SUP MAY 2016

PROJECT ID: 1000-08-88

WITH: N/A

COUNTY: NW REGION WIDE

41

ORDER OF SHEETS

TOTAL SHEETS = 208

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

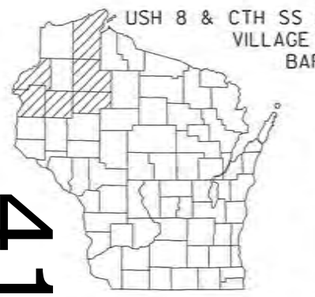
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1000-08-88	———	—

NWREGION, VAR HWY/FREIGHT MITIGATION

VARIOUS LOCATIONS - NORTH

VAR HWY

NORTHWEST REGION WIDE



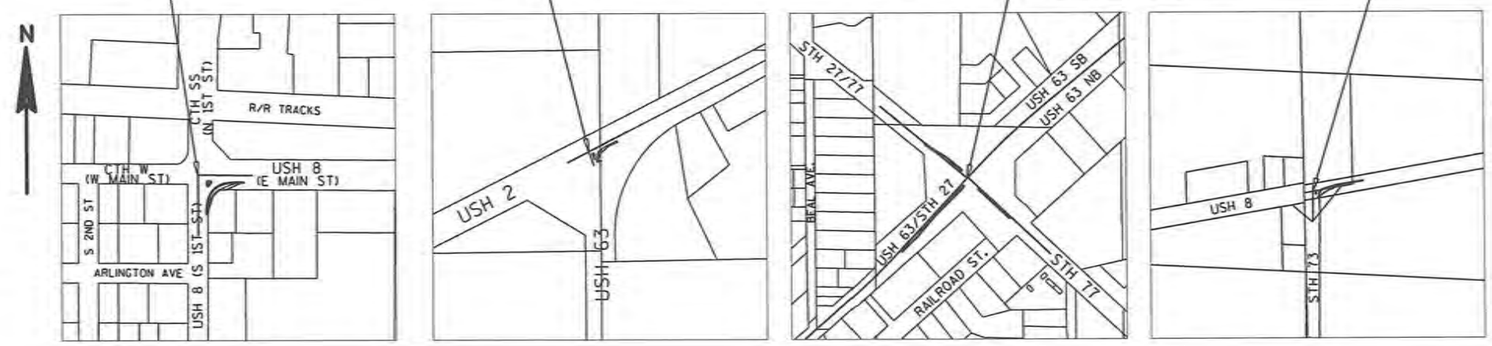
LOCATION #1
USH 8 & CTH SS INTERSECTION
VILLAGE OF CAMERON
BARRON COUNTY

LOCATION #2
USH 2 & USH 63 INTERSECTION
TOWN OF KEYSTONE
BAYFIELD COUNTY

STATE PROJECT NUMBER
1000-08-88

LOCATION #3
USH 63/STH 27 & STH 27/77
INTERSECTION
CITY OF HAYWARD
SAWYER COUNTY

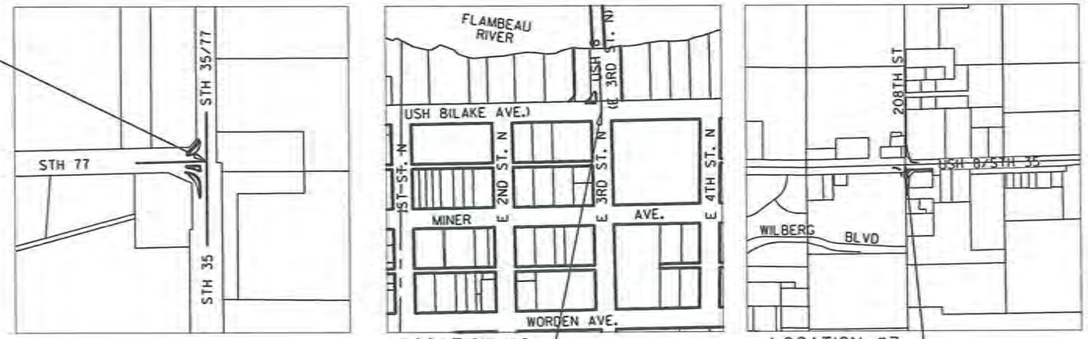
LOCATION #4
USH 8 & STH 73 INTERSECTION
VILLAGE OF INGRAM
RUSK COUNTY



DESIGN DESIGNATION 1000-08-08

A.A.D.T.	N/A	= N/A
A.A.D.T.	N/A	= N/A
D.H.V.		= N/A
D.D.		= N/A
T.		= N/A
DESIGN SPEED		= N/A
ESALS		= N/A

LOCATION #5
STH 35/77 & STH 77 INTERSECTION
DANBURY (UNINCORPORATED)
BURNETT COUNTY



LOCATION #6
USH 8 INTERSECTION (LAKE AVE. AND E 3RD ST. N)
CITY OF LADYSMITH
RUSK COUNTY

LOCATION #7
USH 8/STH 35 & 208TH ST.
ROUND-A-BOUT
CITY OF ST CROIX FALLS
POLK COUNTY

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	300'EB'	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 VARIES

TOTAL NET LENGTH OF CENTERLINE = 0.347 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BARRON, BAYFIELD, BURNETT, POLK, RUSK & SAWYER COUNTIES, NAD83(2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY

N.W.B.E.
NORTHERN WISCONSIN-BASED ENGINEERS, INC.

WISCONSIN
GARY T. COLBERT
E-31952
SPOONER, WIS.
PROFESSIONAL ENGINEER

DATE: January 25, 2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NWBE, INC. - JSSH
Designer	NWBE, INC. - GTC
Project Manager	PHIL KEPPERS
Regional Examiner	CHRIS KOSKI
Regional Supervisor	DAVE OSTROWSKI

APPROVED FOR THE DEPARTMENT

DATE: 1/25/2016 Philip L. Keppers (Signature)

E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\010101_TI.DWG
LAYOUT NAME - ****

PLOT DATE : 1/25/2016 9:36 AM PLOT BY : GARY COLBERT PLOT NAME :

WISDOT/CADDS SHEET 10

2

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

REMOVALS SHALL BE DONE WITHOUT DAMAGING ADJACENT PAVEMENT OR SIDEWALK. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ANY DAMAGED LOCATIONS FROM REMOVING OPERATIONS.

CONCRETE ISLAND SPECIAL THICKNESS SHALL MATCH BACK OF CURB DEPTH.

SAW CUTS SHALL FOLLOW THE RADIUS LINES SHOWN IN THE PLAN.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH TOPSOILED, FERTILIZED, SEEDED AND MULCHED OR EROSION MATTED AS SHOWN ON THE PLANS. FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

CURVE DATA ON THE PLAN IS "ARC DEFINITION".

COORDINATES ON THIS PLAN ARE REFERENCED TO BARRON, BAYFIELD, BURNETT, POLK, RUSK, AND SAWYER WISCONSIN COUNTY COORDINATES, NAD83(2011).

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

GENERAL NOTES FOR TRAFFIC CONTROL

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS, AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED OR MASKED. SEE MISCELLANEOUS QUANTITY TABLE FOR REMOVING PAVEMENT MARKINGS.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET. 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.

THROUGH LANES OPEN TO TRAFFIC SHALL BE MARKED AT 12-FT WIDTH. ACTUAL LANE WIDTH MAY BE 11-FT MINIMUM.

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
AADT	ANNUAL AVERAGE DAILY TRAFFIC
APPROX.	APPROXIMATE
A.E.W.	APRON END WALL
ASPH.	ASPHALTIC
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L OR ℄	CENTER LINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
DISCH. OR DIS.	DISCHARGE
E.	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EA.	EACH
ELEC.	ELECTRIC
EL. OR ELEV.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
F.L. OR ℄	FLOW LINE
HORIZ.	HORIZONTAL
INL.	INLET
INT.	INTERSECTION
INV.	INVERT
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
L.I.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MISC.	MISCELLANEOUS
N.	NORTH
Y	NORTH GRID COORDINATE
N.E.	NORTHEAST
N.W.	NORTHWEST
PAVT.	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQD.	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
RD.	ROAD
SHLD.	SHOULDER
S.	SOUTH
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAYS
STA.	STATION
STRUCT.	STRUCTURE
TEL.	TELEPHONE
TEMP.	TEMPORARY
TN.	TOWN
T.	TRUCKS (PERCENT OF)
TYP.	TYPICAL
U.G.	UNDERGROUND
VAR.	VARIABLE
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE
W.	WEST
WB	WESTBOUND
W.A.	WORKING DAY
WZ	WORK ZONE

DESIGN CONTACT

NORTHERN WISCONSIN-BASED ENGINEERS, INC.
ATTN: GARY COLBERT, PE
P.O. BOX 328
HAYWARD, WI 54843
PHONE (715) 634-4334

WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: PHIL KEPPERS - PROJECT MANAGER
NW REGION
1701 N. 4TH STREET
SUPERIOR, WI 54880
PHONE (715) 395-3027

WDNR CONTACT

WDNR - NORTHERN REGION
ATTN: SHAWN HASELEU
810 WEST MAPLE STREET
SPOONER, WI 54801
PHONE (715) 635-4228
EMAIL: SHAWN.HASELEU@WISCONSIN.GOV

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

RAILROAD CONTACT

WISCONSIN CENTRAL LTD (CN)
ATTN: JACKIE MACEWICZ, MANAGER
PUBLIC PROJECTS
1625 DEPOT STREET
STEVENS POINT, WI 54481
PHONE (715) 345-2503

RAILROADS ARE NOT PART OF DIGGERS HOTLINE.

CN CALL BEFORE YOU DIG
(734) 783-4533

UTILITIES

BAYFIELD ELECTRIC COOPERATIVE
ATTN: GARY TARASEWICZ
P.O. BOX 68
IRON RIVER, WI 54847
PHONE: (715) 372-7539 OFFICE
EMAIL: gary.tarasewicz@bayfieldelectric.com

VILLAGE OF CAMERON MUNICIPAL WATER
ATTN: KURT HARTWELL
300 N 1ST STREET
CAMERON, WI 54822
PHONE: (715) 458-2158 OFFICE
(715) 790-1140 MOBILE
EMAIL: camwater@chibardun.net

CENTURYLINK (LOCATION #3)
ATTN: BRIAN HUHN
425 ELLINGTON AVE
HAWKINS, WI 54530
PHONE: (715) 532-0023 OFFICE
(715) MOBILE
EMAIL: brian.huhn@centurylink.com

CENTURYLINK (LOCATION #4 & #6)
ATTN: JIM ARQUETTE
5602 MAIN ST P.O. BOX 13
SHELDON, WI 54766
PHONE: (715) 452-5168 OFFICE
(715) 563-8295 MOBILE
EMAIL: jim.arquette@centurylink.com

CENTURYLINK (LOCATION #5 & #7)
ATTN: MICHAEL VANDEN BOS
2426 75TH AVE
OSCEOLA, WI 54020
PHONE: (715) 294-2463 OFFICE
(715) 292-4278 MOBILE
EMAIL: mike.vandenbos@centurylink.com

DANBURY SANITARY DISTRICT
ATTN: MARSHALL HILL
30275 2ND AVE. NORTH
DANBURY, WI 54830
PHONE: (715) 656-3150
EMAIL: mghjjhill@alm.com

CITY OF HAYWARD WATERWORKS
ATTN: JOHN MCCUE
P.O. BOX 969
HAYWARD, WI 56843
PHONE: (715) 634-4612 OFFICE
(715) 699-4612 MOBILE
EMAIL: pw3@centurytel.net

JUMP RIVER ELECTRIC COOPERATIVE
ATTN: HANK LEW
1102 W 9TH STREET NORTH
LADYSMITH, WI 54848
PHONE: (715) 532-5524 OFFICE
EMAIL: hlew@jrec.com

LADYSMITH MUNICIPAL WATER
ATTN: KURT GORSEGNER
120 MINER AVE W/P.O. BOX 431
LADYSMITH, WI 54848
PHONE: (715) 532-2603 OFFICE
(715) 403-1466 MOBILE
EMAIL: kgorsegner@cityofladysmithwi.com

UTILITIES CONT'D

MERIT NETWORK, INC.
ATTN: CARLOS RAMOS
SUITE 200, 1000 OAKBROOK DR.
ANN ARBOR, MI 48104
PHONE: (734) 527-5767 OFFICE
(734) 476-3873 MOBILE
EMAIL: cramosjr@merit.edu

MOSAIC TELECOM
ATTN: DENNIS W RUSSETT
401 S. 1ST STREET
CAMERON, WI 54822
PHONE: (715) 458-5378 OFFICE
(715) 458-5518 MOBILE
EMAIL: ctcdennis@mosaictelecom.com

NORTHWESTERN WISCONSIN ELECTRIC COMPANY
ATTN: BILL COOPER
P.O. BOX 9
GRANTSBURG, WI 54840-0009
PHONE: (715) 463-5371 EXT. 107 OFFICE
EMAIL: billcooper@nweco.com

NORVADO
ATTN: GUY FOLSOM
P.O. BOX 67
CABLE, WI 54891
PHONE: (715) 798-7123 OFFICE
(715) 580-8123 MOBILE
EMAIL: gfolsom@norvado.com

POLK-BURNETT ELECTRIC COOPERATIVE
ATTN: ERICK VITALIS
1001 STATE HIGHWAY 35
CENTURIA, WI 54824
PHONE: (800) 421-0283 EXT. 383
EMAIL: evitalis@polkburnett.com

SIREN TELEPHONE COMPANY, INC.
ATTN: SID SHERSTAD
P.O. BOX 426
SIREN, WI 54872-0506
PHONE: (715) 349-2224
EMAIL: sherstad@sirentel.net

WE ENERGIES
ATTN: LEWIS KNAPP
104 W SOUTH STREET
RICE LAKE, WI 54868
PHONE: (715) 234-9605 OFFICE
(715) 419-2196 MOBILE
EMAIL: lewis.knapp@we-energies.com

XCEL ENERGY - DISTRIBUTION AND GAS
ATTN: STACEY HAUGEN
2911 S. PIONEER AVE.
RICE LAKE, WI 54866
PHONE: (715) 236-5721 OFFICE
(715) 579-9710 MOBILE
EMAIL: stacey.raether@xcelenergy.com

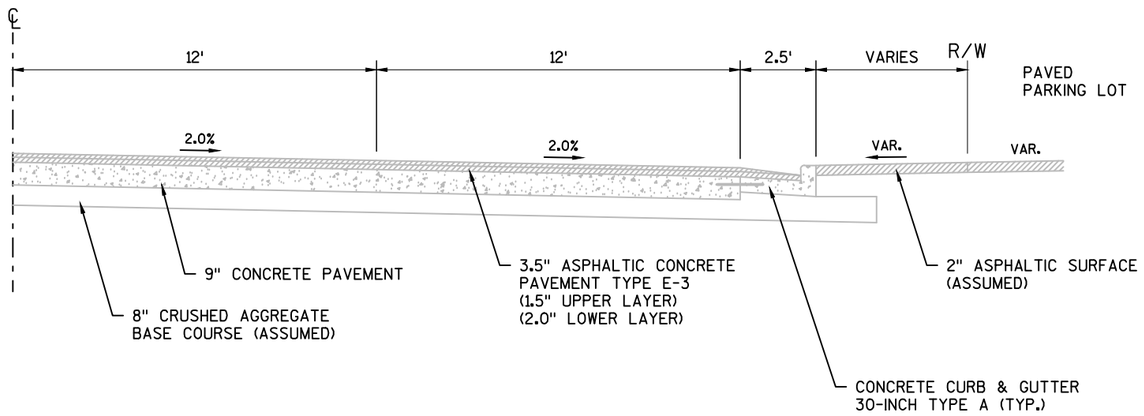
XCEL ENERGY - TRANSMISSION
ATTN: CHARLES DIENGER
3505 MELBY ROAD
EAU CLAIRE, WI 54703
PHONE: (715) 737-1576 OFFICE
(651) 955-1089 MOBILE
EMAIL: charles.g.dienger@xcelenergy.com

UTILITIES CONT'D

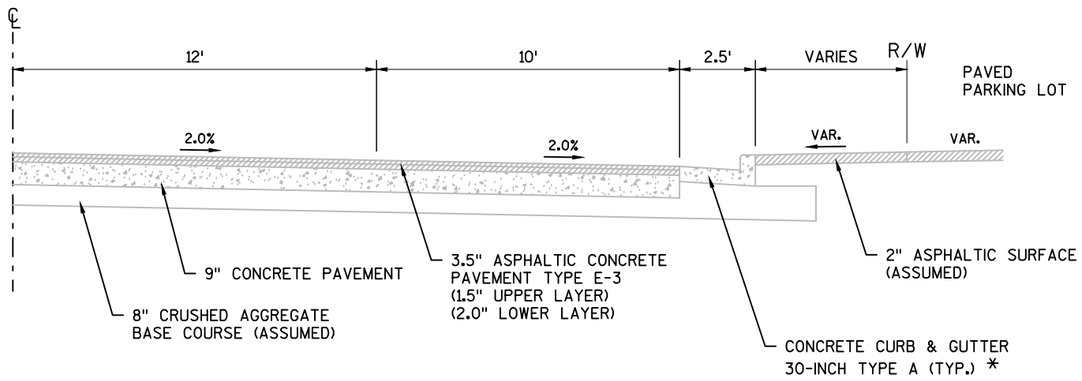
WISDOT ELECTRICAL
ATTN: TRAVIS CULVER
NORTHWEST REGION
EAU CLAIRE SIGN SHOP
5009 USH 53 SOUTH
EAU CLAIRE, WI 54701
PHONE: (715) 839-3787 OFFICE
(715) 225-0360 MOBILE
EMAIL: travis.culver@dot.wi.gov

2

LOCATION #1 - USH 8 & CTH SS INTERSECTION
(VILLAGE OF CAMERON - BARRON COUNTY)



TYPICAL EXISTING SECTION
STA. 135+40.0 - 136+70.0 (USH 8, S. 1ST STREET)



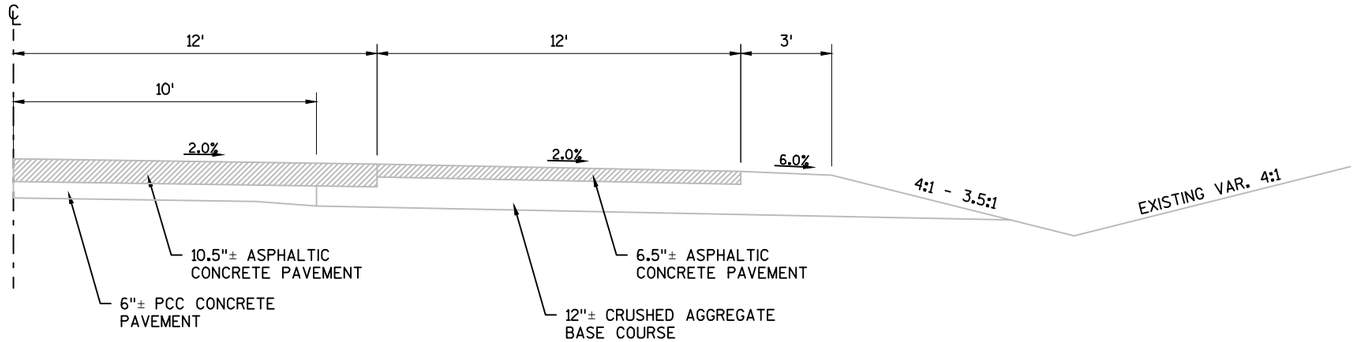
TYPICAL EXISTING SECTION
STA. 0+44.0 - 1+52.3 (USH 8, E. MAIN STREET)

* CURB & GUTTER REPLACED IN APPROX. 2002. ASSUMED FLAGLINE REPLACED AT 3.5" OVERLAY ELEVATION.

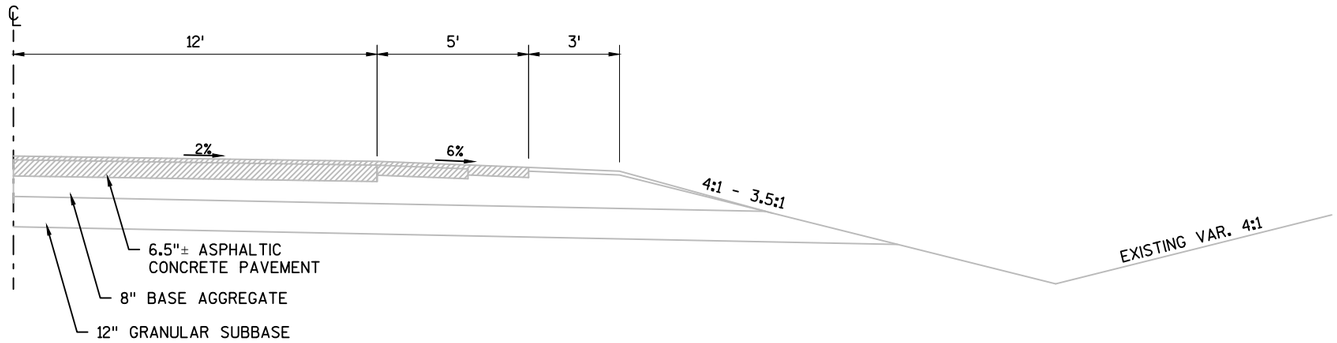
PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 4	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\020301_TS-EXISTING_ALL.DWG
1507_020301_TS-EXISTING.DST - 01
PLOT DATE : 1/21/2016 3:38 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:5 FT
WISDOT/CADDS SHEET 42

LOCATION #2 - USH 2 & USH 63 INTERSECTION
(TOWN OF KEYSTONE - BAYFIELD COUNTY)



TYPICAL EXISTING 1/2-SECTION
(USH 2)

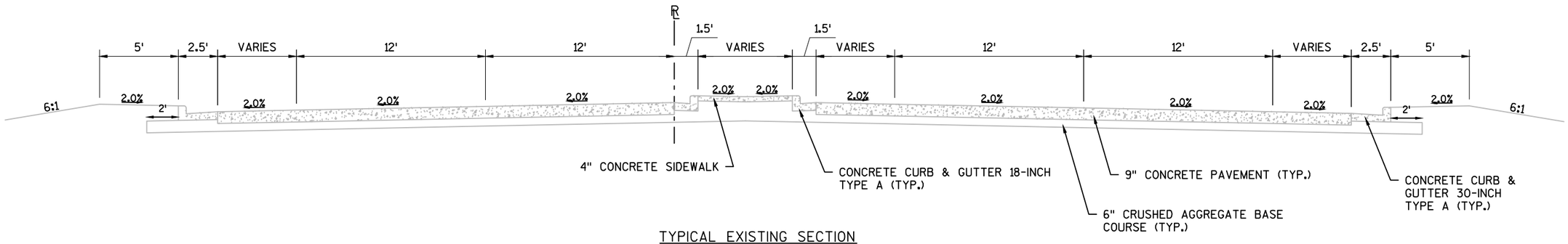


TYPICAL EXISTING 1/2-SECTION
(USH 63)

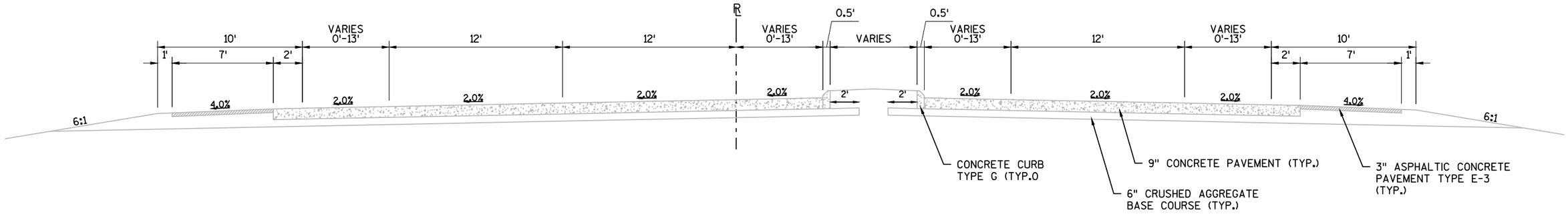
PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 5	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\020301_TS-EXISTING_ALL.DWG
1507_020301_TS-EXISTING.DST - 02
PLOT DATE : 1/21/2016 3:38 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:5 FT

LOCATION #3 - USH 63/STH 27 & STH 27/77 INTERSECTION
(CITY OF HAYWARD - SAWYER COUNTY)



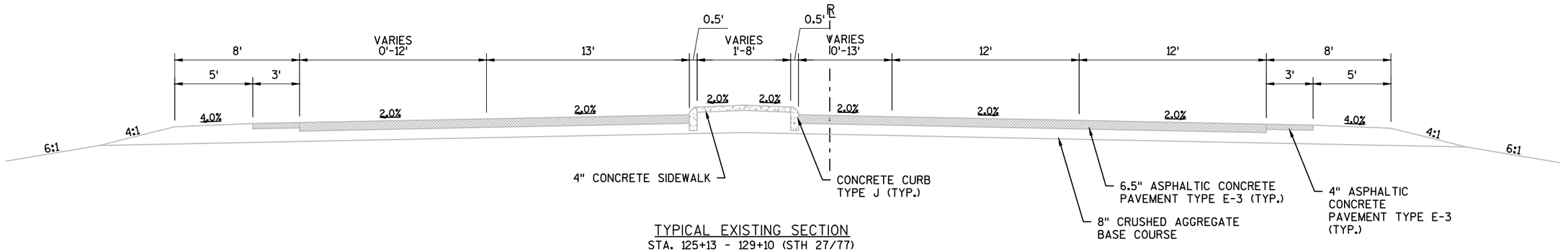
TYPICAL EXISTING SECTION
STA. 295+89 - 301+92 (USH 63/STH 27)



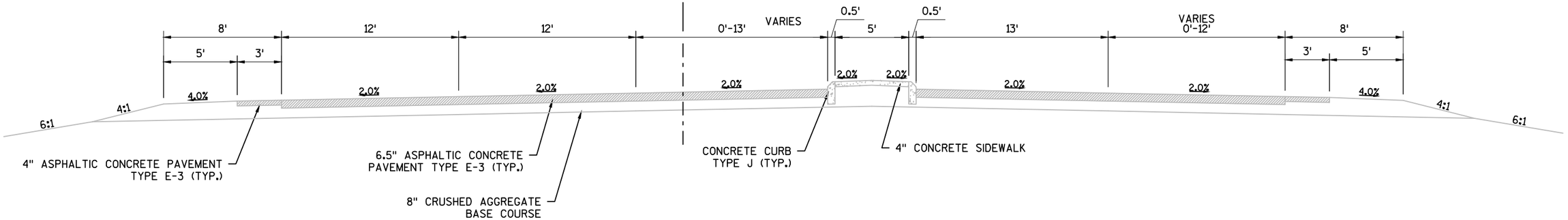
TYPICAL EXISTING SECTION
STA. 301+92 - 309+89 (USH 63/STH 27)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 6	E

LOCATION #3 - USH 63/STH 27 & STH 27/77 INTERSECTION
(CITY OF HAYWARD - SAWYER COUNTY)



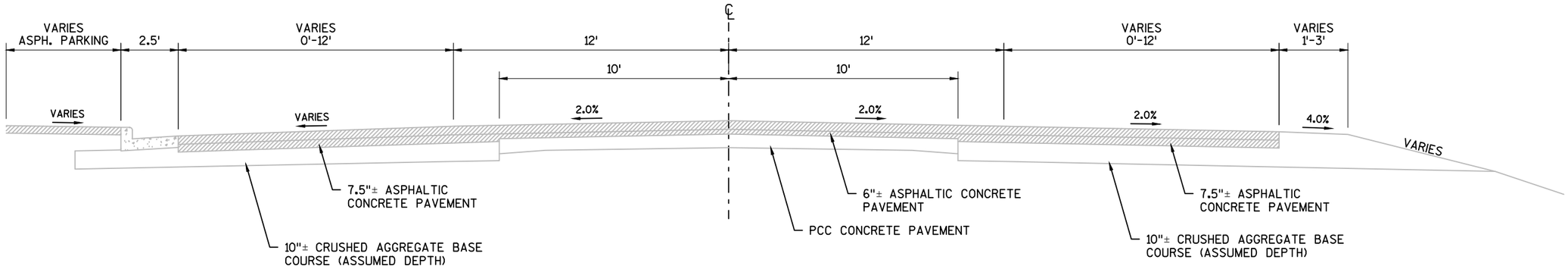
TYPICAL EXISTING SECTION
STA. 125+13 - 129+10 (STH 27/77)



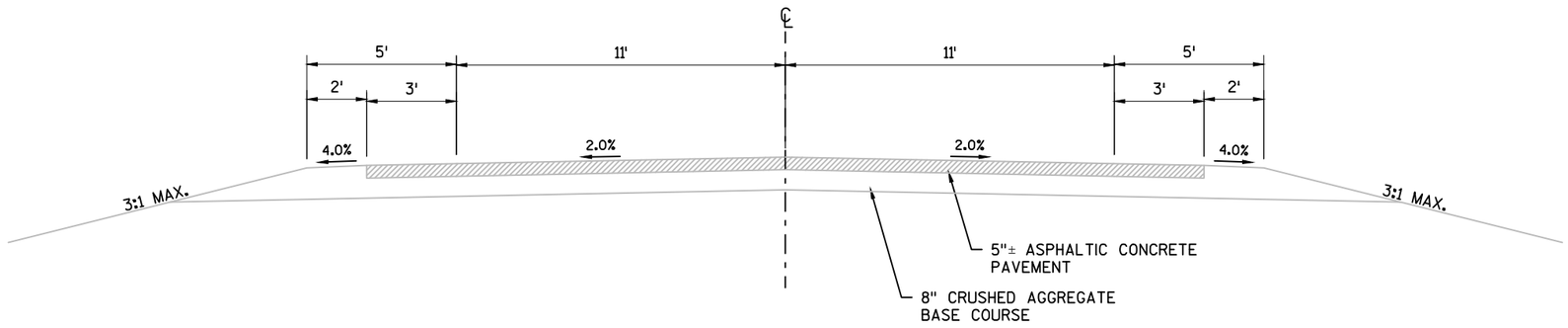
TYPICAL EXISTING SECTION
STA. 131+27 - 136+36 (STH 77)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 7	E

LOCATION #4 - USH 8 & STH 73 INTERSECTION
(VILLAGE OF INGRAM - RUSK COUNTY)



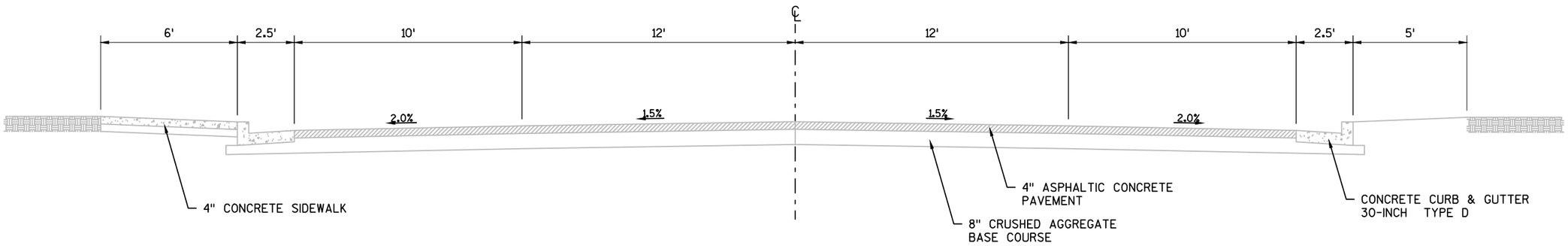
TYPICAL EXISTING SECTION
(USH 8)



TYPICAL EXISTING SECTION
(STH 73)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 8	E

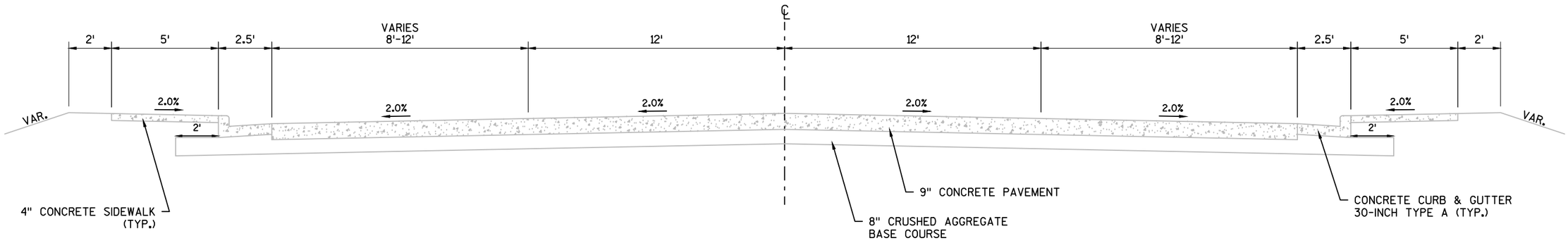
LOCATION #5 - STH 77 & STH 35 INTERSECTION
(VILLAGE OF DANBURY - BURNETT COUNTY)



TYPICAL EXISTING 1/2-SECTION
STA. 24+00 - 25+83.6 (STH 77)
STA. 498+35 - 502+20 (STH 35)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 9	E

LOCATION #6 - USH 8 & EAST 3RD STREET INTERSECTION
(LAKE AVENUE & N. 3RD STREET)
(CITY OF LADYSMITH - RUSK COUNTY)

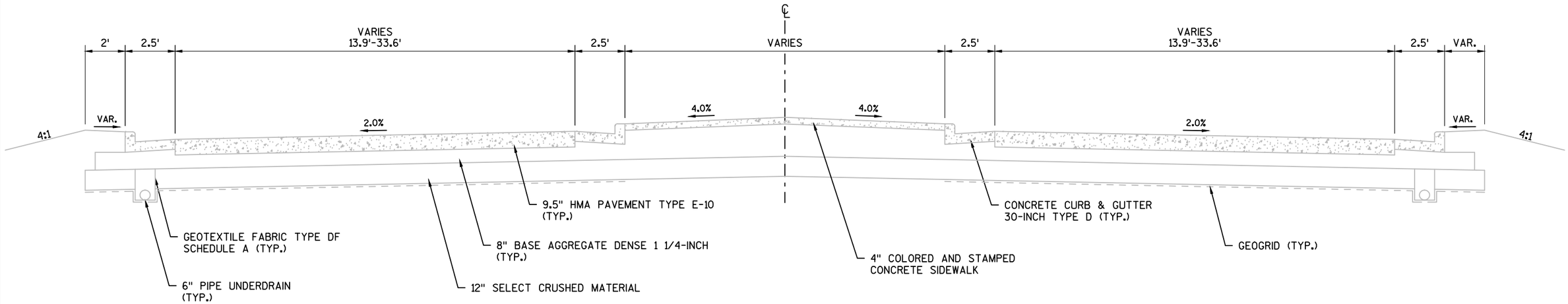


TYPICAL EXISTING SECTION
STA. 356+31 - 357+99 (E. 3RD STREET N.)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 10	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\020301_TS-EXISTING_ALL.DWG
1507_020301_TS-EXISTING.DST - 09
PLOT DATE : 1/21/2016 3:38 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:5 FT

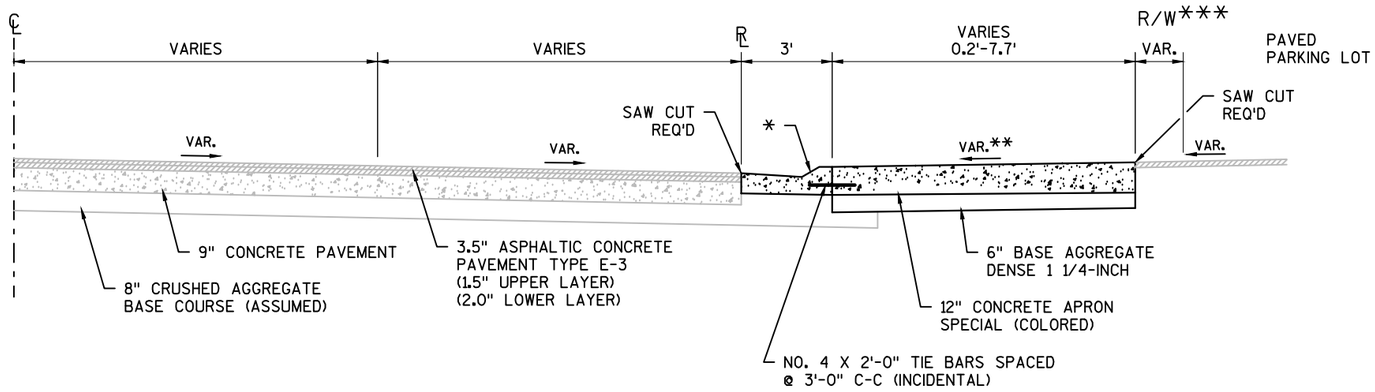
LOCATION #7 - USH 8 & 208TH STREET INTERSECTION
(W 130TH AVENUE & 208TH STREET)
(CITY OF ST CROIX FALLS - POLK COUNTY)



TYPICAL EXISTING SECTION
ROUND-A-BOUT SPLITTER ISLANDS (USH 8)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 11	E

LOCATION #1 - USH 8 (LAKE AVE. & N 3RD ST. INTERSECTION)
(VILLAGE OF CAMERON - BARRON COUNTY)



TYPICAL PROPOSED SECTION
STA. 10+14.8 - 12+01.3

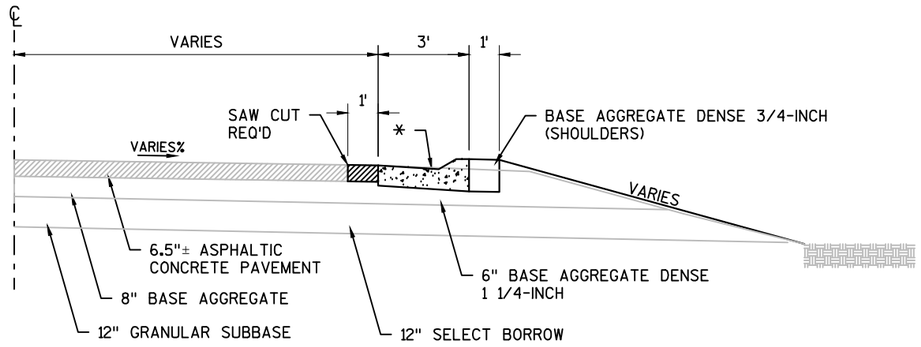
* CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED.

** VARY SLOPE TO MATCH EXISTING PARKING LOT ELEVATION.

*** SAW CUT AT L10 IS ON RW. SAW CUT AT L5, L8, AND L9 IS 0.5' FROM RW.

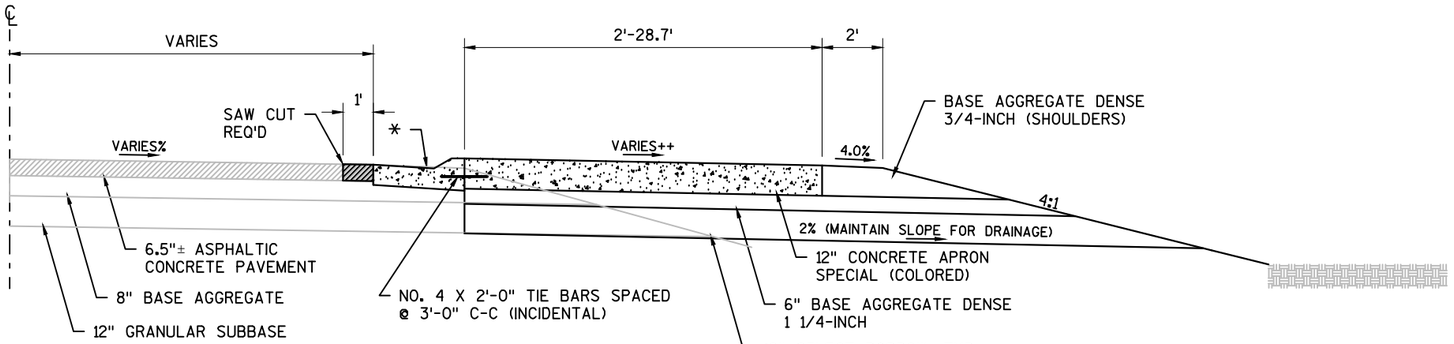
PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 12	E

LOCATION #2 - USH 2 & USH 63 INTERSECTION
(TOWN OF KEYSTONE - BAYFIELD COUNTY)



TYPICAL SECTION
STA. 20+00.0 - 20+28.4

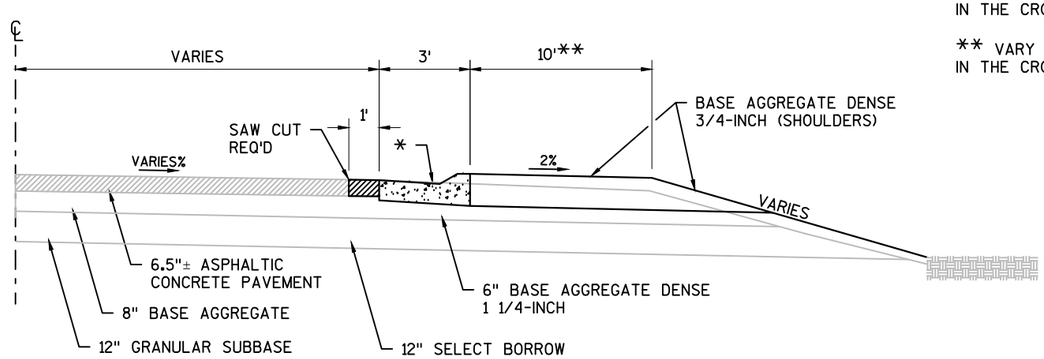
* CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED



TYPICAL SECTION
STA. 20+28.4 - 22+60.4

++ VARY PAVEMENT SLOPE AS SHOWN IN THE CROSS-SECTIONS.

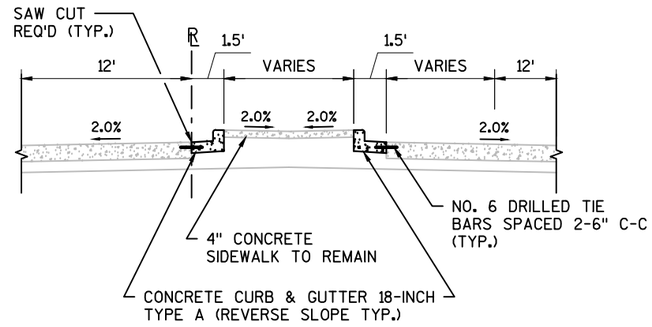
** VARY SHOULDER WIDTH AS SHOWN IN THE CROSS-SECTIONS.



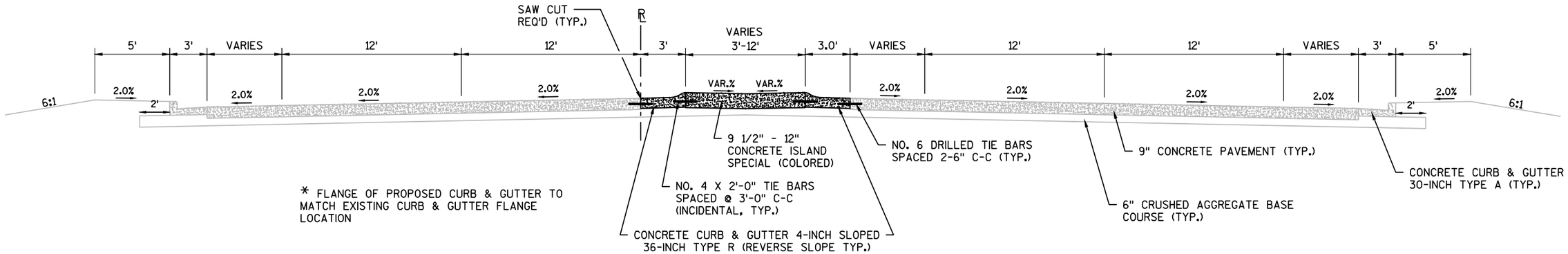
TYPICAL SECTION
STA. 22+60.4 - 22+82.1

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 13	E

LOCATION #3 - USH 63/STH 27 & STH 27/77 INTERSECTION
(CITY OF HAYWARD - SAWYER COUNTY)



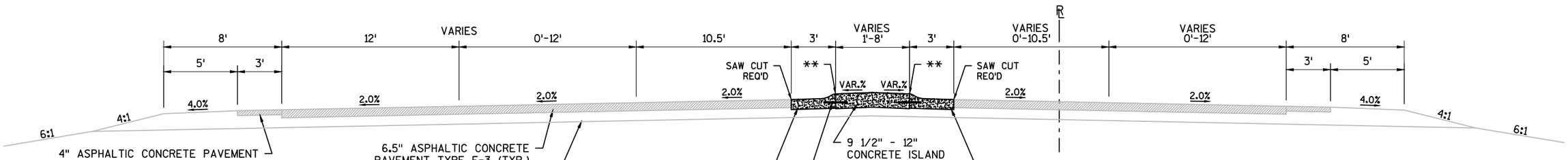
TYPICAL PROPOSED SECTION
STA. 295+87.9 - 297+14.4 (USH 63/STH 27)



TYPICAL PROPOSED SECTION
STA. 297+14.4 - 300+64.9 (USH 63/STH 27)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 14	E

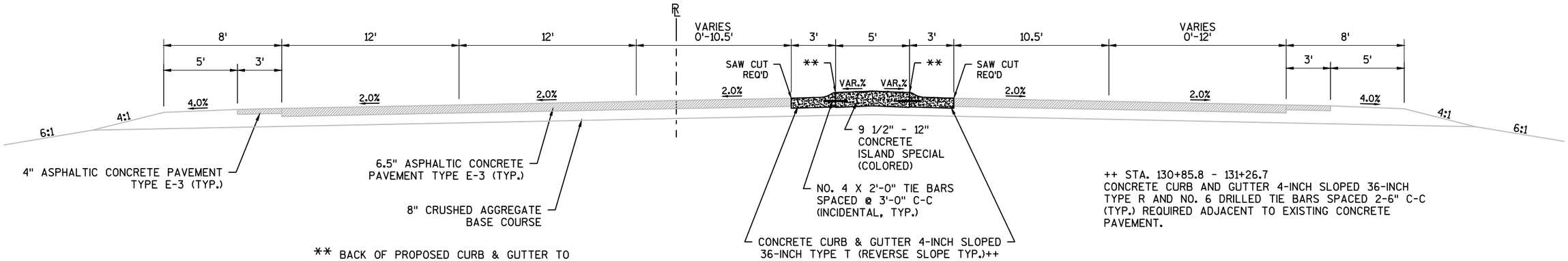
LOCATION #3 - USH 63/STH 27 & STH 27/77 INTERSECTION
(CITY OF HAYWARD - SAWYER COUNTY)



** BACK OF PROPOSED CURB & GUTTER TO MATCH EXISTING BACK OF CURB LOCATION

++ STA. 129+09.5 - 129+52.2
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE R AND NO. 6 DRILLED TIE BARS SPACED 2-6" C-C (TYP.) REQUIRED ADJACENT TO EXISTING CONCRETE PAVEMENT.

TYPICAL PROPOSED SECTION
STA. 127+09.0 - 129+52.2 (STH 27/77)



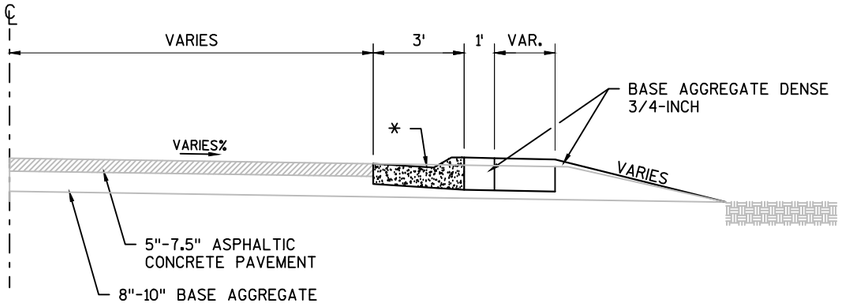
** BACK OF PROPOSED CURB & GUTTER TO MATCH EXISTING BACK OF CURB LOCATION

++ STA. 130+85.8 - 131+26.7
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE R AND NO. 6 DRILLED TIE BARS SPACED 2-6" C-C (TYP.) REQUIRED ADJACENT TO EXISTING CONCRETE PAVEMENT.

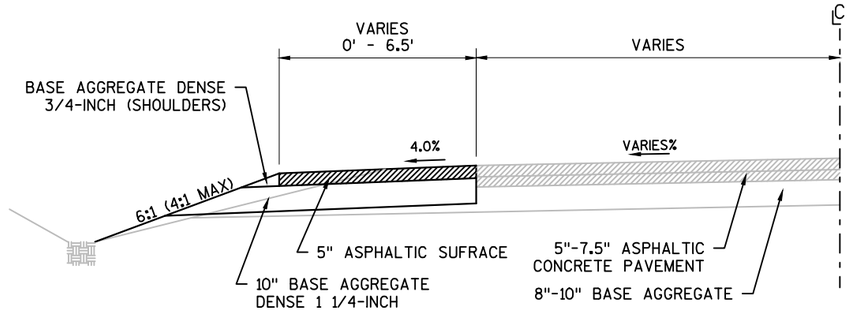
TYPICAL PROPOSED SECTION
STA. 130+85.8 - 133+06.4 (STH 77)

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 15	E

LOCATION #4 - USH 8 & STH 73 INTERSECTION
(VILLAGE OF INGRAM - RUSK COUNTY)

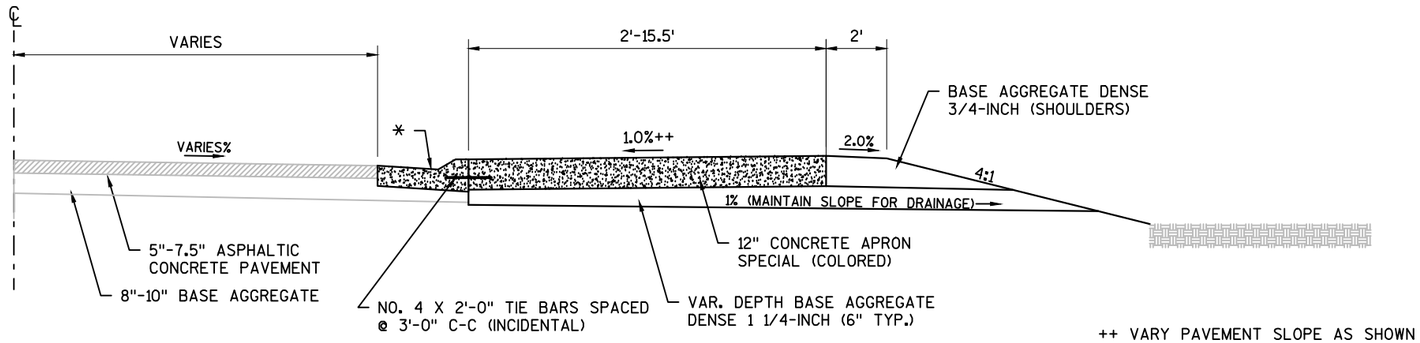


TYPICAL PRPOSED SECTION
STA. 70+00.0 - 70+09.2
STA. 71+92.6 - 72+18.9



TYPICAL PROPOSED SECTION
STA. 72+82 - 76+82 SHOULDER WIDENING

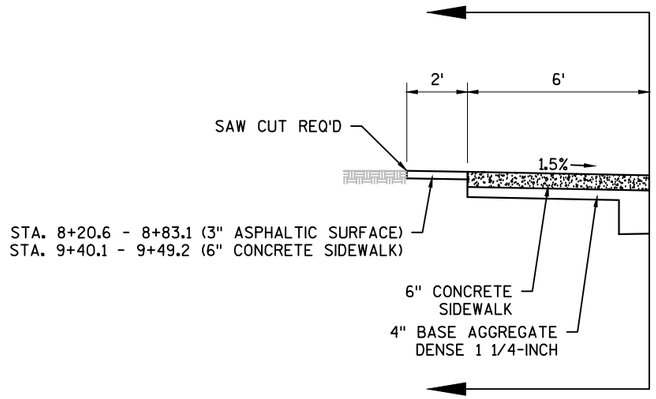
* CONCRETE CURB & GUTTER 4-INCH SLOPED
36-INCH TYPE D MODIFIED

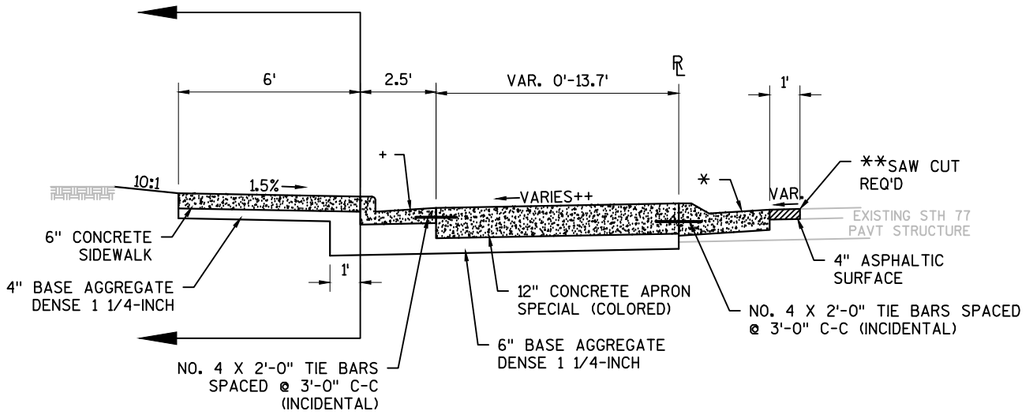


TYPICAL PROPOSED SECTION
STA. 70+09.2 - 71+92.6

++ VARY PAVEMENT SLOPE AS SHOWN
IN THE CROSS-SECTIONS.

LOCATION #5 - STH 77 & STH 35 INTERSECTION
(VILLAGE OF DANBURY - BURNETT COUNTY)





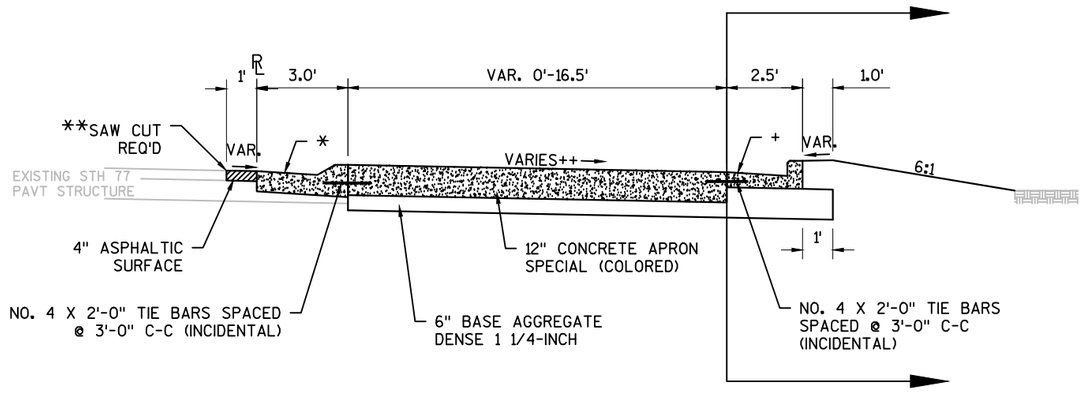
PROPOSED TYPICAL SECTION
STA. 8+20.6 - 9+49.2

* INSTALL CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T / CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED AS SHOWN IN THE PLAN.

** ADJUST SAW CUT LOCATION IN THE FIELD TO MATCH LIMITS OF EXIST ASPHALT PATCH WHERE PRESENT.

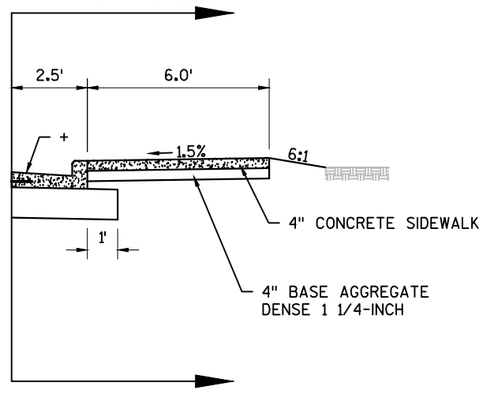
\+ CONCRETE CURB & GUTTER 30-INCH TYPE A

++ VARY PAVEMENT SLOPE AS SHOWN IN THE CROSS-SECTIONS.



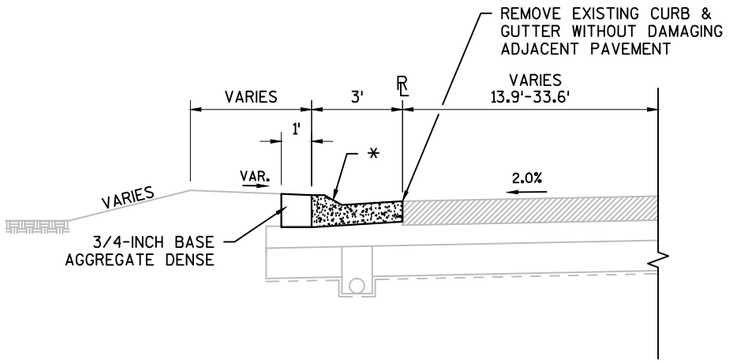
PROPOSED TYPICAL SECTION
STA. 80+09.0 - 82+19.1

STA. 81+01.4 - 81+52.7 RT

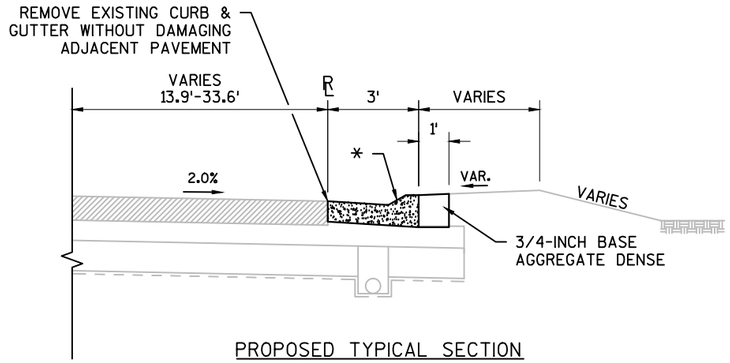


PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 17	E

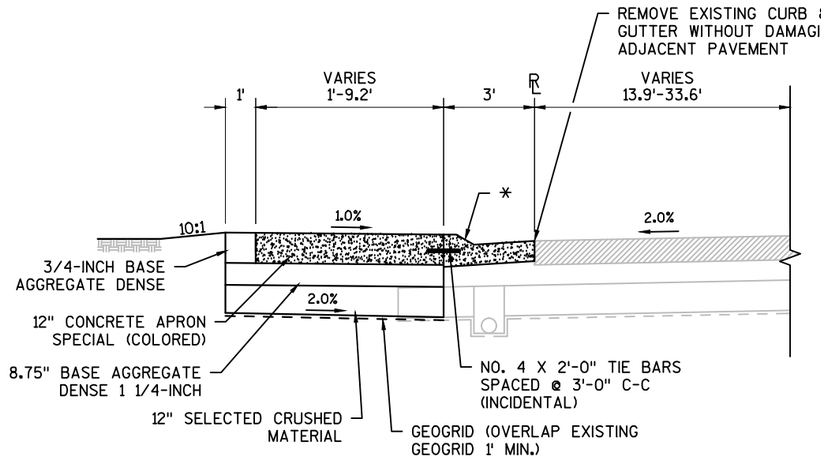
LOCATION #7 - USH 8/STH 35 & 208TH STREET ROUND-A-BOUT
(130TH AVENUE & 208TH STREET)
(CITY OF ST CROIX FALLS)



PROPOSED TYPICAL SECTION
STA. 20+00.0 - 20+10.0
STA. 21+05.9 - 21+15.9

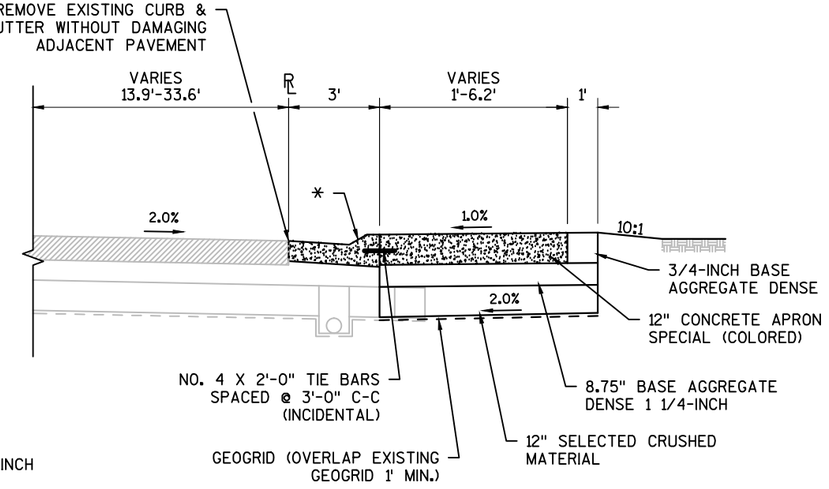


PROPOSED TYPICAL SECTION
STA. 10+00.0 - 10+10.0
STA. 10+93.7 - 11+04.1



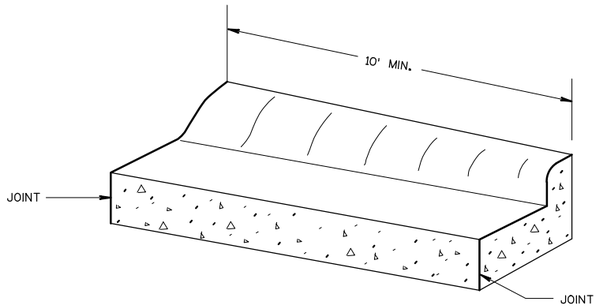
PROPOSED TYPICAL SECTION
STA. 20+10.0 - 21+05.9

* CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED



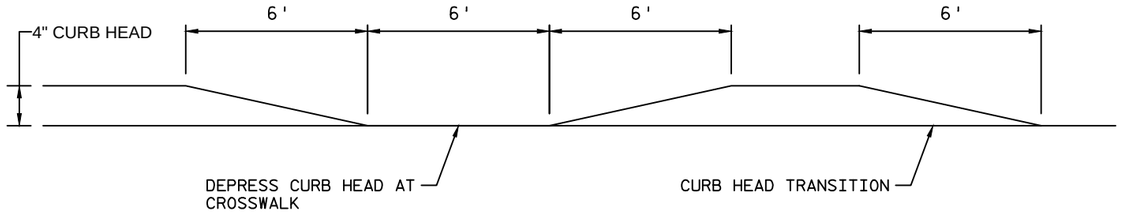
PROPOSED TYPICAL SECTION
STA. 10+10.0 - 10+93.7

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	PLAN: TYPICAL SECTIONS	SHEET 18	E

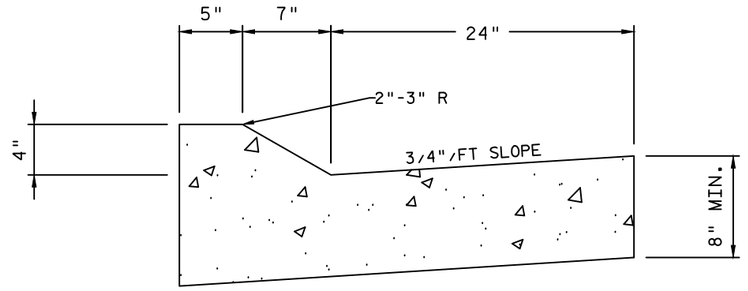


CURB & GUTTER TRANSITION DETAIL

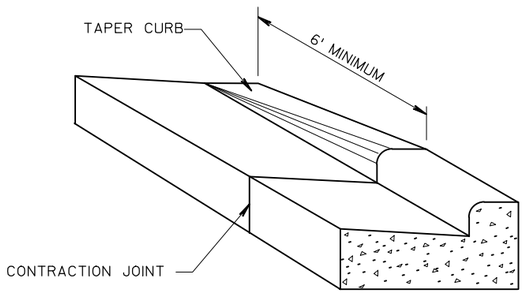
36" TYPE "T/R" CURB & GUTTER TO 30" TYPE "A/D" CURB & GUTTER (TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



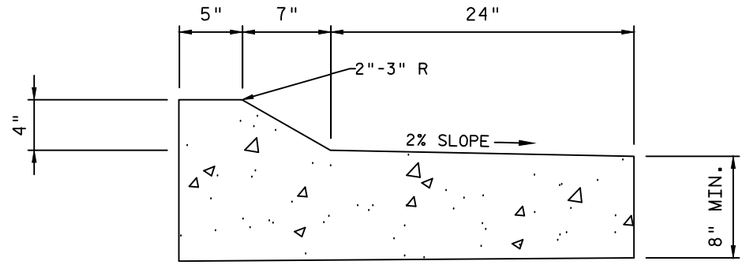
DEPRESS CURB HEAD AND CURB HEAD TRANSITION DETAIL



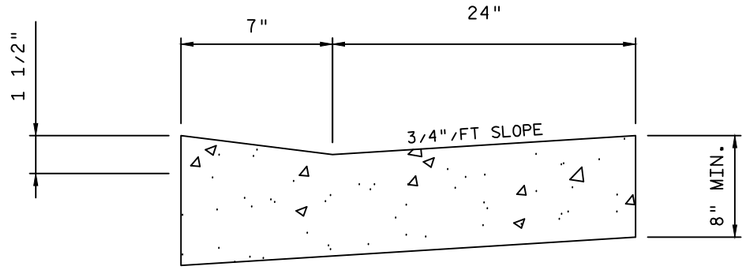
DETAIL FOR CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH TYPE A OR D MODIFIED



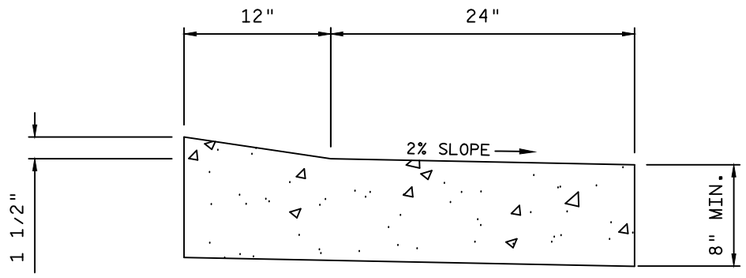
CURB & GUTTER TERMINI DETAIL



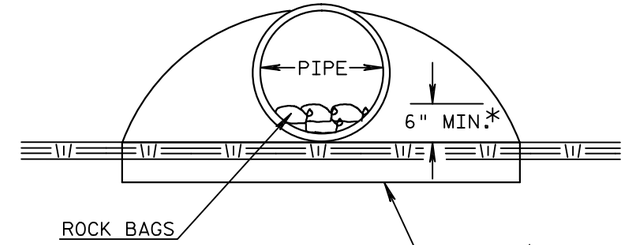
DETAIL FOR REVERSE SLOPED CONCRETE CURB & GUTTER, 4-INCH SLOPED 36-INCH TYPE A OR D MODIFIED



DETAIL FOR CONCRETE CURB & GUTTER,
4-INCH SLOPED 36-INCH TYPE A OR D MODIFIED DRIVEWAY CURB

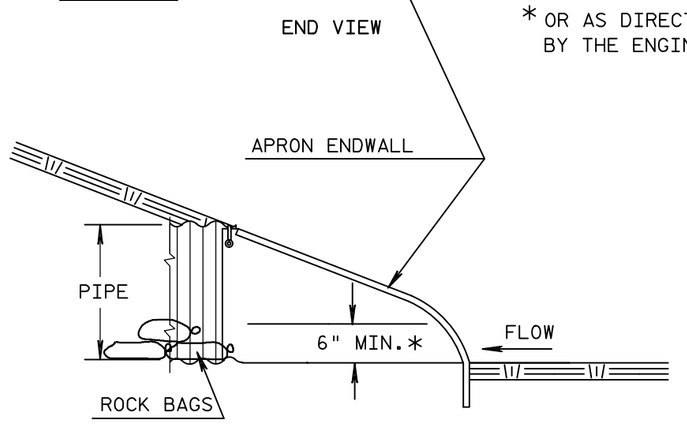


DETAIL FOR REVERSE SLOPE CONCRETE CURB & GUTTER,
4-INCH SLOPED 36-INCH TYPE A OR D MODIFIED DRIVEWAY CURB



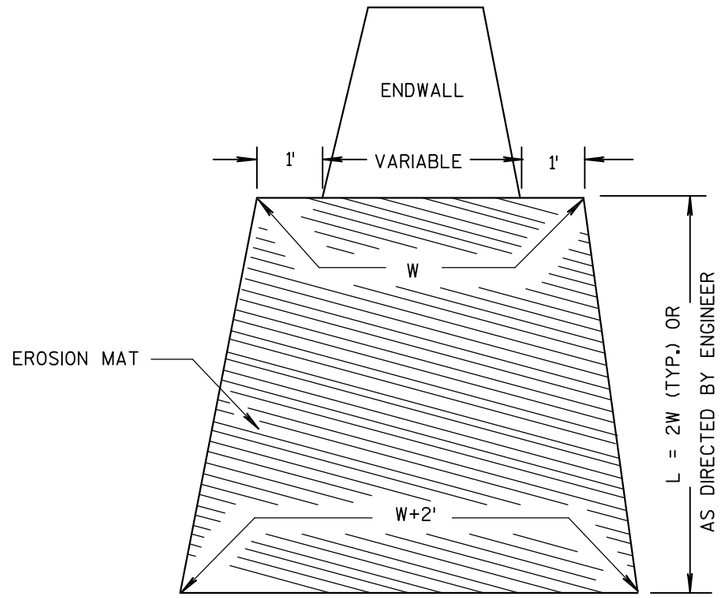
END VIEW

* OR AS DIRECTED BY THE ENGINEER



SIDE VIEW

CULVERT PIPE CHECKS

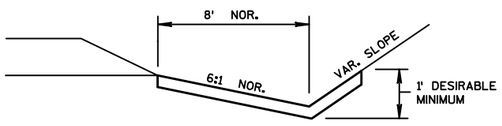


EROSION MAT TREATMENT AT CULVERTS

RUNOFF COEFFICIENT TABLE

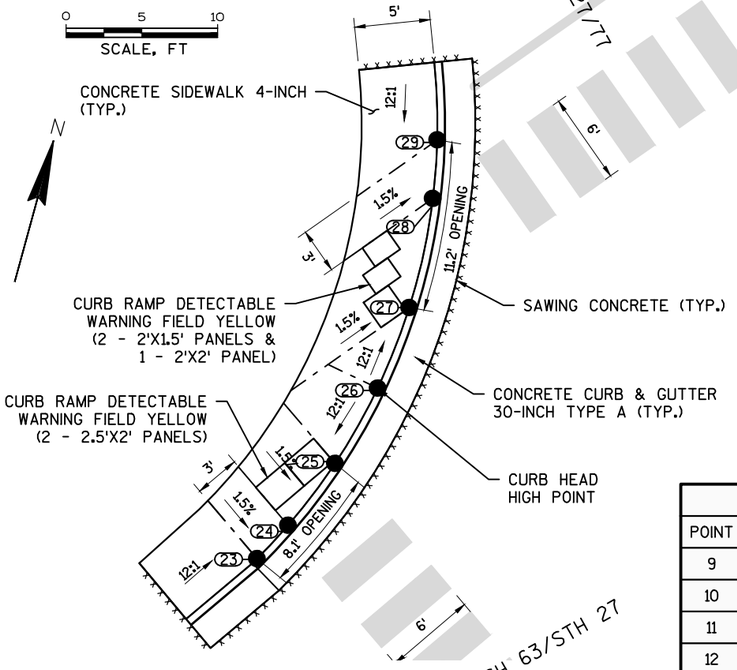
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 2.00 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.83 ACRES



EROSION MAT DETAIL FOR DITCHES

SW QUADRANT CURB RAMPS
(USH 63/STH 27 & STH 27/77)



NOTES:

1) THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS SDD8D5 SHEETS A,B,C,D,E.

2) MODIFY SLOPES TO MATCH SITE CONDITIONS WITH APPROVAL BY THE ENGINEER.

3) REMOVE/REPLACE CURB AND GUTTER AND SIDEWALK TO NEAREST JOINT BEYOND STAKING DATA LOCATIONS.

4) REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL LAYOUT POINTS AND MATERIAL INFORMATION.

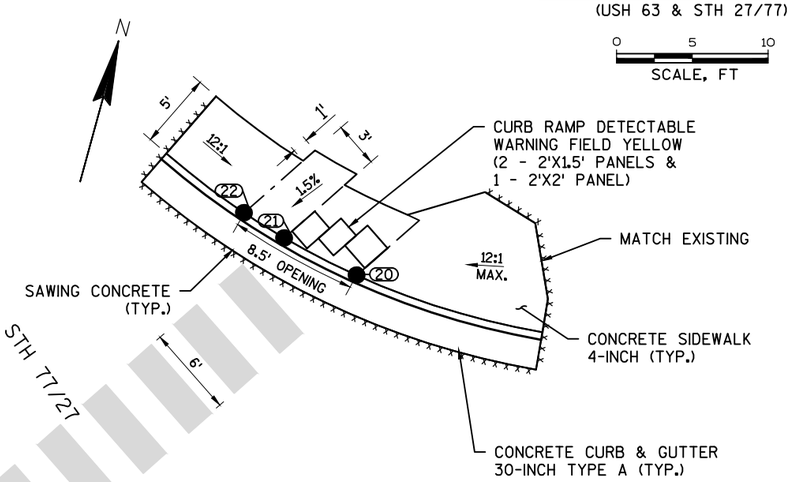
5) CURB HEAD TRANSITIONS FROM DEPRESSED CURB AT CROSSWALK OPENING TO FULL CURB HEAD SHALL BE 6 FEET.

6) CURB RADIUS AND LOCATION SHALL MATCH EXISTING CONDITIONS.

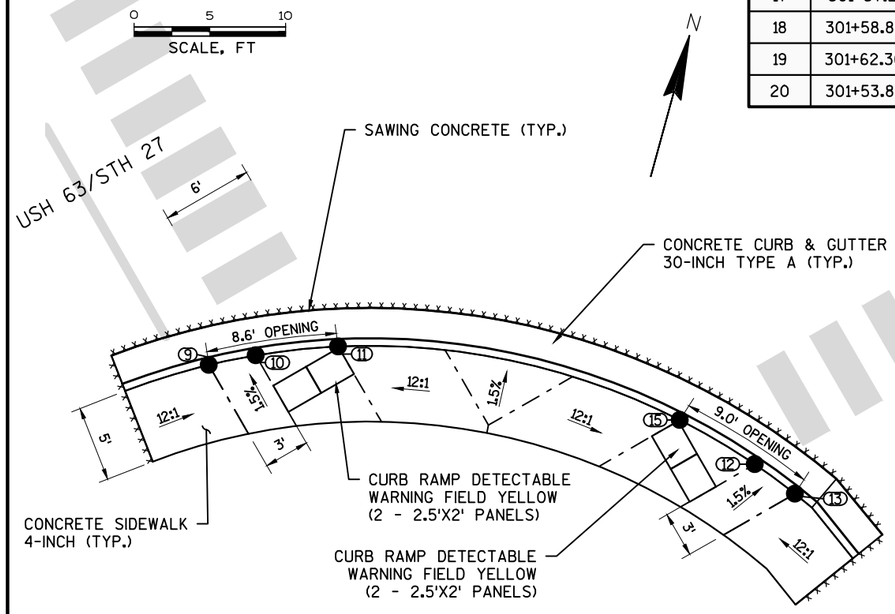
STATION & OFFSET TABLE				
POINT	STATION	OFFSET	STATION	OFFSET
9	300+45.46	74.82 RT	130+74.85	68.50 RT
10	300+48.43	75.91 RT	130+75.94	65.54 RT
11	300+53.36	78.27 RT	130+78.30	60.61 RT
12	300+72.64	99.35 RT	130+99.37	41.32 RT
13	300+73.87	102.39 RT	131+02.41	40.09 RT
15	300+69.97	94.26 RT	130+94.28	43.99 RT
17	301+57.21	104.94 RT	131+05.06	42.37 LT
18	301+58.86	101.98 RT	131+02.12	44.00 LT
19	301+62.30	97.06 RT	130+97.22	47.39 LT
20	301+53.84	59.56 LT	129+43.20	49.69 LT

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	STATION	OFFSET
21	301+51.08	64.15 LT	129+38.45	47.19 LT
22	301+49.71	66.95 LT	129+35.57	45.96 LT
23	300+38.90	41.22 LT	129+55.05	66.53 RT
24	300+41.79	42.02 LT	129+54.42	63.60 RT
25	300+46.57	43.86 LT	129+52.84	58.72 RT
26	300+51.58	46.60 LT	129+50.38	53.57 RT
27	300+56.16	50.02 LT	129+47.21	48.81 RT
28	300+61.27	55.32 LT	129+42.20	43.42 RT
29	300+63.55	58.46 LT	129+39.20	40.97 RT

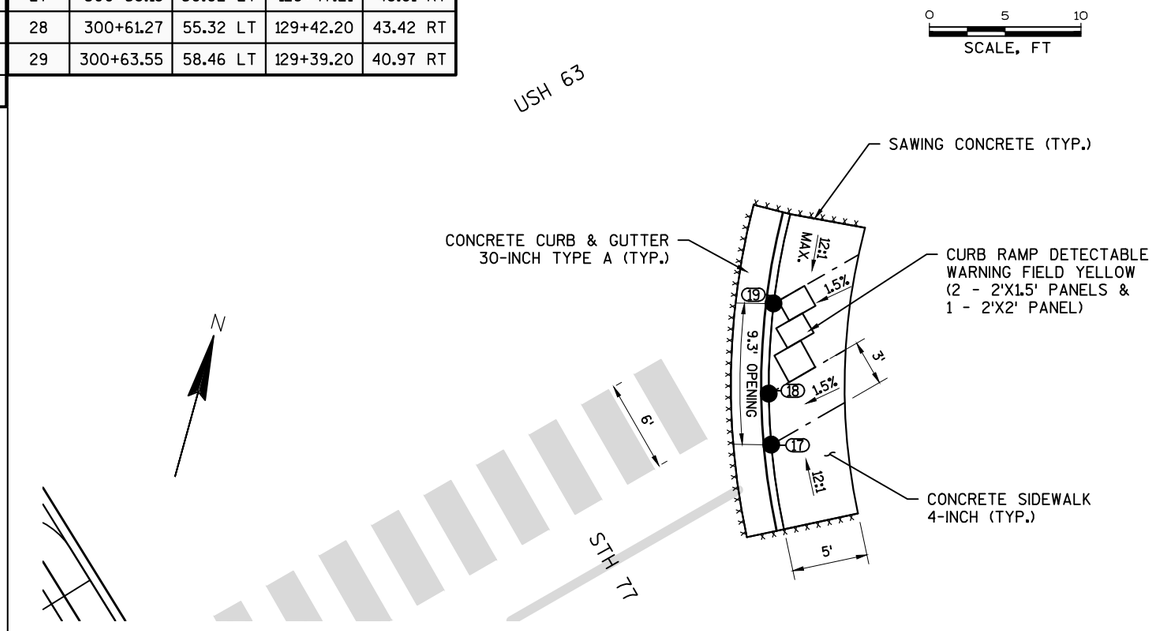
NW QUADRANT CURB RAMP
(USH 63 & STH 27/77)



SE QUADRANT CURB RAMPS
(USH 63/STH 27 & STH 77)



NE QUADRANT CURB RAMP
(USH 63 & STH 77)

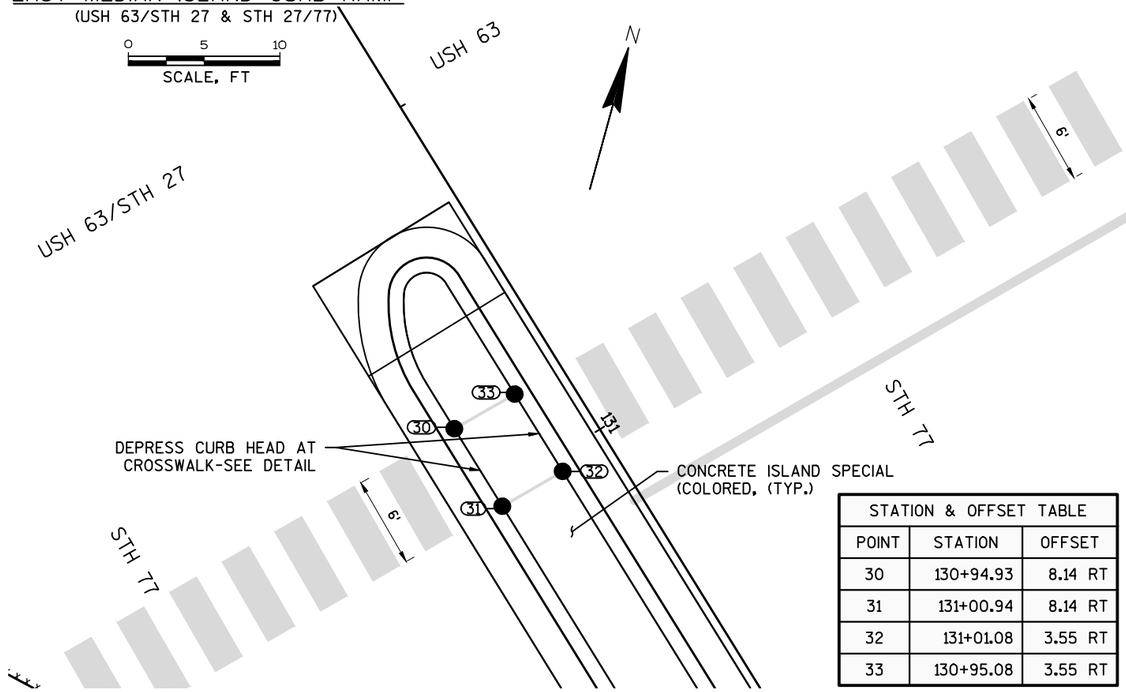


PROJECT NO: 1000-08-88	HWY: USH 63/STH 77/STH 27	COUNTY: SAWYER	PLAN: LOCATION #3 CURB RAMP LAYOUT DETAILS	SHEET 22	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\021203_PD_HAYWARD.DWG
1507_021201_PD - 021203_PD_HAYWARD - 01
PLOT DATE : 1/27/2016 1:24 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

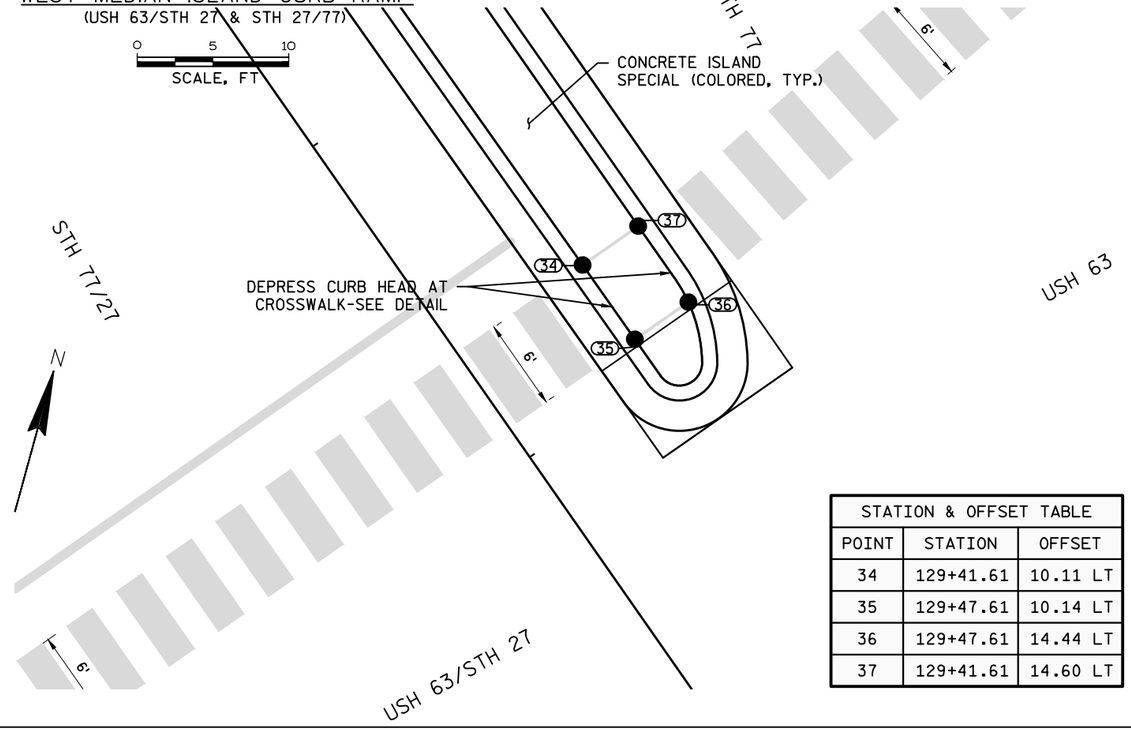
2

EAST MEDIAN ISLAND CURB RAMP
(USH 63/STH 27 & STH 27/77)



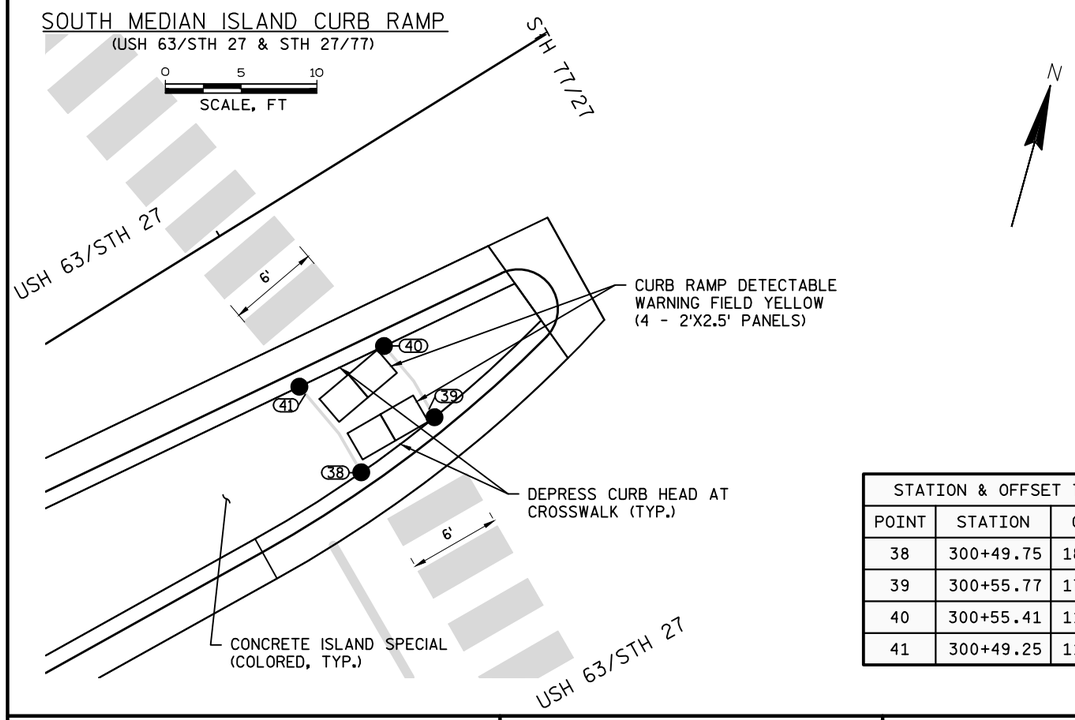
STATION & OFFSET TABLE		
POINT	STATION	OFFSET
30	130+94.93	8.14 RT
31	131+00.94	8.14 RT
32	131+01.08	3.55 RT
33	130+95.08	3.55 RT

WEST MEDIAN ISLAND CURB RAMP
(USH 63/STH 27 & STH 27/77)



STATION & OFFSET TABLE		
POINT	STATION	OFFSET
34	129+41.61	10.11 LT
35	129+47.61	10.14 LT
36	129+47.61	14.44 LT
37	129+41.61	14.60 LT

SOUTH MEDIAN ISLAND CURB RAMP
(USH 63/STH 27 & STH 27/77)



STATION & OFFSET TABLE		
POINT	STATION	OFFSET
38	300+49.75	18.18 RT
39	300+55.77	17.64 RT
40	300+55.41	11.89 RT
41	300+49.25	11.23 RT

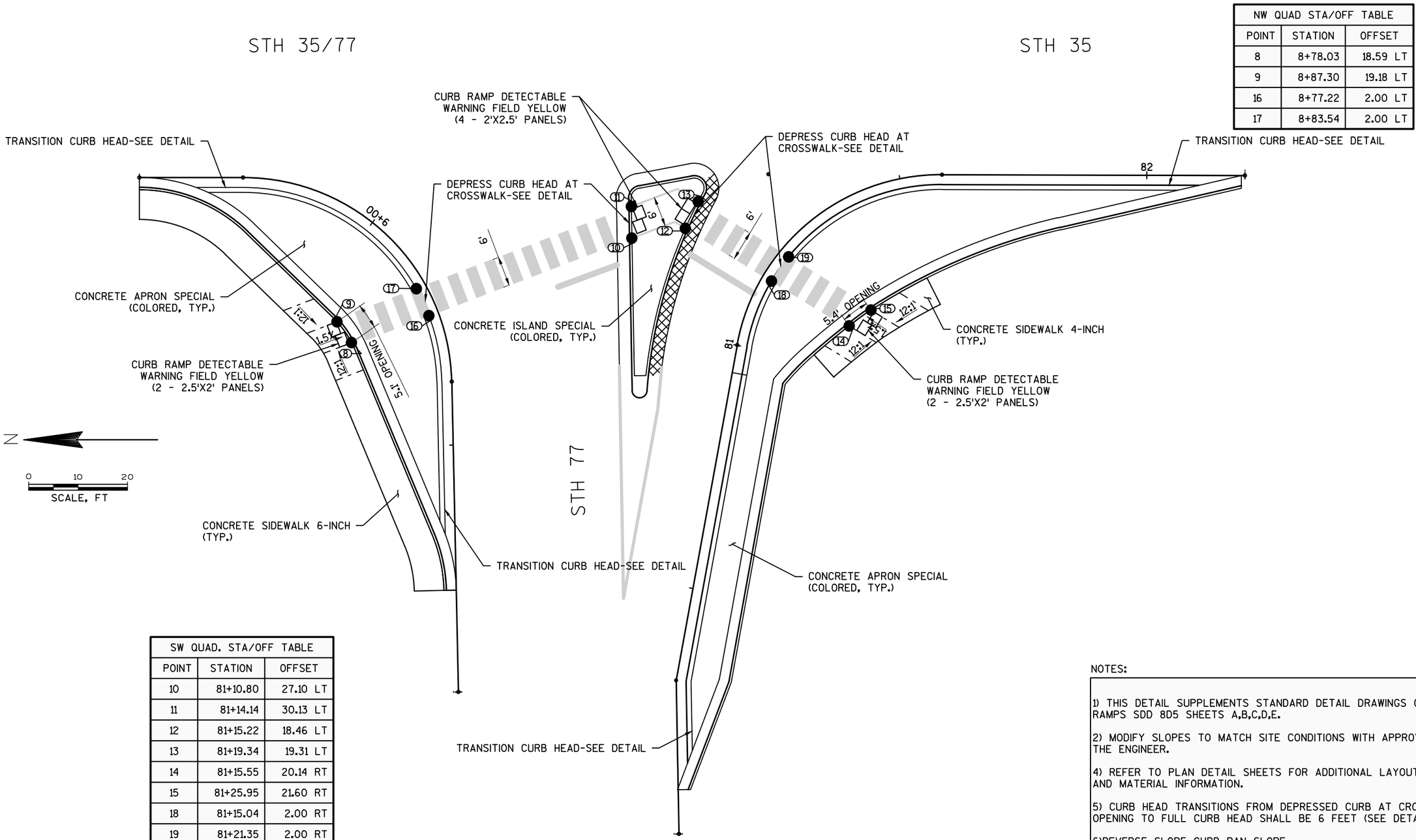
2

PROJECT NO:1000-08-88	HWY:USH 63/STH 77/STH 27	COUNTY:SAWYER	PLAN: LOCATION #3 CURB RAMP LAYOUT DETAILS	SHEET 23	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\021203_PD_HAYWARD.DWG
1507_021201_PD - 021203_PD_HAYWARD - 02
PLOT DATE : 1/27/2016 1:24 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

NW QUAD STA/OFF TABLE		
POINT	STATION	OFFSET
8	8+78.03	18.59 LT
9	8+87.30	19.18 LT
16	8+77.22	2.00 LT
17	8+83.54	2.00 LT



SW QUAD. STA/OFF TABLE		
POINT	STATION	OFFSET
10	81+10.80	27.10 LT
11	81+14.14	30.13 LT
12	81+15.22	18.46 LT
13	81+19.34	19.31 LT
14	81+15.55	20.14 RT
15	81+25.95	21.60 RT
18	81+15.04	2.00 RT
19	81+21.35	2.00 RT

NOTES:

1) THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS SDD 8D5 SHEETS A,B,C,D,E.

2) MODIFY SLOPES TO MATCH SITE CONDITIONS WITH APPROVAL BY THE ENGINEER.

4) REFER TO PLAN DETAIL SHEETS FOR ADDITIONAL LAYOUT POINTS AND MATERIAL INFORMATION.

5) CURB HEAD TRANSITIONS FROM DEPRESSED CURB AT CROSSWALK OPENING TO FULL CURB HEAD SHALL BE 6 FEET (SEE DETAIL).

6)REVERSE SLOPE CURB PAN SLOPE TO BE 2% MAX IN AREA OF DEPRESSED CURB HEAD AT CROSSWALK.

PROJECT NO:1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	PLAN: LOCATION #5 CURB RAMP LAYOUT DETAILS	SHEET 24	E

SIGN LEGEND

- SIGN(S) BANDED TO POLE
- SIGN(S) ON SINGLE POST
- SIGN(S) ON DOUBLE POSTS

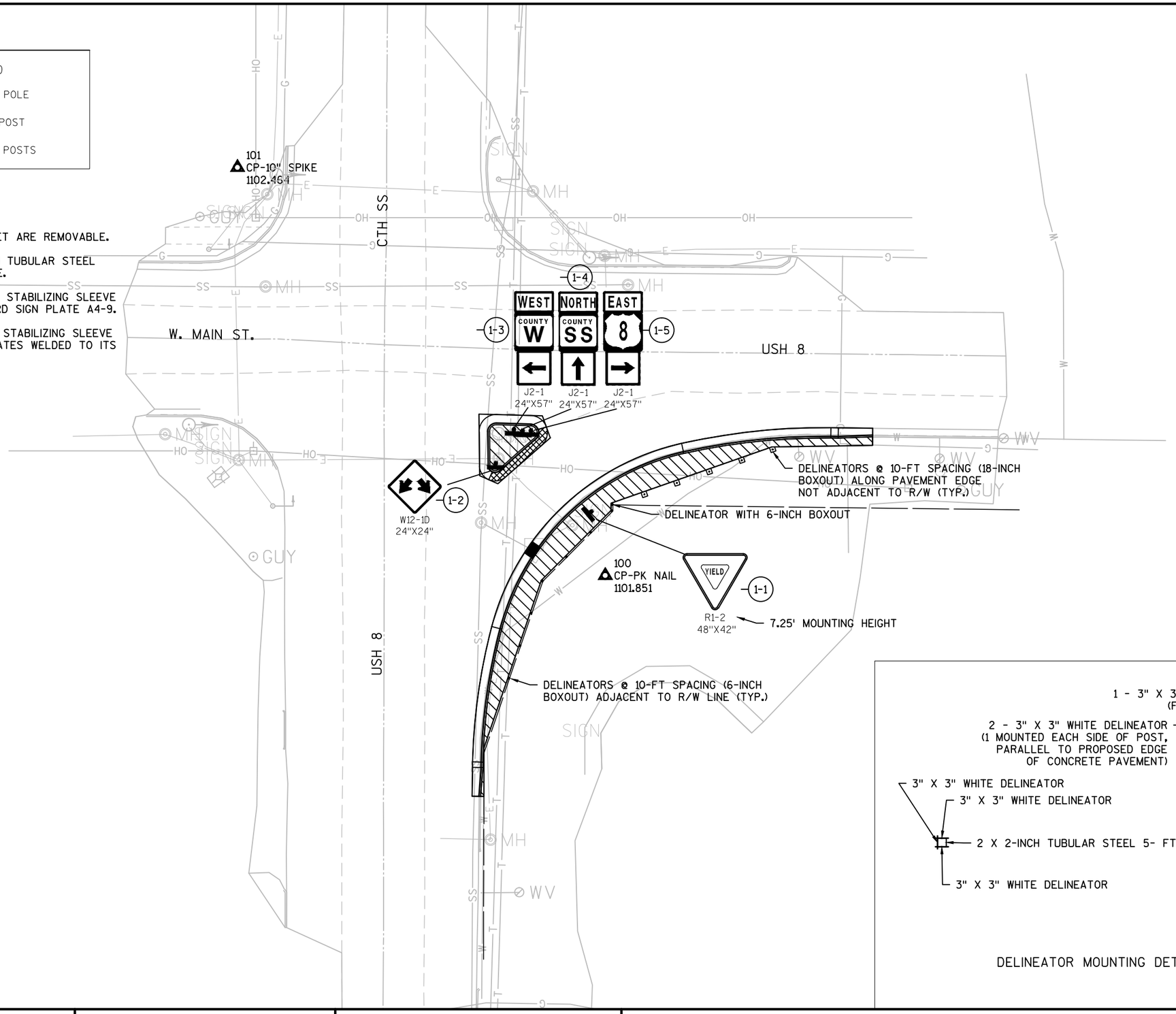
NOTES:

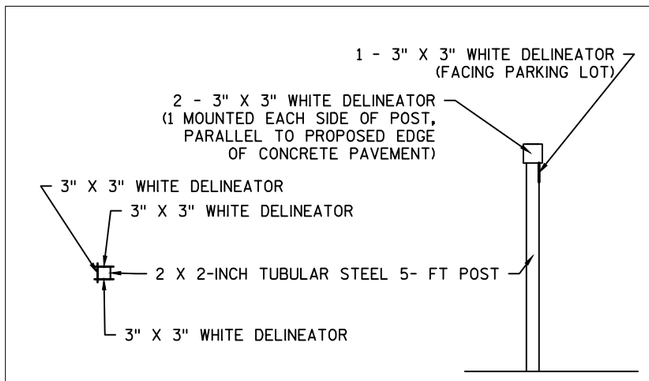
SIGN POSTS SHOWN ON THIS SHEET ARE REMOVABLE.

DELINEATORS ARE ON 2 X 2-INCH TUBULAR STEEL 5-FT POSTS AND ARE REMOVABLE.

18-INCH BOXOUTS REQUIRE A SOIL STABILIZING SLEEVE DESIGNED ACCORDING TO STANDARD SIGN PLATE A4-9.

6-INCH BOXOUTS REQUIRE A SOIL STABILIZING SLEEVE THAT DOES NOT HAVE STEEL PLATES WELDED TO ITS CORNERS.





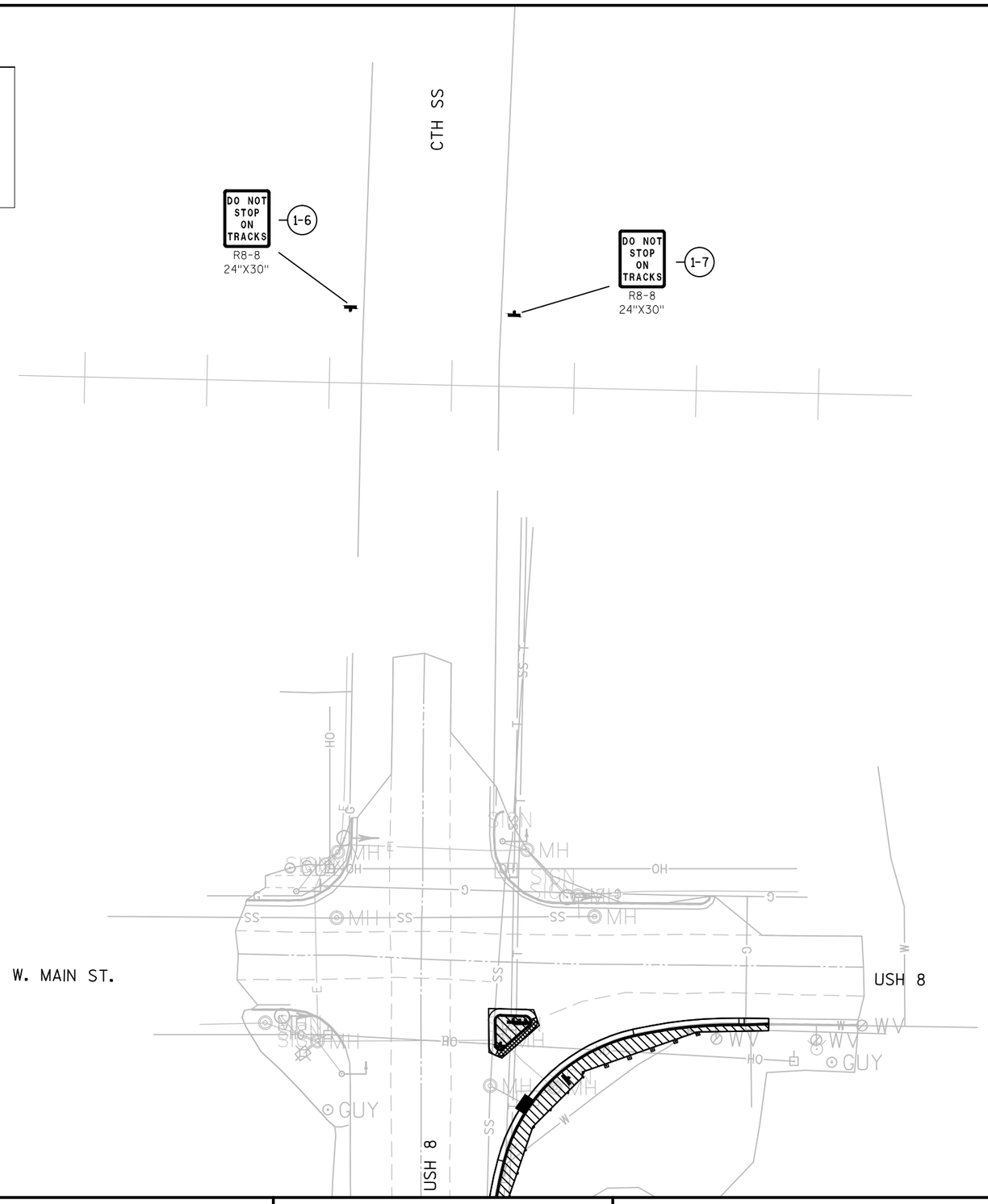
DELINEATOR MOUNTING DETAIL

PROJECT NO: 1000-08-88	HWY: USH 8/CTH SS	COUNTY: BARRON	PLAN: LOCATION #1 PERMANENT SIGNING	SHEET 25	E

2

SIGN LEGEND

- SIGN(S) BANDED TO POLE
- SIGN(S) ON SINGLE POST
- SIGN(S) ON DOUBLE POSTS



NOTE:

INSTALL R8-8 SIGNS 30 FEET NORTH OF RAILROAD CENTERLINE OR AS DIRECTED BY THE ENGINEER.

2

PROJECT NO: 1000-08-88	HWY: USH 8/CTH SS	COUNTY: BARRON	PLAN: LOCATION #1 PERMANENT SIGNING	SHEET 26	E

2

N

SIGN LEGEND

SIGN(S) BANDED TO POLE

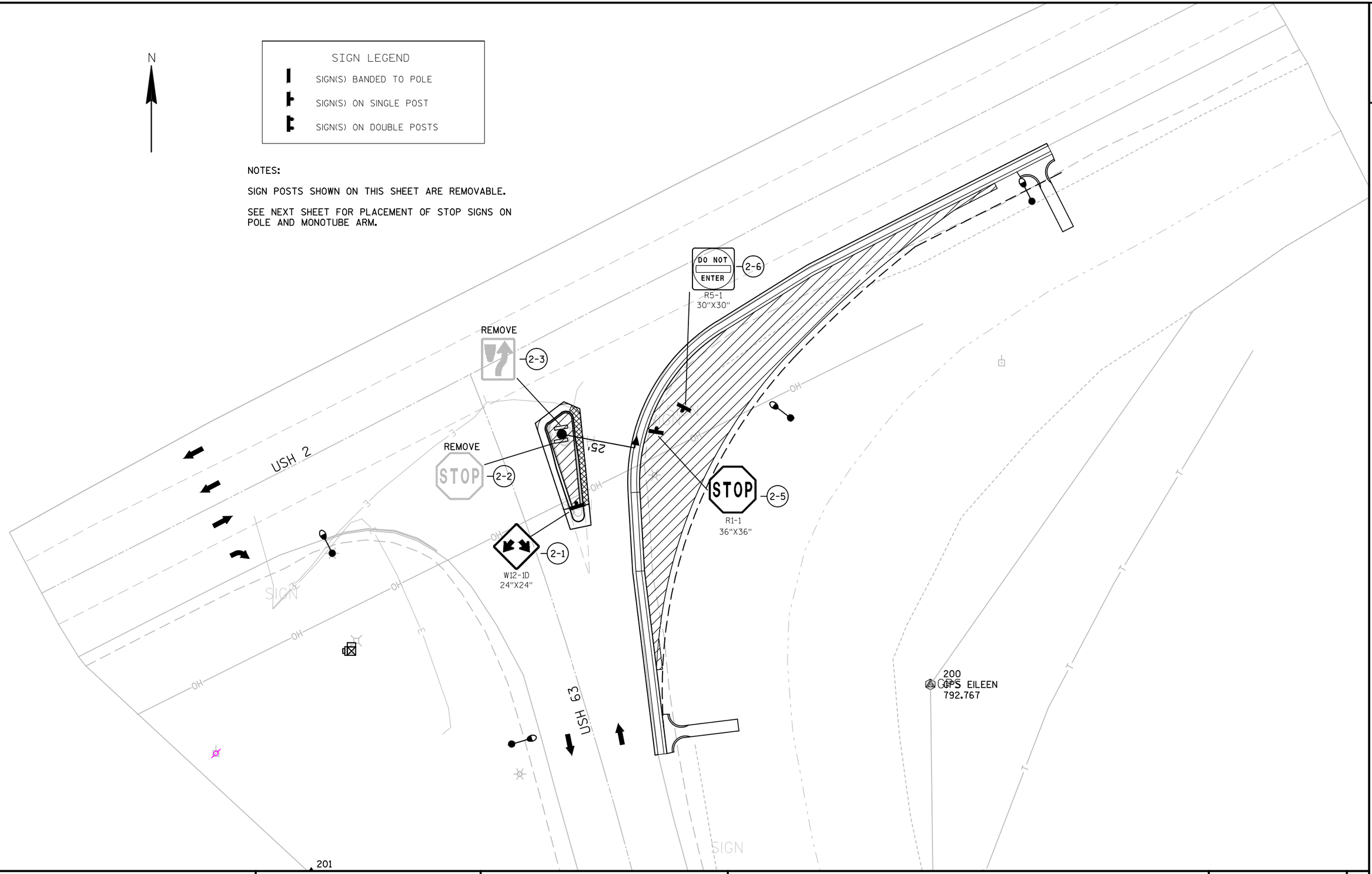
SIGN(S) ON SINGLE POST

SIGN(S) ON DOUBLE POSTS

NOTES:

SIGN POSTS SHOWN ON THIS SHEET ARE REMOVABLE.

SEE NEXT SHEET FOR PLACEMENT OF STOP SIGNS ON POLE AND MONOTUBE ARM.



