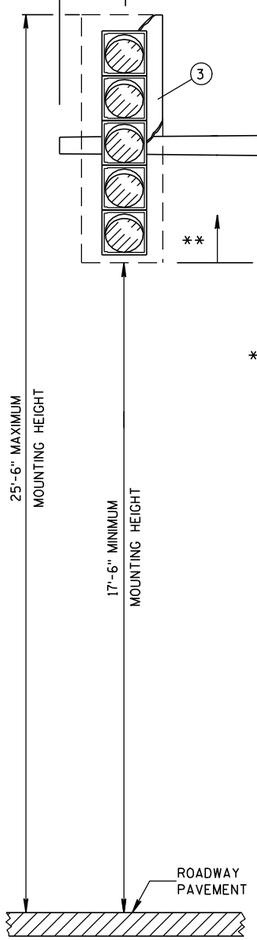
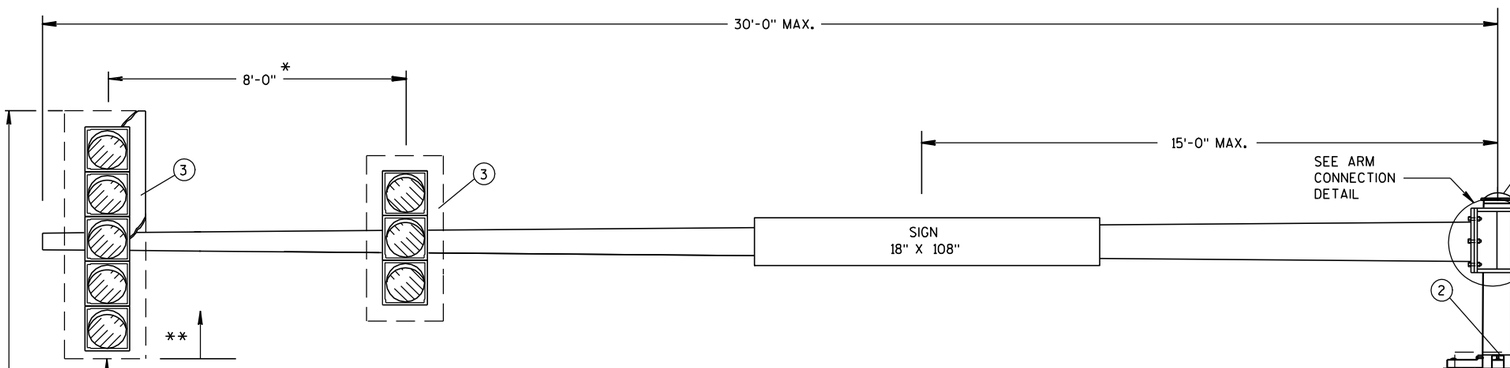
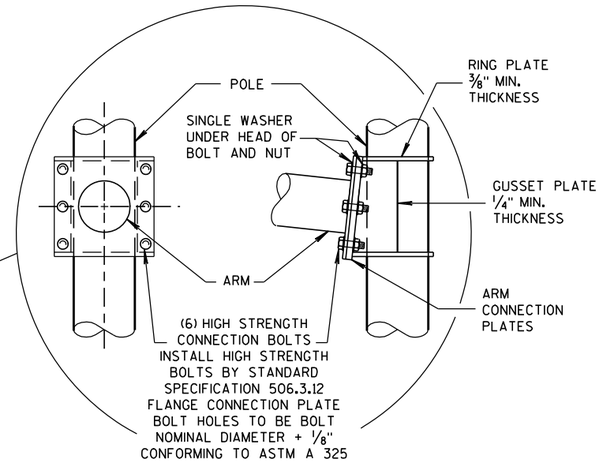


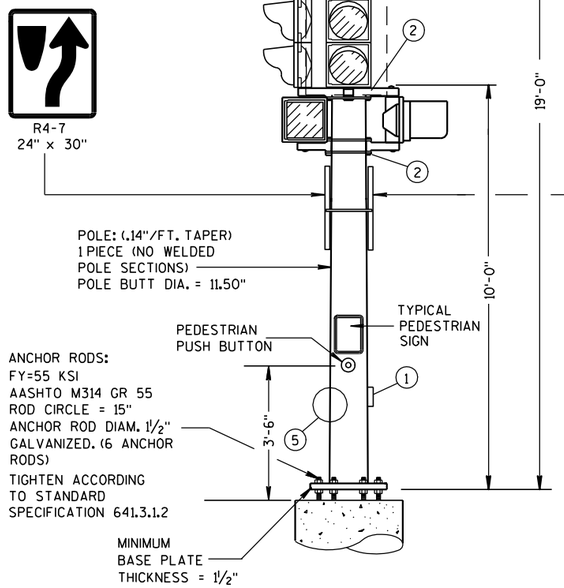


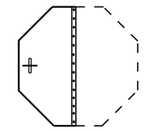
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

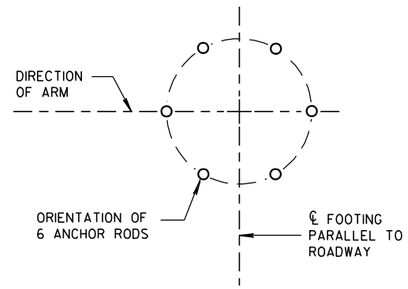
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL







ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI
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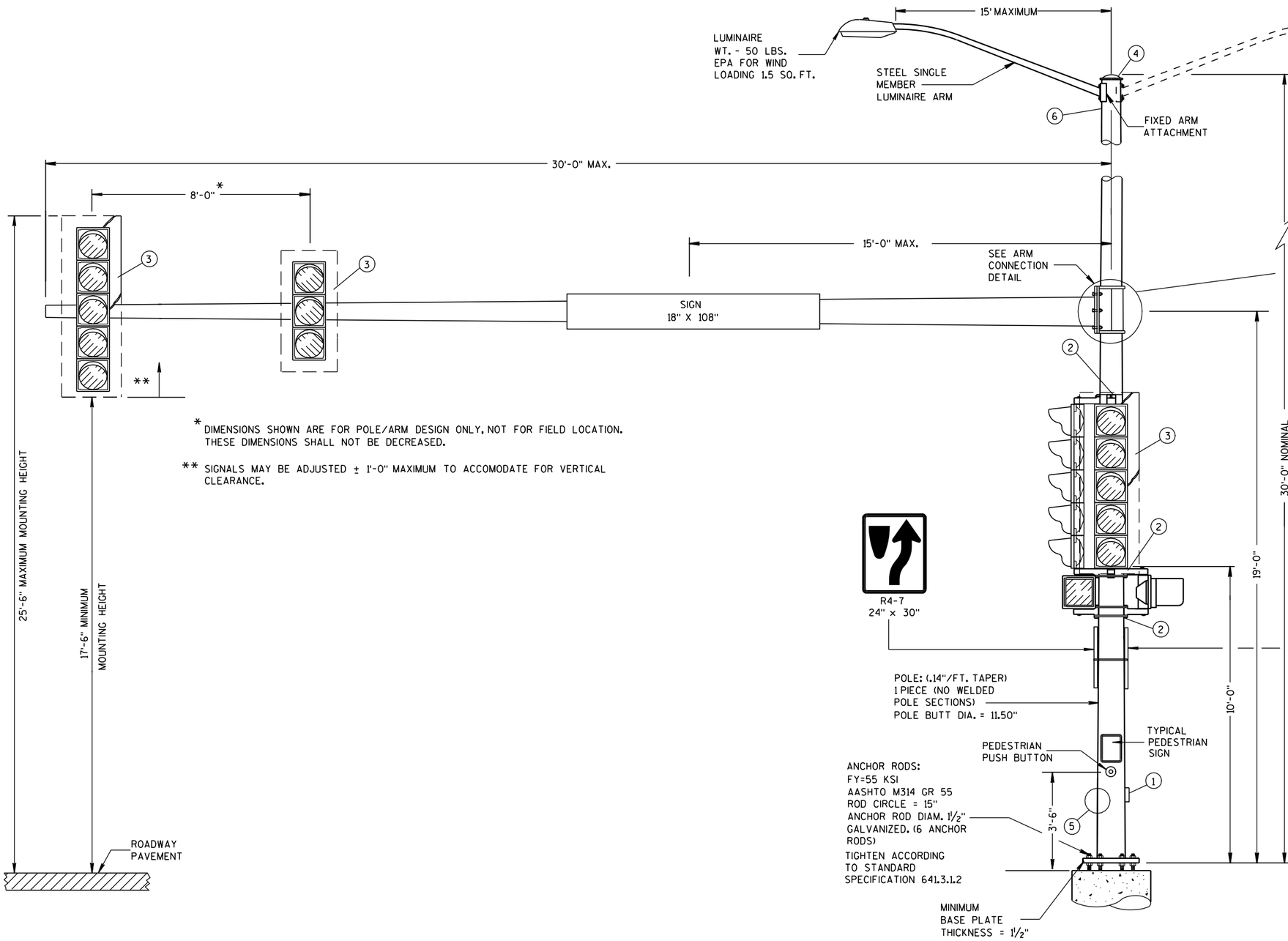
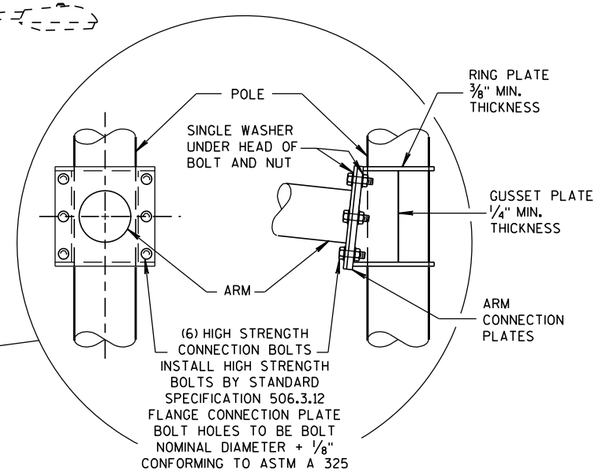
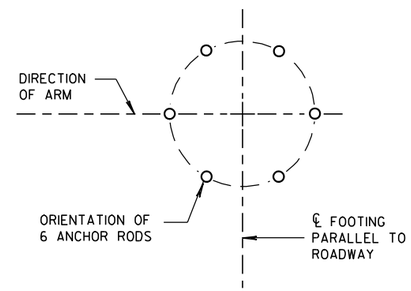


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI
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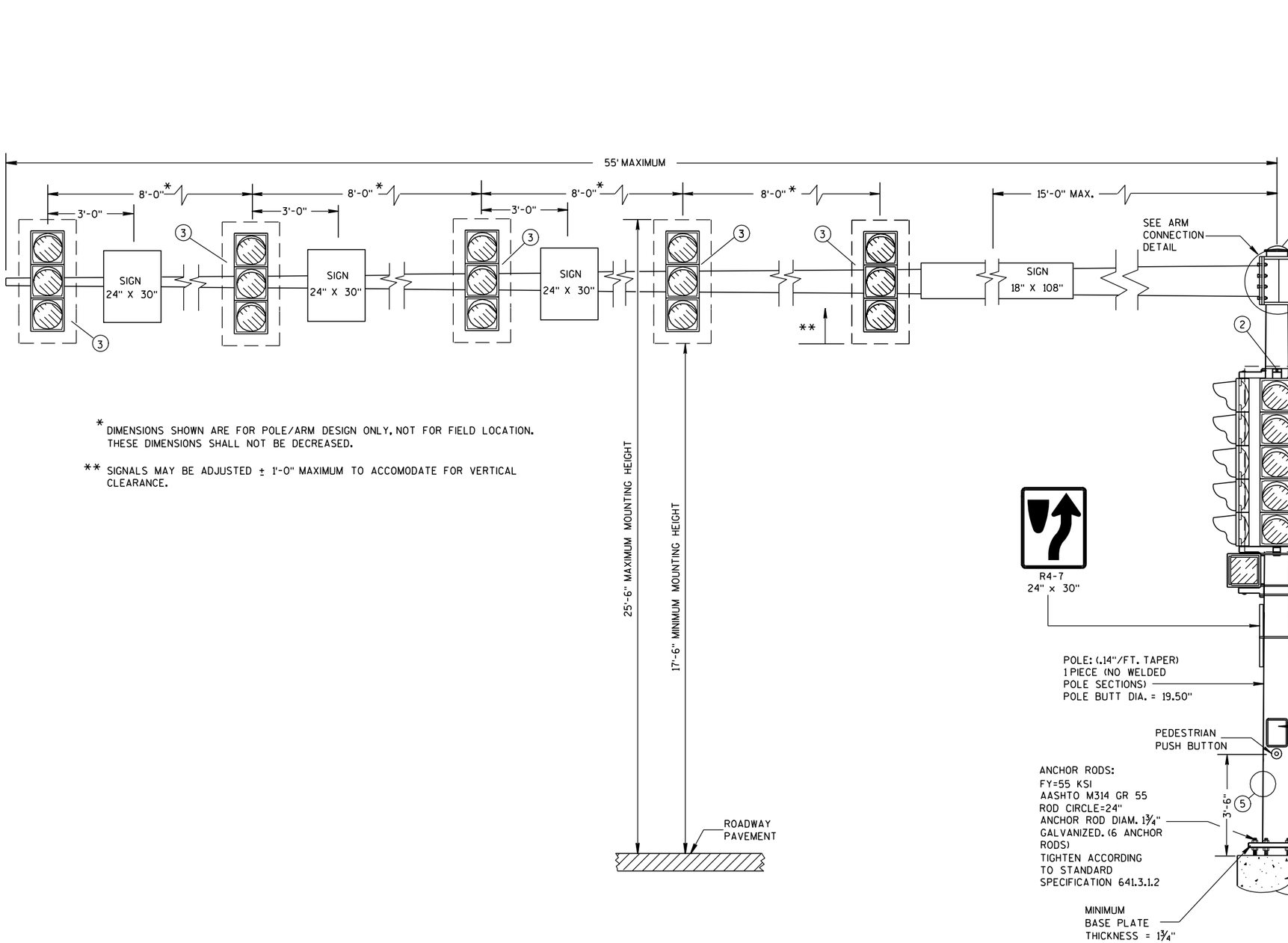
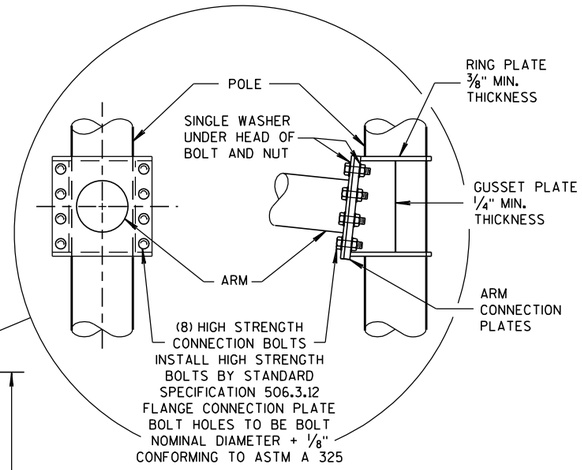
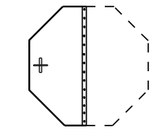


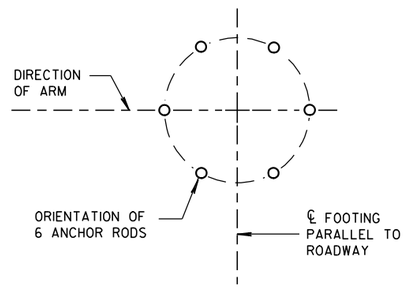
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL





ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

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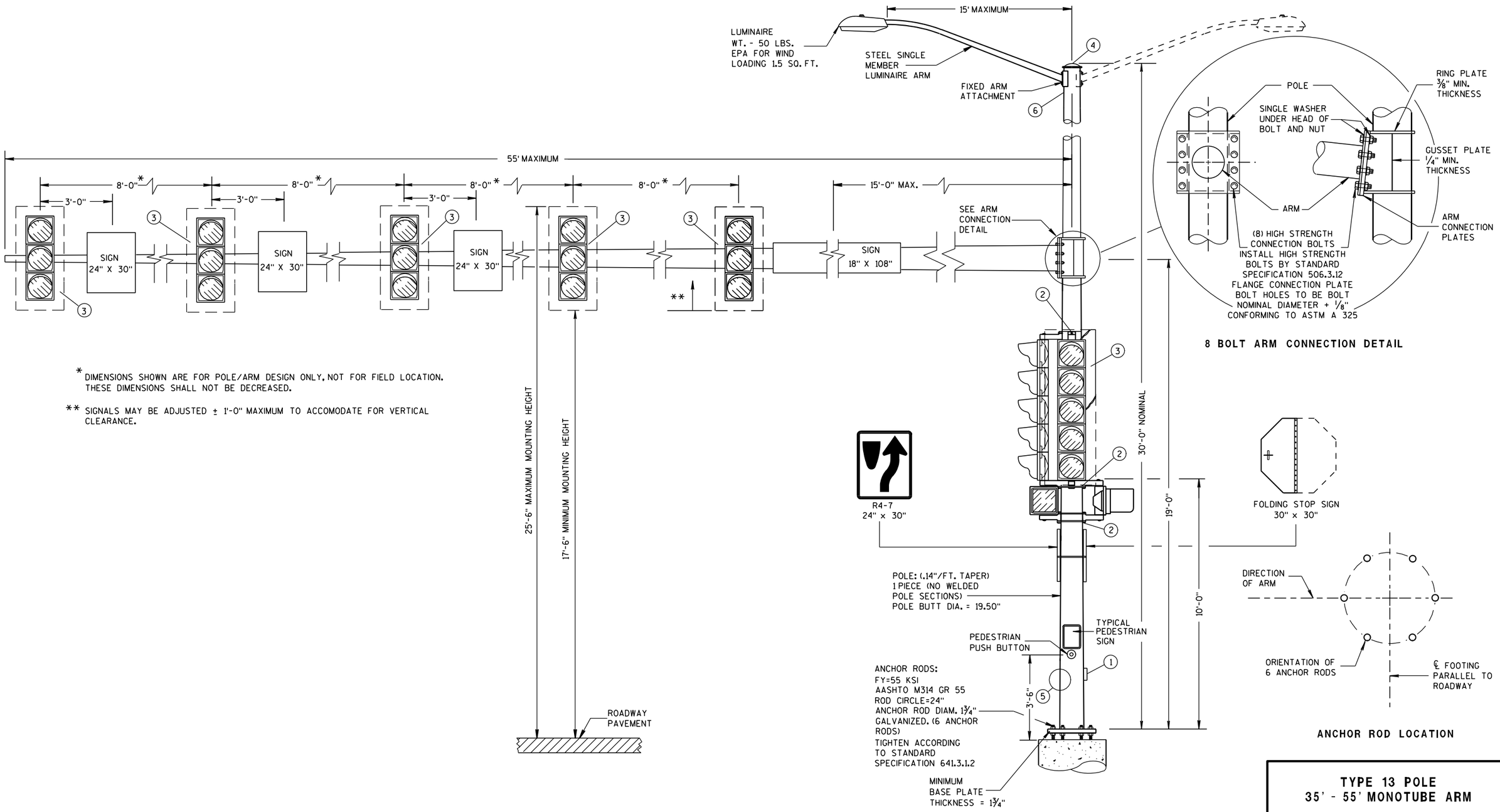

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE
35' - 55' MONOTUBE ARM

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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.

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 LATEST AASHTO 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.

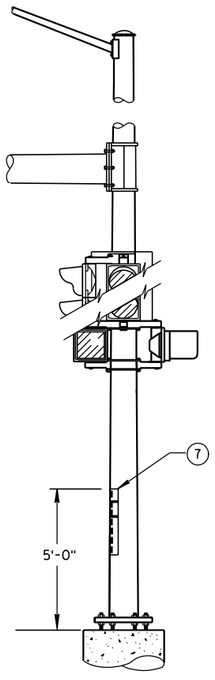
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

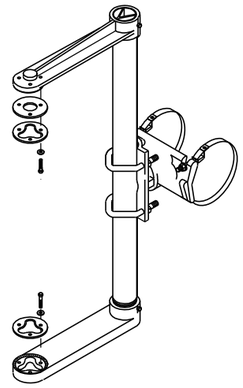
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

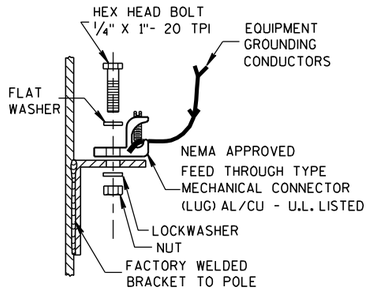


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



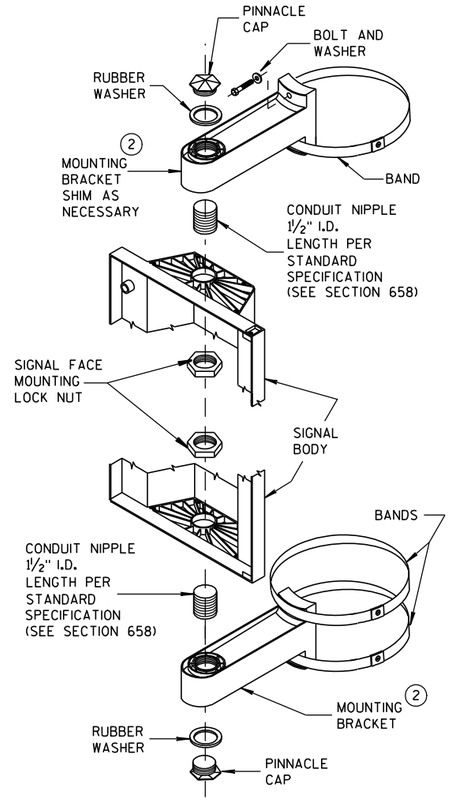
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

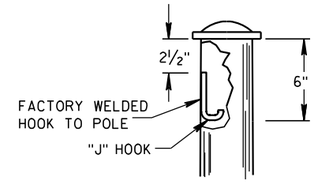


TYPICAL GROUNDING CONNECTIONS (5)

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
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APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
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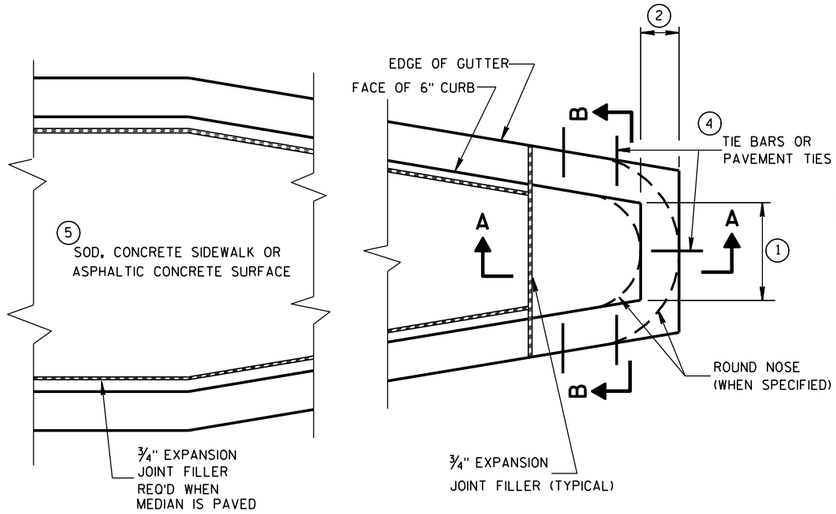
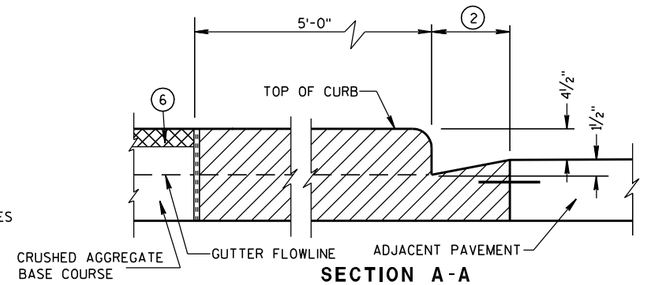
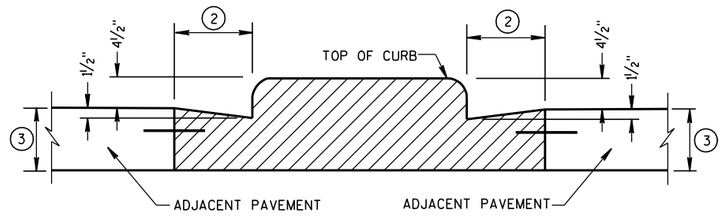




SECTION A-A



SECTION B-B

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.

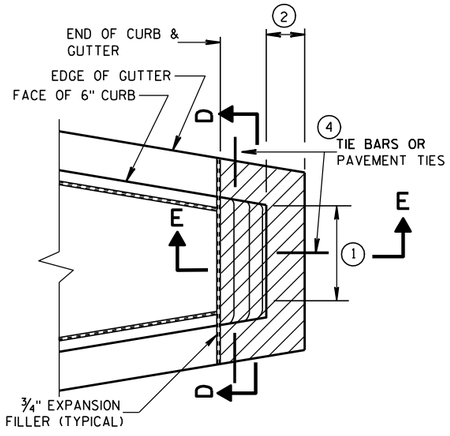
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

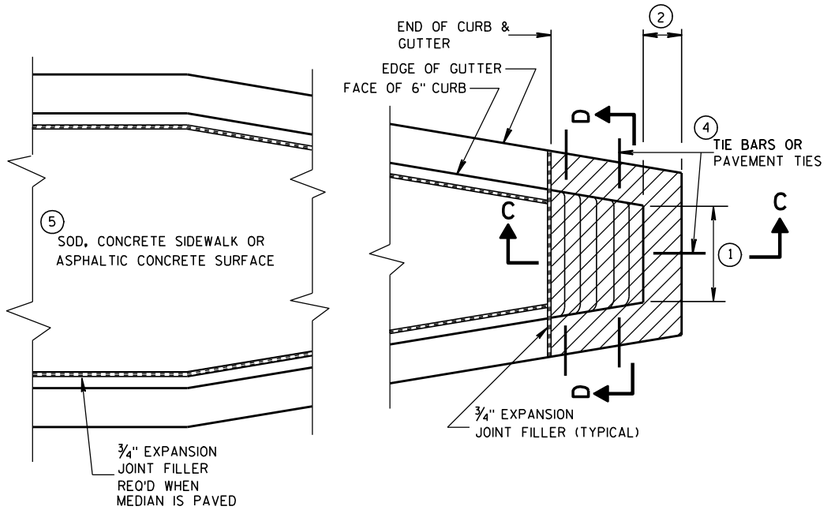
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

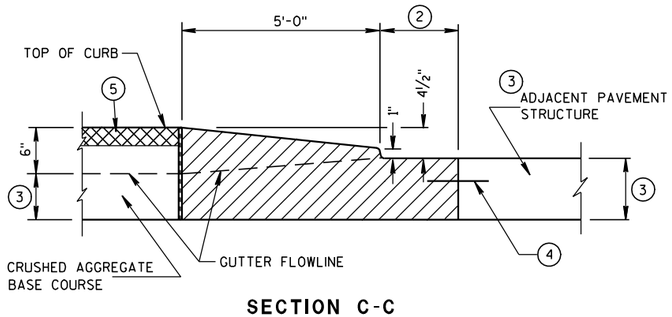
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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.

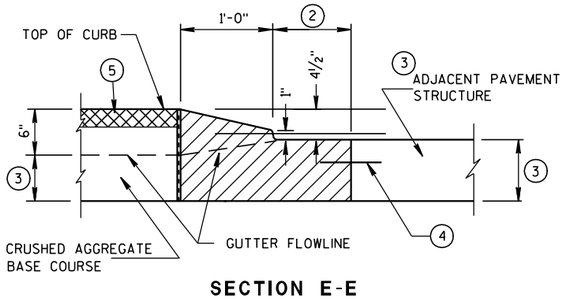
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







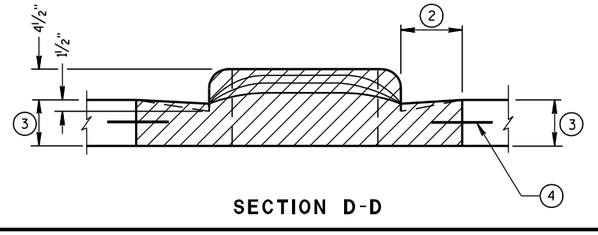
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
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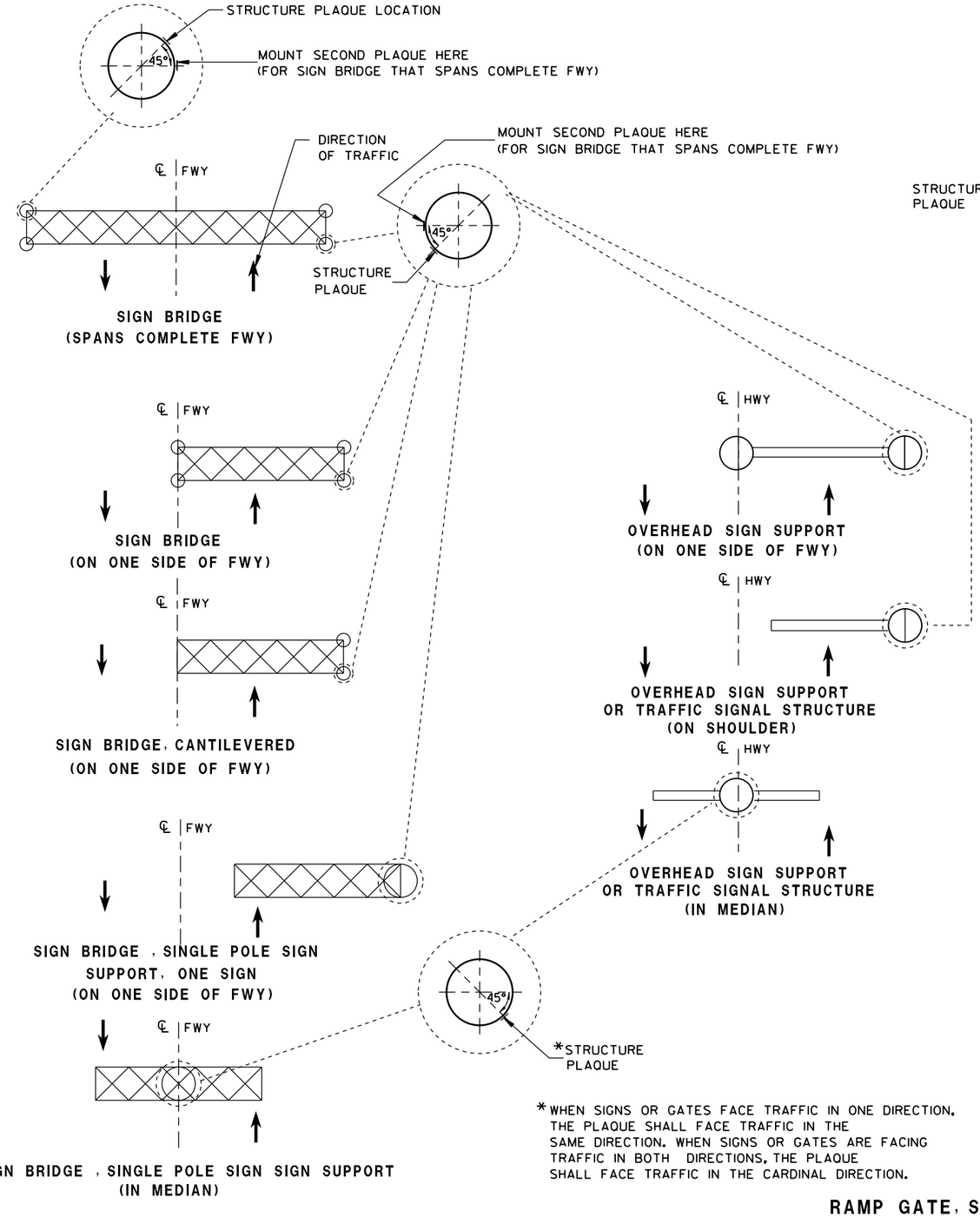
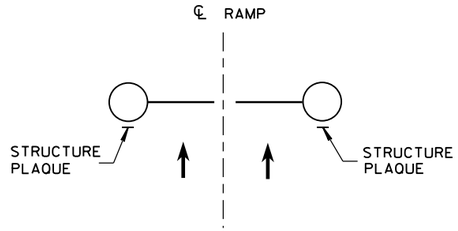
S.D.D. 11 B 2-2

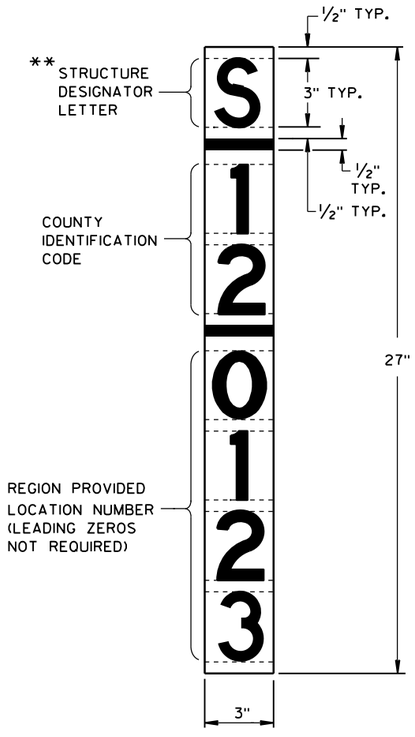


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

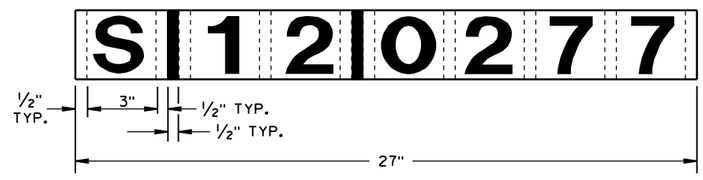
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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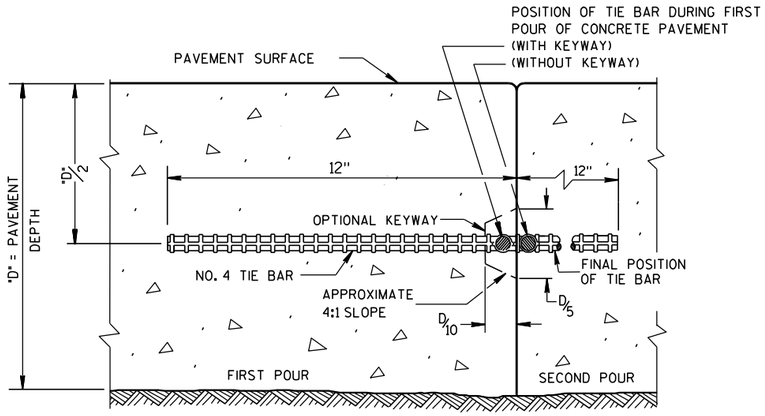
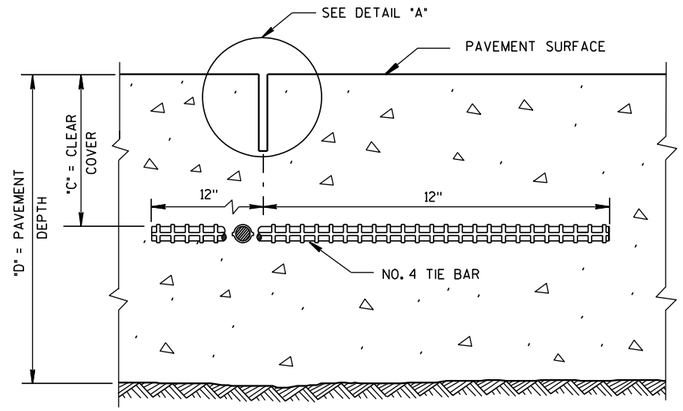


CONSTRUCTION JOINT



SAWED JOINT

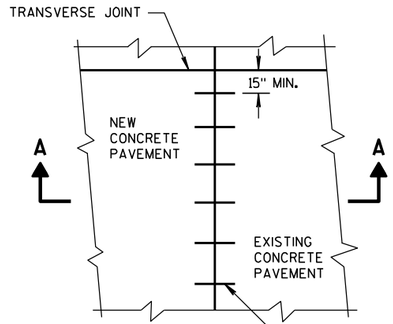
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

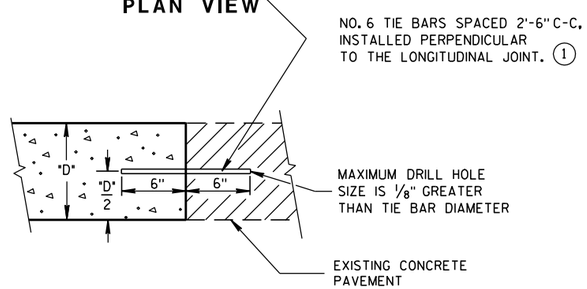
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

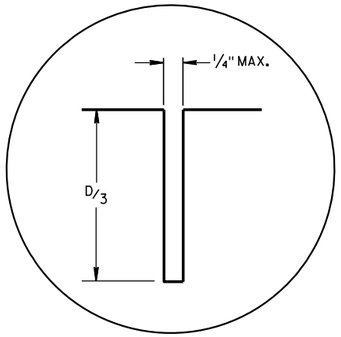
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

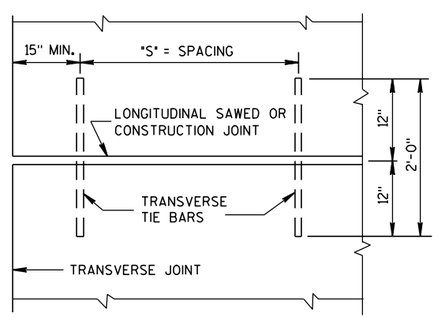


SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10-5-2010
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DI ... INEER

FHWA

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S.D.D. 13 C 1-15

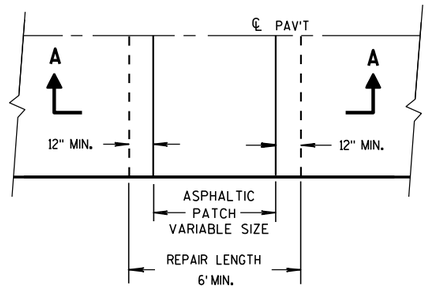
GENERAL NOTES

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

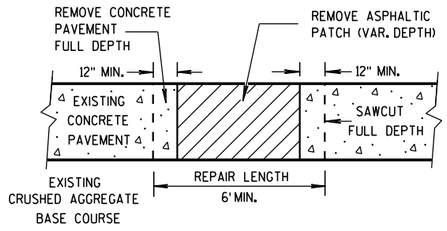
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

(1) DOWEL BARS MIGHT NOT EXIST.