PROJECT NO:1000-08-88	HWY: USH 2/USH 63	COUNTY: BAYFIELD	PLAN: LOCATION #2 PERMANENT SIGNING	SHEET 27	E

NOTES:

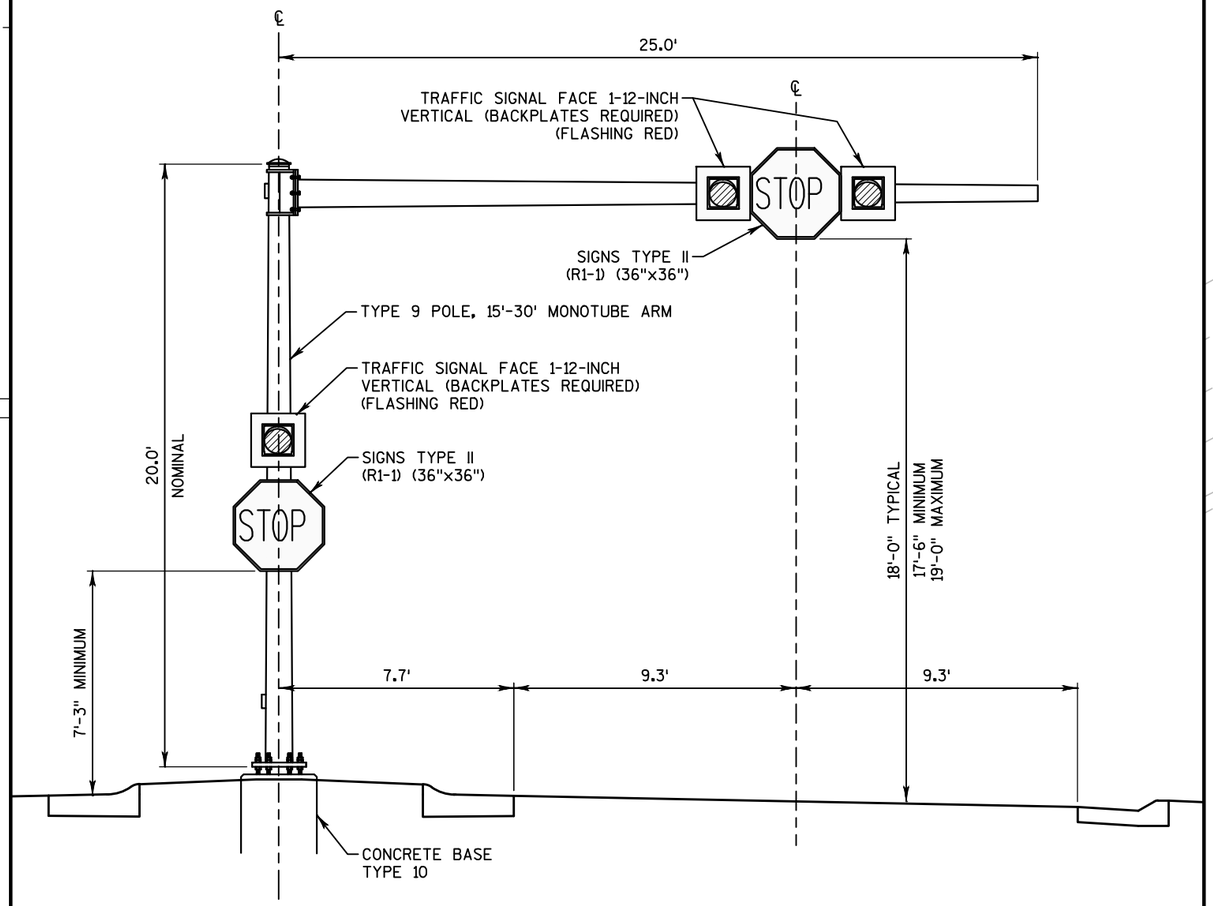
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND TO THE PERTINENT DETAILS AND REFERENCES OF STANDARD DETAIL DRAWINGS:

"TYPE 9 POLE, 15' - 30' MONOTUBE ARM" AND
"GENERAL NOTES AND HARDWARE, DETAILS FOR TYPE 9, 10, 12 & 13, POLES WITH MONOTUBE ARMS."

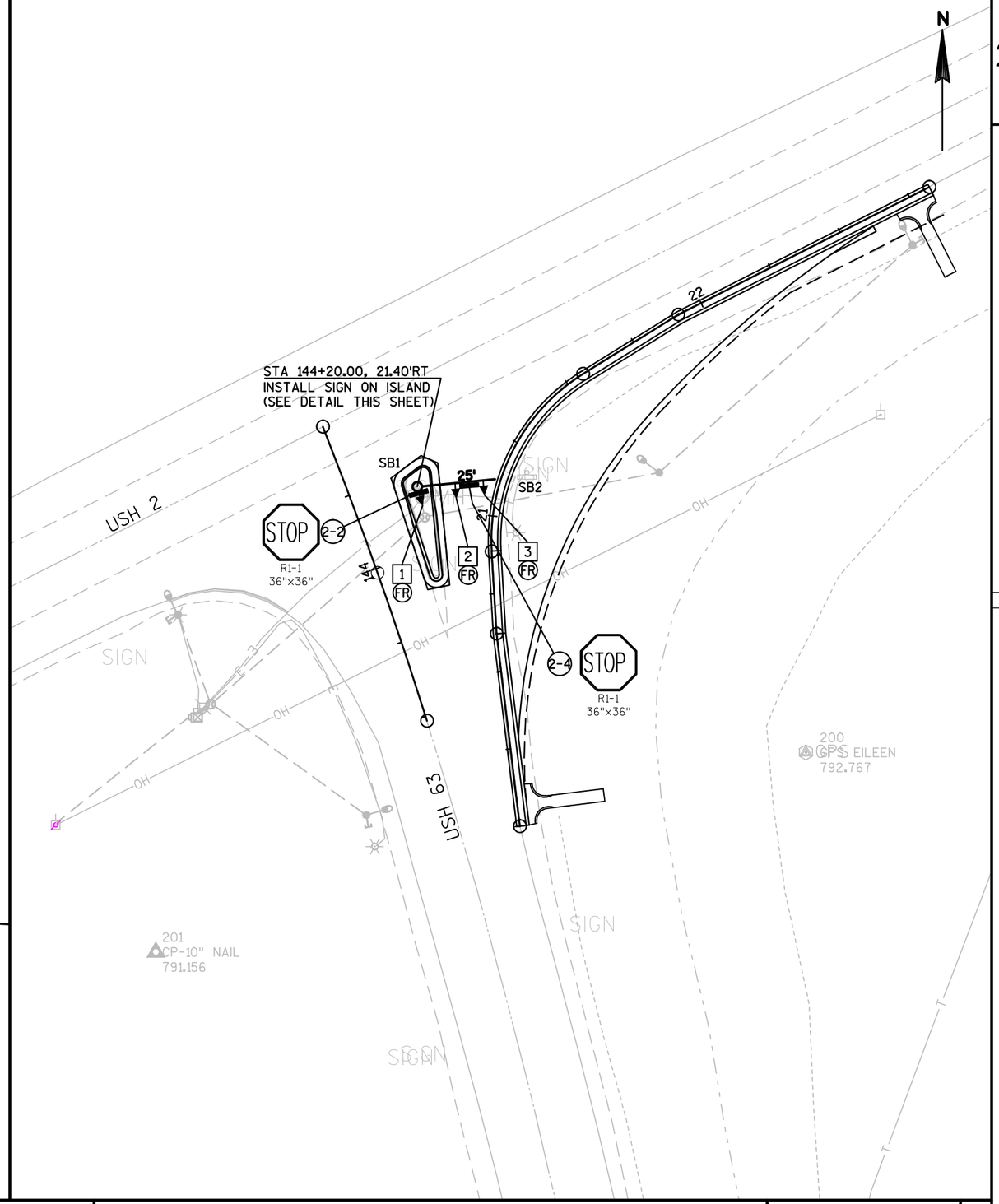
MONOTUBE ARM SHALL BE INSTALLED PERPENDICULAR TO THE RIGHT CURB FACE OF THE ISLAND.

PAVEMENT DETAILS AS SHOWN IN THIS DETAIL ARE FOR INFORMATION ONLY.

DO NOT SCALE.



SIGN ON ISLAND
(VIEW TO NORTH FROM USH 63 APPROACH)



PROJECT NO:1000-08-88	HWY: USH 2 & USH 63	COUNTY: BAYFIELD	PERMANENT SIGNING	SHEET 28	E

FILE NAME : 023200_PS.DWG PLOT DATE : 1/29/2016 3:10 PM PLOT BY : SEH INC LAYOUT NAME : 023201_PS PLOT SCALE : 1.0 IN = 40.0 FT

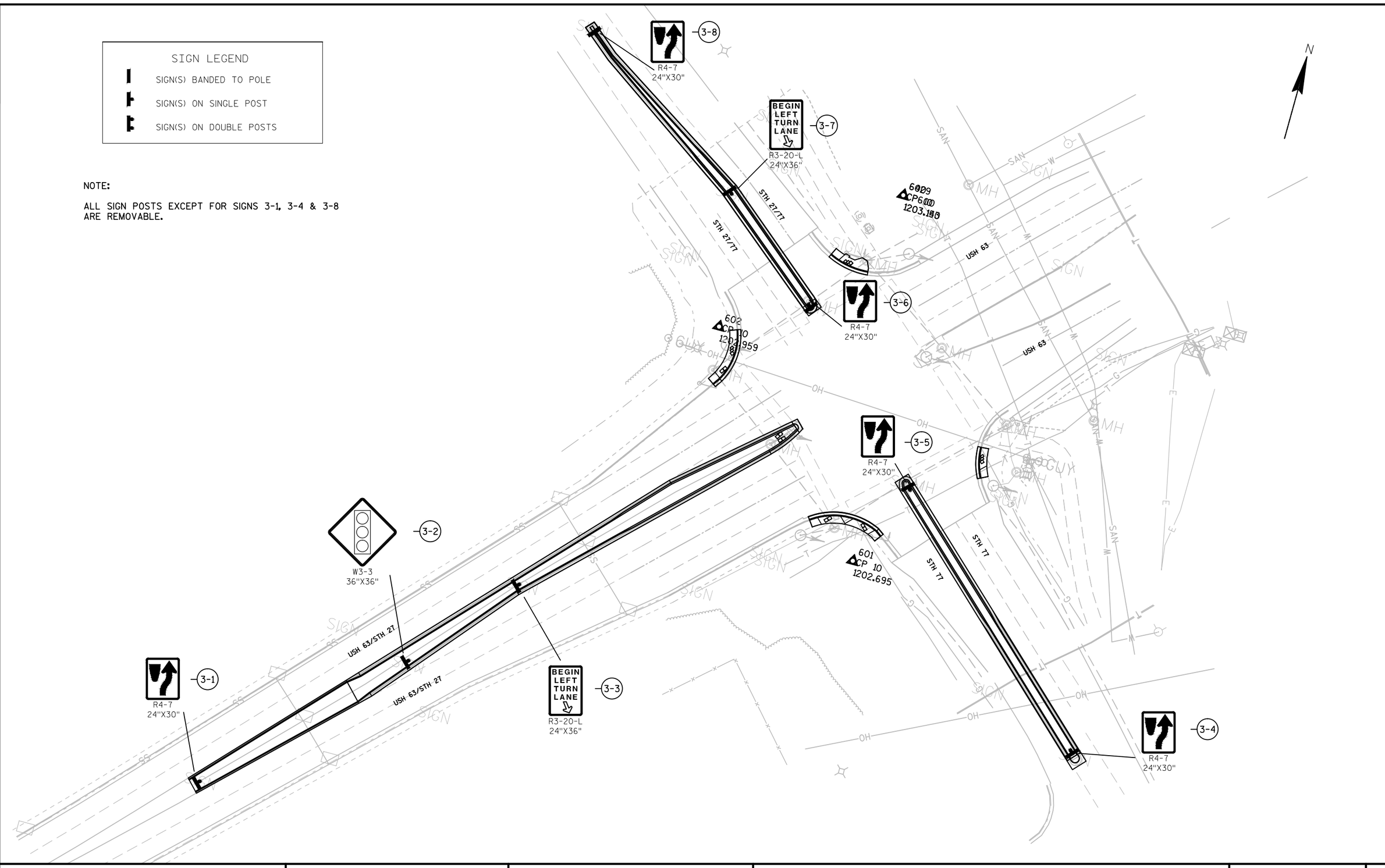
SAVE FOLDER PATH: P:\KO\NNWBEO\132460\10-CAD\SHEETSPLAN

SIGN LEGEND

- SIGN(S) BANDED TO POLE
- SIGN(S) ON SINGLE POST
- SIGN(S) ON DOUBLE POSTS

NOTE:

ALL SIGN POSTS EXCEPT FOR SIGNS 3-1, 3-4 & 3-8 ARE REMOVABLE.



PROJECT NO: 1000-08-88	HWY: USH 63/STH 77/STH 27	COUNTY: SAWYER	PLAN: LOCATION #3 PERMANENT SIGNING	SHEET 29	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\023203_PS_HAYWARD.DWG
1507_023203_PS_HAYWARD - 023203_PS_HAYWARD - 01

PLOT DATE : 2/1/2016 3:05 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********

2

700
CP-PK NAIL
1339.213

USH 8

REMOVE 4-3

STOP 4-2
R1-1
36"X36"

4-1
W12-1D
24"X24"

STOP 4-4
R1-1
36"X36"

701
CP-10" SPIKE
1339.615

STH 73

N

SIGN LEGEND

- SIGN(S) BANDED TO POLE
- SIGN(S) ON SINGLE POST
- SIGN(S) ON DOUBLE POSTS

NOTE:

SIGN POSTS SHOWN ON THIS SHEET ARE REMOVABLE.

PROJECT NO:1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN: LOCATION #4 PERMANENT SIGNING	SHEET 30	E

SIGN LEGEND

- SIGN(S) BANDED TO POLE
- SIGN(S) ON SINGLE POST
- SIGN(S) ON DOUBLE POSTS

NOTE:

ALL SIGN POSTS EXCEPT FOR SIGNS 5-1 & 5-2 ARE REMOVABLE.

SOUTH WEST 35 77 — 5-1
J3-2
48"X57"

NO PARKING ANY TIME — 5-2
R7-1-D
18"X24"

1 EXISTING WOOD POST FOR ALL THREE SIGNS

800
CP-10" NAIL
933.410

STH 35/77

STOP — 5-4
R1-1
36"X36"

5-3
W12-1D
24"X24"

STH 77

REMOVE — 5-5

STOP — 5-6
R1-1
36"X36"

DO NOT ENTER — 5-7
R5-1
30"X30"

801
CP-10" NAIL
930.342

STH 35

N

2

PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	PLAN: LOCATION #5 PERMANENT SIGNING	SHEET 31	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\023205_PS_DANBURY.DWG
1507_023205_PS_DANBURY - 023205_PS_DANBURY - 01
PLOT DATE : 2/1/2016 3:29 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

SIGN LEGEND

SIGN(S) BANDED TO POLE

SIGN(S) ON SINGLE POST

SIGN(S) ON DOUBLE POSTS

NOTE:

SIGN POSTS SHOWN ON THIS SHEET ARE REMOVABLE.

N

6-1
W11-2
30"X30"

6-2
W16-7R
24"X12"

6-3
W12-1D
24"X24"

901
CP
1146.663

USH 8
(E. 3RD ST. N.)

6-5
DO NOT ENTER
R5-1
30"X30"

6-6
STOP
R1-1
36"X36"

6-7
YIELD
R1-2
48"X42"

7.25' MOUNTING HEIGHT

USH 8
(LAKE AVE.)

900
CP
1149.908

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	PLAN: LOCATION #6 PERMANENT SIGNING	SHEET 32	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\023206_PS_LADYSMITH.DWG
1507_023206_PS_LADYSMITH - 023206_PS_LADYSMITH - 01

PLOT DATE : 2/1/2016 3:32 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

SIGN LEGEND

SIGN(S) BANDED TO POLE

SIGN(S) ON SINGLE POST

SIGN(S) ON DOUBLE POSTS

N

MOVE 7-4 — R1-2 YIELD — R1-54 TO TRAFFIC FROM LEFT

R1-2 YIELD — 7-5 MOVE — R6-2-R ONE WAY

7-6 MOVE — 208th St

R1-2 YIELD — 7-7 MOVE — R1-54 TO TRAFFIC FROM LEFT

WEST 8 — 7-2 — J3-1 24"X57"

SOUTH 35 — 7-3 — J3-1 24"X57"

USH 8/STH 35 (WB)
(130TH STREET)

WHEEL TRACKING PATH

10002
CP-1/4" REBAR
1224.853

EAST 8 — 7-8 — J3-1 24"X57"

NORTH 35 — 7-9 — J3-1 24"X57"

USH 8/STH 35 (EB)
(130TH STREET)

WHEEL TRACKING PATH

MOVE 7-1 — R1-2 YIELD — R1-54 TO TRAFFIC FROM LEFT

MOVE 7-13 — 208th St

R1-2 YIELD — 7-12 MOVE — R6-2-R ONE WAY

R1-2 YIELD — 7-11 MOVE — R1-54 TO TRAFFIC FROM LEFT

R1-2 YIELD — 7-10 MOVE — R1-54 TO TRAFFIC FROM LEFT

208th STREET (SB)

208th STREET (NB)

NOTES:

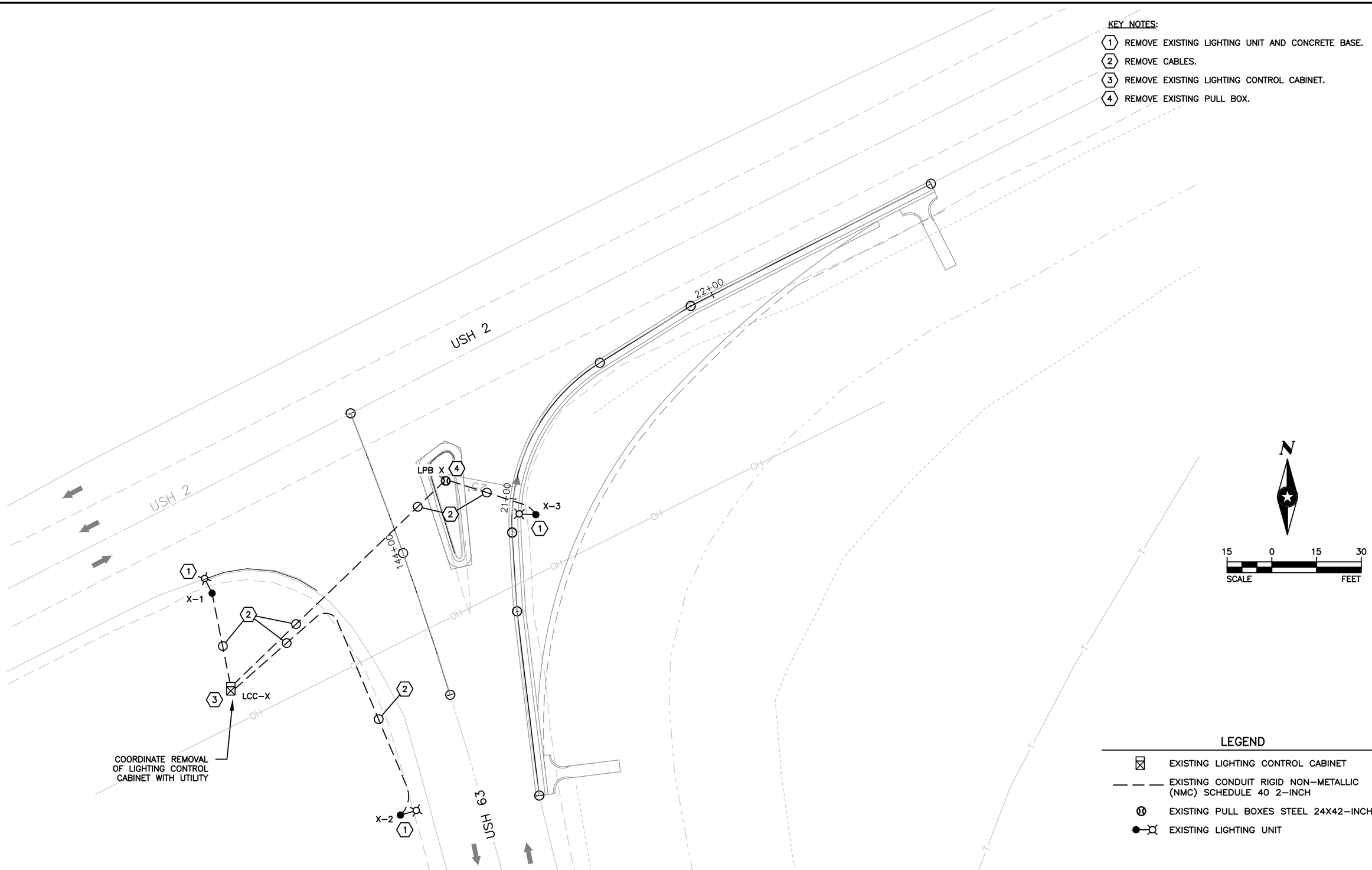
SIGNS SHOWN ARE MOUNTED ON 2X2-INCH TUBULAR STEEL POSTS THAT ARE REMOVABLE.

MOUNTING HEIGHT FOR YIELD SIGNS IS 7.25 FEET.

PROJECT NO: 1000-08-88	HWY: USH 8/STH 35	COUNTY: POLK	PLAN: LOCATION #7 PERMANENT SIGNING	SHEET 33	E

KEY NOTES:

1. REMOVE EXISTING LIGHTING UNIT AND CONCRETE BASE.
2. REMOVE CABLES.
3. REMOVE EXISTING LIGHTING CONTROL CABINET.
4. REMOVE EXISTING PULL BOX.

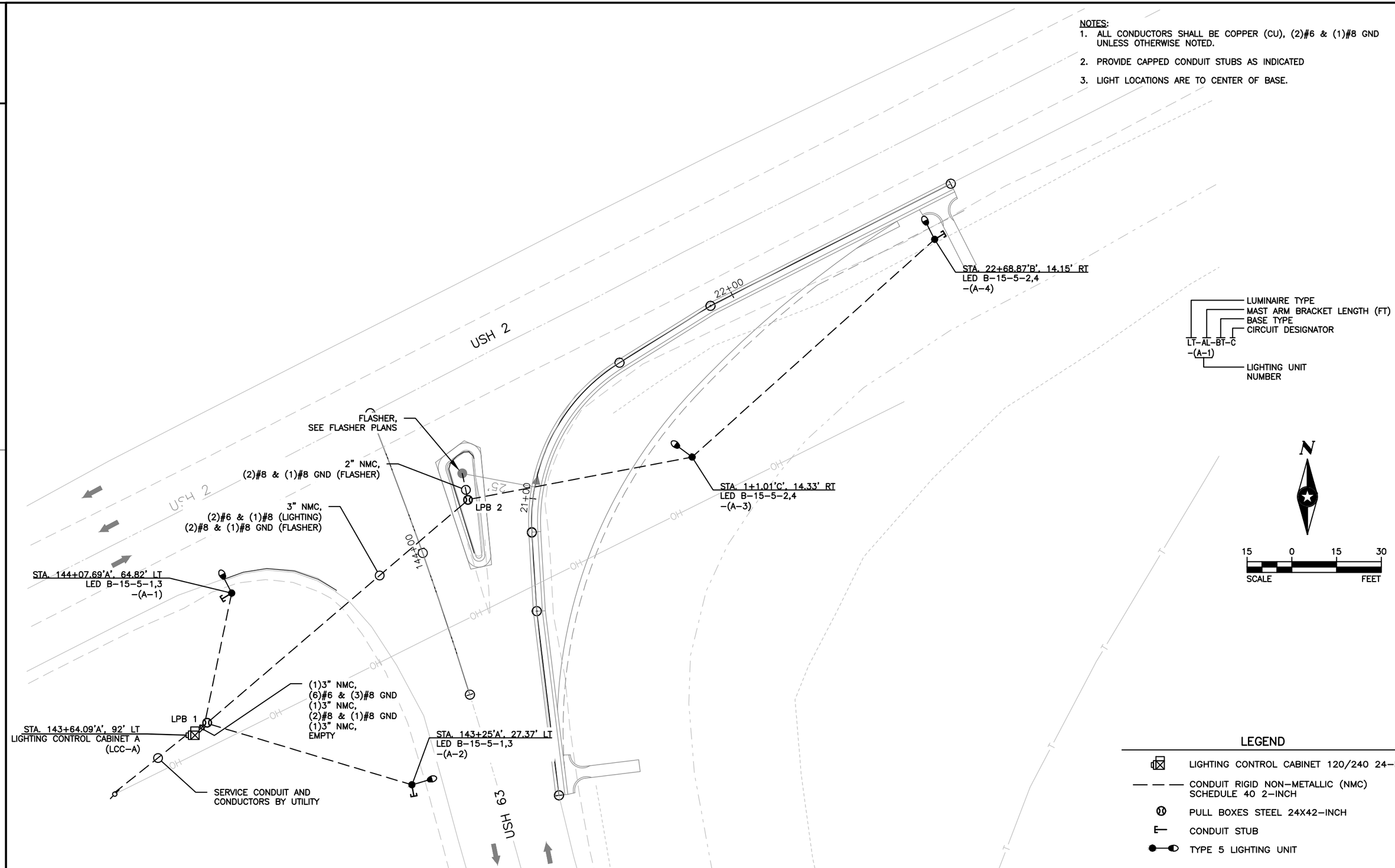


LEGEND

- EXISTING LIGHTING CONTROL CABINET
- EXISTING CONDUIT RIGID NON-METALLIC (NMC) SCHEDULE 40 2-INCH
- EXISTING PULL BOXES STEEL 24X42-INCH
- EXISTING LIGHTING UNIT

PROJECT NO:1000-08-08(88)	HWY:USH 2/63	COUNTY:BAYFIELD	PLAN: LIGHTING REMOVAL PLAN	SHEET 34	E

NOTES:
1. ALL CONDUCTORS SHALL BE COPPER (CU), (2)#6 & (1)#8 GND UNLESS OTHERWISE NOTED.
2. PROVIDE CAPPED CONDUIT STUBS AS INDICATED
3. LIGHT LOCATIONS ARE TO CENTER OF BASE.



PROJECT NO:1000-08-08(88)	HWY:USH 2/63	COUNTY:BAYFIELD	PLAN: LIGHTING PLAN	SHEET 35	E

LEGEND

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

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. REMOVE SB2, SB3, SB7, SB8 AND SB10 AFTER WISDOT ELECTRICIANS HAVE REMOVED SIGNAL ASSEMBLIES.

N

STH 27/77

129'EB'

USH 63/STH 27

USH 63

STH 77

130+60'WB'

132'WB'

SB1 SB2 SB3 SB4 SB5 SB6 SB7 SB8 SB9 SB10

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10

CB1

298 299 300 301 302 303 304

- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16"

LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING TO REMAIN.
BOLD REPRESENTS ITEMS TO BE REMOVED.

TRAFFIC CONTROL SIGNAL
USH 63/STH 27
AND STH 77
CITY OF HAYWARD
SAWYER COUNTY

SIGNAL NO. S57-0683

REGION CONTACT: DAVE FENSKE
DESIGNED BY: JANE OLSON
REVISED BY: SHORT ELLIOTT HENDRICKSON INC.

PAGE 1 OF 1

PROJECT NO: 1000-08-08	HWY: USH 63	COUNTY: SAWYER	TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

SAVE FOLDER PATH: P:\KOVN\NMBED\132460\10-CAD\SHEETSPLAN
FILE NAME : 024000_SP.DWG
PLOT DATE : 1/29/2016 7:55 AM
PLOT BY : SEH INC
LAYOUT NAME : 024015_SP_RM
PLOT SCALE : 1.0 IN = 40.0 FT
WISDOT/CADDS SHEET 42

2

EXISTING LEGEND

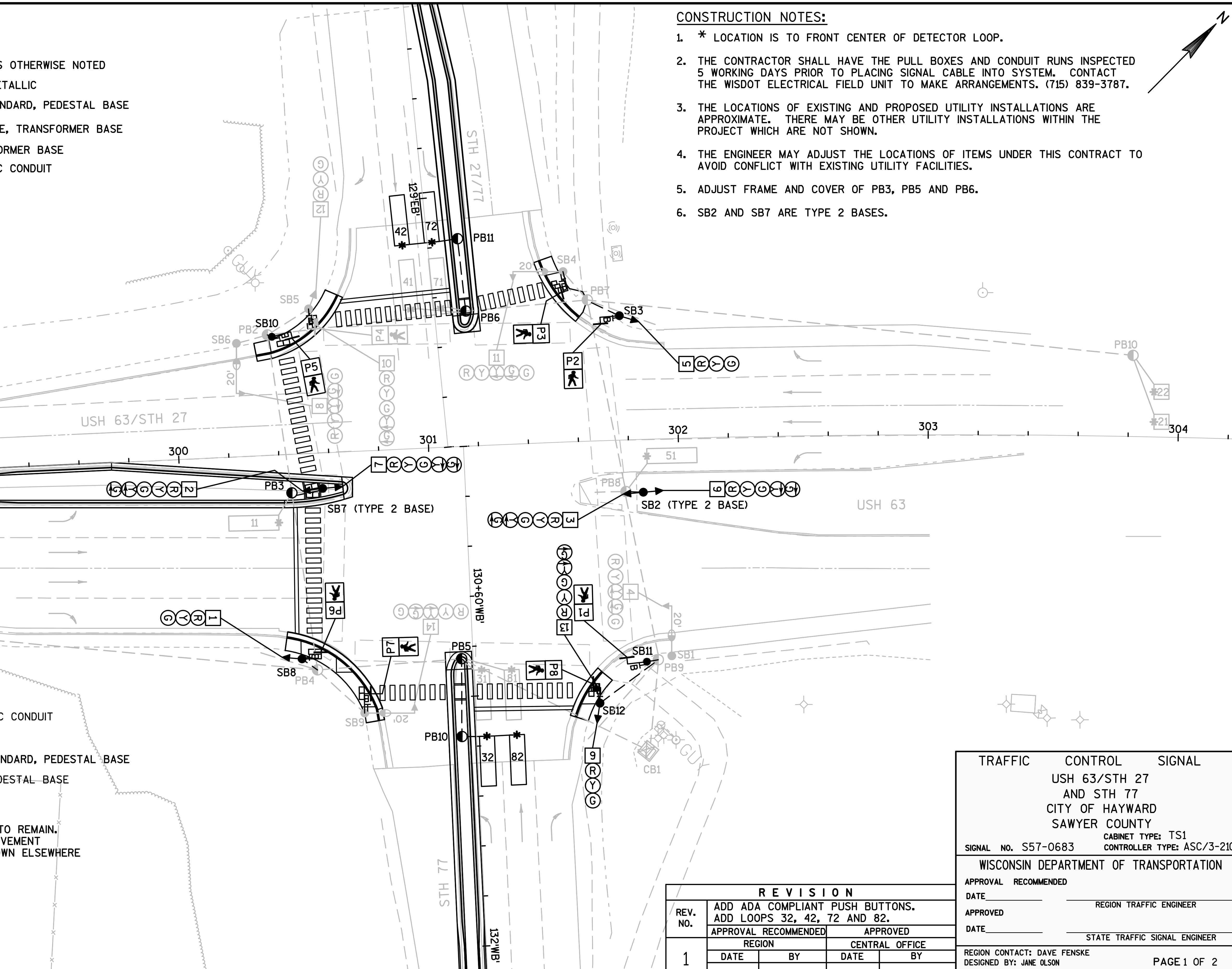
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- S STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (715) 839-3787.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. ADJUST FRAME AND COVER OF PB3, PB5 AND PB6.
6. SB2 AND SB7 ARE TYPE 2 BASES.

2



PROPOSED LEGEND

- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- PEDESTRIAN SIGNAL STANDARD, PEDESTAL BASE
- PUSH BUTTON

NOTE: GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS WORK ITEMS (PAVEMENT MARKING AND PAVEMENT ITEMS SHOWN ELSEWHERE IN THE PLAN).

TRAFFIC CONTROL SIGNAL
USH 63/STH 27
AND STH 77
CITY OF HAYWARD
SAWYER COUNTY

SIGNAL NO. S57-0683 — CABINET TYPE: TS1 — CONTROLLER TYPE: ASC/3-2100

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE ______ REGION TRAFFIC ENGINEER
APPROVED
DATE ______ STATE TRAFFIC SIGNAL ENGINEER

REGION CONTACT: DAVE FENSKE
DESIGNED BY: JANE OLSON
REVISED BY: SHORT ELLIOTT HENDRICKSON INC.
PAGE 1 OF 2

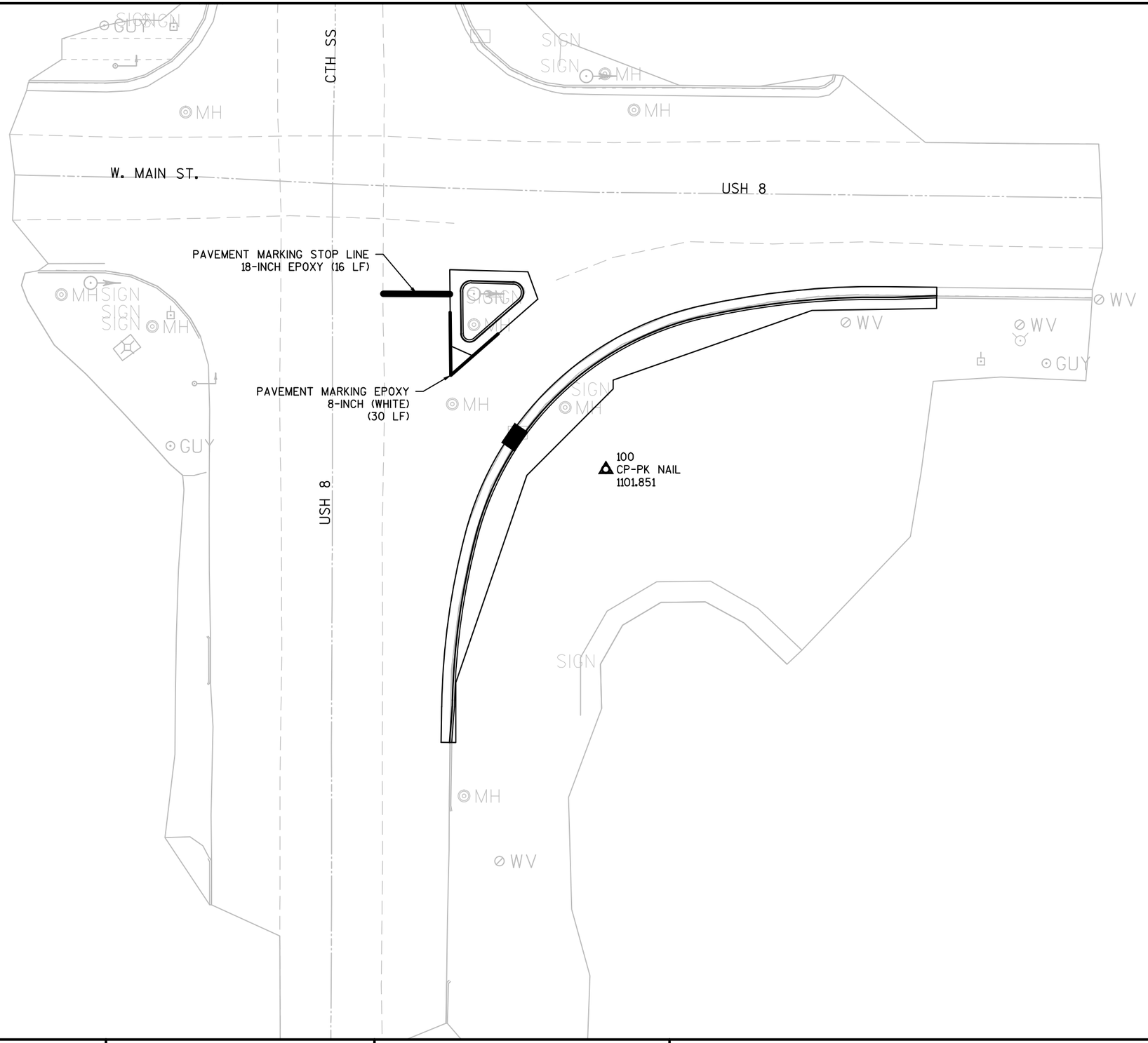
REVISION					
REV. NO.	ADD ADA COMPLIANT PUSH BUTTONS. ADD LOOPS 32, 42, 72 AND 82.				
	APPROVAL RECOMMENDED		APPROVED		
	REGION		CENTRAL OFFICE		
1	DATE	BY	DATE	BY	

SAVE FOLDER PATH: P:\KO\N\WIBED\132460\10-CAD\SHEETSPLAN

PROJECT NO:1000-08-08	HWY:USH 63	COUNTY:SAWYER	TRAFFIC SIGNAL PLAN	SCALE, FEET 0 20 40	SHEET 37	E

FILE NAME : 024000_SP.DWG — PLOT DATE : 1/29/2016 8:35 AM — PLOT BY : SEH INC — LAYOUT NAME : 024015_SP — PLOT SCALE : 1.0 IN = 40.0 FT — WISDOT/CADDS SHEET 42

2



PROJECT NO:1000-08-88	HWY:USH 8/CTH SS	COUNTY:BARRON	PLAN: LOCATION #1 PAVEMENT MARKING	SHEET 38	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\024501_PM_CAMERON.DWG
1507_024501_PM_CAMERON - 024501_PM_CAMERON - 01
PLOT DATE : 2/1/2016 3:39 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

PAVEMENT MARKING STOP LINE
EPOXY 18-INCH
(19 LF)

PAVEMENT MARKING STOP LINE
EPOXY 18-INCH
(14 LF)

25'

14.25

REMOVING PAVEMENT MARKING
(8-INCH WHITE)
(34' X 2 = 68 LF)

PAVEMENT MARKING
EPOXY 8-INCH (WHITE)
(72 LF)

USH 2

USH 63

SIGN

SIGN

SIGN

SIGN

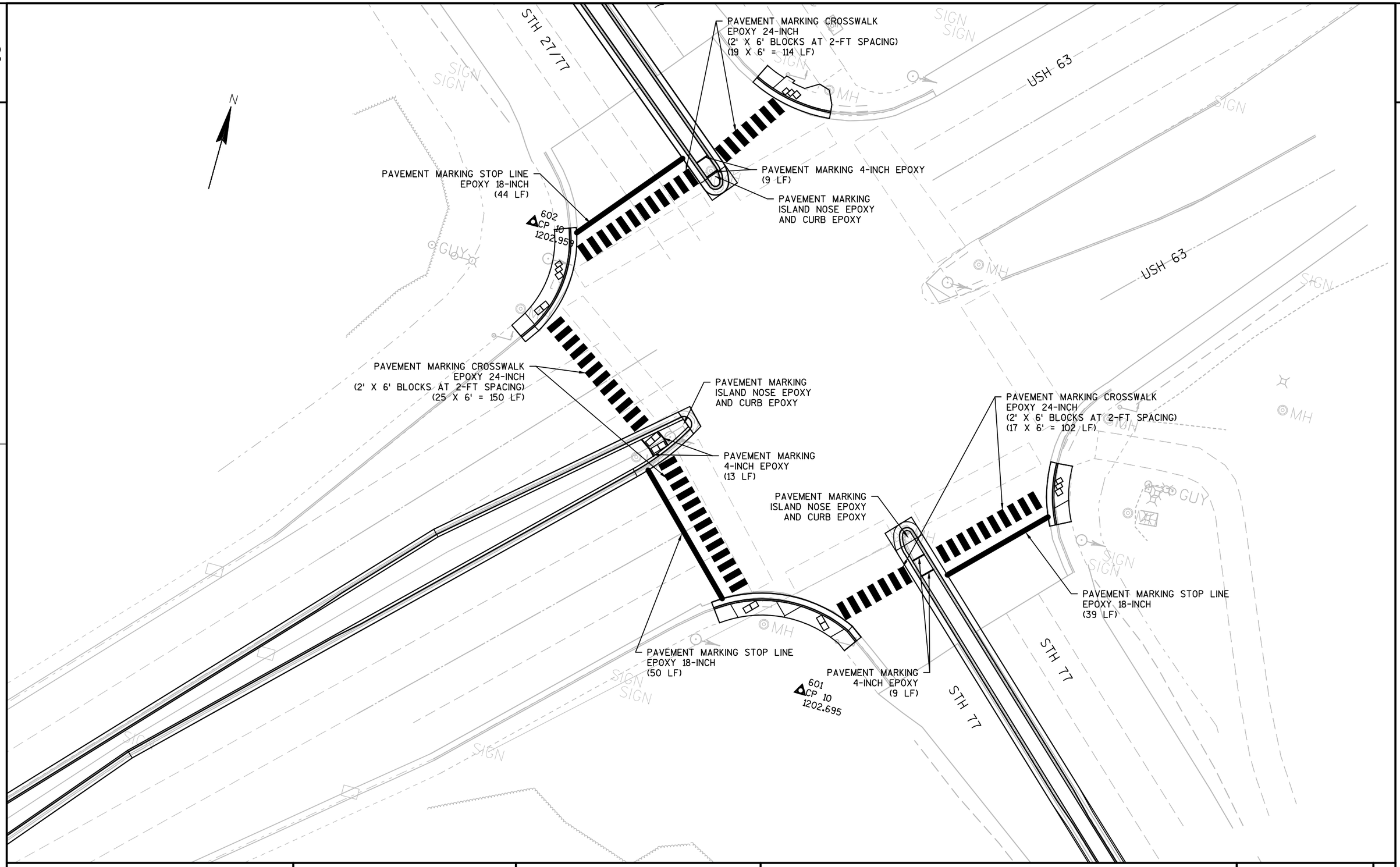
200
GPS EILEEN
792.767

201

DIR

PROJECT NO: 1000-08-88	HWY: USH 2/USH 63	COUNTY: BAYFIELD	PLAN: LOCATION #2 PAVEMENT MARKING	SHEET 39	E

2



PROJECT NO: 1000-08-88	HWY: USH 63/STH 77/STH 27	COUNTY: SAWYER	PLAN: LOCATION #3 PAVEMENT MARKING	SHEET 40	E

2

700
CP-PK NAIL
1339.213

USH 8

PI: 71+56.12

PT: 70+73.82

PAVEMENT MARKING STOP LINE
EPOXY 18-INCH
(15 LF)

PAVEMENT MARKING STOP LINE
EPOXY 18-INCH
(18 LF)

17205
CPCP 15
1335.013

PC: 70+12.58

17204
CPCP 15
1335.792

BP: 70+00.00

701
CP-10" SPIKE
1339.615

PAVEMENT MARKING EPOXY
8-INCH (WHITE)
(105 LF)

STH 73

N

GUY

GUY

GUY

SIGN

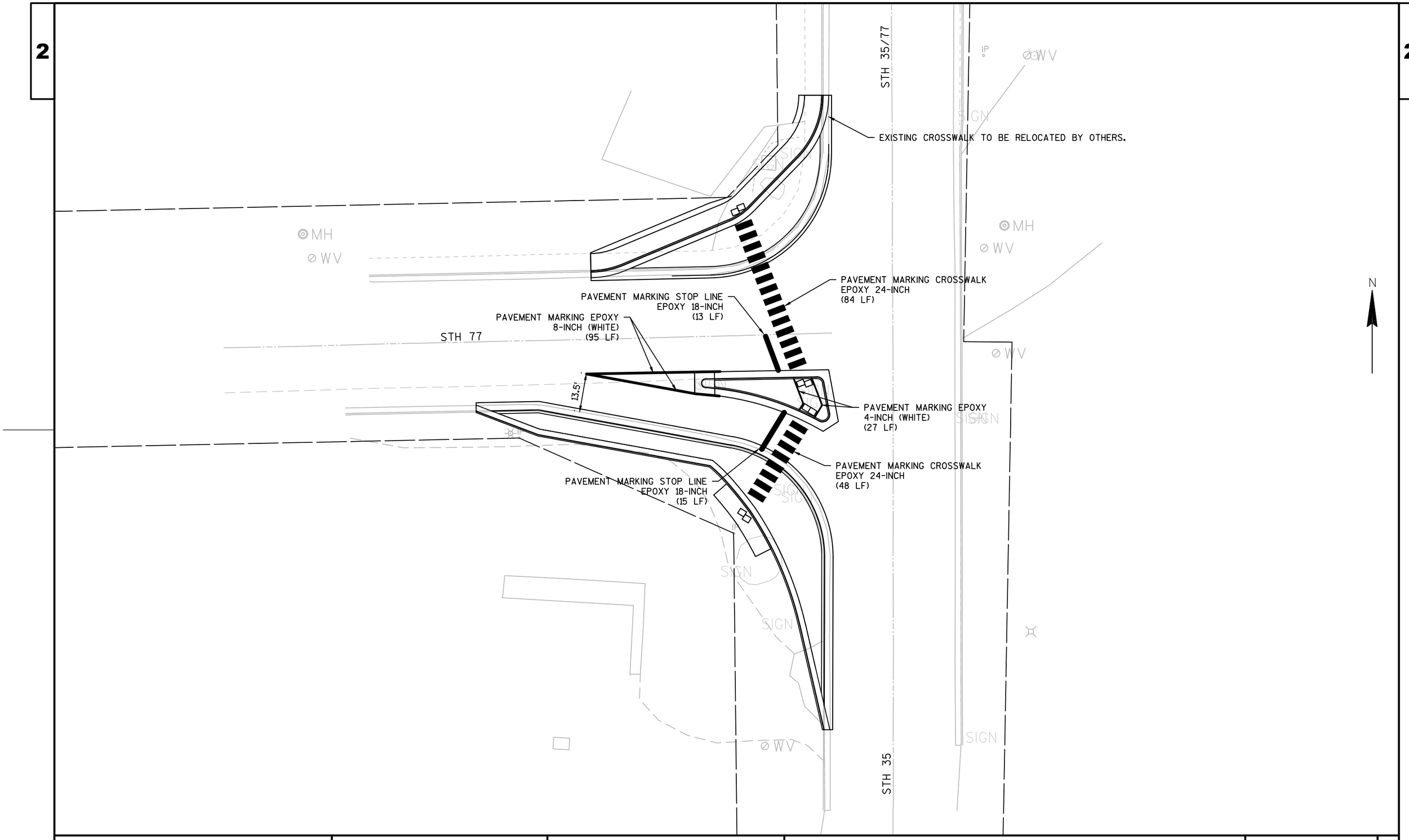
SIGN

SIGN

PROJECT NO: 1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN: LOCATION #4 PAVEMENT MARKING	SHEET 41	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\024504_PM_INGRAM.DWG
1507_024504_PM_INGRAM - 024504_PM_INGRAM - 01
PLOT DATE : 2/1/2016 3:44 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

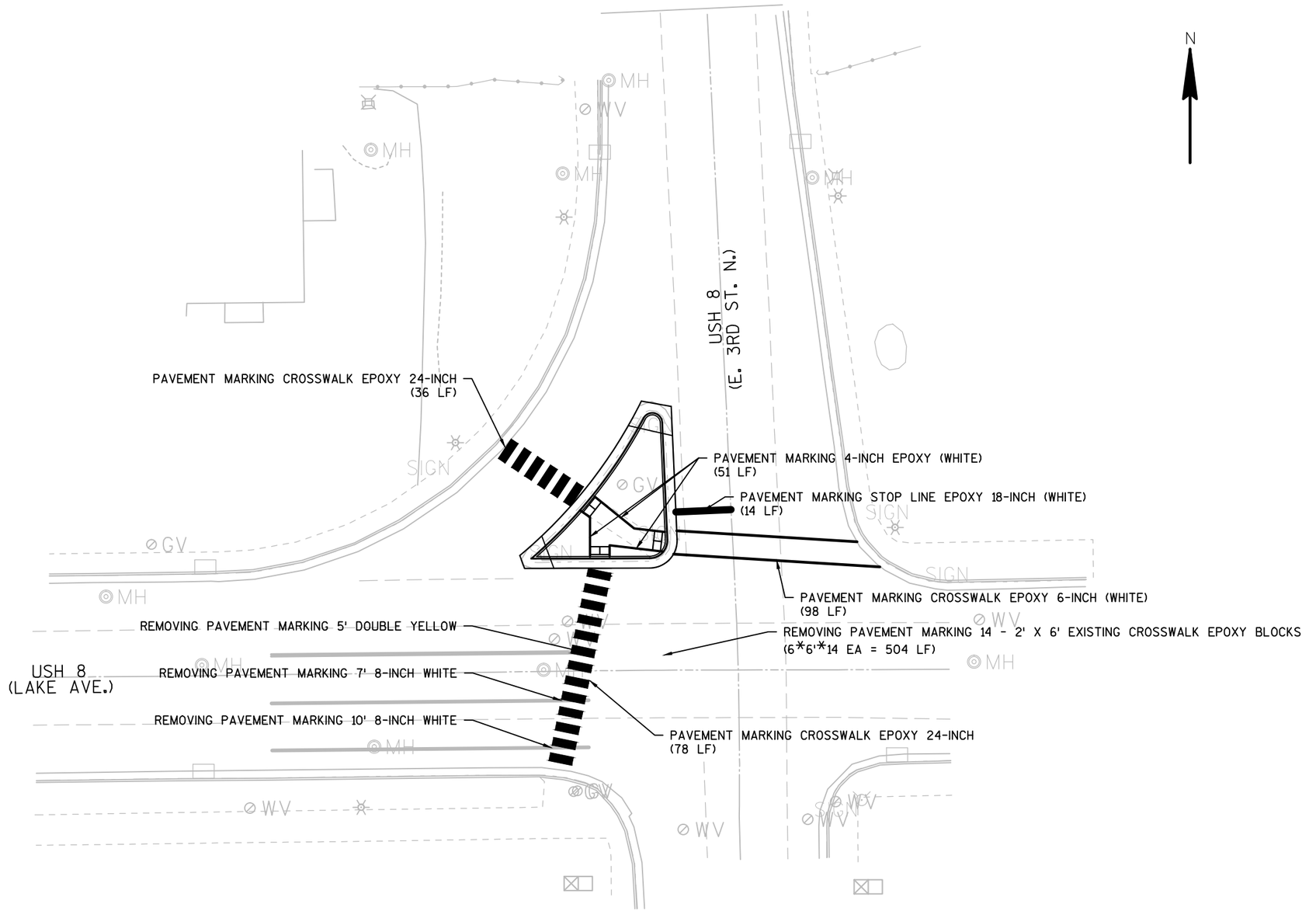
2



PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	PLAN: LOCATION #5 PAVEMENT MARKING	SHEET 42	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\024505_PM_DANBURY.DWG
1507_024505_PM_DANBURY - 024505_PM_DANBURY - 01
PLOT DATE : 2/1/2016 3:50 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********

2



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	PLAN: LOCATION #6 PAVEMENT MARKING	SHEET 43	E

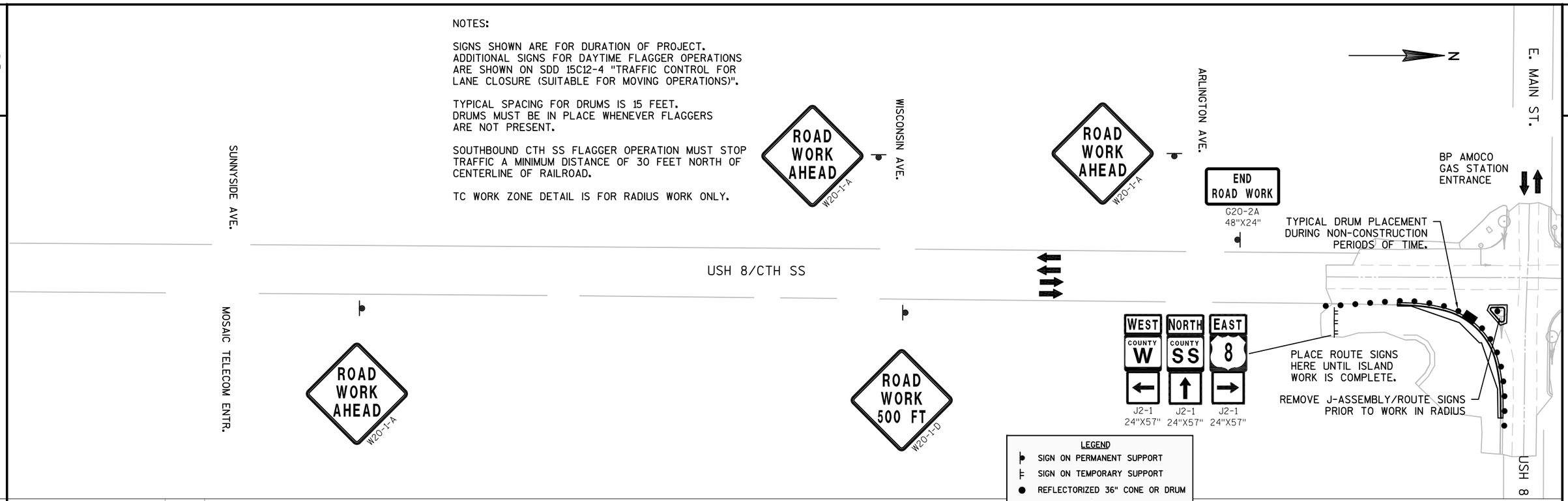
NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT. ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL SPACING FOR DRUMS IS 15 FEET. DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

SOUTHBOUND CTH SS FLAGGER OPERATION MUST STOP TRAFFIC A MINIMUM DISTANCE OF 30 FEET NORTH OF CENTERLINE OF RAILROAD.

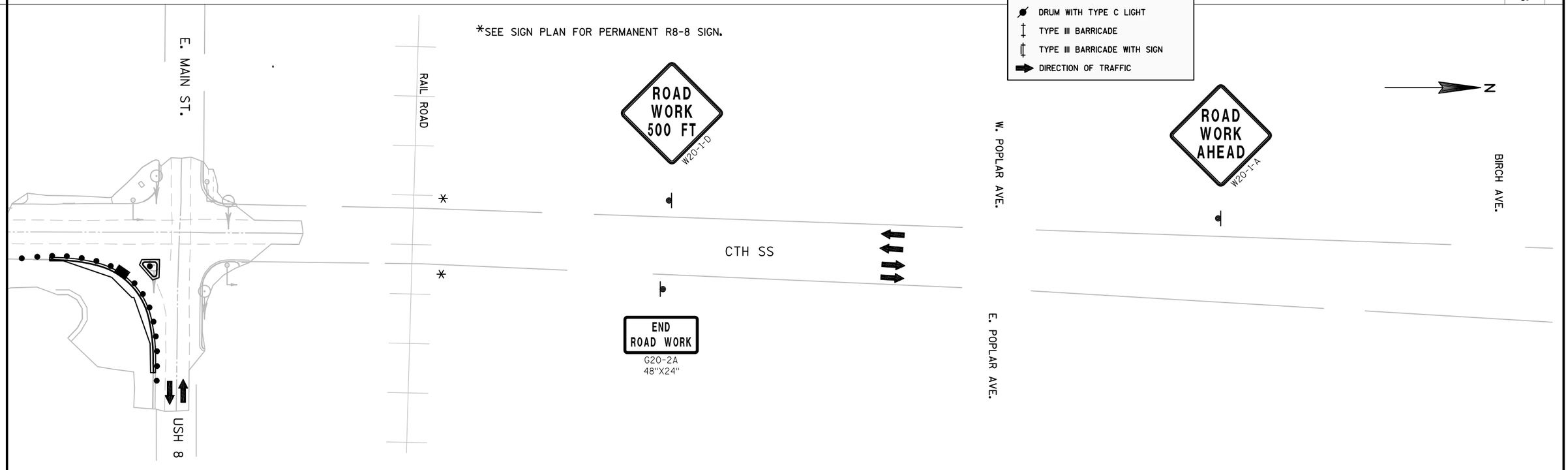
TC WORK ZONE DETAIL IS FOR RADIUS WORK ONLY.



LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

*SEE SIGN PLAN FOR PERMANENT R8-8 SIGN.



PROJECT NO: 1000-08-88	HWY: USH 8/CTH SS	COUNTY: BARRON	PLAN: LOCATION #1 TRAFFIC CONTROL PLAN DETAILS	SHEET 44	E

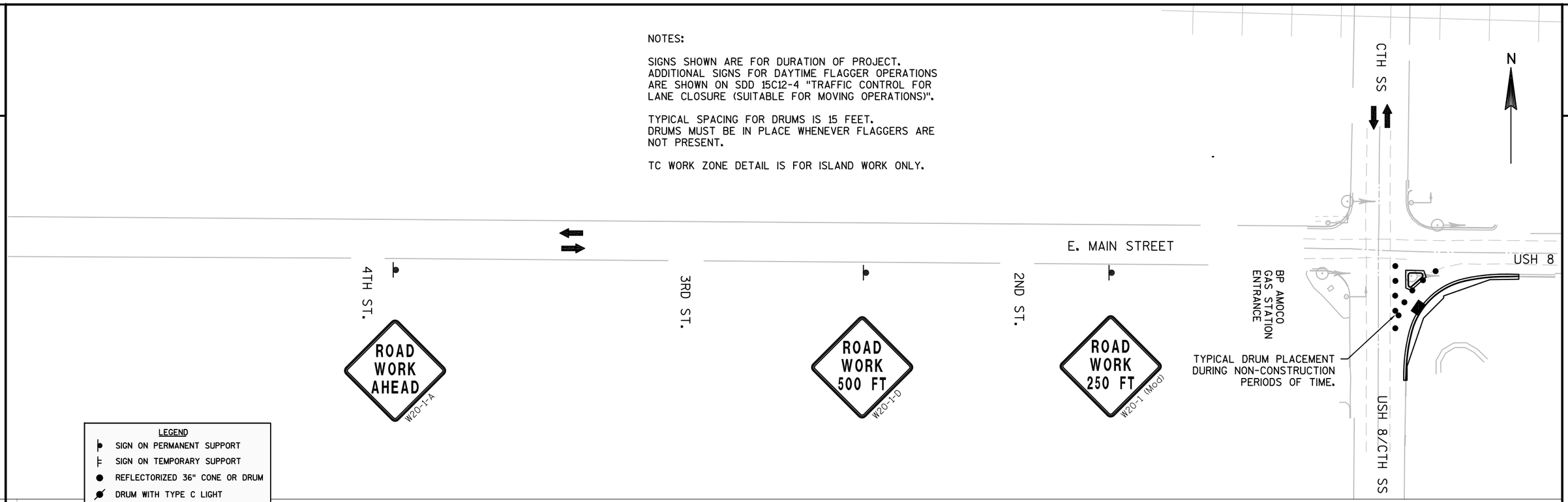
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025001_TC_CAMERON.DWG
1507_025001_TC-CAMERON - 025001_TC_CAMERON - 01
PLOT DATE : 1/19/2016 9:56 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.
ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL SPACING FOR DRUMS IS 15 FEET.
DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

TC WORK ZONE DETAIL IS FOR ISLAND WORK ONLY.



PROJECT NO: 1000-08-88	HWY: USH 8/CTH SS	COUNTY: BARRON	PLAN: LOCATION #1 TRAFFIC CONTROL PLAN DETAILS	SHEET 45	E

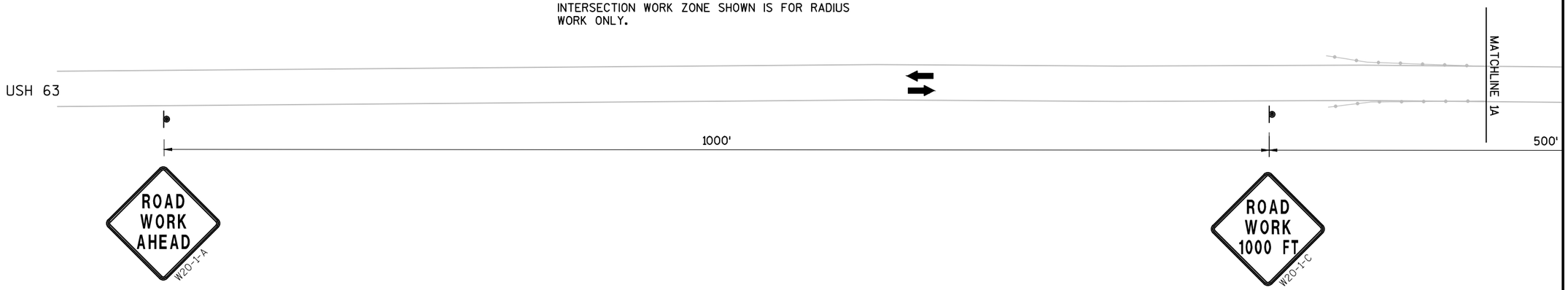
NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

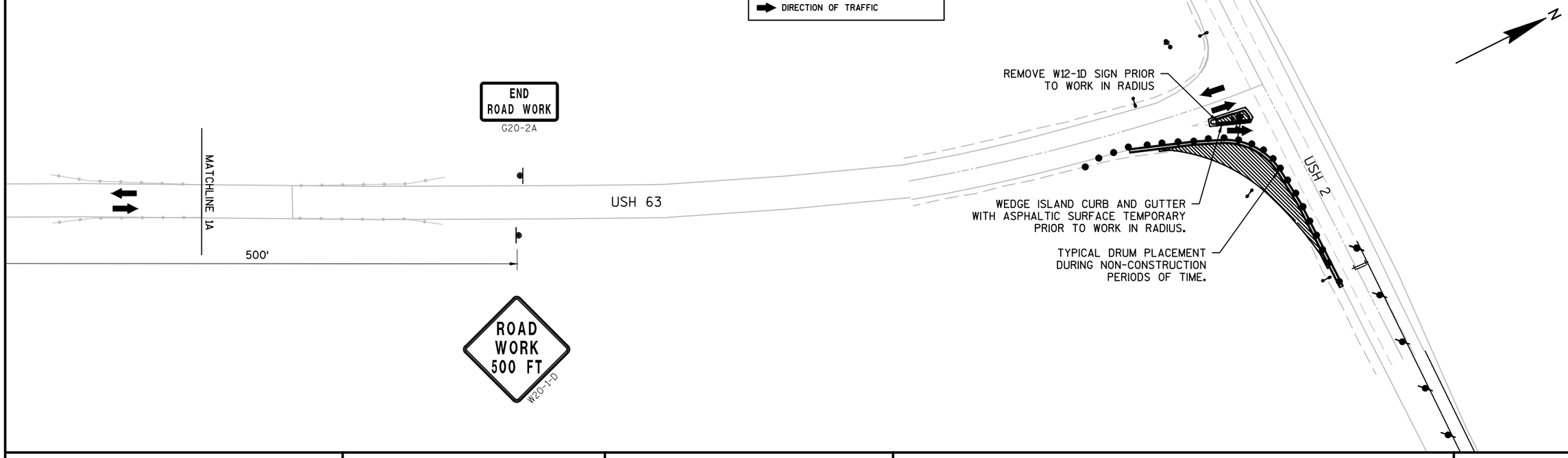
TYPICAL DRUM SPACING IS 15 FEET. DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

INTERSECTION WORK ZONE SHOWN IS FOR RADIUS WORK ONLY.



LEGEND

- POST MOUNTED SIGN
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC



PROJECT NO: 1000-08-88	HWY: USH 2/USH 63	COUNTY: BAYFIELD	PLAN: LOCATION #2 TRAFFIC CONTROL PLAN DETAILS	SHEET 46	E

2

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

INTERSECTION WORK ZONE SHOWN IS FOR ISLAND WORK ONLY.

N

END ROAD WORK
G20-2A

USH 2

MATCHLINE 1B

1000'

ROAD WORK AHEAD
W20-1-A

ROAD WORK 1000 FT
W20-1-C

ROAD WORK 500 FT
W20-1-D

LEGEND

- POST MOUNTED SIGN
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

W01-4R

660'

500'

USE TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH (BLACK) WHERE NECESSARY

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

USH 2

MATCHLINE 1B

MATCHLINE 1C

END ROAD WORK
G20-2A

W01-6

TYPICAL DRUM PLACEMENT DURING NON-CONSTRUCTION PERIODS OF TIME.

USH 63

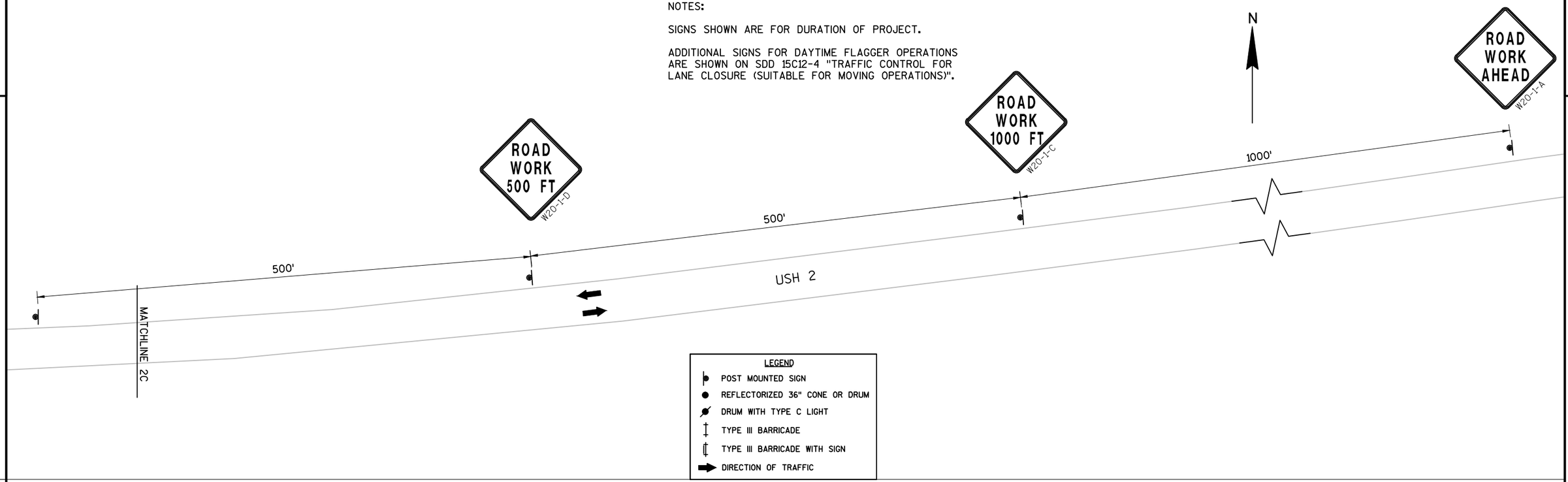
PROJECT NO:1000-08-88	HWY: USH 2/USH 63	COUNTY: BAYFIELD	PLAN: LOCATION #2 TRAFFIC CONTROL PLAN DETAILS	SHEET 47	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025002_TC_ASHLAND.DWG
1507_025002_TC-ASHLAND.DST - 03
PLOT DATE : 2/1/2016 4:10 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".



PROJECT NO:1000-08-88	HWY:USH 2/USH 63	COUNTY:BAYFIELD	PLAN: LOCATION #2 TRAFFIC CONTROL PLAN DETAILS	SHEET 48	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025002_TC_ASHLAND.DWG
1507_025002_TC-ASHLAND.DST - 04

PLOT DATE : 2/1/2016 4:10 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES:

W20-1 SERIES OF SIGNS AND G20-2A SIGNS ARE FOR DURATION OF PROJECT.

REMOVE LEFT LANE CLOSURES AND MOVE DRUMS TO NEW GUTTER PAN AS DIRECTED BY THE ENGINEER.

INSTALL R9-X SERIES SIGNS ON TYPE II BARRICADE WITH ONE TYPE "A" WARNING LIGHT.

END ROAD WORK
G20-2A
48"X24"

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
24"X12"

W01-6
48"X24"

DRUMS AT 25' SPACING TYPICAL

ROAD WORK AHEAD
W20-1-A

400'

LEFT LANE CLOSED AHEAD
W20-5S-A

400'

W04-2L

200'

USH 63

FARMERS ST

SIDEWALK CLOSED
R9-9
24"X12"

LANE CLOSED
R11-2-L
48"X30"

PHYSICAL MEDIAN BEGINS

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)

W01-6
48"X24"

SIDEWALK CLOSED
R9-9
24"X12"

STH 77/STH 27

SIDEWALK CLOSED
R9-9
24"X12"

DRUMS AT 15' SPACING AROUND RADIUS (TYP.)

STH 77

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

STH 77/STH 27

SIDEWALK CLOSED
CROSS HERE
R9-11-A
24"X12"

LANE CLOSED
R11-2-L
48"X30"

BEGIN LEFT TURN LANE
R3-20-L
24"X36"

BEGIN DRUMS AT 25' SPACING

ROAD WORK 500 FT
W20-1-D

300'

ROAD WORK 1000 FT
W20-1-C

200'

200'

800'

ROAD WORK AHEAD
W20-1-A

SIDEWALK CLOSED
CROSS HERE
R9-11-A
24"X12"

STH 77

PHYSICAL MEDIAN BEGINS

LANE CLOSED
R11-2-L
48"X30"

END ROAD WORK
G20-2A
48"X24"

USH 63

BEGIN DRUMS AT 50' SPACING

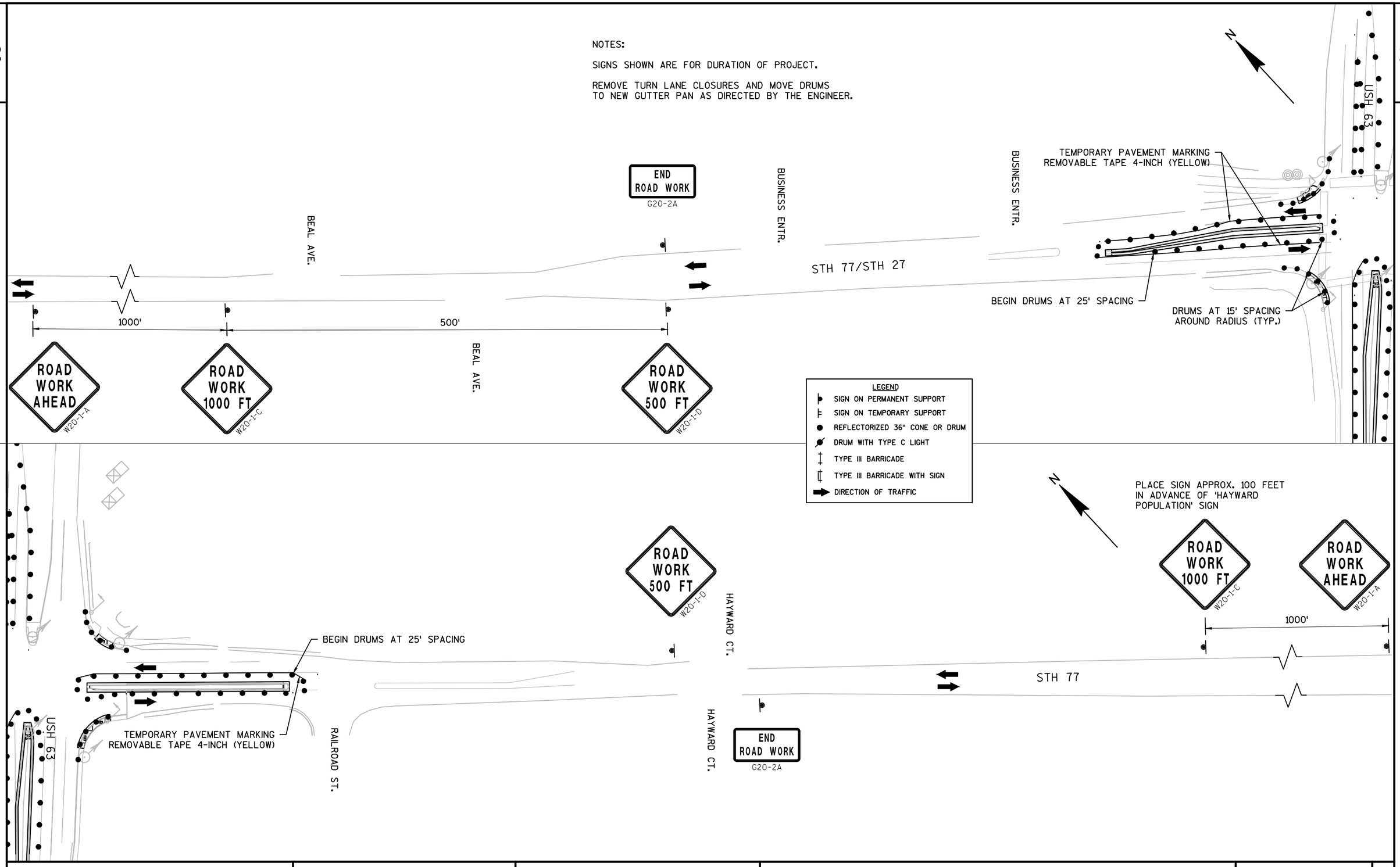
PROJECT NO: 1000-08-88	HWY: USH 63/STH 77/STH 27	COUNTY: SAWYER	PLAN: LOCATION #3 TRAFFIC CONTROL PLAN DETAILS	SHEET 49	E

2

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

REMOVE TURN LANE CLOSURES AND MOVE DRUMS TO NEW GUTTER PAN AS DIRECTED BY THE ENGINEER.



PROJECT NO:1000-08-88	HWY: USH 63/STH 77/STH 27	COUNTY: SAWYER	PLAN: LOCATION #3 TRAFFIC CONTROL PLAN DETAILS	SHEET 50	E

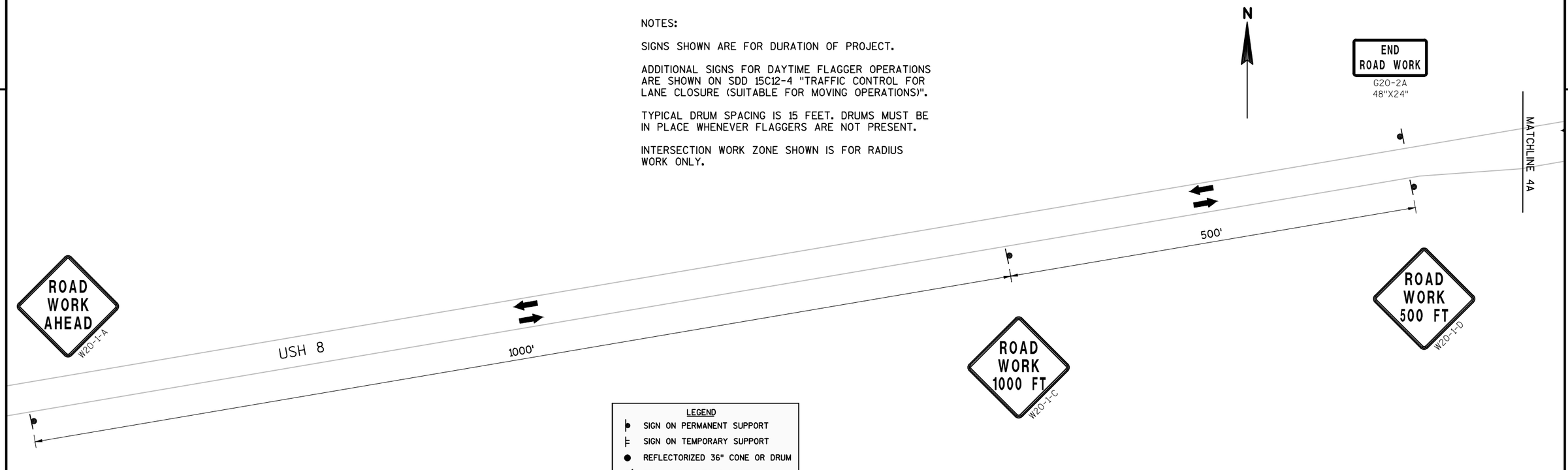
NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL DRUM SPACING IS 15 FEET. DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

INTERSECTION WORK ZONE SHOWN IS FOR RADIUS WORK ONLY.

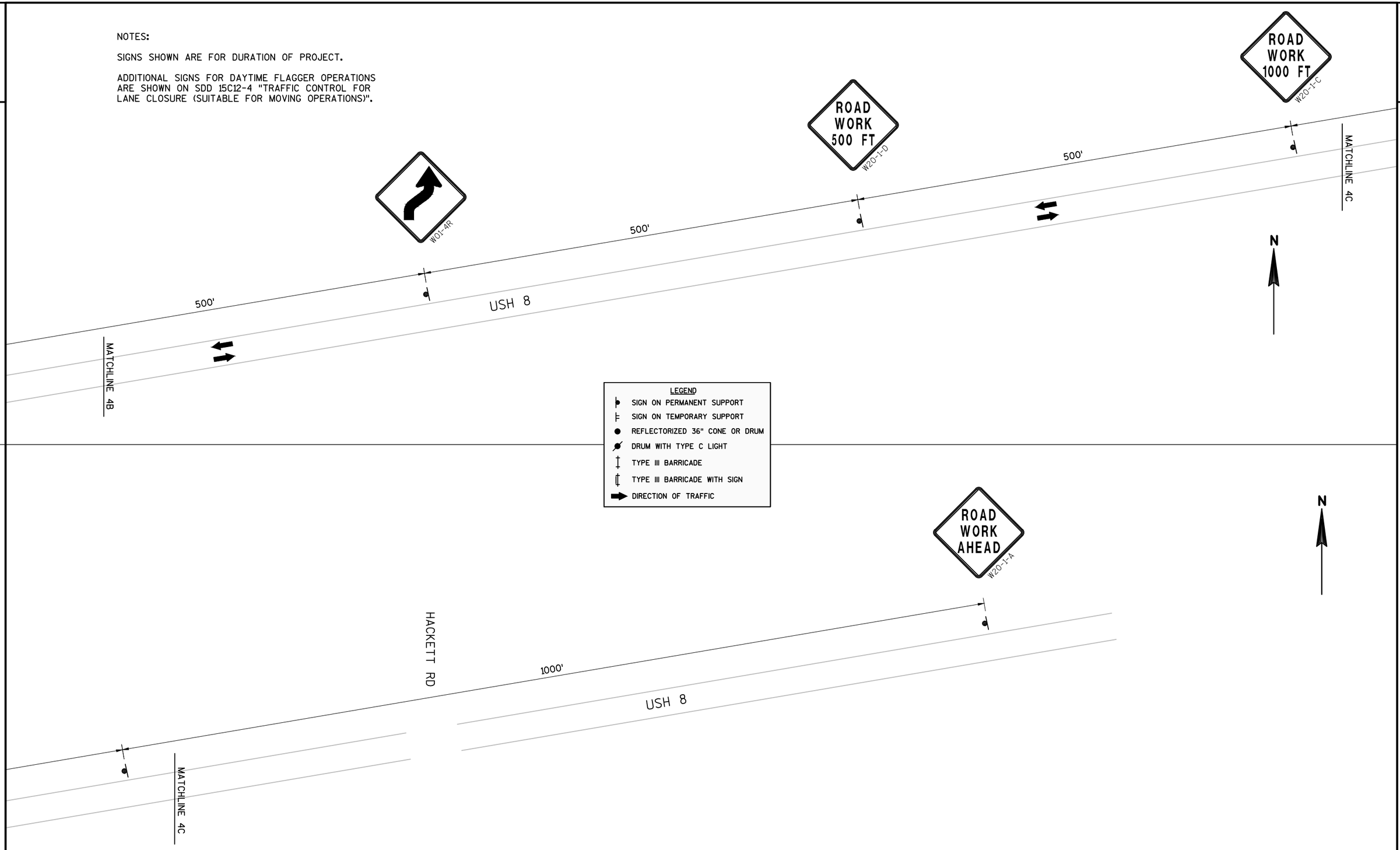


PROJECT NO: 1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN: LOCATION #4 TRAFFIC CONTROL PLAN DETAILS	SHEET 51	E

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".



PROJECT NO: 1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN: LOCATION #4 TRAFFIC CONTROL PLAN DETAILS	SHEET 52	E

2

2

N

STH 73

MATCHLINE 4D

1000'

500'

ROAD WORK AHEAD
W20-1-A

ROAD WORK 1000 FT
W20-1-C

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

END ROAD WORK
G20-2A
48"X24"

MATCHLINE 4D

STH 73

500'

ROAD WORK 500 FT
W20-1-D

USH 8

N

150'

TYPICAL DRUM PLACEMENT DURING NON-CONSTRUCTION PERIODS OF TIME.

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL DRUM SPACING IS 15 FEET. DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

INTERSECTION WORK ZONE SHOWN IS FOR ISLAND WORK ONLY.

PROJECT NO: 1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN: LOCATION #4 TRAFFIC CONTROL PLAN DETAILS	SHEET 53	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025004_TC_INGRAM.DWG
1507_025004_TC-INGRAM.DST - 01

PLOT DATE : 2/1/2016 4:13 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

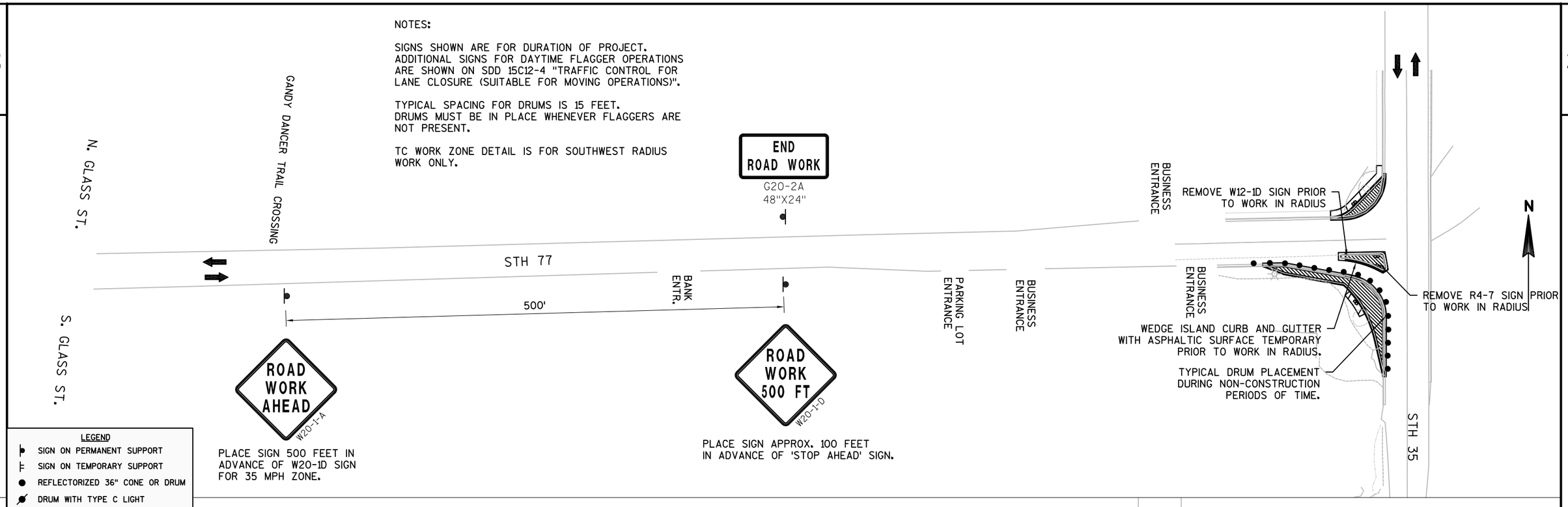
2

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.
ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL SPACING FOR DRUMS IS 15 FEET.
DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

TC WORK ZONE DETAIL IS FOR SOUTHWEST RADIUS WORK ONLY.



PLACE SIGN 500 FEET IN ADVANCE OF W20-1D SIGN FOR 35 MPH ZONE.

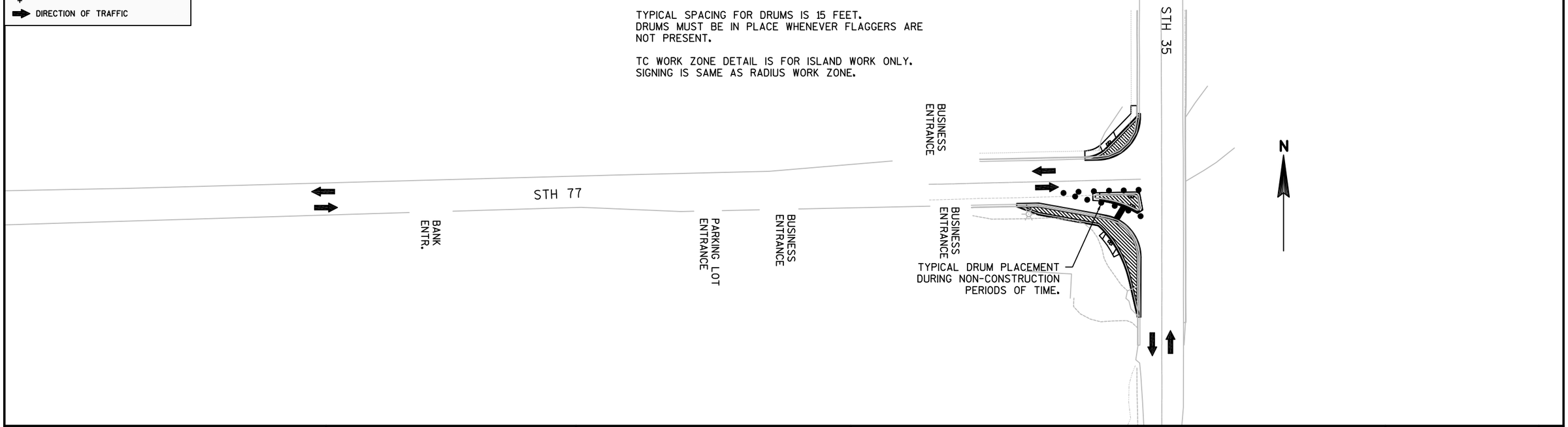
PLACE SIGN APPROX. 100 FEET IN ADVANCE OF 'STOP AHEAD' SIGN.

LEGEND
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

NOTES:

TYPICAL SPACING FOR DRUMS IS 15 FEET.
DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

TC WORK ZONE DETAIL IS FOR ISLAND WORK ONLY.
SIGNING IS SAME AS RADIUS WORK ZONE.

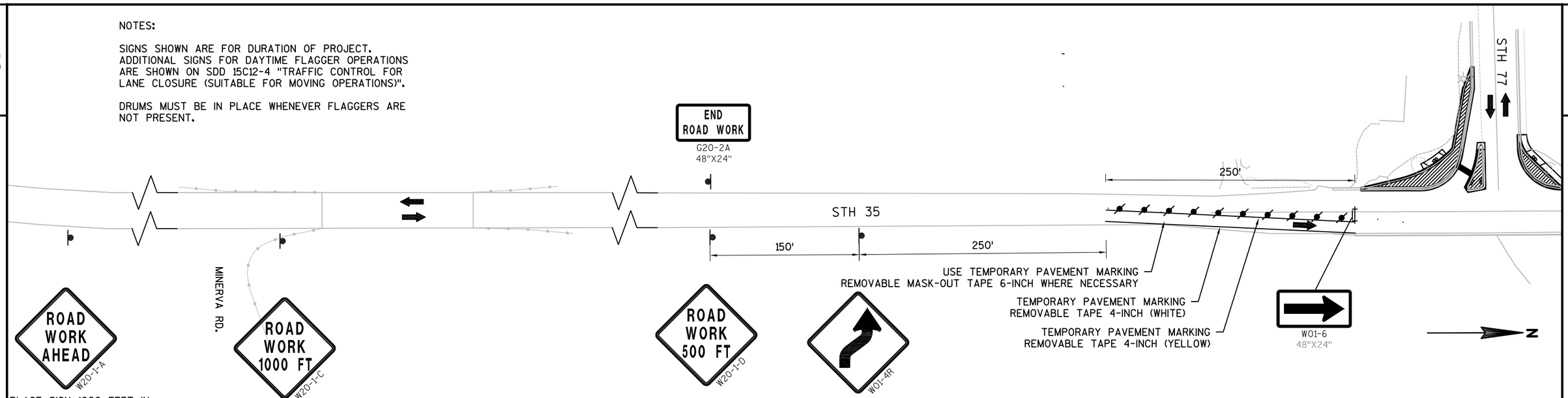


PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	PLAN: LOCATION #5 TRAFFIC CONTROL PLAN DETAILS	SHEET 54	E

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT. ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

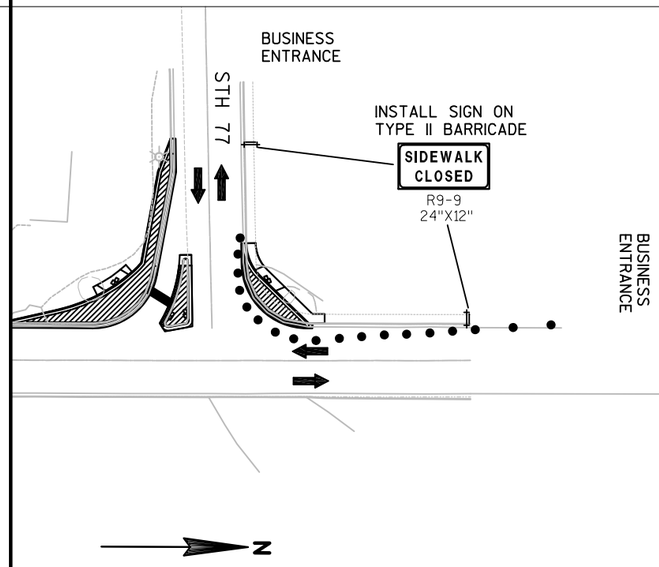
DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

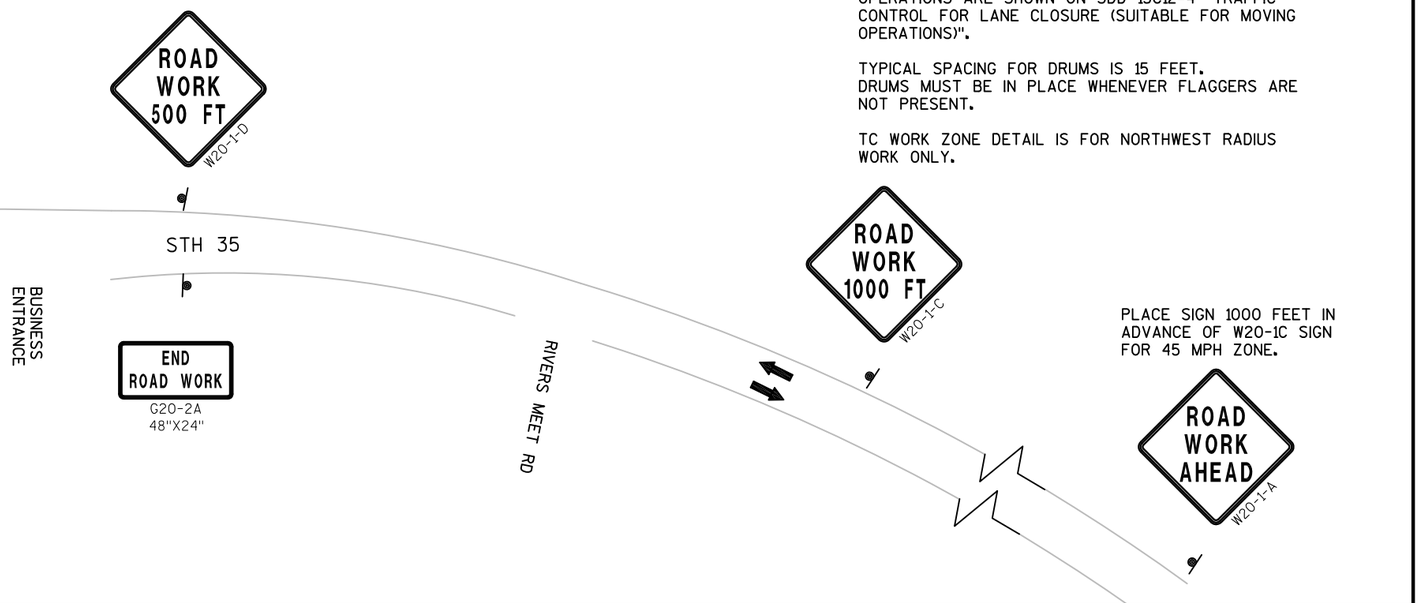


PLACE SIGN 1000 FEET IN ADVANCE OF W20-1C SIGN FOR 45 MPH ZONE.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC





NOTES:

SIGNS SHOWN FOR STH 35 ARE FOR DURATION OF PROJECT. ADDITIONAL SIGNS FOR DAYTIME FLAGGER OPERATIONS ARE SHOWN ON SDD 15C12-4 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

TYPICAL SPACING FOR DRUMS IS 15 FEET.
DRUMS MUST BE IN PLACE WHENEVER FLAGGERS ARE NOT PRESENT.

TC WORK ZONE DETAIL IS FOR NORTHWEST RADIUS WORK ONLY.

PLACE SIGN 1000 FEET IN ADVANCE OF W20-1C SIGN FOR 45 MPH ZONE.

PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	PLAN: LOCATION #5 TRAFFIC CONTROL PLAN DETAILS	SHEET 55	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025005_TC_DANBURY.DWG
1507_025005_TC-DANBURY.DST - 01
PLOT DATE : 1/19/2016 10:05 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

W 2ND ST N

W 2ND ST S

1ST ST N

E 2ND ST N

E 3RD ST

E 3RD ST N

END
ROAD WORK
G20-2A
48"X24"

TYPICAL DRUM PLACEMENT
DURING NON-CONSTRUCTION
PERIODS OF TIME.

LAKE AVE E / USH 8

LAKE AVE E

ROAD
WORK
AHEAD
W20-1-A

ROAD
WORK
500 FT
W20-1-D

ROAD
WORK
250 FT
W20-1 (Mod)

N

NOTES:

W20-1 SERIES SIGNS AND G20-2A SIGNS ARE FOR DURATION OF PROJECT.

TYPICAL SPACING FOR DRUMS IS 15 FEET.

REMOVE DRUMS AS DIRECTED BY THE ENGINEER.

INSTALL R9-X SERIES SIGNS ON TYPE II BARRICADE WITH ONE TYPE "A" WARNING LIGHT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

SIDEWALK
CLOSED
R9-9
24"X12"

SIDEWALK CLOSED
AHEAD
CROSS HERE
R9-11
24"X12"

TYPICAL DRUM PLACEMENT
DURING NON-CONSTRUCTION
PERIODS OF TIME.

LAKE AVE E / USH 8

LAKE AVE E

E 2ND ST N

E 3RD ST N

E 4TH ST S

E 5TH ST S

SIDEWALK CLOSED
AHEAD
CROSS HERE
R9-11
24"X12"

ROAD
WORK
250 FT
W20-1 (Mod)

ROAD
WORK
500 FT
W20-1-D

END
ROAD WORK
G20-2A
48"X24"

ROAD
WORK
AHEAD
W20-1-A

N

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	PLAN: LOCATION #6 TRAFFIC CONTROL PLAN DETAILS	SHEET 56	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025006_TC_LADYSMITH.DWG
1507_025006_TC-LADYSMITH.DST - 01

PLOT DATE : 1/19/2016 10:07 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

END
ROAD WORK
G20-2A
48"X24"

TYPICAL DRUM PLACEMENT
DURING NON-CONSTRUCTION
PERIODS OF TIME.

WORDEN AVE E

MINER AVE E

AVE E / USH 8

FLAMBEAU RIVER

E 3RD ST N

E 3RD ST N / USH 8

ROAD
WORK
AHEAD
W20-1-A

N

LAKE AVE E

NOTES:

W20-1 SERIES SIGNS AND G20-2A SIGNS ARE FOR DURATION OF PROJECT.

TYPICAL SPACING FOR DRUMS IS 15 FEET.

REMOVE DRUMS AS DIRECTED BY THE ENGINEER.

INSTALL R9-X SERIES SIGNS ON TYPE II BARRICADE WITH ONE TYPE "A" WARNING LIGHT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

N

KE AVE E / USH 8

ROAD
WORK
500 FT
W20-1-D

FLAMBEAU RIVER

ROAD
WORK
AHEAD
W20-1-A

E 3RD ST N / USH 8

E 3RD ST N / USH 8

END
ROAD WORK
G20-2A
48"X24"

RIVER AVE E

MENASHA AVE E

LAKE AVE

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	PLAN: LOCATION #6 TRAFFIC CONTROL PLAN DETAILS	SHEET 57	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025006_TC_LADYSMITH.DWG
1507_025006_TC-LADYSMITH.DST - 01

PLOT DATE : 1/19/2016 10:07 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT

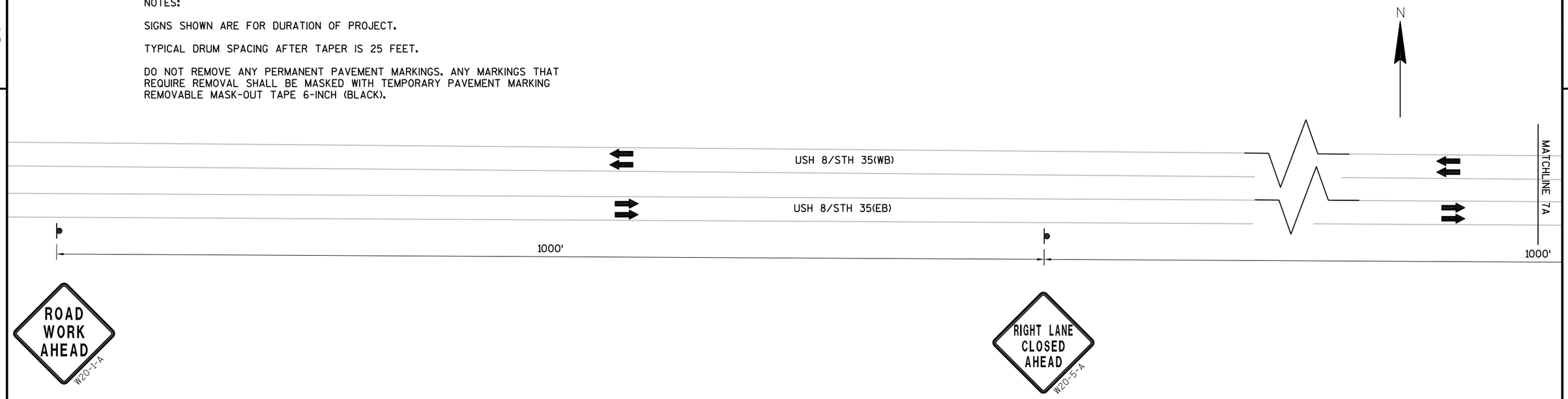
WISDOT/CADDS SHEET 42

NOTES:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

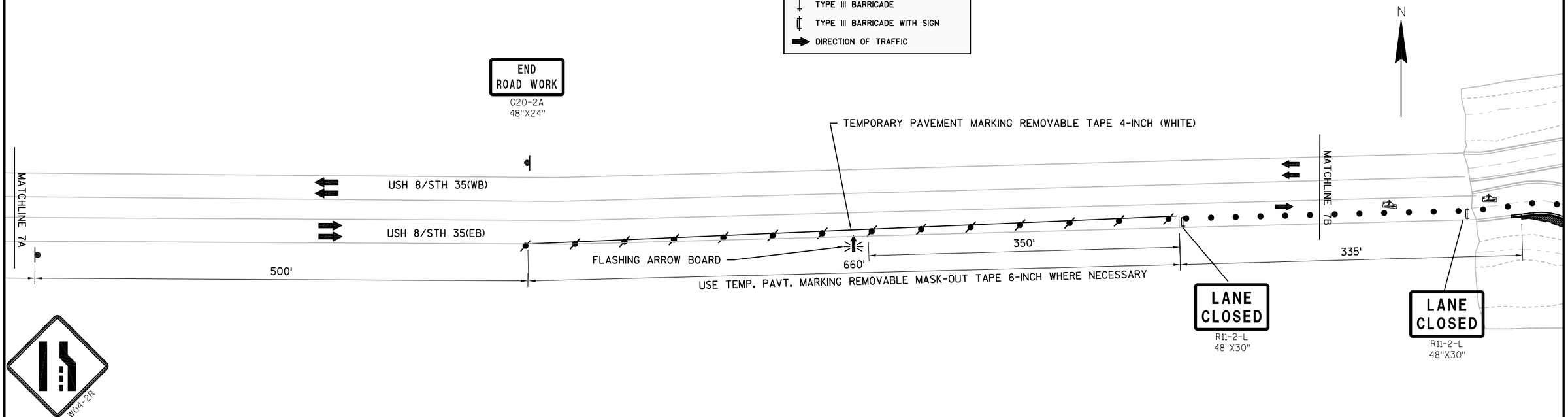
TYPICAL DRUM SPACING AFTER TAPER IS 25 FEET.

DO NOT REMOVE ANY PERMANENT PAVEMENT MARKINGS. ANY MARKINGS THAT REQUIRE REMOVAL SHALL BE MASKED WITH TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH (BLACK).



LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35	COUNTY: POLK	PLAN: LOCATION #7 TRAFFIC CONTROL PLAN DETAILS	SHEET 58	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025007_TC_ST CROIX FALLS.DWG
1507_025007_TC-ST CROIX FALLS.DST - 01
PLOT DATE : 1/19/2016 10:08 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

NOTES:

TYPICAL DRUM SPACING IS 25 FEET.

DO NOT REMOVE ANY PERMANENT PAVEMENT MARKINGS. ANY MARKINGS THAT REQUIRE REMOVAL SHALL BE MASKED WITH TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH (BLACK)

N

208th STREET (SB)

208th STREET (NB)

335'

MASK PAVEMENT MARKING RA ARROW TYPE 3R WITH TEMP. PVT. MARKING REMOVABLE MASK-OUT TAPE 6-INCH

USH 8/STH 35 (WB) (130TH STREET)

MATCHLINE 7B

335'

USH 8/STH 35 (EB) (130TH STREET)

MATCHLINE 7C

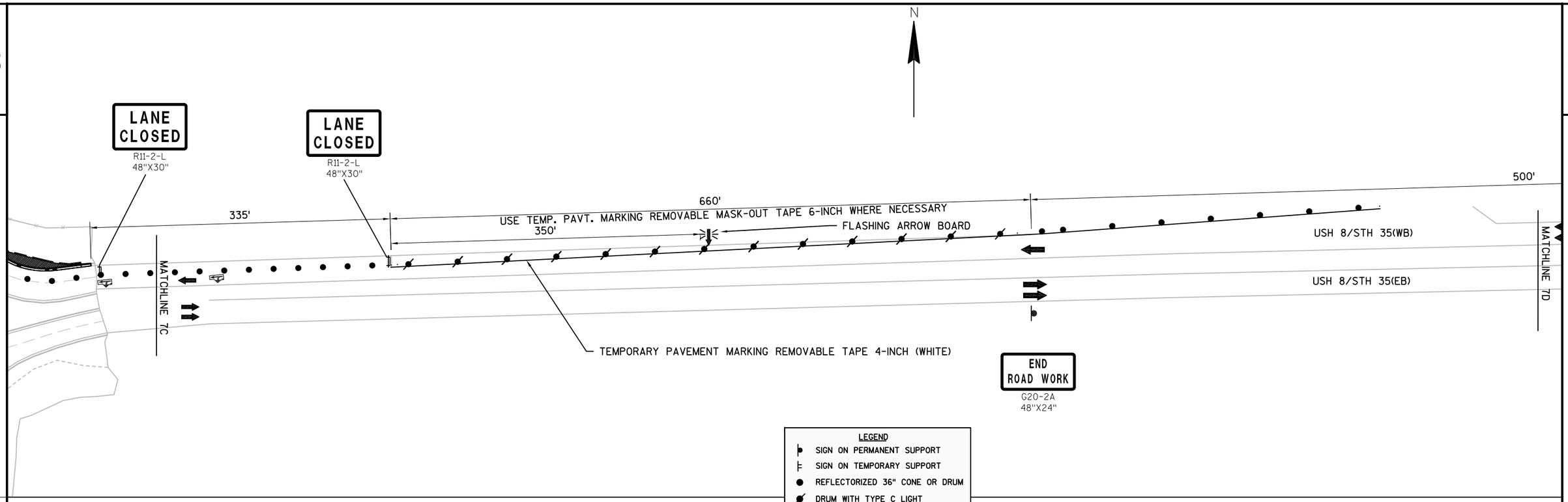
MASK PAVEMENT MARKING RA ARROW TYPE 3R WITH TEMP. PVT. MARKING REMOVABLE MASK-OUT TAPE 6-INCH

208th STREET (SB)

208th STREET (NB)

PROJECT NO: 1000-08-88	HWY: USH 8/STH 35	COUNTY: POLK	PLAN: LOCATION #7 TRAFFIC CONTROL PLAN DETAILS	SHEET 59	E

2



LEGEND

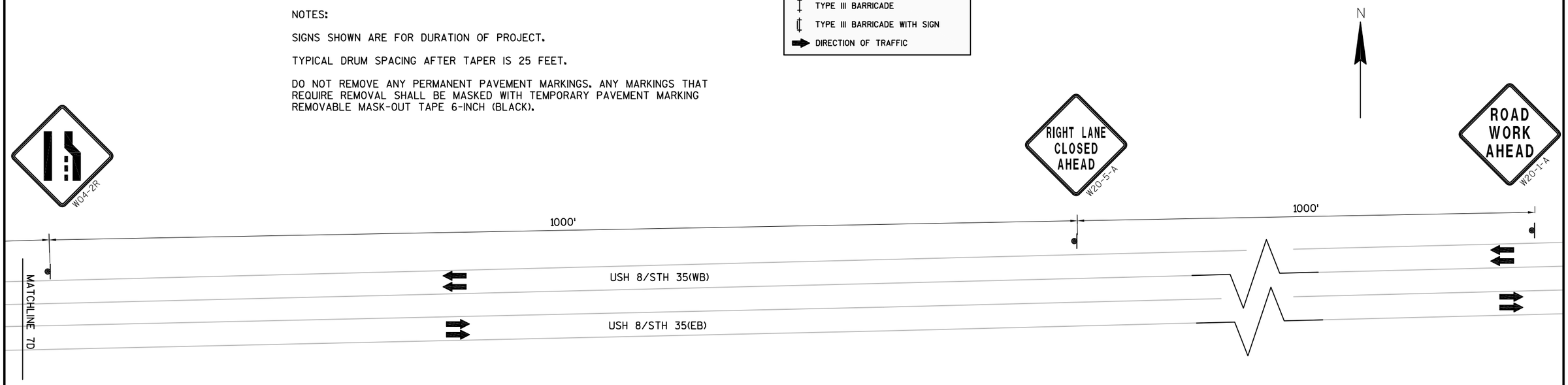
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REFLECTORIZED 36" CONE OR DRUM
- DRUM WITH TYPE C LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAFFIC

NOTES:

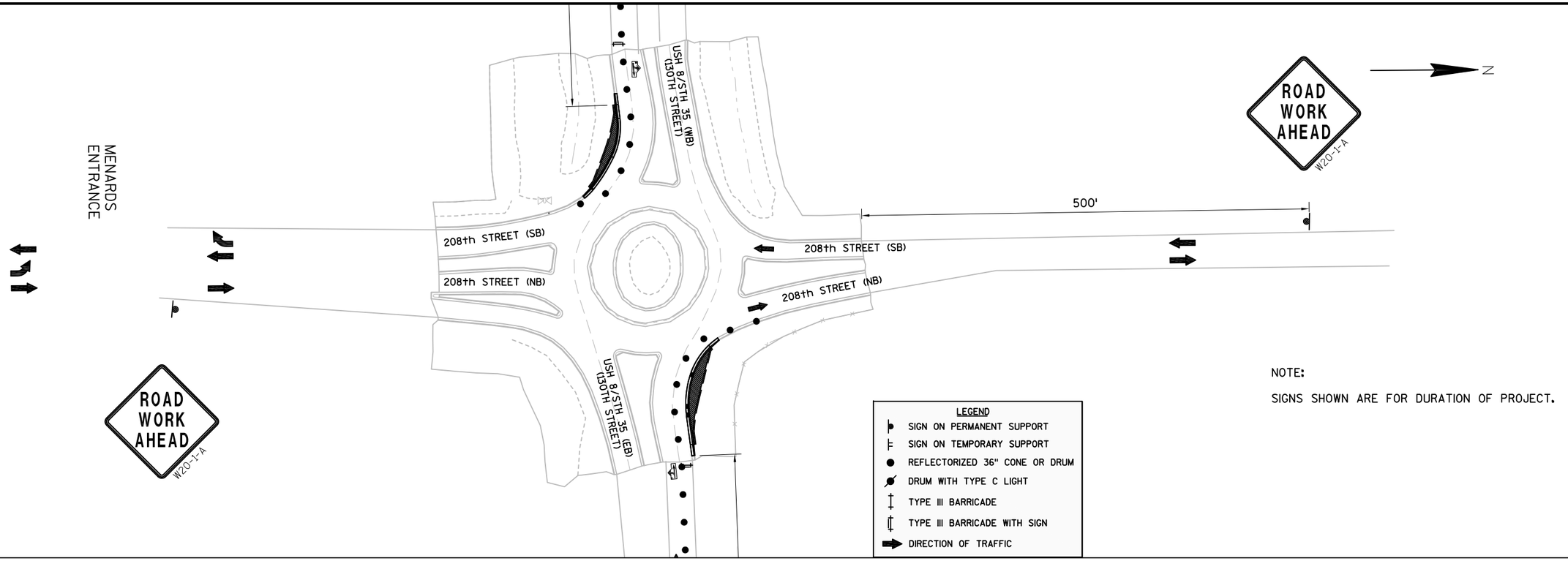
SIGNS SHOWN ARE FOR DURATION OF PROJECT.

TYPICAL DRUM SPACING AFTER TAPER IS 25 FEET.

DO NOT REMOVE ANY PERMANENT PAVEMENT MARKINGS. ANY MARKINGS THAT REQUIRE REMOVAL SHALL BE MASKED WITH TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH (BLACK).



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35	COUNTY: POLK	PLAN: LOCATION #7 TRAFFIC CONTROL PLAN DETAILS	SHEET 60	E



NOTE:

SIGNS SHOWN ARE FOR DURATION OF PROJECT.

2

PROJECT NO:1000-08-88	HWY:USH 8/STH 35	COUNTY:POLK	PLAN: LOCATION #7 TRAFFIC CONTROL PLAN DETAILS	SHEET 61	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\025007_TC_ST CROIX FALLS.DWG
1507_025007_TC-ST CROIX FALLS.DST - 01
PLOT DATE : 1/19/2016 10:08 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

DATE 15MAR16 — 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	1000-08-88 QUANTITY
0010	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0020	204.0110	Removing Asphaltic Surface	SY	417.000	417.000
0030	204.0130	Removing Curb	LF	229.000	229.000
0040	204.0150	Removing Curb & Gutter	LF	2,974.000	2,974.000
0050	204.0155	Removing Concrete Sidewalk	SY	782.000	782.000
0060	204.0195	Removing Concrete Bases	EACH	11.000	11.000
0070	204.9060.S	Removing (item description) 01. Inlet Covers	EACH	4.000	4.000
0080	204.9060.S	Removing (item description) 02. Lighting Control Cabinet	EACH	1.000	1.000
0090	204.9060.S	Removing (item description) 03. Lighting Unit	EACH	3.000	3.000
0100	204.9090.S	Removing (item description) 01. Cables	LF	320.000	320.000
0110	205.9015.S	Grading Shaping and Finishing Intersection (location) 01. USH 8/CTH SS	LS	1.000	1.000
0120	205.9015.S	Grading Shaping and Finishing Intersection (location) 02. USH 2/USH 63	LS	1.000	1.000
0130	205.9015.S	Grading Shaping and Finishing Intersection (location) 03. USH 63/STH 77/STH 27	LS	1.000	1.000
0140	205.9015.S	Grading Shaping and Finishing Intersection (location) 04. USH 8/STH 73	LS	1.000	1.000
0150	205.9015.S	Grading Shaping and Finishing Intersection (location) 05. STH 35/STH 77	LS	1.000	1.000
0160	205.9015.S	Grading Shaping and Finishing Intersection (location) 07. USH8/STH 35/208th St.	LS	1.000	1.000
0170	208.1100	Select Borrow	CY	246.000	246.000
0180	213.0100	Finishing Roadway (project) 01. 1000-08-88	EACH	1.000	1.000
0190	305.0115	Base Aggregate Dense 3/4-Inch	CY	112.000	112.000
0200	305.0125	Base Aggregate Dense 1 1/4-Inch	CY	486.000	486.000
0210	312.0115	Select Crushed Material	CY	52.000	52.000
0220	405.0100	Coloring Concrete Red	CY	522.000	522.000
0230	416.0610	Drilled Tie Bars	EACH	565.000	565.000
0240	455.0605	Tack Coat	GAL	41.000	41.000
0250	465.0105	Asphaltic Surface	TON	83.000	83.000
0260	465.0125	Asphaltic Surface Temporary	TON	18.000	18.000
0270	465.0315	Asphaltic Flumes	SY	39.000	39.000
0280	523.0419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	126.000	126.000
0290	523.0519	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0300	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	252.000	252.000
0310	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	431.000	431.000
0320	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	857.000	857.000
0330	601.0582	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type T	LF	981.000	981.000
0340	602.0405	Concrete Sidewalk 4-Inch	SF	858.000	858.000
0350	602.0415	Concrete Sidewalk 6-Inch	SF	623.000	623.000
0360	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	150.000	150.000
0370	611.0627	Inlet Covers Type HM	EACH	1.000	1.000

3

DATE 15MAR16 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	1000-08-88 QUANTITY
0380	611.0636	Inlet Covers Type HM-S	EACH	3.000	3.000
0390	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0400	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1000-08-88	EACH	1.000	1.000
0410	619.1000	Mobilization	EACH	1.000	1.000
0420	620.0300	Concrete Median Sloped Nose	SF	593.000	593.000
0430	624.0100	Water	MGAL	9.700	9.700
0440	628.1504	Silt Fence	LF	528.000	528.000
0450	628.1520	Silt Fence Maintenance	LF	528.000	528.000
0460	628.1905	Mobilizations Erosion Control	EACH	9.000	9.000
0470	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0480	628.2004	Erosion Mat Class I Type B	SY	85.000	85.000
0490	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0500	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0510	628.7015	Inlet Protection Type C	EACH	4.000	4.000
0520	628.7504	Temporary Ditch Checks	LF	70.000	70.000
0530	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
0540	628.7570	Rock Bags	EACH	18.000	18.000
0550	633.0500	Delineator Reflectors	EACH	39.000	39.000
0560	633.5200	Markers Culvert End	EACH	2.000	2.000
0570	634.0805	Posts Tubular Steel 2x2-Inch X 5-FT	EACH	13.000	13.000
0580	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	9.000	9.000
0590	634.0810	Posts Tubular Steel 2x2-Inch X 10-FT	EACH	7.000	7.000
0600	634.0811	Posts Tubular Steel 2x2-Inch X 11-FT	EACH	21.000	21.000
0610	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	5.000	5.000
0620	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	6.000	6.000
0630	637.2210	Signs Type II Reflective H	SF	227.930	227.930
0640	637.2230	Signs Type II Reflective F	SF	37.250	37.250
0650	638.2102	Moving Signs Type II	EACH	9.000	9.000
0660	638.2602	Removing Signs Type II	EACH	30.000	30.000
0670	638.3000	Removing Small Sign Supports	EACH	42.000	42.000
0680	643.0100	Traffic Control (project) 01. 1000-08-88	EACH	1.000	1.000
0690	643.0300	Traffic Control Drums	DAY	14,432.000	14,432.000
0700	643.0410	Traffic Control Barricades Type II	DAY	371.000	371.000
0710	643.0420	Traffic Control Barricades Type III	DAY	306.000	306.000
0720	643.0705	Traffic Control Warning Lights Type A	DAY	983.000	983.000
0730	643.0715	Traffic Control Warning Lights Type C	DAY	2,392.000	2,392.000
0740	643.0800	Traffic Control Arrow Boards	DAY	32.000	32.000
0750	643.0900	Traffic Control Signs	DAY	3,551.000	3,551.000
0760	646.0106	Pavement Marking Epoxy 4-Inch	LF	109.000	109.000
0770	646.0126	Pavement Marking Epoxy 8-Inch	LF	302.000	302.000
0780	646.0600	Removing Pavement Markings	LF	4,875.000	4,875.000
0790	647.0456	Pavement Marking Curb Epoxy	LF	55.000	55.000
0800	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	257.000	257.000
0810	647.0606	Pavement Marking Island Nose Epoxy	EACH	3.000	3.000
0820	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	98.000	98.000
0830	647.0796	Pavement Marking Crosswalk Epoxy 24-Inch	LF	612.000	612.000
0840	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	6,540.000	6,540.000
0850	649.0506	Temporary Pavement Marking Removable Mask-Out Tape 6-Inch	LF	2,010.000	2,010.000
0860	650.4500	Construction Staking Subgrade	LF	1,739.000	1,739.000
0870	650.5000	Construction Staking Base	LF	1,739.000	1,739.000

DATE 15MAR16 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	1000-08-88 QUANTITY
0880	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	778.000	778.000
0890	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0900	650.8500	Construction Staking Electrical Installations (project) 02. 1000-08-88 USH 2 & USH 53	LS	1.000	1.000
0910	650.8500	Construction Staking Electrical Installations (project) 03. 1000-08-88 USH 63/STH 27/STH 77	LS	1.000	1.000
0920	650.9910	Construction Staking Supplemental Control (project) 01. 1000-08-88	LS	1.000	1.000
0930	650.9920	Construction Staking Slope Stakes	LF	1,547.000	1,547.000
0940	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	450.000	450.000
0950	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	145.000	145.000
0960	652.0700.S	Install Conduit into Existing Item	EACH	5.000	5.000
0970	652.0800	Conduit Loop Detector	LF	336.000	336.000
0980	652.0900	Loop Detector Slots	LF	336.000	336.000
0990	653.0135	Pull Boxes Steel 24x36-Inch	EACH	2.000	2.000
1000	653.0140	Pull Boxes Steel 24x42-Inch	EACH	2.000	2.000
1010	653.0900	Adjusting Pull Boxes	EACH	5.000	5.000
1020	653.0905	Removing Pull Boxes	EACH	1.000	1.000
1030	654.0101	Concrete Bases Type 1	EACH	5.000	5.000
1040	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
1050	654.0105	Concrete Bases Type 5	EACH	4.000	4.000
1060	654.0110	Concrete Bases Type 10	EACH	1.000	1.000
1070	654.0224	Concrete Control Cabinet Bases Type L24	EACH	1.000	1.000
1080	655.0230	Cable Traffic Signal 5-14 AWG	LF	92.000	92.000
1090	655.0610	Electrical Wire Lighting 12 AWG	LF	624.000	624.000
1100	655.0620	Electrical Wire Lighting 8 AWG	LF	1,023.000	1,023.000
1110	655.0625	Electrical Wire Lighting 6 AWG	LF	1,056.000	1,056.000
1120	655.0700	Loop Detector Lead In Cable	LF	852.000	852.000
1130	655.0800	Loop Detector Wire	LF	1,048.000	1,048.000
1140	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. USH 2/USH 63	LS	1.000	1.000
1150	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	4.000	4.000
1160	657.0322	Poles Type 5-Aluminum	EACH	4.000	4.000
1170	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	4.000	4.000
1180	657.1345	Install Poles Type 9	EACH	1.000	1.000
1190	657.1525	Install Monotube Arms 25-FT	EACH	1.000	1.000
1200	658.0103	Traffic Signal Face 1-12 Inch Vertical	EACH	3.000	3.000
1210	658.0210	Backplates Signal Face 1 Section 12-Inch	EACH	3.000	3.000
1220	658.0600	Led Modules 12-Inch Red Ball	EACH	3.000	3.000
1230	658.5069	Signal Mounting Hardware (location) 01. USH 2/USH 63 ISLAND	LS	1.000	1.000
1240	659.1120	Luminaires Utility LED B	EACH	4.000	4.000
1250	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	1.000	1.000
1260	690.0150	Sawing Asphalt	LF	2,288.000	2,288.000
1270	690.0250	Sawing Concrete	LF	1,886.000	1,886.000
1280	SPV.0090	Special 01. Concrete Curb & Gutter 4-inch Sloped 36-inch Type D Modified	LF	1,110.000	1,110.000

3

DATE 15MAR16 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	1000-08-88 QUANTITY
1290	SPV.0090	Special 02. Concrete Curb & Gutter 4-inch Sloped 36-inch Type A Modified	LF	120.000	120.000
1300	SPV.0090	Special 03. Concrete Curb and Gutter Cure and Seal Treatment	LF	3,751.000	3,751.000
1310	SPV.0090	Special 04. Construction Staking Select Crushed Material	LF	180.000	180.000
1320	SPV.0105	Special 01. Concrete Crack Mitigation and Repair Special USH 8/CTH SS	LS	1.000	1.000
1330	SPV.0105	Special 02. Concrete Crack Mitigation and Repair Special USH 2/USH 63	LS	1.000	1.000
1340	SPV.0105	Special 03. Concrete Crack Mitigation and Repair Special USH 63/STH 77/STH 27	LS	1.000	1.000
1350	SPV.0105	Special 04. Concrete Crack Mitigation and Repair Special USH 8/STH 73	LS	1.000	1.000
1360	SPV.0105	Special 05. Concrete Crack Mitigation and Repair Special STH 35/STH 77	LS	1.000	1.000
1370	SPV.0105	Special 06. Concrete Crack Mitigation and Repair Special USH 8/East 3rd St.	LS	1.000	1.000
1380	SPV.0105	Special 07. Concrete Crack Mitigation and Repair Special USH 8/STH 35/208th St.	LS	1.000	1.000
1390	SPV.0105	Special 08. Concrete Apron and Concrete Island Joint Layout USH 8/CTH SS	LS	1.000	1.000
1400	SPV.0105	Special 09. Concrete Apron and Concrete Island Joint Layout USH 2/USH 63	LS	1.000	1.000
1410	SPV.0105	Special 10. Concrete Apron and Concrete Island Joint Layout USH 63/STH 77/STH 27	LS	1.000	1.000
1420	SPV.0105	Special 11. Concrete Apron and Concrete Island Joint Layout USH 8/STH 73	LS	1.000	1.000
1430	SPV.0105	Special 12. Concrete Apron and Concrete Island Joint Layout STH 35/STH 77	LS	1.000	1.000
1440	SPV.0105	Special 13. Concrete Apron and Concrete Island Joint Layout USH 8/East 3rd St.	LS	1.000	1.000
1450	SPV.0105	Special 14. Concrete Apron and Concrete Island Joint Layout USH 8/STH 35/208th St.	LS	1.000	1.000
1460	SPV.0105	Special 15. Salvage Above Ground Traffic Signal Equipment	LS	1.000	1.000
1470	SPV.0105	Special 16. Transporting Traffic Signal and Intersection Lighting Materials	LS	1.000	1.000
1480	SPV.0165	Special 01. Concrete Island Special	SF	6,332.000	6,332.000
1490	SPV.0165	Special 02. Concrete Sidewalk Cure and Seal Treatment	SF	1,481.000	1,481.000
1500	SPV.0165	Special 03. Concrete Median Sloped Nose Cure and Seal Treatment	SF	593.000	593.000
1510	SPV.0180	Special 01. Concrete Apron Special	SY	861.000	861.000
1520	SPV.0180	Special 02. Geogrid	SY	108.000	108.000

3

REMOVING ASPHALTIC SURFACE

STATION	-	STATION	LOCATION		204.0110 REMOVING ASPHALTIC SURFACE SY	COMMENTS
CAT. 0010						
135+40	-	136+45	USH 8/CTH SS	RT	91	S.E. RADIUS
136+31	-	136+50	USH 8/CTH SS	RT	27	SAFETY ISLAND
			CAT. 0010 TOTAL		118	
CAT. 0020						
20+00	-	22+82	USH 2/USH 63	RT	32	SE RADIUS
143+87	-	144+29	USH 2/USH 63	RT	21	SAFETY ISLAND
			CAT. 0020 TOTAL		53	
CAT. 0030						
127+07	-	129+10	STH 27/77	LT & RT	32	
131+27	-	133+11	STH 77	RT	62	
			CAT. 0030 TOTAL		94	
CAT. 0040						
70+00	-	70+35	USH 8/STH 73	RT	4	SE RADIUS
70+70	-	72+20	USH 8/STH 73	RT	5	SE RADIUS
			CAT. 0040 TOTAL		9	
CAT. 0050						
8+21	-	8+83	STH 35/STH 77		12	NW RADIUS
8+21	-	9+49	STH 35/STH 77		14	NW RADIUS
80+87	-	80+22	STH 35/STH 77		34	ISLAND
80+09	-	82+19	STH 35/STH 77		24	SW RADIUS
			CAT. 0050 TOTAL		84	
CAT. 0060						
356+60	-	357+00	USH 8	LT	59	ISLAND
			CAT. 0060 TOTAL		59	
			PROJECT TOTAL		417	

REMOVING CONCRETE SIDEWALK

STATION	-	STATION	LOCATION		204.0155 REMOVING CONCRETE SIDEWALK SY	COMMENTS
CAT. 0030						
127+09	-	129+52	STH 27/77	LT & RT	93	MEDIAN
130+86	-	133+06	STH 77	RT	125	MEDIAN
297+14	-	300+65	USH 63/ STH 27	RT	361	MEDIAN
129+37	-	129+58	STH 27/77	RT	22	SW QUAD
129+35	-	129+55	STH 27/77	LT	16	NW QUAD
130+71	-	131+08	STH 77	RT	28	SE QUAD
130+91	-	131+09	STH 77	LT	12	NE QUAD
			CAT. 0030 TOTAL		657	
CAT. 0040						
997+80	-	998+05	USH 8 & STH 73	RT	13	SAFETY ISLAND
			CAT. 0040 TOTAL		13	
CAT. 0050						
8+21	-	9+49	STH 35 & STH 77	LT	81	NW QUAD
			CAT. 0050 TOTAL		81	
CAT. 0060						
356+62	-	356+97	USH 8	LT	13	ISLAND
			CAT. 0060 TOTAL		13	
CAT. 0070						
UNDISTRIBUTED			USH 8/STH 35/208TH ST		18	SIGN BOX OUTS
			CAT. 0070 TOTAL		18	
			PROJECT TOTAL		782	

REMOVING CURB AND GUTTER

STATION	-	STATION	LOCATION		204.0130 REMOVING CURB LF	204.0150 REMOVING CURB AND GUTTER LF	COMMENTS
CAT. 0010							
135+40	-	136+45	USH 8/CTH SS	RT	-	182	SE QUAD
136+32	-	136+50	USH 8/CTH SS	RT	42	-	ISLAND
			CAT. 0010 TOTAL		42	182	
CAT. 0020							
143+87	-	144+29	USH 2/USH 63	RT	82	-	ISLAND
			CAT. 0020 TOTAL		82	0	
CAT. 0030							
127+07	-	129+55	STH 27/77	LT & RT	-	491	MEDIAN
130+82	-	133+12	STH 77	LT & RT	-	455	MEDIAN
295+87	-	300+68	USH 63/ STH 77	RT	-	955	MEDIAN
129+37	-	129+58	STH 27/77	RT	-	37	SW QUAD
129+35	-	129+55	STH 27/77	LT	-	28	NW QUAD
130+71	-	131+08	STH 77	RT	-	49	SE QUAD
130+91	-	131+09	STH 77	LT	-	21	NE QUAD
			CAT. 0030 TOTAL		0	2036	
CAT. 0040							
70+37	-	70+70	USH 8/STH 73	RT	-	33	SE QUAD
997+80	-	998+05	USH 8/STH 73	RT	-	48	ISLAND
			CAT. 0040 TOTAL		0	81	
CAT. 0050							
8+21	-	9+49	STH 35/STH 77	LT	-	129	NW. QUAD
80+85	-	81+22	STH 35/STH 77	LT	105	-	ISLAND
80+09	-	82+19	STH 35/STH 77	RT	-	210	SW QUAD
			CAT. 0050 TOTAL		105	339	
CAT. 0060							
356+60	-	357+00	USH 8	LT	-	120	ISLAND
			CAT. 0060 TOTAL		0	120	
CAT. 0070							
10+00	-	11+04	USH 8/STH 35	-	-	102	
20+00	-	21+16	USH 8/STH 35	-	-	114	
			CAT. 0070 TOTAL		0	216	
			PROJECT TOTALS		229	2974	

REMOVING CONCRETE BASES

STATION			LOCATION		EXISTING BASE NUMBER	204.0195** REMOVING CONCRETE BASES EACH
CAT. 0020						
144+20.0	21.4	RT	USH 2/63		SB1	1
144+11.9	55.7	RT	USH 2/63		SB2	1
CAT. 0020 TOTALS						2
CAT. 0030						
301+85.3	21.2	RT	USH 63/STH 27/77		SB2	1
301+78.0	49.7	LT	USH 63/STH 27/77		SB3	1
300+56.9	14.2	RT	USH 63/STH 27/77		SB7	1
300+45.6	82.0	RT	USH 63/STH 27/77		SB8	1
300+39.4	47.3	LT	USH 63/STH 27/77		SB10	1
CAT. 0030 TOTAL						5
PROJECT TOTALS						7

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING SMALL PIPE CULVERTS

STATION		203.0100 REMOVING SMALL PIPE CULVERTS EACH
CAT. 0040		
997+70.0	STH 73	1
CAT. 0040 TOTAL		1
PROJECT TOTAL		1

REMOVING INLET COVERS

STATION	LOCATION		204.9060.S.01 REMOVING INLET COVERS EACH
CAT. 0010			
10+92	USH 8 & CTH SS	RT	1
CAT. 0010 TOTAL			1
CAT. 0070			
20+42	USH 8 & STH 35	LT	1
20+71	USH 8 & STH 35	LT	1
20+79	USH 8 & STH 35	LT	1
CAT. 0070 TOTAL			3
PROJECT TOTAL			4

GRADING, SHAPING AND FINISHING INTERSECTION

STATION	- STATION	LOCATION		GRADING, SHAPING AND FINISHING INTERSECTION LS	EXCAVATION COMMON* CY	FILL X 1.25* CY	TOPSOIL* SY	SEED*# LB	TEMP SEED* LB	FERT. TYPE B* CWT	MULCH * SY	COMMENTS
CAT. 0010 - Item No. 205.9015.S.01 USH 8/CTH SS												
135+25	- 136+45	USH 8/CTH SS	RT	1	64	0	0	0	0	0	0	SE QUAD
		CAT. 0010 TOTAL		1	64	0	0	0	0	0	0	
CAT. 0020 - Item No. 205.9015.S.02 USH 2/USH 63												
20+00	- 22+82	USH 2/USH 63	RT	1	203	58	182	4.6	9.2	0.22	339	SE QUAD
		CAT. 0020 TOTAL		1	203	58	182	4.6	9.2	0.22	339	
CAT. 0030 - Item No. 205.9015.S.03 USH 63/STH 77 /STH 27												
300+33	- 301+70	USH 63/STH 77 /STH 27	RT	1	10	0	44	0.6	1.2	0.03	44	ALL QUADRANTS -GRADING FOR CURB RAMPS
		CAT. 0030 TOTAL		1	10	0	44	0.6	1.2	0.03	44	
CAT. 0040 - Item No. 205.9015.S.04 USH 8/STH 73												
70+00	- 72+20	USH 8/STH 73	RT	1	77	51	132	3.5	6.9	0.16	169	SE QUAD
72+80	- 76+80	USH 8	LT		60	0	223	4.7	9.3	0.22	260	PERMANENTWIDENING
		CAT. 0040 TOTAL		1	137	51	355	8	16	0.38	429	
CAT. 0050 - Item No. 205.9015.S.05 STH 35/STH 77												
8+21	- 9+49	STH 35/STH 77	LT	1	113	0	19	1.1	1.1	0.03	38	NW QUAD
80+09	- 82+19	STH 35/STH 77	RT		145	3	100	4.0	4.0	0.10	146	SW QUAD
		CAT. 0050 TOTAL		1	258	3	119	5.1	5.1	0.13	184	
CAT. 0070 - Item No. 205.9015.S.07 USH 8/STH 35												
10+00	- 11+04	USH 8/STH 35	RT	1	51	0	16	1.0	2.0	0.05	74	SW QUAD
20+00	- 21+16	USH 8/STH 35	LT		73	4	65	1.8	3.5	0.09	129	NE QUAD
		CAT. 0070 TOTAL		1	124	4	81	2.8	5.5	0.14	203	
		TOTALS			796	116	781	21	37	0.9	1199	

* ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY
# CAT. 0020 & CAT. 0040 HAVE #10 SEED, CAT. 0030, 0050 & CAT. 0070 HAVE #20 SEED

SELECT MATERIAL

STATION	- STATION	LOCATION		208.1100 SELECT BORROW (GRADE 2) CY	312.0115 SELECT CRUSHED MATERIAL CY	COMMENTS
CAT. 0020						
20+00	- 22+82	USH 2 & USH 63	RT	246	-	SE RADIUS
		CAT. 0020 TOTAL		246	0	
CAT. 0070						
10+00	- 11+04	USH 8 & STH 35	RT	-	20	SW RADIUS
20+00	- 21+16	USH 8 & STH 35	LT	-	32	NE RADIUS
		CAT. 0070 TOTAL		0	52	
		PROJECT TOTALS		246	52	

BASE AGGREGATE DENSE 3/4-INCH

STATION	- STATION	LOCATION	305.0115 BASE AGGREGATE DENSE 3/4-INCH CY	COMMENTS
CAT. 0020				
20+25	- 22+82	USH 2 & USH 63	62	
		CAT. 0020 TOTAL	62	
CAT. 0040				
70+00	- 72+20	USH 8 / STH 73	38	
72+80	- 76+80	USH 8 LT	10	PERMANENT WIDENING
997+59	- 997+65	STH 73 LT	2	CULVERT REPLACEMENT
		CAT. 0040 TOTAL	50	
		PROJECT TOTAL	112	

BASE AGGREGATE DENSE 1 1/4-INCH

STATION	- STATION	LOCATION	305.0125 BASE AGGREGATE DENSE 1 1/4-INCH CY	624.0100 WATER MGAL	COMMENTS
CAT. 0010					
135+40	- 136+45	USH 8/CTH SS	20	0.4	12-INCH PAVEMENT AREA
		CAT. 0010 TOTAL	20	0.4	
CAT. 0020					
20+00	- 22+82	USH 2/USH 63	141	2.8	
		CAT. 0020 TOTAL	141	2.8	
CAT. 0030					
ALL QUADRANTS		USH 63/STH 27/77	10	0.2	4" BAD UNDER NEW SIDEWALK AND CURB RAMPS
		CAT. 0030 TOTAL	10	0.2	
CAT. 0040					
70+00	- 72+20	USH 8 / STH 73	64	1.3	
72+80	- 76+80	USH 8 / STH 73	52	1.0	TEMP WIDENING
997+59	- 997+86	STH 73	18	0.4	CULVERT REPLACEMENT
		CAT. 0040 TOTAL	134	2.7	
CAT. 0050					
8+21	- 9+49	STH 35/STH 77	58	1.2	NW QUAD
80+09	- 82+19	STH 35/STH 77	81	1.6	SW QUAD
		CAT. 0050 TOTAL	139	2.8	
CAT. 0070					
10+00	- 11+04	USH 8/STH 35	17	0.3	
20+00	- 21+16	USH 8/STH 35	25	0.5	
		CAT. 0070 TOTAL	42	0.8	
		PROJECT TOTAL	486	9.7	

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY 01. 1000-08-88 EACH
CAT. 0010	
USH 8/CTH SS	0.15
CAT. 0010 TOTAL	0.15
CAT. 0020	
USH2/USH 63	0.15
CAT. 0020 TOTAL	0.15
CAT. 0030	
USH 63/STH 27/STH 77	0.15
CAT. 0030 TOTAL	0.15
CAT. 0040	
USH 8/STH 73	0.15
CAT. 0040 TOTAL	0.15
CAT. 0050	
STH 35/STH 77	0.15
CAT. 0050 TOTAL	0.15
CAT. 0060	
USH 8/E 3RD ST	0.10
CAT. 0060 TOTAL	0.10
CAT. 0070	
USH 8/STH 35	0.15
CAT. 0070 TOTAL	0.15
PROJECT TOTAL	1.00

CONCRETE APRON SPECIAL AND ASSOCIATED ITEMS

STATION	- STATION		LOCATION	405.0100 * COLORING CONCRETE RED CY	SPV.0180.01 CONCRETE APRON SPECIAL SY
CAT. 0010			USH 8 & CTH SS		
10+15	- 12+01	RT		31	92
	CAT. 0010 TOTALS			31	92
CAT. 0020					
20+00	- 22+82	RT	USH 2 & USH 63	103	309
	CAT. 0020 TOTALS			103	309
CAT. 0040					
70+00	- 72+75	RT	USH 8 & STH 73	45	133
	CAT. 0040 TOTALS			45	133
CAT. 0050					
8+35	- 9+35	LT	STH 35 & STH 77	30	88
80+19	- 82+02	RT	STH 35 & STH 77	51	151
	CAT. 0050 TOTALS			81	239
CAT. 0070					
10+10	- 10+94	RT	USH 8 & STH 35	12	34
20+10	- 21+06	LT	USH 8 & STH 35	18	54
CAT. 0070 TOTALS				30	88
			PROJECT TOTALS	290	861

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE ISLAND SPECIAL AND ASSOCIATED ITEMS

STATION	- STATION	LOCATION	405.0100 * COLORING CONCRETE RED CY	SPV.0165.01 CONCRETE ISLAND SPECIAL SF
CAT. 0010				
10+25	- 12+11	USH 8/CTH SS	3	84
	CAT. 0010 TOTALS		3	84
CAT. 0020				
143+87	- 144+29	USH 2/USH 63	7	184
	CAT. 0020 TOTALS		7	184
CAT. 0030				
127+14	- 129+48	STH 27/77	31	829
130+89	- 133+05	STH 77	39	1030
297+14	- 300+66	USH 63/STH27	121	3244
	CAT. 0030 TOTALS		191	5103
CAT. 0040				
997+87	- 998+05	STH 27/77	4	92
	CAT. 0040 TOTALS		4	92
CAT. 0050				
80+90	- 81+24	STH 35/STH 77	9	290
	CAT. 0050 TOTALS		9	290
CAT. 0060				
356+60	- 357+00	USH 8	18	579
	CAT. 0060 TOTALS		18	579
	PROJECT TOTALS		232	6332

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALTIC SURFACE

STATION	- STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	455.0605* TACK COAT GAL	COMMENT
CAT. 0020					
20+02	- 22+82	USH 2 & USH 63	12	4	1' PATCH
		CAT. 0020 TOTAL	12	4	
CAT. 0040					
72+80	- 76+80	USH 8	41	9	PERMANENT WIDENING
997+59	- 997+86	STH 73	17	7	PATCH FOR CULVERT REPLACEMENT
		CAT. 0040 TOTAL	58	16	
CAT. 0050					
8+21	- 9+49	STH 35 & STH 77	4	2	NW QUAD 1' PATCH
8+21	- 8+83	STH 35 & STH 77	3	1	NW QUAD 2' PATCH
80+09	- 82+19	STH 35 & STH 77	6	3	SW QUAD 1' PATCH
		CAT. 0050 TOTAL	13	6	
		PROJECT TOTALS	83	26	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ASPHALTIC SURFACE TEMPORARY

STATION	- STATION	LOCATION	465.0125 ASPHALTIC SURFACE TEMPORARY TON	455.0605* TACK COAT GAL	COMMENT
CAT. 0020					
143+92	- 144+17	USH 63	6	5	ISLAND WEDGING
		CAT. 0020 TOTAL	6	5	
CAT. 0040					
997+83	- 997+98	STH 73	6	5	ISLAND WEDGING
		CAT. 0040 TOTAL	6	5	
CAT. 0050					
80+90	- 81+24	STH 77	6	5	ISLAND WEDGING
		CAT. 0050 TOTAL	6	5	
		PROJECT TOTALS	18	15	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE SIDEWALK

STATION	- STATION		LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	SPV.0165.02 CONCRETE SIDEWALK CURE AND SEAL TREATMENT SF	COMMENTS
CAT. 0030							
129+37	- 129+58	RT	STH 27/77	198	-	198	SW QUAD
129+35	- 129+55	LT	STH 27/77	152	-	152	NW QUAD
130+71	- 131+08	RT	STH 77	246	-	246	SE QUAD
130+91	- 131+09	LT	STH 77	100	-	100	NE QUAD
	CAT. 0030 TOTALS			696	0	696	
CAT. 0050							
80+97	- 81+58		STH 35/STH 77	162	-	162	SW QUAD
8+21	- 9+49		STH 35/STH 77	-	623	623	NW QUAD
	CAT. 0050 TOTALS			162	623	785	
	PROJECT TOTALS			858	623	1481	

ASPHALTIC FLUMES

STATION		LOCATION	465.0315 ASPHALTIC FLUMES SY
CAT. 0020			
20+07	RT	USH 2/USH 63	13
22+75	RT	USH 2/USH 63	13
		CAT. 0020 TOTAL	26
CAT. 0040			
72+13	RT	USH 8/STH 73	13
		CAT. 0040 TOTAL	13
		PROJECT TOTAL	39

CURB RAMPS

STATION		LOCATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	FOR INFORMATION ONLY 2'X 1.5' PANELS EACH	2'X 2' PANELS EACH	2'X 2.5' PANELS EACH	COMMENTS
CAT. 0030							
300+53	RT	USH 63/STH27	20	-	-	4	MEDIAN
300+44	LT	USH 63/STH27	10	-	-	2	SW QUAD
300+51	RT	USH 63/STH27	10	-	-	2	SE QUAD
129+45	RT	STH 27/77	10	2	1	-	SW QUAD
129+45	LT	STH 27/77	10	2	1	-	NW QUAD
130+97	RT	STH 77	10	-	-	2	SE QUAD
130+99	LT	STH 77	10	2	1	-	NE QUAD
CAT. 0030 TOTALS			80	6	3	10	
CAT. 0050							
8+83	LT	STH 35/77	10	-	-	2	NW QUAD
81+13	LT	STH 35/77	10	-	-	2	ISLAND
81+18	LT	STH 35/77	10	-	-	2	ISLAND
81+21	RT	STH 35/77	10	-	-	2	SW QUAD
CAT. 0050 TOTALS			40	-	-	8	
CAT. 0060							
356+62	LT	USH 8	10	-	-	2	ISLAND
356+65	LT	USH 8	10	-	-	2	ISLAND
356+75	LT	USH 8	10	-	-	2	ISLAND
CAT. 0060 TOTALS			30	-	-	6	
PROJECT TOTAL			150	6	3	16	

CONCRETE MEDIAN SLOPED NOSE

STATION	-	STATION	LOCATION		620.0300 CONCRETE MEDIAN SLOPED NOSE SF	SPV.0165.03 CONCRETE MEDIAN SLOPED NOSE CURE AND SEAL TREATMENT SF	COMMENTS
CAT. 0020							
143+87	-	143+94	USH 2 & USH 63	RT	56	56	TYPE 1 NOSE
CAT. 0020 TOTALS					56	56	
CAT. 0030							
127+07	-	127+14	STH 27/77	-	49	49	TYPE 1 NOSE
129+48	-	129+55	STH 27/77	LT	73	73	TYPE 1 NOSE
130+82	-	130+89	STH 77	RT	73	73	TYPE 1 NOSE
133+05	-	133+12	STH 77	RT	77	77	TYPE 1 NOSE
300+66	-	300+69	USH 63/STH 27	RT	32	32	TYPE 2 NOSE
CAT. 0030 TOTALS					304	304	
CAT. 0040							
997+80	-	997+87	USH 8 & STH 73	RT	74	74	TYPE 1 NOSE
CAT. 0040 TOTALS					74	74	
CAT. 0050							
80+50	-	80+57	STH 35 & STH 77	LT	56	56	TYPE 1 NOSE
CAT. 0050 TOTALS					56	56	
CAT. 0060							
356+60	-	356+67	USH 8		42	42	TYPE 1 NOSE
356+93	-	357+00	USH 8		61	61	TYPE 1 NOSE
CAT. 0060 TOTALS					103	103	
PROJECT TOTALS					593	593	

CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL ITEMS

STATION	LOCATION	STRUCT. NO.	TO	STRUCT. NO.	523.0419 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CL IV 19X30-INCH LF	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
CAT. 0040								
997+68.8	STH 73	6	-	7	126	2	2	1
CAT. 0040 TOTALS					126	2	2	1
PROJECT TOTALS					126	2	2	1

STORM SEWER COVERS

STATION	LOCATION			611.0627 INLET COVERS TYPE HM EACH	611.0636 INLET COVERS TYPE HM-S EACH	611.8115 ADJUSTING INLET COVERS EACH
CAT. 0010						
10+92	USH 8 & CTH SS	0	LT	-	1	-
CAT. 0010 TOTALS				0	1	0
CAT. 0030						
299+03	USH 63/ STH 27	7.4	RT	-	-	1
CAT. 0030 TOTALS				0	0	1
CAT. 0070						
20+42	USH 8 & STH 35	-	LT	1	-	-
20+71	USH 8 & STH 35	-	LT	-	1	-
20+79	USH 8 & STH 35	-	LT	-	1	-
CAT. 0070 TOTALS				1	2	0
PROJECT TOTALS				1	3	1

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
CAT. 0010	
USH 8/CTH SS	0.15
CAT. 0010 TOTAL	0.15
CAT. 0020	
USH2/USH 63	0.15
CAT. 0020 TOTAL	0.15
CAT. 0030	
USH 63/STH 27/STH 77	0.15
CAT. 0030 TOTAL	0.15
CAT. 0040	
USH 8/STH 73	0.15
CAT. 0040 TOTAL	0.15
CAT. 0050	
STH 35/STH 77	0.15
CAT. 0050 TOTAL	0.15
CAT. 0060	
USH 8/E 3RD ST	0.10
CAT. 0060 TOTAL	0.10
CAT. 0070	
USH 8/STH 35	0.15
CAT. 0070 TOTAL	0.15
PROJECT TOTAL	1.00

MAINTENANCE AND REAPAIR OF HAUL ROADS

LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS 01. 1000-08-88 EACH
CAT. 0010	
USH 8/CTH SS	0.15
CAT. 0010 TOTAL	0.15
CAT. 0020	
USH2/USH 63	0.15
CAT. 0020 TOTAL	0.15
CAT. 0030	
USH 63/STH 27/STH 77	0.15
CAT. 0030 TOTAL	0.15
CAT. 0040	
USH 8/STH 73	0.15
CAT. 0040 TOTAL	0.15
CAT. 0050	
STH 35/STH 77	0.15
CAT. 0050 TOTAL	0.15
CAT. 0060	
USH 8/E 3RD ST	0.10
CAT. 0060 TOTAL	0.10
CAT. 0070	
USH 8/STH 35	0.15
CAT. 0070 TOTAL	0.15
PROJECT TOTAL	1.00

CONCRETE CURB & GUTTER AND RELATED ITEMS

STATION	- STATION		LOCATION	416.0610 DRILLED TIE BARS EACH	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R LF	601.0582 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T LF	SPV.0090.01 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED LF	SPV.0090.02 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A MODIFIED LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	SPV.0090.03 CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT LF	COMMENTS
CAT. 0010													
10+15	- 12+01	RT	USH 8/CTH SS	-	-	-	-	-	186	-	-	186	
136+31	- 136+50	RT	USH 8/CTH SS	-	-	-	-	42	-	-	-	42	ISLAND
	CAT. 0010 TOTALS			0	0	0	0	42	186	0	0	228	
CAT. 0020													
20+00	- 22+82	RT	USH 2/USH 63	-	-	-	-	-	280	-	280	280	SE QUAD
143+87	- 144+29	RT	USH 2/USH 63	-	-	-	-	71	-	-	-	71	ISLAND
	CAT. 0020 TOTALS			0	0	0	0	71	280	0	280	351	
CAT. 0030													
127+14	- 129+10	RT & LT	STH 27/77	-	-	-	-	196	-	-	-	196	SB
127+14	- 129+10	LT	STH 27/77	-	-	-	-	196	-	-	-	196	NB
129+10	- 129+48	LT	STH 27/77	17	-	-	39	-	-	-	-	39	SB
129+10	- 129+48	LT	STH 27/77	17	-	-	39	-	-	-	-	39	NB
130+89	- 131+27	RT	STH 77	17	-	-	38	-	-	-	-	38	SB
130+89	- 131+27	RT	STH 77	17	-	-	38	-	-	-	-	38	NB
131+27	- 133+05	RT	STH 77	-	-	-	-	178	-	-	-	178	SB
131+27	- 133+05	RT	STH 77	-	-	-	-	178	-	-	-	178	NB
295+87	- 297+13	RT	USH 63/STH 27	52	126	-	-	-	-	-	-	126	NB
295+88	- 297+14	RT	USH 63/STH 27	52	126	-	-	-	-	-	-	126	SB
297+13	- 300+66	RT	USH 63/STH 27	142	-	-	352	-	-	-	-	352	NB
297+14	- 300+66	RT	USH 63/STH 27	142	-	-	351	-	-	-	-	351	SB
129+37	- 129+58	RT	STH 27/77	16	-	37	-	-	-	-	-	37	SW QUAD
129+35	- 129+55	LT	STH 27/77	13	-	28	-	-	-	-	-	28	NW QUAD
130+71	- 131+08	RT	STH 77	21	-	49	-	-	-	-	-	49	SE QUAD
130+91	- 131+09	LT	STH 77	10	-	21	-	-	-	-	-	21	NE QUAD
	CAT. 0030 TOTALS			516	252	135	857	748	0	0	0	1992	
CAT. 0040													
997+87	- 998+05	RT	USH 8/STH 73	-	-	-	-	35	-	-	-	35	ISLAND
70+00	- 72+20	RT	USH 8/STH 73	-	-	-	-	-	216	-	-	216	SE QUAD
	CAT. 0040 TOTALS			0	0	0	0	35	216	0	0	251	
CAT. 0050													
8+21	- 9+49	LT	STH 35/STH 77	-	-	110	-	-	-	-	110	110	NW QUAD
8+29	- 9+41	LT	STH 35/STH 77	-	-	-	-	-	95	-	-	95	NW QUAD
80+09	- 82+19	RT	STH 35/STH 77	-	-	186	-	-	-	-	186	186	SW QUAD
80+09	- 80+94	RT	STH 35/STH 77	-	-	-	-	85	-	-	85	85	SW QUAD
80+94	- 82+14	RT	STH 35/STH 77	-	-	-	-	-	117	-	117	117	SW QUAD
80+90	- 81+24	LT	STH 35/STH 77	-	-	-	-	-	95	-	-	95	ISLAND
	CAT. 0050 TOTALS			0	0	296	0	85	212	0	498	593	
CAT. 0060													
356+62	- 356+98	LT	USH 8	49	-	-	-	-	-	120	-	120	
	CAT. 0060 TOTALS			49	0	0	0	0	0	120	0	120	
CAT. 0070													
10+00	- 11+04	RT	USH 8/STH 35	-	-	-	-	-	102	-	-	102	
20+00	- 21+16	LT	USH 8/STH 35	-	-	-	-	-	114	-	-	114	
	CAT. 0070 TOTALS			0	0	0	0	0	216	0	0	216	
	PROJECT TOTALS			565	252	431	857	981	1110	120	778	3751	

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CAT. 0010		
USH 8/CTH SS	1	1
CAT. 0010 TOTALS	1	1
CAT. 0020		
USH 2/USH 63	2	1
CAT. 0020 TOTALS	2	1
CAT. 0030		
USH 63/STH 27/STH 77	1	1
CAT. 0030 TOTALS	1	1
CAT. 0040		
USH 8/STH 73	2	1
CAT. 0040 TOTALS	2	1
CAT. 0050		
STH 35/STH 77	1	1
CAT. 0050 TOTALS	1	1
CAT. 0070		
USH 8/STH 35	2	1
CAT. 0070 TOTALS	2	1
PROJECT TOTALS	9	6

TEMPORARY DITCH CHECKS

STATION	LOCATION		628.7504 TEMPORARY DITCH CHECKS LF	COMMENT
CAT. 0020				
20+00	USH 2/USH 63	RT	10	S.W. RADIUS
-	USH 2/USH 63		10	UNDISTRIBUTED
CAT.0020 TOTAL			20	
CAT. 0040				
71+35	USH 8/STH 73	RT	10	
72+25	USH 8/STH 73	RT	10	
-	USH 8/STH 73	-	10	UNDISTRIBUTED
CAT.0040 TOTAL			30	
CAT. 0050				
83+00	STH 35/STH 77	LT	10	SW RADIUS
-	STH 35/STH 77	-	10	UNDISTRIBUTED
CAT.0050 TOTAL			20	
PROJECT TOTAL			70	

SILT FENCE ITEMS

STATION	- STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
CAT. 0020				
20+20	- 22+85	USH 2 & USH 63	215	215
CAT. 0020 TOTALS			215	215
CAT. 0040				
71+40	- 72+35	USH 8 & STH 37 RT	95	95
CAT. 0040 TOTALS			95	95
CAT. 0070				
10+00	- 11+04	USH 8 & STH 35	105	105
20+00	- 21+16	USH 8 & STH 35	113	113
CAT. 0070 TOTALS			218	218
PROJECT TOTALS			528	528

EROSION MAT

STATION	- STATION	LOCATION	628.2004 EROSION MAT CL I TYPE B SY
CAT. 0040			
70+05	- 71+35	USH 8 & STH 73 RT	85
CAT. 0040 TOTAL			85
PROJECT TOTAL			85

INLET PROTECTION

STATION	LOCATION		628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH
CAT. 0010					
USH 8 & CTH SS			-	-	1
CAT.0010 TOTALS			0	0	1
CAT. 0030					
296+75	USH 63/STH 27 7.9	RT	-	1	-
299+00	USH 63/STH 27 7.0	RT	1	1	-
CAT.0030 TOTALS			1	2	0
CAT. 0070					
20+42	USH 8 & STH 35 -	LT	-	-	1
20+71	USH 8 & STH 35 -	LT	-	-	1
20+79	USH 8 & STH 35 -	LT	-	-	1
CAT.0070 TOTALS			0	0	3
PROJECT TOTALS			1	2	4

CULVERT PIPE CHECKS AND ROCK BAGS

STATION	LOCATION	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	COMMENT
CAT. 0010				
135+30	USH 8 & CTH SS	-	3	IN C&G FLOWLINE
134+90	USH 8 & CTH SS	-	3	IN C&G FLOWLINE
CAT.0010 TOTALS		0	6	
CAT. 0040				
997+60	STH 73	3	-	15 x 30 CPRC-HE
CAT.0040 TOTALS		3	0	
CAT. 0050				
8+00	STH 77	-	3	IN C&G FLOWLINE
8+45	STH 77	-	3	IN C&G FLOWLINE
82+30	STH 35	-	3	IN C&G FLOWLINE
83+50	STH 35	3		
CAT.0050 TOTALS		3	9	
CAT. 0070				
9+75	USH 8 & STH 35	-	3	IN C&G FLOWLINE
CAT.0070 TOTALS		0	3	
PROJECT TOTALS		6	18	

SIGNING ITEMS

SIGN NO.	LOCATION	SIGN CODE	SIGN MESSAGE	SIGN SIZE W x H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0808 POSTS TUBULAR STEEL 2X2-INCH X 8-FT EACH	634.0810 POSTS TUBULAR STEEL 2X2-INCH X 10-FT EACH	634.0811 POSTS TUBULAR STEEL 2X2-INCH X 11-FT EACH	634.0812 POSTS TUBULAR STEEL 2X2-INCH X 12-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENT
CAT. 0010															
1-1	USH 8/CTH SS	R1-2	YIELD	48 X 42	7.00	-	-	-	-	-	1	-	1	1	
1-2	USH 8/CTH SS	W12-1D	Double Down Arrows	24 X 24	-	4.00	1	-	-	-	-	-	-	-	SEE SDD "DOUBLE ARROW WARNING SIGN PLACEMENT"
1-3	USH 8/CTH SS	J2-1	WEST CTH W	24 X 57	9.50	-	-	-	-	-	1	-			
1-4	USH 8/CTH SS	J2-1	NORTH CTH SS	24 X 57	9.50	-	-	-	-	-	1	-	1	2	
1-5	USH 8/CTH SS	J2-1	EAST USH 8	24 X 57	9.50	-	-	-	-	-	1	-			
1-6	USH 8/CTH SS	R8-8	DO NOT STOP ON TRACKS	24 X 30	5.00	-	-	1	-	-	-	-	-	-	
1-7	USH 8/CTH SS	R8-8	DO NOT STOP ON TRACKS	24 X 30	5.00	-	-	1	-	-	-	-	-	-	
			CAT. 0010 TOTALS		45.50	4.00	1	2	0	0	4	0	2	3	
CAT. 0020															
2-1	USH 2/USH 63	W12-1D	Double Down Arrows	24 X 24	-	4.00	1	-	-	-	-	-	1	1	SEE SDD "DOUBLE ARROW WARNING SIGN PLACEMENT"
2-2	USH 2/USH 63	R1-1	STOP	36 X 36	7.46	-	-	-	-	-	-	-	-	-	BAND SIGN TO TYPE 9 POLE
2-3	USH 2/USH 63	-	Keep Right Symbol	- X -	-	-	-	-	-	-	-	-	1	-	SIGN ON FLASHER POST, NOT TO BE REPLACED
2-4	USH 2/USH 63	R1-1	STOP	36 X 36	7.46	-	-	-	-	-	-	-	-	-	MOUNT ON MONOTUBE ARM
2-5	USH 2/USH 63	R1-2	STOP	36 X 36	7.46	-	-	1	-	-	-	-	1	-	EXISTING SIGN ON FLASHER POST
2-6	USH 2/USH 63	R5-1	DO NOT ENTER	30 X 30	6.25	-	-	1	-	-	-	-	1	1	
			CAT. 0020 TOTALS		28.63	4.00	1	2	0	0	0	0	4	2	
CAT. 0030															
3-1	USH 63/STH 27/77	R4-7	Keep Right Symbol	24 X 30	5.00	-	-	-	1	-	-	-	1	1	
3-2	USH 63/STH 27/77	W3-3	Traffic Signals Ahead	36 X 36	-	9.00	-	-	1	-	-	-	1	1	
3-3	USH 63/STH 27/77	R3-20-L	BEGIN LEFT TURN LANE	24 X 36	6.00	-	-	-	1	-	-	-	1	1	
3-4	USH 63/STH 27/77	R4-7	Keep Right Symbol	24 X 30	5.00	-	-	-	1	-	-	-	1	1	
3-5	USH 63/STH 27/77	R4-7	Keep Right Symbol	24 X 30	5.00	-	-	-	1	-	-	-	1	1	
3-6	USH 63/STH 27/77	R4-7	Keep Right Symbol	24 X 30	5.00	-	-	-	1	-	-	-	1	1	
3-7	USH 63/STH 27/77	R3-20-L	BEGIN LEFT TURN LANE	24 X 36	6.00	-	-	-	1	-	-	-	1	1	
3-8	USH 63/STH 27/77	R4-7	Keep Right Symbol	24 X 30	5.00	-	-	-	1	-	-	-	1	1	
			CAT. 0030 TOTALS		37.00	9.00	0	0	8	0	0	0	8	8	
CAT. 0040															
4-1	USH 8/STH 73	W12-1D	Double Down Arrows	24 X 24	-	4.00	1	-	-	-	-	-	1	1	SEE SDD "DOUBLE ARROW WARNING SIGN PLACEMENT"
4-2	USH 8/STH 73	R1-1	STOP	36 X 36	7.46	-	-	1	-	-	-	-	1	1	
4-3	USH 8/STH 73	-	Keep Right Symbol	- X -	-	-	-	-	-	-	-	-	1	1	SIGN NOT TO BE REPLACED
4-4	USH 8/STH 73	R1-1	STOP	36 X 36	7.46	-	-	1	-	-	-	-	1	1	
			CAT. 0040 TOTALS		14.92	4.00	1	2	0	0	0	0	4	4	
CAT. 0050															
5-1	STH 35/STH 77	J3-2	SOUTH 35 WEST 77	48 X 57	19.00	-	-	-	-	-	2	-	1	1	
5-2	STH 35/STH 77	R7-1-D	NO PARKING ANY TIME	18 X 24	3.00	-	-	1	-	-	-	-	-	-	EXISTING SIGN SHARES POST WITH 5-1
5-3	STH 35/STH 77	W12-1D	Double Down Arrows	24 X 24	-	4.00	1	-	-	-	-	-	1	1	SEE SDD "DOUBLE ARROW WARNING SIGN PLACEMENT"
5-4	STH 35/STH 77	R1-1	STOP	36 X 36	7.46	-	-	-	1	-	-	-	1	1	
5-5	STH 35/STH 77	-	Keep Right Symbol	- X -	-	-	-	-	-	-	-	-	1	1	SIGN NOT TO BE REPLACED
5-6	STH 35/STH 77	R1-1	STOP	36 X 36	7.46	-	-	-	1	-	-	-	1	1	
5-7	STH 35/STH 77	R5-1	DO NOT ENTER	30 X 30	6.25	-	-	-	1	-	-	-	1	1	
			CAT. 0050 TOTALS		43.17	4.00	1	1	3	0	2	0	6	6	
CAT. 0060															
6-1	USH 8/EAST 3RD ST	W11-2	Pedestrian Crossing symbol	30 X 30	-	6.25	-	-	-	1	-	-	-	-	
6-2	USH 8/EAST 3RD ST	W16-7R	Down Arrow Right	24 X 12	-	2.00	-	-	-	-	-	-	-	-	MOUNT SIGN W16-7R BELOW SIGN W11-2
6-3	USH 8/EAST 3RD ST	W12-1D	Double Down Arrows	24 X 24	-	4.00	1	-	-	-	-	-	1	1	SEE SDD "DOUBLE ARROW WARNING SIGN PLACEMENT"
6-5	USH 8/EAST 3RD ST	R5-1	DO NOT ENTER	30 X 30	6.25	-	-	-	1	-	-	-	1	1	
6-6	USH 8/EAST 3RD ST	R1-1	STOP	36 X 36	7.46	-	-	-	1	-	-	-	1	1	
6-7	USH 8/EAST 3RD ST	R1-2	YIELD	48 X 42	7.00	-	-	-	1	-	-	-	1	1	
			CAT. 0060 TOTALS		20.71	12.25	1	0	3	1	0	0	4	4	
CAT. 0070															
7-1	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R1-54 BELOW SIGN R1-2
7-2	USH 8/STH 35/208TH ST	J3-1	WEST 8 Arrow (Right)	24 X 57	9.50	-	-	-	-	1	-	-	1	2	EXISTING J-ASSEMBLY BOARD IS REMOVED AS 1 EACH
7-3	USH 8/STH 35/208TH ST	J3-1	SOUTH 35 Arrow (Right)	24 X 57	9.50	-	-	-	-	1	-	-			
7-4	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R1-54 BELOW SIGN R1-2
7-5	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R6-2R BELOW SIGN R1-2
7-6	USH 8/STH 35/208TH ST	-	208th St Arrow (Right)	- X -	-	-	2	-	-	-	-	1	-	2	
7-7	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R1-54 BELOW SIGN R1-2
7-8	USH 8/STH 35/208TH ST	J3-1	EAST 8 Arrow (Right)	24 X 57	9.50	-	-	-	-	1	-	-	1	2	EXISTING J-ASSEMBLY BOARD IS REMOVED AS 1 EACH
7-9	USH 8/STH 35/208TH ST	J3-1	NORTH 35 Arrow (Right)	24 X 57	9.50	-	-	-	-	1	-	-			
7-10	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R1-54 BELOW SIGN R1-2
7-11	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R1-54 BELOW SIGN R1-2
7-12	USH 8/STH 35/208TH ST	R1-2	YIELD	- X -	-	-	-	-	1	-	-	1	-	1	MOUNT SIGN R6-2R BELOW SIGN R1-2
7-13	USH 8/STH 35/208TH ST	-	208th St Arrow (Right)	- X -	-	-	2	-	-	-	-	1	-	2	
			CAT. 0070 TOTALS		38.00	0.00	4	0	7	4	0	9	2	15	
			PROJECT TOTALS		227.93	37.25	9	7	21	5	6	9	30	42	

PROJECT NO: 1000-08-88	HWY: VARIOUS	COUNTY: NW REGION WIDE	MISCELLANEOUS QUANTITIES	SHEET /	E

TRAFFIC CONTROL

LOCATION	643.0100 TRAFFIC CONTROL 01. 1000-08-88 EACH
CAT. 0010	
USH 8/CTH SS	0.15
CAT. 0010 TOTAL	0.15
CAT. 0020	
USH2/USH 63	0.15
CAT. 0020 TOTAL	0.15
CAT. 0030	
USH 63/STH 27/STH 77	0.15
CAT. 0030 TOTAL	0.15
CAT. 0040	
USH 8/STH 73	0.15
CAT. 0040 TOTAL	0.15
CAT. 0050	
STH 35/STH 77	0.15
CAT. 0050 TOTAL	0.15
CAT. 0060	
USH 8/E 3RD ST	0.10
CAT. 0060 TOTAL	0.10
CAT. 0070	
USH 8/STH 35	0.15
CAT. 0070 TOTAL	0.15
PROJECT TOTAL	1.00

TRAFFIC CONTROL DRUMS & WARNING LIGHTS TYPE C

LOCATION	NO. OF DRUMS WITHOUT LIGHTS	NO. OF DRUMS WITH LIGHTS	DAYS	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY
CAT. 0010					
USH 8 /CTH SS	20	0	21	420	0
CAT. 0010 TOTALS				420	0
CAT. 0020					
USH 2/USH 63	23	14	43	1591	602
CAT. 0020 TOTALS				1591	602
CAT. 0030					
USH 63/STH 27/77	178	10	44	8272	440
CAT. 0030 TOTALS				8272	440
CAT. 0040					
USH 8/STH 73	21	14	30	1050	420
CAT. 0040 TOTALS				1050	420
CAT. 0050					
STH 35/STH 77	18	10	37	1036	370
CAT. 0050 TOTALS				1036	370
CAT. 0060					
USH 8/E 3RD ST	13	0	11	143	0
CAT. 0060 TOTALS				143	0
CAT. 0070					
USH 8/5TH 35/208TH ST	85	35	16	1920	560
CAT. 0070 TOTALS				1920	560
PROJECT TOTALS				14432	2392

DELINEATORS ON TUBULAR STEEL POSTS

STATION	LOCATION	633.0500 DELINEATOR REFLECTORS (WHITE) EACH	634.0805 POSTS TUBULAR STEEL 2X2-INCH X 5-FT EACH	COMMENT
CAT. 0010				
	USH 8 & CTH SS	39	13	SE QUAD
	CAT.0010 TOTALS	39	13	
	PROJECT TOTALS	39	13	

TRAFFIC CONTROL ARROW BOARDS

LOCATION	NO. OF BOARDS	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY
CAT. 0070			
USH 8 & 5TH 35	2	16	32
	CAT. 0070 TOTAL		32
	PROJECT TOTAL		32

TRAFFIC CONTROL BARRICADES & WARNING LIGHTS TYPE A

LOCATION	NO. OF TYPE II	NO. OF TYPE III	DAYS	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY
CAT. 0020						
USH 2/USH 63	0	1	43	0	43	86
CAT. 0020 TOTALS				0	43	86
CAT. 0030						
USH 63/STH 27/77	6	3	44	264	132	528
CAT. 0030 TOTALS				264	132	528
CAT. 0040						
USH 8/STH 73	0	1	30	0	30	60
CAT. 0040 TOTALS				0	30	60
CAT. 0050						
STH 35/STH 77	2	1	37	74	37	148
CAT. 0050 TOTALS				74	37	148
CAT. 0060						
USH 8/E 3RD ST	3	0	11	33	0	33
CAT. 0060 TOTALS				33	0	33
CAT. 0070						
USH 8/STH 35/208TH ST	0	4	16	0	64	128
CAT. 0070 TOTALS				0	64	128
PROJECT TOTALS				371	306	983

TRAFFIC CONTROL SIGNS

STATION	LOCATION	NO. OF SIGNS	DAYS	643.0900 TRAFFIC CONTROL SIGNS DAY
CAT. 0010				
	USH 8/CTH SS	22	21	462
	CAT. 0010 TOTAL			462
CAT. 0020				
	USH 2/USH 63	14	43	602
	CAT. 0020 TOTAL			602
CAT. 0030				
	USH 63/ STH 27/77	28	44	1232
	CAT. 0030 TOTAL			1232
CAT. 0040				
	USH 8/STH 73	10	30	300
	CAT. 0040 TOTAL			300
CAT. 0050				
	STH 35/STH 77	15	37	555
	CAT. 0050 TOTAL			555
CAT. 0060				
	USH 8	16	11	176
	CAT. 0060 TOTAL			176
CAT. 0070				
	USH 8/STH 35	14	16	224
	CAT. 0070 TOTAL			224
	PROJECT TOTAL			3551

TEMPORARY PAVEMENT MARKING ITEMS

LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH LF	649.0506 TEMPORARY PAVEMENT MARKING REMOVABLE MASK-OUT TAPE 6-INCH LF	COMMENT
CAT. 0020			
USH 2/USH 63	660	-	YELLOW
USH 2/USH 63	-	660	BLACK OVER EDGELINE
USH 2/USH 63	550	-	WHITE EDGELINE
CAT. 0010 TOTALS	1210	660	
CAT. 0030			
USH 63/STH 27 NB	635	-	YELLOW
USH 63/STH 27 SB	510	-	YELLOW
STH 77 WB	260	-	YELLOW
STH 77/27 WB	250	-	YELLOW
STH 77/27 EB	255	-	YELLOW
CAT. 0030 TOTALS	1910	0	
CAT. 0040			
USH 8/STH 73	600	-	WHITE EDGELINE ON NEW SHLD
USH 8/STH 73	660	-	YELLOW
USH 8/STH 73	-	600	BLACK OVER EDGELINE
CAT. 0040 TOTALS	1260	600	
CAT. 0050			
STH 35/STH 77	250	-	YELLOW
STH 35/STH 77	250	-	WHITE
STH 35/STH 77	-	100	BLACK OVER EDGELINE
CAT. 0050 TOTALS	500	100	
CAT. 0070			
USH 8/STH 35	660		SW QUAD - WHITE
USH 8/STH 35	-	325	SW QUAD - INCLUDING FOR ARROWS
USH 8/STH 35	1000		NE QUAD - WHITE
USH 8/STH 35	-	325	NE QUAD - INCLUDING FOR ARROWS
CAT. 0070 TOTALS	1660	650	
PROJECT TOTALS	6540	2010	

PAVEMENT MARKING ITEMS

LOCATION		646.0600 REMOVING PAVEMENT MARKING LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH LF	647.0456 PAVEMENT MARKING CURB EPOXY LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH LF	647.0796 PAVEMENT MARKING CROSSWALK EPOXY 24-INCH LF
CAT 0010									
USH 8/CTH SS		-	-	30	-	16	-	-	-
	CAT. 0010 TOTALS	0	0	30	0	16	0	0	0
CAT 0020									
USH 2/USH 63		68	-	72	-	33	-	-	-
	CAT. 0020 TOTALS	68	0	72	0	33	0	0	0
CAT 0030									
USH 63/ STH 27		1583	13	-	35	50	1	-	150
STH 77		1320	9	-	10	39	1	-	102
STH 77/27		1356	9	-	10	44	1	-	114
	CAT. 0030 TOTALS	4259	31	0	55	133	3	0	366
CAT 0040									
USH 8/STH 73		-	-	105	-	33	-	-	-
	CAT. 0040 TOTALS	0	0	105	0	33	0	0	0
CAT 0050									
STH 35/STH 77		-	27	95	-	28	-	-	132
	CAT. 0050 TOTALS	0	27	95	0	28	0	0	132
CAT 0060									
USH 8/EAST 3RD ST		548	51	-	-	14	-	98	114
	CAT. 0060 TOTALS	548	51	0	0	14	0	98	114
	PROJECT TOTALS	4875	109	302	55	257	3	98	612

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

LOCATION	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 01. 1000-08-88 LS
CAT. 0010	
USH 8/CTH SS	0.15
CAT. 0010 TOTAL	0.15
CAT. 0020	
USH2/USH 63	0.15
CAT. 0020 TOTAL	0.15
CAT. 0030	
USH 63/STH 27/STH 77	0.15
CAT. 0030 TOTAL	0.15
CAT. 0040	
USH 8/STH 73	0.15
CAT. 0040 TOTAL	0.15
CAT. 0050	
STH 35/STH 77	0.15
CAT. 0050 TOTAL	0.15
CAT. 0060	
USH 8/E 3RD ST	0.10
CAT. 0060 TOTAL	0.10
CAT. 0070	
USH 8/STH 35	0.15
CAT. 0070 TOTAL	0.15
PROJECT TOTAL	1.00

CONSTRUCTION STAKING ITEMS

STATION	-	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	SPV.0090.04 CONSTRUCTION STAKING SELECT CRUSHED MATERIAL LF
CAT. 0010							
10+15	-	12+01	USH 8 & CTH SS	186	186	-	-
			CAT. 0010 TOTALS	186	186	0	0
CAT. 0020							
20+00	-	22+17	USH 2 & USH 63	217	217	217	-
			CAT. 0020 TOTALS	217	217	217	0
CAT. 0040							
70+00	-	73+72	USH 8 & STH 73	372	372	372	-
72+80	-	76+80	USH 8	400	400	400	-
997+67	-	997+73	STH 73	6	6	-	-
			CAT. 0040 TOTALS	778	778	772	0
CAT. 0050							
8+21	-	9+49	STH 35 & STH 77	128	128	128	-
80+09	-	82+19	STH 35 & STH 77	210	210	210	-
			CAT. 0050 TOTALS	338	338	338	0
CAT. 0070							
10+00	-	11+04	USH 8 & STH 35	104	104	104	84
20+00	-	21+16	USH 8 & STH 35	116	116	116	96
			CAT. 0070 TOTALS	220	220	220	180
			PROJECT TOTALS	1739	1739	1547	180

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS

LOCATION	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 02. 1000-08-88 LS	651.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 03. 1000-08-89 LS
CAT. 0020		
USH 2 & USH 63	1	-
CAT. 0020 TOTAL	1	-
CAT. 0030		
USH 63/ STH 27/STH 77	-	1
CAT. 0030 TOTAL	-	1
PROJECT TOTAL	1	1

CONCRETE CRACK MITIGATION AND REPAIR SPECIAL

	LOCATION	LS
CAT. 0010 - Item No. SPV.0105.01	USH 8/CTH SS	1
CAT. 0020 - Item No. SPV.0105.02	USH 2/USH 63	1
CAT. 0030 - Item No. SPV.0105.03	USH 63/STH 77/STH 27	1
CAT. 0040 - Item No. SPV.0105.04	USH 8/STH 73	1
CAT. 0050 - Item No. SPV.0105.05	STH 35/STH 77	1
CAT. 0060 - Item No. SPV.0105.06	USH 8/EAST 3RD ST.	1
CAT. 0070 - Item No. SPV.0105.07	USH 8/STH 35/208TH ST.	1

CONCRETE APRON AND CONCRETE ISLAND JOINT LAYOUT

	LOCATION	LS
CAT. 0010 - Item No. SPV.0105.08	USH 8/CTH SS	1
CAT. 0020 - Item No. SPV.0105.09	USH 2/USH 63	1
CAT. 0030 - Item No. SPV.0105.10	USH 63/STH 77/STH 27	1
CAT. 0040 - Item No. SPV.0105.11	USH 8/STH 73	1
CAT. 0050 - Item No. SPV.0105.12	STH 35/STH 77	1
CAT. 0060 - Item No. SPV.0105.13	USH 8/EAST 3RD ST.	1
CAT. 0070 - Item No. SPV.0105.14	USH 8/STH 35/208TH ST.	1

PULL BOXES

STATION			LOCATION	PULL BOX NUMBER	653.0135 PULL BOXES STEEL 24 X 36 INCH EACH	653.0140 PULL BOXES STEEL 24 X 42 INCH EACH	653.0900 ADJUSTING PULL BOXES EACH	653.0905 REMOVING PULL BOXES EACH
CAT. 0010								
11+02.8	5.5'	RT	USH 8 & CTH SS	-	-	-	1	-
11+03.9	23.1'	LT	USH 8 & CTH SS	-	-	-	1	-
CAT. 0010 TOTAL					-	-	2	-
CAT. 0020								
143+75.6	64.3	LT	USH 2/63	LPB1	-	1	-	-
144+10.1	20.3	RT	USH 2/63	LPB1	-	1	-	-
144+16.5	21.7	RT	USH2/63	LPBX	-	-	-	1
CAT. 0020 TOTAL					-	2	-	1
CAT. 0030								
300+44.6	15.4	RT	USH 63/STH 27/77	PB3	-	-	1	-
301+09.3	84.8	RT	USH 63/STH 27/77	PB5	-	-	1	-
301+17.4	54	LT	USH 63/STH 27/77	PB6	-	-	1	-
301+08.0	115.9	RT	USH 63/STH 27/77	PB10	1	-	-	-
301+15.4	83.1	LT	USH 63/STH 27/77	PB11	1	-	-	-
CAT. 0030 TOTAL					2	-	3	-
PROJECT TOTAL					2	2	5	1

SAWING ITEMS

STATION		STATION	LOCATION		690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
CAT. 0010							
10+15	-	12+01	USH 8 & CTH SS		178	191	SE RADIUS
136+31	-	136+51	USH 8 & CTH SS		-	69	ISLAND
			USH 8 & CTH SS		35	-	DELINEATOR BOX-OUTS
CAT. 0010 TOTALS					213	260	
CAT. 0020							
143+87	-	144+29	USH 2 & USH 63		102	-	ISLAND
20+00	-	22+82	USH 2 & USH 63		284	-	RADIUS
CAT. 0020 TOTALS					386	0	
CAT. 0030							
127+07	-	129+55	STH 27/77		412	101	ISLAND
130+82	-	133+12	STH 77		380	100	ISLAND
295+87	-	300+69	USH 63/ STH 27		-	975	ISLAND
129+37	-	129+58	STH 27/77		-	59	SW QUAD SIDEWALK / C&G
129+35	-	129+55	STH 27/77		-	50	NW QUAD SIDEWALK / C&G
130+71	-	131+08	STH 77		-	70	SE QUAD SIDEWALK / C&G
130+91	-	131+09	STH 77		-	37	NE QUAD SIDEWALK / C&G
CAT. 0030 TOTALS					792	1392	
CAT. 0040							
997+59	-	997+86	STH 73		140	-	CULVERT REPLACEMENT
997+80	-	998+05	USH 8 & STH 73	RT	74	-	ISLAND
70+00	-	71+56	USH 8 & STH 73	-	156	-	RADIUS
CAT. 0040 TOTALS					370	0	
CAT. 0050							
8+21	-	9+49	STH 35 & STH 77	RT	132	8	NW RADIUS
8+21	-	8+83	STH 35 & STH 77	LT	54	-	NW RADIUS PARKING LOT
9+39	-	9+49	STH 35 & STH 77	LT	-	12	NW RADIUS ENTR APRON
80+83	-	81+24	STH 35 & STH 77	LT	127	-	ISLAND
80+09	-	82+19	STH 35 & STH 77	LT	214	5	SW RADIUS
CAT. 0050 TOTALS					527	25	
CAT. 0060							
356+58	-	357+00	USH 8	LT	-	139	ISLAND
CAT. 0060 TOTALS					0	139	
CAT. 0070							
10+00	-	11+04	USH 8 & STH 35	-	-	5	SW QUAD CURB & GUTTER
20+00	-	21+16	USH 8 & STH 35	-	-	5	NE QUAD - CURB & GUTTER
UNDISTRIBUTED			USH 8 & STH 35	-	-	60	SIGN BOX OUTS
CAT. 0070 TOTALS					0	70	
PROJECT TOTALS					2288	1886	

GEOGRID

STATION		STATION	LOCATION	SPV.0180.02 GEOGRID SY
CAT. 0070				
10+10	-	10+94	USH 8 & STH 35	43
20+10	-	21+06	USH 8 & STH 35	65
CAT. 0070 TOTAL				108
PROJECT TOTAL				108

INSTALL CONDUIT INTO EXISTING ITEM

STRUCTURE NUMBER	LOCATION	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
CAT. 0030		
PB2	USH 63/STH 27/77	1
PB4	USH 63/STH 27/77	1
PB7	USH 63/STH 27/77	1
PB8	USH 63/STH 27/77	1
PB9	USH 63/STH 27/77	1
CAT. 0030 TOTAL		5
PROJECT TOTAL		5

CONCRETE BASES - SIGNALS

BASE NUMBER	STATION		LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH
CAT. 0030					
SB2	301+85.3	21.2' RT	USH 63/STH 27/77	-	1
SB3	301+78.0	49.7' LT	USH 63/STH 27/77	1	-
SB7	300+56.9	14.2' RT	USH 63/STH 27/77	-	1
SB8	300+45.6	82.0' RT	USH 63/STH 27/77	1	-
SB10	300+39.4	47.3' LT	USH 63/STH 27/77	1	-
SB11	301+64.9	89.0' RT	USH 63/STH 27/77	1	-
SB12	301+84.7	104.9' RT	USH 63/STH 27/77	1	-
CAT. 0030 TOTALS				5	2
PROJECT TOTALS				5	2

CONDUIT - SIGNALS

FROM	TO	LOCATION	652.0225** CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
CAT. 0030			
PB8	SB2	USH 63/STH 27/77	7
PB7	SB3	USH 63/STH 27/77	14
PB3	SB7	USH 63/STH 27/77	12
PB4	SB8	USH 63/STH 27/77	8
PB2	SB10	USH 63/STH 27/77	2
PB9	SB11	USH 63/STH 27/77	5
PB9	SB12	USH 63/STH 27/77	29
PB5	PB10	USH 63/STH 27/77	31
PB6	PB11	USH 63/STH 27/77	29
CAT. 0030 TOTAL			
TOTAL			137

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES - SIGNALS

STATION	LOCATION	BASE NUMBER	654.0110 CONCRETE BASES TYPE 10 EACH
CAT. 0020			
144+20.0	21.4 RT USH 2/63	SB1	1
CAT. 0020 TOTAL			1
PROJECT TOTAL			1

LOOP DETECTOR SCHEDULE

LOOP NUMBER	HOME RUN PB	STATION	LOCATION		SIZE (FT)X(FT)	NO. OF TURNS	PAVEMENT TYPE	5DD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	652.0900 LOOP DETECTOR SLOTS LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
CAT. 0030												
32	PB10	301+18.0	116.2' RT	USH 63/STH 27/77	6X20	3	CONC./ASPH.	SDD 09F12-04,09F13-04-LOOP DECTECTOR INSTALLED IN EX. CONC./ASPH.	72	72	139	226
42	PB11	300+93.2	81.6' LT	USH 63/STH 27/77	6X20	3	CONC./ASPH.	SDD 09F12-04,09F13-04-LOOP DECTECTOR INSTALLED IN EX. CONC./ASPH.	96	96	287	298
72	PB11	301+05.2	82.2' LT	USH 63/STH 27/77	6X20	3	CONC./ASPH.	SDD 09F12-04,09F13-04-LOOP DECTECTOR INSTALLED IN EX. CONC./ASPH.	72	72	287	226
82	PB10	301+30.2	116.2' RT	USH 63/STH 27/77	6X20	3	CONC./ASPH.	SDD 09F12-04,09F13-04-LOOP DECTECTOR INSTALLED IN EX. CONC./ASPH.	96	96	139	298
CAT. 0030 TOTALS												
PROJECT TOTALS									336	336	852	1048

LIGHTING CONTROL CABINET

STATION	LOCATION			DESCRIPTION	204.9060.S.02 REMOVING LIGHTING CONTROL CABINET EACH	654.0224 CONCRETE CONTROL CABINET BASES TYPE L24 EACH	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. USH 2/USH 63 LS	659.2124 LIGHTING CONTROL CABINETS 120/240 24-INCH EACH
CAT. 0020								
143+73.0	69.6	LT	USH 63	LCC-X	1	-	-	-
143+64.1	92.0	LT	USH 63	LCC-A	-	1	1	1
CAT. 0020 TOTALS					1	1	1	1
PROJECT TOTALS					1	1	1	1

POLES AND MONOTUBE ARMS

STATION	LOCATION			SIGNAL BASE NUMBER	657.1345 INSTALL POLES TYPE 9 EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH
CAT. 0020						
144+20.0	21.4	RT	USH 2/63	SB1	1	1
CAT.0020 TOTALS					1	1
PROJECT TOTALS					1	1

TRAFFIC SIGNAL CABLE NO. 14 (ABOVE GROUND)

FROM	TO	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF
CAT. 0020			
SB1	HEAD 1	USH 2/63	15
SB1	HEAD 2	USH 2/63	34
SB1	HEAD 3	USH 2/63	43
CAT. 0020 TOTAL			92
PROJECT TOTAL			92

TRAFFIC SIGNAL AND PEDESTRIAN FACES, AND BACKPLATES

SIGNAL HEAD NUMBER	SIGNAL BASE NUMBER	LOCATION	658.0103 TRAFFIC SIGNAL FACE 1-12 INCH VERTICAL EACH	658.0210 BACKPLATES SIGNAL FACE 1 SECTION 12-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH
CAT. 0020					
1	SB1	USH 2/63	1	1	1
2	SB1	USH 2/63	1	1	1
3	SB1	USH 2/63	1	1	1
CAT. 0020 TOTALS			3	3	3
PROJECT TOTALS			3	3	3

LIGHTING ELECTRICAL WIRE AND CONDUIT ITEMS

STA. FROM	STA. TO	LOCATION	204.9090.S.01 REMOVING CABLES LF	652.0225** CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF
CAT. 0020								
X-1	LCC-X	USH 2/63	44	-	-	-	-	-
X-2	LCC-X	USH 2/63	128	-	-	-	-	-
X-3	LPB X	USH 2/63	38	-	-	-	-	-
LPB X	LCC-X	USH 2/63	110	-	-	-	-	-
A-4	A-3	USH 2/63	-	110	-	156	120	240
A-3	LPB-2	USH 2/63	-	77	-	156	87	174
FLASHER	LPB-2	USH 2/63	-	10	-	-	60	-
LPB-2	LPB-1	USH 2/63	-	-	115	-	500	250
A-1	LPB-1	USH 2/63	-	44	-	156	54	108
A-2	LPB-1	USH 2/63	-	72	-	156	82	164
LPB-1	LCC-A	USH 2/63	-	-	30	-	120	120
CAT. 0020 TOTALS			320	313	145	624	1,023	1,056
PROJECT TOTALS			320	313	145	624	1,023	1,056

**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SIGNAL MOUNTING HARDWARE - USH 2/USH 63

LOCATION	658.5069.01 SIGNAL MOUNTING HARDWARE LS
CAT. 0020	
USH 2 & USH 63	1
CAT. 0020 TOTAL	1
PROJECT TOTAL	1

LIGHTING UNIT ITEMS

STATION		LOCATION	LIGHTING UNIT NO.	204.0195** REMOVING CONCRETE BASES EACH	204.9060.03 REMOVING LIGHTING UNIT EACH	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5-ALUMINUM EACH	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	659.1120 LUMINAIRES UTILITY LED B EACH
CAT. 0020										
143+73.0	69.6	LT USH 2/63	LCC-X	1	-	-	-	-	-	-
144+07.7	64.8	LT USH 2/63	X-1	1	1	-	-	-	-	-
143+25.0	27.4	LT USH 2/63	X-2	1	1	-	-	-	-	-
143+96.0	46.3	RT USH 2/63	X-3	1	1	-	-	-	-	-
144+07.7	64.8	LT USH 2/63	A-1	-	-	1	1	1	1	1
143+25.0	27.4	LT USH 2/63	A-2	-	-	1	1	1	1	1
21+59.8	39.7	RT USH 2/63	A-3	-	-	1	1	1	1	1
22+68.9	14.1	RT USH 2/63	A-4	-	-	1	1	1	1	1
CAT. 0020 TOTAL				4	3	4	4	4	4	4
PROJECT TOTAL				4	3	4	4	4	4	4

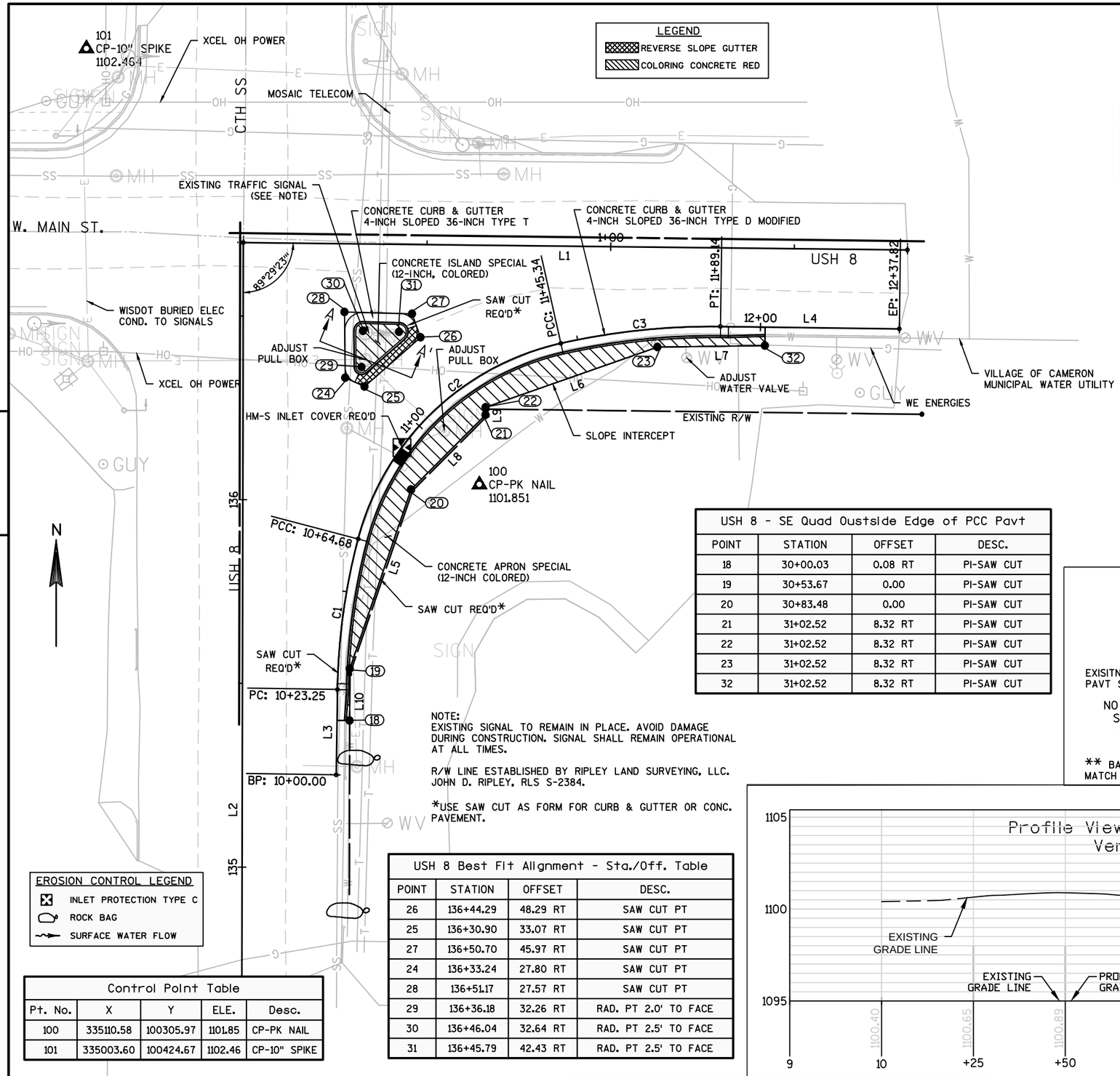
**ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SALVAGE ABOVE GROUND TRAFFIC SIGNAL EQUIPMENT

LOCATION	SPV.0105.15 SALVAGE ABOVE GROUND TRAFFIC SIGNAL EQUIPMENT LS
CAT. 0020	
USH 2 & USH 63	1
CAT. 0020 TOTAL	
PROJECT TOTAL	1

TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS

LOCATION	SPV.0105.16 TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS LS
CAT. 0020	
USH 2 & USH 63	1
CAT. 0020 TOTAL	1
PROJECT TOTAL	1



NOTE:
EXISTING SIGNAL TO REMAIN IN PLACE. AVOID DAMAGE DURING CONSTRUCTION. SIGNAL SHALL REMAIN OPERATIONAL AT ALL TIMES.

R/W LINE ESTABLISHED BY RIPLEY LAND SURVEYING, LLC. JOHN D. RIPLEY, RLS S-2384.

*USE SAW CUT AS FORM FOR CURB & GUTTER OR CONC. PAVEMENT.

EROSION CONTROL LEGEND
- INLET PROTECTION TYPE C
- ROCK BAG
- SURFACE WATER FLOW

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
100	335110.58	100305.97	1101.85	CP-PK NAIL
101	335003.60	100424.67	1102.46	CP-10" SPIKE

USH 8 Best Fit Alignment - Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
26	136+44.29	48.29 RT	SAW CUT PT
25	136+30.90	33.07 RT	SAW CUT PT
27	136+50.70	45.97 RT	SAW CUT PT
24	136+33.24	27.80 RT	SAW CUT PT
28	136+51.17	27.57 RT	SAW CUT PT
29	136+36.18	32.26 RT	RAD. PT 2.0' TO FACE
30	136+46.04	32.64 RT	RAD. PT 2.5' TO FACE
31	136+45.79	42.43 RT	RAD. PT 2.5' TO FACE

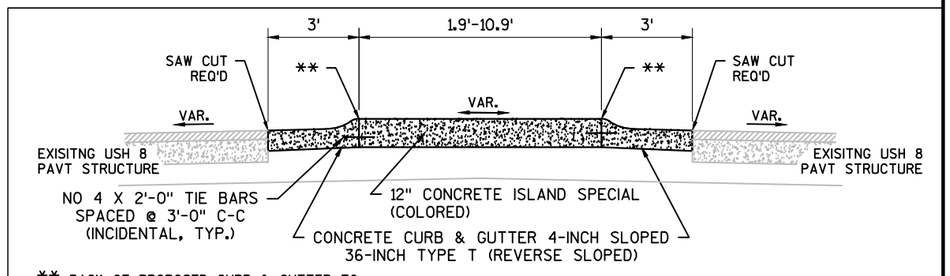
USH 8 - SE Quad Oustside Edge of PCC Pavt			
POINT	STATION	OFFSET	DESC.
18	30+00.03	0.08 RT	PI-SAW CUT
19	30+53.67	0.00	PI-SAW CUT
20	30+83.48	0.00	PI-SAW CUT
21	31+02.52	8.32 RT	PI-SAW CUT
22	31+02.52	8.32 RT	PI-SAW CUT
23	31+02.52	8.32 RT	PI-SAW CUT
32	31+02.52	8.32 RT	PI-SAW CUT

USH 8 (S 1st St.) - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L2	134+67.97	136+70.00	202.03		N00°07'18"E	335045.90	100169.80	335046.33	100371.83

USH 8 (E Main St) - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L1	0+00.00	1+80.81	180.81		S89°22'05"E	335046.33	100371.83	335227.13	100369.84

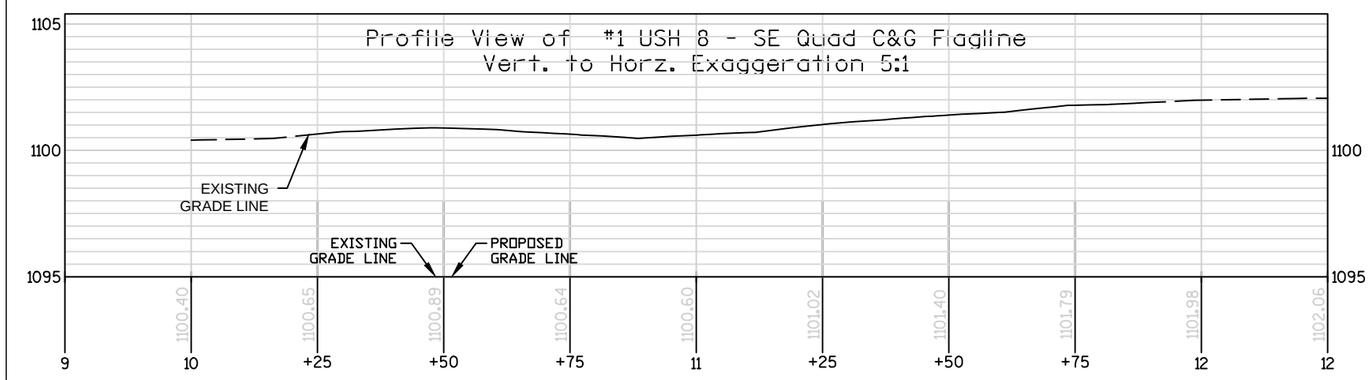
USH 2 - SE Quad Inside Edge of Pavement (Gutter Flag Line)									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L3	10+00.00	10+23.25			N00°53'25"E	335071.62	100226.92	335071.98	100250.17
C1	10+23.25	10+64.68	41.43	171.60	N07°48'27"E	335071.98	100250.17	335077.59	100291.12
C2	10+64.68	11+45.34	80.65	73.87	N46°00'16"E	335077.59	100291.12	335132.77	100344.40
C3	11+45.34	11+89.14	43.80	186.51	N84°00'43"E	335132.77	100344.40	335176.23	100348.96
L4	11+89.14	12+37.82			S89°15'38"E	335176.23	100348.96	335224.91	100348.33

USH 8 - SE Quad Oustside Edge of PCC Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L10	30+00.00	30+14.12			N00°03'17"E	335075.28	100241.72	335075.29	100255.84
L5	30+14.12	30+65.63			N18°53'59"E	335075.29	100255.84	335091.98	100304.57
L8	30+65.63	30+94.38			N44°56'02"E	335091.98	100304.57	335112.28	100324.92
L9	30+94.38	30+96.46			N00°15'27"W	335112.28	100324.92	335112.27	100327.01
L6	30+96.46	31+46.01			N70°42'44"E	335112.27	100327.01	335159.04	100343.37
L7	31+46.01	31+75.27			N89°09'19"E	335159.04	100343.37	335188.30	100343.80



** BACK OF PROPOSED CURB & GUTTER TO MATCH EXISTING BACK OF CURB LOCATION

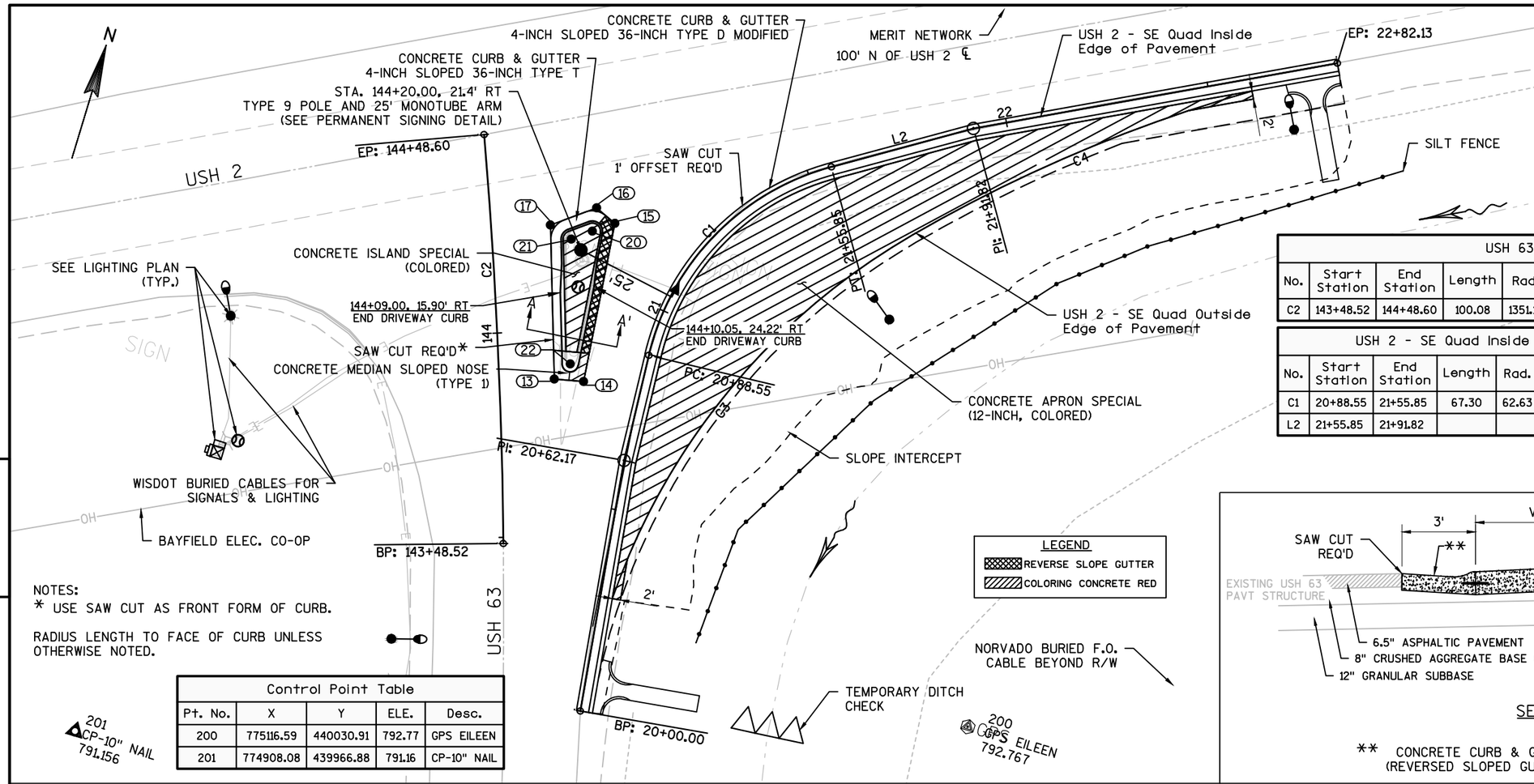
SECTION A-A'



PROJECT NO: 1000-08-88 | HWY: USH 8 | COUNTY: BARRON | PLAN: LOCATION #1 - VILLAGE OF CAMERON | SHEET 79 | E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\050201_PN-CAMERON_USH8.DWG
LAYOUT NAME - PLAN 1 IN 30 FT
PLOT DATE : 1/30/2016 8:41 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44



NOTES:
* USE SAW CUT AS FRONT FORM OF CURB.

RADIUS LENGTH TO FACE OF CURB UNLESS OTHERWISE NOTED.

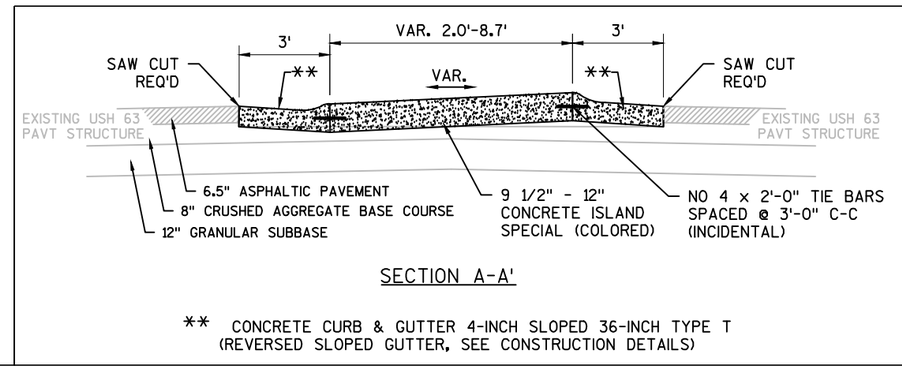
Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
200	775116.59	440030.91	792.77	GPS EILEEN
201	774908.08	439966.88	791.16	CP-10" NAIL

LEGEND
REVERSE SLOPE GUTTER
COLORING CONCRETE RED

USH 63 Best Fit Alignment - Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
13	143+88.21	13.446	SAW CUT PT.
21	144+21.74	19.344	2.5' RAD. PT.
14	143+87.33	20.551	SAW CUT PT.
22	143+91.68	17.500	1.5' RAD. PT.
15	144+24.80	30.235	SAW CUT PT.
16	144+28.81	26.044	SAW CUT PT.
17	144+25.47	14.492	SAW CUT PT.
20	144+23.29	24.647	2.5' RAD. PT.

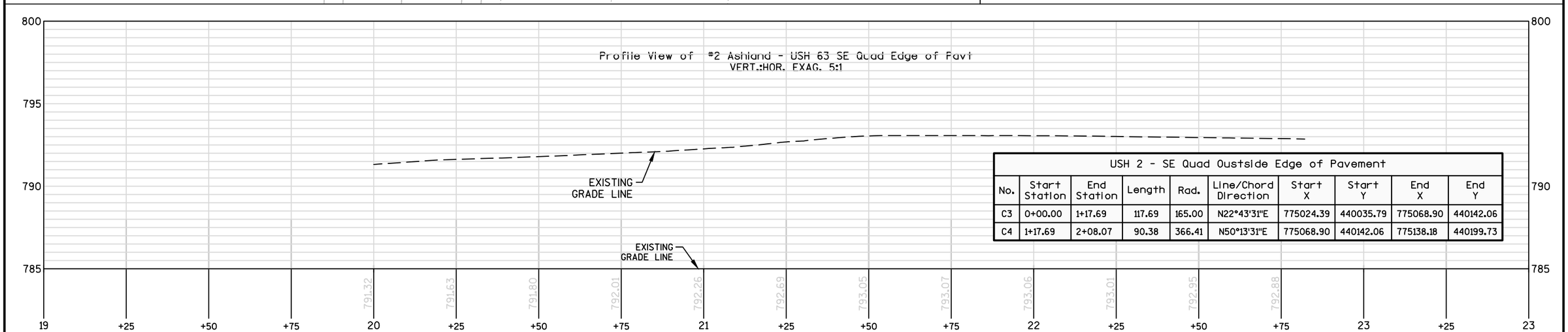
USH 63 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
C2	143+48.52	144+48.60	100.08	1351.10	N19°29'38"W	774995.02	440041.02	774961.63	440135.34

USH 2 - SE Quad Inside Edge of Pavement (Gutter Flag Line)									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
C1	20+88.55	21+55.85	67.30	62.63	N27°16'04"E	775015.78	440095.31	775045.15	440152.29
L2	21+55.85	21+91.82			N58°03'07"E	775045.15	440152.29	775075.67	440171.32



SECTION A-A'

** CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T
(REVERSED SLOPED GUTTER, SEE CONSTRUCTION DETAILS)



USH 2 - SE Quad Oustside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
C3	0+00.00	1+17.69	117.69	165.00	N22°43'31"E	775024.39	440035.79	775068.90	440142.06
C4	1+17.69	2+08.07	90.38	366.41	N50°13'31"E	775068.90	440142.06	775138.18	440199.73

PROJECT NO: 1000-08-88	HWY: USH 2 & USH 63	COUNTY: BAYFIELD	PLAN AND PROFILE: LOCATION #2 - TOWN OF KEYSTONE	SHEET 80	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\050202_PN-ASHLAND_USH_2&63.DWG
LAYOUT NAME - #2_ASHLAND_PP-1
PLOT DATE : 1/30/2016 8:30 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : **********
WISDOT/CADDS SHEET 44

USH 63/STH 27 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L3	280+42.39	280+49.86	7.46		N48° 53' 12.00"E	618229.56	438153.59	618235.18	438158.49
L4	280+49.86	292+58.74	1208.89		N48° 23' 00.18"E	618235.18	438158.49	619138.95	438961.37
C = 1	292+58.74	295+27.43	268.68	2810.00	N45° 38' 38.98"E	619138.95	438961.37	619330.99	439149.14
L1	295+27.43	301+23.40	595.97		N42° 54' 17.77"E	619330.99	439149.14	619736.72	439585.68
C = 2	301+23.40	306+62.78	539.38	3976.00	N46° 47' 28.64"E	619736.72	439585.68	620129.55	439954.69
L2	306+62.78	314+97.76	834.98		N50° 40' 39.50"E	620129.55	439954.69	620775.49	440483.80

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
600	619736.59	439704.70	1203.15	CP 10" SPIKE
601	619769.22	439455.65	1202.70	CP 10" SPIKE
602	619639.29	439585.35	1202.96	CP 10" SPIKE

EROSION CONTROL LEGEND
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- SURFACE WATER FLOW

NOTE:

*USE SAW CUT AS FRONT FORM OF CONCRETE CURB AND GUTTER

N

602 CP 10 1202.959

601 CP 10 1202.695

CURB RAMP-SEE DETAIL DETECTABLE WARNING FIELD YELLOW REQ'D (TYP.)

STA. 299+25.0 - 300+62.1 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R (DRIVEWAY CURB)

ADJUST PULL BOX

CONCRETE MEDIAN SLOPED NOSE TYPE 2

CURB RAMP TYPE 5 DETECTABLE WARNING FIELD YELLOW REQ'D

CONCRETE ISLAND SPECIAL (COLORED)

STA. 299+72.84, 8.96' RT ELEV. = 1203.32 BEGIN FL TO INLET @ -0.63 %

CONCRETE CURB & GUTTER 30-INCH TYPE A

STA. 299+02.76, 7.37' RT ADJUST INLET COVER TO APPROX. ELEV. 1202.88

SAW CONCRETE REQ'D*

CONCRETE SIDEWALK 4-INCH

CENTURYLINK

CITY OF HAYWARD

USH 63/STH 27

STA. 297+14.4 - 299+25.0 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R

STA. 298+82.78, 6.82' RT ELEV. = 1202.98 BEGIN FL TO INLET @ -0.50 %

CONCRETE CURB & GUTTER 18-INCH TYPE A

PC: 301+23.40

EP: 130+00.00

BP: 130+00.00

XCEL ENERGY

CITY OF HAYWARD

USH 63

NORVADO

STH 77

WE ENERGIES

USH 63/STH 27 Best Fit Alignment - Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
8	297+14.40	0.07 LT	BEGIN C&G TYPE R
9	297+13.52	17.72 RT	BEGIN C&G TYPE R
33	295+87.94	0.09 LT	BEGIN C&G REPLACEMENT
10	298+44.86	12.15 RT	TAPER POINT
11	299+73.04	0.04 LT	TAPER POINT
12	300+69.04	10.35 RT	END TAPER
13	300+68.48	22.46 RT	END TAPER
14	300+64.24	14.46 RT	RAD. PT 2.5' TO FACE
15	300+45.30	64.70 LT	RAD. PT 84.0' TO FACE
34	295+87.37	11.59 RT	BEGIN C&G REPLACEMENT

PROJECT NO: 1000-08-88	HWY: USH 63/STH 27/77	COUNTY: SAWYER	PLAN: LOCATION #3 - CITY OF HAYWARD	SHEET 81	E

STH 27/77 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L5	124+00.00	130+00.00	600.00		S50° 14' 47.00"E	619264.82	439957.94	619726.10	439574.25

STH 77 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L6	130+00.00	136+00.00	600.00		S47° 04' 14.70"E	619730.32	439578.79	620169.63	439170.14

NOTE:

*USE SAW CUT AS FRONT FORM OF CONCRETE CURB AND GUTTER

CITY OF HAYWARD

USH 63

STH 77

STH 27/77

NORVADO

WE ENERGIES

XCEL ENERGY

CENTURYLINK

CITY OF HAYWARD

BP: 130+00.00

PC: 301+23.40

EP: 130+00.00

STA. 130+89.0 - 131+27.0
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE R
(DRIVEWAY CURB)

STA. 131+90 - 131+04.7
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T

STA. 131+27.0 - 131+90
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T
(DRIVEWAY CURB)

STA. 128+25 - 129+48.1
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE R
(DRIVEWAY CURB)

STA. 127+14.2 - 128+25
CONCRETE CURB & GUTTER
4-INCH SLOPED 36-INCH TYPE T

CONCRETE ISLAND SPECIAL (COLORED)

CONCRETE SIDEWALK 4-INCH

CONCRETE CURB & GUTTER 30-INCH TYPE A

CONCRETE MEDIAN SLOPED NOSE TYPE 2

ADJUST PULL BOX

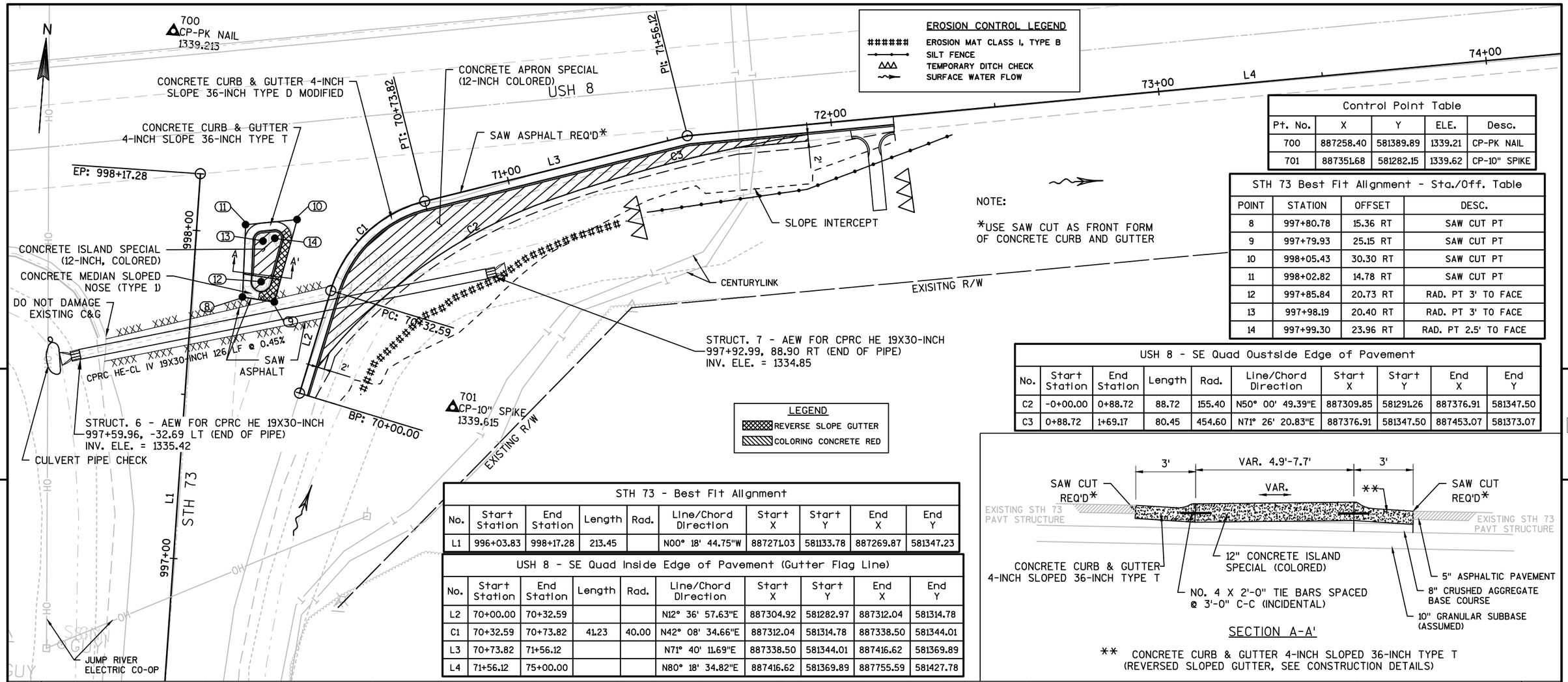
SAW CONCRETE REQ'D*

SAW ASPHALT REQ'D*

CURB RAMP-SEE DETAIL DETECTABLE WARNING FIELD YELLOW REQ'D (TYP.

USH STH 27/77 Best Fit Alignment - Sta./Off. Table					
POINT	STATION	OFFSET	STATION	OFFSET	DESC.
16	127+07.26	4.97 RT	0+00.00	0.00	BEGIN TAPER
24	129+46.92	11.62 LT	0+00.00	0.00	RAD. PT 2.5' TO FACE
17	127+07.52	2.01 LT	0+00.00	0.00	BEGIN TAPER
18	127+34.33	4.96 RT	0+00.00	0.00	TAPER POINT
19	127+33.07	1.91 LT	0+00.00	0.00	TAPER POINT
20	128+53.36	6.63 LT	0+00.00	0.00	TAPER POINT
21	128+54.16	17.65 LT	0+00.00	0.00	TAPER POINT
22	129+55.08	17.59 LT	0+00.00	0.00	END TAPER
23	129+55.07	7.18 LT	0+00.00	0.00	END TAPER
25	129+42.11	4.60 LT	0+00.00	0.00	RAD. PT 11' TO FACE
26	0+00.00	0.00	130+82.00	11.12 RT	BEGIN TAPER
27	0+00.00	0.00	130+82.01	0.58 RT	BEGIN TAPER
28	0+00.00	0.00	133+11.74	11.36 RT	BEGIN TAPER
29	0+00.00	0.00	133+11.75	0.35 RT	BEGIN TAPER
30	0+00.00	0.00	130+90.93	5.06 RT	RAD. PT 2.5' TO FACE
31	0+00.00	0.00	130+95.87	1.86 LT	RAD. 11' TO FACE
32	0+00.00	0.00	133+06.24	5.86 RT	RAD. PT 3' TO FACE

PROJECT NO:1000-08-88	HWY: USH 63/STH 27/77	COUNTY: SAWYER	PLAN: LOCATION #3 - CITY OF HAYWARD	SHEET 82	E



EROSION CONTROL LEGEND

######	EROSION MAT CLASS I, TYPE B
	SILT FENCE
△△△	TEMPORARY DITCH CHECK
	SURFACE WATER FLOW

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
700	887258.40	581389.89	1339.21	CP-PK NAIL
701	887351.68	581282.15	1339.62	CP-10" SPIKE

STH 73 Best Fit Alignment - Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
8	997+80.78	15.36 RT	SAW CUT PT
9	997+79.93	25.15 RT	SAW CUT PT
10	998+05.43	30.30 RT	SAW CUT PT
11	998+02.82	14.78 RT	SAW CUT PT
12	997+85.84	20.73 RT	RAD. PT 3' TO FACE
13	997+98.19	20.40 RT	RAD. PT 3' TO FACE
14	997+99.30	23.96 RT	RAD. PT 2.5' TO FACE

LEGEND

▨	REVERSE SLOPE GUTTER
▨	COLORING CONCRETE RED

USH 8 - SE Quad Oustside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
C2	-0+00.00	0+88.72	88.72	155.40	N50° 00' 49.39"E	887309.85	581291.26	887376.91	581347.50
C3	0+88.72	1+69.17	80.45	454.60	N71° 26' 20.83"E	887376.91	581347.50	887453.07	581373.07

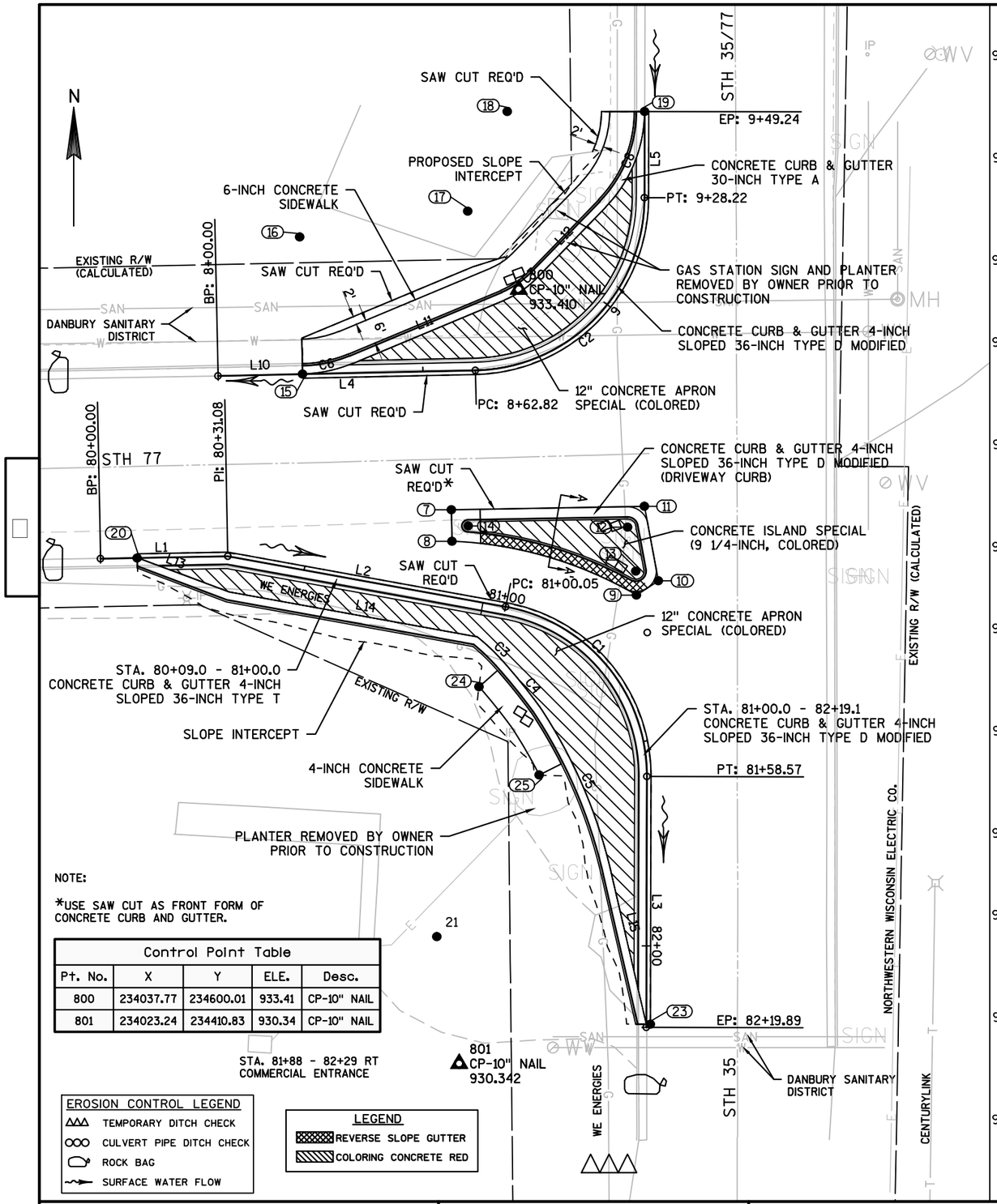
STH 73 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L1	996+03.83	998+17.28	213.45		N00° 18' 44.75"W	887271.03	581133.78	887269.87	581347.23

USH 8 - SE Quad Inside Edge of Pavement (Gutter Flag Line)									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L2	70+00.00	70+32.59			N12° 36' 57.63"E	887304.92	581282.97	887312.04	581314.78
C1	70+32.59	70+73.82	41.23	40.00	N42° 08' 34.66"E	887312.04	581314.78	887338.50	581344.01
L3	70+73.82	71+56.12			N71° 40' 11.69"E	887338.50	581344.01	887416.62	581369.89
L4	71+56.12	75+00.00			N80° 18' 34.82"E	887416.62	581369.89	887755.59	581427.78

SECTION A-A'

** CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE T (REVERSED SLOPED GUTTER, SEE CONSTRUCTION DETAILS)

PROJECT NO: 1000-08-88	HWY: USH 8/STH 73	COUNTY: RUSK	PLAN AND PROFILE: LOCATION #4 - VILLAGE OF INGRAM	SHEET 83	E



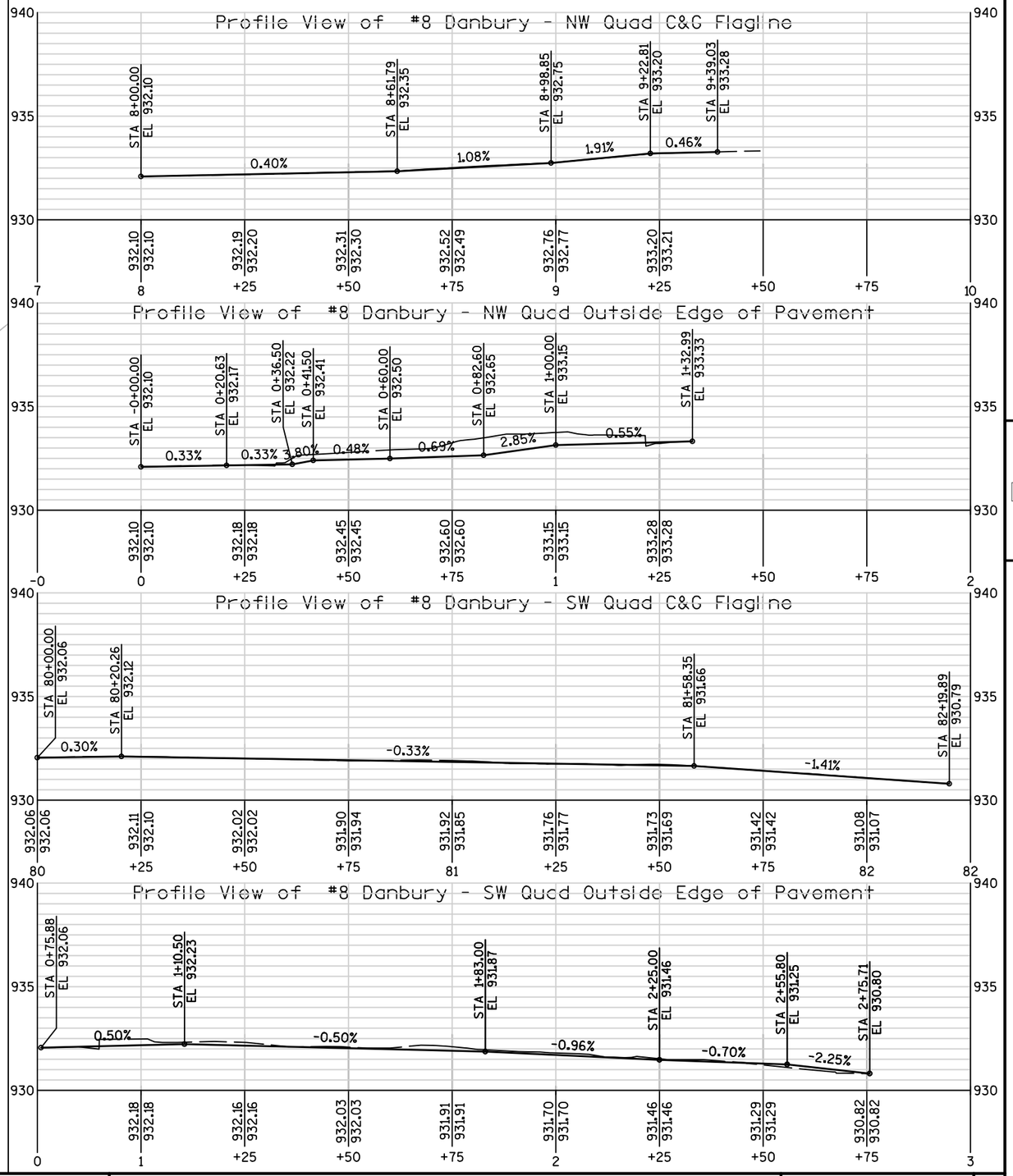
NOTE:

*USE SAW CUT AS FRONT FORM OF CONCRETE CURB AND GUTTER.