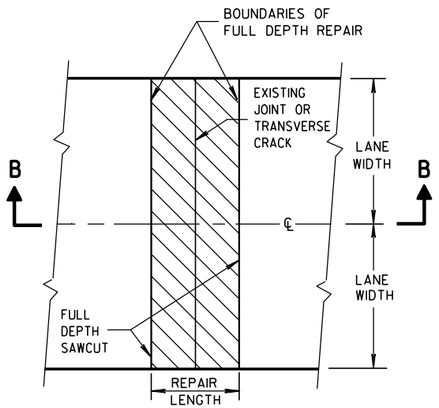


PLAN VIEW

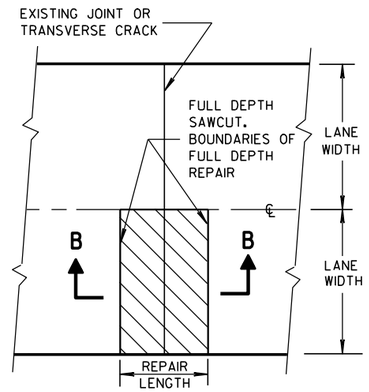


SECTION A-A

HMA PATCH REMOVAL



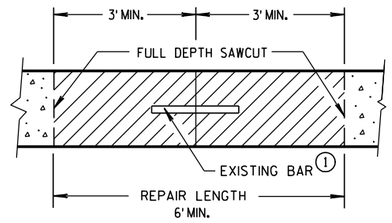
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION B-B

CONCRETE REMOVAL

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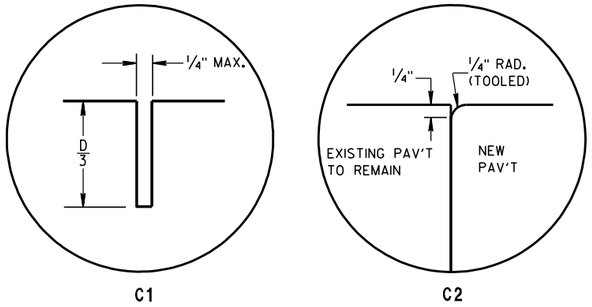
S.D.D. 13 C 9-9a

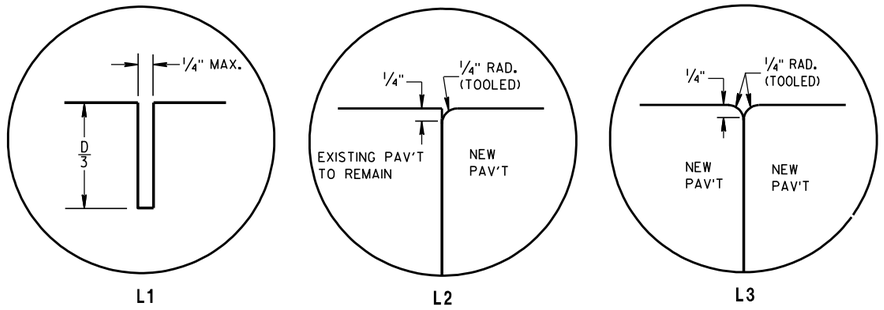
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



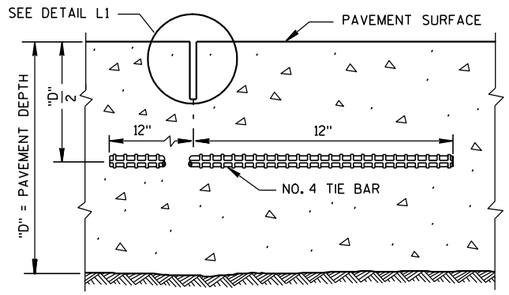
C1 C2

TRANSVERSE JOINTS



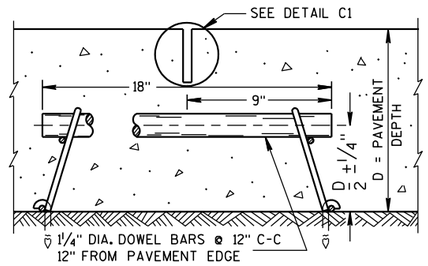
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

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

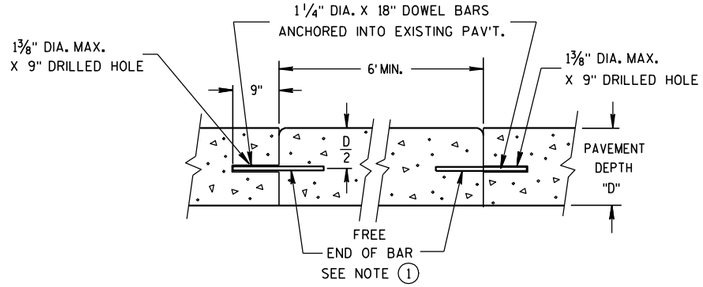
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

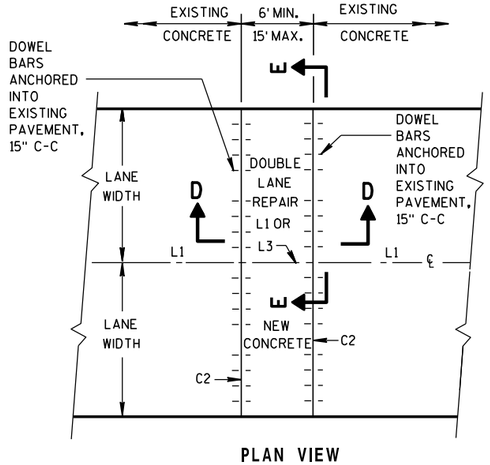
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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

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

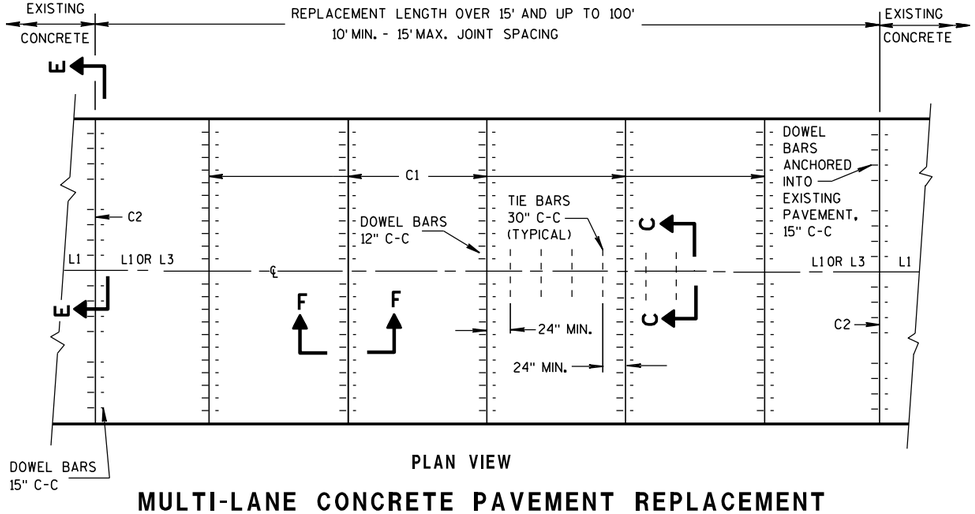


SECTION D-D



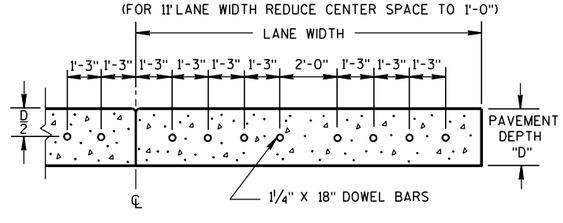
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 13 C 9-9b

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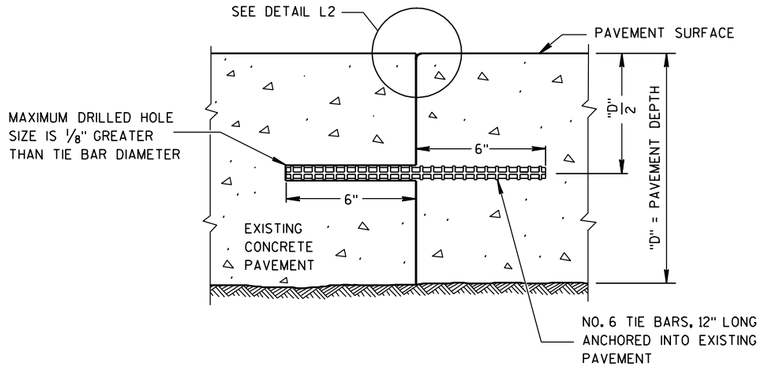


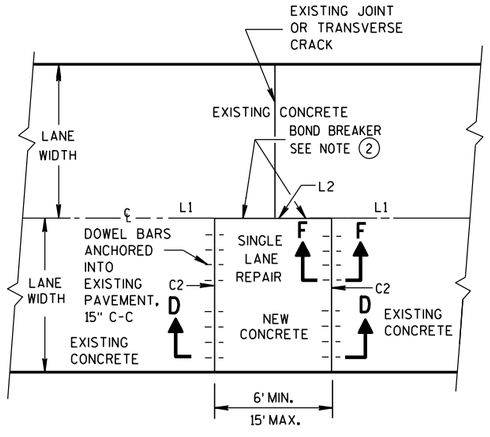
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

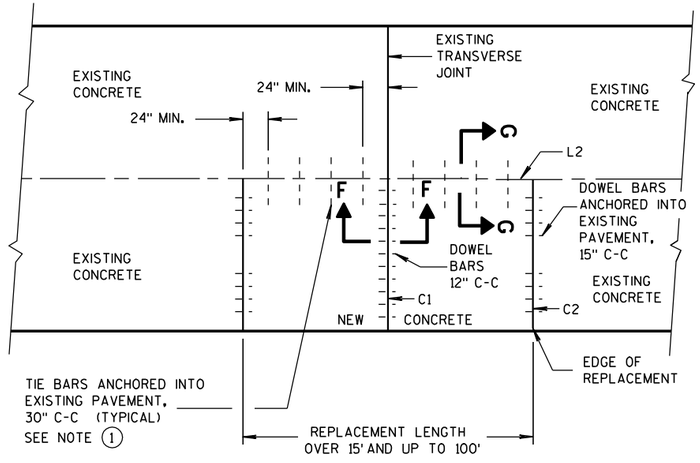
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11-1-2011 DATE — /S/ Deb Bischoff PAVEMENT POLICY & DESIGN ENGINEER

FHWA

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S.D.D. 13 C 9-9c

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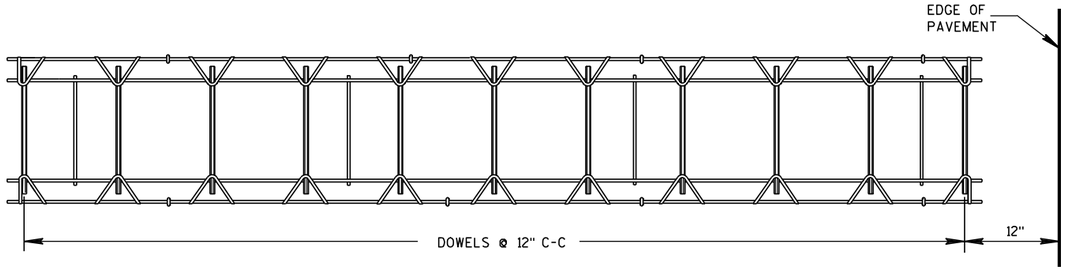
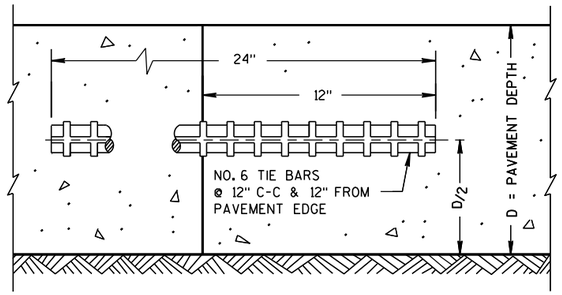
S.D.D. 13 C 9-9c



PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

CONTRACTION JOINTS

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

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

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

CONSTRUCTION JOINTS

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

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

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

② ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

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

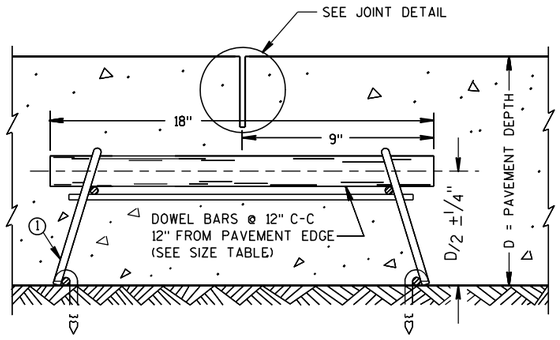
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

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

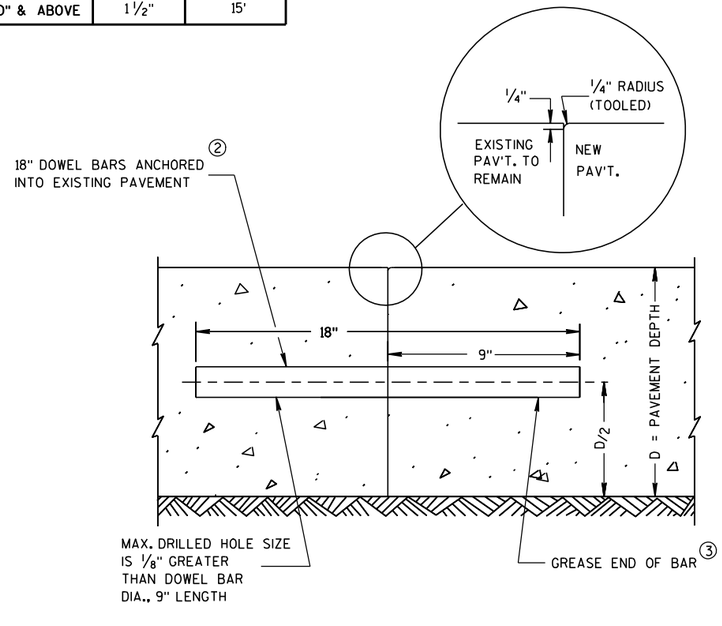
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

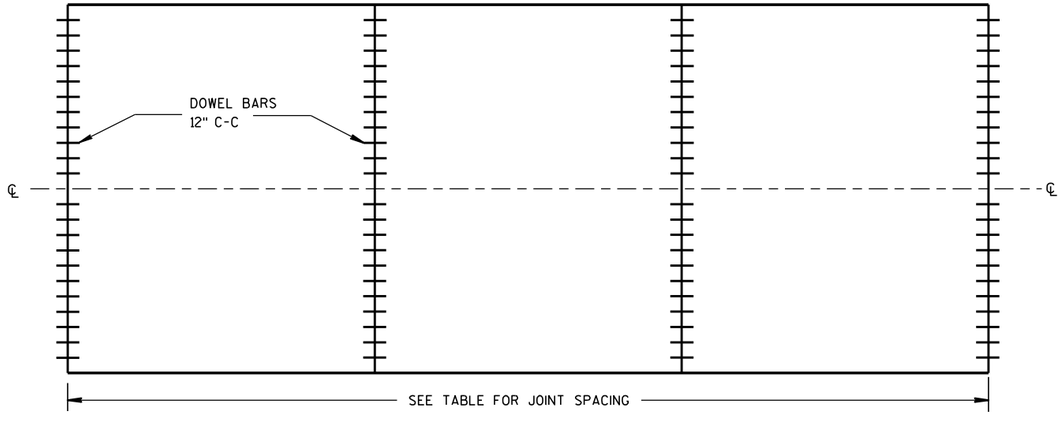


DOWELED CONTRACTION JOINT

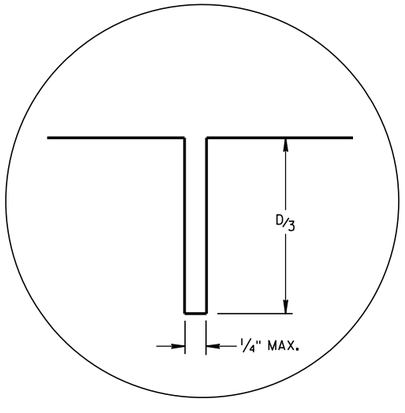


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
FHWA

NEER

6

S.D.D. 13 C 13-7

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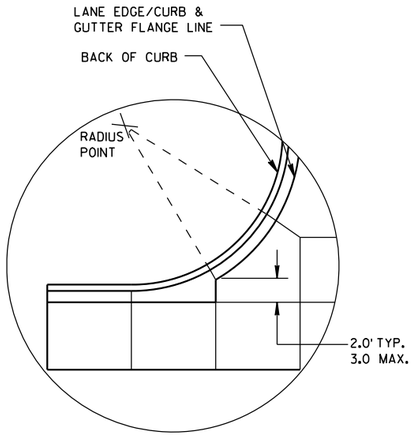
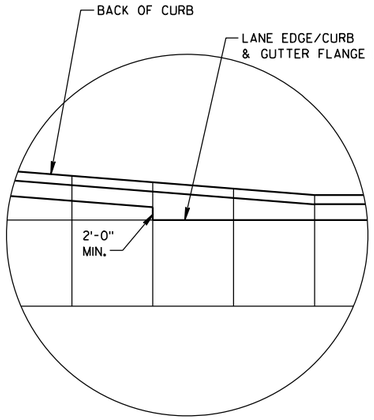
S.D.D. 13 C 13-7



DETAIL "A"



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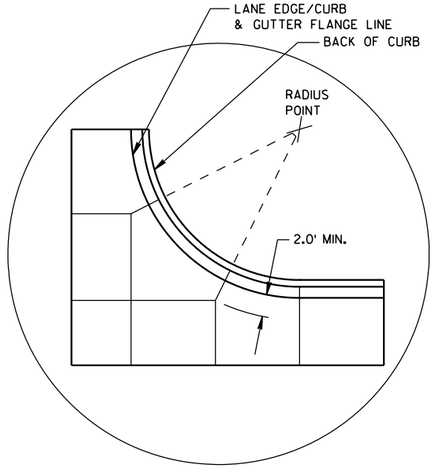

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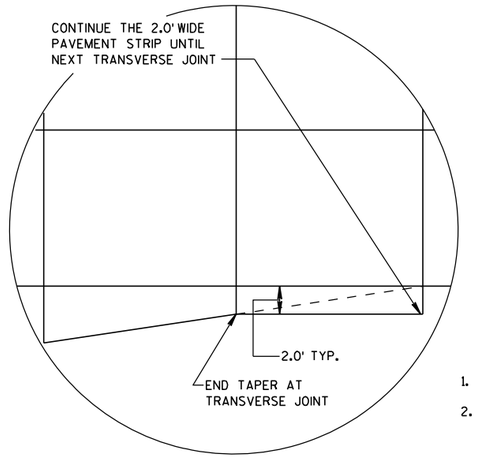


DETAIL "D"

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.

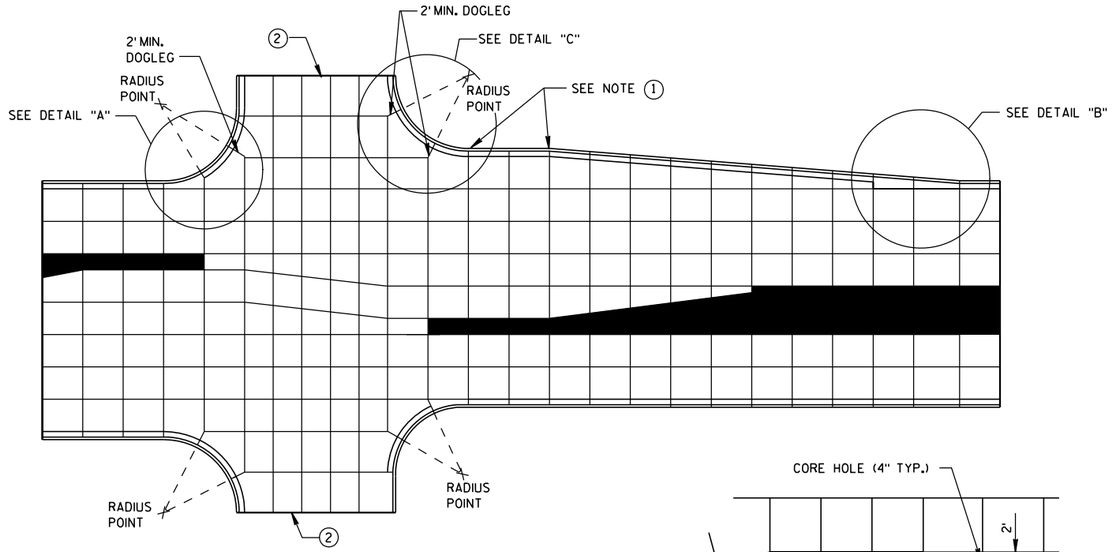
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

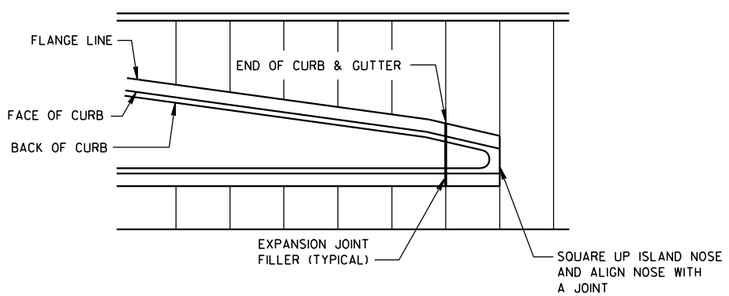
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



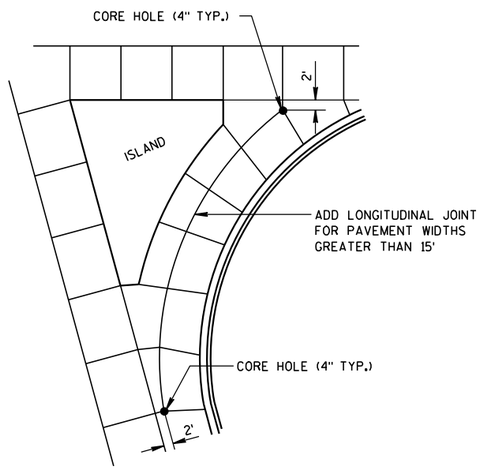
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

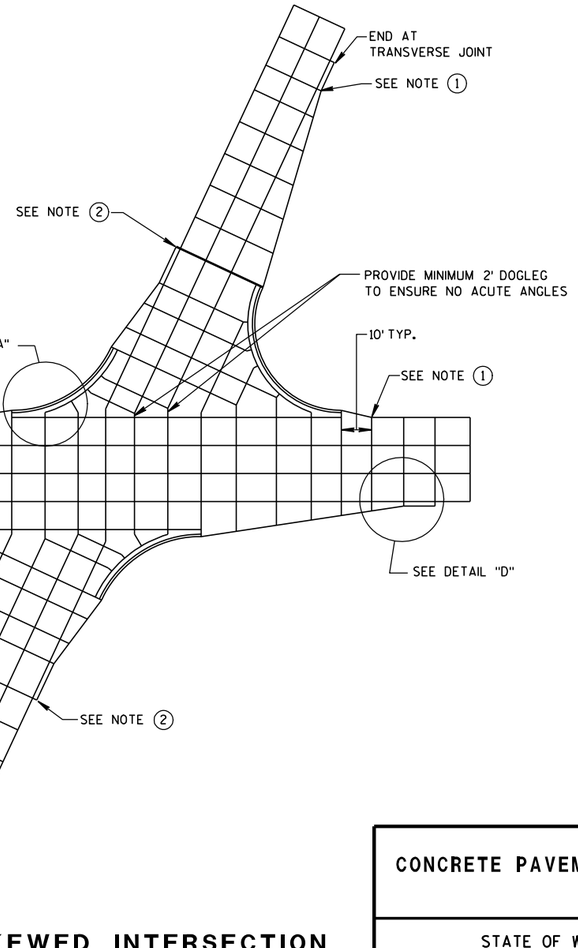
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

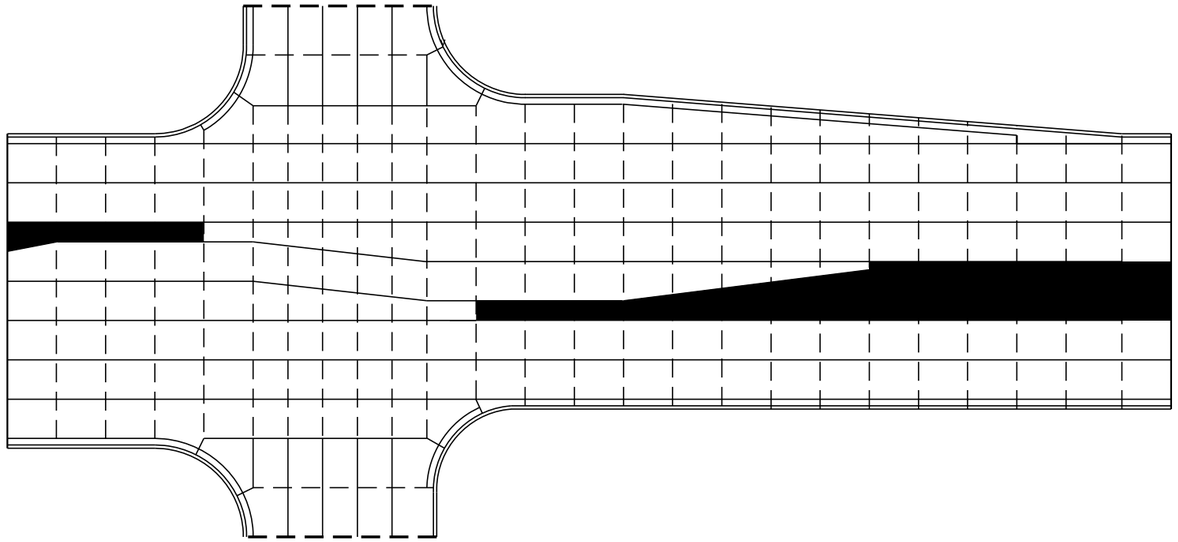
6
S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

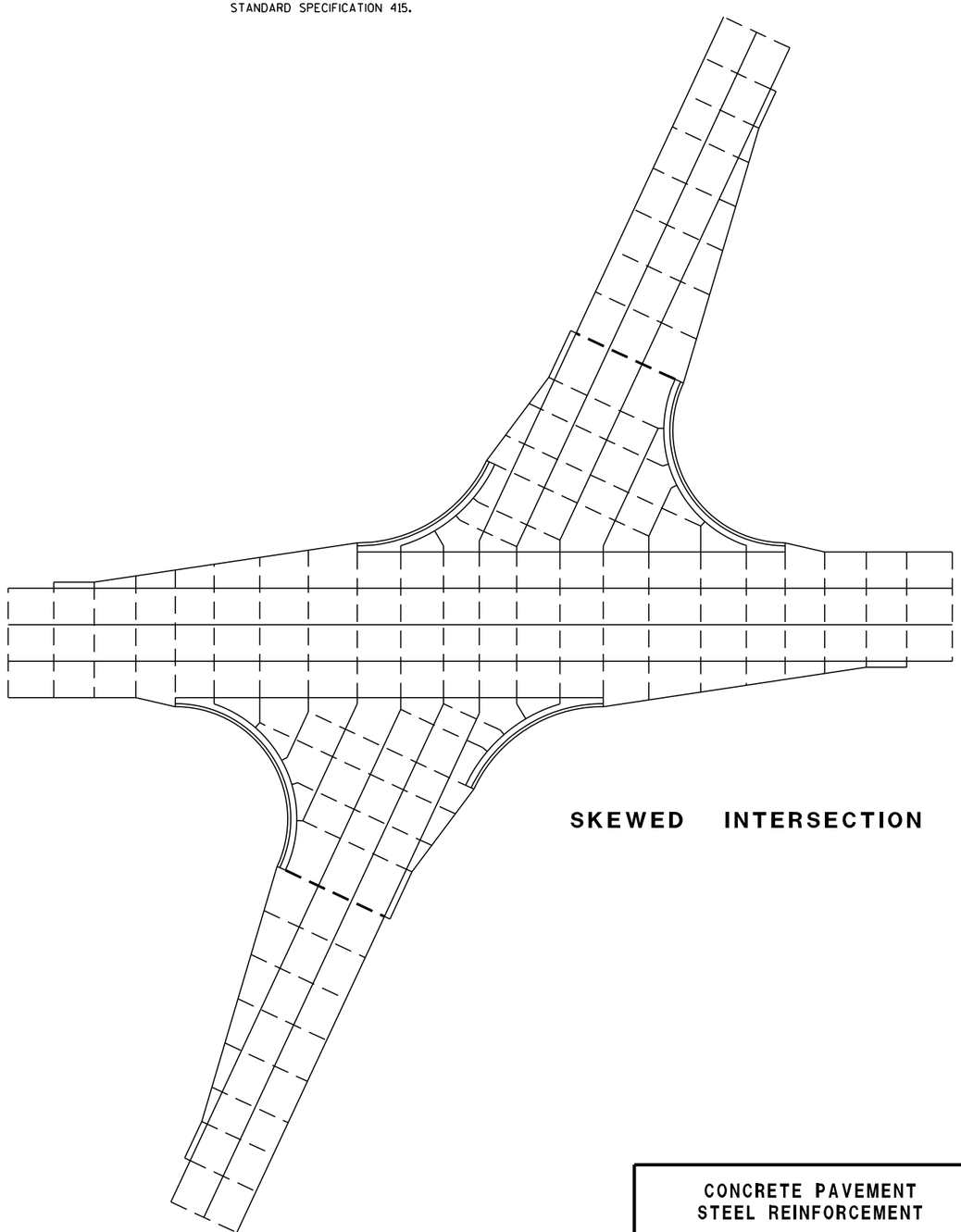
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

6

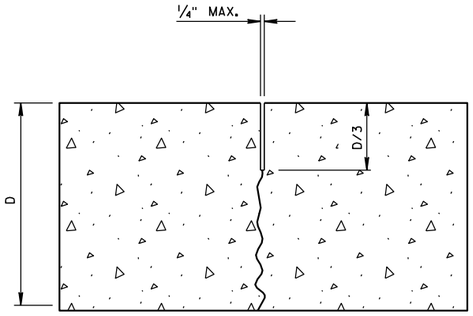
6

S.D.D. 13 C 18-1b

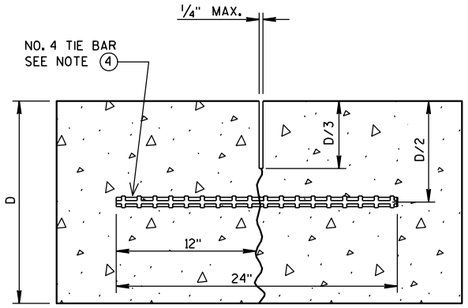
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



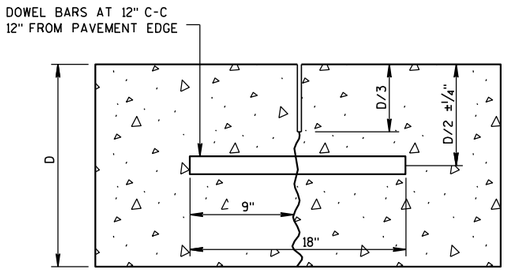
UNDOWELED-TRANSVERSE



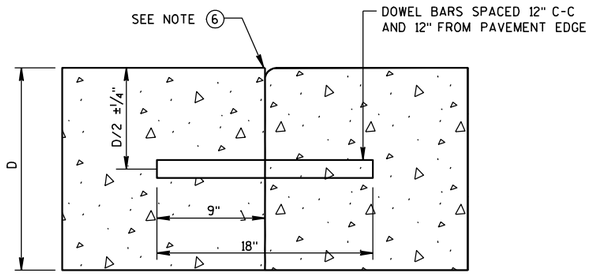
TIED LONGITUDINAL

GENERAL NOTES

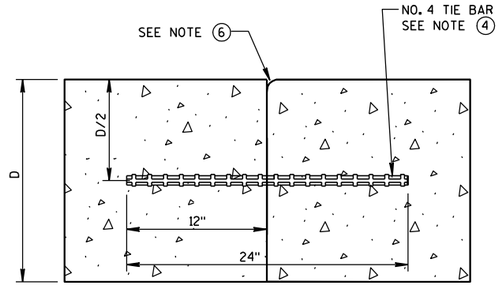
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



DOWELED-TRANSVERSE



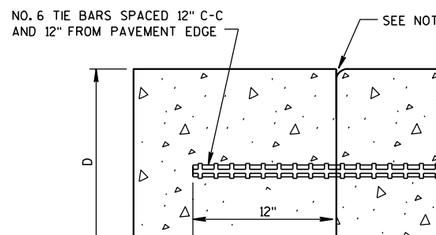
DOWELED TRANSVERSE



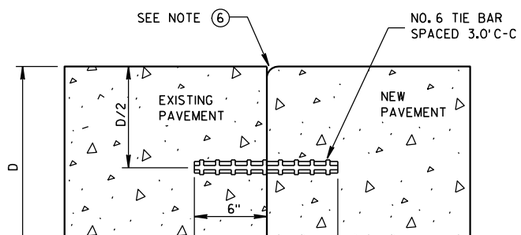
TIED LONGITUDINAL

CONTRACTION JOINTS

SEE NOTE (2)



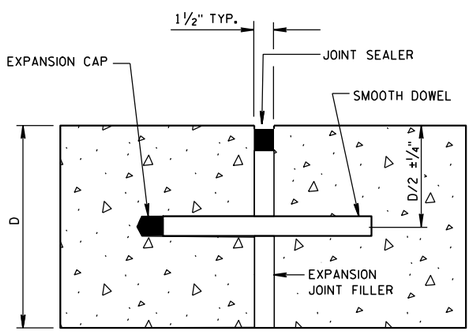
TIED TRANSVERSE
SEE NOTE (3)



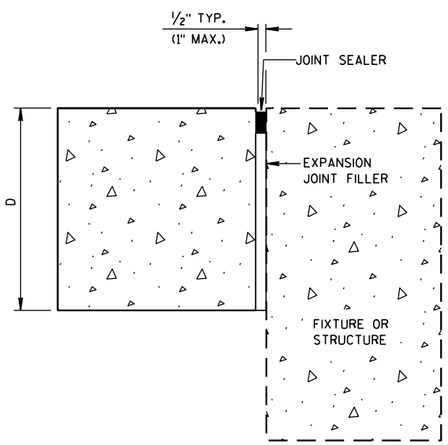
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE
SEE NOTE (1)



UNTIED-LONGITUDINAL

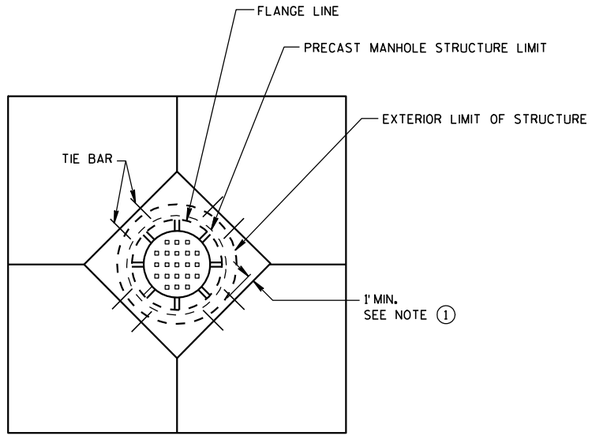
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

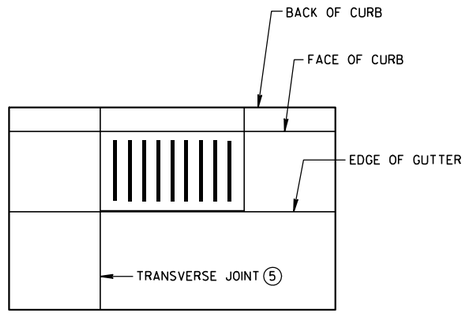
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

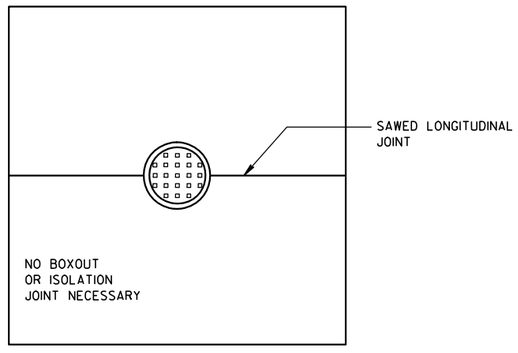
S.D.D. 13 C 18-1c



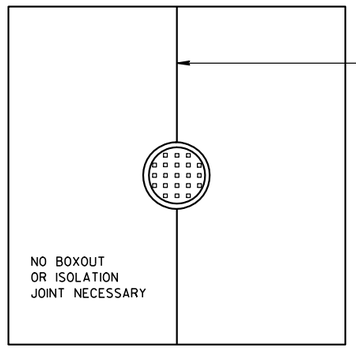
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



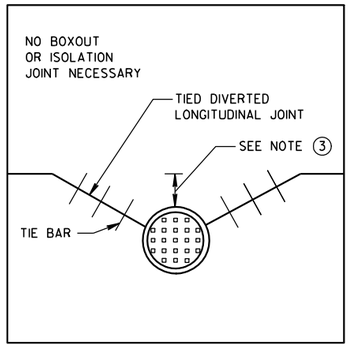
INLET WITH TRANSVERSE JOINT



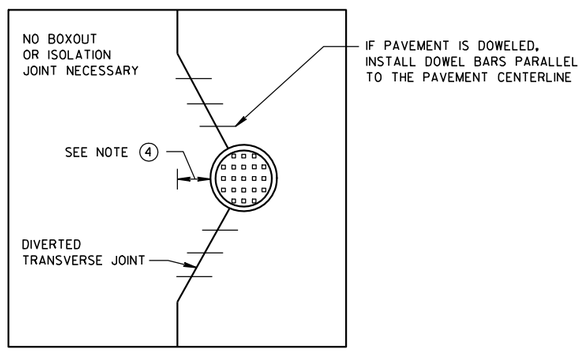
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

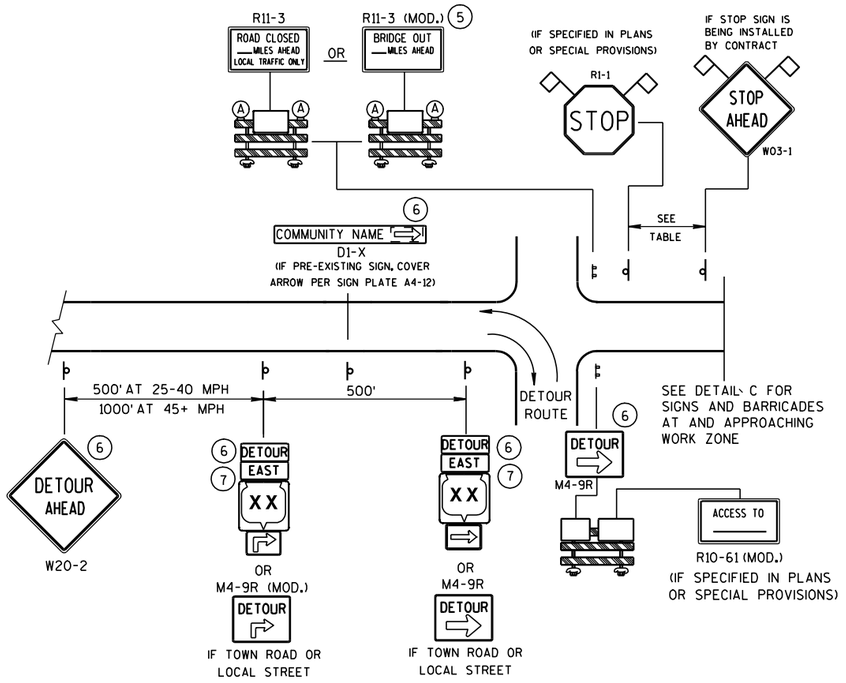
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF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

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10-5-2010 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D ENGINEER
FHWA

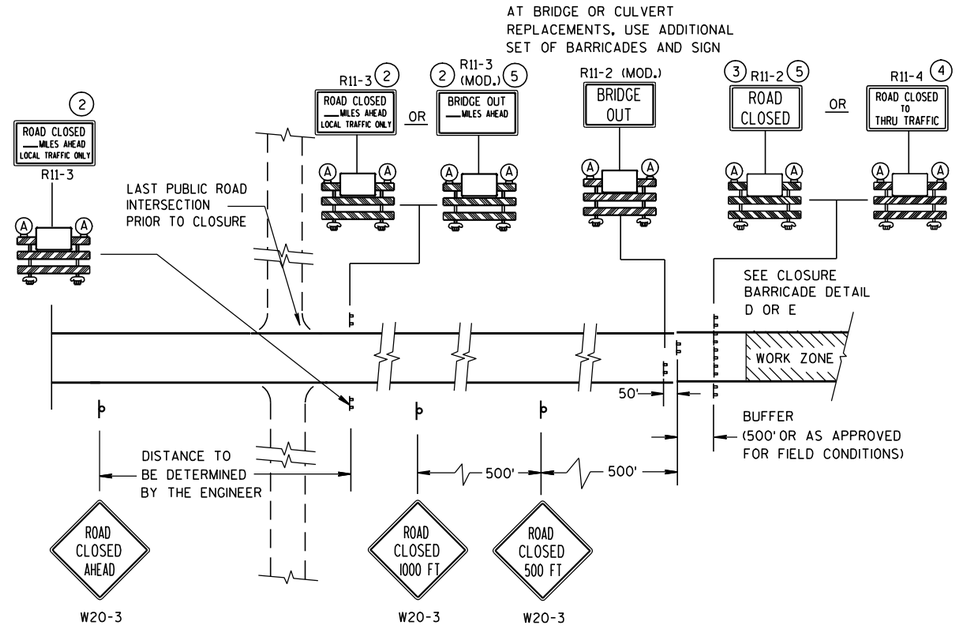
6
S.D.D. 13 C 18-1d



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

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

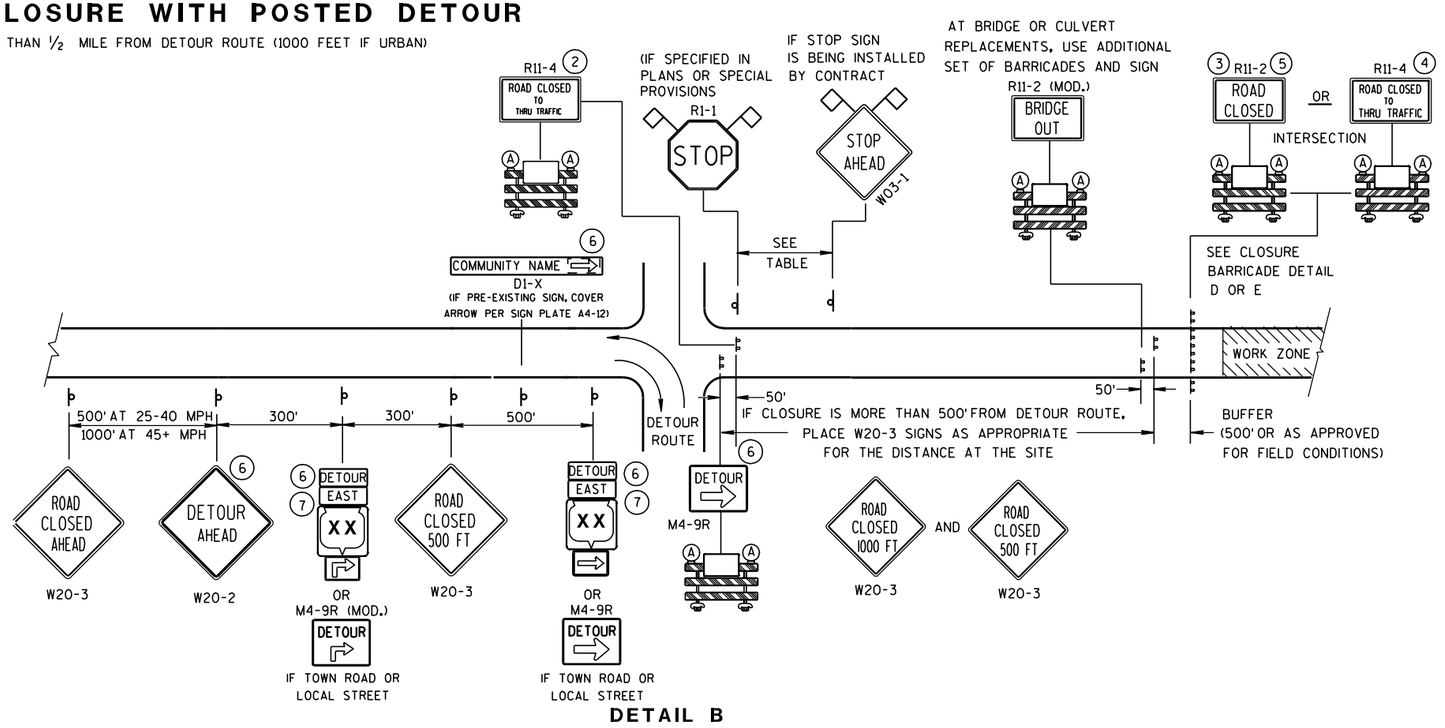


DETAIL C

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 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

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

LEGEND

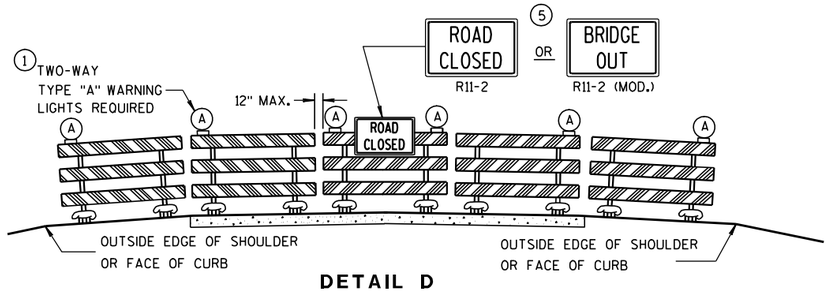
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

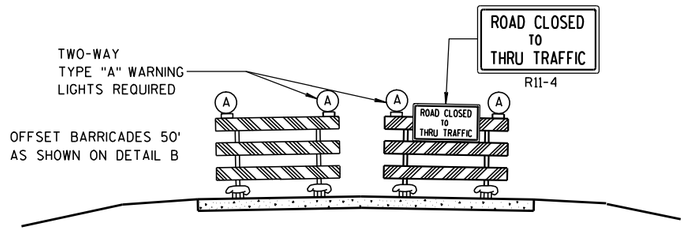
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"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 AND 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

APPROVED

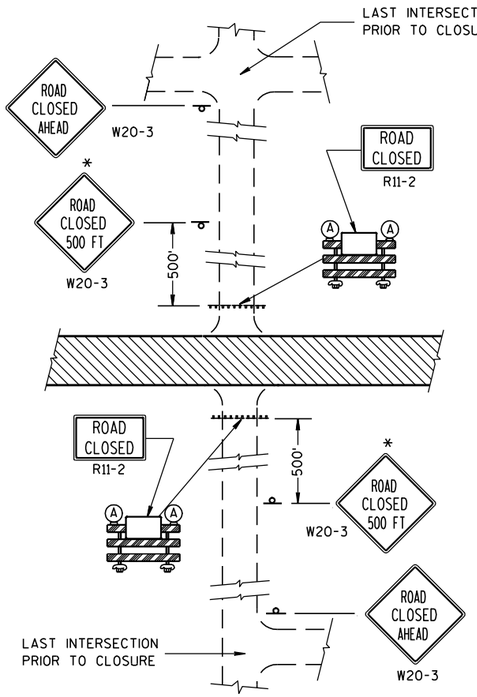
9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

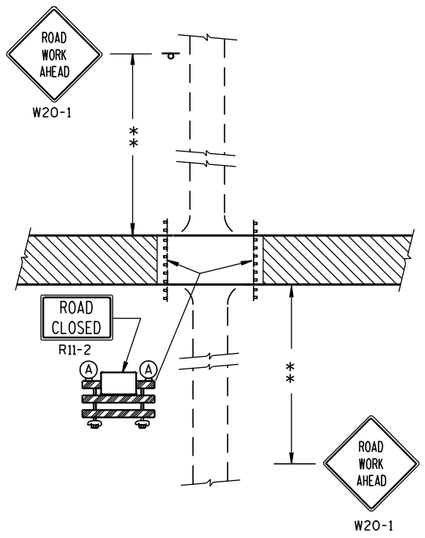
6

S.D.D. 15 C 2-4b



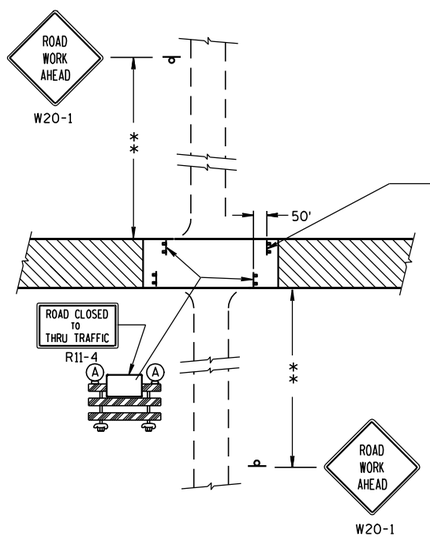
DETAIL 1

(NO ACCESS TO PROJECT)



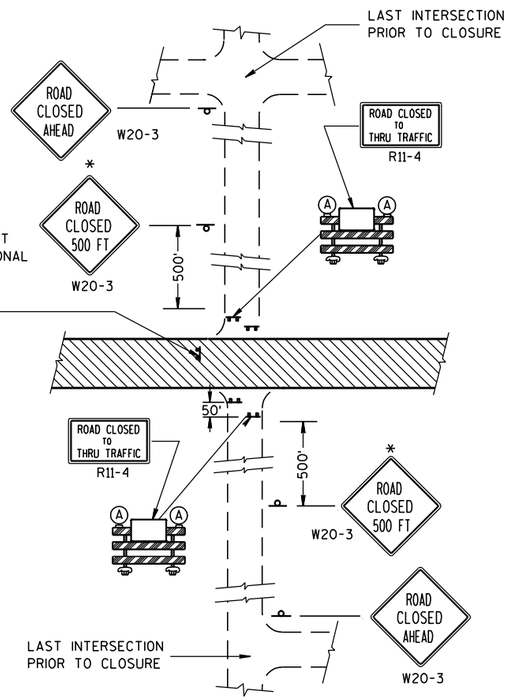
DETAIL 2

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



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03 DATE

/S/ Thomas N. N[illegible] CHIEF SIGNS AND MAR[illegible] INEER

FHWA

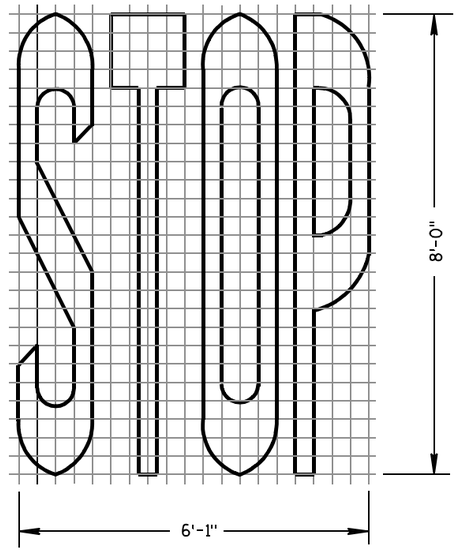
6

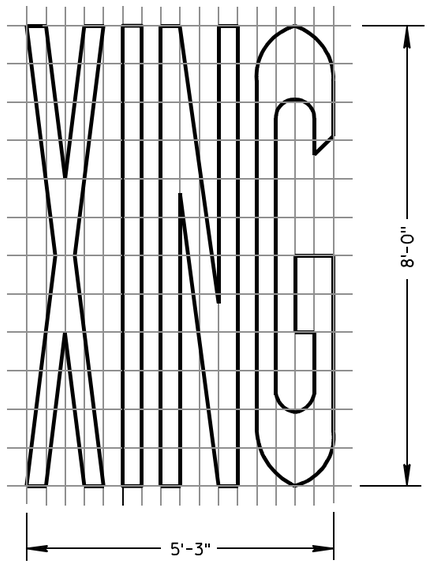
S.D.D. 15 C 3-1

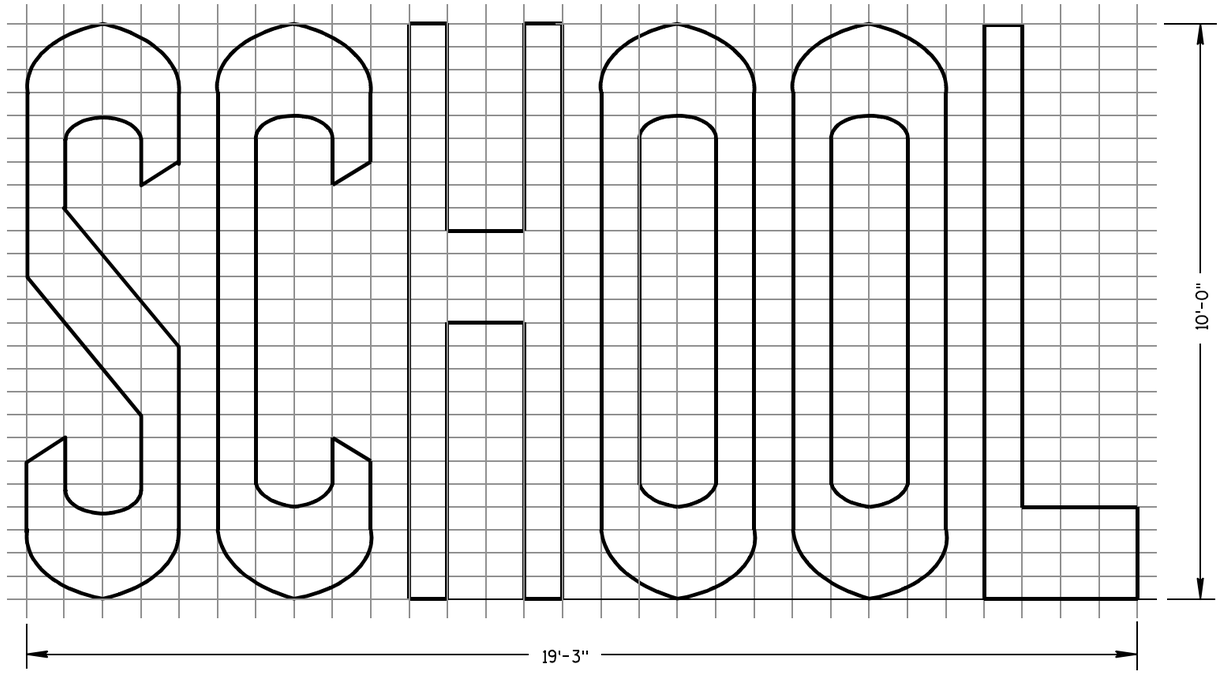
GENERAL NOTES

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.

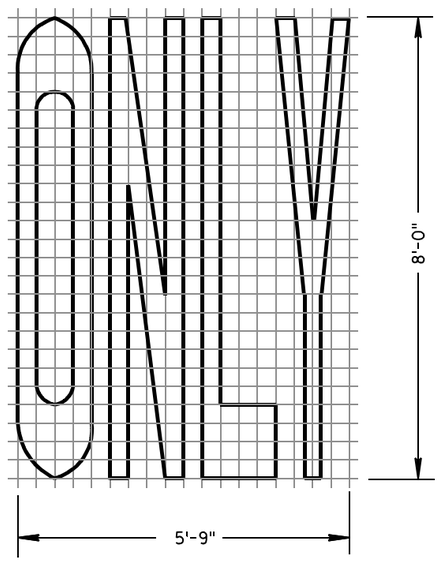
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

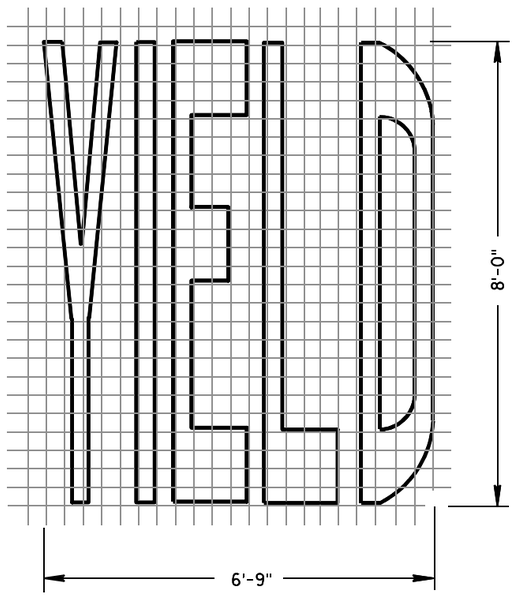


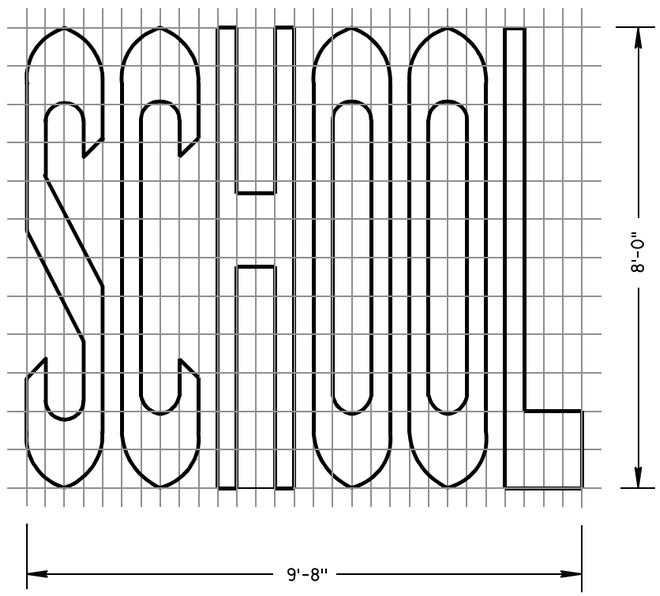




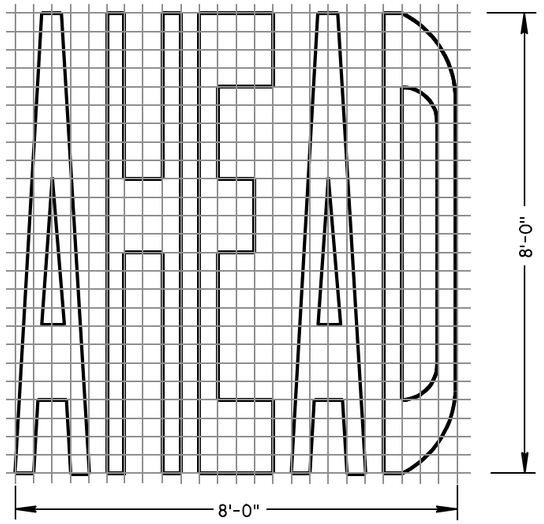
TWO-LANE







SINGLE-LANE



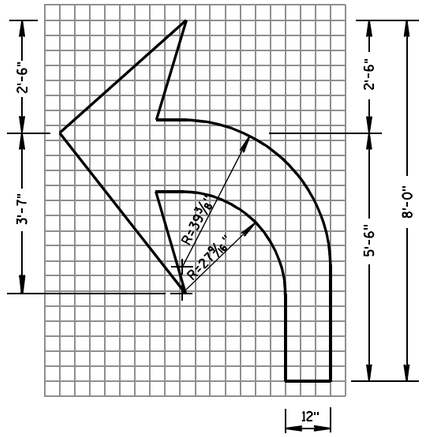
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7-1-11 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

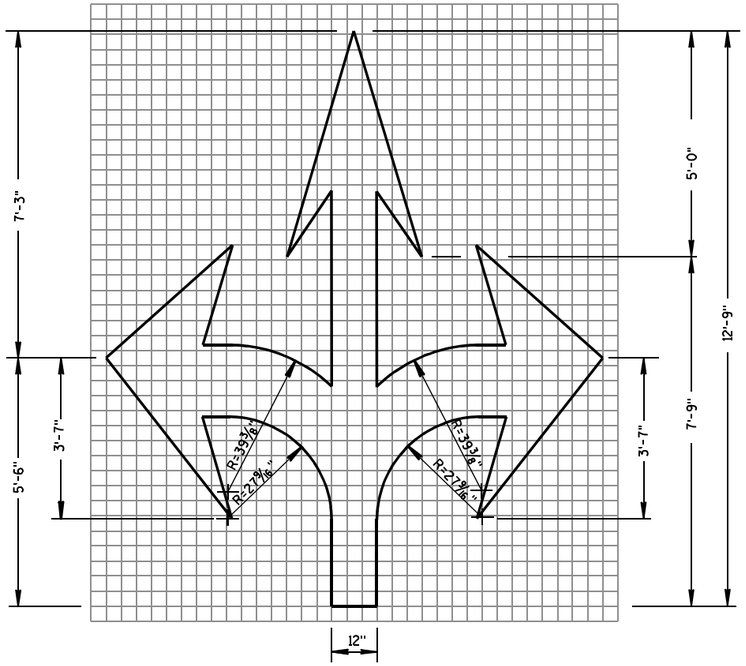
S.D.D. 15 C 7-12b

6

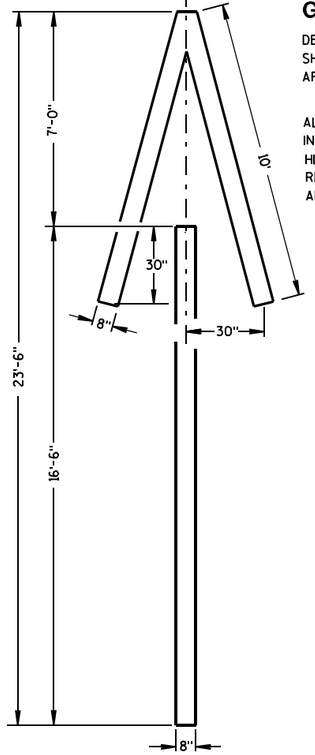
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

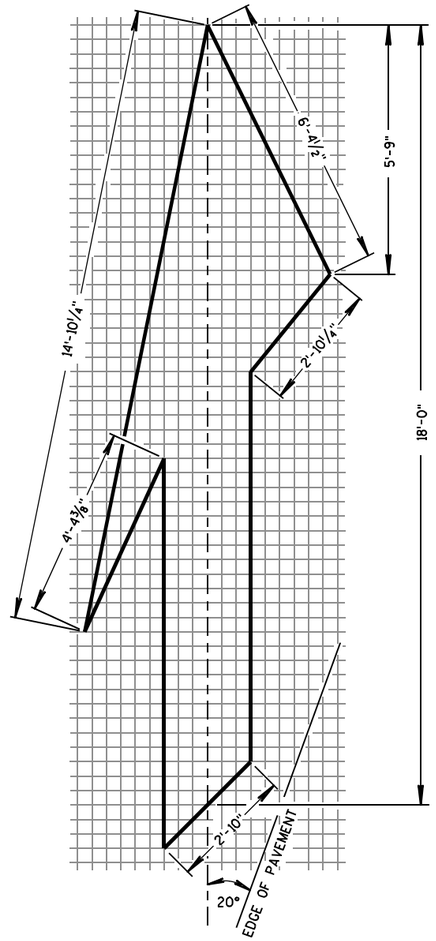


TYPE 4

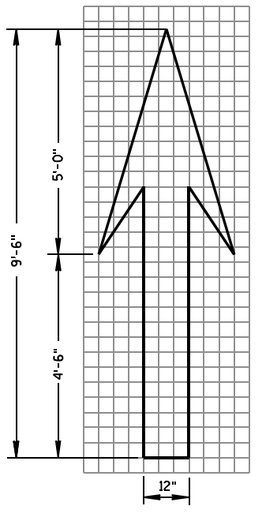
GENERAL NOTES

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.

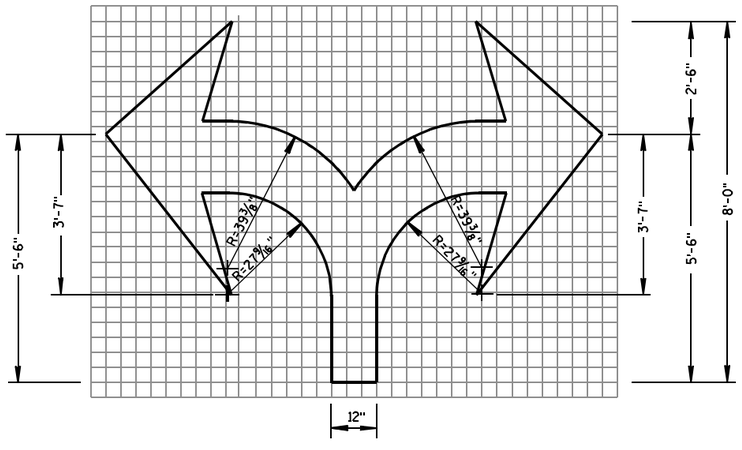
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



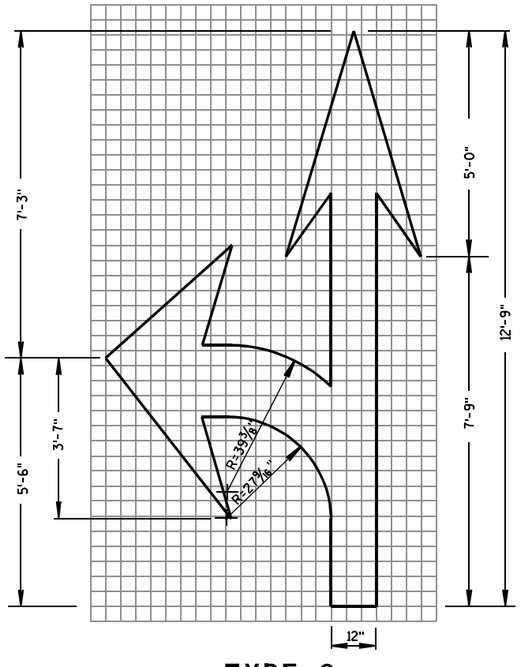
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

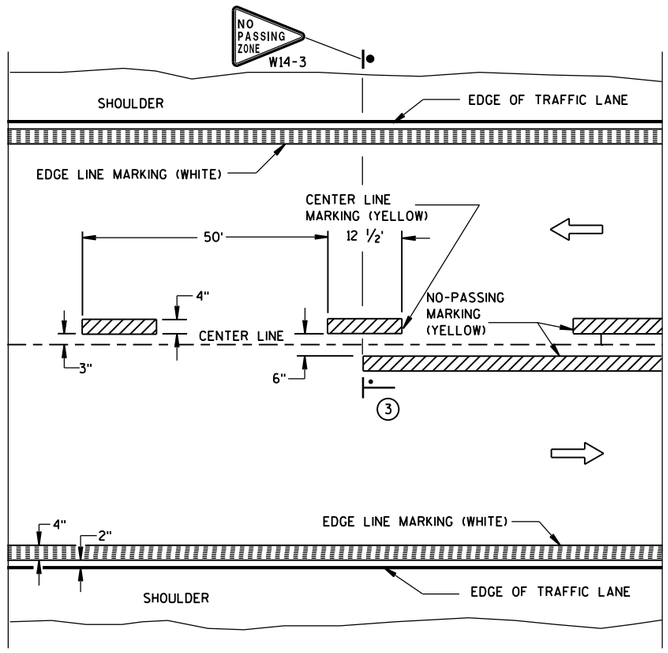
APPROVED
7/1/11 DATE
/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER
FHWA

6

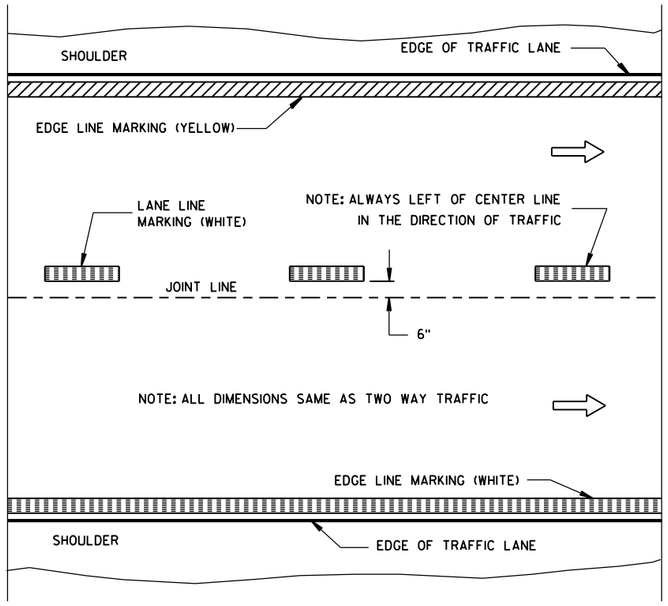
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

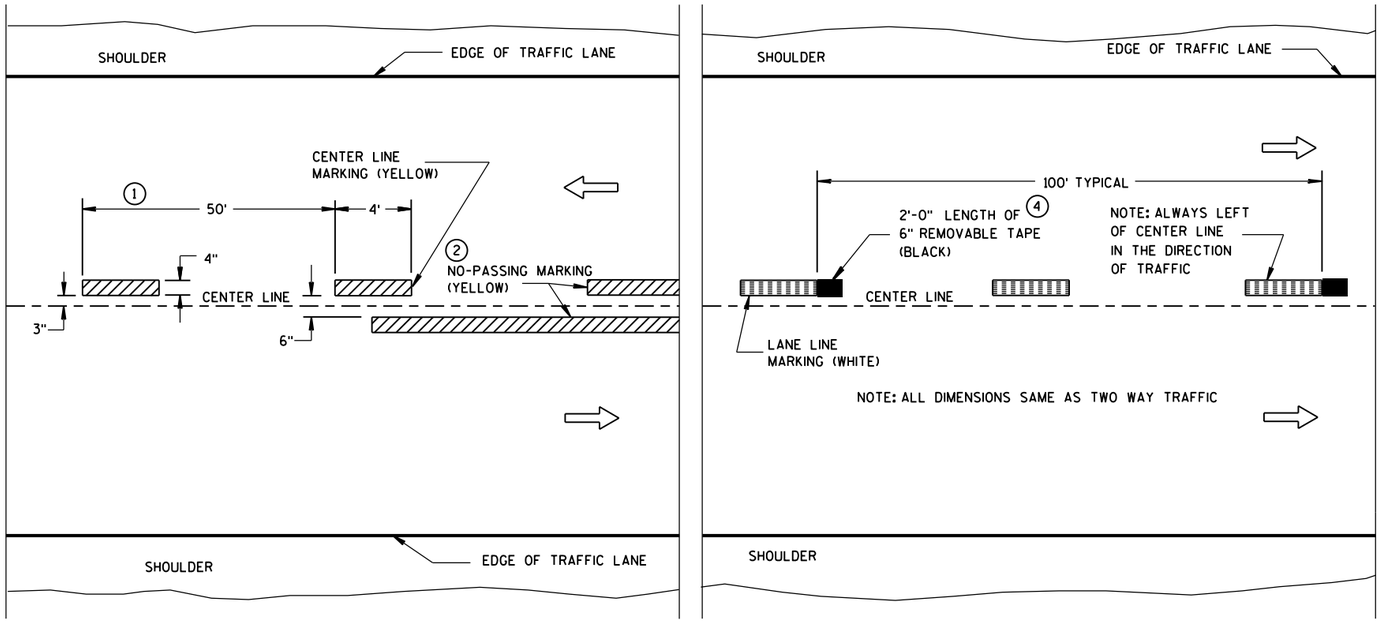
GENERAL NOTES

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

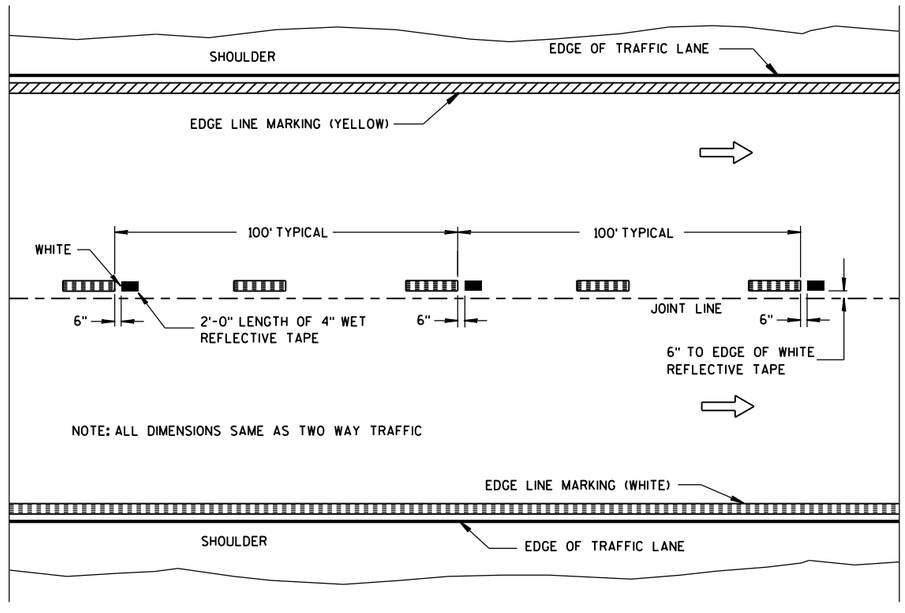


TWO WAY TRAFFIC

ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

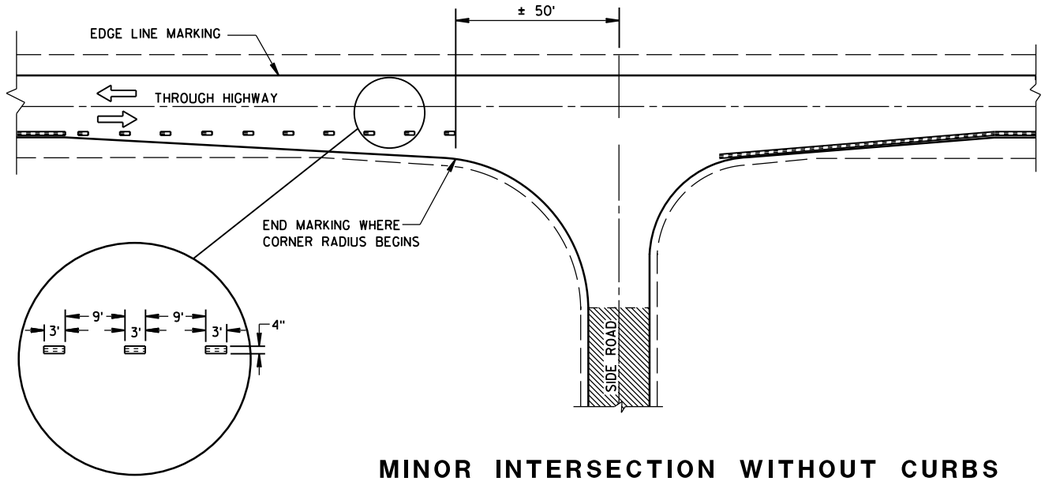
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