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
800	234037.77	234600.01	933.41	CP-10" NAIL
801	234023.24	234410.83	930.34	CP-10" NAIL

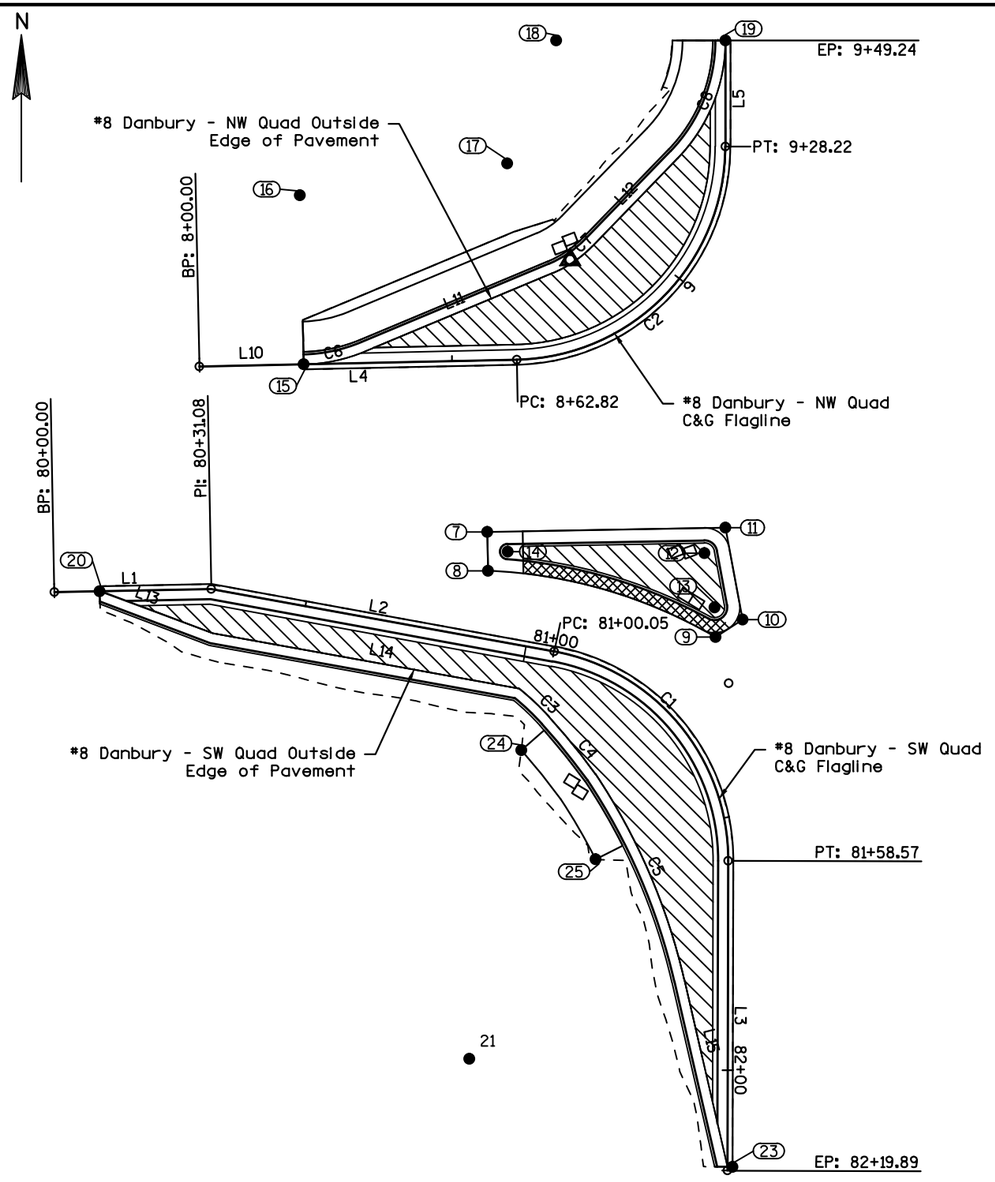
EROSION CONTROL LEGEND
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- ROCK BAG
- SURFACE WATER FLOW

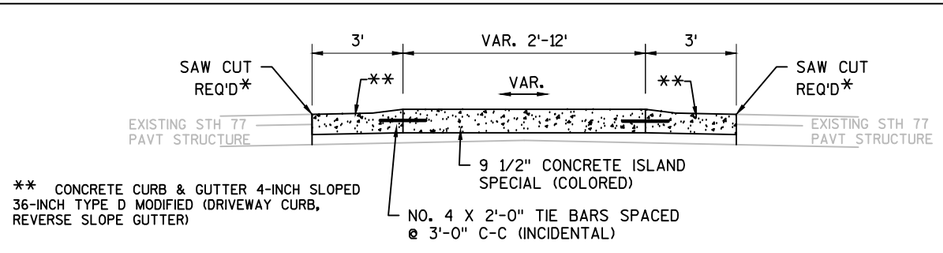
LEGEND
- REVERSE SLOPE GUTTER
- COLORING CONCRETE RED



PROJECT NO: 1000-08-88	HWY: STH77/35	COUNTY: BURNETT	PLAN: LOCATION #5 - VILLAGE OF DANBURY (UNINCORPORATED)	SHEET 84	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\050208_PN-DANBURY_STH_77&35.DWG
LAYOUT NAME - PLAN 1 IN 30 FT
PLOT DATE : 1/27/2016 2:20 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN: 30 FT
WISDOT/CADDS SHEET 44





SECTION A-A'

Island Points-Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
7	80+82.79	20.94 LT	SAW CUT PT
8	80+84.30	13.38 LT	SAW CUT PT
9	81+23.12	17.26 LT	SAW CUT PT
10	81+24.19	23.44 LT	SAW CUT PT
11	81+16.08	35.80 LT	SAW CUT PT
12	81+15.60	29.31 LT	RAD. PT 2.5' TO FACE
13	81+20.46	21.62 LT	RAD. PT 2.5' TO FACE
21	81+97.88	51.16 RT	RAD. PT 99.2' TO FACE
14	80+87.49	17.80 LT	RAD. PT 1.5' TO FACE

NW Quad Pavt & Sidewalk-Sta./Off. Table					
POINT	STATION	OFFSET	DESC.	STATION	OFFSET
15	8+20.63	0.00	BEGIN PROJECT-NW QUAD	0+20.63	0.00
23	8+70.89	164.41 RT	END PROJECT-SW QUAD	0+38.07	176.98
16	8+20.63	33.50 LT	RAD. PT 31.5' TO FACE	0+33.15	33.50
24	8+62.07	77.31 RT	BACK OF SDWLK	0+32.62	84.80
17	8+61.81	38.91 LT	RAD. PT 21.5' TO FACE	0+73.46	23.50
19	9+49.23	0.00	END PROJECT-NW QUAD	1+32.98	0.00
18	9+49.24	33.50 LT	RAD. PT 31.5' TO FACE	1+07.21	33.50

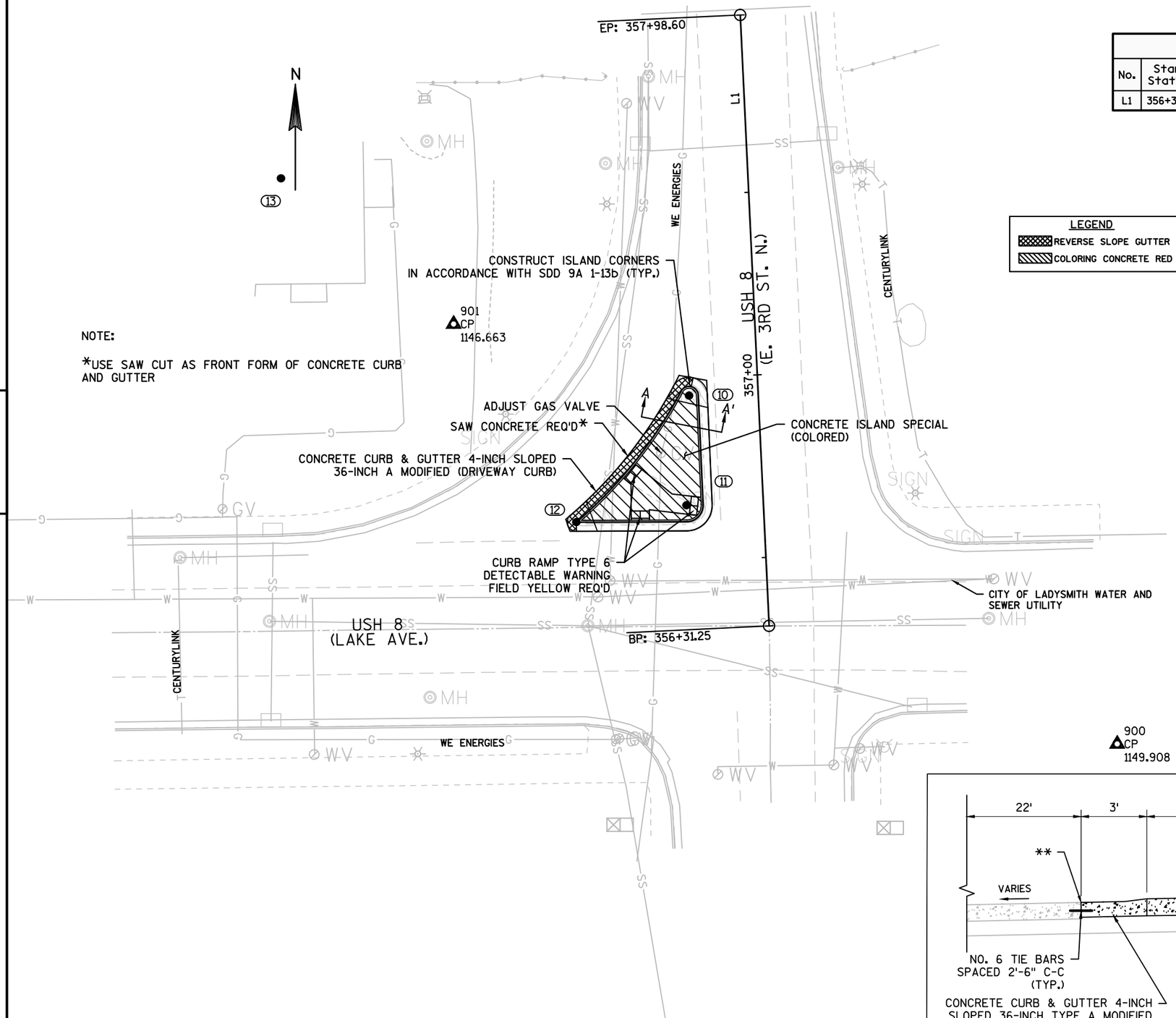
SW Quad Pavt & Sidewalk-Sta./Off. Table					
POINT	STATION	OFFSET	DESC.	STATION	OFFSET
21	81+97.88	51.16 RT	RAD. PT 99.2' TO FACE	2+43.38	44.99
23	8+70.89	164.41 RT	END PROJECT-SW QUAD	0+38.07	176.98
24	8+62.07	77.31 RT	BACK OF SDWLK	0+32.62	84.80
20	80+08.97	0.02 RT	BEGIN PROJECT-SW QUAD	0+84.86	0.02
25	81+57.88	26.27 RT	BACK OF SDWLK	2+08.20	8.50

STH 35/77 - NW Quad Oustside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L10	0+00.00	0+20.63			N88° 45' 36.53"E	233964.39	234578.84	233985.01	234579.29
C6	0+20.63	0+33.15	12.52	33.50	N78° 03' 04.60"E	233985.01	234579.29	233997.19	234581.87
L11	0+33.15	0+73.46			N67° 20' 32.67"E	233997.19	234581.87	234034.39	234597.39
C7	0+73.46	0+82.99	9.53	23.50	N55° 43' 12.69"E	234034.39	234597.39	234042.22	234602.73
L12	0+82.99	1+07.21			N44° 05' 52.72"E	234042.22	234602.73	234059.07	234620.12
C8	1+07.21	1+32.99	25.77	33.50	N22° 03' 23.97"E	234059.07	234620.12	234068.51	234643.42

STH 35/77 - SW Quad C&G FLag Line									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L1	80+00.00	80+31.08			N88° 55' 06.04"E	233935.67	234534.21	233966.74	234534.80
L2	80+31.08	81+00.05			S79° 40' 38.64"E	233966.74	234534.80	234034.60	234522.44
C1	81+00.05	81+58.57	58.52	42.00	S39° 45' 46.06"E	234034.60	234522.44	234069.07	234481.01
L3	81+58.57	82+19.89			S00° 09' 06.53"W	234069.07	234481.01	234068.91	234419.69

STH 35/77 - NW Quad C&G FLag Line									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L4	8+00.00	8+62.82			N88° 45' 36.53"E	233964.39	234578.84	234027.20	234580.20
C2	8+62.82	9+28.22	65.40	42.22	N44° 23' 15.87"E	234027.20	234580.20	234068.50	234622.40
L5	9+28.22	9+49.24			N00° 00' 55.22"E	234068.50	234622.40	234068.51	234643.42

STH 35/77 - SW Quad Oustside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L13	0+84.85	1+08.73			S69° 38' 14.66"E	233944.64	234534.38	233967.02	234526.07
L14	1+08.73	1+70.37			S79° 44' 43.74"E	233967.02	234526.07	234027.68	234515.10
C3	1+70.37	1+78.63	8.27	50.00	S46° 39' 05.03"E	234027.68	234515.10	234033.68	234509.43
C4	1+78.63	1+93.19	14.56	144.21	S39° 01' 23.31"E	234033.68	234509.43	234042.84	234498.13
C5	1+93.19	2+37.62	44.43	122.87	S23° 20' 43.10"E	234042.84	234498.13	234060.35	234457.56
L15	2+37.62	2+75.71			S12° 59' 09.44"E	234060.35	234457.56	234068.91	234420.45

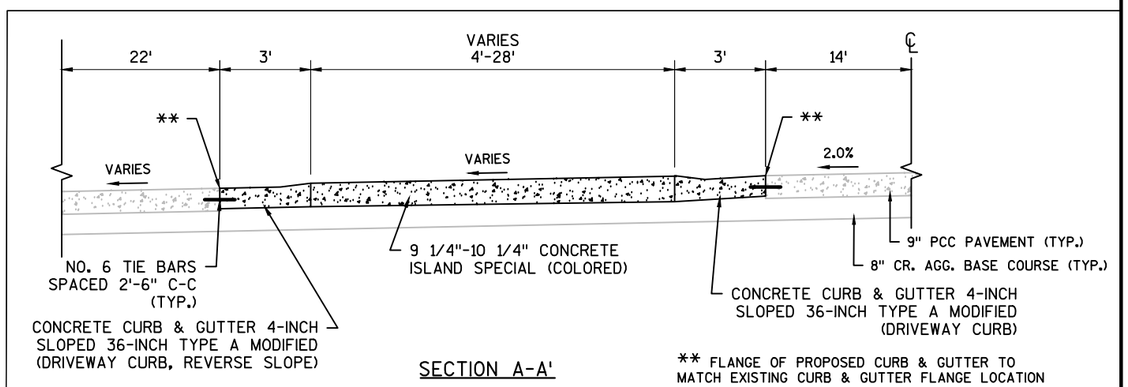


USH 8 - Best Fit Alignment									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L1	356+31.25	357+98.60	167.35		N02° 42' 26.68"W	813892.75	563591.92	813884.84	563759.09

USH 8 Best Fit Alignment - Sta./Off. Table			
POINT	STATION	OFFSET	DESC.
12	356+62.08	51.36 LT	FACE
13	357+59.87	127.70 LT	RAD. PT 124.0' TO FACE
10	356+95.18	18.92 LT	RAD. PT 2.5' TO FACE
11	356+65.28	21.03 LT	RAD. PT 4.5' TO FACE

LEGEND
REVERSE SLOPE GUTTER
COLORING CONCRETE RED

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
900	813988.00	563559.61	1149.91	CP-PK NAIL
901	813806.36	563674.51	1146.66	CP-PK NAIL



SECTION A-A'

** FLANGE OF PROPOSED CURB & GUTTER TO MATCH EXISTING CURB & GUTTER FLANGE LOCATION

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	PLAN: LOCATION #6 - CITY OF LADYSMITH	SHEET 86	E

Control Point Table				
Pt. No.	X	Y	ELE.	Desc.
10001	477338.77	268672.93	1220.82	CP-ETCH SQR IN CONC
10002	477319.82	268428.38	1224.85	CP-1/4" REBAR

EROSION CONTROL LEGEND
- SILT FENCE
- INLET PROTECTION TYPE C
- ROCK BAG
- SURFACE WATER FLOW

LEGEND
- COLORING CONCRETE RED

N

USH 8/STH 35 (WB)
(130TH STREET)

CENTURYLINK

WE ENERGIES

WISDOT ELECTRIC?

10002
CP-1/4" REBAR
1224.853

SLOPE INTERCEPT

INLET COVER TYPE HM

INLET COVER TYPE HM-S

EXISTING CONCRETE BASE TYPE 6. +/-2.8' CUT TO SUBGRADE. TEMPORARY BRACING REQUIRED, INCIDENTAL TO CONSTRUCTION.

BP: 20+00.00

L1 L2 L3 L4

C1 C2 C3

WHEEL TRACKING PATH

21+00

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED*

PCC: 20+43.43

PT: 20+80.38

EP: 21+15.93

12" CONCRETE APRON SPECIAL (COLORED)

NOTE:

*USE EXISTING ASPHALT PAVEMENT EDGE AS FRONT FORM OF CONCRETE CURB AND GUTTER.

USH 8/STH 35 (EB)
(130TH STREET)

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D MODIFIED*

BP: 10+00.00

PC: 10+22.48

PCC: 10+58.84

L9 L5 L6 L4 L7 L8

C5 C6 C7

WHEEL TRACKING PATH

12" CONCRETE APRON SPECIAL (COLORED)

PCC: 10+92.58

11+00

EP: 11+04.12

EXISTING CONCRETE BASE TYPE 6. +/-2.8' CUT TO SUBGRADE. TEMPORARY BRACING REQUIRED, INCIDENTAL TO CONSTRUCTION.

SLOPE INTERCEPT

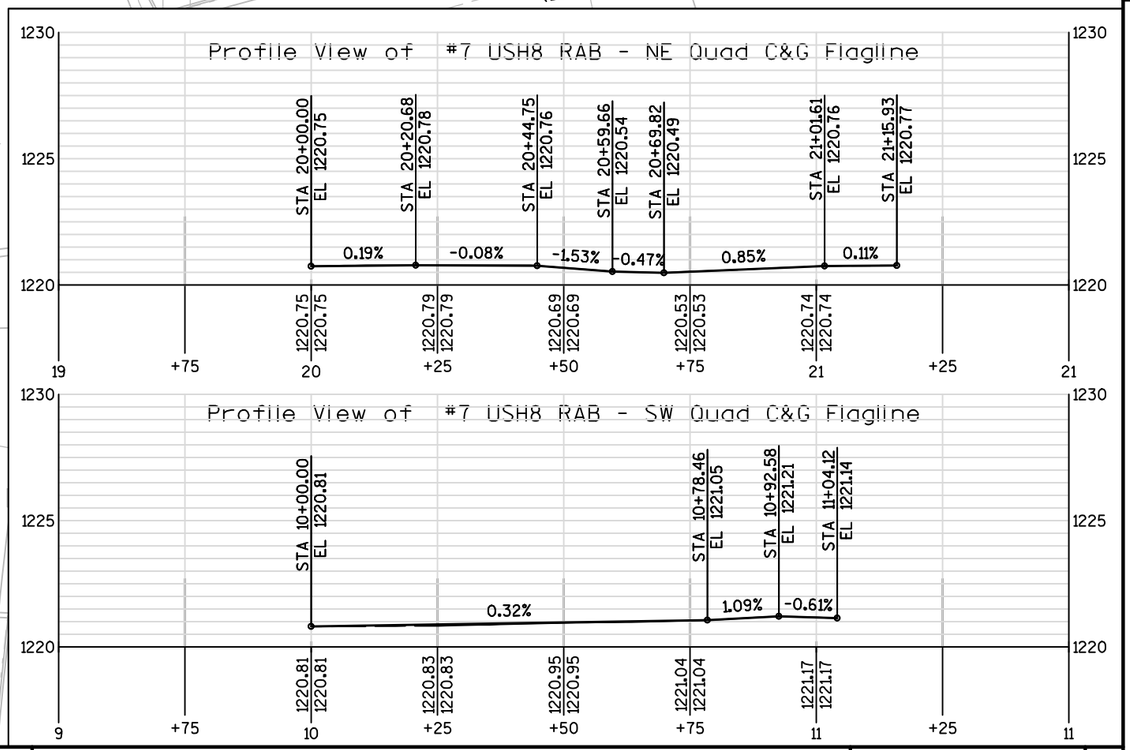
CENTURYLINK

CENTURYLINK

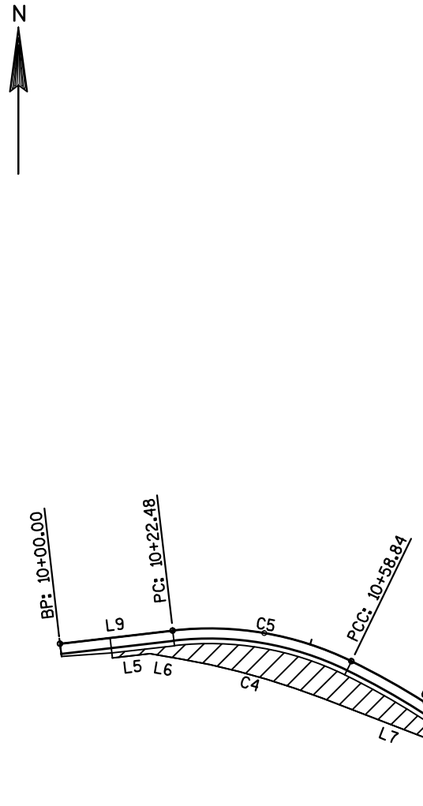
POLK-BURNETT

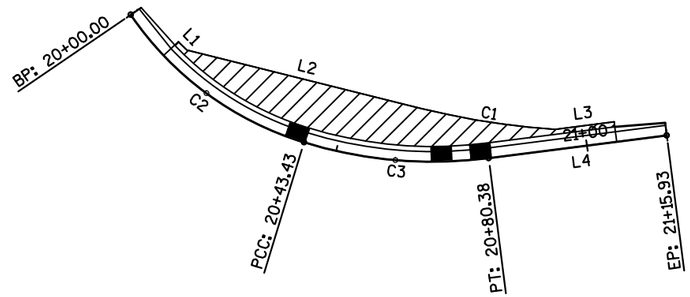
208th STREET (SB)

208th STREET (NB)



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35	COUNTY: POLK	PLAN: LOCATION #7 - CITY OF ST CROIX FALLS	SHEET 87	E





NOTE:

*USE EXISTING ASPHALT PAVEMENT EDGE AS FRONT FORM OF CONCRETE CURB AND GUTTER.

USH 8/STH 35 - SW Quad Outside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L5	1+00.00	1+07.51			N83° 23' 27.03"E	477175.00	268396.70	477182.47	268397.57
L6	1+07.51	1+13.64			S80° 06' 04.45"E	477182.47	268397.57	477188.50	268396.52
C4	1+13.64	1+42.80	29.16	150.00	S74° 31' 58.15"E	477188.50	268396.52	477216.55	268388.75
L7	1+42.80	1+72.16			S68° 57' 51.84"E	477216.55	268388.75	477243.96	268378.21
L8	1+72.16	1+78.60			S51° 57' 37.00"E	477243.96	268378.21	477249.03	268374.24

USH 8/STH 35 - SW Quad C& G Flag Line									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L9	10+00.00	10+22.48			N83° 23' 27.03"E	477164.63	268399.53	477186.96	268402.12
C5	10+22.48	10+58.84	36.37	63.86	S80° 17' 43.82"E	477186.96	268402.12	477222.32	268396.07
C6	10+58.84	10+92.58	33.74	150.86	S57° 34' 32.11"E	477222.32	268396.07	477250.74	268378.02
C7	10+92.58	11+04.12	11.54	54.85	S45° 08' 39.53"E	477250.74	268378.02	477258.90	268369.90

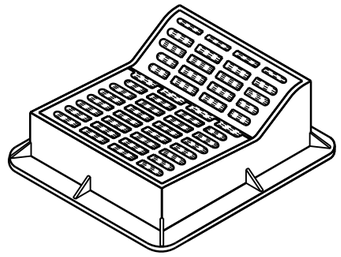
USH 8/STH 35 - NE Quad C& G Flag Line									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
C2	20+00.00	20+43.43	43.43	64.32	S53° 37' 21.30"E	477385.74	268488.83	477420.05	268463.55
C3	20+43.43	20+80.38	36.95	87.10	S85° 07' 15.64"E	477420.05	268463.55	477456.59	268460.43
L4	20+80.38	21+15.93			N82° 43' 36.02"E	477456.59	268460.43	477491.86	268464.94

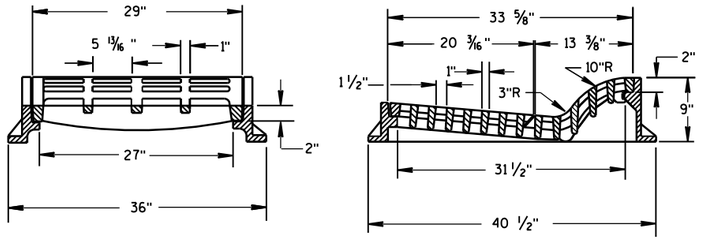
USH 8/STH 35 - NE Quad Oustside Edge of Pavement									
No.	Start Station	End Station	Length	Rad.	Line/Chord Direction	Start X	Start Y	End X	End Y
L1	2+00.00	2+02.38			S44° 40' 12.50"E	477395.16	268483.50	477396.84	268481.81
L2	2+02.38	2+50.30			S76° 02' 44.51"E	477396.84	268481.81	477443.35	268470.25
C1	2+50.30	2+77.03	26.73	150.00	S81° 09' 02.80"E	477443.35	268470.25	477469.72	268466.14
L3	2+77.03	2+88.84			N82° 43' 36.02"E	477469.72	268466.14	477481.43	268467.64

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C11-08	CONCRETE BASE TYPE 10
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-14A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-04	FREEWAY LIGHTING UNIT POLE WIRING
09E08-07A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09F12-04	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT
09F13-04	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT
10A01-03	ELECTRICAL HANDHOLE WIRING
11B02-02	CONCRETE MEDIAN NOSE
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

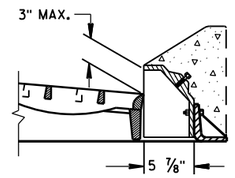
6





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

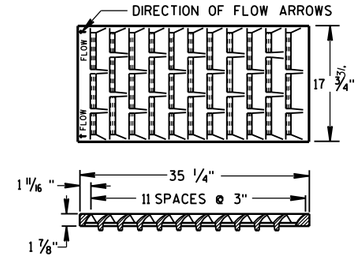
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

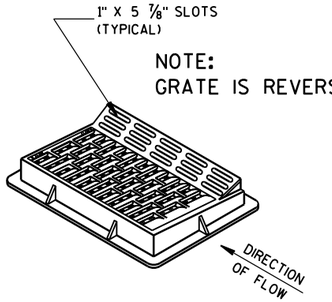
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

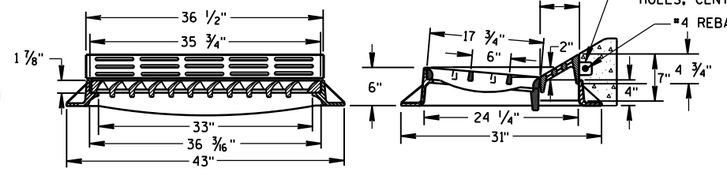
GENERAL NOTES

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

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



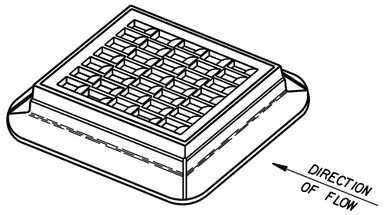


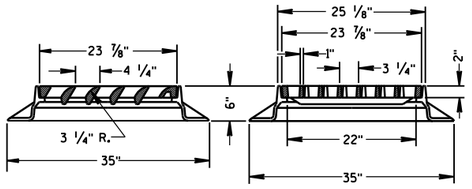


TYPE "HM"

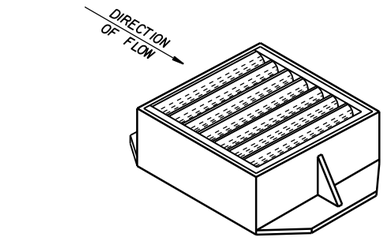
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

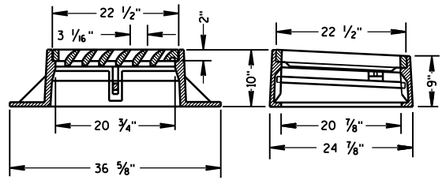
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



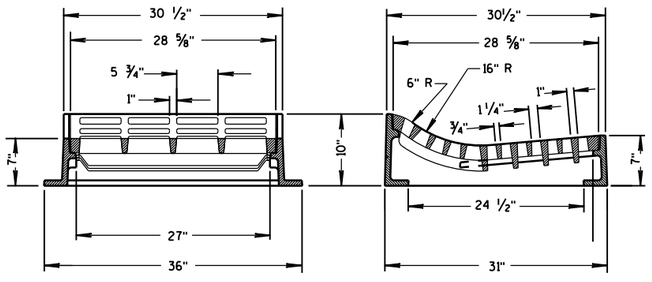


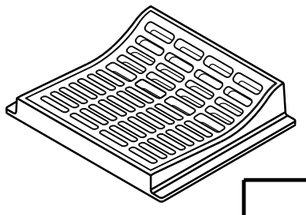
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

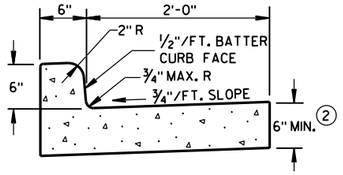
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

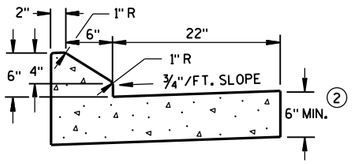
FHWA

6

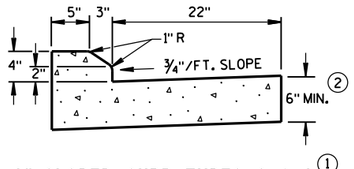
S.D.D. 8 A 5-19c



TYPES A & D ①

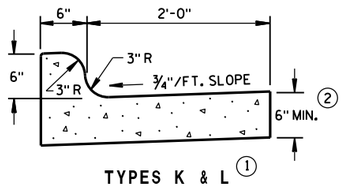


6" SLOPED CURB TYPES G & J ①

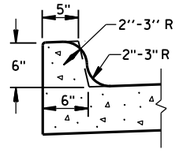


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

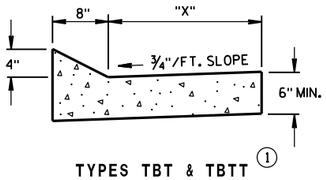


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

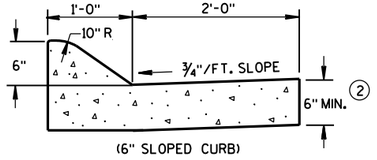
CONCRETE CURB & GUTTER 30"



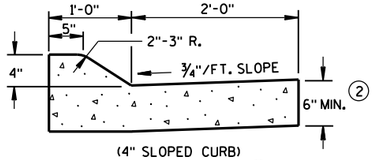
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

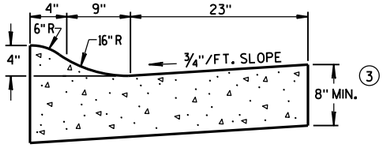


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

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

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

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

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

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

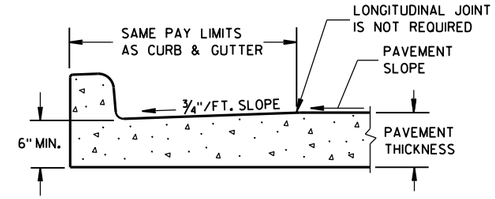
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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

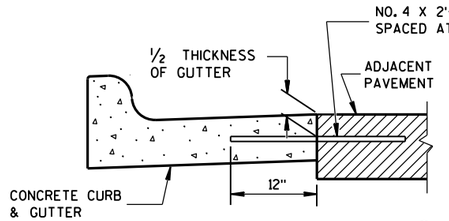
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

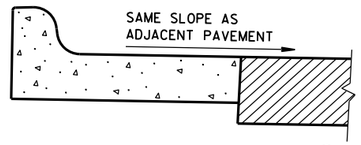
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



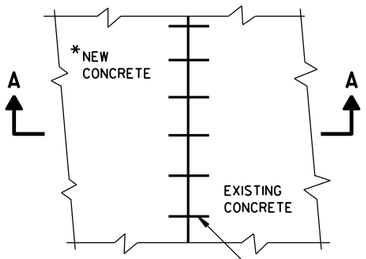
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



TYPICAL TIE BAR LOCATION ①

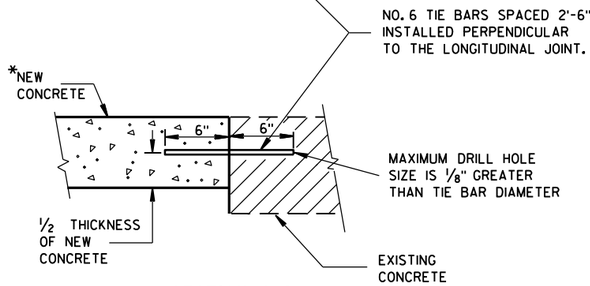


REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)



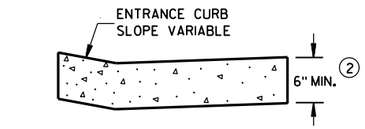
PLAN VIEW

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

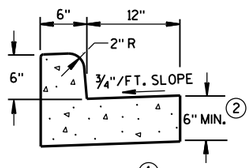


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

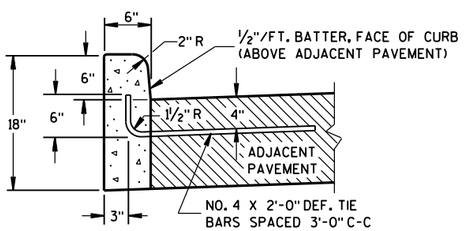


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

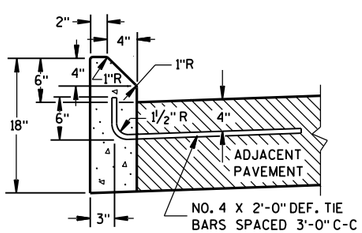


① TYPES A & D

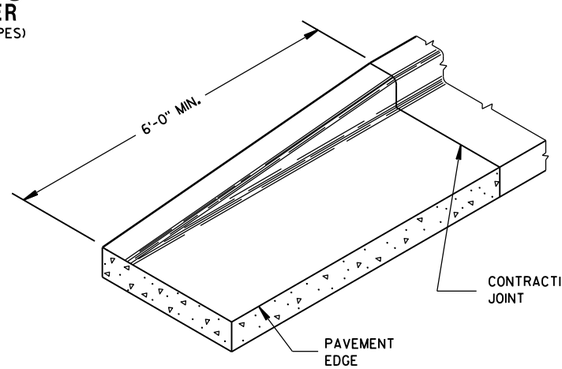
CONCRETE CURB & GUTTER 18"



① TYPES A & D



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

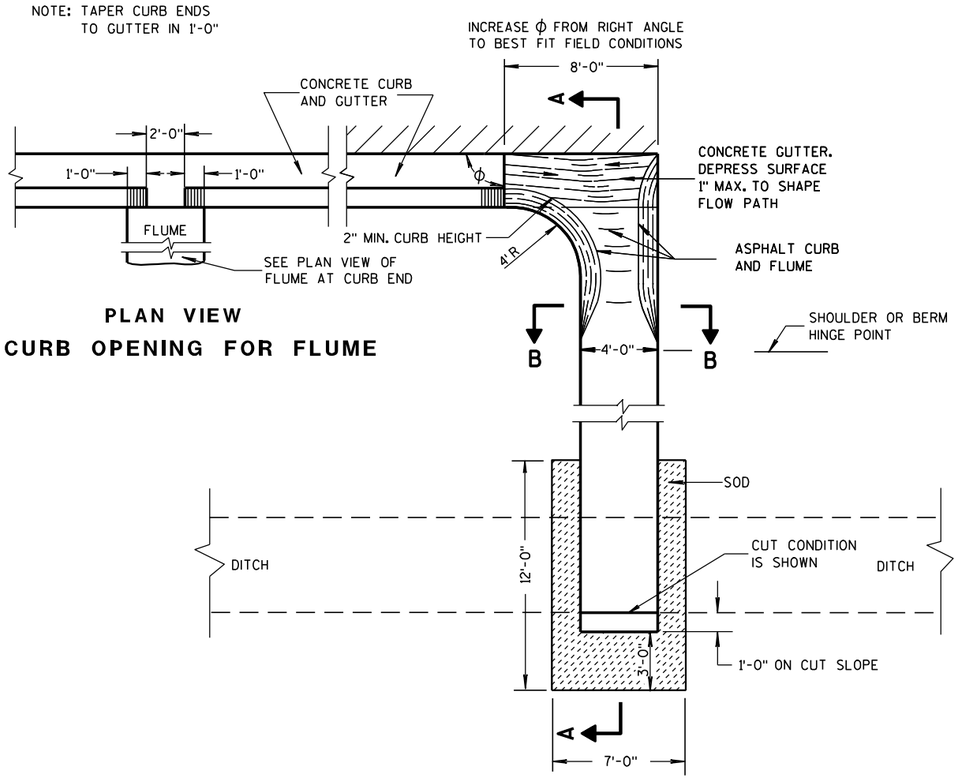
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

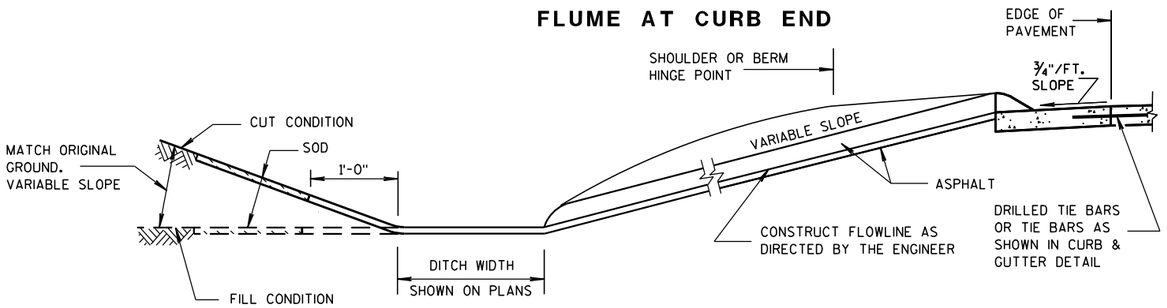
S.D.D. 8 D 1-18

ASPHALTIC FLUME

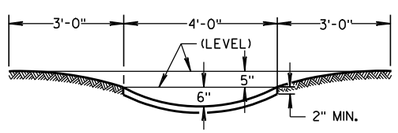


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

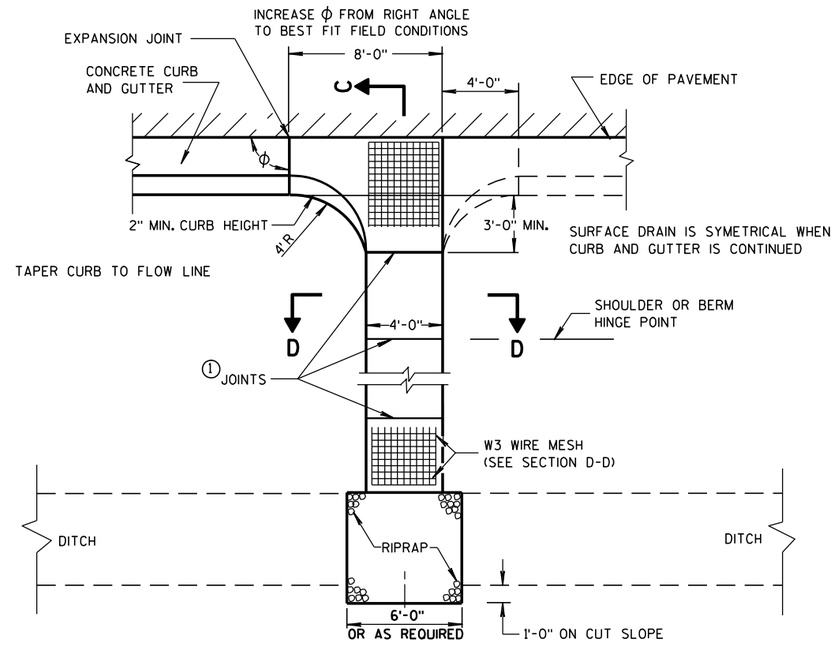
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

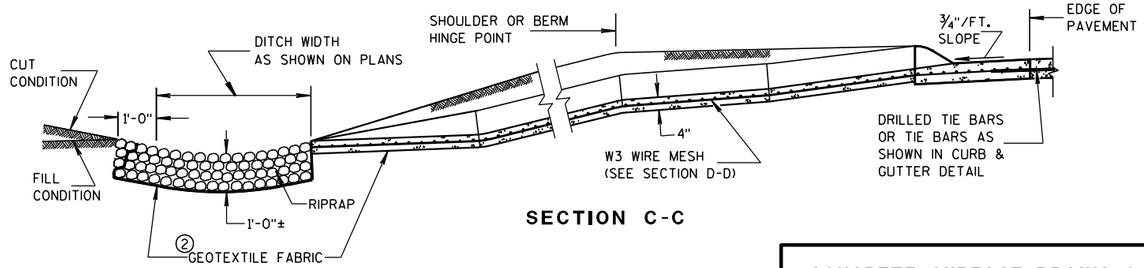
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

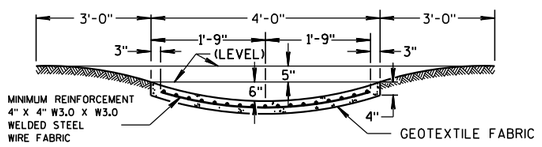
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

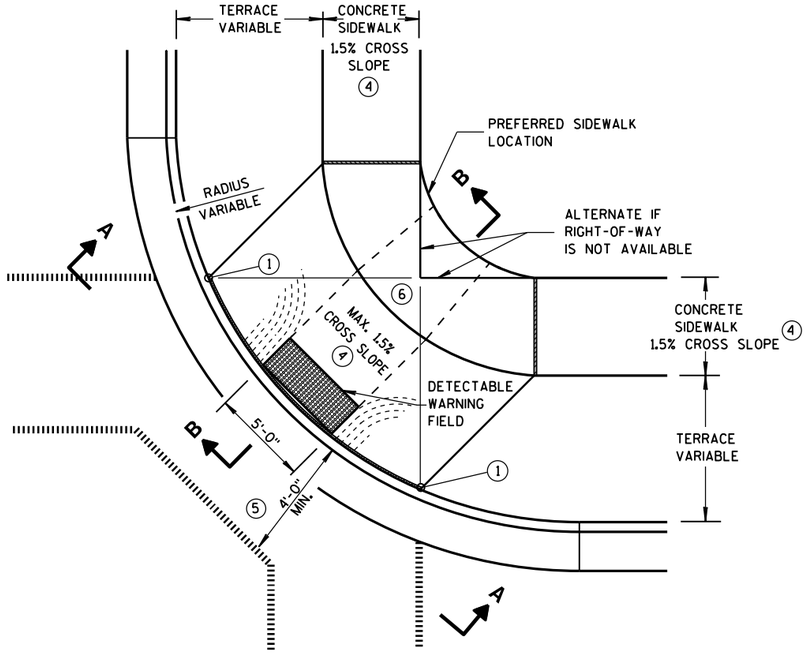
FHWA

6

S.D.D. 8 D 4-5

6

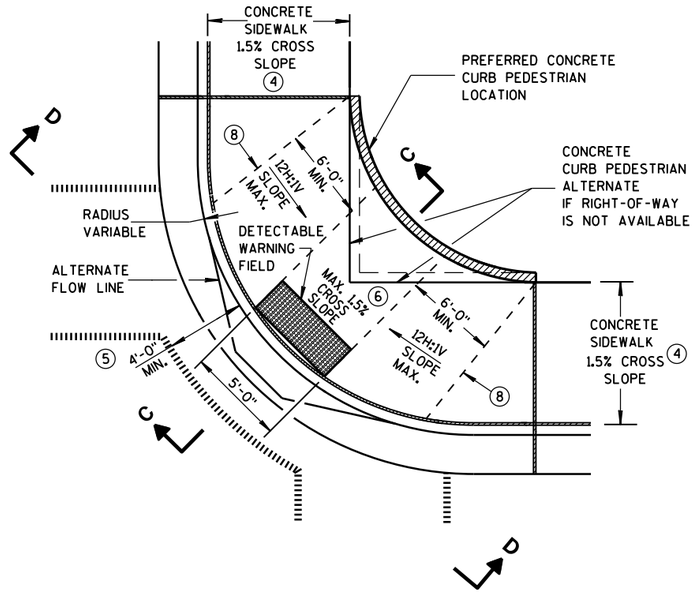
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

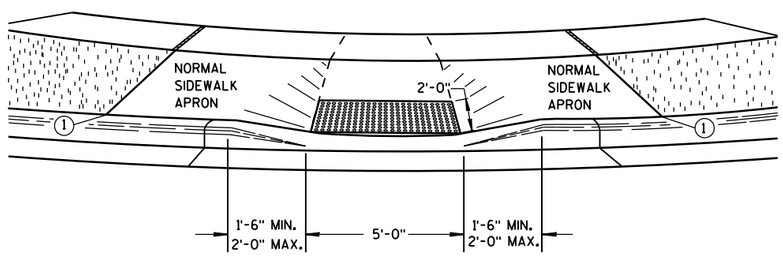
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

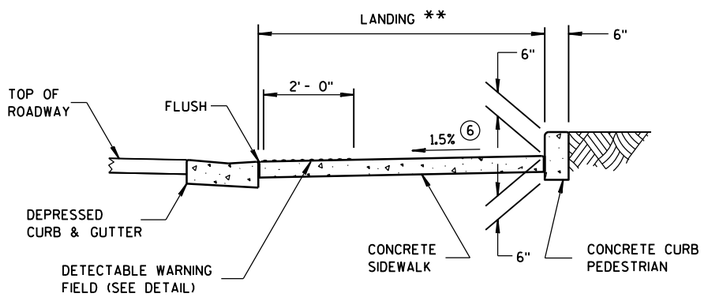
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

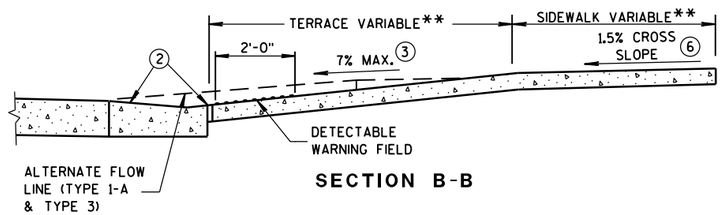
** WIDTH SHOWN ELSEWHERE IN THE PLANS



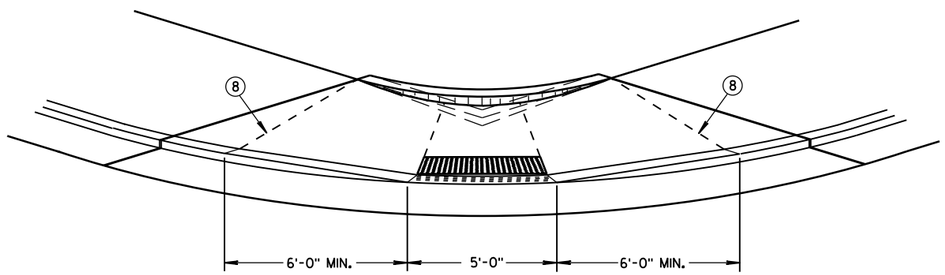
SECTION C-C

LEGEND

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



SECTION B-B



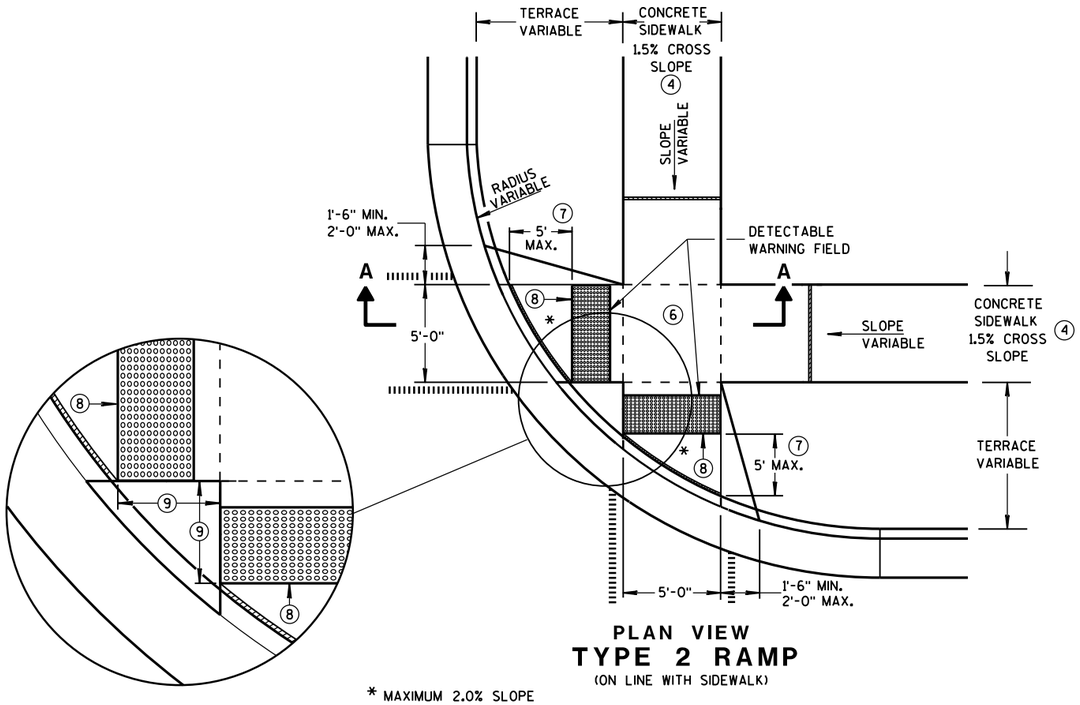
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16a

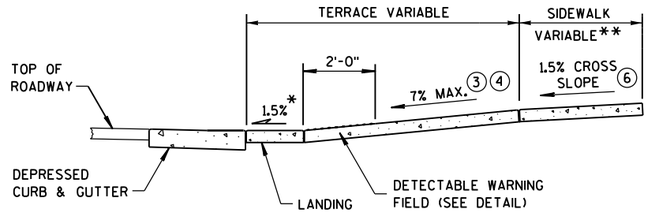


PLAN VIEW

TYPE 2 RAMP

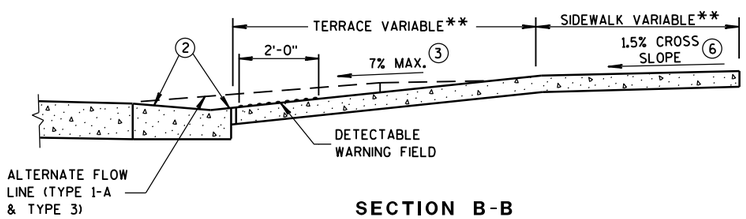
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

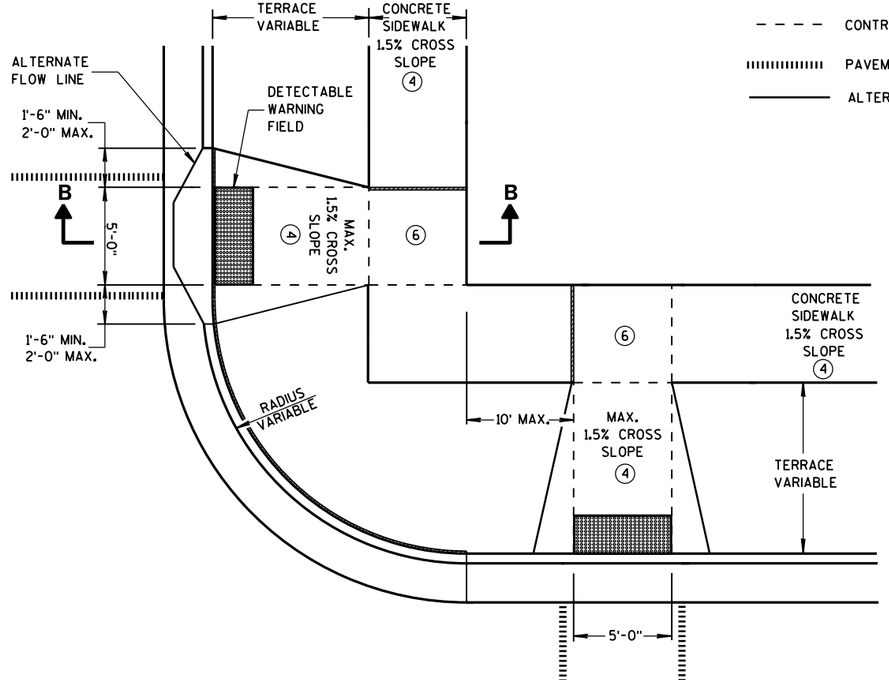
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

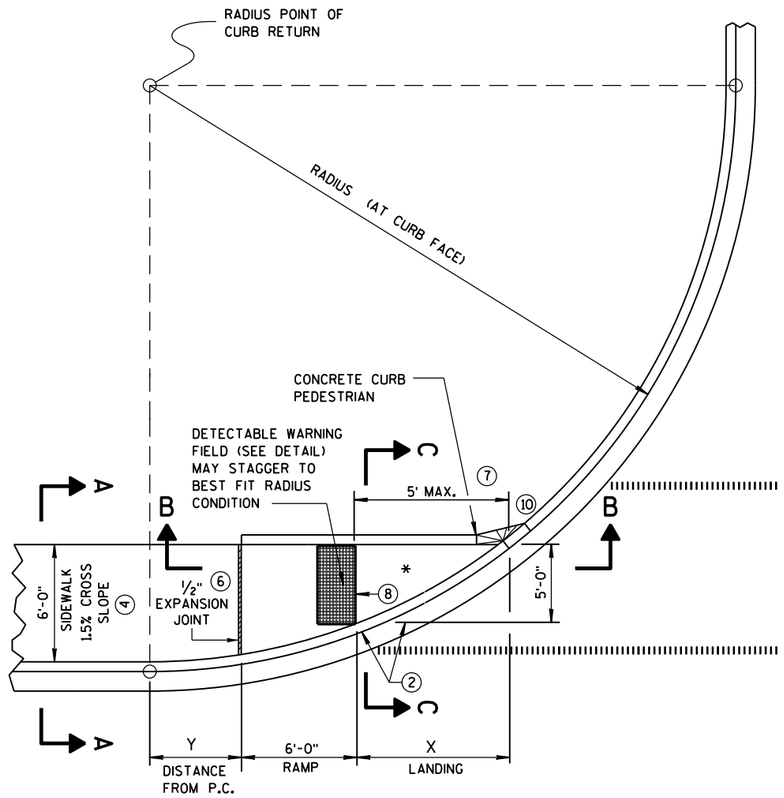
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16b

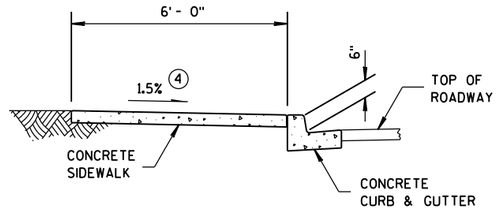


CURB RAMP TYPE 4A

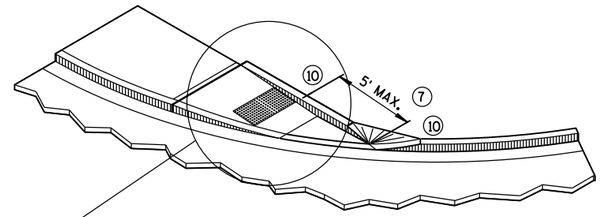
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

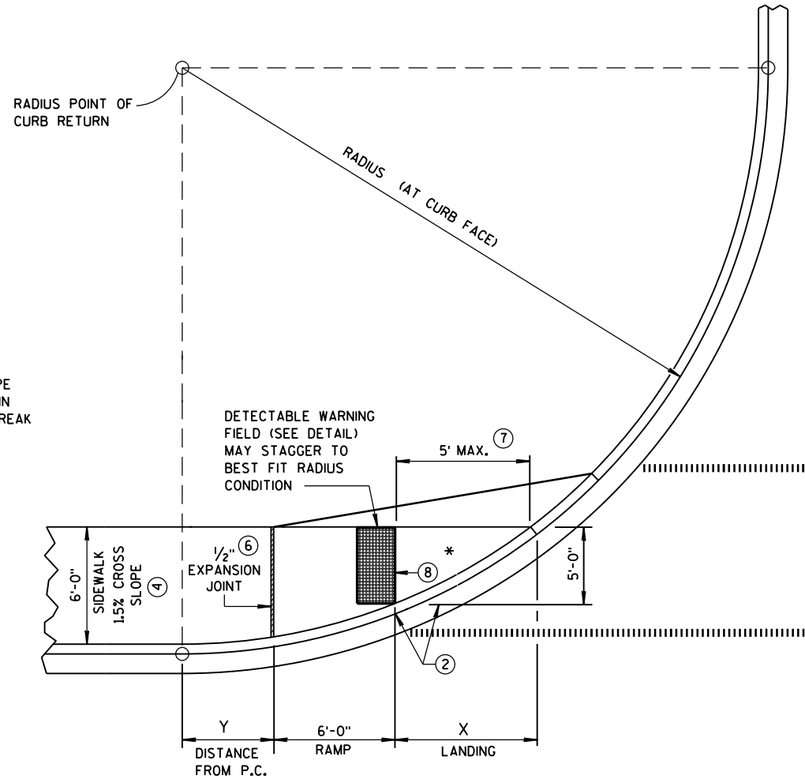
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

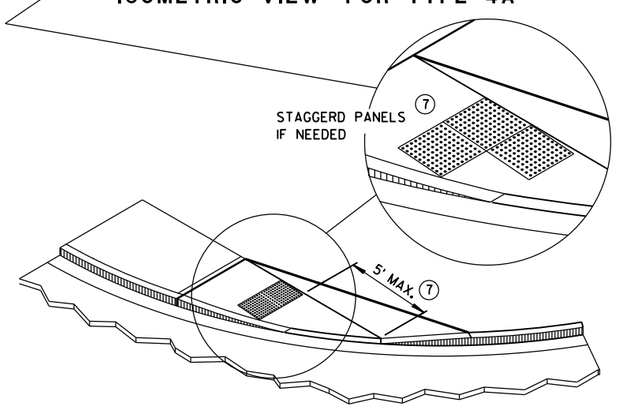


ISOMETRIC VIEW FOR TYPE 4A

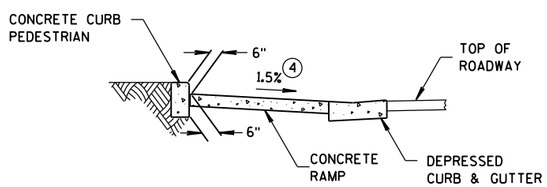


CURB RAMP TYPE 4A1

PLAN VIEW

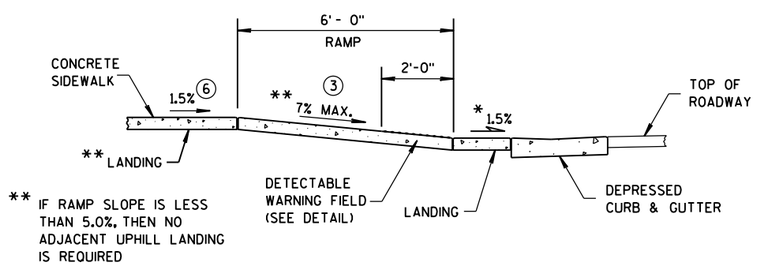


ISOMETRIC VIEW FOR TYPE 4A1



SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A

GENERAL NOTES

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

LEGEND

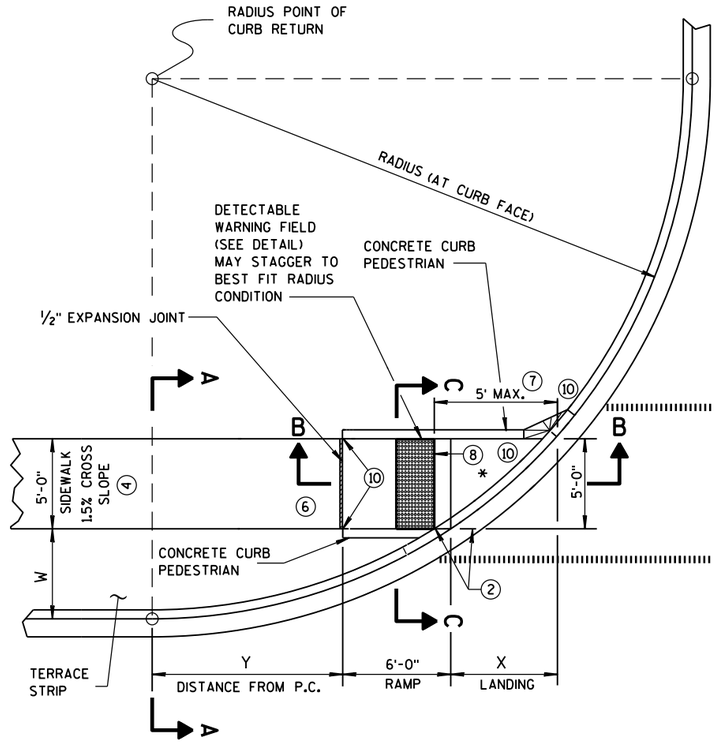
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

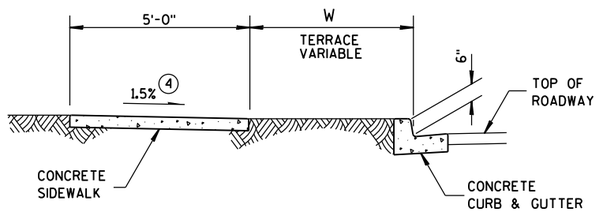
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

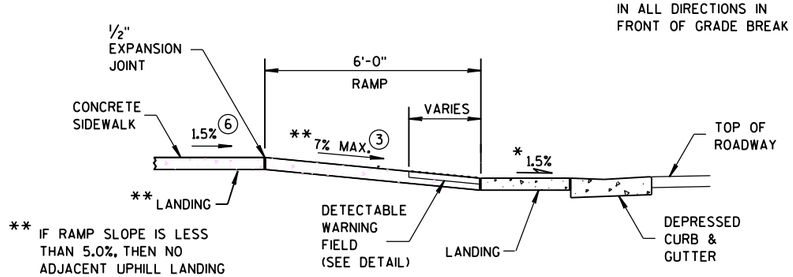
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

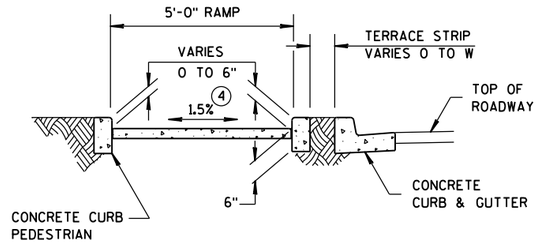
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

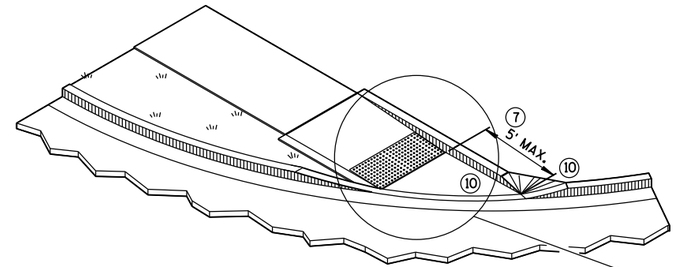
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

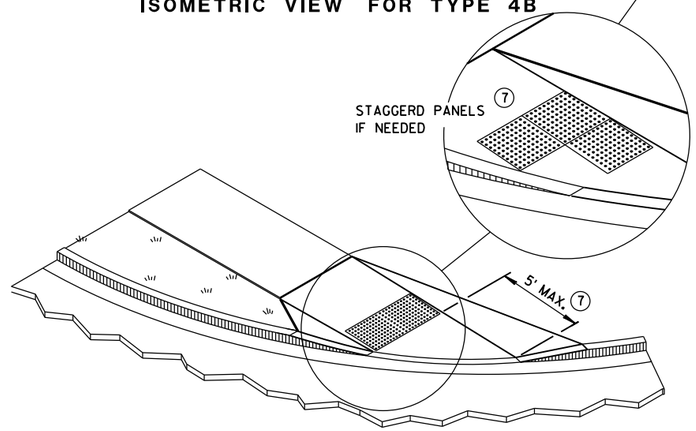
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

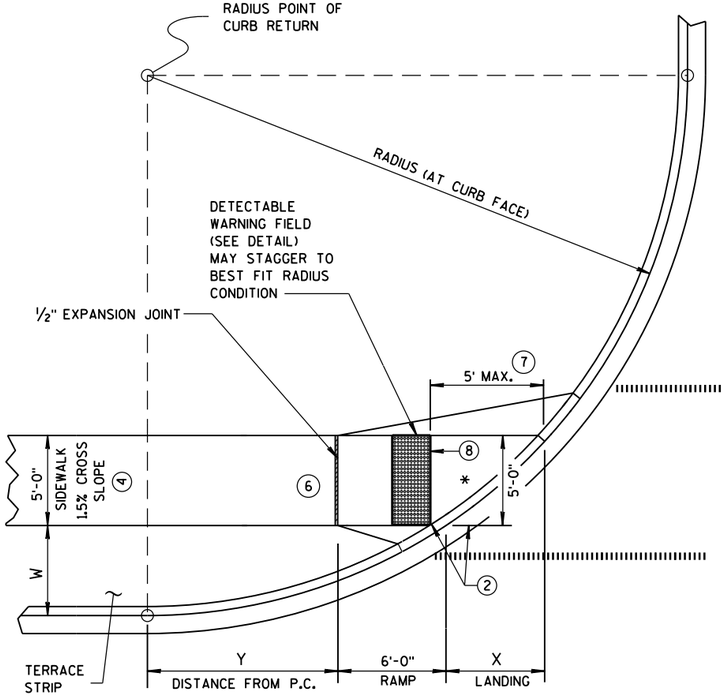
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

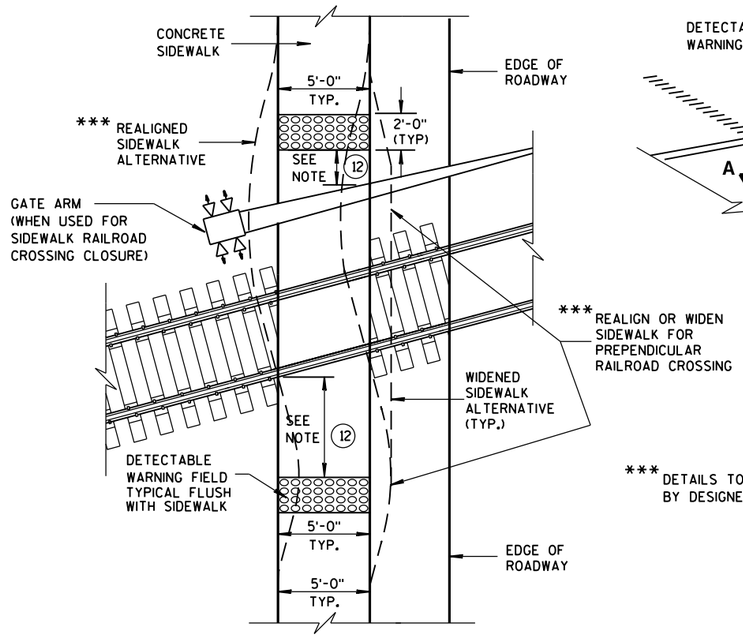
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16d

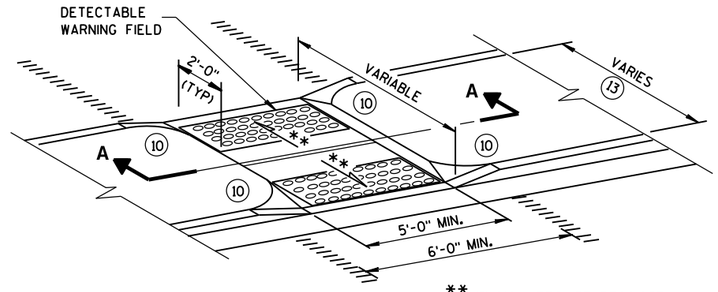
6

S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

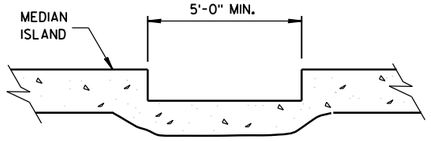
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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

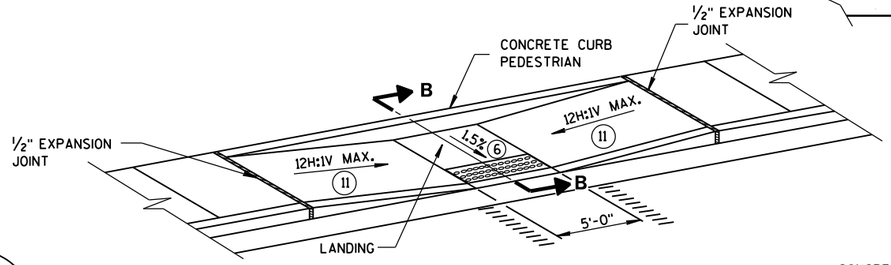
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



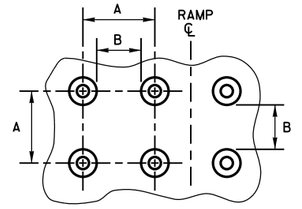
SECTION A-A



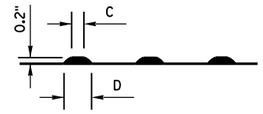
MID-BLOCK CROSSING
TYPE 7A

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

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

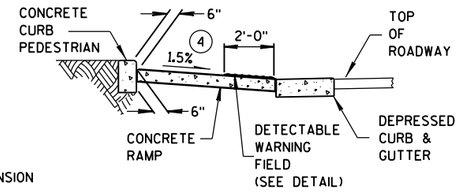


PLAN VIEW

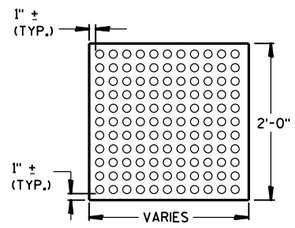


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



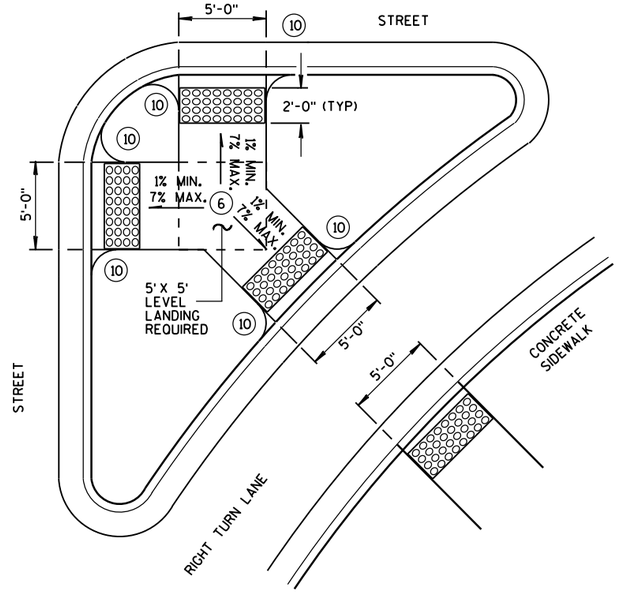
SECTION B-B



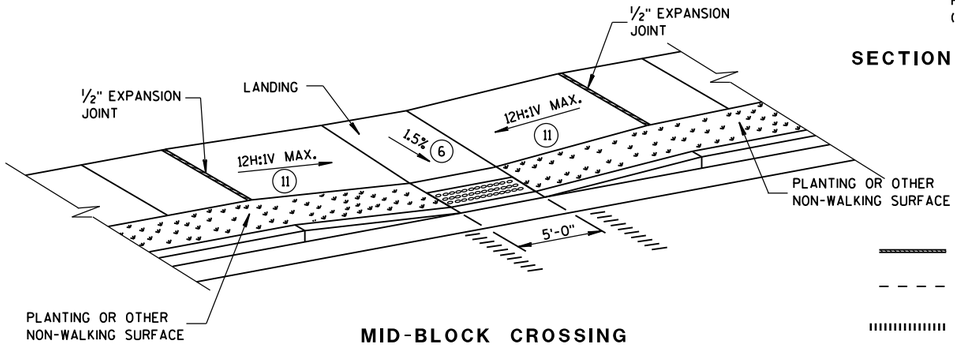
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

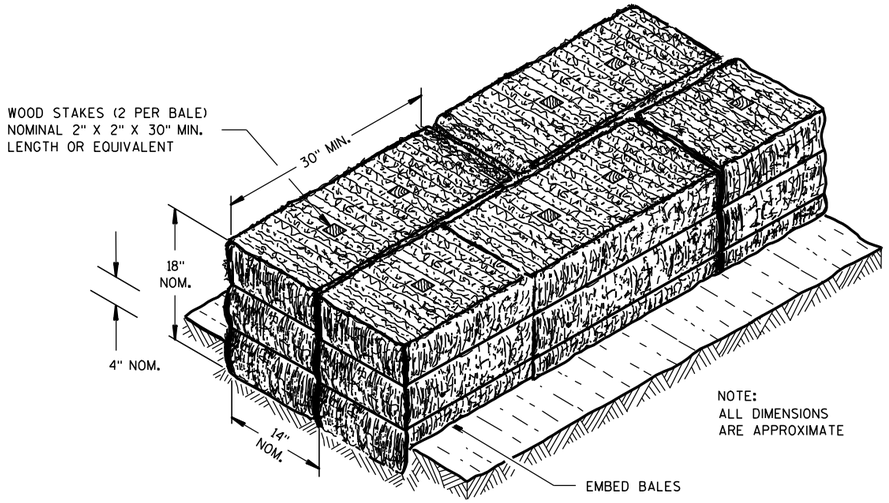
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

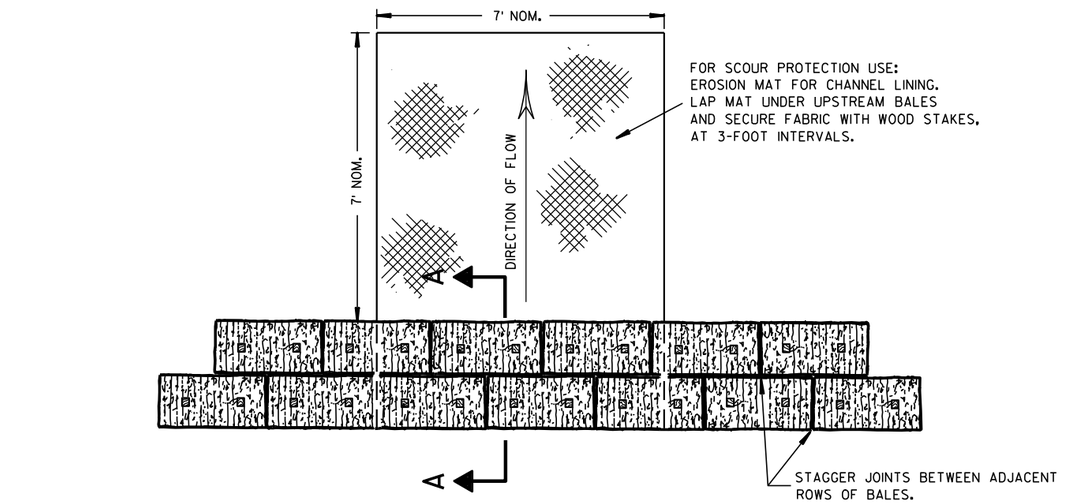
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

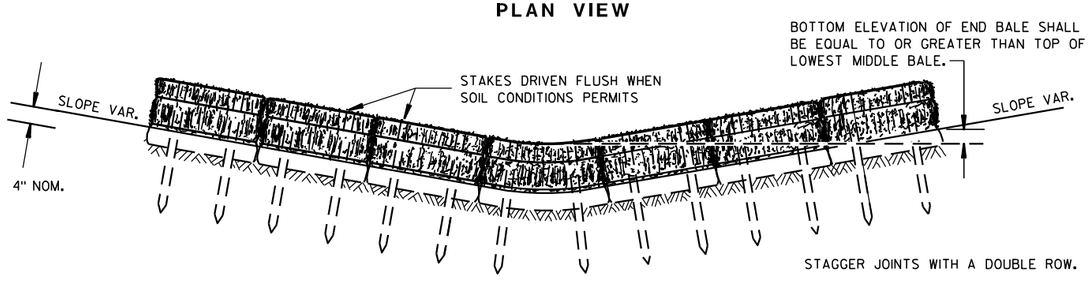
S.D.D. 8 D 5-16e



SECTION A-A



PLAN VIEW



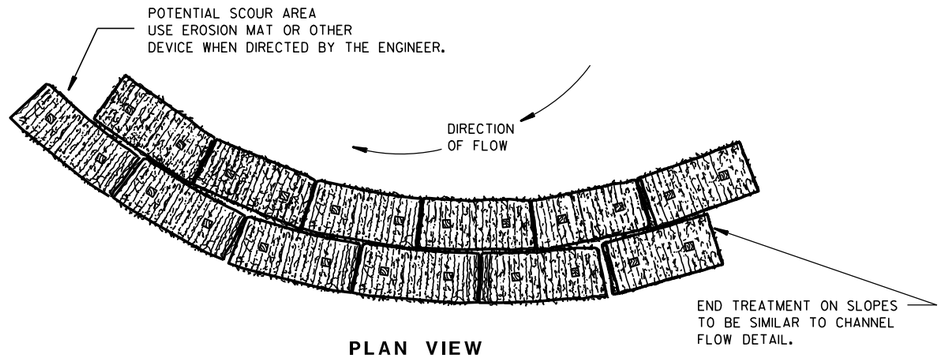
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

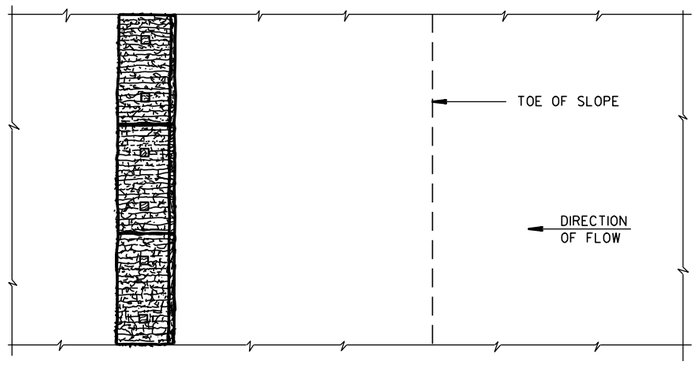
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

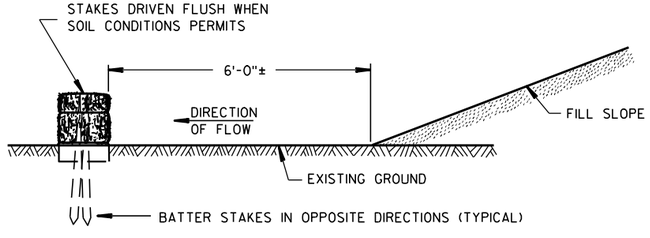


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

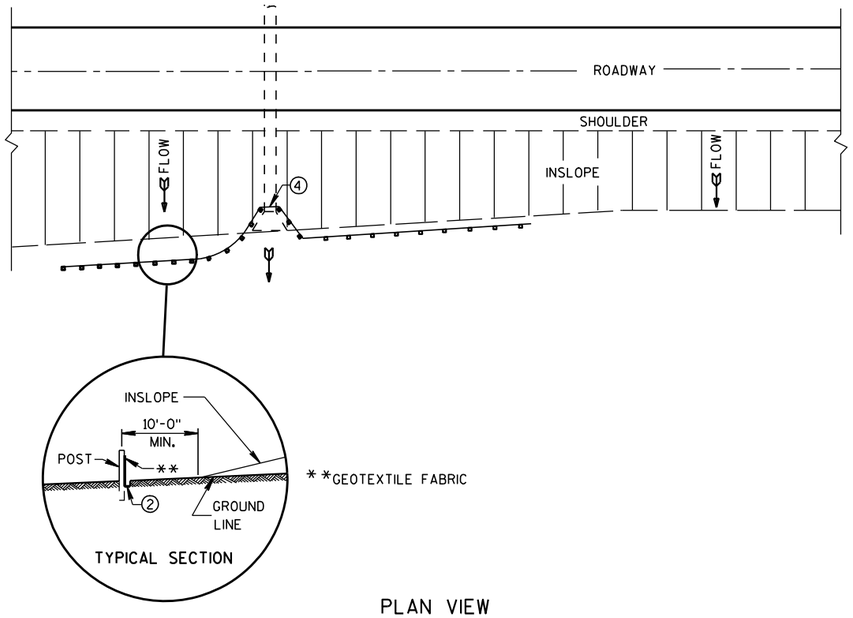
FHWA

6

S.D.D. 8 E 8-3

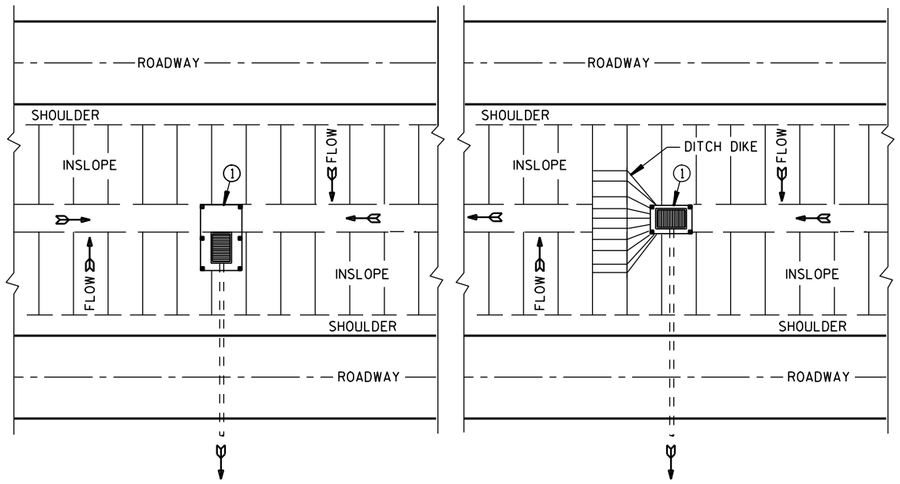
6

S.D.D. 8 E 8-3



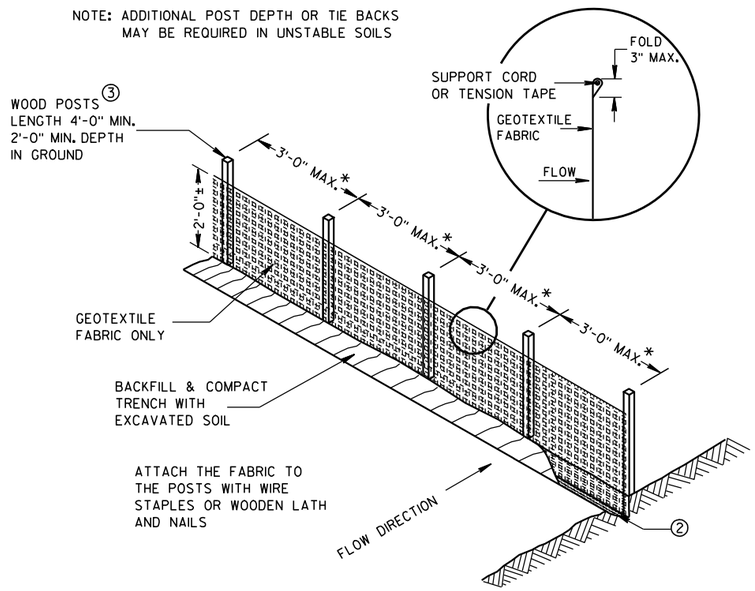
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE

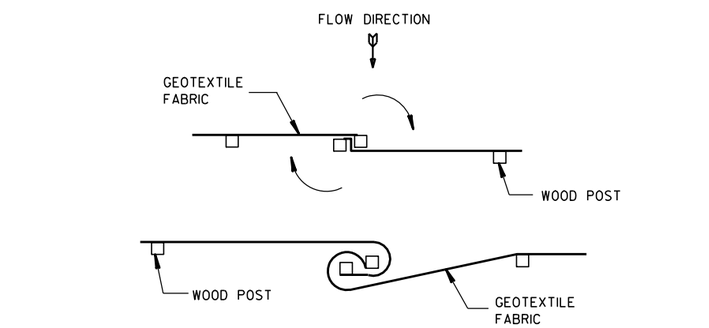


PLAN VIEW

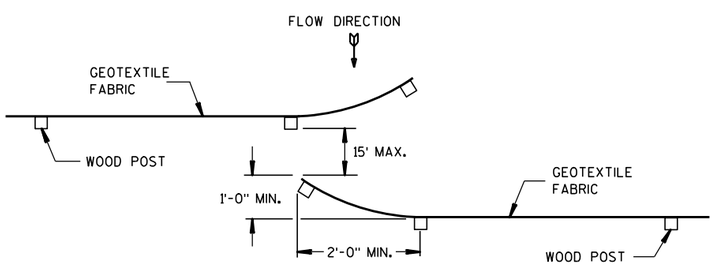
SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE



TWIST METHOD



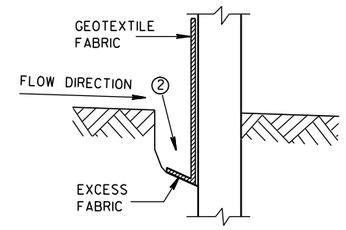
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

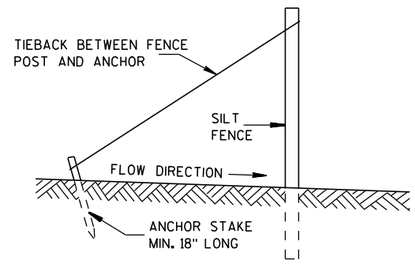
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 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 TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

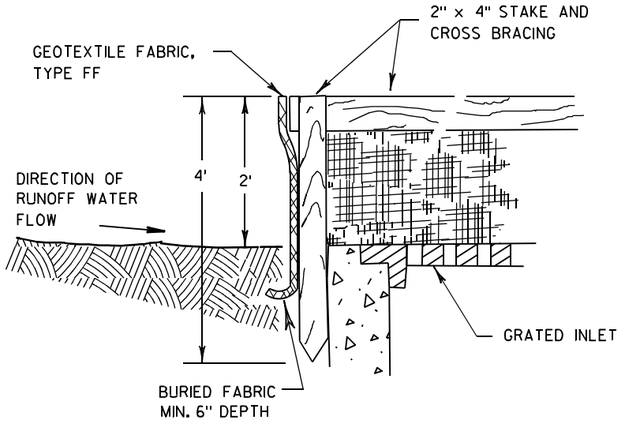
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

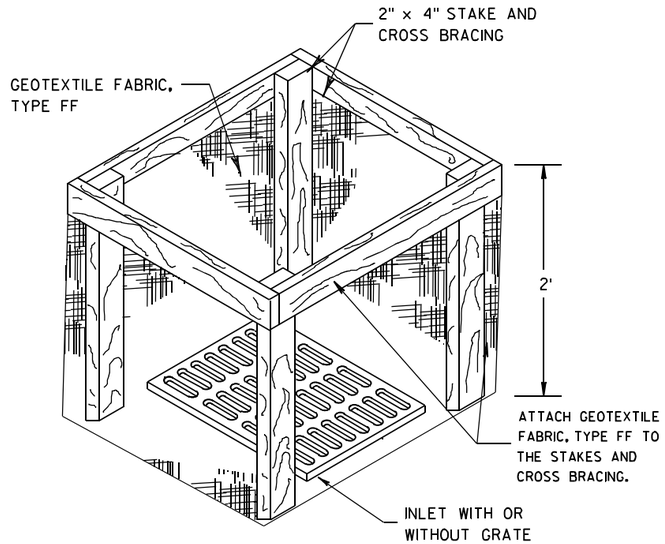
6

S.D.D. 8 E 9-6

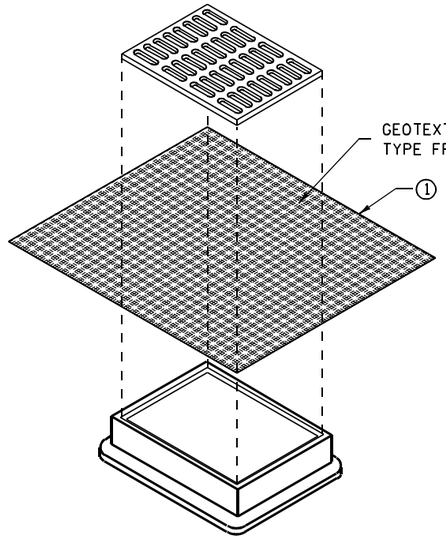
6

S.D.D. 8 E 9-6



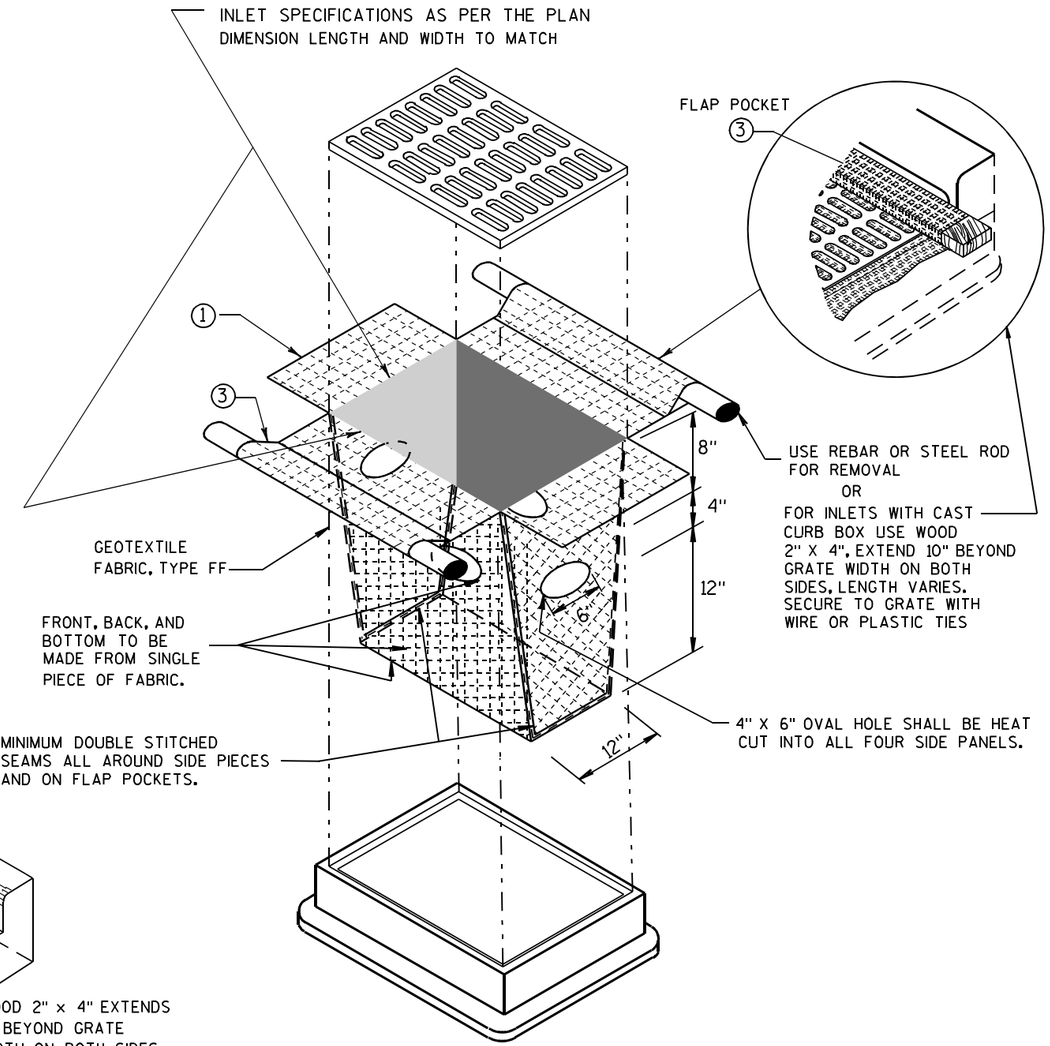


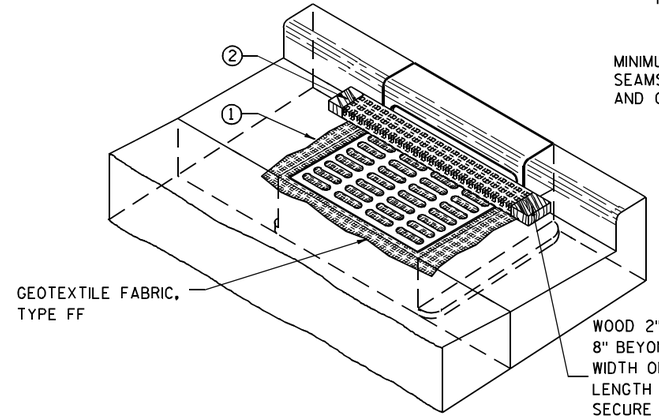
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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





INLET PROTECTION, TYPE C (WITH CURB BOX)

INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

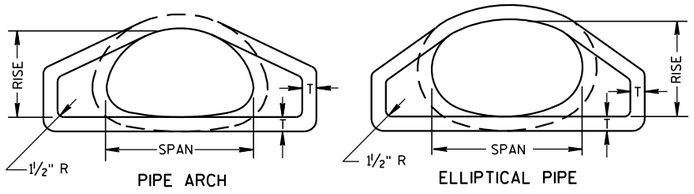
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

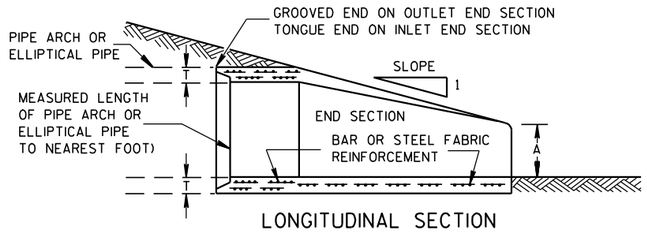
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

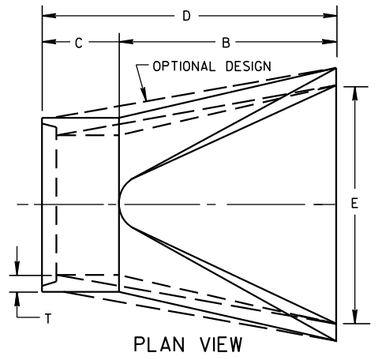
6
S.D.D. 8 E 10-2



END VIEW

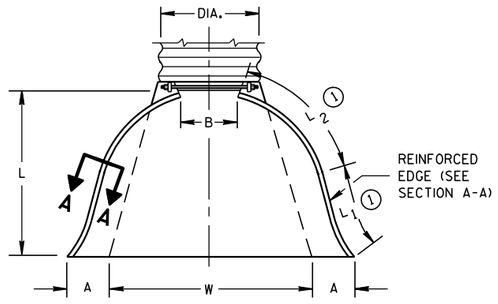


LONGITUDINAL SECTION



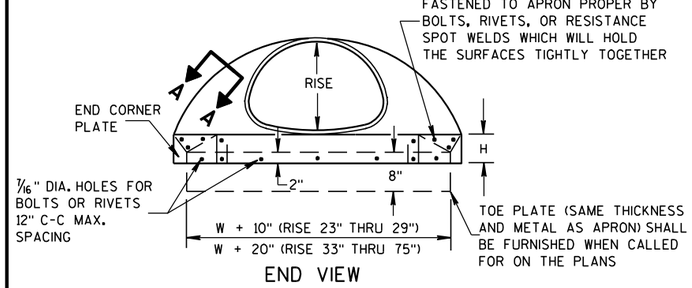
PLAN VIEW

CONCRETE ENDWALLS



REINFORCED EDGE (SEE SECTION A-A)

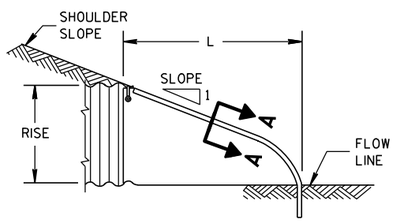
PLAN VIEW



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

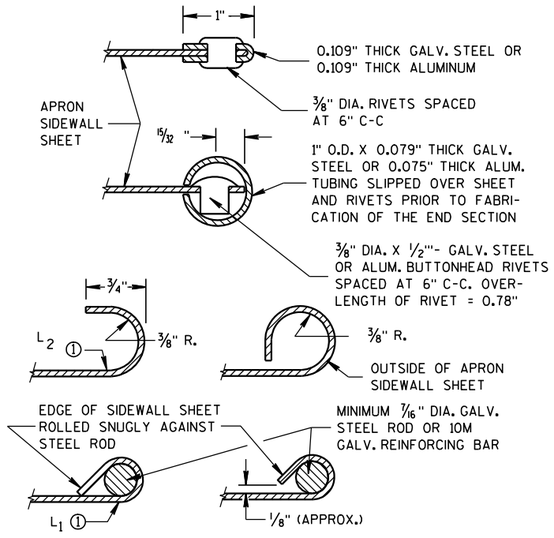
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

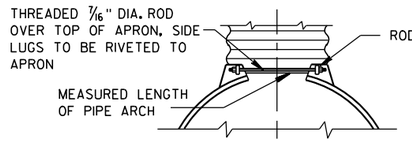
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

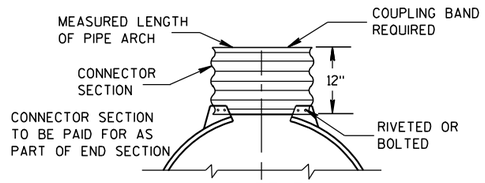
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



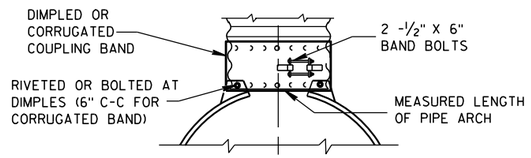
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

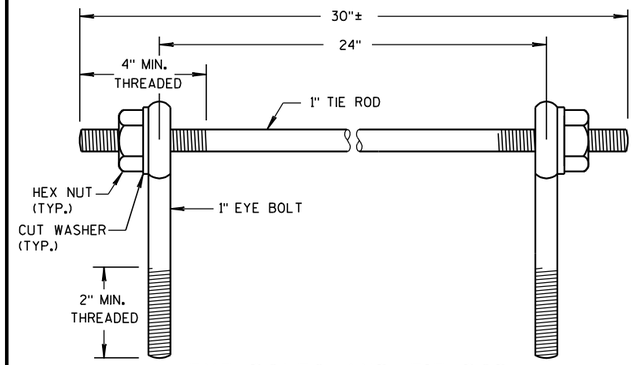
FHWA

6

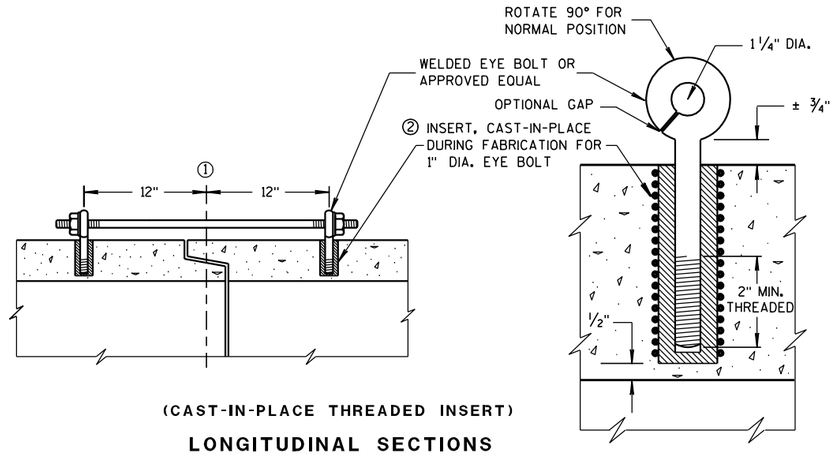
S.D.D. 8 F 2-1

6

S.D.D. 8 F 2-1



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.