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



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

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

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

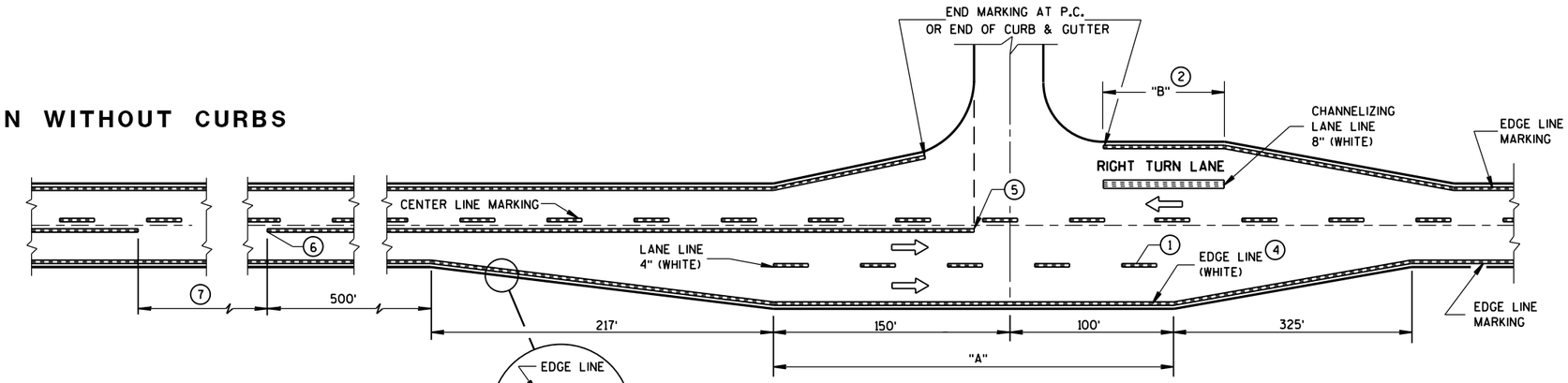
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

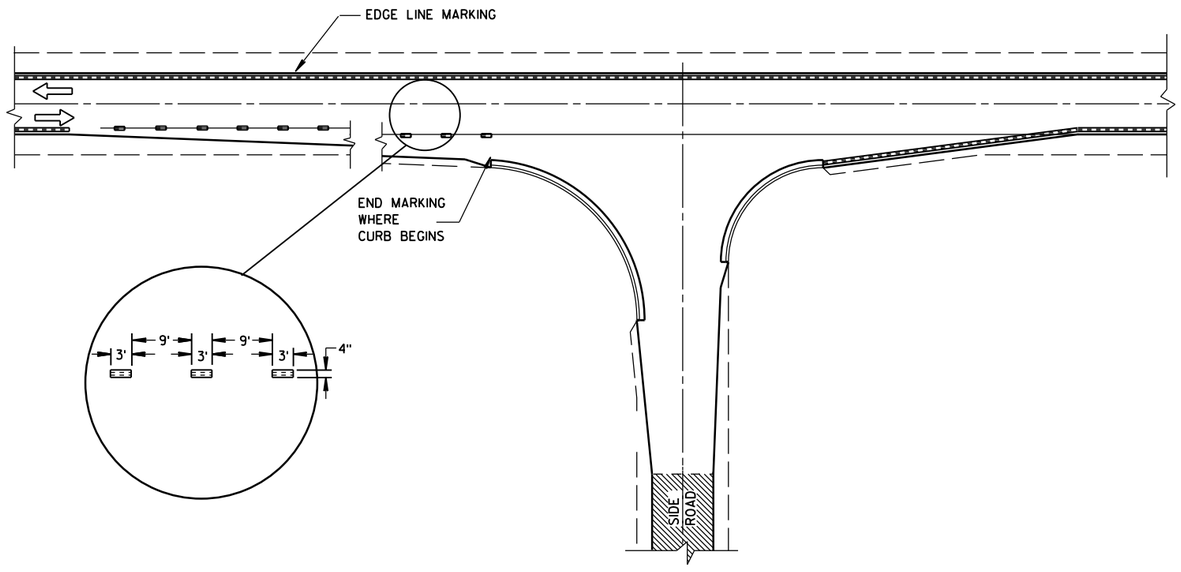
(7)

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



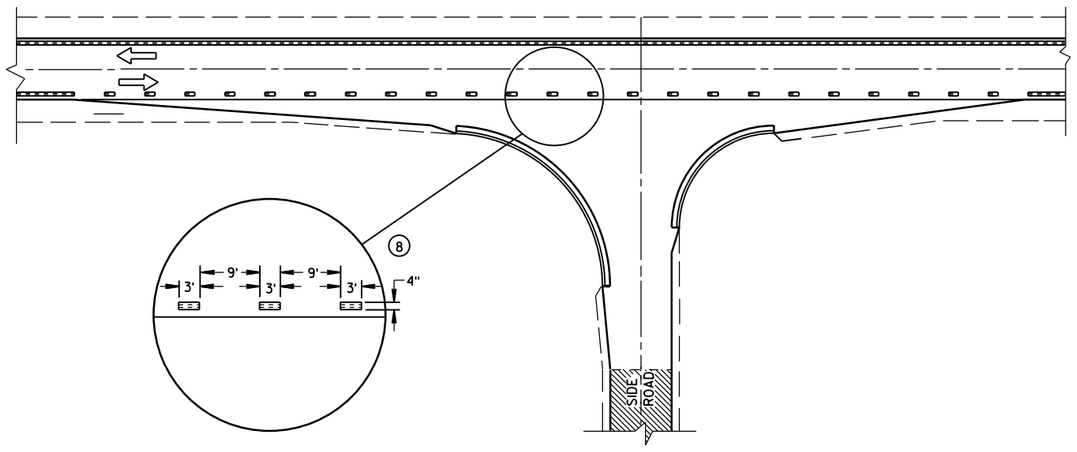
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

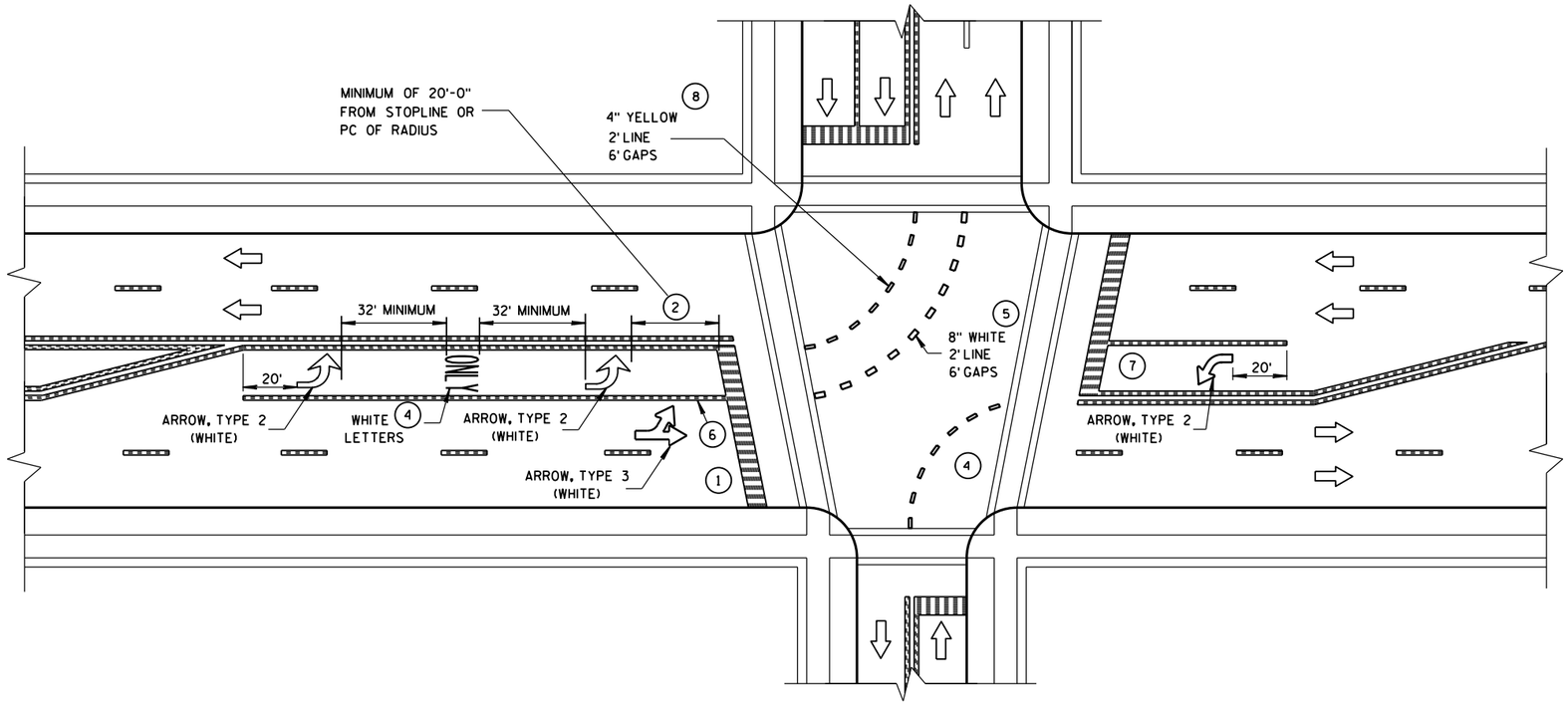
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-15b

6

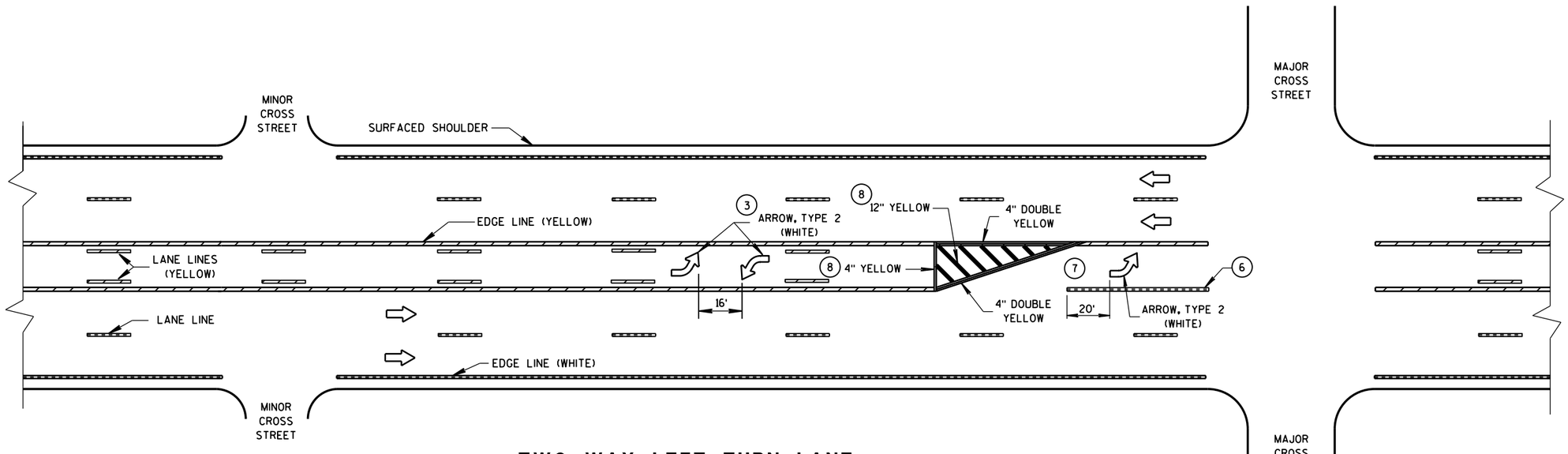
S.D.D. 15 C 8-15b



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' OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA ARROW AND ONLY PER 160' 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'.
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)

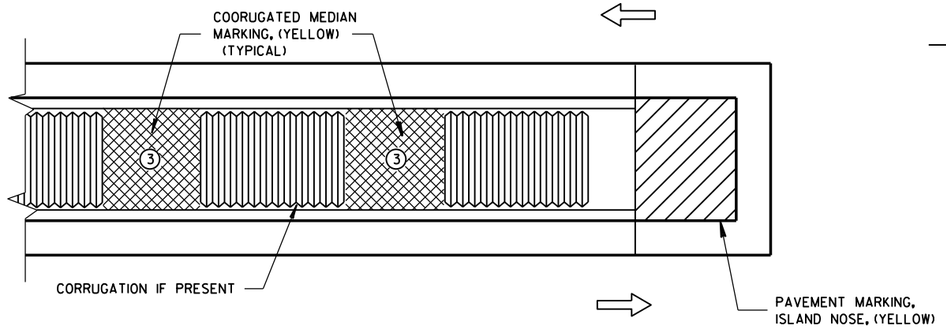
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

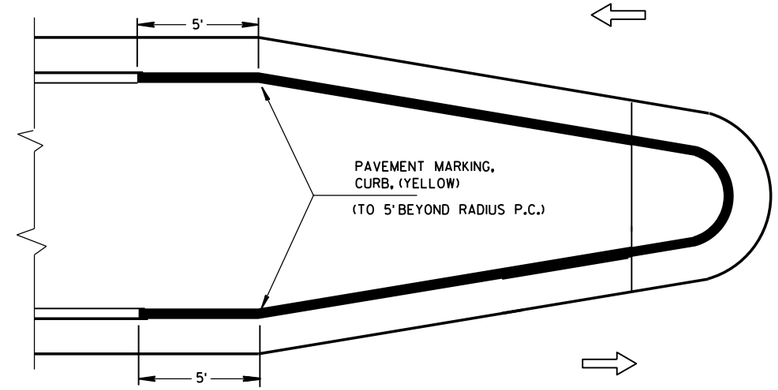
S.D.D. 15 C 8-15e

6

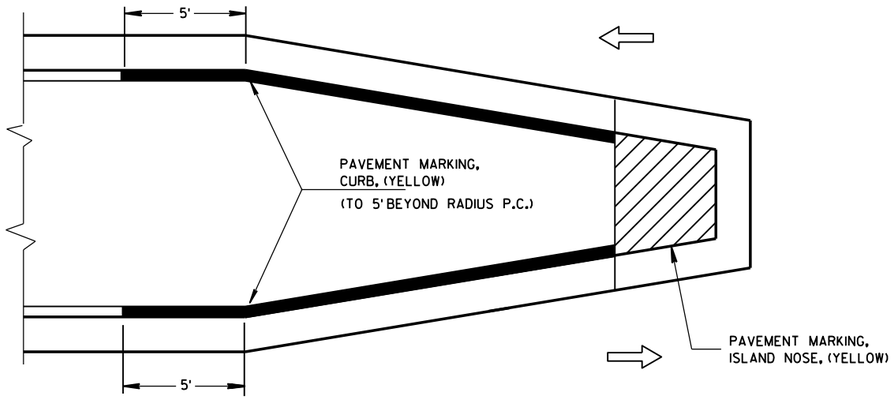
S.D.D. 15 C 8-15e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

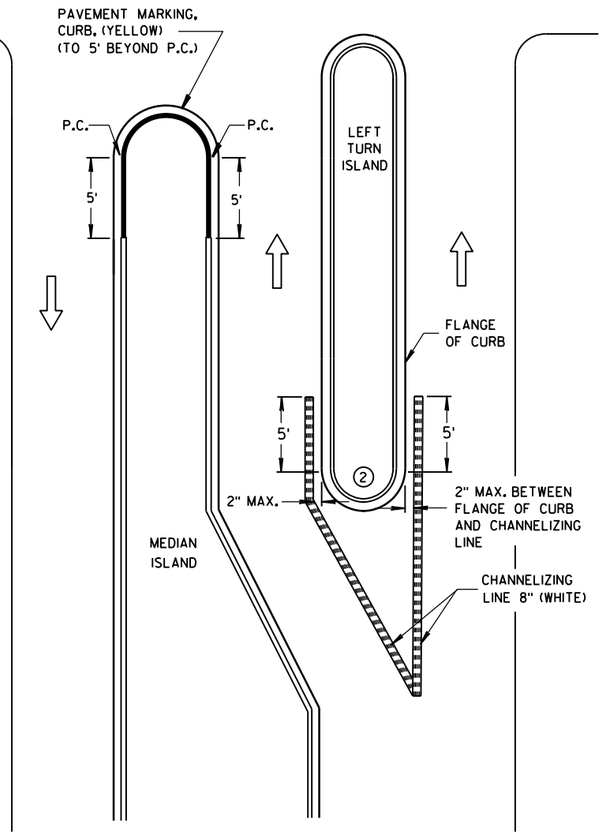


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

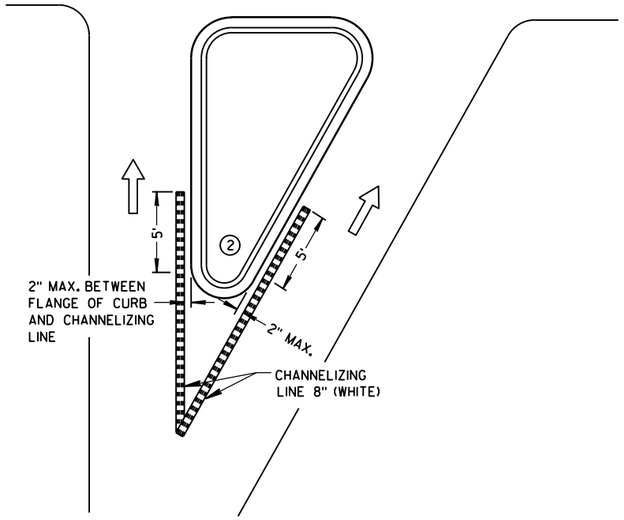
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



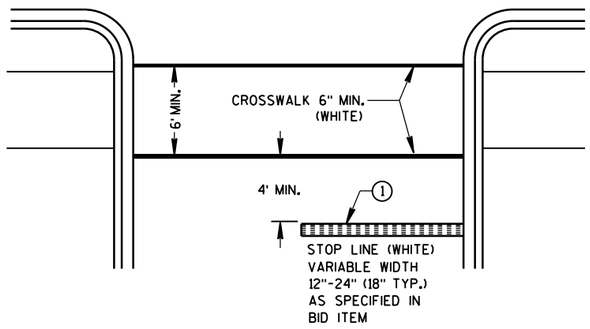
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

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



RIGHT TURN ISLAND



STOP LINE AND CROSSWALK

LEGEND

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

PAVEMENT MARKING
(ISLANDS, STOP LINE &
CROSS WALK)

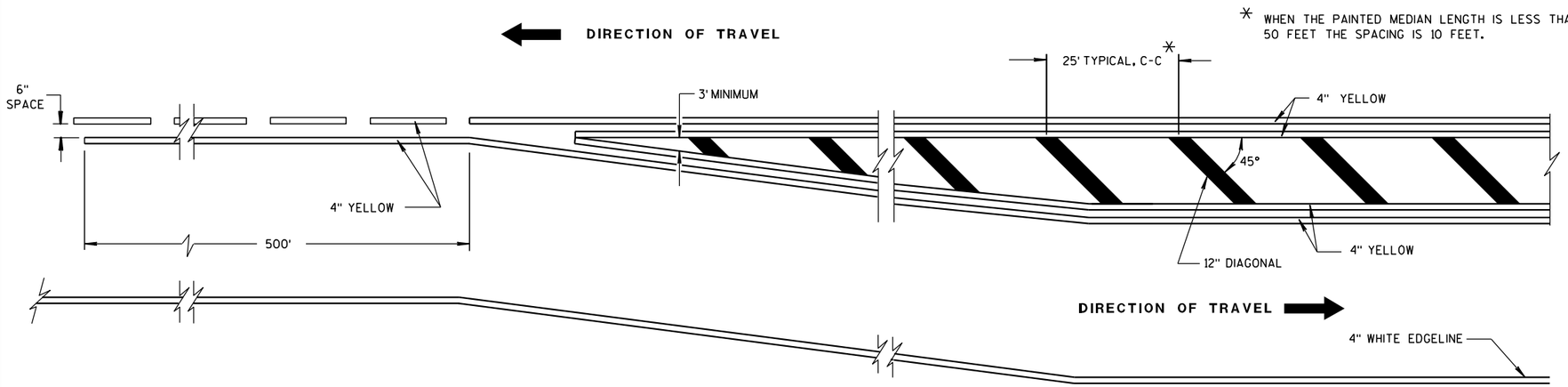
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-15f

6

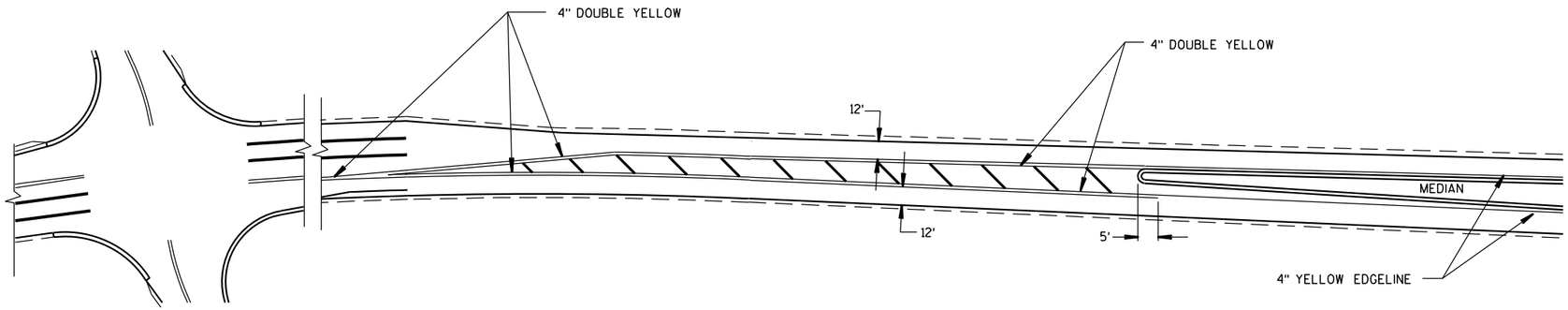
S.D.D. 15 C 8-15f



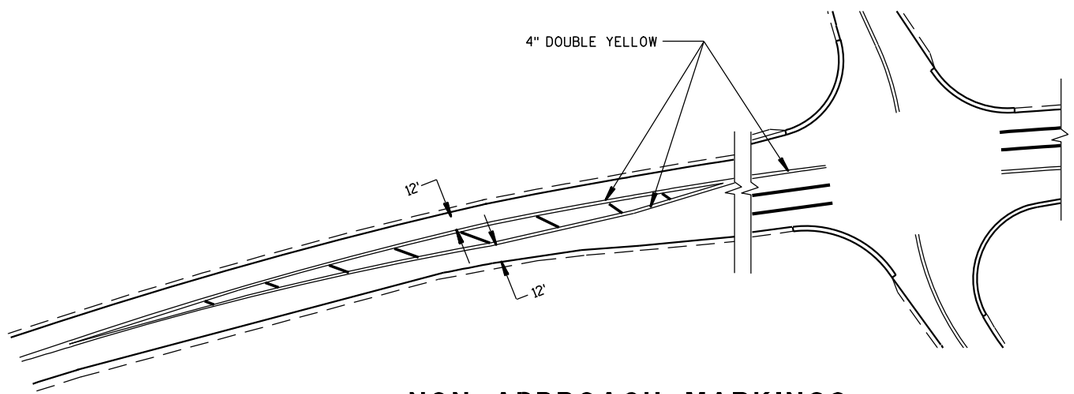
MEDIAN ISLAND DETAIL

GENERAL NOTE

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

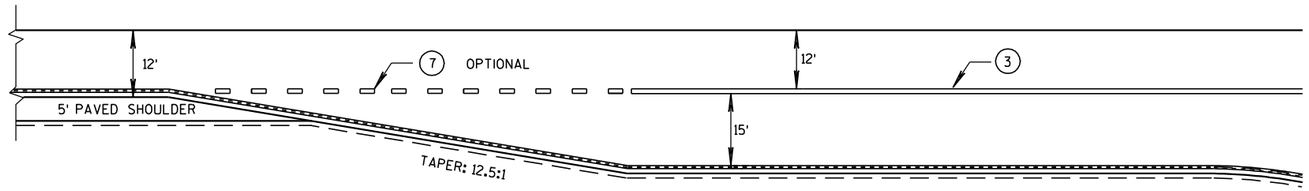


APPROACH MARKINGS FOR OTHER MEDIAN TYPES

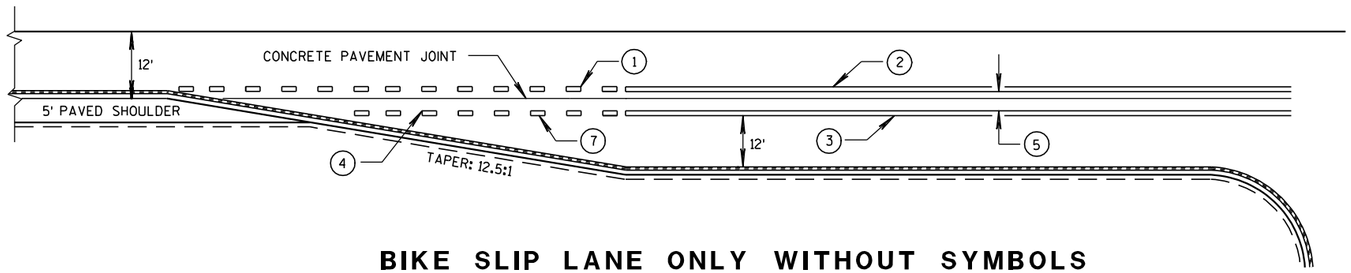


NON APPROACH MARKINGS

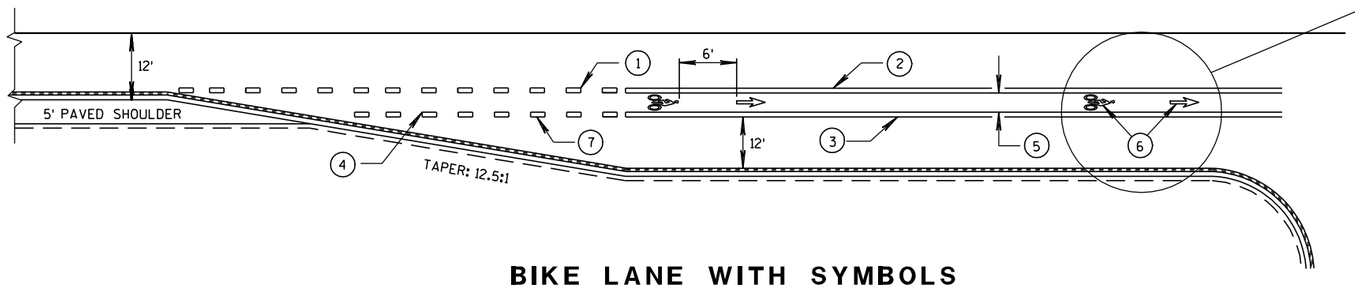
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	133 IGN

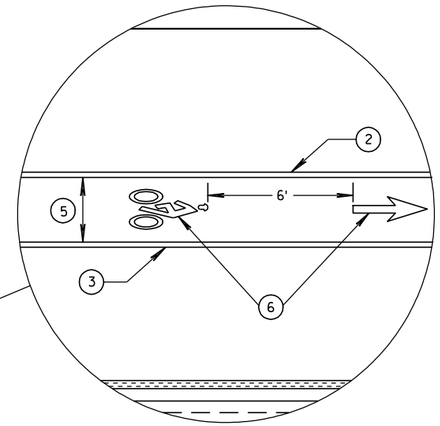


WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS





BIKE LANE WITH SYMBOLS

GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   2 LANE (3' LEFT, 2' RIGHT OF JOINT).
   4 LANE (2' LEFT, 3' RIGHT OF JOINT).
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

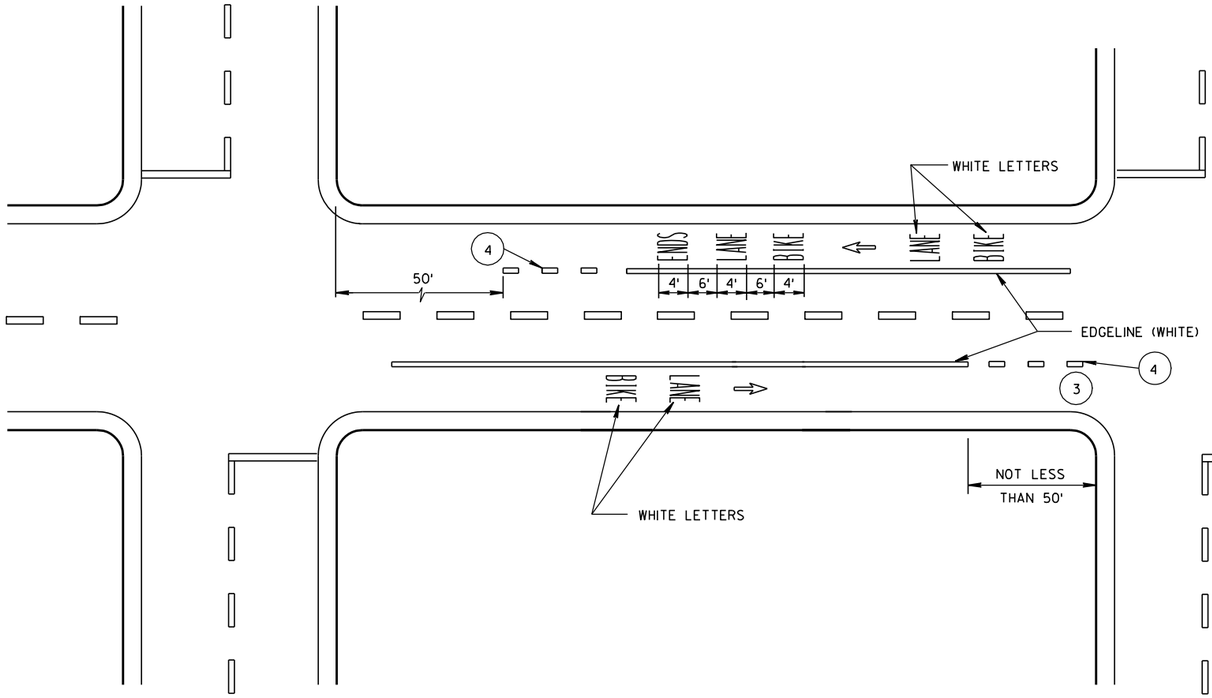
APPROVED
2/6/2012 DATE
/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINE 134 SIGN
FHWA

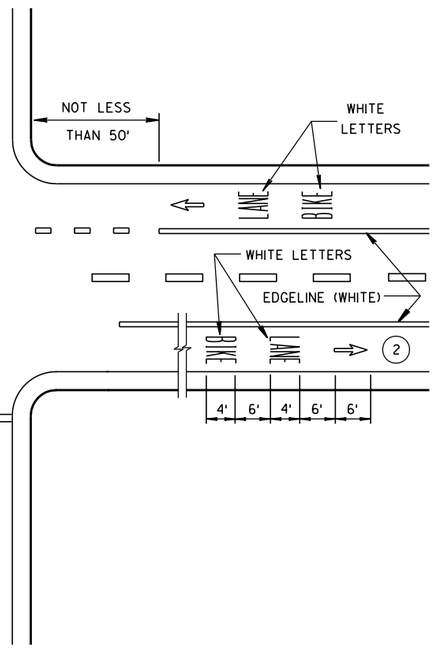
6

S.D.D. 15 C 29-2a

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/6/2012 DATE

/S/ Thomas N. [illegible] STATE TRAFFIC ENGINEER

FHWA

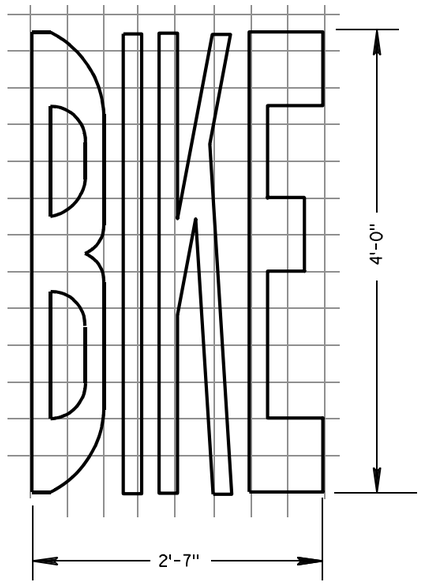
6

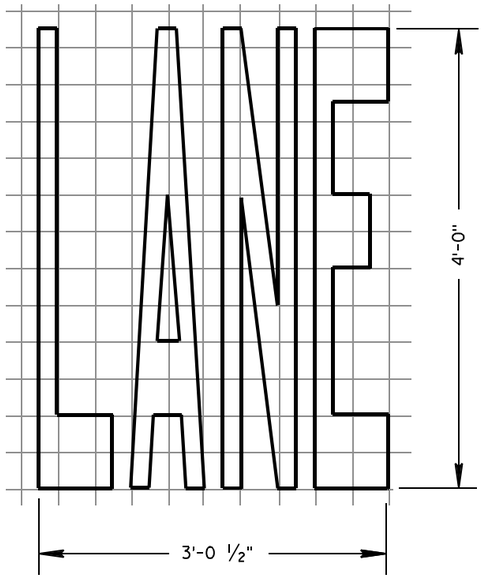
S.D.D. 15 C 29-2d

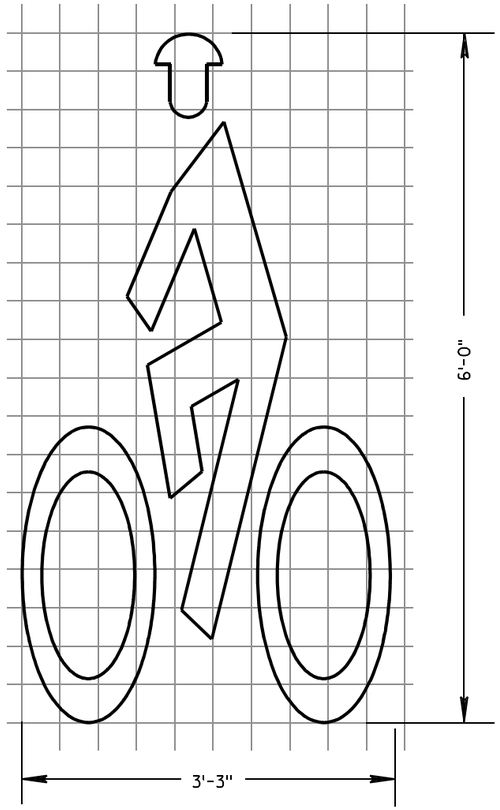
GENERAL NOTES

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.

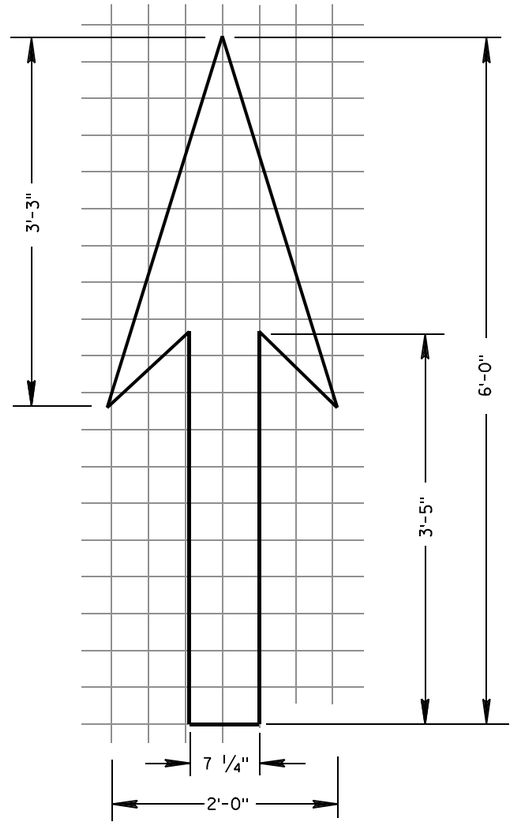
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



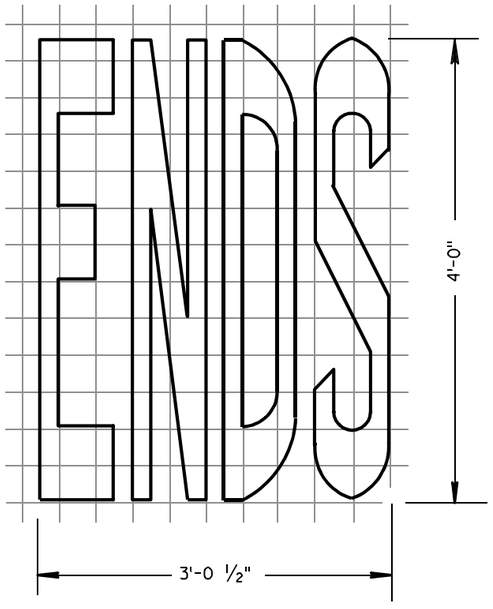




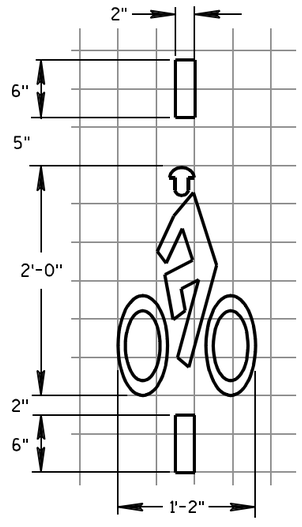
BIKE LANE SYMBOL



BIKE LANE ARROW



BIKE LANE WORDS



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-6-2012 DATE

/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 29-2e

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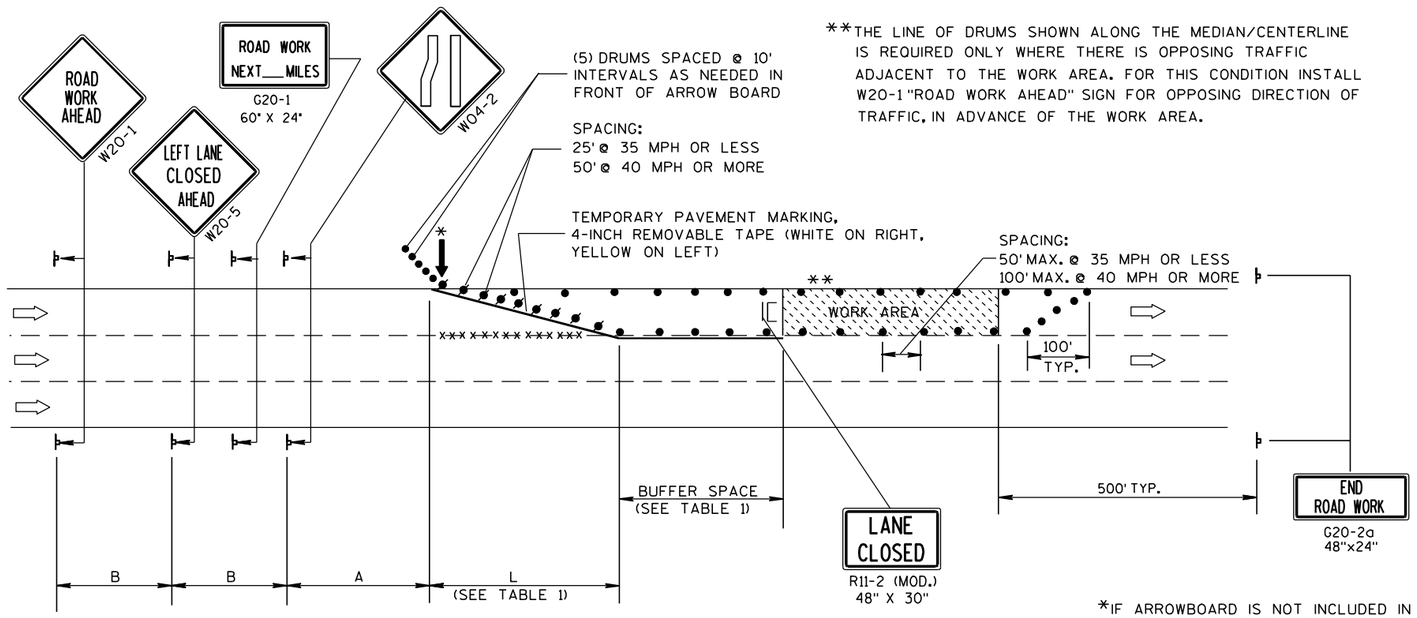
S.D.D. 15 C 29-2e



**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"

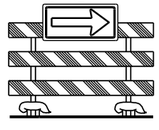


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

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 7 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.