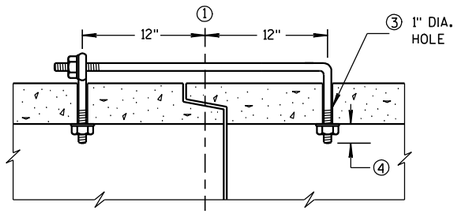
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

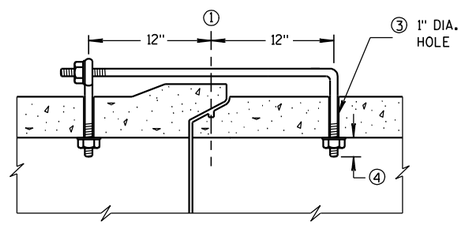
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

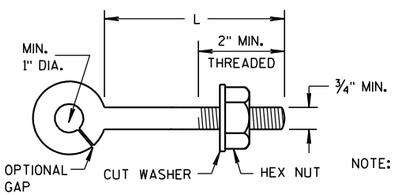


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

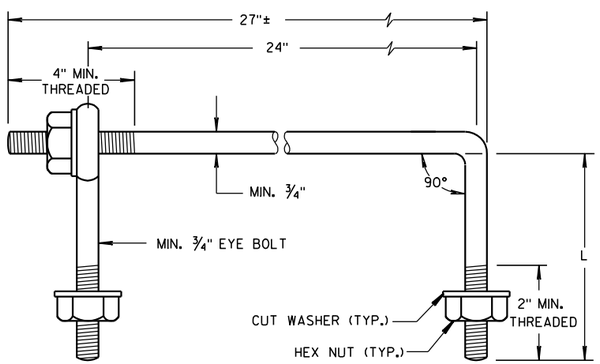
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

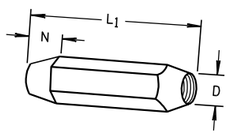
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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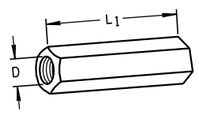
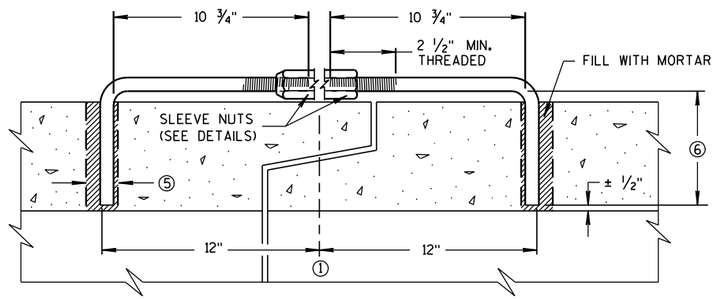


PLAIN

RIGHT AND LEFT THREADS

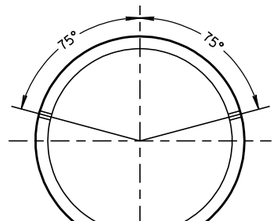
SLEEVE NUTS



LONGITUDINAL SECTION

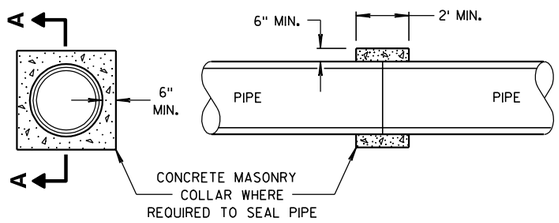
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

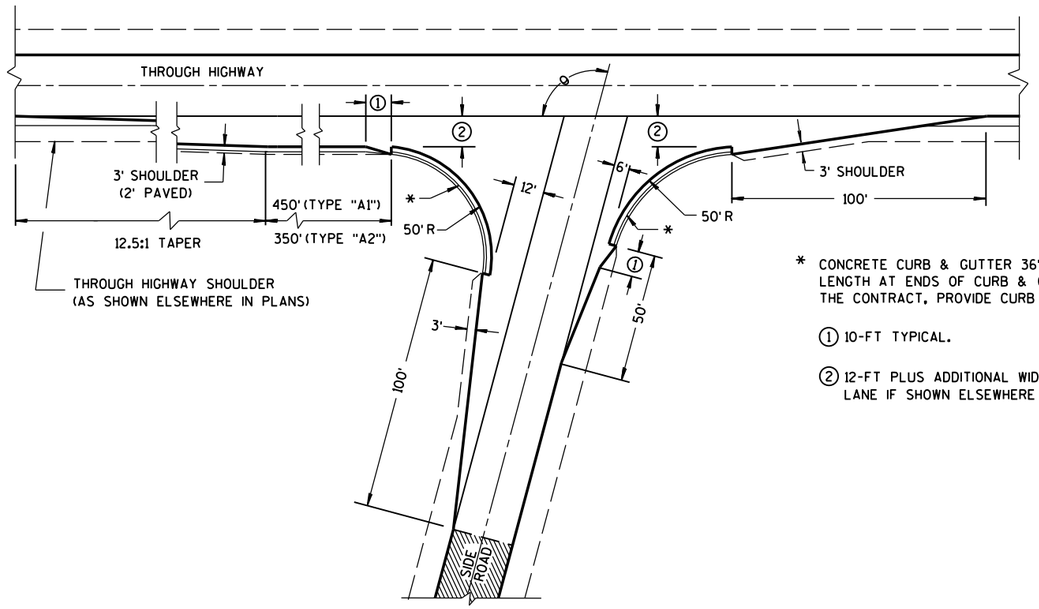
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
102
FHWA

6

S.D.D. 8 F 4-7



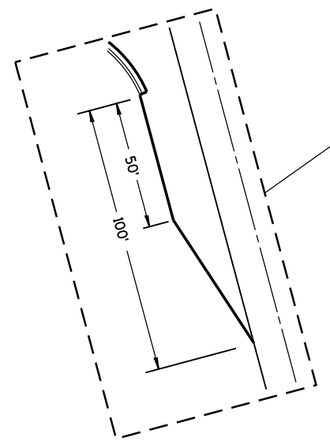
θ = MORE THAN 80°

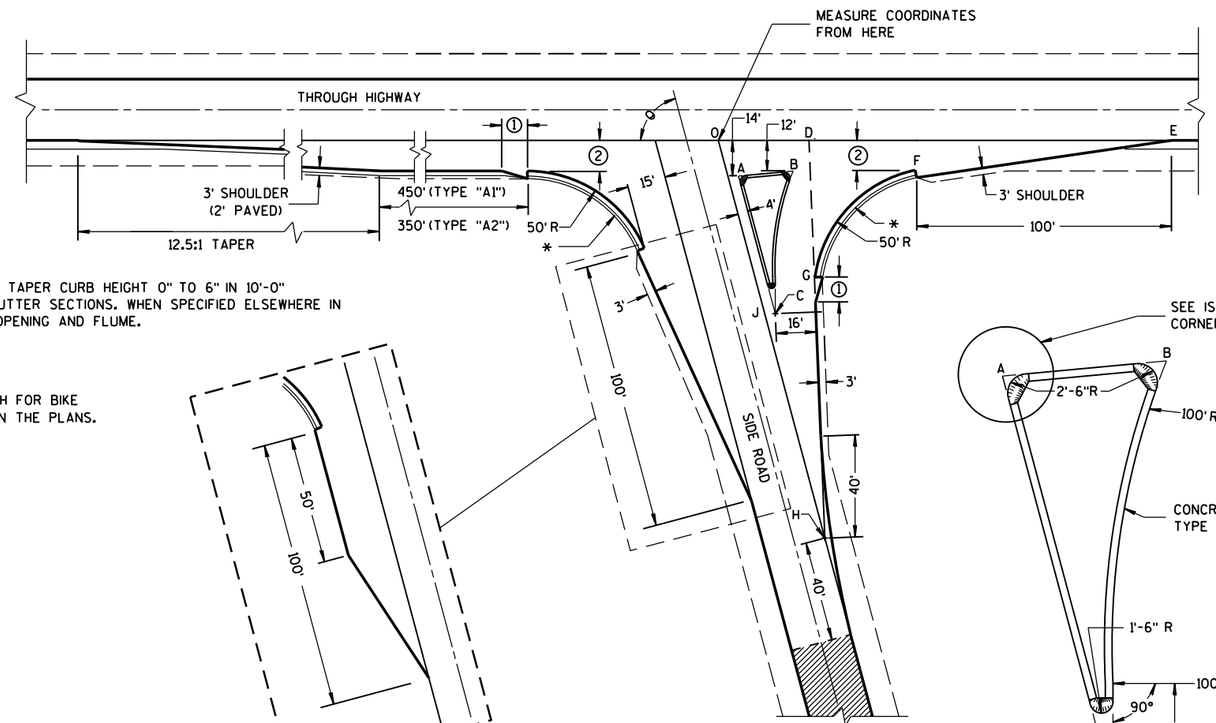
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

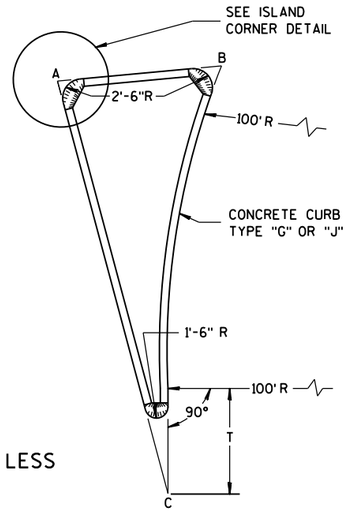
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

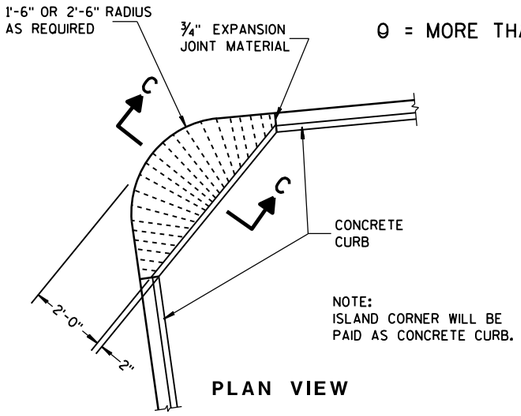




θ = ACUTE ANGLES 80° OR LESS

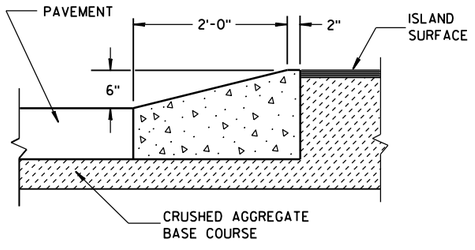


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



NOTE:
ISLAND CORNER WILL BE
PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X/Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

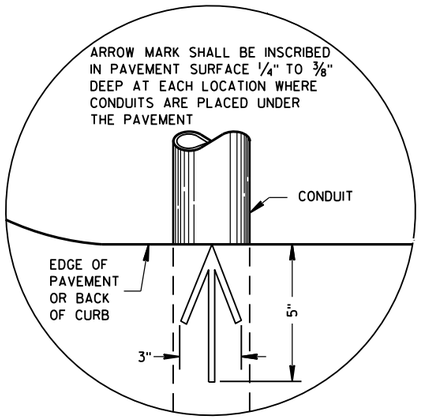
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

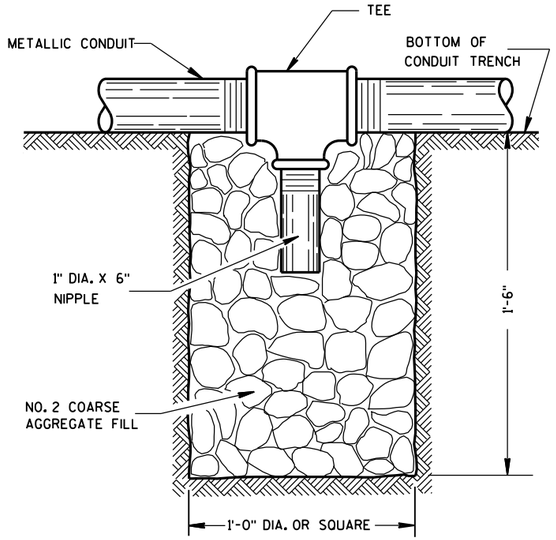
6

S.D.D. 9 A 1-13b



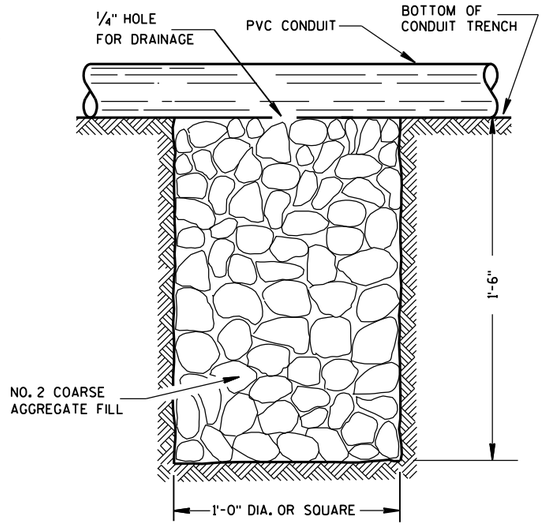
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

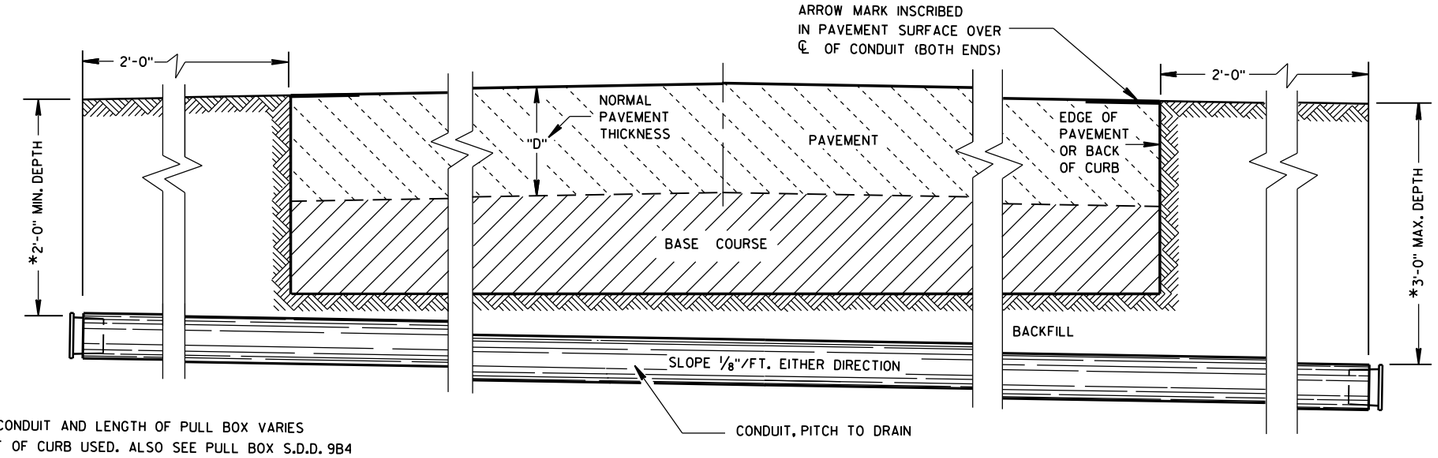
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

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

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



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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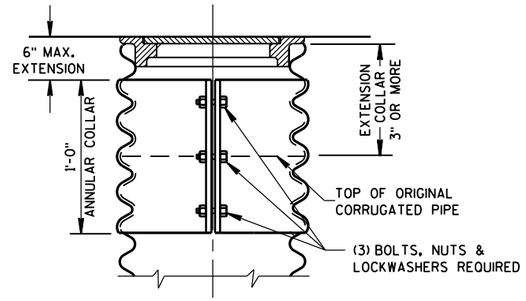
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

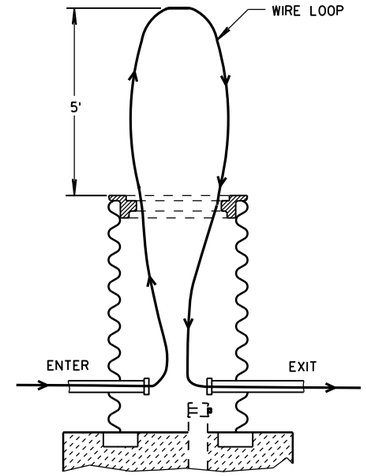
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

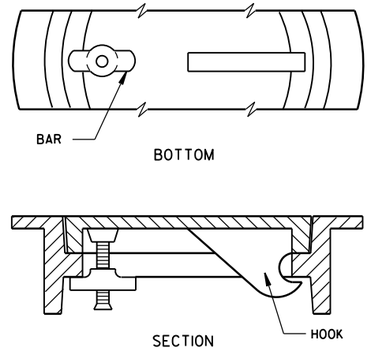
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

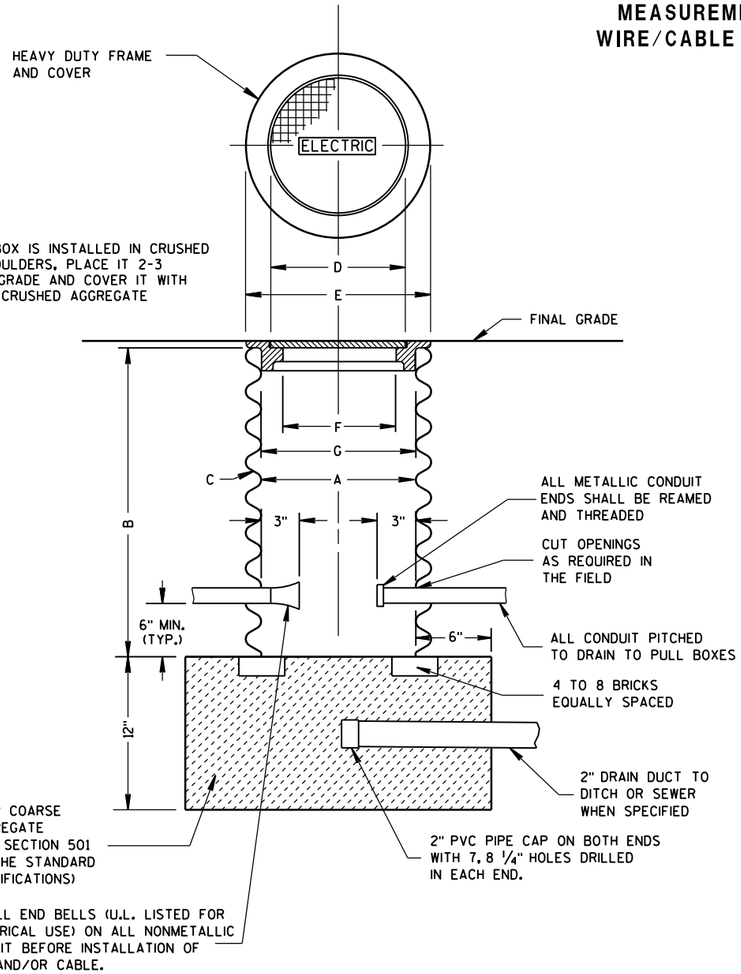


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



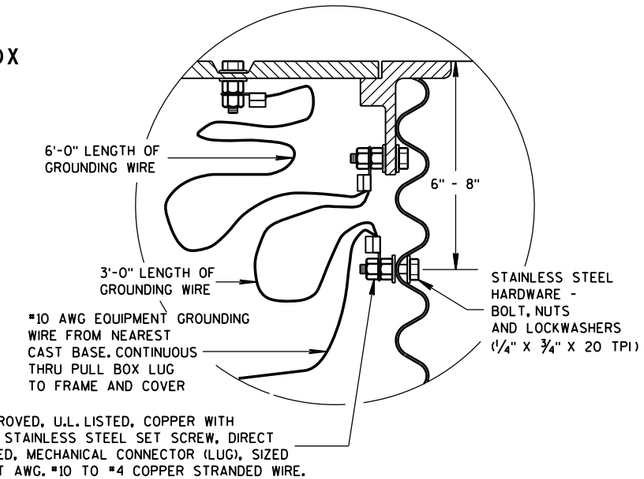
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

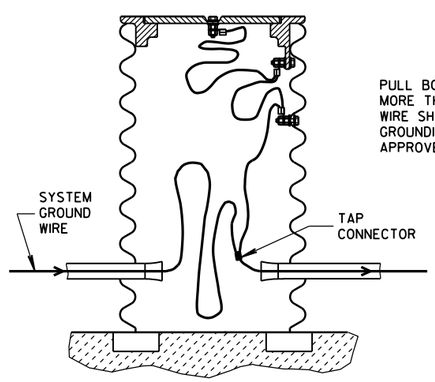


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

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

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

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

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

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

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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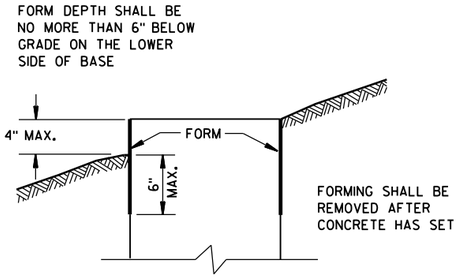
S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

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

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

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

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

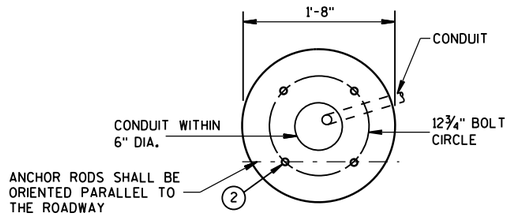
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

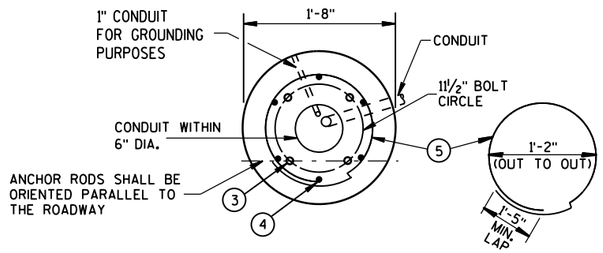
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

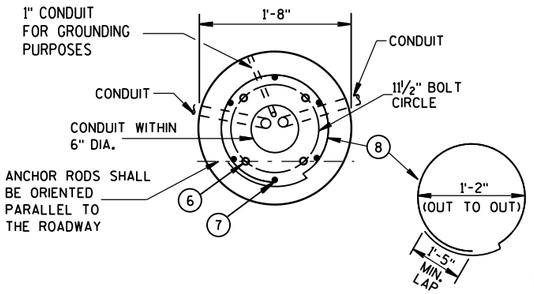
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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

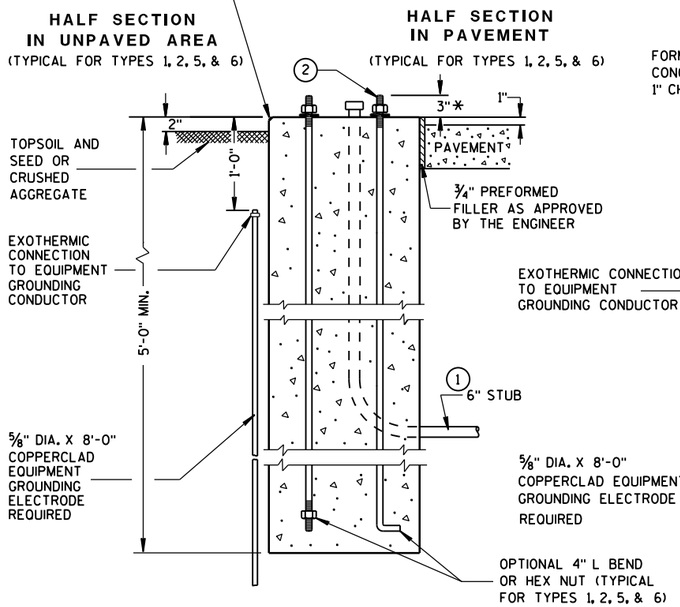






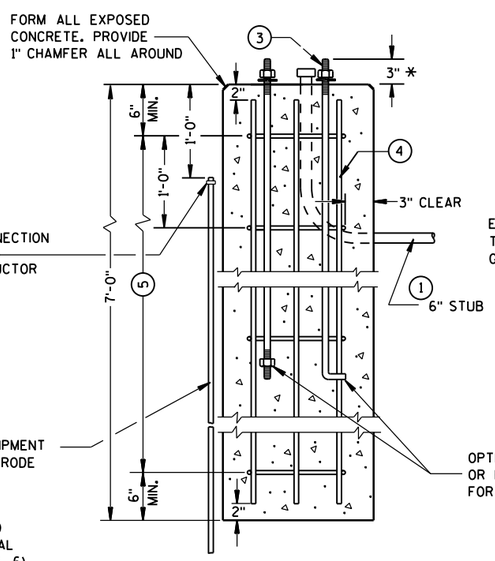
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

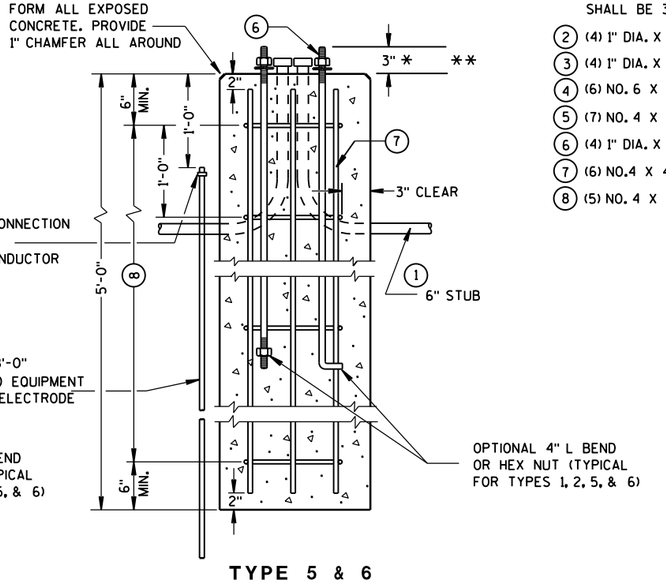


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

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

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

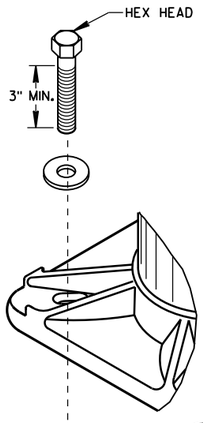
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

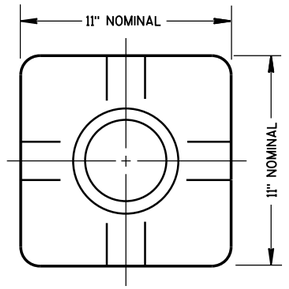
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

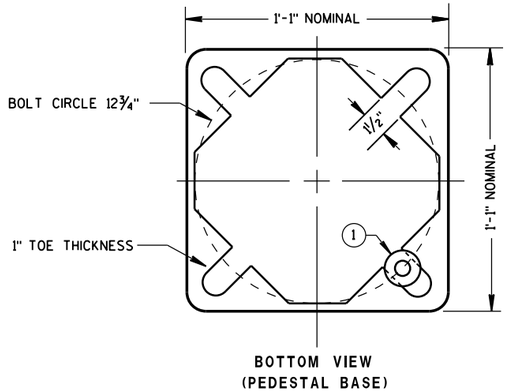
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

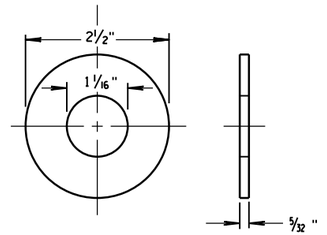




TOP VIEW
(PEDESTAL BASE)

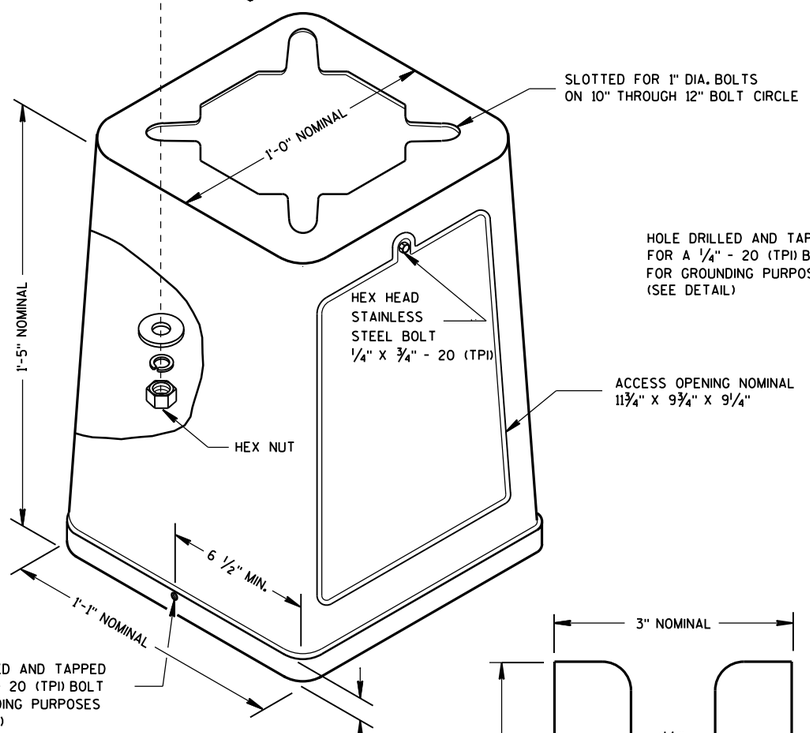


BOTTOM VIEW
(PEDESTAL BASE)

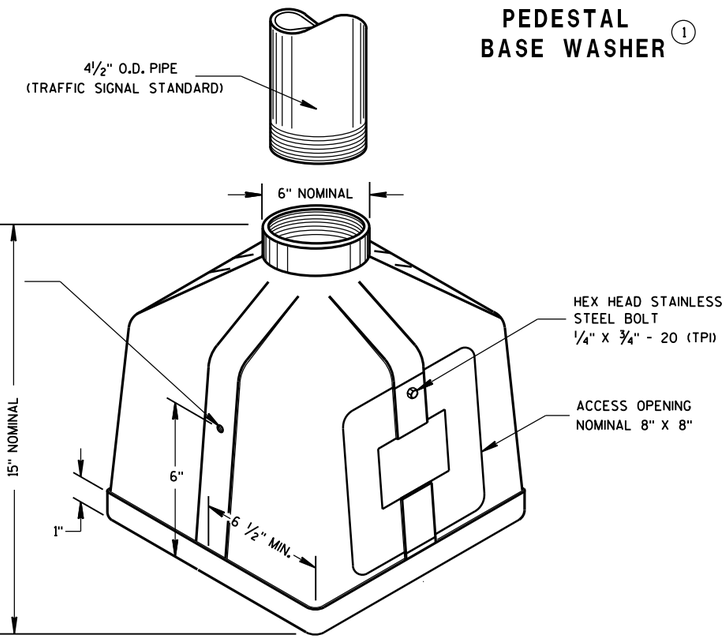


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

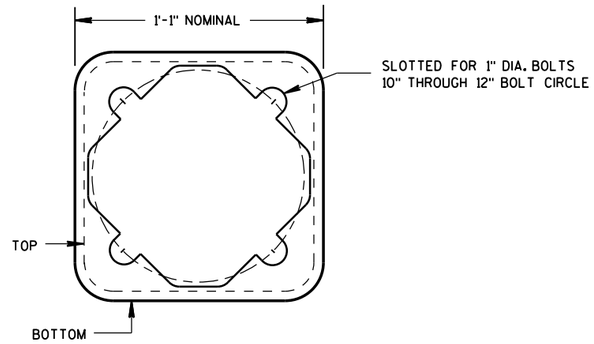
PEDESTAL BASE WASHER (1)



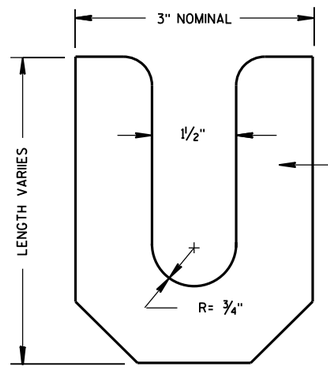
ISOMETRIC VIEW



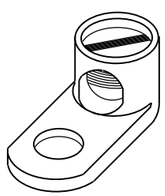
ISOMETRIC VIEW
PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)



LEVELING SHIM



TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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S.D.D. 9 C 3-4

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).

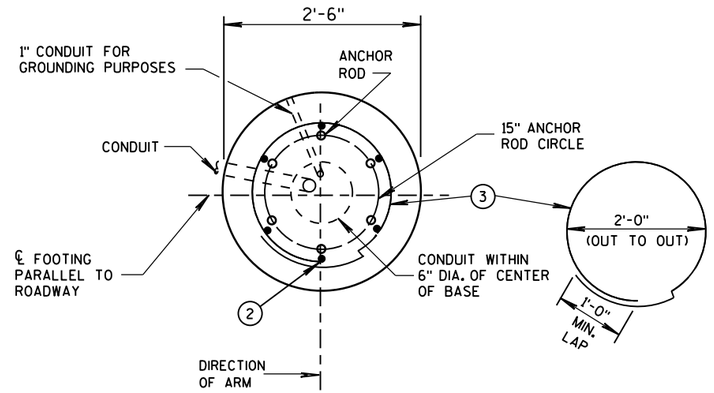
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

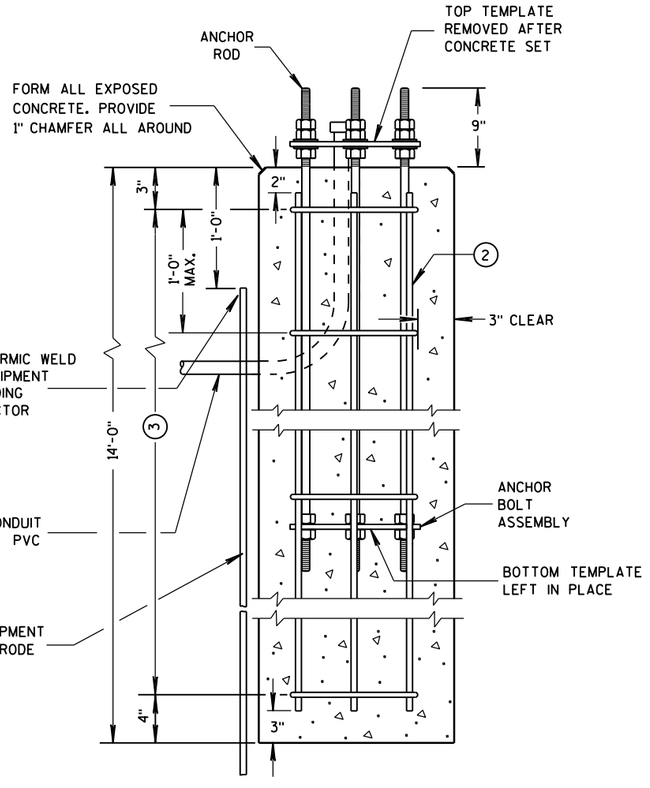
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 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" MAX. C-C.

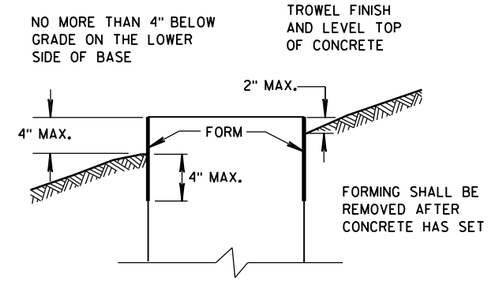
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



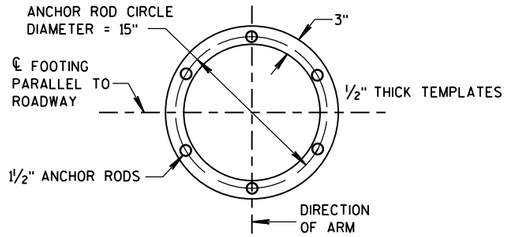


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

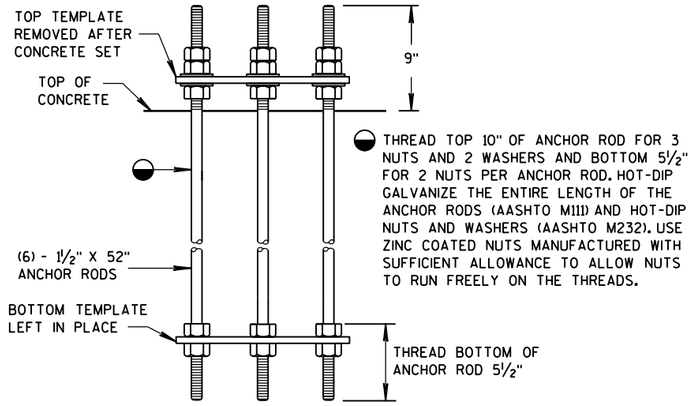
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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
Sept., 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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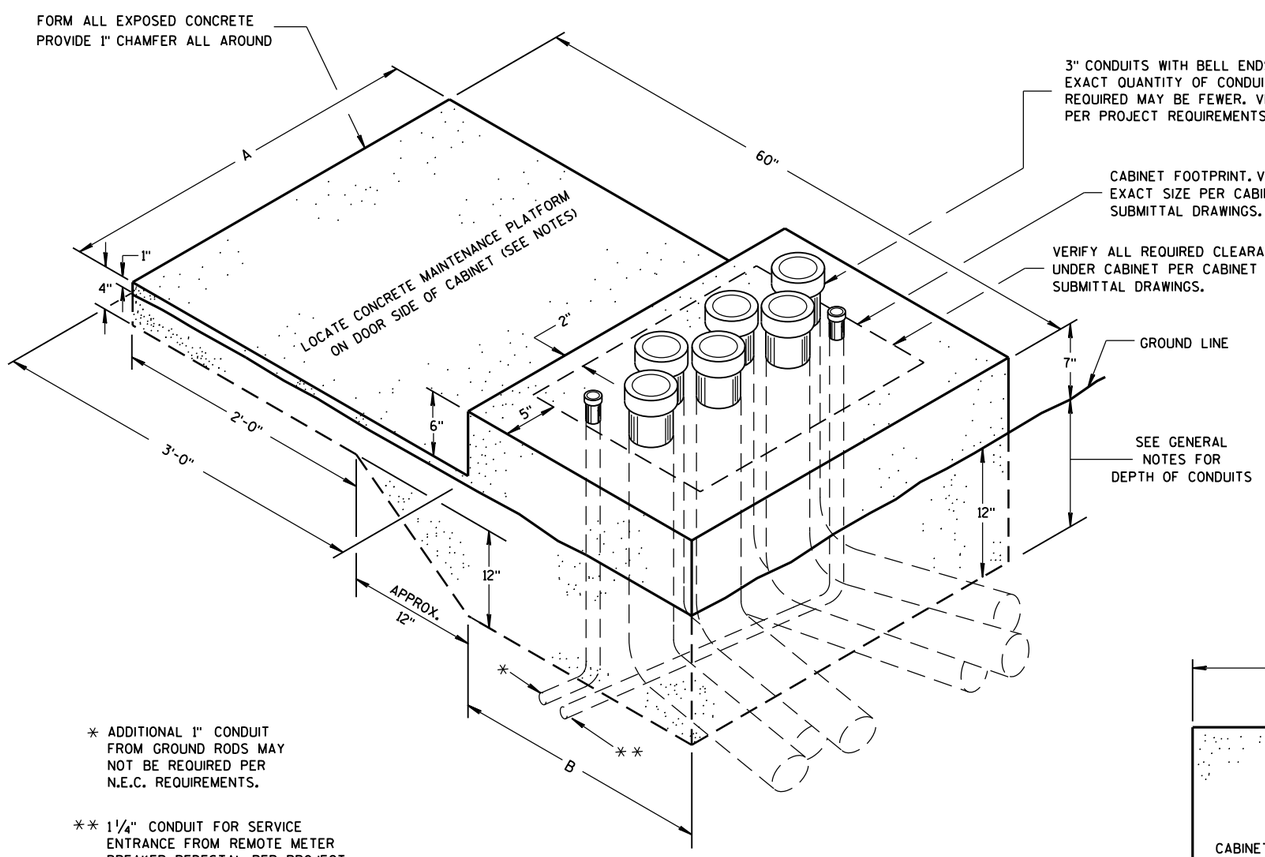
S.D.D. 9 C 11-8



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

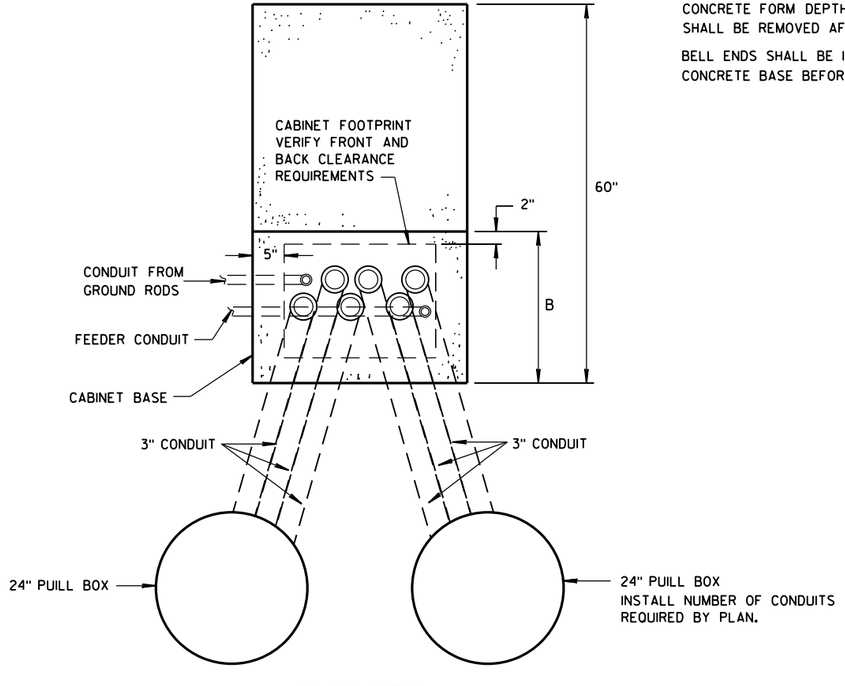
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINE — WYS
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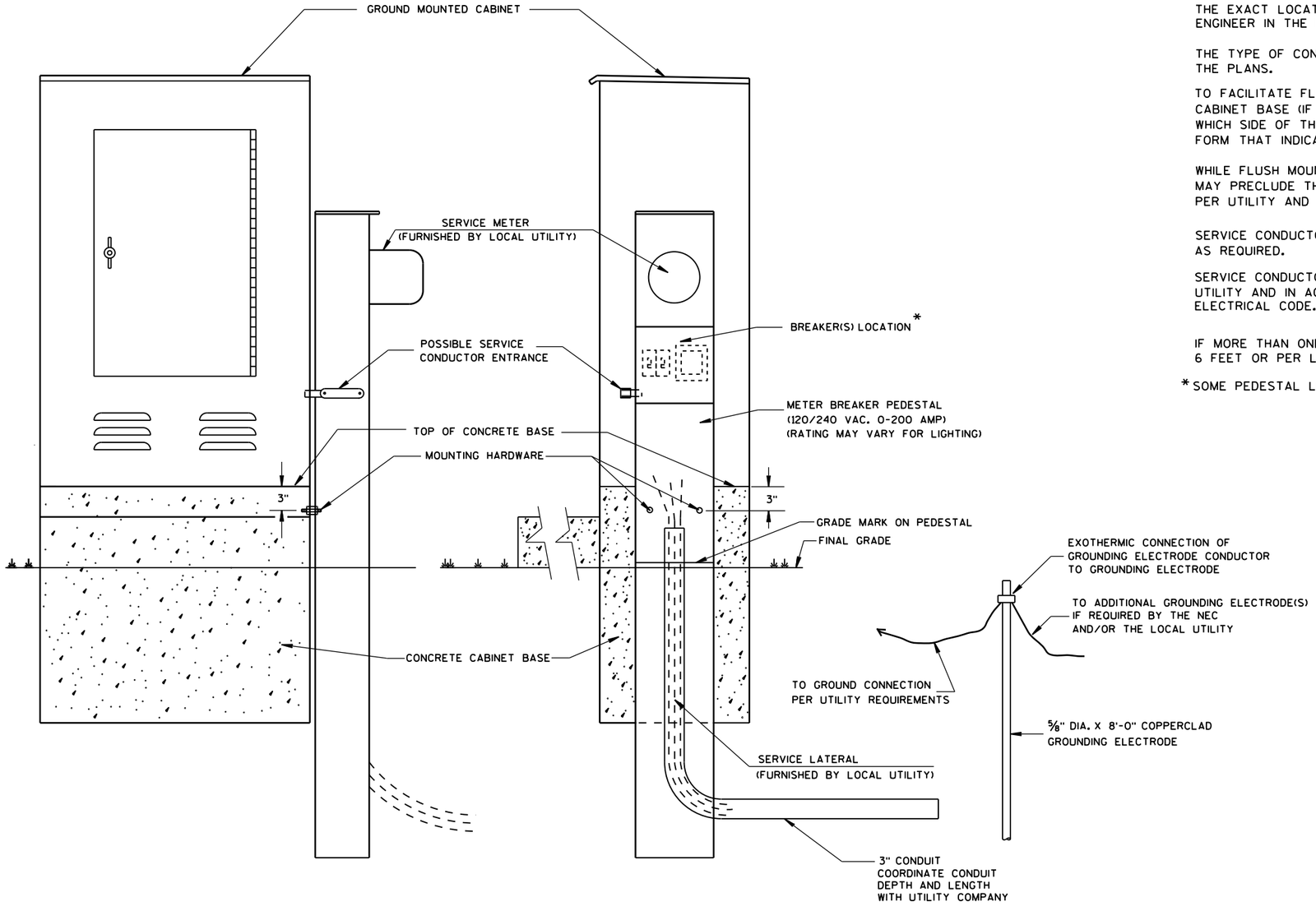

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

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

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

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

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

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

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

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

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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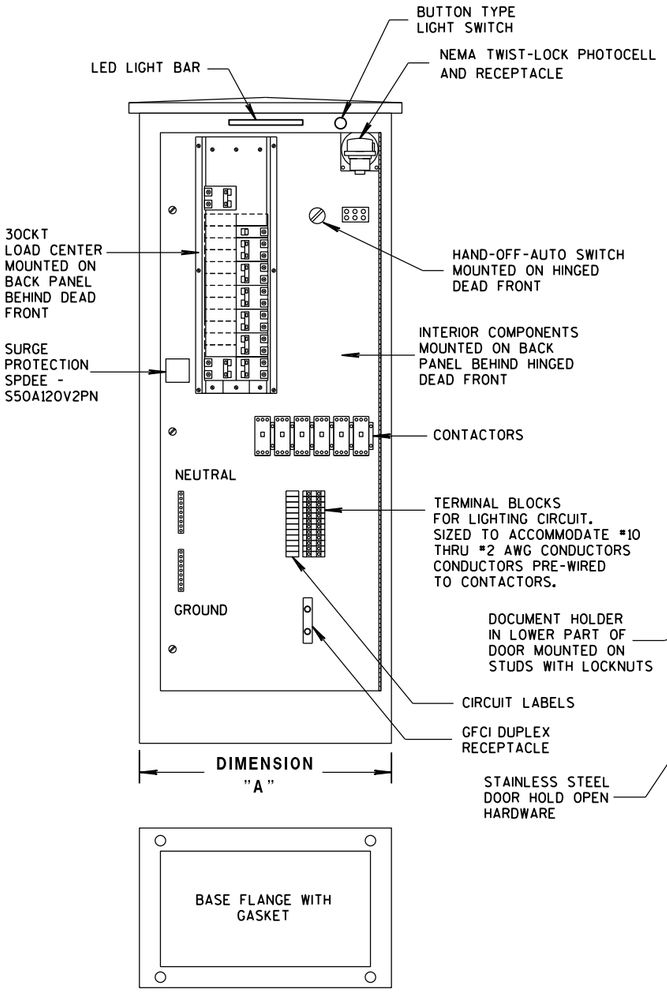
FRONT INTERIOR ELEVATION



SIDE VIEW

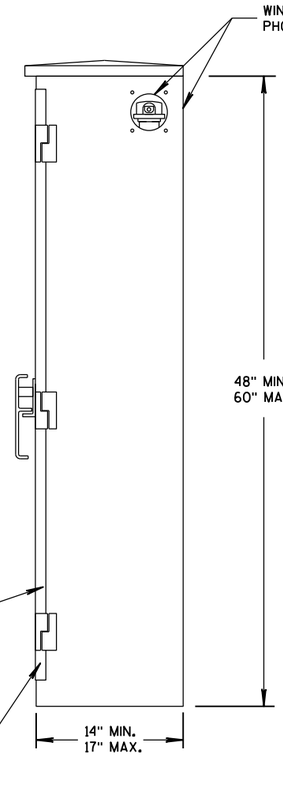
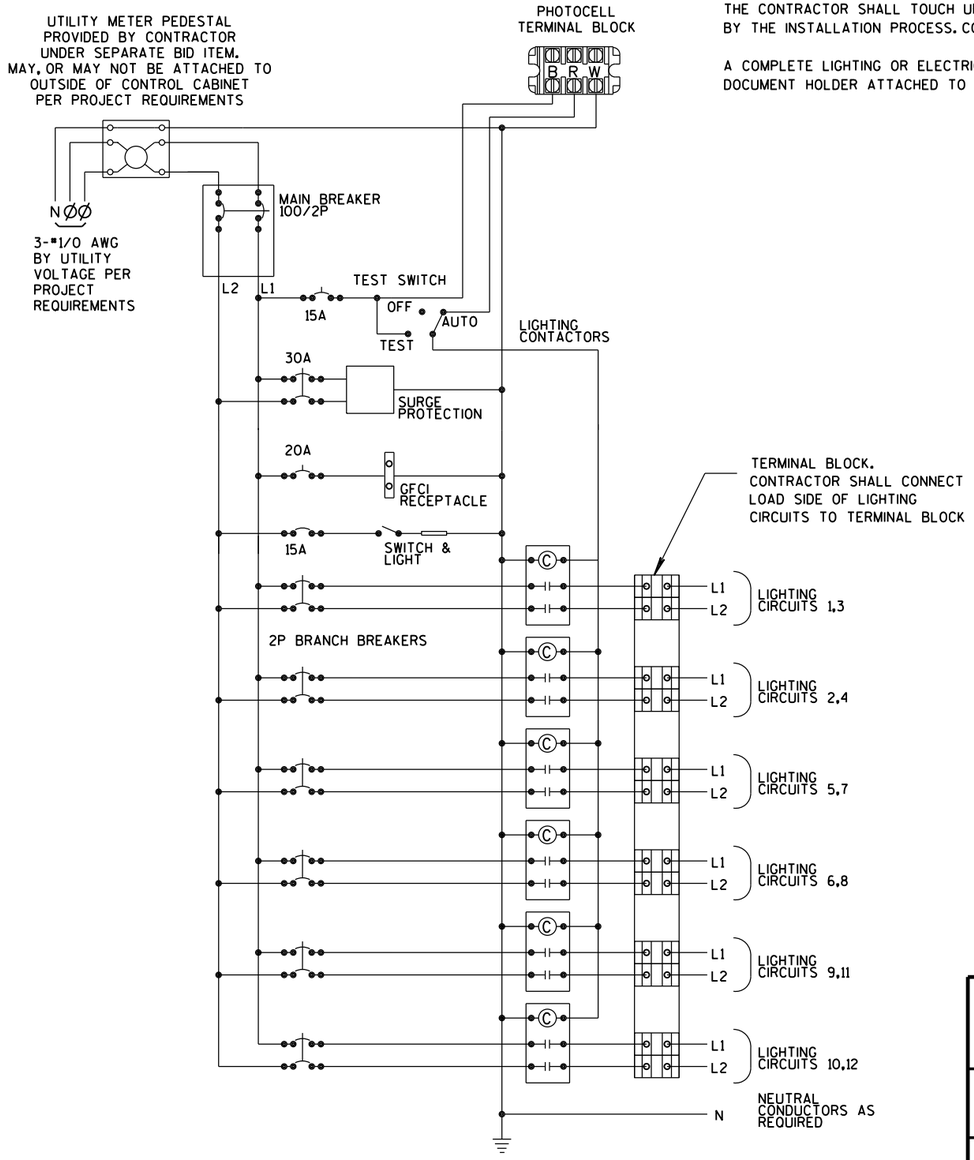


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET 120/240 VOLT

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DEPARTMENT OF TRANSPORTATION

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Sept. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINEER
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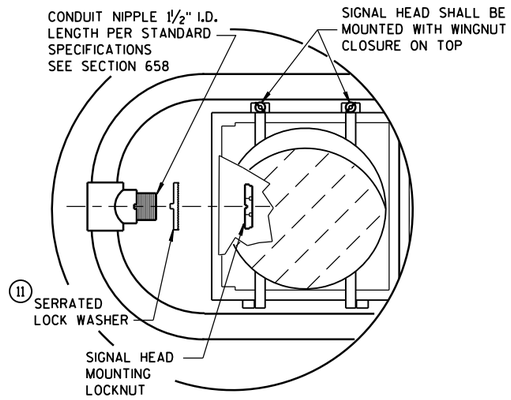
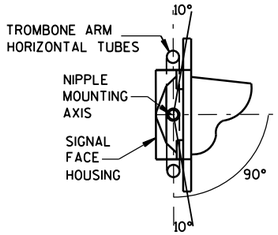


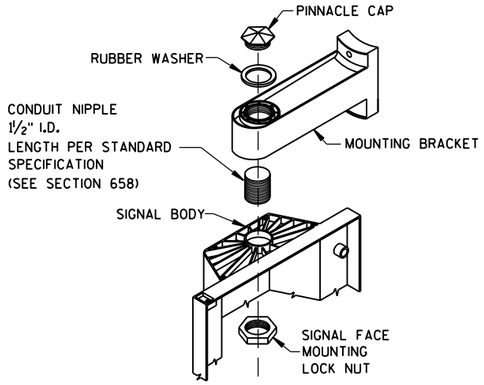
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

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

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

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

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG - 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

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

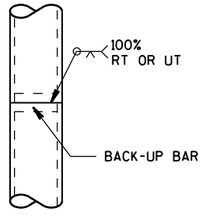
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

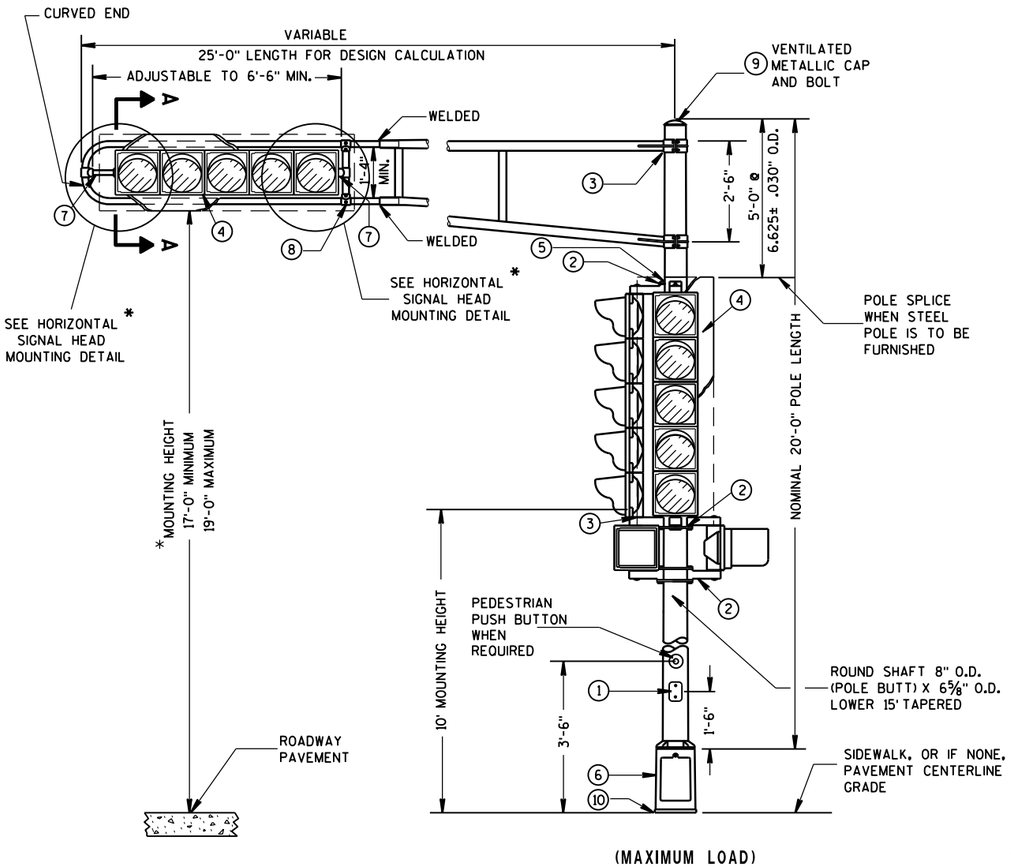
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

FOR MANUFACTURERS USE ONLY

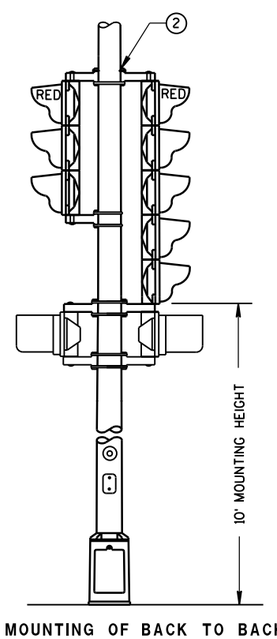
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



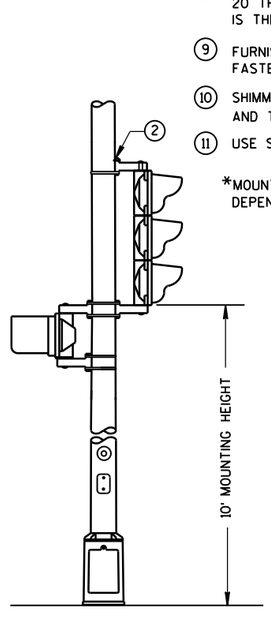
POLE SPLICE DETAIL



(MAXIMUM LOAD)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

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DEPARTMENT OF TRANSPOI

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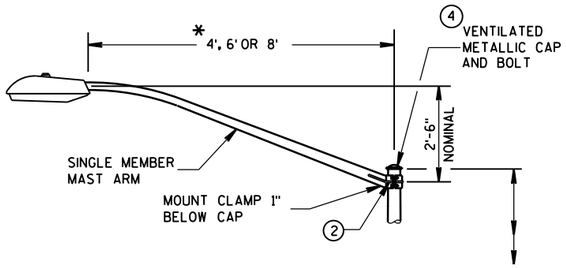
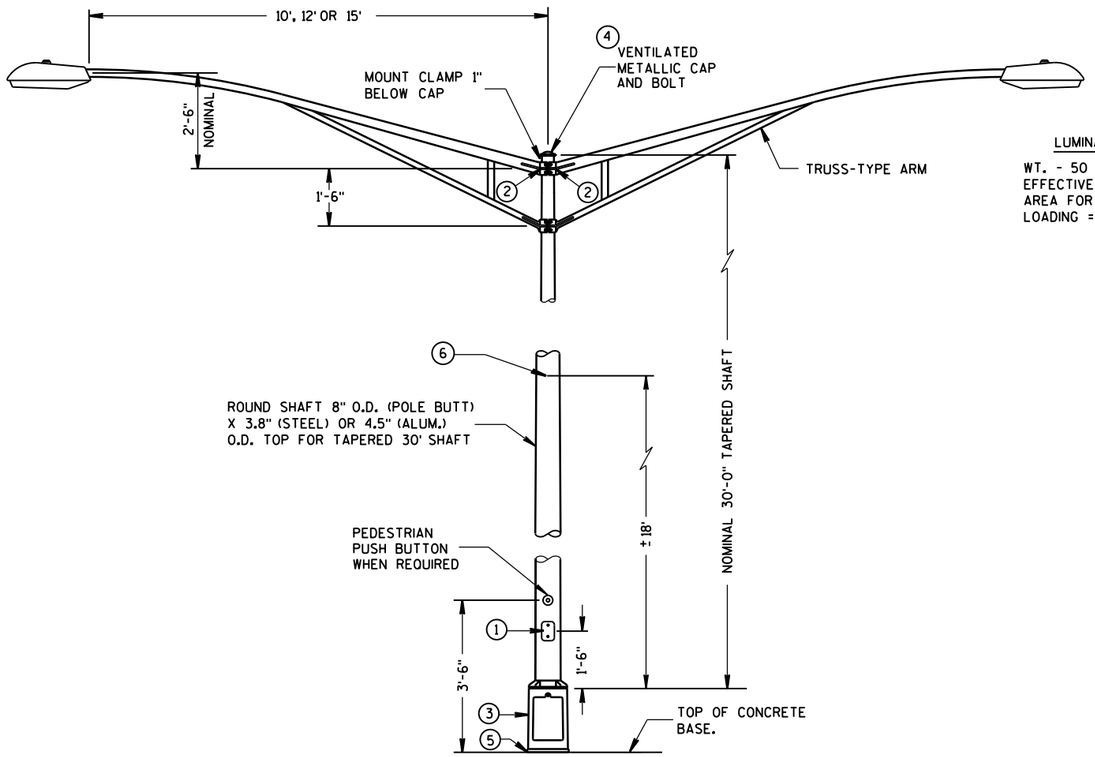
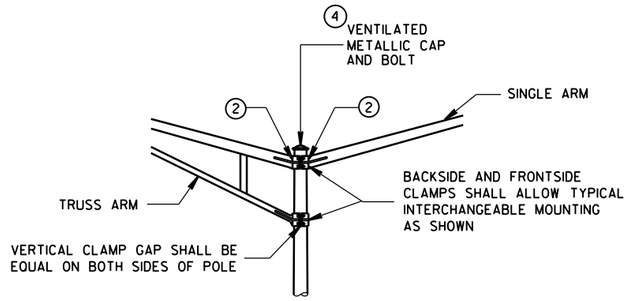
S.D.D. 9 E 1-14a

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





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

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

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.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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S.D.D. 9 E 1-14d

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

STATE OF WISCONSIN
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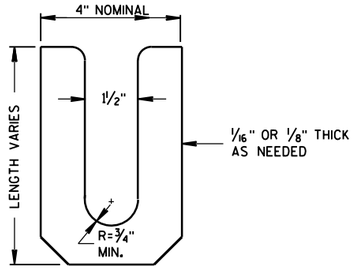
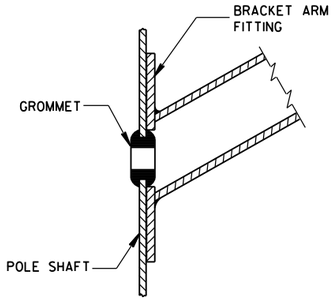
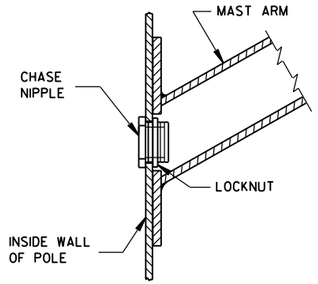


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

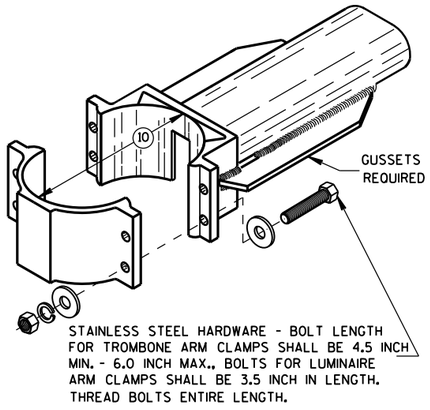
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

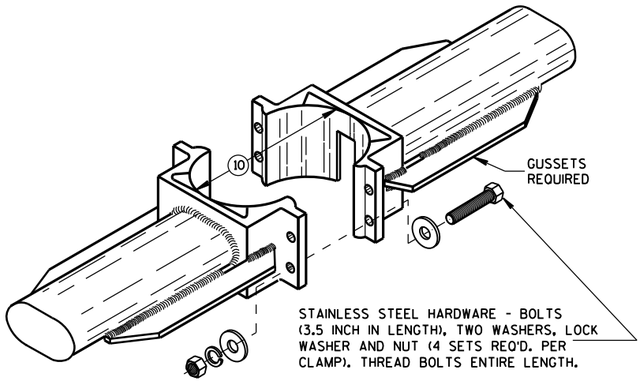
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

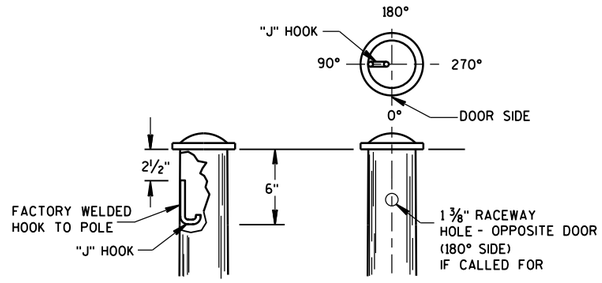
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



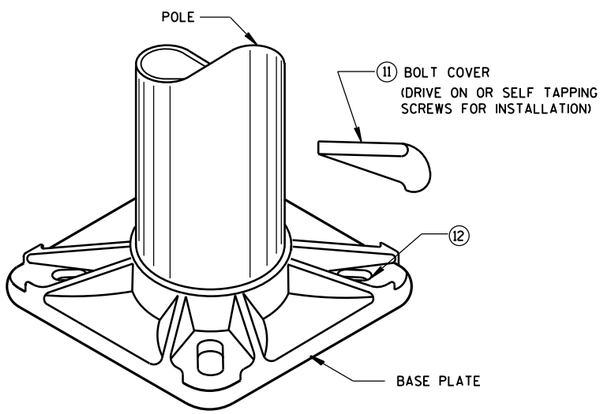
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



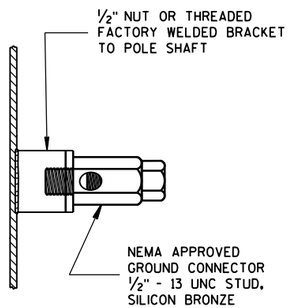
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

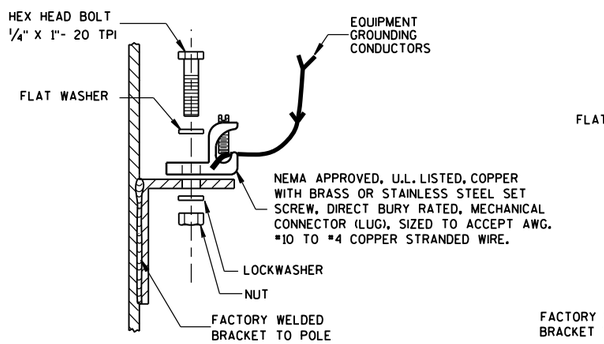


TYPICAL "J" HOOK LOCATION



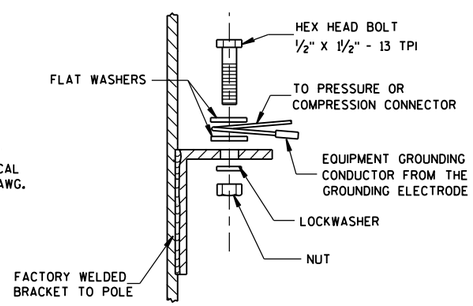
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

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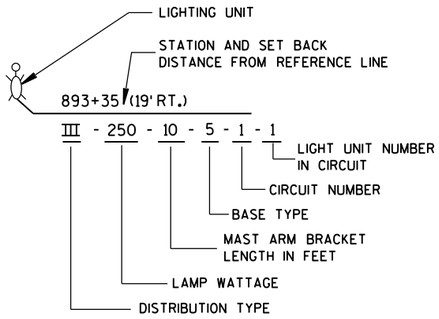
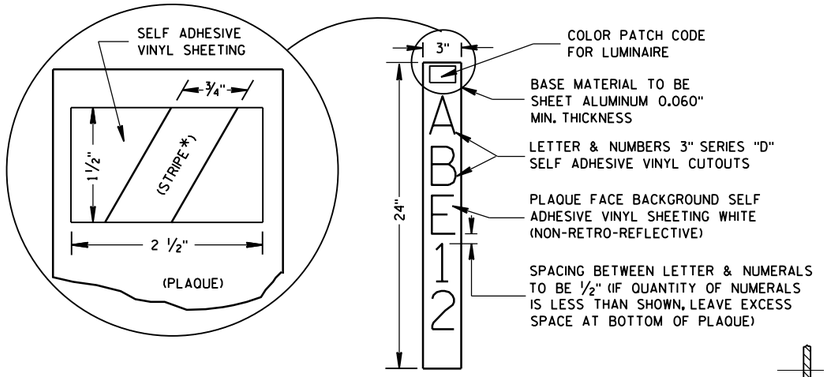


LIGHTING UNIT CODE
(TYPICAL)



COLOR PATCH CODE FOR LUMINAIRES

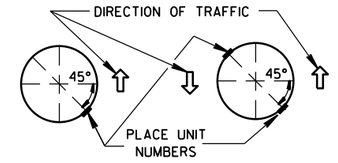
(HIGH PRESSURE SODIUM)

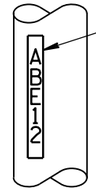
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W/WHITE STRIPE*
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)

400 WATT - (NO PATCH)
250 WATT - YELLOW

IDENTIFICATION PLAQUE





FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUM. POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES)

NOTES:

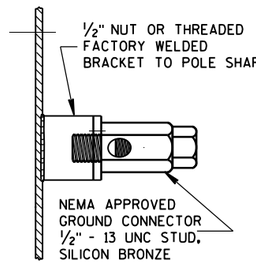
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

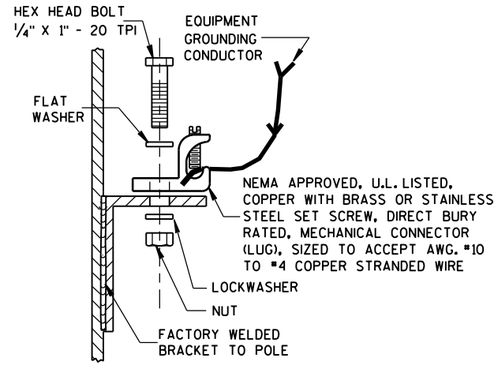
2) UNIT NUMBERS: ONE REQUIRED FOR SINGLE ARM POLES TWO REQUIRED FOR MEDIAN MOUNT POLES.

LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT

(TYPICAL ALL LIGHTING UNITS)

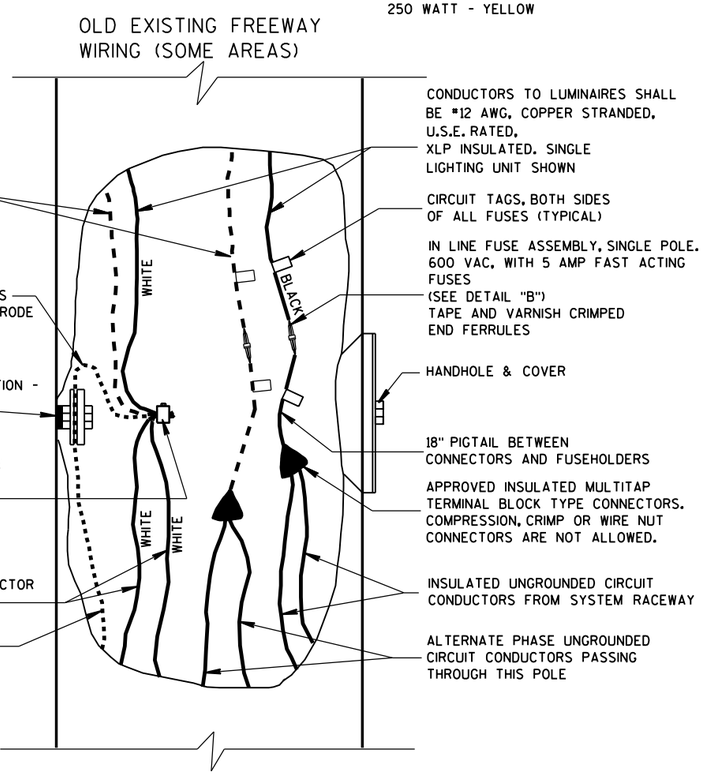
FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS



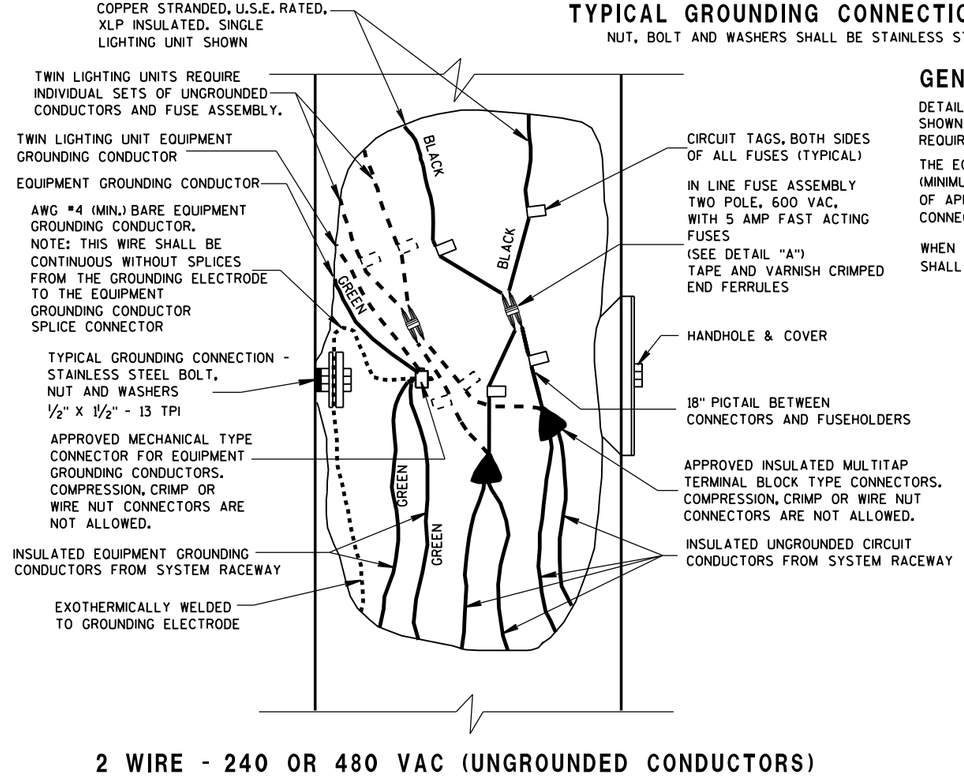


TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



2 WIRE - 120, 240 OR 480 VAC TO GROUND



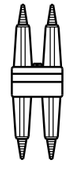
2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

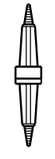
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND 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.



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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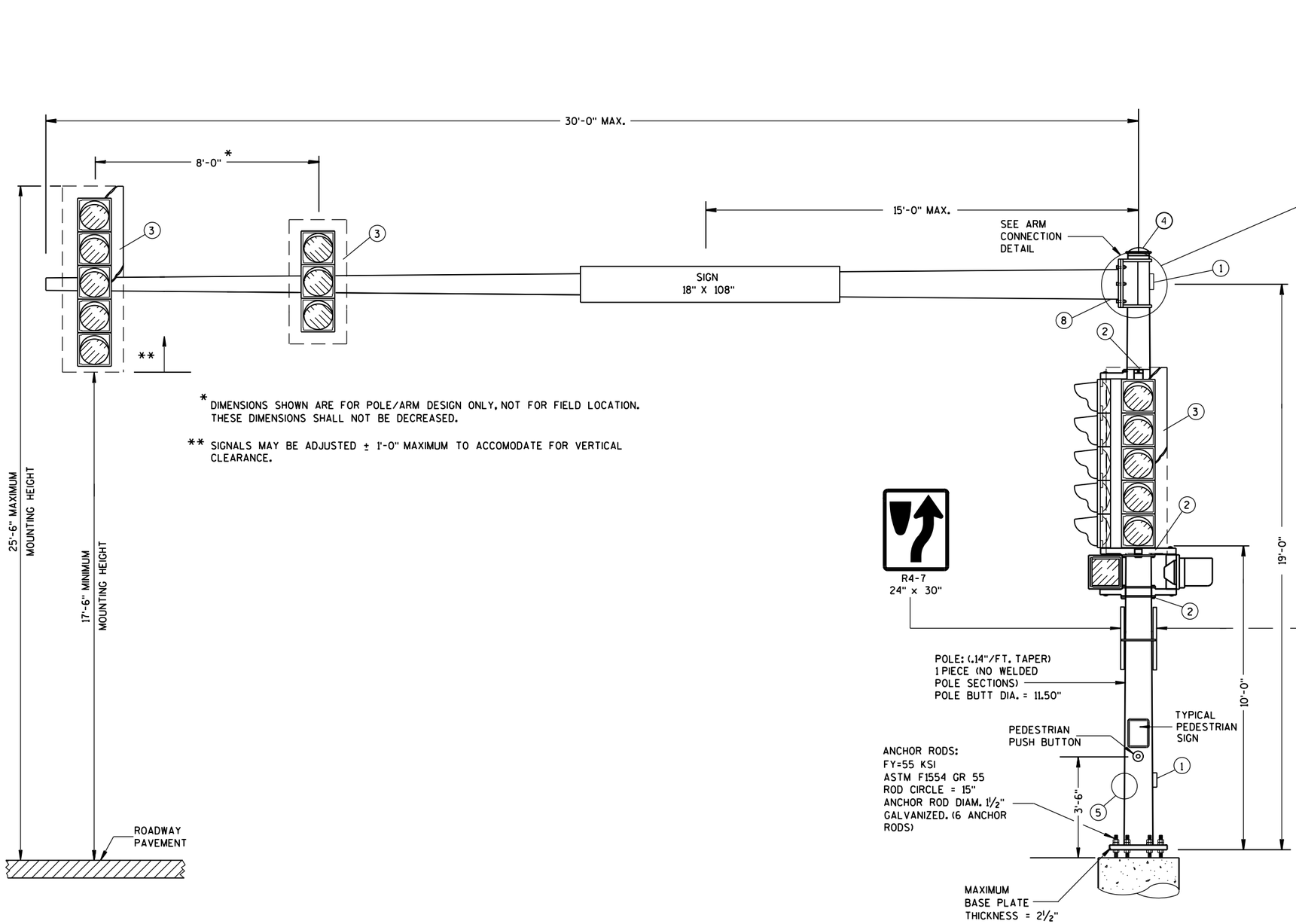
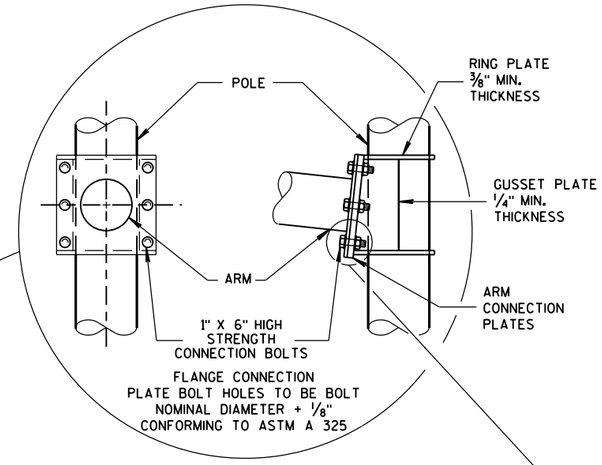
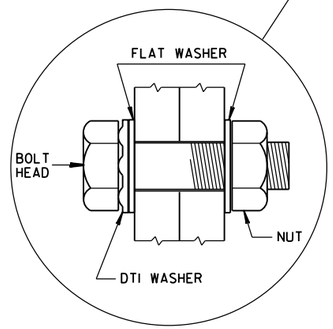


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

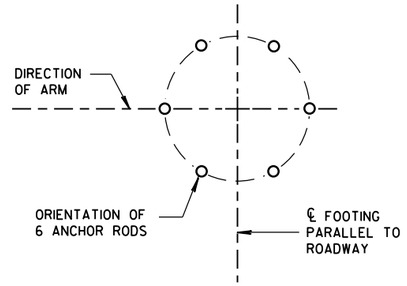
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY 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
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

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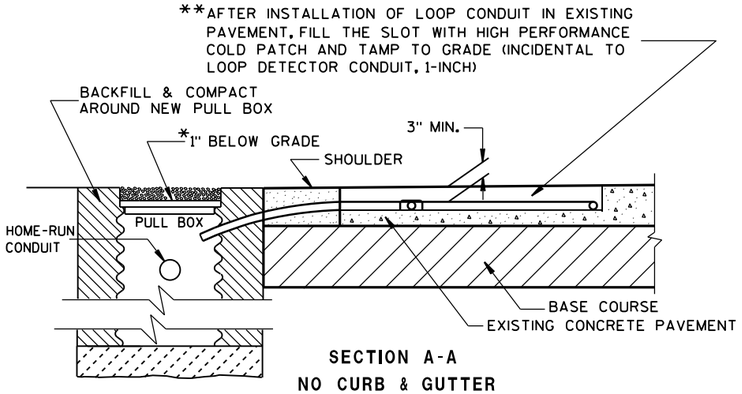
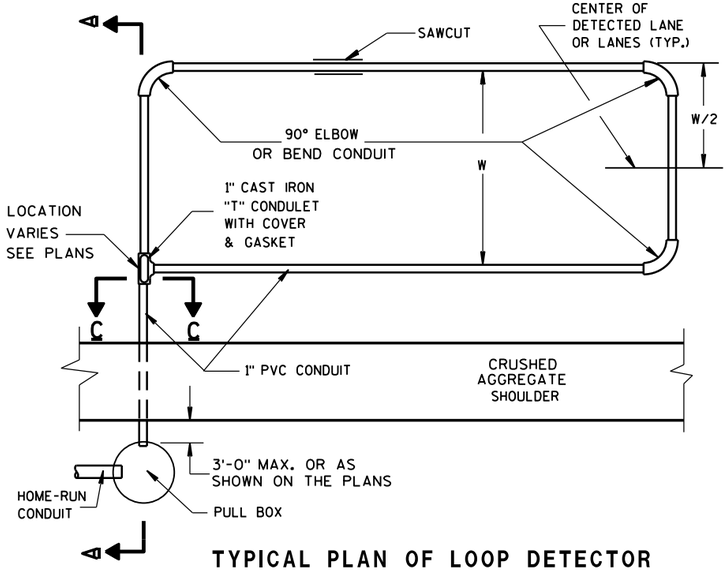


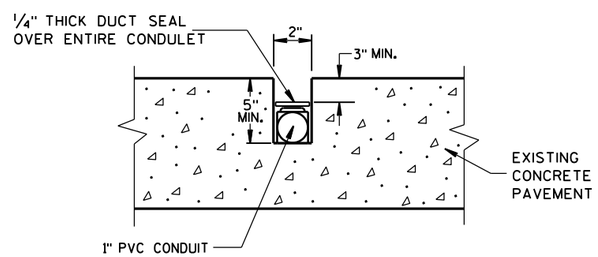
SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

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



TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY $\frac{1}{2}$ INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

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

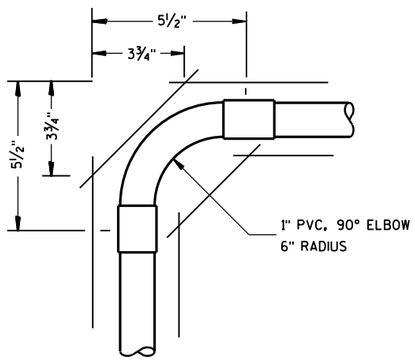
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

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

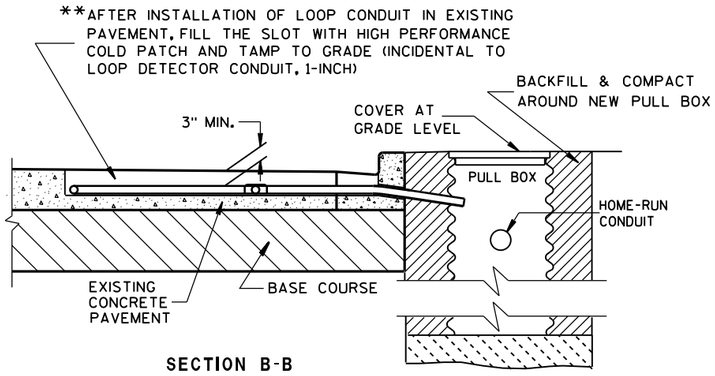
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



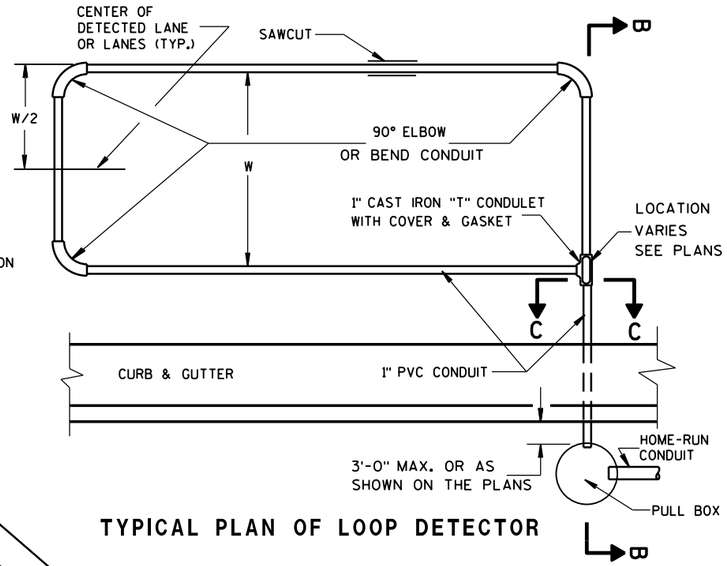
TOP VIEW

CORNER SAW SLOT DETAIL

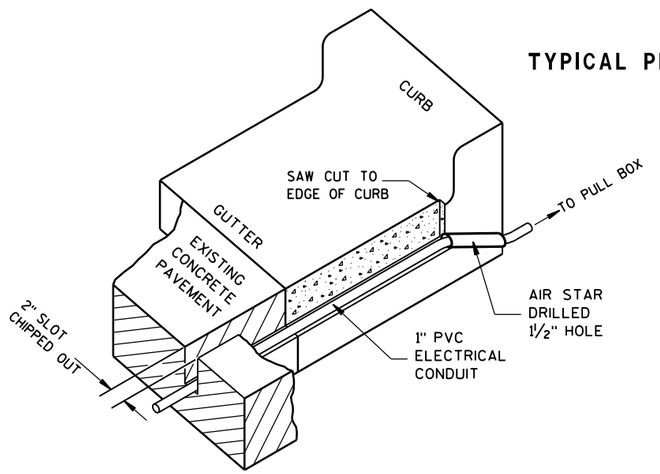


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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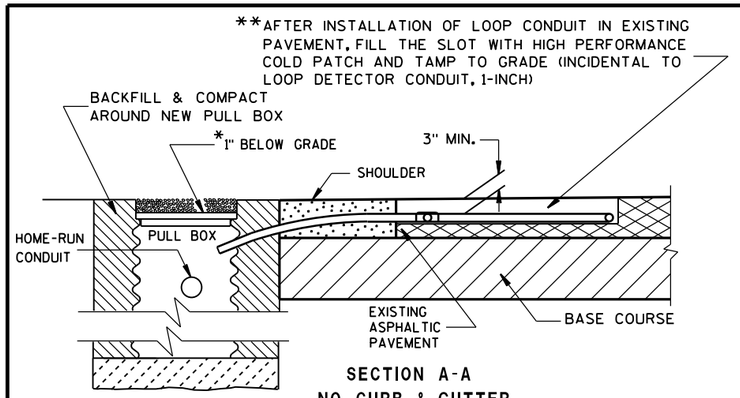
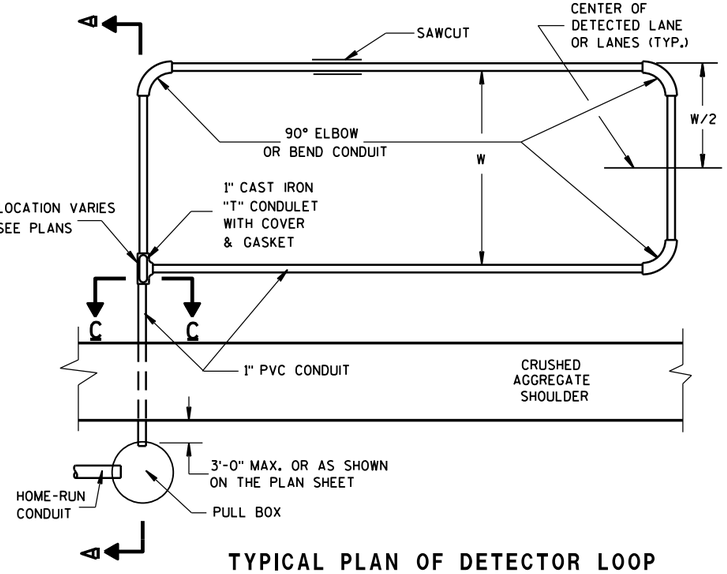


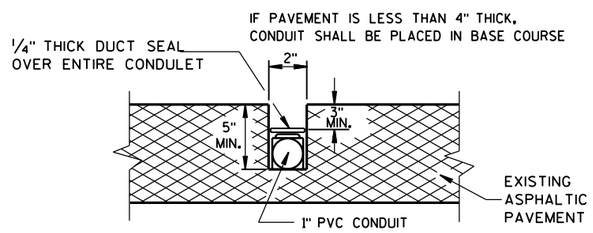
SECTION A-A
NO CURB & GUTTER

TYPICAL PLAN OF LOOP DETECTOR

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



TYPICAL PLAN OF DETECTOR LOOP



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

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

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

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

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

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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

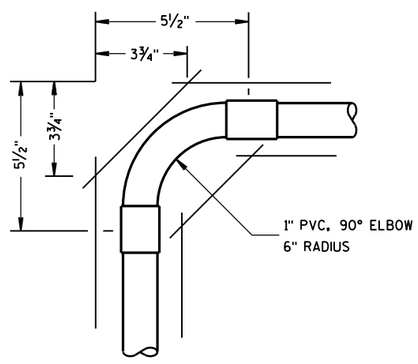
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

IN THE EVENT THAT THE EXISTING PAVEMENT IS MORE THAN 5 INCHES THICK, AND THEREFORE , THE 1 INCH CONDUIT DOES NOT REQUIRE INSTALLATION BELOW THE PAVEMENT INTO THE BASE COURSE, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH BEFORE INSTALLATION OF THE CONDUIT. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

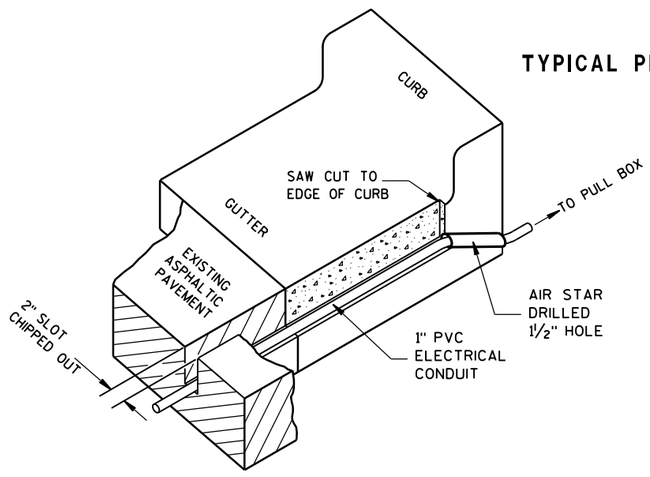
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



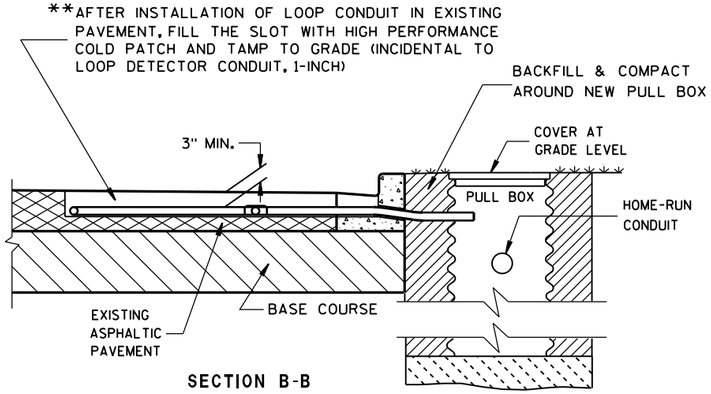
TOP VIEW

CORNER SAW SLOT DETAIL



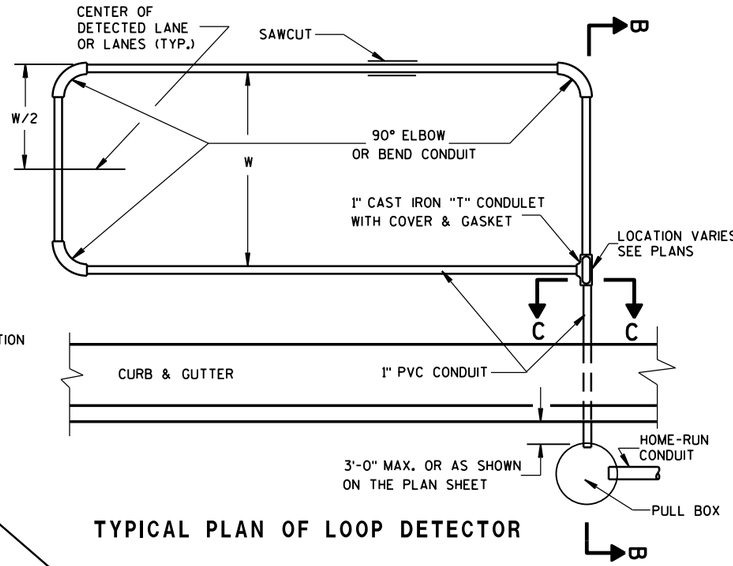
ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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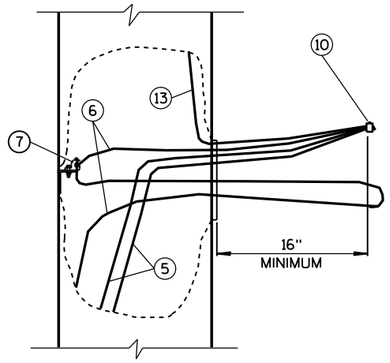
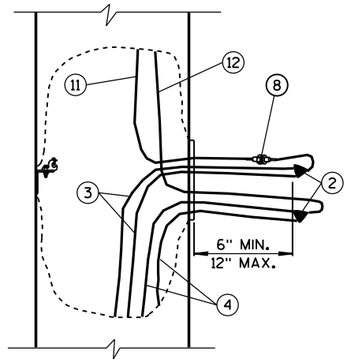
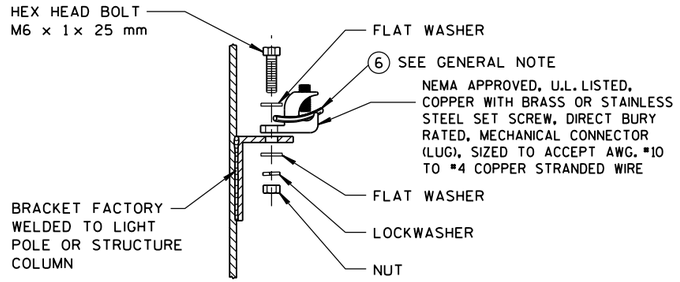


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



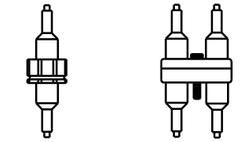
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



FUSE ASSEMBLIES

GENERAL NOTES

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

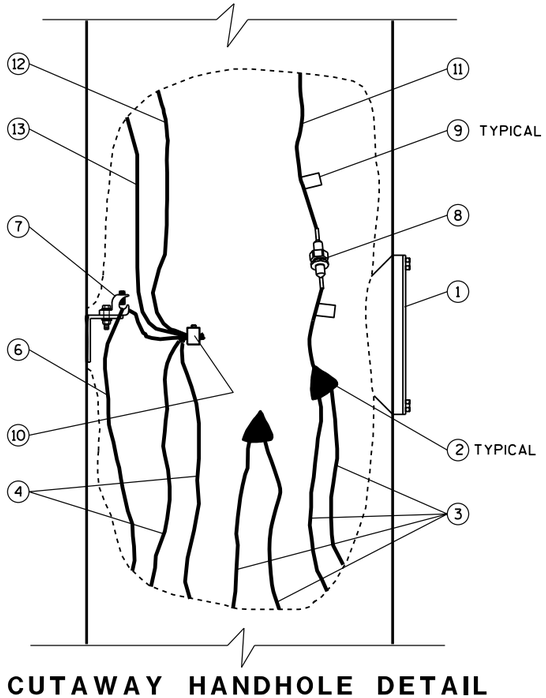
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

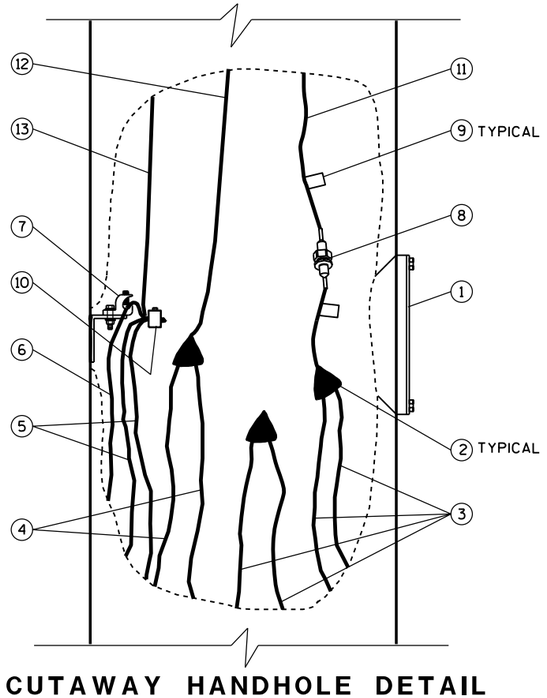
IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



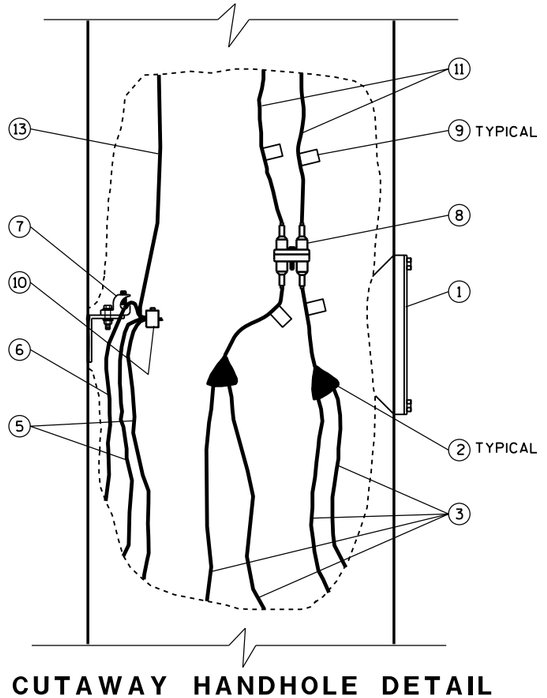
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-Φ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-Φ SHOWN; 3-Φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE-TO-PHASE SYSTEMS
1-Φ SHOWN; 3-Φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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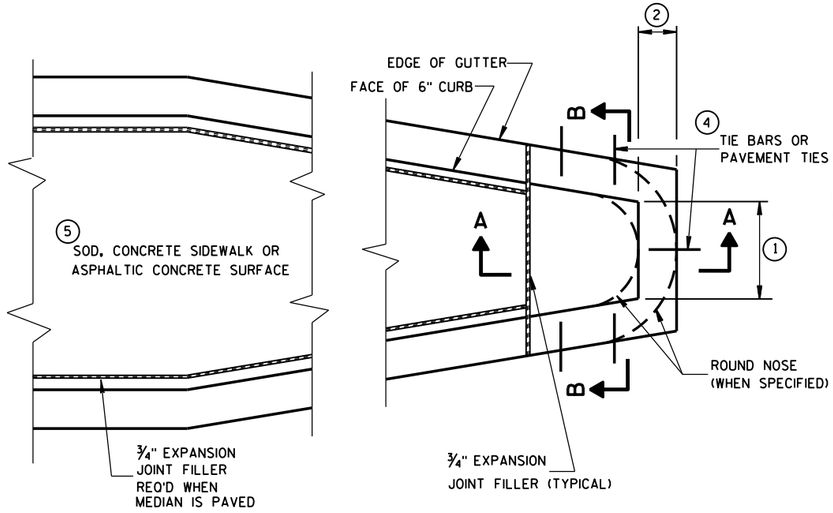
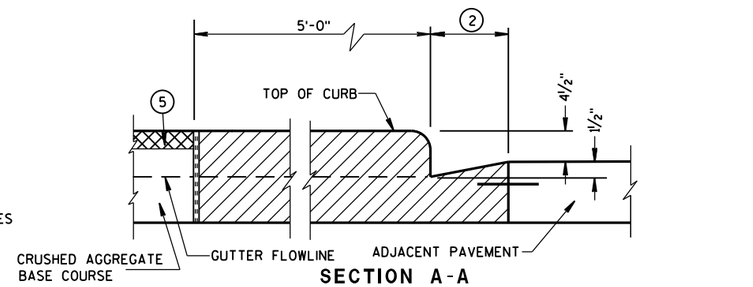
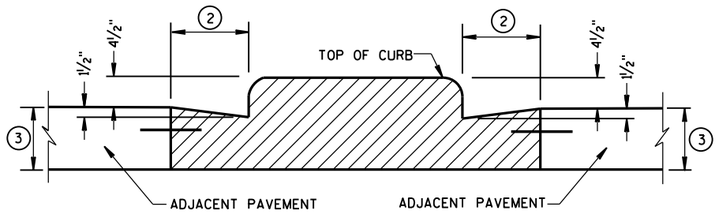






CONCRETE MEDIAN BLUNT NOSE DETAIL

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.

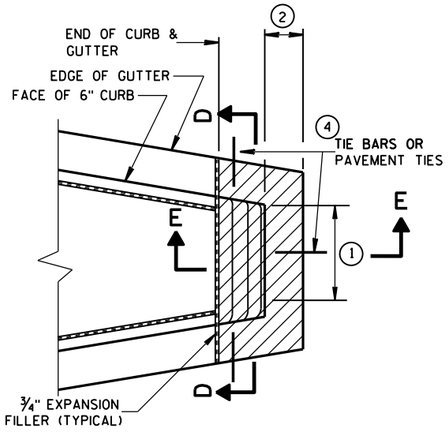
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

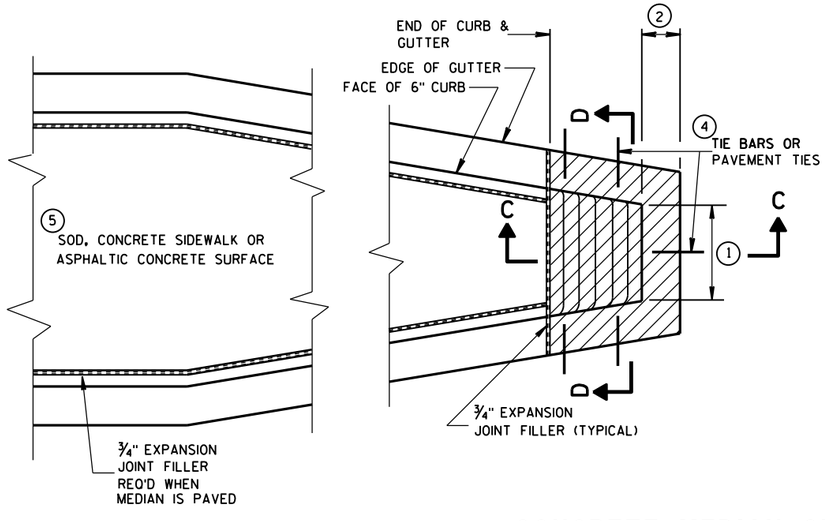
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

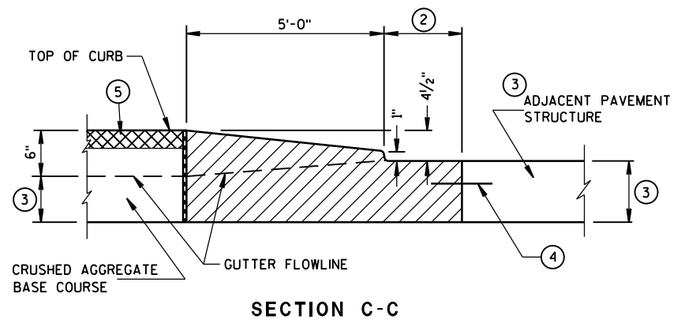
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

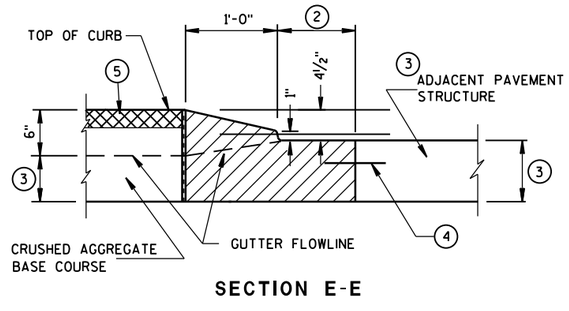
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

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



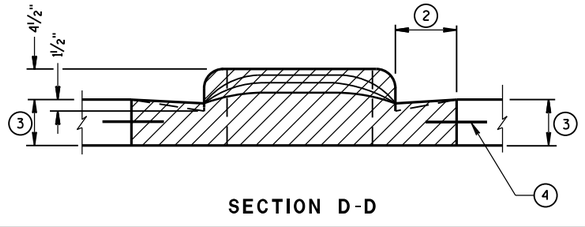






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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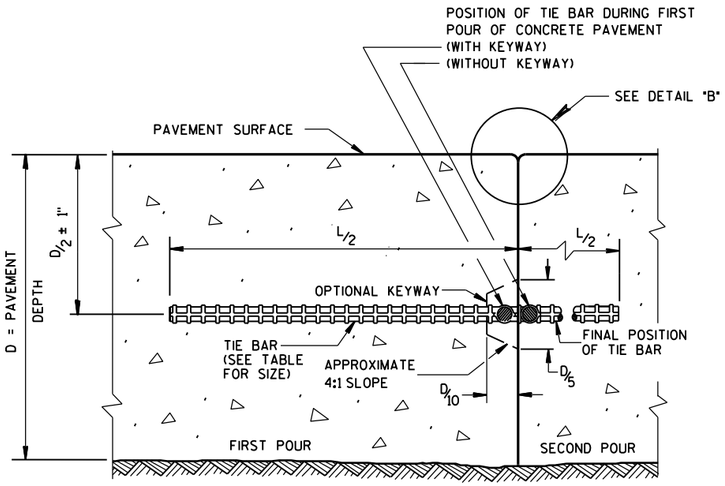
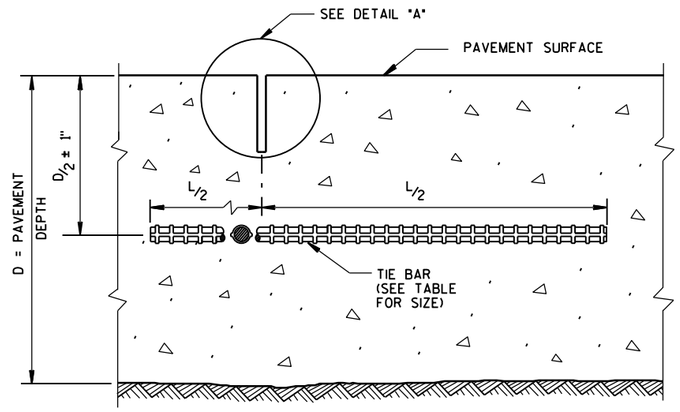
S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

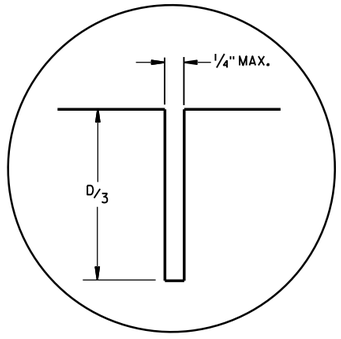
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

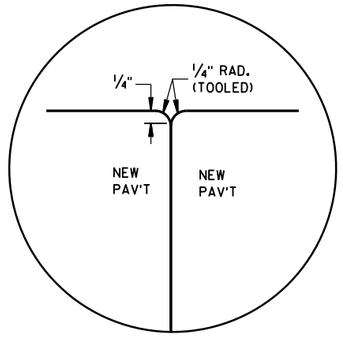
PLAN VIEW

SECTION A-A

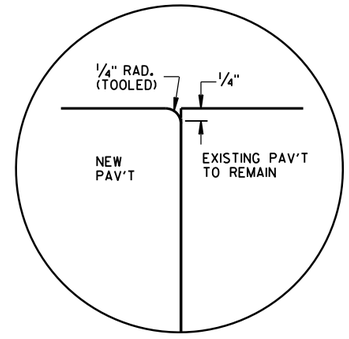
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



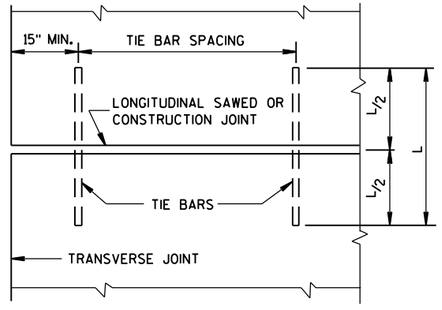
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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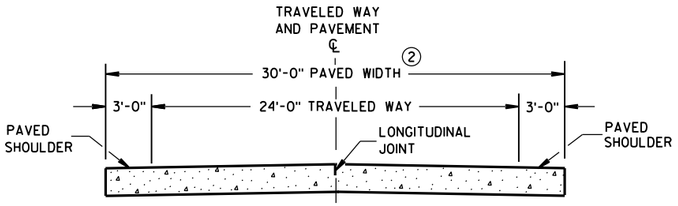
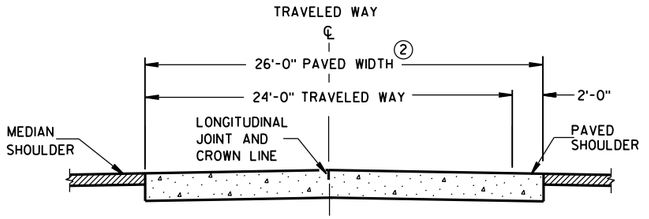
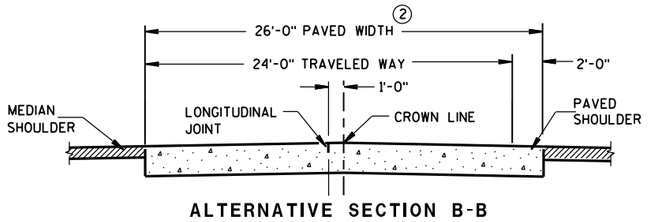


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE 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, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

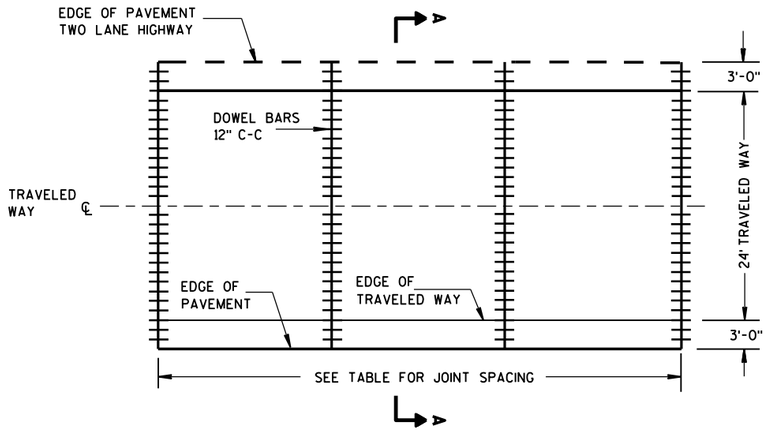
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

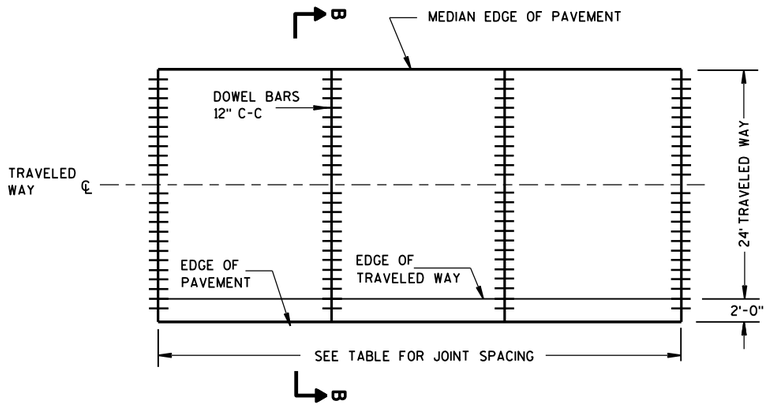
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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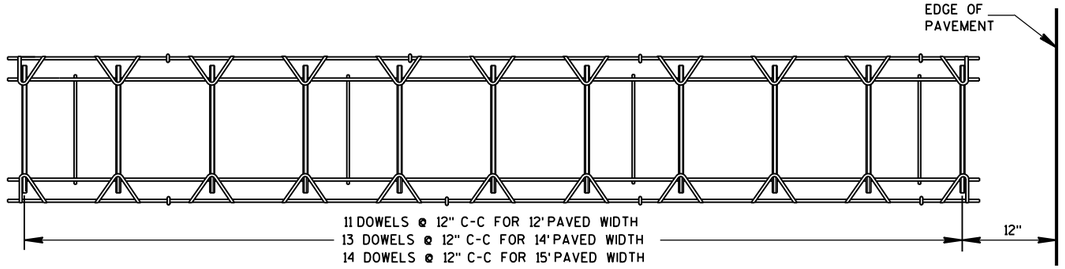
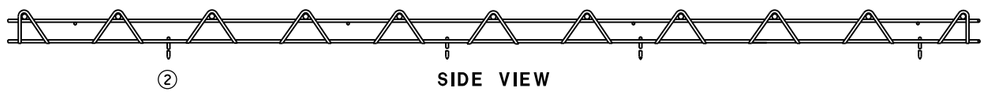


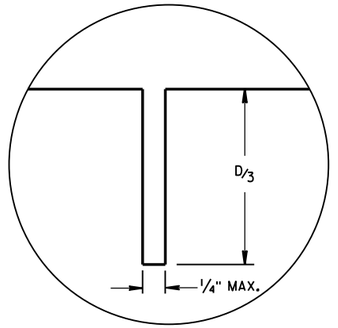
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② 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.