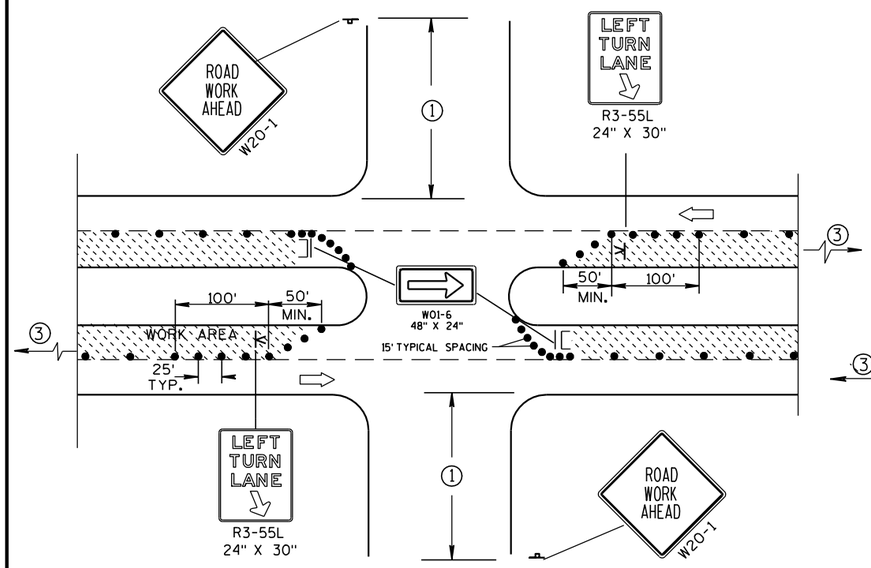
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

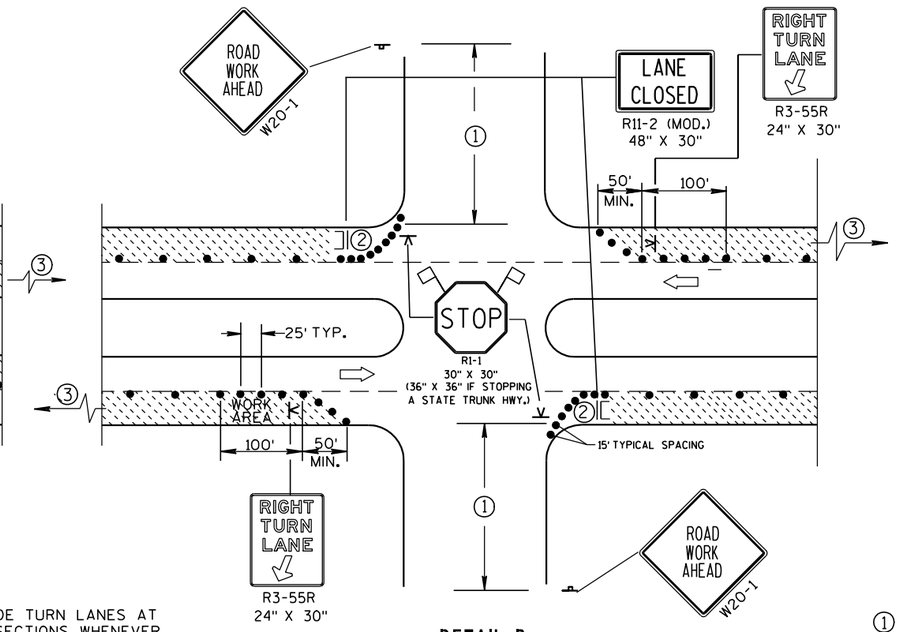
6

S.D.D. 15 D 20-1



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

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

THE SPACING BETWEEN 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"×48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

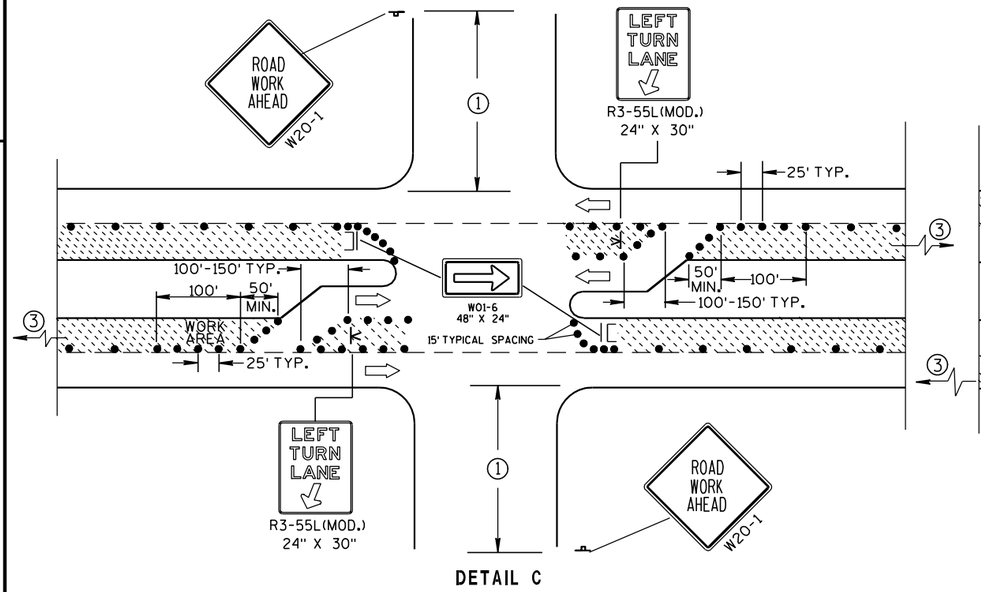
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

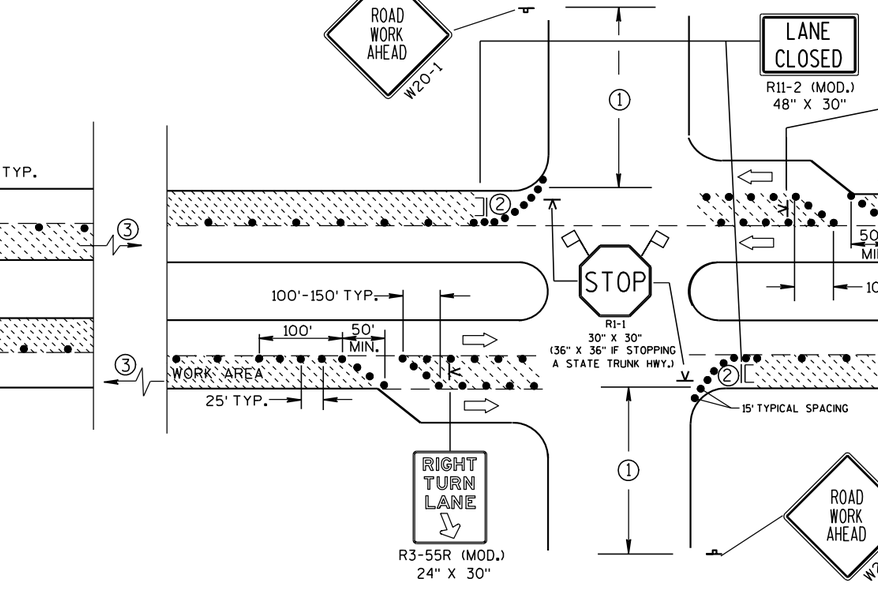
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

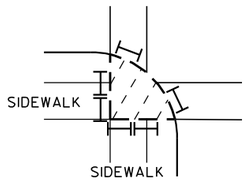
- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

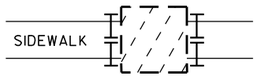
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

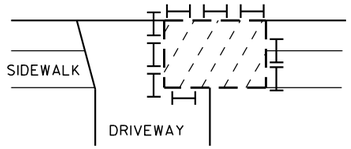
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

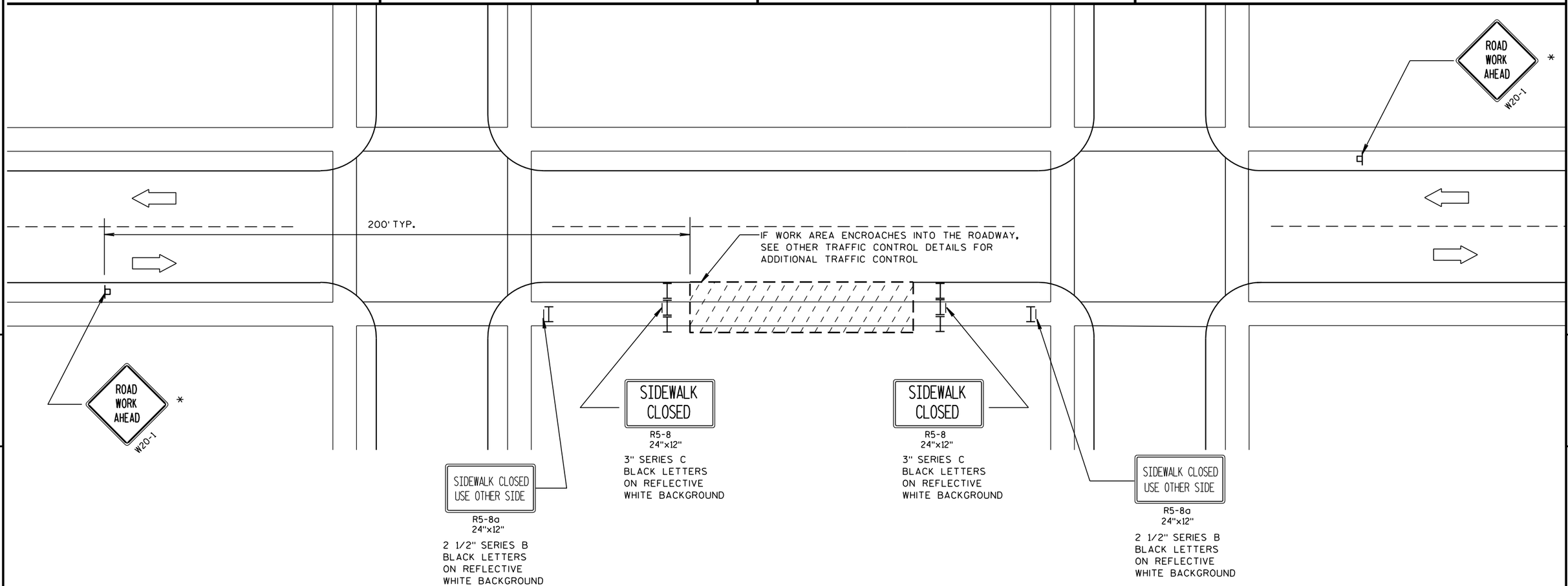
APPROVED
5/23/00 DATE
/S/ Chester J. Spang
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

* "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.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000 DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] [illegible]NEER

FHWA

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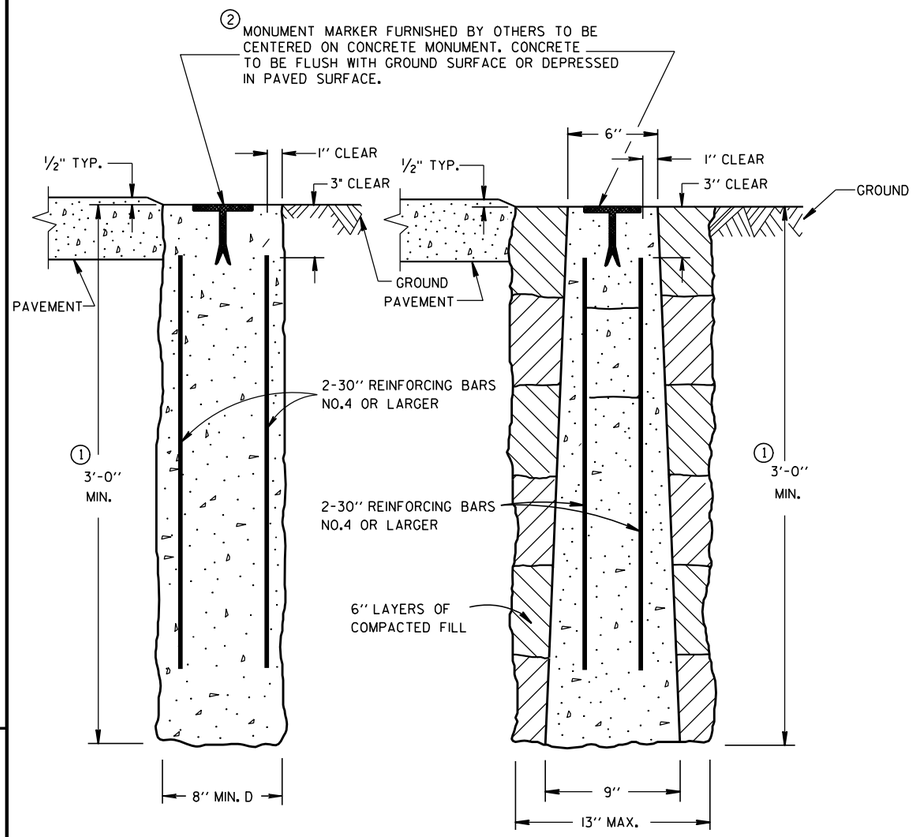
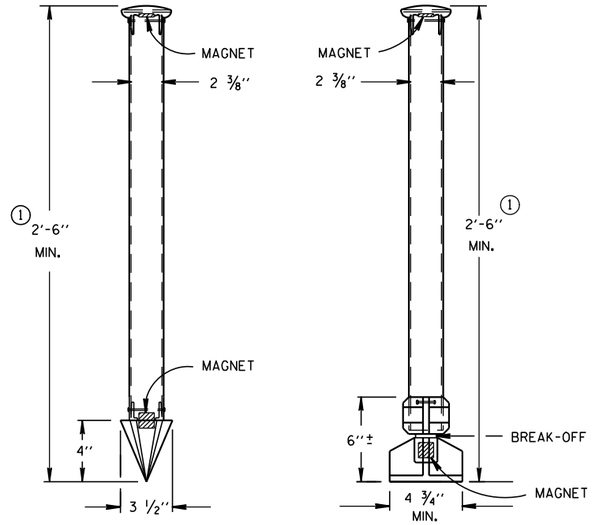
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

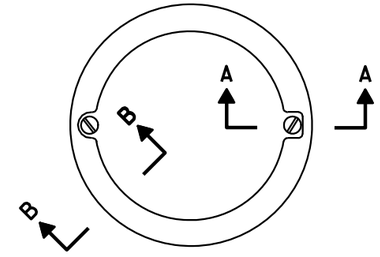
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

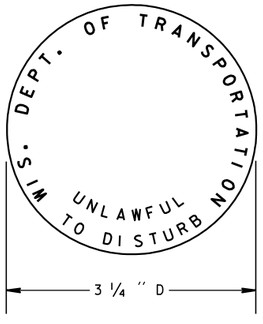
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

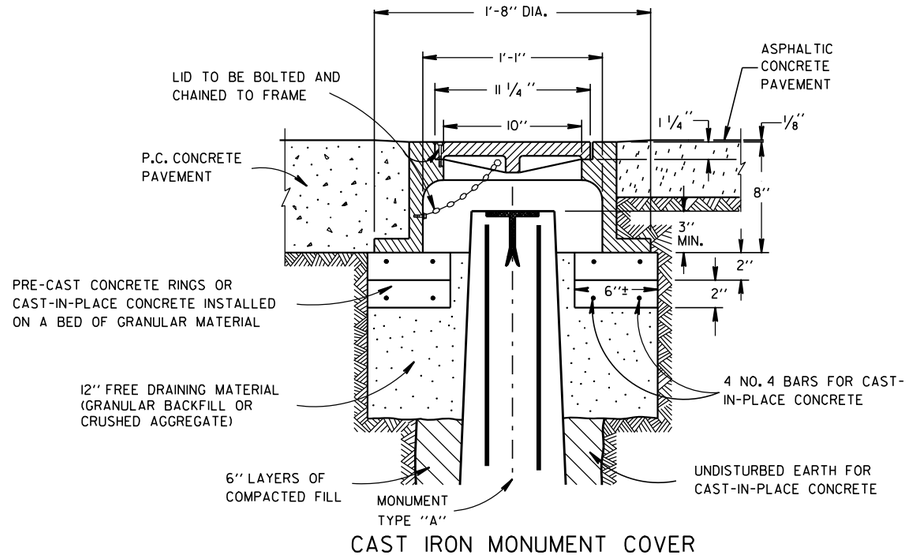
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

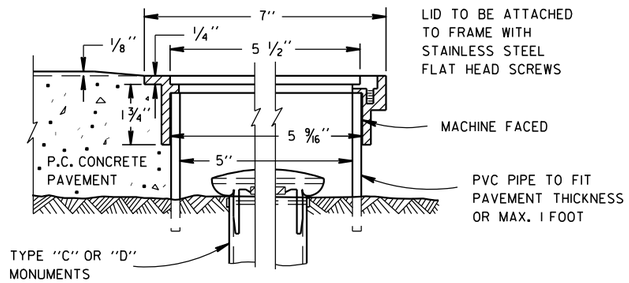


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

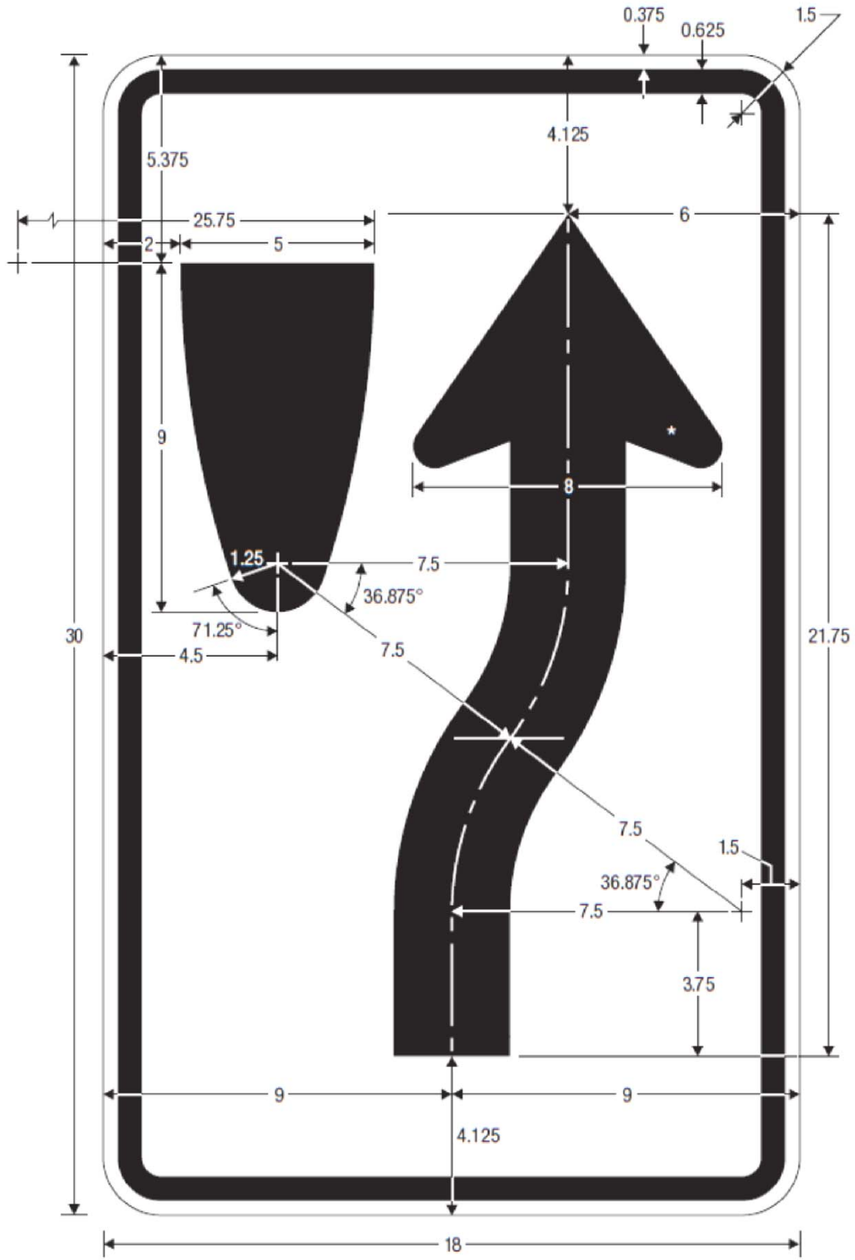
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

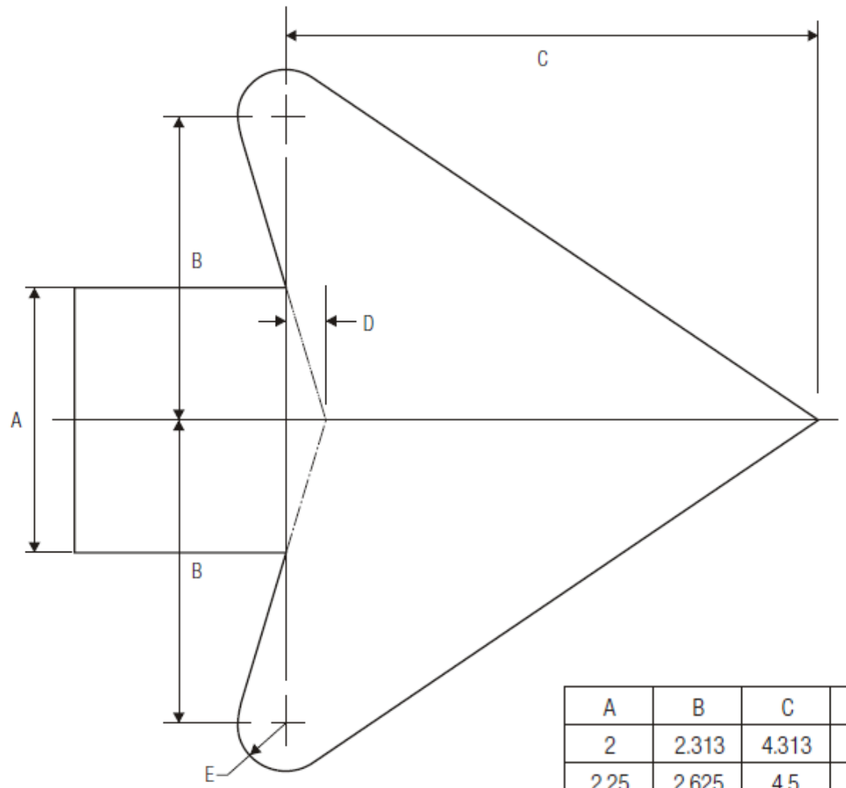
6

S.D.D. 16 A 1-6

STANDARD ARROW DETAILS



R4-7c
NARROW KEEP RIGHT



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. 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.

A	B	C	D	E
2	2.313	4.313	.313	.375
2.25	2.625	4.5	.375	.438
2.5	2.875	5.063	.375	.5
2.625	3	5.25	.375	.5
2.75	3	5.563	.438	.563
3	3.5	6.125	.438	.563
3.125	3.625	6.375	.5	.625
3.25	3.75	6.625	.5	.625
3.313	3.813	6.688	.5	.688
3.5	4	7.125	.563	.688
3.75	4.313	7.625	.563	.75
4	4.625	8.125	.625	.813
4.063	4.75	8.25	.625	.813
4.25	4.875	8.625	.625	.813
4.375	5	8.875	.688	.875
4.5	5.188	9.125	.688	.875

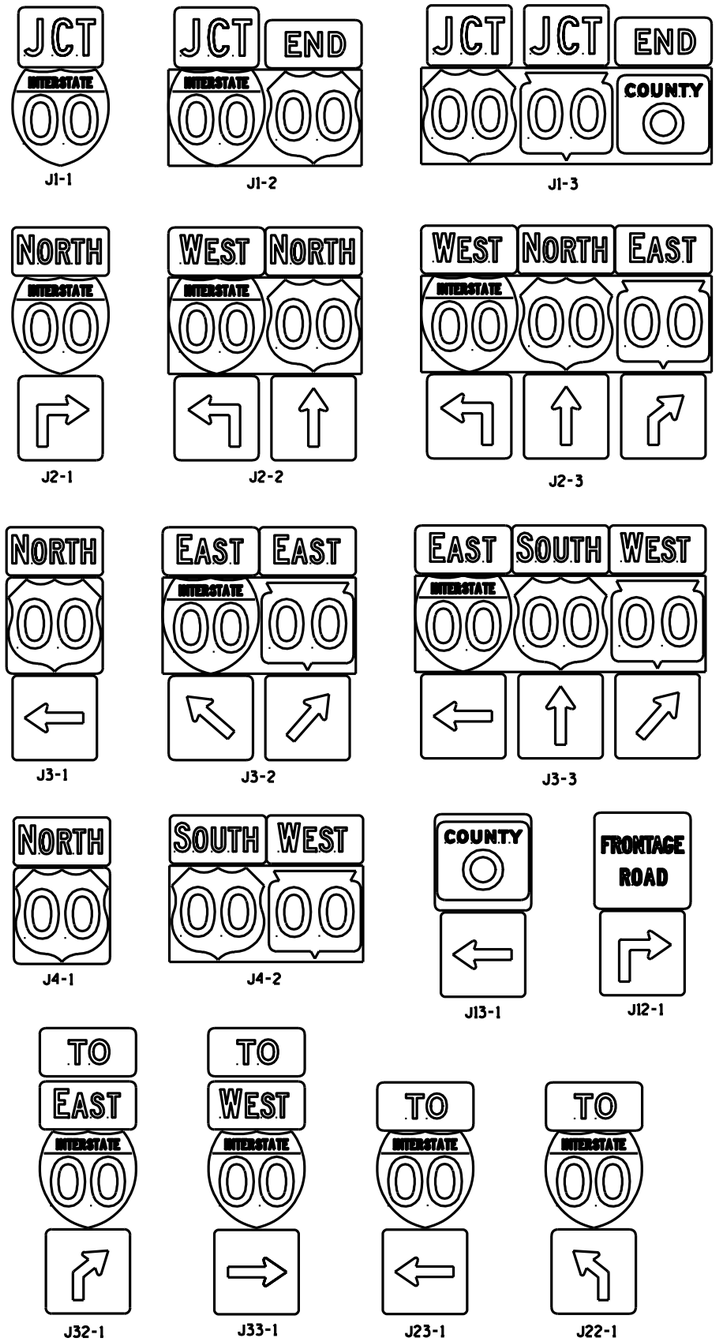
A	B	C	D	E
4.75	5.438	9.625	.75	1
4.875	5.625	9.875	.75	1
5	5.75	10.125	.75	1
5.25	6	10.625	.813	1.063
5.5	6.375	11.125	.875	1.125
5.75	6.625	11.688	.875	1.125
6	6.875	12.188	.938	1.188
6.5	7.5	13.188	1	1.625
7	8	14.188	1.063	1.375
7.5	8.625	15.188	1.125	1.5
8	9.188	16.25	1.25	1.625

7

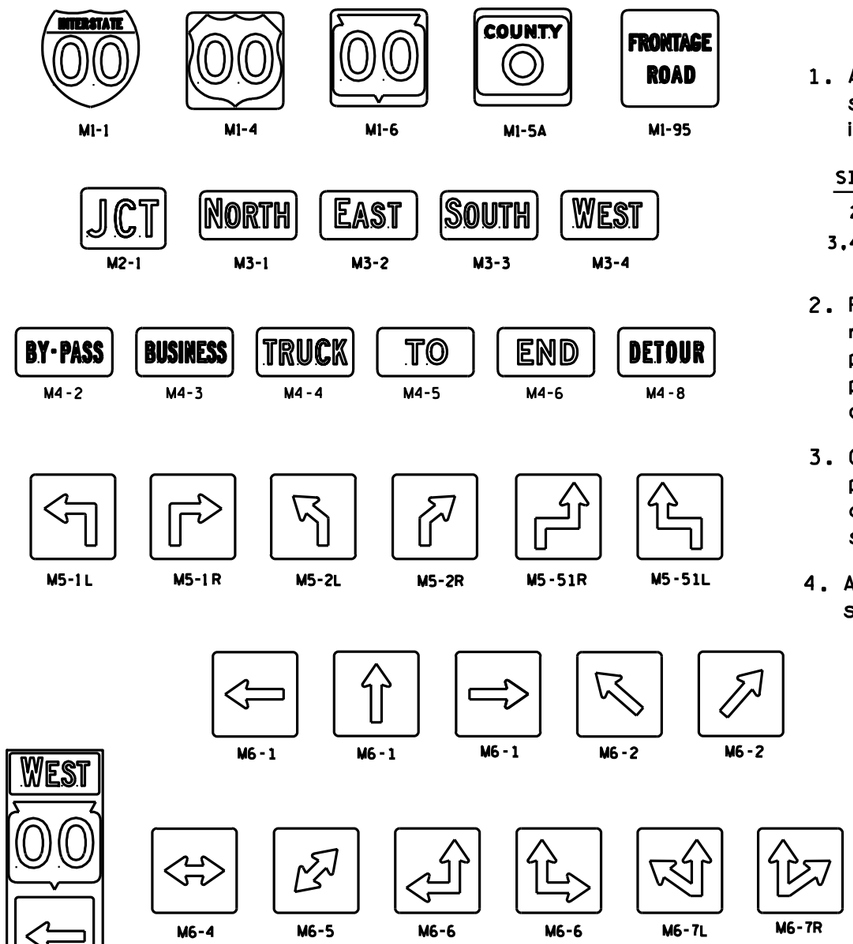
7

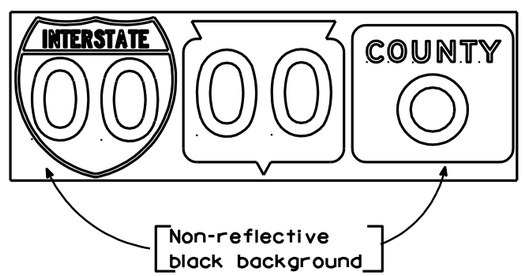
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	SPECIAL SIGN DETAILS	SHEET:
FILE NAME:	ORIGINATOR: OMNNI ASSOCIATES	ORIG. DATE:	REV. DATE:	PRINT DATE: January 30, 2013

TYPICAL ASSEMBLIES



INDIVIDUAL COMPONENTS OF ASSEMBLIES





GENERAL NOTES

1. All components within any individual assembly shall be the same "size". The following table illustrates that situation:

SIZE	M1'S	M2	M3'S & M4'S	M5'S & M6'S
2	24 X 24	21 X 15	24 X 12	21 X 21
3,4-5	36 X 36	30 X 21	30 X 15	30 X 30

2. For any assembly containing two or more route markers, the route markers SHALL be placed on a single high density overlay PLYWOOD panel. All other materials within the assembly can be either plywood or aluminum.

3. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 marker shall be blue.

4. All vertical J assemblies are given a sign code of JV.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

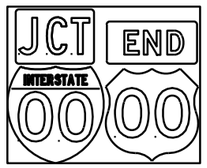
APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/06/00 A2-1.6

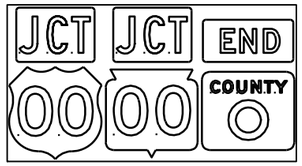
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 142	E

TYPICAL ASSEMBLIES

J1-1

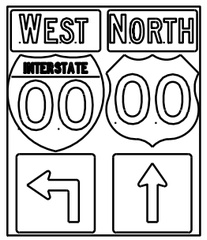


J1-2

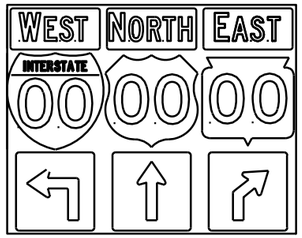


J1-3

J2-1

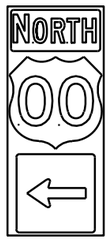


J2-2

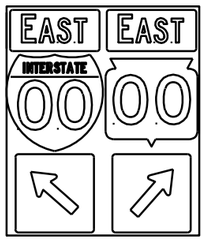


J2-3

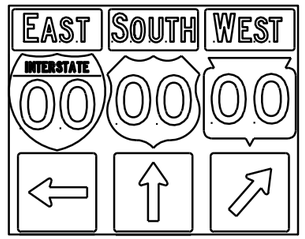
JV



J3-1

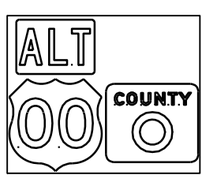


J3-2

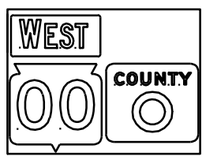


J3-3

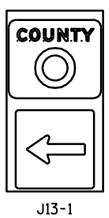
J4-1



J4-2



J4-2



J13-1

J12-1

J32-1

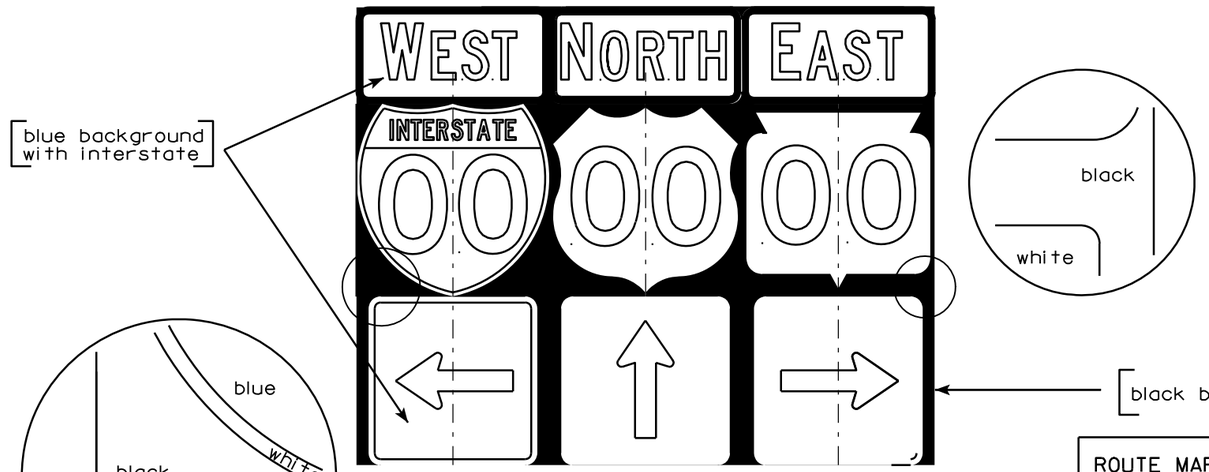
J33-1

J23-1

J22-1

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 since base material is plywood.
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.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

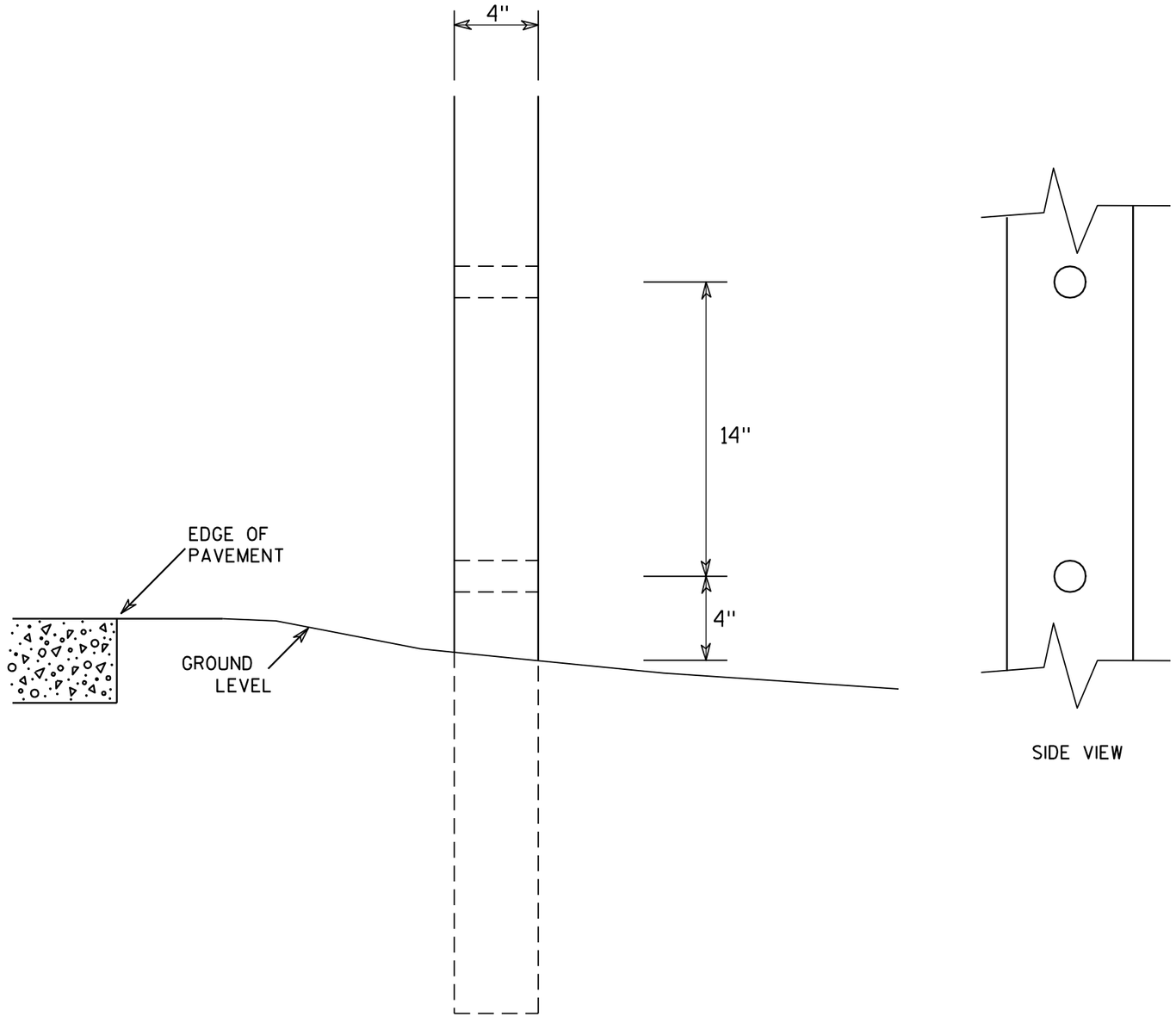
DATE 10/21/09 PLATE NO. A2-1S.6

7

7

PROJECT NO:

SHEET NO: 143 E



SIDE VIEW

GENERAL NOTES

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

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4 X 6 WOOD POST MODIFICATIONS

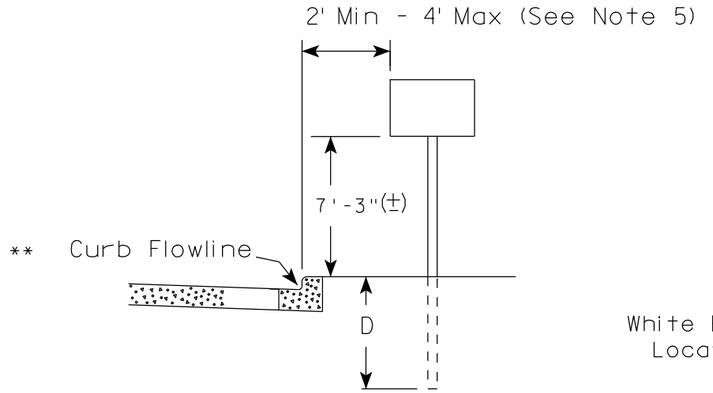
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

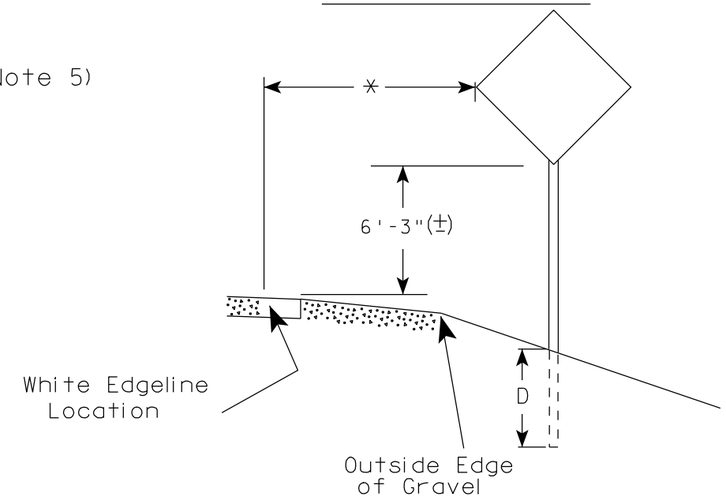
DATE 3/27/97 PLATE NO. A4-11.2

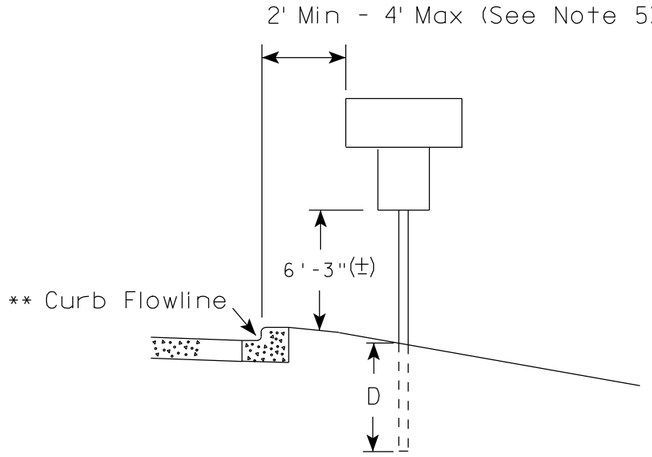
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 144	E

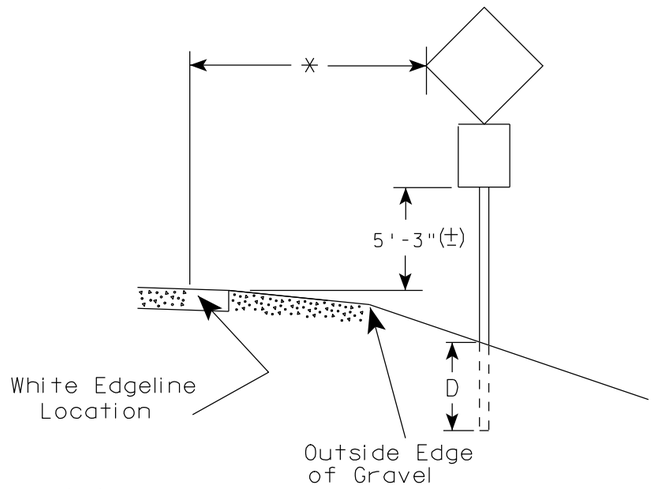
URBAN AREA



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.

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

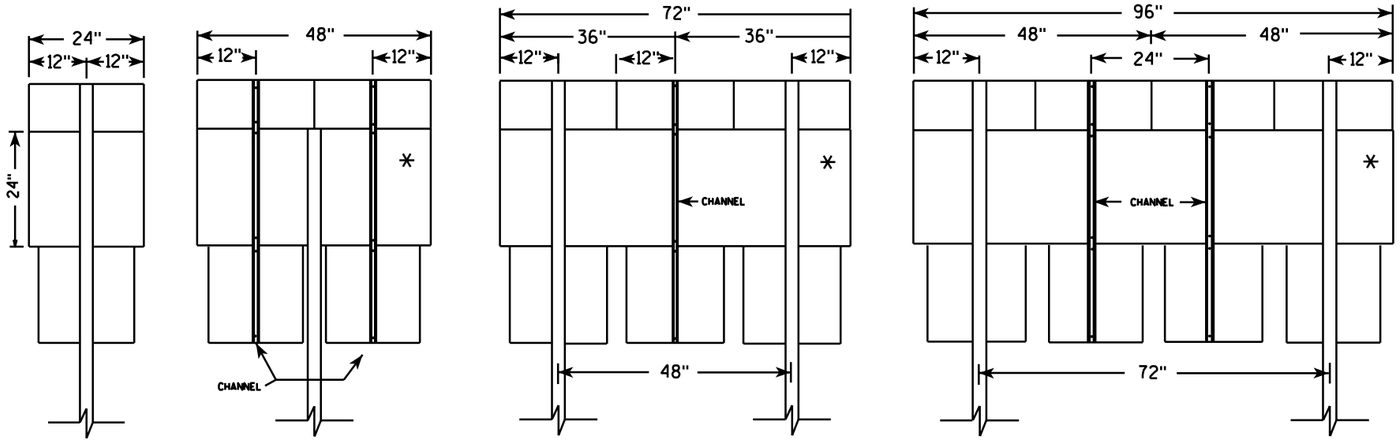
APPROVED Matthew R Rauch for State Traffic Engineer

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

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 145 | E



24" MARKER DETAIL

NOTES:

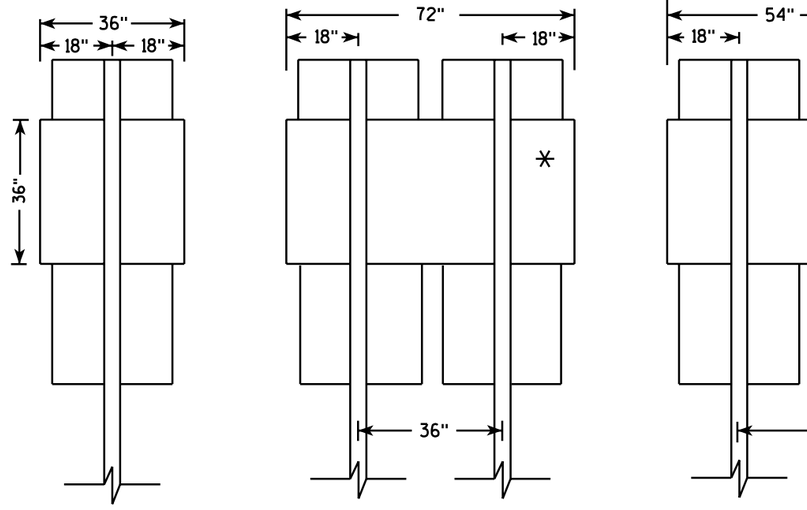
1. Post spacing shall be according to this detail but post embedment depth shall be in accordance with A4-4.
2. Channel material shall be as specified in Section 633 of Std. Specs. and weight shall be approx. 1.4 lbs/ft.
3. Base material for a multiple marker head panel (*) shall be one piece high density overlay plywood. All other materials within the assembly can be either plywood or aluminum.

CHANNEL HARDWARE:

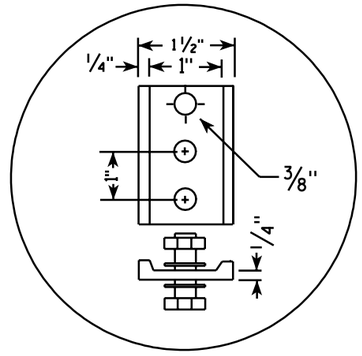
Aluminum Sign components: -1/4" x 3/4" bolt and 1/4" flat washers

Plywood Sign Components: -1/4" x 1 1/4" bolt and 1/4" flat washers

CHANNEL DETAIL



36" MARKER DETAIL



TYPICAL PANEL INSTALLATION FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong for State Traffic Engineer

DATE 10/28/96 PLATE NO. A4-5.4

PROJECT NO:

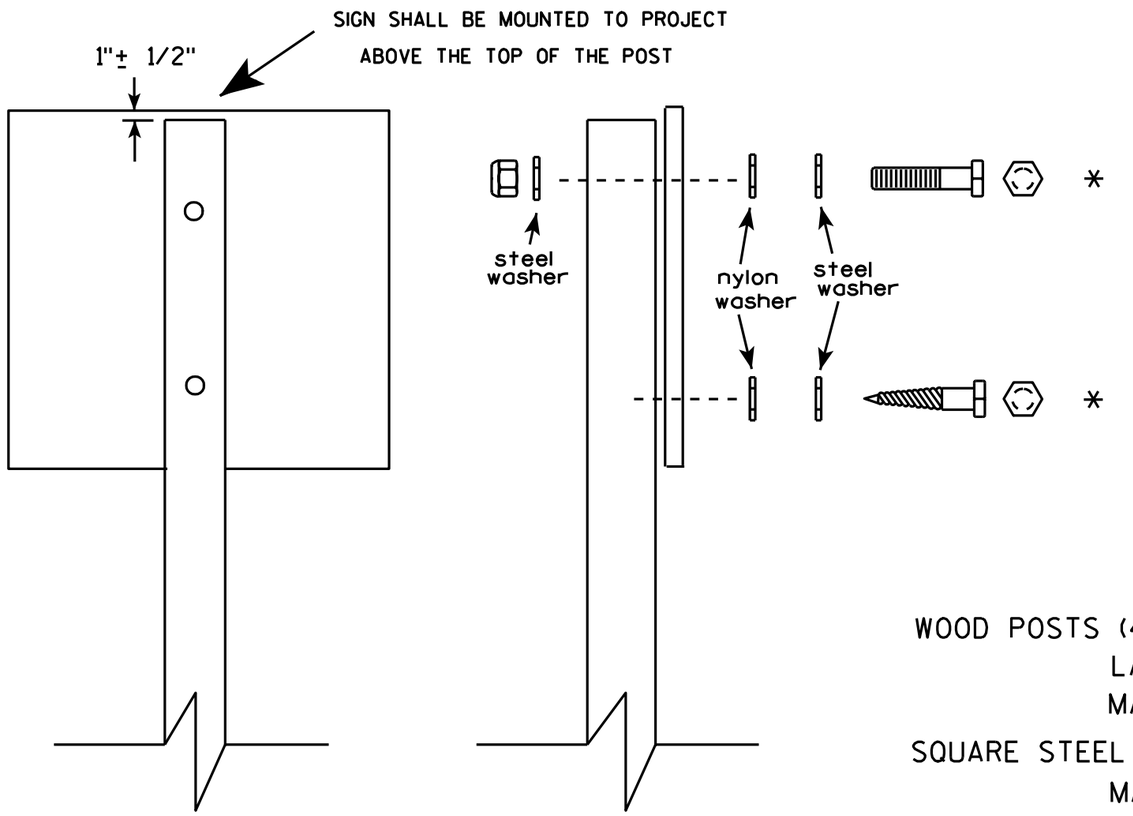
SHEET NO: 146 E

FILE NAME : C:\Users\Projects\tr_stdplate\A45.DGN PLOT DATE : 18-OCT-2005 11:00 PLOT BY : DOTSJA

WISDOT/CADDS SHEET 42

7

7



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

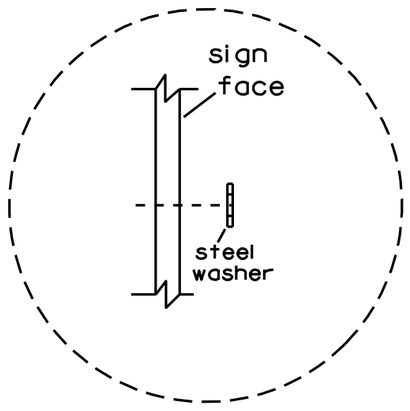
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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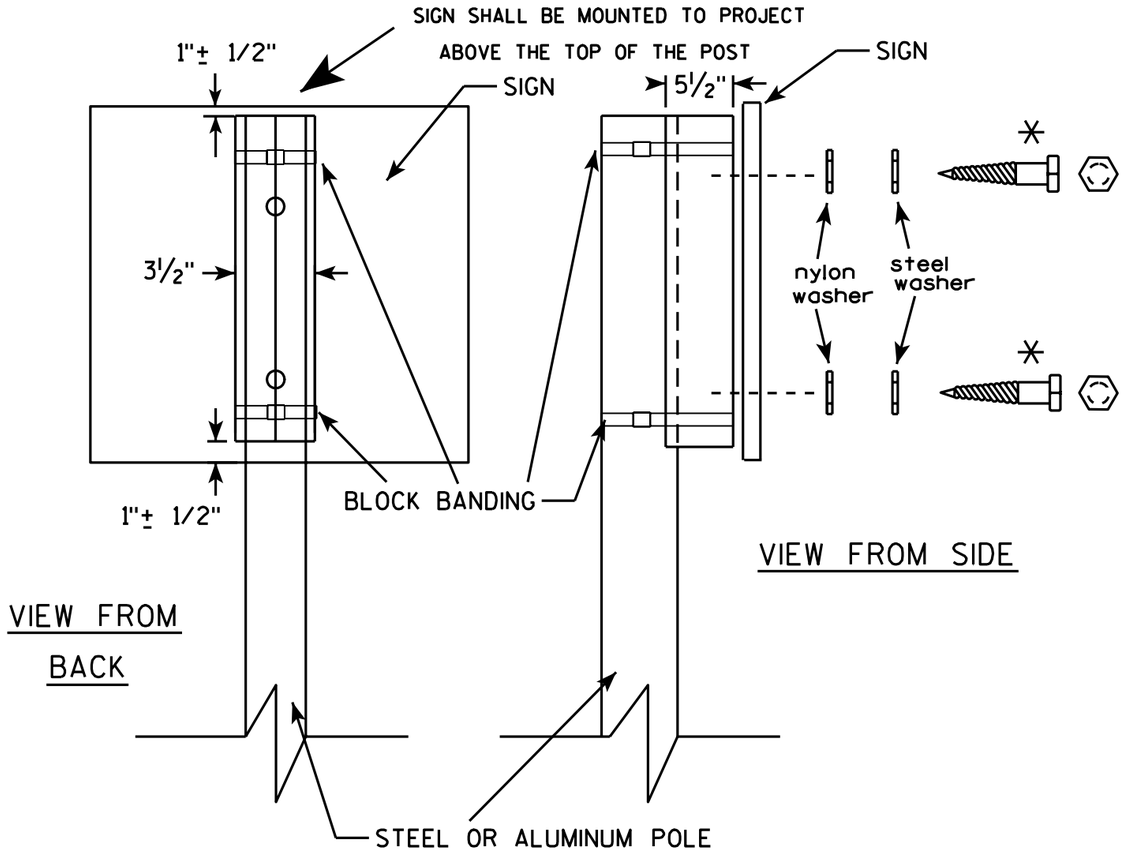
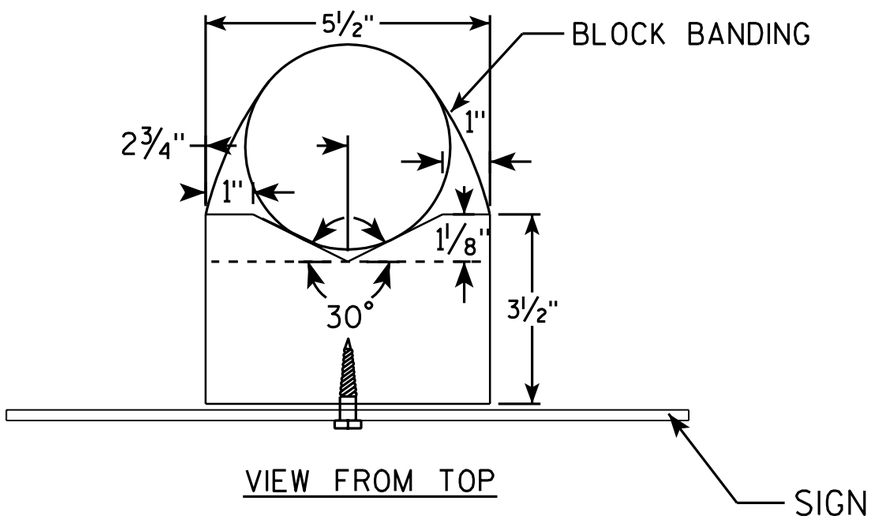
PROJECT NO:

SHEET NO: 147 E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

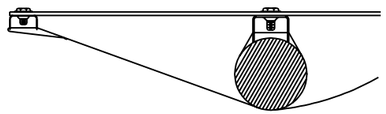
PROJECT NO:

SHEET NO: 148 E

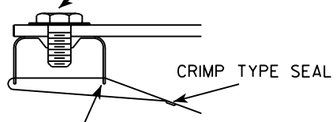
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

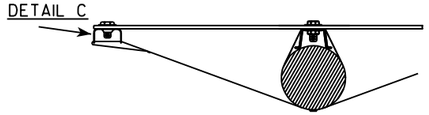
BRACE BANDING

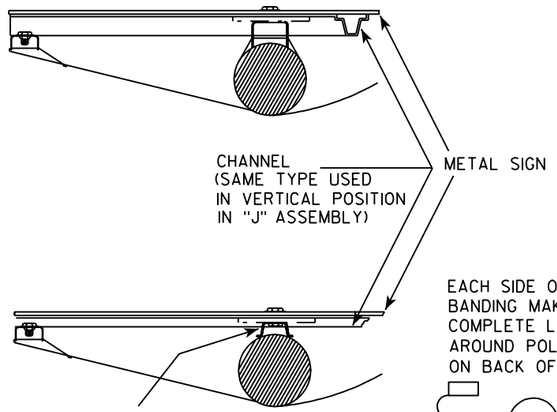


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER

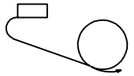


DETAIL C



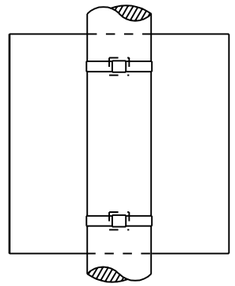


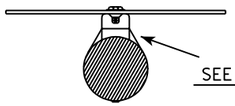
EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE



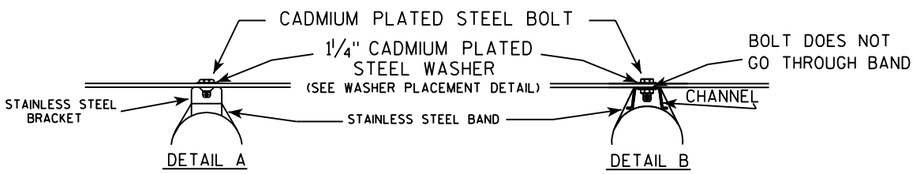
BRACKET BANDING

SINGLE SIGN





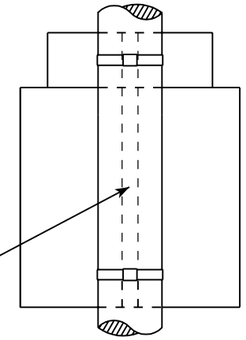
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

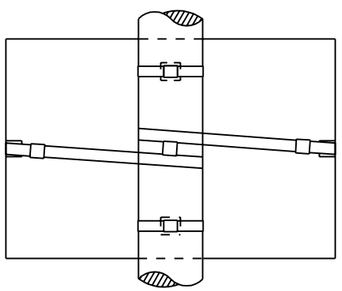


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

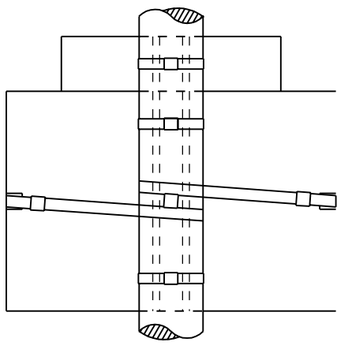
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

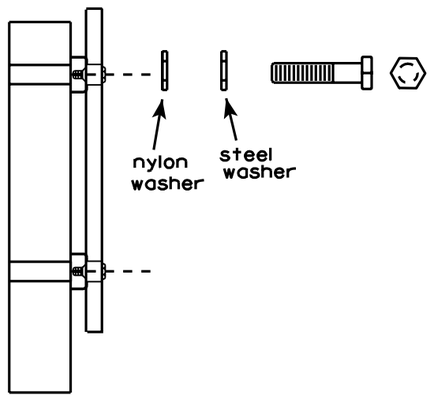


BRACE BANDING

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



WASHER PLACEMENT



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

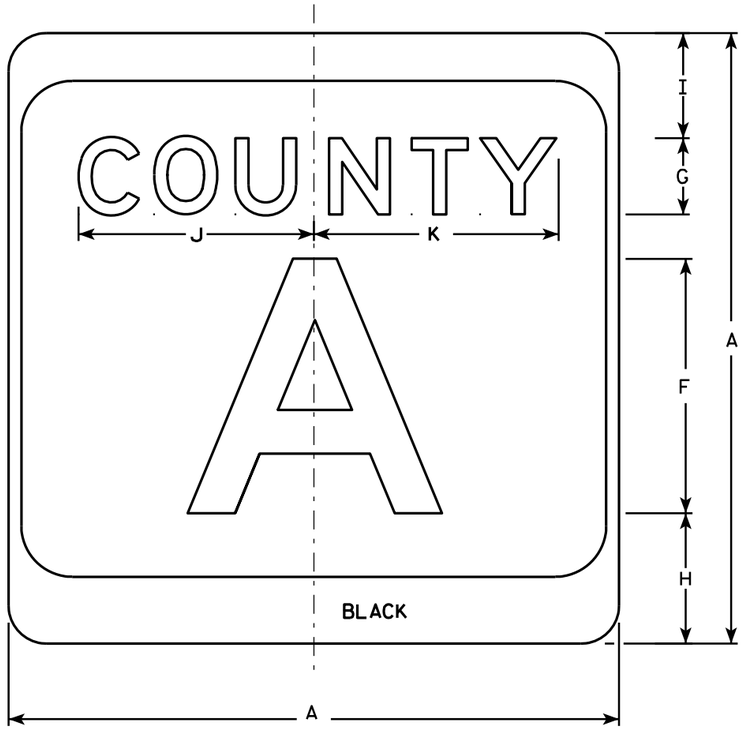
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

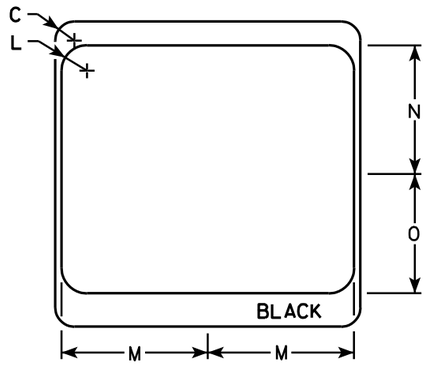
APPROVED Matthew R Rauch
for State Traffic Engineer

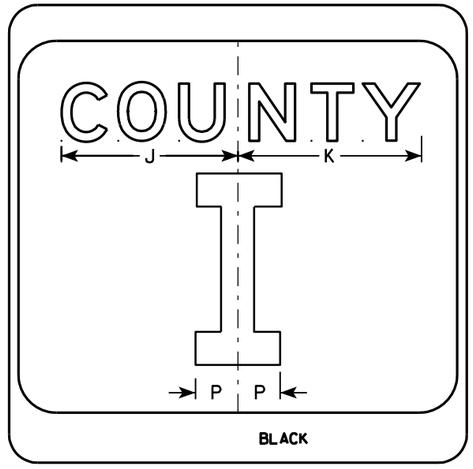
DATE 11/08/05 PLATE NO. A5-9.2

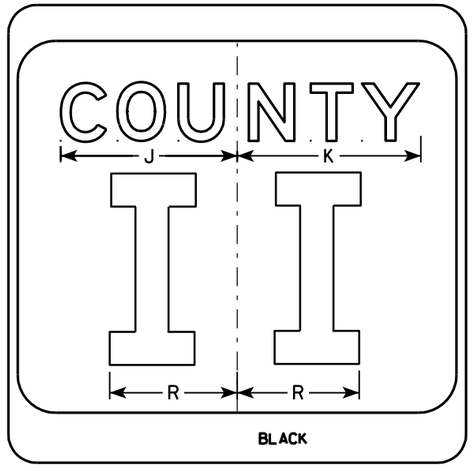
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 149	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   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. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

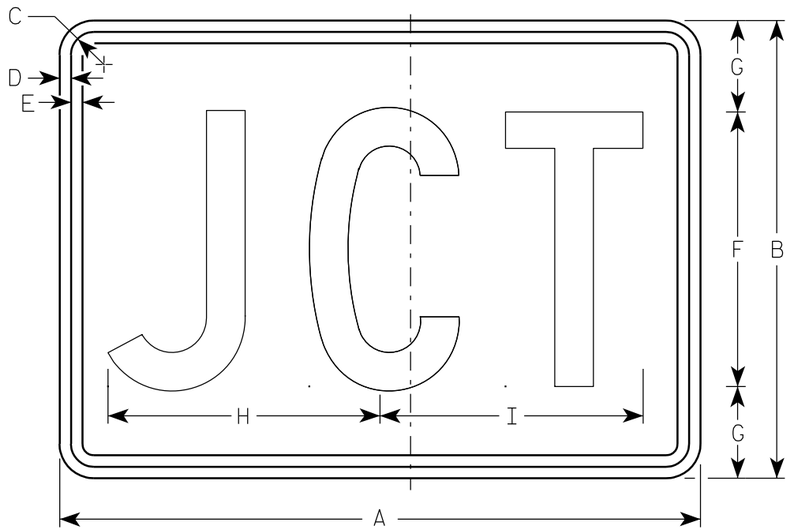
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

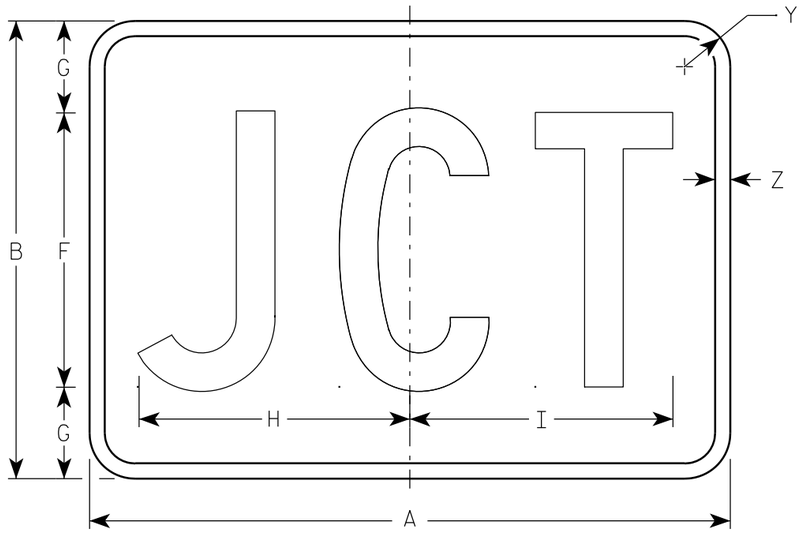
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 150	E



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



MB2-1
MG2-1
MN2-1

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

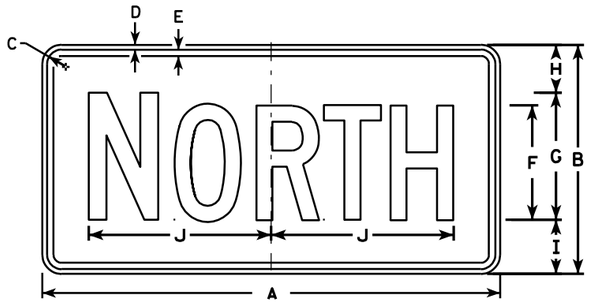
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

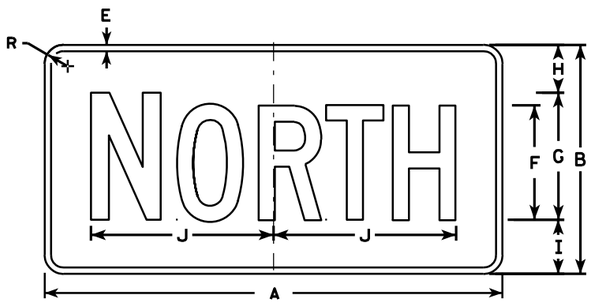
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 151	E

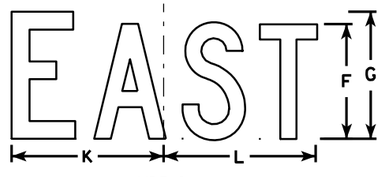


M3-1
MK3-1
MO3-1

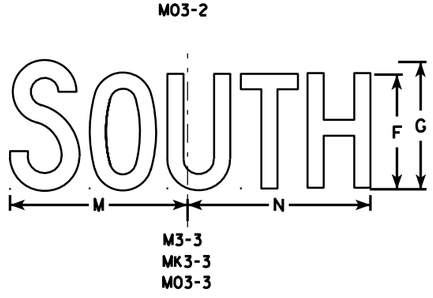


MB3-1
MG3-1
MM3-1
MN3-1

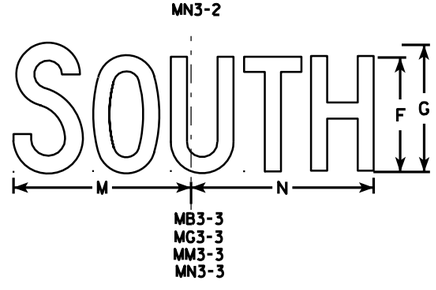
M3-2
MK3-2
MO3-2



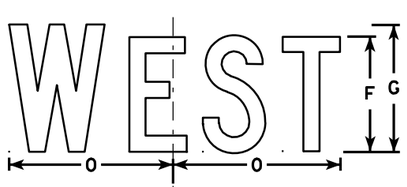
MB3-2
MG3-2
MM3-2
MN3-2



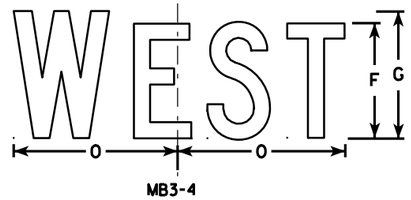
M3-3
MK3-3
MO3-3



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



M3-4
MK3-4
MO3-4



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

NOTES

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

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

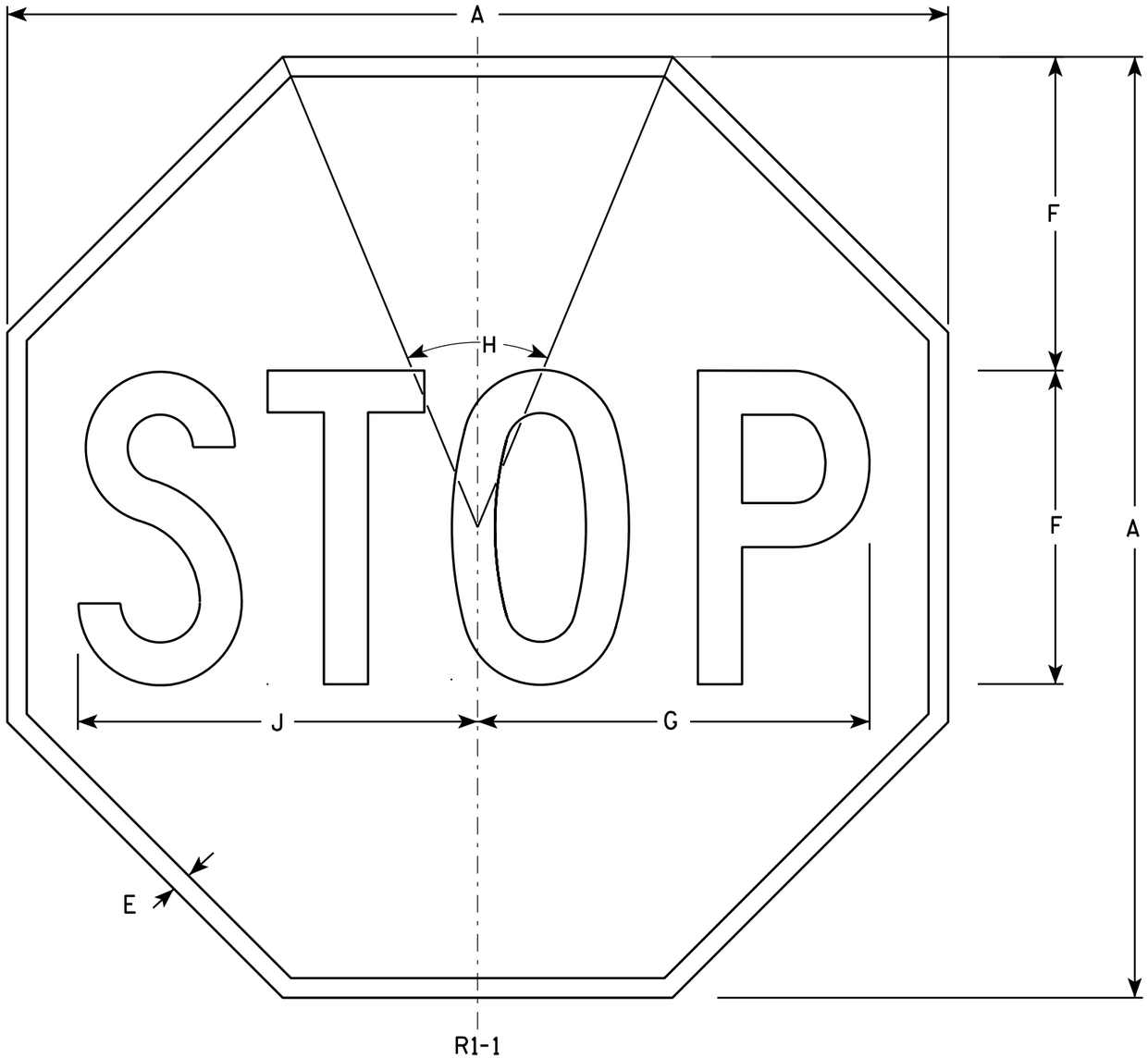
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 152	E



NOTES

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

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

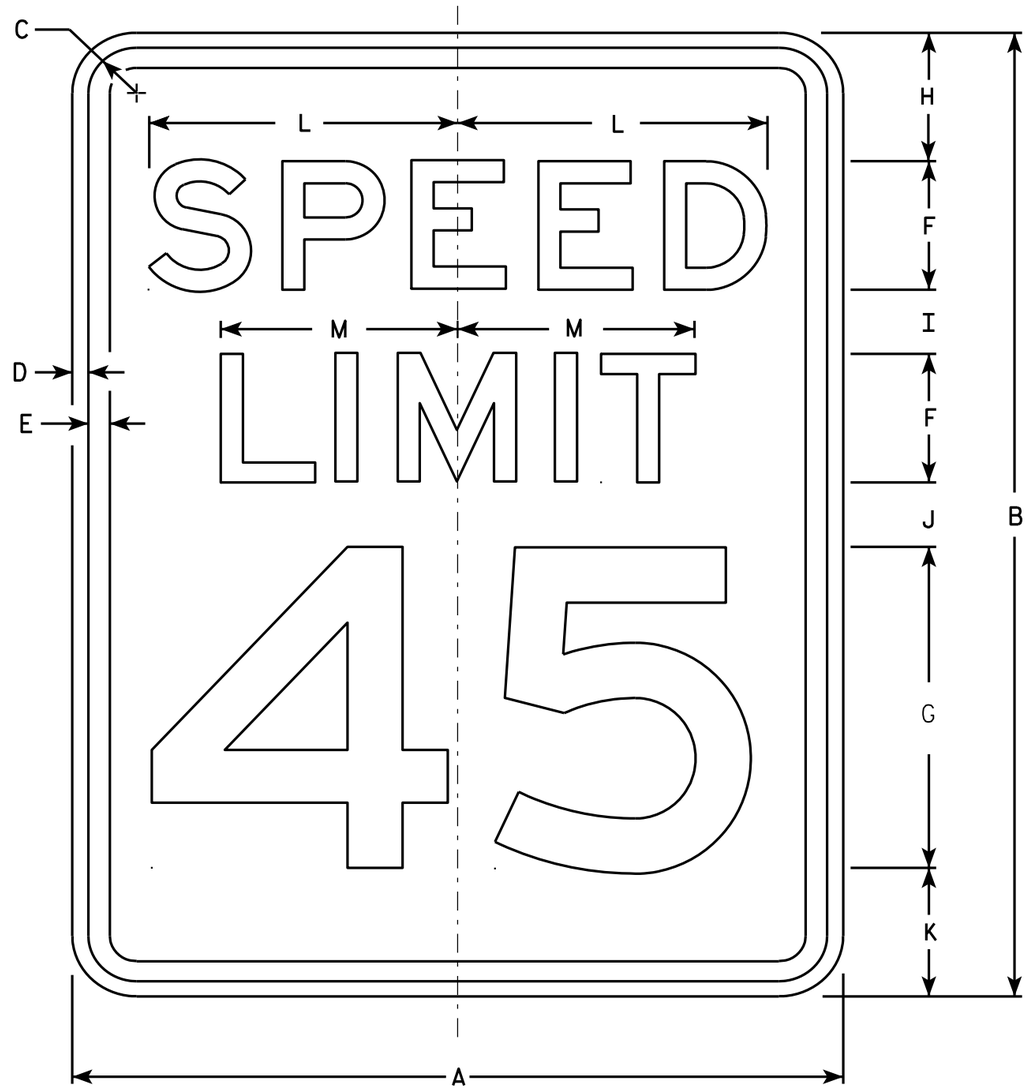
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