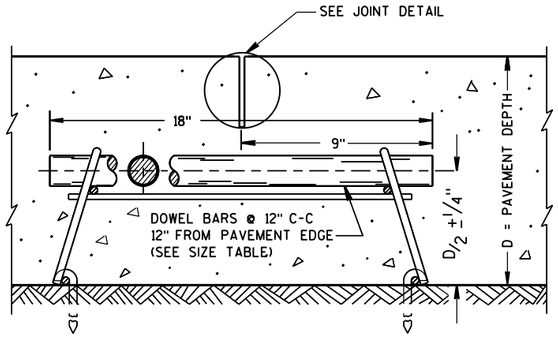
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

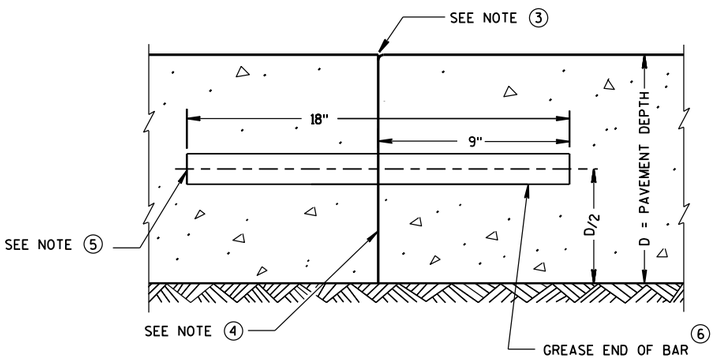
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

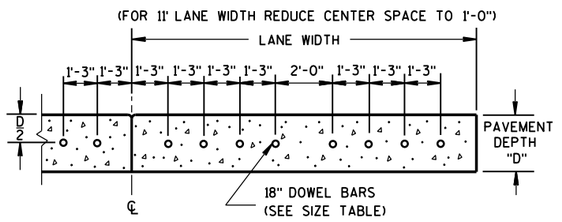
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE[SIGN ENGINEER]
FHWA

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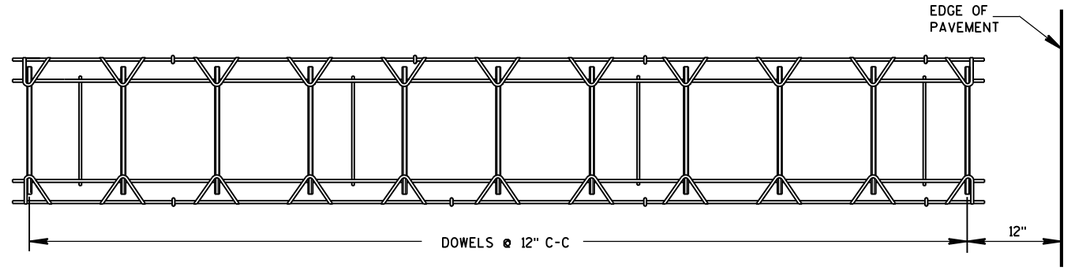
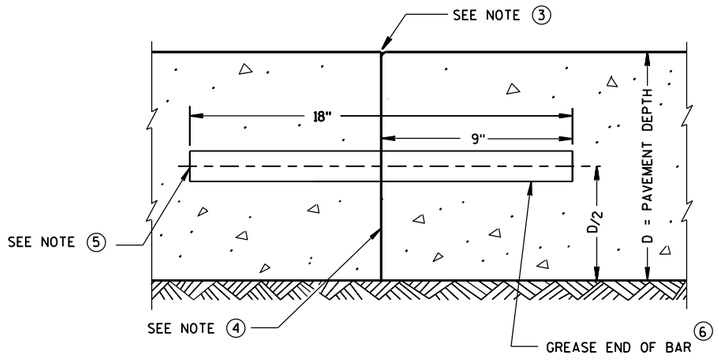
S.D.D. 13 C 11-11b



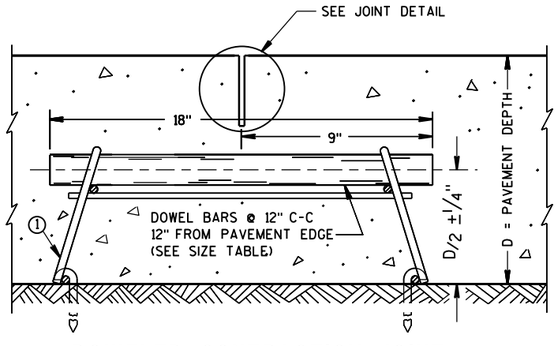
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



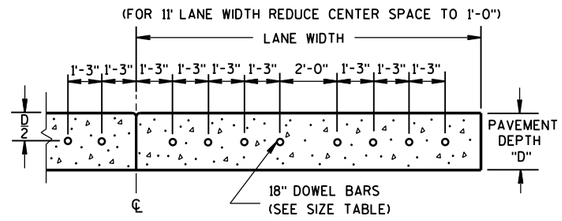
TRANSVERSE CONSTRUCTION JOINT



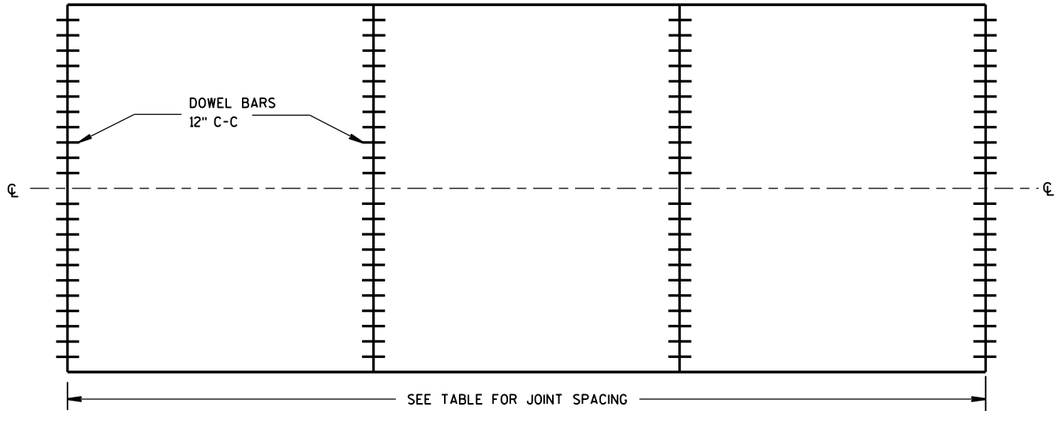
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE 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, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② 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.

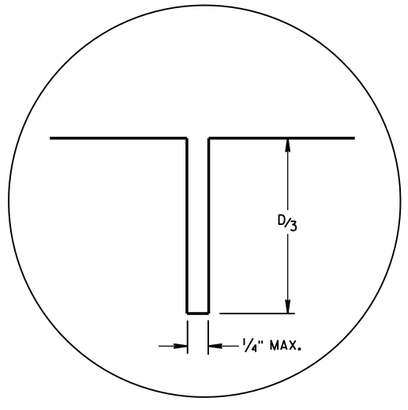
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

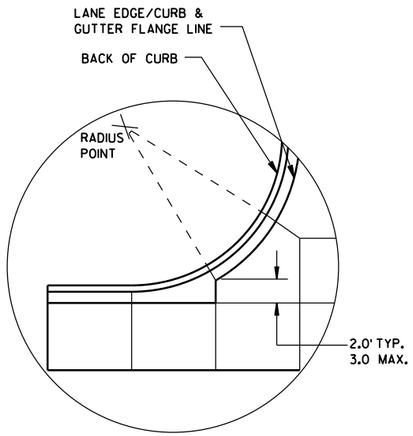
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

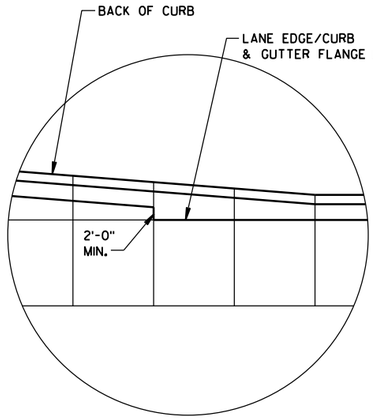
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ...NEER
FHWA

6

S.D.D. 13 C 13-8



DETAIL "A"



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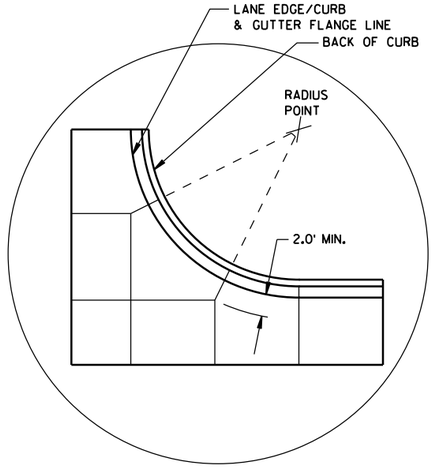
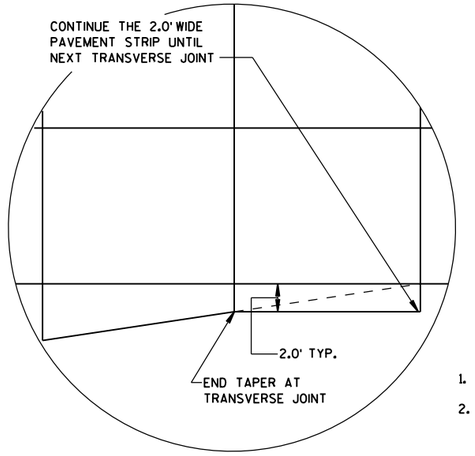


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

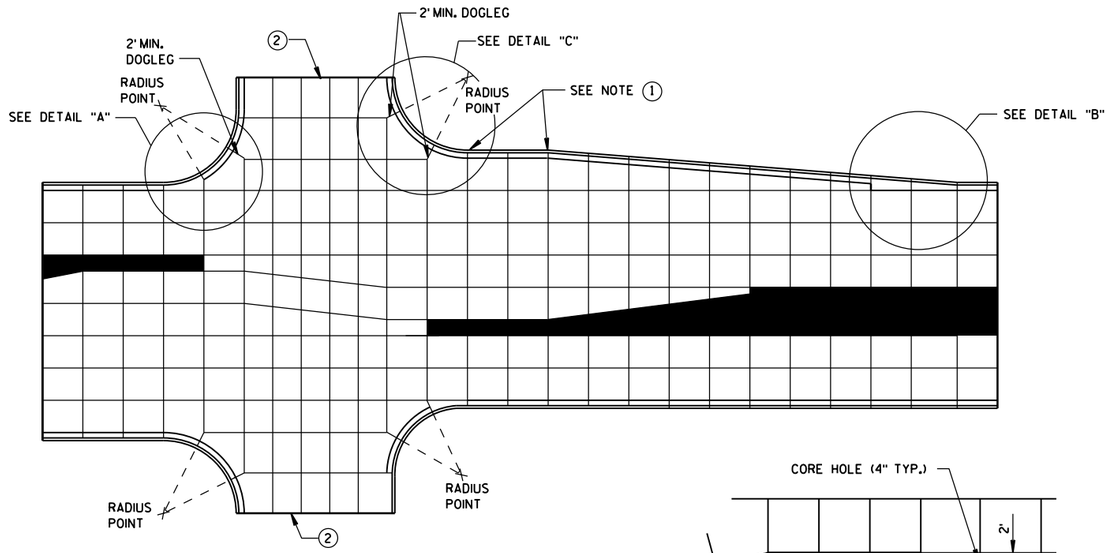
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

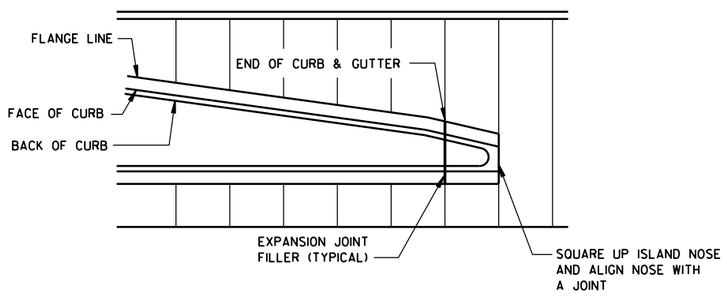
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM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



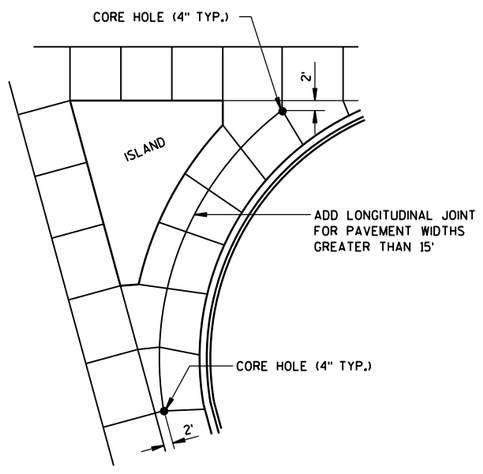
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

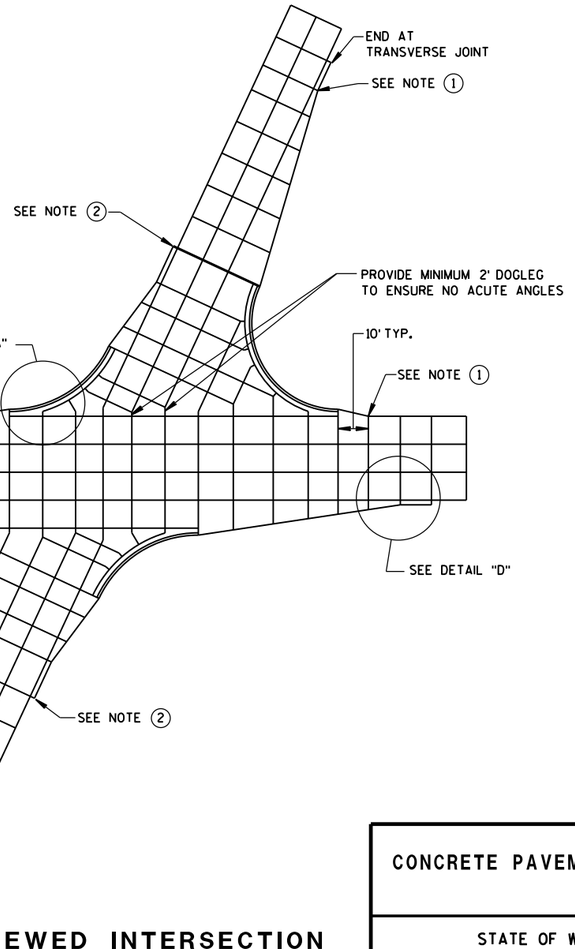
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 125

6

S.D.D. 13 C 18-3a

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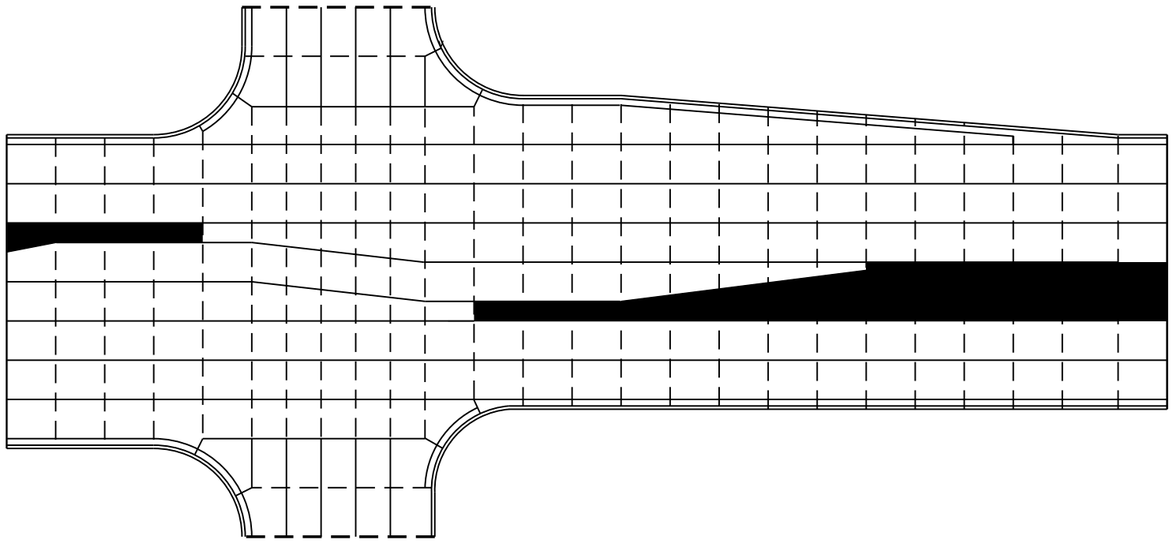
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

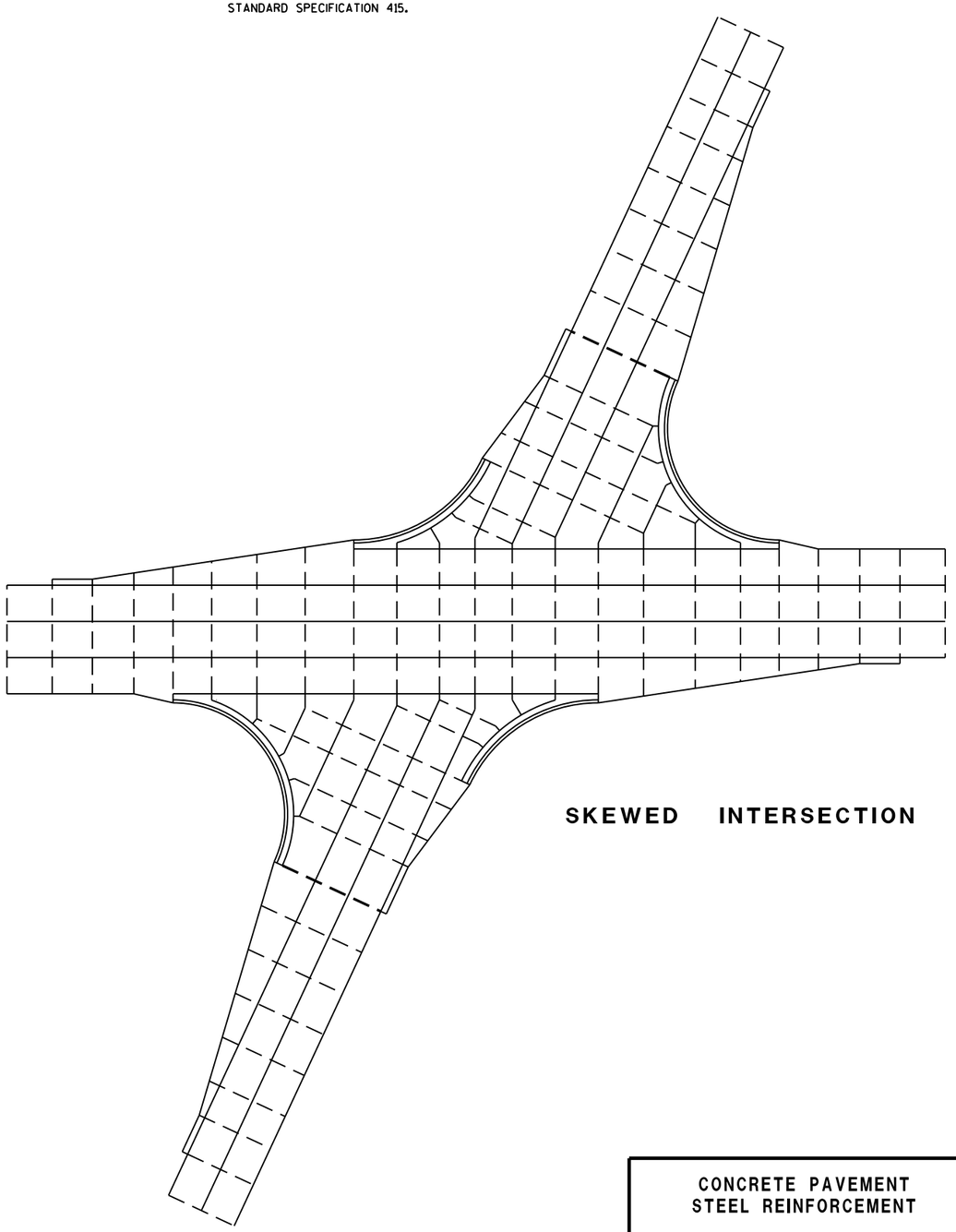
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

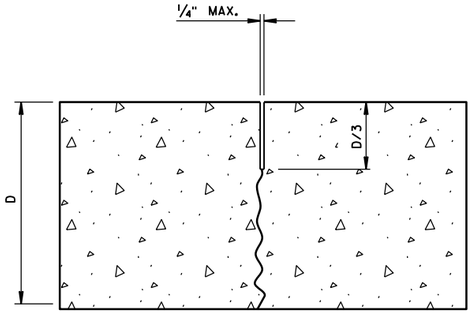
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

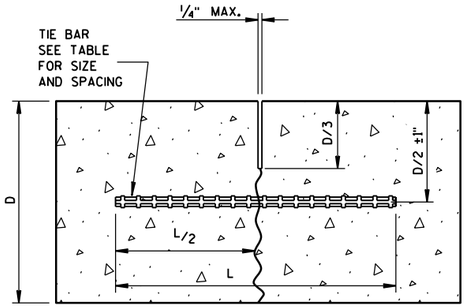
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

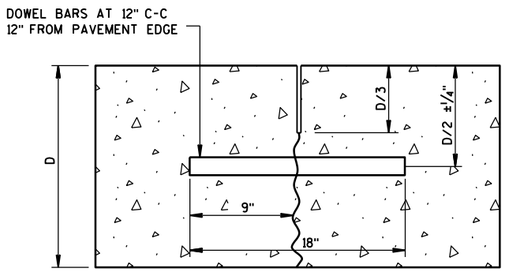
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

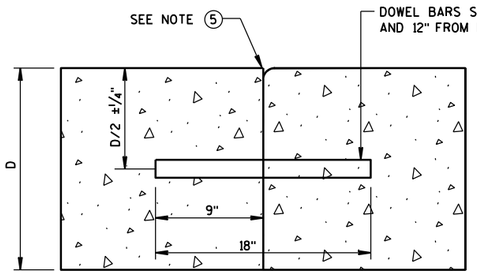
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF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



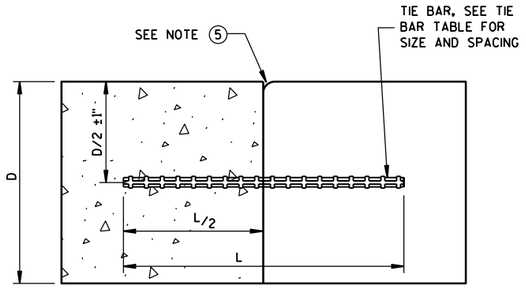
DOWELED-TRANSVERSE

CONTRACTION JOINTS

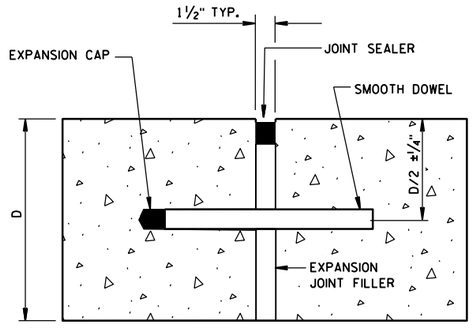
SEE NOTE (2)



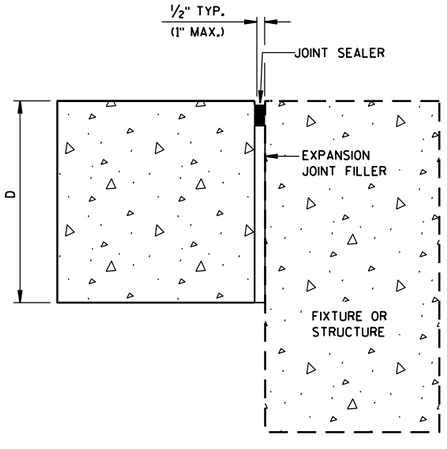
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL

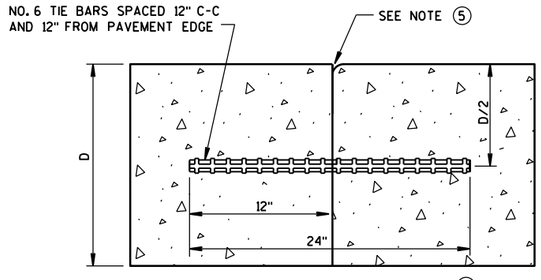


DOWELED-TRANSVERSE
SEE NOTE (1)

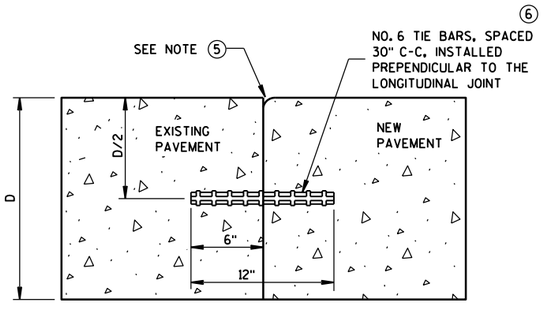


UNTIED-LONGITUDINAL

EXPANSION JOINTS



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

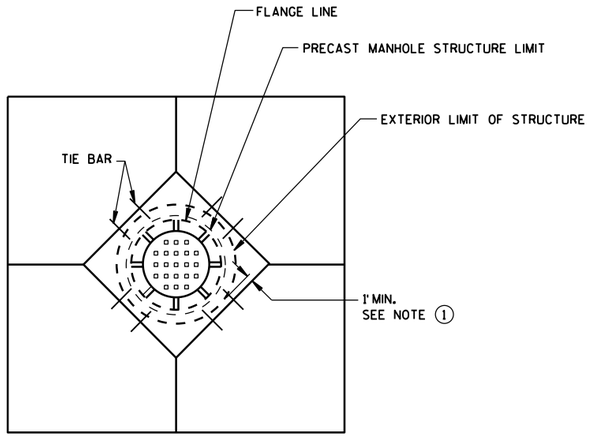
SEE NOTE (4)

CONCRETE PAVEMENT
JOINT TYPES

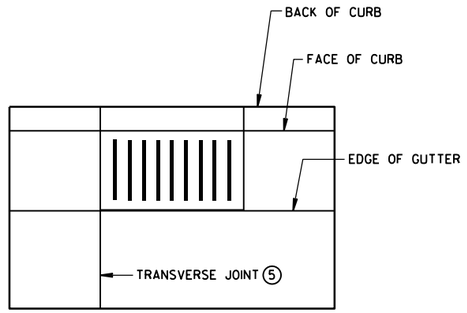
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

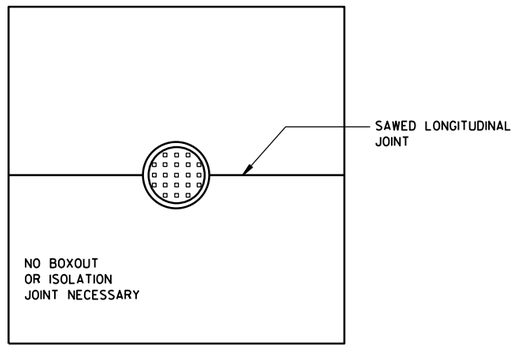
S.D.D. 13 C 18-3c



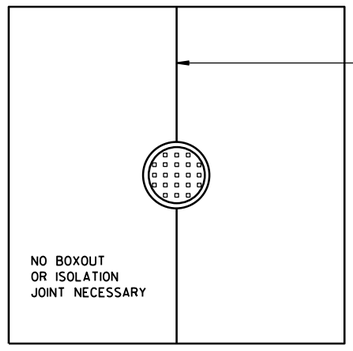
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



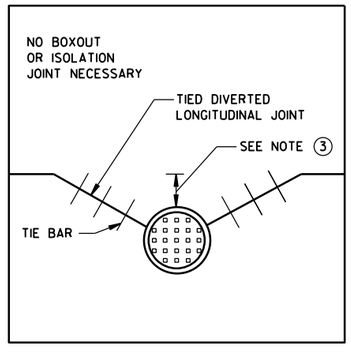
INLET WITH TRANSVERSE JOINT



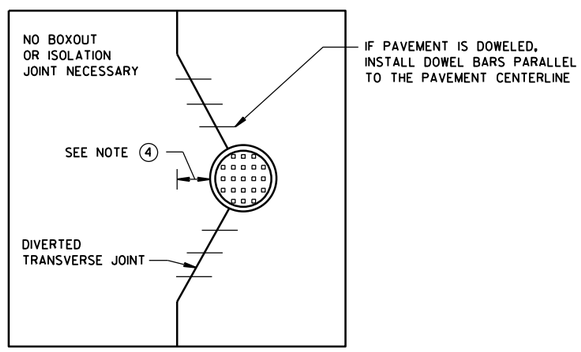
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

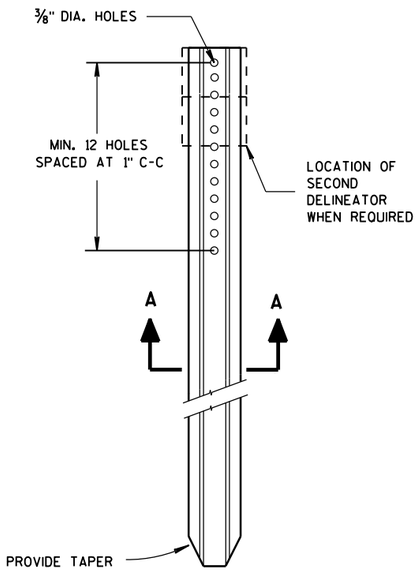
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

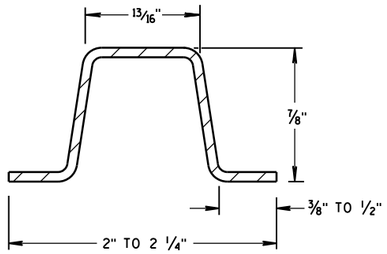
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

S.D.D. 13 C 18-3d

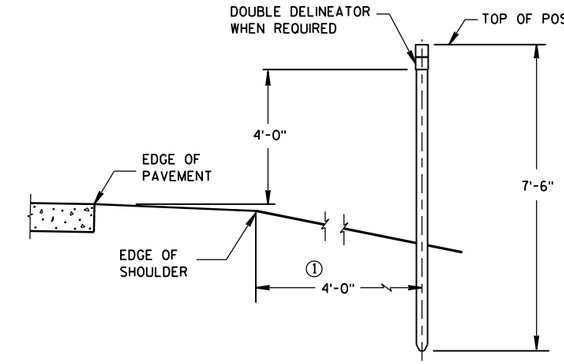


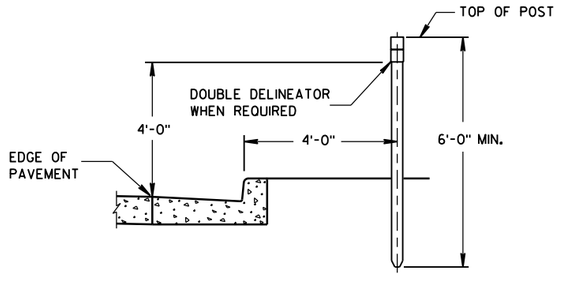
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



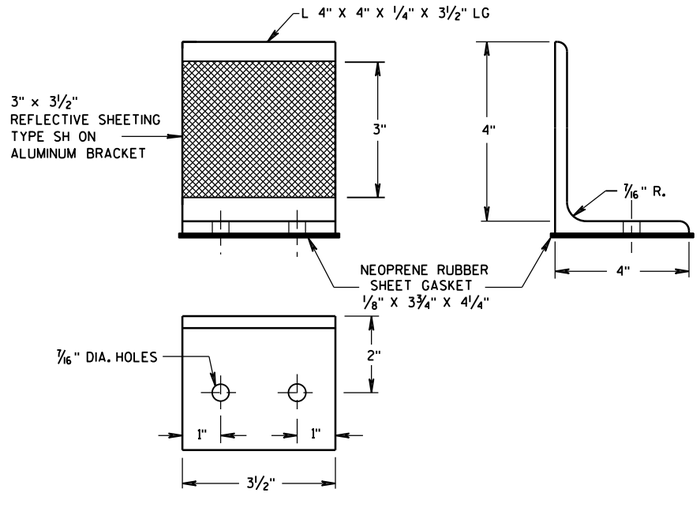


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

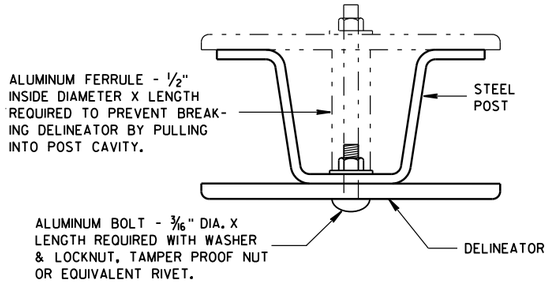
GENERAL NOTES

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

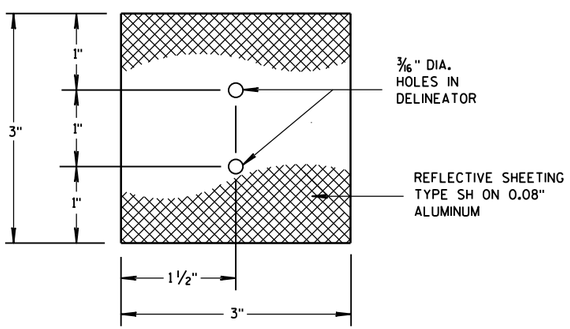
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



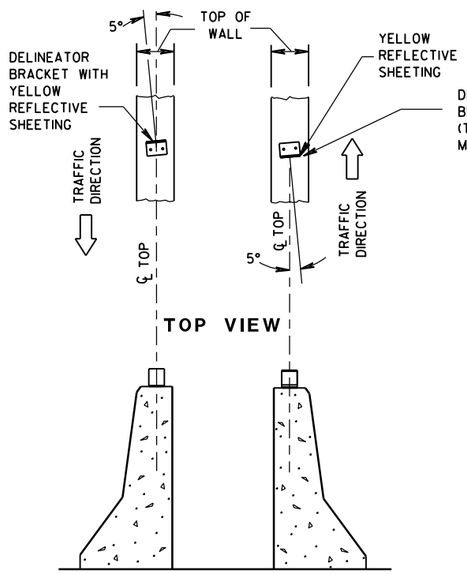
DELINEATOR BRACKET



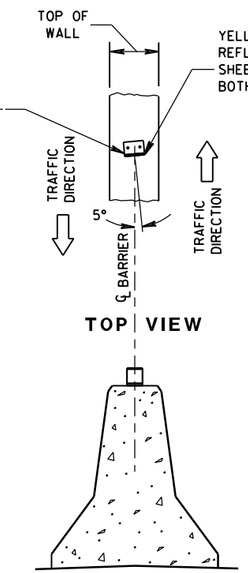
MOUNTING DETAIL FOR DELINEATOR



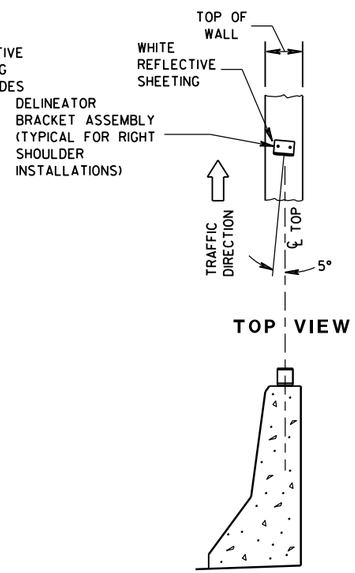
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

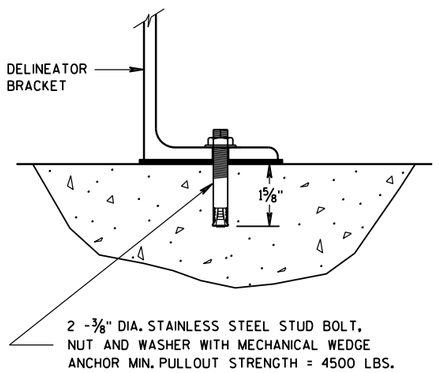


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 A 2-8

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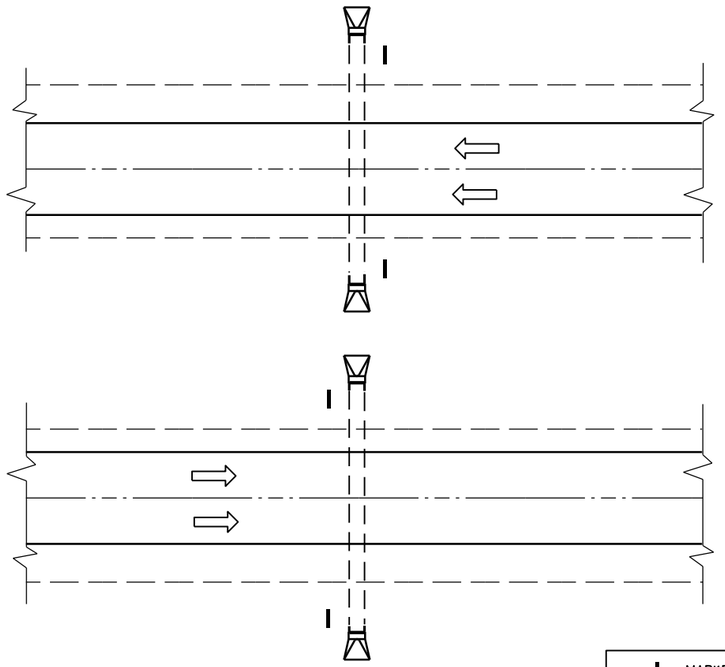
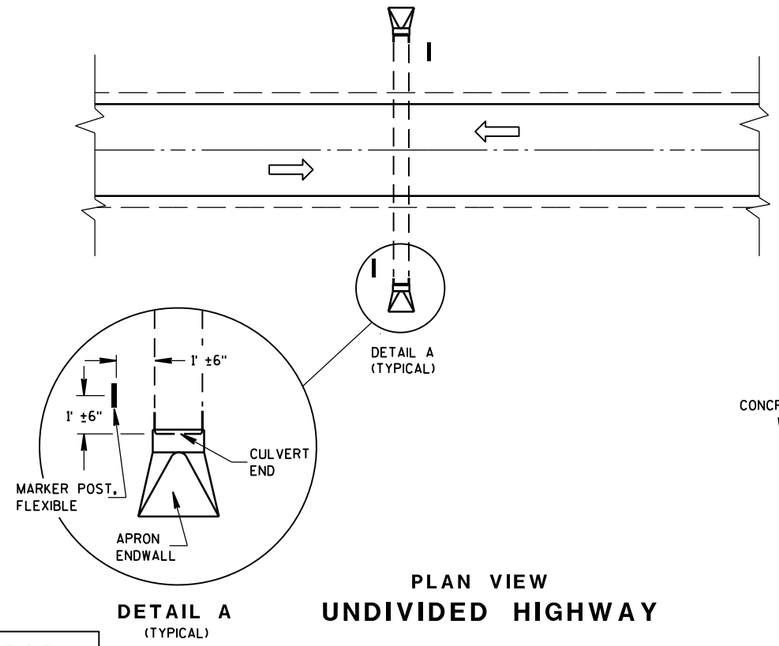
S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

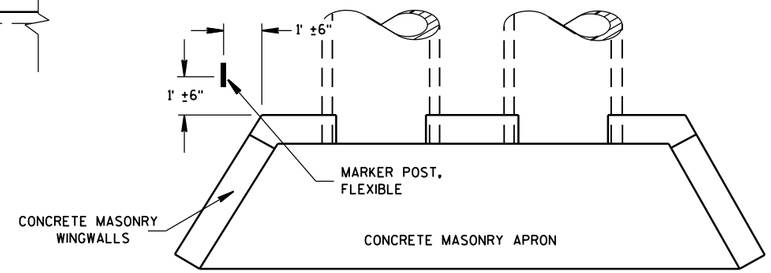
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

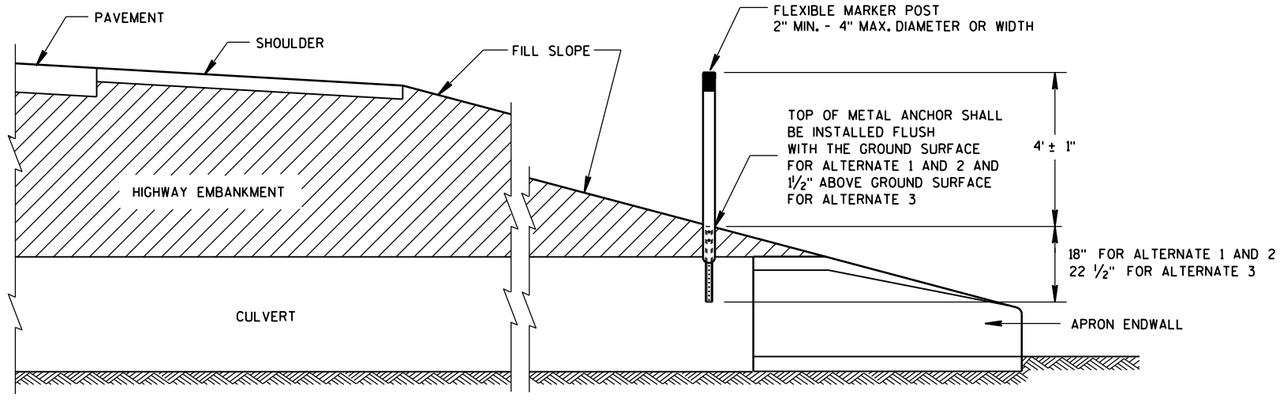
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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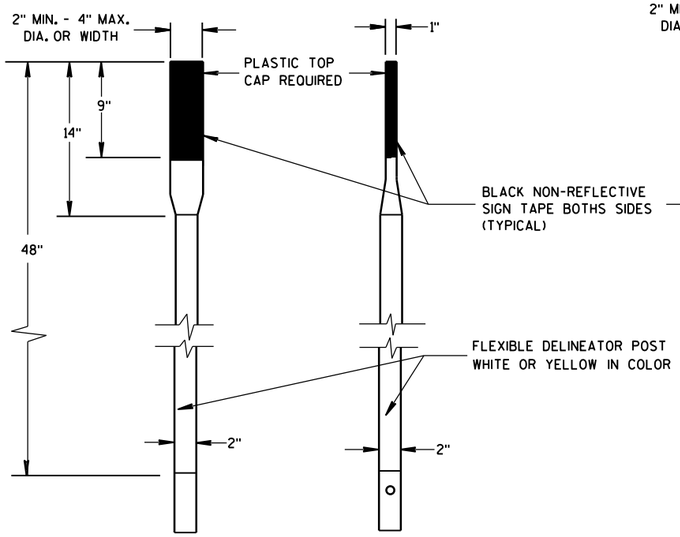
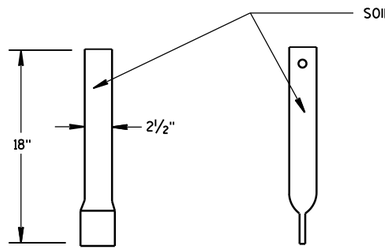
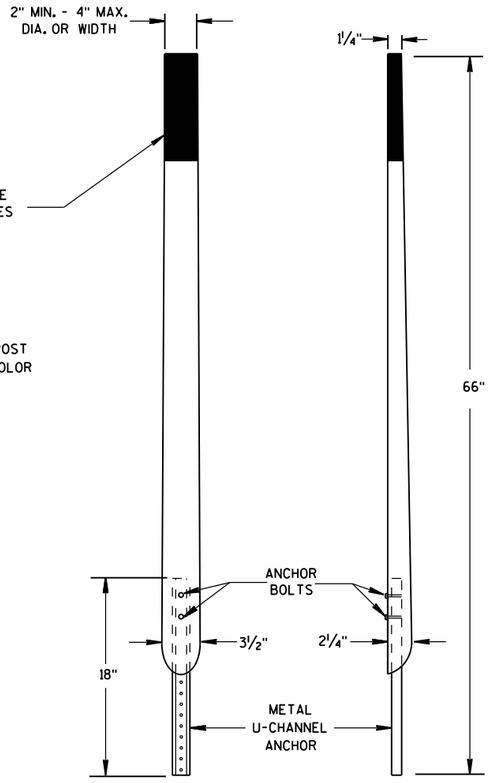
S.D.D. 15 A 3-2a





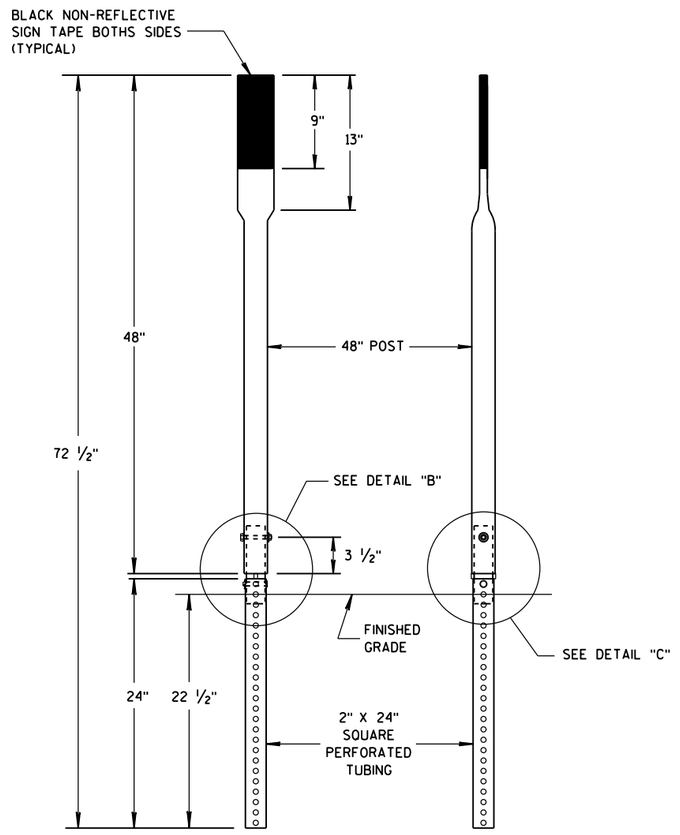
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

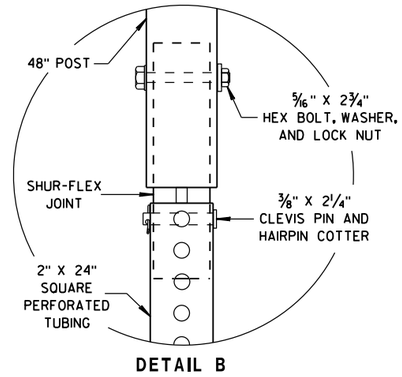
ALTERNATE 2



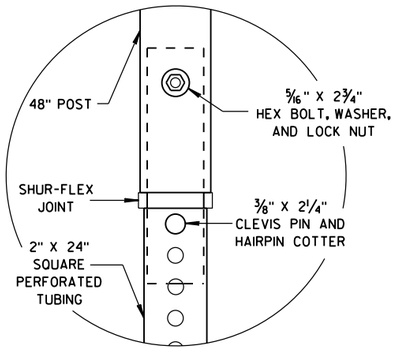
FRONT VIEW SIDE VIEW

ALTERNATE 3

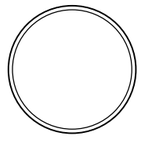
FLEXIBLE MARKER POSTS



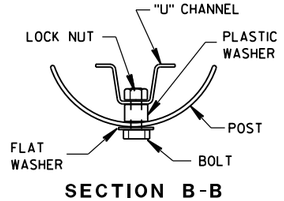
DETAIL B



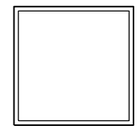
DETAIL C



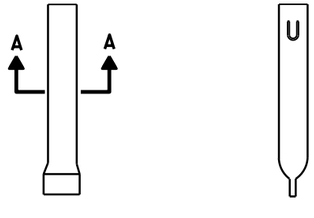
SECTION A-A



SECTION B-B

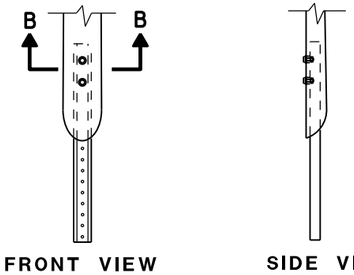


SECTION C-C



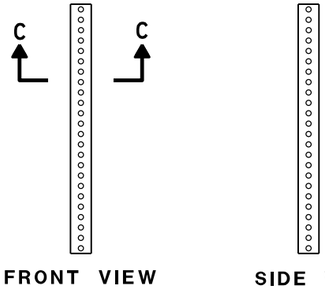
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
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S.D.D. 15 A 3-2b

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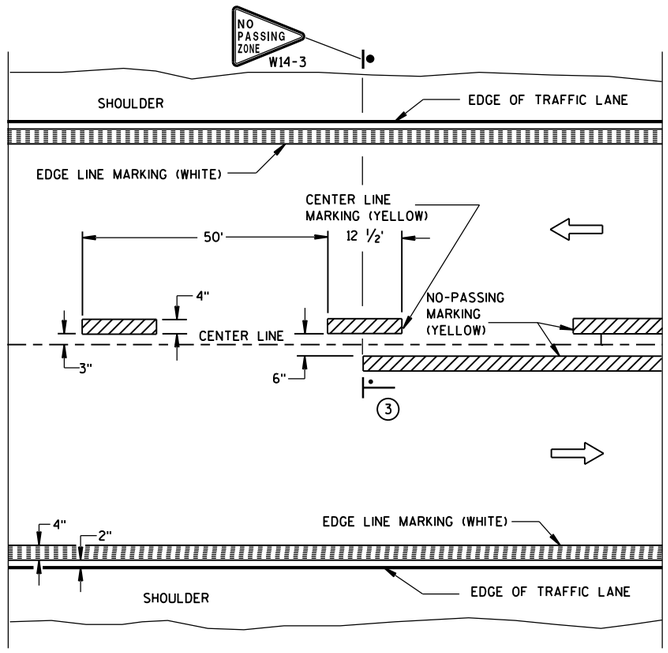
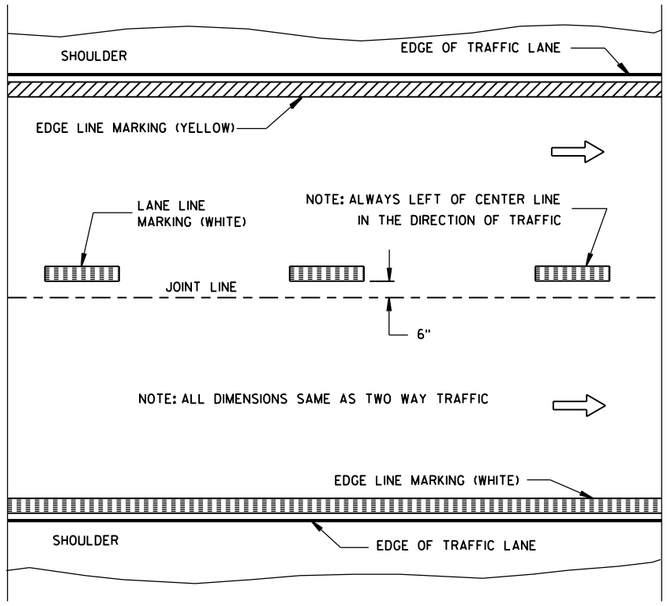
S.D.D. 15 A 3-2b

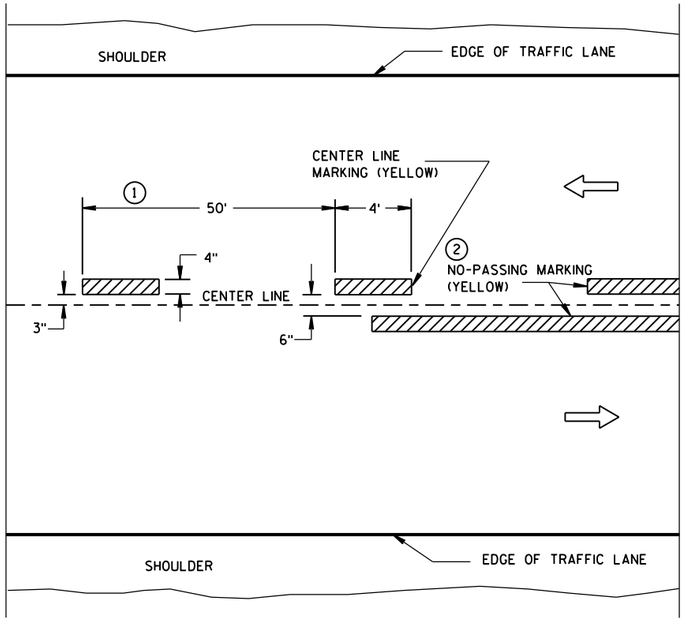


TWO WAY TRAFFIC

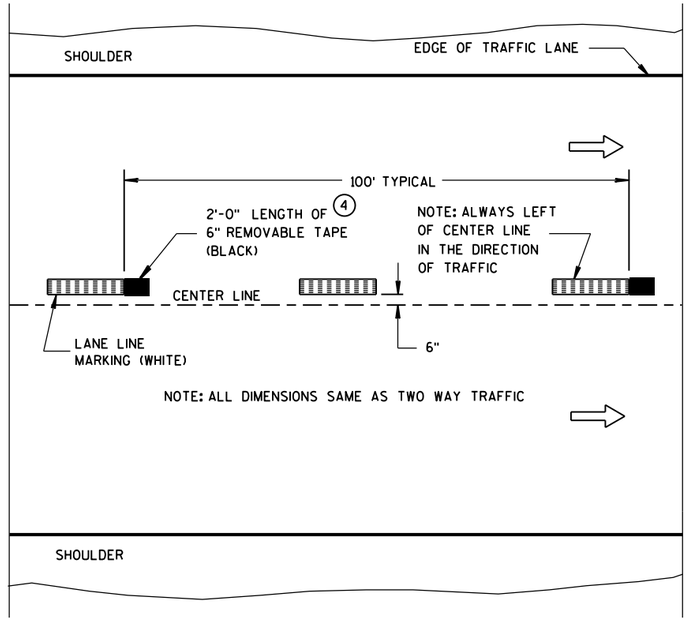


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

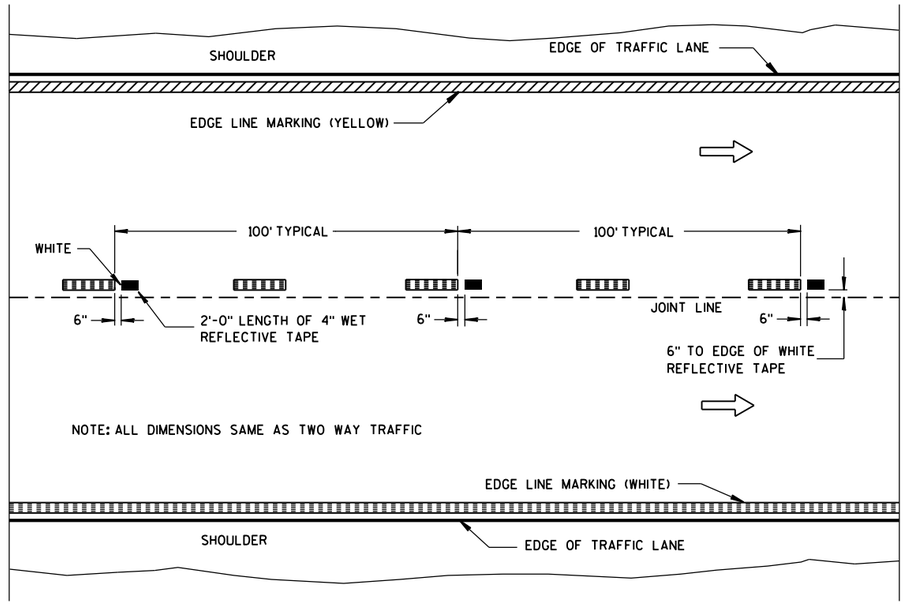
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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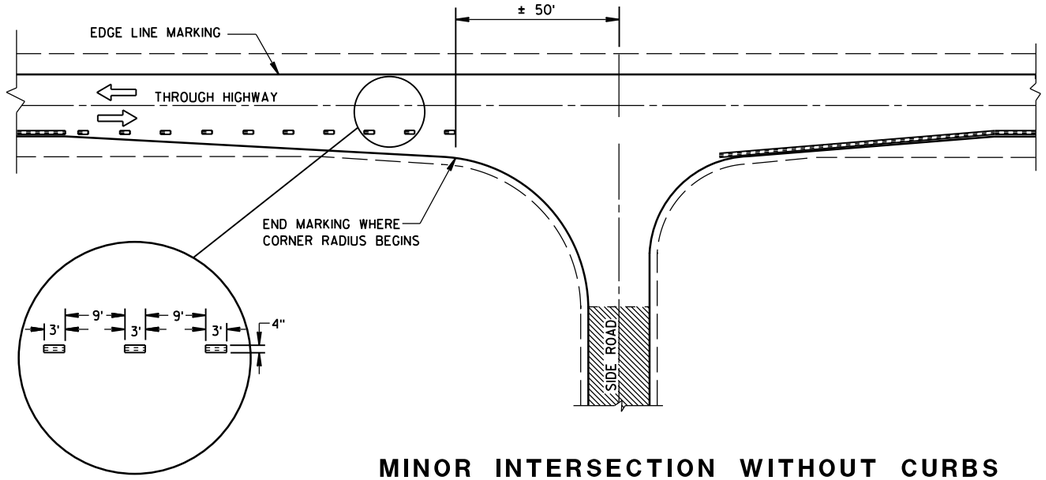
S.D.D. 15 C 8-16a



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.

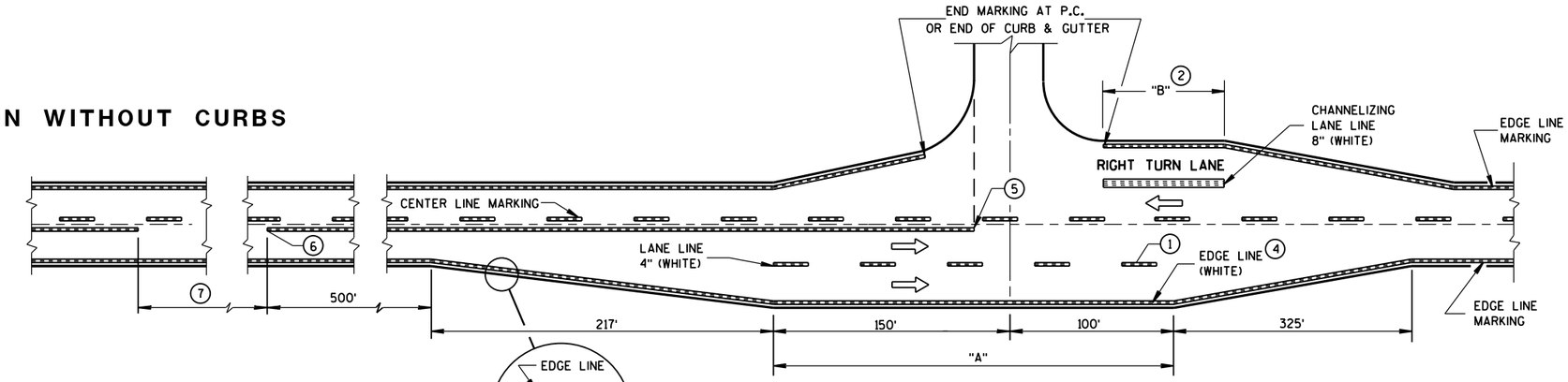
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

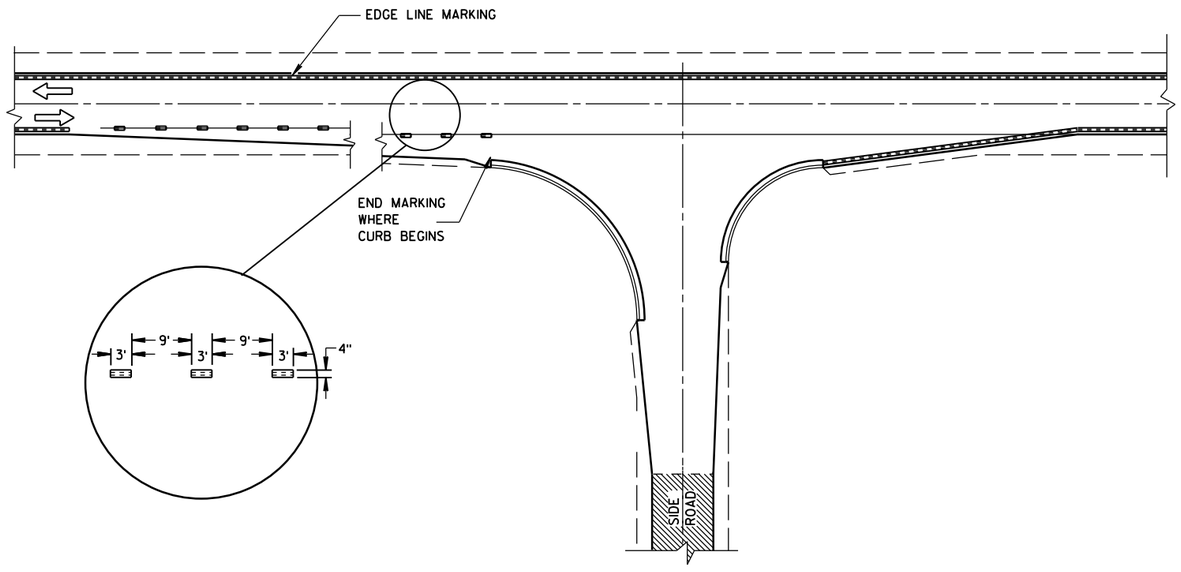
(7)

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



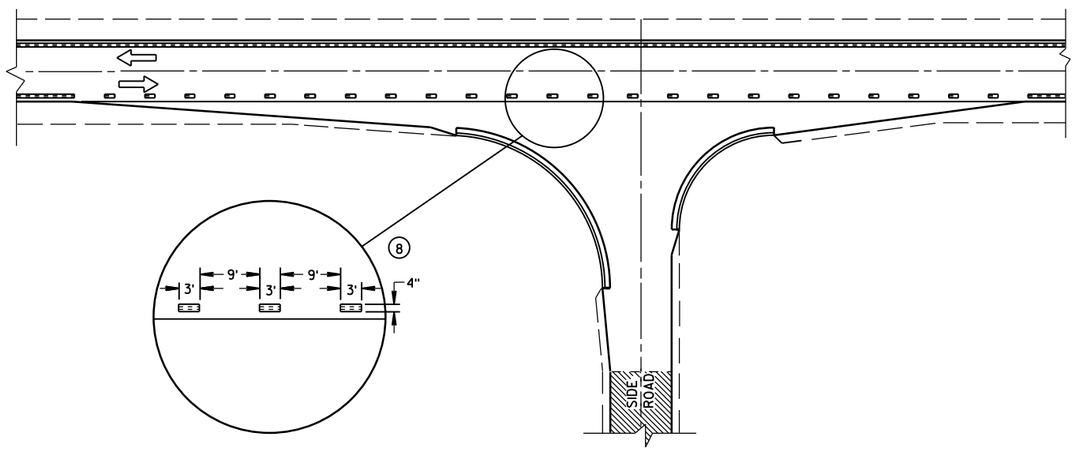
MAJOR INTERSECTIONS

(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

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S.D.D. 15 C 8-16b

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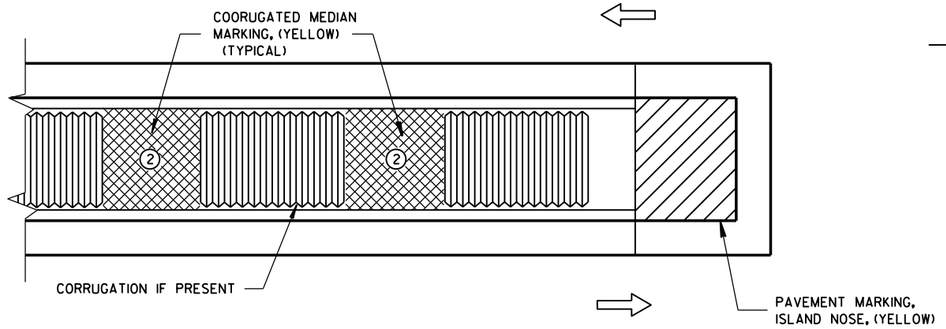
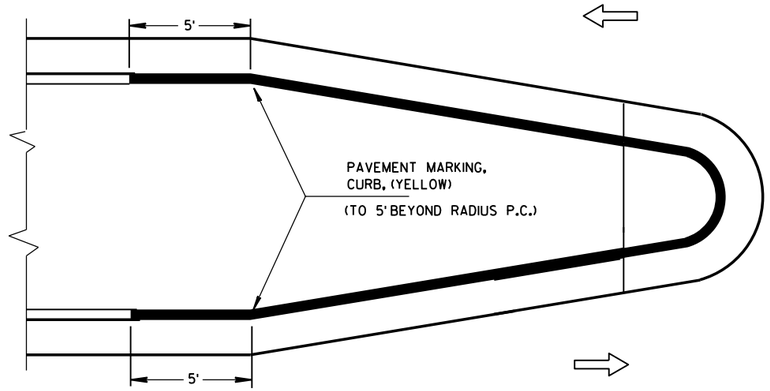
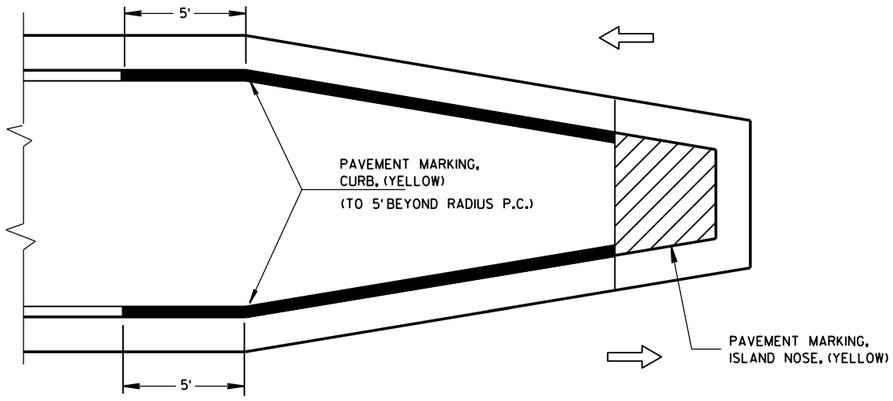
S.D.D. 15 C 8-16b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

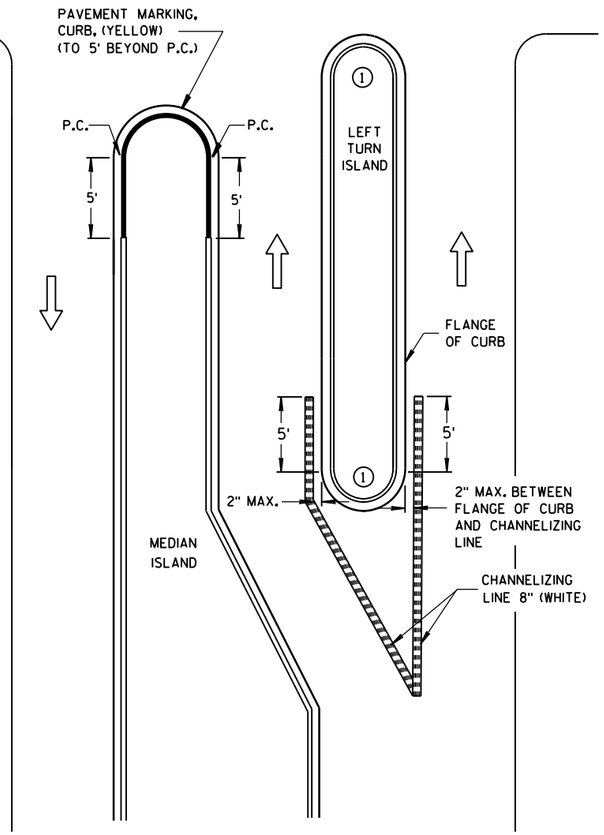


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

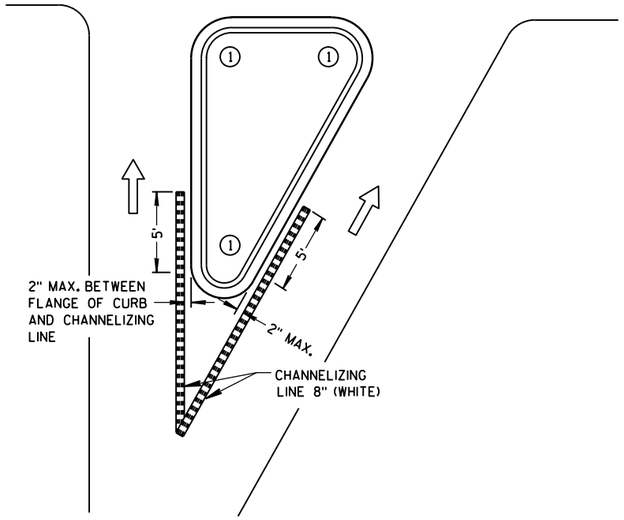


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

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



RIGHT TURN ISLAND

LEGEND

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

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

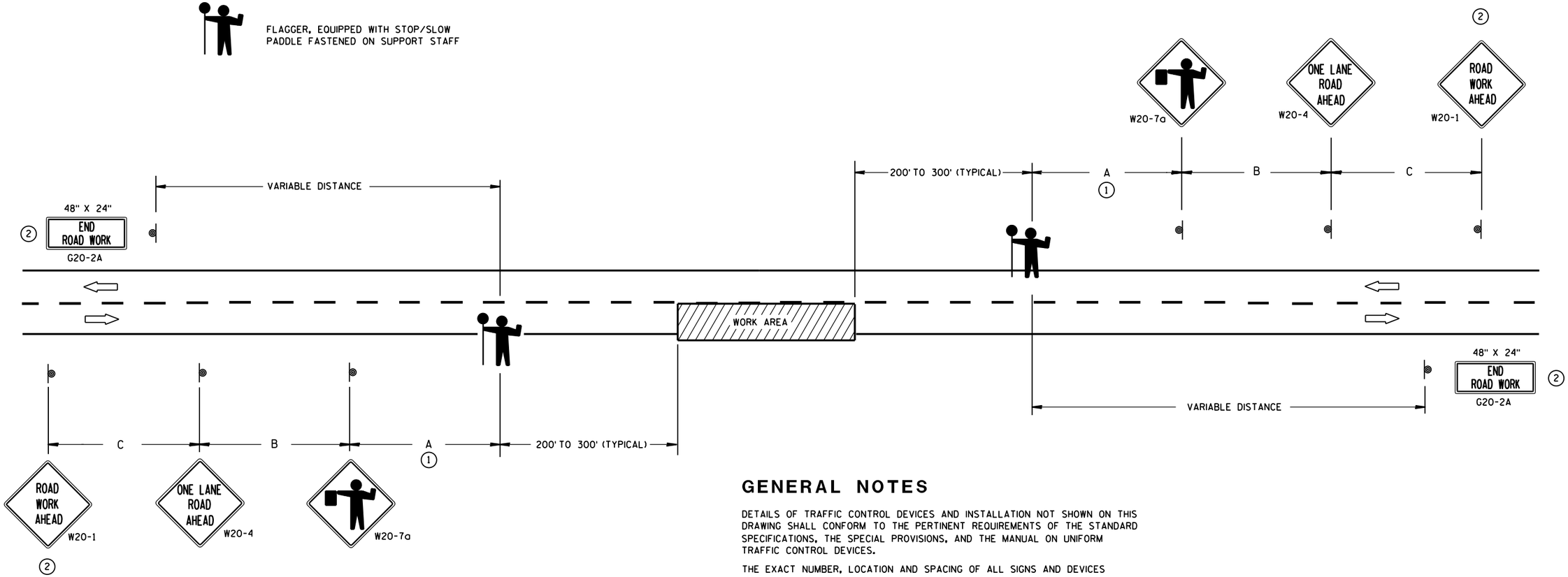
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

BE PREPARED TO STOP
W3-4

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



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 C 12-4

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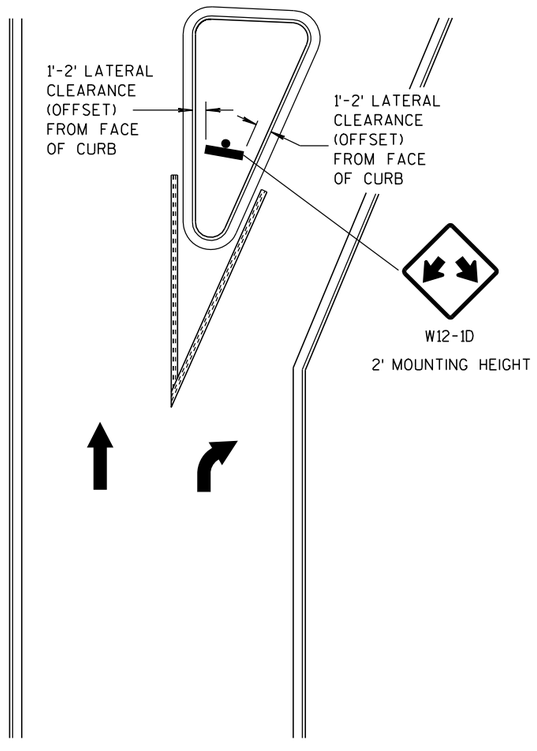
S.D.D. 15 C 12-4

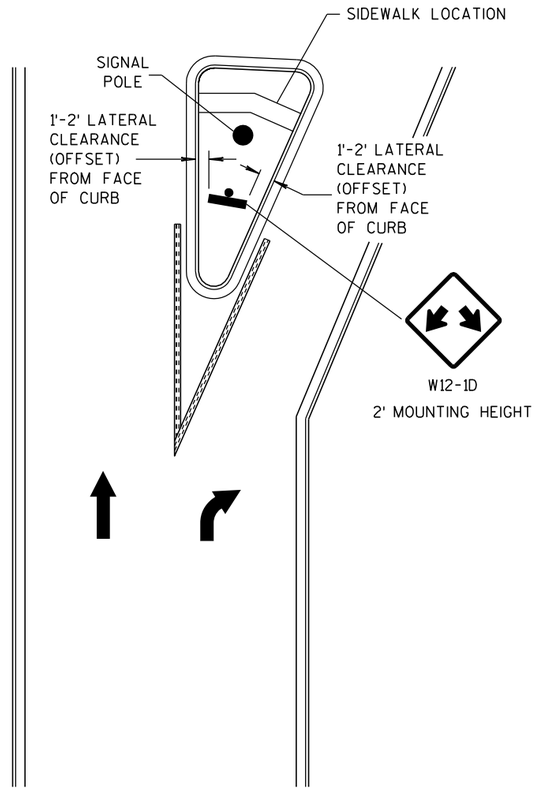
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

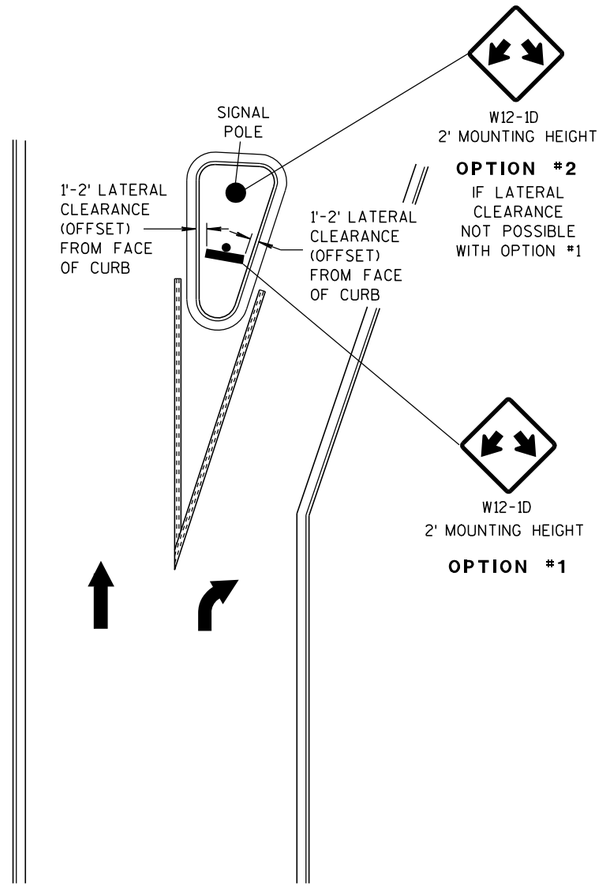
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	

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S.D.D. 15 C 27-1

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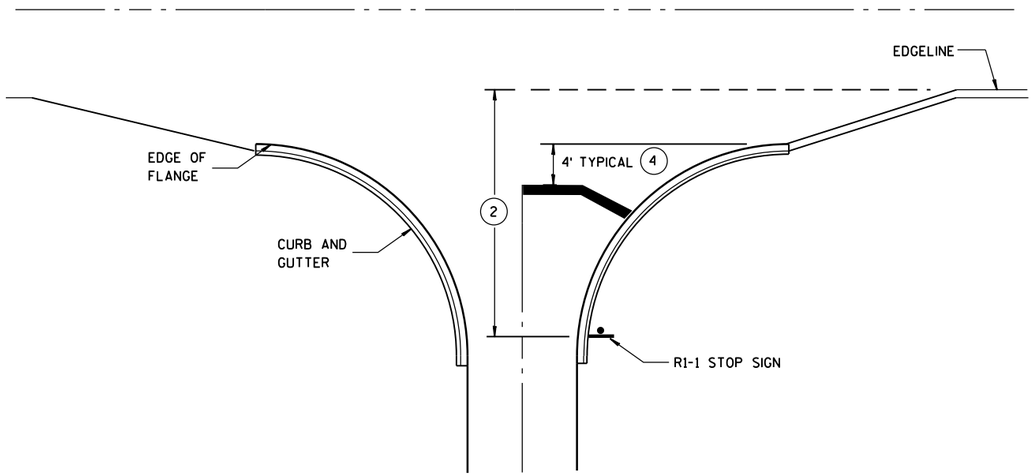
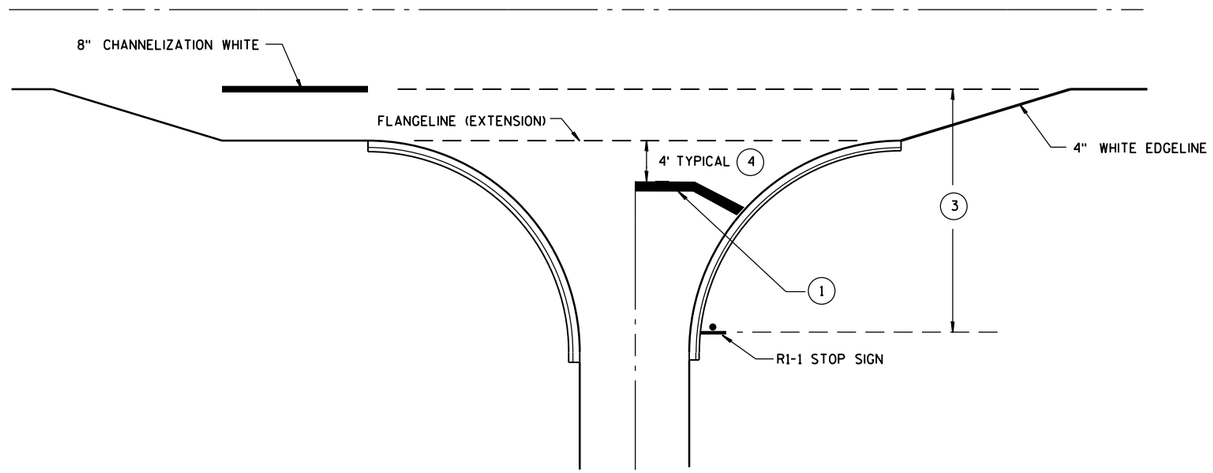
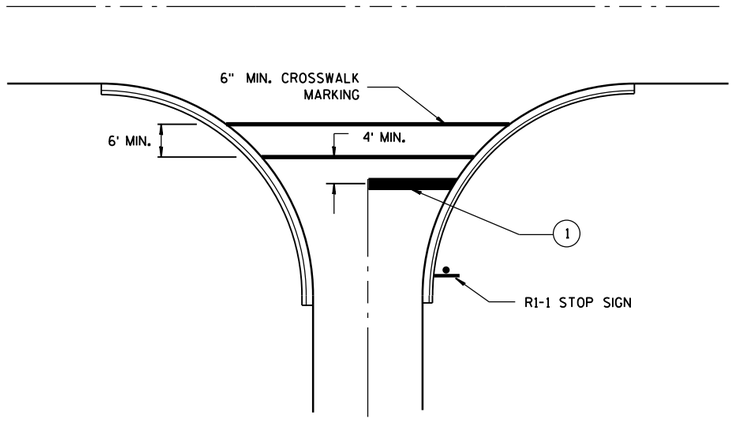
S.D.D. 15 C 27-1



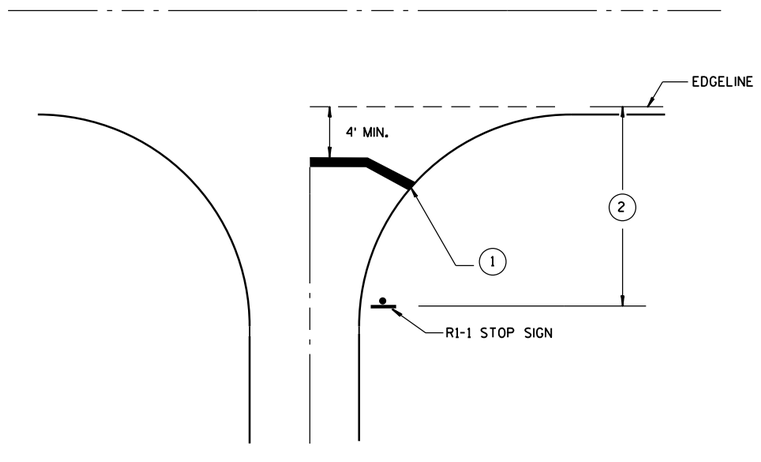
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

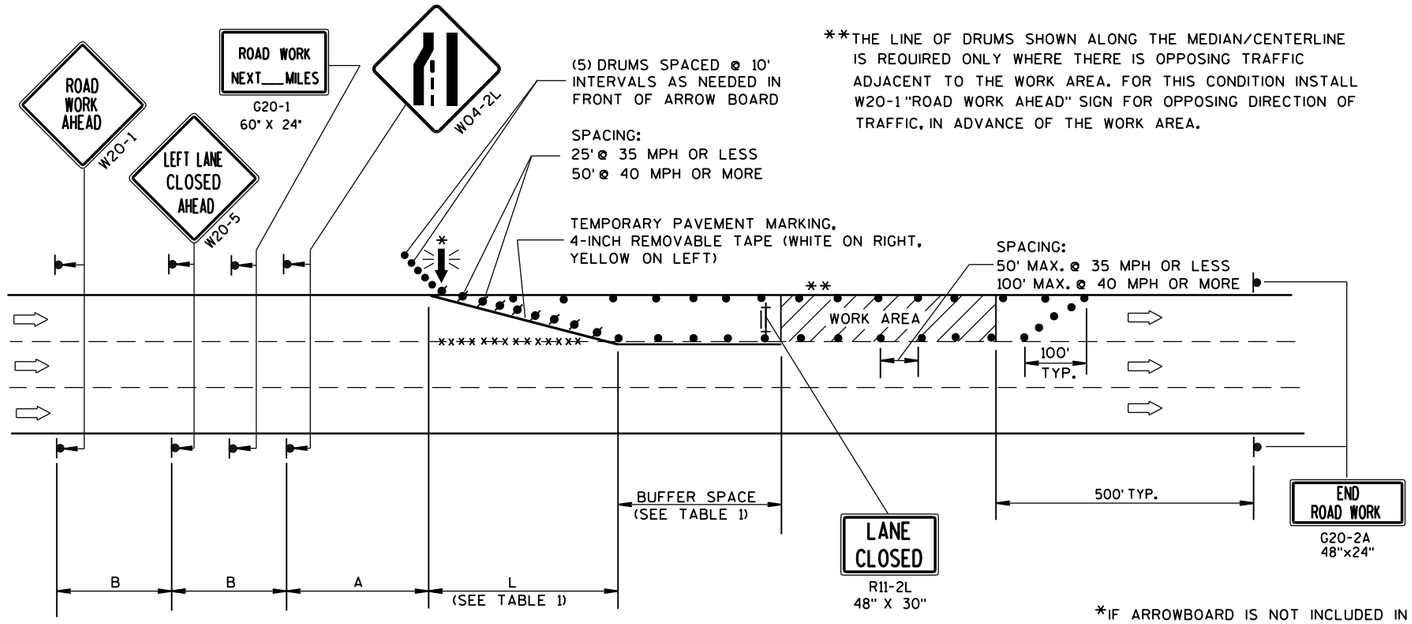
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1



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

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

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

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

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

W01-6
48"x24"

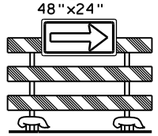


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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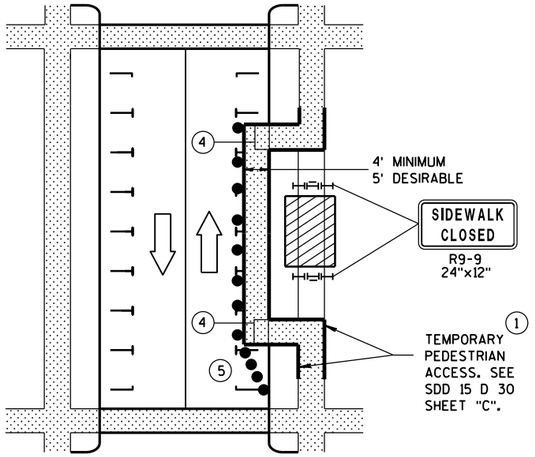
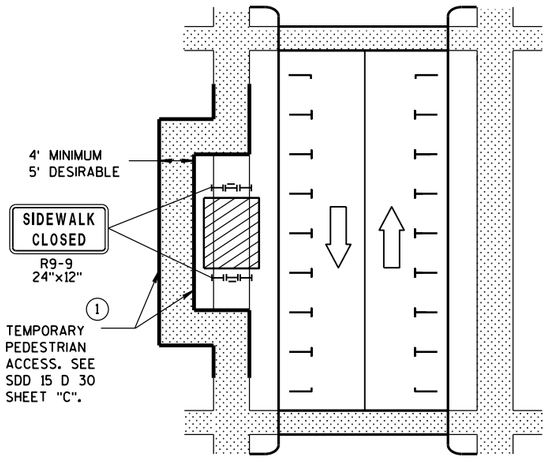
S.D.D. 15 D 20-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

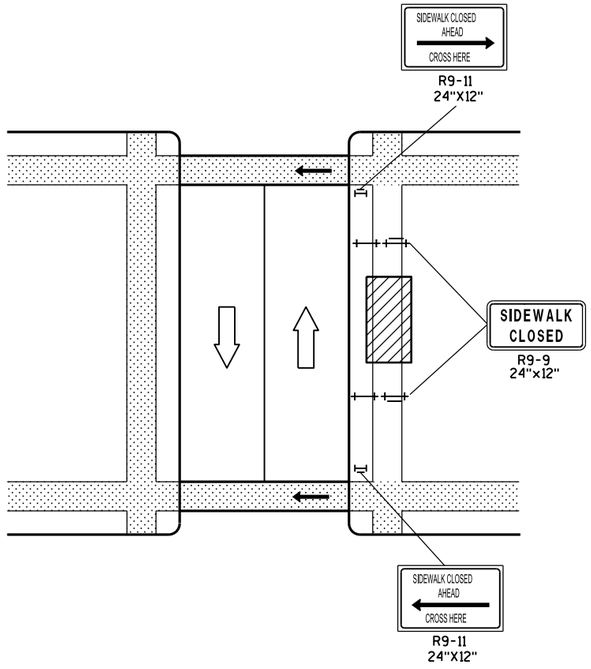


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

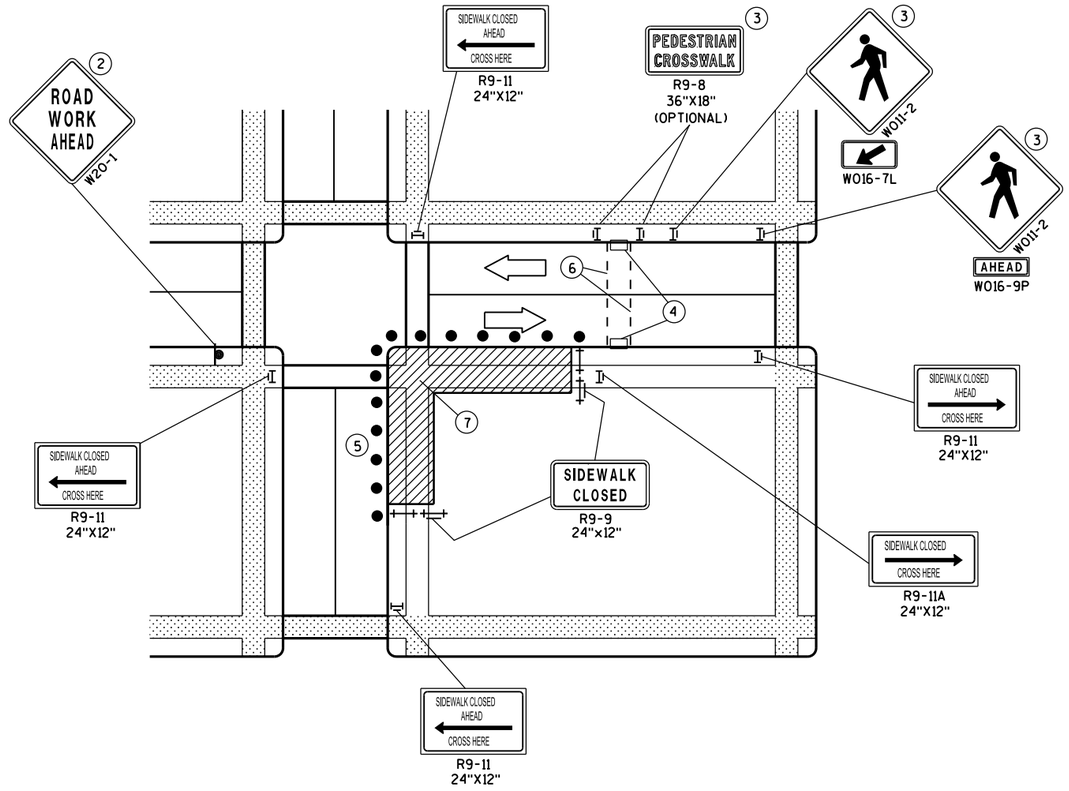
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-2a

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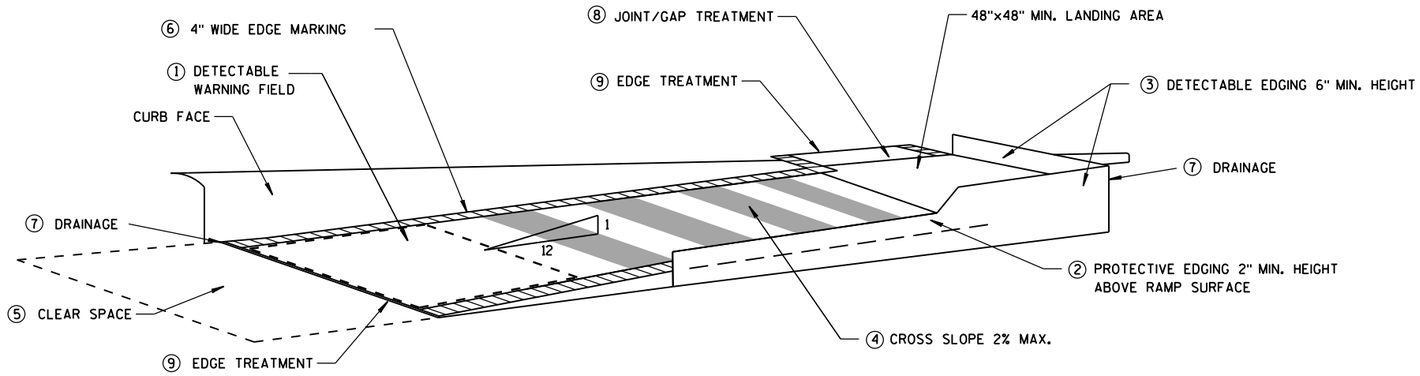
S.D.D. 15 D 30-2a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

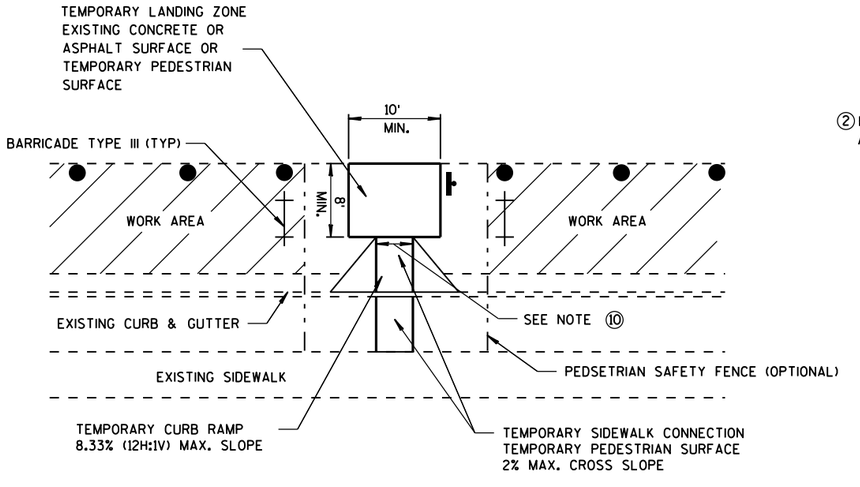
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

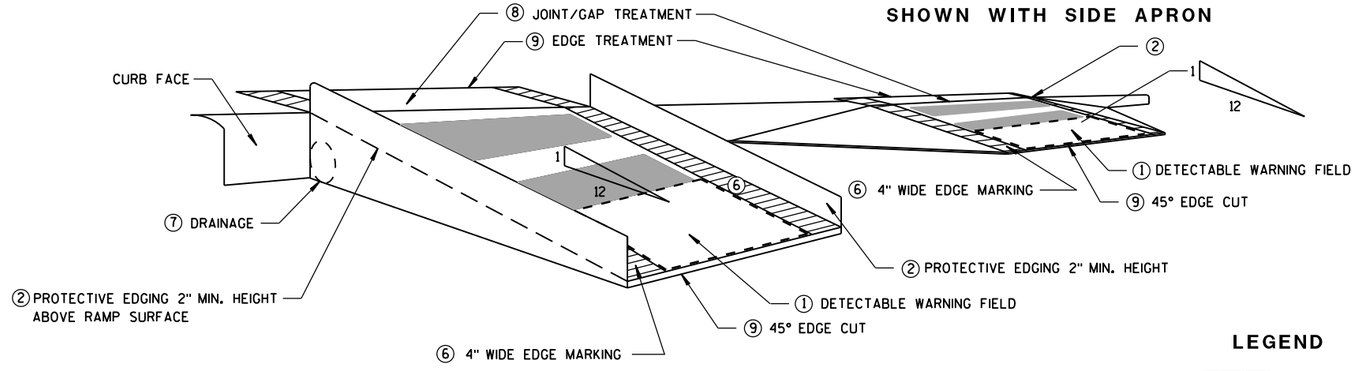
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

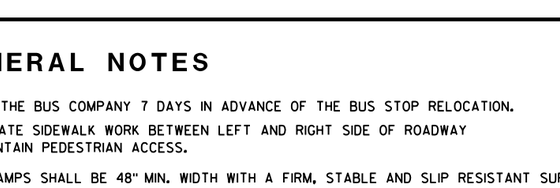
⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE



SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

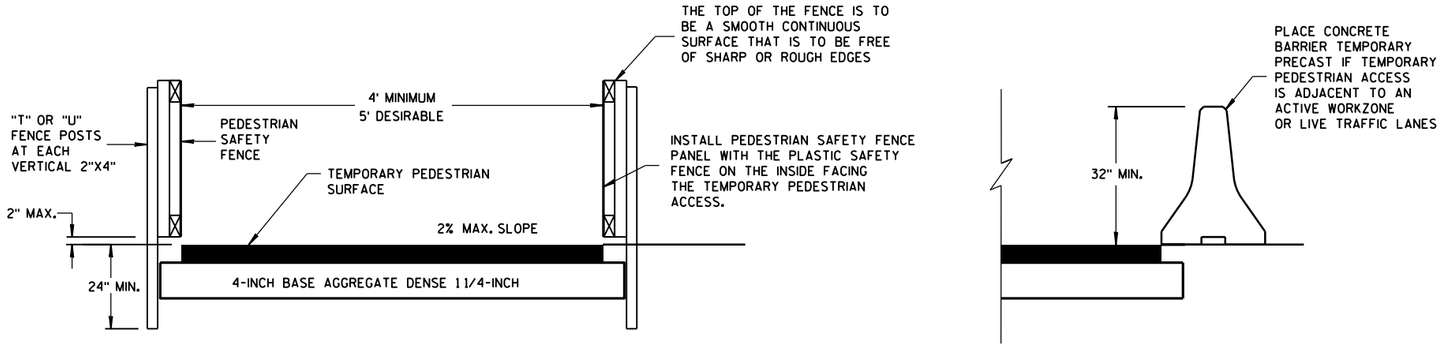
FHWA

6

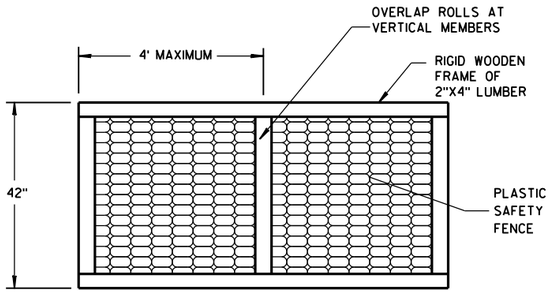
S.D.D. 15 D 30-2b

6

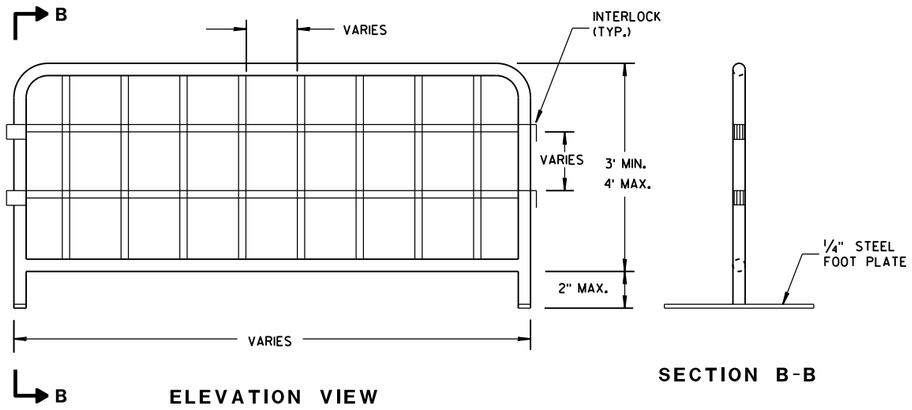
S.D.D. 15 D 30-2b



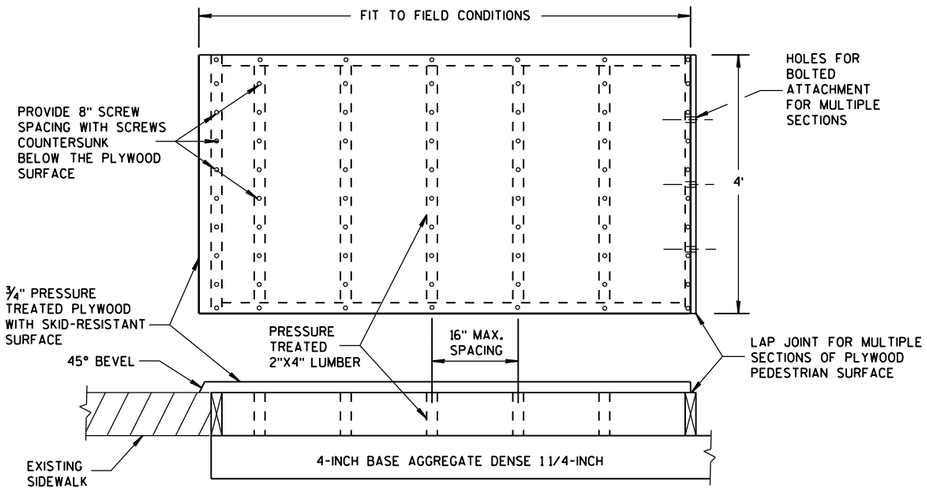
TEMPORARY PEDESTRIAN ACCESS



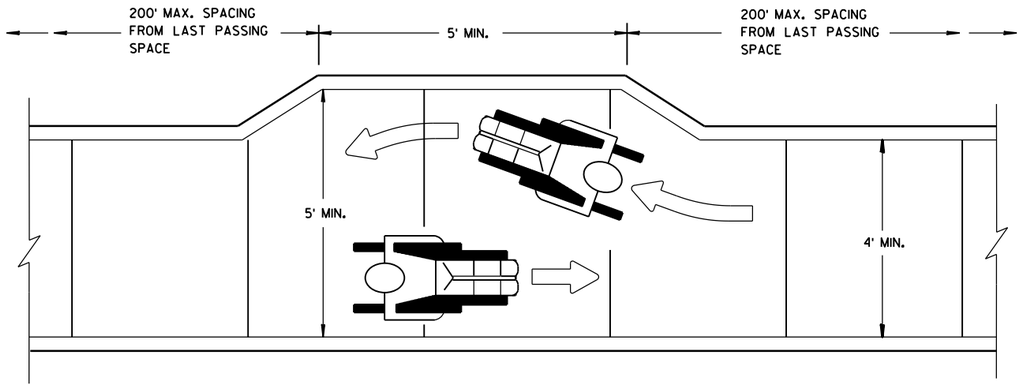
PEDESTRIAN SAFETY FENCE



TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



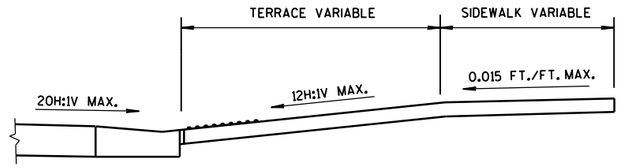
TEMPORARY PEDESTRIAN SURFACE PLYWOOD



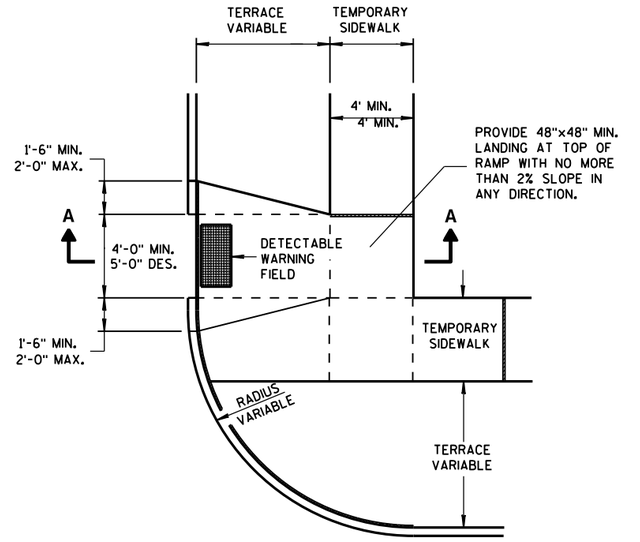
NARROW SIDEWALK PASSING DETAIL

GENERAL NOTES

(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

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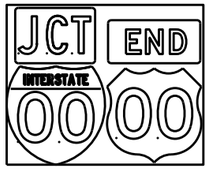
S.D.D. 15 D 30-2c

6

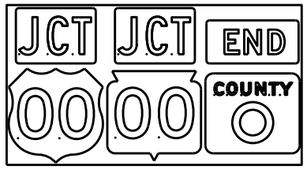
S.D.D. 15 D 30-2c

TYPICAL ASSEMBLIES

J1-1

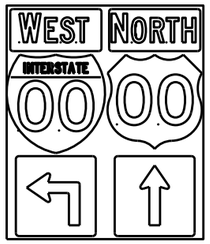


J1-2

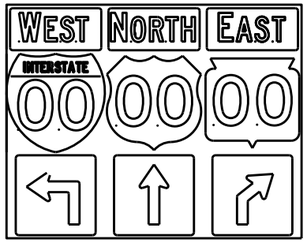


J1-3

J2-1



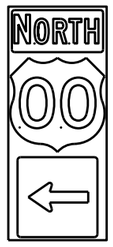
J2-2



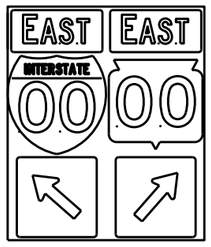
J2-3

JV

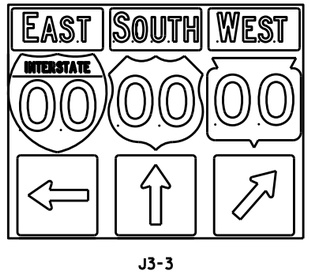
(Typical Vertical J-Assembly
See Note 10 and 11)



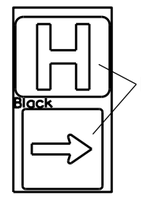
J3-1



J3-2



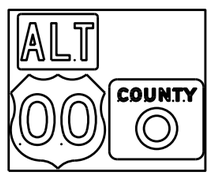
J3-3



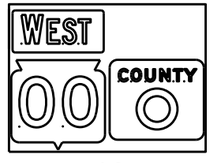
Blue Background

JH-1

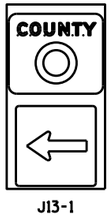
J4-1



J4-2



J4-2



J13-1

J12-1

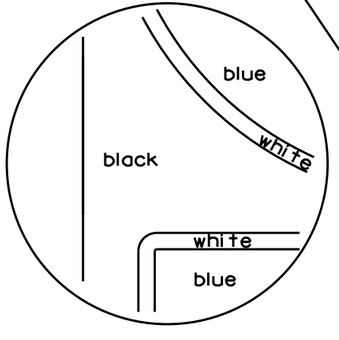
J32-1

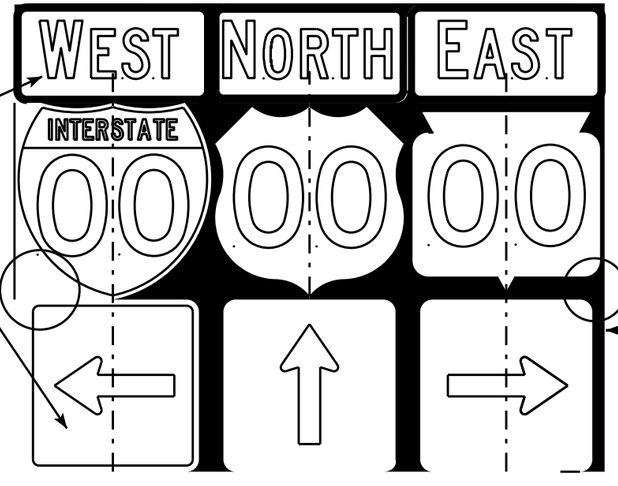
J33-1

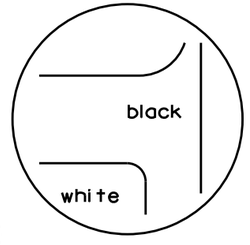
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