R2-1

NOTES

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

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

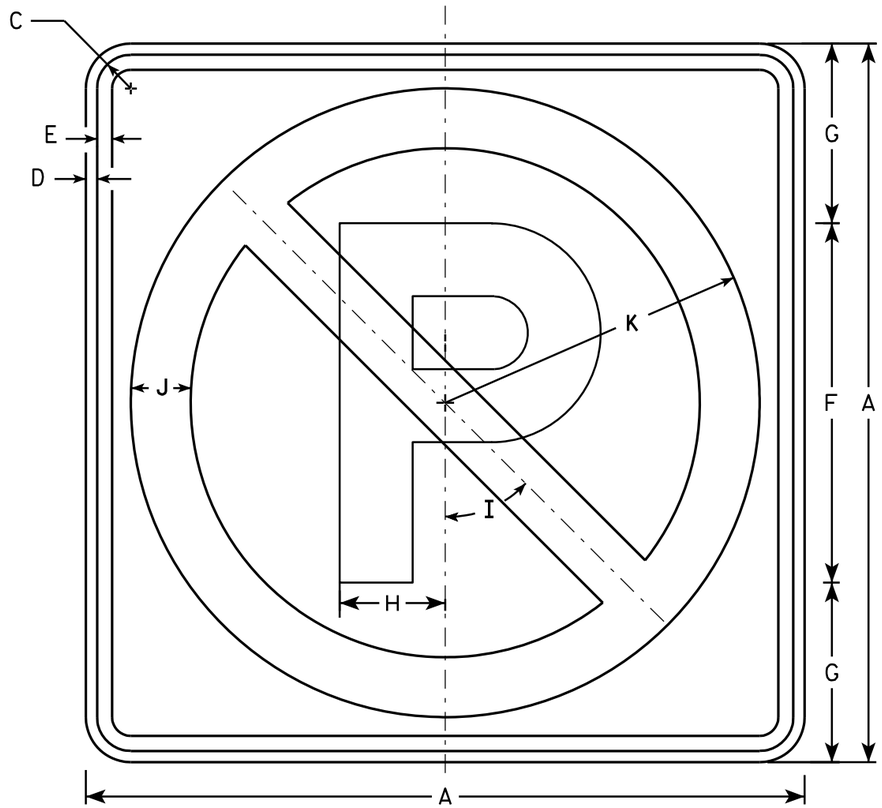
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 154 | E



R3-8A

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 & Letter P are non reflective black, the circle with diagonal bar is reflective 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																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

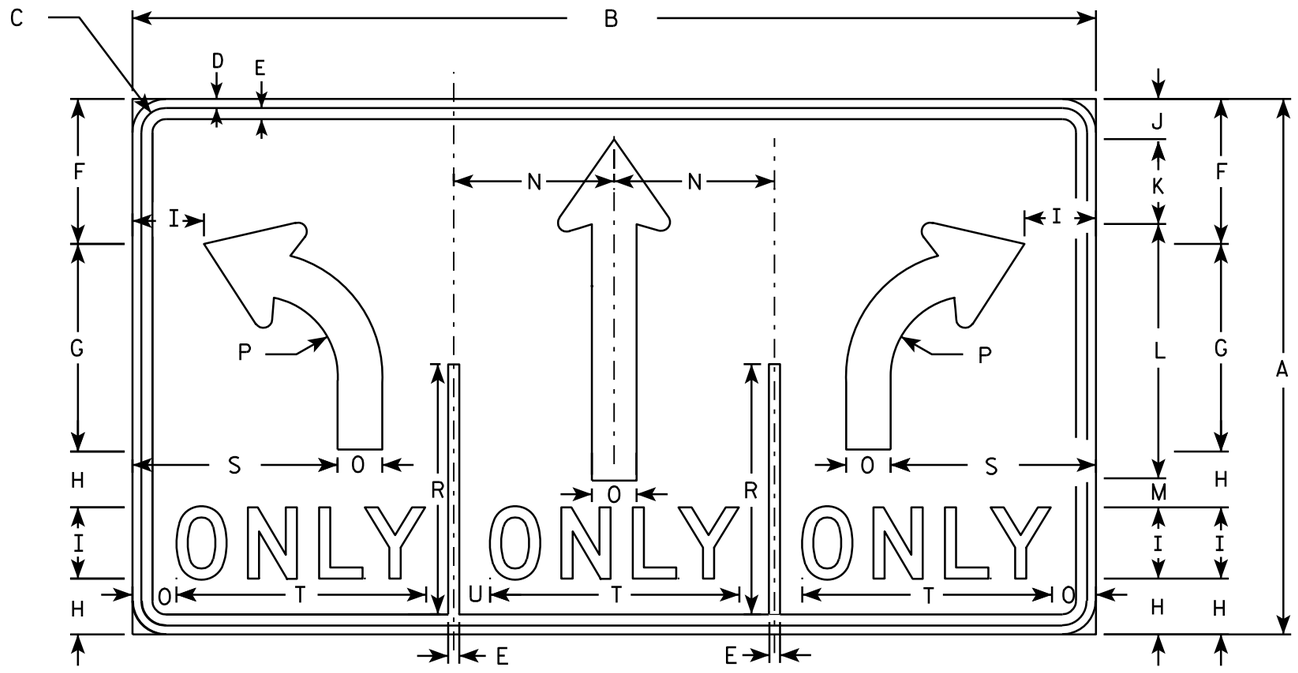
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

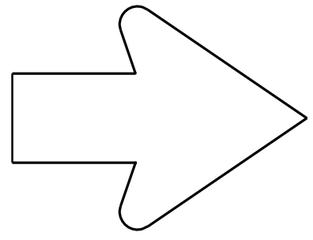
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	E



R3-8W

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.



SEE R3-8 FOR 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	54	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	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
2M	30	54	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	9	2 1/2	4 1/2		14	11 1/2	14	2						11.25
3																											
4	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 3/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0
5	48	84	2 1/4	3/4	1	13	18 1/2	5 1/4	6	3 3/4	7	29 1/8	2 7/8	14	3 3/4	7 1/4		22 3/8	17 1/4	20 1/2	3 1/4						28.0

STANDARD SIGN
R3-8W

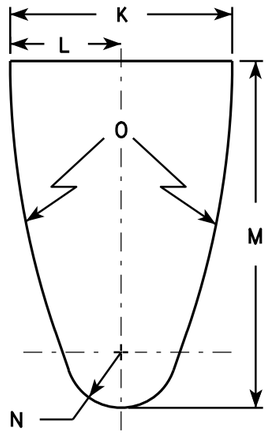
WISCONSIN DEPT OF TRANSPORTATION

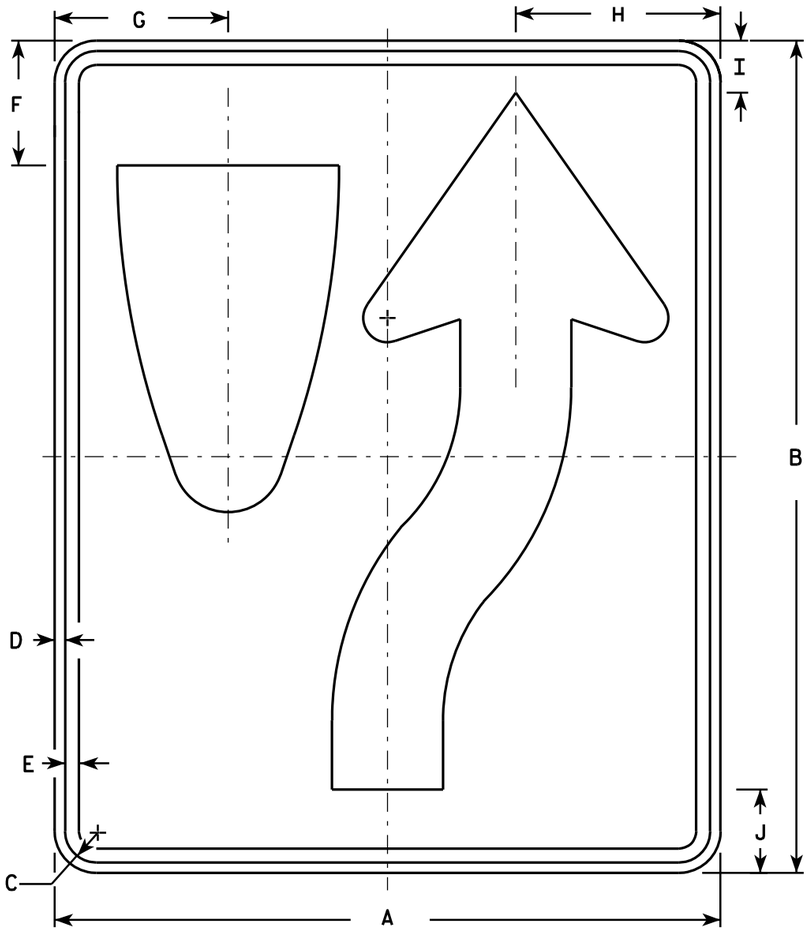
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8W.4

PROJECT NO:

SHEET NO: 156 E

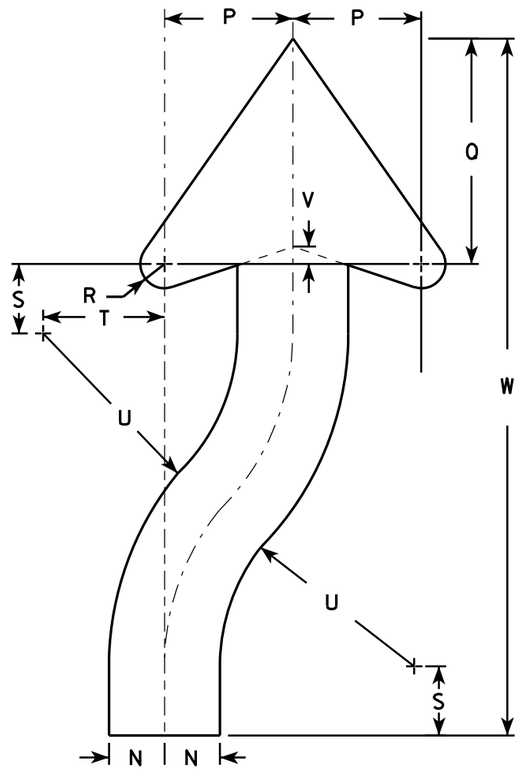




R4-7

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

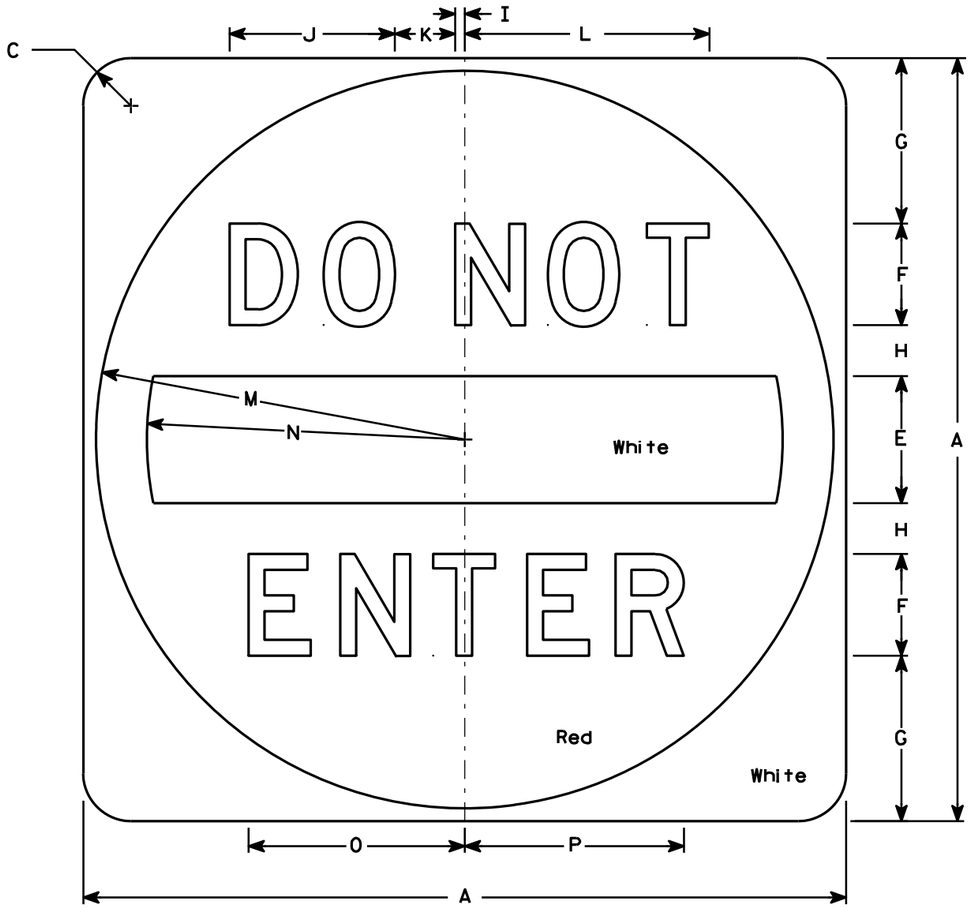
STANDARD SIGN
R4-7 & R4-8

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: 157	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

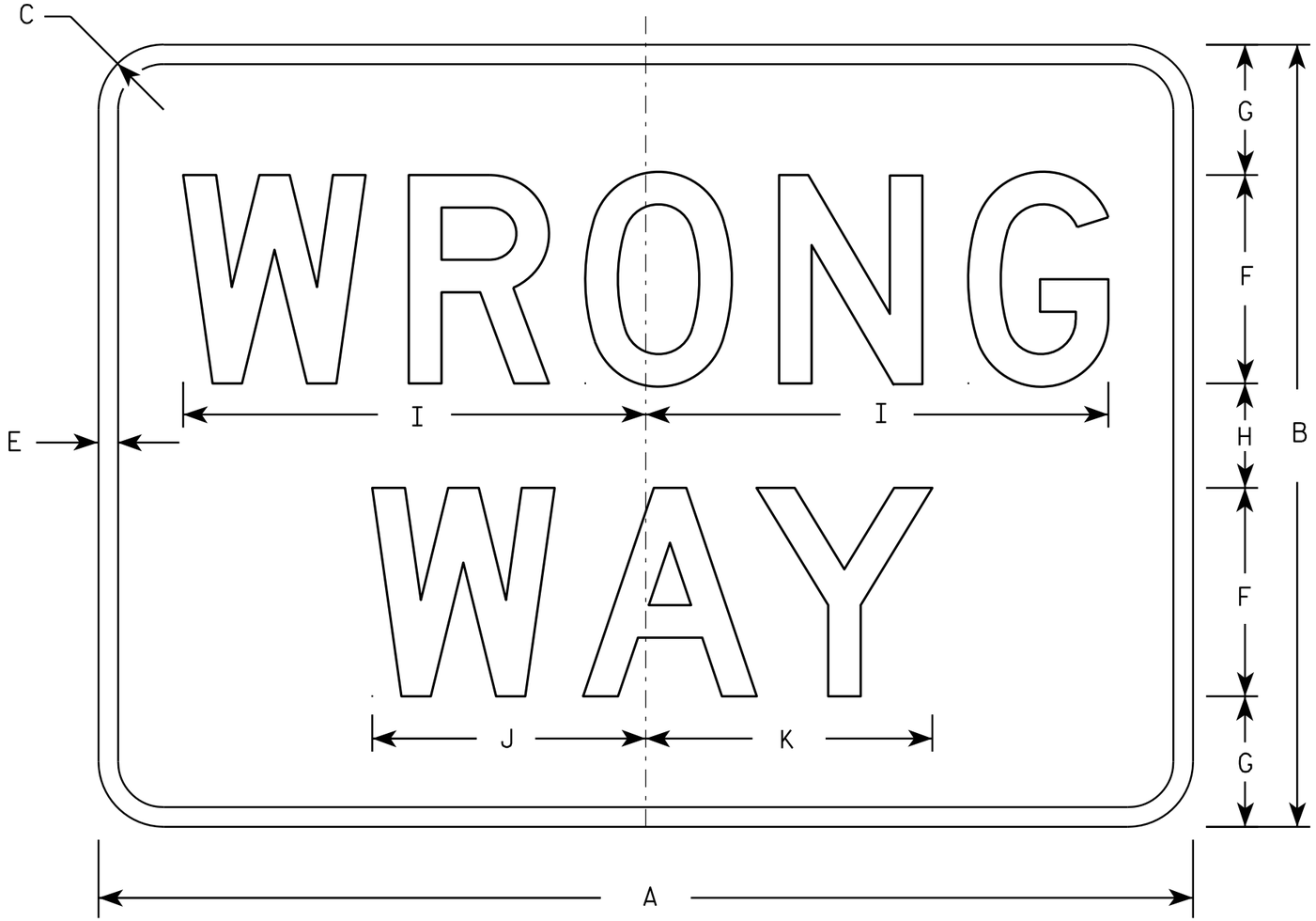
STANDARD SIGN
R5-1

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: 158 | 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

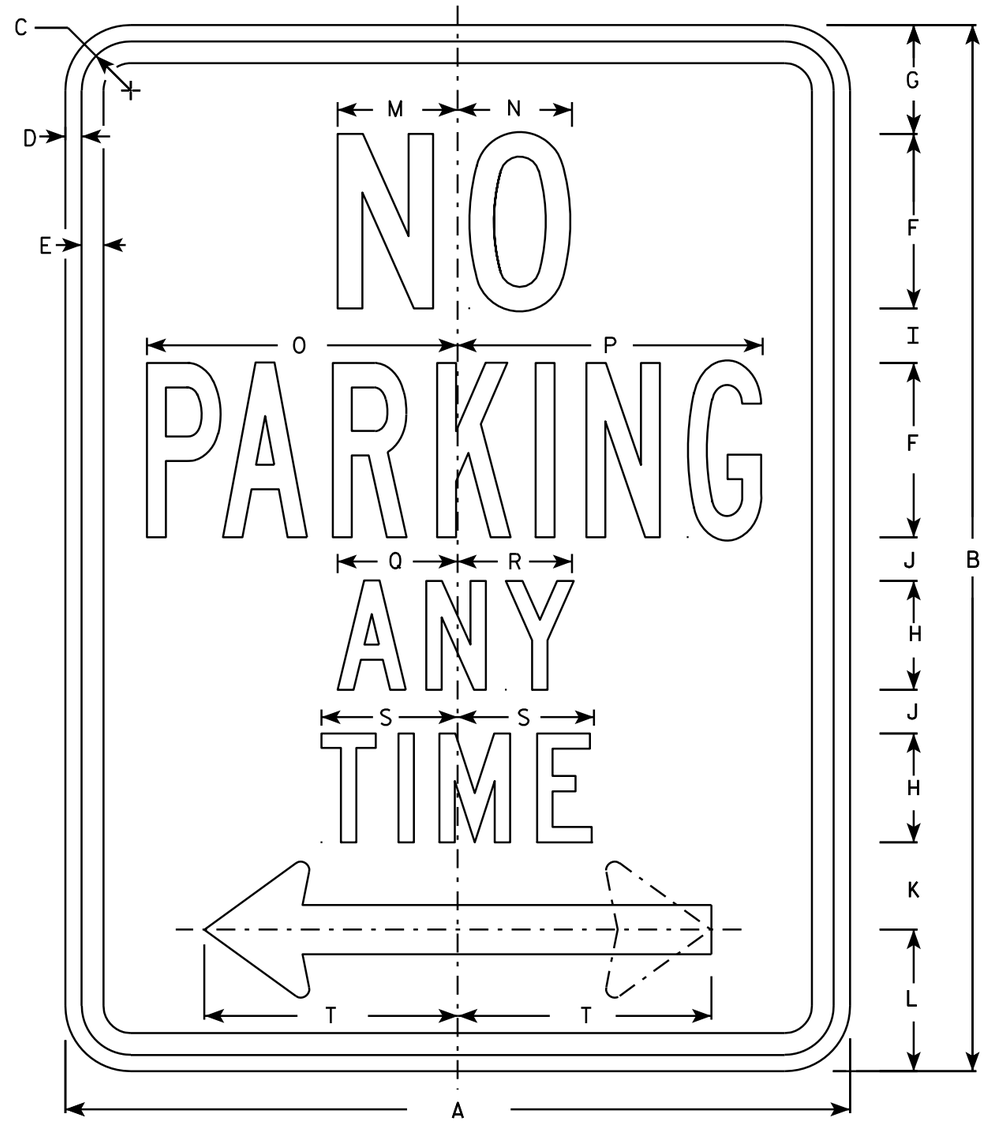
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

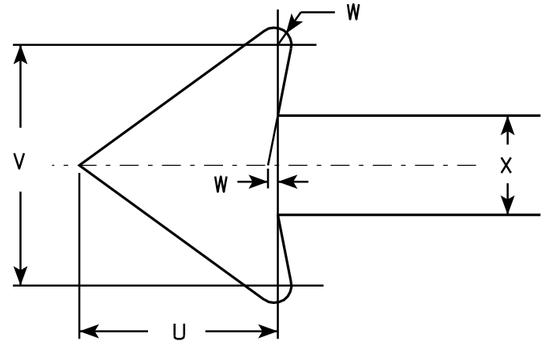
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 159 | E



R7-1

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 - Red
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. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

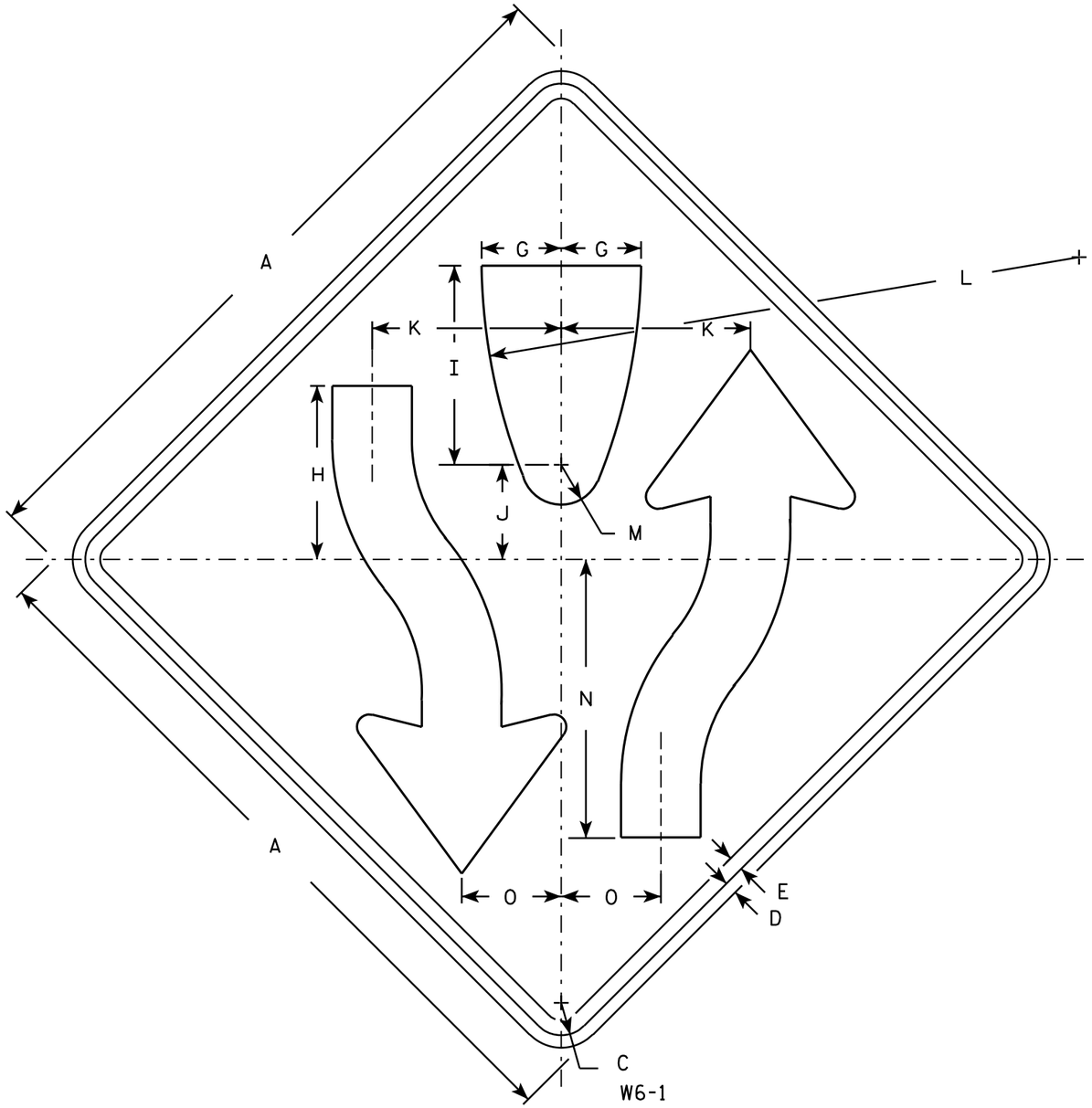
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

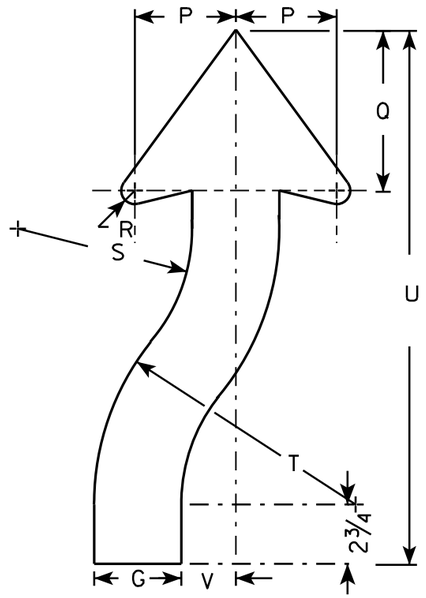
DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 160 | E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/22/11 PLATE NO. W6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 161	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W61.DGN PLOT DATE : 22-MAR-2011 13:21 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000

WISDOT/CADDS SHEET 42

CTH KK - Stage 2

STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)		
		Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Mass Ordinate
						Note 1	Note 2	Note 3		1.00 Note 1	1.25 Note 2	Note 4
START ABRUPTLY												
36+35	---	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
36+50	14.78	11.70	0.00	0.00	0.00	3	0	0	0	3	0	3
37+00	50.00	36.00	0.00	0.00	3.30	44	0	0	3	47	-3	50
37+50	50.00	55.80	0.00	0.00	3.30	85	0	0	6	132	-9	142
38+00	50.00	62.50	0.00	0.00	3.50	110	0	0	6	242	-15	257
38+50	50.00	54.80	0.00	0.00	12.30	109	0	0	15	351	-30	381
39+00	50.00	60.60	0.00	0.00	12.30	107	0	0	23	457	-53	510
39+25	25.29	60.60	0.00	0.00	12.00	57	0	0	11	514	-64	578
39+50	24.71	46.00	0.00	0.00	25.20	49	0	0	17	563	-81	644
39+58	7.98	46.00	0.00	0.00	25.20	14	0	0	7	577	-89	665
40+00	42.02	70.60	0.00	0.00	29.90	91	0	0	43	667	-132	799
40+50	50.00	82.00	0.00	0.00	31.80	141	0	0	57	809	-189	997
41+00	50.00	99.20	0.00	0.00	17.80	168	0	0	46	976	-235	1211
41+50	50.00	112.40	0.00	0.00	14.30	196	0	0	30	1,172	-264	1437
42+00	50.00	116.50	0.00	0.00	9.00	212	0	0	22	1,384	-286	1670
42+21	21.00	103.50	0.00	0.00	3.00	86	0	0	5	1,470	-291	1760
42+50	29.00	103.50	0.00	0.00	3.00	111	0	0	3	1,581	-294	1875
43+00	50.00	87.40	0.00	0.00	0.00	177	0	0	3	1,758	-297	2054
43+50	50.00	94.80	0.00	0.00	3.20	169	0	0	3	1,926	-300	2226
43+93	43.26	94.80	0.00	0.00	3.20	152	0	0	5	2,078	-305	2383
44+00	6.74	91.60	0.00	0.00	2.00	23	0	0	1	2,102	-305	2407
44+50	50.00	96.70	0.00	0.00	1.00	174	0	0	3	2,276	-308	2584
45+00	50.00	96.80	0.00	0.00	1.00	179	0	0	2	2,455	-310	2765
45+50	50.00	90.80	0.00	0.00	2.10	174	0	0	3	2,629	-313	2942
46+00	50.00	87.60	0.00	0.00	3.10	165	0	0	5	2,794	-318	3112
46+50	50.00	88.90	0.00	0.00	1.00	163	0	0	0	2,957	-318	3275
47+00	50.00	78.20	0.00	0.00	1.00	155	0	0	3	3,112	-321	3433
47+50	50.00	68.80	0.00	0.00	0.00	136	0	0	1	3,248	-322	3570
48+00	50.00	59.50	0.00	0.00	0.00	119	0	0	0	3,367	-322	3689
48+10	10.00	31.10	0.00	0.00	0.00	17	0	0	0	3,384	-322	3706
48+50	40.00	31.10	0.00	0.00	0.00	46	0	0	0	3,430	-322	3752
49+00	50.00	22.50	0.00	0.00	0.00	50	0	0	0	3,479	-322	3801
49+05	5.40	9.00	0.00	0.00	0.00	3	0	0	0	3,483	-322	3804
49+50	44.60	9.00	0.00	0.00	0.00	15	0	0	0	3,497	-322	3819
49+57	6.51	0.00	0.00	0.00	0.00	1	0	0	0	3,499	-322	3820
END ABRUBTLY												
					Incremental Column Totals	3,499	0	0	322			

Notes:
1.) Cut includes salvaged unusable pavement material
2.) Salvaged unusable pavement material is not shown in the cross sections. Total amount shown in Earthwork Summary table.
3.) Does not include exc volume of unusable pavement in fill sections
4.) Mass Ordinate = Cut - Salvaged/ Unusable Pavement Material - (Unexpanded Fill - Rock*Rock Factor)* Fill Factor

CTH KK - Stage 3

STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut 1.00	Expanded Fill 1.25	
						Note 1	Note 2	Note 3		Note 1	Note 2	Note 4
START ABRUPTLY												
36+35	---	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
36+50	14.78	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
37+00	50.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
37+50	50.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
38+00	50.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
38+50	50.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
39+00	50.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
39+25	25.29	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
39+50	24.71	35.70	0.00	0.00	0.00	16	0	0	0	16	0	16
39+58	7.98	35.70	0.00	0.00	0.00	11	0	0	0	27	0	27
40+00	42.02	33.00	0.00	0.00	0.00	53	0	0	0	80	0	80
40+50	50.00	31.20	0.00	0.00	0.00	59	0	0	0	140	0	140
41+00	50.00	25.80	0.00	0.00	0.00	53	0	0	0	193	0	193
41+50	50.00	24.40	0.00	0.00	0.00	46	0	0	0	239	0	239
42+00	50.00	18.80	0.00	0.00	0.00	40	0	0	0	279	0	279
42+21	21.00	18.80	0.00	0.00	0.00	15	0	0	0	294	0	294
42+50	29.00	0.00	0.00	0.00	0.00	10	0	0	0	304	0	304
43+00	50.00	0.00	0.00	0.00	0.00	0	0	0	0	304	0	304
43+50	50.00	0.00	0.00	0.00	0.00	0	0	0	0	304	0	304
43+93	43.26	19.60	0.00	0.00	0.00	16	0	0	0	319	0	319
44+00	6.74	19.60	0.00	0.00	0.00	5	0	0	0	324	0	324
44+50	50.00	20.00	0.00	0.00	0.00	37	0	0	0	361	0	361
45+00	50.00	21.70	0.00	0.00	0.00	39	0	0	0	400	0	400
45+50	50.00	21.00	0.00	0.00	0.00	40	0	0	0	439	0	439
46+00	50.00	41.10	0.00	0.00	0.00	58	0	0	0	497	0	497
46+50	50.00	41.80	0.00	0.00	0.00	77	0	0	0	573	0	573
47+00	50.00	41.60	0.00	0.00	0.00	77	0	0	0	651	0	651
47+50	50.00	40.00	0.00	0.00	0.00	76	0	0	0	726	0	726
48+00	50.00	40.60	0.00	0.00	0.00	75	0	0	0	801	0	801
48+10	10.00	0.00	0.00	0.00	0.00	8	0	0	0	808	0	808
48+50	40.00	0.00	0.00	0.00	0.00	0	0	0	0	808	0	808
49+00	50.00	0.00	0.00	0.00	0.00	0	0	0	0	808	0	808
49+05	5.40	0.00	0.00	0.00	0.00	0	0	0	0	808	0	808
49+50	44.60	0.00	0.00	0.00	0.00	0	0	0	0	808	0	808
49+57	6.51	0.00	0.00	0.00	0.00	0	0	0	0	808	0	808
END ABRUBTLY												
					Incremental Column Totals	808	0	0	0			

Notes:
1.) Cut includes salvaged unusable pavement material
2.) Salvaged unusable pavement material is not shown in the cross sections. Total amount shown in Earthwork Summary table.
3.) Does not include exc volume of unusable pavement in fill sections
4.) Mass Ordinate = Cut - Salvaged/ Unusable Pavement Material - (Unexpanded Fill - Rock*Rock Factor)* Fill Factor

SOUTH COOP ROAD

STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)		
		Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Mass Ordinate
						Note 1	Note 2	Note 3		1.00 Note 1	1.25 Note 2	Note 4
START ABRUPTLY												
195+49	---	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
195+50	1.00	64.80	0.00	0.80	0.00	1	0	0	0	1	0	1
196+00	50.00	81.00	0.00	1.40	0.00	135	0	2	0	136	3	134
196+50	50.00	96.10	0.00	0.70	0.00	164	0	2	0	300	5	295
196+96	46.00	90.60	0.00	22.30	0.00	154	0	38	0	455	52	407
197+50	54.00	78.20	0.00	7.40	0.00	169	0	30	0	623	90	538
198+00	50.00	67.80	0.00	3.90	0.00	135	0	10	0	759	103	661
198+50	50.00	122.90	0.00	0.10	0.00	177	0	4	0	935	107	832
199+00	50.00	132.90	0.00	11.40	0.00	237	0	11	0	1,172	121	1056
199+50	50.00	245.20	0.00	0.00	0.00	350	0	11	0	1,522	134	1393
END ABRUBTLY												
				Incremental Column Totals		1,522	0	107	0			

NORTH COOP ROAD

STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)		
		Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut	Expanded Fill	Mass Ordinate
						Note 1	Note 2	Note 3		1.00 Note 1	1.25 Note 2	Note 4
START ABRUPTLY												
201+50	---	89.40	0.00	0.00	0.00	0	0	0	0	0	0	0
201+75	25.00	64.90	0.00	0.00	0.00	71	0	0	0	71	0	71
202+00	25.00	48.20	0.00	0.60	0.00	52	0	0	0	124	0	123
202+30	30.00	53.70	0.00	1.70	0.00	57	0	1	0	180	2	178
202+50	20.00	30.10	0.00	4.40	0.00	31	0	2	0	211	5	207
202+80	30.00	0.00	0.00	0.00	0.00	17	0	2	0	228	8	220
END ABRUBTLY												
				Incremental Column Totals		228	0	6	0			

Notes:

1.) Cut includes salvaged unusable pavement material

2.) Salvaged unusable pavement material is not shown in the cross sections. Total amount shown in Earthwork Summary table.