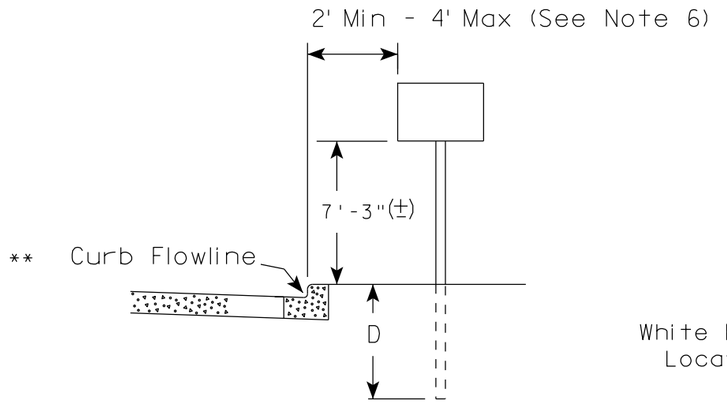
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

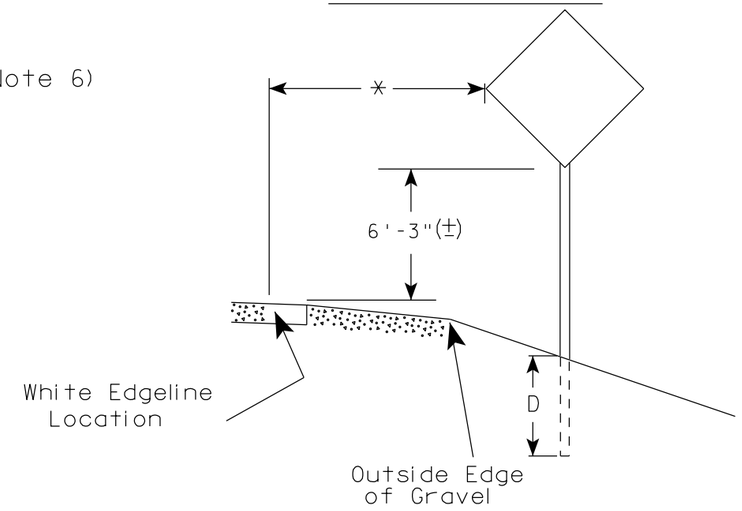
PROJECT NO: | SHEET NO: E

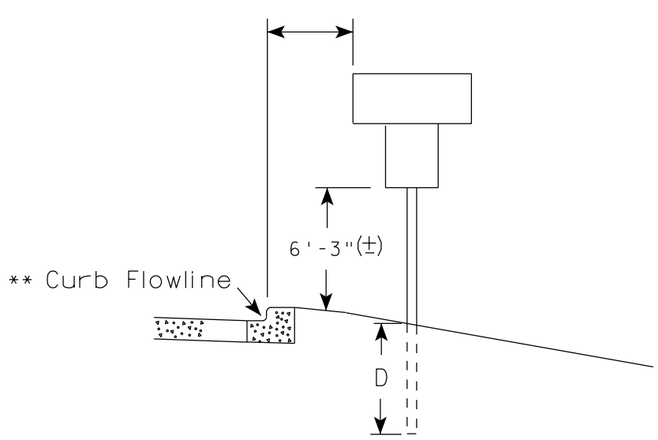
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

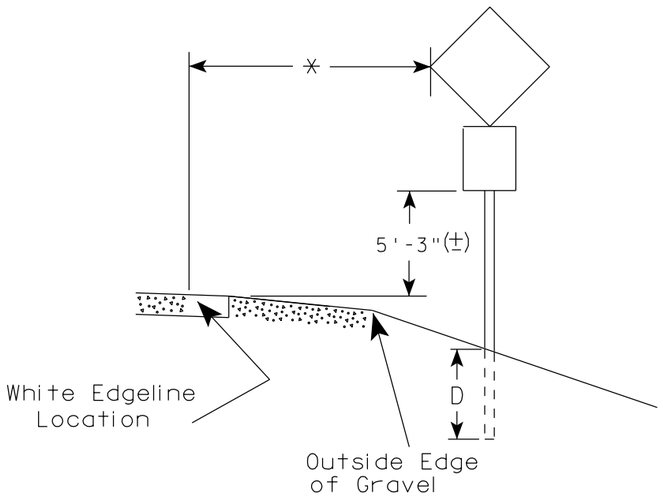
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

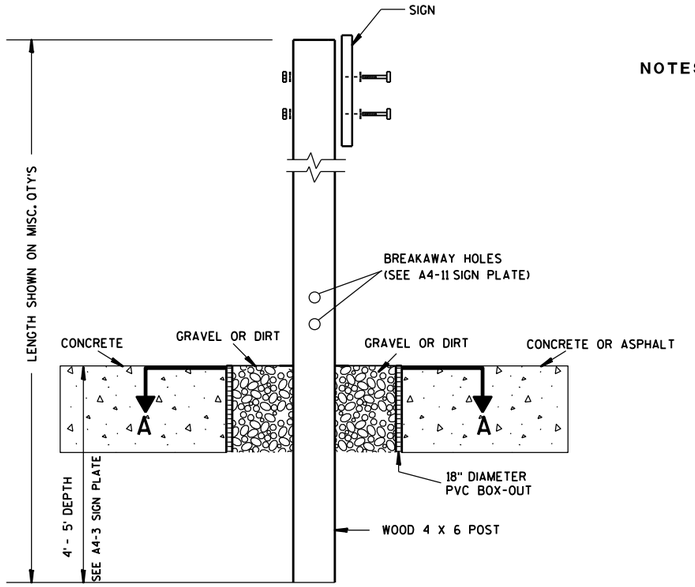
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

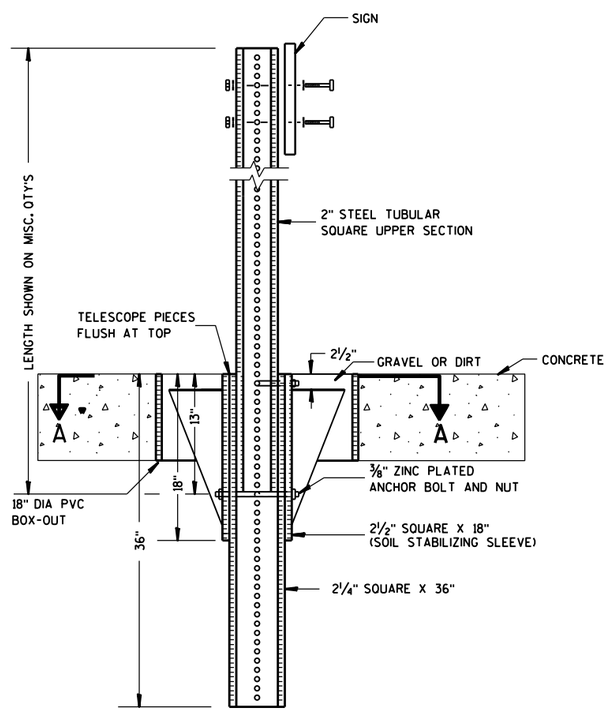
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

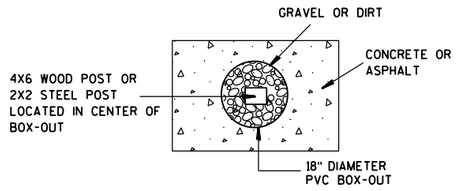
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

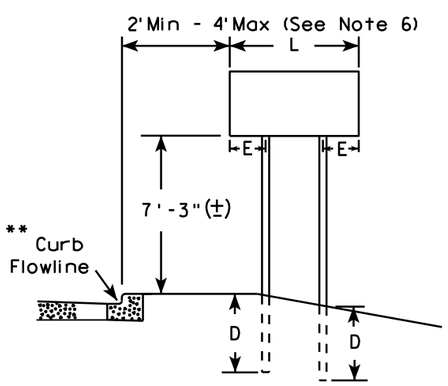
APPROVED Matthew R Rauch
for State Traffic Engineer

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

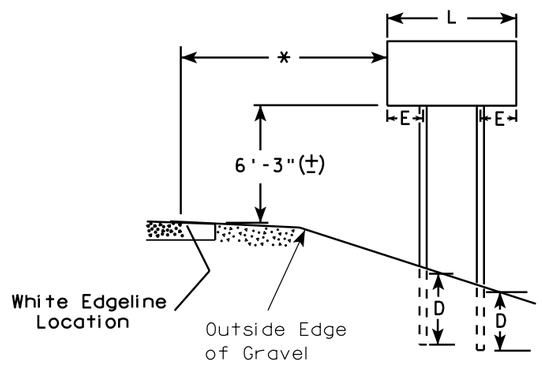
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

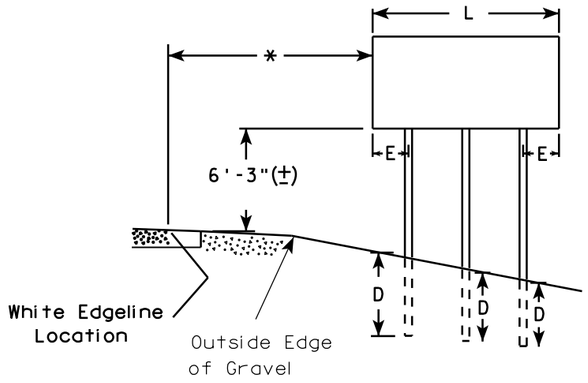
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

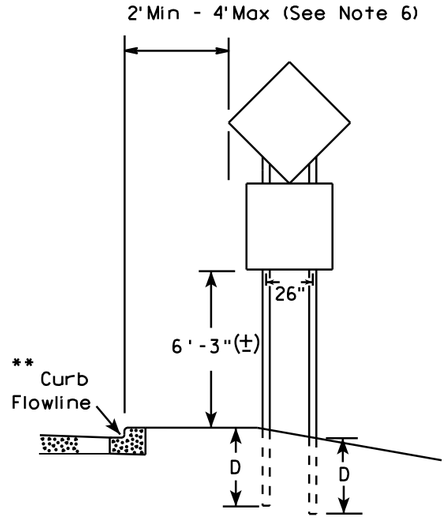
URBAN AREA



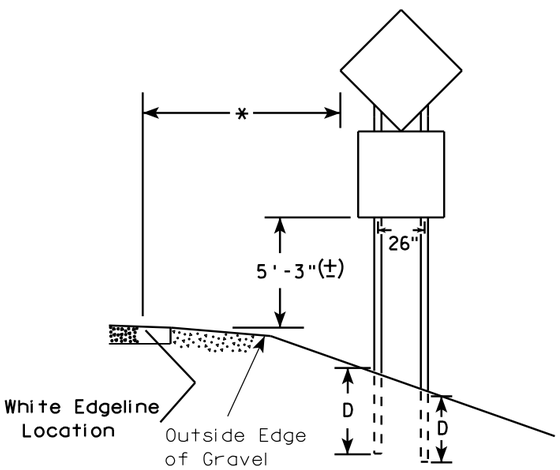
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

***

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

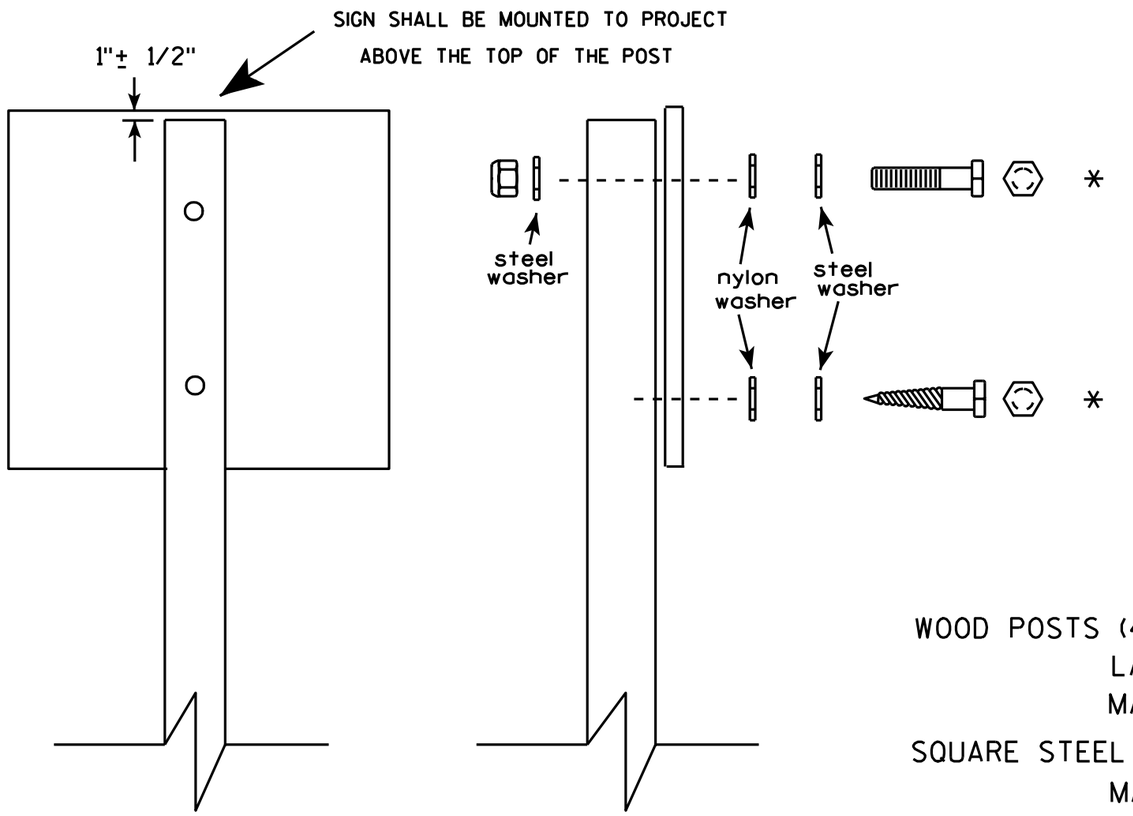
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
145

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

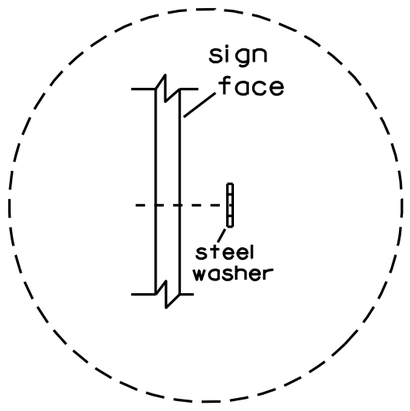
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

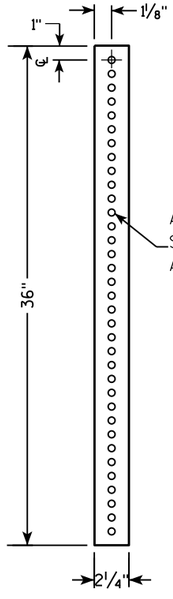
7

PROJECT NO:

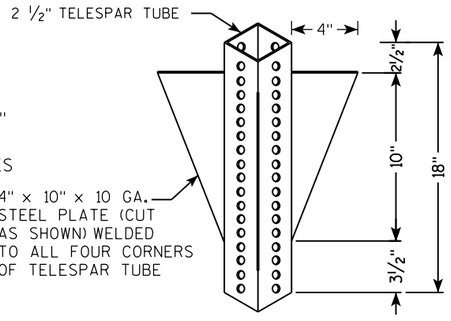
SHEET NO: 146 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

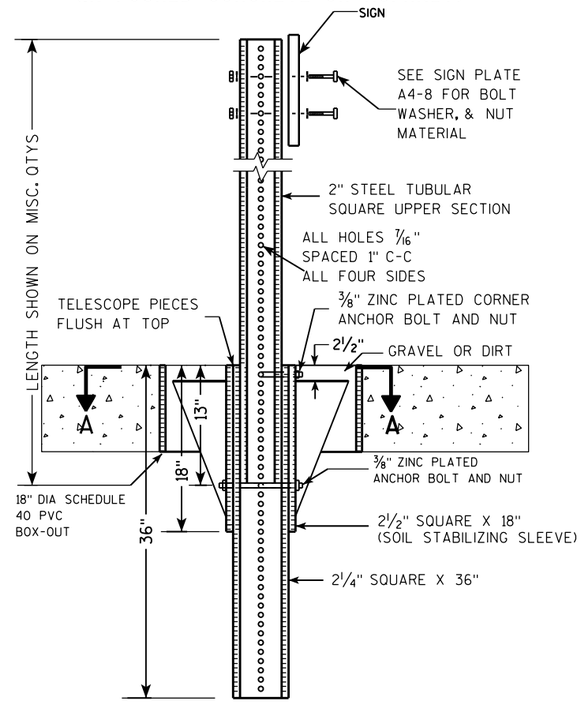
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



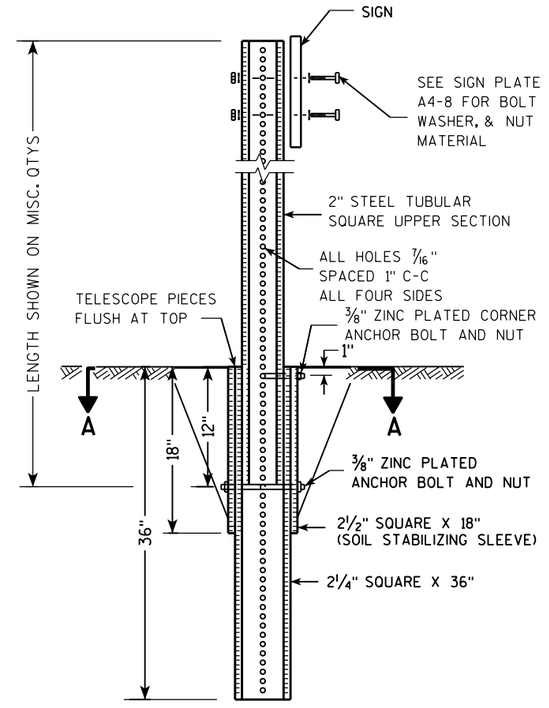
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

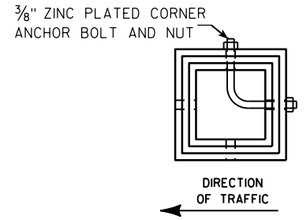


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

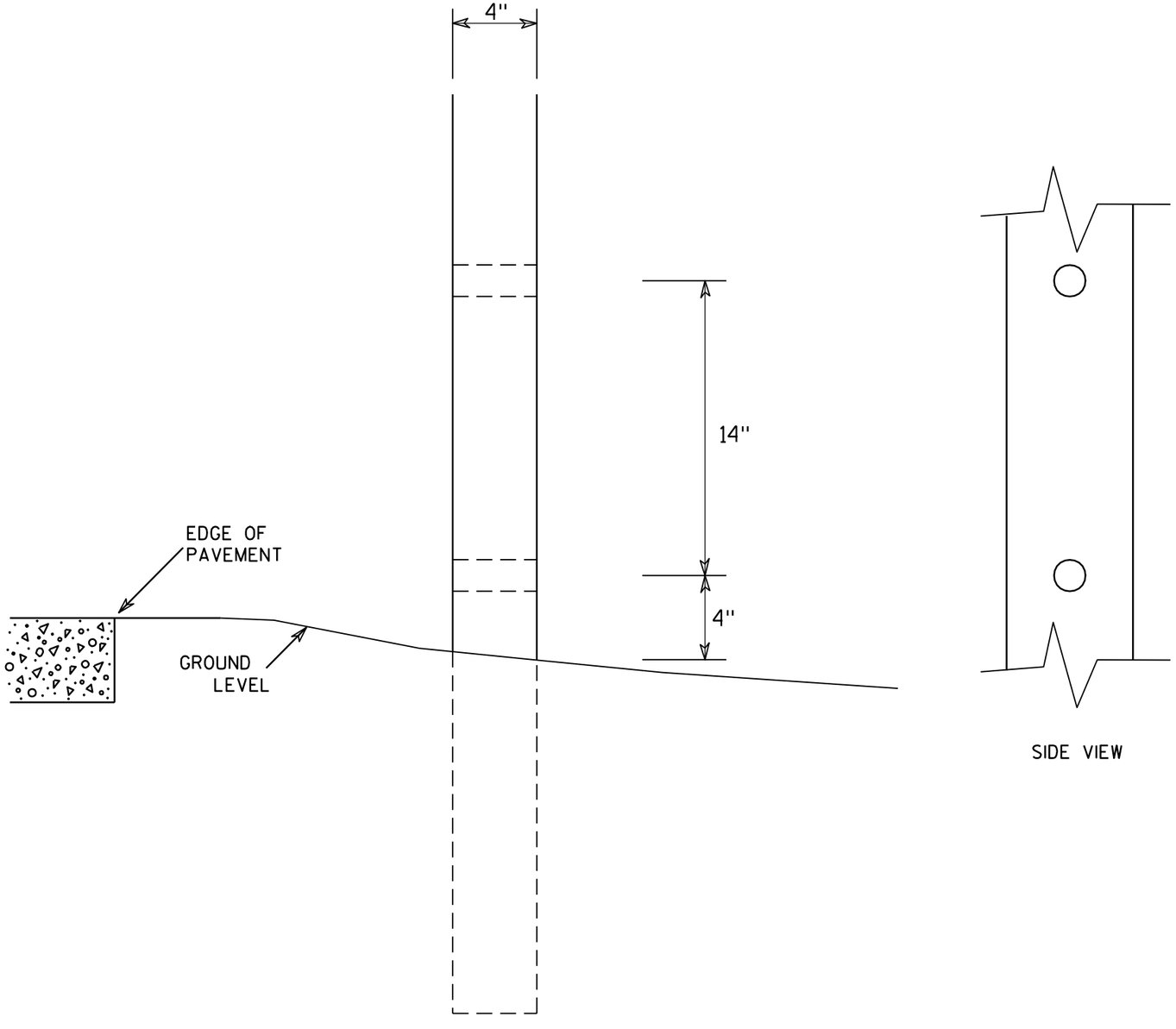
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

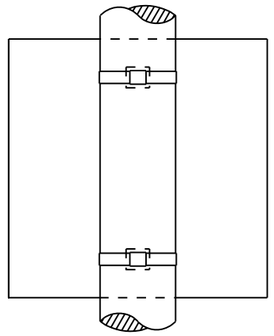
APPROVED Chester J Spang
for State Traffic Engineer

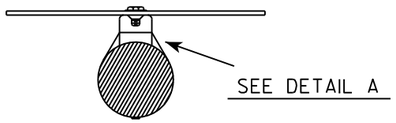
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 148	E

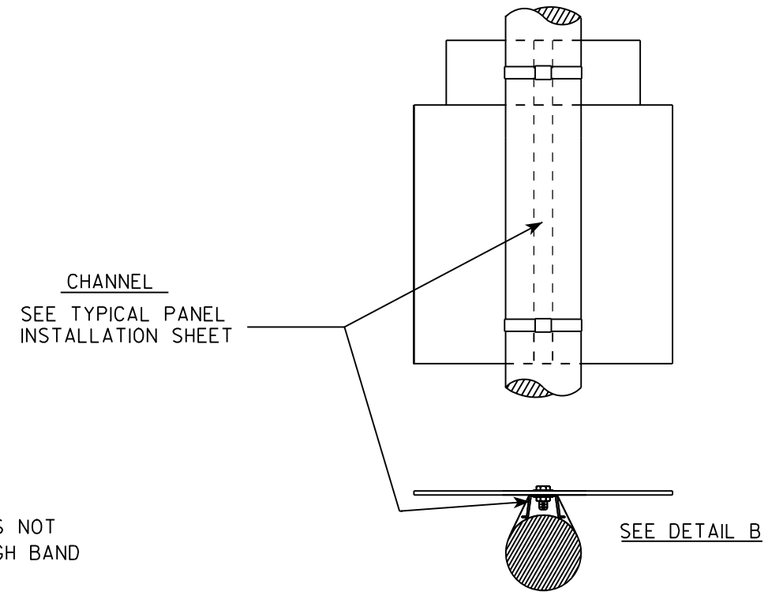
BANDING

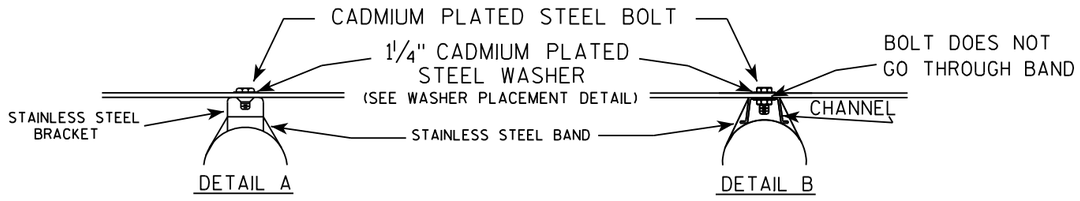
SINGLE SIGN



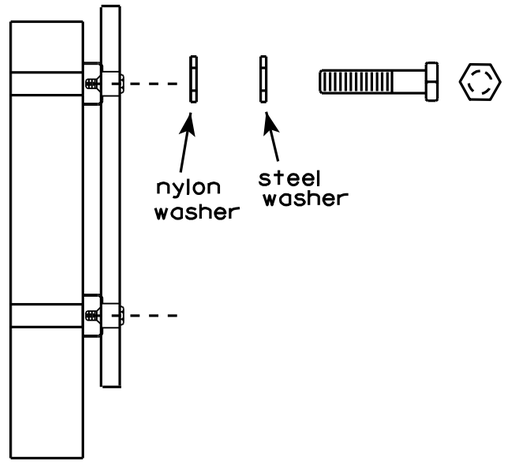


"J" ASSEMBLY





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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

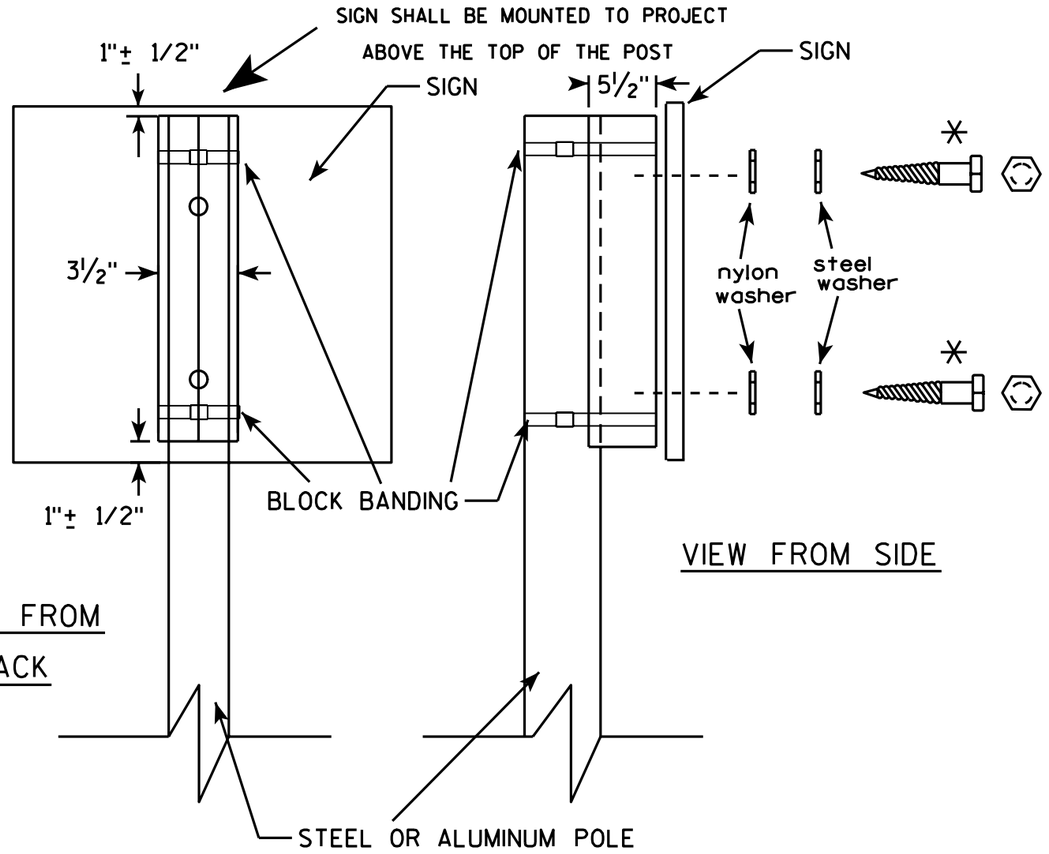
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

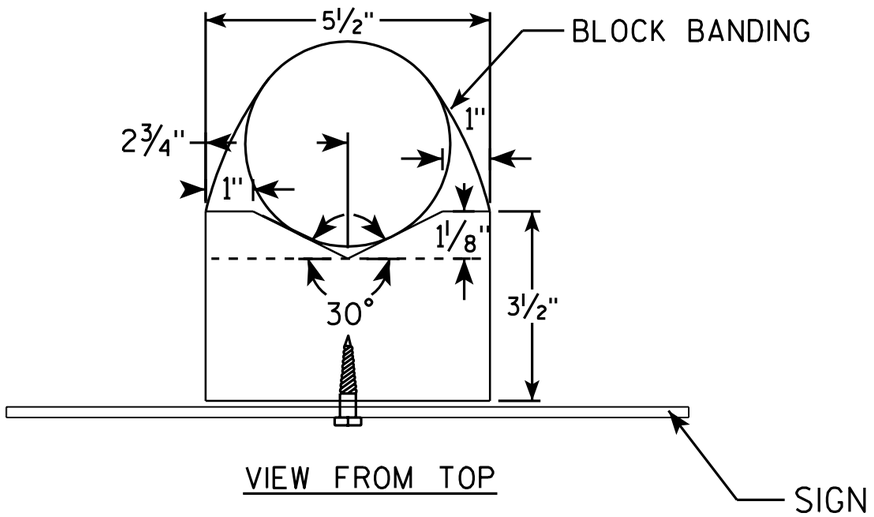
DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 149	E



VIEW FROM SIDE

VIEW FROM BACK



VIEW FROM TOP

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)

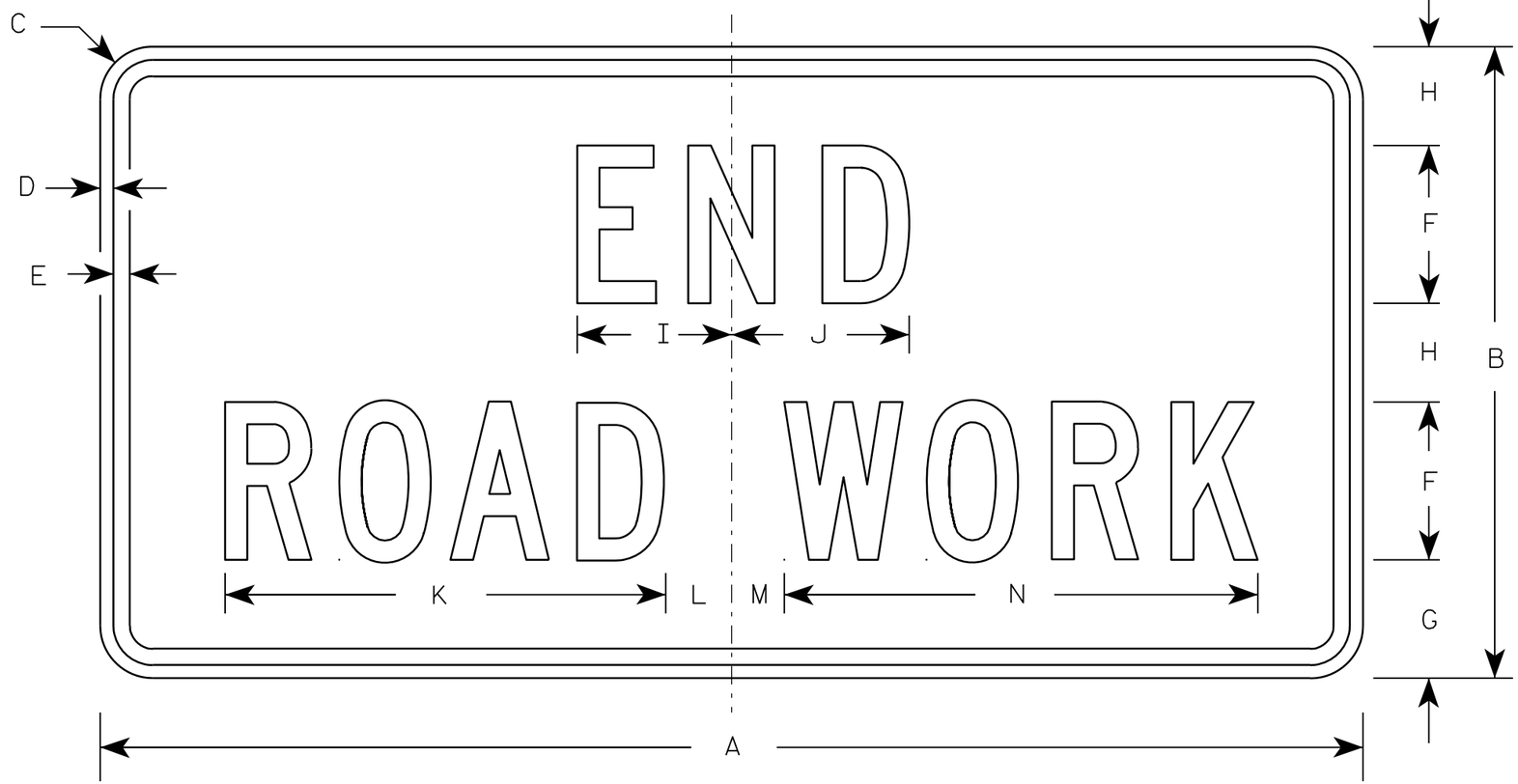
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 150 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

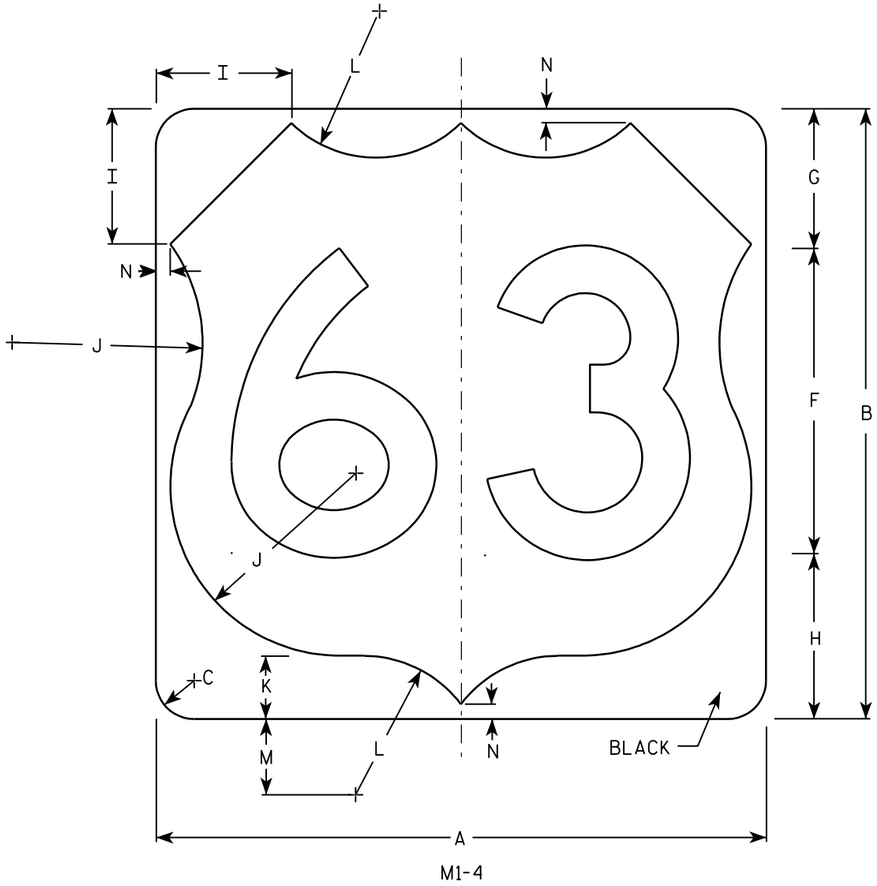
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

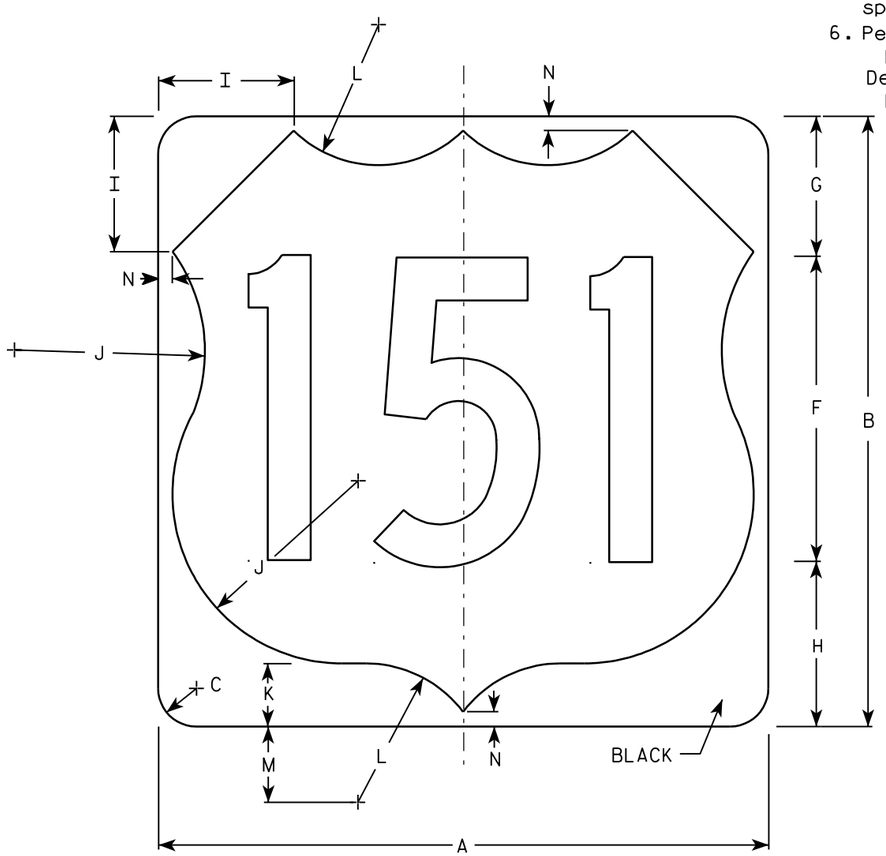
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 151	E

NOTES

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



M1-4



M1-4

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

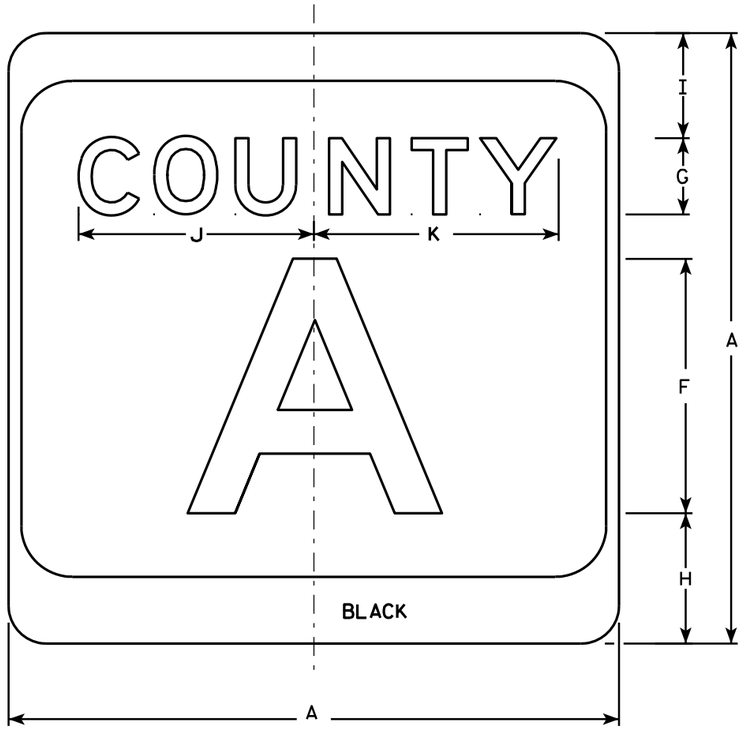
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

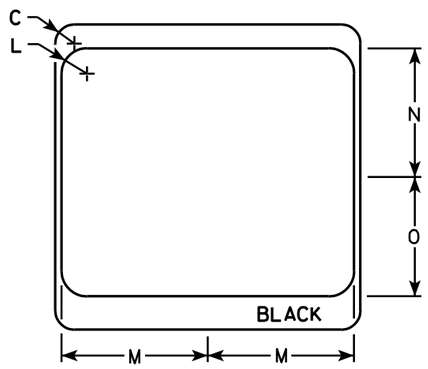
APPROVED Matthew R Rauch
for State Traffic Engineer

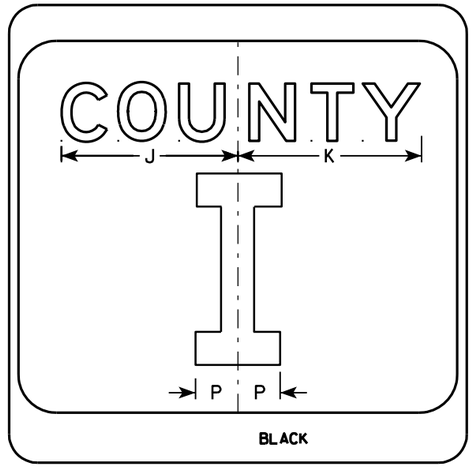
DATE 08/25/05 PLATE NO. M1-4.9

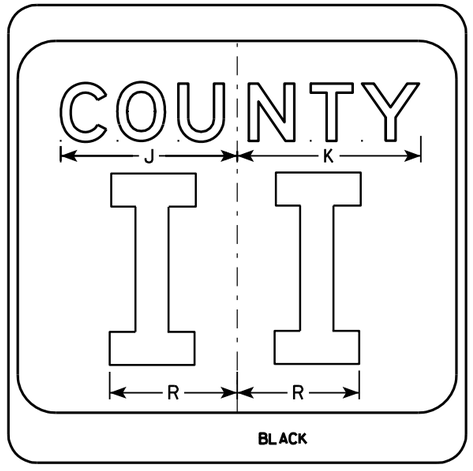
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 152	E



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

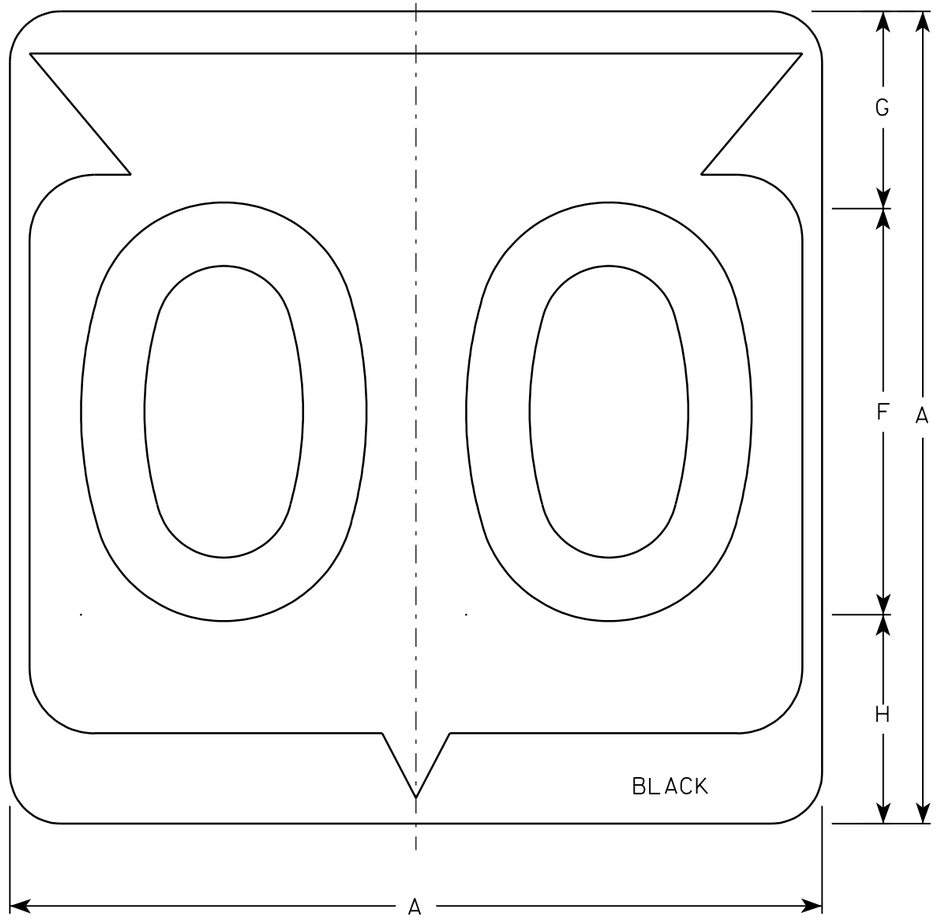
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

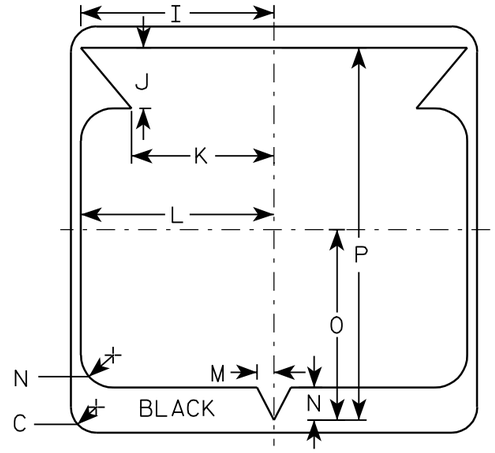
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 153	E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

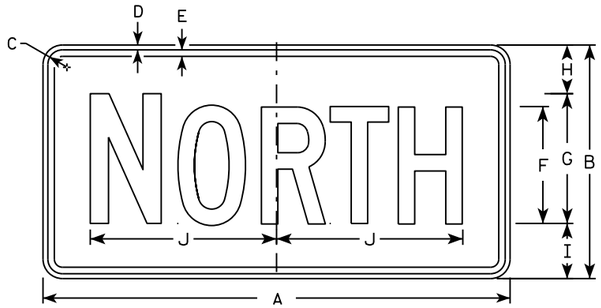
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

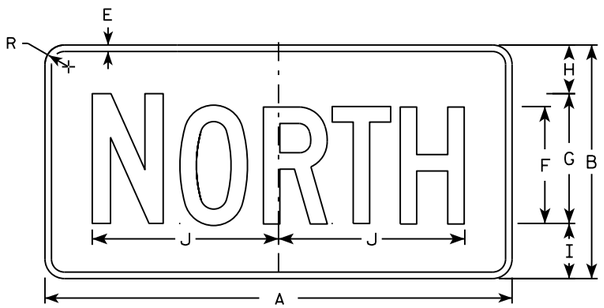
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 154	E



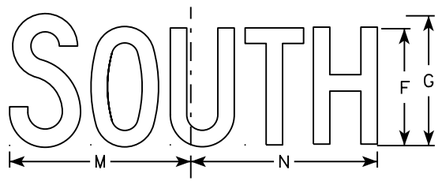
M3-1
MM3-1
MP3-1



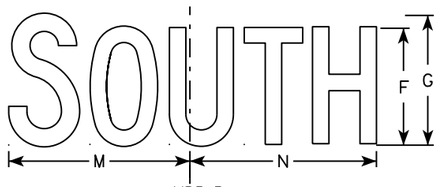
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

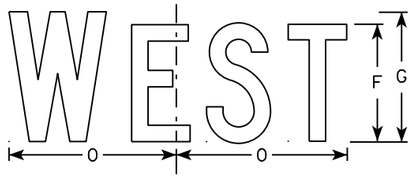
MB3-2
MK3-2
MN3-2



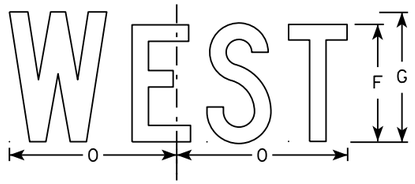
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
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

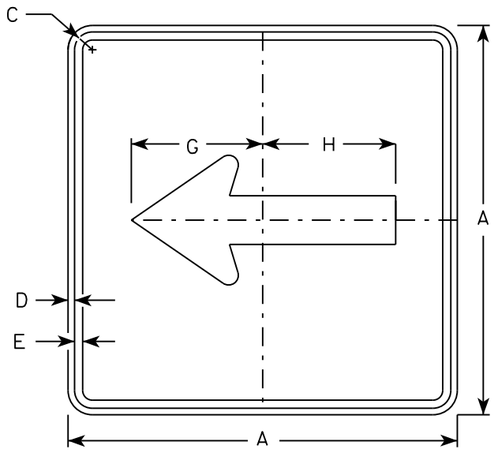
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

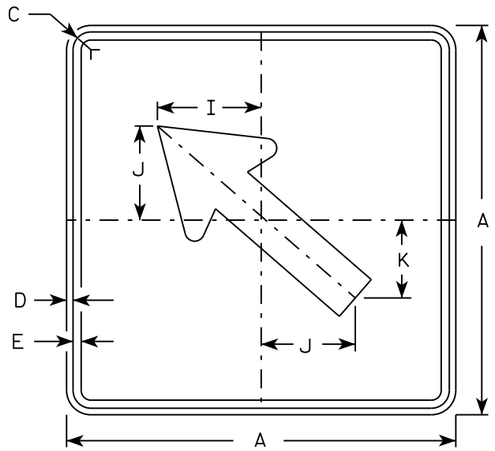
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



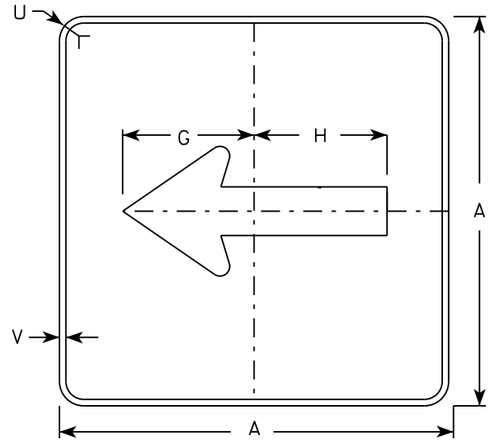
M6-1
MM6-1
MO6-1
MP6-1



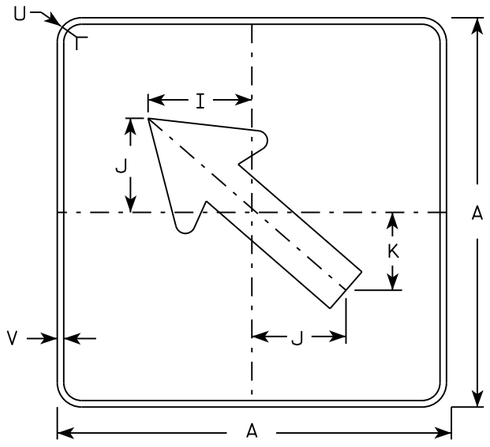
M6-2
MM6-2
MO6-2
MP6-2

NOTES

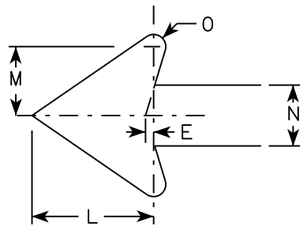
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



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

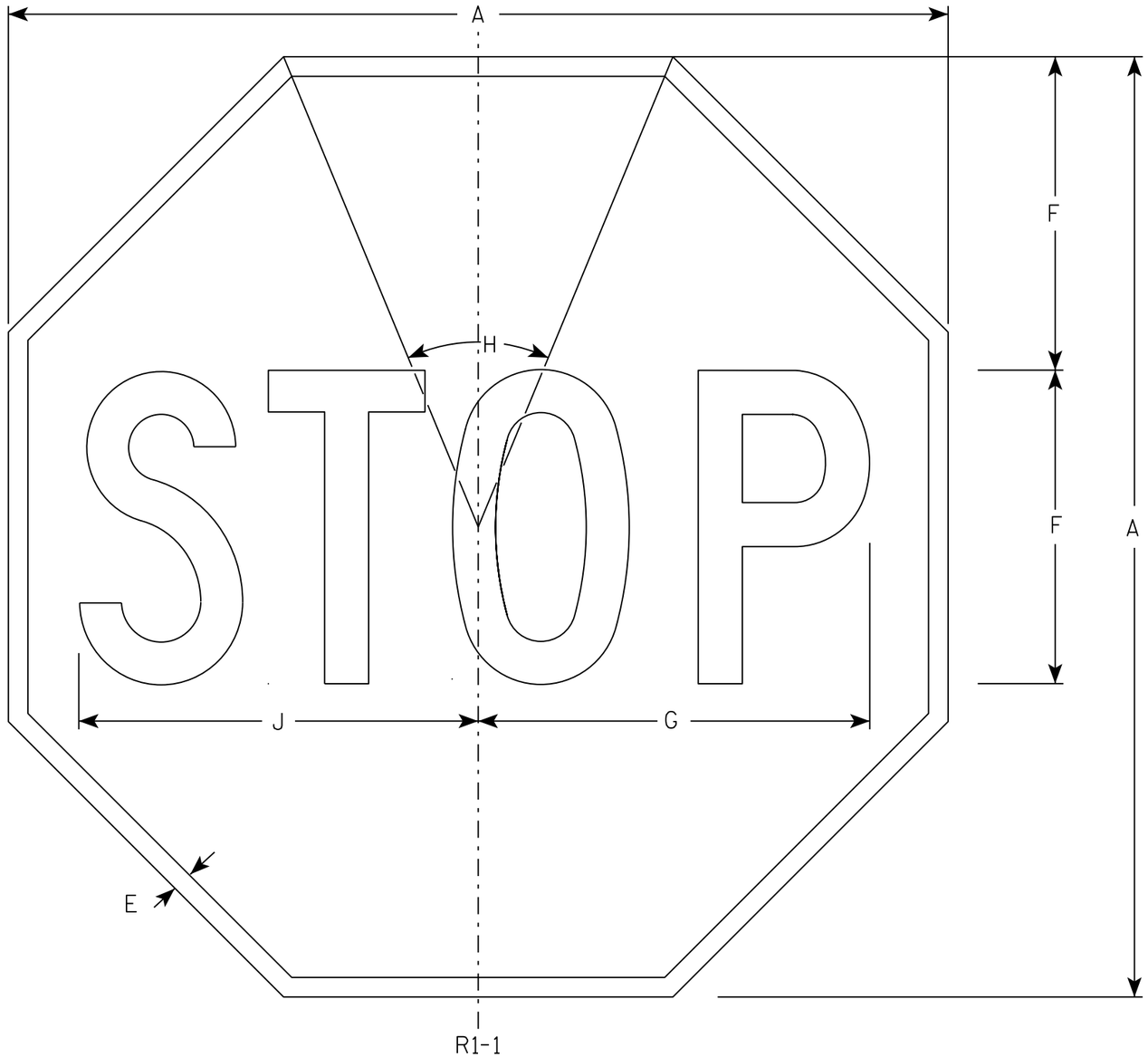
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 156 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



R1-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

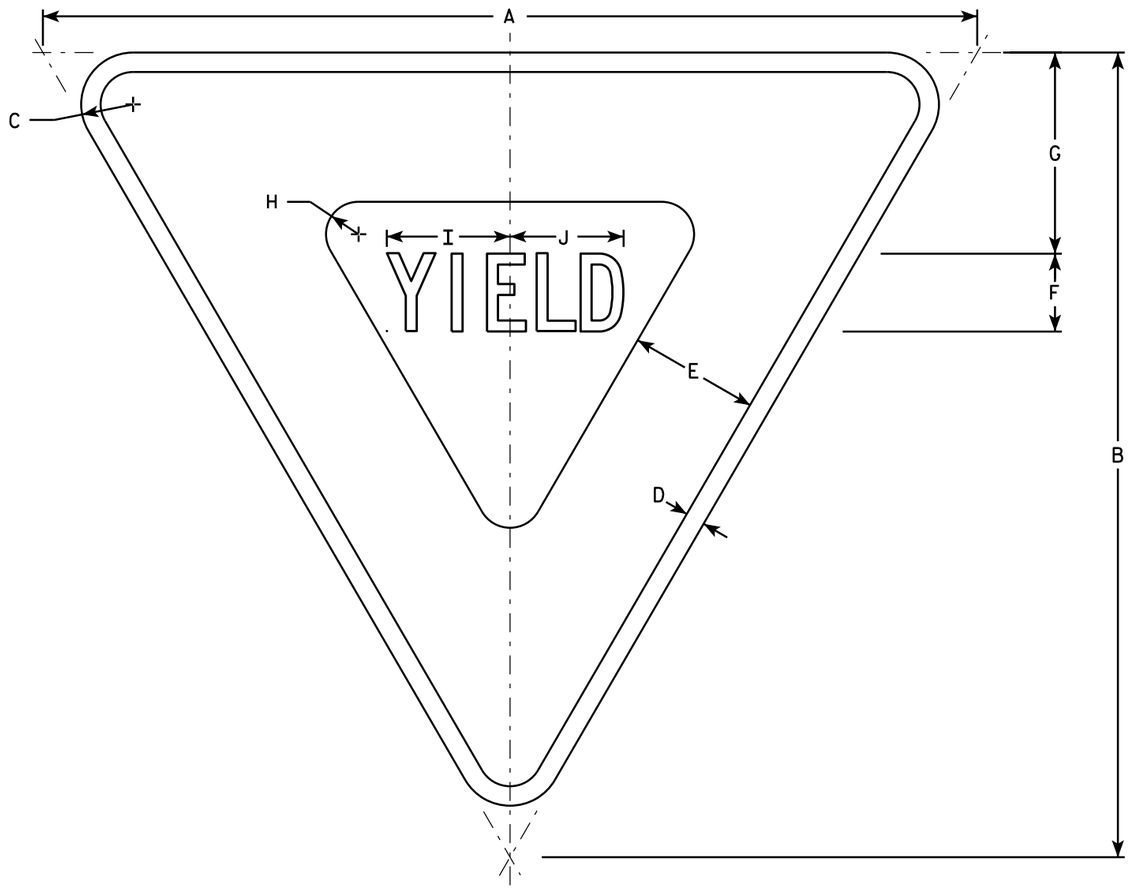
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 157 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

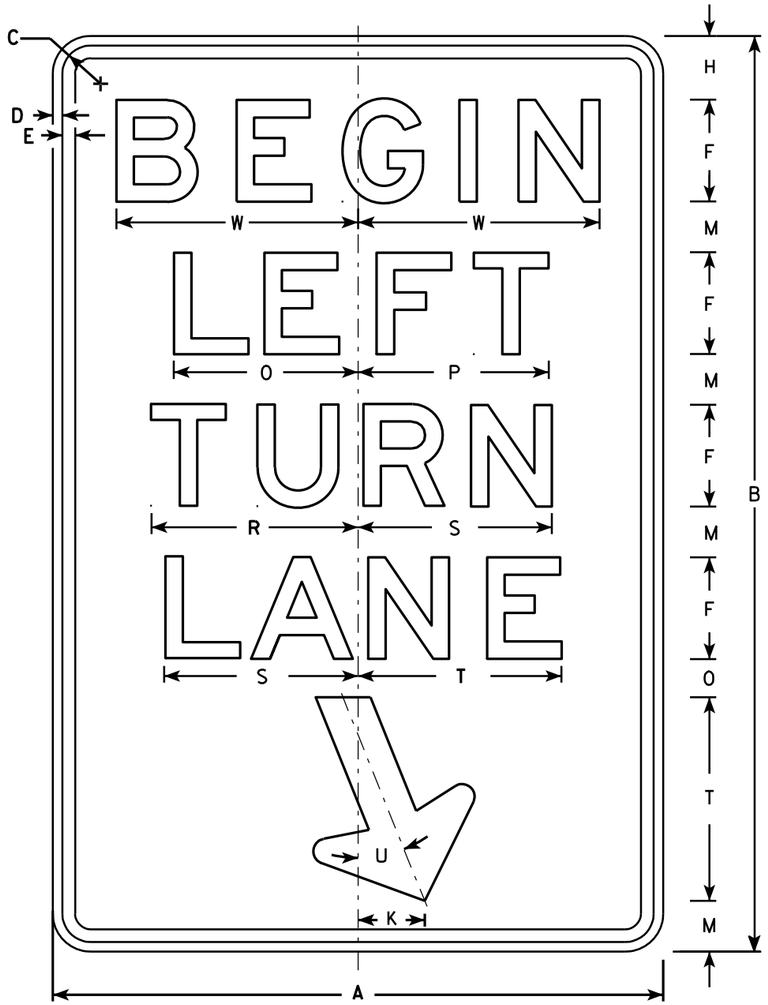
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

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

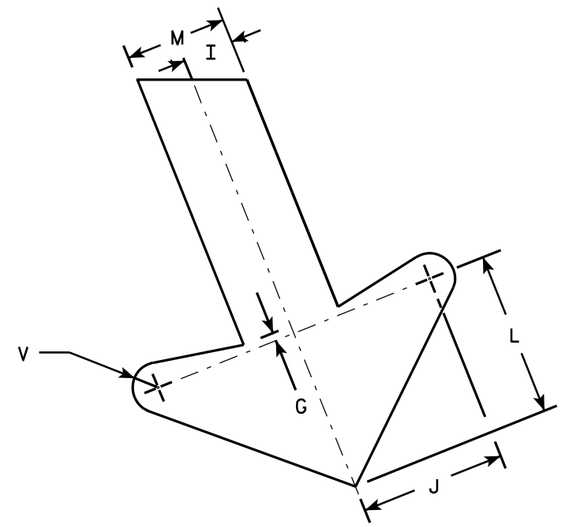
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R3-20L

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.



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																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

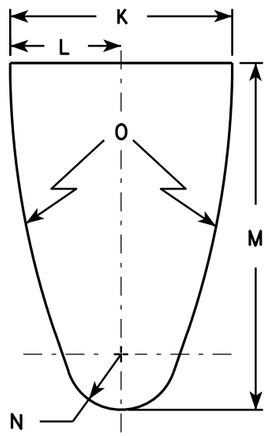
STANDARD SIGN
R3-20L

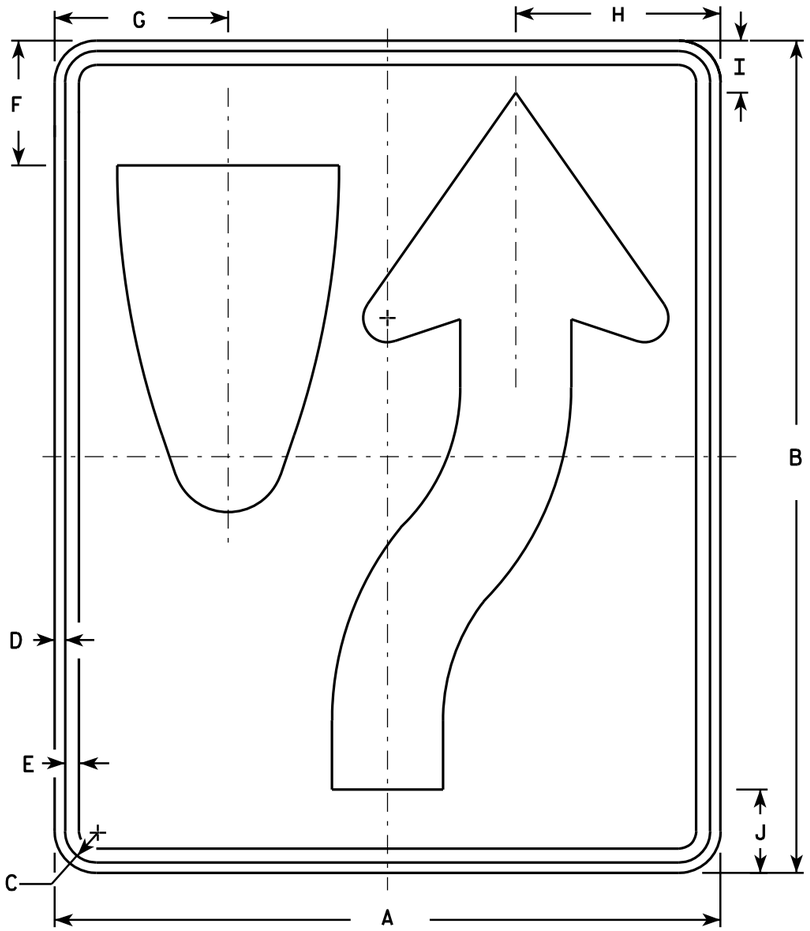
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 159 | E

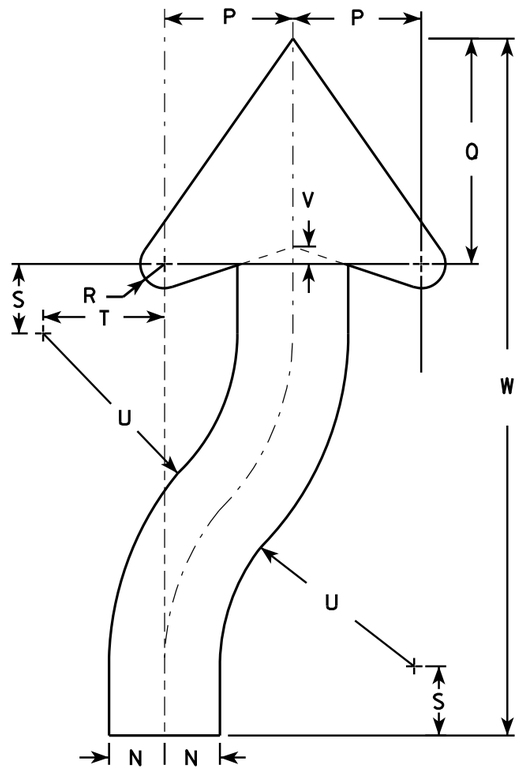




R4-7

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

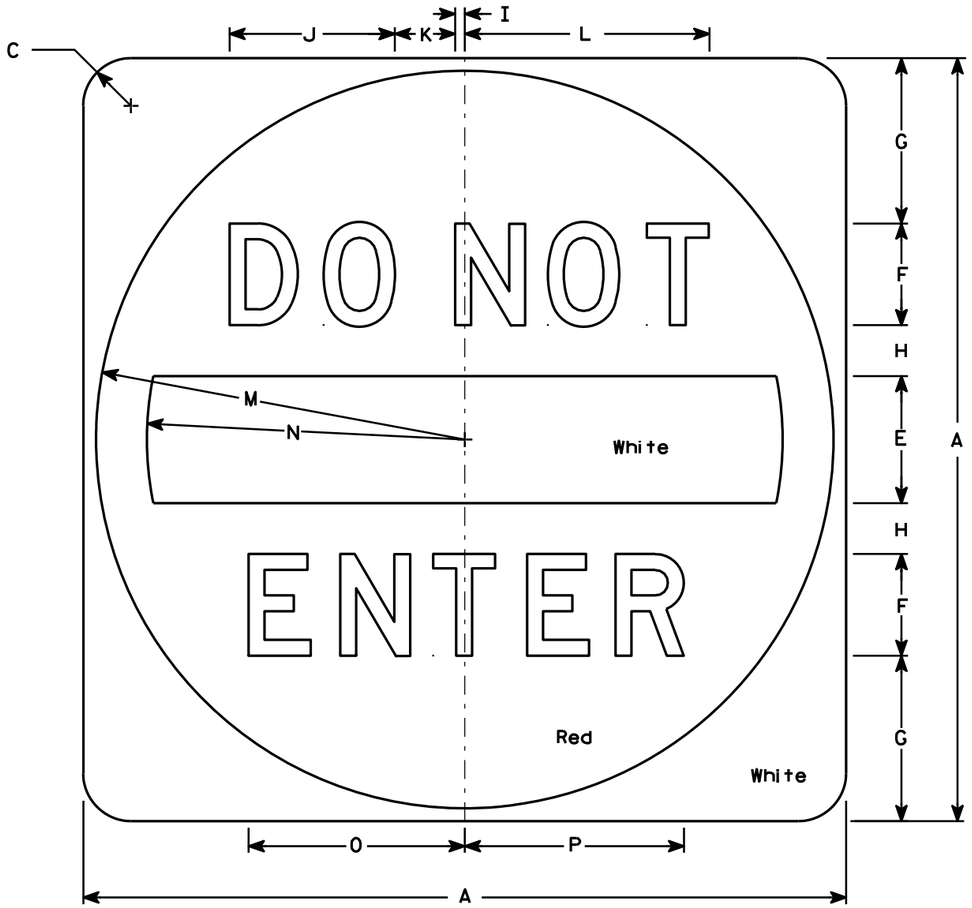
STANDARD SIGN
R4-7 & R4-8

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: 160	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: 161 | E

R8-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 1/4	9 5/8	6 5/8	3 5/8	10														5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 1/4	9 5/8	6 5/8	3 5/8	10														5.0
3	36	48	1 3/8	1/2	5/8	6	6	4	13 7/8	14 3/8	9 7/8	5 3/8	15														12.0
4	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	18 1/2	19 1/4	13 1/4	7 1/4	20														20.0
5																											

STANDARD SIGN
R8-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-8.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E

R9-9

NOTES

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

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	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
2M	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
3																											
4																											
5																											

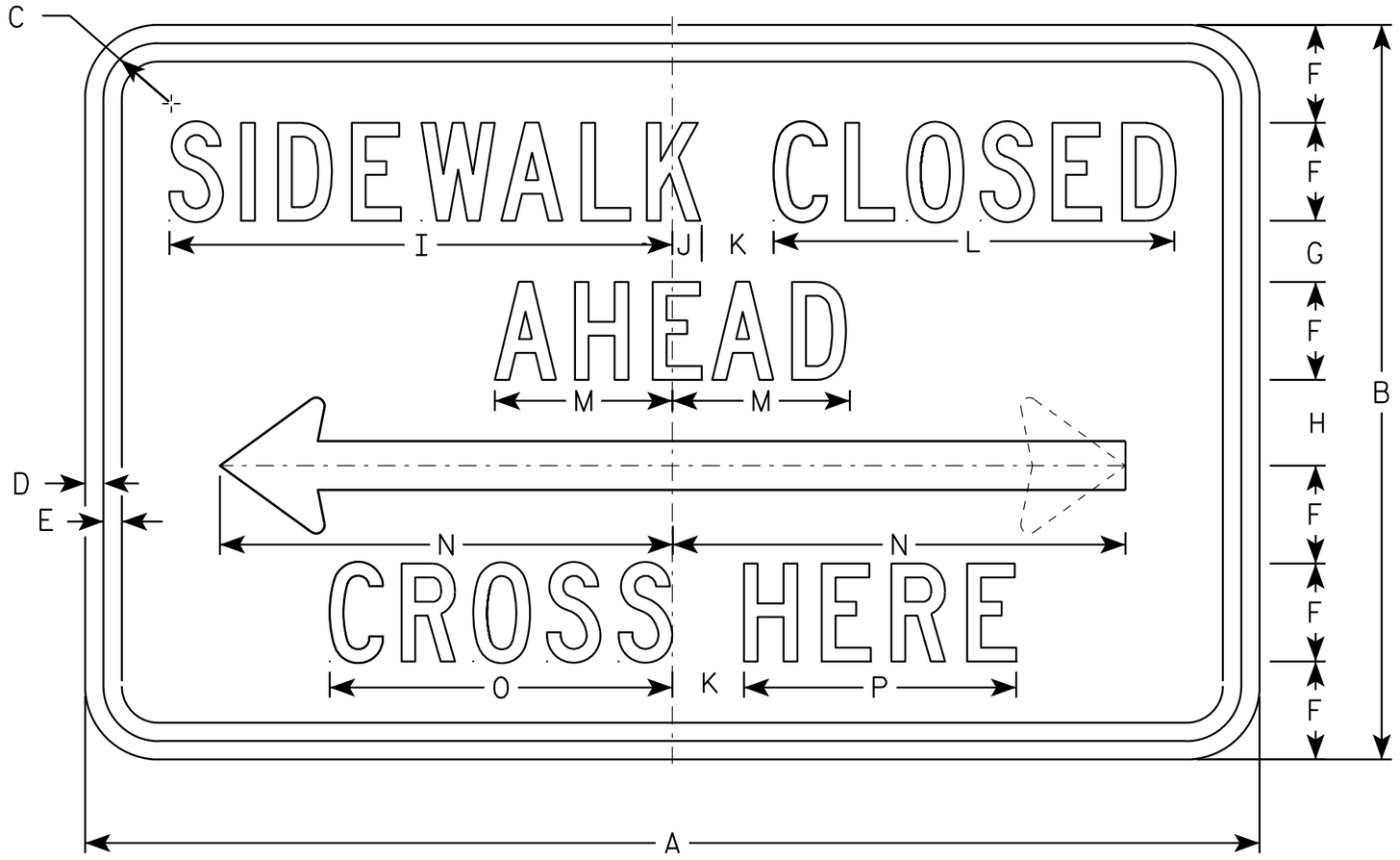
STANDARD SIGN
R9-9

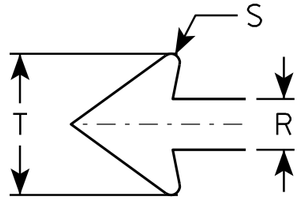
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 163	E





R9-11

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2S	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 1/2	1 1/4	3	16 3/8	7 1/4	18 1/2	14	11 1/8		2	3/8	5 1/2							10.0
2M	48	30	2 3/4	3/4	3/4	4	2 1/2	3 1/2	20 1/2	1 1/4	3	16 3/8	7 1/4	18 1/2	14	11 1/8		2	3/8	5 1/2							10.0
3																											
4																											
5																											

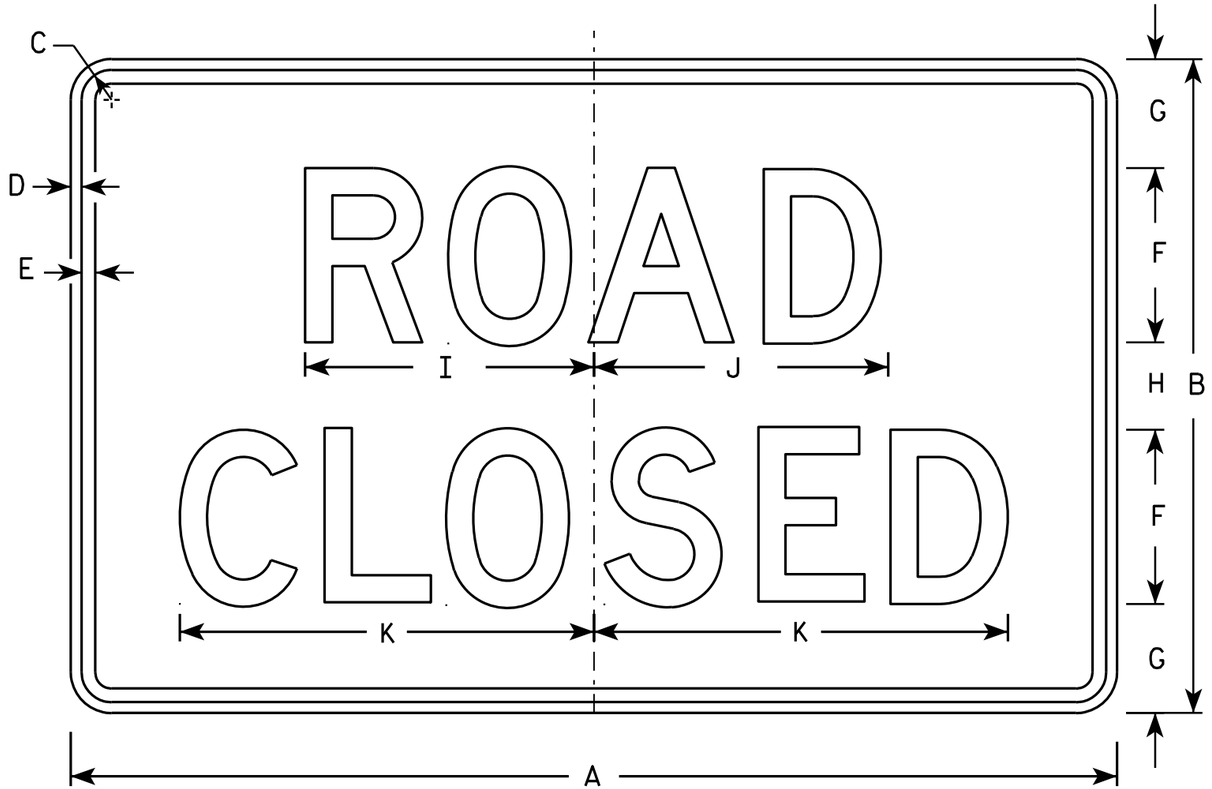
STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/17/2012 PLATE NO. R9-11.2

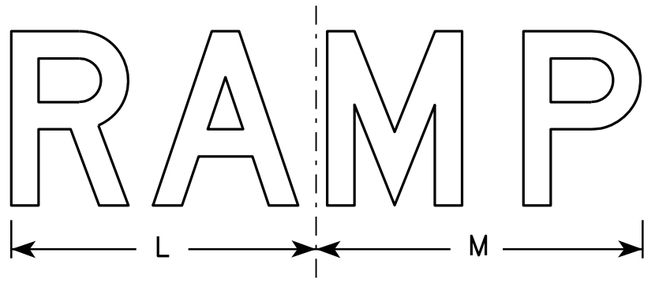
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 164	E



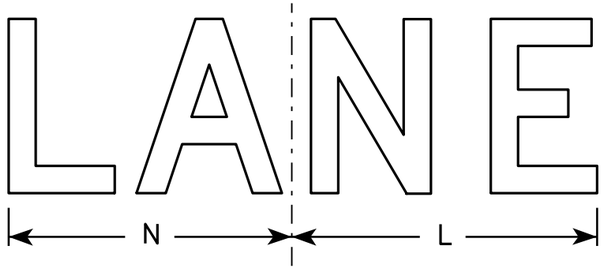
R11-2

NOTES

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



R11-2R



R11-2L

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

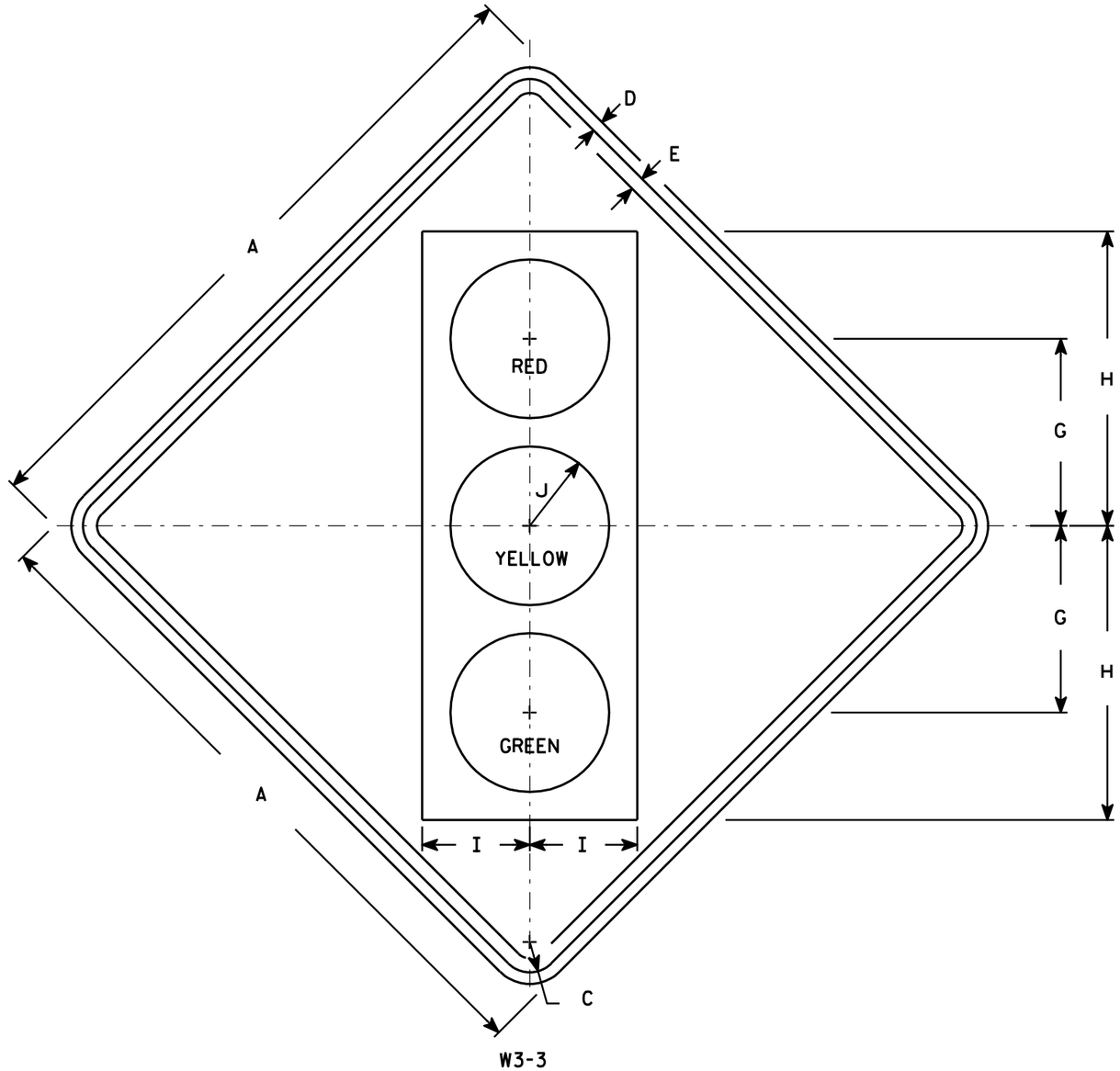
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 165 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

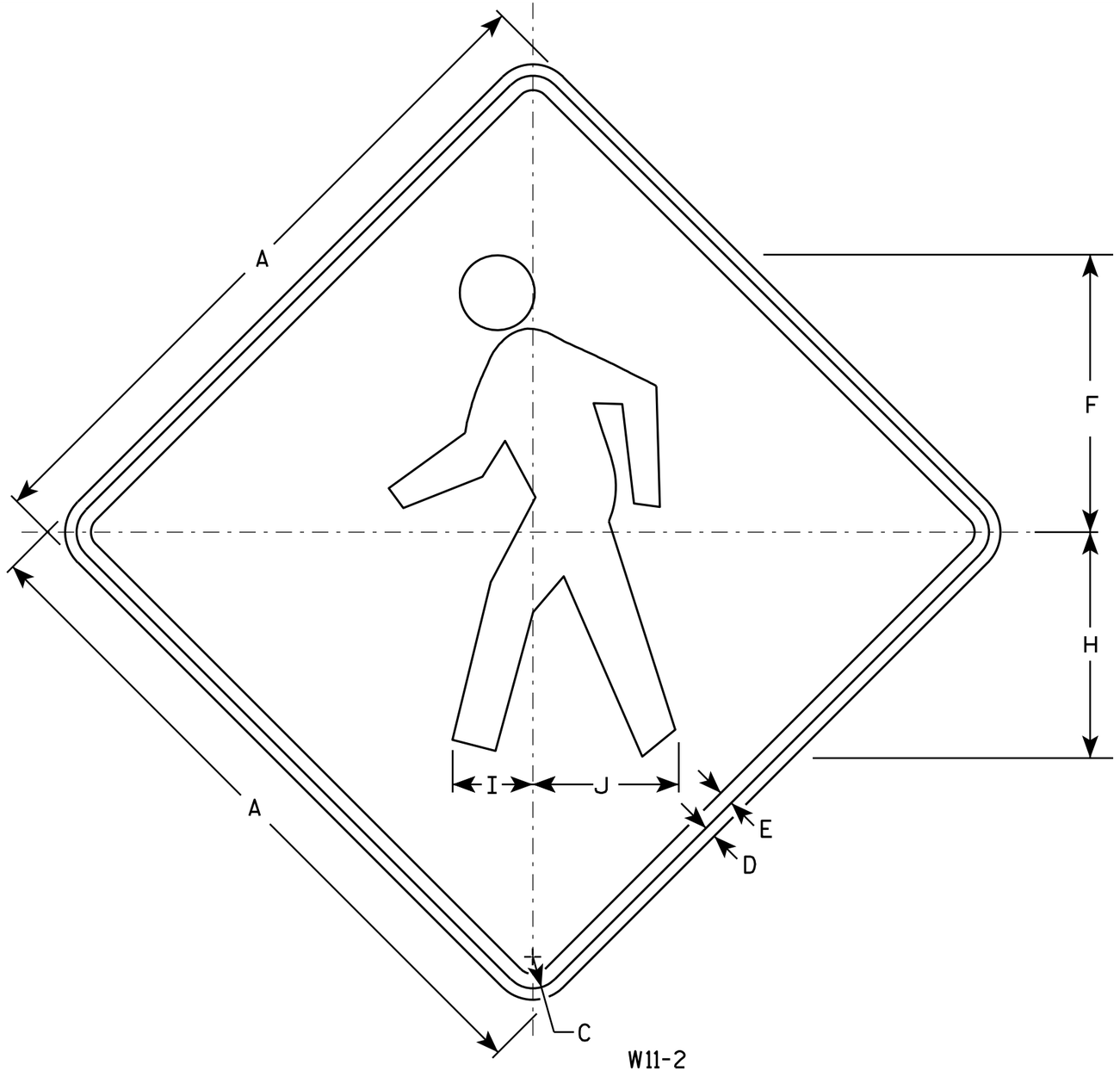
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

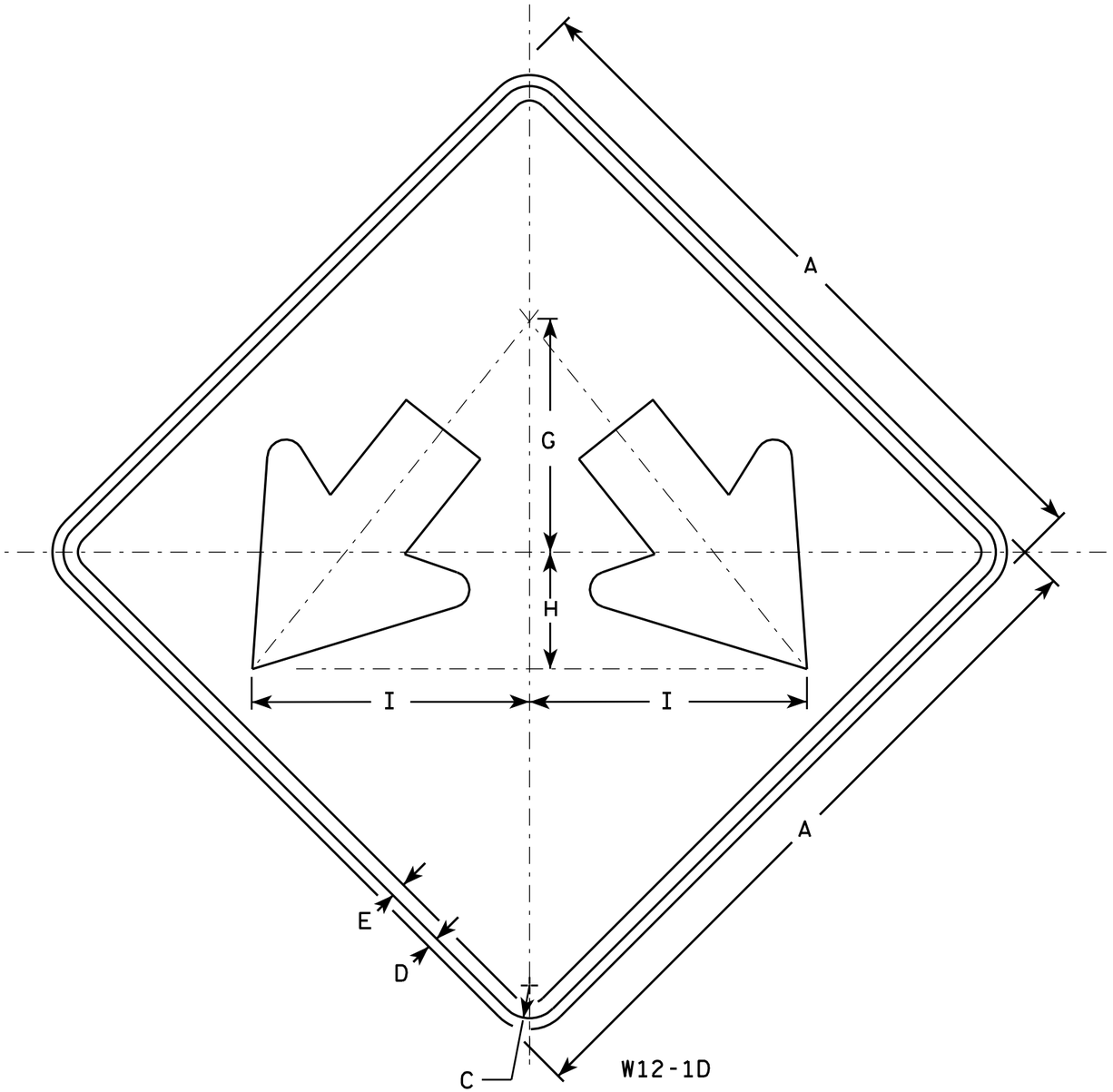
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

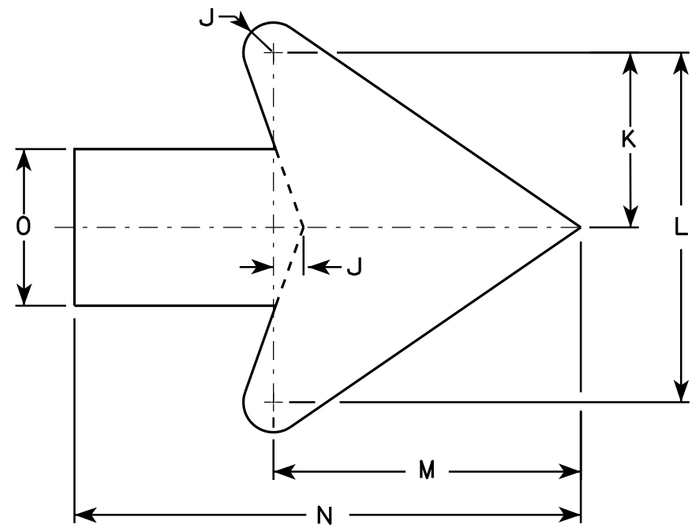
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 167	E



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

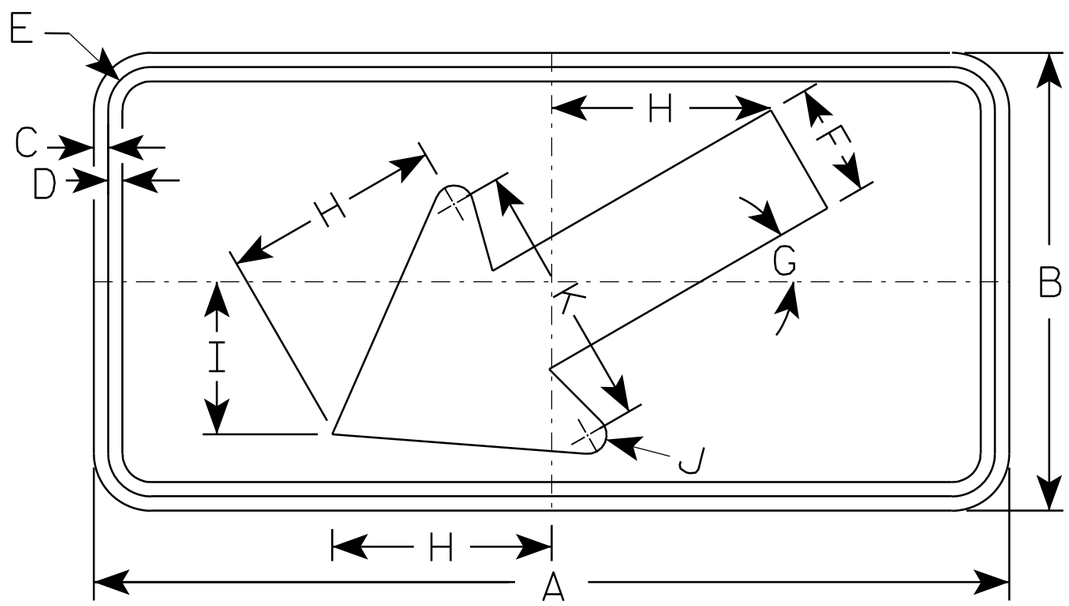
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 168	E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

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

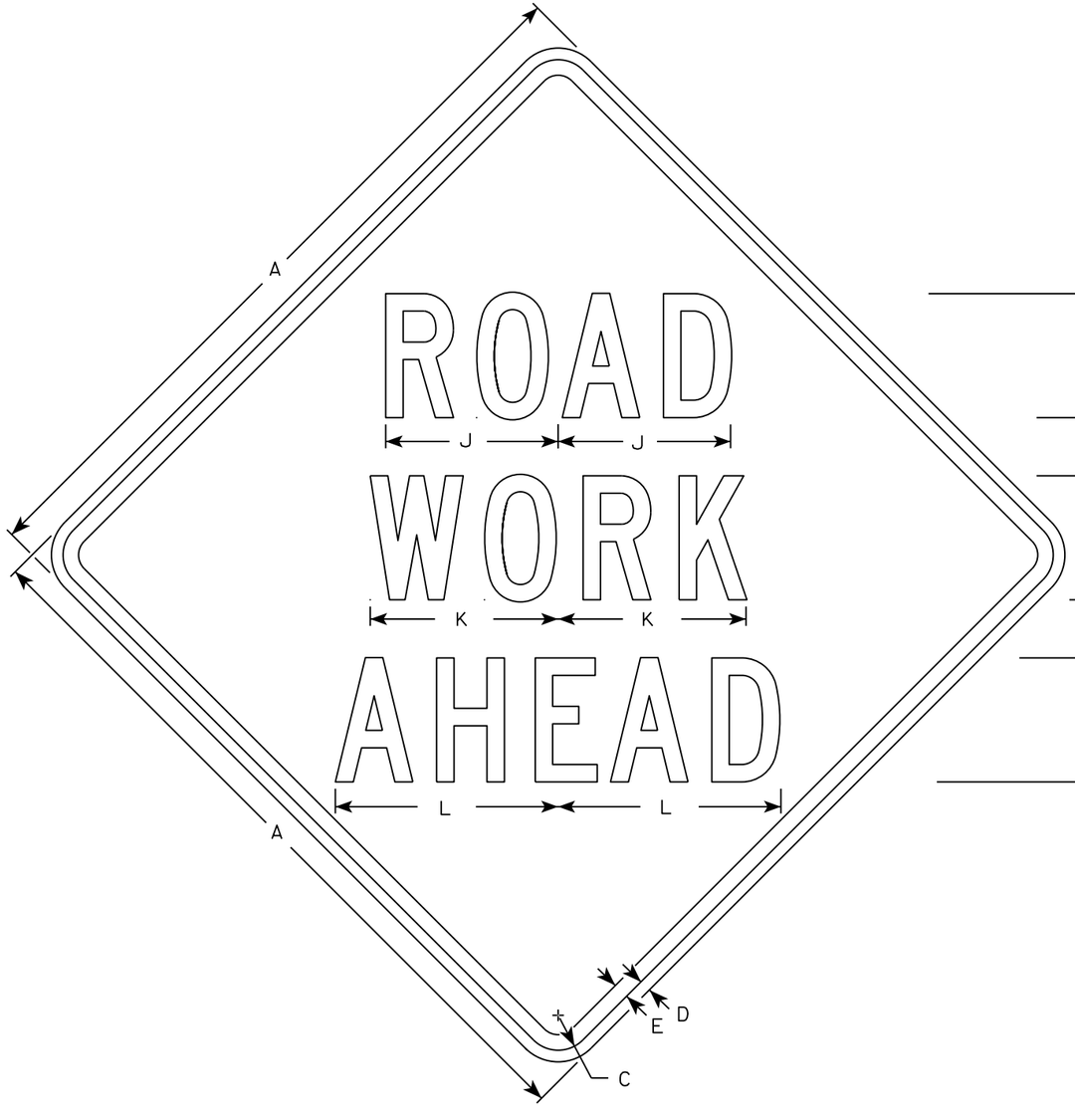
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

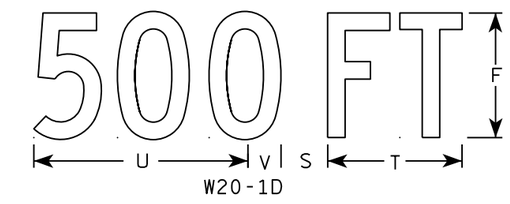
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

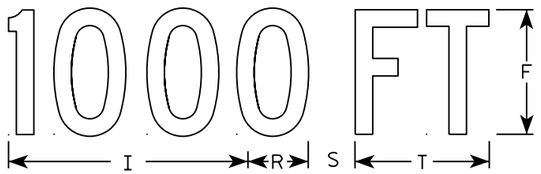
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 169	E



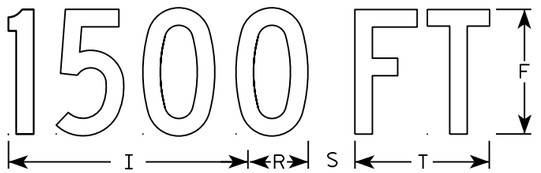
W20-1A



W20-1D

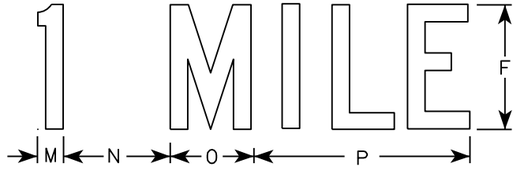


W20-1C

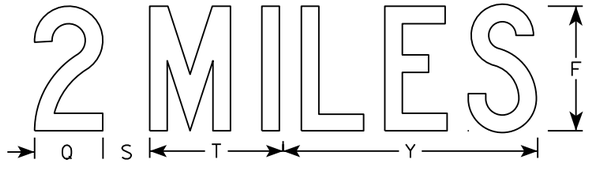


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

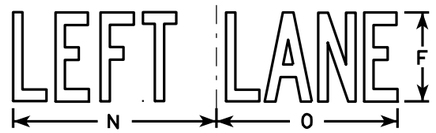
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

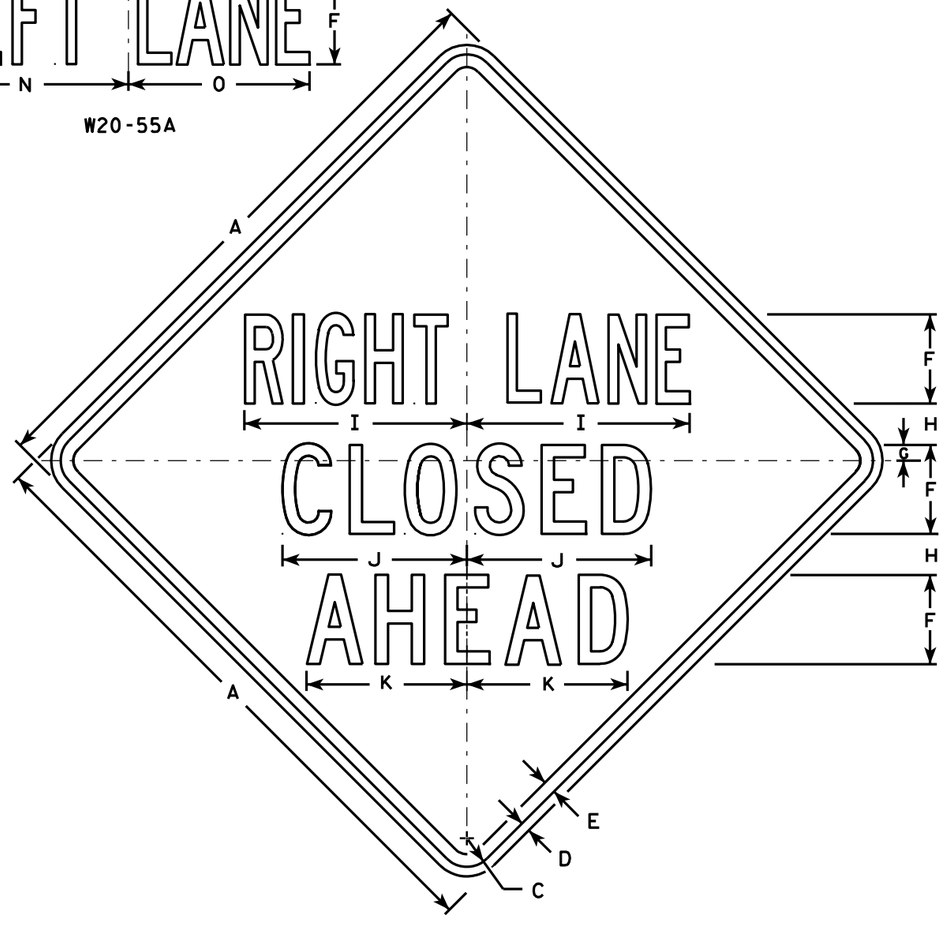
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

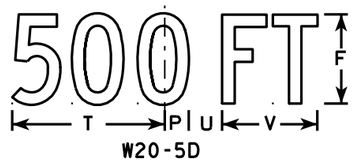
W20-56A



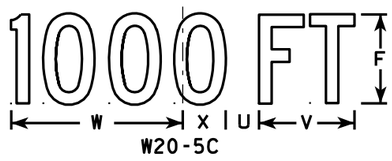
W20-55A



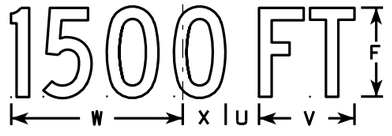
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - 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. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

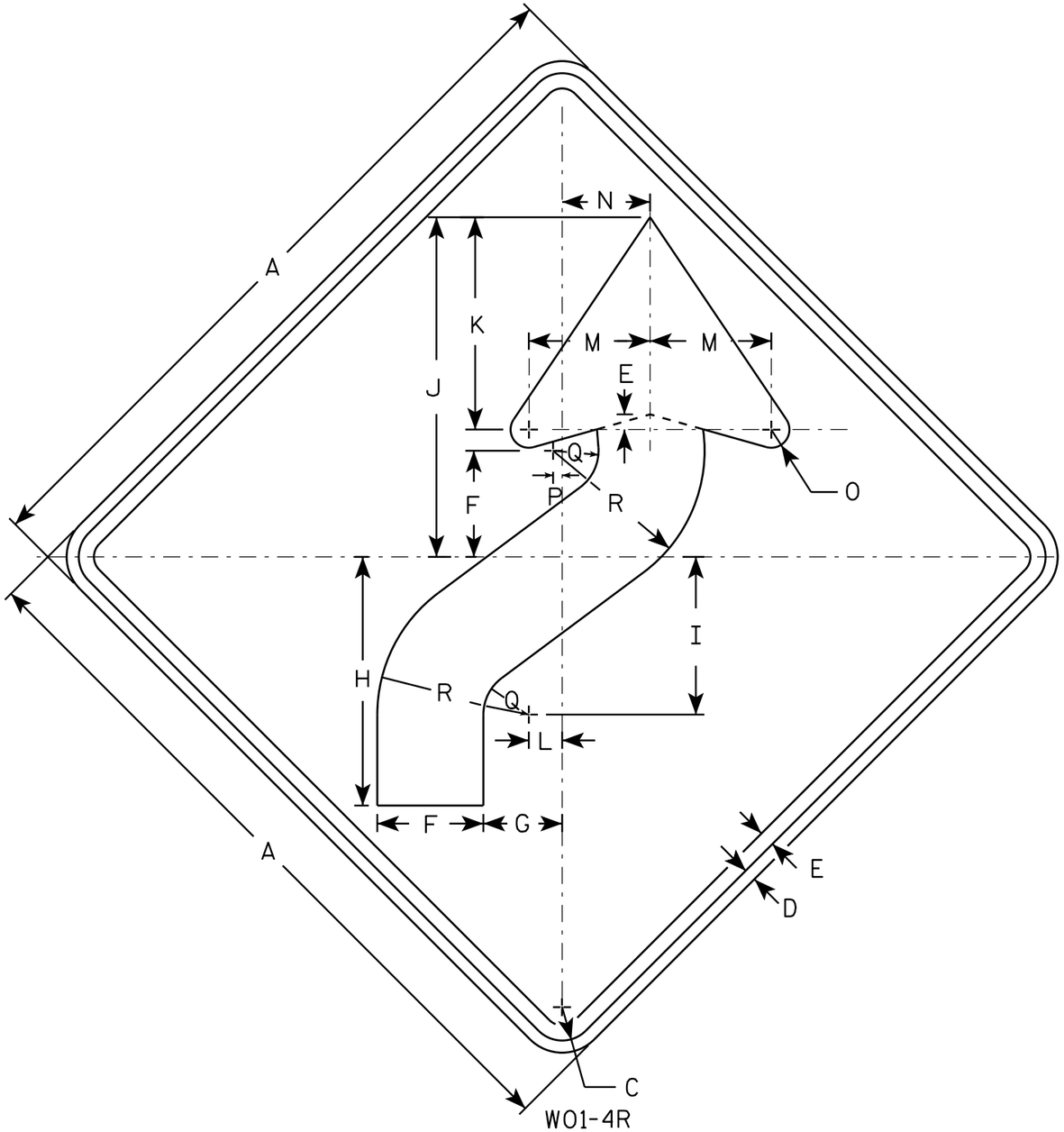
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 171 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

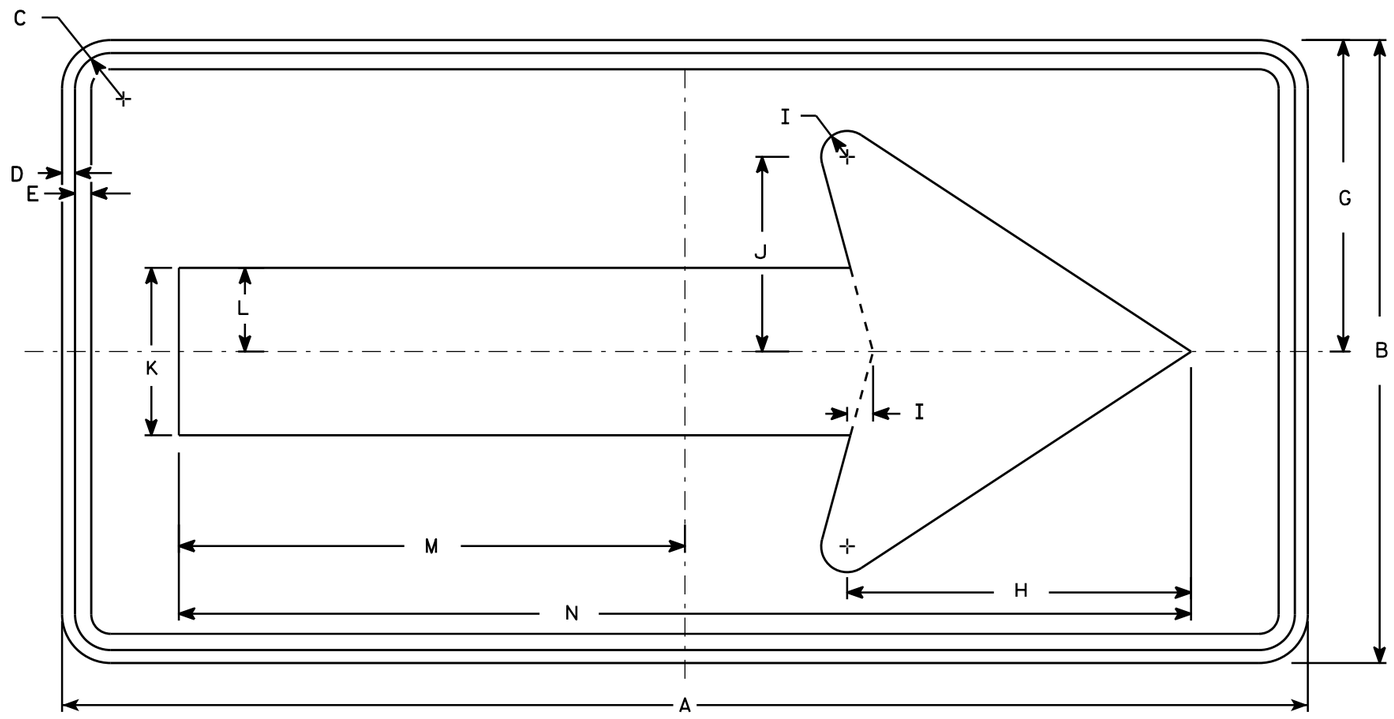
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

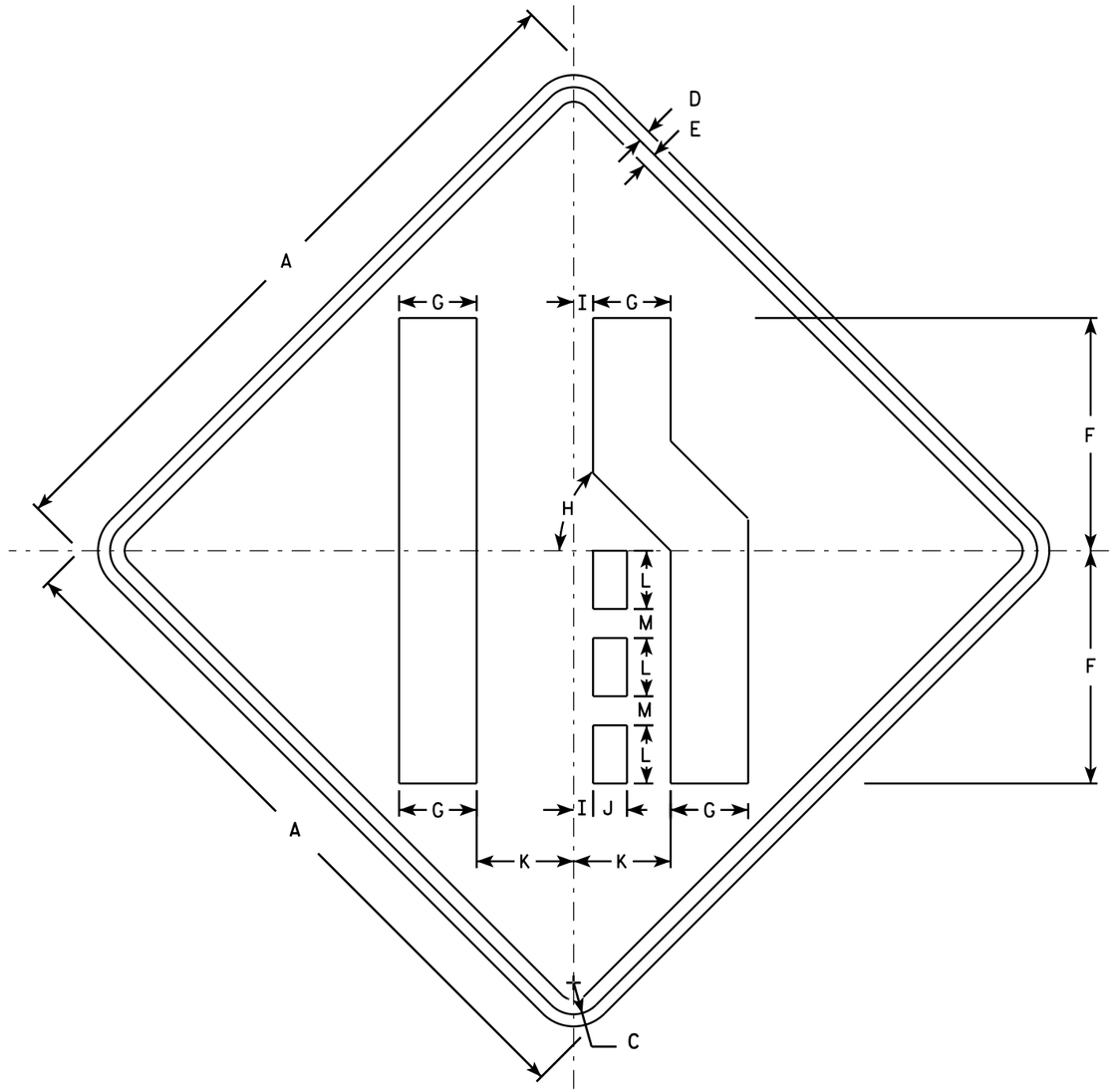
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 174 W04-2.1

PROJECT NO:

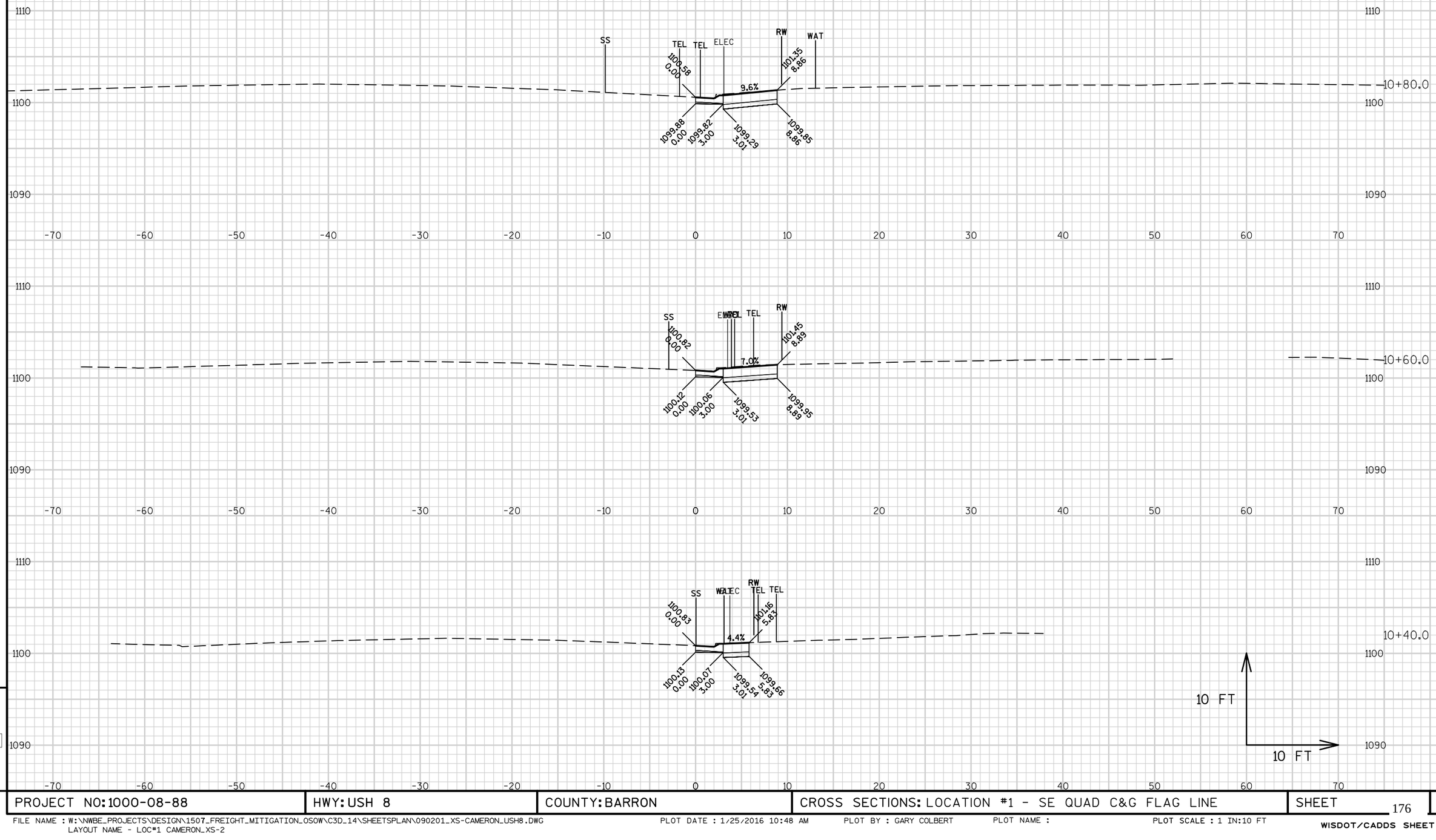
SHEET NO: E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.