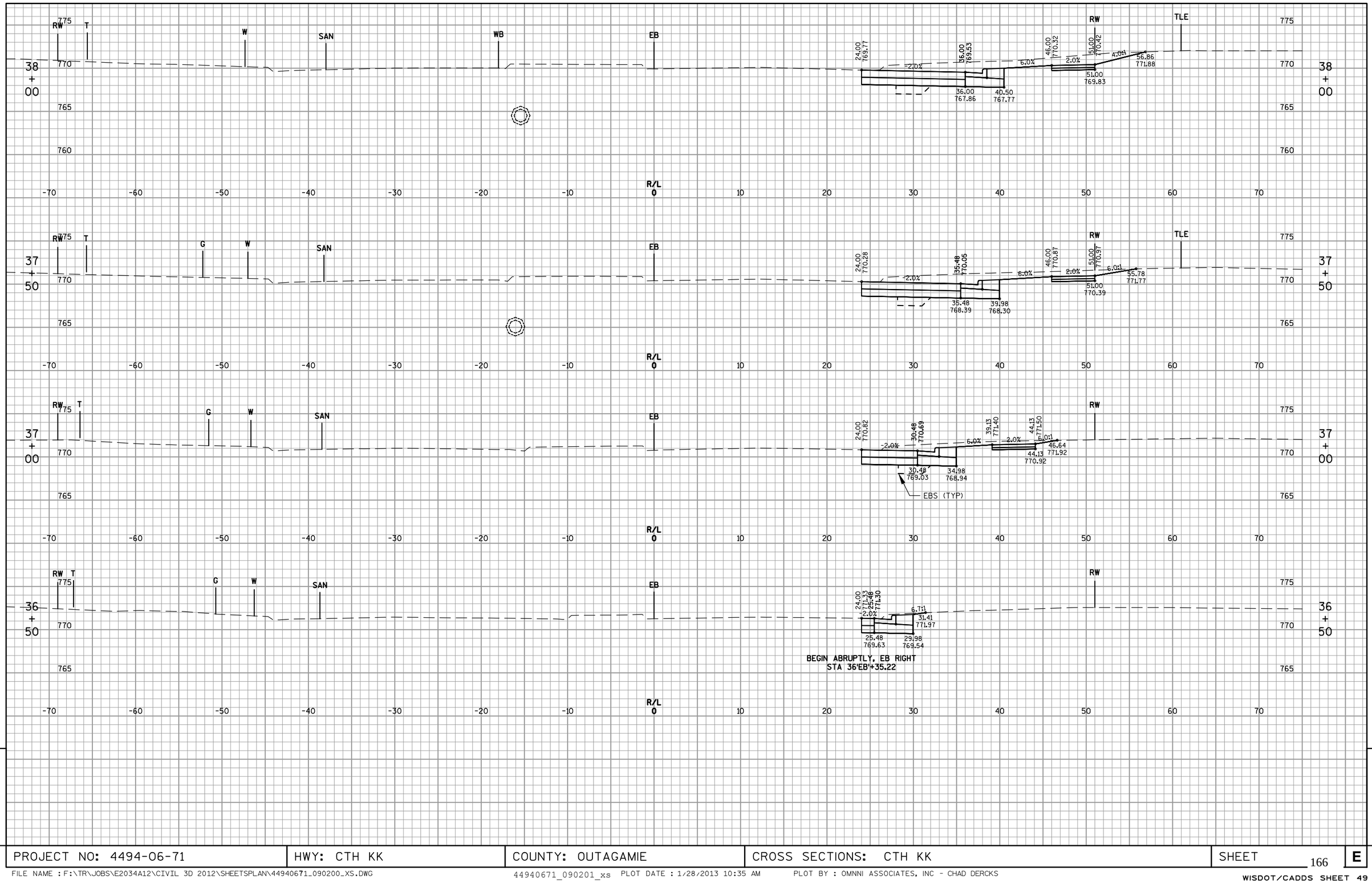
3.) Does not include exc volume of unusable pavement in fill sections

4.) Mass Ordinate = Cut - Salvaged/ Unusable Pavement Material - (Unexpanded Fill - Rock*Rock Factor)* Fill Factor

LORNA LANE

STATION	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)		
		Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/ Unusable Pavement Material Note 2	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25 Note 2	Mass Ordinate Note 4
START ABRUPTLY												
301+84	---	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0
302+00	16.44	63.00	0.00	0.00	0.00	19	0	0	0	19	0	19
302+25	25.00	74.30	0.00	0.40	0.00	64	0	0	0	83	0	83
302+50	25.00	67.50	0.00	15.80	0.00	66	0	8	0	148	10	139
END ABRUBTLY												
				Incremental Column Totals		148	0	8	0			

Notes:
1.) Cut includes salvaged unusable pavement material
2.) Salvaged unusable pavement material is not shown in the cross sections. Total amount shown in Earthwork Summary table.
3.) Does not include exc volume of unusable pavement in fill sections
4.) Mass Ordinate = Cut - Salvaged/ Unusable Pavement Material - (Unexpanded Fill - Rock*Rock Factor)* Fill Factor



9

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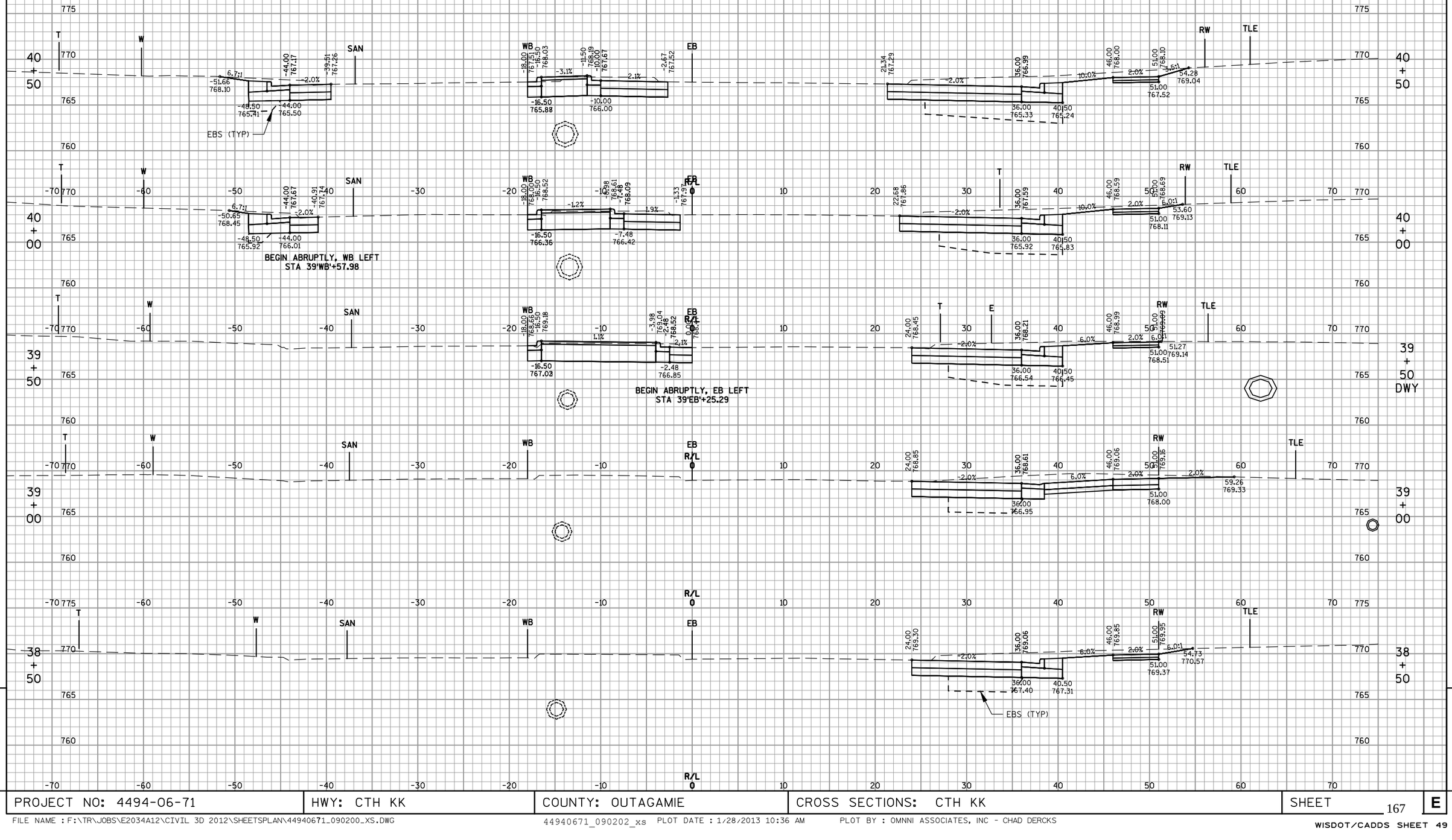
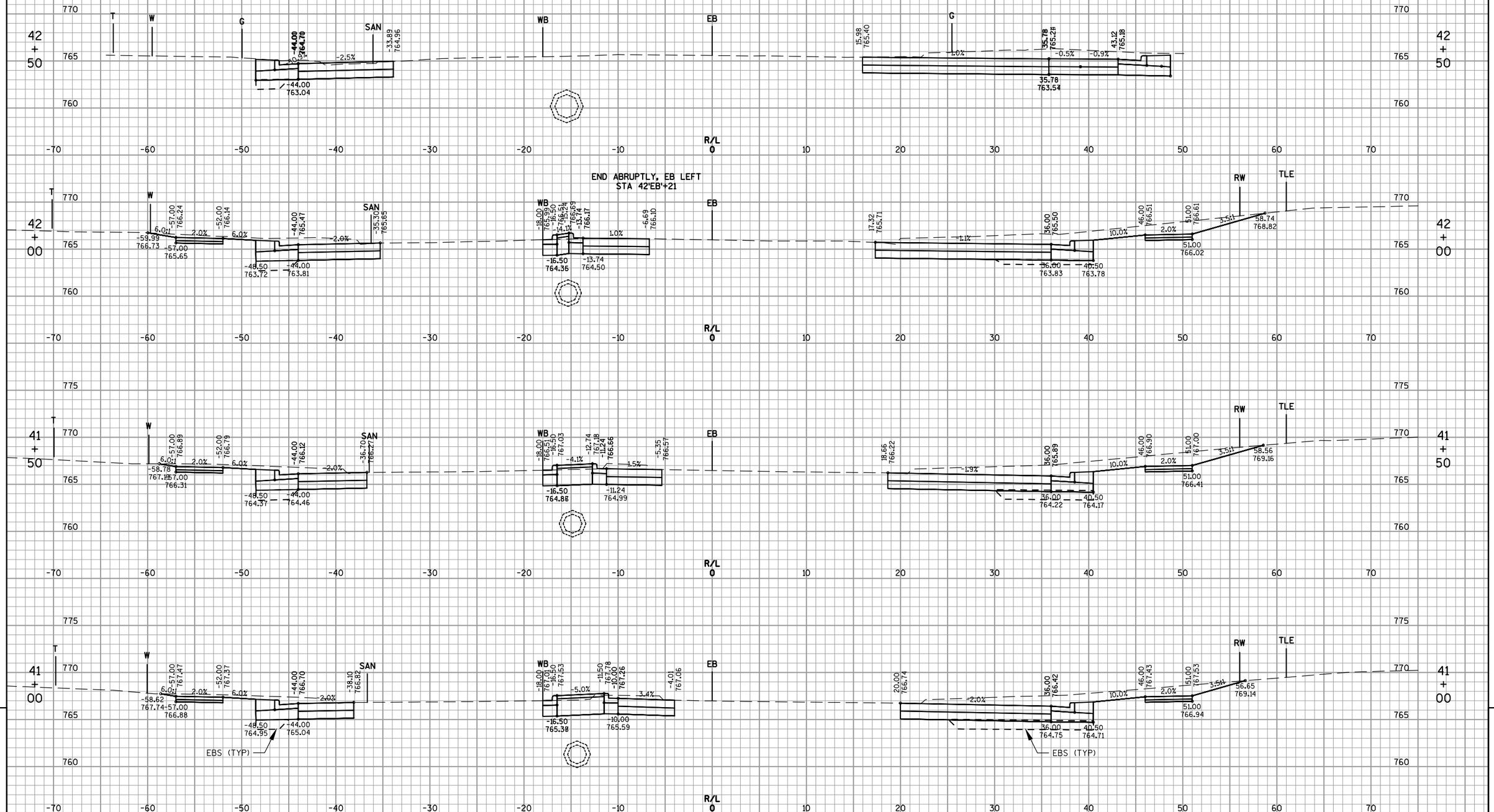
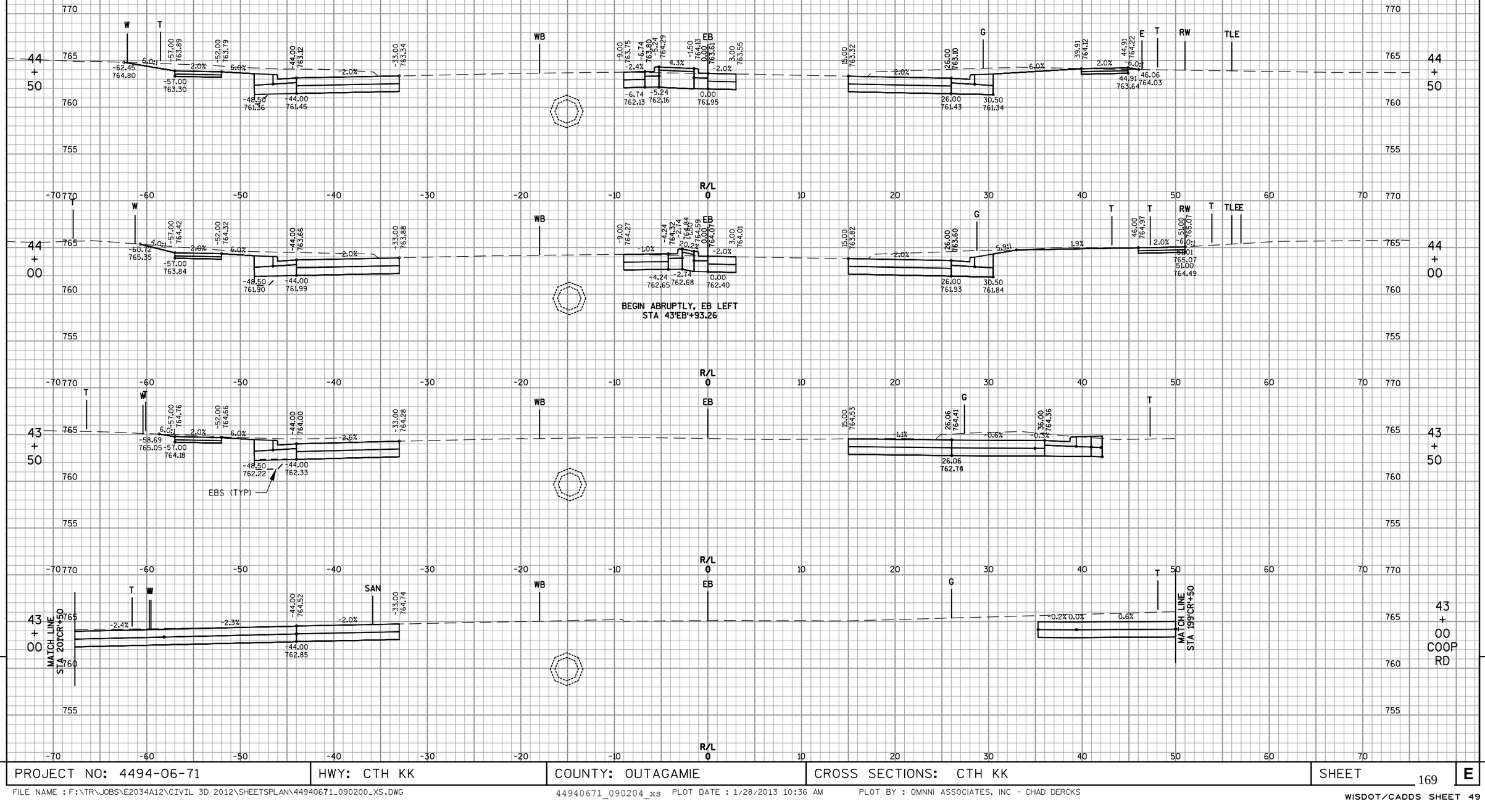
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 166	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 167	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 168	E



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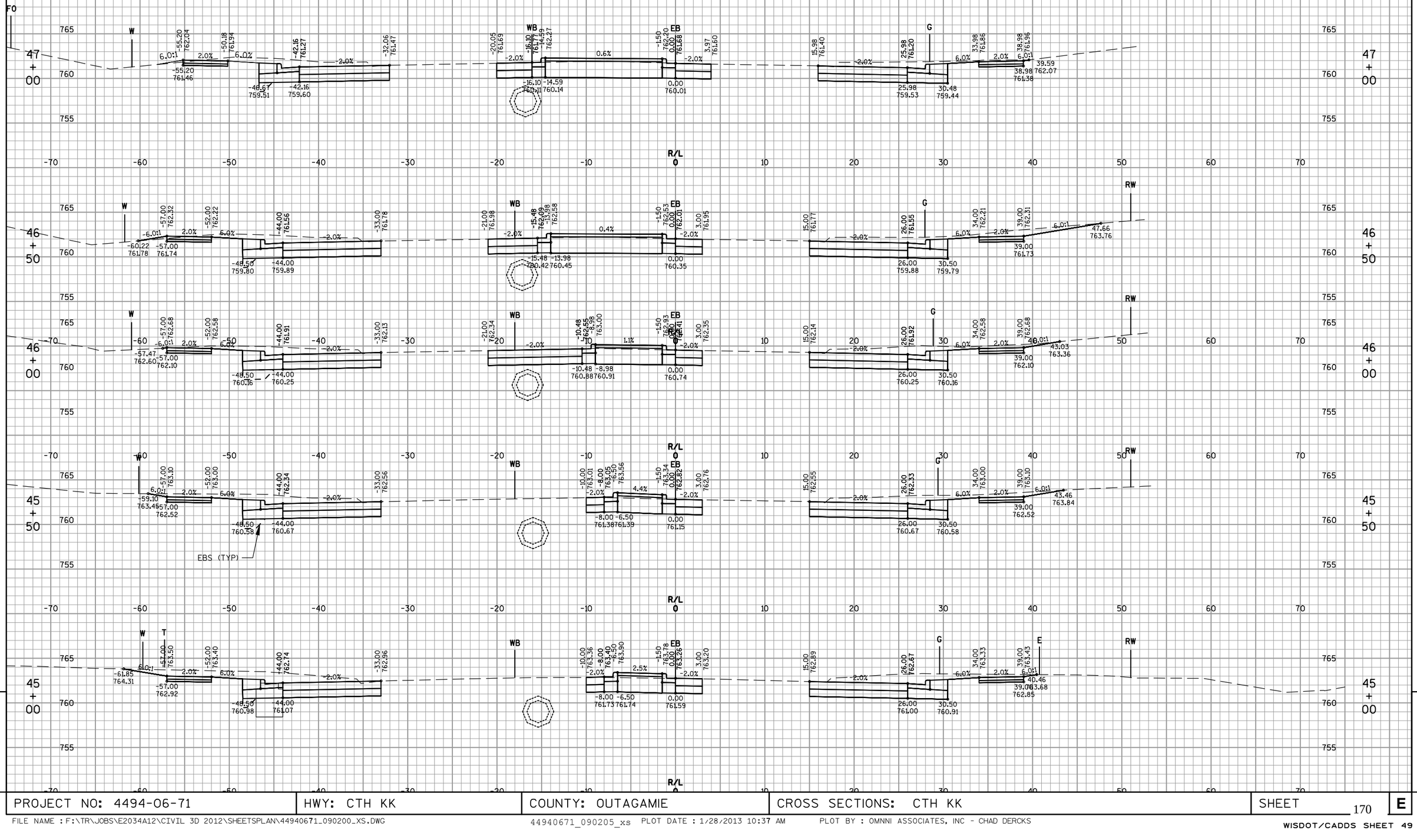
9

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 169	E



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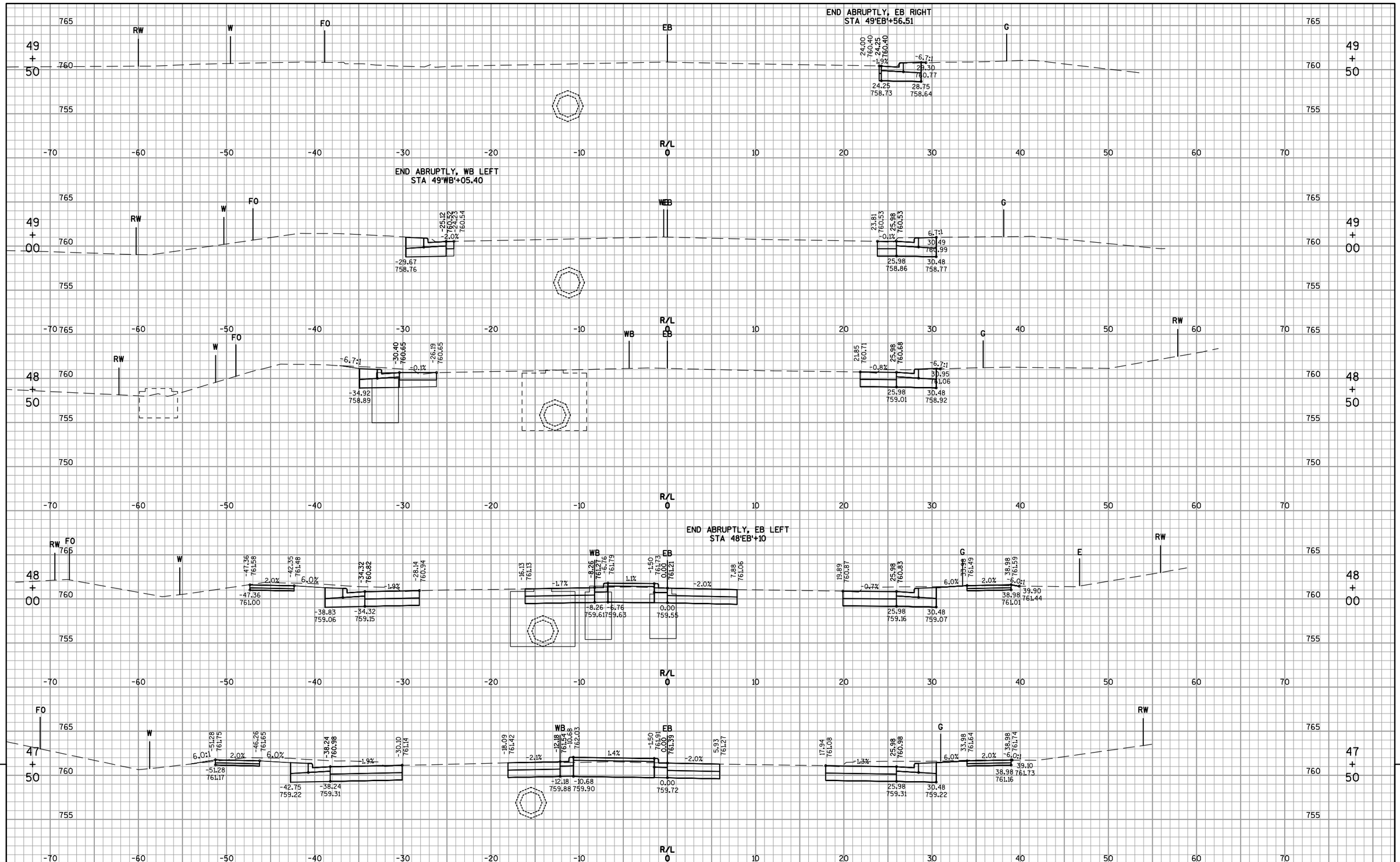
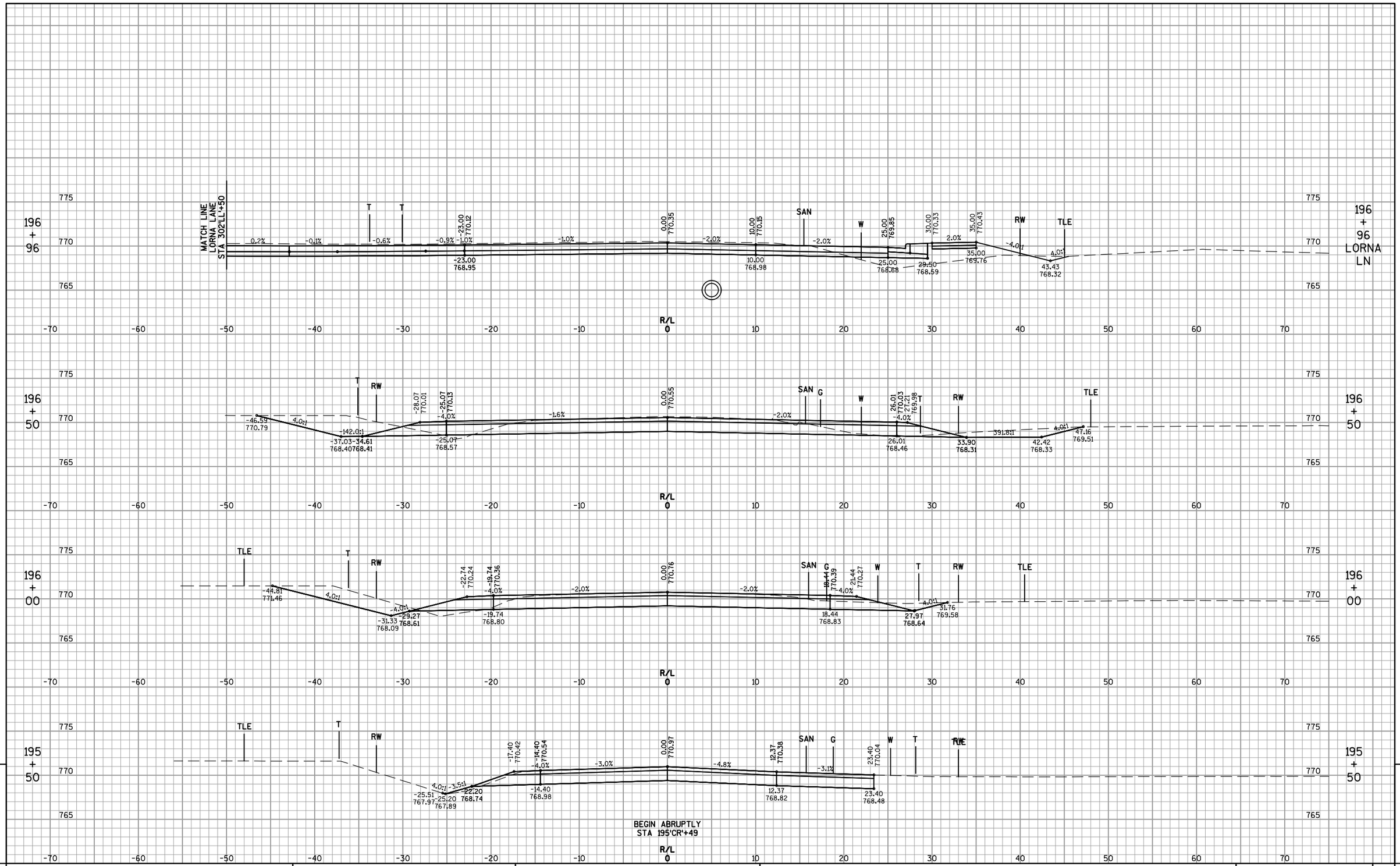
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 170	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH KK	SHEET 171 E



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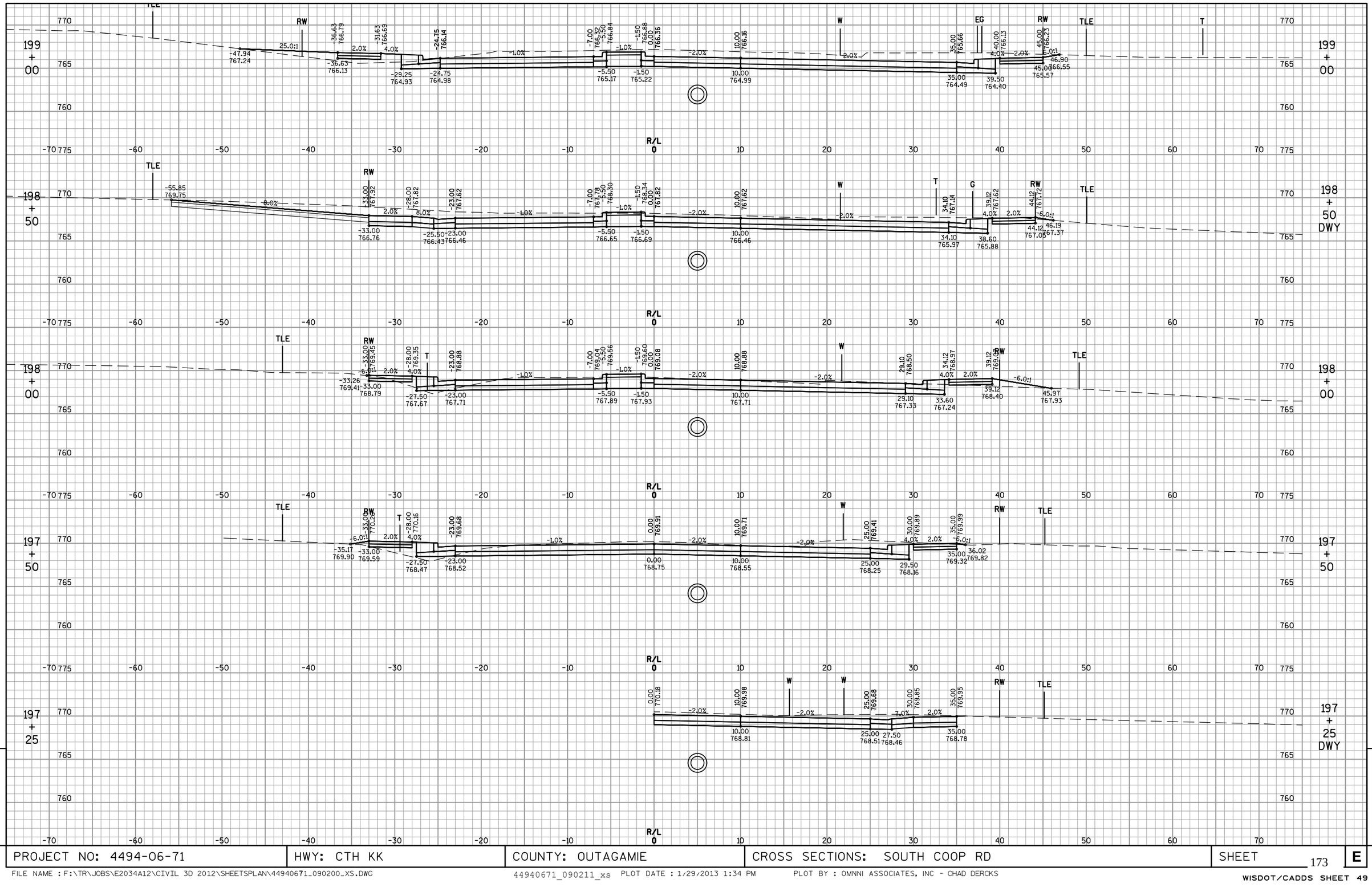
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: SOUTH COOP RD	SHEET 172	E



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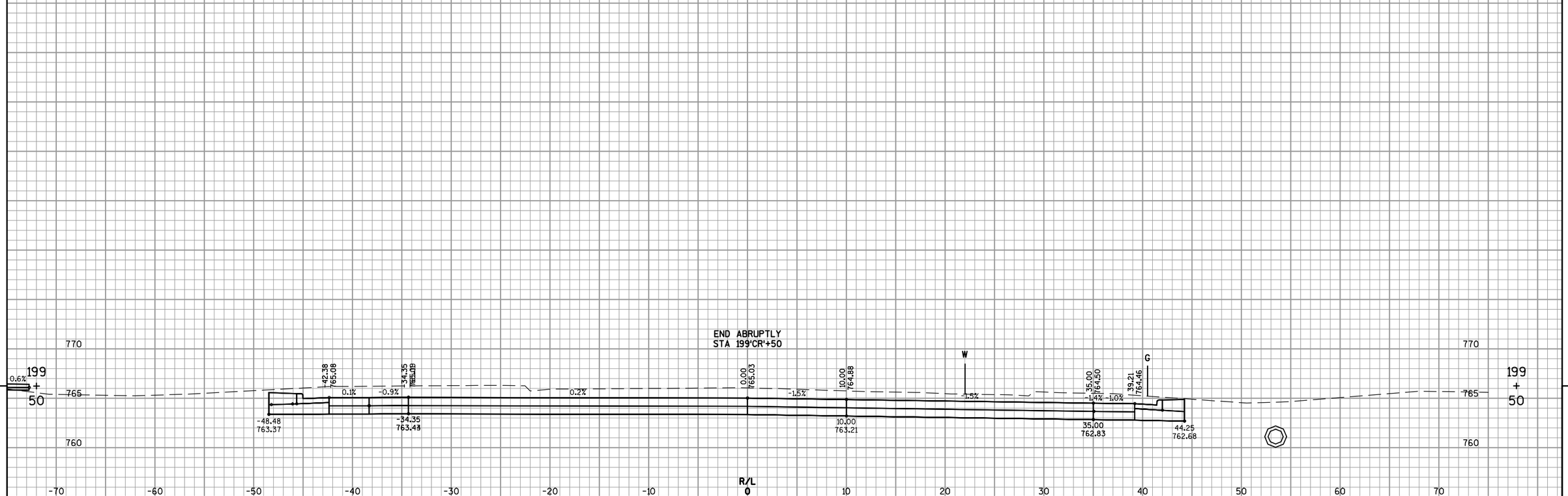
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: SOUTH COOP RD	SHEET 173	E



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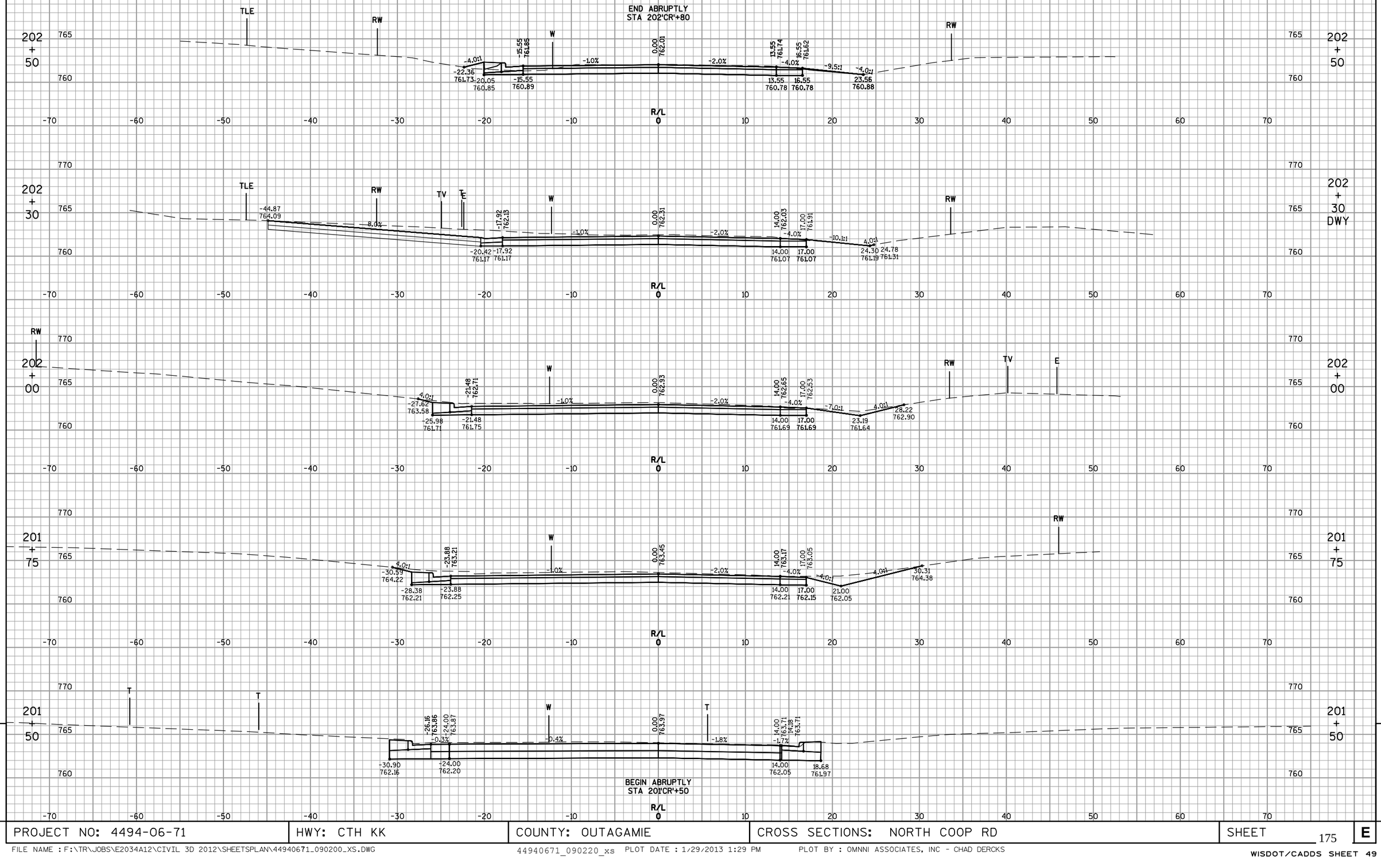
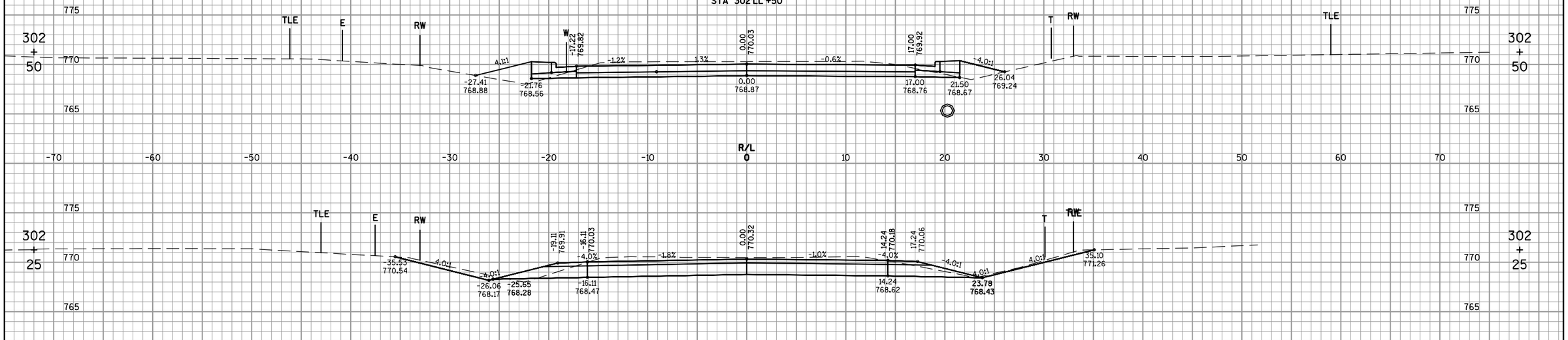
PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: SOUTH COOP RD	SHEET 174	E



PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: NORTH COOP RD	SHEET 175	E

END ABRUPTLY
STA 302'LL'+50



BEGIN ABRUPTLY
STA 301'LL'+83.56

9

PROJECT NO: 4494-06-71	HWY: CTH KK	COUNTY: OUTAGAMIE	CROSS SECTIONS: LORNA LN	SHEET 176	E

Notes

Wisconsin Department of Transportation

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