STA. 10+14.9
BEGIN CONSTRUCTION

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 175	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.

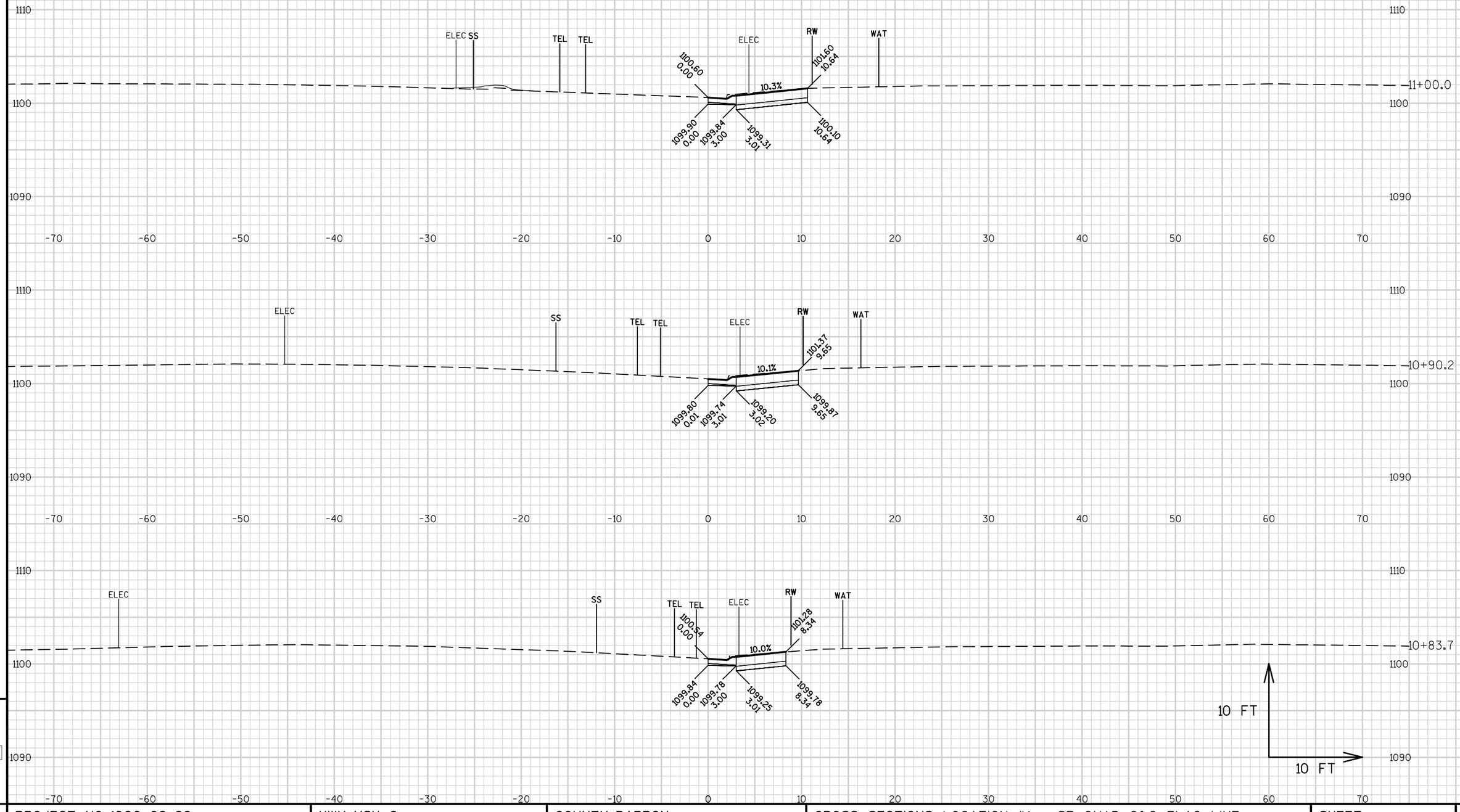


PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 176	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090201_XS-CAMERON_USH8.DWG
LAYOUT NAME - LOC#1 CAMERON_XS-2

PLOT DATE : 1/25/2016 10:48 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.

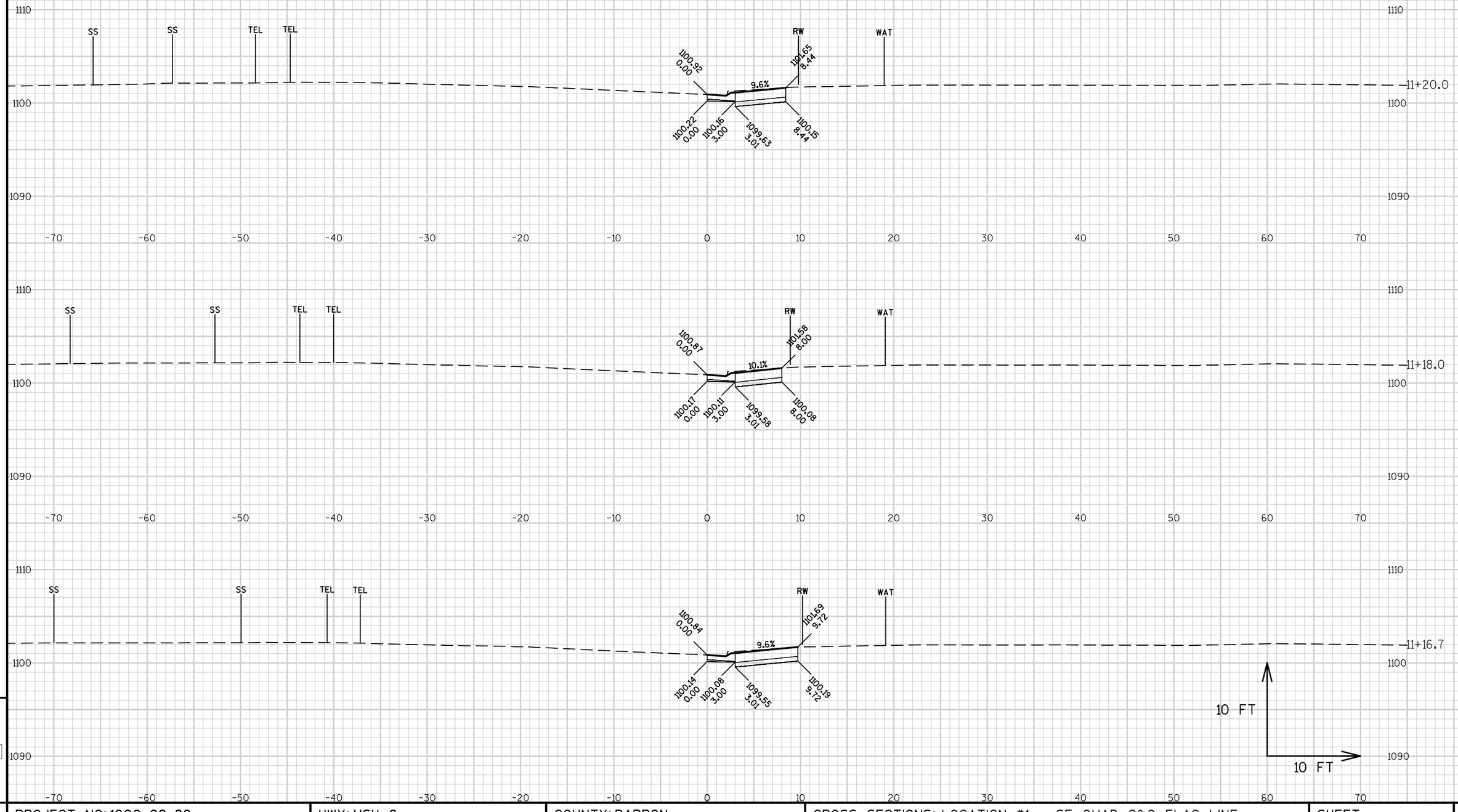


PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 177	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090201_XS-CAMERON_USH8.DWG
LAYOUT NAME - LOC#1 CAMERON_XS-3

PLOT DATE : 1/25/2016 10:48 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.

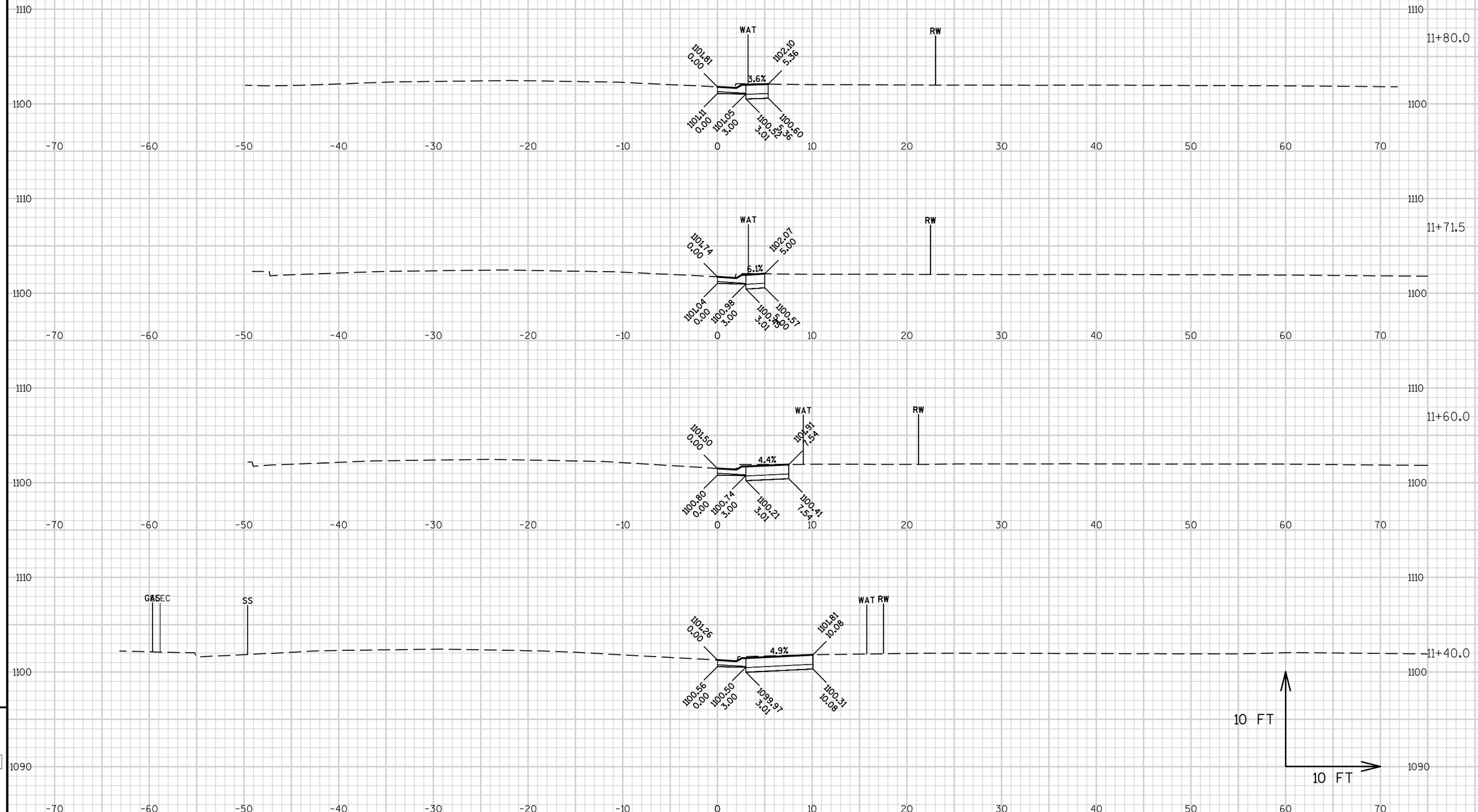


PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 178	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090201_XS-CAMERON_USH8.DWG
LAYOUT NAME - LOC#1 CAMERON_XS-4

PLOT DATE : 1/25/2016 10:48 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

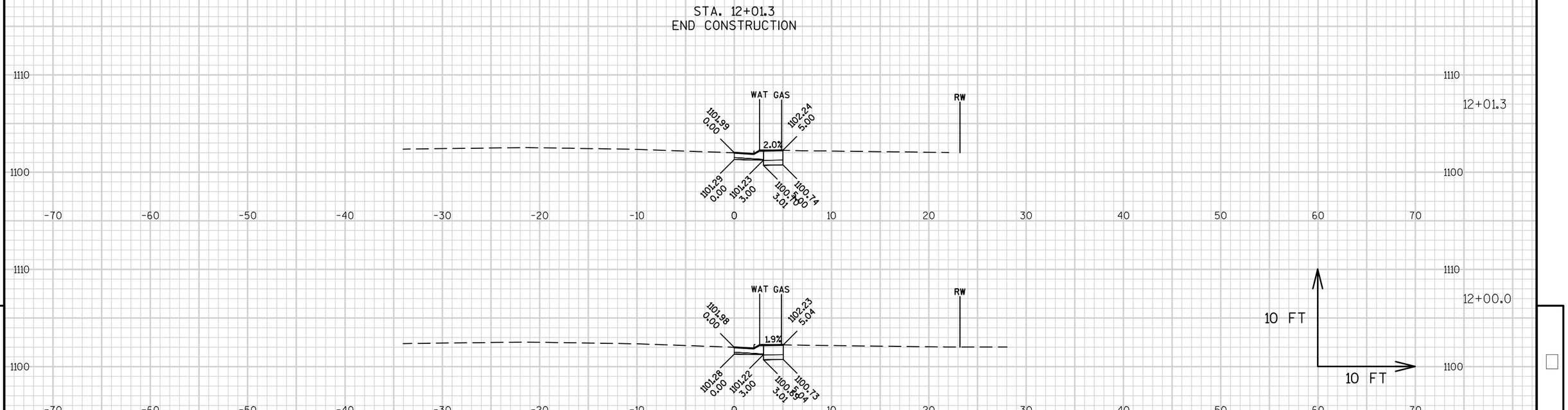
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 179	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.01. GRADING SHAPING AND FINISHING INTERSECTION.

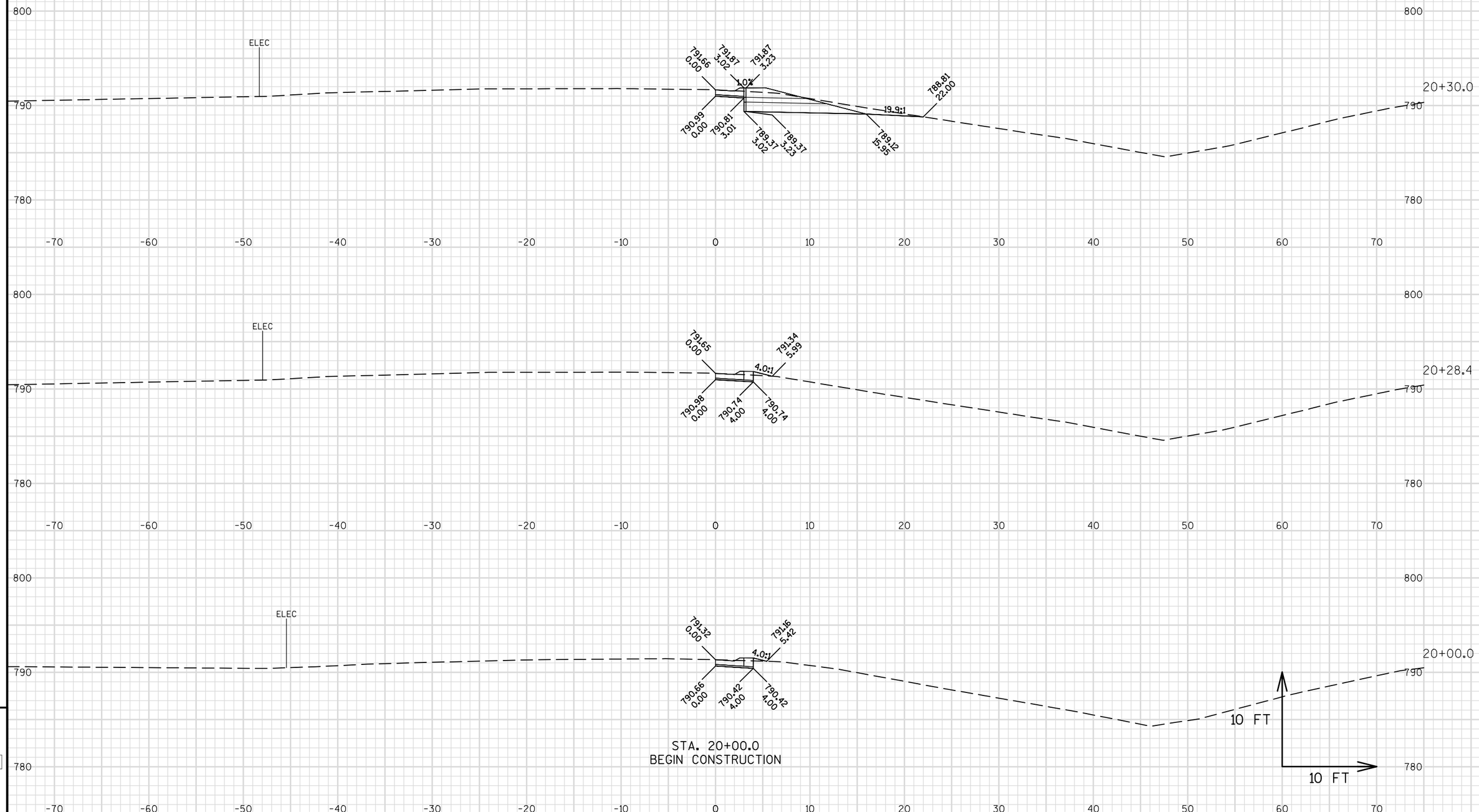
STA. 12+01.3
END CONSTRUCTION



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BARRON	CROSS SECTIONS: LOCATION #1 - SE QUAD C&G FLAG LINE	SHEET 180	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090201_XS-CAMERON_USH8.DWG
LAYOUT NAME - LOC#1 CAMERON_XS-6
PLOT DATE : 1/25/2016 10:48 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.

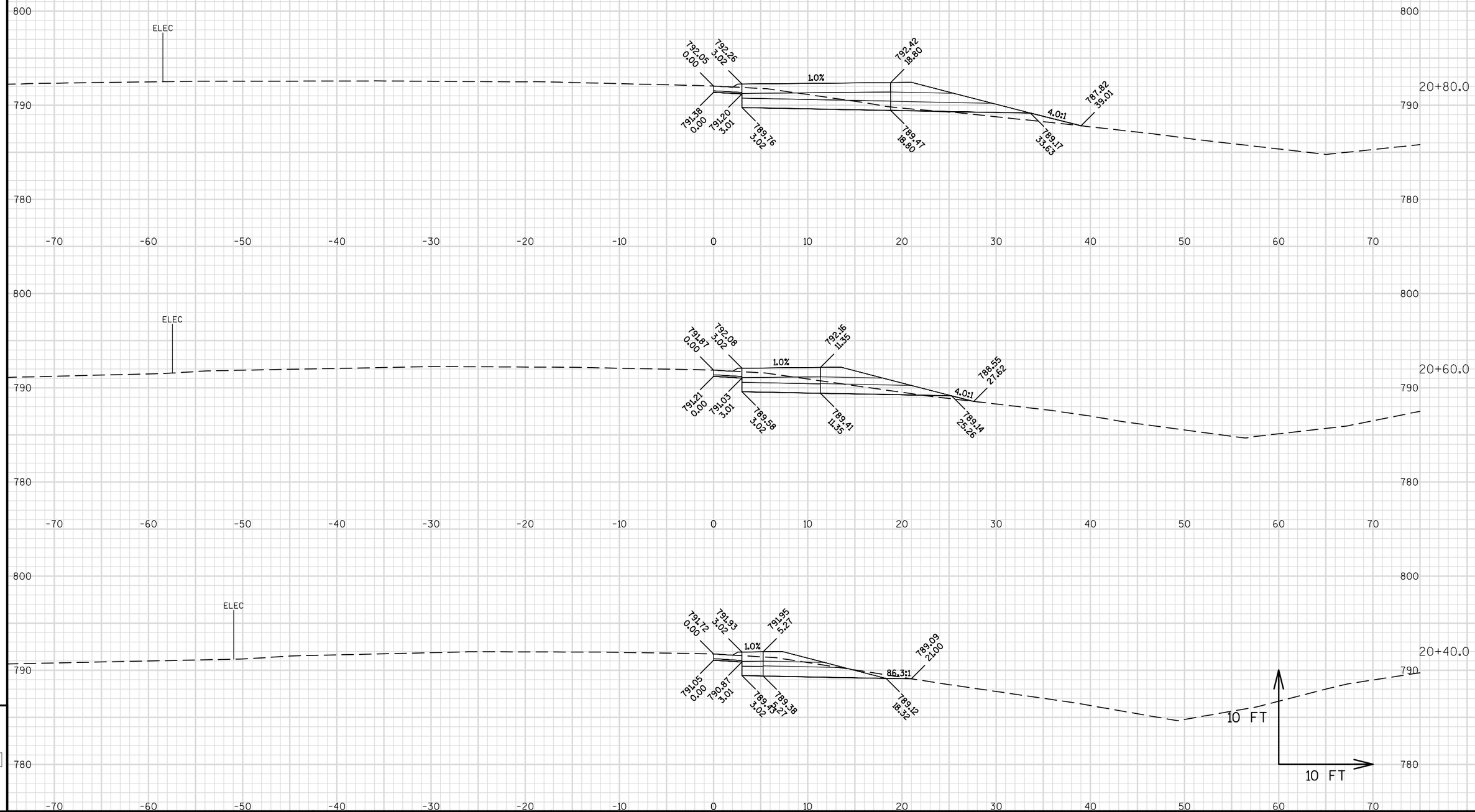


STA. 20+00.0
BEGIN CONSTRUCTION

PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 181	E

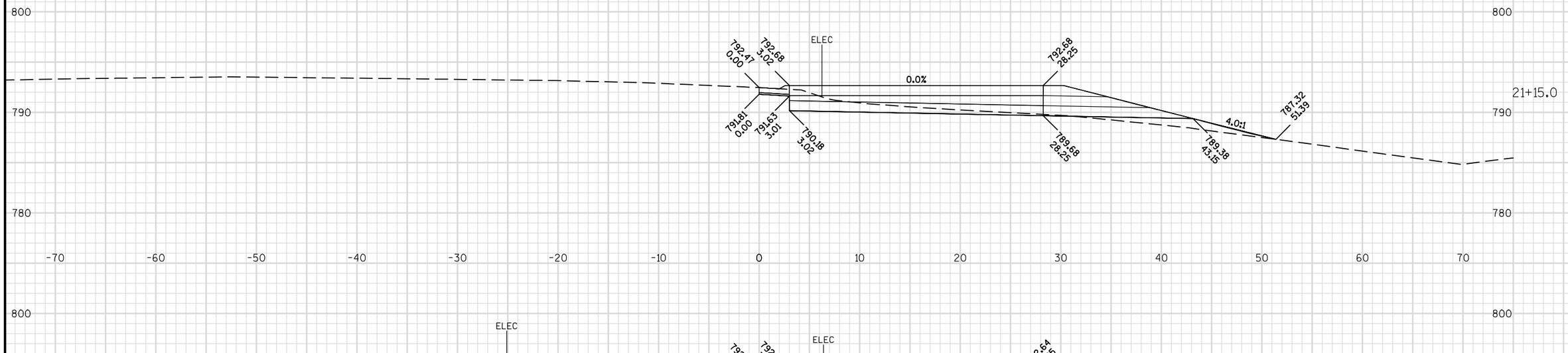
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090202_XS-ASHLAND_USH2&63.DWG
LAYOUT NAME - LOC#2-ASHLAND_XS-1
PLOT DATE : 1/26/2016 1:09 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 182	E

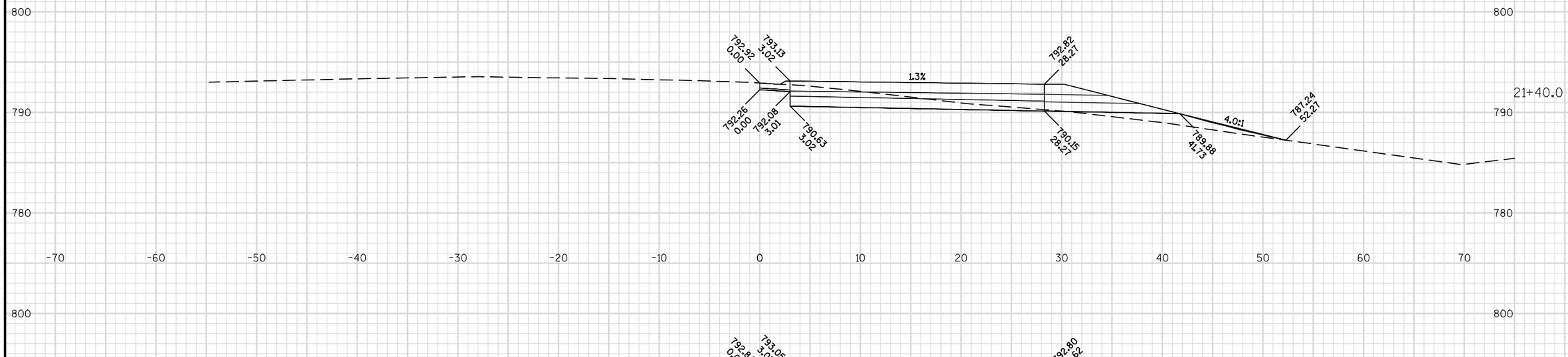
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO:1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 183	E

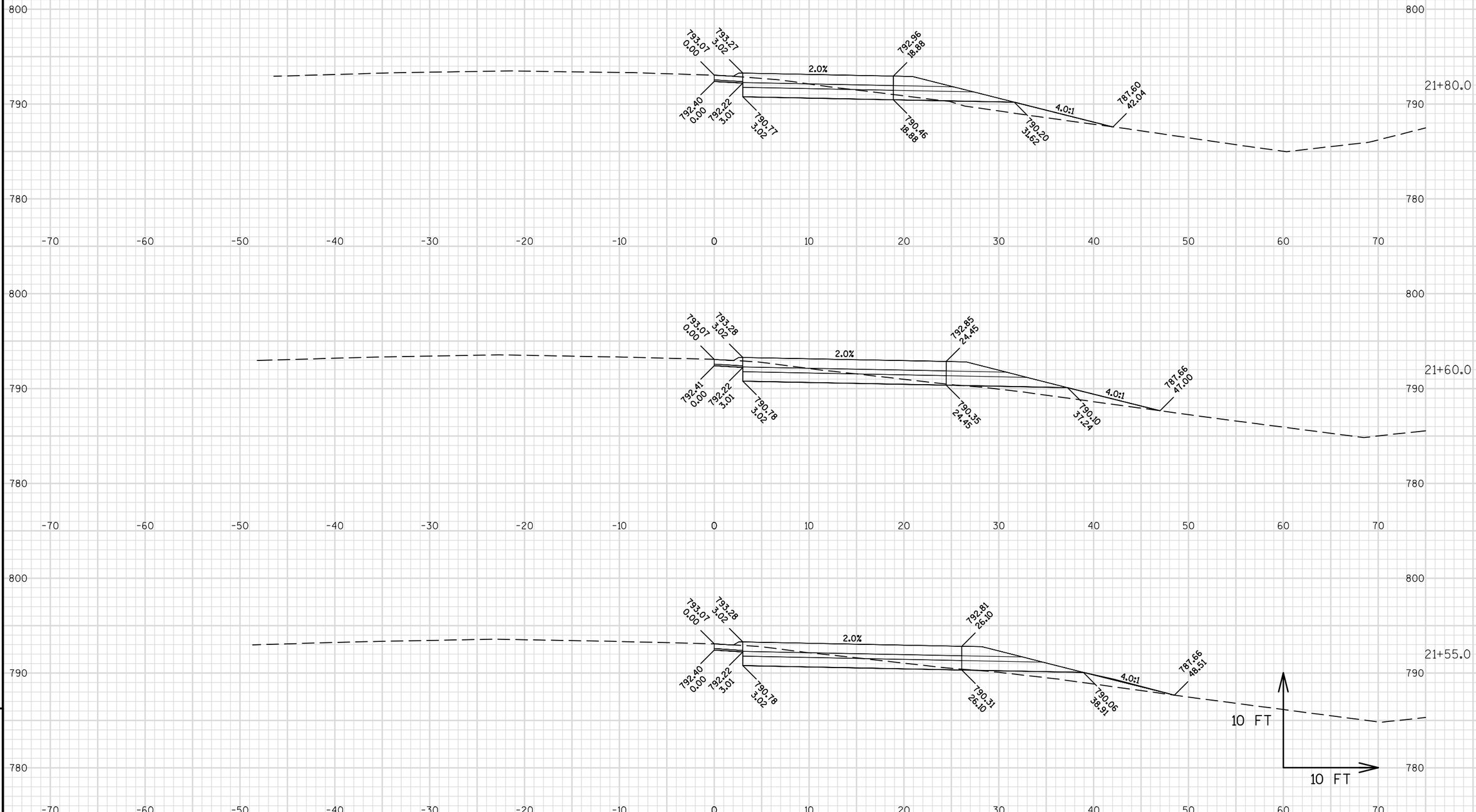
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090202_XS-ASHLAND_USH2&63.DWG
LAYOUT NAME - LOC#2-ASHLAND_XS-3
PLOT DATE : 1/26/2016 1:09 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 184	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.



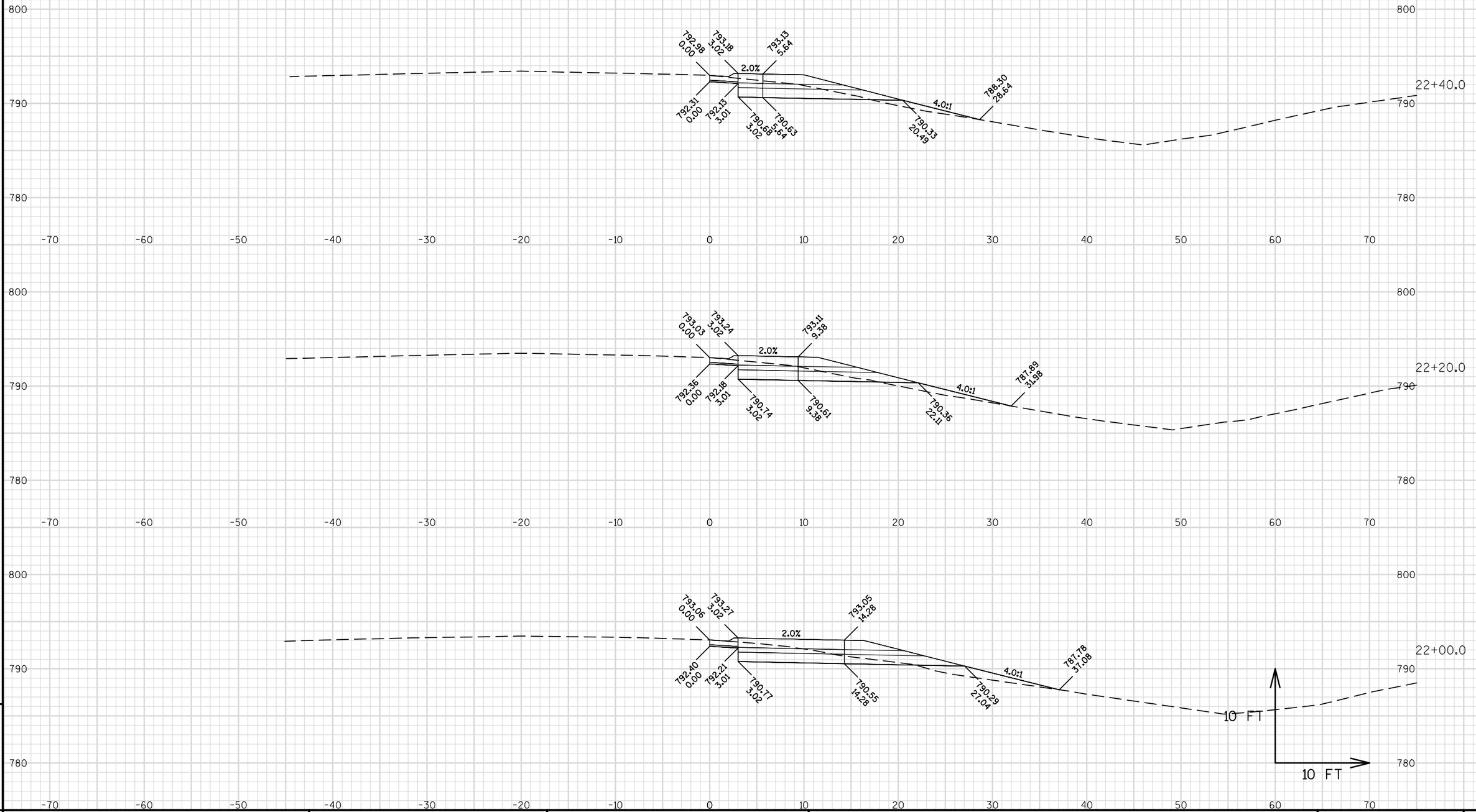
PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 185	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090202_XS-ASHLAND_USH2&63.DWG
LAYOUT NAME - LOC#2-ASHLAND_XS-5

PLOT DATE : 1/26/2016 1:09 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

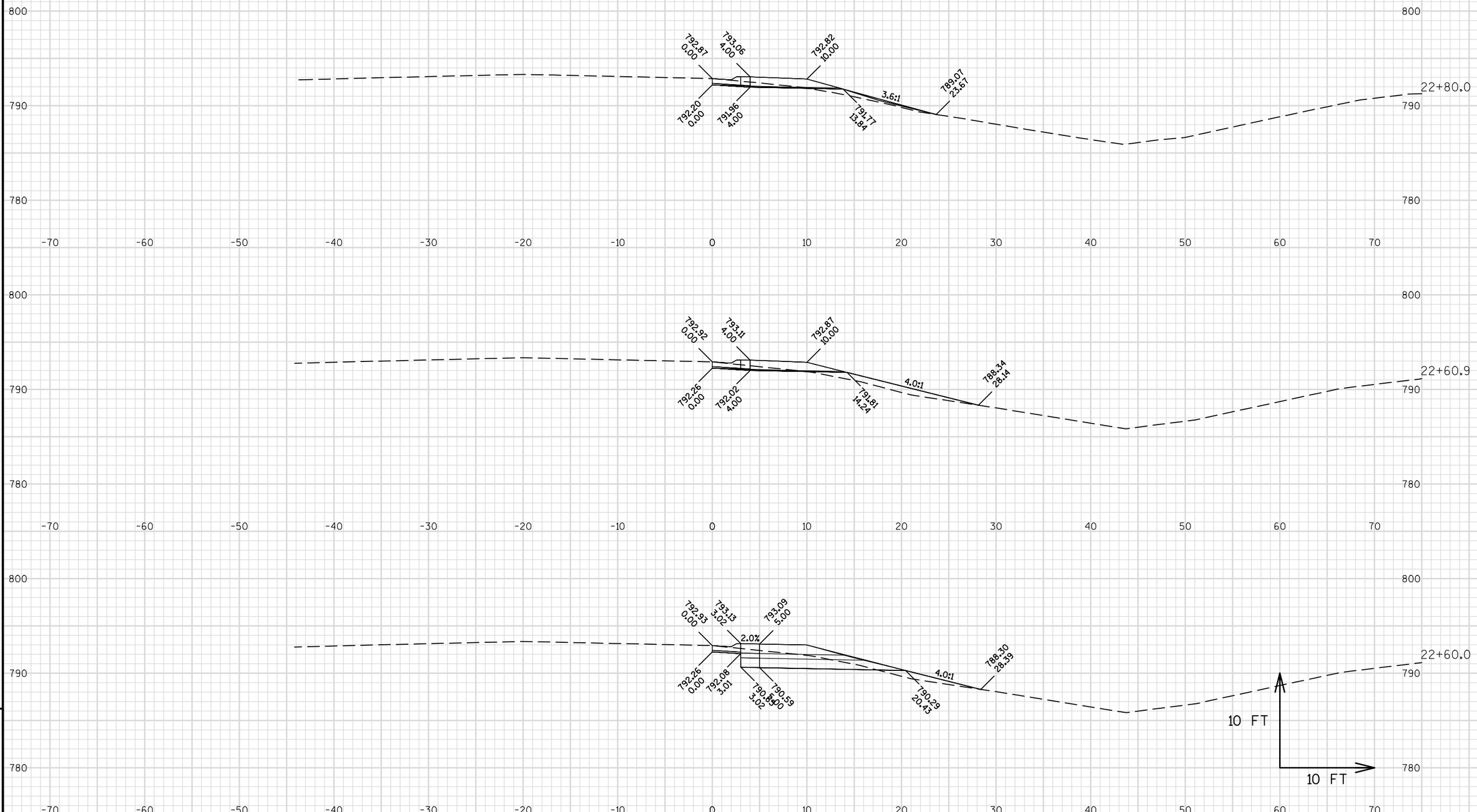
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 186	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.02. GRADING SHAPING AND FINISHING INTERSECTION.

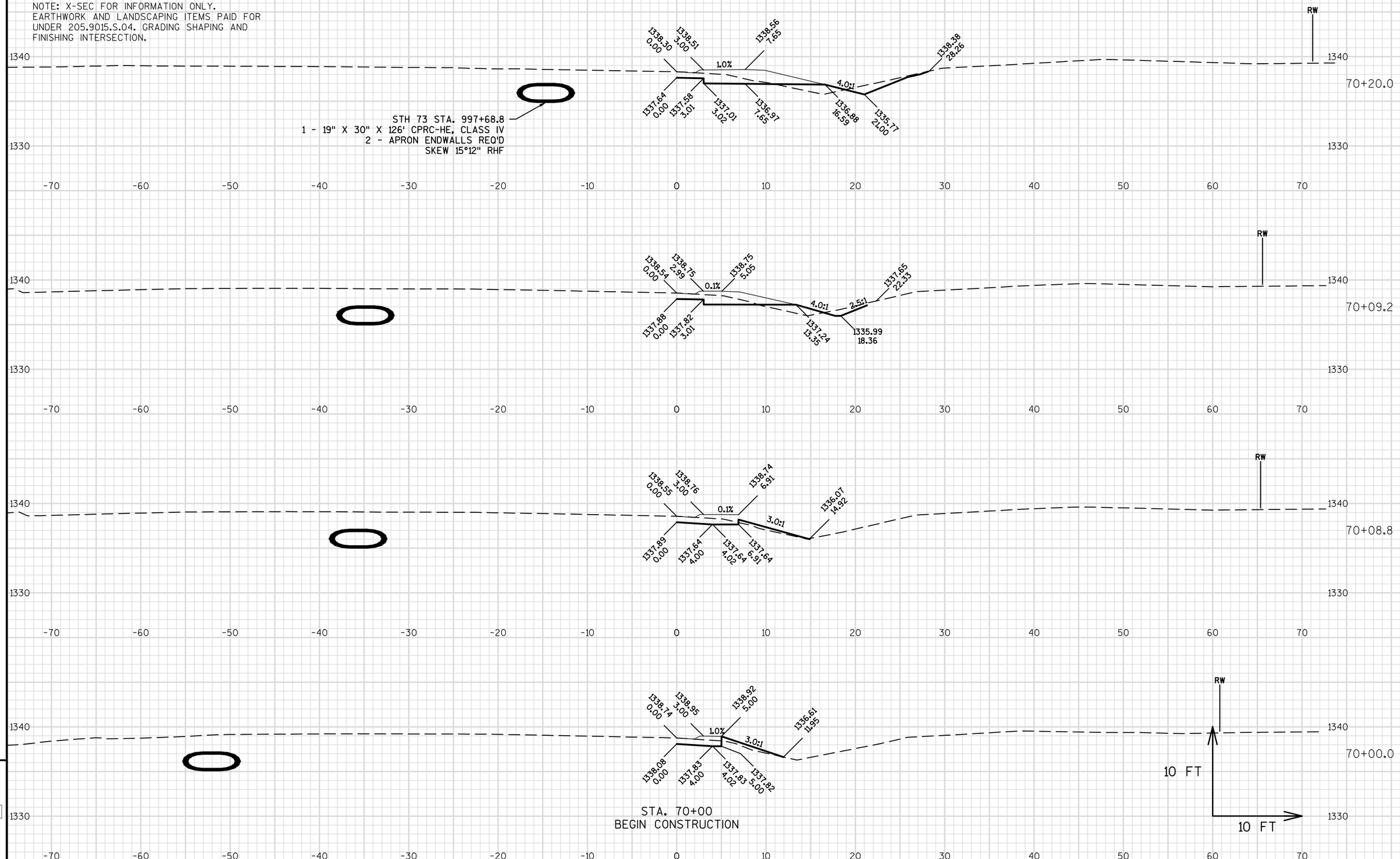
STA. 22+82.1
BEGIN CONSTRUCTION



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: BAYFIELD	CROSS SECTIONS: LOCATION #2 - SE QUAD EDGE OF PAVMENT	SHEET 187	E

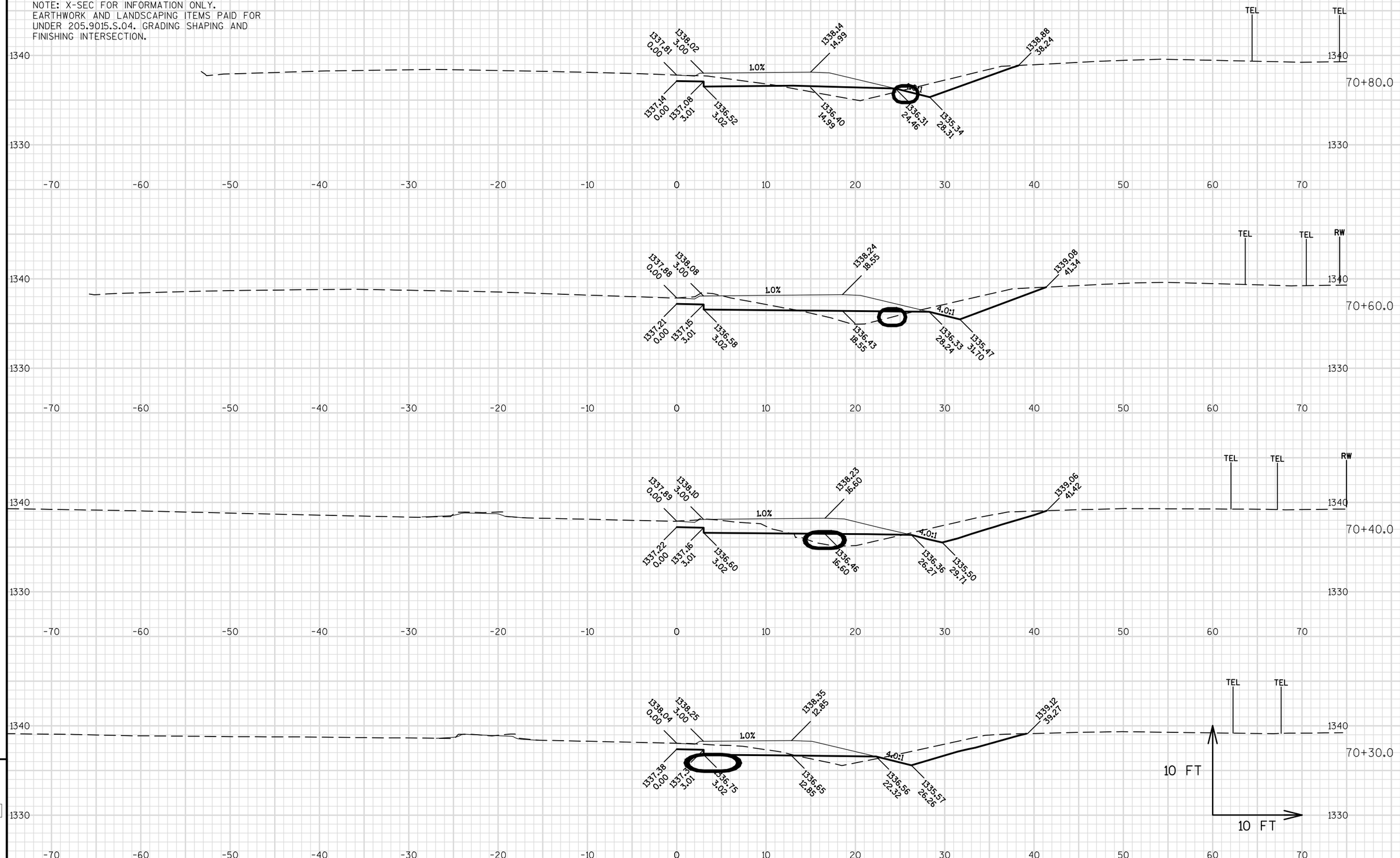
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090202_XS-ASHLAND_USH2&63.DWG
LAYOUT NAME - LOC#2-ASHLAND_XS-7
PLOT DATE : 1/26/2016 1:09 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.04. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: LOCATION #4 - SE QUAD EDGE OF PAVEMENT	SHEET 188	E

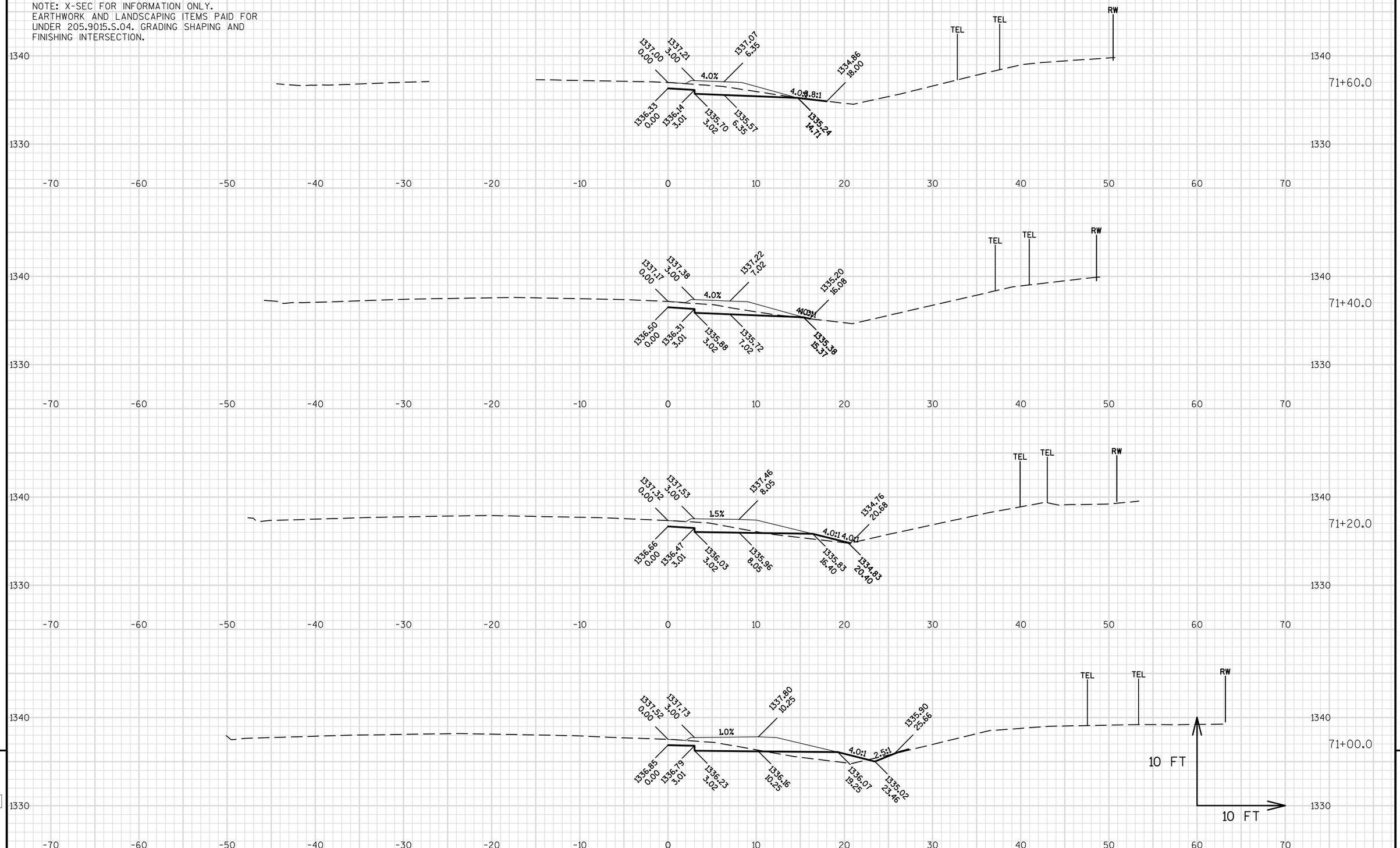
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.04. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: LOCATION #4 - SE QUAD EDGE OF PAVEMENT	SHEET 189	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090207_XS-INGRAM_USH8&STH73.DWG
LAYOUT NAME - LOC#4_INGRAM_XS-2
PLOT DATE : 1/25/2016 2:20 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

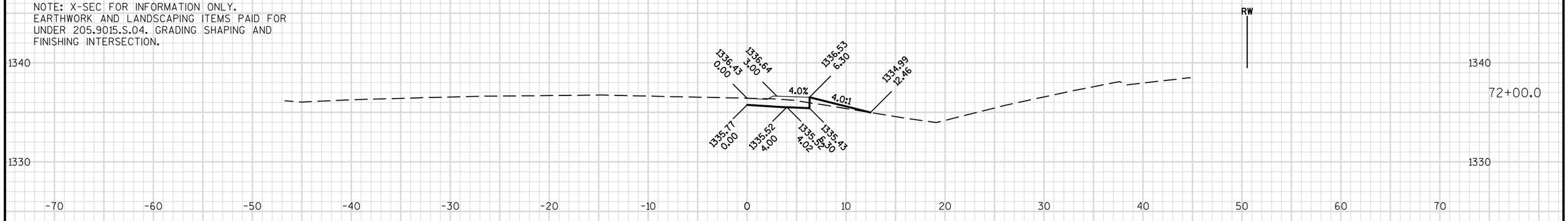
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.04. GRADING SHAPING AND FINISHING INTERSECTION.

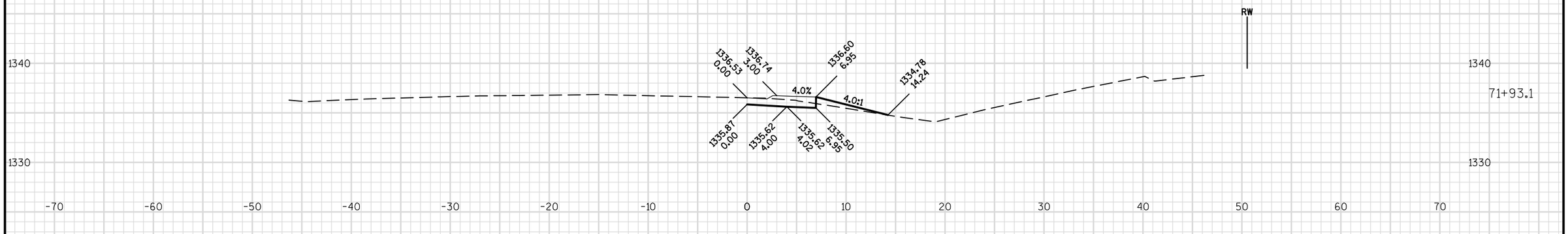


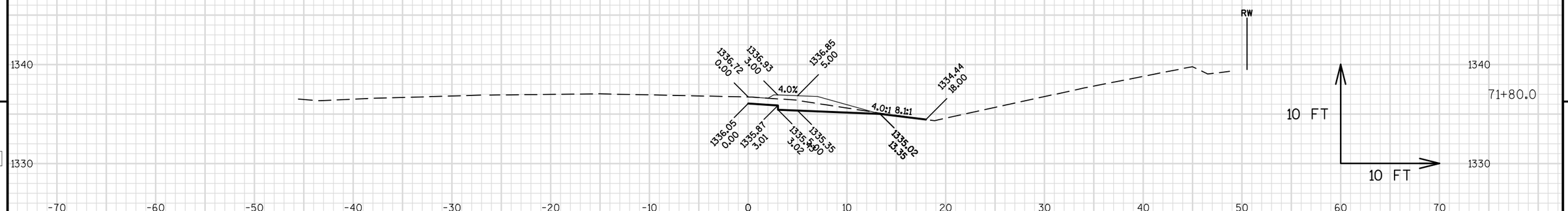
PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: LOCATION #4 - SE QUAD EDGE OF PAVEMENT	SHEET 190	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090207_XS-INGRAM_USH8&STH73.DWG
LAYOUT NAME - LOC#4_INGRAM_XS-3
PLOT DATE : 1/25/2016 2:20 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.04. GRADING SHAPING AND FINISHING INTERSECTION.



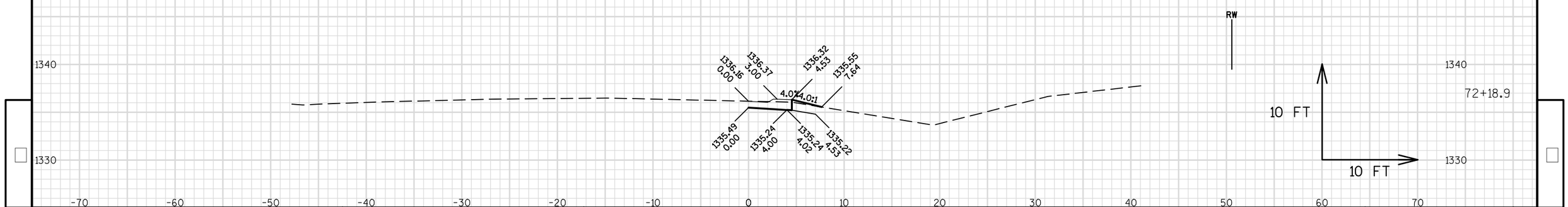




PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: LOCATION #4 - SE QUAD EDGE OF PAVEMENT	SHEET 191	E

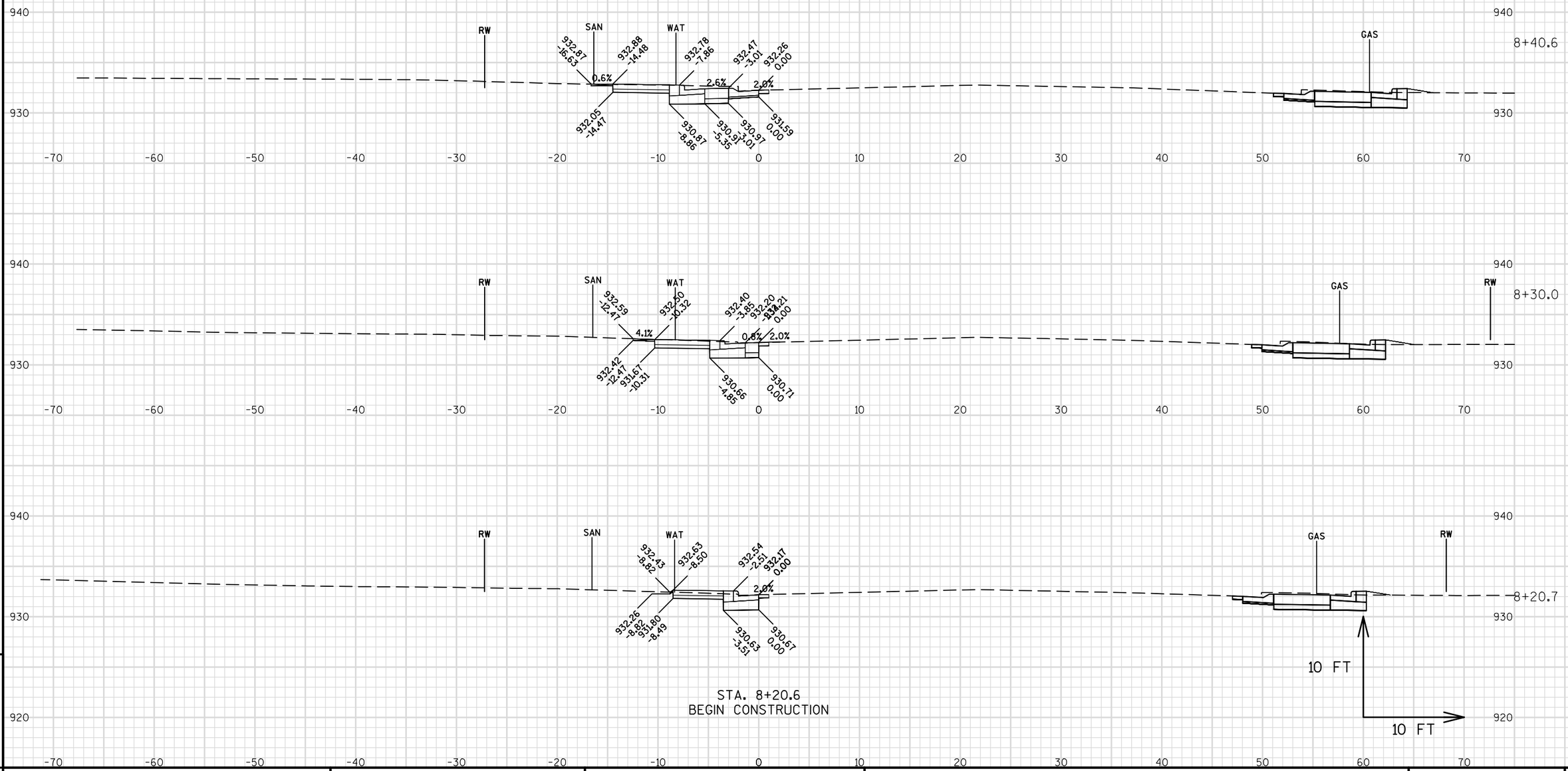
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090207_XS-INGRAM_USH8&STH73.DWG
LAYOUT NAME - LOC#4_INGRAM_XS-4
PLOT DATE : 1/25/2016 2:20 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA. 72+18.9
END CONSTRUCTION



PROJECT NO: 1000-08-88	HWY: USH 8	COUNTY: RUSK	CROSS SECTIONS: LOCATION #4 - SE QUAD EDGE OF PAVEMENT	SHEET 192	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.

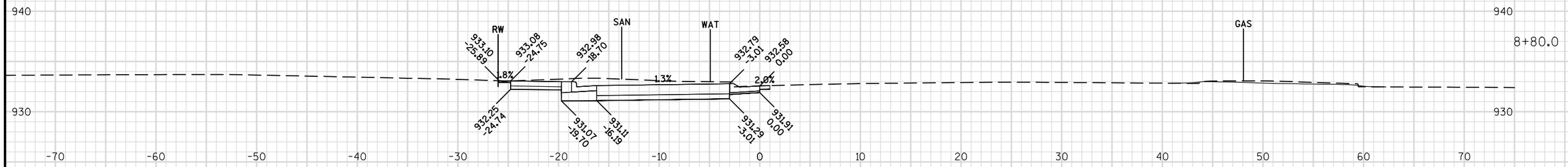


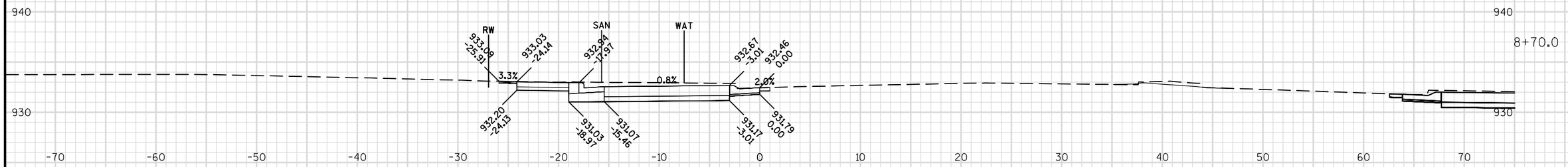
STA. 8+20.6
BEGIN CONSTRUCTION

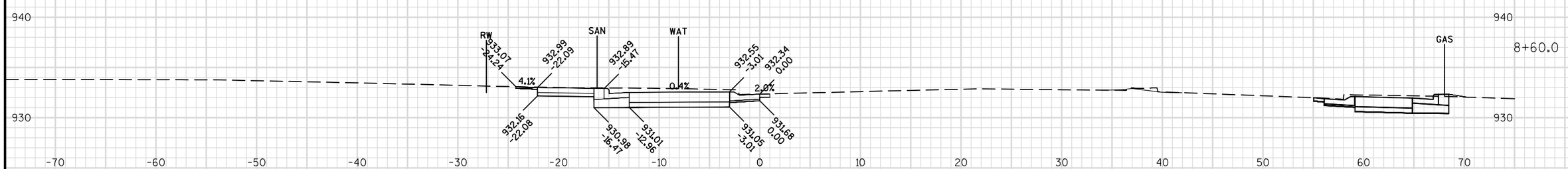
PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - NW QUAD EDGE OF PAVEMENT	SHEET 193	E

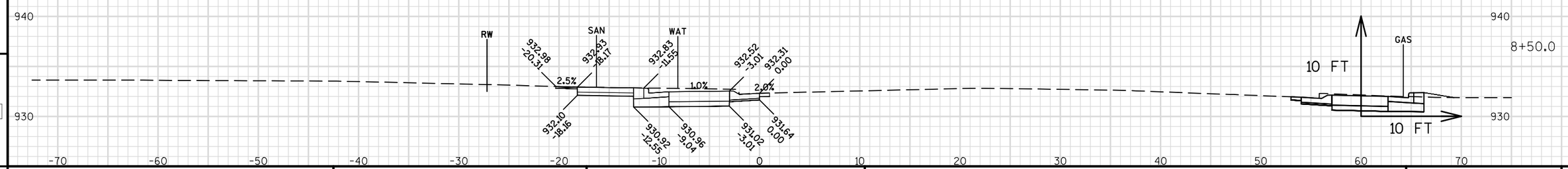
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090208_XS-DANBURY_STH35&77_NW.DWG
LAYOUT NAME - LOC*8_DANBURYNW_XS-1
PLOT DATE : 1/25/2016 3:06 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.



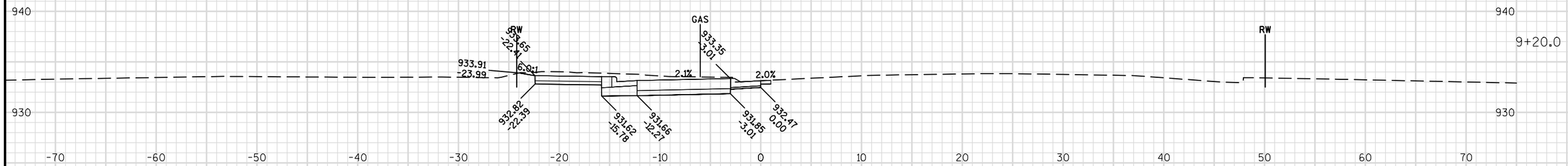


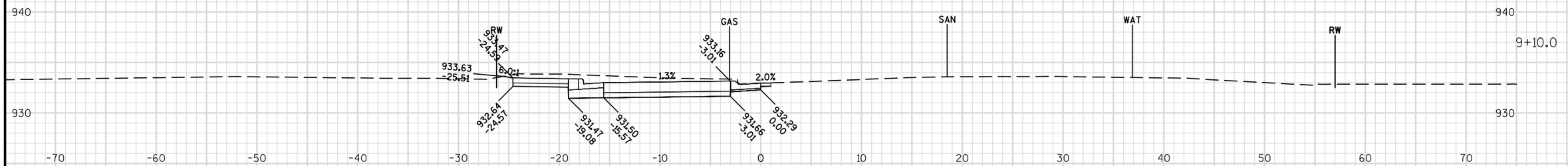


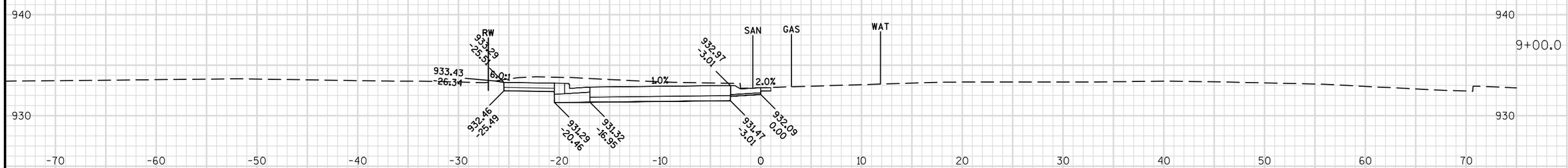


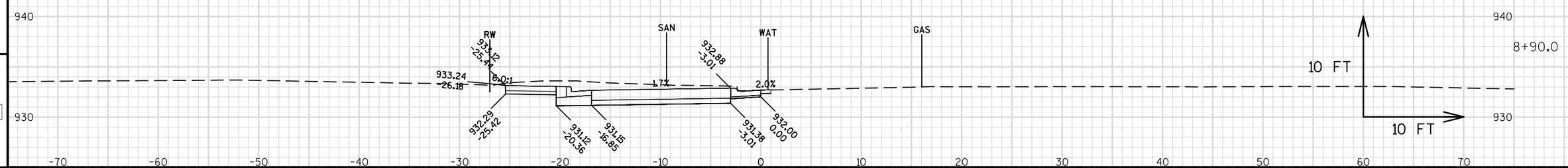
PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - NW QUAD EDGE OF PAVEMENT	SHEET 194	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.



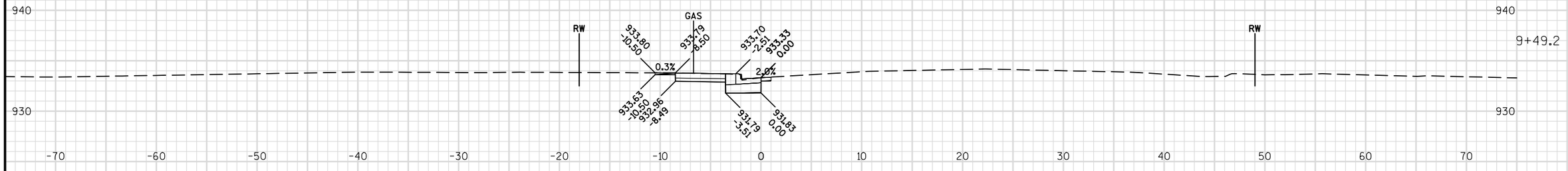


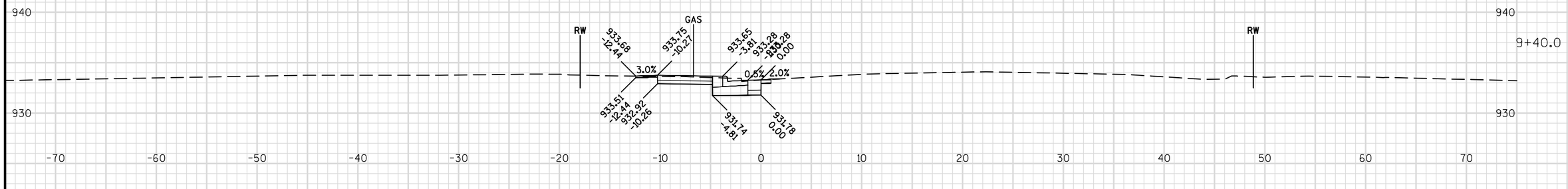


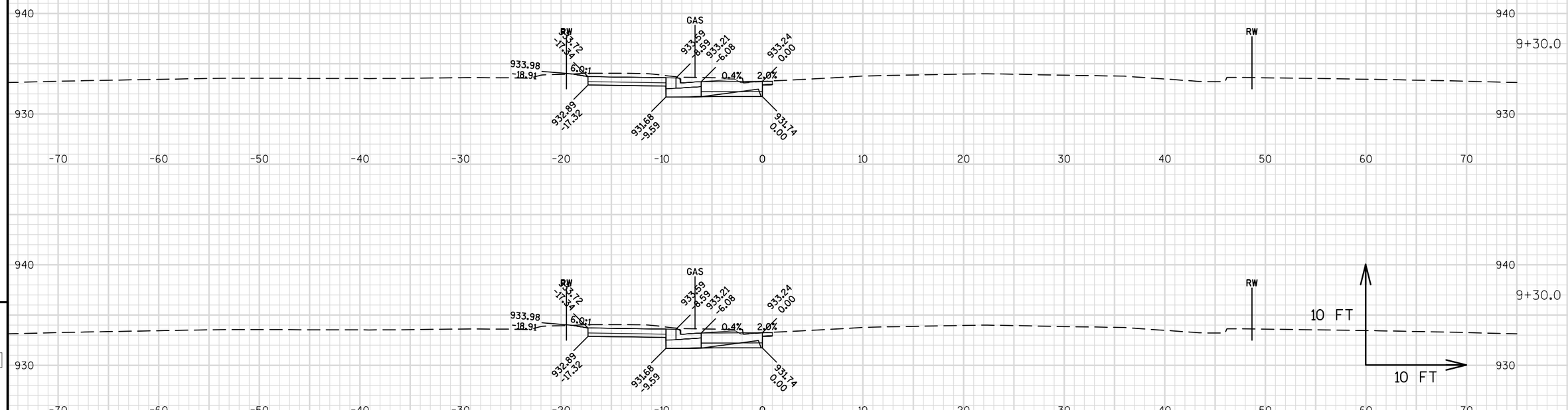


PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - NW QUAD EDGE OF PAVEMENT	SHEET 195	E

STA. 9+40.0
END CONSTRUCTION

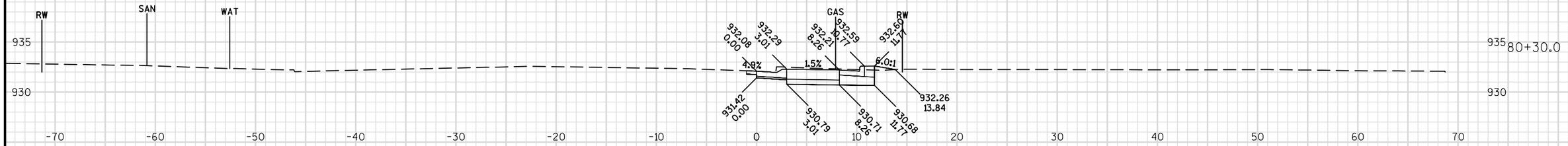


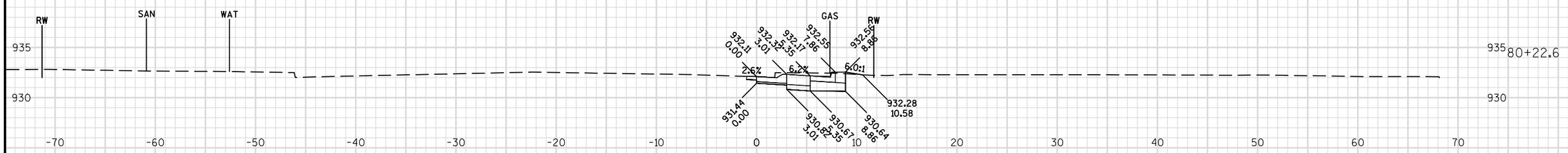


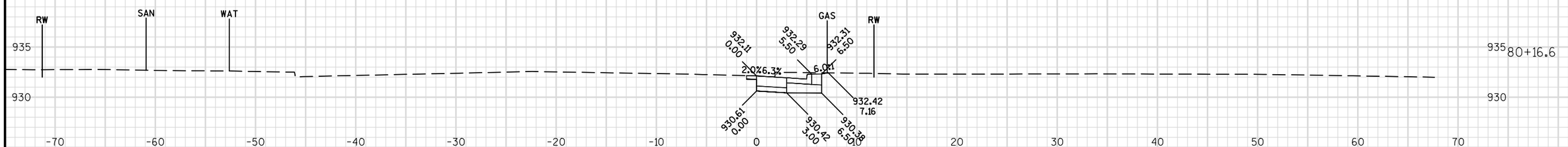


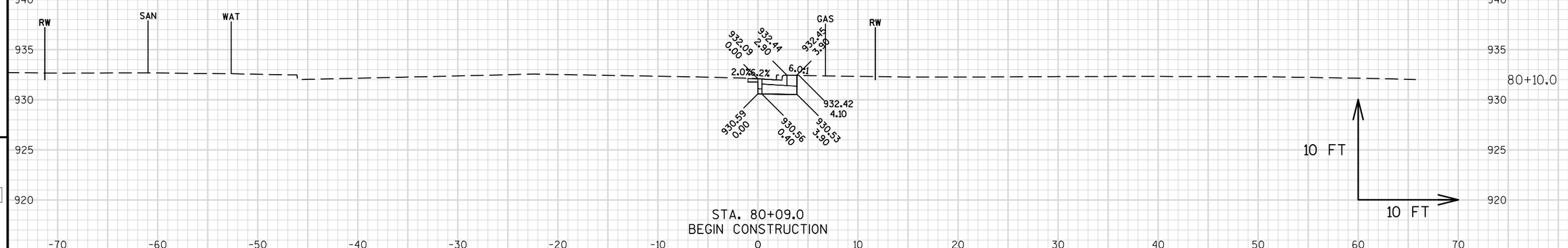
PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - NW QUAD EDGE OF PAVEMENT	SHEET 196	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.





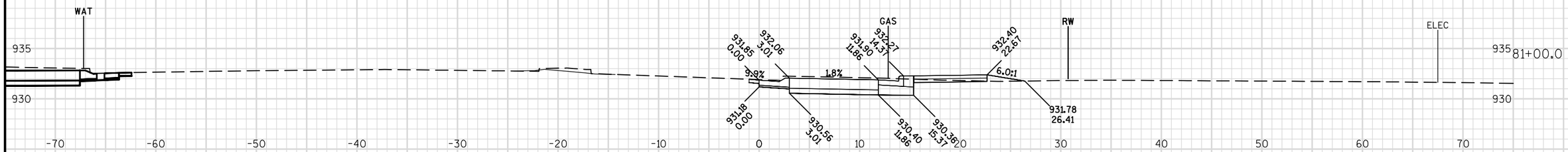


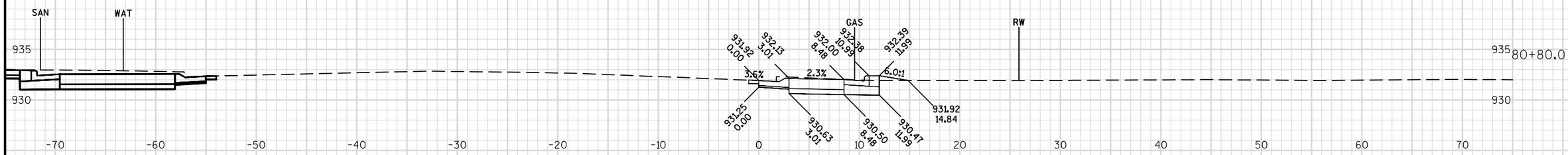


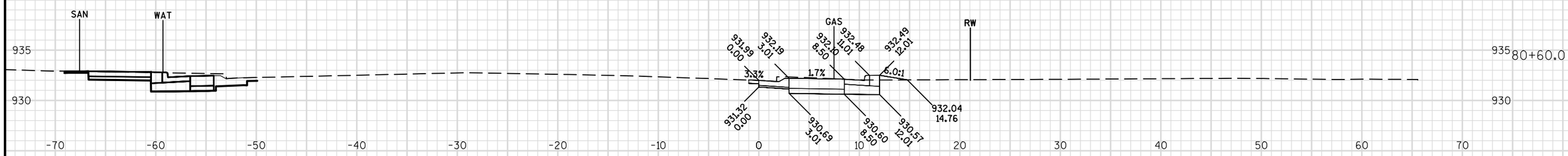
STA. 80+09.0
BEGIN CONSTRUCTION

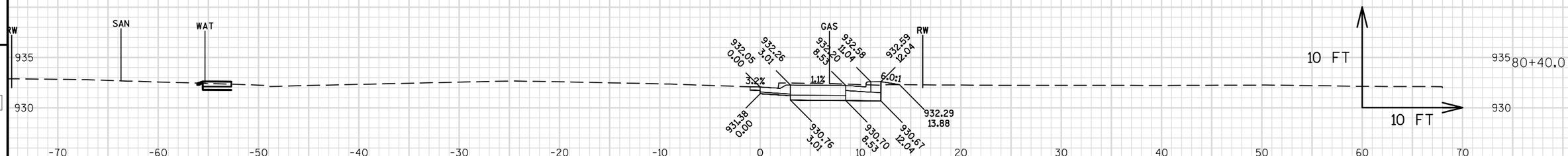
PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - SW QUAD C&G FLAG LINE	SHEET 197	E

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.





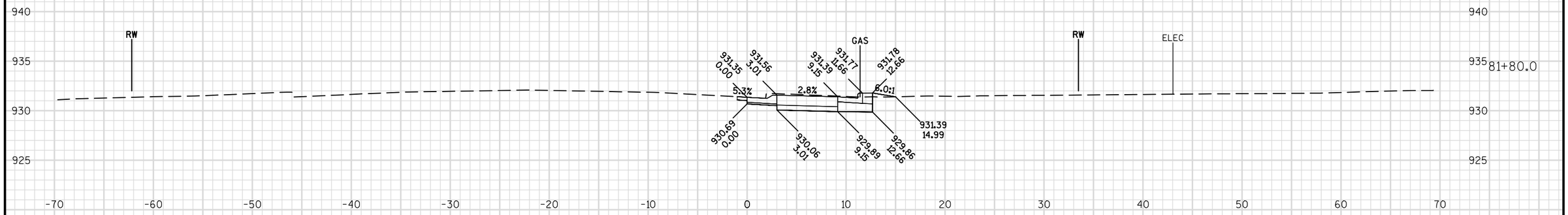


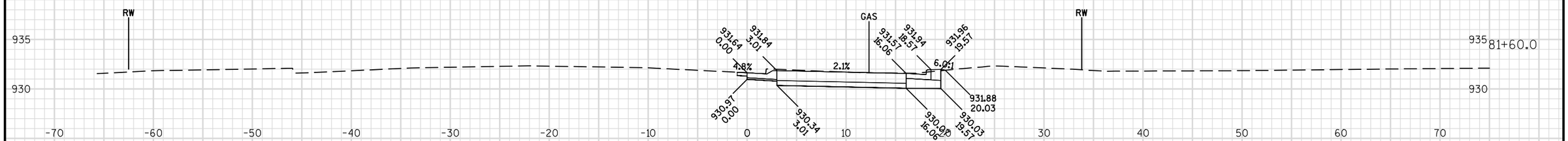


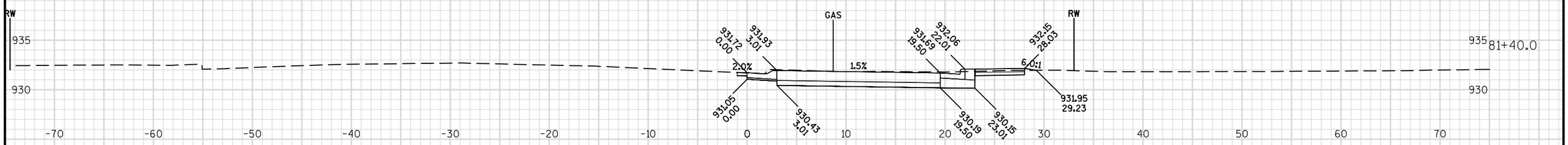
PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - SW QUAD C&G FLAG LINE	SHEET 198	E

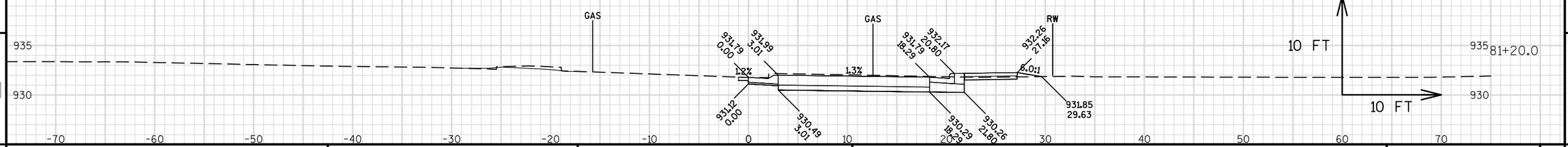
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090208_XS-DANBURY_STH35&77_SW.DWG
LAYOUT NAME - LOC*8_DANBURYSW_XS2
PLOT DATE : 1/25/2016 3:40 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.









PROJECT NO:1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - SW QUAD C&G FLAG LINE	SHEET 199	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090208_XS-DANBURY_STH35&77_SW.DWG
LAYOUT NAME - LOC*8_DANBURYSW_XS3
PLOT DATE : 1/25/2016 3:40 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

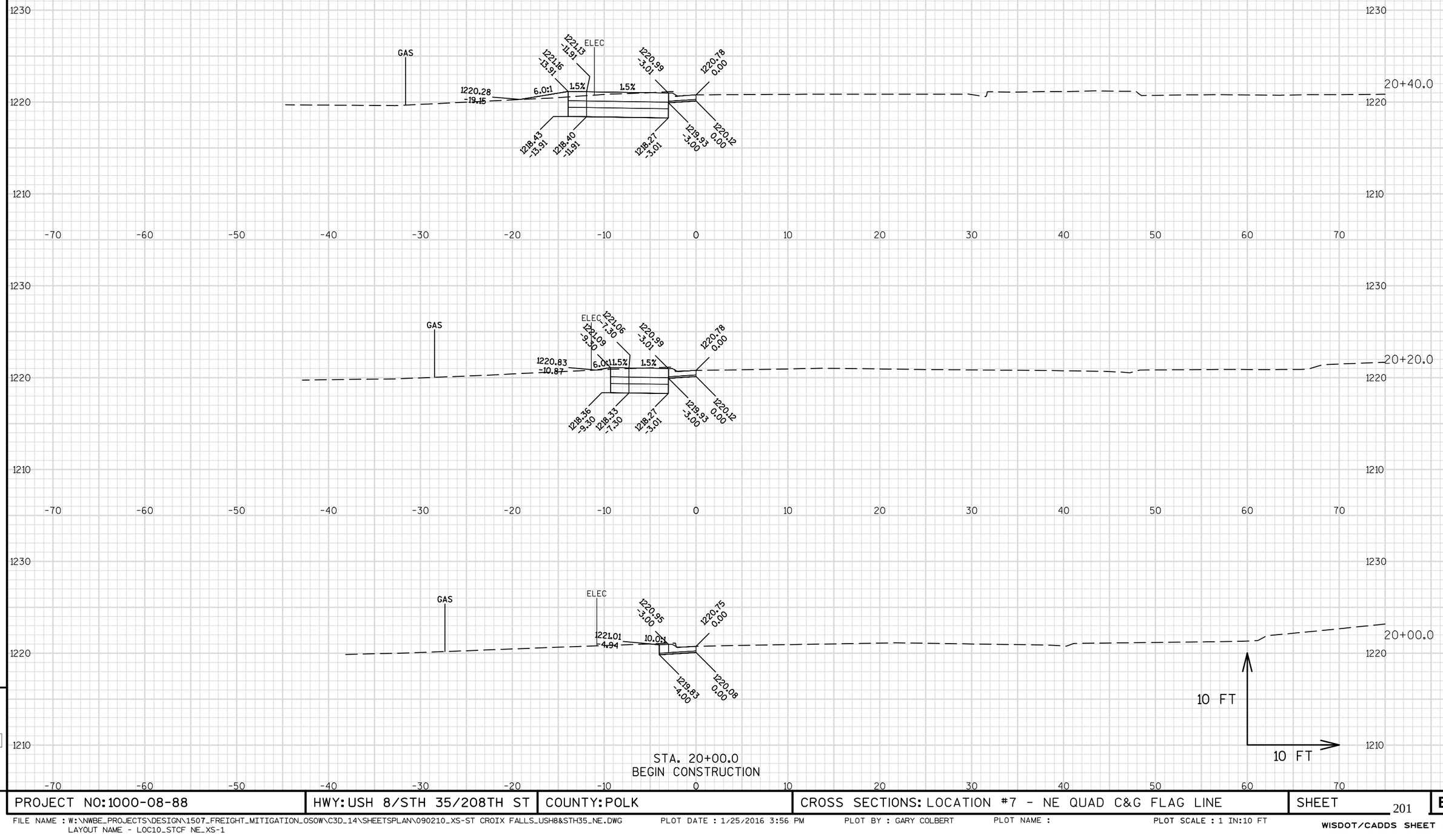
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.05. GRADING SHAPING AND FINISHING INTERSECTION.

STA. 82+19.1
END CONSTRUCTION

PROJECT NO: 1000-08-88	HWY: STH 35/STH 77	COUNTY: BURNETT	CROSS SECTIONS: LOCATION #5 - SW QUAD C&G FLAG LINE	SHEET 200	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090208_XS-DANBURY_STH35&77_SW.DWG
LAYOUT NAME - LOC*8_DANBURYSW_XS4
PLOT DATE : 1/25/2016 3:40 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

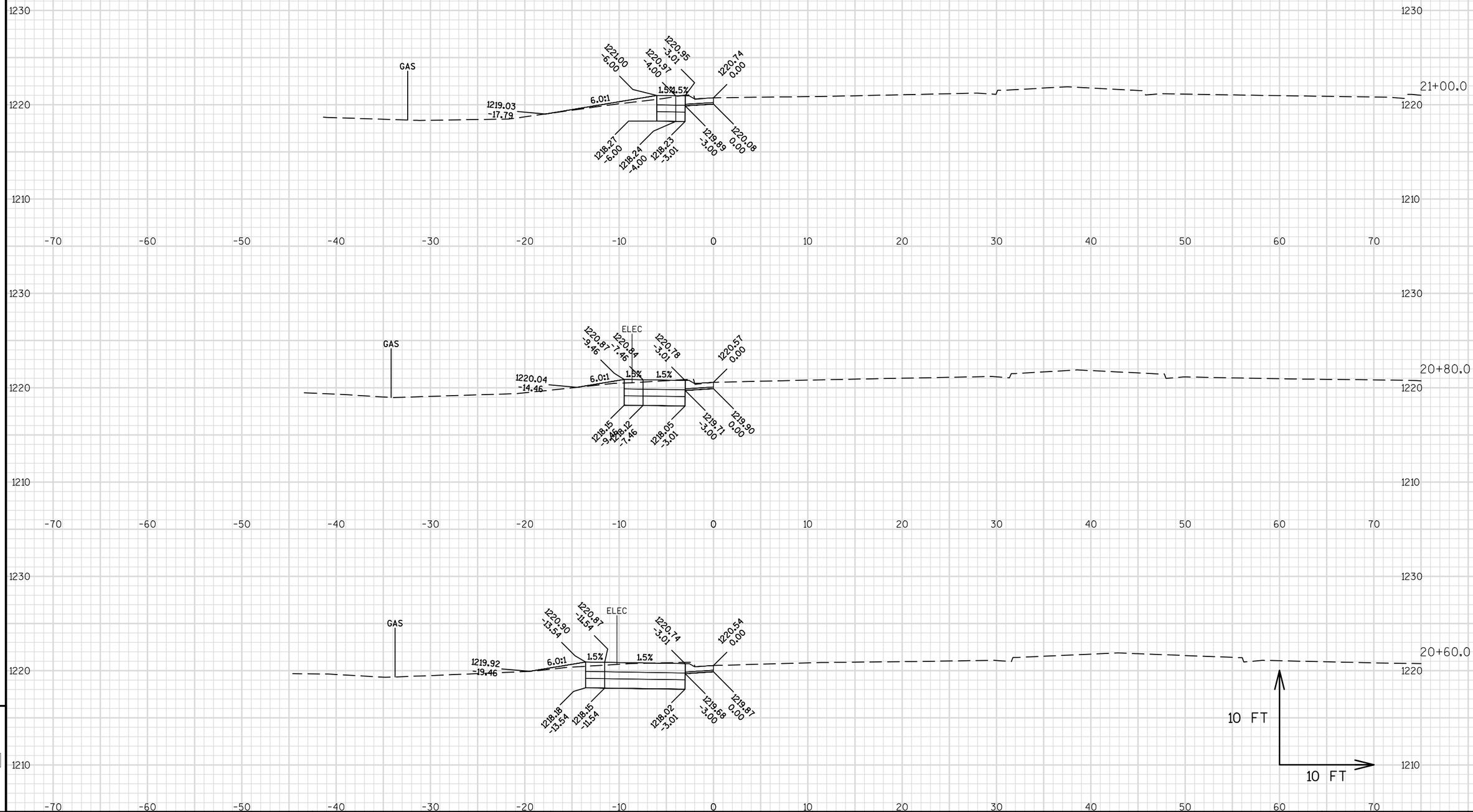
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO:1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - NE QUAD C&G FLAG LINE	SHEET 201	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_NE.DWG
LAYOUT NAME - LOC10_STCF NE_XS-1
PLOT DATE : 1/25/2016 3:56 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

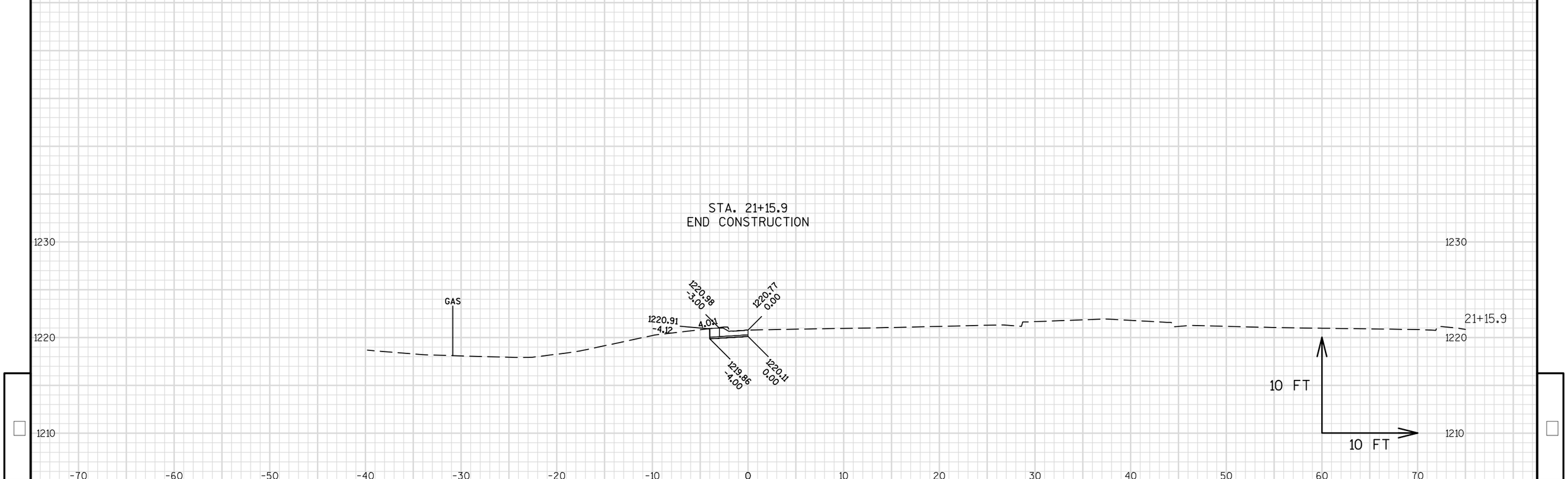
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - NE QUAD C&G FLAG LINE	SHEET 202	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_NE.DWG
LAYOUT NAME - LOC10_STCF NE_XS-2
PLOT DATE : 1/25/2016 3:56 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

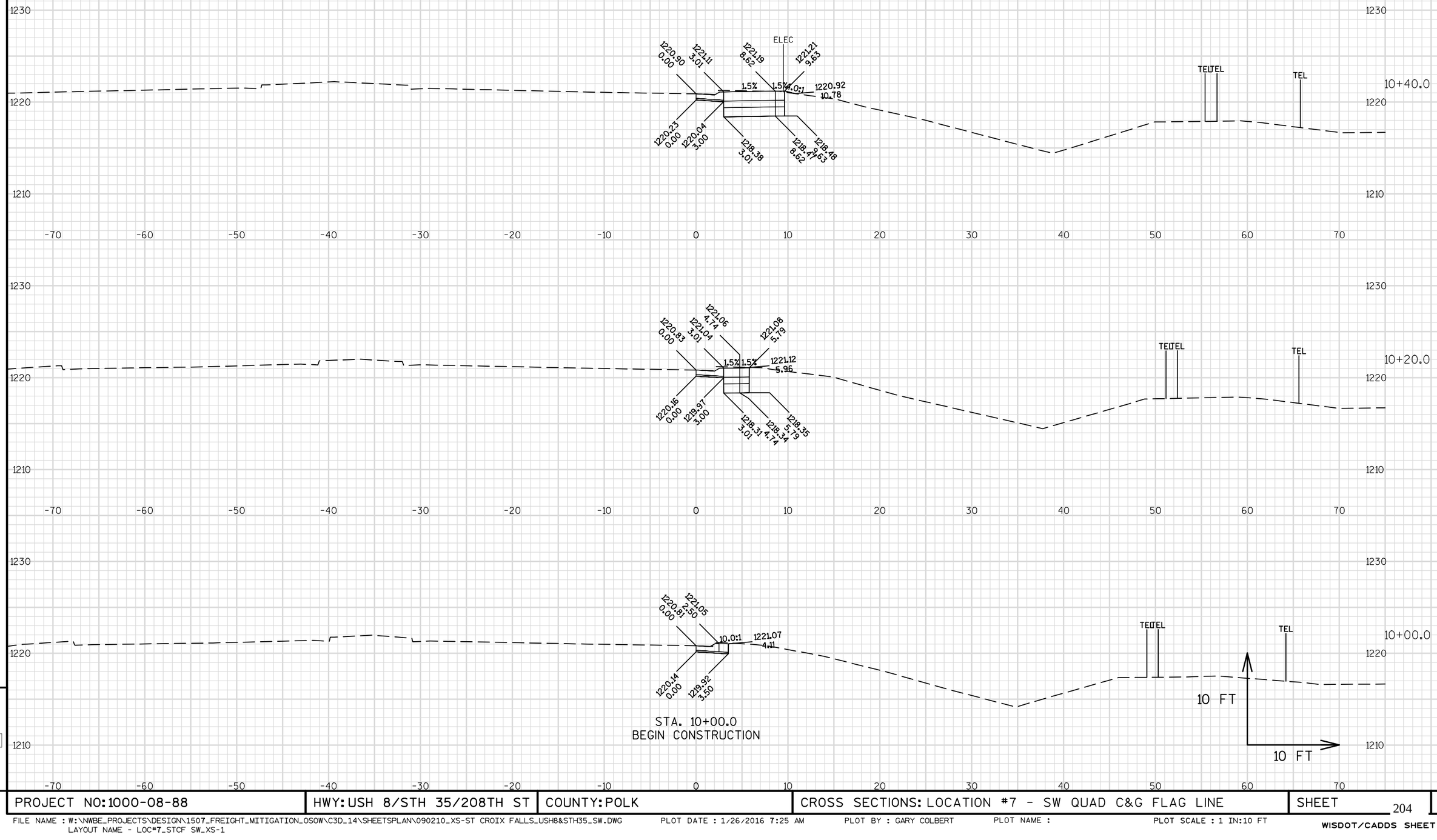
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - NE QUAD C&G FLAG LINE	SHEET 203	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_NE.DWG
LAYOUT NAME - LOC10_STCF NE_XS-3
PLOT DATE : 1/25/2016 3:56 PM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

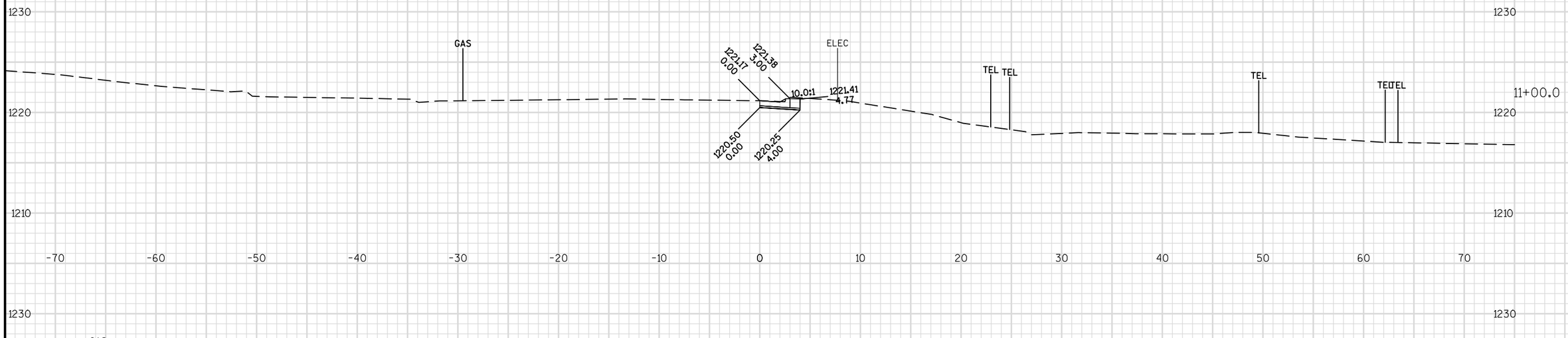
NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.

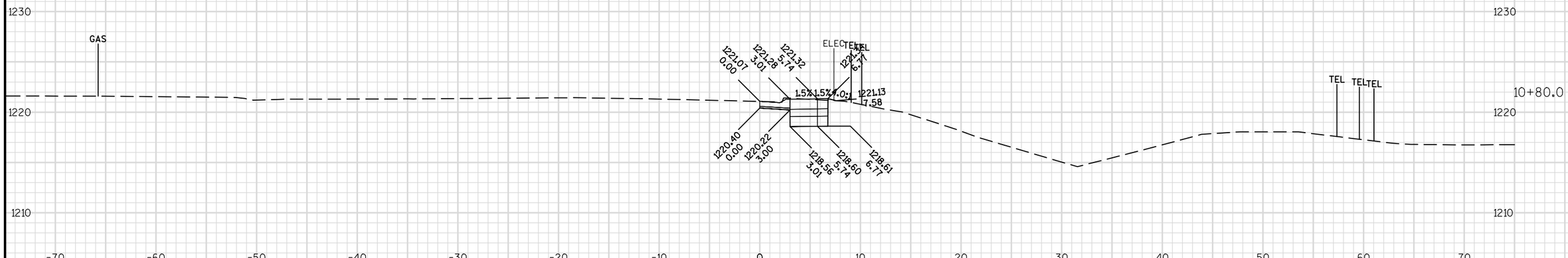


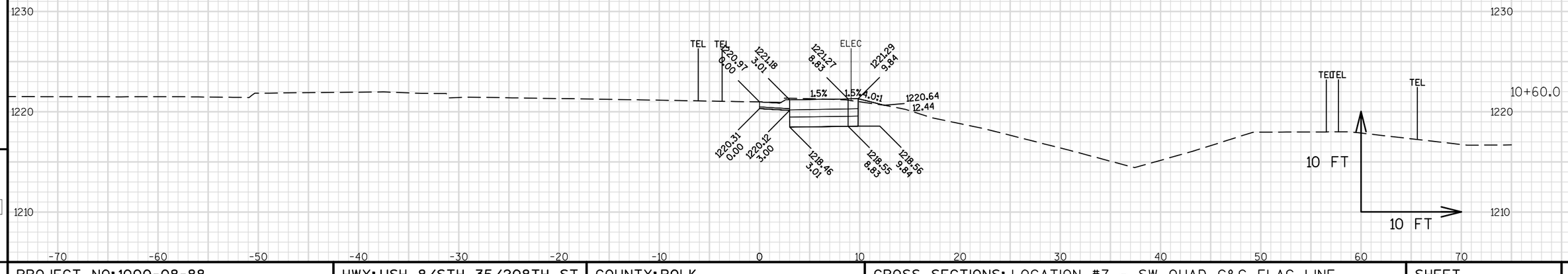
PROJECT NO: 1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - SW QUAD C&G FLAG LINE	SHEET 204	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_SW.DWG
LAYOUT NAME - LOC#7_STCF SW_XS-1
PLOT DATE : 1/26/2016 7:25 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.





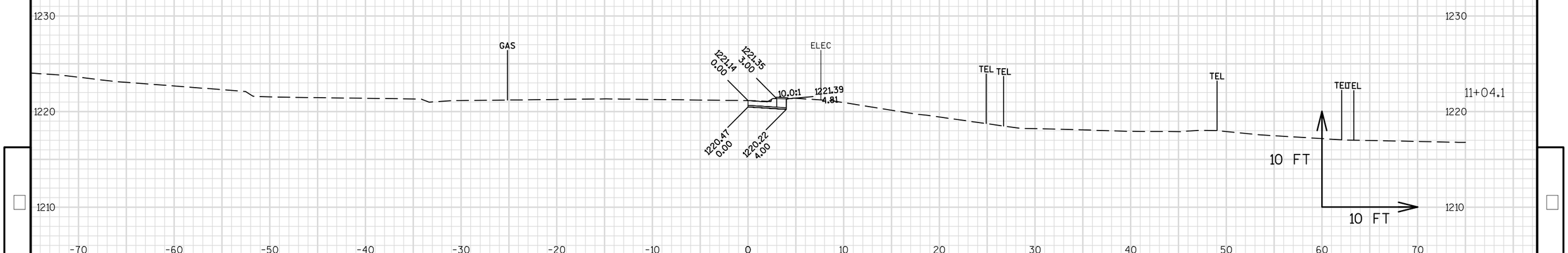


PROJECT NO: 1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - SW QUAD C&G FLAG LINE	SHEET 205	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_SW.DWG
LAYOUT NAME - LOC#7_STCF SW_XS-2
PLOT DATE : 1/26/2016 7:25 AM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1 IN:10 FT

NOTE: X-SEC FOR INFORMATION ONLY.
EARTHWORK AND LANDSCAPING ITEMS PAID FOR UNDER 205.9015.S.07. GRADING SHAPING AND FINISHING INTERSECTION.

STA. 11+04.1
END CONSTRUCTION



PROJECT NO: 1000-08-88	HWY: USH 8/STH 35/208TH ST	COUNTY: POLK	CROSS SECTIONS: LOCATION #7 - SW QUAD C&G FLAG LINE	SHEET 206	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1507_FREIGHT_MITIGATION_OSOW\C3D_14\SHEETSPLAN\090210_XS-ST CROIX FALLS_USH8&STH35_SW.DWG
LAYOUT NAME - LOC#7_STCF SW_XS-3
PLOT DATE : 1/26/2016 7:25 AM
PLOT BY : GARY COLBERT
PLOT NAME :
PLOT SCALE : 1 IN:10 FT

Notes

Wisconsin Department of Transportation

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